# Filter Summary Report: TIA,simple,Z1,Z2,Z3

## Generated by MacAnalog-Symbolix

## December 18, 2024

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10.38INVALID-ORDER-38 $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
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$10.47 \text{INVALID-ORDER-47 } Z(s) = \left( R_1, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left( C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty \right) $
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$10.54 \text{INVALID-ORDER-} 54 \ Z(s) = \left(R_1, \ \frac{L_2s}{C_2L_2s^2+1} + R_2, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \infty, \ \infty\right) $
10.55INVALID-ORDER-55 $Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$ 47
$10.56 \text{INVALID-ORDER-} 56 \ Z(s) = \left( R_1, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \frac{R_3 \left( C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty \right) $
10.57INVALID-ORDER-57 $Z(s) = \left(R_1, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right)$
10.58INVALID-ORDER-58 $Z(s) = \left(R_1, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$ 48
10.59INVALID-ORDER-59 $Z(s) = \left(R_1, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 48
10.60INVALID-ORDER-60 $Z(s) = \left(R_1, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 48
$10.61 \text{INVALID-ORDER-61 } Z(s) = \left( R_1, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty, \ \infty \right) $
$10.62 \text{INVALID-ORDER-} 62 \ Z(s) = \left( R_1, \ \frac{R_2\left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty \right) $
$10.63 \text{INVALID-ORDER-} 63 \ Z(s) = \left( R_1, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \infty, \ \infty \right) $
$10.64 \text{INVALID-ORDER-} 64 \ Z(s) = \left( R_1, \ \frac{R_2\left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty \right) $
$10.65 \text{INVALID-ORDER-} 65 \ Z(s) = \left( R_1, \ \frac{R_2\left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{R_3\left( C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty \right) $
10.66INVALID-ORDER-66 $Z(s) = (L_1 s, R_2, R_3, \infty, \infty, \infty)$
$10.67 \text{INVALID-ORDER-} 67 \ Z(s) = \left(L_1 s, \ R_2, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $10.68 \text{INVALID-ORDER-} 68 \ Z(s) = \left(L_1 s, \ R_2, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right) $ $49$
$10.69INVALID-ORDER-69 \ Z(s) = \left(L_1s, \ R_2, \ \frac{2J_3s}{C_3J_3s^2+1}, \ \infty, \ \infty, \ \infty\right) \qquad . \qquad $
10.69INVALID-ORDER-09 $Z(s) = \begin{pmatrix} L_1 s, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty \end{pmatrix}$ 10.70INVALID-ORDER-70 $Z(s) = \begin{pmatrix} L_1 s, R_3 s + R_3 + L_3 s + L_3 s + R_3 + L_3 s $
$10.70 \text{INVALID-ORDER-70 } Z(s) = \left(L_1 s, \ R_2, \ \frac{L_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right) $ $10.71 \text{INVALID-ORDER-71 } Z(s) = \left(L_1 s, \ R_2, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) $ $49$
10.71INVALID-ORDER-72 $Z(s) = \left(L_1 s, \ R_2, \ \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$
10.73INVALID-ORDER-73 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s+1}, \infty, \infty, \infty\right)$ 49
10.74INVALID-ORDER-74 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 50 $10.75INVALID-ORDER-75 Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 50
$10.76 \text{INVALID-ORDER-} 76 \ Z(s) = \left(L_1 s, \ \frac{1}{C_2 s}, \ \frac{1}{C_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right) $ $10.76 \text{INVALID-ORDER-} 76 \ Z(s) = \left(L_1 s, \ \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $10.76 \text{INVALID-ORDER-} 76 \ Z(s) = \left(L_1 s, \ \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $
10.77INVALID-ORDER-77 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$
10.78INVALID-ORDER-78 $Z(s) = \begin{pmatrix} L_1 s, & L_2 s, & C_3 L_3 R_3 s^2 + L_3 s + R_3, & \infty, & \infty \end{pmatrix}$
10.79INVALID-ORDER-79 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 50
10.80INVALID-ORDER-80 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 50 $10.81INVALID-ORDER-81 \ Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 50
$10.81\text{INVALID-ORDER-81 } Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) $ $10.82\text{INVALID-ORDER-82 } Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) $ $50$
$10.82 \text{INVALID-ORDER-82} \ Z(s) = \left(L_1 s, \ \frac{R_2}{C_2 R_2 s + 1}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $10.83 \text{INVALID-ORDER-83} \ Z(s) = \left(L_1 s, \ \frac{R_2}{C_2 R_2 s + 1}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $51$
10.09 II VALID-OUDLIV-03 $Z(s) = \begin{pmatrix} L_1s, & L_3s + $

$10.84 \text{INVALID-ORDER-84} \ Z(s) = \left(L_1 s, \ \frac{R_2}{C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)  \dots $
10.85INVALID-ORDER-85 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.86INVALID-ORDER-86 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 51
10.87INVALID-ORDER-87 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$
10.88INVALID-ORDER-88 $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
10.89INVALID-ORDER-89 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
$10.90 \text{INVALID-ORDER-90 } Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $
10.91INVALID-ORDER-91 $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)$
10.92INVALID-ORDER-92 $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$
10.93INVALID-ORDER-93 $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$
10.94INVALID-ORDER-94 $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$
$10.95 \text{INVALID-ORDER-95} \ Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $
10.96INVALID-ORDER-96 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$
10.97INVALID-ORDER-97 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.98INVALID-ORDER-98 $Z(s) = \left(L_1 s, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
$10.99 \text{INVALID-ORDER-99 } Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $
10.10 <b>0</b> NVALID-ORDER-100 $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$
10.10INVALID-ORDER-101 $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)$
10.10 <b>2</b> NVALID-ORDER-102 $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$
10.10 <b>R</b> NVALID-ORDER-103 $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$
10.10 INVALID-ORDER-104 $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$
10.10 INVALID-ORDER-105 $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$
10.10 <b>6</b> NVALID-ORDER-106 $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right)$
$10.10 \text{INVALID-ORDER-} 107 \ Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $
$10.10 \text{\&NVALID-ORDER-} 108 \ Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $
10.10 <b>9</b> NVALID-ORDER-109 $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$
10.11 <b>©</b> NVALID-ORDER-110 $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$
10.11INVALID-ORDER-111 $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)$
10.11 <b>2</b> NVALID-ORDER-112 $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 54
10.11\( \text{2NVALID-ORDER-113} \( Z(s) = \) \left( L_1 s, \( L_2 s + R_2 + \frac{1}{C_2 s}, \) \( \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \) \( \infty, \) \( \infty, \) \( \infty, \) \( \text{2S} \) \( 2S
$10.114\text{NVALID-ORDER-}114 \ Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) $
10.11 INVALID-ORDER-115 $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$
10.11 <b>6</b> NVALID-ORDER-116 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right)$
$10.11\text{ INVALID-ORDER-}117 \ Z(s) = \left(L_1 s, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $
10.11 NVALID-ORDER-118 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
10.11 <b>2</b> NVALID-ORDER-119 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.12 <b>0</b> NVALID-ORDER-120 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.12INVALID-ORDER-121 $Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)'$
10.122NVALID-ORDER-122 $Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 55

10.120NVALID ODDED 122.7(a) $= \begin{pmatrix} I_{12} & I_{23} & P & I_{3}R_{3}s & Q_{11}Q_{2} \end{pmatrix}$	55
10.12\( \text{INVALID-ORDER-123} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty, \infty \end{array} \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \end{array} \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \end{array} \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \end{array} \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \end{array} \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_2 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty \) 10.12\( \text{INVALID-ORDER-124} \( Z(s) = \left( L_1 s, L_3	. 55
	. 55
$10.125 \text{NVALID-ORDER-} 125 \ Z(s) = \left( L_1 s, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \frac{R_3 \left( C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty \right) \ \dots $	. 55
$10.126 \text{NVALID-ORDER-} 126 \ Z(s) = \left( L_1 s, \ \frac{R_2 \left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ R_3, \ \infty, \ \infty, \ \infty \right)  \dots $	. 55
$10.12\text{INVALID-ORDER-}127 \ Z(s) = \left(L_1 s, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) \ \dots $	. 55
$10.12 \$NVALID-ORDER-128 \ Z(s) = \left(L_1 s, \ \frac{R_2\left(C_2 L_2 s^2+1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  $	. 56
10.129NVALID-ORDER-129 $Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 56
10.130NVALID-ORDER-130 $Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 56
$10.13 \text{INVALID-ORDER-131 } Z(s) = \left( L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right)' $	. 56
10.132NVALID-ORDER-132 $Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty, \infty\right)$	. 56
$10.13 \text{ INVALID-ORDER-} 133 \ Z(s) = \left( L_1 s, \ \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty \right) $	. 56
$10.13 \text{INVALID-ORDER-} 134 \ Z(s) = \left( L_1 s, \ \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty \right)^{\prime} $	. 56
$10.13 \text{INVALID-ORDER-135 } Z(s) = \left( L_1 s, \ \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty \right) $	. 56
10.136NVALID-ORDER-136 $Z(s) = \left(\frac{1}{C_{1,s}}, R_2, R_3, \infty, \infty, \infty\right)$	. 56
$10.13\text{INVALID-ORDER-}137\ Z(s) = \left(\frac{1}{C_1 s},\ R_2,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \infty\right) \qquad \dots $	. 57
10.13\( \text{ENVALID-ORDER-138} \( Z(s) = \begin{pmatrix} \frac{1}{C_1 s}, & R_2, & R_3 + \frac{1}{C_2 s}, & \infty, & \infty \end{pmatrix} \)	. 57
$10.13 \text{ (C1s)}  27  67  C_3 s  7  7  7$ $10.13 \text{ (NVALID-ORDER-139 } Z(s) = \left(\frac{1}{C_1 s}, R_2, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  $	. 57
10.140NVALID-ORDER-140 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)'$	. 57
$10.14 \text{INVALID-ORDER-} 141 \ Z(s) = \left(\frac{1}{C_1 s}, \ R_2, \ L_3 s + R_3 + \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty\right)  \dots $	. 57
$10.142 \text{NVALID-ORDER-} 142 \ Z(s) = \left(\frac{1}{C_1 s}, \ R_2, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right) \ \dots $	. 5.
$10.142\text{NVALID-ORDER-}143 \ Z(s) = \left(\frac{1}{C_1 s}, \ R_2, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty\right) $	. 57
$10.144\text{NVALID-ORDER-}144 \ Z(s) = \left(\frac{1}{C_1 s}, \ R_2, \ \frac{R_3\left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $	. 01
$10.144\text{NVALID-ORDER-}144\ Z(s) = \left(\begin{array}{c} \frac{1}{C_1 s},\ R_2,\ \frac{1}{C_3 L_3 s^2 + C_3 R_3 s + 1},\ \infty,\ \infty,\ \infty\end{array}\right) \qquad . \qquad $	. 57
$10.145\text{NVALID-ORDER-}145\ Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \infty\right)$	. 57
$10.145 \text{NVALID-ORDER-} 145 \ Z(s) = \left(\frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $10.146 \text{NVALID-ORDER-} 146 \ Z(s) = \left(\frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $	. 57
$10.14\text{TNVALID-ORDER-}147\ Z(s) = \left(\frac{1}{C_1 s},\ \frac{1}{C_2 s},\ L_3 s + \frac{1}{C_3 s},\ \infty,\ \infty,\ \infty\right)$	. 58
10.14\( \text{NVALID-ORDER-148} \( Z(s) = \begin{pmatrix} \frac{1}{C_1 s}, & \frac{1}{C_2 s}, & \frac{L_3 s}{C_3 L_3 s^2 + 1}, & \infty, & \infty, & \infty \end{pmatrix} \)	. 58
$10.149 \text{NVALID-ORDER-} 149 \ Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{1}{C_2 s}, \frac{1}{L_3 s} + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  $	. 58
10.15 (INVALID-ORDER-150 $Z(s) = \left(\frac{1}{C_{18}}, \frac{1}{C_{28}}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty, \infty\right)$	. 58
$10.15 \text{INVALID-ORDER-151 } Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$	. 58
10.15 <b>2</b> NVALID-ORDER-152 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3\left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$	. 58
$10.15$ RNVALID-ORDER-153 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s+1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 58
$10.15 \text{ INVALID-ORDER-154 } Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) \qquad \dots $	. 58
10.15 INVALID-ORDER-155 $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 58
10.15 INVALID-ORDER-156 $Z(s) = \left(\frac{1}{G}, \frac{R_2}{GR^{-1}}, \frac{L_3s}{GR^{-2+1}}, \infty, \infty, \infty\right)$	. 58
	. 59
	50
$\overline{C_{1}S_{1}} = \overline{C_{1}S_{2}} = \overline{C_{2}S_{2}S_{1}},  \overline{C_{2}S_{2}S_{1}},  \overline{C_{3}S_{3}S_{2}^{2} + L_{3}S_{1}},  \infty,  \infty,  \infty,  \infty$	. 99

10.19 NVALID-ORDER-198 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$
10.19 <b>9</b> NVALID-ORDER-199 $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
$10.20 \text{@NVALID-ORDER-} 200 \ Z(s) = \left(\frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ R_3, \ \infty, \ \infty\right) $
$10.20 \text{INVALID-ORDER-} 201 \ Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right) $
$10.20 \text{ 2NVALID-ORDER-} 202 \ Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) $
$ \begin{pmatrix} C_{1}s^{\gamma} & C_{2}L_{2}s^{2} + C_{2}R_{2}s + 1^{\gamma} & C_{3}R_{3}s + 1^{\gamma} & \gamma \end{pmatrix} $ $ 10.20 \text{RNVALID-ORDER-203 } Z(s) = \begin{pmatrix} \frac{1}{C_{1}s}, & \frac{R_{2}(C_{2}L_{2}s^{2} + 1)}{C_{2}L_{2}s^{2} + C_{2}R_{2}s + 1}, & R_{3} + \frac{1}{C_{3}s}, & \infty, & \infty, & \infty \end{pmatrix} \dots \dots$
$10.204\text{NVALID-ORDER-}204 \ Z(s) = \left(\frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $
$10.20 \text{INVALID-ORDER-} 205 \ Z(s) = \left(\frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right) $
$10.20 \text{ (ENVALID-ORDER-206 } Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) $
$10.20 \text{INVALID-ORDER-} 207 \ Z(s) = \left(\frac{1}{C_{1s}}, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \infty, \ \infty\right) $
$10.20 \text{\&NVALID-ORDER-} 208 \ Z(s) = \left(\frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)^{-1} $
$10.20 \text{ (NVALID-ORDER-209 } Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right) $
$10.21 \text{@NVALID-ORDER-} 210 \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ R_2, \ R_3, \ \infty, \ \infty\right) \qquad . \qquad \qquad \qquad \qquad . \qquad \qquad \qquad . \qquad \qquad \qquad . \qquad \qquad \qquad . \qquad \qquad \qquad . \qquad \qquad \qquad . \qquad \qquad \qquad \qquad . \qquad \qquad \qquad . \qquad \qquad$
$10.21\text{INVALID-ORDER-211 } Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right) $
10.21 <b>2</b> NVALID-ORDER-212 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)'$
$10.21$ RNVALID-ORDER-213 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 65
10.21 INVALID-ORDER-214 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 65
10.21 INVALID-ORDER-215 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$
10.21 <b>E</b> NVALID-ORDER-216 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
$10.21\text{FNVALID-ORDER-}217\ Z(s) = \left(\begin{array}{c} R_1 \\ \overline{C_1R_1s+1}, \ \frac{1}{C_2s}, \ \frac{1}{C_3s}, \ \infty, \ \infty, \end{array}\right)$
10.21 NVALID-ORDER-218 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.21 <b>9</b> NVALID-ORDER-219 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)$
10.22 <b>0</b> NVALID-ORDER-220 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)'$
10.22INVALID-ORDER-221 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
$10.22 \text{PNVALID-ORDER-} 222 \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right) \ \dots $
10.22\( \text{BNVALID-ORDER-223} \( Z(s) = \left( \frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \inf
$10.22 \text{INVALID-ORDER-} 224 \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $
10.22\$NVALID-ORDER-225 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$
$10.22\text{ (NVALID-ORDER-226 } Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, L_3s + \frac{1}{C_2s}, \infty, \infty, \infty\right) $
$10.22\text{TNVALID-ORDER-} 227 \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) $
10.22 NVALID-ORDER-228 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
$10.22 \text{ (NVALID-ORDER-229 } Z(s) = \left(\frac{R_1}{C_1 R_1 s+1}, \frac{R_2}{C_2 R_2 s+1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right) $
10.23 NVALID-ORDER-230 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$
10.23INVALID-ORDER-231 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 67
$10.23 \text{ PNVALID-ORDER-} 232 \ Z(s) = \left(\begin{array}{c} R_1 \\ \overline{C_1 R_1 s + 1}, \ R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty \right) $
$ 10.23 \text{ ENVALID-ORDER-233 } Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $

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10.234NVALID-ORDER-234 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                   \left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)
10.236NVALID-ORDER-236 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) ....
10.23 INVALID-ORDER-237 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.23\( \text{NVALID-ORDER-238} \( Z(s) = \left( \frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty, \infty, \infty \)
10.239NVALID-ORDER-239 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
                                                                     \left( rac{R_1}{C_1 R_1 s + 1}, \ R_2 + rac{1}{C_2 s}, \ rac{R_3 \left( C_3 L_3 s^2 + 1 
ight)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty 
ight)
10.24INVALID-ORDER-241 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) \dots
10.242NVALID-ORDER-242 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right).
10.24 NVALID-ORDER-243 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)
10.24 INVALID-ORDER-244 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.24 INVALID-ORDER-245 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.246NVALID-ORDER-246 Z(s) = \left(\frac{R_1}{C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)
10.24 INVALID-ORDER-247 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.24\(\text{NVALID-ORDER-248}\(Z(s) = \left(\frac{R_1}{C_1R_1s+1}\), \(L_2s + \frac{1}{C_2s}\), \(\frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}\), \(\inftiger\), \(\inftiger\), \(\inftiger\)
10.249NVALID-ORDER-249 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.25@NVALID-ORDER-250 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.25INVALID-ORDER-251 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) . . . .
10.252NVALID-ORDER-252 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)...
10.25 INVALID-ORDER-253 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)
10.254NVALID-ORDER-254 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.25 INVALID-ORDER-255 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.25@NVALID-ORDER-256 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty\right).
10.25 INVALID-ORDER-257 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.25\( \text{NVALID-ORDER-258} \( Z(s) = \left( \frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty, \infty \)
10.259NVALID-ORDER-259 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
                                                                     \frac{R_1}{C_1R_1s+1}, L_2s+R_2+\frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty
10.26INVALID-ORDER-261 Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3, \infty, \infty, \infty\right) \dots \dots
10.262NVALID-ORDER-262 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right) . . .
10.26\(\mathbb{Z}\)NVALID-ORDER-263 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right).
10.264NVALID-ORDER-264 Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
10.26 INVALID-ORDER-265 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.26 INVALID-ORDER-266 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) . . .
                                                                    \left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right).
                                                                   \left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
                                                                    \left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right).
                                                                     \left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
10.27 ONVALID-ORDER-270 Z(s) =
                                                                     \left(\frac{R_1}{C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \infty, \infty\right)
                                                                    \left(\frac{R_1}{C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
10.272NVALID-ORDER-272 Z(s) =
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$10.27 \text{ (NVALID-ORDER-273 } Z(s) = \left(\frac{R_1}{C_1 R_1 s+1}, \frac{R_2 \left(C_2 L_2 s^2+1\right)}{C_2 L_2 s^2 + C_2 R_2 s+1}, \frac{R_3}{C_3 R_3 s+1}, \infty, \infty, \infty\right) $
$10.27 \text{ INVALID-ORDER-} 274 \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $
$10.27 \text{ INVALID-ORDER-} 275 \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) \ \dots $
$10.27 \text{ (NVALID-ORDER-276 } Z(s) = \left(\frac{R_1}{C_1 R_1 s+1}, \frac{R_2 \left(C_2 L_2 s^2+1\right)}{C_2 L_2 s^2 + C_2 R_2 s+1}, \frac{L_3 s}{C_3 L_3 s^2 +1}, \infty, \infty, \infty\right)'$
$10.27\text{INVALID-ORDER-}277\ Z(s) = \left(\frac{R_1}{C_1R_1s+1},\ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1},\ L_3s+R_3+\frac{1}{C_3s},\ \infty,\ \infty,\ \infty\right) $
$10.27 \$NVALID-ORDER-278 \ Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \infty, \ \infty\right) \ . $
$10.27 \text{@NVALID-ORDER-} 279 \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) $
$10.28 \text{@NVALID-ORDER-} 280 \ Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $
$10.28INVALID-ORDER-281 \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2, \ R_3, \ \infty, \ \infty, \ \infty\right) $
$10.282\text{NVALID-ORDER-}282\ Z(s) = \left(R_1 + \frac{1}{C_1 s},\ R_2,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \infty\right) \qquad . \qquad $
$10.28$ NVALID-ORDER-283 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) $
10.284NVALID-ORDER-284 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.28 INVALID-ORDER-285 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)'$
$10.28 \text{ (INVALID-ORDER-286 } Z(s) = \left(R_1 + \frac{1}{G_s}, R_2, L_3 s + R_3 + \frac{1}{G_s}, \infty, \infty, \infty\right) $
$10.28 \text{INVALID-ORDER-} 287 \ Z(s) = \left( R_1 + \frac{1}{C_1 s}, \ R_2, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty \right) $
10.28\( \text{NVALID-ORDER-288} \( Z(s) = \left( R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty \)
10.28 <b>9</b> NVALID-ORDER-289 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
$10.29 \text{ @NVALID-ORDER-} 290 \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)  \dots $
$10.29 \text{INVALID-ORDER-} 291 \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) $
10.29 <b>P</b> NVALID-ORDER-292 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
$10.29 \mathbb{R} \text{NVALID-ORDER-293 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right) $
$10.29 \text{INVALID-ORDER-} 294 \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)' $
$10.29 \text{INVALID-ORDER-} 295 \ Z(s) = \left( R_1 + \frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty \right) $
10.296NVALID-ORDER-296 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$
$10.29\text{FNVALID-ORDER-}297 \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ \frac{L_3 s}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $
$10.29 \$NVALID-ORDER-298 \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) \ \dots $
$10.29 \text{@NVALID-ORDER-} 299 \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2}{C_2 R_2 s + 1}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) \qquad . \qquad $
$10.30 \text{@NVALID-ORDER-} 300 \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) $
10.30INVALID-ORDER-301 $Z(s) = \begin{pmatrix} R_1 + \frac{1}{C_1 s}, & \frac{R_2}{C_2 R_2 s + 1}, & \frac{R_3}{C_3 R_3 s + 1}, & \infty, & \infty, & \infty \end{pmatrix}$
10.30 2NVALID-ORDER-302 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{A_3} + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
$10.30 \text{ENVALID-ORDER-303 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) $ $10.30 \text{ENVALID-ORDER-303 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) $ $10.30 \text{ENVALID-ORDER-303 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) $
10.30 INVALID-ORDER-304 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
$10.30 \text{ (INVALID-ORDER-306 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s_3 s_2^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$
10.30 <b>T</b> NVALID-ORDER-307 $Z(s) = \left( R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left( C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty \right)$
10.30\text{NVALID-ORDER-308} $Z(s) = \left( R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty \right)$
10.30 <b>9</b> NVALID-ORDER-309 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$

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10.310NVALID-ORDER-310 Z(s) = \left(R_1 + \frac{1}{C_{1s}}, R_2 + \frac{1}{C_{2s}}, R_3 + \frac{1}{C_{3s}}, \infty, \infty, \infty\right) \dots
10.31INVALID-ORDER-311 Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right).
10.312NVALID-ORDER-312 Z(s) = \left(R_1 + \frac{1}{C_{18}}, R_2 + \frac{1}{C_{28}}, \frac{L_{38}}{C_2L_{38}^2 + 1}, \infty, \infty, \infty\right) \dots
10.31 INVALID-ORDER-313 Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) . . .
10.314NVALID-ORDER-314 Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.31 INVALID-ORDER-315 Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.316NVALID-ORDER-316 Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.31 INVALID-ORDER-317 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) \dots
10.31 NVALID-ORDER-318 Z(s) = \left(R_1 + \frac{1}{C_{18}}, L_2 s + \frac{1}{C_{28}}, \frac{1}{C_{28}}, \infty, \infty, \infty\right) . . .
10.319NVALID-ORDER-319 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_2 R_2 s + 1}, \infty, \infty, \infty\right).
10.32 NVALID-ORDER-320 Z(s) = \left(R_1 + \frac{1}{C_{18}}, L_2 s + \frac{1}{C_{28}}, R_3 + \frac{1}{C_{38}}, \infty, \infty, \infty\right)
10.32INVALID-ORDER-321 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.322NVALID-ORDER-322 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
10.32\( \text{NVALID-ORDER-323} \( Z(s) = \left( R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty, \infty \)
10.324NVALID-ORDER-324 Z(s) = \left(R_1 + \frac{1}{C_{18}}, L_2 s + \frac{1}{C_{28}}, \frac{L_3 R_{38}}{C_3 L_3 R_{38}^2 + L_2 s + R_3}, \infty, \infty, \infty\right).
10.32 INVALID-ORDER-325 Z(s) = \left(R_1 + \frac{1}{C_{18}}, L_2 s + \frac{1}{C_{28}}, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.326NVALID-ORDER-326 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.32 INVALID-ORDER-327 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) \dots
10.32\( \text{NVALID-ORDER-328} \( Z(s) = \left( R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_2 s}, \ \infty, \ \infty, \ \infty \right) \] \tag{1.32}
10.329NVALID-ORDER-329 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)
10.330NVALID-ORDER-330 Z(s) = \left(R_1 + \frac{1}{C_{18}}, L_2 s + R_2 + \frac{1}{C_{28}}, R_3 + \frac{1}{C_{28}}, \infty, \infty, \infty\right)
10.33INVALID-ORDER-331 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.332NVALID-ORDER-332 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_3 s^2 + 1}, \infty, \infty, \infty\right) . . .
10.33ENVALID-ORDER-333 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.334NVALID-ORDER-334 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.33 INVALID-ORDER-335 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.336NVALID-ORDER-336 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.33TNVALID-ORDER-337 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right) . . . . .
10.33\(\text{NVALID-ORDER-338}\) Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right).
10.339NVALID-ORDER-339 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_2 R_3 s + 1}, \infty, \infty, \infty\right).
10.340NVALID-ORDER-340 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.34INVALID-ORDER-341 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.342NVALID-ORDER-342 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) \dots
10.34\(\text{NVALID-ORDER-343}\) Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.34 INVALID-ORDER-344 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.34\( \text{INVALID-ORDER-345}\( Z(s) = \left( R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty, \infty \right) \].
10.346NVALID-ORDER-346 Z(s) = \left(R_1 + \frac{1}{C_{1s}}, \frac{L_{2s}}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.34 INVALID-ORDER-347 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)
10.34\(\text{NVALID-ORDER-348}\) Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
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$10.34 \text{ @NVALID-ORDER-349 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  $	. 79
$10.35 \text{ @NVALID-ORDER-350 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots \dots$	. 79
$10.35 \text{INVALID-ORDER-351 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right) $	. 80
$10.352\text{NVALID-ORDER-352} \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$	. 80
10.352NVALID-ORDER-353 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 80
$10.354\text{NVALID-ORDER-354} \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  \ldots  $	. 80
$10.35 \text{INVALID-ORDER-355} \ Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_3 L_3 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_3 L_3 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_3 L_3 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_3 L_3 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \infty\right) \left(R_1 + \frac{1}{C_1 s}, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3, \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + 1} + R_3$	. 80
$10.35 \text{ 6NVALID-ORDER-356 } Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3\left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right) $	. 80
$10.35\text{INVALID-ORDER-357}\ Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ R_2,\ \frac{1}{C_3 s},\ \infty,\ \infty,\ \infty\right)$	. 80
$10.35 \&NVALID-ORDER-358 \ Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) \qquad \dots $	. 80
$10.35 \text{ @NVALID-ORDER-359 } Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots \dots$	. 80
$10.36 \text{ @NVALID-ORDER-360 } Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) \qquad \dots $	. 81
$10.36 \text{INVALID-ORDER-} 361 \ Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)  \dots $	. 81
$10.362\text{NVALID-ORDER-}362\ Z(s) = \left(L_1s + \frac{1}{C_1s},\ R_2,\ L_3s + R_3 + \frac{1}{C_3s},\ \infty,\ \infty,\ \infty\right)$	. 81
10.362NVALID-ORDER-363 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$	. 81
10.364NVALID-ORDER-364 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$	. 81
$10.36 \text{INVALID-ORDER-365} \ Z(s) = \left( L_1 s + \frac{1}{C_1 s}, \ R_2, \ \frac{R_3 \left( C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty \right) \ \dots $	. 81
$10.36 \text{ INVALID-ORDER-366 } Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) \dots \dots$	. 81
$10.36 \text{INVALID-ORDER-} 367 \ Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) \qquad \dots $	. 81
10.36\( \text{NVALID-ORDER-368} \( Z(s) = \left( L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty, \infty \end{aligned} \).	. 81
10.36 <b>9</b> NVALID-ORDER-369 $Z(s) = (L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty)$	. 82
10.370NVALID-ORDER-370 $Z(s) = (L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty)$	. 82
10.37INVALID-ORDER-371 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)'$	. 82
10.372NVALID-ORDER-372 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 82
10.378NVALID-ORDER-373 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$	. 82
10.374NVALID-ORDER-374 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$	
$10.37 \text{5NVALID-ORDER-375} \ Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $	. 82
$10.376\text{NVALID-ORDER-376}\ Z(s) = \left(L_1 s + \frac{1}{C_1 s},\ \frac{R_2}{C_2 R_2 s + 1},\ R_3,\ \infty,\ \infty,\ \infty\right)$	. 82
10.37 INVALID-ORDER-377 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 82
10.37 NVALID-ORDER-378 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$	. 83
10.379NVALID-ORDER-379 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 83
10.380NVALID-ORDER-380 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 83
10.38INVALID-ORDER-381 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$	. 83
10.382NVALID-ORDER-382 $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)$	. 83
$10.38 \text{ENVALID-ORDER-383} \ Z(s) = \left( L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty \right)  \dots $	. 83
$10.38 \text{INVALID-ORDER-384} \ Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ \frac{R_2}{C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) \ . \ . \ . \ . \ . \ . \ . \ . \ . \ $	. 83
$10.38 \text{5NVALID-ORDER-385 } Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right) $	
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10.386NVALID-ORDER-386 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) \dots \dots
 10.38TNVALID-ORDER-387 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right) . . .
10.38\( \text{NVALID-ORDER-388} \( Z(s) = \left( L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right) \dots
10.389NVALID-ORDER-389 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.39@NVALID-ORDER-390 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
 10.39INVALID-ORDER-391 Z(s) = \left(L_1 s + \frac{1}{C_{18}}, R_2 + \frac{1}{C_{28}}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty\right)
10.392NVALID-ORDER-392 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.39 INVALID-ORDER-393 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.394NVALID-ORDER-394 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right) . . .
10.39 INVALID-ORDER-395 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.396NVALID-ORDER-396 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) . . . . . . . .
10.39 INVALID-ORDER-397 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right)...
10.39 NVALID-ORDER-398 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.399NVALID-ORDER-399 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
 10.40 NVALID-ORDER-400 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.40INVALID-ORDER-401 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty\right).
10.402NVALID-ORDER-402 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.40 INVALID-ORDER-403 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_2 s + R_3}, \infty, \infty, \infty\right)
10.404NVALID-ORDER-404 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.40 INVALID-ORDER-405 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)
10.40 NVALID-ORDER-406 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) . . . .
10.40 TNVALID-ORDER-407 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right) \dots
10.40 NVALID-ORDER-408 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) . . .
10.409NVALID-ORDER-409 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.410NVALID-ORDER-410 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.41INVALID-ORDER-411 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty\right) . . .
 10.412NVALID-ORDER-412 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right) . . .
10.413NVALID-ORDER-413 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.414NVALID-ORDER-414 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty\right)
10.415NVALID-ORDER-415 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)
10.416NVALID-ORDER-416 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right) . . .
10.41 TNVALID-ORDER-417 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right) . . .
10.41\( \text{NVALID-ORDER-418} \) Z(s) = \left( L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty \right) .
10.419NVALID-ORDER-419 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.420NVALID-ORDER-420 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.42INVALID-ORDER-421 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) . . .
10.422NVALID-ORDER-422 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.42\(\text{NVALID-ORDER-423}\(Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_2 L_3 R_3 s^2 + L_3 s + R_3}, \inftigot{\infty}, \infty, \infty\)
10.424NVALID-ORDER-424 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right) ....
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10.42 INVALID-ORDER-425 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                                      \left(L_1s + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \infty, \infty\right)
                                                                                                       L_1s + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty
10.42TNVALID-ORDER-427 Z(s) =
                                                                                                     \left(L_1s + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
 10.428NVALID-ORDER-428 Z(s) =
                                                                                                      \left(L_1s + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
10.429NVALID-ORDER-429 Z(s) =
10.430NVALID-ORDER-430 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                      \left(L_1s + \frac{1}{C_1s}, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2 + C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)
 10.43INVALID-ORDER-431 Z(s) =
                                                                                                      \left(L_1s + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                      \left(L_1s + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
                                                                                                      (L_1s + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty)
                                                                                                     \left(L_1s + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
                                                                                                      \left(\frac{L_1s}{C_1L_1s^2+1}, R_2, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                      \left(\frac{L_1s}{C_1L_1s^2+1}, R_2, \frac{R_3}{C_2R_2s+1}, \infty, \infty, \infty\right)
 10.43TNVALID-ORDER-437 Z(s) =
10.43 NVALID-ORDER-438 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
 10.43 NVALID-ORDER-439 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                     \left(\frac{L_1s}{C_1L_1s^2+1}, R_2, \frac{L_3s}{C_2L_2s^2+1}, \infty, \infty, \infty\right)
 10.44 ONVALID-ORDER-440 Z(s) =
10.44INVALID-ORDER-441 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.442NVALID-ORDER-442 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                                                                                                      \left(\frac{L_1s}{C_1L_1s^2+1}, R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)
 10.44BNVALID-ORDER-443 Z(s) =
                                                                                                        \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, R_{2}, \frac{R_{3}(C_{3}L_{3}s^{2}+1)}{C_{3}L_{3}s^{2}+C_{3}R_{3}s+1}, \infty, \infty, \infty\right)
10.444NVALID-ORDER-444 Z(s) =
                                                                                                      \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, R_3, \infty, \infty, \infty\right)
10.445NVALID-ORDER-445 Z(s) =
                                                                                                      \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \frac{1}{C_{2}s}, \frac{R_{3}}{C_{3}R_{3}s+1}, \infty, \infty, \infty\right)
                                                                                                     \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \frac{1}{C_{2}s}, R_{3}+\frac{1}{C_{3}s}, \infty, \infty, \infty\right)
                                                                                                      \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, L_3s+\frac{1}{C_3s}, \infty, \infty, \infty\right)
 10.448NVALID-ORDER-448 Z(s) =
10.449NVALID-ORDER-449 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                                                      \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, L_3s+R_3+\frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                       \frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty
                                                                                                      \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)
                                                                                                       \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \frac{1}{C_{2}s}, \frac{R_{3}(C_{3}L_{3}s^{2}+1)}{C_{3}L_{3}s^{2}+C_{3}R_{3}s+1}, \infty, \infty, \infty\right)
 10.45BNVALID-ORDER-453 Z(s) =
                                                                                                      \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \frac{R_{2}}{C_{2}R_{2}s+1}, R_{3}, \infty, \infty, \infty\right)
                                                                                                      \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{R_2}{C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                      \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \frac{R_{2}}{C_{2}R_{2}s+1}, \frac{R_{3}}{C_{3}R_{3}s+1}, \infty, \infty, \infty\right)
 10.456NVALID-ORDER-456 Z(s) =
                                                                                                     \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{R_2}{C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
 10.45TNVALID-ORDER-457 Z(s) = 10.45TNVALID-ORDER-457 Z(s
                                                                                                     \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{R_2}{C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)
 10.458NVALID-ORDER-458 Z(s) =
10.459NVALID-ORDER-459 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
10.46 INVALID-ORDER-460 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right).
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10.46 \text{INVALID-ORDER-} 461 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right) 
10.462NVALID-ORDER-462 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
                                                             \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \frac{R_{2}}{C_{2}R_{2}s+1}, \frac{R_{3}\left(C_{3}L_{3}s^{2}+1\right)}{C_{3}L_{3}s^{2}+C_{3}R_{3}s+1}, \infty, \infty, \infty\right)
10.464NVALID-ORDER-464 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) . . . . . . . . . . .
10.46 INVALID-ORDER-465 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right) \dots
10.46 INVALID-ORDER-466 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                           \left(\frac{L_{1s}}{C_{1}L_{1}s^{2}+1}, R_{2}+\frac{1}{C_{2s}}, R_{3}+\frac{1}{C_{2s}}, \infty, \infty, \infty\right)
10.469NVALID-ORDER-469 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty\right) \dots
10.470NVALID-ORDER-470 Z(s) = \left(\frac{L_1 s}{C_1 L_3 s^2 + 1}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)...
10.47INVALID-ORDER-471 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.472NVALID-ORDER-472 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.478NVALID-ORDER-473 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.474NVALID-ORDER-474 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) \dots \dots
10.47 INVALID-ORDER-475 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right) .....
10.476NVALID-ORDER-476 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) \dots
10.47 INVALID-ORDER-477 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.47\( \) NVALID-ORDER-478\( Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty, \infty \right)
10.479NVALID-ORDER-479 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) ....
10.48 INVALID-ORDER-480 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right) \dots
10.48INVALID-ORDER-481 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right) . . .
10.482NVALID-ORDER-482 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right) . . . .
                                                             \left(\frac{L_{1s}}{C_1L_1s^2+1}, L_2s + \frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
10.484NVALID-ORDER-484 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) \dots
10.48 INVALID-ORDER-485 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right) . . . .
10.486NVALID-ORDER-486 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_2 R_3 s + 1}, \infty, \infty, \infty\right).
10.48TNVALID-ORDER-487 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
                                                           \left(\frac{L_1s}{C_1L_1s^2+1}, L_2s+R_2+\frac{1}{C_2s}, L_3s+\frac{1}{C_2s}, \infty, \infty, \infty\right)
10.489NVALID-ORDER-489 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
10.49@NVALID-ORDER-490 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right) . . . . .
                                                           \left(\frac{L_1s}{C_1L_1s^2+1}, \ L_2s+R_2+\frac{1}{C_2s}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \infty, \ \infty\right)
10.492NVALID-ORDER-492 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.49ENVALID-ORDER-493 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)
10.494NVALID-ORDER-494 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right) . . . . . . .
10.49 INVALID-ORDER-495 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots \dots
10.496NVALID-ORDER-496 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) ....
10.49TNVALID-ORDER-497 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.49 NVALID-ORDER-498 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.499NVALID-ORDER-499 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
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10.50 <b>0</b> NVALID-ORDER-500 $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$	);
10.50INVALID-ORDER-501 $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)$	)[
10.50 <b>2</b> NVALID-ORDER-502 $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$	).[
$10.50 \text{RNVALID-ORDER-} 503 \ Z(s) = \left( \frac{L_1 s}{C_1 L_1 s^2 + 1}, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \frac{R_3 \left( C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty \right) \ \dots $	)(
10.504NVALID-ORDER-504 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$	)(
$10.50 \text{ INVALID-ORDER-505 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right) $	)(
$10.50 \text{ (INVALID-ORDER-506 } Z(s) = \left(\frac{L_{18}}{C_{1}L_{1}s^{2}+1}, \frac{R_{2}\left(C_{2}L_{2}s^{2}+1\right)}{C_{2}L_{2}s^{2}+C_{2}R_{2}s+1}, \frac{R_{3}}{C_{3}R_{3}s+1}, \infty, \infty, \infty\right) $	)(
$10.50 \text{ INVALID-ORDER-507 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots \dots$	)(
10.50 NVALID-ORDER-508 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	)(
10.50 NVALID-ORDER-509 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$	)(
$10.510 \text{NVALID-ORDER-} 510 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $	)(
$10.51 \text{INVALID-ORDER-511 } Z(s) = \left\langle \frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty \right\rangle$	)(
$10.51 \text{ 2NVALID-ORDER-512 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)^{-1} $	)′
$10.51 \text{ (NVALID-ORDER-513 } Z(s) = \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \frac{R_{2}(C_{2}L_{2}s^{2}+1)}{C_{2}L_{2}s^{2}+C_{2}R_{2}s+1}, \frac{R_{3}(C_{3}L_{3}s^{2}+1)}{C_{3}L_{3}s^{2}+C_{3}R_{3}s+1}, \infty, \infty, \infty\right)$	)′
10.514NVALID-ORDER-514 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	)′
10.51 INVALID-ORDER-515 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$	)′
10.516NVALID-ORDER-516 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	)′
10.51 TNVALID-ORDER-517 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	)′
10.51 NVALID-ORDER-518 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$	)7
10.51 <b>9</b> NVALID-ORDER-519 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	)′
10.520NVALID-ORDER-520 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$	)′
10.52INVALID-ORDER-521 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$	){
10.522NVALID-ORDER-522 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$	){
10.52 INVALID-ORDER-523 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$	){
10.52\( \text{INVALID-ORDER-523} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty \infty \) 10.52\( \text{INVALID-ORDER-524} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty \)  9 10.52\( \text{INVALID-ORDER-524} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty, \infty \)  9 10.52\( \text{INVALID-ORDER-524} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty, \infty, \infty \)  9 10.52\( \text{INVALID-ORDER-524} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty, \infty, \infty, \infty \)  9 10.52\( \text{INVALID-ORDER-524} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \i	){
10.525NVALID-ORDER-525 $Z(s) = \left(L_1s + R_1 + \frac{1}{C_1s}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$	
10.526NVALID-ORDER-526 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	
$10.52 \text{INVALID-ORDER-} 527 \ Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right) $	98
10.52\( \text{NVALID-ORDER-528} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty, \infty, \infty \)	<b>)</b> {
10.52\( \text{NVALID-ORDER-528} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty, \infty \right) \right) \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qqqq \qqqqq \qqqq \qqqqq \qqqqq \qqqqq \qqqq \qqqq \qqqqq \qqqq \qqqq \qqqq \qqqqq \qqqq \qqqqq \qqqqq \qqqqq \qqqqq \qqqq \qqqqq \qq	){
10.53 <b>0</b> NVALID-ORDER-530 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$	)(
$10.53 \text{INVALID-ORDER-} 531 \ Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) $	
10.532NVALID-ORDER-532 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$	
$10.53 \text{ Envalue} = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty \right) $	
10.53 INVALID-ORDER-534 $Z(s) = \left(L_1 s + R_1 + \frac{1}{G_s}, \frac{R_2}{G_s R_{s+1}}, \frac{1}{G_s}, \infty, \infty, \infty\right)$	96
$10.53 \text{ INVALID-ORDER-535 } Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) $	)(
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	

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10.536NVALID-ORDER-536 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots
 10.53TNVALID-ORDER-537 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)...
10.53\( \) NVALID-ORDER-538 Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty \right) \dots \dots \dots
10.539NVALID-ORDER-539 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) . . . .
10.540NVALID-ORDER-540 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.54INVALID-ORDER-541 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_2 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right).
10.542NVALID-ORDER-542 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.54\(\text{NVALID-ORDER-543}\) Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) ...
10.54\(\text{INVALID-ORDER-544}\) Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right) . . .
10.54\( \text{INVALID-ORDER-545}\( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_2 R_2 s + 1}, \infty, \infty, \infty, \infty \).
10.546NVALID-ORDER-546 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.54 INVALID-ORDER-547 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.54\( \text{NVALID-ORDER-548} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty \right) \)
10.549NVALID-ORDER-549 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.55@NVALID-ORDER-550 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.55INVALID-ORDER-551 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.552NVALID-ORDER-552 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_{18}}, R_2 + \frac{1}{C_{28}}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.55BNVALID-ORDER-553 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_{1.5}}, L_2 s + \frac{1}{C_{2.5}}, R_3, \infty, \infty, \infty\right) \dots
 10.554NVALID-ORDER-554 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right) \dots
10.55 INVALID-ORDER-555 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)
10.55 NVALID-ORDER-556 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.55 INVALID-ORDER-557 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.55\( \text{NVALID-ORDER-558} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_2 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty \right) \ \dots
10.559NVALID-ORDER-559 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.56@NVALID-ORDER-560 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right).
10.56INVALID-ORDER-561 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.562NVALID-ORDER-562 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.56 INVALID-ORDER-563 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) . . . .
10.56\(\text{4NVALID-ORDER-564}\(Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.56 INVALID-ORDER-565 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_2 R_2 s + 1}, \infty, \infty, \infty\right)
10.56 INVALID-ORDER-566 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
 10.56 INVALID-ORDER-567 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
 10.56\( \text{NVALID-ORDER-568} \( Z(s) = \left( L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_2 L_2 s^2 + 1}, \ \infty, \ \infty, \ \infty \right) \] \tag{10.56}
10.569NVALID-ORDER-569 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
10.570NVALID-ORDER-570 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_2 s + R_3}, \infty, \infty, \infty\right)
10.57INVALID-ORDER-571 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.572\text{NVALID-ORDER-572}\ Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s},\ L_2 s + R_2 + \frac{1}{C_2 s},\ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1},\ \infty,\ \infty,\ \infty\right)
10.578NVALID-ORDER-573 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right) \dots
10.574NVALID-ORDER-574 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right).
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$10.57 \text{ INVALID-ORDER-575 } Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) \ \dots $	. 10
10.576NVALID-ORDER-576 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 104
10.57INVALID-ORDER-577 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 10
10.57 NVALID-ORDER-578 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$	. 10
10.57 NVALID-ORDER-579 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 10
10.58 INVALID-ORDER-580 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$	. 10
10.58INVALID-ORDER-581 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$	. 10
10.582NVALID-ORDER-582 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$	. 10
10.58 INVALID-ORDER-583 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$	. 10
10.584NVALID-ORDER-584 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 10
$10.58 \text{INVALID-ORDER-585} \ Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $	. 10
10.58 <b>6</b> NVALID-ORDER-586 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 10
$10.58 \text{INVALID-ORDER-} 587 \ Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $	. 10
$10.58 \$NVALID-ORDER-588 \ Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)  \dots $	. 10
10.58 NVALID-ORDER-589 $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 10
$10.59 \text{@NVALID-ORDER-590 } Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right) \dots \dots$	. 10
$10.59 \text{INVALID-ORDER-591 } Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right) $	. 10
$10.592\text{NVALID-ORDER-}592\ Z(s) = \left(L_1s + R_1 + \frac{1}{C_1s},\ \frac{R_2\left(C_2L_2s^2 + 1\right)}{C_2L_2s^2 + C_2R_2s + 1},\ \frac{R_3\left(C_3L_3s^2 + 1\right)}{C_3L_3s^2 + C_3R_3s + 1},\ \infty,\ \infty,\ \infty\right)$	. 10
10.59 <b>B</b> NVALID-ORDER-593 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \ R_2, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$	. 100
10.594NVALID-ORDER-594 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$	. 100
10.59 INVALID-ORDER-595 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	
10.596NVALID-ORDER-596 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 100
$10.59 \text{ INVALID-ORDER-597 } Z(s) = \left( \frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \ R_2, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty \right)'  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  $	. 100
10.59 NVALID-ORDER-598 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 100
$10.59 \text{ (CILITALS} + LIS+RI + COSS + V)$ $10.59 \text{ (NVALID-ORDER-599 } Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ $10.60 \text{ (NVALID-ORDER-600 } Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$	. 100
10.60 <b>0</b> NVALID-ORDER-600 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$	. 106
$10.60 \text{INVALID-ORDER-} 601 \ Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \ R_2, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) \ \dots $	
$10.60 \text{ 2NVALID-ORDER-} 602 \ Z(s) = \left( \underbrace{\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}}, \ \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty \right) \ \dots $	
10.60 <b>E</b> NVALID-ORDER-603 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \stackrel{\frown}{\infty}, \infty\right)$	. 10'
$10.60 \text{ INVALID-ORDER-} 604 \ Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \ \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $	. 10'
10.60 INVALID-ORDER-605 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	. 10'
$10.60 \text{ (EVALID-ORDER-606 } Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right) $	. 10'
$10.60 \text{INVALID-ORDER-} 607 \ Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \ \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) \ \dots $	. 10'
10.60 NVALID-ORDER-608 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$	. 10'
10.60 NVALID-ORDER-609 $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, \infty, \infty\right)$	. 10'
$10.61 \text{@NVALID-ORDER-610 } Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right) $	. 10'

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\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots \dots
                                                                   \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                   \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_2 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                  \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, \frac{R_2}{C_2R_2s+1}, L_3s+R_3+\frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.619NVALID-ORDER-619 Z(s) =
                                                                   \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, \frac{R_2}{C_2R_2s+1}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
10.62 ONVALID-ORDER-620 Z(s) =
                                                                   \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, R_2+\frac{1}{C_2s}, R_3, \infty, \infty, \infty\right) ......
10.62INVALID-ORDER-621 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right) \dots \dots
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) ...
10.62BNVALID-ORDER-623 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.624NVALID-ORDER-624 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
10.625NVALID-ORDER-625 Z(s) =
10.626NVALID-ORDER-626 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty\right)
                                                                  10.62TNVALID-ORDER-627 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
10.62NVALID-ORDER-628 Z(s) =
10.629NVALID-ORDER-629 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
                                                                  \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, R_2 + \frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
10.63 ONVALID-ORDER-630 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right) ......
10.63INVALID-ORDER-631 Z(s) =
                                                                  10.632NVALID-ORDER-632 Z(s) =
                                                                   \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, L_2s+\frac{1}{C_2s}, \frac{R_3}{C_2R_2s+1}, \infty, \infty, \infty\right) .....
10.63BNVALID-ORDER-633 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
                                                                   10.635NVALID-ORDER-635 Z(s) =
                                                                   \left(\frac{L_1 R_1 s}{C_2 L_2 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1}, \infty, \infty, \infty\right) . . . .
10.63 6NVALID-ORDER-636 Z(s) =
                                                                  \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, L_2s+\frac{1}{C_2s}, L_3s+R_3+\frac{1}{C_2s}, \infty, \infty, \infty\right)
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right) \quad ... \quad
10.63NVALID-ORDER-638 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_2 L_2 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.63 NVALID-ORDER-639 Z(s) =
                                                                   \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1},\ L_2s+\frac{1}{C_2s},\ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1},\ \infty,\ \infty,\ \infty\right)
10.640NVALID-ORDER-640 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_2 s}, \infty, \infty, \infty\right) \ldots 
                                                                   \left(\frac{L_1R_1s}{C_2L_1R_1s^2+L_2s+R_1}, L_2s+R_2+\frac{1}{C_2s}, R_3+\frac{1}{C_2s}, \infty, \infty, \infty\right)
10.64INVALID-ORDER-644 Z(s) =
10.64 INVALID-ORDER-645 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_2 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
                                                                  \left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, L_2s+R_2+\frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right) \dots \dots
10.646NVALID-ORDER-646 Z(s) =
                                                                  \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots \dots
10.64TNVALID-ORDER-647 Z(s) =
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10.65 <b>0</b> NVALID-ORDER-650 $Z(s) =$	$\left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1},\ L_2s+R_2+\frac{1}{C_2s},\ \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1},\ \infty,\ \infty,\ \infty\right)\ .$	11
10.65INVALID-ORDER-651 $Z(s) =$	$\left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3, \infty, \infty, \infty\right)$	11:
10.65 <b>2</b> NVALID-ORDER-652 $Z(s) =$	$\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$	11:
10.65 <b>&amp;</b> NVALID-ORDER-653 $Z(s) =$	$\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right) \dots \dots$	11:
10.654NVALID-ORDER-654 $Z(s) =$	$\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)  \dots $	11:
10.65 SNVALID-ORDER-655 $Z(s) =$	$\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots \dots$	11:
$10.65 \text{ CNVALID-ORDER-}656 \ Z(s) =$	$\left(\frac{L_1R_1s}{C_1L_1R_1s^2 + L_1s + R_1}, \frac{L_2s}{C_2L_2s^2 + 1} + R_2, \frac{L_3s}{C_3L_3s^2 + 1}, \infty, \infty, \infty\right) $	11:
$10.65 {\tt T} {\tt NVALID-ORDER-657} \ Z(s) =$	$\left(\frac{L_1R_1s}{C_1L_1R_1s^2+L_1s+R_1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$	11:
10.65 NVALID-ORDER-658 $Z(s) =$	$\begin{pmatrix} C_1 D_1 R_1 & P_1 & R_1 & C_2 D_2 & P_1 & C_3 D_3 R_3 & P_3 & R_3 \end{pmatrix}$	11:
10.65 <b>9</b> NVALID-ORDER-659 $Z(s) =$	$\left( C_1 L_1 R_1 + L_1 + R_1 + C_2 L_2 + 1 + C_3 L_3 + 1 + C_4 L_2 + 1 + C_4 L_2 + 1 + C_4 L_3 + 1 + C_4 L_4 + 1 + C_4 L_4 + C$	11:
10.66 <b>0</b> NVALID-ORDER-660 $Z(s) =$	$\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  $	11:
10.66 <b>I</b> NVALID-ORDER-661 $Z(s) =$		11:
10.66 <b>2</b> NVALID-ORDER-662 $Z(s) =$	$\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)  \dots $	11:
10.66 <b>B</b> NVALID-ORDER-663 $Z(s) =$	$\left( \begin{array}{cccccccccccccccccccccccccccccccccccc$	11:
10.66#NVALID-ORDER-664 $Z(s) =$	$\left\{ \begin{array}{cccccccccccccccccccccccccccccccccccc$	11:
10.66 NVALID-ORDER-665 $Z(s) =$	$\left(\begin{smallmatrix} C_1L_1R_1s & +L_1s + R_1 & C_2L_2s & +C_2R_2s + 1 \end{smallmatrix}\right)$	11:
10.66 <b>6</b> NVALID-ORDER-666 $Z(s) =$	$\left( \begin{array}{cccccccccccccccccccccccccccccccccccc$	11:
10.66 <b>T</b> NVALID-ORDER-667 $Z(s) =$	$\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) \dots \dots$	11:
10.66\nbelownermal NVALID-ORDER-668 $Z(s) =$	$\left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 (C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right) $	11
10.66 <b>9</b> NVALID-ORDER-669 $Z(s) =$	$\left(\frac{L_1R_1s}{C_1L_1R_1s^2 + L_1s + R_1}, \frac{R_2(C_2L_2s^2 + 1)}{C_2L_2s^2 + C_2R_2s + 1}, \frac{L_3s}{C_3L_3s^2 + 1} + R_3, \infty, \infty, \infty\right)  \dots  1$	11:
10.670NVALID-ORDER-670 $Z(s) =$	$ \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right) \\ \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right) \\ \dots \\ \dots$	11
10.67INVALID-ORDER-671 $Z(s) =$	$\left(\frac{L_1s}{C_1\overline{L_1}s^2+1}+R_1,\ R_2,\ \frac{1}{C_3s},\ \infty,\ \infty,\ \infty\right)$	11
10.672NVALID-ORDER-672 $Z(s) = \displaystyle$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$	11
10.67\$NVALID-ORDER-673 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$	11
	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1},\ R_{2},\ L_{3}s+\frac{1}{C_{3}s},\ \infty,\ \infty,\ \infty\right)$	
	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)^{'}$	
10.67 <b>6</b> NVALID-ORDER-676 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$	11
10.67 INVALID-ORDER-677 $Z(s) =$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1},\ R_{2},\ \frac{L_{3}R_{3}s}{C_{3}L_{3}R_{3}s^{2}+L_{3}s+R_{3}},\ \infty,\ \infty,\ \infty\right)$	114
10.67&NVALID-ORDER-678 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)'$	11
10.67 <b>9</b> NVALID-ORDER-679 $Z(s) =$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1},\ R_{2},\ \frac{R_{3}\left(C_{3}L_{3}s^{2}+1\right)}{C_{3}L_{3}s^{2}+C_{3}R_{3}s+1},\ \infty,\ \infty,\ \infty\right)$	11
10.68©NVALID-ORDER-680 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \frac{1}{C_2s}, R_3, \infty, \infty, \infty\right) \qquad \qquad $	11
10.68 INVALID-ORDER-681 $Z(s) = \displaystyle$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1,\ \frac{1}{C_2s},\ \frac{1}{C_3s},\ \infty,\ \infty,\ \infty\right)$	11
10.682NVALID-ORDER-682 $Z(s) =$	$ \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1} + R_{1}, \frac{1}{C_{2}s}, \frac{1}{C_{3}s}, \infty, \infty, \infty\right) \dots \dots$	11
$10.68 {\tt B} {\tt NVALID-ORDER-683} \ Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \frac{1}{C_2s}, R_3+\frac{1}{C_3s}, \infty, \infty, \infty\right)$	11
10.684NVALID-ORDER-684 $Z(s) =$	$\left(\frac{L_1s}{C_1L_1s^2+1}+R_1, \frac{1}{C_2s}, L_3s+\frac{1}{C_3s}, \infty, \infty, \infty\right)$	11
10.68 NVALID-ORDER-685 $Z(s) =$	$\left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}+R_{1},\frac{1}{C_{2}s},\frac{L_{3}s}{C_{3}L_{3}s^{2}+1},\infty,\infty,\infty\right)$	11

10.686NVALID-ORDER-686 $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$
$10.68 \text{INVALID-ORDER-} 687 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right) $
$10.68 \text{\&NVALID-ORDER-} 688 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) \ . $
10.68 <b>9</b> NVALID-ORDER-689 $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{1}{C_2s}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)$
10.69@NVALID-ORDER-690 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$
10.69INVALID-ORDER-691 $Z(s) = \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1} + R_{1}, \frac{R_{2}}{C_{2}R_{2}s+1}, \frac{1}{C_{3}s}, \infty, \infty, \infty\right)$
$10.692\text{NVALID-ORDER-}692\ Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1,\ \frac{R_2}{C_2R_2s+1},\ \frac{R_3}{C_3R_3s+1},\ \infty,\ \stackrel{\bullet}{\infty},\ \infty\right) \ \dots \ $
10.69 INVALID-ORDER-693 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.69\(\text{4}\)NVALID-ORDER-694 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
$10.69 \text{INVALID-ORDER-} 695 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ \frac{R_2}{C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right) $
$10.69 \text{ (INVALID-ORDER-696 } Z(s) = \left(\frac{L_{18}}{C_1 L_{18}^2 + 1} + R_1, \ \frac{R_2}{C_2 R_2 s + 1}, \ L_{3} s + R_3 + \frac{1}{C_{3} s}, \ \infty, \ \infty, \ \infty\right).$
$10.69 \text{INVALID-ORDER-} 697 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ \frac{R_2}{C_2 R_2 s + 1}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right) \ \dots $
$10.69 \text{\&NVALID-ORDER-698 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right) $
$10.69 \text{ (NVALID-ORDER-699 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right) $
10.70@NVALID-ORDER-700 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$
10.70INVALID-ORDER-701 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.702NVALID-ORDER-702 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$
10.70 <b>B</b> NVALID-ORDER-703 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.70 INVALID-ORDER-704 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
10.70 INVALID-ORDER-705 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$
$10.70 \text{ (ENVALID-ORDER-706 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right) $
$10.70\text{TNVALID-ORDER-}707\ Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1,\ R_2 + \frac{1}{C_2s},\ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3},\ \infty,\ \infty,\ \infty\right)$
$10.70 \text{\&NVALID-ORDER-} 708 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right) $
$10.70 \text{@NVALID-ORDER-}709 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right) $ $10.70 \text{@NVALID-ORDER-}709 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $ $10.71 \text{@NVALID-ORDER-}710 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right) $ $11 \text{ 10.71 } \text{@NVALID-ORDER-}710 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty\right) $
10.71 <b>0</b> NVALID-ORDER-710 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty\right)$
$10.71 \text{INVALID-ORDER-} 711 \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  \dots  $
10.712NVALID-ORDER-712 $Z(s) = \left(\frac{L_{1s}}{C_{1}L_{1s}^{2}+1} + R_{1}, L_{2s} + \frac{1}{C_{2s}}, \frac{R_{3}}{C_{3}R_{3s}+1}, \infty, \infty, \infty\right)$
$10.71 \text{ENVALID-ORDER-713} \ Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $
10.71\(\text{4NVALID-ORDER-714}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s^2+1} + R_1, & L_2s + \frac{1}{C_2s}, & L_3s + \frac{1}{C_3s}, & \infty, & \infty, \infty \end{pmatrix} \] 11.71\(\text{4NVALID-ORDER-714}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s^2+1} + R_1, & L_2s + \frac{1}{C_2s}, & L_3s + \frac{1}{C_3s}, & \infty, & \infty \end{pmatrix} \] 11.71\(\text{4NVALID-ORDER-714}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s^2+1} + R_1, & L_2s + \frac{1}{C_2s}, & L_3s + \frac{1}{C_3s}, & \infty, & \infty \end{pmatrix} \] 11.71\(\text{4NVALID-ORDER-714}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s^2+1} + R_1, & L_2s + \frac{1}{C_2s}, & L_3s + \frac{1}{C_3s}, & \infty, & \infty \end{pmatrix} \] 11.71\(\text{4NVALID-ORDER-714}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s^2+1} + R_1, & L_2s + \frac{1}{C_2s}, & L_3s + \frac{1}{C_3s}, & \infty, & \infty \end{pmatrix} \] 11.71\(\text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s^2+1} + R_1, & L_2s + \frac{1}{C_2s}, & L_3s + \frac{1}{C_2s}, & \infty \end{pmatrix} \] 12.71\(\text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s^2+1} + R_1, & L_2s + \frac{1}{C_2s}, & \infty \end{pmatrix} \\ \text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s^2+1} + R_1, & L_2s + \frac{1}{C_2s}, & \infty \end{pmatrix} \\ \text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s} + R_1, & L_2s + \frac{1}{C_2s}, & \infty \end{pmatrix} \\ \text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s} + R_1, & L_2s + \frac{1}{C_2s}, & \infty \end{pmatrix} \\ \text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s} + R_1, & L_2s + \frac{1}{C_2s}, & \infty \end{pmatrix} \\ \text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s} + R_1, & L_2s + \frac{1}{C_2s}, & \infty \end{pmatrix} \\ \text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s} + R_1, & L_2s + \frac{1}{C_2s}, & \infty \end{pmatrix} \\ \text{4NVALID-ORDER-715}\(Z(s) = \begin{pmatrix} \frac{L_1s}{C_1L_1s} + R_1, & L_2s +
10.71 INVALID-ORDER-715 $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, L_2s + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$
$10.71 \text{ INVALID-ORDER-716 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $10.71 \text{ INVALID-ORDER-717 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right) $ $11$
$10.718\text{NVALID-ORDER-}718 \ Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ L_2s + \frac{1}{C_2s}, \ \frac{L_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \infty, \ \infty\right) $ $10.718\text{NVALID-ORDER-}718 \ Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ L_2s + \frac{1}{C_2s}, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty, \ \infty\right) $ $11.718\text{NVALID-ORDER-}718 \ Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ L_2s + \frac{1}{C_2s}, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty, \ \infty\right) $ $11.718\text{NVALID-ORDER-}718 \ Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ L_2s + \frac{1}{C_2s}, \ \frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty, \ \infty, \ \infty\right) $
$10.71 \text{@NVALID-ORDER-719 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$ $10.71 \text{@NVALID-ORDER-719 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ $11.71 \text{@NVALID-ORDER-719 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$
$10.719 \text{NVALID-ORDER-} 719 \ Z(s) = \left(\frac{D_1 c}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $
$10.72 \text{ @NVALID-ORDER-720 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right) $
$10.72 \text{INVALID-ORDER-721 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $10.72 \text{INVALID-ORDER-722 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right) $ $11$
$10.(2\mathbb{E}N\text{ VALID-UKDEK-}(22\mathbb{Z}(s) = \left(\frac{z_1s}{C_1L_1s^2+1} + K_1, L_2s + K_2 + \frac{z_2}{C_2s}, \frac{z_3}{C_3R_3s+1}, \infty, \infty, \infty\right) \dots \dots$
$10.72 \text{\&NVALID-ORDER-723 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $10.72 \text{\&NVALID-ORDER-724 } Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right) $ $11$
$10.72 \pm N \text{ VALID-ORDER-} (24  Z(s)) = \left(\frac{1}{C_1 L_1 s^2 + 1} + R_1, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right) $

10.75 <b>9</b> NVALID-ORDER-759 $Z(s) =$	$\left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, R_3, \infty, \infty, \infty\right)$	.23
10.76 <b>0</b> NVALID-ORDER-760 $Z(s) =$	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \frac{1}{C_3s}, \infty, \infty, \infty\right) $	2
10.76INVALID-ORDER-761 $Z(s) =$	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right) $ 1	12
10.76 <b>2</b> NVALID-ORDER-762 $Z(s) =$	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \ \frac{1}{C_2s}, \ R_3+\frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right) \ \dots \ $	12
10.76\mathbb{B}\mathbb{N}\mathbb{A}\mathbb{L}\mathbb{I}\mathbb{D}\mathrm{C}\mathrm{R}\mathrm{D}\mathrm{E}\mathrm{R}\mathrm{C}\mathrm{E}\mathrm{C}\mathrm{C}\mathrm{C}\mathrm{E}\mathrm{C}	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \ \frac{1}{C_2s}, \ L_3s+\frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right)  \dots \qquad 1$	.2
10.76#NVALID-ORDER-764 $Z(s) =$	$\begin{pmatrix} c_1L_1s^{-1}+c_1R_1s+1 & c_2s & c_3L_3s^{-1} \end{pmatrix}$	2
10.76 Invalid-order-765 $Z(s) =$	$\left( \begin{array}{cccccccccccccccccccccccccccccccccccc$	.23
10.76 NVALID-ORDER-766 $Z(s) =$	$\left( c_{1}L_{1}v + c_{1}L_{1}v + 1 - c_{2}v - c_{3}L_{3}v_{3}v + L_{3}v + c_{3} \right)$	.24
10.76 INVALID-ORDER-767 $Z(s) =$		2
10.76&NVALID-ORDER-768 $Z(s) =$		.2
10.76 <b>9</b> NVALID-ORDER-769 $Z(s) =$	$\left( C_{1}L_{1}^{2}+C_{1}R_{1}^{2}+1-C_{2}R_{2}^{2}+1-C_{$	2
10.77 <b>0</b> NVALID-ORDER-770 $Z(s) =$	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right) $	2
10.77INVALID-ORDER-771 $Z(s) =$	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right) \dots \dots$	2
10.772NVALID-ORDER-772 $Z(s) =$	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right) $	.2
10.77 <b>B</b> NVALID-ORDER-773 $Z(s) =$	$\begin{pmatrix} C_1L_1s & +C_1R_1s+1 & C_2R_2s+1 & C_3s & \end{pmatrix}$	.2
10.774NVALID-ORDER-774 $Z(s) =$	$\left( (D_1)^{\frac{1}{2}} + C_1 D_1 + C_2 D_2 + C_3 D_3 + C_4 + C_4 D_3 + C_5 D_5 + C_5 D_5$	.2
10.77 NVALID-ORDER-775 $Z(s) =$	$\begin{pmatrix} c_1 L_1 s + c_1 R_1 s + 1 & c_2 R_2 s + 1 & c_3 s \end{pmatrix}$	.2
10.77 <b>6</b> NVALID-ORDER-776 $Z(s) =$	$\begin{pmatrix} c_1 L_1 s + c_1 R_1 s + 1 + c_2 R_2 s + 1 + c_3 L_3 R_3 s + L_3 s + R_3 \end{pmatrix}$	.2
10.77 <b>T</b> NVALID-ORDER-777 $Z(s) =$	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right) $	
10.77&NVALID-ORDER-778 $Z(s) =$	$\begin{pmatrix} C_1L_{18} & +C_1R_{18}+1 & C_2R_{28}+1 & C_3L_{38} & +C_3R_{38}+1 \end{pmatrix}$	
10.77 <b>9</b> NVALID-ORDER-779 $Z(s) =$		
10.78 <b>0</b> NVALID-ORDER-780 $Z(s) =$	$\begin{pmatrix} c_1 L_1 s^{-} + c_1 n_1 s + 1 \end{pmatrix} = \begin{pmatrix} c_2 s & c_3 s \end{pmatrix}$	
10.78INVALID-ORDER-781 $Z(s) =$		
10.78 <b>2</b> NVALID-ORDER-782 $Z(s) =$	$\begin{pmatrix} c_1 L_1 s + c_1 R_1 s + 1 \end{pmatrix}$	
10.78\mathbb{B}\mathbb{N}\mathbb{A}\mathbb{L}\mathbb{I}\mathbb{D}\mathbb{C}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}-783 \ Z(s) =		
10.78#NVALID-ORDER-784 $Z(s) =$	$\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$	
10.78 \$NVALID-ORDER-785 $Z(s) =$	$\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$	
10.78©NVALID-ORDER-786 $Z(s) =$	$\begin{pmatrix} c_1 c_1 c_1 + c_1 n_1 c_1 + c_2 c_3 - c_3 c_3 c_4 c_3 c_5 + c_3 c_5 \end{pmatrix}$	
10.78 TNVALID-ORDER-787 $Z(s) =$	$\left( \begin{array}{cccccccccccccccccccccccccccccccccccc$	
10.78\mathbb{k}\mathbb{N}\mathbb{A}\mathbb{L}\mathbb{I}\mathbb{O}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{-788} Z(s) = 0.78\mathbb{k}\mathbb{N}\mathbb{A}\mathbb{L}\mathbb{I}\mathbb{O}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{R}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{E}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{D}\mathbb{E}\mathbb{D}\mathbb{E}\mathbb{O}\mathbb{D}\mathbb{E}\mathbb{R}\mathbb{O}\mathbb{D}\mathbb{E}\mathbb{D}\mathbb{E}\mathbb{O}\mathbb{D}\mathbb{E}\mathbb{D}\mathbb{E}\mathbb{O}\mathbb{D}\mathbb{E}\mathbb{D}\mathbb{E}\mathbb{O}\mathbb{D}\mathbb{D}\mathbb{E}\mathbb{D}\mathbb{E}\mathbb{O}\mathbb{D}\mathbb{D}\mathbb{E}\mathbb{D}\mathbb{D}\mathbb{E}\mathbb{O}\mathbb{D}\math		
10.78 <b>9</b> NVALID-ORDER-789 $Z(s) =$	$\left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1},\ L_2s+\frac{1}{C_2s},\ R_3,\ \infty,\ \infty,\ \infty\right)\ \dots \qquad $	.20

10.79 <b>0</b> NVALID-ORDER-790 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, \ I$	$L_2s + \frac{1}{C_2s},$	$\frac{1}{C_3s}$ , $\infty$ , $\infty$ , $\infty$			 	 	 	 	 . 126
10.79INVALID-ORDER-791 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, \ I$	$L_2s + \frac{1}{C_2s},$	$\frac{R_3}{C_3R_3s+1}$ , $\infty$ , $\infty$ , $\infty$	ρ)		 	 	 	 	 . 126
10.792NVALID-ORDER-792 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1},  I$	$L_2s + \frac{1}{C_2s},$	$R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty,$	$\stackrel{f}{\infty}$		 	 	 	 	 . 126
10.79 <b>E</b> NVALID-ORDER-793 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, \ I$	$L_2s + \frac{1}{C_2s},$	$L_3s + \frac{1}{C_3s}, \ \infty, \ \infty,$	$\infty$ )		 	 	 	 	 . 127
10.794NVALID-ORDER-794 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1},  I$	$L_2s + \frac{1}{C_2s},$	$\frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty, \ $	$\infty$ )		 	 	 	 	 . 127
10.79 INVALID-ORDER-795 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1},  I$	$L_2s + \frac{1}{C_2s},$	$L_3s + R_3 + \frac{1}{C_3s}, \ \infty$	$(\infty, \infty, \infty)$		 	 	 	 	 . 127
10.796NVALID-ORDER-796 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, I$	$L_2s + \frac{1}{C_2s},$	$\frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3},$	$\infty, \infty, \infty$		 	 	 	 	 . 127
10.79 <b>T</b> NVALID-ORDER-797 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, I$	$L_2s + \frac{1}{C_2s},$	$\frac{L_3s}{C_3L_3s^2+1} + R_3, \ \infty,$	$\infty$ , $\infty$		 	 	 	 	 . 127
10.79\( \text{NVALID-ORDER-798} \) $Z(s) = \left( \frac{R_1}{C_1 L} \right)$	$R_1(C_1L_1s^2+1)$ $L_1s^2+C_1R_1s+1$ , $R_1(C_1L_1s^2+1)$	$L_2s + \frac{1}{C_2s},$	$\frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \ \infty$	$(\infty, \infty, \infty)$		 	 	 	 	 . 127
10.79 <b>9</b> NVALID-ORDER-799 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, I$	$L_2s + R_2 +$	$\frac{1}{C_2s}$ , $R_3$ , $\infty$ , $\infty$ , $\infty$	$\circ$ )		 	 	 	 	 . 127
10.800NVALID-ORDER-800 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$R_1(C_1L_1s^2+1)$ $L_1s^2+C_1R_1s+1$ , $R_1(C_1L_1s^2+1)$	$L_2s + R_2 +$	$\frac{1}{C_2s}$ , $\frac{1}{C_3s}$ , $\infty$ , $\infty$ ,	$\infty$ )		 	 	 	 	 . 127
10.80INVALID-ORDER-801 $Z(s) = \left(\frac{R_1}{C_1 I}\right)$	$R_1(C_1L_1s^2+1)$ $L_1s^2+C_1R_1s+1$ , $R_1(C_1L_1s^2+1)$	$L_2s + R_2 +$	$\frac{1}{C_2s}$ , $\frac{R_3}{C_3R_3s+1}$ , $\infty$ ,	$\infty, \infty$ .		 	 	 	 	 . 127
10.80 <b>2</b> NVALID-ORDER-802 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$R_1(C_1L_1s^2+1)$ $L_1s^2+C_1R_1s+1$ , $R_1(C_1L_1s^2+1)$	$L_2s + R_2 +$	$\frac{1}{C_2 s}$ , $R_3 + \frac{1}{C_3 s}$ , $\infty$ ,	$\infty, \infty$ .		 	 	 	 	 . 128
10.80 INVALID-ORDER-803 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$R_1(C_1L_1s^2+1)$ $L_1s^2+C_1R_1s+1$ , $R_1(C_1L_1s^2+1)$	$L_2s + R_2 +$	$\frac{1}{C_2s}$ , $L_3s + \frac{1}{C_3s}$ , $\propto$	$(\infty, \infty, \infty)$		 	 	 	 	 . 128
10.80#NVALID-ORDER-804 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, I$	$L_2s + R_2 +$	$\frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty,$	$\infty, \infty$ .		 	 	 	 	 . 128
10.80 INVALID-ORDER-805 $Z(s) = \left(\frac{R_3}{C_1 I}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, I$	$L_2s + R_2 +$	$\frac{1}{C_2s}$ , $L_3s + R_3 + \frac{1}{C_2s}$	$\frac{1}{3^s}$ , $\infty$ , $\infty$ ,	$\infty$ )	 	 	 	 	 . 128
10.806NVALID-ORDER-806 $Z(s) = \left(\frac{R_1}{C_1 L}\right)$	$\frac{R_1(C_1L_1s^2+1)}{L_1s^2+C_1R_1s+1}, I$	$L_2s + R_2 +$	$\frac{1}{C_2s}$ , $\frac{L_3R_3s}{C_3L_3R_3s^2+L_3s^2}$	$\frac{1}{R_3}$ , $\infty$ , $\infty$ ,	$\infty$ )	 	 	 	 	 . 128
			$\frac{1}{C_2 s}$ , $\frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3$		/	 	 	 	 	 . 128
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10.820NVALID-ORDER-820 $Z(s) = \left(\frac{R_1}{C_1 L}\right)^{-1}$	$R_1(C_1L_1s^2+1)$ $L_1s^2+C_1R_1s+1$ , $C_1$	$\frac{R_2 \left( C_2 L_2 s^2 - C_2 L_2 s^2 + C_2 R \right)}{C_2 L_2 s^2 + C_2 R}$	$\frac{(+1)}{(2s+1)}$ , $\frac{1}{C_3s}$ , $\infty$ , $\infty$ ,	$\infty$ )		 	 	 	 	 . 130

$10.82 \text{INVALID-ORDER-821} \ Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{R_3}{C_3R_3s+1}, \ \infty, \ \infty, \ \infty\right) $
$10.822\text{NVALID-ORDER-822} \ Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \ \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right) \ \dots $
$10.82 \text{BNVALID-ORDER-823} \ Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \ \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right) $
$10.824\text{NVALID-ORDER-}824 \ Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \ \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty, \ \infty\right)' \ \dots \ $
$10.82 \text{5NVALID-ORDER-} 825 \ Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_2L_2s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_2s}, \infty, \infty, \infty\right) $
$10.82 \text{ INVALID-ORDER-826 } Z(s) = \begin{pmatrix} \frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, & \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, & \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, & \infty, & \infty, & \infty \end{pmatrix}$ $10.82 \text{ INVALID-ORDER-827 } Z(s) = \begin{pmatrix} \frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, & \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, & \frac{L_3s}{C_3L_3s^2+1} + R_3, & \infty, & \infty, & \infty \end{pmatrix}$ $130$
$10.82 \text{INVALID-ORDER-827} \ Z(s) = \left( \frac{R_1 \left( C_1 L_1 s^2 + 1 \right)}{C_1 L_1 s^2 + C_1 R_1 s + 1}, \ \frac{R_2 \left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty \right)^{-1} \right) $
$10.82 \$NVALID-ORDER-828 \ Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty, \infty\right) $
11 PolynomialError

1 Examined 
$$H(z)$$
 for TIA simple Z1 Z2 Z3:  $\frac{Z_1Z_3(Z_2g_m+1)}{Z_1Z_2g_m+Z_1+Z_2+Z_3}$ 

$$H(z) = \frac{Z_1 Z_3 (Z_2 g_m + 1)}{Z_1 Z_2 g_m + Z_1 + Z_2 + Z_3}$$

2 HP

3 BP

**3.1** BP-1 
$$Z(s) = \left(R_1, R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s \left( L_3 R_1 R_2 g_m + L_3 R_1 \right)}{L_3 s + R_1 R_2 g_m + R_1 + R_2 + s^2 \left( C_3 L_3 R_1 R_2 g_m + C_3 L_3 R_1 + C_3 L_3 R_2 \right)}$$

Parameters:

Q: 
$$C_3\sqrt{\frac{1}{C_3L_3}} \left( R_1R_2g_m + R_1 + R_2 \right)$$
  
wo:  $\sqrt{\frac{1}{C_3L_3}}$   
bandwidth:  $\frac{1}{C_3(R_1R_2g_m + R_1 + R_2)}$   
K-LP: 0  
K-HP: 0  
K-BP:  $R_1\left( R_2g_m + 1 \right)$   
Qz: 0  
Wz: None

**3.2** BP-2 
$$Z(s) = \left(R_1, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s \left(L_{3} R_{1} R_{2} R_{3} g_{m} + L_{3} R_{1} R_{3}\right)}{R_{1} R_{2} R_{3} g_{m} + R_{1} R_{3} + R_{2} R_{3} + s^{2} \left(C_{3} L_{3} R_{1} R_{2} R_{3} g_{m} + C_{3} L_{3} R_{1} R_{3} + C_{3} L_{3} R_{2} R_{3}\right) + s \left(L_{3} R_{1} R_{2} g_{m} + L_{3} R_{1} + L_{3} R_{2} + L_{3} R_{3}\right)}$$

Parameters:

Q: 
$$\frac{C_3R_3\sqrt{\frac{1}{C_3L_3}}(R_1R_2g_m+R_1+R_2)}{R_1R_2g_m+R_1+R_2+R_3}$$
 wo: 
$$\sqrt{\frac{1}{C_3L_3}}$$
 bandwidth: 
$$\frac{R_1R_2g_m+R_1+R_2+R_3}{C_3R_3(R_1R_2g_m+R_1+R_2)}$$
 K-LP: 0 K-HP: 0 K-BP: 
$$\frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3}$$
 Qz: 0 Wz: None

**3.3** BP-3 
$$Z(s) = \left(L_1 s, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s (L_1 R_2 g_m + L_1)}{C_3 R_2 s + s^2 (C_3 L_1 R_2 g_m + C_3 L_1) + 1}$$

$$\begin{array}{l} \text{Q:} \ \frac{L_1\sqrt{\frac{1}{C_3L_1(R_2g_m+1)}}(R_2g_m+1)}{R_2}\\ \text{wo:} \ \sqrt{\frac{1}{C_3L_1(R_2g_m+1)}}\\ \text{bandwidth:} \ \frac{R_2}{L_1(R_2g_m+1)}\\ \text{K-LP:} \ 0\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ \frac{L_1(R_2g_m+1)}{C_3R_2}\\ \text{Qz:} \ 0 \end{array}$$

Wz: None

**3.4** BP-4 
$$Z(s) = \left(L_1 s, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

## Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_3L_1R_3\sqrt{\frac{R_2+R_3}{C_3L_1R_3(R_2g_{m}+1)}}(R_2g_{m}+1)}{C_3R_2R_3+L_1R_2g_{m}+L_1}\\ \text{wo:} \ \sqrt{\frac{R_2+R_3}{C_3L_1R_3(R_2g_{m}+1)}}\\ \text{bandwidth:} \ \frac{C_3R_2R_3+L_1R_2g_{m}+L_1}{C_3L_1R_3(R_2g_{m}+1)}\\ \text{K-LP:} \ 0\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ \frac{L_1R_3(R_2g_{m}+1)}{C_3R_2R_3+L_1R_2g_{m}+L_1}\\ \text{Qz:} \ 0\\ \text{Wz:} \ \text{None} \end{array}$$

**3.5 BP-5** 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, R_3, \infty, \infty, \infty\right)$$

### Parameters:

$$\begin{array}{l} \text{Q: } \frac{C_1 \sqrt{\frac{1}{C_1 L_1}} (R_2 + R_3)}{R_2 g_m + 1} \\ \text{wo: } \sqrt{\frac{1}{C_1 L_1}} \\ \text{bandwidth: } \frac{R_2 g_m + 1}{C_1 (R_2 + R_3)} \\ \text{K-LP: 0} \\ \text{K-HP: 0} \\ \text{K-BP: } R_3 \\ \text{Qz: 0} \\ \text{Wz: None} \end{array}$$

**3.6 BP-6** 
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2, R_3, \infty, \infty, \infty\right)$$

### Parameters:

Q: 
$$\frac{C_1R_1\sqrt{\frac{1}{C_1L_1}}(R_2+R_3)}{R_1R_2g_m+R_1+R_2+R_3}$$
  
wo:  $\sqrt{\frac{1}{C_1L_1}}$   
bandwidth:  $\frac{R_1R_2g_m+R_1+R_2+R_3}{C_1R_1(R_2+R_3)}$   
K-LP: 0  
K-HP: 0  
K-BP:  $\frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3}$   
Qz: 0  
Wz: None

## 4 LP

$$H(s) = \frac{s \left( L_1 R_2 R_3 g_m + L_1 R_3 \right)}{R_2 + R_3 + s^2 \left( C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 \right) + s \left( C_3 R_2 R_3 + L_1 R_2 g_m + L_1 \right)}$$

$$H(s) = \frac{s \left( L_1 R_2 R_3 g_m + L_1 R_3 \right)}{R_2 + R_3 + s^2 \left( C_1 L_1 R_2 + C_1 L_1 R_3 \right) + s \left( L_1 R_2 g_m + L_1 \right)}$$

$$H(s) = \frac{s \left( L_1 R_1 R_2 R_3 g_m + L_1 R_1 R_3 \right)}{R_1 R_2 + R_1 R_3 + s^2 \left( C_1 L_1 R_1 R_2 + C_1 L_1 R_1 R_3 \right) + s \left( L_1 R_1 R_2 g_m + L_1 R_1 + L_1 R_2 + L_1 R_3 \right)}$$

# **4.1** LP-1 $Z(s) = \left(\frac{1}{C_1 s}, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$

 $H(s) = \frac{R_2 R_3 g_m + R_3}{C_1 C_3 R_2 R_3 s^2 + R_2 g_m + s \left(C_1 R_2 + C_1 R_3 + C_3 R_2 R_3 g_m + C_3 R_3\right) + 1}$ 

Parameters:

Q: 
$$\frac{C_1C_3R_2R_3\sqrt{\frac{R_2g_m+1}{C_1C_3R_2R_3}}}{C_1R_2+C_1R_3+C_3R_2R_3g_m+C_3R_3}$$
 wo: 
$$\sqrt{\frac{R_2g_m+1}{C_1C_3R_2R_3}}$$
 bandwidth: 
$$\frac{C_1R_2+C_1R_3+C_3R_2R_3g_m+C_3R_3}{C_1C_3R_2R_3}$$
 K-LP:  $R_3$  K-HP: 0 K-BP: 0 Qz: None Wz: None

**4.2** LP-2  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

Parameters:

Q: 
$$\frac{C_1C_3R_1R_2\sqrt{\frac{1}{C_1C_3R_1R_2}}}{C_1R_1+C_3R_1R_2g_m+C_3R_1+C_3R_2}$$
 wo: 
$$\sqrt{\frac{1}{C_1C_3R_1R_2}}$$
 bandwidth: 
$$\frac{C_1R_1+C_3R_1R_2g_m+C_3R_1+C_3R_2}{C_1C_3R_1R_2}$$
 K-LP:  $R_1\left(R_2g_m+1\right)$  K-HP: 0 K-BP: 0 Qz: None Wz: None

**4.3** LP-3  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1R_2R_3g_m + R_1R_3}{C_1C_3R_1R_2R_3s^2 + R_1R_2g_m + R_1 + R_2 + R_3 + s\left(C_1R_1R_2 + C_1R_1R_3 + C_3R_1R_2R_3g_m + C_3R_1R_3 + C_3R_2R_3\right)}$ 

 $H(s) = \frac{R_1 R_2 g_m + R_1}{C_1 C_3 R_1 R_2 s^2 + s \left(C_1 R_1 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2\right) + 1}$ 

Parameters:

5 BS

**5.1** BS-1 
$$Z(s) = \left(R_1, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left( C_3 L_3 R_1 R_2 g_m + C_3 L_3 R_1 \right)}{C_3 L_3 s^2 + s \left( C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 \right) + 1}$$

Parameters:

Q: 
$$\frac{L_3\sqrt{\frac{1}{C_3L_3}}}{R_1R_2g_m+R_1+R_2}$$
  
wo:  $\sqrt{\frac{1}{C_3L_3}}$   
bandwidth:  $\frac{R_1R_2g_m+R_1+R_2}{L_3}$   
K-LP:  $R_1\left(R_2g_m+1\right)$   
K-HP:  $R_1\left(R_2g_m+1\right)$   
K-BP: 0  
Qz: None  
Wz:  $\sqrt{\frac{1}{C_3L_3}}$ 

**5.2 BS-2** 
$$Z(s) = \left(R_1, R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1R_2R_3g_m + R_1R_3 + s^2\left(C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^2\left(C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_2 + C_3L_3R_3\right) + s\left(C_3R_1R_2R_3g_m + C_3R_1R_3 + C_3R_2R_3\right)}$$

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{L_3\sqrt{\frac{1}{C_3L_3}}(R_1R_2g_m+R_1+R_2+R_3)}{R_3(R_1R_2g_m+R_1+R_2)} \\ \text{wo:} \ \sqrt{\frac{1}{C_3L_3}} \\ \text{bandwidth:} \ \frac{R_3(R_1R_2g_m+R_1+R_2)}{L_3(R_1R_2g_m+R_1+R_2+R_3)} \\ \text{K-LP:} \ \frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ \text{K-HP:} \ \frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_3L_3}} \end{array}$$

**5.3** BS-3 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^2 (C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_3)}{R_2 g_m + s^2 (C_1 L_1 R_2 g_m + C_1 L_1) + s (C_1 R_2 + C_1 R_3) + 1}$$

Parameters:

Q: 
$$\frac{L_1\sqrt{\frac{1}{C_1L_1}}(R_2g_m+1)}{R_2+R_3}$$
  
wo:  $\sqrt{\frac{1}{C_1L_1}}$   
bandwidth:  $\frac{R_2+R_3}{L_1(R_2g_m+1)}$   
K-LP:  $R_3$   
K-HP:  $R_3$   
K-BP: 0  
Qz: None  
Wz:  $\sqrt{\frac{1}{C_1L_1}}$ 

**5.4** BS-4 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^2 \left( C_1 L_1 R_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 \right)}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s^2 \left( C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_1 L_1 R_2 + C_1 L_1 R_3 \right) + s \left( C_1 R_1 R_2 + C_1 R_1 R_3 \right)}$$

$$\begin{array}{l} \text{Q:} \ \frac{L_1\sqrt{\frac{1}{C_1L_1}}(R_1R_2g_m+R_1+R_2+R_3)}{R_1(R_2+R_3)} \\ \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ \text{bandwidth:} \ \frac{R_1(R_2+R_3)}{L_1(R_1R_2g_m+R_1+R_2+R_3)} \\ \text{K-LP:} \ \frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ \text{K-HP:} \ \frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ \text{K-BP:} \ 0 \\ \text{Qz:} \ \text{None} \\ \text{Wz:} \ \sqrt{\frac{1}{C_1L_1}} \end{array}$$

## 6 **GE**

**6.1 GE-1** 
$$Z(s) = \left(R_1, R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$$

#### Parameters:

Q: 
$$\frac{L_3\sqrt{\frac{1}{C_3L_3}}}{R_1R_2g_m+R_1+R_2+R_3}$$
 wo: 
$$\sqrt{\frac{1}{C_3L_3}}$$
 bandwidth: 
$$\frac{R_1R_2g_m+R_1+R_2+R_3}{L_3}$$
 K-LP: 
$$R_1\left(R_2g_m+1\right)$$
 K-HP: 
$$R_1\left(R_2g_m+1\right)$$
 K-BP: 
$$\frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3}$$
 Qz: 
$$\frac{L_3\sqrt{\frac{1}{C_3L_3}}}{R_3}$$
 Wz: 
$$\sqrt{\frac{1}{C_3L_3}}$$

**6.2 GE-2** 
$$Z(s) = \left(R_1, R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$$

## Parameters:

Q: 
$$C_3\sqrt{\frac{1}{C_3L_3}}$$
  $(R_1R_2g_m + R_1 + R_2 + R_3)$   
wo:  $\sqrt{\frac{1}{C_3L_3}}$   
bandwidth:  $\frac{1}{C_3(R_1R_2g_m + R_1 + R_2 + R_3)}$   
K-LP:  $\frac{R_1R_3(R_2g_m + 1)}{R_1R_2g_m + R_1 + R_2 + R_3}$   
K-HP:  $\frac{R_1R_3(R_2g_m + 1)}{R_1R_2g_m + R_1 + R_2 + R_3}$   
K-BP:  $R_1$   $(R_2g_m + 1)$   
Qz:  $C_3R_3\sqrt{\frac{1}{C_3L_3}}$   
Wz:  $\sqrt{\frac{1}{C_3L_3}}$ 

**6.3** GE-3 
$$Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$$

Q: 
$$\frac{L_2\sqrt{\frac{1}{C_2L_2}}(R_1g_m+1)}{R_1+R_3}$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left( C_3 L_3 R_1 R_2 g_m + C_3 L_3 R_1 \right) + s \left( C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3 \right)}{C_3 L_3 s^2 + s \left( C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 + C_3 R_3 \right) + 1}$$

$$H(s) = \frac{R_1R_2R_3g_m + R_1R_3 + s^2\left(C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3\right) + s\left(L_3R_1R_2g_m + L_3R_1\right)}{L_3s + R_1R_2g_m + R_1 + R_2 + R_3 + s^2\left(C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_1 + C_3L_3R_2 + C_3L_3R_3\right)}$$

$$H(s) = \frac{C_2L_2R_1R_3g_ms^2 + C_2R_1R_3s + R_1R_3g_m}{R_1g_m + s^2\left(C_2L_2R_1g_m + C_2L_2\right) + s\left(C_2R_1 + C_2R_3\right) + 1}$$

wo: 
$$\sqrt{\frac{1}{C_2L_2}}$$
 bandwidth:  $\frac{R_1+R_3}{L_2(R_1g_m+1)}$  K-LP:  $\frac{R_1R_3g_m}{R_1g_m+1}$  K-HP:  $\frac{R_1R_3g_m}{R_1g_m+1}$  K-BP:  $\frac{R_1R_3}{R_1+R_3}$  Qz:  $L_2g_m\sqrt{\frac{1}{C_2L_2}}$  Wz:  $\sqrt{\frac{1}{C_2L_2}}$ 

**6.4** GE-4 
$$Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_2R_1R_3g_ms^2 + R_1R_3g_m + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3\right)}{R_1g_m + s^2\left(C_2L_2R_1g_m + C_2L_2\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_3\right) + 1}$$

#### Parameters:

$$\begin{aligned} & \text{Q: } \frac{L_2\sqrt{\frac{1}{C_2L_2}}(R_1g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ & \text{wo: } \sqrt{\frac{1}{C_2L_2}} \\ & \text{bandwidth: } \frac{R_1R_2g_m+R_1+R_2+R_3}{L_2(R_1g_m+1)} \\ & \text{K-LP: } \frac{R_1R_3g_m}{R_1g_m+1} \\ & \text{K-HP: } \frac{R_1R_3g_m}{R_1g_m+1} \\ & \text{K-BP: } \frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ & \text{Qz: } \frac{L_2g_m\sqrt{\frac{1}{C_2L_2}}}{R_2g_m+1} \\ & \text{Wz: } \sqrt{\frac{1}{C_2L_2}} \end{aligned}$$

**6.5 GE-5** 
$$Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{L_2R_1R_3g_ms + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_2L_2R_3\right) + s\left(L_2R_1g_m + L_2\right)}$$

## Parameters:

$$Q: \frac{C_2\sqrt{\frac{1}{C_2L_2}}(R_1R_2g_m+R_1+R_2+R_3)}{R_1g_m+1}$$
 wo:  $\sqrt{\frac{1}{C_2L_2}}$  bandwidth:  $\frac{R_1g_m+1}{C_2(R_1R_2g_m+R_1+R_2+R_3)}$  K-LP:  $\frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3}$  K-HP:  $\frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3}$  K-BP:  $\frac{R_1R_3g_m}{R_1g_m+1}$  Qz:  $\frac{C_2\sqrt{\frac{1}{C_2L_2}}(R_2g_m+1)}{g_m}$  Wz:  $\sqrt{\frac{1}{C_2L_2}}$ 

**6.6 GE-6** 
$$Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_2L_2R_3\right) + s\left(C_2R_1R_2 + C_2R_2R_3\right)}$$

Q: 
$$\frac{L_2\sqrt{\frac{1}{C_2L_2}}(R_1R_2g_m+R_1+R_2+R_3)}{R_2(R_1+R_3)}$$
 wo: 
$$\sqrt{\frac{1}{C_2L_2}}$$
 bandwidth: 
$$\frac{R_2(R_1+R_3)}{L_2(R_1R_2g_m+R_1+R_2+R_3)}$$

$$\begin{aligned} & \text{K-LP: } \frac{R_1 R_3 (R_2 g_m + 1)}{R_1 R_2 g_m + R_1 + R_2 + R_3} \\ & \text{K-HP: } \frac{R_1 R_3 (R_2 g_m + 1)}{R_1 R_2 g_m + R_1 + R_2 + R_3} \\ & \text{K-BP: } \frac{R_1 R_3}{R_1 + R_3} \\ & \text{Qz: } \frac{L_2 \sqrt{\frac{1}{C_2} L_2} (R_2 g_m + 1)}{R_2} \\ & \text{Wz: } \sqrt{\frac{1}{C_2 L_2}} \end{aligned}$$

**6.7** GE-7 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^2 \left( C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_3 \right) + s \left( C_1 R_1 R_2 R_3 g_m + C_1 R_1 R_3 \right)}{R_2 g_m + s^2 \left( C_1 L_1 R_2 g_m + C_1 L_1 \right) + s \left( C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_3 \right) + 1}$$

### Parameters:

$$\begin{aligned} & \text{Q: } \frac{L_1\sqrt{\frac{1}{C_1L_1}}(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ & \text{wo: } \sqrt{\frac{1}{C_1L_1}} \\ & \text{bandwidth: } \frac{R_1R_2g_m+R_1+R_2+R_3}{L_1(R_2g_m+1)} \\ & \text{K-LP: } R_3 \\ & \text{K-HP: } R_3 \\ & \text{K-BP: } \frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ & \text{Qz: } \frac{L_1\sqrt{\frac{1}{C_1L_1}}}{R_1} \\ & \text{Wz: } \sqrt{\frac{1}{C_1L_1}} \end{aligned}$$

**6.8** GE-8 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^2 \left(C_1 L_1 R_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 R_3\right)}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_1 L_1 R_2 + C_1 L_1 R_3\right) + s \left(L_1 R_2 g_m + L_1\right)}$$

#### Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_1\sqrt{\frac{1}{C_1L_1}}(R_1R_2g_m + R_1 + R_2 + R_3)}{R_2g_m + 1} \\ & \text{wo:} \ \sqrt{\frac{1}{C_1L_1}} \\ & \text{bandwidth:} \ \frac{R_2g_m + 1}{C_1(R_1R_2g_m + R_1 + R_2 + R_3)} \\ & \text{K-LP:} \ \frac{R_1R_3(R_2g_m + 1)}{R_1R_2g_m + R_1 + R_2 + R_3} \\ & \text{K-HP:} \ \frac{R_1R_3(R_2g_m + 1)}{R_1R_2g_m + R_1 + R_2 + R_3} \\ & \text{K-BP:} \ R_3 \\ & \text{Qz:} \ C_1R_1\sqrt{\frac{1}{C_1L_1}} \\ & \text{Wz:} \ \sqrt{\frac{1}{C_1L_1}} \end{aligned}$$

## 7 AP

## 8 INVALID-NUMER

8.1 INVALID-NUMER-1 
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2 R_1 R_3 s + R_1 R_3 g_m}{C_2 C_3 R_1 R_3 s^2 + R_1 g_m + s \left(C_2 R_1 + C_2 R_3 + C_3 R_1 R_3 g_m + C_3 R_3\right) + 1}$$

Q: 
$$\frac{C_2C_3R_1R_3\sqrt{\frac{R_1g_m+1}{C_2C_3R_1R_3}}}{C_2R_1+C_2R_3+C_3R_1R_3g_m+C_3R_3}$$

Wo: 
$$\sqrt{\frac{R_1 g_m + 1}{C_2 C_3 R_1 R_3}}$$

bandwidth:  $\frac{C_2R_1+C_2R_3+C_3R_1R_3g_m+C_3R_3}{C_2C_3R_1R_3}$ 

K-LP:  $\frac{R_1 R_3 g_m}{R_1 g_m + 1}$ K-HP: 0

K-BP:  $\frac{C_2R_1R_3}{C_2R_1+C_2R_3+C_3R_1R_3g_m+C_3R_3}$ 

Qz: 0 Wz: None

## 8.2 INVALID-NUMER-2 $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2 R_1 R_2 s + R_1 R_2 g_m + R_1}{C_2 C_3 R_1 R_2 s^2 + s \left(C_2 R_2 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2\right) + 1}$$

### Parameters:

Q:  $\frac{C_2C_3R_1R_2\sqrt{\frac{1}{C_2C_3R_1R_2}}}{C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2}$ 

wo:  $\sqrt{\frac{1}{C_2C_3R_1R_2}}$ bandwidth:  $\frac{C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2}{C_2C_3R_1R_2}$ K-LP:  $R_1\left(R_2g_m+1\right)$ 

K-HP: 0

K-BP:  $\frac{C_2R_1R_2}{C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2}$ 

Qz: 0 Wz: None

## **8.3** INVALID-NUMER-3 $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3}{C_2C_3R_1R_2R_3s^2 + R_1R_2g_m + R_1 + R_2 + R_3 + s\left(C_2R_1R_2 + C_2R_2R_3 + C_3R_1R_2R_3g_m + C_3R_1R_3 + C_3R_2R_3\right)}$$

### Parameters:

Q:  $\frac{C_2C_3R_1R_2R_3\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_3}{C_2C_3R_1R_2R_3}}}{C_2R_1R_2+C_2R_2R_3+C_3R_1R_2R_3g_m+C_3R_1R_3+C_3R_2R_3}$ 

wo:  $\sqrt{\frac{R_1R_2g_m + R_1 + R_2 + R_3}{C_2C_3R_1R_2R_3}}$ bandwidth:  $\frac{C_2R_1R_2 + C_2R_2R_3 + C_3R_1R_2R_3g_m + C_3R_1R_3 + C_3R_2R_3}{C_2C_3R_1R_2R_3}$ 

K-LP:  $\frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3}$ K-HP: 0

K-BP:  $\frac{C_2R_1R_2R_3}{C_2R_1R_2+C_2R_2R_3+C_3R_1R_2R_3g_m+C_3R_1R_3+C_3R_2R_3}$  Qz: 0

Wz: None

# **8.4** INVALID-NUMER-4 $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_1 R_3 g_m + s \left(C_2 R_1 R_2 R_3 g_m + C_2 R_1 R_3\right)}{R_1 g_m + s^2 \left(C_2 C_3 R_1 R_2 R_3 g_m + C_2 C_3 R_1 R_3 + C_2 C_3 R_2 R_3\right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_3 + C_3 R_1 R_3 g_m + C_3 R_3\right) + 1}$$

### Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_2C_3R_3\sqrt{\frac{R_{1}g_m+1}{C_2C_3R_3(R_{1}R_{2}g_m+R_{1}+R_{2})}}(R_1R_2g_m+R_1+R_2)}{C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_3+C_3R_1R_3g_m+C_3R_3} \\ & \text{wo:} \ \sqrt{\frac{R_{1}g_m+1}{C_2C_3R_3(R_1R_2g_m+R_1+R_2)}} \\ & \text{bandwidth:} \ \frac{C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_3+C_3R_1R_3g_m+C_3R_3}{C_2C_3R_3(R_1R_2g_m+R_1+R_2)} \\ & \text{K-I.P:} \ \frac{R_1R_3g_m}{C_2C_3R_3g_m} \end{aligned}$$

K-LP:  $\frac{R_1 R_3 g_m}{R_1 g_m + 1}$ K-HP: 0

K-III: 0  $\frac{C_2R_1R_3(R_2g_m+1)}{C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_3+C_3R_1R_3g_m+C_3R_3}$ 

Qz: 0 Wz: None

## 8.5 INVALID-NUMER-5 $Z(s) = \left(L_1 s, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

 $H(s) = \frac{s^2 \left( C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 \right) + s \left( L_1 R_2 g_m + L_1 \right)}{s^2 \left( C_3 L_1 R_2 g_m + C_3 L_1 \right) + s \left( C_3 R_2 + C_3 R_3 \right) + 1}$ 

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{L_1\sqrt{\frac{1}{C_3L_1(R_2g_m+1)}}(R_2g_m+1)}{R_2+R_3} \\ \text{wo:} \ \sqrt{\frac{1}{C_3L_1(R_2g_m+1)}} \\ \text{bandwidth:} \ \frac{R_2+R_3}{L_1(R_2g_m+1)} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ R_3 \\ \text{K-BP:} \ \frac{L_1(R_2g_m+1)}{C_3(R_2+R_3)} \\ \text{Qz:} \ C_3R_3\sqrt{\frac{1}{C_3L_1(R_2g_m+1)}} \\ \text{Wz:} \ \text{None} \end{array}$$

8.6 INVALID-NUMER-6  $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2 L_1 R_3 s^2 + L_1 R_3 g_m s}{C_2 L_1 s^2 + s \left(C_2 R_3 + L_1 g_m\right) + 1}$ 

Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_2L_1\sqrt{\frac{1}{C_2L_1}}}{C_2R_3+L_1g_m} \\ \text{wo:} \ \sqrt{\frac{1}{C_2L_1}} \\ \text{bandwidth:} \ \frac{C_2R_3+L_1g_m}{C_2L_1} \\ \text{K-LP:} \ 0 \\ \text{K-HP:} \ R_3 \\ \text{K-BP:} \ \frac{L_1R_3g_m}{C_2R_3+L_1g_m} \\ \text{Qz:} \ \frac{C_2\sqrt{\frac{1}{C_2L_1}}}{g_m} \\ \text{Wz:} \ \text{None} \end{array}$$

8.7 INVALID-NUMER-7  $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2 L_1 s + L_1 g_m}{C_2 C_3 L_1 s^2 + C_2 + C_3 L_1 g_m s + C_3}$ 

Parameters:

Q: 
$$\frac{C_2\sqrt{\frac{C_2+C_3}{C_2C_3L_1}}}{g_m}$$
 wo:  $\sqrt{\frac{C_2+C_3}{C_2C_3L_1}}$  bandwidth:  $\frac{g_m}{C_2}$  K-LP:  $\frac{L_1g_m}{C_2+C_3}$  K-HP: 0 K-BP:  $\frac{C_2}{C_3g_m}$  Qz: 0 Wz: None

8.8 INVALID-NUMER-8  $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2 L_1 R_2 R_3 s^2 + s \left(L_1 R_2 R_3 g_m + L_1 R_3\right)}{C_2 L_1 R_2 s^2 + R_2 + R_3 + s \left(C_2 R_2 R_3 + L_1 R_2 g_m + L_1\right)}$ 

$$\begin{array}{l} \text{Q: } \frac{C_2L_1R_2\sqrt{\frac{R_2+R_3}{C_2L_1R_2}}}{C_2R_2R_3+L_1R_2g_m+L_1} \\ \text{wo: } \sqrt{\frac{R_2+R_3}{C_2L_1R_2}} \\ \text{bandwidth: } \frac{C_2R_2R_3+L_1R_2g_m+L_1}{C_2L_1R_2} \\ \text{K-LP: 0} \\ \text{K-HP: } R_3 \\ \text{K-BP: } \frac{L_1R_3(R_2g_m+1)}{C_2R_2R_3+L_1R_2g_m+L_1} \\ \text{Qz: } \frac{C_2R_2\sqrt{\frac{R_2+R_3}{C_2L_1R_2}}}{R_2g_m+1} \\ \text{Wz: None} \end{array}$$

# 8.9 INVALID-NUMER-9 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$

$$H(s) = \frac{L_1 R_3 g_m s + s^2 \left( C_2 L_1 R_2 R_3 g_m + C_2 L_1 R_3 \right)}{s^2 \left( C_2 L_1 R_2 g_m + C_2 L_1 \right) + s \left( C_2 R_2 + C_2 R_3 + L_1 g_m \right) + 1}$$

## Parameters:

$$\begin{array}{l} \mathbf{Q} \colon \frac{C_2L_1\sqrt{\frac{1}{C_2L_1(R_2g_m+1)}}(R_2g_m+1)}{C_2R_2+C_2R_3+L_1g_m} \\ \mathbf{wo} \colon \sqrt{\frac{1}{C_2L_1(R_2g_m+1)}} \\ \mathbf{bandwidth} \colon \frac{C_2R_2+C_2R_3+L_1g_m}{C_2L_1(R_2g_m+1)} \\ \mathbf{K}\text{-LP} \colon \mathbf{0} \\ \mathbf{K}\text{-HP} \colon R_3 \\ \mathbf{K}\text{-BP} \colon \frac{L_1R_3g_m}{C_2R_2+C_2R_3+L_1g_m} \\ \mathbf{Qz} \colon \frac{C_2\sqrt{\frac{1}{C_2L_1(R_2g_m+1)}}(R_2g_m+1)}{g_m} \\ \mathbf{Wz} \colon \mathbf{None} \end{array}$$

# 8.10 INVALID-NUMER-10 $Z(s) = \left(L_1 s, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{L_1 g_m + s \left( C_2 L_1 R_2 g_m + C_2 L_1 \right)}{C_2 + C_3 + s^2 \left( C_2 C_3 L_1 R_2 g_m + C_2 C_3 L_1 \right) + s \left( C_2 C_3 R_2 + C_3 L_1 g_m \right)}$$

#### Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_2L_1\sqrt{\frac{C_2+C_3}{C_2C_3L_1(R_2g_m+1)}}(R_2g_m+1)}{C_2R_2+L_1g_m}(R_2g_m+1)} \\ \text{wo:} \ \sqrt{\frac{C_2+C_3}{C_2C_3L_1(R_2g_m+1)}} \\ \text{bandwidth:} \ \frac{C_2R_2+L_1g_m}{C_2L_1(R_2g_m+1)} \\ \text{K-LP:} \ \frac{L_1g_m}{C_2+C_3} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2L_1(R_2g_m+1)}{C_3(C_2R_2+L_1g_m)} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

# 8.11 INVALID-NUMER-11 $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2 R_3 s + R_3 g_m}{C_1 C_2 R_3 s^2 + g_m + s (C_1 + C_2)}$$

Q: 
$$\frac{C_{1}C_{2}R_{3}\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{3}}}}{\frac{C_{1}+C_{2}}{C_{1}C_{2}R_{3}}}$$
 wo: 
$$\sqrt{\frac{g_{m}}{C_{1}C_{2}R_{3}}}$$
 bandwidth: 
$$\frac{C_{1}+C_{2}}{C_{1}C_{2}R_{3}}$$
 K-LP:  $R_{3}$  K-HP: 0 K-BP: 
$$\frac{C_{2}R_{3}}{C_{1}+C_{2}}$$

8.12 INVALID-NUMER-12  $Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 R_3 s + R_3 g_m}{g_m + s^2 \left(C_1 C_2 R_3 + C_1 C_3 R_3 + C_2 C_3 R_3\right) + s \left(C_1 + C_2 + C_3 R_3 g_m\right)}$$

## Parameters:

 $\begin{array}{l} \text{Q:} \ \frac{R_3\sqrt{\frac{g_m}{R_3(C_1C_2+C_1C_3+C_2C_3)}}(C_1C_2+C_1C_3+C_2C_3)}{C_1+C_2+C_3R_3g_m} \\ \text{wo:} \ \sqrt{\frac{g_m}{R_3(C_1C_2+C_1C_3+C_2C_3)}} \\ \text{bandwidth:} \ \frac{C_1+C_2+C_3R_3g_m}{R_3(C_1C_2+C_1C_3+C_2C_3)} \\ \text{K-LP:} \ R_3 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_3}{C_1+C_2+C_3R_3g_m} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$ 

8.13 INVALID-NUMER-13  $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2 R_2 R_3 s + R_2 R_3 g_m + R_3}{C_1 C_2 R_2 R_3 s^2 + R_2 g_m + s \left(C_1 R_2 + C_1 R_3 + C_2 R_2\right) + 1}$ 

### Parameters:

 $\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_2R_3\sqrt{\frac{R_2g_m+1}{C_1C_2R_2R_3}}}{C_1R_2+C_1R_3+C_2R_2} \\ \text{wo:} \ \sqrt{\frac{R_2g_m+1}{C_1C_2R_2R_3}} \\ \text{bandwidth:} \ \frac{C_1R_2+C_1R_3+C_2R_2}{C_1C_2R_2R_3} \\ \text{K-LP:} \ R_3 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_2R_3}{C_1R_2+C_1R_3+C_2R_2} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$ 

**8.14** INVALID-NUMER-14  $Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2R_2R_3s + R_2R_3g_m + R_3}{R_2g_m + s^2\left(C_1C_2R_2R_3 + C_1C_3R_2R_3 + C_2C_3R_2R_3\right) + s\left(C_1R_2 + C_1R_3 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + 1}$ 

## Parameters:

 $\begin{array}{l} \text{Q:} \ \frac{R_2R_3\sqrt{\frac{R_2g_m+1}{R_2R_3(C_1C_2+C_1C_3+C_2C_3)}}(C_1C_2+C_1C_3+C_2C_3)}{C_1R_2+C_1R_3+C_2R_2+C_3R_2R_3g_m+C_3R_3} \\ \text{wo:} \ \sqrt{\frac{R_2g_m+1}{R_2R_3(C_1C_2+C_1C_3+C_2C_3)}} \\ \text{bandwidth:} \ \frac{C_1R_2+C_1R_3+C_2R_2+C_3R_2R_3g_m+C_3R_3}{R_2R_3(C_1C_2+C_1C_3+C_2C_3)} \\ \text{K-LP:} \ R_3 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_2R_3}{C_1R_2+C_1R_3+C_2R_2+C_3R_2R_3g_m+C_3R_3} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$ 

### 8.15 INVALID-NUMER-15 $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_3 g_m + s \left( C_2 R_2 R_3 g_m + C_2 R_3 \right)}{g_m + s^2 \left( C_1 C_2 R_2 + C_1 C_2 R_3 \right) + s \left( C_1 + C_2 R_2 g_m + C_2 \right)}$$

#### Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_2\sqrt{\frac{g_m}{C_1C_2(R_2+R_3)}}(R_2+R_3)}{C_1+C_2R_2g_m+C_2} \\ \text{wo:} \ \sqrt{\frac{g_m}{C_1C_2(R_2+R_3)}} \\ \text{bandwidth:} \ \frac{C_1+C_2R_2g_m+C_2}{C_1C_2(R_2+R_3)} \\ \text{K-LP:} \ R_3 \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_3(R_2g_m+1)}{C_1+C_2R_2g_m+C_2} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

# **8.16** INVALID-NUMER-16 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s \left( C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3 \right)}{s^2 \left( C_1 C_3 R_1 R_2 + C_1 C_3 R_1 R_3 \right) + s \left( C_1 R_1 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 + C_3 R_3 \right) + 1}$$

#### Parameters:

Q: 
$$\frac{C_1C_3R_1\sqrt{\frac{1}{C_1C_3R_1(R_2+R_3)}}(R_2+R_3)}{C_1R_1+C_3R_1R_2g_m+C_3R_1+C_3R_2+C_3R_3}$$
 wo: 
$$\sqrt{\frac{1}{C_1C_3R_1(R_2+R_3)}}$$
 bandwidth: 
$$\frac{C_1R_1+C_3R_1R_2g_m+C_3R_1+C_3R_2+C_3R_3}{C_1C_3R_1(R_2+R_3)}$$
 K-LP: 
$$R_1\left(R_2g_m+1\right)$$
 K-HP: 
$$0$$
 K-BP: 
$$\frac{C_3R_1R_3(R_2g_m+1)}{C_1R_1+C_3R_1R_2g_m+C_3R_1+C_3R_2+C_3R_3}$$
 Qz: 
$$0$$
 Wz: None

### 8.17 INVALID-NUMER-17 $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{1}{C_2s}, R_3, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2 R_1 R_3 s + R_1 R_3 g_m}{C_1 C_2 R_1 R_3 s^2 + R_1 g_m + s \left(C_1 R_1 + C_2 R_1 + C_2 R_3\right) + 1}$$

#### Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_1R_3\sqrt{\frac{R_1g_m+1}{C_1C_2R_1R_3}}}{C_1R_1+C_2R_1+C_2R_3} \\ \text{wo:} \ \sqrt{\frac{R_1g_m+1}{C_1C_2R_1R_3}} \\ \text{bandwidth:} \ \frac{C_1R_1+C_2R_1+C_2R_3}{C_1C_2R_1R_3} \\ \text{K-LP:} \ \frac{R_1R_3g_m}{R_1g_m+1} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1R_3}{C_1R_1+C_2R_1+C_2R_3} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

**8.18** INVALID-NUMER-18 
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2R_1R_3s + R_1R_3g_m}{R_1g_m + s^2\left(C_1C_2R_1R_3 + C_1C_3R_1R_3 + C_2C_3R_1R_3\right) + s\left(C_1R_1 + C_2R_1 + C_2R_3 + C_3R_1R_3g_m + C_3R_3\right) + 1}$$

$$\mathbf{Q}\colon \frac{R_1R_3\sqrt{\frac{R_1g_m+1}{R_1R_3(C_1C_2+C_1C_3+C_2C_3)}}(C_1C_2+C_1C_3+C_2C_3)}{C_1R_1+C_2R_1+C_2R_3+C_3R_1R_3g_m+C_3R_3}$$

```
wo: \sqrt{\frac{R_1g_m+1}{R_1R_3(C_1C_2+C_1C_3+C_2C_3)}} bandwidth: \frac{C_1R_1+C_2R_1+C_2R_3+C_3R_1R_3g_m+C_3R_3}{R_1R_3(C_1C_2+C_1C_3+C_2C_3)} K-LP: \frac{R_1R_3g_m}{R_1g_m+1} K-HP: 0 K-BP: \frac{C_2R_1R_3}{C_1R_1+C_2R_1+C_2R_3+C_3R_1R_3g_m+C_3R_3} Qz: 0 Wz: None
```

# **8.19** INVALID-NUMER-19 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3}{C_1C_2R_1R_2R_3s^2 + R_1R_2g_m + R_1 + R_2 + R_3 + s\left(C_1R_1R_2 + C_1R_1R_3 + C_2R_1R_2 + C_2R_2R_3\right)}$$

### Parameters:

 $\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_1R_2R_3\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_3}{C_1C_2R_1R_2R_3}}}{C_1R_1R_2+C_1R_1R_3+C_2R_1R_2+C_2R_2R_3} \\ \text{wo:} \ \sqrt{\frac{R_1R_2g_m+R_1+R_2+R_3}{C_1C_2R_1R_2R_3}} \\ \text{bandwidth:} \ \frac{C_1R_1R_2+C_1R_1R_3+C_2R_1R_2+C_2R_2R_3}{C_1C_2R_1R_2R_3} \\ \text{K-LP:} \ \frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1R_2R_3}{C_1R_1R_2+C_1R_1R_3+C_2R_1R_2+C_2R_2R_3} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$ 

### **8.20** INVALID-NUMER-20 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2 R_1 R_2 s + R_1 R_2 g_m + R_1}{s^2 \left(C_1 C_2 R_1 R_2 + C_1 C_3 R_1 R_2 + C_2 C_3 R_1 R_2\right) + s \left(C_1 R_1 + C_2 R_2 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2\right) + 1}$$

### Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{R_1R_2\sqrt{\frac{1}{R_1R_2(C_1C_2+C_1C_3+C_2C_3)}}(C_1C_2+C_1C_3+C_2C_3)}{C_1R_1+C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2} \\ \text{wo:} \ \sqrt{\frac{1}{R_1R_2(C_1C_2+C_1C_3+C_2C_3)}} \\ \text{bandwidth:} \ \frac{C_1R_1+C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2}{R_1R_2(C_1C_2+C_1C_3+C_2C_3)} \\ \text{K-LP:} \ R_1 \left(R_2g_m+1\right) \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2R_1R_2}{C_1R_1+C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

# **8.21** INVALID-NUMER-21 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3}{R_1R_2g_m + R_1 + R_2 + R_3 + s^2\left(C_1C_2R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_2C_3R_1R_2R_3\right) + s\left(C_1R_1R_2 + C_1R_1R_3 + C_2R_1R_2 + C_2R_2R_3 + C_3R_1R_2R_3g_m + C_3R_1R_3 + C_3R_2R_3\right)}$$

Q: 
$$\frac{R_1R_2R_3\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_3}{R_1R_2R_3(C_1C_2+C_1C_3+C_2C_3)}}(C_1C_2+C_1C_3+C_2C_3)}{C_1R_1R_2+C_1R_1R_3+C_2R_1R_2+C_2R_2R_3+C_3R_1R_2R_3g_m+C_3R_1R_3+C_3R_2R_3}$$
 wo: 
$$\sqrt{\frac{R_1R_2g_m+R_1+R_2+R_3}{R_1R_2R_3(C_1C_2+C_1C_3+C_2C_3)}}$$
 bandwidth: 
$$\frac{C_1R_1R_2+C_1R_1R_3+C_2R_1R_2+C_2R_2R_3+C_3R_1R_2R_3g_m+C_3R_1R_3+C_3R_2R_3}{R_1R_2R_3(C_1C_2+C_1C_3+C_2C_3)}$$
 K-LP: 
$$\frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3}$$
 K-HP: 
$$0$$
 K-BP: 
$$\frac{C_2R_1R_2R_3}{C_1R_1R_2+C_1R_1R_3+C_2R_1R_2+C_2R_2R_3+C_3R_1R_2R_3g_m+C_3R_1R_3+C_3R_2R_3}{C_1R_1R_2+C_1R_1R_3+C_2R_1R_2+C_2R_2R_3+C_3R_1R_2R_3g_m+C_3R_1R_3+C_3R_2R_3}$$
 Qz: 
$$0$$
 Wz: None

### **8.22** INVALID-NUMER-22 $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_1 R_3 g_m + s \left(C_2 R_1 R_2 R_3 g_m + C_2 R_1 R_3\right)}{R_1 g_m + s^2 \left(C_1 C_2 R_1 R_2 + C_1 C_2 R_1 R_3\right) + s \left(C_1 R_1 + C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_3\right) + 1}$$

#### Parameters:

 $\begin{array}{l} \text{Q:} \ \frac{C_1C_2R_1\sqrt{\frac{R_1g_m+1}{C_1C_2R_1(R_2+R_3)}}(R_2+R_3)}{C_1R_1+C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_3}\\ \text{wo:} \ \sqrt{\frac{R_1g_m+1}{C_1C_2R_1(R_2+R_3)}}\\ \text{bandwidth:} \ \frac{C_1R_1+C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_3}{C_1C_2R_1(R_2+R_3)}\\ \text{K-LP:} \ \frac{R_1R_3g_m}{R_1g_m+1}\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ \frac{C_2R_1R_3(R_2g_m+1)}{C_1R_1+C_2R_1R_2g_m+C_2R_1+C_2R_2+C_2R_3}\\ \text{Qz:} \ 0 \end{array}$ 

### **8.23** INVALID-NUMER-23 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s \left(C_1 R_1 R_2 R_3 g_m + C_1 R_1 R_3\right)}{R_2 g_m + s^2 \left(C_1 C_3 R_1 R_2 R_3 g_m + C_1 C_3 R_1 R_3 + C_1 C_3 R_2 R_3\right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_3 + C_3 R_2 R_3 g_m + C_3 R_3\right) + 1}$$

### Parameters:

Wz: None

 $\begin{array}{l} \text{Q:} \ \frac{C_1C_3R_3\sqrt{\frac{R_2g_m+1}{C_1C_3R_3(R_1R_2g_m+R_1+R_2)}}(R_1R_2g_m+R_1+R_2)}{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_3+C_3R_2R_3g_m+C_3R_3}\\ \text{wo:} \ \sqrt{\frac{R_2g_m+1}{C_1C_3R_3(R_1R_2g_m+R_1+R_2)}}\\ \text{bandwidth:} \ \frac{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_3+C_3R_2R_3g_m+C_3R_3}{C_1C_3R_3(R_1R_2g_m+R_1+R_2)}\\ \text{K-LP:} \ R_3\\ \text{K-HP:} \ 0\\ \text{K-BP:} \ \frac{C_1R_1R_3(R_2g_m+1)}{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_3+C_3R_2R_3g_m+C_3R_3}\\ \text{Qz:} \ 0\\ \text{Wz:} \ \text{None} \end{array}$ 

# **8.24** INVALID-NUMER-24 $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2 L_1 s + L_1 g_m}{C_2 + C_3 L_1 g_m s + C_3 + s^2 \left( C_1 C_2 L_1 + C_1 C_3 L_1 + C_2 C_3 L_1 \right)}$$

### Parameters:

$$\begin{array}{l} \text{Q:} \ \frac{\sqrt{\frac{C_2+C_3}{L_1(C_1C_2+C_1C_3+C_2C_3)}}(C_1C_2+C_1C_3+C_2C_3)}{C_3g_m} \\ \text{wo:} \ \sqrt{\frac{C_2+C_3}{L_1(C_1C_2+C_1C_3+C_2C_3)}} \\ \text{bandwidth:} \ \frac{C_3g_m}{C_1C_2+C_1C_3+C_2C_3} \\ \text{K-LP:} \ \frac{L_1g_m}{C_2+C_3} \\ \text{K-HP:} \ 0 \\ \text{K-BP:} \ \frac{C_2}{C_3g_m} \\ \text{Qz:} \ 0 \\ \text{Wz:} \ \text{None} \end{array}$$

**8.25** INVALID-NUMER-25 
$$Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_1R_1s + L_1R_1g_m}{C_2R_1 + C_3R_1 + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1\right) + s\left(C_2L_1 + C_3L_1R_1g_m + C_3L_1\right)}$$

Q: 
$$\frac{R_1\sqrt{\frac{C_2+C_3}{L_1(C_1C_2+C_1C_3+C_2C_3)}}(C_1C_2+C_1C_3+C_2C_3)}{C_2+C_3R_1g_m+C_3}$$

wo: 
$$\sqrt{\frac{C_2 + C_3}{L_1(C_1C_2 + C_1C_3 + C_2C_3)}}$$
  
bandwidth:  $\frac{C_2 + C_3R_1g_m + C_3}{R_1(C_1C_2 + C_1C_3 + C_2C_3)}$ 

K-LP:  $\frac{L_1g_m}{C_2+C_3}$ K-HP: 0

K-BP:  $\frac{C_2 R_1}{C_2 + C_3 R_1 g_m + C_3}$ Qz: 0

Qz: 0 Wz: None

### 9 INVALID-WZ

**9.1** INVALID-WZ-1 
$$Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3R_1R_2R_3s^2 + R_1R_2g_m + R_1 + s\left(C_2R_1R_2 + C_3R_1R_2R_3g_m + C_3R_1R_3\right)}{s^2\left(C_2C_3R_1R_2 + C_2C_3R_2R_3\right) + s\left(C_2R_2 + C_3R_1R_2g_m + C_3R_1 + C_3R_2 + C_3R_3\right) + 1}$$

#### Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_2C_3R_2\sqrt{\frac{1}{C_2C_3R_2(R_1+R_3)}}(R_1+R_3)}{C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2+C_3R_3} \\ & \text{wo:} \ \sqrt{\frac{1}{C_2C_3R_2(R_1+R_3)}} \\ & \text{bandwidth:} \ \frac{C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2+C_3R_3}{C_2C_3R_2(R_1+R_3)} \\ & \text{K-LP:} \ R_1\left(R_2g_m+1\right) \\ & \text{K-HP:} \ \frac{R_1R_3}{R_1+R_3} \\ & \text{K-BP:} \ \frac{R_1(C_2R_2+C_3R_2R_3g_m+C_3R_3)}{C_2R_2+C_3R_1R_2g_m+C_3R_1+C_3R_2+C_3R_3} \\ & \text{Qz:} \ \frac{C_2C_3R_2R_3\sqrt{\frac{1}{C_2C_3R_2(R_1+R_3)}}}{C_2R_2+C_3R_2R_3g_m+C_3R_3} \\ & \text{Wz:} \ \sqrt{\frac{R_2g_m+1}{C_2C_3R_2R_3}} \end{aligned}$$

## **9.2** INVALID-WZ-2 $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_2 C_3 L_1 R_3 s^2 + L_1 g_m + s \left( C_2 L_1 + C_3 L_1 R_3 g_m \right)}{C_2 C_3 L_1 s^2 + C_2 + C_3 + s \left( C_2 C_3 R_3 + C_3 L_1 g_m \right)}$$

### Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_2L_1\sqrt{\frac{C_2+C_3}{C_2C_3L_1}}}{C_2R_3+L_1g_m} \\ & \text{wo:} \ \sqrt{\frac{C_2+C_3}{C_2C_3L_1}} \\ & \text{bandwidth:} \ \frac{C_2R_3+L_1g_m}{C_2L_1} \\ & \text{K-LP:} \ \frac{L_1g_m}{C_2+C_3} \\ & \text{K-HP:} \ R_3 \\ & \text{K-BP:} \ \frac{L_1(C_2+C_3R_3g_m)}{C_3(C_2R_3+L_1g_m)} \\ & \text{Qz:} \ \frac{C_2C_3R_3\sqrt{\frac{C_2+C_3}{C_2C_3L_1}}}{C_2+C_3R_3g_m} \\ & \text{Wz:} \ \sqrt{\frac{g_m}{C_2C_3R_3}} \end{aligned}$$

**9.3** INVALID-WZ-3 
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{L_1 g_m + s^2 \left( C_2 C_3 L_1 R_2 R_3 g_m + C_2 C_3 L_1 R_3 \right) + s \left( C_2 L_1 R_2 g_m + C_2 L_1 + C_3 L_1 R_3 g_m \right)}{C_2 + C_3 + s^2 \left( C_2 C_3 L_1 R_2 g_m + C_2 C_3 L_1 \right) + s \left( C_2 C_3 R_2 + C_2 C_3 R_3 + C_3 L_1 g_m \right)}$$

$$\begin{aligned} &\mathbf{Q} \colon \frac{C_2 L_1 \sqrt{\frac{C_2 + C_3}{C_2 C_3 L_1 (R_2 g_m + 1)}} (R_2 g_m + 1)}{C_2 R_2 + C_2 R_3 + L_1 g_m} \\ &\mathbf{wo:} \ \sqrt{\frac{C_2 + C_3}{C_2 C_3 L_1 (R_2 g_m + 1)}} \end{aligned}$$

```
bandwidth: \frac{C_2R_2+C_2R_3+L_1g_m}{C_2L_1(R_2g_m+1)} K-LP: \frac{L_1g_m}{C_2+C_3} K-HP: R_3 K-BP: \frac{L_1(C_2R_2g_m+C_2+C_3R_3g_m)}{C_3(C_2R_2+C_2R_3+L_1g_m)} Qz: \frac{C_2C_3R_3\sqrt{\frac{C_2+C_3}{C_2C_3L_1(R_2g_m+1)}}(R_2g_m+1)}{C_2R_2g_m+C_2+C_3R_3g_m} Wz: \sqrt{\frac{g_m}{C_2C_3R_3(R_2g_m+1)}}
```

### **9.4** INVALID-WZ-4 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_1 C_2 R_1 R_3 s^2 + R_3 g_m + s \left(C_1 R_1 R_3 g_m + C_2 R_3\right)}{g_m + s^2 \left(C_1 C_2 R_1 + C_1 C_2 R_3\right) + s \left(C_1 R_1 g_m + C_1 + C_2\right)}$$

### Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_1C_2\sqrt{\frac{g_m}{C_1C_2(R_1+R_3)}}(R_1+R_3)}{C_1R_1g_m+C_1+C_2} \\ & \text{wo:} \ \sqrt{\frac{g_m}{C_1C_2(R_1+R_3)}} \\ & \text{bandwidth:} \ \frac{C_1R_1g_m+C_1+C_2}{C_1C_2(R_1+R_3)} \\ & \text{K-LP:} \ R_3 \\ & \text{K-HP:} \ \frac{R_1R_3}{R_1+R_3} \\ & \text{K-BP:} \ \frac{R_3(C_1R_1g_m+C_2)}{C_1R_1g_m+C_1+C_2} \\ & \text{Qz:} \ \frac{C_1C_2R_1\sqrt{\frac{g_m}{C_1C_2(R_1+R_3)}}}{C_1R_1g_m+C_2} \\ & \text{Wz:} \ \sqrt{\frac{g_m}{C_1C_2R_1}} \end{aligned}$$

## **9.5** INVALID-WZ-5 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$

$$H(s) = \frac{C_1C_2R_1R_2R_3s^2 + R_2R_3g_m + R_3 + s\left(C_1R_1R_2R_3g_m + C_1R_1R_3 + C_2R_2R_3\right)}{R_2g_m + s^2\left(C_1C_2R_1R_2 + C_1C_2R_2R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_1R_3 + C_2R_2\right) + 1}$$

#### Parameters:

$$\begin{aligned} & \text{Q:} \ \frac{C_1C_2R_2\sqrt{\frac{R_2g_m+1}{C_1C_2R_2(R_1+R_3)}}(R_1+R_3)}{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_3+C_2R_2} \\ & \text{wo:} \ \sqrt{\frac{R_2g_m+1}{C_1C_2R_2(R_1+R_3)}} \\ & \text{bandwidth:} \ \frac{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_3+C_2R_2}{C_1C_2R_2(R_1+R_3)} \\ & \text{K-LP:} \ R_3 \\ & \text{K-HP:} \ \frac{R_1R_3}{R_1+R_3} \\ & \text{K-BP:} \ \frac{R_3(C_1R_1R_2g_m+C_1R_1+C_2R_2)}{C_1R_1R_2g_m+C_1R_1+C_1R_2+C_1R_3+C_2R_2} \\ & \text{Qz:} \ \frac{C_1C_2R_1R_2\sqrt{\frac{R_2g_m+1}{C_1C_2R_2(R_1+R_3)}}}{C_1R_1R_2g_m+C_1R_1+C_2R_2} \\ & \text{Wz:} \ \sqrt{\frac{R_2g_m+1}{C_1C_2R_1R_2}} \end{aligned}$$

## **9.6** INVALID-WZ-6 $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty\right)$

$$H(s) = \frac{R_3 g_m + s^2 \left( C_1 C_2 R_1 R_2 R_3 g_m + C_1 C_2 R_1 R_3 \right) + s \left( C_1 R_1 R_3 g_m + C_2 R_2 R_3 g_m + C_2 R_3 \right)}{g_m + s^2 \left( C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 C_2 R_2 + C_1 C_2 R_3 \right) + s \left( C_1 R_1 g_m + C_1 + C_2 R_2 g_m + C_2 \right)}$$

$$\begin{aligned} & \text{Q:} \ \frac{C_1C_2\sqrt{\frac{g_m}{C_1C_2(R_1R_2g_m+R_1+R_2+R_3)}}(R_1R_2g_m+R_1+R_2+R_3)}{C_1R_1g_m+C_1+C_2R_2g_m+C_2} \\ & \text{wo:} \ \sqrt{\frac{g_m}{C_1C_2(R_1R_2g_m+R_1+R_2+R_3)}} \\ & \text{bandwidth:} \ \frac{C_1R_1g_m+C_1+C_2R_2g_m+C_2}{C_1C_2(R_1R_2g_m+R_1+R_2+R_3)} \\ & \text{K-LP:} \ R_3 \\ & \text{K-HP:} \ \frac{R_1R_3(R_2g_m+1)}{R_1R_2g_m+R_1+R_2+R_3} \\ & \text{K-BP:} \ \frac{R_3(C_1R_1g_m+C_2R_2g_m+C_2)}{C_1R_1g_m+C_1+C_2R_2g_m+C_2} \end{aligned}$$

Qz: 
$$\frac{C_1C_2R_1\sqrt{\frac{g_m}{C_1C_2(R_1R_2g_m+R_1+R_2+R_3)}(R_2g_m+1)}}{C_1R_1g_m+C_2R_2g_m+C_2}$$
Wz: 
$$\sqrt{\frac{g_m}{C_1C_2R_1(R_2g_m+1)}}$$

### 10 INVALID-ORDER

10.1 INVALID-ORDER-1  $Z(s) = (R_1, R_2, R_3, \infty, \infty, \infty)$ 

$$H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3}{R_1 R_2 g_m + R_1 + R_2 + R_3}$$

10.2 INVALID-ORDER-2  $Z(s) = \left(R_1, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 R_2 g_m + R_1}{s \left( C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 \right) + 1}$$

10.3 INVALID-ORDER-3  $Z(s) = \left(R_1, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s \left(C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3 + C_3 R_2 R_3\right)}$$

10.4 INVALID-ORDER-4  $Z(s) = \left(R_1, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s \left( C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3 \right)}{s \left( C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 + C_3 R_3 \right) + 1}$$

10.5 INVALID-ORDER-5  $Z(s) = \left(R_1, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 R_1 R_3 s + R_1 R_3 g_m}{R_1 g_m + s \left(C_2 R_1 + C_2 R_3\right) + 1}$$

10.6 INVALID-ORDER-6  $Z(s) = \left(R_1, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 R_1 s + R_1 g_m}{C_2 C_3 R_1 s^2 + s \left(C_2 + C_3 R_1 g_m + C_3\right)}$$

10.7 INVALID-ORDER-7  $Z(s) = \left(R_1, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 C_3 R_1 R_3 s^2 + R_1 g_m + s (C_2 R_1 + C_3 R_1 R_3 g_m)}{s^2 (C_2 C_3 R_1 + C_2 C_3 R_3) + s (C_2 + C_3 R_1 g_m + C_3)}$$

10.8 INVALID-ORDER-8  $Z(s) = \left(R_1, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 C_3 L_3 R_1 s^3 + C_2 R_1 s + C_3 L_3 R_1 g_m s^2 + R_1 g_m}{C_2 C_3 L_3 s^3 + C_2 C_3 R_1 s^2 + s \left(C_2 + C_3 R_1 g_m + C_3\right)}$$

10.9 INVALID-ORDER-9 
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2 L_3 R_1 s^2 + L_3 R_1 g_m s}{C_2 C_3 L_3 R_1 s^3 + C_2 R_1 s + R_1 g_m + s^2 \left( C_2 L_3 + C_3 L_3 R_1 g_m + C_3 L_3 \right) + 1}$$

**10.10** INVALID-ORDER-10 
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_1s^3 + R_1g_m + s^2\left(C_2C_3R_1R_3 + C_3L_3R_1g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{C_2C_3L_3s^3 + s^2\left(C_2C_3R_1 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

**10.11** INVALID-ORDER-11 
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_3R_1R_3s^2 + L_3R_1R_3g_ms}{C_2C_3L_3R_1R_3s^3 + R_1R_3g_m + R_3 + s^2\left(C_2L_3R_1 + C_2L_3R_3 + C_3L_3R_1R_3g_m + C_3L_3R_3\right) + s\left(C_2R_1R_3 + L_3R_1g_m + L_3\right)}$$

**10.12** INVALID-ORDER-12 
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_1R_3s^3 + R_1R_3g_m + s^2\left(C_2L_3R_1 + C_3L_3R_1R_3g_m\right) + s\left(C_2R_1R_3 + L_3R_1g_m\right)}{R_1g_m + s^3\left(C_2C_3L_3R_1 + C_2C_3L_3R_3\right) + s^2\left(C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_2R_1 + C_2R_3\right) + 1}$$

10.13 INVALID-ORDER-13 
$$Z(s) = \left(R_1, \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_1R_3s^3 + C_2R_1R_3s + C_3L_3R_1R_3g_ms^2 + R_1R_3g_m}{R_1g_m + s^3\left(C_2C_3L_3R_1 + C_2C_3L_3R_3\right) + s^2\left(C_2C_3R_1R_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_2R_1 + C_2R_3 + C_3R_1R_3g_m + C_3R_3\right) + 1}$$

**10.14** INVALID-ORDER-14  $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 R_1 R_2 R_3 s + R_1 R_2 R_3 g_m + R_1 R_3}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s \left(C_2 R_1 R_2 + C_2 R_2 R_3\right)}$$

**10.15** INVALID-ORDER-15  $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_3R_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_3L_3R_1R_2g_m + C_3L_3R_1\right)}{C_2C_3L_3R_2s^3 + s^2\left(C_2C_3R_1R_2 + C_3L_3\right) + s\left(C_2R_2 + C_3R_1R_2g_m + C_3R_1 + C_3R_2\right) + 1}$$

**10.16** INVALID-ORDER-16  $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_3R_1R_2s^2 + s\left(L_3R_1R_2g_m + L_3R_1\right)}{C_2C_3L_3R_1R_2s^3 + R_1R_2g_m + R_1 + R_2 + s^2\left(C_2L_3R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_1\right) + s\left(C_2R_1R_2 + L_3\right)}$$

**10.17** INVALID-ORDER-17  $Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_3R_1R_2s^3 + R_1R_2g_m + R_1 + s^2\left(C_2C_3R_1R_2R_3 + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s\left(C_2R_1R_2 + C_3R_1R_2R_3g_m + C_3R_1R_3\right)}{C_2C_3L_3R_2s^3 + s^2\left(C_2C_3R_1R_2 + C_2C_3R_2R_3 + C_3L_3\right) + s\left(C_2R_2 + C_3R_1R_2g_m + C_3R_1 + C_3R_2 + C_3R_3\right) + 1}$$

**10.18** INVALID-ORDER-18  $Z(s) = \left(R_1, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_3R_1R_2R_3s^2 + s\left(L_3R_1R_2R_3g_m + L_3R_1R_3\right)}{C_2C_3L_3R_1R_2R_3s^3 + R_1R_2R_3g_m + R_1R_3 + R_2R_3 + s^2\left(C_2L_3R_1R_2 + C_2L_3R_2R_3 + C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3 + C_3L_3R_2R_3\right) + s\left(C_2R_1R_2R_3 + L_3R_1R_2g_m + L_3R_1 + L_3R_2 + L_3R_3\right)}$$

10.19 INVALID-ORDER-19 
$$Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$$

$$C_2C_2L_2R_1R_2R_2S_3^3 + R_1R_2R_2S_3 + R_1R_2R_2S_3 + R_1R_2S_3 + S_2^2(C_2L_2R_1R_2 + C_2L_2R_1R_2R_2 + C_2L_2R_1R_2 + C_2L_2R_1R_$$

$$H(s) = \frac{C_2C_3L_3R_1R_2R_3s^3 + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_3R_1R_2 + C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3\right) + s\left(C_2R_1R_2R_3 + L_3R_1R_2g_m + L_3R_1\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_2C_3L_3R_1R_2 + C_2C_3L_3R_2R_3\right) + s^2\left(C_2L_3R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_2 + C_3L_3R_3\right) + s\left(C_2R_1R_2R_3 + L_3R_1R_2g_m + L_3R_1\right)}$$

**10.20** INVALID-ORDER-20 
$$Z(s) = \left(R_1, \frac{R_2}{C_2R_2s+1}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_1R_2R_3s^3 + C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_2C_3L_3R_1R_2 + C_2C_3L_3R_2R_3\right) + s^2\left(C_2C_3R_1R_2R_3 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_3\right) + s\left(C_2R_1R_2 + C_2R_2R_3 + C_3R_1R_2R_3g_m + C_3R_1R_2R_3g_m + C_3R_3R_3\right)}$$

**10.21** INVALID-ORDER-21  $Z(s) = \left(R_1, \ R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{R_1 R_3 g_m + s \left(C_2 R_1 R_2 R_3 g_m + C_2 R_1 R_3\right)}{R_1 g_m + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_3\right) + 1}$$

**10.22** INVALID-ORDER-22  $Z(s) = \left(R_1, \ R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{R_1 g_m + s \left( C_2 R_1 R_2 g_m + C_2 R_1 \right)}{s^2 \left( C_2 C_3 R_1 R_2 g_m + C_2 C_3 R_1 + C_2 C_3 R_2 \right) + s \left( C_2 + C_3 R_1 g_m + C_3 \right)}$$

**10.23** INVALID-ORDER-23  $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 g_m + s^2 \left( C_2 C_3 R_1 R_2 R_3 g_m + C_2 C_3 R_1 R_3 \right) + s \left( C_2 R_1 R_2 g_m + C_2 R_1 + C_3 R_1 R_3 g_m \right)}{s^2 \left( C_2 C_3 R_1 R_2 g_m + C_2 C_3 R_1 + C_2 C_3 R_2 + C_2 C_3 R_3 \right) + s \left( C_2 + C_3 R_1 g_m + C_3 \right)}$$

**10.24** INVALID-ORDER-24  $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_3 L_3 R_1 g_m s^2 + R_1 g_m + s^3 \left( C_2 C_3 L_3 R_1 R_2 g_m + C_2 C_3 L_3 R_1 \right) + s \left( C_2 R_1 R_2 g_m + C_2 R_1 \right)}{C_2 C_3 L_3 s^3 + s^2 \left( C_2 C_3 R_1 R_2 g_m + C_2 C_3 R_1 + C_2 C_3 R_2 \right) + s \left( C_2 + C_3 R_1 g_m + C_3 \right)}$$

10.25 INVALID-ORDER-25  $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_3 R_1 g_m s + s^2 \left(C_2 L_3 R_1 R_2 g_m + C_2 L_3 R_1\right)}{R_1 g_m + s^3 \left(C_2 C_3 L_3 R_1 R_2 g_m + C_2 C_3 L_3 R_1 + C_2 C_3 L_3 R_2\right) + s^2 \left(C_2 L_3 + C_3 L_3 R_1 g_m + C_3 L_3\right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2\right) + 1}$$

10.26 INVALID-ORDER-26  $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1g_m + s^3\left(C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1\right) + s^2\left(C_2C_3R_1R_2R_3g_m + C_2C_3R_1R_3 + C_3L_3R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_3R_1R_3g_m\right)}{C_2C_3L_3s^3 + s^2\left(C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_2 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

10.27 INVALID-ORDER-27  $Z(s) = \left(R_1, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_3R_1R_3g_ms + s^2\left(C_2L_3R_1R_2R_3g_m + C_2L_3R_1R_3\right)}{R_1R_3g_m + R_3 + s^3\left(C_2C_3L_3R_1R_2R_3g_m + C_2C_3L_3R_1R_3 + C_2C_3L_3R_1R_2g_m + C_2L_3R_1 + C_2L_3R_2 + C_2L_3R_3 + C_3L_3R_3\right) + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3 + C_2R_2R_3 + L_3R_1g_m + L_3\right)}$$

**10.28** INVALID-ORDER-28  $Z(s) = \left(R_1, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{R_1 R_3 g_m + s^3 \left(C_2 C_3 L_3 R_1 R_2 R_3 g_m + C_2 C_3 L_3 R_1 R_3\right) + s^2 \left(C_2 L_3 R_1 R_2 g_m + C_2 L_3 R_1 + C_3 L_3 R_1 R_3 g_m\right) + s \left(C_2 R_1 R_2 R_3 g_m + C_2 R_1 R_3 + L_3 R_1 g_m\right)}{R_1 g_m + s^3 \left(C_2 C_3 L_3 R_1 R_2 g_m + C_2 C_3 L_3 R_1 + C_2 C_3 L_3 R_2 + C_2 C_3 L_3 R_3\right) + s^2 \left(C_2 L_3 + C_3 L_3 R_1 g_m + C_3 L_3\right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_3\right) + 1}$$

$$\textbf{10.29} \quad \textbf{INVALID-ORDER-29} \ Z(s) = \left( R_1, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left( C_3 L_3 s^2 + 1 \right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty \right)$$
 
$$H(s) = \frac{C_3 L_3 R_1 R_3 g_m s^2 + R_1 R_3 g_m + s^3 \left( C_2 C_3 L_3 R_1 R_2 R_3 g_m + C_2 C_3 L_3 R_1 R_3 \right) + s \left( C_2 R_1 R_2 R_3 g_m + C_2 R_1 R_3 \right) }{R_1 g_m + s^3 \left( C_2 C_3 L_3 R_1 R_2 g_m + C_2 C_3 L_3 R_3 \right) + s^2 \left( C_2 C_3 R_1 R_2 R_3 g_m + C_2 C_3 R_2 R_3 + C_3 L_3 R_1 g_m + C_3 L_3 \right) + s \left( C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2 + C_2 R_3 + C_3 R_1 R_3 g_m + C_3 R_3 \right) + 1 }$$

10.30 INVALID-ORDER-30  $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 L_2 R_1 g_m s^2 + C_2 R_1 s + R_1 g_m}{C_2 C_3 R_1 s^2 + s^3 \left( C_2 C_3 L_2 R_1 g_m + C_2 C_3 L_2 \right) + s \left( C_2 + C_3 R_1 g_m + C_3 \right)}$$

**10.31** INVALID-ORDER-31  $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2R_1R_3g_ms^2 + C_2R_1R_3s + R_1R_3g_m}{R_1g_m + s^3\left(C_2C_3L_2R_1R_3g_m + C_2C_3L_2R_3\right) + s^2\left(C_2C_3R_1R_3 + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_2R_1 + C_2R_3 + C_3R_1R_3g_m + C_3R_3\right) + 1}$$

**10.32** INVALID-ORDER-32  $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2R_1R_3g_ms^3 + R_1g_m + s^2\left(C_2C_3R_1R_3 + C_2L_2R_1g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{s^3\left(C_2C_3L_2R_1g_m + C_2C_3L_2\right) + s^2\left(C_2C_3R_1 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

**10.33** INVALID-ORDER-33  $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2L_3R_1g_ms^4 + C_2C_3L_3R_1s^3 + C_2R_1s + R_1g_m + s^2\left(C_2L_2R_1g_m + C_3L_3R_1g_m\right)}{C_2C_3R_1s^2 + s^3\left(C_2C_3L_2R_1g_m + C_2C_3L_2 + C_2C_3L_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

**10.34** INVALID-ORDER-34  $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2L_3R_1g_ms^3 + C_2L_3R_1s^2 + L_3R_1g_ms}{C_2C_3L_3R_1s^3 + C_2R_1s + R_1g_m + s^4\left(C_2C_3L_2L_3R_1g_m + C_2C_3L_2L_3\right) + s^2\left(C_2L_2R_1g_m + C_2L_2 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + 1}$$

10.35 INVALID-ORDER-35  $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2L_3R_1g_ms^4 + R_1g_m + s^3\left(C_2C_3L_2R_1R_3g_m + C_2C_3L_3R_1\right) + s^2\left(C_2C_3R_1R_3 + C_2L_2R_1g_m + C_3L_3R_1g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{s^3\left(C_2C_3L_2R_1g_m + C_2C_3L_2 + C_2C_3L_3\right) + s^2\left(C_2C_3R_1 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

**10.36** INVALID-ORDER-36  $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2L_3R_1R_3g_ms^3 + C_2L_3R_1R_3g^2 + L_3R_1R_3g_ms}{R_1R_3g_m + R_3 + s^4\left(C_2C_3L_2L_3R_1R_3g_m + C_2C_3L_2L_3R_3\right) + s^3\left(C_2C_3L_3R_1R_3 + C_2L_2L_3R_1g_m + C_2L_2L_3\right) + s^2\left(C_2L_2R_1R_3g_m + C_2L_2R_3 + C_2L_3R_1 + C_2L_3R_3 + C_3L_3R_1R_3g_m + C_3L_3R_3\right) + s\left(C_2R_1R_3 + L_3R_1g_m + C_3L_3R_3\right) + s\left(C_2R_1R_3 + L_3R_3R_3\right) + s\left(C_2R_1R_3 + L_3R_3$$

**10.37** INVALID-ORDER-37  $Z(s) = \left(R_1, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2L_3R_1R_3g_ms^4 + R_1R_3g_m + s^3\left(C_2C_3L_3R_1R_3 + C_2L_2L_3R_1g_m\right) + s^2\left(C_2L_2R_1R_3g_m + C_2L_3R_1 + C_3L_3R_1R_3g_m\right) + s\left(C_2R_1R_3 + L_3R_1g_m\right)}{R_1g_m + s^4\left(C_2C_3L_2L_3R_1g_m + C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_3R_1 + C_2C_3L_3R_3\right) + s^2\left(C_2L_2R_1g_m + C_2L_2 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_2R_1R_3 + L_3R_1g_m\right)}$$

**10.39** INVALID-ORDER-39  $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2R_1g_ms^2 + R_1g_m + s\left(C_2R_1R_2g_m + C_2R_1\right)}{s^3\left(C_2C_3L_2R_1g_m + C_2C_3L_2\right) + s^2\left(C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_2\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

**10.40** INVALID-ORDER-40  $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2R_1R_3g_ms^2 + R_1R_3g_m + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3\right)}{R_1g_m + s^3\left(C_2C_3L_2R_1R_3g_m + C_2C_3L_2R_3\right) + s^2\left(C_2C_3R_1R_2R_3g_m + C_2C_3R_1R_3 + C_2C_3R_2R_3 + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_3 + C_3R_1R_3g_m + C_3R_3\right) + 1}$$

10.41 INVALID-ORDER-41  $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2R_1R_3g_ms^3 + R_1g_m + s^2\left(C_2C_3R_1R_2R_3g_m + C_2C_3R_1R_3 + C_2L_2R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_3R_1R_3g_m\right)}{s^3\left(C_2C_3L_2R_1g_m + C_2C_3L_2\right) + s^2\left(C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_2 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

**10.42** INVALID-ORDER-42  $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2L_3R_1g_ms^4 + R_1g_m + s^3\left(C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1\right) + s^2\left(C_2L_2R_1g_m + C_3L_3R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{s^3\left(C_2C_3L_2R_1g_m + C_2C_3L_2 + C_2C_3L_3\right) + s^2\left(C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_2\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

10.43 INVALID-ORDER-43  $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2R_1g_ms^3 + L_3R_1g_ms + s^2\left(C_2L_3R_1R_2g_m + C_2L_3R_1\right)}{R_1g_m + s^4\left(C_2C_3L_2L_3R_1g_m + C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1 + C_2C_3L_3R_2\right) + s^2\left(C_2L_2R_1g_m + C_2L_2 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_2R_2\right) + 1}$$

**10.44** INVALID-ORDER-44  $Z(s) = \left(R_1, L_2s + R_2 + \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2L_3R_1g_ms^4 + R_1g_m + s^3\left(C_2C_3L_2R_1R_3g_m + C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1\right) + s^2\left(C_2C_3R_1R_2R_3g_m + C_2C_3R_1R_3 + C_2L_2R_1g_m + C_3L_3R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_2g_m + C_2R_1R_3g_m\right)}{s^3\left(C_2C_3L_2R_1g_m + C_2C_3L_2 + C_2C_3L_3\right) + s^2\left(C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_2 + C_2C_3R_3\right) + s\left(C_2+C_3R_1g_m + C_3L_3R_1g_m\right)} + s\left(C_2R_1R_2g_m + C_2R_1R_2g_m + C_2R_1R_2g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_2g_m\right) +$$

10.45 INVALID-ORDER-45  $Z(s) = \left(R_1, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3R_3s}{C_3L_3R_3s^2 + L_3s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2R_1R_3g_ms^3 + L_3R_1R_3g_ms + s^2\left(C_2L_3R_1R_2R_3g_m + C_2L_3R_1R_3\right)}{R_1R_3g_m + R_3 + s^4\left(C_2C_3L_2L_3R_1R_3g_m + C_2C_3L_2L_3R_3\right) + s^3\left(C_2C_3L_3R_1R_2R_3g_m + C_2L_3R_1R_3g_m + C_2L_2R_3R_3g_m + C_2L_3R_1R_2g_m + C_2L_3$$

10.46 INVALID-ORDER-46  $Z(s) = \left(R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2L_3R_1R_3g_ms^4 + R_1R_3g_m + s^3\left(C_2C_3L_3R_1R_2R_3g_m + C_2C_3L_3R_1R_3 + C_2L_2L_3R_1g_m\right) + s^2\left(C_2L_2R_1R_3g_m + C_2L_3R_1R_2g_m + C_2L_3R_1 + C_3L_3R_1R_3g_m\right) + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3 + L_3R_1g_m\right)}{R_1g_m + s^4\left(C_2C_3L_2L_3R_1g_m + C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1 + C_2C_3L_3R_3\right) + s^2\left(C_2L_2R_1g_m + C_2L_2 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_2R_1R_2g_m + C_2R_1R_3 + L_3R_1g_m\right)}$$

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10.47 INVALID-ORDER-47 Z(s) = \left(R_1, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)
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 $H(s) = \frac{C_2C_3L_2L_3R_1R_3g_m + s^3\left(C_2C_3L_3R_1R_2R_3g_m + C_2C_3L_3R_1R_3g_m + C_3L_3R_1R_3g_m + s^2\left(C_2L_2R_1R_3g_m + C_3L_3R_1R_3g_m + s^2\left(C_2L_2R_1R_3g_m + C_2L_2R_1R_3g_m + C_2R_1R_3g_m + C$ 

**10.48** INVALID-ORDER-48  $Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_2 R_1 g_m s + R_1 R_2 g_m + R_1 + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right)}{s^3 \left(C_2 C_3 L_2 R_1 R_2 g_m + C_2 C_3 L_2 R_1 + C_2 C_3 L_2 R_2\right) + s^2 \left(C_2 L_2 + C_3 L_2 R_1 g_m + C_3 L_2\right) + s \left(C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2\right) + 1}$$

**10.49** INVALID-ORDER-49  $Z(s) = \left(R_1, \frac{L_{2}s}{C_2L_2s^2+1} + R_2, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_2R_1R_3g_ms + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_2C_3L_2R_1R_2R_3g_m + C_2C_3L_2R_1R_3 + C_2C_3L_2R_1R_3 + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_3 + C_3L_2R_1R_3g_m + C_3L_2R_3\right) + s\left(C_3R_1R_2R_3g_m + C_3R_1R_3 + C_3R_2R_3 + L_2R_1g_m + L_2\right)}$$

**10.50** INVALID-ORDER-50  $Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_2 C_3 L_2 R_1 R_2 R_3 g_m + C_2 C_3 L_2 R_1 R_3\right) + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 + C_3 L_2 R_1 R_3 g_m\right) + s \left(C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3 + L_2 R_1 g_m\right)}{s^3 \left(C_2 C_3 L_2 R_1 R_2 g_m + C_2 C_3 L_2 R_1 + C_2 C_3 L_2 R_2 + C_2 C_3 L_2 R_3\right) + s^2 \left(C_2 L_2 + C_3 L_2 R_1 g_m + C_3 L_2\right) + s \left(C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 + C_3 R_3\right) + 1}$$

10.51 INVALID-ORDER-51  $Z(s) = \left(R_1, \ \frac{L_{2s}}{C_2L_2s^2+1} + R_2, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_3L_2L_3R_1g_ms^3 + L_2R_1g_ms + R_1R_2g_m + R_1 + s^4\left(C_2C_3L_2L_3R_1R_2g_m + C_2C_3L_2L_3R_1\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1\right)}{C_2C_3L_2L_3s^4 + s^3\left(C_2C_3L_2R_1R_2g_m + C_2C_3L_2R_1 + C_2C_3L_2R_2\right) + s^2\left(C_2L_2 + C_3L_2R_1g_m + C_3L_2 + C_3L_3\right) + s\left(C_3R_1R_2g_m + C_3R_1R_2g_m + C_3R_1 + C_3R_2\right) + 1}$$

10.52 INVALID-ORDER-52  $Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_2L_3R_1g_ms^2 + s^3\left(C_2L_2L_3R_1R_2g_m + C_2L_2L_3R_1\right) + s\left(L_3R_1R_2g_m + L_3R_1\right)}{R_1R_2g_m + R_1 + R_2 + s^4\left(C_2C_3L_2L_3R_1R_2g_m + C_2C_3L_2L_3R_1 + C_2C_3L_2L_3R_1\right) + s^3\left(C_2L_2L_3R_1g_m + C_3L_2L_3\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s\left(L_3R_1R_2g_m + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s\left(L_3R_1R_2g_m + C_3L_3R_1R_2g_m + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s\left(L_3R_1R_2g_m + C_3L_3R_1\right)$$

**10.53** INVALID-ORDER-53  $Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_2 C_3 L_2 L_3 R_1\right) + s^3 \left(C_2 C_3 L_2 R_1 R_2 R_3 g_m + C_2 C_3 L_2 R_1 R_3 + C_3 L_2 R_1 R_3 g_m + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1 R_2 g_m + C_3 L_3 R_1 R_2 g_m + C_3 L_2 R_1 R_3 g_m + C_3 L_2 R_1 R_2 R_2 g_m + C_3 L_2 R_1 R_2 g_m + C_3 L_2 R_2 R_2 g_m + C_3 L_2 R_2 R_2 g_m + C_3 L_2 R_3 R_2 g_m + C$$

**10.54** INVALID-ORDER-54  $Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_2L_3R_1R_3g_ms^2 + s^3\left(C_2L_2L_3R_1R_2R_3g_m + C_2L_2L_3R_1R_3\right) + s\left(L_3R_1R_2R_3g_m + L_3R_1R_3\right)}{R_1R_2R_3g_m + R_1R_3 + R_2R_3 + s^4\left(C_2C_3L_2L_3R_1R_2R_3g_m + C_2L_2L_3R_1 + C_2L_2L_3R_1 + C_2L_2L_3R_3 + C_3L_2L_3R_1R_3g_m + C_3L_2L_3R_1R_2R_3g_m + C_2L_2R_1R_3 + C_2L_2R_1R_3 + C_3L_2L_3R_1R_3g_m + C_3L_2L_3R_1R_3g_m + C_3L_2R_3g_m + C_3L_3R_3g_m + C_3L_3R_3$$

**10.55** INVALID-ORDER-55 
$$Z(s) = \left(R_1, \frac{L_{2s}}{C_2L_2s^2+1} + R_2, \frac{L_{3s}}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1R_2R_3g_m + R_1R_3 + s^4\left(C_2C_3L_2L_3R_1R_2R_3g_m + C_2C_3L_2L_3R_1R_2g_m + C_2L_2L_3R_1R_2g_m + C_2L_2L_3R_1 + C_3L_2L_3R_1R_3g_m + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3 + C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3 + L_2L_3R_1g_m \right) + s\left(L_2R_1R_3g_m + L_3R_1R_2g_m + L_3R_1R_2g_m + L_3R_1R_2g_m + C_3L_3R_1R_3g_m + C_3L_3R_1R_2g_m + C_3L_3R_1R_2$$

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10.56 INVALID-ORDER-56 Z(s) = \left(R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
H(s) = \frac{C_3L_2L_3R_1R_3g_ms^3 + L_2R_1R_3g_ms + R_1R_2R_3g_m + R_1R_3 + s^4\left(C_2C_3L_2L_3R_1R_2R_3g_m + C_2C_3L_2L_3R_1R_3\right) + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3 + C_3L_3R_1R_2R_3g_m + C_2L_2R_1R_3 + C_3L_2R_1R_3\right) + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3 + C_2L_2R_1R_3 + C_3L_2R_1R_3 + C_3L_2R_1R_
10.57 INVALID-ORDER-57 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                  H(s) = \frac{C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1\right)}{s^3\left(C_2C_3L_2R_1R_2g_m + C_2C_3L_2R_1 + C_2C_3L_2R_2\right) + s^2\left(C_2C_3R_1R_2 + C_2L_2\right) + s\left(C_2R_2 + C_3R_1R_2g_m + C_3R_1 + C_3R_2\right) + 1}
10.58 INVALID-ORDER-58 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
                                                                                             H(s) = \frac{C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_2C_3L_2R_1R_2R_3g_m + C_2C_3L_2R_1R_3 + C_2C_3L_2R_1R_3\right) + s^2\left(C_2C_3R_1R_2R_3 + C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_2L_2R_3\right) + s\left(C_2R_1R_2 + C_2R_2R_3 + C_3R_1R_2R_3g_m + C_3R_1R_3 + C_3R_2R_3\right)}
10.59 INVALID-ORDER-59 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                        H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_2 C_3 L_2 R_1 R_2 R_3 g_m + C_2 C_3 L_2 R_1 R_3\right) + s^2 \left(C_2 C_3 R_1 R_2 R_3 + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s \left(C_2 R_1 R_2 + C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3\right)}{s^3 \left(C_2 C_3 L_2 R_1 R_2 g_m + C_2 C_3 L_2 R_1 + C_2 C_3 L_2 R_2 + C_2 C_3 L_2 R_3\right) + s^2 \left(C_2 C_3 R_1 R_2 + C_2 C_3 R_2 R_3 + C_2 L_2\right) + s \left(C_2 R_2 + C_3 R_1 R_2 g_m + C_3 
10.60 INVALID-ORDER-60 Z(s) = \left(R_1, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                   H(s) = \frac{C_2C_3L_3R_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^4\left(C_2C_3L_2L_3R_1R_2g_m + C_2C_3L_2L_3R_1\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1\right)}{C_2C_3L_2L_3s^4 + s^3\left(C_2C_3L_2R_1R_2g_m + C_2C_3L_2R_1 + C_2C_3L_2R_1 + C_2C_3L_2R_1\right) + s^2\left(C_2C_3R_1R_2 + C_2L_2 + C_3L_3\right) + s\left(C_2R_2 + C_3R_1R_2g_m + C_3R_1R_2g_m + C_3R_1\right) + s^2\left(C_2C_3R_1R_2 + C_2C_3L_2R_1 + C_3L_3R_1\right) + s^2\left(C_2C_3R_1R_2 + C_2C_3L_2R_1 + C_3L_3R_1\right) + s^2\left(C_2C_3R_1R_2 + C_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2\right
10.61 INVALID-ORDER-61 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)
                                                                                     H(s) = \frac{C_2L_3R_1R_2s^2 + s^3\left(C_2L_2L_3R_1R_2g_m + C_2L_2L_3R_1\right) + s\left(L_3R_1R_2g_m + L_3R_1\right)}{R_1R_2g_m + R_1 + R_2 + s^4\left(C_2C_3L_2L_3R_1R_2g_m + C_2C_3L_2L_3R_1 + C_2C_3L_2L_3R_2\right) + s^3\left(C_2C_3L_3R_1R_2 + C_2L_2L_3\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_2 + C_2L_3R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_1\right) + s\left(C_2R_1R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_1\right) + s\left(C_2R_1R_2g_m + C_3L_3R_1 + C_3L_3R_1 + C_3L_3R_1\right) + s\left(C_3R_1R_2g_m + C_3R_3R_1\right) + s\left(C_3R_1R_2g_m + C_3R_3R_1\right) + s\left(C_3R_1R_2g_m + C_3R_3R_1\right) + s\left(C_3R_1R_2g_m + C_3R_3R_1\right) + s\left(C_3R_1R_1R_2g_m + C_3R_2R_1\right) + s\left(C_3R_1R_1R_2g_m + C_3R_2R_1\right) + s\left(C_3R_1R_1R_2g_m
10.62 INVALID-ORDER-62 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                 H(s) = \frac{R_1R_2g_m + R_1 + s^4\left(C_2C_3L_2L_3R_1R_2g_m + C_2C_3L_2L_3R_1\right) + s^3\left(C_2C_3L_2R_1R_2R_3g_m + C_2C_3L_2R_1R_3 + C_2C_3L_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2R_3 + C_2L_2R_1R_2g_m + C_2L_2R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s\left(C_2R_1R_2 + C_3R_1R_2g_m + C_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2 + C_2C_3R_1R_2 + C_2C_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2 + C_2C_3R_1R_2 + C_2C_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2 + C_2C_3R_1R_2 + C_2C_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2 + C_2C_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2\right) + s^2\left(C_2C_3R
10.63 INVALID-ORDER-63 Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
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**10.64** INVALID-ORDER-64  $Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$ 

 $\frac{C_{2}L_{3}R_{1}R_{2}R_{3}s^{2}+s^{3}\left(C_{2}L_{2}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{2}L_{2}L_{3}R_{1}R_{3}\right)+s\left(L_{3}R_{1}R_{2}R_{3}g_{m}+L_{3}R_{1}R_{3}\right)}{R_{1}R_{2}R_{3}g_{m}+R_{1}R_{3}+R_{2}R_{3}+s^{4}\left(C_{2}C_{3}L_{2}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{2}L_{2}L_{3}R_{1}R_{2}R_{3}+C_{2}L_{2}L_{3}R_{1}R_{2}R_{3}+C_{2}L_{2}L_{3}R_{1}+C_{2}L_{2}L_{3}R_{1}+C_{2}L_{2}L_{3}R_{2}+C_{2}L_{2}R_{1}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}+C_{2}L_{2}R_{2}+C_{2}L_{2}+C_{2}L_{2}+C_{2}L_{2}+C_{2}L_{2}+C_{2}L$ 

 $\frac{R_{1}R_{2}R_{3}g_{m}+R_{1}R_{3}+s^{4}\left(C_{2}C_{3}L_{2}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{2}L_{3}R_{1}R_{2}R_{3}+C_{2}L_{2}L_{3}R_{1}R_{2}g_{m}+C_{2}L_{2}L_{3}R_{1}R_{2}g_{m}+C_{2}L_{2}L_{3}R_{1}+s^{2}\left(C_{2}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}L_{3}R_{1}R_{2}+C_{3}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{3}L_{3}R_{1}R_{2}+C_{2}L_{3}$ 

10.65 INVALID-ORDER-65 
$$Z(s) = \left(R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_2C_3L_3R_1R_2R_3s^3 + C_2R_1R_2R_3g_m + R_1R_3 + s^4\left(C_2C_3L_2L_3R_1R_2R_3g_m + C_2C_3L_2L_3R_1R_3\right) + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3 + C_3L_3R_1R_2R_3g_m + C_2L_2R_1R_3 + C_3L_3R_1R_2R_3g_m + C_2L_2R_1R_3 + C_3L_3R_1R_2R_3g_m + C_2L_3R_1R_2R_3g_m + C_2L_3R_1R_3g_m + C_2L_3R_1R$ 

**10.66** INVALID-ORDER-66  $Z(s) = (L_1 s, R_2, R_3, \infty, \infty, \infty)$ 

$$H(s) = \frac{s (L_1 R_2 R_3 g_m + L_1 R_3)}{R_2 + R_3 + s (L_1 R_2 g_m + L_1)}$$

10.67 INVALID-ORDER-67  $Z(s) = \left(L_1 s, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^3 \left( C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 \right) + s \left( L_1 R_2 g_m + L_1 \right)}{C_3 R_2 s + s^2 \left( C_3 L_1 R_2 g_m + C_3 L_1 + C_3 L_3 \right) + 1}$$

**10.68** INVALID-ORDER-68  $Z(s) = \left(L_1 s, \ R_2, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{s^2 \left( L_1 L_3 R_2 g_m + L_1 L_3 \right)}{C_3 L_3 R_2 s^2 + R_2 + s^3 \left( C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 \right) + s \left( L_1 R_2 g_m + L_1 + L_3 \right)}$$

**10.69** INVALID-ORDER-69  $Z(s) = \left(L_1 s, \ R_2, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{s^3 \left( C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 \right) + s^2 \left( C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 \right) + s \left( L_1 R_2 g_m + L_1 \right)}{s^2 \left( C_3 L_1 R_2 g_m + C_3 L_1 + C_3 L_3 \right) + s \left( C_3 R_2 + C_3 R_3 \right) + 1}$$

10.70 INVALID-ORDER-70  $Z(s) = \left(L_1 s, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^2 \left( L_1 L_3 R_2 R_3 g_m + L_1 L_3 R_3 \right)}{R_2 R_3 + s^3 \left( C_3 L_1 L_3 R_2 R_3 g_m + C_3 L_1 L_3 R_3 \right) + s^2 \left( C_3 L_3 R_2 R_3 + L_1 L_3 R_2 g_m + L_1 L_3 \right) + s \left( L_1 R_2 R_3 g_m + L_1 R_3 + L_3 R_2 + L_3 R_3 \right)}$$

10.71 INVALID-ORDER-71  $Z(s) = \left(L_1 s, \ R_2, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{s^3 \left(C_3 L_1 L_3 R_2 R_3 g_m + C_3 L_1 L_3 R_3\right) + s^2 \left(L_1 L_3 R_2 g_m + L_1 L_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 R_3\right)}{R_2 + R_3 + s^3 \left(C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3\right) + s^2 \left(C_3 L_3 R_2 + C_3 L_3 R_3\right) + s \left(L_1 R_2 g_m + L_1 + L_3\right)}$$

10.72 INVALID-ORDER-72  $Z(s) = \left(L_1 s, R_2, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^3 \left(C_3 L_1 L_3 R_2 R_3 g_m + C_3 L_1 L_3 R_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 R_3\right)}{R_2 + R_3 + s^3 \left(C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3\right) + s^2 \left(C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 + C_3 L_3 R_2 + C_3 L_3 R_3\right) + s \left(C_3 R_2 R_3 + L_1 R_2 g_m + L_1\right)}$$

10.73 INVALID-ORDER-73  $Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 L_1 R_3 s^2 + L_1 R_3 g_m s}{C_2 C_3 L_1 R_3 s^3 + s^2 (C_2 L_1 + C_3 L_1 R_3 g_m) + s (C_2 R_3 + C_3 R_3 + L_1 g_m) + 1}$$

10.74 INVALID-ORDER-74 
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2 C_3 L_1 L_3 s^3 + C_2 L_1 s + C_3 L_1 L_3 g_m s^2 + L_1 g_m}{C_2 + C_3 L_1 g_m s + C_3 + s^2 \left( C_2 C_3 L_1 + C_2 C_3 L_3 \right)}$$

**10.75** INVALID-ORDER-75 
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2 L_1 L_3 s^3 + L_1 L_3 g_m s^2}{C_2 C_3 L_1 L_3 s^4 + C_3 L_1 L_3 g_m s^3 + L_1 g_m s + s^2 \left( C_2 L_1 + C_2 L_3 + C_3 L_3 \right) + 1}$$

**10.76** INVALID-ORDER-76 
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_3s^3 + L_1g_m + s^2\left(C_2C_3L_1R_3 + C_3L_1L_3g_m\right) + s\left(C_2L_1 + C_3L_1R_3g_m\right)}{C_2 + C_3 + s^2\left(C_2C_3L_1 + C_2C_3L_3\right) + s\left(C_2C_3R_3 + C_3L_1g_m\right)}$$

10.77 INVALID-ORDER-77 
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_1L_3R_3s^3 + L_1L_3R_3g_ms^2}{C_2C_3L_1L_3R_3s^4 + R_3 + s^3\left(C_2L_1L_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_2L_1R_3 + C_2L_3R_3 + C_3L_3R_3 + L_1L_3g_m\right) + s\left(L_1R_3g_m + L_3\right)}$$

10.78 INVALID-ORDER-78 
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_3R_3s^4 + L_1R_3g_ms + s^3\left(C_2L_1L_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_2L_1R_3 + L_1L_3g_m\right)}{C_2C_3L_1L_3s^4 + s^3\left(C_2C_3L_3R_3 + C_3L_1L_3g_m\right) + s^2\left(C_2L_1 + C_2L_3 + C_3L_3\right) + s\left(C_2R_3 + L_1g_m\right) + 1}$$

10.79 INVALID-ORDER-79 
$$Z(s) = \left(L_1 s, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_3R_3s^4 + C_2L_1R_3s^2 + C_3L_1L_3R_3g_ms^3 + L_1R_3g_ms}{C_2C_3L_1L_3s^4 + s^3\left(C_2C_3L_1R_3 + C_2C_3L_3R_3 + C_3L_1L_3g_m\right) + s^2\left(C_2L_1 + C_3L_1R_3g_m + C_3L_3\right) + s\left(C_2R_3 + C_3R_3 + L_1g_m\right) + 1}$$

10.80 INVALID-ORDER-80  $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 L_1 R_2 s^2 + s \left(L_1 R_2 g_m + L_1\right)}{C_2 C_3 L_1 R_2 s^3 + s^2 \left(C_3 L_1 R_2 g_m + C_3 L_1\right) + s \left(C_2 R_2 + C_3 R_2\right) + 1}$$

**10.81** INVALID-ORDER-81  $Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_1R_2R_3s^2 + s\left(L_1R_2R_3g_m + L_1R_3\right)}{C_2C_3L_1R_2R_3s^3 + R_2 + R_3 + s^2\left(C_2L_1R_2 + C_3L_1R_2R_3g_m + C_3L_1R_3\right) + s\left(C_2R_2R_3 + C_3R_2R_3 + L_1R_2g_m + L_1\right)}$$

**10.82** INVALID-ORDER-82 
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_1R_2R_3s^3 + s^2\left(C_2L_1R_2 + C_3L_1R_2R_3g_m + C_3L_1R_3\right) + s\left(L_1R_2g_m + L_1\right)}{C_2C_3L_1R_2s^3 + s^2\left(C_2C_3R_2R_3 + C_3L_1R_2g_m + C_3L_1\right) + s\left(C_2R_2 + C_3R_2 + C_3R_3\right) + 1}$$

**10.83** INVALID-ORDER-83 
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_3R_2s^4 + C_2L_1R_2s^2 + s^3\left(C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s\left(L_1R_2g_m + L_1\right)}{s^3\left(C_2C_3L_1R_2 + C_2C_3L_3R_2\right) + s^2\left(C_3L_1R_2g_m + C_3L_1 + C_3L_3\right) + s\left(C_2R_2 + C_3R_2\right) + 1}$$

**10.84** INVALID-ORDER-84 
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_1L_3R_2s^3 + s^2\left(L_1L_3R_2g_m + L_1L_3\right)}{C_2C_3L_1L_3R_2s^4 + R_2 + s^3\left(C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s^2\left(C_2L_1R_2 + C_2L_3R_2 + C_3L_3R_2\right) + s\left(L_1R_2g_m + L_1 + L_3\right)}$$

**10.85** INVALID-ORDER-85 
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_3R_2s^4 + s^3\left(C_2C_3L_1R_2R_3 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s^2\left(C_2L_1R_2 + C_3L_1R_2R_3g_m + C_3L_1R_3\right) + s\left(L_1R_2g_m + L_1\right)}{s^3\left(C_2C_3L_1R_2 + C_2C_3L_3R_2\right) + s^2\left(C_2C_3R_2R_3 + C_3L_1R_2g_m + C_3L_1 + C_3L_3\right) + s\left(C_2R_2 + C_3R_2 + C_3R_3\right) + 1}$$

**10.86** INVALID-ORDER-86 
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_1L_3R_2R_3s^3 + s^2\left(L_1L_3R_2R_3g_m + L_1L_3R_3\right)}{C_2C_3L_1L_3R_2R_3s^4 + R_2R_3 + s^3\left(C_2L_1L_3R_2 + C_3L_1L_3R_2R_3g_m + C_3L_1L_3R_3\right) + s^2\left(C_2L_1R_2R_3 + C_2L_3R_2R_3 + C_3L_3R_2R_3 + L_1L_3R_2g_m + L_1L_3\right) + s\left(L_1R_2R_3g_m + L_1R_3 + L_3R_2 + L_3R_3\right)}$$

**10.87** INVALID-ORDER-87 
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_3R_2R_3s^4 + s^3\left(C_2L_1L_3R_2 + C_3L_1L_3R_2R_3g_m + C_3L_1L_3R_3\right) + s^2\left(C_2L_1R_2R_3 + L_1L_3R_2g_m + L_1L_3\right) + s\left(L_1R_2R_3g_m + L_1R_3\right)}{C_2C_3L_1L_3R_2s^4 + R_2 + R_3 + s^3\left(C_2C_3L_3R_2R_3 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s^2\left(C_2L_1R_2 + C_2L_3R_2 + C_3L_3R_2 + C_3L_3R_3\right) + s\left(C_2R_2R_3 + L_1R_2g_m + L_1 + L_3\right)}$$

**10.88** INVALID-ORDER-88 
$$Z(s) = \left(L_1 s, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

**10.89** INVALID-ORDER-89  $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{L_1 R_3 g_m s + s^2 \left(C_2 L_1 R_2 R_3 g_m + C_2 L_1 R_3\right)}{s^3 \left(C_2 C_3 L_1 R_2 R_3 g_m + C_2 C_3 L_1 R_3\right) + s^2 \left(C_2 C_3 R_2 R_3 + C_2 L_1 R_2 g_m + C_2 L_1 + C_3 L_1 R_3 g_m\right) + s \left(C_2 R_2 + C_2 R_3 + C_3 R_3 + L_1 g_m\right) + 1}$$

**10.90** INVALID-ORDER-90  $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \right)$ 

$$H(s) = \frac{C_3 L_1 L_3 g_m s^2 + L_1 g_m + s^3 \left( C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3 \right) + s \left( C_2 L_1 R_2 g_m + C_2 L_1 \right)}{C_2 + C_3 + s^2 \left( C_2 C_3 L_1 R_2 g_m + C_2 C_3 L_1 + C_2 C_3 L_3 \right) + s \left( C_2 C_3 R_2 + C_3 L_1 g_m \right)}$$

**10.91** INVALID-ORDER-91 
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{L_1 L_3 g_m s^2 + s^3 \left(C_2 L_1 L_3 R_2 g_m + C_2 L_1 L_3\right)}{s^4 \left(C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3\right) + s^3 \left(C_2 C_3 L_3 R_2 + C_3 L_1 L_3 g_m\right) + s^2 \left(C_2 L_1 R_2 g_m + C_2 L_1 + C_2 L_3 + C_3 L_3\right) + s \left(C_2 R_2 + L_1 g_m\right) + 1}$$

10.92 INVALID-ORDER-92 
$$Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{L_1 g_m + s^3 \left(C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3\right) + s^2 \left(C_2 C_3 L_1 R_2 R_3 g_m + C_2 C_3 L_1 R_3 + C_3 L_1 L_3 g_m\right) + s \left(C_2 L_1 R_2 g_m + C_2 L_1 + C_3 L_1 R_3 g_m\right)}{C_2 + C_3 + s^2 \left(C_2 C_3 L_1 R_2 g_m + C_2 C_3 L_1 + C_2 C_3 L_3\right) + s \left(C_2 C_3 R_2 + C_2 C_3 R_3 + C_3 L_1 g_m\right)}$$

**10.93** INVALID-ORDER-93  $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$ 

**10.94** INVALID-ORDER-94  $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$ 

10.95 INVALID-ORDER-95  $Z(s) = \left(L_1 s, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_3L_1L_3R_3g_ms^3 + L_1R_3g_ms + s^4\left(C_2C_3L_1L_3R_2g_m + C_2C_3L_1L_3R_3\right) + s^2\left(C_2L_1R_2R_3g_m + C_2L_1R_3\right)}{s^4\left(C_2C_3L_1L_3R_2g_m + C_2C_3L_1R_3\right) + s^3\left(C_2C_3L_1R_2R_3g_m + C_2C_3L_1R_3 + C_2C_3L_3R_3 + C_2L_1R_2g_m\right) + s^2\left(C_2C_3R_2R_3 + C_2L_1R_2g_m + C_2L_1 + C_3L_1R_3g_m + C_3L_3\right) + s\left(C_2R_2 + C_2R_3 + C_3R_3 + L_1g_m\right) + 1}$$

**10.96** INVALID-ORDER-96  $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_2 L_1 L_2 R_3 g_m s^3 + C_2 L_1 R_3 s^2 + L_1 R_3 g_m s}{C_2 L_1 L_2 g_m s^3 + s^2 (C_2 L_1 + C_2 L_2) + s (C_2 R_3 + L_1 g_m) + 1}$$

10.97 INVALID-ORDER-97  $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_2 L_1 L_2 g_m s^2 + C_2 L_1 s + L_1 g_m}{C_2 C_3 L_1 L_2 g_m s^3 + C_2 + C_3 L_1 g_m s + C_3 + s^2 \left(C_2 C_3 L_1 + C_2 C_3 L_2\right)}$$

**10.98** INVALID-ORDER-98  $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_2L_1L_2R_3g_ms^3 + C_2L_1R_3s^2 + L_1R_3g_ms}{C_2C_3L_1L_2R_3g_ms^4 + s^3\left(C_2C_3L_1R_3 + C_2C_3L_2R_3 + C_2L_1L_2g_m\right) + s^2\left(C_2L_1 + C_2L_2 + C_3L_1R_3g_m\right) + s\left(C_2R_3 + C_3R_3 + L_1g_m\right) + 1}$$

**10.99** INVALID-ORDER-99  $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_2C_3L_1L_2R_3g_ms^3 + L_1g_m + s^2\left(C_2C_3L_1R_3 + C_2L_1L_2g_m\right) + s\left(C_2L_1 + C_3L_1R_3g_m\right)}{C_2C_3L_1L_2g_ms^3 + C_2 + C_3 + s^2\left(C_2C_3L_1 + C_2C_3L_2\right) + s\left(C_2C_3R_3 + C_3L_1g_m\right)}$$

**10.100** INVALID-ORDER-100  $Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_2C_3L_1L_2L_3g_ms^4 + C_2C_3L_1L_3s^3 + C_2L_1s + L_1g_m + s^2\left(C_2L_1L_2g_m + C_3L_1L_3g_m\right)}{C_2C_3L_1L_2g_ms^3 + C_2 + C_3L_1g_ms + C_3 + s^2\left(C_2C_3L_1 + C_2C_3L_2 + C_2C_3L_3\right)}$$

**10.101** INVALID-ORDER-101 
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2L_1L_2L_3g_ms^4 + C_2L_1L_3s^3 + L_1L_3g_ms^2}{C_2C_3L_1L_2L_3g_ms^5 + L_1g_ms + s^4\left(C_2C_3L_1L_3 + C_2C_3L_2L_3\right) + s^3\left(C_2L_1L_2g_m + C_3L_1L_3g_m\right) + s^2\left(C_2L_1 + C_2L_2 + C_2L_3 + C_3L_3\right) + 1}$$

**10.102** INVALID-ORDER-102 
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_2L_3g_ms^4 + L_1g_m + s^3\left(C_2C_3L_1L_2R_3g_m + C_2C_3L_1L_3\right) + s^2\left(C_2C_3L_1R_3 + C_2L_1L_2g_m + C_3L_1L_3g_m\right) + s\left(C_2L_1 + C_3L_1R_3g_m\right)}{C_2C_3L_1L_2g_ms^3 + C_2 + C_3 + s^2\left(C_2C_3L_1 + C_2C_3L_2 + C_2C_3L_3\right) + s\left(C_2C_3R_3 + C_3L_1g_m\right)}$$

10.103 INVALID-ORDER-103 
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2L_1L_2L_3R_3g_ms^4 + C_2L_1L_3R_3s^3 + L_1L_3R_3g_ms^2}{C_2C_3L_1L_2L_3R_3g_ms^5 + R_3 + s^4\left(C_2C_3L_1L_3R_3 + C_2L_2L_3R_3 + C_2L_1L_2L_3g_m\right) + s^3\left(C_2L_1L_2R_3g_m + C_2L_1L_3 + C_2L_2L_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_2L_1R_3 + C_2L_2R_3 + C_2L_3R_3 + C_3L_3R_3 + L_1L_3g_m\right) + s\left(L_1R_3g_m + L_3\right)}$$

10.104 INVALID-ORDER-104 
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_2L_3R_3g_ms^5 + L_1R_3g_ms + s^4\left(C_2C_3L_1L_3R_3 + C_2L_1L_2L_3g_m\right) + s^3\left(C_2L_1L_2R_3g_m + C_2L_1L_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_2L_1R_3 + L_1L_3g_m\right)}{C_2C_3L_1L_2L_3g_ms^5 + s^4\left(C_2C_3L_1L_3 + C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_3R_3 + C_2L_1L_2g_m + C_3L_1L_3g_m\right) + s^2\left(C_2L_1 + C_2L_2 + C_2L_3 + C_3L_3\right) + s\left(C_2R_3 + L_1g_m\right) + 1}$$

**10.105** INVALID-ORDER-105 
$$Z(s) = \left(L_1 s, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_2L_3R_3g_ms^5 + C_2C_3L_1L_3R_3s^4 + C_2L_1R_3s^2 + L_1R_3g_ms + s^3\left(C_2L_1L_2R_3g_m + C_3L_1L_3R_3g_m\right)}{C_2C_3L_1L_2L_3g_ms^5 + s^4\left(C_2C_3L_1L_2R_3g_m + C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_1R_3 + C_2C_3L_2R_3 + C_2C_3L_2R_3 + C_2L_1L_2g_m + C_3L_1L_3g_m\right) + s^2\left(C_2L_1 + C_2L_2 + C_3L_1R_3g_m + C_3L_3\right) + s\left(C_2R_3 + C_3R_3 + L_1g_m\right) + 1}$$

**10.106** INVALID-ORDER-106 
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2 L_1 L_2 R_3 g_m s^3 + L_1 R_3 g_m s + s^2 \left(C_2 L_1 R_2 R_3 g_m + C_2 L_1 R_3\right)}{C_2 L_1 L_2 q_m s^3 + s^2 \left(C_2 L_1 R_2 q_m + C_2 L_1 + C_2 L_2\right) + s \left(C_2 R_2 + C_2 R_3 + L_1 q_m\right) + 1}$$

**10.107** INVALID-ORDER-107  $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_2L_1L_2g_ms^2 + L_1g_m + s\left(C_2L_1R_2g_m + C_2L_1\right)}{C_2C_3L_1L_2g_ms^3 + C_2 + C_3 + s^2\left(C_2C_3L_1R_2g_m + C_2C_3L_1 + C_2C_3L_2\right) + s\left(C_2C_3R_2 + C_3L_1g_m\right)}$$

**10.108** INVALID-ORDER-108  $Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_2L_1L_2R_3g_ms^3 + L_1R_3g_ms + s^2\left(C_2L_1R_2R_3g_m + C_2L_1R_3\right)}{C_2C_3L_1L_2R_3g_ms^4 + s^3\left(C_2C_3L_1R_2R_3g_m + C_2C_3L_1R_3 + C_2C_3L_2R_3 + C_2L_1L_2g_m\right) + s^2\left(C_2C_3R_2R_3 + C_2L_1R_2g_m + C_2L_1 + C_2L_2 + C_3L_1R_3g_m\right) + s\left(C_2R_2 + C_2R_3 + C_3R_3 + L_1g_m\right) + 1}$$

**10.109** INVALID-ORDER-109 
$$Z(s) = \left(L_1 s, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2C_3L_1L_2R_3g_ms^3 + L_1g_m + s^2\left(C_2C_3L_1R_2R_3g_m + C_2C_3L_1R_3 + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1 + C_3L_1R_3g_m\right)}{C_2C_3L_1L_2g_ms^3 + C_2 + C_3 + s^2\left(C_2C_3L_1R_2g_m + C_2C_3L_1 + C_2C_3L_2\right) + s\left(C_2C_3R_2 + C_2C_3R_3 + C_3L_1g_m\right)}$$

10.110 INVALID-ORDER-110 
$$Z(s) = (L, s, L, s + R_s + \frac{1}{C_{12}}, L, s +$$

 $H(s) = \frac{L_{1}L_{2}R_{3}g_{m}s^{2} + s^{3}\left(C_{2}L_{1}L_{2}R_{2}R_{3}g_{m} + C_{2}L_{1}L_{2}R_{3}\right) + s\left(L_{1}R_{2}R_{3}g_{m} + L_{1}R_{3}\right)}{R_{2} + R_{3} + s^{4}\left(C_{2}C_{3}L_{1}L_{2}R_{3}g_{m} + C_{2}C_{3}L_{1}L_{2}R_{3}\right) + s^{3}\left(C_{2}C_{3}L_{2}R_{2}R_{3} + C_{2}L_{1}L_{2}R_{2}g_{m} + C_{2}L_{1}L_{2}R_{3}g_{m}\right) + s^{2}\left(C_{2}L_{2}R_{2} + C_{2}L_{2}R_{3} + C_{3}L_{1}R_{2}R_{3}g_{m} + C_{3}L_{1}R_{3} + C_{3}L_{2}R_{3} + L_{1}L_{2}g_{m}\right) + s\left(C_{3}R_{2}R_{3} + L_{1}R_{2}g_{m} + L_{1} + L_{2}\right)}$ 

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10.119 INVALID-ORDER-119 Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                              H(s) = \frac{s^4 \left(C_2 C_3 L_1 L_2 R_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3\right) + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 + C_3 L_1 L_2 R_3 g_m\right) + s^2 \left(C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 + L_1 L_2 g_m\right) + s \left(L_1 R_2 g_m + L_1\right)}{s^4 \left(C_2 C_3 L_1 L_2 R_2 g_m + C_2 C_3 L_1 L_2\right) + s^3 \left(C_2 C_3 L_2 R_2 + C_2 C_3 L_2 R_3 + C_3 L_1 L_2 g_m\right) + s^2 \left(C_2 L_2 + C_3 L_1 R_2 g_m + C_3 L_1 + C_3 L_2\right) + s \left(C_3 R_2 + C_3 R_3\right) + 1}
10.120 INVALID-ORDER-120 Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                 H(s) = \frac{C_3L_1L_2L_3g_ms^4 + L_1L_2g_ms^2 + s^5\left(C_2C_3L_1L_2L_3R_2g_m + C_2C_3L_1L_2L_3\right) + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s\left(L_1R_2g_m + L_1\right)}{C_3R_2s + s^4\left(C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2 + C_2C_3L_2L_3\right) + s^3\left(C_2C_3L_2R_2 + C_3L_1L_2g_m\right) + s^2\left(C_2L_2 + C_3L_1R_2g_m + C_3L_1 + C_3L_2 + C_3L_3\right) + 1}
10.121 INVALID-ORDER-121 Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                               H(s) = \frac{L_{1}L_{2}L_{3}g_{m}s^{3} + s^{4}\left(C_{2}L_{1}L_{2}L_{3}R_{2}g_{m} + C_{2}L_{1}L_{2}L_{3}\right) + s^{2}\left(L_{1}L_{3}R_{2}g_{m} + L_{1}L_{3}\right)}{R_{2} + s^{5}\left(C_{2}C_{3}L_{1}L_{2}L_{3}R_{2}g_{m} + C_{2}C_{3}L_{1}L_{2}L_{3}\right) + s^{4}\left(C_{2}C_{3}L_{2}L_{3}R_{2} + C_{3}L_{1}L_{2}L_{3}g_{m}\right) + s^{3}\left(C_{2}L_{1}L_{2}R_{2}g_{m} + C_{2}L_{1}L_{2} + C_{2}L_{2}L_{3} + C_{3}L_{1}L_{3} + C_{3}L_{2}L_{3}\right) + s^{2}\left(C_{2}L_{2}R_{2} + C_{3}L_{3}R_{2} + L_{1}L_{2}g_{m}\right) + s\left(L_{1}R_{2}g_{m} + L_{1} + L_{2} + L_{3}\right)}{R_{2}}
10.122 INVALID-ORDER-122 Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                 H(s) = \frac{s^5 \left(C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 C_3 L_1 L_2 L_3\right) + s^4 \left(C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_3 L_1 L_2 R_3 g_m + C_2 L_1 L_2 R_3 g_m + C_3 L_1 L_2 R_3 g_m + C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3\right) + s^2 \left(C_3 L_1 R_2 R_3 g_m + C_3 L_1 L_2 R_3 g_m + C_3 L_1 L_2 R_3 g_m + C_3 L_1 L_2 R_3 g_m + C_3 L_1 L_3\right) + s^2 \left(C_3 L_1 R_2 R_3 g_m + C_3 L_1 L_2 R_3 g_m + C_3
10.123 INVALID-ORDER-123 Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
H(s) = \frac{L_1 L_2 L_3 R_3 g_m s^3 + s^4 \left(C_2 L_1 L_2 L_3 R_2 R_3 g_m + C_2 L_1 L_2 L_3 R_3\right) + s^2 \left(L_1 L_3 R_2 R_3 g_m + L_1 L_3 R_3\right)}{R_2 R_3 + s^5 \left(C_2 C_3 L_1 L_2 L_3 R_2 R_3 g_m + C_2 L_1 L_2 L_3 R_3\right) + s^4 \left(C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_2 L_1 L_2 L_3 R_3 g_m + C_2 L_1 L_2 L_3 R_3 g_m + C_2 L_1 L_2 R_3 g_m + C_2 L_2 R_3 g_m + 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                L_1L_2L_3R_3g_ms^3 + s^4\left(C_2L_1L_2L_3R_2R_3g_m + C_2L_1L_2L_3R_3\right) + s^2\left(L_1L_3R_2R_3g_m + L_1L_3R_3\right)
10.124 INVALID-ORDER-124 Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_2 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{s^5 \left(C_2 C_3 L_1 L_2 L_3 R_2 R_3 g_m + C_2 C_3 L_1 L_2 L_3 R_3\right) + s^4 \left(C_2 L_1 L_2 L_3 R_2 g_m + C_2 L_1 L_2 L_3 + C_3 L_1 L_2 L_3 R_3 g_m\right) + s^3 \left(C_2 L_1 L_2 R_3 g_m + C_2 L_1 L_2 R_3 g_m + C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_3 g_m\right) + s^2 \left(L_1 L_2 R_3 g_m + L_1 L_3 R_2 g_m + L_1 L_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 L_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 L_3 R
10.125 INVALID-ORDER-125 Z(s) = \left(L_1 s, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_3L_1L_2L_3R_3g_ms^4 + L_1L_2R_3g_ms^2 + s^5\left(C_2C_3L_1L_2L_3R_2g_m + C_2C_3L_1L_2L_3R_3\right) + s^3\left(C_2L_1L_2R_3g_m + C_2L_1L_2R_3 + C_3L_1L_3R_2g_m + C_3L_1L_3R_3\right) + s\left(L_1L_2R_3g_m + L_2L_3R_3g_m + C_2L_3L_2R_3g_m + C_3L_3R_3g_m + C_
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$$\frac{1}{R_2 + R_3 + s^5} \left( C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 C_3 L_1 L_2 L_3 \right) + s^4 \left( C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_2 L_3 R_2 + C_2 C_3 L_2 L_3 R_3 + C_3 L_1 L_2 L_3 g_m \right) + s^3 \left( C_2 C_3 L_2 R_2 R_3 + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 + C_3 L_1 L_2 R_3 g_m + C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 R_3 g_m + C_3 L_3 L_3 R_3 g_m + C_3 L_3 L_3 R_3 g_m + C_3 L_3 L_3$$

10.126 INVALID-ORDER-126 
$$Z(s) = \left(L_1 s, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2 L_1 R_2 R_3 s^2 + s^3 \left(C_2 L_1 L_2 R_2 R_3 g_m + C_2 L_1 L_2 R_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 R_3\right)}{R_2 + R_3 + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s^2 \left(C_2 L_1 R_2 + C_2 L_2 R_3\right) + s \left(C_2 R_2 R_3 + L_1 R_2 g_m + L_1\right)}$$

$$\begin{aligned} \textbf{10.127} \quad \textbf{INVALID-ORDER-127} \ \ Z(s) &= \left(L_1 s, \ \ \frac{R_2\left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \ \frac{1}{C_3 s}, \ \ \infty, \ \ \infty, \ \ \infty\right) \\ & H(s) &= \frac{C_2 L_1 R_2 s^2 + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s \left(L_1 R_2 g_m + L_1\right)}{s^4 \left(C_2 C_3 L_1 L_2 R_2 g_m + C_2 C_3 L_1 L_2\right) + s^3 \left(C_2 C_3 L_1 R_2 + C_2 C_3 L_2 R_2\right) + s^2 \left(C_2 L_2 + C_3 L_1 R_2 g_m + C_3 L_1\right) + s \left(C_2 R_2 + C_3 R_2\right) + 1} \end{aligned}$$

10.128 INVALID-ORDER-128 
$$Z(s) = \left(L_1 s, \frac{R_2(C_3L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$$

$$II(s) = \frac{C_2L_1R_2R_3s^2 + s^3(C_2L_1L_2R_2R_3g_m + C_2L_1L_2R_3) + s(L_1R_2R_3g_m + L_1R_3)}{R_2 + R_3 + s^4(C_2C_3L_1L_2R_2R_3g_m + C_2C_3L_1L_2R_3) + s^3(C_2C_3L_2R_2R_3 + C_2L_1L_2R_2g_m + C_2L_1L_2) + s^2(C_2L_1R_2 + C_2L_2R_2 + C_2L_2R_3 + C_3L_1R_2R_3g_m + C_3L_1R_3) + s(C_2R_2R_3 + C_3R_2R_3 + L_1R_2g_m + L_1)}$$
10.129 INVALID-ORDER-129  $Z(s) = \left(L_1 s, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^4(C_2C_3L_1L_2R_2R_3g_m + C_2C_3L_1L_2R_3) + s^3(C_2C_3L_1R_2R_3 + C_2L_1L_2R_2g_m + C_2L_1L_2) + s^2(C_2L_1R_2 + C_3L_1R_2R_3g_m + C_3L_1R_3) + s(L_1R_2g_m + L_1)}{s^4(C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2) + s^3(C_2C_3L_1R_2R_3 + C_2L_1L_2R_2g_m + C_2L_1L_2) + s^2(C_2L_1R_2 + C_3L_1R_2R_3g_m + C_3L_1R_3) + s(L_1R_2g_m + L_1)}$$
10.130 INVALID-ORDER-130  $Z(s) = \left(L_1 s, \frac{R_2(C_3L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_1L_2R_2g_n + C_2L_1L_2R_2g_n + C_2C_3L_1L_2R_3g_m + C_2C_3L_1L_2R_3g_m + C_2L_1L_2 + C_3L_1R_2g_m + C_3L_1L_3R_2g_m + C_3L_1L_3) + s(L_1R_2g_m + L_1)}{s^4(C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2R_3g_m + C_2C_3L_1L_2R_3g_m + C_2L_1L_2 + C_3L_1R_2g_m + C_3L_1L_3) + s(L_1R_2g_m + L_1)}{s^4(C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2R_3g_m + C_2C_3L_1L_2R_3g_m + C_2L_1L_2 + C_3L_1R_2g_m + C_3L_1L_3) + s(L_1R_2g_m + L_1)}{s^4(C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2R_2g_m + C_2C_3L_1R_2g_m + C_3L_1R_2g_m + C_3L_1R_2g_$$

 $\begin{aligned} \textbf{10.131} \quad \textbf{INVALID-ORDER-131} \ \ Z(s) &= \left( L_1 s, \ \frac{R_2 \left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty \right) \\ & H(s) &= \frac{C_2 L_1 L_3 R_2 s^3 + s^4 \left( C_2 L_1 L_2 L_3 R_2 g_m + C_2 L_1 L_2 L_3 \right) + s^2 \left( L_1 L_3 R_2 g_m + L_1 L_3 \right)}{R_2 + s^5 \left( C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 C_3 L_1 L_2 L_3 \right) + s^4 \left( C_2 C_3 L_1 L_2 R_2 g_m + C_2 L_1 L_2 + C_2 L_2 L_3 + C_3 L_1 L_3 \right) + s^2 \left( C_2 L_1 R_2 + C_2 L_2 R_2 + C_2 L_3 R_2 \right) + s \left( L_1 R_2 g_m + L_1 + L_3 \right)} \end{aligned}$ 

 $\begin{aligned} \textbf{10.132} \quad \textbf{INVALID-ORDER-132} \ \ Z(s) &= \left( L_1 s, \ \frac{R_2 \left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty \right) \\ H(s) &= \frac{s^5 \left( C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 C_3 L_1 L_2 L_3 \right) + s^4 \left( C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 + C_2 C_3 L_1 L_2 R_3 + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 R_2 g_m + C_3 L_1 L_3 \right) + s^2 \left( C_2 L_1 R_2 + C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 \right) + s \left( L_1 R_2 g_m + L_1 \right)}{s^4 \left( C_2 C_3 L_1 L_2 R_2 g_m + C_2 C_3 L_1 L_2 + C_2 C_3 L_2 L_3 \right) + s^3 \left( C_2 C_3 L_1 R_2 R_3 + C_2 C_3 L_2 R_3 + C_2$ 

10.133 INVALID-ORDER-133  $Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2L_1L_3R_2R_3s^3 + s^4\left(C_2L_1L_2L_3R_2g_m + C_2L_1L_2L_3R_3\right) + s^2\left(L_1L_3R_2g_m + L_1L_3R_3\right)}{R_2R_3 + s^5\left(C_2C_3L_1L_2L_3R_2g_m + C_2L_1L_2L_3R_2g_m + C_2L_1L_2L_3\right) + s^3\left(C_2L_1L_2R_3g_m + C_2L_1L_2R_3 + C_2L_2L_3R_2 + C_2L_2L_3R_3 + C_3L_1L_3R_3\right) + s^4\left(C_2C_3L_1L_2R_3g_m + C_2L_1L_2R_3g_m + C_2L_2R_3g_m + C_2L_2R_$ 

10.134 INVALID-ORDER-134  $Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

10.135 INVALID-ORDER-135  $Z(s) = \left(L_1 s, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2C_3L_1L_3R_2R_3s^4 + C_2L_1R_2R_3s^2 + s^5\left(C_2C_3L_1L_2L_3R_3g_m + C_2C_3L_1L_2R_3g_m + C_2L_1L_2R_3 + C_3L_1L_3R_2R_3g_m + C_3L_1L_3R_3\right) + s^4\left(C_2C_3L_1L_2R_3g_m + C_2C_3L_1L_2R_3g_m + C_2C_3L_2L_3R_3\right) + s^4\left(C_2C_3L_1L_2R_3g_m + C_2C_3L_1L_2R_3g_m + C_2C_3L_2L_3R_3\right) + s^4\left(C_2C_3L_1L_2R_3g_m + C_2C_3L_2R_3g_m + C_2C_3L_3R_3g_m + C_$ 

10.136 INVALID-ORDER-136  $Z(s) = \left(\frac{1}{C_1 s}, R_2, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_2 R_3 g_m + R_3}{R_2 g_m + s \left(C_1 R_2 + C_1 R_3\right) + 1}$$

10.137 INVALID-ORDER-137 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 g_m + 1}{C_1 C_3 R_2 s^2 + s \left(C_1 + C_3 R_2 g_m + C_3\right)}$$

**10.138** INVALID-ORDER-138 
$$Z(s) = \left(\frac{1}{C_1 s}, \ R_2, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{R_2 g_m + s \left( C_3 R_2 R_3 g_m + C_3 R_3 \right) + 1}{s^2 \left( C_1 C_3 R_2 + C_1 C_3 R_3 \right) + s \left( C_1 + C_3 R_2 g_m + C_3 \right)}$$

**10.139** INVALID-ORDER-139 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^2 (C_3 L_3 R_2 g_m + C_3 L_3) + 1}{C_1 C_3 L_3 s^3 + C_1 C_3 R_2 s^2 + s (C_1 + C_3 R_2 g_m + C_3)}$$

**10.140** INVALID-ORDER-140 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s(L_3R_2g_m + L_3)}{C_1C_3L_3R_2s^3 + C_1R_2s + R_2g_m + s^2(C_1L_3 + C_3L_3R_2g_m + C_3L_3) + 1}$$

**10.141** INVALID-ORDER-141 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^2 (C_3 L_3 R_2 g_m + C_3 L_3) + s (C_3 R_2 R_3 g_m + C_3 R_3) + 1}{C_1 C_3 L_3 s^3 + s^2 (C_1 C_3 R_2 + C_1 C_3 R_3) + s (C_1 + C_3 R_2 g_m + C_3)}$$

**10.142** INVALID-ORDER-142 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s\left(L_{3}R_{2}R_{3}g_{m} + L_{3}R_{3}\right)}{C_{1}C_{3}L_{3}R_{2}R_{3}s^{3} + R_{2}R_{3}g_{m} + R_{3} + s^{2}\left(C_{1}L_{3}R_{2} + C_{1}L_{3}R_{3} + C_{3}L_{3}R_{2}R_{3}g_{m} + C_{3}L_{3}R_{3}\right) + s\left(C_{1}R_{2}R_{3} + L_{3}R_{2}g_{m} + L_{3}\right)}$$

**10.143** INVALID-ORDER-143 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^2 \left(C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_3\right) + s \left(L_3 R_2 g_m + L_3\right)}{R_2 g_m + s^3 \left(C_1 C_3 L_3 R_2 + C_1 C_3 L_3 R_3\right) + s^2 \left(C_1 L_3 + C_3 L_3 R_2 g_m + C_3 L_3\right) + s \left(C_1 R_2 + C_1 R_3\right) + 1}$$

**10.144** INVALID-ORDER-144 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^2 \left(C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_3\right)}{R_2 g_m + s^3 \left(C_1 C_3 L_3 R_2 + C_1 C_3 L_3 R_3\right) + s^2 \left(C_1 C_3 R_2 R_3 + C_3 L_3 R_2 g_m + C_3 L_3\right) + s \left(C_1 R_2 + C_1 R_3 + C_3 R_2 R_3 g_m + C_3 R_3\right) + 1}$$

10.145 INVALID-ORDER-145  $Z(s) = \begin{pmatrix} \frac{1}{C_1 s}, & \frac{1}{C_2 s}, & \frac{1}{C_3 s}, & \infty, & \infty \end{pmatrix}$ 

$$H(s) = \frac{C_2 s + g_m}{C_3 g_m s + s^2 \left( C_1 C_2 + C_1 C_3 + C_2 C_3 \right)}$$

**10.146** INVALID-ORDER-146 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3R_3s^2 + g_m + s\left(C_2 + C_3R_3g_m\right)}{C_1C_2C_3R_3s^3 + C_3g_ms + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$$

**10.147** INVALID-ORDER-147 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3s^3 + C_2s + C_3L_3g_ms^2 + g_m}{C_1C_2C_3L_3s^4 + C_3g_ms + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$$

10.148 INVALID-ORDER-148 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2 L_3 s^2 + L_3 g_m s}{C_3 L_3 g_m s^2 + g_m + s^3 \left( C_1 C_2 L_3 + C_1 C_3 L_3 + C_2 C_3 L_3 \right) + s \left( C_1 + C_2 \right)}$$

**10.149** INVALID-ORDER-149 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3s^3 + g_m + s^2\left(C_2C_3R_3 + C_3L_3g_m\right) + s\left(C_2 + C_3R_3g_m\right)}{C_1C_2C_3L_3s^4 + C_1C_2C_3R_3s^3 + C_3g_ms + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$$

**10.150** INVALID-ORDER-150 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_3R_3s^2 + L_3R_3g_ms}{R_3g_m + s^3\left(C_1C_2L_3R_3 + C_1C_3L_3R_3 + C_2C_3L_3R_3\right) + s^2\left(C_1L_3 + C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_1R_3 + C_2R_3 + L_3g_m\right)}$$

**10.151** INVALID-ORDER-151 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_3s^3 + R_3g_m + s^2\left(C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_2R_3 + L_3g_m\right)}{C_1C_2C_3L_3R_3s^4 + g_m + s^3\left(C_1C_2L_3 + C_1C_3L_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_3 + C_3L_3g_m\right) + s\left(C_1 + C_2\right)}$$

**10.152** INVALID-ORDER-152 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_3s^3 + C_2R_3s + C_3L_3R_3g_ms^2 + R_3g_m}{C_1C_2C_3L_3R_3s^4 + g_m + s^3\left(C_1C_3L_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3 + C_2C_3R_3 + C_3L_3g_m\right) + s\left(C_1 + C_2 + C_3R_3g_m\right)}$$

**10.153** INVALID-ORDER-153 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2 R_2 s + R_2 g_m + 1}{s^2 \left( C_1 C_2 R_2 + C_1 C_3 R_2 + C_2 C_3 R_2 \right) + s \left( C_1 + C_3 R_2 g_m + C_3 \right)}$$

**10.154** INVALID-ORDER-154 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3R_2R_3s^2 + R_2g_m + s\left(C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + 1}{C_1C_2C_3R_2R_3s^3 + s^2\left(C_1C_2R_2 + C_1C_3R_2 + C_1C_3R_3 + C_2C_3R_2\right) + s\left(C_1 + C_3R_2g_m + C_3\right)}$$

**10.155** INVALID-ORDER-155 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_2s^3 + C_2R_2s + R_2g_m + s^2\left(C_3L_3R_2g_m + C_3L_3\right) + 1}{C_1C_2C_3L_3R_2s^4 + C_1C_3L_3s^3 + s^2\left(C_1C_2R_2 + C_1C_3R_2 + C_2C_3R_2\right) + s\left(C_1 + C_3R_2g_m + C_3\right)}$$

**10.156** INVALID-ORDER-156 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_3R_2s^2 + s\left(L_3R_2g_m + L_3\right)}{R_2g_m + s^3\left(C_1C_2L_3R_2 + C_1C_3L_3R_2 + C_2C_3L_3R_2\right) + s^2\left(C_1L_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_2 + C_2R_2\right) + 1}$$

**10.157** INVALID-ORDER-157 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_2s^3 + R_2g_m + s^2\left(C_2C_3R_2R_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + 1}{C_1C_2C_3L_3R_2s^4 + s^3\left(C_1C_2C_3R_2R_3 + C_1C_3L_3\right) + s^2\left(C_1C_2R_2 + C_1C_3R_2 + C_1C_3R_3 + C_2C_3R_2\right) + s\left(C_1 + C_3R_2g_m + C_3\right)}$$

10.158 INVALID-ORDER-158 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_3R_2R_3s^2 + s\left(L_3R_2R_3g_m + L_3R_3\right)}{R_2R_3g_m + R_3 + s^3\left(C_1C_2L_3R_2R_3 + C_1C_3L_3R_2R_3 + C_2C_3L_3R_2R_3\right) + s^2\left(C_1L_3R_2 + C_1L_3R_3 + C_2L_3R_2 + C_3L_3R_2R_3\right) + s\left(C_1R_2R_3 + C_2R_2R_3 + L_3R_2g_m + L_3R_3\right)}$$

**10.159** INVALID-ORDER-159 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_2L_3R_2 + C_3L_3R_2R_3g_m + C_3L_3R_3\right) + s\left(C_2R_2R_3 + L_3R_2g_m + L_3\right)}{C_1C_2C_3L_3R_2R_3s^4 + R_2g_m + s^3\left(C_1C_2L_3R_2 + C_1C_3L_3R_2 + C_1C_3L_3R_3 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_2R_3 + C_1L_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_2 + C_1R_3 + C_2R_2\right) + 1}$$

**10.160** INVALID-ORDER-160 
$$Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_2R_3s^3 + C_2R_2R_3s + R_2R_3g_m + R_3 + s^2\left(C_3L_3R_2R_3g_m + C_3L_3R_3\right)}{C_1C_2C_3L_3R_2R_3s^4 + R_2g_m + s^3\left(C_1C_3L_3R_2 + C_1C_3L_3R_3 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_2R_3 + C_1C_3R_2R_3 + C_2C_3R_2R_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_2 + C_1R_3 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + 1}$$

**10.161** INVALID-ORDER-161  $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{g_m + s \left( C_2 R_2 g_m + C_2 \right)}{C_1 C_2 C_3 R_2 s^3 + C_3 g_m s + s^2 \left( C_1 C_2 + C_1 C_3 + C_2 C_3 R_2 g_m + C_2 C_3 \right)}$$

**10.162** INVALID-ORDER-162  $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_3g_m + s\left(C_2R_2R_3g_m + C_2R_3\right)}{C_1C_2C_3R_2R_3s^3 + g_m + s^2\left(C_1C_2R_2 + C_1C_2R_3 + C_1C_3R_3 + C_2C_3R_2R_3g_m + C_2C_3R_3\right) + s\left(C_1 + C_2R_2g_m + C_2 + C_3R_3g_m\right)}$$

**10.163** INVALID-ORDER-163  $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{g_m + s^2 \left( C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_3 \right) + s \left( C_2 R_2 g_m + C_2 + C_3 R_3 g_m \right)}{C_3 g_m s + s^3 \left( C_1 C_2 C_3 R_2 + C_1 C_2 C_3 R_3 \right) + s^2 \left( C_1 C_2 + C_1 C_3 + C_2 C_3 R_2 g_m + C_2 C_3 \right)}$$

**10.164** INVALID-ORDER-164  $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_3 L_3 g_m s^2 + g_m + s^3 \left( C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3 \right) + s \left( C_2 R_2 g_m + C_2 \right)}{C_1 C_2 C_3 L_3 s^4 + C_1 C_2 C_3 R_2 s^3 + C_3 g_m s + s^2 \left( C_1 C_2 + C_1 C_3 + C_2 C_3 R_2 g_m + C_2 C_3 \right)}$$

**10.165** INVALID-ORDER-165  $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_3 g_m s + s^2 \left(C_2 L_3 R_2 g_m + C_2 L_3\right)}{C_1 C_2 C_3 L_3 R_2 s^4 + g_m + s^3 \left(C_1 C_2 L_3 + C_1 C_3 L_3 + C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3\right) + s^2 \left(C_1 C_2 R_2 + C_3 L_3 g_m\right) + s \left(C_1 + C_2 R_2 g_m + C_2\right)}$$

**10.166** INVALID-ORDER-166  $Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{g_m + s^3 \left(C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3\right) + s^2 \left(C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_3 + C_3 L_3 g_m\right) + s \left(C_2 R_2 g_m + C_2 + C_3 R_3 g_m\right)}{C_1 C_2 C_3 L_3 s^4 + C_3 g_m s + s^3 \left(C_1 C_2 C_3 R_2 + C_1 C_2 C_3 R_3\right) + s^2 \left(C_1 C_2 + C_1 C_3 + C_2 C_3 R_2 g_m + C_2 C_3\right)}$$

**10.167** INVALID-ORDER-167 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{L_3 R_3 g_m s + s^2 \left(C_2 L_3 R_2 R_3 g_m + C_2 L_3 R_3\right)}{C_1 C_2 C_3 L_3 R_2 R_3 s^4 + R_3 g_m + s^3 \left(C_1 C_2 L_3 R_2 + C_1 C_2 L_3 R_3 + C_1 C_3 L_3 R_3 + C_2 C_3 L_3 R_2 R_3 g_m + C_2 C_3 L_3 R_3\right) + s^2 \left(C_1 C_2 R_2 R_3 + C_1 L_3 + C_2 L_3 R_2 g_m + C_2 L_3 + C_3 L_3 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2 R_3 g_m + C_2 R_3 g_m\right) + s \left(C_1 R_3 + C_2$$

**10.168** INVALID-ORDER-168 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_3g_m + s^3\left(C_2C_3L_3R_2R_3g_m + C_2C_3L_3R_3\right) + s^2\left(C_2L_3R_2g_m + C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 + L_3g_m\right)}{g_m + s^4\left(C_1C_2C_3L_3R_2 + C_1C_2C_3L_3R_3\right) + s^3\left(C_1C_2L_3 + C_1C_3L_3 + C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_2 + C_1C_2R_3 + C_3L_3g_m\right) + s\left(C_1C_2R_2 + C_1C_2R_3 + C_3L_3g_m\right) + s\left(C_1C_2R_3 + C_3L_3g_m\right) + s\left(C_1C_3R_3 + C_3L_3g_m$$

**10.169** INVALID-ORDER-169 
$$Z(s) = \left(\frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_3L_3R_3g_ms^2 + R_3g_m + s^3\left(C_2C_3L_3R_2R_3g_m + C_2C_3L_3R_3\right) + s\left(C_2R_2R_3g_m + C_2R_3\right)}{g_m + s^4\left(C_1C_2C_3L_3R_2 + C_1C_2C_3L_3R_3\right) + s^3\left(C_1C_2C_3R_2R_3 + C_1C_3L_3 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_2 + C_1C_2R_3 + C_1C_3R_3 + C_2C_3R_3 + C_3L_3g_m\right) + s\left(C_1 + C_2R_2g_m + C_2 + C_3R_3g_m\right) + s\left(C_1 + C_2R_2g_m + C_2 + C_3R_3g_m\right) + s\left(C_1 + C_2R_3g_m + C_2C_3R_3 + C_3R_3g_m\right) + s\left(C_1 + C_2R_3g_m + C_2C_3R_3 + C_3R_3g_m\right) + s\left(C_1 + C_2R_3g_m + C_2C_3R_3g_m\right) + s\left(C_1 + C_2R_3g_m\right) + s\left(C_1 + C_2R_3$$

**10.170** INVALID-ORDER-170  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2R_3g_ms^2 + C_2R_3s + R_3g_m}{C_1C_2L_2s^3 + g_m + s^2\left(C_1C_2R_3 + C_2L_2g_m\right) + s\left(C_1 + C_2\right)}$$

**10.171** INVALID-ORDER-171  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 L_2 g_m s^2 + C_2 s + g_m}{C_1 C_2 C_3 L_2 s^4 + C_2 C_3 L_2 q_m s^3 + C_3 q_m s + s^2 (C_1 C_2 + C_1 C_3 + C_2 C_3)}$$

10.172 INVALID-ORDER-172  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2R_3g_ms^2 + C_2R_3s + R_3g_m}{C_1C_2C_3L_2R_3s^4 + g_m + s^3\left(C_1C_2L_2 + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3 + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_1 + C_2 + C_3R_3g_m\right)}$$

**10.173** INVALID-ORDER-173  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2R_3g_ms^3 + g_m + s^2\left(C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_2 + C_3R_3g_m\right)}{C_1C_2C_3L_2s^4 + C_3g_ms + s^3\left(C_1C_2C_3R_3 + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$$

**10.174** INVALID-ORDER-174  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2L_3g_ms^4 + C_2C_3L_3s^3 + C_2s + g_m + s^2\left(C_2L_2g_m + C_3L_3g_m\right)}{C_2C_3L_2g_ms^3 + C_3g_ms + s^4\left(C_1C_2C_3L_2 + C_1C_2C_3L_3\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$$

10.175 INVALID-ORDER-175  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2L_3g_ms^3 + C_2L_3s^2 + L_3g_ms}{C_1C_2C_3L_2L_3s^5 + C_2C_3L_2L_3g_ms^4 + g_m + s^3\left(C_1C_2L_2 + C_1C_2L_3 + C_1C_3L_3 + C_2C_3L_3\right) + s^2\left(C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1 + C_2\right)}$$

**10.176** INVALID-ORDER-176 
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_2L_3g_ms^4 + g_m + s^3\left(C_2C_3L_2R_3g_m + C_2C_3L_3\right) + s^2\left(C_2C_3R_3 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_2 + C_3R_3g_m\right)}{C_3g_ms + s^4\left(C_1C_2C_3L_2 + C_1C_2C_3L_3\right) + s^3\left(C_1C_2C_3R_3 + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$$

**10.177** INVALID-ORDER-177 
$$Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2L_2R_3g_ms^3 + C_2L_3R_3s^2 + L_3R_3g_ms}{C_1C_2C_3L_2L_3R_3s^5 + R_3g_m + s^4\left(C_1C_2L_2L_3 + C_2C_3L_2R_3g_m\right) + s^3\left(C_1C_2L_2R_3 + C_1C_2L_3R_3 + C_1C_3L_3R_3 + C_2C_3L_3R_3 + C_2L_2L_3g_m\right) + s^2\left(C_1L_3 + C_2L_2R_3g_m + C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_1R_3 + C_2R_3 + L_3g_m\right) + s\left(C_1R_3 + C_2R_3 + C_3R_3g_m\right) + s\left(C_1R_3 + C_2R_3g_m\right) + s\left(C_1R_3 + C_2R_3g_m$$

**10.178** INVALID-ORDER-178 
$$Z(s) = \left(\frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_2C_3L_2L_3R_3g_ms^4 + R_3g_m + s^3\left(C_2C_3L_3R_3 + C_2L_2L_3g_m\right) + s^2\left(C_2L_2R_3g_m + C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_2R_3 + L_3g_m\right)}{C_1C_2C_3L_2L_3s^5 + g_m + s^4\left(C_1C_2C_3L_3R_3 + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_2 + C_1C_2L_3 + C_1C_3L_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_3 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1C_2C_3L_3R_3 + C_2C_3L_3R_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_3 + C_2C_3L_3\right) + s^2\left($$

10.179 INVALID-ORDER-179 
$$Z(s) = \left(\frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_2L_3R_3g_ms^4 + C_2C_3L_3R_3s^3 + C_2R_3s + R_3g_m + s^2\left(C_2L_2R_3g_m + C_3L_3R_3g_m\right)}{C_1C_2C_3L_2L_3s^5 + g_m + s^4\left(C_1C_2C_3L_2R_3 + C_1C_2C_3L_3R_3 + C_2C_3L_2R_3g_m\right) + s^3\left(C_1C_2L_2 + C_1C_3L_3 + C_2C_3L_2R_3g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3 + C_2C_3R_3 + C_2C_3R_3 + C_2C_3R_3\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3 + C_2C_3R_3\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3\right) + s^2\left(C_1C_3R_3 + C_1C_3R_3\right)$$

**10.180** INVALID-ORDER-180  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 L_2 R_3 g_m s^2 + R_3 g_m + s \left(C_2 R_2 R_3 g_m + C_2 R_3\right)}{C_1 C_2 L_2 s^3 + q_m + s^2 \left(C_1 C_2 R_2 + C_1 C_2 R_3 + C_2 L_2 q_m\right) + s \left(C_1 + C_2 R_2 q_m + C_2\right)}$$

**10.181** INVALID-ORDER-181  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2g_ms^2 + g_m + s\left(C_2R_2g_m + C_2\right)}{C_1C_2C_3L_2s^4 + C_3g_ms + s^3\left(C_1C_2C_3R_2 + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3R_2g_m + C_2C_3\right)}$$

**10.182** INVALID-ORDER-182  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_2R_3g_ms^2 + R_3g_m + s\left(C_2R_2R_3g_m + C_2R_3\right)}{C_1C_2C_3L_2R_3s^4 + g_m + s^3\left(C_1C_2C_3R_2R_3 + C_1C_2L_2 + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_2 + C_1C_2R_3 + C_1C_3R_3 + C_2C_3R_3g_m + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_1 + C_2R_2g_m + C_2 + C_3R_3g_m\right)}$$

**10.183** INVALID-ORDER-183  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2R_3g_ms^3 + g_m + s^2\left(C_2C_3R_2R_3g_m + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_2R_2g_m + C_2 + C_3R_3g_m\right)}{C_1C_2C_3L_2s^4 + C_3g_ms + s^3\left(C_1C_2C_3R_2 + C_1C_2C_3R_3 + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3R_2g_m + C_2C_3\right)}$$

**10.184** INVALID-ORDER-184  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_2L_3g_ms^4 + g_m + s^3\left(C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_2L_2g_m + C_3L_3g_m\right) + s\left(C_2R_2g_m + C_2\right)}{C_3g_ms + s^4\left(C_1C_2C_3L_2 + C_1C_2C_3L_3\right) + s^3\left(C_1C_2C_3R_2 + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3R_2g_m + C_2C_3\right)}$$

**10.185** INVALID-ORDER-185  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2L_2L_3g_ms^3 + L_3g_ms + s^2\left(C_2L_3R_2g_m + C_2L_3\right)}{C_1C_2C_3L_2L_3s^5 + g_m + s^4\left(C_1C_2C_3L_3R_2 + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_2 + C_1C_2L_3 + C_1C_3L_3 + C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_2 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1 + C_2R_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m\right) + s\left(C_1C_2R_2 + C_2L_3g_m\right) + s\left(C_1C_2R_2 + C_2L_3$ **10.186** INVALID-ORDER-186  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_2L_3g_ms^4 + g_m + s^3\left(C_2C_3L_2R_3g_m + C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_2C_3R_2R_3g_m + C_2C_3R_3 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_2R_2g_m + C_2 + C_3R_3g_m\right)}{C_3g_ms + s^4\left(C_1C_2C_3L_2 + C_1C_2C_3L_3\right) + s^3\left(C_1C_2C_3R_2 + C_1C_2C_3R_3 + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3R_2g_m + C_2C_3\right)}$ 10.187 INVALID-ORDER-187  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2L_2L_3R_3g_ms^3 + L_3R_3g_ms + s^2\left(C_2L_3R_2R_3g_m + C_2L_3R_3\right)}{C_1C_2C_3L_2L_3R_3s^5 + R_3g_m + s^4\left(C_1C_2C_3L_3R_2R_3 + C_1C_2L_2R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1C_3L_3R_3 + C_2C_3L_3R_3 + C$ **10.188** INVALID-ORDER-188  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_2L_3R_3g_ms^4 + R_3g_m + s^3\left(C_2C_3L_3R_2R_3g_m + C_2L_3L_3g_m\right) + s^2\left(C_2L_2R_3g_m + C_2L_3R_2g_m + C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3 + L_3g_m\right)}{C_1C_2C_3L_2L_3s^5 + g_m + s^4\left(C_1C_2C_3L_3R_3 + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_2 + C_1C_2L_3 + C_1C_3L_3 + C_2C_3L_3R_3g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_2 + C_1C_2R_3 + C_2L_3g_m + C_2R_3g_m + C_2R_3g_m$ **10.189** INVALID-ORDER-189  $Z(s) = \left(\frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$  $C_{2}C_{3}L_{2}L_{3}R_{3}g_{m}s^{4} + R_{3}g_{m} + s^{3}\left(C_{2}C_{3}L_{3}R_{2}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s^{2}\left(C_{2}L_{2}R_{3}g_{m} + C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{2}R_{2}R_{3}g_{m} + C_{2}R_{3}\right) \\ C_{1}C_{2}C_{3}L_{2}L_{3}s^{5} + g_{m} + s^{4}\left(C_{1}C_{2}C_{3}L_{2}R_{3} + C_{1}C_{2}C_{3}L_{3}R_{3} + C_{2}C_{3}L_{2}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3} + C_{2}C_{3}L_{2}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{2}g_{m} + C_{2}C_{3}L_{3}R_{3} + C_{2}C_{3}R_{2}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{2}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{2}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{2}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{3}R_{3} + C_{1}C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{3}R_{3} + C_{1}C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{3}R_{3} + C_{1}C_{2}C_{3}L_{3}R_{3} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{3}R_{3} + C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{3}R_{3} + C_{1}C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{3}R_{3} + C_{1}C_{2}C_{3}L_{3}R_{3}g_{m} + C_{2}C_{3}L_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{3}R_{3} + C_$ **10.190** INVALID-ORDER-190  $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right)$  $H(s) = \frac{L_2 R_3 g_m s + R_2 R_3 g_m + R_3 + s^2 \left(C_2 L_2 R_2 R_3 g_m + C_2 L_2 R_3\right)}{R_2 g_m + s^3 \left(C_1 C_2 L_2 R_2 + C_1 C_2 L_2 R_3\right) + s^2 \left(C_1 L_2 + C_2 L_2 R_2 g_m + C_2 L_2\right) + s \left(C_1 R_2 + C_1 R_3 + L_2 g_m\right) + 1}$ 10.191 INVALID-ORDER-191  $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$  $H(s) = \frac{L_2 g_m s + R_2 g_m + s^2 \left(C_2 L_2 R_2 g_m + C_2 L_2\right) + 1}{C_1 C_2 C_3 L_2 R_2 s^4 + s^3 \left(C_1 C_2 L_2 + C_1 C_3 L_2 + C_2 C_3 L_2 R_2 g_m + C_2 C_3 L_2\right) + s^2 \left(C_1 C_3 R_2 + C_3 L_2 g_m\right) + s \left(C_1 + C_3 R_2 g_m + C_3\right)}$ **10.192** INVALID-ORDER-192  $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$  $H(s) = \frac{L_2 R_3 g_m s + R_2 R_3 g_m + R_3 + s^2 \left(C_2 L_2 R_2 R_3 g_m + C_2 L_2 R_3\right)}{C_1 C_2 C_3 L_2 R_3 s^4 + R_2 g_m + s^3 \left(C_1 C_2 L_2 R_2 + C_1 C_2 L_2 R_3 + C_1 C_3 L_2 R_3 g_m + C_2 C_3 L_2 R_3\right) + s^2 \left(C_1 C_3 R_2 R_3 + C_1 L_2 + C_2 L_2 R_2 g_m + C_2 L_2 + C_3 L_2 R_3 g_m\right) + s \left(C_1 R_2 + C_1 R_3 + C_3 R_2 R_3 g_m + C_3 R_3 + L_2 g_m\right) + 1}$ **10.193** INVALID-ORDER-193  $Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

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10.194 INVALID-ORDER-194 Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                        H(s) = \frac{C_3L_2L_3g_ms^3 + L_2g_ms + R_2g_m + s^4\left(C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3\right) + s^2\left(C_2L_2R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3\right) + 1}{C_1C_2C_3L_2L_3s^5 + C_1C_2C_3L_2R_2s^4 + s^3\left(C_1C_2L_2 + C_1C_3L_2 + C_1C_3L_3 + C_2C_3L_2R_2g_m + C_2C_3L_2\right) + s^2\left(C_1C_3R_2 + C_3L_2g_m\right) + s\left(C_1 + C_3R_2g_m + C_3C_3L_2\right) + s^2\left(C_1C_3R_2 + C_3L_2g_m\right) + s\left(C_1 + C_3R_2g_m + C_3C_3L_2\right) + s^2\left(C_1C_3R_2 + C_3L_2g_m\right) + s\left(C_1C_3R_2g_m + C_3L_2\right) + s^2\left(C_1C_3R_2g_m + C_3L_3\right) + s^2\left(C_1C_3R_3g_m + C_3L_3\right) + s^2\left(C_1C
10.195 INVALID-ORDER-195 Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                                 H(s) = \frac{L_2L_3g_ms^2 + s^3\left(C_2L_2L_3R_2g_m + C_2L_2L_3\right) + s\left(L_3R_2g_m + L_3\right)}{C_1C_2C_3L_2L_3R_2s^5 + R_2g_m + s^4\left(C_1C_2L_2L_3 + C_1C_3L_2L_3 + C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3\right) + s^3\left(C_1C_2L_2R_2 + C_1C_3L_3R_2g_m + C_2L_2R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3\right) + s^2\left(C_1L_2 + C_1L_3 + C_2L_2R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3\right) + s^2\left(C_1L_2 + C_1L_3 + C_2L_2R_2g_m + C_2L_2 + C_3L_3R_2g_m + C_3L_3\right) + s^2\left(C_1L_2 + C_1L_3 + C_2L_2R_2g_m + C_3L_3\right) + s^2\left(C_1L_2 + C_1L_3 + C_2L_3R_2g_m + C_3L_3\right) + s^2\left(C_1L_3 + C_2L_3R_3g_m + C_3L_3\right) + s^2\left(C_1L_3 + C_3L_3R_3g_m + C_3L_3\right) + s^2\left(C_1L_3 + C_3L_3R_3g_m + C_3L_3\right) + s^2\left(C_1L_3 + C_3L_3R_3g_m + C_3L_3R_3g_m + C_3L_3\right) + s^2\left(C_1L_3 + C_3L_3R_3g_m + 
10.196 INVALID-ORDER-196 Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                         H(s) = \frac{R_2 g_m + s^4 \left(C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3\right) + s^3 \left(C_2 C_3 L_2 R_3 g_m + C_2 C_3 L_2 R_3 g_m + C_3 L_2 L_3 g_m\right) + s^2 \left(C_2 L_2 R_2 g_m + C_2 L_2 + C_3 L_2 R_3 g_m + C_3 L_3\right) + s \left(C_3 R_2 R_3 g_m + C_3 R_3 g_m
10.197 INVALID-ORDER-197 Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
H(s) = \frac{L_2L_3R_3g_ms^2 + s^3\left(C_2L_2L_3R_2g_{3g_m} + C_2L_2L_3R_3\right) + s\left(L_3R_2R_3g_m + L_3R_3\right)}{C_1C_2C_3L_2L_3R_2g_{3g_m} + R_3 + s^4\left(C_1C_2L_2L_3R_3 + C_1C_3L_2L_3R_3 + C_2C_3L_2L_3R_3\right) + s^3\left(C_1C_2L_2R_2R_3 + C_1L_2L_3 + C_2L_2L_3R_2g_m + C_2L_2L_3 + C_3L_2L_3R_3g_m\right) + s^2\left(C_1L_2R_3 + C_1L_3R_3 + C_2C_3L_2L_3R_3\right) + s^2\left(C_1L_2R_3 + C_1L_3R_3 + C_2C_3L_2L_3R_3\right) + s^2\left(C_1L_2R_3 + C_2L_2L_3R_3 + C_2L_2L_3R_3 + C_2L_2L_3R_3\right) + s^2\left(C_1L_2R_3 + C_2L_2L_3R_3 + C_2L_2L_3R_3 + C_2L_2L_3R_3\right) + s^2\left(C_1L_2R_3 + C_2L_2L_3R_3\right) + s^2\left(C_1
10.198 INVALID-ORDER-198 Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_2 C_3 L_2 L_3 R_2 g_m + C_2 C_3 L_2 L_3 R_3 g_m + C_2 L_2 L_3 + C_3 L_2 L_3 R_3 g_m + C_2 L_2 R_3 g_m + C_2 L_2 R_3 g_m + C_2 L_2 R_3 g_m + C_3 L_3 R_3 g
10.199 INVALID-ORDER-199 Z(s) = \left(\frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                \frac{C_3L_2L_3R_3g_ms^3 + L_2R_3g_ms + R_2R_3g_m + R_3 + s^4\left(C_2C_3L_2L_3R_3g_m + C_2C_3L_2L_3R_3\right) + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3 + C_3L_3R_3g_m + C_3L
10.200 INVALID-ORDER-200 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                              H(s) = \frac{C_2R_2R_3s + R_2R_3g_m + R_3 + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3\right)}{R_2g_m + s^3\left(C_1C_2L_2R_2 + C_1C_2L_2R_3\right) + s^2\left(C_1C_2R_2R_3 + C_2L_2R_2g_m + C_2L_2\right) + s\left(C_1R_2 + C_1R_3 + C_2R_2\right) + 1}
10.201 INVALID-ORDER-201 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                             H(s) = \frac{C_2R_2s + R_2g_m + s^2\left(C_2L_2R_2g_m + C_2L_2\right) + 1}{C_1C_2C_3L_2R_2s^4 + s^3\left(C_1C_2L_2 + C_2C_3L_2R_2g_m + C_2C_3L_2\right) + s^2\left(C_1C_2R_2 + C_1C_3R_2 + C_2C_3R_2\right) + s\left(C_1 + C_3R_2g_m + C_3\right)}
10.202 INVALID-ORDER-202 Z(s) = \left(\frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
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$$H(s) = \frac{C_2R_2R_3s + R_2R_3g_m + R_3 + s^2\left(C_2L_2R_2R_3g_m + C_2L_2R_3\right)}{C_1C_2C_3L_2R_2R_3s^4 + R_2g_m + s^3\left(C_1C_2L_2R_3 + C_2C_3L_2R_3g_m + C_2C_3L_2R_3\right) + s^2\left(C_1C_2R_2R_3 + C_1C_3R_2R_3 + C_2L_2R_2g_m + C_2L_2\right) + s\left(C_1R_2 + C_1R_3 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + 1}$$

10.203 INVALID-ORDER-203 
$$Z(s) = \left(\frac{1}{G_2}, \frac{R_2[G_2(s,t)]}{G_2(s,t)^2(G_2(s,t))}, R_3 + \frac{1}{G_2}, \infty, \infty, \infty\right)$$

$$R(s) = \frac{R_2s_1 - e^{-\frac{t}{G_2(s,t)}R_2R_{2s_1} - G_2(s,t)}{G_2(s,t)^2(S_2(s,t))}, R_3 + \frac{1}{G_2(s,t)}G_2(s_2(s,t)) + \frac{t}{G_2(s,t)^2(R_2s_1) + \frac{t}{G_2(s,t)}R_{2s_1} - G_2(s,t)} + \frac{t}{G_2(s,t)^2(R_2s_1) + \frac{t}{G_2(s,t)}R_{2s_1$$

10.211 INVALID-ORDER-211  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left( C_3 L_3 R_1 R_2 g_m + C_3 L_3 R_1 \right)}{C_1 C_3 L_3 R_1 s^3 + s^2 \left( C_1 C_3 R_1 R_2 + C_3 L_3 \right) + s \left( C_1 R_1 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 \right) + 1}$$

 $H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s \left(C_1 R_1 R_2 + C_1 R_1 R_3\right)}$ 

**10.212** INVALID-ORDER-212 
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s\left(L_{3}R_{1}R_{2}g_{m} + L_{3}R_{1}\right)}{C_{1}C_{3}L_{3}R_{1}R_{2}s^{3} + R_{1}R_{2}g_{m} + R_{1} + R_{2} + s^{2}\left(C_{1}L_{3}R_{1} + C_{3}L_{3}R_{1}R_{2}g_{m} + C_{3}L_{3}R_{1} + C_{3}L_{3}R_{2}\right) + s\left(C_{1}R_{1}R_{2} + L_{3}\right)}$$

**10.213** INVALID-ORDER-213 
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left( C_3 L_3 R_1 R_2 g_m + C_3 L_3 R_1 \right) + s \left( C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3 \right)}{C_1 C_3 L_3 R_1 s^3 + s^2 \left( C_1 C_3 R_1 R_2 + C_1 C_3 R_1 R_3 + C_3 L_3 \right) + s \left( C_1 R_1 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 + C_3 R_3 \right) + 1}$$

**10.214** INVALID-ORDER-214 
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s\left(L_{3}R_{1}R_{2}R_{3}g_{m} + L_{3}R_{1}R_{3}\right)}{C_{1}C_{3}L_{3}R_{1}R_{2}R_{3}s^{3} + R_{1}R_{2}R_{3}g_{m} + R_{1}R_{3} + R_{2}R_{3} + s^{2}\left(C_{1}L_{3}R_{1}R_{2} + C_{1}L_{3}R_{1}R_{3} + C_{3}L_{3}R_{1}R_{3} + C_{3}L_{3}R_{1}R_{3} + C_{3}L_{3}R_{2}R_{3}\right) + s\left(C_{1}R_{1}R_{2}R_{3} + L_{3}R_{1}R_{2}g_{m} + L_{3}R_{1} + L_{3}R_{2} + L_{3}R_{3}\right)}$$

**10.215** INVALID-ORDER-215 
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1R_2R_3g_m + R_1R_3 + s^2\left(C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3\right) + s\left(L_3R_1R_2g_m + L_3R_1\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_3\right) + s^2\left(C_1L_3R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_2 + C_3L_3R_3\right) + s\left(C_1R_1R_2 + C_1R_1R_3 + L_3\right)}$$

**10.216** INVALID-ORDER-216 
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1R_2R_3g_m + R_1R_3 + s^2\left(C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_3\right) + s^2\left(C_1C_3R_1R_2R_3 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_3\right) + s\left(C_1R_1R_2 + C_1R_1R_3 + C_3R_1R_2R_3g_m + C_3R_1R_3\right)}$$

10.217 INVALID-ORDER-217  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 R_1 s + R_1 g_m}{s^2 \left( C_1 C_2 R_1 + C_1 C_3 R_1 + C_2 C_3 R_1 \right) + s \left( C_2 + C_3 R_1 g_m + C_3 \right)}$$

**10.218** INVALID-ORDER-218  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3R_1R_3s^2 + R_1g_m + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{C_1C_2C_3R_1R_3s^3 + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

10.219 INVALID-ORDER-219  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_3R_1s^3 + C_2R_1s + C_3L_3R_1g_ms^2 + R_1g_m}{C_1C_2C_3L_3R_1s^4 + C_2C_3L_3s^3 + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

**10.220** INVALID-ORDER-220  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_3R_1s^2 + L_3R_1g_ms}{R_1g_m + s^3\left(C_1C_2L_3R_1 + C_1C_3L_3R_1 + C_2C_3L_3R_1\right) + s^2\left(C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_1R_1 + C_2R_1\right) + 1}$$

**10.221** INVALID-ORDER-221  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_3R_1s^3 + R_1g_m + s^2\left(C_2C_3R_1R_3 + C_3L_3R_1g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{C_1C_2C_3L_3R_1s^4 + s^3\left(C_1C_2C_3R_1R_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

**10.222** INVALID-ORDER-222  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2L_3R_1R_3s^2 + L_3R_1R_3g_ms}{R_1R_3g_m + R_3 + s^3\left(C_1C_2L_3R_1R_3 + C_1C_3L_3R_1R_3 + C_2C_3L_3R_1R_3\right) + s^2\left(C_1L_3R_1 + C_2L_3R_1 + C_2L_3R_3 + C_3L_3R_1R_3g_m + C_3L_3R_3\right) + s\left(C_1R_1R_3 + C_2R_1R_3 + L_3R_1g_m + L_3\right)}$ **10.223** INVALID-ORDER-223  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_3R_1R_3s^3 + R_1R_3g_m + s^2\left(C_2L_3R_1 + C_3L_3R_1R_3g_m\right) + s\left(C_2R_1R_3 + L_3R_1g_m\right)}{C_1C_2C_3L_3R_1R_3s^4 + R_1g_m + s^3\left(C_1C_2L_3R_1 + C_1C_3L_3R_1 + C_2C_3L_3R_1 + C_2C_3L_3R_3\right) + s^2\left(C_1C_2R_1R_3 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_1R_1 + C_2R_1 + C_2R_3\right) + 1}$ 10.224 INVALID-ORDER-224  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_3R_1R_3s^3 + C_2R_1R_3s + C_3L_3R_1R_3g_ms^2 + R_1R_3g_m}{C_1C_2C_3L_3R_1R_3s^4 + R_1g_m + s^3\left(C_1C_3L_3R_1 + C_2C_3L_3R_1 + C_2C_3L_3R_3\right) + s^2\left(C_1C_2R_1R_3 + C_1C_3R_1R_3 + C_2C_3R_1R_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_1R_1 + C_2R_1 + C_2R_3 + C_3R_1R_3g_m + C_3R_3\right) + 1}$ **10.225** INVALID-ORDER-225  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3R_1R_2R_3s^2 + R_1R_2g_m + R_1 + s\left(C_2R_1R_2 + C_3R_1R_2R_3g_m + C_3R_1R_3\right)}{C_1C_2C_3R_1R_2R_3s^3 + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2 + C_1C_3R_1R_3 + C_2C_3R_1R_2 + C_2C_3R_2R_3\right) + s\left(C_1R_1 + C_2R_2 + C_3R_1R_2g_m + C_3R_1 + C_3R_2 + C_3R_3\right) + 1}$ **10.226** INVALID-ORDER-226  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_3R_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_3L_3R_1R_2g_m + C_3L_3R_1\right)}{C_1C_2C_3L_3R_1R_2s^4 + s^3\left(C_1C_3L_3R_1 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2 + C_2C_3R_1R_2 + C_3L_3\right) + s\left(C_1R_1 + C_2R_2 + C_3R_1R_2g_m + C_3R_1 + C_3R_2\right) + 1}$ 10.227 INVALID-ORDER-227  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2L_3R_1R_2s^2 + s\left(L_3R_1R_2g_m + L_3R_1\right)}{R_1R_2g_m + R_1 + R_2 + s^3\left(C_1C_2L_3R_1R_2 + C_1C_3L_3R_1R_2 + C_2C_3L_3R_1R_2\right) + s^2\left(C_1L_3R_1 + C_2L_3R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_2\right) + s\left(C_1R_1R_2 + C_2R_1R_2 + L_3\right)}$ 10.228 INVALID-ORDER-228  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_3R_1R_2s^3 + R_1R_2g_m + R_1 + s^2\left(C_2C_3R_1R_2R_3 + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s\left(C_2R_1R_2 + C_3R_1R_2R_3g_m + C_3R_1R_3\right)}{C_1C_2C_3L_3R_1R_2s^4 + s^3\left(C_1C_2C_3R_1R_2R_3 + C_1C_3L_3R_1 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2 + C_1C_3R_1R_3 + C_2C_3R_1R_2 + C_2C_3R_2R_3 + C_3L_3\right) + s\left(C_1R_1 + C_2R_2 + C_3R_1R_2g_m + C_3R_1R_2g_m + C_3R_1R_2\right) + s\left(C_1R_1 + C_2R_2 + C_3R_1R_2\right) + s\left(C_1R_1 + C_2R_2\right) + s\left(C_1R_1$$

10.229 INVALID-ORDER-229 
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_3R_1R_2R_3s^2 + s\left(L_3R_1R_2R_3g_m + L_3R_1R_3\right)}{R_1R_2R_3g_m + R_1R_3 + R_2R_3 + s^3\left(C_1C_2L_3R_1R_2R_3 + C_2C_3L_3R_1R_2R_3 + C_2L_3R_1R_2 + C_2L_3R_1R$$

**10.230** INVALID-ORDER-230 
$$Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2C_3L_3R_1R_2R_3s^3 + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_3R_1R_2 + C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_3\right) + s\left(C_2R_1R_2R_3 + L_3R_1R_2g_m + L_3R_1\right)}{C_1C_2C_3L_3R_1R_2R_3s^4 + R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_2L_3R_1R_2 + C_1C_3L_3R_1R_3 + C_2C_3L_3R_1R_2 + C_2C_3L_3R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_3L_3R_1 +$$

10.231 INVALID-ORDER-231  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_3R_1R_2R_3s^3 + C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_3L_3R_1R_2R_3g_m + C_3L_3R_1R_2\right)}{C_1C_2C_3L_3R_1R_2R_3s^4 + R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_3L_3R_1R_2 + C_2C_3L_3R_1R_2 + C_2C_3L_3R_1R_2R_3 + C_2C_3R_1R_2R_3 + C_2C_3R_1R_2R_3 + C_2C_3R_1R_2R_3 + C_3L_3R_1R_2g_m + C_3L_3R_1 + C_3L_3R_2 + C_3L_3R_1 + C_3L_3R_1$ 

**10.232** INVALID-ORDER-232  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 g_m + s \left( C_2 R_1 R_2 g_m + C_2 R_1 \right)}{C_1 C_2 C_3 R_1 R_2 s^3 + s^2 \left( C_1 C_2 R_1 + C_1 C_3 R_1 + C_2 C_3 R_1 R_2 g_m + C_2 C_3 R_1 + C_2 C_3 R_2 \right) + s \left( C_2 + C_3 R_1 g_m + C_3 C_3 R_1 R_2 g_m + C_3$$

**10.233** INVALID-ORDER-233  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_{1}R_{3}g_{m} + s\left(C_{2}R_{1}R_{2}R_{3}g_{m} + C_{2}R_{1}R_{3}\right)}{C_{1}C_{2}C_{3}R_{1}R_{2}R_{3}s^{3} + R_{1}g_{m} + s^{2}\left(C_{1}C_{2}R_{1}R_{2} + C_{1}C_{2}R_{1}R_{3} + C_{1}C_{3}R_{1}R_{3} + C_{2}C_{3}R_{1}R_{3} +$$

**10.234** INVALID-ORDER-234  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1 g_m + s^2 \left( C_2 C_3 R_1 R_2 R_3 g_m + C_2 C_3 R_1 R_3 \right) + s \left( C_2 R_1 R_2 g_m + C_2 R_1 + C_3 R_1 R_3 g_m \right)}{s^3 \left( C_1 C_2 C_3 R_1 R_2 + C_1 C_2 C_3 R_1 R_3 \right) + s^2 \left( C_1 C_2 R_1 + C_1 C_3 R_1 + C_2 C_3 R_1 R_2 g_m + C_2 C_3 R_1 + C_2 C_3 R_2 + C_2 C_3 R_3 \right) + s \left( C_2 + C_3 R_1 g_m + C_3 C_3 R_1 R_2 g_m + C_3 C_3 R_1 R_2 g_m + C_3 C_3 R_1 R_2 g_m \right)}$$

**10.235** INVALID-ORDER-235  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_3L_3R_1g_ms^2 + R_1g_m + s^3\left(C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{C_1C_2C_3L_3R_1s^4 + s^3\left(C_1C_2C_3R_1R_2 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_2\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$$

10.236 INVALID-ORDER-236  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_3 R_1 g_m s + s^2 \left(C_2 L_3 R_1 R_2 g_m + C_2 L_3 R_1\right)}{C_1 C_2 C_3 L_3 R_1 R_2 s^4 + R_1 g_m + s^3 \left(C_1 C_2 L_3 R_1 + C_1 C_3 L_3 R_1 + C_2 C_3 L_3 R_1 + C_2 C_3 L_3 R_1 + C_2 C_3 L_3 R_2\right) + s^2 \left(C_1 C_2 R_1 R_2 + C_2 L_3 + C_3 L_3 R_1 g_m + C_3 L_3\right) + s \left(C_1 R_1 + C_2 R_1 R_2 g_m + C_2 R_1 + C_2 R_2\right) + 1}$$

10.237 INVALID-ORDER-237  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_1g_m + s^3\left(C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1\right) + s^2\left(C_2C_3R_1R_2R_3g_m + C_2C_3R_1R_3 + C_3L_3R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_3R_1R_3g_m\right)}{C_1C_2C_3L_3R_1s^4 + s^3\left(C_1C_2C_3R_1R_2 + C_1C_2C_3R_1R_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_2 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3R_1\right)}$$

**10.238** INVALID-ORDER-238  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$L_3R_1R_3g_ms + s^2\left(C_2L_3R_1R_2R_3g_m + C_2L_3R_1R_3\right)$$

$$H(s) = \frac{L_3 R_1 R_3 g_m s + s^2 \left(C_2 L_3 R_1 R_2 R_3 g_m + C_2 L_3 R_1 R_3\right)}{C_1 C_2 C_3 L_3 R_1 R_2 R_3 s^4 + R_1 R_3 g_m + R_3 + s^3 \left(C_1 C_2 L_3 R_1 R_2 + C_1 C_2 L_3 R_1 R_3 + C_2 C_3 L_3 R_1 R_3 + C_2 C_3 L_3 R_1 R_3 + C_2 C_3 L_3 R_1 R_2 R_3 + C_1 L_3 R_1 + C_2 L_3 R_1 R_2 g_m + C_2 L_3 R_1 + C_2 L_3 R_1 R_2 g_m + C_$$

**10.239** INVALID-ORDER-239  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

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10.240 INVALID-ORDER-240 Z(s) = \left(\frac{R_1}{C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \frac{R_3(C_2C_2s^2+1)}{C_2C_3s^2+C_2R_2s^2+1}, \infty, \infty, \infty\right)
\frac{C_3L_3R_1R_3g_{ms}s^2 + R_1R_3g_{ms} + s^3(C_2C_3L_3R_1R_2R_3g_{ms} + C_2C_3L_3R_1R_3) + s(C_2R_1R_2R_3g_{ms} + C_2R_1R_3g_{ms} + C_2R_1R_2R_3g_{ms} + C_2R_1R_2R_2g_{ms} + C_2R_1R_2g_{ms} + C_2R_2R_2g_{ms} + C_2R_2R_2g_{ms}
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 $\textbf{10.244} \quad \textbf{INVALID-ORDER-244} \ \ Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \ L_2s + \frac{1}{C_2s}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty, \ \infty\right)$   $H(s) = \frac{C_2C_3L_2R_1R_3g_ms^3 + R_1g_m + s^2\left(C_2C_3R_1R_3 + C_2L_2R_1g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{C_1C_2C_3L_2R_1s^4 + s^3\left(C_1C_2C_3R_1R_3 + C_2C_3L_2R_1g_m + C_2C_3L_2\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}$ 

 $\begin{aligned} \textbf{10.245} \quad \textbf{INVALID-ORDER-245} \ \ Z(s) &= \left(\frac{R_1}{C_1R_1s+1}, \ L_2s + \frac{1}{C_2s}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right) \\ & H(s) &= \frac{C_2C_3L_2L_3R_1g_ms^4 + C_2C_3L_3R_1s^3 + C_2R_1s + R_1g_m + s^2\left(C_2L_2R_1g_m + C_3L_3R_1g_m\right)}{s^4\left(C_1C_2C_3L_2R_1 + C_1C_2C_3L_3R_1\right) + s^3\left(C_2C_3L_2R_1g_m + C_2C_3L_2 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1\right) + s\left(C_2 + C_3R_1g_m + C_3\right)} \end{aligned}$ 

**10.248** INVALID-ORDER-248  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2L_2R_1R_3g_ms^3 + C_2L_3R_1R_3g^2 + L_3R_1R_3g_ms}{C_1C_2C_3L_2L_3R_1R_3s^5 + R_1R_3g_m + R_3 + s^4\left(C_1C_2L_2L_3R_1 + C_2C_3L_2L_3R_1R_3g_m + C_2C_3L_2R_1R_3 + C_1C_2L_3R_1R_3 + C_2C_3L_3R_1R_3 + C_2C_3L_3R_1R_3 + C_2L_2L_3R_1g_m + C_2L_2R_1R_3g_m +$ 

**10.249** INVALID-ORDER-249  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2C_3L_2L_3R_1R_3g_ms^4 + R_1R_3g_m + s^3\left(C_2C_3L_3R_1R_3 + C_2L_2L_3R_1g_m\right) + s^2\left(C_2L_2R_1R_3g_m + C_2L_3R_1 + C_3L_3R_1R_3g_m\right) + s\left(C_2R_1R_3 + L_3R_1g_m\right)}{C_1C_2C_3L_2L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2C_3L_3R_1R_3 + C_2C_3L_2L_3\right) + s^3\left(C_1C_2L_2R_1 + C_1C_2L_3R_1 + C_2C_3L_3R_1\right) + s^2\left(C_1C_2R_1R_3 + C_2L_2R_1g_m + C_2L_2 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_1R_1 + C_2R_1 + C_2R$ 

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H(s) = \frac{C_2C_3L_2L_3R_1R_3g_ms^4 + C_2C_3L_3R_1R_3s^3 + C_2R_1R_3s + R_1R_3g_m + s^2\left(C_2L_2R_1R_3g_m + C_3L_3R_1R_3g_m\right)}{C_1C_2C_3L_2L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2C_3L_2R_1R_3 + C_2C_3L_2R_1R_3 + C_2C_3L_3R_1 + C_2C_3L_2R_1R_3 + C_2C_3L_2R
10.251 INVALID-ORDER-251 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                       H(s) = \frac{C_2L_2R_1R_3g_ms^2 + R_1R_3g_m + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3\right)}{C_1C_2L_2R_1s^3 + R_1q_m + s^2\left(C_1C_2R_1R_2 + C_1C_2R_1R_3 + C_2L_2R_1q_m + C_2L_2\right) + s\left(C_1R_1 + C_2R_1R_2q_m + C_2R_1 + C_2R_2 + C_2R_3\right) + 1}
10.252 INVALID-ORDER-252 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                  H(s) = \frac{C_2L_2R_1g_ms^2 + R_1g_m + s\left(C_2R_1R_2g_m + C_2R_1\right)}{C_1C_2C_3L_2R_1s^4 + s^3\left(C_1C_2C_3R_1R_2 + C_2C_3L_2R_1g_m + C_2C_3L_2\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_2\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}
10.253 INVALID-ORDER-253 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_2R_1R_3g_ms^2 + R_1R_3g_m + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3\right)}{C_1C_2C_3L_2R_1R_3s^4 + R_1g_m + s^3\left(C_1C_2C_3R_1R_2R_3 + C_1C_2L_2R_1 + C_2C_3L_2R_1R_3g_m + C_2C_3L_2R_1R_3 + C_1C_2R_1R_3 + C_2C_3R_1R_3 + C_2C_3R_1R
10.254 INVALID-ORDER-254 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                    H(s) = \frac{C_2C_3L_2R_1R_3g_ms^3 + R_1g_m + s^2\left(C_2C_3R_1R_2R_3g_m + C_2C_3R_1R_3 + C_2L_2R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_3R_1R_3g_m\right)}{C_1C_2C_3L_2R_1s^4 + s^3\left(C_1C_2C_3R_1R_2 + C_1C_2C_3R_1R_3 + C_2C_3L_2R_1g_m + C_2C_3L_2\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3C_3R_1R_2g_m + C_3
10.255 INVALID-ORDER-255 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                              H(s) = \frac{C_2C_3L_2L_3R_1g_ms^4 + R_1g_m + s^3\left(C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1\right) + s^2\left(C_2L_2R_1g_m + C_3L_3R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{s^4\left(C_1C_2C_3L_2R_1 + C_1C_2C_3L_3R_1\right) + s^3\left(C_1C_2C_3R_1R_2 + C_2C_3L_2R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2g_m + C_2C_3R_1\right) + s\left(C_2R_1R_2g_m + C_2C_3R_1R_2g_m + C_2C_3R_1R_2g_m + C_2C_3R_1R_2g_m\right) + s\left(C_2R_1R_2g_m + C_2C_3R_1R_2g_m + C_2C_3R_1R_2g_m + C_2C_3R_1R_2g_m\right) + s\left(C_2R_1R_2g_m + C_2C_3R_1R_2g_m\right) + s\left(C_2R_1R_2g_m
10.256 INVALID-ORDER-256 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_2R_1g_ms^3 + L_3R_1g_ms + s^2\left(C_2L_3R_1R_2g_m + C_2L_3R_1\right)}{C_1C_2C_3L_2L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2C_3L_3R_1R_2 + C_2C_3L_2L_3R_1g_m + C_2C_3L_2R_1 + C_1C_2L_3R_1 + C_1C_3L_3R_1 + C_2C_3L_3R_1 
10.257 INVALID-ORDER-257 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                 H(s) = \frac{C_2C_3L_2L_3R_1g_ms^4 + R_1g_m + s^3\left(C_2C_3L_2R_1R_3g_m + C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1\right) + s^2\left(C_2C_3R_1R_2R_3g_m + C_2C_3R_1R_3 + C_2L_2R_1g_m + C_3L_3R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_3R_1R_3g_m\right)}{s^4\left(C_1C_2C_3L_2R_1 + C_1C_2C_3L_3R_1\right) + s^3\left(C_1C_2C_3R_1R_3 + C_2C_3L_2R_1g_m + C_2C_3L_2 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_1
10.258 INVALID-ORDER-258 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C_2L_2L_3R_1R_3g_ms^3 + L_3R_1R_3g_ms + s^2(C_2L_3R_1R_2R_3g_ms^3)
H(s) = \frac{C_2L_2L_3R_1R_3g_m + R_3 + s^4(C_1C_2C_3L_3R_1R_3g_m + R_3 + s^4(C_1C_2C_3L_3R_1R_3g_m + C_2C_3L_2L_3R_1 + C_2C_3L_2L_3R_1 + C_2C_3L_2L_3R_1 + C_2C_3L_2L_3R_1 + C_2C_3L_2L_3R_1 + C_2C_3L_2L_3R_1 + C_2C_3L_3R_1R_3 + C_
10.259 INVALID-ORDER-259 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
                                              \frac{C_{2}C_{3}L_{2}L_{3}R_{1}R_{3}g_{m}+s^{3}\left(C_{2}C_{3}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{3}R_{1}R_{3}+C_{2}L_{2}L_{3}R_{1}g_{m}\right)+s^{2}\left(C_{2}L_{2}R_{1}R_{3}g_{m}+C_{2}L_{3}R_{1}R_{2}g_{m}+C_{2}L_{3}R_{1}R_{2}g_{m}+C_{2}L_{3}R_{1}R_{3}g_{m}\right)+s\left(C_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{2}R_{1}R_{3}g_{m}+C_{
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10.250 INVALID-ORDER-250  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + \frac{1}{C_2 s}, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

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10.260 INVALID-ORDER-260 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         H(s) = \frac{C_2C_3L_2L_3R_1R_3g_ms + R_1R_3g_ms + R_1R_3g_m + s + (C_2C_3L_3R_1R_3 + C_2C_3L_3R_1R_3 + C_2C_3L_2R_1R_3 + 
10.261 INVALID-ORDER-261 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                        H(s) = \frac{L_2R_1R_3g_ms + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_2L_2R_1R_2 + C_1C_2L_2R_1R_3\right) + s^2\left(C_1L_2R_1 + C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_2 + C_2L_2R_3\right) + s\left(C_1R_1R_2 + C_1R_1R_3 + L_2R_1g_m + L_2\right)}
10.262 INVALID-ORDER-262 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                               H(s) = \frac{L_2 R_1 g_m s + R_1 R_2 g_m + R_1 + s^2 \left(C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right)}{C_1 C_2 C_3 L_2 R_1 R_2 s^4 + s^3 \left(C_1 C_2 L_2 R_1 + C_1 C_3 L_2 R_1 + C_2 C_3 L_2 R_1 R_2 g_m + C_2 C_3 L_2 R_1\right) + s^2 \left(C_1 C_3 R_1 R_2 + C_2 L_2 + C_3 L_2 R_1 g_m + C_3 L_2\right) + s \left(C_1 R_1 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_1 R_2 g_m + C_3 
10.263 INVALID-ORDER-263 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{L_2R_1R_3g_ms + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{C_1C_2C_3L_2R_1R_2R_3s^4 + R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_2L_2R_1R_2 + C_1C_2L_2R_1R_3 + C_2C_3L_2R_1R_3 + C
10.264 INVALID-ORDER-264 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
       H(s) = \frac{R_1R_2g_m + R_1 + s^3\left(C_2C_3L_2R_1R_2R_3g_m + C_2C_3L_2R_1R_3g_m + C_2L_2R_1 + C_3L_2R_1R_3g_m\right) + s\left(C_3R_1R_2R_3g_m + C_3R_1R_3 + L_2R_1g_m\right)}{s^4\left(C_1C_2C_3L_2R_1R_2 + C_2C_3L_2R_1 + C_2
10.265 INVALID-ORDER-265 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                \frac{C_3L_2L_3R_1g_ms^3 + L_2R_1g_ms + R_1R_2g_m + R_1 + s^4\left(C_2C_3L_2L_3R_1R_2g_m + C_2C_3L_2L_3R_1\right) + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1\right)}{C_1C_2C_3L_2L_3R_1s^5 + s^4\left(C_1C_2C_3L_2R_1R_2 + C_2C_3L_2R_1 + C_1C_3L_2R_1 + C_1C_3L_2R_1 + C_2C_3L_2R_1R_2g_m + C_2C_3L_2R_1\right) + s^2\left(C_1C_3R_1R_2 + C_2L_2R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s^2\left(C_1C_3R_1R_2 + C_2C_3L_2R_1R_2g_m + C_3L_3R_1\right) + s^2\left(C_1C_3R_1R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s^2\left(C_1C_3R_1R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1R_
10.266 INVALID-ORDER-266 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{L_2L_3R_1g_ms^2 + s^3\left(C_2L_2L_3R_1R_2g_m + C_2L_2L_3R_1\right) + s\left(L_3R_1R_2g_m + L_3R_1\right)}{C_1C_2C_3L_2L_3R_1R_2s^5 + R_1R_2g_m + R_1 + R_2 + s^4\left(C_1C_2L_2L_3R_1 + C_2C_3L_2L_3R_1 + 
10.267 INVALID-ORDER-267 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                         \frac{R_{1}R_{2}g_{m}+R_{1}+s^{4}\left(C_{2}C_{3}L_{2}L_{3}R_{1}R_{2}g_{m}+C_{2}C_{3}L_{2}L_{3}R_{1}\right)+s^{3}\left(C_{2}C_{3}L_{2}R_{1}R_{2}g_{m}+C_{2}C_{3}L_{2}R_{1}R_{3}+C_{3}L_{2}L_{3}R_{1}g_{m}\right)+s^{2}\left(C_{2}L_{2}R_{1}R_{2}g_{m}+C_{2}L_{2}R_{1}+C_{3}L_{2}R_{1}R_{3}g_{m}+C_{3}L_{3}R_{1}\right)+s\left(C_{3}R_{1}R_{2}R_{3}g_{m}+C_{3}L_{3}R_{1}+C_{4}R_{2}R_{3}g_{m}+C_{4}R_{2}R_{3}R_{2}+C_{4}R_{2}R_{3}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}R_{2}+C_{4}R_{2}R_{2}+C_{4}R_{2}R_{2}+C_{4}R_{2}R_{2}+C_{4}R_{2}R_{2}+C_{4}R_{2}R_{2}+C_{4}R_{2}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{2}+C_{4}R_{
10.268 INVALID-ORDER-268 Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
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 $H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^4 \left(C_2 C_3 L_2 L_3 R_1 R_2 R_3 g_m + C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_2 L_2 L_3 R_1 + C_3 L_2 L_3 R_1 R_3 g_m + s^2 \left(C_2 L_2 R_1 R_2 R_3 g_m + C_2 L_2 L_3 R_1 R_2 g_m + C_2 L_2 L_3 R_1$ 

 $H(s) = \frac{L_2 L_3 R_1 R_2 R_3 s^5 + R_1 R_2 R_3 g_m + R_1 R_3 + R_2 R_3 + s^4 \left(C_1 C_2 L_2 L_3 R_1 R_2 + C_1 C_2 L_2 L_3 R_1 R_3 + C_2 C_3 L_2 L_3$ 

10.269 INVALID-ORDER-269  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

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10.270 INVALID-ORDER-270 Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
H(s) = \frac{C_3L_2L_3R_1R_3g_ms^3 + L_2R_1R_3g_ms + R_1R_2R_3g_m + C_2R_1R_3g_ms + R_1R_2R_3g_m +
10.271 INVALID-ORDER-271 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                   H(s) = \frac{C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_2L_2R_1R_2 + C_1C_2L_2R_1R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_2L_2R_1R_2g_m + C_2L_2R_1 + C_2L_2R_3\right) + s\left(C_1R_1R_2 + C_1R_1R_3 + C_2R_1R_2 + C_2R_2R_3\right)}
10.272 INVALID-ORDER-272 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                          H(s) = \frac{C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_2L_2R_1R_2g_m + C_2L_2R_1\right)}{C_1C_2C_3L_2R_1R_2s^4 + s^3\left(C_1C_2L_2R_1 + C_2C_3L_2R_1R_2g_m + C_2C_3L_2R_1 
10.273 INVALID-ORDER-273 Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
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 $\frac{C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{C_1C_2C_3L_2R_1R_2R_3s^4 + R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_2L_2R_1R_2 + C_1C_2L_2R_1R_3 + C_2C_3L_2R_1R_3 + C_2C_3L_2R_1R_2R_3 + C_2C_3L_2R_1R_2R_3 + C_2C_3R_1R_2R_3 + C_2C_3R_1R_3 + C_$ 

10.274 INVALID-ORDER-274  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_2 C_3 L_2 R_1 R_2 R_3 g_m + C_2 C_3 L_2 R_1 R_3\right) + s^2 \left(C_2 C_3 R_1 R_2 R_3 + C_2 L_2 R_1 R_2 g_m + C_2 L_2 R_1\right) + s \left(C_2 R_1 R_2 + C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3\right)}{s^4 \left(C_1 C_2 C_3 L_2 R_1 R_2 + C_1 C_2 C_3 L_2 R_1 + C_2 C_3 L_2 R_1$ 

10.275 INVALID-ORDER-275  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2C_3L_3R_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^4\left(C_2C_3L_2L_3R_1R_2g_m + C_2L_2R_1R_2g_m + C_2L_2R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1\right)}{C_1C_2C_3L_2L_3R_1s^5 + s^4\left(C_1C_2C_3L_2R_1R_2 + C_1C_3L_3R_1R_2 + C_2C_3L_2R_1 + C_2C_3L_2R$ 

10.276 INVALID-ORDER-276  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2L_3R_1R_2s^2 + s^3\left(C_2L_2L_3R_1R_2g_m + C_2L_2L_3R_1\right) + s\left(L_3R_1R_2g_m + L_3R_1\right)}{C_1C_2C_3L_2L_3R_1R_2s^5 + R_1R_2g_m + R_1 + R_2 + s^4\left(C_1C_2L_2R_1R_2g_m + C_2C_3L_2R_1 + C_2C_3L_2R_1R_2 + C_1C_3L_3R_1R_2 + C_2C_3L_3R_1R_2 + C_2C_3L_3R_1 + C_2C_3L_3R_1 + C_2C_3L_3R_1 + C_2C_3L_3R_1 + C_2C_3L_3R_1 + C_2C_3L_3R_1 +$ 

10.277 INVALID-ORDER-277  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1R_2g_m + R_1 + s^4\left(C_2C_3L_2L_3R_1R_2g_m + C_2C_3L_2L_3R_1\right) + s^3\left(C_2C_3L_2R_1R_3 + C_2C_3L_2R_1R_2 + C_2C_3L_2R_1R_2 + C_2L_2R_1 + C_3L_3R_1R_2 + C_2C_3L_2R_1 + C_3L_3R_1R_2\right) + s^2\left(C_2C_3R_1R_2R_3 + C_2L_2R_1R_2g_m + C_2L_2R_1 + C_3L_3R_1R_2 + C_2C_3L_2R_1 + C_3L_3R_1R_2 + C_3L_2R_1R_2 + C_3L_2R_1 + C_3L_3R_1 + C_3L_3R_1$ 

10.278 INVALID-ORDER-278  $Z(s) = \left(\frac{R_1}{C_1 R_1 s + 1}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

 $C_2L_3R_1R_2R_3s^2 + s^3(C_2L_2L_3R_1R_2R_3g_m - s^2)$ 

 $H(s) = \frac{C_2L_3R_1R_2R_3s^2 + s^2\left(C_2L_2L_3R_1R_2R_3g_m + C_2C_3L_2L_3R_1R_2R_3s^2 + s^2\left(C_2L_2L_3R_1R_2R_3g_m + C_2C_3L_2L_3R_1R_2R_3s^2 + s^2\left(C_2L_2L_3R_1R_2R_3s^2 + s^2\right) + s^2\left(C_2L_2L_3R_1R_$ 

10.279 INVALID-ORDER-279  $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^4 \left(C_2 C_3 L_2 L_3 R_1 R_2 R_3 g_m + C_2 C_3 L_2 L_3 R_1 R_2 R_3 + C_2 L_2 L_3 R_1 R_2 g_m + C_2 L_2 L_3 R$ 

10.280 INVALID-ORDER-280  $Z(s) = \left(\frac{R_1}{C_1R_1s+1}, \frac{R_2\left(C_2L_2s^2+1\right)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2C_3L_3R_1R_2R_3s^3 + C_2R_1R_2R_3s + R_1R_2R_3g_m +$ 

**10.281** INVALID-ORDER-281  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s \left(C_1 R_1 R_2 R_3 g_m + C_1 R_1 R_3\right)}{R_2 g_m + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_3\right) + 1}$$

**10.282** INVALID-ORDER-282  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_2 g_m + s \left(C_1 R_1 R_2 g_m + C_1 R_1\right) + 1}{s^2 \left(C_1 C_3 R_1 R_2 g_m + C_1 C_3 R_1 + C_1 C_3 R_2\right) + s \left(C_1 + C_3 R_2 g_m + C_3\right)}$$

**10.283** INVALID-ORDER-283  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_2 g_m + s^2 \left( C_1 C_3 R_1 R_2 R_3 g_m + C_1 C_3 R_1 R_3 \right) + s \left( C_1 R_1 R_2 g_m + C_1 R_1 + C_3 R_2 R_3 g_m + C_3 R_3 \right) + 1}{s^2 \left( C_1 C_3 R_1 R_2 q_m + C_1 C_3 R_1 + C_1 C_3 R_2 + C_1 C_3 R_3 \right) + s \left( C_1 + C_3 R_2 q_m + C_3 \right)}$$

**10.284** INVALID-ORDER-284  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_2 g_m + s^3 \left(C_1 C_3 L_3 R_1 R_2 g_m + C_1 C_3 L_3 R_1\right) + s^2 \left(C_3 L_3 R_2 g_m + C_3 L_3\right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1\right) + 1}{C_1 C_3 L_3 s^3 + s^2 \left(C_1 C_3 R_1 R_2 g_m + C_1 C_3 R_1 + C_1 C_3 R_2\right) + s \left(C_1 + C_3 R_2 g_m + C_3\right)}$$

10.285 INVALID-ORDER-285  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^2 \left( C_1 L_3 R_1 R_2 g_m + C_1 L_3 R_1 \right) + s \left( L_3 R_2 g_m + L_3 \right)}{R_2 g_m + s^3 \left( C_1 C_3 L_3 R_1 R_2 g_m + C_1 C_3 L_3 R_1 + C_1 C_3 L_3 R_2 \right) + s^2 \left( C_1 L_3 + C_3 L_3 R_2 g_m + C_3 L_3 \right) + s \left( C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 \right) + 1}$$

**10.286** INVALID-ORDER-286  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_2g_m + s^3\left(C_1C_3L_3R_1R_2g_m + C_1C_3L_3R_1\right) + s^2\left(C_1C_3R_1R_2R_3g_m + C_1C_3R_1R_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_3R_2R_3g_m + C_3R_3\right) + 1}{C_1C_3L_3s^3 + s^2\left(C_1C_3R_1R_2g_m + C_1C_3R_1 + C_1C_3R_2 + C_1C_3R_3\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_3g_m + C_3R_3g_m + C_3R_3\right) + s\left(C_1+C_3R_3g_m + C_3R_3g_m + C$$

10.287 INVALID-ORDER-287  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^2 \left( C_1 L_3 R_1 R_2 R_3 g_m + C_1 L_3 R_1 R_3 \right) + s \left( L_3 R_2 R_3 g_m + L_3 R_3 \right)}{R_2 R_3 g_m + R_3 + s^3 \left( C_1 C_3 L_3 R_1 R_2 R_3 g_m + C_1 C_3 L_3 R_1 R_3 + C_1 C_3 L_3 R_1 R_2 R_3 \right) + s^2 \left( C_1 L_3 R_1 R_2 g_m + C_1 L_3 R_1 + C_1 L_3 R_2 + C_1 L_3 R_3 + C_3 L_3 R_3 \right) + s \left( C_1 R_1 R_2 R_3 g_m + C_1 R_1 R_3 + C_1 R_2 R_3 + L_3 R_2 g_m + L_3 R_3 \right)}$$

$$\textbf{10.288} \quad \textbf{INVALID-ORDER-288} \ Z(s) = \left( R_1 + \frac{1}{C_1 s}, \ R_2, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty \right)$$
 
$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^3 \left( C_1 C_3 L_3 R_1 R_2 R_3 g_m + C_1 C_3 L_3 R_1 R_3 \right) + s^2 \left( C_1 L_3 R_1 R_2 g_m + C_1 L_3 R_1 + C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_3 \right) + s \left( C_1 R_1 R_2 R_3 g_m + C_1 R_1 R_3 + L_3 R_2 g_m + L_3 \right) }{R_2 g_m + s^3 \left( C_1 C_3 L_3 R_1 R_2 g_m + C_1 C_3 L_3 R_1 + C_1 C_3 L_3 R_2 + C_1 C_3 L_3 R_3 \right) + s^2 \left( C_1 L_3 + C_3 L_3 R_2 g_m + C_3 L_3 \right) + s \left( C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_3 \right) + 1 }$$

**10.290** INVALID-ORDER-290  $Z(s) = \left(R_1 + \frac{1}{C_{1s}}, \frac{1}{C_{2s}}, \frac{1}{C_{2s}}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1 C_2 R_1 s^2 + g_m + s \left(C_1 R_1 g_m + C_2\right)}{C_1 C_2 C_3 R_1 s^3 + C_3 g_m s + s^2 \left(C_1 C_2 + C_1 C_3 R_1 g_m + C_1 C_3 + C_2 C_3\right)}$$

**10.291** INVALID-ORDER-291  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2R_1R_3s^2 + R_3g_m + s\left(C_1R_1R_3g_m + C_2R_3\right)}{C_1C_2C_3R_1R_3s^3 + g_m + s^2\left(C_1C_2R_1 + C_1C_2R_3 + C_1C_3R_1R_3g_m + C_1C_3R_3 + C_2C_3R_3\right) + s\left(C_1R_1g_m + C_1 + C_2 + C_3R_3g_m\right)}$$

**10.292** INVALID-ORDER-292  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1 C_2 C_3 R_1 R_3 s^3 + g_m + s^2 \left( C_1 C_2 R_1 + C_1 C_3 R_1 R_3 g_m + C_2 C_3 R_3 \right) + s \left( C_1 R_1 g_m + C_2 + C_3 R_3 g_m \right)}{C_3 g_m s + s^3 \left( C_1 C_2 C_3 R_1 + C_1 C_2 C_3 R_3 \right) + s^2 \left( C_1 C_2 + C_1 C_3 R_1 g_m + C_1 C_3 + C_2 C_3 \right)}$$

**10.293** INVALID-ORDER-293  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1 C_2 C_3 L_3 R_1 s^4 + g_m + s^3 \left( C_1 C_3 L_3 R_1 g_m + C_2 C_3 L_3 \right) + s^2 \left( C_1 C_2 R_1 + C_3 L_3 g_m \right) + s \left( C_1 R_1 g_m + C_2 \right)}{C_1 C_2 C_3 L_3 s^4 + C_1 C_2 C_3 R_1 s^3 + C_3 g_m s + s^2 \left( C_1 C_2 + C_1 C_3 R_1 g_m + C_1 C_3 + C_2 C_3 \right)}$$

**10.294** INVALID-ORDER-294  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_3R_1s^3 + L_3g_ms + s^2\left(C_1L_3R_1g_m + C_2L_3\right)}{C_1C_2C_3L_3R_1s^4 + g_m + s^3\left(C_1C_2L_3 + C_1C_3L_3R_1g_m + C_1C_3L_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_1 + C_2\right)}$$

**10.295** INVALID-ORDER-295  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2C_3L_3R_1s^4 + g_m + s^3\left(C_1C_2C_3R_1R_3 + C_1C_3L_3R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1R_3g_m + C_2C_3R_3 + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2 + C_3R_3g_m\right)}{C_1C_2C_3L_3s^4 + C_3g_ms + s^3\left(C_1C_2C_3R_1 + C_1C_2C_3R_3\right) + s^2\left(C_1C_2 + C_1C_3R_1g_m + C_1C_3 + C_2C_3\right)}$$

**10.296** INVALID-ORDER-296  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_3R_1R_3s^3 + L_3R_3g_ms + s^2\left(C_1L_3R_1R_3g_m + C_2L_3R_3\right)}{C_1C_2C_3L_3R_1R_3s^4 + R_3g_m + s^3\left(C_1C_2L_3R_1 + C_1C_2L_3R_3 + C_1C_3L_3R_1R_3g_m + C_1C_3L_3R_3\right) + s^2\left(C_1C_2R_1R_3 + C_1L_3R_1g_m + C_1L_3 + C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_1R_1R_3g_m + C_1R_3 + C_2R_3 + L_3g_m\right)}$$

$$\begin{aligned} \textbf{10.297} \quad \textbf{INVALID-ORDER-297} \ Z(s) &= \left( R_1 + \frac{1}{C_1 s}, \ \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty \right) \\ & H(s) &= \frac{C_1 C_2 C_3 L_3 R_1 R_3 s^4 + R_3 g_m + s^3 \left( C_1 C_2 L_3 R_1 + C_1 C_3 L_3 R_1 R_3 g_m + C_2 C_3 L_3 R_3 \right) + s^2 \left( C_1 C_2 R_1 R_3 + C_1 L_3 R_1 g_m + C_2 L_3 + C_3 L_3 R_3 g_m \right) + s \left( C_1 R_1 R_3 g_m + C_2 R_3 + L_3 g_m \right) \\ & g_m + s^4 \left( C_1 C_2 C_3 L_3 R_1 + C_1 C_2 C_3 L_3 R_3 \right) + s^3 \left( C_1 C_2 L_3 + C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + C_2 C_3 L_3 \right) + s^2 \left( C_1 C_2 R_1 + C_1 C_2 R_3 + C_3 L_3 g_m \right) + s \left( C_1 R_1 g_m + C_1 + C_2 \right) \end{aligned}$$

10.299 INVALID-ORDER-299  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2R_1R_2s^2 + R_2g_m + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + 1}{C_1C_2C_3R_1R_2s^3 + s^2\left(C_1C_2R_2 + C_1C_3R_1R_2g_m + C_1C_3R_1 + C_1C_3R_2 + C_2C_3R_2\right) + s\left(C_1 + C_3R_2g_m + C_3\right)}$$

**10.300** INVALID-ORDER-300  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2R_1R_2R_3s^2 + R_2R_3g_m + R_3 + s\left(C_1R_1R_2R_3g_m + C_1R_1R_3 + C_2R_2R_3\right)}{C_1C_2C_3R_1R_2R_3s^3 + R_2g_m + s^2\left(C_1C_2R_1R_2 + C_1C_2R_2R_3 + C_1C_3R_1R_2R_3g_m + C_1C_3R_1R_3 + C_2C_3R_2R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_1R_3 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + 1}$$

**10.301** INVALID-ORDER-301  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2C_3R_1R_2R_3s^3 + R_2g_m + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2R_3g_m + C_1C_3R_1R_3 + C_2C_3R_2R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + 1}{s^3\left(C_1C_2C_3R_1R_2 + C_1C_2C_3R_2R_3\right) + s^2\left(C_1C_2R_2 + C_1C_3R_1R_2g_m + C_1C_3R_1 + C_1C_3R_2 + C_1C_3R_3 + C_2C_3R_2\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_3R_3 + C_3R_3\right$$

10.302 INVALID-ORDER-302  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2C_3L_3R_1R_2s^4 + R_2g_m + s^3\left(C_1C_3L_3R_1R_2g_m + C_1C_3L_3R_1 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + 1}{C_1C_2C_3L_3R_2s^4 + s^3\left(C_1C_2C_3R_1R_2 + C_1C_3L_3\right) + s^2\left(C_1C_2R_2 + C_1C_3R_1R_2g_m + C_1C_3R_1 + C_1C_3R_2 + C_2C_3R_2\right) + s\left(C_1+C_3R_2g_m + C_3\right)}$$

**10.303** INVALID-ORDER-303  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_3R_1R_2s^3 + s^2\left(C_1L_3R_1R_2g_m + C_1L_3R_1 + C_2L_3R_2\right) + s\left(L_3R_2g_m + L_3\right)}{C_1C_2C_3L_3R_1R_2s^4 + R_2g_m + s^3\left(C_1C_2L_3R_2 + C_1C_3L_3R_1R_2g_m + C_1C_3L_3R_2 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1L_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_2R_2\right) + 1}$$

**10.304** INVALID-ORDER-304  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2C_3L_3R_1R_2s^4 + R_2g_m + s^3\left(C_1C_2C_3R_1R_2R_3 + C_1C_3L_3R_1R_2g_m + C_1C_3L_3R_1 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2R_3g_m + C_1C_3R_1R_3 + C_2C_3R_2R_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + 1}{C_1C_2C_3L_3R_2s^4 + s^3\left(C_1C_2C_3R_1R_2 + C_1C_3R_2R_3 + C_1C_3R_3R_2 + C_1C_3R_1R_2g_m + C_1C_3R_1R_2g$$

**10.305** INVALID-ORDER-305  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_3R_1R_2R_3s^3 + s^2\left(C_1L_3R_1R_2R_3g_m + C_1L_3R_1R_3 + C_2L_3R_2R_3\right) + s\left(L_3R_2R_3g_m + L_3R_3\right)}{C_1C_2C_3L_3R_1R_2R_3s^4 + R_2R_3g_m + R_3 + s^3\left(C_1C_2L_3R_1R_2 + C_1C_2L_3R_2R_3 + C_1C_3L_3R_1R_3 + C_1C_3L_3R_2R_3 + C_2C_3L_3R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1L_3R_1R_2R_3g_m + C_1L_3R_1 + C_1L_3R_2 + C_1L_3R_3 + C_2L_3R_2 + C_3L_3R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1L_3R_1R_2R_3g_m + C_1L_3R_1R_3R_3g_m + C_1L_3R_3R_3g_m + C_1L_3R_3g_m + C_1L_3R_3R_3g_m$$

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10.306 INVALID-ORDER-306 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
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 $H(s) = \frac{C_1C_2C_3L_3R_1R_2R_3s^4 + R_2R_3g_m + R_3 + s^3\left(C_1C_2L_3R_1R_2 + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_3 + C_2C_3L_3R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1L_3R_1 + C_2L_3R_2 + C_3L_3R_2R_3 + C_3L_3R_3\right) + s\left(C_1R_1R_2R_3g_m + C_1R_1R_3 + C_2R_2R_3 + L_3R_2g_m + C_1R_1R_2R_3g_m + C_1R_1R_2R_3g_$ 

10.307 INVALID-ORDER-307 
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2C_3L_3R_1R_2R_3s^4 + R_2R_3g_m + R_3 + s^3\left(C_1C_3L_3R_1R_2R_3g_m + C_1C_3L_3R_1R_3 + C_2C_3L_3R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_3L_3R_2R_3g_m + C_3L_3R_3\right) + s\left(C_1R_1R_2R_3g_m + C_1R_1R_3 + C_2R_2R_3\right)}{R_2g_m + s^4\left(C_1C_2C_3L_3R_1R_2 + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1 + C_1C_3L_3R_2 + C_1C_3L_3R_2 + C_1C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_2R_2R_3 + C_1C_3R_1R_2 + C_1C_3R$ 

**10.308** INVALID-ORDER-308  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{g_m + s^2 \left( C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 \right) + s \left( C_1 R_1 g_m + C_2 R_2 g_m + C_2 \right)}{C_3 g_m s + s^3 \left( C_1 C_2 C_3 R_1 R_2 g_m + C_1 C_2 C_3 R_1 + C_1 C_2 C_3 R_2 \right) + s^2 \left( C_1 C_2 + C_1 C_3 R_1 g_m + C_1 C_3 + C_2 C_3 R_2 g_m + C_2 C_3 \right)}$$

**10.309** INVALID-ORDER-309  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{R_3g_m + s^2\left(C_1C_2R_1R_2R_3g_m + C_1C_2R_1R_3\right) + s\left(C_1R_1R_3g_m + C_2R_2R_3g_m + C_2R_3\right)}{g_m + s^3\left(C_1C_2C_3R_1R_2R_3g_m + C_1C_2R_3R_3\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_1C_2R_2 + C_1C_2R_3 + C_1C_3R_1R_3g_m + C_2C_3R_3g_m + C_2C_3R_3\right) + s\left(C_1R_1g_m + C_1 + C_2R_2g_m + C_2 + C_3R_3g_m\right)}$$

**10.310** INVALID-ORDER-310  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{g_m + s^3 \left(C_1 C_2 C_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 R_1 R_3\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 C_3 R_1 R_3 g_m + C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_3\right) + s \left(C_1 R_1 g_m + C_2 R_2 g_m + C_2 + C_3 R_3 g_m\right)}{C_3 g_m s + s^3 \left(C_1 C_2 C_3 R_1 R_2 g_m + C_1 C_2 C_3 R_1 + C_1 C_2 C_3 R_2 + C_1 C_2 C_3 R_3\right) + s^2 \left(C_1 C_2 + C_1 C_3 R_1 g_m + C_1 C_3 + C_2 C_3 R_2 g_m + C_2 C_3 R_3\right)}$$

10.311 INVALID-ORDER-311  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{g_m + s^4 \left(C_1 C_2 C_3 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_3 R_1\right) + s^3 \left(C_1 C_3 L_3 R_1 g_m + C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_3 L_3 g_m\right) + s \left(C_1 R_1 g_m + C_2 R_2 g_m + C_2 C_3 L_3\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 R_2 g_m + C_2 C_3 R_2\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_3 R_1 g_m + C_1 C_3 R_2 g_m + C_2 C_3\right)}$$

**10.312** INVALID-ORDER-312  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_3 g_m s + s^3 \left(C_1 C_2 L_3 R_1 R_2 g_m + C_1 C_2 L_3 R_1\right) + s^2 \left(C_1 L_3 R_1 g_m + C_2 L_3 R_2 g_m + C_2 L_3\right)}{g_m + s^4 \left(C_1 C_2 C_3 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_3 R_1 + C_1 C_2 C_3 L_3 R_2\right) + s^3 \left(C_1 C_2 L_3 + C_1 C_3 L_3 R_1 g_m + C_1 C_3 L_3 + C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 C_2 R_2 + C_3 L_3 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 C_2 R_2 + C_3 L_3 R_2 g_m\right) + s \left(C_1 R_1 g_m + C_1 R_2 g_m + C_1 R_2 g_m\right) + s \left(C_1 R_1 g_m\right) + s \left(C_1 R_1 g_m\right)$$

**10.313** INVALID-ORDER-313  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{g_m + s^4 \left( C_1 C_2 C_3 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_3 R_1 \right) + s^3 \left( C_1 C_2 C_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 R_1 R_3 + C_1 C_2 C_3 R_1 R_3 + C_1 C_2 C_3 R_1 R_3 + C_1 C_2 C_3 R_1 R_2 g_m + C_2 C_3 L_3 \right) + s^2 \left( C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 R_3 g_m + C_2 C_3 R_3 g_m + C_$$

**10.314** INVALID-ORDER-314  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{L_3 R_3 g_m s + s^3 \left(C_1 C_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 L_3 R_1 R_3\right) + s^2 \left(C_1 L_3 R_1 R_3 g_m + C_2 L_3 R_2 R_3 g_m + C_2 L_3 R_3\right)}{R_3 g_m + s^4 \left(C_1 C_2 C_3 L_3 R_1 R_3 + C_1 C_2 L_3 R_3 R_3 + C_1 C_2 L_3 R_3 + C_1 C_2 L_3$$

**10.315** INVALID-ORDER-315  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{R_3 g_m + s^4 \left(C_1 C_2 C_3 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_3 R_1 R_3 \right) + s^3 \left(C_1 C_2 L_3 R_1 R_2 g_m + C_1 C_2 L_3 R_1 + C_1 C_3 L_3 R_1 R_3 g_m + C_2 C_3 L_3 R_3 g_m + C_2 C_3 L_3 R_3 g_m + C_1 C_2 R_1 R_3 g_m + C_2 L_3 R_2 g_$ 

**10.316** INVALID-ORDER-316  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

**10.317** INVALID-ORDER-317  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_2R_1R_3g_ms^3 + R_3g_m + s^2\left(C_1C_2R_1R_3 + C_2L_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3\right)}{g_m + s^3\left(C_1C_2L_2R_1g_m + C_1C_2L_2\right) + s^2\left(C_1C_2R_1 + C_1C_2R_3 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_1 + C_2\right)}$$

**10.318** INVALID-ORDER-318  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_1C_2L_2R_1g_ms^3 + g_m + s^2\left(C_1C_2R_1 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2\right)}{C_3g_ms + s^4\left(C_1C_2C_3L_2R_1g_m + C_1C_2C_3L_2\right) + s^3\left(C_1C_2C_3R_1 + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3R_1g_m + C_1C_3 + C_2C_3\right)}$$

**10.319** INVALID-ORDER-319  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_2R_1R_3g_ms^3 + R_3g_m + s^2\left(C_1C_2R_1R_3 + C_2L_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3\right)}{g_m + s^4\left(C_1C_2C_3L_2R_1g_m + C_1C_2C_3L_2R_3\right) + s^3\left(C_1C_2C_3R_1R_3 + C_1C_2L_2 + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_1 + C_1C_2R_3 + C_1C_3R_3 + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_1 + C_2 + C_3R_3g_m\right)}$$

10.320 INVALID-ORDER-320  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_{1}C_{2}C_{3}L_{2}R_{1}R_{3}g_{m}s^{4} + g_{m} + s^{3}\left(C_{1}C_{2}C_{3}R_{1}R_{3} + C_{1}C_{2}L_{2}R_{1}g_{m} + C_{2}C_{3}L_{2}R_{3}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{3}R_{1}R_{3}g_{m} + C_{2}C_{3}R_{3} + C_{2}L_{2}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{2} + C_{3}R_{3}g_{m}\right)}{C_{3}g_{m}s + s^{4}\left(C_{1}C_{2}C_{3}L_{2}R_{1}g_{m} + C_{1}C_{2}C_{3}L_{2}\right) + s^{3}\left(C_{1}C_{2}C_{3}R_{1} + C_{1}C_{2}C_{3}R_{3} + C_{2}C_{3}L_{2}g_{m}\right) + s^{2}\left(C_{1}C_{2} + C_{1}C_{3}R_{1}g_{m} + C_{1}C_{3} + C_{2}C_{3}\right)}$$

10.321 INVALID-ORDER-321  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2C_3L_2L_3R_1g_ms^5 + g_m + s^4\left(C_1C_2C_3L_3R_1 + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_2R_1g_m + C_1C_3L_3R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s^2\left(C_1C_2R_1 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2C_3R_3\right) + s^2\left(C_1C_2$$

10.322 INVALID-ORDER-322  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_2R_1g_ms^4 + L_3g_ms + s^3\left(C_1C_2L_3R_1 + C_2L_2L_3g_m\right) + s^2\left(C_1L_3R_1g_m + C_2L_3\right)}{g_m + s^5\left(C_1C_2C_3L_2L_3R_1g_m + C_1C_2L_3L_2L_3\right) + s^4\left(C_1C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_2R_1g_m + C_1C_2L_3 + C_1C_2L_3 + C_1C_3L_3R_1g_m + C_1C_3L_3\right) + s^2\left(C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s^2\left(C_1C_2R_1 + C_2L_3g_m\right) + s^2\left(C_1C_2R_1 + C_2L_3g_m\right$$

10.323 INVALID-ORDER-323  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_2L_3R_1g_ms^5 + g_m + s^4\left(C_1C_2C_3L_2R_1R_3g_m + C_1C_2C_3L_3R_1 + C_2C_3L_2R_1g_m + C_1C_2L_2R_1g_m + C_1C_3L_3R_1g_m + C_2C_3L_2R_3g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1R_3g_m + C_2C_3R_3 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2C_3L_2R_1g_m + C_1C_2C_3L_2R_1g_m + C_2C_3L_2R_1g_m + C_2C_3L_2R_1g_$ 

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10.324 INVALID-ORDER-324 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C_1C_2L_2L_3R_1R_3g_ms^4 + L_3R_3g_ms + s^3(C_1C_2L_3R_1R_3 + C_2L_2L_3R_3g_m) + s^2(C_1L_3R_1R_3g_m + C_2L_3R_3)
                                            \frac{C_{1}C_{2}L_{2}L_{3}R_{1}R_{3}g_{m}s+s^{3}\left(C_{1}C_{2}L_{3}R_{1}R_{3}+C_{2}L_{2}L_{3}R_{3}g_{m}\right)+s^{2}\left(C_{1}L_{3}R_{1}R_{3}g_{m}+C_{2}L_{3}R_{3}\right)}{R_{3}g_{m}+s^{5}\left(C_{1}C_{2}C_{3}L_{2}L_{3}R_{1}g_{m}+C_{1}C_{2}L_{2}L_{3}R_{1}g_{m}+C_{1}C_{2}L_{2}R_{3}+C_{1}C_{2}L_{3}R_{3}g_{m}\right)+s^{3}\left(C_{1}C_{2}L_{3}R_{1}R_{3}g_{m}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3}+C_{1}C_{2}L_{3}R_{3
10.325 INVALID-ORDER-325 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_2L_3R_1R_3g_ms^5 + R_3g_m + s^4\left(C_1C_2C_3L_3R_1R_3 + C_1C_2L_2L_3R_1g_m + C_2C_3L_2L_3R_3g_m\right) + s^3\left(C_1C_2L_2R_1R_3g_m + C_1C_2L_3R_1 + C_1C_3L_3R_1R_3g_m + C_2C_3L_3R_3 + C_2L_2L_3g_m\right) + s^2\left(C_1C_2R_1R_3 + C_1L_3R_1g_m + C_2L_2R_3g_m + C_2L_3R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2C_3L_3R_3g_m + C_2C_3L_3R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2C_3L_3R_3g_m + C_2C_3L_3R_3g_m\right) + s\left(C_1C_2R_1R_3 + C_1C_2R_3R_3g_m + C_2C_3L_3R_3g_m\right) + s\left(C_1C_2R_1R_3 + C_1C_2R_3R_3g_m + C_2C_3L_3R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2C_3L_3R_3g_m + C_2C_3L_3R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2C_3L_3R_
10.326 INVALID-ORDER-326 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_2L_3R_1R_3g_ms^5 + R_3g_m + s^4\left(C_1C_2C_3L_2R_1R_3g_m + C_1C_3L_2R_1R_3g_m + C_1C_3L_3R_1R_3g_m + C_2C_3L_2R_3R_3\right) + s^2\left(C_1C_2R_1R_3 + C_2L_2R_3g_m + C_3L_3R_3g_m\right) + s^2\left(C_1C_2R_1R_3 + C_2C_3L_2R_3g_m + C_3L_3R_3g_m\right) + s^2\left(C_1C_2R_1R_3g_m + C_1C_2L_2R_1g_m + C_1C_2L_2R_1g_m + C_1C_2L_2R_1g_m + C_1C_2L_2R_3g_m + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_1R_3g_m + C_2C_3L_2R_3g_m + C_2C_3L_2R_3g_m + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_1R_3g_m + C_2
10.327 INVALID-ORDER-327 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                    H(s) = \frac{C_1C_2L_2R_1R_3g_ms^3 + R_3g_m + s^2\left(C_1C_2R_1R_2R_3g_m + C_1C_2R_1R_3 + C_2L_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_2R_3g_m + C_2R_3\right)}{g_m + s^3\left(C_1C_2L_2R_1g_m + C_1C_2L_2\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_1C_2R_2 + C_1C_2R_3 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_1 + C_2R_2g_m + C_2\right)}
10.328 INVALID-ORDER-328 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                      H(s) = \frac{C_1C_2L_2R_1g_ms^3 + g_m + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_2\right)}{C_3g_ms + s^4\left(C_1C_2C_3L_2R_1g_m + C_1C_2C_3L_2\right) + s^3\left(C_1C_2C_3R_1R_2g_m + C_1C_2C_3R_1 + C_1C_2C_3R_2 + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3R_1g_m + C_1C_3 + C_2C_3R_2g_m + C_2C_3\right)}
10.329 INVALID-ORDER-329 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2L_2R_1R_3g_ms^3 + R_3g_m + s^2\left(C_1C_2R_1R_2R_3g_m + C_1C_2R_1R_3 + C_2L_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_2R_3g_m + C_2R_3\right)}{g_m + s^4\left(C_1C_2C_3L_2R_1g_m + C_1C_2L_2R_1g_m + C_1C_2L_2R_1g_m + C_1C_2L_2 + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_1C_2R_2 + C_1C_2R_3 + C_1C_3R_1R_3g_m + C_1C_3R_3 + C_2C_3R_2R_3g_m + C_2C_3R_3g_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1R_2g_m + C_1C_2R_1 + C_1C_2R_2 + C_1C_2R_3 + C_1C_2R_3g_m + C_1C_3R_3 + C_2C_3R_3g_m + C_2C_3R_3g_m + C_2C_3R_3g_m + C_2C_3R_3g_m\right) + s^2\left(C_1C_2R_1R_3g_m + C_1C_2R_3g_m + C_1C_2R_3g_m + C_1C_2R_3g_m + C_1C_2R_3g_m + C_2C_3R_3g_m + C_2
10.330 INVALID-ORDER-330 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
                                                  H(s) = \frac{C_1C_2C_3L_2R_1R_3g_ms^4 + g_m + s^3\left(C_1C_2C_3R_1R_2R_3g_m + C_1C_2C_3R_1R_3 + C_1C_2L_2R_1g_m + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_1C_3R_1R_3g_m + C_2C_3R_2R_3g_m + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_2C_3R_3g_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1R_2g_m + C_1C_2R_1R_2g_m + C_2C_3R_3g_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_2C_3R_3g_m\right) + s^2\left(C_1C_2R_1R_2g_m
10.331 INVALID-ORDER-331 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
                                         H(s) = \frac{C_1C_2C_3L_2L_3R_1g_ms^5 + g_m + s^4\left(C_1C_2C_3L_3R_1R_2g_m + C_1C_2C_3L_3R_1 + C_2C_3L_2R_2g_m + C_1C_2L_2R_1g_m + C_1C_3L_3R_1g_m + C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_2C_3L_3R_1g_m + C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_2C_3L_3R_1g_m + C_2C_3L_3R_2g_m + C_2C_3R_2g_m + C_
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$$\begin{aligned} \textbf{10.332} \quad \textbf{INVALID-ORDER-332} \ \ Z(s) &= \left( R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty \right) \\ H(s) &= \frac{C_1 C_2 L_2 L_3 R_1 g_m s^4 + L_3 g_m s + s^3 \left( C_1 C_2 L_3 R_1 R_2 g_m + C_1 C_2 L_3 R_1 + C_2 L_2 L_3 g_m \right) + s^2 \left( C_1 L_3 R_1 g_m + C_2 L_3 R_2 g_m + C_2 L_3 \right) }{g_m + s^5 \left( C_1 C_2 C_3 L_2 L_3 R_1 g_m + C_1 C_2 C_3 L_2 L_3 \right) + s^4 \left( C_1 C_2 C_3 L_3 R_1 R_2 g_m + C_1 C_2 L_2 R_1 g_m \right) + s^3 \left( C_1 C_2 L_2 R_1 g_m + C_1 C_2 L_3 R_1 g_m + C_1 C_3 L_3 R_2 g_m + C_2 C_3 L_3 R_1 g_m + C_1 C_2 L_2 R_1 g_m \right) + s^3 \left( C_1 C_2 L_2 R_1 g_m + C_1 C_2 L_3 R_1 g_m + C_1 C_3 L_3 R_2 g_m + C_2 C_3 L_3 R_1 g_m + C_1 C_2 R_2 R_1 g_m \right) \\ &= \frac{C_1 C_2 L_2 L_3 R_1 g_m + C_1 C_2 C_3 L_2 R_1 g_m + C_1 C_2 C_3 L_2 R_2 g_m + C_2 C_3 L_3 R_1 g_m + C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3 R_1 g_m + C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3 R_3 R_3 g_m + C_2 C_3 L_3 R_3 g_m + C_2 C_3 L_3 R_3 R_3 g_m + C_2 C_3 L_3 R_3 R_3 g_m + C_2$$

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10.333 INVALID-ORDER-333 Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
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 $H(s) = \frac{C_1C_2C_3L_2L_3R_1g_ms^5 + g_m + s^4\left(C_1C_2C_3L_2R_1R_3g_m + C_1C_2C_3L_3R_1R_2g_m + C_1C_2C_3L_3R_1R_2g_m + C_1C_2C_3R_1R_3 + C_1C_2C_3R_1R_3 + C_1C_2L_2R_1g_m + C_1C_3L_3R_1g_m + C_2C_3L_2R_3g_m + C_2C_3L_3R_2g_m + C_2C_3R_3R_2g_m +$ 

**10.334** INVALID-ORDER-334  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2L_2R_1R_3g_ms^4 + L_3R_3g_ms + s^3\left(C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_3g_ms + s^3\left(C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_3g_m + C_1C_2L_3R_1R$ 

10.335 INVALID-ORDER-335  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_2L_3R_1R_3g_ms^5 + R_3g_m + s^4\left(C_1C_2C_3L_3R_1R_2R_3g_m + C_1C_2C_3L_3R_1R_3 + C_1C_2L_2R_1R_3g_m + C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_3g_m + C_2C_3L_3R_2R_3g_m + C_2C_3L_3R_3 + C_2L_2L_3g_m\right) + s^2\left(C_1C_2R_1R_3g_m + C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_2g_m + C_2C_3L_3R_3R_2R_2g_m + C_2C_3L_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3R_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3R_3 + C_2C$ 

**10.336** INVALID-ORDER-336  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_2L_3R_1R_3g_ms^5 + R_3g_m + s^4\left(C_1C_2C_3L_3R_1R_2R_3g_m + C_1C_2C_3L_2R_1R_3g_m + S^4\left(C_1C_2C_3L_2R_1R_3g_m + C_1C_2C_3L_2R_1R_3g_m + C_1C_2C_3R_1R_2R_3g_m + C_1C_2C_3R_1R_3R_1R_3g_m + C_1C_2C_3R_1R_3g_m +$ 

**10.337** INVALID-ORDER-337  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^3 \left(C_1 C_2 L_2 R_1 R_2 R_3 g_m + C_1 C_2 L_2 R_1 R_3\right) + s^2 \left(C_1 L_2 R_1 R_3 g_m + C_2 L_2 R_3 g_m + C_2 L_2 R_3\right) + s \left(C_1 R_1 R_2 R_3 g_m + C_1 R_1 R_3 + L_2 R_3 g_m\right)}{R_2 g_m + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1 + C_1 C_2 L_2 R_2 + C_1 C_2 L_2 R_3\right) + s^2 \left(C_1 L_2 R_1 g_m + C_1 L_2 + C_2 L_2 R_2 g_m + C_2 L_2\right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_3 + L_2 g_m\right) + 1}$ 

10.338 INVALID-ORDER-338  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

10.339 INVALID-ORDER-339  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

**10.340** INVALID-ORDER-340  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

**10.341** INVALID-ORDER-341  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1\right) + s^4 \left(C_1 C_3 L_2 L_3 R_1 g_m + C_2 C_3 L_2 L_3\right) + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1 + C_1 C_3 L_3 R_1 R_2 g_m + C_1 C_3 L_3 R_1 + C_3 L_2 L_3 g_m\right) + s^2 \left(C_1 L_2 R_1 g_m + C_2 L_2 R_2 g_m + C_2 L_2 + C_3 L_3 R_2 g_m + C_3 L_3\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_3 L_2 R_1 R$ 

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10.342 INVALID-ORDER-342 Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty\right)
\frac{s^4 \left(C_1 C_2 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_2 L_3 R_1\right) + s^3 \left(C_1 L_2 L_3 R_1 g_m + C_2 L_2 L_3\right) + s^2 \left(C_1 L_3 R_1 R_2 g_m + C_1 L_3 R_1 + L_2 L_3 g_m\right) + s \left(L_3 R_1 R_2 g_m + C_1 C_2 L_3 R_1 R_2
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10.344 INVALID-ORDER-344  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{s^4 \left( C_1 C_2 L_2 L_3 R_1 R_2 R_3 g_m + S_3 + S_4 \left( C_1 C_2 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_2 L_3 R_1$ 

 $H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_3 R_1 R_2 g_m + C_1 C_3 L_2 R_1 R_3 g_m + C_1 C_3 L_2 R_1 R_2 g_m + C_1 C_3 L_2 R_1 R_2 g_m + C_1 C_2 C_3 L_2 R_1 R_2 g_m + C_1 C_3 L$ 

**10.345** INVALID-ORDER-345  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^5 \left(C_1 C_2 C_3 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_2 R$ 

**10.346** INVALID-ORDER-346  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

10.347 INVALID-ORDER-347  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^3 \left(C_1 C_2 L_2 R_1 R_2 R_3 g_m + C_1 C_2 L_2 R_1 R_3\right) + s^2 \left(C_1 C_2 R_1 R_2 R_3 + C_2 L_2 R_3 g_m + C_2 L_2 R_3\right) + s \left(C_1 R_1 R_2 R_3 g_m + C_1 R_1 R_3 + C_2 R_2 R_3\right)}{R_2 g_m + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1 + C_1 C_2 L_2 R_2 + C_1 C_2 L_2 R_3\right) + s^2 \left(C_1 C_2 R_1 R_2 + C_1 C_2 R_2 R_3 + C_2 L_2 R_2 g_m + C_2 L_2\right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2 + C_1 R_3 + C_2 R_2\right) + 1}$ 

10.348 INVALID-ORDER-348  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 g_m + s^3 \left(C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1\right) + s^2 \left(C_1 C_2 R_1 R_2 + C_2 L_2 R_2 g_m + C_2 L_2\right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_2 R_2\right) + 1}{s^4 \left(C_1 C_2 C_3 L_2 R_1 R_2 g_m + C_1 C_2 C_3 L_2 R_2\right) + s^3 \left(C_1 C_2 C_3 R_1 R_2 + C_1 C_2 L_2 + C_2 C_3 L_2 R_2 g_m + C_2 C_3 L_2\right) + s^2 \left(C_1 C_2 R_2 + C_1 C_3 R_1 R_2 g_m + C_1 C_3 R_1 + C_1 C_3 R_2 + C_2 C_3 R_2\right) + s \left(C_1 C_2 R_1 R_2 g_m + C_1 C_3 R_1 R_$ 

10.349 INVALID-ORDER-349  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

10.350 INVALID-ORDER-350  $Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

10.352 INVALID-ORDER-352 
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty\right)$$

 $H(s) = \frac{s^4 \left( C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2 L_3 R_1 \right) + s^3 \left( C_1 C_2 L_3 R_1 R_2 + C_2 L_2 L_3 R_2 g_m + C_2 L_2 L_3 \right) + s^2 \left( C_1 L_3 R_1 R_2 g_m + C_1 L_3 R_1 + C_2 L_3 R_2 g_m + C_1 L_3 R_1 + C_2 L_3 R_2 g_m + C_1 L_3 R_1 R_2 g_m + C_1 L_2 L_3 R_2 g_m + C_1 L_3 R_2 g_m + C_1$ 

**10.353** INVALID-ORDER-353 
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_2g_m + s^5 \left(C_1C_2C_3L_2L_3R_1R_2g_m + C_1C_2C_3L_2L_3R_1\right) + s^4 \left(C_1C_2C_3L_2R_1R_2R_3g_m + C_1C_2C_3L_2R_1R_2 + C_2C_3L_2L_3R_2g_m + C_2C_3L_2L_3\right) + s^3 \left(C_1C_2C_3R_1R_2R_3 + C_1C_2L_2R_1R_2g_m + C_1C_2L_2R_1 + C_1C_3L_3R_1R_2g_m + C_1C_3L_3R_1R_2g_m + C_1C_2C_3L_2R_1R_2g_m + C_1C_2C_3L_2R_1R_2g_m$ 

10.354 INVALID-ORDER-354 
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{s^4 \left( C_1 C_2 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 L_2 L_3 R_1 R_$ 

**10.355** INVALID-ORDER-355 
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^5 \left(C_1 C_2 C_3 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 L_3 R_1 R_2 R$ 

10.356 INVALID-ORDER-356 
$$Z(s) = \left(R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^5 \left(C_1 C_2 C_3 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 R_3 + C_2 C_3 L_2 L_3 R_3 + C_2 C_3 L_2$ 

**10.357** INVALID-ORDER-357 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^2 \left( C_1 L_1 R_2 g_m + C_1 L_1 \right) + 1}{C_1 C_3 R_2 s^2 + s^3 \left( C_1 C_3 L_1 R_2 g_m + C_1 C_3 L_1 \right) + s \left( C_1 + C_3 R_2 g_m + C_3 \right)}$$

**10.358** INVALID-ORDER-358 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^2 \left(C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_3\right)}{R_2 g_m + s^3 \left(C_1 C_3 L_1 R_2 R_3 g_m + C_1 C_3 L_1 R_3\right) + s^2 \left(C_1 C_3 R_2 R_3 + C_1 L_1 R_2 g_m + C_1 L_1\right) + s \left(C_1 R_2 + C_1 R_3 + C_3 R_2 R_3 g_m + C_3 R_3\right) + 1}$$

**10.359** INVALID-ORDER-359 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^3 \left( C_1 C_3 L_1 R_2 R_3 g_m + C_1 C_3 L_1 R_3 \right) + s^2 \left( C_1 L_1 R_2 g_m + C_1 L_1 \right) + s \left( C_3 R_2 R_3 g_m + C_3 R_3 \right) + 1}{s^3 \left( C_1 C_3 L_1 R_2 g_m + C_1 C_3 L_1 \right) + s^2 \left( C_1 C_3 R_2 + C_1 C_3 R_3 \right) + s \left( C_1 + C_3 R_2 g_m + C_3 \right)}$$

**10.360** INVALID-ORDER-360 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^4 \left( C_1 C_3 L_1 L_3 R_2 g_m + C_1 C_3 L_1 L_3 \right) + s^2 \left( C_1 L_1 R_2 g_m + C_1 L_1 + C_3 L_3 R_2 g_m + C_3 L_3 \right) + 1}{C_1 C_3 R_2 s^2 + s^3 \left( C_1 C_3 L_1 R_2 g_m + C_1 C_3 L_1 + C_1 C_3 L_3 \right) + s \left( C_1 + C_3 R_2 g_m + C_3 L_3 \right)}$$

**10.361** INVALID-ORDER-361 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s^3 \left( C_1 L_1 L_3 R_2 g_m + C_1 L_1 L_3 \right) + s \left( L_3 R_2 g_m + L_3 \right)}{C_1 C_3 L_3 R_2 s^3 + C_1 R_2 s + R_2 g_m + s^4 \left( C_1 C_3 L_1 L_3 R_2 g_m + C_1 C_3 L_1 L_3 \right) + s^2 \left( C_1 L_1 R_2 g_m + C_1 L_1 + C_1 L_3 + C_3 L_3 R_2 g_m + C_3 L_3 \right) + 1}$$

**10.362** INVALID-ORDER-362 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^4 \left(C_1 C_3 L_1 L_3 R_2 g_m + C_1 C_3 L_1 L_3\right) + s^3 \left(C_1 C_3 L_1 R_2 R_3 g_m + C_1 C_3 L_1 R_3\right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 + C_3 L_3 R_2 g_m + C_3 L_3\right) + s \left(C_3 R_2 R_3 g_m + C_3 R_3\right) + 1}{s^3 \left(C_1 C_3 L_1 R_2 g_m + C_1 C_3 L_1 + C_1 C_3 L_3\right) + s^2 \left(C_1 C_3 R_2 + C_1 C_3 R_3\right) + s \left(C_1 + C_3 R_2 g_m + C_3\right)}$$

**10.363** INVALID-ORDER-363 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s^3 \left( C_1 L_1 L_3 R_2 R_3 g_m + C_1 L_1 L_3 R_3 \right) + s \left( L_3 R_2 R_3 g_m + L_3 R_3 \right)}{R_2 R_3 g_m + R_3 + s^4 \left( C_1 C_3 L_1 L_3 R_2 R_3 g_m + C_1 C_3 L_1 L_3 R_3 \right) + s^3 \left( C_1 C_3 L_3 R_2 R_3 + C_1 L_1 L_3 R_2 g_m + C_1 L_1 L_3 \right) + s^2 \left( C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_3 + C_1 L_3 R_2 + C_1 L_3 R_3 + C_3 L_3 R_2 R_3 g_m + C_3 L_3 R_3 \right) + s \left( C_1 R_2 R_3 + L_3 R_2 g_m + C_1 L_1 L_3 R_3 + C_1 L_3 R_3 \right) + s \left( C_1 R_2 R_3 g_m + C_1 L_3 R_3 +$$

**10.364** INVALID-ORDER-364 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

**10.365** INVALID-ORDER-365 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

**10.366** INVALID-ORDER-366  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1 C_2 L_1 R_3 s^3 + C_1 L_1 R_3 g_m s^2 + C_2 R_3 s + R_3 g_m}{C_1 C_2 L_1 s^3 + g_m + s^2 \left( C_1 C_2 R_3 + C_1 L_1 g_m \right) + s \left( C_1 + C_2 \right)}$$

10.367 INVALID-ORDER-367  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1 C_2 L_1 s^3 + C_1 L_1 g_m s^2 + C_2 s + g_m}{C_1 C_2 C_3 L_1 s^4 + C_1 C_3 L_1 g_m s^3 + C_3 g_m s + s^2 (C_1 C_2 + C_1 C_3 + C_2 C_3)}$$

**10.368** INVALID-ORDER-368 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1R_3s^3 + C_1L_1R_3g_ms^2 + C_2R_3s + R_3g_m}{C_1C_2C_3L_1R_3s^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_3L_1R_3g_m\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3 + C_1L_1g_m + C_2C_3R_3\right) + s\left(C_1 + C_2 + C_3R_3g_m\right)}$$

**10.369** INVALID-ORDER-369 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1R_3s^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_3L_1R_3g_m\right) + s^2\left(C_1L_1g_m + C_2C_3R_3\right) + s\left(C_2 + C_3R_3g_m\right)}{C_1C_2C_3L_1s^4 + C_3g_ms + s^3\left(C_1C_2C_3R_3 + C_1C_3L_1g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$$

**10.370** INVALID-ORDER-370 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1 C_2 C_3 L_1 L_3 s^5 + C_1 C_3 L_1 L_3 g_m s^4 + C_2 s + g_m + s^3 \left(C_1 C_2 L_1 + C_2 C_3 L_3\right) + s^2 \left(C_1 L_1 g_m + C_3 L_3 g_m\right)}{C_1 C_3 L_1 g_m s^3 + C_3 g_m s + s^4 \left(C_1 C_2 C_3 L_1 + C_1 C_2 C_3 L_3\right) + s^2 \left(C_1 C_2 + C_1 C_3 + C_2 C_3\right)}$$

10.371 INVALID-ORDER-371 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1L_3s^4 + C_1L_1L_3g_ms^3 + C_2L_3s^2 + L_3g_ms}{C_1C_2C_3L_1L_3s^5 + C_1C_3L_1L_3g_ms^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_2L_3 + C_1C_3L_3 + C_2C_3L_3\right) + s^2\left(C_1L_1g_m + C_3L_3g_m\right) + s\left(C_1 + C_2\right)}$$

10.372 INVALID-ORDER-372 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_{1}C_{2}C_{3}L_{1}L_{3}s^{5} + g_{m} + s^{4}\left(C_{1}C_{2}C_{3}L_{1}R_{3} + C_{1}C_{3}L_{1}L_{3}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{1} + C_{1}C_{3}L_{1}R_{3}g_{m} + C_{2}C_{3}L_{3}\right) + s^{2}\left(C_{1}L_{1}g_{m} + C_{2}C_{3}R_{3} + C_{3}L_{3}g_{m}\right) + s\left(C_{2} + C_{3}R_{3}g_{m}\right) + s\left(C_{2} + C_{3}R_{3}g_{m}\right) + s\left(C_{1}C_{2}C_{3}L_{1} + C_{1}C_{2}C_{3}L_{3}\right) + s^{3}\left(C_{1}C_{2}C_{3}R_{3} + C_{1}C_{3}L_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2} + C_{1}C_{3} + C_{2}C_{3}\right)$$

10.373 INVALID-ORDER-373 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1L_3R_3s^4 + C_1L_1L_3R_3g_ms^3 + C_2L_3R_3s^2 + L_3R_3g_ms}{C_1C_2C_3L_1L_3R_3s^5 + R_3g_m + s^4\left(C_1C_2L_1L_3 + C_1C_3L_1L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_1C_2L_3R_3 + C_1L_1L_3g_m + C_2C_3L_3R_3\right) + s^2\left(C_1L_1R_3g_m + C_1L_3 + C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_1R_3 + C_2R_3 + L_3g_m\right)}$$

10.374 INVALID-ORDER-374 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1L_3R_3s^5 + R_3g_m + s^4\left(C_1C_2L_1L_3 + C_1C_3L_1L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_1L_1L_3g_m + C_2C_3L_3R_3\right) + s^2\left(C_1L_1R_3g_m + C_2L_3 + C_3L_3R_3g_m\right) + s\left(C_2R_3 + L_3g_m\right)}{C_1C_2C_3L_1L_3s^5 + g_m + s^4\left(C_1C_2C_3L_3R_3 + C_1C_3L_1L_3g_m\right) + s^3\left(C_1C_2L_1 + C_1C_2L_3 + C_1C_3L_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_3 + C_1L_1g_m + C_3L_3g_m\right) + s\left(C_1+C_2C_3L_3R_3\right) + s^2\left(C_1C_2R_3 + C_1L_3g_m\right) + s^2\left$$

10.375 INVALID-ORDER-375 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1L_3R_3s^5 + C_1C_3L_1L_3R_3g_ms^4 + C_2R_3s + R_3g_m + s^3\left(C_1C_2L_1R_3 + C_2C_3L_3R_3\right) + s^2\left(C_1L_1R_3g_m + C_3L_3R_3g_m\right)}{C_1C_2C_3L_1L_3s^5 + g_m + s^4\left(C_1C_2C_3L_1R_3 + C_1C_3L_1L_3g_m\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_3g_m + C_1C_3L_3 + C_2C_3L_3\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3 + C_1L_1g_m + C_2C_3R_3 + C_3L_3g_m\right) + s\left(C_1C_2C_3L_1L_3s^5 + g_m + s^4\left(C_1C_2C_3L_1R_3 + C_1C_3L_1L_3g_m\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_3g_m + C_1C_3L_3\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3 + C_1C_3R_3 + C_3L_3g_m\right) + s^2\left(C_1C_2R_3 + C_3L_3g_m\right) + s^2$$

**10.376** INVALID-ORDER-376 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1R_2R_3s^3 + C_2R_2R_3s + R_2R_3g_m + R_3 + s^2\left(C_1L_1R_2R_3g_m + C_1L_1R_3\right)}{C_1C_2L_1R_2s^3 + R_2g_m + s^2\left(C_1C_2R_2R_3 + C_1L_1R_2g_m + C_1L_1\right) + s\left(C_1R_2 + C_1R_3 + C_2R_2\right) + 1}$$

10.377 INVALID-ORDER-377 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1R_2s^3 + C_2R_2s + R_2g_m + s^2\left(C_1L_1R_2g_m + C_1L_1\right) + 1}{C_1C_2C_3L_1R_2s^4 + s^3\left(C_1C_3L_1R_2g_m + C_1C_3L_1\right) + s^2\left(C_1C_2R_2 + C_1C_3R_2 + C_2C_3R_2\right) + s\left(C_1 + C_3R_2g_m + C_3\right)}$$

10.378 INVALID-ORDER-378  $Z(s) = \left(L_1s + \frac{1}{C_1s}, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_2R_3s+1}, \infty, \infty, \infty\right)$   $H(s) = \frac{C_1C_2L_1R_2R_3s^3 + C_2R_2R_3s + R_2R_3g_m + R_3 + s^2(C_1L_1R_2R_3g_m + C_1L_1R_3)}{C_1C_2C_3L_1R_2R_3s^4 + R_2g_m + s^3(C_1C_2L_1R_2 + C_1C_3L_1R_2R_3g_m + C_1C_3L_1R_3) + s^2(C_1C_2R_2R_3 + C_1C_3R_2R_3 + C_1L_1R_2g_m + C_1L_1 + C_2C_3R_2R_3) + s(C_1R_2 + C_1R_3 + C_2R_2 + C_3R_2R_3g_m + C_3R_3) + 1}$ 10.379 INVALID-ORDER-379  $Z(s) = \left(L_1s + \frac{1}{C_1s}, \frac{R_2}{C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty\right)$   $H(s) = \frac{C_1C_2C_3L_1R_2R_3s^4 + R_2g_m + s^3(C_1C_2L_1R_2 + C_1C_3L_1R_2R_3g_m + C_1C_3L_1R_3) + s^2(C_1L_1R_2g_m + C_1L_1 + C_2C_3R_2R_3) + s(C_2R_2 + C_3R_2R_3g_m + C_3R_3) + 1}{C_1C_2C_3L_1R_2s^4 + s^3(C_1C_2L_1R_2 + C_1C_3L_1R_2g_m + C_1C_3L_1) + s^2(C_1C_2R_2 + C_1C_3R_2 + C_1C_3R_2$ 

**10.381** INVALID-ORDER-381  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_1L_3R_2s^4 + C_2L_3R_2s^2 + s^3\left(C_1L_1L_3R_2g_m + C_1L_1L_3\right) + s\left(L_3R_2g_m + L_3\right)}{C_1C_2C_3L_1L_3R_2s^5 + R_2g_m + s^4\left(C_1C_3L_1L_3R_2g_m + C_1C_3L_1L_3\right) + s^3\left(C_1C_2L_1R_2 + C_1C_2L_3R_2 + C_1C_3L_3R_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_1L_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_2 + C_2R_2\right) + 1}$$

**10.382** INVALID-ORDER-382  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2C_3L_1L_3R_2s^5 + R_2g_m + s^4\left(C_1C_2C_3L_1R_2R_3 + C_1C_3L_1L_3R_2g_m + C_1C_3L_1R_2 + C_1C_3L_1R_2 + C_1C_3L_1R_3 + C_2C_3L_3R_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_2C_3R_2R_3 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_2R_2 + C_3R_2R_3 + C_3R_3R_3 + C_3R_3R_3$$

**10.383** INVALID-ORDER-383  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

10.384 INVALID-ORDER-384  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

10.385 INVALID-ORDER-385  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2C_3L_1L_3R_2R_3s^5 + C_2R_2R_3s + R_2R_3g_m + R_3 + s^4\left(C_1C_3L_1L_3R_2R_3g_m + C_1C_3L_1L_3R_3\right) + s^3\left(C_1C_2L_1R_2R_3 + C_2C_3L_3R_2R_3\right) + s^2\left(C_1L_1R_2R_3g_m + C_1L_1R_3 + C_3L_3R_2R_3g_m + C_3L_3R_3R_3\right) + s^2\left(C_1L_1R_2R_3g_m + C_1L_1R_3 + C_3L_3R_3g_m + C_3L_3R_3g_m + C_3R_3g_m + C_3R_3g_m$$

**10.386** INVALID-ORDER-386  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right)$ 

$$H(s) = \frac{C_1 L_1 R_3 g_m s^2 + R_3 g_m + s^3 \left( C_1 C_2 L_1 R_2 R_3 g_m + C_1 C_2 L_1 R_3 \right) + s \left( C_2 R_2 R_3 g_m + C_2 R_3 \right)}{g_m + s^3 \left( C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1 \right) + s^2 \left( C_1 C_2 R_2 + C_1 C_2 R_3 + C_1 L_1 g_m \right) + s \left( C_1 + C_2 R_2 g_m + C_2 \right)}$$

10.387 INVALID-ORDER-387 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1L_1g_ms^2 + g_m + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1\right) + s\left(C_2R_2g_m + C_2\right)}{C_3g_ms + s^4\left(C_1C_2C_3L_1R_2g_m + C_1C_2C_3L_1\right) + s^3\left(C_1C_2C_3R_2 + C_1C_3L_1g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3R_2g_m + C_2C_3\right)}$$

**10.388** INVALID-ORDER-388 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_1L_1R_3g_ms^2 + R_3g_m + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3\right) + s\left(C_2R_2R_3g_m + C_2R_3\right)}{g_m + s^4\left(C_1C_2C_3L_1R_2R_3g_m + C_1C_2C_3L_1R_3\right) + s^3\left(C_1C_2C_3R_2R_3 + C_1C_2L_1 + C_1C_3L_1R_3g_m\right) + s^2\left(C_1C_2R_2 + C_1C_2R_3 + C_1C_3R_3 + C_1L_1g_m + C_2C_3R_2R_3g_m + C_2C_3R_3\right) + s\left(C_1 + C_2R_2g_m + C_2 + C_3R_3g_m\right)}$$

**10.389** INVALID-ORDER-389 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{g_m + s^4 \left(C_1 C_2 C_3 L_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_3\right) + s^3 \left(C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1 + C_1 C_3 L_1 R_3 g_m\right) + s^2 \left(C_1 L_1 g_m + C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_3\right) + s \left(C_2 R_2 g_m + C_2 + C_3 R_3 g_m\right)}{C_3 g_m s + s^4 \left(C_1 C_2 C_3 L_1 R_2 g_m + C_1 C_2 C_3 L_1\right) + s^3 \left(C_1 C_2 C_3 R_2 + C_1 C_2 C_3 R_3 + C_1 C_3 L_1 g_m\right) + s^2 \left(C_1 L_2 g_m + C_2 C_3 R_3 g_m + C_2 C_3 R_2 g_m + C_2 C_3 R_3 g_m\right)}$$

**10.390** INVALID-ORDER-390 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_1C_3L_1L_3g_ms^4 + g_m + s^5\left(C_1C_2C_3L_1L_3R_2g_m + C_1C_2C_3L_1L_3\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1L_1g_m + C_3L_3g_m\right) + s\left(C_2R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2C_3L_3R_2g_m + C_2C_3R_2g_m + C_2C_3R_2g_m\right) + s^2\left(C_1C_2C_3L_3R_2g_m + C_2C_3R_2g_m + C_2C_3R_2g_m\right) + s^2\left(C_1C_2C_3R_2g_m + C_2C_3R_2g_m\right) + s^2\left(C_1C_2C_3R_2g_m\right) + s^2\left(C_1C_2$$

10.391 INVALID-ORDER-391 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1L_1L_3g_ms^3 + L_3g_ms + s^4\left(C_1C_2L_1L_3R_2g_m + C_1C_2L_1L_3\right) + s^2\left(C_2L_3R_2g_m + C_2L_3\right)}{g_m + s^5\left(C_1C_2C_3L_1L_3R_2g_m + C_1C_2L_3L_1L_3\right) + s^4\left(C_1C_2C_3L_1L_3g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_2L_3 + C_1C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_2 + C_1L_1g_m + C_3L_3g_m\right) + s\left(C_1C_2R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_2 + C_1L_1g_m + C_3L_3g_m\right) + s\left(C_1C_2R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_2 + C_1L_1g_m + C_3L_3g_m\right) + s\left(C_1C_2R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_2g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_2g_m + C_3L_3\right) + s^2\left(C_1C_2R_3g_m + C_3L_3\right) + s^2\left(C_1C_3R_3g_m + C_3L_$$

10.392 INVALID-ORDER-392 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{g_m + s^5 \left(C_1 C_2 C_3 L_1 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_3\right) + s^4 \left(C_1 C_2 C_3 L_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_3 + C_1 C_3 L_1 R_3 g_m + C_1 C_2 L_1 + C_1 C_3 L_1 R_3 g_m + C_2 C_3 L_3 R_2 g_m + C_2 C_3 L_3\right) + s^2 \left(C_1 L_1 g_m + C_2 C_3 R_3 + C_3 L_3 g_m + C_2 C_3 R_3 + C_3 L_3 g_m + C_2 C_3 R_3 + C_3 L_3 g_m + C_3 C_3 R_3 g_m + C$$

10.393 INVALID-ORDER-393 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1L_1L_3R_3g_ms^3 + L_3R_3g_ms + s^4\left(C_1C_2L_1L_3R_2R_3g_m + C_1C_2L_1L_3R_3\right) + s^2\left(C_2L_3R_2R_3g_m + C_2L_3R_3\right)}{R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_2R_3g_m + C_1C_2L_1L_3R_2g_m + C_1C_2L_1L_3R_2g_m + C_1C_2L_1L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1C_3L_3R_3 +$$

**10.394** INVALID-ORDER-394 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$$

**10.395** INVALID-ORDER-395 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_1C_3L_1L_3R_3g_ms^4 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_2g_m + C_1C_2C_3L_1L_3R_3\right) + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3 + C_2C_3L_3R_2R_3g_m + C_2C_3L_3R_3\right) + s^2\left(C_1L_1R_3g_m + C_3L_3R_3g_m\right) + s^2\left(C_1L_1R_3g_m + C_1C_2C_3L_1R_3g_m + C_1C_2C_$$

**10.396** INVALID-ORDER-396  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right)$  $H(s) = \frac{C_1C_2L_1L_2R_3g_ms^4 + C_1C_2L_1R_3s^3 + C_2R_3s + R_3g_m + s^2\left(C_1L_1R_3g_m + C_2L_2R_3g_m\right)}{C_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_2L_2\right) + s^2\left(C_1C_2R_3 + C_1L_1g_m + C_2L_2g_m\right) + s\left(C_1 + C_2\right)}$ 10.397 INVALID-ORDER-397  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$  $H(s) = \frac{C_1C_2L_1L_2g_ms^4 + C_1C_2L_1s^3 + C_2s + g_m + s^2\left(C_1L_1g_m + C_2L_2g_m\right)}{C_1C_2C_3L_1L_2g_ms^5 + C_3g_ms + s^4\left(C_1C_2C_3L_1 + C_1C_2C_3L_2\right) + s^3\left(C_1C_3L_1g_m + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$ **10.398** INVALID-ORDER-398  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$  $H(s) = \frac{C_1C_2L_1L_2R_3g_ms^4 + C_1C_2L_1R_3s^3 + C_2R_3s + R_3g_m + s^2\left(C_1L_1R_3g_m + C_2L_2R_3g_m\right)}{C_1C_2C_3L_1L_2R_3g_ms^5 + g_m + s^4\left(C_1C_2C_3L_1R_3 + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2L_1 + C_1C_2L_2 + C_1C_3L_1R_3g_m + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_3 + C_1C_3R_3 + C_1L_1g_m + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_1C_2R_3g_m\right) + s\left(C_1C_$ 10.399 INVALID-ORDER-399  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$  $H(s) = \frac{C_1C_2C_3L_1L_2R_3g_ms^5 + g_m + s^4\left(C_1C_2C_3L_1R_3 + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_3g_m + C_2C_3L_2R_3g_m\right) + s^2\left(C_1L_1g_m + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_2 + C_3R_3g_m\right)}{C_1C_2C_3L_1L_2g_ms^5 + C_3g_ms + s^4\left(C_1C_2C_3L_1 + C_1C_2C_3L_2\right) + s^3\left(C_1C_2C_3R_3 + C_1C_3L_1g_m + C_2C_3L_2g_m\right) + s^2\left(C_1L_2g_m + C_2C_3R_3 + C_2L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$ **10.400** INVALID-ORDER-400  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$  $H(s) = \frac{C_1C_2C_3L_1L_2L_3g_ms^6 + C_1C_2C_3L_1L_3s^5 + C_2s + g_m + s^4\left(C_1C_2L_1L_2g_m + C_1C_3L_1L_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_1 + C_2C_3L_3\right) + s^2\left(C_1L_1g_m + C_2L_2g_m + C_3L_3g_m\right)}{C_1C_2C_3L_1L_2g_ms^5 + C_3g_ms + s^4\left(C_1C_2C_3L_1 + C_1C_2C_3L_2 + C_1C_2C_3L_3\right) + s^3\left(C_1C_3L_1g_m + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3\right)}$ **10.401** INVALID-ORDER-401  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)$ 10.402 INVALID-ORDER-402  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 10.403 INVALID-ORDER-403  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$  $H(s) = \frac{C_1C_2L_1L_2R_3g_ms^5 + C_1C_2L_1L_3R_3s^4 + C_2L_3R_3s^2 + L_3R_3g_ms + s^3\left(C_1L_1L_3R_3g_m + C_2L_2L_3R_3g_m\right)}{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_3 + C_1C_2L_1L_2L_3g_m\right) + s^4\left(C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_3 + C_1C_2L_2L_3 + C_1C_2L_1L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_1C_2L_2R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_1C_2L_2R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3g_m\right) + s^3\left(C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3g_m\right) + s^3\left(C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1C_2L_3R_3g_m\right) + s^3\left(C_1C_2L_3R_3 + C_1C_2L_3R_3 + C_1$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + C_1C_2C_3L_1L_3R_3s^5 + C_2R_3s + R_3g_m + s^4\left(C_1C_2L_1L_2R_3g_m + C_1C_3L_1L_3R_3g_m + C_2C_3L_2L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_2C_3L_3R_3\right) + s^2\left(C_1L_1R_3g_m + C_2C_3L_2L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_2C_3L_3R_3\right) + s^2\left(C_1L_1R_3g_m + C_2C_3L_3R_3 + C_2C_3L_3R_3\right) + s^2\left(C_1L_1R_3g_m + C_2C_3L_3R_3\right) + s^2\left(C_1L_1R_$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_3 + C_1C_2L_1L_2L_3g_m\right) + s^4\left(C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_3 + C_1C_3L_1L_3R_3g_m + C_2C_3L_2L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_1L_1L_3g_m + C_2C_3L_3R_3 + C_2L_2L_3g_m\right) + s^2\left(C_1L_1R_3g_m + C_2L_2R_3g_m + C_2L_3R_3g_m\right) + s^2\left(C_1L_1R_3g_m + C_2L_2R_3g_m\right) + s^2\left(C_1L_1R_3g_m + C_2L_2R_3g_m\right$ 

10.404 INVALID-ORDER-404  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$ 

10.405 INVALID-ORDER-405  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

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10.406 INVALID-ORDER-406 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                   H(s) = \frac{C_1C_2L_1L_2R_3g_ms^4 + R_3g_m + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3\right) + s^2\left(C_1L_1R_3g_m + C_2L_2R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3\right)}{C_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_2L_2\right) + s^2\left(C_1C_2R_2 + C_1C_2R_3 + C_1L_1g_m + C_2L_2g_m\right) + s\left(C_1 + C_2R_2g_m + C_2\right)}
10.407 INVALID-ORDER-407 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
                                                                                                                                                                                                                                                             H(s) = \frac{C_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1\right) + s^2\left(C_1L_1g_m + C_2L_2g_m\right) + s\left(C_2R_2g_m + C_2\right)}{C_1C_2C_3L_1L_2g_ms^5 + C_3g_ms + s^4\left(C_1C_2C_3L_1R_2g_m + C_1C_2C_3L_2\right) + s^3\left(C_1C_2C_3R_2 + C_1C_3L_1g_m + C_2C_3L_2g_m\right) + s^2\left(C_1C_2 + C_1C_3 + C_2C_3R_2g_m + C_2C_3\right)}
10.408 INVALID-ORDER-408 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)
H(s) = \frac{C_1C_2L_1L_2R_3g_ms^4 + R_3g_m + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3\right) + s^2\left(C_1L_1R_3g_m + C_2L_2R_3g_m\right) + s\left(C_2R_2R_3g_m + C_2R_3\right)}{C_1C_2C_3L_1L_2R_3g_ms^5 + g_m + s^4\left(C_1C_2C_3L_1R_3 + C_1C_2C_3L_1R_3 + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2C_3R_2R_3 + C_1C_2L_1 + C_1C_2L_1 + C_1C_2L_2 + C_1C_3L_1R_3g_m + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_2 + C_1C_2R_3 + C_1C_2
10.409 INVALID-ORDER-409 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
                                              H(s) = \frac{C_1C_2C_3L_1L_2R_3g_ms^5 + g_m + s^4\left(C_1C_2C_3L_1R_2R_3g_m + C_1C_2C_3L_1R_3 + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_3L_1R_3g_m + C_2C_3L_2R_3g_m\right) + s^2\left(C_1L_1g_m + C_2C_3R_2R_3g_m + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_2R_2g_m + C_2 + C_3R_3g_m\right) + s\left(C_2R_2g_m + C_2C_3R_3R_3 + C_2C_3R_3g_m\right) + s^2\left(C_1L_1g_m + C_2C_3R_3R_3 + C_2C_3R_3g_m\right) + s^2\left(C_1L_2g_m + C_2C_3R_3R_3 + C_2C_3R_3g_m\right) + s^2\left(C_1L_2g_m + C_2C_3R_3 + C_2C_3R_3g_m\right) + s^2\left(C_1L_2g_m + C_2C_3R_3g_m\right) + s^2\left(C_1L_2
10.410 INVALID-ORDER-410 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
                                  H(s) = \frac{C_1C_2C_3L_1L_2L_3g_ms^6 + g_m + s^5\left(C_1C_2C_3L_1L_3R_2g_m + C_1C_2C_3L_1L_3\right) + s^4\left(C_1C_2L_1L_2g_m + C_1C_3L_1L_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1L_1g_m + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_2R_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3\right) + s^2\left(C_1L_1g_m + C_2L_2g_m + C_3L_3g_m\right) + s\left(C_2R_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m\right) + s^2\left(C_1L_1g_m + C_2L_2g_m + C_3L_3g_m\right) + s^2\left(C_1L_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m\right) + s^2\left(C_1L_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m + C_2C_3L_3R_2g_m\right) + s^2\left(C_1L_2g_m + C_2C_3L_3R_2g_m + C_2C_3R_2g_m\right) + s^2\left(C_1L_2g_m + C_2C_3R_2g_m + C_2C_3R_2g_m\right) + s^2\left(C_1L_2g_m + C_2C_3R_2g_m\right) 
10.411 INVALID-ORDER-411 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)
                                                 \frac{C_{1}C_{2}L_{1}L_{2}L_{3}g_{m}s^{5}+L_{3}g_{m}s+s^{4}\left(C_{1}C_{2}L_{1}L_{3}R_{2}g_{m}+C_{1}C_{2}L_{1}L_{3}\right)+s^{3}\left(C_{1}L_{1}L_{3}g_{m}+C_{2}L_{2}L_{3}g_{m}\right)+s^{2}\left(C_{2}L_{3}R_{2}g_{m}+C_{2}L_{3}\right)}{C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}g_{m}s^{6}+g_{m}+s^{5}\left(C_{1}C_{2}C_{3}L_{1}L_{3}+C_{1}C_{2}C_{3}L_{2}L_{3}\right)+s^{4}\left(C_{1}C_{2}C_{3}L_{2}L_{3}g_{m}\right)+s^{3}\left(C_{1}C_{2}L_{1}R_{2}g_{m}+C_{1}C_{2}L_{1}+C_{1}C_{2}L_{2}+C_{1}C_{2}L_{3}+C_{1}C_{3}L_{3}+C_{2}C_{3}L_{3}R_{2}+C_{2}C_{3}L_{3}\right)+s^{2}\left(C_{1}C_{2}C_{3}L_{1}L_{3}R_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}G_{2}L_{1}L_{2}G_{2}L_{2}G_{2}L_{1}L_{2}G_{2}L_{1}L_{2}G_{2}L_{1}L_{2}G_{2}L_{1}L_{2}G_{2}L_{1}L_{2}G_{2}L_{1}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{2}G_{2}L_{
10.412 INVALID-ORDER-412 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_2L_3g_ms^6 + g_m + s^5\left(C_1C_2C_3L_1L_2R_3g_m + C_1C_2C_3L_1L_3R_2g_m + C_1C_2C_3L_1R_3 + C_1C_2L_1L_2g_m + C_1C_3L_1L_3g_m + C_2C_3L_2R_3g_m + C_1C_2L_1L_2g_m + C_1C_2L_1L_2g_m + C_1C_2L_1L_2g_m + C_1C_2L_1R_2g_m + C_1C_
10.413 INVALID-ORDER-413 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C_{1}C_{2}L_{1}L_{2}L_{3}R_{3}g_{m}s^{5} + L_{3}R_{3}g_{m}s + s^{4}\left(C_{1}C_{2}L_{1}L_{3}R_{2}R_{3}g_{m} + C_{1}C_{2}L_{3}R_{3}g_{m}\right) + C_{1}C_{2}L_{3}R_{3}g_{m}s^{5} + L_{3}R_{3}g_{m}s + s^{4}\left(C_{1}C_{2}L_{1}L_{3}R_{2}R_{3}g_{m} + C_{1}C_{2}L_{3}R_{3}g_{m}\right) + C_{1}C_{2}L_{3}R_{3}g_{m}s^{5} 
H(s) = \frac{C_1C_2C_3L_3L_2C_3S_3m^5 + C_3C_2C_3L_3R_3s^6 + R_3s_m + s^5\left(C_1C_2C_3L_1L_3R_2R_3g_m + C_1C_2L_1L_2L_3g_m\right) + s^4\left(C_1C_2C_3L_3R_2R_3 + C_1C_2L_1L_3R_2g_m + C_1C_2L_1L_3R_2g_m + C_1C_2L_1L_3R_2g_m + C_1C_2L_1L_3R_3g_m\right) + s^4\left(C_1C_2C_3L_3R_3R_3 + C_1C_2L_1L_3R_3g_m + C_1C_2L_1L_3R_3g_m + C_1C_2L_1L_3R_3g_m\right) + s^4\left(C_1C_2C_3L_3R_3R_3 + C_1C_2L_3R_3R_3 + C_1C_2R_3R_3R_3 + C_
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 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_2R_3g_m + C_1C_2L_1L_2L_3g_m\right) + s^4\left(C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_3 + C_1C_2L_1L_3 + C_1C_3L_1L_3R_3g_m + C_2C_3L_2L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3 + C_1L_1L_3g_m + C_2C_3L_3R_2R_3R_3 + C_1C_2L_1L_3R_3g_m + C_2C_3L_2L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3 + C_1L_1L_3g_m + C_2C_3L_3R_3R_3 + C_1C_2L_1L_3R_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3 + C_1L_2L_3g_m + C_2C_3L_3R_3 + C_1C_2L_1L_2g_m + C_1C_3L_1L_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1R_3 + C_1L_2L_3g_m + C_2C_3L_3R_3 + C_1C_2L_1L_2g_m + C_1C_3L_1L_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1R_3 + C_1L_2L_3g_m + C_2C_3L_3R_3 + C_1C_2L_1L_2g_m + C_1C_3L_1L_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1R_2g_m + C_1C_2L_1L_2g_m + C_1C_3L_1L_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1R_2g_m + C_1C_2L_1R_2$ 

10.414 INVALID-ORDER-414  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_3g_m + C_1C_2C_3L_1L_3R_3g_m + C_1C_2C_3L_1R_3R_3g_m + C_1C_3C_3L_1R_3R_3g_m +$ 

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10.416 INVALID-ORDER-416 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                       H(s) = \frac{C_1L_1L_2R_3g_ms^3 + L_2R_3g_ms + R_2R_3g_m + R_3 + s^4\left(C_1C_2L_1L_2R_2R_3g_m + C_1C_2L_1L_2R_3\right) + s^2\left(C_1L_1R_2R_3g_m + C_1L_1R_3 + C_2L_2R_2R_3g_m + C_2L_2R_3\right)}{R_2g_m + s^4\left(C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2\right) + s^3\left(C_1C_2L_2R_2 + C_1C_2L_2R_3 + C_1L_1L_2g_m\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_1L_2 + C_2L_2R_2g_m + C_2L_2\right) + s\left(C_1R_2 + C_1R_3 + L_2g_m\right) + 1}
10.417 INVALID-ORDER-417 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                     H(s) = \frac{C_1L_1L_2g_ms^3 + L_2g_ms + R_2g_m + s^4\left(C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_2L_2R_2g_m + C_2L_2\right) + 1}{s^5\left(C_1C_2C_3L_1L_2R_2g_m + C_1C_2C_3L_1L_2\right) + s^4\left(C_1C_2C_3L_2R_2 + C_1C_3L_1L_2g_m\right) + s^3\left(C_1C_2L_2 + C_1C_3L_1R_2g_m + C_1C_3L_1 + C_1C_3L_2 + C_2C_3L_2R_2g_m + C_2C_3L_2\right) + s^2\left(C_1C_3R_2 + C_3L_2g_m\right) + s\left(C_1C_3R_2g_m + C_3R_2g_m + C_3R_2g_m\right) + s\left(C_1C_3R_2g_m + C_3R_2g_m\right) + s\left(C_1C
10.418 INVALID-ORDER-418 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                   \frac{C_{1}L_{1}L_{2}R_{3}g_{m}s^{3}+L_{2}R_{3}g_{m}s+R_{2}R_{3}g_{m}+R_{3}+s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{3}g_{m}+C_{1}C_{2}L_{1}L_{2}R_{3}\right)+s^{2}\left(C_{1}L_{1}R_{2}R_{3}g_{m}+C_{1}L_{1}R_{3}+C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}L_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{2}R_{2}R_{3}g_{m}+C_{1}C_{2}L_
10.419 INVALID-ORDER-419 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{R_2 g_m + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_1 L_2 + C_1 C_3 L_1 L_2 R_3 g_m \right) + s^3 \left(C_1 C_3 L_1 R_2 R_3 g_m + C_1 C_3 L_2 R_3 g_m + C_2 C_3 L_2 R_3 g_m + C_2 C_3 L_2 R_3 \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 + C_2 L_2 R_2 g_m + C_2 L_2 + C_3 L_2 R_3 g_m \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 L_2 R_2 g_m + C_1 L_1 L_2 R_2 g_m + C_1 L_2 R_2 g_m + C_2 L_2 R_3 g_m \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 L_2 R_2 g_m + C_1 L_1 L_2 R_2 g_m + C_1 L_2 R_2 g_m + C_1 L_2 R_2 g_m \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 L_2 R_2 g_m \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 L_2 R_2 g_m \right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 L_2 R_2 g_m + C_1 L_
10.420 INVALID-ORDER-420 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_3L_1L_2L_3g_ms^5 + L_2g_ms + R_2g_m + s^6\left(C_1C_2C_3L_1L_2L_3R_2g_m + C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2 + C_1C_3L_1L_3R_2g_m + C_1C_3L_1L_3 + C_2C_3L_2L_3\right) + s^3\left(C_1L_1L_2g_m + C_3L_2L_3g_m\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_2L_2R_2g_m + C_1C_3L_1L_3R_2g_m + C_1C_3L_1R_2g_m + C_1C_3L_1R_
10.421 INVALID-ORDER-421 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C_{1}L_{1}L_{2}L_{3}g_{m}s^{4} + L_{2}L_{3}g_{m}s^{2} + s^{5}\left(C_{1}C_{2}L_{1}L_{2}L_{3}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}\right) + s^{3}\left(C_{1}L_{1}L_{3}R_{2}g_{m} + C_{1}L_{1}L_{3} + C_{2}L_{2}L_{3}R_{2}g_{m} + C_{2}L_{2}L_{3}\right) + s\left(L_{3}L_{2}L_{3}R_{2}g_{m} + C_{1}L_{1}L_{3} + C_{2}L_{2}L_{3}R_{2}g_{m} + C_{2}L_{2}L_{3}\right) + s\left(L_{3}L_{2}L_{3}R_{2}g_{m} + C_{1}L_{1}L_{3} + C_{2}L_{2}L_{3}R_{2}g_{m} + C_{2}L_{2}L_{3}\right) + s\left(L_{3}L_{3}R_{2}g_{m} + C_{2}L_{2}L_{3}R_{2}g_{m} + C_{2}L_{2}L_{3}R_{2}g_{m
                                                    \frac{C_1L_1L_2L_3g_ms^2 + s^3\left(C_1C_2L_1L_2L_3R_2g_m + C_1C_2L_1L_2L_3\right) + s^3\left(C_1L_1L_3R_2g_m + C_1L_1L_3 + C_2L_2L_3R_2g_m + C_2L_2L_3\right) + s\left(C_1L_2L_3R_2g_m + C_1C_2L_1L_2L_3\right) + s^3\left(C_1L_2L_3R_2g_m + C_1C_2L_1L_2L_3\right) + s^3\left(C_1C_2C_3L_1L_2L_3R_2g_m + C_1C_3L_1L_2L_3\right) + s^3\left(C_1C_2C_3L_2L_3R_2 + C_1C_3L_1L_2R_2g_m + C_1C_3L_1L_2 + C_1C_3L_1L_2 + C_1C_3L_1L_3 + C_1C_3L_1L_3 + C_1C_3L_2L_3 + C_1C_3L_2L_3\right) + s^3\left(C_1C_2C_3L_2L_3R_2 + C_1C_3L_2L_3R_2 + C_1C_3L_1L_2R_2g_m + C_1C_3L_1L_2 + C_1C_3L_1L_2 + C_1C_3L_1L_3 + C_1C_
10.422 INVALID-ORDER-422 Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3\right) + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_3 L_1 L_2 R_3 g_m + C_1 C_3 L_1 L_3 R_2 g_m + C_1 C_3 L_1 L_3 R_2 g_m + C_1 C_3 L_1 L_3 R_2 g_m + C_1 C_3 L_1 L_2 R_3 g_m
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10.423 INVALID-ORDER-423  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

 $C_1L_1L_2L_3R_3g_ms^4 + L_2L_3$ 

 $\frac{C_1 L_1 L_2 L_3 R_3 g_m s + L_2 L_3}{R_2 R_3 g_m + R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_3 g_m \right) + s^4 \left(C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_2 R_3 g_m + C_1 C_2 L_2 R_3 g_m + C_1 C_2 L_2 R_3 g_m + C_1 C_2$ 

10.424 INVALID-ORDER-424  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_1 C_2 L_1 L_2 L_3 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_3 g_m + C_1 C_2 L_1 L_2 L_3 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1 L_2 L_3 g_m + C_2 C_3 L_2 L_3 R_2 g_m + C_2 C$ 

10.425 INVALID-ORDER-425  $Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $C_{1}C_{3}L_{1}L_{2}L_{3}R_{3}g_{m}s^{5} + L_{2}R_{3}g_{m}s + R_{2}R_{3}g_{m} + R_{3} + s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{2}R_{3}g_{m} + C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3}\right) + s^{4}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3}g_{m} + C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3}\right) + s^{4}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3}\right) + s^{4}\left(C_$ 

 $\frac{1}{R_2 g_m + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_3 L_1 L_3 R_3 g_m + C_1 C_3 L_1$ 

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 \textbf{10.426} \quad \textbf{INVALID-ORDER-426} \ \ Z(s) = \left( L_1 s + \frac{1}{C_1 s}, \ \frac{R_2 \left( C_2 L_2 s^2 + 1 \right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \ R_3, \ \infty, \ \infty, \ \infty \right)   H(s) = \frac{C_1 C_2 L_1 R_2 R_3 s^3 + C_2 R_2 R_3 s + R_2 R_3 g_m + R_3 + s^4 \left( C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_1 L_2 R_3 \right) + s^2 \left( C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_3 + C_2 L_2 R_3 g_m + C_2 L_2 R_3 \right) }{R_2 g_m + s^4 \left( C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_1 L_2 \right) + s^3 \left( C_1 C_2 L_1 R_2 + C_1 C_2 L_2 R_3 \right) + s^2 \left( C_1 C_2 R_2 R_3 + C_1 L_1 R_2 g_m + C_1 L_1 + C_2 L_2 R_2 g_m + C_2 L_2 \right) + s \left( C_1 R_2 + C_1 R_3 + C_2 R_2 \right) + 1 }
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10.428 INVALID-ORDER-428 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2L_1R_2R_3s^3 + C_2R_2R_3s + R_2R_3g_m + R_3 + s^4\left(C_1C_2L_1L_2R_2R_3g_m + C_1C_2L_1L_2R_3\right) + s^2\left(C_1L_1R_2R_3g_m + C_1L_1R_3 + C_2L_2R_2R_3g_m + C_2L_2R_3g_m +$ 

10.429 INVALID-ORDER-429 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

10.430 INVALID-ORDER-430 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2C_3L_1L_3R_2s^5 + C_2R_2s + R_2g_m + s^6\left(C_1C_2C_3L_1L_2L_3R_2g_m + C_1C_2C_3L_1L_2L_3\right) + s^4\left(C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2 + C_1C_3L_1L_3R_2g_m + C_1C_3L_1L_3 + C_2C_3L_2L_3\right) + s^3\left(C_1C_2L_1R_2 + C_2C_3L_3R_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_2L_2R_2g_m + C_1C_2L_1L_2 + C_1C_3L_1L_3R_2g_m + C_1C_3L_1L_3 + C_2C_3L_2L_3\right) + s^3\left(C_1C_2L_1R_2 + C_2C_3L_3R_2\right) + s^2\left(C_1L_1R_2g_m + C_1L_1 + C_2L_2R_2g_m + C_1C_3L_1L_3 + C_2C_3L_2R_2 + C_1C_3L_3R_2\right) + s^2\left(C_1C_2R_2 + C_1C_3R_2\right) + s^2\left(C_1C_2R_2 + C_1C_2R_2\right) + s^2\left(C_1C_2R_2 + C_1C_2R_2\right) + s^2\left(C_1C_2R_2$ 

10.431 INVALID-ORDER-431 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2L_1L_3R_2s^4 + C_2L_3R_2s^2 + s^5\left(C_1C_2L_1L_2L_3R_2g_m + C_1C_2L_1L_2L_3\right) + s^3\left(C_1L_1L_3R_2g_m + C_1L_1L_3 + C_2L_2L_3R_2g_m + C_2L_2L_3\right) + s\left(L_3R_2g_m + C_1C_2L_1L_2L_3R_2g_m + C_1C_2L_1L_2L_3R_2g_m + C_1C_2L_1L_2R_2g_m + C_1C_2L_1R_2g_m + C_1C_$ 

**10.432** INVALID-ORDER-432 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3\right) + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 + C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_2 L_3 R_2 g_m + C_1 C_2 L_2 L_3 R_2 g_m + C_1 C_2 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_2 R_3 +$ 

10.433 INVALID-ORDER-433 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

 $C(s) = \frac{C_1C_2L_1L_3R_2R_3s^4 + C_2L_3R_2R_3s^2 + C_2L_3R_2R_3s^4 + C_2L_3R_2R_3s^4 + C_2L_3R_2R_3s^2 + C_2L_3R_3s^4 + C_2L$ 

10.434 INVALID-ORDER-434 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_2 L_3 R_2 R_3 g_m + C_1 C$ 

10.435 INVALID-ORDER-435 
$$Z(s) = \left(L_1 s + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2C_3L_1L_3R_2R_3s^5 + C_2R_2R_3s + R_2R_3g_m + R_3 + s^6\left(C_1C_2C_3L_1L_2L_3R_2R_3g_m + C_1C_2C_3L_1L_2L_3R_3\right) + s^4\left(C_1C_2C_3L_1L_2L_3R_2g_m + C_1C_2C_3L_1L_2R_3g_m + C_1C_2C_3L_1$ 

**10.436** INVALID-ORDER-436  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s \left( L_1 R_2 g_m + L_1 \right)}{C_1 C_3 L_1 R_2 s^3 + C_3 R_2 s + s^2 \left( C_1 L_1 + C_3 L_1 R_2 g_m + C_3 L_1 \right) + 1}$$

**10.437** INVALID-ORDER-437  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s \left( L_1 R_2 R_3 g_m + L_1 R_3 \right)}{C_1 C_3 L_1 R_2 R_3 s^3 + R_2 + R_3 + s^2 \left( C_1 L_1 R_2 + C_1 L_1 R_3 + C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 \right) + s \left( C_3 R_2 R_3 + L_1 R_2 g_m + L_1 \right)}$$

**10.438** INVALID-ORDER-438  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty\right)$ 

$$H(s) = \frac{s^2 \left( C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 \right) + s \left( L_1 R_2 g_m + L_1 \right)}{s^3 \left( C_1 C_3 L_1 R_2 + C_1 C_3 L_1 R_3 \right) + s^2 \left( C_1 L_1 + C_3 L_1 R_2 g_m + C_3 L_1 \right) + s \left( C_3 R_2 + C_3 R_3 \right) + 1}$$

**10.439** INVALID-ORDER-439  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty\right)$ 

$$H(s) = \frac{s^3 \left( C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 \right) + s \left( L_1 R_2 g_m + L_1 \right)}{C_1 C_3 L_1 L_3 s^4 + C_1 C_3 L_1 R_2 s^3 + C_3 R_2 s + s^2 \left( C_1 L_1 + C_3 L_1 R_2 g_m + C_3 L_1 + C_3 L_3 \right) + 1}$$

**10.440** INVALID-ORDER-440  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^2 \left( L_1 L_3 R_2 g_m + L_1 L_3 \right)}{C_1 C_3 L_1 L_3 R_2 s^4 + R_2 + s^3 \left( C_1 L_1 L_3 + C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 \right) + s^2 \left( C_1 L_1 R_2 + C_3 L_3 R_2 \right) + s \left( L_1 R_2 g_m + L_1 + L_3 \right)}$$

**10.441** INVALID-ORDER-441  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^3 \left(C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3\right) + s^2 \left(C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3\right) + s \left(L_1 R_2 g_m + L_1\right)}{C_1 C_3 L_1 L_3 s^4 + s^3 \left(C_1 C_3 L_1 R_2 + C_1 C_3 L_1 R_3\right) + s^2 \left(C_1 L_1 + C_3 L_1 R_2 g_m + C_3 L_1 + C_3 L_3\right) + s \left(C_3 R_2 + C_3 R_3\right) + 1}$$

**10.442** INVALID-ORDER-442  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

**10.443** INVALID-ORDER-443  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{s^3 \left(C_3 L_1 L_3 R_2 R_3 g_m + C_3 L_1 L_3 R_3\right) + s^2 \left(L_1 L_3 R_2 g_m + L_1 L_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 R_3\right)}{R_2 + R_3 + s^4 \left(C_1 C_3 L_1 L_3 R_2 + C_1 C_3 L_1 L_3 R_3\right) + s^3 \left(C_1 L_1 L_3 + C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3\right) + s^2 \left(C_1 L_1 R_2 + C_1 L_1 R_3 + C_3 L_3 R_2 + C_3 L_3 R_3\right) + s \left(L_1 R_2 g_m + L_1 + L_3\right)}$$

**10.444** INVALID-ORDER-444 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s^3 \left( C_3 L_1 L_3 R_2 R_3 g_m + C_3 L_1 L_3 R_3 \right) + s \left( L_1 R_2 R_3 g_m + L_1 R_3 \right)}{R_2 + R_3 + s^4 \left( C_1 C_3 L_1 L_3 R_2 + C_1 C_3 L_1 L_3 R_3 \right) + s^3 \left( C_1 C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 \right) + s^2 \left( C_1 L_1 R_2 + C_1 L_1 R_3 + C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3 \right) + s \left( C_3 R_2 R_3 + L_1 R_2 g_m + L_1 R_3 \right)}$$

**10.445** INVALID-ORDER-445  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_1R_3s^2 + L_1R_3g_ms}{C_1C_2L_1R_3s^3 + s^2\left(C_1L_1 + C_2L_1\right) + s\left(C_2R_3 + L_1g_m\right) + 1}$$

**10.446** INVALID-ORDER-446  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_1R_3s^2 + L_1R_3g_ms}{s^3\left(C_1C_2L_1R_3 + C_1C_3L_1R_3 + C_2C_3L_1R_3\right) + s^2\left(C_1L_1 + C_2L_1 + C_3L_1R_3g_m\right) + s\left(C_2R_3 + C_3R_3 + L_1g_m\right) + 1}$$

**10.447** INVALID-ORDER-447  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_1R_3s^2 + L_1g_m + s\left(C_2L_1 + C_3L_1R_3g_m\right)}{C_1C_2C_3L_1R_3s^3 + C_2 + C_3 + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1\right) + s\left(C_2C_3R_3 + C_3L_1g_m\right)}$$

**10.448** INVALID-ORDER-448  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_1L_3s^3 + C_2L_1s + C_3L_1L_3g_ms^2 + L_1g_m}{C_1C_2C_3L_1L_3s^4 + C_2 + C_3L_1g_ms + C_3 + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1 + C_2C_3L_3\right)}$$

**10.449** INVALID-ORDER-449  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2 L_1 L_3 s^3 + L_1 L_3 g_m s^2}{C_3 L_1 L_3 q_m s^3 + L_1 q_m s + s^4 (C_1 C_2 L_1 L_3 + C_1 C_3 L_1 L_3 + C_2 C_3 L_1 L_3) + s^2 (C_1 L_1 + C_2 L_1 + C_2 L_3 + C_3 L_3) + 1}$$

**10.450** INVALID-ORDER-450  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_1L_3s^3 + L_1g_m + s^2\left(C_2C_3L_1R_3 + C_3L_1L_3g_m\right) + s\left(C_2L_1 + C_3L_1R_3g_m\right)}{C_1C_2C_3L_1L_3s^4 + C_1C_2C_3L_1R_3s^3 + C_2 + C_3 + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1 + C_2C_3L_3\right) + s\left(C_2C_3R_3 + C_3L_1g_m\right)}$$

**10.451** INVALID-ORDER-451  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2L_1L_3R_3s^3 + L_1L_3R_3g_ms^2}{R_3 + s^4\left(C_1C_2L_1L_3R_3 + C_1C_3L_1L_3R_3 + C_2C_3L_1L_3R_3\right) + s^3\left(C_1L_1L_3 + C_2L_1L_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_1L_1R_3 + C_2L_1R_3 + C_2L_3R_3 + C_3L_3R_3 + L_1L_3g_m\right) + s\left(L_1R_3g_m + L_3\right)}$$

**10.452** INVALID-ORDER-452  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_2C_3L_1L_3R_3s^4 + L_1R_3g_ms + s^3\left(C_2L_1L_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_2L_1R_3 + L_1L_3g_m\right)}{C_1C_2C_3L_1L_3R_3s^5 + s^4\left(C_1C_2L_1L_3 + C_1C_3L_1L_3 + C_2C_3L_1L_3\right) + s^3\left(C_1C_2L_1R_3 + C_2C_3L_3R_3 + C_3L_1L_3g_m\right) + s^2\left(C_1L_1 + C_2L_1 + C_2L_3 + C_3L_3\right) + s\left(C_2R_3 + L_1g_m\right) + 1}$$

10.453 INVALID-ORDER-453 
$$Z(s) = \left(\sum_{i_1,i_2=1}^{i_1,i_2=1}, \sum_{i_2,i_3=1}^{i_3,i_3=1}, \sum_{i_3,i_4=1}^{i_3,i_3=1}, \sum_{i_3,i_4=1}^{i_3,i_4=1}, \sum_{i_3,i_4=1$$

 $H(s) = \frac{C_2L_1L_3R_2R_3s^3 + s^2\left(L_1L_3R_2R_3g_m + L_1L_3R_3\right)}{R_2R_3 + s^4\left(C_1C_2L_1L_3R_2R_3 + C_1C_3L_1L_3R_2R_3 + C_2C_3L_1L_3R_2R_3\right) + s^3\left(C_1L_1L_3R_2 + C_1L_1L_3R_2 + C_3L_1L_3R_2 + C_3L_1L_3R_2\right) + s^2\left(C_1L_1R_2R_3 + C_2L_1R_2R_3 + C_2L_1R_2R_3$ 

**10.462** INVALID-ORDER-462  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2C_3L_1L_3R_2R_3s^4 + s^3\left(C_2L_1L_3R_2 + C_3L_1L_3R_2g_m + C_3L_1L_3R_3\right) + s^2\left(C_2L_1R_2R_3 + L_1L_3R_2g_m + L_1L_3\right) + s\left(L_1R_2R_3g_m + L_1R_3\right)}{C_1C_2C_3L_1L_3R_2s^5 + R_2 + R_3 + s^4\left(C_1C_2L_1L_3R_2 + C_1C_3L_1L_3R_2 + C_1C_3L_1L_3R_2\right) + s^3\left(C_1C_2L_1R_2R_3 + C_1L_1L_3 + C_2C_3L_3R_2R_3 + C_3L_1L_3\right) + s^2\left(C_1L_1R_2 + C_1L_1R_3 + C_2L_1R_2 + C_2L_3R_2 + C_3L_3R_3\right) + s^2\left(C_1L_1R_2 + C_3L_3R_3 + C_3L_3R_3\right) + s^2\left(C_1L_1R_2 + C_3L_3R_3 + C_3L_3R_3\right) + s^2\left(C_2L_1R_2R_3 + L_3L_3R_3\right) + s^2\left(C_3L_3R_3R_3 + C_3L_3R_3\right) + s$ 

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10.463 INVALID-ORDER-463 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_3R_2R_3s^4 + C_2L_1R_2R_3s^2 + s^3\left(C_3L_1L_3R_2R_3g_m + C_3L_1L_3R_3\right) + s\left(L_1R_2R_3g_m + L_1R_3\right)}{C_1C_2C_3L_1L_3R_2R_3s^5 + R_2 + R_3 + s^4\left(C_1C_3L_1L_3R_2 + C_1C_3L_1L_3R_3 + C_2C_3L_1R_2R_3 + C_2C_3L_1R_2R_3 + C_2C_3L_1R_2R_3 + C_2C_3L_1R_2R_3 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s^2\left(C_1L_1R_2 + C_1L_1R_3 + C_2L_1R_2 + C_3L_1R_2R_3 + C_3L_1R_2R_3 + C_3L_1R_2R_3 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s^2\left(C_1L_1R_2 + C_1L_1R_3 + C_2L_1R_2 + C_3L_1R_3 + C_3L_1R_3\right) + s^2\left(C_1L_1R_2 + C_3L_1R_3 + C_3L_1R_3 + C_3L_1R_3\right) + s^2\left(C_1L_1R_2 + C_3L_1R_3 + C_3L_1R_3 + C_3L_1R_3\right) + s^2\left(C_1L_1R_2 + C_3L_1R_3 + C_3L_1R_3\right) + s^2\left(C_1L_1R_3 + C_
10.464 INVALID-ORDER-464 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                           H(s) = \frac{L_1 R_3 g_m s + s^2 \left( C_2 L_1 R_2 R_3 g_m + C_2 L_1 R_3 \right)}{s^3 \left( C_1 C_2 L_1 R_2 + C_1 C_2 L_1 R_3 \right) + s^2 \left( C_1 L_1 + C_2 L_1 R_2 g_m + C_2 L_1 \right) + s \left( C_2 R_2 + C_2 R_3 + L_1 g_m \right) + 1}
10.465 INVALID-ORDER-465 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                            H(s) = \frac{L_1 g_m + s \left( C_2 L_1 R_2 g_m + C_2 L_1 \right)}{C_1 C_2 C_3 L_1 R_2 s^3 + C_2 + C_3 + s^2 \left( C_1 C_2 L_1 + C_1 C_3 L_1 + C_2 C_3 L_1 R_2 g_m + C_2 C_3 L_1 \right) + s \left( C_2 C_3 R_2 + C_3 L_1 g_m \right)}
10.466 INVALID-ORDER-466 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                    10.467 INVALID-ORDER-467 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                            H(s) = \frac{L_1 g_m + s^2 \left( C_2 C_3 L_1 R_2 R_3 g_m + C_2 C_3 L_1 R_3 \right) + s \left( C_2 L_1 R_2 g_m + C_2 L_1 + C_3 L_1 R_3 g_m \right)}{C_2 + C_3 + s^3 \left( C_1 C_2 C_3 L_1 R_2 + C_1 C_2 C_3 L_1 R_3 \right) + s^2 \left( C_1 C_2 L_1 + C_1 C_3 L_1 + C_2 C_3 L_1 R_2 g_m + C_2 C_3 L_1 \right) + s \left( C_2 C_3 R_2 + C_2 C_3 R_3 + C_3 L_1 g_m \right)}
10.468 INVALID-ORDER-468 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                            H(s) = \frac{C_3L_1L_3g_ms^2 + L_1g_m + s^3\left(C_2C_3L_1L_3R_2g_m + C_2C_3L_1L_3\right) + s\left(C_2L_1R_2g_m + C_2L_1\right)}{C_1C_2C_3L_1L_3s^4 + C_1C_2C_3L_1R_2s^3 + C_2 + C_3 + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1R_2g_m + C_2C_3L_1 + C_2C_3L_3\right) + s\left(C_2C_3R_2 + C_3L_1g_m\right)}
10.469 INVALID-ORDER-469 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                               H(s) = \frac{L_{1}L_{3}g_{m}s^{2} + s^{3}\left(C_{2}L_{1}L_{3}R_{2}g_{m} + C_{2}L_{1}L_{3}\right)}{C_{1}C_{2}C_{3}L_{1}L_{3}R_{2}s^{5} + s^{4}\left(C_{1}C_{2}L_{1}L_{3} + C_{1}C_{3}L_{1}L_{3} + C_{2}C_{3}L_{1}L_{3}R_{2}g_{m} + C_{2}C_{3}L_{1}L_{3}\right) + s^{3}\left(C_{1}C_{2}L_{1}R_{2} + C_{2}C_{3}L_{3}R_{2} + C_{3}L_{1}L_{3}g_{m}\right) + s^{2}\left(C_{1}L_{1} + C_{2}L_{1}R_{2}g_{m} + C_{2}L_{1} + C_{2}L_{3} + C_{3}L_{3}\right) + s\left(C_{2}R_{2} + L_{1}g_{m}\right) + 1
10.470 INVALID-ORDER-470 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                            H(s) = \frac{L_1 g_m + s^3 \left(C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3\right) + s^2 \left(C_2 C_3 L_1 R_2 R_3 g_m + C_2 C_3 L_1 R_3 + C_3 L_1 L_3 g_m\right) + s \left(C_2 L_1 R_2 g_m + C_2 L_1 + C_3 L_1 R_3 g_m\right)}{C_1 C_2 C_3 L_1 L_3 s^4 + C_2 + C_3 + s^3 \left(C_1 C_2 C_3 L_1 R_2 + C_1 C_2 C_3 L_1 R_3\right) + s^2 \left(C_1 C_2 L_1 + C_1 C_3 L_1 + C_2 C_3 L_1 R_2 g_m + C_2 C_3 L_1 + C_2 C_3 L_3\right) + s \left(C_2 C_3 R_2 + C_2 C_3 R_3 + C_3 L_1 g_m\right)}
10.471 INVALID-ORDER-471 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
H(s) = \frac{L_1 L_3 R_3 g_m s^2 + s^3 \left(C_2 L_1 L_3 R_2 R_3 g_m + C_2 L_1 L_3 R_3\right)}{C_1 C_2 C_3 L_1 L_3 R_2 R_3 s^5 + R_3 + s^4 \left(C_1 C_2 L_1 L_3 R_2 + C_1 C_2 L_1 L_3 R_3 + C_2 C_3 L_1 L_3 R_3 g_m + C_2 C_3 L_1 L_3 R_3\right) + s^3 \left(C_1 C_2 L_1 R_2 R_3 + C_1 L_1 L_3 + C_2 C_3 L_1 L_3 R_2 g_m + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 R_3 R_3 g_m + C_2 L_1 R_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 + C_2 L_1 L_3 R_3 g_m\right) + s^2 \left(C_1 L_1 R_3 R_3
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 $H(s) = \frac{L_1 R_3 g_m s + s^4 \left(C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3 R_3 g_m + C_2 L_1 L_3 + C_3 L_1 L_3 R_3 g_m + S^2 \left(C_2 L_1 R_2 R_3 g_m + C_2 L_1 R_3 + L_1 L_3 g_m\right)}{s^5 \left(C_1 C_2 C_3 L_1 L_3 R_2 + C_1 C_2 C_3 L_1 L_3 R_3 + C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3 R_3 + C_2 C_3 L_1 L_3$ 

10.472 INVALID-ORDER-472  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

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10.473 INVALID-ORDER-473 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, R_2 + \frac{1}{C_2 s}, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_3L_1L_3R_3g_ms^3 + L_1R_3g_ms + s^4\left(C_2C_3L_1L_3R_2g_m + C_2C_3L_1L_3R_3\right) + s^2\left(C_2L_1R_2R_3g_m + C_2L_1R_3\right)}{s^5\left(C_1C_2C_3L_1L_3R_2 + C_1C_2C_3L_1L_3R_3\right) + s^4\left(C_1C_2C_3L_1L_3R_2 + C_1C_3L_1L_3R_2 + C_1C_3L_1R_3 + C_2C_3L_1R_3 + C_2C_3L_1R_
10.474 INVALID-ORDER-474 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                    H(s) = \frac{C_2 L_1 L_2 R_3 g_m s^3 + C_2 L_1 R_3 s^2 + L_1 R_3 g_m s}{C_1 C_2 L_1 L_2 s^4 + s^3 \left( C_1 C_2 L_1 R_3 + C_2 L_1 L_2 q_m \right) + s^2 \left( C_1 L_1 + C_2 L_1 + C_2 L_2 \right) + s \left( C_2 R_3 + L_1 q_m \right) + 1}
10.475 INVALID-ORDER-475 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                        H(s) = \frac{C_2L_1L_2g_ms^2 + C_2L_1s + L_1g_m}{C_1C_2C_3L_1L_2s^4 + C_2C_3L_1L_2g_ms^3 + C_2 + C_3L_1g_ms + C_3 + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1 + C_2C_3L_2\right)}
10.476 INVALID-ORDER-476 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)
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$$H(s) = \frac{C_2L_1L_2R_3g_ms^3 + C_2L_1R_3s^2 + L_1R_3g_ms}{C_1C_2C_3L_1L_2R_3s^5 + s^4\left(C_1C_2L_1L_2 + C_2C_3L_1L_2R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_1C_3L_1R_3 + C_2C_3L_1R_3 + C_2C_3L_2R_3 + C_2L_1L_2g_m\right) + s^2\left(C_1L_1 + C_2L_1 + C_2L_2 + C_3L_1R_3g_m\right) + s\left(C_2R_3 + C_3R_3 + L_1g_m\right) + 1}$$

$$\textbf{10.477} \quad \textbf{INVALID-ORDER-477} \ Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \ L_2s + \frac{1}{C_2s}, \ R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right)$$
 
$$H(s) = \frac{C_2C_3L_1L_2R_3g_ms^3 + L_1g_m + s^2\left(C_2C_3L_1R_3 + C_2L_1L_2g_m\right) + s\left(C_2L_1 + C_3L_1R_3g_m\right)}{C_1C_2C_3L_1L_2s^4 + C_2 + C_3 + s^3\left(C_1C_2C_3L_1R_3 + C_2C_3L_1L_2g_m\right) + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1 + C_2C_3L_2\right) + s\left(C_2C_3R_3 + C_3L_1g_m\right)}$$

$$\begin{aligned} \textbf{10.478} \quad \textbf{INVALID-ORDER-478} \ \ Z(s) &= \left(\frac{L_{1s}}{C_1L_1s^2+1}, \ L_2s + \frac{1}{C_2s}, \ L_3s + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right) \\ & H(s) &= \frac{C_2C_3L_1L_2L_3g_ms^4 + C_2C_3L_1L_3s^3 + C_2L_1s + L_1g_m + s^2\left(C_2L_1L_2g_m + C_3L_1L_3g_m\right)}{C_2C_3L_1L_2g_ms^3 + C_2 + C_3L_1g_ms + C_3 + s^4\left(C_1C_2C_3L_1L_2 + C_1C_2C_3L_1L_3\right) + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1 + C_2C_3L_2 + C_2C_3L_3\right)} \end{aligned}$$

$$\begin{aligned} \textbf{10.480} \quad \textbf{INVALID-ORDER-480} \ \ Z(s) &= \left(\frac{L_{1s}}{C_{1}L_{1}s^{2}+1}, \ L_{2}s + \frac{1}{C_{2}s}, \ L_{3}s + R_{3} + \frac{1}{C_{3}s}, \ \infty, \ \infty, \ \infty\right) \\ & H(s) &= \frac{C_{2}C_{3}L_{1}L_{2}L_{3}g_{m}s^{4} + L_{1}g_{m} + s^{3}\left(C_{2}C_{3}L_{1}L_{2}R_{3}g_{m} + C_{2}C_{3}L_{1}L_{3}\right) + s^{2}\left(C_{2}C_{3}L_{1}R_{3} + C_{2}L_{1}L_{2}g_{m} + C_{3}L_{1}L_{3}g_{m}\right) + s\left(C_{2}L_{1} + C_{3}L_{1}R_{3}g_{m}\right)}{C_{2} + C_{3} + s^{4}\left(C_{1}C_{2}C_{3}L_{1}L_{2} + C_{1}C_{2}C_{3}L_{1}L_{3}\right) + s^{3}\left(C_{1}C_{2}C_{3}L_{1}R_{3} + C_{2}C_{3}L_{1}L_{2}g_{m}\right) + s^{2}\left(C_{1}C_{2}L_{1} + C_{1}C_{3}L_{1} + C_{2}C_{3}L_{1} + C_{2}C_{3}L_{2} + C_{2}C_{3}L_{3}\right) + s\left(C_{2}C_{3}R_{3} + C_{3}L_{1}g_{m}\right) \end{aligned}$$

10.481 INVALID-ORDER-481 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_2L_1L_2L_3R_3g_ms^4 + C_2L_1L_3R_3s^3 + L_1L_3R_3g_ms^2}{C_1C_2C_3L_1L_2L_3R_3s^6 + R_3 + s^5\left(C_1C_2L_1L_2L_3 + C_2C_3L_1L_2R_3g_m\right) + s^4\left(C_1C_2L_1L_2R_3 + C_1C_2L_1L_3R_3 + C_2C_3L_1L_3R_3 + C_2C_3L_3L_3R_3 + C_2C_3L_3L_3L_3R_3 + C_2C_3L_3L_3R_3 + C_2C_3L_3L_3R_3 + C_2C_3L_3L_3R_3 +$$

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10.483 INVALID-ORDER-483 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_2L_3R_3g_ms^5 + C_2C_3L_1L_3R_3s^4 + C_2L_1R_3s^2 + L_1R_3g_ms + s^3\left(C_2L_1L_2R_3g_m + C_3L_1L_3R_3g_m\right)}{C_1C_2C_3L_1L_2L_3s^6 + s^5\left(C_1C_2C_3L_1L_2R_3 + C_1C_2C_3L_1L_3R_3 + C_2C_3L_1L_3R_3 + C_2C_3L_1L_3R_3 + C_2C_3L_1L_3R_3 + C_2C_3L_1L_3R_3 + C_2C_3L_1L_3R_3 + C_2C_3L_1L_3R_3 + C_2C_3L_1R_3 
10.484 INVALID-ORDER-484 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                          H(s) = \frac{C_2L_1L_2R_3g_ms^3 + L_1R_3g_ms + s^2\left(C_2L_1R_2R_3g_m + C_2L_1R_3\right)}{C_1C_2L_1L_2s^4 + s^3\left(C_1C_2L_1R_2 + C_1C_2L_1R_3 + C_2L_1L_2g_m\right) + s^2\left(C_1L_1 + C_2L_1R_2g_m + C_2L_1 + C_2L_2\right) + s\left(C_2R_2 + C_2R_3 + L_1g_m\right) + 1}
10.485 INVALID-ORDER-485 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                     H(s) = \frac{C_2L_1L_2g_ms^2 + L_1g_m + s\left(C_2L_1R_2g_m + C_2L_1\right)}{C_1C_2C_3L_1L_2s^4 + C_2 + C_3 + s^3\left(C_1C_2C_3L_1R_2 + C_2C_3L_1L_2g_m\right) + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1R_2g_m + C_2C_3L_1 + C_2C_3L_2\right) + s\left(C_2C_3R_2 + C_3L_1g_m\right)}
10.486 INVALID-ORDER-486 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1L_2R_3g_ms^3 + L_1R_3g_ms + s^2\left(C_2L_1R_2R_3g_m + C_2L_1R_3\right)}{C_1C_2C_3L_1L_2R_3s^5 + s^4\left(C_1C_2C_3L_1R_2R_3 + C_1C_2L_1L_2 + C_2C_3L_1L_2R_3g_m\right) + s^3\left(C_1C_2L_1R_2 + C_1C_2L_1R_3 + C_1C_3L_1R_3 + C_2C_3L_1R_3 + C_2C_3L_1R_3 + C_2C_3L_2R_3 + C_2L_1L_2g_m\right) + s^2\left(C_1L_1 + C_2C_3R_2R_3 + C_2L_1R_2g_m + C_2L_1 + C_2L_2 + C_3L_1R_3g_m\right) + s\left(C_2R_3R_3R_3 + C_2R_3R_3R_3 + C_2R_3R_3R_3R_3 + C_2R_3R_3R_3 + C_2R_3R_3R_3R_3 + C_2R_3R_3R_3 + C_2R_3R_3 + C_2R_3R_3R_3 + C_2R_3R_3R_3 + C_2R_3R_3 + C_2R_3R_3R_3 + C_2
10.487 INVALID-ORDER-487 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                  H(s) = \frac{C_2C_3L_1L_2R_3g_ms^3 + L_1g_m + s^2\left(C_2C_3L_1R_2R_3g_m + C_2C_3L_1R_3 + C_2L_1L_2g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1 + C_3L_1R_3g_m\right)}{C_1C_2C_3L_1L_2s^4 + C_2 + C_3 + s^3\left(C_1C_2C_3L_1R_2 + C_1C_2C_3L_1R_3 + C_2C_3L_1L_2g_m\right) + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1R_2g_m + C_2C_3L_1 + C_2C_3L_1\right) + s\left(C_2C_3R_2 + C_2C_3R_3 + C_3L_1g_m\right)}
10.488 INVALID-ORDER-488 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                               H(s) = \frac{C_2C_3L_1L_2L_3g_ms^4 + L_1g_m + s^3\left(C_2C_3L_1L_3R_2g_m + C_2C_3L_1L_3\right) + s^2\left(C_2L_1L_2g_m + C_3L_1L_3g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1\right)}{C_2 + C_3 + s^4\left(C_1C_2C_3L_1L_2 + C_1C_2C_3L_1L_3\right) + s^3\left(C_1C_2C_3L_1L_2g_m\right) + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1R_2g_m + C_2C_3L_1 + C_2C_3L_2 + C_2C_3L_3\right) + s\left(C_2C_3R_2 + C_3L_1g_m\right)}
10.489 INVALID-ORDER-489 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1L_2L_3g_ms^4 + L_1L_3g_ms^2 + s^3\left(C_2L_1L_3R_2g_m + C_2L_1L_3\right)}{C_1C_2C_3L_1L_2L_3s^6 + s^5\left(C_1C_2C_3L_1L_3R_2 + C_2C_3L_1L_2L_3g_m\right) + s^4\left(C_1C_2L_1L_2 + C_1C_2L_1L_3 + C_1C_3L_1L_3 + C_2C_3L_1L_3 + C_2C_3L_1L
10.490 INVALID-ORDER-490 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                            H(s) = \frac{C_2C_3L_1L_2L_3g_ms^4 + L_1g_m + s^3\left(C_2C_3L_1L_2R_3g_m + C_2C_3L_1L_3R_2g_m + C_2C_3L_1L_3\right) + s^2\left(C_2C_3L_1R_2R_3g_m + C_2C_3L_1R_3 + C_2L_1L_2g_m + C_3L_1L_3g_m\right) + s\left(C_2L_1R_2g_m + C_2L_1 + C_3L_1R_3g_m\right)}{C_2 + C_3 + s^4\left(C_1C_2C_3L_1L_2 + C_1C_2C_3L_1L_3\right) + s^3\left(C_1C_2C_3L_1R_3 + C_2C_3L_1L_2g_m\right) + s^2\left(C_1C_2L_1 + C_1C_3L_1 + C_2C_3L_1R_2g_m + C_2C_3L_1 + C_2C_3L_1\right) + s\left(C_2C_3R_2 + C_2C_3R_3 + C_3L_1g_m\right)}
10.491 INVALID-ORDER-491 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C_2L_1L_2L_3R_3g_ms^4 + L_1L_3R_3g_ms^2 + s^3(C_2L_1L_3R_2R_3g_ms^2)
H(s) = \frac{C_2 L_1 L_2 L_3 R_3 g_m s + L_1 L_3 R_3 g_m s + L_1 L_3 R_3 g_m s + L_1 L_3 R_3 g_m s + L_2 L_3 R_3 g_m s + L_3 L_3 R_3 g_m s + L_4 L_4 R_4 g_m s + L_4 L_4
10.492 INVALID-ORDER-492 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
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 $\frac{C_2C_3L_1L_2L_3R_3g_ms^5 + L_1R_3g_ms + s^4\left(C_2C_3L_1L_3R_2g_m + C_2L_1L_2R_3g_m + C_2L_1L_3R_2g_m + C_2L_1L_3R_2g_m + C_2L_1L_3R_3g_m \right) + s^2\left(C_2L_1R_2R_3g_m + C_2L_1L_3R_3g_m + C_2L_3L_3R_3g_m + C_2L_3$ 

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10.493 INVALID-ORDER-493 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H(s) = \frac{C_2C_3L_1L_2L_3R_3g_ms^5 + L_1R_3g_ms + s^4\left(C_2C_3L_1L_3R_2R_3g_m + C_2C_3L_1L_3R_3\right) + s^3\left(C_2L_1L_2R_3\right)}{C_1C_2C_3L_1L_2L_3s^6 + s^5\left(C_1C_2C_3L_1L_2R_3 + C_1C_2C_3L_1L_3R_2 + C_1C_2C_3L_1L_3R_3 + C_2C_3L_1L_3R_2\right) + s^4\left(C_1C_2C_3L_1L_2R_3 + C_1C_2L_1L_2 + C_1C_3L_1L_3 + C_2C_3L_1L_3R_2g_m + C_2C_3L_1L_3R_2g_m + C_2C_3L_1L_3R_3 + C_1C_2L_1R_3 + C_
10.494 INVALID-ORDER-494 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right)
                                                                                                                  H(s) = \frac{L_1 L_2 R_3 g_m s^2 + s^3 \left(C_2 L_1 L_2 R_2 R_3 g_m + C_2 L_1 L_2 R_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 R_3\right)}{R_2 + R_3 + s^4 \left(C_1 C_2 L_1 L_2 R_2 + C_1 C_2 L_1 L_2 R_3\right) + s^3 \left(C_1 L_1 L_2 + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s^2 \left(C_1 L_1 R_2 + C_1 L_1 R_3 + C_2 L_2 R_2 + C_2 L_2 R_3 + L_1 L_2 g_m\right) + s \left(L_1 R_2 g_m + L_1 + L_2\right)}
10.495 INVALID-ORDER-495 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                      H(s) = \frac{L_1 L_2 g_m s^2 + s^3 \left(C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2\right) + s \left(L_1 R_2 g_m + L_1\right)}{C_1 C_2 C_3 L_1 L_2 R_2 s^5 + C_3 R_2 s + s^4 \left(C_1 C_2 L_1 L_2 + C_1 C_3 L_1 L_2 R_2 g_m + C_2 C_3 L_1 L_2\right) + s^3 \left(C_1 C_3 L_1 R_2 + C_2 C_3 L_2 R_2 + C_3 L_1 L_2 g_m\right) + s^2 \left(C_1 L_1 + C_2 L_2 + C_3 L_1 R_2 g_m + C_3 L_1 + C_3 L_2\right) + 1}
10.496 INVALID-ORDER-496 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{L_1 L_2 R_3 g_m s^2 + s^3 \left(C_2 L_1 L_2 R_3 g_m + C_2 L_1 L_2 R_3\right) + s \left(L_1 R_2 R_3 g_m + L_1 R_3\right)}{C_1 C_2 C_3 L_1 L_2 R_3 s^5 + R_2 + R_3 + s^4 \left(C_1 C_2 L_1 L_2 R_3 + C_1 C_3 L_1 L_2 R_3 + C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_2 L_2 L_2 R_3 g_m + C_2 L_2 R_3 g_m 
10.497 INVALID-ORDER-497 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
 10.498 INVALID-ORDER-498 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
      H(s) = \frac{C_3L_1L_2L_3g_ms^4 + L_1L_2g_ms^2 + s^5\left(C_2C_3L_1L_2L_3R_2g_m + C_2C_3L_1L_2L_3\right) + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s\left(L_1R_2g_m + L_1\right)}{C_1C_2C_3L_1L_2L_3s^6 + C_1C_2C_3L_1L_2R_2s^5 + C_3R_2s + s^4\left(C_1C_2L_1L_2 + C_1C_3L_1L_3 + C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2 + C_2C_3L_2L_3\right) + s^3\left(C_1C_3L_1L_2 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s\left(L_1R_2g_m + L_1\right)}
10.499 INVALID-ORDER-499 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
10.500 INVALID-ORDER-500 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
                       \frac{s^5 \left(C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 C_3 L_1 L_2 L_3\right) + s^4 \left(C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_2 R_3 g_m + C_3 L_1 L_
10.501 INVALID-ORDER-501 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_2 L_2 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
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 $\frac{s^5 \left(C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 L_1 L_2 L_3 R_2 g_m + C_2 L_1 L_2 L_3 R_2 g_m + C_2 L_1 L_2 L_3 R_3 g_m \right) + s^3 \left(C_2 L_1 L_2 R_2 R_3 g_m + C_2 L_1 L_2 R_3 + C_3 L_1 L_2 R_3 g_m + C_2 L_1 L_2 R_3 g_m$ 

10.502 INVALID-ORDER-502  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

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10.503 INVALID-ORDER-503 Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
10.504 INVALID-ORDER-504 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 (C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)
                                                                                                           H(s) = \frac{C_2L_1R_2R_3s^2 + s^3\left(C_2L_1L_2R_2R_3g_m + C_2L_1L_2R_3\right) + s\left(L_1R_2R_3g_m + L_1R_3\right)}{R_2 + R_3 + s^4\left(C_1C_2L_1L_2R_2 + C_1C_2L_1L_2R_3\right) + s^3\left(C_1C_2L_1R_2R_3 + C_2L_1L_2R_2g_m + C_2L_1L_2\right) + s^2\left(C_1L_1R_2 + C_1L_1R_3 + C_2L_1R_2 + C_2L_2R_3\right) + s\left(C_2R_2R_3 + L_1R_2g_m + L_1\right)}
10.505 INVALID-ORDER-505 Z(s) = \left(\frac{L_{1}s}{C_{1}L_{1}s^{2}+1}, \frac{R_{2}(C_{2}L_{2}s^{2}+1)}{C_{2}L_{2}s^{2}+C_{2}R_{2}s+1}, \frac{1}{C_{3}s}, \infty, \infty, \infty\right)
                                                                                           H(s) = \frac{C_2L_1R_2s^2 + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2\right) + s\left(L_1R_2g_m + L_1\right)}{C_1C_2C_3L_1L_2R_2s^5 + s^4\left(C_1C_2L_1L_2 + C_2C_3L_1L_2R_2g_m + C_2C_3L_1L_2\right) + s^3\left(C_1C_2L_1R_2 + C_1C_3L_1R_2 + C_2C_3L_1R_2 + C_2C_3L_2R_2\right) + s^2\left(C_1L_1 + C_2L_2 + C_3L_1R_2g_m + C_3L_1\right) + s\left(C_2R_2 + C_3R_2\right) + 1}
10.506 INVALID-ORDER-506 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                          \frac{C_{2}L_{1}R_{2}R_{3}s^{2}+s^{3}\left(C_{2}L_{1}L_{2}R_{2}g_{3}g_{m}+C_{2}L_{1}L_{2}R_{3}\right)+s\left(L_{1}R_{2}R_{3}g_{m}+L_{1}R_{3}\right)}{C_{1}C_{2}C_{3}L_{1}L_{2}R_{2}+R_{3}+s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{3}+C_{2}C_{3}L_{1}R_{2}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{3}+C_{2}C_{3}L_{1}R_{2}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_{2}+C_{2}L_{1}L_{2}R_
10.507 INVALID-ORDER-507 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.508 INVALID-ORDER-508 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_3R_2s^4 + C_2L_1R_2s^2 + s^5\left(C_2C_3L_1L_2L_3R_2g_m + C_2C_3L_1L_2\right) + s^3\left(C_2L_1L_2R_2g_m + C_2L_1L_2 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s\left(L_1R_2g_m + L_1\right)}{C_1C_2C_3L_1L_2L_3s^6 + s^5\left(C_1C_2C_3L_1L_2R_2 + C_1C_3L_1L_3 + C_2C_3L_1L_2 + C_2C_3L_1L_2 + C_2C_3L_1L_2\right) + s^3\left(C_1C_2L_1R_2 + C_1C_3L_1L_2 + C_2C_3L_1R_2 + C_2C_3L
10.509 INVALID-ORDER-509 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 (C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1L_3R_2s^3 + s^4\left(C_2L_1L_2L_3R_2g_m + C_2L_1L_2L_3\right) + s^2\left(L_1L_3R_2g_m + L_1L_3\right)}{C_1C_2C_3L_1L_2L_3R_2s^6 + R_2 + s^5\left(C_1C_2L_1L_2L_3 + C_2C_3L_1L_2L_3\right) + s^4\left(C_1C_2L_1L_2R_2 + C_1C_2L_1L_3R_2 + C_1C_3L_1L_3R_2 + C_2C_3L_1L_3R_2 + C_2C_3L_3R_2 + C_2C_3
10.510 INVALID-ORDER-510 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
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 $H(s) = \frac{s^5 \left(C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 + C_2 C_3 L_1 L_2 R_3 + C_2 L_1 L_2 R_2 g_m + C_2 L_1 L_2 + C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3 + s^2 \left(C_2 L_1 R_2 + C_2 C_3 L_1 L_2 R_3 + C_2 C_3 L_1 L_2 R_2 g_m + C_2 C_3 L_1 L_2 + C_2 C_3 L_2 L_3 \right) + s^3 \left(C_1 C_2 L_1 R_2 + C_1 C_3 L_1 R_3 + C_2 C_3 L_1 R_2 + C_2 C_3 L_2 L_3 \right) + s^3 \left(C_1 C_2 L_1 R_2 + C_1 C_3 L_1 R_3 + C_2 C_3 L_1 R_2 + C_2 C_3 L_2 L_3 \right) + s^3 \left(C_1 C_2 L_1 R_2 + C_1 C_3 L_1 R_3 + C_2 C_3 L_1 R_2 + C_2 C_3 L_2 R_2 + C_2 C_$ 

 $H(s) = \frac{C_2L_1L_3R_2R_3s^3 + s^4\left(C_2L_1L_2L_3R_2R_3g_m + C_2C_3L_1L_2L_3R_2R_3s^3 + s^4\left(C_2L_1L_2L_3R_2R_3g_m + C_2C_3L_1L_2L_3R_2R_3s^4 + C_2C_3L_1L_2L_3R_2R_3s^4 + C_2C_3L_1L_2L_3R_2R_3 + C_2C_3L_1L_3R_2R_3 + C_2C_3L_3R_2R_3 + C_2C_3L_3R_3R_3 + C_2C_3L_3R_3 + C_2C_3L_3R_3 + C_2C_3L_3R_3$ 

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10.512 INVALID-ORDER-512 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.513 INVALID-ORDER-513 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1}, \frac{R_2 (C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 C_2C_3L_1L_3R_2R_3s^4 + C_2L_1R_2R_3s^2 + s^5(C_2C_3L_1L_2L_3)
H(s) = \frac{\sum_{2 \leq 3} \sum_{1} \sum_{3} \sum_{1} \sum_{2} \sum_{3} \sum_{1} \sum_{2} \sum_{1} \sum_{3} \sum_{2} \sum_{1} \sum_{2} \sum_{3} \sum_{1} \sum_{2} \sum_{3} \sum_{1} \sum_{2} \sum_{3} \sum_{1} \sum_{2} \sum_{3} \sum_{1} \sum_{2} \sum_{1} \sum_{1} \sum_{2} \sum_{1} \sum_{1} \sum_{2} \sum_{1} \sum_{1} \sum_{2} \sum_{1} \sum_{1} \sum_{2} \sum_{1} \sum_{2} \sum_{1} \sum_{2} \sum_{1} \sum_{2} \sum_{1} \sum_{2} \sum_{1} \sum_{1} \sum_{1} \sum_{2} \sum_{1} \sum_{
10.514 INVALID-ORDER-514 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                     H(s) = \frac{R_2 g_m + s^2 \left( C_1 L_1 R_2 g_m + C_1 L_1 \right) + s \left( C_1 R_1 R_2 g_m + C_1 R_1 \right) + 1}{s^3 \left( C_1 C_3 L_1 R_2 g_m + C_1 C_3 L_1 \right) + s^2 \left( C_1 C_3 R_1 R_2 g_m + C_1 C_3 R_1 + C_1 C_3 R_2 \right) + s \left( C_1 + C_3 R_2 g_m + C_3 \right)}
10.515 INVALID-ORDER-515 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                                                                     H(s) = \frac{R_2R_3g_m + R_3 + s^2\left(C_1L_1R_2R_3g_m + C_1L_1R_3\right) + s\left(C_1R_1R_2R_3g_m + C_1R_1R_3\right)}{R_2g_m + s^3\left(C_1C_3L_1R_2R_3g_m + C_1C_3L_1R_3\right) + s^2\left(C_1C_3R_1R_2R_3g_m + C_1C_3R_1R_3 + C_1C_3R_2R_3 + C_1L_1R_2g_m + C_1L_1\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_1R_3 + C_3R_2R_3g_m + C_3R_3\right) + 1}
10.516 INVALID-ORDER-516 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                  H(s) = \frac{R_2g_m + s^3\left(C_1C_3L_1R_2R_3g_m + C_1C_3L_1R_3\right) + s^2\left(C_1C_3R_1R_2R_3g_m + C_1C_3R_1R_3 + C_1L_1R_2g_m + C_1L_1\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_3R_2R_3g_m + C_3R_3\right) + 1}{s^3\left(C_1C_3L_1R_2g_m + C_1C_3L_1\right) + s^2\left(C_1C_3R_1R_2g_m + C_1C_3R_1 + C_1C_3R_2 + C_1C_3R_3\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_2g_m + C_3R_3\right) + s\left(C_1+C_3R_3g_m + C_3R_3g_m + C_3R_3\right) + s\left(C_1+C_3R_3g_m + C_3R_3g_m + C_3R_3g_m
10.517 INVALID-ORDER-517 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                          10.518 INVALID-ORDER-518 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                                                                                H(s) = \frac{s^3 \left(C_1 L_1 L_3 R_2 g_m + C_1 L_1 L_3\right) + s^2 \left(C_1 L_3 R_1 R_2 g_m + C_1 L_3 R_1\right) + s \left(L_3 R_2 g_m + L_3\right)}{R_2 g_m + s^4 \left(C_1 C_3 L_1 L_3 R_2 g_m + C_1 C_3 L_1 L_3\right) + s^3 \left(C_1 C_3 L_3 R_1 R_2 g_m + C_1 C_3 L_3 R_1\right) + s^2 \left(C_1 L_1 R_2 g_m + C_1 L_1 + C_1 L_3 + C_3 L_3 R_2 g_m + C_3 L_3\right) + s \left(C_1 R_1 R_2 g_m + C_1 R_1 + C_1 R_2\right) + 1}
10.519 INVALID-ORDER-519 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
          H(s) = \frac{R_2 g_m + s^4 \left(C_1 C_3 L_1 L_3 R_2 g_m + C_1 C_3 L_1 L_3\right) + s^3 \left(C_1 C_3 L_1 R_2 R_3 g_m + C_1 C_3 L_1 R_3 + C_1 C_3 L_3 R_1 R_2 g_m + C_1 C_3 L_1 R_3 + C_1 C_3 R_1 R_2 R_3 g_m + C_1 C_3 R_1 R_3 + C_1 L_1 R_2 g_m + C_1 L_1 + C_3 L_3 R_2 g_m + C_1 R_1 R_2 g_m + C_1 R_1 R_2 R_3 g_m + C_1 R_3 R_3 g_m + C_1
10.520 INVALID-ORDER-520 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                               s^{3}\left(C_{1}L_{1}L_{3}R_{2}R_{3}g_{m}+C_{1}L_{1}L_{3}R_{3}\right)+s^{2}\left(C_{1}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{1}L_{3}R_{1}R_{3}\right)+s\left(L_{3}R_{2}R_{3}g_{m}+L_{3}R_{3}\right)\\ -R_{2}R_{3}g_{m}+R_{3}+s^{4}\left(C_{1}C_{3}L_{1}L_{3}R_{2}R_{3}g_{m}+C_{1}C_{3}L_{1}L_{3}R_{3}\right)+s^{3}\left(C_{1}C_{3}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{1}L_{1}L_{3}R_{2}g_{m}+C_{1}L_{1}L_{3}\right)+s^{2}\left(C_{1}L_{1}R_{2}R_{3}g_{m}+C_{1}L_{3}R_{1}+C_{1}L_{3}R_{2}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L_{3}R_{3}+C_{1}L
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10.521 INVALID-ORDER-521  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

10.522 INVALID-ORDER-522  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

**10.523** INVALID-ORDER-523  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1 C_2 L_1 R_3 s^3 + R_3 g_m + s^2 \left( C_1 C_2 R_1 R_3 + C_1 L_1 R_3 g_m \right) + s \left( C_1 R_1 R_3 g_m + C_2 R_3 \right)}{C_1 C_2 L_1 s^3 + g_m + s^2 \left( C_1 C_2 R_1 + C_1 C_2 R_3 + C_1 L_1 g_m \right) + s \left( C_1 R_1 g_m + C_1 + C_2 \right)}$$

**10.524** INVALID-ORDER-524  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_1s^3 + g_m + s^2\left(C_1C_2R_1 + C_1L_1g_m\right) + s\left(C_1R_1g_m + C_2\right)}{C_1C_2C_3L_1s^4 + C_3g_ms + s^3\left(C_1C_2C_3R_1 + C_1C_3L_1g_m\right) + s^2\left(C_1C_2 + C_1C_3R_1g_m + C_1C_3 + C_2C_3\right)}$$

**10.525** INVALID-ORDER-525  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_1R_3s^3 + R_3g_m + s^2\left(C_1C_2R_1R_3 + C_1L_1R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3\right)}{C_1C_2C_3L_1R_3s^4 + g_m + s^3\left(C_1C_2C_3R_1R_3 + C_1C_2L_1 + C_1C_3L_1R_3g_m\right) + s^2\left(C_1C_2R_1 + C_1C_2R_3 + C_1C_3R_1R_3g_m + C_1C_3R_3 + C_1L_1g_m + C_2C_3R_3\right) + s\left(C_1R_1g_m + C_1 + C_2 + C_3R_3g_m\right)}$$

10.526 INVALID-ORDER-526  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_{1}C_{2}C_{3}L_{1}R_{3}s^{4} + g_{m} + s^{3}\left(C_{1}C_{2}C_{3}R_{1}R_{3} + C_{1}C_{2}L_{1} + C_{1}C_{3}L_{1}R_{3}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}C_{3}R_{1}R_{3}g_{m} + C_{1}L_{1}g_{m} + C_{2}C_{3}R_{3}\right) + s\left(C_{1}R_{1}g_{m} + C_{2} + C_{3}R_{3}g_{m}\right)}{C_{1}C_{2}C_{3}L_{1}s^{4} + C_{3}g_{m}s + s^{3}\left(C_{1}C_{2}C_{3}R_{1} + C_{1}C_{2}C_{3}R_{3} + C_{1}C_{3}L_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2} + C_{1}C_{3}R_{1}g_{m} + C_{1}C_{3} + C_{2}C_{3}\right)}$$

10.527 INVALID-ORDER-527  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2C_3L_1L_3s^5 + g_m + s^4\left(C_1C_2C_3L_3R_1 + C_1C_3L_1L_3g_m\right) + s^3\left(C_1C_2L_1 + C_1C_3L_3R_1g_m + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1L_1g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_2\right)}{C_3g_ms + s^4\left(C_1C_2C_3L_1 + C_1C_2C_3L_3\right) + s^3\left(C_1C_2C_3R_1 + C_1C_3L_1g_m\right) + s^2\left(C_1C_2 + C_1C_3R_1g_m + C_2C_3\right)}$$

**10.528** INVALID-ORDER-528  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

$$H(s) = \frac{C_1C_2L_1L_3s^4 + L_3g_ms + s^3\left(C_1C_2L_3R_1 + C_1L_1L_3g_m\right) + s^2\left(C_1L_3R_1g_m + C_2L_3\right)}{C_1C_2C_3L_1L_3s^5 + g_m + s^4\left(C_1C_2C_3L_3R_1 + C_1C_3L_1L_3g_m\right) + s^3\left(C_1C_2L_1 + C_1C_2L_3 + C_1C_3L_3R_1g_m + C_1C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1L_1g_m + C_3L_3g_m\right) + s\left(C_1R_1g_m + C_1 + C_2\right)}$$

10.529 INVALID-ORDER-529  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

10.532 INVALID-ORDER-532 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2C_3L_1L_3R_3s^5 + R_3g_m + s^4\left(C_1C_2C_3L_3R_1R_3 + C_1C_3L_1L_3R_3g_m\right) + s^3\left(C_1C_2L_1R_3 + C_1C_3L_3R_1g_m + C_2C_3L_3R_3\right) + s^2\left(C_1C_2R_1R_3 + C_1L_1R_3g_m + C_3L_3R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3\right)}{C_1C_2C_3L_1L_3s^5 + g_m + s^4\left(C_1C_2C_3L_1R_3 + C_1C_2L_1R_3 + C_1C_3L_1R_3g_m + C_1C_3L_3R_3g_m\right) + s^3\left(C_1C_2R_1R_3 + C_1C_3L_1R_3g_m + C_2C_3L_3R_3\right) + s^2\left(C_1C_2R_1R_3 + C_1L_1R_3g_m + C_3L_3R_3g_m\right) + s^2\left(C_1C_2R_1R_3 + C_1L_1R_3g_m + C_2C_3L_3R_3\right) + s^2\left(C_1C_2R_1R_3 + C_1C_2R_1R_3 + C_1C_3L_3R_3g_m\right) + s^2\left(C_1C_2R_1R_3 + C_1C_3R_3R_3 + C_1C_3L_3R_3g_m\right) + s^2\left(C_1C_2R_1R_3 + C_1C_3R_3R_3 + C_1C_3R_3R_3 + C_1C_3R_3R_3\right) + s^2\left(C_1C_2R_1R_3 + C_1C_3R_3R_3\right) +$ 

10.533 INVALID-ORDER-533 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_1C_2R_1R_2R_3 + C_1L_1R_2R_3g_m + C_1L_1R_3\right) + s\left(C_1R_1R_2R_3g_m + C_1R_1R_3 + C_2R_2R_3\right)}{C_1C_2L_1R_2s^3 + R_2g_m + s^2\left(C_1C_2R_1R_2 + C_1C_2R_2R_3 + C_1L_1R_2g_m + C_1L_1\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_1R_3 + C_2R_2\right) + 1}$$

**10.534** INVALID-ORDER-534 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

**10.535** INVALID-ORDER-535 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1R_2R_3s^3 + R_2R_3g_m + R_3 + s^2\left(C_1C_2R_1R_2R_3 + C_1L_1R_2R_3g_m + C_1L_1R_3\right) + s\left(C_1R_1R_2R_3g_m + C_1R_1R_3 + C_2R_2R_3\right)}{C_1C_2C_3L_1R_2R_3s^4 + R_2g_m + s^3\left(C_1C_2R_1R_2 + C_1C_3L_1R_2 + C_1C_3L_1R_3\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2 + C_1C_3R_1R_3 + C_1C_3R_1R_3 + C_1L_1R_2g_m + C_1L_1 + C_2C_3R_2R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_1R_2 + C_1R_3 + C_1$$

**10.536** INVALID-ORDER-536 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1R_2R_3s^4 + R_2g_m + s^3\left(C_1C_2C_3R_1R_2R_3 + C_1C_2L_1R_2 + C_1C_3L_1R_2R_3g_m + C_1C_3L_1R_2 + C_1C_3R_1R_2R_3g_m + C_1C_3R_1R_2 + C_1C_3R_1R_3 + C_1L_1R_2g_m + C_1L_1 + C_2C_3R_2R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2 + C_3R_2R_3g_m + C_3R_3\right) + s\left(C_1R_1R_2g_m + C_3R_3\right) + s\left($$

10.537 INVALID-ORDER-537 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1L_3R_2s^5 + R_2g_m + s^4\left(C_1C_2C_3L_3R_1R_2 + C_1C_3L_1L_3R_2g_m + C_1C_3L_1L_3\right) + s^3\left(C_1C_2L_1R_2 + C_1C_3L_3R_1R_2g_m + C_1C_3L_3R_1 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1L_1R_2g_m + C_1L_1 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + 1}{s^4\left(C_1C_2C_3L_1R_2 + C_1C_2C_3L_3R_2\right) + s^3\left(C_1C_2C_3R_1R_2 + C_1C_3L_1R_2g_m + C_1C_3L_3\right) + s^2\left(C_1C_2R_1R_2 + C_1L_1R_2g_m + C_1L_1 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + 1}{s^4\left(C_1C_2C_3L_1R_2 + C_1C_3C_3L_3R_2\right) + s^3\left(C_1C_2C_3R_1R_2 + C_1C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1L_1R_2g_m + C_1L_1 + C_3L_3R_2g_m + C_3L_3\right) + s\left(C_1R_1R_2g_m + C_1R_1 + C_2R_2\right) + 1}{s^4\left(C_1C_2C_3L_1R_2 + C_1C_3L_3R_2\right) + s^3\left(C_1C_2C_3R_1R_2 + C_1C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2 + C_1C_3R_1R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2\right) + s^2\left(C_1C_2R_1R_2\right) + s^2\left(C_1C_2R_$$

**10.538** INVALID-ORDER-538 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1L_3R_2s^4 + s^3\left(C_1C_2L_3R_1R_2 + C_1L_1L_3R_2g_m + C_1L_1L_3\right) + s^2\left(C_1L_3R_1R_2g_m + C_1L_3R_1 + C_2L_3R_2\right) + s\left(L_3R_2g_m + L_3\right)}{C_1C_2C_3L_1L_3R_2s^5 + R_2g_m + s^4\left(C_1C_2C_3L_3R_1R_2 + C_1C_3L_1L_3R_2g_m + C_1C_3L_1R_2 + C_1C_3L_3R_1R_2g_m + C_1C_3L_3R_1 + C_2C_3L_3R_2\right) + s^2\left(C_1C_2R_1R_2 + C_1L_1R_2g_m + C_1L_1 + C_1L_3 + C_3L_3R_2g_m + C_3L_3\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3L_3R_2 + C_1C_3L_3R_3 + C_1C_3$$

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10.539 INVALID-ORDER-539 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
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 $H(s) = \frac{C_1C_2C_3L_1L_3R_2s^5 + R_2g_m + s^4\left(C_1C_2C_3L_1R_2R_3 + C_1C_2C_3L_3R_1R_2 + C_1C_3L_1L_3R_2g_m + C_1C_3L_1R_2 +$ 

10.540 INVALID-ORDER-540  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2L_1L_3R_2R_3s^4 + s^3\left(C_1C_2L_3R_1R_2R_3 + C_1L_1L_3R_2R_3g_m + C_1L_1L_3R_2\right) + s^2\left(C_1L_3R_1R_2R_3g_m + C_1L_1L_3R_2\right) + s^2\left(C_1L_3R_1R_2R_3g_m + C_1L_2L_3R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_1C_2C_3L_3R_1R_2R_3 + C_1C_3L_1L_3R_2\right) + s^3\left(C_1C_2L_1R_2R_3 + C_1C_2L_3R_1R_2 + C_1C_2L_3R_1R_2 + C_1C_3L_3R_1R_3 + C_1C_3L_3R_3R_3 + C_1C_3L_3R_3 + C_1C_3L_3R_3R_3 + C_1C_3L_3R_3R_3 + C_1C_3L_3R_3R_3 + C_1C_3$ 

**10.541** INVALID-ORDER-541  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_3R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_1C_2C_3L_3R_1R_2R_3 + C_1C_2L_1L_3R_2 + C_1C_3L_1L_3R_2R_3g_m + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_3 + C_1L_1L_3R_2g_m + C_1L_1L_3 + C_2C_3L_3R_2R_3 \right) + s^2\left(C_1C_2R_1R_2R_3 + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1 + C_1C_3$ 

10.542 INVALID-ORDER-542  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_3R_2R_3s^5 + R_2R_3g_m + R_3 + s^4\left(C_1C_2C_3L_3R_1R_2R_3 + C_1C_3L_1L_3R_2\right) + s^3\left(C_1C_2L_1R_2R_3 + C_1C_3L_3R_1R_2R_3g_m + C_1C_3L_3R_1R_2R_3 + C_1C_3L_3R_1R_2R_3 + C_1C_3L_3R_3R_3 + C_1C_3L_3R_3R_3$ 

**10.543** INVALID-ORDER-543  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_3 g_m + s^3 \left(C_1 C_2 L_1 R_2 R_3 g_m + C_1 C_2 L_1 R_3\right) + s^2 \left(C_1 C_2 R_1 R_2 R_3 g_m + C_1 C_2 R_1 R_3 + C_1 L_1 R_3 g_m\right) + s \left(C_1 R_1 R_3 g_m + C_2 R_2 R_3 g_m + C_2 R_3\right)}{q_m + s^3 \left(C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 C_2 R_2 + C_1 C_2 R_3 + C_1 L_1 g_m\right) + s \left(C_1 R_1 g_m + C_1 + C_2 R_2 g_m + C_2\right)}$ 

**10.544** INVALID-ORDER-544  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{g_m + s^3 \left(C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1\right) + s^2 \left(C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 + C_1 L_1 g_m\right) + s \left(C_1 R_1 g_m + C_2 R_2 g_m + C_2\right)}{C_3 g_m s + s^4 \left(C_1 C_2 C_3 L_1 R_2 g_m + C_1 C_2 C_3 L_1\right) + s^3 \left(C_1 C_2 C_3 R_1 R_2 g_m + C_1 C_2 C_3 R_1 + C_1 C_2 C_3 R_2 + C_1 C_3 L_1 g_m\right) + s^2 \left(C_1 C_2 + C_1 C_3 R_1 g_m + C_1 C_3 + C_2 C_3 R_2 g_m + C_2 C_3\right)}$ 

10.545 INVALID-ORDER-545  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_3g_m + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3\right) + s^2\left(C_1C_2R_1R_2R_3g_m + C_1L_1R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_2R_3g_m + C_2R_3\right)}{g_m + s^4\left(C_1C_2C_3L_1R_2R_3g_m + C_1C_2C_3L_1R_3\right) + s^3\left(C_1C_2C_3R_1R_2R_3g_m + C_1C_2C_3R_1R_3 + C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_3L_1R_3g_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_3 + C_1C_2R_3 + C_1C_3R_3 + C_1C_3$ 

**10.546** INVALID-ORDER-546  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{g_m + s^4 \left( C_1 C_2 C_3 L_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_3 \right) + s^3 \left( C_1 C_2 C_3 R_1 R_2 R_3 g_m + C_1 C_2 L_1 R_2 g_m + C_1 C_2 L_1 + C_1 C_3 L_1 R_3 g_m \right) + s^2 \left( C_1 C_2 R_1 R_2 g_m + C_1 C_2 R_1 R_3 g_m + C_1 L_1 g_m + C_2 C_3 R_2 R_3 g_m + C_2 C_3 R_3 \right) + s \left( C_1 R_1 g_m + C_2 R_2 g_m + C_2 C_3 R_1 R_3 g_m + C_1 C_2 C_3 R_1 R_2 g_m + C_1 C_2 C_3 R_2 g_m + C_1 C_2 C_$ 

**10.547** INVALID-ORDER-547  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

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10.548 INVALID-ORDER-548 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{L_3g_ms + s^4\left(C_1C_2L_1L_3R_2g_m + C_1C_2L_1L_3\right) + s^3\left(C_1C_2L_3R_1R_2g_m + C_1L_2L_3R_1 + C_1L_1L_3g_m\right) + s^2\left(C_1L_3R_1g_m + C_2L_3R_2g_m + C_2L_3\right)}{g_m + s^5\left(C_1C_2C_3L_1L_3R_2g_m + C_1C_2L_3L_1L_3\right) + s^4\left(C_1C_2C_3L_3R_1R_2g_m + C_1C_2L_3L_3R_2g_m + C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_2g_m + C_1C_3L_3R_2g_m + C_1C_3L_3R_3R_2g_m + C_1C_3L_3R_3R_2g_m + C_1C_3L_3R_3R_3g_m + C_1C_3L_3R_3g_m + C_1C_3L_3R_3g
10.549 INVALID-ORDER-549 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{g_m + s^5 \left(C_1 C_2 C_3 L_1 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_3\right) + s^4 \left(C_1 C_2 C_3 L_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_3 g_m + C_1 C_2 C_3 R_1 R_2 g
10.550 INVALID-ORDER-550 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      L_3R_3g_ms + s^4(C_1C_2L_1L_3R_2R_3g_m + C_1C_2L_1L_3R_3) + s^3(C_1C_2L_3R_1R_2R_3g_m)
10.551 INVALID-ORDER-551 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.552 INVALID-ORDER-552 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                            \frac{R_{3}g_{m}+s^{5}\left(C_{1}C_{2}C_{3}L_{1}L_{3}R_{2}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{3}R_{3}g_{m}+C_{1}C_{2}C_{3}L_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}L_{3}R_{1}R_{3}+C_{1}C_{2}L_{1}L_{3}R_{3}g_{m}+s^{3}\left(C_{1}C_{2}L_{1}R_{2}R_{3}g_{m}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{2}R_{3}g_{m}+C_{1}C_{2}C_{3}L_{1}R_{2}R_{3}g_{m}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}R_{3}+C_{1}C_
10.553 INVALID-ORDER-553 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty, \ \infty\right)
                                                                                                                                                                                                                    H(s) = \frac{C_1C_2L_1L_2R_3g_ms^4 + R_3g_m + s^3\left(C_1C_2L_1R_3 + C_1C_2L_2R_1R_3g_m\right) + s^2\left(C_1C_2R_1R_3 + C_1L_1R_3g_m + C_2L_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3\right)}{C_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1 + C_1C_2L_2R_1g_m + C_1C_2L_2\right) + s^2\left(C_1C_2R_1 + C_1C_2R_3 + C_1L_1g_m + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_1 + C_2\right)}
10.554 INVALID-ORDER-554 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
                                                                                                                                                             H(s) = \frac{C_{1}C_{2}L_{1}L_{2}g_{m}s^{4} + g_{m} + s^{3}\left(C_{1}C_{2}L_{1} + C_{1}C_{2}L_{2}R_{1}g_{m}\right) + s^{2}\left(C_{1}C_{2}R_{1} + C_{1}L_{1}g_{m} + C_{2}L_{2}g_{m}\right) + s\left(C_{1}R_{1}g_{m} + C_{2}\right)}{C_{1}C_{2}C_{3}L_{1}L_{2}g_{m}s^{5} + C_{3}g_{m}s + s^{4}\left(C_{1}C_{2}C_{3}L_{1} + C_{1}C_{2}C_{3}L_{2}R_{1}g_{m} + C_{1}C_{2}C_{3}L_{2}\right) + s^{3}\left(C_{1}C_{2}C_{3}R_{1} + C_{1}C_{3}L_{1}g_{m} + C_{2}C_{3}L_{2}g_{m}\right) + s^{2}\left(C_{1}C_{2} + C_{1}C_{3}R_{1}g_{m} + C_{1}C_{3} + C_{2}C_{3}\right)}
10.555 INVALID-ORDER-555 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)
H(s) = \frac{C_1C_2L_1L_2R_3g_ms^4 + R_3g_m + s^3\left(C_1C_2L_1R_3 + C_1C_2L_2R_1R_3g_m\right) + s^2\left(C_1C_2R_1R_3 + C_1L_1R_3g_m + C_2L_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_1R_3g_m\right) + s\left(C_1R_1R_3g_m + C
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 $\mathbf{10.556} \quad \mathbf{INVALID\text{-}ORDER\text{-}556} \ Z(s) = \left(L_{1}s + R_{1} + \frac{1}{C_{1}s}, \ L_{2}s + \frac{1}{C_{2}s}, \ R_{3} + \frac{1}{C_{3}s}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2R_3g_ms^5 + g_m + s^4\left(C_1C_2C_3L_1R_3 + C_1C_2C_3L_2R_1R_3g_m + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2C_3R_1R_3 + C_1C_2L_1 + C_1C_2L_2R_1g_m + C_1C_3L_1R_3g_m + C_2C_3L_2R_3g_m\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1R_3g_m + C_1L_1g_m + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2C_3R_3 + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2C_3R_3 +$ 

**10.560** INVALID-ORDER-560  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2L_1L_2L_3R_3g_ms^5 + L_3R_3g_ms + s^4\left(C_1C_2L_1L_3R_3 + C_1C_2L_2L_3R_1R_3g_m\right)}{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_3 + C_1C_2L_2L_3R_1R_3g_m\right) + s^4\left(C_1C_2C_3L_2L_3R_1R_3 + C_1C_2L_1L_2R_3g_m\right) + s^4\left(C_1C_2L_1L_3R_3g_m + C_1C_2L_1L_3R_3g_m + C_1C_2L_2L_3R_1g_m + C_1C_2L_2L_3R_1g_m\right) + s^4\left(C_1C_2C_3L_2L_3R_3g_m + C_1C_2L_2L_3R_3g_m + C_1C_2L_3L_3R_3g_m + C_1C$ 

**10.561** INVALID-ORDER-561  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_3 + C_1C_2L_2L_3R_1g_m + C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_3R_3g_m + C_1C_2L_1L_3R_3g_m + C_1C_2L_1L_3R_3g_m + C_1C_2L_1L_3R_3g_m + C_1C_2L_1L_3R_3g_m + C_1C_2L_1R_3R_3g_m + C_1C_2L_1R_3g_m + C_1C_2L_$ 

**10.562** INVALID-ORDER-562  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_3 + C_1C_2C_3L_2L_3R_1R_3g_m\right) + s^4\left(C_1C_2C_3L_3R_1R_3 + C_1C_2L_1L_2R_3g_m + C_1C_3L_1L_3R_3g_m + C_2C_3L_2L_3R_3g_m\right) + s^4\left(C_1C_2C_3L_1L_2L_3g_ms^6 + g_m + s^5\left(C_1C_2C_3L_1L_2R_3g_m + C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_2g_m + C_1C_3L_1L_3R_3g_m\right) + s^4\left(C_1C_2C_3L_1L_2R_3g_m + C_1C_2L_1L_2R_3g_m + C_1C_3L_1L_3R_3g_m + C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_2$ 

**10.563** INVALID-ORDER-563  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2L_1L_2R_3g_ms^4 + R_3g_m + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3 + C_1C_2L_2R_1R_3g_m\right) + s^2\left(C_1C_2R_1R_2R_3g_m + C_1C_2R_1R_3 + C_1L_1R_3g_m + C_2L_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_2R_3g_m + C_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3g_m + C_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_2R_3g_m + C_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3g_m + C_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3g_m + C_2R_3g_m\right) + s\left(C_1R_1R_3g_m + C_2R_3g_m\right) + s\left(C_1R_1R$ 

10.564 INVALID-ORDER-564  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2L_1L_2g_ms^4 + g_m + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_2L_2R_1g_m\right) + s^2\left(C_1C_2R_1R_2g_m + C_1C_2R_1 + C_1L_1g_m + C_2L_2g_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_2C_2g_m\right) + s\left(C_1R_1g_m + C_2R_2g_m + C_2C_2g_m\right) + s\left(C_1C_2C_3L_1L_2g_ms^5 + C_3g_ms + s^4\left(C_1C_2C_3L_1R_2g_m + C_1C_2C_3L_2R_1g_m + C_1C_2C_3R_1R_2g_m + C_1C_2C_3R_1 + C_1C_2C_3R$ 

10.565 INVALID-ORDER-565  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3}{C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2L_1L_2R_3g_ms^4 + R_3g_m + s^3\left(C_1C_2L_1R_2R_3g_m + C_1C_2L_1R_3 + C_1C_2L_2R_1R_3g_m\right) + s^2\left(C_1C_2R_1R_2R_3g_m + C_1C_2R_1R_3 + C_1L_2R_3g_m + C_1C_2R_1R_3g_m\right) + s^2\left(C_1C_2R_1R_2R_3g_m + C_1C_2R_1R_3g_m +$ 

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10.566 INVALID-ORDER-566 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)
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 $H(s) = \frac{C_1C_2C_3L_1L_2R_3g_ms^5 + g_m + s^4\left(C_1C_2C_3L_1R_2R_3g_m + C_1C_2C_3L_1R_3 + C_1C_2C_3L_1R_3g_m + C_1C_2L_1L_2g_m\right) + s^3\left(C_1C_2C_3R_1R_2R_3g_m + C_1C_2L_1R_2g_m + C_1C_2L_1R_2g_m + C_1C_2L_1R_2g_m + C_1C_2L_1R_3g_m + C_1C_2L_1R_3g_m + C_1C_2L_1R_2g_m + C_1C_2L_1R_2g$ 

**10.567** INVALID-ORDER-567  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3g_ms^6 + g_m + s^5\left(C_1C_2C_3L_1L_3R_2g_m + C_1C_2C_3L_2L_3R_1g_m\right) + s^4\left(C_1C_2C_3L_3R_1R_2g_m + C_1C_2L_1L_2g_m + C_1C_3L_1L_3g_m + C_2C_3L_2L_3g_m\right) + s^3\left(C_1C_2L_1R_2g_m + C_1C_2L_1 + C_1C_2L_2R_1g_m + C_1C_3L_3R_1g_m + C_2C_3L_3R_1R_2g_m + C_1C_2C_3L_1R_2g_m + C_1C_2$ 

**10.568** INVALID-ORDER-568  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2L_1L_2L_3g_ms^5 + L_3g_ms + s^4\left(C_1C_2L_1L_3R_2g_m + C_1C_2L_2L_3R_1g_m\right) + s^3\left(C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_2$ 

**10.569** INVALID-ORDER-569  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ L_3 s + R_3 + \frac{1}{C_3 s}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3g_ms^6 + g_m + s^5\left(C_1C_2C_3L_1L_2R_3g_m + C_1C_2C_3L_1L_3R_2g_m + C_1C_2C_3L_1R_3g_m + C_1C_2C_3L_2R_1R_3g_m + C_1C_2C_3L_3R_1R_2g_m + C_1C_2C_3L_3R_1R_2g_m + C_1C_2C_3L_3R_1R_2g_m + C_1C_2C_3L_3R_1R_2g_m + C_1C_2C_3L_1R_2g_m + C_$ 

10.570 INVALID-ORDER-570  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{1}{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_2R_3g_m + C_1C_2C_3L_2L_3R_1R_3g_m + C_1C_2C_3L_2L_3R_3 + C_1C_2L_1L_2L_3g_m\right) + s^4\left(C_1C_2C_3L_3R_1R_2R_3g_m + C_1C_2C_3L_3R_1R_3 + C_1C_2C_3L_3R_3 + C_1C_2C_3L_3R_3$ 

10.571 INVALID-ORDER-571  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_3g_ms^6 + R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_2R_3g_m + C_1C_2C_3L_2L_3R_1R_3g_m + C_1C_2C_3L_2L_3R_1R_3g_m + C_1C_2C_3L_3R_1R_3g_m + C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_3R_2g_m + C_1C_2L_1L_3R_2g_$ 

10.572 INVALID-ORDER-572  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \ L_2 s + R_2 + \frac{1}{C_2 s}, \ \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \ \infty, \ \infty, \ \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3r_3g_ms + r_0r_3g_m + s_1C_1C_2C_3L_1L_3r_0g_m + s_1C_1C_2C_3L_1L_3r_0g_m + s_1C_1C_2C_3L_1L_3r_0g_m + s_1C_1C_2C_3L_1L_3r_0g_m + s_1C_1C_2C_3L_1L_3r_0g_m + s_1C_1C_2C_3L_1R_3r_0g_m + s_1C_1C_2C_3L_1R_3r_0g_m$ 

10.573 INVALID-ORDER-573  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_2 R_1 R_3 g_m + C_1 L_2 R_3 g_m + C_1 L_2 R_3 g_m + C_1 L_1 R_3 g_m + C_1 L_2 R_3 g_m + C_1 L_2 R_3 g_m + C_2 L_2 R_3 g_m + C_2 L_2 R_3 g_m + C_2 L_2 R_3 g_m + C_1 R_1 R_3 g_m + C_2 L_2 R_3 g_m + C_1 R_1 R_3 g_m + C_2 L_2 R_3 g_m + C_1 R_1 R_3 g_m + C_2 R_2 R_3 g_m$ 

10.574 INVALID-ORDER-574  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

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10.575 INVALID-ORDER-575 Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
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 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_1 C_2 L_1 L_2 R_2 R_3 g_m + C_1 C_2 L_1 L_2 R_3\right) + s^3 \left(C_1 C_2 L_2 R_1 R_2 R_3 g_m + C_1 C_2 L_2 R_1 R_3 g_m + C_1 C_2 L_2 R_1 R_2 R_3 g_m + C_1$ 

**10.576** INVALID-ORDER-576  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty\right)$ 

10.577 INVALID-ORDER-577  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

10.578 INVALID-ORDER-578  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{s^5 \left( C_1 C_2 L_1 L_2 L_3 R_2 g_m + C_1 C_2 L_1 L_2 L_3 \right) + s^4 \left( C_1 C_2 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_2 L_3 R_1 + C_1 L_1 L_2 L_3 g_m \right)}{R_2 g_m + s^6 \left( C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 + C_1 C_2 C_3 L_2 L_3 R_1 + C_1 C_2 C_3 L_2 L_3 R_1 + C_1 C_2 C_3 L_2 L_3 R_2 + C_1 C_2 L_1 L_2 R_2 g_m + C_1 C_2 L_2 L_3 R_1 R_2 g_m + C_1 C_2$ 

10.579 INVALID-ORDER-579  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3\right) + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_2 L_2 R_1 R_3 + C_1 C_2 C_3 L_2 L_2 R_1 R_3 + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_2 R_3 g_m + C_1 C_2 C_3 L_2 L_3 R_3 R_3 g_m + C_1 C_2 C_3 L_2 L_3 R_3 g_m + C_1$ 

10.580 INVALID-ORDER-580  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{1}{R_2 R_3 g_m + R_3 + s^6 \left( C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_3 \right) + s^5 \left( C_1 C_2 C_3 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 L_2 L_3 R_1 R_3 + C_1 C_2 L_1 L_2 L_3 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_3 g_m \right) + s^4 \left( C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m \right) + s^4 \left( C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_2 R_3 g_m + C_1 C_2 L_2 R_3 g_m + C$ 

10.581 INVALID-ORDER-581  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_1 L_2 L_3 R_3 g_m + C_1 C_2 L_1 L_2 L_3 R_3 g_m + C_1 C_2 L_1 L_2 L_3 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L$ 

10.582 INVALID-ORDER-582  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $R_{2}R_{3}g_{m}+R_{3}+s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{2}R_{3}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3}\right)+s^{5}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3$ 

 $H(s) = \frac{R_2R_3g_m + R_3 + s \cdot (C_1C_2C_3L_1L_2L_3R_2g_m + C_1C_2C_3L_1L_2L_3R_3g_m + C_1C_2C_3L_1L_2L_3R_3g_m + C_1C_2C_3L_1L_2L_3R_3g_m + C_1C_2C_3L_1L_2L_3R_3g_m + C_1C_2C_3L_1L_2R_3g_m + C_1C_2C_3L_2L_3R_1 + C_1C_2C_3L_2L_3R_1 + C_1C_2C_3L_2L_3R_2 + C_1C_2C_3L_2L_3R_2 + C_1C_2C_3L_2L_3R_3 + C_1C_$ 

**10.583** INVALID-ORDER-583  $Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty\right)$ 

 $H(s) = \frac{R_2 R_3 g_m + R_3 + s^4 \left(C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 C_2 L_1 R_2 R_3 g_m + C_1 C_2 L_2 R_1 R_2 R_3 g_m + C_1 C_2 L_2 R_1 R_3 g_m + C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_3 + C_2 L_2 R_3 g_m + C_2 L_2 R_3 \right) + s \left(C_1 R_1 R_2 R_3 g_m + C_1 R_1 R_3 + C_2 L_2 R_3 g_m + C_1 L_1 R_2 R_3 g_m + C_1 L_1$ 

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10.584 INVALID-ORDER-584 Z(s) = \left(L_1s + R_1 + \frac{1}{C_1s}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
II(s) = \frac{R_2g_m + s^4(C_1C_2L_1L_2R_2g_m + C_1C_2L_1L_2) + s^3(C_1C_2L_1R_2 + C_1C_2L_2R_1R_2g_m + C_1C_2L_2R_1) + s^2(C_1C_2R_1R_2 + C_1L_1R_2g_m + C_1L_1 + C_2L_2R_2g_m + C_2L_2) + s(C_1R_1R_2g_m + C_1R_1 + C_2R_2) + 1}{s^5(C_1C_2C_3L_1L_2R_2g_m + C_1C_2C_3L_1R_2 + C_1C_2C_3L_2R_1R_2g_m + C_1C_2C_3L_2R_2) + s^3(C_1C_2C_3R_1R_2 + C_1C_2L_2R_1R_2g_m + C_1C_2L_2R_1R_2g_m + C_1C_2L_2R_2R_2g_m + C_2C_3L_2) + s^2(C_1C_2R_1R_2 + C_1C_2L_2R_1R_2g_m + C_1C_2L_2R_2R_2g_m + C_2C_3L_2) + s^2(C_1C_2R_1R_2g_m + C_1C_2L_2R_2R_2g_m + C_2C_3L_2) + s^2(C_1C_2R_2R_2R_2g_m + C_2C_3L_2R_2) + s^2(C_1C_2R_2R_2R_2g_m + C_1C_2R_2R_2g_m + C_2C_3R_2R_2g_m + C_2C_3R_2R_2g_m + C_1C_3R_1R_2g_m + C_1C_2R_1R_2g_m + C_
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$$\begin{aligned} \mathbf{10.587} \quad \mathbf{INVALID\text{-}ORDER\text{-}587} \ Z(s) &= \left( L_{1}s + R_{1} + \frac{1}{C_{1}s}, \ \frac{R_{2}\left( C_{2}L_{2}s^{2} + 1 \right)}{C_{2}L_{2}s^{2} + C_{2}R_{2}s + 1}, \ L_{3}s + \frac{1}{C_{3}s}, \ \infty, \ \infty, \ \infty \right) \\ H(s) &= \frac{R_{2}g_{m} + s^{6}\left( C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{2}g_{m} + C_{1}C_{2}C_{3}L_{1}L_{3}R_{2} + C_{1}C_{2}C_{3}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}C_{3}L_{2}L_{3}R_{1}R_{2} + C_{1}C_{2}C_{3}L_{2}L_{3}R_{1}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}R_{2}g_{m} + C_{1}C_{2}C_{3}L_{2}L_{3}R_{2}g_{m} + C_{1}C_{2}C_{3}L_{2}L_{3}R_{2}g_{m} + C_{2}C_{3}L_{2}L_{3}R_{2}g_{m} + C_{2}C_{3}L_{2}L_{3}R_$$

10.588 INVALID-ORDER-588 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

**10.589** INVALID-ORDER-589 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 g_m + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3\right) + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m +$$

10.590 INVALID-ORDER-590 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

10.591 INVALID-ORDER-591 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_2 g_m + C_1 C_2 L_1 L_2 R_3 g_m + C_1 L_2 L$$

10.592 INVALID-ORDER-592 
$$Z(s) = \left(L_1 s + R_1 + \frac{1}{C_1 s}, \frac{R_2(C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3(C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_2 R_3 g_m + R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_3 \right) + s^5 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 C_3 L_$$

10.505 INVALID-ORDER-593 
$$Z(s) = \left(\frac{1.91}{(COLD)^{2} + colored}, R_{S} \cdot \frac{1.91}{Colored}, \infty, \infty, \infty\right)$$

$$R(s) = \frac{(4.5)^{2} R_{S}^{2} R_{S}^{2} + R_{S}^{2} + C_{S}^{2} L_{S}^{2} R_{S}^{2} R_{S}^{2} + R_{S}^{2} + C_{S}^{2} L_{S}^{2} R_{S}^{2} R_{S}^{2} + C_{S}^{2} R_{S}^{2} R_{S}^{2} R_{S}^{2} + C_{S}^{2} R_{S}^{2} R_{S}^{2} R_{S}^{2} + C_{S}^{2} R_{S}^{2} R_{S}^{2} R_{S}^{2} +$$

 $H(s) = \frac{C_2 L_1 R_1 R_3 s^2 + L_1 R_1 R_3 g_m s}{C_1 C_2 L_1 R_1 R_3 s^3 + R_1 + s^2 \left( C_1 L_1 R_1 + C_2 L_1 R_1 + C_2 L_1 R_3 \right) + s \left( C_2 R_1 R_3 + L_1 R_1 g_m + L_1 \right)}$ 

**10.602** INVALID-ORDER-602  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

**10.603** INVALID-ORDER-603  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2L_1R_1R_3s^2 + L_1R_1R_3g_ms}{R_1 + s^3\left(C_1C_2L_1R_1R_3 + C_1C_3L_1R_1R_3 + C_2C_3L_1R_1R_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_3 + C_3L_1R_1R_3g_m + C_3L_1R_3\right) + s\left(C_2R_1R_3 + C_3R_1R_3 + L_1R_1g_m + L_1\right)}$ **10.604** INVALID-ORDER-604  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_1R_1R_3s^2 + L_1R_1g_m + s\left(C_2L_1R_1 + C_3L_1R_1g_m\right)}{C_1C_2C_3L_1R_1R_2s^3 + C_2R_1 + C_3R_1 + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_1R_3\right) + s\left(C_2C_3R_1R_3 + C_2L_1 + C_3L_1R_1g_m + C_3L_1\right)}$ 10.605 INVALID-ORDER-605  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_1L_3R_1s^3 + C_2L_1R_1s + C_3L_1L_3R_1g_ms^2 + L_1R_1g_m}{C_1C_2C_3L_1L_3R_1s^4 + C_2C_3L_1L_3s^3 + C_2R_1 + C_3R_1 + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_3R_1\right) + s\left(C_2L_1 + C_3L_1R_1g_m + C_3L_1\right)}$ **10.606** INVALID-ORDER-606  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2L_1L_3R_1s^3 + L_1L_3R_1g_ms^2}{R_1 + s^4\left(C_1C_2L_1L_3R_1 + C_1C_3L_1L_3R_1 + C_2C_3L_1L_3R_1\right) + s^3\left(C_2L_1L_3 + C_3L_1L_3R_1q_m + C_3L_1L_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_3R_1 + C_3L_3R_1\right) + s\left(L_1R_1q_m + L_1\right)}$ **10.607** INVALID-ORDER-607  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_1L_3R_1s^3 + L_1R_1g_m + s^2\left(C_2C_3L_1R_1R_3 + C_3L_1L_3R_1g_m\right) + s\left(C_2L_1R_1 + C_3L_1R_1R_3g_m\right)}{C_1C_2C_3L_1L_3R_1s^4 + C_2R_1 + c_3R_1 + s^3\left(C_1C_2C_3L_1R_1R_3 + C_2C_3L_1R_1\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_1R_3 + C_2C_3L_3R_1\right) + s\left(C_2C_3R_1R_3 + C_2L_1 + C_3L_1R_1g_m + C_3L_1\right)}$ **10.608** INVALID-ORDER-608  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2L_1L_3R_1R_3s^3 + L_1L_3R_1R_3g_ms^2}{R_1R_3 + s^4\left(C_1C_2L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_3 + C_2C_3L_1L_3R_1R_3 + C_2L_1L_3R_1 + C_2L_1L_3R_1 + C_2L_1L_3R_3 + C_3L_1L_3R_1R_3g_m + C_3L_1L_3R_1 + C_2L_1L_3R_1 + C_2L_1$ **10.609** INVALID-ORDER-609  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$  $\frac{C_{2}C_{3}L_{1}L_{3}R_{1}R_{3}s^{4}+L_{1}R_{1}R_{3}g_{m}s+s^{3}\left(C_{2}L_{1}L_{3}R_{1}+C_{3}L_{1}L_{3}R_{1}g_{m}\right)+s^{2}\left(C_{2}L_{1}R_{1}R_{3}+L_{1}L_{3}R_{1}g_{m}\right)}{C_{1}C_{2}C_{3}L_{1}L_{3}R_{1}+C_{3}L_{1}L_{3}R_{1}+C_{3}L_{1}$ 10.610 INVALID-ORDER-610  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$  $H(s) = \frac{C_2C_3L_1L_3R_1R_3s^4 + C_2L_1R_1R_3s^2 + C_3L_1L_3R_1R_3g_ms^3 + L_1R_1R_3g_ms}{C_1C_2C_3L_1L_3R_1R_3s^5 + R_1 + s^4\left(C_1C_3L_1L_3R_1 + C_2C_3L_1L_3R_1 + C_2C_3L_1L_3R_3\right) + s^3\left(C_1C_2L_1R_1R_3 + C_2C_3L_1R_1R_3 + C_2C_3L_1R_1R_3 + C_3L_1L_3R_1g_m + C_3L_1L_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_3 + C_3L_1R_1R_3g_m + C_3L_1R_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_1 + C_2L_1R_1 + C_3L_1R_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_3L_1R_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_3L_1R_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_3 + C_3L_1R_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_3 + C_3L_1R_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_3\right) +$ **10.611** INVALID-ORDER-611  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_2L_1R_1R_2R_3s^2 + s\left(L_1R_1R_2R_3g_m + L_1R_1R_3\right)}{C_1C_2L_1R_1R_2R_3s^3 + R_1R_2 + R_1R_3 + s^2\left(C_1L_1R_1R_2 + C_1L_1R_1R_3 + C_2L_1R_1R_2 + C_2L_1R_2R_3\right) + s\left(C_2R_1R_2R_3 + L_1R_1R_2q_m + L_1R_1 + L_1R_2 + L_1R_3\right)}$ 

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10.612 INVALID-ORDER-612 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                          H(s) = \frac{C_2L_1R_1R_2s^2 + s\left(L_1R_1R_2g_m + L_1R_1\right)}{R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_2C_3L_1R_1R_2\right) + s^2\left(C_1L_1R_1 + C_2L_1R_2 + C_3L_1R_1R_2g_m + C_3L_1R_1 + C_3L_1R_2\right) + s\left(C_2R_1R_2 + C_3R_1R_2 + L_1\right)}
10.613 INVALID-ORDER-613 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1R_1R_2R_3s^2 + s\left(L_1R_1R_2R_3g_m + L_1R_1R_3\right)}{R_1R_2 + R_1R_3 + s^3\left(C_1C_2L_1R_1R_2R_3 + C_1C_3L_1R_1R_2R_3 + C_2C_3L_1R_1R_2R_3\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1R_1R_2 + C_2L_1R_1R_2 + C_3L_1R_1R_2 + C_3L_1R_1R_3 + C_3L_1R_1R_3 + C_3L_1R_1R_3 + C_3L_1R_1R_2R_3 + 
10.614 INVALID-ORDER-614 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
          H(s) = \frac{C_2C_3L_1R_1R_2R_3s^3 + s^2\left(C_2L_1R_1R_2 + C_3L_1R_1R_2R_3g_m + C_3L_1R_1R_2g_m + L_1R_1\right)}{C_1C_2C_3L_1R_1R_2R_3s^4 + R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_2C_3L_1R_1R_2 + C_2C_3L_1R_1R_2 + C_2C_3L_1R_1R_2 + C_3L_1R_1R_2 + C_3L_1R_1R_2 + C_3L_1R_1R_2 + C_3L_1R_1R_2 + C_3L_1R_1 + C_3L_1R_
10.615 INVALID-ORDER-615 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
 H(s) = \frac{C_2C_3L_1L_3R_1R_2s^4 + C_2L_1R_1R_2s^2 + s^3\left(C_3L_1L_3R_1R_2g_m + C_3L_1L_3R_1\right) + s\left(L_1R_1R_2g_m + L_1R_1\right)}{C_1C_2C_3L_1L_3R_1R_2s^5 + R_1 + s^4\left(C_1C_3L_1L_3R_1 + C_2C_3L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_2C_3L_1R_1R_2 + C_2C_3L_3R_1R_2 + C_3L_1L_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_2 + C_3L_1R_1R_2g_m + C_3L_1R_1 + C_3L_
10.616 INVALID-ORDER-616 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1L_3R_1R_2s^3 + s^2\left(L_1L_3R_1R_2g_m + L_1L_3R_1\right)}{R_1R_2 + s^4\left(C_1C_2L_1L_3R_1R_2 + C_1C_3L_1L_3R_1R_2 + C_2C_3L_1L_3R_1R_2\right) + s^3\left(C_1L_1L_3R_1 + C_2L_1L_3R_1 + C_3L_1L_3R_1 + C_3L
10.617 INVALID-ORDER-617 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_3R_1R_2s^4 + s^3\left(C_2C_3L_1R_1R_2R_3 + C_3L_1L_3R_1\right) + s^2\left(C_2L_1R_1R_2 + C_3L_1R_1R_2R_3g_m + C_3L_1R_1R_3\right) + s\left(L_1R_1R_2g_m + L_1R_1\right)}{C_1C_2C_3L_1L_3R_1R_2s^5 + R_1 + s^4\left(C_1C_2C_3L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_2C_3L_1R_1R_2 + C_2C_
10.618 INVALID-ORDER-618 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C_2L_1L_3R_1R_2R_3s^3 + s^2(L_1L_3R_1R_2R_3g_m + L_1L_3R_1R_3)
                                             \frac{C_2L_1L_3R_1R_2R_3s + s \cdot (L_1L_3R_1R_2R_3s + L_1L_3R_1R_2R_3)}{R_1R_2R_3 + s^4 \cdot (C_1C_2L_1L_3R_1R_2R_3 + C_2C_3L_1L_3R_1R_2R_3 + C_2L_1L_3R_1R_2 + C_2
10.619 INVALID-ORDER-619 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_3R_1R_2R_3s^4 + s^3\left(C_2L_1L_3R_1R_2 + C_3L_1L_3R_1R_2 + C_3L_1L_3R_1R_2 + S_4\left(C_2L_1R_1R_2R_3 + L_1L_3R_1R_2 + S_4\left(C_2L_1R_1R_2R_3 + L_1L_3R_1R_2 + C_2C_3L_1L_3R_1R_2 + C_2C
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 $H(s) = \frac{C_2C_3L_1L_3R_1R_2R_3s^2 + C_2L_1R_1R_2R_3s^2 + s^3\left(C_3L_1L_3R_1R_2R_3s_2 + s^3\left(C_3L_1L_3R_1R_2R_3s_2 + s^3\left(C_3L_1L_3R_1R_2R_3s_2 + s^3\left(C_3L_1L_3R_1R_2R_3s_2 + s^3\left(C_3L_1L_3R_1R_2R_3s_2 + s^3\left(C_3L_1L_3R_1R_2R_3s_2 + s^3\left(C_3L_1L_3R_1R_2R_3 + c_3L_1L_3R_1R_2R_3 + c_3L_1L_3R_1R_3R_3 + c_3L_1L_3R_1R_3 +$ 

10.620 INVALID-ORDER-620  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3 (C_3 L_3 s^2 + 1)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

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H(s) = \frac{L_1 R_1 R_3 g_m s + s^2 \left(C_2 L_1 R_1 R_2 R_3 g_m + C_2 L_1 R_1 R_3\right)}{R_1 + s^3 \left(C_1 C_2 L_1 R_1 R_2 + C_1 C_2 L_1 R_1 R_3\right) + s^2 \left(C_1 L_1 R_1 + C_2 L_1 R_1 R_2 g_m + C_2 L_1 R_1 + C_2 L_1 R_2 + C_2 L_1 R_3\right) + s \left(C_2 R_1 R_2 + C_2 R_1 R_3 + L_1 R_1 g_m + L_1\right)}
10.622 INVALID-ORDER-622 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                               H(s) = \frac{L_1 R_1 g_m + s \left(C_2 L_1 R_1 R_2 g_m + C_2 L_1 R_1\right)}{C_1 C_2 C_3 L_1 R_1 R_2 s^3 + C_2 R_1 + C_3 R_1 + s^2 \left(C_1 C_2 L_1 R_1 + C_1 C_3 L_1 R_1 + C_2 C_3 L_1 R_1 R_2 g_m + C_2 C_3 L_1 R_2\right) + s \left(C_2 C_3 R_1 R_2 + C_2 L_1 + C_3 L_1 R_1 g_m + C_3 L_1\right)}
10.623 INVALID-ORDER-623 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{L_1 R_1 R_3 g_m s + s^2 \left(C_2 L_1 R_1 R_2 R_3 g_m + C_2 L_1 R_1 R_3\right)}{C_1 C_2 C_3 L_1 R_1 R_2 R_3 s^4 + R_1 + s^3 \left(C_1 C_2 L_1 R_1 R_2 + C_1 C_2 L_1 R_1 R_3 + C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_2 C_3 L_1 R_1 R_3 + C_2 C_3 L_1 R_1 R_3 + C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_2 L_1 R_1 R_2 R_3 g_m + C_2 L_1 R_1 R_2 g_m + C_2 L_1 
10.624 INVALID-ORDER-624 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                         H(s) = \frac{L_1R_1g_m + s^2\left(C_2C_3L_1R_1R_2R_3g_m + C_2C_3L_1R_1R_3\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1 + C_3L_1R_1R_3g_m\right)}{C_2R_1 + C_3R_1 + s^3\left(C_1C_2C_3L_1R_1R_2 + C_1C_2C_3L_1R_1R_3\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_1R_1\right) + s\left(C_2C_3R_1R_2 + C_2C_3R_1R_2 + C_2C_3R_1R_3 + C_2L_1 + C_3L_1R_1g_m + C_3L_1\right)}
10.625 INVALID-ORDER-625 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                      H(s) = \frac{C_3L_1L_3R_1g_ms^2 + L_1R_1g_m + s^3\left(C_2C_3L_1L_3R_1R_2g_m + C_2C_3L_1L_3R_1\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1\right)}{C_1C_2C_3L_1L_3R_1s^4 + C_2R_1 + c_3R_1 + s^3\left(C_1C_2C_3L_1R_1R_2 + C_2C_3L_1L_3\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1R_2g_m + C_2C_3L_1R_1 + C_2C_3L_
10.626 INVALID-ORDER-626 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{L_1 L_3 R_1 g_m s^2 + s^3 \left(C_2 L_1 L_3 R_1 R_2 g_m + C_2 L_1 L_3 R_1\right)}{C_1 C_2 C_3 L_1 L_3 R_1 R_2 s^5 + R_1 + s^4 \left(C_1 C_2 L_1 L_3 R_1 + C_2 C_3 L_1 L_3 R_1 + C_2 C_3 L_1 L_3 R_1 + C_2 C_3 L_1 L_3 R_1\right) + s^3 \left(C_1 C_2 L_1 R_1 R_2 + C_2 C_3 L_1 L_3 R_1 R_2 + C_2 L_1 L_3 + C_3 L_1 L_3 R_1 g_m + C_3 L_1 L_3\right) + s^2 \left(C_1 L_1 R_1 + C_2 L_1 R_1 R_2 g_m + C_2 L_1 R_1 + C_2 L_1 R_1 R_2 + C_2 L_1 
10.627 INVALID-ORDER-627 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{L_1R_1g_m + s^3\left(C_2C_3L_1L_3R_1R_2g_m + C_2C_3L_1L_3R_1\right) + s^2\left(C_2C_3L_1R_1R_2R_3g_m + C_2C_3L_1R_1R_3 + C_3L_1L_3R_1g_m\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1 + C_3L_1R_1R_2g_m + C_2L_1R_1 + C_3L_1R_1R_2g_m\right)}{C_1C_2C_3L_1L_3R_1s^4 + C_2R_1 + C_3R_1 + s^3\left(C_1C_2C_3L_1R_1R_2 + C_2C_3L_1R_1 + C_
10.628 INVALID-ORDER-628 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                H(s) = \frac{\sum_{1 L_{3} L_{1} L_{3} R_{1}} \sum_{1 L_{3} R_{1} R_{2} R_{3} S^{5} + R_{1} R_{3} + S^{4} \left(C_{1} C_{2} L_{1} L_{3} R_{1} R_{2} + C_{1} C_{2} L_{1} L_{3} R_{1} R_{3} + C_{2} C_{3} L_{1} L_{3} R_{1} R_{3} + C_{2} C_{3} L_{1} L_{3} R_{1} R_{2} R_{3} + C_{2} L_{1} L_{3} R_{1} R_{2} R_{3} + C_
10.629 INVALID-ORDER-629 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
10.630 INVALID-ORDER-630 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   \frac{c_3c_1c_3c_1c_3c_3c_1c_3c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_3c_1c_2c_3c_1c_3c_1c_2c_3c_1c_3c_1c_3c_1c_2c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_1c_3c_
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10.621 INVALID-ORDER-621  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

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10.631 INVALID-ORDER-631 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                          H(s) = \frac{C_2L_1L_2R_1R_3g_ms^3 + C_2L_1R_1R_3s^2 + L_1R_1R_3g_ms}{C_1C_2L_1L_2R_1s^4 + R_1 + s^3\left(C_1C_2L_1R_1R_3 + C_2L_1L_2R_1g_m + C_2L_1L_2\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_3 + C_2L_2R_1\right) + s\left(C_2R_1R_3 + L_1R_1g_m + L_1\right)}
10.632 INVALID-ORDER-632 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                         H(s) = \frac{C_2L_1L_2R_1g_ms^2 + C_2L_1R_1s + L_1R_1g_m}{C_1C_2C_3L_1L_2R_1s^4 + C_2R_1 + C_3R_1 + s^3\left(C_2C_3L_1L_2R_1g_m + C_2C_3L_1L_2\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_2R_1\right) + s\left(C_2L_1 + C_3L_1R_1g_m + C_3L_1\right)}
10.633 INVALID-ORDER-633 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1L_2R_1R_3g_ms^3 + C_2L_1R_1R_3s^2 + L_1R_1R_3g_ms}{C_1C_2C_3L_1L_2R_1R_3s^5 + R_1 + s^4\left(C_1C_2L_1L_2R_1 + C_2C_3L_1L_2R_1R_3g_m + C_2C_3L_1R_1R_3 + C_2C_3L_1R_1R_3 + C_2C_3L_2R_1R_3 + C_2L_1L_2R_1g_m + C_2L_1L_2\right) + s^2\left(C_1L_1R_1 + C_2L_1R_3 + C_2L_2R_1 + C_3L_1R_1R_3g_m + C_3L_1R_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_3 + C_2C_3L_1R_1R_3 + 
10.634 INVALID-ORDER-634 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
                                                                                       H(s) = \frac{C_2C_3L_1L_2R_1R_3g_ms^3 + L_1R_1g_m + s^2\left(C_2C_3L_1R_1R_3 + C_2L_1L_2R_1g_m\right) + s\left(C_2L_1R_1 + C_3L_1R_1R_3g_m\right)}{C_1C_2C_3L_1L_2R_1s^4 + C_2R_1 + c_3R_1 + s^3\left(C_1C_2C_3L_1R_1R_3 + C_2C_3L_1L_2\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_2R_1\right) + s\left(C_2C_3R_1R_3 + C_2L_1 + C_3L_1R_1g_m + C_3L_1\right)}
10.635 INVALID-ORDER-635 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_2 s}, \infty, \infty, \infty\right)
                                                                                   H(s) = \frac{C_2C_3L_1L_2L_3R_1g_ms^4 + C_2C_3L_1L_3R_1s^3 + C_2L_1R_1s + L_1R_1g_m + s^2\left(C_2L_1L_2R_1g_m + C_3L_1L_3R_1g_m\right)}{C_2R_1 + C_3R_1 + s^4\left(C_1C_2C_3L_1L_2R_1 + C_1C_2C_3L_1L_3R_1\right) + s^3\left(C_2C_3L_1L_2R_1g_m + C_2C_3L_1L_3\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_2R_1 + C_2C_3L_3R_1\right) + s\left(C_2L_1 + C_3L_1R_1g_m + C_3L_1\right)}
10.636 INVALID-ORDER-636 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1L_2L_3R_1g_ms^4 + C_2L_1L_3R_1s^3 + L_1L_3R_1g_ms^2}{C_1C_2C_3L_1L_2L_3R_1s^6 + R_1 + s^5\left(C_2C_3L_1L_2L_3R_1g_m + C_2C_3L_1L_2R_1 + C_1C_2L_1L_3R_1 + C_1C_3L_1L_3R_1 + C_2C_3L_2L_3R_1\right) + s^3\left(C_2L_1L_2R_1g_m + C_2L_1L_3 + C_3L_1L_3R_1g_m + C_3L_1L_3\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1 + C_2L_1R_1 + C_2L_1R_1\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1\right) + s^2\left(C_1
10.637 INVALID-ORDER-637 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_2L_3R_1g_ms^4 + L_1R_1g_m + s^3\left(C_2C_3L_1L_2R_1R_3g_m + C_2C_3L_1L_3R_1\right) + s^2\left(C_2C_3L_1R_1R_3 + C_2L_1L_2R_1g_m + C_3L_1L_3R_1g_m\right) + s\left(C_2L_1R_1 + C_3L_1R_1R_3g_m\right)}{C_2R_1 + C_3R_1 + s^4\left(C_1C_2C_3L_1L_2R_1 + C_1C_2C_3L_1L_3R_1\right) + s^3\left(C_1C_2C_3L_1R_1R_3 + C_2C_3L_1L_3\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_3 + C_2C_3L_2R_1 + C_2C_3L_3R_1\right) + s\left(C_2C_3R_1R_3 + C_2L_1R_1 + C_3L_1R_1R_3\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2
10.638 INVALID-ORDER-638 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_2 L_2 R_2 s^2 + L_2 s + R_2}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C_2L_1L_2L_3R_1R_3g_ms^4 + C_2L_1L_3R_1R_3s^3 + L_1L_3
H(s) = \frac{C_2 L_1 L_2 L_3 R_1 R_3 s^6 + R_1 R_3 + s^5 \left(C_1 C_2 L_1 L_2 L_3 R_1 + C_2 C_3 L_1 L
10.639 INVALID-ORDER-639 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_2L_3R_1R_3g_ms^5 + L_1R_1R_3g_ms + s^4\left(C_2C_3L_1L_2R_1R_3g_m + S^4\left(C_2C_3L_1L_2R_1R_3g_m + C_2L_1L_3R_1 + C_3L_1L_3R_1R_3 + C_2L_1L_3R_1R_3 + C_2L_1L_3R_1R_3 + C_2L_1L_3R_1 + C_3L_1L_3R_1 + C_
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 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1s^6 + R_1 + s^5\left(C_1C_2C_3L_1L_2R_1R_3 + C_1C_2C_3L_1L_2R_1R_3 + C_2C_3L_1L_2R_1R_3 + C_2C_3L_2R_1R_3 + C_2C_3L_2R_1R_3 + C_$ 

 $C_2C_3L_1L_2L_3R_1R_3g_ms^5 + C_2C_3L_1L_3R_1R_3s^4 + C_2L_1R_1R_3s^2 + L_1$ 

**10.640** INVALID-ORDER-640  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

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H(s) = \frac{C_2L_1L_2R_1g_ms^2 + L_1R_1g_m + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1\right)}{C_1C_2C_3L_1L_2R_1s^4 + C_2R_1 + C_3R_1 + s^3\left(C_1C_2C_3L_1R_1R_2 + C_2C_3L_1L_2R_1g_m + C_2C_3L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C
10.643 INVALID-ORDER-643 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C_2L_1L_2R_1R_3g_ms^3 + L_1R_1R_3g_ms + s^2(C_2L_1R_1R_2R_3g_m + C_2L_1R_1R_3)
H(s) = \frac{C_2L_1L_2R_1R_3g_ms^5 + L_1R_1R_3g_ms + s^2\left(C_2L_1R_1R_2R_3g_m + C_2L_1R_1R_3\right)}{C_1C_2C_3L_1L_2R_1R_3s^5 + R_1 + s^4\left(C_1C_2C_3L_1R_1R_2R_3 + C_1C_2L_1L_2R_1 + C_2C_3L_1L_2R_1\right) + s^3\left(C_1C_2L_1R_1R_3 + C_1C_3L_1R_1R_3 + C_2C_3L_1R_1R_3 + C_2C_3L_1R_1
10.644 INVALID-ORDER-644 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_2R_1R_3g_ms^3 + L_1R_1g_m + s^2\left(C_2C_3L_1R_1R_2R_3g_m + C_2C_3L_1R_1R_3 + C_2L_1L_2R_1g_m\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1 + C_3L_1R_1R_3g_m\right)}{C_1C_2C_3L_1L_2R_1s^4 + C_2R_1 + c_3R_1 + s^3\left(C_1C_2C_3L_1R_1R_2 + C_1C_2C_3L_1R_1R_3 + C_2C_3L_1L_2\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_1R_3 + C_2C_3L_1R_
10.645 INVALID-ORDER-645 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_2L_3R_1g_ms^4 + L_1R_1g_m + s^3\left(C_2C_3L_1L_3R_1R_2g_m + C_2C_3L_1L_3R_1g_m\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1\right)}{C_2R_1 + C_3R_1 + s^4\left(C_1C_2C_3L_1L_2R_1 + C_1C_2C_3L_1L_3R_1\right) + s^3\left(C_1C_2C_3L_1R_1R_2 + C_2C_3L_1L_3\right) + s^2\left(C_1C_2L_1R_1 + C_1C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_1R
10.646 INVALID-ORDER-646 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C_{2}L_{1}L_{2}L_{3}R_{1}g_{m}s^{4}+L_{1}L_{3}R_{1}g_{m}s^{2}+s^{3}\left(C_{2}L_{1}L_{3}R_{1}R_{2}g_{m}+C_{2}L_{1}L_{3}R_{1}\right)
H(s) = \frac{C_2 L_1 L_2 L_3 I \iota_1 g_m s + L_1 L_3 I \iota_1 g_m s + L_2 L_3 I \iota_1 g_m s + L_3 L_4 g_m + C_2 L_4 L_3 I \iota_1 g_m s + L_4 L_3 I \iota_1 g_m s + L_4 L_3 I \iota_1 g_m s + L_4 L_4 L_4 I \iota_1 g_m + L_4 L_4 I \iota_2 g_m + L_4 L_4 I \iota_3 g_m + L_4 L_4 I \iota_4 g_m + L_4 L_4 I \iota_4
10.647 INVALID-ORDER-647 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_2L_3R_1g_ms^4 + L_1R_1g_m + s^3\left(C_2C_3L_1L_2R_1R_3g_m + C_2C_3L_1L_3R_1\right) + s^2\left(C_2C_3L_1R_1R_2R_3g_m + C_2C_3L_1R_1R_3 + C_2L_1L_2R_1g_m + C_3L_1L_3R_1g_m\right) + s\left(C_2L_1R_1R_2g_m + C_2L_1R_1 + C_3L_1R_1R_2R_1g_m + C_2L_1R_1R_2R_1g_m + C_2L_1R_1R_1R_1g_m + C_2L_1R_1R_2R_1g_m + C_2L_1R_1R_2R_1g_m + C_2L_1R_1R_2R_1g_m + C_2L_1R_1R_2R_1g_m + C_
10.648 INVALID-ORDER-648 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
H(s) = \frac{1}{C_1C_2C_3L_1L_2L_3R_1R_3s^6 + R_1R_3 + s^5\left(C_1C_2C_3L_1L_3R_1R_2R_3 + C_1C_2L_1L_2L_3R_1 + C_2C_3L_1L_2L_3R_1R_3g_m + C_2C_3L_1L_2R_1R_3 + C_1C_2L_1L_3R_1R_3 + C_1C_2L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_3 + C_1C_3L_1L_3R_1R_3 + C_2C_3L_1L_3R_1R_3 + C_
10.649 INVALID-ORDER-649 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H(s) = \frac{C_2C_3L_1L_2L_3R_1R_3g_ms^5 + L_1R_1R_3g_ms + s^4\left(C_2C_3L_1L_3R_1R_2R_3g_m + C_2C_3L_1L_3R_1R_3 + C_2L_1L_2L_3R_1g_m\right) + s^3\left(C_2C_3L_1L_2L_3R_1s^6 + R_1 + s^5\left(C_1C_2C_3L_1L_3R_1R_2 + C_1C_2C_3L_1L_3R_1R_3 + C_2C_3L_1L_3R_1 + C_2C_3L
10.650 INVALID-ORDER-650 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{1}{C_1C_2C_3L_1L_2L_3R_1s^6 + R_1 + s^5\left(C_1C_2C_3L_1L_2R_1 + C_1C_2C_3L_1L_3R_1R_2 + C_1C_2C_3L_1L_3R_1R_3 + C_2C_3L_1L_2R_3 + C_2C_3L_2R_3 + C_2C_3L_2R_3 + C_2C_
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 $H(s) = \frac{C_2L_1L_2R_1R_3g_ms^3 + L_1R_1R_3g_ms + s^2\left(C_2L_1R_1R_2R_3g_m + C_2L_1R_1R_3\right)}{C_1C_2L_1L_2R_1s^4 + R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_2L_1R_1R_3 + C_2L_1L_2R_1g_m + C_2L_1L_2\right) + s^2\left(C_1L_1R_1 + C_2L_1R_1R_2g_m + C_2L_1R_1 + C_2L_1R_3 + C_2L_2R_1\right) + s\left(C_2R_1R_2 + C_2R_1R_3 + L_1R_1g_m + L_1\right)}$ 

10.641 INVALID-ORDER-641  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$ 

**10.642** INVALID-ORDER-642  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

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10.652 INVALID-ORDER-652 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                          \frac{L_{1}L_{2}R_{1}g_{m}s^{2}+s^{3}\left(C_{2}L_{1}L_{2}R_{1}R_{2}g_{m}+C_{2}L_{1}L_{2}R_{1}\right)+s\left(L_{1}R_{1}R_{2}g_{m}+L_{1}R_{1}\right)}{C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}+C_{2}C_{3}L_{1}L_{2}R_{1}+C_{2}C_{3}L_{1}L_{2}R_{1}+C_{2}C_{3}L_{1}L_{2}R_{1}+C_{2}C_{3}L_{1}L_{2}R_{1}+C_{2}C_{3}L_{1}L_{2}R_{1}+C_{2}C_{3}L_{1}L_{2}R_{2})+s^{3}\left(C_{1}C_{3}L_{1}R_{1}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{1}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}R_{1}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C_{3}L_{1}L_{2}+C
10.653 INVALID-ORDER-653 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{L_1L_2R_1R_3g_ms + s^*(C_2L_1L_2R_1R_3+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1R_2+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1L_2R_1+G_2C_3L_1
10.654 INVALID-ORDER-654 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                          \frac{s^4 \left(C_2 C_3 L_1 L_2 R_1 R_2 g_m + C_2 C_3 L_1 L_2 R_1 R_2 g_m + C_2 L_1 L_2 R_1 + C_3 L_1 L_2 R_1 R_3 g_m + s^2 \left(C_3 L_1 R_1 R_2 R_3 g_m + C_3 L_1 R_1 R_3 + L_1 L_2 R_1 g_m \right) + s^2 \left(C_3 L_1 R_1 R_2 R_3 g_m + C_3 L_1 R_1 R_3 + L_1 L_2 R_1 g_m \right) + s^2 \left(C_3 L_1 L_2 R_1 R_2 + C_1 C_3 L_1 L_2 R_1 R_3 + C_2 C_3 L_1 L_2 R_1 
10.655 INVALID-ORDER-655 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_3L_1L_2L_3R_1g_ms^4 + L_1L_2R_1g_ms^2 + s^5\left(C_2C_3L_1L_2L_3R_1R_2g_m + C_2C_3L_1L_2L_3R_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1 + C_3L_1L_3R_1R_2g_m + C_3L_1L_3R_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1 + C_3L_1L_3R_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1 + C_3L_1L_2R_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1 + C_2C_3L_1L_2R_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1 + C_2C_3L_1L_2R_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1 + C_2C_3L_1L_2R_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2C_3L_1L_2
10.656 INVALID-ORDER-656 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         L_1L_2L_3R_1g_ms^3 + s^4(C_2L_1L_2L_3R_1R_2g_m + C_2L_3R_1R_2g_m)
                                          \frac{-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1-2-3-1
10.657 INVALID-ORDER-657 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
10.658 INVALID-ORDER-658 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
H(s) = \frac{1}{C_1C_2C_3L_1L_2L_3R_1R_2R_3s^6 + R_1R_2R_3 + s^5\left(C_1C_2L_1L_2L_3R_1R_2 + C_1C_2L_1L_2L_3R_1R_3 + C_2C_3L_1L_2L_3R_1R_3 + C_2C_3L_2L_3R_1R_3 + C_2C_3L_2L_3R_1R_3 + C_2C_3L_3L_3R_1R_3 + C_2C_3L_3L_3R_1R_
10.659 INVALID-ORDER-659 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     s^5 \left( C_2 C_3 L_1 L_2 L_3 R_1 R_2 R_3 g_m + C_2 C_3 L_1 L_2 L_3 R_1 R_3 \right)
H(s) = \frac{1}{R_1R_2 + R_1R_3 + s^6 \left( C_1C_2C_3L_1L_2L_3R_1R_2 + C_1C_2C_3L_1L_2L_3R_1 + C_2C_3L_1L_2L_3R_1 + C_2C_3L_2L_2L_3R_1 + C_2C_3L_2L_2L_3R_1 + C_2
10.660 INVALID-ORDER-660 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                          \overline{R_1R_2 + R_1R_3 + s^6 \left( C_1C_2C_3L_1L_2L_3R_1R_2 + C_1C_2C_3L_1L_2L_3R_1R_3 \right) + s^5 \left( C_1C_2C_3L_1L_2R_1R_2 + C_1C_3L_1L_2L_3R_1 + C_2C_3L_1L_2L_3R_1 + C_2C_3L_1L_2L_3R_1 + C_2C_3L_1L_2L_3R_2 + C_2C_3L_1L_2L_3R_3 \right) + s^4 \left( C_1C_2L_1L_2R_1R_3 + C_1C_3L_1L_2R_1R_3 + C_1C_3L_1L_2L_3R_1 + C_2C_3L_1L_2L_3R_1 + C_2C_3L_3L_2L_3R_1 + C_2C_3L_3L_2L_3R_1 + C_2C_3L_3L_2L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_
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 $H(s) = \frac{L_1L_2R_1R_3g_ms^2 + s^3\left(C_2L_1L_2R_1R_2R_3g_m + C_2L_1L_2R_1R_3\right) + s\left(L_1R_1R_2R_3g_m + L_1R_1R_3\right)}{R_1R_2 + R_1R_3 + s^4\left(C_1C_2L_1L_2R_1R_2 + C_1C_2L_1L_2R_1R_3\right) + s^3\left(C_1L_1L_2R_1 + C_2L_1L_2R_1 + C_2L_1L_2R_1 + C_2L_1L_2R_2 + C_2L_1L_2R_3\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1R_1R_3 + C_2L_2R_1R_3 + L_1L_2R_1g_m + L_1L_2\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_3 + C_2L_2R_1R_3 + L_1L_2R_1g_m + L_1L_2\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_3 + C_2L_2R_1R_3 + L_1L_2R_1g_m + L_1L_2\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_3 + C_2L_2R_1R_3 + L_1L_2R_1g_m + L_1L_2\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_3 + C_2L_2R_1R_3 + L_1L_2R_1g_m + L_1L_2\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_3 + C_2L_2R_1R_3 + L_1L_2R_1g_m + L_1R_3\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_3 + L_1L_2R_1g_m + L_1L_2\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_3 + L_1L_2R_1g_m + L_1R_3\right) + s\left(L_1R_1R_2g_m + L_1R_1 + L_1R_2 + L_1R_3 + L_1L_2R_1g_m + L_1R_3\right) + s\left(L_1R_1R_2g_m + L_1R_3\right) + s\left(L_1R_1R_3g_m + L_1R_3 + L_1R_3\right) + s\left(L_1R_1R_3g_m + L_1R_3\right) + s\left(L_1R_1R_$ 

**10.651** INVALID-ORDER-651  $Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, R_3, \infty, \infty, \infty\right)$ 

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10.661 INVALID-ORDER-661 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 (C_2 L_2 s^2 + 1)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1R_1R_2R_3s^2 + s^3\left(C_2L_1L_2R_1R_2R_3g_m + C_2L_1L_2R_1R_3\right) + s\left(L_1R_1R_2R_3g_m + L_1R_1R_3\right)}{R_1R_2 + R_1R_3 + s^4\left(C_1C_2L_1L_2R_1R_2 + C_1C_2L_1L_2R_1R_3\right) + s^3\left(C_1C_2L_1R_1R_2R_3 + C_2L_1L_2R_1 + C_2L_1L_2R_1 + C_2L_1L_2R_1 + C_2L_1L_2R_1 + C_2L_1L_2R_1 + C_2L_1L_2R_1 + C_2L_1R_1R_2 + C_2L_1R_
10.662 INVALID-ORDER-662 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_2L_1R_1R_2s^2 + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1\right) + s\left(L_1R_1R_2g_m + L_1R_1\right)}{C_1C_2C_3L_1L_2R_1R_2s^5 + R_1 + s^4\left(C_1C_2L_1L_2R_1 + C_2C_3L_1L_2R_1 + C_2C_3L_1L_2R_1 + C_2C_3L_1L_2R_1 + C_2C_3L_1L_2R_1 + C_2C_3L_1L_2R_1 + C_2C_3L_1L_2R_1 + C_2C_3L_1R_1R_2 + 
10.663 INVALID-ORDER-663 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C_2L_1R_1R_2R_3s^2 + s^3(C_2L_1L_2R_1R_2R_3g_m + C_2L_1L_2R_1R_3)
H(s) = \frac{C_2L_1R_1R_2R_3s^2 + s^3\left(C_2L_1L_2R_1R_2R_3g_m + C_2L_1L_2R_1R_3g_m + C_2L_1L_2R_1g_m + C_2L_1L_2R_
10.664 INVALID-ORDER-664 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{s^4 \left(C_2 C_3 L_1 L_2 R_1 R_2 R_3 g_m + C_2 C_3 L_1 L_2 R_1 R_3\right) + s^3 \left(C_2 C_3 L_1 R_1 R_2 R_3 + C_2 L_1 L_2 R_1 R_2 g_m + C_2 L_1 L_2 R_1\right) + s^2 \left(C_2 L_1 R_1 R_2 + C_3 L_1 R_2 R_3 + C_2 L_1 L_2 R_1 R_2 R_3 + C_2 L_2 L_2 R_1 R_2 R_3 + C_2 L_2 L_2 R_1 R_2 R_3 + C
10.665 INVALID-ORDER-665 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_2C_3L_1L_2R_1R_2s^4 + C_2L_1R_1R_2s^2 + s^5\left(C_2C_3L_1L_2L_3R_1R_2g_m + C_2C_3L_1L_2L_3R_1\right) + s^3\left(C_2L_1L_2R_1R_2g_m + C_2L_1L_2R_1 + C_3L_1L_3R_1\right)}{C_1C_2C_3L_1L_2L_3R_1s^6 + R_1 + s^5\left(C_1C_2C_3L_1L_2R_1R_2 + C_1C_3L_1L_2R_1 + C_2C_3L_1L_2R_1 + C
10.666 INVALID-ORDER-666 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C_2L_1L_3R_1R_2s^3 + s^4\left(C_2L_1L_2L_3R_1R_2g_m + C_2L_1L_2L_3R_1\right)
H(s) = \frac{\frac{C_2L_1L_3I\iota_1\iota_2s - \tau - s - (C_2L_1L_2L_3R_1R_2s - \tau - s - (C_2L_1L_2L_3R_1)\iota_2s - \tau - s - (C_2L_1L_2L_3R_1R_2s - \tau - s - (C_2L_1L_2L_3R_1)\iota_2s - \tau - s - (C_2L_1L_2L_3R_1+C_2L_3L_3R_1+C_2L_3L_3R_1+C_2L_3R_1+C_2L_3L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1+C_2L_3R_1
10.667 INVALID-ORDER-667 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  s^{5}\left(C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}+C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}\right)+s^{4}\left(C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{2}R_{3}g_{m}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{2}R_{3}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{2}R_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{2}R_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}R_{2}+C_{2}C_{3}L_{1}L_{2}+C_{2}C_{3}L_{1}L_{2}+C_{2}C_{3}L_{1}L_{2}+C_{2}C_{3}L_{1}L_{2}+C_{2}C_{3}L_{1}L_{2}+C_{2}C_{3}L_{1}L_{2}+C_{2}C_{3}L_{1}L_{2}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}+C_{2}C_{3}L_{1}+C_{2}C_{3}+C_{2}C_{3}+C_{2}C_
10.668 INVALID-ORDER-668 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)
H(s) = \frac{1}{C_1C_2C_3L_1L_2L_3R_1R_2R_3s^6 + R_1R_2R_3 + s^5\left(C_1C_2L_1L_2L_3R_1R_2 + C_1C_2L_1L_2L_3R_1R_3 + C_2C_3L_1L_2L_3R_1R_3 + C_2C_3L_2L_3R_1R_3 + C_2C_3L_2L_3R_1R_3 + C_2C_3L_2L_3R_1R_3 + C_2C_3L_3L_3R_1R_3 + C_2C_3L_3L_3R_1R_3 + C_2C_3L_3L_3R_1R_3 + C_2C_3L_3L_3R_1R_3 + C_2C_3L_3L_3R_1R_3 + C_2C_3L_3L_3R_1R_3 + C_2C_3L_3L_3R_1R_
10.669 INVALID-ORDER-669 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{1}{R_1R_2 + R_1R_3 + s^6 \left( C_1C_2C_3L_1L_2L_3R_1R_2 + C_1C_2C_3L_1L_2L_3R_1R_3 \right) + s^5 \left( C_1C_2C_3L_1L_2L_3R_1 + C_2C_3L_1L_2L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_
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10.670 INVALID-ORDER-670 Z(s) = \left(\frac{L_1 R_1 s}{C_1 L_1 R_1 s^2 + L_1 s + R_1}, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
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 $H(s) = \frac{1}{R_1R_2 + R_1R_3 + s^6 \left( C_1C_2C_3L_1L_2L_3R_1R_2 + C_1C_2C_3L_1L_2L_3R_1R_3 \right) + s^5 \left( C_1C_2C_3L_1L_2R_1R_2R_3 + C_1C_2C_3L_1L_2L_3R_1R_2R_3 + C_2C_3L_1L_2L_3R_1 + C_2C_3L_3L_2L_3R_1 + C_2C_3L_3L_2L_3R_1 + C_2C_3L_3L_2L_3R_1 + C_2C_3L_3L_2L_3R_1 + C_2C_3L_3L_2L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_1 + C_2C_3L_3L_3L_3R_$ 

**10.671** INVALID-ORDER-671 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left( C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 \right) + s \left( L_1 R_2 g_m + L_1 \right)}{s^3 \left( C_1 C_3 L_1 R_1 R_2 g_m + C_1 C_3 L_1 R_1 + C_1 C_3 L_1 R_2 \right) + s^2 \left( C_1 L_1 + C_3 L_1 R_2 g_m + C_3 L_1 \right) + s \left( C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 \right) + 1}$$

**10.672** INVALID-ORDER-672 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1R_2R_3g_m + R_1R_3 + s^2\left(C_1L_1R_1R_2R_3g_m + C_1L_1R_1R_3\right) + s\left(L_1R_2R_3g_m + L_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_3L_1R_1R_2R_3g_m + C_1C_3L_1R_1R_3 + c_1C_3L_1R_2R_3\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_2 + C_1L_1R_3 + C_3L_1R_2R_3g_m + C_3L_1R_3\right) + s\left(C_3R_1R_2R_3g_m + C_3R_1R_3 + C_3R_2R_3 + L_1R_2g_m + L_1\right)}$$

**10.673** INVALID-ORDER-673 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^3 \left(C_1 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_3 L_1 R_1 R_3\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_3 L_1 R_2 R_3 g_m + C_3 L_1 R_3\right) + s \left(C_3 R_1 R_2 R_3 g_m + C_3 R_1 R_3 + L_1 R_2 g_m + L_1\right)}{s^3 \left(C_1 C_3 L_1 R_1 R_2 g_m + C_1 C_3 L_1 R_1 + C_1 C_3 L_1 R_2 + C_1 C_3 L_1 R_3\right) + s^2 \left(C_1 L_1 + C_3 L_1 R_2 g_m + C_3 L_1\right) + s \left(C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 + C_3 R_3\right) + 1}$$

**10.674** INVALID-ORDER-674 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_1 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_3 L_1 L_3 R_1\right) + s^3 \left(C_3 L_1 L_3 R_2 g_m + C_3 L_1 L_3\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_3 L_3 R_1 R_2 g_m + C_3 L_3 R_1\right) + s \left(L_1 R_2 g_m + L_1\right)}{C_1 C_3 L_1 L_3 s^4 + s^3 \left(C_1 C_3 L_1 R_1 R_2 g_m + C_1 C_3 L_1 R_1 + C_1 C_3 L_1 R_2\right) + s^2 \left(C_1 L_1 + C_3 L_1 R_2 g_m + C_3 L_1 + C_3 L_3\right) + s \left(C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2\right) + 1}$$

10.675 INVALID-ORDER-675 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

**10.676** INVALID-ORDER-676 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1R_2g_m + R_1 + s^4\left(C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_1\right) + s^3\left(C_1C_3L_1R_1R_2R_3g_m + C_1L_1R_1R_2g_m + C_3L_1L_3\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_3L_1R_2g_m + C_3L_1R_3 + C_3L_1R_3$$

**10.677** INVALID-ORDER-677 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{s^3 \left( C_1 L_1 L_3 R_1 R_2 R_3 g_m + C_1 L_1 L_3 R_1 R_3 \right) + s^2 \left( L_1 L_3 R_2 R_3 g_m + L_1 L_3 R_3 \right) + s \left( L_3 R_1 R_2 R_3 g_m + L_3 R_1 R_3 \right)}{R_1 R_2 R_3 g_m + R_1 R_3 + R_2 R_3 + s^4 \left( C_1 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 L_1 L_3 R_1 + C_1 L_1 L_3 R_2 + C_1 L_1 L_3 R_3 + C_3 L_1 L_3 R_3 g_m + C_3 L_1 L_3 R_3 g_m + C_1 L_1 R_1 R_3 + C_1 L_1 R_1 R_3 + C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 + C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 + C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 + C_1 L_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 +$$

10.678 INVALID-ORDER-678 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^4 \left(C_1 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 L_1 L_3 R_1 R_2 g_m + C_1 L_1 L_3 R_1 R_2 g_m + C_1 L_1 L_3 R_1 + C_3 L_1 L_3 R_2 g_m + C_1 L_1 R_1 R_3 + C_3 L_3 R_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 + C_3 L_3 R_1 R_2 g_m + C_1 L_1 R_1 R_3 + C_3 L_3 R_1 R_2 g_m + C_1 L_1 R_3 + C_3 L_3 R_1 R_2 g_m + C_1 L_1 R_3 + C_3 L_1 L_3 R_2 g_m + C_1 L_1 R_1 R_2 g$$

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10.679 INVALID-ORDER-679 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
10.680 INVALID-ORDER-680 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                 H(s) = \frac{C_1C_2L_1R_1R_3s^3 + R_1R_3g_m + s^2\left(C_1L_1R_1R_3g_m + C_2L_1R_3\right) + s\left(C_2R_1R_3 + L_1R_3g_m\right)}{R_1g_m + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_3\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1\right) + s\left(C_2R_1 + C_2R_3 + L_1g_m\right) + 1}
10.681 INVALID-ORDER-681 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                 H(s) = \frac{C_1C_2L_1R_1s^3 + R_1g_m + s^2\left(C_1L_1R_1g_m + C_2L_1\right) + s\left(C_2R_1 + L_1g_m\right)}{C_1C_2C_3L_1R_1s^4 + s^3\left(C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1 + C_2C_3L_1\right) + s^2\left(C_2C_3R_1 + C_3L_1g_m\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}
10.682 INVALID-ORDER-682 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                                       H(s) = \frac{C_1C_2L_1R_1R_3s^3 + R_1R_3g_m + s^2\left(C_1L_1R_1R_3g_m + C_2L_1R_3\right) + s\left(C_2R_1R_3 + L_1R_3g_m\right)}{C_1C_2C_3L_1R_1R_3s^4 + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_3 + C_1C_3L_1R_3g_m + C_1C_3L_1R_3\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2C_3R_1R_3 + C_2L_1 + C_3L_1R_3g_m\right) + s\left(C_2R_1 + C_2R_3 + C_3R_1R_3g_m + C_3R_3 + L_1g_m\right) + 1}
10.683 INVALID-ORDER-683 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                              H(s) = \frac{C_1C_2C_3L_1R_1R_3s^4 + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_1C_3L_1R_1g_m + C_2C_3L_1R_3\right) + s^2\left(C_1L_1R_1g_m + C_2C_3R_1R_3 + C_2L_1 + C_3L_1R_3g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m + L_1g_m\right)}{s^4\left(C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_3\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1 + C_2C_3L_1\right) + s^2\left(C_2C_3R_1 + C_2C_3R_3 + C_3L_1g_m\right) + s\left(C_2+C_3R_1g_m + C_3C_3R_1g_m\right) + s\left(C_2+C_3R_1g_m + C_3C_3R_1g_m\right) + s\left(C_3+C_3R_1g_m + C_3R_1g_m\right) + s\left(C_3+C_3R_1g_m + C_3C_3R_1g_m\right) + s\left(C_3+C_3R_1
10.684 INVALID-ORDER-684 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                       H(s) = \frac{C_1C_2C_3L_1L_3R_1s^5 + R_1g_m + s^4\left(C_1C_3L_1L_3R_1g_m + C_2C_3L_1L_3\right) + s^3\left(C_1C_2L_1R_1 + C_2C_3L_3R_1 + C_3L_1L_3g_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1 + C_3L_3R_1g_m\right) + s\left(C_2R_1 + L_1g_m\right)}{C_1C_2C_3L_1L_3s^5 + C_1C_2C_3L_1R_1s^4 + s^3\left(C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1 + C_2C_3L_1 + C_2C_3L_3\right) + s^2\left(C_2C_3R_1 + C_3L_1g_m\right) + s\left(C_2+C_3R_1g_m + C_3L_1g_m\right)} + s\left(C_2+C_3R_1g_m + C_3R_1g_m\right) + s\left(C_3+C_3R_1g_m\right) + s\left(C_3+C_
10.685 INVALID-ORDER-685 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
                                                  H(s) = \frac{C_1C_2L_1L_3R_1s^4 + L_3R_1g_ms + s^3\left(C_1L_1L_3R_1g_m + C_2L_1L_3\right) + s^2\left(C_2L_3R_1 + L_1L_3g_m\right)}{C_1C_2C_3L_1L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2L_1L_3 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3\right) + s^3\left(C_1C_2L_1R_1 + C_2C_3L_3R_1 + C_3L_1L_3g_m\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_2R_1 + L_1g_m\right) + 1}
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$$\begin{aligned} \textbf{10.686} \quad \textbf{INVALID-ORDER-686} \ \ Z(s) &= \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \ \ \frac{1}{C_2s}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty \right) \\ H(s) &= \frac{C_1C_2C_3L_1L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2C_3L_1R_1R_3 + C_1C_3L_1L_3R_1g_m + C_2C_3L_1R_1 + C_1C_3L_1R_1R_3g_m + C_2C_3L_1R_3 + C_2C_3L_3R_1 + C_3L_1L_3g_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_3R_1R_3 + C_2L_1 + C_3L_1R_3g_m + C_3L_3R_1g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m + L_1g_m + C_2C_3L_1L_3s^5 + s^4\left(C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_3\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1 + C_2C_3L_1\right) + s^2\left(C_2C_3R_1 + C_2C_3R_3 + C_3L_1g_m\right) + s\left(C_2C_3R_1g_m + C_3C_3R_1g_m + C_3C_3R_1g_m\right) + s\left(C_2C_3R_1R_3 + C_2C_3R_1R_3 + C_2C_3R_1R_3 + C_2C_3R_1R_3 + C_2C_3R_1R_3 + C_2C_3R_1R_3\right) + s^2\left(C_2C_3R_1 + C_2C_3R_1R_3 + C_2C_3R_1R_3\right) + s^2\left(C_2C_3R_1 + C_2C_3R_1R_3 + C_2C_3R_1R_3 + C_2C_3R_1R_3\right) + s^2\left(C_2C_3R_1 + C_2C_3R_1 + C_2C_3R_1 + C_2C_3R_1 + C_2C_3R_1R_3\right) + s^2\left(C_2C_3R_1 + C_2C_3R_1 + C_2C_3R_1 + C_2C_3R_1 + C_2C_3R_1R_3\right) + s^2\left(C_2C_3R_1 + C_2C_3R_1 +$$

10.687 INVALID-ORDER-687 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1L_3R_1R_3s^4 + L_3R_1R_3g_ms + s^3\left(C_1L_1L_3R_1R_3g_m + C_2L_1L_3R_3\right) + s^2\left(C_2L_3R_1R_3 + L_1L_3R_3g_m\right)}{C_1C_2C_3L_1L_3R_1R_3s^5 + R_1R_3g_m + R_3 + s^4\left(C_1C_2L_1L_3R_1 + C_1C_2L_1L_3R_3 + C_1C_3L_1L_3R_3 + C_2C_3L_1L_3R_3\right) + s^3\left(C_1C_2L_1R_1R_3 + C_1L_1L_3R_1g_m + C_1L_1L_3 + C_2C_3L_3R_1R_3 + C_2L_1L_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3g_m\right) + s^2\left(C_1L$$

**10.688** INVALID-ORDER-688 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1L_3R_1R_3s^5 + R_1R_3g_m + s^4\left(C_1C_2L_1L_3R_1 + C_1C_3L_1L_3R_1g_m + C_2C_3L_1L_3R_3\right) + s^3\left(C_1C_2L_1R_1R_3 + C_1L_1L_3R_1g_m + C_2C_3L_3R_1R_3 + C_2L_1L_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_2L_1R_3 + C_2L_1$$

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H(s) = \frac{C_1C_2C_3L_1L_3R_1R_3s^5 + R_1R_3g_m + s^4\left(C_1C_3L_1L_3R_1R_3g_m + C_2C_3L_1R_1R_3 + C_2C_3L_3R_1R_3 + C_3L_1L_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_2L_1R_3 + C_3L_3R_1R_3 + C_3L_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_2L_1R_3 + C_3L_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_2L_1R_3 + C_3L_3R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_3L_3R_3g_m\right) + s^2\left(C_1L_1R_1g_m + C_3L_3R_3g_m\right) + s^2\left(C
10.690 INVALID-ORDER-690 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                           H(s) = \frac{C_1C_2L_1R_1R_2R_3s^3 + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_1L_1R_1R_2R_3g_m + C_1L_1R_1R_3 + C_2L_1R_2R_3\right) + s\left(C_2R_1R_2R_3 + L_1R_2R_3g_m + L_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_2L_1R_2R_3\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_2 + C_1L_1R_3 + C_2L_1R_2\right) + s\left(C_2R_1R_2 + C_2R_2R_3 + L_1R_2g_m + L_1R_3\right)}
10.691 INVALID-ORDER-691 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)
                                                                                                                                                                 H(s) = \frac{C_1C_2L_1R_1R_2s^3 + R_1R_2g_m + R_1 + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2L_1R_2\right) + s\left(C_2R_1R_2 + L_1R_2g_m + L_1\right)}{C_1C_2C_3L_1R_1R_2s^4 + s^3\left(C_1C_2L_1R_2 + C_1C_3L_1R_1R_2g_m + C_1C_3L_1R_1 + C_1C_3L_1R_2 + C_2C_3L_1R_2\right) + s^2\left(C_1L_1 + C_2C_3R_1R_2 + C_3L_1R_2g_m + C_3L_1\right) + s\left(C_2R_2 + C_3R_1R_2g_m + C_3R_1 + C_3R_2\right) + 1}
10.692 INVALID-ORDER-692 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)
                                            \frac{C_{1}C_{2}L_{1}R_{1}R_{2}R_{3}s^{3}+R_{1}R_{2}R_{3}g_{m}+R_{1}R_{3}+s^{2}\left(C_{1}L_{1}R_{1}R_{2}R_{3}g_{m}+C_{1}L_{1}R_{1}R_{3}+C_{2}L_{1}R_{2}R_{3}\right)+s\left(C_{2}R_{1}R_{2}R_{3}+L_{1}R_{2}R_{3}g_{m}+L_{1}R_{3}\right)}{C_{1}C_{2}C_{3}L_{1}R_{1}R_{2}R_{3}s^{4}+R_{1}R_{2}g_{m}+R_{1}+R_{2}+R_{3}+s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}+C_{1}C_{2}L_{1}R_{2}R_{3}+C_{1}C_{3}L_{1}R_{1}R_{3}+C_{1}C_{3}L_{1}R_{1}R_{3}+C_{2}C_{3}L_{1}R_{2}R_{3}\right)+s^{2}\left(C_{1}L_{1}R_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{3}+C_{2}C_{3}R_{1}R_{2}R_{3}+C_{2}C_{3}L_{1}R_{2}R_{3}+C_{2}C_{3}L_{1}R_{2}R_{3}+C_{2}C_{3}L_{1}R_{2}R_{3}\right)+s^{2}\left(C_{1}L_{1}R_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C_{1}L_{1}R_{2}+C
10.693 INVALID-ORDER-693 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1R_1R_2R_3s^4 + R_1R_2g_m + R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_1R_1R_2R_3g_m + C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2C_3R_1R_2R_3 + C_2L_1R_2 + C_3L_1R_2R_3g_m + C_3L_1R_3\right) + s\left(C_2R_1R_2 + C_3R_1R_2R_3g_m + C_3R_1R_3g_m + 
10.694 INVALID-ORDER-694 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_3R_1R_2s^5 + R_1R_2g_m + R_1 + s^4\left(C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_1 + C_2C_3L_1L_3R_2\right) + s^3\left(C_1C_2L_1R_1R_2 + C_2C_3L_3R_1R_2 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2L_1R_2 + C_3L_3R_1R_2g_m + C_3L_3R_1\right) + s\left(C_2R_1R_2 + L_1R_2g_m + C_3L_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_1R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_3L_1R_2 + C_3L_1R_2 + C_3L_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_3L_1R_2\right) + s^2\left(C_1L_1R
10.695 INVALID-ORDER-695 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2L_1L_3R_1R_2s^4 + s^3\left(C_1L_1L_3R_1R_2g_m + C_1L_1L_3R_2 + C_2L_1L_3R_2\right) + s^2\left(C_2L_3R_1R_2 + L_1L_3R_2g_m + L_1L_3\right) + s\left(L_3R_1R_2g_m + L_3R_1\right)}{C_1C_2C_3L_1L_3R_1R_2s^5 + R_1R_2g_m + R_1 + R_2 + s^4\left(C_1C_2L_1L_3R_2 + C_1C_3L_1L_3R_1 + C_2C_3L_1L_3R_2\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1L_1L_3 + C_2C_3L_3R_1R_2 + C_3L_1L_3\right) + s^2\left(C_1L_1R_1R_2g_m + L_1L_3\right) + 
10.696 INVALID-ORDER-696 Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{R_2}{C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_3R_1R_2s^5 + R_1R_2g_m + R_1 + s^4\left(C_1C_2C_3L_1R_1R_2R_3 + C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_2\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1R_3 + C_2C_3L_1R_2R_3 + C_2C_3L_3R_1R_2 + C_3L_1L_3R_2g_m + C_3L_1L_3\right) + s^2\left(C_1L_1R_1R_2g_m + C_1C_3L_1R_1R_2 + C_1
10.697 INVALID-ORDER-697 Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             H(s) = \frac{1}{C_1C_2C_3L_1L_3R_1R_2R_3s^5 + R_1R_2R_3g_m + R_1R_3 + R_2R_3 + s^4\left(C_1C_2L_1L_3R_1R_2 + C_1C_2L_1L_3R_1R_2R_3 + C_1C_3L_1L_3R_1R_2R_3 + C_1C_3L_1L_3R_1R_3 + C_1C_
10.698 INVALID-ORDER-698 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2}{C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \infty, \infty, \infty\right)
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**10.689** INVALID-ORDER-689  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $\frac{C_{1}C_{2}C_{3}L_{1}L_{3}R_{1}R_{2}R_{3}s^{5}+R_{1}R_{2}R_{3}g_{m}+R_{1}R_{3}+s^{4}\left(C_{1}C_{2}L_{1}L_{3}R_{1}R_{2}+C_{1}C_{3}L_{1}L_{3}R_{1}R_{2}+C_{1}C_{3}L_{1}L_{3}R_{1}R_{2}+C_{1}C_{3}L_{1}L_{3}R_{1}R_{2}R_{3}+C_{1}L_{1}L_{3}R_{1}R_{2}g_{m}$ 

10.702 INVALID-ORDER-702  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

**10.703** INVALID-ORDER-703  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2 + \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 g_m + s^4 \left(C_1 C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_1 R_3 \right) + s^3 \left(C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_1 + C_1 C_3 L_1 R_3 g_m + C_2 C_3 L_1 R_3 \right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 C_3 R_1 R_3 + C_2 L_1 R_2 g_m + C_2 L_1 + C_3 L_1 R_3 g_m \right) + s \left(C_2 R_1 R_2 g_m + C_2 R_1 R_3 g_m + C_2 C_3 L_1 R_3 \right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 C_3 L_1 R_3 + C_2 L_1 R_2 g_m + C_2 L_1 R_3 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_3 g_m \right) + s \left(C_2 R_1 R_2 g_m + C_2 C_3 L_1 R_3 + C_2 L_1 R_2 g_m + C_2 C_3 L_1 R_3 \right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 C_3 L_1 R_3 + C_2 L_1 R_2 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_3 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_3 g_m \right) + s \left(C_2 R_1 R_2 g_m + C_2 C_3 L_1 R_1 R_2 g_m + C_2 C_3 L_1 R_3 + C_2 L_1 R_2 g_m +$ 

10.704 INVALID-ORDER-704  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 g_m + s^5 \left(C_1 C_2 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_1\right) + s^4 \left(C_1 C_3 L_1 L_3 R_1 g_m + C_2 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3\right) + s^3 \left(C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_1 + C_2 C_3 L_3 R_1 R_2 g_m + C_2 C_3 L_1 L_3 g_m\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_2 g_m\right) + s \left(C_2 R_1 R_2 g_m + C_2 C_3 L_1 L_3 S^5 + s^4 \left(C_1 C_2 C_3 L_1 R_1 R_2 g_m + C_1 C_2 C_3 L_1 R_1\right) + s^3 \left(C_1 C_2 L_1 R_1 R_2 g_m + C_2 C_3 L_1 R_2 g_m + C_2 C_3 L_1 R_2 g_m\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 L_1 R_2 g_m + C_2 C_3 L_1 R_2 g_m\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_2 g_m\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_2 g_m\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_2 g_m\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_2 g_m\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 L_1 R_2 g_m + C_2 L_1 R_2 g_m\right) + s^2 \left(C_1 L_1 R_1 g_m + C_2 L_1 R_2 g_m\right)$ 

**10.705** INVALID-ORDER-705  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{L_3R_1g_ms + s^4\left(C_1C_2L_1L_3R_1g_m + C_1C_2L_1L_3R_1g_m + C_2L_1L_3R_2g_m + C_2L_1L_3\right) + s^2\left(C_2L_3R_1R_2g_m + C_2L_3R_1 + L_2R_2g_m + C_2L_3R_1R_2g_m + C_2L_3$ 

**10.706** INVALID-ORDER-706  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2 + \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 g_m + s^5 \left(C_1 C_2 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_1 \right) + s^4 \left(C_1 C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_1 R_3 + C_1 C_3 L_1 L_3 R_2 g_m + C_2 C_3 L_1 L_3 \right) + s^3 \left(C_1 C_2 L_1 R_1 R_2 g_m + C_1 C_2 L_1 R_1 + C_1 C_3 L_1 R_1 R_3 g_m + C_2 C_3 L_1 R_3 + C_2$ 

10.707 INVALID-ORDER-707  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, R_2 + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{L_3 R_1 R_3 g_m s + s^4 \left(C_1 C_2 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_3 R_1 R_3 + s^4 \left(C_1 C_2 L_1 L_3 R_1 R_2 G_m + C_1 C_2 L_1 L_3 R_1 + C_1 C_2 L_1 L_3 R_3 + C_1 C_2 L_1 L_3 R_3 + C_1 C_2 L_1 L_3 R_3 + C_2 C_3 L_1 L_3 R_3 g_m + C_2 C_3 L_1 L_3 R_3 g_m$ 

10.708 INVALID-ORDER-708  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2 + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 R_3 g_m + s^5 \left(C_1 C_2 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_3 R_1 R_3\right) + s^4 \left(C_1 C_2 L_1 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_3 R_1 R_2 g_m + C_2 C_3 L_1 L_3 R_3 g_m + C_2 C_3 L_1 L_3 R_3 g_m + C_2 C_3 L_1 L_3 R_1 R_2 g_m$ 

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10.709 INVALID-ORDER-709 Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, R_2 + \frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty\right)
\frac{R_1R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_2R_3g_m + C_1C_2C_3L_1L_3R_1R_3\right) + s^4\left(C_1C_3L_1L_3R_1R_3g_m + C_2C_3L_1L_3R_2R_3g_m + C_2C_3L_1L_3R_1R_2R_3g_m + C_2C_3L_1R_2R_3 + C_2C_3L_1R_2R_3g_m + C_2C_3L_1R_3R_2R_3g_m + C_2C_3L_1R_2R_3g_m + C_2C_3L_1R_3R_3g_m + C_2C_3
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**10.711** INVALID-ORDER-711 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + \frac{1}{C_2 s}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_1g_ms^4 + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_2L_1L_2g_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1 + C_2L_2R_1g_m\right) + s\left(C_2R_1 + L_1g_m\right)}{s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2C_3L_1L_2\right) + s^4\left(C_1C_2C_3L_1R_1 + C_2C_3L_1L_2g_m\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1 + C_2C_3L_1R_1g_m + C_2C_3L_2\right) + s^2\left(C_2C_3R_1 + C_3L_1g_m\right) + s\left(C_2C_3R_1 + C_3R_1g_m + C_3R_1g_m + C_3R_1g_m\right)}$$

10.712 INVALID-ORDER-712 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + \frac{1}{C_2 s}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_1R_3g_m s^4 + R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_3 + C_2L_1L_2R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_2L_1R_3 + C_2L_2R_1R_3g_m\right) + s\left(C_2R_1R_3 + L_2R_3g_m\right) + s\left(C_2R_1R_3$$

**10.713** INVALID-ORDER-713 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + \frac{1}{C_2 s}, R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1L_2R_1R_3g_ms^5 + R_1g_m + s^4\left(C_1C_2C_3L_1R_1R_3 + C_1C_2L_1L_2R_1g_m + C_2C_3L_1L_2R_3g_m\right) + s^3\left(C_1C_2L_1R_1 + C_1C_3L_1R_1R_3g_m + C_2C_3L_1R_3 + C_2C_3L_2R_1R_3g_m + C_2L_1L_2g_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_3R_1R_3 + C_2L_1 + C_2L_2R_1g_m + C_3L_1R_3g_m\right) + s\left(C_2R_1 + C_2C_3L_1R_3 + C_2C$$

**10.714** INVALID-ORDER-714 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_3L_1L_3R_1 + C_2C_3L_1L_2R_1g_m + C_1C_3L_1L_3R_1g_m + C_2C_3L_1L_3R_1g_m + C_2C_3L_1L_3R_1g_m + C_2C_3L_1L_3R_1g_m + C_2C_3L_1R_1 + C_2C_3L_2R_1g_m + C_3L_1L_3g_m\right) + s^3\left(C_1C_2L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_1R$$

10.715 INVALID-ORDER-715 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2L_1L_2R_3g_ms^5 + L_3R_1g_ms + s^4\left(C_1C_2L_1L_3R_1 + C_2L_1L_2R_3g_m\right) + s^3\left(C_1L_1L_3R_1g_m + C_2L_1L_3 + C_2L_2L_3R_1g_m\right) + s^2\left(C_2L_3R_1 + C_2L_3R_1g_m + C_3L_3R_1g_m + C_3L_3R_$$

10.716 INVALID-ORDER-716 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_3L_1L_2R_1R_3g_m + C_1C_2C_3L_1L_3R_1 + C_2C_3L_1L_2R_1g_m + C_1C_3L_1L_2R_1g_m + C_1C_3L_1L_2R_1g_m + C_1C_3L_1L_2R_1g_m + C_1C_3L_1L_2R_1g_m + C_2C_3L_1L_3R_1g_m + C_2C_3L_1L_2R_1g_m + C_2C_3L_1L_$$

10.717 INVALID-ORDER-717 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + \frac{1}{C_2 s}, \frac{L_3 R_3 s}{C_3 L_3 R_3 s^2 + L_3 s + R_3}, \infty, \infty, \infty\right)$$

**10.718** INVALID-ORDER-718 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \ L_2 s + \frac{1}{C_2 s}, \ \frac{L_3 s}{C_3 L_3 s^2 + 1} + R_3, \ \infty, \ \infty, \ \infty\right)$$

$$H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1R_3g_ms^6 + R_1R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_3 + C_1C_2L_1L_2L_3R_1g_m + C_2C_3L_1L_3R_1g_m + C_1C_2L_1L_3R_1g_m + C_1C_$$

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1R_3g_ms^6 + R_1R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_3 + C_2C_3L_1L_2L_3R_3g_m\right) + s^4\left(C_1C_2L_1L_2R_1R_3g_m + s^6\left(C_1C_2C_3L_1L_2L_3R_1g_m + C_1C_2L_1L_2R_1g_m + C_1C_$ 

- **10.720** INVALID-ORDER-720  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + R_2 + \frac{1}{C_2 s}, R_3, \infty, \infty, \infty\right)$
- $H(s) = \frac{C_1C_2L_1L_2R_1R_3g_ms^4 + R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_2R_3g_m + C_1C_2L_1R_1R_3 + C_2L_1L_2R_3g_m\right) + s^2\left(C_1L_1R_1R_3g_m + C_2L_1R_3 + C_2L_1R_3 + C_2L_2R_1R_3g_m\right) + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3 + L_1R_3g_m\right)}{R_1g_m + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_2L_1R_1 + C_1C_2L_1R_1 + C_1C_2L_1R_3 + C_2L_1L_2g_m\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1R_2g_m + C_2L_1 + C_2L_2R_1g_m + C_2L_1\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_3 + L_1g_m\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1R_2g_m + C_2L_1 + C_2L_2R_1g_m + C_2L_1\right) + s\left(C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_3 + L_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_3 + L_1R_3g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_3g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_3g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1R_3g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1$
- 10.721 INVALID-ORDER-721  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, L_2s + R_2 + \frac{1}{C_2s}, \frac{1}{C_3s}, \infty, \infty, \infty\right)$
- $H(s) = \frac{C_1C_2L_1L_2R_1g_ms^4 + R_1g_m + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_2L_1L_2g_m\right) + s^2\left(C_1L_1R_1g_m + C_2L_1R_2g_m + C_2L_1 + C_2L_2R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1 + L_1g_m\right)}{s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_2 + C_2C_3L_1R_2g_m\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_2g_m + C_2C_3L_1 + C_2C_3L_1R_2g_m + C_2C_3L_1\right) + s^2\left(C_2C_3R_1R_2g_m + C_2C_3L_1R_2g_m + C_2$
- 10.722 INVALID-ORDER-722  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, L_2s + R_2 + \frac{1}{C_2s}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$
- $H(s) = \frac{C_1C_2L_1L_2R_1R_3g_ms^4 + R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_2R_3g_m + C_1C_2L_1R_1R_3 + C_2R_3g_m + C_1C_2L_1R_1R_3 + C_2R_3g_m + C_1C_2L_1R_1R_3 + C_2R_3g_m + C_1C_2L_1R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_3g_m + C_1C_2L_1R_1R_2R_3g_m + C_1C_2L_1R_1R_3g_m + C_1C_2L_1R_3g_m + C_1C_2L_1R_3$
- 10.723 INVALID-ORDER-723  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, L_2s + R_2 + \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$
- $H(s) = \frac{C_1C_2C_3L_1L_2R_1R_3g_ms^5 + R_1g_m + s^4\left(C_1C_2C_3L_1R_1R_2R_3g_m + C_1C_2C_3L_1R_1R_3 + C_1C_2L_1L_2R_1g_m + C_2C_3L_1R_1R_2g_m + C_1C_2L_1R_1 + C_1C_3L_1R_1R_3g_m + C_2C_3L_1R_2R_3g_m + C_2C_3L_1R_3 + C_2C_3L_2R_1R_3g_m + C_2L_1L_2g_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_3L_1R_1R_2g_m + C_1C_2L_1R_1 + C_1C_3L_1R_1R_2g_m + C_2C_3L_1R_3 + C_2C$
- 10.724 INVALID-ORDER-724  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
- $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_2g_m + C_1C_2C_3L_1L_3R_1 + C_2C_3L_1L_3R_1g_m + C_1C_3L_1L_3R_1g_m + C_2C_3L_1L_3R_1g_m + C_2C_3L_1L_3R_2g_m + C_2C_3L_1R_2g_m + C_2C_3L_$
- 10.725 INVALID-ORDER-725  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty\right)$
- $H(s) = \frac{C_1C_2L_1L_2L_3R_1g_ms^5 + L_3R_1g_ms + s^4\left(C_1C_2L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1 + C_2C_3L_1L_3R_1 + C_2C_3L_1L_3R_1$
- 10.726 INVALID-ORDER-726  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + R_2 + \frac{1}{C_2 s}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$
- $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_3L_1L_2R_1R_3g_m + C_1C_2C_3L_1L_3R_1R_2g_m + C_1C_2C_3L_1L_2R_3g_m + C_1C_2C_3L_1R_3R_3g_m + C_1C_2C_3L_1R_3g_m + C_1C_2C_3L_1R_3g_$
- 10.727 INVALID-ORDER-727  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)$
- 10.728 INVALID-ORDER-728  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$
- $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1R_3g_ms^6 + R_1R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_2R_3g_m + C_1C_2L_1L_3R_1g_m + C_2C_3L_1L_2R_3g_m + C_1C_2L_1L_3R_1g_m + C_2C_3L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1g_m + C_1C_2L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1g_m + C_2C_3L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1g_m + C_2C_3L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1g_m + C_2C_3L_1L_3R_1g_m + C_2C_3L_1L_$

10.729 INVALID-ORDER-729  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, L_2 s + R_2 + \frac{1}{C_2 s}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $C_1C_2C_3L_1L_2L_3R_1R_3g_ms^6 + R_1R_3g_m +$ 

 $H(s) = \frac{1}{R_1 g_m + s^6 \left( C_1 C_2 C_3 L_1 L_2 L_3 R_1 g_m + C_1 C_2 C_3 L_1 L_2 L_3 \right) + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 g_m + C_1 C_2 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_1 + C_1 C_2 C_3 L_1 L_3 R_3 + C_2 C_3 L_1 L_3 R_3 + C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_2 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_3 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_3 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_3 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_3 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_3 R_2 g_m + C_1 C_2 C_3 L$ 

10.730 INVALID-ORDER-730  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3, \infty, \infty, \infty\right)$ 

 $\frac{R_{1}R_{2}R_{3}g_{m}+R_{1}R_{3}+s^{4}\left(C_{1}C_{2}L_{1}L_{2}R_{1}R_{2}R_{3}g_{m}+C_{1}C_{2}L_{1}L_{2}R_{1}R_{3}g_{m}+C_{2}L_{1}L_{2}R_{3}g_{m}+C_{2}L_{2}R_{1}R_{2}g_{m}+C_{2}L_{1}L_{2}R_{3}g_{m}+C_$ 

10.731 INVALID-ORDER-731  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

10.732 INVALID-ORDER-732  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$ 

 $R_1R_2R_3g_m + R_1R_3 + s^4(C_1C_2L_1L_2R_1R_1R_2R_1R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2R_1R_2$  $\frac{1c_{1}1c_{2}1c_{3}g_{m}+1c_{1}1c_{3}+s-(c_{1}c_{2}L_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_{m}+1c_{1}L_{2}R_{3}g_$ 

10.733 INVALID-ORDER-733  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_1 R_3 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_1 C_3 L_1 R_1 R_3 + C_1 L_1 L_2 R_1 g_m + C_2 C_3 L_2 R_1 R_2 R_3 g_m + C_2 C_3 L_1 L_2 R_3 g_m + C_2 C$ 

10.734 INVALID-ORDER-734  $Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, L_3 s + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_3 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_3 L_1 L$ 

10.735 INVALID-ORDER-735  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$ 

 $s^5 \left( C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 \right)$  $\frac{s - (C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 g_m + C_1 C_2 L_1 L_2 L_3 R_1 g_m + C_1 C_3 L_1 L_2 L_3 R_2 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m +$ 

**10.736** INVALID-ORDER-736  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 \right) + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_2 R_1 R_2 g_m + C_1 C_2 L_2$  $C_1C_2C_3L_1L_2L_3s^6 + s^5\left(C_1C_2C_3L_1L_2R_1R_2q_m + C_1C_2C_3L_1L_2R_1 + C_1C_2C_3L_1L_2R_2 + C_1C_2C_3L_1L_2R_3\right) + s^4\left(C_1C_2C_3L_1L_2R_3s^6 + s^5\left(C_1C_2C_3L_1L_2R_1R_2q_m + C_1C_2C_3L_1L_2R_1 + C_1C_2C_3L_1L_2R_2 + C_1C_2C_3L_1L_2R_3\right)\right) + s^4\left(C_1C_2C_3L_1L_2R_1R_2q_m + C_1C_2C_3L_1L_2R_1 + C_1C_2C_3L_1L_2R_2 + C_1C_2C_3L_1L_2R_3\right) + s^4\left(C_1C_2C_3L_1L_2R_1R_2q_m + C_1C_2C_3L_1L_2R_1 + C_1C_2C_3L_1L_2R_2 + C_1C_2C_3L_1L_2R_3\right)$ 

10.737 INVALID-ORDER-737  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)$ 

 $\overline{R_{1}R_{2}R_{3}g_{m}+R_{1}R_{3}+R_{2}R_{3}+s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}+C_{1}C_{2}L_{1}L_{2}L_{3}R_{2}+C_{1}C_{2}L_{1}L_{2}L_{3}R_{3}+C_{1}C_{3}L_{1}L_{2}L_{3}$ 

10.738 INVALID-ORDER-738  $Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$ 

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10.739 INVALID-ORDER-739 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{L_2 s}{C_2 L_2 s^2 + 1} + R_2, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
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 $H(s) = \frac{1}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s^6 \left( C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 + C_1 C_2 C_3 L_1 L_2 L_3 R_2 + C_1 C_2 C_3 L_1 L_2 L_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 R_1 R_1 R_2 R_1 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1$ 

10.740 INVALID-ORDER-740 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, R_3, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^4 \left(C_1 C_2 L_1 L_2 R_1 R_2 R_3 g_m + C_1 C_2 L_1 L_2 R_1 R_3\right) + s^3 \left(C_1 C_2 L_1 R_1 R_2 R_3 g_m + C_2 L_1 L_2 R_3 g_m + C_1 L_1 R_1 R_3 + C_2 L_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 + C_2 L_1 R_2 R_3 g_m + C_2 L_2 R_1 R_2 R_3 g_m + C_2 L_2 R_2 R_3$ 

10.741 INVALID-ORDER-741 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

10.742 INVALID-ORDER-742 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3}{C_3 R_3 s + 1}, \infty, \infty, \infty\right)$$

 $R_1R_2R_3g_m + R_1R_3 + s^4\left(C_1C_2L_1L_2R_1R_2R_3g_m + s^4\right)$  $\frac{n_1n_2n_3g_m + n_1n_3 + s + (C_1C_2L_1L_2R_3g_m + C_1C_2L_1L_2R_1R_3 + s + (C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_2L_1L_2R_3 + c_1C_2L_2L_2R_3 + c_1C_2L_2L_2R_3 + c_1C_2L_2L_2R_3$ 

10.743 INVALID-ORDER-743 
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_2 g_m +$ 

10.744 INVALID-ORDER-744 
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)$$

10.745 INVALID-ORDER-745 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{L_3 s}{C_3 L_3 s^2 + 1}, \infty, \infty, \infty\right)$$

 $s^{5} \left(C_{1} C_{2} L_{1} L_{2} L_{3} R_{1} R_{2} g_{m} + C_{1} C_{2} L_{1} L_{2} L_{3} R_{1}\right) + s^{4} \left(C_{1} C_{2} L_{1}$ 

 $H(s) = \frac{s^{\circ} \left(C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}\right) + s^{\circ} \left(c_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}\right) + s^{\circ} \left(c_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}\right) + s^{\circ} \left(c_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}R_{2}R_{1} + C_{1}C_{2}L_{1}L_{2}R_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2} + C_{1}C_{2}L_{1}L_{2}R_{2} +$ 

10.746 INVALID-ORDER-746 
$$Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, L_3 s + R_3 + \frac{1}{C_3 s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_1 R_2 g_m + R_1 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_2 R_1 R_2 g$ 

10.747 INVALID-ORDER-747 
$$Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)$$

 $\overline{R_{1}R_{2}R_{3}g_{m}+R_{1}R_{3}+R_{2}R_{3}+s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{2}R_{3}\right)+s^{5}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}+C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}+C_{1}C_{2}L_{1}L_{2}L_{3}R_{2}+C_{1}C_{2}L_{1}L_{2}L_{3}R_{3}+C_{2}C_{3}L_{1}L_{2}L_{3}R_{2}+C_{1}C_{2}L_{1}L_{2}L_{2}R_{2}+C_{1}C_{2}L_{1}L_{2}L_{2}R_{2}+C_{1}C_{2}L_{1}L_{2}L_{2}R_{2}+C_{1}C_{2}L_{1}L_{2}L_{2}R_{2}+C_{1}C_{2}L_{2}L_{2}L_{2}+C_{1}C_{2}L_{2}L_{2}L_{2}+C_{1}C_{2}L_{2}L_{2}+C_{1}$ 

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10.748 INVALID-ORDER-748 Z(s) = \left(\frac{L_1s}{C_1L_1s^2+1} + R_1, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_3 g_m + C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_2 C_3 L_1 L_2 L_3 R_3 g_m + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_2 R_3 g_m + C_2 C_3 L_1 L_2 L_3 R_2 g_m + C_2 C_3 L_1 L_2
10.749 INVALID-ORDER-749 Z(s) = \left(\frac{L_1 s}{C_1 L_1 s^2 + 1} + R_1, \frac{R_2 \left(C_2 L_2 s^2 + 1\right)}{C_2 L_2 s^2 + C_2 R_2 s + 1}, \frac{R_3 \left(C_3 L_3 s^2 + 1\right)}{C_3 L_3 s^2 + C_3 R_3 s + 1}, \infty, \infty, \infty\right)
H(s) = \frac{1}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s^6 \left( C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 + C_1 C_2 C_3 L_1 L_2 L_3 R_2 + C_1 C_2 C_3 L_1 L_2 L_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_1 R_2 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 C_3 L_1 L_2 R_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 R_3 R_3 + C_1 C_2 R_3 R_3 \right) \\ + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_3 R_3 + C_1 C_2 R
10.750 INVALID-ORDER-750 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                                           H(s) = \frac{R_1 R_2 g_m + R_1 + s^2 \left( C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 \right)}{s^3 \left( C_1 C_3 L_1 R_1 R_2 g_m + C_1 C_3 L_1 R_1 + C_1 C_3 L_1 R_2 \right) + s^2 \left( C_1 C_3 R_1 R_2 + C_1 L_1 \right) + s \left( C_1 R_1 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2 \right) + 1}
10.751 INVALID-ORDER-751 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
                                     10.752 INVALID-ORDER-752 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                10.753 INVALID-ORDER-753 Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \ R_2, \ L_3s+\frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right)
                                                                                                               H(s) = \frac{R_1 R_2 g_m + R_1 + s^4 \left(C_1 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_3 L_1 L_3 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 g_m + C_1 L_1 R_1 + C_3 L_3 R_1 R_2 g_m + C_3 L_3 R_1\right)}{C_1 C_3 L_1 L_3 s^4 + s^3 \left(C_1 C_3 L_1 R_1 R_2 g_m + C_1 C_3 L_1 R_1 + C_1 C_3 L_1 R_2 + C_1 C_3 L_3 R_1\right) + s^2 \left(C_1 C_3 R_1 R_2 + C_1 L_1 + C_3 L_3\right) + s \left(C_1 R_1 + C_3 R_1 R_2 g_m + C_3 R_1 + C_3 R_2\right) + 1}
10.754 INVALID-ORDER-754 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)
                                   10.755 INVALID-ORDER-755 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                    10.756 INVALID-ORDER-756 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
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 $s^{3}\left(C_{1}L_{1}L_{3}R_{1}R_{2}R_{3}g_{m}+C_{1}L_{1}L_{3}R_{1}R_{3}\right)+s\left(L_{3}R_{1}R_{2}R_{3}g_{m}+L_{3}R_{1}R_{3}\right)$ 

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10.757 INVALID-ORDER-757 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^4 \left(C_1 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 C_3 L_1 L_3 R_1 R_2 g_m + C_1 L_1 L_3 R_1\right) + s^3 \left(C_1 L_1 L_3 R_1 R_2 g_m + C_1 L_1 L_3 R_1\right) + s^2 \left(C_1 L_1 R_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 + C_3 L_3 R_1 R_2 R_3 g_m + C_3 L_3 R_1 R_3\right) + s \left(L_3 R_1 R_2 g_m + L_3 R_1\right)}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s^4 \left(C_1 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_3 L_1 L_3 R_1 + C_1 L_1 R_2 + C_1 L_1 R_1 + C_1 L_1 R_2 + C_1 L_1 R_3 + C_1 L_1 R_
10.758 INVALID-ORDER-758 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^4 \left(C_1 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 C_3 L_1 L_3 R_1 R_3\right) + s^2 \left(C_1 L_1 R_1 R_2 R_3 g_m + C_1 L_1 R_1 R_3 + C_3 L_3 R_1 R_2 R_3 g_m + C_3 L_3 R_1 R_3\right)}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s^4 \left(C_1 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_3 L_1 L_3 R_1 + C_1 C_3 L_1 L_3 R_1 + C_1 C_3 L_1 L_3 R_3\right) + s^3 \left(C_1 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_3 L_1 R_1 R_3 + 
10.759 INVALID-ORDER-759 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                    H(s) = \frac{C_1C_2L_1R_1R_3s^3 + C_1L_1R_1R_3g_ms^2 + C_2R_1R_3s + R_1R_3g_m}{R_1q_m + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_3\right) + s^2\left(C_1C_2R_1R_3 + C_1L_1R_1q_m + C_1L_1\right) + s\left(C_1R_1 + C_2R_1 + C_2R_3\right) + 1}
10.760 INVALID-ORDER-760 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                               H(s) = \frac{C_1C_2L_1R_1s^3 + C_1L_1R_1g_ms^2 + C_2R_1s + R_1g_m}{C_1C_2C_3L_1R_1s^4 + s^3\left(C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}
10.761 INVALID-ORDER-761 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
                                                                    H(s) = \frac{C_1C_2L_1R_1R_3s^3 + C_1L_1R_1R_3g_ms^2 + C_2R_1R_3s + R_1R_3g_m}{C_1C_2C_3L_1R_1R_3s^4 + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_3 + C_1C_3L_1R_1R_3g_m + C_1C_3L_1R_3\right) + s^2\left(C_1C_2R_1R_3 + C_1C_3R_1R_3 + C_1L_1R_1g_m + C_1L_1 + C_2C_3R_1R_3\right) + s\left(C_1R_1 + C_2R_1 + C_2R_3 + C_3R_1R_3g_m + C_3R_3\right) + 1}
10.762 INVALID-ORDER-762 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                                          H(s) = \frac{C_1C_2C_3L_1R_1R_3s^4 + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_1C_3L_1R_1R_3g_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_3R_1R_3\right) + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{s^4\left(C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_3\right) + s^3\left(C_1C_2C_3R_1R_3 + C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1 + C_2C_3R_3\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}
10.763 INVALID-ORDER-763 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                                       H(s) = \frac{C_1C_2C_3L_1L_3R_1s^5 + C_1C_3L_1L_3R_1g_ms^4 + C_2R_1s + R_1g_m + s^3\left(C_1C_2L_1R_1 + C_2C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_3L_3R_1g_m\right)}{C_1C_2C_3L_1L_3s^5 + s^4\left(C_1C_2C_3L_1R_1 + C_1C_2C_3L_3R_1\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1\right) + s\left(C_2 + C_3R_1g_m + C_3\right)}
10.764 INVALID-ORDER-764 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)
                                                                 H(s) = \frac{C_1C_2L_1L_3R_1s^4 + C_1L_1L_3R_1g_ms^3 + C_2L_3R_1s^2 + L_3R_1g_ms}{C_1C_2C_3L_1L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2L_1L_3 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3\right) + s^3\left(C_1C_2L_1R_1 + C_1C_2L_3R_1 + C_1C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_1R_1 + C_2R_1\right) + 1}{c_1C_2C_3L_1L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2L_1L_3 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1R_1\right) + s^3\left(C_1C_2L_1R_1 + C_1C_3L_3R_1 + C_1C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s\left(C_1R_1 + C_2R_1\right) + 1}{c_1C_2C_3L_1L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2L_1L_3 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1R_1\right) + s^3\left(C_1C_2L_1R_1 + C_1C_3L_3R_1 + C_1C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_3 + C_3L_3R_1g_m + C_3L_3\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_3 + C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1\right) + s^2\left(C_1L_1R_1g_m + C_1L_1 + C_2L_1\right) + s^2\left(C_1L_1R_1g_m
10.765 INVALID-ORDER-765 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
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 $H(s) = \frac{C_1C_2C_3L_1L_3R_1s^5 + R_1g_m + s^4\left(C_1C_2C_3L_1R_1R_3 + C_1C_3L_1L_3R_1g_m\right) + s^3\left(C_1C_2L_1R_1 + C_1C_3L_1R_1g_m + C_2C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_2C_3R_1R_3 + C_3L_3R_1g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{C_1C_2C_3L_1L_3s^5 + s^4\left(C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_3 + C_1C_2C_3R_1R_3 + C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1R_1g_m + C_1C_3L_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1 + C_2C_3R_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1\right) + s^2\left(C_1C_2R_1 + C_1C_3$ 

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10.766 INVALID-ORDER-766 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2L_1L_3R_1R_3s^4 + C_1L_1L_3R_1R_3g_ms^3 + C_2L_3R_1R_3s^2 + L_3R_1R_3g_ms}{C_1C_2C_3L_1L_3R_1R_3s^5 + R_1R_3g_m + R_3 + s^4\left(C_1C_2L_1L_3R_1 + C_1C_2L_1L_3R_3 + C_1C_3L_1L_3R_3\right) + s^3\left(C_1C_2L_1R_1R_3 + C_1C_3L_3R_1R_3 + C_1L_1L_3R_1g_m + C_1L_1L_3 + C_2C_3L_3R_1R_3\right) + s^2\left(C_1L_1R_1R_3g_m + C_1L_1R_3g_m + C_1L_1R_3
10.767 INVALID-ORDER-767 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_3R_1R_3s^5 + R_1R_3g_m + s^4\left(C_1C_2L_1L_3R_1 + C_1C_3L_1L_3R_1R_3g_m\right) + s^3\left(C_1C_2L_1R_1R_3 + C_1L_1L_3R_1g_m + C_2C_3L_3R_1R_3\right) + s^2\left(C_1L_1R_1R_3g_m + C_2L_3R_1 + C_3L_3R_1R_3g_m\right) + s\left(C_2R_1R_3 + L_3R_1g_m\right)}{R_1g_m + s^5\left(C_1C_2C_3L_1L_3R_1 + C_1C_2L_1L_3 + C_1C_3L_1L_3R_1 + C_1C_3L_1L_3\right) + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_3 + C_1
10.768 INVALID-ORDER-768 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_3R_1R_3s^5 + C_1C_3L_1L_3R_1R_3g_ms^4 + C_2R_1R_3s + R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_3 + C_2C_3L_3R_1R_3\right) + s^2\left(C_1L_1R_1R_3g_m + C_3L_3R_1R_3g_m\right)}{R_1g_m + s^5\left(C_1C_2C_3L_1L_3R_1 + C_1C_2L_3L_1R_3 + C_1C_3L_1R_3 + C_1
10.769 INVALID-ORDER-769 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                   H(s) = \frac{C_1C_2L_1R_1R_2R_3s^3 + C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_1L_1R_1R_2R_3g_m + C_1L_1R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_2L_1R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_2 + C_1L_1R_3\right) + s\left(C_1R_1R_2 + C_1R_1R_3 + C_2R_1R_2 + C_2R_2R_3\right)}
10.770 INVALID-ORDER-770 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                                       H(s) = \frac{C_1C_2L_1R_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1\right)}{C_1C_2C_3L_1R_1R_2s^4 + s^3\left(C_1C_2L_1R_2 + C_1C_3L_1R_1R_2g_m + C_1C_3L_1R_1 + C_1C_3L_1R_1\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2 + C_1L_1 + C_2C_3R_1R_2\right) + s\left(C_1R_1 + C_2R_2 + C_3R_1R_2g_m + C_3R_1 + C_3R_2\right) + 1}
10.771 INVALID-ORDER-771 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2L_1R_1R_2R_3s^3 + C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^2\left(C_1L_1R_1R_2R_3g_m + C_1L_1R_1R_3\right)}{C_1C_2C_3L_1R_1R_2R_3s^4 + R_1R_2g_m + R_1 + R_2 + R_3 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_2L_1R_2R_3 + C_1C_3L_1R_1R_3 + C_1C_3L_1R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_2 + C_1L_1R_3 + C_2C_3R_1R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3 + C_1C_3R_1R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1C_2R_1R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1C_2R_1R_2R_3\right) + s^2\left(C_1C_2R_1R_2R_3 + C_1C_2R_1R_2R_3\right) + 
10.772 INVALID-ORDER-772 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1R_1R_2R_3s^4 + R_1R_2g_m + R_1 + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_1R_1R_2R_3g_m + C_1L_1R_1 + C_2C_3R_1R_2R_3\right) + s\left(C_2R_1R_2 + C_3R_1R_2R_3g_m + C_3R_1R_3\right)}{s^4\left(C_1C_2C_3L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1 + C_1C_3L_1R_1 + C_1C_3L_1R_3\right) + s^2\left(C_1C_2R_1R_2 + C_1C_3R_1R_2 + C_1C_3R_1R_2 + C_1C_3R_1R_3 + C_1L_1 + C_2C_3R_1R_2 + C_1C_3R_1R_2 + C_1C_3R_1R_3 + C_1C_3R_
10.773 INVALID-ORDER-773 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_3R_1R_2s^5 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^4\left(C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_1\right) + s^3\left(C_1C_2L_1R_1R_2 + C_2C_3L_3R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1\right)}{C_1C_2C_3L_1L_3R_2s^5 + s^4\left(C_1C_2C_3L_1R_1R_2 + C_1C_3L_1R_1\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_3R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_3L_3R_1R_2g_m + C_3L_3R_1\right)} + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1 + C_1C_3L_1R_1
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 $H(s) = \frac{C_1C_2L_1L_3R_1R_2s^4 + C_2L_3R_1R_2s^2 + s^3\left(C_1L_1L_3R_1R_2g_m + C_1L_1L_3R_1\right) + s\left(L_3R_1R_2g_m + L_3R_1\right)}{C_1C_2C_3L_1L_3R_1R_2s^5 + R_1R_2g_m + R_1 + R_2 + s^4\left(C_1C_2L_1L_3R_2 + C_1C_3L_1L_3R_1 + C_1C_3L_1L_3R_2\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_3R_1R_2 + C_1C_3L_3R_1R_2 + C_1L_1L_3 + C_2C_3L_3R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_2 + C_1L_3R_1 + C_2L_3R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_2 + C_1L_3R_1 + C_2L_3R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_1 + C_1L_1R_1 + C_1L_1R_1 + C_1L_1R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1R_2 + C_1L_1R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1R_2 + C_1L_1R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_1 + C_1L_1R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_1 + C_1L_1R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1R_2 + C_1L_1R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1R_2\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1R_1R_2\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1R_1 + C_1L_1R_1\right) + s^2\left(C_1L_1R_1R_2 + C_1L_1R_1R_2\right) +$ 

10.774 INVALID-ORDER-774  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$ 

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10.775 INVALID-ORDER-775 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
 H(s) = \frac{C_1C_2C_3L_1L_3R_1R_2s^5 + R_1R_2g_m + R_1 + s^4\left(C_1C_2C_3L_1R_1R_2R_3 + C_1C_3L_1L_3R_1\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1R_3 + C_2C_3L_3R_1R_2\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2C_3R_1R_2\right)}{C_1C_2C_3L_1L_3R_2s^5 + s^4\left(C_1C_2C_3L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1R_2 + C_1C_3L_1R_1 + 
 10.776 INVALID-ORDER-776 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   H(s) = \frac{C_1C_2L_1L_3R_1R_2R_3s^5 + C_2L_3R_1R_2R_3s^5 + C_2L_3R_1R_2R_3s^5 + C_2L_3R_1R_2R_3s^5 + C_2L_3R_1R_2R_3s^5 + C_1L_1L_3R_1R_2R_3s^5 + C_1C_2L_1L_3R_1R_2R_3s^5 + C_1C_2L_1L
 10.777 INVALID-ORDER-777 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)
 H(s) = \frac{C_1C_2C_3L_1L_3R_1R_2R_3s^5 + R_1R_2R_3g_m + R_1R_3 + s^4\left(C_1C_2L_1L_3R_1R_2 + C_1C_3L_1L_3R_1R_2R_3g_m + C_1C_3L_1L_3R_1R_3\right) + s^3\left(C_1C_2L_1R_1R_2R_3 + C_1L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_1R_2 + C_1C_3L_1L_3R_1R_2 + C_1C_3L_1L_3R_1R_2 + C_1C_3L_1L_3R_1 + C_1C_3L_3R_1 + C
 10.778 INVALID-ORDER-778 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2}{C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C_{1}C_{2}C_{3}L_{1}L_{3}R_{1}R_{2}R_{3}s^{5} + C_{2}R_{1}R_{2}R_{3}s + R_{1}R_{2}R_{3}g_{m} + R_{1}R_{3} + s^{4}\left(C_{1}C_{3}L_{1}R_{2}R_{3}s^{5} + C_{2}R_{1}R_{2}R_{3}s^{5} + C_{2}R_{1}R_{2}R_{3}
                                                  \frac{C_1C_2C_3L_1L_3n_1n_2n_3s^2 + C_2n_1n_2n_3s + n_1n_2n_3y_m + n_1n_3 + s + C_1C_3L_1L_3n_1n_2n_3s^2 + C_2n_1n_2n_3s + n_1n_2n_3y_m + n_1n_3 + s + C_1C_3L_1L_3n_1n_2n_3s^2 + C_2n_1n_2n_3s + n_1n_2n_3y_m + n_1n_3 + s + C_1C_3L_1L_3n_1n_2n_3s^2 + C_2n_1n_2n_3s^2 + C_2n_1n_2n_3s + n_1n_2n_3y_m + n_1n_3 + s + C_1C_3L_1L_3n_1n_2n_3s^2 + C_2n_1n_2n_3s^2 + C_2n_1n_2n_3s^2 + C_2n_1n_2n_3s + n_1n_2n_3y_m + n_1n_3 + s + C_1C_3L_1L_3n_1n_2n_3s^2 + C_1C_2L_1L_3n_1n_2n_3s^2 + C_2n_1n_2n_3s^2 + C_2n_1n_2n
10.779 INVALID-ORDER-779 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                                                    H(s) = \frac{C_1L_1R_1R_3g_ms^2 + R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_2R_3g_m + C_1C_2L_1R_1R_3\right) + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3\right)}{R_1g_m + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_1C_2L_1R_3\right) + s^2\left(C_1C_2R_1R_2 + C_1C_2R_1R_3 + C_1L_1R_1g_m + C_1L_1\right) + s\left(C_1R_1 + C_2R_1R_2g_m + C_2R_1 + C_2R_2 + C_2R_3\right) + 1}
 10.780 INVALID-ORDER-780 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                                    H(s) = \frac{C_1L_1R_1g_ms^2 + R_1g_m + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{s^4\left(C_1C_2C_3L_1R_1R_2g_m + C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_2\right) + s^3\left(C_1C_2C_3R_1R_2 + C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1R_2g_m + C_2C_3R_1R_2g_m + C_2C_3R_1 + C_2C_3R_1\right) + s\left(C_2R_1R_2g_m + C_2C_3R_1R_2g_m + C_2C_3R_1R_2g_
 10.781 INVALID-ORDER-781 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C_{1}L_{1}R_{1}R_{3}g_{m}s^{2} + R_{1}R_{3}g_{m} + s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}R_{3}g_{m} + C_{1}C_{2}L_{1}R_{1}R_{3}\right) + s\left(C_{2}R_{1}R_{2}R_{3}g_{m} + C_{2}R_{1}R_{3}\right)
 H(s) = \frac{C_1L_1R_1R_3g_ms^2 + R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_2R_3g_m + C_1C_2L_1R_1R_3\right) + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3\right)}{R_1g_m + s^4\left(C_1C_2C_3L_1R_1R_2R_3g_m + C_1C_2L_1R_1R_3\right) + s^3\left(C_1C_2C_3R_1R_2R_3 + C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_1C_2L_1R_3 + C_1C_3L_1R_3\right) + s^2\left(C_1C_2R_1R_2 + C_1C_2R_1R_3 + C_1C
 10.782 INVALID-ORDER-782 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                      \frac{R_{1}g_{m}+s^{4}\left(C_{1}C_{2}C_{3}L_{1}R_{1}R_{2}R_{3}g_{m}+C_{1}C_{2}C_{3}L_{1}R_{1}R_{3}\right)+s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{1}R_{1}+C_{1}C_{3}L_{1}R_{1}R_{3}g_{m}\right)+s^{2}\left(C_{1}L_{1}R_{1}g_{m}+C_{2}C_{3}R_{1}R_{2}\right)+s\left(C_{2}R_{1}R_{2}g_{m}+C_{2}R_{1}+C_{3}R_{1}R_{3}g_{m}\right)}{s^{4}\left(C_{1}C_{2}C_{3}L_{1}R_{1}+C_{1}C_{2}C_{3}L_{1}R_{1}+C_{1}C_{2}C_{3}L_{1}R_{3}\right)+s^{3}\left(C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R_{1}R_{2}+C_{1}C_{2}C_{3}R
 10.783 INVALID-ORDER-783 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)
   H(s) = \frac{C_1C_3L_1L_3R_1g_ms^4 + R_1g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_2g_m + C_1C_2C_3L_1L_3R_1\right) + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_2C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_3L_3R_1g_m\right) + s\left(C_2R_1R_2g_m + C_2R_1\right)}{C_1C_2C_3L_1R_1R_2g_m + C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_2 + C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1 + C_2C_3L_3\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2 + C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2 + C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_2 + C_1C_3R_1 + C_2C_3R_1R_2 + C_1C_3R_1 + C_2C_3R_1R_2 + C_1C_3R_1 + C_2C_3R_1R_2 + C_1C_3R_1 + C_2C_3R_1 +
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10.784 INVALID-ORDER-784 Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \ R_2 + \frac{1}{C_2s}, \ \frac{L_3s}{C_3L_3s^2+1}, \ \infty, \ \infty, \ \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C_{1}L_{1}L_{3}R_{1}g_{m}s^{3} + L_{3}R_{1}g_{m}s + s^{4}\left(C_{1}C_{2}L_{1}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{3}R_{1}\right) + s^{2}\left(C_{2}L_{3}R_{1}R_{2}g_{m} + C_{2}L_{3}R_{1}\right) + s^{2}\left(C_{2}L_{3}R_{1}R_{2}g_{m} + C_{2}L_{3}R_
H(s) = \frac{C_1L_1L_3R_1g_ms^3 + L_3R_1g_ms + s^4\left(C_1C_2L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1\right) + s^2\left(C_2L_3R_1R_2g_m + C_2L_3R_1\right)}{R_1g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_2g_m + C_1C_2L_1L_3 + C_1C_3L_1L_3R_1g_m + C_1C_3L_1L_3\right) + s^4\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_1C_2L_1R_1 + C_1C_2L_1R_1 + C_1C_2L_3R_1 + C_1C_3L_3R_1 + C_2C_3L_3R_1 + C_2C_3L_3R_
10.785 INVALID-ORDER-785 Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \ R_2 + \frac{1}{C_2s}, \ L_3s + R_3 + \frac{1}{C_3s}, \ \infty, \ \infty, \ \infty\right)
10.786 INVALID-ORDER-786 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
H(s) = \frac{C_1 L_1 L_3}{R_1 R_3 g_m + R_3 + s^5 \left(C_1 C_2 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_3 R_1 R_3 + C_1 C_2 C_3 L_1 L_3 R_1 R_2 R_3 + C_1 C_2 L_1 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_3 R_1 + C_1 C_2 L_1 L_3 R_2 + C_1 C_2 L_1 L_3 R_3 + C_1 C_2 L_1 L_3 
10.787 INVALID-ORDER-787 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)
                                         R_{1}R_{3}g_{m} + s^{5}\left(C_{1}C_{2}C_{3}L_{1}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}C_{3}L_{1}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{3}R_{1}R_{3}g_{m}\right) + s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}R_{3}g_{m} + C_{1}C_{2}L_{1}R_{1}R_{3} + C_{1}L_{1}L_{3}R_{1}g_{m} + C_{2}L_{1}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}R_{1}R_{2}g_{m} + C_{1}
10.788 INVALID-ORDER-788 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, R_2 + \frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C_1C_3L_1L_3R_1R_3g_ms^4 + R_1R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_2R_3g_m\right)
H(s) = \frac{\frac{C_1 C_3 L_1 L_3 I_4 I_4 I_3 g_m s - + I_6 I_4 I_6 g_m + s^5 \left(C_1 C_2 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_1 + C_1 C_2 C_3 L_1 L_3 R_2 + C_1 C_2 C_3 L_1 L_3 R_3 + C_1 C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_1 R_3 + C_1 C
10.789 INVALID-ORDER-789 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, R_3, \infty, \infty, \infty\right)
                                                                                                                                                                                       H(s) = \frac{C_1C_2L_1L_2R_1R_3g_ms^4 + C_1C_2L_1R_1R_3s^3 + C_2R_1R_3s + R_1R_3g_m + s^2\left(C_1L_1R_1R_3g_m + C_2L_2R_1R_3g_m\right)}{R_1g_m + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2\right) + s^3\left(C_1C_2L_1R_1 + C_1C_2L_1R_3 + C_1C_2L_2R_1\right) + s^2\left(C_1C_2R_1R_3 + C_1L_1R_1g_m + C_1L_1 + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_1R_1 + C_2R_1 + C_2R_3\right) + 1}
10.790 INVALID-ORDER-790 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                                                                                                H(s) = \frac{C_1C_2L_1L_2R_1g_ms^4 + C_1C_2L_1R_1s^3 + C_2R_1s + R_1g_m + s^2\left(C_1L_1R_1g_m + C_2L_2R_1g_m\right)}{s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2C_3L_1L_2\right) + s^4\left(C_1C_2C_3L_1R_1 + C_1C_2C_3L_2R_1\right) + s^3\left(C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1 + C_2C_3L_2R_1g_m + C_2C_3L_2\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1\right) + s\left(C_1C_2C_3L_1R_1 + C_1C_3R_1 + C_2C_3R_1\right) + s\left(C_1C_2C_3R_1 + C_1C_3R_1 + C_2C_3R_1\right) + s\left(C_1C_2R_1 + C_1C_2R_1 + C_1C_2R_1\right) + s\left(C_1C_2R_1 + C_1C_2R_1 + C_1C_2R_1\right) + s\left(C_1C_2R_1 + C_1C_2R_1 + C_1C_2R_1
10.791 INVALID-ORDER-791 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C_{1}C_{2}L_{1}L_{2}R_{1}R_{3}g_{m}s^{4} + C_{1}C_{2}L_{1}R_{1}R_{3}s^{3} + C_{2}R_{1}R_{3}s + R_{1}R_{3}g_{m} + s^{2}\left(C_{1}L_{1}R_{1}R_{3}g_{m} + C_{2}L_{2}R_{1}R_{3}g_{m}\right)
                                           \frac{C_1C_2L_1L_2R_1R_3g_ms^2 + C_1C_2L_1R_1R_3s^2 + C_2R_1R_3s + R_1R_3g_m + s^2(C_1L_2R_1R_3g_m + s^2(C_1L_2R_1R_3g_m + s^2(C_1L_2R_1R_3g_m + C_1L_2R_1R_3g_m + C_2L_2R_1R_3g_m + C_2L_2R_1R_3g
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 $H(s) = \frac{C_1C_2C_3L_1L_2R_1R_3g_ms^5 + R_1g_m + s^4\left(C_1C_2C_3L_1R_1R_3 + C_1C_2L_1L_2R_1g_m\right) + s^3\left(C_1C_2L_1R_1 + C_1C_3L_1R_1R_3g_m + C_2C_3L_2R_1R_3g_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_3R_1R_3 + C_2L_2R_1g_m\right) + s\left(C_2R_1 + C_3R_1R_3g_m\right)}{s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2C_3L_1R_1 + C_1C_2C_3L_1R_3 + C_1C_2C_3L_1R_3 + C_1C_2L_1 + C_1C_3L_1R_1g_m + C_1C_3L_1R_1g_m + C_2C_3L_2R_1g_m + C_2C_3L_2\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1 + C_2C_3R_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1 + C_2C_3R_1R_3 + C_2C_3R_1R_$ 

10.792 INVALID-ORDER-792  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

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10.793 INVALID-ORDER-793 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1g_ms^6 + C_1C_2C_3L_1L_3R_1s^5 + C_2R_1s + R_1g_m + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_3L_1L_3R_1g_m\right) + s^3\left(C_1C_2L_1R_1 + C_2C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_2L_2R_1g_m + C_3L_3R_1g_m\right)}{s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2C_3L_1L_3\right) + s^4\left(C_1C_2C_3L_1R_1 + C_1C_2C_3L_2R_1\right) + s^3\left(C_1C_2L_1R_1 + C_2C_3L_2R_1g_m + C_2C_3L_2R_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1R_1g_m + C_2C_3L_2R_1g_m + C_2C_3L_2R_1g_m + C_2C_3L_2R_1\right) + s^2\left(C_1C_2R_1 + C_1C_3R_1R_1g_m + C_2C_3L_2R_1g_m + C_2C_3L
10.794 INVALID-ORDER-794 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}g_{m}s^{5} + C_{1}C_{2}L_{1}L_{3}R_{1}s^{4} + C_{2}L_{3}R_{1}s^{2} + L_{3}R_{1}g_{m}s + s^{3}\left(C_{1}L_{1}L_{3}R_{1}g_{m} + C_{2}L_{2}L_{3}R_{1}g_{m}\right)
H(s) = \frac{C_1C_2L_1L_2R_3g_ms^5 + C_1C_2L_1L_3R_1s^4 + C_2L_3R_1s^2 + L_3R_1g_ms + s^3\left(C_1L_1L_3R_1g_m + C_2L_2L_3R_1g_m\right)}{R_1g_m + s^6\left(C_1C_2C_3L_1L_2L_3R_1g_m + C_1C_2L_1L_2 + C_1C_2L_1L_2 + C_1C_2L_1L_3 + C_1C_3L_1L_3 + C_2C_3L_2L_3R_1g_m + C_2C_3L_2L_3\right) + s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2L_1L_2 + C_1C_2L_1L_2 + C_1C_2L_1L_3 + C_1C_3L_1L_3 + C_2C_3L_2L_3R_1g_m + C_2C_3L_2L_3\right) + s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2L_1L_2 + C_1C_2L_1L_2 + C_1C_2L_1L_3 + C_1C_3L_1L_3 + C_2C_3L_2L_3R_1g_m + C_2C_3L_2L_3\right) + s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2L_1L_2 + C_1C_2L_1L_2 + C_1C_3L_1L_3 + C_2C_3L_2L_3R_1g_m + C_2C_3L_2L_3\right) + s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2L_1L_2 + C_1C_3L_1L_3 + C_1C_3L_1L_3 + C_2C_3L_2L_3\right) + s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2L_1L_2 + C_1C_3L_1L_3 + C_1C_3L_1L_3 + C_1C_3L_1L_3\right) + s^5\left(C_1C_2C_3L_1L_3R_1 + C_1C_2L_3R_1g_m + C_1C_3L_1L_3 + C_1C_3L_1L_3\right) + s^5\left(C_1C_2C_3L_1L_3R_1 + C_1C_3L_1L_3 + C_1C_3L_1L_3\right) + s^5\left(C_1C_2C_3L_1L_3R_1 + C_1C_3L_1L_3 + C_1C_3L_1L_3\right) + s^5\left(C_1C_2C_3L_1L_3R_1 + C_1C_3L_1L_3\right) + s^5\left(C_1C_3L_1L_3R_1 + 
10.795 INVALID-ORDER-795 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_3L_1L_2R_1R_3g_m + C_1C_2C_3L_1L_3R_1\right) + s^4\left(C_1C_2C_3L_1R_1R_3 + C_1C_2L_1L_2R_1g_m + C_1C_3L_1R_1g_m + C_2C_3L_2R_1R_3g_m + C_2C_3L
10.796 INVALID-ORDER-796 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)
                                               \frac{-c_1c_2L}{R_1R_3g_m + R_3 + s^6\left(C_1C_2C_3L_1L_2L_3R_1R_3g_m + C_1C_2C_3L_1L_2L_3R_3\right) + s^5\left(C_1C_2C_3L_1L_3R_1R_3 + C_1C_2L_1L_2R_3R_1R_3 + C_1C_2L_1L_2R_3R_3R_3 + C_1C_2L_1L_2R_3R_3R_3 + C_1C_2L_1L_2R_3R_3R_3 + C_1C_2L_1L_3R_3 + C_1C_2L_1L
10.797 INVALID-ORDER-797 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1R_3g_ms^6 + R_1R_3g_m + s^5\left(C_1C_2C_3L_1L_2R_1R_3g_m + C_1C_2L_1L_2R_1R_3g_m + C_1C_2L_1L_3R_1 + C_1C_3L_1L_3R_1R_3g_m + C_2C_3L_2L_3R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_3g_m + C_1C_2L_1L_2R_1R_3g_m + C_1C_2L_1L_3R_1 + C_1C_2L_1L_3R_1R_3g_m + C_1C_2L_1L_3R_1g_m + C_1C_2L_1L_3R_1R_3g_m + C_1
10.798 INVALID-ORDER-798 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + \frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1R_3g_ms + C_1C_2C_3L_1L_3R_1R_3g_ms + C_1C_2C_3L_1L_3R_1R_3g_ms + C_1C_2C_3L_1L_3R_1R_3s + C_2R_1R_3s + C_1C_2C_3L_1L_3R_1R_3s + C_1C_2C_3L_1L_3R_1 + C_1C_2C_3L_1L_3R_3 + C_1C_2C_3L_1L_3R
10.799 INVALID-ORDER-799 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, R_3, \infty, \infty, \infty\right)
H(s) = \frac{C_1C_2L_1L_2R_1R_3g_ms^4 + R_1R_3g_m + s^3\left(C_1C_2L_1R_1R_2R_3g_m + C_1C_2L_1R_1R_3\right) + s^2\left(C_1L_1R_1R_3g_m + C_2L_2R_1R_3g_m\right) + s\left(C_2R_1R_2R_3g_m + C_2R_1R_3\right)}{R_1g_m + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_2L_1L_2\right) + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_1C_2L_1R_3 + C_1C_2L_2R_1\right) + s^2\left(C_1C_2R_1R_2 + C_1C_2R_1R_3 + C_1L_1R_1g_m + C_1L_1 + C_2L_2R_1g_m + C_2L_2\right) + s\left(C_1R_1 + C_2R_1R_2g_m + C_2R_1 + C_2R_1R_3 + C_2R_1R_3\right) + s^2\left(C_1R_1R_2R_3g_m + C_2R_1R_3g_m + C_2R_1R_3g_m + C_2R_1R_3\right) + s^2\left(C_1R_1R_2R_3g_m + C_2R_1R_3g_m + C_2R_1R_
10.800 INVALID-ORDER-800 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \frac{1}{C_3s}, \infty, \infty, \infty\right)
                                              \frac{C_{1}C_{2}L_{1}L_{2}R_{1}g_{m}s^{4}+R_{1}g_{m}+s^{3}\left(C_{1}C_{2}L_{1}R_{1}R_{2}g_{m}+C_{1}C_{2}L_{1}R_{1}\right)+s^{2}\left(C_{1}L_{1}R_{1}g_{m}+C_{2}L_{2}R_{1}g_{m}\right)+s\left(C_{2}R_{1}R_{2}g_{m}+C_{2}R_{1}\right)}{s^{5}\left(C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}g_{m}+C_{1}C_{2}C_{3}L_{1}R_{1}+C_{1}C_{2}C_{3}L_{1}R_{1}+C_{1}C_{2}C_{3}L_{2}R_{1}\right)+s^{3}\left(C_{1}C_{2}C_{3}L_{1}R_{1}g_{m}+C_{1}C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}g_{m}+C_{1}C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}R_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+C_{2}C_{3}L_{1}+
10.801 INVALID-ORDER-801 Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)
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 $H(s) = \frac{C_1 C_2 L_1 L_2 R_1 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_1 R_3 g_m + C_1 C_2 C_3 L_1 R_2 R_3 + C_1 C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 R_2 R_3 + C_1 C_2 C_3 L_1 R_2 R_3 + C_1 C_2 L_1 R_2 R_3 + C_1 C_2 L_1 R_1 R_2 R_3 g_m + C_1 C_2 L_1 R_1 R_2 R_3 g_m + C_1 C_2 L_1 R_2 R_3 + C_1 C_2 L_1 R_1 R_2 R_3 g_m + C_1 C_2 L_1 R_2 R_3 g_m + C_1 C_2 L$ 

 $C_1C_2L_1L_2R_1R_3g_ms^4 + R_1R_3g_m + s^3(C_1C_2L_1R_1R_2R_3g_m)$ 

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10.802 INVALID-ORDER-802 Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)
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 $H(s) = \frac{C_1C_2C_3L_1L_2R_1R_3g_ms^5 + R_1g_m + s^4\left(C_1C_2C_3L_1R_1R_2R_3g_m + C_1C_2L_1L_2R_1g_m\right) + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_1C_3L_1R_1R_3g_m + C_2C_3L_2R_1R_3g_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_3R_1R_2R_3g_m + C_2C_3R_1R_3 + C_2R_2R_1R_3g_m\right) + s^2\left(C_1L_1R_1g_m + C_2C_3R_1R_3 + C_$ 

**10.803** INVALID-ORDER-803 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_2g_m + C_1C_2C_3L_1L_3R_1\right) + s^4\left(C_1C_2L_1L_2R_1g_m + C_1C_3L_1L_3R_1g_m + C_2C_3L_2L_3R_1g_m\right) + s^3\left(C_1C_2L_1R_1R_2g_m + C_1C_2L_1R_1 + C_2C_3L_3R_1R_2g_m + C_2C_3L_3R_1\right) + s^2\left(C_1L_1R_1g_m + C_2C_3L_1L_2R_1g_m + C_1C_2C_3L_1R_1 + C_2C_3L_1R_1 + C_2C_3L_$ 

10.804 INVALID-ORDER-804 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2L_1L_2L_3R_1g_ms^5 + L_3R_1g_ms + s^4\left(C_1C_2L_1L_3R_1g_ms + s^4\left(C_1C_2L_1L_3R_1g_ms + s^4\left(C_1C_2L_1L_3R_1R_2g_m + C_1C_2C_3L_1L_3R_1g_m + C_1C_2L_1L_3R_1g_m + s^4\left(C_1C_2C_3L_1L_3R_1g_m + C_1C_2L_1L_3R_1g_m + C_1C_2L_1L_$ 

10.805 INVALID-ORDER-805 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1g_ms^6 + R_1g_m + s^5\left(C_1C_2C_3L_1L_2R_1R_3g_m + C_1C_2C_3L_1L_3R_1R_2g_m + C_1C_2C_3L_1R_1R_2g_m + C_1C_2C_3L_1R_1R_2R_3g_m + C_1C_2C_3L_1R_1R_2R_3g_m + C_1C_2C_3L_1R_1R_3 + C_1C_2C_3L_1R_1R_3 + C_1C_2C_3L_1R_1R_3 + C_1C_2C_3L_1R_1R_2g_m + C_1C_2C_3L_1R_1R_2g_m + C_1C_2C_3L_1R_1R_2g_m + C_1C_2C_3L_1R_1R_2g_m + C_1C_2C_3L_1R_1 + C_1C_2C_$ 

10.806 INVALID-ORDER-806 
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \ L_2s + R_2 + \frac{1}{C_2s}, \ \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \ \infty, \ \infty, \ \infty\right)$$

 $H(s) = \frac{1}{R_1 R_3 g_m + R_3 + s^6 \left( C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_3 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_3 \right) + s^5 \left( C_1 C_2 C_3 L_1 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_3 R_1 R_3 + C_1 C_2 C_3 L_1 L_3 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 L_3$ 

10.807 INVALID-ORDER-807 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2C_3L_1L_2L_3R_1R_3g_ms^6 + R_1R_3g_m + s^5\left(C_1C_2C_3L_1L_3R_1R_3 + C_1C_2L_1L_2R_1R_3g_m + C_1C_2L_1L_2R_1R_3g_m + C_1C_2L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1R_2g_m + C_1C_2L_1L_3R_1R_2g_m + C_1C_2C_3L_1L_3R_1 + C_1C_2C_$ 

10.808 INVALID-ORDER-808 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, L_2s + R_2 + \frac{1}{C_2s}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{1}{R_1 g_m + s^6 \left( C_1 C_2 C_3 L_1 L_2 L_3 R_1 g_m + C_1 C_2 C_3 L_1 L_2 L_3 \right) + s^5 \left( C_1 C_2 C_3 L_1 L_2 R_1 R_3 g_m + C_1 C_2 C_3 L_1 L_3 R_1 R_2 g_m + C_1 C_2 C_3 L_1 L_3 R_1 + C_1 C_2 C_3 L_1 L_3 R_3 + C_1 C$ 

10.809 INVALID-ORDER-809 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1L_1L_2R_1R_3g_ms^3 + L_2R_1R_3g_ms + R_1R_2R_3g_m + R_1R_3 + s^4\left(C_1C_2L_1L_2R_1R_3g_m + C_1L_2R_1R_3g_m + C_1L_1R_1R_3 + C_2L_2R_1R_2R_3g_m + C_1L_1R_1R_3 + C_2L_2R_1R_3g_m + C_2L_2R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1L_2R_1R_2g_m + C_1L_1R_1R_2g_m + C_1L_1R_1R_2g_m + C_1L_1R_1 + C_1L_1R_2 + C_1L_2R_1R_2g_m + C_2L_2R_1R_3\right)}$ 

10.810 INVALID-ORDER-810 
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{1}{C_3s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1L_1L_2R_1g_ms^3 + L_2R_1g_ms + R_1R_2g_m + R_1 + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2L_2R_1R_2g_m + C_2L_2R_1\right)}{s^5\left(C_1C_2C_3L_1L_2R_1g_m + C_1C_2L_1L_2 + C_1C_3L_1R_2g_m + C_1C_3L_1R_1 + C_1C_3L_1R_2 + C_1C_3L_1R_1 + C_1C_3$ 

**10.811** INVALID-ORDER-811 
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{1}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s^5 \left(C_1 C_2 C_3 L_1 L_2 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 R_1 R_3 + C_1 C_2 L_1 L_2 R_3 + C_1 C_2 L_1 L_2 R_1 R_2 g_m + C_1 C_2 L_1 L_2 R_1 + C_1 C_2 L_1 L_2 R_2 + C_1 C_2 L_1 L_2 R_3 + C_1 C_3 L_1 L_2 R_1 R_3 g_m + C_1 C_3 L_1 L_2 R_3 + C_1 C_2 L_1 L_2 R_$ 

10.812 INVALID-ORDER-812 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, R_3 + \frac{1}{C_3s}, \infty, \infty\right)$$

**10.813** INVALID-ORDER-813 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_3L_1L_2L_3R_1g_ms^5 + L_2R_1g_ms + R_1R_2g_m + R_1 + s^6\left(C_1C_2C_3L_1L_2L_3R_1R_2g_m + C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_2R_1R_2g_m + C_1C_3L_1R_1R_2g_m + C$ 

10.814 INVALID-ORDER-814 
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$$

 $\frac{C_1L_1L_2L_3R_1g_m}{R_1R_2g_m + R_1 + R_2 + s^6\left(C_1C_2C_3L_1L_2L_3R_1R_2g_m + C_1C_2C_3L_1L_2L_3R_1 + C_1C_2C_3L_1L_2L_3R_1\right) + s^5\left(C_1C_2C_3L_2L_3R_1R_2 + C_1C_2L_1L_2L_3 + C_1C_3L_1L_2L_3\right) + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 +$ 

10.815 INVALID-ORDER-815 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$$

10.816 INVALID-ORDER-816 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)$$

10.817 INVALID-ORDER-817 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$$

 $H(s) = \frac{R_1 R_2 R_3 g_m + R_1 R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_3\right) + s^5 \left(C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 g_m + C_1 C_2 L_1 L_2 L_3 R_1 R_2 + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_3 + C_1 C_2 L_1$  $R_{1}R_{2}R_{3}g_{m} + R_{1}R_{3} + s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}R_{3}g_{m} + C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{3}\right) + s^{5}\left(C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}\right) + s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}\right) + s^{6}\left(C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m} + C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}\right) + s^{6}\left(C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}\right) + s^{6}\left(C_{1}C_{2}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}\right) + s^{6}\left(C_{1}C_{2}L_{1}L_{2}L_{2}R_{1}R_{2}g_{m}\right) + s^{6}\left(C_{1}C_{2}L_{1}L_{2}L_{2}R_{1}R_{2}R_{2}g_{m}\right) + s^{6}\left(C_{1}C_{2}L_{1}L_{2}L_{2}R_{1}R_{2}R_{2}g_{$ 

10.818 INVALID-ORDER-818 
$$Z(s) = \left(\frac{R_1\left(C_1L_1s^2+1\right)}{C_1L_1s^2+C_1R_1s+1}, \frac{L_2s}{C_2L_2s^2+1} + R_2, \frac{R_3\left(C_3L_3s^2+1\right)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)$$

 $\overline{R_{1}R_{2}g_{m}+R_{1}+R_{2}+R_{3}+s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{2}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3}\right)+s^{5}\left(C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{3}R_{2}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{3}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}+C_{1}C_{2}C_{$ 

10.819 INVALID-ORDER-819 
$$Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3, \infty, \infty, \infty\right)$$

 $H(s) = \frac{C_1C_2L_1R_1R_2R_3s^3 + C_2R_1R_2R_3s + R_1R_2R_3g_m + R_1R_3 + s^4\left(C_1C_2L_1L_2R_1R_3\right) + s^2\left(C_1L_1R_1R_2R_3g_m + C_1L_1R_1R_3 + C_2L_2R_1R_2R_3g_m + C_2L_2R_1R_3\right)}{R_1R_2g_m + R_1 + R_2 + R_3 + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_2L_1L_2R_3\right) + s^3\left(C_1C_2L_1R_1R_2 + C_1C_2L_1R_2R_3 + C_1C_2L_1R_2R_3 + C_1L_1R_1R_2R_3g_m + C_1L_1R_1R_3R_3g_m + C_1L_1R_3R_3g_m + C_1L_1R_1R_3R_3g_m + C_1L_1R_1R_3R_3g_m + C_1L_1R_1R_$ 

10.820 INVALID-ORDER-820  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2L_1R_1R_2s^3 + C_2R_1R_2s + R_1R_2g_m + R_1 + s^4\left(C_1C_2L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1\right) + s^2\left(C_1L_1R_1R_2g_m + C_1L_1R_1 + C_2L_2R_1R_2g_m + C_2L_2R_1\right)}{s^5\left(C_1C_2C_3L_1L_2R_1R_2g_m + C_1C_2L_2R_1 + C_1C_2$ 

10.821 INVALID-ORDER-821  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3}{C_3R_3s+1}, \infty, \infty, \infty\right)$ 

10.822 INVALID-ORDER-822  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

10.823 INVALID-ORDER-823  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2C_3L_1L_2R_1R_2s + R_1R_2g_m + R_1 + s^6\left(C_1C_2C_3L_1L_2L_3R_1R_2g_m + C_1C_2C_3L_1L_2R_1R_2g_m + C_1C_2L_1L_2R_1 + C_1C_3L_1L_3R_1R_2g_m + C_1C_3L_1L_3R_1R_2g_m + C_1C_2L_3R_1R_2g_m + C_1C_2L_3R_1R_2g$ 

10.824 INVALID-ORDER-824  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{C_1C_2L_1L_3R_1R_2s^4 + C_2L_3R_1}{R_1R_2g_m + R_1 + R_2 + s^6\left(C_1C_2C_3L_1L_2L_3R_1R_2g_m + C_1C_2C_3L_1L_2L_3R_1 + C_1C_2C_3L_1L_2L_3R_1 + C_1C_2C_3L_1L_2R_2 + C_1C_2L_1L_2R_1 + C_1C_2L_1L_2R_1 + C_1C_2L_1L_2R_1 + C_1C_2L_1L_2R_2 + C_1C_2L_1L_2R_2 + C_1C_2L_1L_2R_1 + C_1C_2L_1L_2R_2 +$ 

10.825 INVALID-ORDER-825  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, L_3s + R_3 + \frac{1}{C_3s}, \infty, \infty, \infty\right)$ 

 $\frac{R_{1}R_{2}g_{m}+R_{1}+s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{2}+C_{1}C_{2}C_{3}L$ 

10.826 INVALID-ORDER-826  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3R_3s}{C_3L_3R_3s^2+L_3s+R_3}, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{1}{R_1 R_2 R_3 g_m + R_1 R_3 + R_2 R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 R_3 g_m + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_3 + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 R_3 + C_1 C_2 C_3 L_1 L_2 L_3 R_1 R_2 R_3 + C_1 C_2 L_1 L_2 L_2 R_1 R_2 R_3 + C_1 C_2 L_1 L_2 L_2 R_1 R_2 R_3 + C_1 C_2 L_2 L_2 L_2 R_2 R_3 + C_1$ 

10.827 INVALID-ORDER-827  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{L_3s}{C_3L_3s^2+1} + R_3, \infty, \infty, \infty\right)$ 

 $H(s) = \frac{1}{R_1 R_2 g_m + R_1 + R_2 + R_3 + s^6 \left(C_1 C_2 C_3 L_1 L_2 L_3 R_1 + C_1 C_2 C_3 L_$ 

10.828 INVALID-ORDER-828  $Z(s) = \left(\frac{R_1(C_1L_1s^2+1)}{C_1L_1s^2+C_1R_1s+1}, \frac{R_2(C_2L_2s^2+1)}{C_2L_2s^2+C_2R_2s+1}, \frac{R_3(C_3L_3s^2+1)}{C_3L_3s^2+C_3R_3s+1}, \infty, \infty, \infty\right)$ 

 $\overline{R_{1}R_{2}g_{m}+R_{1}+R_{2}+R_{3}+s^{6}\left(C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}R_{2}g_{m}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{1}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{2}+C_{1}C_{2}C_{3}L_{1}L_{2}L_{3}R_{3}\right)+s^{5}\left(C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{3}+C_{1}C_{2}C_{3}L_{1}L_{2}R_{1}R_{2}+C_$ 

## 11 PolynomialError