

$$\varepsilon = 2,028e^{-3}$$

$$sF_{cm} = \frac{-1}{\varepsilon s^7 - 1} = \frac{1}{1 - \varepsilon s^7}$$

sFcm =

-1

$$2.028e-03 s^7 - 1$$

Continuous-time transfer function.

zFcm =

zFcm(1)

$$-6.581e-07 z^7 - 4.606e-06 z^6 - 1.382e-05 z^5 - 2.303e-05 z^4 - 2.303e-05 z^3 - 1.382e-05 z^2 - 4.606e-06 z$$

$$- 6.581e-07$$

zFcm(8)

A(z)

E(z)

①

neun(1)

$$z^7 - 7 z^6 + 21 z^5 - 35 z^4 + 35 z^3 - 21 z^2 + 7 z - 1$$

neun(8)

Sample time: 0.015 seconds

Discrete-time transfer function.

$$A(z) \cdot [neun(1) \cdot z^7 + neun(2) \cdot z^6 + neun(3) \cdot z^5 + neun(4) \cdot z^4 + neun(5) \cdot z^3 + neun(6) \cdot z^2 + neun(7) \cdot z^1 + neun(8)]$$

=

$$E(z) \cdot [zFcm(1) \cdot z^7 + zFcm(2) \cdot z^6 + zFcm(3) \cdot z^5 + zFcm(4) \cdot z^4 + zFcm(5) \cdot z^3 + zFcm(6) \cdot z^2 + zFcm(7) \cdot z^1 + zFcm(8) \cdot z^0]$$

Basis:  $z^n$

$$a(k) \cdot neun(1) + a(k-1) \cdot neun(2) + \dots + a(k-7) \cdot neun(8) = e(k) \cdot zFcm(1) + \dots + e(k-7) \cdot zFcm(8)$$

$$a(k) = [e(k) \cdot zFcm(1) + \dots + e(k-7) \cdot zFcm(8) - a(k-1) \cdot neun(2) + \dots + a(k-7) \cdot neun(8)]$$

$$\bullet \frac{1}{neun(1)}$$

$$\text{delay} \approx 0,25s$$