Med 3 RC-led

$GaindB := 2.62 \cdot 4 = 10.48$
$fHigh := 1000 \ Hz$
$Ri := 10 \ k\Omega$
$fLow := 20 \ Hz$

$G0 := 1$
$20 \cdot log(G0) = GaindB$

$\mathbf{G0} := \mathbf{Find}(\mathbf{G0}) = 3.342$

$G0 := 10^{\frac{GaindB}{20}} = 3.342$

$\mathbf{G0} = 3.342$

$Rf := Ri \cdot G0 = 33.42 \ k\Omega$

$G0.6 := GaindB \cdot \dfrac{2}{3} = 6.987$ $G0.3 := GaindB \cdot \dfrac{1}{3} = 3.493$

$G1 := 1$
$20 \cdot log(G1) = G0.6$

$\mathbf{G1} := \mathbf{Find}(\mathbf{G1}) = 2.2353$

$G1 := 10^{\frac{G0.6}{20}} = 2.2353$

$G1 = 2.2353$

$G2 := 1$
$20 \cdot log(G2) = G0.3$

$\mathbf{G2} := \mathbf{Find}(\mathbf{G2}) = 1.4951$

$G2 := 10^{\frac{G0.3}{20}} = 1.4951$

$G2 = 1.4951$

$G3 := 1$
$20 \cdot log(G3) = 0$

$\mathbf{G3} := \mathbf{Find}(\mathbf{G3}) \ 1$

$G3 := 10^{\frac{0}{20}} = 1$

$G3 = 1$

$Rf' := G1 \cdot Ri = 22.353 \ k\Omega$
$Rf'' := G2 \cdot Ri = 14.951 \ k\Omega$
$Rf''' := G3 \cdot Ri = 10 \ k\Omega$

$$R1 := \frac{Rf \cdot Rf'}{Rf - Rf'} = 67.502 \ k\Omega$$

$$R2 := \frac{Rf' \cdot Rf''}{Rf' - Rf''} = 45.149 \ k\Omega$$

$$R3 := \frac{Rf'' \cdot Rf'''}{Rf'' - Rf'''} = 30.198 \ k\Omega$$

$$Rf' := \frac{R1 \cdot Rf}{R1 + Rf} = 22.353 \ k\Omega$$

$$Rf'' := \frac{R2 \cdot Rf'}{R2 + Rf'} = 14.951 \ k\Omega$$

$$Rf''' := \frac{R3 \cdot Rf''}{R3 + Rf''} = 10 \ k\Omega$$

$R1 = 67.502 \ k\Omega \qquad Rf = 33.42 \ k\Omega$
$R2 = 45.149 \ k\Omega$
$R3 = 30.198 \ k\Omega$

$fHigh := 1000 \ Hz \qquad fLow := 55 \ Hz$

$$f\_logstep := \frac{1}{3} \log\left(\frac{fHigh}{fLow}\right) = 0.42$$

$p1 := fLow = 55 \ Hz$

$p2 := p1 \cdot 10^{1 \cdot f\_logstep} = 144.624 \ Hz$

$p3 := p1 \cdot 10^{2 \cdot f\_logstep} = 380.295 \ Hz$

$p4 := p1 \cdot 10^{3 \cdot f\_logstep} = 1000 \ Hz$

$$C1 := \frac{1}{(R1 + Rf) \cdot 2 \cdot \pi \cdot p1} = 28.673 \ nF$$

$$C2 := \frac{1}{(R2 + Rf') \cdot 2 \cdot \pi \cdot p2} = 16.303 \ nF$$

$$C3 := \frac{1}{(R3 + Rf'') \cdot 2 \cdot \pi \cdot p3} = 9.269 \ nF$$