

Jaeger 3rd

10.43

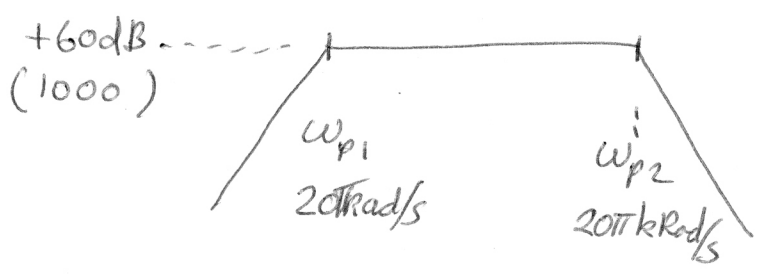
$$A_v = \frac{(2\pi \times 10^7) s}{(s + 20\pi)(s + 2\pi \times 10^4)}$$

poles
$\omega_{p1} = -20\pi$
$\omega_{p2} = -2\pi \times 10^4$
<u>rad/sec</u>

zeros
$0 = \omega_{z1}$
$\infty = \omega_{z2}$

poles	zeros
-10 Hz	0 Hz
-10 kHz	$\infty$
<u>Hz</u>	

$$A_v(s) = [1000] \left[ \frac{s + \omega_{z1}}{s - \omega_{p1}} \right] \left[ \frac{1 - \frac{s}{\omega_{z2}}}{1 - \frac{s}{\omega_{p2}}} \right]$$



$A_{mid} = +60 \text{ dB}$

$\omega_L = 20\pi \text{ rad/s} \quad (f_L = 10 \text{ Hz})$

$\omega_H = 20\pi \text{ kRad/s} \quad (f_H = 10 \text{ kHz})$

$BW = f_H - f_L \approx f_H = 9990 \text{ Hz}$

Bandpass