

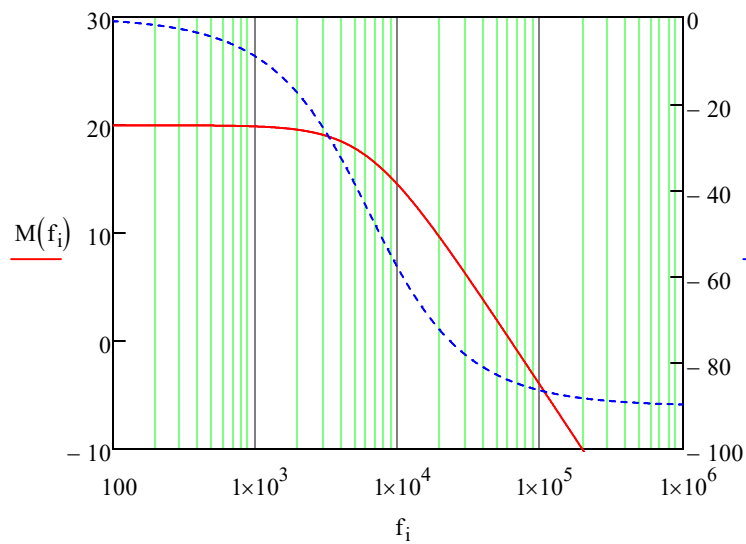
$$f_{\text{crit}} := 6.22\text{kHz} \quad j := \sqrt{-1}$$

$$K := 10^{\frac{20}{20}} = 10 \quad C := 0.1\mu\text{F} \quad R_B := 3\text{k}\Omega \quad R_A := 27\text{k}\Omega$$

$$R := \frac{1}{2 \cdot \pi \cdot f_{\text{crit}} \cdot C} = 255.876 \, \Omega \quad T(f) := K \cdot \frac{1}{1 + j \cdot \frac{f}{f_{\text{crit}}}}$$

$$f_{\text{start}} := 100\text{Hz} \quad f_{\text{stop}} := 1\text{MHz} \quad N := 1024 \quad i := 0..N-1 \quad f_i := f_{\text{start}} \cdot \left( \frac{f_{\text{stop}}}{f_{\text{start}}} \right)^{\frac{i}{N-1}}$$

$$M(f) := 20 \cdot \log(|T(f)|) \quad \phi(f) := \frac{180}{\pi} \cdot \arg(T(f))$$



"\\Client\\C\$\\Users\\caleb\_000\\Documents\\Y3S1\\ECE3043\\meimage.jpg"