

HOMWORK 6

ECE 580

Due November 29, 2023

1. Design a Rauch filter with a dc gain = 1, $Q^2 = \frac{1}{2}$ and a pole frequency $f_0 = 20kHz$. Minimize the capacitance spread. Use $C_1 = 2pF$. Plot the gain vs. frequency response.
2. What is the -3 dB frequency of the Rauch filter with a given pole frequency and Q ?