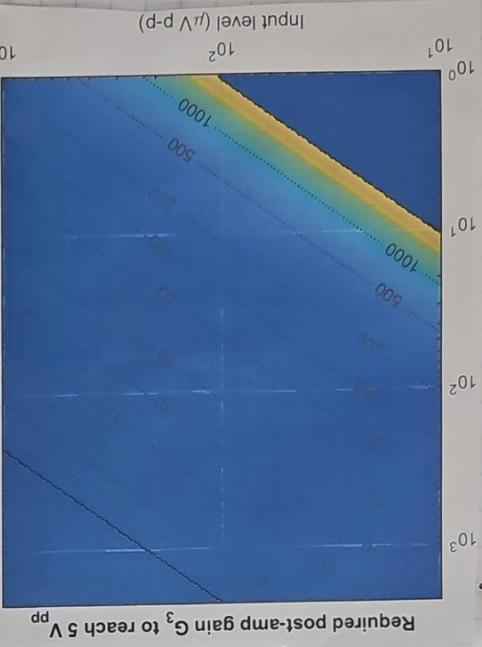


ERD 320 - Phase 1 - Filter and Gain Simulations

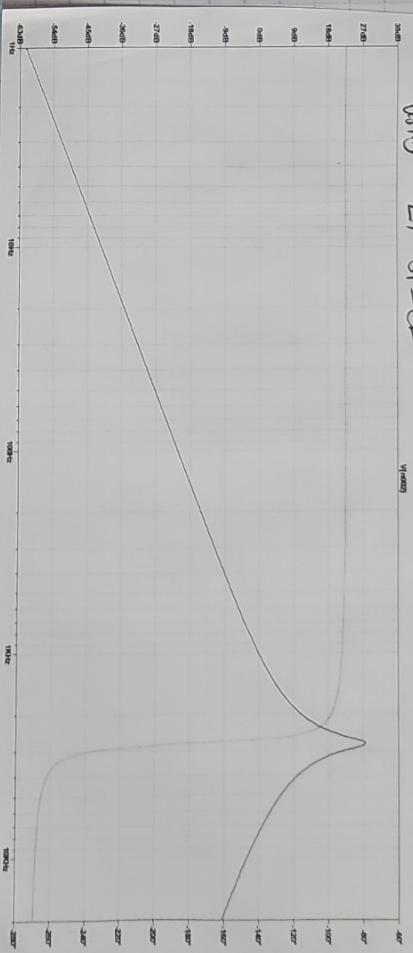
9 August 2025

Simulating the MFB filter on page 36 result in:

Using LT-Spice



Using MATLAB:



At 100 Hz is 2.7453 dB with 2.40 kHz with 10.43 dB.
4 kHz with 10.04 dB.

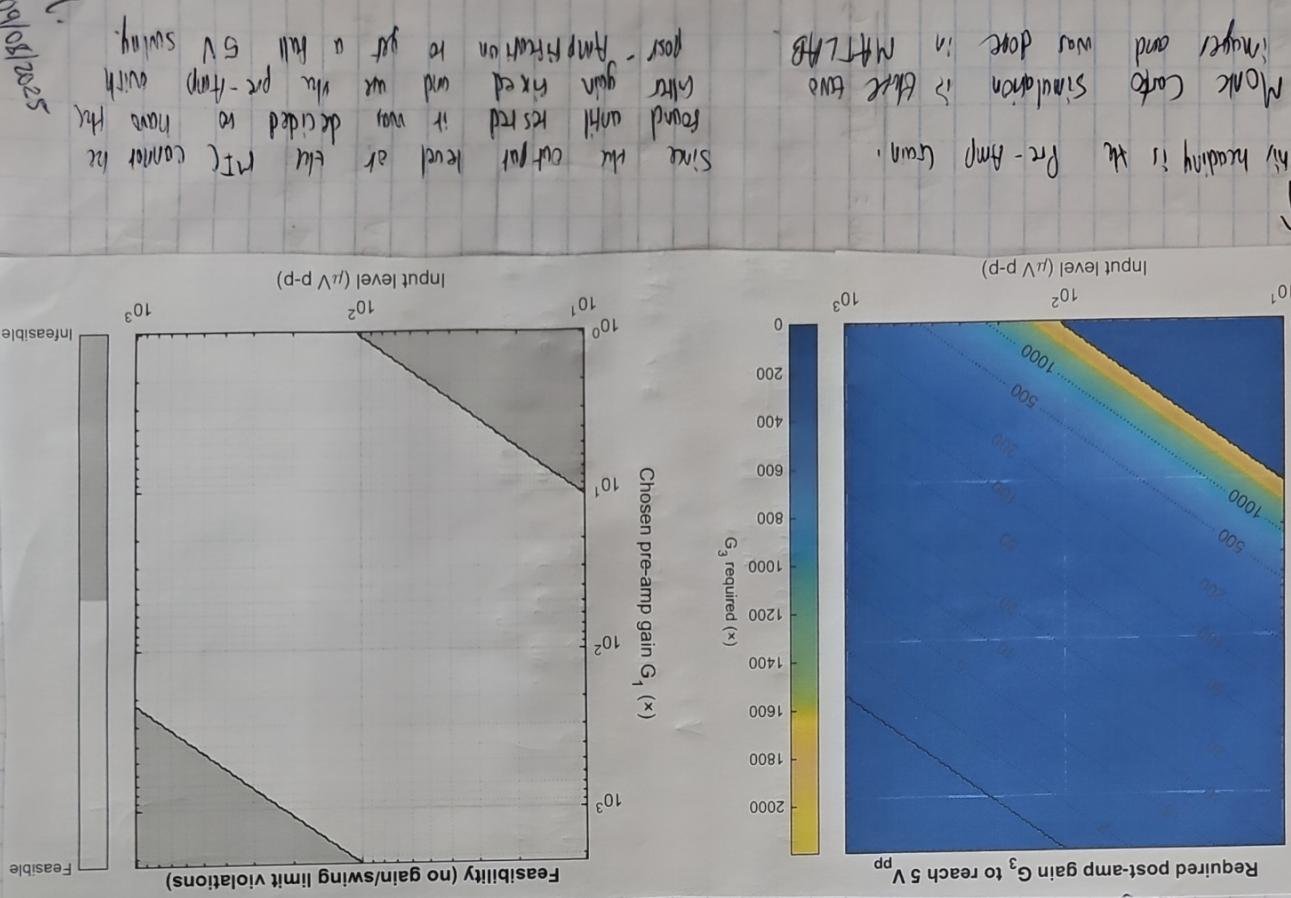
Ideally want more attenuation at these factors.

35 dB + a difference is ideal going to cascade
where dropper MFB to make a 4th order filter
should be adequate

$$GBNP = \frac{10 \times 10^6}{\text{ }}$$

Possibly remove the need for another gain stage
and do the gain at this stage instead.

ANCF 6024 can handle this.



MCNC Cadence Simulation in Eltec two found until tested it was decided to have MCNC complete and was done in MATLAB.
Sine the output level of the MCNC cannot be easily had today is the Pre-Amp Gain.
Mouser and Amp Function to use with per-filter output.

09/10/2025

ERD 320 - Phase 1 - Filter Specs.

10 August 2025

38

10/08/2025