

EE 254

Project 4

Gain Vs Bandwidth for Op-Amp Amplifiers

Consider a simple inverting op-amp amplifier. For the given gain, obtain the design criteria for your amplifier. The goal of this project is to see the effect of the choice of the feedback circuit on the gain and bandwidth. For the found design criteria, choose values of resistors in different ranges (1-10, 1K-10K, 10K-100K, 1M-10M, etc). Make sure you have at least 4 different sets over the entire spectrum of available resistor values. For each set, find the bandwidth of the following available op-amps:

- LM-741
- AD842JNZ: Wideband Op-Amp
- LF347BN/NOBP: Wideband Op-Amp
- OPA2604AP: Wideband Op-Amp

Draw conclusions and provide reasoning on the measurements and observations made on the effect of the feedback circuit on the gain and bandwidth.

Name	Gain
	-4
	-3
	-5
	-4
	-2

Deliverables:

Project Demonstrations: Project demonstrations will be held in class (PCTR 1030/34) on Tuesday, November 12, 2013 from 12:00 pm to 2:00 pm.

Report: A detailed handwritten report must include the design and analysis for each type of PA along with supporting measurements, calculations, waveforms, datasheets, simulations, and supporting information. The report is due at the time of demonstrations.