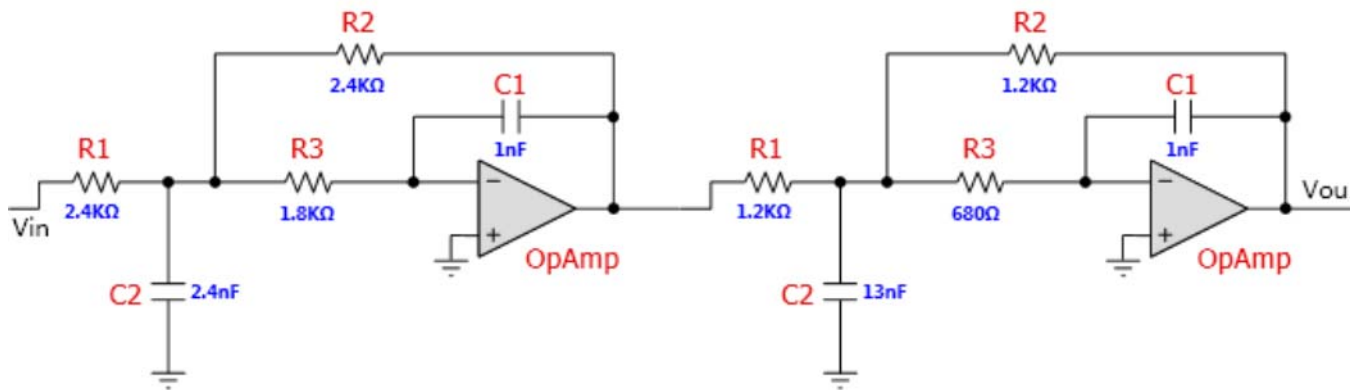


FilterPro Design Report Schematic

Design Name: Lowpass, Multiple Feedback, Butterworth **Part:** Ideal Opamp **Order:** 4 **Stages:** 2
Gain: 1 V/V (0 dB) **Allowable PassBand Ripple:** 1 dB **Passband Frequency:** 50 kHz
Corner Frequency Attenuation: -3 dB



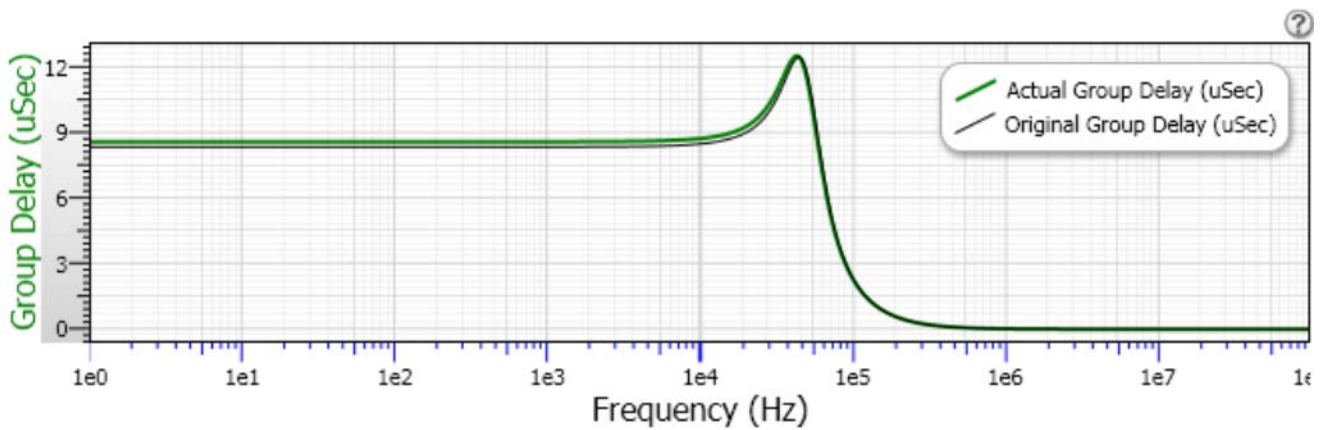
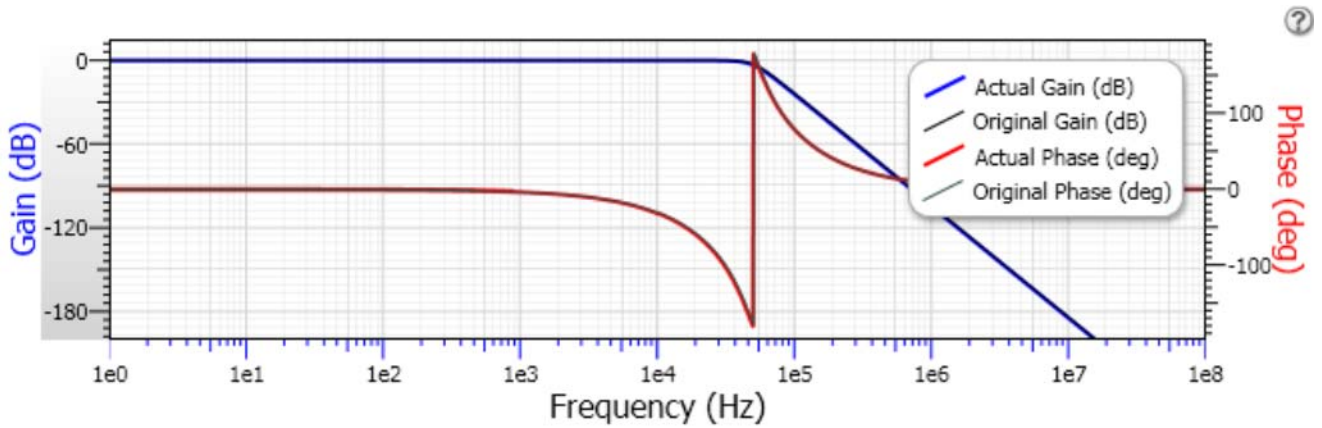
Filter Stage: 1
Passband Gain(A_o): 1
Cutoff Frequency(f_n): 50 kHz
QualityFactor (Q): 0.54
Filter Response: Butterworth
Circuit Topology: MultipleFeedback
Min GBW reqd.: 2.7 MHz

Filter Stage: 2
Passband Gain(A_o): 1
Cutoff Frequency(f_n): 50 kHz
QualityFactor (Q): 1.31
Filter Response: Butterworth
Circuit Topology: MultipleFeedback
Min GBW reqd.: 6.55 MHz

FilterPro Design Report

Frequency and Phase Responses

Design Name: Lowpass, Multiple Feedback, Butterworth **Part:** Ideal Opamp **Order:** 4 **Stages:** 2
Gain: 1 V/V (0 dB) **Allowable PassBand Ripple:** 1 dB **Passband Frequency:** 50 kHz
Corner Frequency Attenuation: -3 dB



FilterPro Design Report

Bill of Materials

Design Name: Lowpass, Multiple Feedback, Butterworth
Part: Ideal Opamp
Order: 4
Stages: 2
Gain: 1 V/V (0 dB)
Allowable PassBand Ripple: 1 dB
Passband Frequency: 50 kHz
Corner Frequency Attenuation: -3 dB

Element ID	Quantity	Part Number	Value	Tolerance	Description	Manufacturer
R1 (Stage 1)	1	Standard	2.4K Ω	E24: 5%	Resistor	
R2 (Stage 1)	1	Standard	2.4K Ω	E24: 5%	Resistor	
R3 (Stage 1)	1	Standard	1.8K Ω	E24: 5%	Resistor	
C1 (Stage 1)	1	Standard	1nF	E24: 5%	Capacitor	
C2 (Stage 1)	1	Standard	2.4nF	E24: 5%	Capacitor	
OpAmp (Stage 1)	1	Standard			Ideal OpAmp	
R1 (Stage 2)	1	Standard	1.2K Ω	E24: 5%	Resistor	
R2 (Stage 2)	1	Standard	1.2K Ω	E24: 5%	Resistor	
R3 (Stage 2)	1	Standard	680 Ω	E24: 5%	Resistor	
C1 (Stage 2)	1	Standard	1nF	E24: 5%	Capacitor	
C2 (Stage 2)	1	Standard	13nF	E24: 5%	Capacitor	
OpAmp (Stage 2)	1	Standard			Ideal OpAmp	

FilterPro Design Report

Design Notes

Design Name: Lowpass, Multiple Feedback, Butterworth **Part:** Ideal Opamp **Order:** 4 **Stages:** 2
Gain: 1 V/V (0 dB) **Allowable PassBand Ripple:** 1 dB **Passband Frequency:** 50 kHz
Corner Frequency Attenuation: -3 dB