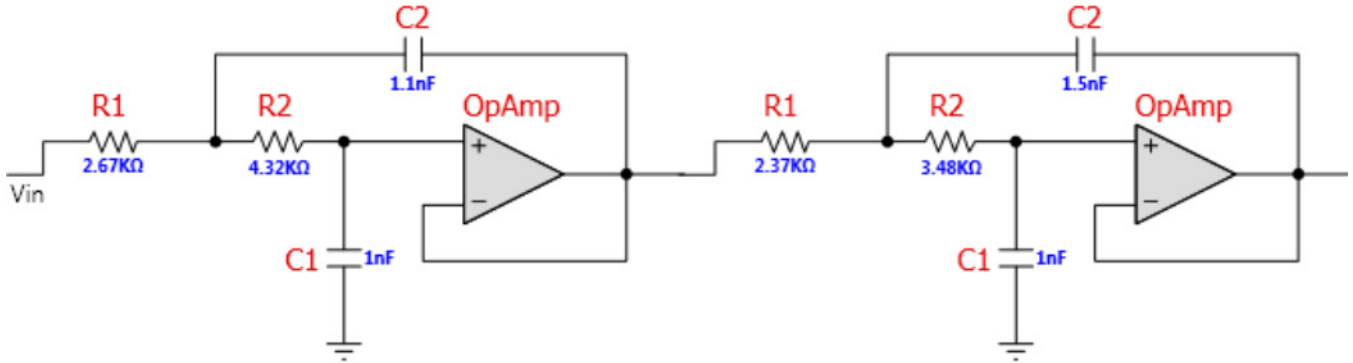


FilterPro Design Report

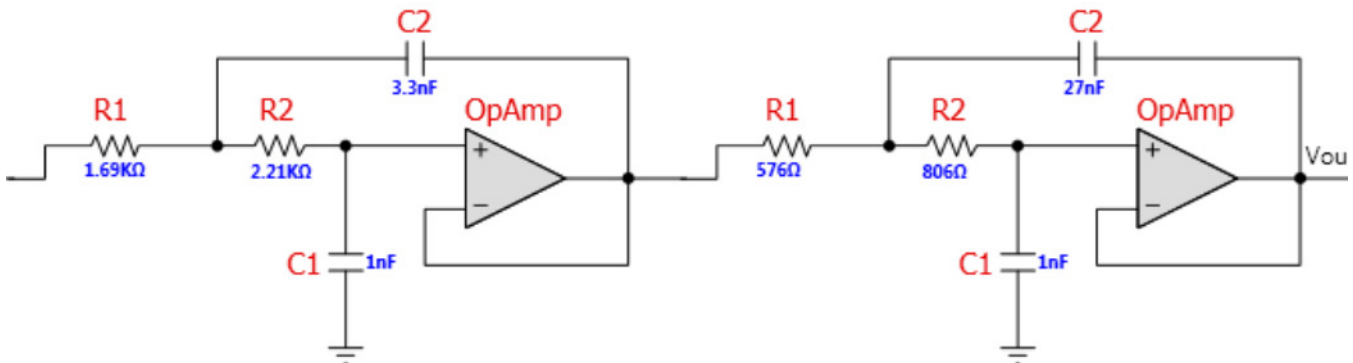
Schematic

Design Name: Lowpass, Sallen Key, Butterworth **Part:** Ideal Opamp **Order:** 8 **Stages:** 4
Gain: 1 V/V (0 dB) **Allowable PassBand Ripple:** 1 dB **Passband Frequency:** 45 kHz
Corner Frequency Attenuation: -3 dB



Filter Stage: 1
 Passband Gain(Ao): 1
 Cutoff Frequency(fn): 45 kHz
 QualityFactor (Q): 0.51
 Filter Response: Butterworth
 Circuit Topoloav: SallenKey
 Min GBW read.: 2.295 MHz

Filter Stage: 2
 Passband Gain(Ao): 1
 Cutoff Frequency(fn): 45 kHz
 QualityFactor (Q): 0.6
 Filter Response: Butterworth
 Circuit Topoloav: SallenKey
 Min GBW read.: 2.7 MHz



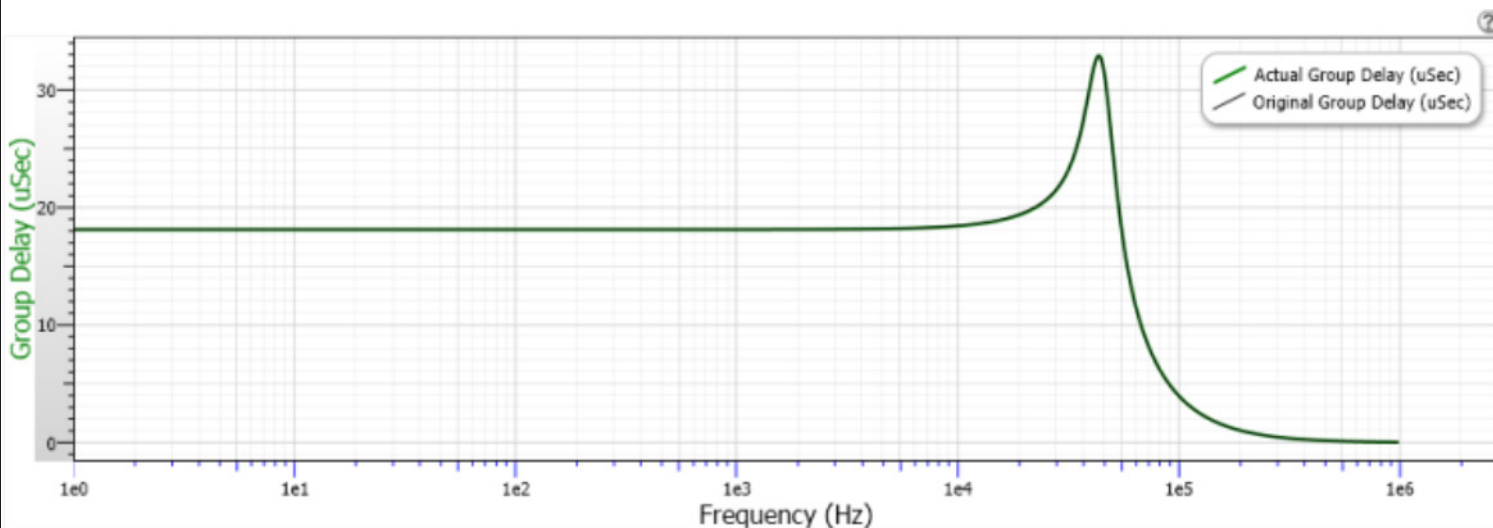
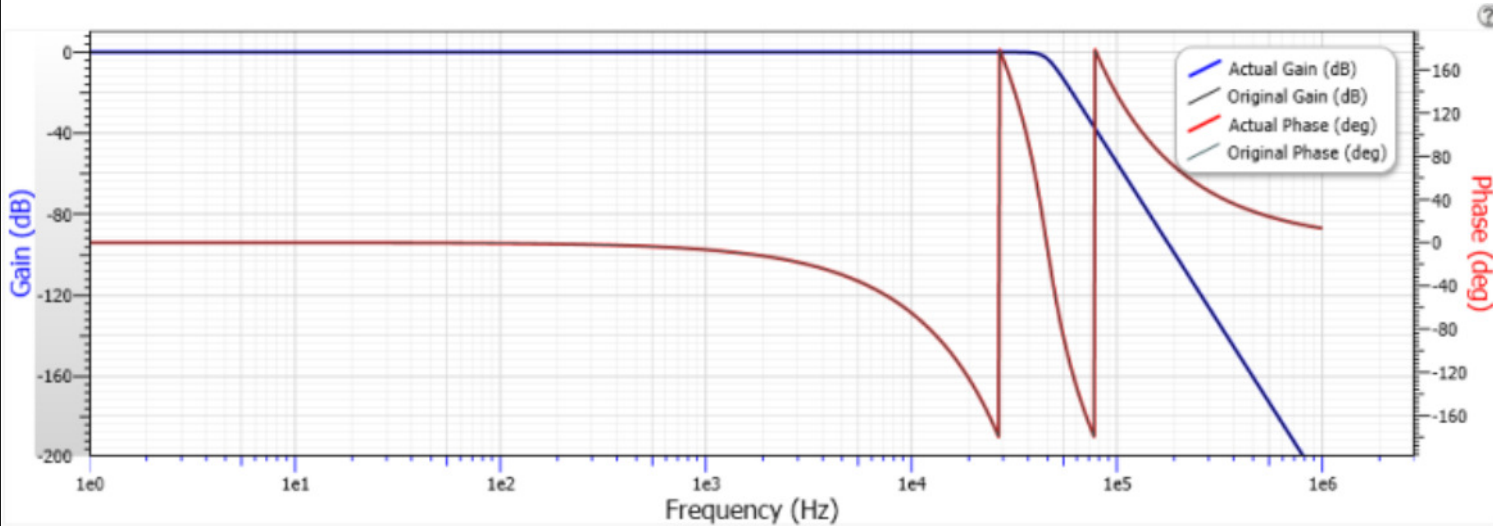
Filter Stage: 3
 Passband Gain(Ao): 1
 Cutoff Frequency(fn): 45 kHz
 QualityFactor (Q): 0.9
 Filter Response: Butterworth
 Circuit Topoloav: SallenKey
 Min GBW read.: 4.05 MHz

Filter Stage: 4
 Passband Gain(Ao): 1
 Cutoff Frequency(fn): 45 kHz
 QualityFactor (Q): 2.56
 Filter Response: Butterworth
 Circuit Topoloav: SallenKey
 Min GBW read.: 11.52 MHz

FilterPro Design Report

Frequency and Phase Responses

Design Name: Lowpass, Sallen Key, Butterworth **Part:** Ideal Opamp **Order:** 8 **Stages:** 4
Gain: 1 V/V (0 dB) **Allowable PassBand Ripple:** 1 dB **Passband Frequency:** 45 kHz
Corner Frequency Attenuation: -3 dB



FilterPro Design Report Bill of Materials

Design Name: Lowpass, Sallen Key, Butterworth **Part:** Ideal Opamp **Order:** 8 **Stages:** 4
Gain: 1 V/V (0 dB) **Allowable PassBand Ripple:** 1 dB **Passband Frequency:** 45 kHz
Corner Frequency Attenuation: -3 dB

Element ID	Quantity	Part Number	Value	Tolerance	Description	Manufacturer
R1 (Stage 1)	1	Standard	2.67K Ω	E96: 1%	Resistor	
R2 (Stage 1)	1	Standard	4.32K Ω	E96: 1%	Resistor	
C1 (Stage 1)	1	Standard	1nF	E24: 5%	Capacitor	
C2 (Stage 1)	1	Standard	1.1nF	E24: 5%	Capacitor	
OpAmp (Stage 1)	1	Standard			Ideal OpAmp	
R1 (Stage 2)	1	Standard	2.37K Ω	E96: 1%	Resistor	
R2 (Stage 2)	1	Standard	3.48K Ω	E96: 1%	Resistor	
C1 (Stage 2)	1	Standard	1nF	E24: 5%	Capacitor	
C2 (Stage 2)	1	Standard	1.5nF	E24: 5%	Capacitor	
OpAmp (Stage 2)	1	Standard			Ideal OpAmp	
R1 (Stage 3)	1	Standard	1.69K Ω	E96: 1%	Resistor	
R2 (Stage 3)	1	Standard	2.21K Ω	E96: 1%	Resistor	
C1 (Stage 3)	1	Standard	1nF	E24: 5%	Capacitor	
C2 (Stage 3)	1	Standard	3.3nF	E24: 5%	Capacitor	
OpAmp (Stage 3)	1	Standard			Ideal OpAmp	
R1 (Stage 4)	1	Standard	576 Ω	E96: 1%	Resistor	
R2 (Stage 4)	1	Standard	806 Ω	E96: 1%	Resistor	
C1 (Stage 4)	1	Standard	1nF	E24: 5%	Capacitor	
C2 (Stage 4)	1	Standard	27nF	E24: 5%	Capacitor	
OpAmp (Stage 4)	1	Standard			Ideal OpAmp	

FilterPro Design Report

Design Notes

Design Name: Lowpass, Sallen Key, Butterworth **Part:** Ideal Opamp **Order:** 8 **Stages:** 4
Gain: 1 V/V (0 dB) **Allowable PassBand Ripple:** 1 dB **Passband Frequency:** 45 kHz
Corner Frequency Attenuation: -3 dB