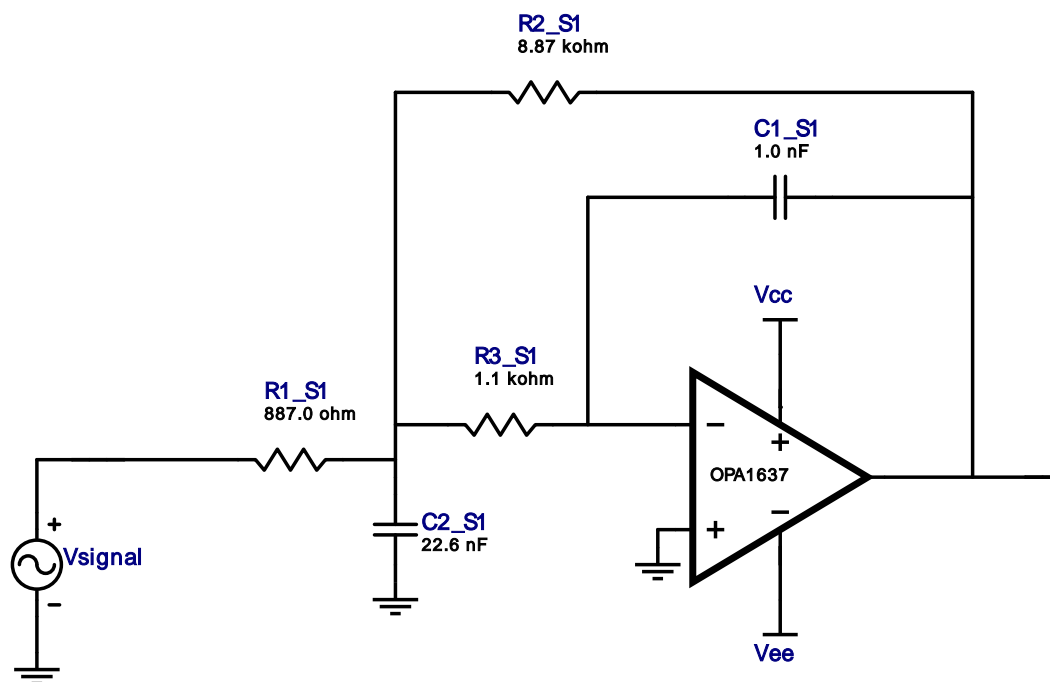


Filter Design Report

Design : Lowpass Filter - 2nd order Butterworth
Design ID: 8



Electrical BOM

#	Name	Manufacturer	Part Number	Properties	Qty
1.	A1_S1	Texas Instruments Inc.	OPA1637	GbwTyp= 9.2MHz VccMax= 36V VccMin= 3V	1
2.	C1_S1	Generic	Ideal	Cap= 1.0 nF Tolerance= 2.0 %	1
3.	C2_S1	Generic	Ideal	Cap= 22.6 nF Tolerance= 2.0 %	1
4.	R1_S1	Generic	Ideal	Res= 887.0ohm Tolerance= 1%	1
5.	R2_S1	Generic	Ideal	Res= 8870.0ohm Tolerance= 1%	1
6.	R3_S1	Generic	Ideal	Res= 1100.0ohm Tolerance= 1%	1

Sensitivity Analysis

#	Name	Series	Tolerance
1.	Cap	E48	2%
2.	Res	E96	1%

Design Inputs

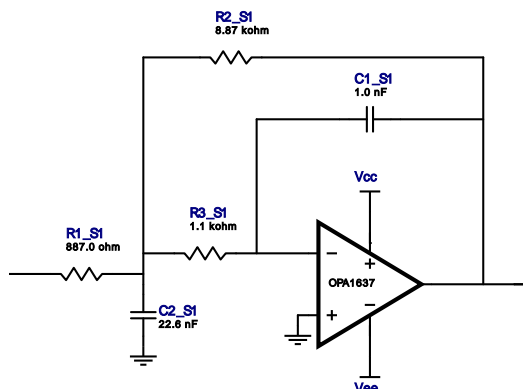
#	Name	Value	Description
1.	FilterType	lowpass	
2.	FilterResponse	Butterworth	
3.	FilterOrder	2.0	
4.	FilterTopology	Multiple Feedback	
5.	NumberOfStages	1.0	
6.	PassbandFrequency	10.7 k	
7.	StopbandAttenuation	-40.001	
8.	StopbandFrequency	107.0 k	
9.	Gain	10.0	
10.	DualSupply	+/-5.00 V	Power supply(s) to active chips
11.	ResistorTolerance	E96	Resistor series - 1% Passive resistor tolerance
12.	CapacitorTolerance	E48	Capacitor series - 2% Passive capacitor tolerance

Design Assistance

1. **OPA1637** Product Folder : <http://www.ti.com/product/OPA1637> : contains the data sheet and other resources.

Filter Stage :1

Cutoff Frequency 10.718 kHz
 Min GBW Req'd 7.566 MHz
 Stage Gain 10.0 V/V
 Stage Q 708.132 m
 Stage Topology Multiple Feedback



Electrical BOM

#	Name	Manufacturer	Part Number	Properties	Qty
1.	A1_S1	Texas Instruments Inc.	OPA1637	GbwTyp= 9.2MHz VccMax= 36V VccMin= 3V	1
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6.	R3_S1	Generic	Ideal	Res= 1100.0ohm Tolerance= 1%	1

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