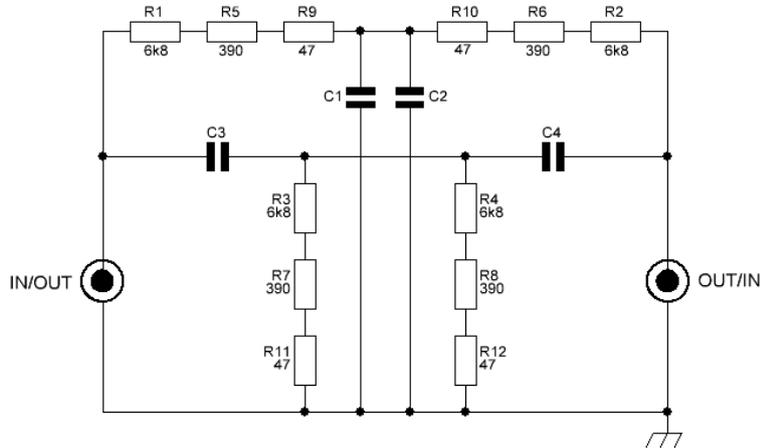


# Passive Twin-T notch filter

LKA, e2000apc@gmail.com

INPUT VOLTAGE < 20dBV, 10Vrms  
H1 ATTENUATION ca 60dB (measured)  
SELF DISTORTION < -150dB (inp < 10dBV)



C1-4 WIMA FKP2 63V 1%  
22nF 1kHz notch  
2.2nF 10kHz notch  
All resistor MetalFilm THT 0.6W 0.1%

## SIMULATED ATTENUATION in dB : SOURCE IMPEDANCE 50R

LOAD IMPEDANCE	2 DEC BELOW NF	1 DEC BELOW NF	NF/H1	H2	H3	H4	H5	H6
10k	-7.79	-8.06	-77.7	-11.4	-6.91	-4.83	-3.52	-2.70
100k	-1.18	-1.47	-75.0	-9.43	-5.36	-3.60	-2.55	-1.93
1000k	-0.13	-0.77	-74.7	-9.23	-5.21	-3.48	-2.46	-1.85
infinite	-0.01	-0.66	-74.7	-9.21	-5.24	-3.47	-2.45	-1.84

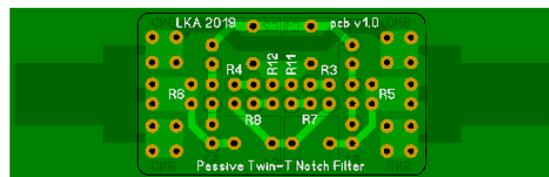
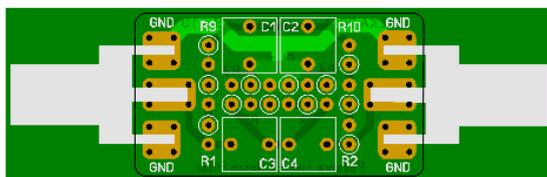
## SIMULATED ATTENUATION in dB : SOURCE IMPEDANCE 600R

LOAD IMPEDANCE	2 DEC BELOW NF	1 DEC BELOW NF	NF/H1	H2	H3	H4	H5	H6
10k	-7.99	-8.27	-78.3	-12.4	-8.18	-6.37	-5.28	-4.63
100k	-1.23	-1.84	-75.7	-10.4	-6.67	-5.15	-4.29	-3.79
1000k	-0.14	-0.85	-75.4	-10.2	-6.52	-5.04	-4.19	-3.71
infinite	-0.01	-0.74	-75.3	-10.2	-6.51	-5.02	-4.18	-3.70

## SIMULATED IMPEDANCES

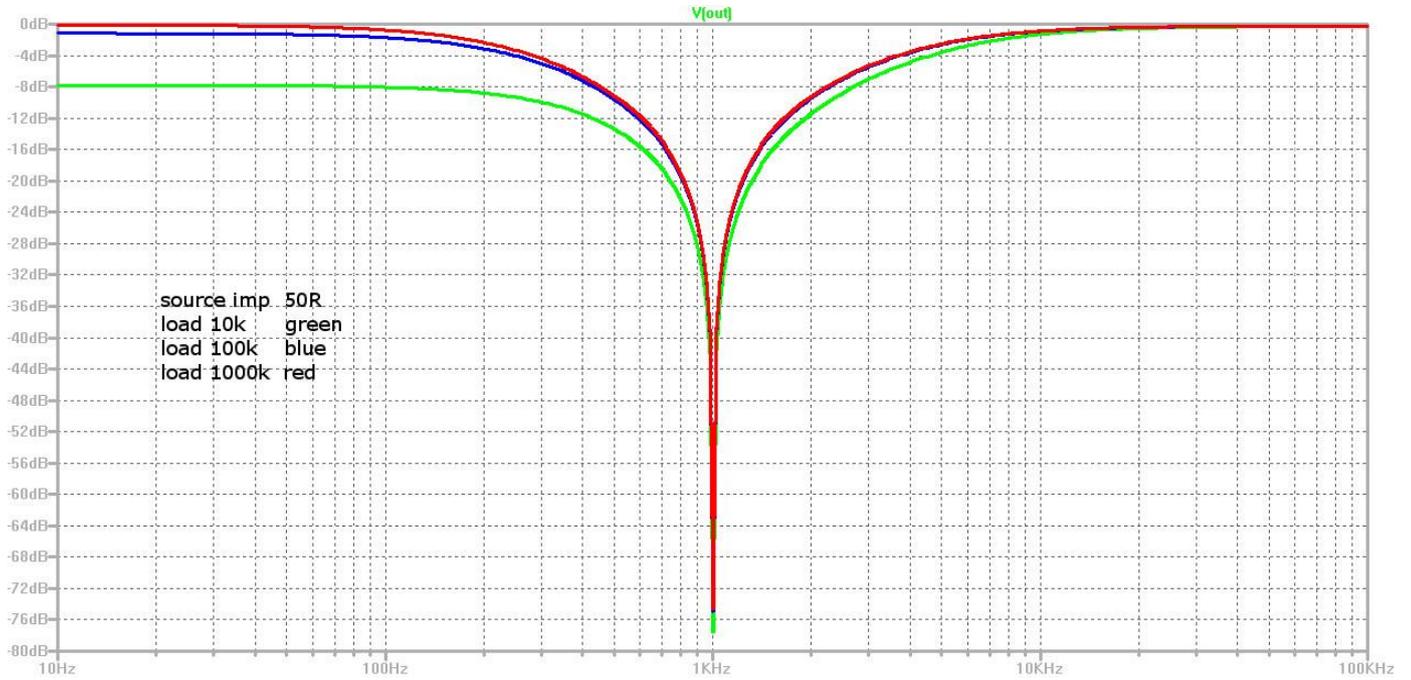
IN/OUT IMPEDANCE	2 DEC BELOW NF	1 DEC BELOW NF	NF/H1	1 DEC ABOVE NF	2 DEC ABOVE NF
source 100R	14.6K	13.7K	5.11K	1.33K	169R
source 1K	15.5K	14.4K	5.11K	1.26K	654R
load 10K	24.4K	18.7K	5.11K	1.69K	1.53K
load 100K	98.9K	20.3K	5.11K	1.89K	1.78K
load/source infinite	181K	19.2K	5.11K	1.92K	1.81K

PCB Size 38x21.6mm

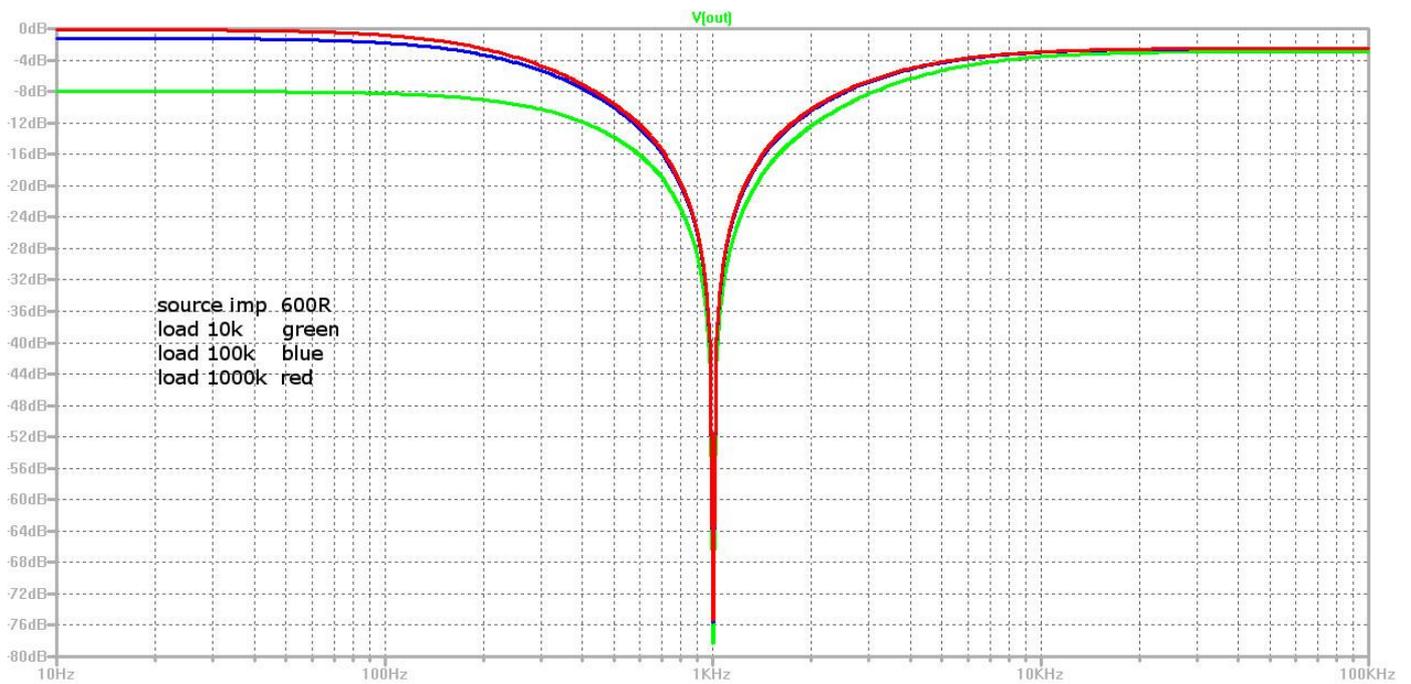


## Simulated Frequency Response

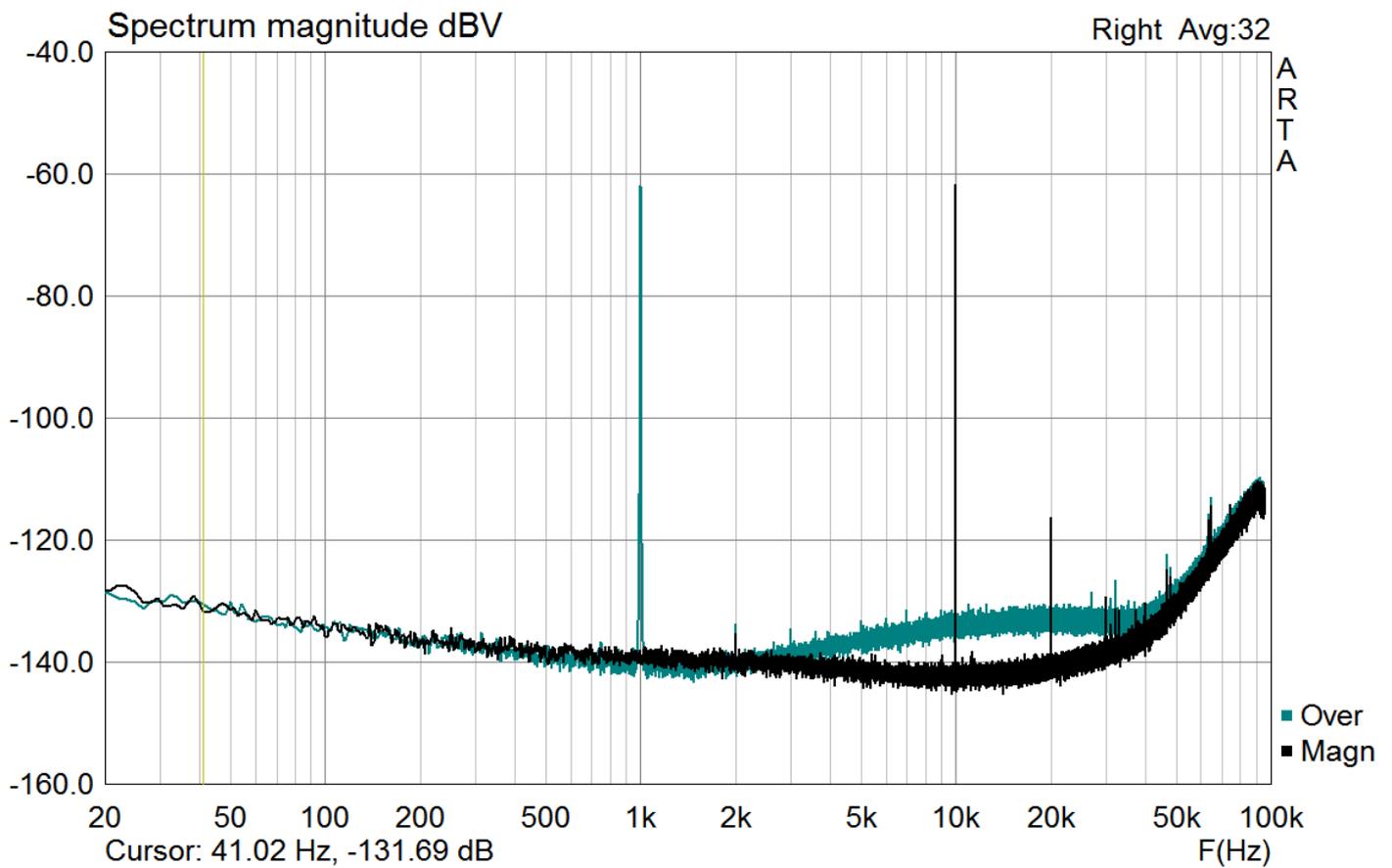
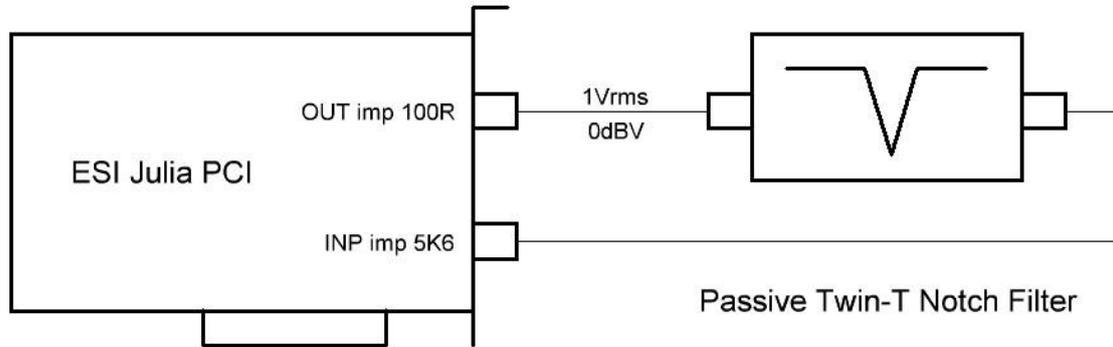
SOURCE IMPEDANCE = 50 Ohm  
LOAD IMPEDANCE = 10K, 100K, 1M Ohm



SOURCE IMPEDANCE = 600 Ohm  
LOAD IMPEDANCE = 10K, 100K, 1M Ohm

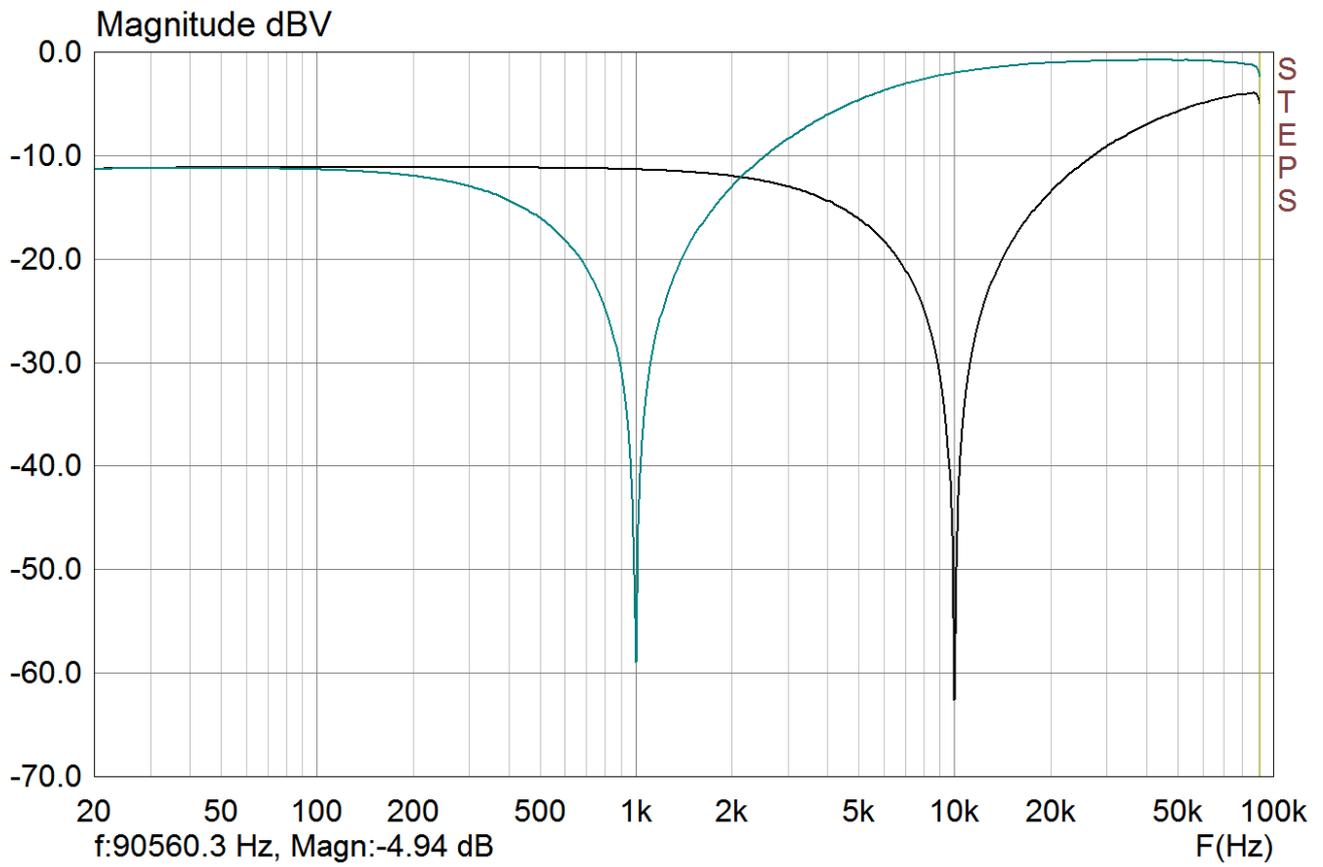


# Measured Frequency Response



RMS = -60.8 dBV THD = 0.43% THD+N = 22.24%

Julia loopback spectrum - passive twin T notch



Julia loopback - passive twin T notch

### LTSpice simulation

