

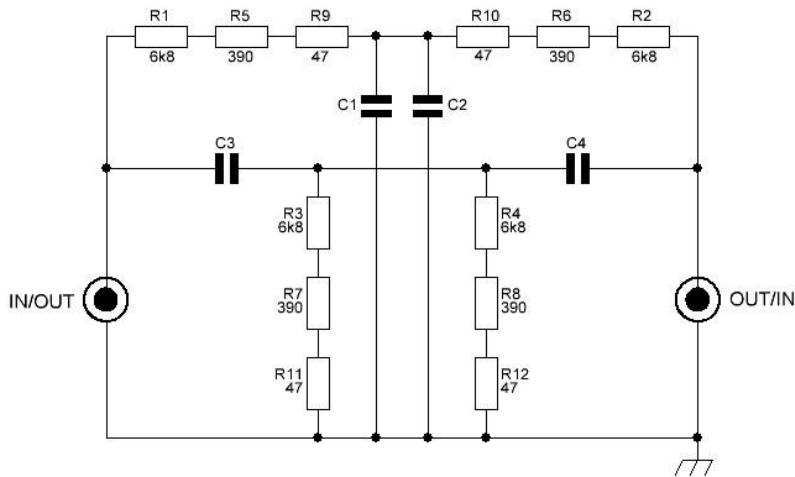
Passive Twin-T notch filter

LKA, e2000apc@gmail.com

INPUT VOLTAGE < 3Vrms
SELF DISTORTION < -150dB

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

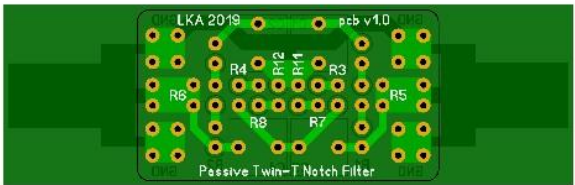
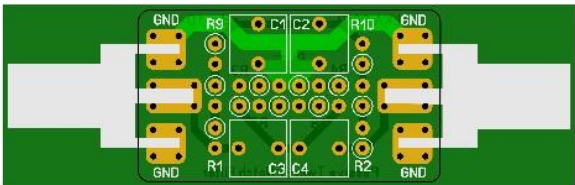
SIMULATED ATTENUATION in dB : SOURCE IMPEDANCE 600R

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

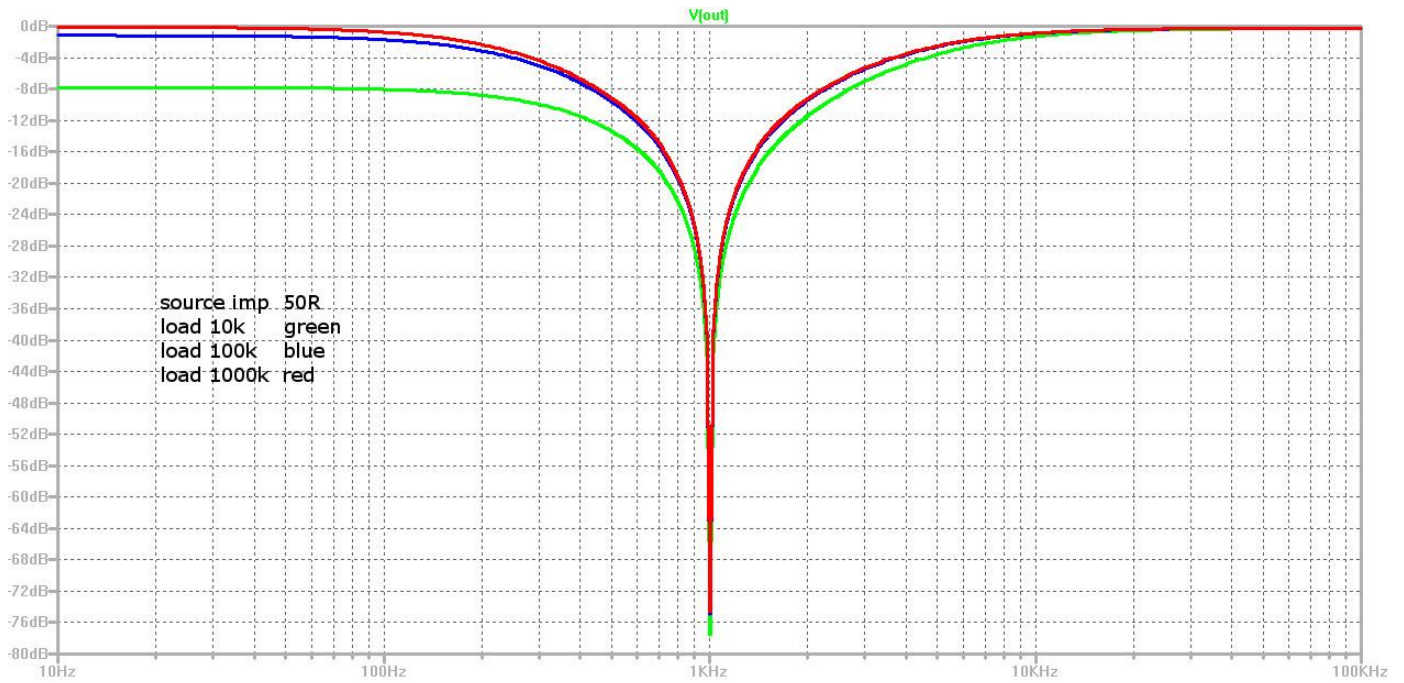
IN/OUT IMPEDANCE	2 DEC BELOW NF	1 DEC BELOW NF	NF/H1	1 DEC ABOVE NF	2 DEC ABOVE NF
source 100R	14.6K	13.7K	5.11K	1.33K	169R
source 1K	15.5K	14.4K	5.11K	1.26K	654R
load 10K	24.4K	18.7K	5.11K	1.69K	1.53K
load 100K	98.9K	20.3K	5.11K	1.89K	1.78K
load/source infinite	181K	19.2K	5.11K	1.92K	1.81K

PCB Size 38x21.6mm

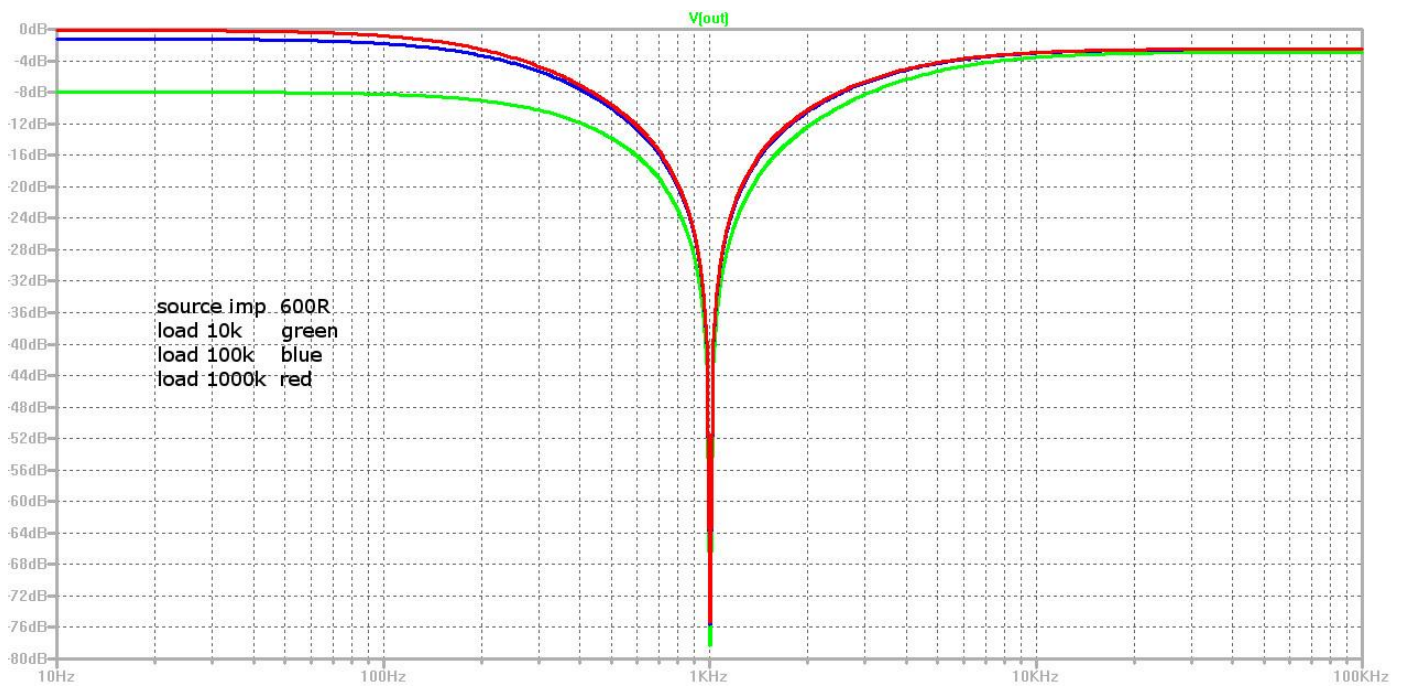


Simulated Frequency Response

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



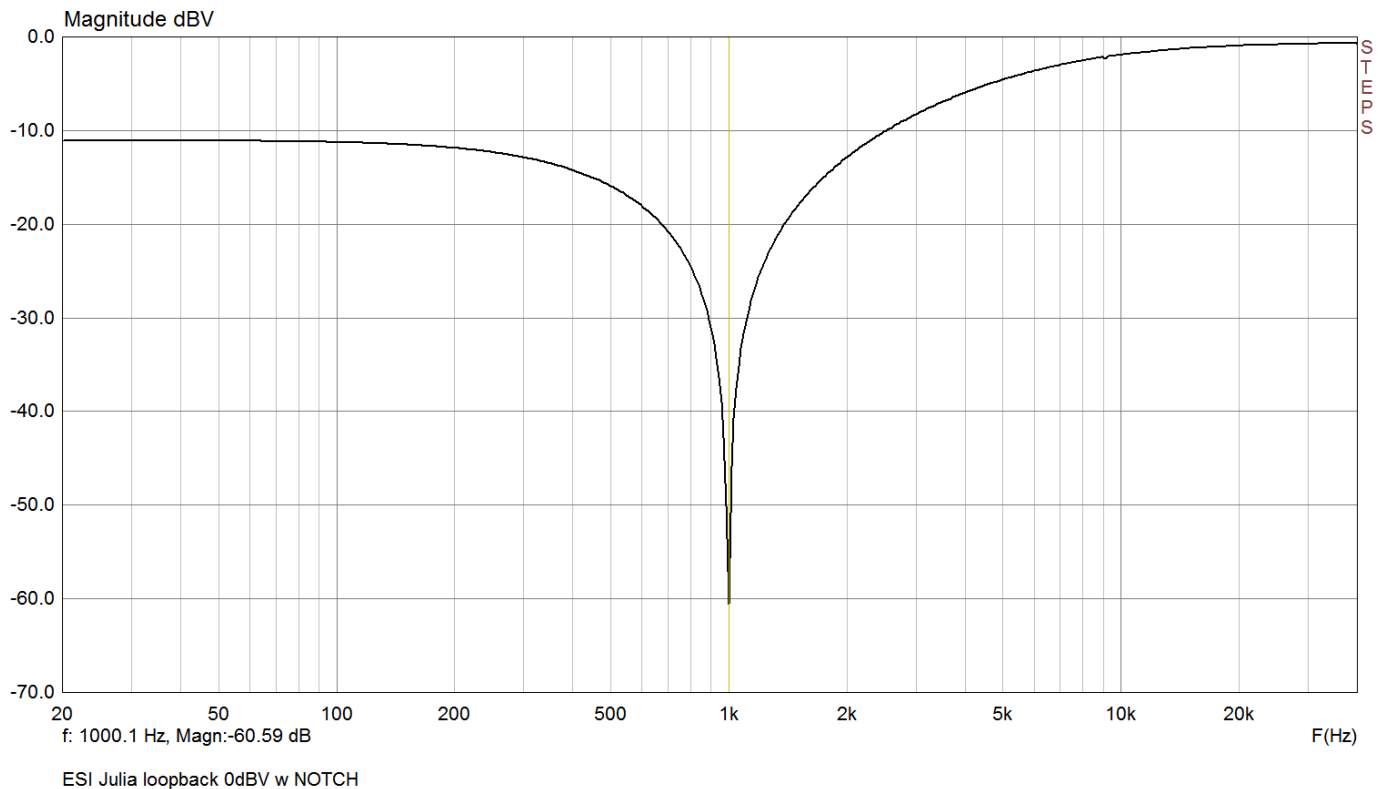
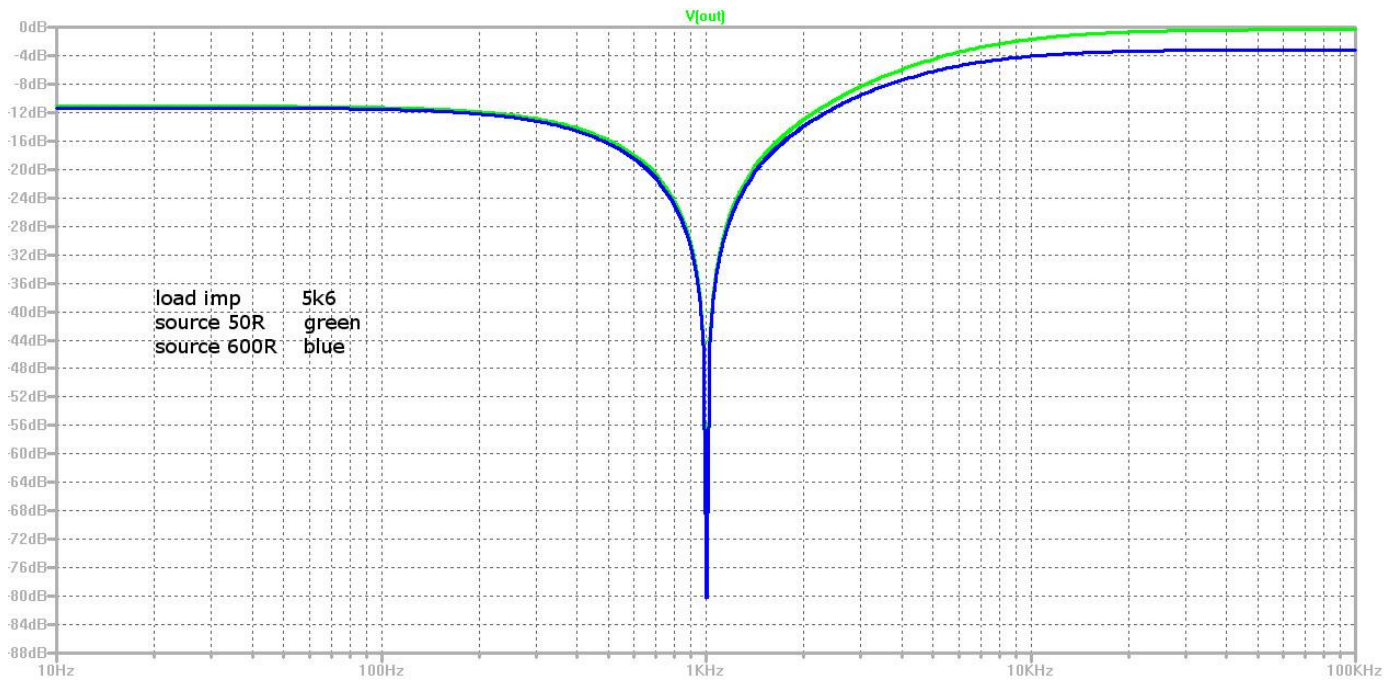
SOURCE IMPEDANCE = 600 Ohm
LOAD IMPEDANCE = 10K, 100K, 1M Ohm



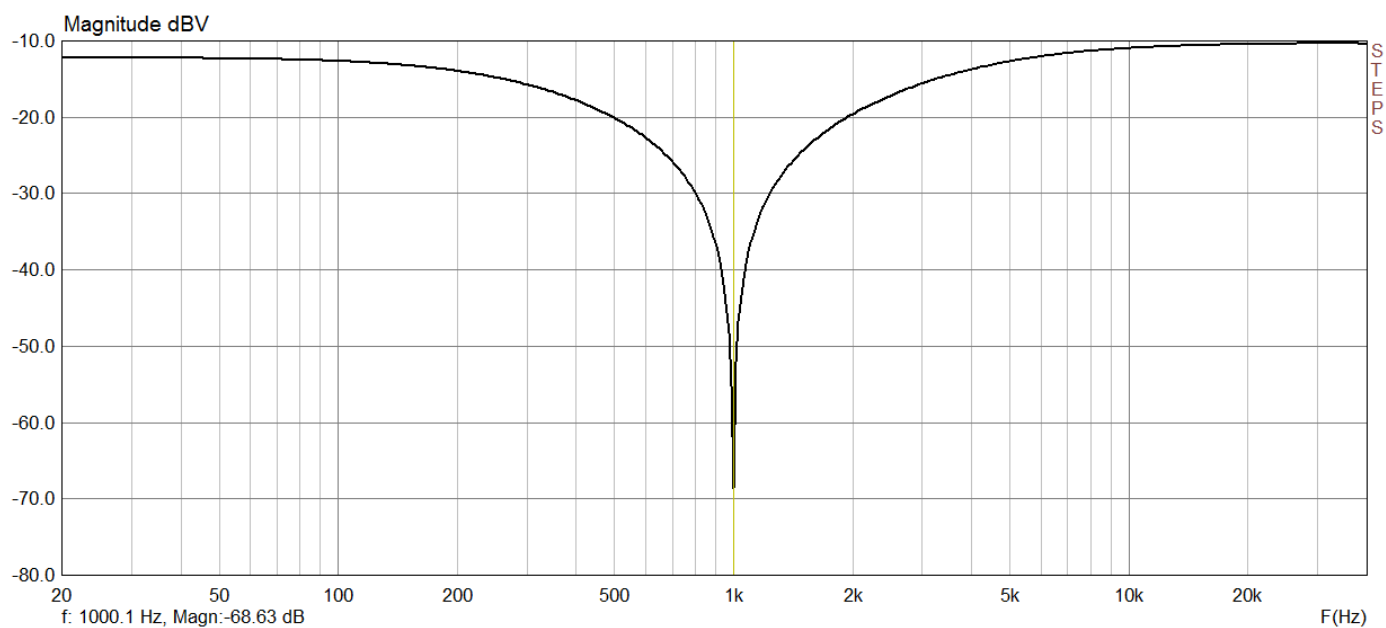
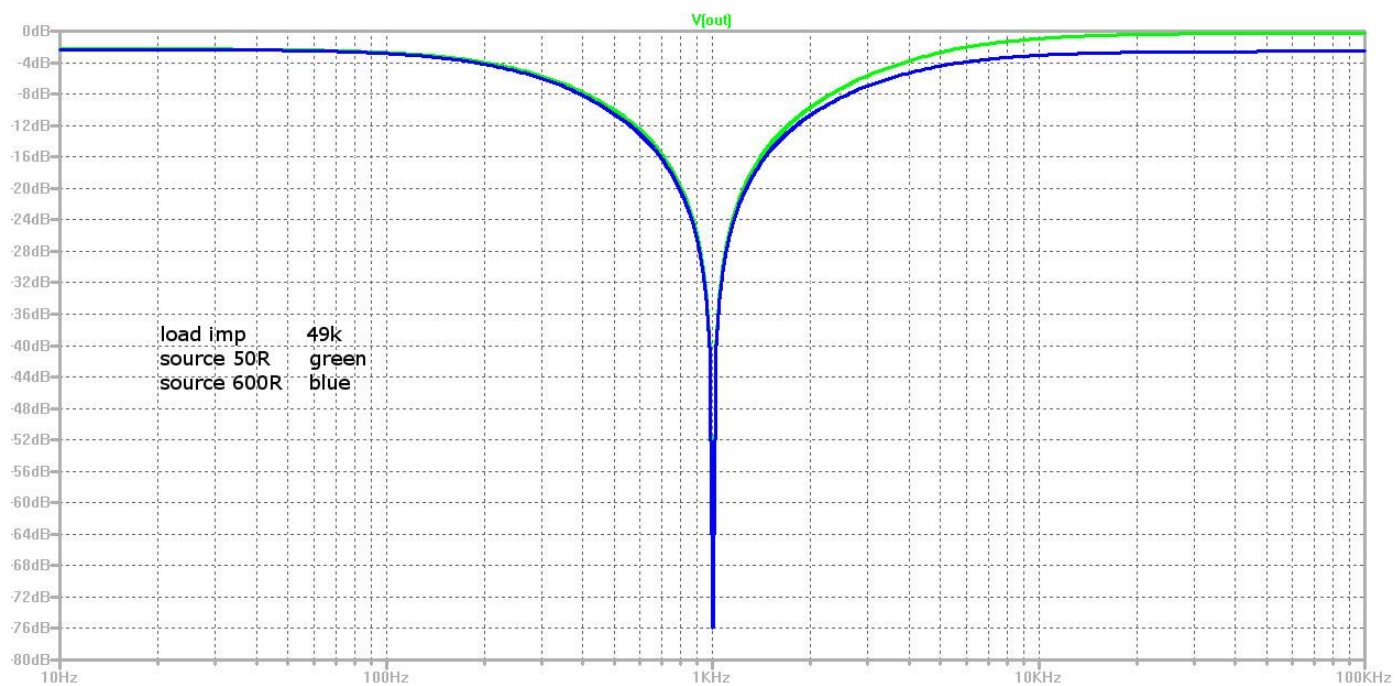
Simulated vs Measured Frequency Response

SOURCE IMPEDANCE
50R - SOUND CARD LINE OUT
600R - VICTOR'S 1K OSCILLATOR

ESI Juli@ PCI, line IN
LOAD IMPEDANCE = 5.6K Ohm



X-Fi USB HD modded, line IN
LOAD IMPEDANCE = 49K Ohm



X-Fi USB HD loopback -10dBV w NOTCH