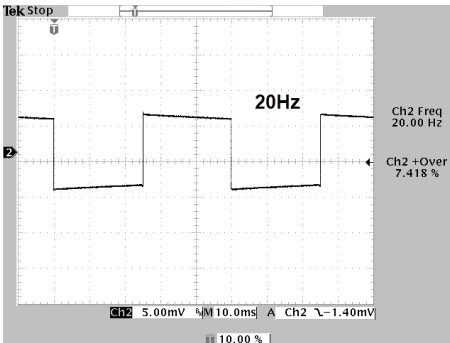
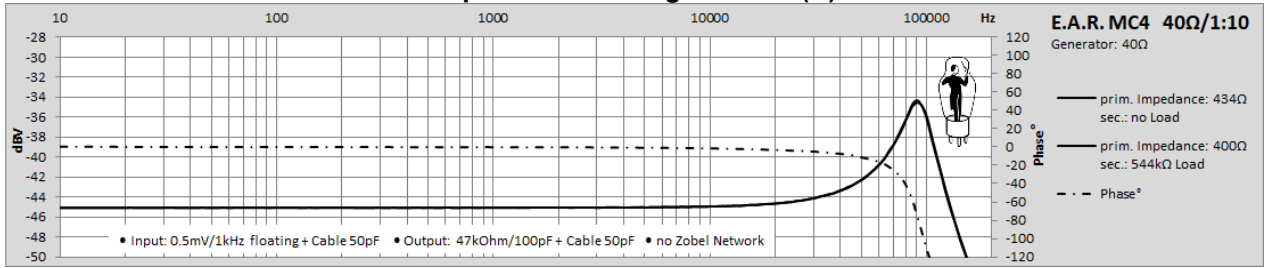


# E.A.R. MC4 MC-Transformer

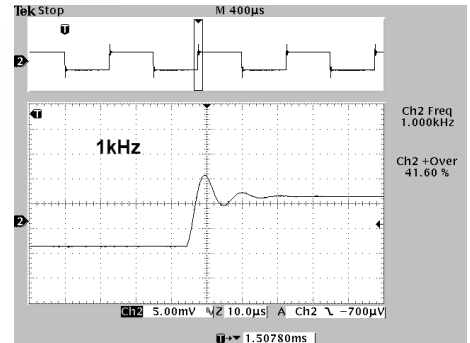
This is not the result of a scientific measurement, just DIY-Information to choose the desired MC-Transformer

## E.A.R Input: 40Ω Cartridge + Ratio (N): 1:10

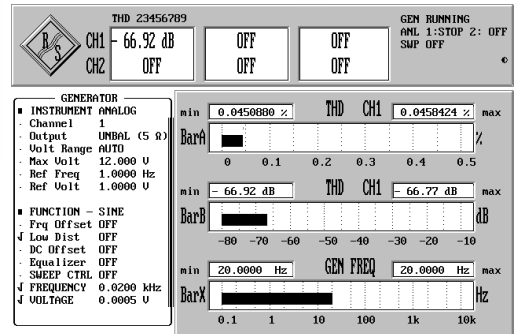
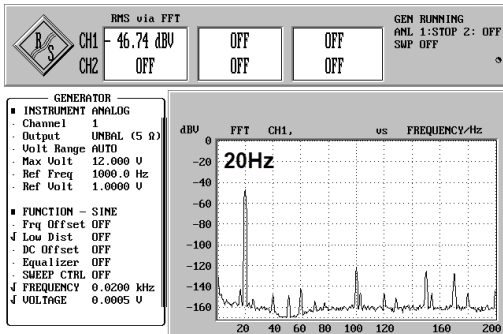


Calculated:  
 - prim. 434Ω, sec. no Load  
 - prim. 400Ω, sec. 544kΩ Load

Measured:  
 - Ratio (N) 1:10.4  
 - THD 20Hz~0.045%  
   1kHz~0.004%  
   10kHz~0.001%  
 - Prim. Inductance ( $L_p$ )  
   1.29H/100Hz (Output open)

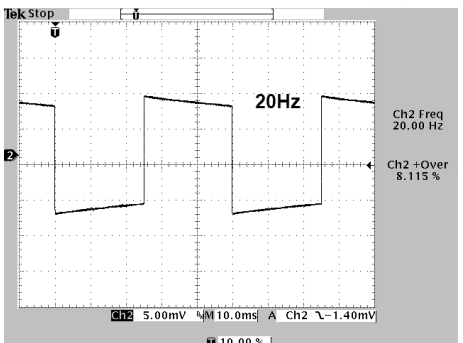
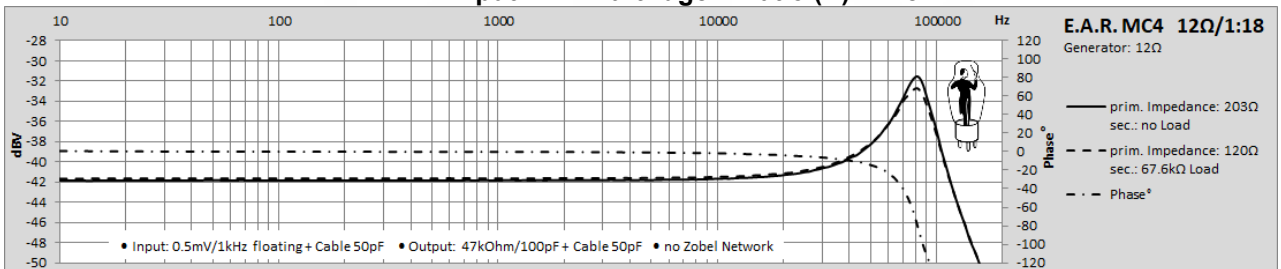


Input: 0.5mV<sub>RMS</sub>/40Ω + Cable 50pF    Output: 47kΩ/100pF + Cable 50pF (no Impedance Correction, no Zobel-Network)



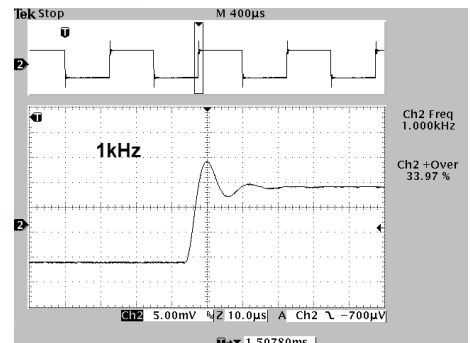
Input: 0.5mV<sub>RMS</sub>/40Ω + Cable 50pF    Output: 47kΩ/100pF + Cable 50pF (no Impedance Correction, no Zobel-Network)

## E.A.R Input: 12Ω Cartridge + Ratio (N): 1:18

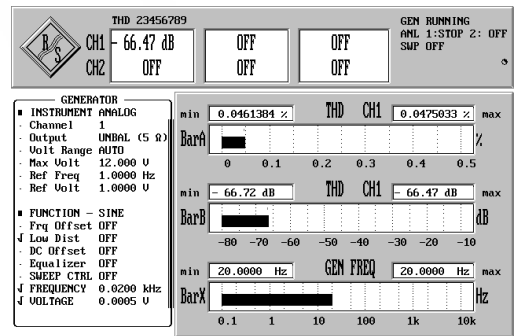
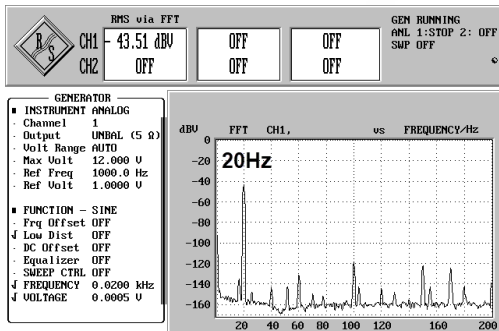


Calculated:  
 - prim. 203Ω, sec. no Load  
 - prim. 120Ω, sec. 67.6kΩ Load

Measured:  
 - Ratio (N) 1:15.2  
 - THD 20Hz~0.047%  
   1kHz~0.003%  
   10kHz~0.001%  
 - Prim. Inductance ( $L_p$ )  
   568mH/100Hz (Output open)

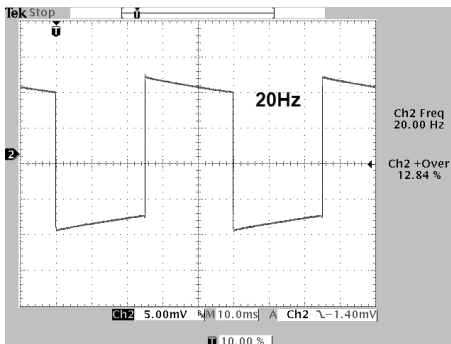
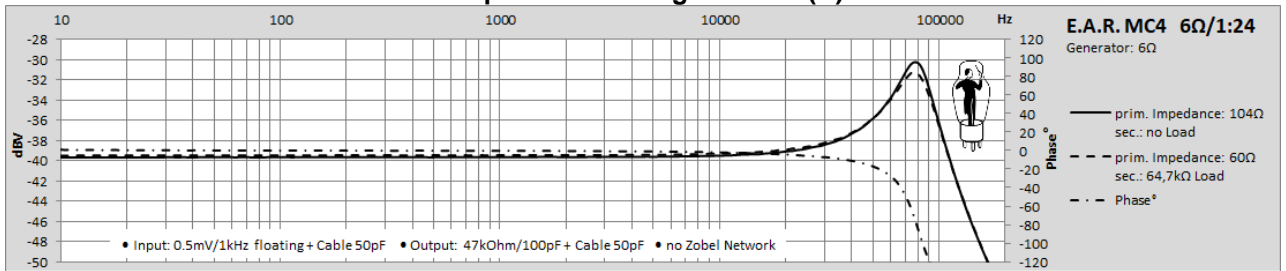


Input: 0.5mV<sub>RMS</sub>/12Ω + Cable 50pF    Output: 47kΩ/100pF + Cable 50pF (no Impedance Correction, no Zobel-Network)



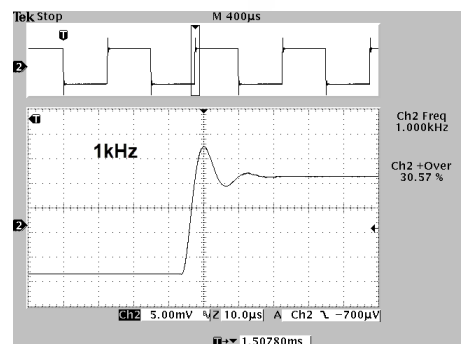
Input:  $0.5\text{mV}_{\text{RMS}}/12\Omega$  + Cable 50pF      Output:  $47\text{k}\Omega/100\text{pF}$  + Cable 50pF (no Impedance Correction, no Zobel-Network)

### E.A.R Input: 6Ω Cartridge + Ratio (N): 1:24

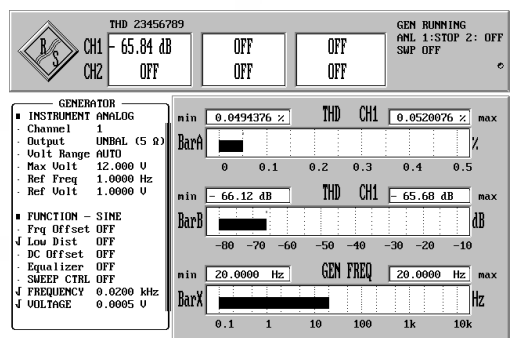
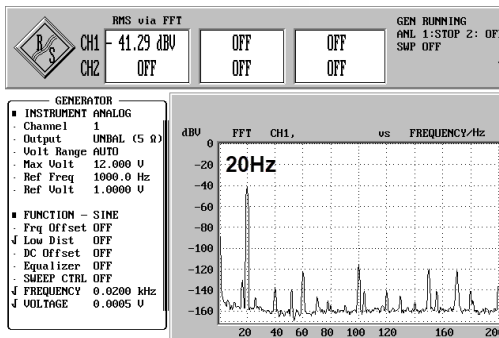


Calculated:  
 - prim. 104Ω, sec. no Load  
 - prim. 60Ω, sec. 64.7kΩ Load

Measured:  
 - Ratio (N) 1:21.3  
 - THD 20Hz~0.050%  
 1kHz~0.003%  
 10kHz~0.001%  
 - Prim. Inductance ( $L_p$ )  
 317mH/100Hz (Output open)

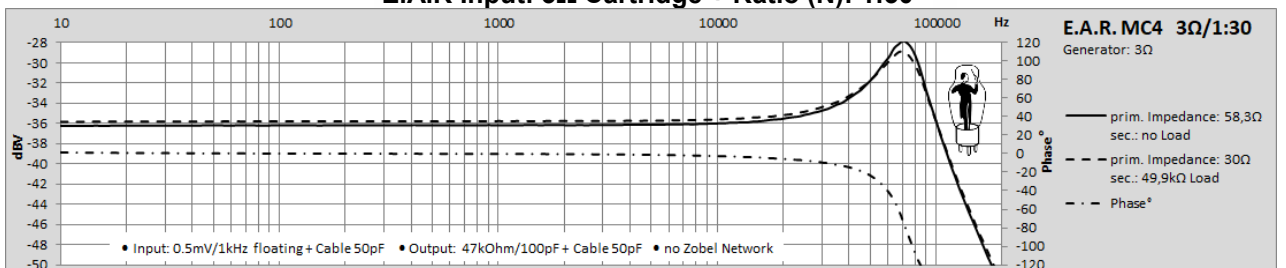


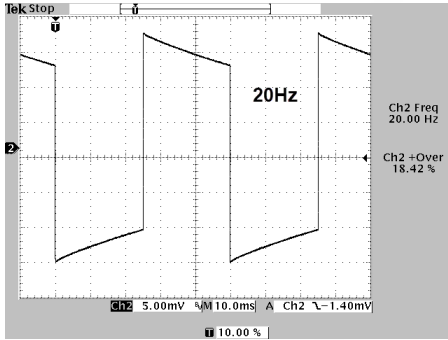
Input:  $0.5\text{mV}_{\text{RMS}}/6\Omega$  + Cable 50pF      Output:  $47\text{k}\Omega/100\text{pF}$  + Cable 50pF (no Impedance Correction, no Zobel-Network)



Input:  $0.5\text{mV}_{\text{RMS}}/6\Omega$  + Cable 50pF      Output:  $47\text{k}\Omega/100\text{pF}$  + Cable 50pF (no Impedance Correction, no Zobel-Network)

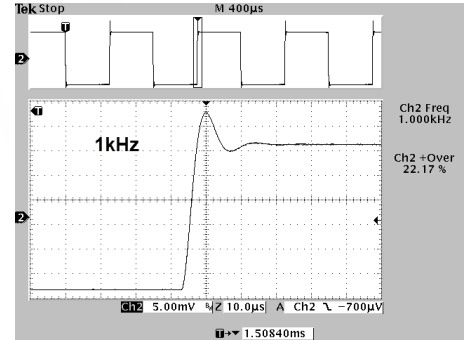
### E.A.R Input: 3Ω Cartridge + Ratio (N): 1:30





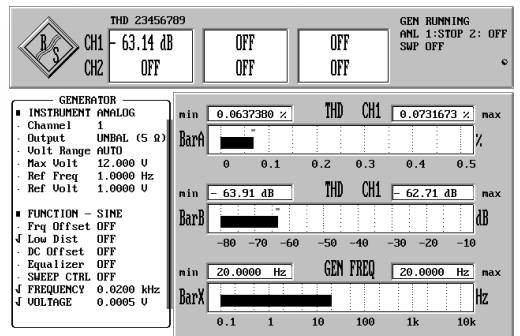
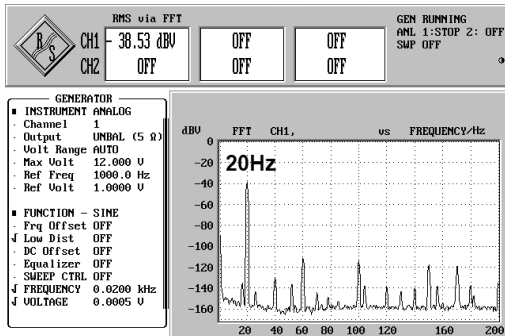
Calculated:  
 - prim. 58.3Ω, sec. no Load  
 - prim. 30Ω, sec. 49.9kΩ Load

Measured:  
 - Ratio (N) 1:28.4  
 - THD 20Hz~0.068%  
   1kHz~0.003%  
   10kHz~0.001%  
 - Prim. Inductance (L<sub>p</sub>)  
 140mH/100Hz (Output open)



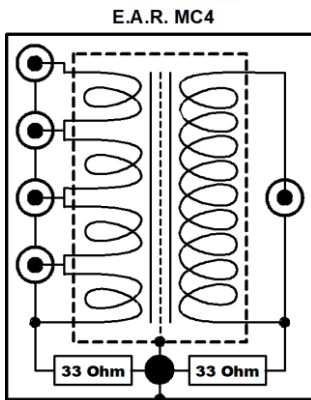
Input: 0.5mV<sub>RMS</sub>/3Ω + Cable 50pF

Output: 47kΩ/100pF + Cable 50pF (no Impedance Correction, no Zobel-Network)



Input: 0.5mV<sub>RMS</sub>/3Ω + Cable 50pF

Output: 47kΩ/100pF + Cable 50pF (no Impedance Correction, no Zobel-Network)



- Noise-Shield between prim./sec. Windings  
 - 2 x Case-Screw for Grounding



Equipment: Rohde & Schwarz UPL; Rohde & Schwarz APN62; Tektronix TD3032B; Digilent Discovery2; UNI-T; UT61  
 Version: 2.3 kurtblum.com