



REICHENBACH ENGINEERING



# CMOB-3

## LINE OUTPUT TRANSFORMER Bifilar Windings

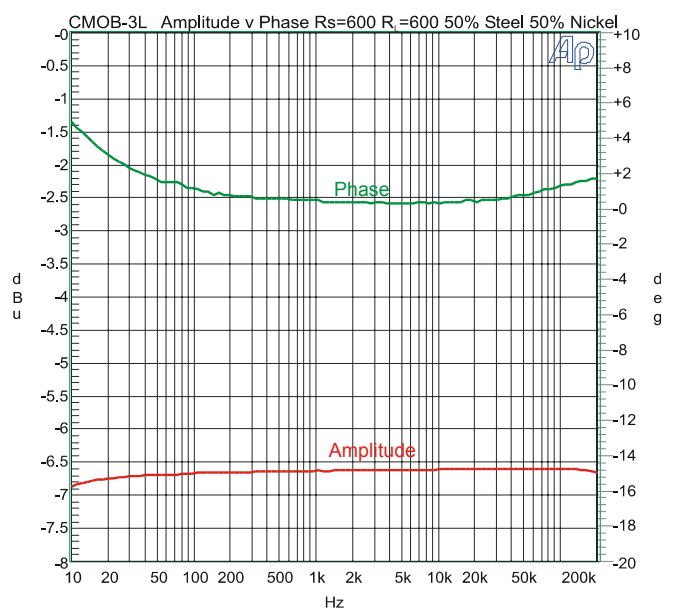
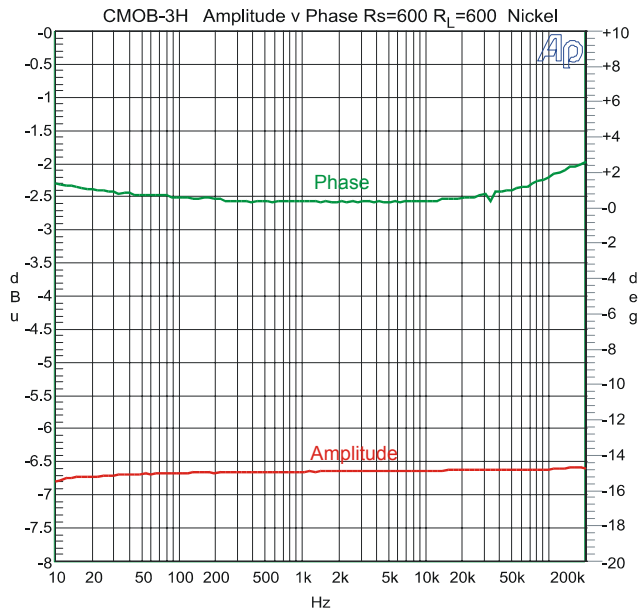
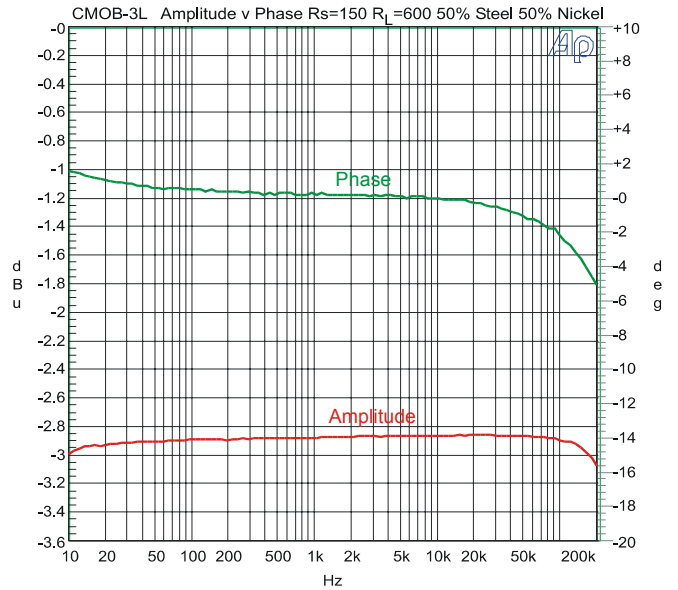
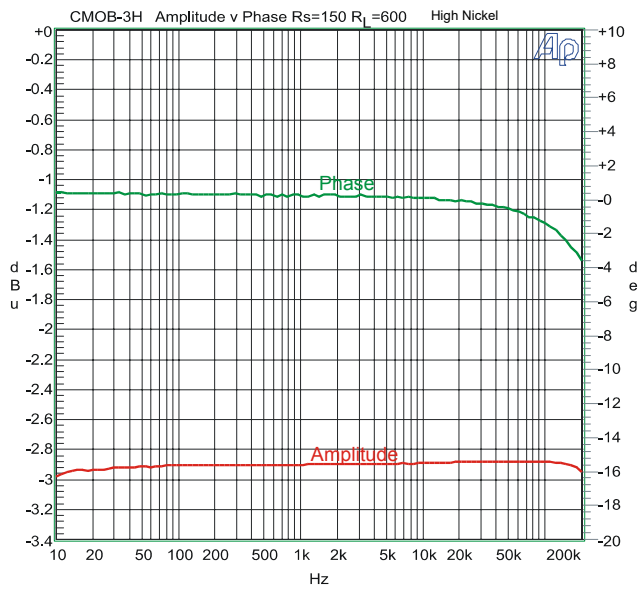
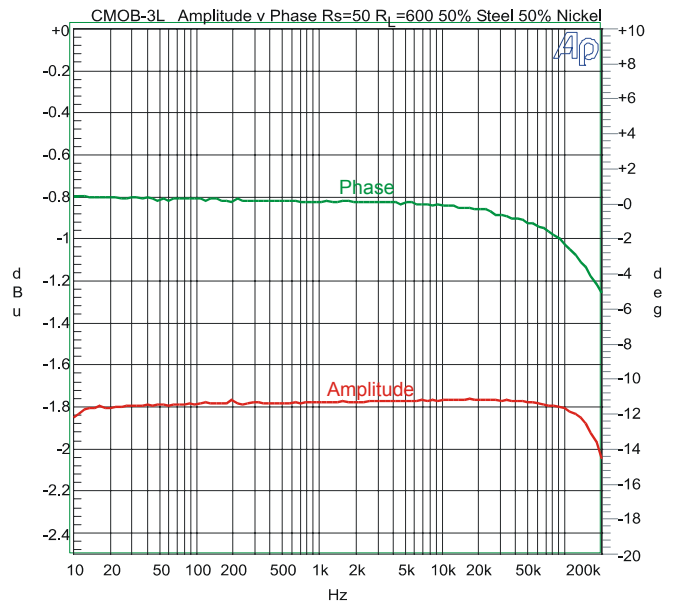
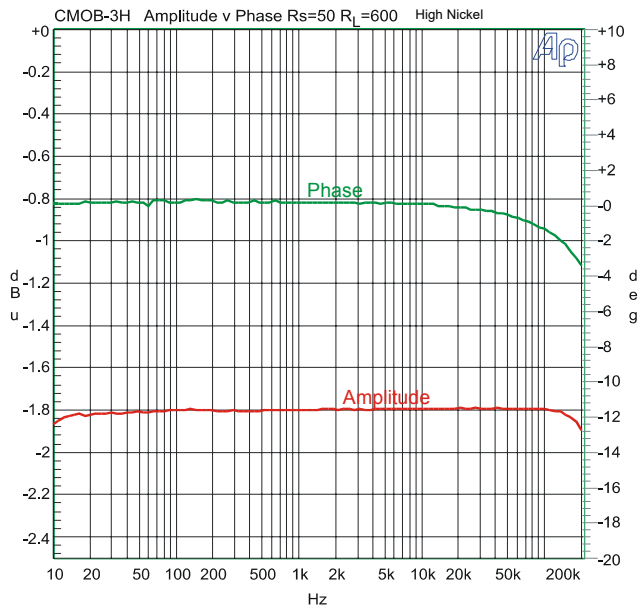
- Excellent bandwidth: -0.1 dB at 200 kHz,
- $R_s=150\Omega$
- 80% Nickel ("H" suffix), or 50% Ni + 50% Steel laminations ("L") or steel ("S")
- Distortion  $\leq 0.02\%$  typ at 20 Hz,  $R_s=150\Omega$  HiNi
- +19 dBu at 20 Hz, 1% THD+N  $R_s \leq 150\Omega$
- Phase Shift  $\sim -0.2^\circ$  at 20 kHz,  $R_s=150\Omega$
- Low insertion loss

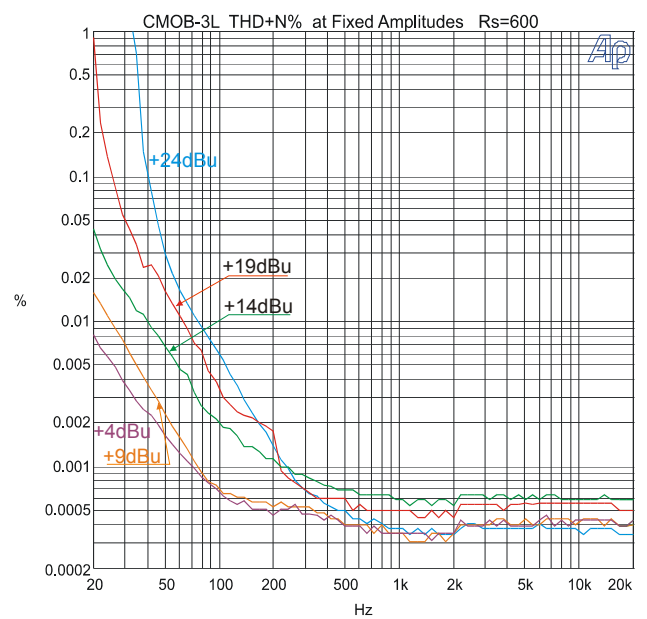
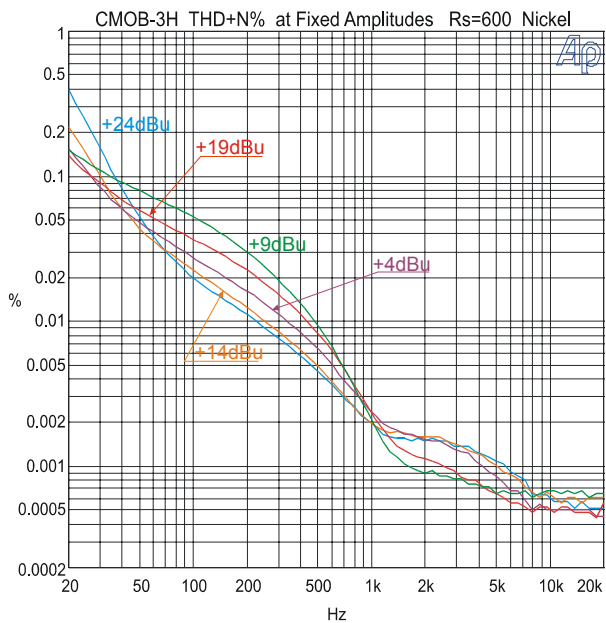
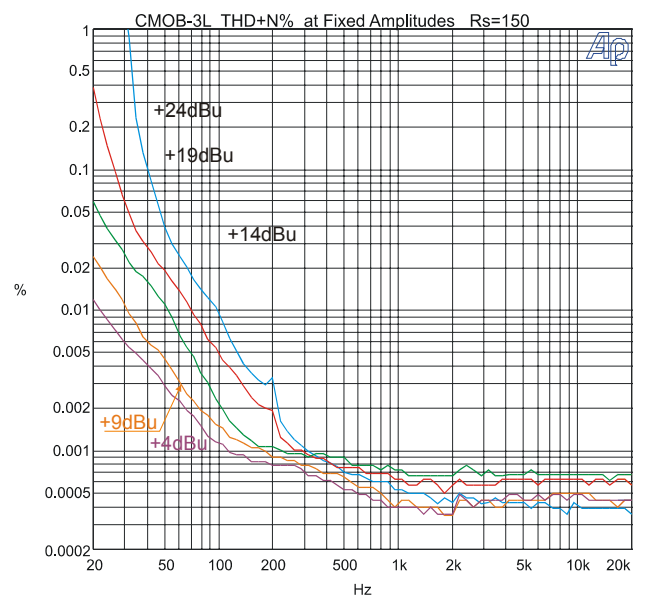
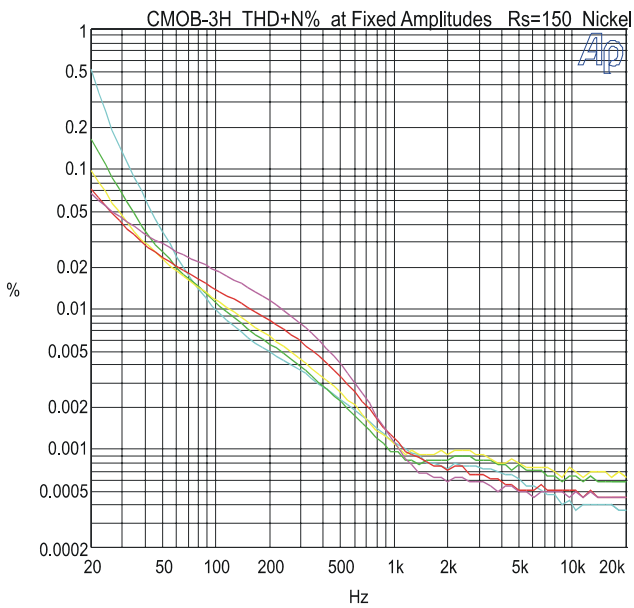
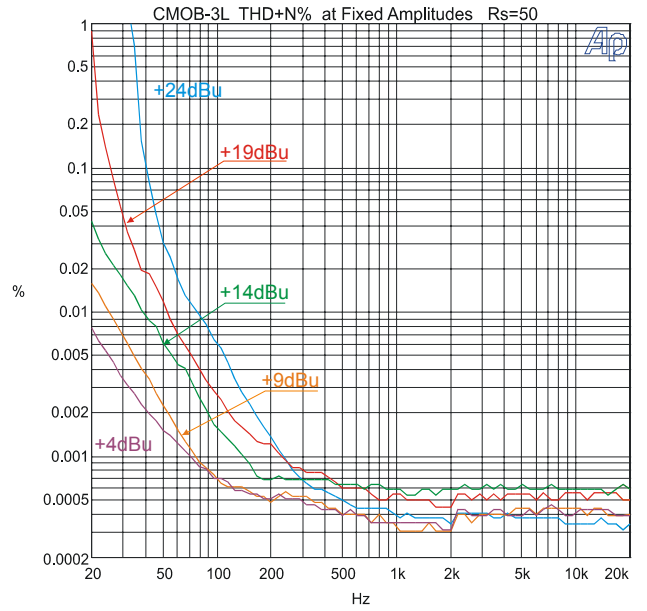
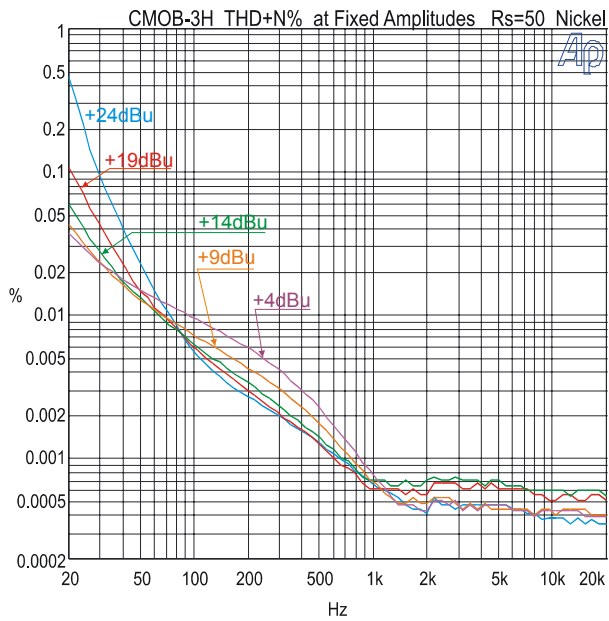
The CMOB-2 output transformer uses bifilar construction techniques. This two winding transformer delivers good coupling between windings providing very wide bandwidth. It is available with 80% nickel alloy ("H" suffix), 50% nickel + 50% steel ("L"), or all steel ("S"). It can be driven with source impedances of up to 600 Ohms. As with all line driving transformers the amplifier feeding it should be capable of cleanly delivering the power required to reach maximum operating level.

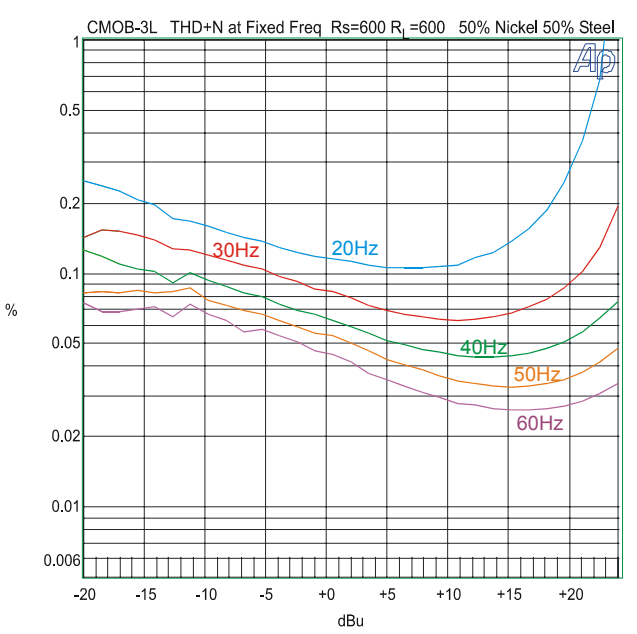
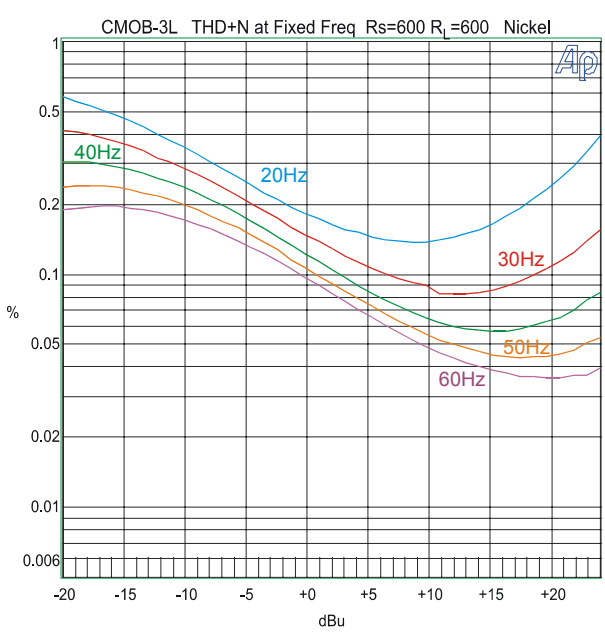
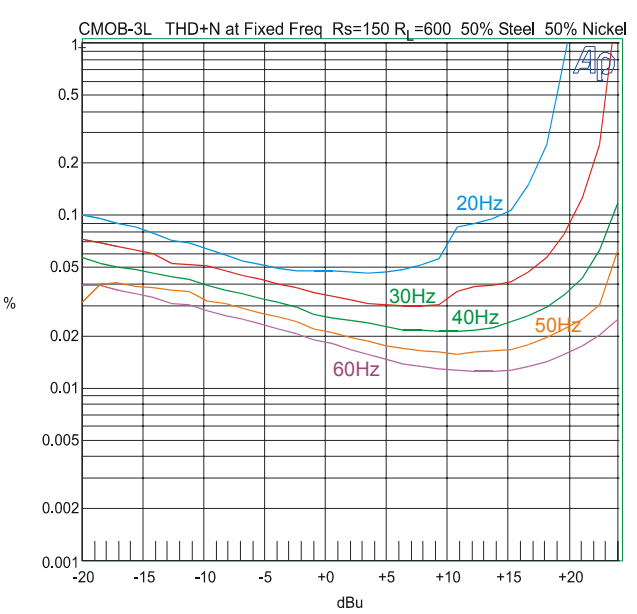
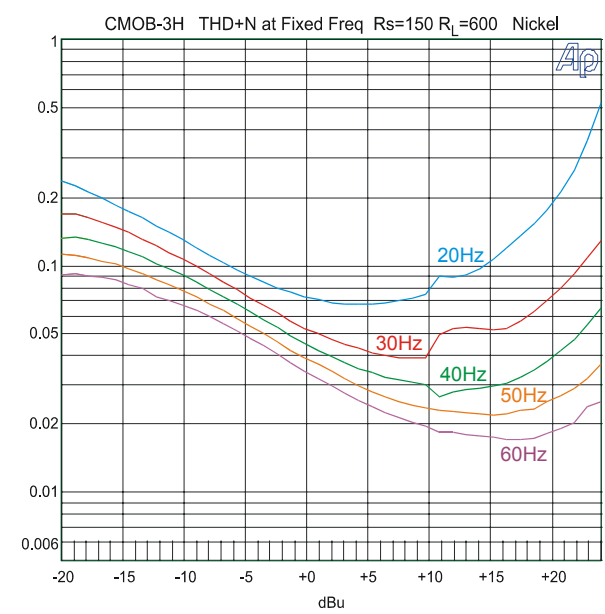
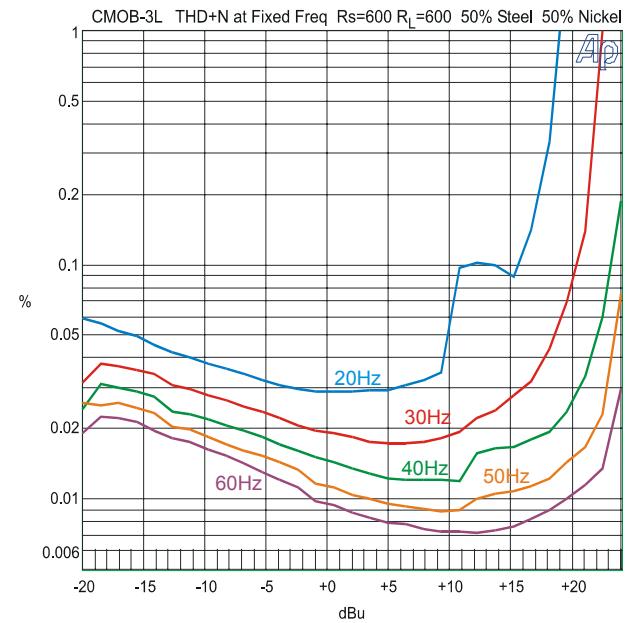
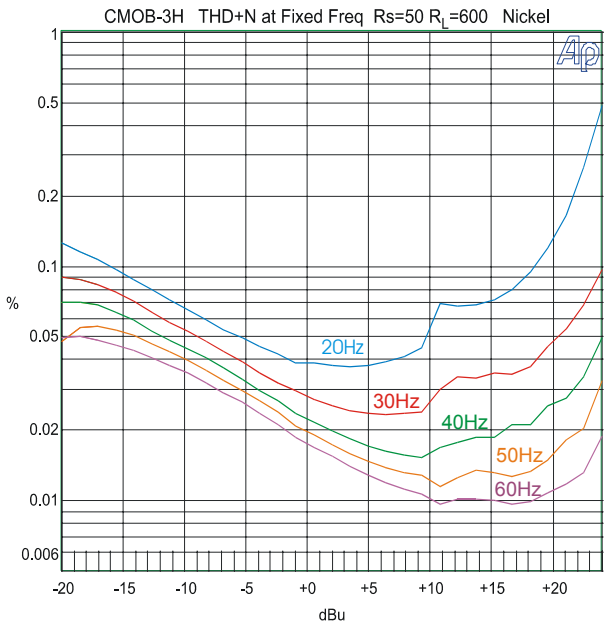
### CMOB-3H / CMOB-3L / CMOB-3S

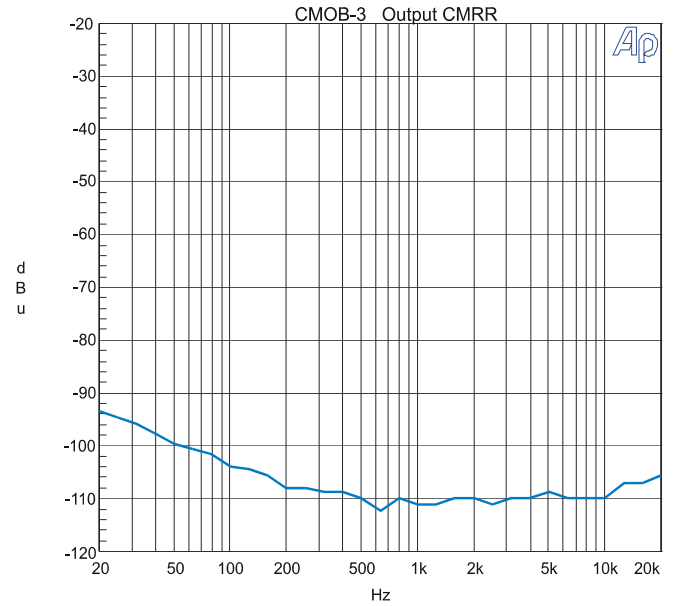
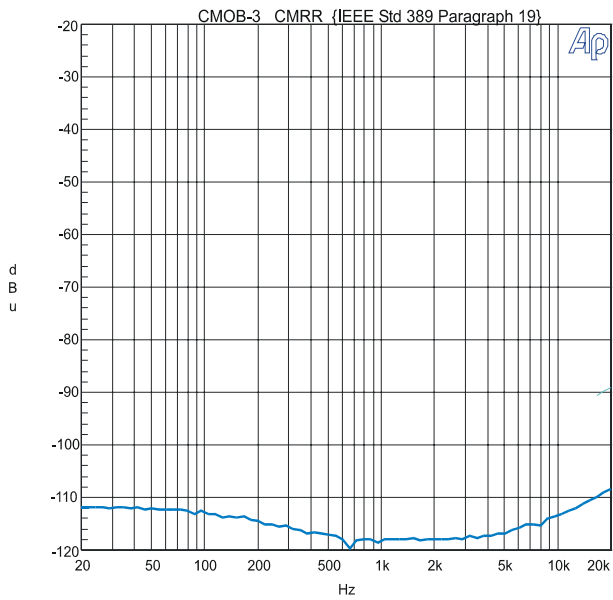
Parameter	Conditions	Typ
Turns Ratio		1 : 1.00
Input Impedance, Zi	20 Hz to 20 kHz, 0 dBu Test Circuit 3	637 $\Omega$
Voltage Gain	1 kHz HiNi Core, $R_s=150$ 1 kHz 50% Nickel/50% Steel Core, $R_s=150$	-2.82 dB -2.83dB
Distortion (THD+N%)	1 kHz, +4 dBu, $R_s=150$ HiNi 1 kHz, +4 dBu, $R_s=150$ 50%Ni/50% Steel Test Circuit 1	0.0004% 0.0013%
Max 20 Hz input level	1.0% THD+N, $R_s \leq 150$ HiNi 1.0% THD+N, $R_s \leq 150$ 50% Ni 50% Steel Test Circuit 1	>+24 dB +20 dB
Response, ref 1 kHz	20 Hz $R_s=150\Omega$ 50%Ni50%Steel 20 kHz $R_s=150\Omega$ 50%Ni50%Steel 200 kHz $R_s=150\Omega$ Test Circuit 1 Test Circuit 1 Test Circuit 1	-0.02 dB +0.01 dB -0.1 dB
Phase Shift at 20Hz Phase Shift at 20 kHz	Referenced to source generator Test Circuit 1	+0.8° -0.2°
CMRR	60 Hz Test Circuit 4 per IEEE Std 389-1996 ¶19 1 kHz Test Circuit 4 per IEEE Std 389-1996 ¶19	92 dB 98dB
Output CMRR	60 Hz Test Circuit 2 1 kHz Test Circuit 2	112 dB 118 dB
Operating Temp Range	Operation and storage	0° C Min 70° C Max

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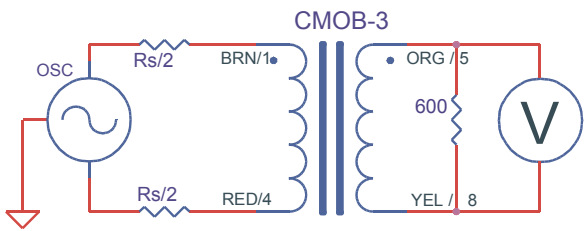




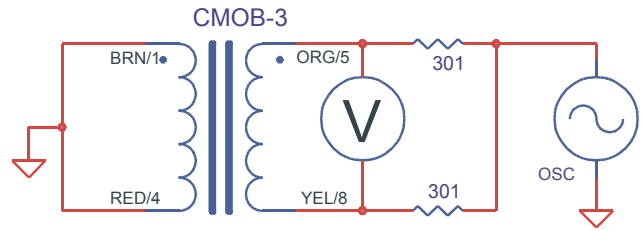


NOTES:

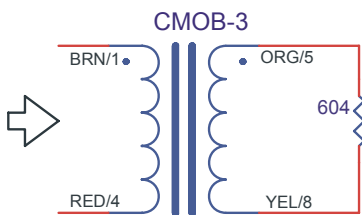
1. All graphs generated from one (1) randomly chosen device. No statistical averaging or weighting. Data from one sweep.
2.  $R_L = 604$  unless otherwise noted.



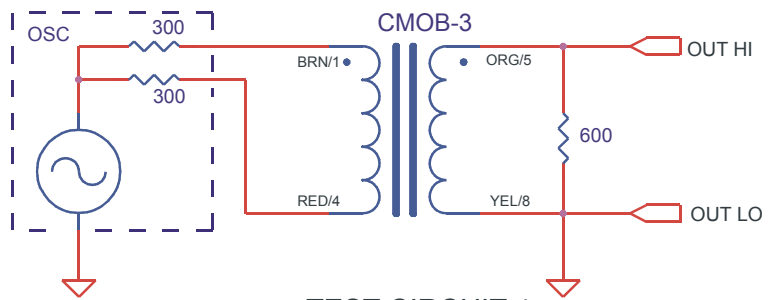
TEST CIRCUIT 1



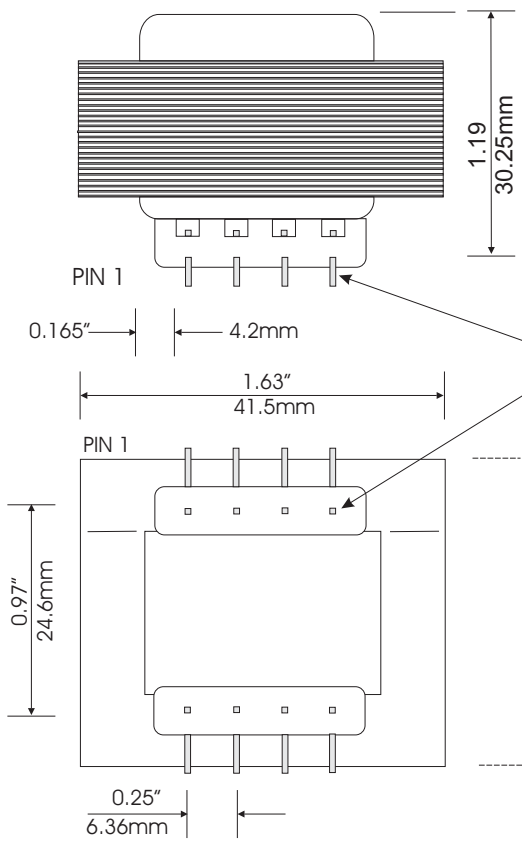
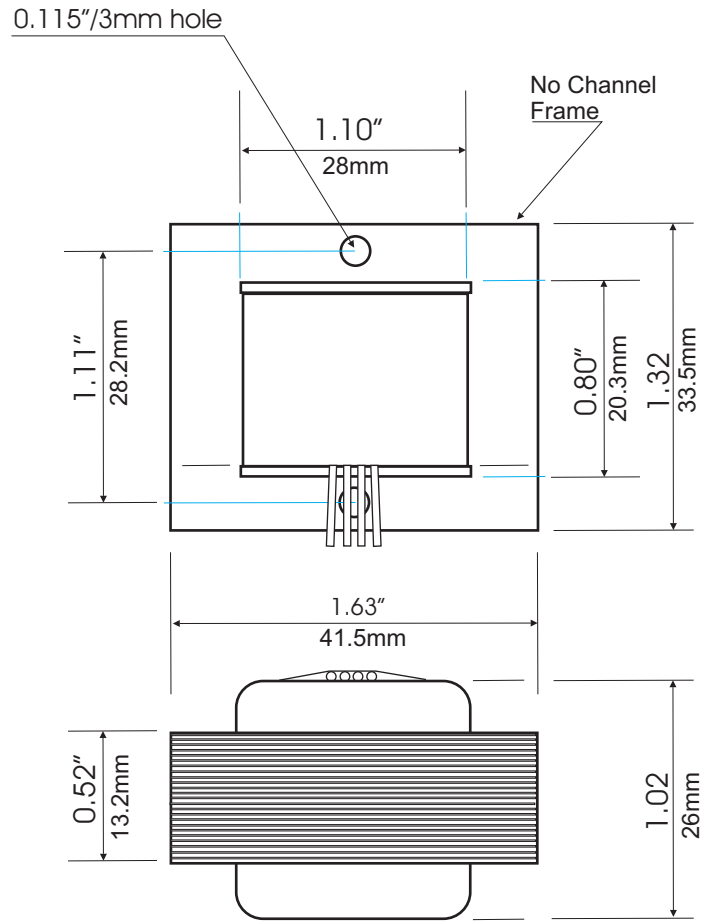
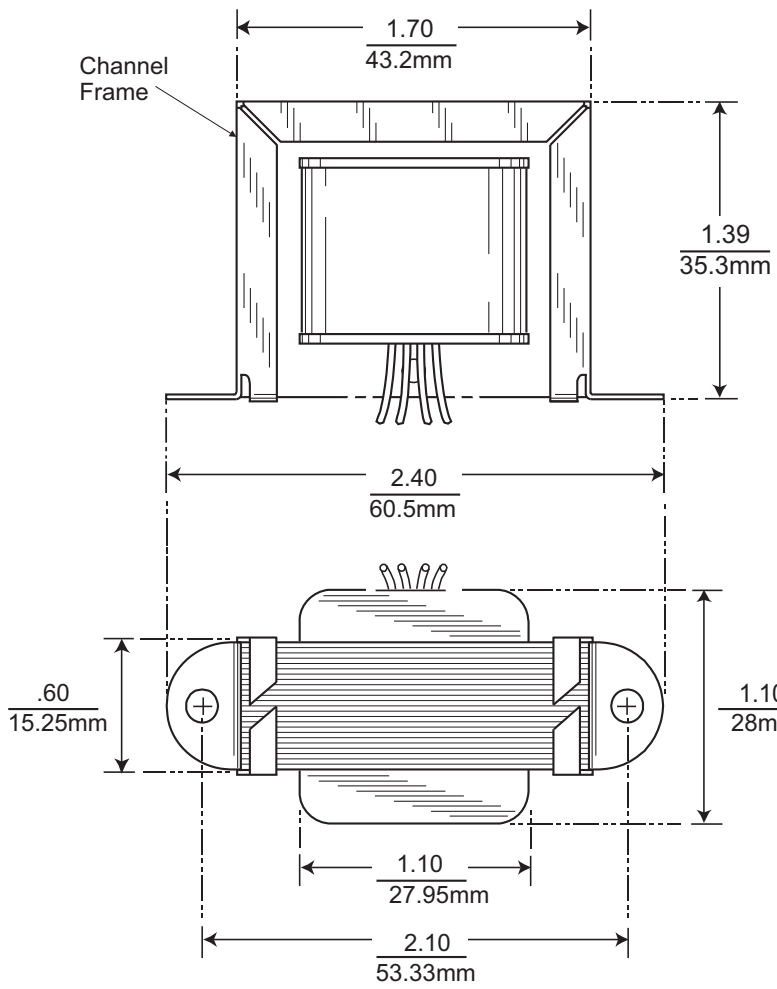
TEST CIRCUIT 2



TEST CIRCUIT 3



TEST CIRCUIT 4



Printed Circuit Pins  
0.026"x0.026"  
0.66mm x 0.66mm

