QUALITY MAGNETICS SINCE 1979

CMOL-4x600T2

LINE BRIDGING SPLITTER TRANSFORMER
Ultra-Balanced

- **Superb CMRR ≥ 110 dB 20 Hz - 1 kHz**
- **Excellent bandwidth**
- **Distortion 0.02% typ at 20 Hz**
- **+26 dB max input level at 20 Hz, 1% THD+N%**
- **Phase Shift** 1°, +5°, -4° **at 20 kHz**
- **Low insertion loss**
- **Twin Bobbin hum-bucking**

The CineMag CMOL-4x600T2 bridging output transformer is optimized for nearly ideal winding balance. This technique results in superb CMRR throughout the audio band. At 60Hz the CMRR is 115 dB. It is designed to be driven by either a balanced or unbalanced source, and it delivers either a balanced or unbalanced output. It is manufactured with a High Nickel (80% Ni) core. All connections to the internal shield foils are spot welded to assure long term reliability, as is so with all CineMag transformers. This wire bonding technique is necessary to retain the close balance between windings. Soldering the shield leads would result in lumps in the coils as they are built up resulting in uncontrollable variations. Not only is its coil configuration hum-bucking, it is encased in a µMetal can which provides an additional 30 dB of magnetic shielding.

This line splitter transformer is ideal for long cable runs where interference is a serious problem in electrically hostile environments.

CMOL-4x600T2

Parameter	Conditions	Typ
Turns Ratio		1 : 1.00 : 1.00 : 1.00
Input Impedance, Zi	20 Hz to 20 kHz, +0 dBu Test Circuit 4	525Ω
Voltage Gain	1kHz Rs=600 R_L=600 + 600 + 600 Test Circuit 1 1kHz Rs=50 R_L=600 + 600 + 600	-6.11 dBu -1.55 dBu
Distortion (THD+N%)	1 kHz, +6dBu, Rs= 600 R_L=600 +600 + 600 Test Circuit 1	0.005%
Max 20 Hz input level	1.0% THD+N% Test Circuit 1	+26 dBu
Response, ref 1 kHz	20 Hz Rs=600 R_L=600 + 600 + 600 Test Circuit 1 20 kHz -3 dB	-0.1, -0.1, -0.1 dBu -0.05. -0.05, +0.05 dBu >200kHz
Phase Shift at 20Hz Phase Shift at 20 kHz	Referenced to source generator Test Circuit 1	1° +1°, +5°, -4°
CMRR	60 Hz R_L=600 + 600 + 600 Test Circuit 2 1 kHz 20 kHz IEEE Std. 389-1966 ¶19	≥ 115 dB ≥ 108 dB ≥75 dB
Unbalanced CMRR	60Hz R_L=600 + 600 + 600 Test Circuit 3	
Output CMRR	60 Hz . Test Circuit 5	90 dB
Operating Temp Range	Operation and storage	0° C Min 70° C Max

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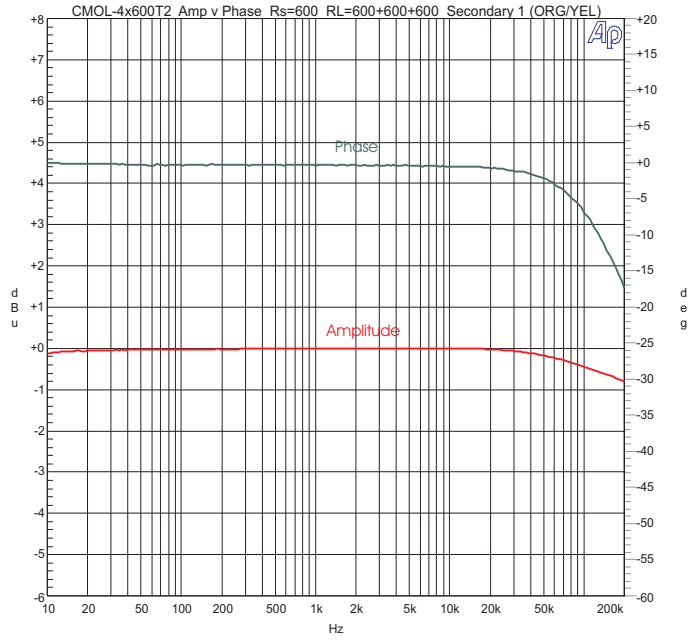
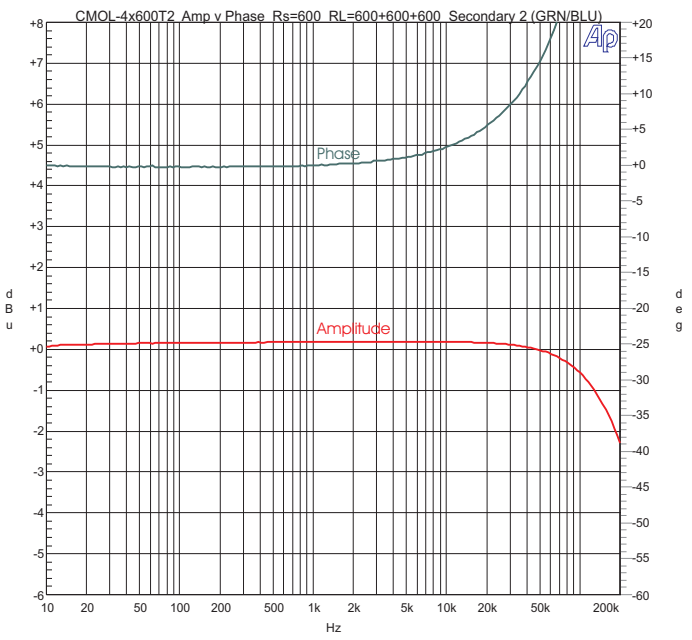
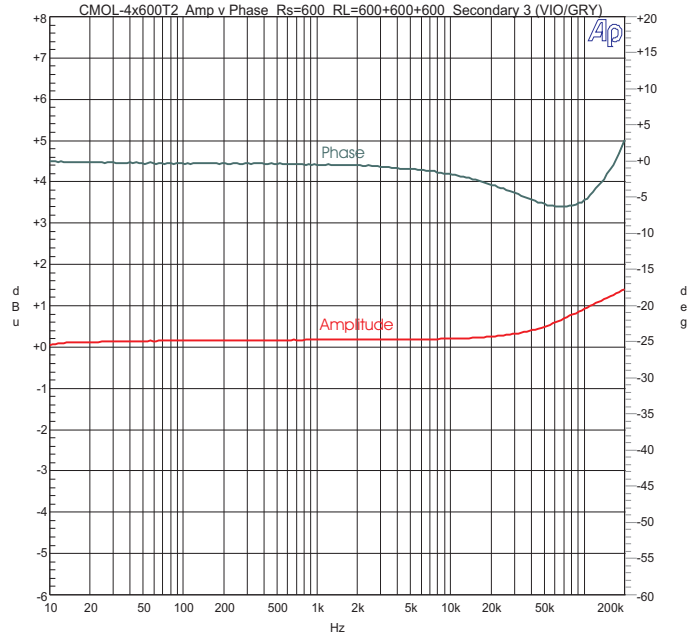
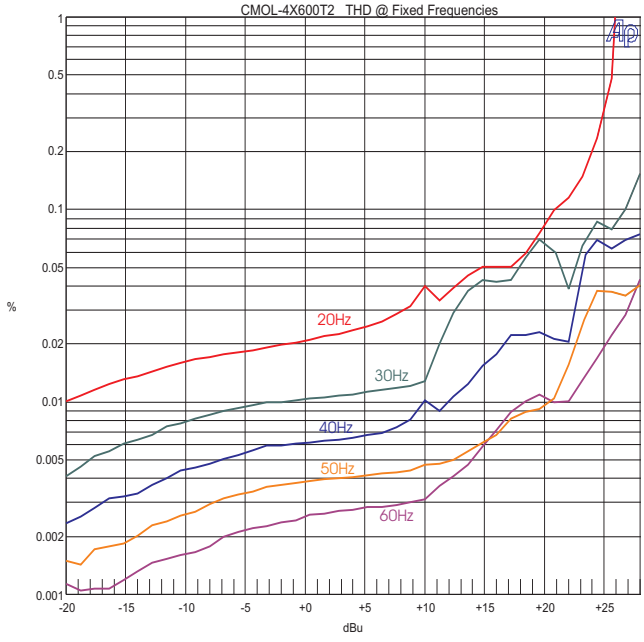
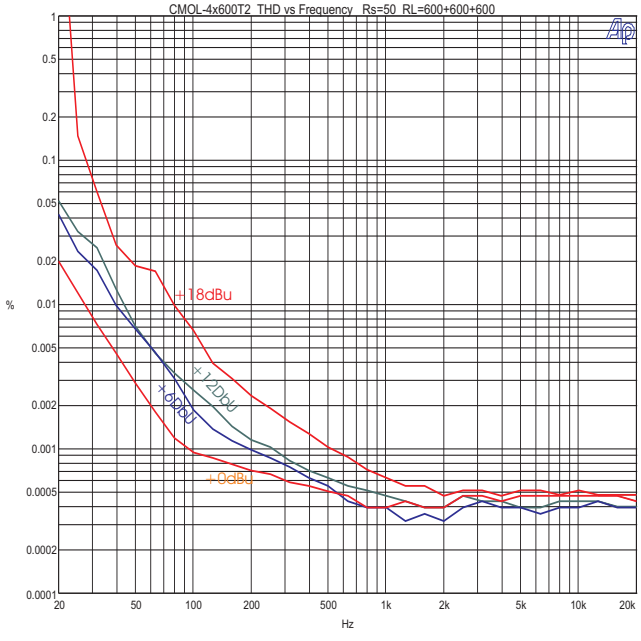
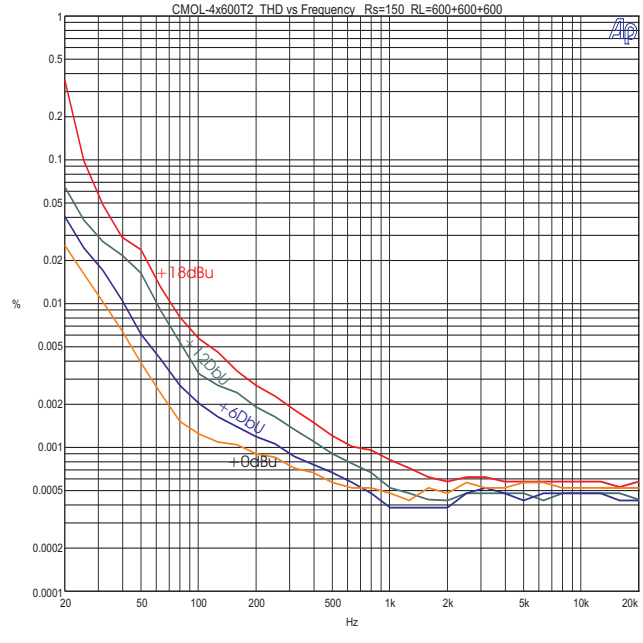

CMOL-4x600T2 Amp v Phase Rs=600 RL=600+600+600 Secondary 1 (ORG/YEL)
Phase
Amplitude
dBu
deg
Hz

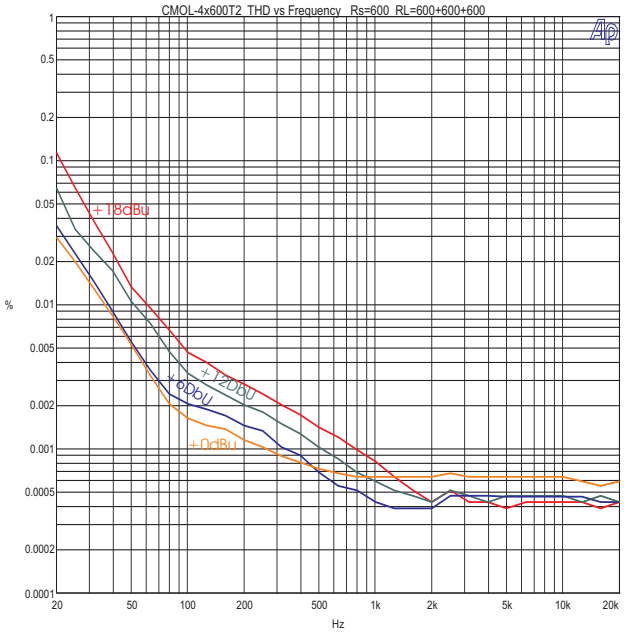

CMOL-4x600T2 Amp v Phase Rs=600 RL=600+600+600 Secondary 2 (GRN/BLU)
Phase
Amplitude
dBu
deg
Hz

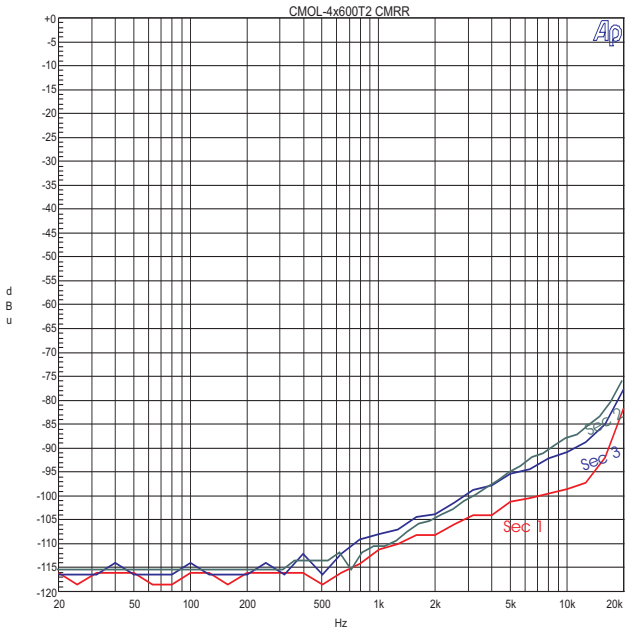

CMOL-4x600T2 Amp v Phase Rs=600 RL=600+600+600 Secondary 3 (VIO/GRY)
Phase
Amplitude
dBu
deg
Hz

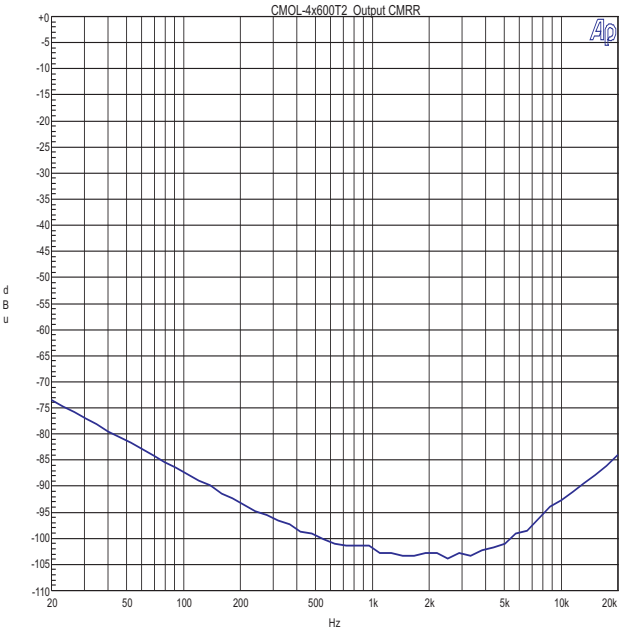

CMOL-4X600T2 THD @ Fixed Frequencies
20Hz
30Hz
40Hz
50Hz
60Hz
%
dBu

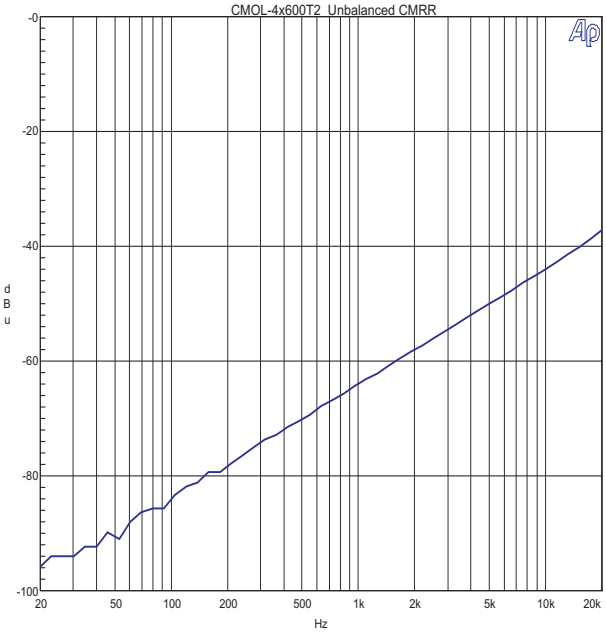

CMOL-4x600T2 THD vs Frequency Rs=50 RL=600+600+600
+18dBu
+12DbU
+6DbU
+0dBu
%
Hz


CMOL-4x600T2 THD vs Frequency Rs=150 RL=600+600+600
+18dBu
+12DbU
+6DbU
+0dBu
%
Hz



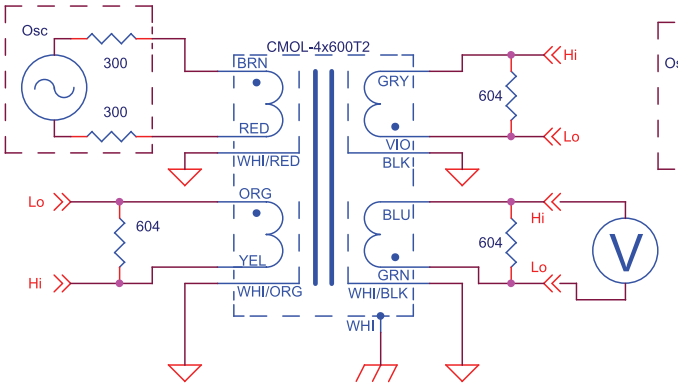




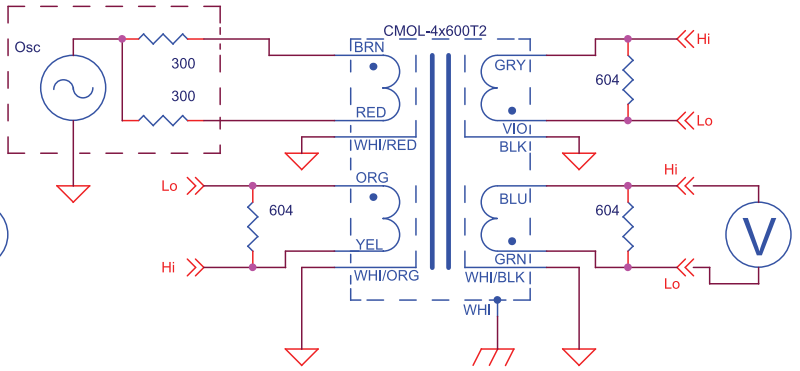


NOTES:

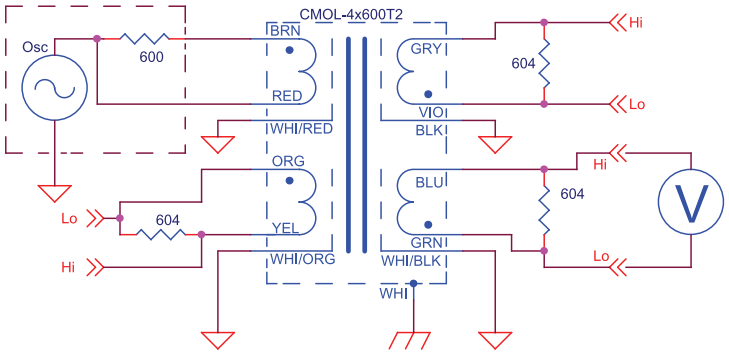
1. All graphs generated from one (1) randomly chosen device. No statistical averaging or weighting.



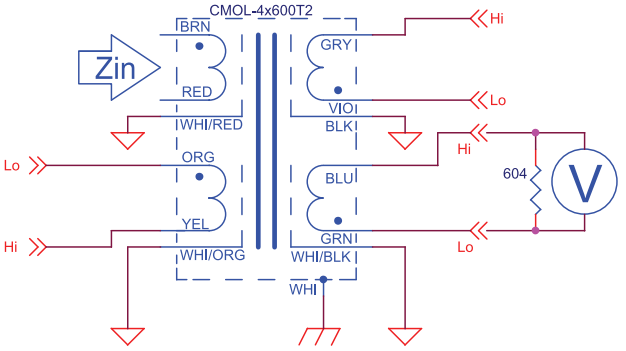
TEST CIRCUIT 1



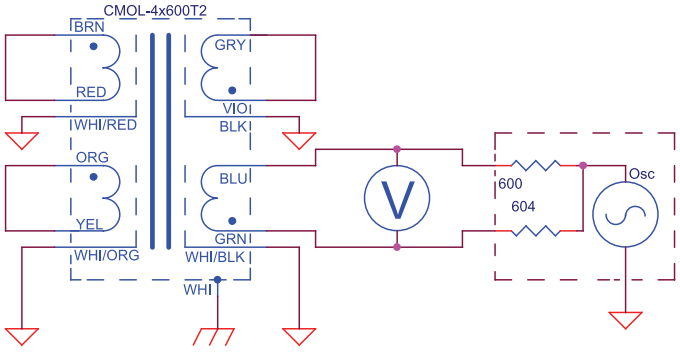
TEST CIRCUIT 2



TEST CIRCUIT 3



TEST CIRCUIT 4



TEST CIRCUIT 5