Superior Magnetics Since 1979

# CMOL-2x600T2

**LINE BRIDGING OUTPUT TRANSFORMER**
***Ultra-Balanced***

- **Superb CMRR ≥ 125 dB 20 Hz - 1 kHz**
- **Very good bandwidth -3 dB at 95 kHz**
- **Distortion 0.04% typ at 20 Hz**
- **+18.5 dB max input level at 20 Hz, 1% THD+N%**
- **Phase Shift -13° at 20 kHz**
- **Low insertion loss**
- **Twin Bobbin construction**
- **Excellent complement to CMOL-3x600T2**

The CineMag CMOL-2x600T2 bridging output transformer is optimized for ideal winding balance. This technique results in superb CMRR throughout the audio band. Even at 20 kHz the CMRR is 94 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 for best overall distortion characteristics. All of the wires 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 ideal 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 does it use hum-bucking windings, it is encased in a $\mu$Metal can which provides 30 dB of magnetic shielding.

This transformer is ideal for solving the meanest hum and buzz pickup problems. It is especially effective for long lines in hostile environments. Please see AN-101 and AN-103.

## CMOL-2x600T2

| Parameter | Conditions | | Typ |
|---|---|---|---|
| Turns Ratio | | | 1 : 1.00 |
| Input Impedance, Zi | 20 Hz to 20 kHz, 0 dBu | Test Circuit 4 | 558Ω |
| Insertion Loss | 1 kHz, dBm Rs=600 Rl=600 | Test Circuit 1 | 0.285 dBm |
| Voltage Gain | 1 kHz Rs=600 Rl=600<br>1 kHz Rs=600 Rl=1.0K<br>1 kHz Rs=600 Rl=1.5K<br>1 kHz Rs=600 Rl=9K<br>1 kHz Rs=600 Rl=100K | Test Circuit 1 | -1.750 dBu<br>-1.096 dBu<br>-0.750 dBu<br>-0.114 dBu<br>≤0.001dBu |
| Distortion (THD+N%) | 1 kHz, +4 dBu, Rs=600 Rl=600 | Test Circuit 1 | 0.0004% |
| Max 20 Hz input level | 1.0% THD+N% | Test Circuit 1 | +18.5 dB |
| Response, ref 1 kHz | 20 Hz Rs=600 Rl=600<br>20 kHz<br>-3 dB | Test Circuit 1 | -0.2 dB<br>-0.2 dB<br>95 kHz |
| Phase Shift at 20Hz<br>Phase Shift at 20 kHz | Referenced to source generator | Test Circuit 1 | +1°<br>-13° |
| CMRR | 60 Hz<br>1 kHz Note: Results independent of<br>20 kHz whether center tap grounded or not. | Test Circuit 2 | ≥ 128 dB<br>≥ 125 dB<br>94 dB |
| Output CMRR | 60 Hz Center tap grounded<br>1 kHz | Test Circuit 3 | 114 dB<br>108 dB |
| Operating Temp Range | Operation and storage | | 0° C Min 70° C Max |

REV B

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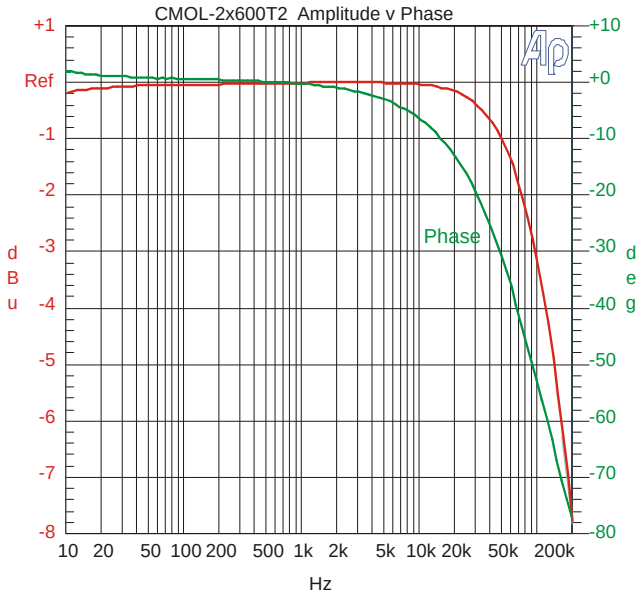
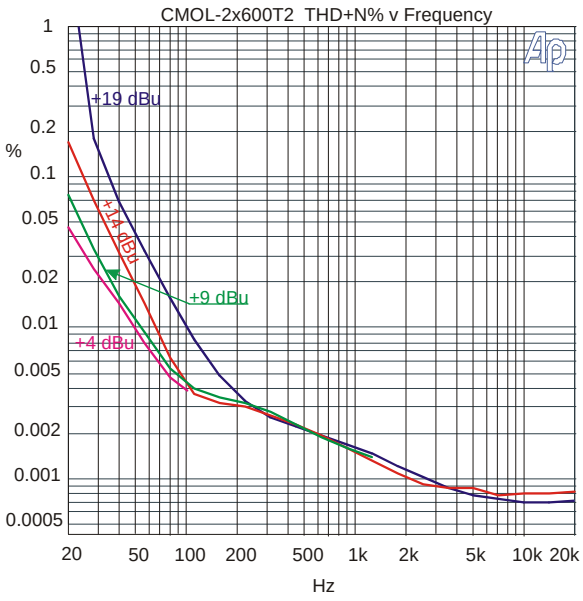
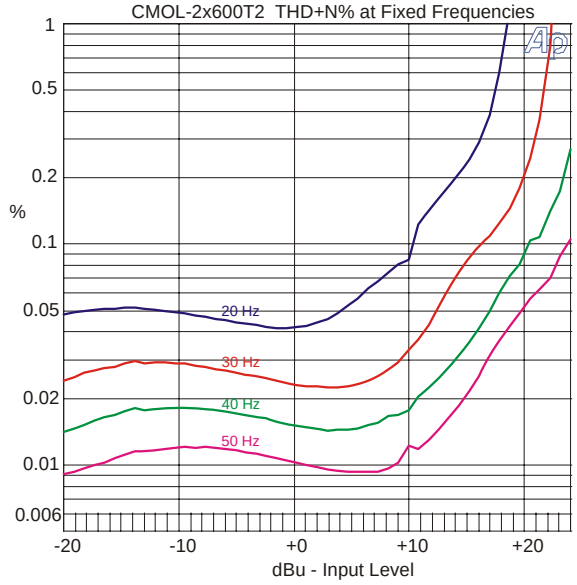
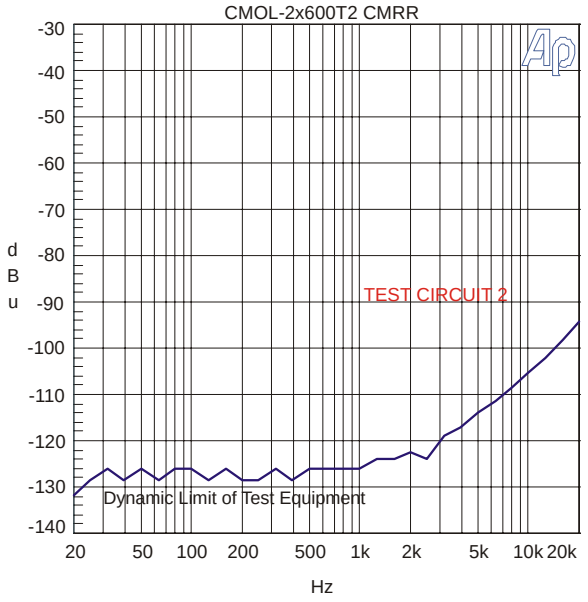
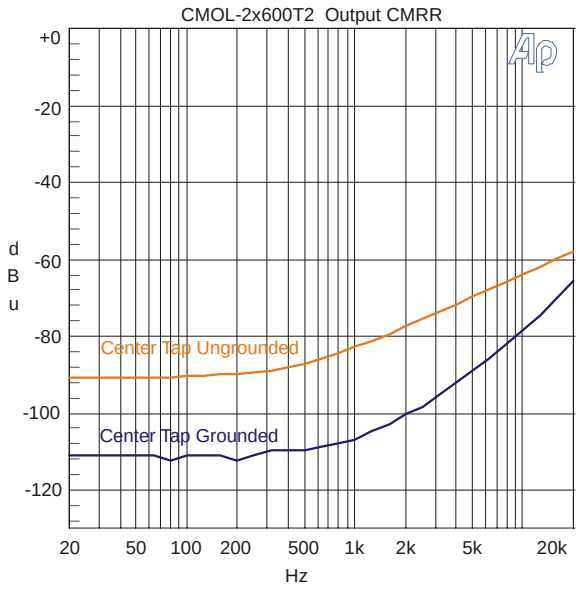
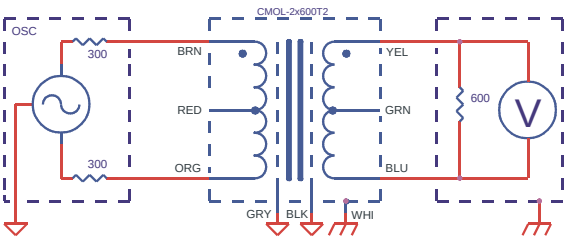


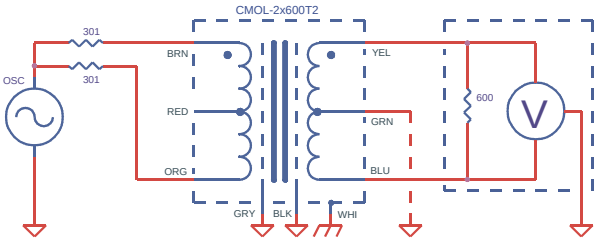



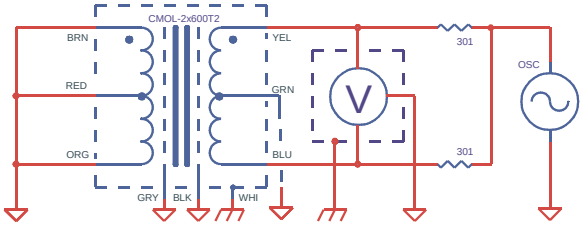





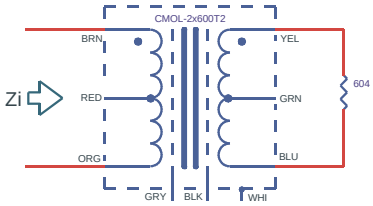

TEST CIRCUIT 1




TEST CIRCUIT 2




TEST CIRCUIT 3




TEST CIRCUIT 4

NOTES:

1. All graphs generated from one (1) randomly chosen device. No statistical averaging or weighting. Data from one sweep.
2. Rs=600 unless otherwise noted.