



Superior Magnetics Since 1979



## CMOL-3x600T2

**LINE SPLITTER TRANSFORMER**  
***Ultra-Balanced***

- **Superb CMRR: 121 dB 60 Hz 110 dB 1 kHz**
- **Very good bandwidth -2.8 dB at 200 kHz**
- **Distortion 0.02% typ at 20 Hz**
- **+22 dB Input Level at 20 Hz, 1% THD+N%**
- **Phase Shift -7° at 20 kHz**
- **Secondary Level Balance 0.040 dBu**
- **Twin Bobbin construction**
- **Excellent complement to CMOL-2x600T2**

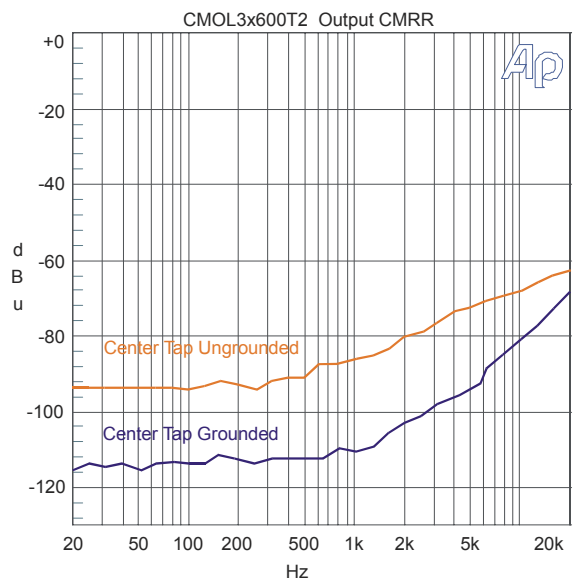
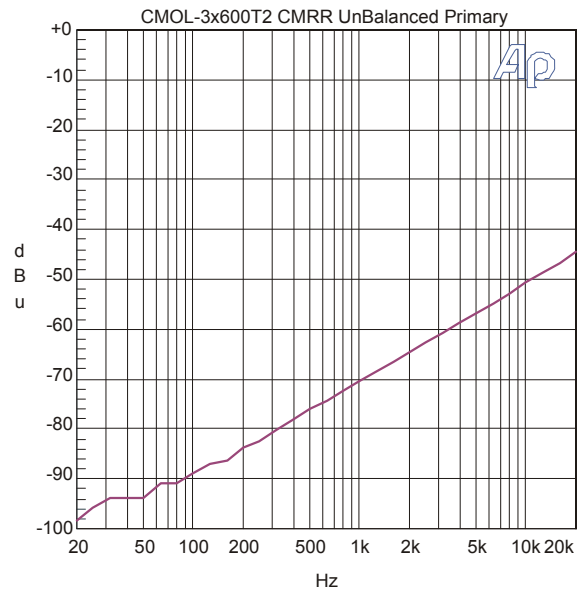
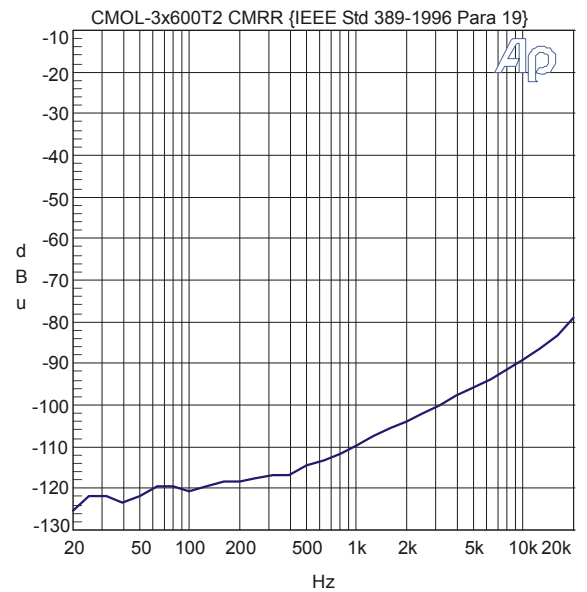
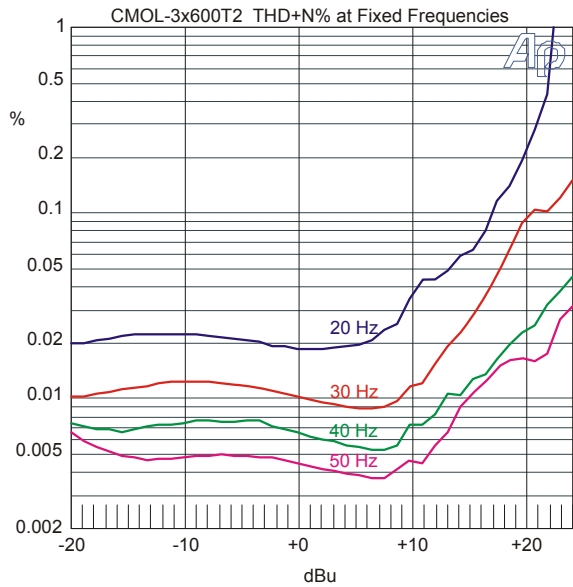
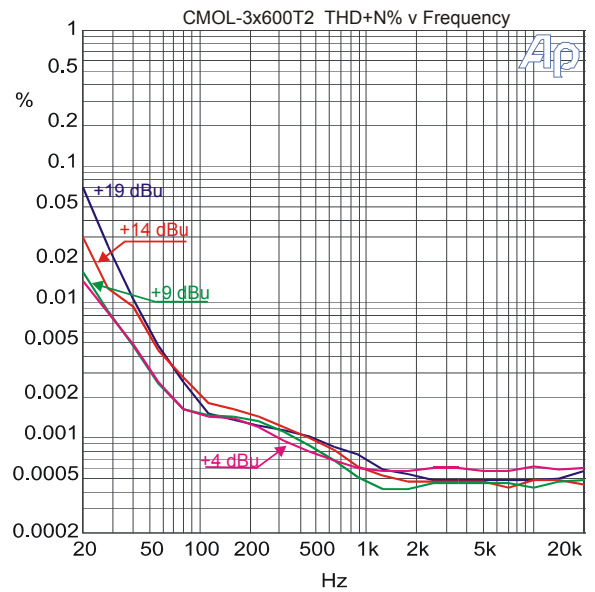
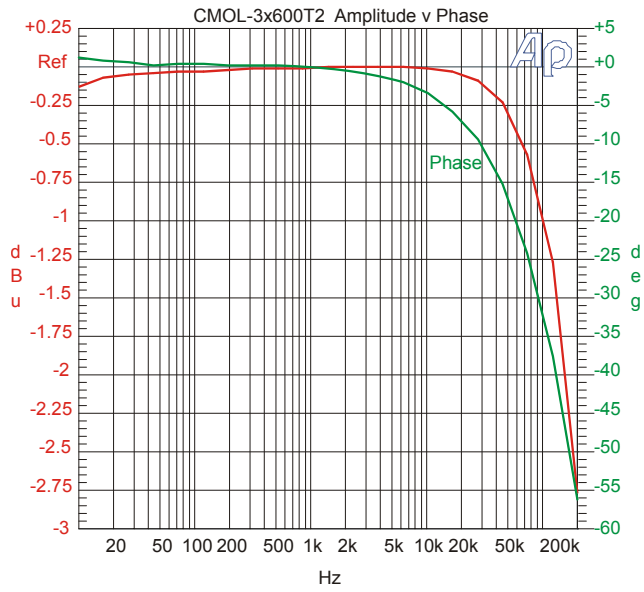
The CineMag CMOL-3x600T2 line splitter transformer is designed for ideal winding balance and matching. The secondaries exhibit very small level differences between each other. It exhibits superb CMRR throughout the audio band. Even at 10 kHz the CMRR is 90 dB. It is designed to be driven by either a 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 the practice with all CineMag transformers. This wire bonding technique is necessary to retain ideal balanced coupling 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.

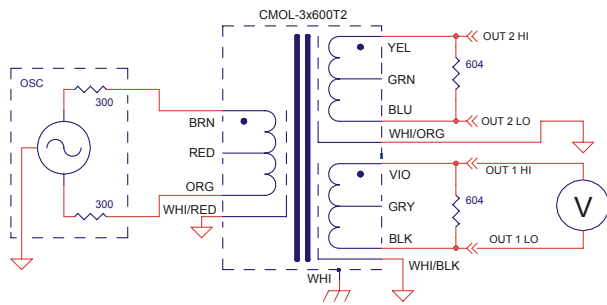
This transformer is ideal for solving the most difficult hum and buzz pickup problems. It is especially effective for long lines in electromagnetically hostile environments. Please see AN-101 and AN-103.

### CMOL-3x600T2

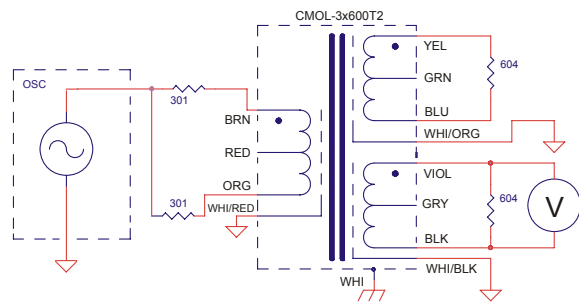
| Parameter                                    | Conditions  | Typ                                 |
|--|---|-------------------------------------|
| Turns Ratio                                  |   | 1 : 1.00 : 1.00                     |
| Input Impedance, Zi                          | 20 Hz to 20 kHz, 0 dBu<br>Test Circuit 4  | 512 $\Omega$                        |
| Secondary Level Balance                      | 1 kHz, dBm Rs=600 RI=600<br>Test Circuit 1  | $\pm$ 0.040 dBu                     |
| Voltage Gain                                 | 1 kHz Rs=600 RI=600<br>1 kHz Rs=600 RI=1.0K<br>Test Circuit 1   | -10.6 dBu                           |
| Distortion (THD+N%)                          | 1 kHz, +19 dBu, Rs=600 RI=600<br>Test Circuit 1   | 0.0007%                             |
| Max 20 Hz input level                        | 1.0% THD+N%<br>Test Circuit 1   | +22 dBu                             |
| Response, ref 1 kHz                          | 20 Hz Rs=600 RI=600<br>20 kHz<br>-2.8 dB<br>200 kHz   | -0.08 dB<br>-0.02 dB                |
| Phase Shift at 20Hz<br>Phase Shift at 20 kHz | Referenced to source generator<br>Test Circuit 1  | +1°<br>-7°                          |
| CMRR   | 60 Hz Test Circuit 2 per IEE Std 389-1996 ¶19<br>1 kHz Note: Results independent of<br>20 kHz whether center tap grounded or not.<br>1 kHz Test Circuit 3 Center Tap Grounded | 121 dB<br>110 dB<br>80 dB<br>115 dB |
| Output CMRR                                  |   |                                     |
| UnBalanced Primary CMRR                      | 60 Hz Test Circuit 3<br>1 kHz   | 91 dB<br>70 dB                      |
| Operating Temp Range                         | Operation and storage   | 0° C Min 70° C Max                  |

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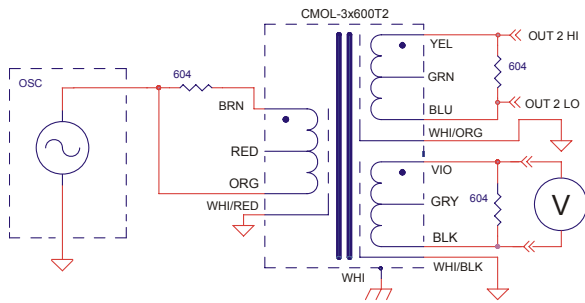




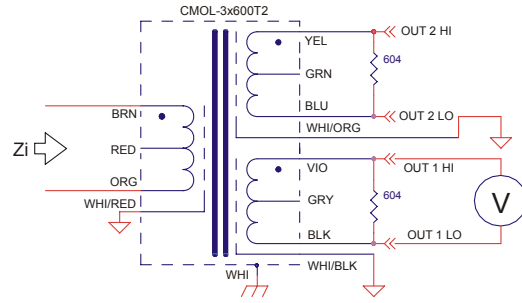
TEST CIRCUIT 1



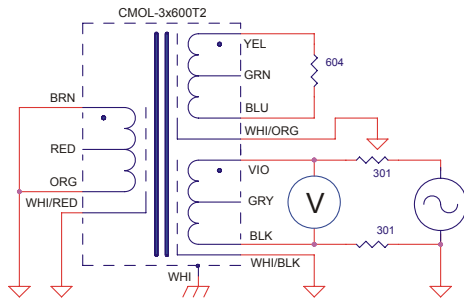
TEST CIRCUIT 2



TEST CIRCUIT 3



TEST CIRCUIT 4



TEST CIRCUIT 5

NOTES:

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

