Hammond Mfg. Co. Ltd., Electronics Division

www.hammondmfg.com

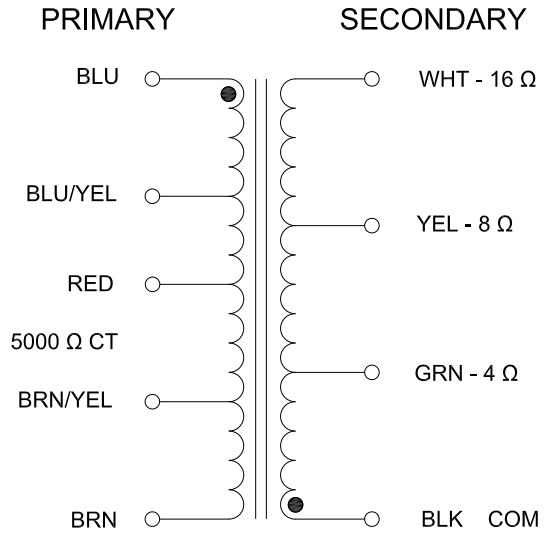
1650RAP

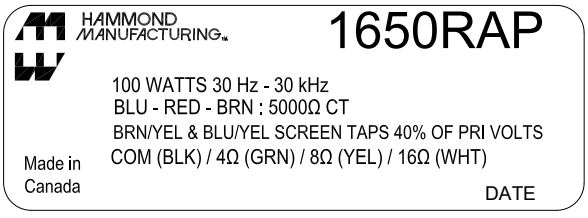
PUSH-PULL HI-FI POTTED TRANSFORMER

- Designed for push-pull tube output circuits.
- A perfect match to our 300P potted power transformers.
- Enclosed in a drawn steel case, the transformer is completely potted in epoxy.
- Frequency response 30 Hz. to 30 Khz. at full rated power (+/- 1 db max. ref. 1 Khz) minimum.
- Open style with minimum 12” long primary and secondary leads
- Includes 40% screen taps for Ultra-Linear operation if desired.
- Finished in a black powder paint (to match our 300P series power transformers).
- Typical applications - Push-Pull: triode, Ultra-Linear pentode, pentode and tetrode connected audio output.
- Suggested tube types: 807, 5881, EL34, 6146B, 6550B, KT88

ELECTRICAL SPECIFICATIONS		
Characteristic	**Typical**	
Input Impedance	5000 Ohms	
Output Impedance	4, 8 & 16 Ohms	
Output Power	100 Watts	
DCR		
Primary Blue-Red	47.43 Ohms	
Primary Red-Brown	54.65 Ohms	
Secondary Black-Green	0.232 Ohm	
Secondary Black-Yellow	0.333 Ohm	
Secondary Black-White	0.343 Ohm	
Inductance | Impedance	@ 60Hz, 10.0V OC	
Primary Blue-Brown	225H	99KOhm
Leakage Inductance	@ 60Hz, 10.0V SC	
Primary Blue-Brown	8.72mH	
Dielectric Strength	3535VDC	
Temperature Range	-40 To 105°C	

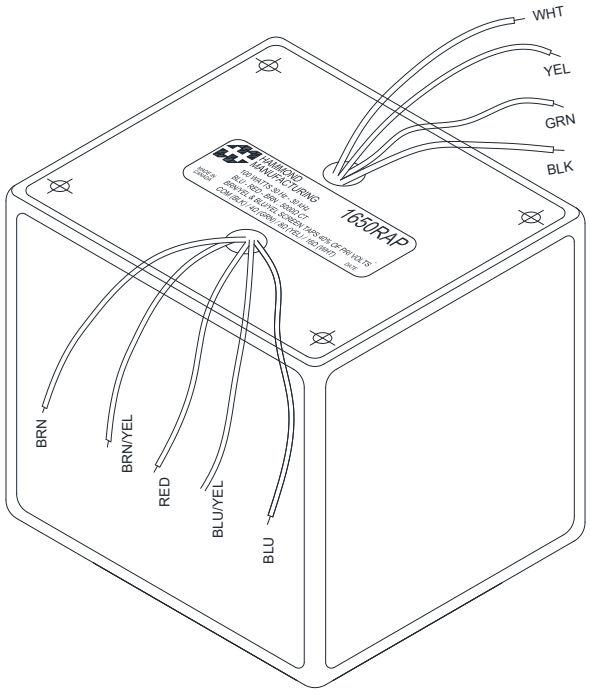
SCHEMATIC

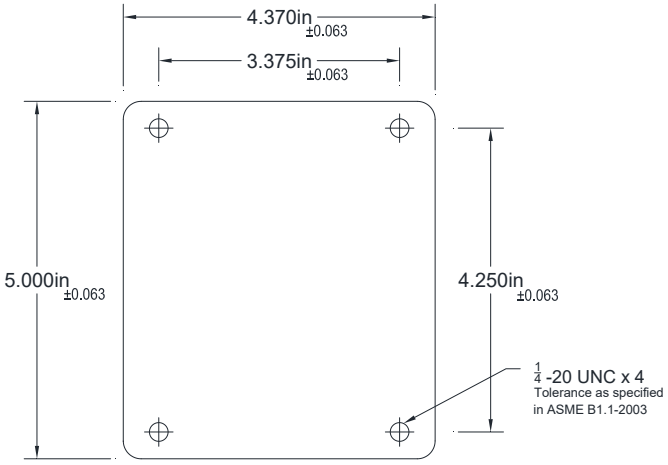


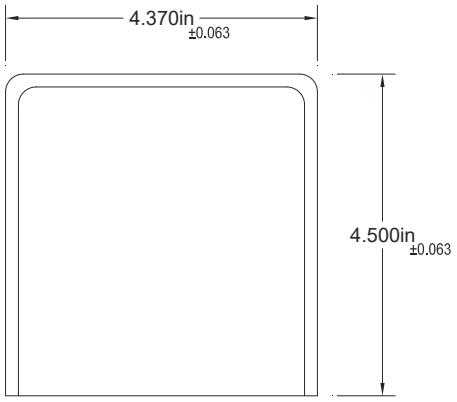


Note: The above examples of possible combinations are to help you narrow down the choices of transformers for your favorite tube types. How you operate the tubes (push-pull, push-pull parallel, ultra-linear, class, B+, bias, operating points, etc.) will change optimum plate to plate load impedance. Only a few of the most popular tubes are shown. As more tubes become available we will add them to the list. A tube manual or tube manufacturer's technical data sheets should be consulted first, before making a decision on a proper output transformer.

DIMENSIONAL DETAILS:





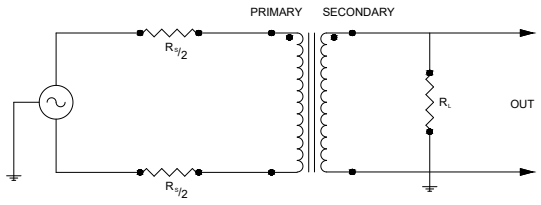


TEST CONDITIONS

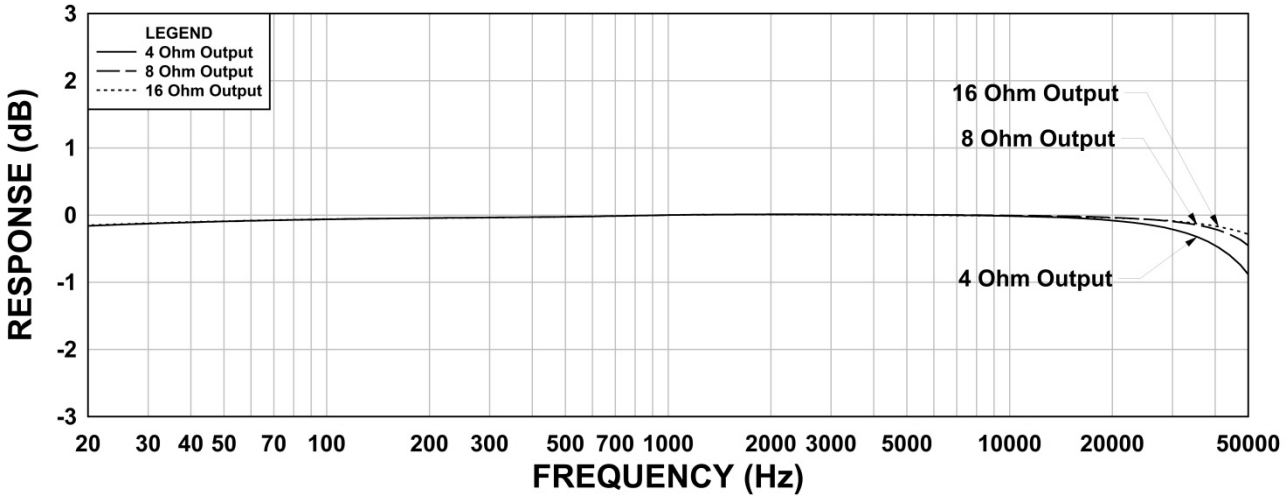
Measurement Instruments:
dScope Series III Audio Analyzer
Wayne Kerr 3255B with a 3265B Inductance Analyzer
HP 4192a LF Impedance Analyzer
Keithley 2010 DVM

* All graphs input level 27dBu @1.0KHz reference.
**The results are typical and are subject to normal manufacturing and electrical tolerances.

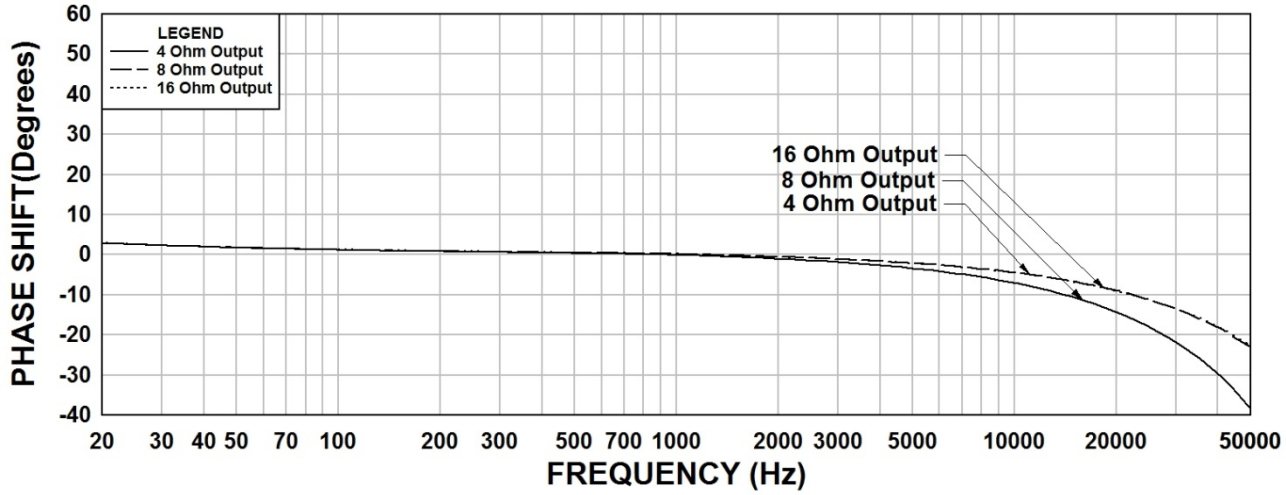
TYPICAL TEST CIRCUIT



1650RAP Frequency Response Rs = 5K Ohms



1650RAP Phase Shift Rs = 5K Ohms



1650RAP THD+N Rs = 5K Ohms