

### HS-50

#### Description:

Triad's **HS-50** Output Audio Transformer provides the durability and precision required in today's demanding designs. **Mu-Metal** case construction for magnetic field immunity and up to 95 dB Hum reduction. **Ample step-down turns ratio** to accommodate source to load impedance matching. **Wide range power handling capacity** to deliver full power without distortion within  $\pm 3$ dB. Applications include signal pre-amplification, inter-stage isolation, signal level step up/down, and impedance matching. **Dependable** hermetically sealed construction with low temperature rise and high heat conductivity.

#### Electrical Specifications (@25°C)

Impedance		Overall Turns Ratio	DCR ( $\Omega$ )	Power level dBm
Pri ( $\Omega$ )	Sec ( $\Omega$ )			
15K	600/250 150/62.5	5:1	1-2 = 1245 3-4 = 9.22 4-5 = 16.52 6-7 = 21.65 7-8 = 12.90	26

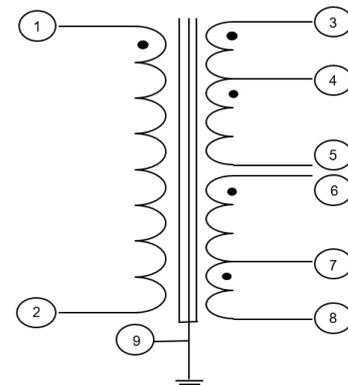
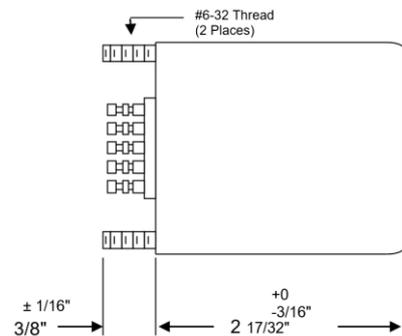
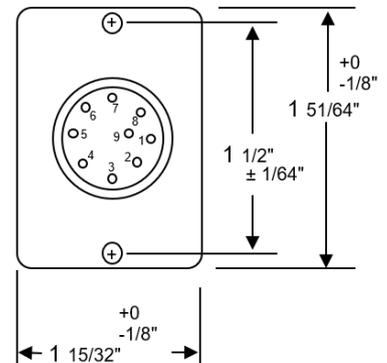
PARAMETER	CONDITIONS	TYPICAL
Frequency Range		20 Hz – 20KHz
Gain	1kHz, $R_s = 15k\Omega$ , $R_L = 600\Omega$	-15.3 dB
Distortion (THD+N%)	1kHz, +24.5dBu input, $R_s = 15k\Omega$ , $R_L = 600\Omega$	0.008%
	1kHz, -0dBu input, $R_s = 15k\Omega$ , $R_L = 600\Omega$	0.004%
	1kHz, -20dBu input, $R_s = 15k\Omega$ , $R_L = 600\Omega$	0.03%
Max input level (20Hz)	2% THD + N%, $R_s = 15k\Omega$ , $R_L = 600\Omega$	>+20dBu
Frequency response (1 kHz Ref.)	20 Hz, $R_S = 15k\Omega$ , $R_L = 600\Omega$	-0.80 dB
	20kHz, $R_S = 15k\Omega$ , $R_L = 600\Omega$	-0.075 dB
Phase Shift @ 20Hz	Reference to source generator $R_s = 15k\Omega$ , $R_L = 600\Omega$	+5°
Phase shift @ 20kHz		0.23°
CMRR	60 Hz	86.3 dB
	1 kHz	86.4 dB
Inductance 1-2 =	1V @ 60Hz	150H Min.
Temperature Rating	Operation & Storage	0°C to 70°C

**RoHS Compliance:** As of manufacturing date February 2005, all standard products meet the requirements of 2011/65/EU, known as the RoHS initiative.

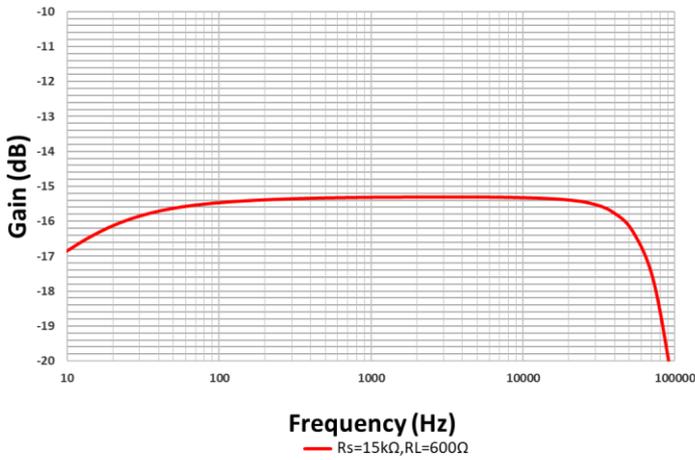
\*Upon printing, this document is considered "uncontrolled". Please contact Triad Magnetics for the most current version.



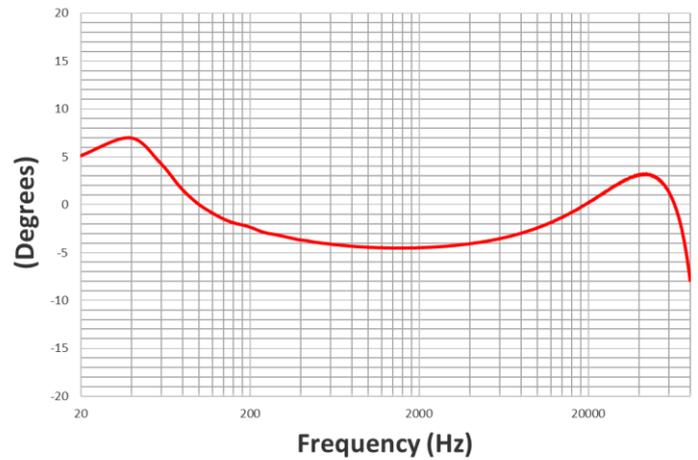
For illustration purpose only



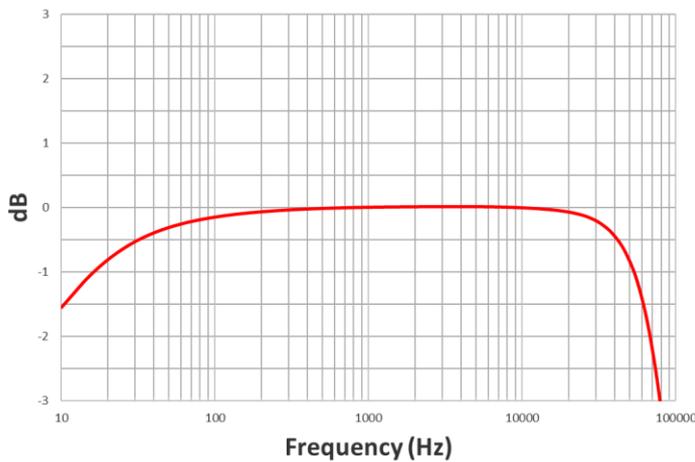
HS-50 Gain



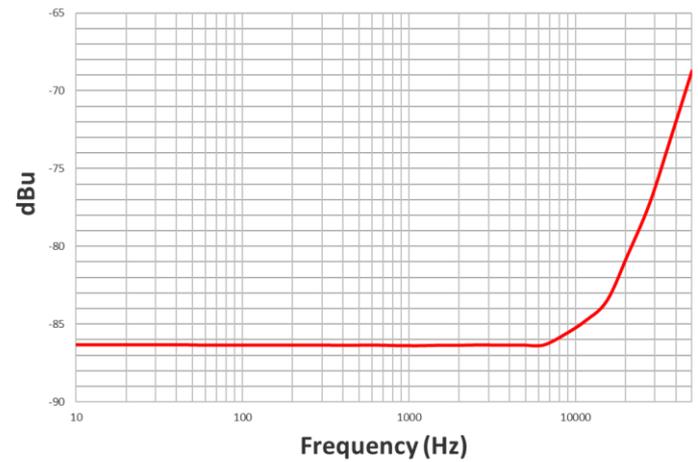
HS-50 Phase



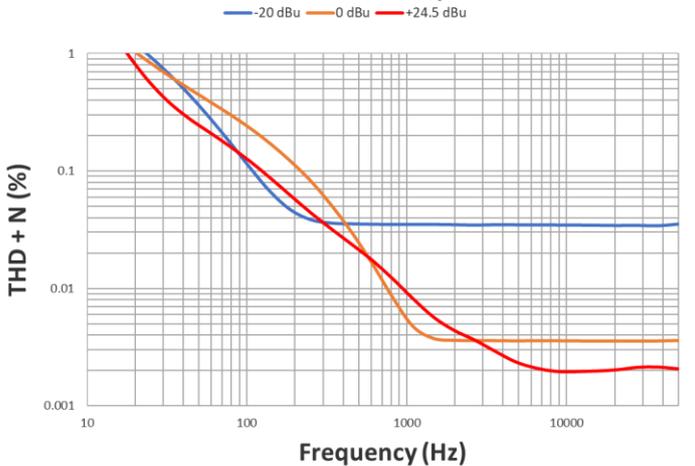
HS-50 Frequency Response



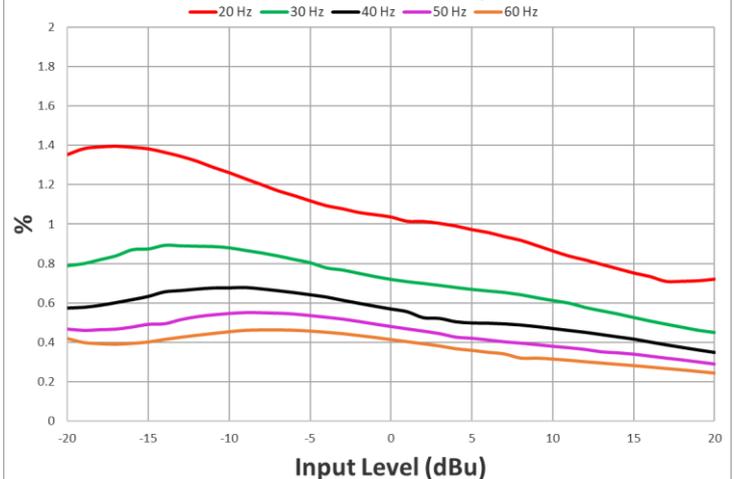
HS-50 CMRR



HS-50 THD+N% @ Fixed Input Levels



HS-50 THD+N% @ Fixed Frequencies



NOTE: Graph data was taken on a random sample using an Audio Precision Model APX555 Audio Analyzer.