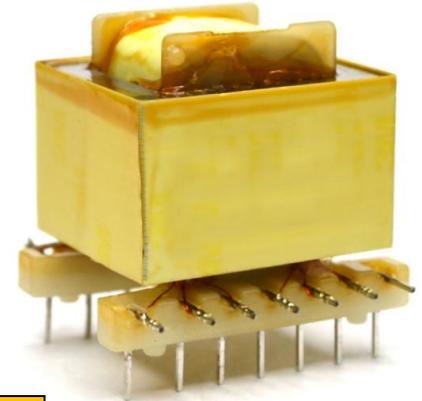


## HS-56-TH

### Description:

Triad's **HS-56-TH** Impedance Matching Audio Transformer provides the durability and precision required in today's demanding designs. **Ample turns ratios** to accommodate source to load impedance matching. **Wide range power handling capacity** to deliver full power without distortion within  $\pm 3\text{dB}$ . Applications include Impedance matching, signal pre-amplification, inter-stage isolation, & signal level step up/down.

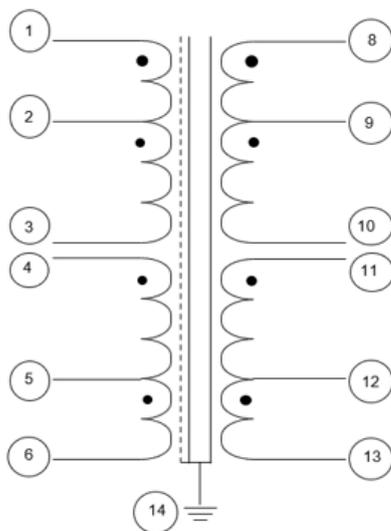
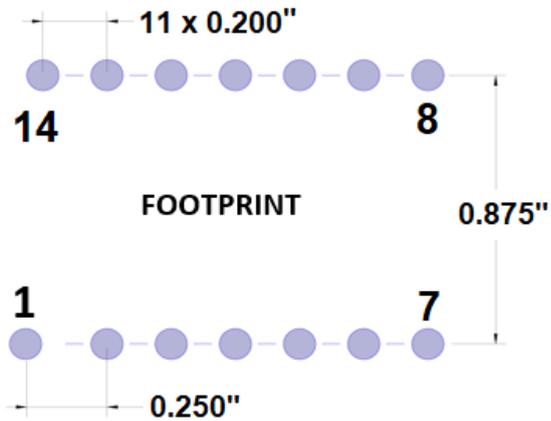
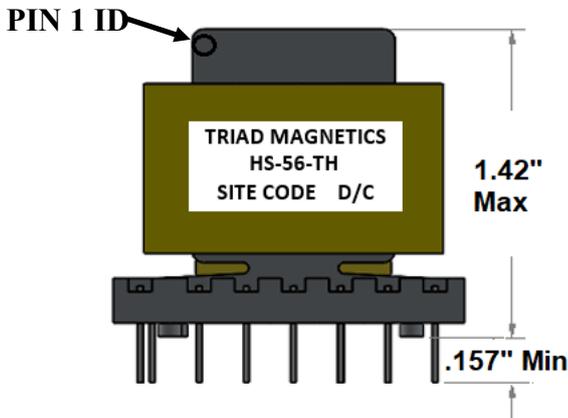
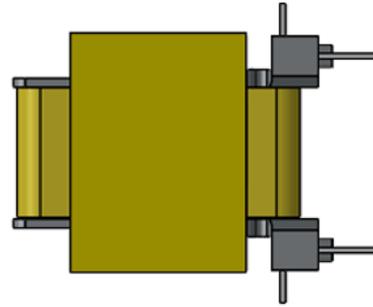
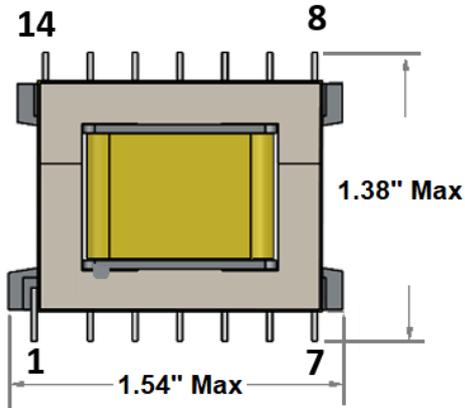


### Electrical Specifications (@25°C)

Impedance		Overall Turns Ratio	DCR ( $\Omega$ )	Power level dBm
Pri ( $\Omega$ )	Sec ( $\Omega$ )			
600/250 150/62.5	600/250 150/62.5	1:1	1-2 = 12.24 2-3 = 20.35 4-5 = 19.02 5-6 = 11.41 8-9 = 13.63 9-10 = 22.60 11-12 = 16.91 12-13 = 10.19	20

PARAMETER	CONDITIONS	TYPICAL
Frequency Range	---	10 Hz – 30KHz
Gain	1kHz, $R_s = 600\Omega$ , $R_L = 600\Omega$	-1.5 dB
Distortion (THD+N%)	1kHz, +20 dBu input, $R_s = 600\Omega$ , $R_L = 600\Omega$	0.005%
	1kHz, +10dBu input, $R_s = 600\Omega$ , $R_L = 600\Omega$	0.006%
	1kHz, 0dBu input, $R_s = 600\Omega$ , $R_L = 600\Omega$	0.006%
Max input level (10Hz)	2% THD + N%, $R_s=600\Omega$ , $R_L = 600\Omega$	>+15dBu
Frequency response (1 kHz Ref.)	10 Hz, $R_S=600\Omega$ , $R_L=600\Omega$	-2.5 dB
	30kHz, $R_S=600\Omega$ , $R_L=600\Omega$	-0.41 dB
Phase Shift @ 10Hz	Reference to source generator, $R_s= 600\Omega$ , $R_L = 600\Omega$	+10.35°
Phase shift @ 30kHz		1.90°
CMRR	60 Hz	125 dB
	1 kHz	100 dB
Inductance (H) Typ.	5V @ 60Hz 1-6 (SHORT 3,4)	21 ~ 49 H
Dielectric Test	500V @ 60Hz	---
Temperature Rating	Operation & Storage	0°C to 70°C
Weight (grams)	---	118 Typ.

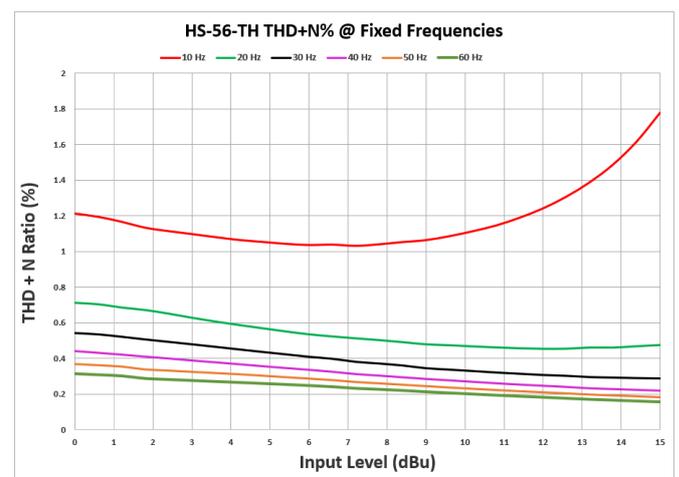
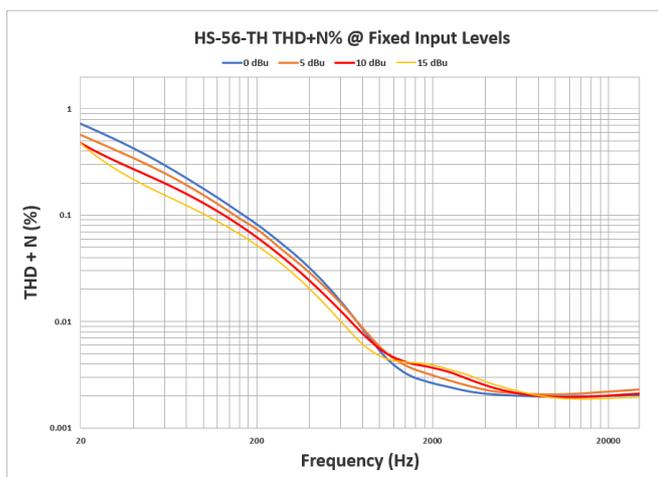
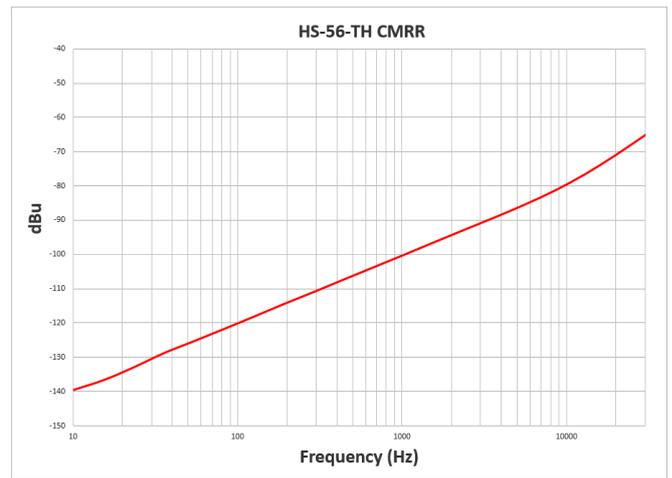
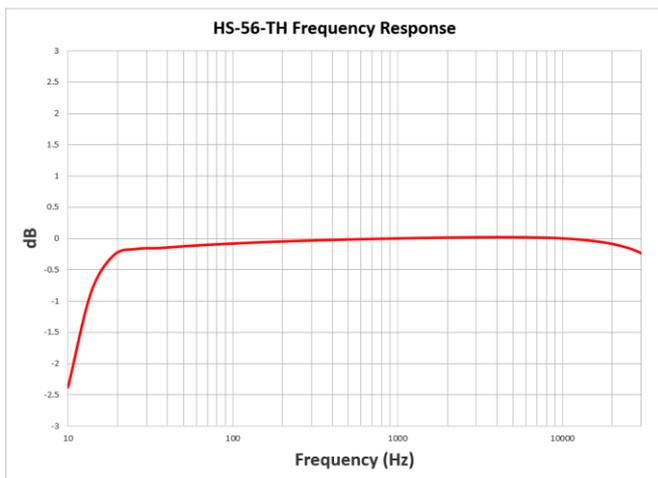
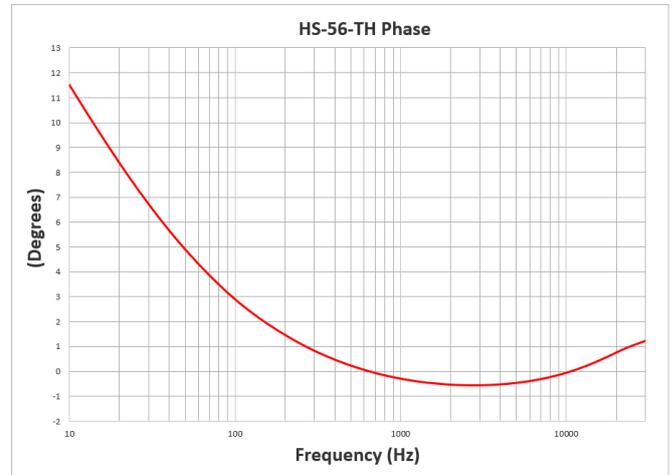
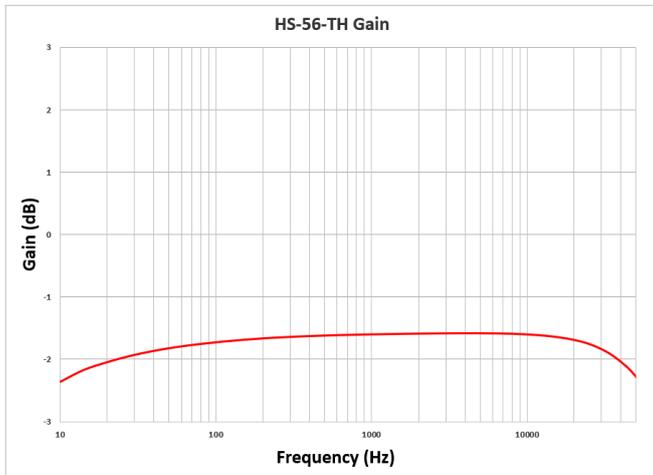
\* Upon printing, this document is considered "uncontrolled". Please contact Triad Magnetics' website for the most current version.



**SCHEMATIC**

PRI. Z	CONNECT	USE
600 Ω	3 - 4 = CT	1 - 6
250 Ω	3 - 4 = CT	2 - 5
150 Ω	1 - 4, 3 - 6	1 - 6
62.5 Ω	2 - 4, 3 - 5	2 - 5
SEC. Z	CONNECT	USE
600 Ω	10 - 11 = CT	8 - 13
250 Ω	10 - 11 = CT	9 - 12
150 Ω	8 - 11, 10 - 13	8 - 10
62.5 Ω	9 - 11, 10 - 12	9 - 10

**CONNECTIONS**



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