

Impedance Matching Transformer (IMT-XG Series)



The Impedance Matching Transformer (Fiore Model IMT-XG, where X is 1, 2, etc.) is designed to interface the output of an amplifier (50 ohms) to the input of an antenna (with typically, 100 ohm impedance; other custom output impedance matching versions are available upon request). IMT versions are available for low-medium power (up to 150 Watts) and high power (up to 500 W) applications. The IMT-1G (shown above) is a medium power unit. Accessories are available for mounting these transformers to a ground plane (Mounting and Launch Assembly), and to provide custom antenna interfacing (Transition Adapter), such as for the Ellipticus Antenna system used for Low Level Continuous Wave (LLCW) testing.

A typical mounting configuration for the IMT-1G is shown at right, mounted to a ground plane (using a prototype Mounting and Launch Assembly), and interfacing to an Ellipticus Antenna system (using a Transition Adapter, Fiore Model ATA-1G). Note that custom finishes are available for the IMT Series (i.e., Alodine, Painted, and Nickel Plated). Non-painted versions are recommended for higher power applications to facilitate heat transfer to the mounting assembly.



IMT Specifications are shown below.

Data Sheet F1370 (November 2018)

Model	Max Power (CW) Watts	3 dB Bandwidth (MHz)	Input Impedance (Ohms)	Output Impedance* (Ohms)	Connectors (Input/Output)**
IMT-1G	150	0.01 - 1000	50	100	N(F)/N(F)
IMT-2G	500	0.01 - 850	50	200	N(F)/1/4-20 Lug
IMT-3G-H	500	0.01 - 1000	50	100	N(F)/N(F)
IMT-4G-H	1000	0.01 - 1000	50	200	HN(F)/1/4-20 Lug
Dimensions and Weight – Typical (may vary with custom configurations)					
	Length (cm)	Width (cm)	Height (cm)	Weight (kg)	
IMT-1G	20	6.0	6.0	1.55	
IMT-2G	31	15	15	5.55	
IMT-3G-H	25	8	8	2.5	
IMT-4G-H	32	17	17	7.2	
* Custom output impedances are available for additional charge. ** Custom Input/Output Connector configurations are available					

Support for system integration and custom impedance matching applications development, involving the IMT-XG series, are available from Fiore Industries, Inc. For pricing and delivery of IMT components or integrated systems support, please contact Fiore Industries, Inc. (contracting@fioreind.com).