

DESCRIPTION

The REMtech Magnetics MIT-5229 is a “Wet” Modem Isolation Transformer suitable for up to V.90 (56 kbps) consumer and internet analog modem applications compliant with Domestic safety norms.

Due to its “Wet” construction, MIT-5229 saves DAA cost by eliminating circuitry for diverting telephone line DC from the transformer.

MIT-5229 is the first coupler industry-wide capable of 56 kbps Distortion ratings in a “Wet” construction.

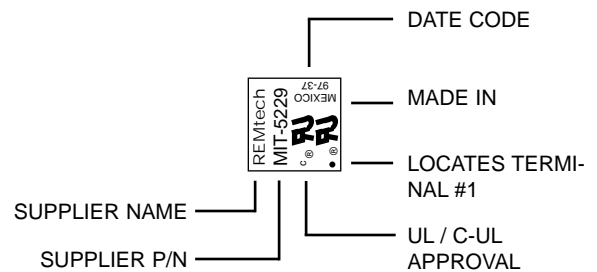
FEATURES

- Suitable for modem speeds up to V.90 (56 kbps).
- Cost-effective “Wet” coupler construction reduces DAA components.
- Total Harmonic Distortion rated -87 dB typ. @ 600 Hz, -10 dBm, and -82 dB typ. @ 150 Hz, -3 dBm.
- Insertion Loss rated 3.00 dB typ. @ 1000 Hz.
- Complies with UL1459 safety norms.
- Reflects 600 Ohms on Primary with 301 Ohms Secondary Load.
- Small PCB footprint (24.0 mm x 23.0 mm).
- Low-Profile (12.0 mm).
- Industry-standard pin configuration.

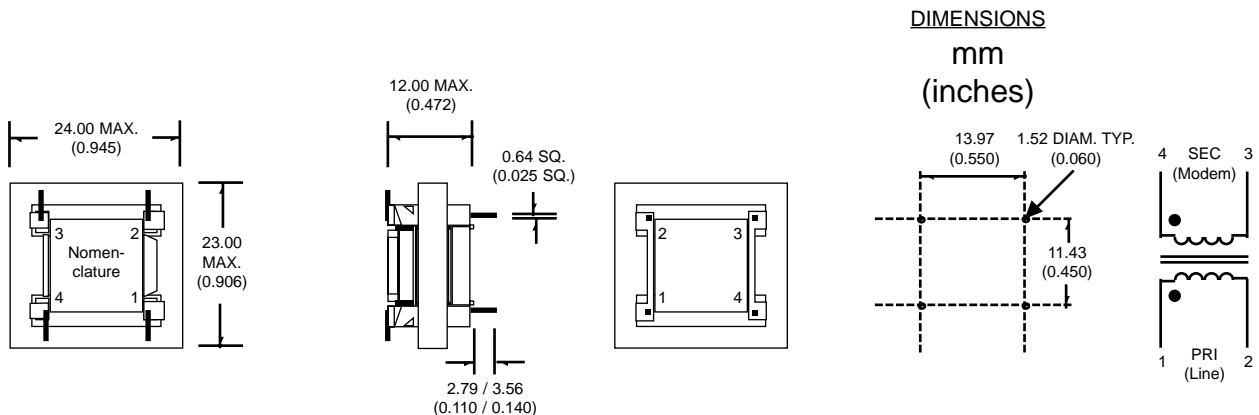
PRODUCT COMPLIANCE

- UL / C-UL recognized file number: E171120

NOMENCLATURE (Fig. 1)



MECHANICAL DIMENSIONS (Fig. 2)



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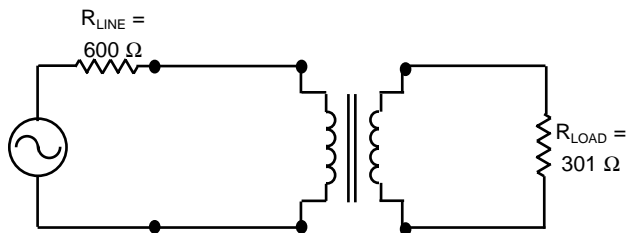
Analog Telephony / Modem Couplers

ELECTRICAL PERFORMANCE SPECIFICATIONS

Electrical Performance Specifications ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise specified)

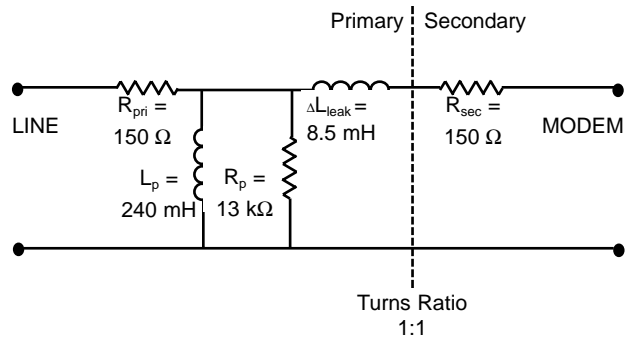
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	301	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm @ 150 Hz, -3 dBm	-	-87	-82	dB
		-	-82	-75	dB
Insertion Loss	Per IEEE method; @ 1 kHz, 70 mADC	2.50	3.00	3.50	dB
Return Loss	1000 Hz Per 600 Ohm Match (Fig. 3)	-	17	-	dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 Min. HiPot Voltage Duration Trip Leakage Current	1000	-	-	Vrms
		1250	-	-	Vrms
		2	-	-	Sec
		-	-	200	$\mu\text{A}$
Frequency Response	200 Hz - 400 Hz 400 Hz - 600 Hz 600 Hz - 1000 Hz 1000 Hz - 4000 Hz	-3.50	-	-	dB
		-1.50	-	-	dB
		-0.70	-	-	dB
		-	-	0.30	dB
Longitudinal Balance	Per FCC part 68.310 60 Hz - 1000 Hz 1000 Hz - 4000 Hz	66	-	-	dB
		46	-	-	dB
DC Resistance @ 20°C, $\pm 10\%$	Primary Winding Secondary Winding	-	150	-	Ohms
		-	150	-	Ohms
DC Current in Primary	-	-	-	70	mADC
Turns Ratio	Primary to Secondary; $\pm 2\%$	-	1:1	-	Turns
Operating Temperature	-	-40	-	105	$^\circ\text{C}$
Storage Temperature	-	-40	-	125	$^\circ\text{C}$
Soldering Temperature	10 Sec. Max.	-	-	260	$^\circ\text{C}$

600 OHM MATCH (Fig. 3)



SCHEMATIC EQUIVALENT (Fig. 4)

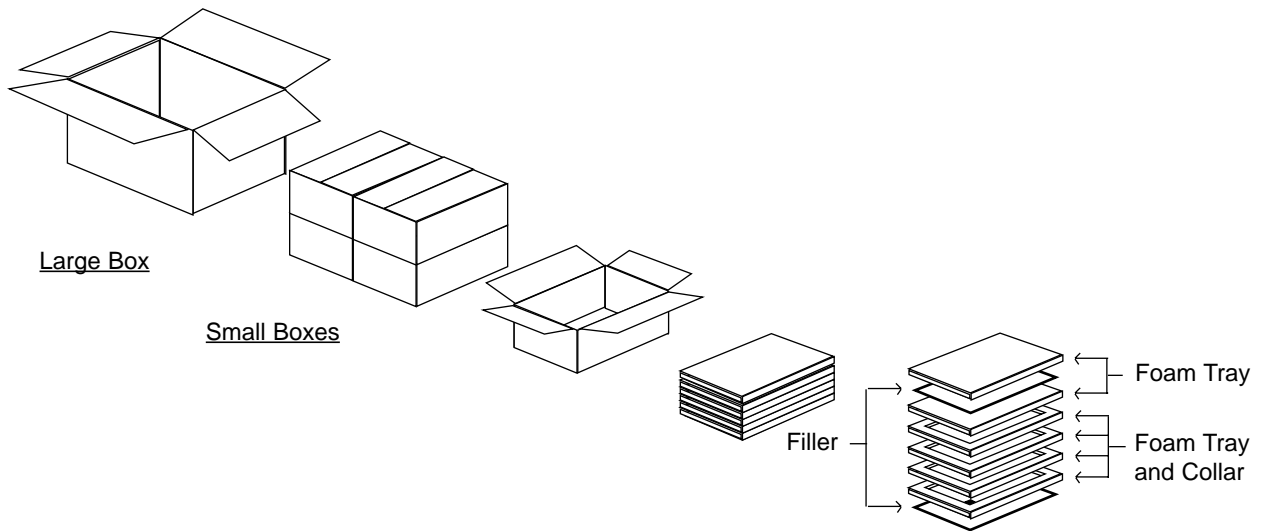
(Typical Transformer Model @ 1 V, 1 kHz)



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STANDARD PACKAGING (Fig. 9)

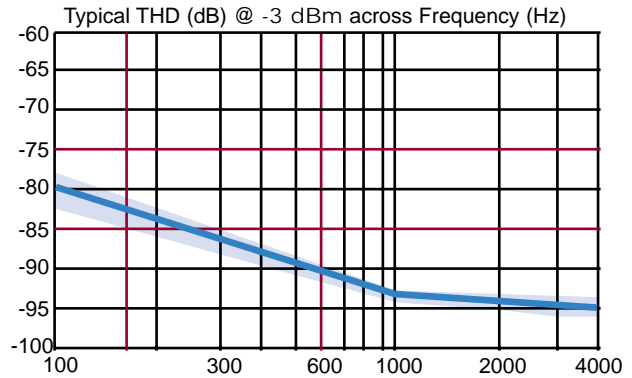
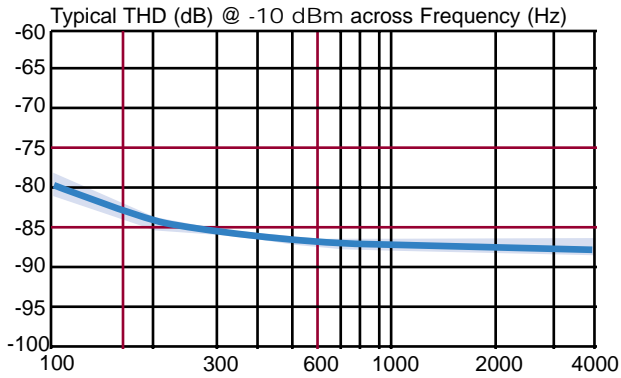


Packaging

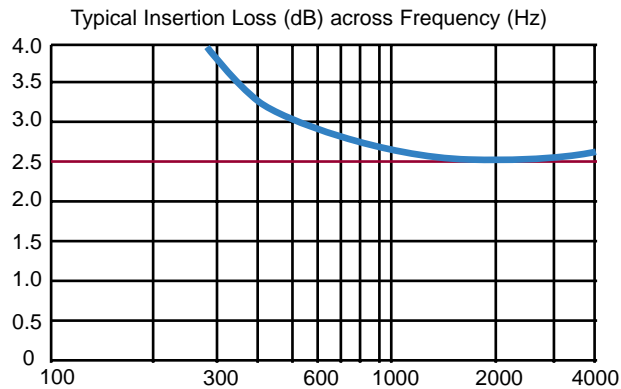
Material	Contents	#Transformers
Large Box	4 Small Boxes	1408
Small Box	4 Trays	352
Tray	88 Transformers	88
---	Transformer	1

PERFORMANCE DATA

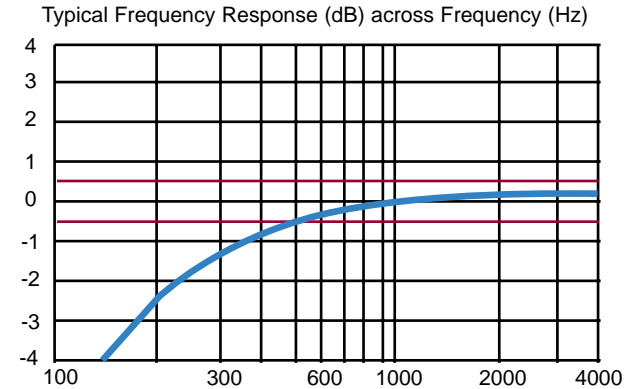
TOTAL HARMONIC DISTORTION (Fig. 5)



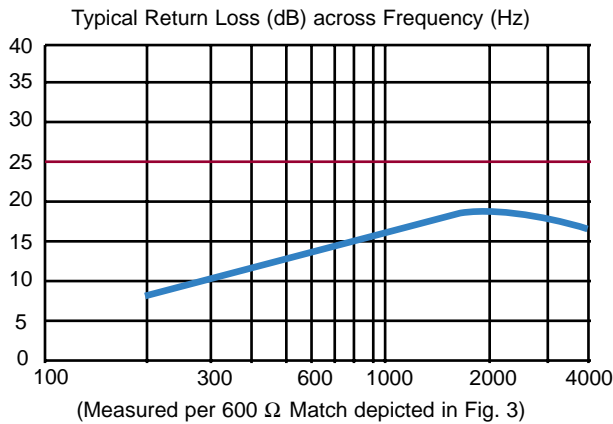
INSERTION LOSS (Fig. 6)



FREQUENCY RESPONSE (Fig. 7)



RETURN LOSS (Fig. 8)



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