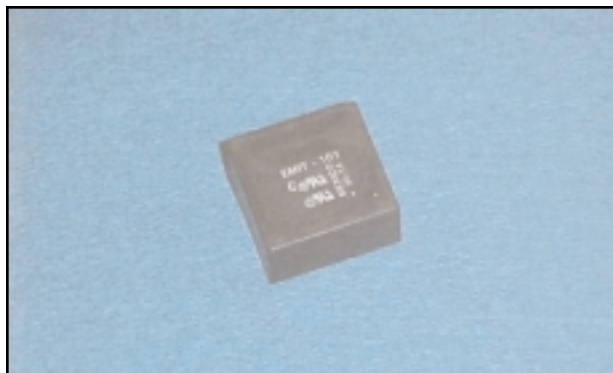




DESCRIPTION

The REMtech Magnetics EMIT-101 is a low-cost "Wet" Modem Isolation Transformer suitable for up to V.32 (9.6 kbps) analog modem applications compliant with Domestic safety norms.

EMIT-101 applications include fax machines, DBS / Set-top boxes, security, and electric metering.

EMIT-101 offers higher dielectric breakdown isolation (hipot) compared to MIT-101. Our "Wet" transformers with the same MIT-101 platform can be encapsulated similarly.

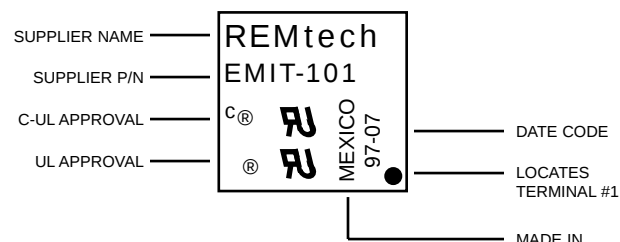
FEATURES

- Suitable for modem speeds up to V.32 (9.6 kbps).
- Cost-effective "Wet" coupler construction reduces DAA components.
- Total Harmonic Distortion rated -55 dB typ. @ 600 Hz, -10 dBm.
- Insertion Loss rated 2.50 dB max. @ 1000 Hz.
- Complies with UL1459 safety norms, but tested to higher 4 kVrms dielectric breakdown isolation.
- Reflects 600 Ohms on Primary with 470 Ohms Secondary Load.
- Small PCB footprint (25.2 mm x 24.0 mm).
- Industry-standard pin configuration.

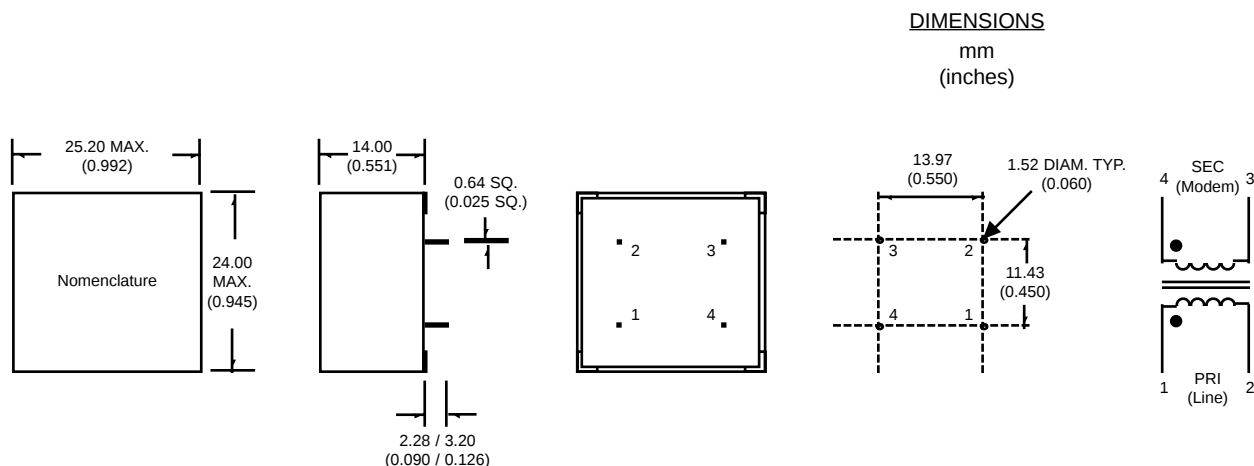
PRODUCT COMPLIANCE

- UL / C-UL recognized file number: E171120

NOMENCLATURE (Fig. 1)



MECHANICAL DIMENSIONS (Fig. 2)



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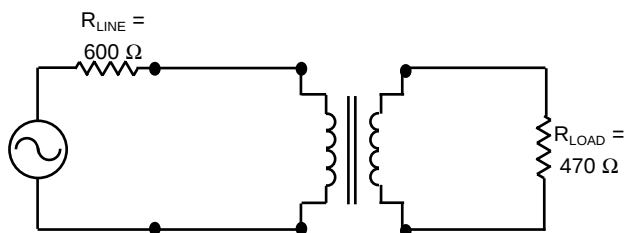
Analog Telephony / Modem Couplers

ELECTRICAL PERFORMANCE SPECIFICATIONS

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

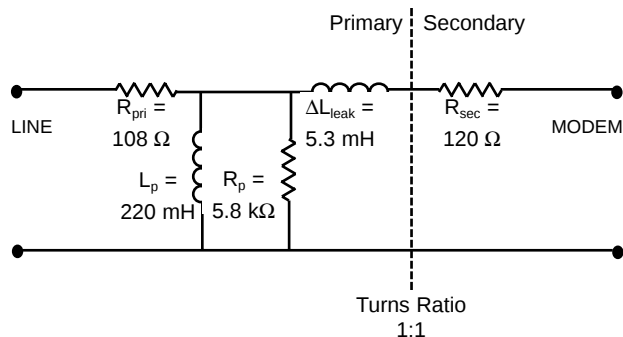
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	- -	600 470	- -	Ohms Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm	-	-55	-	dB
Insertion Loss	Per IEEE method; @ 1000Hz, 30mADC	-	-	2.50	dB
Return Loss	200 Hz - 500 Hz 500 Hz - 4000 Hz Per 600 Ohm Match (Fig. 3)	5 8	- -	- -	dB dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 Min. HiPot Voltage Duration Trip Leakage Current	1000 4000 2 -	- - - -	- - 200	Vrms Vrms Sec μA
Frequency Response	300 Hz - 600 Hz 600 Hz - 3500 Hz	- -	± 4.00 ± 1.00	- -	dB dB
Longitudinal Balance	Per FCC part 68.310 60 Hz - 1000 Hz 1000 Hz - 4000 Hz	60 40	- -	- -	dB dB
DC Resistance @ 20°C , $\pm 10\%$	Primary Winding Secondary Winding	- -	108 120	- -	Ohms Ohms
DC Current in Primary	-	-	30	100	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)

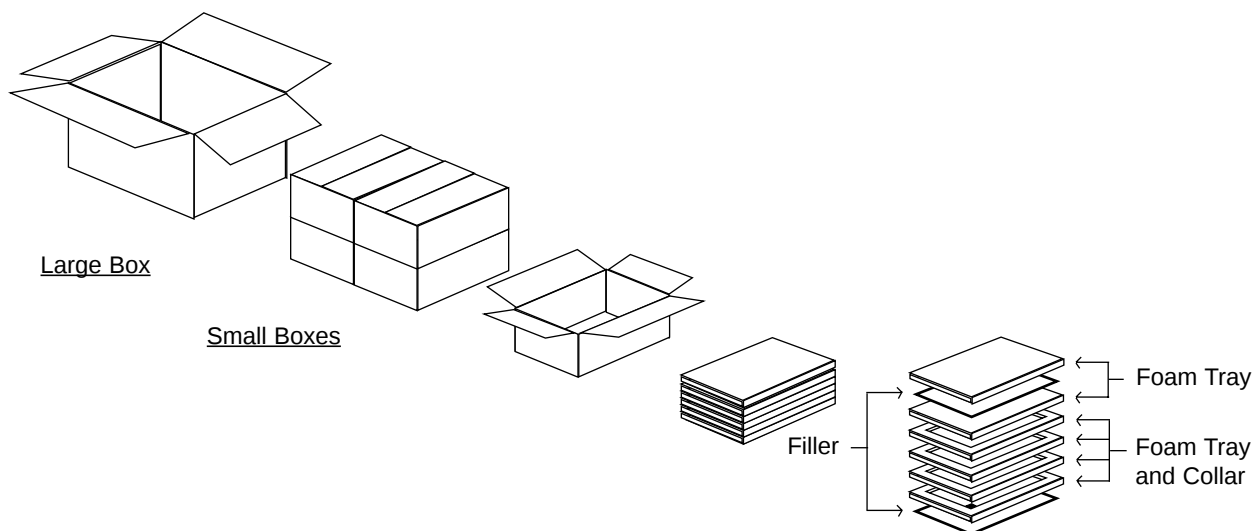
(Typical Transformer Model @ 1 V, 1 kHz)



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STANDARD PACKAGING (Fig. 9)



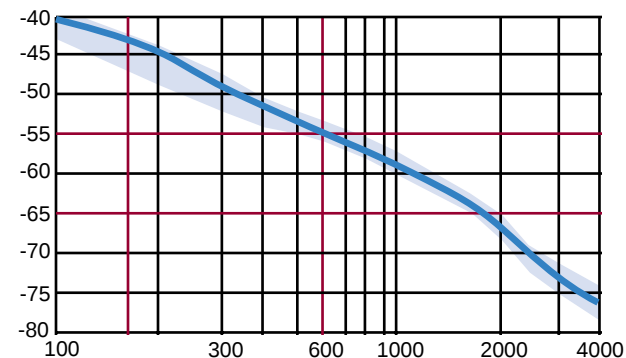
Packaging

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

Analog Telephony / Modem Couplers

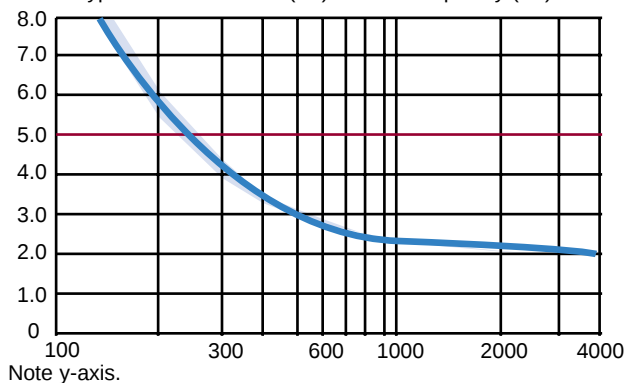
PERFORMANCE DATA

TOTAL HARMONIC DISTORTION (Fig. 5)



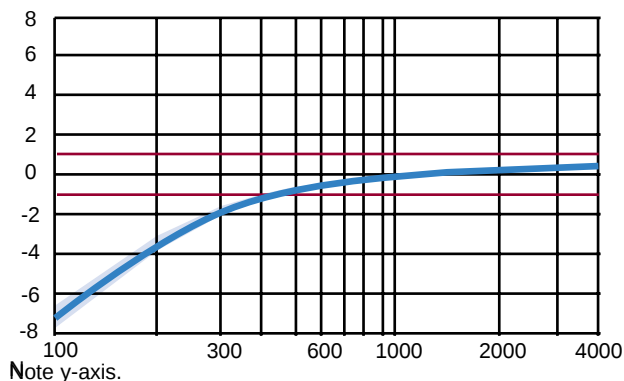
INSERTION LOSS (Fig. 6)

Typical Insertion Loss (dB) across Frequency (Hz)



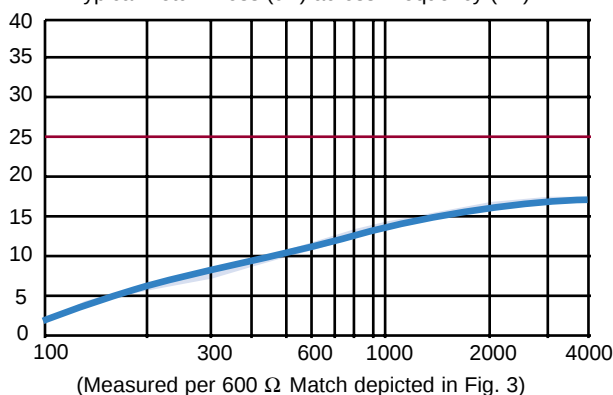
FREQUENCY RESPONSE (Fig. 7)

Typical Frequency Response (dB) across Frequency (Hz)



RETURN LOSS (Fig. 8)

Typical Return Loss (dB) across Frequency (Hz)



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