

**FEATURES**

- Suitable for modem speeds up to V.32 (9.6 kbps).
- Cost-effective “Wet” coupler construction reduces DAA components.
- Total Harmonic Distortion rated -54 dB typ. @ 600 Hz, -10 dBm.
- Insertion Loss rated 2.20 dB typ. @ 2000 Hz.
- Complies with IEC60950 Reinforced safety norms.
- Reflects 600 Ohms on Primary with 560 Ohms Secondary Load, plus minimal external components for optimal Return Loss.
- Small PCB footprint (18.3 mm x 21.5 mm).
- Industry-standard pin configuration.

**DESCRIPTION**

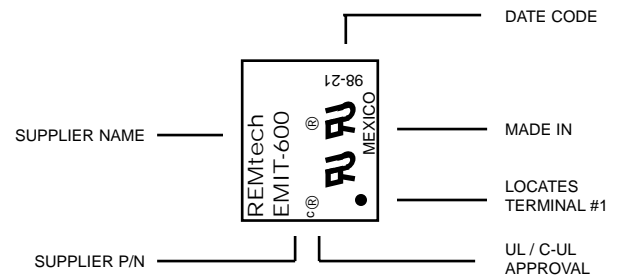
The REMtech Magnetics EMIT-600 is a low-cost “Wet” Modem Isolation Transformer suitable for up to V.32 (9.6 kbps) fax, DBS / Set-top, security, metering, and other analog modem and voice routing applications.

EMIT-600 is approved for International IEC60950 Reinforced safety standards. For UL1950 Supplementary safety, see MIT-600. In Europe, Return Loss characteristics do not qualify for CTR-21 on these parts, but they are commonly used for auxilliary phone ports rather than tele-com lines.

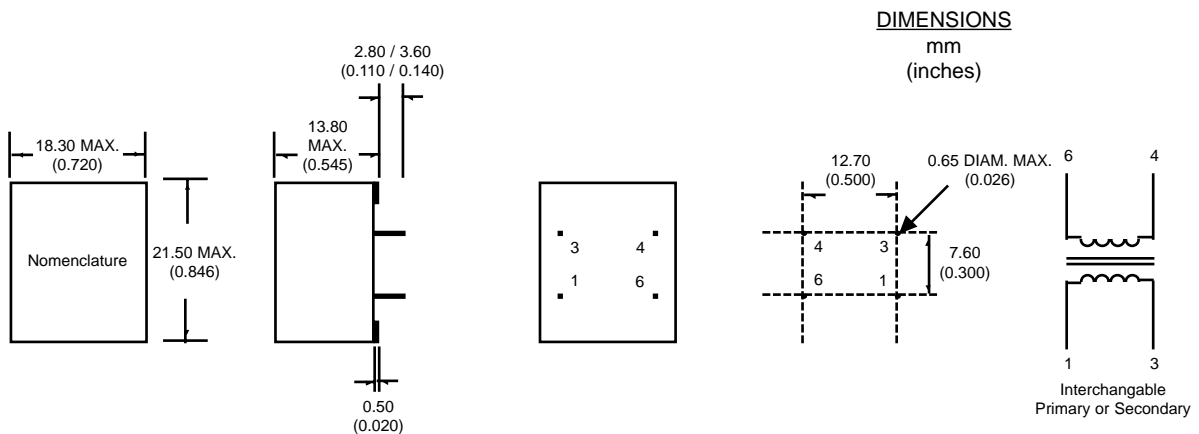
**PRODUCT COMPLIANCE**

- UL / C-UL recognized file number: E171120
- BSI certificate number(s): 8047, 8048
- BAPT certificate of recognition: 1905

**NOMENCLATURE (Fig. 1)**



**MECHANICAL DIMENSIONS (Fig. 2)**



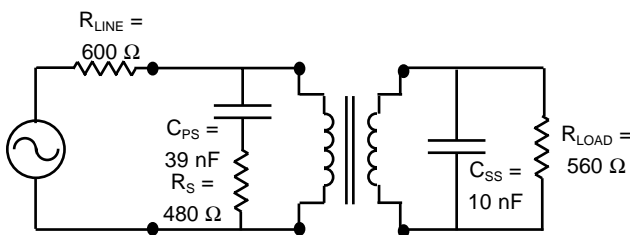
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## ELECTRICAL PERFORMANCE SPECIFICATIONS

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

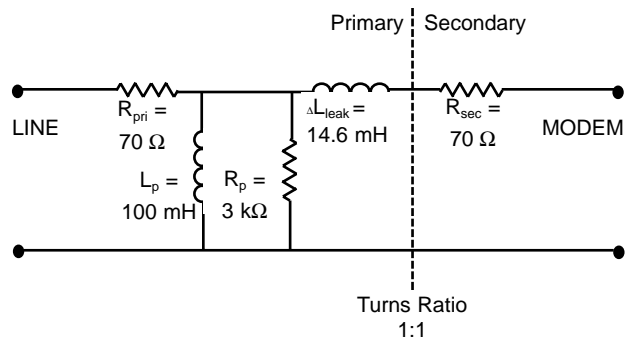
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	560	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm	-	-54	-	dB
Insertion Loss	Per IEEE method; @ 2000 Hz	-	2.20	2.50	dB
Return Loss	1000 Hz Per 600 Ohm Match (Fig. 3)	8	-	-	dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 Min.	3000	-	-	Vrms
	HiPot Voltage	3750	-	-	Vrms
	Duration	2	-	-	Sec
	Trip Leakage Current	-	-	200	$\mu\text{A}$
Frequency Response	300 Hz - 600 Hz	-	$\pm 6.00$	-	dB
	600 Hz - 4000 Hz	-	$\pm 1.00$	-	dB
Longitudinal Balance	Per FCC part 68.310	-	-	-	-
	60 Hz - 1000 Hz	60	-	-	dB
	1000 Hz - 4000 Hz	40	-	-	dB
DC Resistance @ $20^\circ\text{C}$ , $\pm 10\%$	Primary Winding	-	70	-	Ohms
	Secondary Winding	-	70	-	Ohms
DC Current in Primary	-	-	50	-	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)



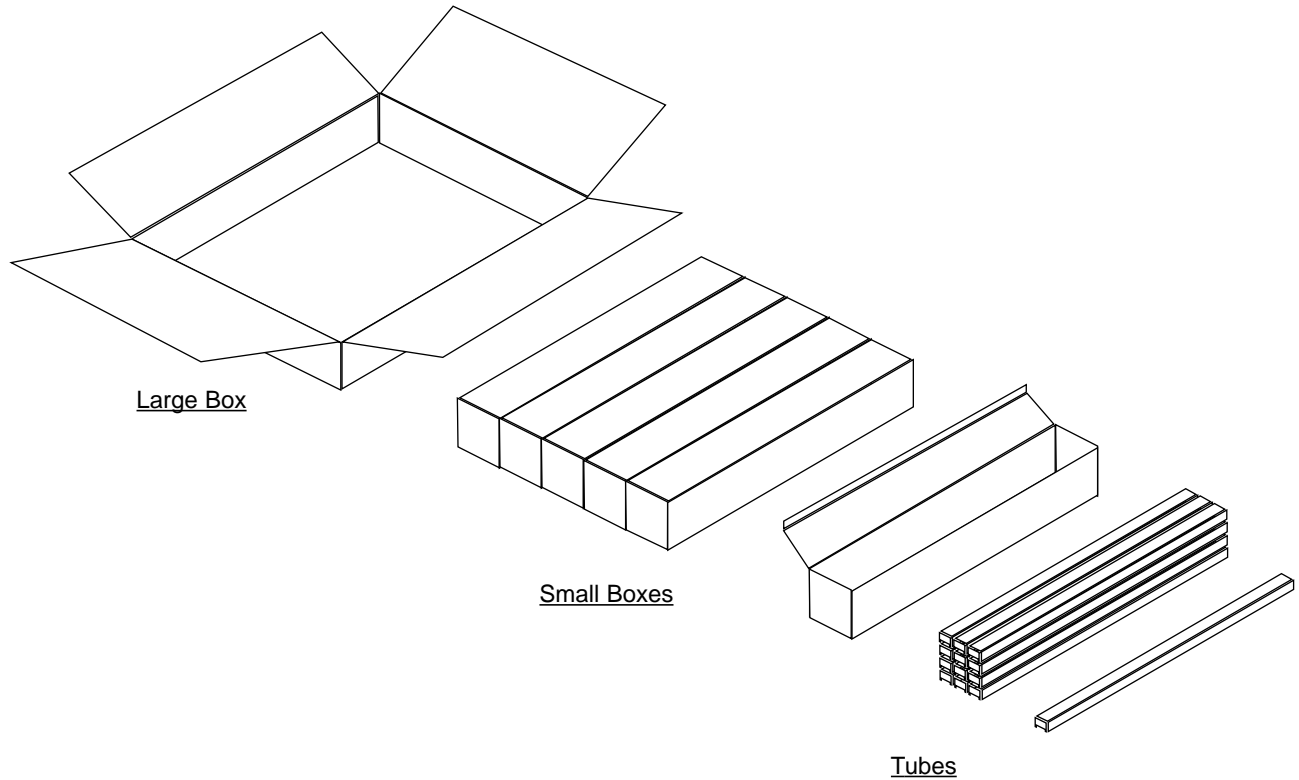
SCHEMATIC EQUIVALENT (Fig. 4)

(Typical Transformer Model @ 1 V, 1 kHz)



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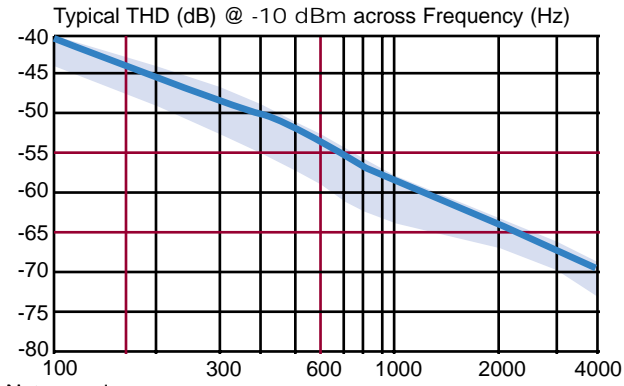
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**STANDARD PACKAGING (Fig. 9)**

**Packaging**

<u>Material</u>	<u>Contents</u>	<u>#Transformers</u>
Large Box	5 Small Boxes	1260
Small Box	12 Tubes	252
Tube	21 Transformers	21
---	Transformer	1

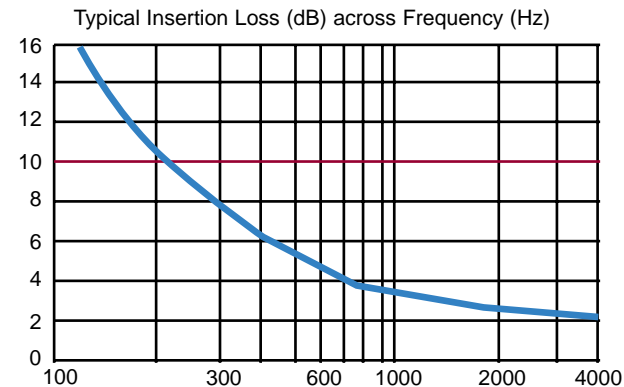
PERFORMANCE DATA

TOTAL HARMONIC DISTORTION (Fig. 5)



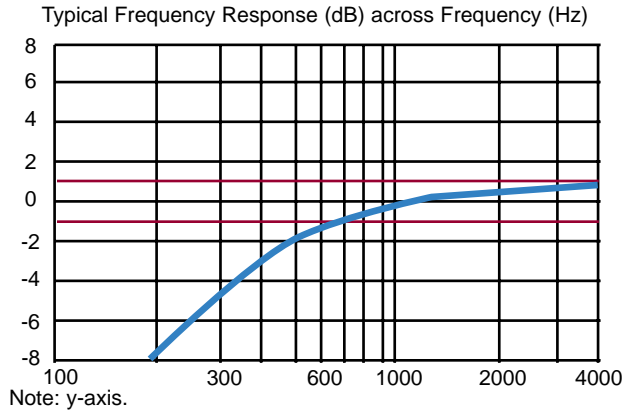
Note: y-axis.

INSERTION LOSS (Fig. 6)



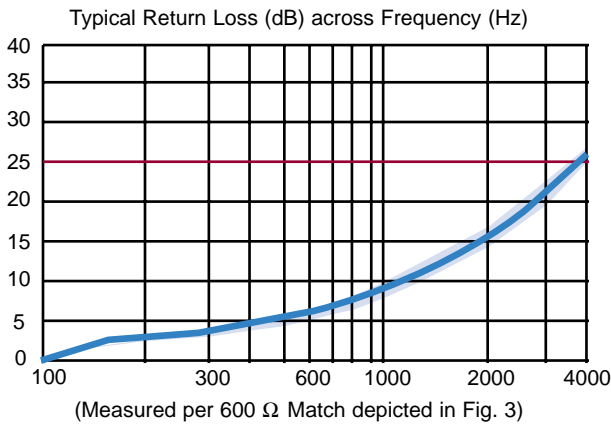
Note: y-axis.

FREQUENCY RESPONSE (Fig. 7)



Note: y-axis.

RETURN LOSS (Fig. 8)



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