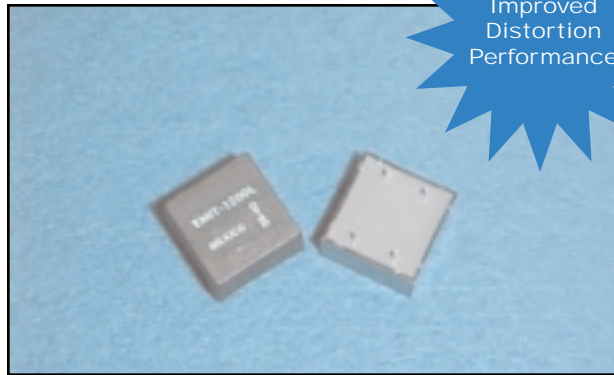


Analog Telephony / Modem Couplers



Improved Distortion Performance

FEATURES

- Suitable for modem speeds up to V.32bis (14.4 kbps). May be adapted to V.34 (33.6 kbps).
- Total Harmonic Distortion rated -84 dB typ. @ 600 Hz, -10 dBm. (Improved !)
- Insertion Loss rated 1.20 dB typ. @ 2000 Hz.
- Complies with IEC60950 Reinforced safety norms.
- Matches 600 Ohm and complex impedance telephone lines.
- Uses minimal external components for impedance matching.
- Very small PCB footprint (18.3 mm x 18.3 mm).
- Industry-standard pin configuration.

DESCRIPTION

The REMtech REMtech Magnetics EMIT-1200 is a “Dry” Encapsulated Modem Isolation Transformer suitable for up to V.32bis (14.4 kbps) fax, computer telephony, and other analog modem and voice routing applications compliant with International safety norms.

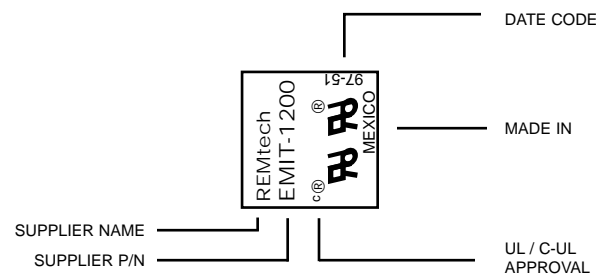
Newly improved distortion rating for EMIT-1200 may be adaptable to V.34 (33.6 kbps) modem speeds.

For future designs, see EMIT-1200L which offers Low-Profile height with identical characteristics and cost.

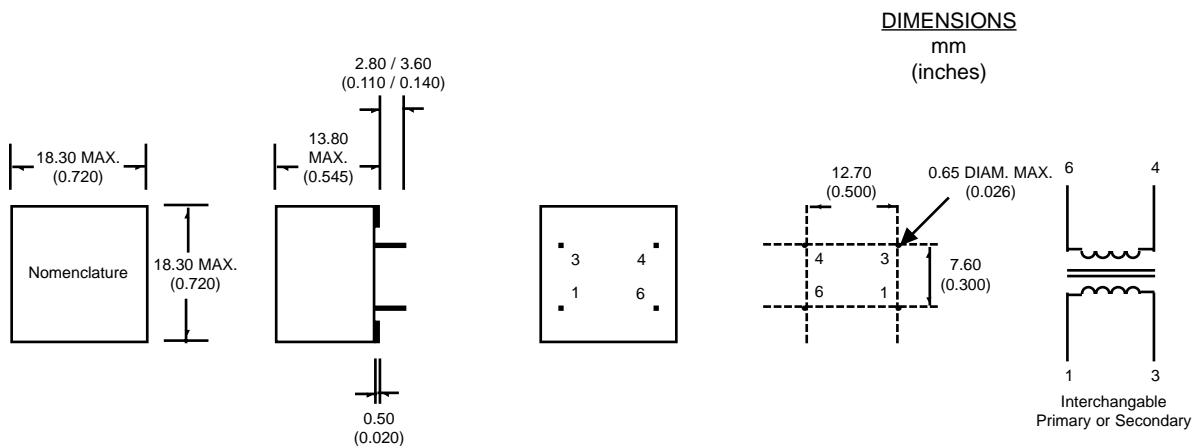
PRODUCT COMPLIANCE

- 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)



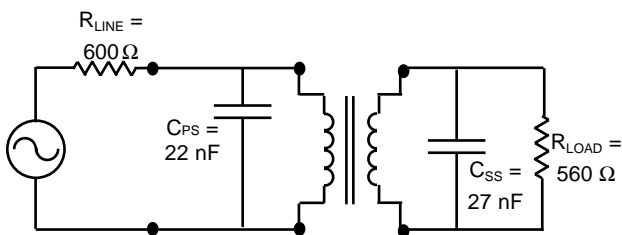
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ELECTRICAL PERFORMANCE SPECIFICATIONS

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

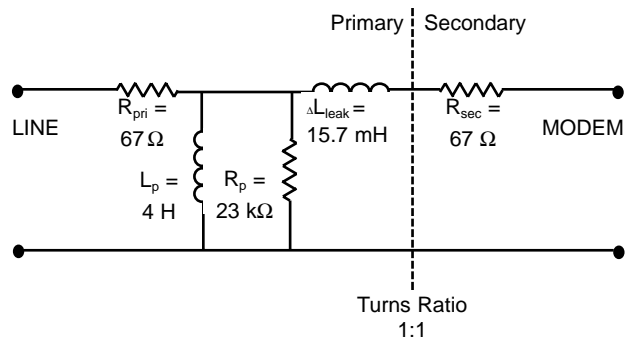
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	560	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm @ 150 Hz, -3 dBm	-	-84	-76	dB
		-	-68	-60	dB
Insertion Loss	Per IEEE method; @ 2000 Hz	-	1.20	1.50	dB
Return Loss	200 Hz - 4000 Hz Per 600 Ohm Match (Fig. 3) Per CTR21 Pan-Euro Match (Fig. 10)	18	-	-	dB
		22	-	-	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	μA
Frequency Response	200 Hz - 4000 Hz	-	± 0.60	-	dB
Longitudinal Balance	Per FCC part 68.310 60 Hz - 1000 Hz 1000 Hz - 4000 Hz	60	-	-	dB
		40	-	-	dB
DC Resistance @ 20°C , $\pm 10\%$	Primary Winding Secondary Winding	-	67	-	Ohms
		-	67	-	Ohms
DC Current in Primary	-	-	0	-	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)

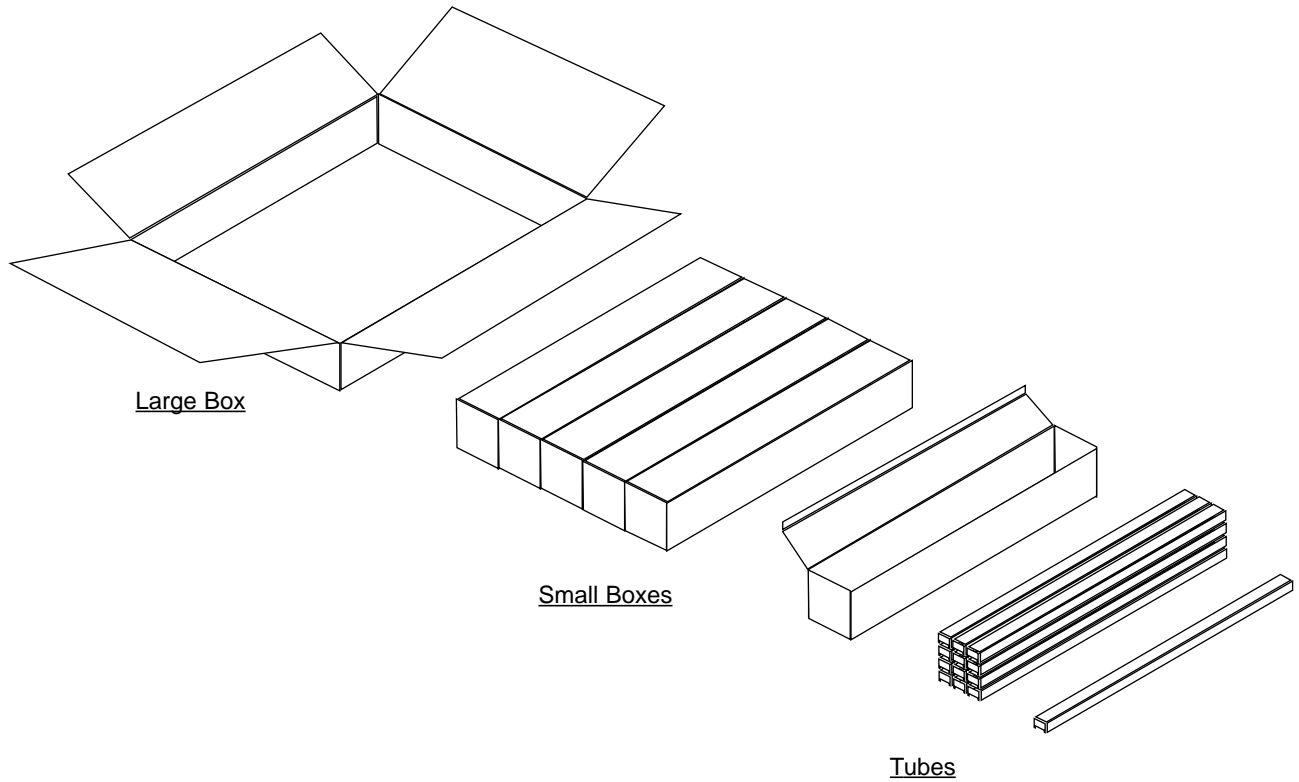
(Typical Transformer Model @ 1 V, 1 kHz)



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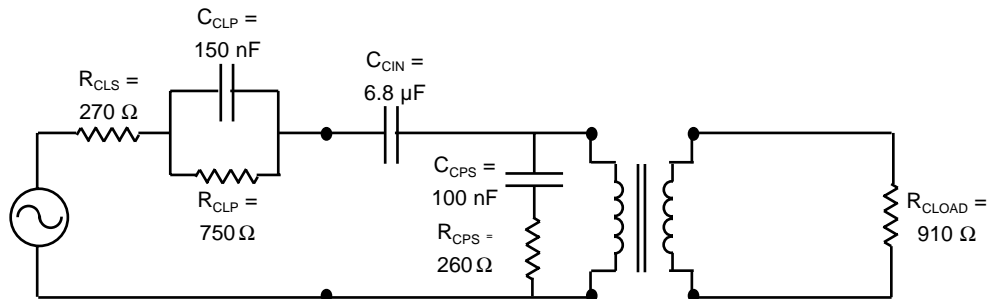
STANDARD PACKAGING (Fig. 9)



Packaging	Material	Contents	#Transformers
	Large Box	5 Small Boxes	1500
	Small Box	12 Tubes	300
	Tube	25 Transformers	25
	---	Transformer	1

PAN-EUROPEAN CTR21 MATCH (Fig. 10)

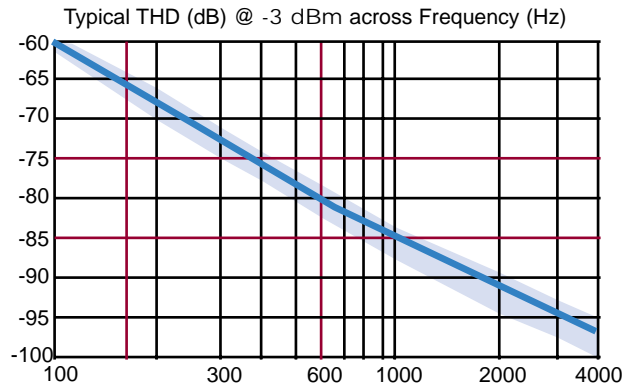
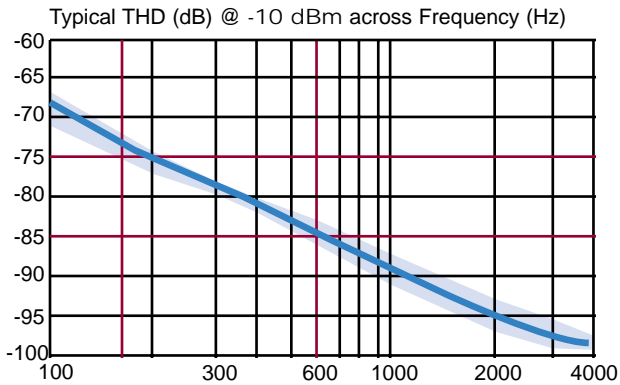
(Application circuits available on request for specific national match requirements.)



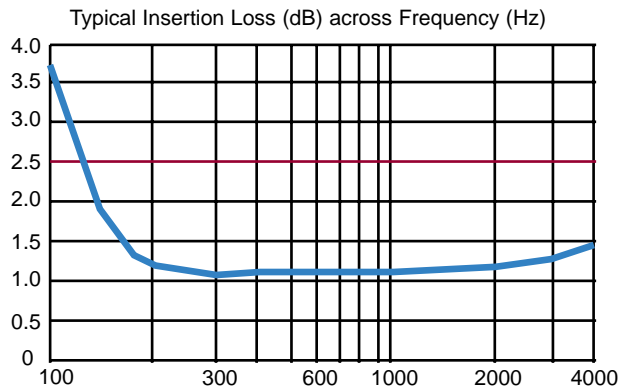
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PERFORMANCE DATA

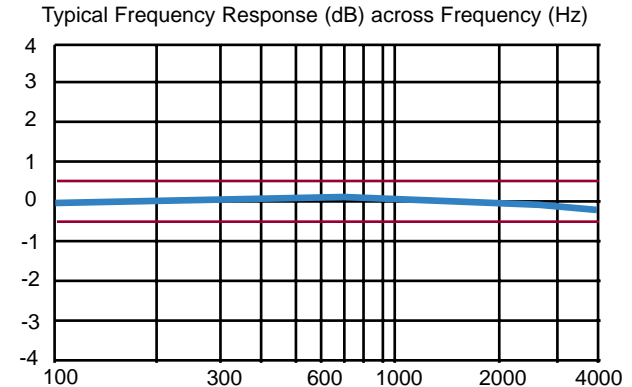
TOTAL HARMONIC DISTORTION (Fig. 5)



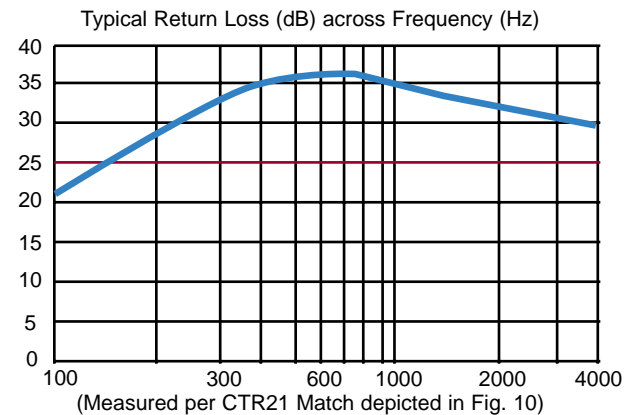
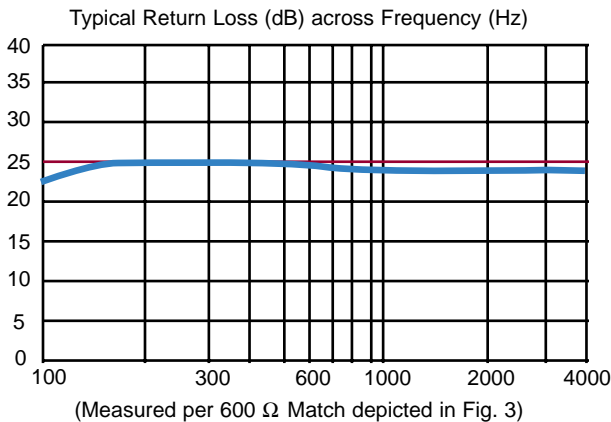
INSERTION LOSS (Fig. 6)



FREQUENCY RESPONSE (Fig. 7)



RETURN LOSS (Fig. 8)



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