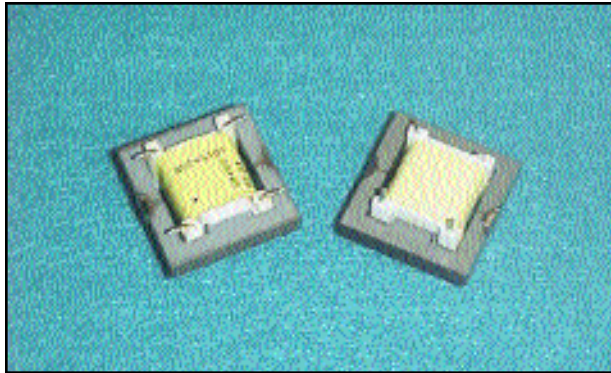


Analog Telephony / Modem Couplers



DESCRIPTION

The REMtech Magnetics MIT-6101 is a “Wet” Modem Isolation Transformer suitable for up to V.32 (9.6 kbps) analog modem and voice applications compliant with Worldwide safety norms.

MIT-6101 applications include fax machines, DBS / Set-top boxes, computer telephony, POS, security, and electric metering applications. May be suitable for pan-European CTR-21 designs, and meets new UL1950 safety requirements for the domestic market.

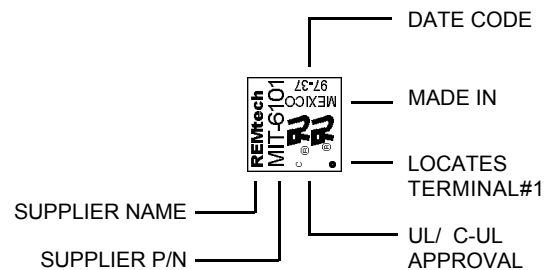
FEATURES

- Suitable for modem speeds up to V.32 (9.6 kbps).
- Cost-effective “Wet” coupler construction reduces DAA components.
- Total Harmonic Distortion rated -60 dB typ. @ 600 Hz, -10 dBm.
- Insertion Loss rated 3.50 dB typ. @ 1000 Hz.
- Complies with IEC60950 Supplementary safety norms. Designed to meet Bellcore GR-1089-CORE surge test.
- Reflects 600 Ohms on Primary with 260 Ohms Secondary Load. See circuit for best Return Loss.
- Uses minimal external components for impedance matching for pan-European CTR-21 telephone lines.
- Small PCB footprint (24.0 mm x 23.0 mm). Low-Profile (12.0 mm).
- Industry-standard pin configuration.

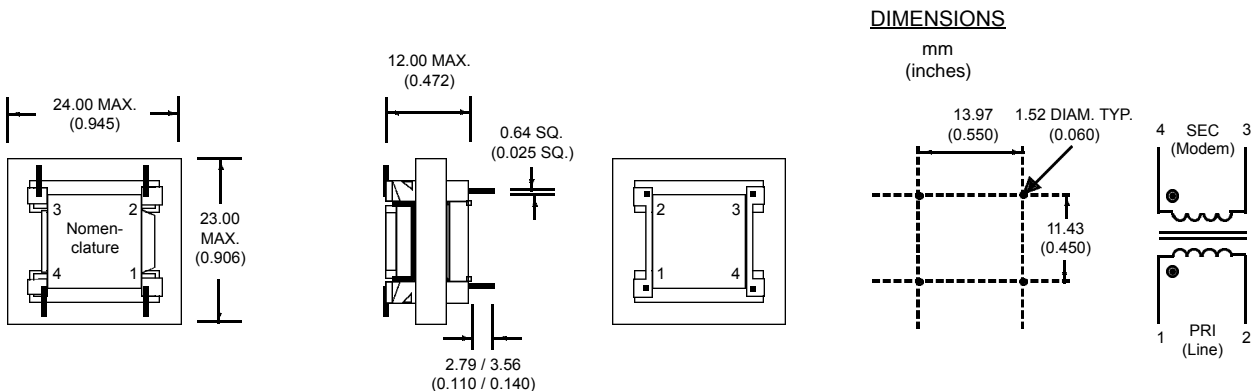
PRODUCT COMPLIANCE

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

NOMENCLATURE (Fig. 1)



MECHANICAL DIMENSIONS (Fig. 2)



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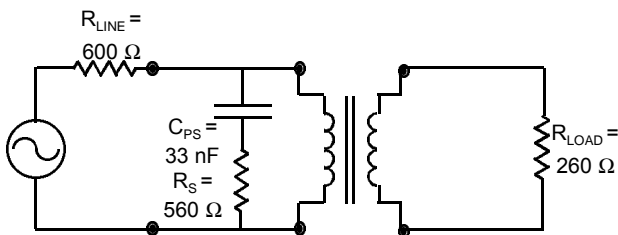
Analog Telephony / Modem Couplers

ELECTRICAL PERFORMANCE SPECIFICATIONS

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

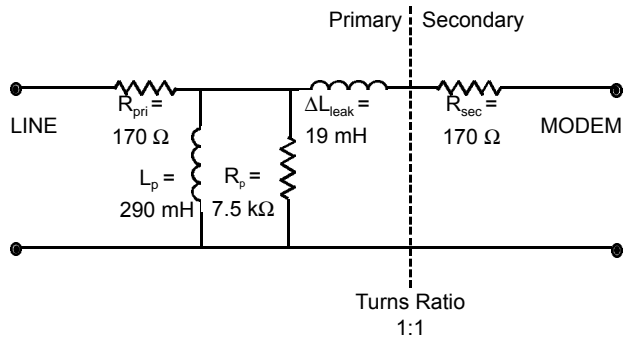
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	260	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm	-	-60	-	dB
Insertion Loss	Per IEEE method; @ 1000 Hz	-	3.50	4.00	dB
Return Loss	300 Hz - 4000 Hz Per 600 Ohm Match (Fig. 3) Per CTR21 Pan-Euro Match (Fig. 10)	8	-	-	dB
		8	-	-	dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 Min. HiPot Voltage Duration Trip Leakage Current	1500	-	-	Vrms
		2000	-	-	Vrms
		2	-	-	Sec
		-	-	200	μA
Frequency Response	200 Hz - 4000 Hz	-	± 2.50	-	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	-	170	-	Ohms
		-	170	-	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)

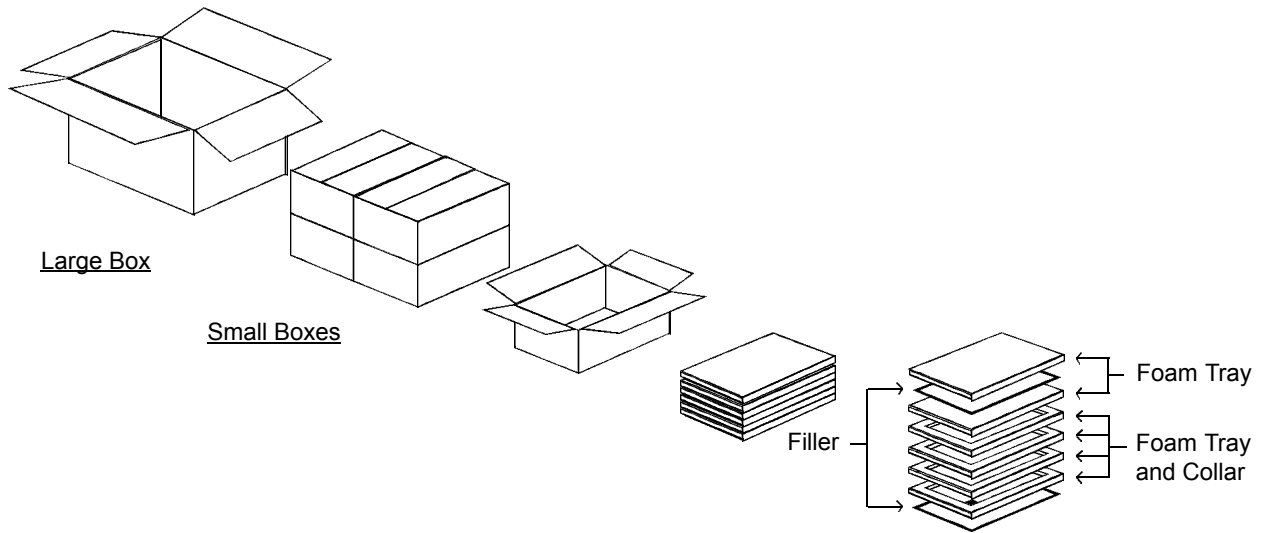
(Typical Transformer Model @ 1 V, 1 kHz)



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STANDARD PACKAGING (Fig. 9)

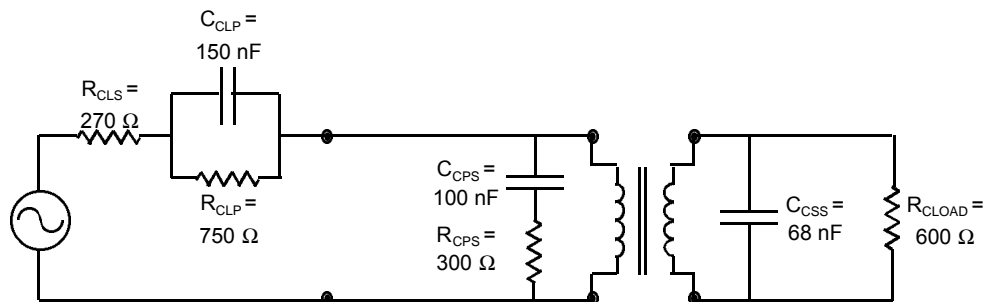


Packaging

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

PAN-EUROPEAN CTR21 MATCH (Fig. 10)

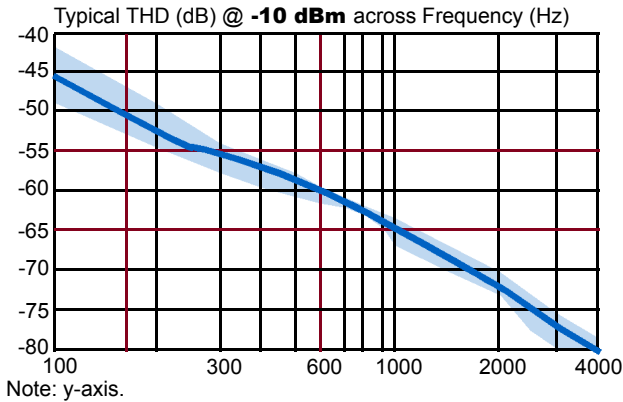
(Application circuits available on request for specific national match requirements.)



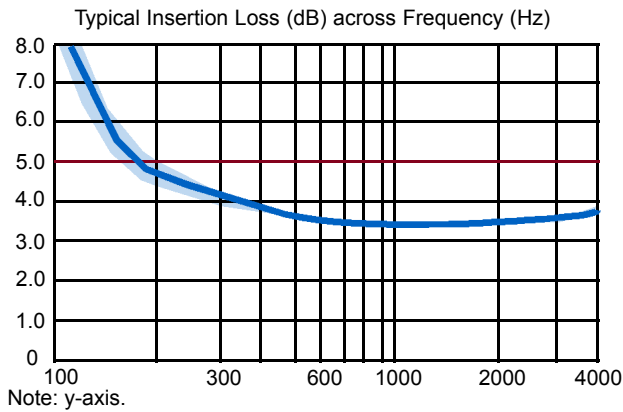
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PERFORMANCE DATA

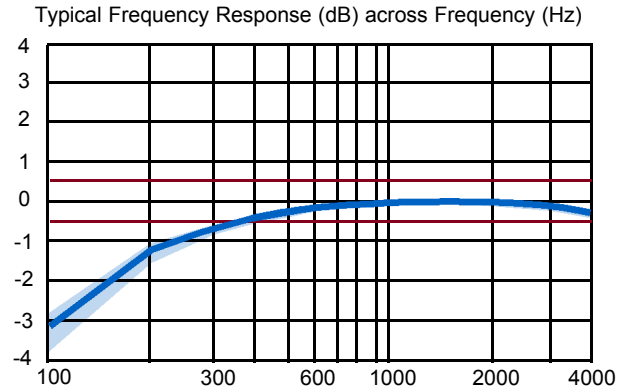
TOTAL HARMONIC DISTORTION (Fig. 5)



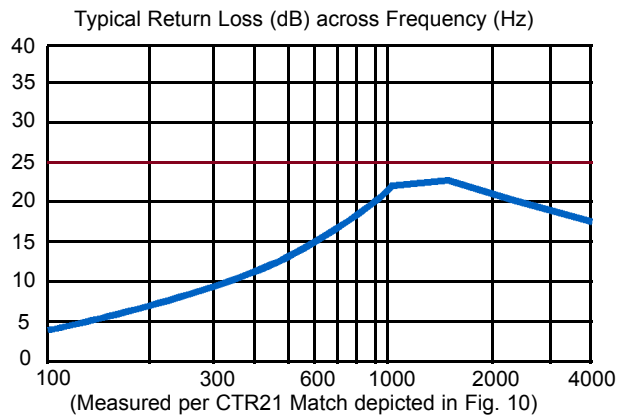
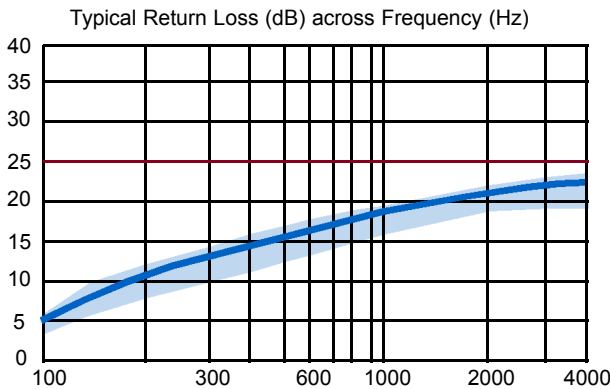
INSERTION LOSS (Fig. 6)



FREQUENCY RESPONSE (Fig. 7)



RETURN LOSS (Fig. 8)



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