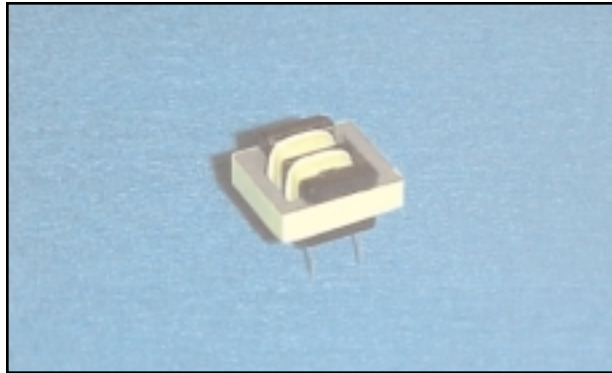


Analog Telephony / Modem Couplers



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 UL1459 safety norms.
- Reflects 600 Ohms on Primary with 560 Ohms Secondary Load, plus minimal external components for optimal Return Loss.
- Very small PCB footprint (16.3 mm x 19.7 mm).
- Very Low-Profile (10.4 mm).
- Industry-standard pin configuration.

DESCRIPTION

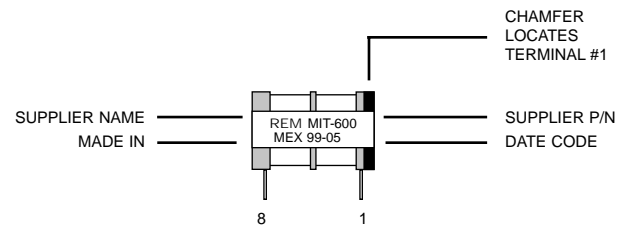
The REMtech Magnetics MIT-600 is a low-cost "Wet" Modem Isolation Transformer suitable for up to V.32 (9.6 kbps) fax, DBS / Set-top, security, metering, and other analog modem and voice routing applications.

MIT-600 is approved for Domestic safety norms under UL1459, but the design meets UL1950 Supplementary standards. For UL1950 Reinforced safety, see EMIT-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 telecom lines.

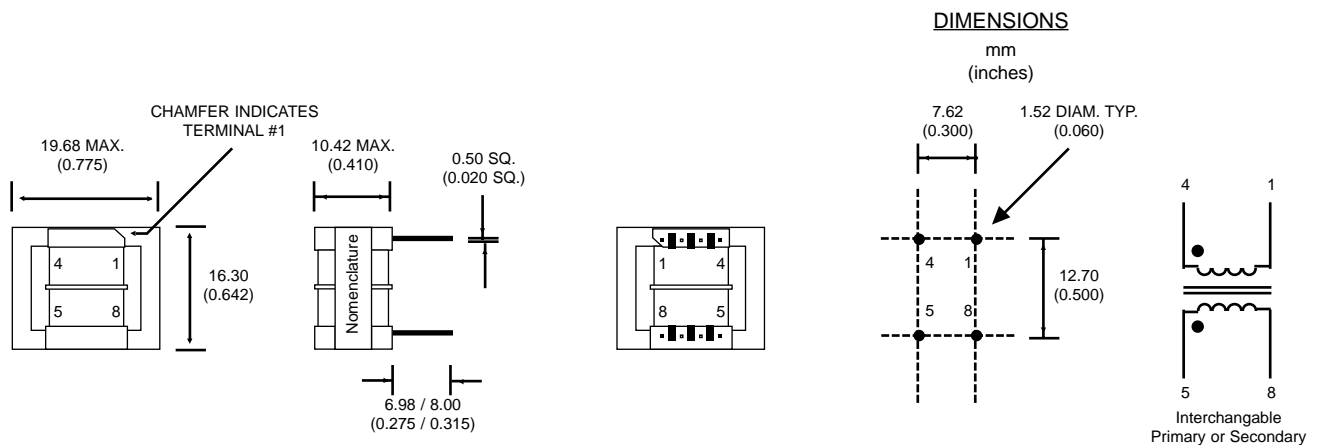
PRODUCT COMPLIANCE

- UL / C-UL recognized file number: E171120

NOMENCLATURE (Fig. 1)



MECHANICAL DIMENSIONS (Fig. 2)



Literature Number: DSA.MIT-600
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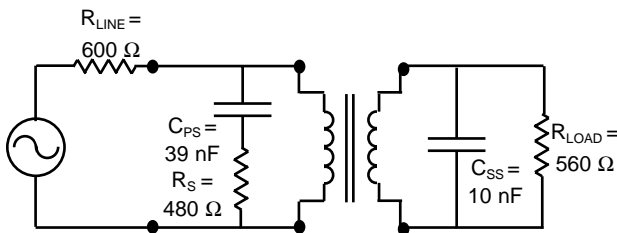
Analog Telephony / Modem Couplers

ELECTRICAL PERFORMANCE SPECIFICATIONS

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

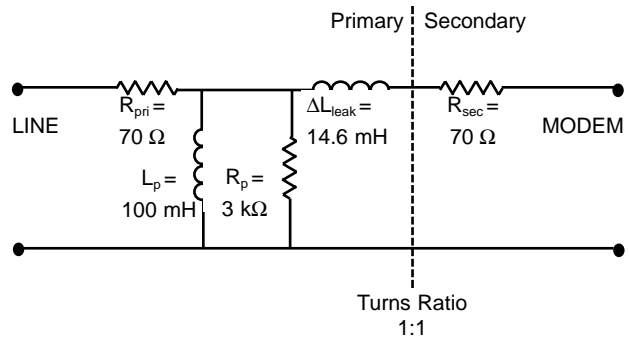
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	560	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm	-	-54	-	dB
Insertion Loss	Per IEEE method; @ 2000 Hz	-	2.20	2.50	dB
Return Loss	1000 Hz Per 600 Ohm Match (Fig. 3)	8	-	-	dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 Min.	1000	-	-	Vrms
	HiPot Voltage	3750	-	-	Vrms
	Duration	2	-	-	Sec
	Trip Leakage Current	-	-	200	μA
Frequency Response	300 Hz - 600 Hz	-	± 6.00	-	dB
	600 Hz - 4000 Hz	-	± 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°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)

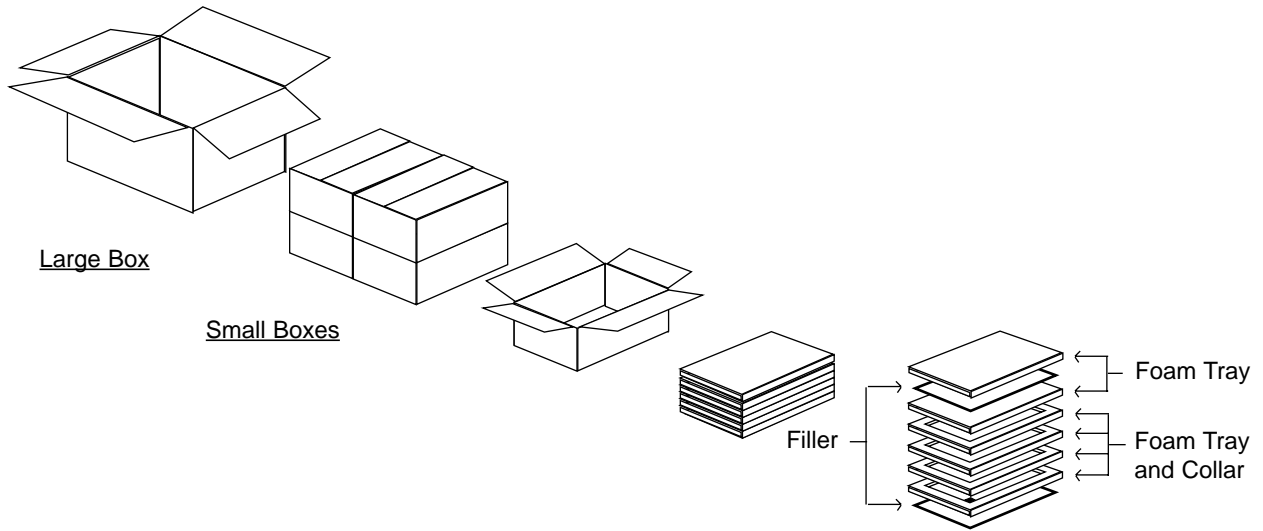
(Typical Transformer Model @ 1 V, 1 kHz)



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STANDARD PACKAGING (Fig. 9)



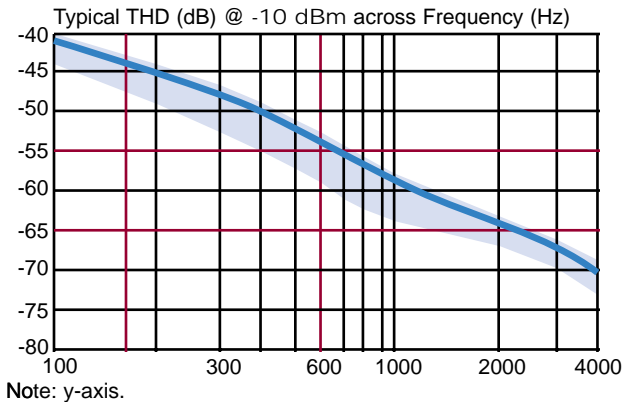
Packaging

Material	Contents	#Transformers
Large Box	4 Small Boxes	1600
Small Box	4 Trays	400
Tray	100 Transformers	100
---	Transformer	1

Analog Telephony / Modem Couplers

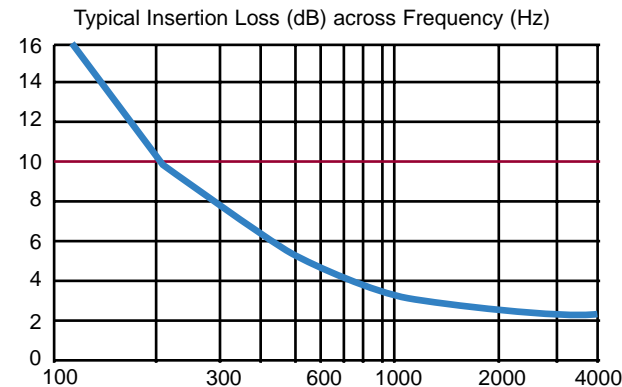
PERFORMANCE DATA

TOTAL HARMONIC DISTORTION (Fig. 5)



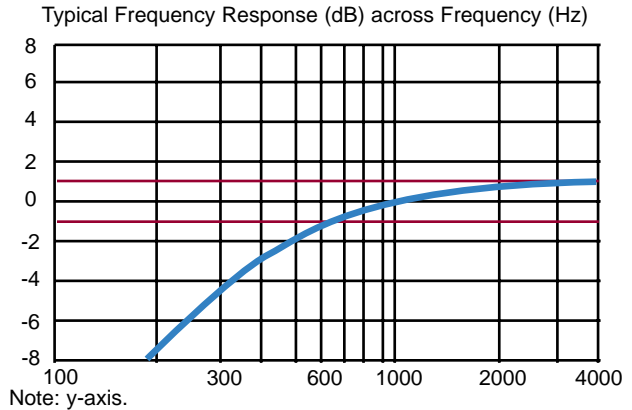
Note: y-axis.

INSERTION LOSS (Fig. 6)



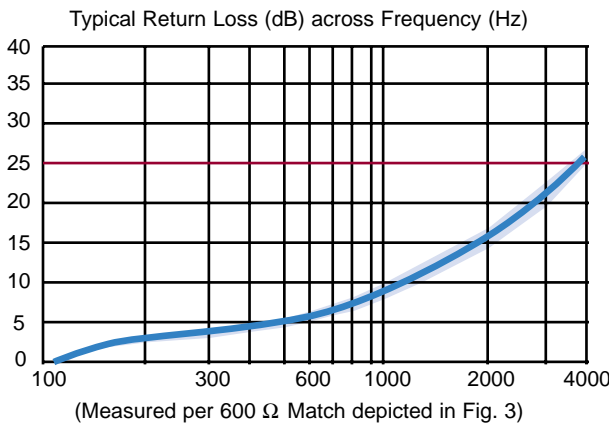
Note: y-axis.

FREQUENCY RESPONSE (Fig. 7)



Note: y-axis.

RETURN LOSS (Fig. 8)



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