

### FEATURES

- Suitable for modem speeds up to V.32bis (14.4 kbps). Successfully adapted to V.34 (33.6 kbps) modems.
- Cost-effective “Wet” coupler construction reduces DAA components.
- Total Harmonic Distortion rated -75 dB typ. @ 600 Hz, -10 dBm.
- Insertion Loss rated 2.00 dB typ. @ 1000 Hz.
- Complies with UL1459 safety norms.
- Reflects 600 Ohms on Primary with 470 Ohms Secondary Load.
- Small PCB footprint (24.0 mm x 23.0 mm).
- Low-Profile (12.0 mm).
- Industry-standard pin configuration.

### DESCRIPTION

The REMtech Magnetics MIT-205 is a “Wet” Modem Isolation Transformer suitable for up to V.32bis (14.4 kbps) consumer and internet analog modem applications compliant with Domestic safety norms.

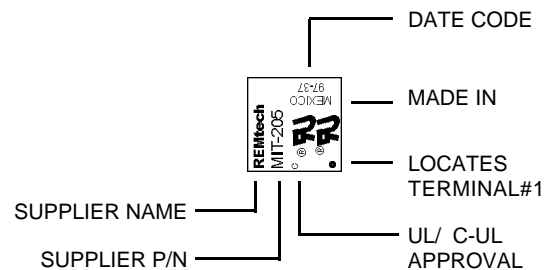
Due to exceptional Distortion characteristics, MIT-205 has been implemented in V.34 (33.6 kbps) modems.

Due to its “Wet” construction, MIT-205 saves DAAcost by eliminating circuitry for diverting telephone line DC from the transformer.

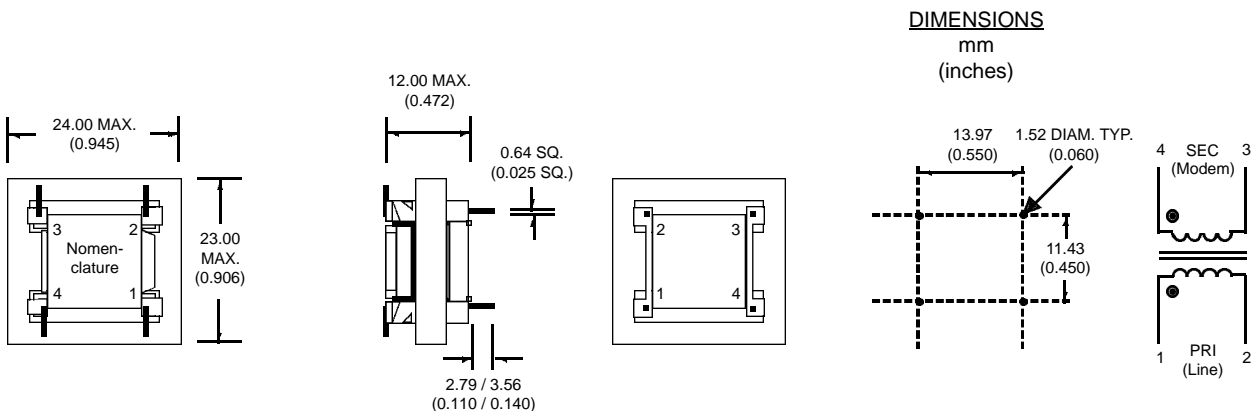
### PRODUCT COMPLIANCE

- UL / C-UL recognized file number: E171120

### NOMENCLATURE (Fig. 1)



### MECHANICAL DIMENSIONS (Fig. 2)



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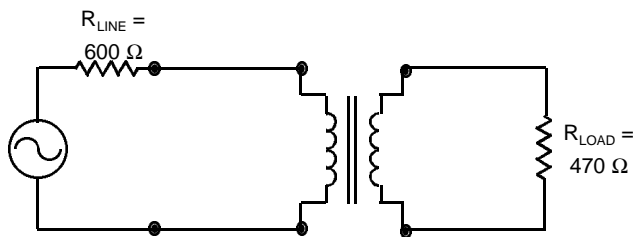
Analog Telephony / Modem Couplers

ELECTRICAL PERFORMANCE SPECIFICATIONS

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

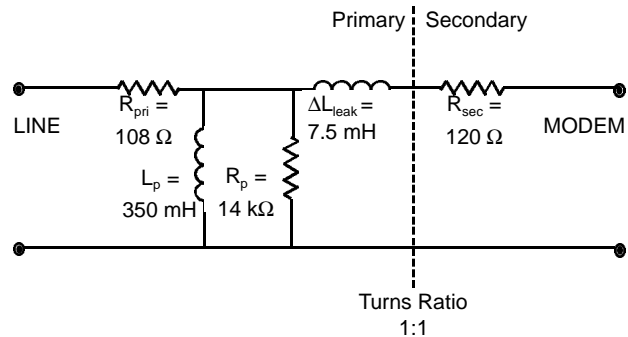
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	470	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm	-	-75	-	dB
Insertion Loss	Per IEEE method; @ 1 kHz, 100 mADC	1.50	2.00	2.50	dB
Return Loss	1000 Hz Per 600 Ohm Match (Fig. 3)	-	17	-	dB
Dielectric Breakdown Isolation Production methods applied:	Safety Standard tested 1 Min. HiPot Voltage Duration Trip Leakage Current	1000	-	-	Vrms
		1250	-	-	Vrms
		2	-	-	Sec
		-	-	200	$\mu\text{A}$
Frequency Response	200 Hz - 400 Hz	-2.50	-	-	dB
	400 Hz - 600 Hz	-0.75	-	-	dB
	600 Hz - 1000 Hz	-0.40	-	-	dB
	1000 Hz - 4000 Hz	-	-	0.25	dB
Longitudinal Balance	Per FCC part 68.310 60 Hz - 1000 Hz 1000 Hz - 4000 Hz	66	-	-	dB
		46	-	-	dB
DC Resistance @ 20°C, $\pm 10\%$	Primary Winding	-	108	-	Ohms
	Secondary Winding	-	120	-	Ohms
DC Current in Primary	-	-	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)

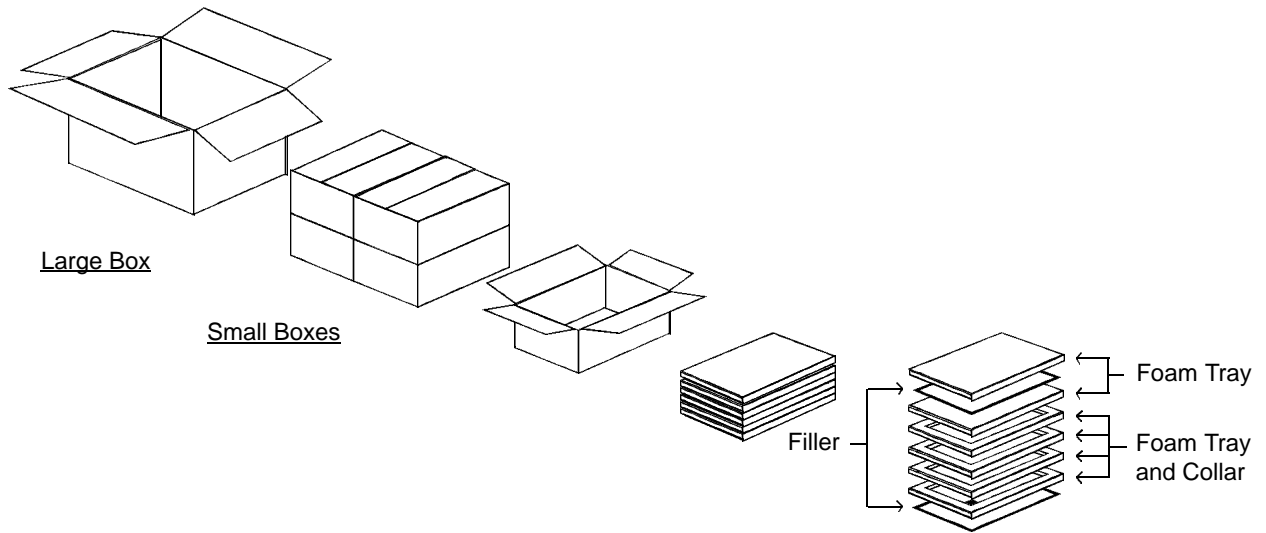
(Typical Transformer Model @ 1 V, 1 kHz)



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STANDARD PACKAGING (Fig. 9)



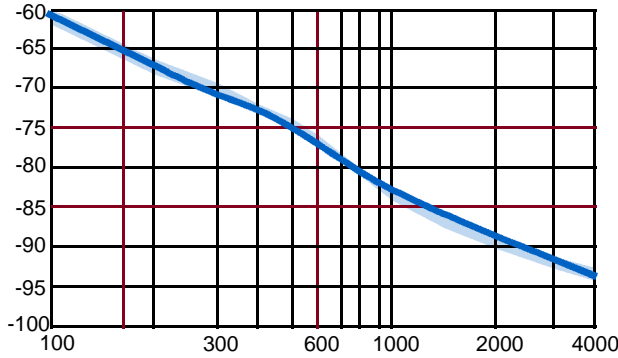
Packaging

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

Analog Telephony / Modem Couplers

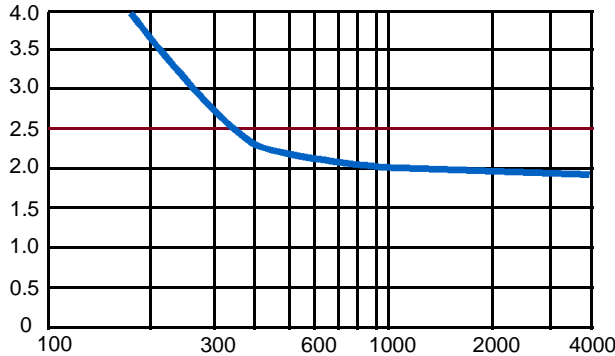
PERFORMANCE DATA

TOTAL HARMONIC DISTORTION (Fig. 5)



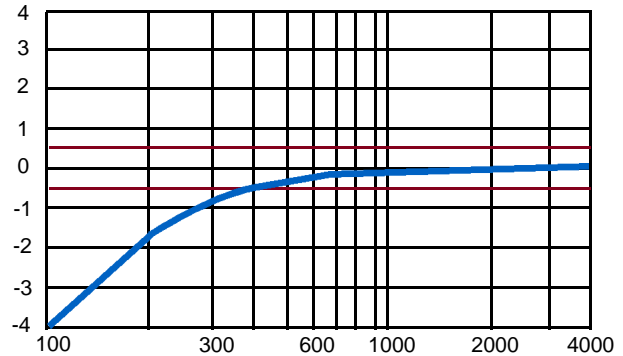
INSERTION LOSS (Fig. 6)

Typical Insertion Loss (dB) across Frequency (Hz)



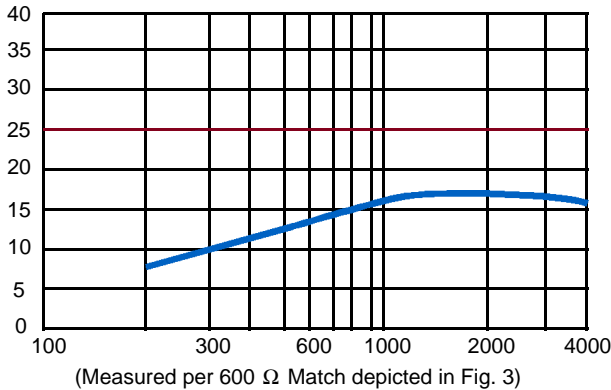
FREQUENCY RESPONSE (Fig. 7)

Typical Frequency Response (dB) across Frequency (Hz)



RETURN LOSS (Fig. 8)

Typical Return Loss (dB) across Frequency (Hz)



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