

**FEATURES**

- Suitable for modem speeds up to V.90 (56 kbps) at top performance.
- Total Harmonic Distortion rated -93 dB typ. @ 600 Hz, -10 dBm and -85 dB typ. @ 150 Hz, -3 dBm.
- Insertion Loss rated 1.55 dB typ. @ 2000 Hz.
- Complies with IEC60950 Reinforced safety norms.
- Reflects 600 Ohms on Primary with 420 Ohms Secondary Load.
- Uses minimal external components for impedance matching to pan-European CTR21 line standards.
- Very small PCB footprint (18.3 mm x 18.3 mm).
- Low-Profile (12.6 mm).
- Industry-standard pin configuration.

**DESCRIPTION**

The REMtech Magnetics EMIT-5035L is a “Dry” Encapsulated Modem Isolation Transformer suitable for up to V.90 (56 kbps) consumer and internet analog modem applications compliant with International safety norms.

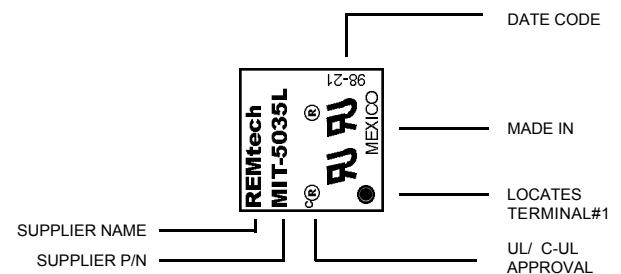
EMIT-5035L offers very low Distortion, very flat Frequency Response, and good Return Loss, with simple impedance matching for 600-ohm telephone lines (also suits CTR-21).

For cost reduction, EMIT-4035L serves as a “drop-in” replacement device with nominal performance impact.

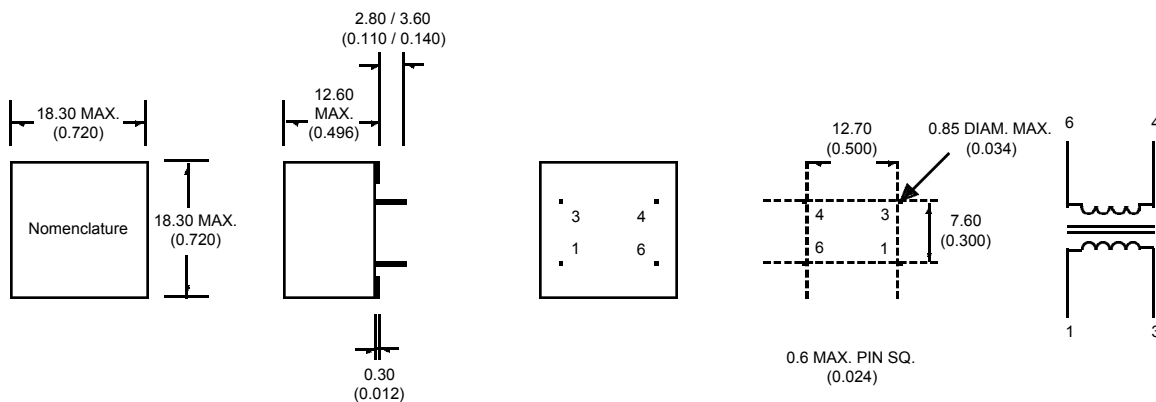
**PRODUCT COMPLIANCE**

- 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)**



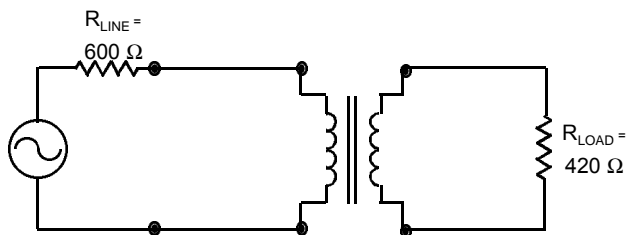
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**ELECTRICAL PERFORMANCE SPECIFICATIONS**

**Electrical Performance Specifications (T<sub>A</sub> = 25 °C unless otherwise specified)**

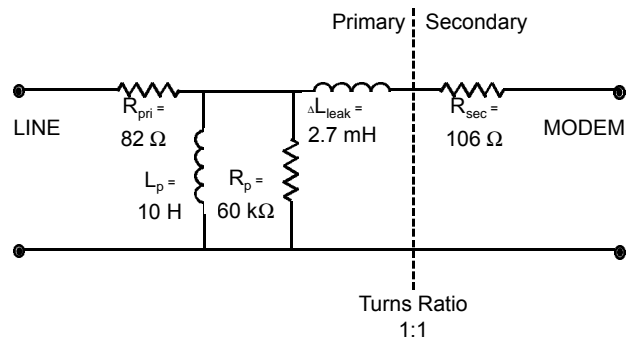
PARAMETERS	CONDITIONS	MIN	TYP	MAX	UNITS
Impedance	Reflected on Primary With Load on Secondary	-	600	-	Ohms
		-	420	-	Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm @ 150 Hz, -3 dBm	-	-93	-86	dB
		-	-85	-75	dB
Insertion Loss	Per IEEE method; @ 2000 Hz	-	1.55	1.70	dB
Return Loss	200 Hz - 4000 Hz Per 600 Ohm Match (Fig. 3) Per CTR21 Pan-Euro Match (Fig. 10)	22	-	-	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	-	±0.10	-	dB
Longitudinal Balance	Per FCC part 68.310 60 Hz - 1000 Hz 1000 Hz - 4000 Hz	60	-	-	dB
		40	-	-	dB
DC Resistance @ 20°C, ±10%	Primary Winding Secondary Winding	-	82	-	Ohms
		-	106	-	Ohms
DC Current in Primary	-	-	0	-	mADC
Turns Ratio	Primary to Secondary; ±2%	-	1:1	-	Turns
Operating Temperature	-	-40	-	105	°C
Storage Temperature	-	-40	-	125	°C
Soldering Temperature	10 Sec. Max.	-	-	260	°C

**600 OHM MATCH (Fig. 3)**



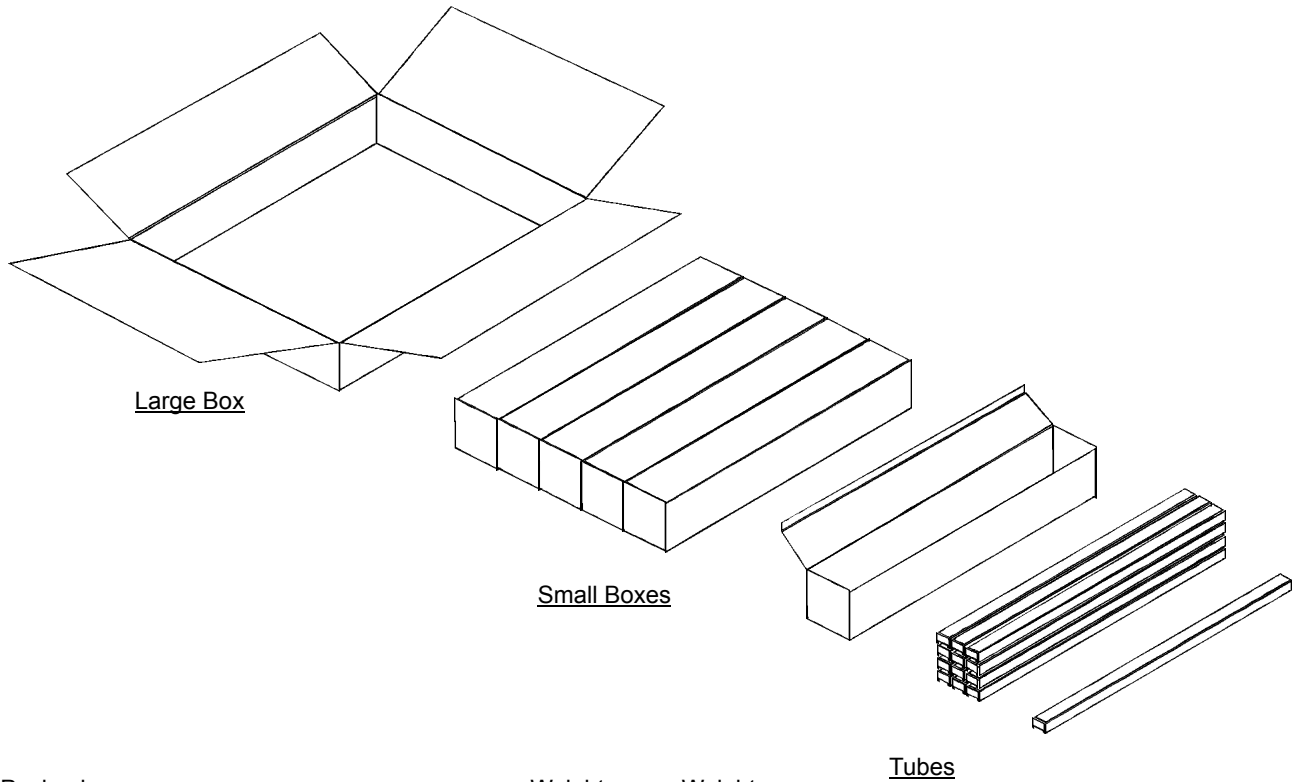
**SCHEMATIC EQUIVALENT (Fig. 4)**

(Typical Transformer Model @ 1 V, 1 kHz)



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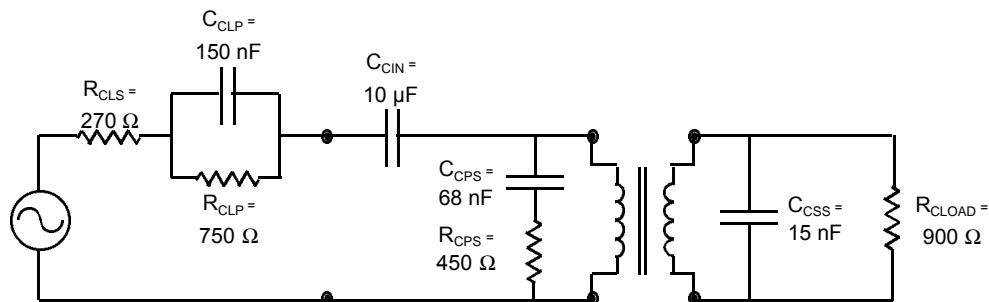
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**STANDARD PACKAGING (Fig. 9)**


Packaging	Contents	#Transformers	Weight (lbs)	Weight (kg)
Large Box	5 Small Boxes	1500	46.25	21
Small Box	12 Tubes	300	9.12	4.14
Tube	25 Transformers	25	0.585	0.266
---	Transformer	1	0.0205	0.0093

**PAN-EUROPEAN CTR21 MATCH (Fig. 10)**

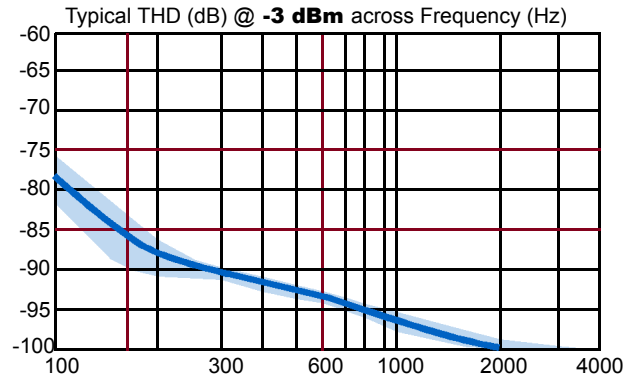
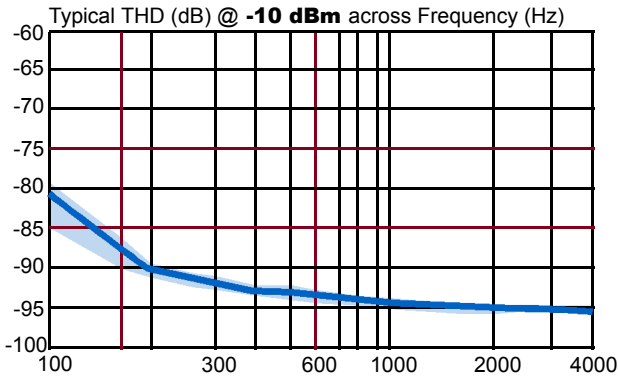
(Application circuits available on request for specific national match requirements.)



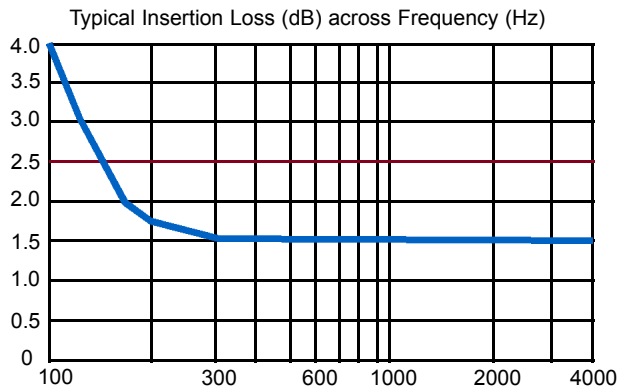
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**PERFORMANCE DATA**

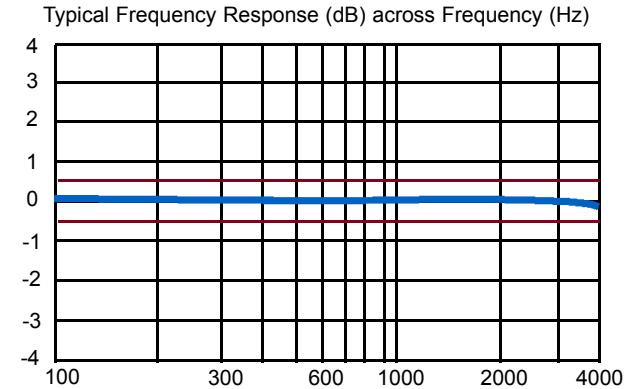
**TOTAL HARMONIC DISTORTION (Fig. 5)**



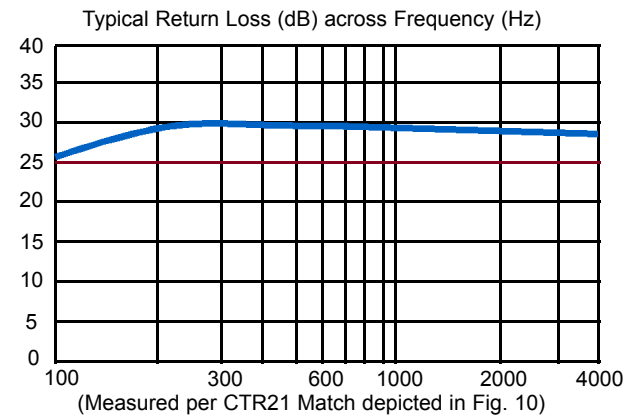
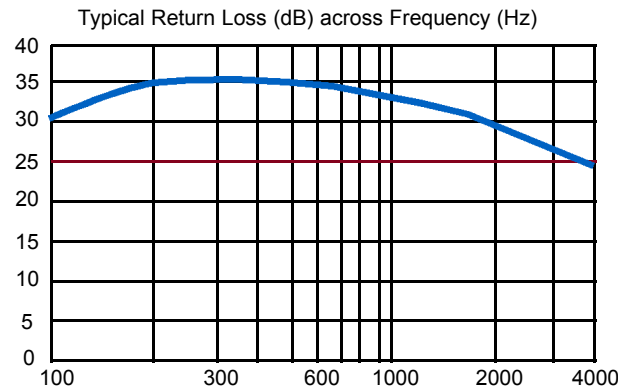
**INSERTION LOSS (Fig. 6)**



**FREQUENCY RESPONSE (Fig. 7)**



**RETURN LOSS (Fig. 8)**



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