



sumida

EMIT-2001L

Analog Telephony/Modem Couplers

FEATURES

- Suitable for modem speeds up to V.34 (33.6 kbps).
- Total Harmonic Distortion rated -82 dB max. @ 600 Hz, -10 dBm.
- Insertion Loss rated 1.50 dB max. @ 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).
- Low-Profile (12.6 mm).
- Industry-standard pin configuration

DESCRIPTION

The Sumida EMIT -2001L is a "Dry" Encapsulated Modem Isolation Transformer suitable for up to V.34 (33.6 kbps) consumer and internet analog modem applications compliant with International safety norms.

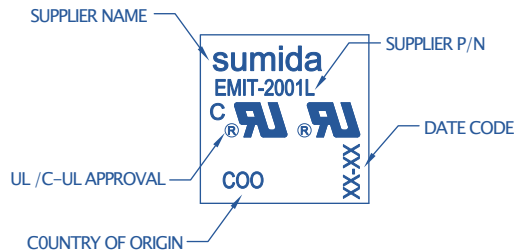
EMIT-2001L improves EMIT-2001 to a Low-Profile height, while offering identical electrical characteristics and the same economy for voice and medium-speed modem circuits.

PRODUCT COMPLIANCE

- UL/C- UL recognized file number: E171120
- BABT certificate of recognition: 1905/2080/2081
- TÜV certificate of recognition: B0112 45749 001

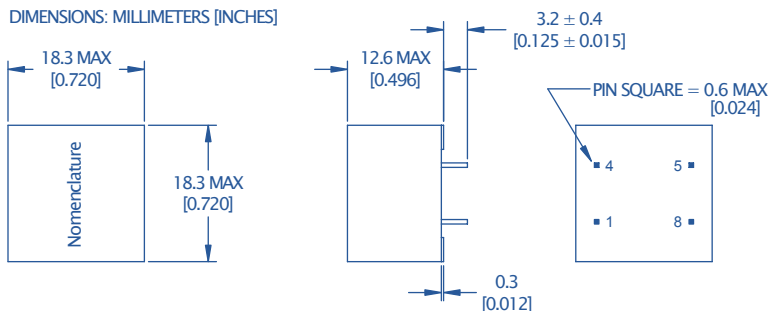


NOMENCLATURE (FIG. 1)

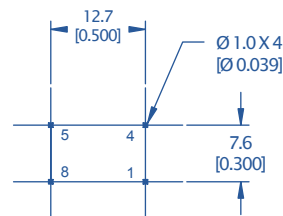


MECHANICAL DIMENSIONS (FIG. 2)

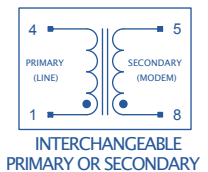
DIMENSIONS: MILLIMETERS [INCHES]



TERMINAL LAND LAYOUT



TERMINAL CONNECTION (BOTTOM VIEW)



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Tel. 1 847 545 6700

Fax. 1 847 545 6720

• Hong Kong

Tel. 852 2880 6688

Fax. 852 2565 9600

• Europe

Tel. 32 89 328850

Fax. 32 11 300890

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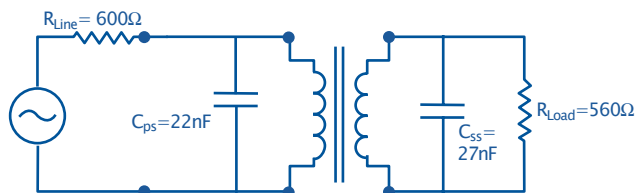
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ELECTRICAL PERFORMANCE SPECIFICATIONS

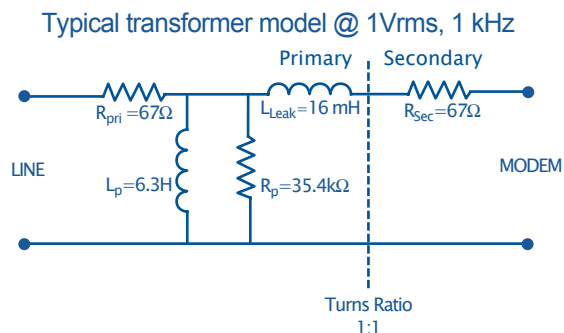
Parameters	Conditions	Min	Typ	Max	Units
Impedance	Reflected on Primary with load on Secondary		600 560		Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm @ 150 Hz, -3 dBm		-93 -70	-82 -55	dB
Insertion Loss	Per IEEE method; @2000 Hz		1.20	1.50	dB
Return Loss	200 Hz-4000 Hz Per 600 Ohm Match (Fig.3) Per CTR21 Pan-Euro Match (Fig.5)	18 22			dB
Dielectric Breakdown Isolation	Safety Standard tested 1 min. Production methods applied:	3000 3750 2			Vrms Vrms Sec
	HiPot Voltage Duration Trip Leakage Current			200	μ A
Frequency Response	200 Hz-4000 Hz		± 0.50		dB
Longitudinal Balance	Per FCC part 68.310 60 Hz -1000 Hz 1000 Hz - 4000 Hz	60 40			dB
DC Resistance @ 20°C, $\pm 10\%$	Primary winding (Rpri) Secondary winding (Rsec)		67 67		Ohms
DC current in Primary			0		mADC
Turns Ratio	Primary to Secondary; $\pm 2\%$		1:1		Turns
Operating temperature		-40		105	°C
Storage temperature		-40		125	°C
Soldering temperature	10 Sec. Max			260	°C

Electrical Performance Specifications (TA = 25°C, unless otherwise specified)

600 OHM MATCH (FIG.3)



SCHEMATIC EQUIVALENT (FIG.4)



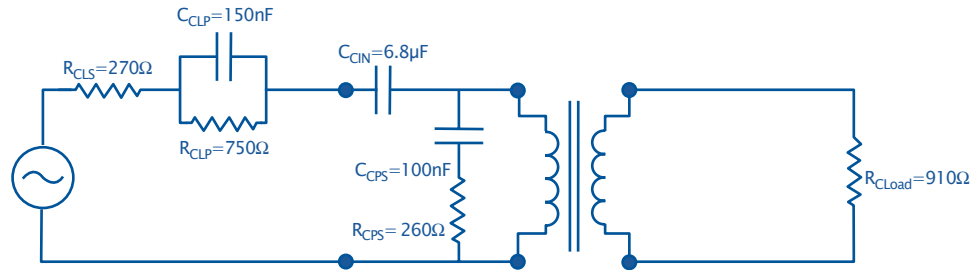
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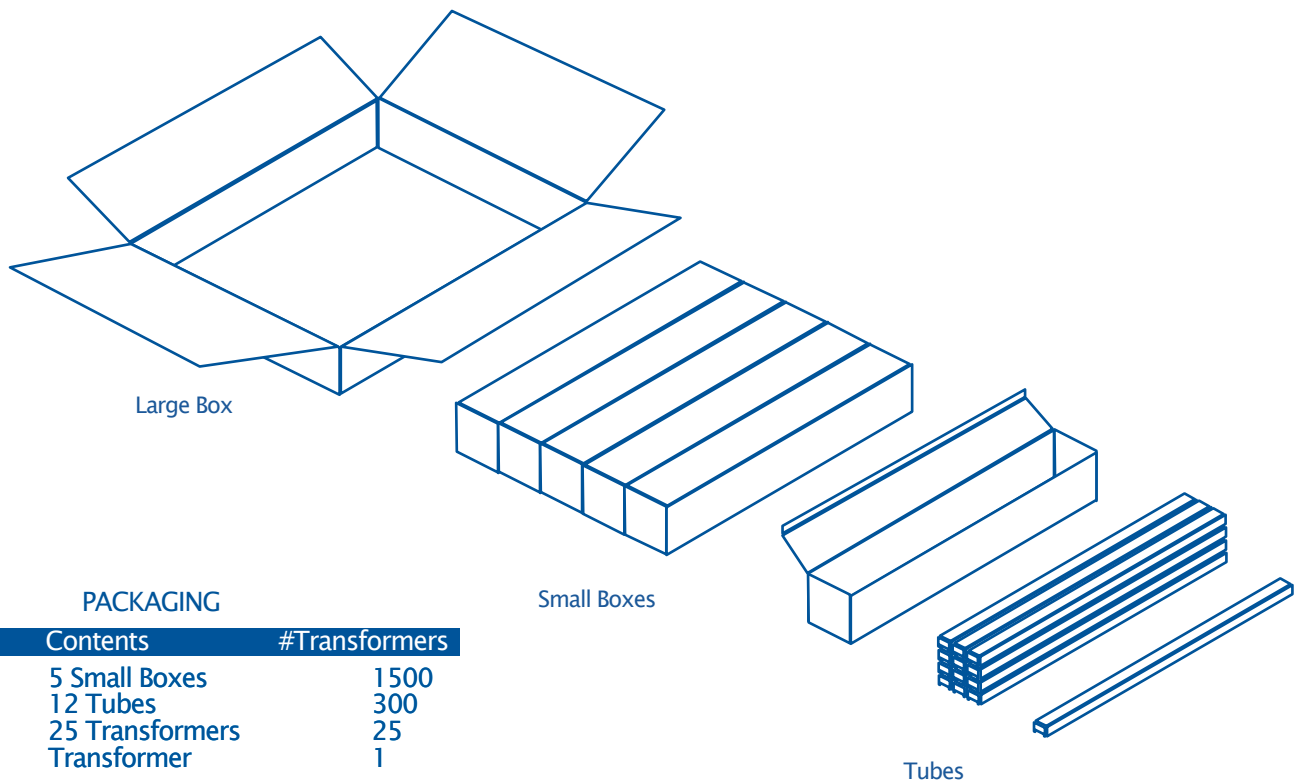


PAN-EUROPEAN CTR21 MATCH (FIG.5)

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



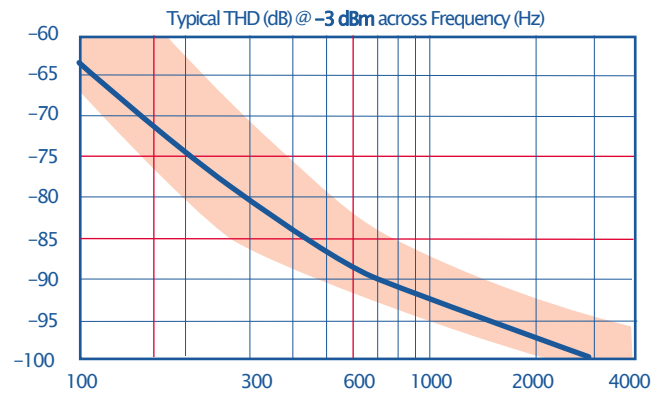
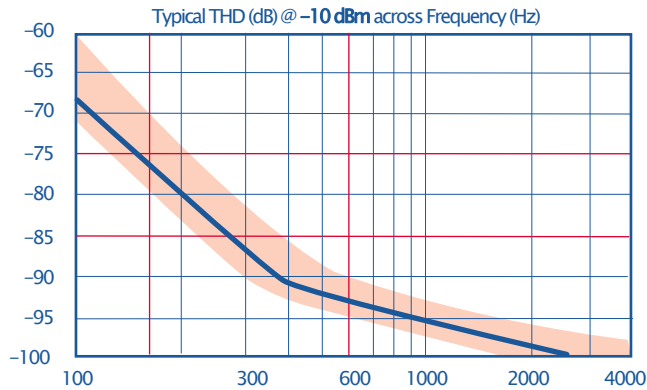
STANDARD PACKAGING (FIG.6)



PACKAGING

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

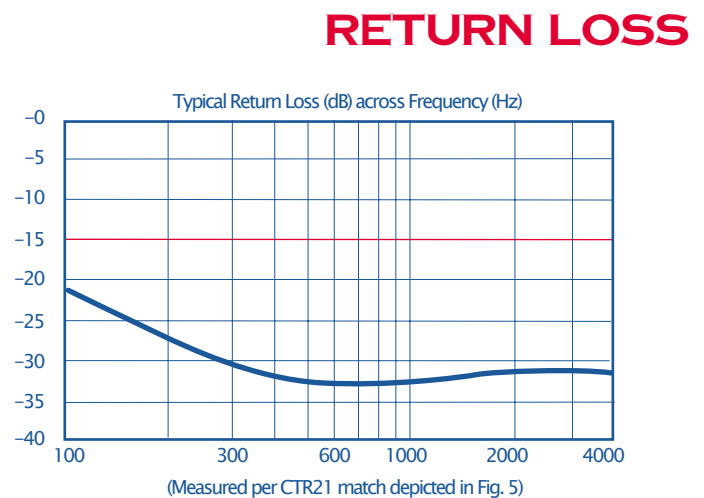
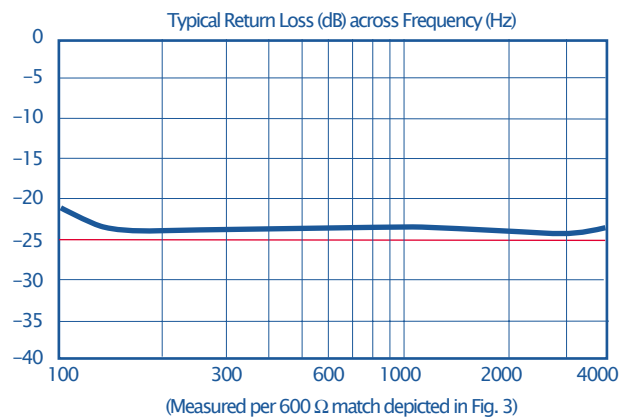
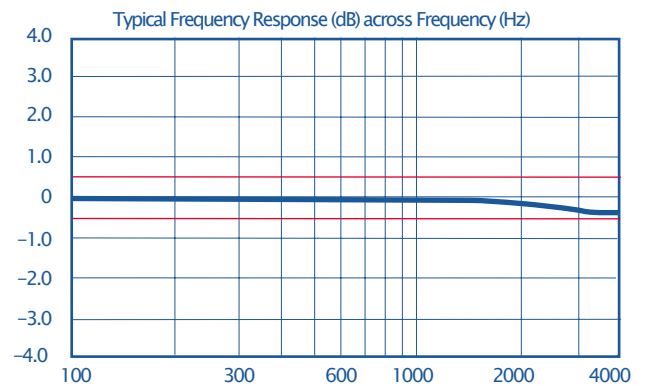
TOTAL HARMONIC DISTORTION



INSERTION LOSS



FREQUENCY RESPONSE



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