



MIT-101

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 -55 dB typ. @ 600 Hz, -10 dBm.
- Insertion Loss rated 250 dB max. @ 1000 Hz.
- Complies with UL 1459 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

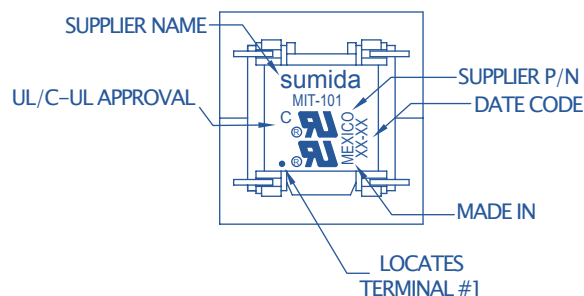
The Sumida MIT-101 is a low-cost "Wet" Modem Isolation Transformer suitable for up to V.32 (9.6 kbps) analog modem applications compliant with Domestic safety norms.

MIT-101 applications include fax machines, DBS / Set-top boxes, computer telephony, POS, security, and electric metering.

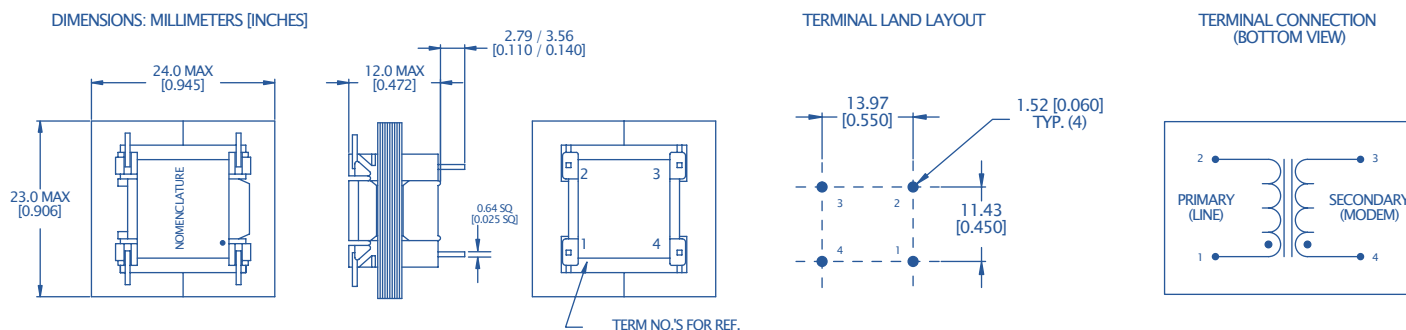
PRODUCT COMPLIANCE

- UL / C-UL recognized file number: E171120

NOMENCLATURE (FIG. 1)



MECHANICAL DIMENSIONS (FIG. 2)



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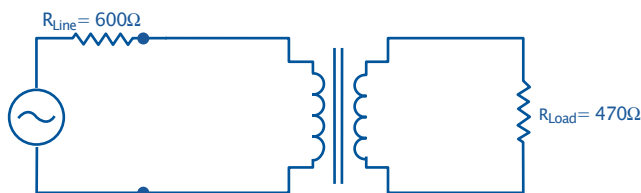
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ELECTRICAL PERFORMANCE SPECIFICATIONS

Parameters	Conditions	Min	Typ	Max	Units
Impedance	Reflected on Primary with load on Secondary		600 470		Ohms
Total Harmonic Distortion	@ 600 Hz, -10 dBm		-55		dB
Insertion Loss	Per IEEE method; @1000kHz, 30 mADC			2.5	dB
Return Loss	200 Hz-500 Hz 500 Hz-4000 Hz Per 600 Ohms Match (Fig. 3)	5 8			dB
Dielectric Breakdown Isolation	Safety Standard tested 1 min. Production methods applied:	1000 1250 2			Vrms Vrms Sec
	HiPot Voltage Duration Trip Leakage Current			200	μ A
Frequency Response	300 Hz - 600 Hz 600 Hz - 3500 Hz		± 4.00 ± 1.00		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 (R_{pri}) Secondary winding (R_{sec})		108 120		Ohms
DC current in Primary			30	100	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

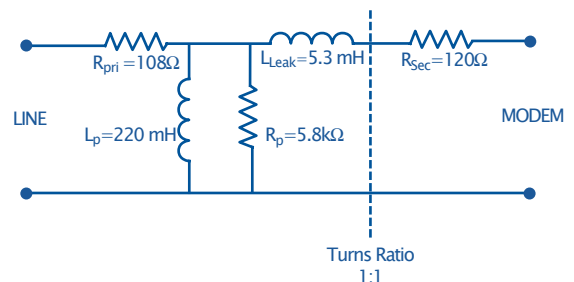
Electrical Performance Specifications (TA = 25°C unless otherwise specified)

600 OHM MATCH (FIG.3)



SCHEMATIC EQUIVALENT (FIG.4)

Typical values at 1000 Hz @ 1.0 Vrms

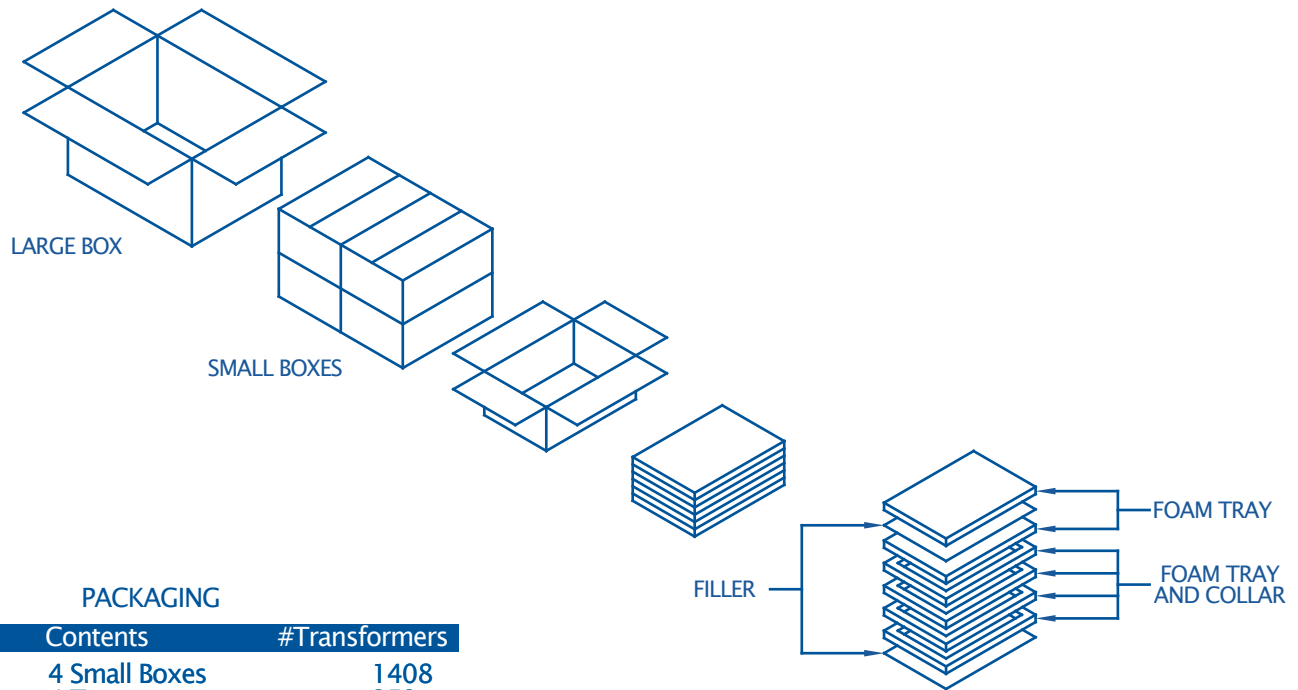


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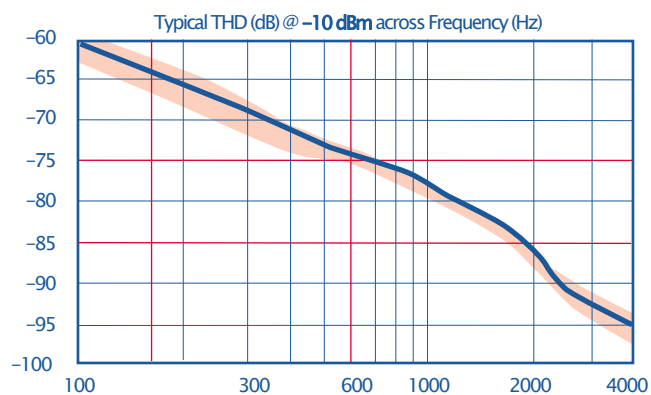
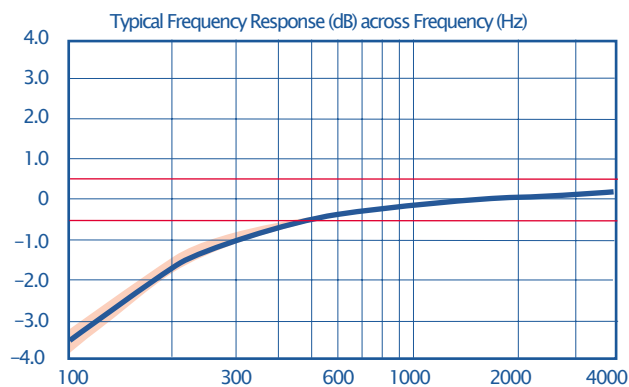
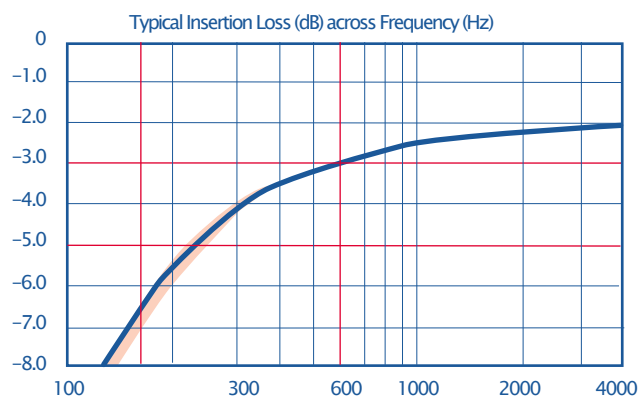
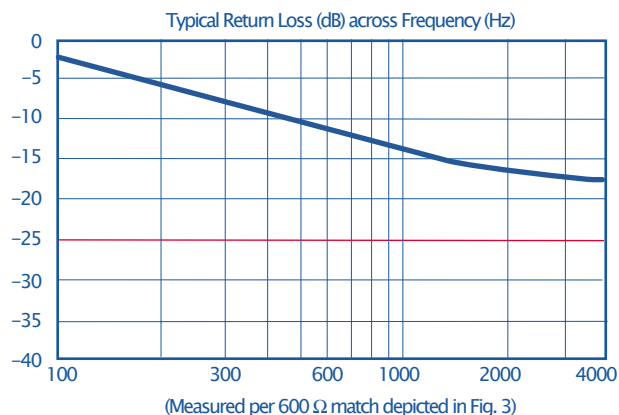


STANDARD PACKAGING (FIG.6)



PACKAGING

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

TOTAL HARMONIC DISTORTION**FREQUENCY RESPONSE****INSERTION LOSS****RETURN LOSS**

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