Line Impedance Stabilization Networks / Artificial Mains
CISPR 16-1-2 : 2014 , Single Phase / Two Wire, 10 A to 200 A

LISN (Artifical Mains Network) is a low-pass filter typically placed between an AC or DC power source and the EUT (Equipment Under Test) to create a known impedance as per complying standard for the measurement of conducted emission. It also isolates the unwanted RF signals from the power source with pre-filter included. It provides a Radio frequency (RF) noise measurement port.

LISN is used to predict conducted emission for diagnostic, pre-compliance and compliance testing.

Scientific designs and manufactures models in compliance with CISPR 16-1-2 : 2014, EN, ANSI C63.4, FCC, ETS, VCCI and VDE, MIL461E/F standards and automotive for measurements in commonly used Standards.

These LISNs are Single Phase, 2 Wire networks. Appropriate line can be selected by a rotary switch. The other line will be terminated internally with 50Ω.

Artificial Hand simulation 510Ω + 220pF impedance in accordance with CISPR 16-1-2 : 2014 is provided. Standard Input and Output terminals provided are CEE Sockets, however optional wing terminal and SUPERCON connectors can be ordered.

A transient limiter is highly recommended to use with LISN at the front end of EMI Rx or Spectrum Analyzer to protect measuring instrument from transients.

Technical Specifications

Model	SMLIN10-2	SMLIN16-2	SMLIN32- 2	SMLIN63-2	SMLIN100-2	SMLIN200-2
Frequency Range	9 kHz – 30 MHz					
Maximum Load Current						
Continuous	10A	16 A	32 A	63 A	100 A	200 A
Peak Current (15 min)	15 A	18 A	45 A	80 A	120 A	225 A
Maximum Input Voltage (with Wing Terminals)*						
DC	600 V					
AC @ 50/60 Hz	300 V					
AMN Impedance	(50 µH + 5 Ω) || 50 Ω ± 20 %					
Pre-Filter Choke	250 µH					–
Standard Reference	CISPR 16-1-2 : 2014, FCC (ANSI 63.4)					
RF Output	N Type (F) Connector 50 Ω to connect RF output to EMI receiver, Switch selectable for Line and Neutral					
Artificial Hand	510 Ω + 220 pF, 4 mm banana connector					
Mains Input & Output Terminals (EUT) and Maximum Voltage	EUT : Schuko DC : 300V , AC : 230V Mains Input : IEC314 mains inlet		CEE (Complying to IEC 60309) DC 300V, AC : 230V EUT : Socket (F) Input mains : Socket (M)		Wing Terminal DC : 600V, AC : 300V	
	Optional : Supercon / Wing Terminal DC : 600V, AC : 300V					

Notes:

* Maximum Input for EUT and Mains Inlet varies with selection of Connectors/ Terminals.

Standard Accessories :

- N to N Cable 2 m
- N to BNC Adapter
- Manufacturer's Calibration Certificate

Optional Accessories:

- Transient Limiter : -10dB
- Transient Limiter : -20dB
- Adopters from Schuko to US / UK / Australia / Switzerland & others

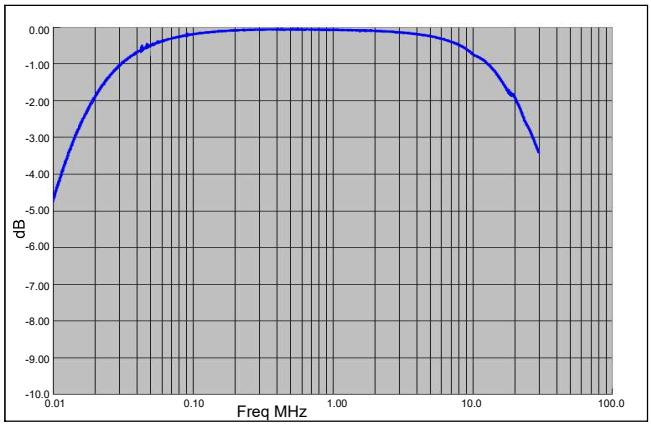
Options :

- Remote Control (built-in) for R&S, Keysight, PMM, Gauss and other EMI Analyzers
- High Voltage 1 kV DC / 750 Vac (built-in) with Wing Terminals
- Switch selectable 250 µH Pre-filter (built-in)
- Calibration Report traceable to ISO 17025

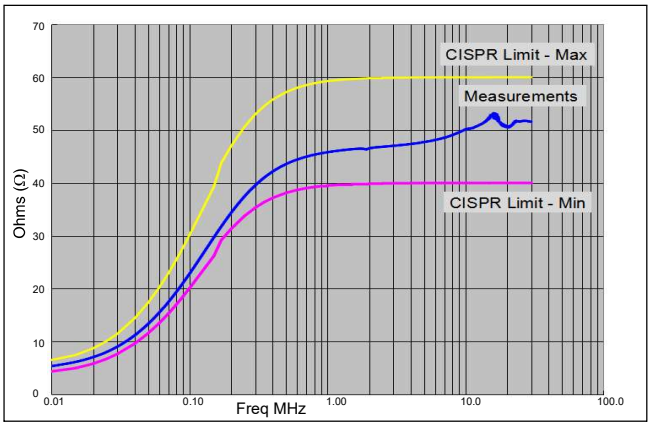
(Subject to change)

Characteristics of LISN / AMN

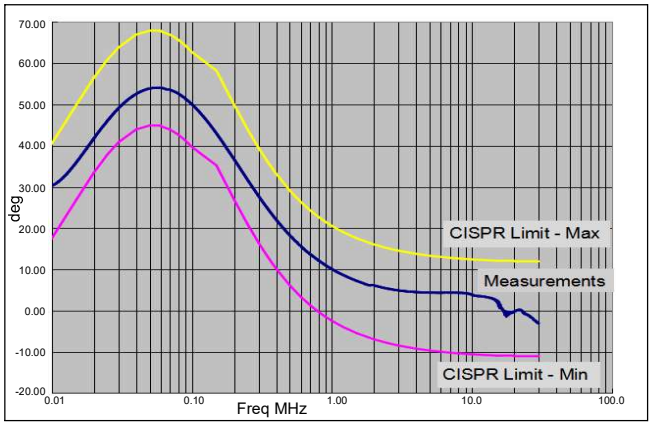
Voltage division factor (Attenuation)
EUT to RF Connector



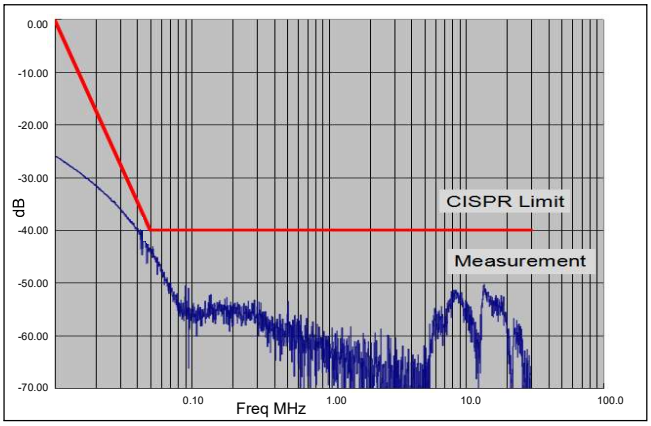
Impedance curve Terminal EUT RF
connector terminated



Phase curve Terminal EUT RF
connector terminated



Isolation curve Terminal EUT RF
connector terminated



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