

## Line Impedance Stabilization Networks / Artificial Mains CISPR 16-1-2 : 2014, 3 Phase / 4 Wire, 32 A to 400 A



LISN (Artificial 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 3 Phase, 4 Wire networks. Appropriate line can be selected by a rotary switch. All other lines 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 upto 100A, 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	SMLIN32-4	SMLIN63-4	SMLIN100-4	SMLIN200-4	SMLIN400-4
Frequency Range	9 kHz – 30 MHz			*150kHz (**9kHz) – 30MHz	
Maximum Load Current					
Continuous Current	32 A	63 A	100 A	200 A	400 A
Peak Current (15 min.)	45 A	80 A	120 A	225 A	425 A
Maximum Input Voltage					
DC	600 V				
AC @ 50/60 Hz	Line - Neutral : 300 V, Line - Line : 480 V				
AMN Impedance	(50 $\mu$ H + 5 $\Omega$ )    50 $\Omega$ $\pm$ 20 %			50 $\mu$ H    50 $\Omega$ $\pm$ 20 %	
Pre-Filter Choke	250 $\mu$ H			–	
Standard Reference	CISPR 16-1-2 : 2014, FCC (ANSI 63.4)				
RF Output	N Type (F) Connector 50 $\Omega$ to connect RF output to EMI receiver, Switch selectable for Three Lines and Neutral				
Artificial Hand	510 $\Omega$ + 220 pF, 4 mm banana connector				
Mains Input & Output Terminals (EUT)	CEE Industrial Connectors (Complying to IEC 60309) EUT - Socket (F), Input - Socket (M) Optional : Supercon / Wing Terminal			Wing Terminals	

\* Calibration from 150kHz – 30MHz

\*\* Usable range

### Standard Accessories:

- ▮ 50 $\Omega$ , 2W Termination
- ▮ N to N Cable 2 m
- ▮ N to BNC Adapter
- ▮ Manufacturer's Calibration Certificate

### Optional Accessories:

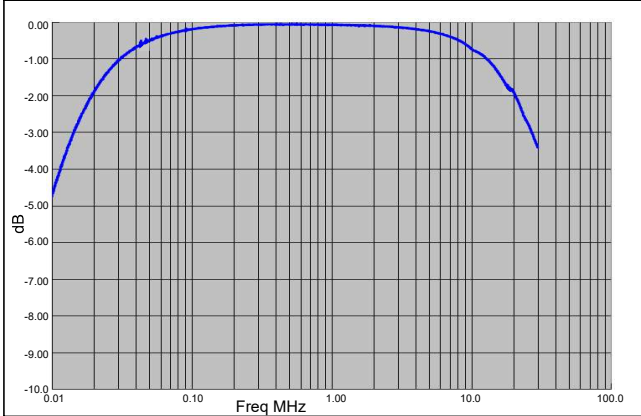
- ▮ Transient Limiter : -10dB
- ▮ Transient Limiter : -20dB
- ▮ Adapters from Schuko to US / UK / Australia / Switzerland & others

### Options :

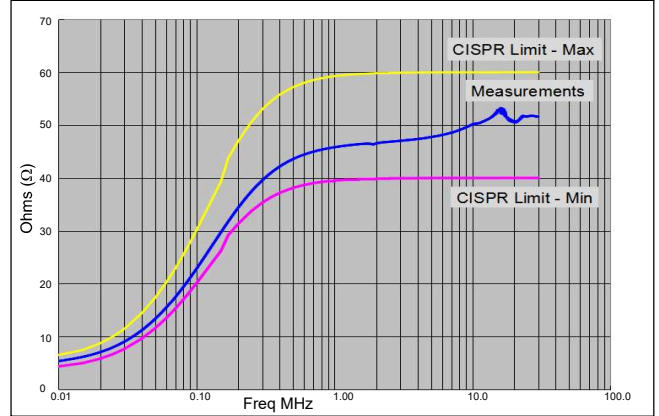
- ▮ Remote Control (built-in) for R&S, Keysight, PMM, Gauss and other EMI Analyzers
- ▮ High Voltage 1 kV DC / 750 Vac (built-in) with Wing Terminals
- ▮ Switch selectable 250  $\mu$ H Pre-filter (built-in)
- ▮ Calibration Report traceable to ISO 17025

## Characteristic of LISN / AMN

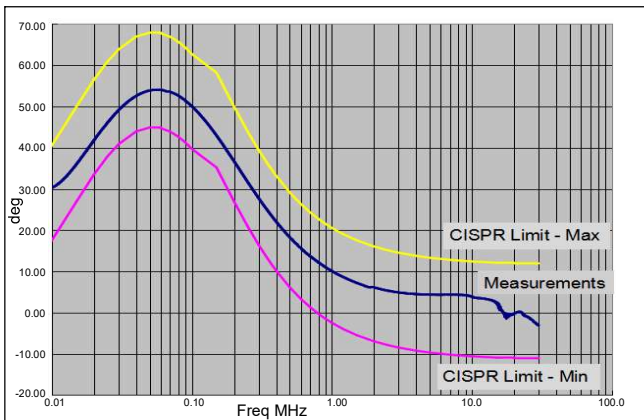
Voltage division factor (Attenuation)  
EUT to RF Connector



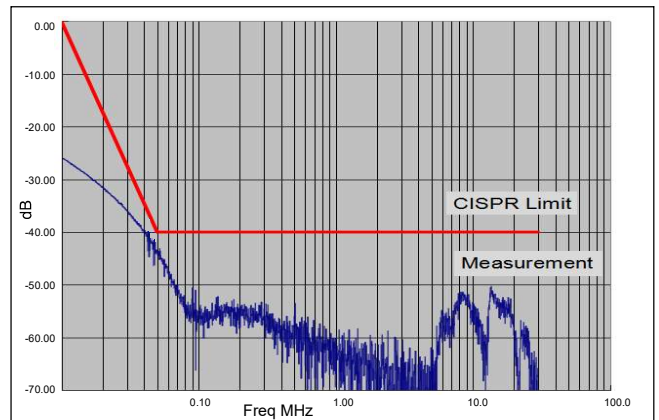
Impedance curve Terminal EUT RF  
connector terminated



Phase curve Terminal EUT RF  
connector terminated



Isolation curve Terminal EUT RF  
connector terminated



**scientific**

**Scientific Mes-Technik Pvt. Ltd.**

B-14, Pologround, Industrial Estate, Indore 452 015, India

☎ 0731-2422330/31/32/33

📠 0731-2422334

✉ sales@scientificindia.com

🏠 www.scientificindia.com

Bengaluru 080-23452635  
Chennai 044-42054180  
Gujarat +917567463752  
Hyderabad +917095228811

✉ bangalore@scientificindia.com  
✉ chennai@scientificindia.com  
✉ gujarat@scientificindia.com  
✉ hyderabad@scientificindia.com

Kolkata +917095228811  
Mumbai +919850901735  
New Delhi +919977994909  
Pune +919850901735

✉ kolkata@scientificindia.com  
✉ mumbai@scientificindia.com  
✉ ndelhi@scientificindia.com  
✉ pune@scientificindia.com

