LISN LINE IMPEDENCE STABILISATION NETWORKS

Automotive LISN
to CISPR25

The full specification accessory for automotive conducted emissions testing

- **Three versions, rated to 25, 100 or 500A continuous**
- **Rigourous, test lab calibration to 108MHz**
- **Full calibration data included with each LISN**
- **Commercial, military and other special types available to order**

The automotive CISPR25 LISNs are part of a wide range of EMC test equipment available from Laplace. These automotive LISNs are characterised by a demanding performance specification extending above 100MHz.

Rigorous design and calibration techniques ensure that they fully meet the demanding requirements of CISPR25.

25Amp, 100Amp and 500Amp versions can be supplied.

Photograph shows standard 100A version

PURPOSE

In order to provide accurate and repeatable measurements, the EMC test standards require the supply to a unit-under-test to have a defined power source impedance. This impedance is provided by a Line Impedance Stabilisation Network (LISN).

CONFIGURATION

The 25Amp version is a 2 line LISN, thus conveniently handling both power connections to the EUT. The larger LISNs are single-line, three terminal devices, with one terminal and the case earthed. The other two terminals are connected in series with the supply. The RF output connector is a BNC socket. A 50ohm co-axial, non-inductive resistor can be supplied as an option when a current probe is used to take measurements and when the LISN is in the non-measured side of the supply.

CONSTRUCTION

This LISN is a particularly robust and stable design. The case is constructed from welded aluminium sheet with a flanged base to facilitate direct bonding to a ground plane.

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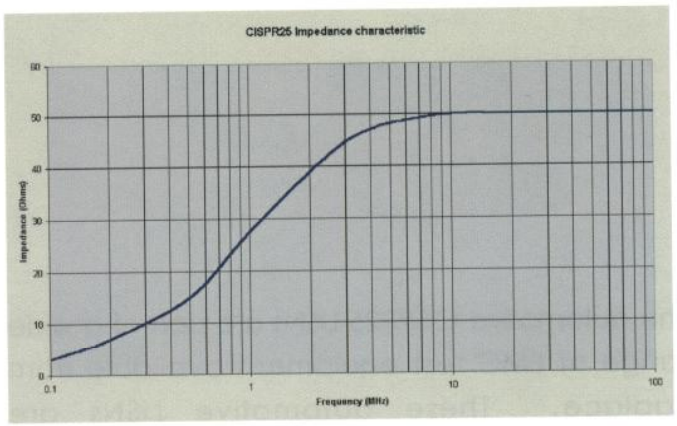
Impedance Characteristics



Note:

1) Generally, each line of a power feed to an EUT will need a LISN. Thus for a dc supply, two LISNs are required. The RF measurements are taken from one LISN and the other must have a 50ohm load connected to the output BNC socket.

2) Any ancillary equipment used with the EUT will also require a LISN in series with each line.

3) When used in accordance with CISPR25, current probe method, this LISN is used to stabilise the source impedance of a supply and the RF terminal is only used to attach the 50ohm load. Measurements of the RFI interference are taken from the EUT connection with a current probe.

Specification

Current rating (Continuous):
25, 100 or 500Amps, rms ac or dc

RF Output socket:

25A	50ohm, BNC
100 and 500A	N type

RF load:
50ohm co-axial non-inductive hi-surge resistor (option).

Frequency range:
100KHz - 108MHz

Impedance-frequency Characteristic:
See impedance plots opposite

Inductance:
5uH ±10%

Calibration:
In accordance with CISPR25, clause 6.4.1.1

Construction:
Welded aluminium case with base mounting flanges. Alochrom treated, durable black paint finish on top surfaces. Integral 1uF shielded capacitor fitted

Ground bonding:
Qty 4 M6 screw locations in flange

EUT line connections:

25A=4mm	100A=6mm	Shrouded 'snap-lock' single pole sockets. Mating plugs included with LISN
	500A=	Threaded stud termination

Line voltage:
Up to 100V dc

Environmental:

Working:	5 - 35°C, up to 85% RH
Storage:	10 - 45°C, up to 95% RH

Size (width x depth x height):

25A:	300 x 180 x 80mm
100A:	500 x 180 x 100mm
500A:	600 x 200 x 185mm

Available from:

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