LISN LINE IMPEDENCE STABILISATION NETWORKS

Military Specificatic
version to DefStan 59-

The full military specification accessory for conducted emissions testing

- **Rated to 100A continuous**
- **Rigourous, test laboratory calibration to 400MHz**
- **Full calibration data included with each LISN**
- **Commercial, automotive and other special types available to order**

The military specification LISNs are part of a wid range of EMC test equipment available fro Laplace. These Defence Standard LISNs ar characterised by a demanding performanc specification extending up to 400MHz.

Rigorous design and calibration techniques ensu that they fully meet the requirements of Def Sta 59-41.

100amp LISNs to the US military requiremen (Mil461E) can also be supplied.

Photograph shows standard 100A single line LISN wi flanged base for ground bonding

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 LISN is a three terminal device, with one terminal and the case earthed. The other two terminals are connected in series with the supply. The RF load is provided via a 50ohm co-axial, non-inductive resistor. (Optional extra).

CHARACTERISTICS

The key parameters of the LISN are defined by the impedance/frequency characteristics measured between the EUT terminal and case for the condition (a) supply terminal connected to case and (b) supply terminal unconnected. These characteristics are shown overleaf.

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

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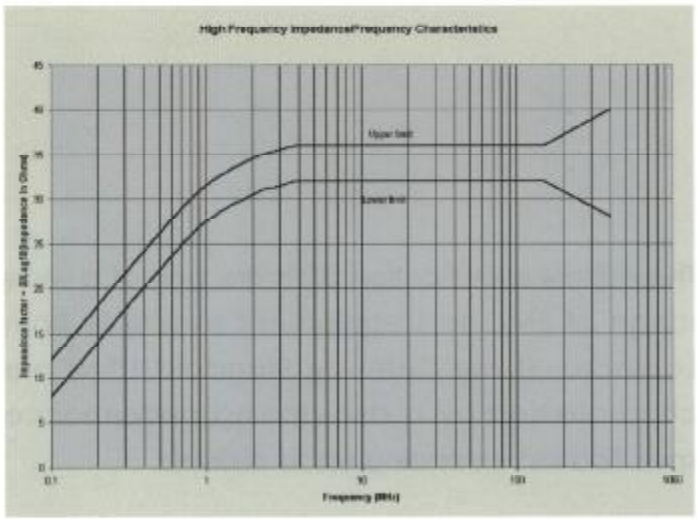
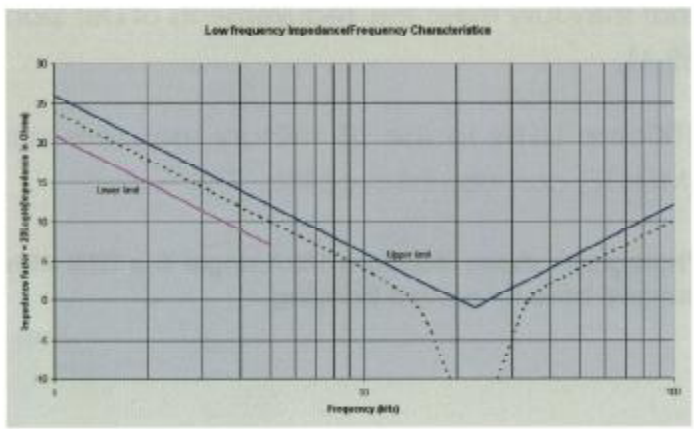
Impedance Characteristics





Note:

1) Generally, each line of a power feed to an EUT will need a LISN. Thus for a dc or single phase supply, two LISNs are required. For a three phase feed, three or four LISNs will be required (the fourth LISN for any Neutral line, if connected).

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

3) When used in accordance with DefStan59-41, 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):	100Amps, rms ac or dc
Power Frequency:	up to 400Hz
RF Output socket:	50ohm, BNC
RF load:	50ohm co-axial non-inductive hi-surge resistor (optional)
Frequency range:	20Hz - 400MHz (Calibration data 1KHz - 400MHz)
Impedance-frequency Characteristic:	See impedance plots opposite
Inductance:	5uH
Calibration:	In accordance with Def Stan59-41, (Part 5)/2, clause 10.3
Construction:	Welded aluminium case with base mounting flanges. Alochrom treated, durable black paint finish on top surfaces. Integral 10uF sheilded capacitor fitted
Ground bonding:	Qty 4 M6 screw locations in flange
EUT line connections:	6mm, Shrouded 'snap-lock' single pole sockets. Mating plugs included with LISN
Line voltage:	Up to 450V ac rms, 850v DC
Environmental: Working:	5 - 35°C, up to 85% RH
Storage:	10 - 45°C, up to 95% RH
Size:	500mm wide x 180mm deep x 100mm high
Weight:	5kg

Available from:

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