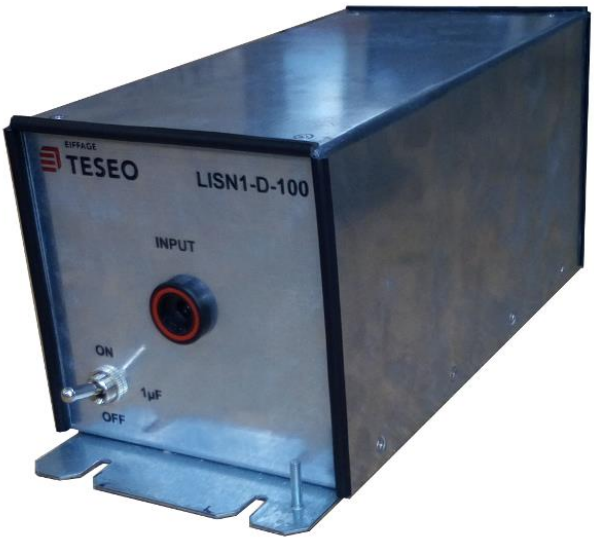
CISPR 25 & ISO 11452
ISO 7637
Line Impedance Stabilization Network & Artificial Network
LISN1-D and LISN1-D-100



LISN AND ARTIFICIAL NETWORK

TESEO offers a family of Line Impedance Stabilization Networks developed for use in conducted emission tests according to the most commonly adopted Automotive specifications.

For Immunity test on components or ECU wirings the Automotive Standards require an Artificial Network (AN), to isolate the EUT wired path, where can be present RF interferences, from the Power Supply Lines.

A LISN can be used as AN for the Standard Immunity test.

The only difference between LISN and AN is that the AN may not have the monitor output since it is not required any type of RF readings on it.

Different Standards may require slightly different LISN or AN configuration. In particular CISPR 25 and ISO 11452-2, 4 and 5 require a LISN/AN having a 1µF input capacitance on Supply Side, while ISO 7637-2 Standard requires this capacitor removed.

The LISN's and AN's combine excellent design and manufacturing with a convenient price.

Our LISN's and AN's are V-Network type.

Furthermore they are tested individually and the test reports released with the hardware.

WHAT ARE LISN AND AN FOR?

A LISN is a low pass filter placed between power supply and EUT performing the following function:

- separate the power source from the EUT with respect to the RF noise;
- provide the EUT supply line with a well known and repetitive RF impedance;
- convey the EUT generated noise on the supply lines to a 50 Ohm measuring equipment.

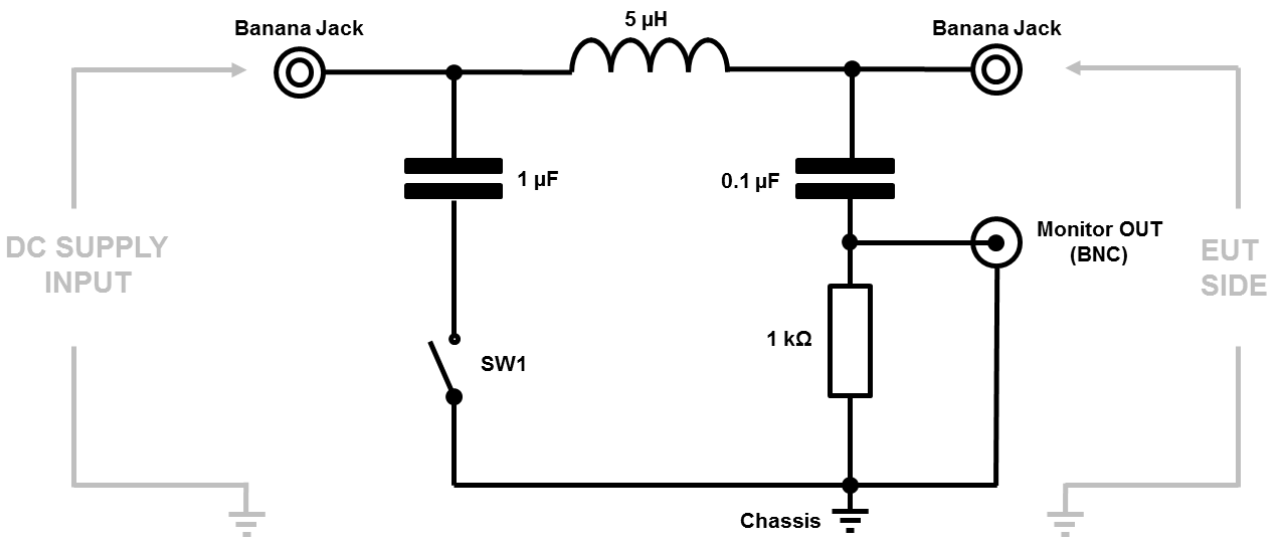
The AN is the same of the LISN, but the RF monitor is not used. If present, it shall be closed on 50 ohm termination.

MAIN SPECIFICATIONS

LISN1-D	
Compliance	CISPR 25, ISO 11452-2/4/5 ISO 7637-2:2011
Network Impedance	5µH, 0.1µF + 1kΩ
1µF Input Capacitor	manually selectable
Frequency Range	100 kHz – 108 MHz
Lines	1
Max Line Current	70A
Max Line Voltage	60Vdc
Socket	6mm Banana socket
RF Output	N-type(f), 50 Ω
Dimensions	300 x 130 x 130 mm
Weight	About 2.8 kg
Included accessories	Removable 50 Ω termination, N-Type(m) connector, 1W

LISN1-D-100	
Compliance	CISPR 25, ISO 11452-2/4/5 ISO 7637-2:2011
Network Impedance	5µH, 0.1µF + 1kΩ
1µF Input Capacitor	manually selectable
Frequency Range	100 kHz – 108 MHz
Lines	1
Max Line Current	100A
Max Line Voltage	60Vdc
Socket	6mm Banana socket
RF Output	N-type(f), 50 Ω
Dimensions	300 x 130 x 130 mm
Weight	About 3 kg
Included accessories	Removable 50 Ω termination, N-Type(m) connector, 1W

LISN-1D BLOCK DIAGRAM



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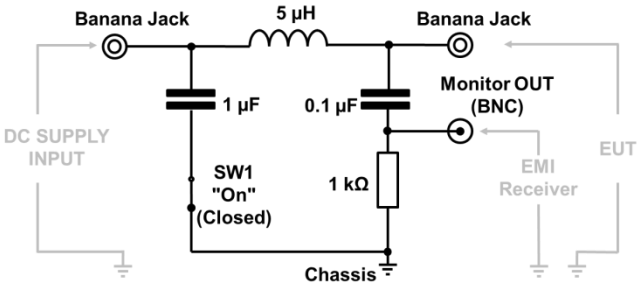
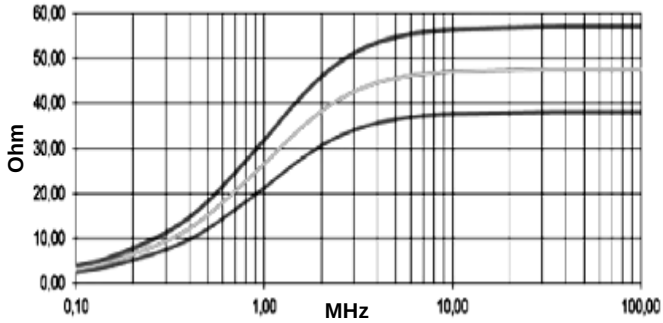
CISPR 25 CONFIGURATION – LISN APPLICATION

LISN for RF Disturbances measurement.



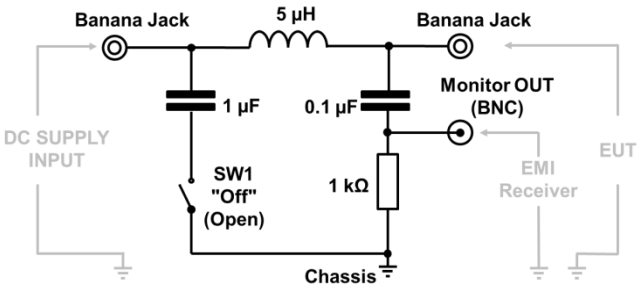
Impedance



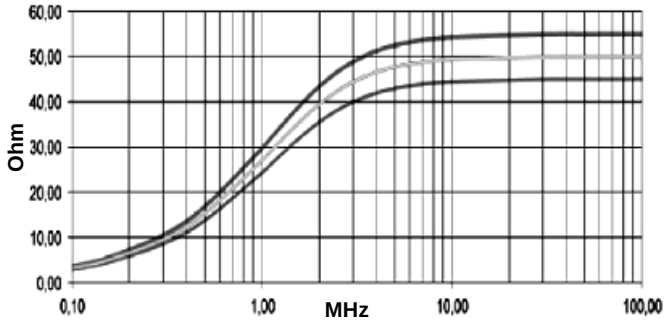
NOTE: *According to CISPR 25, the LISN1-D shall be mounted directly on the ground plane. For EUT remotely grounded (vehicle power return line longer than 200mm) two LISN1-D networks are required: one for the positive supply line and one for the power return line; for EUT locally grounded (vehicle power return line 200mm or shorter) only one LISN1-D is required for the power line, the power return line is connected to the ground plane.*

ISO 7637-2 CONFIGURATION – LISN APPLICATION

LISN for Transient measurement.

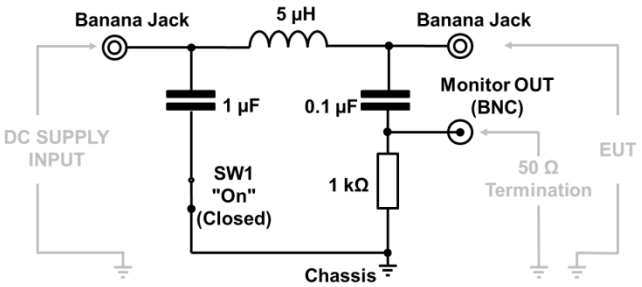


Impedance

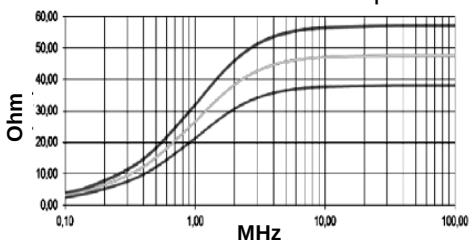


ISO 11452-2, 4, 5 CONFIGURATION – AN APPLICATION

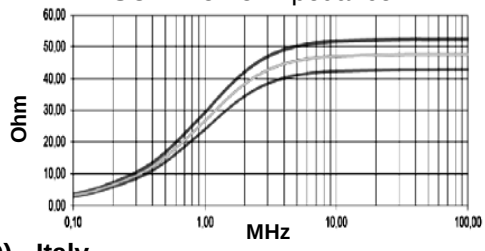
Artificial Network for Immunity Measurement.



ISO 11452-2 & ISO 11452-4 Impedance



ISO 11452-5 Impedance



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