

## Features

- Frequency Range: 100 Hz to 10 kHz
- Designed for Tempest Testing
- Dual-Conductor DC Network with Universal EUT Power Receptacle
- 10 Amps DC Current Handling Capability
- Three-Year Warranty

## Description

The LIP-0010 Line Impedance Stabilization Network (LISN) is designed specifically for Tempest testing of DC-powered devices over the frequency range of 100 Hz to 10 kHz. It provides the necessary measurement platform for performing DC power line conducted emissions compliance testing.

The LIP-0010 performs each of the following functions during the measurement:

- provides a defined, stable impedance across the measurement frequency range;
- isolates the EUT and measurement circuit from the power source, thereby minimizing its influence on the measurements;
- provides isolation between the power lines to minimize cross-coupling, and;
- couples the disturbance voltages to the coaxial measurement port for connection to the measuring instrument.

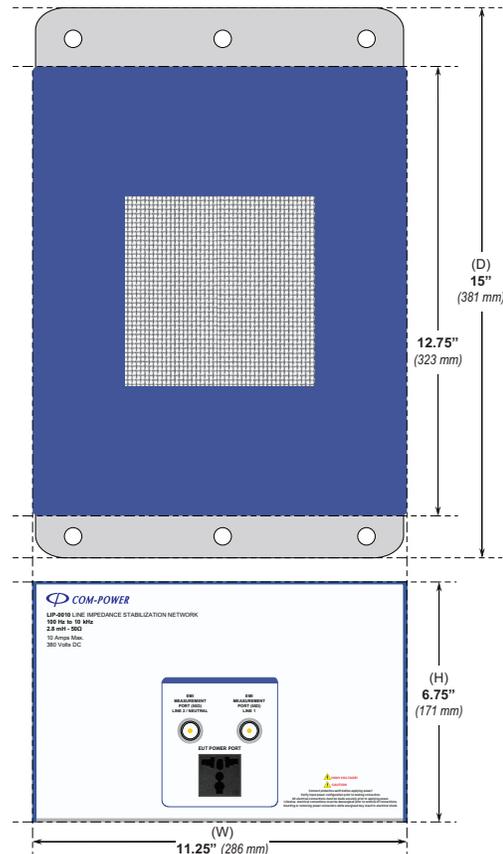
This LISN uses air-core inductors to prevent saturation and permeability variation. Its mounting plate is left unpainted in order to facilitate connection to earth ground in its installation, which is essential due to high leakage current.

The LIP-0010 is a dual-conductor network capable of handling DC currents up to 10 amperes per line. The EUT power port is fitted with universal multi-configuration receptacle. The power input port of the LISN is fitted with a standard IEC C13 receptacle.



## Calibration

All Com-Power LISNs are individually calibrated in compliance with their relevant requirements. Impedance, Insertion Loss, Isolation (mains port to EUT port, as well as well as line to line) data is supplied with each LIP-0010 unit, along with the certificate of calibration. Recognized ISO 17025 accredited calibration is also available upon request.



### Specifications

All values are typical, unless specified.  
All specifications are subject to change without notice.

GENERAL	
Product Description	TEMPEST Line Impedance Stabilization Network (LISN)
Application	DC Power Line Conducted Emissions Tests
Standard(s)	Tempest
Type	50Ω / 2.8 mH
Frequency Range	100 Hz to 10 kHz
Impedance	50Ω (±10%)
Insertion Loss	< 1 dB to < 0.5 dB* (100 Hz to 1 kHz) < 0.5 dB (1 kHz to 10 kHz)
Isolation (Mains Port to EUT Port)	0 dB to > 3 dB* (100 Hz to 5 kHz) > 3 dB to > 7 dB* (5 kHz to 10 kHz)
Isolation (Between Lines)	> 60 dB
ELECTRICAL	
Max. DC Voltage Rating	380 Volts <sub>DC</sub>
Max. DC Current Rating	10 Amperes DC (continuous)
INPUT/OUTPUT CONNECTORS	
Mains Power Input Port	IEC C13 Receptacle
EUT Power Output Ports	Universal Multi-Configuration Receptacle
RF Measurement Ports	N-type (female)
MECHANICAL	
Dimensions (H)x(W)x(D)	6.75" x 11.25" x 15" (171 x 286 x 381 mm)
Weight	27.5 lbs. (12.5 kg)

\* Decreasing linearly with the logarithm of frequency

### Other TEMPEST LISNs

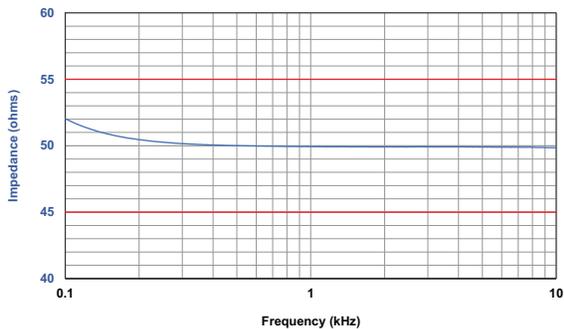


**LIP-120**  
5 kHz to 1 MHz

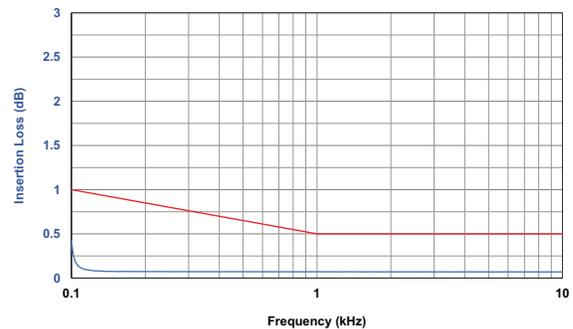


**LIP-1000**  
1 MHz to 1 GHz

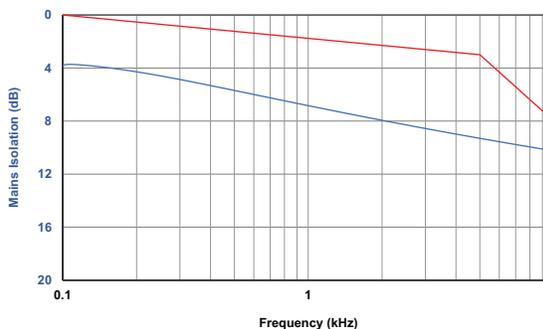
### Typical Impedance Data



### Typical Insertion Loss Data



### Typical Mains Isolation (Mains Port to EUT Port)



### Typical Cross Isolation Data (Between Lines)

