

LIZN

16-A SINGLE-PHASE DUAL-PORT LINE IMPEDANCE STABILIZATION NETWORK



LIZN is a new **Line Impedance Stabilization Network** fully compliant to **CISPR 16-1-2** that facilitates the simultaneous measurement in both lines and the extraction of **common- and differential-mode** conducted emissions

LIZN is the new EMZER's 16-A single-phase dual-port V-network Line Impedance Stabilization Network (LISN) that has been optimally designed and manufactured to be **compliant to CISPR 16-1-2** International Standard for the measurements of the conducted electromagnetic interference.

The **LIZN impedance is $(50\mu\text{H}+5\Omega)//50\Omega$** and can be operated in the frequency range from 9 kHz to 30 MHz. An artificial hand connector is provided at the front panel with an impedance of $510\Omega + 220\text{pF}$ (as described in CISPR 16-1-2), along with several ground connectors in both front and rear panels (including a large grounding bar) to facilitate its assembly to the complex EMC-test setup. The instrument is equipped with a **high-performance 250- μH inductor** that provides an excellent decoupling between the device under test and the mains, filtering any external interference voltage. The

internal circuit is completed with a 5-kHz high-pass filter that provides a flat response above the 9 kHz.

The LIZN can be used for AC and DC measurements. The two N-type connectors provided in the front panel **allow the simultaneous measurement of line and neutral conducted emissions**, which facilitates the obtention of the common-mode and differential-mode (modal) conducted emissions. Modal emission measurements, that can be performed using a two-port oscilloscope or a vector analyser, are fundamental to know the dominant mode and to implement the suitable power-line filter accordingly, **using fewer components and getting a cheaper design.**

Technical Specifications

Standard	Fully compliant to CISPR 16-1-2 and MIL-STD-461 standards
Frequency range	9 kHz – 30 MHz
AMN Impedance	50 Ω (50 μH + 5 Ω)
Network Impedance	50 Ω
Pre-filter Choke	250 μH
Maximum Continuous Current	16 A @ 230 V_{AC} (socket dependent)
Maximum Voltage	300 V_{AC} / 325 V_{DC} (socket dependent)
Operating Frequency	DC to 60 Hz
RF connector type	2 ports N female
Artificial hand / connector type	510 Ω + 220 pF / 4 mm banana
Connector for EUT/mains	Schuko socket (Type F)/IEC C20

Physical Specifications

Height	195 mm
Width	252 mm
Depth	438 mm
Weight	7.5 kg

Related Products

EMSCOPE

- Peak, quasi-peak and average detectors fully compliant with CISPR 16.
- Web-based remote control via optical fibre.
- Measurements of line, neutral, common-mode and differential-mode conducted emissions.

