

ZN3791 Line Impedance Stabilization Network – Data Sheet



Product Overview

The **ZN3791** is a **50Ω / 50μH + 5Ω Line Impedance Stabilization Network (LISN)** designed for **conducted emissions testing**. It provides a stable impedance over a specified frequency range and isolates the device under test (DUT) from high-frequency noise on the mains supply. The unit also couples interference signals from the DUT to a measuring receiver. The ZN3791 complies with **GJB151B-2013**, the Chinese military EMC standard.

Technical Specifications

Parameter	Specification
Frequency Range	10 kHz to 10 MHz
Impedance Characteristics	50Ω / 50μH + 5Ω
Impedance Tolerance	±20%
Voltage Division Ratio	< -5 dB (10–25 kHz); < -1 dB (25 kHz–10 MHz)
Maximum Operating Current	100 A
Operating Voltage	AC 400 V (50/60 Hz); DC 1000 V
RF Output	N-type, 50Ω
Dimensions	330 × 280 × 205 mm
Weight	10.2 kg

Front Panel Features

- **Current Input Terminal**
- **RF Signal Output Connector**
- **Ground Terminal**
- **Grounding Plate**

Rear Panel Features

- **Current Output Terminal**
 - **Ground Terminal**
 - **Grounding Plate**
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Operating Instructions

1. **Grounding First:** Ensure that the LISN's ground plate is firmly connected to the ground reference plane of the test system.
 2. **Use Attenuator:** If the disturbance signal level is unknown, connect a 20 dB attenuator to the RF output port before connecting to a receiver.
 3. **Measurement Setup:** Two typical configurations are provided in diagrams (not shown here but referenced as Figure 1 and 2 in the original manual). Key notes:
 - 5 cm separation between LISN and DUT
 - Each LISN output terminated with 50Ω load
 - Use of current probes and measurement receivers as applicable
 4. **System Calibration:** Use a T-type coaxial connector with a signal generator and oscilloscope for verifying system performance at 10 kHz and 100 kHz.
 5. **Shutdown Procedure:** Always power off before disconnecting to prevent electric shock.
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Safety Notes

- Operators **must be trained** in electrical safety. Untrained personnel should not operate the device.
 - Always read the user manual thoroughly before use.
 - Use the device in **well-ventilated and dry environments** only.
 - Ensure both the grounding terminal and grounding plate are connected prior to use.
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Package Contents

Item	Quantity/Note
User Manual	1 copy
Test Cable (N-N, 1 meter)	1 piece
Certificate of Conformance	1 unit
50Ω / 5W Load (optional)	Optional accessory

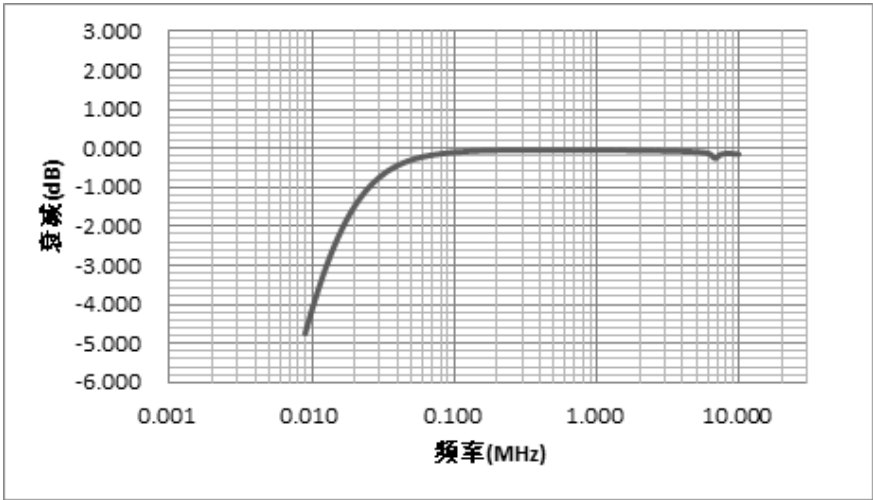
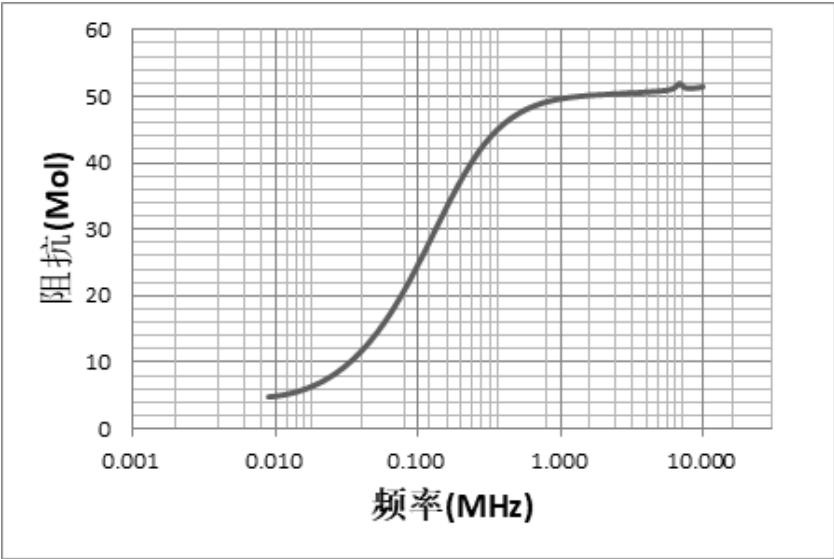
Item	Quantity/Note
20 dB / 5W Attenuator (optional)	Optional accessory

Product Photo



Additional Graphs

- Figure 1: Impedance Characteristic Curve
- Figure 2: Voltage Division Ratio Curve



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