

Three Phase LISN

EM5040D

(9kHz-30MHz/100A)



Shenzhen Zhiyong Electronics Co., Ltd.

Preface

First of all, thank you for purchasing our products, this instruction manual is the description about the function, usage, operation attention points, etc. Before use, please read the instructions carefully and use correctly.

Manual annotation will use the following symbols to distinguish.



This symbol means it is harmful to the machine and human body; you must strictly follow the instruction manual to operate.

Warning

In the case of wrong operation, the user risk injury. The content under this mark records the relevant matters needing attention to avoid such dangers.

Notice

The user may have suffered minor injuries and material damage while with the wrong operation, to avoid such situation, note the matters needing attention.

Note

This symbolizes important note about how to use the machine.

To the safely use the machine, you must abide by the following safety precautions strictly. The violation against the manual is likely to damage the protective function of the machine. In addition, the company is not responsible for any safety problem caused by the violation of matters needing attention in operation.



This product is designed according to the international EMC standard, so, theoretically there will be relatively large leakage current. If the ground condition is bad, there could be deadly electric shock. Thus, the company requires the users to check the following tips:

- ◆ The ground must be good.(There're ground point on the sides and back of the device)
- ◆ The electric environments of many users have bad grounding but users don't know. This is critically dangerous so the company require the users to have double protection: users must install isolation transformer.
- ◆ Do not open the case or try to connect lines during operation. Do not use the LISN in damp or explosive environment. Please keep the device surface dry and clean before operating.
- ◆ Must make sure the product is used in the rating voltage/ current range.
- ◆ If there's anything wrong with the product, please contact us immediately. Do not open the case and try to repair the device to avoid unwanted accident.

1. Summary

EM5040D is a kind of $(50\mu\text{H}+5\Omega) \parallel 50\Omega$ Type V Three Phase High Power LISN (Line Impedance Stable Network). This product can provide stable resistance between EUT and reference ground in the RF range of 9kHz-30MHz and insulated the circuit under test from the useless signal from the electric network, coupling only the interference voltage of the EUT to the input interface of the test receiver.

2. Characteristics

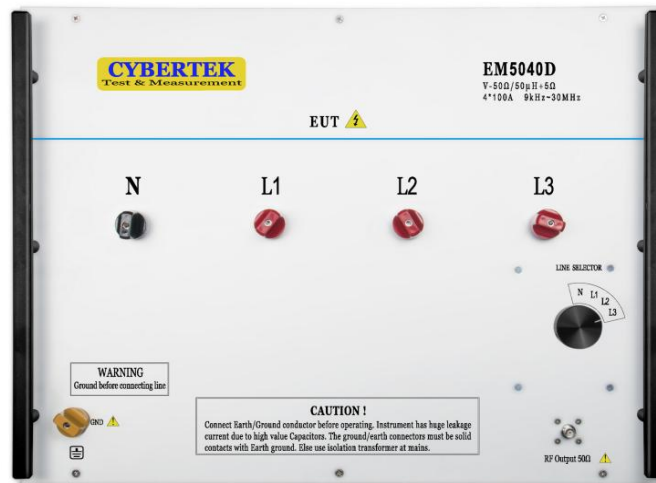
- ✧ Three phases four lines LISN has four independent channels, can be used in different conducted emission test including single phase, three phase, or DC.
- ✧ High Power LISN: Max current 100A, Max Phase Voltage 500VAC and 750VDC
- ✧ EUT AC/DC compatible.
- ✧ Comply with CISPR 16-1-2, VDE 0876, GB6113.102 standard

3. Electric Specification

Technical Parameter	
Test frequency range	9kHz~30MHz
Max current	100A
Phase and line	Three phase four line L1/L2/L3/N
Max voltage (DC)	750V (Between any two channels)
Max voltage (AC 50/60Hz)	500VAC (Between any two channels)
Resistance	$(50\mu\text{H}+5\Omega) \parallel 50\Omega$ Type V
Output interface	Standard 50 Ω BNC female
Grounding protection	3 grounding pillars
Size (Length*Width*Height)	555mm*409mm*451mm
Weight	47.5KG
Operating temperature range	0°C~40°C

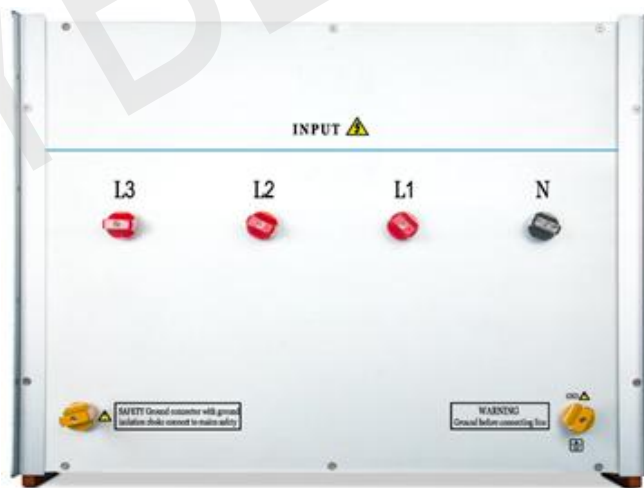
4. EM5040D Product Instruction

✧ Front Panel



- ◆ **N/L1/L2/L3:** Power Supply output to EUT
- ◆ **LINESELECTOR:** Select the test channel
- ◆ **RFOUTPUT:** Signal output
- ◆ **GND Binding Post:** This binding post can be connected to the ground of the lab to release the leakage current from the capacitor safely.

✧ Rear Panel



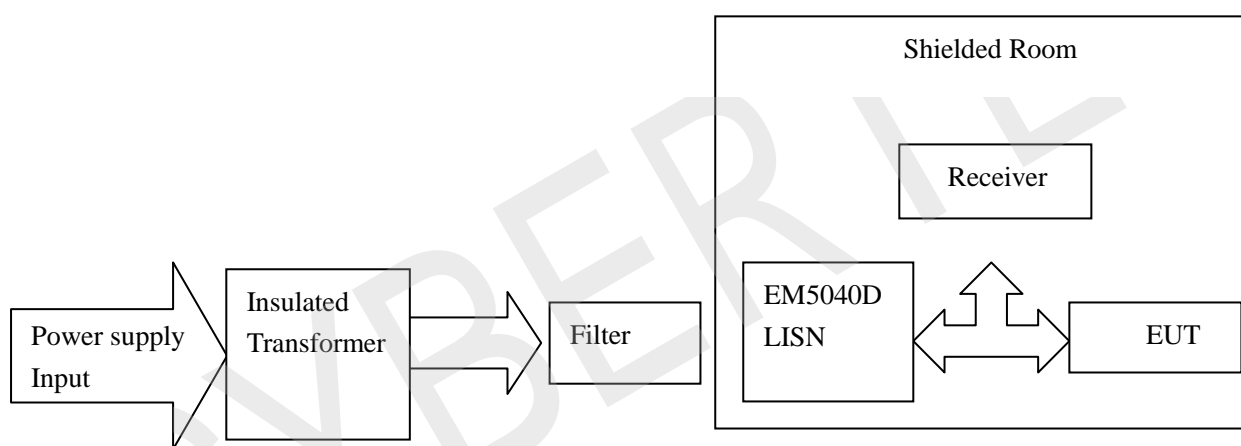
- ◆ **N/L1/L2/L3:** the Power Supply Interface connecting the EUT and Power Supply
- ◆ The left GND binding post is connected to the grounding and shell through a inductor. This inductor can be connected to the grounding of three phase power supply system, safely release the

leakage current from the capacitor of this device and provide anti-interference effect to the system.

- ◆ The right GND binding post: this binding post can be connected to the ground of the lab and safely release the leakage current from the capacitor of this device

5. Safety Instruction

- ✧ Every phase in this device contain large filter capacitor connecting ground and shell. This capacitor could cause large leakage current and electric shock if grounding is bad. So, the three binding posts of this device must be well grounded.
- ✧ To provide better safety protection, we suggest three phase high power insulated transformer (100A per phase) in front.
- ✧ When the current of EUT is too high and cause severe heating of the LISN, extra fan is required for cooling process.



6. Packing List

Packing List	
LISN	1
RF cable	BNC(male) 2m
BNC(female) to N(male)	1
Instruction manual	1
Warranty card	1
Test report	1

CYBERTEK

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