

## Features

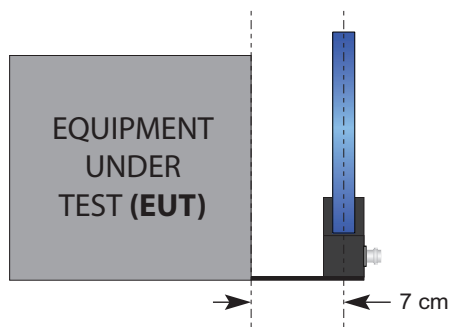
- Receiving Loop Antenna Designed Specifically for MIL-STD-461, RE101 Testing
- Frequency Range: 10 Hz to 1 MHz
- Antenna Base Plate Ensures Required 7 cm Separation Between Antenna and EUT
- Individual Calibration per SAE ARP958 Included
- Three-year Standard Warranty

## Description

The **AL-RE101** is a receiving loop antenna used for Mil-Std 461, RE101 testing to measure the magnetic field intensity generated by the Equipment Under Test (EUT).

Its construction consists of a 13.3 cm diameter, 36-turn, electrostatically shielded coil of 7-strand, 41 gauge Litz wire.

The base of the antenna is constructed from durable nylon, which is mounted over a plexi-glass plate. For convenience, the plate protrudes outward from the front of the antenna to provide the required 7 cm spacing between the center of the loop and the EUT, as shown in the diagram to the left.



The antenna output port is fitted with a high quality, female BNC connector for connection to the measuring instrument.

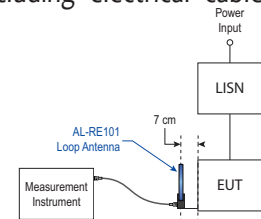
The electrostatic shield of the antenna is powder coated for additional durability.



## Application

The **AL-RE101** Loop Antenna is specifically designed for tests according to MIL-STD-461, RE101, radiated emissions, magnetic field.

During this test, radiated emissions from the Equipment Under Test (EUT) are measured from equipment and subsystem enclosures, including electrical cable interfaces, to verify that the magnetic field emissions from the EUT and its associated electrical interfaces do not exceed the specified requirements.



The antenna is placed at a distance of 7 cm from the EUT face and electrical interface connector to be measured. The plane of the loop is oriented parallel to the EUT faces and parallel to the axis of the connectors.

## Calibration

The antenna is individually calibrated using NIST Traceable equipment per SAE ARP-958 and MIL-STD-461. The calibration data, along with certificate, are provided.

Recognized ISO 17025 accredited calibration is also available upon request.

### Specifications

Model	<b>AL-RE101</b>
Frequency Range	<b>30 Hz to 100 kHz</b> (usable range: 10 Hz to 1 MHz)
Loop Diameter	<b>13.3 cm</b>
Number of Turns	<b>36 Turns</b>
Wire Type	<b>7 Strand, 41 AWG Litz</b>
Loop Shielding	<b>Electrostatic Shield</b>
Resistance of Wiring	<b>10Ω</b> (nominal)
Inductance of Wiring	<b>340 μH</b> (nominal)
Maximum Input Current	<b>N/A</b>
Connectors	<b>BNC</b> (female)
Specifications	<b>MIL-STD-461, RE101</b>
Weight	<b>0.84 lbs.</b> (0.38 kg)

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

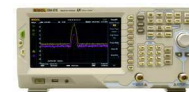
### Related Products Available from Com-Power:



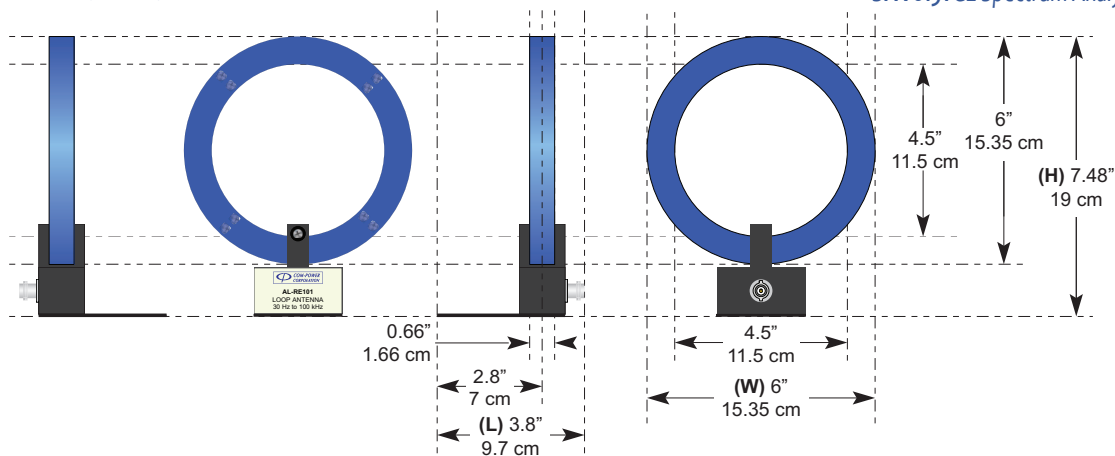
AL-RS101 Loop Antenna Set



LI-400 50 μH Line Impedance Stabilization Network (LISN)



SPA-815TGE Spectrum Analyzer



### Typical Conversion Factors for AL-RE101 Loop Antenna

