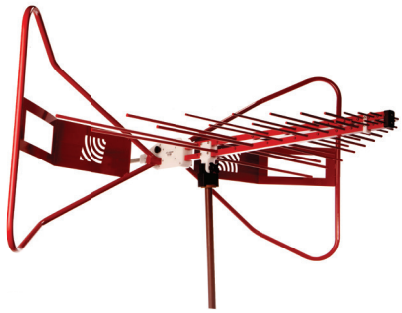
EMC ANTENNAS MODEL 3143B



MODEL 3143B

- **30 MHz to 1 GHz Frequency Range**
- **3:1 VSWR Above 70 MHz for Emissions and Immunity Testing**
- **Flexible Mounting**
- **Individually Calibrated**

ETS-Lindgren's Model 3143B BiConiLog™ is a hybrid antenna that combines innovative design, compact size, and excellent performance. This antenna enables users to measure a frequency range of 30 MHz to 1 GHz in one sweep, negating the need for multiple antennas and time-consuming equipment setup. Accuracy and repeatability are improved, while time and money are saved. This BiConiLog is designed as a dual-purpose antenna that can be used for both immunity and emission testing.

This model includes a stinger mount as standard equipment. Individual antenna calibration data is provided for emission testing.

Features

Frequency Range

The model 3143B frequency range covers from 30 MHz to 1 GHz. This frequency range covers the necessary range of emissions testing on a traditional OATS/semi-anechoic chamber setup.

VSWR Levels

Typical VSWR for the 3143B is <3: 1 above 70 MHz, an excellent level at this low frequency for an antenna this size.

Emissions and Immunity Antenna

Emission measurements can be performed without having to change antennas. For immunity measurements, the 3143B covers the typical 80 MHz to 1 GHz range.

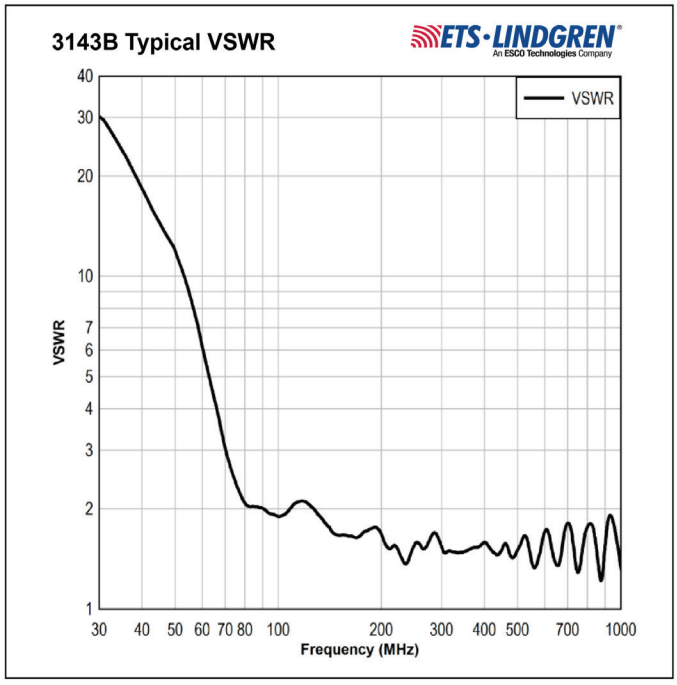
Flexible Mounting System

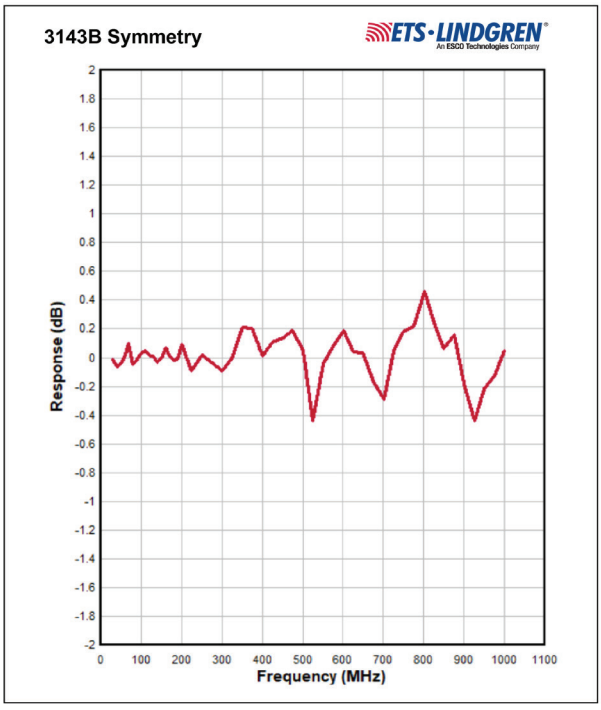
The model 3143B comes with a bracket that accepts either a 1/4 in x 20 thread screw or rear stinger mount.

Technical Specifications

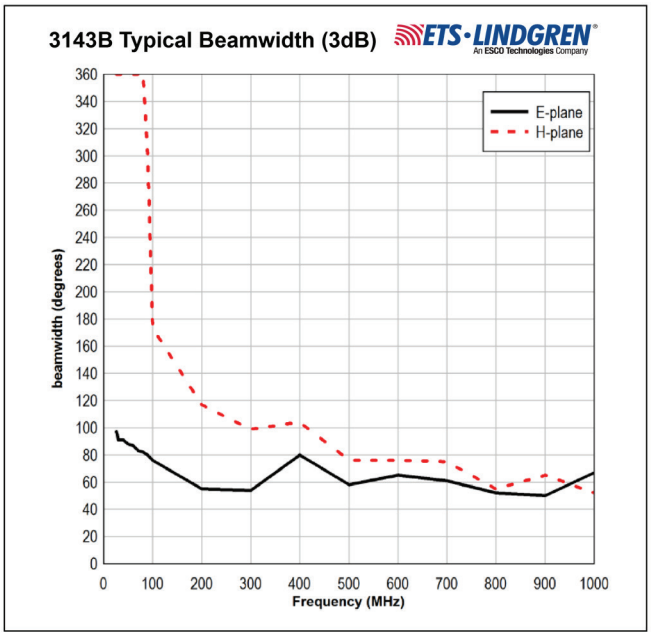
Electrical	
Frequency Minimum	30 MHz
Frequency Maximum	1 GHz
Impendance (Nominal)	50
Maximum Continuous Power	30 MHz–60 MHz: 500 W 60 MHz–600 MHz: 1 kW 600 MHz–1 GHz: 500 W 1 GHz–6 GHz: 200 W
Peak Power	1.3 kW
Pattern Type	Directional
Polarization	Linear
VSWR	<3:1 70 MHz to 1 GHz
Connectors	Type N Female
Physical	
Height	76.2 cm (30.0 in)
Width	133.9 cm (52.7 in)
Length	124.3 cm (48.94 in)
Weight	5.5 kg (12.13 lb)

Distance for the ANSI 3-meter and 10-meter calibrations is measured from the antenna midpoint, and for SAE 1-meter calibrations the distance is measured from the antenna tip. Midpoint is defined as half the distance between the small elements and the bowties, which is about 45 cm from the small end tip.





Symmetry is defined by C63.25 and CISPR 16-1-4 and for a log-periodic dipole array (LPDA) Symmetry is typically defined as the difference in the antenna factor (or gain) when the antenna is rotated 180 degrees about its axis. A perfectly symmetric antenna would give identical response regardless of orientation.



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