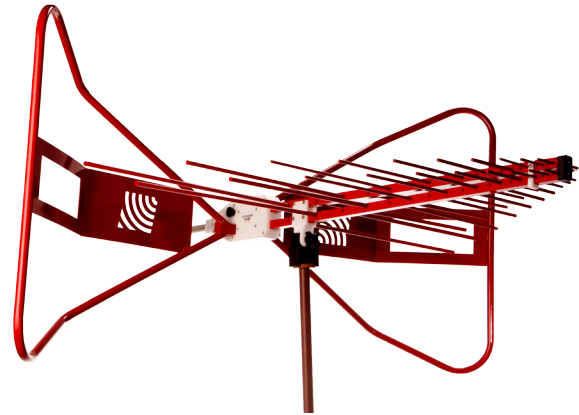


FEATURES:

- 30 MHz - 1 GHz Frequency Range
- >3:1 VSWR Above 70 MHz
- For Emissions and Immunity Testing
- Flexible Mounting System
- Individually Calibrated



ETS-Lindgren's Model 3143B BiConiLog Antenna

ETS-Lindgren's EMC 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" 20 thread screw or rear stinger mount.

Individually Calibrated

The 3143B is individually calibrated at 10 m per ANSI C63.5 and calibrations at 1m and 3m per SAE ARP 958.

STANDARD CONFIGURATION

- Antenna Assembly
- Mounting Bracket for ETS-Lindgren or Other Tripod Mounts with 1/4" x 20 Threads
- Stinger Mount
- Individually calibrated:
 - 10 m per ANSI C63.5
 - 3 m per SAE ARP 958
 - 1 m per SAE ARP 958
- Actual antenna factors and a Signed Certificate of Calibration Conformance included in manual.
- Manual

OPTIONS

- ETS-Lindgren offers several non-metallic, non-reflective tripods. For easy horizontal and vertical polarization changes, the 7-TR tripod is recommended.

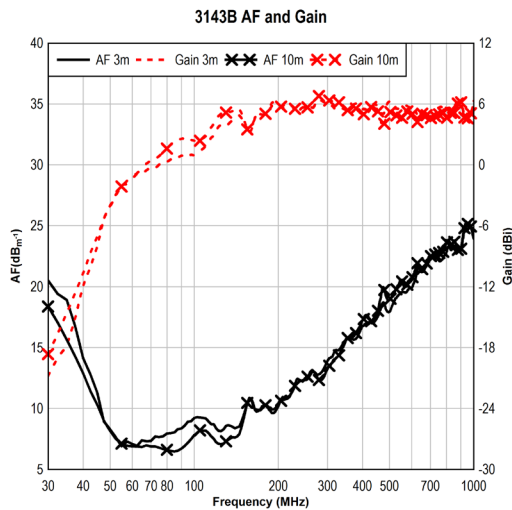
Electrical Specifications

| MODEL | FREQUENCY RANGE | MAXIMUM CONTINUOUS POWER | IMPEDANCE (NOMINAL) | VSWR RATIO (AVG) | CONNECTORS |
|-------|--|--------------------------|---------------------|------------------|-------------------|
| 3143B | 30 MHz – 60 MHz 60 MHz – 600 MHz 600 MHz – 1 GHz | 500 W 1 kW 500 W | 50 Ω | 3:1 | Type N female (1) |

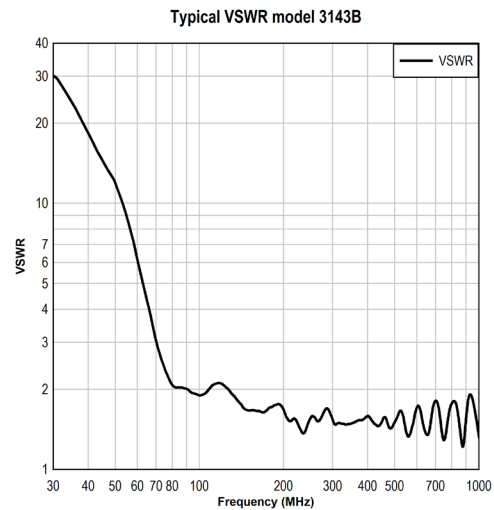
Physical Specifications

| MODEL | WIDTH | DEPTH | HEIGHT | WEIGHT |
|-------|---------------------|---------------------|--------------------|-------------------|
| 3143B | 133.9 cm 52.7 in | 124.3 cm 49.0 in | 76.2 cm 30.0 in | 5.5 kg 12.0 lb |

Antenna Factor and Gain Typical Measured Data Performance

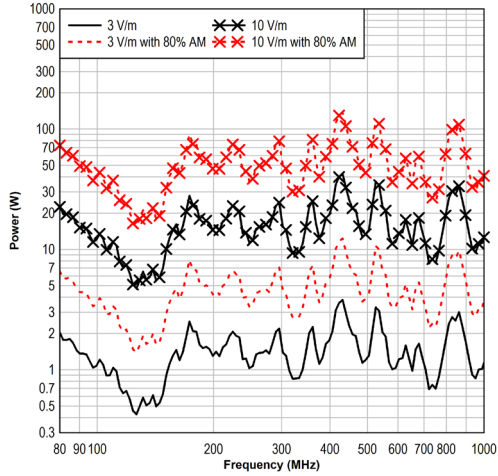


VSWR Typical Measured Data Performance



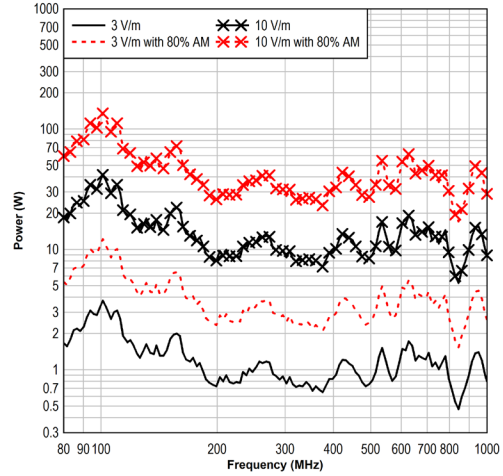
Typical Avg. Power Required in Horizontal Polarization

3143B Power Required Horizontal at 3 m Distance
Average of power for 16 points on a 1.5m by 1.5 grid



Typical Avg. Power Required in Vertical Polarization

3143B Power Required Vertical at 3 m Distance
Average of power for 16 points on a 1.5m by 1.5 grid



Beamwidth Typical Measured Data Performance

3143B 3dB Beamwidth

