

3148B Log-Periodic Dipole Array



ETS-Lindgren's Model 3148B Log-Periodic Dipole Array (LPDA) Antenna is specifically designed for making CISPR 16-1 measurements which require a 20 dB difference in the cross polarization rejection. This is achieved using an engineering design and manufacturing process that offsets all of the elements in a precision pattern. The excellent cross-polarization property ensures minimum measurement uncertainty for radiated emissions and normalized site attenuation measurement.

The precision construction of the assembly of the boom and elements result in excellent VSWR and optimal phase relationship. The model 3148B log antenna features relatively constant linear gain (measures in far field without any sudden dips or bumps). A Type N connector is provided.

Key Features

- High Gain Meets CISPR Cross Polarization Requirements
- Low VSWR
- Powder Coated Finish
- Individually Calibrated

Product Features

Frequency Range

The frequency range of the model 3148B is 200 MHz to 2 GHz. This makes the 3148B ideal for CISPR 16 testing and other standards based on it, such as CISPR 25.

High Gain

The model 3148Bs design provides a balance between the shortest antenna and the highest possible gain, with a 5 dB average gain over its frequency.

Low VSWR

The choice of spacing between booms and the changing element diameter provide excellent impedance of the antenna. This results in a in low VSWR.

Individually Calibrated

The 3148B broadband antenna is individually calibrated at 1 m per SAE ARP 958 and 10 m per ANSI C63.5. This antenna also comes with a signed Certificate of Calibration Conformance.

Specifications

Physical Specifications

Depth: 86.7 cm (34.13 in)

Height: 11.6 cm (4.57 in)

Length: 73.7 cm (29.02 in)

Width: 85.6 cm (33.70 in)

Weight: 2 kg (4.41 lb)

Electrical Specifications

Frequency Minimum: 200 MHz

Frequency Maximum: 2 GHz

Connectors: Type N (f)

Impedance (Nominal): 50

Maximum Continuous Power: 1 kW

Peak Power: 1.3 kW

VSWR: 1.2:1

Polarization: Linear

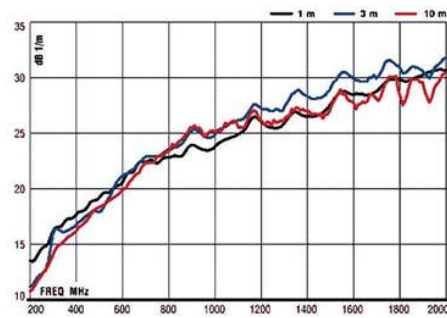
Pattern Type: Directional

Product Configuration

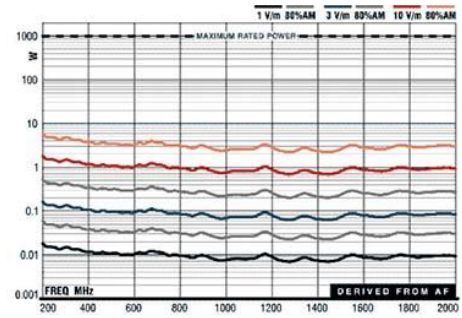
- Individually Calibrated at 1 m per SAE ARP 958
- Actual Antenna Factors and Signed Certificate of Calibration Conformance Provided

Charts

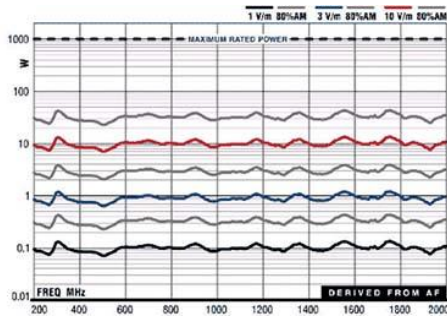
3148B Log Periodic Dipole Array Antenna Antenna Factor



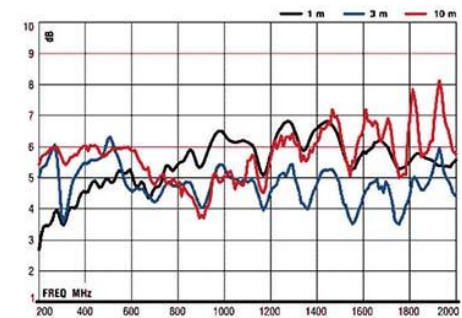
3148B Log Periodic Dipole Array Antenna Forward Power at 1 m



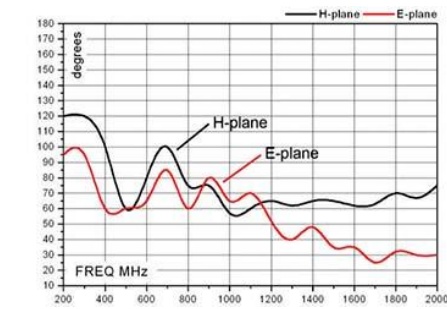
3148B Log Periodic Dipole Array Antenna Forward Power at 3 m



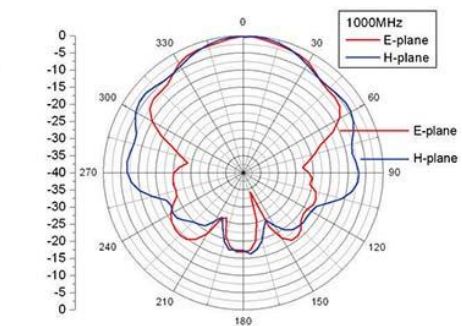
3148B Log Periodic Dipole Array Antenna Gain



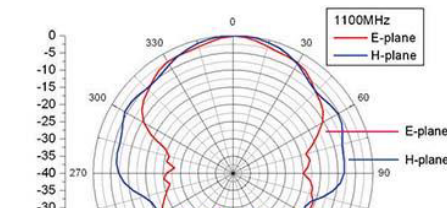
3148B Log Periodic Dipole Array Antenna Half Power Beamwidth



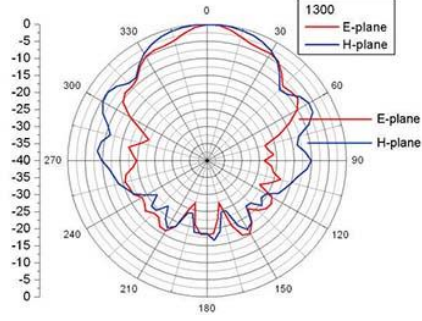
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1000 MHz



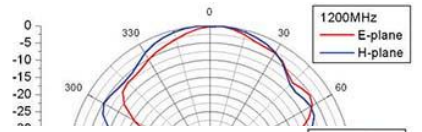
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1100 MHz



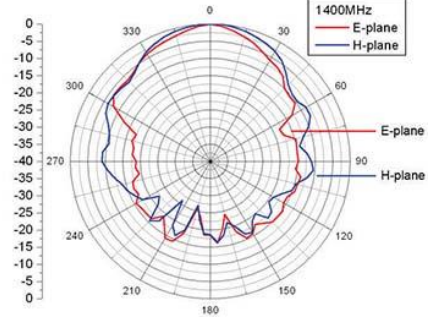
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1300 MHz



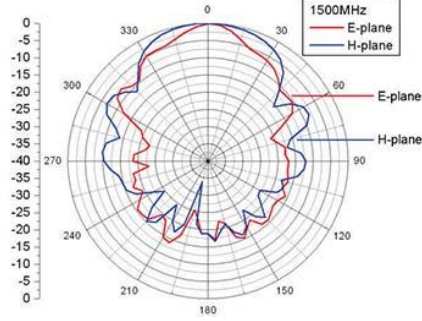
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1200 MHz



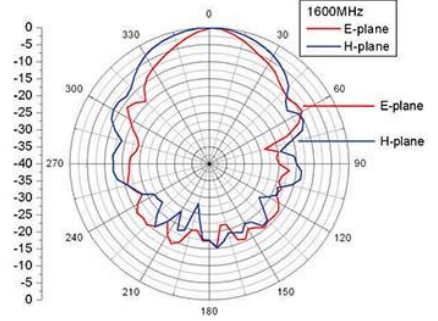
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1400 MHz



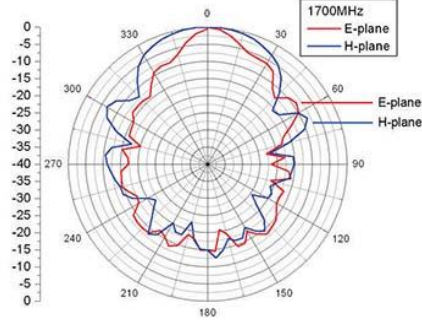
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1500 MHz



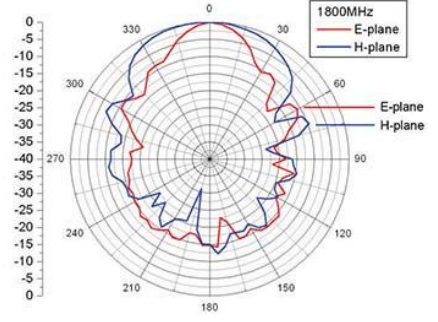
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1600 MHz



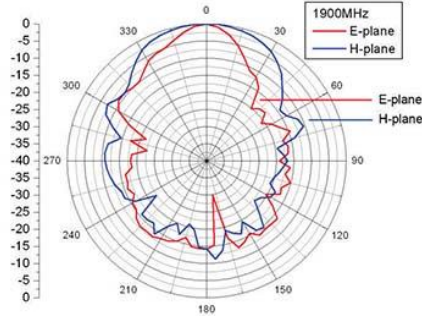
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1700 MHz



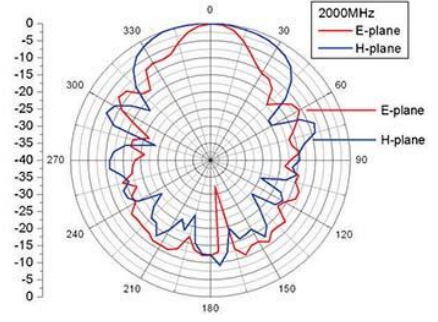
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1800 MHz



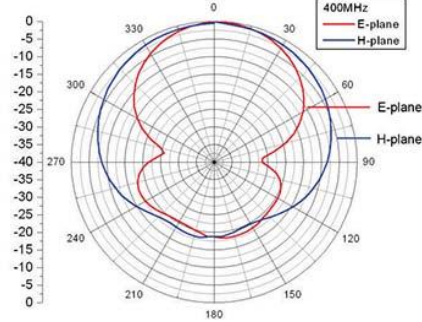
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 1900 MHz



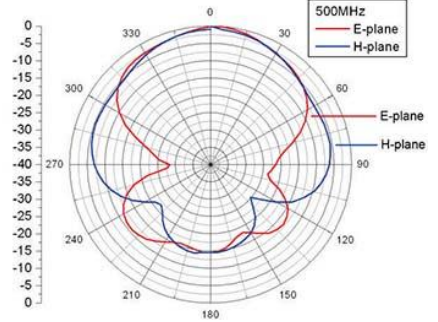
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 2000 MHz



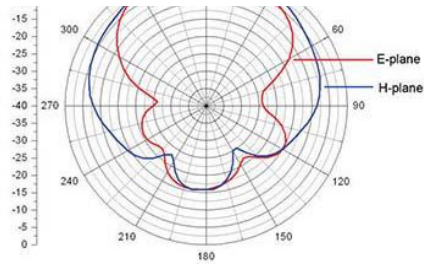
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 400 MHz



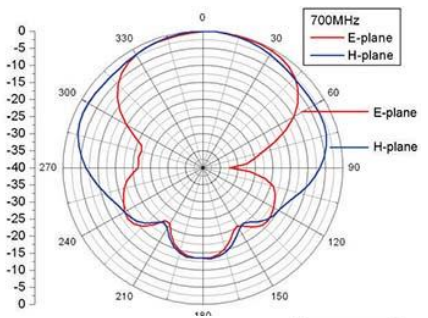
3148B Log Periodic Dipole Array Antenna Typical Radiation Pattern 500 MHz



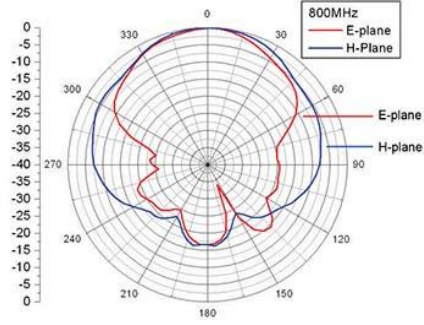
Typical Radiation Pattern
600 MHz



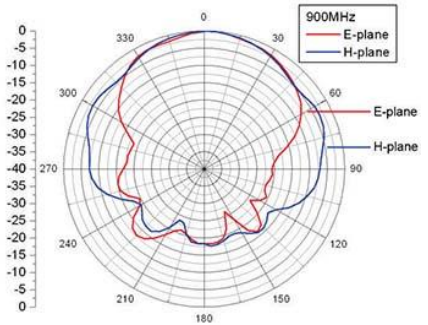
3148B Log Periodic Dipole Array Antenna
Typical Radiation Pattern
700 MHz



3148B Log Periodic Dipole Array Antenna
Typical Radiation Pattern
800 MHz



3148B Log Periodic Dipole Array Antenna
Typical Radiation Pattern
900 MHz



3148B Log Periodic Dipole Array Antenna
VSWR

