

# ANT-DB1-LP-RM-01-N

## Data Sheet



### Product Description

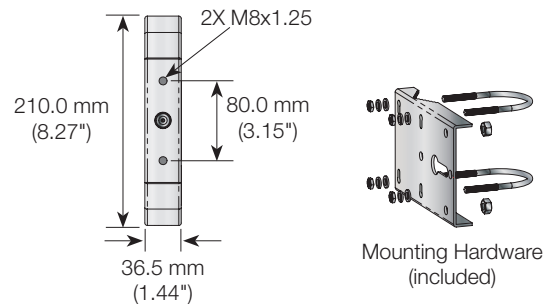
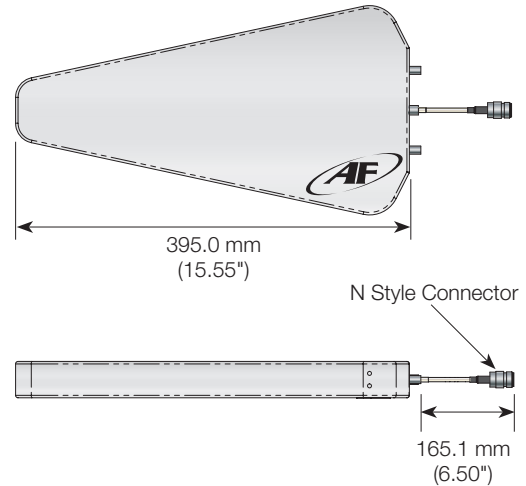
The Antenna Factor Log Periodic antenna is designed for long-distance directional communication over a wide range of frequencies. The DB1-LP antenna provides gain and directivity comparable to a Yagi, but in a much smaller overall form factor, and over a considerably wider range of frequencies. Constructed of UV stabilized materials, the antenna is suitable for long-term use in indoor or outdoor environments. The antenna includes complete mounting hardware for standard masts. Note: Use of these antennas may result in TX and RX emission levels in excess of legal limits.

### Features

- High gain
- Wide bandwidth
- Fully weatherized
- N female connector
- Rugged & damage-resistant
- Excellent performance over common frequency antennas

### Electrical Specifications

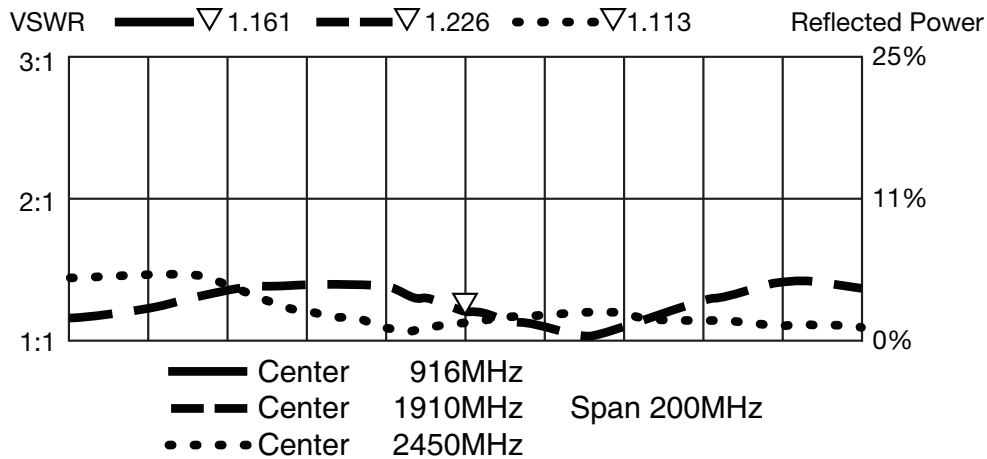
Recom. Freq. Range:	824–960MHz 1.71–2.17GHz 2.40–2.48GHz
Polarization:	Vertical
VSWR:	≤1.5 typ. at center
Impedance:	50-ohms
Gain:	8.5dBi (Band 1) 9.0dBi (Bands 2 and 3)
3dB H Beamwidth:	57°, 53°, 50° (Bands 1, 2, 3 resp.)
3dB V Beamwidth:	85°, 70°–80°, 70° (Bands 1, 2, 3 resp.)
Max. Power:	100W
Connector:	N-style female
Mounting:	Bracket with U-bolts, 1.58"–1.97" (40–50mm) mast
Weight :	2.4lbs (1.1kg)
Wind Velocity:	75mph (120kph)
Front/Back Ratio:	≥20dB



### Ordering Information

ANT-DB1-LP-RM-01-N (with N female connector)

## VSWR Graph



### What is VSWR?

The Voltage Standing Wave Ratio (VSWR) is a measurement of how well an antenna is matched to a source impedance, typically 50-ohms. It is calculated by measuring the voltage wave that is headed toward the load versus the voltage wave that is reflected back from the load. A perfect match has a VSWR of 1:1. The higher the first number, the worse the match, and the more inefficient the system. Since a perfect match cannot ever be obtained, some benchmark for performance needs to be set. In the case of antenna VSWR, this is usually 2:1. At this point, 88.9% of the energy sent to the antenna by the transmitter is radiated into free space and 11.1% is either reflected back into the source or lost as heat on the structure of the antenna. In the other direction, 88.9% of the energy recovered by the antenna is transferred into the receiver. As a side note, since the “:1” is always implied, many data sheets will remove it and just display the first number.

### How to Read a VSWR Graph

VSWR is usually displayed graphically versus frequency. The lowest point on the graph is the antenna’s operational center frequency. In most cases, this is different than the designed center frequency due to fabrication tolerances. The VSWR at that point denotes how close to 50-ohms the antenna gets. Linx specifies the recommended bandwidth as the range where the typical antenna VSWR is less than 2:1.