

# Omnidirectional Fiberglass Base Station Antenna 824-896 MHz



Laird's FG8243 omnidirectional fiberglass base station antennas are collinear designs enclosed in a high-density fiberglass which is covered with a protective ultraviolet inhibiting coating.

The radiating elements are made from high-efficiency copper and are carefully phased to provide maximum gain in the horizontal plane. The mounting sleeves are tuned to eliminate RF currents from the transmission line, resulting in a cold sleeve allowing great freedom in mounting. This high quality and well-focused beam provides the highest gain and best efficiency.

## FEATURES AND BENEFITS

- Highly stable PC board matching section
- Superior quality design
- Highest gain and best matching efficiency in the industry
- Special UV treated radome/resists sun damage
- N-female industry standard connector
- 100% tested on a Network Analyzer

| ELECTRICAL SPECIFICATIONS           |          |
|-------------------------------------|----------|
| Operating Frequency (MHz)           | 824-896  |
| VSWR                                | <2:1     |
| Gain (dBi)                          | 4.5      |
| Nominal Impedance (Ohms)            | 50       |
| Max Power - Ambient 25°C (W)        | 100      |
| Polarization                        | Vertical |
| Vertical Plane 3 dB Beamwidth (°)   | 60       |
| Horizontal Plane 3 dB Beamwidth (°) | 360      |

| MECHANICAL SPECIFICATIONS                    |  |
|--|--|
| Dimensions – diameter x height – mm (inches) | 33.3 x 588.7 (1.31 x 23.125)                   |
| Weight – kg (lbs.)                           | 24 (1.5)                                       |
| Cable Type                                   | None   |
| Radome Material                              | UV-Treated Fiberglass                          |
| Lightning Protection                         | Lightning Arrestor LABH350NN (sold separately) |
| Connector Type                               | N-Female Connector                             |

| MECHANICAL SPECIFICATIONS                               |                              |
|---|------------------------------|
| Operating Temperature – °C (°F)                         | -30 to +70°C (-22 to +158°F) |
| Storage Temperature – °C (°F)                           | -30 to +70°C (-22 to +158°F) |
| Rated Wind Velocity – km/hr (mph)                       | 210 (125)                    |
| Rated Wind Velocity (with .5" radial ice) – km/hr (mph) | 137 (85)                     |
| Lateral Thrust @ 125 mph Wind Velocity – kg (lbs.)      | 26 (57)                      |
| Wind Resistance – cm <sup>2</sup> (ft <sup>2</sup> )    | 200.67 (0.216)               |
| Material Substance Compliance                           | RoHS Compliant               |

#### **ACCESSORIES**



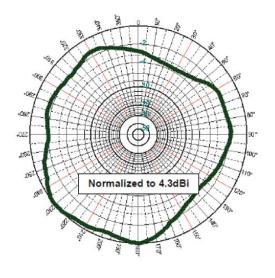
Figure 1: Lightning Arrestor LABH350NN (sold separately)

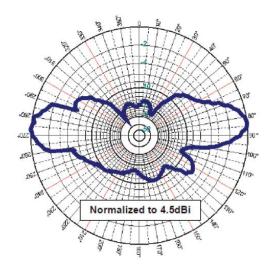


Figure 2: FM2 Mounting Kit (sold separately)



## **RADIATION PATTERNS**





**Azimuth Pattern** 

**Elevation Pattern** 

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TE Connectivity: FG8243