

FM-TUBE

Directional Endfire Array Antenna

This 5 GHz dual port, dual polarized directional array antenna provides high gain and confined field, enabling a variety of broadband wireless applications. Due to its strong directivity, FM-TUBE is the ideal choice for applications in tunnels and closed environments such as Train to Ground communications for metros and underground mobility. The platform's discrete directional antenna technology combines two traditional antennas into a single package without sacrificing performance. Unlike traditional panel antennas, this end fire array antenna is physically and visually less obtrusive making it ideal for installations with limited space availability.

FEATURES

- MIMO performance for optimized data speed and throughput
- Dual port, dual polarization package replaces two traditional directional panels
- Gain and pattern optimized for point-to-point and point-to-multi point connectivity
- Small footprint design can accommodate tunnel or trackside installations with as little as 3,54" (9 cm) clearance
- Includes a robust wall/mast mount bracket designed to withstand maximum 56 m/s wind speed
- High front-to-back ratio allows for back-to-back mounting of antennas; ideal for trackside or roadside coverage



RF/ELECTRICAL SPECIFICATIONS

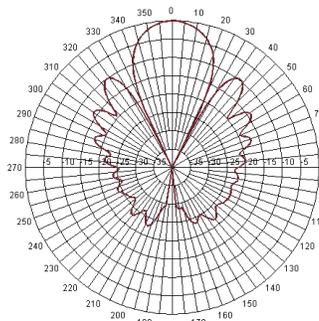
| | |
|------------------------|---------------------|
| Frequency Range | 4.9-5.9 GHz |
| Peak Gain | 14.6 dB |
| Side Lobes | 12-15 dB below peak |
| E-Plane Beamwidth | 25-35° |
| H-Plane Beamwidth | 25-35° |
| Front-to-Back Ratio | > 35 dB |
| Port-to-Port Isolation | 19 dB minimum |

MECHANICAL SPECIFICATIONS

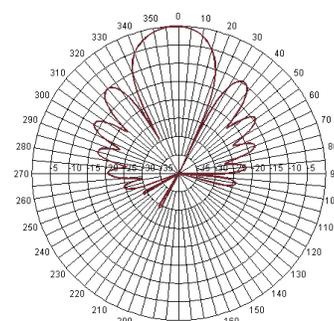
| | |
|-------------------|---|
| Temperature Range | - 40°F to 158°F (40°C to +70°C) |
| Dimensions | 1.57 x 1.57 x 11.18 in (40 x 40 x 284 mm) |

TECHNICAL DATA

| | |
|-------------------|--|
| Polarization | Dual port, dual orthogonal polarization |
| Nominal Impedance | 50 ohms |
| VSWR | < 2.0:1, typical < 2.5:1, across band |
| Wind Survival | 184 ft/s (56 m/s) |
| Cable | Feed cables available |
| Termination | N Female bulkhead * |



ELEVATION PATTERN



AZIMUTH PATTERN

NOTE: Radiation patterns reflect ground mounting.

* Proper connector sealing could be needed