

FPD1-5-24

0.3 m | 1 ft Flat Panel Antenna, Dual-polarized, 5.15-5.85GHz



General Specifications

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|---------------|--------------------|
| Antenna Type | Flat Panel Antenna |
| Size, nominal | 1 ft 0.3 m |
| Polarization | Dual |

Electrical Specifications

| | |
|-----------------------------------|-----------------|
| Operating Frequency Band | 5.15 - 5.85 GHz |
| Half Power Beamwidth, Horizontal | 20 degrees |
| Half Power Beamwidth, Vertical | 20 degrees |
| Cross-Polarization Discrimination | 20 dB |
| Front to Back Ratio (F/B) | 40 dB |
| Gain, Low Frequency | 22.4 dBi |
| Gain, Mid Frequency | 23 dBi |
| Gain, High Frequency | 23.5 dBi |
| VSWR | 1.7:1 |
| Return Loss | -12 dB |

Mechanical Specifications

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|--|-------------------------------------|
| Fine Azimuth Adjustment | Supplied with coarse az adjust only |
| Fine Elevation Adjustment | +/- 10 degrees |
| Mounting Pipe Diameter, Min | 2 inch 5.1 cm |
| Mounting Pipe Diameter, Max | 2.5 inch 6.4 cm |
| Net Weight | 5 lbs 2.3 kg |
| Wind Velocity Operational | 90 mph 145 km/h |
| Wind Velocity Survival Rating | 125 mph 201 km/h |
| Mechanical Configuration | FP1 |
| Axial Force (FA) | 49 lbs 220 N |
| Side Force (FS) | 0 lbs 0 N |
| Twisting Moment (MT) | 0 ft-lbs 0 Nm |
| Operating temperature range | -40 to +60 C |
| Max pressure, psig, (if waveguide interface) | na |

Regulatory Compliance

| | |
|----------------|------------|
| FCC | undeclared |
| ETSI | undeclared |
| RoHS-complaint | Yes |

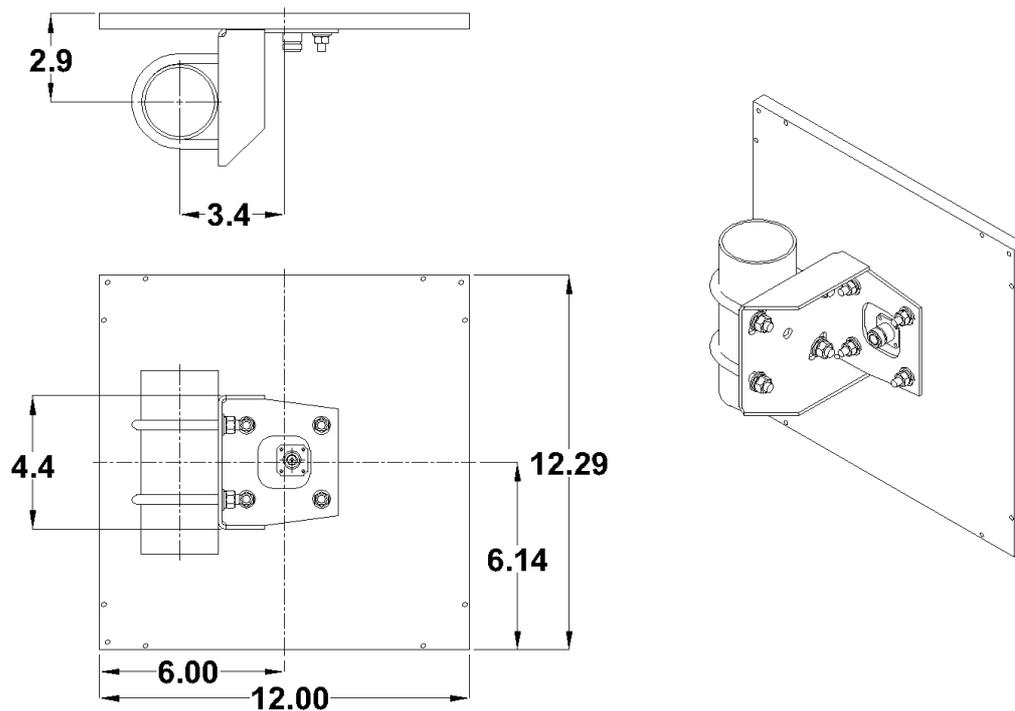
Shipping Information

| | |
|-----------------------|---------------------------------|
| Package Type | Cardboard |
| Gross Weight | 8 lbs 3.6 kg |
| Dimensions, L x W x H | 16 x 16 x 5in 40 x 40 x 12 cm |
| Shipping Volume | 0.7 cu ft 0.02 cu m |

Additional Comments

Choose Radiowaves products for best performance and reliability

Technical Drawings



FP1

Radiowaves Glossary

| | |
|---|--|
| Axial Force: | Force applied to the face of the antenna due to wind at specified wind speed |
| Beamwidth | The total width of the main beam measured in degrees between the 3-dB (half-power) points on either side of the peak of the main beam |
| Cross Polarization Discrimination (XPD) | The dB difference between maximum received co-polarized signal at electrical boresight and maximum received cross-polarized signal |
| Front to Back Ratio (F/B) | The dB difference between maximum received signal at electrical boresight to maximum received signal behind the antenna (180 +/- 40 degrees) |
| Gain | A measure of how well the antenna focuses available energy into a single beam. Larger antennas typically have higher gains and smaller beamwidths. |
| Gross Weight | Shipping weight, includes weight of antenna plus packaging materials |
| Net Weight | Weight of antenna only as mounted on tower. |
| Operating Frequency Band | The frequency limits between which the antenna meets declared specifications. Antennas may operate outside the frequency band with mild performance degradation. |
| Return Loss | A measure of how much rf energy incident upon the antenna is reflected back from whence it came, expressed as a negative dB value. |
| Side Force (FS) | Force applied to the side of the antenna due to wind at specified wind speed |
| Twisting Moment (MT) | The torsional (twisting) moment (force x distance) applied to the mounting pipe due to wind at the specified wind speed. |

| | |
|-------------------------------|---|
| VSWR | A measure of how much rf energy incident upon the antenna is reflected back from whence it came, expressed as a ratio |
| Wind Velocity Operational | Wind speed where the antenna deflection is less than or equal to 0.1 degrees |
| Wind Velocity Survival Rating | Wind speed where the antenna will not suffer permanent damage, but may require re-pointing. |