1.2 m | 4 ft Standard Parabolic Unshielded Antenna, single-polarized, unpressurized, 5.250–5.850 GHz

Product Classification
Product Type
Microwave antenna

General Specifications
Antenna Type
PF - Standard Parabolic Unshielded Antenna, single-polarized, unpressurized
Diameter, nominal
1.2 m | 4 ft
Polarization
Single

Electrical Specifications
Beamwidth, Horizontal
3.0 °
Beamwidth, Vertical
3.0 °
Boresite Cross Polarization Discrimination (XPD)
30 dB
Electrical Compliance
ETSI 302 217 Class 1
Front-to-Back Ratio
52 dB
Gain, Low Band
34.5 dBi
Gain, Mid Band
34.9 dBi
Gain, Top Band
35.3 dBi
Operating Frequency Band
5.250 – 5.850 GHz
Radiation Pattern Envelope Reference (RPE)
4749
Return Loss
14.0 dB
VSWR
1.50

Mechanical Specifications
Fine Azimuth Adjustment
±5°
Fine Elevation Adjustment
±5°
Mounting Pipe Diameter
115 mm | 4.5 in
Net Weight
47 kg | 104 lb
Side Struts, Included
1 inboard
Side Struts, Optional
1 inboard
Wind Velocity Operational | 110 km/h | 68 mph  
Wind Velocity Survival Rating | 200 km/h | 125 mph

Wind Forces At Wind Velocity Survival Rating

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angle $\alpha$ for MT Max</td>
<td>-130°</td>
</tr>
<tr>
<td>Axial Force (FA)</td>
<td>3843 N</td>
</tr>
<tr>
<td>Side Force (FS)</td>
<td>1049 N</td>
</tr>
<tr>
<td>Twisting Moment (MT)</td>
<td>-858 N-m</td>
</tr>
<tr>
<td>Weight with 1/2 in (12 mm) Radial Ice</td>
<td>79 kg</td>
</tr>
<tr>
<td>Zcg with 1/2 in (12 mm) Radial Ice</td>
<td>277 mm</td>
</tr>
<tr>
<td>Zcg without Ice</td>
<td>178 mm</td>
</tr>
</tbody>
</table>
Wind Forces At Wind Velocity Survival Rating Image
Antenna Dimensions And Mounting Information

**ANTENNA DIMENSIONS**

All dimensions in mm (inches)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>411 (16.2)</td>
<td>F</td>
<td>165 (6.5)</td>
</tr>
<tr>
<td>B</td>
<td>264 (10.4)</td>
<td>G</td>
<td>528 (20.8)</td>
</tr>
<tr>
<td>C</td>
<td>361 (14.2)</td>
<td>H</td>
<td>298 (11.1)</td>
</tr>
<tr>
<td>D</td>
<td>1247 (49.1)</td>
<td>J</td>
<td>470 (18.5)</td>
</tr>
<tr>
<td>E</td>
<td>544 (21.4)</td>
<td>K</td>
<td>230 (11.3)</td>
</tr>
</tbody>
</table>

Regulatory Compliance/Certifications

**Agency**  
ISO 9001:2015

**Classification**  
Designed, manufactured and/or distributed under this quality management system
* Footnotes

**Axial Force (FA)**

Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

**Boresite Cross Polarization Discrimination (XPD)**

The difference between the peak of the co-polarized main beam and the maximum cross-polarized signal over an angle twice the 3 dB beamwidth of the co-polarized main beam.

**Front-to-Back Ratio**

Denotes highest radiation relative to the main beam, at 180° ±40°, across the band. Production antennas do not exceed rated values by more than 2 dB unless stated otherwise.

**Gain, Mid Band**

For a given frequency band, gain is primarily a function of antenna size. The gain of Andrew antennas is determined by either gain by comparison or by computer integration of the measured antenna patterns.

**Operating Frequency Band**

Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.

**Radiation Pattern Envelope Reference (RPE)**

Radiation patterns define an antenna’s ability to discriminate against unwanted signals. Under still dry conditions, production antennas will not have any peak exceeding the current RPE by more than 3 dB, maintaining an angular accuracy of +/-1° throughout.

**Return Loss**

The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.

**Side Force (FS)**

Maximum side force exerted on the mounting pipe as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

**Twisting Moment (MT)**

Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

**VSWR**

Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.

**Wind Velocity Operational**

The wind speed where the antenna deflection is equal to or less than 0.1 degrees. In the case of ValuLine antennas, it is defined as a maximum deflection of 0.3 x the 3 dB beam width of the antenna.

**Wind Velocity Survival Rating**

The maximum wind speed the antenna, including mounts and radomes, where applicable, will withstand without permanent deformation. Realignment may be required. This wind speed is applicable to antenna with the specified amount of radial ice.