3.0m | 10ft ValuLine® High Performance, High XPD Antenna, dual-polarized, 10.000 – 11.700 GHz, grey, PDR100 flange

Product Classification

Product Type
Microwave antenna

General Specifications

Antenna Type
HX - ValuLine® High Performance, High XPD Antenna, dual-polarized

Polarization
Dual

Antenna Input
PDR100

Antenna Color
Gray

Reflector Construction
Two-piece reflector

Radome Color
Gray

Radome Material
Fabric

Flash Included
Yes

Side Struts, Included
2

Side Struts, Optional
3

Dimensions

Diameter, nominal
3.0 m | 10 ft
Antenna Dimensions and Mounting Information

Dimensions in inches (mm)

<table>
<thead>
<tr>
<th>Antenna Size, ft (m)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 (3)</td>
<td>8.0</td>
<td>22.5</td>
<td>125.0</td>
<td>38.6</td>
<td>71.1</td>
<td>10.3</td>
</tr>
<tr>
<td></td>
<td>(203)</td>
<td>(572)</td>
<td>(3174)</td>
<td>(980)</td>
<td>(1807)</td>
<td>(262)</td>
</tr>
</tbody>
</table>

Electrical Specifications

**Operating Frequency Band**

10.000 – 11.700 GHz

**Gain, Low Band**

47.2 dBi

**Gain, Mid Band**

47.9 dBi

**Gain, Top Band**

48.5 dBi

**Boresite Cross Polarization Discrimination (XPD)**

33 dB

**Front-to-Back Ratio**

76 dB

**Beamwidth, Horizontal**

0.7°

**Beamwidth, Vertical**

0.7°

**Return Loss**

26 dB
**VSWR**

1.1

**Radiation Pattern Envelope Reference (RPE)**

7420

**Electrical Compliance**

ACMA FX03_10a | ACMA FX03_11a | ETSI 302 217 Class 3 | US FCC Part 105A | US FCC Part 107A

**Cross Polarization Discrimination (XPD) Electrical Compliance**

ETSI EN 302217 XPD Category 2

**Mechanical Specifications**

**Compatible Mounting Pipe Diameter**

115 mm | 4.5 in

**Fine Azimuth Adjustment Range**

±5°

**Fine Elevation Adjustment Range**

±5°

**Wind Speed, operational**

180 km/h | 111.847 mph

**Wind Speed, survival**

200 km/h | 124.274 mph

**Wind Forces at Wind Velocity Survival Rating**

**Axial Force (FA)**

18800 N | 4,226.409 lbf

**Angle α for MT Max**

-130 °

**Side Force (FS)**

-6560 N | -1,474.747 lbf

**Twisting Moment (MT)**

-10725 N-m | -94,924.25 in lb

**Force on Inboard Strut Side**

9500 N | 2,135.686 lbf

**Force on Outboard Strut Side**

3350 N | 753.11 lbf

**Zcg without Ice**

618 mm | 24.331 in

**Zcg with 1/2 in (12 mm) Radial Ice**

744 mm | 29.291 in

**Weight with 1/2 in (12 mm) Radial Ice**

466 kg | 1,027.353 lb
Packaging and Weights

Height, packed: 1170 mm | 46.063 in
Width, packed: 1930 mm | 75.984 in
Length, packed: 3410 mm | 134.252 in
Packaging Type: Standard pack
Volume: 7.7 m³ | 271.923 ft³
Weight, gross: 513 kg | 1,130.97 lb
Weight, net: 263 kg | 579.815 lb

Regulatory Compliance/Certifications
**Agency** | **Classification**
--- | ---
CHINA-ROHS | Above maximum concentration value
ISO 9001:2015 | Designed, manufactured and/or distributed under this quality management system
REACH-SVHC | Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS | Compliant/Exempted

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**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.

**Cross Polarization Discrimination (XPD) Electrical Compliance**

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.

**Packaging Type**

Andrew standard packing is suitable for export. Antennas are shipped as standard in totally recyclable cardboard or wire-bound crates (dependent on product). For your convenience, Andrew offers heavy duty export packing options.

**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 Speed, operational

For VHLP(X), SHP(X), HX and USX antennas, the wind speed where the maximum antenna deflection is 0.3 x the 3 dB beam width of the antenna. For other antennas, it is defined as a deflection is equal to or less than 0.1 degrees.

Wind Speed, survival

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.