#### **Base Product**



0.9m | 3 ft ValuLine® High Performance Low Profile Antenna, dualpolarized, 37.00-40.00 GHz

#### **Product Classification**

**Product Type** Microwave antenna

**Product Brand** ValuLine®

General Specifications

**Antenna Type** VHLPX - ValuLine® High Performance Low Profile Antenna, dual-

polarized

**Polarization** Dual

Side Struts, Included

Side Struts, Optional 1 inboard

Dimensions

Diameter, nominal 0.9 m | 3 ft

**Electrical Specifications** 

37.000 - 40.000 GHz **Operating Frequency Band** 

Gain, Low Band 49 dBi Gain, Mid Band 49.4 dBi 49.6 dBi Gain, Top Band **Boresite Cross Polarization Discrimination (XPD)** 30 dB

Front-to-Back Ratio 76 dB Beamwidth, Horizontal 0.6°

Beamwidth, Vertical **Return Loss** 17.3 dB

**VSWR** 1.3

Radiation Pattern Envelope Reference (RPE) 7176A

**Electrical Compliance** Brazil Anatel Class 2 | Canada SRSP 338.6 | ETSI 302 217 Class

0.6°

3 | US FCC Part 101A

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Wind Speed, survival

### Mechanical Specifications

**Compatible Mounting Pipe Diameter** 90 mm – 120 mm | 3.5 in – 4.7 in

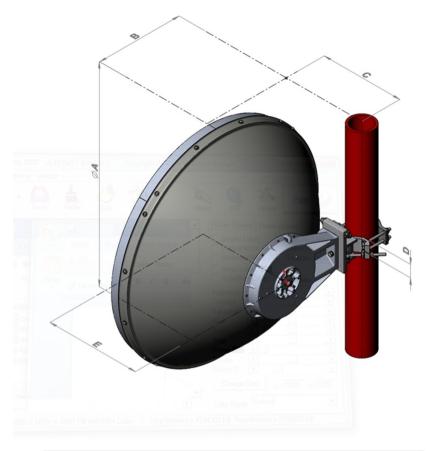
Fine Azimuth Adjustment Range  $\pm 15^{\circ}$ Fine Elevation Adjustment Range  $\pm 15^{\circ}$ 

Wind Speed, operational 180 km/h | 111.847 mph

250 km/h | 155.343 mph



## Antenna Dimensions and Mounting Information



Dimension in Inches (mm)					
Antenna size, ft (m)	Α	В	С	D	E
3 (1.0)	39.3 (999)	16 (407)	15.2 (387)	2.4 (60)	17.2 (437)

#### Wind Forces at Wind Velocity Survival Rating

**Axial Force (FA)** 2903 N | 652.621 lbf

Angle  $\alpha$  for MT Max 0  $^{\circ}$ 

**Side Force (FS)** 1439 N | 323.5 lbf

**Twisting Moment (MT)** 1179 N-m | 10,435.029 in lb

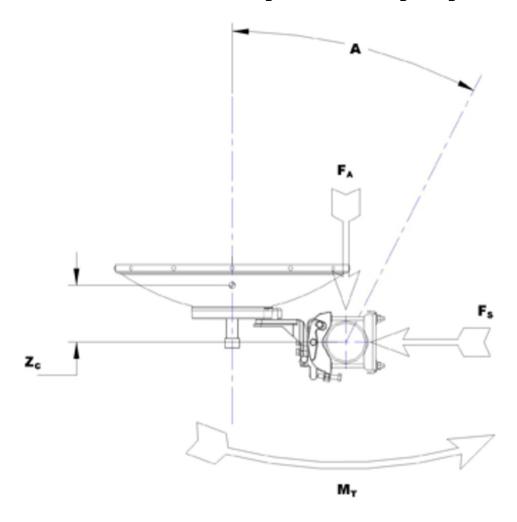
Zcg without Ice 135 mm | 5.315 in

**Zcg with 1/2 in (12 mm) Radial Ice** 84 mm | 3.307 in

**Weight with 1/2 in (12 mm) Radial Ice** 46 kg | 101.413 lb



### Wind Forces at Wind Velocity Survival Rating Image



#### Packaging and Weights

**Weight, net** 17 kg | 37.479 lb

\* Footnotes

Operating Frequency Band

Bands correspond with CCIR recommendations or common allocations

used throughout the world. Other ranges can be accommodated on  $% \left\{ 1,2,\ldots ,n\right\}$ 

special order.

**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

The gain of Andrew antennas is determined by either gain by comparison or by computer integration of the measured antenna patterns.

**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

ANDREW® an Amphenol company

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.

**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.

**VSWR** Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the

operating band.

**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 3dB, maintaining

an angular accuracy of +/-1° throughout

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.

**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.

**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.