#### **Base Product**



1.2 m | 4 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 21.200–23.600 GHz

#### **Product Classification**

Product Type Microwave antenna

Product Brand ValuLine®

General Specifications

Antenna Type

VHLP - ValuLine® High Performance Low Profile Antenna, single-

polarized

**Polarization** Single

Side Struts, Included1 inboardSide Struts, Optional1 inboard

Dimensions

**Diameter, nominal** 1.2 m | 4 ft

**Electrical Specifications** 

Operating Frequency Band 21.200 – 23.600 GHz

Gain, Low Band45.7 dBiGain, Mid Band46.1 dBiGain, Top Band46.4 dBiBoresite Cross Polarization Discrimination (XPD)30 dBFront-to-Back Ratio74 dB

Beamwidth, Horizontal  $0.8\,^\circ$  Beamwidth, Vertical  $0.8\,^\circ$ 

**Return Loss** 17.7 dB

**VSWR** 1.3

**Radiation Pattern Envelope Reference (RPE)** 7067C

Electrical Compliance Brazil Anatel Class 2 | Canada SRSP 321.8 Part A | ETSI 302 217

Class 3 | US FCC Part 101A

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### Mechanical Specifications

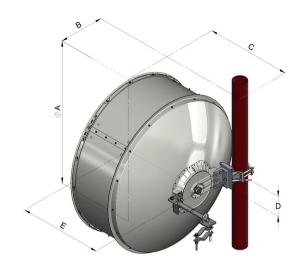
**Compatible Mounting Pipe Diameter** 115 mm | 4.5 in

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

 Wind Speed, operational
 201 km/h | 124.896 mph

 Wind Speed, survival
 250 km/h | 155.343 mph

### Antenna Dimensions and Mounting Information



Dimensions in inches (mm)					
Antenna size, ft (m)	Α	В	С	D	E
4 (1.2)	50.8 (1291)	16 (407)	30.2 (767)	7.2 (183)	29.5 (748)

### Wind Forces at Wind Velocity Survival Rating

**Axial Force (FA)** 5326 N | 1,197.333 lbf

**Side Force (FS)** 2638 N | 593.046 lbf

**Twisting Moment (MT)** 2162 N-m | 19,135.312 in lb

wisting Monient (MT)

Force on Inboard Strut Side 2862 N | 643.403 lbf

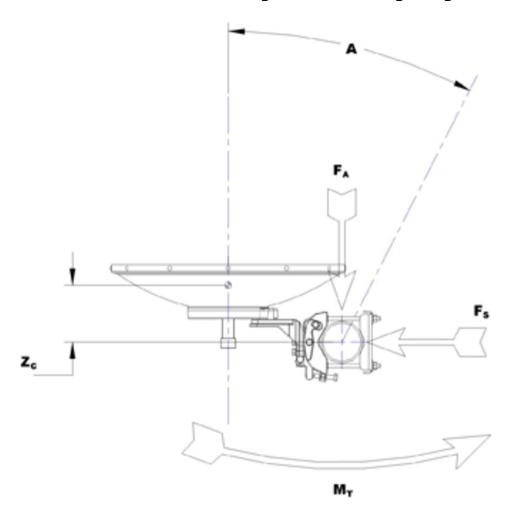
Zcg without Ice 43 mm | 1.693 in

**Zcg with 1/2 in (12 mm) Radial Ice** 284 mm | 11.181 in

**Weight with 1/2 in (12 mm) Radial Ice** 74 kg | 163.142 lb

**COMMSCOPE®** 

### Wind Forces at Wind Velocity Survival Rating Image



#### Packaging and Weights

**Weight, net** 32 kg | 70.548 lb

#### Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

#### \* Footnotes

**Operating Frequency Band** 

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

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**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.

**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.

**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.

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