

0.9m | 3 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 17.700–19.700 GHz, OEM custom flange, white antenna, composite broadband grey radome without flash, standard pack—one-piece reflector

Product Classification

Product Type Microwave antenna

Product Brand ValuLine®

General Specifications

Antenna Type

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

polarized

Polarization Single

Antenna Input Custom

Antenna Color White

Reflector Construction One-piece reflector

Radome Color Gray

Radome Material Composite Broadband

Flash Included No Side Struts, Included 0

Side Struts, Optional 1 inboard

Dimensions

Diameter, nominal 0.9 m | 3 ft

Electrical Specifications

Operating Frequency Band 17.700 – 19.700 GHz

Gain, Low Band43.1 dBiGain, Mid Band43.5 dBiGain, Top Band43.7 dBi

Boresite Cross Polarization Discrimination (XPD) 30 dB

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Front-to-Back Ratio 71 dB 1.1 ° Beamwidth, Horizontal Beamwidth, Vertical 1.1 ° **Return Loss** 17.7 dB

VSWR 1.3

Radiation Pattern Envelope Reference (RPE) 7152A

Electrical Compliance Brazil Anatel Class 2 | Canada SRSP 317.8 Part A | ETSI 302 217

Class 3 | US FCC Part 101A

Mechanical Specifications

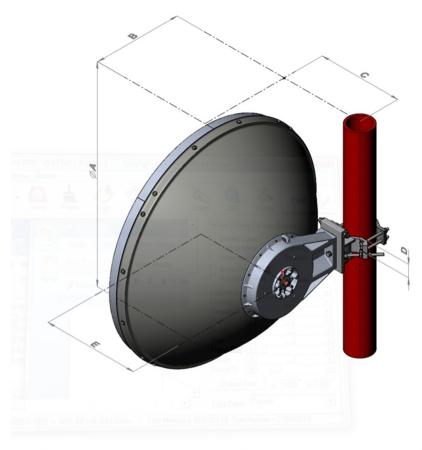
Compatible Mounting Pipe Diameter 90 mm-120 mm | 3.5 in-4.7 in

±15° **Fine Azimuth Adjustment Range** ±15° **Fine Elevation Adjustment Range**

Wind Speed, operational 180 km/h | 111.847 mph 250 km/h | 155.343 mph Wind Speed, survival



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 α for MT Max 0 $^{\circ}$

Side Force (FS) 1439 N | 323.5 lbf

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

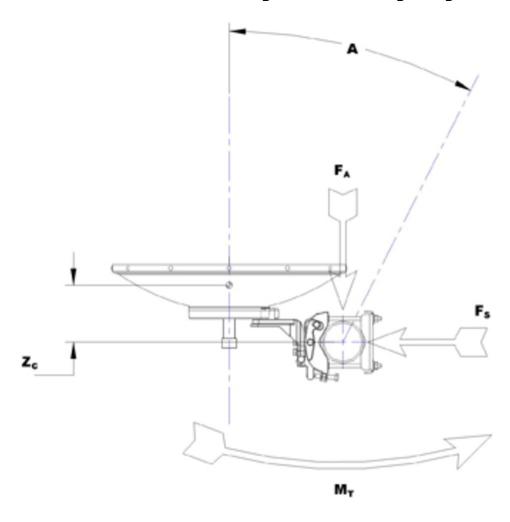
Zcg without Ice 135 mm | 5.315 in

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

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Wind Forces at Wind Velocity Survival Rating Image



Packaging and Weights

 Height, packed
 1110 mm | 43.701 in

 Width, packed
 400 mm | 15.748 in

 Length, packed
 1200 mm | 47.244 in

Packaging Type Standard pack

 Volume
 0.5 m³ | 17.657 ft³

 Weight, gross
 29 kg | 63.934 lb

 Weight, net
 17 kg | 37.479 lb

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^{*} Footnotes

Operating Frequency Band

Bands correspond with CCIR recommendations or common allocations

used throughout the world. Other ranges can be accommodated on

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

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 $\ensuremath{\mathbf{2}}$

dB unless stated otherwise.

Return LossThe 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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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.