

1.8m | 6ft ValuLine® Low Wind Load Antenna, dual-polarized, 10.000 – 11.700 GHz, white, PDR100 flange

### **Product Classification**

Product Type Microwave antenna

Product Brand ValuLine®

General Specifications

Antenna Type LX - ValuLine® Low Wind Load Antenna, dual-polarized

PolarizationDualAntenna InputPDR100Antenna ColorWhite

**Reflector Construction** One-piece reflector

Radome ColorGrayRadome MaterialMoldedFlash IncludedNoSide Struts, Included1

Side Struts, Optional

**Dimensions** 

Beamwidth, Vertical

**Diameter, nominal** 1.8 m | 6 ft

**Electrical Specifications** 

**Operating Frequency Band** 10.000 – 11.700 GHz

Gain, Low Band41.5 dBiGain, Mid Band42.2 dBiGain, Top Band42.9 dBiBoresite Cross Polarization Discrimination (XPD)33 dBFront-to-Back Ratio60 dBBeamwidth, Horizontal1.1 °

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1.1°

Return Loss 23.9 dB

**VSWR** 1.14

Radiation Pattern Envelope Reference (RPE) 7440

**Electrical Compliance**US FCC Part 105A | US FCC Part 107A

Mechanical Specifications

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

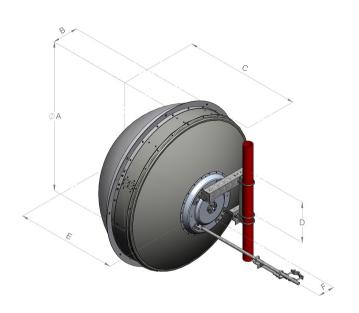
Fine Azimuth Adjustment Range  $\pm 5^{\circ}$ Fine Elevation Adjustment Range  $\pm 15^{\circ}$ 

 Wind Speed, operational
 200 km/h | 124.274 mph

 Wind Speed, survival
 200 km/h | 124.274 mph



## Antenna Dimensions and Mounting Information



Dimensions in inches (mm)						
Antenna size, ft (m)	А	В	С	D	E	F
6 (1.8)	76.5 (1942)	13.4 (340)	60.0 (1523)	20.9 (530)	51.9 (1317)	8.4 (214)

#### Wind Forces at Wind Velocity Survival Rating

**Axial Force (FA)** 4670 N | 1,049.858 lbf

Angle  $\alpha$  for MT Max -120  $^{\circ}$ 

**Side Force (FS)** 2050 N | 460.858 lbf

**Twisting Moment (MT)** 2500 N-m | 22,126.863 in lb

Force on Inboard Strut Side 2900 N | 651.946 lbf

**Zcg without Ice** 490 mm | 19.291 in

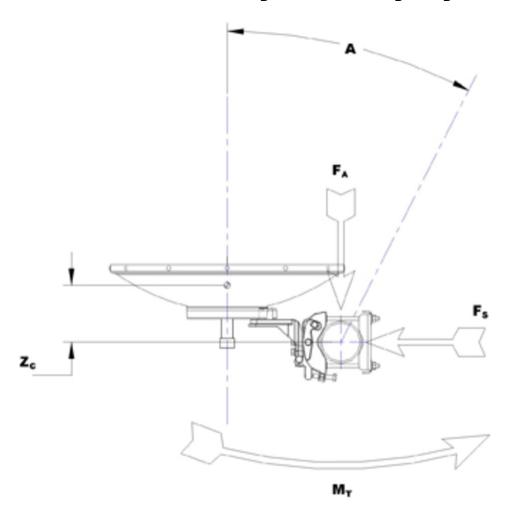
**Zcg with 1/2 in (12 mm) Radial Ice** 540 mm | 21.26 in

**Weight with 1/2 in (12 mm) Radial Ice** 191 kg | 421.082 lb

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### Wind Forces at Wind Velocity Survival Rating Image



### Packaging and Weights

 Height, packed
 2150 mm | 84.646 in

 Width, packed
 1225 mm | 48.228 in

 Length, packed
 2070 mm | 81.496 in

Packaging Type Standard pack

 Volume
 5.5 m³ | 194.231 ft³

 Weight, gross
 186 kg | 410.059 lb

 Weight, net
 86 kg | 189.597 lb

\* Footnotes

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**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 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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**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.