







### VHLP1-15-1GR

0.3 m | 1 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 14.250-15.350 GHz, UG-541A/U, gray antenna, polymer gray radome without flash, standard pack—one-piece reflector

## **General Specifications**

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

Diameter, nominal 0.3 m | 1 ft
Packing Standard pack
Radome Color Gray
Radome Material Polymer

Reflector Construction One-piece reflector Antenna Input UG-541A/U

Antenna Color Gray

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

Diameter, nominal 0.3 m | 1 f Flash Included No Polarization Single

## **Electrical Specifications**

Operating Frequency Band 14.250 – 15.350 GHz

Beamwidth, Horizontal 4.3 °
Beamwidth, Vertical 4.3 °
Cross Polarization Discrimination (XPD) 30 dB

Electrical Compliance Brazil Anatel Class 2 | ETSI 302 217 Class 2

 Front-to-Back Ratio
 54 dB

 Gain, Low Band
 31.6 dBi

 Gain, Mid Band
 32.1 dBi

 Gain, Top Band
 32.6 dBi

Operating Frequency Band 14.250 – 15.350 GHz

Radiation Pattern Envelope Reference (RPE) 7006A
Return Loss 17.7 dB
VSWR 1.30

## **Mechanical Specifications**

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

Mounting Pipe Diameter 50 mm-115 mm | 2.0 in-4.5 in

Net Weight 7 kg | 14 lb

Side Struts, Included
Side Struts, Optional

Wind Velocity Operational 200 km/h | 124 mph Wind Velocity Survival Rating 250 km/h | 155 mph

## **Wind Forces At Wind Velocity Survival Rating**

Axial Force (FA) 445 N | 100 lbf Side Force (FS) 221 N | 50 lbf Twisting Moment (MT) 166 N  $\bullet$  m Weight with 1/2 in (12 mm) Radial Ice 13 kg | 28 lb Zcg with 1/2 in (12 mm) Radial Ice 50 mm | 2 in Zcg without Ice 25 mm | 1 in

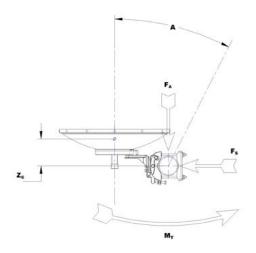


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## Wind Forces At Wind Velocity Survival Rating Image



## **Packed Dimensions**

Gross Weight, Packed Antenna	8.2 kg   18.1 lb
Height	325.0 mm   12.8 in
Length	640.0 mm   25.2 in
Volume	0.1 m <sup>3</sup>

Width 460.0 mm | 18.1 in

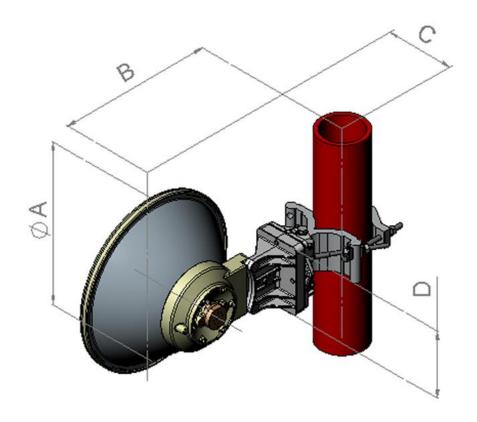


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### **Antenna Dimensions And Mounting Information**



Dimensions in inches (mm)					
Antenna size, ft (m)	ØΑ	В	С	D	
1 (0.3)	15.3 (388)	147 (372)	6.5 (166)	6.3 (160)	

#### **Regulatory Compliance/Certifications**

Agency ISO 9001:2008 Classification

Designed, manufactured and/or distributed under this quality management system

#### **Included Products**

VHLP1-15 (Product Component—not orderable) — 0.3 m | 1 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 14.250–15.350 GHz

### \* 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.

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  $180^{\circ} \pm 40^{\circ}$ , 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



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Packing

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 determine an antenna's ability to discriminate against unwanted signals under conditions of radio

congestion. Radiation patterns are dependent on antenna series, size, and frequency

The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.

Return Loss 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.

Maximum: is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.

Wind Velocity Operational

The wind speed where the antenna deflection is equal to or less than 0.1 degrees. In the case of ValuLine antennas, it is defined as a maximum deflection of 0.3 x the 3 dB beam width of the antenna

Wind Velocity Survival Rating

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.

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