VHLP1-80C-DET

0.3 m | 1 ft ValuLine® High Performance Low Profile Antenna, single-polarized, 71.000 – 86.000 GHz, ETSI Class 3, FCC, High Gain

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	Custom
Radome Material	Polymer
Flash Included	No
Side Struts, Included	0

Dimensions

Diameter, nominal	0.3 m | 1 ft

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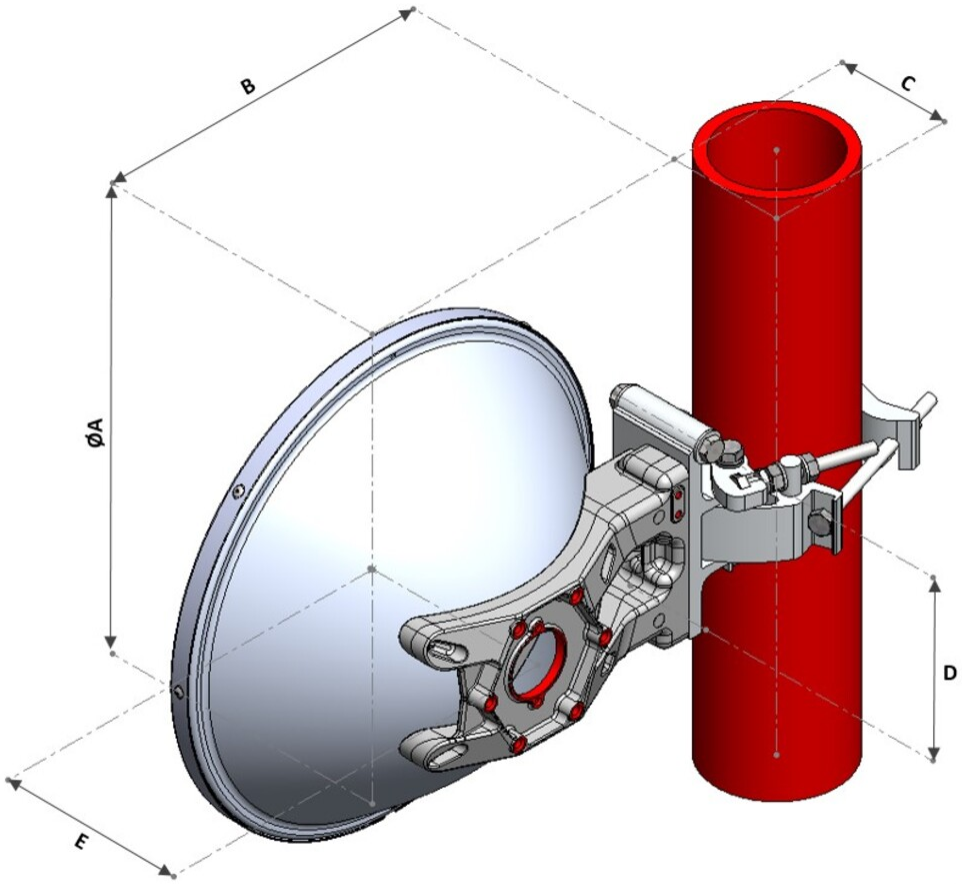
Dimension Drawing



Dimensions in inches (mm)					
Antenna Size, ft (m)	ØA	B	C	D	E
1(0.3)	15.4 (390)	11.4 (290)	3.9 (99)	6.0 (153)	6.3 (159)

Electrical Specifications

Operating Frequency Band	71.000 – 86.000 GHz
Gain, Low Band	45 dBi
Gain, Mid Band	46 dBi
Gain, Top Band	47 dBi
Boresite Cross Polarization Discrimination (XPD)	30 dB
Front-to-Back Ratio	64 dB
Beamwidth, Horizontal	0.8 °
Beamwidth, Vertical	0.8 °
Return Loss	14 dB

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VSWR	1.5
Radiation Pattern Envelope Reference (RPE)	7449
Electrical Compliance	Brazil Anatel Class 3 | ETSI 302 217 Class 3 | US FCC Part 101.115

Mechanical Specifications

Compatible Mounting Pipe Diameter	48 mm–120 mm | 1.9 in–4.7 in
Fine Azimuth Adjustment Range	±15°
Fine Elevation Adjustment Range	±15°
Wind Speed, operational	180 km/h | 111.847 mph
Wind Speed, survival	250 km/h | 155.343 mph

Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	573 N | 128.816 lbf
Side Force (FS)	274 N | 61.598 lbf
Twisting Moment (MT)	213 N-m | 1,885.209 in lb
Zcg without Ice	2 mm | 0.079 in
Zcg with 1 in (25 mm) Radial Ice	9 mm | 0.354 in
Weight with 1 in (25 mm) Radial Ice	10 kg | 22.046 lb

Packaging and Weights

Height, packed	350 mm | 13.78 in
Width, packed	400 mm | 15.748 in
Length, packed	400 mm | 15.748 in
Packaging Type	Standard pack
Volume	0.06 m^3 | 2.119 ft^3
Weight, gross	6.9 kg | 15.212 lb
Weight, net	4.8 kg | 10.582 lb

* 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.

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	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.
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.

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