

1.8 m | 6 ft ValuLine® High Performance Low Profile Antenna, dualpolarized, 21.200–23.600 GHz, UBR220, white antenna, flexible woven polymer gray radome without flash, standard pack—one-piece reflector

#### Product Classification

Product BrandValuationGeneral SpecificationsVH2X-Valuatione High Performance Low Profile Antenna, dual- polarizedAntena TypeValuatione High Performance Low Profile Antenna, dual- polarizedPolarizationDualAntenna InputUBR220Antenna ColorWhiteRaffector ConstructionOne piece reflectorRadome ColorGrayRadome MaterialPolymerFlash IncludedNoSide Struts, Included1Bide Struts, Included1DimensionsInboardPlaneter, nominal1.8m16 ftGrayStruts, IncludedGint Conspecifications1.200 - 2.3600 GHzGint Jop Brad4.92 dBiGint, Dug Brad4.92 dBiGint, Top Band9.03 dBiGint Top Solor3.03 dBiFort-to-Back Ratio8.04 dBiBeanwidth, Horzontal6.05 *	Product Type	Microwave antenna
Antenna TypeHLPX-ValuLine® High Performance Low Profile Antenna, dual- polarizedPolarizationDualAntenna InputUBR220Antenna ColorWhiteReflector ConstructionOne-pice reflectorRadome ColorGrayRadome MaterialPolymerFlash IncludedNoSide Struts, Included1Bide Struts, Optional1DimensionS1Flaenter, nominal1.8m 16 ftFleetrical SpecificationS1.200 - 23.600 GHzGrain, Low Band49.7 dBiGin, Jow Band49.7 dBiGin, Top Band9.7 dBiBoreste Cross Polarization Discrimination (XPD)30.6BStruts, Packa Ratio80.6B	Product Brand	ValuLine®
PolarizationpolarizedPolarizationDualAntenna InputUBR220Antenna ColorWhiteReflector ConstructionOne-piece reflectorRadome ColorGrayRadome MaterialPolymerFlash IncludedNoSide Struts, Included1Side Struts, Optional1 inboardDimensions1Planeter, nominal1.8 m l 6 ftGain, Low Band42.7 dBiGain, Top Band49.7 dBiGoreste Cross Polarization Discrimination (XPD)30.8 dBFort-to-Back Ratio80.8 dB	General Specifications	
Antenna InputUBR220Antenna ColorWhiteAntenna ColorOne-piece reflectorReflector ConstructionOne-piece reflectorRadome ColorGrayRadome MaterialPolymerFash IncludedNoSide Struts, Included1Side Struts, Optional1 inboardDimensionsJamobalPlentert, nominal1.8m 16 ftOperating Frequency Band4.87 081Gain, Low Band4.92 081Gain, Top Band4.9.7 081Boresite Cross Polarization Discrimination (XPD)30 08Front-Back Ratio8.008	Antenna Type	-
Antenna ColorWhiteReflector ConstructionOne-pice reflectorRadome ColorGrayRadome MaterialPolymerFlash IncludedNoSide Struts, Included1Side Struts, Optional1Dimensions	Polarization	Dual
Reflector ConstructionOne-piece reflectorRadome ColorGrayRadome MaterialPolymerFash IncludedNoSide Struts, Included1Side Struts, Optional1DimensionsDimeter, nominalOperating Frequency Band21.200 – 23.600 GHzGain, Mid Band49.2 dBiGain, Top BandBaneter, nominalGain, Top BandGain, Top BandBaneter, nominalDimeter, nominalDimeter, nominalDimeter, nominalBaneter, nomi	Antenna Input	UBR220
Radome ColorGrayRadome MaterialPolymerFash IncludedNoSide Struts, Included1Side Struts, Optional1 inboardDimensions1Dimeter, nominal1.8 m l 6 ftPoparating Frequency Band21.200 - 23.600 GHzGain, Low Band49.2 dBiGain, Top Band49.7 dBiBoreste Cross Polarization Discrimination (XPD)30 dBForte-Back Ratio80.000 GHz	Antenna Color	White
Radome MaterialPolymerFlash IncludedNoSide Struts, Included1Side Struts, Optional1Dimensions1Diameter, nominal1.8 m   6 ftClectrical Specifications21.200 - 23.600 GHzOperating Frequency Band48.7 dBiGain, Low Band49.2 dBiGain, Top Band49.7 dBiBorste Cross Polarization Discrimination (XPD)30 dBForte-Back Ratio80.000 Hz	Reflector Construction	One-piece reflector
Flash IncludedNoSide Struts, Included1Side Struts, Optional1 inboardDimensions1Dimeter, nominal1.8 m   6 ftElectrical Specifications21.200 – 23.600 GHzOperating Frequency Band48.7 dBiGain, Low Band49.2 dBiGain, Top Band49.7 dBiBoresite Cross Polarization Discrimination (XPD)30 dBFront-o-Back Ratio80 dB	Radome Color	Gray
Side Struts, Included1Side Struts, Optional1 inboardDimensions1Diameter, nominal1.8 m   6 ftElectrical Specifications21.200 – 23.600 GHzGain, Low Band48.7 dBiGain, Mid Band49.2 dBiGain, Top Band30.dBBroesite Cross Polarization Discrimination (XPD)30.dBFront-to-Back Ratio80.dB	Radome Material	Polymer
Side Struts, Optional1 inboardDimensions	Flash Included	No
DimensionsDiameter, nominal1.8 m   6 ftElectrical Specifications21.200 - 23.600 GHzOperating Frequency Band21.200 - 23.600 GHzGain, Low Band49.2 dBiGain, Mid Band49.2 dBiGain, Top Band49.7 dBiBoresite Cross Polarization Discrimination (XPD)30 dBFront-to-Back Ratio80 dB	Side Struts, Included	1
Diameter, nominal1.8 m   6 ftElectrical SpecificationsVOperating Frequency Band21.200 – 23.600 GHzGain, Low Band48.7 dBiGain, Mid Band49.2 dBiGain, Top Band49.7 dBiBoresite Cross Polarization Discrimination (XPD)30 dBiFront-to-Back Ratio80 dBi	Side Struts, Optional	1 inboard
Electrical SpecificationsOperating Frequency Band21.200 – 23.600 GHzGain, Low Band48.7 dBiGain, Mid Band49.2 dBiGain, Top Band49.7 dBiBoresite Cross Polarization Discrimination (XPD)30 dBFront-to-Back Ratio80 dB	Dimensions	
Operating Frequency Band21.200 – 23.600 GHzGain, Low Band48.7 dBiGain, Mid Band49.2 dBiGain, Top Band49.7 dBiBoresite Cross Polarization Discrimination (XPD)30 dBFront-to-Back Ratio80 dB	Diameter, nominal	1.8 m   6 ft
Gain, Low Band48.7 dBiGain, Mid Band49.2 dBiGain, Top Band49.7 dBiBoresite Cross Polarization Discrimination (XPD)30 dBFront-to-Back Ratio80 dB	Electrical Specifications	
Gain, Mid Band49.2 dBiGain, Top Band49.7 dBiBoresite Cross Polarization Discrimination (XPD)30 dBFront-to-Back Ratio80 dB	Operating Frequency Band	21.200 – 23.600 GHz
Gain, Top Band49.7 dBiBoresite Cross Polarization Discrimination (XPD)30 dBFront-to-Back Ratio80 dB	Gain, Low Band	48.7 dBi
Boresite Cross Polarization Discrimination (XPD)30 dBFront-to-Back Ratio80 dB	Gain, Mid Band	49.2 dBi
Front-to-Back Ratio 80 dB	Gain, Top Band	49.7 dBi
	Boresite Cross Polarization Discrimination (XPD)	30 dB
Beamwidth, Horizontal 0.5 °	Front-to-Back Ratio	80 dB
	Beamwidth, Horizontal	0.5 °

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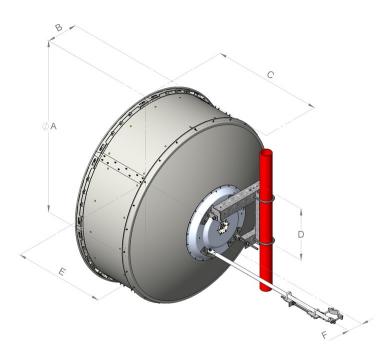


Beamwidth, Vertical	0.5 °
Return Loss	17.7 dB
VSWR	1.3
Radiation Pattern Envelope Reference (RPE)	7070B
Electrical Compliance	Brazil Anatel Class 3   Canada SRSP 321.8 Part A   ETSI 302 217 Class 3   US FCC Part 101A
Mechanical Specifications	
Compatible Mounting Pipe Diameter	115 mm-120 mm   4.5 in-4.7 in
Fine Azimuth Adjustment Range	±15°
Fine Elevation Adjustment Range	±5°
Wind Speed, operational	180 km/h   111.847 mph
Wind Speed, survival	250 km/h   155.343 mph

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Antenna Dimensions and Mounting Information



	Dimensio	ons in inch	nes (mm)			
Antenna size, ft (m)	A	В	с	D	Е	F
6 (1.8)	74.8 (1899)	13.4 (340)	47.5 (1206)	22.4 (570)	39.4 (1001)	6.9 (174)

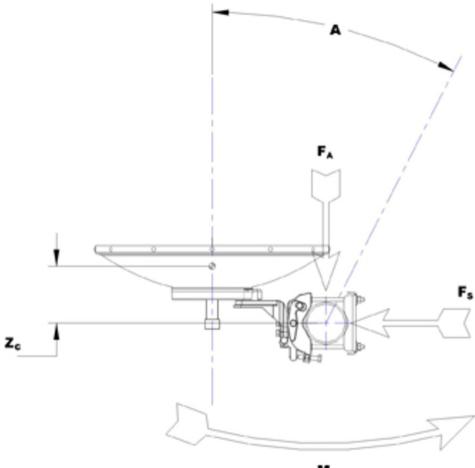
### Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	10670 N   2,398.712 lbf
Angle α for MT Max	-120 °
Side Force (FS)	5286 N   1,188.34 lbf
Twisting Moment (MT)	4752 N-m   42,058.742 in lb
Zcg without Ice	363 mm   14.291 in
Zcg with 1/2 in (12 mm) Radial Ice	543 mm   21.378 in
Weight with 1/2 in (12 mm) Radial Ice	234 kg   515.881 lb

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Wind Forces at Wind Velocity Survival Rating Image



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#### Packaging and Weights

Height, packed	2110 mm   83.071 in
Width, packed	450 mm   17.717 in
Length, packed	1900 mm   74.803 in
Packaging Type	Standard pack
Volume	1.8 m³   63.566 ft³
Weight, gross	127 kg   279.987 lb
Weight, net	86 kg   189.597 lb

### Regulatory Compliance/Certifications

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Agency	Classification	
ISO 9001:2015	Designed, manufactured an	nd/or distributed under this quality management system
* Footnotes		
Operating Frequency Ba	and	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 Polariza	tion 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 Envel	ope 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, operationa	ıl	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

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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.

mounting pipe.

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