

2.4m | 8ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized, 10.000 – 11.700 GHz, CPR090G flange

Product TypeMicrowave antennaProduct BrandSentinel®Poduct BrandUst Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarizedPolarizationDualPolarizationDualAntenna InputCPR90GAntenna ColorGrayRadome ColorGrayRadome MaterialPoblicized TobusFash IncludedYesSide Struts, Included1Side Struts, Optional2Porting Frequency Band1Perting Frequency Band10000-11.700 GHzGain, Yog Band45.4 dBiGain, Top Band40.6 dBiGoresite Cross Polarization Discrimination (XPD)40.8Porentic Ratio80.8Porentic Ratio </th <th>Product Classification</th> <th></th>	Product Classification	
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Antenna TypeSXS - Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarizedPolarizationDualAntenna InputCPR90GAntenna ColorGrayReflector ConstructionOne-pice reflectorRadome AdterialFabricFash IncludedYesSide Struts, Included1Bide Struts, Optional24.ml 8ftDimensions24.ml 8ftFlectrical Specifications1000 – 11.700 GHzGran, Mid Band45.d BilGin, Top Band40.6 d BilGreise Cross Polarization Discrimination (XPD)40.6 d BilFornt-Back Ratio80.8 d	Product Brand	Sentinel®
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Reflector ConstructionOne-piece reflectorRadome ColorGrayRadome MaterialFabricRadome MaterialFabricFlash IncludedYesSide Struts, Included1Side Struts, Optional4Dimensions2.4m18 ftDimeter, nominal2.4m18 ftGearting Frequency Band10.000 - 11.700 GHzGain, Low Band45.4dBiGain, Top Band46.dBiGain, Top Band40.8dBiForeto-Eack Ratio80.8dBiGroute Construction Structure30.8dBi	Antenna Input	CPR90G
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Side Struts, Included1Side Struts, Optional4Dimensions24Dimeter, nominal24Clectrical Specifications10.000 - 11.700 GHzOperating Frequency Band10.000 - 11.700 GHzGain, Low Band45.4 dBiGain, Top Band46.0BiBoresite Cross Polarization Discrimination (XPD)40.0BiFront-o-Back Ratio80.0Bi	Radome Material	Fabric
Side Struts, Optional4Dimensions	Flash Included	Yes
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Diameter, nominal2.4 m   8 ftDiameter, nominal2.4 m   8 ftElectrical Specifications10.000 - 11.700 GHzOperating Frequency Band40.000 - 11.700 GHzGain, Low Band45.4 dBiGain, Mid Band46 dBiGain, Top Band46.6 dBiBoresite Cross Polarization Discrimination (XPD)40.dBFront-to-Back Ratio80 dB	Side Struts, Optional	4
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Gain, Low Band45.4 dBiGain, Mid Band46 dBiGain, Top Band46.6 dBiBoresite Cross Polarization Discrimination (XPD)40 dBFront-to-Back Ratio80 dB	Electrical Specifications	
Gain, Mid Band46 dBiGain, Top Band46.6 dBiBoresite Cross Polarization Discrimination (XPD)40 dBFront-to-Back Ratio80 dB	Operating Frequency Band	10.000 – 11.700 GHz
Gain, Top Band46.6 dBiBoresite Cross Polarization Discrimination (XPD)40 dBFront-to-Back Ratio80 dB	Gain, Low Band	45.4 dBi
Boresite Cross Polarization Discrimination (XPD)40 dBFront-to-Back Ratio80 dB	Gain, Mid Band	46 dBi
Front-to-Back Ratio 80 dB	Gain, Top Band	46.6 dBi
	Boresite Cross Polarization Discrimination (XPD)	40 dB
Beamwidth, Horizontal 0.9 °	Front-to-Back Ratio	80 dB
	Beamwidth, Horizontal	0.9 °

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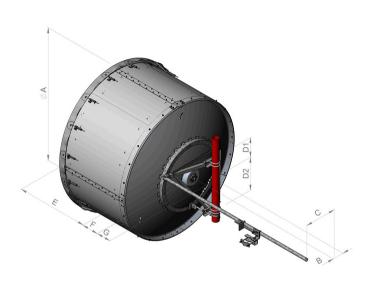


Beamwidth, Vertical	0.9 °
Return Loss	26 dB
VSWR	1.1
Radiation Pattern Envelope Reference (RPE)	7398
Electrical Compliance	ACMA FX03_10a   ACMA FX03_11a   ETSI 302 217 Class 4   US FCC Part 105A   US FCC Part 107A
Cross Polarization Discrimination (XPD) Electrical Compliance	ETSI EN 302217 XPD Category 3
Mechanical Specifications	
Compatible Mounting Pipe Diameter	115 mm   4.5 in
Fine Azimuth Adjustment Range	±5°
Fine Elevation Adjustment Range	±5°
Wind Speed, operational	180 km/h   111.847 mph
Wind Speed, survival	200 km/h   124.274 mph



### Antenna Dimensions and Mounting Information

USX8



		Dime	nsions ir	inches	(mm)			
Antenna size, ft (m)	А	в	с	D1	D2	Е	F	G
8 (2.4)	95.1 (2416)	8.0 (203)	22.5 (572)	14.1 (357)	23.6 (600)	51.1 (1298)	12.1 (306)	10.3 (262)

#### Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	10599 N   2,382.751 lbf
Angle α for MT Max	-140 °
Side Force (FS)	6268 N   1,409.103 lbf
Twisting Moment (MT)	-7647 N-m   -67,681.656 in lb
Force on Inboard Strut Side	11263 N   2,532.024 lbf
Zcg without Ice	624 mm   24.567 in
Zcg with 1/2 in (12 mm) Radial Ice	765 mm   30.118 in
Weight with 1/2 in (12 mm) Radial Ice	364 kg   802.482 lb

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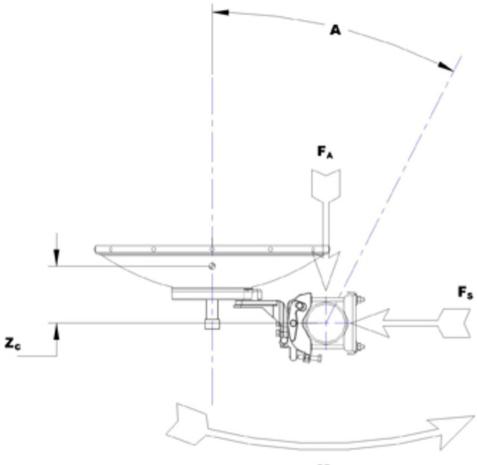
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Wind Forces at Wind Velocity Survival Rating Image



MT

Packaging and Weights Height, packed 2250 mm | 88.583 in Width, packed Length, packed **Packaging Type** Standard pack Volume 6.1 m<sup>3</sup> | 215.42 ft<sup>3</sup> Weight, gross 329 kg | 725.32 lb Weight, net 196 kg | 432.106 lb

#### Regulatory Compliance/Certifications

1130 mm | 44.488 in 2380 mm | 93.701 in

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Classification

Agency

ISO 9001:2015

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

\* 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 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
Cross Polarization Discrimination (XPD) Electrical Compliance	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.
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.

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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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