

3.6m | 12ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized, 4.400 – 5.000 GHz, grey, PDR48 flange

Product Classification **Product Type** Microwave antenna General Specifications Antenna Type USX - Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized Polarization Dual PDR48 Antenna Input Antenna Color Gray **Reflector Construction** Two-piece reflector **Radome Color** Gray **Radome Material** Fabric **Flash Included** Yes Side Struts, Included 2 Side Struts, Optional 3 Dimensions Diameter, nominal 3.6 m | 12 ft **Electrical Specifications** 4.400 - 5.000 GHz **Operating Frequency Band** 41.6 dBi Gain, Low Band Gain, Mid Band 42.2 dBi 42.7 dBi Gain, Top Band 40 dB Boresite Cross Polarization Discrimination (XPD) 74 dB **Front-to-Back Ratio** 1.2° Beamwidth, Horizontal Beamwidth, Vertical 1.2°

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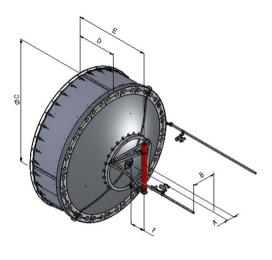
Return Loss	23 dB	
VSWR	1.15	
Radiation Pattern Envelope Reference (RPE)	7432	
Electrical Compliance	ETSI 302 217 Class 3	
Cross Polarization Discrimination (XPD) Electrical Compliance	ETSI EN 302217 XPD Category 3	
Mechanical Specifications		
Compatible Mounting Pipe Diameter	115 mm 4.5 in	
Fine Azimuth 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	

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Antenna Dimensions and Mounting Information

HX/USX12



	Dimensions in inches (mm)					
Antenna size, ft (m)	А	в	с	D	Е	F
12 (3.6)	8.5 (216)	28.2 (715)	149.3 (3793)	46.3 (1177)	81.5 (2069)	10.6 (269)

Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	26750 N 6,013.641 lbf
Angle α for MT Max	-120 °
Side Force (FS)	9450 N 2,124.445 lbf
Twisting Moment (MT)	-17550 N-m -155,330.594 in Ib
Force on Inboard Strut Side	13000 N 2,922.517 lbf
Force on Outboard Strut Side	4500 N 1,011.64 lbf
Zcg without Ice	708 mm 27.874 in
Zcg with 1/2 in (12 mm) Radial Ice	854 mm 33.622 in

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USX12-4-4GF

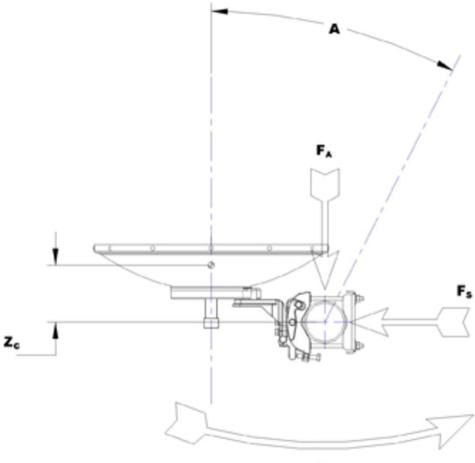
Weight with 1/2 in (12 mm) Radial Ice

656 kg | 1,446.231 lb

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Wind Forces at Wind Velocity Survival Rating Image



Mτ

Packaging and Weights	
Height, packed	1530 mm 60.236 in
Width, packed	2140 mm 84.252 in
Length, packed	3990 mm 157.087 in
Packaging Type	Standard pack
Volume	13 m³ 459.091 ft³
Weight, gross	661 kg 1,457.254 lb
Weight, net	361 kg 795.868 lb

Regulatory Compliance/Certifications

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Agency

Classification

HNN-ROHS Below maximum concentration value ISO 001/20150 Designed, manufactured and/or distributed under this quality management system (ACM) REACH-SYNC Compliant as per SYNC revision on www.commscope.com/ProductCompliance ROHS Compliant UK ROHS Compliant VE ROHS Compliant VE ROHS Sompliant VE ROHS Some composition weld Wth 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 the measured anterna patterns. Boeseite Cross Polarizet Signal over an angle twice the 3 dB beamwidth of the co-polarized main beam and the maximum cross-polarized signal over an angle incident upon the anterna not exceed rated values by more than 2 dB unless stated otherwise. Front-to-Back Ratio Refurence (RPE) Refure that indicates the proportion of radio waves incident upon the anterna side. Builty to discriminate against unwanted signals. Under still dry conditions, radustion patterns define an anterna's abil	5 7			
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	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.

