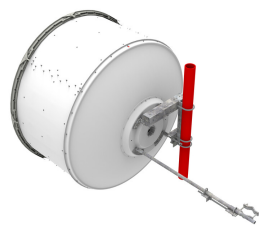


# USX6-13W-3WH



1.8m | 6ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized, white, 12.200 – 13.250 GHz, UBR120 flange

## Product Classification

Product Type	Microwave antenna
Product Brand	Sentinel®

## General Specifications

Antenna Type	USX - Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized
Polarization	Dual
Antenna Input	UBR120
Antenna Color	White
Reflector Construction	One-piece reflector
Radome Color	Gray
Radome Material	Fabric
Side Struts, Included	1
Side Struts, Optional	1

## Dimensions

Diameter, nominal	1.8 m   6 ft
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## Electrical Specifications

Operating Frequency Band	12.200 – 13.250 GHz
Gain, Low Band	44.7 dBi
Gain, Mid Band	45.1 dBi
Gain, Top Band	45.4 dBi
Boresite Cross Polarization Discrimination (XPD)	40 dB
Front-to-Back Ratio	78 dB
Beamwidth, Horizontal	0.9 °
Beamwidth, Vertical	0.9 °

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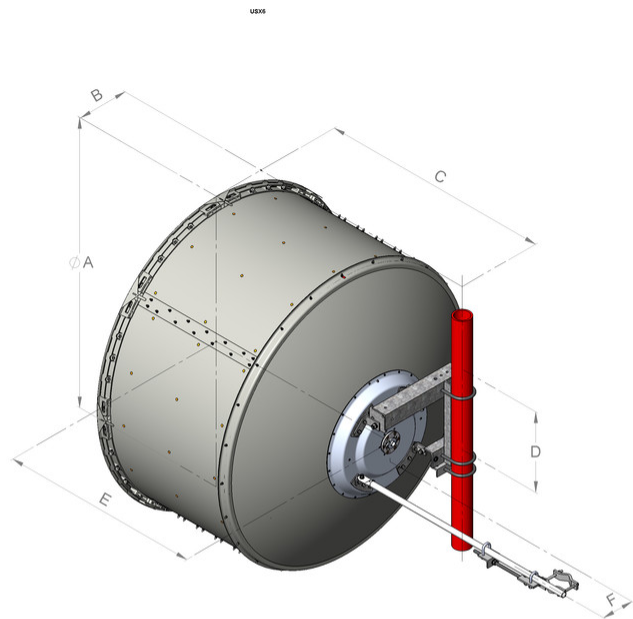
Return Loss	26 dB
VSWR	1.1
Radiation Pattern Envelope Reference (RPE)	7379
Electrical Compliance	ACMA FX03_13a   ETSI 302 217 Class 4   US FCC Part 101A
Cross Polarization Discrimination (XPD) Electrical Compliance	ETSI EN 302217 XPD Category 3

## 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	200 km/h   124.274 mph
Wind Speed, survival	200 km/h   124.274 mph

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## Antenna Dimensions and Mounting Information



Antenna size, ft (m)	Dimensions in inches (mm)					
	A	B	C	D	E	F
6 (1.8)	74.8 (1899)	13.4 (340)	59.8 (1520)	20.9 (530)	51.8 (1315)	8.4 (214)

## Wind Forces at Wind Velocity Survival Rating

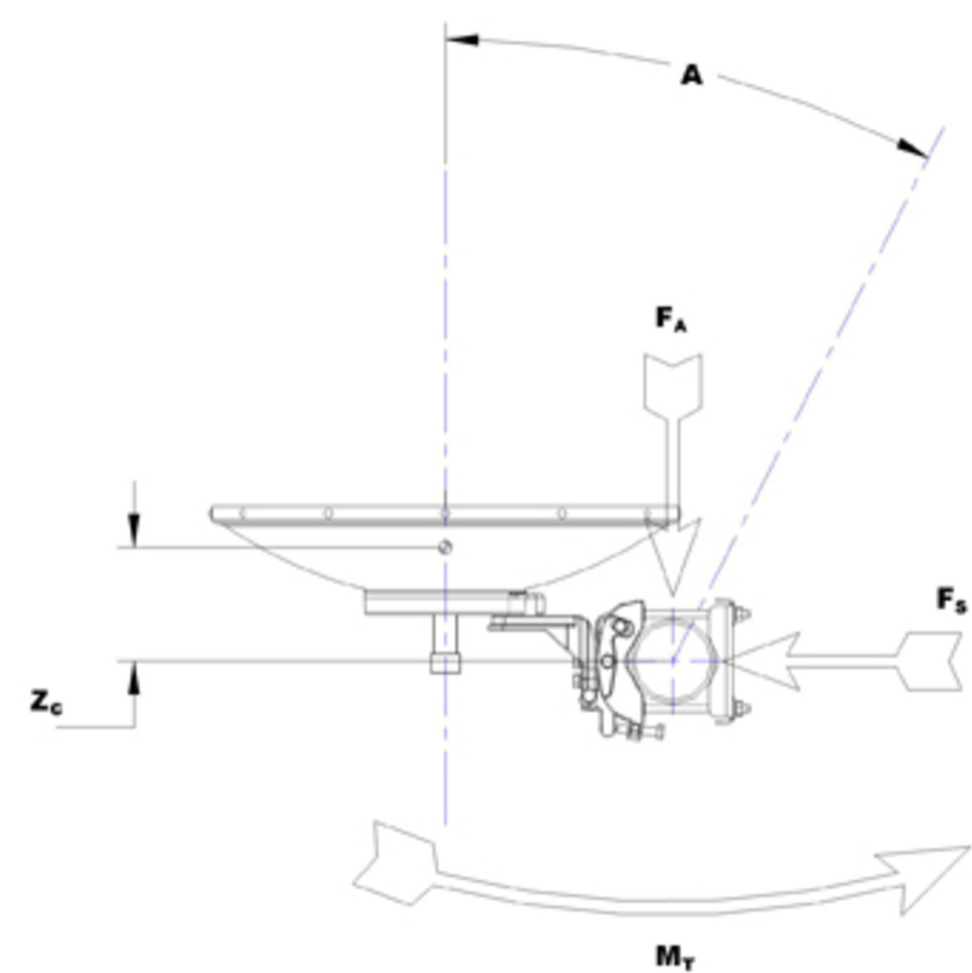
<b>Axial Force (FA)</b>	6960 N   1,564.671 lbf
<b>Angle α for MT Max</b>	-130 °
<b>Side Force (FS)</b>	2049 N   460.634 lbf
<b>Twisting Moment (MT)</b>	4948 N-m   43,793.488 in lb
<b>Force on Inboard Strut Side</b>	6187 N   1,390.893 lbf
<b>Zcg without Ice</b>	498 mm   19.606 in
<b>Zcg with 1/2 in (12 mm) Radial Ice</b>	689 mm   27.126 in
<b>Weight with 1/2 in (12 mm) Radial Ice</b>	291 kg   641.544 lb

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## Wind Forces at Wind Velocity Survival Rating Image



## Packaging and Weights

Height, packed	2128 mm   83.78 in
Width, packed	544 mm   21.417 in
Length, packed	1895 mm   74.606 in
Packaging Type	Standard pack
Volume	2.2 m³   77.692 ft³
Weight, gross	150 kg   330.693 lb
Weight, net	90 kg   198.416 lb

## Regulatory Compliance/Certifications

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Agency	Classification
CHINA-ROHS	Below maximum concentration value
REACH-SVHC	Compliant as per SVHC revision on <a href="http://www.andrew.com/ProductCompliance">www.andrew.com/ProductCompliance</a>
ROHS	Compliant
UK-ROHS	Compliant



## \* Footnotes

<b>Operating Frequency Band</b>	Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.
<b>Gain, Mid Band</b>	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.
<b>Boresite Cross Polarization Discrimination (XPD)</b>	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.
<b>Front-to-Back Ratio</b>	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.
<b>Return Loss</b>	The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.
<b>VSWR</b>	Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.
<b>Radiation Pattern Envelope Reference (RPE)</b>	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
<b>Cross Polarization Discrimination (XPD) Electrical Compliance</b>	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.
<b>Wind Speed, operational</b>	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.

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<b>Wind Speed, survival</b>	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.
<b>Axial Force (FA)</b>	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.
<b>Side Force (FS)</b>	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.
<b>Twisting Moment (MT)</b>	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.
<b>Packaging Type</b>	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.