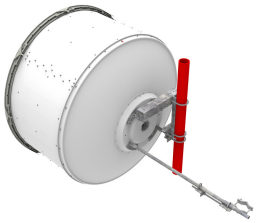
USX6-611-4WH/B



1.8m | 6ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-band, dual-polarized, 5.925 – 7.125 GHz & 10.0 -11.7GHz, white, PDR70 & PDR100 flange

Product Classification

Product Type	Microwave antenna

General Specifications

Antenna Type	USX - Sentinel® Ultra High Performance, Super High XPD Antenna, dual-band, dual-polarized
Polarization	Dual
Antenna Input	PDR100 | PDR70
Antenna Color	White
Reflector Construction	One-piece reflector
Radome Color	Gray
Radome Material	Fabric
Flash Included	No
Side Struts, Included	1

Dimensions

Diameter, nominal	1.8 m | 6 ft

Electrical Specifications

Operating Frequency Band	5.925 – 7.125 GHz
Gain, Low Band	38.4 dBi
Gain, Mid Band	39.3 dBi
Gain, Top Band	40.5 dBi
Boresite Cross Polarization Discrimination (XPD)	33 dB
Front-to-Back Ratio	76 dB
Beamwidth, Horizontal	1.8 °
Beamwidth, Vertical	1.8 °
Return Loss	20 dB

VSWR	1.22
Radiation Pattern Envelope Reference (RPE)	7455
Electrical Compliance	ACMA FX03_6a | Brazil Anatel Class 3 | Canada SRSP 305.9 Part A | Canada SRSP 306.4 Part A | ETSI 302 217 Class 3 | US FCC Part 101A
Cross Polarization Discrimination (XPD) Electrical Compliance	ETSI EN 302217 XPD Category 2

Electrical Specifications, Band 2

Operating Frequency Band	10.000 – 11.700 GHz
Gain, Low Band	42.5 dBi
Gain, Mid Band	43.3 dBi
Gain, Top Band	44 dBi
Beamwidth, Horizontal	1.1 °
Beamwidth, Vertical	1.1 °
Boresite Cross Polarization Discrimination (XPD)	33 dB
Cross Polarization Discrimination (XPD) Electrical Compliance	ETSI EN 302217 XPD Category 2
Electrical Compliance	ACMA FX03_11a | Brazil Anatel Class 3 | Canada SRSP 310.5 | Canada SRSP 310.7 Part B | ETSI 302 217 Class 3 | US FCC Part 101A
Front-to-Back Ratio	80 dB
Radiation Pattern Envelope Reference (RPE)	7456
Return Loss	20 dB
VSWR	1.22

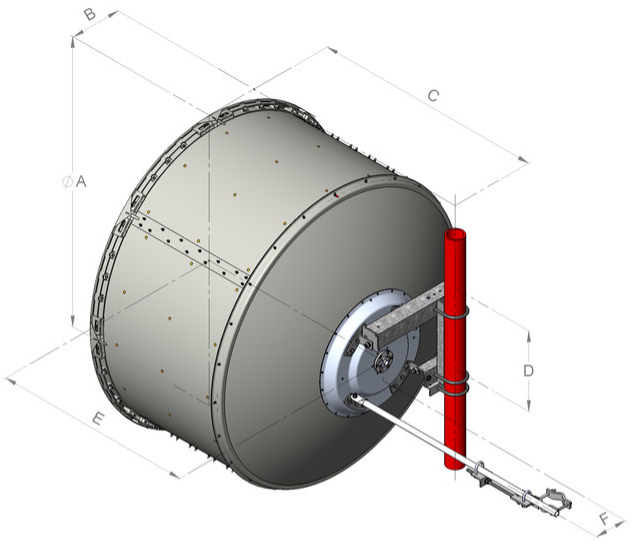
Mechanical Specifications

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

USX6-611-4WH/B

Antenna Dimensions and Mounting Information

USX6



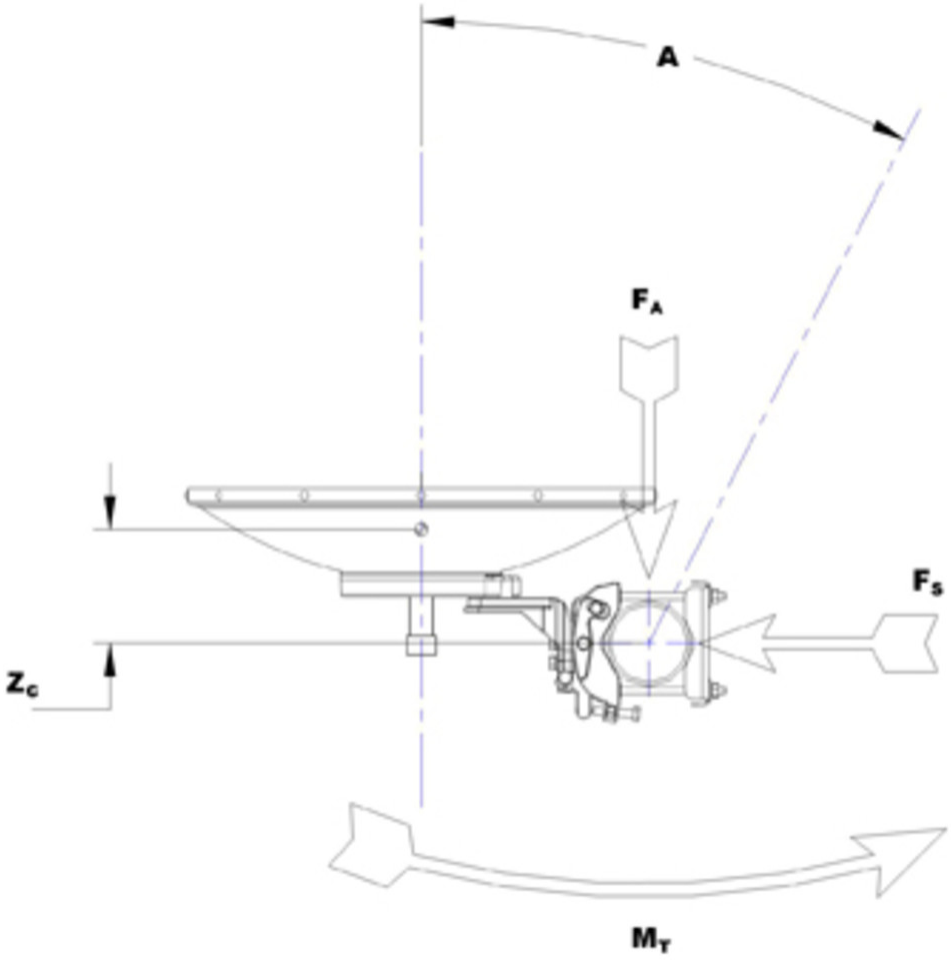
Dimensions in inches (mm)						
Antenna size, ft (m)	A	B	C	D	E	F
6 (1.8)	74.8 (1899)	13.4 (340)	59.8 (1520)	20.9 (530)	51.8 (1315)	8.4 (214)

Wind Forces at Wind Velocity Survival Rating

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

USX6-611-4WH/B

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
Weight, gross	152 kg | 335.102 lb
Weight, net	90 kg | 198.416 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. 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.
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.