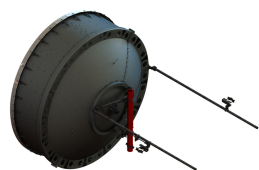


USX10-11W-6GF



3.0m | 10ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized, 10.000 – 11.700 GHz, CPR090G flange

Product Classification

Product Type Microwave antenna

General Specifications

Antenna Type USX - Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized

Polarization Dual

Antenna Input CPR90G

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

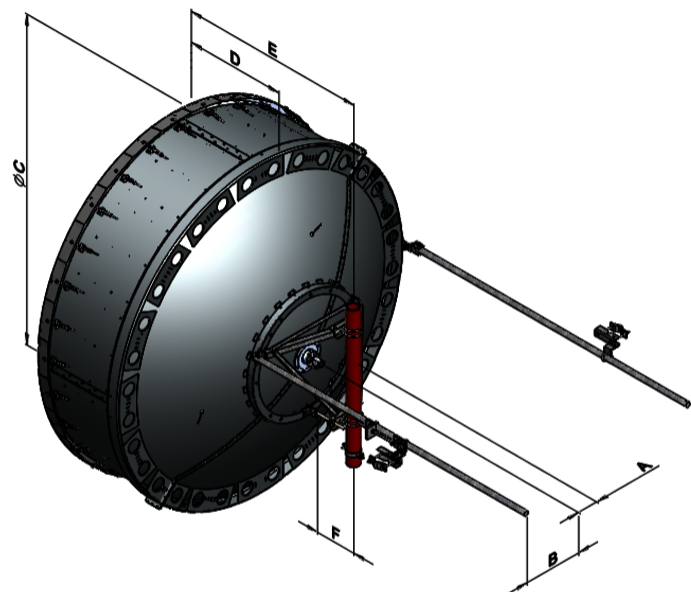
Dimensions

Diameter, nominal 3.0 m | 10 ft

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Antenna Dimensions and Mounting Information

USX10



Dimensions in inches (mm)						
Antenna Size, ft (m)	A	B	C	D	E	F
10 (3)	8.0 (203)	22.5 (572)	125.0 (3174)	38.6 (980)	71.1 (1807)	10.3 (262)

Electrical Specifications

Operating Frequency Band	10.000 – 11.700 GHz
Gain, Low Band	47.2 dBi
Gain, Mid Band	47.9 dBi
Gain, Top Band	48.5 dBi
Boresite Cross Polarization Discrimination (XPD)	40 dB
Front-to-Back Ratio	82 dB
Beamwidth, Horizontal	0.7 °
Beamwidth, Vertical	0.7 °
Return Loss	26 dB

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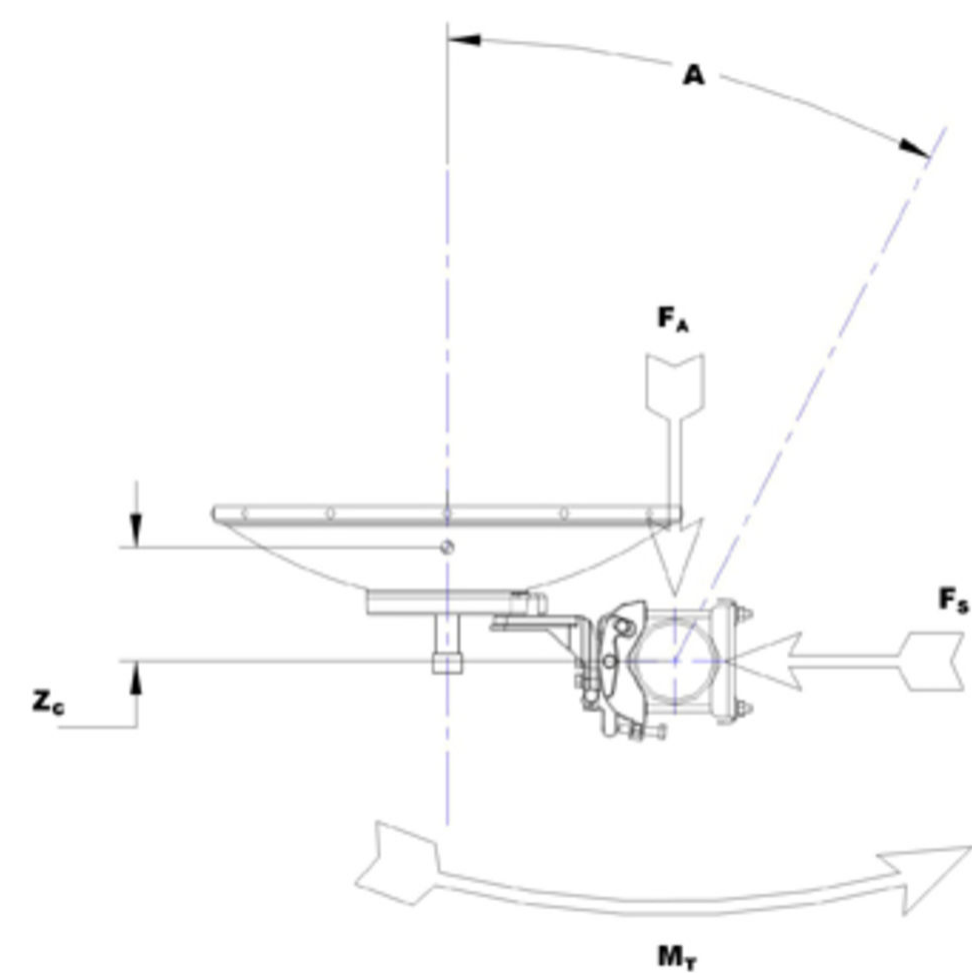
VSWR	1.1
Radiation Pattern Envelope Reference (RPE)	7426
Electrical Compliance	ACMA FX03_10a ACMA FX03_11a ETSI 302 217 Class 3 US FCC Part 105A US FCC Part 107A
Cross Polarization Discrimination (XPD) Electrical Compliance	ETSI EN 302217 XPD Category 3
Mechanical Specifications	
Compatible Mounting 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

Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	18800 N 4,226.409 lbf
Angle # for MT Max	-130 °
Side Force (FS)	-6560 N -1,474.747 lbf
Twisting Moment (MT)	-10725 N-m -94,924.25 in lb
Force on Inboard Strut Side	9500 N 2,135.686 lbf
Force on Outboard Strut Side	3350 N 753.11 lbf
Zcg without Ice	618 mm 24.331 in
Zcg with 1/2 in (12 mm) Radial Ice	744 mm 29.291 in
Weight with 1/2 in (12 mm) Radial Ice	466 kg 1,027.353 lb

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Wind Forces at Wind Velocity Survival Rating Image



Packaging and Weights

Height, packed	1170 mm 46.063 in
Width, packed	1930 mm 75.984 in
Length, packed	3410 mm 134.252 in
Packaging Type	Standard pack
Volume	7.7 m ³ 271.923 ft ³
Weight, gross	513 kg 1,130.97 lb
Weight, net	263 kg 579.815 lb

Regulatory Compliance/Certifications

Agency	Classification
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USX10-11W-6GF

ISO 9001:2015

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



* Footnotes

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.

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.

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.

Front-to-Back Ratio

Denotes highest radiation relative to the main beam, at $180^\circ \pm 40^\circ$, across the band. Production antennas do not exceed rated values by more than 2 dB unless stated otherwise.

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.

Operating Frequency Band

Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.

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.

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 $\pm 1^\circ$ throughout

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.

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.

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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.

VSWR

Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.

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.