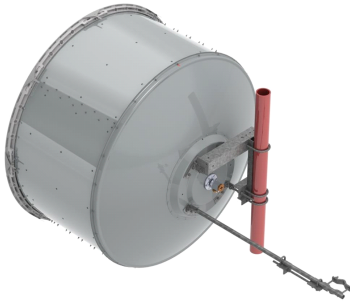


USX6-7W-6GR



1.8m | 6ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized, 7.125 – 8.500 GHz, CPR112G flange

Product Classification

Brand	Sentinel®
Product Type	Microwave antenna

General Specifications

Antenna Type	USX - Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized
Diameter, nominal	1.8 m 6 ft
Packing	Standard pack
Radome Color	Gray
Radome Material	Fabric
Reflector Construction	One-piece reflector
Antenna Input	CPR112G
Antenna Color	Gray
Antenna Type	USX - Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized
Diameter, nominal	1.8 m 6 ft
Polarization	Dual

Electrical Specifications

Operating Frequency Band	7.125 – 8.500 GHz
Beamwidth, Horizontal	1.5 °
Beamwidth, Vertical	1.5 °
Cross Polarization Discrimination (XPD)	40 dB
Electrical Compliance	ACMA FX03_7p5a ETSI 302 217 Class 4
Front-to-Back Ratio	75 dB
Gain, Low Band	40.0 dBi
Gain, Mid Band	40.6 dBi
Gain, Top Band	41.0 dBi
Operating Frequency Band	7.125 – 8.500 GHz
Radiation Pattern Envelope Reference (RPE)	7374
Return Loss	26.0 dB
VSWR	1.10

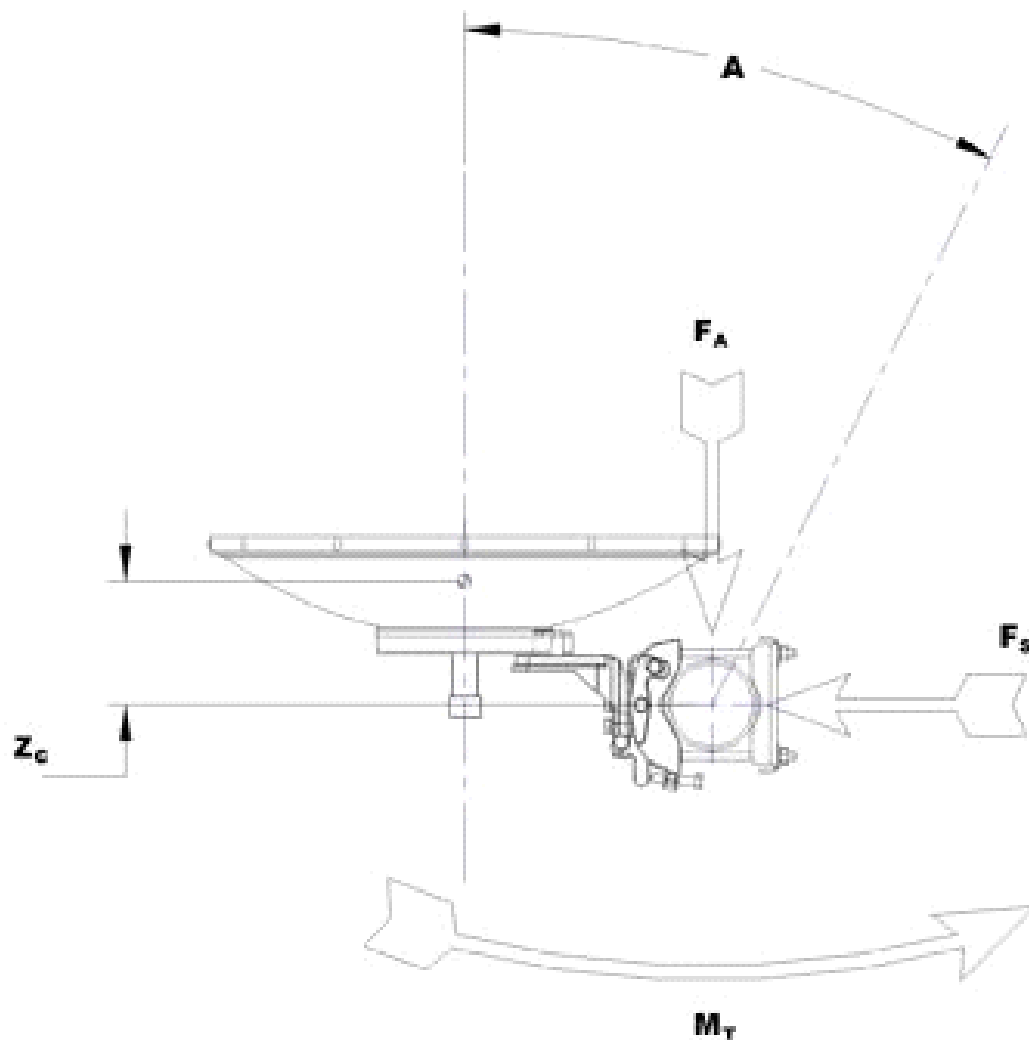
Mechanical Specifications

Fine Azimuth Adjustment	±5°
Fine Elevation Adjustment	±15°
Mounting Pipe Diameter	50 mm–115 mm 2.0 in–4.5 in
Net Weight	90 kg 198 lb
Side Struts, Included	1
Side Struts, Optional	1
Wind Velocity Operational	180 km/h 112 mph
Wind Velocity Survival Rating	200 km/h 124 mph

Wind Forces At Wind Velocity Survival Rating

Angle α for MT Max	-130 °
Axial Force (FA)	6960 N 1565 lbf
Force on Inboard Strut Side	6187 N 1391 lbf
Side Force (FS)	2049 N 461 lbf
Twisting Moment (MT)	4948 N-m 3649 ft lb
Weight with 1/2 in (12 mm) Radial Ice	291 kg 642 lb
Zcg with 1/2 in (12 mm) Radial Ice	689 mm 27 in
Zcg without Ice	498 mm 20 in

Wind Forces At Wind Velocity Survival Rating Image

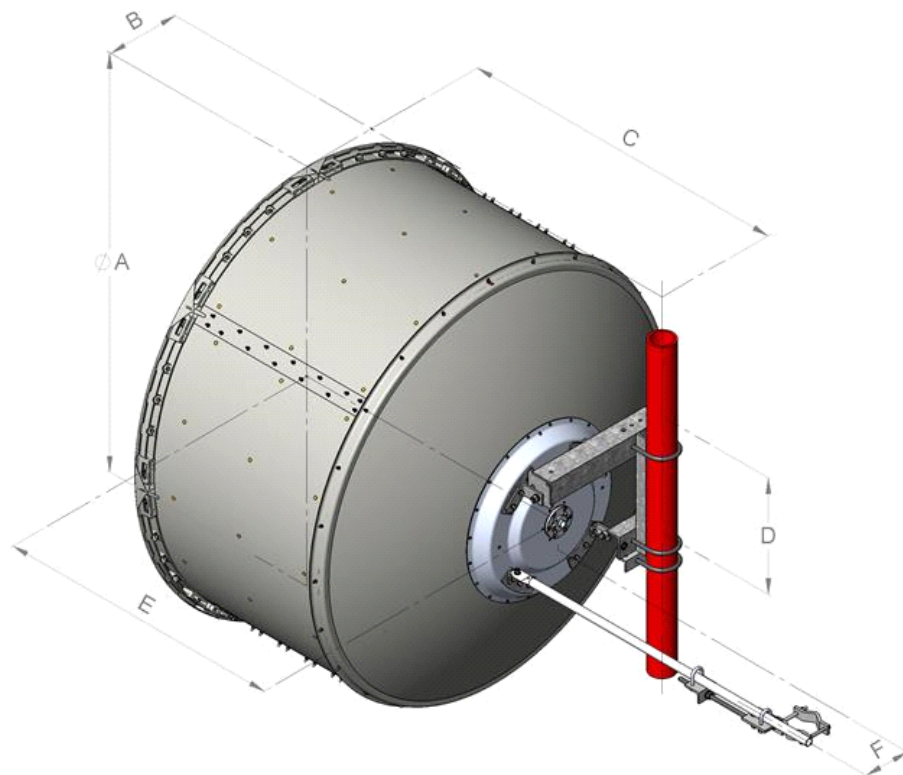


Packed Dimensions

Gross Weight, Packed Antenna	150.0 kg 330.7 lb
Height	2110.0 mm 83.1 in
Length	2000.0 mm 78.7 in
Volume	2.5 m ³
Width	600.0 mm 23.6 in

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)

Regulatory Compliance/Certifications

Agency

ISO 9001:2015

Classification

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.

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 $180^\circ \pm 40^\circ$, 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.

Packing

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.

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 Velocity Operational

The wind speed where the antenna deflection is equal to or less than 0.1 degrees. In the case of ValuLine antennas, it is defined as a maximum deflection of 0.3 x the 3 dB beam width of the antenna.

Wind Velocity Survival Rating

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.