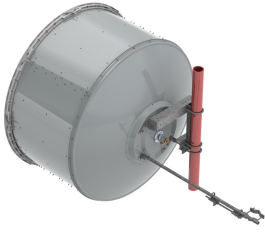


USX6-7W-3GR



1.8m | 6ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized, 7.125 – 8.500 GHz, UBR84 flange

OBSOLETE

This product was discontinued on: May 1, 2022

Replaced By:

USX6-7W-3WH

1.8m | 6ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized, white, 7.125 – 8.500 GHz, UBR84 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	UBR84
Antenna Color	Gray
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
--------------------------	--------------

Electrical Specifications

Operating Frequency Band	7.125 – 8.500 GHz
Gain, Low Band	40 dBi

USX6-7W-3GR

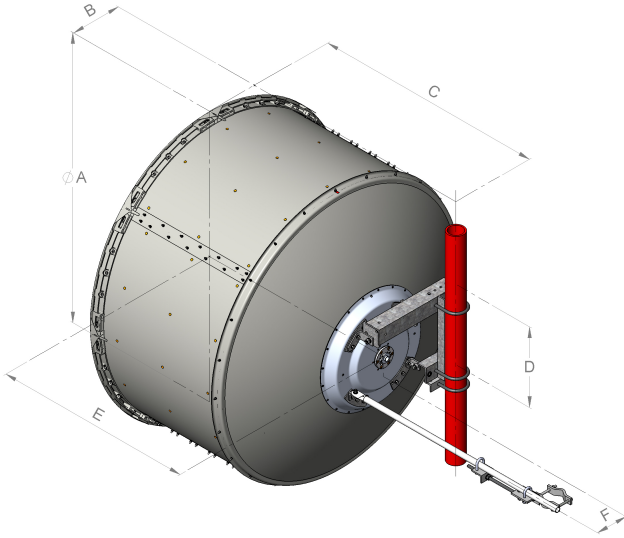
Gain, Mid Band	40.6 dBi
Gain, Top Band	41 dBi
Boresite Cross Polarization Discrimination (XPD)	40 dB
Front-to-Back Ratio	75 dB
Beamwidth, Horizontal	1.5 °
Beamwidth, Vertical	1.5 °
Return Loss	26 dB
VSWR	1.1
Radiation Pattern Envelope Reference (RPE)	7374
Electrical Compliance	ACMA FX03_7p5a Brazil Anatel Class 2 ETSI 302 217 Class 4
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	180 km/h 111.847 mph
Wind Speed, survival	200 km/h 124.274 mph

USX6-7W-3GR

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

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

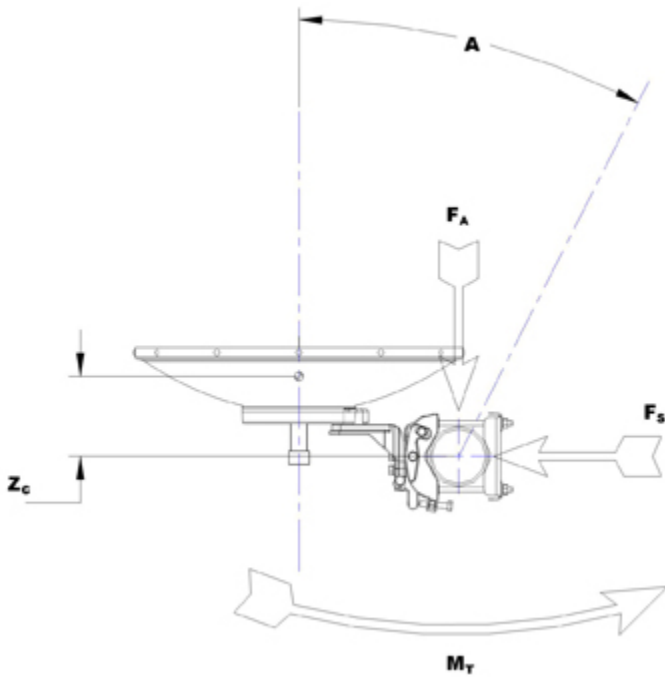
Weight with 1/2 in (12 mm) Radial Ice

291 kg | 641.544 lb

USX6-7W-3GR

USX6-7W-3GR

Wind Forces at Wind Velocity Survival Rating Image



Packaging and Weights

Height, packed	2110 mm 83.071 in
Width, packed	600 mm 23.622 in
Length, packed	2000 mm 78.74 in
Packaging Type	Standard pack
Volume	2.5 m ³ 88.287 ft ³
Weight, gross	150 kg 330.693 lb
Weight, net	90 kg 198.416 lb

Regulatory Compliance/Certifications

Agency

ISO 9001:2015



Classification

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

* Footnotes

Operating Frequency Band

Bands correspond with CCIR recommendations or common

USX6-7W-3GR

allocations used throughout the world. Other ranges can be accommodated on special order.

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.

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.

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.

The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.

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

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

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.

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.

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.

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.

Maximum side force exerted on the mounting pipe as a

Gain, Mid Band

Boresite Cross Polarization Discrimination (XPD)

Front-to-Back Ratio

Return Loss

VSWR

Radiation Pattern Envelope Reference (RPE)

Cross Polarization Discrimination (XPD) Electrical Compliance

Wind Speed, operational

Wind Speed, survival

Axial Force (FA)

Side Force (FS)

USX6-7W-3GR

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.