

3.0m | 10ft Sentinel® Ultra High Performance, Super High XPD Antenna, dual-polarized, 5.925 – 7.125 GHz, grey, PDR70 flange

Product Classification

Product Type Microwave antenna

General Specifications

Antenna Type USX - Sentinel® Ultra High Performance, Super

High XPD Antenna, dual-polarized

PolarizationDualAntenna InputPDR70

Antenna Color Gray

Reflector ConstructionTwo-piece reflector

Radome ColorGrayRadome MaterialFabricFlash IncludedNoSide Struts, Included2Side Struts, Optional3

Dimensions

Diameter, nominal 3.0 m | 10 ft

Electrical Specifications

Operating Frequency Band 5.925 – 6.425 GHz

Gain, Low Band42.5 dBiGain, Mid Band43.2 dBiGain, Top Band43.9 dBiBoresite Cross Polarization Discrimination (XPD)40 dBFront-to-Back Ratio80 dB

Beamwidth, Horizontal 1.1 °

Beamwidth, Vertical 1.1 °



Return Loss 26 dB

VSWR 1.1

Radiation Pattern Envelope Reference (RPE) 7424

Electrical Compliance ACMA FX03_6a, 6p7a | ETSI 302 217 Class

4 | IC 3059A | IC 3064A | US FCC Part

101A | US FCC Part 74A

Cross Polarization Discrimination (XPD) Electrical Compliance ETSI EN 302217 XPD Category 3

Electrical Specifications, Band 2

Operating Frequency Band 5.725 – 5.850 GHz

Gain, Mid Band42.1 dBiBeamwidth, Horizontal1.3 °Beamwidth, Vertical1.3 °Front-to-Back Ratio70 dB

Mechanical Specifications

Compatible Mounting Pipe Diameter 115 mm | 4.5 in

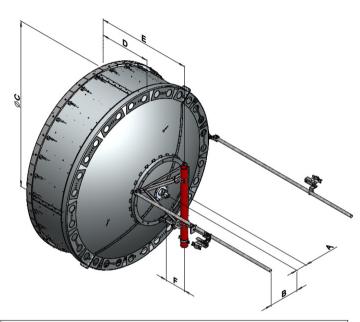
Fine Azimuth Adjustment Range $\pm 5^{\circ}$ Fine Elevation Adjustment Range $\pm 5^{\circ}$

 Wind Speed, operational
 180 km/h | 111.847 mph

 Wind Speed, survival
 200 km/h | 124.274 mph

Antenna Dimensions and Mounting Information

USX10



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

Wind Forces at Wind Velocity Survival Rating

Axial Force (FA) 18800 N | 4,226.409 lbf

Angle α for MT Max -130 $^{\circ}$

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

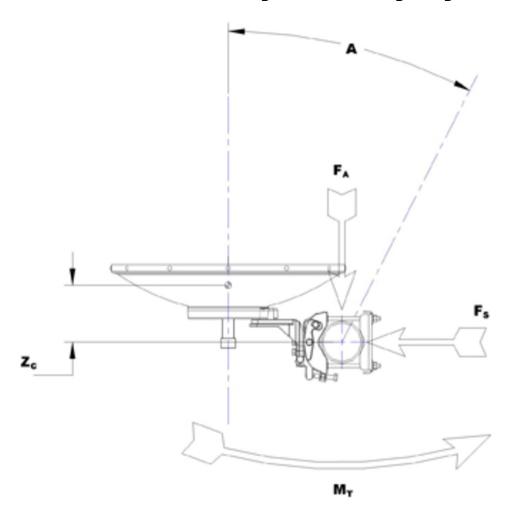
ANDREW® an Amphenol company

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

466 kg | 1,027.353 lb



Wind Forces at Wind Velocity Survival Rating Image



Packaging and Weights

Weight, net

 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 m³ | 271.923 ft³

 Weight, gross
 513 kg | 1,130.97 lb

Regulatory Compliance/Certifications



263 kg | 579.815 lb

Agency Classification

CHINA-ROHS Above maximum concentration value

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

REACH-SVHC Compliant as per SVHC revision on www.andrew.com/ProductCompliance

ROHS Compliant/Exempted UK-ROHS Compliant/Exempted



* 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 LossThe 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.

Wind Speed, operational For VHLP(X), SHP(X), HX and USX antennas, the wind spee

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

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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 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 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.

Andrew standard packing is suitable for export. Antennas are shipped as standard in totally recyclable cardboard or wirebound crates (dependent on product). For your convenience, Andrew offers heavy duty export packing options.

Axial Force (FA)

Wind Speed, survival

Side Force (FS)

Twisting Moment (MT)

Packaging Type