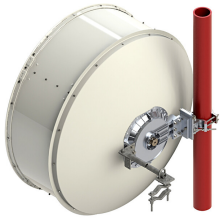
SHPX4-4-6WH



1.2 m | 4 ft Sentinel® High Performance Antenna, dual-polarized, 4.400-5.000 GHz, CPR187G, white antenna, flexible woven polymer gray radome without flash, standard pack—one-piece reflector

Product Classification

Product Type	Microwave antenna
Product Brand	Sentinel®

General Specifications

Antenna Type	SHPX - Sentinel® High Performance Antenna, dual-polarized
Polarization	Dual
Antenna Input	CPR187G
Antenna Color	White
Reflector Construction	One-piece reflector
Radome Color	Gray
Radome Material	Polymer
Flash Included	No
Side Struts, Included	1 inboard
Side Struts, Optional	1 inboard

Dimensions

Diameter, nominal	1.2 m | 4 ft

Electrical Specifications

Operating Frequency Band	4.400 – 5.000 GHz
Gain, Low Band	32 dBi
Gain, Mid Band	32.6 dBi
Gain, Top Band	33.1 dBi
Boresite Cross Polarization Discrimination (XPD)	40 dB
Front-to-Back Ratio	62 dB
Beamwidth, Horizontal	3.7 °

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Beamwidth, Vertical	3.7 °
Return Loss	20.8 dB
VSWR	1.2
Radiation Pattern Envelope Reference (RPE)	7416
Electrical Compliance	ETSI Class 3
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	±15°
Fine Elevation Adjustment Range	±15°
Wind Speed, operational	200 km/h | 124.274 mph
Wind Speed, survival	250 km/h | 155.343 mph

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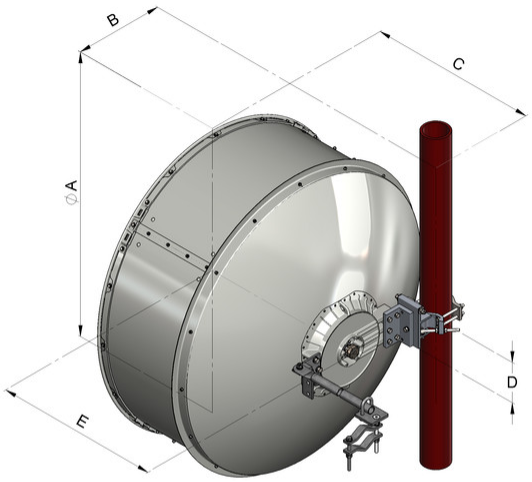
Antenna Dimensions and Mounting Information



Dimensions in inches (mm)					
Antenna size, ft (m)	A	B	C	D	E
4 (1.2)	50.8 (1291)	16 (407)	30.2 (767)	7.2 (183)	29.5 (748)

Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	5326 N | 1,197.333 lbf
Side Force (FS)	2638 N | 593.046 lbf
Twisting Moment (MT)	2162 N-m | 19,135.312 in lb
Force on Inboard Strut Side	2862 N | 643.403 lbf
Zcg without Ice	43 mm | 1.693 in
Zcg with 1/2 in (12 mm) Radial Ice	284 mm | 11.181 in
Weight with 1/2 in (12 mm) Radial Ice	74 kg | 163.142 lb

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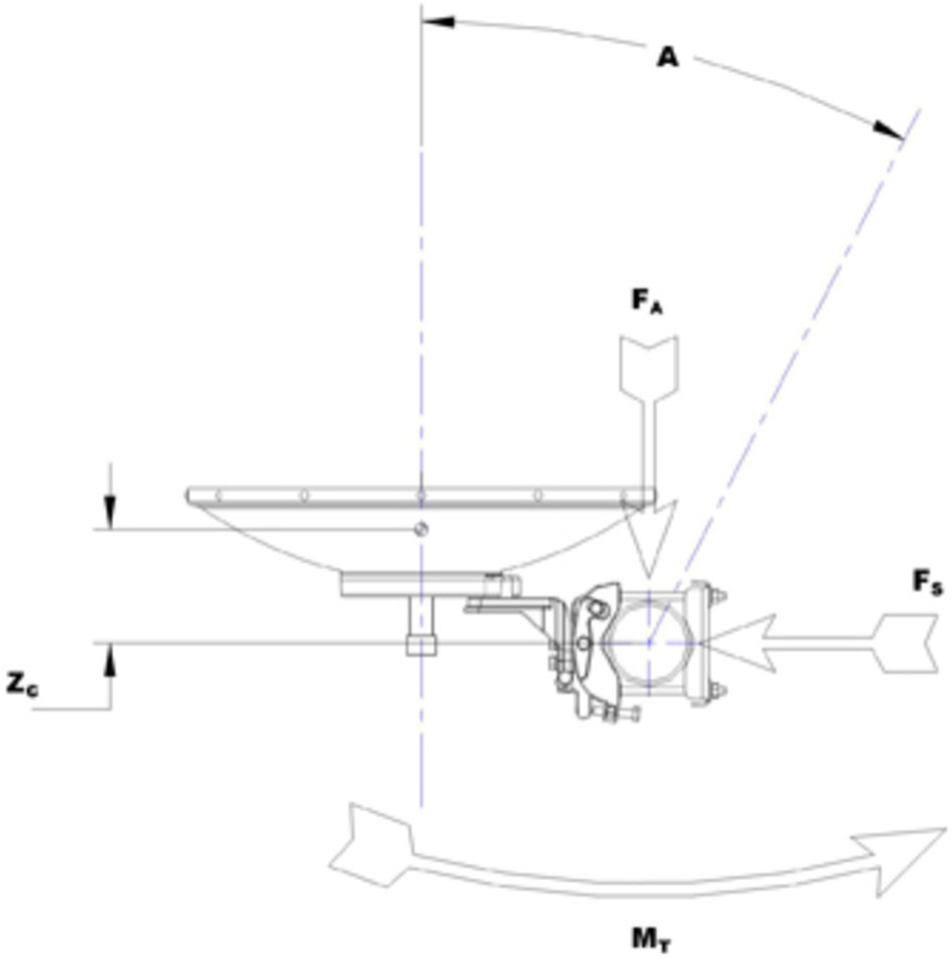
Wind Forces at Wind Velocity Survival Rating Image



Packaging and Weights

Height, packed	1520 mm | 59.843 in
Width, packed	380 mm | 14.961 in
Length, packed	1360 mm | 53.543 in
Packaging Type	Standard pack
Volume	0.8 m³ | 28.252 ft³
Weight, gross	59 kg | 130.073 lb
Weight, net	32 kg | 70.548 lb

* Footnotes

SHPX4-4-6WH

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.
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.