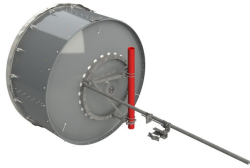


# HX8-6W-4GF

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2.4m | 8ft ValuLine® High Performance, High XPD Antenna, dual-polarized, 5.925 – 7.125 GHz, grey, PDR70 flange

## Product Classification

Product Type

Microwave antenna

Product Brand

ValuLine®

## General Specifications

Antenna Type

HX - ValuLine® High Performance, High XPD Antenna, dual-polarized

Polarization

Dual

Antenna Input

PDR70

Antenna Color

Gray

Reflector Construction

One-piece reflector

Radome Color

Gray

Radome Material

Fabric

Flash Included

Yes

Side Struts, Included

1

Side Struts, Optional

4

## Dimensions

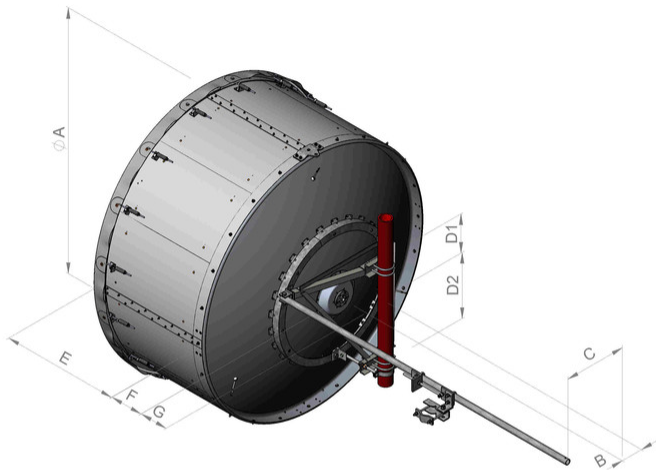
Diameter, nominal

2.4 m | 8 ft

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## Antenna Dimensions and Mounting Information

HX8



Dimensions in inches (mm)								
Antenna size, ft (m)	A	B	C	D1	D2	E	F	G
8 (2.4)	95.1 (2416)	8.0 (203)	22.5 (572)	14.1 (357)	23.6 (600)	42.4 (1078)	12.1 (306)	10.3 (262)

## Electrical Specifications

Operating Frequency Band	5.925 – 7.125 GHz
Gain, Low Band	40.8 dBi
Gain, Mid Band	41.6 dBi
Gain, Top Band	42.4 dBi
Boresite Cross Polarization Discrimination (XPD)	33 dB
Front-to-Back Ratio	70 dB
Beamwidth, Horizontal	1.3 °
Beamwidth, Vertical	1.3 °
Return Loss	26 dB

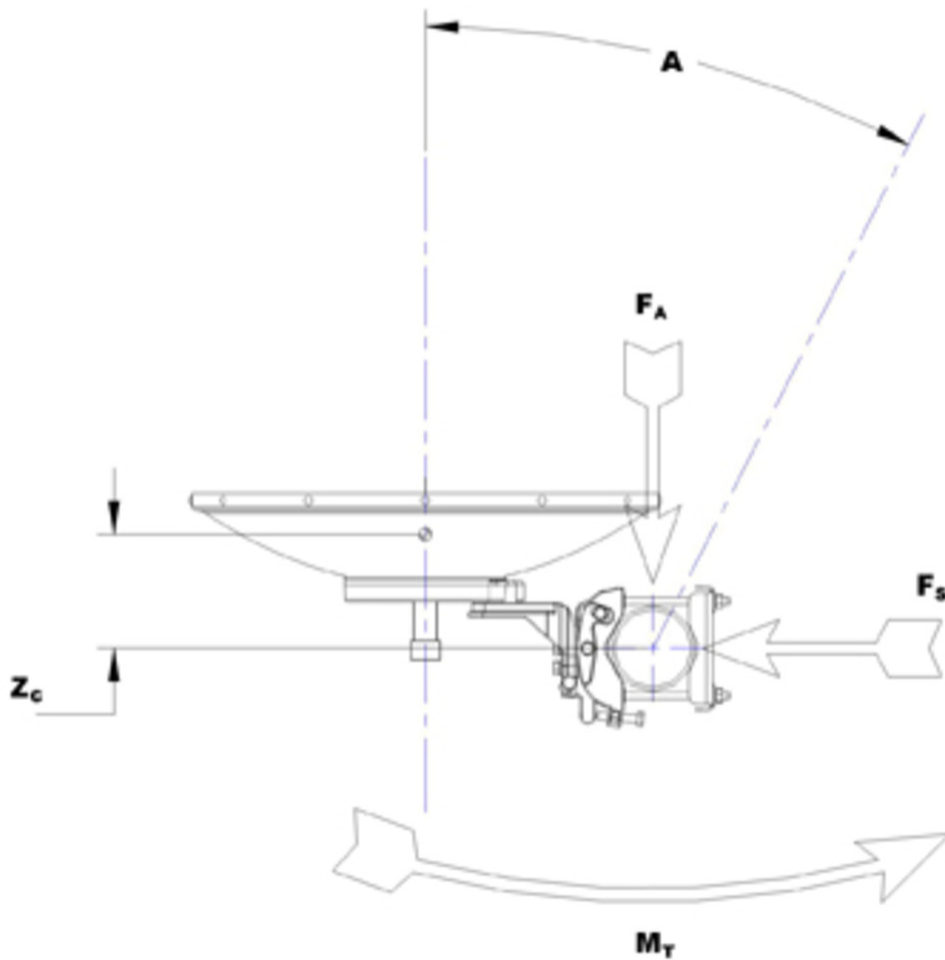
# HX8-6W-4GF

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VSWR	1.1
Radiation Pattern Envelope Reference (RPE)	7389
Electrical Compliance	ACMA FX03_6b, 6p7b   Brazil Anatel Class 2   ETSI 302 217 Class 3   IC 3059A   IC 3064A   US FCC Part 101A   US FCC Part 74A
Cross Polarization Discrimination (XPD) Electrical Compliance	ETSI EN 302217 XPD Category 2
Electrical Specifications, Band 2	
Beamwidth, Horizontal	1.3 °
Beamwidth, Vertical	1.3 °
Gain, Mid Band	40.7 dBi
Operating Frequency Band	5.725 – 5.850 GHz
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)	10599 N   2,382.751 lbf
Angle a for MT Max	-140 °
Side Force (FS)	4594 N   1,032.773 lbf
Twisting Moment (MT)	-6518 N-m   -57,689.16 in lb
Force on Inboard Strut Side	11263 N   2,532.024 lbf
Zcg without Ice	532 mm   20.945 in
Zcg with 1/2 in (12 mm) Radial Ice	675 mm   26.575 in
Weight with 1/2 in (12 mm) Radial Ice	342 kg   753.98 lb

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## Wind Forces at Wind Velocity Survival Rating Image



## Packaging and Weights

Height, packed	2250 mm		88.583 in
Width, packed	1130 mm		44.488 in
Length, packed	2380 mm		93.701 in
Packaging Type	Standard pack		
Volume	6.1 m <sup>3</sup>		215.42 ft <sup>3</sup>
Weight, gross	318 kg		701.069 lb
Weight, net	187 kg		412.264 lb

## Regulatory Compliance/Certifications

Agency	Classification
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ISO 9001:2015

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



## \* Footnotes

### **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.

### **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  $180^\circ \pm 40^\circ$ , 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  $\pm 1^\circ$  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

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angle twice the 3 dB beamwidth of the co-polarized main beam.

## **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.