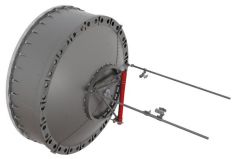
HX12-7W-4GF



3.6m | 12ft ValuLine® High Performance, High XPD Antenna, dual-polarized, 7.125 – 8.500 GHz, grey, PDR84 flange

Product Classification

Product Type	Microwave antenna

General Specifications

Antenna Type	HX - ValuLine® High Performance, High XPD Antenna, dual-polarized
Polarization	Dual
Antenna Input	PDR84
Antenna Color	Gray
Reflector Construction	Two-piece reflector
Radome Color	Gray
Radome Material	Fabric
Flash Included	Yes
Side Struts, Included	2
Side Struts, Optional	3

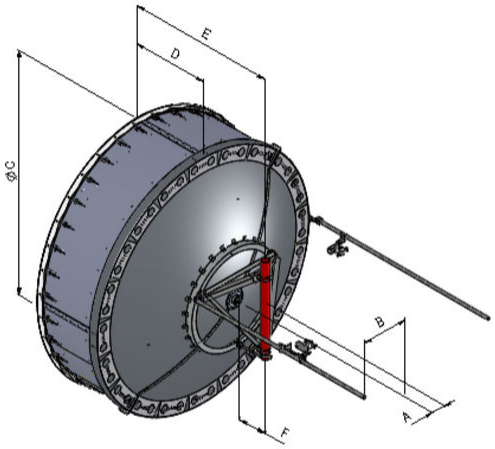
Dimensions

Diameter, nominal	3.6 m | 12 ft

HX12-7W-4GF

Antenna Dimensions and Mounting Information

HX / USX12



Dimensions in inches (mm)						
Antenna size, ft (m)	A	B	C	D	E	F
12 (3.6)	8.5 (216)	28.2 (715)	149.3 (3793)	46.3 (1177)	81.5 (2069)	10.6 (269)

Electrical Specifications

Operating Frequency Band	7.125 – 8.500 GHz
Gain, Low Band	46
Gain, Mid Band	46.8
Gain, Top Band	47.6
Boresite Cross Polarization Discrimination (XPD)	33
Front-to-Back Ratio	75
Beamwidth, Horizontal	0.8
Beamwidth, Vertical	0.8
Return Loss	26

VSWR	1.1
Radiation Pattern Envelope Reference (RPE)	7430
Electrical Compliance	ACMA FX03_7p5a | ETSI 302 217 Class 3
Cross Polarization Discrimination (XPD) Electrical Compliance	ETSI EN 302217 XPD Category 2

Mechanical Specifications

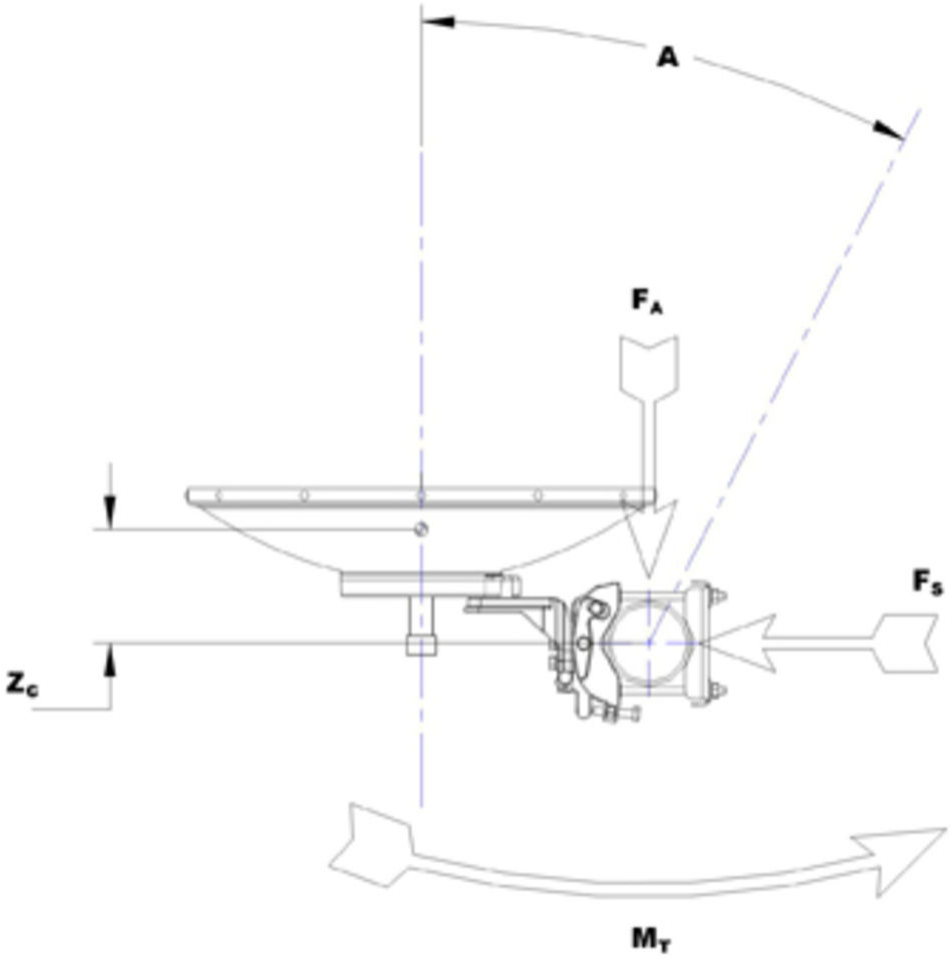
Compatible Mounting Pipe Diameter	115 mm | 4.5 in
Fine Azimuth Adjustment Range	±5°
Fine Elevation Adjustment Range	±5°
Wind Speed, operational	180
Wind Speed, survival	200

Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	26750
Angle # for MT Max	-120
Side Force (FS)	9450
Twisting Moment (MT)	-17550
Force on Inboard Strut Side	13000
Force on Outboard Strut Side	4500
Zcg without Ice	680
Zcg with 1/2 in (12 mm) Radial Ice	841
Weight with 1/2 in (12 mm) Radial Ice	643

HX12-7W-4GF

Wind Forces at Wind Velocity Survival Rating Image



Packaging and Weights

Height, packed	1530 mm | 60.236 in
Width, packed	2140 mm | 84.252 in
Length, packed	3990 mm | 157.087 in
Packaging Type	Standard pack
Volume	13 m^3 | 459.091 ft^3
Weight, gross	648 kg | 1,428.594 lb

Regulatory Compliance/Certifications

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

ISO 9001:2015

* 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.
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.
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.
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.
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.
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.
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
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 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.