



HSX12-36-D3M

3.7 m | 12 ft High Performance, Super High XPD Parabolic Shielded Antenna, dual-polarized, 3.600-4.200 GHz, PDR40, gray antenna, enhanced white radome with flash, standard pack—two-piece reflector

Product Classification

Product Type Microwave antenna

General Specifications

Antenna Type HSX - High Performance, Super High XPD Parabolic Shielded Antenna, dual-

polarized

Diameter, nominal 3.7 m | 12 ft
Packing Standard pack

Radome Color White
Radome Material Enhanced

Reflector Construction Two-piece reflector

Antenna Input PDR40
Antenna Color Gray

Antenna Type HSX - High Performance, Super High XPD Parabolic Shielded Antenna, dual-

polarized

Diameter, nominal 3.7 m | 12 ft

Flash Included Yes
Polarization Dual

Electrical Specifications

Operating Frequency Band 3.600 – 4.200 GHz

Beamwidth, Horizontal 1.6 °
Beamwidth, Vertical 1.6 °
Cross Polarization Discrimination (XPD) 40 dB

Electrical Compliance ETSI Class 3 | US FCC Part 101A

Front-to-Back Ratio 71 dB
Gain, Low Band 40.3 dBi
Gain, Mid Band 40.9 dBi
Gain, Top Band 41.4 dBi

Operating Frequency Band 3.600 – 4.200 GHz Radiation Pattern Envelope Reference (RPE) 2385A | 2386A

Return Loss 30.7 dB VSWR 1.06

Mechanical Specifications



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Fine Azimuth Adjustment ±5°
Fine Elevation Adjustment ±5°

Mounting Pipe Diameter 115 mm | 4.5 in

Net Weight 431 kg | 950 lb

Side Struts, Included 1 inboard | 1 outboard

Side Struts, Optional 2 outboard

Wind Velocity Operational 110 km/h | 68 mph Wind Velocity Survival Rating 200 km/h | 125 mph

Wind Forces At Wind Velocity Survival Rating

Angle a for MT Max -110 °

 Axial Force (FA)
 25390 N | 5708 lbf

 Force on Inboard Strut Side
 8000 N | 1798 lbf

 Force on Outboard Strut Side
 11500 N | 2585 lbf

 Side Force (FS)
 12577 N | 2827 lbf

Twisting Moment (MT) -14132 N•m

 Weight with 1/2 in (12 mm) Radial Ice
 895 kg | 1973 lb

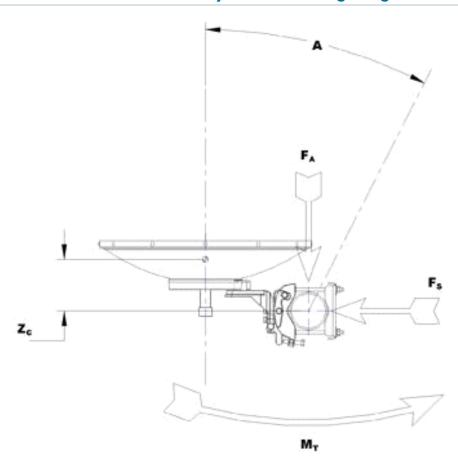
 Zcg with 1/2 in (12 mm) Radial Ice
 914 mm | 36 in

 Zcg without Ice
 808 mm | 32 in



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Wind Forces At Wind Velocity Survival Rating Image



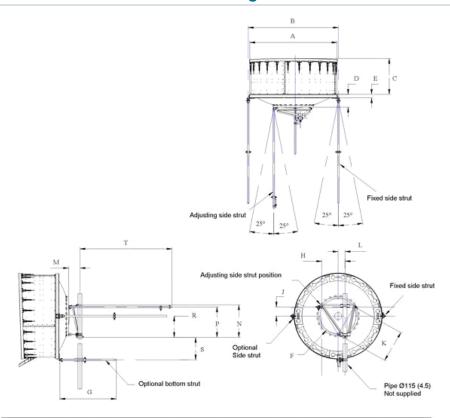
Packed Dimensions

Gross Weight, Packed Antenna	730.0 kg	1609.4 lb
Height	2140.0 mm	84.3 in
Length	3990.0 mm	157.1 in
Volume	13.1 m³	
Width	1530.0 mm	60.2 in



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Antenna Dimensions And Mounting Information



ANTENNA DIMENSIONS All dimensions in mm (inches)				
A	3775 (148.5)	K	1205 (47.5)	
В	3915 (154.5)	Ļ	215 (8.5)	
С	1090 (43.0)	М	330 (13)	
D	685 (27.0)	N	1225 (48.25)	
E	145 (5.75)	Р	1145 (45.0)	
F	1430 (56.25)	R	790 (31.0)	
G	1525 (60)	s	1140 (44.75)	
н	835 (32.75)	т	3050 (120)	
J	355 (14.0)			

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2008 Designed, manufactured and/or distributed under this quality management system

* 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.

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



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Packing

Operating Frequency Band

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.

Bands correspond with CCIR recommendations or common allocations used

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

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 Velocity Operational The wind speed where the antenna deflection is equal to or less than 0.1

degrees. In the case of ValuLine antennas, it is defined as a maximum

deflection of 0.3 x the 3 dB beam width of the antenna.

Wind Velocity Survival Rating 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.