

1.2M Ku-Band Very High Wind Antenna

Series 2121

Technical Specifications

Electrical		Ku-Band
Antenna Size		1.2 M (47 in.)
Operating Frequency (GHz)	Receive Transmit	10.70 - 12.75 GHz 13.75 - 14.50 GHz
Midband Gain (+/- 0.2 dB)	Receive Transmit	41.40 dBi 43.30 dBi
VSWR	Receive Transmit	1.5:1 Max 1.3:1 Max
Sidelobe Envelope, Co-Pol (dBi)		
$100\lambda / D < \theta \leq 20^\circ$		29 - 25 Log θ dBi
$20^\circ < \theta \leq 26.3^\circ$		-3.5 dBi
$26.3^\circ < \theta \leq 48^\circ$		32 - 25 Log θ dBi
$\theta > 48^\circ$		-10 dBi (averaged)
Antenna Noise Temperature		
20° Elevation		57 K
30° Elevation		56 K
Cross Polarization Isolation		
On Axis		Rx: 30 dB Tx: 35 dB
Within B.P.E		Rx: 25 dB Tx: 27 dB

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Single Piece Offset, Prime Focus
Mast Pipe Size	4.0" SCH 40 Pipe (4.50" OD), 114 mm OD
Elevation Adjustment Range	5° to 90° Continuous Fine Adjustment
Azimuth Adjustment Range	360° Continuous Coarse Adjustment, ± 15° Fine Adjustment
Maximum Transmitter Weight	20 pounds (9.0 kg.)
Feed Support Tailpiece	Included
Shipping Specifications	186 lbs. (84.5 kg.) Packaged Weight

Environmental Performance		
Wind Loading	Operational Operational Survival	65 mph (104 km/h) with 0.5 dB loss @ 14.25 GHz 130 mph (208 km/h) with 3.0 dB loss @ 14.25 GHz 200 mph (320 km/h)
Temperature	Operational Survival	- 40° to 140°F (- 40° to 60°C) - 50° to 160° F (- 46° to 71° C)
Rain	Operational Survival	½" per hour 2" per hour
Ice	Operational Survival	----- ½" Radial
Atmospheric Conditions		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Solar Radiation		360 BTU/h/ft2

GENERAL DYNAMICS

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