

# 1.2M Ku-Band Rx/Tx

## Series 1132

### Technical Specifications

Electrical		Series 1132 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 ( +/- .5dB)	Receive Transmit	41.4 dBi 43.3 dBi
Antenna Noise Temperature	20° Elevation 30° Elevation	57 K 56 K
Pattern Beamwidth (in degrees at midband)	-3 dB -15 dB	Tx: 1.2° Rx: 1.5° Tx: 2.8° Rx: 3.4°
Sidelobe Envelope, Co-Pol (dBi)		
$100\lambda/D \leq \theta \leq 20^\circ$		29 - 25 Log $\theta$ dBi
$20^\circ < \theta \leq 26.3^\circ$		-3.5 dBi
$26.3^\circ < \theta \leq 48^\circ$		32 - 25 Log $\theta$ dBi
$48^\circ < \theta$		-10 dBi (averaged)
Power Handling		100 W
Cross-Polarization Isolation	On Axis Within 1.0 dB Beamwidth	Tx: 35 dB Rx: 30 dB Tx: 27 dB Rx: 25 dB
VSWR		Tx: 1.3:1 Max Rx: 1.5:1 Max
Feed Interface Output Waveguide Interface Flange		WR75
ODU		Tier 1 = 6 lbs. Tier 2 = 12 lbs

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	Prime Focus, Offset Feed
Mount Type	Elevation over Azimuth
Mast Pipe Size	2.5" SCH 40 Pipe (2.88" OD) 73 mm.
Elevation Adjustment Range	5° to 90°, Continuous Fine Adjustment
Azimuth Adjustment Range	+ 20° Fine, 360° Continuous
Shipping Specifications: Approx. Net Weight	48 lbs. (22 kg.)

Environmental Performance		
Wind Loading	Operational Survival	50 mph (80 km/h) 125 mph (201 km/h)
Temperature	Operational	-40° to 140° F (-40° to 60° C)
Rain	Operational	1/2" (13 mm)/hr
Ice	Operational	-----
Atmospheric Conditions		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Relative Humidity		0 to 100% with Condensation
Solar Radiation		360 BTU/h/ft2

**GENERAL DYNAMICS**  
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