

3.8M Ku-Band Dual Optics Antenna

Series 1384

Technical Specifications

Electrical		Ku-Band
Antenna Size		3.8 M
Operating Frequency (GHz)	Receive Transmit	10.70 - 12.75 GHz 13.75 - 14.50 GHz
Midband Gain (+/- 0.2 dB)	Receive Transmit	51.30 dBi 52.80 dBi
VSWR	Receive Transmit	1.5:1 Max (<-14.0 dB) 1.3:1 Max (<-17.7 dB)
Pattern Beamwidth (in degrees at midband)	-3 dB -15 dB	Rx: 0.50 deg Tx: 0.40 deg Rx: 1.00 deg Tx: 0.90 deg
Sidelobe Envelope, Co-Pol (dBi) 100λ / D < θ ≤ 20° 20° < θ ≤ 26.3° 26.3° < θ ≤ 48° θ > 48°		29 - 25 Logθ dBi -3.5 dBi 32 - 25 Logθ dBi -10 dBi (averaged)
Antenna Noise Temperature 5° Elevation 10° Elevation 20° Elevation 40° Elevation		68 K 58 K 53 K 43 K
Power Handling		100 W
Cross Polarization Isolation On Axis Within 1.0 dB Beamwidth		Rx: 30 dB Tx: 35 dB Rx: 28 dB Tx: 30 dB
Output Waveguide Interface Flange		Rx: WR75 Tx: WR75

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC
Antenna Optics	4 Pc., Offset Fed (Gregorian)
Mast Pipe Size	10" SCH 40 Pipe (10.75" OD) 27.3 cm.
Elevation Adjustment Range	12° to 90° Continuous Fine Adjustment
Azimuth Adjustment Range	+ 45° Fine Adjustment , 360° Continuous
Mount Type	Elevation over Azimuth
Shipping Specifications	Approx. Net Weight: 1145 lbs. (520 Kg.) Approx. Packaged Weight: 1900 lbs. (864 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	½" (13mm) per hour
Ice	Operational	-----
Atmospheric Conditions		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Relative Humidity		0 to 100% Condensing
Solar Radiation		360 BTU/h/ft2

GENERAL DYNAMICS
SATCOM Technologies