

1.2M Ku-Band Rx/Tx

Series 1122



Transmit quality precision SMC reflector

Fine elevation and azimuth adjustments

Extended Ku Band RxTx feed

Linear orthogonal polarity

Durable and rugged design for easy shipping and handling

Heavy gauge pre-galvanized steel Az/EI mount

Overview

General Dynamics SATCOM Technologies' 1.2m Ku-Band VSAT Antenna Series 1122 is ideally suited for demanding commercial applications. The one-piece compression molded reflector is precision manufactured for high-efficiency Ku-Band operation. The Az/EI mount is designed for easy installation on standard 2-7/8" OD Installation Mounts, and features fine Azimuth and Elevation Adjustments. The Az/EI mount is constructed from heavy gauge pre-galvanized steel for strength and corrosion resistance. An Extended Ku Band RxTx feed is standard with the Series 1122 Antenna.

1.2M Ku-Band Rx/Tx

Electrical

- **Antenna Size**
 - 1.2 M (48 in.)
- **Operating Frequency (GHz)**
 - Receive = 10.70-12.75 GHz
 - Transmit = 13.75-14.50 GHz
- **Midband Gain (+/- .3dBi)**
 - Receive = 41.7 dBi
 - Transmit = 43.2 dBi
- **Antenna Noise Temperature**
 - 20° Elevation = 45° K
 - 30° Elevation = 40° K
- **Antenna Sidelobe**
 - Per ITU-R S.580-6
- **Polarization**
 - Linear, Orthogonal (2 x WR75)
- **Max. Feed Weight**
 - Feed/OMT/TRF + BUC/LNB = 6 lbs.
 - 3-4 W BUC Max
- **Insertion Loss**
 - Receive 0.4 dB Max
 - Transmit 0.2 dB Max
- **Cross-Pol Isolation (Linear)**
 - > 30 dB (on axis)
 - 26 dB in 1 dB on contour
- **VSWR**
 - Receive 1.4:1 Max
 - Transmit 1.3:1 Max
- **Isolation (Port-to-Port)**
 - Receive 35dB Min
 - Transmit 80dB Min

Mechanical

- **Reflector Material**
 - Glass Fiber Reinforced Polyester SMC
- **Antenna Optics**
 - Prime Focus, Offset Feed, .6 F/D
- **Mount Type**
 - Elevation over Azimuth
- **Mast Pipe Size**
 - 2.5" SCH 40 Pipe (2.88" OD) or 3.0" OD
- **Elevation Adjustment Range**
 - 10° to 90°, Continuous Fine Adjustment
- **Azimuth Adjustment Range**
 - 360° Continuous, +/- 5° fine Adjust
- **Shipping Specifications**
 - 60 lbs. (22.2 kg.)

Environmental Performance

- **Wind Loading**
 - Operational = 45 mph (72 km/h) (<1.0dB pointing loss)
 - Functional Survival = 80 mph (128 km/h)
 - Survival = 125 mph (200 km/h)
- **Temperature**
 - Operational = -40° to 140° F (-40° to 60° C)
 - Survival = - 50° to 160° F (-46° to 71° C)
- **Rain**
 - Operational = 1/2"/hr
 - Survival = 2"/hr
- **Ice**
 - 1/2" radial
- **Atmospheric Conditions**
 - Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
- **Solar Radiation**
 - 360 BTU/h/ft²

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