

# 1.2m Ku-Band Antenna - Receive Only

*Series 1122*



Transmit Quality Precision SMC Reflector

Fine Elevation and Azimuth Adjustments

Wide Band Ku RxO Feed

Linear Single or Dual Polarity

Durable and Rugged Construction for Ease of  
Shipping and Handling

Heavy Gauge Pre-Galvanized Steel Az/EI Mount

## Overview

General Dynamics 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 or 3.0" 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. The Series 1122 RxO Antenna utilizes the same reflector and Az/EI mount as the 1122 RxTx antenna, for future upgrades.

# 1.2m Ku-Band Antenna - Receive Only

## Electrical

---

- **Antenna Size**
  - 1.2 m (48 in.)
- **Operating Frequency (GHz)**
  - Receive = 10.70-12.75 GHz
- **Midband Gain (+/- .3dBi)**
  - Receive = 41.5 dBi
- **Antenna Noise Temperature**
  - 20° Elevation = 46° K
  - 30° Elevation = 43° K
- **Antenna Sidelobe Envelope**
  - Per ITU-R S.580-6
- **Antenna Beamwidth**
  - Receive = 1.5°
- **Polarization**
  - Linear, Orthogonal
- **Cross-Pol Isolation**
  - 30 dB on Axis

## Feed Specifications – Dual Polarity Feed

---

- **Port-Port Isolation**
  - 30 dB Typical
- **VSWR**
  - 1.5:1 Max
- **Insertion Loss**
  - 0.3 dB Max

## Mechanical Performance

---

- **Reflector Material**
  - Glass Fiber Reinforced Polyester SMC
- **Antenna Optics**
  - Prime Focus, Offset, 0.6 F/D
- **Mount Type**
  - Elevation over Azimuth
- **Elevation Adjustment Range**
  - 10° to 90° Continuous Fine Adjustment
- **Azimuth Adjustment Range**
  - 360° Continuous, +/- 10° Fine Adjustment
- **Mast Pipe Interface**
  - 2.5 SCH Pipe (2.88" OD) or 3.00" OD (73 or 76mm)
- **Max RF Equipment Weight**
  - Tier 1 Feed Support = 8 lb. (3.6 kg)

## Environmental Performance

---

- **Wind Loading**
  - Operational = 45 mi/h (72 km/h)
  - Survival = 125 mi/h (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"/h (13mm/h)
  - Survival = 2"/h
- **Ice**
  - Survival = 1/2 inch (13mm) Radial Ice
- **Atmospheric Conditions**
  - Salt, Pollutants, and Contaminants as Encountered in Coastal and Industrial Areas
- **Solar Radiation**
  - 360 BTU/h/ft<sup>2</sup> (1135 W/m<sup>2</sup>)

**GENERAL DYNAMICS**  
SATCOM Technologies

customer care@gd-ms.com • gdmissionsystems.com/satcom  
Phone: +1-770-689-2040