Model 1989 0.98m QD Quick Deploy Antenna

Quick Deploy Antennas

Description
The General Dynamics SATCOM Technologies lightweight 0.98-meter Quick Deploy antennas are designed for worldwide transmit and receive operation in C, X, Ku and Ka-band. These portable antennas consist of Precision Compression Molded reflectors and a compact aluminum pedestal. This results in a durable antenna with superior stiffness and high performance under wind loading conditions.

The unique shape and the accurate reflector surface provide good sidelobe and cross-polarization performance. The antenna system is a Series 1989 and the reflector consists of a two-segment SMC compression molded assembly. Repeatability is maintained with precision registration of the reflector segments and the feed support structure.

The 0.98-meter antenna, including the feed, is packaged in three portable cases.

Features
- Precision compression molded offset reflector
- Compact aluminum pedestal
- Transport cases included
- One-person assembly in less than 5 minutes
- Captive hardware/fasteners
- No tools required
- Quick adjust positioner

Options
- Paint/finishes
- Case upgrades
- Multiple feeds -- C, X, Ku and Ka-band

The Strength to Perform
### Technical Specifications

#### Ku-Band 2-Port Linear Polarized

<table>
<thead>
<tr>
<th>Electrical</th>
<th>Receive</th>
<th>Transmit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (GHz)</td>
<td>10.700 - 12.750</td>
<td>13.750 - 14.500</td>
</tr>
<tr>
<td>Antenna Gain at Midband, dBi</td>
<td>39.30</td>
<td>41.00</td>
</tr>
<tr>
<td>Sidelobe Compliant with</td>
<td>29 - 25 log θ</td>
<td>29 - 25 log θ</td>
</tr>
<tr>
<td>VSWR</td>
<td>1.30:1 (17.7 dB)</td>
<td>1.30:1 (17.7 dB)</td>
</tr>
</tbody>
</table>

#### Antenna Noise Temperature

- 5° Elevation: 74 K
- 10° Elevation: 58 K
- 20° Elevation: 51 K
- 40° Elevation: 50 K

#### Cross Polarization Isolation

- On Axis: 30.0 dB
- Within 1.0 dB Beamwidth: 27.0 dB

#### Pattern Beamwidth (in degrees at midband)

- -3 dB: 1.77
- -15 dB: 3.72

#### Power Handling

Output Waveguide Flange Interface: WR-75 Flat

#### RF Specification

975-1877

### Mechanical

- Reflector Material: Two-piece SMC compression molded
- Antenna Optics: Prime focus, offset feed, 0.8 F/D ratio
- Elevation Adjustment Range: 0° - 90°
- Azimuth Adjustment Range: ±30° continuous

#### Shipping Specifications

- Two-Piece Reflector Case: 44” x 16” x 28” (112 x 41 x 71 cm), Weight: 90 lbs (41 kg)
- Pedestal Case: 36” x 20” x 21” (91 x 51 x 53 cm), Weight: 76 lbs (34 kg)
- All Cases on Skid (feed packed separately): 48” x 40” x 36” (122 x 102 x 91 cm), Weight: 210 lbs (95 kg)

#### Feed Case

Consult factory for options and dimensions

### Environmental

- Wind Loading
  - Operational: 35 mph (56 km/h), no ballast or anchors
  - Survival: 50 mph (80 km/h) gusting to 65 mph (105 km/h), with ballast or anchors
  - Survival: 90 mph (145 km/h) gusting to 100 mph (161 km/h), with ballast or anchors
- Temperature Range (operational): -40° to +140° F (-40° to +60° C)
- Rain (operational): 1/2 in/h (12 mm/h)
- Ice (operational): 1/2 in (12 mm)
- Atmospheric Conditions: Salt, pollutants and contaminants as encountered in coastal and industrial areas
- Relative Humidity: 0% to 100%
- Solar Radiation: 360 BTU/h/ft² (1000 Kcal/h/m²)

* Consult factory for C, X or Ka-band options.