

Model 1989 0.98m QD Quick Deploy Antenna

Quick Deploy Antennas



The Strength to Perform

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

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Technical Specifications

Electrical*	Ku-Band 2-Port Linear Polarized	
	Receive	Transmit
Frequency (GHz)	10.700 - 12.750	13.750 - 14.500
Antenna Gain at Midband, dBi	39.30	41.00
Sidelobe Compliant with	29 -25 log θ	29 -25 log θ
VSWR	1.30:1 (17.7 dB)	1.30:1 (17.7 dB)
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	30.0 dB
Within 1.0 dB Beamwidth	27.0 dB	27.0 dB
Pattern Beamwidth (in degrees at midband)		
-3 dB	1.77	1.48
-15 dB	3.72	3.11
Power Handling		1.00 kW CW
Output Waveguide Flange Interface	WR-75 Flat	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	Size (L x W x H)	Weight
Two-Piece Reflector Case	44" x 16" x 28" (112 x 41 x 71 cm)	90 lbs (41 kg)
Pedestal Case	36" x 20" x 21" (91 x 51 x 53 cm)	76 lbs (34 kg)
All Cases on Skid (feed packed separately)	48" x 40" x 36" (122 x 102 x 91 cm)	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 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/ft ² (1000 Kcal/h/m ²)

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

GENERAL DYNAMICS

SATCOM Technologies

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