

# Model 1127 1.2m QD Quick Deploy Antenna

## *Quick Deploy Antennas*



*The Strength to Perform*

### **Description**

The General Dynamics SATCOM Technologies lightweight 1.2-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 stainless steel tripod base mounts. 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 1127 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 1.2-meter antenna, including the feed, is packaged in three portable cases.

### **Features**

- Precision compression molded offset reflector
- Compact stainless steel pedestal
- Transport cases included
- Two-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*	C-Band 2-Port Linear Polarized		Ku-Band 2-Port Linear Polarized	
	Receive	Transmit	Receive	Transmit
Frequency (GHz)	3.625 - 4.200	5.850 - 6.425	10.950 - 12.750	13.750 - 14.500
Antenna Gain at Midband, dBi	32.3	35.1	41.7	43.1
VSWR	1.30:1	1.30:1	1.30:1	1.30:1
Pattern Beamwidth (in degrees at midband)				
-3 dB	4.12	2.98	1.35	1.17
-15 dB	8.65	6.26	2.84	2.46
Sidelobe Performance	IESS 601 STD G		IESS 601 STD G	
Antenna Noise Temperature				
5° Elevation	61 K		71 K	
10° Elevation	43 K		56 K	
20° Elevation	37 K		48 K	
40° Elevation	37 K		47 K	
Power Handling		2 kW CW		2 kW CW
Cross Polarization Isolation				
On Axis	30.0 dB	30.0 dB	30.0 dB	30.0 dB
Within 1.0 dB Beamwidth	23.0 dB	23.0 dB	23.0 dB	23.0 dB
Output Waveguide Interface Flange	CPR-229G	CPR-137G	WR-75 Flat	WR-75 Flat
RF Specification	975-3082		975-3085	

Mechanical		
Reflector Material	Two-piece composite reinforced materials (SMC)	
Antenna Optics	Prime focus, offset feed, 0.6 F/D	
Mount Type	Quick erect tripod with elevation over azimuth canister	
Elevation Adjustment Range	0° to 40° (inverted), 30° to 90° (upright position)	
Azimuth Adjustment Range	±30° continuous fine adjustment	
Shipping Specifications	Size (L x W x H)	Weight
Two-Piece Reflector Case	55" x 17" x 26" (140 x 43 x 66 cm)	78 lbs (35.4 kg)
Pedestal Case	48" x 15" x 14" (122 x 38 x 36 cm)	91 lbs (41.3 kg)
All Cases on Skid (feed packed separately)	56" x 58" x 32" (142 x 147 x 81 cm)	227 lbs (103 kg)
Net Weight of Antenna (including Ku-band feed)	88 lbs (39.9 kg)	

Environmental	
Wind Loading	
Operational	25 mph (40 km/h), no ballast or anchors 45 mph (72 km/h), with ballast or anchors
Survival	90 mph (145 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 <sup>2</sup> (1000 Kcal/h/m <sup>2</sup> )

\* Consult factory for X or Ka-band options.

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