

Model 1126 1.2m RD Rugged Deploy Antenna

Rugged Deploy



The Strength to Perform

Description

The General Dynamics SATCOM Technologies lightweight 1.2-meter (48-inch) Rugged 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 galvanized 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. Repeatability is maintained with precision registration of the reflector segment(s) and the feed support structure.

The antenna system, a Series 1126, includes either a single piece or two-segment SMC compression molded reflector assembly.

The complete 1.2-meter antenna system, with two-piece reflector and a single feed, is packaged in multiple portable cases or reusable wooden crate, depending on options ordered.

Features

- Precision compression molded offset reflector (two-segment optional)
- Compact galvanized steel tripod
- Transport cases available
- 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*	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	40.8	42.0
Sidelobe Compliant with	IESS 601 STD G		IESS 601 STD G	
VSWR	1.30:1 Max		1.30:1 Max	
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	
Cross Polarization Isolation				
On Axis	30.0 dB	30.0 dB	35.0 dB	35.0 dB
Within 1.0 dB Beamwidth	23.0 dB	23.0 dB	23.0 dB	23.0 dB
Pattern Beamwidth (in degrees at 4.000/6.138 GHz)				
-3 dB Beamwidth	4.12	2.98	1.36	1.20
-15 dB Beamwidth	8.65	6.26	2.86	2.52
Power Handling		2.00 kW CW		2.00 kW CW
Output Waveguide Flange Interface	CPR-229G	CPR-137G	WR-75 Flat	WR-75 Flat
RF Specification	975-3081		975-3084	

Mechanical			
Reflector Material	Composite reinforced materials (SMC)		
Antenna Optics	Prime focus, offset feed, 0.6 F/D		
Mount Type	Quick erect tripod with El/Az canister; tripod pipe size - 2.5 in Schedule 40 pipe [2.88 in OD (7.32 cm)]		
Elevation Adjustment Range	5° to 90° continuous, fine adjustment		
Azimuth Adjustment Range	360° continuous, ±25° fine		
Shipping Specifications	Case quantity and size	Component weight	Total weight (component and case)
Option 1 (reflector soft cases and reusable wooden crate) Ku-band feed included			
Two-piece Reflector Case	1 @ 65" x 39" x 40" H		435 lbs. (197 kg)
Option 2 (hard cases) Feed packed separately, consult factory for details			
Two-piece Reflector Case	1 @ 55" x 16" x 26" H	29 lbs. (63 kg)	78 lbs. (35 kg)
Az/El Positioner Case	1 @ 43" x 18" x 20" H	49 lbs. (22 kg)	87 lbs. (39 kg)
Tripod Case	1 @ 52" x 21" x 21" H	68 lbs. (31 kg)	117 lbs. (53 kg)
Total Shipping Dims and Weight	1 @ 56" x 59" x 36" H (on skid)	146 lbs. (66 kg) (net weight of antenna)	383 lbs. (174 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 ² (1000 Kcal/h/m ²)

* Consult factory for X or Ka-band options.

GENERAL DYNAMICS

SATCOM Technologies

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