

1.8, 2.4 & 3.8M C or Ku-Band Antennas

Series 1185, 1256 & 1382

Technical Specifications

Electrical	Series 1185		Series 1256		Series 1382		
	C-Band	Ku-Band	C-Band	Ku-Band	C-Band	Ku-Band	
Antenna Size	1.8 M (71 in.)		2.4 M (96 in.)		3.8 M (150 in.)		
Operating Frequency (GHz)	Receive Transmit	3.625 - 4.20 5.85 - 6.425	10.95 - 12.75 14.00 - 14.50	3.625 - 4.20 5.85 - 6.425	10.95 - 12.75 14.00 - 14.50	3.625 - 4.20 5.85 - 6.425	10.95 - 12.75 14.00 - 14.50
Midband Gain (+/- .2 dB)	Receive Transmit	35.50 dBi 39.50 dBi	45.00 dBi 46.50 dBi	38.00 dBi 42.00 dBi	47.60 dBi 49.20 dBi	42.00 dBi 46.00 dBi	51.70 dBi 53.20 dBi
Antenna Noise Temperature (linear)							
10° Elevation		56 K	49 K	52 K	42 K	31 K	29 K
20° Elevation		49 K	38 K	46 K	32 K	25 K	21 K
30° Elevation		47 K	35 K	45 K	28 K	21 K	20 K
40° Elevation		46 K	34 K	44 K	27 K	21 K	19 K
Antenna Noise Temperature (circular)							
10° Elevation		30 K		29 K		28 K	
20° Elevation		23 K		22 K		22 K	
30° Elevation		21 K		20 K		19 K	
40° Elevation		20 K		19 K		18 K	
Cross-Pol Isolation (Linear)		>30 dB (on axis)		>30 dB (on axis)		>30 dB (on axis)	
Sidelobe Envelope, 100λ/D ≤ θ ≤ 20° 7° < θ ≤ 9.2° 9.2° < θ ≤ 48° 48° < θ		29 - 25 Logq dBi -3.5 dBi 32 - 25 Logq dBi -10 dBi (averaged)		29 - 25 Logq dBi -3.5 dBi 32 - 25 Logq dBi -10 dBi (averaged)		29 - 25 Logq dBi -3.5 dBi 32 - 25 Logq dBi -10 dBi (averaged)	
VSWR		1.3:1 Max.		1.3:1 Max.	-30 dB within B.P.E.	1.3:1 Max.	

Mechanical			
Reflector Material	Glass Fiber Reinforced Polyester SMC		
Mount Type	Dual Axis Motorized, Elevation over Azimuth, Galvanized Steel Construction		
Elevation Adjustment Range	10° to 80°		
Azimuth Adjustment Range	360° Continuous		
Angular Tracking Travel	Elevation +/- 10° ; Azimuth +/- 10° (within adjustment range)		
Actuators	Recirculating Ballscrews		
Interface	Electrically to ACU		
Antenna Optics, Prime Focus	One Piece Offset Feed	Four Piece Offset Feed	Four Piece Offset Feed
Tracking Accuracy	0.10°	0.10°	0.05°
Mast Pipe Size	3.5" SCH 40 Pipe (4.00" OD) 10.16 cm.	6" SCH 40 Pipe (6.63" OD) 16.83 cm.	10" SCH 40 Pipe (10.75" OD) 27.30 cm.
Shipping Specifications	445 lbs. (200 kg.)	680 lbs. (306 kg.)	3000 lbs. (1360 kg.)

Environmental Performance		
Wind Loading	Operational Survival	45 mph with .2° pointing error (72km/h) 125 mph (201 km/h)
Temperature	Operational Survival	- 40° to 140°F (- 40° to 60°C) -22° to 160° F (-30° to 71° C)
Rain	Operational Survival	½" / hr 2" /hr
Ice	Operational Survival	----- 1/2" radial
Atmospheric Conditions	Salt, Pollutants, and Contaminants as Encountered in Coastal and Industrial Areas	
Solar Radiation	360 BTU/h/ft2	

GENERAL DYNAMICS SATCOM Technologies

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