

Receive/Transmit Series 1383

3.8 M

C & KU BAND

RX/TX

SERIES 1383

Electrical		C-Band Linear	C-band Circular	Ku-Band
Antenna Size		3.8M	3.8M	3.8M
Operating Frequency (GHz)	RX	3.625 - 4.2 GHz	3.625 - 4.2 GHz	10.95 - 12.75 GHz
	TX	5.845 - 6.725 GHz	5.845 - 6.425 GHz	13.75 - 14.5 GHz
Midband Gain ($\pm .2$ dB)	RX	41.8 dB	42.1 dB	51.7 dB
	TX	46.2 dB	46.0 dB	53.2 dB
Antenna Noise Temperature				
10° elevation		31 K	28 K	29 K
20° elevation		25 K	22 K	21 K
30° elevation		23 K	20 K	20 K
40° elevation		22 K	19 K	19 K
Sidelobe Envelope, Co-Pol (dBi)				
$1^\circ \leq \theta \leq 20^\circ$		29-25 Log θ dBi	29-25 Log θ dBi	29-25 Log θ dBi
$20^\circ < \theta \leq 26.3^\circ$		-3.5 dBi	-3.5 dBi	-3.5 dBi
$26.3^\circ < \theta \leq 48^\circ$		32-25 Log θ dBi	32-25 Log θ dBi	32-25 Log θ dBi
$48^\circ < \theta <$		-10 dBi (averaged)	-10 dBi (averaged)	-10 dBi (averaged)
Polarization		Linear	Circular	Linear
Feed Interface	RX	CPR 229	CPR 229	WR75 or direct radio
	TX	CPR 137 or Type N	CPR 137 or Type N	mounting
Axial Ratio	RX/TX		1.3 / 1.3 VAR (2.28 dB)	
	RX/TX		1.3 / 1.09 VAR (.75 dB)	
			Intelsat Only	
Cross-Pol Isolation		>30 dB (on axis)	>30 dB (on axis)	>30 dB (on axis)
VSWR		1.3:1 Max.	1.3:1 Max.	1.3:1 Max.
Mechanical				
Reflector Material		Glass Fiber Reinforced Polyester SMC		
Antenna Optics		4 Piece Prime Focus, Offset Feed		
Mast Pipe Size		10" SCH 40 Pipe (10.75" OD) 27.30 cm.		
Elevation Adjustment Range		12° to 90° (0° to 15° Inverted)		
Azimuth Adjustment Range		360° Continuous, $\pm 35^\circ$ Fine Adjustment		
Shipping Specifications		Weight	1780 lbs. (808 kg.)	
Environmental Performance				
Wind Loading	Operational		50 mph (80 km/h)	
	Survival		125 mph (201 km/h)	
Temperature	Operational		-40° to 140° F (-40° to 60° C)	
	Survival		-50° to 160° F (-46° to 71° C)	
Atmospheric Conditions		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas		
Solar Radiation		360 BTU/h/ft ²		

GENERAL DYNAMICS

C4 Systems

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