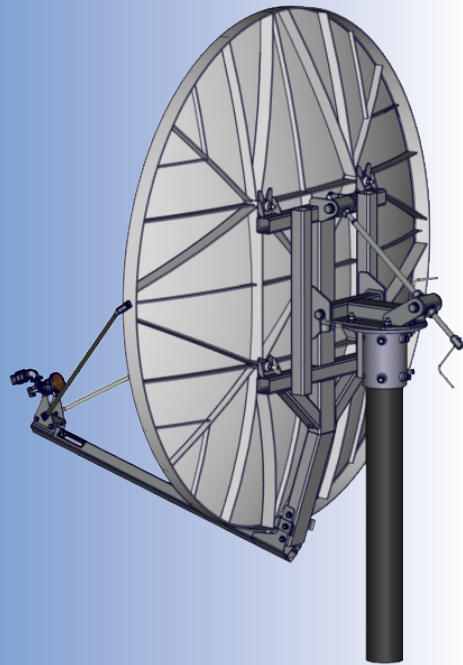


# 1.8m RxTx Class IIIH Antenna System

## RF Performance



### Type 183H Antenna Product Specification

- ISO 9001:2008  
Certificate Of Registration



MODEL#	183H16 C Band	183H36 Ku Band
Effective Aperture . . . . .	1.8m (71in)	
Operating Frequency	Tx. . . . . 5.850 - 6.725 GHz . . . . .	13.75-14.50 GHz
	Rx. . . . . 3.400 - 4.200 GHz . . . . .	10.70-12.75 GHz
Polarization . . . . .	Linear Orthogonal	
Gain (±0.2 dB)	Tx. . . . . 39.3 dBi @ 6.1 GHz . . . . .	46.7 dBi @ 14.3 GHz
	Rx. . . . . 35.4 dBi @ 3.9 GHz . . . . .	45.0 dBi @ 11.7 GHz
3dB Beamwidth	Tx. . . . . 2.0° @ 6.1 GHz . . . . .	0.8° @ 14.3 GHz
	Rx. . . . . 3.0° @ 3.9 GHz . . . . .	1.1° @ 11.2 GHz
Sidelobe Envelope (Tx, Co-Pol dB)	Mainbeam < $\Theta$ < 20° . . . . . 29 - 25 Log $\Theta$ dB	
	20° < $\Theta$ < 26.3° . . . . . -3.5 dB	
	26.3° < $\Theta$ < 48° . . . . . 32-25 Log $\Theta$ dB	
	48° < $\Theta$ < 180° . . . . . -10 dB	
Antenna Cross-Polarization (within 1dB contour)	Tx. . . . . 30dB (on axis) . . . . . 29 dB	
	Rx. . . . . 30dB (on axis) . . . . . 21 dB	
Antenna Noise Temperature	10° Elev. . . . . 41° K . . . . . 43° K	
	20° Elev. . . . . 36° K . . . . . 28° K	
	30° Elev. . . . . 33° K . . . . . 23° K	
VSWR	Tx. . . . . 1.3:1 . . . . . 1.3:1	
	Rx. . . . . 1.5:1 . . . . . 1.5:1	
Isolation (Port to Port)	Tx. . . . . 60 dB . . . . . 90 dB	
	Rx. . . . . 60 dB . . . . . 40 dB	
Feed Interface	Tx. . . . . Type N or CPR-137 . . . . . WR75 Flat Flange	
	Rx. . . . . CPR-137 . . . . . WR75 Flat Flange	

## Mechanical Performance

Reflector Material . . . . .	Glass Fiber Reinforced Polyester	
Antenna Optics . . . . .	One-Piece Offset Feed Prime Focus	
Mount Type . . . . .	Elevation over Azimuth	
Maximum Radio Weight . . . . .	11 kg or 25 lbs for RF Electronics	
Elevation Adjustment Range . . . . .	10° - 90° Continuous Fine Adjustment	
Azimuth Adjustment Range . . . . .	360° Continuous, ±10° Fine Adjustment	
Mast Pipe Size . . . . .	5" or 5.56" (127mm or 141mm) diam.	
Wind Loading. . . . .	Operational . . . . .	105 km/h (65 mph)
	Survival . . . . .	241 km/h (150 mph)
Temperature . . . . .	-50°C to +80°C	
Humidity . . . . .	0 to 100% (Condensing)	
Atmosphere . . . . .	Standard Hardware Meets 500 Hour Salt Spray Test Requirements (ASTM B-117)	
Solar Radiation. . . . .	360 BTU/h/ft2	
Shock and Vibration . . . . .	As Encountered During Shipping and Handling	

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