



7.6 Meter C, X-band Earth Station Antenna

The ASC Signal 7.6 meter earth station antenna provides high gain and exceptional pattern characteristics.

The electrical performance and versatility provide the ability to configure the antenna with a choice of linearly polarized or circularly polarized 2-port or 4-port combining networks. This antenna features a computer-optimized dual reflector Gregorian system.

- No field alignment at C or X-bands.
- Rugged aluminum and steel construction.
- 3 Year warranty on structural components.

SPECIFICATIONS

7.6 Meter C, X-band Earth Station Antenna

Electrical Performance

	C-band 2-Port Circular Pol Feed		C-band 2-Port Linear Pol Feed		C-band 4-Port Circular Pol Feed		C-band 4-Port Linear Pol Feed		X-band 2-Port Circular Pol Feed	
	Receive	Transmit	Receive	Transmit	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency (GHz)	3.625- 4.200	5.850- 6.425	3.625- 4.200	5.850- 6.425	3.625- 4.200	5.850- 6.425	3.625- 4.200	5.850- 6.425	7.250- 7.500	7.900- 8.400
Antenna Gain at Output Flange (dBi ± 0.2 dB) Frequency										
4.000 GHz	48.80		48.80		48.80		48.80			
4.200 GHz	49.10		49.10		49.10		49.20			
6.175 GHz	52.50		52.60		52.40		52.40			
7.380 GHz									54.00	
8.250 GHz									54.70	
Antenna Noise Temperature (Clear Sky Conditions at 68°F (20°C)										
10° Elevation	45 K		40 K		45 K		45 K		45 K	
30° Elevation	36 K		31 K		36 K		36 K		36 K	
50° Elevation	32 K		28 K		32 K		32 K		30 K	
Cross Polarization										
On Axis	N/A	N/A	35 dB	35 dB	N/A	N/A	35 dB	35 dB	N/A	N/A
Within 1 dB Beamwidth	N/A	N/A	35 dB	35 dB	N/A	N/A	35 dB	35 dB	N/A	N/A
Axial Ratio	2.30 dB		0.75 dB	N/A	N/A 0.50 dB		0.50 dB		N/A	N/A 1.20 dB
VSWR Performance	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1
Port-to-Port Isolation										
Rx to Rx			N/A		20 dB		40 dB			N/A
Tx to Rx	N/A		85 dB		85 dB		85 dB			20 dB
Tx to Tx	N/A		N/A		20 dB		40 dB			N/A
Waveguide Interface Flange	Brass CPR-229G	Plated Brass CPR-137G	Brass CPR-229G	Plated Brass	Brass CPR-137G	Brass CPR-229G	Brass CPR-137G	Brass CPR-229G	WR112 CPR-137G	WR112
Tx Power Capacity	500 W		5000 W		2500 W		2500 W		750 W	

Mechanical Performance

Environmental Performance

Optics Type	Dual Reflector, Gregorian	Operational Temperature	-40°C to 52°C (-40°F to 125°F)
Reflector Material	Precision Formed Aluminum	Wind Loading (Survival)	with Motor 200 km/h (125 mph) in Stationary Position without Motor 200 km/h (125 mph) in Stationary Position
Reflector Segments	16	Wind Loading (Operational)	with Motor 72 km/h (45 mph) Gust to 103 km/h (65 mph) without Motor 72 km/h (45 mph) Gust to 103 km/h (65 mph)
Mount Type	Tripod Mount		
Antenna Pointing Range	Elevation 0° to 102° Azimuth 180° Coarse, 120° Continuous Polarization 180° Coarse, 180° Continuous	Solar Radiation	360 BTU/h/ft ² (1135 W/m ²)
Hub/Enclosure Dimensions	Diameter 1.17 m (46 in) Depth 1.17 m (46 in)	Relative Humidity	100%
		Shock and Vibration	As Encountered by Commercial Airplane and Truck
		Atmospheric Conditions	As Encountered by Moderately Corrosive Coastal and Industrial Areas



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