



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	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		N/A		20 dB		40 dB		N/A	
Tx to Rx	85 dB		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 CPR-137G	Brass CPR-229G	Brass CPR-137G	Brass CPR-229G	Brass CPR-137G	WR112	WR112
Tx Power Capacity	500 W		5000 W		2500 W		2500 W		750 W	

Mechanical Performance

Optics Type	.....	Dual Reflector, Gregorian
Reflector Material	.....	Precision Formed Aluminum
Reflector Segments	.....	16
Mount Type	.....	Tripod Mount
Antenna Pointing Range	Elevation	5° Coarse, 90° Continuous
	Azimuth	180° Coarse, 120° Continuous
	Polarization	180° Coarse, 180° Continuous
Hub/Enclosure Dimensions	Diameter	1.33 m (52 in)
	Depth	1.17 m (46 in)

Environmental Performance

Operational Temperature	.....	-40°C to 52°C (-40°F to 125°F)
Wind Loading (Survival)	with Motor	200 km/h (125 mph) in Stationary Position
	without Motor	200 km/h (125 mph) in Stationary Position
Wind Loading (Operational)	with Motor	72 km/h (45 mph) with Gusts up to 105 km/h (65 mph)
	without Motor	72 km/h (45 mph) with Gusts up to 105 km/h (65 mph)
Rain	.....	102 mm (4 in per hour)
Solar Radiation	.....	360 BTU/h/ft ² (1135 W/m ²)
Relative Humidity	.....	100%
Shock and Vibration	.....	As Encountered by Commercial Air, Rail and Truck
Atmospheric Conditions	As Encountered by Moderately Corrosive Coastal and Industrial Areas



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