



## 7.6 Meter Ku-band, K-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. The 7.6 meter antenna is capable of operation at Ku-band and K-band with the selection of feed and combiner systems. This antenna features a computer-optimized dual reflector Gregorian system.

- High gain with excellent pattern characteristics.
- Rugged aluminum and steel construction.
- 3 Year warranty on structural components.
- Russian Homologation Certificate # OC/1-AO-136.



## SPECIFICATIONS

### 7.6 Meter Ku-band, K-band Earth Station Antenna

#### Electrical Performance

	Ku-band 2-Port Linear Pol Feed		Ku-band 4-Port Linear Pol Feed		K-band 2-Port Linear Pol Feed		K-band 4-Port Linear Pol Feed	
	Receive	Transmit	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency (GHz)	10.700- 13.250	13.750- 14.800	10.700- 12.750	13.750- 4.800	10.700- 12.750	17.300- 18.400	10.700- 12.750	17.300- 18.400
Antenna Gain at Output Flange (dBi ±0.2 dB) Frequency								
11.9500 GHz	57.70		57.30		57.80		57.30	
14.2500 GHz	59.40		59.00					
17.3000 GHz					60.70		60.50	
Antenna Noise Temperature (Clear Sky Conditions at 68°F (20°C))								
10° Elevation	55 K		78 K		69 K		86 K	
30° Elevation	41 K		64 K		55 K		71 K	
50° Elevation	36 K		59 K		50 K		66 K	
Cross Polarization								
On Axis	35 dB	35 dB	35 dB	35 dB	35 dB	35 dB	35 dB	35 dB
Within 1 dB Beamwidth	35 dB	35 dB	35 dB	35 dB	35 dB	35 dB	35 dB	35 dB
Axial Ratio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
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
Port-to-Port Isolation								
Rx to Rx	N/A		40 dB		N/A		40 dB	
Tx to Rx	40 dB		85 dB		40 dB		85 dB	
Tx to Tx	N/A		40 dB		N/A		40 dB	
Waveguide Interface Flange	Brass WR75	Brass WR75	Brass WR75	Brass WR75	Brass WR75	Brass WR62	Brass WR75	Brass WR62
Tx Power Capacity	2000 W		2000 W		2000 W		2000 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)	
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	