



## 8.1 Meter Ka-band Earth Station Antenna

The ASC Signal 8.1 meter Ka-band earth station antenna features a uniquely formed dual reflector Gregorian system coupled with close-tolerance manufacturing techniques. This configuration ensures superior pointing accuracy and excellent pattern characteristics.

The axial symmetric design eliminates beam squint between polarizations. All structural components are covered by a three year warranty.

- Rugged construction
- Superior pointing accuracy
- Excellent pattern characteristics
- 3 year warranty on all structural components
- Deep equipment enclosure



## SPECIFICATIONS

### 8.1 Meter Ka-band Earth Station Antenna

#### Electrical Performance

	Ka-band 4-Port Circular Pol Feed		Ka-band 4-Port Circular Pol Feed		Ka-band 4-Port Linear Pol Feed Eutelsat Frequency	
	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency (GHz)	20.200-21.200	30.000-31.000	18.300-20.200	28.300-30.000	17.700-20.200	27.000-30.050
Antenna Gain at Midband	62.50 dB	65.40 dB	61.80 dB	65.30 dB	61.60 dB	65.30 dB
Antenna Noise Temperature ( Midband, Clear Sky Conditions at 68°F (20°C, Water Vapor Density < 7.5 g/m3)						
10° Elevation		118 K		113 K		109 K
30° Elevation		93 K		86 K		82 K
50° Elevation		90 K		82 K		77 K
Cross Polarization On Axis Within 1 dB Beamwidth	N/A N/A	N/A N/A	N/A N/A	N/A N/A	35 dB 35 dB	35 dB 35 dB
Axial Ratio	0.50 dB	0.50 dB	0.50 dB	0.50 dB	N/A	N/A
VSWR Performance	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		18 dB		18 dB		35 dB
Tx to Rx		85 dB		85 dB		85 dB
Tx to Tx		18 dB		18 dB		35 dB
Waveguide Interface Flange	WR42	WR28	WR42	WR28	WR42	WR28
Tx Power Capacity	500 W/Port		500 W/Port		500 W/Port	

#### Mechanical Performance

Optics Type	Dual Reflector, Gregorian
Reflector Material	Precision Formed Aluminum
Reflector Segments	20
Mount Type	Pedestal Mount
Antenna Pointing Range	Elevation ..... 0° Coarse, 90° Continuous

#### 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



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ASC-ESA19 revA  
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