



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. Also available in Low PIM versions. This antenna is Compliant to ITU-R, S.580 and S.465

- 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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