



ASC Signal ESAs provide maximum durability with minimal maintenance.



9.3 Meter Dual Reflector Earth Station Antenna

Now telecommunications and television system operators, integrators and designers can bring their systems on line faster, more economically, and with superior performance with the ASC Signal 9.3 meter Earth Station Antenna (ESA)

In use around the world in broadcast applications and high-density data, voice, communications networks, the ASC Signal 9.3 meter ESA features a computer-optimized dual reflector Gregorian system coupled with independently adjustable reflector panels and trusses and close-tolerance manufacturing techniques. This combination provides extremely accurate surface contour, exceptionally high gain, superior efficiency, and closely controlled pattern characteristics. Additionally, the elevation-over-azimuth mount enables horizon-to-horizon coverage from any worldwide location. ASC Signal ESAs provide maximum durability with minimal maintenance. The hot-dipped galvanized steel ground mount assembly ensures extended product life.

Galvanized and stainless steel hardware maximizes corrosion resistance. A variety of options are available for cost effective system expansion, including two or four port linear or circular polarized combining networks, programmable control systems, feed rotation systems, maintenance platforms, professionally designed and documented cross-axis waveguide kits, and pressurization systems. Microprocessor and steptrack controls are also available for motorized antennas.

- High gain, excellent pattern characteristics
- Horizon to horizon coverage with elevation over azimuth mount
- Advanced Gregorian optics
- Intelsat B compliant

SPECIFICATIONS

9.3 Meter Dual Reflector 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 | |
|---|------------------------------------|-----------------|----------------------------------|-----------------|------------------------------------|-----------------|----------------------------------|-----------------|
| | 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 |
| Antenna Gain at Midband | 50.40 dB | 53.80 dB | 50.40 dB | 53.90 dB | 53.70 dB | | 53.80 dB | |
| Antenna Noise Temperature (Clear Sky Conditions at 68°F (20°C)) | | | | | | | | |
| 10° Elevation | 39 K | | 39 K | | 43 K | | 35 K | |
| 30° Elevation | 29 K | | 29 K | | 33 K | | 35 K | |
| 50° Elevation | 27 K | | 27 K | | 31 K | | 23 K | |
| Axial Ratio | 1.20 dB | 0.75 dB | 1.50 dB | 1.50 dB | | | 0.50 dB | 0.50 dB |
| VSWR Performance | 1.30:1 | 1.30:1 | 1.30:1 | 1.30:1 | 1.35:1 | 1.35:1 | 1.30:1 | 1.30:1 |
| Port-to-Port Isolation Rx/Tx Tx/Tx | ≥85 dB | | ≥85 dB | | 40 dB ≥85 dB | | 40 dB ≥85 dB | |
| Waveguide Interface Flange (Tx Port) | CPR-229 G | CPR-137 G | CPR-229G | CPR-137G | CPR-229G | CPR-137G | CPR-229G | CPR-137G-42 |
| Tx Power Capacity | 500 W | | 5000 W | | 1500 W per Port | | 2500 W | |
| Maximum Pressurization | 0.05 psi | | 0.50 psi | | 0.50 psi | | 0.50 psi | |

Mechanical Performance

| | | |
|--------------------------|------------------------------------|--------------------------------|
| Optics Type | Dual Reflector, Gregorian | |
| Reflector Material | Precision Formed Aluminum | |
| Reflector Segments | 20 | |
| Mount Type | Tripod with Elevation Over Azimuth | |
| Antenna Pointing Range | Elevation | 0 - 90° Coarse, 90° Continuous |
| | Azimuth | 180° Coarse, 120° Continuous |
| | Polarization | 180° Coarse, 180° Continuous |
| Hub/Enclosure Dimensions | Diameter | 2.31 m (84 in) |
| | Depth | 1.17 m (46 in) |

Environmental Performance

| | | |
|-------------------------|---|--|
| Operational Temperature | -40°C to 50°C (-40°F to 125°F) | |
| Wind Loading | Operational | 72 km/h (45 mph) to 105 km/h (65 mph) (with Motor Drives) |
| | Survival | 200 km/h (125 mph) (Any Position) |
| Rain | 102 mm (4 in per hour) | |
| Solar Radiation | 1135 Watts/m ² (360 BTU/h/ft 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 | |

Specifications provided are for representative feeds. Other feeds are available for this antenna size.



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All designs, specifications and availabilities of products and services presented in this bulletin are subject to change without notice.

ASC-ESA20

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