

PRODUCT SPECIFICATIONS



# 7.3 Meter Earth Station Antenna

The superior performance of the ASC Signal 7.3 meter earth station antenna makes it an excellent choice for high-density data, voice, communications networks and broadcast applications.

The uniquely formed dual reflector Gregorian system and close-tolerance manufacturing techniques provide an extremely accurate surface contour, exceptionally high gain and closely controlled pattern characteristics. The 7.3 meter 2 or 4-port C-band INTELSAT® Type Approved antennas speed system deployment. Minimal testing and decreased administrative and approval requirements translate directly to cost savings.

- Self-aligning main reflector No field alignment.
- Rugged aluminum and steel construction.
- 3 Year warranty on structural components.
- Russian Homologation Certificate # OC/1-AO-136.
- INTELSAT<sub>®</sub> Type Approval, IAO32AOO, 2-port; IAO32BOO, 4-port.



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#### **Electrical Performance**

|   |                               | d 2-Port<br>Pol Feed<br>Transmit |                      | nd 2-Port<br>Pol Feed<br>Transmit |                   | l 4-Port<br>Pol Feed<br>Transmit |                   | nd 4-Port<br>Pol Feed<br>Transmit |  |
|---|-------------------------------|----------------------------------|----------------------|-----------------------------------|-------------------|----------------------------------|-------------------|-----------------------------------|--|
| Frequency (GHz)   | 3.625-<br>4.200               | 5.850-<br>6.425                  | 3.625-<br>4.200      | 5.850-<br>6.425                   | 3.625-<br>4.200   | 5.850-<br>6.425                  | 3.625-<br>4.200   | 5.850-<br>6.425                   |  |
| Antenna Gain at Output Flange (dBi ±0<br>4.0000 GHz<br>6.1750 GHz                       | ).2 dB) Frequency<br>48<br>51 | 3.30<br>.60                      | 48.30<br>51.70       |                                   |                   | .30<br>.60                       |                   | .30<br>.60                        |  |
| Antenna Noise Temperature (Clear Sky<br>10° Elevation<br>30° Elevation<br>50° Elevation | 48<br>37                      |                                  | 42 K<br>31 K<br>29 K |                                   | 48<br>37<br>35    | K                                | 48<br>37<br>35    | K                                 |  |
| Cross Polarization<br>On Axis<br>Within 1 dB Beamwidth                                  | N/A<br>N/A                    | N/A<br>N/A                       | N/A<br>N/A           | N/A<br>N/A                        | N/A<br>N/A        | N/A<br>N/A                       | 35 dB<br>35 dB    | 35 dB<br>35 dB                    |  |
| Axial Ratio   | 2.3 dB                        | 0.75 dB                          | N/A                  | N/A                               | 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                           | 1.30:1            | 1.30:1                            |  |
| Port-to-Port Isolation<br>Rx to Rx<br>Tx to Rx<br>Tx to Tx                              | N/A<br>85 dB<br>N/A           |                                  | N/A<br>85 dB<br>N/A  | N/A<br>85 dB<br>N/A               |                   | 20 dB<br>85 dB<br>20 dB          |                   | 40 dB<br>85 dB<br>40 dB           |  |
| Waveguide Interface Flange  | Brass<br>CPR-137 G            | Brass<br>CPR-229G                | Aluminum<br>CPR-137G | Aluminum<br>CPR-229G              | Brass<br>CPR-137G | Brass<br>CPR-229G                | Brass<br>CPR-137G | Brass<br>CPR-229G                 |  |
| Tx Power Capacity   | 500 W                         |                                  | 5000 W               |                                   | 2500 W            |                                  | 2500 W            |                                   |  |

### **Mechanical Performance**

| Optics Type              |                | . Dual Reflector, Gregorian   |
|--------------------------|----------------|---|
| Reflector Material       |                | . Precision Formed Aluminum   |
| Reflector Segments       |                | 16  |
| Mount Type               |                | Tripod Mount  |
| Antenna Pointing Range   | Azimuth        | 5° Coarse, 85° Continuous<br>180° Coarse, 120° Continuous<br>180° Coarse, 180° Continuous |
| Hub/Enclosure Dimensions | Diameter Depth |   |

## **Environmental Performance**

| Operational Temperature                             | 40°C to 52°C (-40°F to 125°F)  |
|---|--|
| Wind Loading (Survival) with Motor without Motor    | 200 km/h (125 mph) in Stationary Position<br>200 km/h (125 mph) in Stationary Position                     |
| Wind Loading (Operational) with Motor without Motor | 72 km/h (45 mph) with Gusts up to 105 km/h (65 mph)<br>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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