

**PRODUCT  
SPECIFICATIONS**

Detail Photos  
(on right from top to bottom)  
Pre-assembled Az/El Mount  
Fine-elevation adjustment  
with stamped degree scale  
Shown with optional "slip-joint  
polarizer" feed



The reflector is thermoset-molded for strength and surface accuracy.



## 75 cm RxTx Elliptical Antenna System

### TYPE 755TX

The ASC Signal Type 755TX 75 cm RxTx Elliptical Antenna is a rugged commercial grade product suitable for the most demanding applications. The reflector is thermoset-molded for strength and surface accuracy. Molded into the rear of the reflector is a network of support ribs which strengthens the antenna and sustains the parabolic shape necessary for transmit performance.

The heavy-gauge galvanized steel Az/El/Skew mount provides rigid support to the reflector. The mount secures the antenna to any 60 mm (2.38") O.D. mast and prevents slippage in high winds. This mount allows for precise alignment of the elliptical reflector to the geostationary arc. A special powder paint process offers excellent protection from weather-related corrosion.

- All materials comply with EU directive No. 2002/95/EC (RoHS).
- One-piece precision elliptical offset thermoset-molded reflector.
- Single bolt fine elevation adjustment.
- Extruded aluminum feed support arm.
- Pre-assembled Az/El/Skew mount for optimum alignment capability.
- Plated hardware for maximum corrosion resistance.
- Includes RxTx feed assembly.
- Available with Co-Pol or Cross-Pol feed.
- Designed for typical 1 W and 2 W Ku-band Block Up-Converters (BUCs)\*

\* 2 kg or 4.5 lb or max. weight for RF electronics (BUC and LNB)

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#### RF Performance

|                                    |                        |   |
|------------------------------------|------------------------|---|
| Effective Aperture                 |                        | 75 cm equivalent (30 in)<br>(62 cm x 89 cm Elliptical Aperture) |
| Operating Frequency                | Tx                     | 13.75 - 14.50 GHz   |
|                                    | Rx                     | 10.70 - 12.75 GHz (with Standard Feed)                          |
|                                    | Rx                     | 11.45 - 12.20 GHz (with Slip Joint Feed)                        |
| Polarization                       |                        | Linear, Co or Cross-Polarized                                   |
| Gain ( $\pm 2$ dBi)                | Tx                     | 39.3 dBi @ 14.3 GHz   |
|                                    | Rx                     | 37.8 dBi @ 12.0 GHz   |
| 3 dB Beamwidth                     | Tx                     | 1.6° @ 14.3 GHz   |
|                                    | Rx                     | 2.0° @ 12.0 GHz   |
| Sidelobe Envelope (Tx, Co-Pol dBi) |                        |   |
|                                    | 1.8° < $\Theta$ < 20°  | 29 - 25 Log $\Theta$  |
|                                    | 20° < $\Theta$ < 26.3° | -3.5  |
|                                    | 26.3° < $\Theta$ < 48° | 32 - 25 Log $\Theta$  |
|                                    | 48° < $\Theta$ < 180°  | -10   |
| Antenna Cross-Polarization         |                        | 30 dB on Axis   |
| Antenna Noise Temperature          | 30° El                 | 50° K   |
| VSWR                               | Tx                     | 1.3:1   |
|                                    | Rx                     | 1.5:1   |
| Isolation (Port to Port)           | Tx                     | 80 dB   |
|                                    | Rx                     | 35 dB   |
| Feed Interface                     | Tx                     | WR75 Flat Flange  |
|                                    | Rx                     | WR75 Flat Flange  |

(All specifications typical)

#### Mechanical Performance

|                                      |             |  |
|--------------------------------------|-------------|--|
| Reflector Material                   |             | Glass Fiber Reinforced Polyester   |
| Antenna Optics                       |             | One-Piece Offset Prime Focus   |
| Mount Type                           |             | Three Axis, Skew, Elevation and Azimuth                                    |
| Polarization (Skew) Adjustment Range |             | $\pm 90^\circ$ Continuous  |
| Elevation Adjustment Range           |             | 5° - 90° Continuous Fine Adjustment  |
| Azimuth Adjustment Range             |             | 360° Continuous  |
| Mast Pipe Interface                  |             | 60 mm (2.38 in) Diameter   |
| Wind Loading                         | Operational | 80 km/h (50 mph)   |
|                                      | Survival    | 200 km/h (125 mph)   |
| Temperature                          |             | -50°C to 80°C  |
| Humidity                             |             | 0 to 100% (Condensing)   |
| Atmosphere                           |             | Standard Hardware Meets 500 Hour Salt Spray Test Requirements (ASTM B-117) |
| Solar Radiation                      |             | 360 BTU/h/ft <sup>2</sup>  |
| Shock and Vibration                  |             | As Encountered During Shipping and Handling                                |



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