

**PRODUCT
SPECIFICATIONS**

Detail Photos
(on right from top to bottom)
Pre-assembled Az/EI Mount
Fine-elevation adjustment
with stamped degree scale
RF tested Ku-band feed
assembly



1.0 m RxTx Class I Antenna System TYPE 100TX

The reflector is thermo-
set-molded for strength
and surface accuracy.



The ASC Signal Type 100TX 1.0 m Class I RxTx 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 not only strengthens the antenna, but also helps to sustain the critical parabolic shape necessary for transmit performance.

The heavy gauge steel Az/EI mount secures the antenna to any 73-76 mm (2.88"-3.00") mast and prevents slippage in high winds. 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 offset thermoset-molded reflector.
- Single bolt fine elevation adjustment.
- Galvanized 19 mm (.75") O.D. feed support legs.
- Factory pre-assembled mount.
- Plated hardware for maximum corrosion resistance.
- Includes RxTx OMT/Filter assembly.
- Class I system designed for typical 1 W and 2 W Ku-band Block Up-Converters (BUCs)*

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

SPECIFICATIONS

Type 100TX 1.0 m RxTx Class I Antenna System

RF Performance

| | | |
|------------------------------------|------------------------------|----------------------|
| Effective Aperture | ..... | 1.0 m (40 in) |
| Operating Frequency | Tx | 13.75 - 14.50 GHz |
| | Rx | 10.70 - 12.75 GHz |
| Polarization | ..... | Linear, Orthogonal |
| Gain (± 2 dBi) | Tx | 41.5 dBi @ 14.3 GHz |
| | Rx | 40.2 dBi @ 12.0 GHz |
| 3 dB Beamwidth | Tx | 1.5° @ 14.3 GHz |
| | Rx | 1.9° @ 12.0 GHz |
| Sidelobe Envelope (Tx, Co-Pol dBi) | 2.5° < Θ < 20° | 29 - 25 Log Θ |
| | 20° < Θ < 26.3° | -3.5 |
| | 26.3° < Θ < 48° | 32 - 25 Log Θ |
| | 48° < Θ < 180° | -10 |
| Antenna Cross-Polarization | ..... | 30 dB on Axis |
| Antenna Noise | ..... |  |
| Temperature | 10° El | 47° K |
| | 20° El | 33° K |
| | 30° El | 26° 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 Feed Prime Focus |
| Mount Type | ..... | Elevation over Azimuth |
| Elevation Adjustment Range | ..... | 10° - 90° Continuous Fine Adjustment |
| Azimuth Adjustment Range | ..... | 360° Continuous |
| Mast Pipe Interface | ..... | 73 - 76 mm (2.88 in - 3.00 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 ² |
| Shock and Vibration | | As Encountered During Shipping and Handling |



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