

**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



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



1.0 m RxTx Class I Antenna System TYPE 100TX

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	39° K
	30° El	36° 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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