

## PRODUCT SPECIFICATIONS

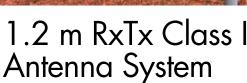
Detail Photos

(on right from top to bottom)
Pre-assembled Az/El Mount

Fine-elevation adjustment with stamped degree scale

RF tested Ku-band feed assembly





TYPF 120TX

The Skyware Global Type 120TX 1.2 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 Az/El mount is constructed from heavy-gauge steel to provide a rigid support to the reflector. The Az/El mount secures the antenna to any 73-76 mm (2.88"-3.00") O.D. mast and prevents slippage in high winds. A specially formulated powder paint process offers excellent protection from weather-related corrosion.

- All materials comply with EU directive No. 2002/95/EC (RoHS).
- One-piece thermoset-molded offset 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.
- Available with C-band or Ku-band feeds
- Class I system designed for typical
   1 W and 2 W Block Up-Converters
   (BUCs).



The reflector is thermoset-

molded for strength and

surface accuracy.

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

5 kg or 11 lb max. weight for RF electronics (BUC and LNB) at C-Band

## **Type 120TX** 1.2 m RxTx Class I Antenna System

## **RF Performance**

	C-band	Ku-band
Effective Aperture	1.2 m (48 in)	1.2 m (48 in)
Operating Frequency	Tx 5.850 - 6.725 GHz Rx 3.400 - 4.200 GHz	13.75 - 14.50 GHz 10.70 - 12.75 GHz
Polarization	Linear, Orthogonal	Linear, Orthogonal
Gain (±.3 dBi )	Tx 35.9 dBi @ 6.1 GHz Rx 32.0 dBi @ 3.9 GHz	43.3 dBi @ 14.3 GHz 41.8 dBi @ 12.0 GHz
3 dB Beamwidth	. Tx 2.7° @ 6.1 GHz	1.2° @ 14.3 GHz 1.5° @ 12.0 GHz
$\label{eq:continuous_state} \begin{split} & \text{Sidelobe Envelope (Tx, 0)} \\ & \text{Mainbeam} < \theta < 20 \dots \\ & 20^\circ < \theta < 26.3^\circ \dots \\ & 26.3^\circ < \theta < 48^\circ \dots \\ & 48^\circ < \theta < 180^\circ \dots \end{split}$	Co-Pol dBi) 29 - 25 Log θ -3.5 32 - 25 Log θ -10	29 - 25 Log θ -3.5 32 - 25 Log θ -10
Antenna Cross-Polarization 30 dB on Axis		30 dB on Axis
	60° K	45° K 37° K 34° K
VSWR	Tx 1.3:1	1.3:1 1.5:1
Isolation (Port to Port)	Tx60 dB	80 dB 35 dB
Feed Interface	TxCPR-137 or Type N	WR75 Flat Flange WR75 Flat Flange

**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 (0° to 45° Inverted)
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) 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/ft²
Shock and Vibration	As Encountered During Shipping and Handling

(All specifications typical)

