



## 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 thermoset-molded for strength and surface accuracy.

## 1.0 m RxTx Class I Antenna System TYPE 100TX

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

- One-piece precision offset thermoset-molded reflector.
- Single bolt fine elevation adjustment.
- Galvanized .75" (19 mm) 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 1W and 2W Ku-Band Block Up-Converters (BUCs)\*

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

One Company. A World of Solutions.

## 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 ( $\pm 2$ dBi)	Tx	41.5 dBi @ 14.25 GHz
	Rx	40.2 dBi @ 11.95 GHz
3 dB Beamwidth	Tx	1.5° @ 14.3 GHz
	Rx	1.9° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)		
	2.5° < $\theta$ < 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	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	110 dB
	Rx	35 dB
Feed Interface	Tx	WR75 Cover Flange (UBR120)
	Rx	WR75 Cover Flange (UBR120)

(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	2.88 in - 3.00 in (73-76 mm) Diameter	
	Wind Loading	Operational 45 mi/h (72 km/h) Survival 125 mi/h (200 km/h)
Temperature	-50°C to 80°C	
Humidity	0 to 100% (Condensing)	
Atmosphere	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas	
Solar Radiation	360 BTU/h/ft <sup>2</sup>	
Shock and Vibration	As Encountered During Shipping and Handling	



Andrew Corporation  
10500 W. 153rd Street  
Orland Park, IL 60462 USA

One Company. A World of Solutions.

Customer Support Center  
From North America  
Telephone: 1-800-255-1479  
Fax: 1-800-349-5444  
satcom@andrew.com

International  
Telephone: +1-708-873-2307  
Fax: +1-708-349-5444

Internet: www.andrew.com

All designs, specifications and availabilities of products and services presented in this bulletin are subject to change without notice.

Bulletin PA-100562-EN (6/05)

© 2005 Andrew Corporation, Orland Park, IL 60462 USA