

# RAVEN

a skyware global company

## 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.

## 1.2m RxTx Class I Antenna System TYPE 120TX

The Andrew Corporation Type 120TX 1.2m 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" (73-76mm) 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 adjustments.
- Galvanized .75" (19mm) 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 1W and 2W Block Up-Converters (BUCs).\*

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

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

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## TYPE 120TX 1.2m RxTx Class I Antenna System

### RF Performance

		C-Band	Ku-Band
Effective Aperture		1.2m (48 in.)	1.2m (48 in.)
Operating Frequency	Tx	5.850 - 6.725 GHz	13.75 - 14.50 GHz
	Rx	3.400 - 4.200 GHz	10.70 - 12.75 GHz
Polarization		Linear, Orthogonal	Linear, Orthogonal
Gain ( $\pm 3$ dBi)	Tx	35.9 dBi @ 6.138 GHz	43.3 dBi @ 14.25 GHz
	Rx	32.0 dBi @ 3.913 GHz	41.8 dBi @ 11.95 GHz
3 dB Beamwidth	Tx	2.7° @ 6.1 GHz	1.2° @ 14.3 GHz
	Rx	4.2° @ 3.9 GHz	1.5° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)			
	Mainbeam $< \theta < 20^\circ$	29-25 Log $\theta$	29-25 Log $\theta$
	$20^\circ < \theta < 26.3^\circ$	-3.5	-3.5
	$26.3^\circ < \theta < 48^\circ$	32-25 Log $\theta$	32-25 Log $\theta$
	$48^\circ < \theta < 180^\circ$	-10	-10
Antenna Cross-Polarization		>30 dB (on axis)	>30 dB (on axis)
Antenna Noise Temperature	10° El	60°K	45°K
	20° El	52°K	37°K
	30° El	50°K	34°K
VSWR	Tx	1.3:1	1.3:1
	Rx	1.4:1	1.5:1
Isolation, Port-to-Port	Rx	60 dB	110 dB
	Tx	60 dB	35 dB
Feed Interface	Tx	CPR-137 or Type N	WR75 Cover Flange (UBR120)
	Rx	CPR-229	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 (0° to 45° Inverted)	
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	

Know more about this product, contact us



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