



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



1.8 m RxTx Class I Antenna System

TYPE 180TX

The reflector is thermoset-molded for strength and surface accuracy.

The Andrew Corporation Type 180TX 1.8 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 4.50" (114 mm) O.D. mast and prevents slippage in high winds. A specially formulated powder paint process offers excellent protection from weather-related corrosion. Hot-dip galvanizing is optional for extreme environmental conditions.

- 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.
- Available with C-Band or Ku-Band feeds.
- Optional hot dip galvanized Az/EI.
- Designed for typical 1W and 2W Block Up-Converters (BUCs)*

**4.5 lb or 2 kg max weight for RF electronics (BUC and LNB) at Ku-band*

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

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SPECIFICATIONS

TYPE 180TX 1.8 m RxTx Class I Antenna System

RF Performance

	C-Band	Ku-Band
Effective Aperture	1.8 m (71 in)	
Operating Frequency	Tx 5.850-6.275 GHz	13.75-14.50 GHz
	Rx 3.400-4.200 GHz	10.70-12.75 GHz
Polarization	Linear, Orthogonal	
Gain (± 2 dBi)	Tx 39.3 dBi @ 6.1 GHz	46.8 dBi @ 14.25 GHz
	Rx 35.4 dBi @ 3.9 GHz	45.3 dBi @ 11.95 GHz
3 dB Beamwidth	Tx 2.0° @ 6.1 GHz	0.79° @ 14.3 GHz
	Rx 3.0° @ 14.3 GHz	0.99° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)		
Mainbeam $< \theta < 20^\circ$	29-25 Log θ	29-25 Log θ
20° $< \theta < 26.3^\circ$	-3.5	-3.5
26.3° $< \theta < 48^\circ$	32-25 Log θ	32-25 Log θ
48° $< \theta < 180^\circ$	-10	-10
Antenna Cross-Polarization	>30 dB in 1 dB Contour	
Antenna Noise Temperature	10° El 41°K	43°K
	20° El 36°K	28°K
	30° El 33°K	23°K
VSWR	1.4:1	
Isolation, Port to Port	Tx 60 dB Min.	110 dB
	Rx 60 dB Min.	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 Long Focal Length	
Mount Type	Elevation over Azimuth	
Elevation Adjustment Range	10°-70° Continuous Fine Adjustment	
Azimuth Adjustment Range	360° Continuous	
Mast Pipe Interface	4.50 in (114 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 ²	
Shock and Vibration	As Encountered During Shipping and Handling	



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