



PRODUCT SPECIFICATIONS

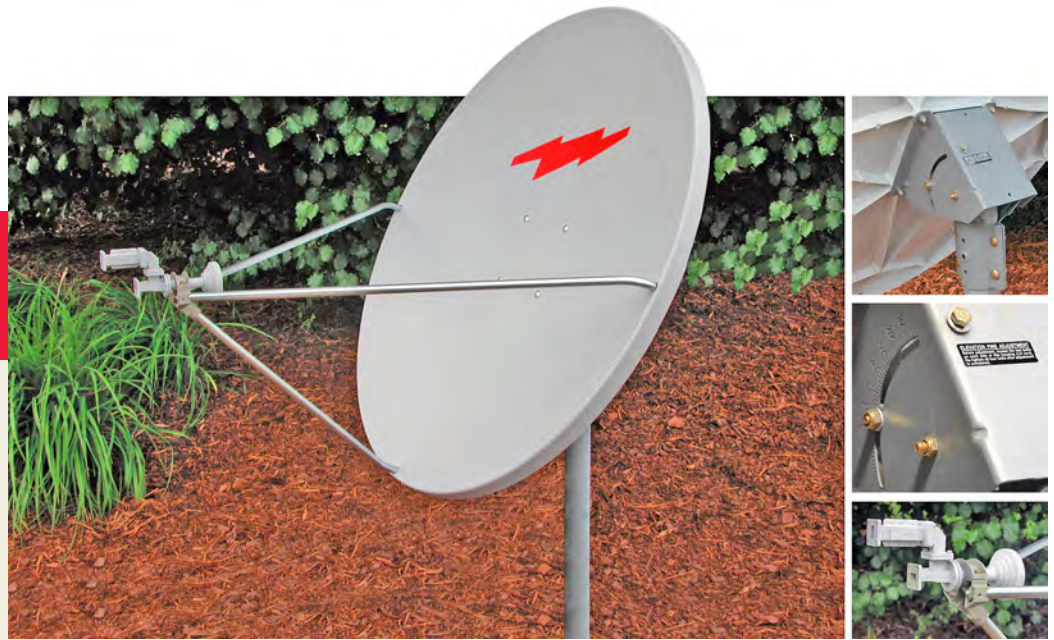
Detail Photos

(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.

1.2 m RxTx Class I Antenna System

TYPE 120TX

The Andrew Corporation 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/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 adjustments.
- 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.
- 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 5 kg max. weight for RF electronics (BUC and LNB) at C-Band

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SPECIFICATIONS

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 | 13.75 - 14.50 GHz |
| | Rx | 3.400 - 4.200 GHz | 10.70 - 12.75 GHz |
| Polarization | | Linear, Orthogonal | Linear, Orthogonal |
| Gain (± 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 θ | 29-25 Log θ |
| | $20^\circ < \theta < 26.3^\circ$ | -3.5 | -3.5 |
| | $26.3^\circ < \theta < 48^\circ$ | 32-25 Log θ | 32-25 Log θ |
| | $48^\circ < \theta < 180^\circ$ | -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 ² | |
| Shock and Vibration | As Encountered During Shipping and Handling | |



Andrew Corporation

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