



**PRODUCT SPECIFICATIONS**

**Detail Photos**

*(on right from top to bottom)*

Heavy-duty Az/El Mount

Fine azimuth adjustment detail

Ku cross-pol feed assembly shown



# 1.2 m RxTx Class III Antenna System

## TYPE 124

Type approved for use on Intelsat and Eutelsat Satellite Systems



The Andrew Corporation Type 124 1.2 m Class III 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 reflector optics feature a long focal length for excellent cross-pol performance, required by many satellite operators.

The heavy-duty Az/El mount and antenna support structure are constructed from heavy-gauge steel to provide a rigid support to the reflector. The mount secures the antenna to any 2.88" - 3.00" (73-76 mm) O.D. mast

and prevents slippage in high winds. Hotdip galvanizing is standard on this model for maximum environmental protection.

- One-piece precision offset thermoset-molded reflector.
- Heavy-duty Az/El mount and back structure.
- Fine azimuth and elevation adjustments.
- Galvanized support arm and alignment struts.
- Galvanized and stainless hardware for maximum corrosion resistance.
- Available with a variety of ODU mounting kits.
- Heavy-duty Class III mount for 25 lb (11kg) RF electronics (LNB & BUC).

## SPECIFICATIONS

### TYPE 124 1.2 m RxTx Class III Antenna System

#### Type Approval Information\*

Antenna Model ..... 62-12456-01

Intelsat Standard ..... Standard G (IESS 601)

Approval Code ..... IA077A00

Antenna Model ..... 62-12456-01

Eutelsat Standard ..... VSAT

Approval Code ..... EA-V049

#### RF Performance

Effective Aperture ..... 1.2 m (48 in)

Operating Frequency ..... Tx ..... 13.75-14.50 GHz  
Rx ..... 10.70-12.75 GHz

Polarization ..... Linear, Orthogonal

Gain ( $\pm 0.2$  dBi) ..... Tx ..... 43.3 dBi @ 14.25 GHz  
Rx ..... 41.8 dBi @ 11.95 GHz

3 dB Beamwidth ..... Tx ..... 1.2° @ 14.3 GHz  
Rx ..... 1.5° @ 12.0 GHz

Sidelobe Envelope (Tx, Co-Pol dBi)

1.5° <  $\theta$  < 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 in 1 dB Contour

Antenna Noise Temperature ..... 10° El ..... 45°K

20° El ..... 31°K

30° El ..... 24°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  
Long Focal Length

Mount Type ..... Elevation over Azimuth

Elevation Adjustment Range ..... 8°-90° Continuous Fine Adjustment

Azimuth Adjustment Range ..... 360° Continuous;  $\pm 20^\circ$  Fine Adjustment

Mast Pipe Interface ..... 2.88 in - 3.00 in (73-76 mm) Diameter

Wind Loading ..... Operational ..... 50 mi/h (80 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

\*See our web site for a complete list of type approvals.



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