



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



1.2 m RxTx Class II Antenna System

TYPE 123

Type approved for use on Intelsat and Eutelsat Satellite Systems



The Andrew Corporation Type 123 1.2 m Class II 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 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.
- Long focal length optics for low cross-pol performance.
- Fine azimuth and elevation adjustments.
- Galvanized .75" (19 mm) O.D. side feed support legs and 2" (51 mm) O.D. lower feed support.
- Plated hardware for maximum corrosion resistance.
- Available with Ku-Band Co-Pol. or Cross-Pol. Feeds.
- Class II system designed for typical 2W and 4W Ku-Band Block Up-Converters (BUCs)*

* 12 lb or 5.4 kg max. weight for RF electronics (BUC and LNB)

SPECIFICATIONS

TYPE 123 1.2 m RxTx Class II Antenna System

Type Approval Information*

Antenna Model 62-12362-01

Intelsat Standard Standard G (IESS 601)

Approval Code IA077A00

Antenna Model 62-12362-01

Eutelsat Standard VSAT

Approval Code EA-V051

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 (± 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° < θ < 20° 29-25 Log θ

20° < θ < 26.3° -3.5

26.3° < θ < 48° 32 - 25 Log θ

48° < θ < 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 7°-84° 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/ft²

Shock and Vibration As Encountered During Shipping and
 Handling



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