



PRODUCT SPECIFICATIONS

Detail Photos

(on right from top to bottom)

Az/El Mount

Fine-elevation adjustment

RF tested Ku-Band feed assembly



2.4 m Ku-Band Dual Optics RxTx Antenna System

TYPE 244

Type approved for use on Eutelsat Satellite System.



The Andrew Corporation Type 244 2.4 m Dual Optics RxTx Antenna is a rugged commercial grade product suitable for the most demanding applications. The dual optics design provides the superior cross-pol discrimination demanded for optimum performance on the Eutelsat satellite system.

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 maintain the critical parabolic shape necessary for transmit performance.

The Az/El mount is constructed from heavy-gauge steel to provide a rigid support to the reflector and feed support

arm. Heavy-duty lock-down bolts secure the mount to any 6.63" (168 mm) O.D. mast and prevent slippage in high wind. Hot-dip galvanizing is standard for maximum environmental protection.

- ETSI certified.
- Dual Optics design for ultra low cross-polarization.
- Two-piece precision offset thermoset-molded reflector.
- Heavy-duty galvanized Az/El mount.
- Fine Azimuth and elevation adjustments.
- Galvanized and stainless hardware for maximum corrosion resistance.
- Includes Ku-Band feed assembly and precision aluminum sub-reflector.

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SPECIFICATIONS

TYPE 244 2.4 m Ku-Band Dual Optics RxTx Antenna System

Type Approval Information*

Antenna Model 62-24452-02

Intelsat Standard L, M

Approval Code EA-A027

RF Performance

Effective Aperture 2.4 m (96 in)

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

Polarization Linear, Orthogonal

Gain (± 2 dBi) Tx 49.3 dBi @ 14.25 GHz
Rx 47.8 dBi @ 11.95 GHz

3 dB Beamwidth Tx 0.6° @ 14.3 GHz
Rx 0.7° @ 12.0 GHz

Sidelobe Envelope (Tx, Co-Pol dBi)
2.5° $\leq \theta \leq 7^\circ$ 29-25 Log θ
7° $\leq \theta \leq 9.2^\circ$ +8
9.2° $\leq \theta \leq 48^\circ$ 32-25 Log θ
48° $\leq \theta \leq 180^\circ$ -10

Antenna Cross-Polarization 32 dB on Axis
37 dB in 1dB contour

Antenna Noise Temperature 10° EL 45° K
20° El 31° K
30° El 30° K

VSWR Tx 1.3:1
Rx 1.4:1

Isolation Tx 80 dB
Rx 40 dB

Feed Interface Tx WR75 Cover Flange (UBR120)
Rx WR75 Cover Flange (UBR120)

Mechanical Performance

Reflector Material Two-Piece Glass Fiber Reinforced Polyester

Antenna Optics Offset Gregorian (Dual Optics)

Mount Type Elevation over Azimuth

Elevation Adjustment Range 10°-90° Continuous Fine Adjustment

Azimuth Adjustment Range 360° Continuous; $\pm 12^\circ$ Fine Adjustment

Feed Support Rectangular Section with Alignment Legs

Mast Pipe Interface 6.63 in (168 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

(All specifications typical)

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



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