



PRODUCT SPECIFICATIONS

Detail Photos

(on right from top to bottom)

Az/EI Mount

Fine-elevation adjustment

RF tested Ku-Band feed assembly



1.8 m Ku-Band Dual Optics RxTx Antenna System

TYPE 184

Type approved for use on Eutelsat Satellite System.



The Andrew Corporation Type 184 1.8 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/EI 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 4.50" (114 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.
- One-piece precision offset thermoset-molded reflector.
- Heavy-duty galvanized Az/EI mount.
- Fine Azimuth and elevation adjustments.
- Galvanized and stainless hardware for maximum corrosion resistance.
- Includes Ku-Band feed assembly and precision aluminum sub-reflector.

SPECIFICATIONS

TYPE 184 1.8 m Ku-Band Dual Optics RxTx Antenna System

Type Approval Information*

Antenna Model 62-18452-02

Eutelsat Standard L, M

Approval Code EA-A026

RF Performance

Effective Aperture	1.8m (71 in.)
Operating Frequency	Tx 13.75-14.50 GHz
	Rx 10.70-12.75 GHz
Polarization	Linear, Orthogonal
Gain (± 2 dBi)	Tx 47.0 dBi @ 14.3 GHz
	Rx 45.5 dBi @ 11.95 GHz
3 dB Beamwidth	Tx 0.8° @ 14.3 GHz
	Rx 1.0° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	
$2.5^\circ \leq \theta \leq 7^\circ$	29-25 Log θ
$7^\circ \leq \theta \leq 9.2^\circ$	+8
$9.2^\circ \leq \theta \leq 48^\circ$	32 - 25 Log θ
$48^\circ \leq \theta \leq 180^\circ$	-10
Antenna Cross-Polarization	32 dB
	37 dB in 1 dB Contour
Antenna Noise Temperature	10° El 48°K
	20° El 34°K
	30° El 33°K
VSWR	Tx 1.3:1
	Rx 1.4:1
Isolation	Tx 110 dB
	Rx 40 dB
Feed Interface	Tx WR75 Cover Flange (UBR120)
	Rx WR75 Cover Flange (UBR120)

(All specifications typical)

Mechanical Performance

Reflector Material	One-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; $\pm 10^\circ$ Fine Adjustment
Feed Support	Rectangular Section with Alignment Legs
Mast Pipe Interface	4.50 in (114 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 ²
Shock and Vibration	As Encountered During Shipping and Handling

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



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