



PRODUCT SPECIFICATIONS

Detail Photos

(on right from top to bottom)

Heavy-duty galvanized
Az/EI Mount

Fine azimuth and elevation
adjustments

RF tested Ku-Band feed
assembly



1.8 m Ku-Band RxTx Class III Antenna System

Type 183

Type approved for use on
Intelsat Satellite System



The Andrew Corporation Type 183 1.8 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 Az/EI mount is constructed from heavy-gauge steel to provide a rigid support to the reflector and feed support arm. Heavy-duty lockdown bolts secure the mount to any 4.50" (114 mm) O.D. mast

and prevent slippage in high winds. Hot-dip galvanizing is standard for maximum environmental protection.

- One-piece precision offset thermoset-molded reflector.
- Fine azimuth and elevation adjustments.
- Galvanized feed support arms and alignment struts.
- Factory pre-assembled mount.
- Galvanized and stainless hardware for maximum corrosion resistance.
- Heavy-duty Class III mount for 25 lb (11 kg) RF electronics (LNB & BUC).

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SPECIFICATIONS

TYPE 183 1.8 m Ku-Band RxTx Class III Antenna System

Type Approval Information*

Antenna Model	62-18356-01C
Intelsat Standard	Standard G (IESS 601)
Approval Code	IA027B00

RF Performance

Effective Aperture	1.8 m (71 in)
Operating Frequency	Tx 13.75-14.50 GHz Rx 10.70-12.75 GHz
Polarization	Linear, Orthogonal
Gain (± 2 dBi)	Tx 46.8 dBi @ 14.25 GHz Rx 45.3 dBi @ 11.95 GHz
3 dB Beamwidth	Tx 0.79° @ 14.3 GHz Rx 0.99° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	
$1^\circ < \theta < 20^\circ$	29-25 Log θ
$20^\circ < \theta < 26.3^\circ$	-3.5
$26.3^\circ < \theta < 48^\circ$	32 - 25 Log θ
$48^\circ < \theta < 180^\circ$	-10
Antenna Cross-Polarization	30 dB (On Axis) 26 dB in .5 dB Contour
Antenna Noise Temperature	10° El 43°K 20° El 28°K 30° El 23°K
VSWR	Tx 1.3:1 Rx 1.5:1
Isolation	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
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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Bulletin PA-100570-EN (6/05)
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