

1.8M Ku-band Rx/Tx Class III Antenna System



PRODUCT SPECIFICATIONS

Detail Photos
(on right from top to bottom)

Heavy-duty Az/El Mount

Fine Azimuth and Elevation
Adjustments

RF tested Ku-band feed as-
sembly

Type approved for use on
Intelsat satellite system



1.8m Ku-band Rx/Tx Class III Antenna System

TYPE 183

The Skyware Global Type 183 1.8 m Class III Rx/Tx 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/El 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 114 mm (4.50") O.D. mast and prevent slippage in high winds.

Hot-dip galvanizing is standard on this model for maximum environmental protection. A marinised version of this antenna is also available making it suitable for on-shore and offshore marine environments.

- All materials comply with EU directive No. 2011/65/EC (RoHS).
- One-piece precision offset thermoset-molded reflector.
- Heavy-duty galvanized Az/El mount.
- Fine Azimuth and elevation adjustments.
- HD Galvanised support arm and alignment struts Marinised version has all galvanised steel components finished with 2-part epoxy paint.
- Factory pre-assembled mount.
- Plated hardware for maximum corrosion resistance. Optional marinised version uses marine grade AISI 316 stainless steel hardware throughout.
- Includes Ku-band linear cross-polarized RxTx feed assembly.
- Heavy-duty Class III mount for 11 kg (25 lb) RF electronics (LNB & BUC).

• PRODUCT SPECIFICATIONS

Type Approval Information

Antenna Model. 62-1835611
 Intelsat Standard Standard G & K2 (IESS 601)
 Approval Code. IA027B00

(See Our Website for a Complete List of Type Approvals)

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 (± 0.2 dB)

TX 46.8 dBi @ 14.3 GHz
 RX 45.3 dBi @ 12.0 GHz

3 dB Beamwidth

TX 0.79° @ 14.3 GHz
 RX 0.99° @ 12.0 GHz

Sidelobe Envelope (Tx, Co-Pol dBi)

1° < 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* 30db (On Axis)
 26db in 05 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 (Port to Port)

Tx. 80db
 Rx. 35db

Feed Interface

Tx. WR75 Flat Flange
 Rx. WR75 Flat Flange

1.8 m Ku-band Rx/Tx Class III Antenna

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. 114 mm (4.50in) Diameter

Environmental Performance

Wind Loading

Operational. 50 mph (80 km/h)

Survival. 125 mph (200 km/h)

Temperature. -50°C to +80°C

Humidity. 0 to 100% (Condensing)

Atmosphere. Standard Hardware 720 Hrs
 SST Requirements (ASTM B-117)

Marinised Option has AISI 316
 Stainless Steel Hardware & 2-Part Epoxy paint
 on all Galvanised Steel Components

Solar Radiation. 360 BTU/h/ ft²

Shock and Vibration. As Encountered during
 Shipping and handling



Satcom solutions for the long haul

All specifications typical)



REV 04/17-02
 Page 2 of 2