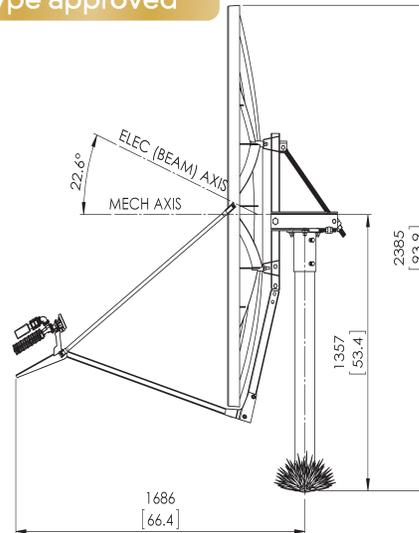


# Type 185: 1.8m Rx/Tx Standard Ku-Band SFL Class III Antenna with Mode Matched Feed



- ISO 9001:2008 Certificate of Registration
- Eutelsat Certificate No. EA-V065
- One-piece precision Reflector
- Precision Az/EI Mount
- Fine Azimuth and Elevation Adjustment Features
- All Materials Comply with EU Directive No. 2002/95/EC (RoHS)



- 720 Hour Salt Spray Hardware
- Standard Waveguide Flange Interface

The **Skyware Global 1.8m Rx/Tx Standard Ku-Band SFL Class III Antenna with Mode Matched Feed** is a rugged, commercial quality product suitable for the most demanding applications. The Antenna features a unique feed which provides cross-pol performance that exceeds industry standards.

- The reflector is constructed from glass fiber reinforced polyester for strength and accuracy. A proprietary process developed by Skyware Global ensures high RF reflectivity as needed for Ku-Band operation.
- The precision Az/EI mount is made of galvanized steel for excellent corrosion resistance. This mount includes special features to increase pointing accuracy with low backlash and lockdown error.
- This Az/EI allows the antenna to be installed on standard (114mm) [4.50"] OD installation mounts.
- All hardware is plated to 720 hour salt spray standards tested in accordance with ASTM B-117.
- TX Cross-Polarization Isolation of 29dB within 1dB contour.
- Excellent Tx Port-to-Port Isolation of 90dB or better.
- Meets or exceeds regulator agency requirements.
- Heavy-duty Class III mount for 11 kg (25 lb) RF electronics (LNB & BUC) with ≤16W installed power. (BUC support kit may be required depending on application.)



• **PRODUCT SPECIFICATIONS**

**RF Performance**

Operating Frequency  
 TX .....13.75-14.50GHz  
 RX .....10.70-12.75GHz

Polarization ..... Linear Orthogonal

Gain ( $\pm 0.3$  dB)  
 TX .....46.7 dBi @ 14.25GHz  
 RX .....45.0 dBi @ 11.70GHz

3 dB Beamwidth  
 TX .....0.8° @ 14.30GHz  
 RX .....1.1° @ 11.20GHz

Sidelobe Envelope (Tx, Co-Pol dBi)  
 Eutelsat Standard M  
 Mainbeam  $< q < 20^\circ$  .....29-25 log q dBi  
 $20^\circ < q < 26.3^\circ$  .....-3.5 dBi  
 $26.3^\circ < q < 48^\circ$  .....32-25 log q dBi  
 $48^\circ < q < 180^\circ$  .....-10 dBi (Typical)

Antenna Cross-Polarization within 1dB contour  
 TX ..... 29dB  
 RX .....21dB

Antenna Noise Temperature  
 10° EL ..... 43K°  
 20° EL ..... 28K°  
 30° EL ..... 23K°

VSWR  
 TX .....1.3:1 Max  
 RX ..... 1.5:1 Max

Isolation\*(Port to Port)  
 TX .....90 dB  
 RX ..... 40 dB

Feed Interface  
 TX ..... WR75 Flat Flange  
 RX ..... WR75 Flat Flange  
 (All specifications typical)

(\* With Skyware Global OMT/Filter)

**1.8m Rx/Tx Standard Ku-Band SFL Class III  
 Antenna with Mode Matched Feed**

**Mechanical Performance**

Reflector Material. . . .Glass Fiber Reinforced Composite

Antenna Optics . . . . One-Piece Offset Feed Prime Focus

Mount Type. . . . . Elevation Over Azimuth

Elevation Adjustment Range . . . . . 10°- 90° Continuous  
 Fine Adjustment

Feed Support . . . . .Regular Section with Alignment Legs

Mast Size. . . . . 4.50" (114mm) Diameter

Antenna Weight . . . . .Approx 50.52Kg  
 (Not Including Mast)

**Environmental Performance**

Windloading  
 Operational. . . . .72km/h (45 mph)

Functional Survival . . . . . 128km/h (80 mph)

Ultimate Survival. . . . . 200km/h (125 mph)

Survival Temperature. . . . . -50°C to +80°C

Operational Temperature . . . . . -40°C to +55°C

Humidity . . . . . 0 to 100% (Condensing)

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

Solar Radiation . . . . . 360 BTU/h/ft<sup>2</sup>

Shock and Vibration . . . . .As Encountered during  
 Shipping and handling

