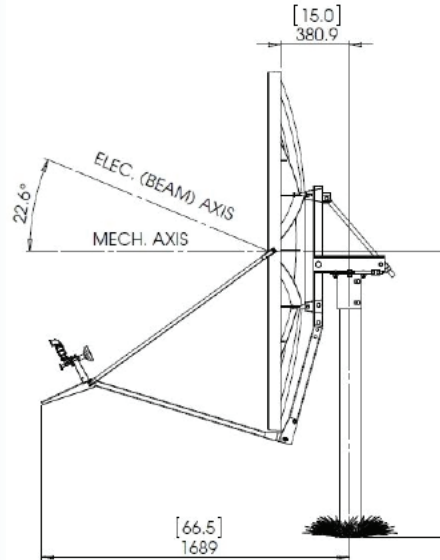
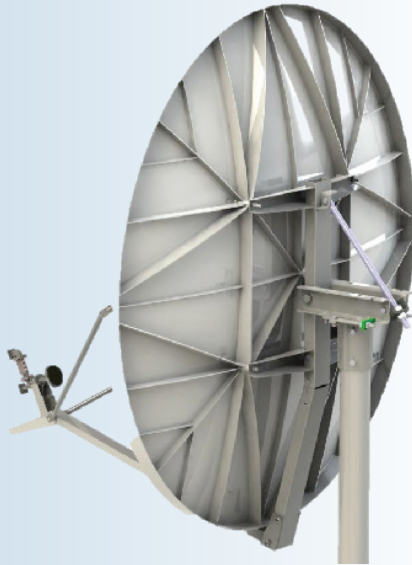


# Type 183: 1.8m Rx/Tx Extended Ku-Band SFL Class III Antenna



- ISO 9001:2008 Certificate of Registration
- One-piece precision SMC 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 Extended Ku-Band SFL Class III Antenna** is a rugged, commercial quality product suitable for the most demanding applications.

- The reflector is constructed from glass fiber reinforced polyester [SMC] 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.
- Cross-Polarization Isolation of 30dB on axis.
- 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).



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## • PRODUCT SPECIFICATIONS

### RF Performance

Operating Frequency  
TX .....12.75-14.5GHz  
RX .....10.70-11.7GHz

Polarization ..... Linear Orthogonal

Gain ( $\pm 0.3$  dB)  
TX .....46.8 dBi @ 14.3GHz  
RX .....44.7 dBi @ 11.2GHz

3 dB Beamwidth  
TX .....0.8° @ 14.3GHz  
RX .....1.1° @ 11.2GHz

Sidelobe Envelope (Tx, Co-Pol dBi)  
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  
.....30 dB (on Axis)  
.....26 dB in .5 dB Contour

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 Extended Ku-Band SFL Class III Antenna

### 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. . . . .80km/h (50 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



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