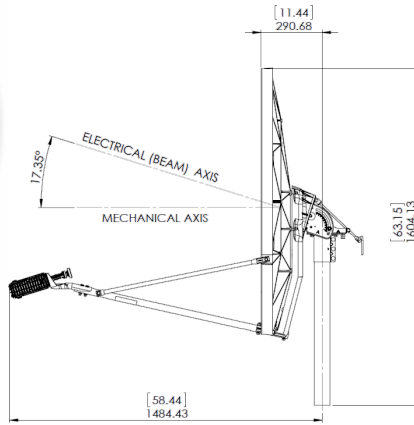


# Type 127: 1.2m Rx/Tx Standard Ka-Band Antenna



- ISO 9001:2008 CERTIFICATE OF REGISTRATION
- One-piece precision composite 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
- Designed for Skyware Global Ka Band Feed Components
- Designed for Tier I OEM Transceiver

New **Skyware Global 1.2m Rx/Tx Standard Ka-Band Antenna** is a rugged, commercial quality product suitable for the most demanding applications.

- 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 Ka 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 73mm [2-7/8"] OD installation mounts.
- All hardware is plated to 720 hour salt spray standards tested in accordance with ASTM B-117.
- Designed for use with the Skyware Global line of Ka-band feed assemblies.
- Tx Cross-Polarization Isolation of 25dB (within 1dB b/w) or better for CP Application.
- Excellent Tx Port to Port Isolation of 90dB or better.
- Meets or exceeds regulatory agency requirements.
- System designed for typical Ka-band RF Electronics.



• PRODUCT SPECIFICATIONS

1.2m Rx/Tx Standard Ka-Band Antenna

**RF Performance**

Operating Frequency	
RX .....	19.2-20.2 GHz
TX .....	29.5-30.0 GHz
Polarization	
RX .....	Circular, LH or RH
TX .....	Circular, LH or RH
Gain (+/0.3db)	
RX .....	46.3 dBi @ 20.2 GHz
TX .....	49.5 dBi @ 30.0 GHz
VSWR .....	1.3:1 Max
3dB Beamwidth	
RX .....	0.83° @ 20.2 GHz
TX .....	0.56° @ 30.0 GHz
Sidelobe Envelope Co-Pol (dBi)	
100 λ/D < θ < 20° .....	29-25 logθ dBi
20° < θ < 26.3° .....	-3.5 dBi
26.3° < θ < 48° .....	32-25 logθ dBi
0 > 48° .....	-10 dBi (typical)
Antenna Noise Temperature	
10° Elevation .....	80K
20° Elevation .....	60K
30° Elevation .....	44K
Cross Polarization Isolation within 1.0 dB Beamwidth	
RX .....	22 dBi
TX .....	25 dBi
Isolation (Port to Port)	
RX .....	80db
TX .....	90db
Output Waveguide Interface Flange	
RX .....	WR42
TX .....	WR28

**Mechanical Performance**

Reflector Material .....	Glass Fiber Reinforced Polyester
Antenna Optics .....	One-Piece Offset Feed Prime Focus
Mount Type .....	Elevation Over Azimuth
Elevation Adjustment Range .....	5° - 90° Continuous Fine Adjustment
Azimuth Adjustment Range .....	360° Continuous ± 5° Fine Adjustment
Mast Size .....	2.5" SCH 40 Pipe (2.88" OD) 73.2 mm Diameter
Antenna Weight .....	Approx 51lbs (Not Including Mast)
Packaged Weight .....	Approx 58 lbs

**Environmental Performance**

Windloading	
Operational .....	45mph (65 km/h)
Functional Survival .....	80mph (128 km/h)
Ultimate Survival .....	125mph (200 km/h)
Survival Temperature .....	-50°C to +80°C
Operational Temperature .....	-40°C to +55°C
Humidity .....	0 to 100% (Condensing)
Corrosion Protection .....	Hardware meets 720 hour Salt Spray Test 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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