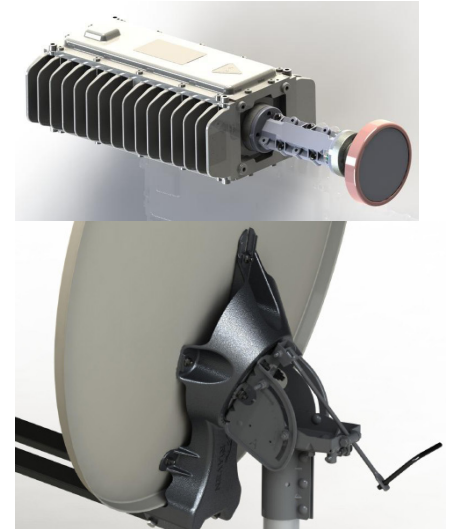


98 cm RxTx Ka Band Antenna System



PRODUCT SPECIFICATIONS

Designed for use with Skyware Global's line of Ka Transceivers with matched feed horn and polarizer



98cm RxTx Ka Band Antenna System

The Skyware Global 98cm Ka Band Antenna is a rugged, commercial grade product suitable for the most demanding applications.

The pressed steel reflector assures the surface accuracy needed for Ka band performance. Pre-galvanized steel with a powder coat finish guarantees excellent corrosion resistance and long life. The die-cast back structure provides for precision alignment of the reflector and support of the RF assembly without distortion. The reflector optics incorporate a long focal length for excellent cross-pol discrimination or "beam squint".

The heavy gauge steel Az/EI mount provides a rigid support for the antenna and incorporates precise fine elevation and azimuth adjustment. This Az/EI allows the antenna to be installed on any standard 2-3/8" (60mm) OD installation mount.

- RoHS compliant
- Precision pressed steel reflector
- Long focal length optics for low cross-pol or beam squint
- Steel components are pre-galvanized and powder coat painted for excellent corrosion resistance
- All hardware meets 720 minimum salt spray test requirements (ASTM B-117)
- Fine elevation and azimuth adjustments
- Ideally suited for Skyware Global Ka Transceiver



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• PRODUCT SPECIFICATIONS

RF Performance

Operating Frequency

TX29.50 -30.00 GHz
RX 19.20 - 20.20 GHz

Polarization

TXCircular RH or LH
RX Circular LH or RH

Gain1 (±0.3 dB)

TX46.8 dBi @ 29.75 GHz
RX43.8 dBi @ 19.70 GHz

3 dB Beamwidth

TX0.7° @ 29.75 GHz
RX 1.1° @ 19.70 GHz

Sidelobe Envelope (Tx, Co-Pol dBi)

100 $\lambda/D < \theta < 20^\circ$ 29-25 log θ dBi
20° < $\theta < 26.3^\circ$ -3.5 dBi
26.3° < $\theta < 48^\circ$ 32-25 log θ dBi
48° < $\theta < 180^\circ$ -10 dBi (Typical)

Antenna Cross-Polarization (within 1dB b/w)

RX22dB

Antenna Noise Temperature ¹

.....@ 30° EL 62°K Max

VSWR

.....1.3:1 Max

Feed InterfaceCustom Circular

¹ Gain and Noise Temperature at Feed Horn Flange

(All specifications typical)

98cm RxTx Ka Band Antenna

Mechanical Performance

Reflector Material Steel

Antenna Optics One-Piece Offset Feed Prime Focus

Mount Type Elevation Over Azimuth

Elevation Adjustment Range 8° - 90° Continuous
Fine Adjustment

Azimuth Adjustment Range 360° Continuous; ± 5°
Fine Adjustment

Mast Pipe Interface60 mm (2.38 in) Diameter

Environmental Performance

Wind Loading

Operational45 mph (72 km/h)

Functional Survival80 mph (128 km/h)

Ultimate Survival 125 mph (200 km/h)

Temperature -50°C to +80°C

Humidity0 to 100% (Condensing)

Corrosion protection Standard Hardware 720
Hrs SST Requirements (ASTM B-117)

Solar Radiation360 BTU/h/ ft²

Shock and Vibration As Encountered during
Shipping and handling



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