



SKY100 Ka-band 1.0m Antenna



Key Features:

- Commercial and Military Ka-band coverage
- Compatible with Skyware Technologies Ka-band RF
- Precision reflector geometry for optimum performance
- Strong weatherproof construction for optimum stability and long life
- 720 hour salt spray tolerance

Compatible Products:

- XRC Family Transceiver
- XRF Family Transceiver
- DRC Family Transceiver



The SKY100 Ka-band antenna from Skyware Technologies provides a robust technical solution delivering excellent performance at an attractive price, complementing the range of Skyware Technologies Ka-band RF equipment.

The all steel reflector is designed for strength, accuracy and stability under the harshest conditions. The precision Azimuth/Elevation mount is manufactured from corrosion resistant galvanised steel designed to allow easy pointing adjustment with minimal backlash and lockdown errors.

This antenna is designed for use with Skyware Technologies Ka-band RF feed assemblies and for installation on a standard 60mm (2 3/8 inch) outside diameter mast pipe.

- *Operating frequency: TX 29 - 31 GHz, RX 19.2 - 21.2 GHz*
- *Gain: TX 48.2 dBi, RX 44.8 dBi*
- *3dB beamwidth: TX 0.7°, RX 1°*
- *Polarisation: Circular, RH, LH*
- *Antenna optics: precision one-piece offset feed prime focus*
- *All steel reflector*



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Technical Specification

Electrical	
Operating Frequency*	
Transmit	29.0 - 31.0 GHz
Receive	19.2 - 21.2 GHz
Polarization	
Transmit	Circular, RH or LH
Receive	Circular, LH or RH
Gain** +/- 0.3 dB	
Transmit	48.2 dBi @ 30 GHz
Receive	44.8 dBi @ 20.7 GHz
3 dB Beamwidth	
Transmit	0.7° @ 30GHz
Receive	1° @ 20.7 GHz
Sidelobe Envelope, Tx Co-Pol dBi (typical)	
100 λ/D < θ < 20°	29 - 25 Log θ dBi
20° < θ < 26.3°	-3.5 dBi
26.3° < θ < 48°	32 - 25 Log θ dBi
48° < θ < 180°	-10 dBi
Antenna Cross-Polarization (within 1dB b/w)	
Transmit	>25 dB
Receive	>23 dB
Antenna Noise Temperature**	
@ 30° Elevation	50K Max
VSWR	1.3:1 Max
Feed Interface	Custom Circular

* Subject to RF Electronics payload

** Gain and Noise Temperature at Feed Horn Flange

All specification values are typical

Mechanical	
Reflector Material	Steel
Antenna Optics	One-Piece Offset Feed Prime Focus
Mast Pipe Size	60 mm OD (2 3/8 inch)
Elevation Adjustment Range	5° - 90° Continuous Fine Adjustment
Azimuth Adjustment Range	360° Continuous Coarse Adjustment ± 5° Fine Adjustment

Environmental	
Wind Loading	
Operational	73 km/h (45 mph)
Ultimate Survival	201 km/h (125 mph)
Temperature (operational)	-40° to 60°C
Rain (operational)	10 mm/h
Atmospheric Conditions	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas 720 hour ASTM B117 Salt Spray
Relative Humidity	0 to 100% with Condensation
Solar Radiation	1135 W/m ²
Shipping Weight	30 kg (65 lbs)

Options	
Contact sales	