



SKY120 Ka-band 120cm 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
- DRC Family Transceiver



The SKY120 Ka-band 120cm antenna from Skyware Technologies employs state of the art materials and uses the latest manufacturing methods in order to deliver premium performance at an attractive price complementing the range of Skyware Technologies Ka-band RF equipment.

The reflector material is a specially formulated glass fibre reinforced polyester which offers 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 73mm (2 7/8 inch) or 78mm (3 inch) outside diameter mast pipe.

- *Operating frequency: TX 29 - 31 GHz, RX 19.2 - 21.2 GHz*
- *Gain: TX 49.7 dBi, RX 46.1 dBi*
- *3dB beamwidth: TX 0.6°, RX 0.9°*
- *Polarisation: Circular, RH, LH*
- *Antenna optics: precision one-piece offset feed prime focus*
- *Glass fibre reinforced polyester reflector*



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Technical Specification

Electrical	
Operating Frequency*	
Transmit	29 - 31 GHz
Receive	19.2 - 21.2 GHz
Polarization	
Transmit	Circular, RH or LH
Receive	Circular, LH or RH
Gain** +/- 0.3 dB	
Transmit	49.7 dBi @ 30 GHz
Receive	46.1 dBi @ 20.2 GHz
3 dB Beamwidth	
Transmit	0.6° @ 30 GHz
Receive	0.9° @ 20.2 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	60K 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	Glass Fibre Reinforced Polyester (SMC)
Antenna Optics	One-Piece Offset Feed Prime Focus
Mast Pipe Size	73 mm OD (2 7/8 inch) or 78 mm OD (3 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	36 kg (80 lbs)

Options
Contact sales