



# SKY97 Ku-band 97cm Antenna

## Key Features:

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

## Compatible Products:

- XRZ Family Transceiver
- BUC/LNB w/ Feed Assy



The SKY97 Ku 97cm antenna from Skyware Technologies provides a robust technical solution delivering excellent performance at an attractive price, complementing the range of Skyware Technologies Ku-band RF equipment.

The all steel galvanised reflector with polyester finish 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 Ku-band RF feed assemblies and for installation on a standard 60mm (2 3/8 inch) outside diameter mast pipe.

- *Operating frequency: TX 12.75 - 14.5 GHz, RX 10.7 - 12.75 GHz*
- *Polarisation: Linear, Vertical/Horizontal*
- *Antenna optics: Precision one-piece offset feed prime focus*
- *All steel reflector*

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Electrical

Parameter		Minimum	Typical	Maximum	Unit	Note
Operating Frequency*	Transmit	13.75		14.50	GHz	
	High Receive	10.70		12.75	GHz	
Operating Frequency*	Transmit	12.75		13.25	GHz	
	Low Receive	10.70		11.70	GHz	
Polarization	Transmit	Linear, Vertical/Horizontal				
	Receive					
Gain** +/- 0.5 dB	Transmit (Low)		40.7		dBi	@ 14.00 GHz
	Transmit (High)		41.3		dBi	@ 14.00 GHz
	Receive		39.8		dBi	@ 11.70 GHz
3 dB Bandwidth	Transmit (Low)		1.6		°	@ 14.00 GHz
	Transmit (High)		1.5		°	@ 14.00 GHz
	Receive		1.8		°	@ 11.70 GHz
Sidelobe Envelope Tx Co-Pol	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 Polarisation	Transmit		25		dB	w/in 1dB bandwidth
	Receive		25		dB	
Antenna Noise Temperature				50	K	@ 30° Elevation
VSWR				1:3:1		
Feed Interface		Custom Circular, or WR75				with Feed Assy

\* Subject to RF Electronics payload

\*\* Gain and Noise Temperature at Feed Horn Flange

Mechanical

Parameter	Typical
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

Parameter	Typical	
Wind Loading	Operational	73 km/h (45 mph)
	Ultimate Survival	201 km/h (125 mph)
Temperature	Operational	-40° C 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 - 100% with condensation
Solar Radiation		1135 W/m <sup>2</sup>
Shipping Weight (bulk)		30 kg (65 lbs)