



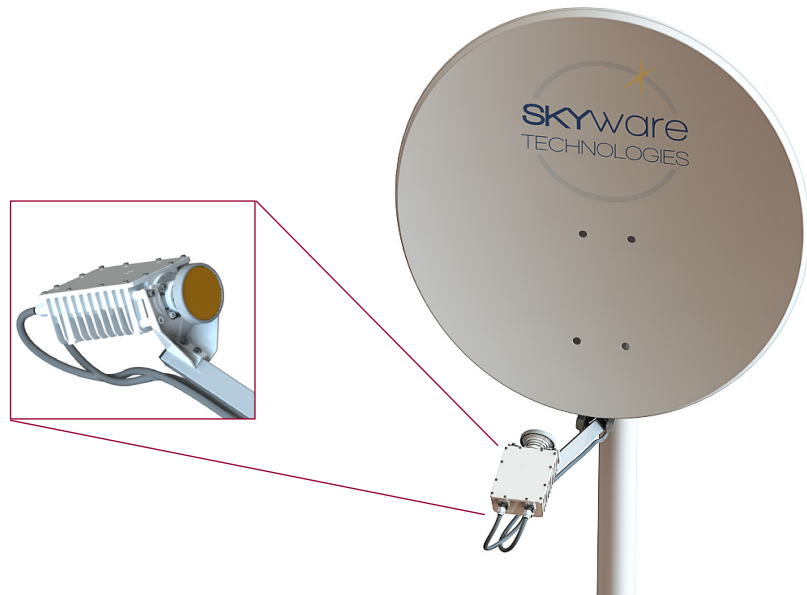
# SKY75 Ka-band 75cm Antenna

## Key Features:

- Commercial Ka-band coverage
- Optimised for Skyware Technologies Ka-band RF equipment
- Precision reflector geometry for optimum performance
- Strong weatherproof construction for optimum stability and long life

## Compatible Products:

- XRF Family Transceiver



The SKY75 Ka-band Antenna from Skyware Technologies provides a robust and reliable solution delivering excellent performance for Consumer and Enterprise applications. The optics are chosen to complement the range of Skyware Technologies RF equipment and together this combination provides high performance at a competitive price.

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 installation on a standard 60mm (2 3/8 inch) outside diameter mast pipe.

- *Operating frequency\*: TX 28.3 - 30 GHz, RX 18 - 20.2 GHz*
- *Gain: TX 45.4 dBi, RX 41.7 dBi*
- *3dB beamwidth: TX 0.9°, RX 1.4°*
- *Polarisation: Circular, RH, LH*
- *Antenna optics: precision one-piece single offset feed prime focus*
- *All steel reflector*

[www.skywaretechnologies.com](http://www.skywaretechnologies.com)

UK: +44 161 2600 195

[sales@skywaretechnologies.com](mailto:sales@skywaretechnologies.com)

All designs, specifications and availabilities of products and services presented in this bulletin are typical and subject to change without notice.

SKY75 Ka A Datasheet Jan-2016  
© 2016 Skyware Technologies



# SKY75 Ka-band 75cm Antenna

## Technical Specification

Electrical	
<b>Operating Frequency*</b>	
Transmit	28.3 - 30.0 GHz
Receive	18 - 20.2 GHz
<b>Polarization</b>	
Transmit	Circular, RH or LH
Receive	Circular, LH or RH
<b>Gain** +/- 0.3 dB</b>	
Transmit	45.4 dBi @ 29 GHz
Receive	41.7 dBi @ 19.2 GHz
<b>3 dB Beamwidth</b>	
Transmit	0.9° @ 29 GHz
Receive	1.4° @ 19.2 GHz
<b>Sidelobe Envelope, Tx Co-Pol dBi (typical)</b>	
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
<b>Antenna Cross-Polarization (within 1dB b/w)</b>	
Transmit	>25 dB
Receive	>23 dB
<b>Antenna Noise Temperature**</b>	
@ 30° Elevation	40K Max
<b>VSWR</b>	1.3:1 Max
<b>Feed Interface</b>	Custom Circular

\* Subject to RF Electronics payload

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

All specification values are typical

Mechanical	
<b>Reflector Material</b>	Steel
<b>Antenna Optics</b>	One-Piece Offset Feed Prime Focus
<b>Mast Pipe Size</b>	60 mm OD (2 3/8 inch)
<b>Elevation Adjustment Range</b>	6° - 90° Continuous Fine Adjustment
<b>Azimuth Adjustment Range</b>	360° Continuous Coarse Adjustment ± 3° Fine Adjustment

Environmental	
<b>Wind Loading</b>	
<b>Operational</b>	73 km/h (45 mph)
<b>Ultimate Survival</b>	201 km/h (125 mph)
<b>Temperature (operational)</b>	-40° to 60°C
<b>Rain (operational)</b>	10 mm/h
<b>Atmospheric Conditions</b>	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas 720 Hour ASTM B117 Salt Spray
<b>Relative Humidity</b>	0 to 100% with Condensation
<b>Solar Radiation</b>	1135 W/m <sup>2</sup>
<b>Shipping Weight (bulk)</b>	8.5 kg (19 lbs)

Options
Contact sales