



Antenna Specification

Galaxy Tx/RX Ku Band

Antenna Part Number	GKU 75	GKU 90	GKU 98
	Electrical Specification		
Antenna Dimensions (w x h)	84cm x 69cm	87cm x 77.5cm	98cm x 97cm
Operating Frequency	Tx 13.75 - 14.5GHz Rx 10.95 - 12.75 GHz Rx Only 10.7 - 12.75 GHz	13.75 - 14.5GHz 10.95 - 12.75 GHz 10.7 - 12.75 GHz	13.75 - 14.5GHz 10.95 - 12.75 GHz 10.7 - 12.75 GHz
Polarisation	Circular or Linear		
Gain @ 14.25 GHz	Tx 39.6 dBi	40.3 dBi	41 dBi
Gain @ 11.95 GHz	Rx 38.0 dBi	38.6 dBi	39.5 dBi
Off-axis mask starts	∅ 1.9°	1.7°	1.6°
Sidelobe Envelope (Tx, Co-Pol dBi)	1.6° < θ < 7° 7° < θ < 9.2° 9.2° < θ < 48° 48° < θ < 180°	29 - 25 Log θ +8 dB 32 - 35 Log θ 10 dB (Typical)	29 - 25 Log θ +8 dB 32 - 35 Log θ 10 dB (Typical)
Cross Polarisation Isolation (Optional compensated feed)	Tx > 35 dB on axis Rx > 35 dB on axis Tx	> 35 dB on axis > 35 dB on axis > 30 dB within - 1 dB	> 35 dB on axis > 35 dB on axis
Antenna Noise Temp. @ 30° EI	< 40 K typ	< 40 K typ	< 40 K typ
VSWR (at feed flange)	< 1.3:1	< 1.3:1	< 1.3:1
- 3dB Beamwidth	14.25 GHz 1.64° 11.95 GHz 1.96°	1.60° 1.90°	1.42° 1.70°
	Mechanical Specification		
Reflector Material	Steel		
Feed Interface	Circular Waveguide		
Antenna Optics	Offset Prime Focus		
Elevation Adjustment Range	5° - 90° Continuous Fine adjustment + / - 0.2°	5° - 90° Continuous Fine adjustment + / - 0.2°	5° - 90° Continuous Fine adjustment + / - 0.1°
Azimuth Adjustment Range	± 20° fine adjustment to + / - 0.2° ± 90° Continuous	± 20° fine adjustment to + / - 0.2° ± 90° Continuous	± 20° fine adjustment to + / - 0.1° ± 90° Continuous
Skew Adjustment Range	0 - 90° Continuous (Linear Pol)		
Polarisation Adjustment Range	+ / - 45° fixed (Circular Pol)	+ / - 45° fixed (Circular Pol)	+ / - 45° fixed (Circular Pol)
Mast Pipe Interface	2 3/8" Canister		



Antenna Specification (cont'd)

**Galaxy Tx/RX
Ku Band**

Antenna Part Number	GKU 75	GKU 90	GKU 98
	Environmental Specification		
Windload Operational	80 Km / h	80 Km / h	80 Km / h
Operational - Survival	130 Km / h	130 Km / h	130 Km / h
Survival	200 Km / h	200 Km / h	200 Km / h



Galaxy Tx/RX Ku Band Antenna



Galaxy Antenna Benefits

The Galaxy antenna range is a transmit/receive Ku Band antenna offering the following key advantages:

- **High Efficiency**
- **Low Spillover**
- **Excellent Cross Pol Performance**
- **Easily Integrated with OEM Radio Solutions**
- **Eutelsat Approved**

About Raven

Raven is a world leader in the design and manufacture of satellite antenna equipment used for both direct to home (DTH), Consumer broadband and Enterprise VSAT applications worldwide.

Raven's in house design capability allows rapid turn around of complex antenna and feed designs. This, combined with world class design technology, provides novel and cost effective design solutions to satisfy the needs of the most discerning end customer.

Manufacturing in both the US and UK, with manufacturing partners in Asia and the Far East, Raven can offer customers product from a variety of shipping points reducing transport costs and minimising stock holding



Raven Antenna Systems Inc
4000 Sussex Avenue
Aurora Illinois 60540

Tel: +1 630 820 5608
Fax: +1 630 375 6384
Email: sales@ravenantennasystems.com
Web: www.ravenantennasystems.com

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