

Antenna Specification Sheet

RF Performance

Antenna Part Number		GKU 75	GKU 90	GKU 98	GKU 120
Antenna Dimensions (w x h)		84cm x 69cm	87cm x 77.5cm	98cm x 97cm	144cm x 119cm
Operating Frequency	Tx	13.75 - 14.5GHz	13.75 - 14.5GHz	13.75 - 14.5GHz	13.75 - 14.5GHz
	Rx	10.95 - 12.75 GHz	10.95 - 12.75 GHz	10.95 - 12.75 GHz	10.95 - 12.75 GHz
	Rx Only	10.7 - 12.75 GHz	10.7 - 12.75 GHz	10.7 - 12.75 GHz	10.7 - 12.75 GHz
Polarisation		Circular or Linear	Circular or Linear	Circular or Linear	Circular or Linear
Gain @ 14.25 GHz	Tx	39.6 dBi	40.3 dBi	41 dBi	43.8 dBi
Gain @ 11.95 GHz	Rx	38.0 dBi	38.6 dBi	39.5 dBi	42.2 dBi
Off-axis mask starts	∅	1.9°	1.7°	1.6°	1.5°
Sidelobe Envelope (Tx, Co-Pol dBi)	1.6° < θ < 7°	29 - 25 Log θ	29 - 25 Log θ	29 - 25 Log θ	29 - 25 Log θ
	7° < θ < 9.2°	+8 dB	+8 dB	+8 dB	+8 dB
	9.2° < θ < 48°	32 - 35 Log θ	32 - 35 Log θ	32 - 35 Log θ	32 - 35 Log θ
	48° < θ < 180°	10 dB (Typical)	10 dB (Typical)	10 dB (Typical)	10 dB (Typical)
Cross Polarisation Isolation (Optional compensated feed)	Tx	> 35 dB on axis	> 35 dB on axis	> 35 dB on axis	> 35 dB on axis
	Rx	> 35 dB on axis	> 35 dB on axis	> 35 dB on axis	> 35 dB on axis
	Tx	> 30 dB within - 1 dB	> 30 dB within - 1 dB	> 30 dB within - 1 dB	> 30 dB within - 1 dB
Antenna Noise Temp.	@ 30°EI	< 40 K typ	< 40 K typ	< 40 K typ	< 40 K typ
VSWR (at feed flange)		< 1.3:1	< 1.3:1	< 1.3:1	< 1.3:1
- 3dB Beamwidth	14.25 Ghz	1.64°	1.60°	1.42°	1.00°
	11.95 Ghz	1.96°	1.90°	1.70°	1.18°

Mechanical Performance

Reflector Material		Steel	Steel	Steel	Steel
Feed Interface		Circular Waveguide	Circular Waveguide	Circular Waveguide	Circular Waveguide
Antenna Optics		Offset Fed Prime Focus	Offset Fed Prime Focus	Offset Fed Prime Focus	Offset Fed Prime Focus
Elevation Adjustment Range		5° - 90° Continuous	5° - 90° Continuous	5° - 90° Continuous	5° - 90° Continuous
		Fine adjustment +/- 0.2°	Fine adjustment +/- 0.2°	Fine adjustment +/- 0.1°	Fine adjustment +/- 0.1°
Azimuth Adjustment Range		360° Continuous	360° Continuous	360° Continuous	360° Continuous
		± 20° fine adjustment to +/- 0.2°	± 20° fine adjustment to +/- 0.2°	± 20° fine adjustment to +/- 0.1°	± 20° fine adjustment to +/- 0.1°
Skew Adjustment Range		± 90° Continuous	± 90° Continuous	± 90° Continuous	± 90° Continuous
Polarisation Adjustment Range		0 - 90° Continuous (Linear Pol)	0 - 90° Continuous (Linear Pol)	0 - 90° Continuous (Linear Pol)	0 - 90° Continuous (Linear Pol)
		+ / - 45° fixed (Circular Pol)	+ / - 45° fixed (Circular Pol)	+ / - 45° fixed (Circular Pol)	+ / - 45° fixed (Circular Pol)
Mast Pipe Interface		2 3/8" Canister	2 3/8" Canister	2 3/8" Canister	3" Canister

Environmental

Wind load Operational		80 Km / h	80 Km / h	80 Km / h	80 Km / h
Operational - Survival		130 Km / h	130 Km / h	130 Km / h	130 Km / h
Survival		200 Km / h	200 Km / h	200 Km / h	200 Km / h



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