

Product Data Sheet

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KP-TWDPY9

470 MHz-698 MHz, Dual Polarization Yagi Antenna, 9 dBi

- Aircraft Quality 6061-T6 aluminium and compression crimped elements for optimum strength
- Powder-coated black for corrosion, fade, and ice-build up resistance

Electrical Specification

Frequency Band	MHz	470-550	550-698
Gain	dBi	7.5±1	9.0±1
Polarization		Horizontal/Vertical or ± 45 Slant	
Horizontal HPBW	Degree	75±10	65±10
Horizontal Squint	Degree	±2	±2
Vertical HPBW	Degree	65±10	55±10
Electrical Downtilt	Degree	0	0
Front-to-Back Ratio @ 180°±30°	dB	15 typ 10 min	15 typ 10 min
Cross-polarization Ratio	dB	25	30
VSWR		1.5:1 typ 2:1 max	1.5:1 typ 2:1 max
Return Loss	dB	14 typ 10 max	14 typ 10 max
Port-to-Port Isolation	dB	30	25
Max. Input Power per Port	W		50
Impedance	Ohms		50

Mechanical Specifications

RF Connector Type	N-Type Male on pigtailed
RF Connector Quantity	2
RF Connector Position	Antenna boom
Electrical Grounding	RF connector grounded to boom and mounting bracket
Material	6061-T6 Aluminium
Surface Finish	Ice and UV Resistant Black Powder Coating
Max. Wind Speed	160km/h 100mph
Temperature Range	-40° to +60° C -40° to +140° F
Ingress Protection	IP55 rain and dust resistant

Bracket Specifications

Material Type	Powder Coated 6061-T6 Aluminium
Mechanical Tilt (Degree)	±15
Mounting Type	Pipe Mount
Mounting pole diameter	19 mm – 76 mm 0.75 in – 3 in

Antenna Dimensions

Length	1100 mm 43.3 in
Width	370 mm 14.6 in
Height	370 mm 14.6 in
Net Weight, with bracket	2.5 kg 5.5 lb

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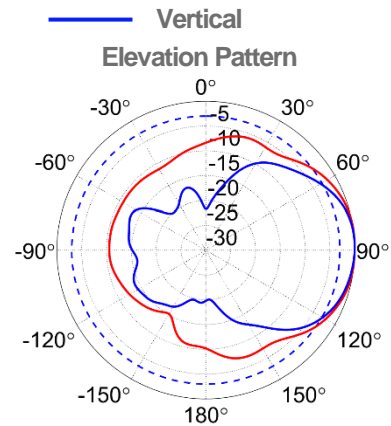
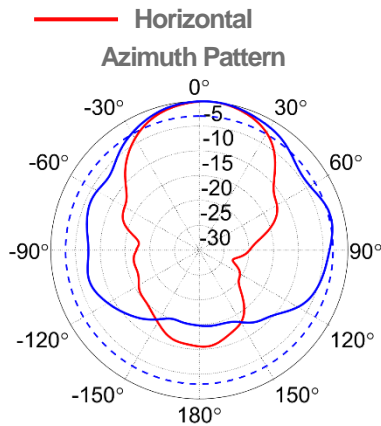
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Shipping Dimensions

Length	1220mm 48 in
Width	406 mm 16 in
Height	406 mm 16 in
Net Weight, with brackets	2.6 kg 5.7 lb

Graphical Data



Appendix

HPBW: Average and variation of the antenna's 3dB beamwidth (half power beamwidth) in its horizontal (Azimuth) or vertical (Elevation) pattern.

Horizontal Squint: Angle in the antenna's azimuth pattern in which the maximum gain occurs. Reported is the maximum variation in the frequency band.

Electrical Downtilt: Angle in the antenna's elevation pattern in which the maximum gain occurs.

Gain: Antenna's average gain and variation in each frequency band.

Front to Back Ratio @ $180^\circ \pm 30^\circ$: Difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over $\pm 30^\circ$ angles.

Cross-polarization Ratio over HPBW (dB): Maximum difference between the co-polarization and cross-polarization gain across the sector's HPBW.