

Product Data Sheet



KPP-2HV5HVX8-65

2.3 GHz to 2.7 GHz + 4.9 GHz to 6.4 GHz, 65 Degree Dual Band Sector Antenna, 8-Port, Horizontal/Vertical (Two Sectors in One Shell)

- Supports 2x2 and 4x4 MIMO in each 2 GHz & 5 GHz bands and carrier aggregation
- Optimized Upper Elevation Side Lobes and Front to Back

Electrical Specification

Frequency Band	MHz	2300-2500	2500-2700	4900-5400	5400-5900	5900-6400
Gain	dBi	17.3±0.4	16.8±0.4	17.0±0.4	16.8±0.4	16.7±0.4
Polarization		H/V	H/V	H/V	H/V	H/V
Horizontal HPBW	Degree	65±3	60±3	65±3	56±4	53±4
Horizontal Squint	Degree	±3	±3	±4	±4	±3
Vertical HPBW	Degree	8.6±0.4	8.0±0.3	8.6±0.5	8.4±0.3	7.7±0.3
Electrical Downtilt	Degree	0	0	0	0	0
Upper Side Lobe Suppression (Peak to 20°)	dB	15	15	15	15	15
Front-to-Back Ratio @ 180°±30°	dB	31	32	33	34	33
Cross-polarization Ratio over HPBW	dB	14	16	15	15	14
VSWR		1.5 typ 1.7 max	1.5 typ 1.7 max	1.5 typ 2 max	1.5 typ 2 max	1.5 typ 2 max
Return Loss	dB	14 typ 12 max	14 typ 12 max	14 typ 10 max	14 typ 10 max	14 typ 10 max
Port-to-Port Isolation Same Band	dB	25	25	25	30	25
Port-to-Port Isolation Out Band	dB	40	40	45	45	50
Max. Input Power per Port	W	50	50	50	50	50
Impedance	Ohms	50	50	50	50	50

Mechanical Specifications

RF Connector Type	N-Type Female
RF Connector Quantity	8
RF Connector Position	Bottom of Radome
Electrical Grounding	RF connector grounded to reflector and mounting bracket
Radome Material	UV resistant PVC
Reflector Material	Anodized Aluminium
Ingress Protection	IP55 rain and dust resistant
Wind Load, frontal	330N @ 160km/h 74lbf @ 100mph
Max. Wind Speed	160km/h 100mph
Temperature Range	-40° to +60° C -40° to +140° F

Bracket Specifications

Material Type	Powder Coated High Strength Aluminium
Mechanical Downtilt (Degree)	-1 to +11 (Slot 1) -4 to +7 (Slot 2)
Mounting Type	Pipe Mount
Mounting pole diameter	19 mm – 114 mm 0.75 in – 4.5 in
Antenna-to-Pipe Distance	121 mm 4.8 in
Bracket-to-Bracket Distance	800 mm 31.5 in

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Sector Dimensions

Length	1170 mm		46.1 in
Width	318 mm		12.5 in
Height	67 mm		2.6 in
Net Weight, with brackets	11.4 kg		25.0 lb

Shipping Dimensions

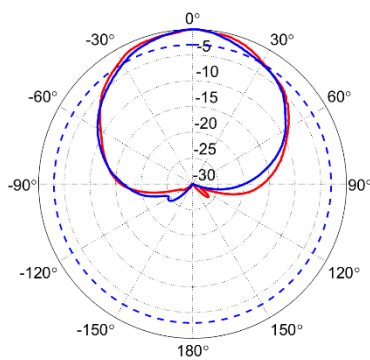
Length	1360 mm		50.5 in
Width	355 mm		14.0 in
Height	200 mm		7.9 in
Net Weight	11.8 kg		26.0 lb

Graphical Data

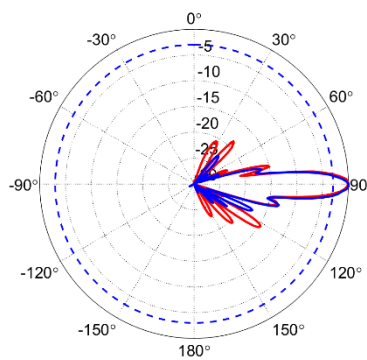
— Horizontal

— Vertical

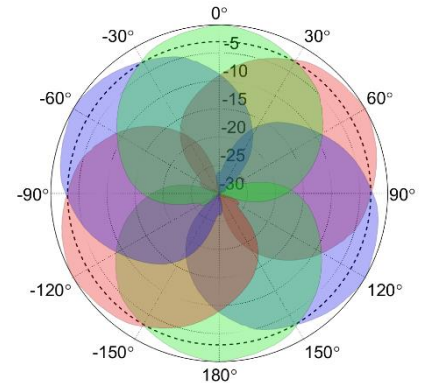
2 GHz Azimuth



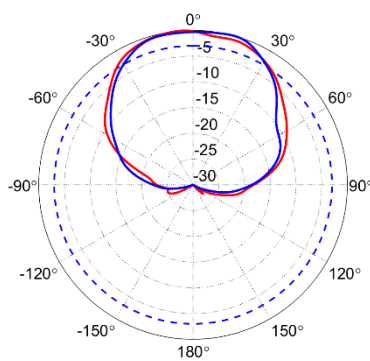
2 GHz Elevation



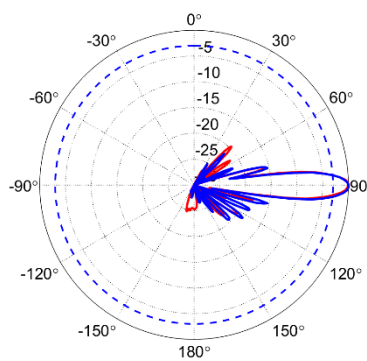
2 GHz ABCABC Channel Reuse



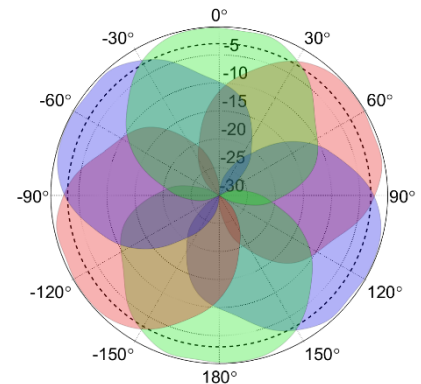
5 GHz Azimuth



5 GHz Elevation



5 GHz ABCABC Channel Reuse



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°±30°: Typical difference between the antenna pattern's maximum gain and the gain in the antenna's back lobe over ±30° angles.

Upper Side Lobe Suppression: Typical value for the antenna's elevation upper side lobes from the main beam to +20°.

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

Port-to-Port Isolation Same and Inter Band (dB): Typical isolation between ports in the *Same* frequency band and between *Inter* frequency bands (i.e., 2GHz and 5GHz)