

Product Data Sheet

☎ 1-855-276-(KPPA) 5772 or 780-702-7577
 ✉ info@kpperformance.ca
 ✉ 9850 W 190th St, Suite F, Mokena, IL 60448



AlIVE Telecom



X8 antenna KP-5HVX8-65

5 GHz band HV polarization, 8-input 34" sector antenna

The new generation of dual-antennas from KP fit an eight port radiating systems within a single 34 inch radome. This antenna allows for two x four-port radios connected in the same direction for redundancy or increased capacity.

Features:

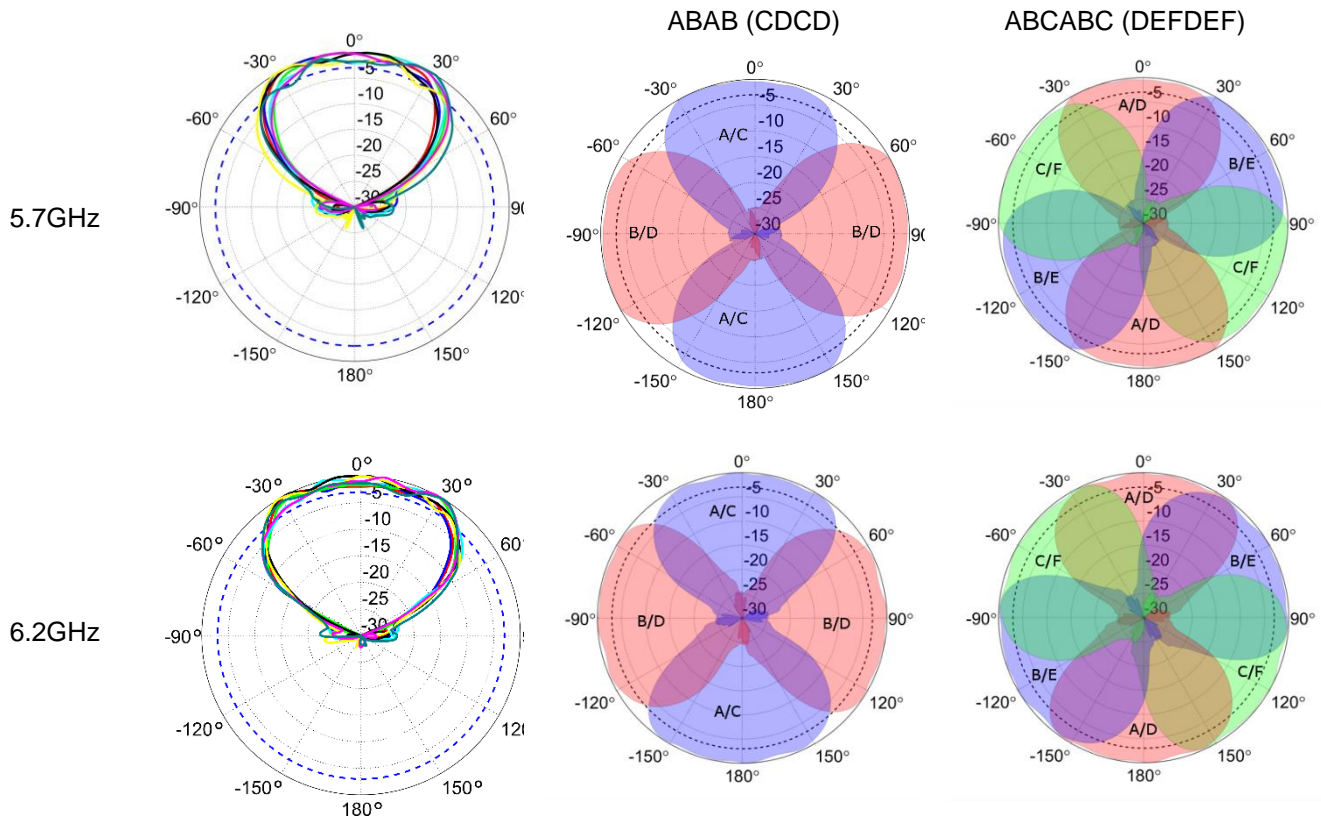
- Dual HV sector antennas 65° in a single radome
- High gain of 17.5 dBi at 5.9GHz with
- Supplied with KP's over-designed universal adjustable bracket with wide U-bolts for mounting on poles or tower legs up to 3.5".

Advantages:

- True MIMO speed to the customer
- Allows upgrade path to add a frequency band for redundancy or increased capacity without using more space on tower.
- Faster installation than two and four single-band sectors

Overview pattern diagrams:

- A single KP-5HVX8-65; has eight 5 GHz ports all facing in the same direction.
- Four KP-5HVX8-65; mounted around a tower give complete 360° coverage with increased capacity on a ABAB (CDCD) frequency reuse. Six can also be used for more dense applications on ABCABC(DEFDEF)



Also available: 8-port 65 degree 17" compact sector antenna for two quad-pol radios

ANTENNAS ENGINEERED & MANUFACTURED TO EXCEED INDUSTRY STANDARDS

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KP-5HVX8-65

8-port sector antenna, 4900-5900 MHz, 65° HPBW, horizontal and vertical polarization

- 8-port MIMO in a single radome
- Add redundancy or increased capacity with a single antenna
- Wide bandwidth

Electrical Specification

Frequency Band	MHz	4900-5200	5200-5900	5900-6400
Gain	dBi	16.5±0.5	17.5±0.5	16.5±0.5
Polarization		H/V	H/V	H/V
Horizontal HPBW	Degree	65±4	68±3	74±5
Horizontal Squint	Degree	±6	±5	±7
Vertical HPBW	Degree	7.5±1	7±0.5	6.5±0.5
Electrical Downtilt	Degree	<0.5	<0.5	<0.5
Front-to-Back Ratio @ 180°±30°	dB	25	30	25
Cross-polarization Ratio at Boresight	dB	20	25	15
Cross-polarization Ratio over HPBW	dB	15	17	12
VSWR		1.7 typ 2 max	1.7 typ 2 max	1.5 typ 1.7 max
Return Loss	dB	12 typ 10 max	12 typ 10 max	14 typ 12 max
Port-to-Port Isolation	dB	25	20	20
Max. Input Power per Port	W	50	50	50
Impedance	Ohms	50	50	50

Mechanical Specifications

RF Connector Type	Type N Female
RF Connector Quantity	8
RF Connector Position	Back of radome
Electrical Grounding	RF connector grounded to reflector and mounting bracket
Radome Material	UV resistant PVC/ABS
Ingress Protection	IP66 rain and dust resistant
Wind Load, frontal	314N @ 160km/h 71lbf @ 100mph
Max. Wind Speed	160km/h 100mph
Temperature Range	-40° to +60° C -40° to +140° F

Bracket Specifications

Material Type	Powder Coated Galvanized Steel
Mechanical Tilt (Degree)	-2 – 8
Mounting Type	Pipe Mount
Mounting pole diameter	25 mm – 89 mm 1¼ in – 3½ in
Antenna-to-Pipe Distance	76 mm 3 in
Bracket-to-Bracket Distance	720 mm 28.3 in

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Sector Dimensions

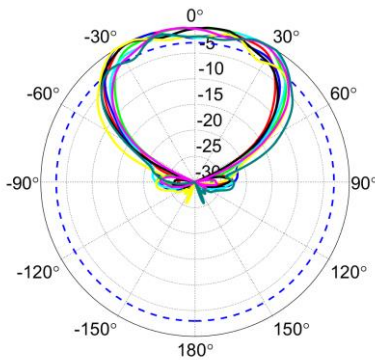
Length	865 mm		34 in
Width	285 mm		11 in
Height	100 mm		3.9 in
Net Weight, with brackets	4.3 kg		9.5 lb

Package Dimensions

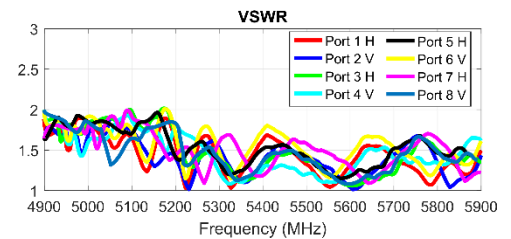
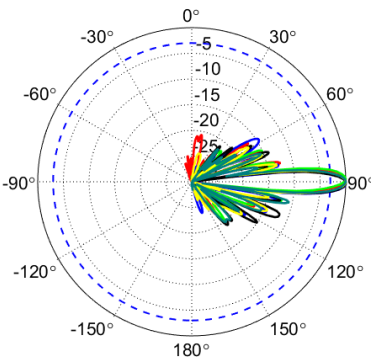
Length	940 mm		37 in
Width	355 mm		14 in
Height	190 mm		7.5 in
Net Weight	7kg		15.4 lb

Graphical Data

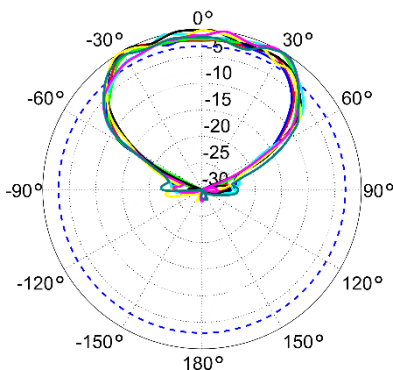
Azimuth Pattern at 5.7GHz



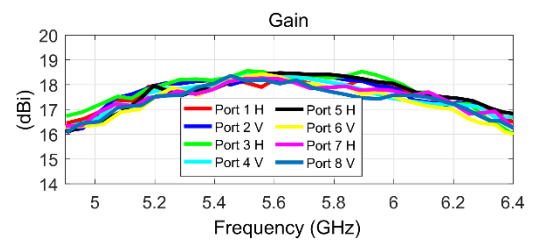
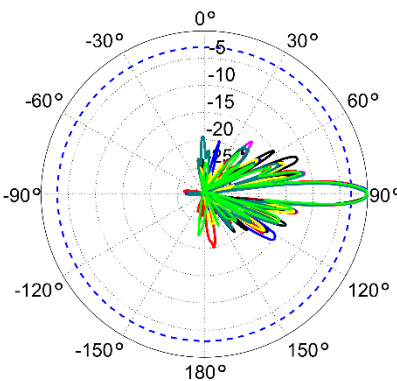
Elevation Pattern at 5.7GHz



Azimuth Pattern at 6.2GHz



Elevation Pattern at 6.2GHz



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°: Difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over ±30° angles.
 Cross polarization at boresight: Difference between the co-polarization and cross-polarization gain at 0° (boresight).
 Cross-polarization Ratio over HPBW (dB): Maximum difference between the co-polarization and cross-polarization gain across the sector's HPBW.

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