Product Data Sheet

☎ 1-855-276-(KPPA) 5772 or 780-702-7577
💻 info@kpperformance.ca
✉ 15497 117 Ave, Edmonton, AB T5M3X4, Canada
✉ 5000 W. Proviso Dr, Unit #2 Melrose Park, IL 60163, USA

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:

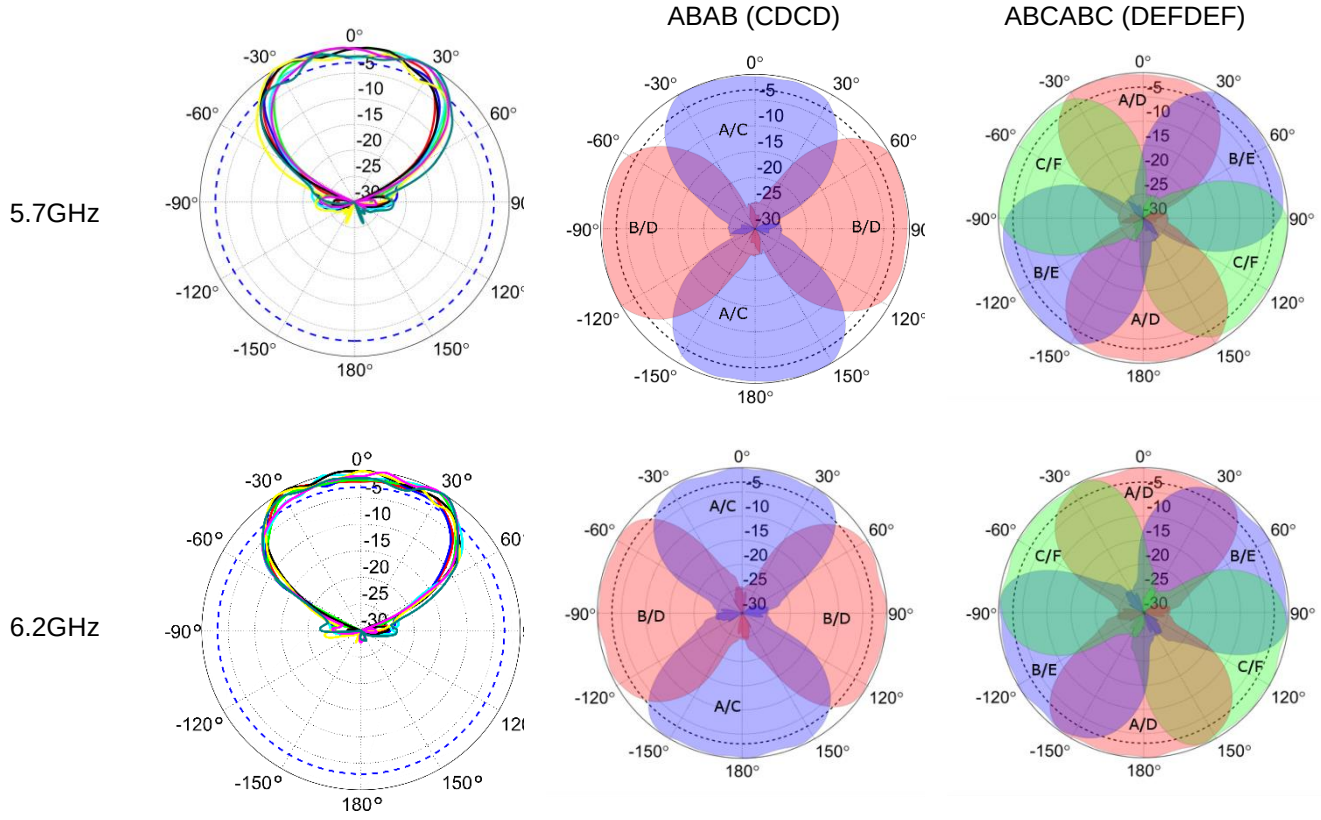
- Dual HV sector antennas 65° in a single radome
- High gain of 17.5 dBi at 5.9GHz with
- Supplied with KP’s over-designed universal adjustable bracket with wide U-bolts for mounting on poles or tower legs up to 3.5”.

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

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KP-5HVX8-65

8-port sector antenna, 4900-6400 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
Beamforming Gain	dBi	19.5±0.5	20.5±0.5	19.5±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	30	30	28
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	IP55 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 – 3 ½ in
Antenna-to-Pipe Distance	76 mm | 3 in
Bracket-to-Bracket Distance	720 mm | 28.3 in

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Sector Dimensions

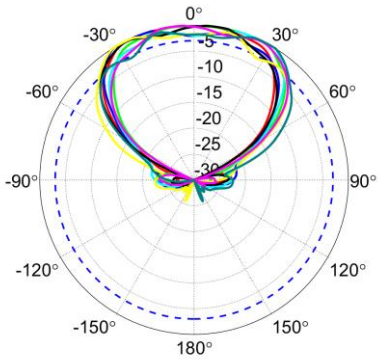
Length	863 mm | 34 in
Width	280 mm | 11 in
Height	76 mm | 3 in
Net Weight, with brackets	4.3 kg | 9.5 lb

Package Dimensions

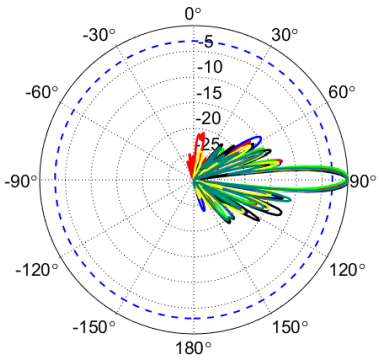
Length	940 mm | 37 in
Width	355 mm | 14 in
Height	190 mm | 7.5 in
Net Weight	7kg | 15.4 lb

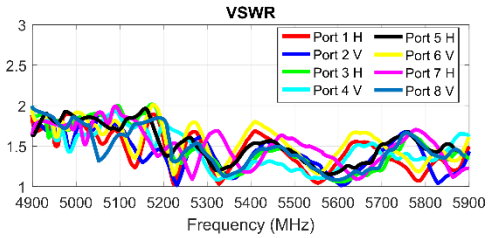
Graphical Data

Azimuth Pattern at 5.7GHz

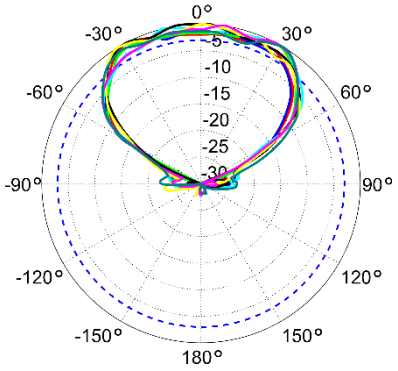


Elevation Pattern at 5.7GHz

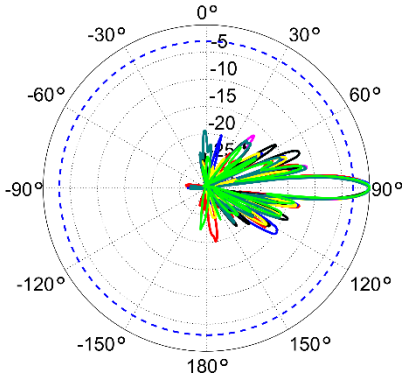


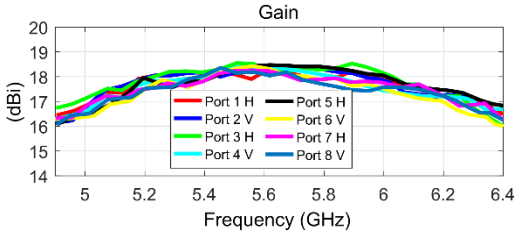


Azimuth Pattern at 6.2GHz



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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