

# Product Data Sheet

☎ 1-855-276-(KPPA) 5772 or 780-702-7577  
✉ info@kppperformance.ca  
✉ 15497 117 Ave, Edmonton, AB T5M3X4, Canada



## X4 antenna KPPA-5GHZHV4P65-17;

5 GHz band VH polarization, quad-input 17" sector antenna



The new generation of dual-antennas from KP fit a four port radiating systems within a single compact 17 inch radome. This arrangement allows complete coverage while reducing tower rental and installation costs.

### Features:

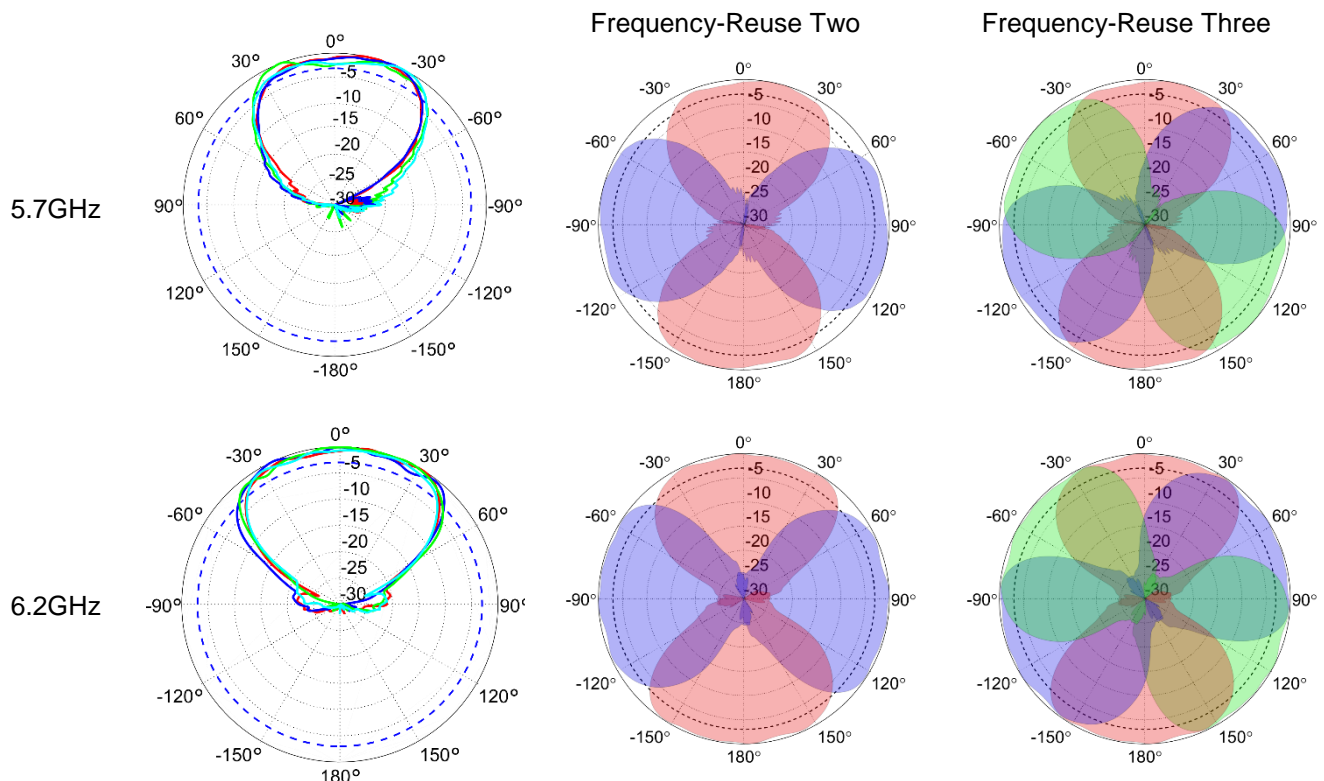
- Dual VH sector antennas 65° in a single radome
- High gain of 17.5 dBi at 5.9GHz with
- Supplied with KP's over-designed universal adjustable bracket, in hot-dip galvanised steel, with wide U-bolts for mounting on poles or tower legs up to 4".
- Mounting space for Mimosa radio on back

### Advantages:

- Reduced inches on tower, only 17" tall
- True MIMO speed to the customer
- Lower wind resistance than equivalent full-size sectors
- Allows upgrade path to add a frequency band without using more space on tower.
- Faster installation than two single-band sectors

### Overview pattern diagrams:

- A single KPPA-5GHZHV4P65-17; has four 5 GHz ports all facing in the same direction.
- Four KPPA-5GHZHV4P65-17; mounted around a tower give complete 360° coverage in both bands. Six can also be used for more dense applications



**Also available:** 8-port 65 degree 34" compact sector antenna for two quad-pol radios

ANTENNAS ENGINEERED & MANUFACTURED TO EXCEED INDUSTRY STANDARDS

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## KPPA-5GHZHV4P65-17

four-port sector antenna, 4900-6400 MHz, 65° HPBW, horizontal and vertical polarization

- High gain and wide bandwidth
- 4-port MIMO in a single radome
- Ideal for Frequency-Reuse Two (ABCABC)

### Electrical Specification

Frequency Band	MHz	4900-5200	5200-5900	5900-6400
Gain	dBi	16.2±0.5	17.5±0.5	16.5±0.5
Beamforming Gain	dBi	19.2±0.5	20.5±0.5	19.5±0.5
Polarization		H/V	H/V	H/V
Horizontal HPBW	Degree	65±3	68±3	75±5
Horizontal Squint	Degree	±6	±5	±8
Vertical HPBW	Degree	7.5±0.5	7±0.5	6.5±0.5
Electrical Downtilt	Degree	0	0	0
Front-to-Back Ratio @ 180°±30°	dB	25	30	25
Cross-polarization Ratio at Boresight	dB	20	25	18
Cross-polarization Ratio over HPBW	dB	15	17	13
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	15	20	25
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	4
RF Connector Position	Back of radome
Electrical Grounding	RF connector grounded to reflector and mounting bracket
Radome Material	UV resistant PVC
Ingress Protection	IP55 rain and dust resistant
Wind Load, frontal	157N @ 160km/h   35lbf @ 100mph
Max. Wind Speed	160km/h   100mph
Temperature Range	-40° to +60° C   -40° to +140° F

### Bracket Specifications

Material Type	Hot Dipped Galvanized Steel
Mechanical Tilt (Degree)	-4 – 15
Mounting Type	Pipe Mount
Mounting pole diameter	44 mm – 89 mm   1 ¾ in – 3 ½ in (smaller pole adapter available upon request: KPPA-POLADAPT)
Antenna-to-Pipe Distance	131 mm   5 in
Bracket-to-Bracket Distance	355 mm   14 in

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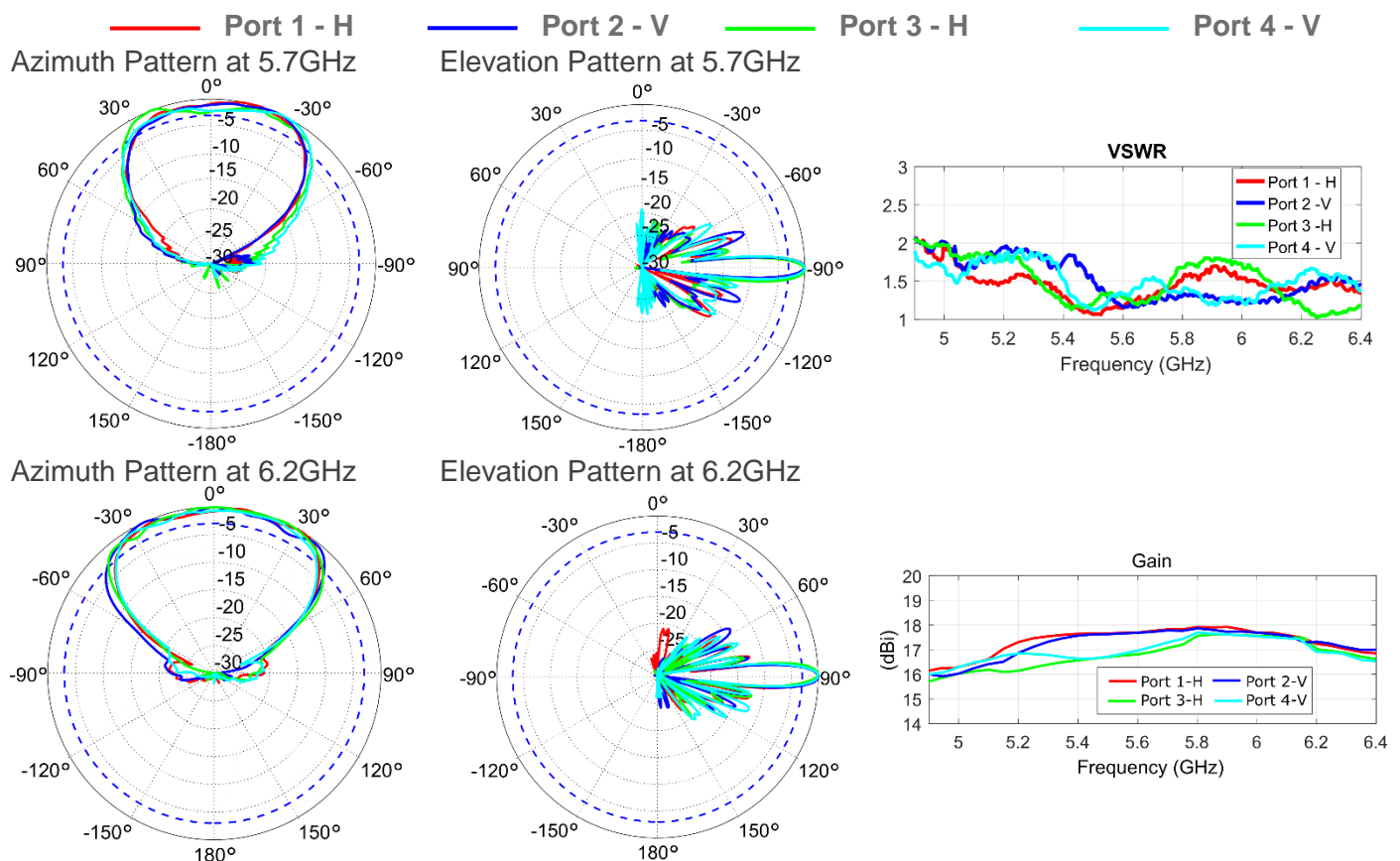
## Sector Dimensions

Length	431 mm	17 in
Width	285 mm	11 in
Height	100 mm	3.9 in
Net Weight, with brackets	3.2 kg	7 lb

## Package Dimensions

Length	508 mm	20 in
Width	355 mm	14 in
Height	304 mm	12 in
Net Weight	6.8 kg	15 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°±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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