

# Product Data Sheet

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## KPPA-900DP-90S-PMP

AP Sector Antenna, Dual Slant, 824-928MHz, 90deg, 12.5dBi

- Wide band, high gain and dual polarization
- Clean patterns and high front-to-back ratio for frequency reuse

### Electrical Specification

Frequency Band	MHz	824—900	900—928
Gain	dBi	10±0.5	12.5±0.5
Polarization		Slant (±45°)	Slant (±45°)
Horizontal HPBW	Degree	86±2	90±1
Horizontal Squint	Degree	±2	±2
Vertical HPBW	Degree	19.5±1	18.5±0.5
Electrical Downtilt	Degree	<1	<1
Front-to-Back Ratio @ 180°	dB	25	28
Front-to-Back Ratio @ 180°±30°	dB	22	25
Cross-polarization Ratio at Boresight	dB	18	20
Cross-polarization Ratio over HPBW	dB	15	16
VSWR		1.2 typ   1.5 max	1.2 typ   1.5 max
Return Loss	dB	21 typ   14 max	21 typ   14 max
Port-to-Port Isolation	dB	20	25
Max. Input Power per Port	W	50	50
Impedance	Ohms	50	50

### Mechanical Specifications





RF Connector Type	Type N Female
RF Connector Quantity	2
RF Connector Position	Bottom 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	240N @ 160km/h   54 lbf @ 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)	-2 – 10
Mounting Type	Pipe Mount
Mounting pole diameter	25 mm – 89 mm   1¼ in – 3 ½in
Antenna-to-Pipe Distance	131 mm   5 in
Bracket-to-Bracket Distance	762 mm   30 in

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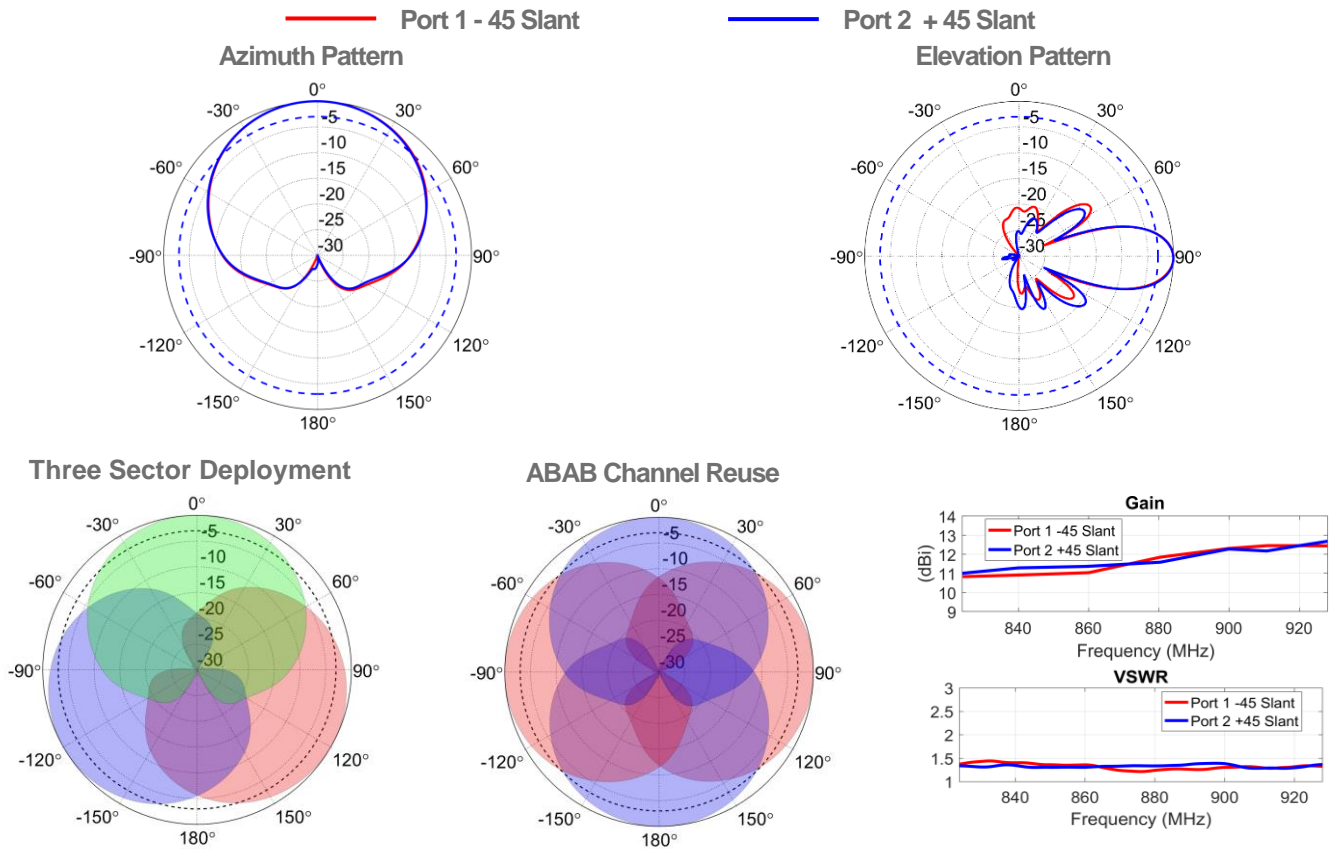
## Sector Dimensions

Length	940 mm   37 in
Width	280 mm   11 in
Height	127 mm   5 in
Net Weight, with brackets	5.4 kg   17 lb

## Package Dimensions

Length	990 mm   39 in
Width	355 mm   14 in
Height	254 mm   10 in
Net Weight	9.1 kg   20 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°:** Difference between the antenna's maximum gain and the gain directly behind the antenna ( $\theta=180^\circ$ ).  
**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 at boresight:** Difference between the co-polarization and cross-polarization gain at  $0^\circ$  (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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