

# Product Data Sheet



## KPPA-3GHZDP90S-45

2-port sector antenna, 3300-3800 MHz, 90° HPBW

- High gain and slant dual polarization
- Simultaneously maximize coverage and minimize interference
- Ideal for 3-sector frequency-reuse one with LTE equipment

### Electrical Specification

Frequency Band	MHz	3300—3550	3550—3800
Gain	dBi	16.7±0.25	16.5±0.25
Polarization		Slant (±45°)	Slant (±45°)
Horizontal HPBW	Degree	85±2	90±2
Horizontal Skew	Degree	±2	±3
Vertical HPBW	Degree	7±0.25	6.5±0.25
Electrical Downtilt	Degree	3	3.5
Front-to-Back Ratio @ 180°	dB	31	35
Front-to-Back Ratio @ 180°±30°	dB	28	28
Cross-polarization Ratio at Boresight	dB	25	23
Cross-polarization Ratio over HPBW	dB	20	17
VSWR		1.5 typ   1.7 max	1.3 typ   1.5 max
Return Loss	dB	14 typ   12 max	18 typ   14 max
Port-to-Port Isolation	dB	25	30
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)	-4 – 16
Mounting Type	Pipe Mount
Mounting pole diameter	25 mm – 89 mm   1¼ in – 3½ in
Antenna-to-Pipe Distance	131 mm   5 in
Bracket-to-Bracket Distance	490 mm   19 in

# Product Data Sheet

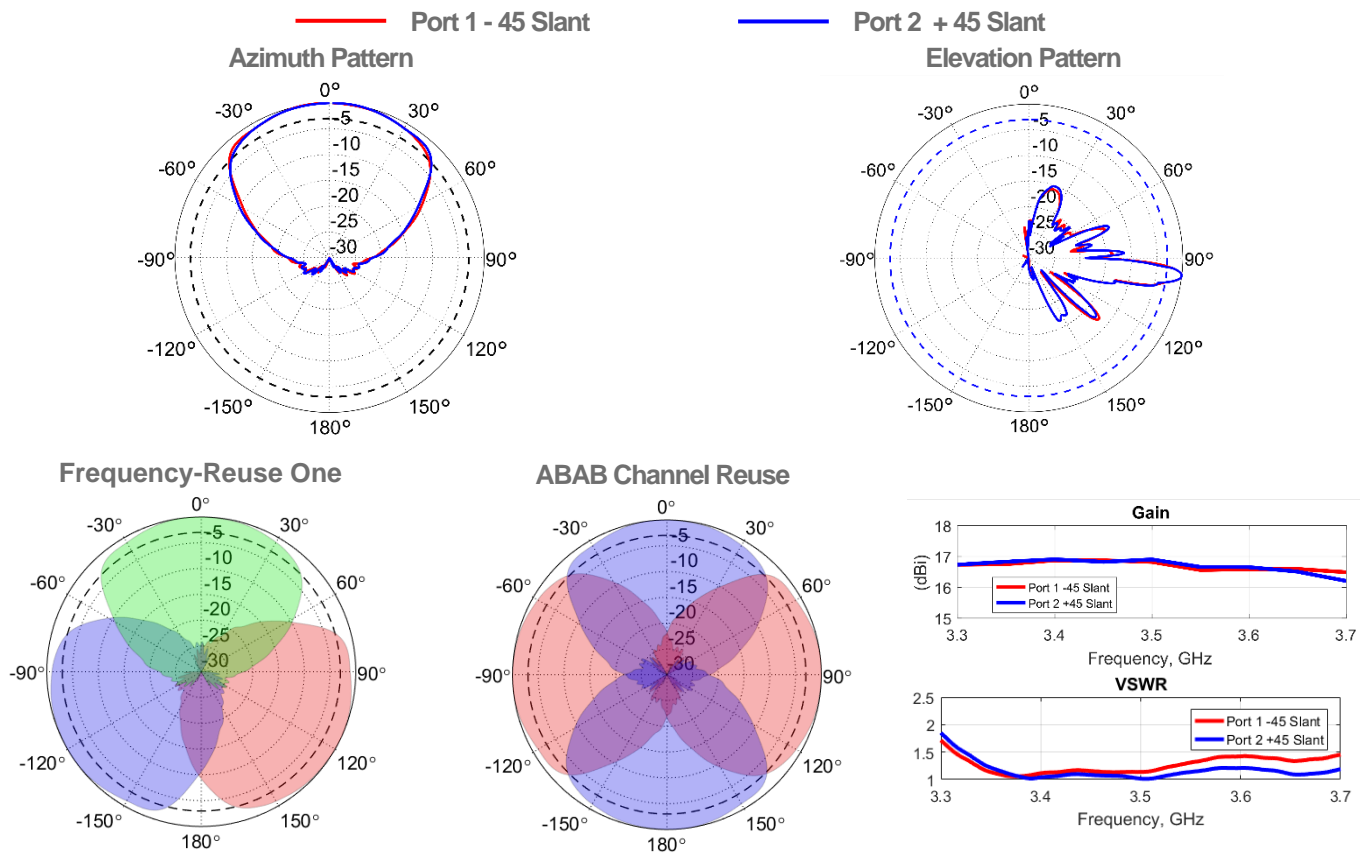
## Sector Dimensions

Length	710 mm		27 in
Width	170 mm		7 in
Height	89 mm		3.5 in
Net Weight, with brackets	3.2 kg		10 lb

## Package Dimensions

Length	762 mm		30 in
Width	250 mm		10 in
Height	200 mm		8 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.  
**Azimuth Skew:** 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.