# Product Data Sheet

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PERFORMANCE™ ANTENNAS
AliveTelecom

## KP-3DP65S-45

2-port sector antenna, 3300-3800 MHz, 65° HPBW, 3.5° fixed electrical downtilt

- High gain and dual slant 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 | 17.3±0.4 | 17.7±0.4 |
| Polarization | | Slant (±45°) | Slant (±45°) |
| Horizontal HPBW | Degree | 65±2 | 62±2 |
| Horizontal Squint | Degree | ±2 | ±2 |
| Vertical HPBW | Degree | 7±0.5 | 6.5±0.5 |
| Electrical Downtilt | Degree | 3.5 | 3 |
| Front-to-Back Ratio @ 180° | dB | 35 | 38 |
| Front-to-Back Ratio @ 180°±30° | dB | 30 | 35 |
| Cross-polarization Ratio at Boresight | dB | 18 | 20 |
| Cross-polarization Ratio over HPBW | dB | 13 | 14 |
| VSWR | | 1.5 typ \| 2 max | 1.5 typ \| 1.7 max |
| Return Loss | dB | 14 typ \| 10 max | 14 typ \| 12 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 | N-Type 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 | 170N @ 160km/h \| 38lbf @ 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 – 3 ½ in |
| Antenna-to-Pipe Distance | 131 mm \| 5 in |
| Bracket-to-Bracket Distance | 490 mm \| 19 in |

ANTENNAS ENGINEERED & MANUFACTURED TO EXCEED INDUSTRY STANDARDS

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## Sector Dimensions

| | | | |
|---|---|---|---|
| Length | 736 mm | \| | 29 in |
| Width | 170 mm | \| | 7 in |
| Height | 89 mm | \| | 3.5 in |
| Net Weight, with brackets | 4.5 kg | \| | 10 lb |

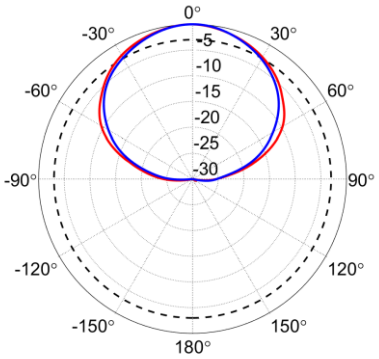
## Package Dimensions

| | | | |
|---|---|---|---|
| Length | 810 mm | \| | 32 in |
| Width | 250 mm | \| | 10 in |
| Height | 200 mm | \| | 8 in |
| Net Weight | 6.8 kg | \| | 15 lb |

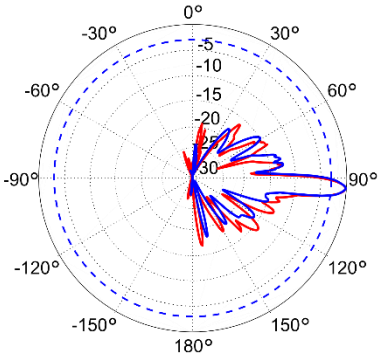
## Graphical Data

Port 1 - 45 Slant  Port 2 + 45 Slant

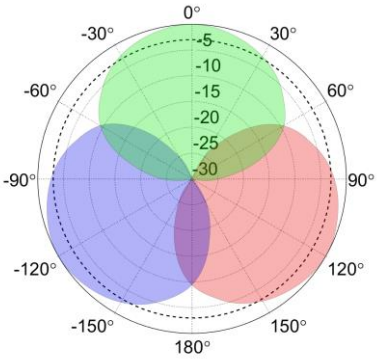
Azimuth Pattern



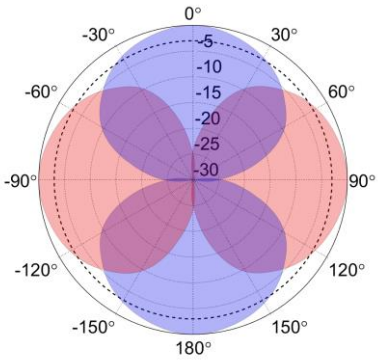

Elevation Pattern

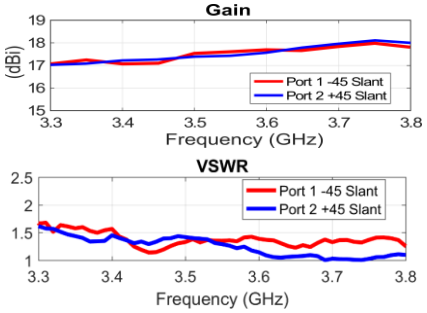



Frequency-Reuse One




ABAB Channel Reuse




## 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 (θ=180°).
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.