## Product Data Sheet

## KP-5SK4-45

4.9 GHz to 5.9 GHz, 45 Degree Sector Antenna, 20.5 dBi, 4-Port, $\pm 45$ Slant

- $0^{\circ}$ fixed electrical downtilt
- ProLine sector with stable and high gain over a wide bandwidth
- Interference mitigation with azimuth and elevation side-lobe suppression
- Ideal for 6-or 8-sector frequency-reuse two


## Electrical Specification

| Frequency Band | MHz | 4900-5400 | 5400-5900 |
| :---: | :---: | :---: | :---: |
| Gain | dBi | $20.0 \pm 0.2$ | $20.5 \pm 0.3$ |
| Polarization |  | Slant ( $\pm 45^{\circ}$ ) | Slant ( $\pm 45^{\circ}$ ) |
| Horizontal HPBW | Degree | $45 \pm 1$ | $43 \pm 1$ |
| Horizontal Squint | Degree | $\pm 2$ | $\pm 2$ |
| Vertical HPBW | Degree | $6.5 \pm 0.3$ | $6.2 \pm 0.3$ |
| Electrical Downtilt | Degree | 0 | 0 |
| Front-to-Back Ratio @ $180^{\circ} \pm 30^{\circ}$ | dB | 40 | 38 |
| Upper Side Lobe Suppression ( $+20^{\circ}$ ) | dB | 16 | 16 |
| Cross-polarization Ratio over HPBW | dB | 20 | 19 |
| VSWR |  | 1.5 typ \| 1.7 max | 1.5 typ \| 1.7 max |
| Return Loss | dB | 14 typ \| 12 max | 14 typ \| 12 max |
| Port-to-Port Isolation | dB | 31 | 35 |
| Max. Input Power per Port | W | 50 | 50 |
| Impedance | Ohms | 50 | 50 |
| Mechanical Specifications |  |  |  |
| RF Connector Type |  | N-type Female |  |
| RF Connector Quantity |  | 4 |  |
| RF Connector Position |  | Bottom of radome |  |
| Electrical Grounding |  | RF connector grounded to reflector and mounting bracket |  |
| Radome Material |  | UV resistant PVC |  |
| Reflector Material |  | Fully Enclosed Aluminium |  |
| Ingress Protection |  | IP55 rain and dust resistant |  |
| Wind Load, frontal |  | 229N @ 160km/h \| 51lbf @ 100mph |  |
| Max. Wind Speed |  | $160 \mathrm{~km} / \mathrm{h} \mid 100 \mathrm{mph}$ |  |
| Temperature Range |  | $-40^{\circ}$ to $+60^{\circ} \mathrm{C} \mid-40^{\circ}$ to $+140^{\circ} \mathrm{F}$ |  |
| Bracket Specifications |  |  |  |
| Material Type |  | Powder Coated High-Strength Aluminium |  |
| Mechanical Tilt (Degree) |  | -1 to +10 (Slot A) \| -2 to +6 (Slot B) |  |
| Mounting Type |  | Pipe Mount |  |
| Mounting pole diameter |  | $19 \mathrm{~mm}-114 \mathrm{~mm}$ \| $0.75 \mathrm{in}-4.5 \mathrm{in}$ |  |
| Antenna-to-Pipe Distance |  | 121 mm \| 4.8 in |  |
| Bracket-to-Bracket Distance |  | 846 mm \| 33.3 in |  |

Sector Dimensions

| Length | 1083 mm | 42.6 in |
| :--- | ---: | :---: |
| Width | 162 mm | 6.4 in |
| Height | 64 mm | 2.5 in |
| Net Weight, with brackets | 7.9 kg | 17.4 lb |

## Shipping Dimensions

| Length | 1415 mm | 55.7 in |
| :--- | ---: | :---: |
| Width | 200 mm | 7.9 in |
| Height | 120 mm | 4.7 in |
| Net Weight | 8.0 kg | 17.6 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 @ $180^{\circ} \pm 30^{\circ}$ : Difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over $\pm 30^{\circ}$ angles.
Upper Side Lobe Suppression: The maximum value for the antenna's elevation upper side lobes from the main beam to $+20^{\circ}$.
Cross-polarization Ratio over HPBW (dB): Maximum difference between the co-polarization and cross-polarization gain across the sector's HPBW.

