## Product Data Sheet

## KP-2DP33S-45

2.3 GHz to 2.7 GHz, 33 Degree Sector Antenna, 19.0 dBi , 2-Port, $\pm 45$ Slant

- Professional sector line with stable and high gain
- Interference mitigation with azimuth and elevation side-lobe suppression
- Ideal for 6 -sector and 8 -sector frequency-reuse one and two, respectively, with LTE equipment


## Electrical Specification

| Frequency Band | MHz | $2300-2500$ | $2500-2700$ |
| :--- | :---: | :---: | :---: |
| Gain | dBi |  | $18.5 \pm 0.25$ |
| Polarization |  | Slant $\left( \pm 45^{\circ}\right)$ | $19.0 \pm 0.25$ |
| Horizontal HPBW | Degree | $36 \pm 1$ | Slant $\left( \pm 45^{\circ}\right)$ |
| Horizontal Squint | Degree | $\pm 0.5$ | $34 \pm 1$ |
| Vertical HPBW | Degree | $8.5 \pm 0.3$ | $\pm 0.5$ |
| Electrical Downtilt | Degree | 4 | $7.8 \pm 0.2$ |
| Front-to-Back Ratio @ $180^{\circ} \pm 30^{\circ}$ | dB | 35 | 4 |
| Upper Side Lobe Suppression $\left(+20^{\circ}\right)$ | dB | 16 | 30 |
| Cross-polarization Ratio over HPBW | dB |  | 14 |
| VSWR |  | 1.3 typ \| 1.5 max | 15 |
| Return Loss | dB | 17 typ \| 14 max | 1.3 typ \| 1.5 max |
| Port-to-Port Isolation | 30 | 17 typ \| 14 max |  |
| Max. Input Power per Port | dB | W | 50 |
| Impedance | Ohms | 50 | 50 |

## Mechanical Specifications

| RF Connector Type |
| :--- |
| RF Connector Quantity |
| RF Connector Position |
| Electrical Grounding |
| Radome Material |
| Reflector Material |
| Ingress Protection |
| Wind Load, frontal |
| Max. Wind Speed |
| Temperature Range |

N -Type Female
2
Bottom of radome
RF connector grounded to reflector and mounting bracket
UV resistant PVC
Anodized Aluminium
IP65 rain and dust resistant
$343 \mathrm{~N} @ 160 \mathrm{~km} / \mathrm{h} \mid 77 \mathrm{lbf} @ 100 \mathrm{mph}$
$160 \mathrm{~km} / \mathrm{h} \mathrm{\mid} 100 \mathrm{mph}$
$-40^{\circ}$ to $+60^{\circ} \mathrm{C} \mathrm{\mid}-40^{\circ}$ to $+140^{\circ} \mathrm{F}$

## Bracket Specifications

| Material Type | Powder Coated High-Strength Aluminium |  |
| :--- | ---: | :--- |
| Mechanical Tilt (Degree) | -1 to +11 (Slot A) | -3 to +7 (Slot B) |
| Mounting Type | Pipe Mount |  |
| Mounting pole diameter | $19 \mathrm{~mm}-114 \mathrm{~mm}$ | $0.75 \mathrm{in}-4.5$ in |
| Antenna-to-Pipe Distance | 121 mm | 4.8 in |
| Bracket-to-Bracket Distance | 808 mm | 31.8 in |

Sector Dimensions

| Length | 918 mm | 36.1 in |
| :--- | :---: | :---: |
| Width | 286 mm | 11.3 in |
| Height | 131 mm | 5.2 in |
| Net Weight, with brackets | 9.4 kg | 20.7 lb |

## Shipping Dimensions

| Length | 1200 mm | 47.2 in |
| :--- | ---: | :---: |
| Width | 320 mm | 12.6 in |
| Height | 180 mm | 7.1 in |
| Net Weight, with brackets | 9.5 kg | 20.9 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.

