# Product Data Sheet

1-855-276-5772 or 780-702-7577 info@kpperformance.com 9850 W 190th St, Suite F, Mokena, IL 60448



# **KPP-3SX4-65**

## 3.5 GHz to 4.2 GHz, 65 Degree Sector Antenna, 18.1 dBi, 4-Port, ±45 Slant

- 3.5° fixed electrical downtilt
- ProLine sector with stable and high gain
- Interference mitigation with azimuth and elevation side-lobe suppression
- Ideal for 3-sector frequency-reuse one with LTE equipment

#### **Electrical Specification**

| Frequency Band                     | MHz    | 3500—3800         | 3800—4200         |
|------------------------------------|--------|-------------------|-------------------|
| Gain                               | dBi    | 17.9±0.25         | 18.1±0.25         |
| Polarization                       |        | Slant (±45°)      | Slant (±45°)      |
| Horizontal HPBW                    | Degree | 65±2              | 62±3              |
| Horizontal Squint                  | Degree | ±1                | ±1                |
| Vertical HPBW                      | Degree | 6.5±0.3           | 6.0±0.3           |
| Electrical Downtilt                | Degree | 3.5               | 3.5               |
| Front-to-Back Ratio @ 180°±30°     | dB     | 40                | 40                |
| Upper Side Lobe Suppression (+20°) | dB     | 17                | 17                |
| Cross-polarization Ratio over HPBW | dB     | 19                | 20                |
| VSWR                               |        | 1.3 typ   1.5 max | 1.3 typ   1.5 max |
| Return Loss                        | dB     | 17 typ   14 max   | 17 typ   14 max   |
| Port-to-Port Isolation             | dB     | 30                | 30                |
| 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    | Anodized Aluminium                                      |
| Ingress Protection    | IP55 rain and dust resistant                            |
| Wind Load, frontal    | 242N @ 160km/h   54lbf @ 100mph                         |
| Max. Wind Speed       | 160km/h   100mph  |
| Temperature Range     | -40° to +60° C   -40° to +140° F                        |

## **Bracket Specifications**

| Material Type               | Powder Coated High-Strength Aluminium  |  |
|-----------------------------|--|--|
| Mechanical Tilt (Degree)    | -1 to +12 (Slot 1)   -5 to +8 (Slot 2) |  |
| Mounting Type               | Pipe Mount                             |  |
| Mounting pole diameter      | 19 mm – 114 mm   0.75 in – 4.5 in      |  |
| Antenna-to-Pipe Distance    | 121 mm   4.8 in                        |  |
| Bracket-to-Bracket Distance | 677 mm   26.7 in                       |  |

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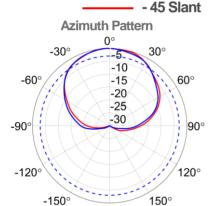
**Sector Dimensions** 

| Length                    | 770 mm   30.3 in |
|---------------------------|------------------|
| Width                     | 246 mm   9.7 in  |
| Height                    | 67 mm   2.6 in   |
| Net Weight, with brackets | 8.3 kg   18.2 lb |

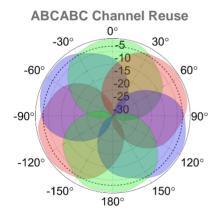
#### **Shipping Dimensions**

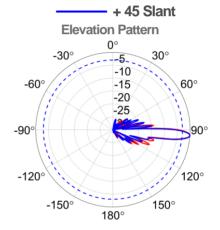
| Length     | 850 mm | 33.5 in |
|------------|--------|---------|
| Width      | 315 mm | 12.4 in |
| Height     | 200 mm | 7.9 in  |
| Net Weight | 8.4 kg | 18.5 lb |

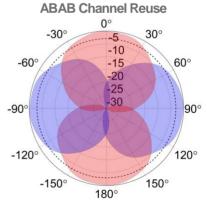
# **Graphical Data**



180°







#### **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 @  $180^{\circ}\pm30^{\circ}$ : Difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over  $\pm30^{\circ}$  angles. Upper Side Lobe Suppression: The maximum value for the antenna's elevation upper side lobes from the main beam to  $\pm20^{\circ}$ .

Cross-polarization Ratio over HPBW (dB): Maximum difference between the co-polarization and cross-polarization gain across the sector's HPBW.