Product Data Sheet

1-855-276-5772 or 780-702-7577

info@kpperformance.com





KPP-5SX4-90

4.9 GHz to 6.4 GHz, 90 Degree Sector Antenna, 17.0 dBi, 4-Port, ±45 Slant

- 0° 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 4-sector frequency-reuse two

Electrical Specification

| Frequency Band | MHz | 4900-5400 | 5400-5900 | 5900-6400 |
|------------------------------------|--------|-------------------|-------------------|-----------------|
| Gain | dBi | 15.5±0.5 | 16.0±0.5 | 17.0±0.5 |
| Polarization | | Slant (±45°) | Slant (±45°) | Slant (±45°) |
| Horizontal HPBW | Degree | 100±5 | 90±5 | 80±5 |
| Horizontal Squint | Degree | ±3 | ±3 | ±2 |
| Vertical HPBW | Degree | 6.5±0.3 | 6.0±0.3 | 5.5±0.3 |
| Electrical Downtilt | Degree | 0 | 0 | 0 |
| Front-to-Back Ratio @ 180°±30° | dB | 30 | 35 | 32 |
| Upper Side Lobe Suppression (+20°) | dB | 15 | 16 | 16 |
| Cross-polarization Ratio over HPBW | dB | 15 | 15 | 14 |
| VSWR | | 1.7 typ 2.0 max | 1.5 typ 1.7 max | 1.5 typ 2 max |
| Return Loss | dB | 12 typ 10 max | 14 typ 12 max | 14 typ 10 max |
| Port-to-Port Isolation | dB | 25 | 25 | 23 |
| Max. Input Power per Port | W | 50 | 50 | 50 |
| Impedance | Ohms | 50 | 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 | 178N @ 160km/h 40lbf @ 100mph |
| Max. Wind Speed | 160km/h 100mph |
| Temperature Range | -40° to +60° C -40° to +140° F |
| | |

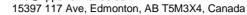
Bracket Specifications

| Material Type | Powder Coated High-Strength Aluminium | | |
|-----------------------------|---|--|--|
| Mechanical Tilt (Degree) | -1 to +19 (Slot 1) -7 to +12 (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 | 471 mm 18.5 in | | |

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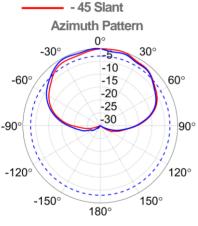
Sector Dimensions

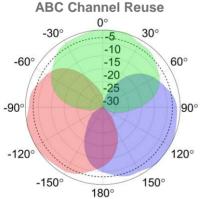
| Length | 564 mm 22.2 in |
|---------------------------|------------------|
| Width | 246 mm 9.7 in |
| Height | 67 mm 2.6 in |
| Net Weight, with brackets | 7.3 kg 16.0 lb |

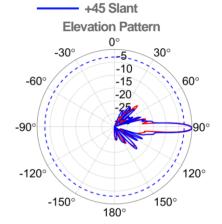
Shipping Dimensions

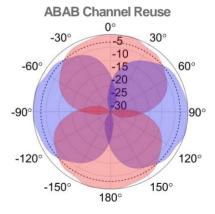
| Length | 775 mm | 30.5 in |
|------------|--------|---------|
| Width | 315 mm | 12.4 in |
| Height | 200 mm | 7.9 in |
| Net Weight | 7.4 kg | 16.3 lb |

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°±30°: 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 $\pm 20^{\circ}$.

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