Product Data Sheet

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KP PERFORMANCE ANTENNAS

KP-3DP33S-45

3.5 GHz to 4.2 GHz, 33 Degree Sector Antenna, 18.8 dBi, 2-Port, ±45 Slant

- 4° fixed electrical downtilt
- ProLine sector 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	3500—3800	3800—4200
Gain	dBi	18.5±0.2	18.8±0.3
Polarization		Slant (±45°)	Slant (±45°)
Horizontal HPBW	Degree	35±1	33±1
Horizontal Squint	Degree	±0.5	±0.5
Vertical HPBW	Degree	8.5±0.5	7.8±0.4
Electrical Downtilt	Degree	4	4
Front-to-Back Ratio @ 180°±30°	dB	35	33
Upper Side Lobe Suppression (+20°)	dB	15	15
Cross-polarization Ratio over HPBW	dB	15	13
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	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
Reflector Material	Fully-Enclosed Aluminium
Ingress Protection	IP55 rain and dust resistant
Wind Load, frontal	135N @ 160km/h | 30lbf @ 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 +18 (Slot 1) | -7 to +11 (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	470 mm | 18.5 in

See www.kpperformance.ca for more details. Revised Sept 4, 2018.

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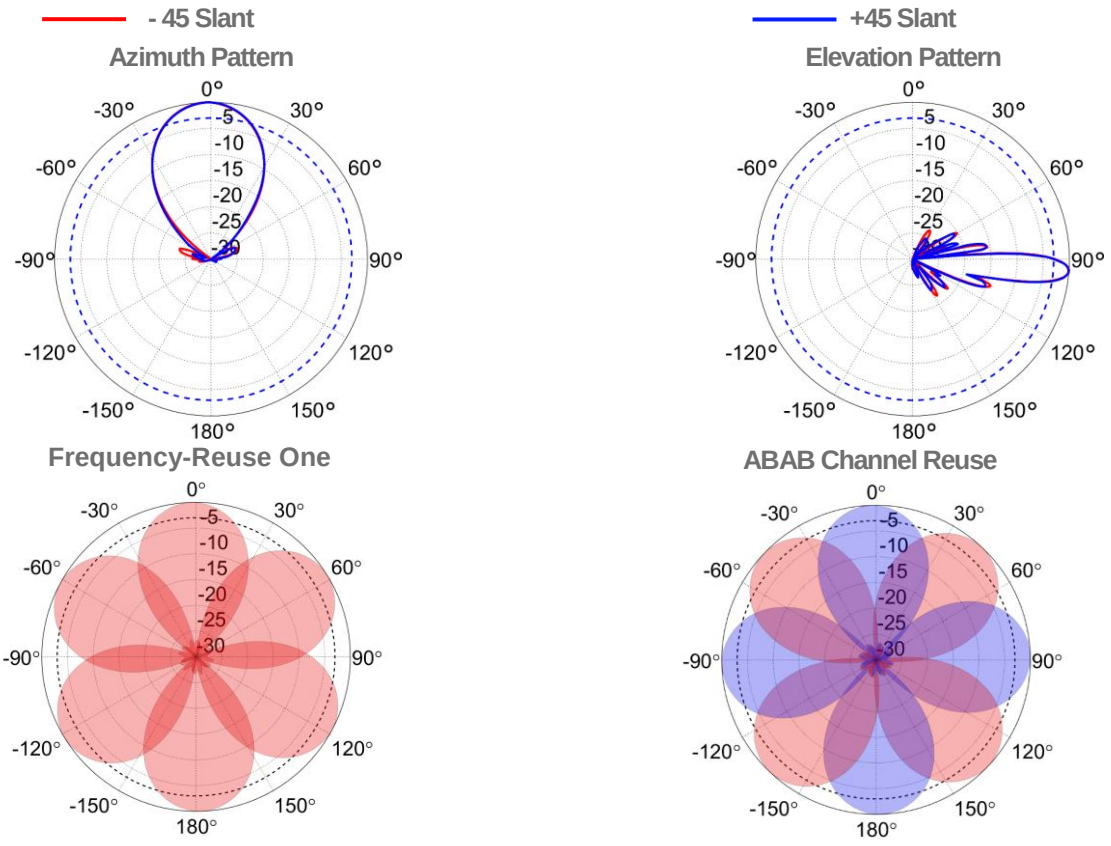
Sector Dimensions

Length	585 mm	|	23.0 in
Width	174 mm	|	6.9 in
Height	79 mm	|	3.1 in
Net Weight, with brackets	5.7 kg	|	12.5 lb

Shipping Dimensions

Length	800 mm	|	31.5 in
Width	240 mm	|	9.4 in
Height	210 mm	|	8.3 in
Net Weight	5.8 kg	|	12.8 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 ±30° angles.
Upper Side Lobe Suppression: The maximum value for the antenna's elevation upper side lobes from the main beam to +20°.
Cross-polarization Ratio over HPBW (dB): Maximum difference between the co-polarization and cross-polarization gain across the sector's HPBW.

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