

4.9 GHz to 6.4 GHz, 90 Degree Sector Antenna,  
 17 dBi, 2-Port, Horizontal/Vertical

**KPP-5DP90S-HV**



**Features**

- High-performance gain and patterns that are stable over a wide bandwidth
- Interference mitigation with highly suppressed side-lobes and superior front-to-back that allows channel reuse
- Universal radio bracket with quick-release slot/clip design is compatible with many AP radios
- Ultra-wide bandwidths for world-wide markets
- Integrated hoisting hook for added safety and convenient installation
- Null fill improves coverage near the tower
- Mechanical tilt from -9 to 20 Degrees

**Applications**

- Wireless MIMO LAN systems & IEEE 802.11n applications
- Point-to-multipoint (PtMP) requiring sectorial coverage
- Supports public safety (4.9 GHz), U-NII-1, 2, 3, and 4 (5.15-5.925 GHz), and up to 6.4GHz for world-wide market
- Mobile WiMAX Wireless Internet Provider “cell” sites
- High-density deployments requiring frequency reuse to achieve high capacity and data rates
- Macro base station or small cell deployments

**Description**

The KPP-5DP90S-HV is a 5 GHz ProLine Sector Antenna with a 3 dB beamwidth of 90°, high gain of 17.0 dBi, two ports with a horizontal/vertical polarization, and operates over an ultra-wide bandwidth of 4.9 GHz to 6.4 GHz. The sector antenna has an aesthetically small footprint and delivers consistent gain in its coverage area.

This sector antenna offers side lobes suppression and a front to back over 34 dB while retaining a high gain that outperforms asymmetric horn antennas of the same 3dB azimuth beamwidth. The highly suppressed side lobes and superior front to back allows for channel (frequency) reuse and can reach high levels of spectral efficiency in the most challenging and noisy environments. The polarization is horizontal/vertical polarization, making the sector compatible with many 4.9 GHz to 6.4 GHz single or dual polarization 2 x 2 MIMO radios.

The antenna comes with rugged powder-coated aluminum brackets and features an integrated hoisting hook for added safety and convenient installation. The sector antenna features a heavy-duty UV-resistant ABS radome and anodized aluminum reflector for all-weather operation. This ProLine Sector antenna is packaged with a rugged universal radio bracket that is compatible with many popular Cambium, Ubiquiti, Mimosas, and Baicells radios and can be retrofitted for many more.

**Configuration**

Design	Sector
Band Type	Single
Radiation Pattern	Directional
Polarization	Vertical/Horizontal
Connector Type	N Female
Number of Ports	2
Lightning Protection	RF Connector Grounded to reflector and Mounting Bracket
Housing Material and Plating	Anodized aluminum

**Electrical Specifications**

Description	Minimum	Typical	Maximum	Units
Frequency Range	4.9		6.4	GHz
Input VSWR		1.5:1		

Click the following link (or enter part number in “SEARCH” on website) to obtain additional part information including price, inventory and certifications:  
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Impedance	50	Ohms
Gain	16.5	dBi
Electrical Downtilt	0	Degrees
Input Power	100	Watts

**Specifications by Band**

Description	Band 1	Band 2	Band 3	Band 4	Band 5	Units
Range	4.9 to 5.4	5.4 to 5.9	5.9 to 6.4			GHz
Gain	16	16.5	17			dBi
Horizontal HPBW	95	90	80			Degrees
Vertical HPBW	6.2	6	5.7			Degrees
Electrical Downtilt	0	0	0			Degrees
Cross Polar Ratio HPBW	15	15	15			dB
Port Isolation	28	24	23			dB
Front to Back Ratio	34	36	35			dB
VSWR Max	2:1	1.7:1	2:1			

**Mechanical Specifications**

Radome Material	UV resistant PVC
Housing Material	Anodized aluminum
<b>Size</b>	
Length	21.4 in [543.56 mm]
Width	5 in [127 mm]
Height	2.7 in [68.58 mm]
Mounting Mast Diameter	0.75 to 4.5 in [19.05 to 114.30 mm]
Weight	12 lbs [5.44 kg]

**Environmental Specifications**

<b>Temperature</b>	
Operating Range	-40 to +60 deg C
Mechanical Tilt	30 Degrees
Wind Survivability	125 MPH [201.17 KPH]

**Plotted and Other Data**

Notes:

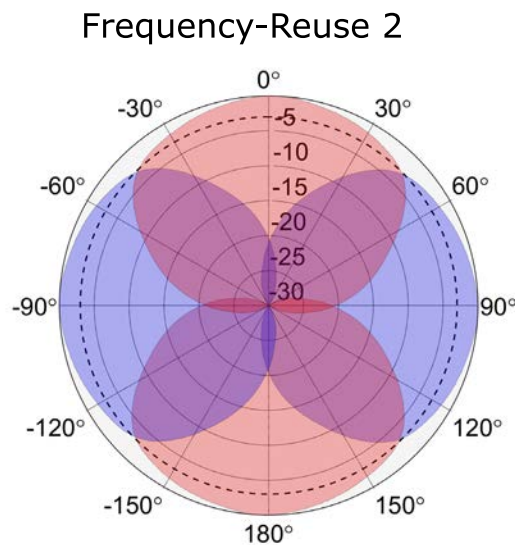
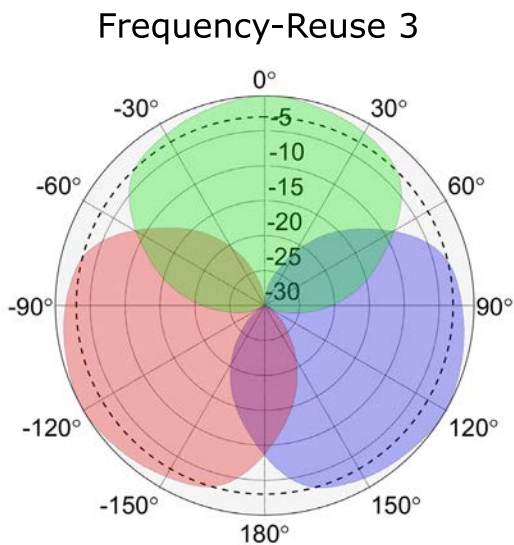
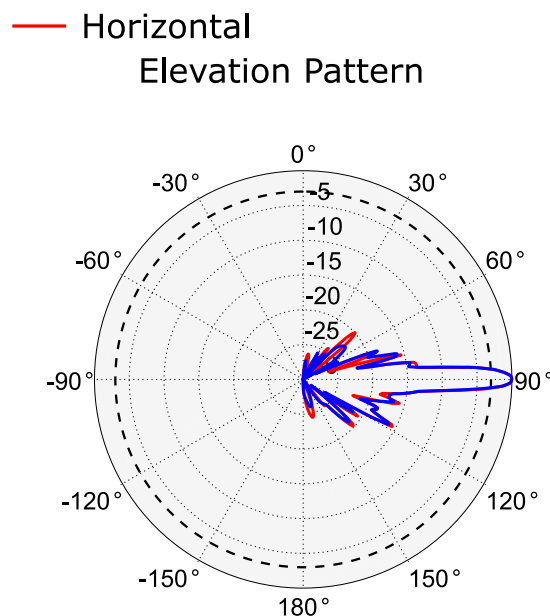
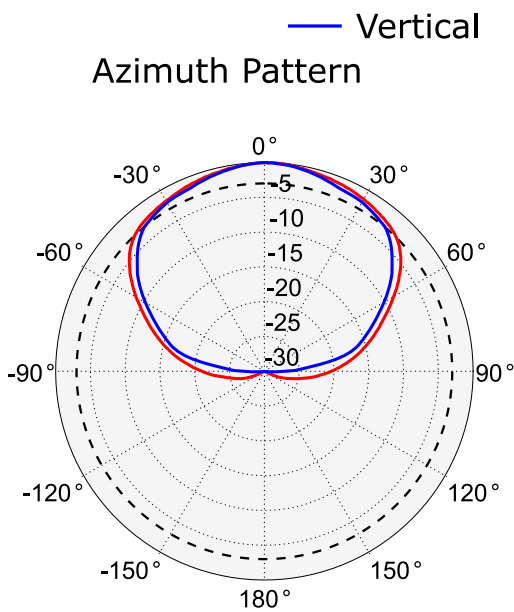
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Typical Radiation Pattern



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**Appendix**

**Electrical Downtilt:** Angle in the antenna's elevation pattern in which the maximum gain occurs.

**Gain:** Antenna's average gain.

**Front to Back Ratio @ 180°±30°:** Average difference between the antenna's maximum gain and the maximum gain in the antenna's back lobe over ±30° angles.

**Cross-polarization Ratio (dB):** Typical difference between the co-polarization and cross-polarization gain across the sector's 3 dB Beam Width.

Dedicated to serving the needs of the Wireless Internet Service Provider (WISP) market, KP Performance Antennas offers purpose built products that reliably perform in the field. KP Performance Antennas product line consists of Yagi, Grid, Omni, Dish and other style antennas that operate in the 900 MHz, 2.4 GHz, 3 GHz, and 5 GHz frequencies.

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URL: <https://www.kpperformance.com/No-URL-Convention-Found-for-?KPP-5DP90S-HV-p.aspx>

The information contained within this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part in order to implement improvements. KP Performance reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. KP Performance does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and KP Performance does not assume liability arising out of the use of any part or document.

KPP-5DP90S-HV CAD Drawing

