HyperLink Wireless 5.1-5.8 GHz 16 dBi Spatial Diversity/X-Pol 90° Sector Antenna Model: HG5816SXP-090

Applications

- 5.1/5.3/5.4/5.8 GHz Wireless LAN systems
- IEEE 802.11a/n applications
- MIMO applications
- WiMAX, WISP, WiFi, mobile communication and cell-sites
- Dual Diversity / Dual Antenna Radios

Features

- Two independent cross polarized (X-Pol) antenna arrays within one enclosure
- Spatial diversity
- All weather operation
- Heavy duty steel mounting bracket with easy elevation and tilt adjustment
- Spatial diversity/X-Pol feed system – (4) N-Female connectors

RoHS Compliant

Description

The Hyperlink HG5816SXP-090 spatial diversity antenna is designed with two identical and independent cross polarized antenna arrays fed via (4) connectors. The HG5816SXP-090 provides high gain with a wide 90° beam-width making them ideal professional quality "cell site" antennas designed primarily for service providers in the 5.8 GHz ISM band. Applications include IEEE 802.11a and 802.11n wireless LAN systems. The HG5816SXP-090 is ideal for use with wireless access points, CPEs and routers that have dual antenna ports and MIMO capabilities.

Spatial Diversity

The spatial diversity feature of this antenna is useful for operating in areas susceptible to the affects of multi-path interference. By providing spatial diversity, the radio's internal circuitry can select between the two receive antennas for better wireless reception. In the case of 802.11n or MIMO, two or more spatially or polarization diverse antennas are required for the radio to operate at its highest data rate.

Cross Polarized – X-Pol

Each of the arrays in HG5816SXP-090 feature two independent antennas with cross polarization. This feature doubles the wireless capacity over the same channels. Each array is fed via two N-Female ports, once for +45° polarized and one for -45° polarized signals. This feature makes this antenna ideal for polarization diversity systems.

Rugged and Weatherproof

This antenna's construction features a UV resistant PVC radome for durability and aesthetics. Its mounting system features a heavy-duty up/down tilt mounting bracket. This allows installation at various degrees of incline for easy alignment.

Specifications

Electrical Specifications

Frequency	5150-5850 MHz
Gain	16 dBi
Horizontal Beam Width	90°
Vertical Beam Width	7°
Polarization	±45°
Impedance	50 Ohm
Front to Back Ratio	> 20 dB
Port to Port Isolation	> 20 dB
Max. Input Power	50 Watts
VSWR	< 1.8:1 avg.
Lightning Protection	DC Ground

Mechanical Specifications

Connectors	(4) N-Female (2 for each X-Pol antenna array)
Weight (Including Bracket)	7.7 lbs. (3.5 Kg)
Dimensions	35.0 x 6.3 x 2.4 in (890 x 160 x 60 mm)
Radome Material	UV-Resistant PVC
Radome Color	White
Mounting Mast Size (Dia.)	1.2-2.0 in (30-50mm)
Operating Temperature	-40° C to 60° C (-40° F to 140° F)
Rated Wind Velocity	210Km/h
RoHS Compliant	Yes

Wind Loading Data

Wind Speed (MPH)	Loading – Front	Loading – Side
100	79 lbs	32 lbs
125	124 lbs	50 lbs

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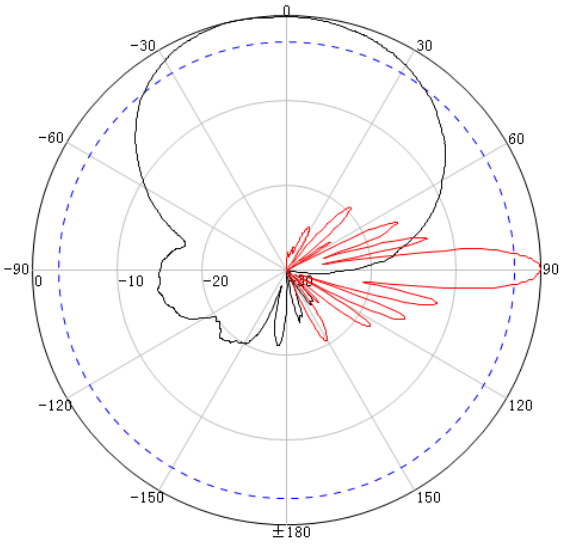
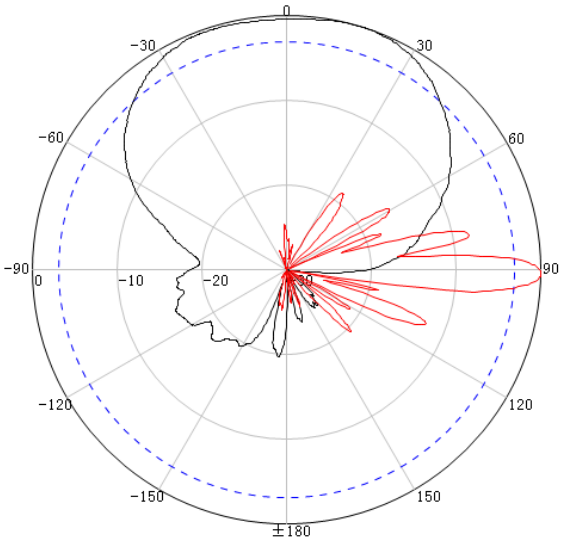
Antenna Patterns +45°



Freq:5150MHz
Date:2013-10-21
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-17.53dB
HPBW(3dB):74.30°
FBR:20.07dB

Freq:5150MHz
Date:2013-10-22
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-16.49dB
HPBW(3dB):7.78°
FBR:30.55dB

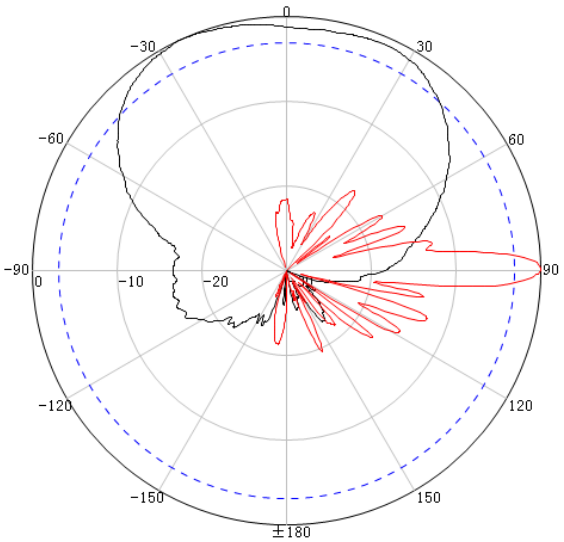
Gain:16.48dBi



Freq:5500MHz
Date:2013-10-21
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-18.88dB
HPBW(3dB):83.66°
FBR:19.56dB

Freq:5500MHz
Date:2013-10-22
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-18.51dB
HPBW(3dB):7.29°
FBR:31.71dB

Gain:15.77dBi



Freq:5850MHz
Date:2013-10-21
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-22.42dB
HPBW(3dB):88.23°
FBR:22.79dB

Freq:5850MHz
Date:2013-10-22
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-22.33dB
HPBW(3dB):6.82°
FBR:32.10dB

Gain:15.30dBi

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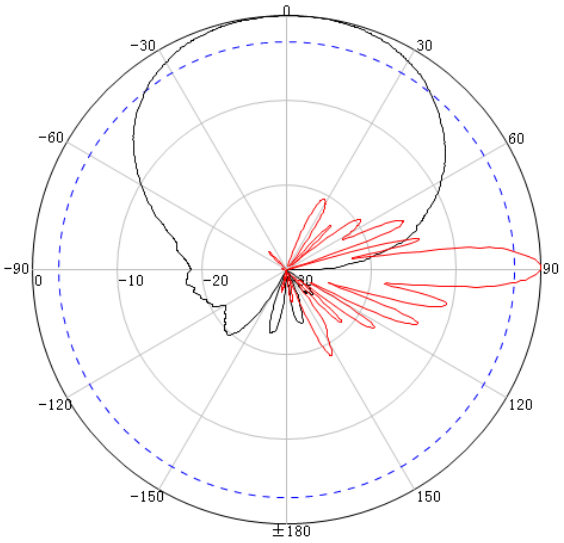
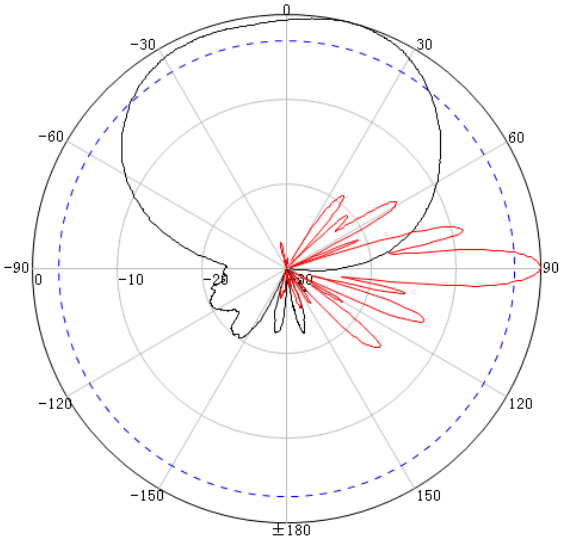
Antenna Patterns -45°



Freq:5150MHz
Date:2013-10-21
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-17.61dB
HPBW(3dB):76.54°
FBR:22.30dB

Freq:5150MHz
Date:2013-10-22
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-17.68dB
HPBW(3dB):7.67°
FBR:29.47dB

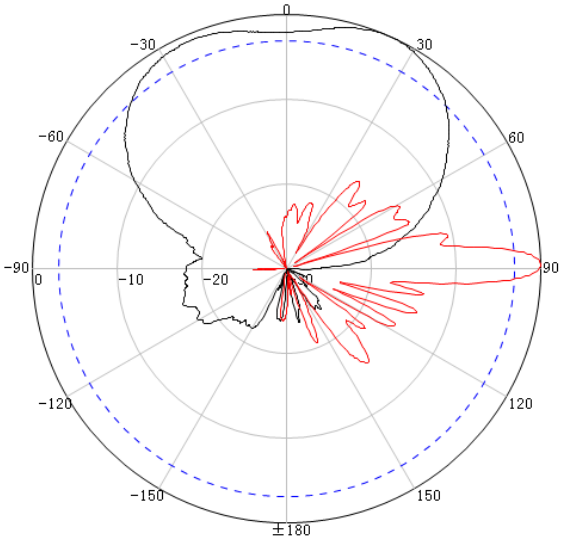
Gain:16.04dBi



Freq:5500MHz
Date:2013-10-21
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-18.17dB
HPBW(3dB):80.77°
FBR:21.72dB

Freq:5500MHz
Date:2013-10-22
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-18.82dB
HPBW(3dB):7.33°
FBR:31.40dB

Gain:15.89dBi



Freq:5850MHz
Date:2013-10-21
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-21.93dB
HPBW(3dB):86.73°
FBR:21.86dB

Freq:5850MHz
Date:2013-10-22
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-23.07dB
HPBW(3dB):7.15°
FBR:26.07dB

Gain:15.03dBi