HyperLink Wireless Low PIM Rated Cross Polarized DAS In-Building Panel Antenna Model: HG72708XWPP-NF

Applications

- DAS (Distributed Antenna Systems)
- 700 MHz and cellular applications
- AWS (Advanced wireless services) and PCS (Personal communications service) band applications
- In-building wireless networks and LTE networks
- IEEE 802.11b/g applications

Features

- Frequency coverage for 700 MHz, 850 MHz, AWS and PCS bands
- Low Passive InterModulation (PIM) rated
- Dual cross polarized (X-Pol) in one antenna
- Easily mounts to wall with included hardware and bracket
- Dual polarity feed system - (2) N-Female connectors

Description

The HyperLink HG72708XWPPR-NF is a low PIM rated, high performance directional wall mount MIMO panel antenna specifically designed for in-building wireless networks such as DAS (Distributed Antenna Systems) which are used to distribute Cellular and WiFi signals throughout a building or area. The Multi-Band design of this antenna eliminates the need to purchase different antennas for each frequency. This simplifies installations since the same antenna can be used for a wide array of in-building wireless applications where wide coverage is desired.

Cross Polarized

The HG72708XWPPR-NF features two independent antennas with cross polarization. This feature doubles the wireless capacity over the same channels. The antenna is fed via two plenum rated antenna leads terminated with N-Female connectors. One for +45° polarized and one for -45° polarized signals. This feature makes these antennas ideal for polarization diversity systems.

Low PIM Rated

The key to providing the best performance in a DAS application is to ensure the components used are low PIM rated. This helps meet the increasing demand for higher data rates and the ability to provide streaming video for mobile devices. With a low PIM rating of <-150 dBc, the HG72705CU-PR helps meets the most demanding PIM requirements for LTE/4G bands.

The HG72708XWPPR-NG is designed specifically for in-building operation and is ideal for use in large open areas such as indoor courtyards, indoor sporting venues, convention centers and shopping malls. The included mounting bracket and hardware makes this antenna very easy to install.

Specifications

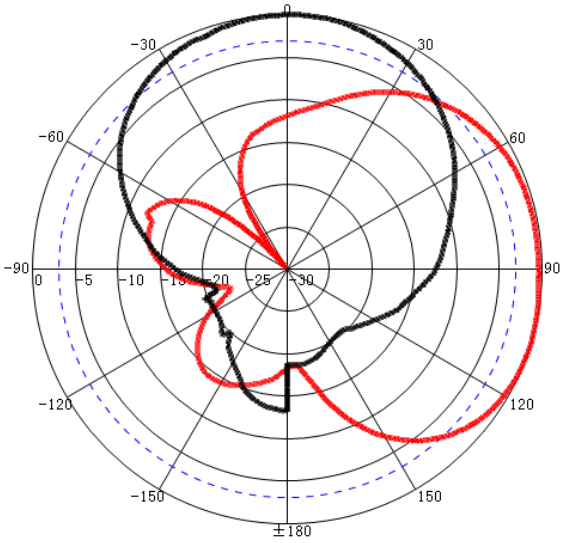
Electrical Specifications

Frequency Range	698-960 MHz	1710-2700 MHz
Gain	7.5 dBi	8.4 dBi
Polarization	±45	
Horizontal Beamwidth (-3dB)	70°	75°
Vertical Beam Width(-3dB)	75°	60°
Impedance	50 Ohm	
Max. Input Power	50 Watts	
F/B Ratio	15 dB	20 dB
Isolation	20 dB	
VSWR	< 1.8	< 1.7
PIM, 3rd Order, 2 x 2 W	<-150 dBc	

Mechanical Specifications

Connector	(2) N-Female
Cable Length	14 in. (35.6 cm)
Weight	3.08 lbs. (1.4 Kg)
Dimensions	11.8 x 8.2 x 3.0 in. (300 x 209 x 77 mm)
Radome Material	UV Resistant ABS
Radome Color	White
Operating Temperature	-40° C to +60° C (-40° F to 140° F)
RoHS Compliant	Yes

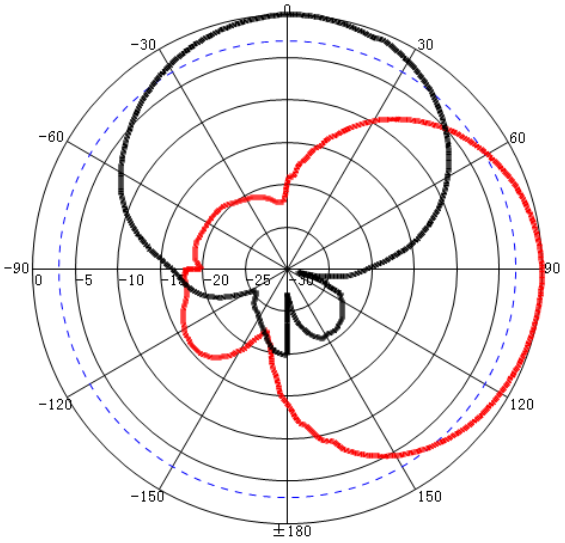
RF Antenna Patterns - +45°



Freq:698MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-2.85dB
HPBW(3dB):92.08°
FBR:12.22dB
Circularity:18.27
Obliquity:-17.73°

Freq:698MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-1.58dB
HPBW(3dB):78.80°
FBR:13.26dB
Circularity:11.87

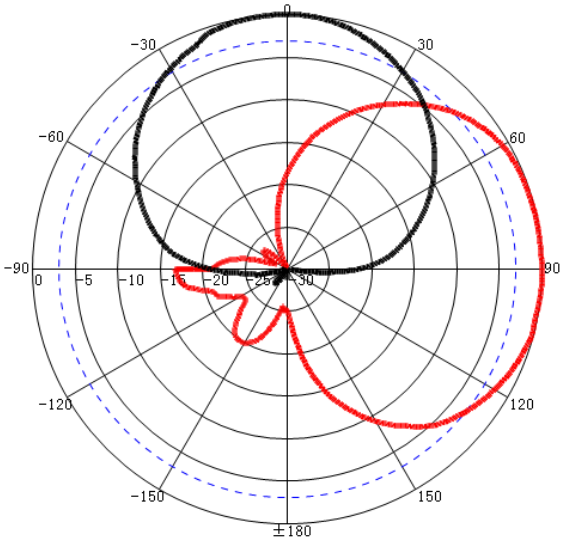
Gain:7.63dBi



Freq:827MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-3.47dB
HPBW(3dB):81.39°
FBR:16.04dB
Circularity:12.82
Obliquity:-2.81°

Freq:827MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-2.81dB
HPBW(3dB):73.68°
FBR:19.90dB
Circularity:15.34

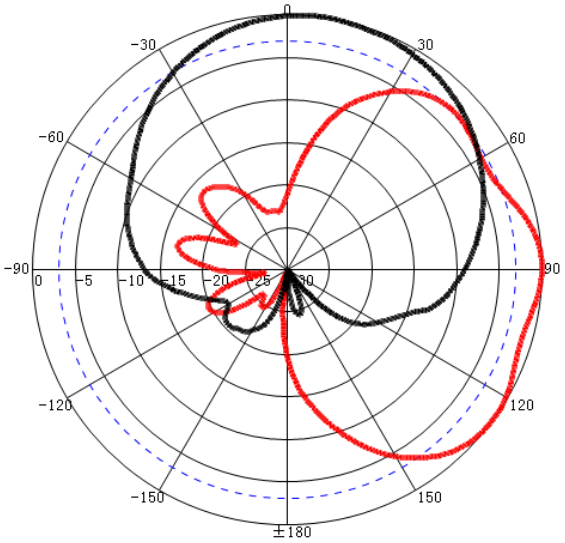
Gain:8.37dBi



Freq:960MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-5.85dB
HPBW(3dB):80.94°
FBR:16.82dB
Circularity:17.55
Obliquity:-3.92°

Freq:960MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-5.97dB
HPBW(3dB):62.38°
FBR:28.68dB
Circularity:25.96

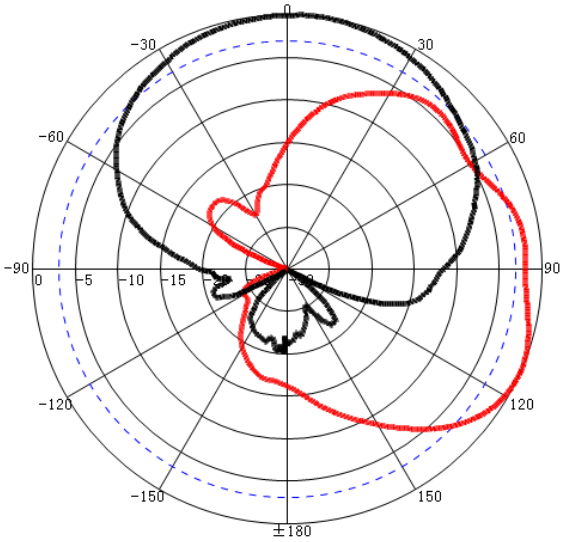
Gain:9.02dBi



Freq:1710MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-18.10dB
HPBW(3dB):75.35°
FBR:16.76dB
Circularity:20.20
Obliquity:0.29°

Freq:1710MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-17.84dB
HPBW(3dB):82.96°
FBR:21.82dB
Circularity:24.17

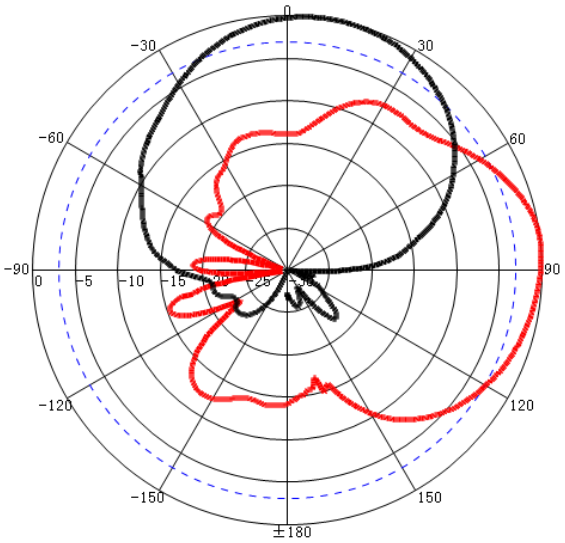
Gain:7.54dBi



Freq:1900MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-16.83dB
HPBW(3dB):60.65°
FBR:19.93dB
Circularity:21.12
Obliquity:-23.68°

Freq:1900MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-32.46dB
HPBW(3dB):89.11°
FBR:20.08dB
Circularity:33.30

Gain:7.96dBi



Freq:2200MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-20.47dB
HPBW(3dB):56.64°
FBR:15.36dB
Circularity:23.44
Obliquity:5.34°

Freq:2200MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-20.29dB
HPBW(3dB):64.83°
FBR:25.47dB
Circularity:18.91

Gain:9.22dBi

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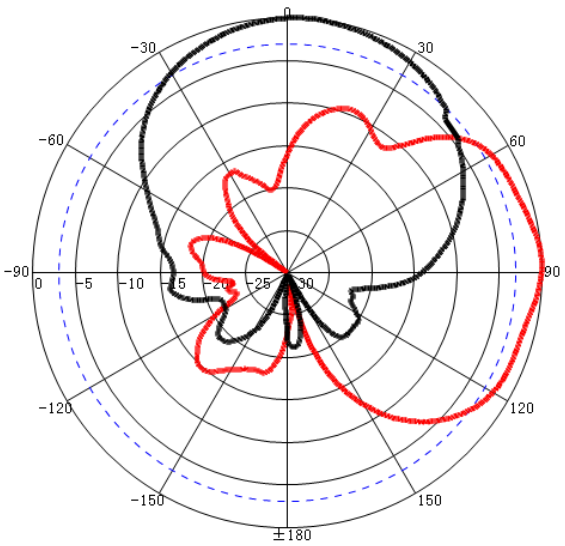
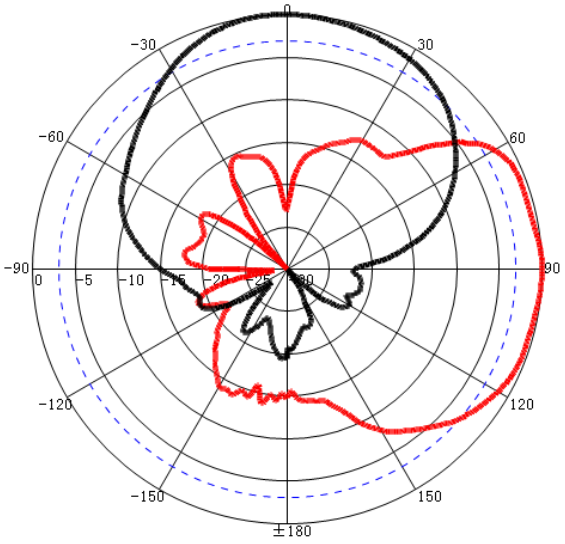


Freq:2450MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-23.37dB
HPBW(3dB):70.33°
FBR:18.19dB
Circularity:16.02
Obliquity:2.32°

Freq:2450MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-23.58dB
HPBW(3dB):74.35°
FBR:21.17dB
Circularity:34.78

Gain:9.04dBi

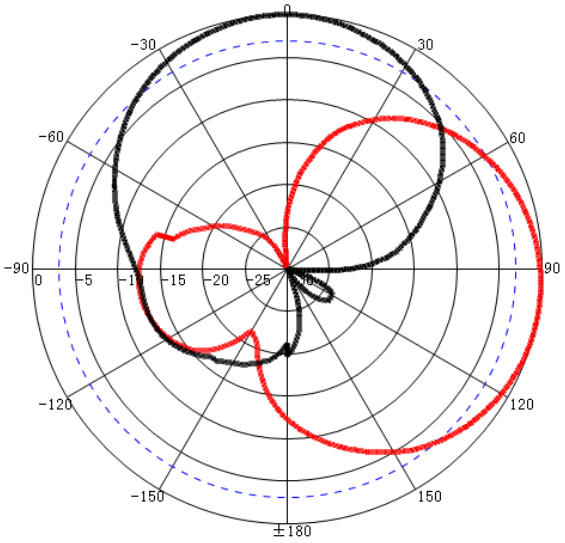


Freq:2700MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:+45°
Max:-27.47dB
HPBW(3dB):73.41°
FBR:17.77dB
Circularity:21.47
Obliquity:-0.41°

Freq:2700MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:+45°
Max:-25.27dB
HPBW(3dB):74.55°
FBR:19.38dB
Circularity:16.19

Gain:8.75dBi

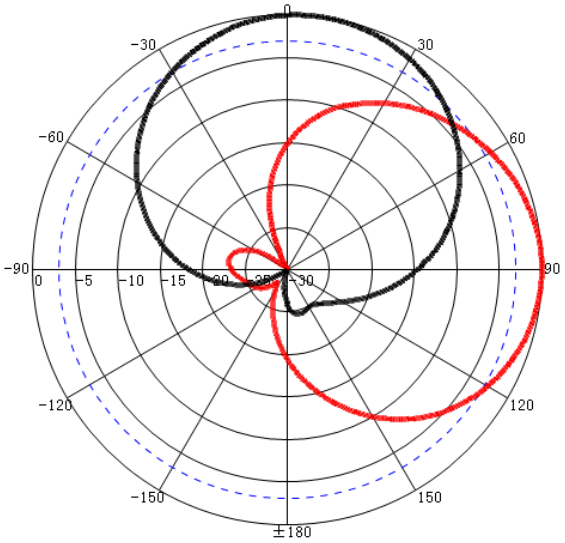
RF Antenna Patterns - -45°



Freq:698MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-2.07dB
HPBW(3dB):77.07°
FBR:12.42dB
Circularity:30.50
Obliquity:-10.54°

Freq:698MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-1.06dB
HPBW(3dB):75.33°
FBR:17.25dB
Circularity:20.55

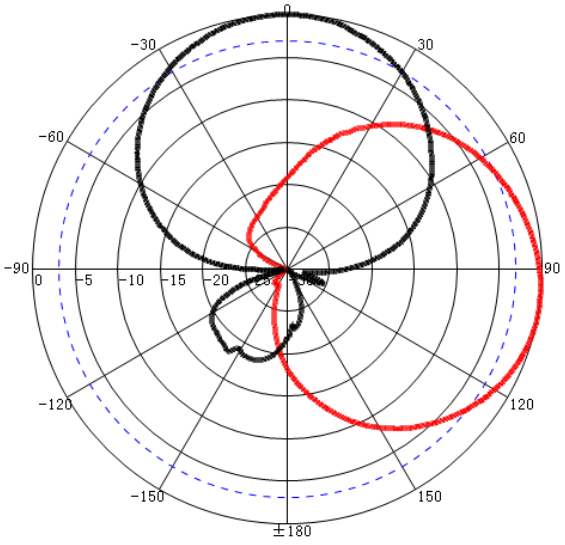
Gain:8.32dBi



Freq:827MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-2.06dB
HPBW(3dB):66.21°
FBR:23.02dB
Circularity:24.78
Obliquity:0.71°

Freq:827MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-2.08dB
HPBW(3dB):72.31°
FBR:24.61dB
Circularity:36.24

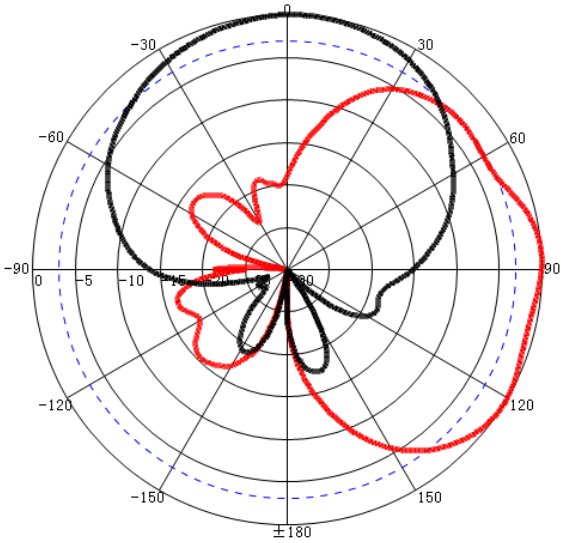
Gain:8.91dBi



Freq:960MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-4.27dB
HPBW(3dB):61.95°
FBR:25.93dB
Circularity:22.72
Obliquity:-9.01°

Freq:960MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-5.33dB
HPBW(3dB):62.10°
FBR:18.58dB
Circularity:20.46

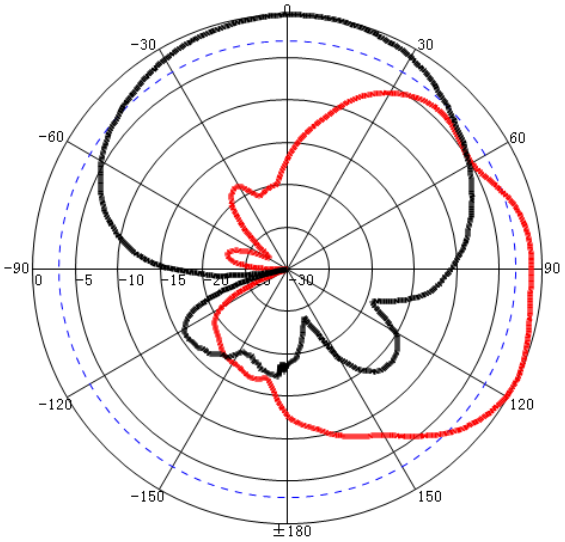
Gain:9.67dBi



Freq:1710MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-18.51dB
HPBW(3dB):75.27°
FBR:16.52dB
Circularity:29.43
Obliquity:-31.38°

Freq:1710MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-17.01dB
HPBW(3dB):81.49°
FBR:17.45dB
Circularity:19.54

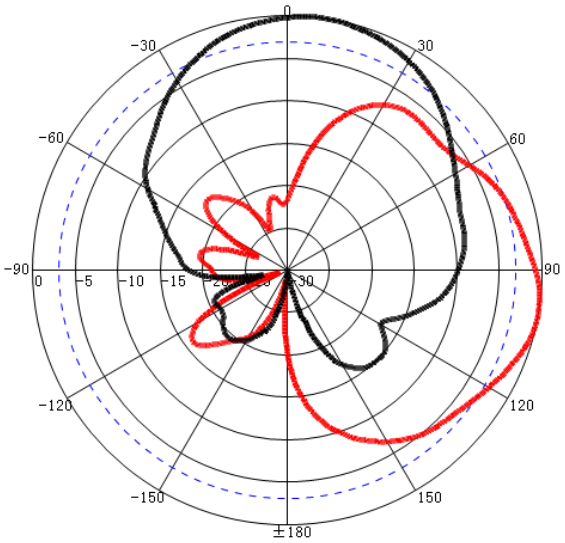
Gain:7.70dBi



Freq:1900MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-16.88dB
HPBW(3dB):65.20°
FBR:21.16dB
Circularity:23.46
Obliquity:-25.53°

Freq:1900MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-32.95dB
HPBW(3dB):91.07°
FBR:17.22dB
Circularity:18.36

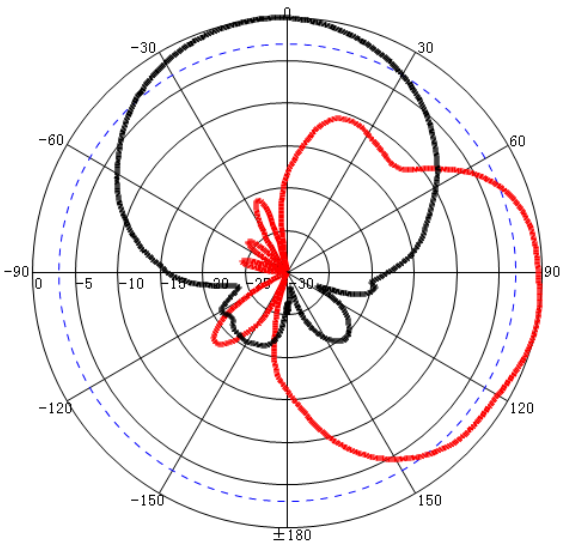
Gain:7.54dBi



Freq:2200MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-20.70dB
HPBW(3dB):50.77°
FBR:18.05dB
Circularity:28.11
Obliquity:-10.57°

Freq:2200MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-20.84dB
HPBW(3dB):64.03°
FBR:17.13dB
Circularity:23.27

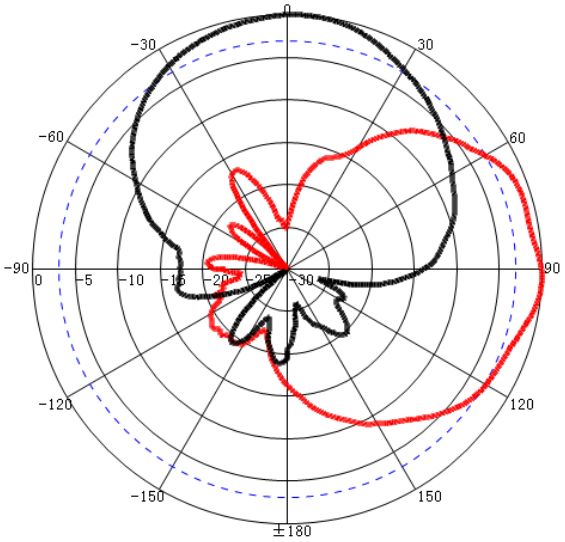
Gain:9.22dBi



Freq:2450MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-23.67dB
HPBW(3dB):74.52°
FBR:24.47dB
Circularity:33.63
Obliquity:-10.72°

Freq:2450MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-22.51dB
HPBW(3dB):71.15°
FBR:20.61dB
Circularity:15.33

Gain:9.04dBi



Freq:2700MHz
Date:2015-11-19
Elevation:V-plane
Polar-Across:Main
Polarization:-45°
Max:-25.46dB
HPBW(3dB):60.67°
FBR:19.74dB
Circularity:15.43
Obliquity:-2.21°

Freq:2700MHz
Date:2015-11-19
Elevation:H-plane
Polar-Across:Main
Polarization:-45°
Max:-26.12dB
HPBW(3dB):66.89°
FBR:18.81dB
Circularity:19.55

Gain:9.38dBi

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