

HyperLink Wireless Low PIM DAS 2 x 2 MIMO Ceiling Antenna Model: HG72706DPCUPR-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/n applications

Features

- Frequency coverage for 700 MHz, 850 MHz, AWS and PCS bands
- Low Passive Inter-Modulation (PIM) rated
- Antenna can receive both vertical and horizontal polarized signals
- Attractive low profile radome design
- Easily mounts to ceiling tiles



Description

The HyperLink HG72706DPCUPR-NF is a low PIM high performance MIMO ceiling mount 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 wide 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.

The HG72706DPCUPR-NF features linear radiators, which means the antenna can receive both vertical and horizontal signals. This provides better overall wireless performance since it can receive signals from a wider array of devices in many different orientations. The HG72706DPCUPR-NF is a MIMO antenna. Two separate antenna leads are provided, each having the ability to receive both vertical and horizontal signals equally. This antenna is ideal for use with 1x2 and 2x2 MIMO access points and routers.

Low PIM Rated

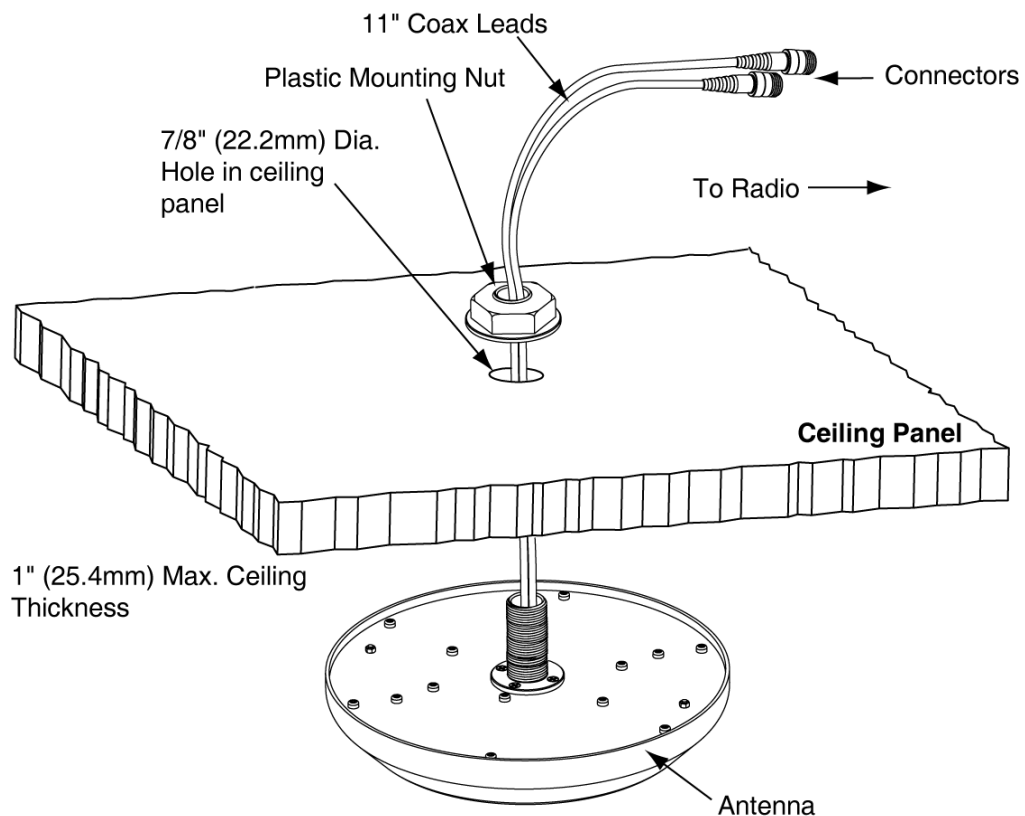
The key to providing the best performance in a DAS application is to ensure the components used are low PIM rated. This helps meet the increasing demand for higher data rates and the ability to provide streaming video for mobile devices. With a low PIM rating of <-150 dBc, the HG72706DPCUPR-NF helps meet the most demanding PIM requirements for LTE/4G bands.



The aesthetically pleasing low profile design of this antenna makes it ideal for use in almost any indoor environment. It can be easily mounted through a single 11/16" hole in a solid or suspended ceiling up to 1" thick. This antenna features a 13.7 inch coax lead terminated with an N-Female connector. Special order connectors are also available.



Mounting Details



Specifications

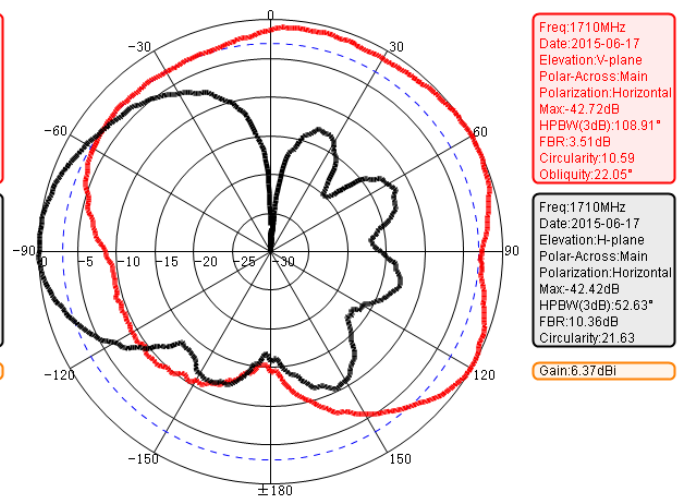
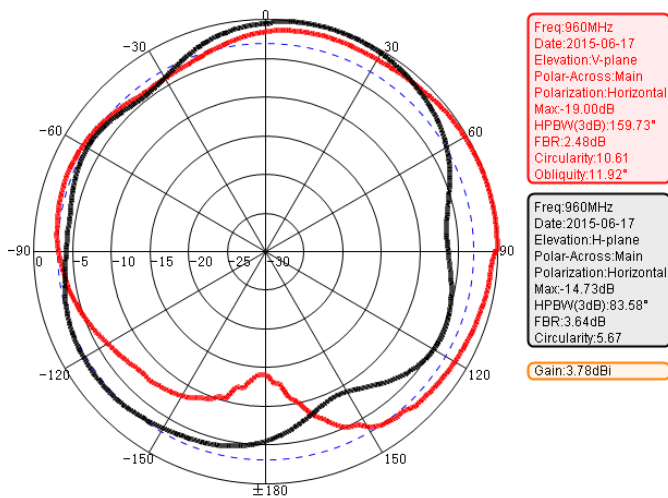
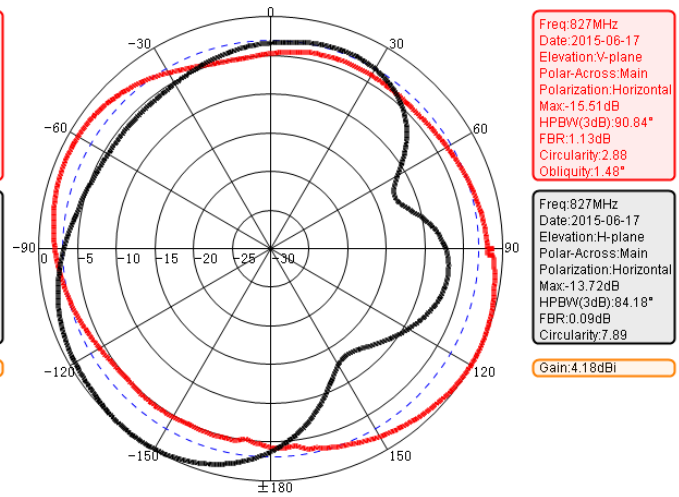
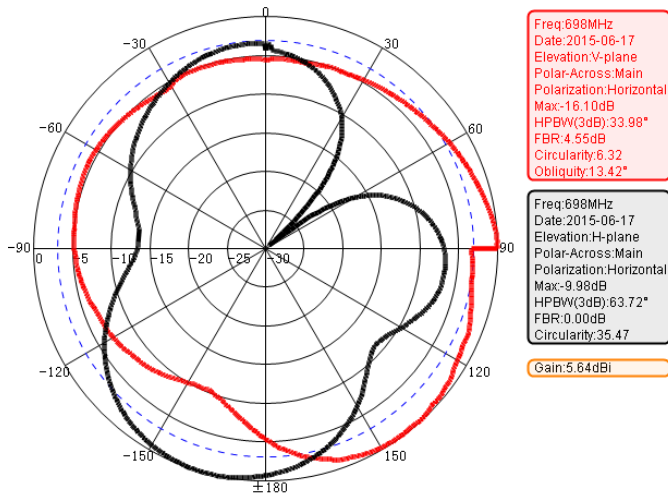
Electrical Specifications

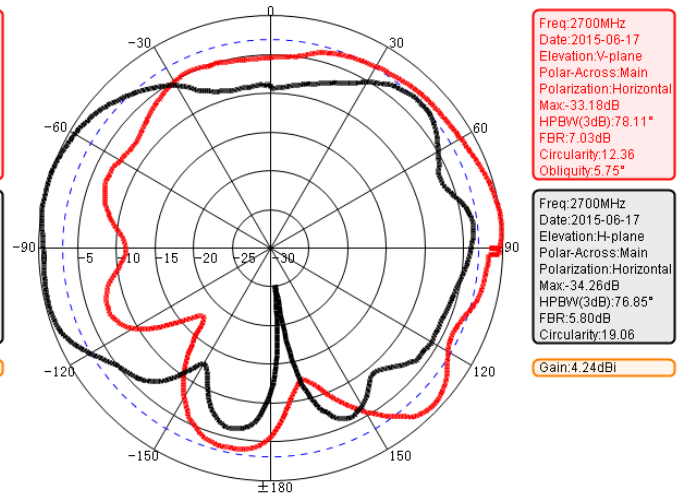
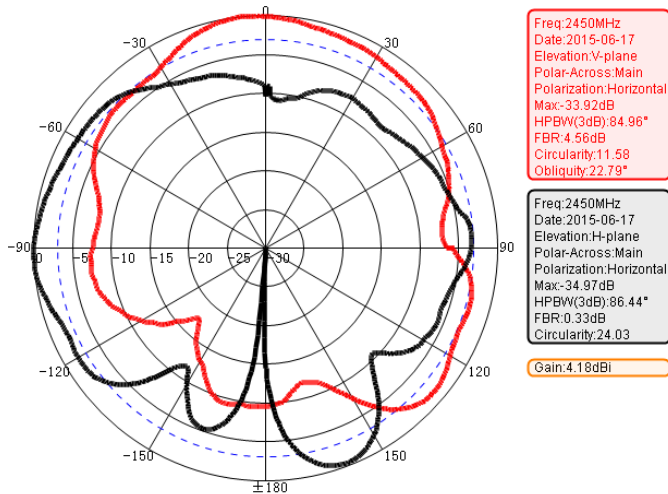
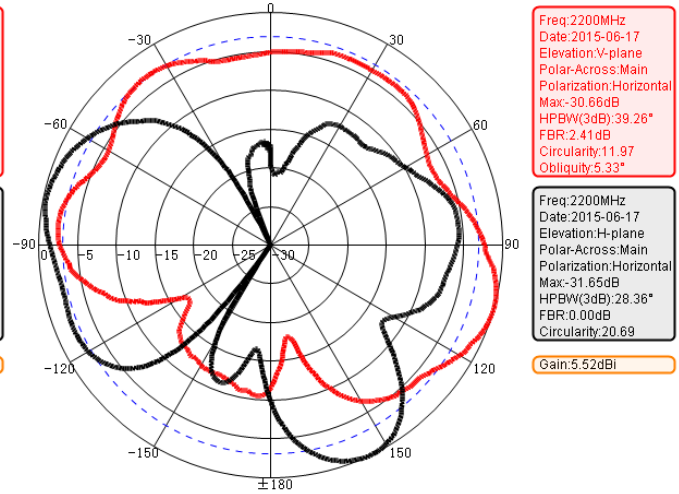
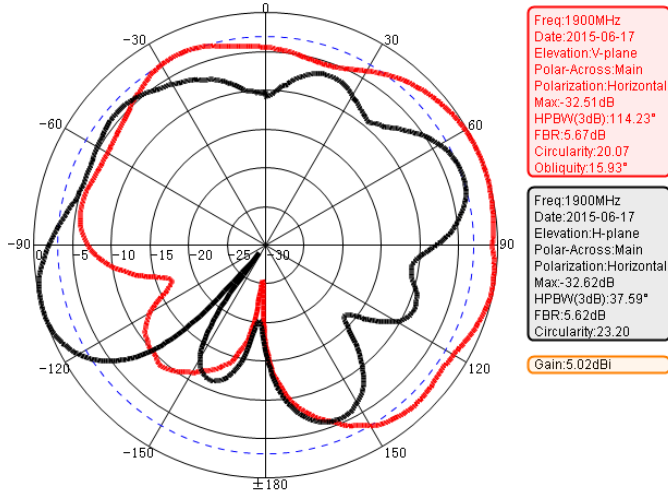
Frequency Range	698-960 MHz
	1710-2700 MHz
Gain (Typ)	3.5 dBi @ 700 MHz
	3.5 dBi @ 850 MHz
	3.2 dBi @ 900 MHz
	6.0 dBi @ 1800 MHz
	4.8 dBi @ 1900 MHz
	4.6 dBi @ 2100 MHz
	6.1 dBi @ 2300 MHz
5.8 dBi @ 2600 MHz	
Polarization	Linear Horizontal/Vertical for each Radiator
Horizontal Beamwidth	360°
Vertical Beam Width (-3 dB)	80° @ 698-960 MHz
	50° @ 1710-2700 MHz
Impedance	50 Ohm
Max. Input Power	50 Watts
VSWR (Typ)	< 1.8 @ 698-960 MHz
	< 1.6 @ 1710-2180 MHz
	< 1.5 @ 2180-2700 MHz
PIM, 3rd Order, 2 x 20 W (Max)	<-150 dBc

Mechanical Specifications

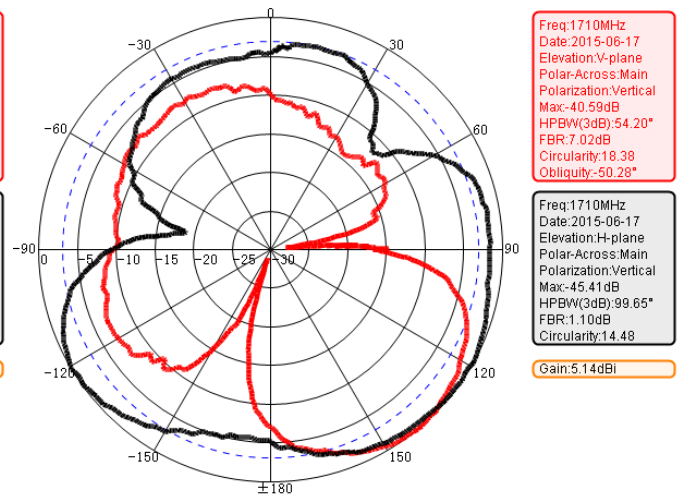
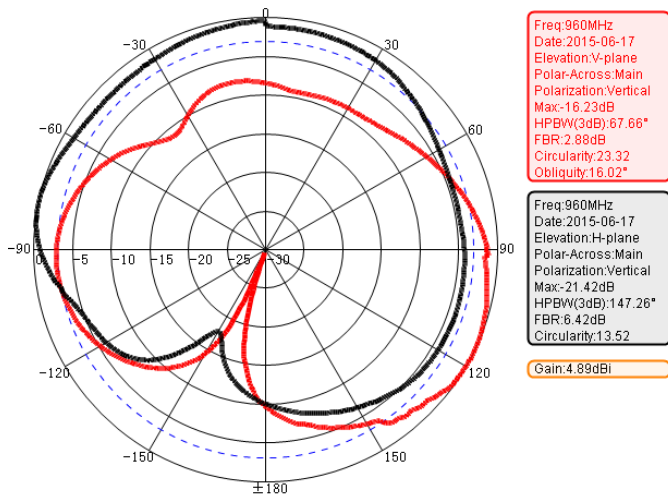
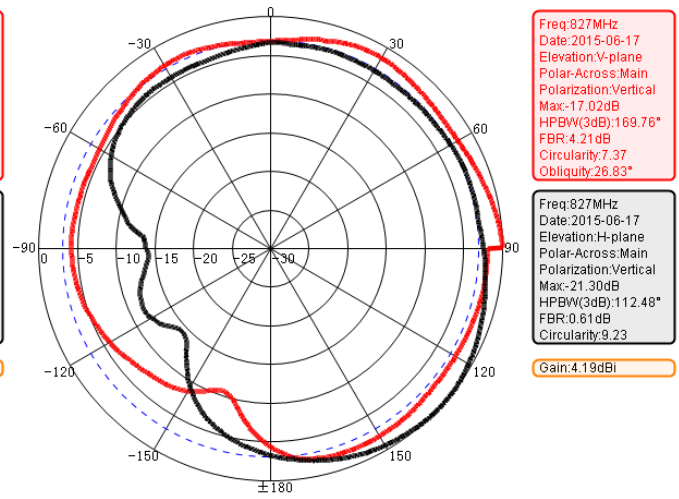
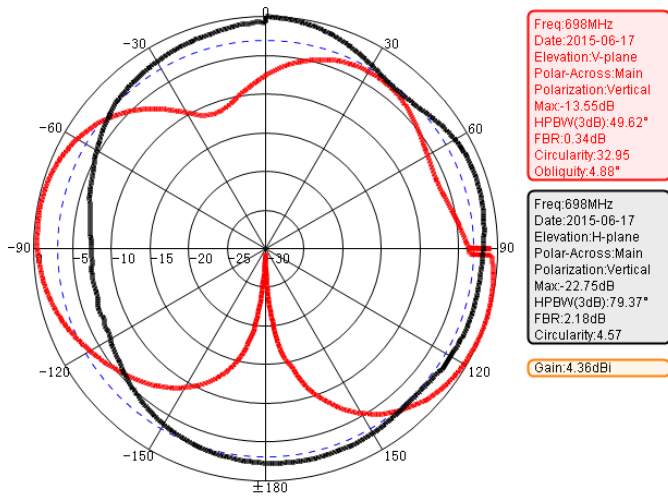
Cable Length	11 in. (280 mm) – Blue RG402 Series
Connectors	(2) N-Female
Weight	0.92 lbs. (0.42 Kg)
Dimensions	8.7 Dia. x 1.8 in. (220 Dia. x 45 mm)
Radome Material	UV Resistant ABS
Radome Color	White
Operating Temperature	-55° C to +85° C (-67° F to 185° F)
Mounting	.875" (22.2 mm) diameter hole
RoHS Compliant	Yes

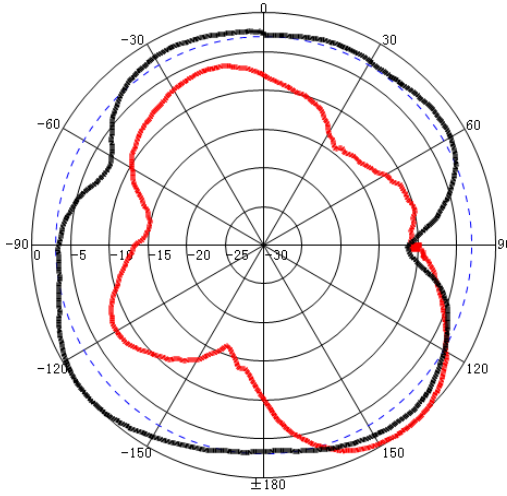
Antenna Gain Patterns – Port 1 Horizontal Polarization





Antenna Gain Patterns – Port 1 Vertical

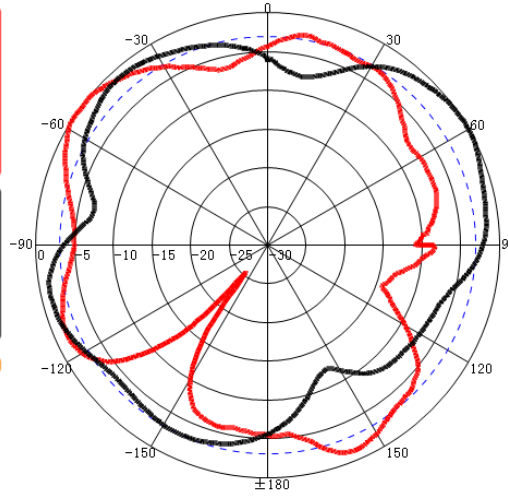




Freq:1900MHz
Date:2015-06-17
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-31.03dB
HPBW(3dB):44.74°
FBR:7.97dB
Circularity:9.06
Obliquity:-48.80°

Freq:1900MHz
Date:2015-06-17
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-36.22dB
HPBW(3dB):67.80°
FBR:1.45dB
Circularity:8.17

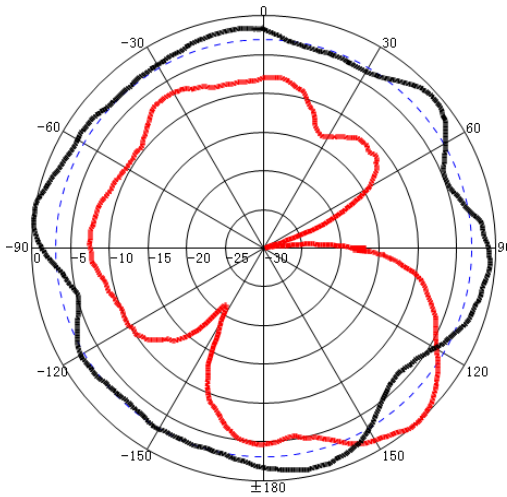
Gain:4.96dBi



Freq:2200MHz
Date:2015-06-17
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-33.70dB
HPBW(3dB):41.42°
FBR:0.27dB
Circularity:19.52
Obliquity:16.57°

Freq:2200MHz
Date:2015-06-17
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-30.50dB
HPBW(3dB):63.12°
FBR:3.11dB
Circularity:7.73

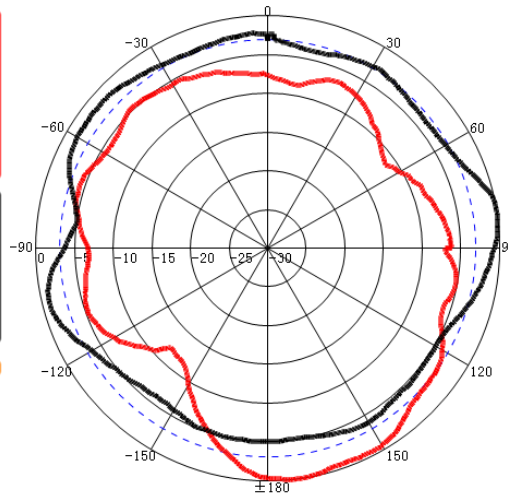
Gain:3.60dBi



Freq:2450MHz
Date:2015-06-17
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-34.03dB
HPBW(3dB):34.66°
FBR:7.47dB
Circularity:26.01
Obliquity:-49.57°

Freq:2450MHz
Date:2015-06-17
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-38.62dB
HPBW(3dB):101.11°
FBR:0.85dB
Circularity:3.70

Gain:4.79dBi

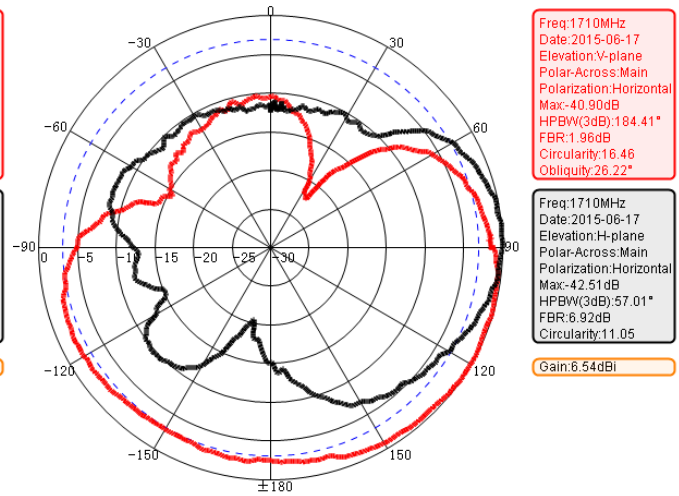
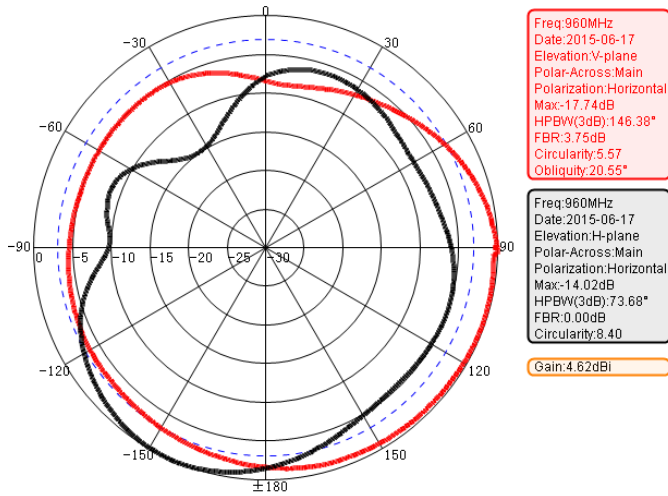
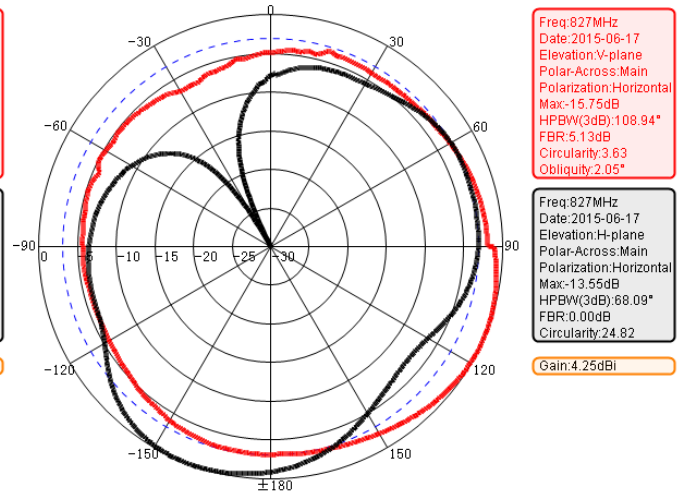
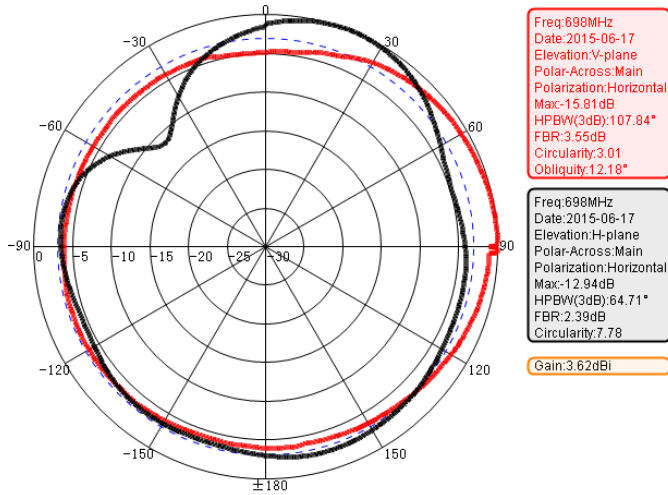


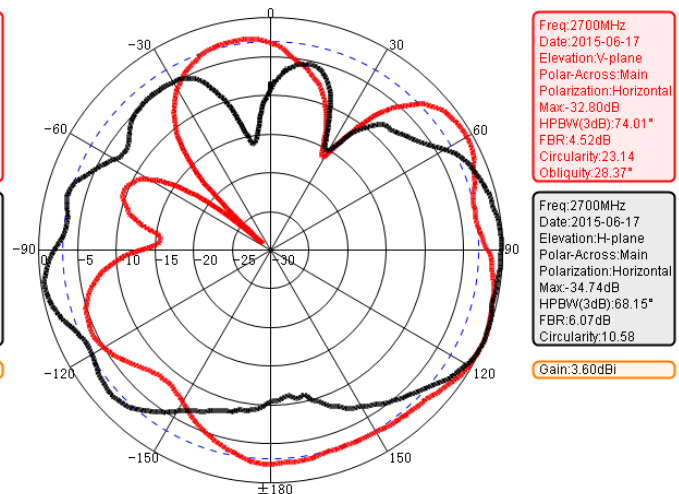
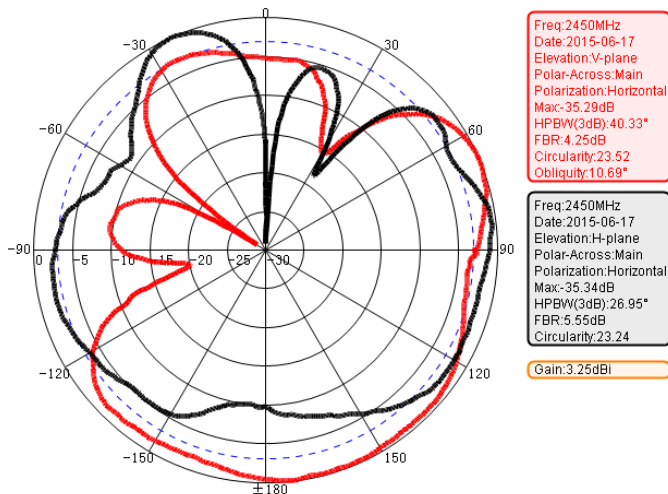
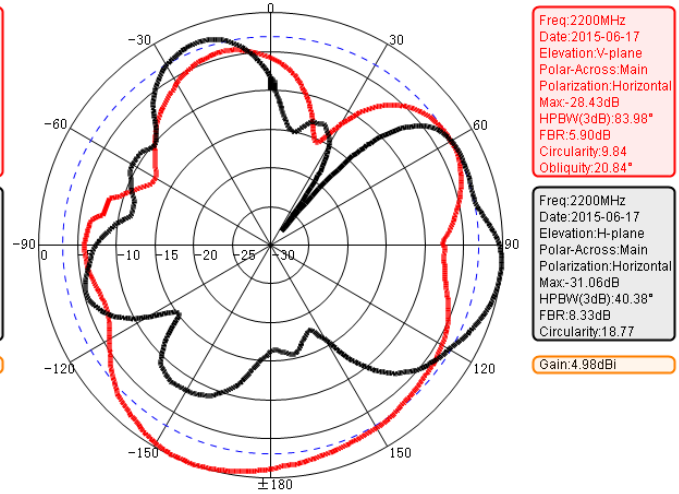
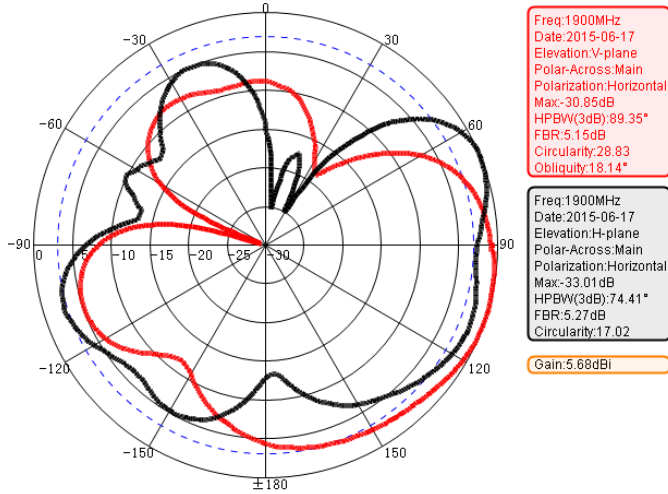
Freq:2700MHz
Date:2015-06-17
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-33.18dB
HPBW(3dB):63.10°
FBR:4.40dB
Circularity:6.10
Obliquity:19.10°

Freq:2700MHz
Date:2015-06-17
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-36.48dB
HPBW(3dB):41.29°
FBR:3.99dB
Circularity:3.40

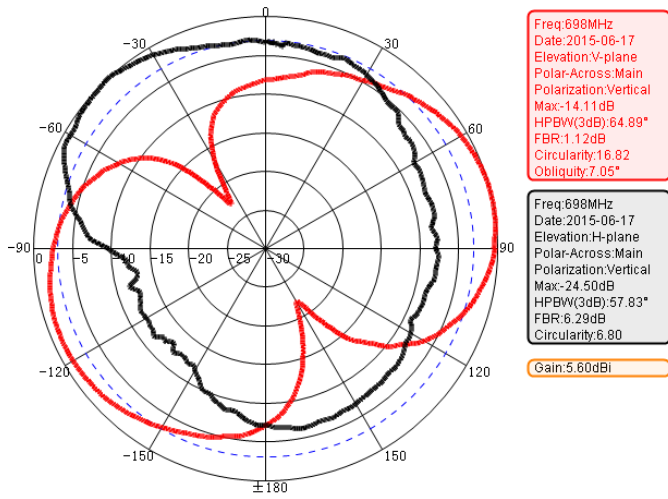
Gain:3.87dBi

Antenna Gain Patterns – Port 2 Horizontal Polarization



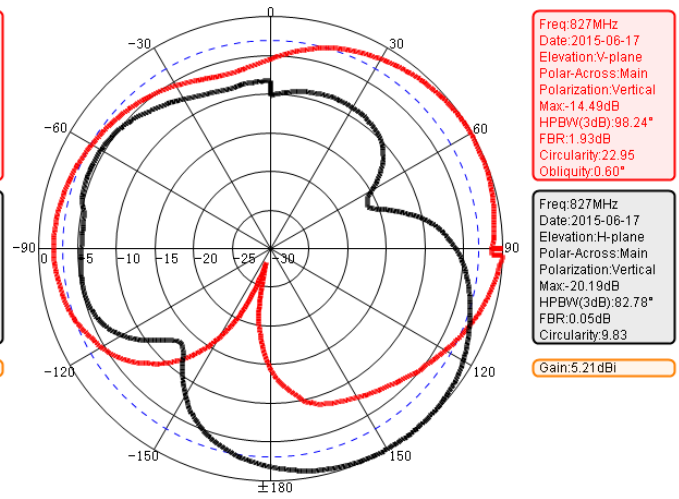


Antenna Gain Patterns – Port 2 Vertical



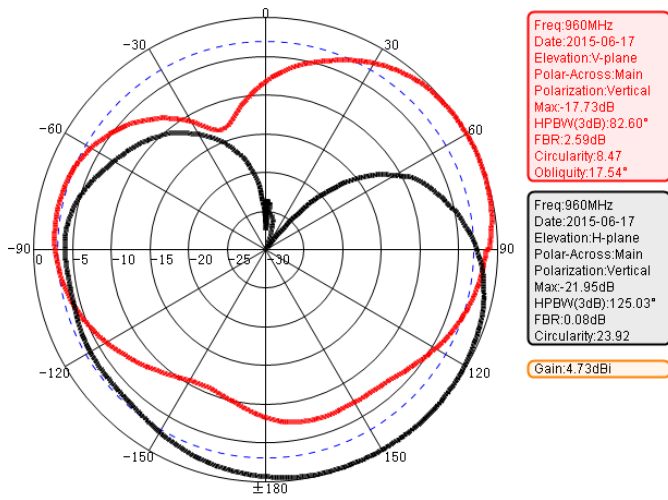
Freq:698MHz
 Date:2015-06-17
 Elevation:Y-plane
 Polar-Across:Main
 Polarization:Vertical
 Max:-14.11dB
 HPBW(3dB):64.89°
 FBR:1.12dB
 Circularity:16.82
 Obliquity:7.05°

Freq:698MHz
 Date:2015-06-17
 Elevation:H-plane
 Polar-Across:Main
 Polarization:Vertical
 Max:-24.50dB
 HPBW(3dB):57.83°
 FBR:6.29dB
 Circularity:6.80



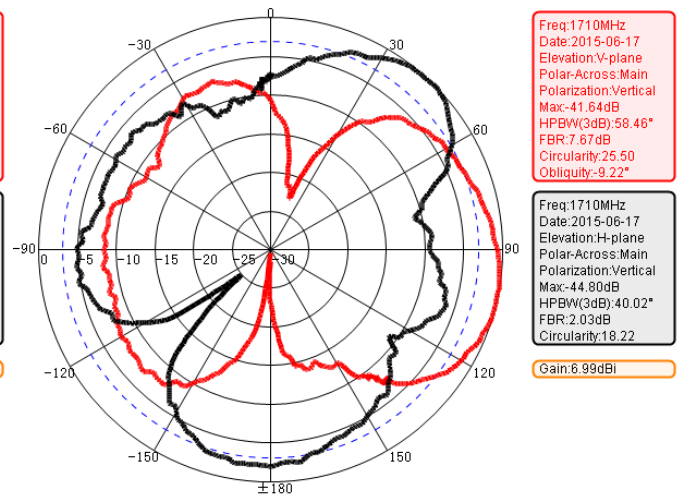
Freq:827MHz
 Date:2015-06-17
 Elevation:Y-plane
 Polar-Across:Main
 Polarization:Vertical
 Max:-14.49dB
 HPBW(3dB):98.24°
 FBR:1.93dB
 Circularity:22.95
 Obliquity:0.60°

Freq:827MHz
 Date:2015-06-17
 Elevation:H-plane
 Polar-Across:Main
 Polarization:Vertical
 Max:-20.19dB
 HPBW(3dB):82.78°
 FBR:0.05dB
 Circularity:9.83



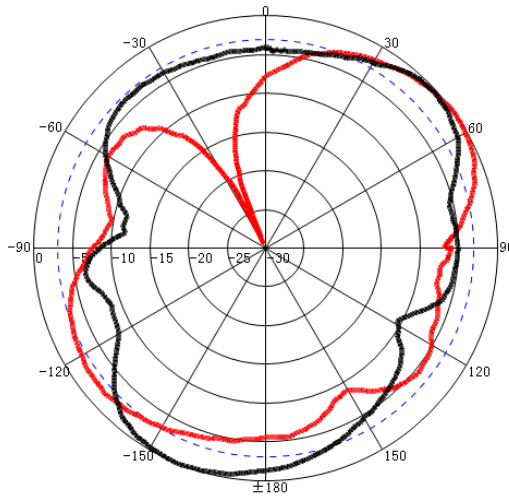
Freq:960MHz
 Date:2015-06-17
 Elevation:Y-plane
 Polar-Across:Main
 Polarization:Vertical
 Max:-17.73dB
 HPBW(3dB):82.60°
 FBR:2.59dB
 Circularity:9.47
 Obliquity:17.54°

Freq:960MHz
 Date:2015-06-17
 Elevation:H-plane
 Polar-Across:Main
 Polarization:Vertical
 Max:-21.95dB
 HPBW(3dB):125.03°
 FBR:0.08dB
 Circularity:23.92



Freq:1710MHz
 Date:2015-06-17
 Elevation:Y-plane
 Polar-Across:Main
 Polarization:Vertical
 Max:-41.64dB
 HPBW(3dB):58.46°
 FBR:7.67dB
 Circularity:25.50
 Obliquity:-9.22°

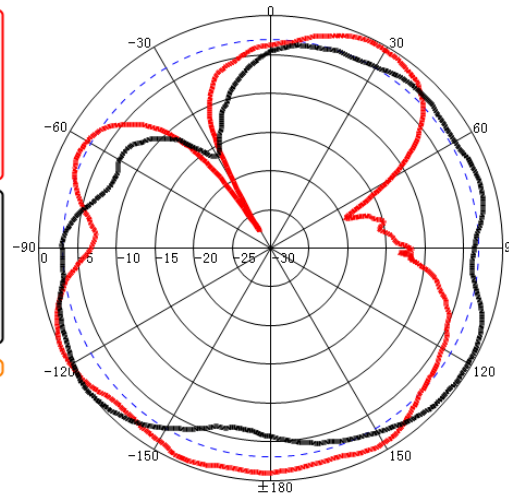
Freq:1710MHz
 Date:2015-06-17
 Elevation:H-plane
 Polar-Across:Main
 Polarization:Vertical
 Max:-44.80dB
 HPBW(3dB):40.02°
 FBR:2.03dB
 Circularity:18.22



Freq:1900MHz
Date:2015-06-17
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-34.93dB
HPBW(3dB):56.66°
FBR:2.53dB
Circularity:26.72
Obliquity:2.91°

Freq:1900MHz
Date:2015-06-17
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-35.26dB
HPBW(3dB):63.54°
FBR:0.00dB
Circularity:7.13

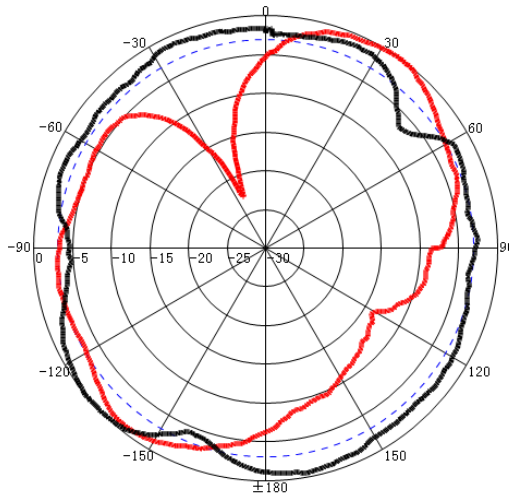
Gain:4.54dBi



Freq:2200MHz
Date:2015-06-17
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-35.00dB
HPBW(3dB):125.40°
FBR:0.00dB
Circularity:21.69
Obliquity:17.68°

Freq:2200MHz
Date:2015-06-17
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-31.32dB
HPBW(3dB):55.72°
FBR:2.54dB
Circularity:11.97

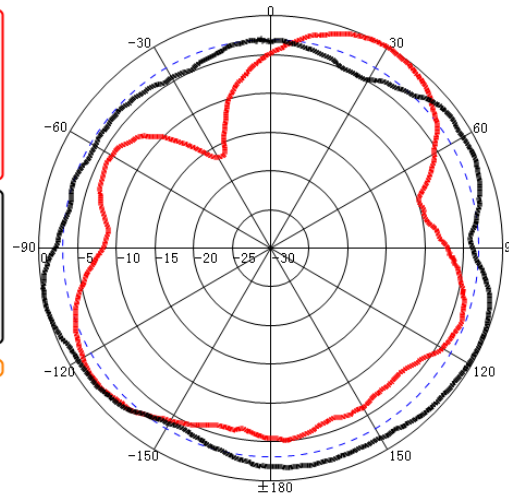
Gain:2.80dBi



Freq:2450MHz
Date:2015-06-17
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-35.94dB
HPBW(3dB):52.27°
FBR:2.80dB
Circularity:16.58
Obliquity:1.69°

Freq:2450MHz
Date:2015-06-17
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-39.30dB
HPBW(3dB):46.98°
FBR:0.56dB
Circularity:4.45

Gain:3.29dBi



Freq:2700MHz
Date:2015-06-17
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-35.97dB
HPBW(3dB):44.90°
FBR:2.00dB
Circularity:10.71
Obliquity:12.23°

Freq:2700MHz
Date:2015-06-17
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-36.29dB
HPBW(3dB):58.64°
FBR:1.52dB
Circularity:2.57

Gain:3.24dBi