HyperLink Wireless Low PIM 380-6000 MHz Omni-Directional Ceiling Antenna Model: HG35805CUPR-NF

Applications

- Public Safety DAS (Distributed Antenna Systems)
- 700 MHz and cellular applications
- TETRA compliant 2-way radio applications
- In-building wireless networks and LTE networks
- IEEE 802.11a/b/g/n and 802.11ac applications

Features

- Multi-band frequency coverage from a single antenna - 380 MHz to 6000 MHz
- Full WiFi coverage from 2.4 GHz to 5 GHz as well as UHF frequency band coverage
- Low Passive Inter-Modulation (PIM) rated
- IP67 rated, UV resistant radome
- Compliant with in-building International Fire Code (IFC) & National Fire Protection Association (NFPA) regulations

Description

The HyperLink HG35805CUPR-NF is a multi-band low PIM omni-directional ceiling mount antenna specifically designed for in-building wireless networks. With coverage from 380 MHz to 6000 MHz, the HG35805CUPR-NF is ideal for Standard and Public Safety DAS (Distributed Antenna Systems) which are used to distribute Cellular and WiFi signals throughout a building or area. In additional to providing coverage for WiFi and LTE networks, the HG35805CUPR-NF also provides coverage for TETRA and UHF wireless systems. 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.

Complete WiFi Coverage

The HG35805CUPR-NF is designed to provide complete WiFi coverage from 2400 MHz to 6000 MHz and is compatible with IEEE 802.11a/b/g/n and 802.11ac networks. This adds an additional level of wireless coverage rather than using just the 2.4 GHz 802.11b/g bands. In addition, this antenna can operate in the 4.9 GHz band which is typically used with public safety services such as police and first responders. This along with the HG35805CUPR-NF coverage of the cellular/LTE bands makes this antenna ideal for in-building DAS applications.

Low Band Coverage

With operational coverage down to 380 MHz, the HG35805CUPR-NF can provide support for UHF, 600 MHz, 1390-1432 MHz and AWS-3 bands in addition to providing WiFi and LTE coverage all from a single antenna.

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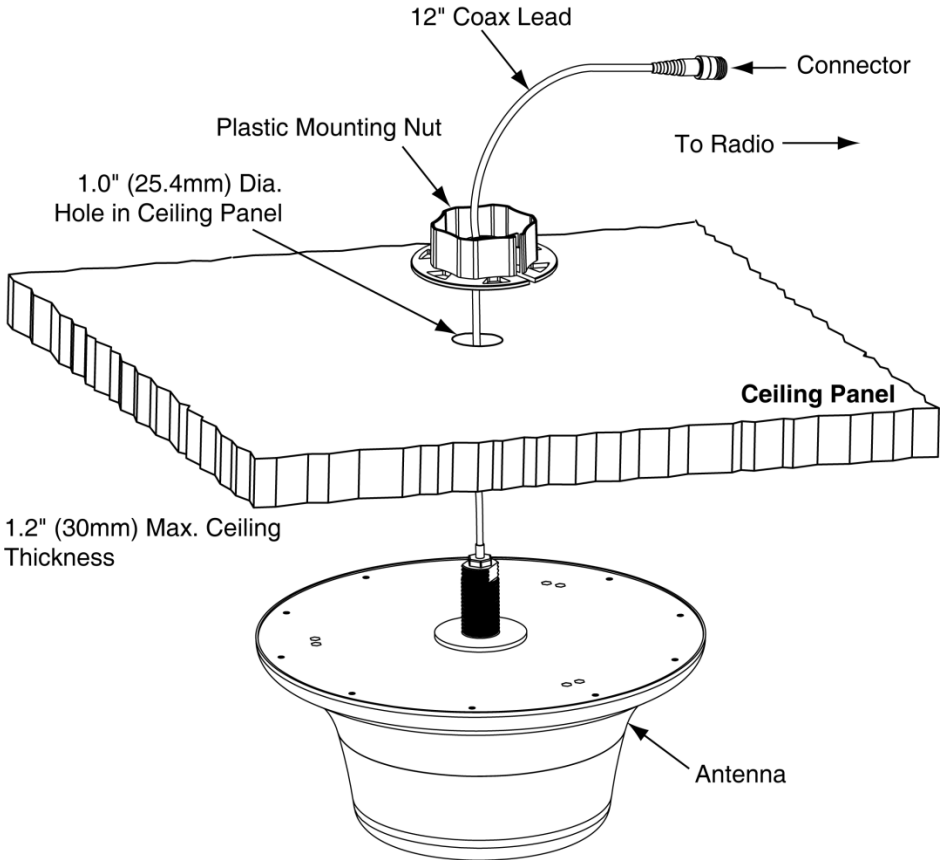
www.L-com.com E-mail: sales@L-com.com Phone: 1-800-343-1455 Fax: 1-978-689-9484

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 HG75805CU-PR helps meets the most demanding PIM requirements for LTE/4G bands.

The aesthetically pleasing design of this antenna makes it ideal for use in almost any indoor environment. It can be easily mounted through a single 1.0 inch hole in a solid or suspended ceiling up to 1.2 inches thick. This antenna features a 12 inch coax lead terminated with an N-Female connector. Special order connectors are also available.

Mounting Details



Specifications

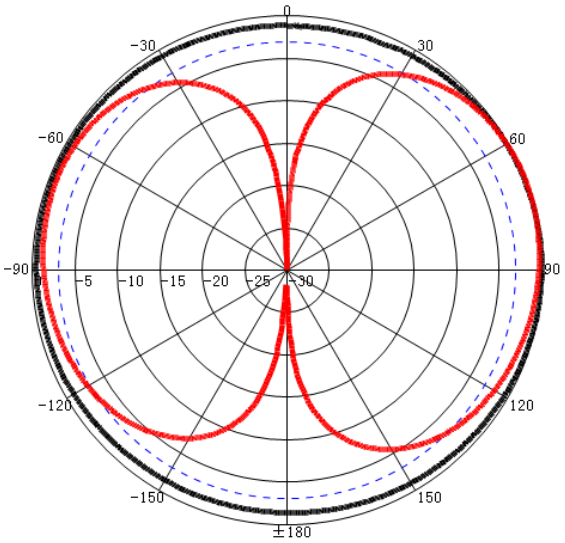
Electrical Specifications

Frequency Bands	380-520 MHz
	698-960 MHz
	1710-2700 MHz
	3300-3700 MHz
	4900-6000 MHz
Gain	2.0-2.5 dBi @ 380-520 MHz
	2.3-3.1 dBi @ 698-760 MHz
	2.8-3.2 dBi @ 760-960 MHz
	4.0-4.7 dBi @ 1710-2700 MHz
	3.5-5.0 dBi @ 2200-2700 MHz
	4.4-5.2 dBi @ 3300-3700 MHz
	5.4-6.4 dBi @ 4900-6000 MHz
Polarization	Vertical
Horizontal Beamwidth	360°
Impedance	50 Ohm
Max. Input Power	50 Watts
VSWR (Typ)	< 1.6 @ 380-520 MHz
	< 1.9 @ 698-960 MHz
	< 2.0 @ 1710-2700 MHz
	< 1.6 @ 3300-3700 MHz
	< 1.8 @ 4900-6000 MHz
PIM, 3rd Order, 2 x 20 W	<-150 dBc

Mechanical Specifications

Cable Length	12 in. (305 mm) – Blue RG402 Series
Connector	N-Female
Weight	0.9 lbs. (1.9 Kg)
Dimensions	11.5 Dia. x 5.2 in. (293 Dia. x 133 mm)
Radome Material	UV Resistant ABS
Radome Color	White
Operating Temperature	-40° C to +60° C (-40° F to 140° F)
Mounting	1.0 in. (25.4 mm) diameter hole
IP Rating	IP67
RoHS Compliant	Yes

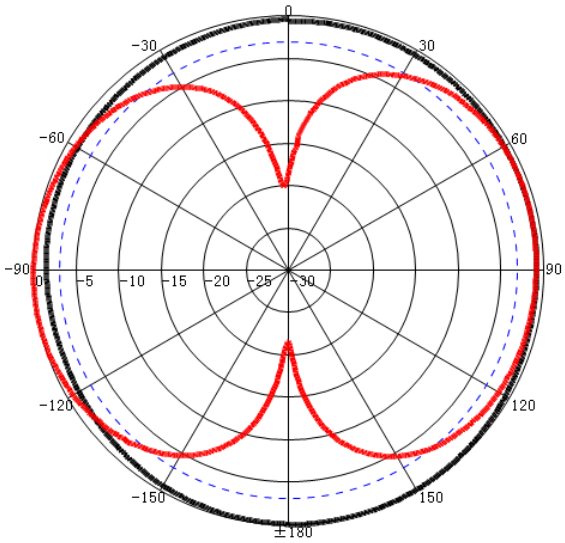
RF Antenna Patterns



Freq:380MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:4.19dB
HPBW(3dB):360.00°
FBR:0.98dB
Circularity:0.81

Freq:380MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:1.72dB
HPBW(3dB):102.46°
FBR:0.88dB
Circularity:27.18
Obliquity:19.29°

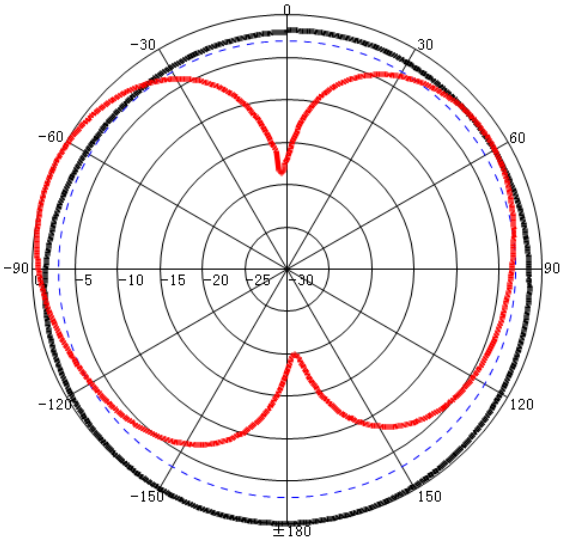
Gain:2.57dBi



Freq:450MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:5.17dB
HPBW(3dB):360.00°
FBR:0.00dB
Circularity:0.93

Freq:450MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:3.90dB
HPBW(3dB):100.41°
FBR:0.00dB
Circularity:16.03
Obliquity:8.74°

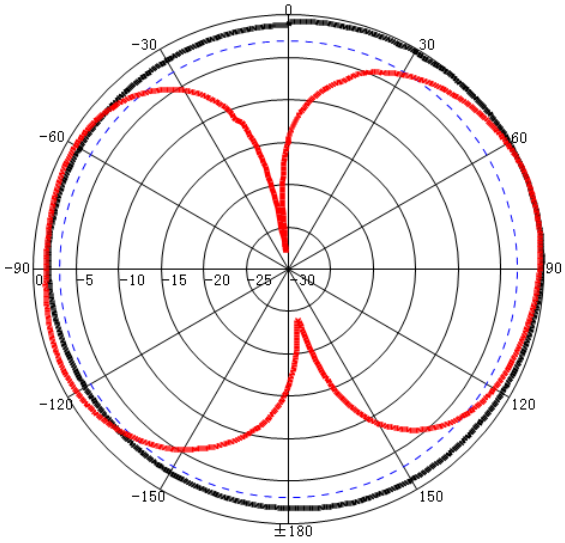
Gain:2.49dBi



Freq:520MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:0.89dB
HPBW(3dB):360.00°
FBR:0.00dB
Circularity:1.41

Freq:520MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:0.03dB
HPBW(3dB):80.86°
FBR:0.00dB
Circularity:12.92
Obliquity:28.27°

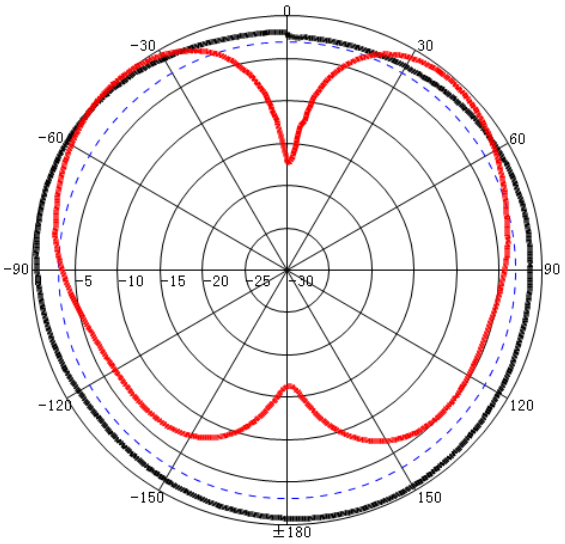
Gain:3.32dBi



Freq:698MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-7.86dB
HPBW(3dB):360.00°
FBR:1.29dB
Circularity:1.28

Freq:698MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-9.43dB
HPBW(3dB):95.76°
FBR:1.00dB
Circularity:21.77
Obliquity:2.35°

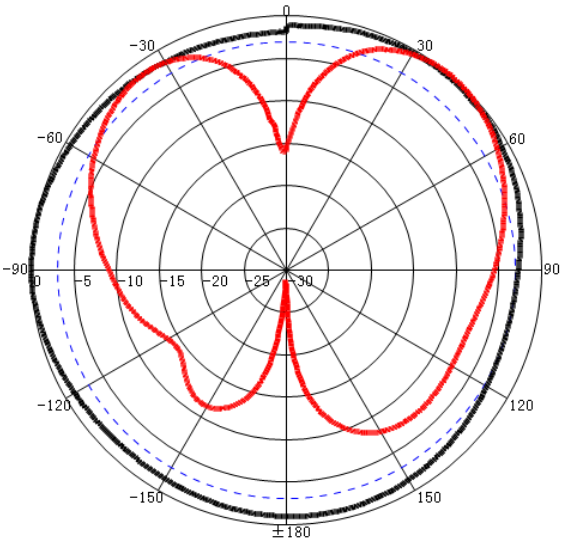
Gain:2.89dBi



Freq:827MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-10.74dB
HPBW(3dB):360.00°
FBR:0.50dB
Circularity:1.36

Freq:827MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-7.18dB
HPBW(3dB):67.27°
FBR:0.65dB
Circularity:11.04
Obliquity:4.17°

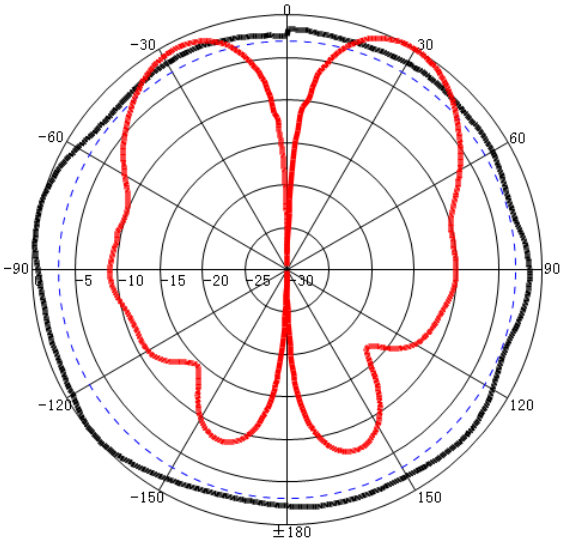
Gain:3.05dBi



Freq:960MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-15.71dB
HPBW(3dB):336.79°
FBR:0.94dB
Circularity:1.74

Freq:960MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-9.15dB
HPBW(3dB):53.37°
FBR:3.83dB
Circularity:27.73
Obliquity:49.42°

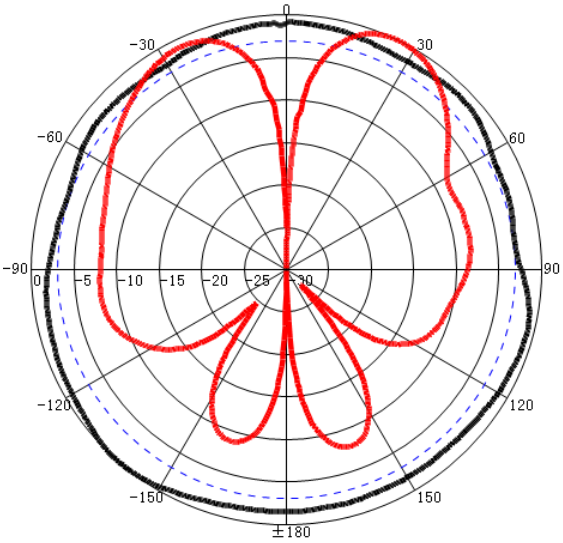
Gain:4.04dBi



Freq:1710MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-27.99dB
HPBW(3dB):360.00°
FBR:1.62dB
Circularity:1.70

Freq:1710MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-18.79dB
HPBW(3dB):32.92°
FBR:8.05dB
Circularity:21.28
Obliquity:60.62°

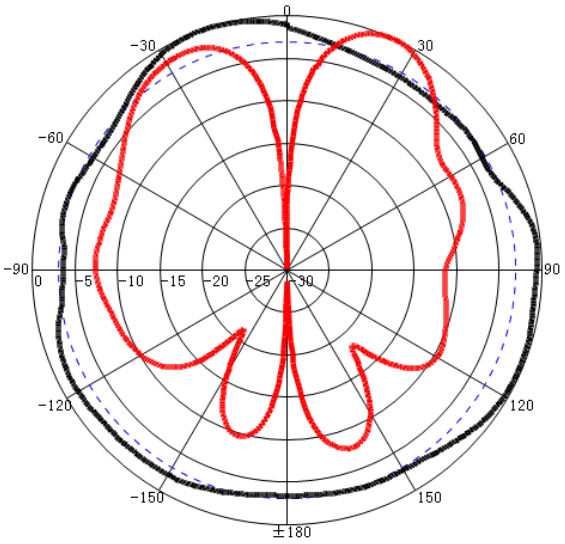
Gain:4.31dBi



Freq:1800MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-27.45dB
HPBW(3dB):360.00°
FBR:0.46dB
Circularity:1.52

Freq:1800MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-17.52dB
HPBW(3dB):30.73°
FBR:5.99dB
Circularity:24.58
Obliquity:63.80°

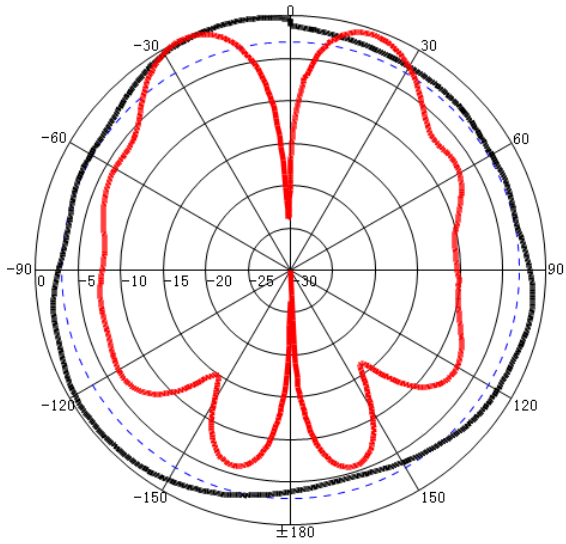
Gain:4.56dBi



Freq:1900MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-27.50dB
HPBW(3dB):59.39°
FBR:2.13dB
Circularity:2.17

Freq:1900MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-18.05dB
HPBW(3dB):27.56°
FBR:7.29dB
Circularity:26.12
Obliquity:65.45°

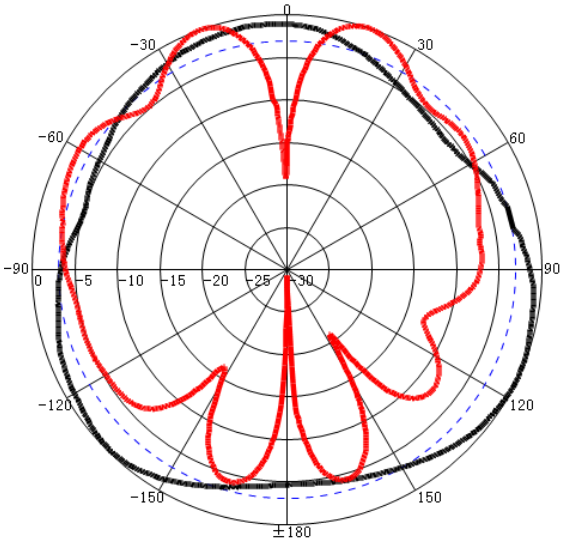
Gain:4.81dBi



Freq:2100MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-25.21dB
HPBW(3dB):208.80°
FBR:1.42dB
Circularity:2.61

Freq:2100MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-19.50dB
HPBW(3dB):26.56°
FBR:6.16dB
Circularity:25.92
Obliquity:3.21°

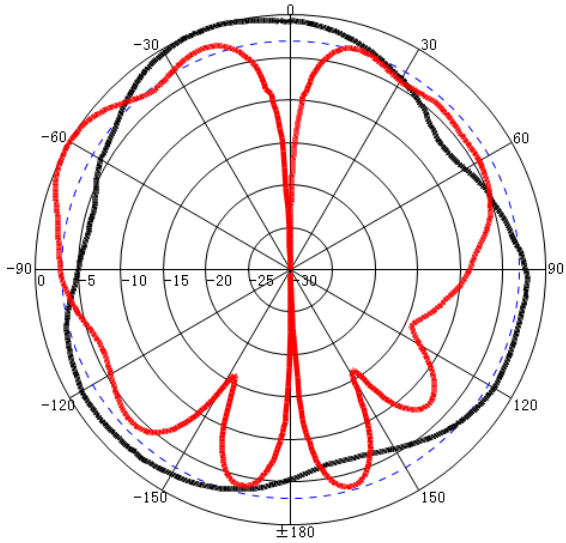
Gain:4.08dBi



Freq:2300MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-26.59dB
HPBW(3dB):74.20°
FBR:1.51dB
Circularity:3.44

Freq:2300MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-24.14dB
HPBW(3dB):24.05°
FBR:1.76dB
Circularity:21.91
Obliquity:1.68°

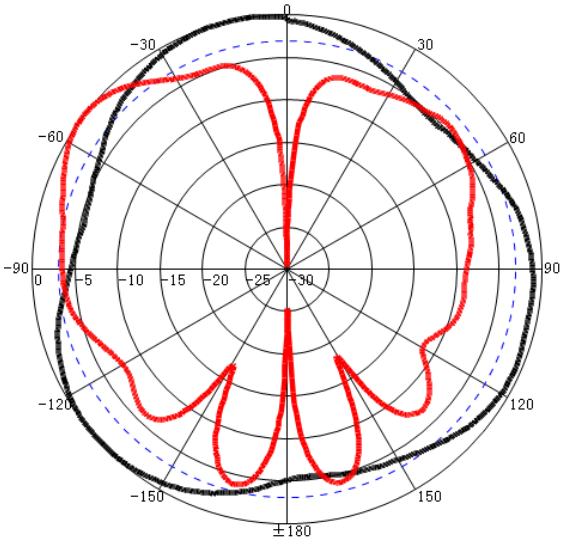
Gain:3.73dBi



Freq:2500MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-28.14dB
HPBW(3dB):70.54°
FBR:2.20dB
Circularity:3.78

Freq:2500MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-26.32dB
HPBW(3dB):49.40°
FBR:0.00dB
Circularity:24.13
Obliquity:22.92°

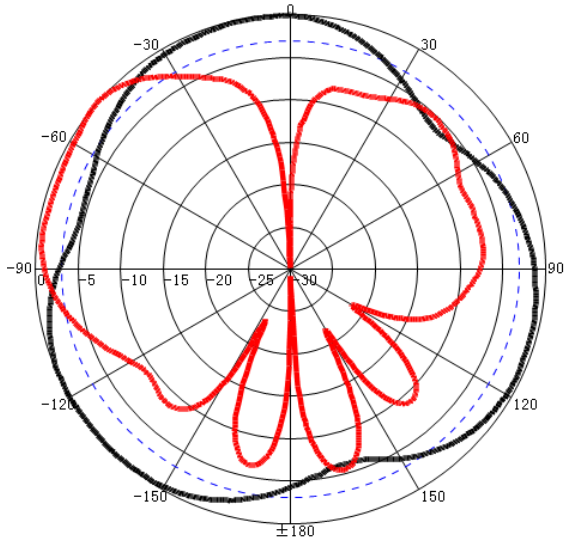
Gain:4.26dBi



Freq:2600MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-29.07dB
HPBW(3dB):69.73°
FBR:0.85dB
Circularity:3.14

Freq:2600MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-26.41dB
HPBW(3dB):42.56°
FBR:0.42dB
Circularity:21.05
Obliquity:19.53°

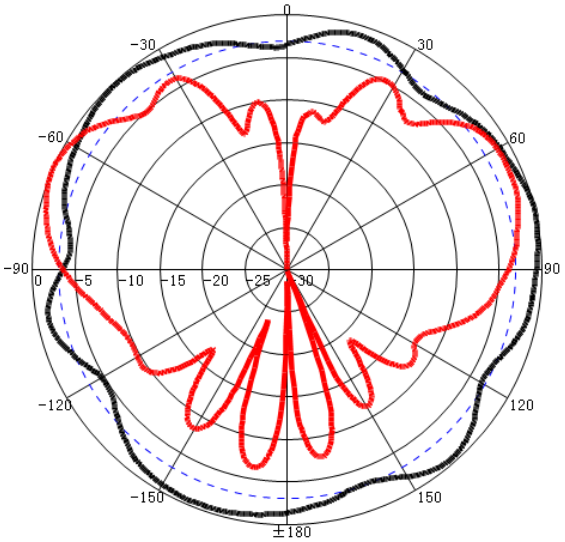
Gain:4.14dBi



Freq:2700MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-30.15dB
HPBW(3dB):83.94°
FBR:0.36dB
Circularity:4.26

Freq:2700MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-27.53dB
HPBW(3dB):67.84°
FBR:0.57dB
Circularity:21.65
Obliquity:17.17°

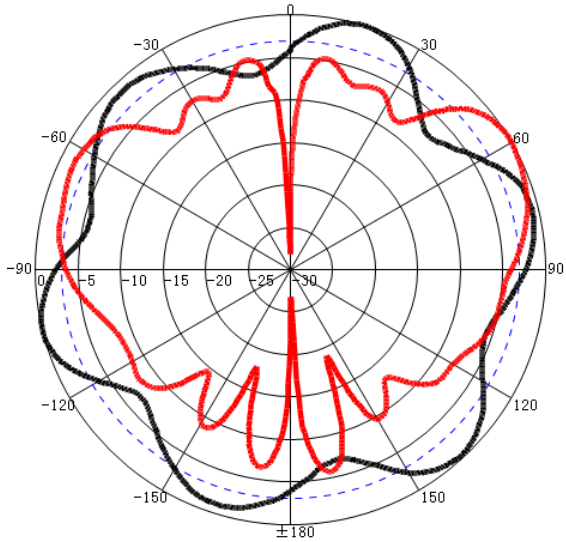
Gain:4.49dBi



Freq:3300MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-34.31dB
HPBW(3dB):67.56°
FBR:0.56dB
Circularity:2.67

Freq:3300MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-28.51dB
HPBW(3dB):38.24°
FBR:0.00dB
Circularity:36.68
Obliquity:25.29°

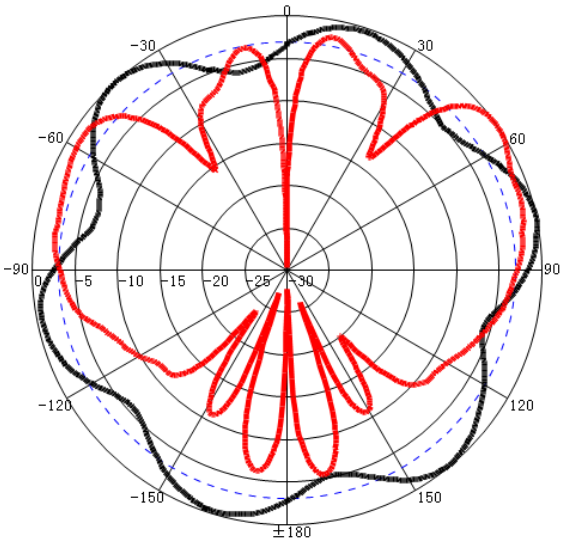
Gain:4.82dBi



Freq:3500MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-33.89dB
HPBW(3dB):29.46°
FBR:1.06dB
Circularity:4.09

Freq:3500MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-28.83dB
HPBW(3dB):39.75°
FBR:1.65dB
Circularity:20.33
Obliquity:28.27°

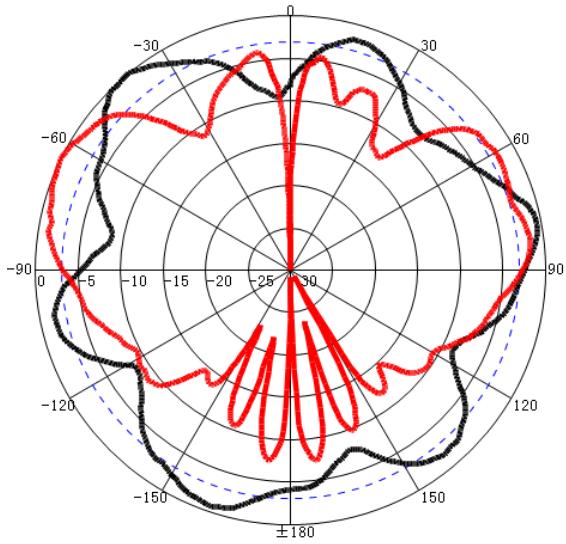
Gain:4.89dBi



Freq:3700MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-33.77dB
HPBW(3dB):35.04°
FBR:0.33dB
Circularity:3.88

Freq:3700MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-30.31dB
HPBW(3dB):45.82°
FBR:1.34dB
Circularity:30.79
Obliquity:21.56°

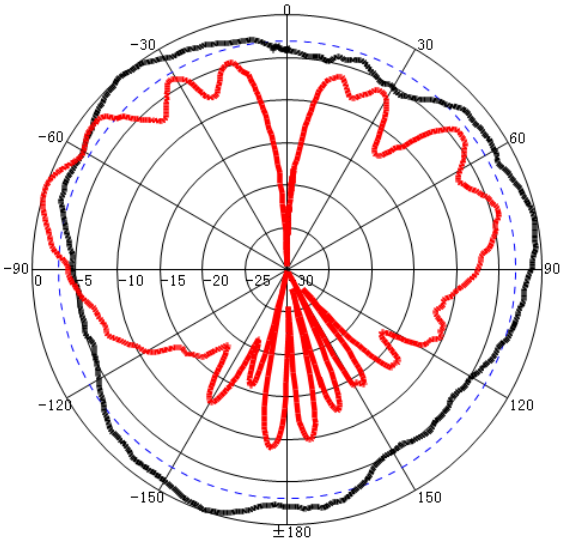
Gain:4.67dBi



Freq:4900MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-36.67dB
HPBW(3dB):29.20°
FBR:0.66dB
Circularity:4.95

Freq:4900MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-36.26dB
HPBW(3dB):41.71°
FBR:0.00dB
Circularity:26.68
Obliquity:16.57°

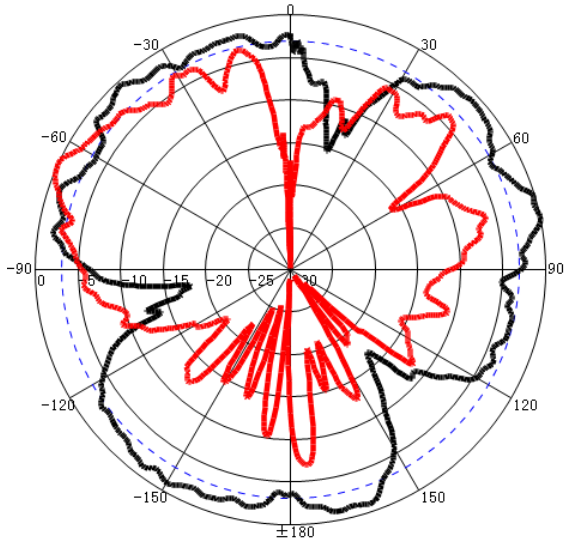
Gain:5.85dBi



Freq:5500MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-41.65dB
HPBW(3dB):70.15°
FBR:0.13dB
Circularity:3.00

Freq:5500MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-40.42dB
HPBW(3dB):37.69°
FBR:0.00dB
Circularity:23.23
Obliquity:28.73°

Gain:6.07dBi



Freq:6000MHz
Date:2016-05-19
Elevation:H-plane
Polar-Across:Main
Polarization:Vertical
Max:-49.60dB
HPBW(3dB):26.40°
FBR:0.91dB
Circularity:13.82

Freq:6000MHz
Date:2016-05-19
Elevation:V-plane
Polar-Across:Main
Polarization:Vertical
Max:-49.44dB
HPBW(3dB):29.52°
FBR:0.00dB
Circularity:29.57
Obliquity:155.33°

Gain:6.60dBi