Antenna Sample / Antenna Data
Requirements for worldwide regulatory approval

Section	Description of Required OEM / ODM Antenna Information	US / IC	EU	Japan	Taiwan	S.Korea
1A	Part Number for Antenna only	Required	Required	Required	Required	Required
1B	Antenna Manufacturer Name	Required	Required	Required	Required	Required
1C	Description of Antenna Type	Required	N/A	N/A	N/A	N/A
1D	Part number of Antenna Assembly / cable impedance, length & diameter.	Required	Desired	Desired	Desired	Desired
1E	Tx1, Tx2 & Tx3 antenna (Peak Gain W/ cable loss) *	Required	Required	Required	Required	Required
	1E OR 1F, 1G, 1H					
1F	Tx1, Tx2 & Tx3 antenna (Peak Gain only) *	Required	Required	Required	Required	Required
1G	VSWR of cable including connector	Required	Required	Required	Required	Required
1H	Tx1, Tx2 & Tx3 antenna (Cable loss W/ connector) *	Required	Required	Required	Required	Required
2	Dimensioned Photographs and Drawings of Tx1, Tx2, and Tx3 (or Rx3) antennas	Required	Required	Required	Required	Required
3	Radiation patterns of antennas loaded in the host platform.	Required	Desired	Required	N/A	Required
4	Platform model name / number - correlated to antenna manufacturer and antenna part number	Required	Required	Desired	Required	Desired
5	Photograph(s) or Drawings showing location of antennas in platform. (S. Korea requires photographs of antennas for approval submission). Taiwan requires pictures of each antenna type shown in the system.	Required	Required	Desired	Required (Photos)	Required (Photos)
6	Mech. drawings / photos with dimensions of antenna locations and distance from end-user (For evaluation of SAR testing requirement).	Required	N/A	N/A	N/A	N/A
7	Photograph(s) or Drawings showing the location of all antennas (WLAN, other) and distance between those transmitting antennas. Information will be used to evaluate whether co-location testing is required.	Required	N/A	N/A	N/A	N/A
8	Local representative contact information for LMA/ PARS process.	Required	N/A	N/A	N/A	N/A

Antenna Information

Section 1. Antenna Assembly Specifications

1A Antenna Part Number	1B Manufacture	1C Antenna Type	1D Cable Assembly Part Number and Information	1E *Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G VSWR	1H Cable Loss (dBi)
(P/N:WA-P-LB-01-126 main) Tx1 Antenna (White)	INPAQ	PIFA	1. Cable : 50 ohm coaxial cable 2. Diameter : 1.13mm. 3. Cable Length : 265mm 4. Connector P/N : I-PEX MHF-4L：20565-001R-13 ST 0.81 connector :C87P115-00001-H	2400-2500MHz 0.39dBi (peak)	2400-2500MHz 1.08 dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz 0.69 dBi (peak)
				5150-5350MHz -1.38 dBi (peak)	5150-5350MHz -0.28 dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz 1.1 dBi (peak)
				5470-5725MHz -1.94 dBi (peak)	5470-5725MHz -0.82 dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz 1.12 dBi (peak)
				5725-5850MHz -1.32 dBi (peak)	5725-5850MHz -0.16 dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz 1.16 dBi (peak)
(P/N: WA-P-LB-02-257 aux) Tx2 Antenna (Black)	INPAQ	PIFA	1. Cable : 50 ohm coaxial cable 2. Diameter : 1.13mm. 3. Cable Length : 183mm 4. Connector P/N : I-PEX MHF-4L：20565-001R-13 ST 0.81 connector :C87P115-00001-H	2400-2500MHz -0.59 dBi (peak)	2400-2500MHz -0.13 dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz 0.46 dBi (peak)
				5150-5350MHz -2.03 dBi (peak)	5150-5350MHz -1.3 dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz 0.73 dBi (peak)
				5470-5725MHz -2.03 dBi (peak)	5470-5725MHz -1.28 dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz 0.75 dBi (peak)
				5725-5850MHz -3.55 dBi (peak)	5725-5850MHz -2.77 dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz 0.78 dBi (peak)

- **Antenna Peak Gain required being test in system basis.**
- **1E frame contend absolutely peak antenna gain include H/V**

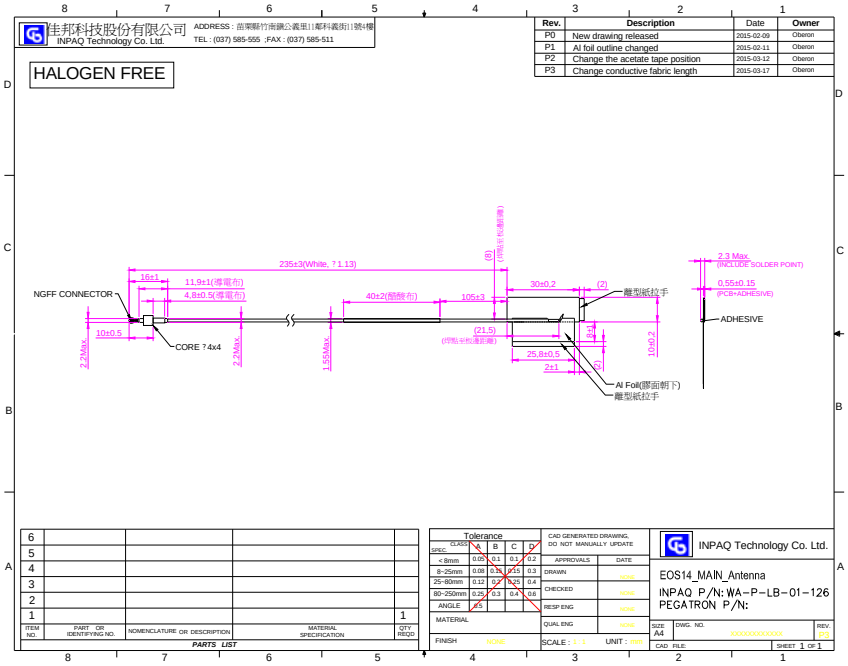
Antenna Peak Gain Table:

	Tx1 antenna		Tx2 (or Rx2) Antenna	
Frequency (MHz)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)
2400	-6.54	-2.70	-6.66	-0.59
2450	-4.32	0.39	-7.20	-1.11
2500	-4.57	-1.67	-7.58	-2.25
5150	-5.71	-1.38	-8.06	-2.31
5250	-4.77	-1.50	-6.54	-3.11
5350	-5.62	-1.51	-7.53	-2.03
5470	-5.33	-1.94	-6.52	-2.03
5600	-3.82	-3.99	-4.45	-6.71
5725	-4.70	-2.41	-4.98	-8.49
5785	-5.19	-1.32	-5.68	-6.55
5850	-7.54	-2.15	-3.55	-3.77

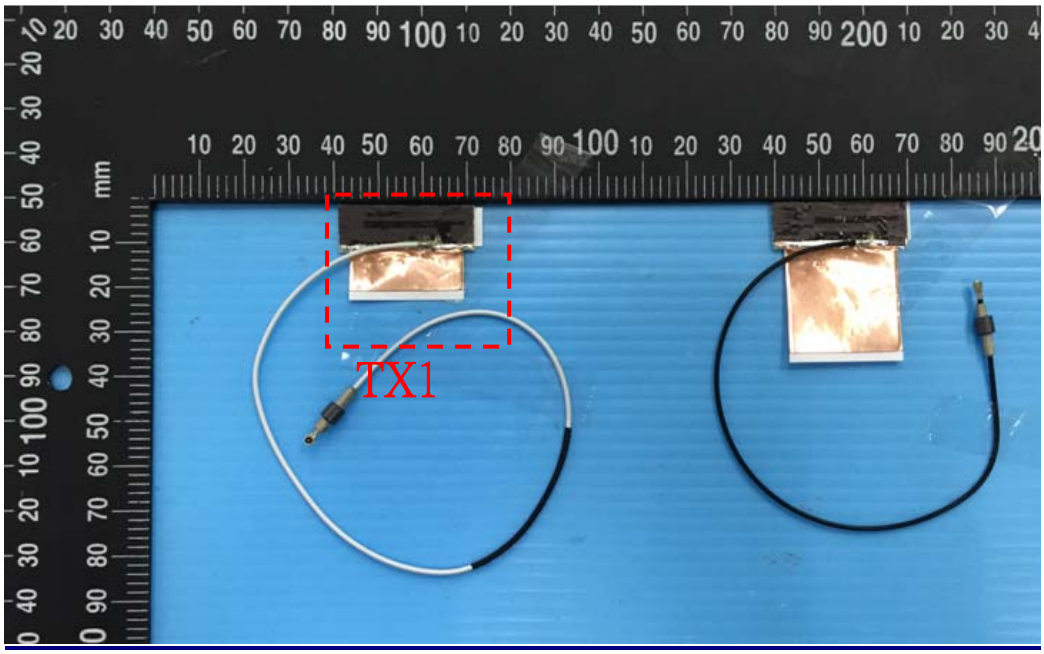
Section 2. Dimensioned Photos or Drawings of Antennas

Include a dimensioned photo and dimensioned drawing of Tx1 antenna here.

Tx1 Antenna Dimensioned Drawing:

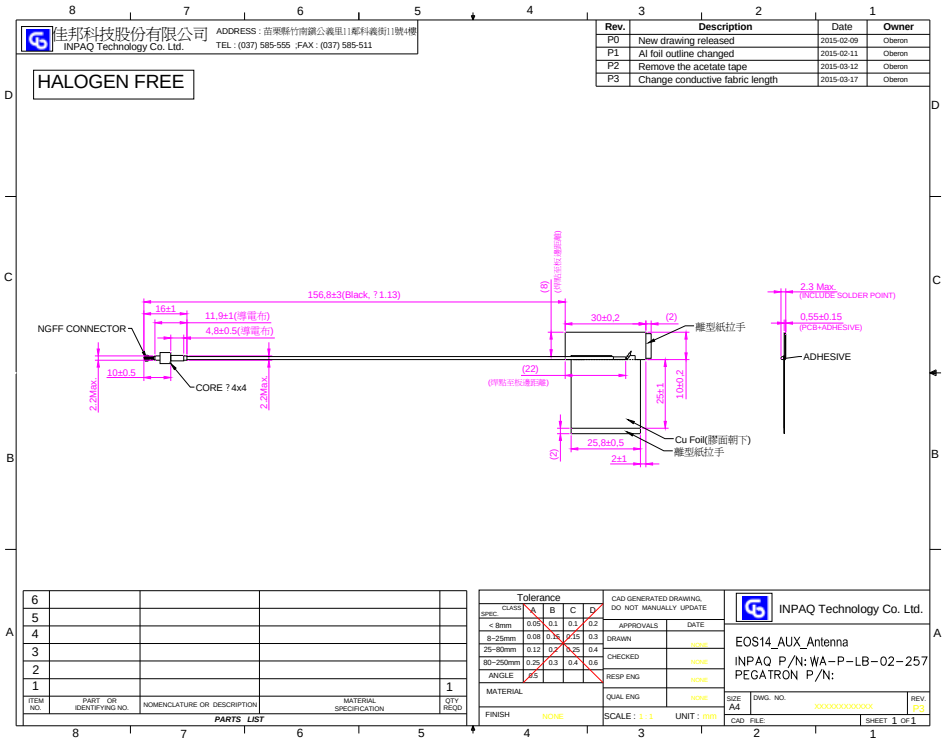


Tx1 Antenna Photo:

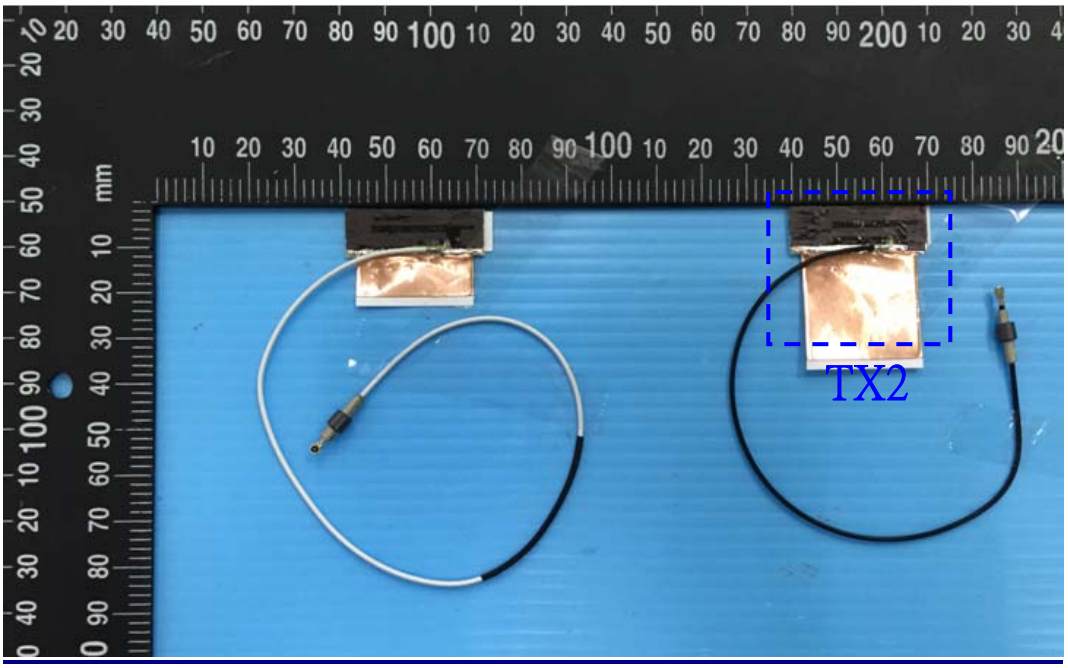


Include a dimensioned photo and dimensioned drawing of Tx2 (or Rx2) antenna here.

Tx2 (or Rx2) Antenna Dimensioned Drawing:

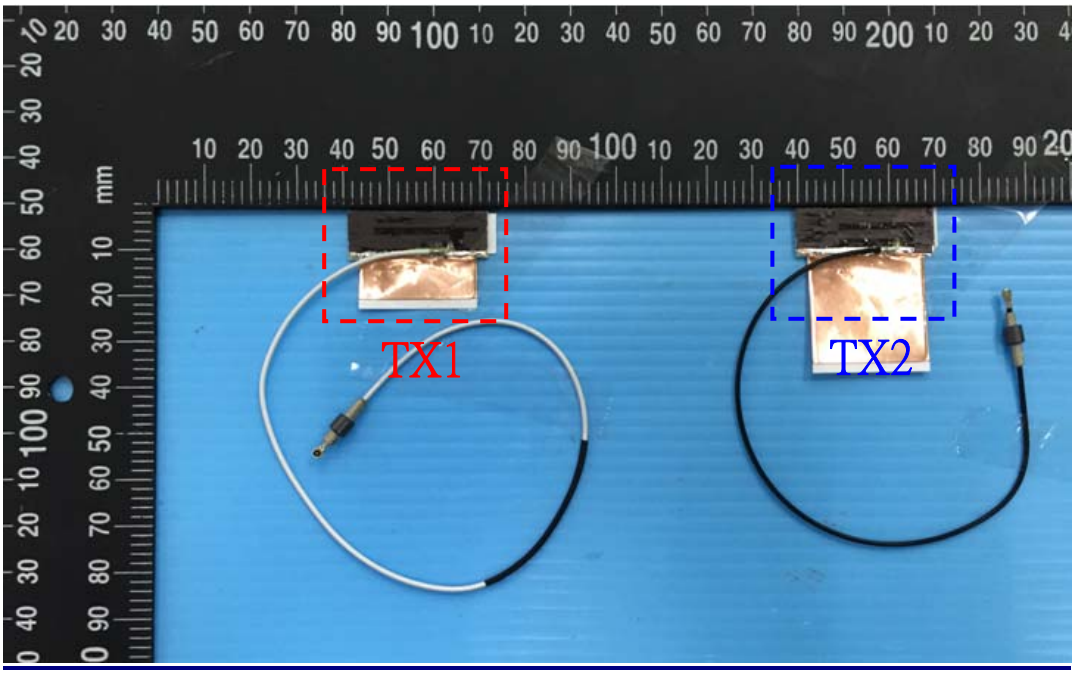


Tx2 (or Rx2) Antenna Photo:



Include front view photo of all 2 antennas here.

Antenna Manufacturer: INPAQ
Antenna Part Number: WA-P-LB-01-126 (Tx1), WA-P-LB-02-257 (Tx2)

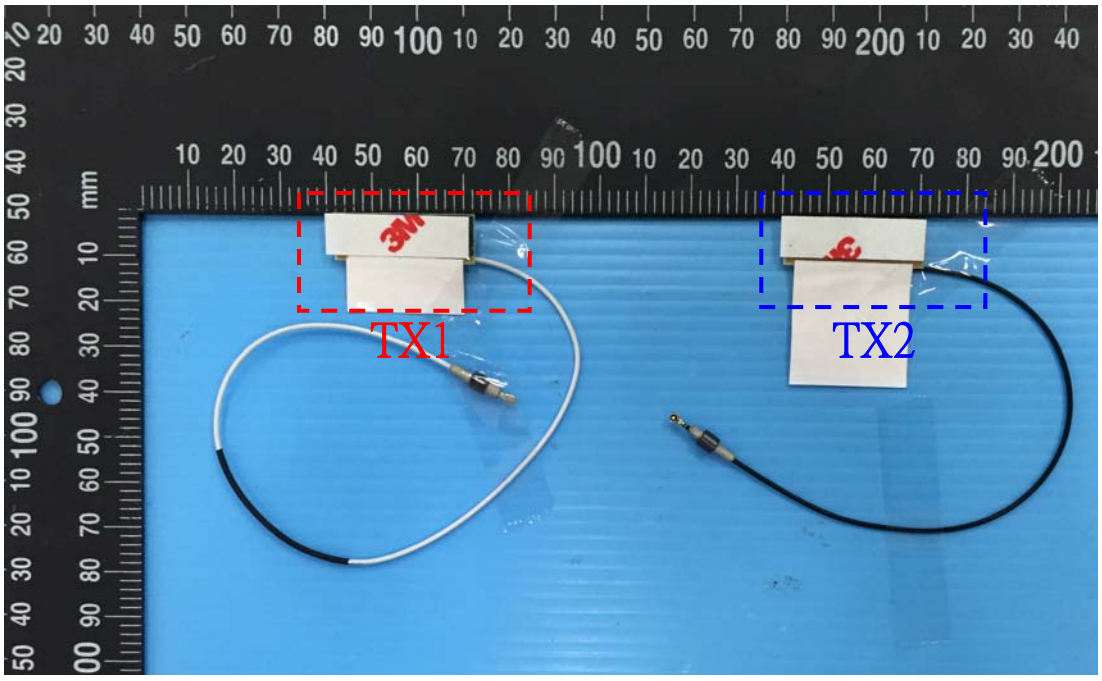


Include back view photo of all 2 antennas here.

Antenna Manufacturer: INPAQ
Antenna Part Number: WA-P-LB-01-126 (Tx1), WA-P-LB-02-257 (Tx2)

Section 3. Radiation characteristics of antennae Loaded in Host Platform

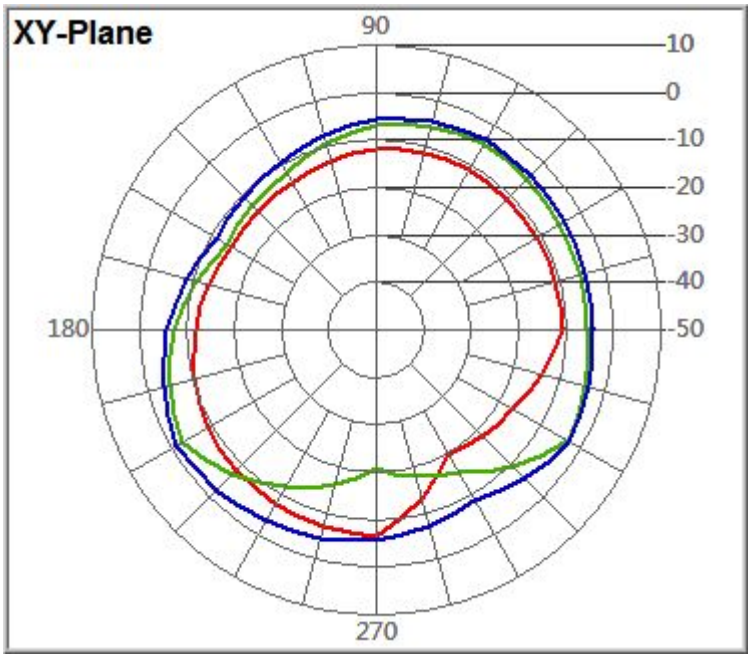
2400-2500 MHz radiation characteristic



Section 3. Radiation characteristics of antennae Loaded in Host Platform

2400-2500MHz radiation characteristic

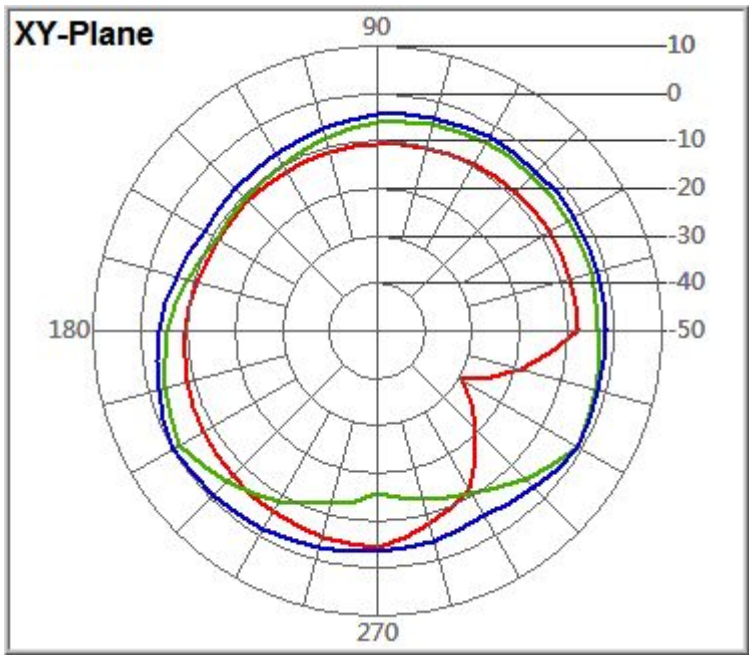
Tx1 antenna: 2400 MHz



Center Frequency	**2400 MHz**
Horizontal (dBi) peak	-6.54
Vertical (dBi) peak	-2.70

Horizontal
Vertical
H+V

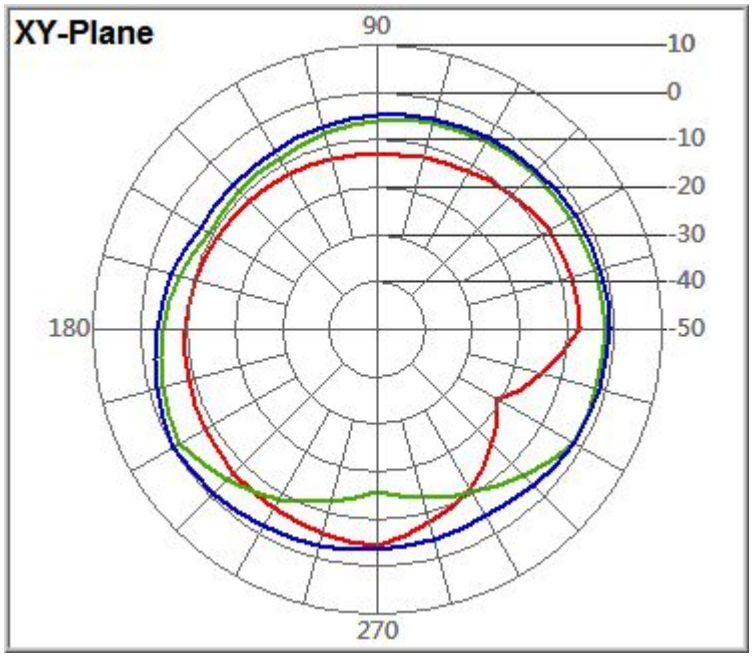
Tx1 antenna: 2450 MHz



Center Frequency	**2450 MHz**
Horizontal (dBi) peak	-4.32
Vertical (dBi) peak	0.39

Horizontal
Vertical
H+V

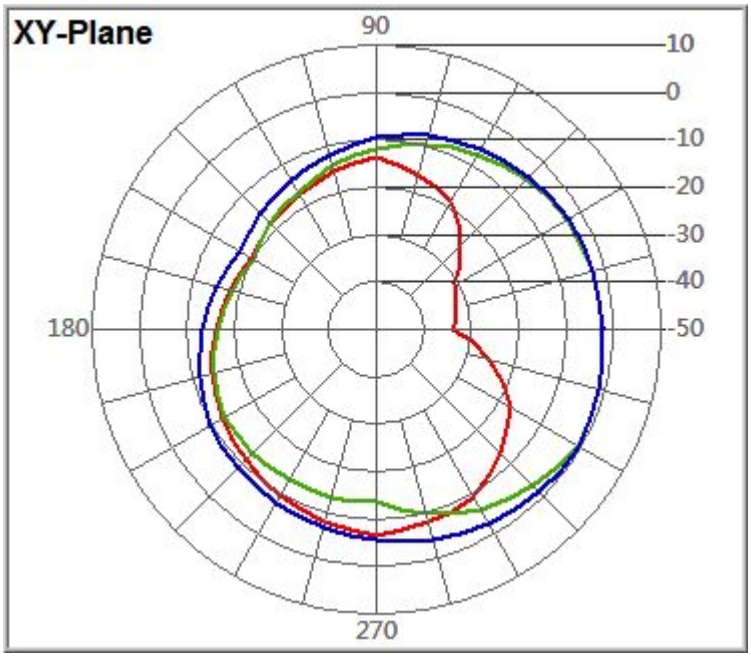
Tx1 antenna:2500 MHz



Center Frequency	**2500 MHz**
Horizontal (dBi) peak	-4.57
Vertical (dBi) peak	-1.67

Horizontal
Vertical
H+V

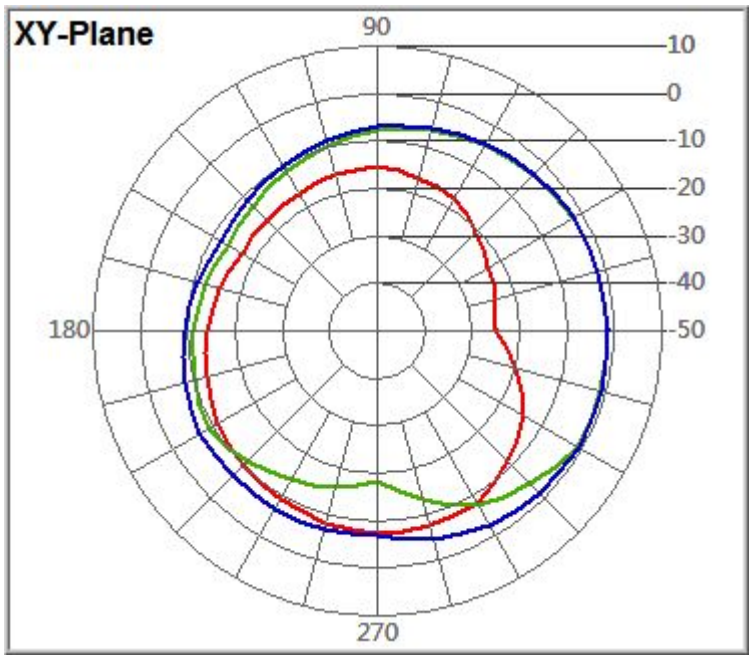
Tx2 antenna: 2400 MHz



Center Frequency	**2400 MHz**
Horizontal (dBi) peak	-6.66
Vertical (dBi) peak	-0.59

Horizontal
Vertical
H+V

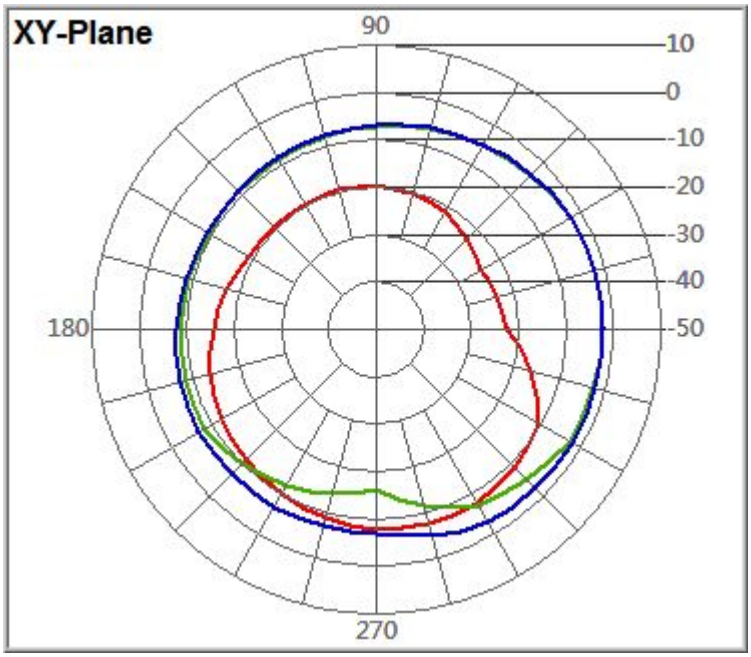
Tx2 antenna: 2450 MHz



Center Frequency	**2450 MHz**
Horizontal (dBi) peak	-7.20
Vertical (dBi) peak	-1.11

Horizontal
Vertical
H+V

Tx2 antenna:2500 MHz

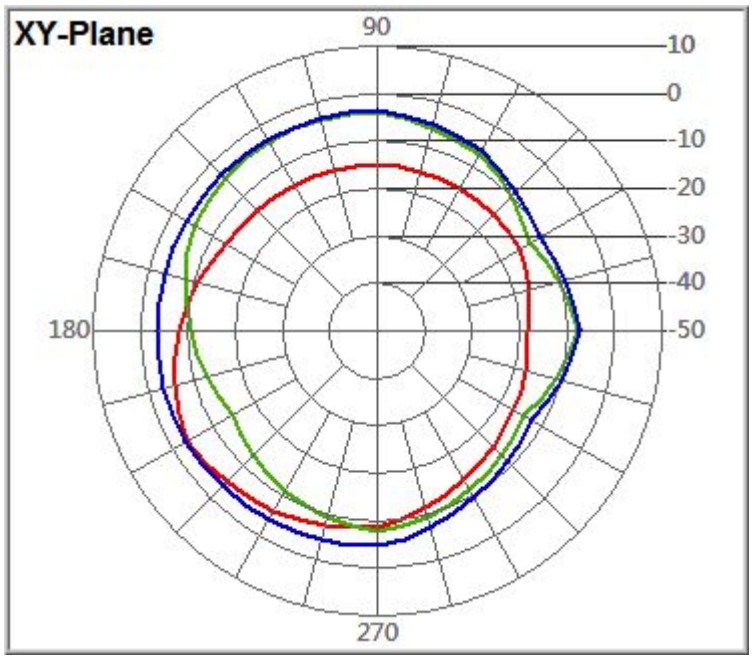


Center Frequency	**2500 MHz**
Horizontal (dBi) peak	-7.58
Vertical (dBi) peak	-2.25

Horizontal
Vertical
H+V

5150-5350 MHz radiation characteristic

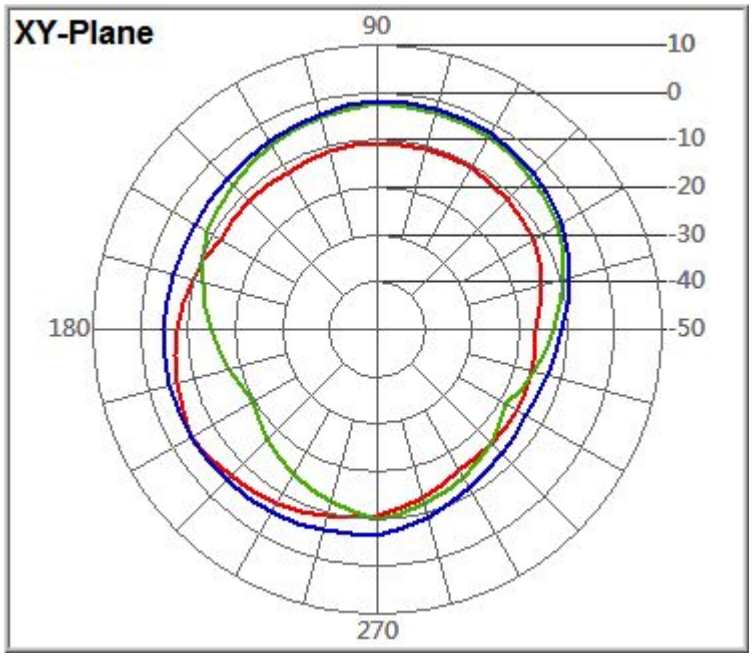
Tx1 antenna: 5150 MHz



Center Frequency	**5150 MHz**
Horizontal (dBi) peak	-5.71
Vertical (dBi) peak	-1.38

Horizontal
Vertical
H+V

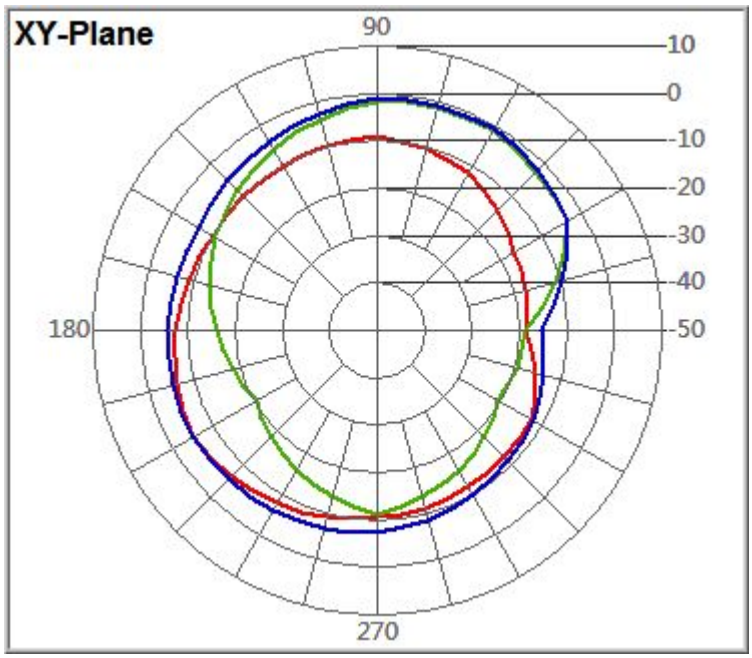
Tx1 antenna: 5250 MHz



Center Frequency	**5250 MHz**
Horizontal (dBi) peak	-4.77
Vertical (dBi) peak	-1.50

Horizontal
Vertical
H+V

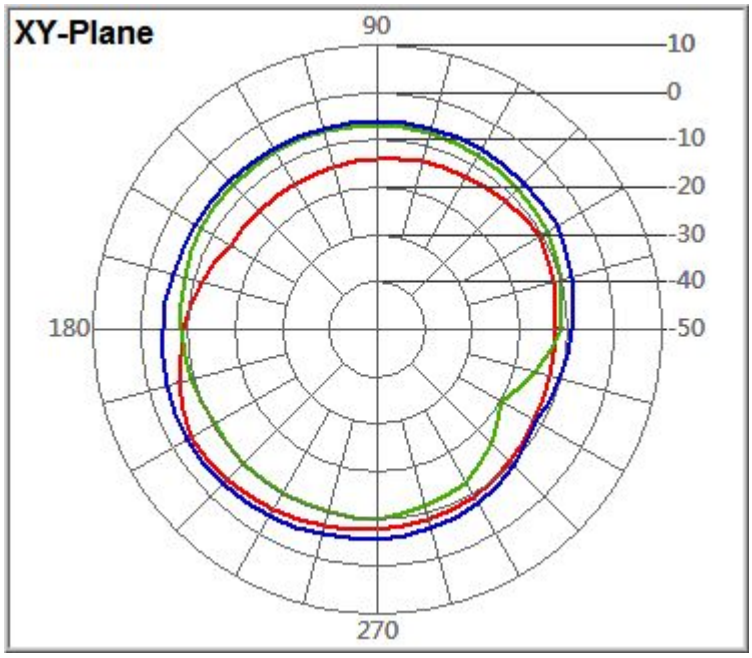
Tx1 antenna: 5350 MHz



Center Frequency	**5350 MHz**
Horizontal (dBi) peak	-5.62
Vertical (dBi) peak	-1.51

Horizontal
Vertical
H+V

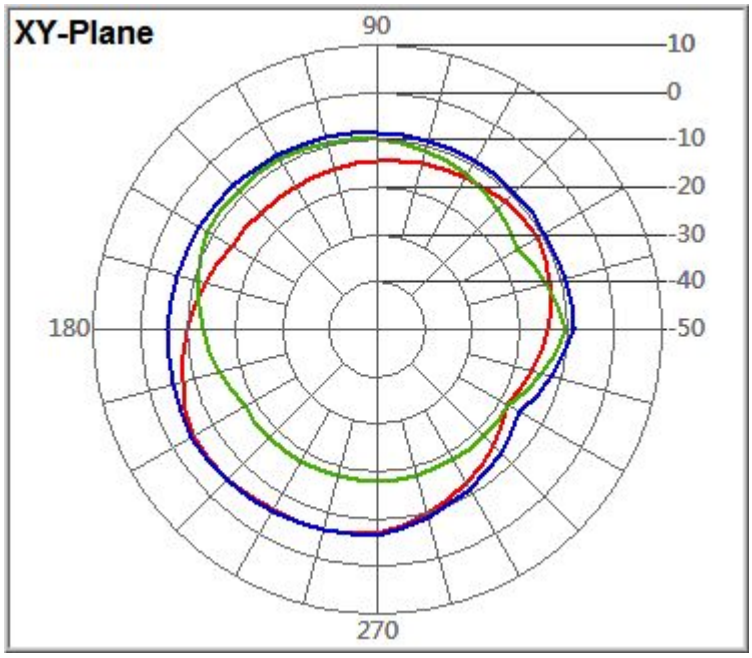
Tx2 antenna: 5150 MHz



Center Frequency	**5150 MHz**
Horizontal (dBi) peak	-8.06
Vertical (dBi) peak	-2.31

Horizontal
Vertical
H+V

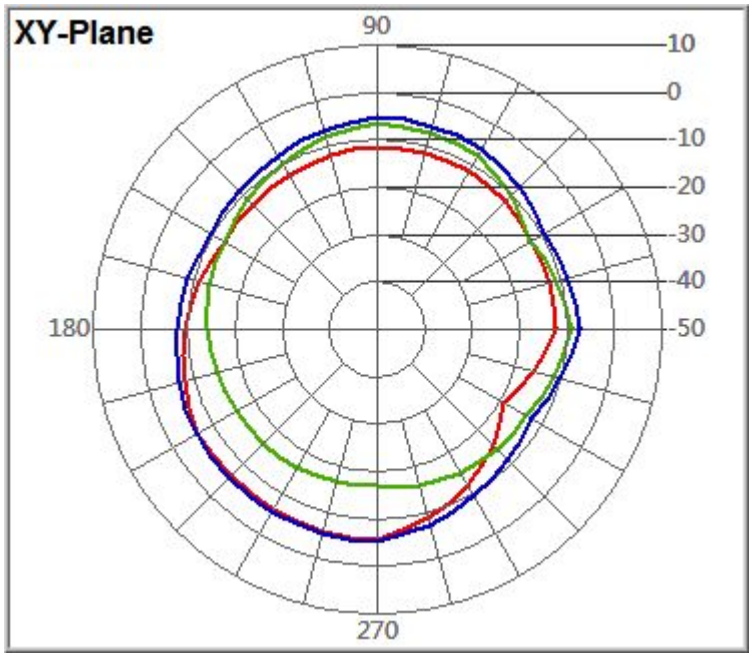
Tx2 antenna: 5250 MHz



Center Frequency	**5250 MHz**
Horizontal (dBi) peak	-6.54
Vertical (dBi) peak	-3.11

Horizontal
Vertical
H+V

Tx2 antenna: 5350 MHz

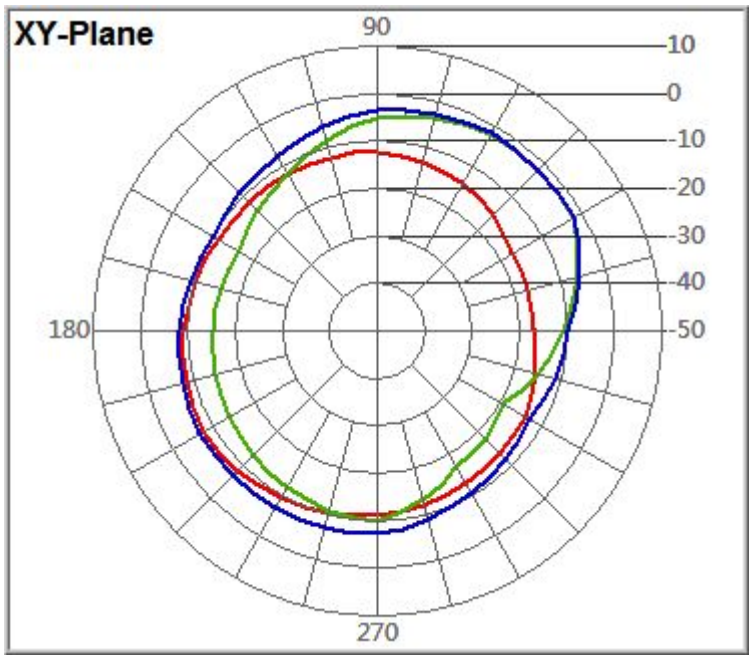


Center Frequency	**5350 MHz**
Horizontal (dBi) peak	-7.53
Vertical (dBi) peak	-2.03

Horizontal
Vertical
H+V

5470-5725MHz radiation characteristic

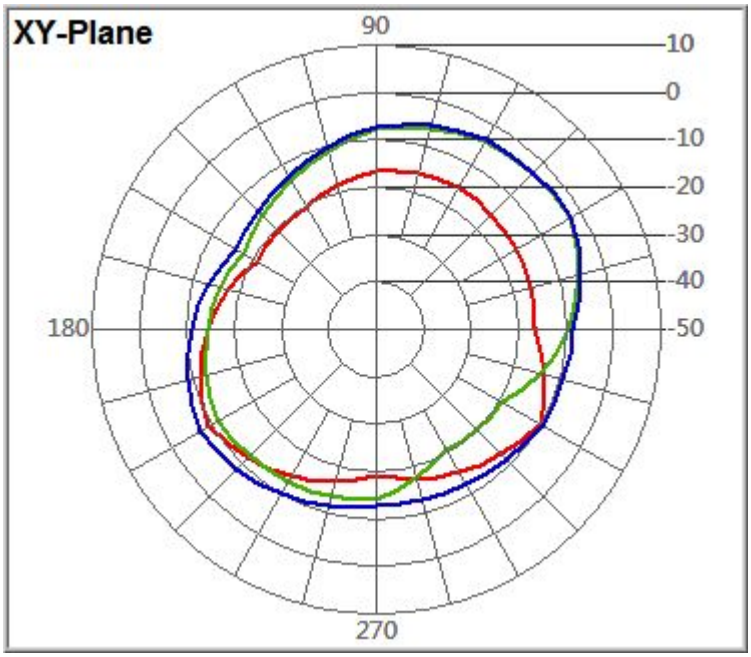
Tx1 antenna: 5470 MHz



Center Frequency	**5470 MHz**
Horizontal (dBi) peak	-5.33
Vertical (dBi) peak	-1.94

Horizontal
Vertical
H+V

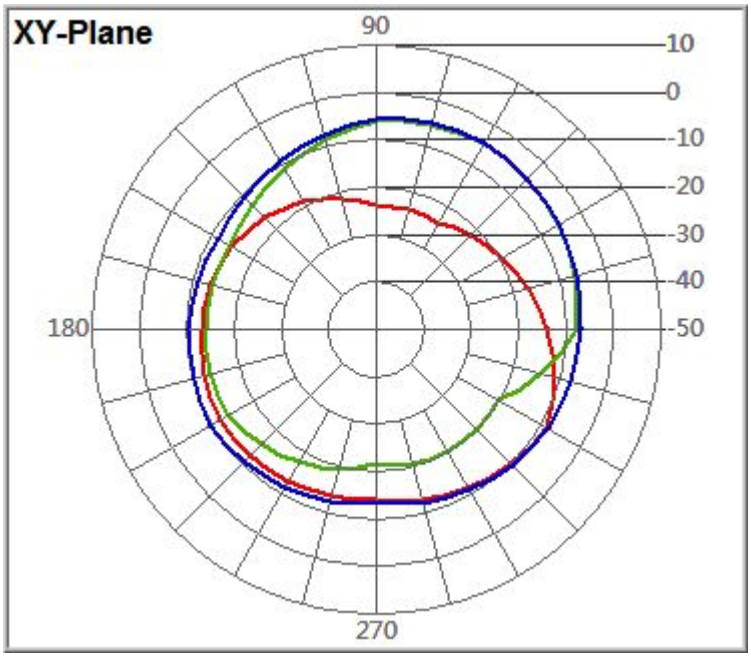
Tx1 antenna: 5600 MHz



Center Frequency	**5600 MHz**
Horizontal (dBi) peak	-3.82
Vertical (dBi) peak	-3.99

Horizontal
Vertical
H+V

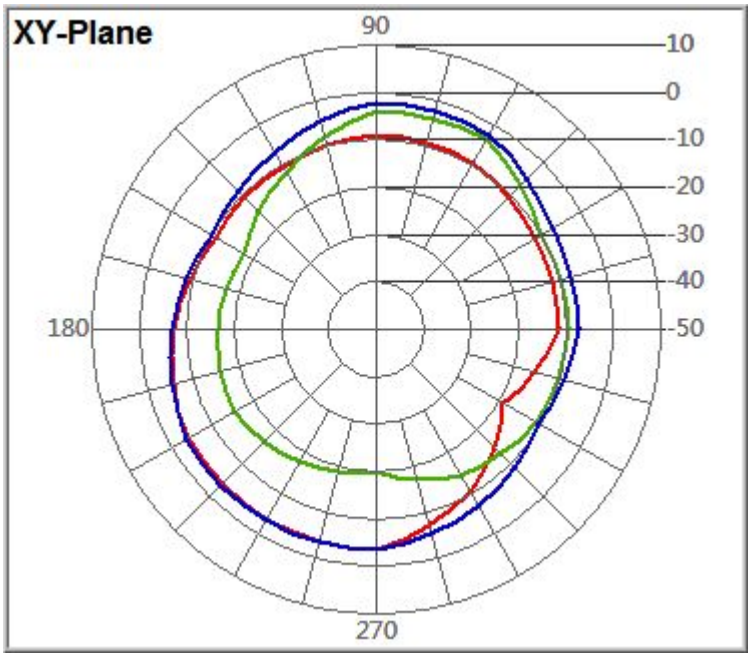
Tx1 antenna: 5725 MHz



Center Frequency	**5725 MHz**
Horizontal (dBi) peak	-4.70
Vertical (dBi) peak	-2.41

Horizontal
Vertical
H+V

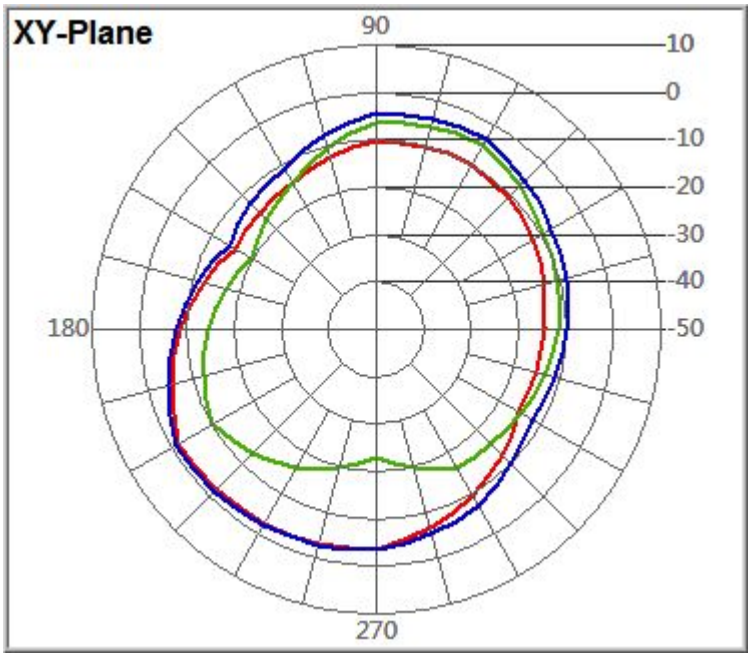
Tx2 antenna: 5470 MHz



Center Frequency	**5470 MHz**
Horizontal (dBi) peak	-6.52
Vertical (dBi) peak	-2.03

Horizontal
Vertical
H+V

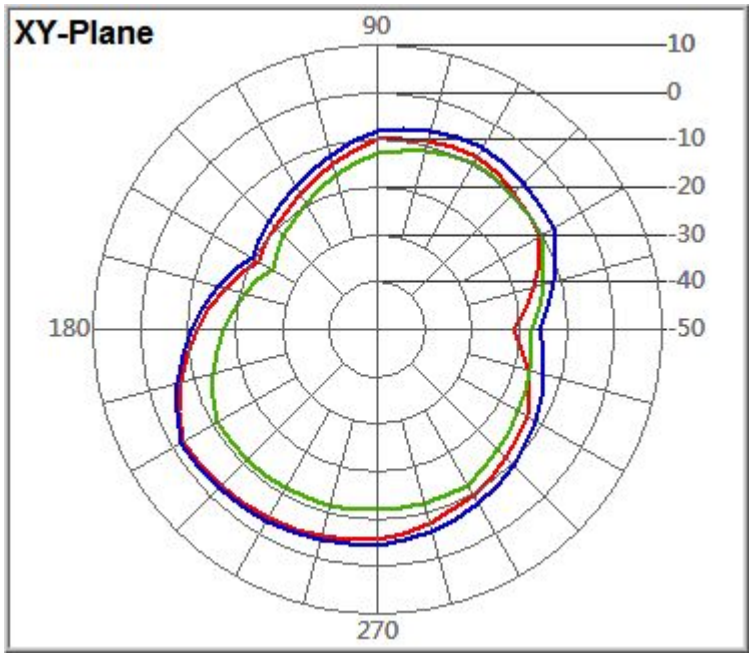
Tx2 antenna: 5600 MHz



Center Frequency	**5600 MHz**
Horizontal (dBi) peak	-4.45
Vertical (dBi) peak	-6.71

Horizontal
Vertical
H+V

Tx2 antenna: 5725 MHz

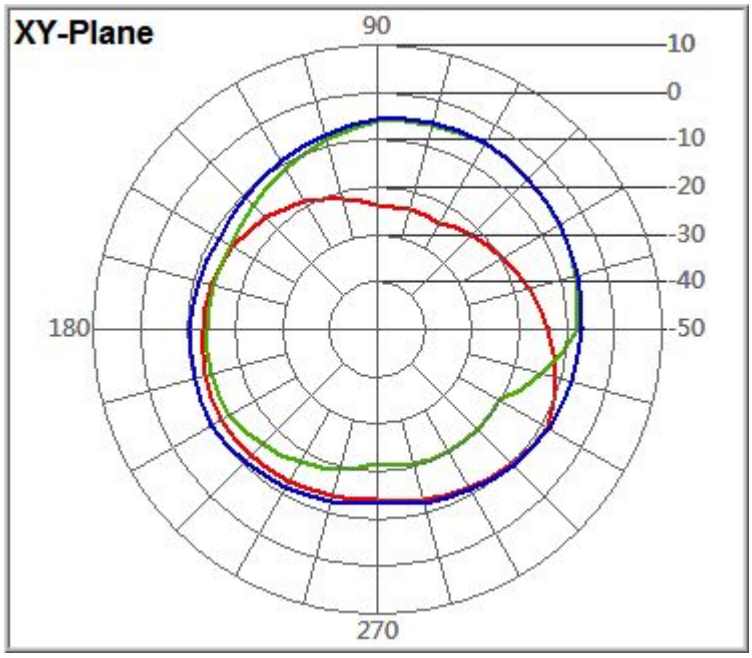


Center Frequency	**5725 MHz**
Horizontal (dBi) peak	-4.98
Vertical (dBi) peak	-8.49

Horizontal
Vertical
H+V

5725-5850 MHz radiation characteristic

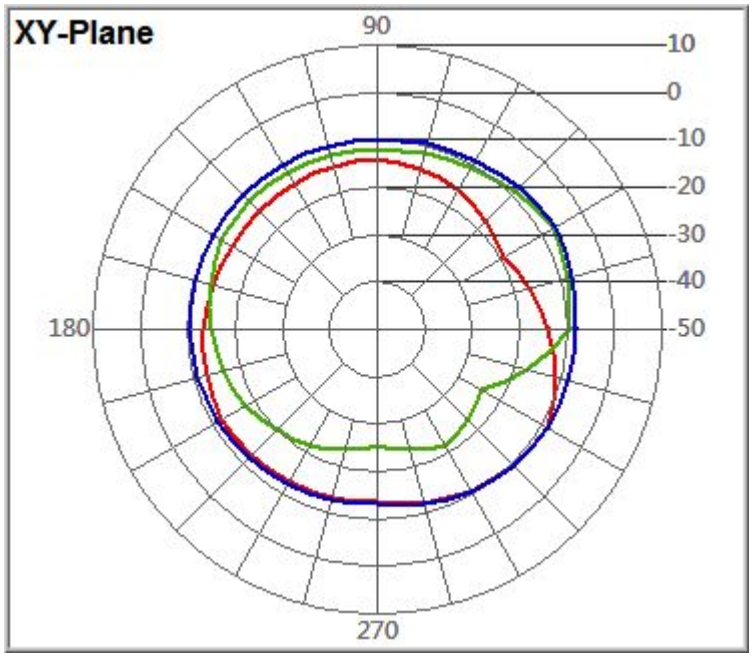
Tx1 antenna: 5725 MHz



Center Frequency	**5725 MHz**
Horizontal (dBi) peak	-4.70
Vertical (dBi) peak	-2.41

Horizontal
Vertical
H+V

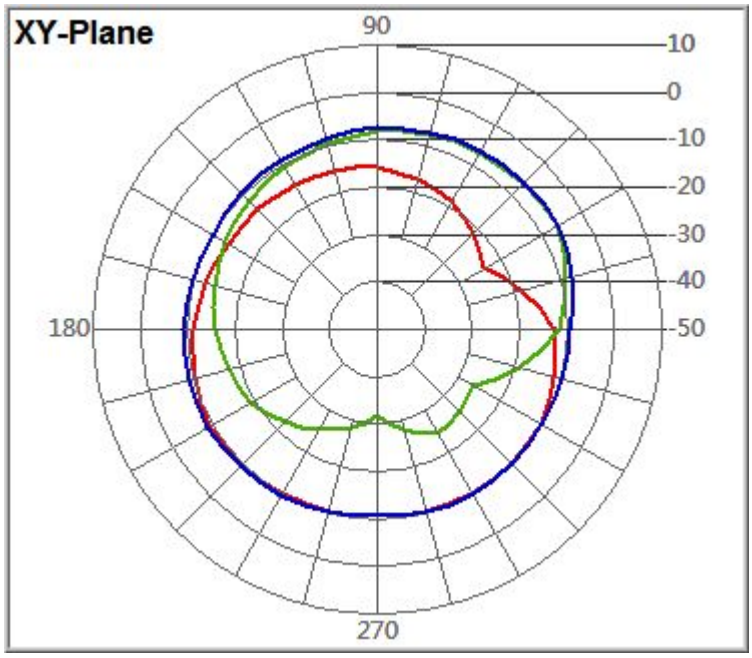
Tx1 antenna: 5785 MHz



Center Frequency	**5785MHz**
Horizontal (dBi) peak	-5.19
Vertical (dBi) peak	-1.32

Horizontal
Vertical
H+V

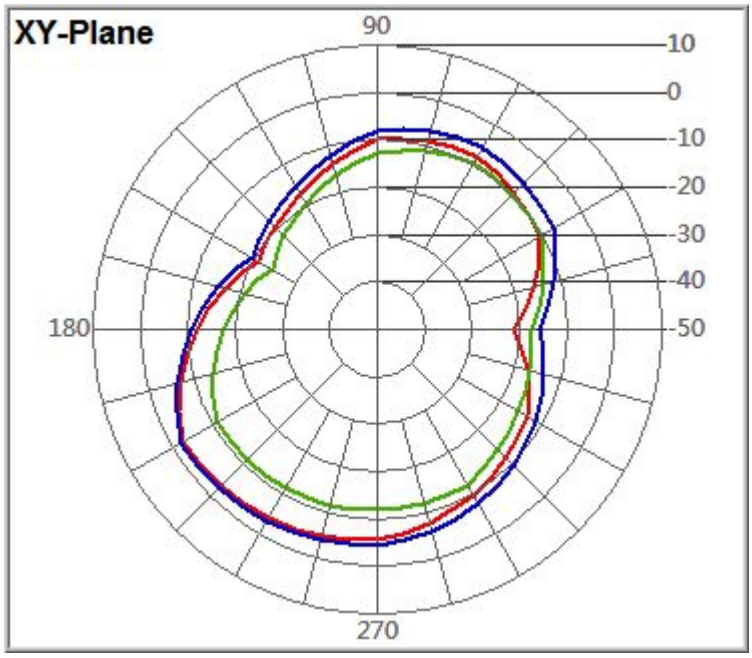
Tx1 antenna: 5850 MHz



Center Frequency	**5850 MHz**
Horizontal (dBi) peak	-7.54
Vertical (dBi) peak	-2.15

Horizontal
Vertical
H+V

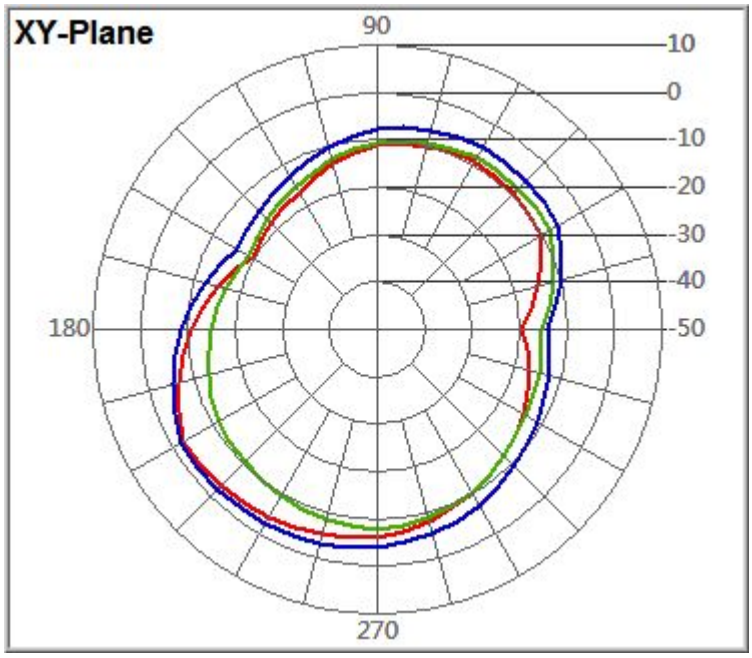
Tx2 antenna: 5725 MHz



Center Frequency	**5725 MHz**
Horizontal (dBi) peak	-4.98
Vertical (dBi) peak	-8.49

Horizontal
Vertical
H+V

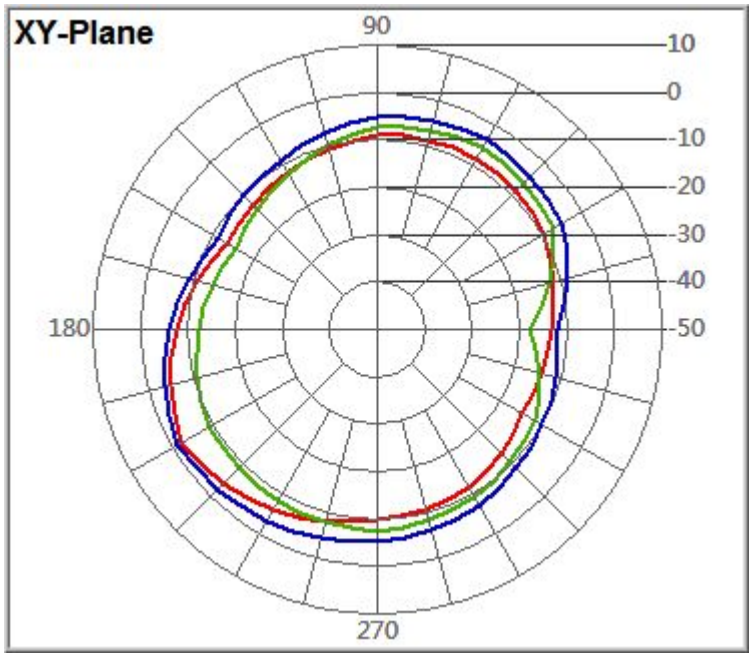
Tx2 antenna: 5785 MHz



Center Frequency	**5785MHz**
Horizontal (dBi) peak	-5.68
Vertical (dBi) peak	-6.55

Horizontal
Vertical
H+V

Tx2 antenna: 5850 MHz



Center Frequency	**5850 MHz**
Horizontal (dBi) peak	-3.55
Vertical (dBi) peak	-3.77

Horizontal
Vertical
H+V