

Soyuz WLAN Antenna Information

(English Language Required for Regulatory Review / Approval)

Platform	
Platform Owner	HP
Brand Name	Quanta for HP
Model Name	Soyuz
ODM	Quanta
Target Launch Date	(YYYY/ MM/ DD)
Antenna	
Brand Name	Foxconn
Part Number	<input type="checkbox"/> Main Antenna: WDAN-HQTT8001-DF
	<input type="checkbox"/> Aux Antenna: WDAN-HQTT8003-DF
	<input type="checkbox"/> Tx3 (or Rx3) Antenna:
Module	
With WLAN Module	<input type="checkbox"/> Barolo
(Check Box)	

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

NOTE:

(*) if 3rd antenna is Rx only (e.g. receive only for 4965AGN) then peak gain and cable loss not required

Antenna Information

Section 1. Antenna Assembly Specifications

Antenna Assembly Summary:

Normal Mode:

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: <i>WDAN-HQT T8001-DF</i>) Main Antenna	HON HAI PRECISION IND. CO.,LTD.	PIFA	(P/N:FOXCONN 703-3000-215) 50 ohm Coaxial. length: 350mm diameter: 1.37mm Connector: FOXCONN SGX0003-02	2400-2500MHz1. 0.57 dBi (peak)	2400-2500MHz 1.433 dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz -0.863 dBi (peak)
				5150-5350MHz 2.37 dBi (peak)	5150-5350MHz 3.687 dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz -1.317 dBi (peak)
				5470-5725MHz 1.36 dBi (peak)	5470-5725MHz 2.821 dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz -1.461 dBi (peak)
				5725-5850MHz 1.36 dBi (peak)	5725-5850MHz 2.919 dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz -1.559 dBi (peak)
(P/N: <i>WDAN-HQT T8003-DF</i>) Auxiliary antenna	HON HAI PRECISION IND. CO.,LTD.	PIFA	(P/N:FOXCONN 703-3008-215) 50 ohm Coaxial. length: 335mm diameter: 1.37mm Connector: FOXCONN SGX0003-02	2400-2500MHz -0.23 dBi (peak)	2400-2500MHz 0.596 dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz -0.826 dBi (peak)
				5150-5350MHz 1.97 dBi (peak)	5150-5350MHz 3.231 dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz -1.261 dBi (peak)
				5470-5725MHz 1.93 dBi (peak)	5470-5725MHz 3.328 dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz -1.398 dBi (peak)
				5725-5850MHz 1.82 dBi (peak)	5725-5850MHz 3.312 dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz -1.492 dBi (peak)

Tablet Mode:

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: <i>WDAN-HQT T8001-DF</i>) Main Antenna	HON HAI PRECISION IND. CO.,LTD.	PIFA	(P/N:FOXCONN 703-3000-215) 50 ohm Coaxial. length: 350mm diameter: 1.37mm Connector: FOXCONN SGX0003-02	2400-2500MHz1. 0.49 dBi (peak)	2400-2500MHz 1.353 dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz -0.863 dBi (peak)
				5150-5350MHz 1.74 dBi (peak)	5150-5350MHz 3.057 dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz -1.317 dBi (peak)
				5470-5725MHz 1.90 dBi (peak)	5470-5725MHz 3.361 dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz -1.461 dBi (peak)
				5725-5850MHz 1.63 dBi (peak)	5725-5850MHz 3.189 dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz -1.559 dBi (peak)
(P/N: <i>WDAN-HQT T8003-DF</i>) Auxiliary antenna	HON HAI PRECISION IND. CO.,LTD.	PIFA	(P/N:FOXCONN 703-3008-215) 50 ohm Coaxial. length: 335mm diameter: 1.37mm Connector: FOXCONN SGX0003-02	2400-2500MHz -2.08 dBi (peak)	2400-2500MHz -1.154 dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz -0.826 dBi (peak)
				5150-5350MHz 1.52 dBi (peak)	5150-5350MHz 2.781 dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz -1.261 dBi (peak)
				5470-5725MHz 1.63 dBi (peak)	5470-5725MHz 3.028 dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz -1.398 dBi (peak)
				5725-5850MHz 1.63 dBi (peak)	5725-5850MHz 3.122 dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz -1.492 dBi (peak)

NOTE:

(*) If Rx3 only (3rd antenna receives only, e.g. for 4965AGN) then the information marked with * is not required

Antenna Peak Gain Table: Normal Mode

Frequency (MHz)	Main antenna						Aux Antenna					
	XY plane		XZ plane		YZ plane		XY plane		XZ plane		YZ plane	
	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)
2400	0.10	-1.75	-5.29	-1.32	-0.11	-0.83	-1.53	-1.02	-3.56	-1.15	-0.38	-2.40
2450	0.57	-1.93	-2.09	-0.50	-0.08	-1.73	-1.08	-0.28	-4.17	-2.88	-0.23	-3.29
2500	-0.20	-3.60	-1.38	-0.90	-0.44	-2.02	-1.47	-1.56	-4.69	-3.14	-0.61	-5.26
5150	0.93	-1.51	-0.94	-1.21	2.37	-4.02	-1.05	1.91	1.12	0.81	0.93	-4.32
5250	0.11	-1.60	-1.73	-0.38	2.03	-4.69	-0.43	0.87	0.88	1.97	0.72	-3.75
5350	-1.74	-1.29	-2.52	-0.06	1.44	-4.57	-0.81	-0.55	-0.33	1.95	0.89	-3.50
5470	-0.83	-1.57	-1.04	0.42	1.32	-4.53	-2.37	-0.61	0.77	1.37	1.93	-3.92
5600	-1.86	-1.06	-2.40	-0.06	0.83	-2.49	-4.11	-0.22	0.86	1.21	1.08	-4.08
5725	-0.61	-0.45	-0.87	-1.27	1.36	-1.43	-0.66	-0.55	1.82	0.47	0.81	-4.21
5785	-0.56	-0.57	-0.55	-1.84	0.95	-1.33	-0.43	-0.16	1.36	0.50	0.80	-4.09
5850	-0.56	-0.24	-0.04	-1.46	1.20	-1.67	-0.05	-0.75	1.18	-0.36	0.85	-3.22

Tablet Mode

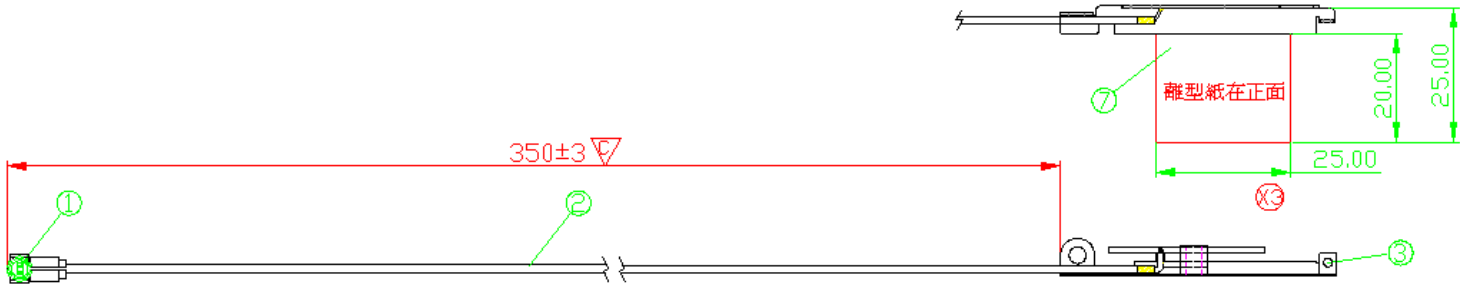
Frequency (MHz)	Main antenna						Aux Antenna					
	XY plane		XZ plane		YZ plane		XY plane		XZ plane		YZ plane	
	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)
2400	0.49	-4.18	-6.85	-2.60	-2.34	-3.30	-3.75	-4.77	-2.08	-6.47	-6.42	-2.38
2450	-1.14	-2.69	-5.38	-1.01	-1.29	-2.41	-4.17	-6.40	-3.08	-6.37	-4.81	-4.16
2500	-0.77	-3.82	-7.57	-0.62	-0.88	-2.93	-3.25	-7.12	-3.95	-6.22	-5.04	-4.94
5150	0.13	-1.75	-0.62	-0.33	-2.15	-4.87	-0.06	-3.15	0.22	-3.07	-1.77	0.75
5250	0.20	-3.38	-0.95	0.86	-1.36	-4.49	1.05	-1.75	1.27	-1.20	-2.40	0.12
5350	-0.36	-4.50	-1.94	1.74	-0.66	-5.14	1.52	-3.02	0.79	-1.68	-2.32	-0.15
5470	0.27	-3.24	-1.93	1.90	-0.24	-2.53	1.63	-2.78	0.96	-2.78	-3.15	-0.30
5600	-0.06	-2.67	-1.84	1.67	-0.76	-4.65	0.96	-3.53	-0.07	-3.50	-4.08	-0.78
5725	0.75	-4.75	-2.84	0.33	-0.47	-3.68	1.26	-2.87	-0.30	-2.87	-3.43	-2.24
5785	1.57	-4.15	-2.64	-0.62	-0.85	-3.44	0.99	-2.76	-0.82	-3.61	-2.88	-2.51
5850	1.63	-4.49	-2.58	-1.17	-1.19	-3.19	1.63	-2.98	0.45	-3.43	-2.02	-2.38

- Antenna Peak Gain required being test in system basis.
- 1E frame contend absolutely peak antenna gain include H/V
- If Rx3 only (3rd antenna receives only, e.g. for 4965AGN) then the information is not required for Rx3.

Section 2. Dimensioned Photos or Drawings of Antennas

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

Main Antenna Dimensioned Drawing:

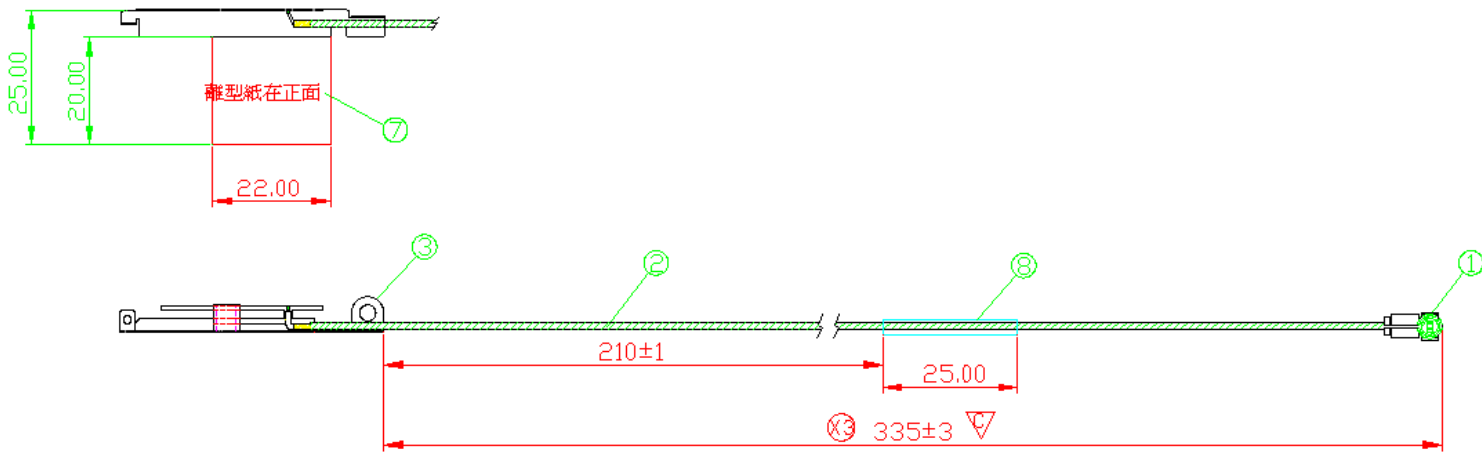


Main Antenna Photo:



Include a dimensioned photo and dimensioned drawing of Tx2 antenna here.

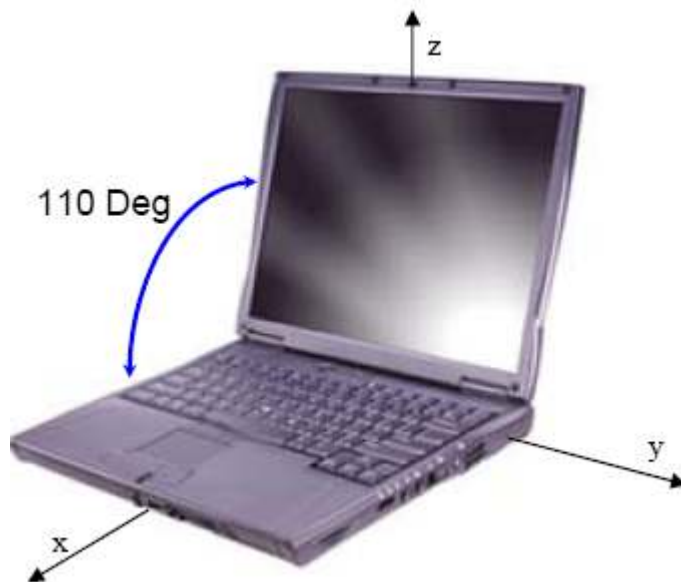
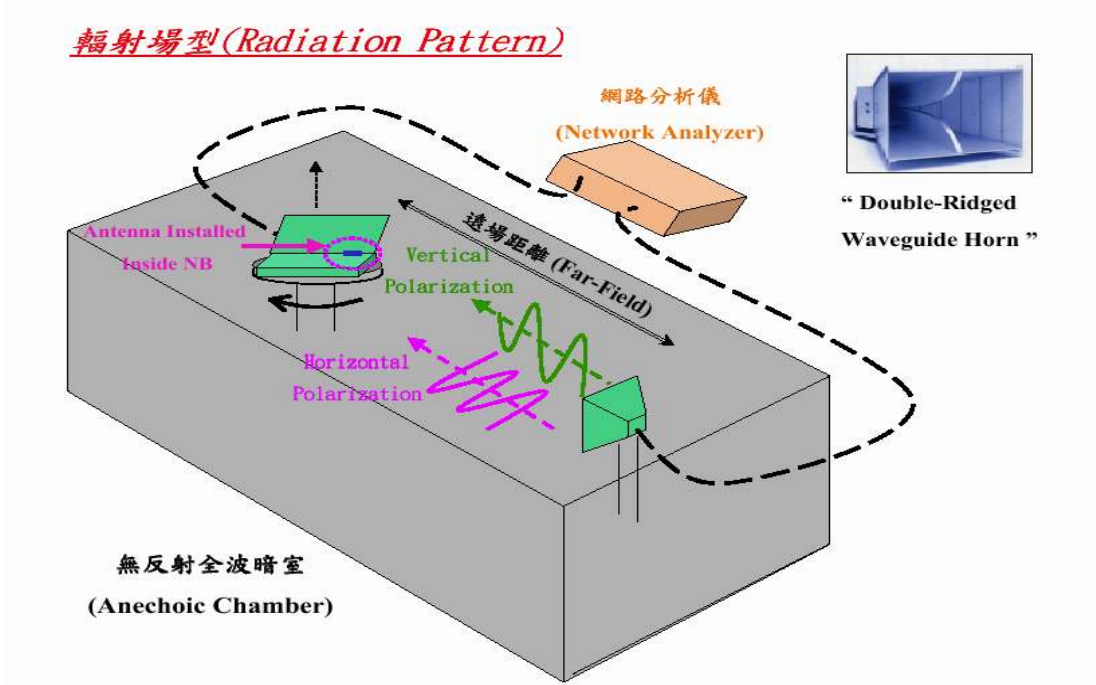
Aux Antenna Dimensioned Drawing:



Aux Antenna Photo:

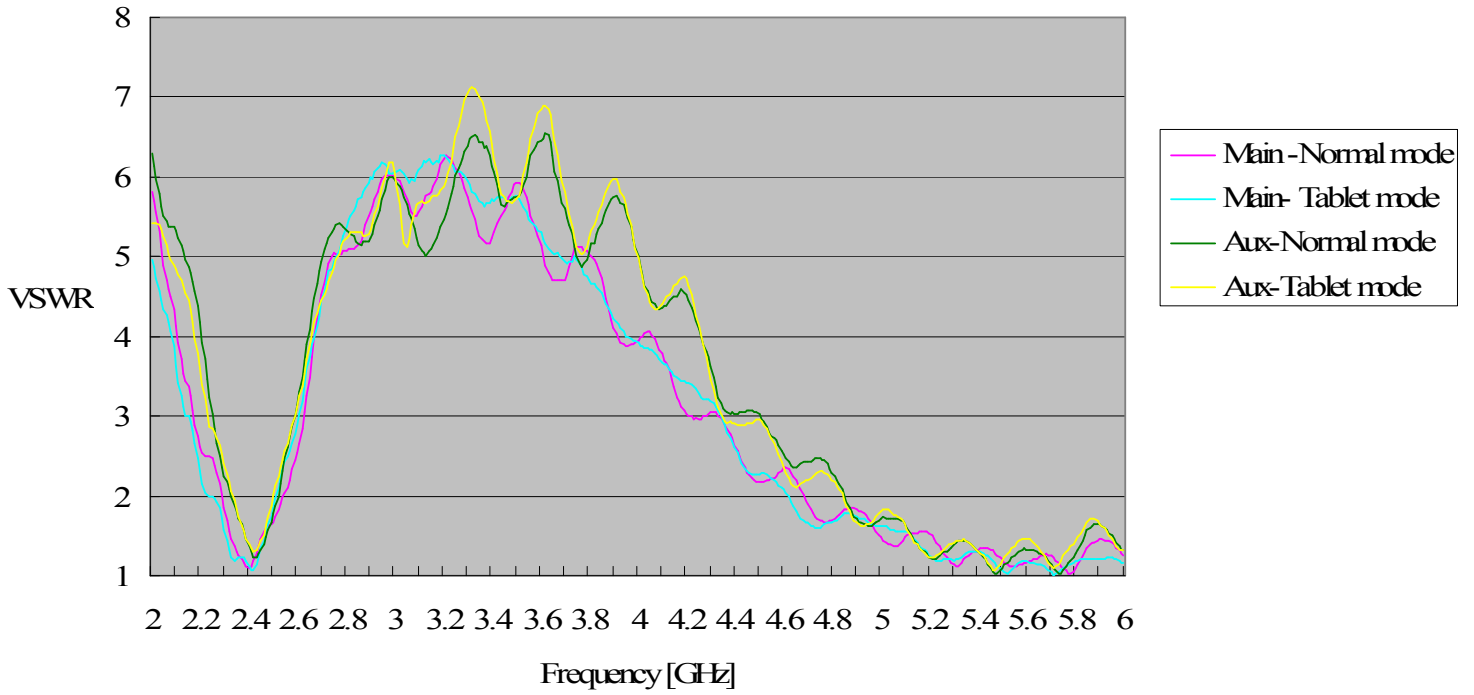


Section 3. Test Set-Up Clarification



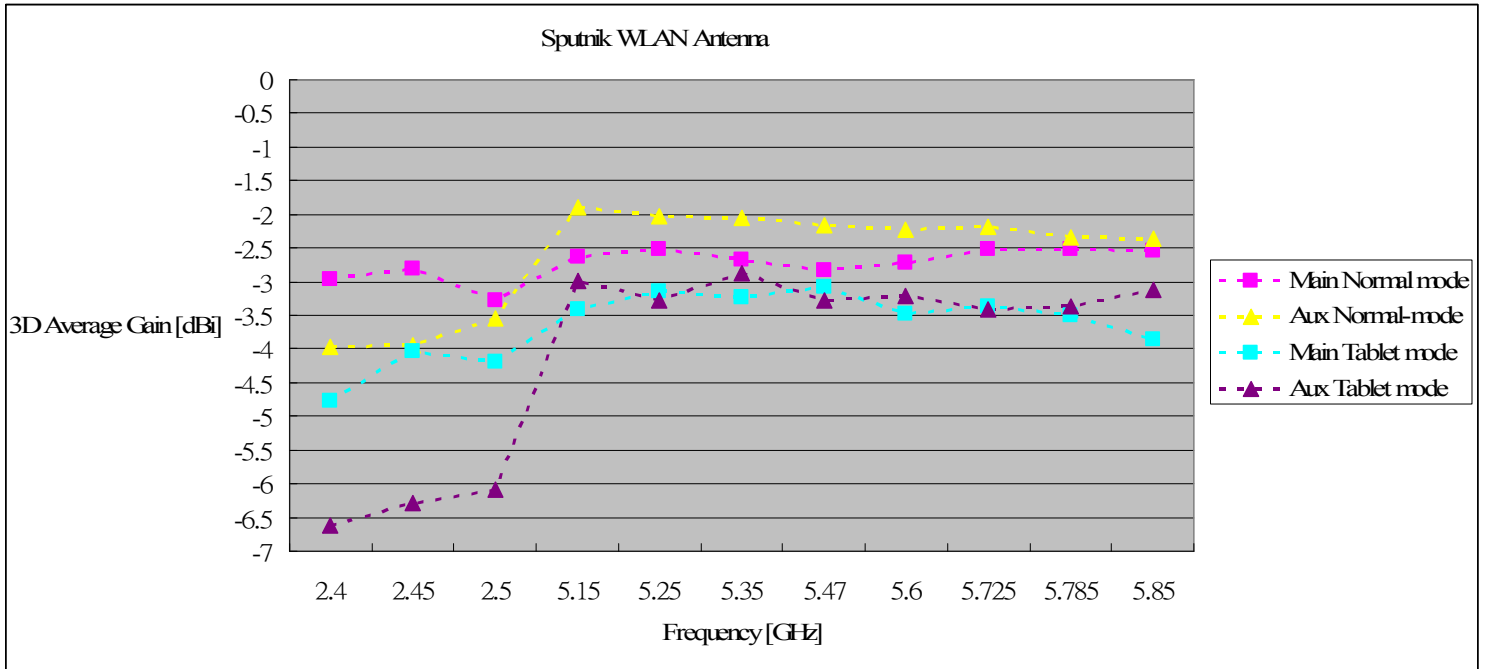
Section 4. VSWR Data Table and Plot

Sputnik WLAN antenna



Marker Point (MHz)	2400	2450	2500	5150	5250	5350	5470	5600	5725	5785	5850
Main WLAN Antenna (Normal)	1.09	1.46	1.67	1.54	1.32	1.23	1.29	1.17	1.17	1.05	1.35
Main. WLAN Antenna (Tablet)	1.12	1.35	1.85	1.41	1.19	1.29	1.16	1.19	1.05	1.16	1.20
Aux WLAN Antenna (Normal)	1.36	1.32	1.78	1.39	1.28	1.45	1.02	1.33	1.02	1.23	1.57
Aux. WLAN Antenna (Tablet)	1.39	1.43	1.93	1.38	1.29	1.44	1.06	1.47	1.14	1.40	1.68

Section 5. Antenna Total Efficiency Data

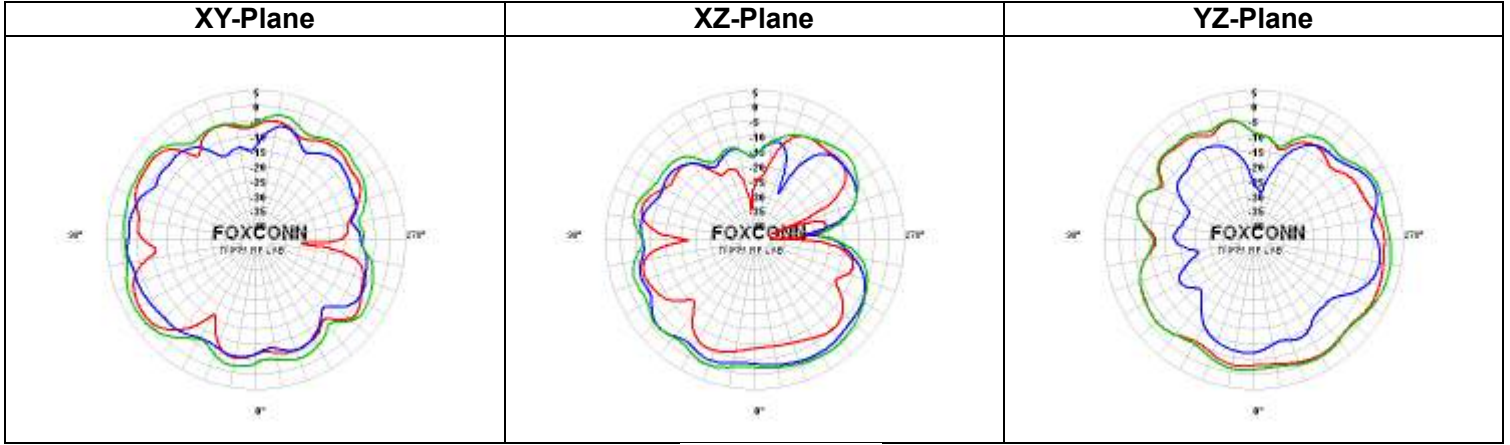


Section 6. Radiation characteristics of antennae Loaded in Host Platform

2400-2500MHz radiation characteristic

Main antenna: 2400 MHz

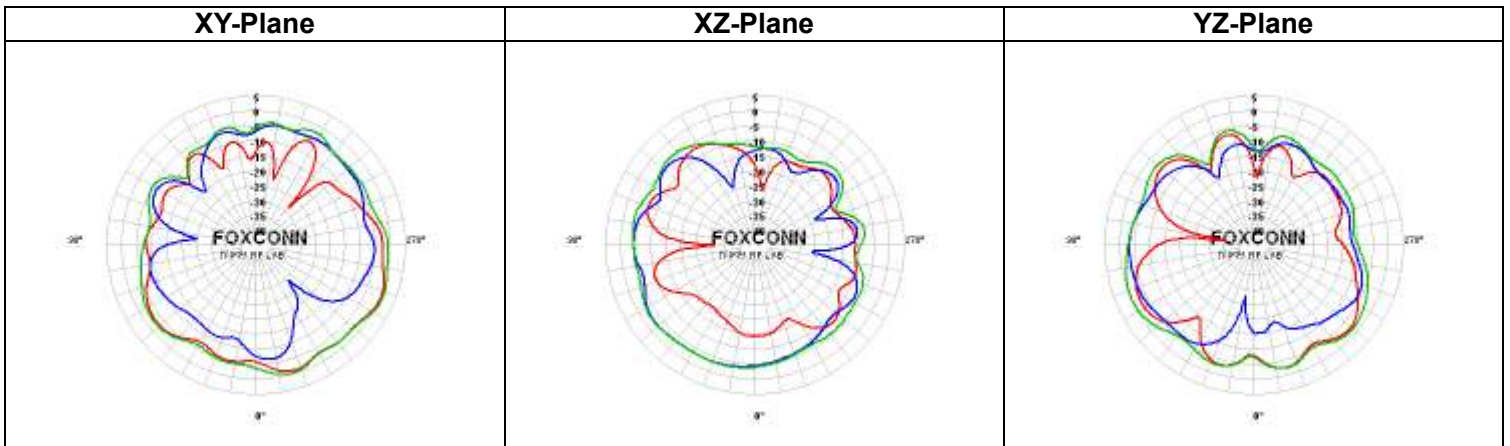
Normal Mode



— H
— V
— H+V

Center Frequency 2400(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.10	-5.29	-0.11
Vertical Peak Gain(dBi)	-1.75	-1.32	-0.83

Tablet Mode

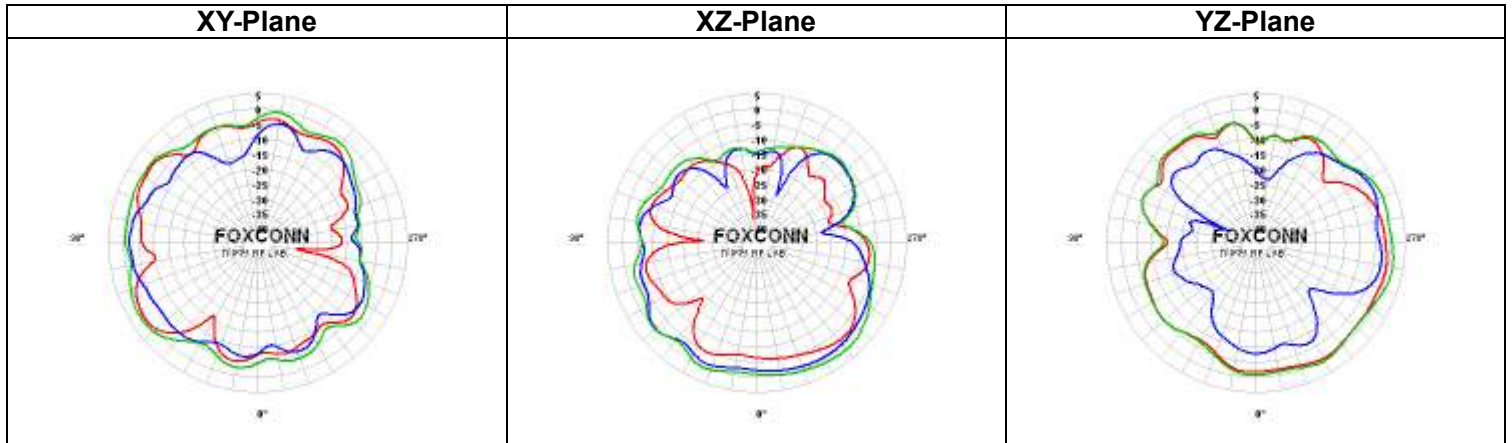


— H
— V
— H+V

Center Frequency 2400(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.49	-6.85	-2.34
Vertical Peak Gain(dBi)	-4.18	-2.60	-3.30

Main antenna: 2450 MHz

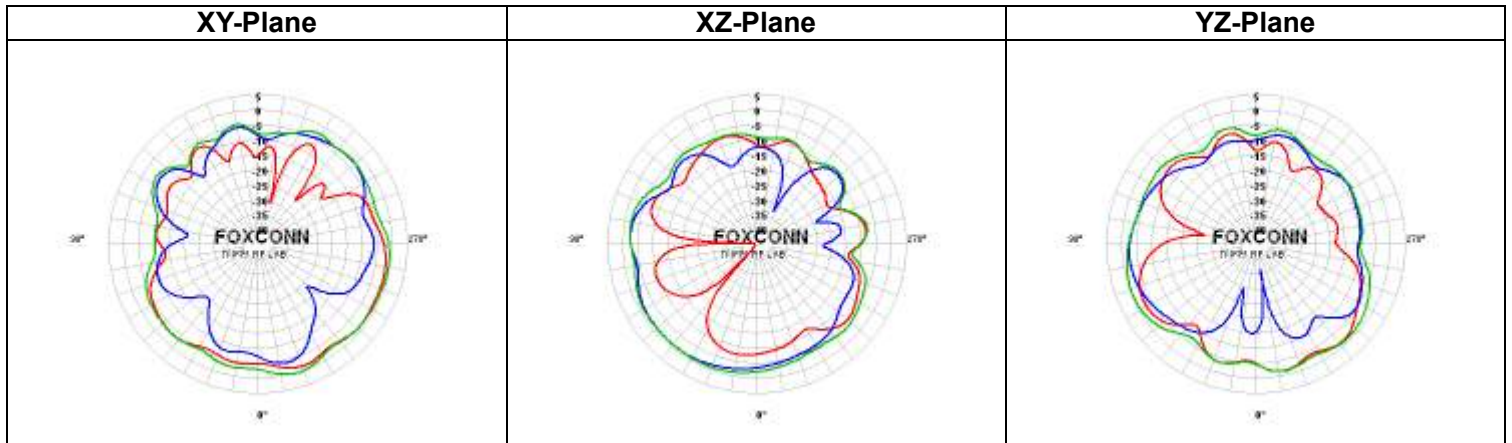
Normal Mode



— H
— V
— H+V

Center Frequency 2450(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.57	-2.09	-0.08
Vertical Peak Gain(dBi)	-1.93	-0.50	-1.73

Tablet Mode

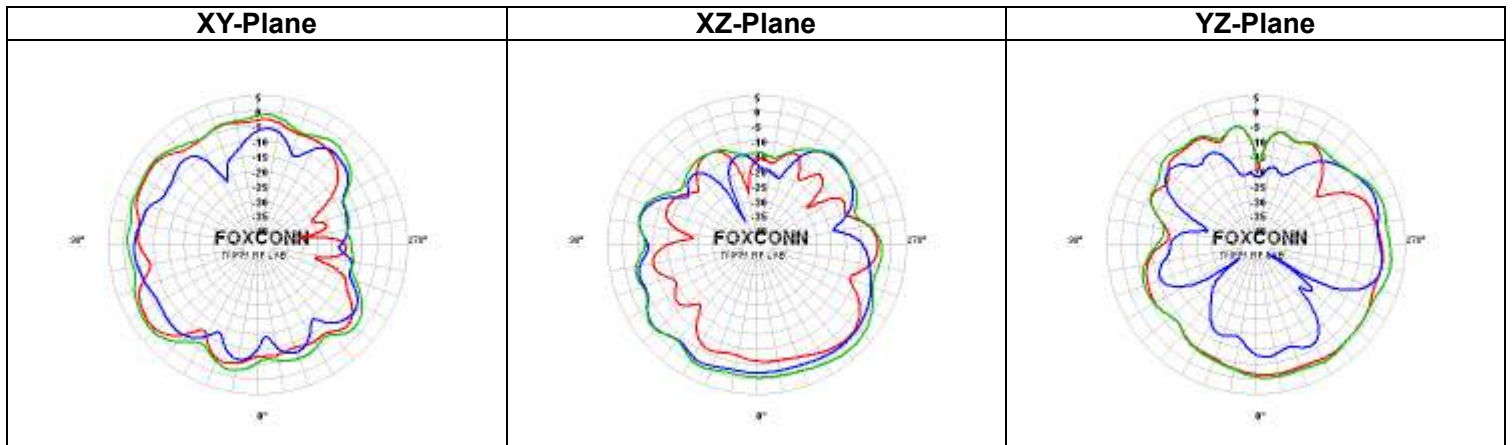


— H
— V
— H+V

Center Frequency 2450(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-1.14	-5.38	-1.29
Vertical Peak Gain(dBi)	-2.69	-1.01	-2.41

Main antenna: 2500 MHz

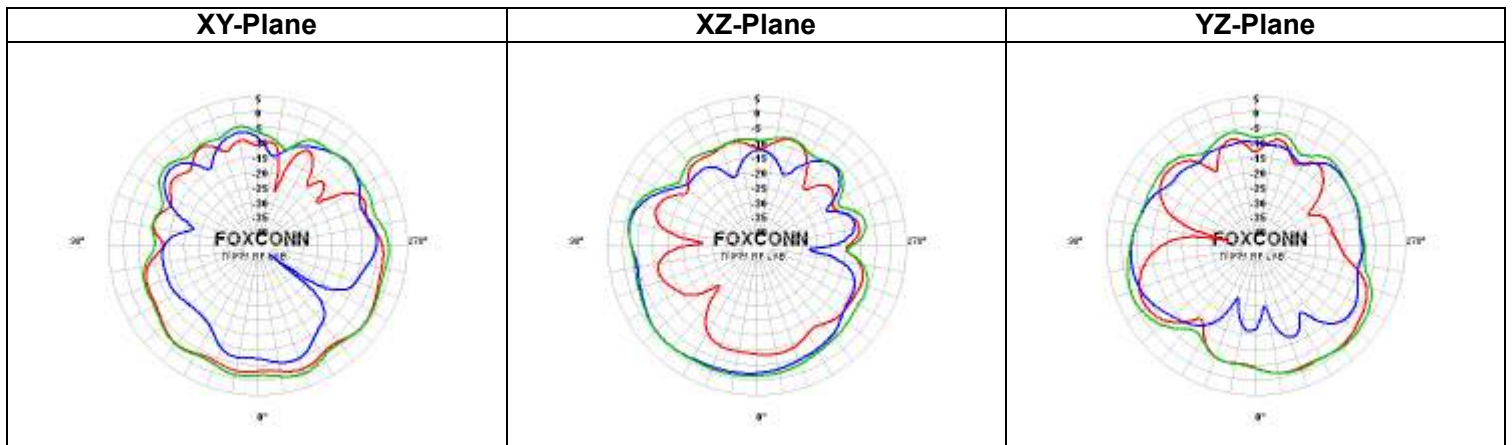
Normal Mode



— H
— V
— H+V

Center Frequency 2500(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.20	-1.38	-0.44
Vertical Peak Gain(dBi)	-3.60	-0.90	-2.02

Tablet Mode

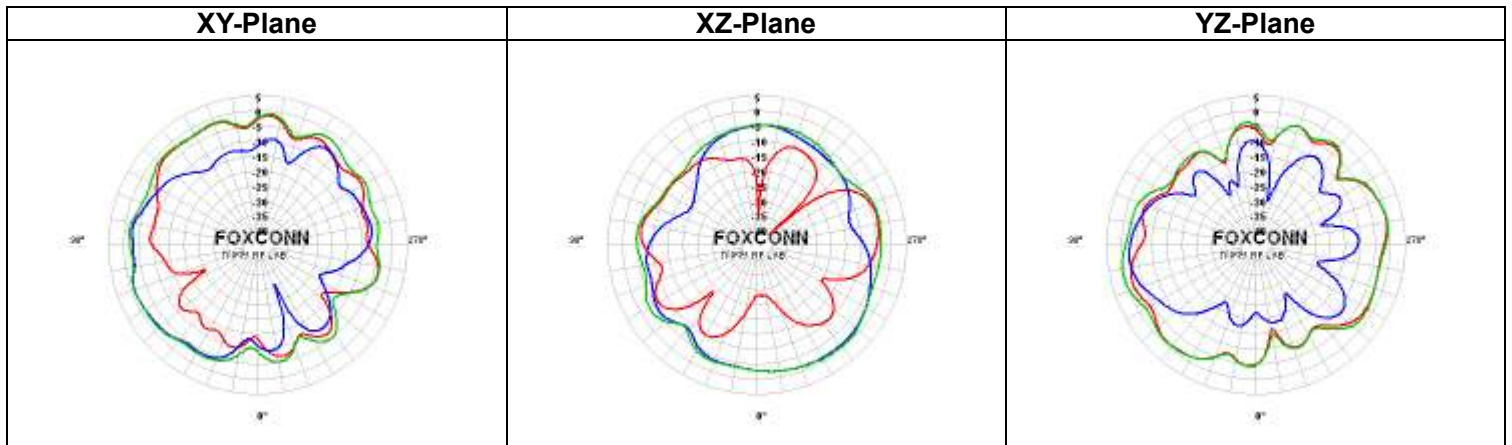


— H
— V
— H+V

Center Frequency 2500(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.77	-7.57	-0.88
Vertical Peak Gain(dBi)	-3.82	-0.62	-2.93

Auxiliary antenna: 2400 MHz

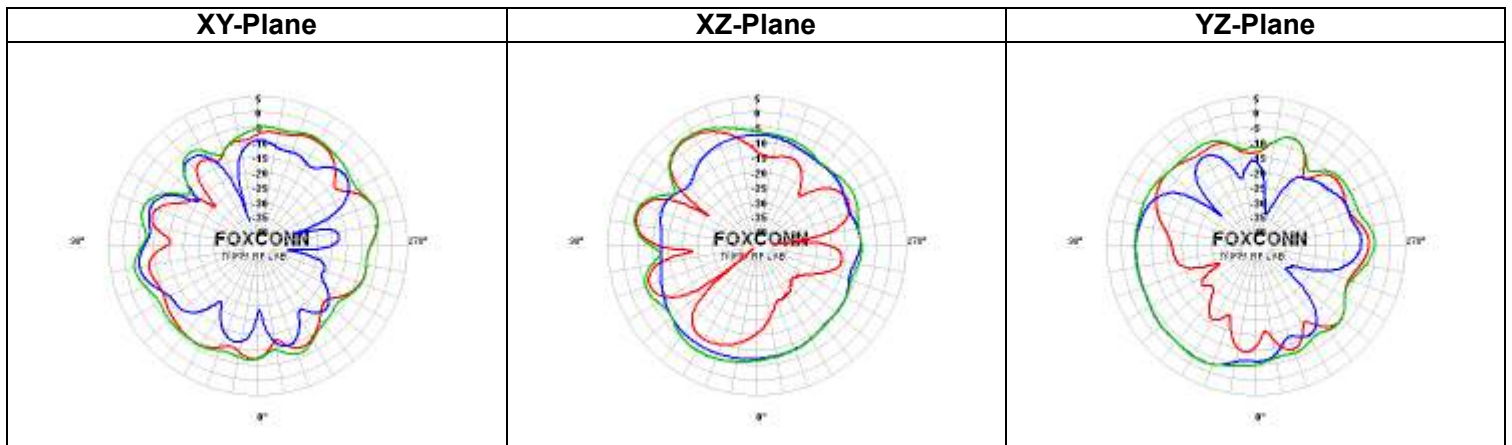
Normal Mode



— H
— V
— H+V

Center Frequency 2400(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-1.53	-3.56	-0.38
Vertical Peak Gain(dBi)	-1.02	-1.15	-2.40

Tablet Mode

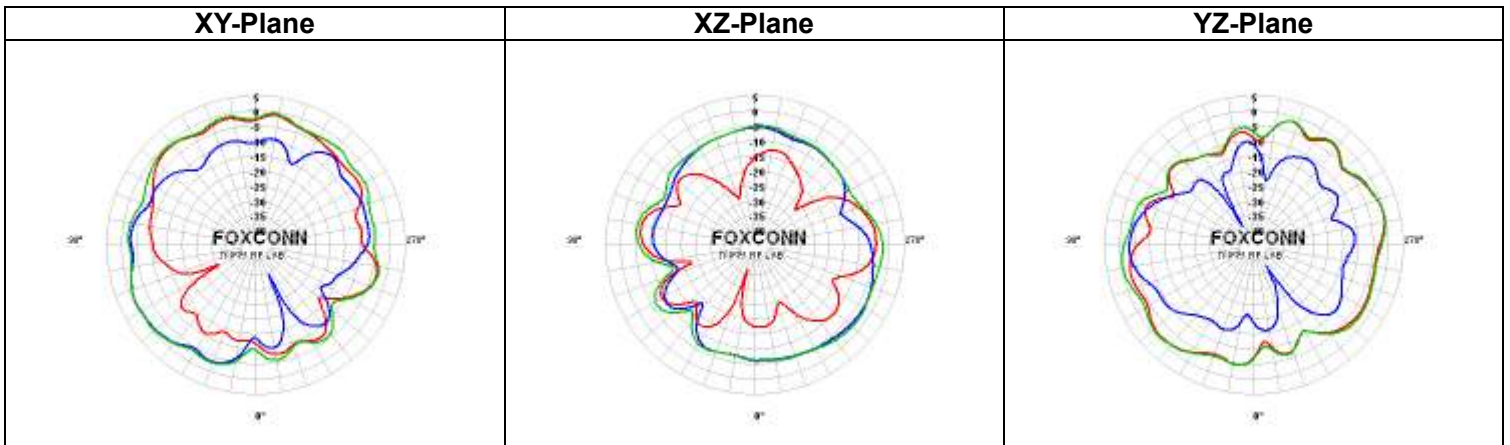


— H
— V
— H+V

Center Frequency 2400(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-3.75	-2.08	-6.42
Vertical Peak Gain(dBi)	-4.77	-6.47	-2.38

Auxiliary antenna: 2450 MHz

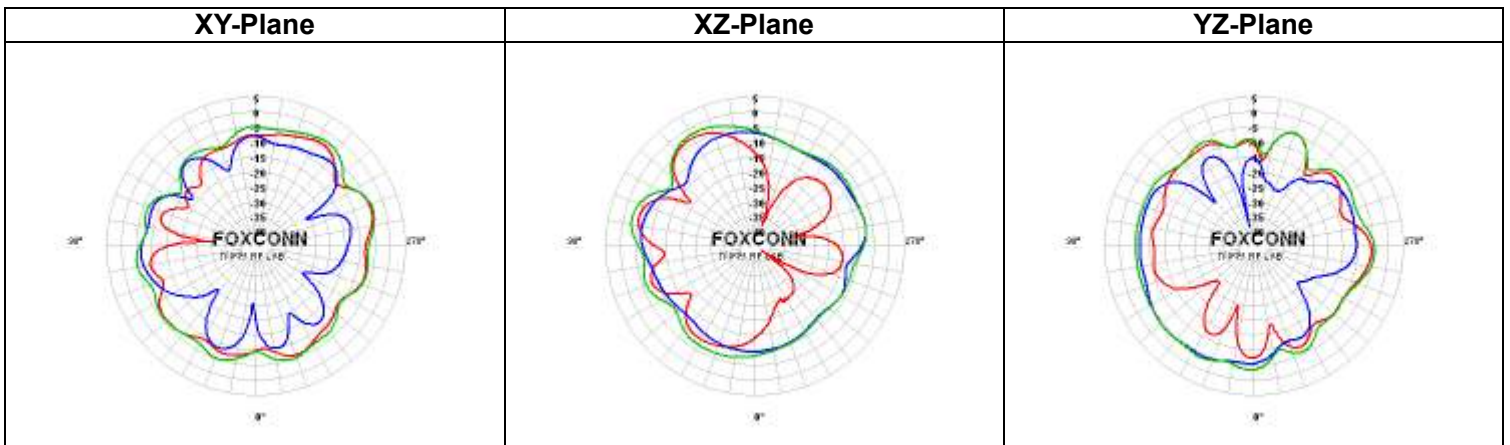
Normal Mode



— H
— V
— H+V

Center Frequency 2450(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-1.08	-4.17	-0.23
Vertical Peak Gain(dBi)	-0.28	-2.88	-3.29

Tablet Mode

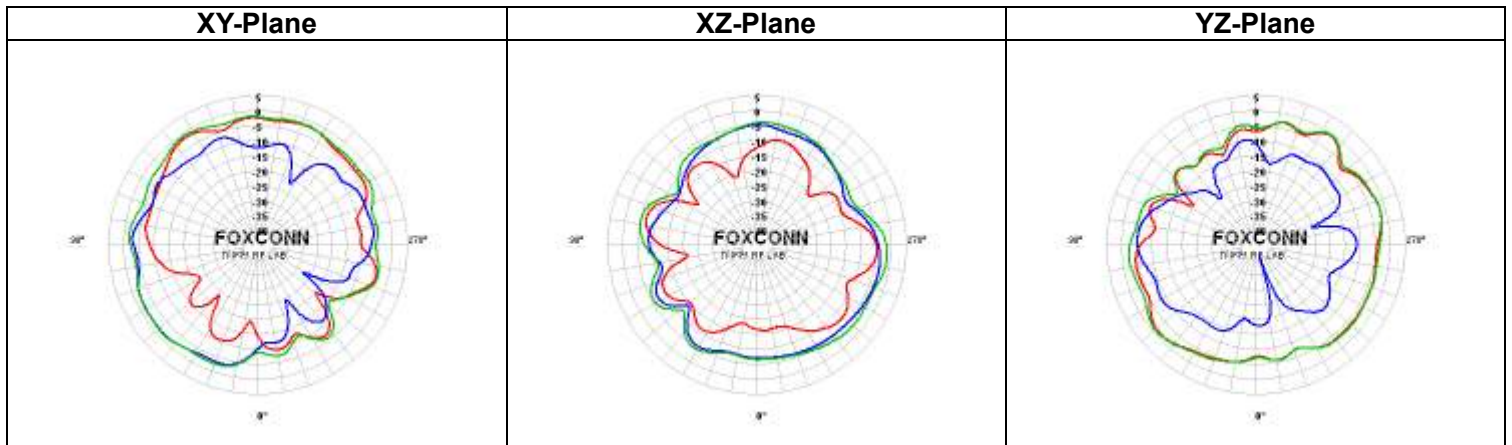


— H
— V
— H+V

Center Frequency 2450(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-4.17	-3.08	-4.81
Vertical Peak Gain(dBi)	-6.40	-6.37	-4.16

Auxiliary antenna: 2500 MHz

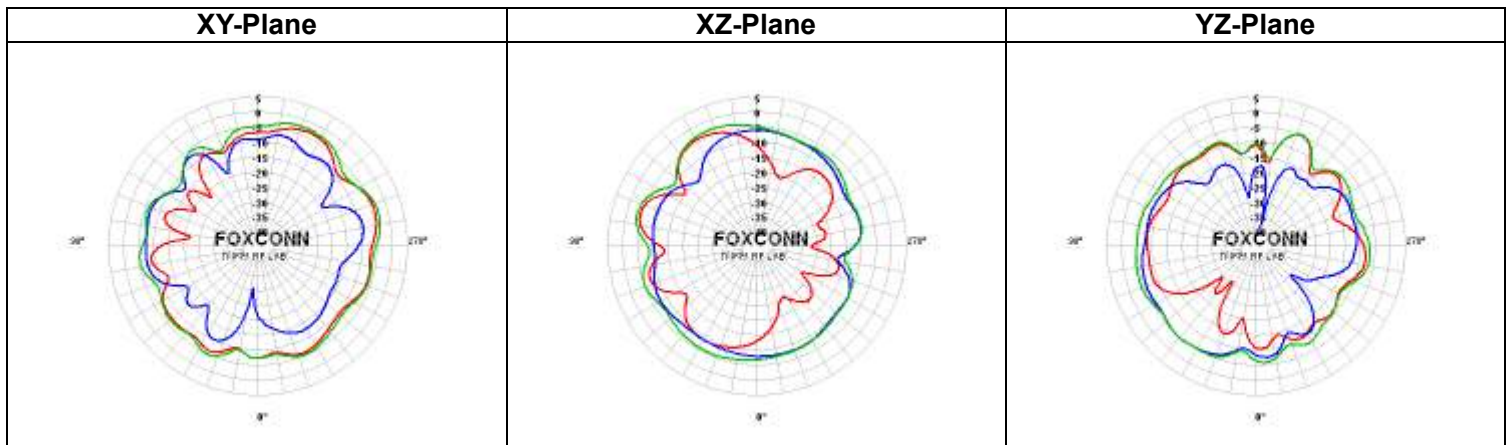
Normal Mode



— H
— V
— H+V

Center Frequency 2500(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-1.47	-4.69	-0.61
Vertical Peak Gain(dBi)	-1.56	-3.14	-5.26

Tablet Mode



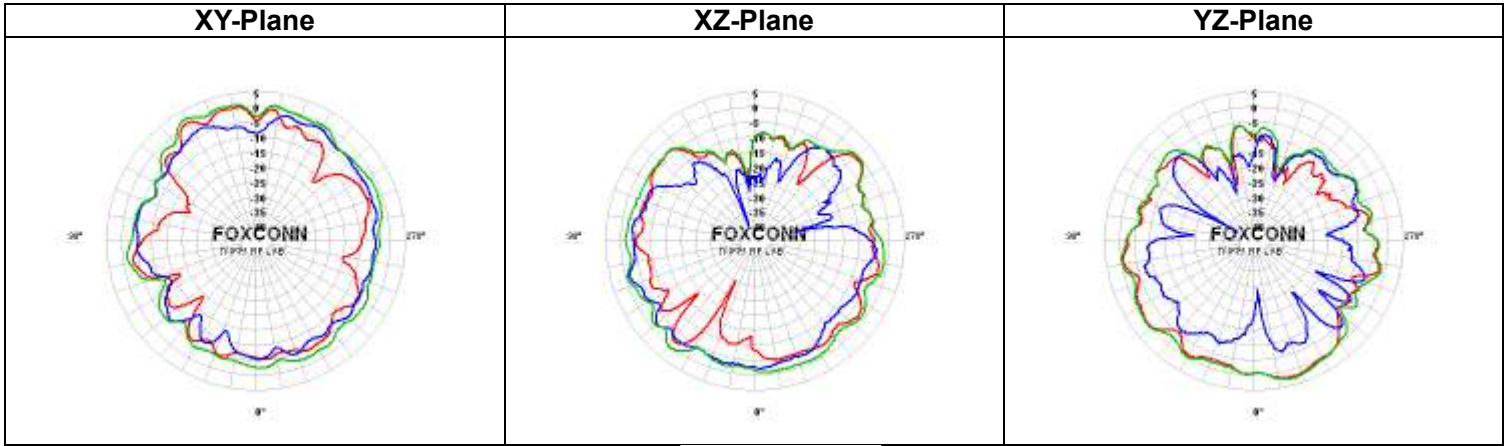
— H
— V
— H+V

Center Frequency 2500(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-3.25	-3.95	-5.04
Vertical Peak Gain(dBi)	-7.12	-6.22	-4.94

5150-5350 MHz radiation characteristic

Main antenna: 5150 MHz

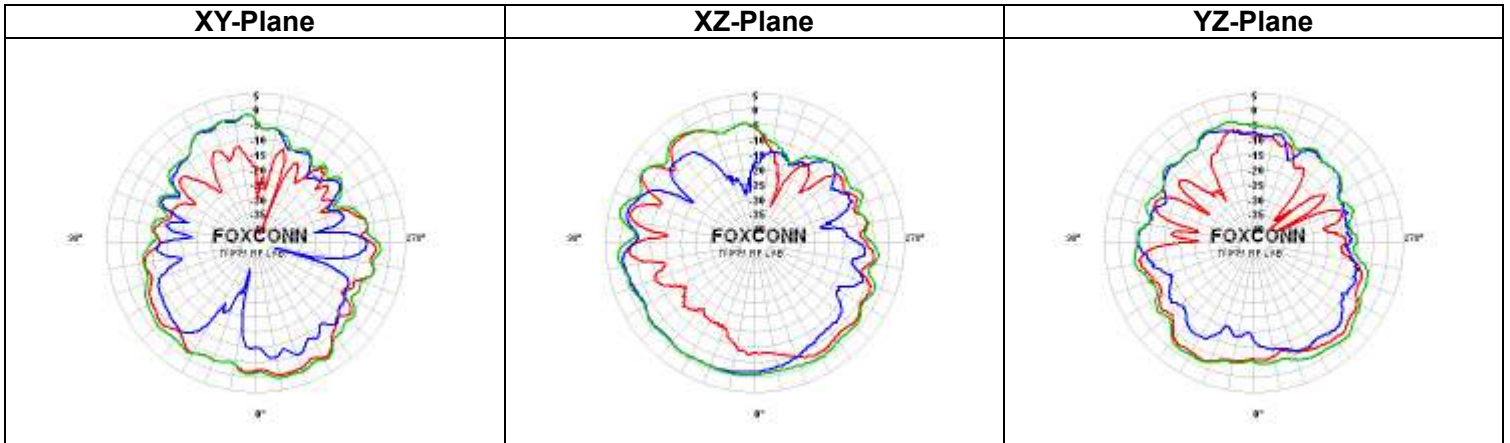
Normal Mode



— H
— V
— H+V

Center Frequency 5150(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.93	-0.94	2.37
Vertical Peak Gain(dBi)	-1.51	-1.21	-4.02

Tablet Mode

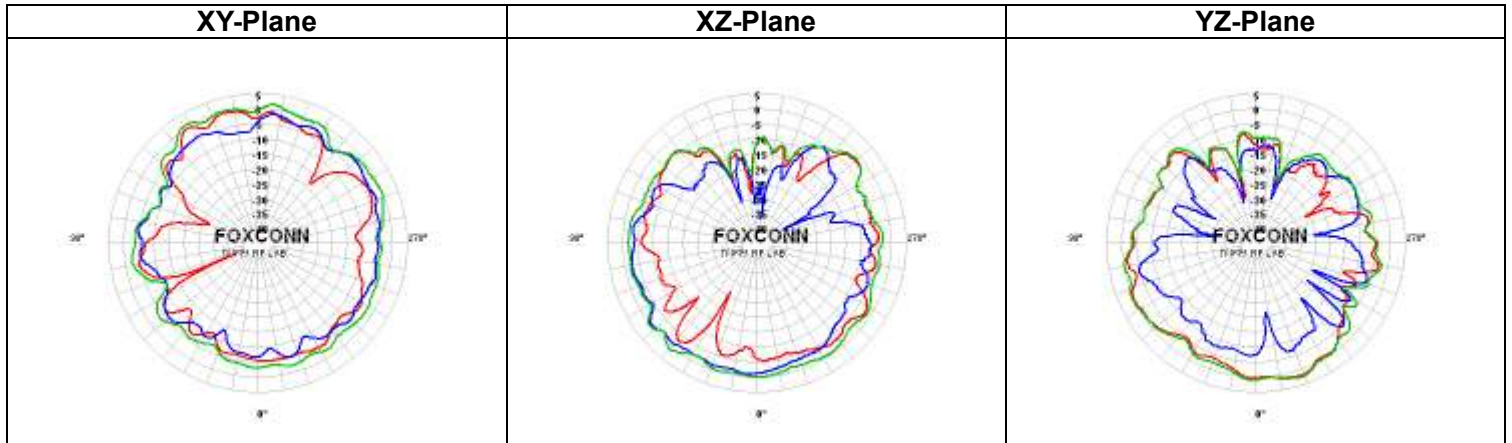


— H
— V
— H+V

Center Frequency 5150(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.13	-0.62	-2.15
Vertical Peak Gain(dBi)	-1.75	-0.33	-4.87

Main antenna: 5250 MHz

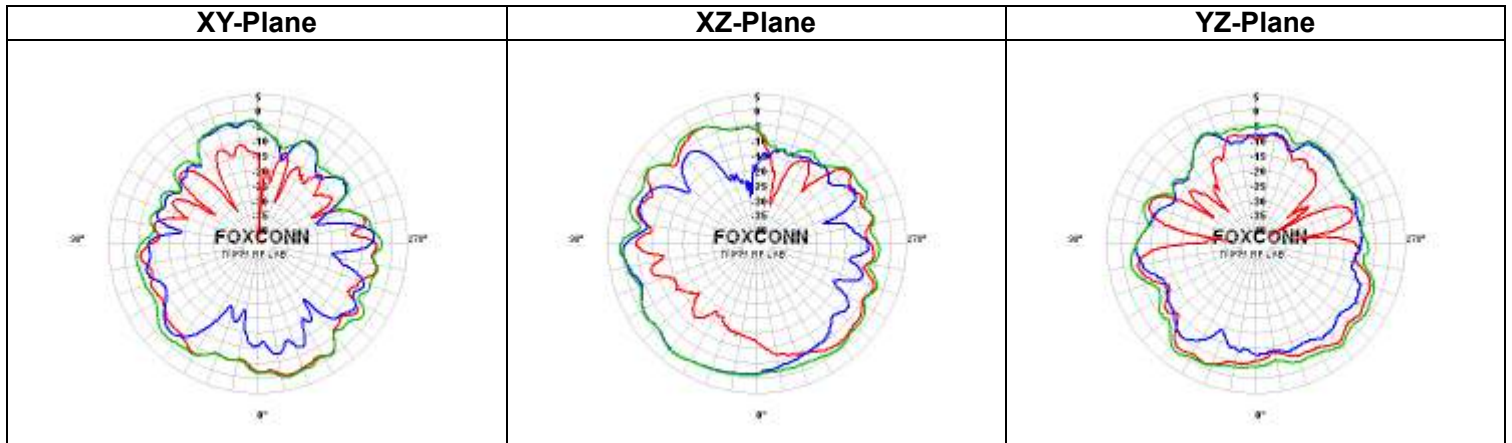
Normal Mode



— H
— V
— H+V

Center Frequency 5250(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.11	-1.73	2.03
Vertical Peak Gain(dBi)	-1.60	-0.38	-4.69

Tablet Mode

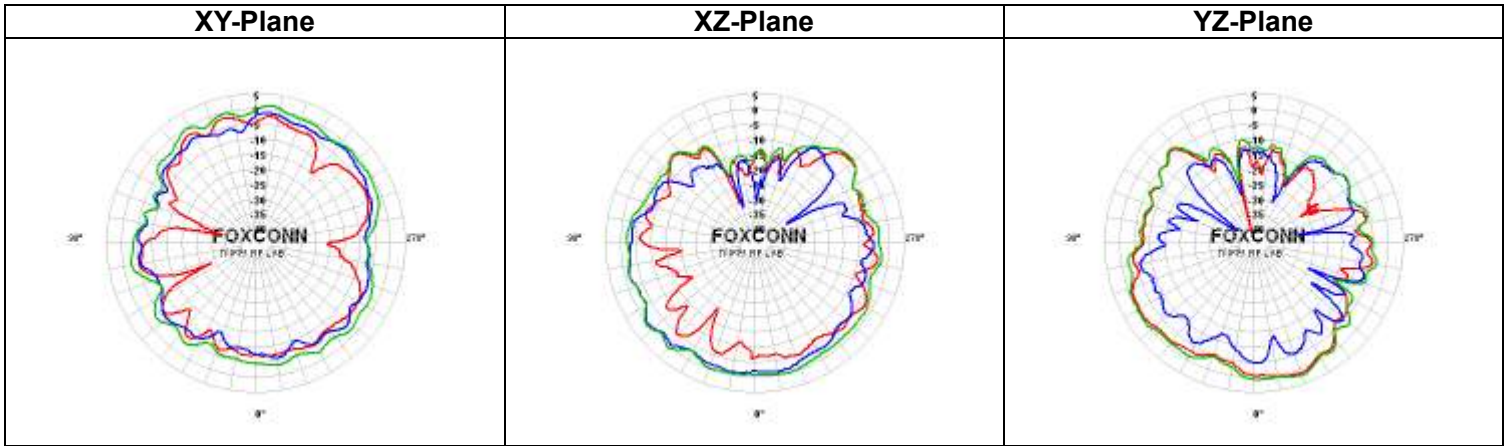


— H
— V
— H+V

Center Frequency 5250(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.20	-0.95	-1.36
Vertical Peak Gain(dBi)	-3.38	0.86	-4.49

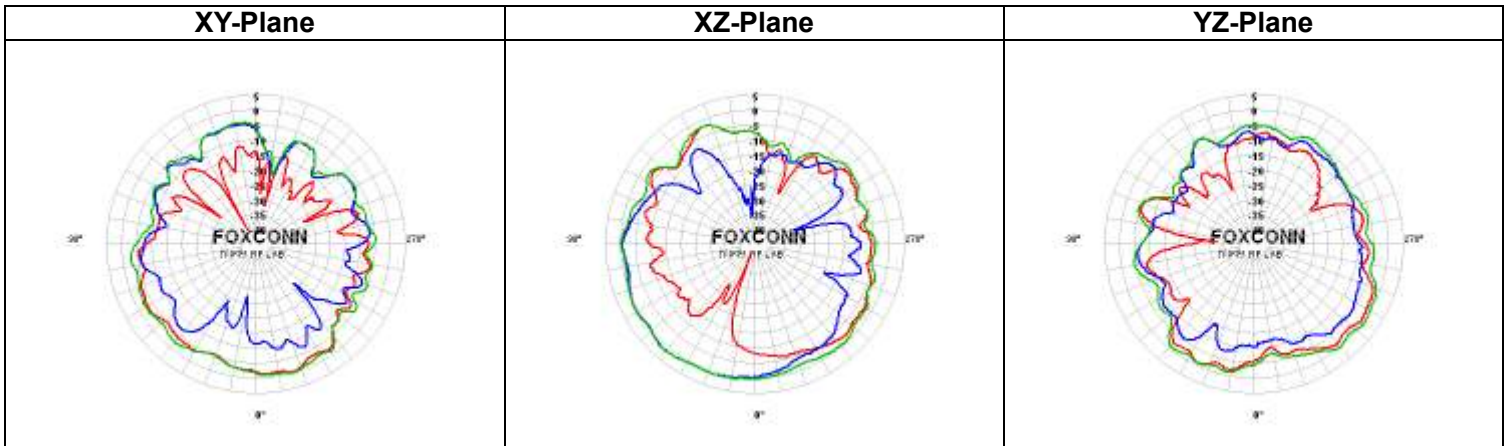
Main antenna: 5350 MHz

Normal Mode



Center Frequency 5350(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-1.74	-2.52	1.44
Vertical Peak Gain(dBi)	-1.29	-0.06	-4.57

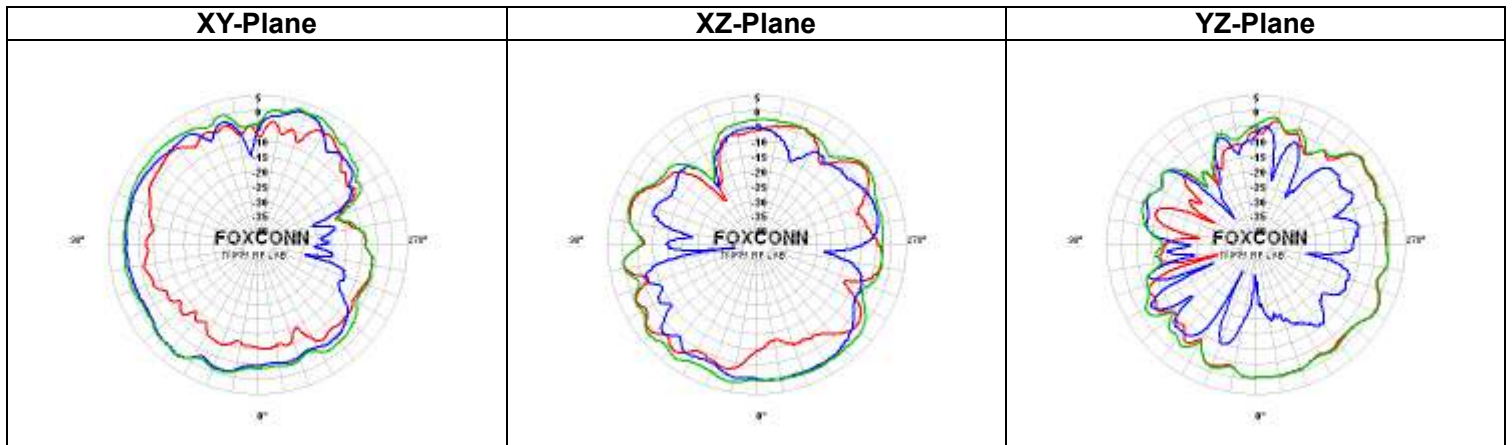
Tablet Mode



Center Frequency 5350(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.36	-1.94	-0.66
Vertical Peak Gain(dBi)	-4.50	1.74	-5.14

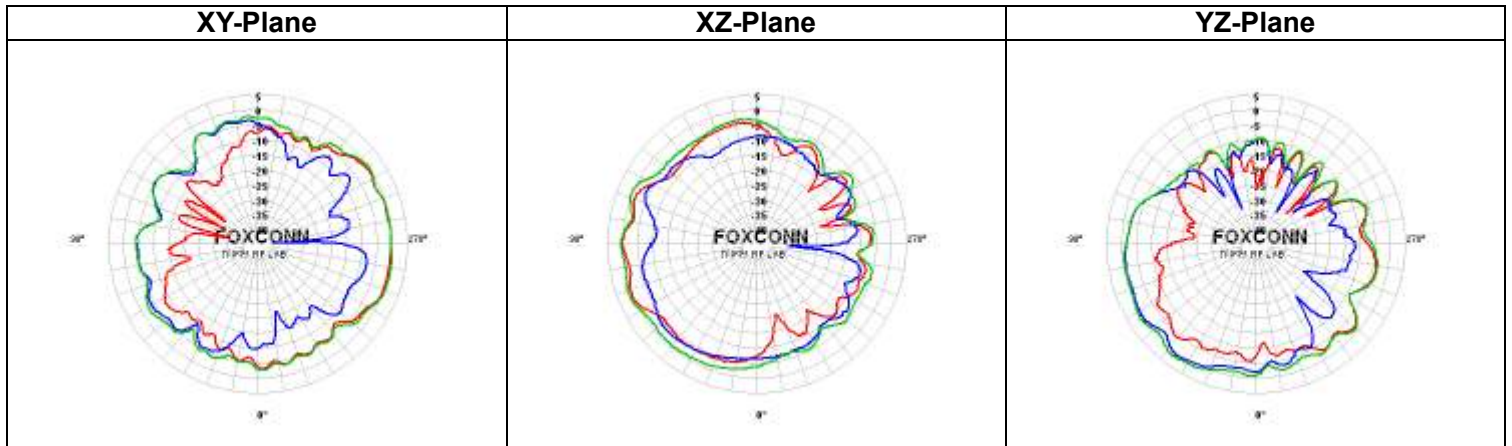
Auxiliary antenna: 5150 MHz

Normal Mode



Center Frequency 5150(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-1.05	1.12	0.93
Vertical Peak Gain(dBi)	1.91	0.81	-4.32

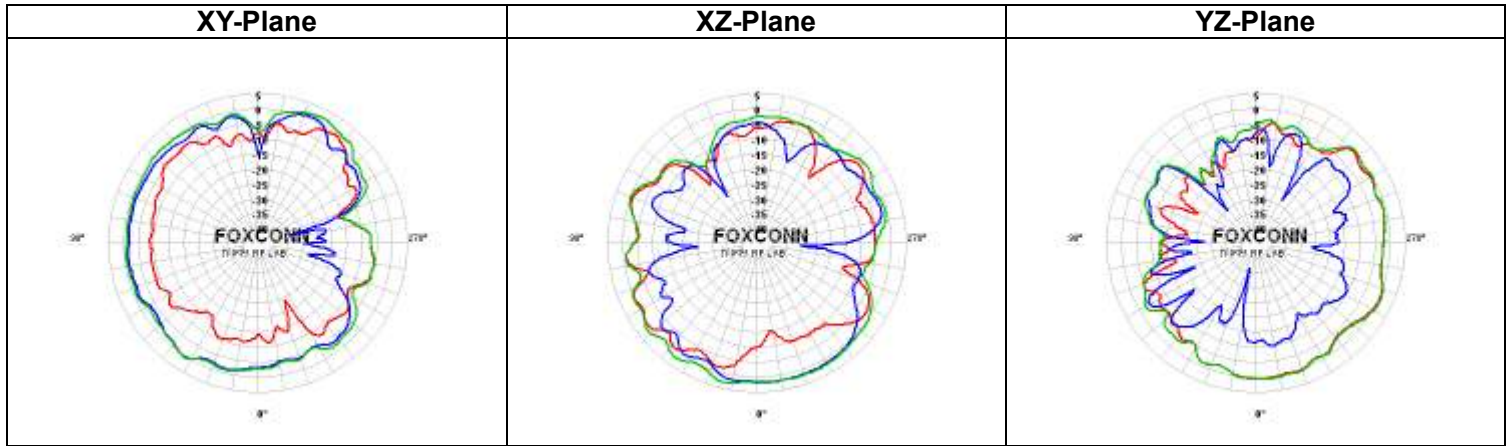
Tablet Mode



Center Frequency 5150(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.06	0.22	-1.77
Vertical Peak Gain(dBi)	-3.15	-3.07	0.75

Auxiliary antenna: 5250 MHz

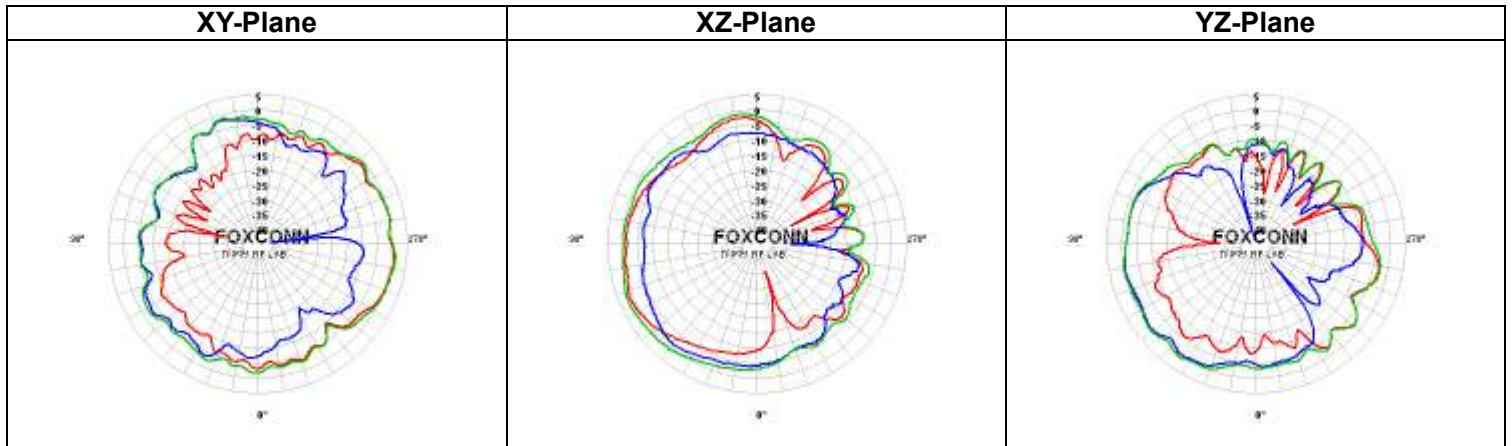
Normal Mode



— H
— V
— H+V

Center Frequency 5250(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.43	0.88	0.72
Vertical Peak Gain(dBi)	0.87	1.97	-3.75

Tablet Mode

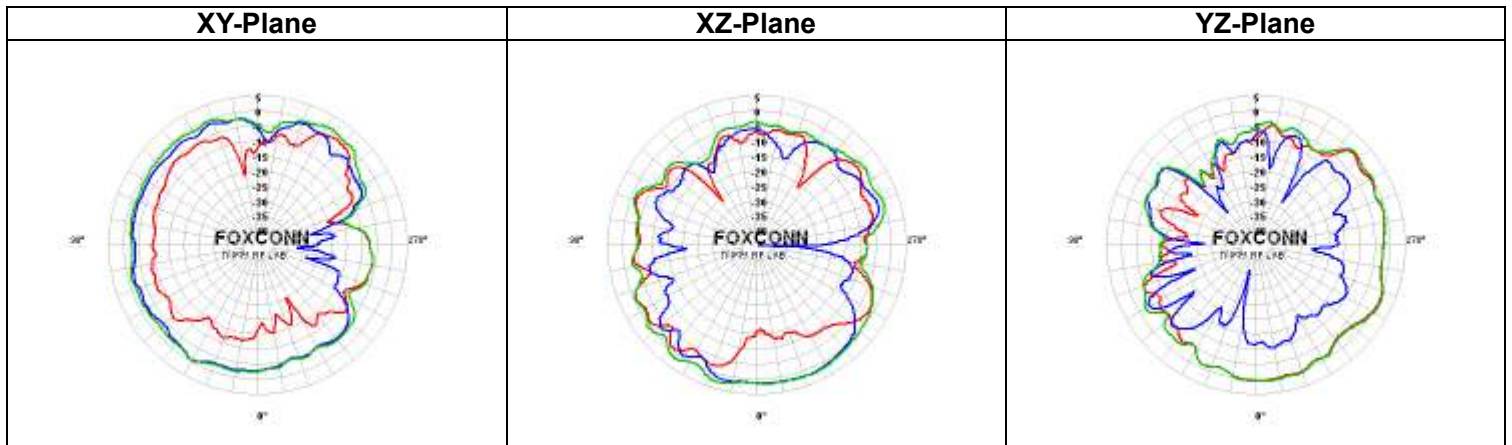


— H
— V
— H+V

Center Frequency 5250(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	1.05	1.27	-2.40
Vertical Peak Gain(dBi)	-1.75	-1.20	0.12

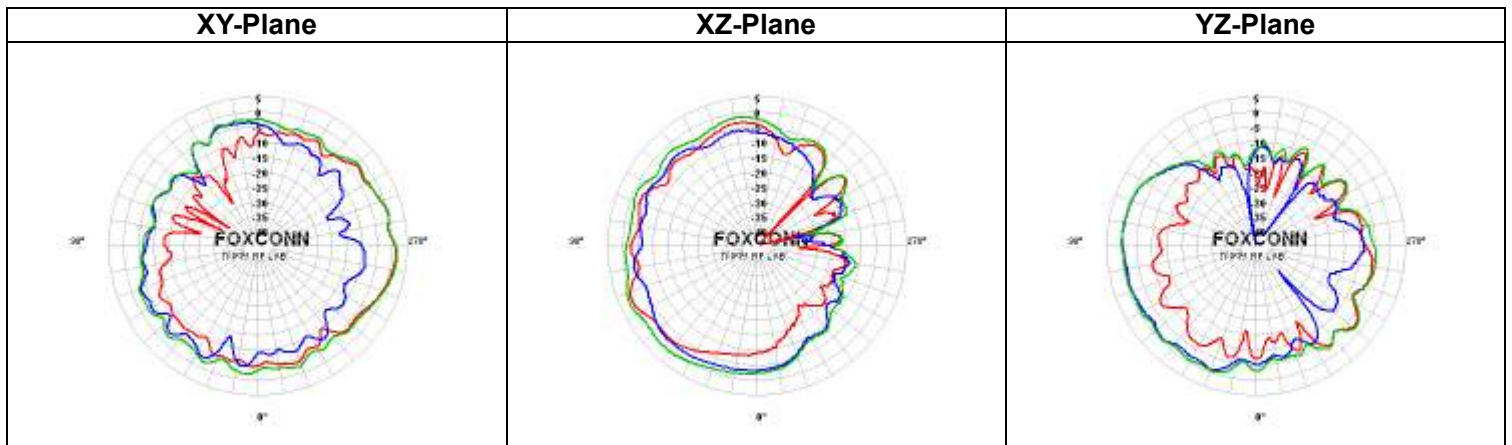
Auxiliary antenna: 5350 MHz

Normal Mode



Center Frequency 5350(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.81	-0.33	0.89
Vertical Peak Gain(dBi)	-0.55	1.95	-3.50

Tablet Mode

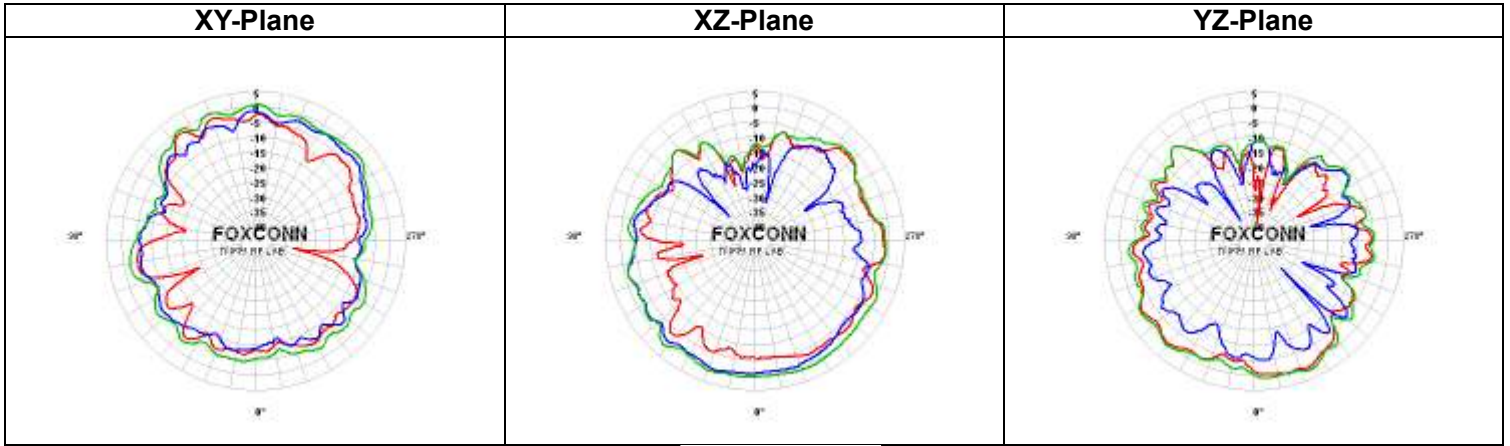


Center Frequency 5350(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	1.52	0.79	-2.32
Vertical Peak Gain(dBi)	-3.02	-1.68	-0.15

5470-5725MHz radiation characteristic

Main antenna: 5470 MHz

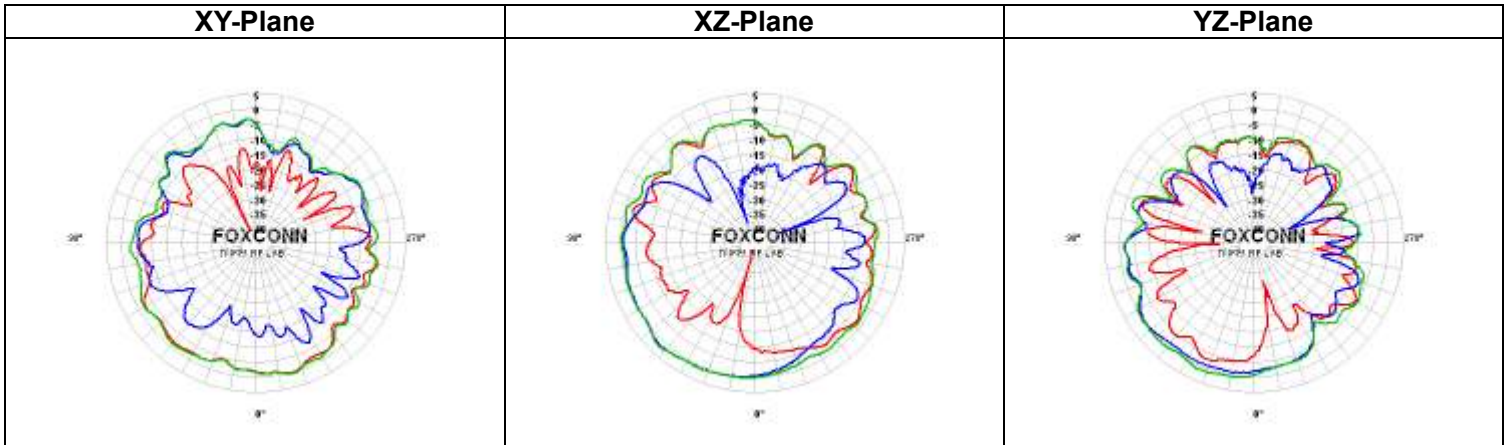
Normal Mode



— H
— V
— H+V

Center Frequency 5470(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.83	-1.04	1.32
Vertical Peak Gain(dBi)	-1.57	0.42	-4.53

Tablet Mode

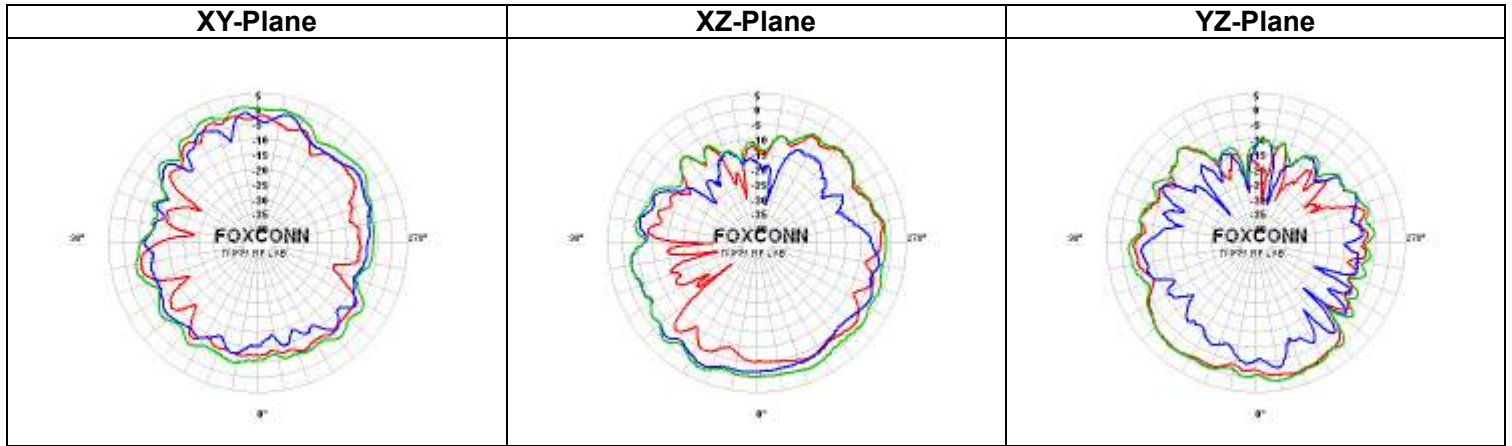


— H
— V
— H+V

Center Frequency 5470(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.27	-1.93	-0.24
Vertical Peak Gain(dBi)	-3.24	1.90	-2.53

Main antenna: 5597.5 MHz

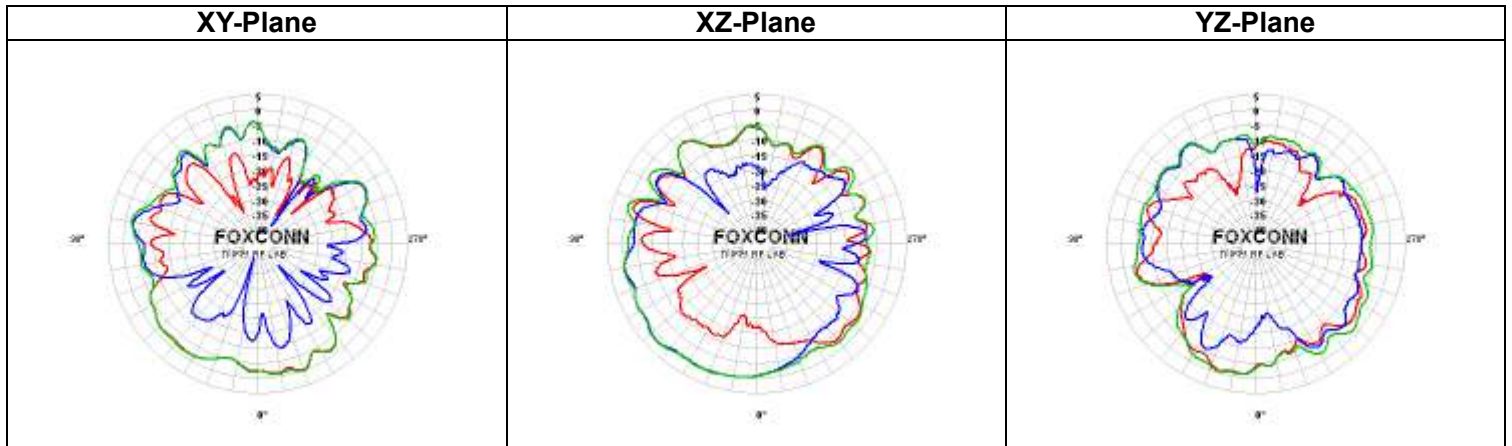
Normal Mode



— H
— V
— H+V

Center Frequency 5597.5(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-1.87	-2.38	0.81
Vertical Peak Gain(dBi)	-1.08	-0.07	-2.51

Tablet Mode

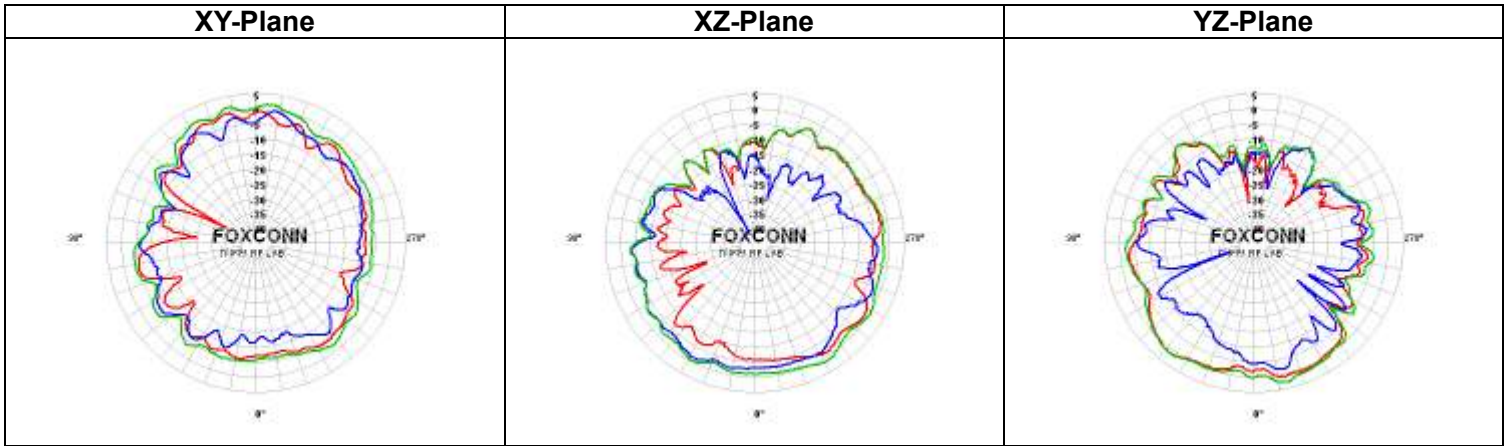


— H
— V
— H+V

Center Frequency 5597.5(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.05	-1.88	-0.73
Vertical Peak Gain(dBi)	-2.70	1.61	-4.58

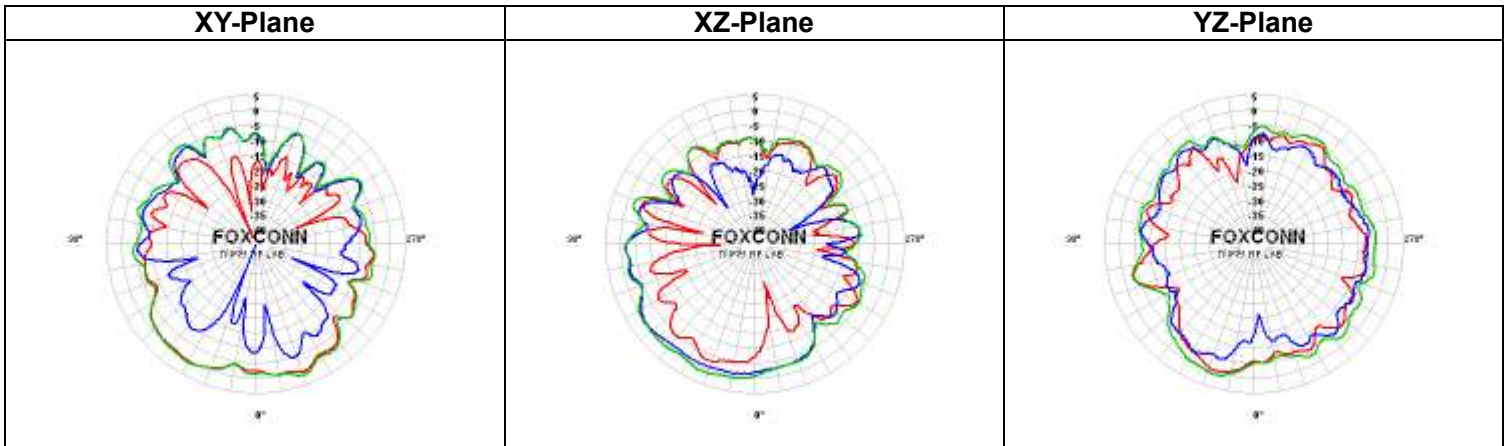
Main antenna: 5725 MHz

Normal Mode



Center Frequency 5725(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.61	-0.87	1.36
Vertical Peak Gain(dBi)	-0.45	-1.27	-1.43

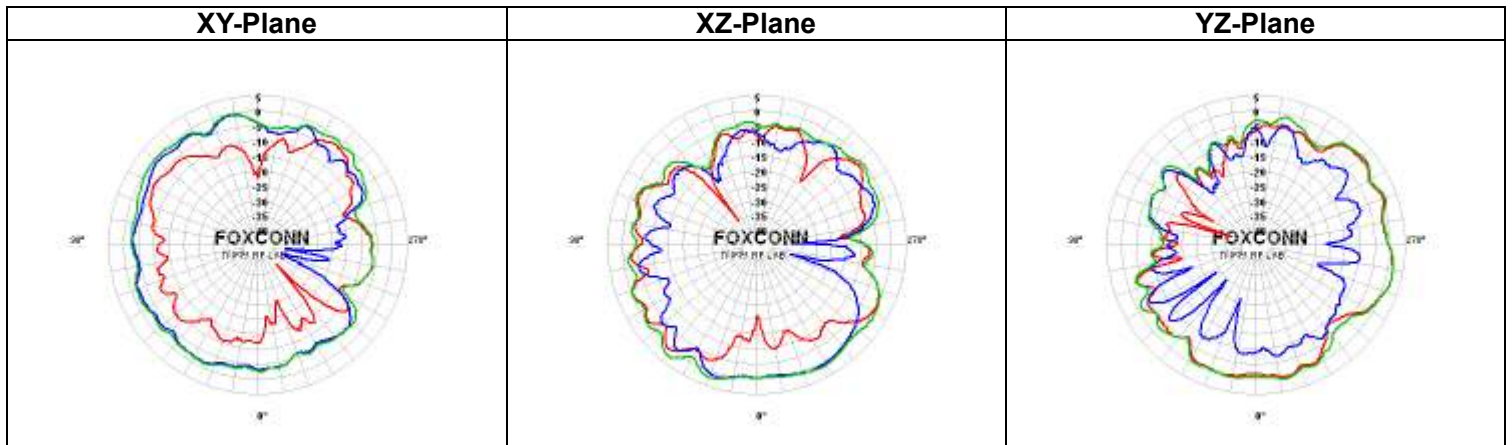
Tablet Mode



Center Frequency 5725(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.75	-2.84	-0.47
Vertical Peak Gain(dBi)	-4.75	0.33	-3.68

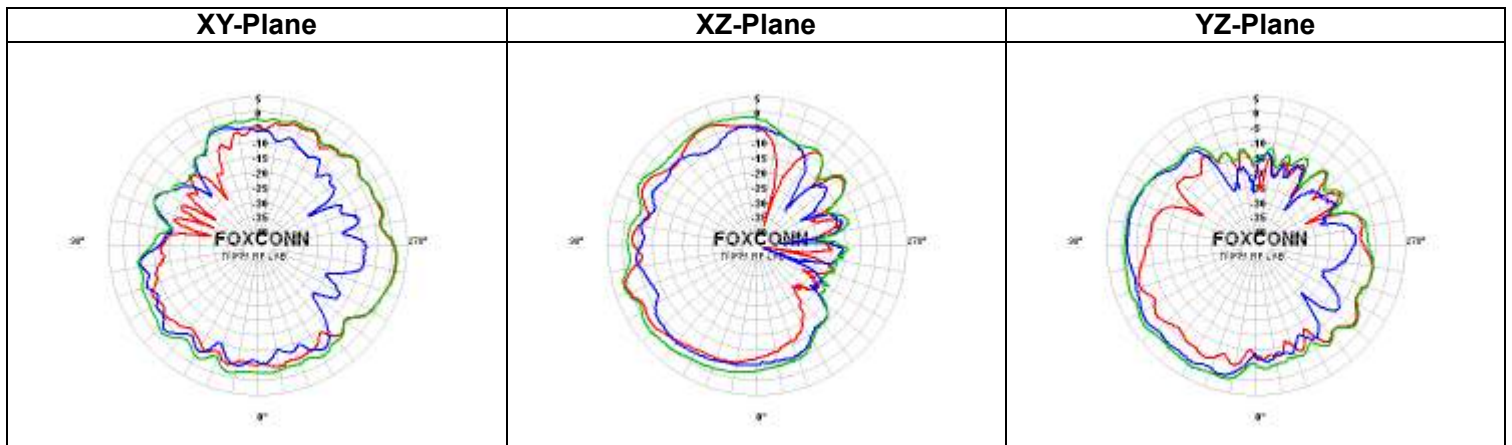
Auxiliary antenna: 5470 MHz

Normal Mode



Center Frequency 5470(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-2.37	0.77	1.93
Vertical Peak Gain(dBi)	-0.61	1.37	-3.92

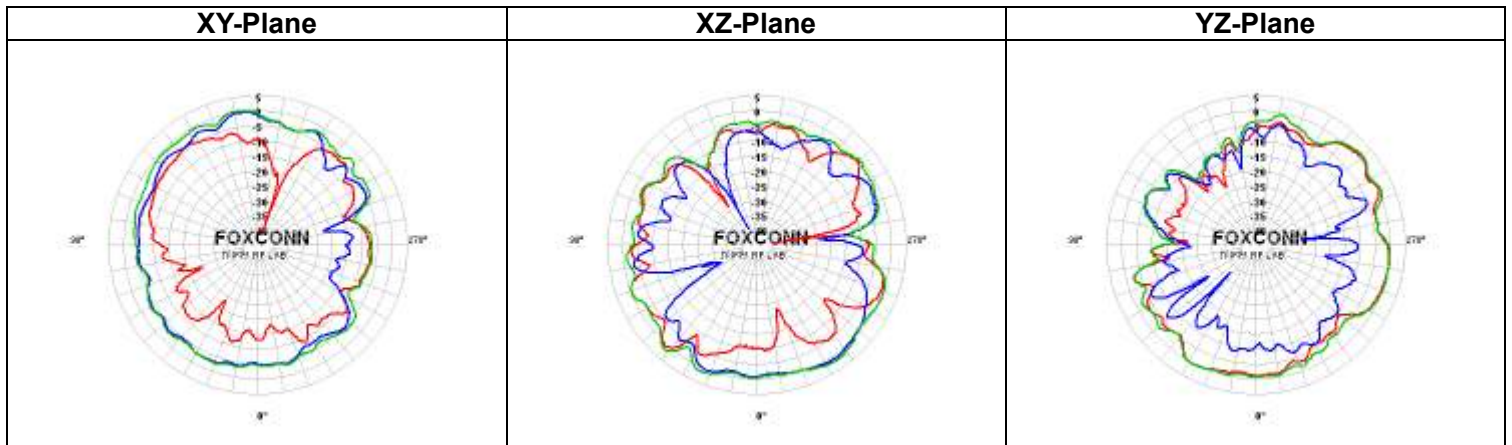
Tablet Mode



Center Frequency 5470(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	1.63	0.96	-3.15
Vertical Peak Gain(dBi)	-2.78	-2.78	-0.30

Auxiliary antenna: 5597.5 MHz

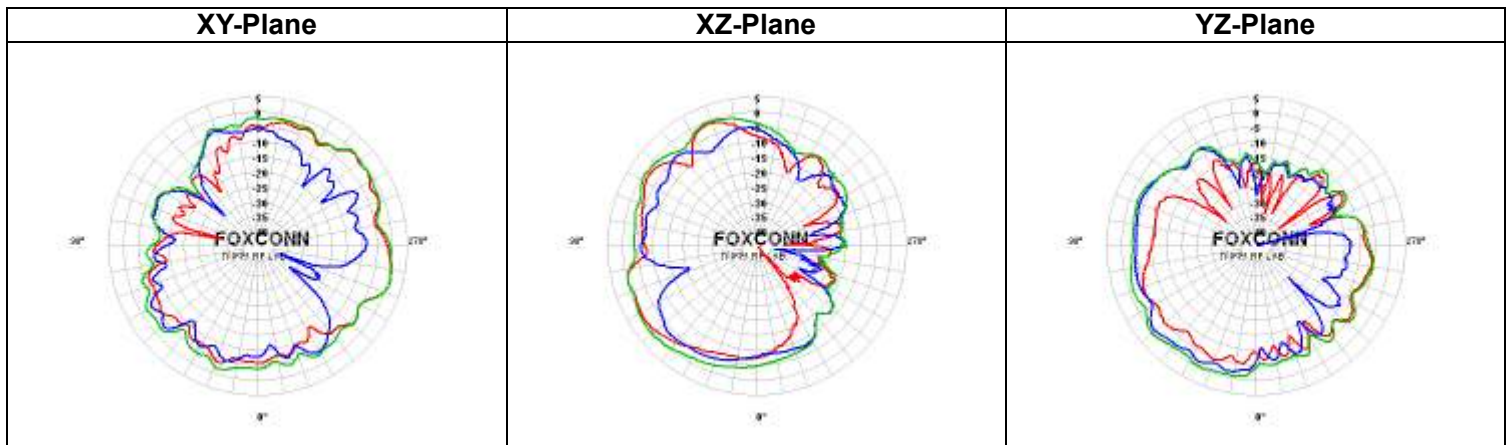
Normal Mode



— H
— V
— H+V

Center Frequency 5597.5(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-4.15	0.81	1.01
Vertical Peak Gain(dBi)	-0.23	1.12	-4.11

Tablet Mode

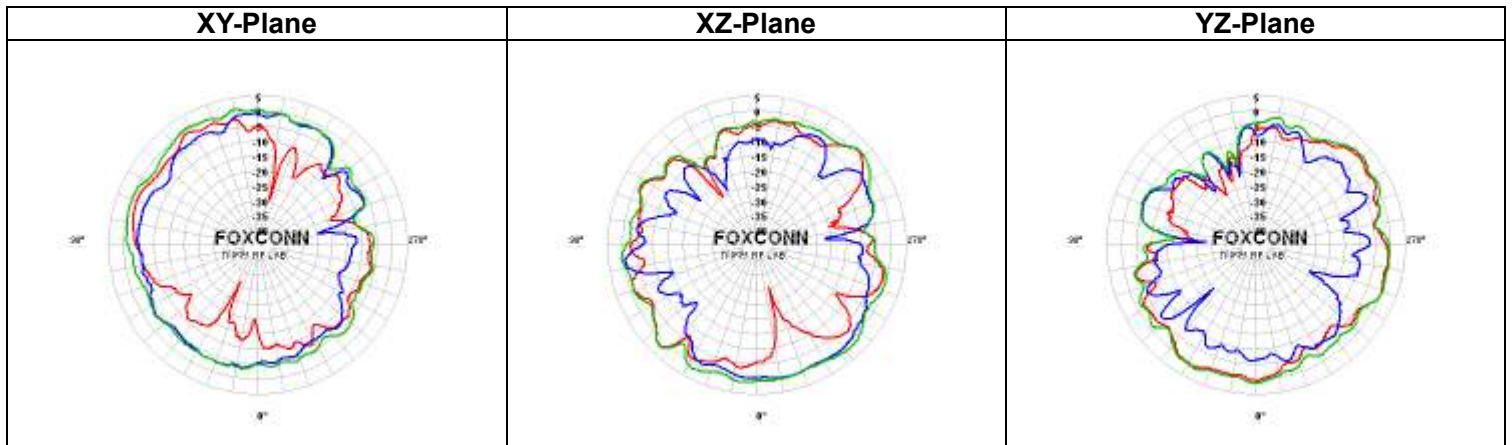


— H
— V
— H+V

Center Frequency 5597.5(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.92	-0.08	-4.10
Vertical Peak Gain(dBi)	-3.55	-3.55	-0.81

Auxiliary antenna: 5725 MHz

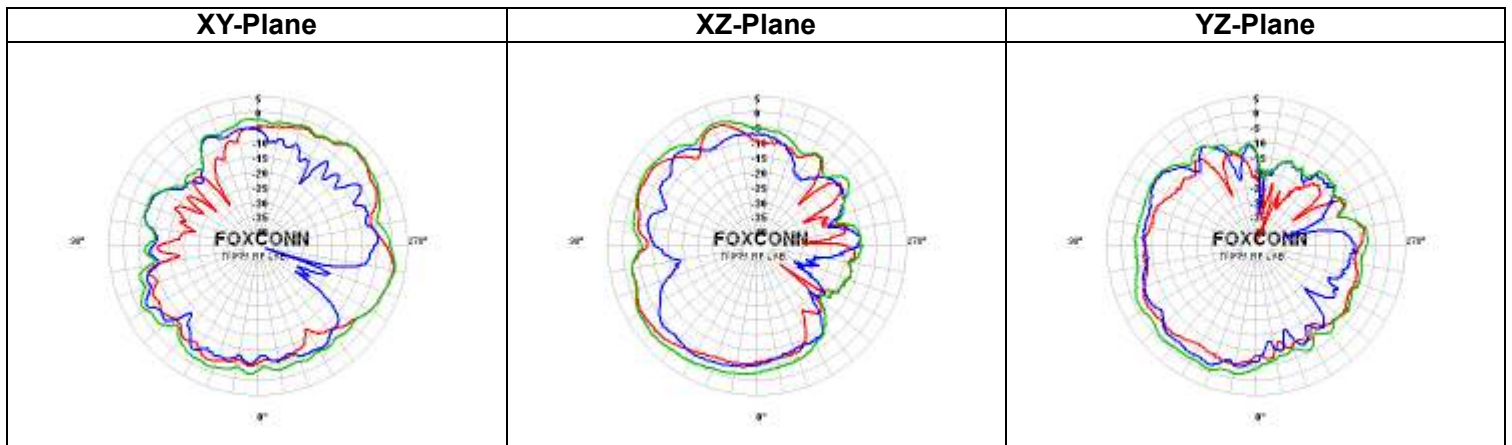
Normal Mode



— H
— V
— H+V

Center Frequency 5725(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.66	1.82	0.81
Vertical Peak Gain(dBi)	-0.55	0.47	-4.21

Tablet Mode



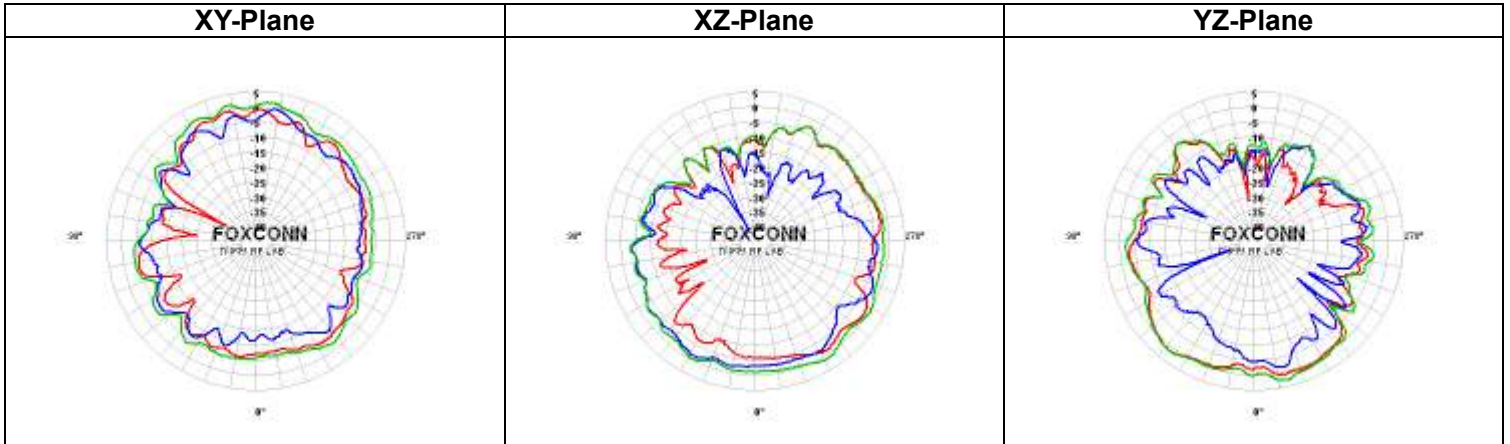
— H
— V
— H+V

Center Frequency 5725(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	1.26	-0.30	-3.43
Vertical Peak Gain(dBi)	-2.87	-2.87	-2.24

5725-5850 MHz radiation characteristic

Main antenna: 5725 MHz

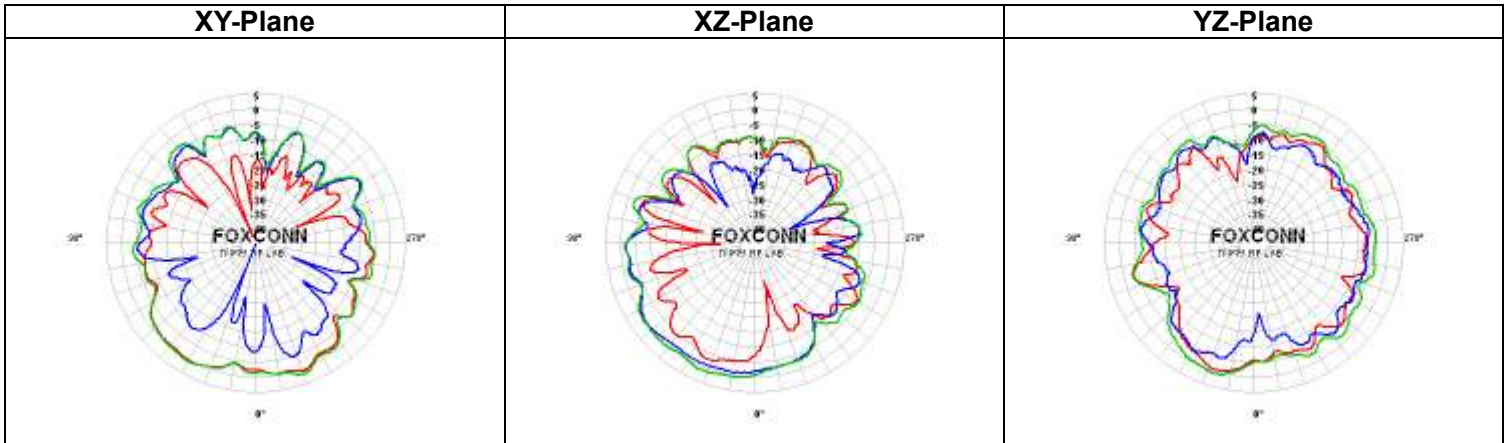
Normal Mode



— H
— V
— H+V

Center Frequency 5725(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.61	-0.87	1.36
Vertical Peak Gain(dBi)	-0.45	-1.27	-1.43

Tablet Mode

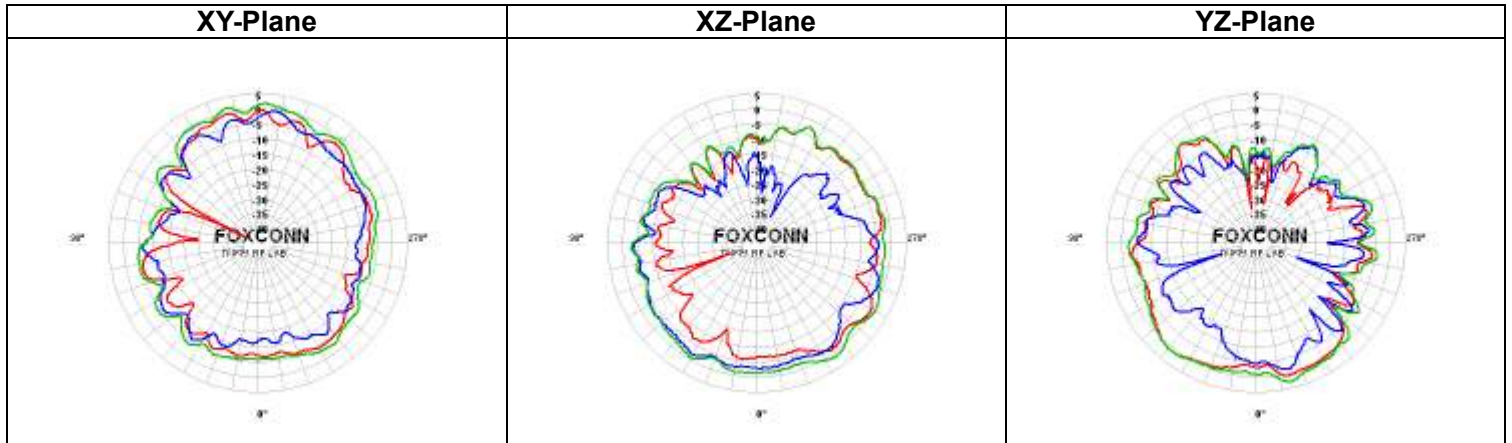


— H
— V
— H+V

Center Frequency 5725(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.75	-2.84	-0.47
Vertical Peak Gain(dBi)	-4.75	0.33	-3.68

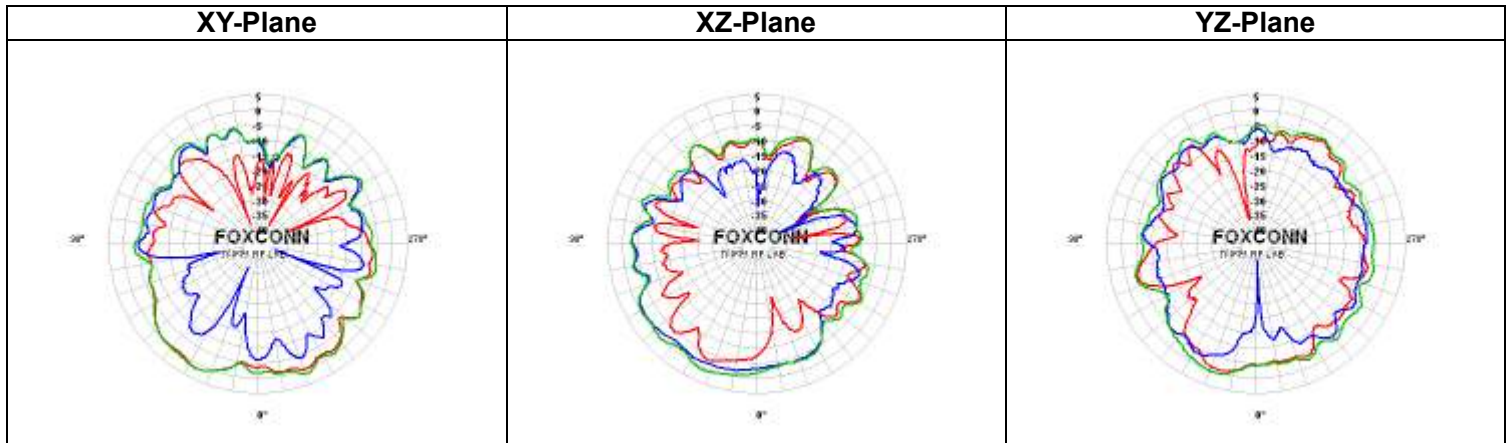
Main antenna: 5785 MHz

Normal Mode



Center Frequency 5785(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.56	-0.55	0.95
Vertical Peak Gain(dBi)	-0.57	-1.84	-1.33

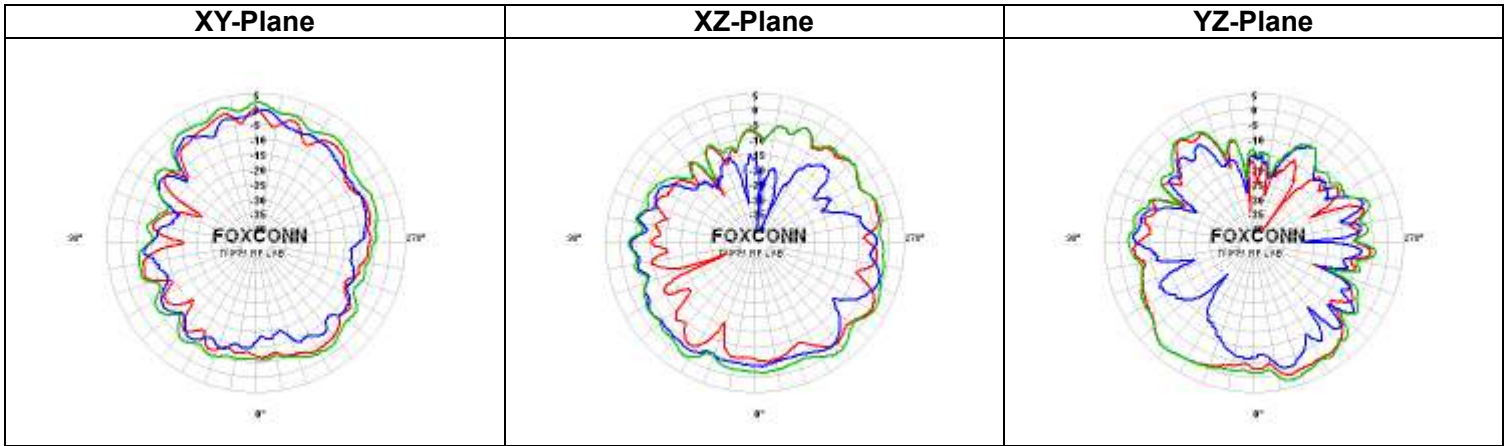
Tablet Mode



Center Frequency 5785(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	1.57	-2.64	-0.85
Vertical Peak Gain(dBi)	-4.15	-0.62	-3.44

Main antenna: 5850 MHz

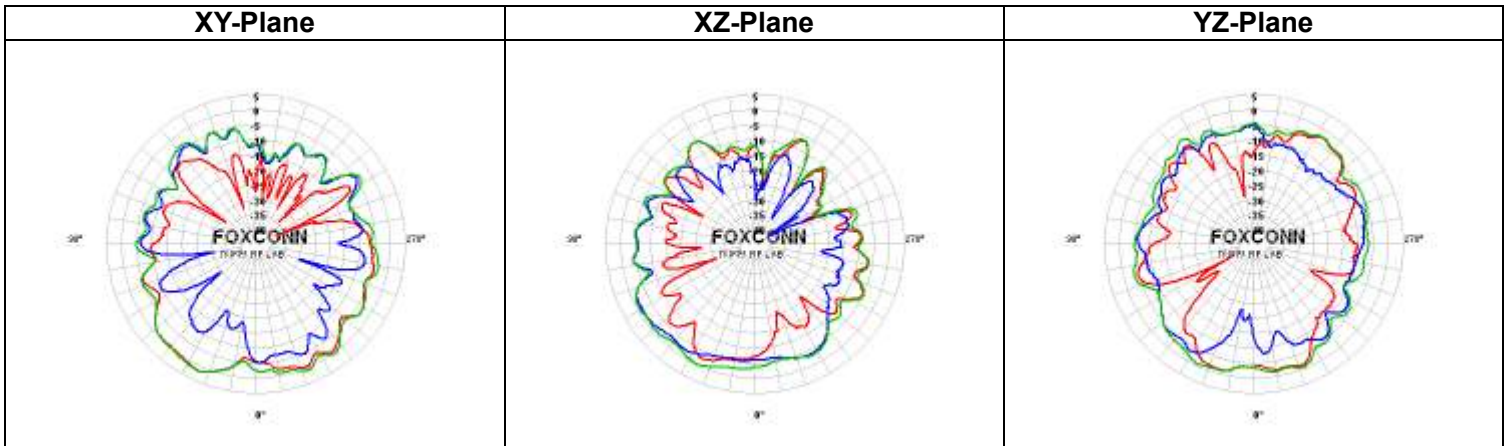
Normal Mode



— H
— V
— H+V

Center Frequency 5850(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.56	-0.04	1.20
Vertical Peak Gain(dBi)	-0.24	-1.46	-1.67

Tablet Mode

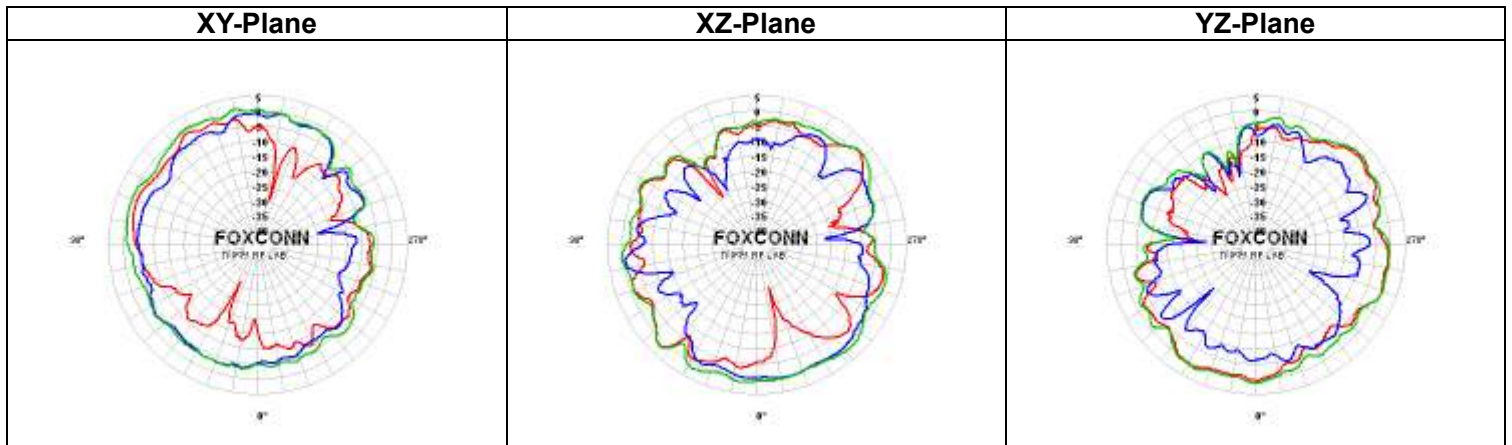


— H
— V
— H+V

Center Frequency 5850(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	1.63	-2.58	-1.19
Vertical Peak Gain(dBi)	-4.49	-1.17	-3.19

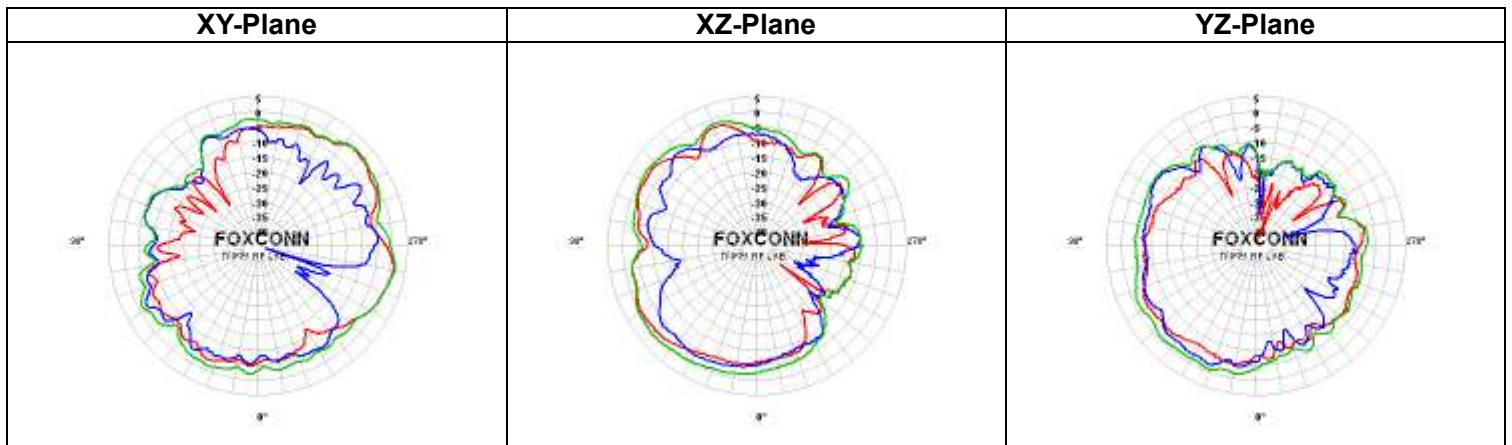
Auxiliary antenna: 5725 MHz

Normal Mode



Center Frequency 5725(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.66	1.82	0.81
Vertical Peak Gain(dBi)	-0.55	0.47	-4.21

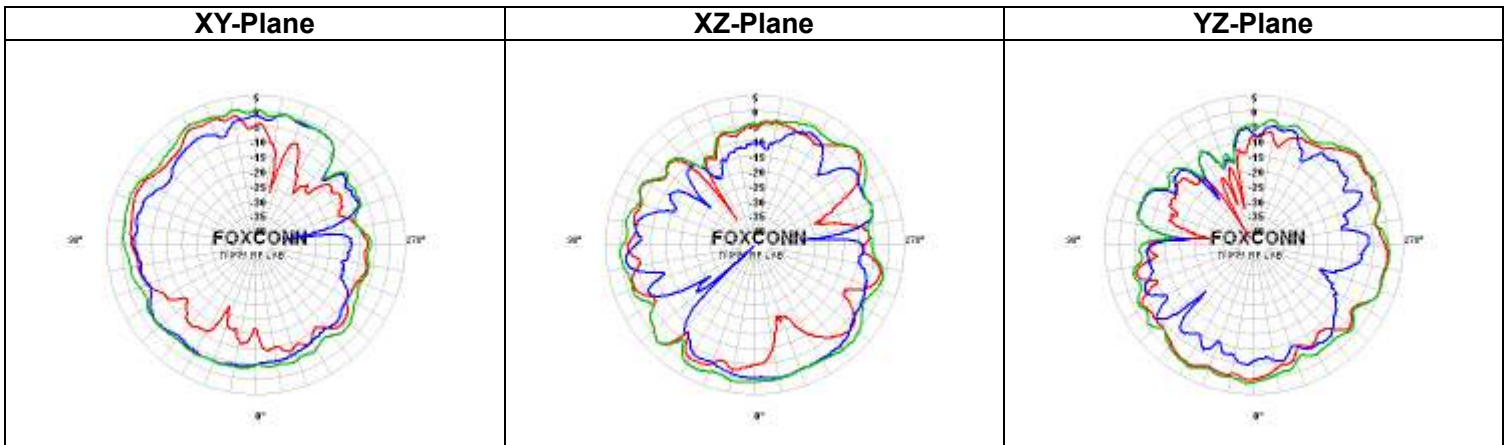
Tablet Mode



Center Frequency 5725(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	1.26	-0.30	-3.43
Vertical Peak Gain(dBi)	-2.87	-2.87	-2.24

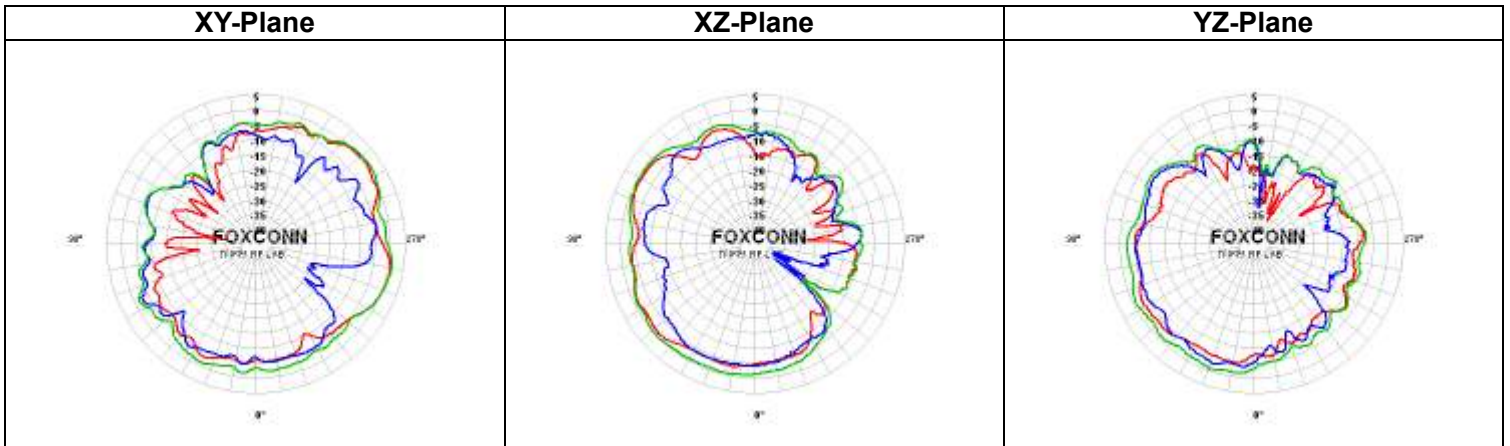
Auxiliary antenna: 5785 MHz

Normal Mode



Center Frequency 5785(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.43	1.36	0.80
Vertical Peak Gain(dBi)	-0.16	0.50	-4.09

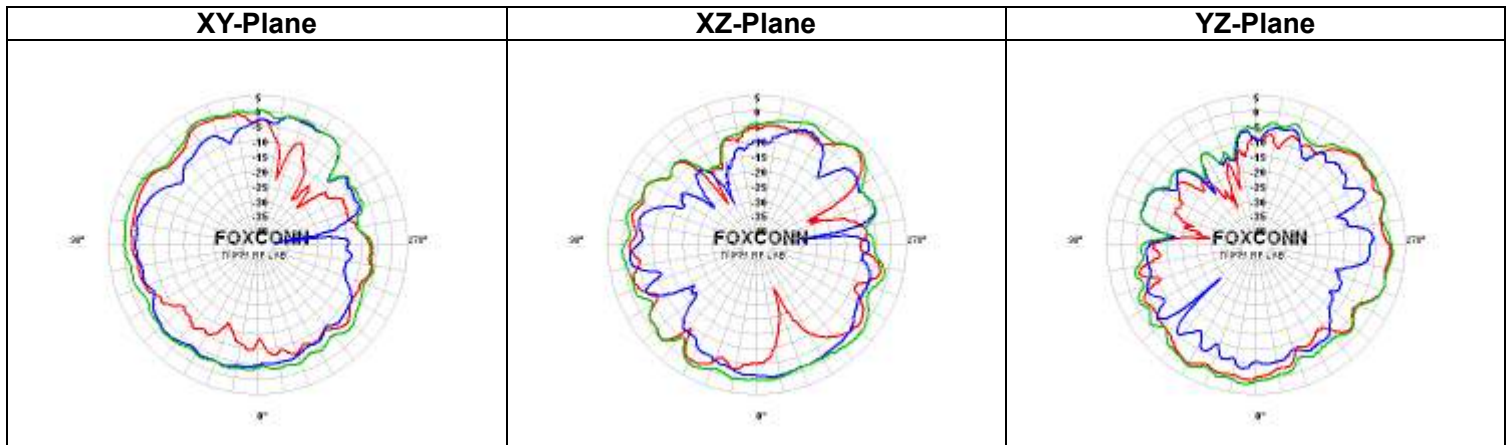
Tablet Mode



Center Frequency 5785(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	0.99	-0.82	-2.88
Vertical Peak Gain(dBi)	-2.76	-3.61	-2.51

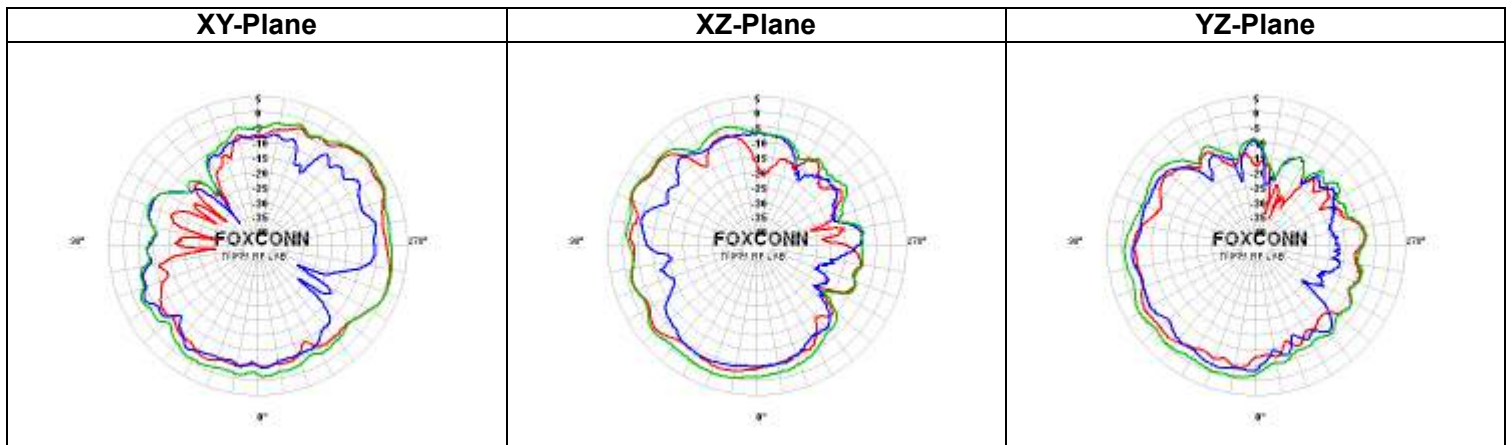
Auxiliary antenna: 5850 MHz

Normal Mode



Center Frequency 5850(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	-0.05	1.18	0.85
Vertical Peak Gain(dBi)	-0.75	-0.36	-3.22

Tablet Mode



Center Frequency 5850(MHz)	XY plane	XZ plane	YZ plane
Horizontal Peak Gain(dBi)	1.63	0.45	-2.02
Vertical Peak Gain(dBi)	-2.98	-3.43	-2.38

Section 7. Host Platform Information

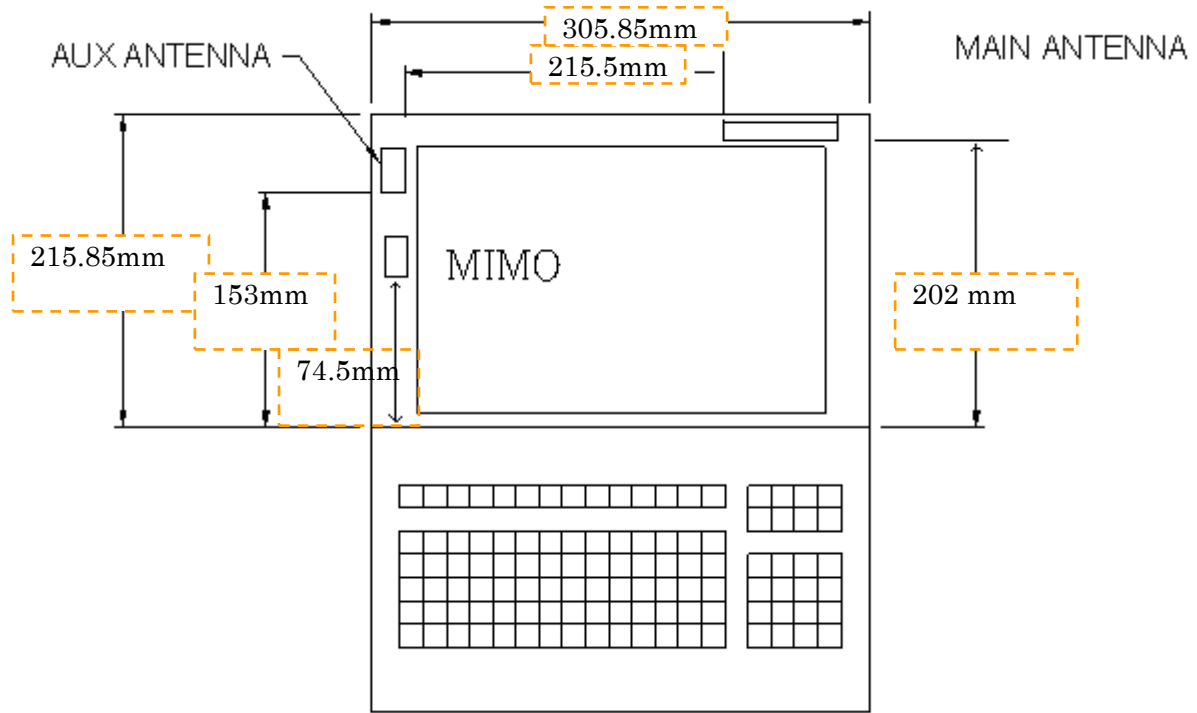
OEM / ODM Host platform: (XXXXXXX) platform correlated to antenna data
Rating Label Photo:

Module Location Photo: (if Singapore required)



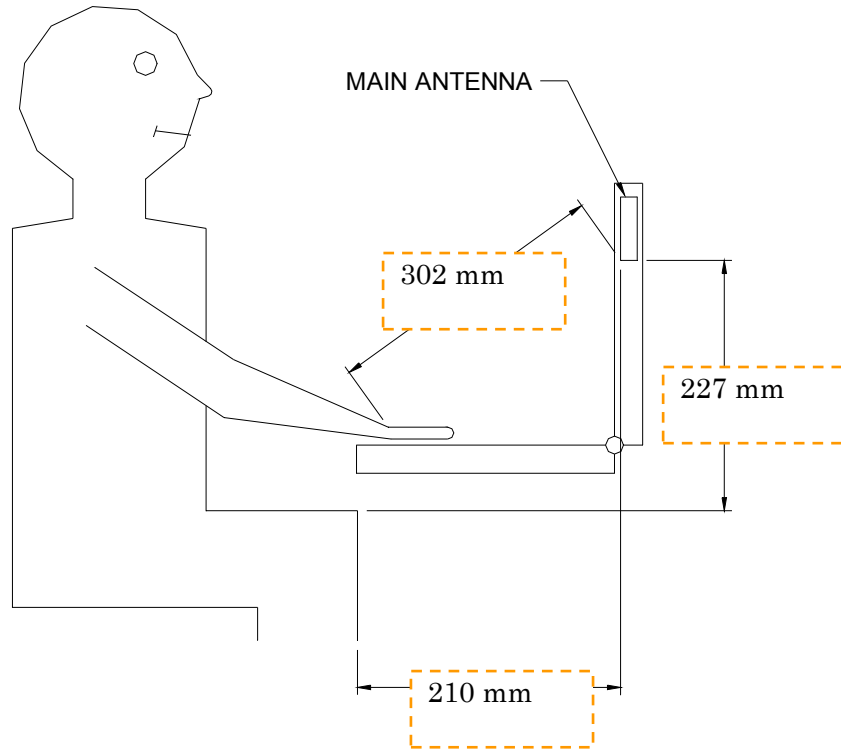
Section 8. Antenna Host Platform Location Information

Include a **dimensioned photo or dimensioned drawing** of Main and Auxiliary antenna placements. (Not applicable for receive-only antenna e.g. Rx3 for 4965AGN)



Section 9. Antenna dimensional information for SAR evaluation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit antennas and the user (excluding hands, wrist, feet, lap/ thigh, and ankle)



Section 10. Diagram Example of Co-Location Antenna Separation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between **all WLAN transmit antennas** and other co-located radiator transmit antenna such as Bluetooth, WWAN,..

(Note: Due to the evolving rules regarding co-location, each platform will need to be reviewed on a case by case basis)

Section 11. Local representative contact information

Local representative contact information is required for regulatory support for target countries below.

	Local company name	Contact name	Phone number	FAX Number	e-Mail Address	Notes
Argentina						
Brazil						
Indonesia						
Israel						
Malaysia						
Mexico						
Singapore						Telecommunication Equipment Dealer License Required
South Africa						
USA, Canada						