Santafe Regulatory WLAN Antenna Information

(English Language Required for Intel Regulatory Review / Approval)

Brand Name	Samsung
Model Name	Santafe
Antenna Vendor	Foxconn
Antenna Part Number	☐ Main Antenna: WDAN-S1SAT001-DF
With WLAN Module	☐ WM3B2100
(Check Box)	☐ WM3B2200BG
	☐ WM3B2915ABG
	☐ WM3945ABG

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	Main & Aux antenna (Peak Gain W/ cable loss)	Required	Required	Required	Required	Required
	1E OR 1F, 1G, 1H					
1F	Main & Aux antenna (Peak Gain only)	Required	Required	Required	Required	Required
1G	VSWR of cable including connector	Required	Required	Required	Required	Required
1H	Main & Aux antenna (Cable loss W/ connector)	Required	Required	Required	Required	Required
2	Dimensioned Photographs and Drawings of main & auxiliary 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, BT, 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

Antenna Assembly Summary:

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: WDAN-S1SAT001-DF) Main antenna	HON HAI PRECISION IND. CO.,LTD	PIFA	1.Cable P/N: FOXCONN: 703-3009-215 2.Cable type: 30 AWG O,D. 1.37 mm 50 ohm coaxial cable 3.Cable length: 182mm 4. Connector P/N: IPEX: 073-0001-899	2400-2500MHz 1.67 dBi (peak)	2400-2500MHz 2.109 dBi (peak)	2400-2500MHz 2.0 max	2400-2500MHz -0.439 dBi (peak)
				5150-5350MHz 3.43 dBi (peak)	5150-5350MHz 4.103 dBi (peak)	5150-5350MHz 2.0 max	5150-5350MHz -0.673 dBi (peak)
				5470-5725MHz 3.61 dBi (peak)	5470-5725MHz 4.301 dBi (peak)	5470-5725MHz 2.0 max	5470-5725MHz -0.691 dBi (peak)
				5725-5850MHz 3.30 dBi (peak)	5725-5850MHz 4.019 dBi (peak)	5725-5850MHz 2.0 max	5725-5850MHz -0.719 dBi (peak)
(P/N:)				2400-2500MHz	2400-2500MHz	2400-2500MHz 2.0 max	2400-2500MHz
				5150-5350MHz	5150-5350MHz	5150-5350MHz 2.0 max	5150-5350MHz
				5470-5725MHz	5470-5725MHz	5470-5725MHz 2.0 max	5470-5725MHz
				5725-5850MHz	5725-5850MHz	5725-5850MHz 2.0 max	5725-5850MHz

Antenna Peak Gain Table:

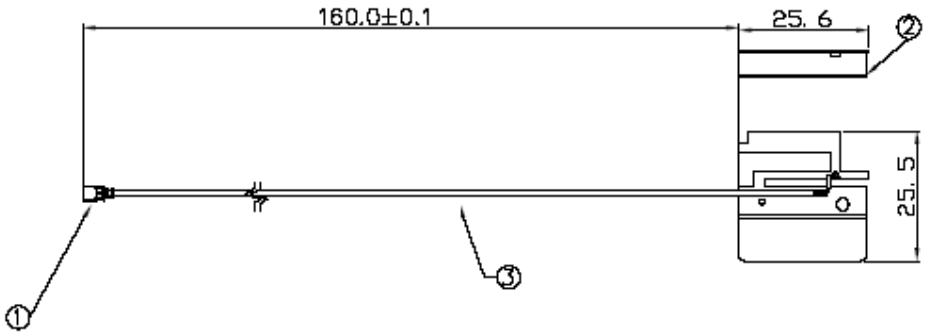
	Main antenna		
Frequency (MHz)	Horizontal (dBi)	Vertical (dBi)	Hori+Ver (dBi)
2400	0.43	-0.84	1.67
2442	0.29	-0.35	1.66
2484	-1.01	-1.09	1.05
5150	-1.68	1.84	2.81
5250	-2.23	2.75	3.03
5350	0.31	2.85	3.43
5470	0.98	2.87	3.61
5600	-0.97	3.00	3.52
5725	-0.83	2.22	3.21
5800	-0.81	1.89	2.93
5850	0.06	1.94	3.30

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

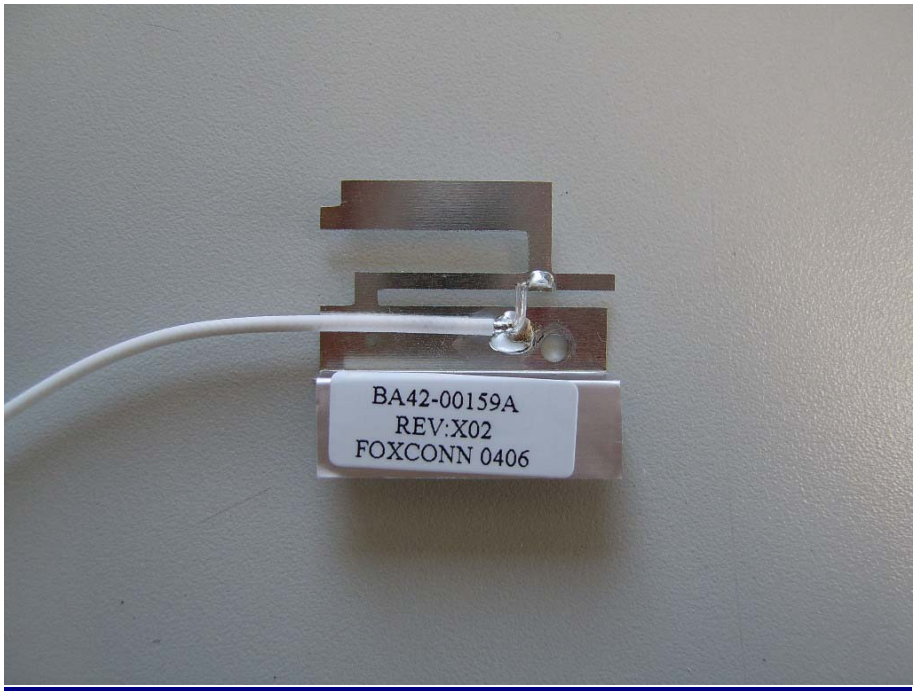
Section 2. Dimensioned Photos or Drawings of Antennas

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

Main Antenna Dimensioned Drawing:



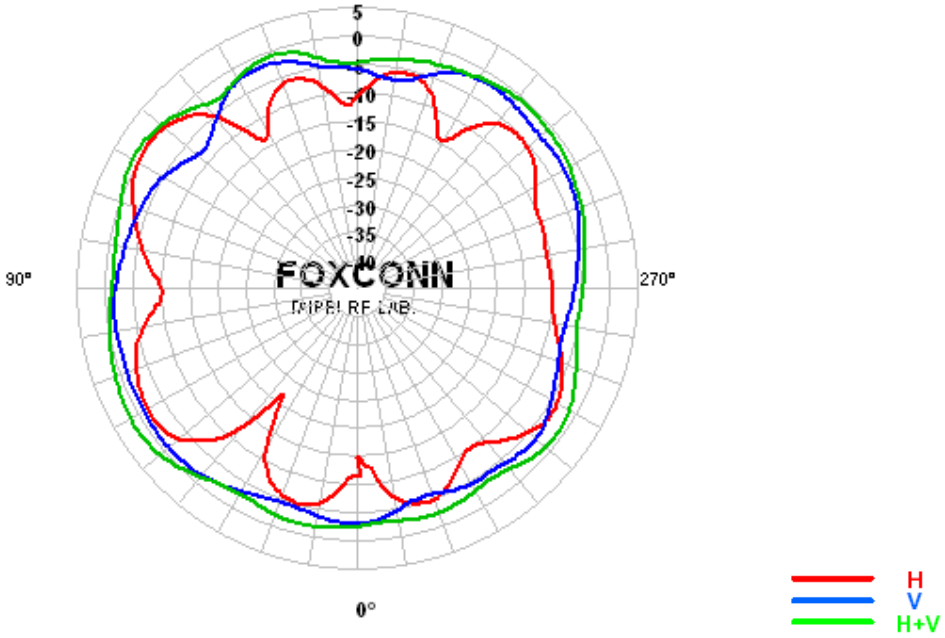
Main Antenna Photo:



Section 3. Radiation characteristics of antennae Loaded in Host Platform

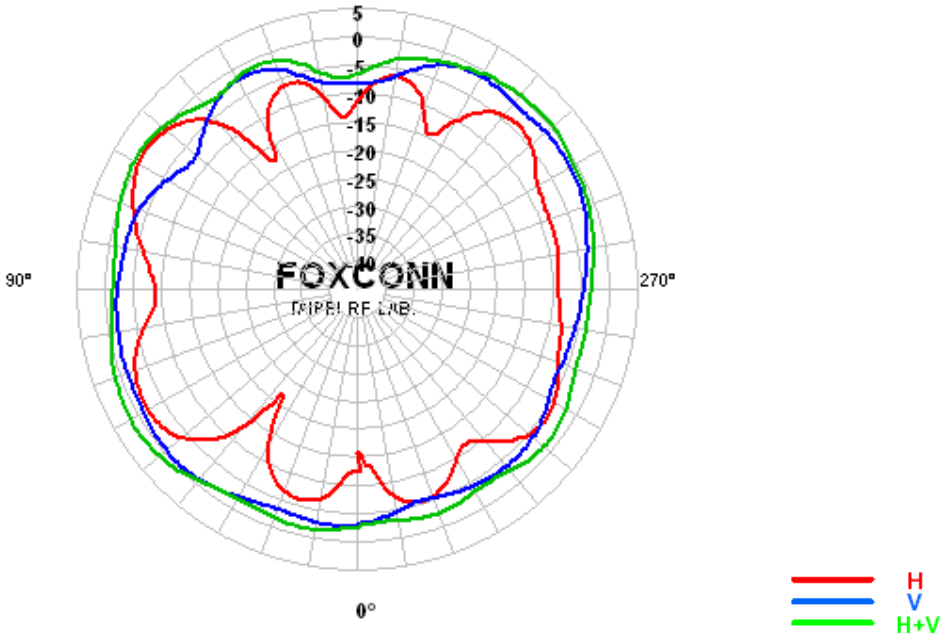
2400-2500MHz radiation characteristic

Main antenna: 2400 MHz



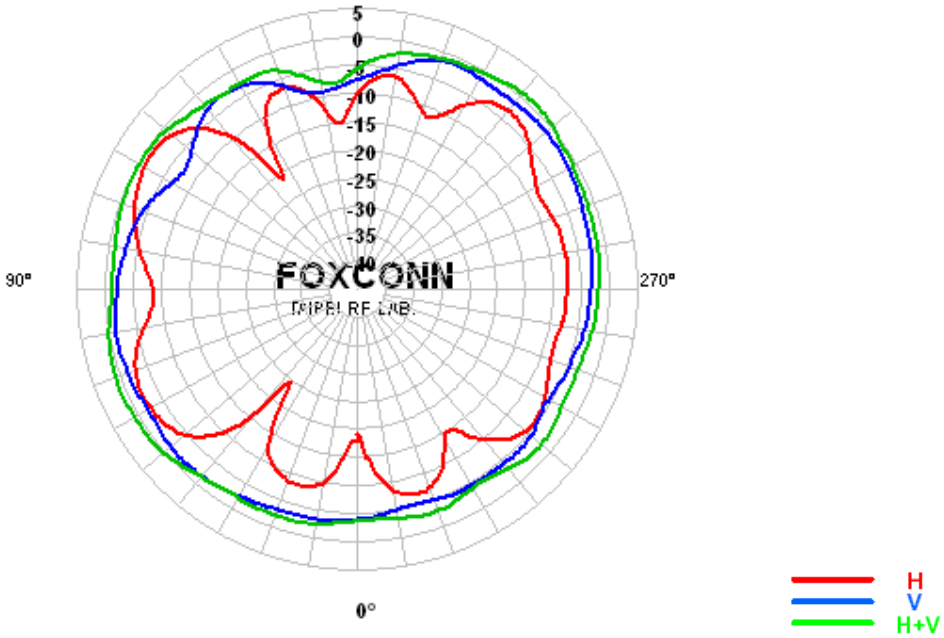
Center Frequency	**2400 MHz**
Horizontal (dBi) peak	**0.43**
Vertical (dBi) peak	**-0.84**
Horz+Vert (dBi) peak	**1.67**

Main antenna: 2442 MHz



Center Frequency	**2442 MHz**
Horizontal (dBi) peak	**0.29**
Vertical (dBi) peak	**-0.35**
Horz+Vert (dBi) peak	**1.66**

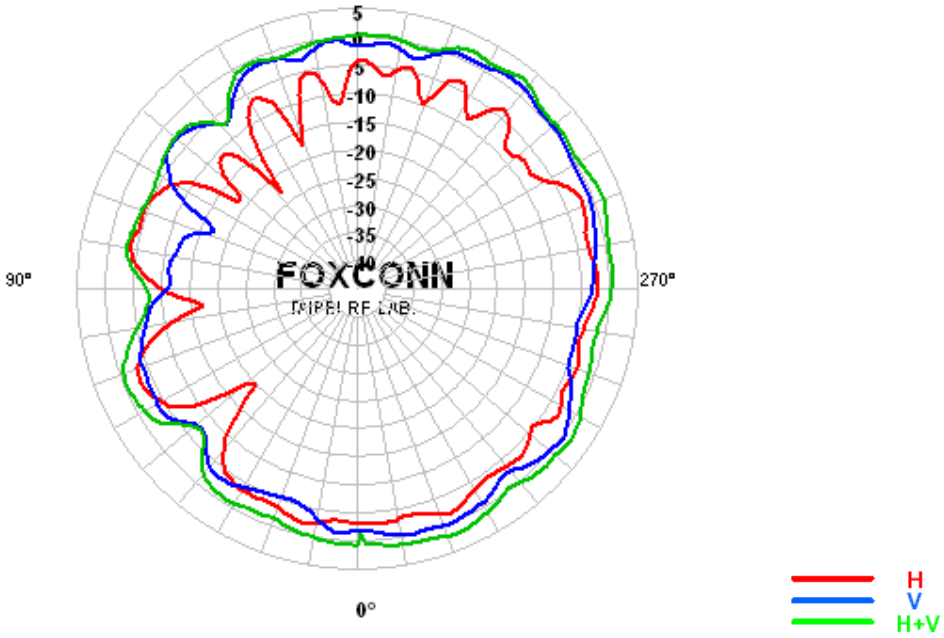
Main antenna: 2484 MHz



Center Frequency	**2484 MHz**
Horizontal (dBi) peak	**-1.01**
Vertical (dBi) peak	**-1.09**
Horz+Vert (dBi) peak	**1.05**

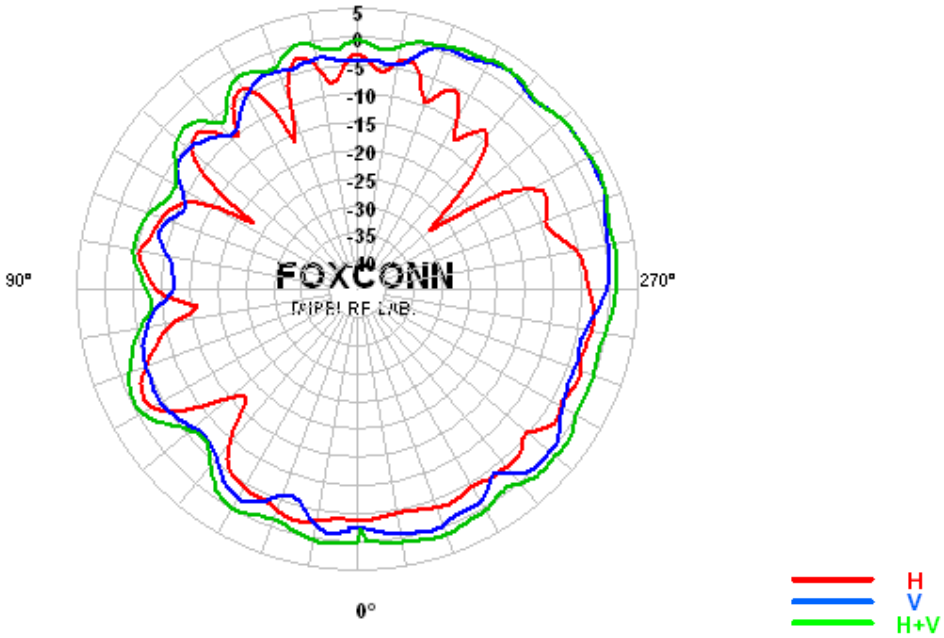
5150-5350 MHz radiation characteristic

Main antenna: 5150 MHz



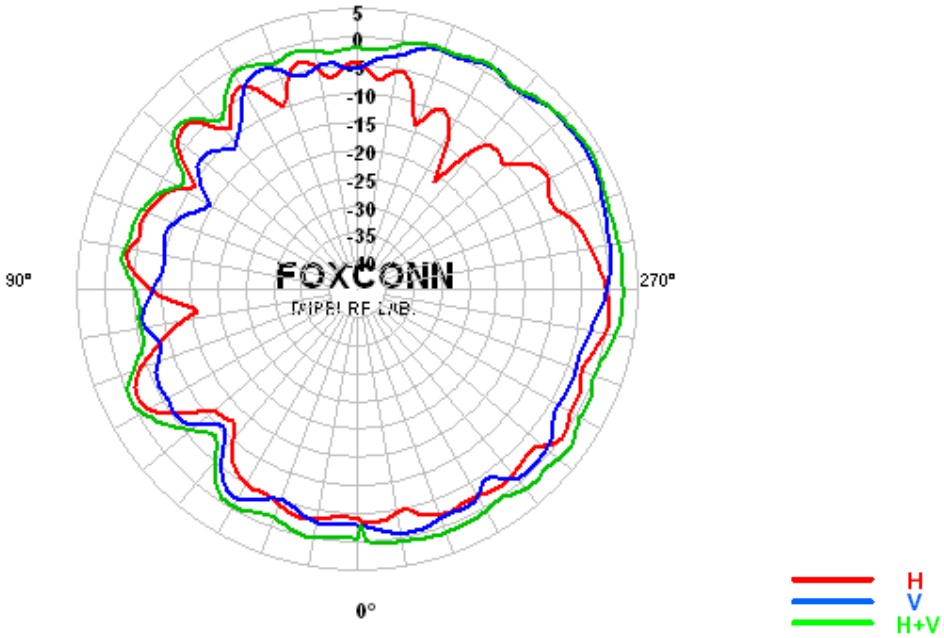
Center Frequency	**5150 MHz**
Horizontal (dBi) peak	**-1.68**
Vertical (dBi) peak	**1.84**
Horz+Vert (dBi) peak	**2.81**

Main antenna: 5250 MHz



Center Frequency	**5250 MHz**
Horizontal (dBi) peak	**-2.23**
Vertical (dBi) peak	**2.75**
Horz+Vert (dBi) peak	**3.03**

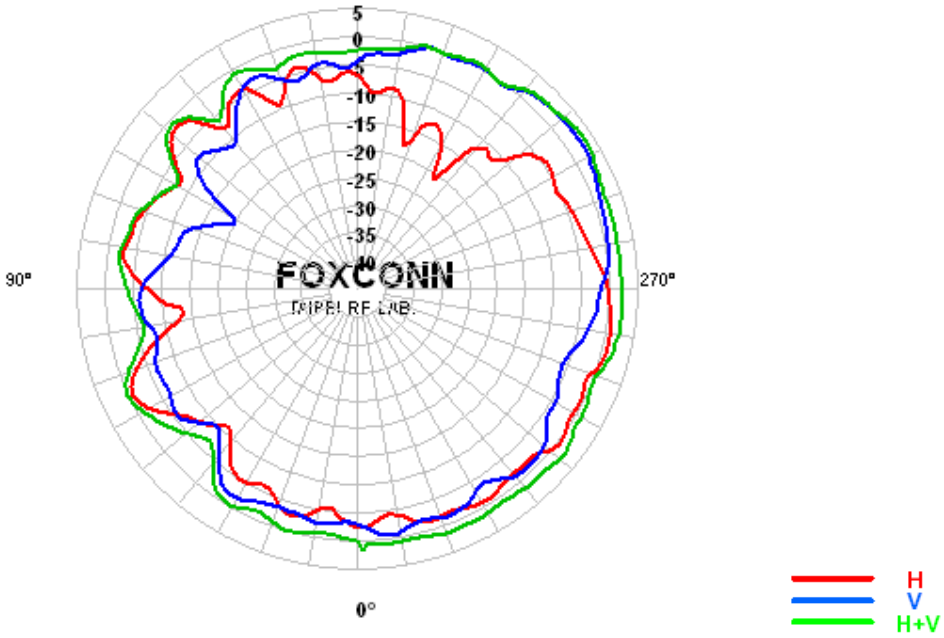
Main antenna: 5350 MHz



Center Frequency	**5350 MHz**
Horizontal (dBi) peak	**0.31**
Vertical (dBi) peak	**2.85**
Horz+Vert (dBi) peak	**3.43**

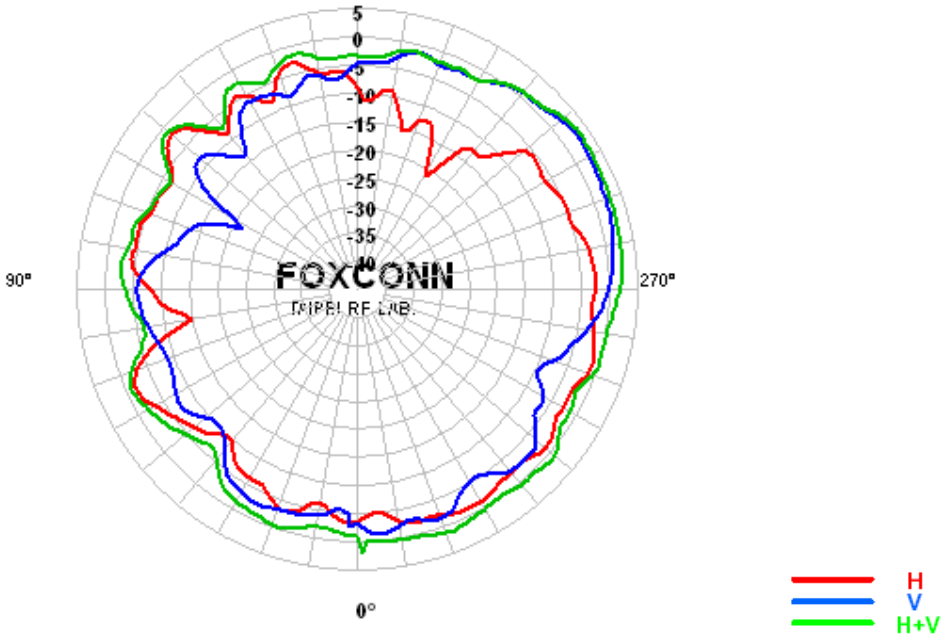
5470-5725MHz radiation characteristic

Main antenna: 5470 MHz



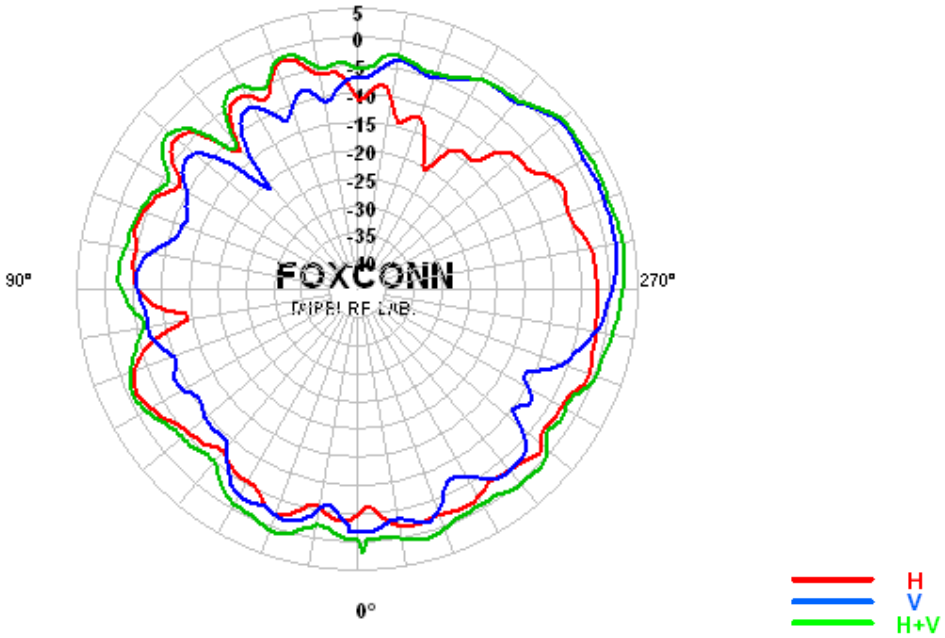
Center Frequency	**5470 MHz**
Horizontal (dBi) peak	**0.98**
Vertical (dBi) peak	**2.87**
Horz+Vert (dBi) peak	**3.61**

Main antenna: 5600 MHz



Center Frequency	**5600 MHz**
Horizontal (dBi) peak	**-0.97**
Vertical (dBi) peak	**3.00**
Horz+Vert (dBi) peak	**3.52**

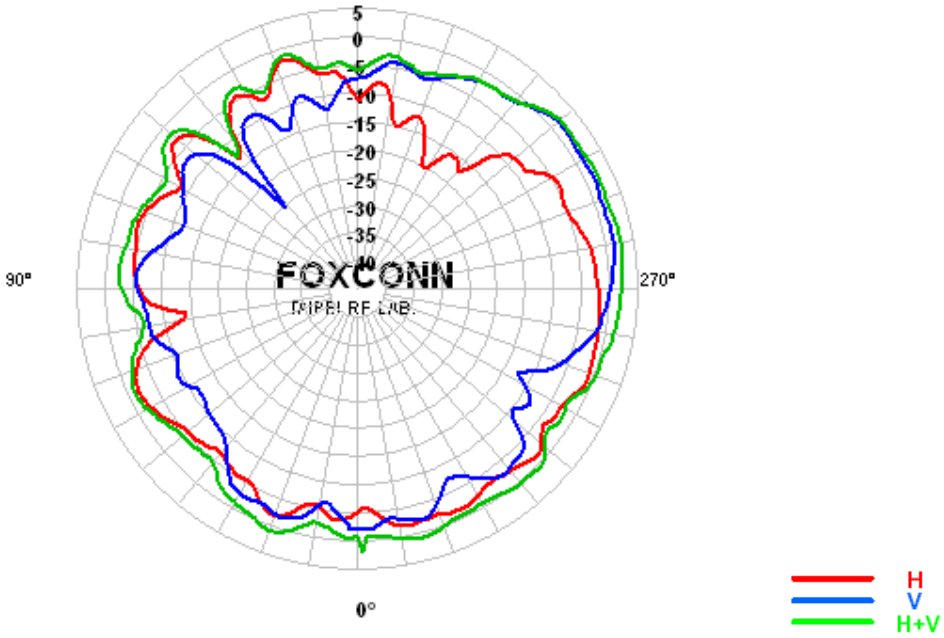
Main antenna: 5725 MHz



Center Frequency	**5725 MHz**
Horizontal (dBi) peak	**-0.83**
Vertical (dBi) peak	**2.22**
Horz+Vert (dBi) peak	**3.21**

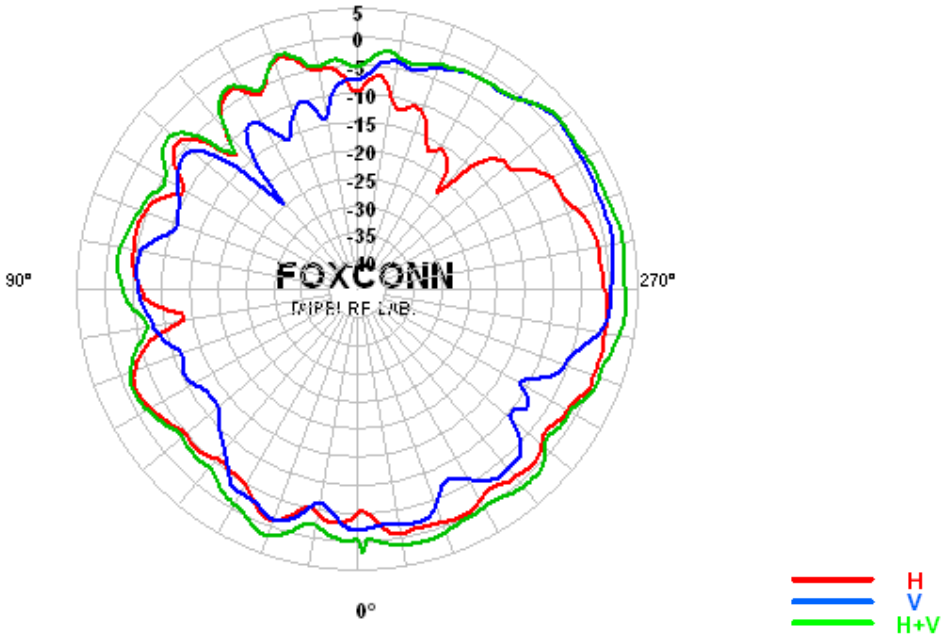
5725-5850 MHz radiation characteristic

Main antenna: 5750 MHz



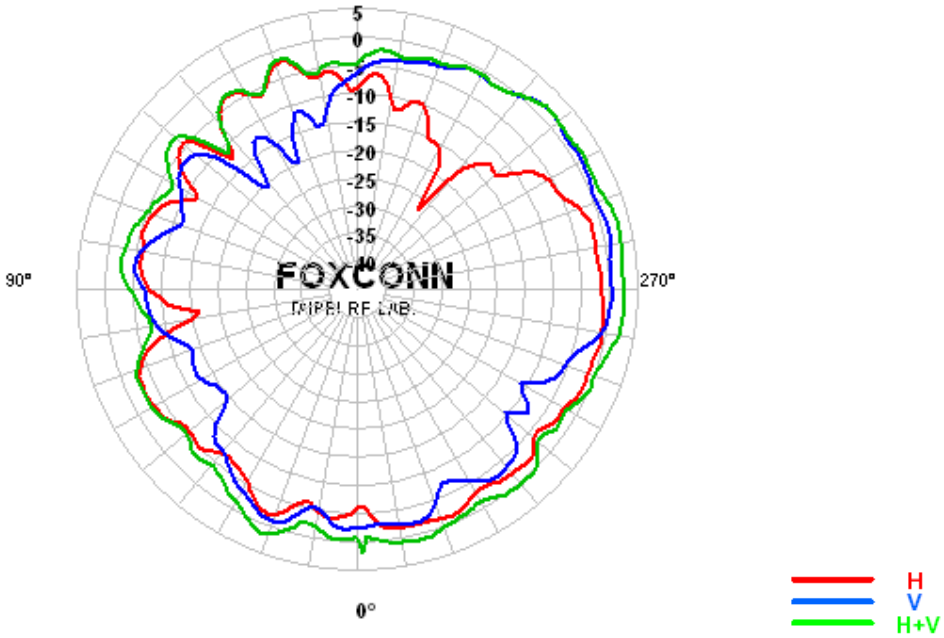
Center Frequency	**5750 MHz**
Horizontal (dBi) peak	**-0.81**
Vertical (dBi) peak	**1.89**
Horz+Vert (dBi) peak	**2.93**

Main antenna: 5800 MHz



Center Frequency	**5800 MHz**
Horizontal (dBi) peak	**0.06**
Vertical (dBi) peak	**1.94**
Horz+Vert (dBi) peak	**3.30**

Main antenna: 5850 MHz



Center Frequency	**5850 MHz**
Horizontal (dBi) peak	**-0.63**
Vertical (dBi) peak	**1.85**
Horz+Vert (dBi) peak	**2.98**

Section 4. Host Platform Information

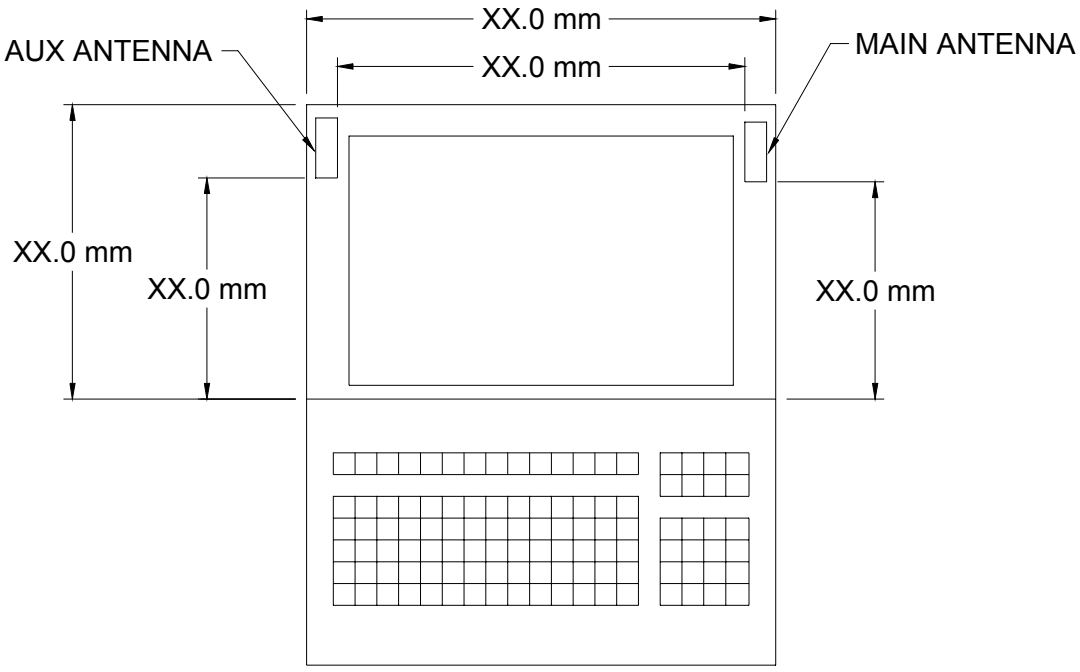
OEM / ODM Host platform: (XXXXXXX) platform correlated to antenna data

Rating Label Photo:

Module Location Photo: (if Singapore required)

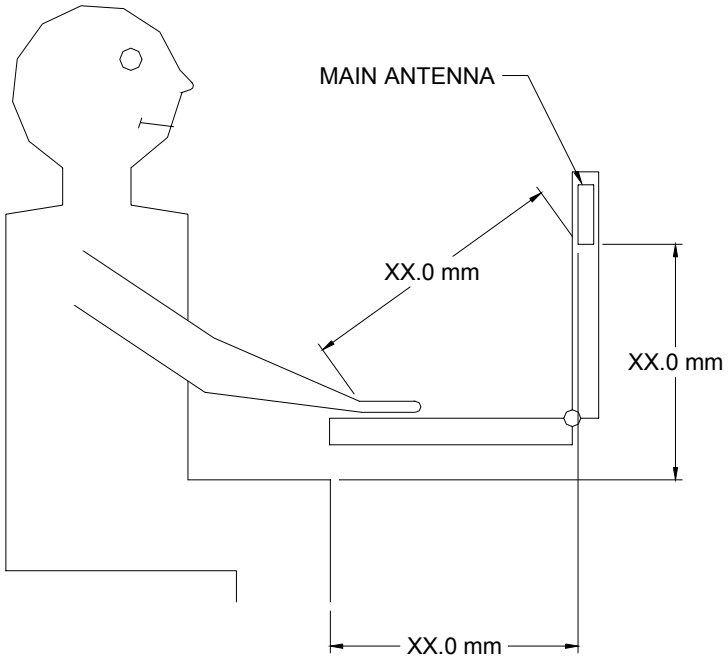
Section 5. Antenna Host Platform Location Information

Include a **dimensioned photo or dimensioned drawing** of main and auxiliary antenna placements.



Section 6. Antenna dimensional information for SAR evaluation

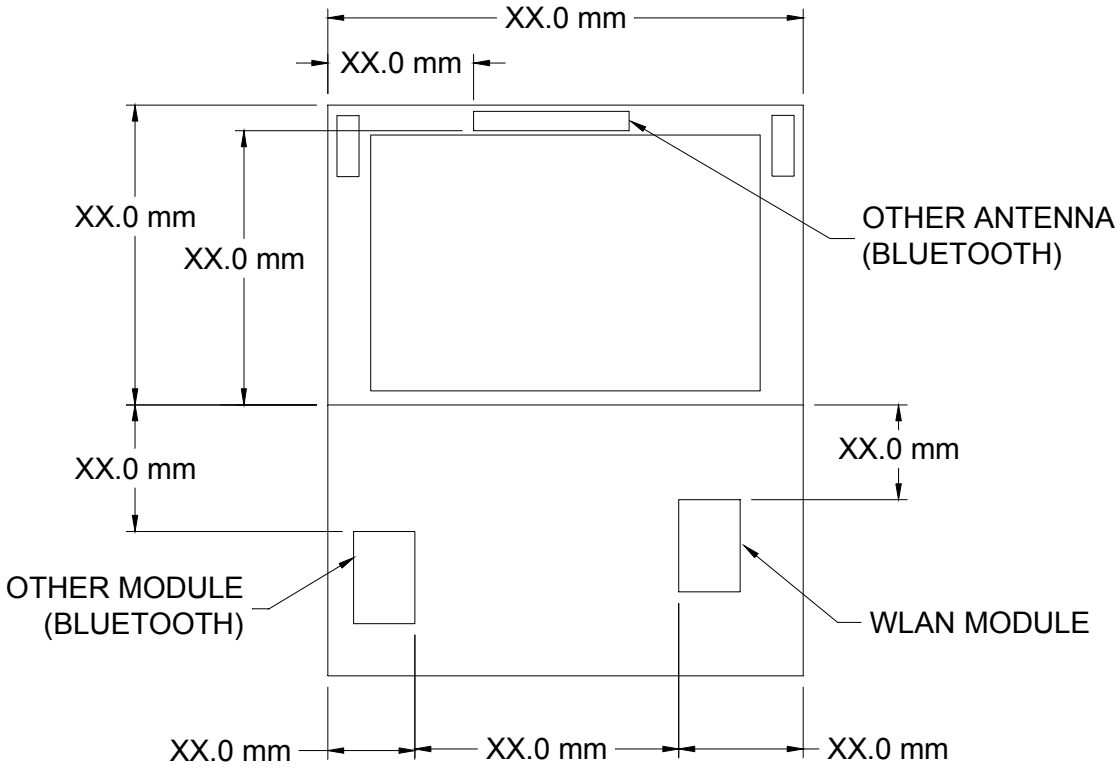
Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit (main) antenna and the user (excluding hands, wrist, feet, and ankle)



Section 7. Diagram Example of Co-Location Antenna Separation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between WLAN antenna and 2nd radiator transmit antenna.

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



Section 8. 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
USA, Canada						