

Regulatory WLAN Antenna Information

(English Language Required for Intel Regulatory Review / Approval)

**(OEM/ODM or antenna vendor is required to complete this document with platform antenna information.
Remove Intel references and make this your own document)**

Platform	
Platform Owner	Gateway
Brand Name	Gateway
Model Name	Triton
ODM	Arima
Target Launch Date	(2007/ 02/ 15)
Antenna	
Brand Name	
Part Number	<input checked="" type="checkbox"/> Tx1 Antenna: MAIN 021020168NC3586
	<input checked="" type="checkbox"/> Tx2 Antenna: AUX 021020168NC3586-1
	<input checked="" type="checkbox"/> Tx3 Antenna MIMO 021020168NC3586-2
Module	
With WLAN Module	<input type="checkbox"/> WM3B2200BG
(Check Box)	<input type="checkbox"/> WM3B2915ABG
	<input checked="" type="checkbox"/> WM3945ABG
	<input checked="" type="checkbox"/> 4965AGN

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

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) 3D	1F Peak Gain w/o Cable Loss (dBi)	1G VSWR	1H Cable Loss (dBi)
(P/N:02102016 8NC3586) Tx1 MAIN antenna	Example: Galtronics	Example: PIFA	Example: (P/N: 03-259-819) 50 ohm Coaxial. length: 81.9cm diameter: 1.37mm Connector: U.FL	2400-2500MHz -0.04 dBi (peak)	2400-2500MHz 1.86 dBi (peak)	2400-2500MHz 1.2:1 max	2400-2500MHz 1.9 dBi (peak)
				5150-5350MHz -1.13 dBi (peak)	5150-5350MHz 1.67 dBi (peak)	5150-5350MHz 1.3:1 max	5150-5350MHz 2.8 dBi (peak)
				5470-5725MHz -0.35 dBi (peak)	5470-5725MHz 2.45 dBi (peak)	5470-5725MHz 1.4:1 max	5470-5725MHz 2.8 dBi (peak)
				5725-5850MHz -0.45 dBi (peak)	5725-5850MHz 2.35 dBi (peak)	5725-5850MHz 1.8:1 max	5725-5850MHz 2.8 dBi (peak)
(P/N: 021020168NC3 586-1) Tx2 AUX antenna	Example: Galtronics	Example: PIFA	Example: (P/N: 03-262-661) 50 ohm Coaxial. length: 66.1cm diameter: 1.13mm Connector: U.FL	2400-2500MHz 3.25 dBi (peak)	2400-2500MHz 5.1 dBi (peak)	2400-2500MHz 1.4:1 max	2400-2500MHz 1.85 dBi (peak)
				5150-5350MHz 1.48 dBi (peak)	5150-5350MHz 4.38 dBi (peak)	5150-5350MHz 1.4:1 max	5150-5350MHz 2.9 dBi (peak)
				5470-5725MHz 1.27 dBi (peak)	5470-5725MHz 4.17 dBi (peak)	5470-5725MHz 1.3:1 max	5470-5725MHz 2.9 dBi (peak)
				5725-5850MHz 0.83 dBi (peak)	5725-5850MHz 3.73 dBi (peak)	5725-5850MHz 2:1 max	5725-5850MHz 2.9 dBi (peak)
(P/N: 021020168NC3 586-2) Tx3 (or Rx3) MIMO antenna	Example: Galtronics	Example: PIFA	Example: (P/N: 03-263-828) 50 ohm Coaxial. length: 82.8cm diameter: 1.13mm Connector: U.FL	2400-2500MHz 0.84 dBi (peak)	2400-2500MHz 3.14 dBi (peak)	2400-2500MHz 1.3:1 max	2400-2500MHz 2.3 dBi (peak)
				5150-5350MHz 1.13 dBi (peak)	5150-5350MHz 4.71 dBi (peak)	5150-5350MHz 1.4:1 max	5150-5350MHz 3.58dBi (peak)
				5470-5725MHz 1.26 dBi (peak)	5470-5725MHz 4.84 dBi (peak)	5470-5725MHz 1.4:1 max	5470-5725MHz 3.58 dBi (peak)
				5725-5850MHz 2.26 dBi (peak)	5725-5850MHz 5.84 dBi (peak)	5725-5850MHz 1.8:1 max	5725-5850MHz 3.58 dBi (peak)

Antenna Peak Gain Table:

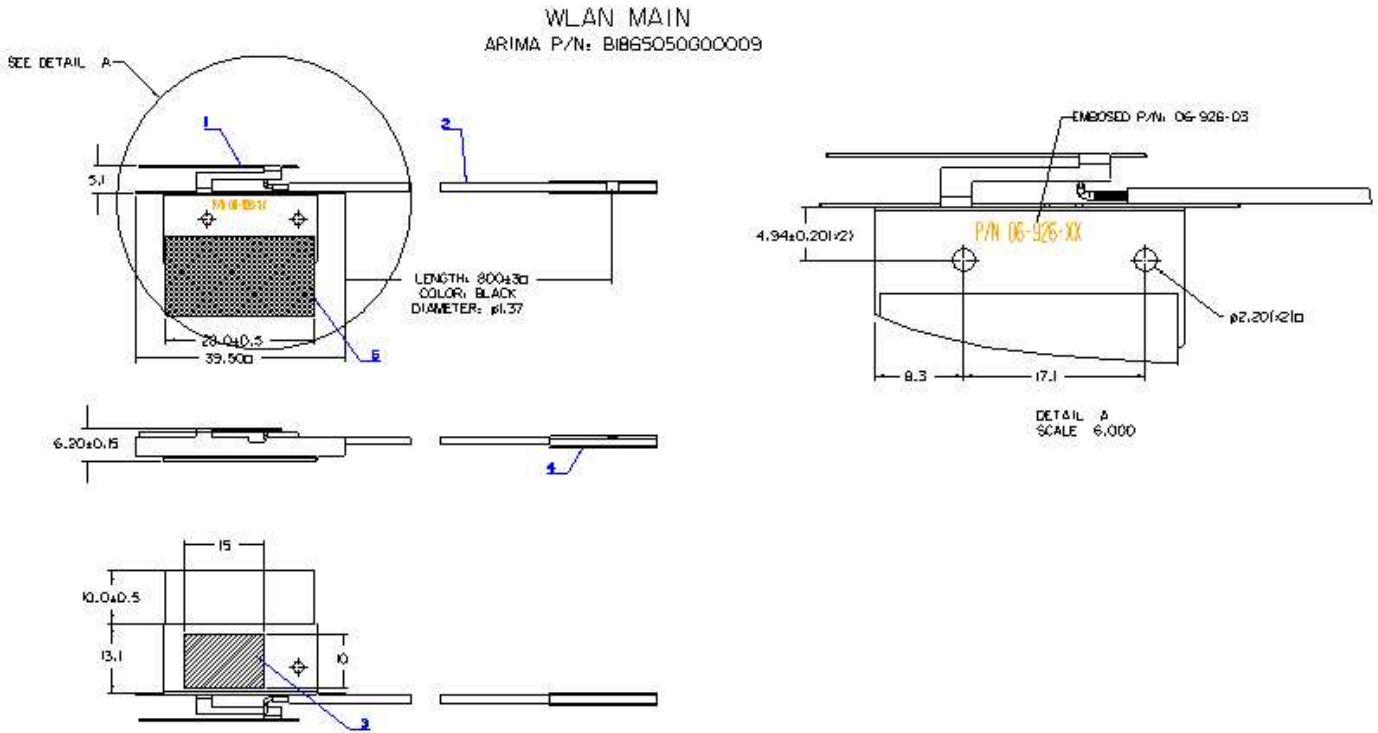
Frequency (MHz)	Tx1 (main) antenna		Tx2 (aux) Antenna		Tx3 (MIMO) Antenna	
	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)	Horizontal (dBi)	Vertical (dBi)
2400	-2.10	-2.88	2.46	-0.27	-1.06	-0.62
2450	-2.29	-1.91	1.88	-2.03	-2.15	-1.57
2500	-2.99	-1.45	2.05	-1.2	-1.08	-0.32
5150	-2.39	-4.44	0.62	-2.93	-0.51	-5.42
5250	-3.39	-3.30	1.01	-2.71	-0.65	-4.62
5350	-1.76	-4.34	0.66	-2.10	0.2	-5.61
5470	-1.88	-4.48	0.82	-1.86	-0.44	-4.89
5600	-1.34	-3.45	0.51	-2.99	0.39	-5.45
5725	-3.06	-4.65	0.69	-1.69	-0.25	-4.44
5785	-2.67	-3.33	0.56	-2.13	0.88	-3.4
5850	-1.83	-3.05	-0.35	-2.12	-0.77	-4.25

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

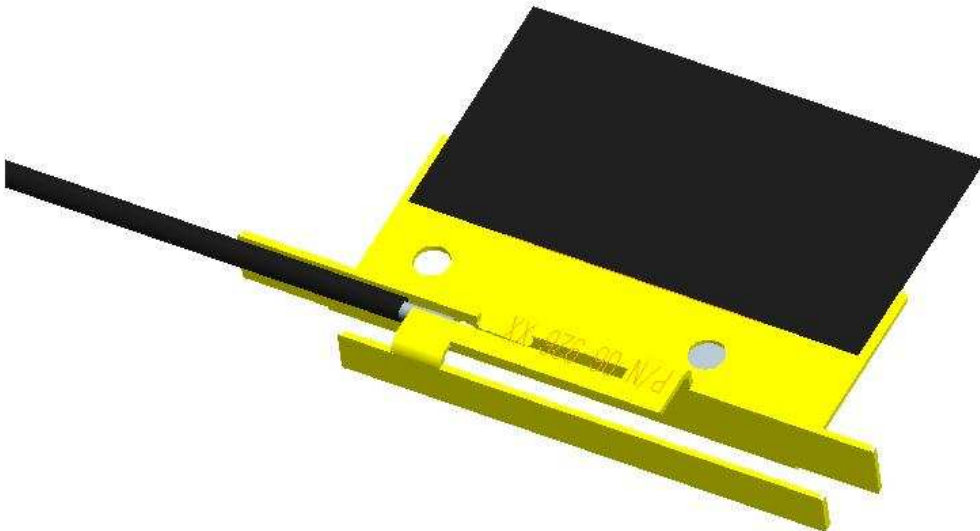
Section 2. Dimensioned Photos or Drawings of Antennas

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

Tx1 Antenna Dimensioned Drawing:

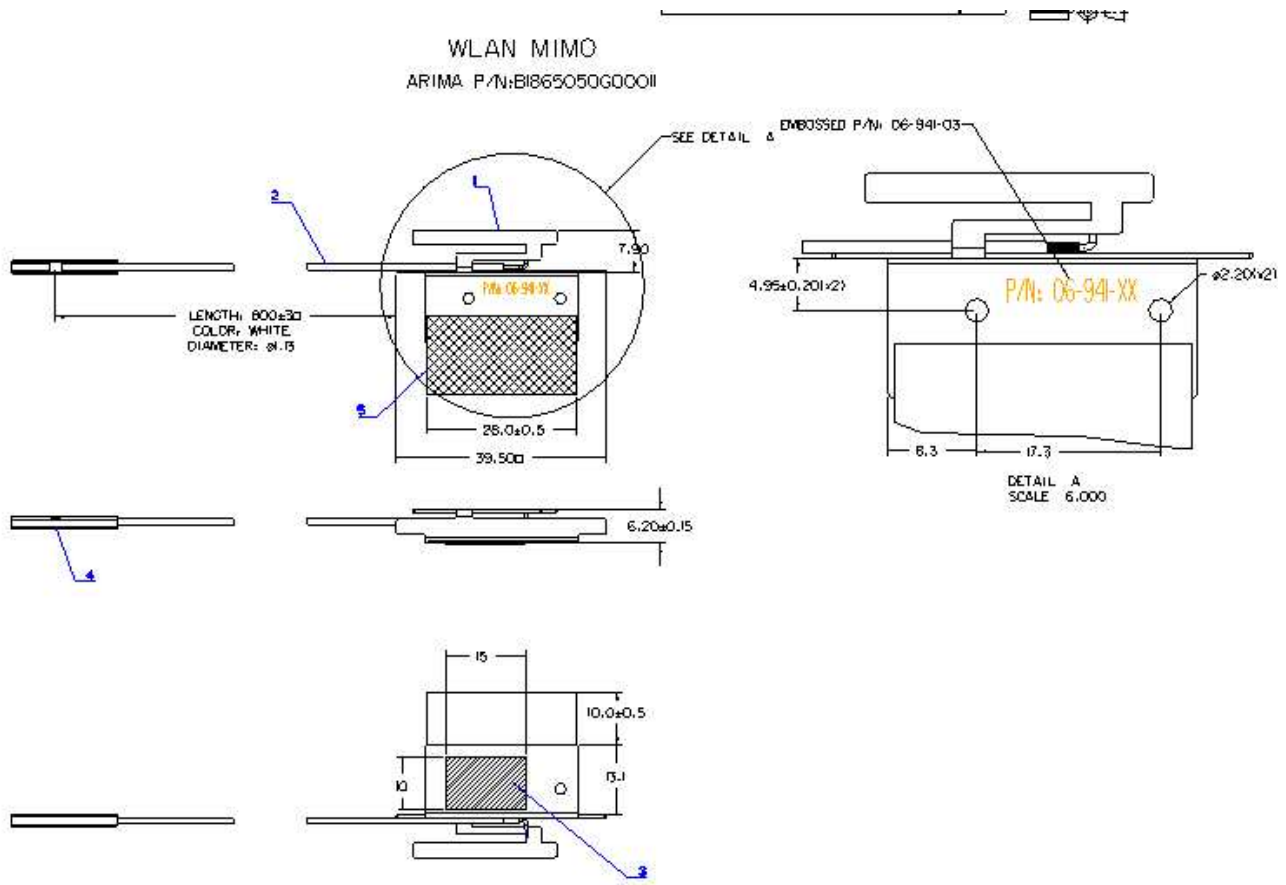


Tx1 Antenna Photo:

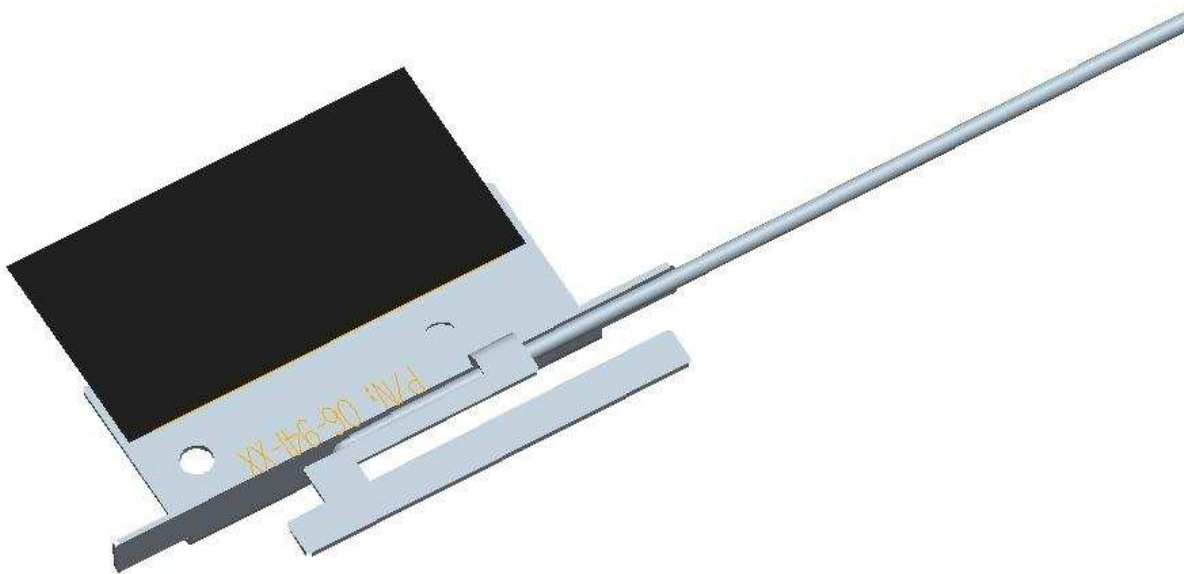


Include a dimensioned photo and dimensioned drawing of Tx3 (or Rx3) antenna here.

Tx3 (or Rx3) Antenna Dimensioned Drawing:

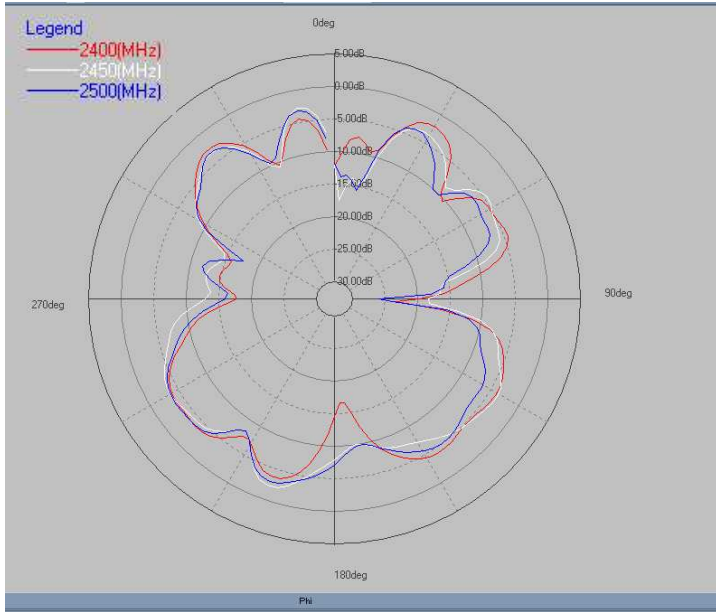


Tx3 (or Rx3) Antenna Photo:

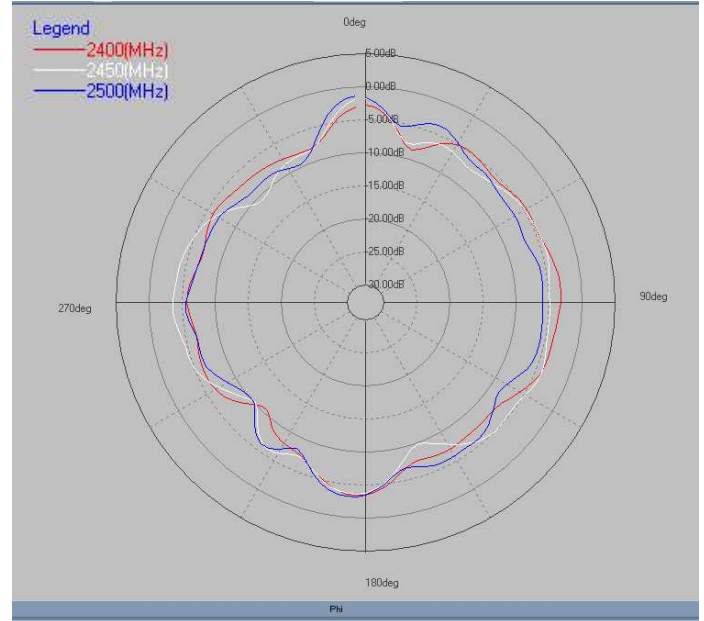


Section 3. Radiation characteristics of antennae Loaded in Host Platform

2400-2500MHz radiation characteristic TX1



Horizontal



Vertical

Tx1 antenna: 2400

Center Frequency	2400 MHz
Horizontal (dBi) peak	-2.10
Vertical (dBi) peak	-2.88

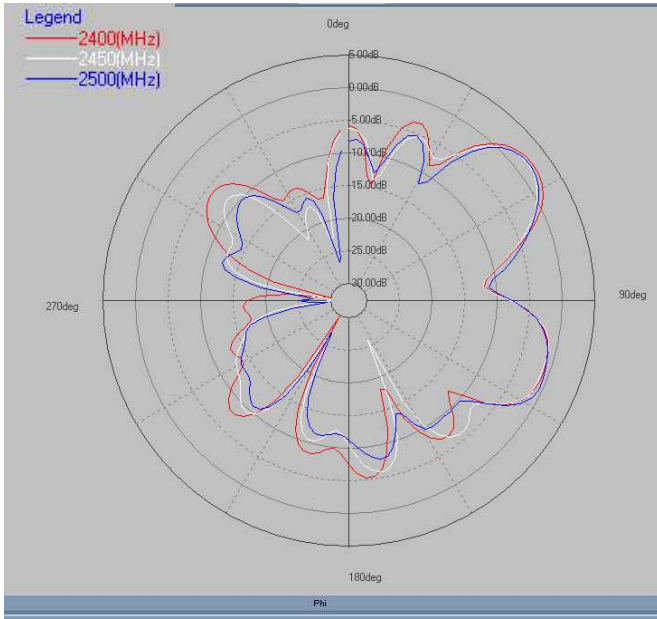
Tx1 antenna: 2450

Center Frequency	2450 MHz
Horizontal (dBi) peak	-2.29
Vertical (dBi) peak	-1.91

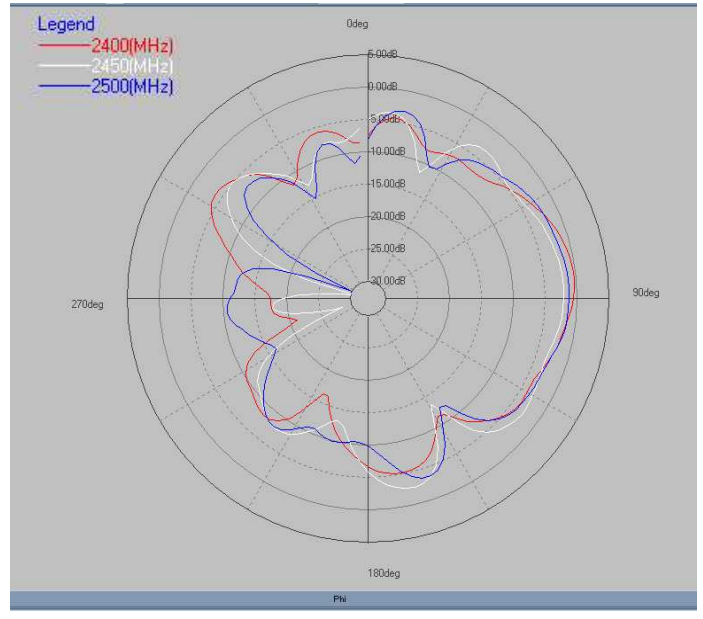
Tx1 antenna: 2500

Center Frequency	2500 MHz
Horizontal (dBi) peak	-2.99
Vertical (dBi) peak	-1.45

2400-2500MHz radiation characteristic TX2



Horizontal



Vertical

Tx2 antenna: 2400

Center Frequency	2400 MHz
Horizontal (dBi) peak	2.46
Vertical (dBi) peak	-0.27

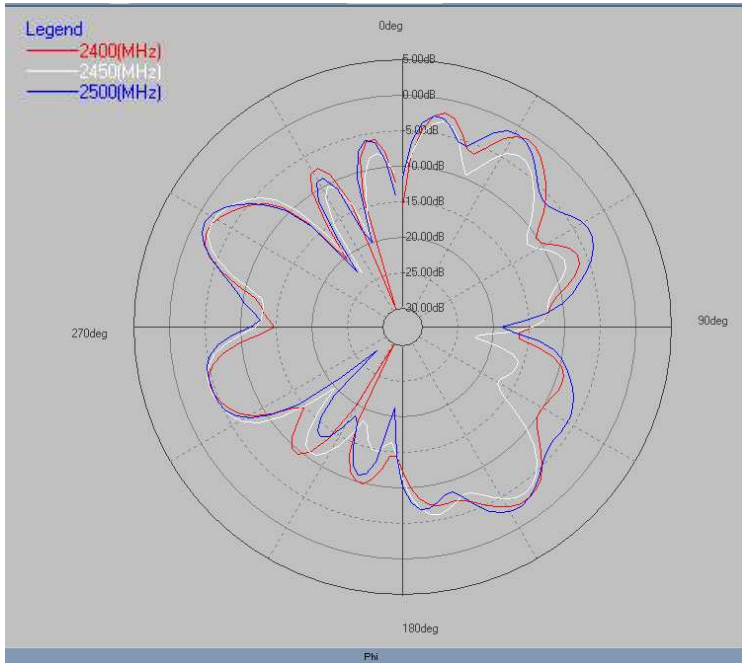
Tx2 antenna: 2450

Center Frequency	2450 MHz
Horizontal (dBi) peak	1.88
Vertical (dBi) peak	-2.03

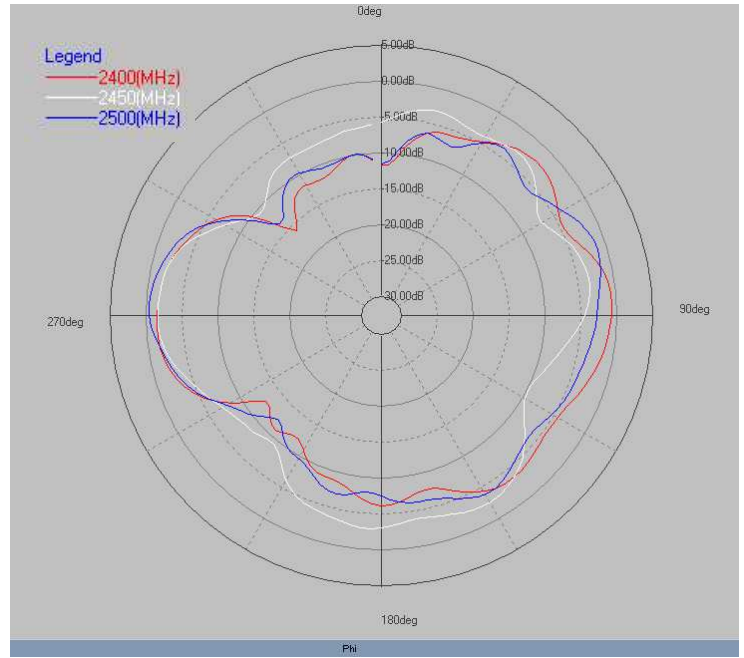
Tx2 antenna: 2500

Center Frequency	2500 MHz
Horizontal (dBi) peak	2.05
Vertical (dBi) peak	-1.2

2400-2500MHz radiation characteristic TX3



Horizontal



Vertical

Tx3 antenna: 2400

Center Frequency	2400 MHz
Horizontal (dBi) peak	-1.06
Vertical (dBi) peak	-0.62

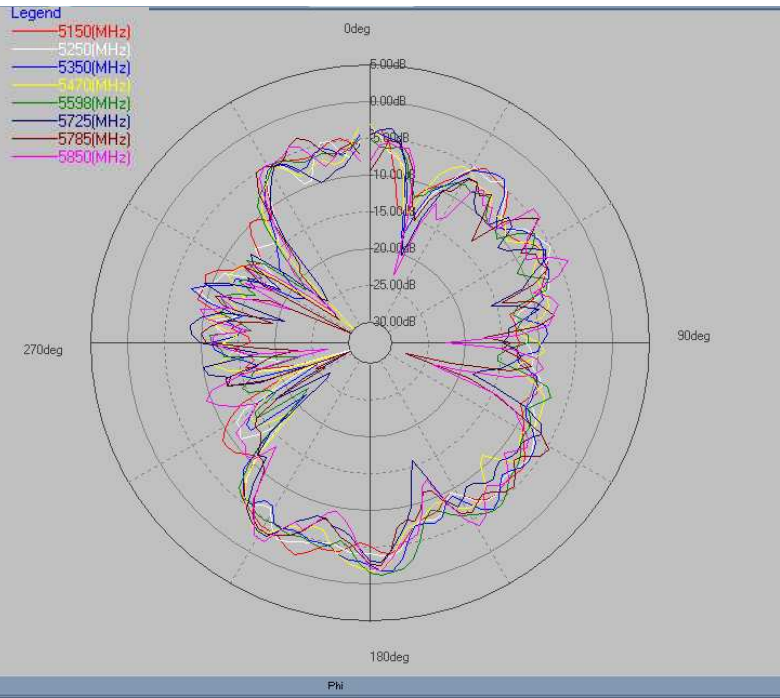
Tx3 antenna: 2450

Center Frequency	2450 MHz
Horizontal (dBi) peak	-2.15
Vertical (dBi) peak	-1.57

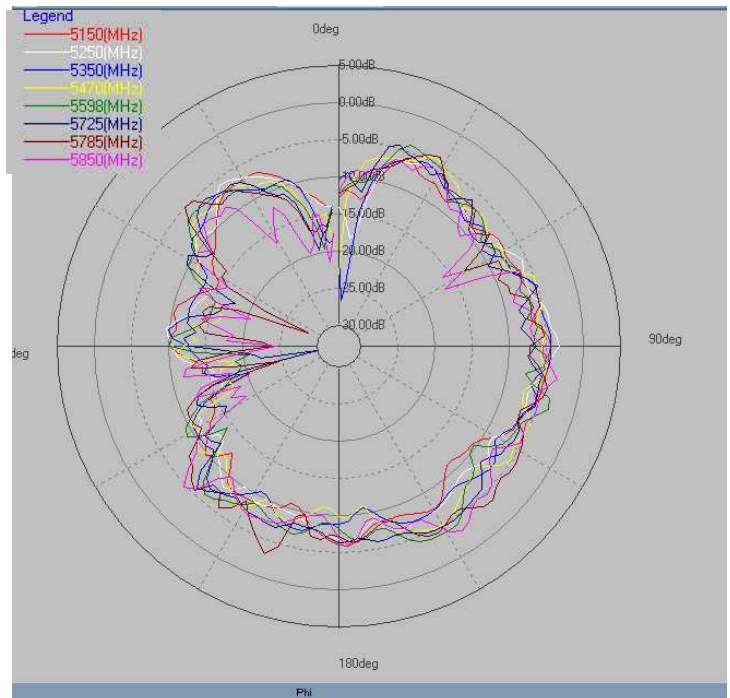
Tx3 antenna: 2500

Center Frequency	2500 MHz
Horizontal (dBi) peak	-1.08
Vertical (dBi) peak	-0.32

5150-5850 MHz radiation characteristic For TX1



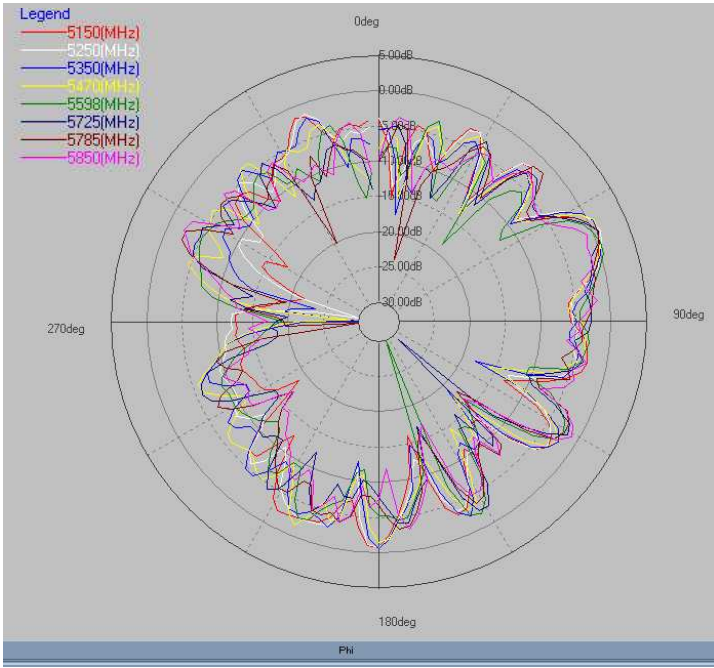
Horizontal



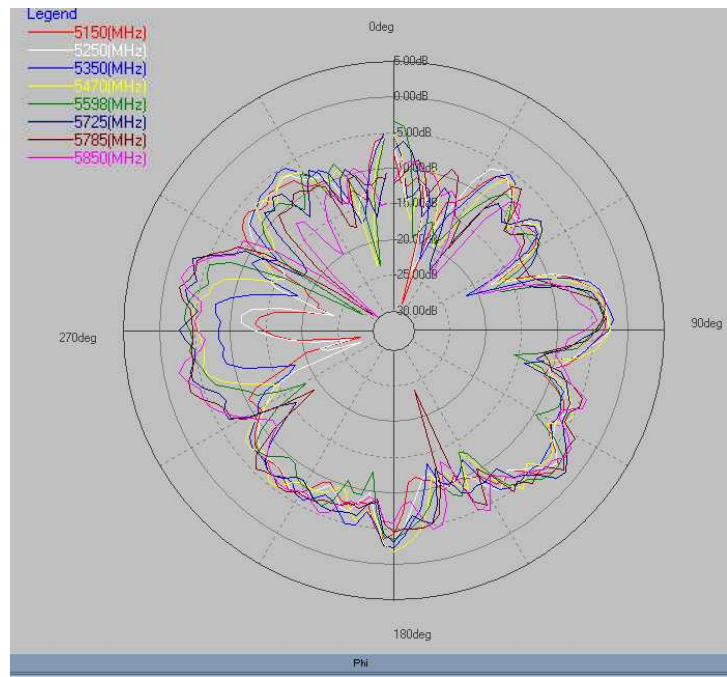
Vertical

Center Frequency	Horizontal (dBi) peak	Vertical (dBi) peak
5150	-2.39	-4.44
5250	-3.39	-3.30
5350	-1.76	-4.34
5470	-1.88	-4.48
5598	-1.34	-3.45
5720	-3.06	-4.65
5785	-2.67	-3.33
5850	-1.83	-3.05

5150-5850 MHz radiation characteristic For TX2



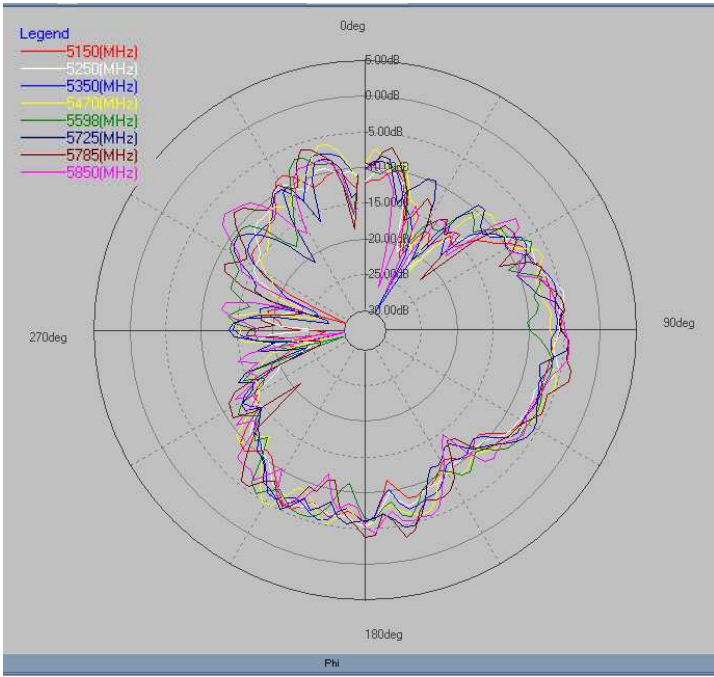
Horizontal



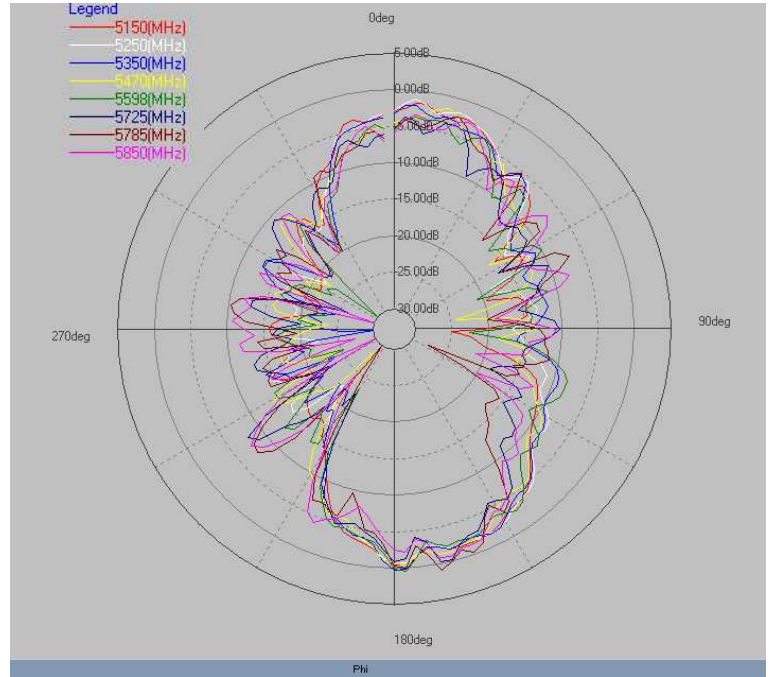
Vertical

Center Frequency	Horizontal (dBi) peak	Vertical (dBi) peak
5150	0.62	-2.93
5250	1.01	-2.71
5350	0.66	-2.10
5470	0.82	-1.86
5598	0.51	-2.99
5720	0.69	-1.69
5785	0.56	-2.13
5850	-0.35	-2.12

5150-5850 MHz radiation characteristic For TX3



Horizontal



Vertical

Center Frequency	Horizontal (dBi) peak	Vertical (dBi) peak
5150	-0.51	-5.42
5250	-0.65	-4.62
5350	0.2	-5.61
5470	-0.44	-4.89
5598	0.39	-5.45
5720	-0.25	-4.44
5785	0.88	-3.4
5850	-0.77	-4.25

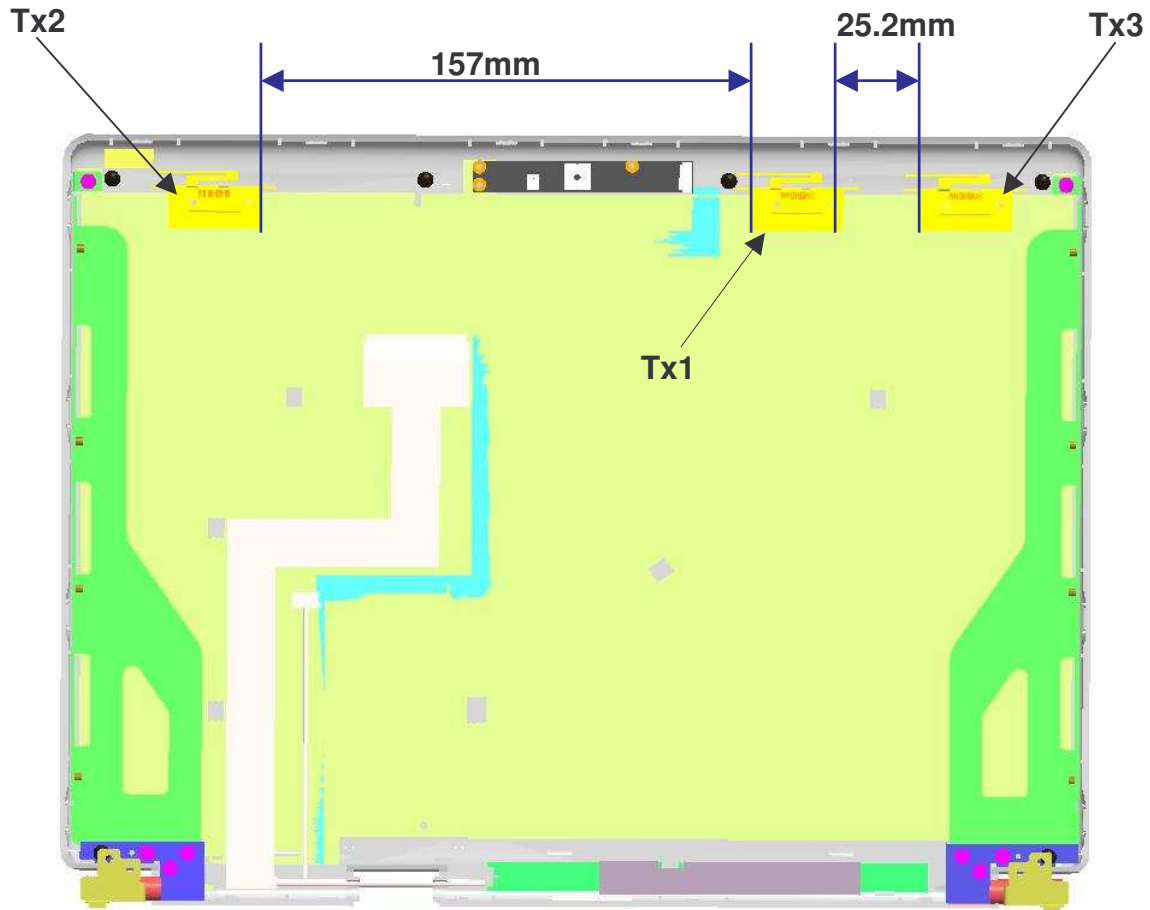
Section 4. Host Platform Information

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

Rating Label Photo:

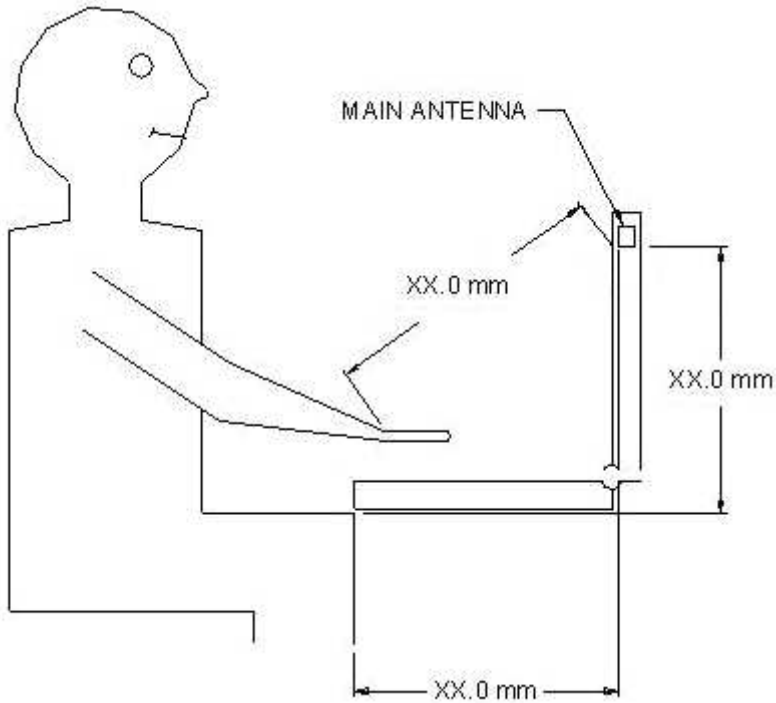
Section 5. Antenna Host Platform Location Information

Include a **dimensioned photo or dimensioned drawing** of Tx1, Tx2 and Tx3 antenna placements. (Not applicable for receive-only antenna e.g. Rx3 for 4965AGN)



Section 6. Antenna dimensional information for SAR evaluation

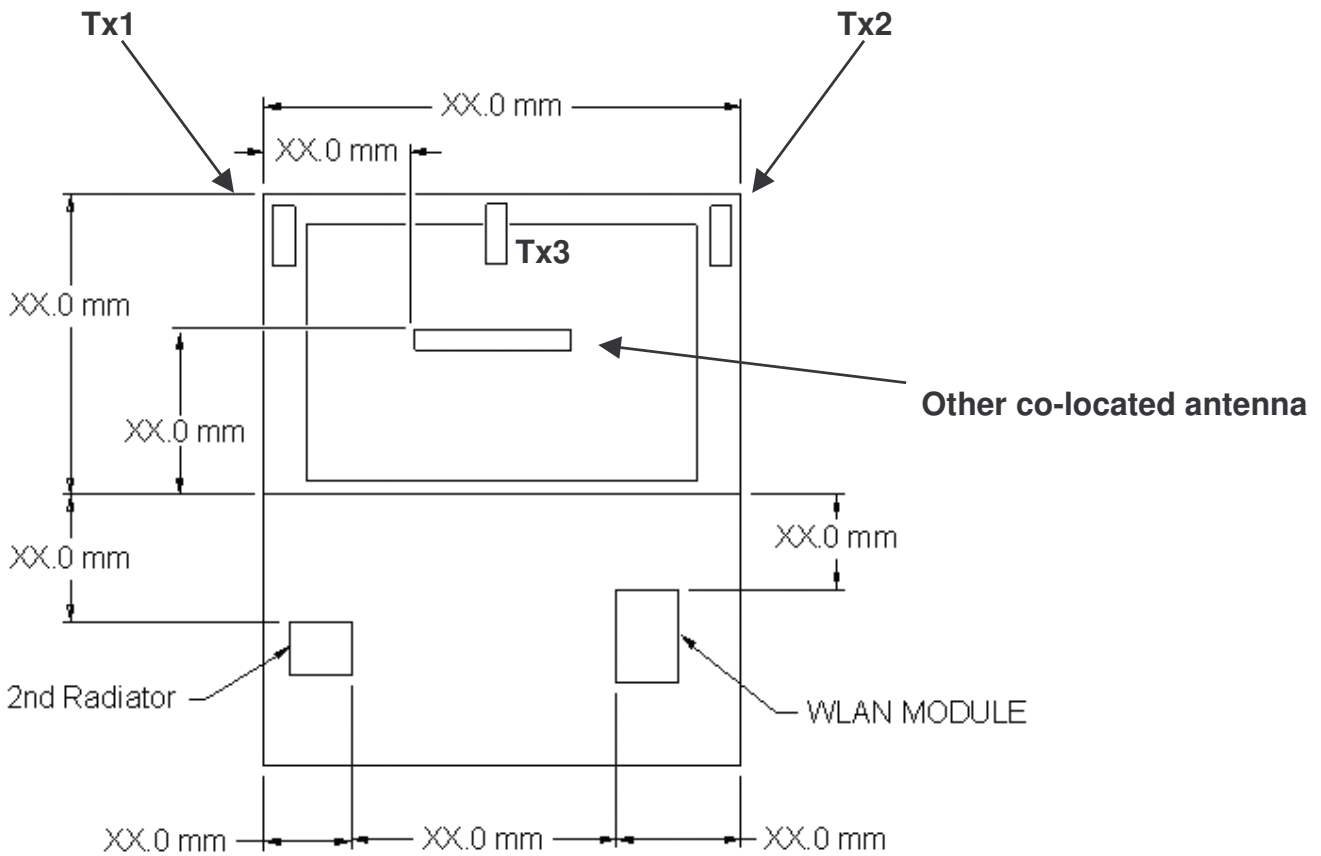
Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between the transmit antennas and the user (excluding hands, wrist, feet, lap/ thigh, and ankle)



Section 7. 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 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
South Africa						
USA, Canada						