Regulatory WLAN Antenna Information (Template)

English Language Required for Regulatory Review / Approval

(OEM/ODM or antenna vendor is required to complete this document with platform antenna information.

Platform information					
Brand	**ODM**	****End product model name**		**Platform type** (ex: regular NB, convertible PC, AIO…etc)	***SAR minimum separation (mm)**
	ECS	SG20QT2C		Convertible NB	195.65mm

*****Please fill in exact product model name and make sure the model name is visible on product cover or any parts for end users recognize for authority inspection.**

Antenna information			
Vendor	**Type**	**Antenna Part number** (Main)	**Antenna Part number** (Aux)
WGT	PIFA Antenna	EGT2CWRPB01+A	EGT2CWRPB02+A-02

Peak gain w/ cable loss (dBi)*										
	2.4GHz 2400-2483.5 MHz	**5.2GHz** 5150-5250MHz	**5.3GHz** 5250-5350MHz	**5.6GHz** 5470-5725MHz	**5.8GHz** 5725-5850MHz					
Main	1.95	2.81	2.81	2.54	1.77					
Aux	1.72	2.10	0.73	1.45	1.64					

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1. **Applicable test methods**

<insert test description here for test method>
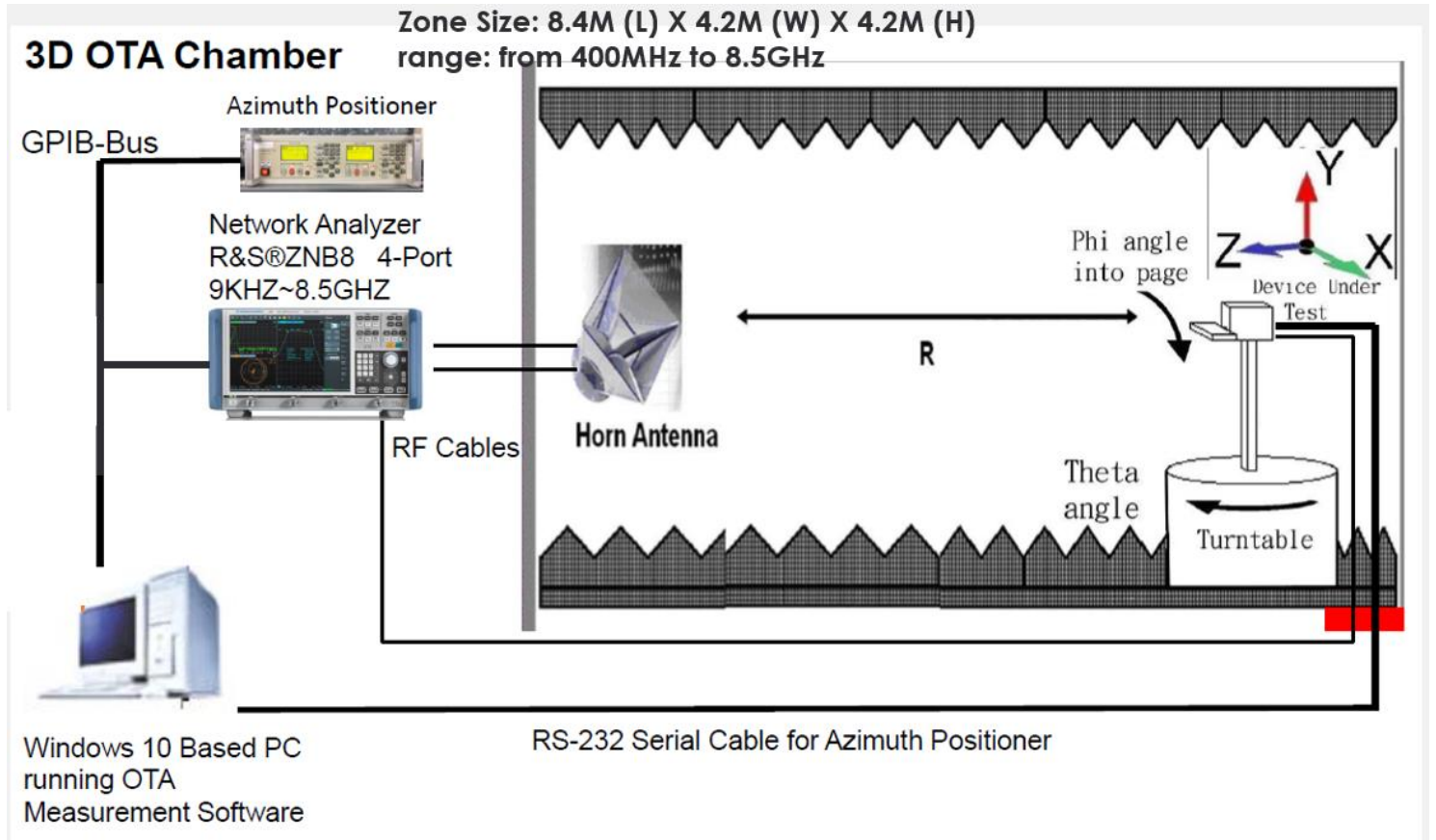
This test report is prepared for host antenna testing under a Full Anechoic Chamber. (WGT)

2. **Test & System Description**
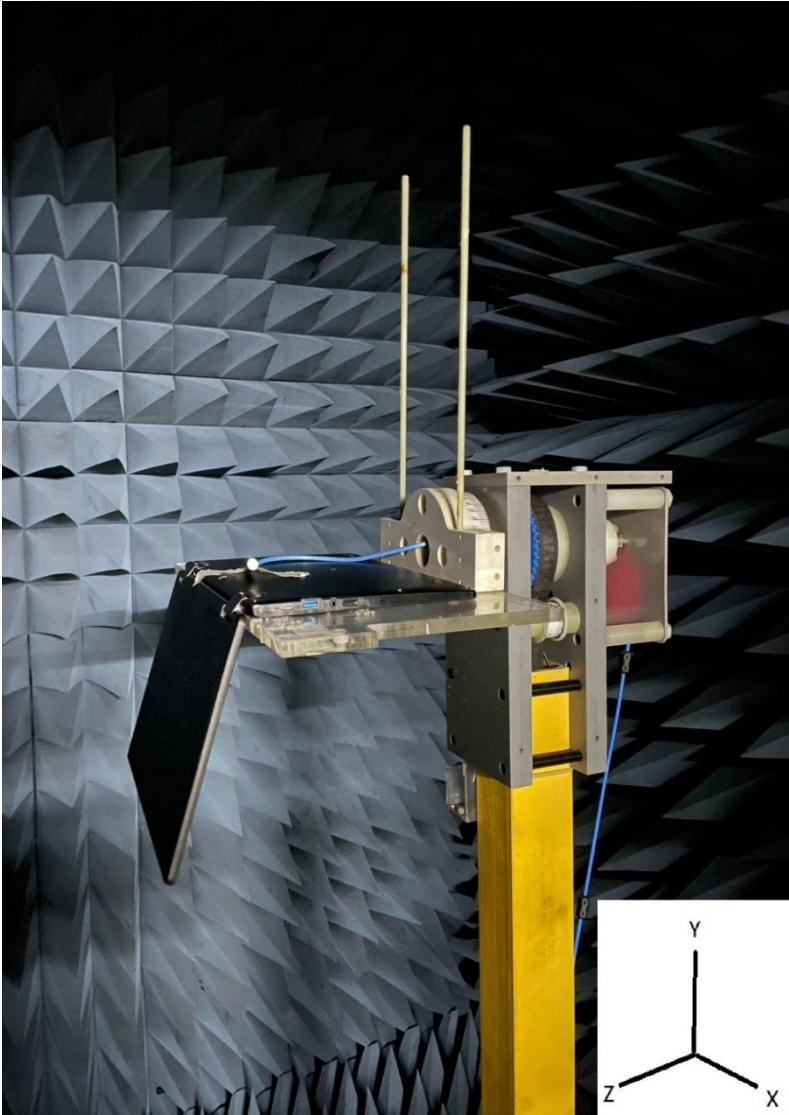   a. Test setup

<insert test diagram here for test site utilized>

b. Equipment list

Item	Device	Type/Model	Serial#	Manufacturer	Cal. Date	Cal. Due Date
1	Anechoic Chamber	W448	N/A	N/A	2021/4/1	2023/4/1
2	Turn Table	MF9532	-	Azimuth	N/A	N/A
3	Multi-Device Positioning Controller	MF7802	-	Azimuth	2021/11/1	2023/11/1
4	Network Analyzer	ZNB8	-	R&S	2021/11/1	2023/11/1
5	Horn Antenna	HA-0707	96143	TRC	2021/4/1	2022/4/1
6	Cable 7.5mm 400MHz to 18GHz(H-pol)	SS402	00100A1	WOKEN	2021/4/1	2023/4/1
7	Cable 7.5mm 400MHz to 18GHz(V-pol)	SS402	00100A1	WOKEN	2021/4/1	2023/4/1
8	Cable 14mm 400MHz to 18GHz	SS402	00100A1	WOKEN	2021/4/1	2023/4/1

3. <u>Setup photo</u>

Antenna Information

Section 1. Antenna Assembly Specifications

1A Antenna Part Number	1B Manufacturer	1C Antenna Type	1D Cable Assembly Part Number and Information	Freq Range MHz	1E * Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G Max VSWR	1H Cable Loss (dB)
(P/N: EGT2CWRPB01+A) Tx1/ Rx1 Antenna	Well Green Technology Co., Ltd.	PIFA	(P/N: COAXIA E318898) 50 ohm Coaxial length: 43.3cm diameter: I-PEX MHF4L FOR 1.13mm	2400-2483.5	1.95dBi (peak)	3.18dBi (peak)	2.41 max	1.23dBi(peak)
				5150-5250	2.81dBi (peak)	4.72dBi (peak)	1.43 max	1.91dBi(peak)
				5250-5350	2.81dBi (peak)	4.78dBi (peak)	1.43 max	1.97dBi(peak)
				5470-5725	2.54dBi (peak)	4.58dBi (peak)	1.73 max	2.04dBi(peak)
				5725-5850	1.77dBi (peak)	3.90dBi (peak)	2.05 max	2.13dBi(peak)
(P/N: EGT2CWRPB02+A-02) Tx2/ Rx2 Antenna	Well Green Technology Co., Ltd.	PIFA	(P/N: COAXIA E318898) 50 ohm Coaxial length: 58.6cm diameter: I-PEX MHF4L FOR 1.13mm	2400-2483.5	1.72dBi (peak)	3.39dBi (peak)	1.57max	1.67dBi(peak)
				5150-5250	2.10dBi (peak)	4.69dBi (peak)	1.80max	2.59dBi(peak)
				5250-5350	0.73dBi (peak)	3.41dBi (peak)	1.80max	2.68dBi(peak)
				5470-5725	1.45dBi (peak)	4.22dBi (peak)	2.03max	2.77dBi(peak)
				5725-5850	1.64dBi (peak)	4.53dBi (peak)	2.03max	2.89dBi(peak)

● **3D Antenna Peak Gain required being test in system basis.**

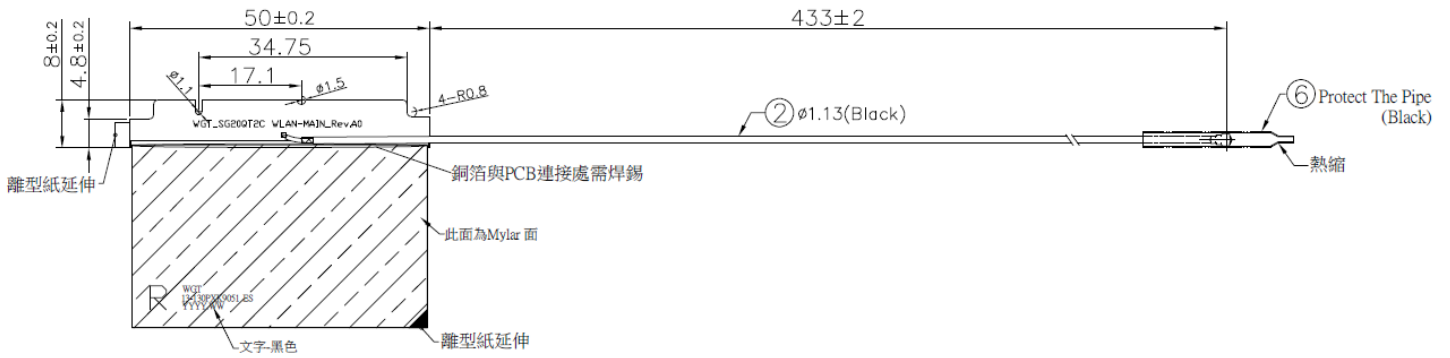## Antenna Peak Gain Table:

Frequency (MHz)	Main antenna (dBi)	Aux Antenna (dBi)
2400	1.07	1.72
2450	1.76	1.28
2483.5	1.95	1.53
5150	2.13	2.1
5250	2.81	0.71
5350	2.58	0.73
5470	1.86	1.45
5600	2.54	0.67
5725	1.77	0.98
5785	1.18	1.64
5800	0.86	1.64
5850	0.8	1.13

Section 2. Dimensioned Photos and Drawings of Antennas
Include the dimensioned photo and drawing of Main antenna here.
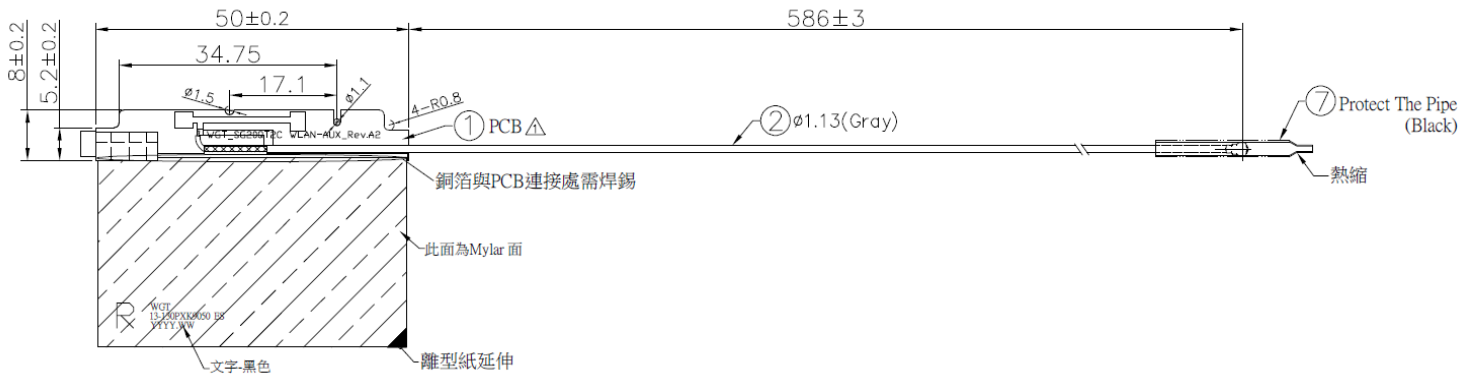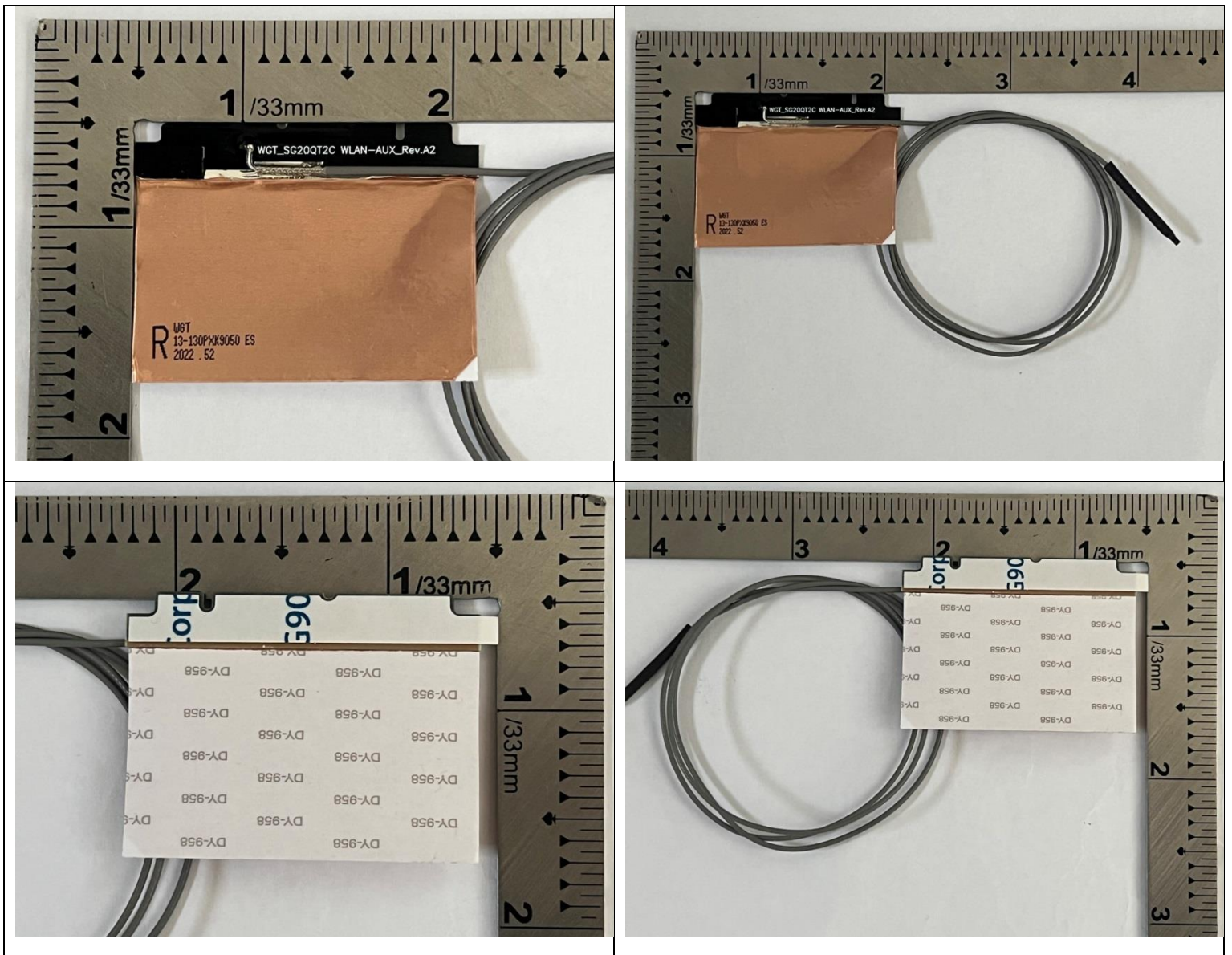
Main Antenna Drawing:

Main Antenna Photo (Front/Back):
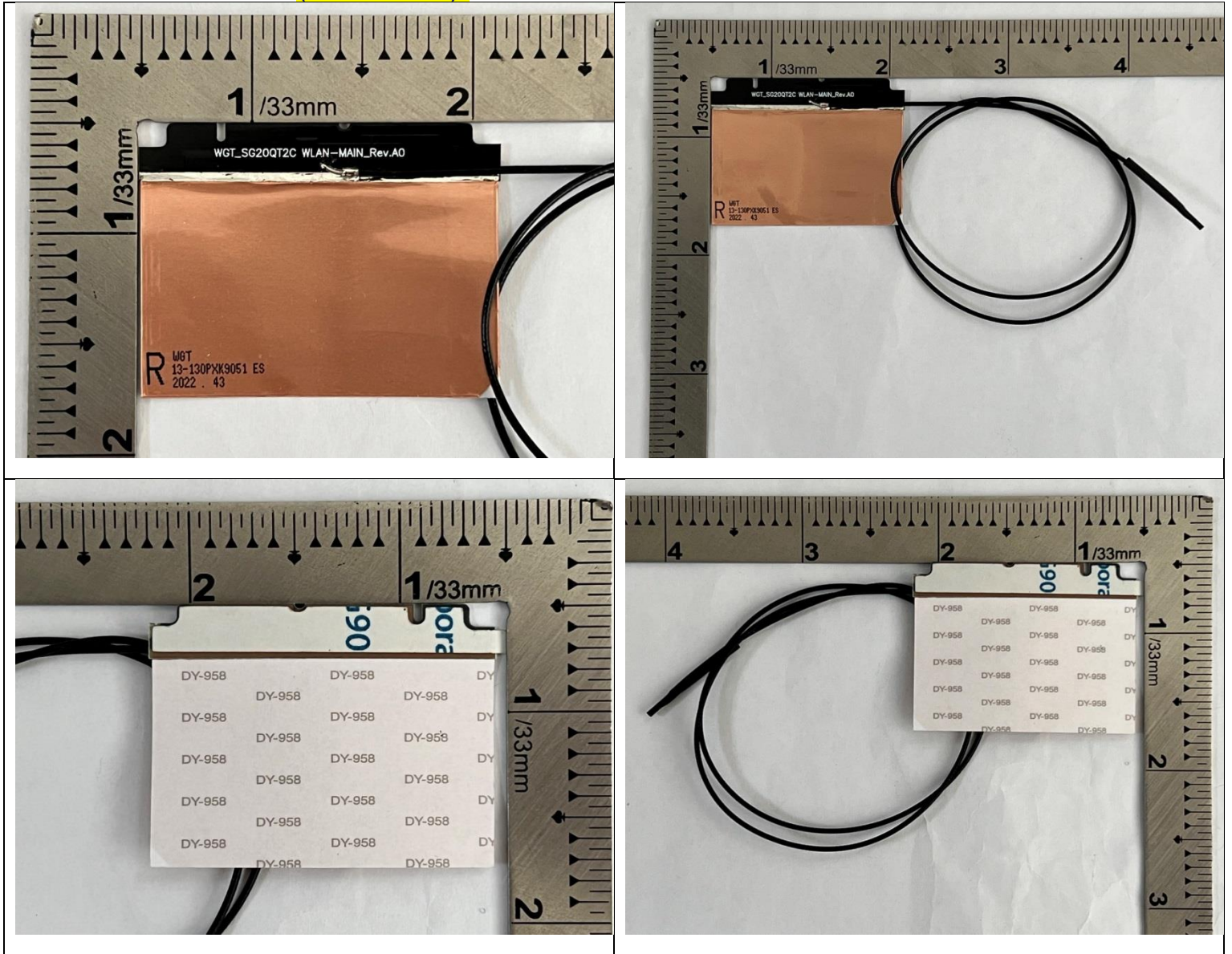
Note: antenna photo should include L type ruler

Include the dimensioned photo and drawing of Aux antenna here.

Aux Antenna Drawing:

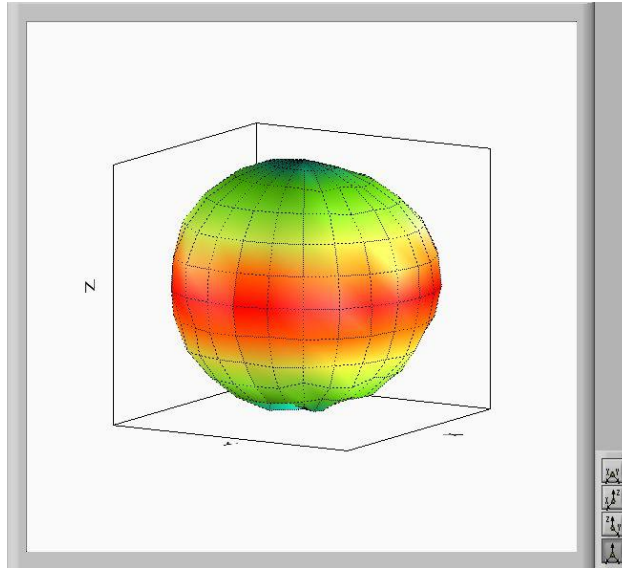## Aux Antenna Photo (Front/Back):

Note: antenna photo should include L type ruler

Section 3. Radiation characteristics of antenna loaded in Host Platform
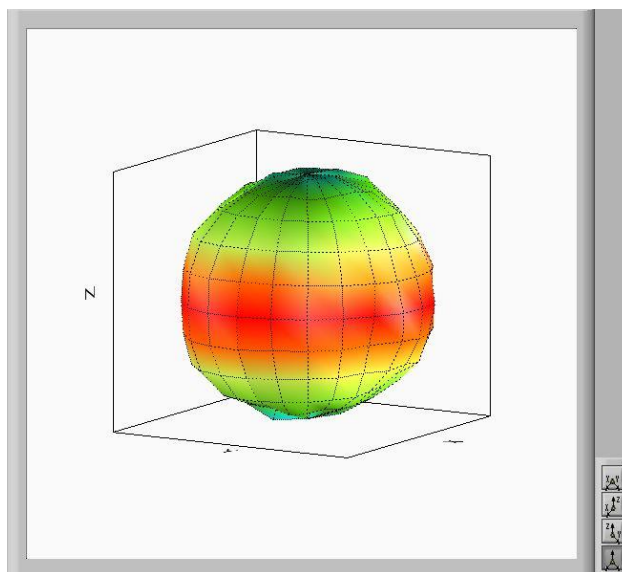
Main Antenna

Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

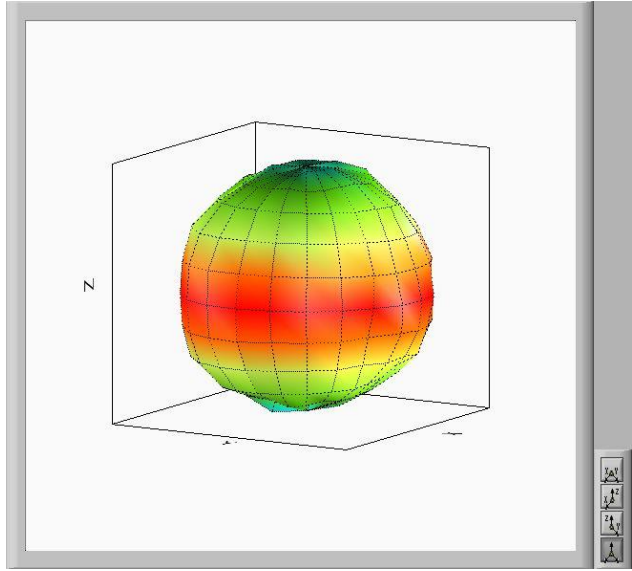| Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.95

Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.81

Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.81

Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.54
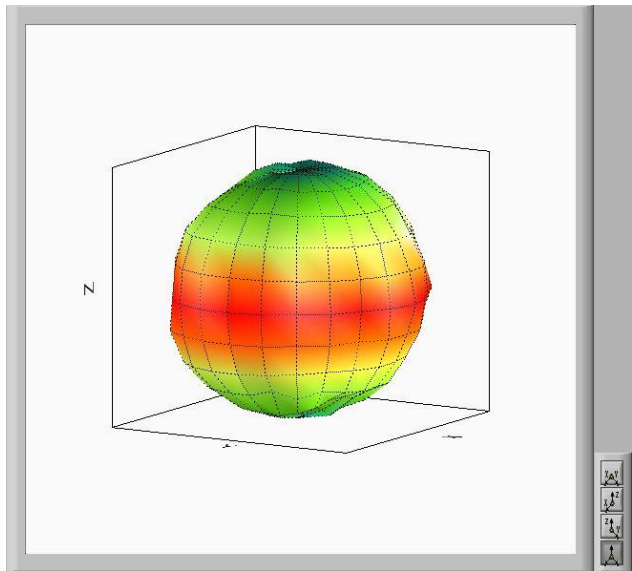
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	1.77
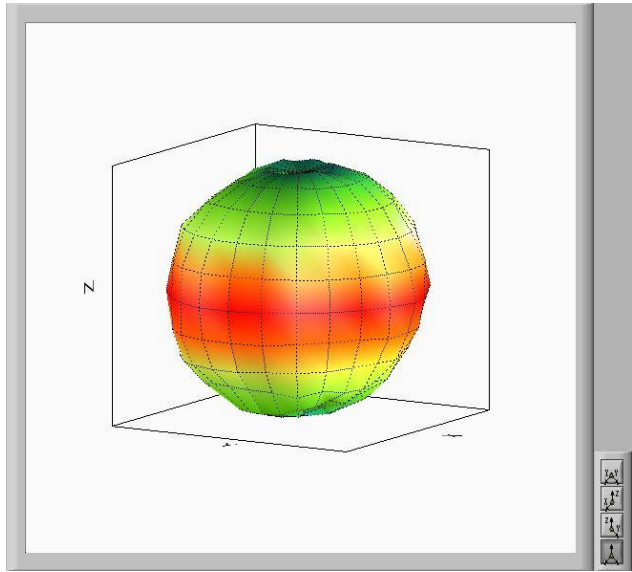
Auxiliary Antenna

Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz
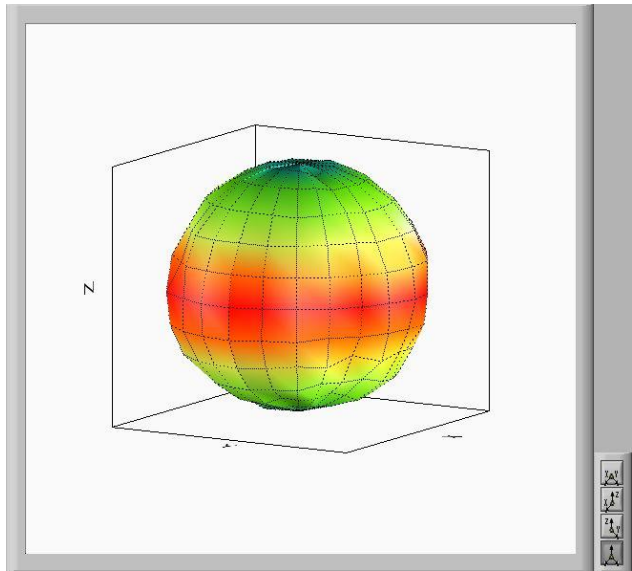
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.72
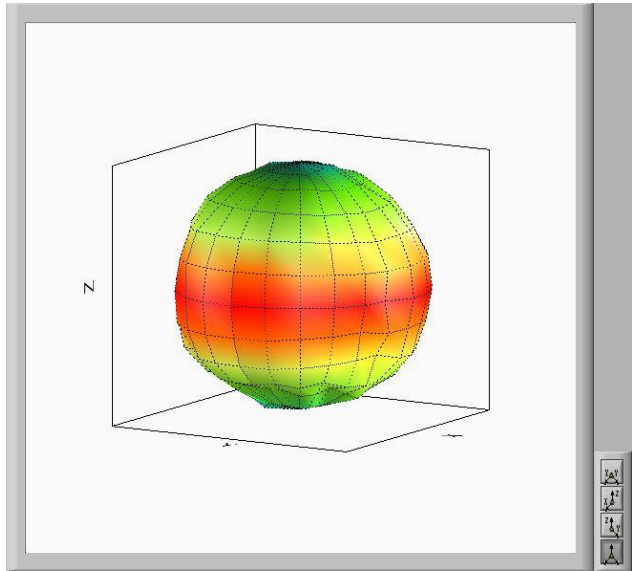
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.10
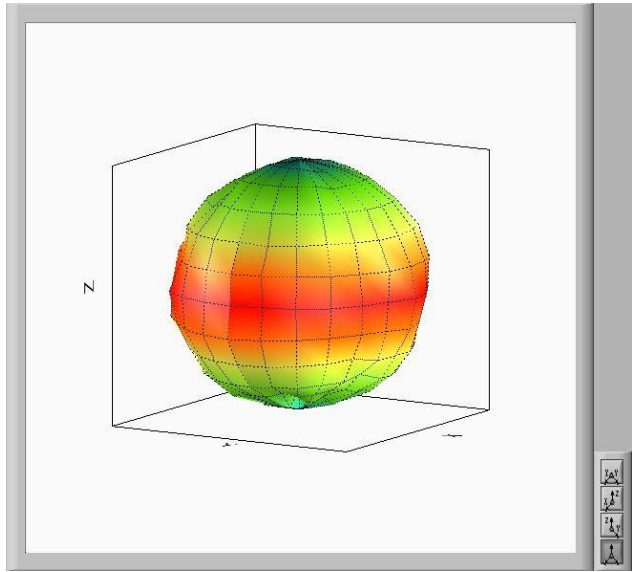
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	0.73

Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.45
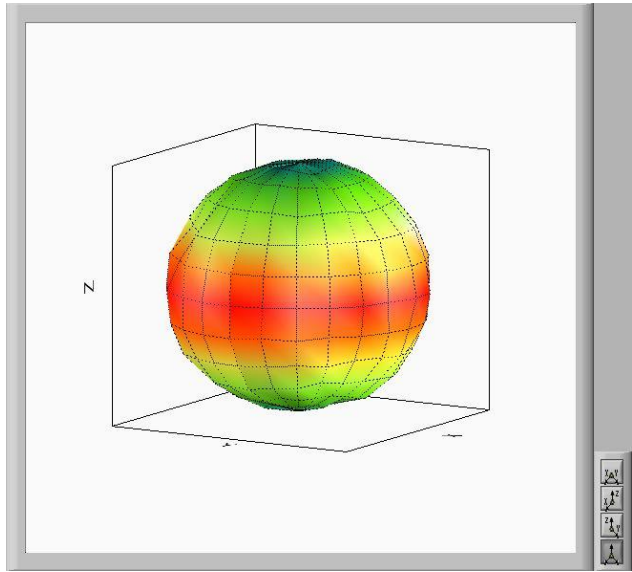
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	1.64
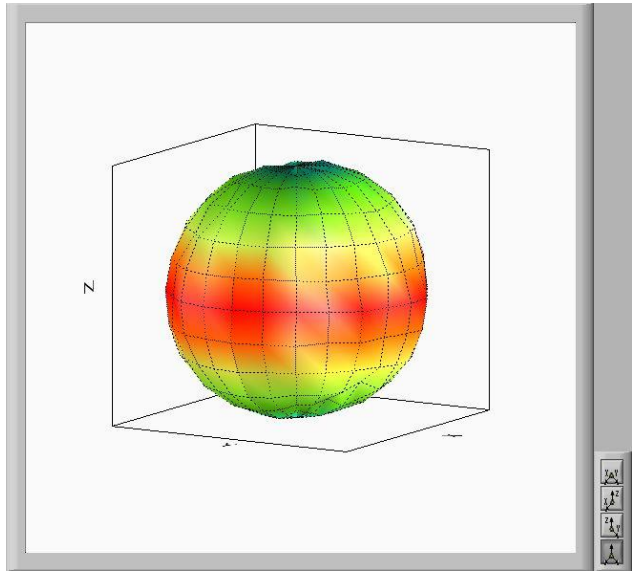
# Section 4. Antenna Host Platform Location Information

Include a **dimensioned photo(s) or dimensioned drawing(s)** of Main and Aux antenna placements (measurements are not required for <u>receive-only</u> antenna).

Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.
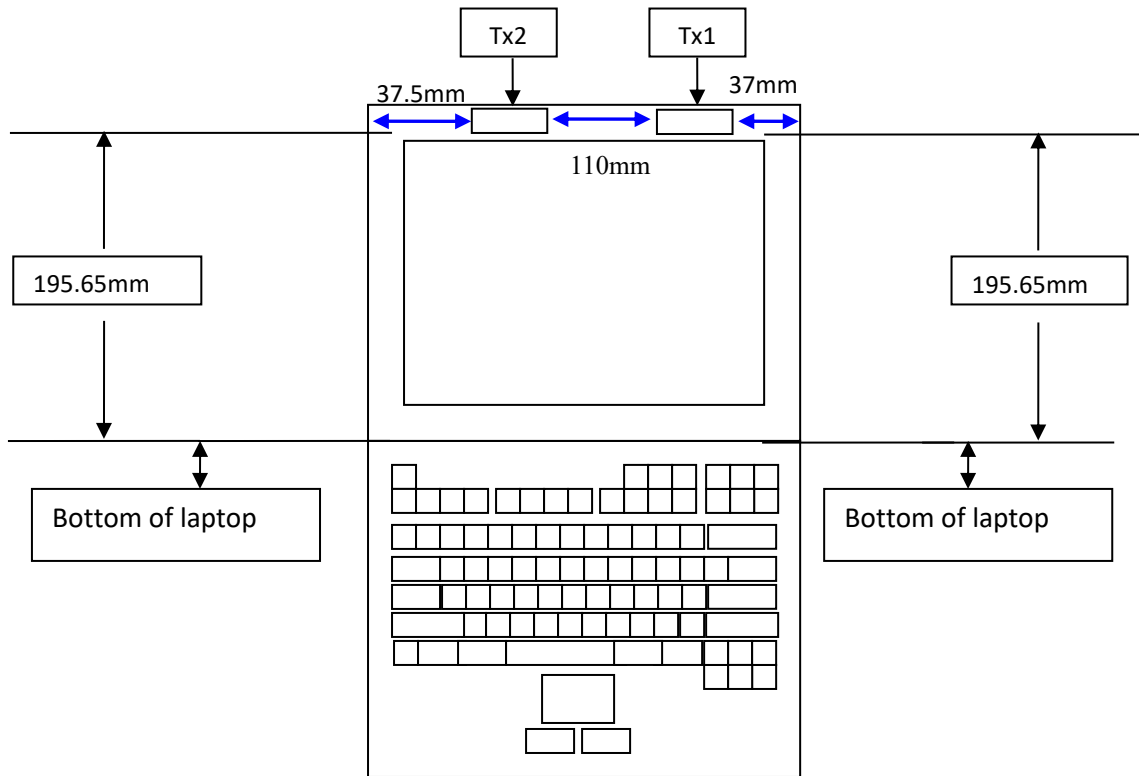
Section 5. Antenna dimensional information for SAR evaluation

Include a **dimensioned photo(s) or dimensioned drawing(s)** showing the distance (mm) between the transmit antennas and the user. For notebook/laptop hosts show lapheld position (example below).   For tablet hosts show all orientations including lapheld, primary & secondary portrait, primary & secondary landscape positions. Include a description of any proximity sensors or power throttling implementations that limit or exclude use of any host orientation.
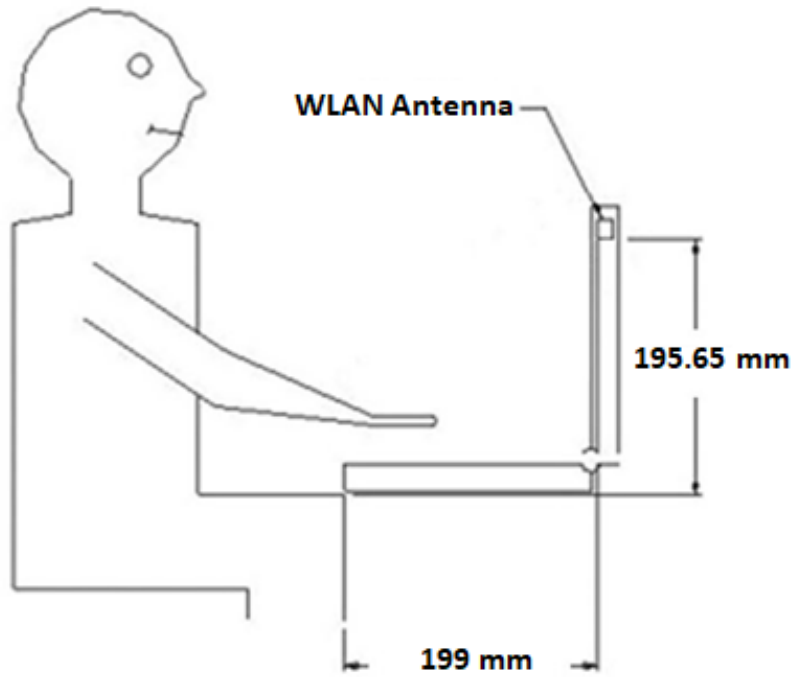
Section 6. Diagram Example of Co-Location Antenna Separation

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)