

ANTENNA INFORMATION

OEM	ASUS
ODM	Hua qin
Platform model name	X1652XA
Intel platform (ex: Yes, No or NA)	NA
Platform type (ex: regular NB, convertible PC, AIO...etc)	Regular NB
SAR minimum separation (mm)	FCC (1g) ISED (1g) ISED (10g)

Antenna manufacturer	Company name	INPAQ
	Address	INPAQ TECHNOLOGY(SUZHOU) CO, LTD. No. 5, Chunqiu Road, Huang dai Town, Xiang cheng District, Xiang cheng District, Suzhou City, Jiangsu Province, China.
Test location	Company name	INPAQ
	Address	INPAQ TECHNOLOGY(SUZHOU) CO, LTD. Unit 802, A2, Kexing Science Park, Nanshan District, Shenzhen, Guangdong Province, China.
Test Personnel	Name(Full name)	Guan gmang.chen
	E-mail	Guangmang.chen@inpaqgp.com
	Tel/Mobile	18895658707
Testing date		2026/05/06

Antenna Part number	Main	WA-P-LELE-04-109
	Aux	WA-P-LELE-04-109
Antenna type (ex: PIFA, Dipole...etc)		PIFA Antenna

Antenna 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	5.9GHz 5850-5895MHz	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	7.0 GHz 6875-7125MHz
Main	2.96	2.95	2.78	2.93	2.54	2.19	2.84	2.34	2.63	2.84
Aux	2.77	3.05	3.03	1.51	1.38	1.58	2.28	2.17	1.68	1.40

Cable Assembly Part Number and Information					
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type
Main	SY113L/50-048	315	1.13	50	I-Pex (20565-001R-13)
Aux	SY113L/50-049	319	1.13	50	I-Pex (20565-001R-13)

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

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1. Intel Reference Gain and Type

Antenna Peak gain w/ cable loss (dBi)											
Band/Frequency		2.4GHz 2400-2483.5 MHz	5.2GHz 5150-5250MHz	5.3GHz 5250-5350MHz	5.6GHz 5470-5725MHz	5.8GHz 5725-5850MHz	5.9GHz 5850-5895MHz	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	7.0 GHz 6875-7125MHz
Design	EU/UK	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PIFA	For WiFi 6E and earlier	3.24	3.64	3.73	4.77	4.97	4.72	4.83	4.30	5.37	5.59
	From WiFi 7	2.95	5.11	4.55	5.15	5.13	4.45	5.02	5.02	4.96	4.96
Dipole	For WiFi 6E and earlier	2.89	2.92	3.19	4.41	4.22	4.22	4.83	4.30	4.49	5.34
	From WiFi 7	2.95	4.03	4.11	5.15	5.13	4.45	5.02	4.71	4.49	4.96
Monopole	From WiFi 7	2.83	4.57	4.44	4.95	4.95	4.43	4.87	4.91	4.91	4.79

3D Peak Antenna gain should be equal or greater than -2 dBi

If a host integrator plans to use a lower gain antenna of the same type, additional CBP(FCC)/EDT(EU) testing need to be performed while the module is installed in the host.

2. Document Revision History

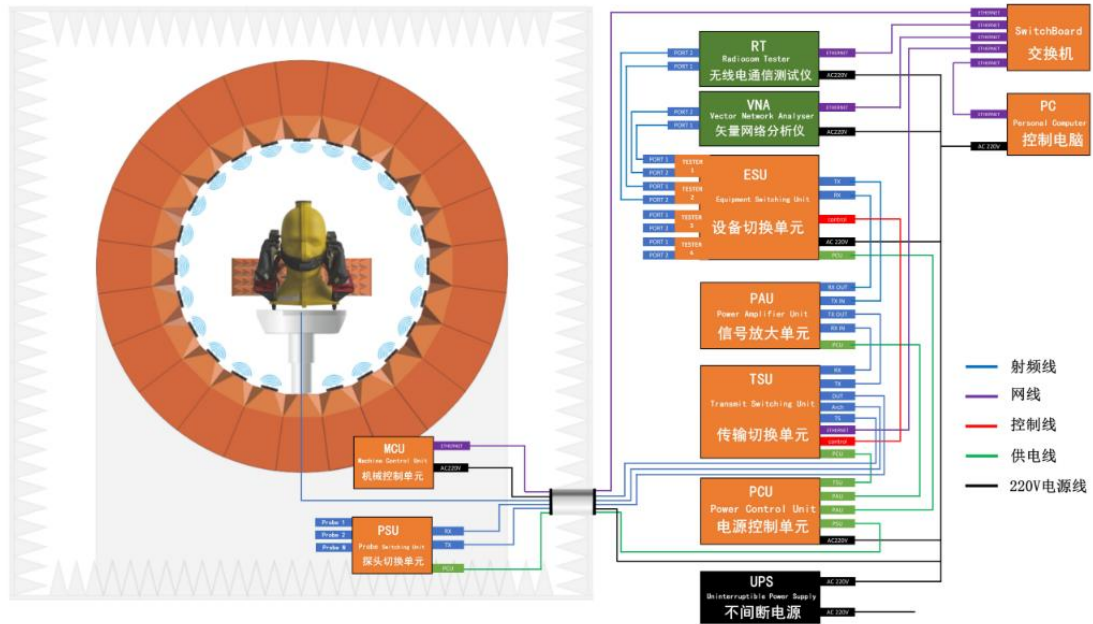
Revision #	Revision Details	Issued Date
Rev. 00	First Issue	2026.05.06

3. Test & System Description

3.1 Measurement Method and System

This test report is prepared for host antenna testing under a Full Anechoic Chamber.

3.2 Test setup



3.3 Equipment list

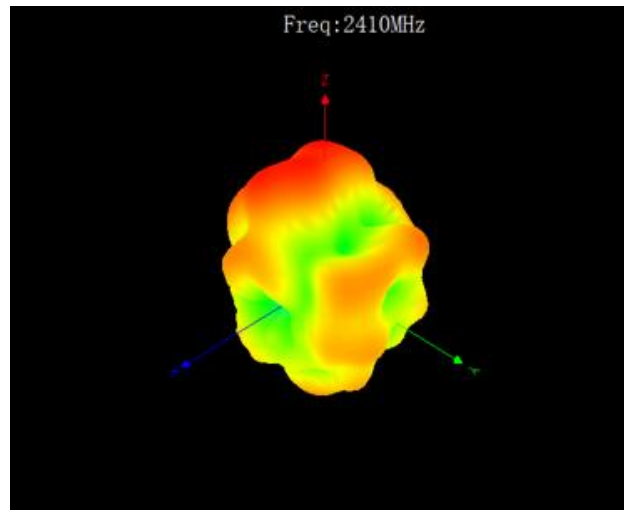
item	Device	Manufacter	Cal.Date	Cal.Due.Date
1	Chamber isolation	TEM24	2026/1/5	2027/1/4
2	Turntable accuracy	TEM24	2026/2/5	2027/2/27
3	WPA Box(Tx route) Gain	TEM24	2026/2/5	2027/2/27
4	LNA Box(Rx route) Gain	TEM24	2026/2/5	2027/2/27
5	Probe Switch Box Loss	TEM24	2026/2/5	2027/2/27
6	Tester Switch Box Loss	TEM24	2026/2/5	2027/2/27
7	Signal Switch Box Loss	TEM24	2026/2/5	2027/2/27
8	Radio Communication Tester	Rohde&Schwarz	2025/7/4	2026/7/3
9	Network Analyzer	Keysight	2025/7/4	2026/7/3
10	Chamber Calb SMAJ-SMAJ-1.5m 0.1G-18G Loss	TEM24	2026/2/5	2027/2/27
11	Chamber Calb SMAJ-SMAJ-0.5m 0.1G-18G Loss	TEM24	2026/2/5	2027/2/27

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

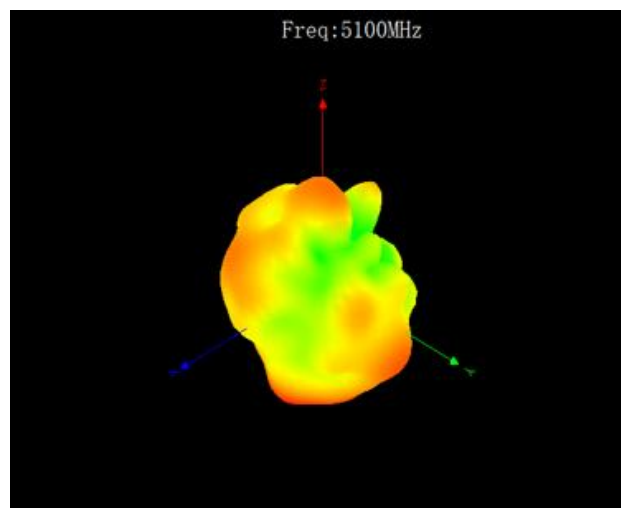
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.96



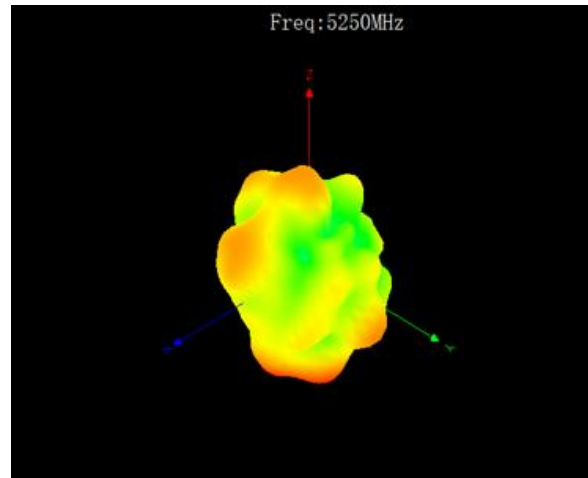
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.95



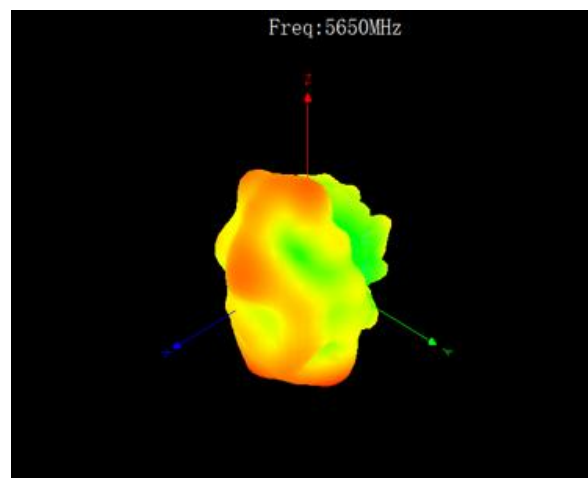
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.78



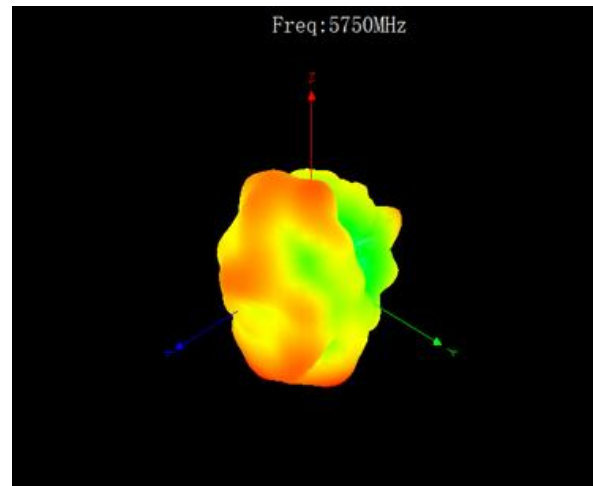
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.93



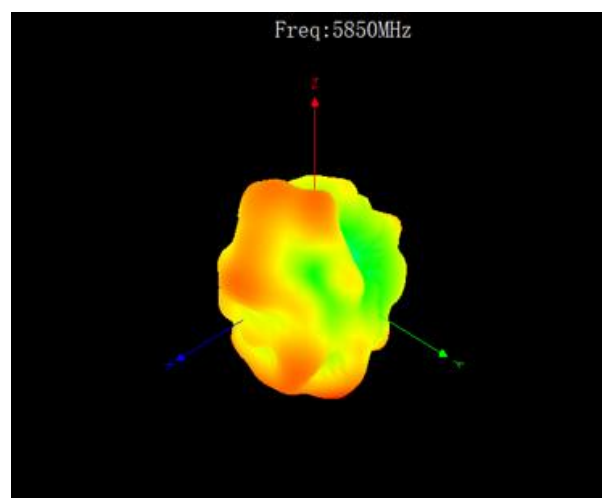
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.54



Max Antenna 3D Radiation Pattern 5850-5895 MHz

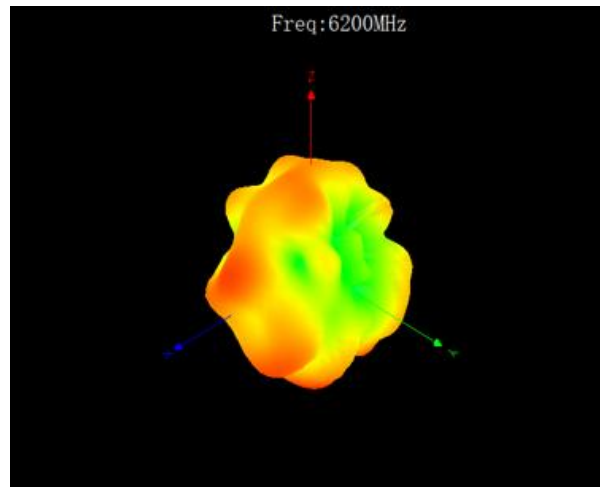
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.19



Max Antenna 3D Radiation Pattern 5925-6425 MHz

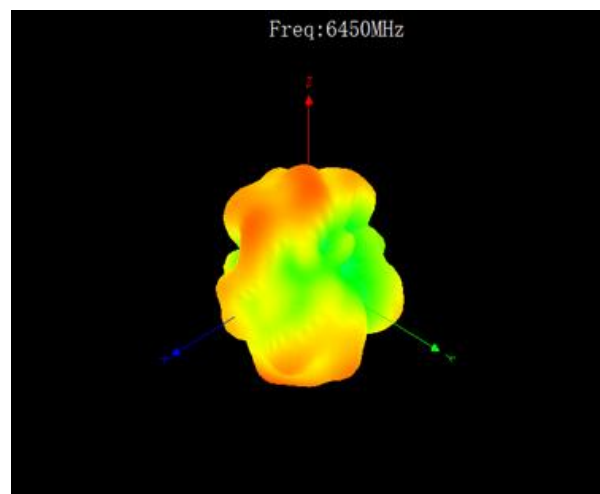
Frequency	Peak Gain w/ Cable Loss
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(MHz)	(dBi)
5925-6425	2.84



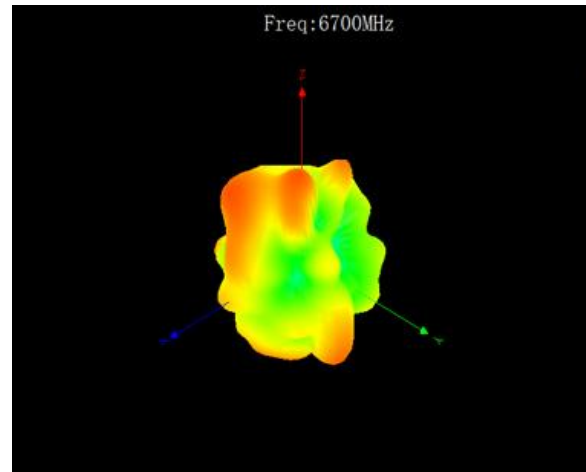
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.34



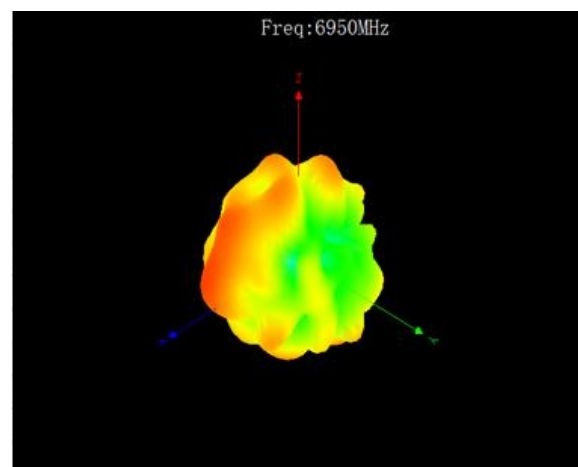
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.63



Max Antenna 3D Radiation Pattern 6875-7125 MHz

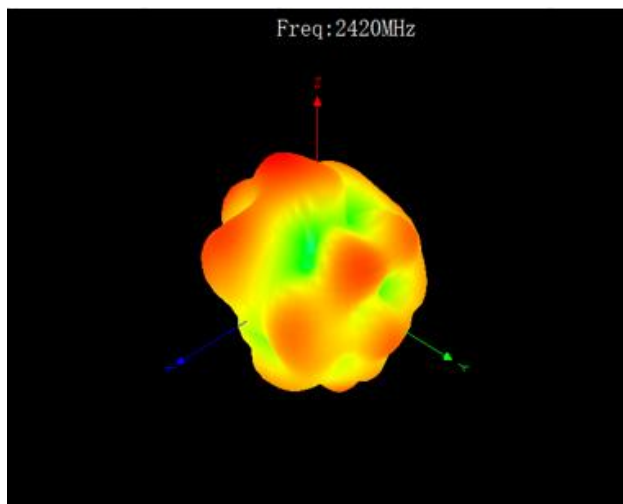
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.84



Auxiliary Antenna

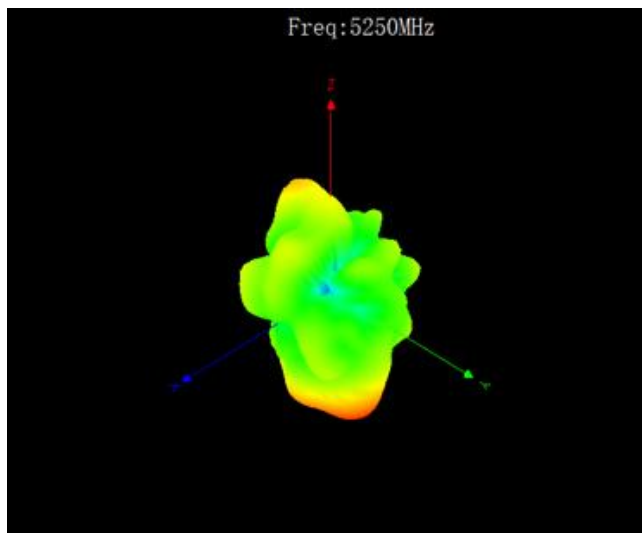
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.77



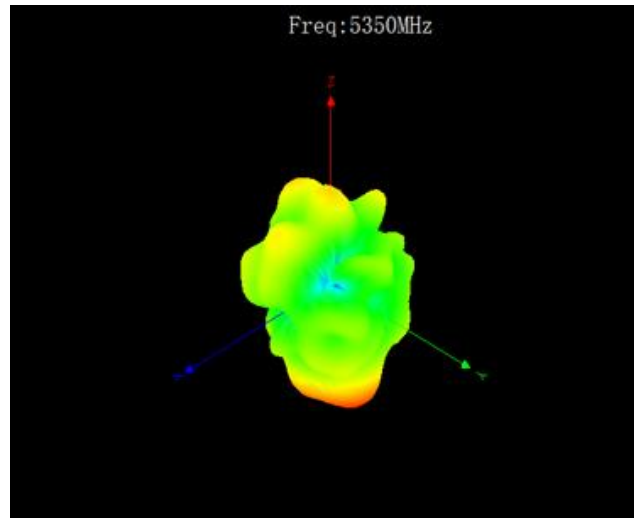
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.05



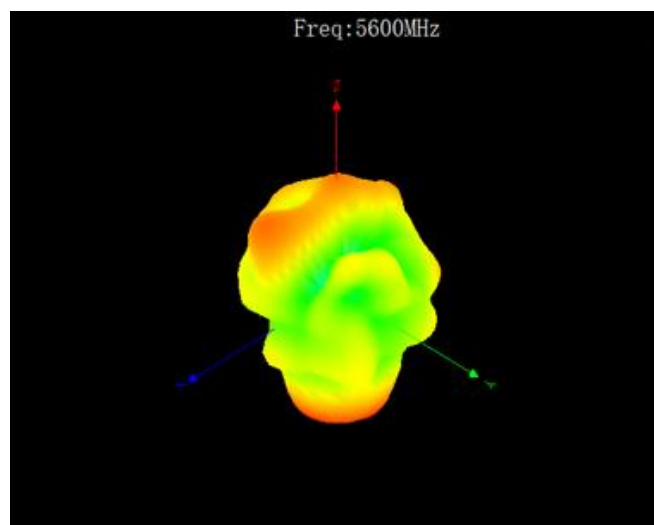
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	3.03



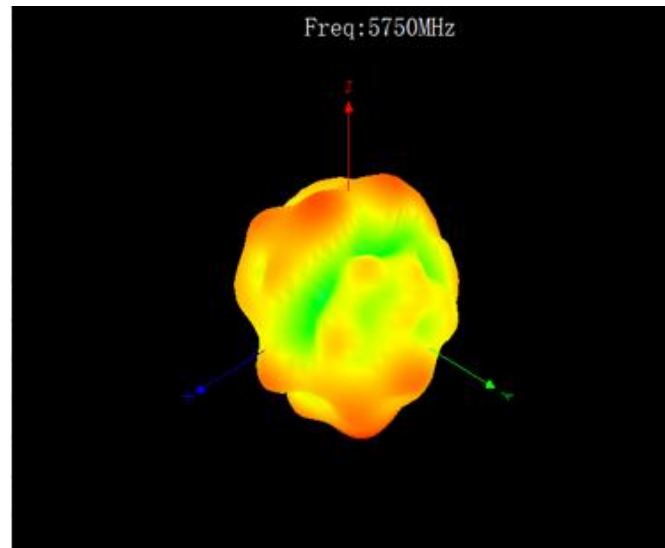
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.51



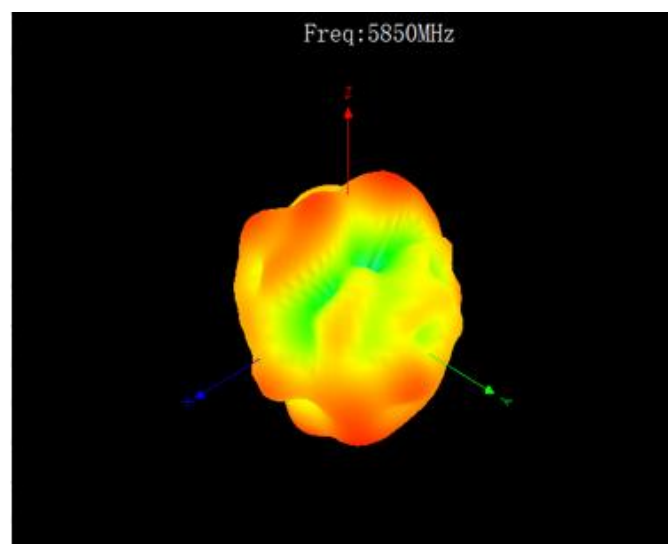
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	1.38



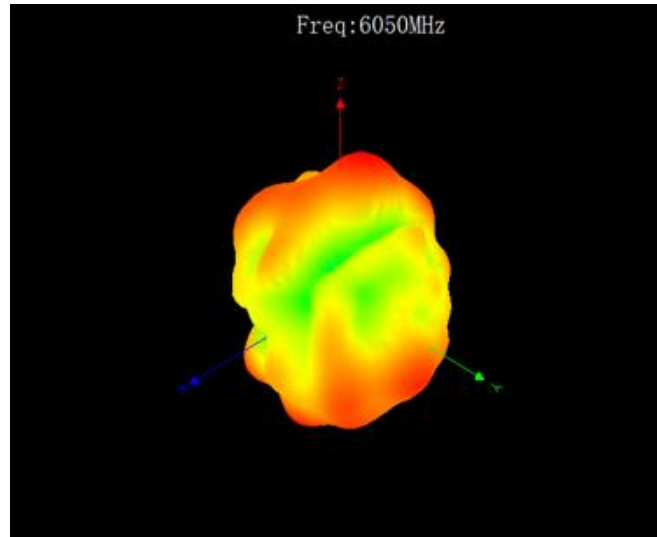
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	1.58



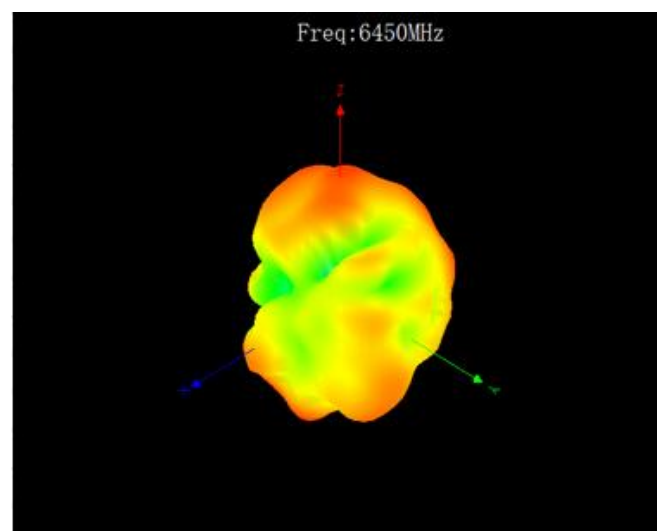
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.28



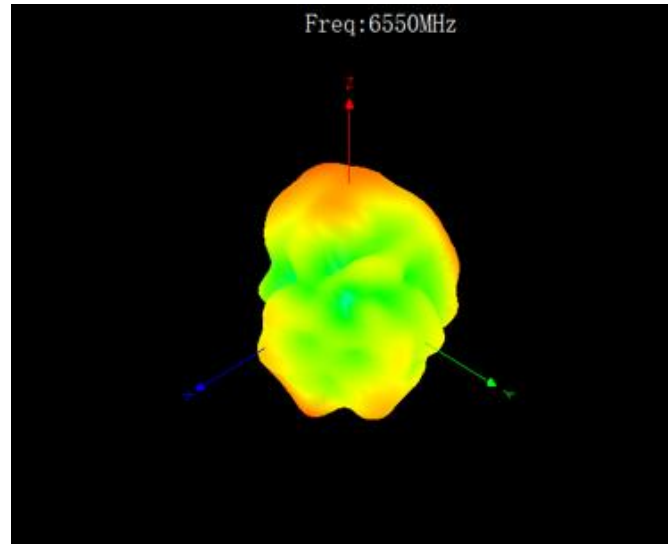
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.17



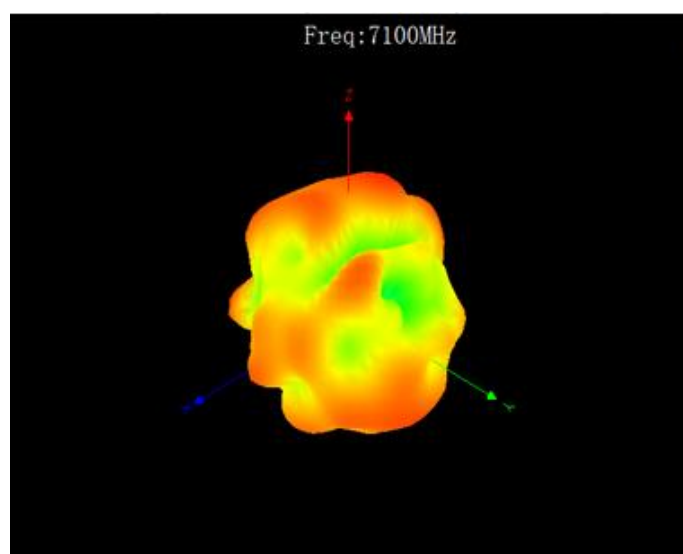
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	1.68



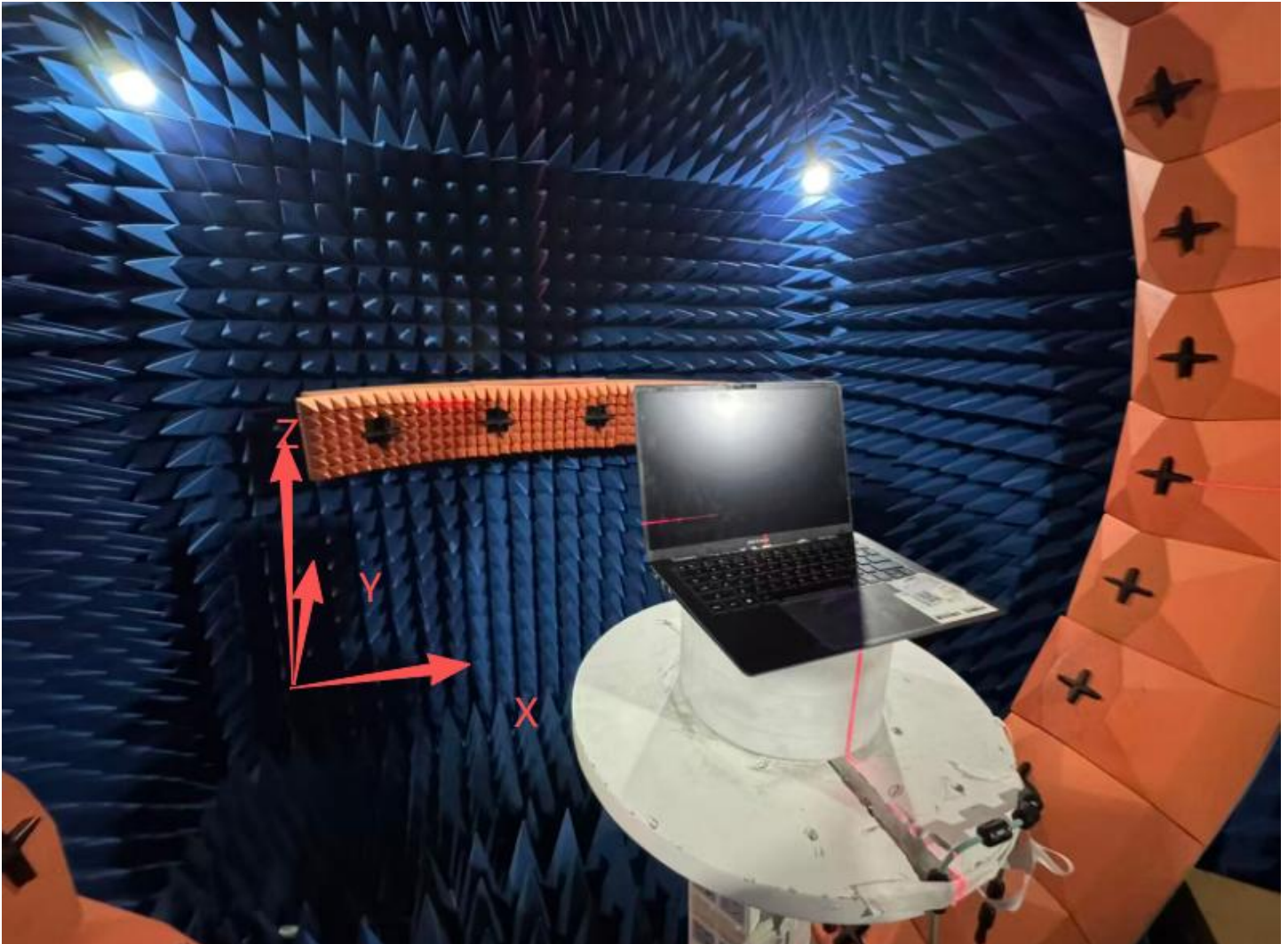
Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.40



Annex A. Photographs

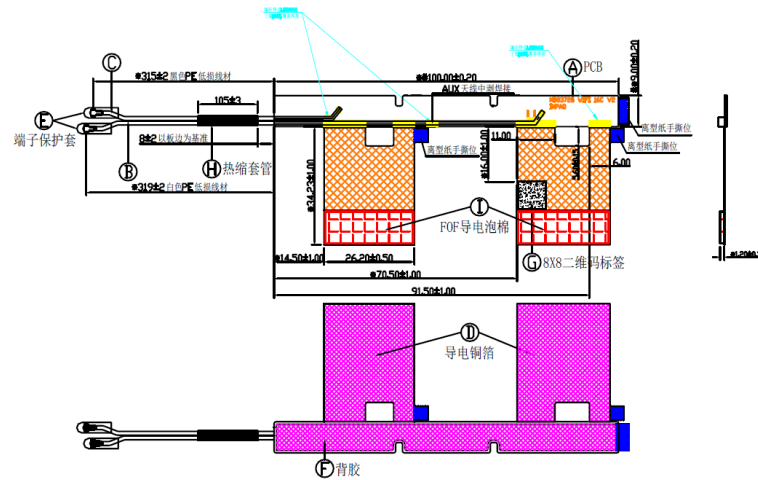
A.1 Setup Photo



A.2 Test sample

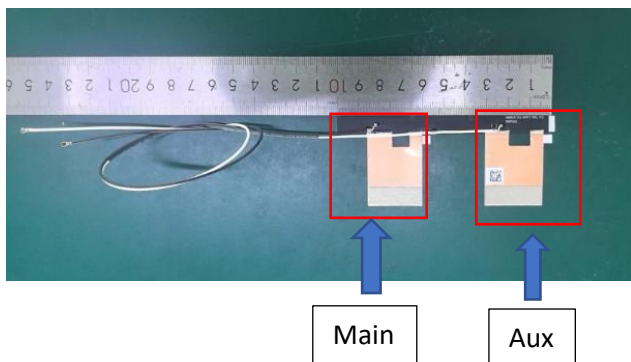
Main Antenna

Antenna Drawing

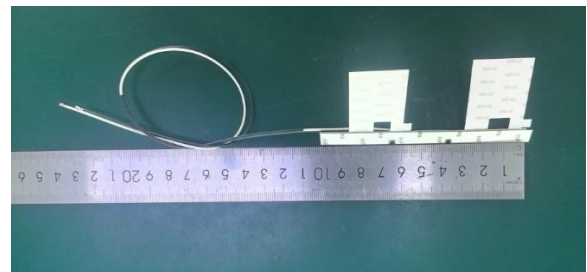


Antenna Photo

Front



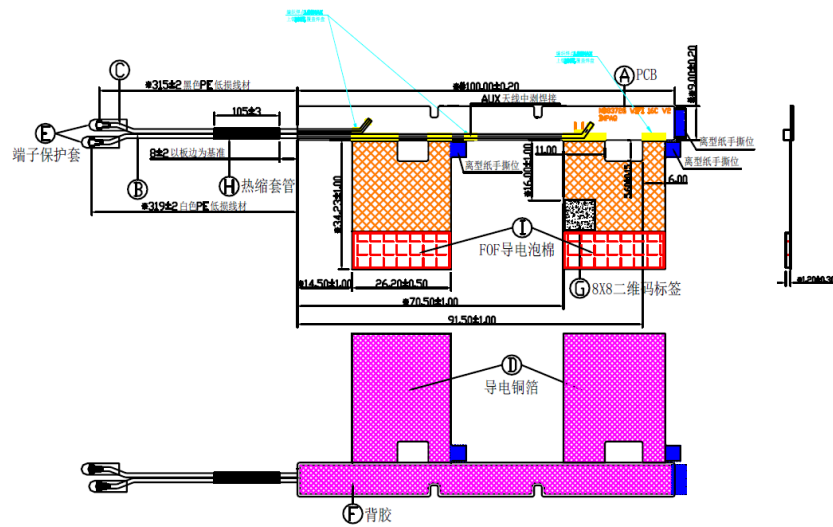
[Back](#)



Note: antenna photo should include L type ruler

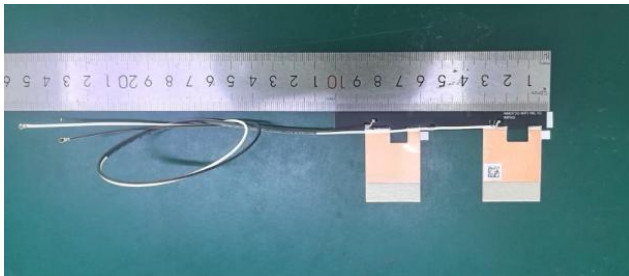
Aux Antenna

Antenna Drawing

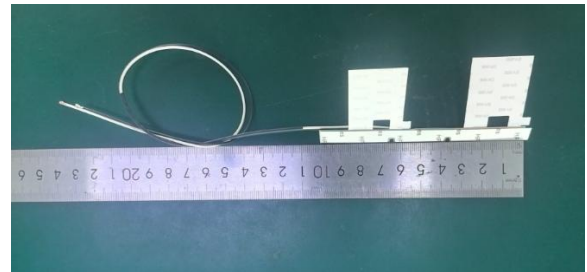


Antenna Photo

Front



[Back](#)



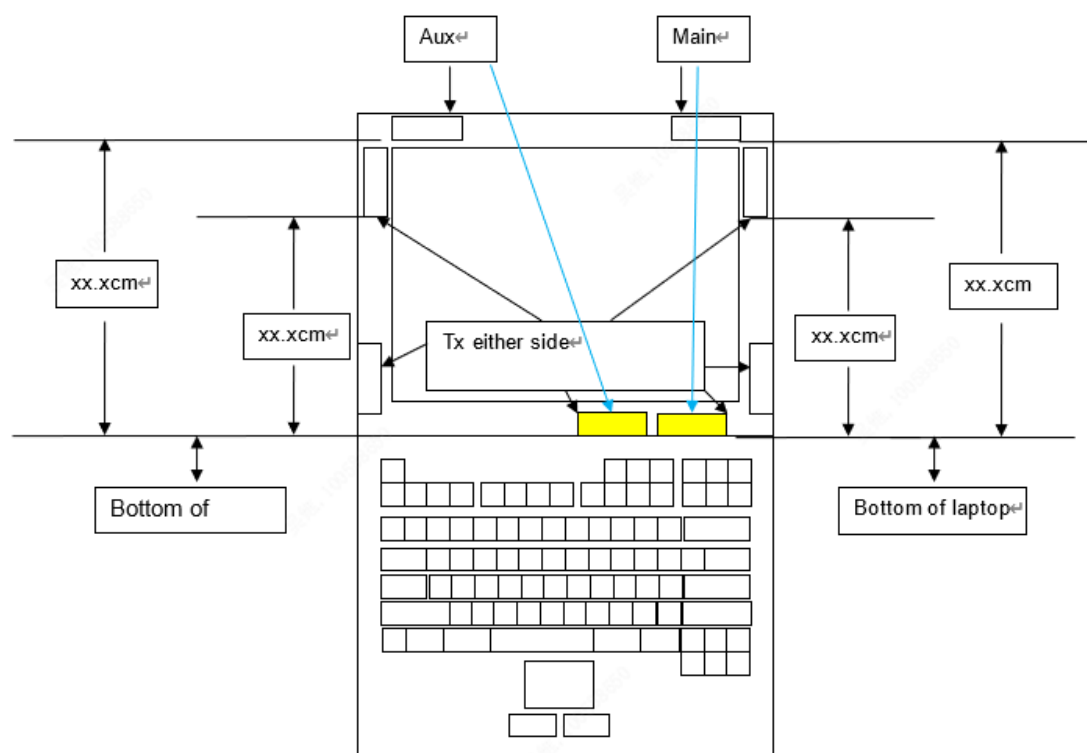
Note: antenna photo should include L type ruler

Annex B. Antenna Location

B.1 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 receive-only 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.



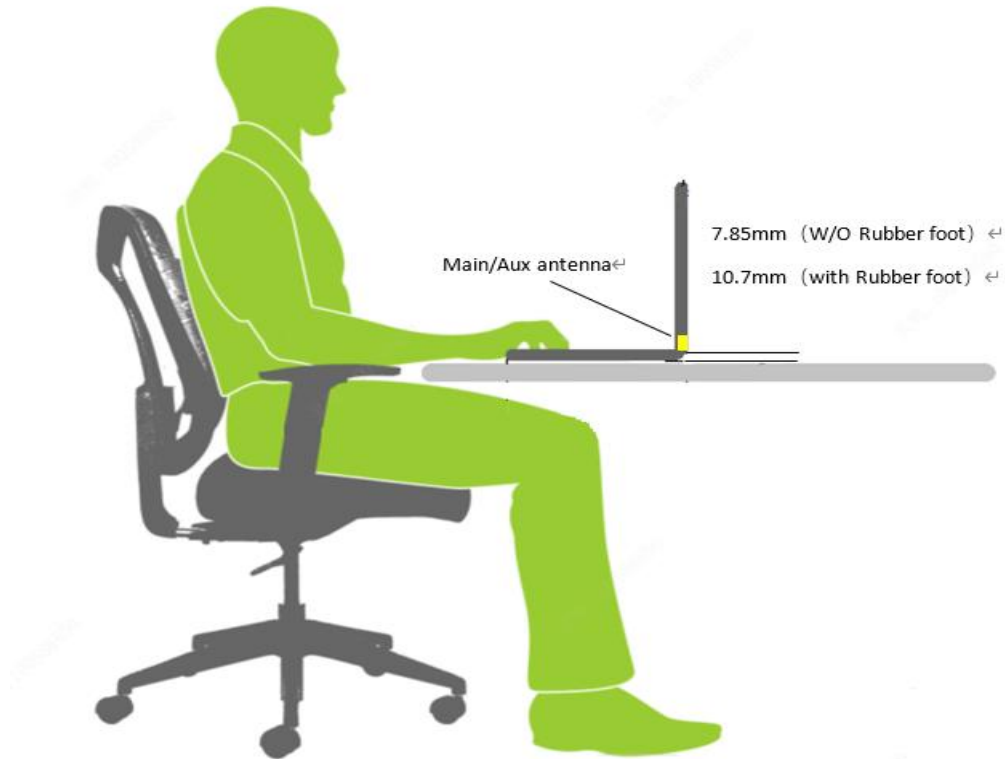
B.2 Antenna dimensional information for SAR evaluation

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 &

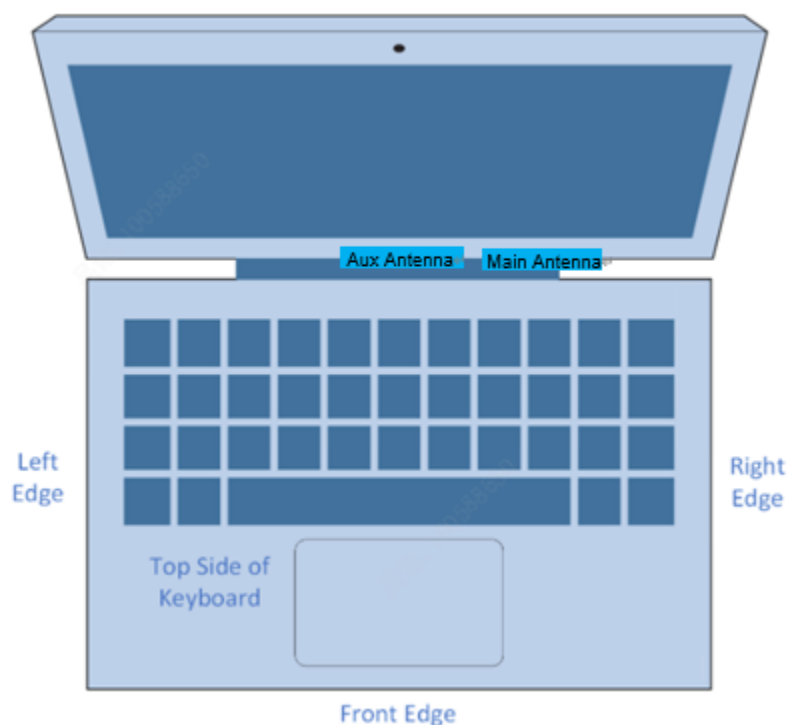
secondary landscape positions. Include a description of any proximity sensors or power throttling implementations that limit or exclude use of any host orientation.

Antennas on the panel section



Measuring Surface	Antenna	Separation Distance(antenna-to- Surface)(mm)	1g SAR
Bottom Side	Main	7.85mm, with Rubber 10.7mm	FCC/ISED
	Aux	7.85mm, with Rubber 10.7mm	FCC/ISED

Antennas on the keyboard section



Measuring Surface	Antenna	Separation Distance(antenna-to-Surface)(mm)	1g or 10g SAR
Bottom Side	Main	7.85mm, with Rubber 10.7mm	1g (FCC/ISED)
	Aux	7.85mm, with Rubber 10.7mm	1g (FCC/ISED)
Front Edge	Main	215mm	1g (ISED)
	Aux	215mm	1g (ISED)
Left Edge	Main	225mm	10g (ISED)
	Aux	170mm	10g (ISED)
Right Edge	Main	90mm	10g (ISED)
	Aux	155mm	10g (ISED)
Top side of Keyboard	Main	NA	10g (ISED)
	Aux	NA	10g (ISED)