

ANTENNA INFORMATION

OEM	Acer
ODM	Quanta
Platform model name	Rynax (TMO) LTE Main/AUX
Intel platform (ex: Yes, No or NA)	YES
Platform type (ex: regular NB, convertible PC, AIO...etc)	Regular NB
SAR minimum separation (mm)	FCC (1g) NB: 196.75 (W/Rubber) / NB: 194.75(W/O Rubber)
	ISED (1g) NB: 196.75 (W/Rubber) / NB: 194.75(W/O Rubber)
	ISED (10g)

Antenna manufacturer	Company name	Galtronics Corporation
	Address	B-544 23, Dongtan-daero 9ga-gil, Hwaseong-si, Gyeonggi-do, 18488 Republic of Korea
Test location	Company name	Galtronics Corporation
	Address	B-544 23, Dongtan-daero 9ga-gil, Hwaseong-si, Gyeonggi-do, 18488 Republic of Korea
Test Personnel	Name(Full name)	Martin.Kim(BUMJIN-KIM)
	E-mail	martin.kim@galtronics.com.cn
	Tel/Mobile	+82-01-9506-5332
Testing date		Feb 10 th , 2025

Antenna Part number	Main	02036698-08188
	Aux	02036698-08189
Antenna type (ex: PIFA, Dipole...etc)		PIFA

Antenna Peak gain w/ cable loss (dBi)*										
	700MHz 698-803MHz	800MHz 791-894MHz	900MHz 880-960MHz	1.7GHz 1710-1880MHz	1.8GHz 1850-1990MHz	1.9GHz 1920-2170MHz	2.1GHz 2170-2200MHz	2.3GHz 2300-2360MHz	2.5GHz 2500-2690MHz	3.5GHz 3300-4700MHz
Main	-0.15	-0.9	-1.62	1.87	0.9	0.03	0.33	0.12	0.73	0.91
Aux	-0.78	-0.79	-1.02	1.28	1.63	-0.5	0.24	0.84	1.89	-0.32

Cable Assembly Part Number and Information					
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type
Main	SY113L/50-015	315	1.13	50	MHF-B13L-N-01
Aux	SY113L/50-008	527	1.13	50	MHF-B13L-N-01

* 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

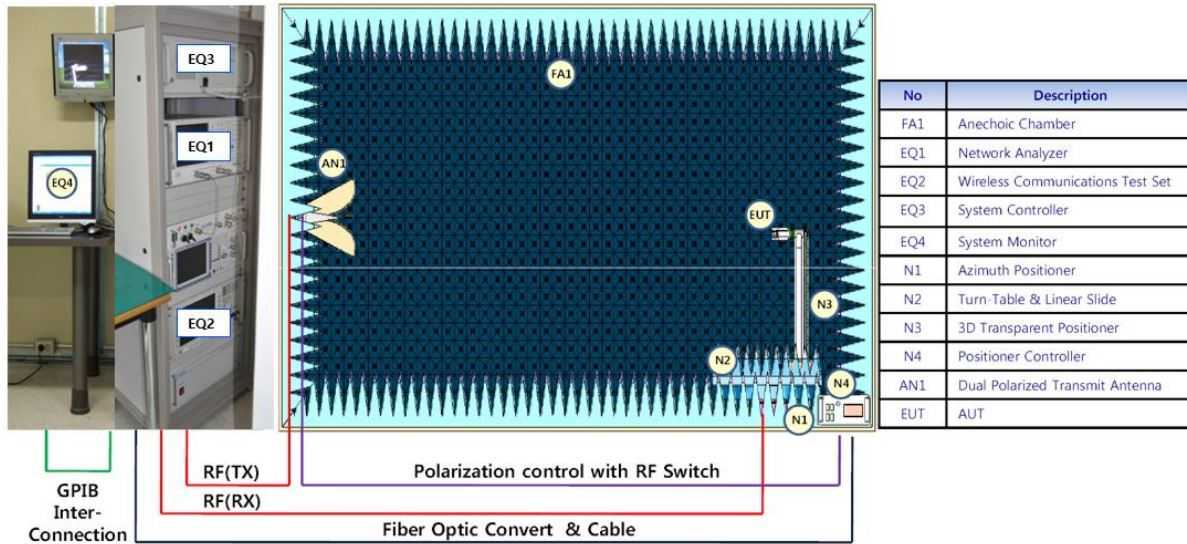
Revision #	Revision Details	Issued Date
Rev. 00	First Issue	2025.01.22

3. Test & System Description

3.1 Measurement Method and System

This test report is prepared for Travel Mate Rynax (TMO) LTE antenna testing under a Full Anechoic Chamber. (Galtronics MTG)

3.2 Test setup



3.3 Equipment list

Device	Type/Model	Manufacturer	SW	Cal. Date	Cal. Due Date
Anechoic Chamber	SSR-M08	MTG	-	2024-11-01	2025-11-01
Horn Antenna	HA-07M18G-NF	MTG	-	2024-02-11	2025-02-11
Network Analyzer	N5230A	AGILENT	-	2024-02-11	2025-02-11
Dual-Ridged Horn Antenna	DRH-020-180 2~18GHz	MTG	-	2024-02-11	2025-02-11
Horn Antenna	BBHA 9120 LF(A) 290 650MHz~6GHz	MTG	-	2024-02-11	2025-02-11
Measurement SW	-	MTG	VWM2.1	N/A	N/A
Positioner Controller	PC-510-4	MTG	-	N/A	N/A
Turn-table & Linear Slide	AP-6508-H40	MTG	-	N/A	N/A
3D Transparent EUT Positioner	AP-6917-H	MTG	-	2024-02-11	2025-02-11
Low Loss RF Cable	RCBL-M03 DC~18GHz	MTG	-	2025-01-01	2025-03-01

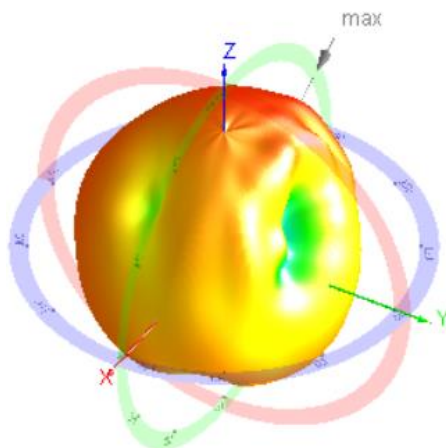
Rev.	Measurement	Measurement Data	Sign
3.8.05 Rev02	Galtronics	2025-01-22	

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

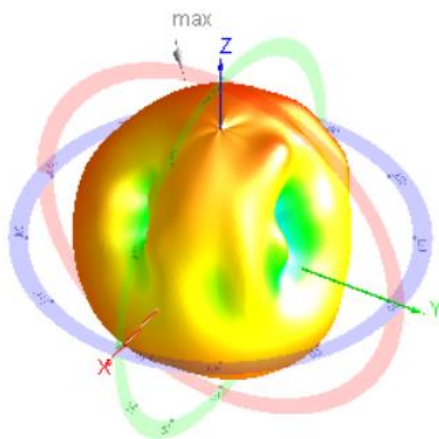
Max Antenna 3D Radiation Pattern 698–803 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
698-803	-0.15



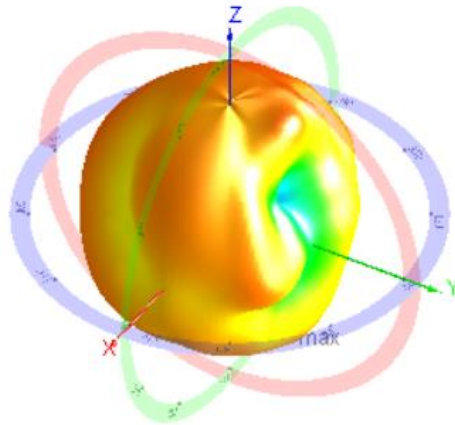
Max Antenna 3D Radiation Pattern 791-894 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
791-894	-0.9



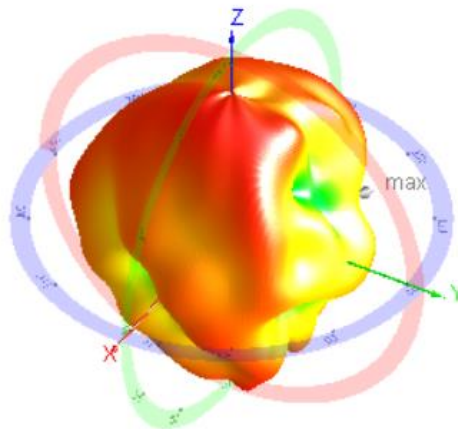
Max Antenna 3D Radiation Pattern 880-960 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
880-960	-1.62



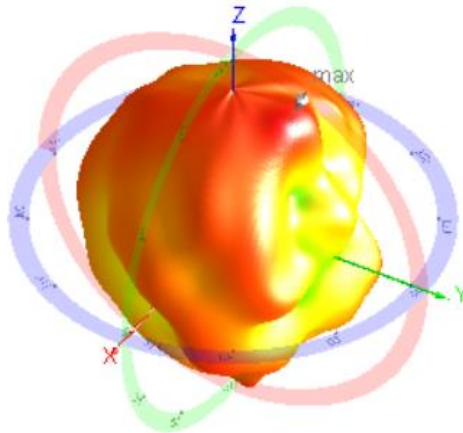
Max Antenna 3D Radiation Pattern 1710-1880 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
1710-1880	1.87



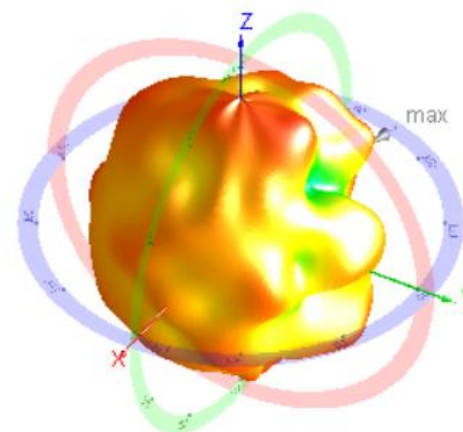
Max Antenna 3D Radiation Pattern 1850-1990 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
1850-1990	0.9



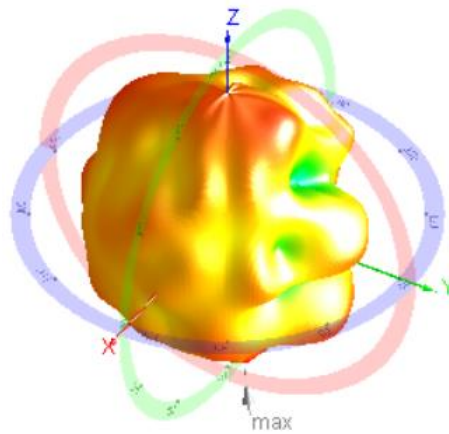
Max Antenna 3D Radiation Pattern 1920-2170 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
1920-2170	0.03



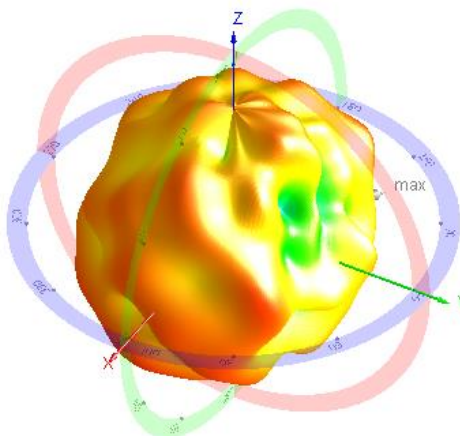
Max Antenna 3D Radiation Pattern 2170-2200 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2170-2200	0.33



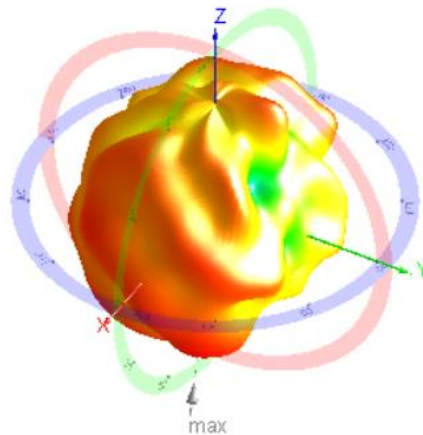
Max Antenna 3D Radiation Pattern 2300-2360 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2300-2360	0.12



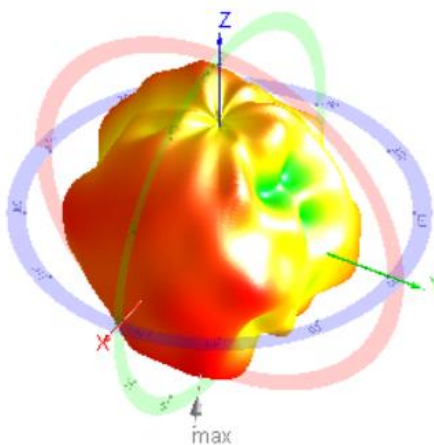
Max Antenna 3D Radiation Pattern 2500-2690 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2500-2690	0.73



Max Antenna 3D Radiation Pattern 3300-4700 MHz

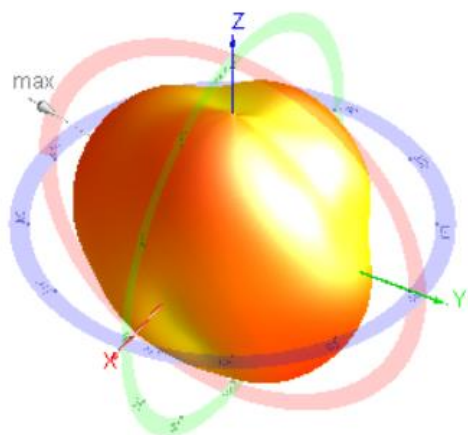
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
3300-4700	0.91



Auxiliary Antenna

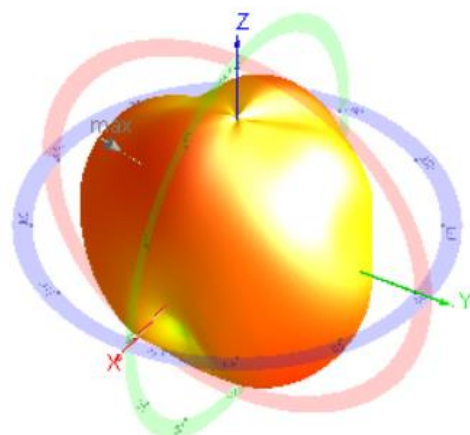
Max Antenna 3D Radiation Pattern 698-803 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
698-803	-0.78



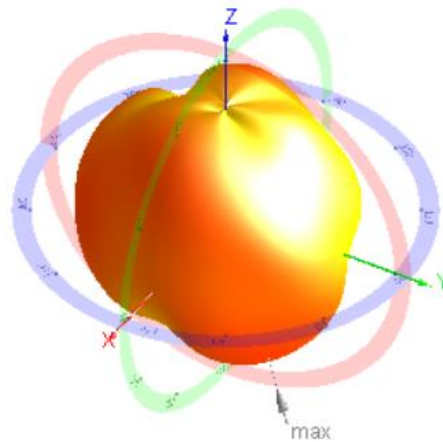
Max Antenna 3D Radiation Pattern 791-894 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
791-894	-0.79



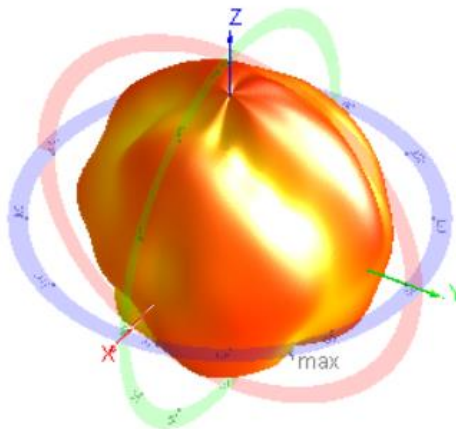
Max Antenna 3D Radiation Pattern 880-960 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
880-960	-1.02



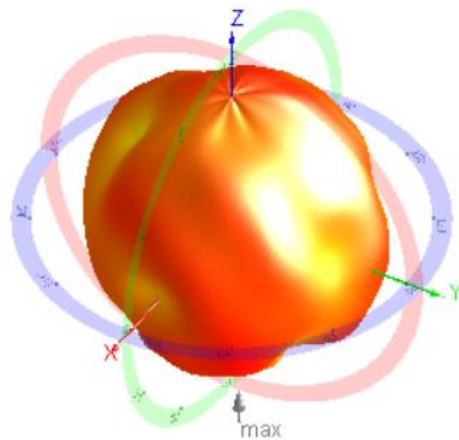
Max Antenna 3D Radiation Pattern 1710-1880 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
1710-1880	1.28



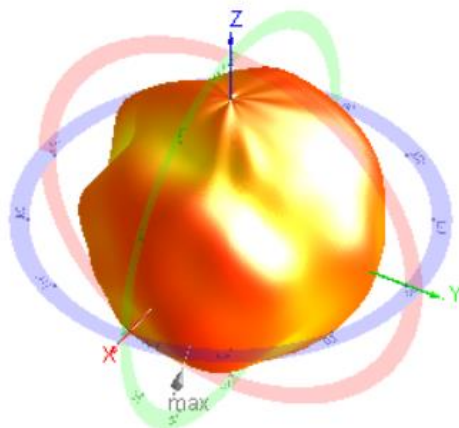
Max Antenna 3D Radiation Pattern 1850-1990 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
1850-1990	1.63



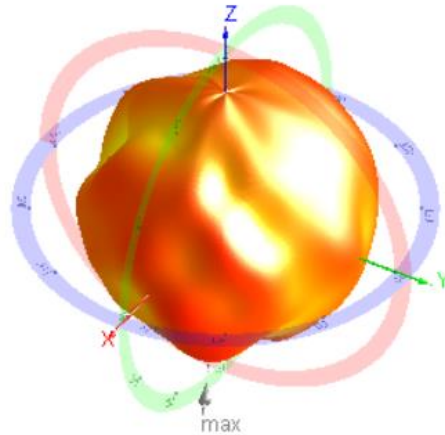
Max Antenna 3D Radiation Pattern 1920-2170 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
1920-2170	-0.5



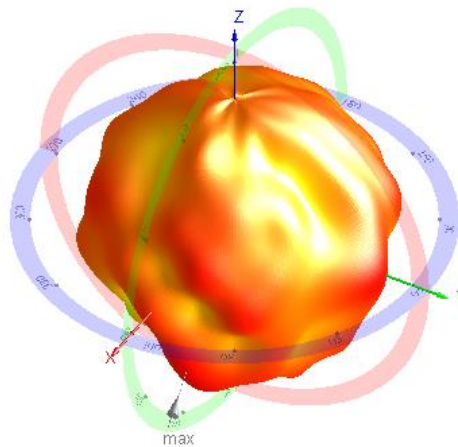
Max Antenna 3D Radiation Pattern 2170-2200 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2170-2200	0.24



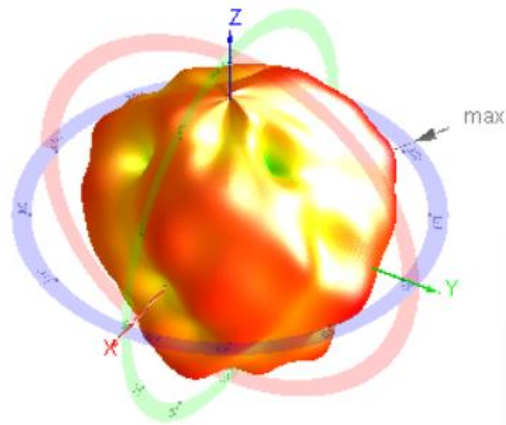
Max Antenna 3D Radiation Pattern 2300-2360 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2300-2360	0.84



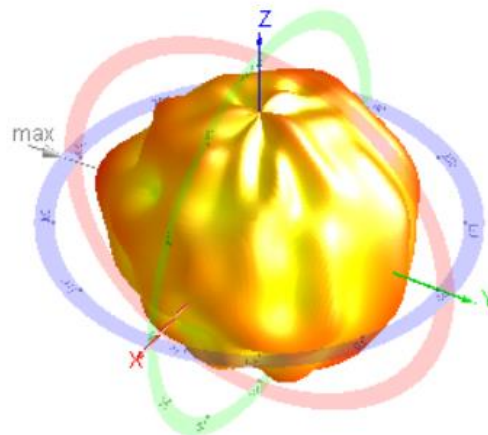
Max Antenna 3D Radiation Pattern 2500-2690 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2500-2690	1.89



Max Antenna 3D Radiation Pattern 3300-4700 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
3300-4700	-0.32

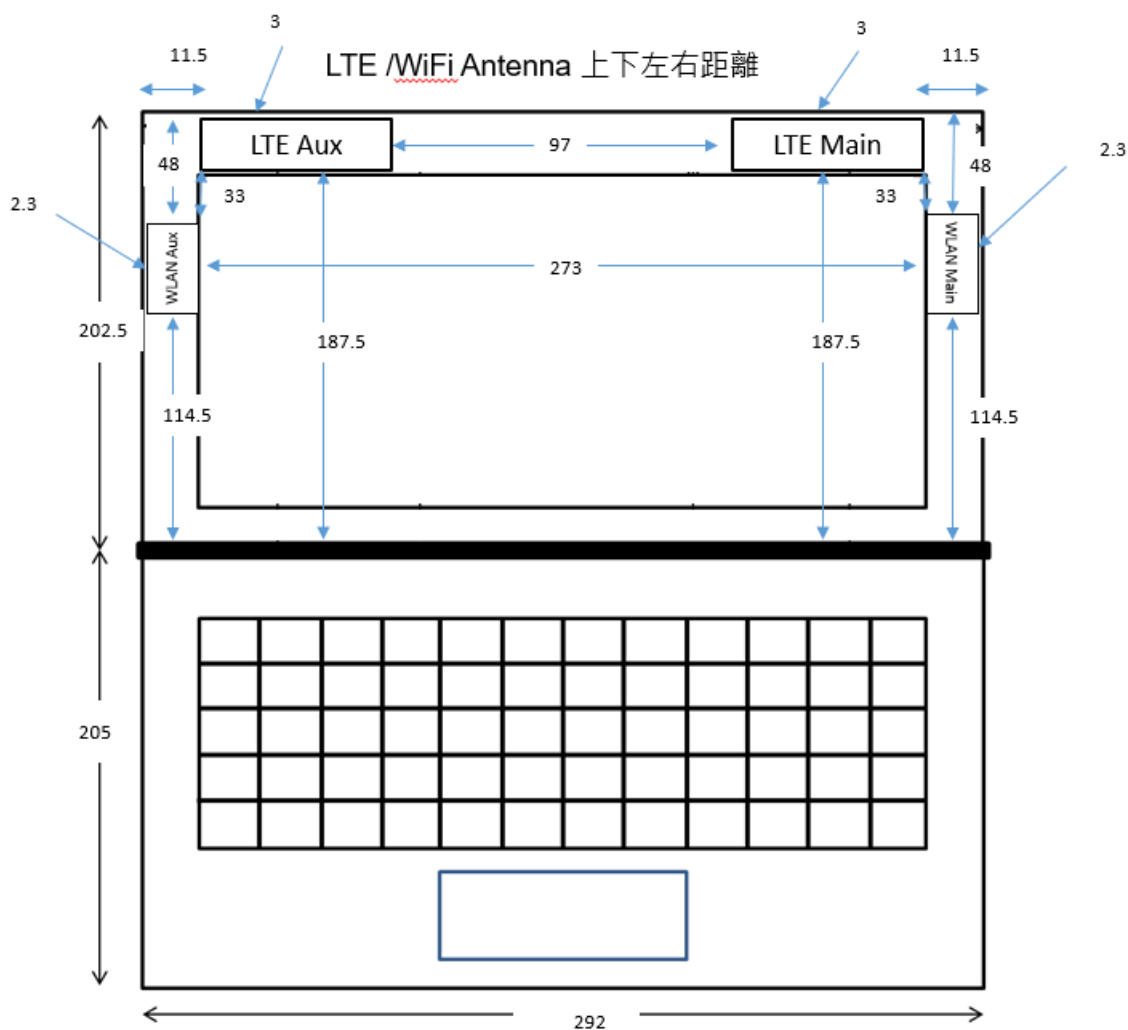


Annex B. Antenna Location

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).

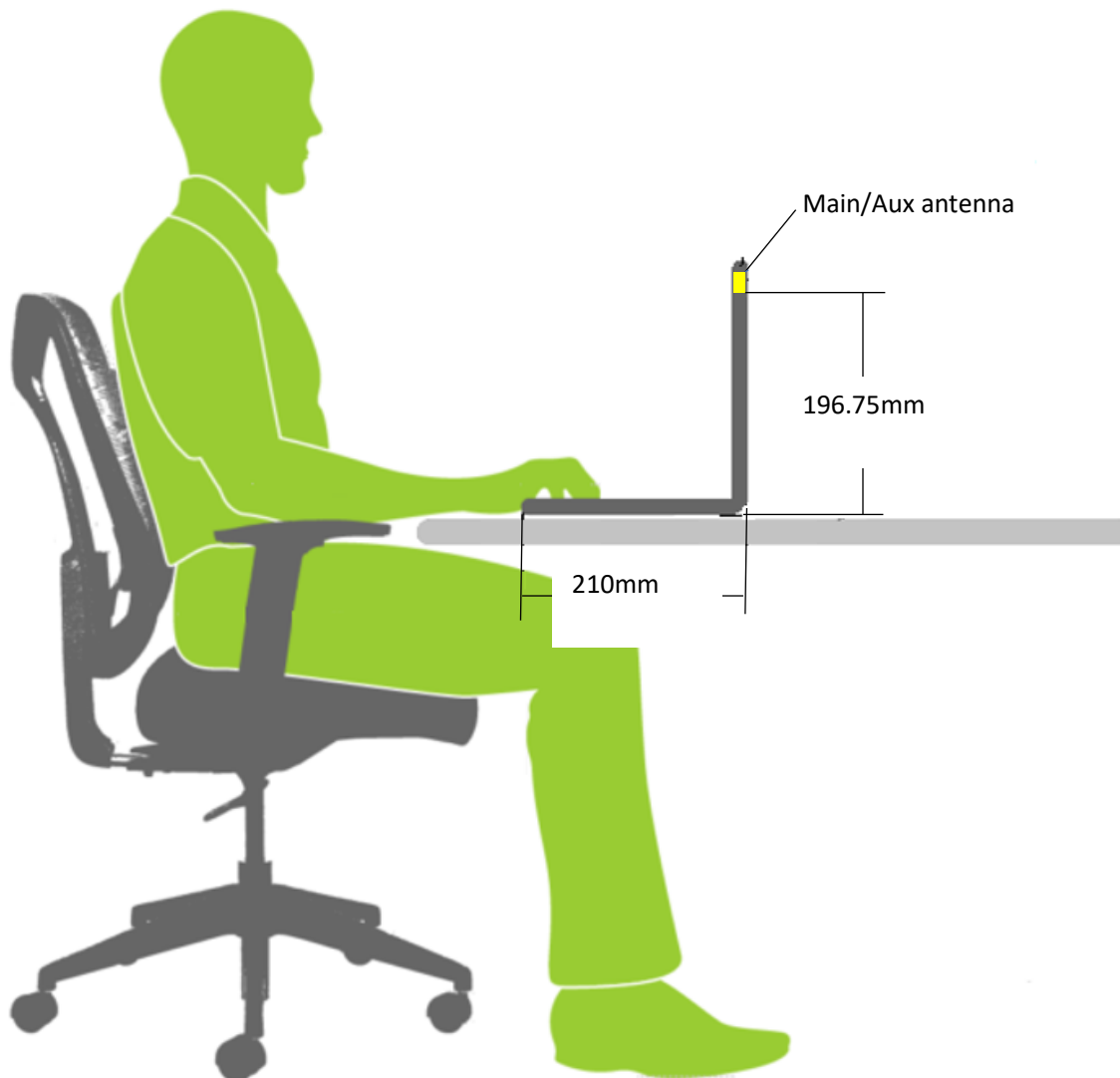
Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.



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	196.75	FCC/ISED
	Aux	196.75	FCC/ISED

