

ANTENNA INFORMATION

OEM	GIGABYTE		
ODM	Compal Electronics Inc.		
Platform model name	GL6J		
Intel platform (ex: Yes, No or NA)	No		
Platform type (ex: regular NB, convertible PC, AIO...etc)	Regular NB		
SAR minimum separation (mm)	FCC (1g)	12.67 mm (w/bumper)	
		12.16 mm (w/o bumper)	
	ISED (1g)	5.4 mm	
		5.4 mm	
	ISED (10g)	1.8 mm	

Antenna manufacturer	Company name	INPAQ
	Address	No. 106, Ligong Street, Beitou District, Taipei City, Taiwan
Test location	Company name	COMPAL
	Address	No. 581, Ruiguang Road, Neihu District, Taipei City, Taiwan
Test Personnel	Name(Full name)	YEH, HUNG-YU
	E-mail	Peter_Yeh@compal.com
	Tel/Mobile	02-8797-8588 # 10176
Testing date		2026/01/15

Antenna Part number	Main	DC330035N00 (WA-P-LE-02-485)
	Aux	DC330035N10 (WA-P-LE-01-146)
Antenna type (ex: PIFA, Dipole...etc)		PIFA

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	2.41	2.28	2.37	2.66	2.33	2.13	2.69	3.03	2.24	2.88
Aux	2.59	2.55	2.19	2.42	2.41	2.22	3.01	2.67	2.53	3.12

Cable Assembly Part Number and Information					
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type
Main	WIR,RD- OD1.13mm,Low Loss,Black	121	1.13	50	I-PEX 4L
Aux	WIR,RF- OD1.13mm,Low Loss,White	317	1.13	50	I-PEX 4L

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

Cable loss (dB)										
	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	-0.39	-0.61	-0.61	-0.62	-0.64	-0.64	-0.7	-0.7	-0.7	-0.7
Aux	-1.01	-1.57	-1.57	-1.59	-1.67	-1.67	-1.7	-1.8	-1.8	-1.9

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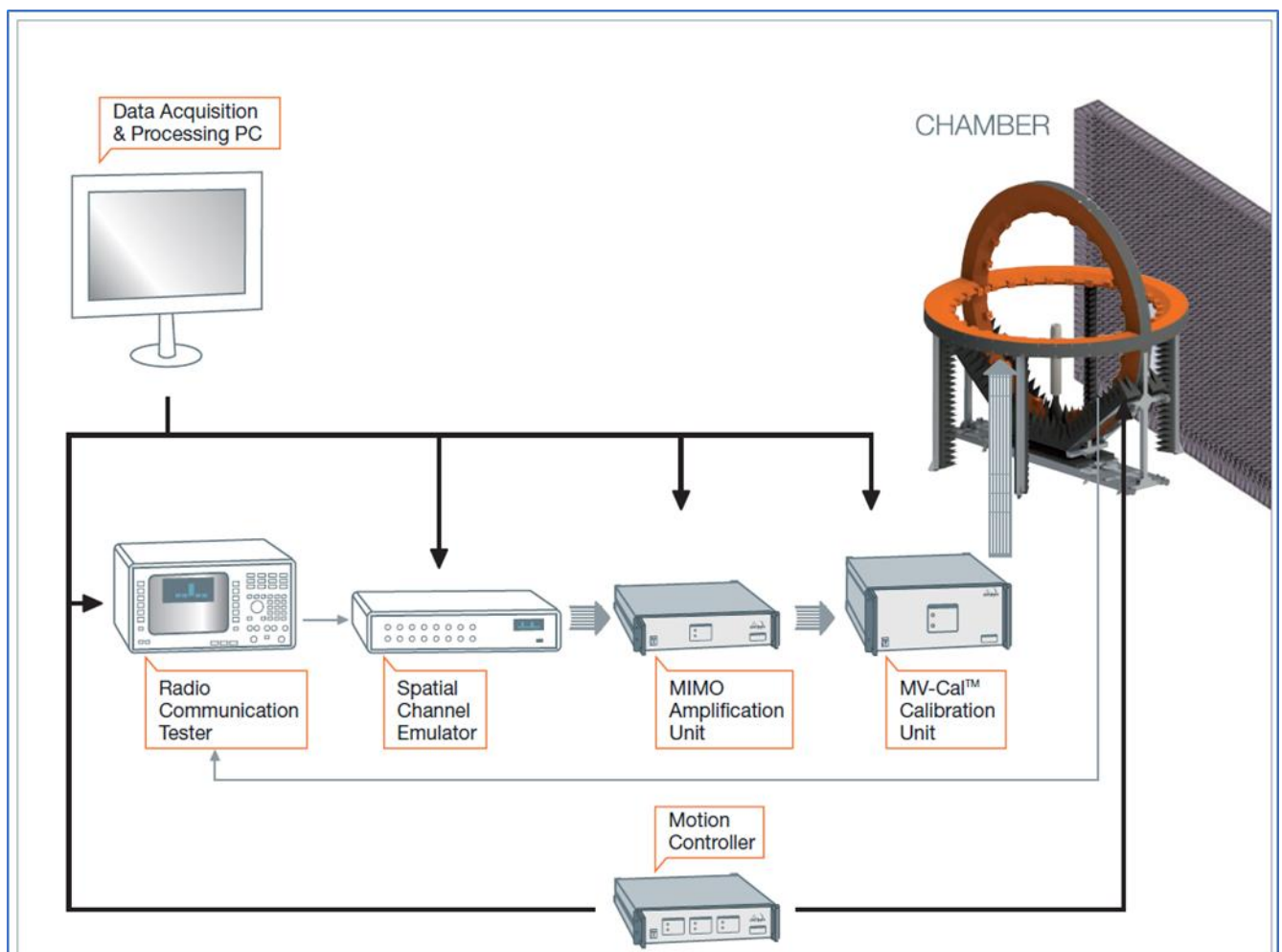
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1. Test & System Description

1.1 Measurement Method and System

The radiation pattern of antenna is measured in both horizontal polarization and vertical polarization. The radiation pattern measurements are performed in the three-dimensional anechoic chamber. The chamber provides less than -30dB reflectivity from 400MHz through 8GHz . The chamber is calibrated using both standard dipole antenna and horn antenna. The Gain here is expressed as dBi that standardizes the isotropic antenna. The Gain measurements and antenna radiation pattern are also performed in the same chamber described previously.

1.2 Test setup



1.3 Equipment list

The equipment for the antenna measurement we used is as follows:

A. Network Analyzer, support up to 8GHz, to measure the VSWR and input impedance of antenna.

B. Three-dimensional anechoic chamber to measure antenna gain and radiation pattern(Standard horn antenna was used to calibrate the chamber)

C. Climatic chamber for mechanical tests

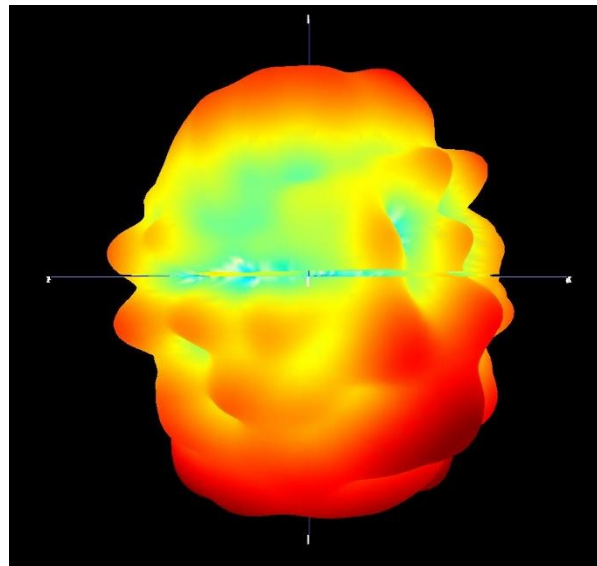
item	Device	Type/Model	manufacturer	Cal. Date	Cal. Due Date
1.	Measurement system	StarMIMO 2.4m HV	MVG	2025/8/22	2026/8/22
2.	Turntable	Goniometer	MVG	N/A	N/A
3.	Measurement software	Wave Studio	MVG	N/A	N/A
4.	VNA	Agilent N5230C	Agilent (Keysight)	N/A	N/A
5.	Received antenna	StarMIMO 2.4m HV	MVG	2025/8/22	2026/8/22
6.	Position controller	Motion controller	MVG	N/A	N/A
7.	Cable 2.2m 9kHz~18GHz	SPS -AO-2.2m, 1801	AO Tech.	2025/8/22	2026/8/22
8.	Cable 5m 9kHz~18GHz	SPS-AO-5m, 1805	AO Tech.	2025/8/22	2026/8/22

2. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

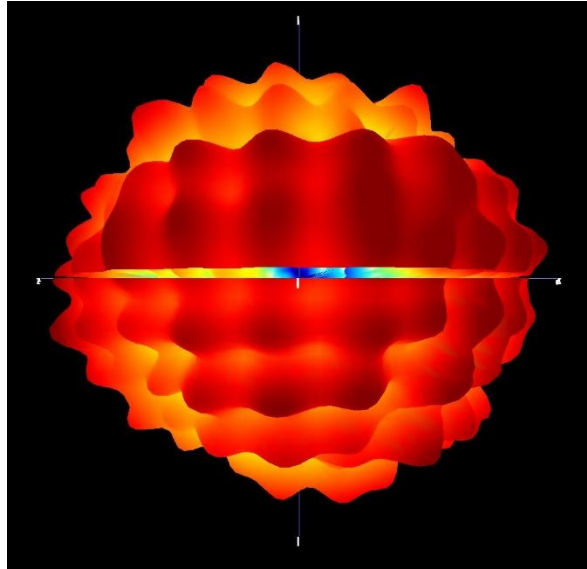
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.41



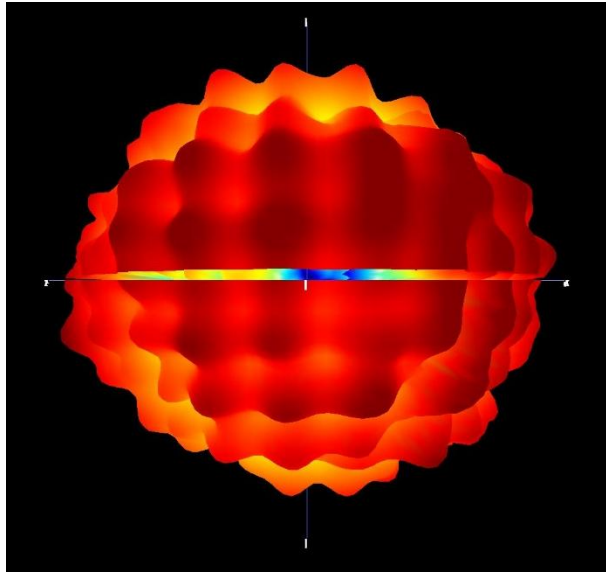
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.28



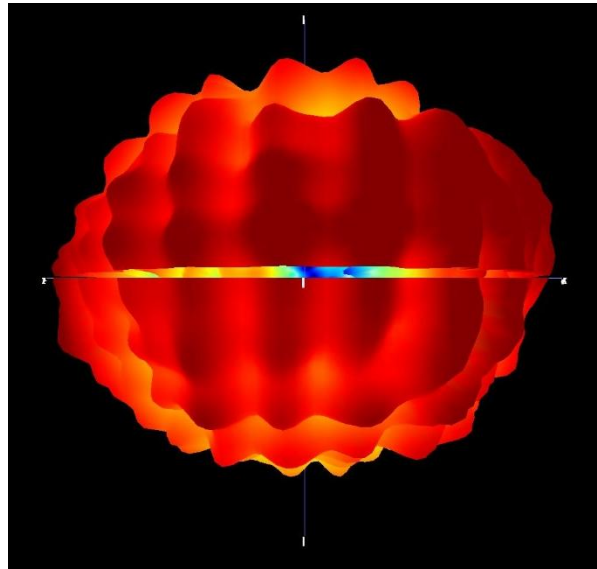
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.37



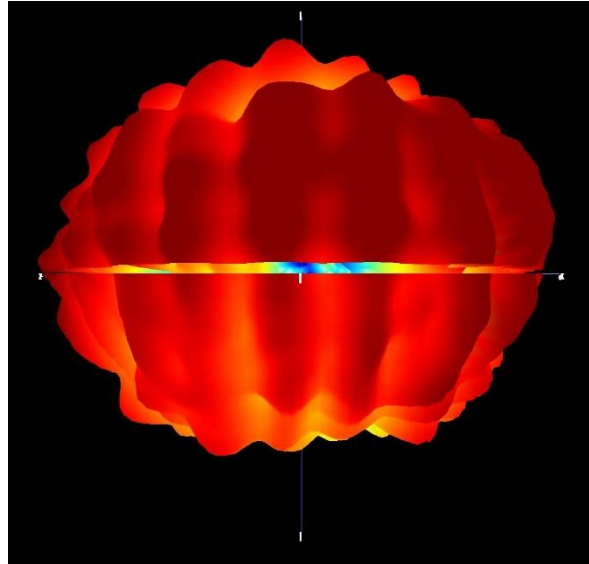
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.66



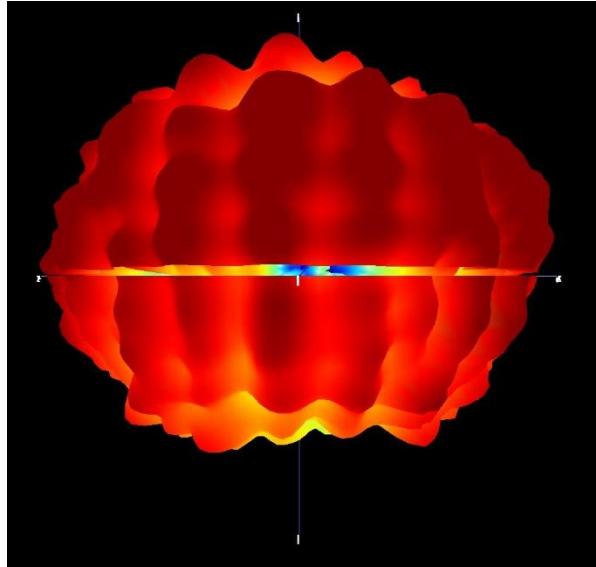
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.33



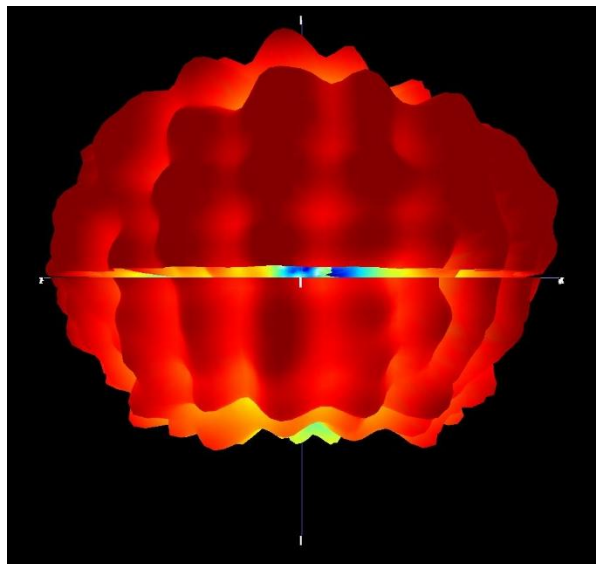
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.13



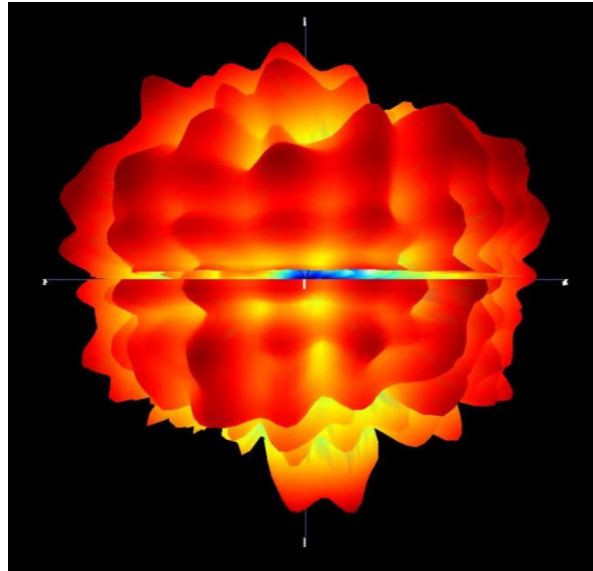
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.69



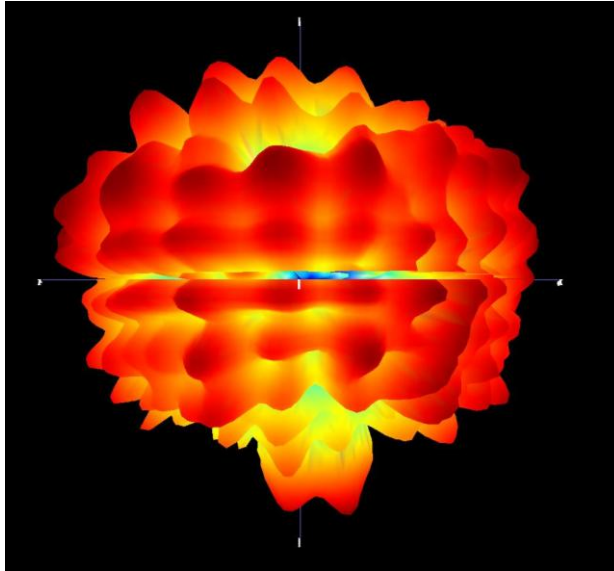
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.03



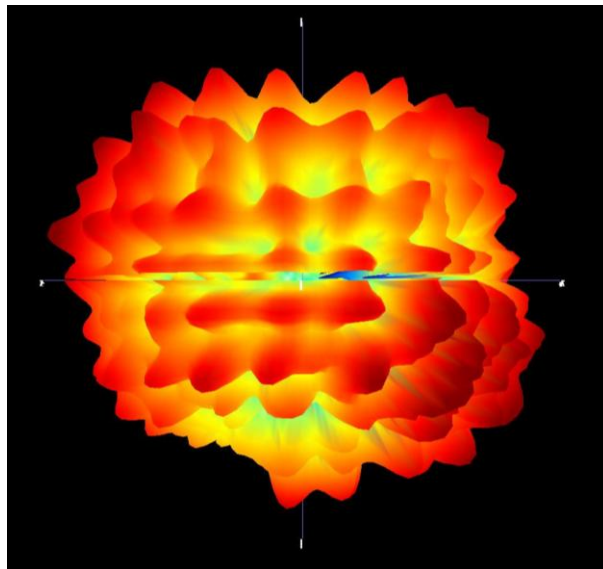
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.24



Max Antenna 3D Radiation Pattern 6875-7125 MHz

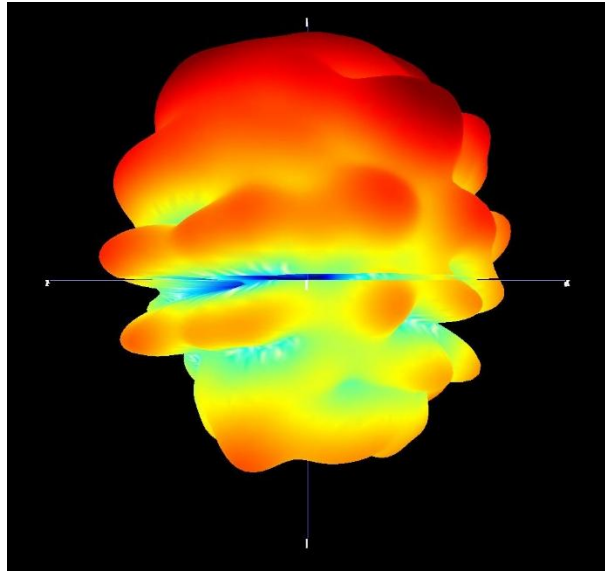
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.88



Auxiliary Antenna

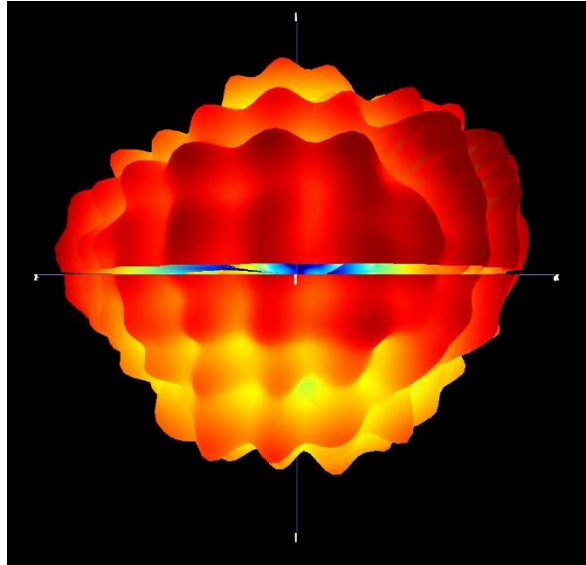
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.59



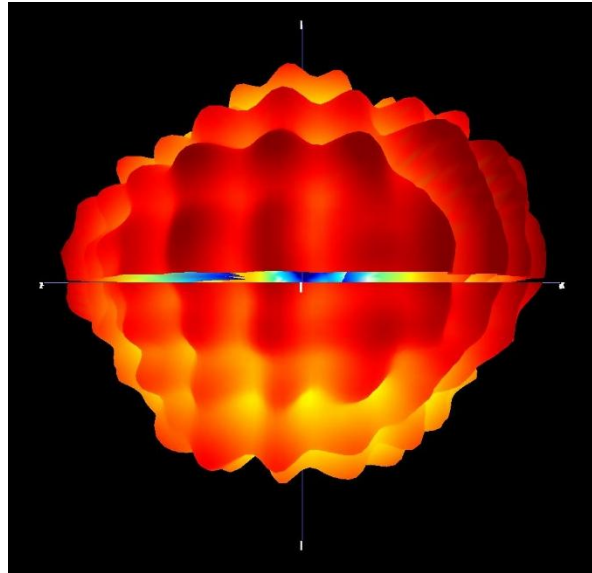
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.55



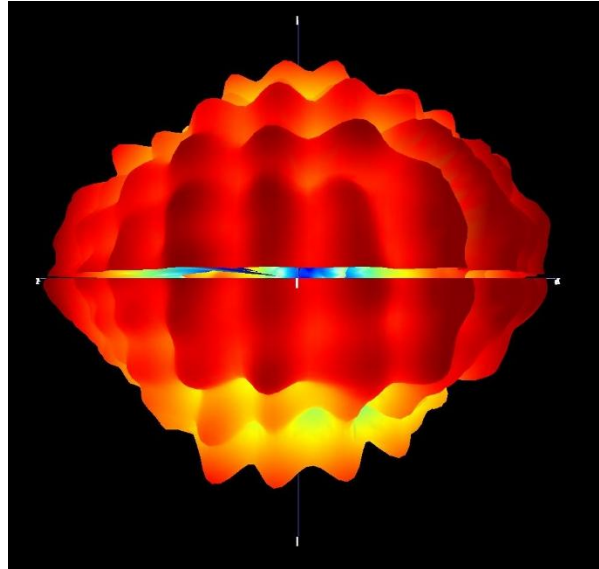
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.19



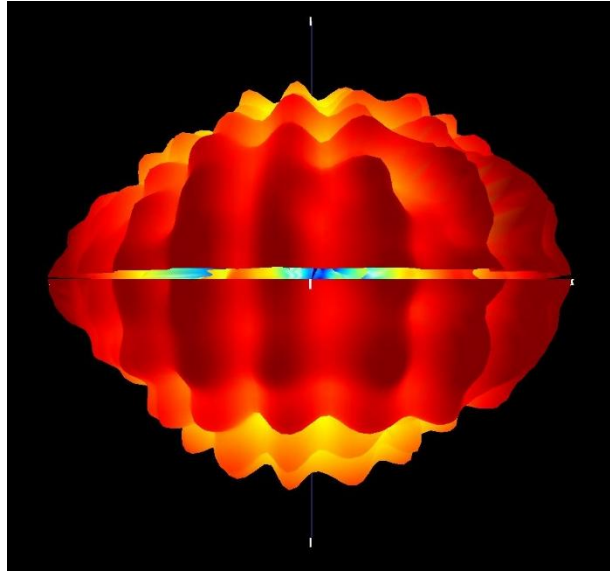
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.42



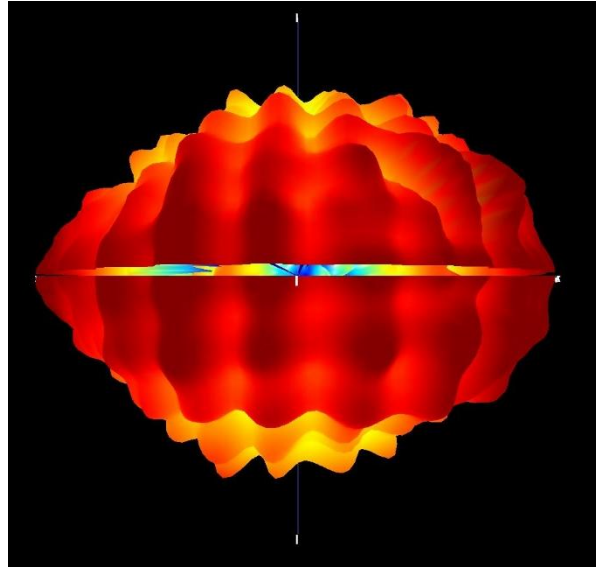
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.41



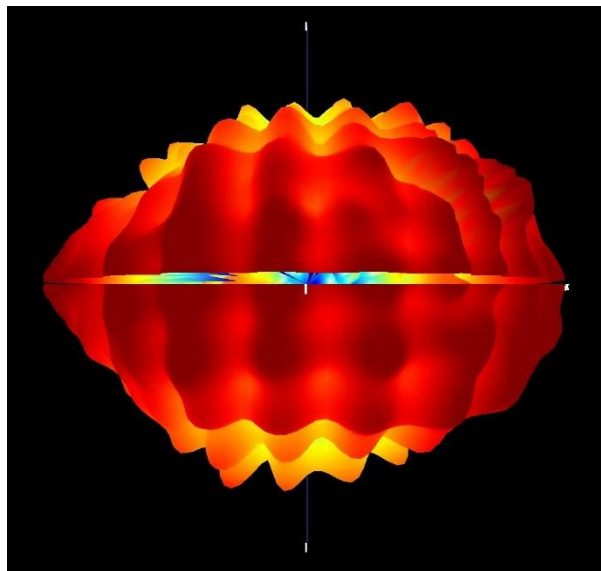
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.22



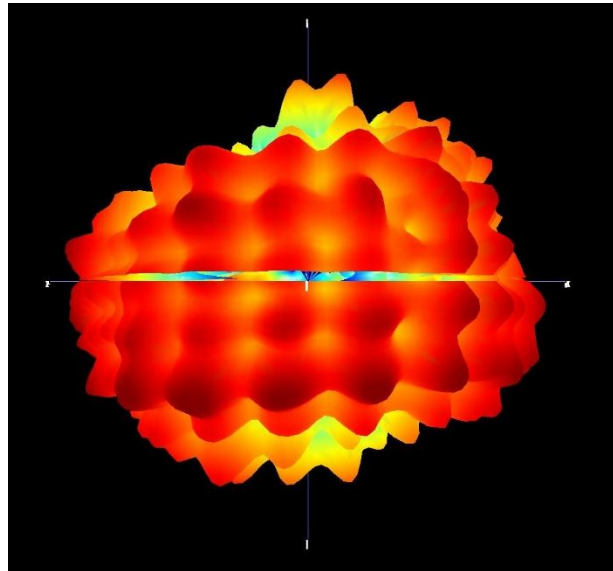
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.01



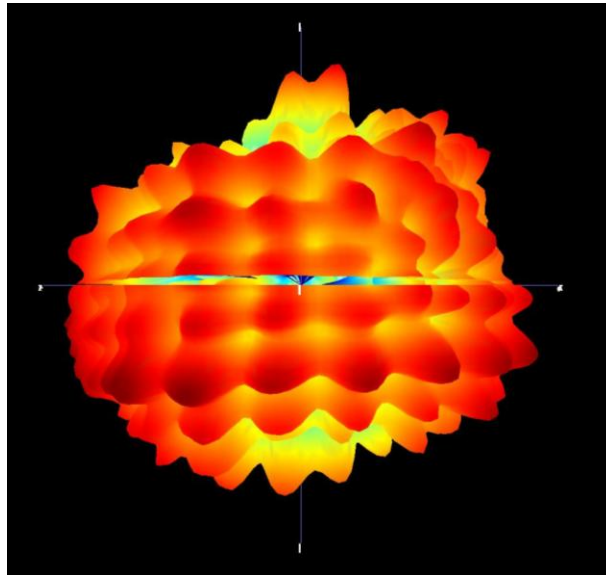
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.67



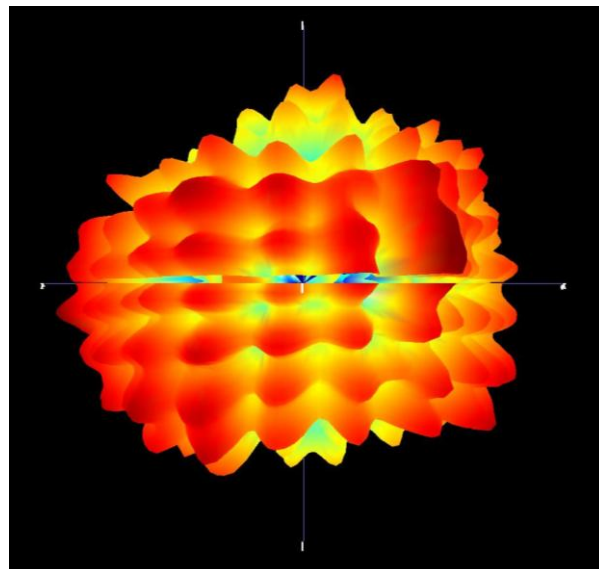
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.53



Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.12



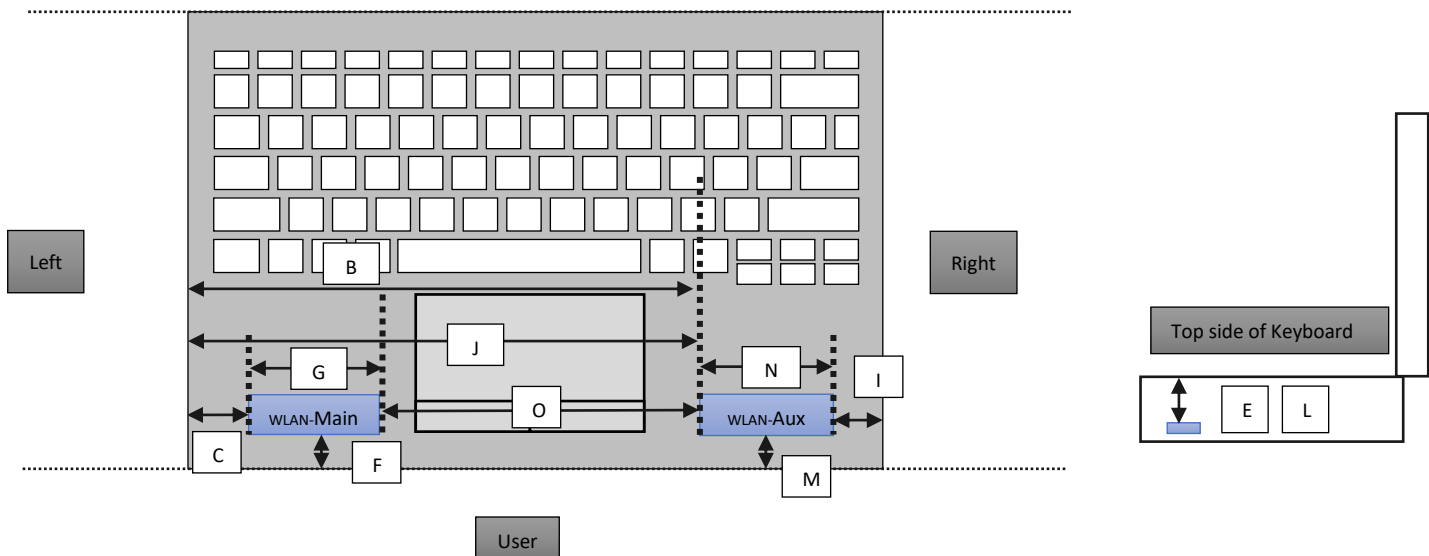
Annex B. Antenna Location

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.

Antennas on the keyboard section



Minimum Separation Distance				
Item	Antenna	Position	Distance (mm)	1g or 10g SAR
B	WLAN-Main	to Right	77.50	10g (ISED)
C		to Left	37.50	10g (ISED)
D		to Bottom of laptop	12.67	1g (FCC/ISED)
E		To Top side of Keyboard	1.8	10g (ISED)
F		to User (front)	5.4	1g (ISED)

I	WLAN-Aux	to Right	32.0	10g (ISED)
J		to Left	286.30	10g (ISED)
K		to Bottom of laptop	12.67	1g (FCC/ISED)
L		To Top side of Keyboard	1.8	10g (ISED)
M		to User (front)	5.4	1g (ISED)
O	Main-Aux	Main to Aux	208.80	
P	NB	Bumper thickness	2.37	

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

