ANTENNA INFORMATION

OEM		Lenovo
ODM		Wistron
Platform model name		Lenovo 300w Yoga Gen 4; Lenovo 300w 2-in-1 Gen 5
Intel platform (ex: Yes, No or NA)		Yes
Platform type (ex: regular NB, convertible PC, AIO…etc)		Converible NB
SAR minimum separation (mm)	FCC (1g)	3
	ISED (1g)	3
	ISED (10g)	N/A

Antenna manufacturer	Company name	High-Tek Electronics Co., Ltd
	Address	17F., No.100, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 22102, Taiwan
Test location	Company name	High-Tek Electronics Co., Ltd
	Address	17F., No.100, Sec. 1, Xintai 5th Rd., Xizhi Dist., New Taipei City 22102, Taiwan
Test Personnel	Name(Full name)	Matthew Chang
	E-mail	matthew_chang@hightek.com.tw
	Tel/Mobile	+886-2-26961996
Testing date		2024/01/08

Antenna Part number	Main	025.90274.0001
	Aux	025.90275.0001
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	-0.87	0.42	-0.08	0.39	0.39	-0.06	1.37	1.00	1.17	1.42
Aux	-0.66	-1.18	-0.59	0.51	0.33	-0.17	1.86	0.52	0.60	-0.89

Cable Assembly Part Number and Information					
	Cable PN	**Cable length**(mm)	**Cable diameter**(mm)	**Impedance**(ohm)	**Connector type**
Main	210SY0W63609	351	0.81	50	SpeedTech
Aux	210SY0W63601	502	0.81	50	SpeedTech

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

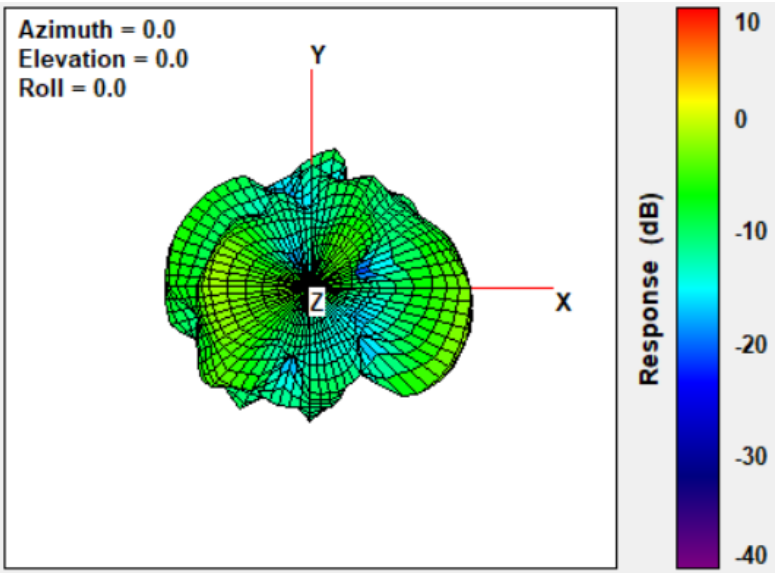
Table of Contents

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

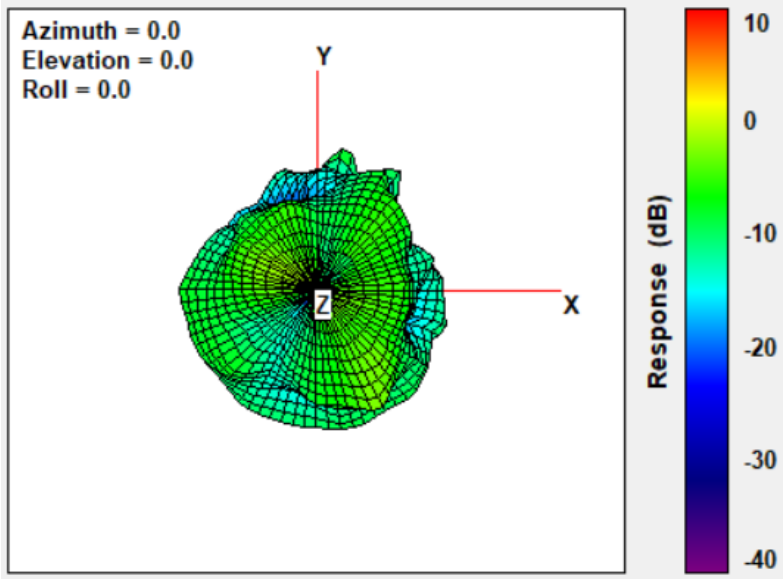
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	-0.87



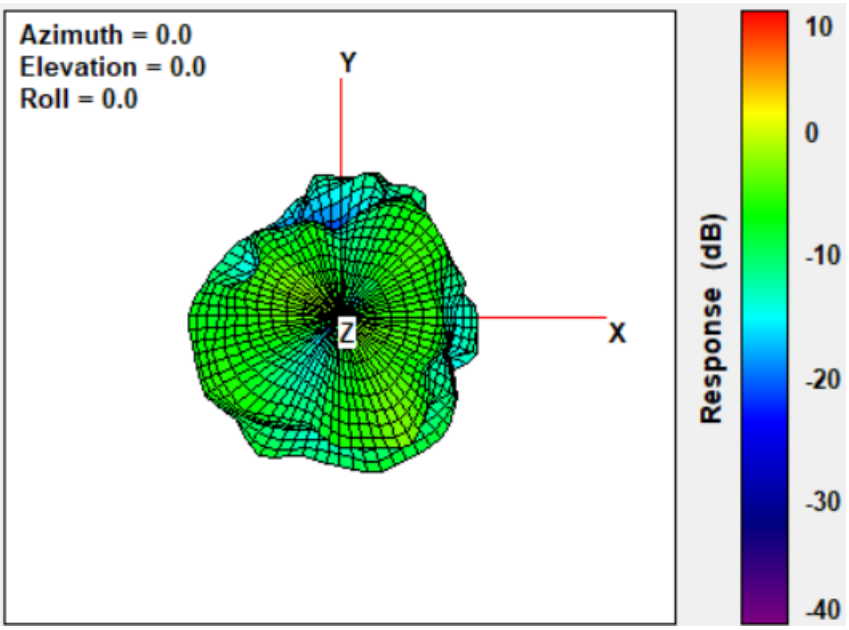
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	0.42



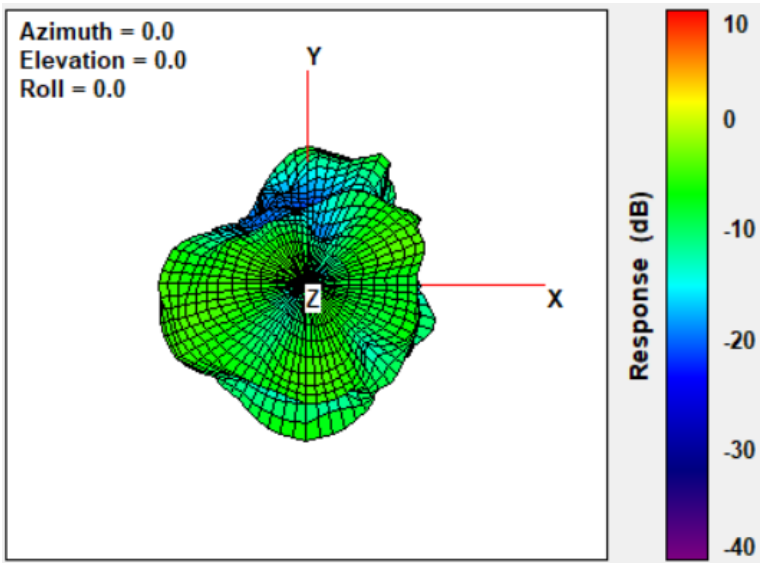
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	-0.08



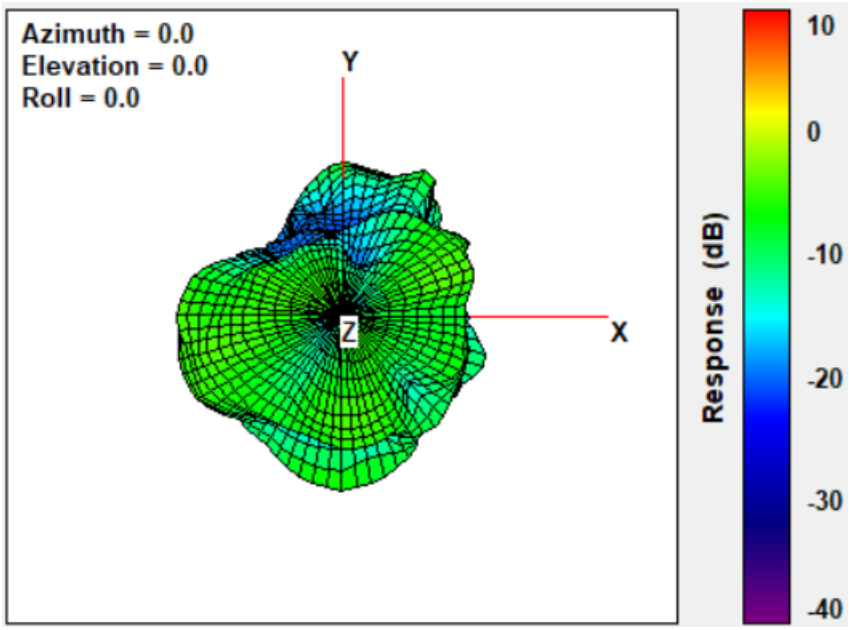
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	0.39



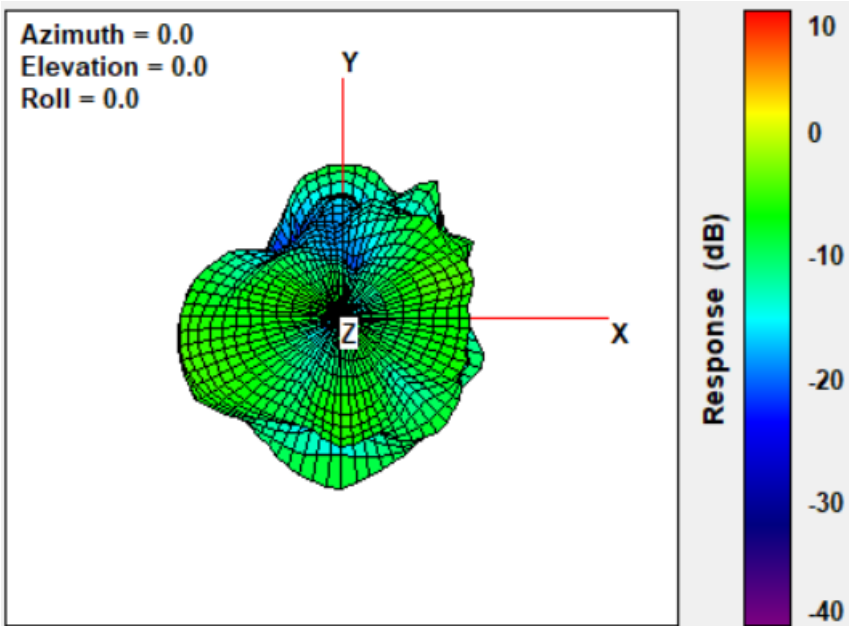
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	0.39



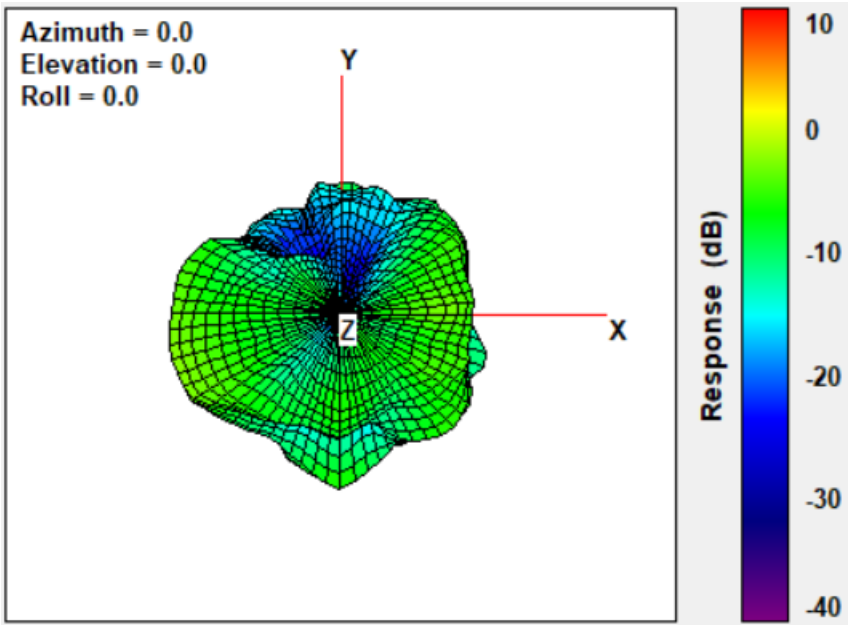
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	-0.06



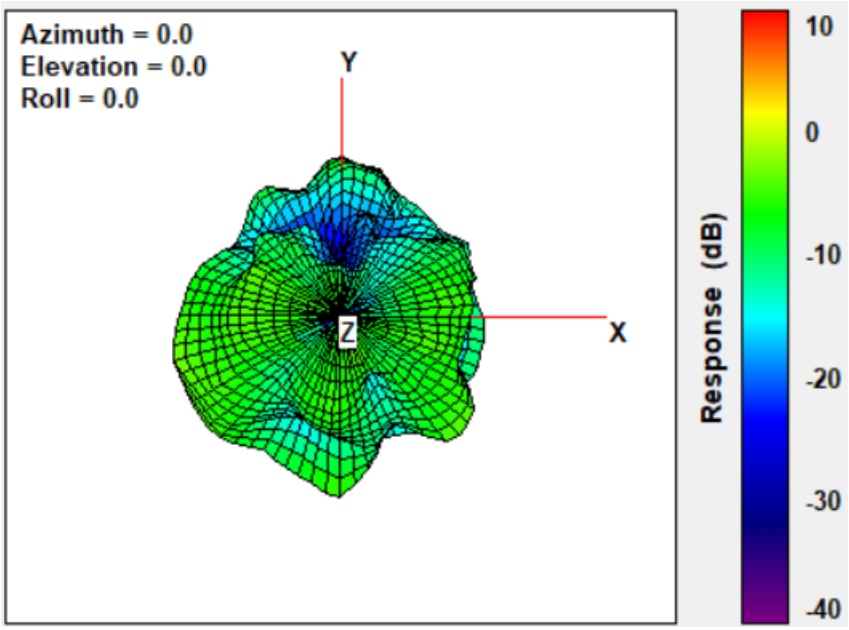
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	1.37



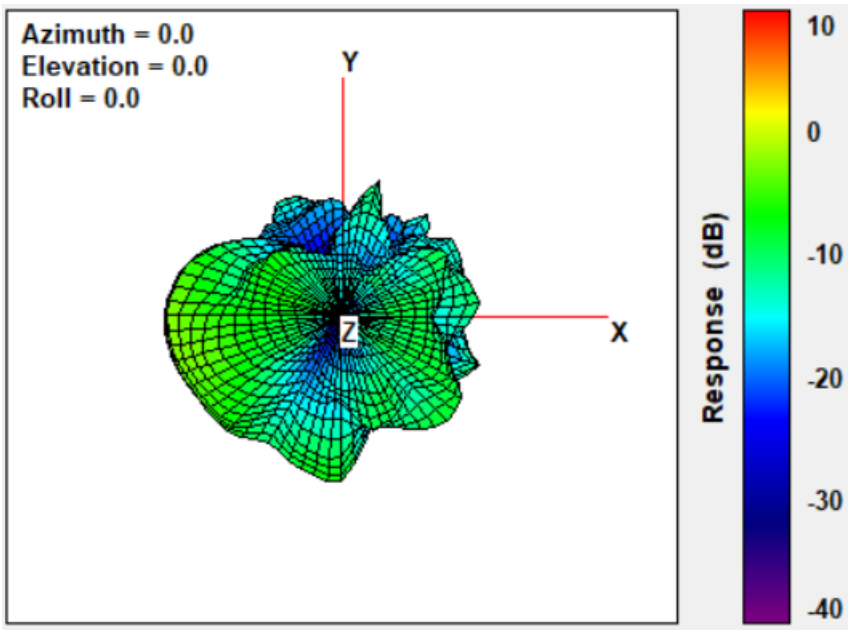
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	1.00



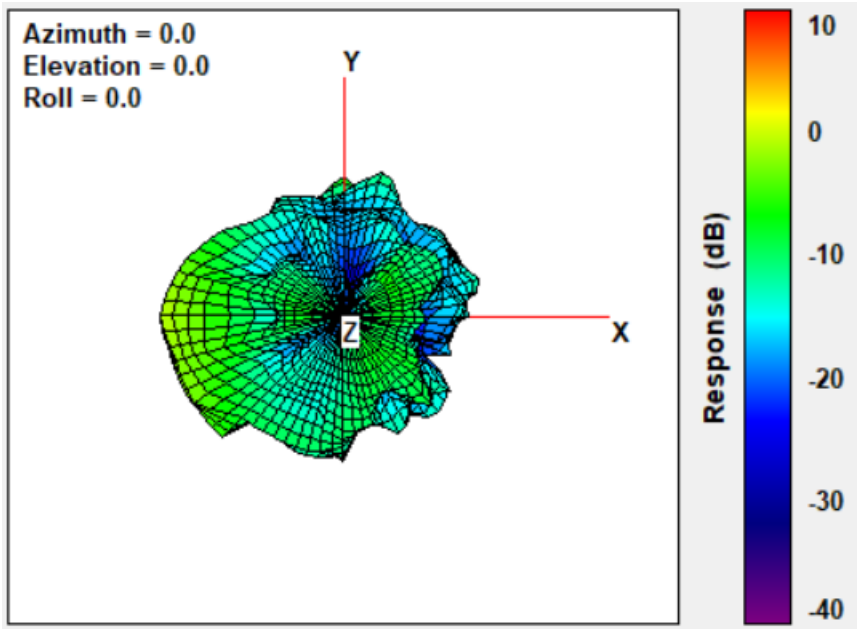
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	1.17



Max Antenna 3D Radiation Pattern 6875-7125 MHz

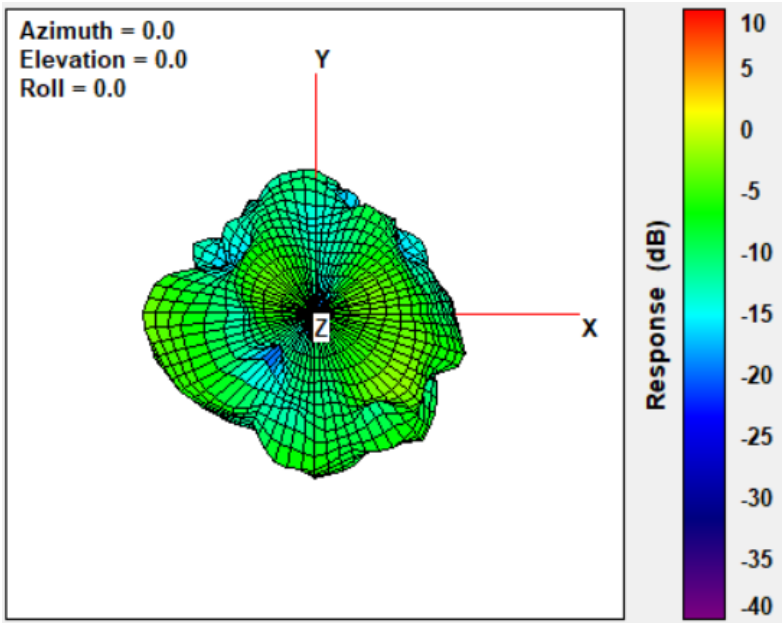
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.42



Auxiliary Antenna

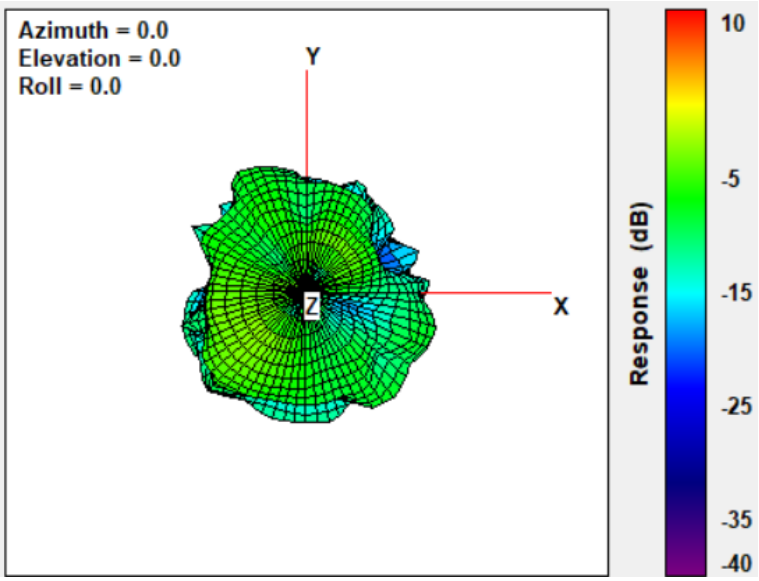
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	-0.66



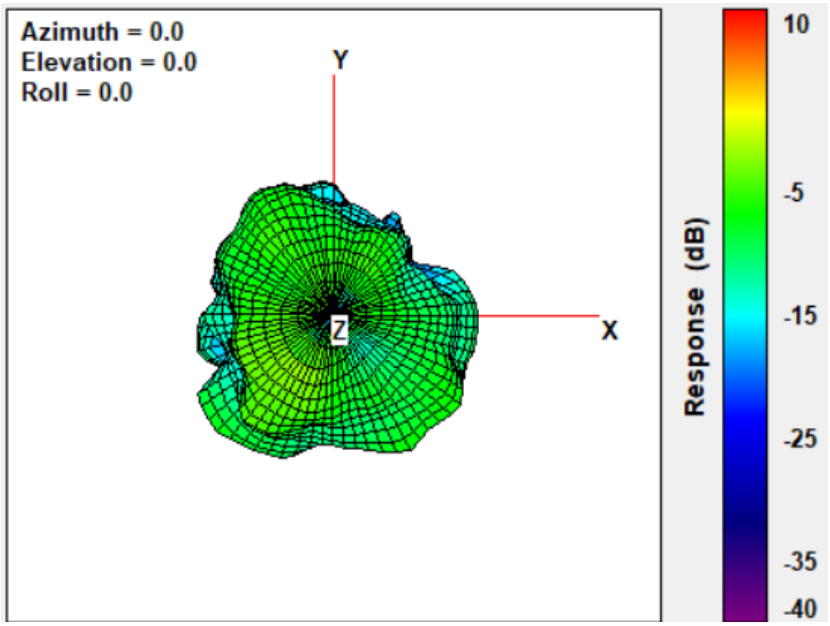
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	-1.18



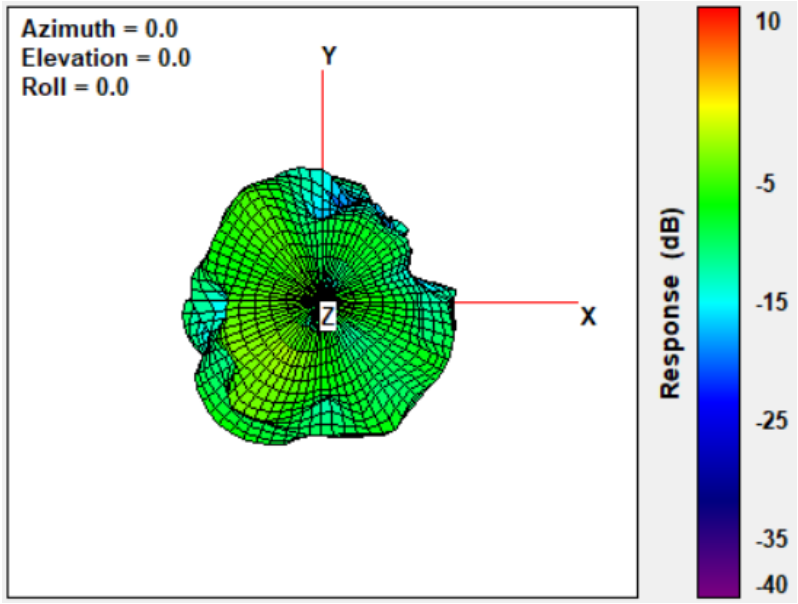
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	-0.59



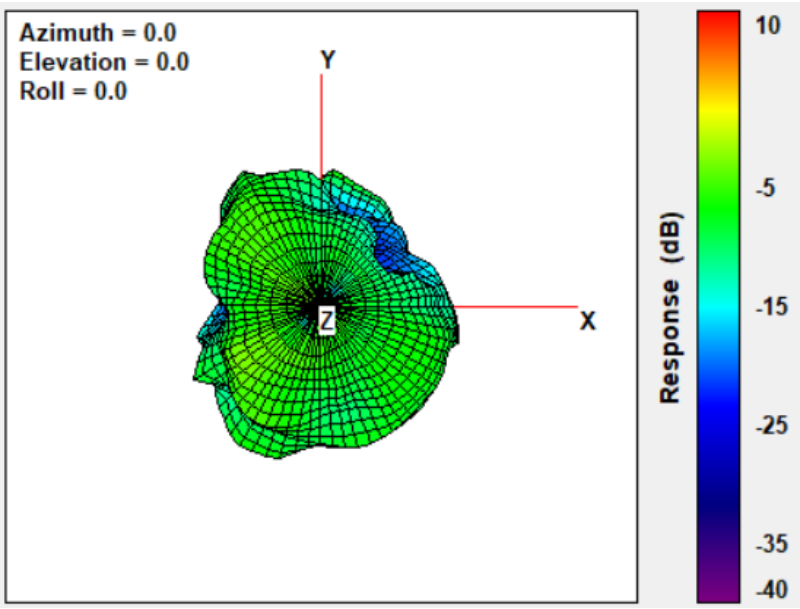
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	0.51



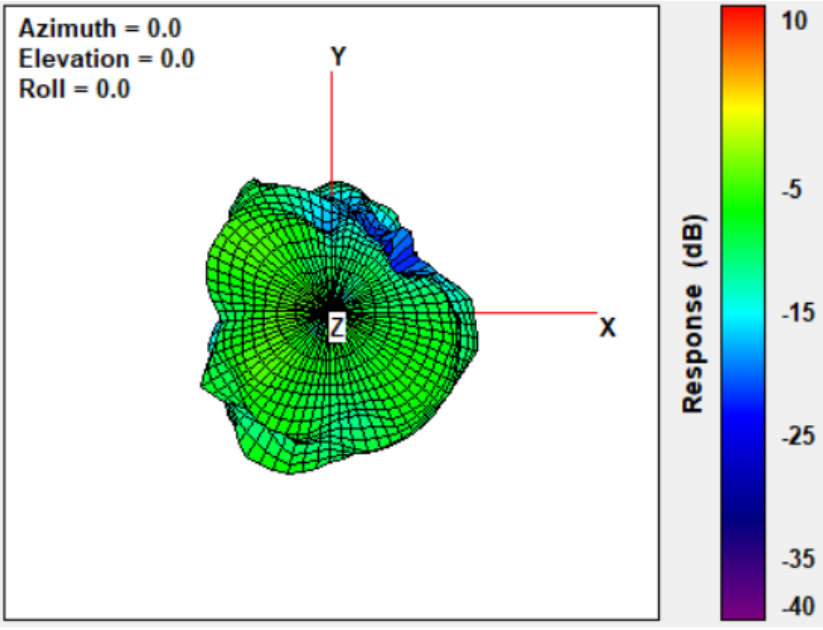
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	0.33



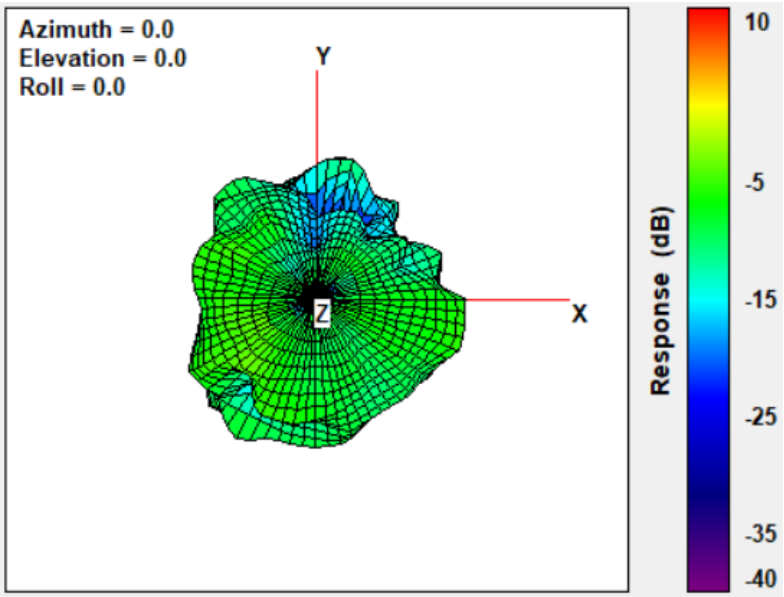
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	-0.17



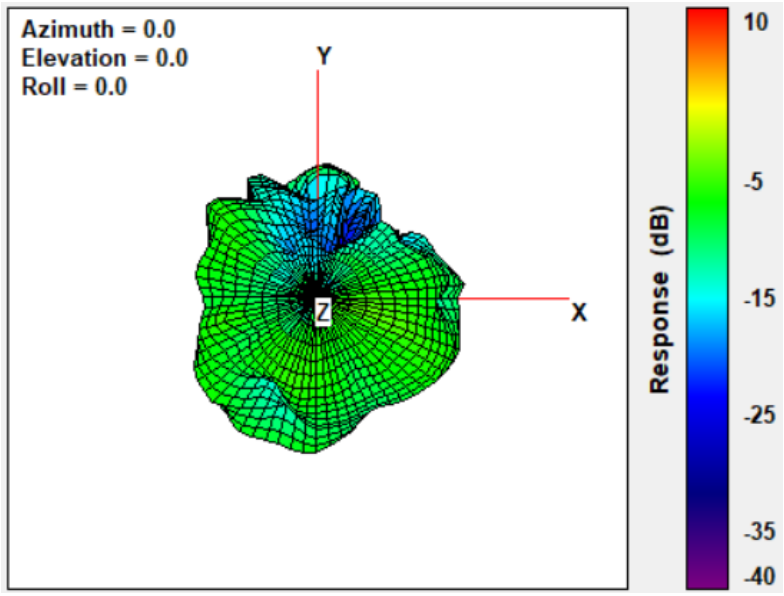
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	1.86



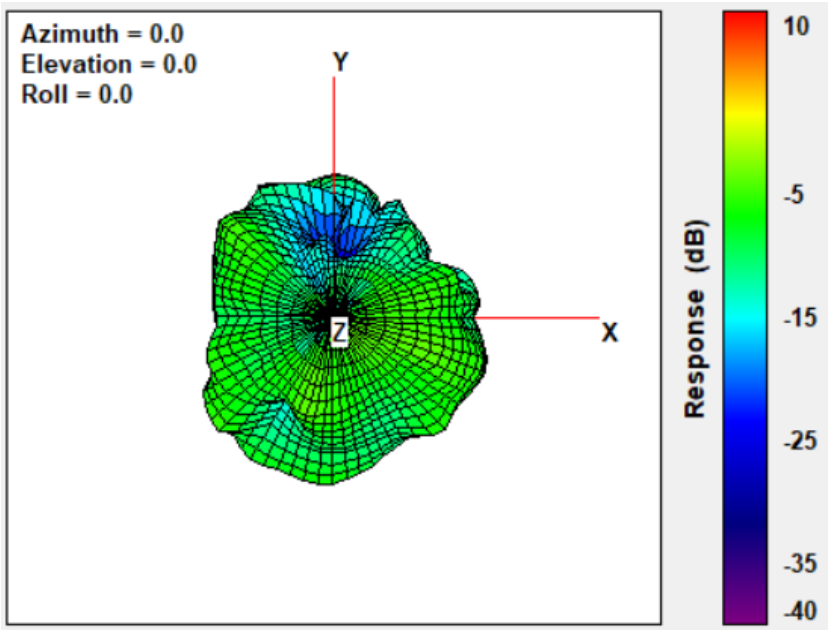
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	0.52



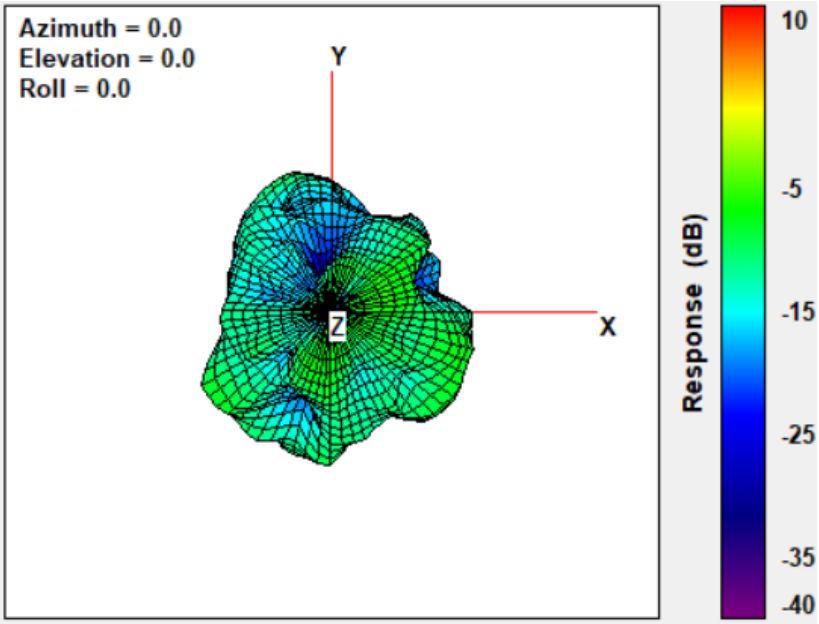
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	0.60



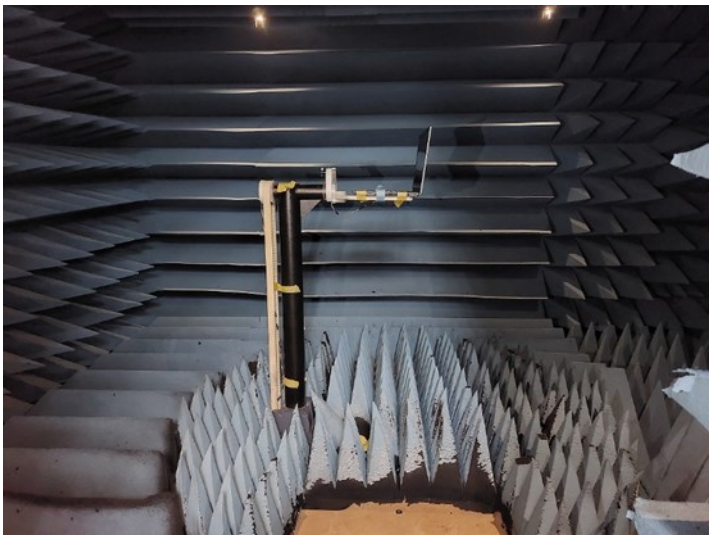
Max Antenna 3D Radiation Pattern 6875-7125 MHz

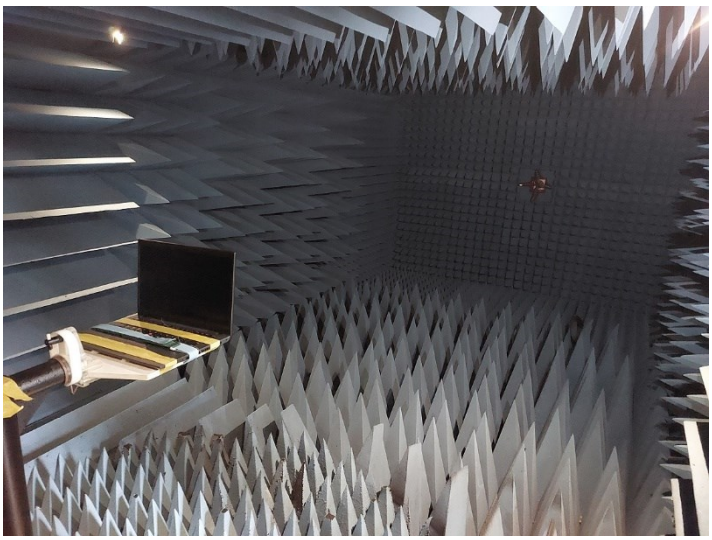
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	-0.89



Annex A. Photographs

A.1 Setup Photo

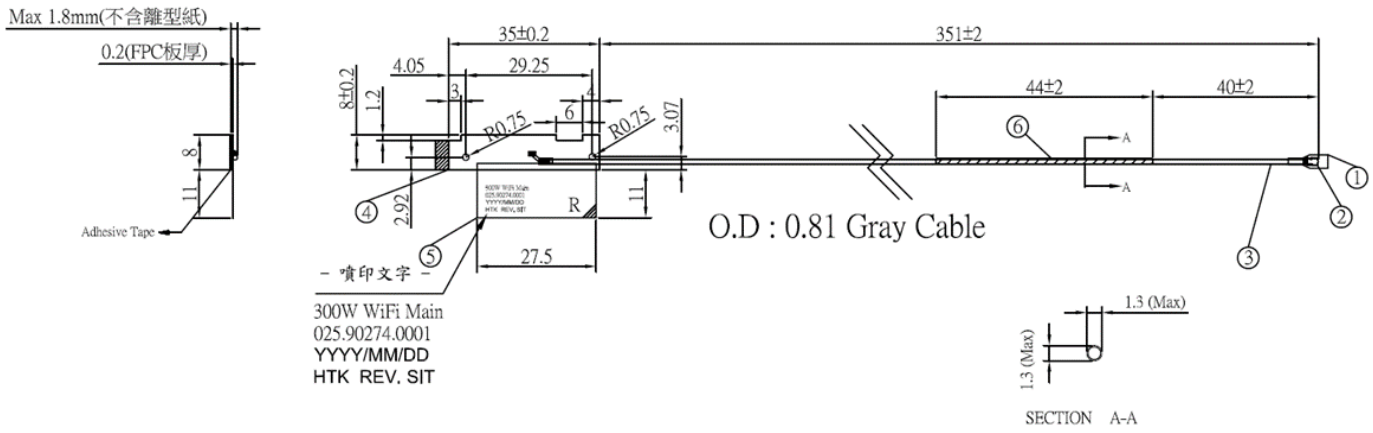




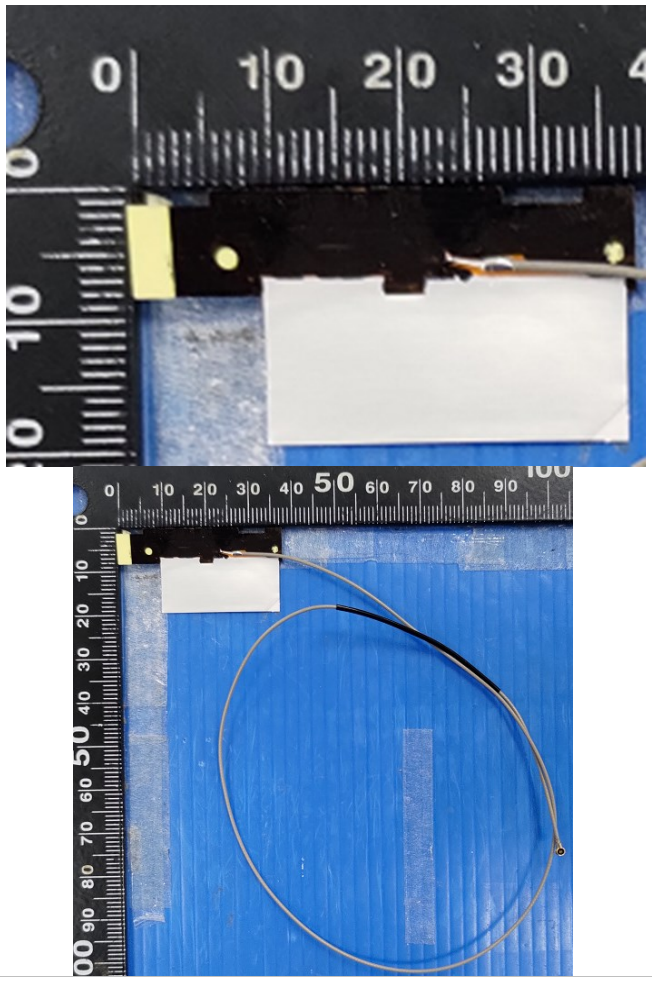
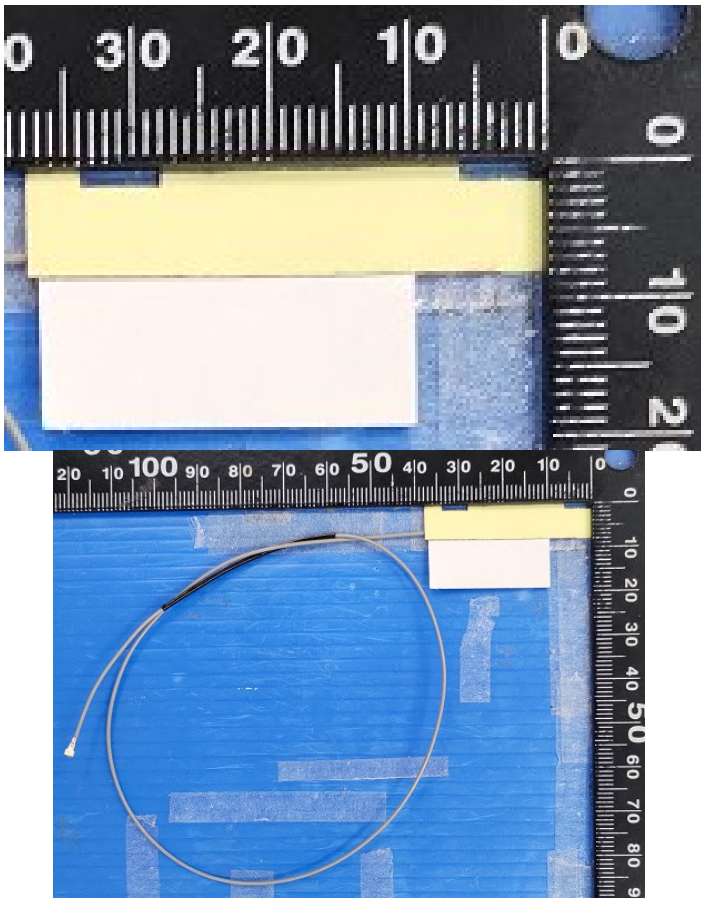
A.2 Test sample

Main Antenna

Antenna Drawing

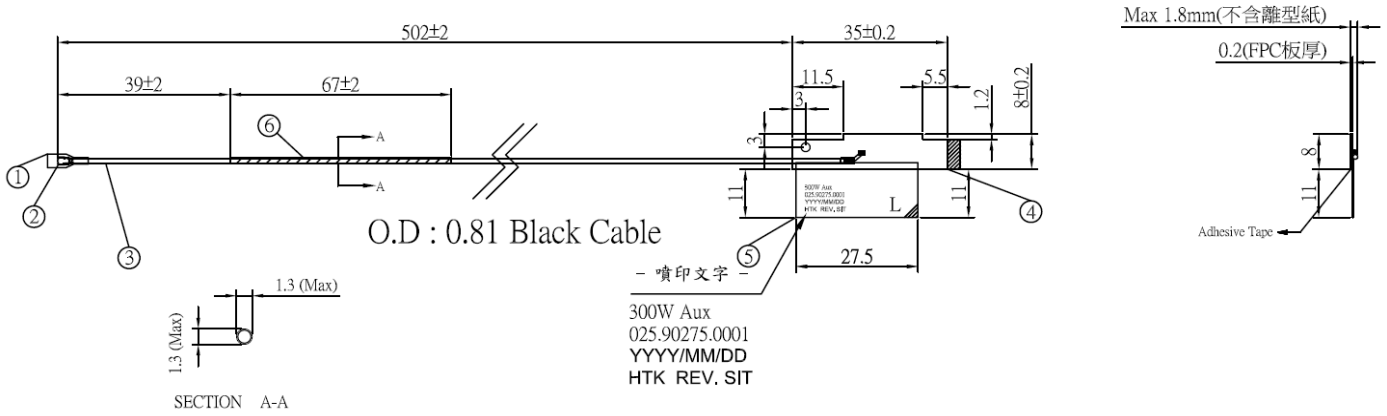


Antenna Photo

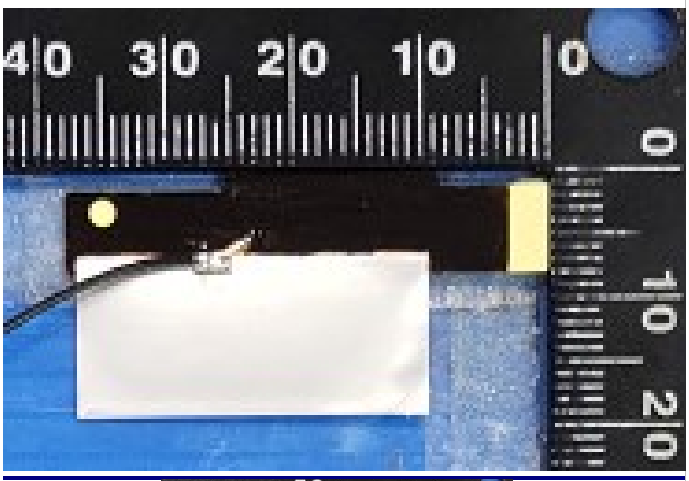
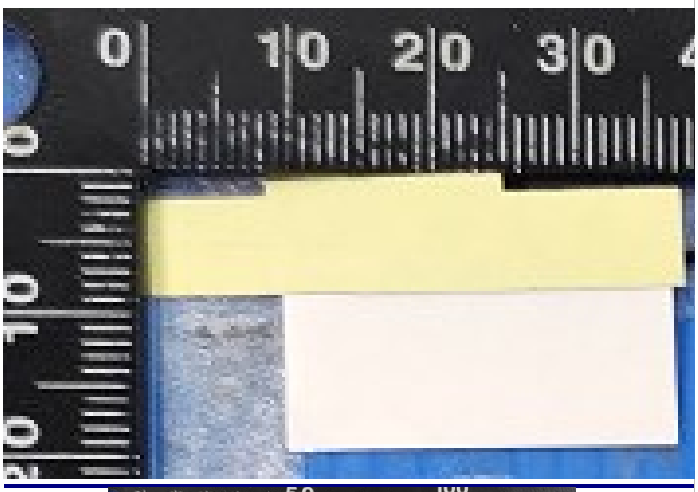
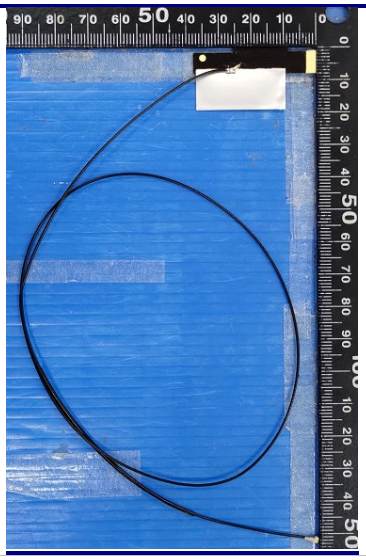
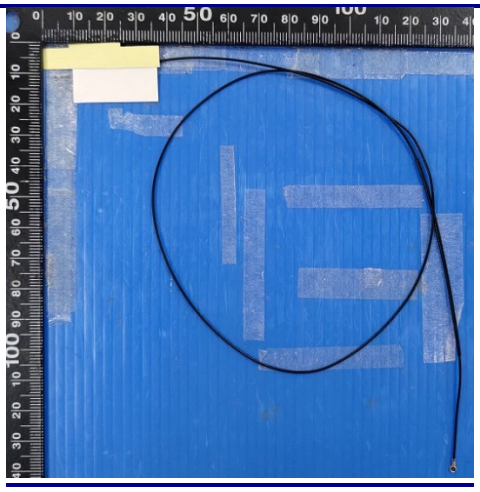
Front	Back
	

Aux Antenna

Antenna Drawing



Antenna Photo

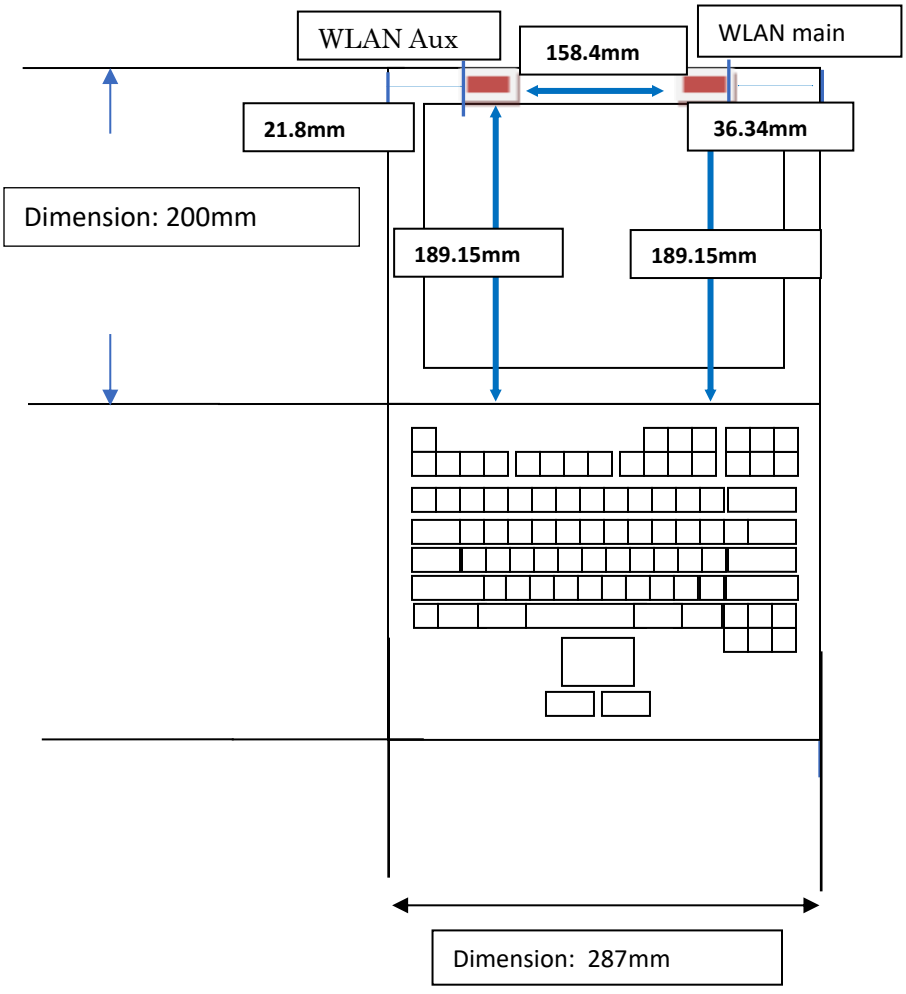
Front	Back
	
	

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).

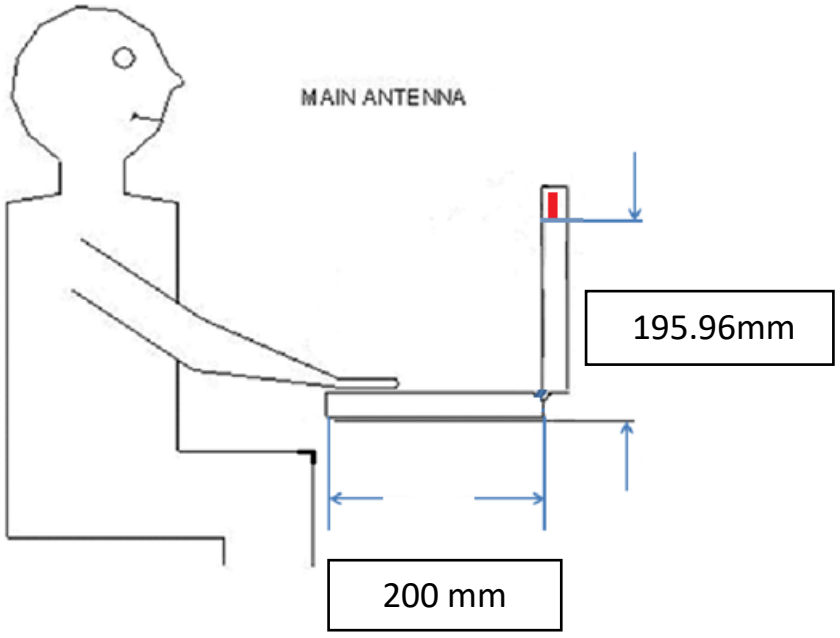
Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.



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.

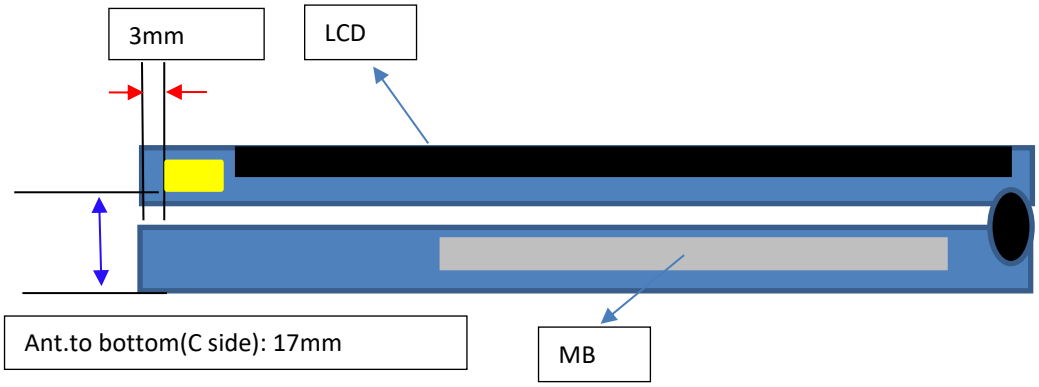
Antennas on the panel section



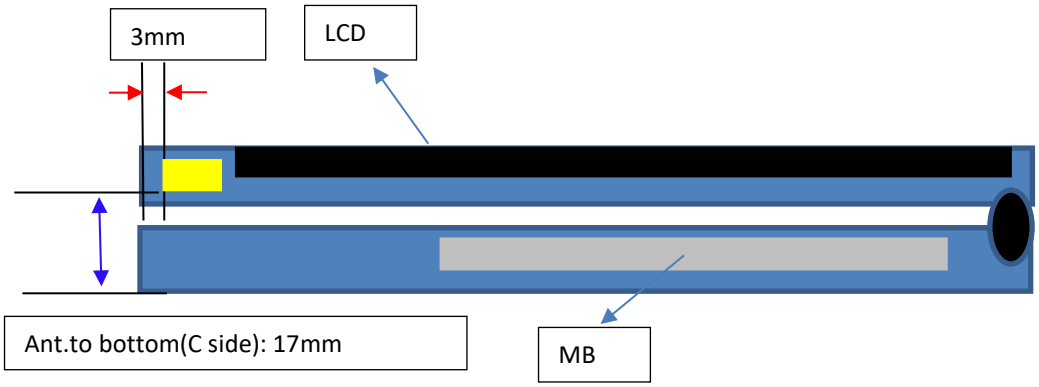
Measuring Surface	Antenna	Separation Distance(antenna-to- Surface)(mm)	1g SAR
Bottom Side	Main	**195.96**	FCC/ISED
	Aux	**195.96**	FCC/ISED

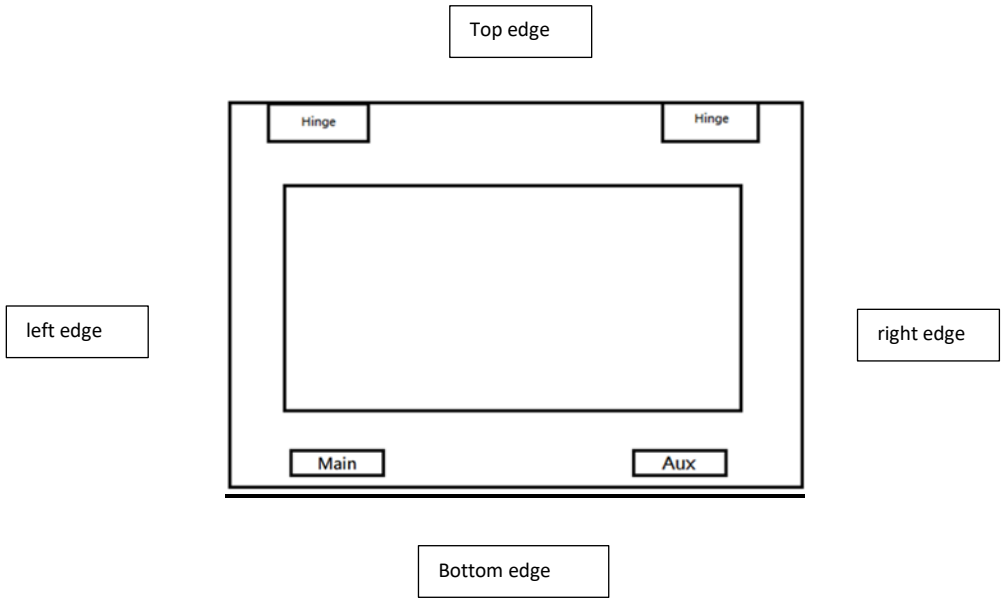
Tablet model:

WLAN Main Tx1



WLAN Aux Tx1





Measuring Surface	Antenna	Separation Distance(antenna-to- Surface)(mm)	1g SAR
Bottom Side (tablet mode)	Main	**17**	FCC/ISED
	Aux	**17**	FCC/ISED
Top edge(tablet mode)	Main	**189.15**	FCC/ISED
	Aux	**189.15**	FCC/ISED
Bottom edge(tablet mode)	Main	**3**	FCC/ISED
	Aux	**3**	FCC/ISED
right edge(tablet mode)	Main	**214.62**	FCC/ISED
	Aux	**21.22**	FCC/ISED
Left edge(tablet mode)	Main	**35.68**	FCC/ISED
	Aux	**229.08**	FCC/ISED