ANTENNA INFORMATION

OEM	
ODM	Pegatron
Platform model name	E1504T, L1504T, E1504TA, L1504TA
Intel platform (ex: Yes, No or NA)	Yes
Platform type (ex: regular NB, convertible PC, AIO…etc)	Regular NB
SAR minimum separation (mm)	9.55mm

Antenna manufacturer	Company name	INPAQ
	Address	No.5,Chunqiu Road, Panyang Industrial Park Huangdai Town, Xiangcheng Zone, Suzhou
Test location	Company name	INPAQ
	Address	1F., No. 106-1, Ligong St., Beitou Dist., Taipei City 112019, Taiwan (R.O.C.)
Test Personnel	Name(Full name)	Ivan Chang
	E-mail	ivanchang@inpaq.com.tw
	Tel/Mobile	0917-035903
Testing date		2024/06/14

Antenna Part number	Main	Main:WA-P-LE-02-128(14008-05590200)
	Aux	AUX:WA-P-LE_01-034(14008-05590300)
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	2.6	3.24	3.24	4.16	4.15	3.97	3.71	3.55	3.95	3.5
Aux	2.43	3.18	2.22	2.62	1.92	1.9	1.95	1.63	2.67	3.1

Cable Assembly Part Number and Information

	Cable PN	**Cable length**(mm)	**Cable diameter**(mm)	**Impedance**(ohm)	**Connector type**
Main	SY113L/50-048	205	1.13	50	IPEX MHF-4L
Aux	SY113/50-105	550	1.13	50	IPEX MHF-4L

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

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1. Document Revision History

Revision #	Revision Details	Issued Date
Rev. 00	First Issue	

2. Test & System Description

3.1 Measurement Method and System

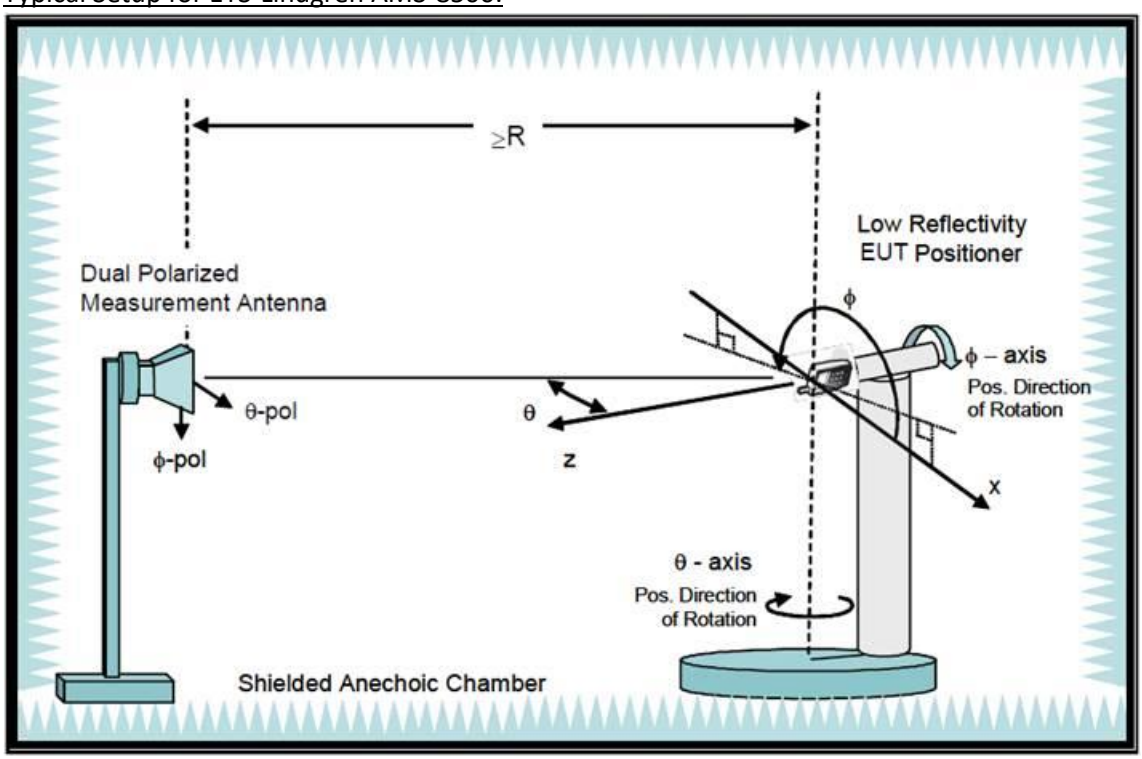
ETS-Lindgren AMS-8500 system is 3D fully anechoic chamber, it is applied to the “Conical Cut test method”, the detail description is described as below.

The Conical Cut method requires the ability of the Measurement Antenna to be physically rotated in the theta plane (overhead) of the EUT for implementations using a single Measurement Antenna, Eleven conical cuts are required to capture data at every 15 degrees from the EUT, with the top (0 degrees) and bottom (180 degrees) cuts not being measured. Typically, the EUT will remain affixed to a turntable during the entire measurement process. The Measurement Antenna will be positioned at a starting theta angle. The EUT will then be rotated around the full 360 degrees of phi rotation. The Measurement Antenna will then be positioned at the next theta angle, and the process repeated.

		θ-Axis	Φ-Axis
Passive	Step size	15º~165º step: 15º	0º~345º step: 15º
	N / M (Points)	12	24

3.2 Test setup

Typical Setup for ETS-Lindgren AMS-8500:



3.3 Equipment list

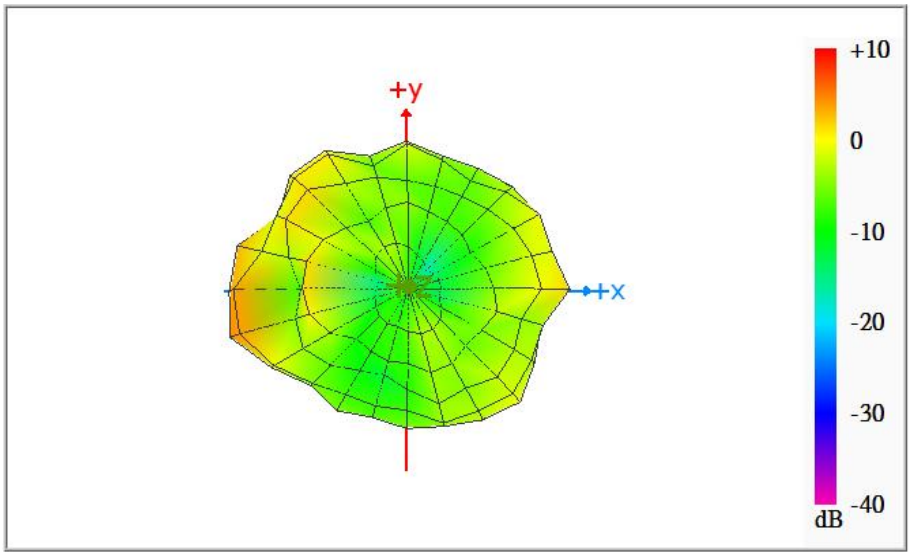
Equipment Description	Manufacturer	Identification no.	Current calibration date	Next calibration date
Network analyzer	Agilent	E5071C	2024/01/07	2025/01/06
Measurement software	ETS-Lindgren	EMQuest	2024/03/03	2025/03/03
Multi axis positioning system(MAPSTM)	ETS-Lindgren	EMCO 2115	2024/03/03	2025/03/03
Multi axis positioning system(MAPSTM)	ETS-Lindgren	EMCO 2110	2024/03/03	2025/03/03
MAPSTM controller	ETS-Lindgren	EMCO 2090	2024/03/03	2025/03/03
Horn antenna	ETS-Lindgren	3164-10	2024/03/03	2025/03/03
Cable 40cm 18 GHz	Jmtt	201EH012010400	2024/04/07	2025/04/08
Cable 6m 18 GHz	Jmtt	201EH012016000	2024/04/07	2025/04/08
Cable 6m 18 GHz	Jmtt	201EH012016000	2024/04/07	2025/04/08
Cable 3.5m 18 GHz	Jmtt	201EH012013500	2024/04/07	2025/04/08
Cable 1.5m 18 GHz	Jmtt	201EH012011500	2024/04/07	2025/04/08

3. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

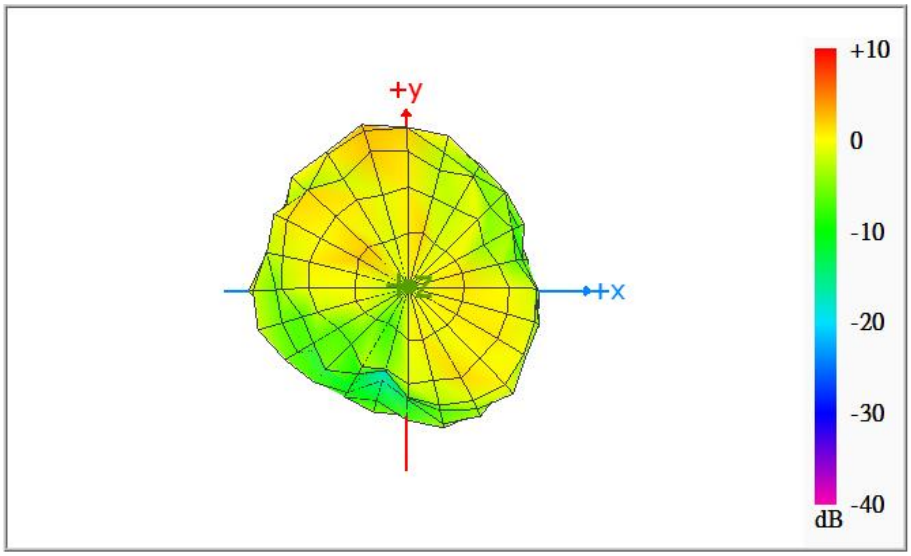
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.6



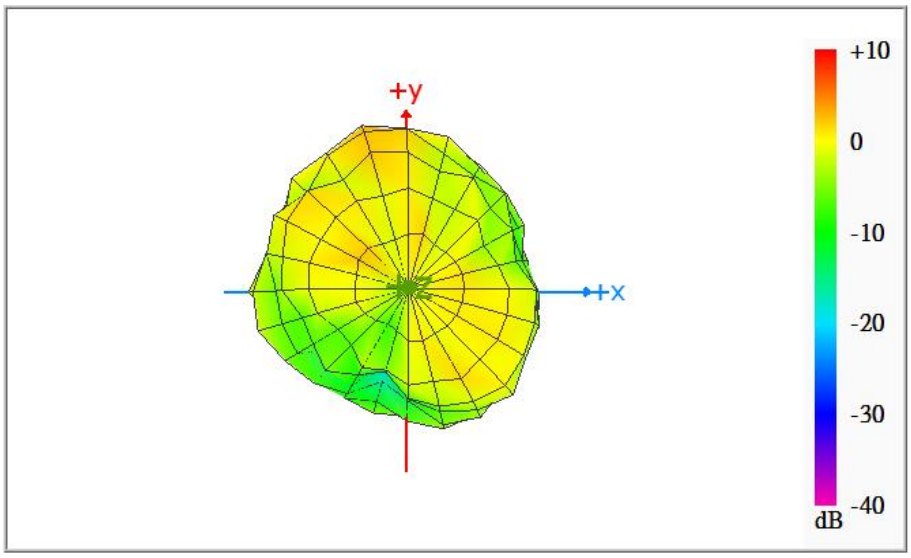
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.24



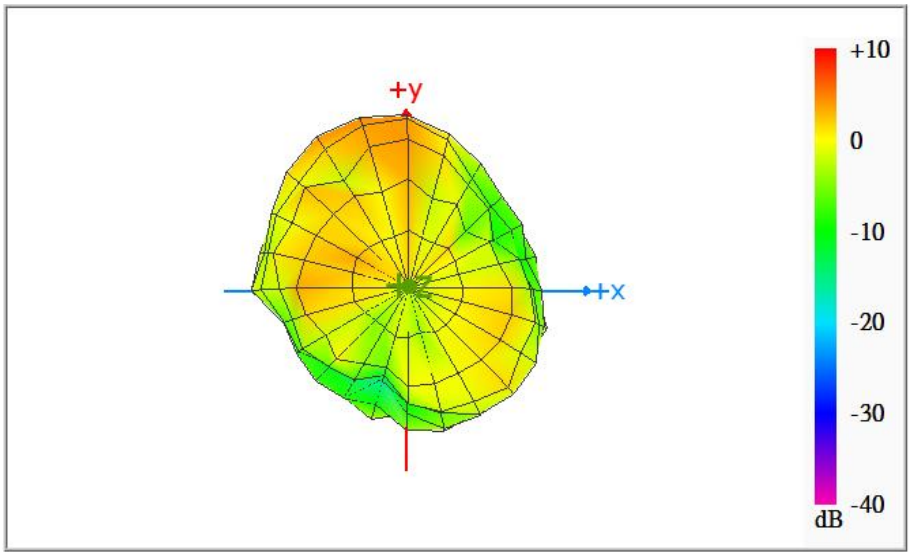
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	3.24



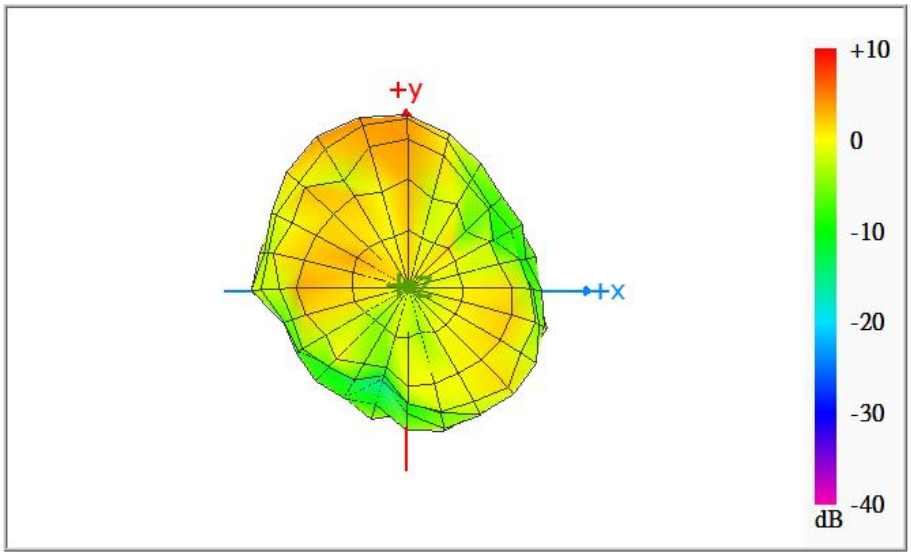
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	4.16



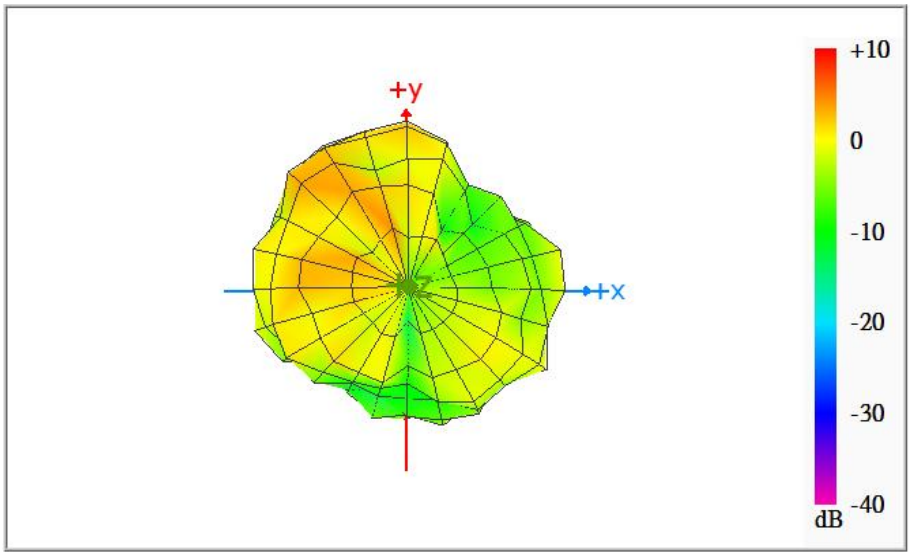
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	4.15



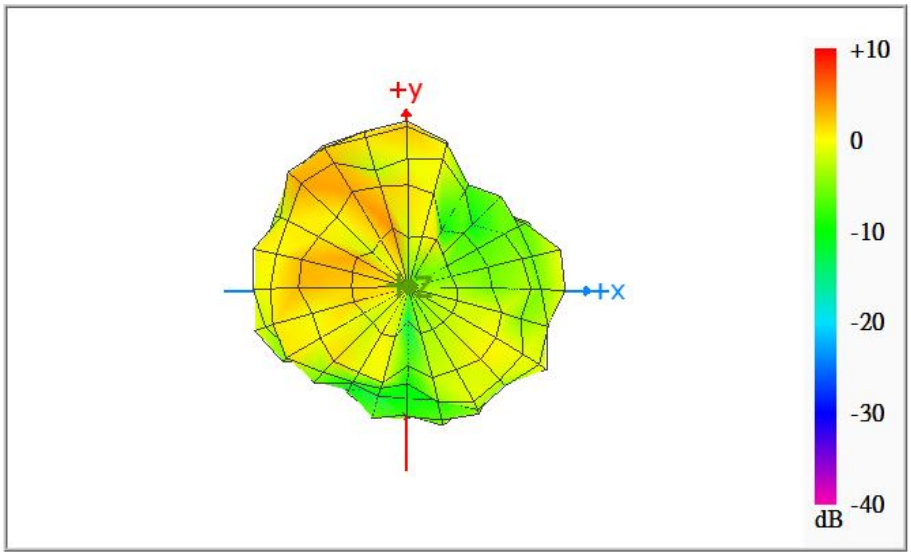
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	3.97



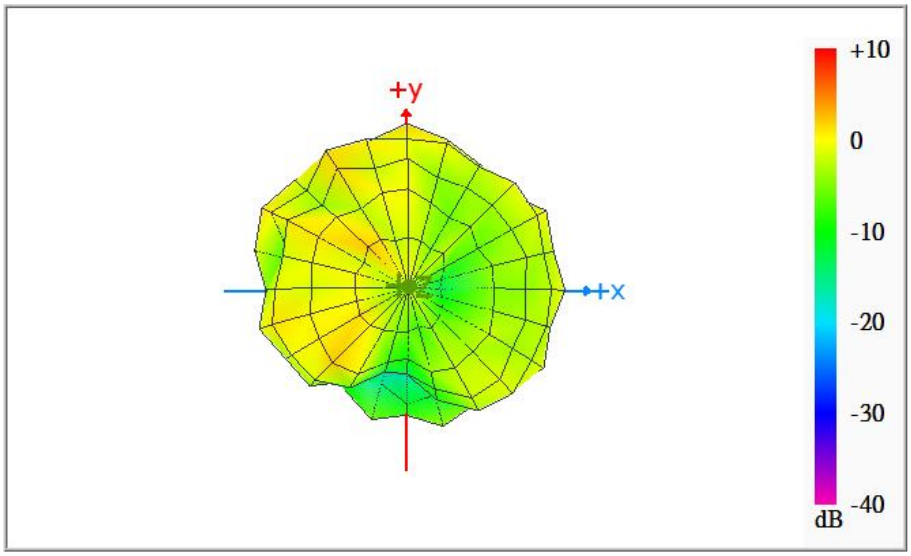
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.71



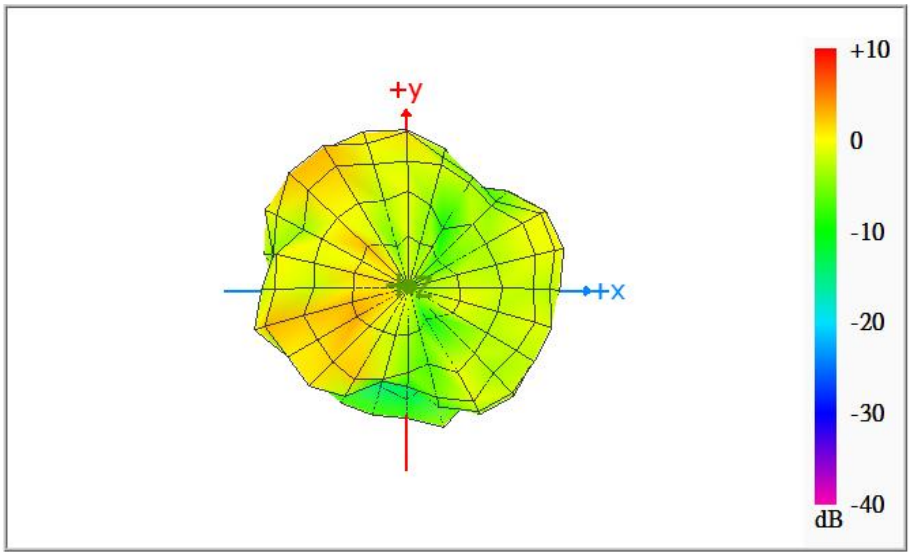
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.55



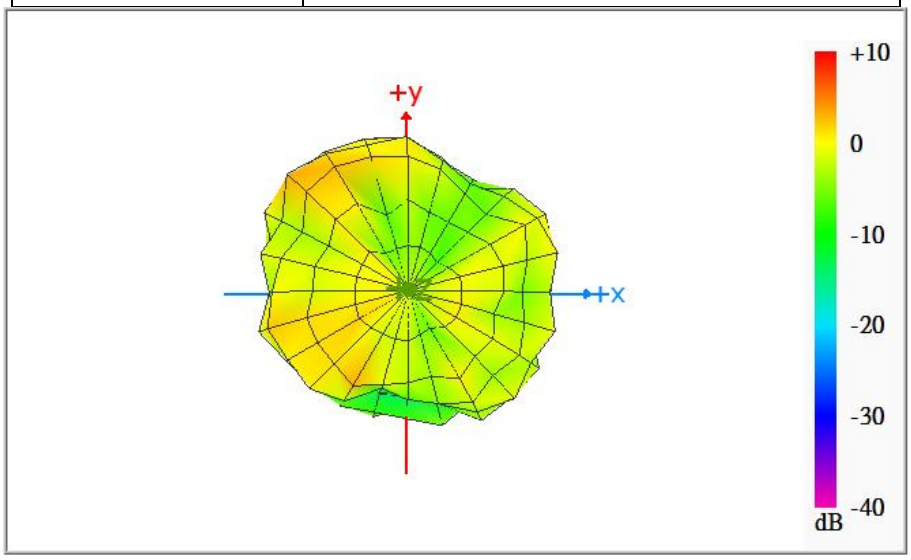
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.95



Max Antenna 3D Radiation Pattern 6875-7125 MHz

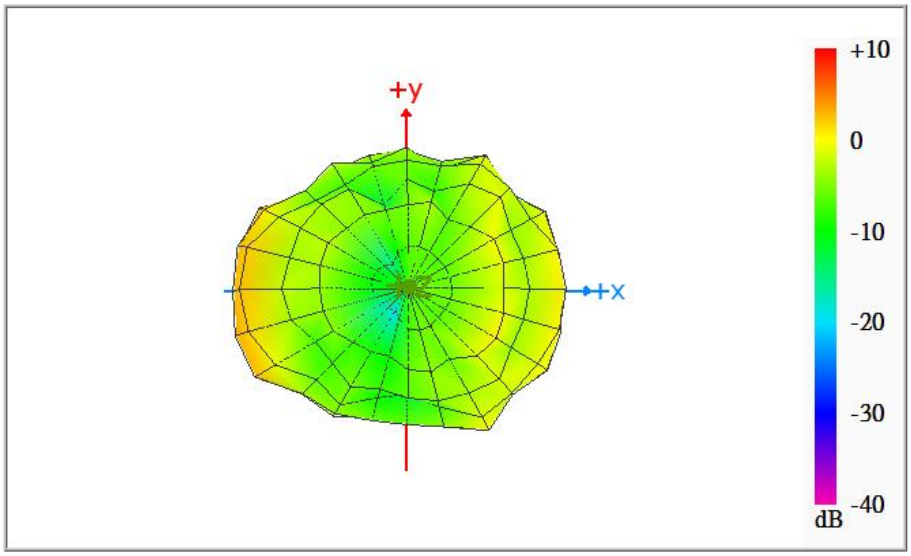
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.5



Auxiliary Antenna

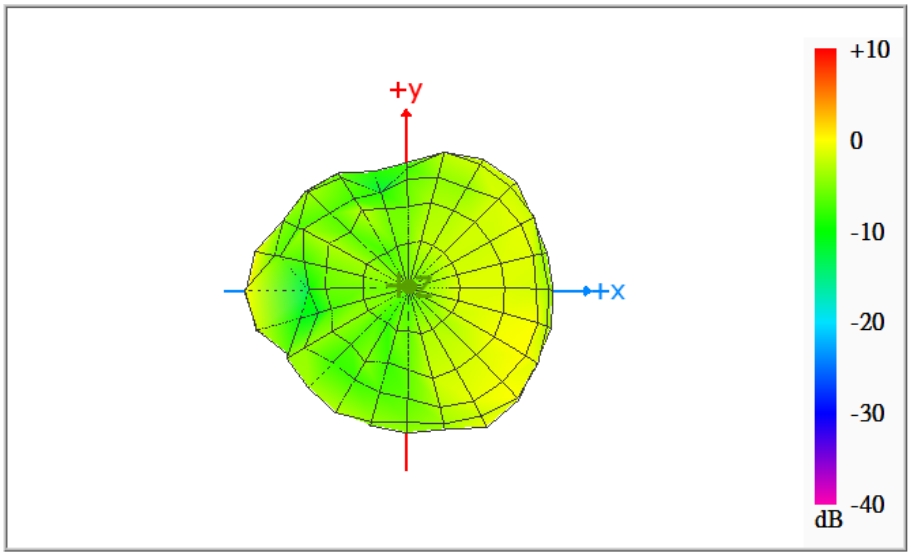
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.43



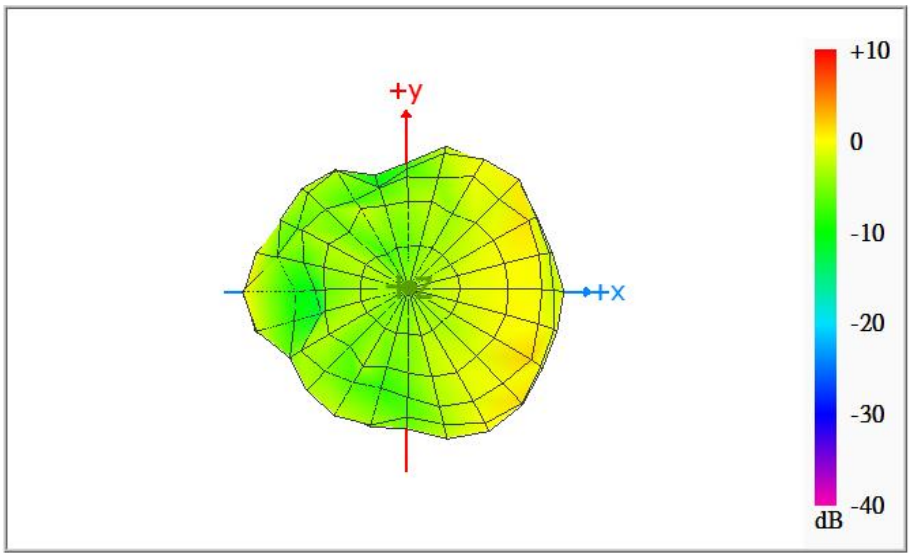
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.18



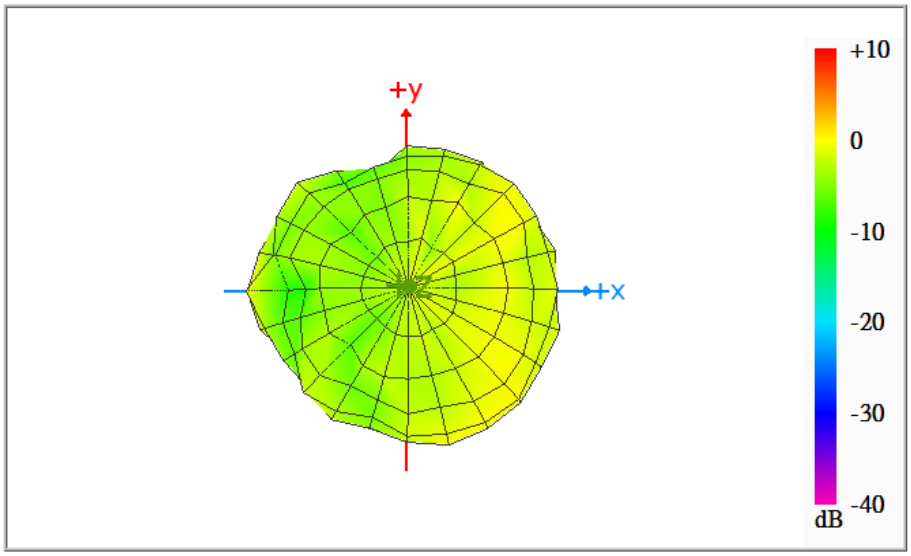
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.22



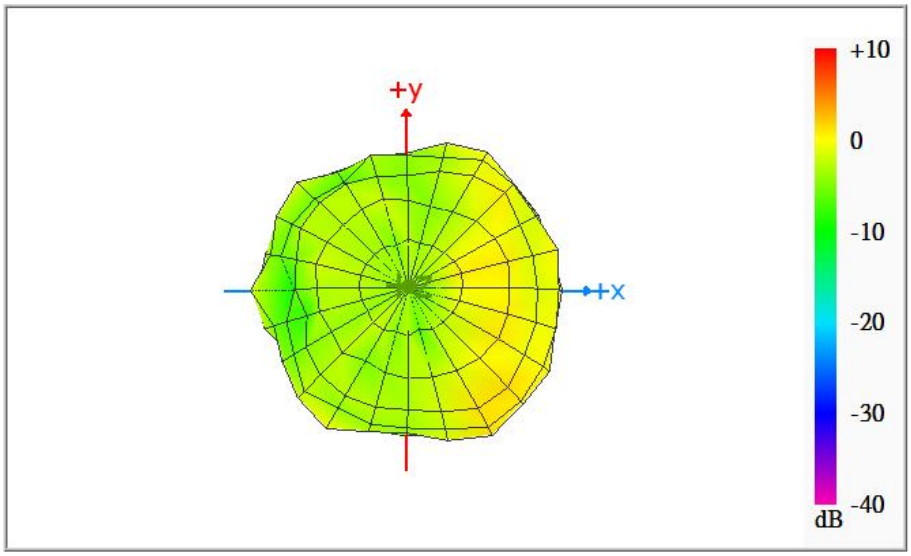
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.62



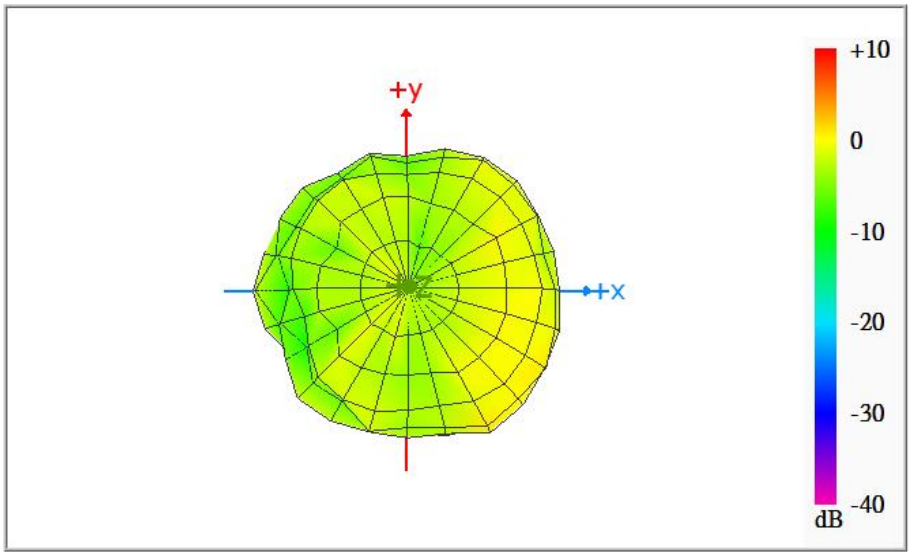
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	1.92



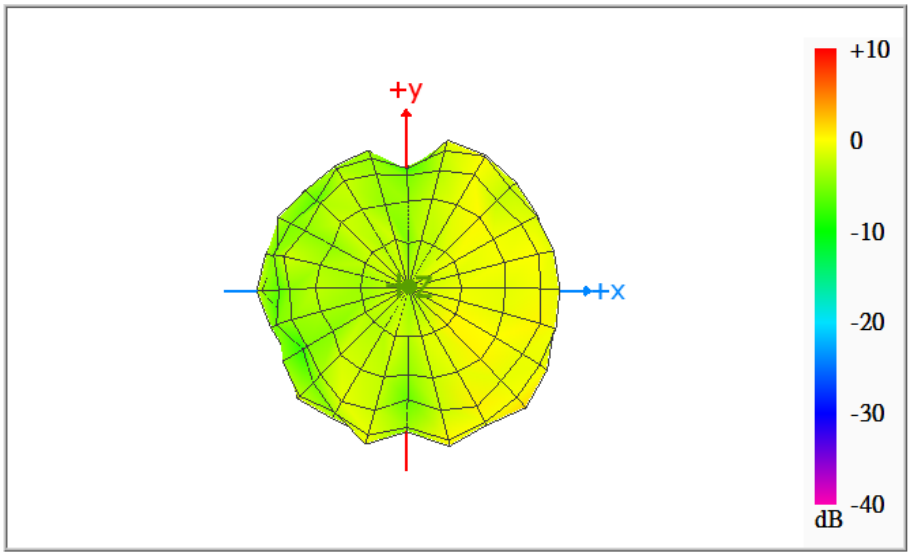
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	1.9



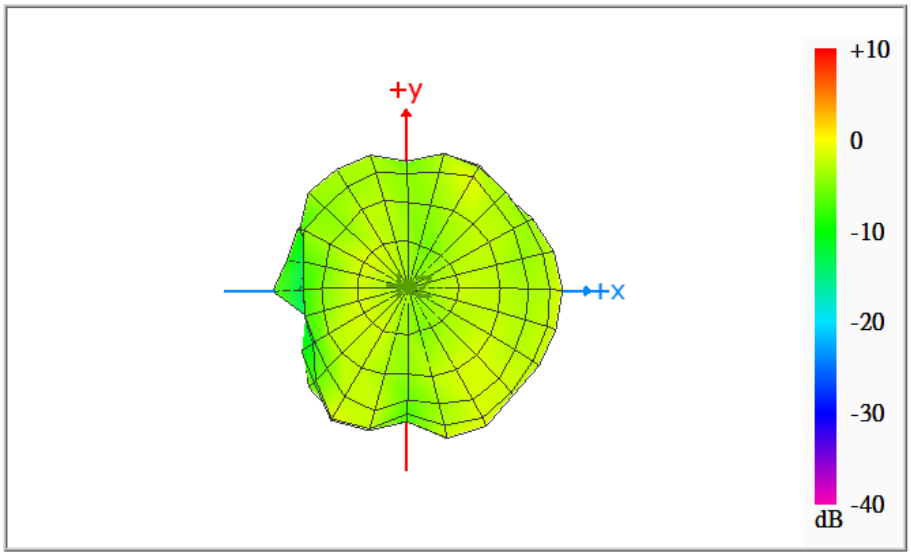
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	1.95



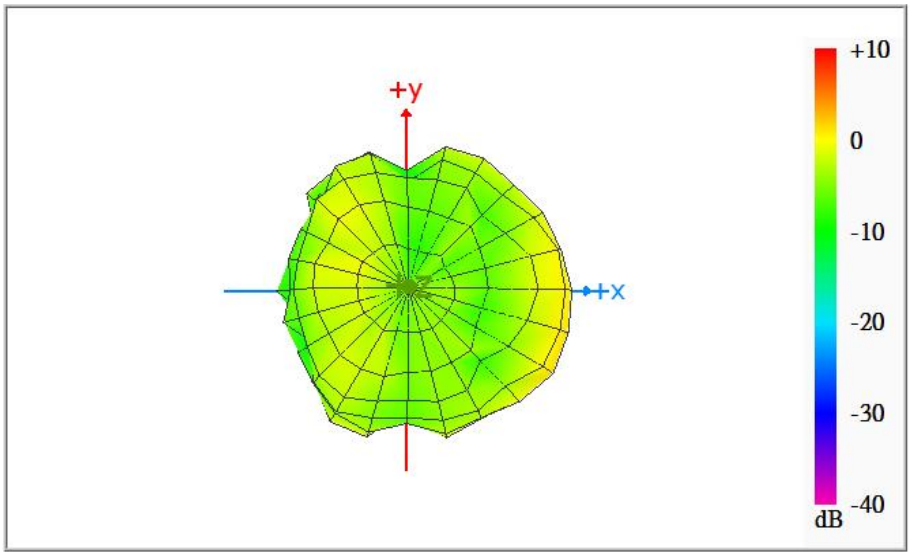
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	1.63



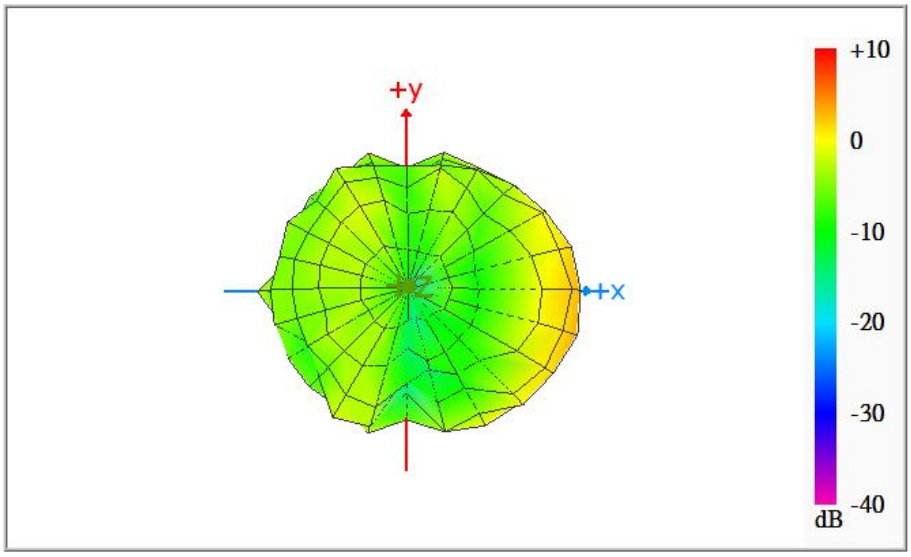
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.67



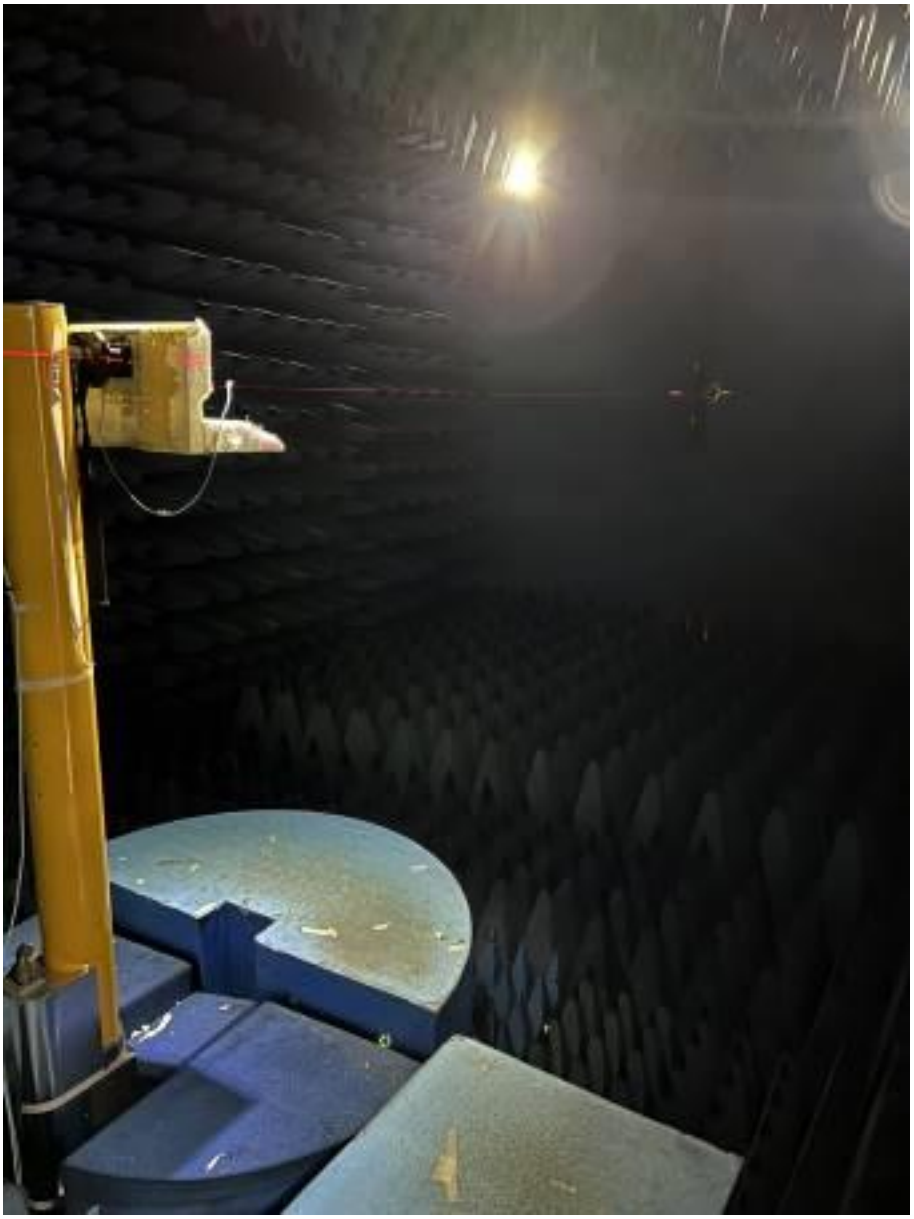
Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.1



Annex A. Photographs

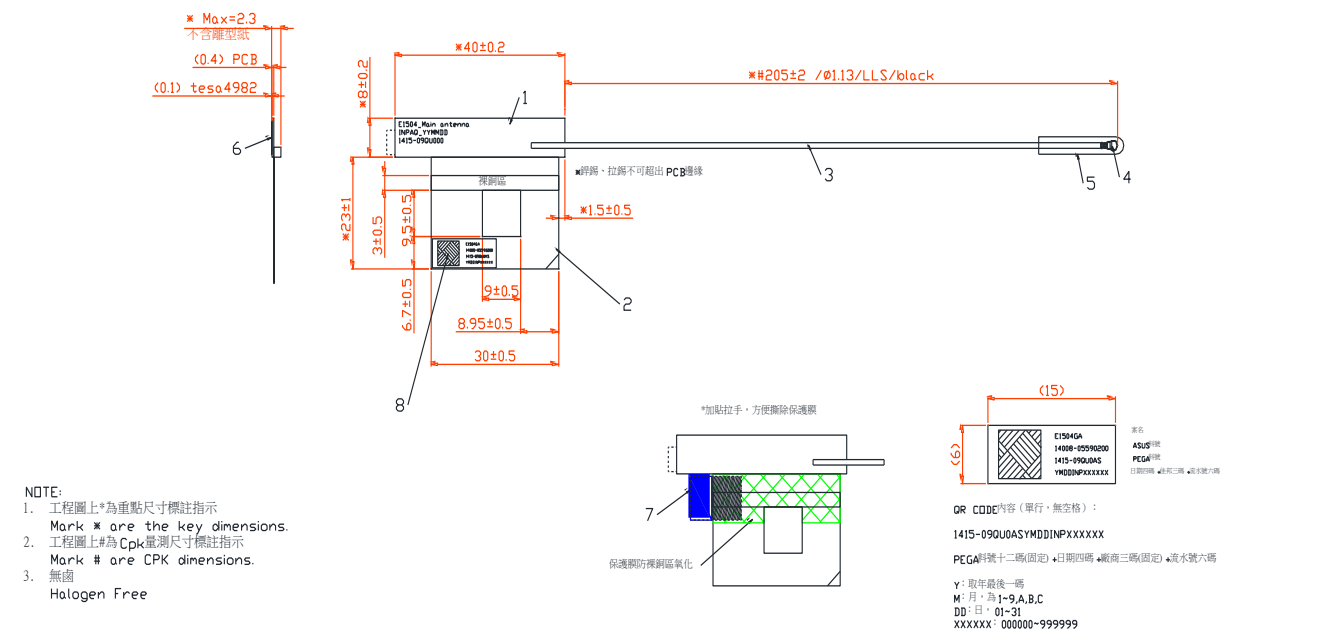
A.1 Setup Photo



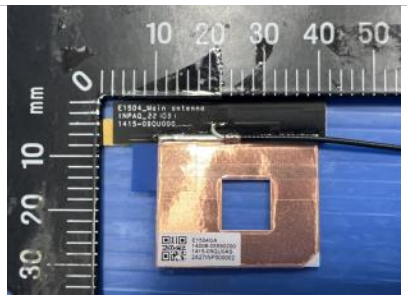
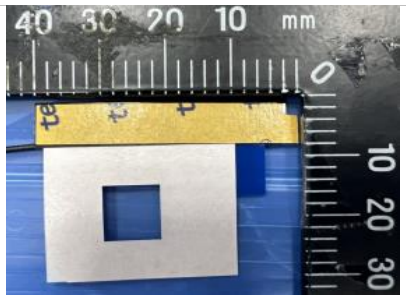
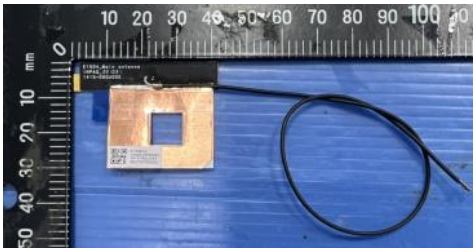
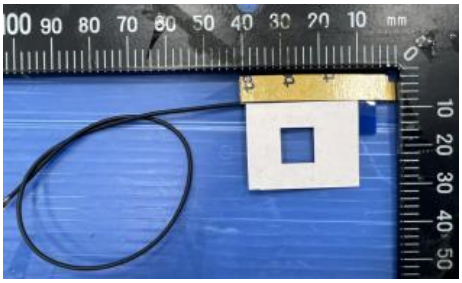
A.2 Test sample

Main Antenna

Antenna Drawing



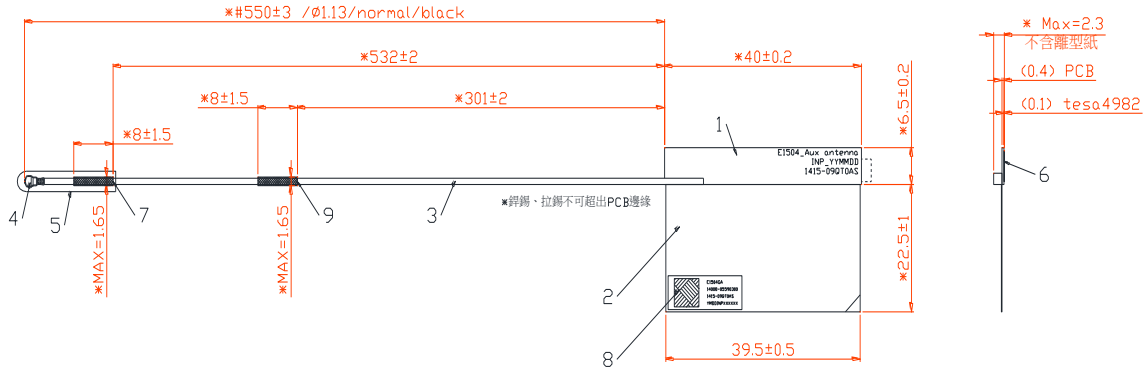
Antenna Photo

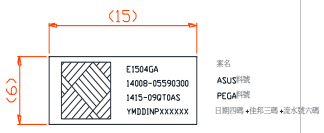
Front	Back
	
	

Note: antenna photo should include L type ruler

Aux Antenna

Antenna Drawing





NOTE:
1. 工程圖上*為重點尺寸標註指示
   Mark * are the key dimensions.
2. 工程圖上#為Cpk量測尺寸標註指示
   Mark # are CPK dimensions.
3. 無鹵
   Halogen Free

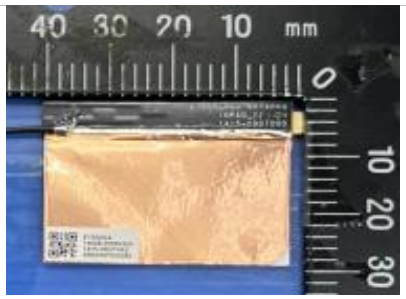
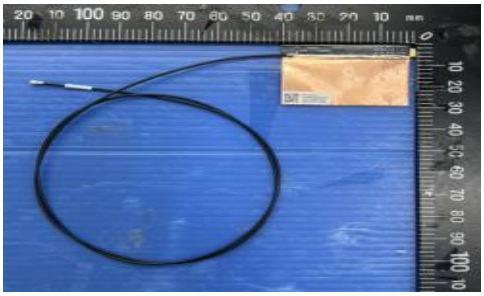
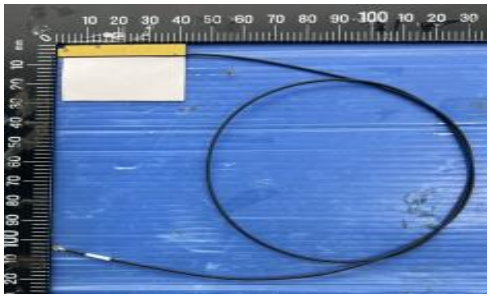
QR CODE內容（單行，無空格）：

1415-09QT0ASYMDDINPXXXXXX

PEGA料號十二碼(固定)+日期四碼+廠商三碼(固定)+流水號六碼

Y：取年最後一碼
M：月，為1~9,A,B,C
DD：日，01~31
XXXXXX：000000~999999

Antenna Photo

Front	Back
	
	

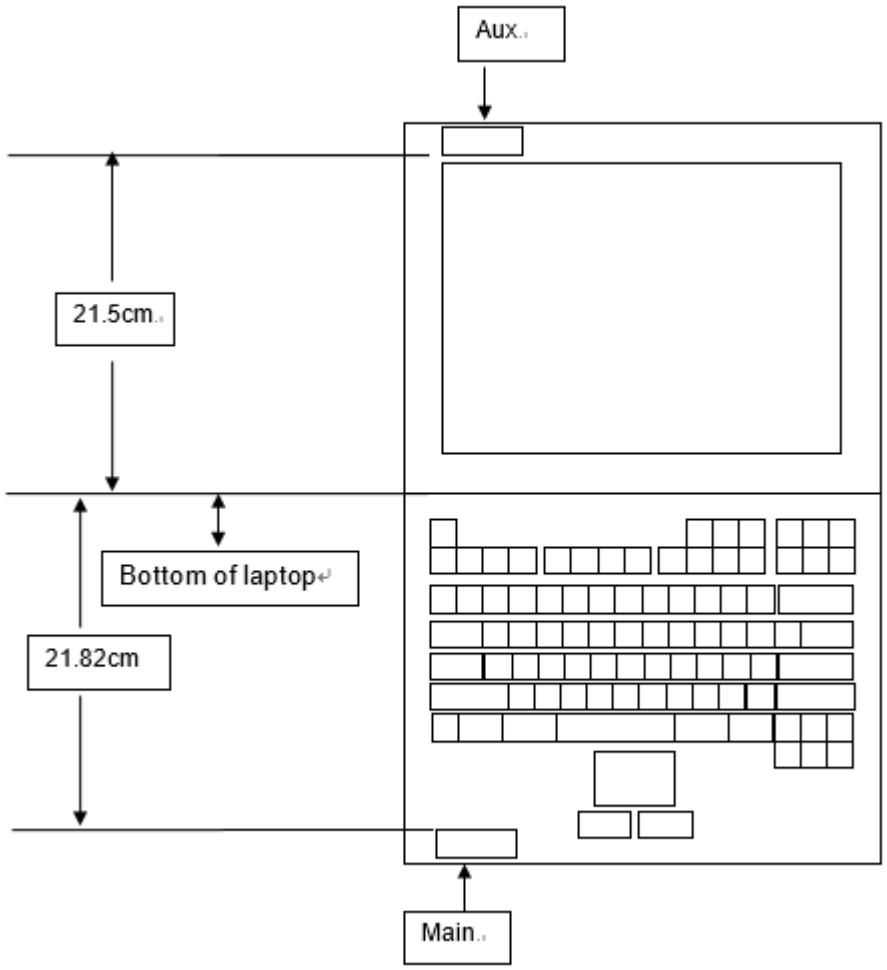
Note: antenna photo should include L type ruler

Annex B. Antenna Location

B.1 Antenna Host Platform Location Information

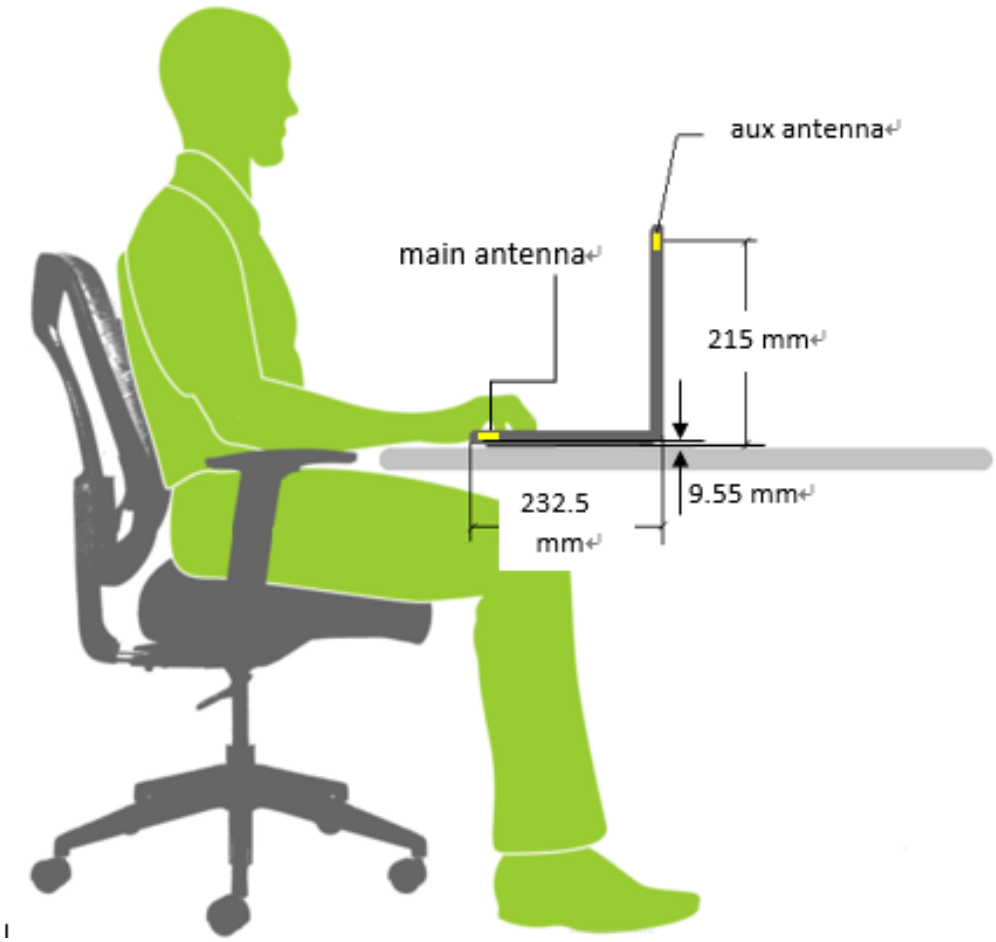
Include a dimensioned photo(s) or dimensioned drawing(s) of Main and Aux antenna placements (measurements are not required for receive-only antenna).

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.



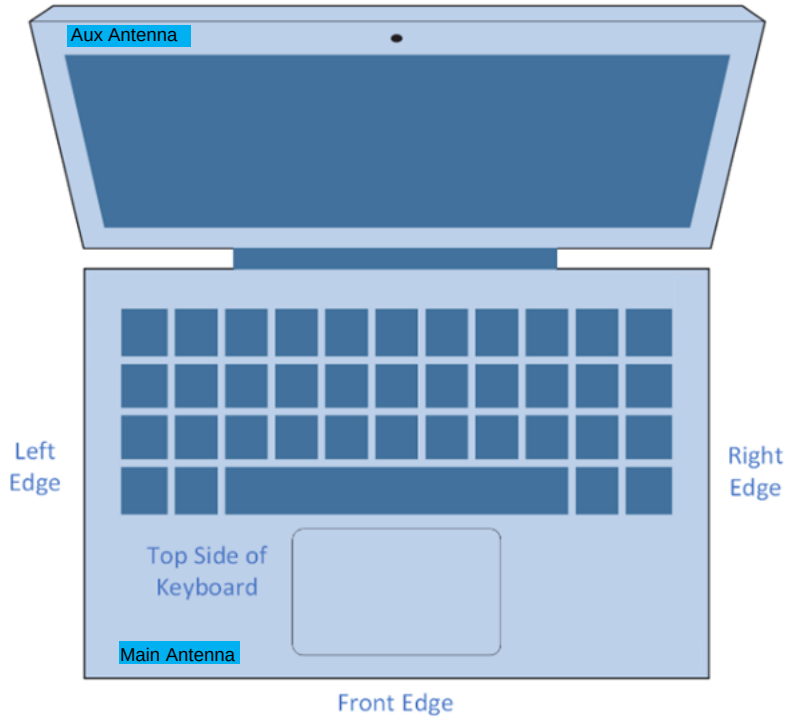
B.2 Antenna dimensional information for SAR evaluation

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.



Measuring Surface	Antenna	Separation Distance(antenna-to- Surface)(mm)	1g SAR
Bottom Side	Main	**9.55 mm**	FCC/ISED
	Aux	**215 mm**	FCC/ISED

Antennas on the keyboard section



Measuring Surface	Antenna	Separation Distance(antenna-to-Surface)(mm)	1g or 10g SAR
Bottom Side	Main	**9.55 mm**	1g (FCC/ISED)
	Aux	**215 mm**	1g (FCC/ISED)
Front Edge	Main	**5.8 mm**	1g (ISED)
	Aux	**n/a**	1g (ISED)
Left Edge	Main	**34.67 mm**	10g (ISED)
	Aux	**48.62 mm**	10g (ISED)
Right Edge	Main	**285.17 mm**	10g (ISED)
	Aux	**271.72 mm**	10g (ISED)
Top side of Keyboard	Main	**2 mm**	10g (ISED)
	Aux	**n/a**	10g (ISED)