ANTENNA INFORMATION

OEM		Lenovo
ODM		
Platform model name		ThinkPad X9-15 Gen 1
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)	8.1mm
	ISED (1g)	8.1mm
	ISED (10g)	8.1mm

Antenna manufacturer	Company name	Shanghai Amphenol Airwave Electronics Co., Ltd
	Address	No.689 Shen Nan Road, Xin Zhuang Industry Park, Shanghai, PR China
Test location	Company name	Shanghai Amphenol Airwave Electronics Co., Ltd
	Address	No.689 Shen Nan Road, Xin Zhuang Industry Park, Shanghai, PR China
Test Personnel	Name(Full name)	Alex Lu
	E-mail	Alex.lu@amphenolmcp.com
	Tel/Mobile	13641967826
Testing date		2024/11/01

Antenna Part number	Main	DC330025D00
	Aux	DC330025D00
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	1.43	3.36	3.36	4.26	4.90	4.30	4.27	3.29	3.51	3.28
Aux	0.36	3.10	3.47	4.61	4.51	3.97	4.54	4.13	4.24	3.86

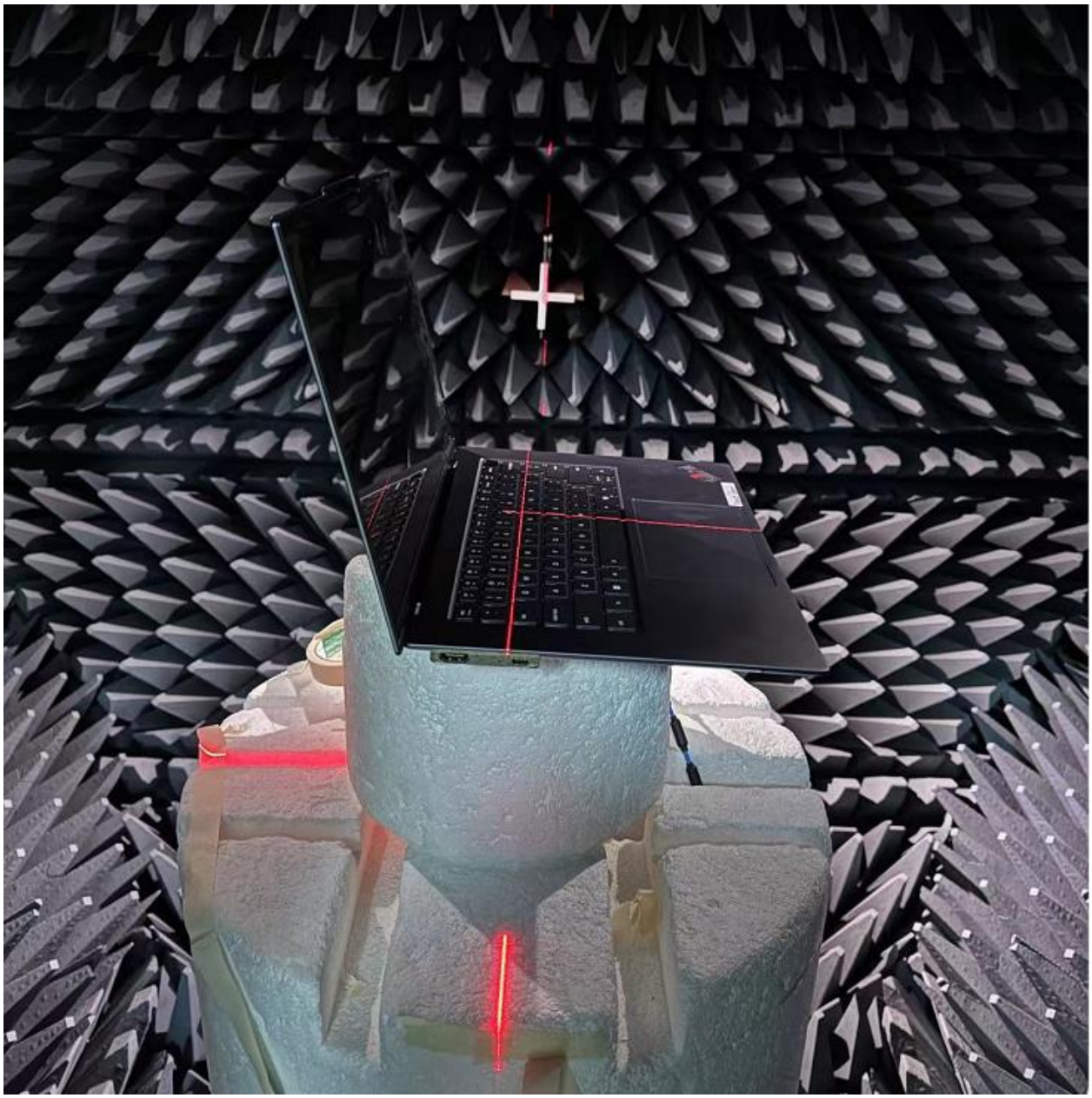
Cable Assembly Part Number and Information					
	Cable PN	**Cable length**(mm)	**Cable diameter**(mm)	**Impedance**(ohm)	**Connector type**
Main	R-H382-16-001-96	44.0	0.81	50	KANGSHUO
Aux	R-H382-16-002-96	181.2	0.81	50	KANGSHUO

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

Table of Contents

Annex A. Photographs

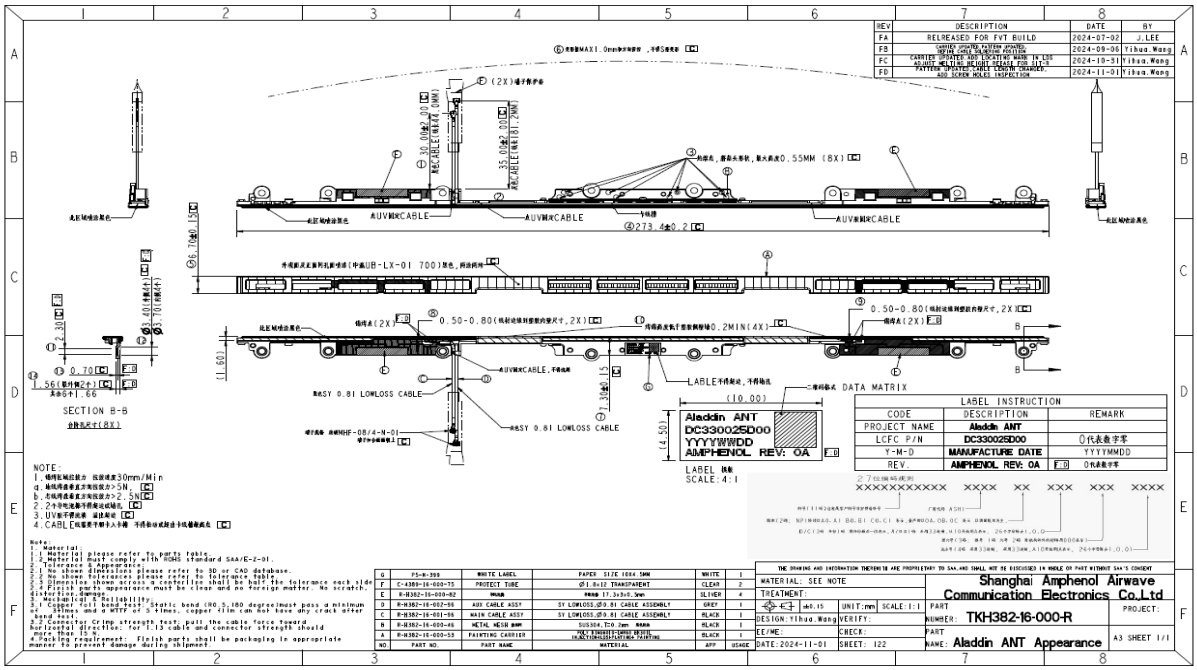
A.1 Setup Photo



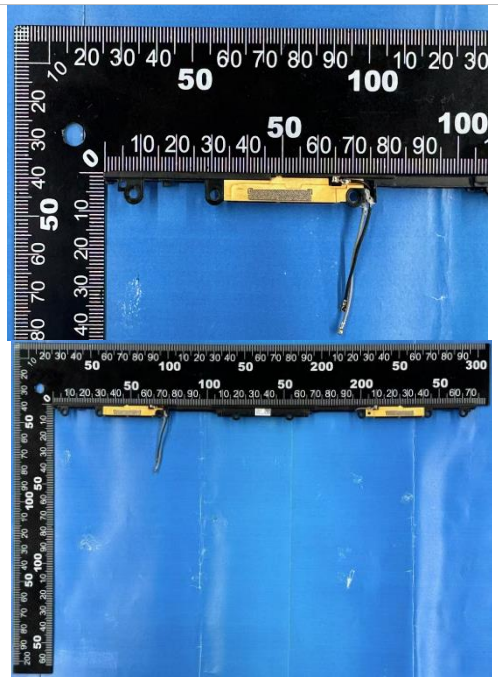
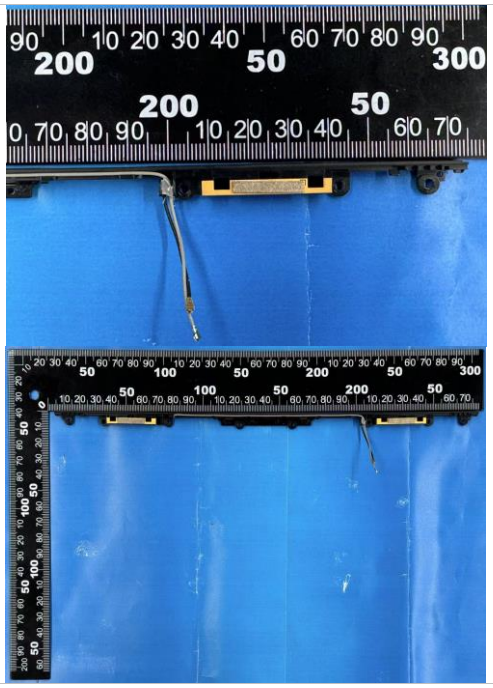
A.2 Test sample

Main Antenna

Antenna Drawing



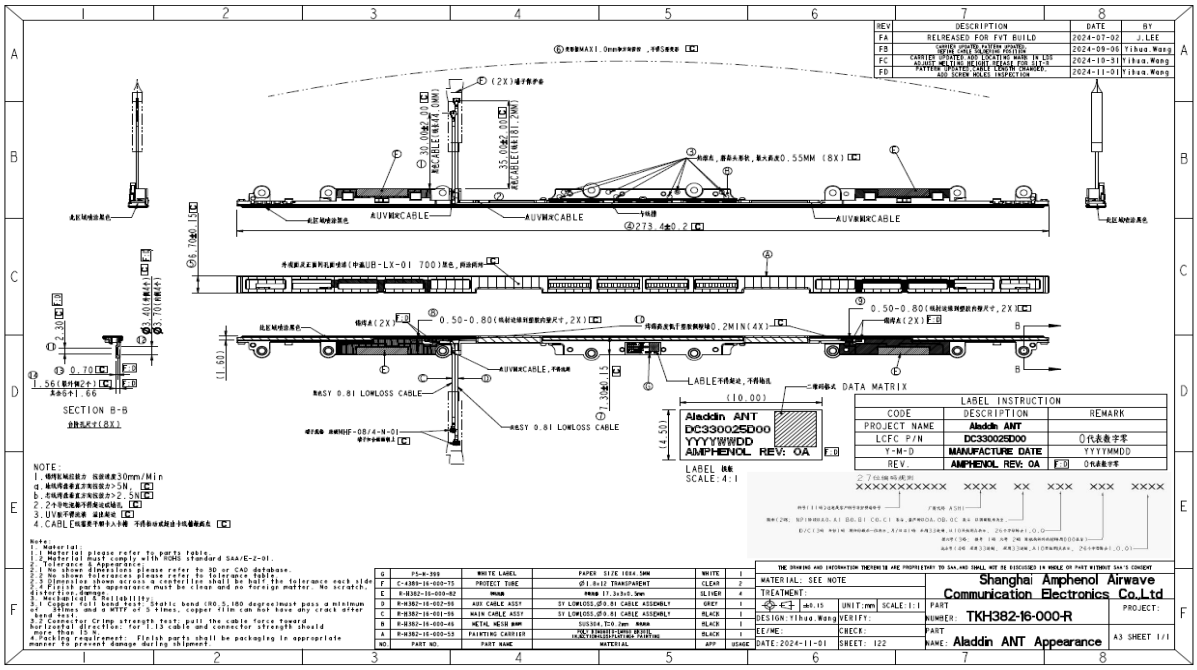
Antenna Photo

Front	Back
	

Note: antenna photo should include L type ruler

Aux Antenna

Antenna Drawing



Antenna Photo

Front	Back
	

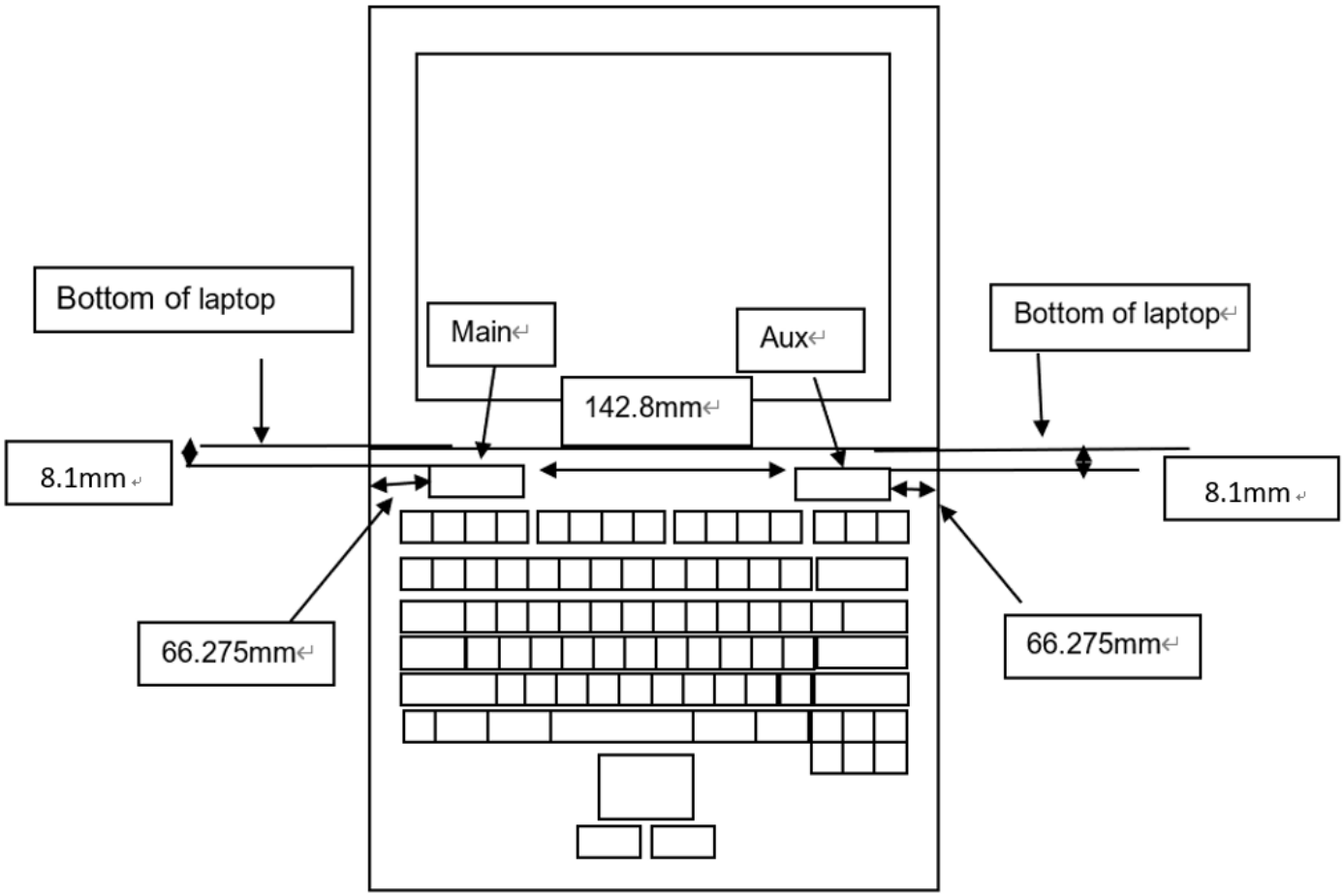
Note: antenna photo should include L type ruler

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).

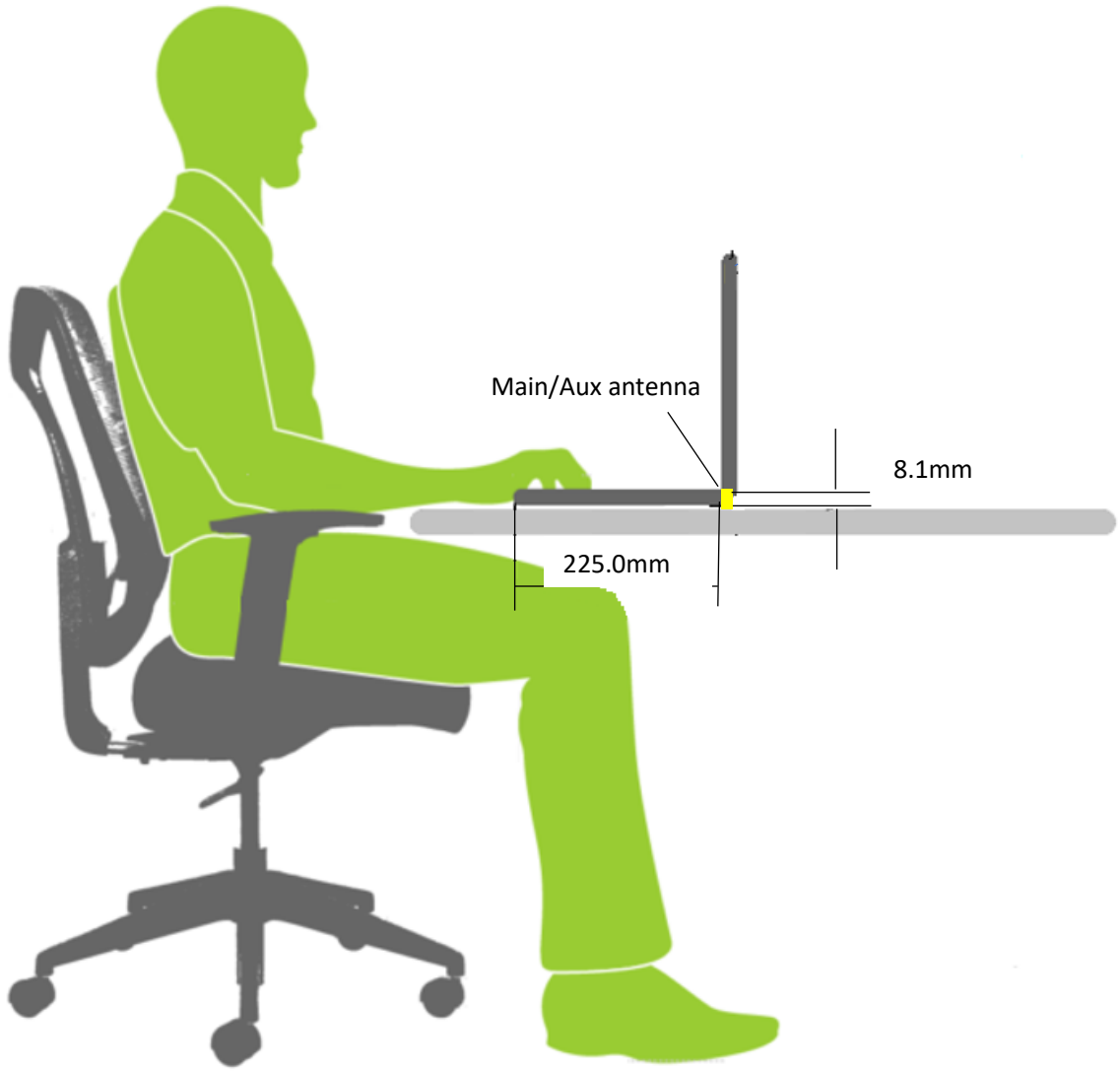
Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.



B.2 Antenna dimensional information for SAR evaluation

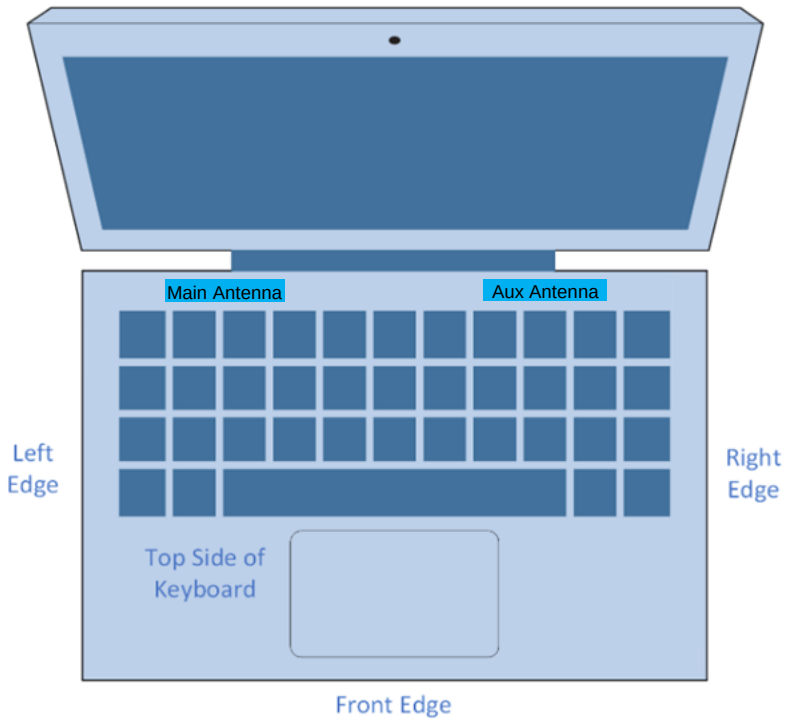
Include a dimensioned photo(s) or dimensioned drawing(s) showing the distance (mm) between the transmit antennas and the user. For notebook/laptop hosts show lapheld position (example below). For tablet hosts show all orientations including lapheld, primary & secondary portrait, primary & secondary landscape 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	8.1	FCC/ISED
	Aux	8.1	FCC/ISED

Antennas on the keyboard section



Measuring Surface	Antenna	Separation Distance(antenna-to-Surface)(mm)	1g or 10g SAR
Bottom Side	Main	**8.1**	1g (FCC/ISED)
	Aux	**8.1**	1g (FCC/ISED)
Front Edge	Main	**212.9**	1g (ISED)
	Aux	**212.9**	1g (ISED)
Left Edge	Main	**66.4**	10g (ISED)
	Aux	**241.3**	10g (ISED)
Right Edge	Main	**241.3**	10g (ISED)
	Aux	**66.4**	10g (ISED)
Top side of Keyboard	Main	**1.1**	10g (ISED)
	Aux	**1.1**	10g (ISED)