

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	Speed Wireless Technical Co., LTD
	Address	No.138 Huize Road, Hi-Tech Industrial Park of East River, Zhongkai Hi-tech District, Huizhou City, Guangdong Province
Test location	Company name	Speed Wireless Technical Co., LTD
	Address	No.138 Huize Road, Hi-Tech Industrial Park of East River, Zhongkai Hi-tech District, Huizhou City, Guangdong Province
Test Personnel	Name(Full name)	Zhang yayou
	E-mail	zhangyayou@speed-hz.com
	Tel/Mobile	13093357071
Testing date		2024.10.25

Antenna Part number	Main	Main: DC330025B00
	Aux	Aux: DC330025B00
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	2.61	2.74	3.61	3.38	3.11	2.25	4.18	3.47	3.84	2.84
Aux	2.22	2.12	1.99	1.72	2.71	3.03	3.65	2.40	2.37	2.51

Cable Assembly Part Number and Information					
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type
Main	M-Z4-SD-0081-507-K0	59.5	0.81	50	IPEX M-Z1-JK-0081-041-00
Aux	M-Z4-SD-0081-507-G0	195.5	0.81	50	IPEX M-Z1-JK-0081-041-00

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

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Annex A. Photographs

A.1 Setup Photo

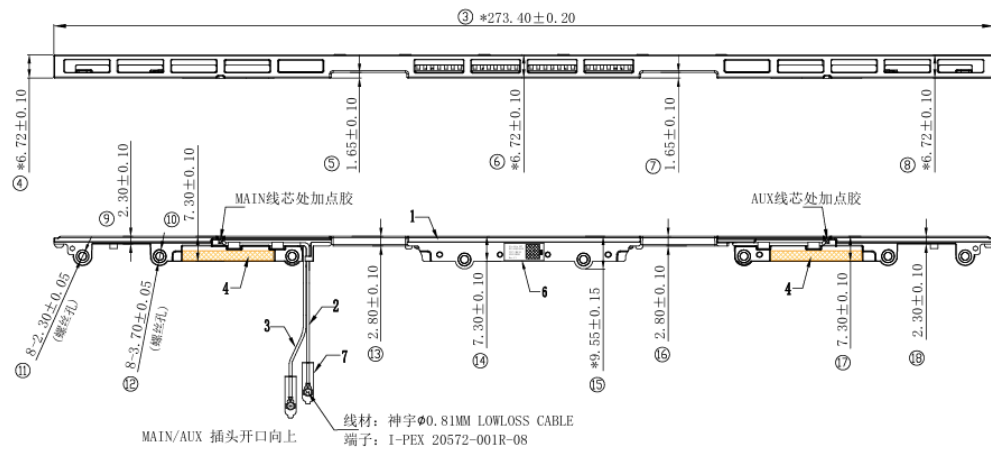
<insert test diagram here for test site utilized>



A.2 Test sample

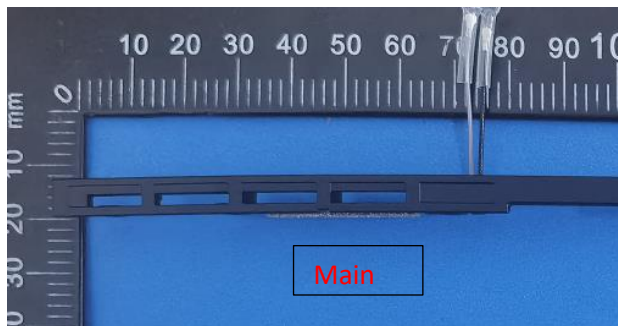
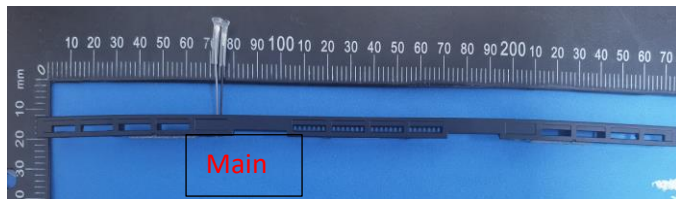
Main Antenna

Antenna Drawing

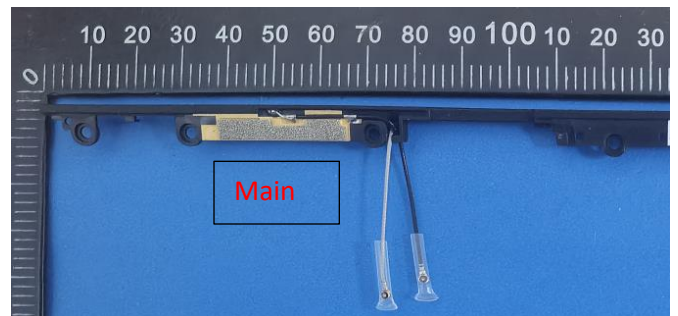


Antenna Photo

Front



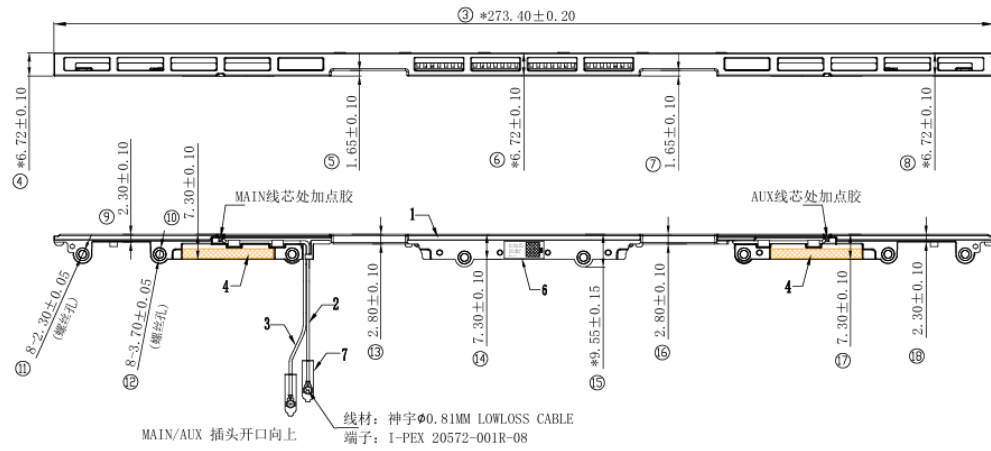
Back



Note: antenna photo should include L type ruler

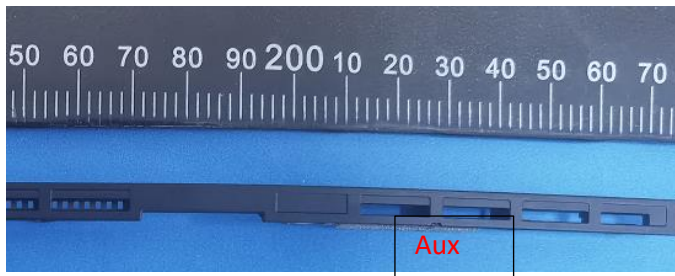
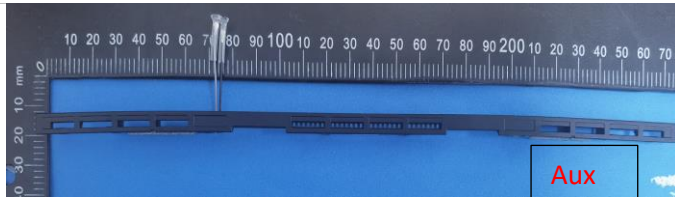
Aux Antenna

Antenna Drawing

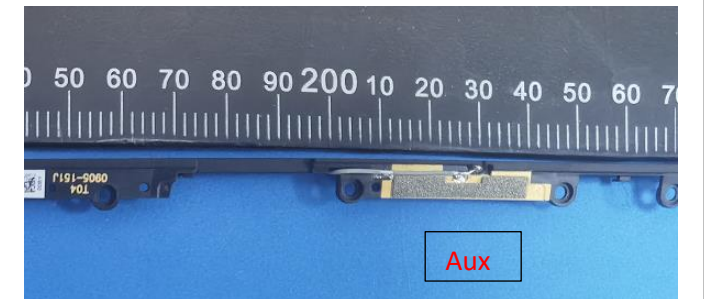


Antenna Photo

Front



Back



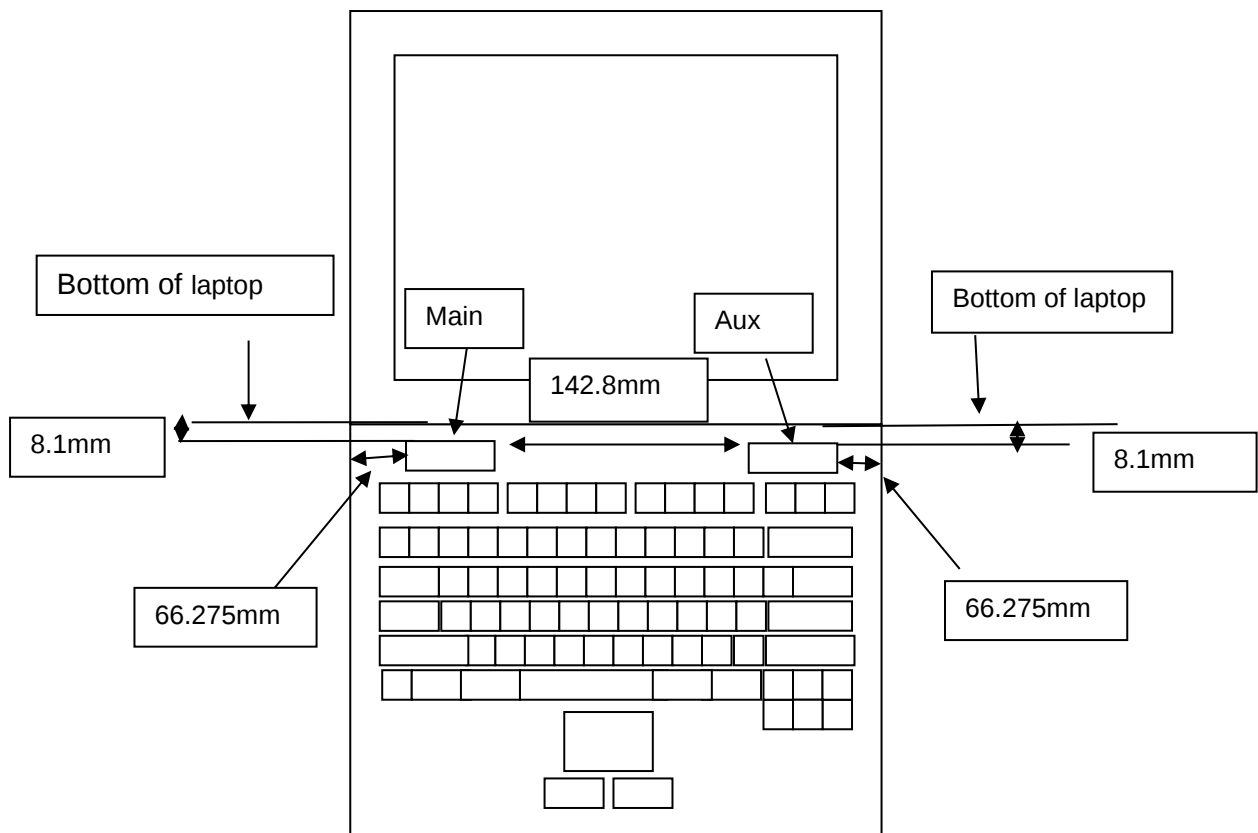
Note: antenna photo should include L type ruler

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).

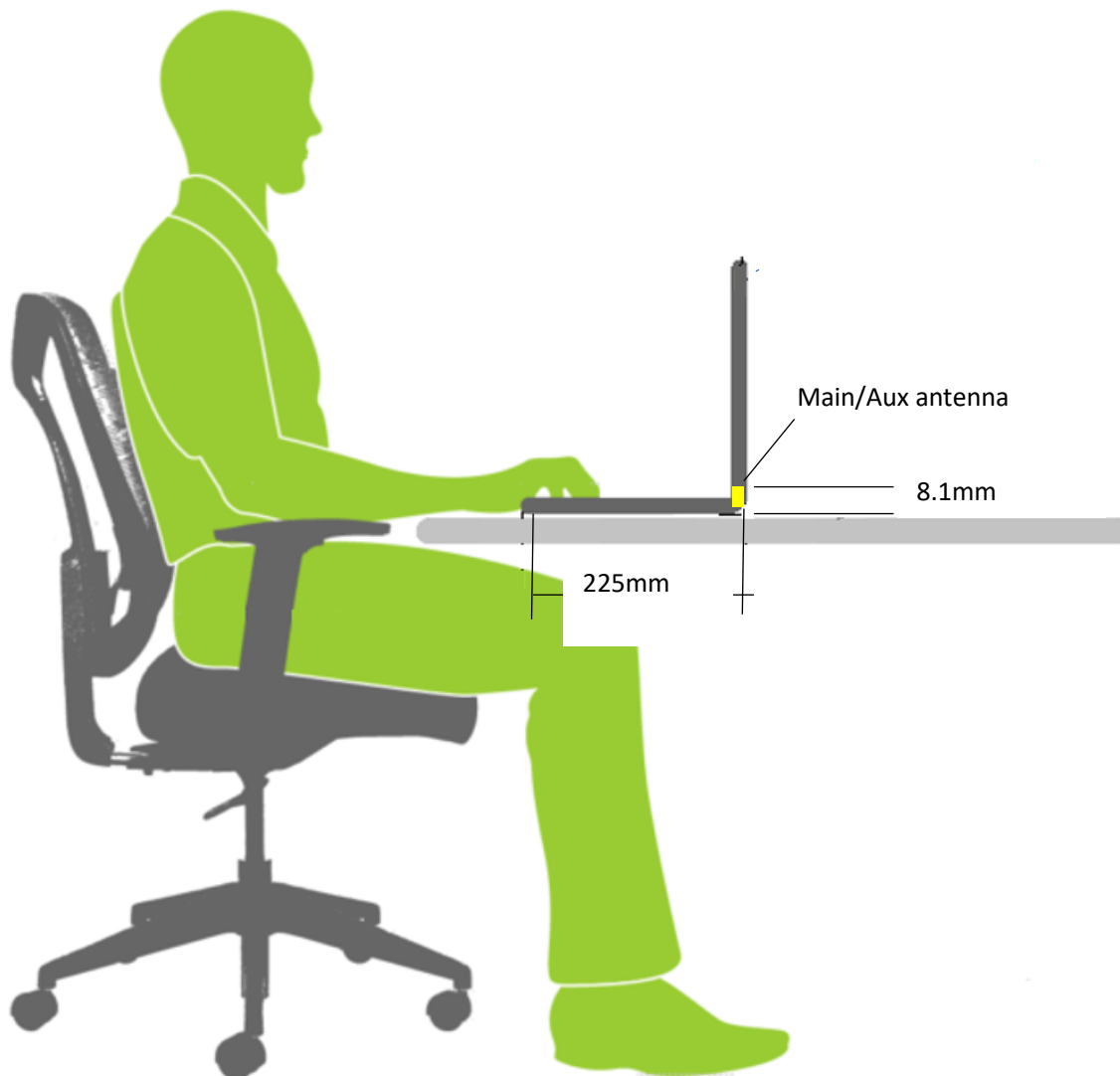
Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.



B.2 Antenna dimensional information for SAR evaluation

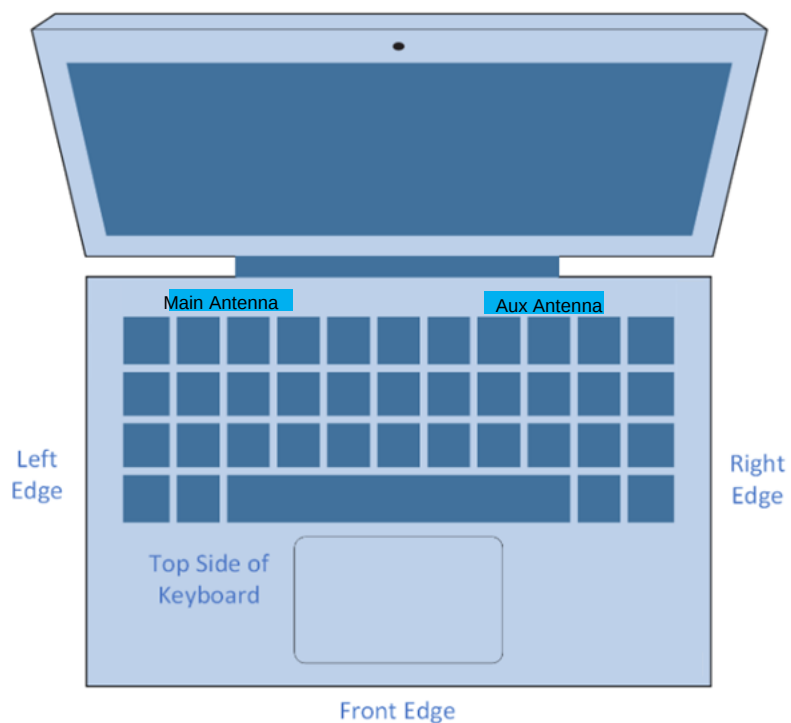
Include a dimensioned photo(s) or dimensioned drawing(s) showing the distance (mm) between the transmit antennas and the user. For notebook/laptop hosts show lapheld position (example below). For tablet hosts show all orientations including lapheld, primary & secondary portrait, primary & secondary landscape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