ANTENNA INFORMATION

OEM	Lenovo
ODM	LCFC
Platform model name	TP00146A ThinkPad X13 Yoga Gen 4
Intel platform (ex: Yes, No or NA)	YES
Platform type (ex: regular NB, convertible PC, AIO…etc)	Convertible PC
SAR minimum separation (mm)	5.7mm

Antenna manufacturer	SPEEDWIRE
Address	25F, No.95, Xinpu 6th St., Taoyuan Dist., Taoyuan City 33044, Taiwan.
Antenna Part number	Main: DC33001YU00 Aux: DC33001YU00
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	1.82	2.97	2.20	2.86	0.94	-0.28	2.72	2.92	2.92	2.92
Aux	1.82	2.88	2.11	-0.63	-1.54	-1.54	0.76	1.20	1.20	0.04

Cable Assembly Part Number and Information					
	Cable PN	**Cable length**(cm)	**Cable diameter**(mm)	**Impedance**(ohm)	**Connector type**
Main	0.81 low loss	9.3	0.81	50 ohm	C87P112 or equivalent
Aux	0.81 low loss	9.8	0.81	50 ohm	C87P112 or equivalent

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

Table of Contents

Annex A. Photographs

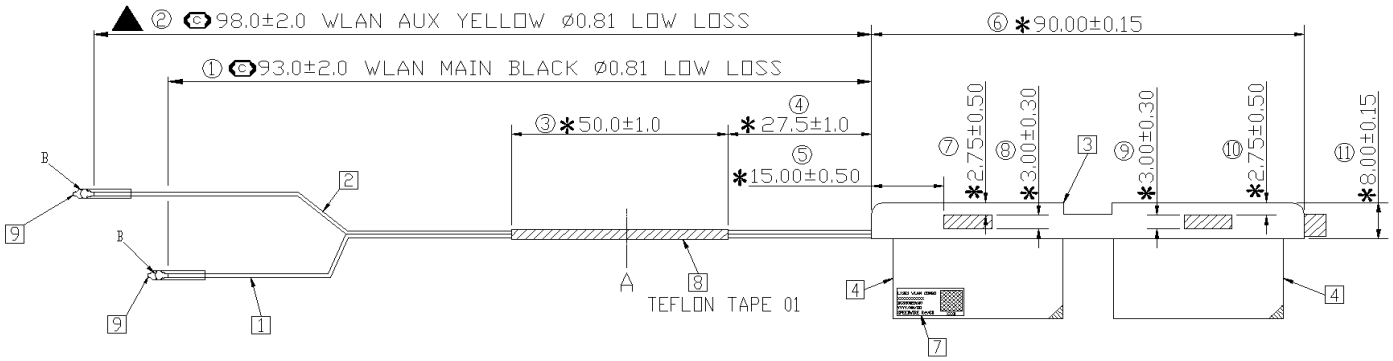
A.1 Setup Photo

<insert test diagram here for test site utilized>

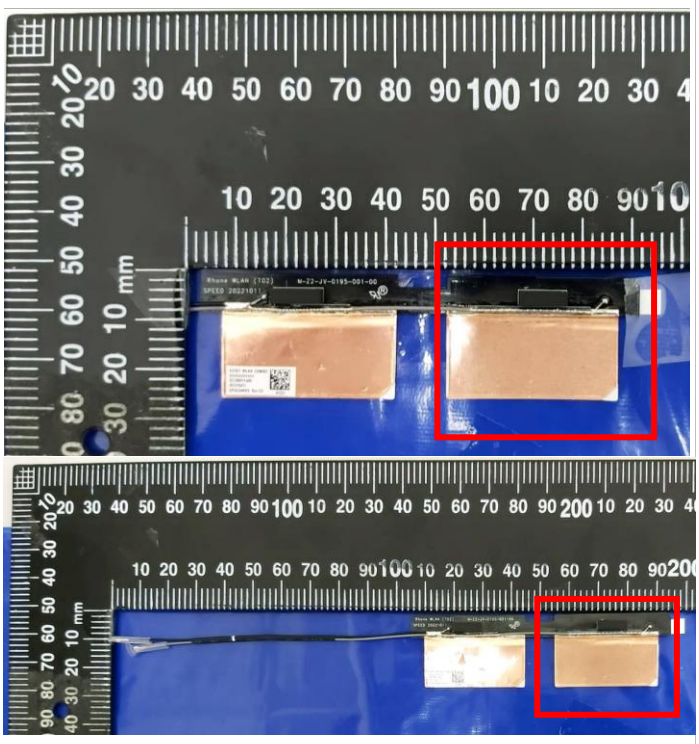
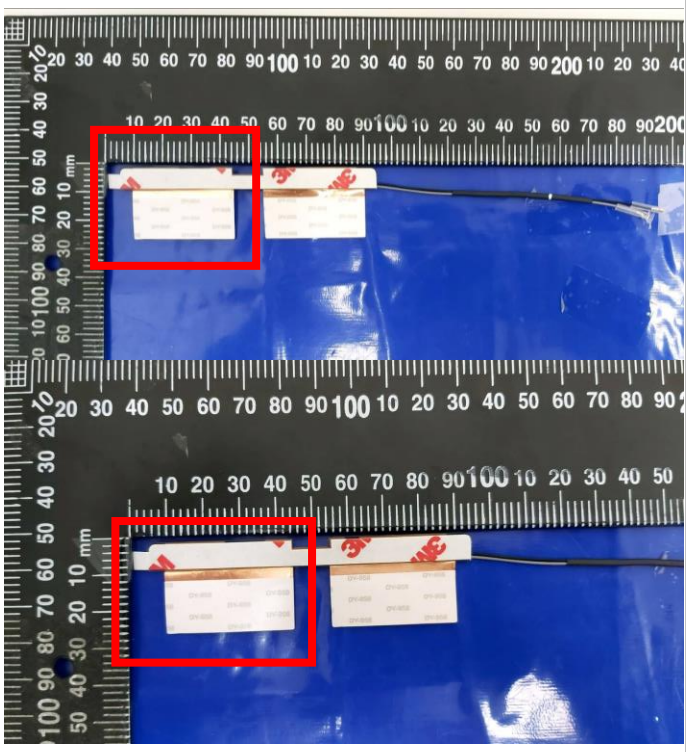
A.2 Test sample

Main Antenna

Antenna Drawing



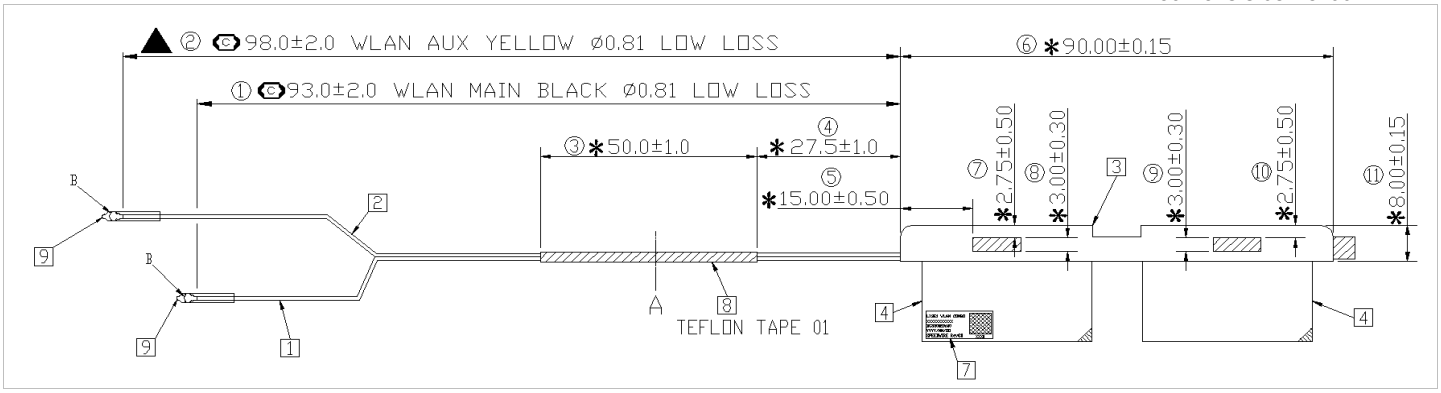
Antenna Photo

Front	Back
	

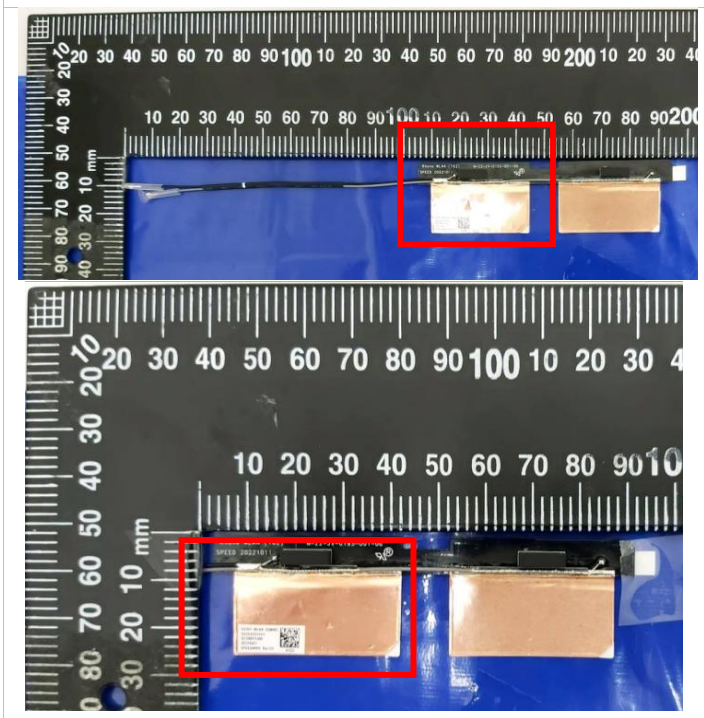
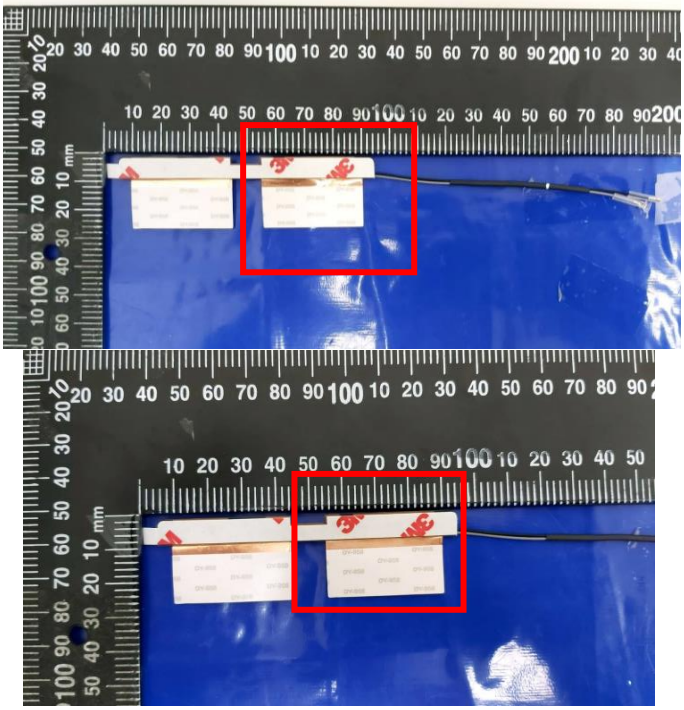
Note: antenna photo should include L type ruler

Aux Antenna

Antenna Drawing



Antenna Photo

Front	Back
	

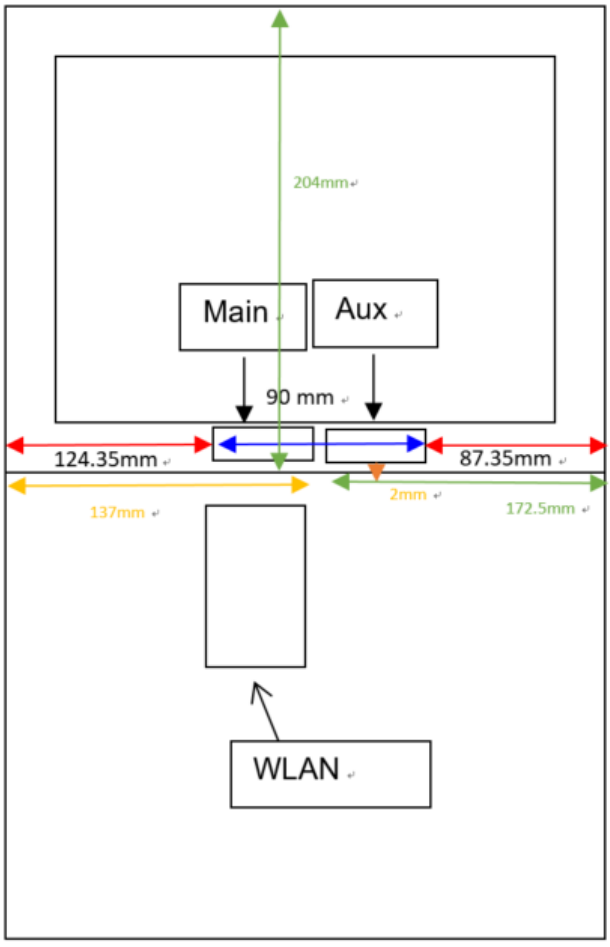
Note: antenna photo should include L type ruler

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).

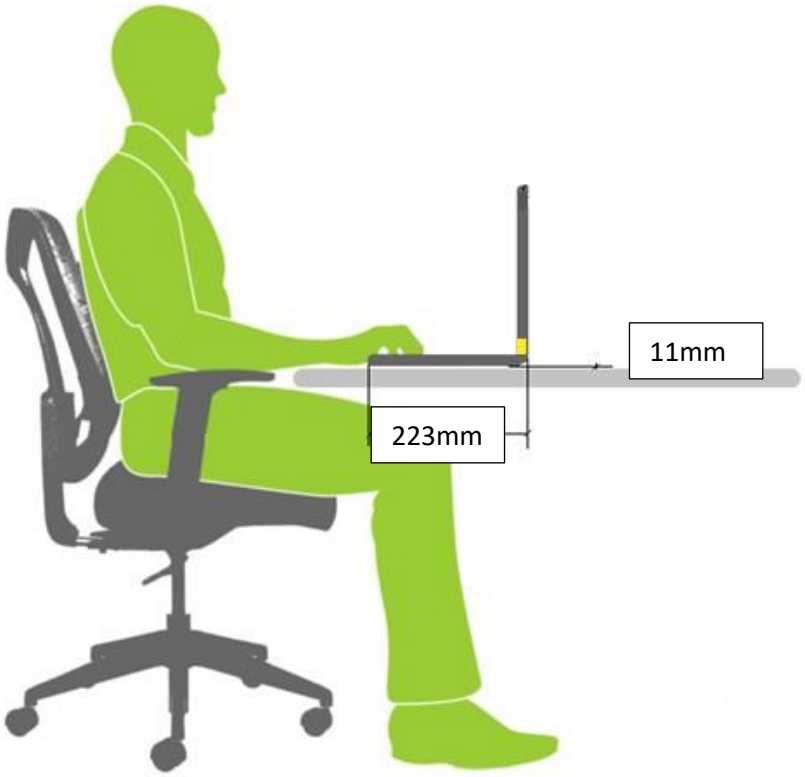
Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.



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.

NB Mode



TB Mode