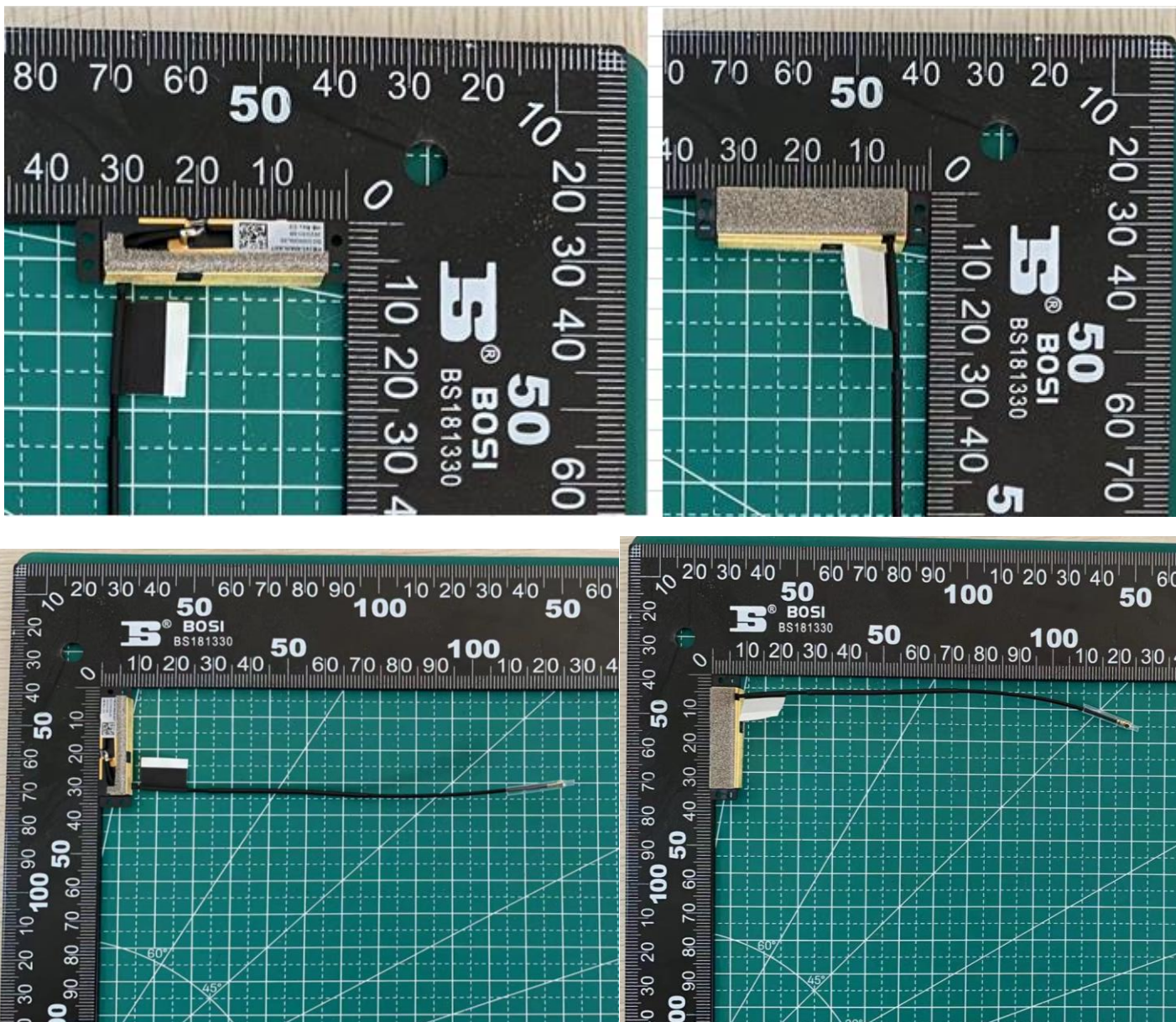


Regulatory WLAN Antenna Information

English Language Required for Intel Regulatory Review / Approval

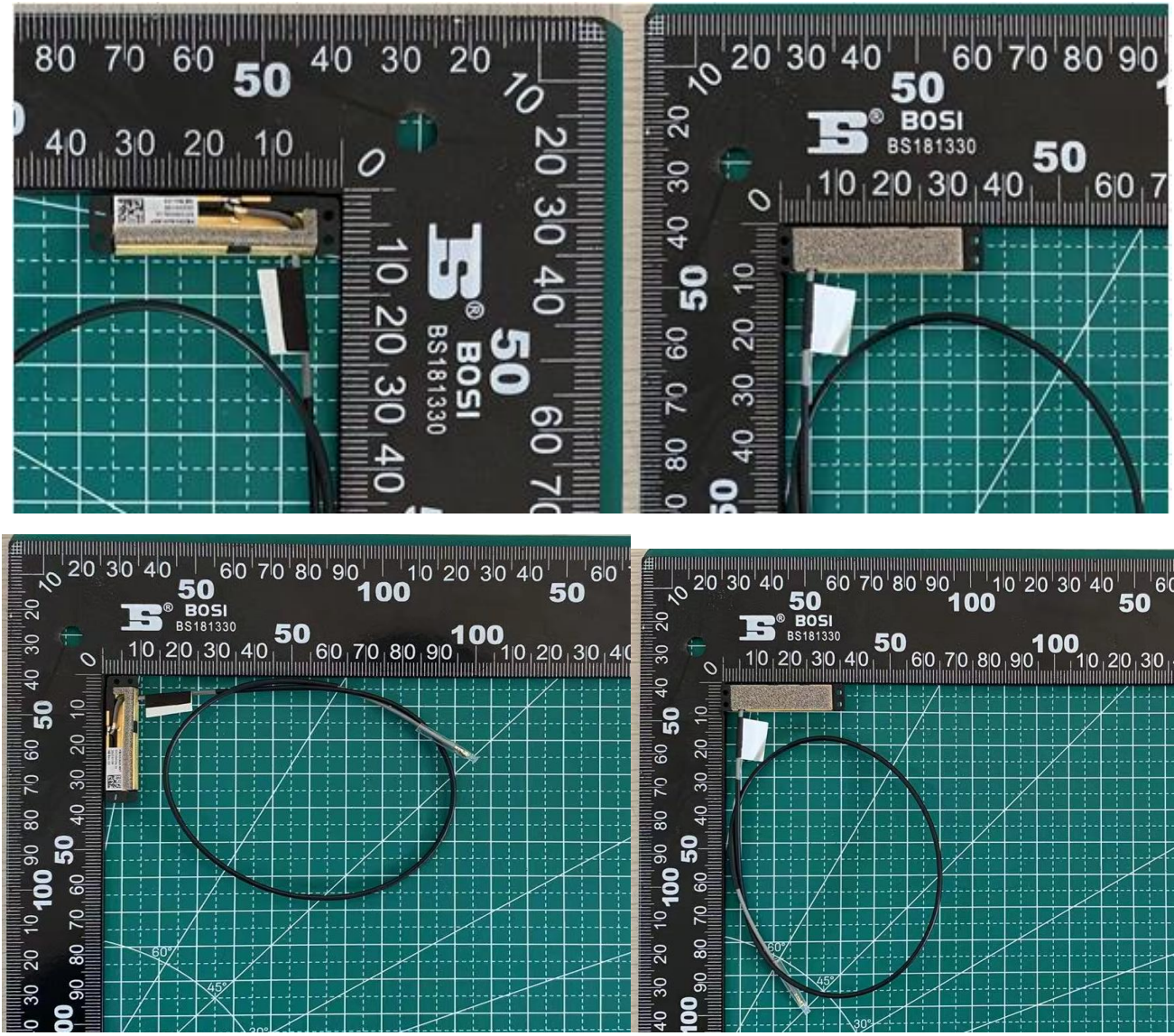
Platform information												
Brand	ODM	****End product model name			Intel platform (ex: Yes, No or NA)	Platform type (ex: regular NB, convertible PC, AIO...etc)			*SAR minimum separation (mm)			
Lenovo	LCFC	ThinkBook Plus G4 IRU			Yes	convertible PC			3.15mm			
****Please fill in exact product model name and make sure the model name is visible on product cover or any parts for end users recognize for authority inspection.												
Antenna information												
Vendor		Type			Antenna Part number (Main)			Antenna Part number (Aux)				
HB		PIFA			DC330020L00			DC330020L10				
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	-0.14	-0.16	0.71	1.87	2.89	3.43	3.89	3.89	3.66	1.49		
Aux	1.15	1.35	1.97	1.84	2.45	2.45	2.21	0.81	1.16	1.88		
Intel Reference Gain/Type/ Separation distance												
Antenna Type	Antenna Peak gain (In dBi)*										Distance to the end user (mm)	
	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	7.0GHz 6875-7125MHz	Generic: refer to modular FCC SAR report Mid-power: ≥ 8 mm Low power: ≥ 5 mm	
	Design	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00		
	PIFA	3.24	3.64	3.73	4.77	4.97	4.72	4.83	4.30	5.37		5.59
	Dipole	2.89	2.92	3.19	4.41	4.22	4.22	4.83	4.30	4.49		5.34
Notes (marked with *)												
* SAR minimum separation (mm)												
- Regular NB: Minimum antenna-to-body (from antenna bottom to the bottom of the device)												
- Tablet / Convertible PC: Minimum antenna-to-edge (5 sides of the device)												
- Mini-tablet: Minimum antenna-to-edge (6 sides of the device)												
* 3D Peak Antenna gain should be equal or greater than -2 dBi												
- If a host integrator plans to use a lower gain antenna of the same type, additional CBP(FCC)/EDT(EU) testing need to be performed while the module is installed in the host.												

Main Antenna Photo (Front/Back):



Note: antenna photo should include L type ruler

Aux Antenna Photo (Front/Back):



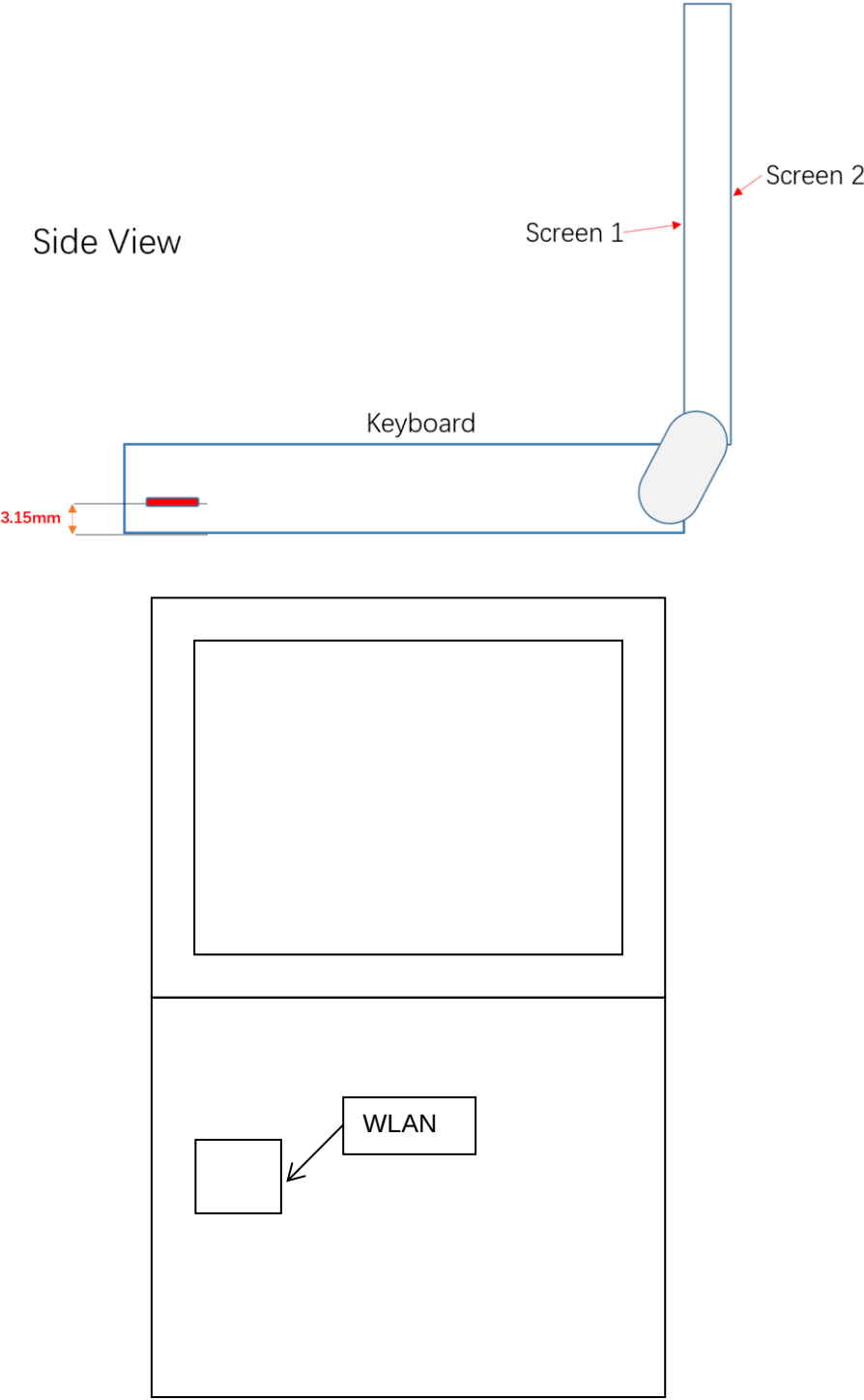
Note: antenna photo should include L type ruler

Section 4. 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).

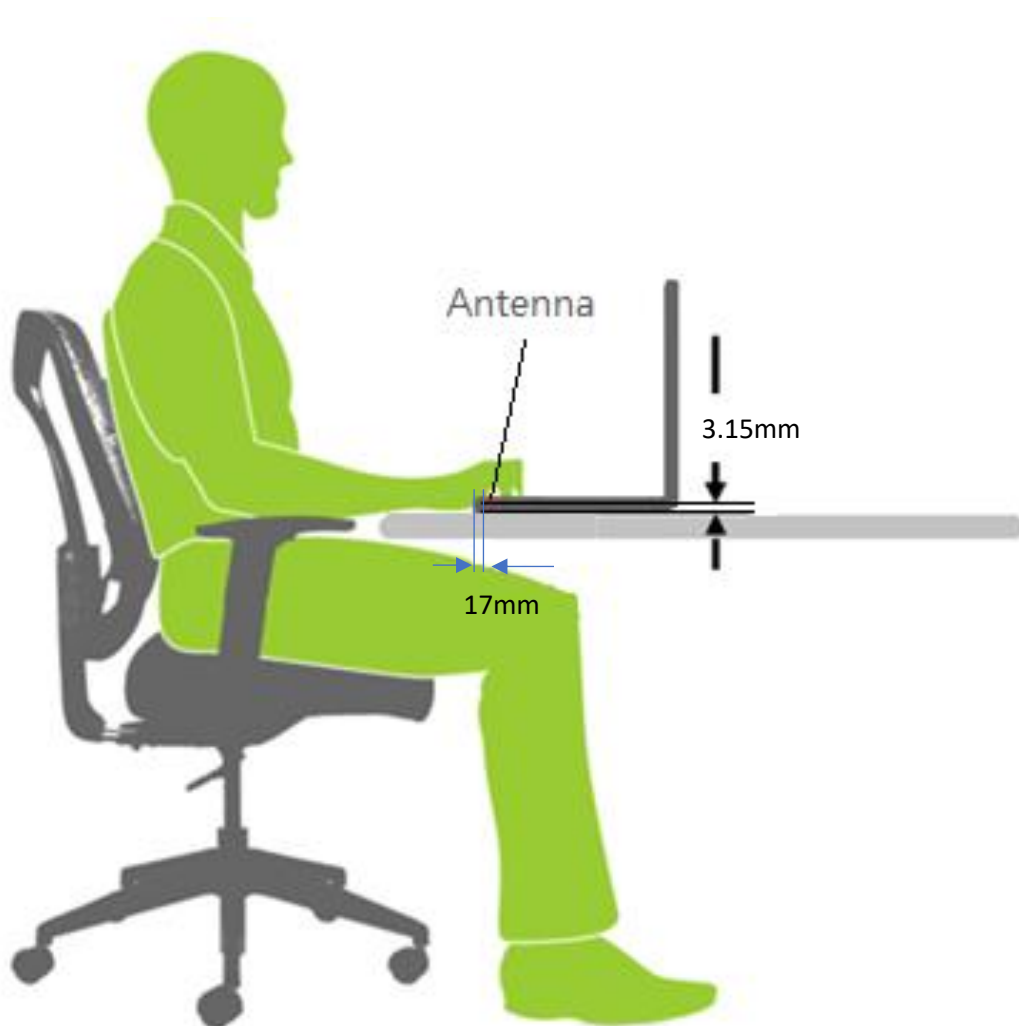
Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.

NB Mode



Section 5. 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.

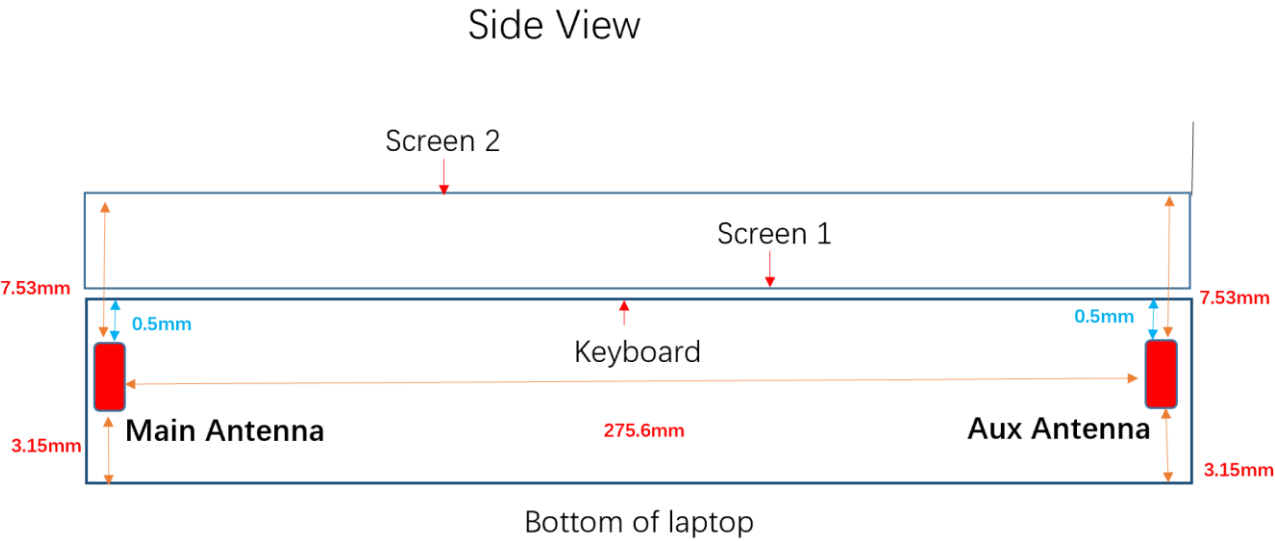


Section 6. Diagram Example of Co-Location Antenna Separation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between all WLAN transmit antennas and other co-located radiator transmit antenna such as Bluetooth, WWAN,..

(Note: Due to the evolving rules regarding co-location, each platform will need to be reviewed on a case by case basis)

Tablet Mode



Tablet Mode

