

Regulatory WLAN Antenna Information

Platform information											
Brand		Compliance ID		Intel platform (ex: Yes, No or NA)		*SAR minimum separation (mm)					
Lenovo		TP00144A		Yes		1.9					
Antenna information											
Vendor		Type		Antenna Part number (Main)		Antenna Part number (Aux)					
Amphenol		PIFA		TKE840-16-000-R		TKE841-16-000-R					
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	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	7.0 GHz 6875-7125MHz		
Main	1.80	0.20	0.59	-0.25	-0.26	-1.26	-1.73	-1.15	-1.15		
Aux	1.40	-0.74	-0.26	-1.22	-2.04	-1.24	-1.24	-0.81	-0.81		
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	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		
	PIFA	3.24	3.64	3.73	4.77	4.97	4.83	4.30	5.37		5.59
	Dipole	2.89	2.92	3.19	4.41	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.											

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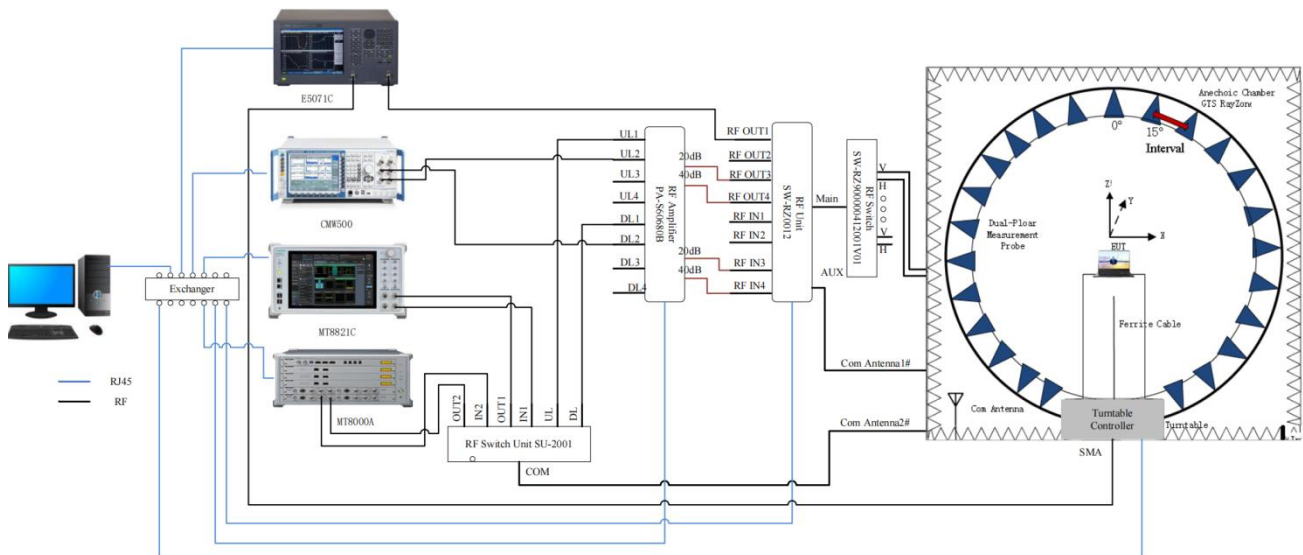
Section 1. Antenna Assembly Specifications

1. Applicable test methods

This test report is prepared for host antenna testing under a Full Anechoic Chamber.

2. Test & System Description

a. Test setup



b. Equipment list

Radiated Setup

ID#	Device	Type/Model	Manufacturer	Cal.Date	Cal.Due Date
1	Anechoic Chamber	GTS Rayzone 2800	GTS	5-Jan-2022	5-Jan-2024
2	Network Analyzer	E5071C	Keysight	8-Oct-2021	8-Oct-2023
3	Communication Tester	E5515C	Agilent	5-Jan-2022	5-Jan-2024
4	Communication Tester	MT8000A	Anritsu	5-Jan-2022	5-Jan-2024
4	Communication Tester	MT8821C	Anritsu	5-Jan-2022	5-Jan-2024
4	Communication Tester	CMW500	R&S	5-Jan-2022	5-Jan-2024

Antenna Information

Section 1. Antenna Assembly Specifications

1A Antenna Part Number	1B Manufacturer	1C Antenna Type	1D Cable Assembly Part Number and Information	Freq Range MHz	1E * Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G Max VSWR	1H Cable Loss (dB)
(P/N: TKE840-16-000-R) Main Antenna	Amphenol	PIFA	(P/N: SY081L/50-003) 50 ohm Coaxial length: 58.6cm diameter: 0.81mm	2400-2483.5	1.80	1.99	2.8	0.19
				5150-5250	0.20	0.47	3.0	0.27
				5250-5350	0.59	0.86	1.9	0.27
				5470-5725	-0.25	0.03	1.9	0.28
				5725-5850	-0.26	0.02	2.1	0.28
				5925-6425	-1.26	-0.96	2.2	0.30
				6425-6525	-1.73	-1.43	2.1	0.30
				6525-6875	-1.15	-0.83	1.9	0.32
				6875-7125	-1.15	-0.81	2.3	0.34
(P/N: TKE841-16-000-R) Aux Antenna	Amphenol	PIFA	(P/N: SY081L/50-004) 50 ohm Coaxial length: 160.6cm diameter: 0.81mm	2400-2483.5	1.40	1.92	2.3	0.52
				5150-5250	-0.74	0.00	2.8	0.74
				5250-5350	-0.26	0.48	1.9	0.74
				5470-5725	-1.22	-0.45	1.9	0.77
				5725-5850	-2.04	-1.27	1.9	0.77
				5925-6425	-1.24	-0.42	2.5	0.82
				6425-6525	-1.24	-0.42	3.0	0.82
				6525-6875	-0.81	0.07	2.3	0.88
				6875-7125	-0.81	0.12	1.8	0.93

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