

Antenna Report

Rev.04

Radiation Characteristics of antenna located into a Host Platform

Antenna Peak Gain and VSWR w/ cable loss (dBi)													2400 ~ 2483.5 MHz 5150-5250 MHz 5250-5350 MHz 5470-5725 MHz 5725-5850 MHz 5850-5885 MHz 5925-6425 MHz 6425-6525 MHz 6525-6875 MHz 6875-7125 MHz										*Refer to the SAR test results for the corresponding device				
Antenna Cycle	OEM	ODM	Host Platform Name	Host Platform Type	Instal Platform	Antenna- Manufacturer	Antenna-Type	Antenna-PN	Antenna Main/Aux	SAR min separation (mm)	WiFi Module	Applicable Certification	SAR FCC/ISED/CE/PC Apply	Antenna Metrics	2.4 GHz	5.2 GHz	5.3 GHz	5.6 GHz	5.8 GHz	5.9 GHz	6.2 GHz	6.5 GHz	6.7 GHz	7.0 GHz	Applicant e-mail	Application Date	UniqueID
202503	Lenovo Japan	Wisdom	TP00168A,TP00168B,ThinkPad L13 Gen 6; ThinkPad L13 2-in-1 Gen 6; ThinkPad L13 Gen 6 AMD; ThinkPad S2 2-in-1 Gen 10	Convertible PC	Yes	AWAN	PIFA	025.902J.0001	Main/Ant.2	2.00	201D2W, AK211C \, FCC, ISED, NCC,	NO	NO	Gain	2.29	2.77	2.82	2.54	1.89	1.89	2.41	1.97	1.85	1.85	benson_yc_chu	2025-02-18	202503-153711
202503	Lenovo Japan	Wisdom	TP00168A,TP00168B,ThinkPad L13 Gen 6; ThinkPad L13 2-in-1 Gen 6; ThinkPad L13 Gen 6 AMD; ThinkPad S2 2-in-1 Gen 10	Convertible PC	Yes	AWAN	PIFA	025.902J.0001	Aux/Ant.1	2	201D2W, AK211C \, FCC, ISED, NCC,	NO	NO	Gain	1.56	1.76	1.76	2.12	2.12	2.08	2.47	2.21	1.79	1.64	benson_yc_chu	2025-02-18	202503-153711
202503	Lenovo Japan	Wisdom	TP00168A,TP00168B,ThinkPad L13 Gen 6; ThinkPad L13 2-in-1 Gen 6; ThinkPad L13 Gen 6 AMD; ThinkPad S2 2-in-1 Gen 10	Convertible PC	Yes	AWAN	PIFA	025.902J.0001	Main/Ant.2	2	201D2W, AK211C \, FCC, ISED, NCC,	NO	NO	VSWR	1.97	1.28	1.12	1.26	1.80	1.80	1.65	1.71	1.81	1.13	benson_yc_chu	2025-02-18	202503-153711
202503	Lenovo Japan	Wisdom	TP00168A,TP00168B,ThinkPad L13 Gen 6; ThinkPad L13 2-in-1 Gen 6; ThinkPad L13 Gen 6 AMD; ThinkPad S2 2-in-1 Gen 10	Convertible PC	Yes	AWAN	PIFA	025.902J.0001	Aux/Ant.1	2	201D2W, AK211C \, FCC, ISED, NCC,	NO	NO	VSWR	1.88	1.30	1.42	1.24	1.80	1.89	1.43	1.24	1.33	1.45	benson_yc_chu	2025-02-18	202503-153711

1. 3D Antenna Peak Gain required being test in system basis

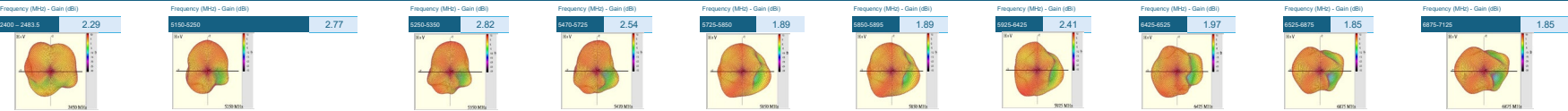
2. Maximum VSWR level required by the Wi-Fi module vendor to ensure proper antenna matching is 2 (S11 < -10 dB) for band 1 (B1) modules and 2.32 (S11 < -8 dB) for type band1 (B1) & B2 modules.

Intel Reference Antenna Gain and Type

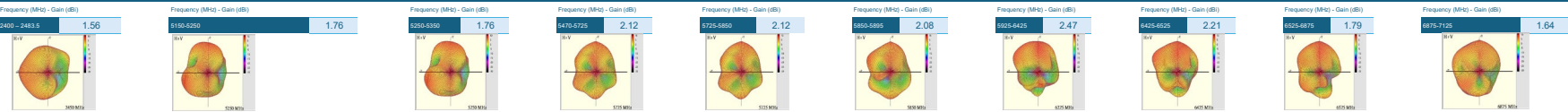
Antenna Type	Application Module	2.4 GHz	5.2 GHz	5.3 GHz	5.6 GHz	5.8 GHz	5.9 GHz	6.2 GHz	6.5 GHz	6.7 GHz	7.0 GHz
PIFAB	Design Reference	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
PIFAB	For WFI 6E and early	3.24	3.73	4.77	4.97	4.72	4.83	4.30	5.37	5.59	
PIFAB	From WFI 7 modules	2.95	3.11	4.86	5.15	5.33	4.63	5.02	4.98	4.98	
Dipole	For WFI 6E and early	2.89	2.92	3.19	4.41	4.22	4.83	4.30	4.49	5.34	
Dipole7	From WFI 7	2.85	2.93	4.11	5.15	5.33	4.45	5.02	4.71	4.49	4.96
Monopole	From WFI 7	2.83	4.57	4.44	4.86	4.87	4.91	4.91	4.91	4.79	

3D Peak Antenna gain should be equal or greater than -2 dB. If a host integrator plans to use a lower gain antenna of the same type, additional CBP(FCC/ISED/TTC) testing need to be performed while the module is installed in the host.

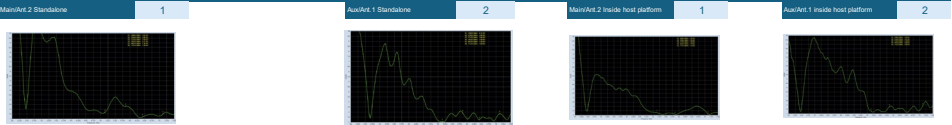
Max Antenna 3D Radiation Pattern - Main Antenna / Ant.2



Max Antenna 3D Radiation Pattern - Aux Antenna / Ant.1



Antenna VSWR data plot inside and outside a host Platform (standalone)



Maximum VSWR level required by the Wi-Fi module vendor to ensure proper antenna matching is 2 (S11 < -10dB)

Unique ID Generator

202503-111440

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