

Antenna Report

Radiation Characteristics of antenna located into a Host Platform

Antenna Peak Gain and VSWR w/ cable loss (dB)¹

Antenna Cycle	OEM	ODM	Host Platform Name	Host Platform Type	Intel-Platform	Antenna-Manufacturer	Antenna-Type	Antenna-PN	Antenna Main/Aux	SAR min separation (mm)	WiFi-Module	Applicable Certification	SAR FCC-ISED C1PC Apply
202511	Lenovo China	Compal	LOQ Essential 15ARP11	Regular NB	No	Pulse	PIFA	DC330032Q00 (TZ3058D)	Main/Ant.2	23.88	MT7920	CE, FCC, ISED, NCC, KC	NO
202511	Lenovo China	Compal	LOQ Essential 15ARP11	Regular NB	No	Pulse	PIFA	DC330032Q10 (TZ3058E)	Aux/Ant.1	23.88	MT7920	CE, UKCA, FCC, SED, NCC, KCC, MCC, MIC	NO
202511	Lenovo China	Compal	LOQ Essential 15ARP11	Regular NB	No	Pulse	PIFA	DC330032Q00 (TZ3058D)	Main/Ant.2	23.88	MT7920	CE, UKCA, FCC, SED, NCC, KCC, MCC, MIC	NO
202511	Lenovo China	Compal	LOQ Essential 15ARP11	Regular NB	No	Pulse	PIFA	DC330032Q10 (TZ3058E)	Aux/Ant.1	23.88	MT7920	CE, UKCA, FCC, SED, NCC, KCC, MCC, MIC	NO

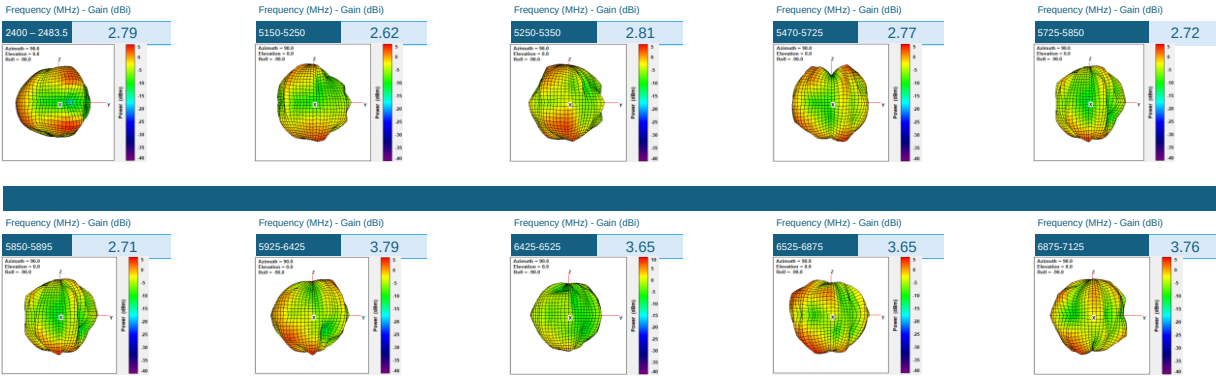
Antenna Metrics ²	2.4 GHz	5.2 GHz	5.3 GHz	5.6 GHz	5.8 GHz	5.9 GHz	6.2 GHz	6.5 GHz	6.7 GHz	7.0 GHz	Applicant e-mail	Application Date
Gain	2.79	2.62	2.81	2.77	2.72	2.71	3.79	3.65	3.65	3.76	ElvishHY_Chen@lenovo.com	2025-11-14
Gain	2.71	2.73	2.84	2.76	2.84	2.72	3.68	3.09	3.74	3.91	ElvishHY_Chen@lenovo.com	2025-11-14
VSWR	1.28	1.38	1.42	1.09	1.48	1.19	1.39	1.32	1.32	1.39	ElvishHY_Chen@lenovo.com	2025-11-14
VSWR	1.43	1.38	1.42	1.09	1.48	1.83	1.17	1.83	1.44	1.33	ElvishHY_Chen@lenovo.com	2025-11-14

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

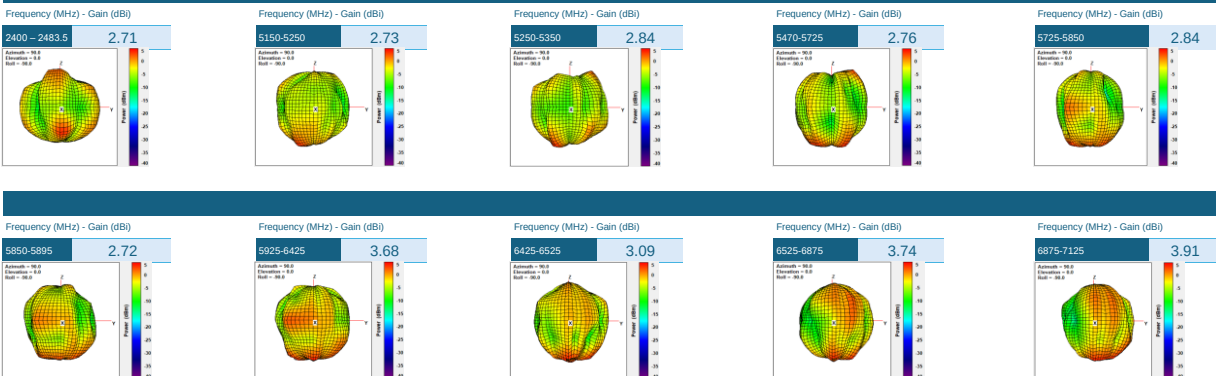
2: Maximum VSWR level required by the Wi-Fi module vendor to ensure proper antenna matching is 2 (S11 < -10 dB) for dual band LBAHB modules and 2.32 (S11 < -8 dB) for triple band LBAHB modules

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.

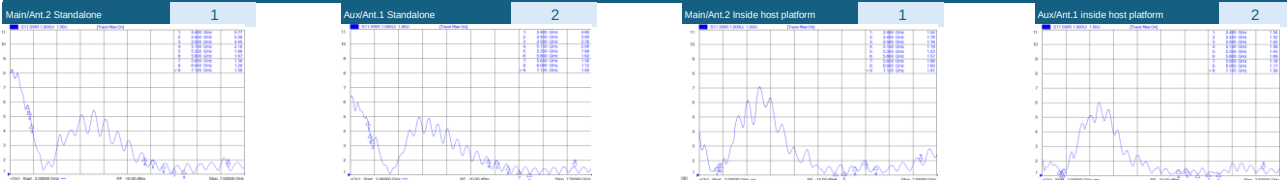
Max Antenna 3D Radiation Pattern - Main Antenna / Ant.2



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)

Cable loss (dB)	2.4GHz	5.2GHz	5.3GHz	5.6GHz	5.8GHz	5.9GHz	6.2GHz	6.5GHz	6.7GHz	7.0 GHz
Band / Frequency	2400-2483.5 MHz	5150-5250MHz	5250-5350MHz	5470-5725MHz	5725-5850MHz	5850-5895MHz	5925-6425MHz	6425-6525MHz	6525-6875MHz	6875-7125MHz
Main	1.00	1.32	1.34	1.39	1.40	1.40	1.48	1.48	1.53	1.55
Aux	1.24	1.64	1.66	1.73	1.74	1.74	1.83	1.84	1.90	1.93