

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 5850-5895 MHz 5925-6425 MHz 6425-6525 MHz 6525-6875 MHz 6875-7125 MHz										Unique ID Generator				
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 C/PC Apply	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	UniqueID
202606	Framework	Compal	FRAPPG0000	Regular NB	YES	AWAN	PiFA	50260601-01-01-0000	Main	214.00	BE211NGW M			Gain	0.41	2.20	2.76	2.63	2.72	2.66	2.87	1.60	2.40	1.89	antenna@framework.com	2026-06-22	202606-164649
202606	Framework	Compal	FRAPPG0000	Regular NB	YES	AWAN	PiFA	50260601-01-01-0000	Aux	214.00	BE211NGW M			Gain	0.72	2.64	2.81	2.38	2.84	2.50	2.47	2.18	1.53	1.51	antenna@framework.com	2026-06-22	202606-164649
202606	Framework	Compal	FRAPPG0000	Regular NB	YES	AWAN	PiFA	50260601-01-01-0000	Main	214.00	BE211NGW M			VSWR	1.66	1.55	1.54	1.34	1.31	1.18	1.64	1.76	1.97	2.10	antenna@framework.com	2026-06-22	202606-164649
202606	Framework	Compal	FRAPPG0000	Regular NB	YES	AWAN	PiFA	50260601-01-01-0000	Aux	214.00	BE211NGW M			VSWR	1.86	1.60	1.58	1.44	1.30	1.30	1.70	1.93	2.12	2.24	antenna@framework.com	2026-06-22	202606-164649

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

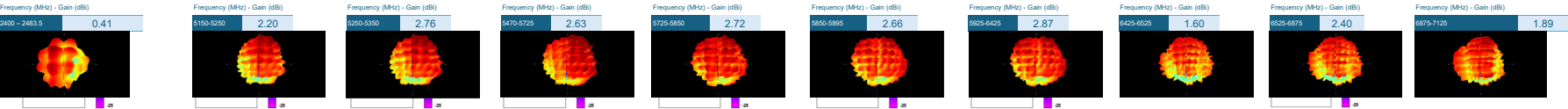
2: OEM/ODM and platform antenna vendors should try to adapt the antenna with a VSWR of 2 (S11<-10dB) for a good antenna matching, and if not possible, try to achieve a VSWR of 3 (S11<-6dB) for a medium antenna matching.

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	6.5GHz	6.7 GHz	7.0 GHz
PiFAS	Design Reference	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03
PiFA6	For WiFi 6E and earlier m	3.24	3.64	3.73	4.77	4.97	4.72	4.83	4.30	5.37	5.59
PiFA7	From WiFi 7 modules	2.95	5.11	4.56	5.15	5.13	4.46	5.02	4.96	4.96	4.96
Dipole	For WiFi 6E and earlier	2.89	2.92	3.19	4.41	4.22	4.22	4.83	4.30	4.49	5.34
Dipole7	From WiFi 7	2.95	4.03	4.11	5.15	5.13	4.45	5.02	4.71	4.49	4.96
Monopole6	For AX211	3.22	3.35	3.42	4.77	4.72	4.71	4.75	4.29	4.81	4.14
Monopole7	From WiFi 7 modules	2.83	4.57	4.44	4.95	4.95	4.43	4.87	4.91	4.91	4.79

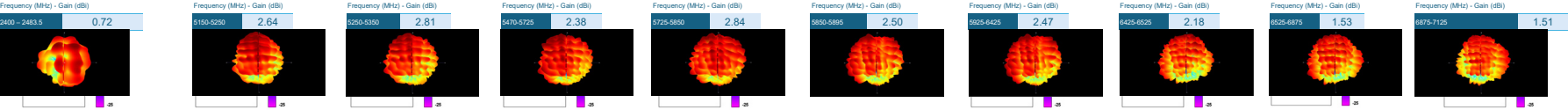
3D Peak Antenna gain should be equal or greater than -2 dBi. If a host integrator plans to use a lower gain antenna of the same type, additional CBP(FCC)/EDT(EU) testing need to be performed while the module is installed in the host.

Applicable limit per antenna type and country cert										Selected Cert:		0			
Ant2	PiFA	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				
Ant.1	PiFA	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!				

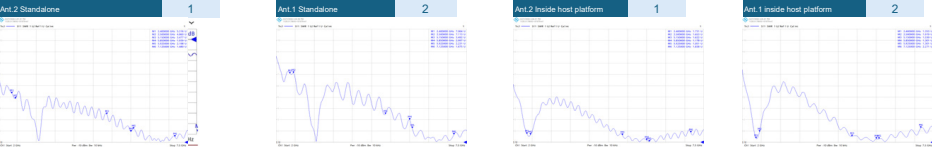
Max Antenna 3D Radiation Pattern - Antenna 2



Max Antenna 3D Radiation Pattern - Antenna 1



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



Maximum VSWR of 2 (S11<-10dB) is a good antenna matching. If not possible, try to achieve a VSWR of 3 (S11<-6dB) for a medium antenna matching.