

Antenna Report

Radiation Characteristics of antenna located into a Host Platform

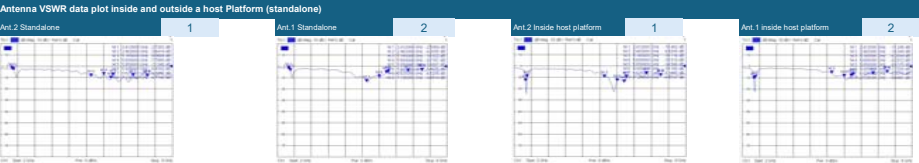
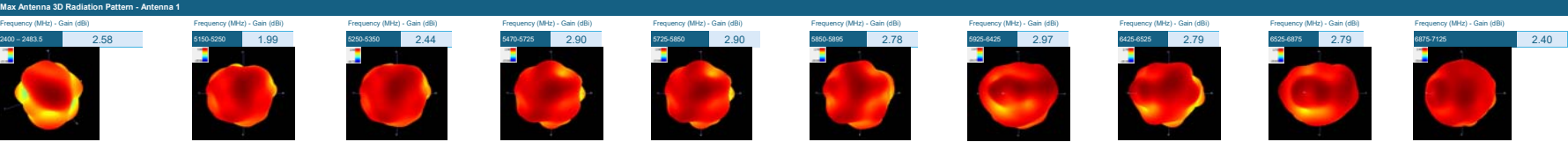
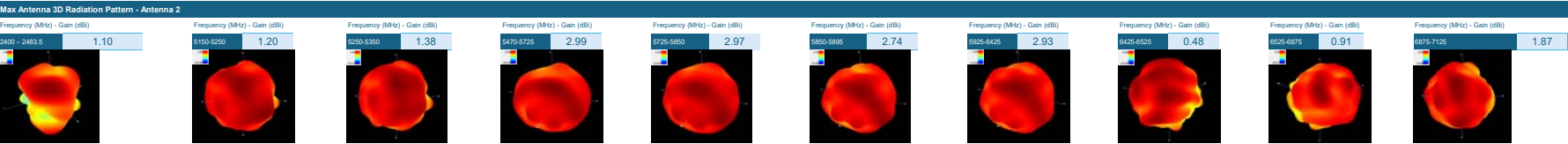
Antenna Peak Gain and VSWR w/ cable loss (dB) ¹														2400 ~ 2483.5 MHz 5150-5250 MHz 5250-5350 MHz 5470-5725 MHz 5725-5850 MHz 5850-5895 MHz 5925-6425 MHz 6425-6675 MHz 6675-7125 MHz										Unique ID Generator			
Antenna Cycle	OEM	ODM	Host Platform Name	Host Platform Type	Intel Platform	Antenna-Manufacturer	Antenna-Type	Antenna-PN	Antenna Main/Aux	SAR min separation (mm)	WiFi-Module	Applicable Certification	SAR FCC-ISED C1P/C 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
202607	ACER	Quanta	GHR20G01	Gaming Handheld	Yes	Watson Network Corporation	PIFA	4100-01-00000000000000000000	Ant.2	197.60	BE211D2W	CE,UKCA,FCC,ISED,NCC,KC	YES	Gain	1.10	1.20	1.38	2.99	2.97	2.74	2.93	0.48	0.91	1.87	acer@realtek.com	2026.07.29	202607-1643626
202607	ACER	Quanta	GHR20G01	Gaming Handheld	Yes	Watson Network Corporation	PIFA	4100-01-00000000000000000000	Ant.1	197.60	BE211D2W	CE,UKCA,FCC,ISED,NCC,KC	YES	Gain	2.58	1.99	2.44	2.90	2.90	2.78	2.97	2.79	2.79	2.40	acer@realtek.com	2026.07.29	202607-1643626
202607	ACER	Quanta	GHR20G01	Gaming Handheld	Yes	Watson Network Corporation	PIFA	4100-01-00000000000000000000	Ant.2	197.60	BE211D2W	CE,UKCA,FCC,ISED,NCC,KC	YES	VSWR	2.72	2.06	2.05	1.68	1.61	1.72	2.55	2.19	2.56	2.68	acer@realtek.com	2026.07.29	202607-1643626
202607	ACER	Quanta	GHR20G01	Gaming Handheld	Yes	Watson Network Corporation	PIFA	4100-01-00000000000000000000	Ant.1	197.60	BE211D2W	CE,UKCA,FCC,ISED,NCC,KC	YES	VSWR	2.65	2.89	2.31	2.41	2.13	2.34	2.87	2.84	2.81	2.97	acer@realtek.com	2026.07.29	202607-1643626

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
P2FA6	Design Reference	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
P1FA6	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
P1FA7	For WiFi 7 modules	2.95	5.11	4.95	5.15	5.13	4.45	5.02	5.02	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
Dipole ²	For WiFi 7	2.95	4.03	4.11	5.15	5.13	4.46	5.02	4.71	4.49	4.96
Monopole ²	For AX211	3.22	3.35	3.42	4.77	4.72	4.71	4.75	4.29	4.81	4.74
Monopole ²	For WiFi 7 modules	2.83	4.97	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 dB. 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.



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.