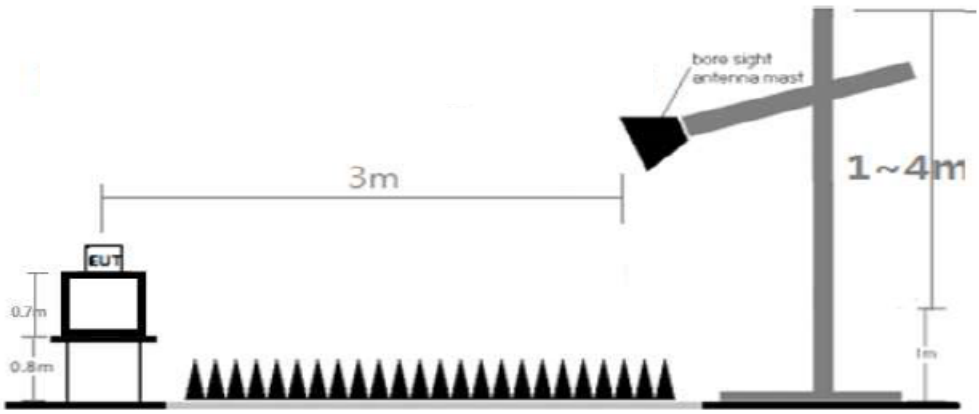
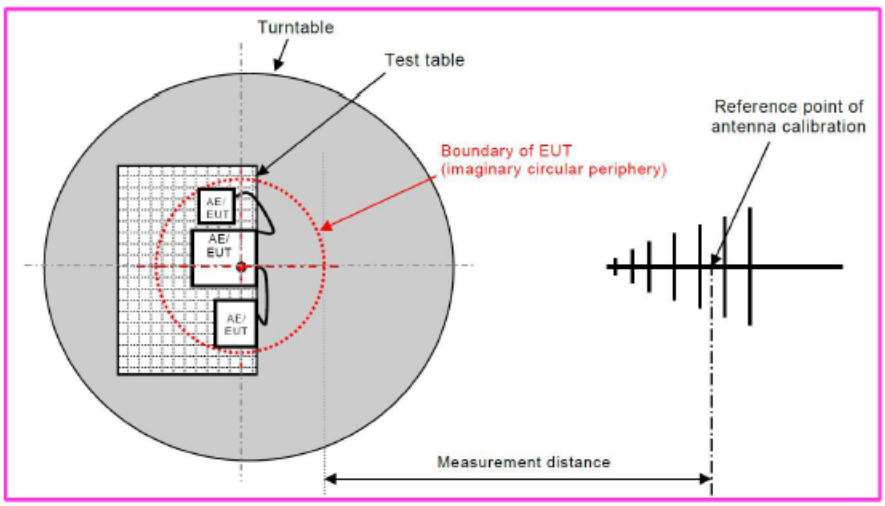
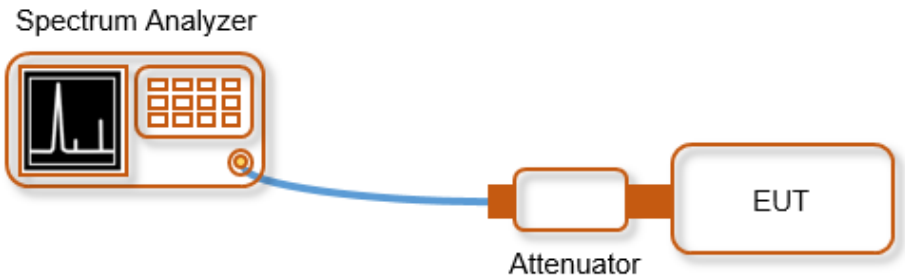




[Radiated Emission Test Setup Above 1 GHz]

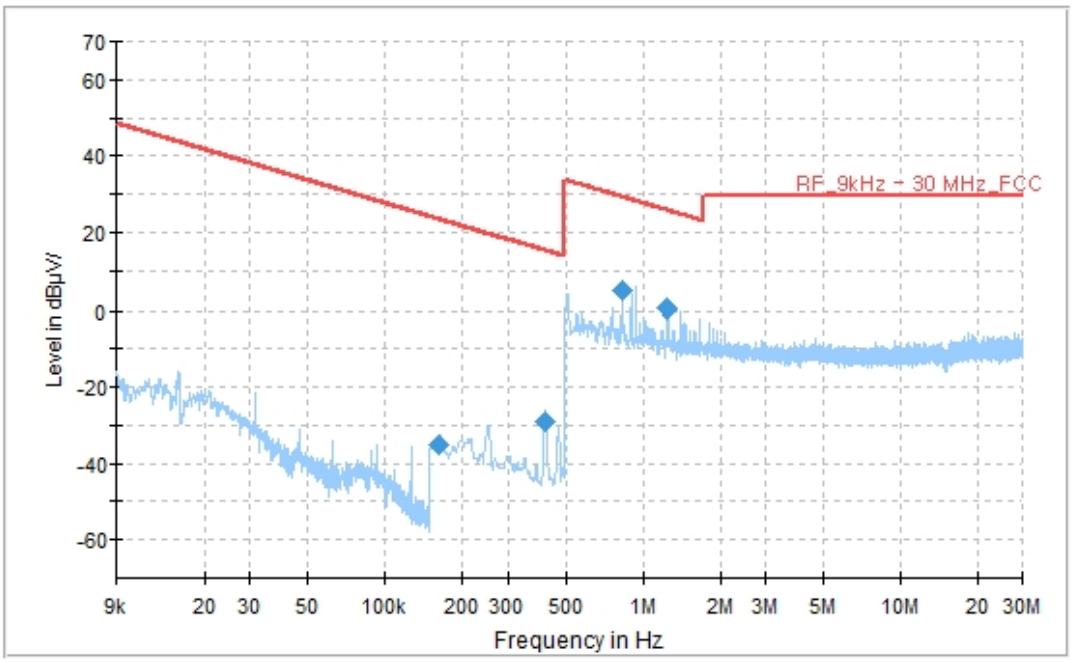


[Conducted Spurious Emission]

6.5.4 Test Result

Radiated Emission (Below 30 MHz)

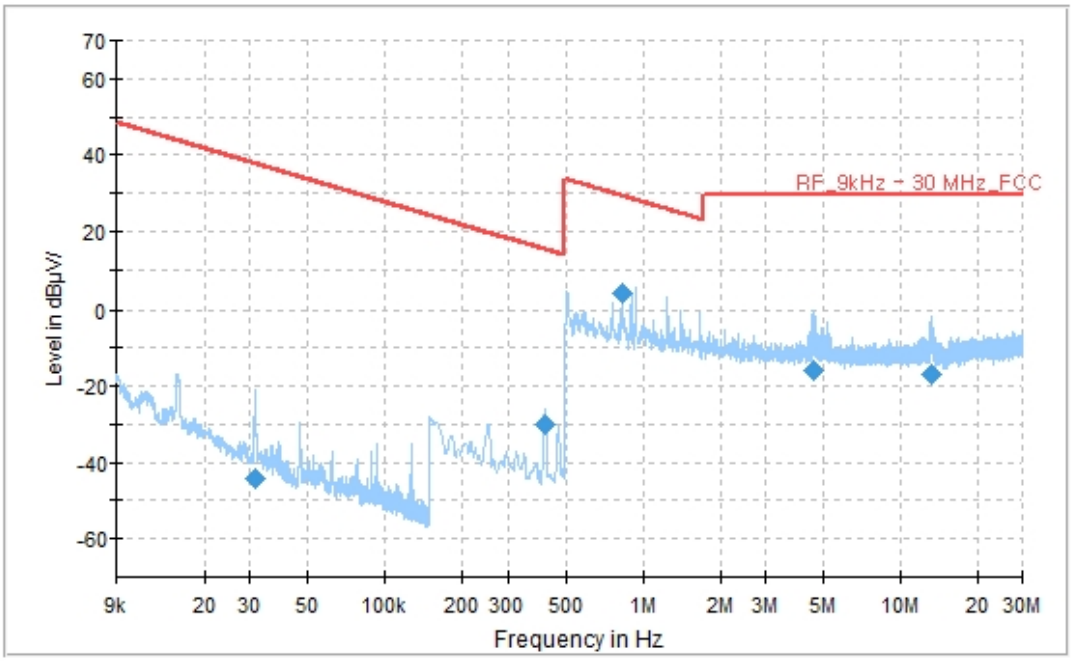
Worst case - RE(Below 30 MHz)_802.11n(HT20)_2 437 MHz_Adaptor (DC 5 V)



Frequency [MHz]	Quasi-peak Reading [dBuV]	Quasi-Peak Result [dBuV/m]	Distance Factor [dB]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Corrction Factor [dB/m]
0.163	25.36	-34.94	-80	23.36	58.30	100	Parallel	114	-60.30
0.414	31.22	-29.08	-80	15.26	44.34	100	Parallel	114	-60.30
0.828	24.80	4.70	-40	29.24	24.54	100	Parallel	128	-20.10
1.242	20.01	0.01	-40	25.72	25.71	100	Parallel	128	-20.00

Note)
1. Quasi Peak(dBuV/m) = QP Reading Value(dBµV) + Correction Factor(dB/m) + Distance Factor(dB)
2. Correction Factor(dB) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin(dB) = (Quasi Peak) Limit (dBµV/m) – (Quasi Peak) Result (dBµV/m)
4. We tested three kind of Antenna Pol (Parallel, Perpendicular, Ground parallel) and reported worst case antenna Pol.

Worst case - RE(Below 30 MHz)_802.11n(HT20)_2 437 MHz_POE (DC 48 V)

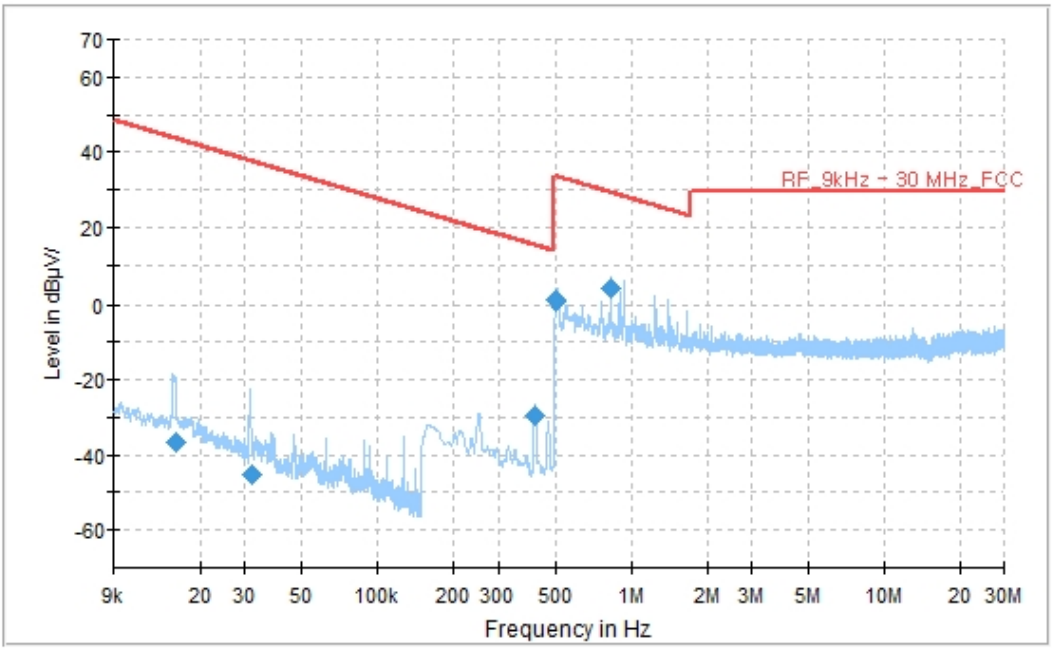


Frequency [MHz]	Quasi-peak Reading [dBuV]	Quasi-Peak Result [dBuV/m]	Distance Factor [dB]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Corrction Factor [dB/m]
0.031	15.82	-44.28	-80	37.74	82.01	100	Parallel	356	-60.10
0.417	30.10	-30.20	-80	15.21	45.41	100	Parallel	131	-60.30
0.827	23.94	3.84	-40	29.25	25.42	100	Parallel	123	-20.10
4.612	3.82	-15.98	-40	29.54	45.52	100	Parallel	221	-19.80
13.238	2.91	-16.69	-40	29.54	46.23	100	Parallel	221	-19.60

Note)
1. Quasi Peak(dBuV/m) = QP Reading Value(dBµV) + Correction Factor(dB/m) + Distance Factor(dB)
2. Correction Factor(dB) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin(dB) = (Quasi Peak) Limit (dBµV/m) – (Quasi Peak) Result (dBµV/m)
4. We tested three kind of Antenna Pol (Parallel, Perpendicular, Ground parallel) and reported worst case antenna Pol.

-Simultaneous

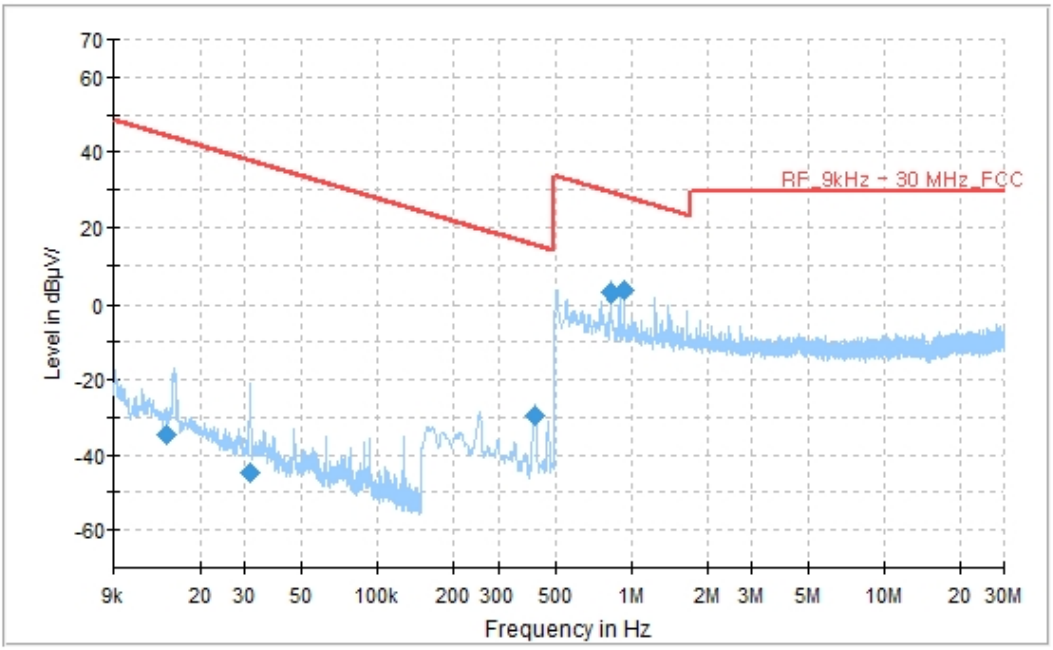
Worst case - RE(Below 30 MHz)_802.11n(HT20)_2 437 MHz_Simultaneous_Adaptor (DC 5 V)



Frequency [MHz]	Quasi-peak Reading [dBuV]	Quasi-Peak Result [dBuV/m]	Distance Factor [dB]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Corrction Factor [dB/m]
0.016	23.71	-36.59	-80	43.49	80.08	100	Parallel	44	-60.30
0.032	14.93	-45.17	-80	37.6	82.78	100	Parallel	358	-60.10
0.414	30.71	-29.59	-40	15.26	44.85	100	Parallel	137	-60.30
0.505	20.89	0.69	-40	33.53	32.84	100	Parallel	50	-20.20
0.828	23.78	3.68	-40	29.24	25.56	100	Parallel	129	-20.10

Note)
1. Quasi Peak(dBuV/m) = QP Reading Value(dBµV) + Correction Factor(dB/m) + Distance Factor(dB)
2. Correction Factor(dB) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin(dB) = (Quasi Peak) Limit (dBµV/m) – (Quasi Peak) Result (dBµV/m)
4. We tested three kind of Antenna Pol (Parallel, Perpendicular, Ground parallel) and reported worst case antenna Pol.

Worst case - RE(Below 30 MHz)_802.11n(HT20)_2 437 MHz_Simultaneous_POE (DC 48 V)

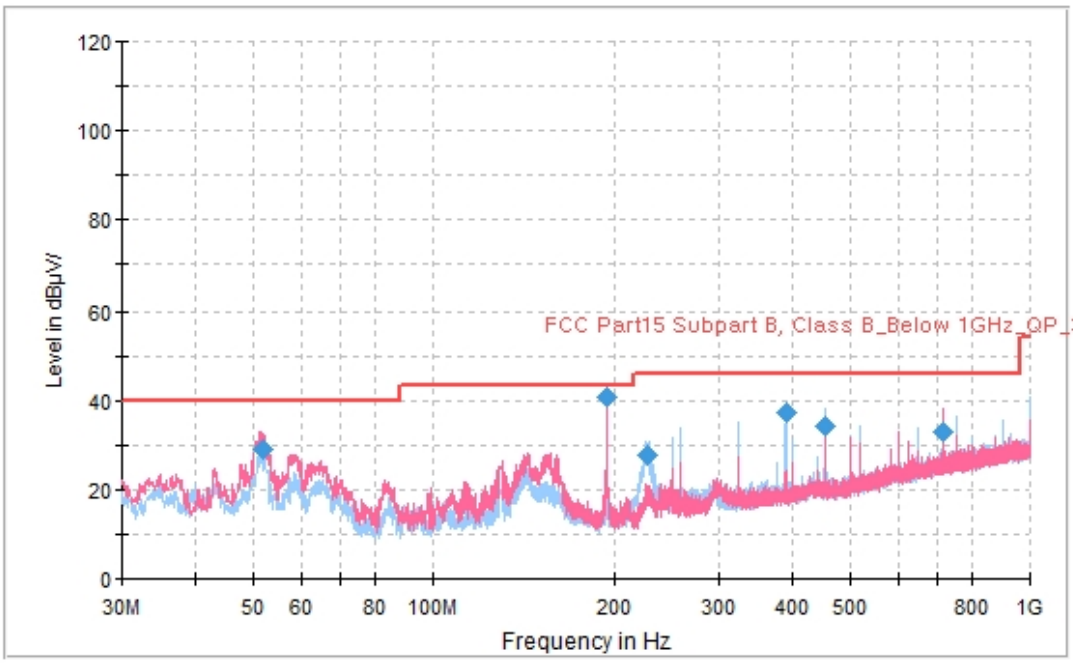


Frequency [MHz]	Quasi-peak Reading [dBuV]	Quasi-Peak Result [dBuV/m]	Distance Factor [dB]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Corrction Factor [dB/m]
0.015	25.78	-34.52	-80	44.25	78.76	100	Parallel	72	-60.30
0.031	15.26	-44.84	-80	37.69	82.53	100	Parallel	358	-60.10
0.413	30.73	-29.57	-40	15.28	44.86	100	Parallel	127	-60.30
0.827	23.08	2.98	-40	29.25	26.27	100	Parallel	111	-20.10
0.934	23.07	3.07	-40	28.19	25.12	100	Parallel	146	-20.00

Note)
1. Quasi Peak(dBuV/m) = QP Reading Value(dBµV) + Correction Factor(dB/m) + Distance Factor(dB)
2. Correction Factor(dB) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin(dB) = (Quasi Peak) Limit (dBµV/m) – (Quasi Peak) Result (dBµV/m)
4. We tested three kind of Antenna Pol (Parallel, Perpendicular, Ground parallel) and reported worst case antenna Pol.

Radiated Emission (Below 1 GHz)

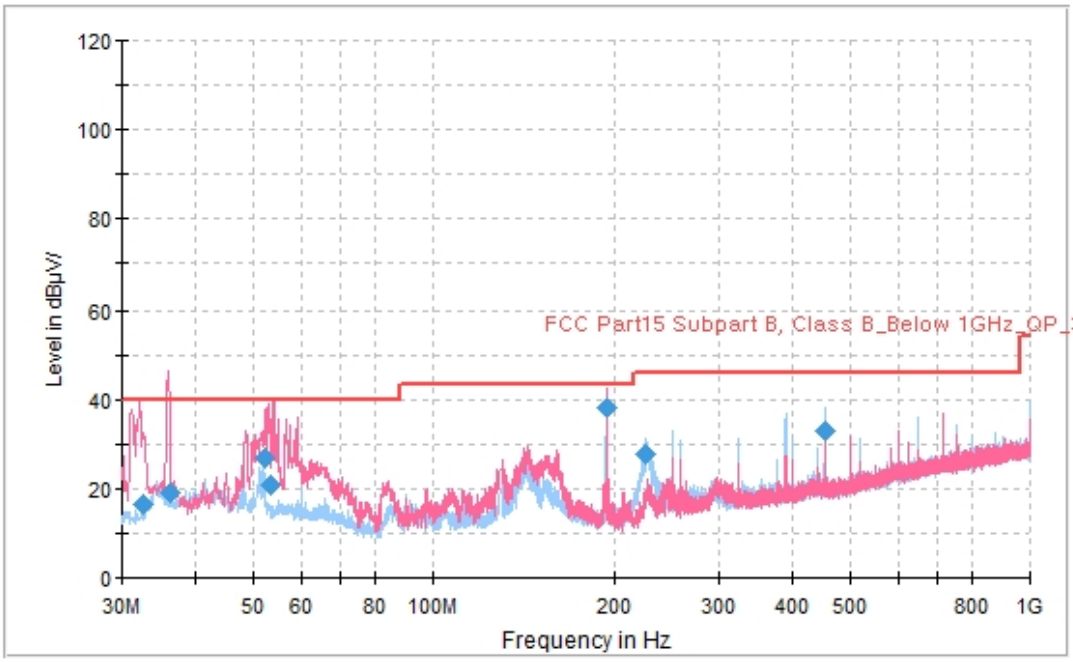
Worst case - RE(Below 1 GHz)_802.11n(HT20)_2 437 MHz_Adaptor (DC 5 V)



Frequency [MHz]	Quasi-Peak Reading [dBuV]	Quasi-Peak Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Corrction Factor [dB/m]
51.664	36.13	28.93	40.00	11.07	100	V	174	-7.20
194.193	50.09	40.69	43.50	2.81	100	V	136	-9.40
227.156	35.30	27.60	46.00	18.4	100	H	172	-7.70
388.529	40.44	37.34	46.00	8.66	100	H	198	-3.10
453.508	35.47	34.17	46.00	11.83	100	H	213	-1.30
712.371	29.05	33.05	46.00	12.95	100	V	24	4.00

Note)
1. Quasi Peak(dBµV/m) = Quasi Peak Reading Value(dBµV) + Correction Factor(dB/m)
2. Correction Factor(dB) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin(dB) = (Quasi Peak) Limit (dBµV/m) – (Quasi Peak) Result (dBµV/m).

Worst case - RE(Below 1 GHz)_802.11n(HT20)_2 437 MHz_POE (DC 48 V)

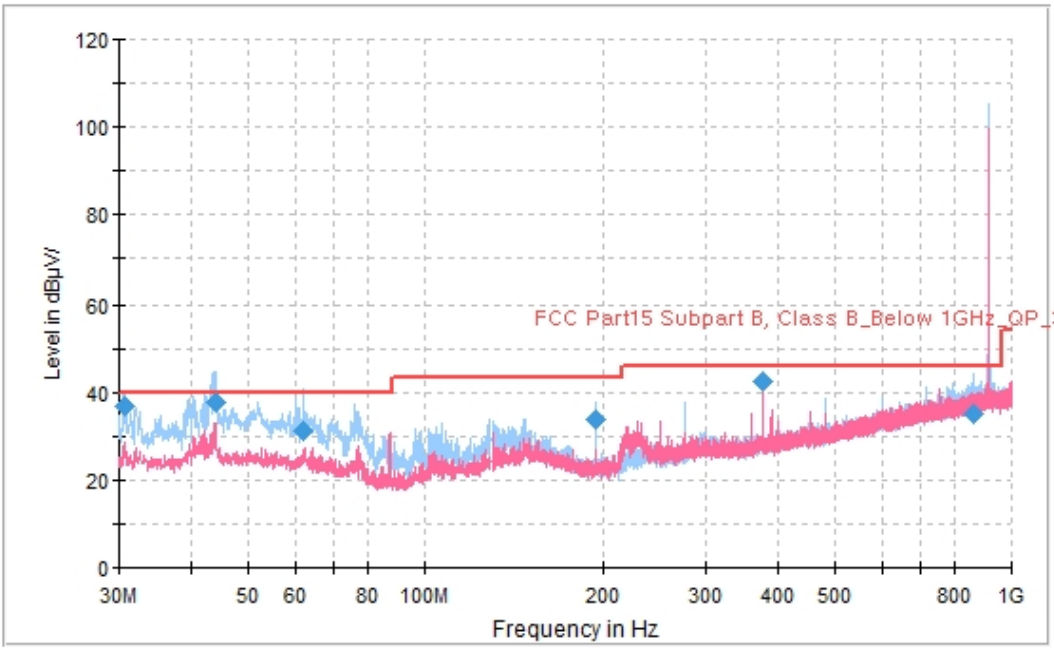


Frequency [MHz]	Quasi-Peak Reading [dBuV]	Quasi-Peak Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Corrction Factor [dB/m]
32.588	25.42	16.42	40.00	23.58	200	V	314	-9.00
36.300	27.88	19.28	40.00	20.72	100	V	200	-8.60
52.195	34.08	26.78	40.00	13.22	200	V	260	-7.30
53.327	28.19	20.79	40.00	19.21	200	V	260	-7.40
194.086	47.33	37.93	43.50	5.57	100	V	139	-9.40
226.143	35.27	27.57	46.00	18.43	100	H	176	-7.70
453.556	34.37	33.07	46.00	12.93	100	H	238	-1.30

Note)
1. Quasi Peak(dBµV/m) = Quasi Peak Reading Value(dBµV) + Correction Factor(dB/m)
2. Correction Factor(dB) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin(dB) = (Quasi Peak) Limit (dBµV/m) – (Quasi Peak) Result (dBµV/m).

- **Simultaneous**

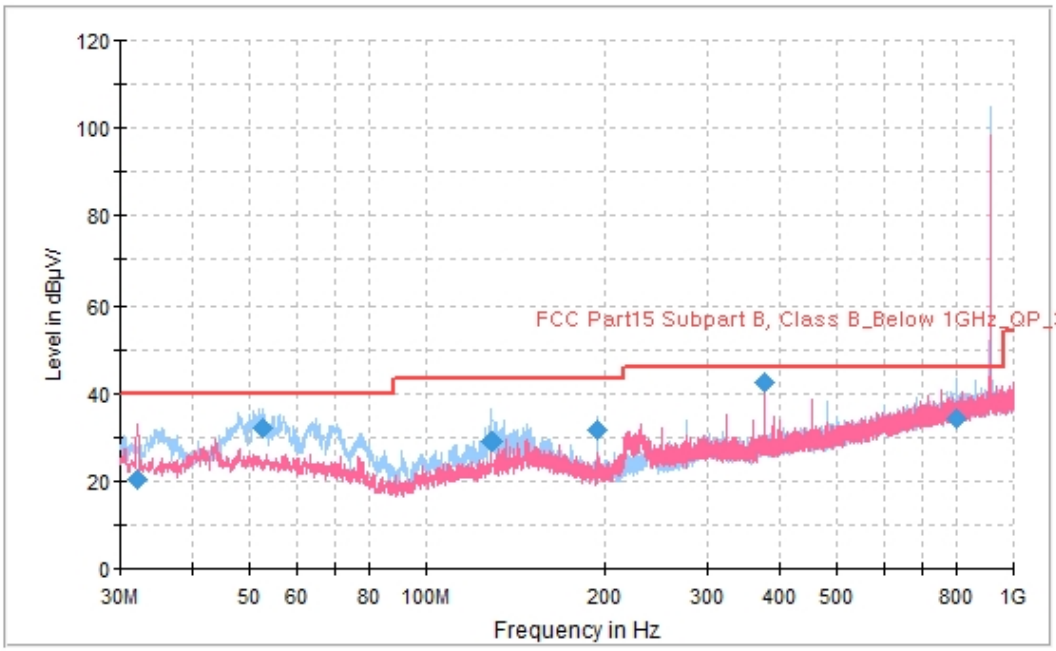
Worst case - RE(Below 1 GHz)_802.11n(HT20)_2 437 MHz_ Simultaneous_Adaptor (DC 5 V)



Frequency [MHz]	Quasi-Peak Reading [dBuV]	Quasi-Peak Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Corrction Factor [dB/m]
30.600	36.02	36.92	40.00	3.08	100	H	0	0.90
43.802	35.28	37.78	40.00	2.22	100	H	169	2.50
62.004	29.51	31.01	40.00	8.99	200	H	19	1.50
194.338	33.27	33.97	43.50	9.53	100	H	8	0.70
375.003	35.98	42.58	46.00	3.42	100	V	237	6.60
864.164	19.21	35.01	46.00	10.99	100	H	321	15.80

Note)
1. Quasi Peak(dBµV/m) = Quasi Peak Reading Value(dBµV) + Correction Factor(dB/m)
2. Correction Factor(dB) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin(dB) = (Quasi Peak) Limit (dBµV/m) – (Quasi Peak) Result (dBµV/m).

Worst case - RE(Below 1 GHz)_802.11n(HT20)_2 437 MHz_ Simultaneous_POE (DC 48 V)

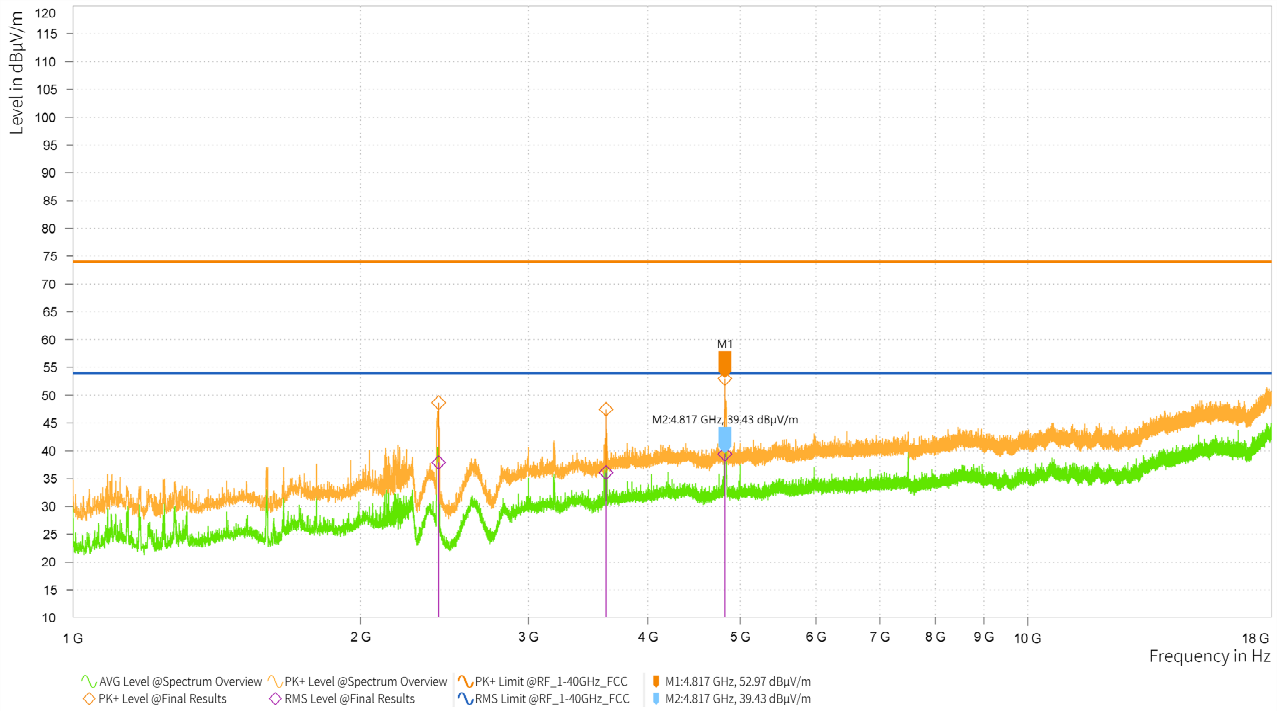


Frequency [MHz]	Quasi-Peak Reading [dBuV]	Quasi-Peak Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Pol	Azimuth [deg]	Corrction Factor [dB/m]
32.042	19.27	20.27	40.00	19.73	100	V	203	1.00
52.399	29.39	32.09	40.00	7.91	100	H	122	2.70
129.097	27.53	28.93	43.50	14.57	100	H	60	1.40
194.259	30.79	31.49	43.50	12.01	100	H	311	0.70
375.003	36.03	42.63	46.00	3.37	100	V	235	6.60
800.084	19.21	34.41	46.00	11.59	100	H	98	15.20

Note)
1. Quasi Peak(dBµV/m) = Quasi Peak Reading Value(dBµV) + Correction Factor(dB/m)
2. Correction Factor(dB) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin(dB) = (Quasi Peak) Limit (dBµV/m) – (Quasi Peak) Result (dBµV/m).

Radiated Emission (Above 1 GHz)

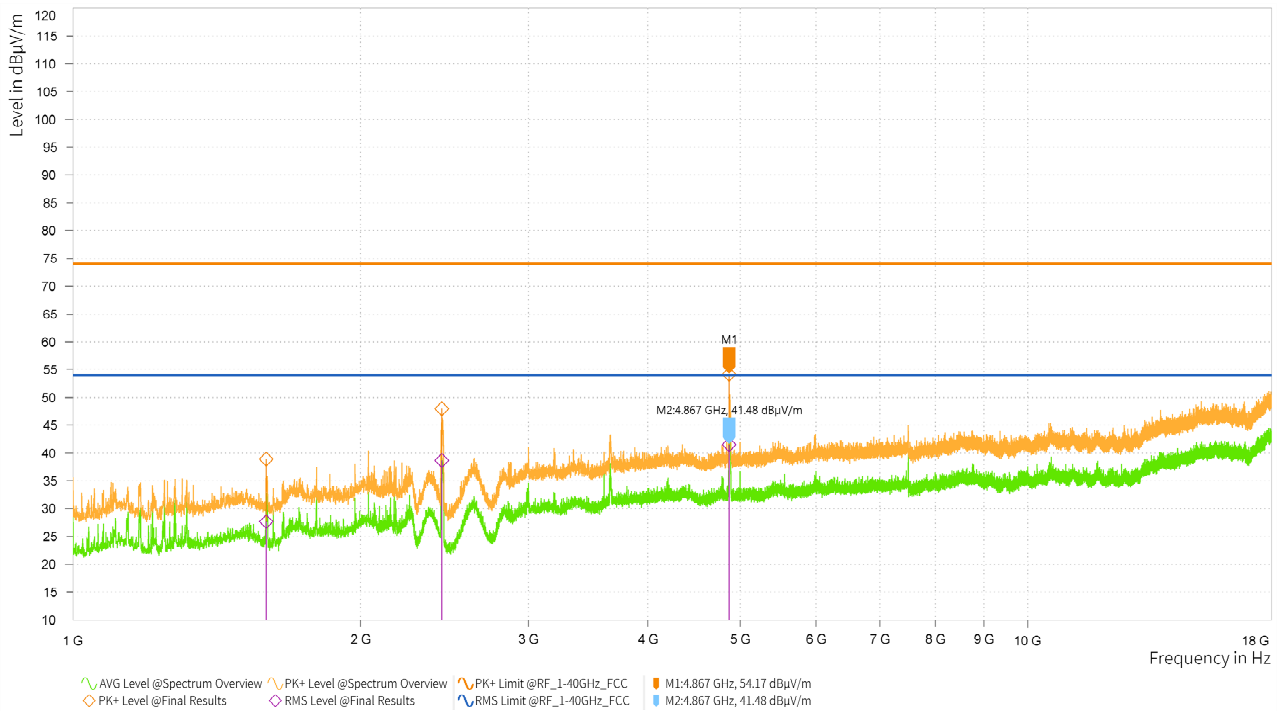
RE(Above 1 GHz) _802.11n(HT20)_2 412 MHz_Adaptor (DC 5 V)



	Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
	2 415.000	59.07	48.67	48.31	38.60	0.69	1.00	V	0.9	-10.40	25.33	74.00	15.40	54.00
*	3 618.000	53.12	47.48	41.75	36.80	0.69	1.00	H	28.2	-5.64	26.52	74.00	17.20	54.00
*	4 817.000	55.83	52.97	42.29	40.12	0.69	1.00	V	303.7	-2.86	21.03	74.00	13.88	54.00

Note)
1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Average Reading Value (dBuV) + Correction Factor(dB/m) + DCCF
3. DCCF(Duty Cycle Correction Factor) = 10 x Log(1/Duty Cycle)
4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) – (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.

RE(Above 1 GHz) _802.11n(HT20)_2 437 MHz_Adaptor (DC 5 V)

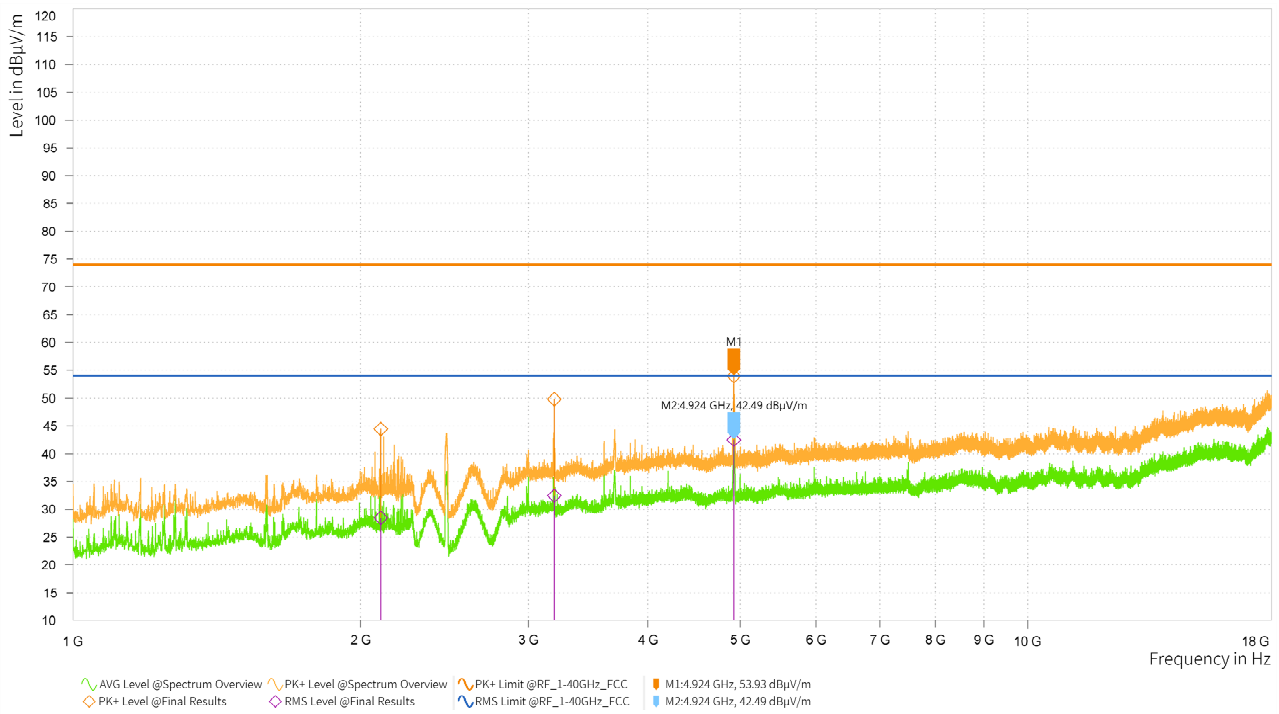


	Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
*	1 593.500	52.78	38.89	41.56	28.36	0.69	1.00	H	12.5	-13.89	35.11	74.00	25.64	54.00
	2 434.500	58.21	47.93	48.92	39.33	0.69	1.00	V	287.9	-10.28	26.07	74.00	14.67	54.00
*	4 867.000	56.80	54.17	44.11	42.17	0.69	1.00	V	27.6	-2.63	19.83	74.00	11.83	54.00

Note)

1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Average Reading Value (dBuV) + Correction Factor(dB/m) + DCCF
3. DCCF(Duty Cycle Correction Factor) = 10 x Log(1/Duty Cycle)
4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) – (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.

RE(Above 1 GHz) _802.11n(HT20)_2 462 MHz_Adaptor (DC 5 V)



	Frequency [MHz]	Peak Reading [dBuV]	Peak Result [dBuV/m]	AVG Reading [dBuV]	AVG Result [dBuV/m]	DCCF [dB]	Height [cm]	Pol	Azimuth [deg]	Corr. [dB/m]	Peak Margin [dB]	Peak Limit [dBuV/m]	AVG Margin [dB]	AVG Limit [dBuV/m]
	2 100.500	55.51	44.43	39.55	29.16	0.69	1.00	V	71.6	-11.08	29.57	74.00	24.84	54.00
	3 192.000	56.40	49.78	39.06	33.13	0.69	1.00	V	278.3	-6.62	24.22	74.00	20.87	54.00
*	4 923.500	56.44	53.93	45.00	43.18	0.69	1.00	V	292.2	-2.51	20.07	74.00	10.82	54.00

Note)
1. Peak Result(dBuV/m) = Peak Reading Value(dBuV) + Correction Factor(dB/m)
2. AVG Result(dBuV/m) = Average Reading Value (dBuV) + Correction Factor(dB/m) + DCCF
3. DCCF(Duty Cycle Correction Factor) = 10 x Log(1/Duty Cycle)
4. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor (dB)
5. Margin(dB) = (Peak/AVG) Limit (dBuV/m) – (Peak/AVG) Result (dBuV/m)
6. * - indicates frequency in Restricted Band.