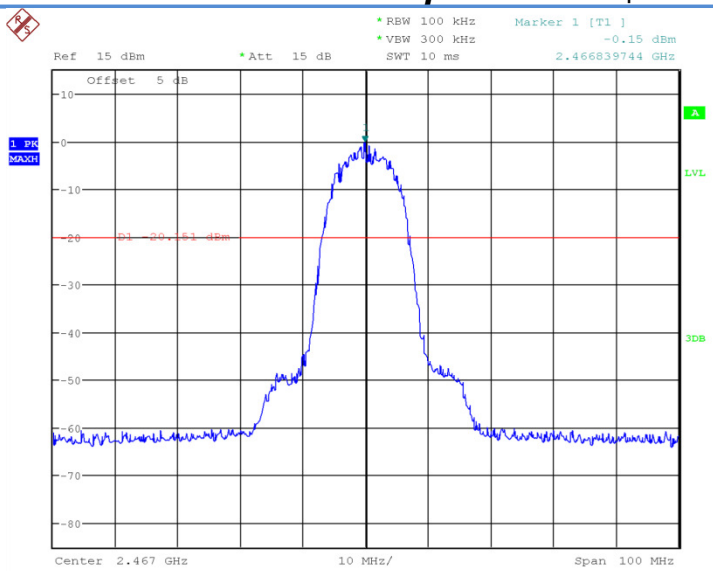


Fig.63 Conducted Spurious Emission (802.11b, Ch12)

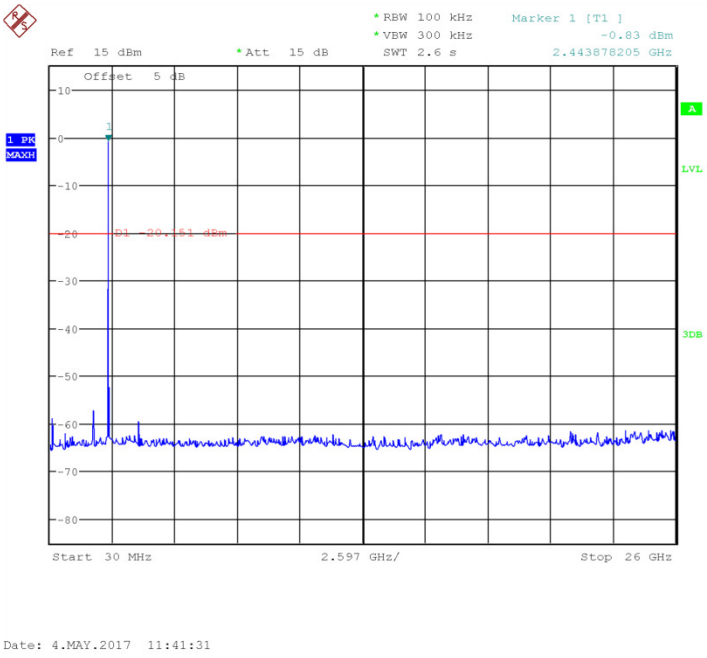


Fig.64 Conducted Spurious Emission (802.11b, Ch12, 30MHz~26GHz)

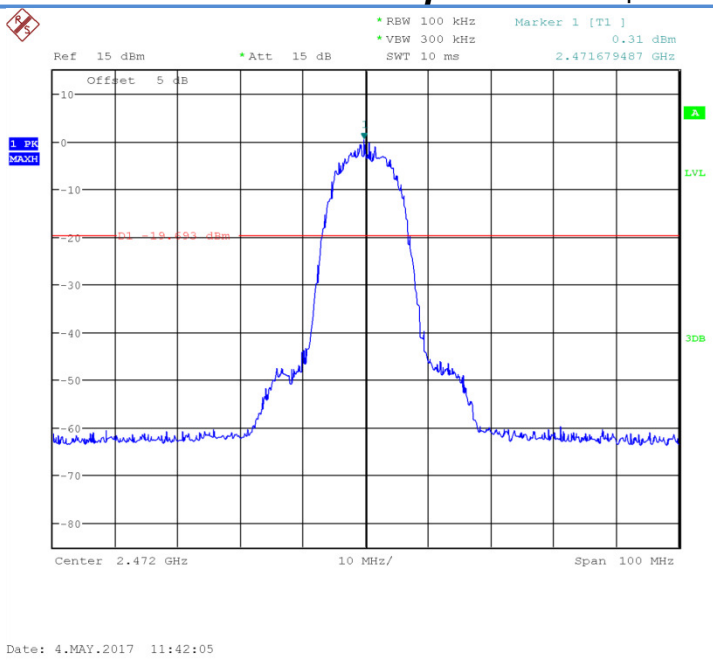


Fig.65 Conducted Spurious Emission (802.11b, Ch13)

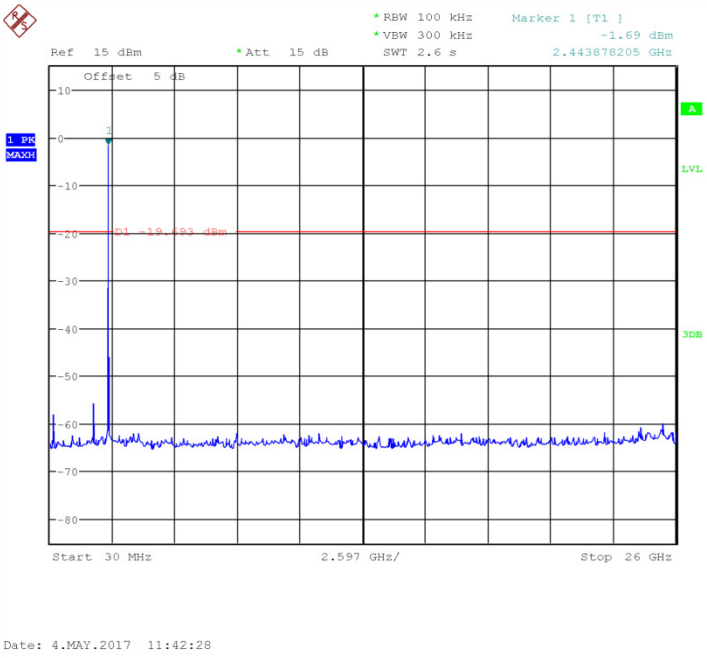


Fig.66 Conducted Spurious Emission (802.11b, Ch13, 30MHz~26GHz)

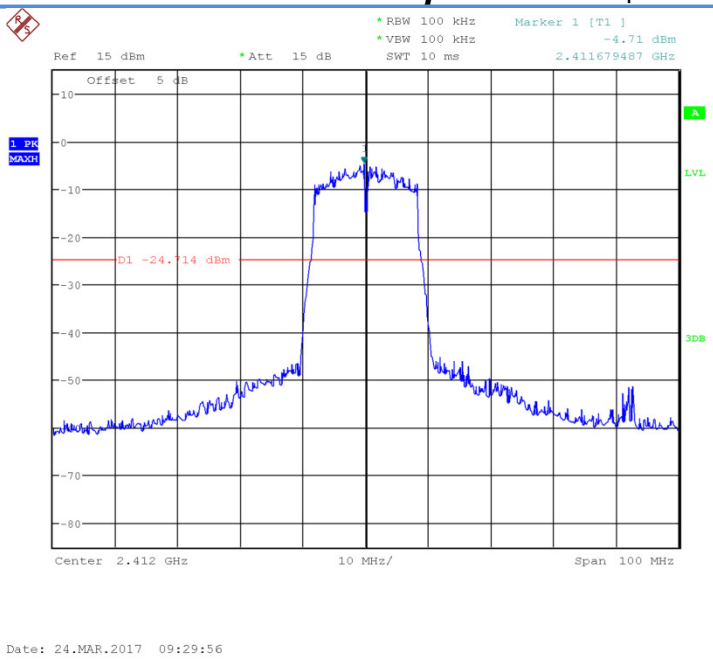


Fig.67 Conducted Spurious Emission (802.11g, Ch1)

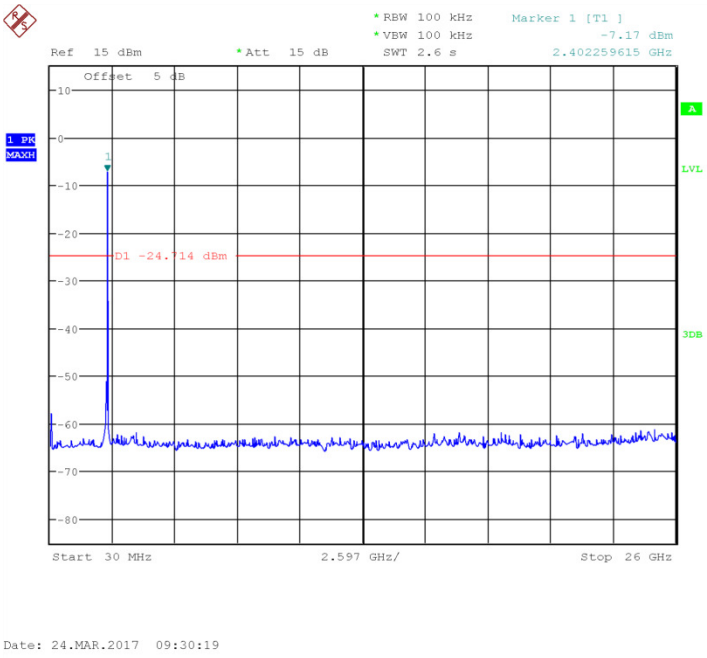


Fig.68 Conducted Spurious Emission (802.11g, Ch1, 30MHz~26GHz)

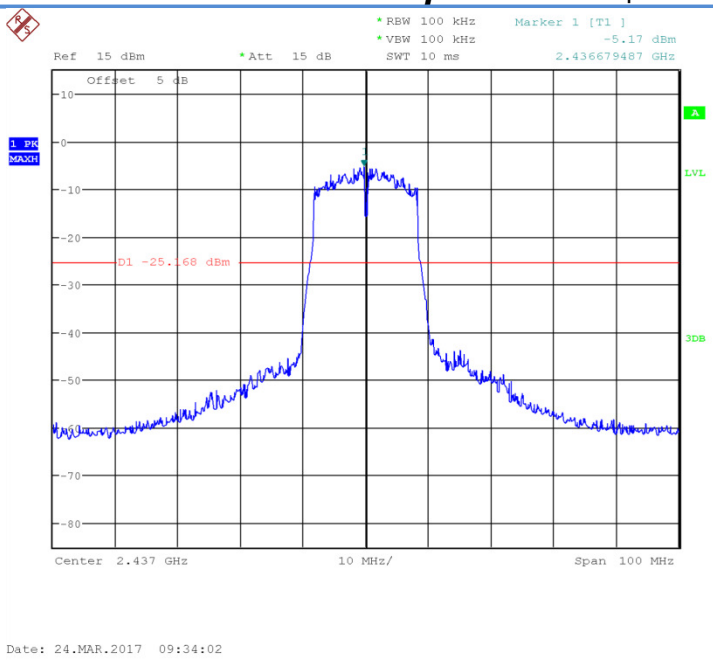


Fig.69 Conducted Spurious Emission (802.11g, Ch6)

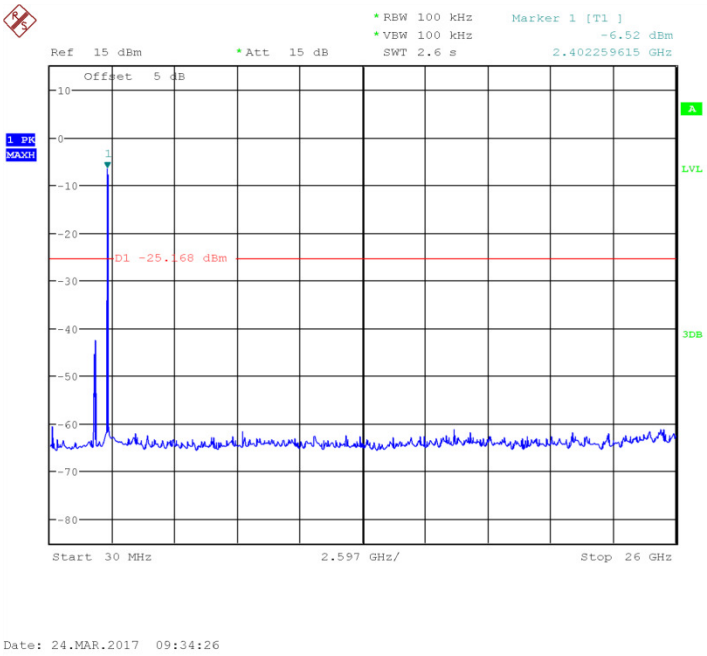


Fig.70 Conducted Spurious Emission (802.11g, Ch6, 30MHz~26GHz)

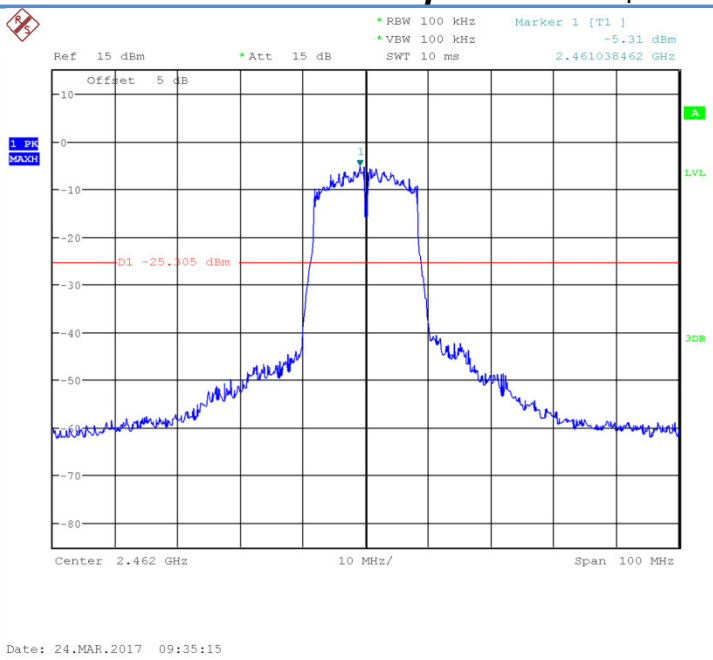


Fig.71 Conducted Spurious Emission (802.11g, Ch11)

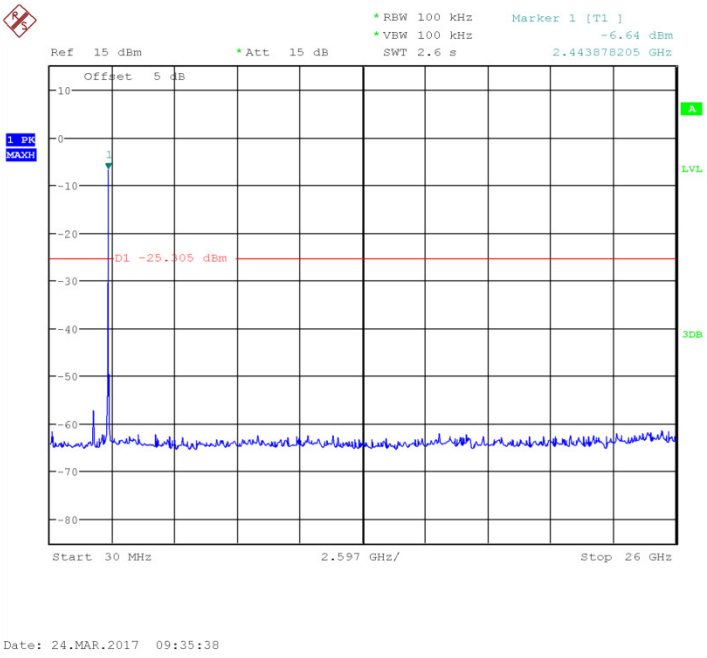


Fig.72 Conducted Spurious Emission (802.11g, Ch11, 30MHz~26GHz)

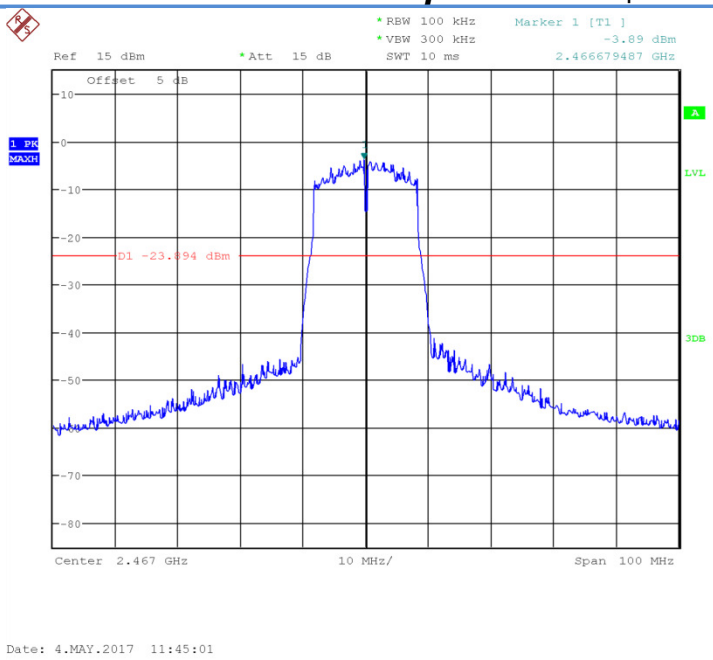


Fig.73 Conducted Spurious Emission (802.11g, Ch12)

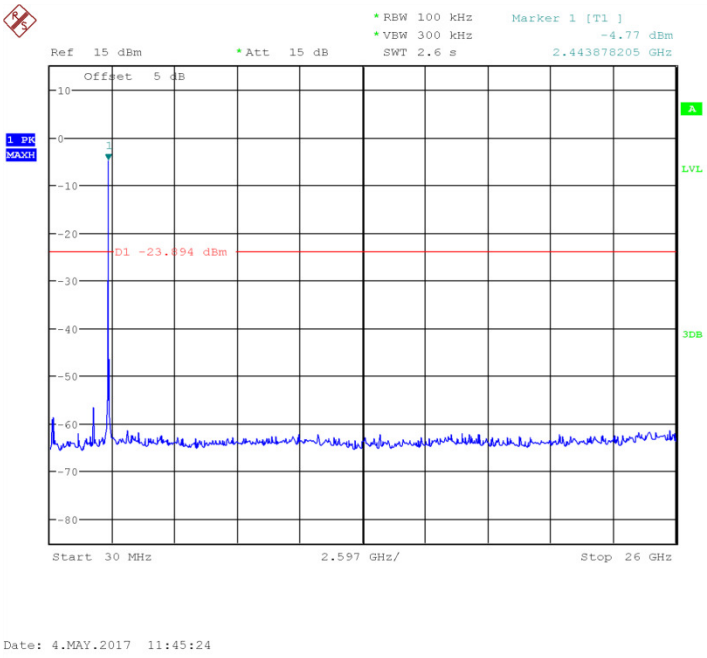


Fig.74 Conducted Spurious Emission (802.11g, Ch12, 30MHz~26GHz)

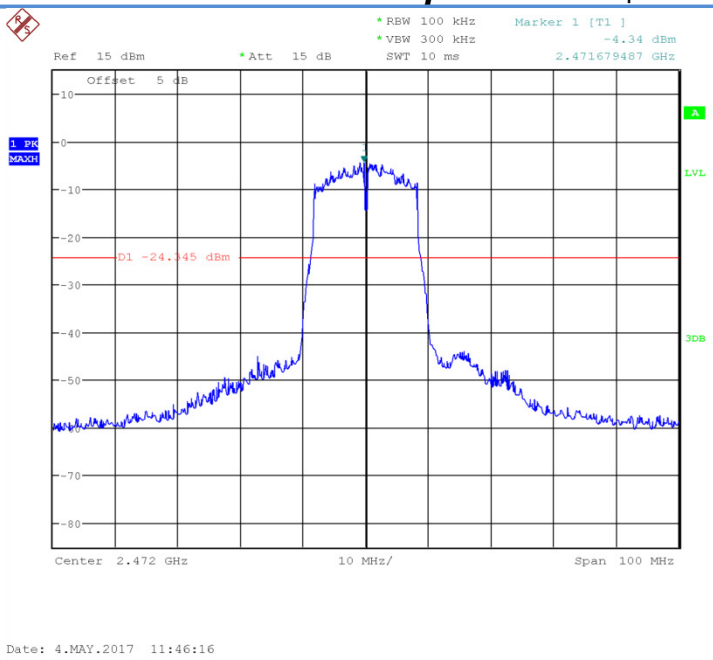


Fig.75 Conducted Spurious Emission (802.11g, Ch13)

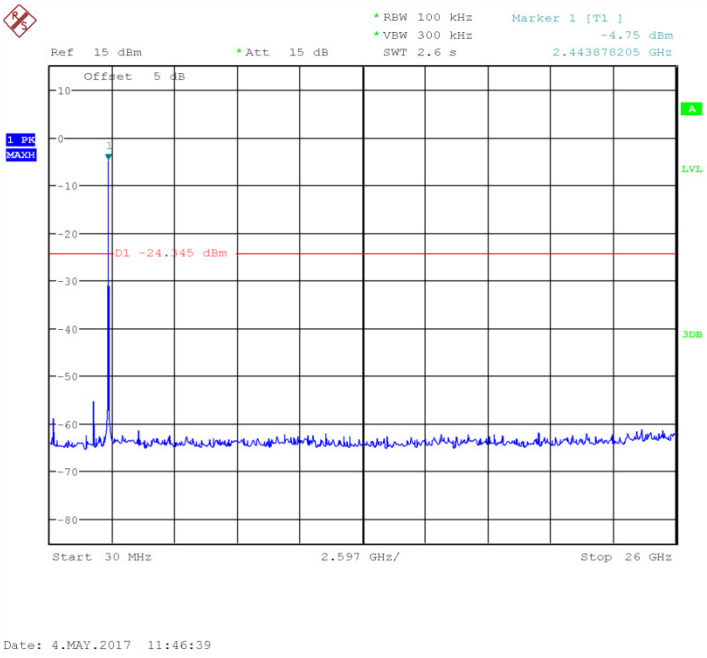


Fig.76 Conducted Spurious Emission (802.11g, Ch13, 30MHz~26GHz)

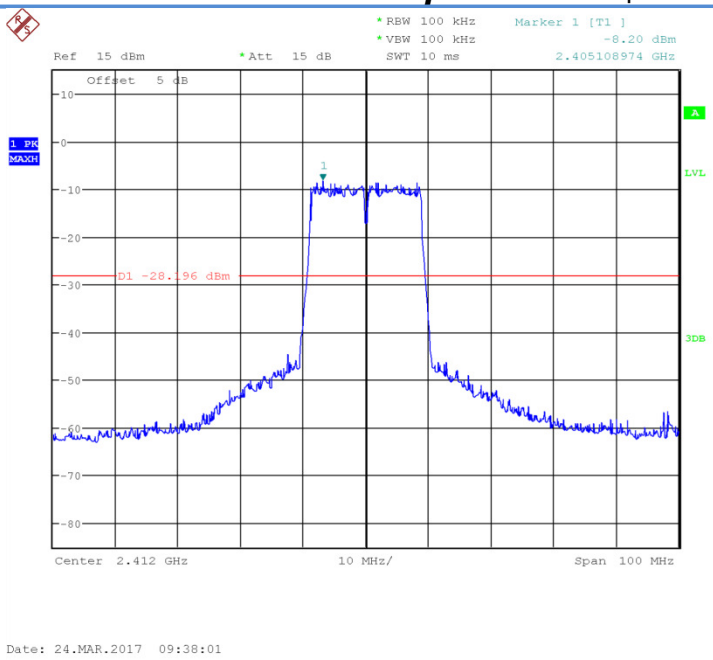


Fig.77 Conducted Spurious Emission (802.11n-20MHz, Ch1)

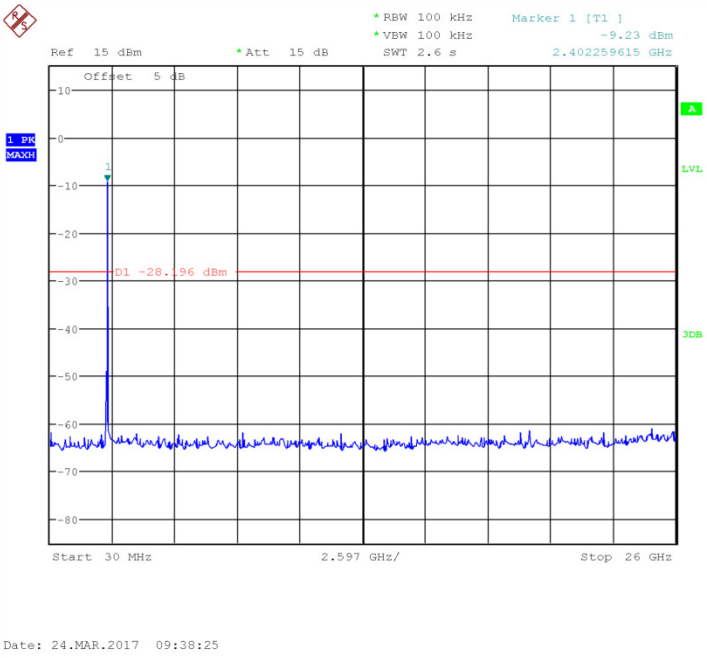


Fig.78 Conducted Spurious Emission (802.11n-20MHz, Ch1, 30MHz~26GHz)

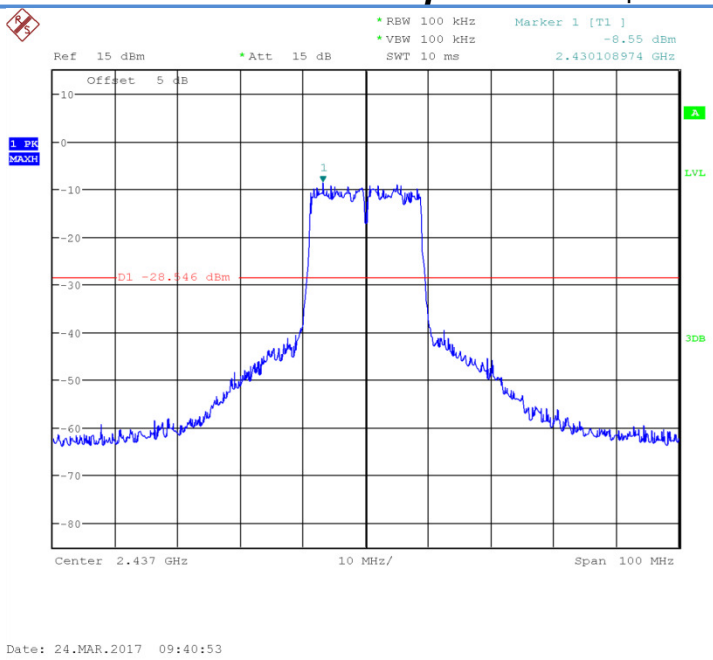


Fig.79 Conducted Spurious Emission (802.11n-20MHz, Ch6)

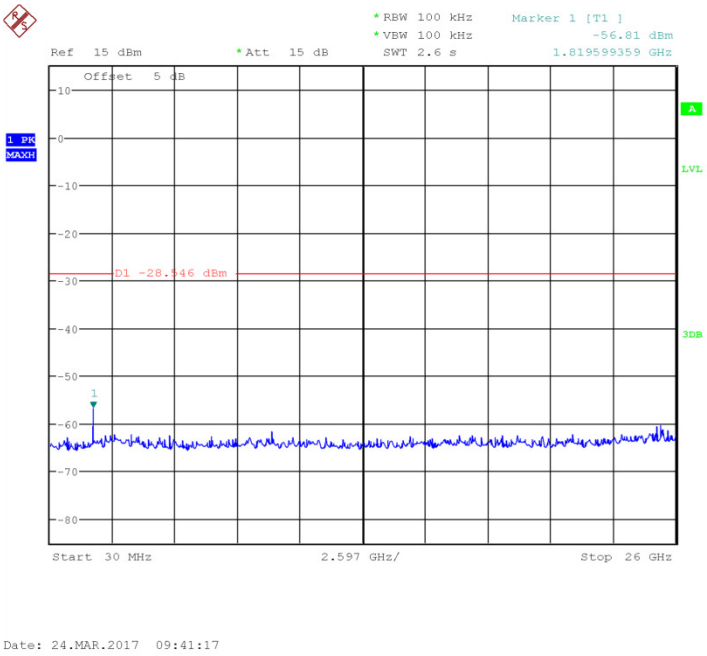


Fig.80 Conducted Spurious Emission (802.11n-20MHz, Ch6, 30MHz~26GHz)

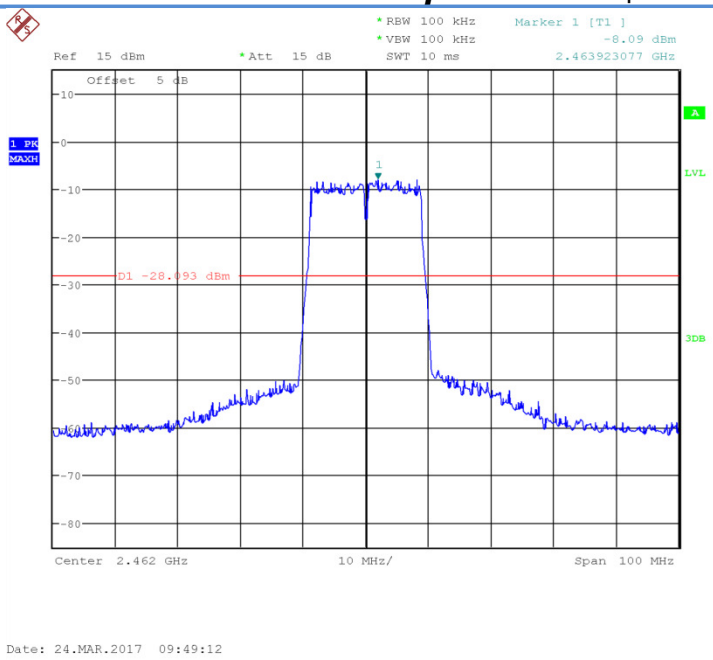


Fig.81 Conducted Spurious Emission (802.11n-20MHz, Ch11)

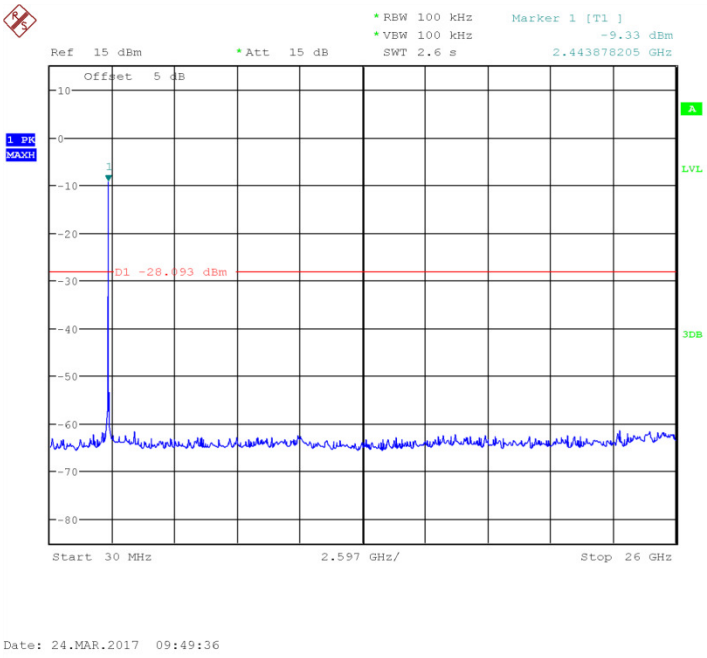


Fig.82 Conducted Spurious Emission (802.11n-20MHz, Ch11, 30MHz~26GHz)

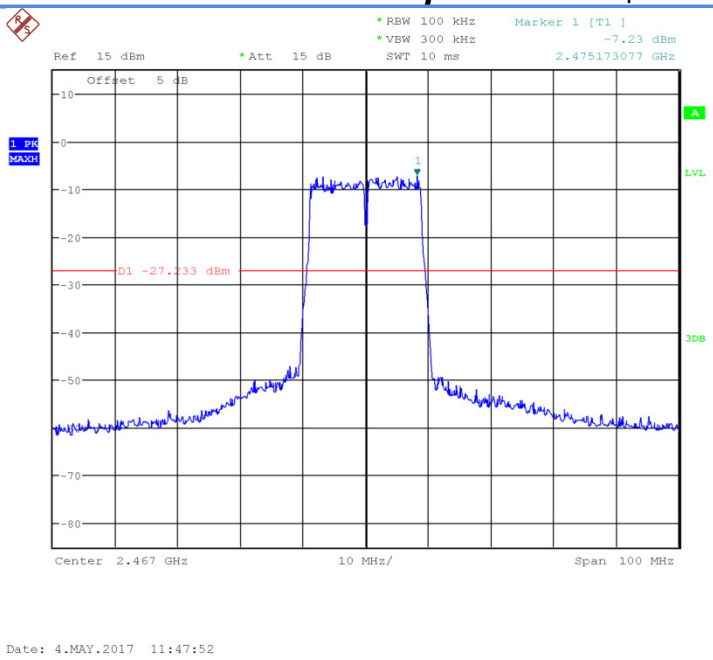


Fig.83 Conducted Spurious Emission (802.11n-20MHz, Ch12)

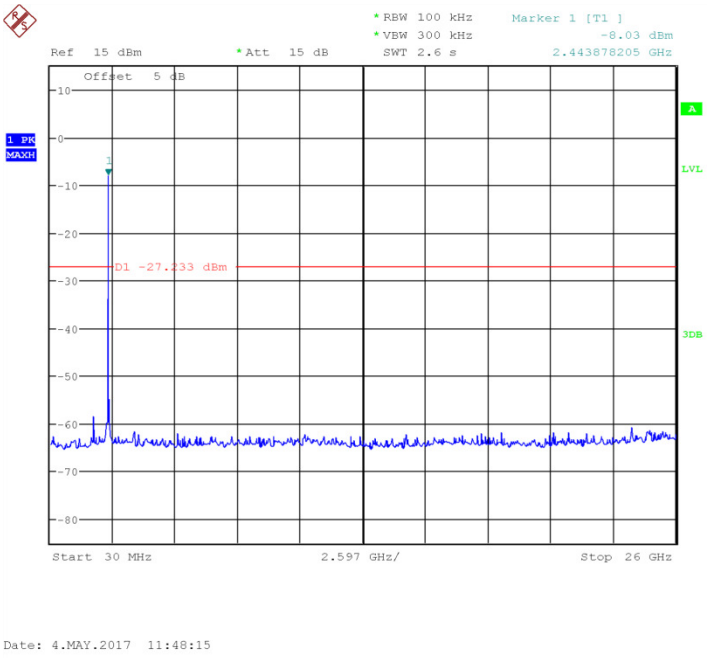


Fig.84 Conducted Spurious Emission (802.11n-20MHz, Ch12, 30MHz~26GHz)

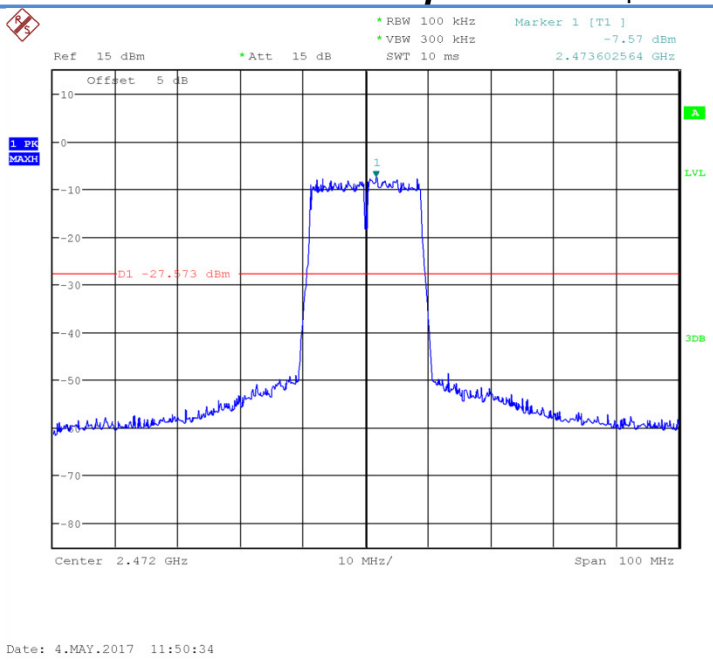


Fig.85 Conducted Spurious Emission (802.11n-20MHz, Ch13)

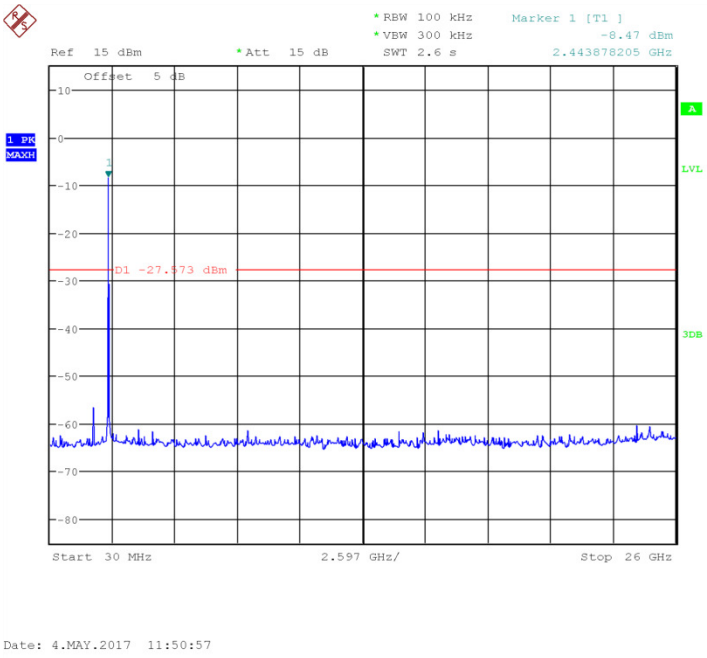


Fig.86 Conducted Spurious Emission (802.11n-20MHz, Ch13, 30MHz~26GHz)

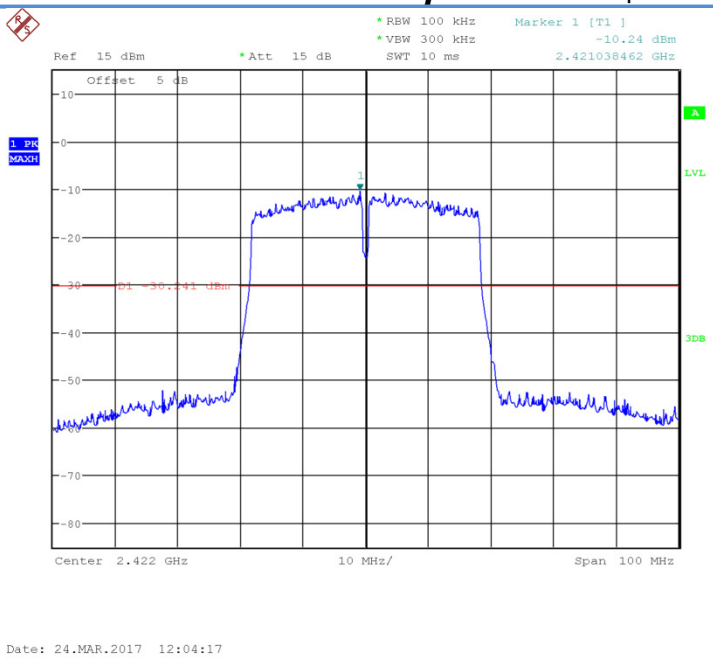


Fig.87 Conducted Spurious Emission (802.11n-40MHz, Ch3)

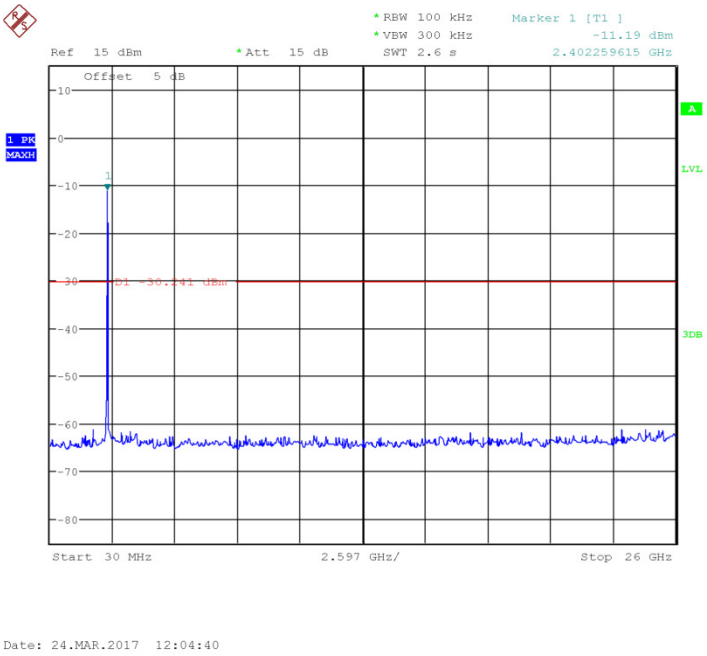


Fig.88 Conducted Spurious Emission (802.11n-40MHz, Ch3, 30MHz~26GHz)

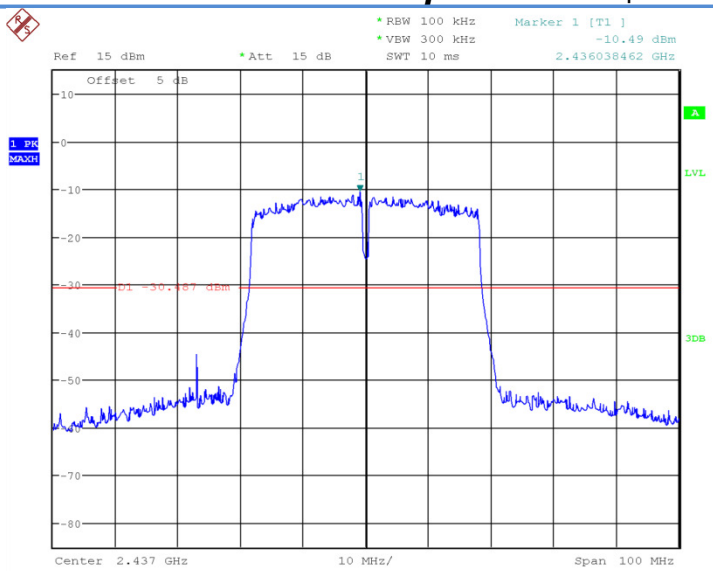


Fig.89 Conducted Spurious Emission (802.11n-40MHz, Ch6)

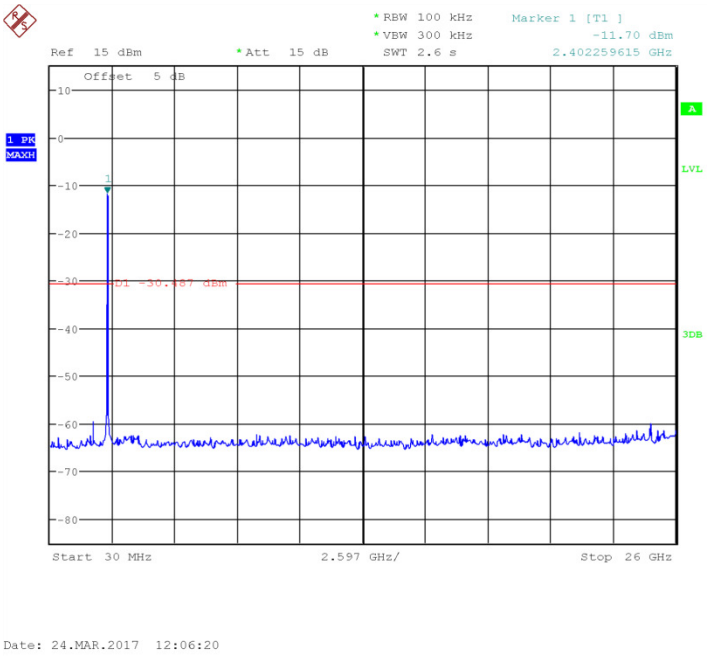


Fig.90 Conducted Spurious Emission (802.11n-40MHz, Ch6, 30MHz~26GHz)

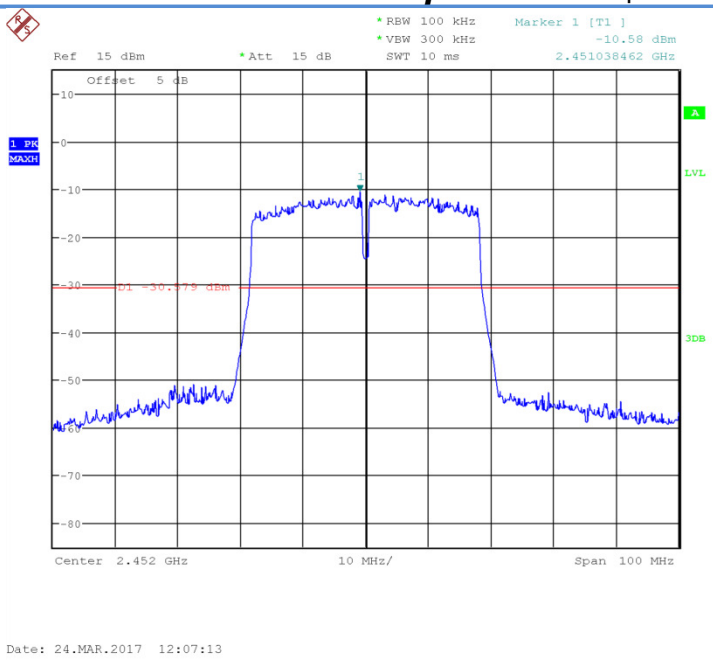


Fig.91 Conducted Spurious Emission (802.11n-40MHz, Ch9)

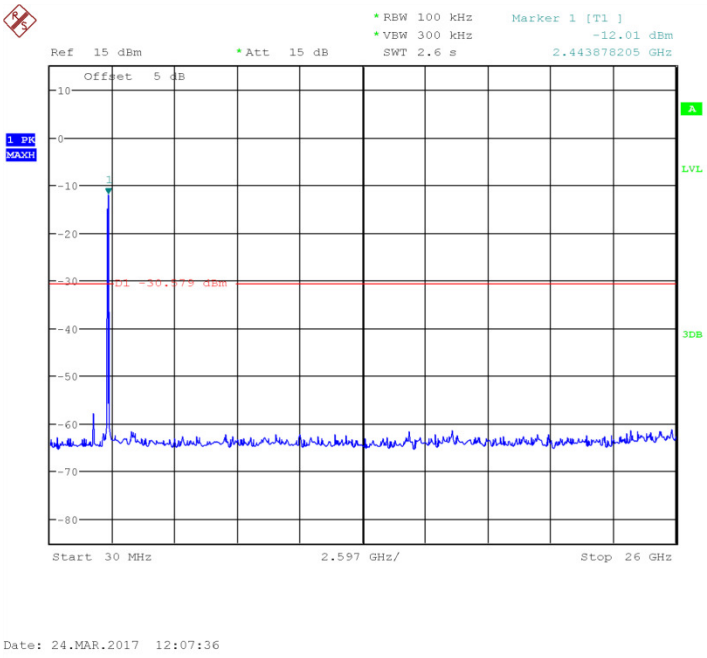


Fig.92 Conducted Spurious Emission (802.11n-40MHz, Ch9, 30MHz~26GHz)

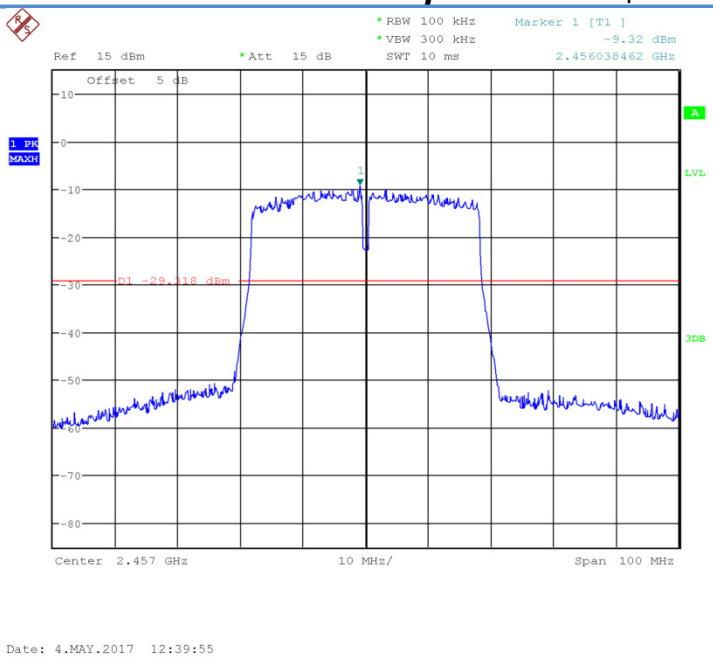


Fig.93 Conducted Spurious Emission (802.11n-40MHz, Ch10)

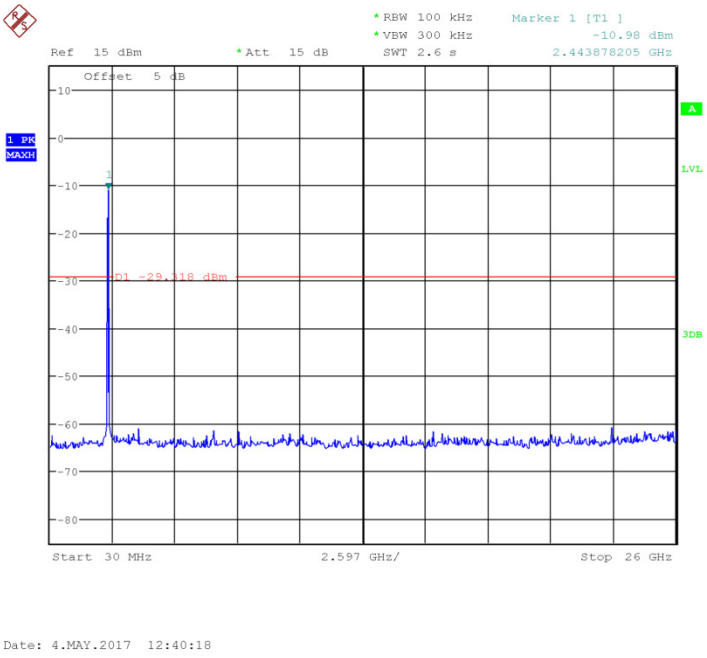


Fig.94 Conducted Spurious Emission (802.11n-40MHz, Ch10, 30MHz~26GHz)

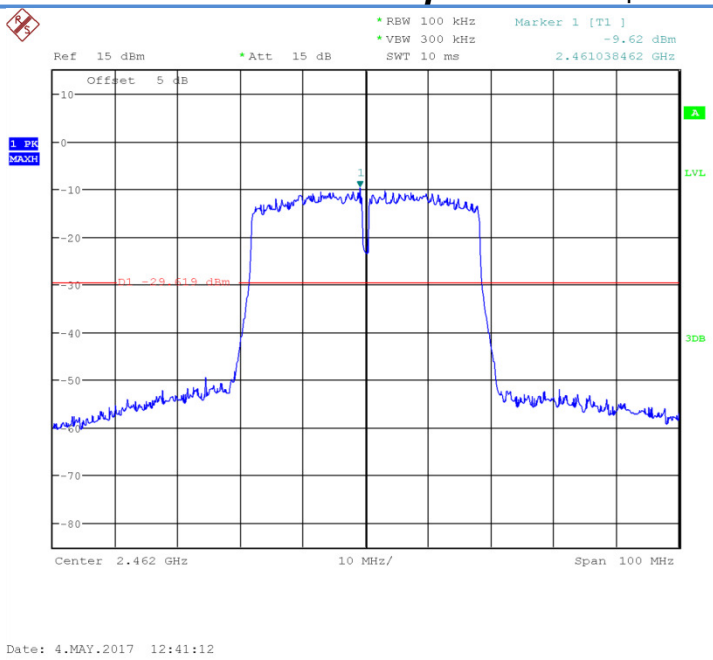


Fig.95 Conducted Spurious Emission (802.11n-40MHz, Ch11)

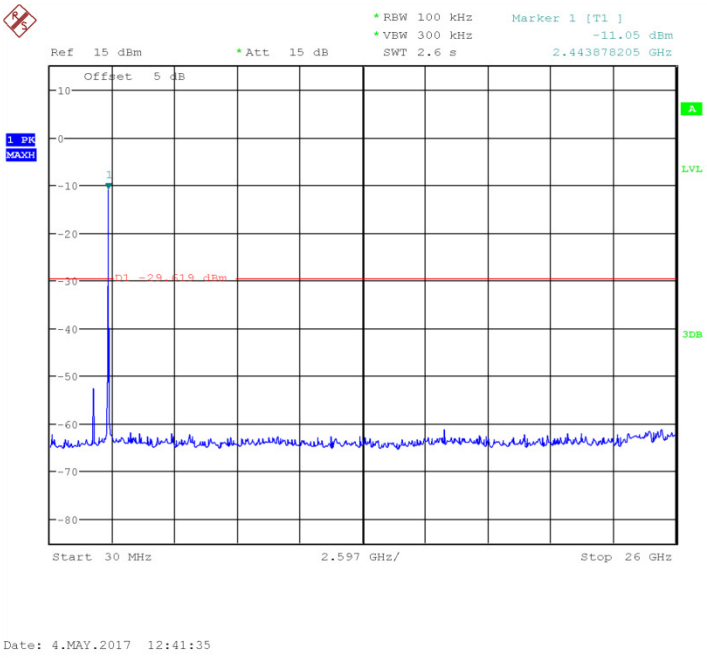


Fig.96 Conducted Spurious Emission (802.11n-40MHz, Ch11, 30MHz~26GHz)

6.6. Transmitter Spurious Emission-Radiated

6.6.1 Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247,15.205,15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in 25.205(a),

must also comply with the radiated emission limits specified in 15.209(a)(see 15.205(c)). The measurement is according to ANSI C63.10 clause 11.11 and 11.12.

6.6.2 Limit in restricted band:

Frequency of emission(MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30~88	100	40
88~216	150	43.5
216~960	200	46
Above 960	500	54

6.6.3 Test procedures

Portable, small, lightweight, or modular devices that may be handheld, worn on the body, or placed on a table during operation shall be positioned on a nonconducting platform, the top of which is 80 cm above the reference ground plane. The preferred area occupied by the EUT arrangement is 1 m by 1.5 m, but it may be larger or smaller to accommodate various sized EUTs. For testing purposes, ceiling- and wall-mounted devices also shall be positioned on a tabletop (see also ANSI C63.4-2013 section 6.3.4 and 6.3.5). In making any tests involving handheld, body-worn, or ceiling-mounted equipment, it is essential to recognize that the measured levels may be dependent on the orientation (attitude) of the three orthogonal axes of the EUT. Thus, exploratory tests as specified in 8.3.1 shall be carried out for various axes orientations to determine the attitude having maximum or near-maximum emission level.

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During testing, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emission from the EUT. This maximization process was repeated with the EUT positioned in each of its three rthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Times (s)
30~1000	100KHz/300KHz	5
1000~4000	1MHz/1MHz	15
4000~18000	1MHz/1MHz	40
18000~26500	1MHz/1MHz	20

802.11b/g mode

Mode	Channel	Frequency Range	Test Results	Conclusion

802.11b	Power	2.38GHz~2.45GHz	Fig 97.	P
	Power	2.45GHz~2.5GHz	Fig 98.	P
	1	30MHz~1GHz	Fig 99.	P
		1GHz~3GHz	Fig 100.	P
		3GHz~18GHz	Fig 101.	P
802.11g	Power	2.38GHz~2.45GHz	Fig 102.	P
	Power	2.45GHz~2.5GHz	Fig 103.	P
	1	30MHz~1GHz	Fig 104.	P
		1GHz~3GHz	Fig 105.	P
		3GHz~18GHz	Fig 106.	P

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(20MHz)	Power	2.38GHz~2.45GHz	Fig 107.	P
	Power	2.45GHz~2.5GHz	Fig 108.	P
	1	30MHz~1GHz	Fig 109.	P
		1GHz~3GHz	Fig 110.	P
		3GHz~18GHz	Fig 111.	P
802.11n(40MHz)	Power	2.38GHz~2.45GHz	Fig 112.	P
	Power	2.45GHz~2.5GHz	Fig 113.	P
	3	30MHz~1GHz	Fig 114.	P
		1GHz~3GHz	Fig 115.	P
		3GHz~18GHz	Fig 116.	P

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz~2.45GHz	Fig 117.	P
	Power	2.45GHz~2.5GHz	Fig 118.	P
	12	30MHz~1GHz	Fig 119.	P
		1GHz~3GHz	Fig 120.	P
		3GHz~18GHz	Fig 121.	P
802.11b	Power	2.38GHz~2.45GHz	Fig 122.	P
	Power	2.45GHz~2.5GHz	Fig 123.	P
	13	30MHz~1GHz	Fig 124.	P
		1GHz~3GHz	Fig 125.	P
		3GHz~18GHz	Fig 126.	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.38GHz~2.45GHz	Fig 127.	P
	Power	2.45GHz~2.5GHz	Fig 128.	P
	12	30MHz~1GHz	Fig 129.	P
		1GHz~3GHz	Fig 130.	P
		3GHz~18GHz	Fig 131.	P
802.11g	Power	2.38GHz~2.45GHz	Fig 132.	P
	Power	2.45GHz~2.5GHz	Fig 133.	P
	13	30MHz~1GHz	Fig 134.	P
		1GHz~3GHz	Fig 135.	P
		3GHz~18GHz	Fig 136.	P

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(20MHz)	Power	2.38GHz~2.45GHz	Fig 137.	P
	Power	2.45GHz~2.5GHz	Fig 138.	P
	12	30MHz~1GHz	Fig 139.	P
		1GHz~3GHz	Fig 140.	P
		3GHz~18GHz	Fig 141.	P
802.11n(20MHz)	Power	2.38GHz~2.45GHz	Fig 142.	P
	Power	2.45GHz~2.5GHz	Fig 143.	P
	13	30MHz~1GHz	Fig 144.	P
		1GHz~3GHz	Fig 145.	P
		3GHz~18GHz	Fig 146.	P

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(40MHz)	Power	2.38GHz~2.45GHz	Fig 147.	P
	Power	2.45GHz~2.5GHz	Fig 148.	P
	10	30MHz~1GHz	Fig 149.	P
		1GHz~3GHz	Fig 150.	P
		3GHz~18GHz	Fig 151.	P
802.11n(40MHz)	Power	2.38GHz~2.45GHz	Fig 152.	P
	Power	2.45GHz~2.5GHz	Fig 153.	P
	11	30MHz~1GHz	Fig 154.	P
		1GHz~3GHz	Fig 155.	P
		3GHz~18GHz	Fig 156.	P

Conclusion: PASS

Note:

A ”reference path loss” is established and A_{Rpi} is the attenuation of “reference path loss”,

and including the gain of receive antenna , the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

ARpi = Cable loss + Antenna Gain-Preamplifier gain

Result = P_{Mea} + Cable loss + Antenna Gain-Preamplifier gain = P_{Mea} + ARpi .

802.11b mode

Ch1 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.642748	8.54	-26.7	35.24	V
36.259244	9.26	-26.0	35.26	V
50.316028	7.95	-23.3	31.25	V
64.331296	5.94	-25.7	31.64	H
804.978316	17.79	-10.8	28.59	H
932.675092	20.12	-8.6	28.72	H

Ch1 1GHz~3GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2607.333847	51.51	8.8	42.71	H
2703.739231	52.32	9.5	42.82	V
2755.423269	52.31	9.4	42.91	V
2845.158269	52.96	10.7	42.26	H
2876.410192	53.54	10.7	42.84	V
2991.49423	53.78	11.1	42.68	V

Ch1 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15030.30933	55.49	21.5	33.99	H
15651.98807	56.86	23.4	33.46	V
16018.12347	59.63	25.2	34.43	V
16501.66247	58.82	26.9	31.92	V

16939.25313	59.9	27.1	32.8	H
17607.34133	62.58	29.5	33.08	V

Ch1 1GHz~3GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15030.30933	43.45	21.5	21.95	H
15651.98807	44.95	23.4	21.55	V
16018.12347	46.96	25.2	21.76	V
16501.66247	47.36	26.9	20.46	V
16939.25313	47.88	27.1	20.78	H
17607.34133	49.95	29.5	20.45	V

802.11g

Ch1 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.260036	23.52	-26.6	50.12	V
38.8906	28.39	-24.3	52.69	V
42.876264	26.9	-23.6	50.5	V
55.218528	13.48	-23.9	37.38	V
187.41568	16.89	-25.1	41.99	H
925.470208	20.27	-8.7	28.97	V

Ch1 1GHz~3GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2624.413461	52.12	9	43.12	V
2677.910577	52.06	9.4	42.66	H
2813.370384	52.99	10	42.99	V
2910.015192	53.07	10.6	42.47	H
2945.191923	52.83	10.5	42.33	H
2971.708077	52.34	10.8	41.54	H

Ch1 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14252.9012	55.4	20.1	35.3	V
14918.81807	56.82	22.1	34.72	H
15805.53027	57.94	24.7	33.24	V
16505.4592	59.73	26.9	32.83	H
16936.8546	59.92	27.1	32.82	V
17416.9628	61.36	28.5	32.86	V

Ch1 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14252.9012	55.4	20.1	35.3	V
14918.81807	56.82	22.1	34.72	H
15805.53027	57.94	24.7	33.24	V
16505.4592	59.73	26.9	32.83	H
16936.8546	59.92	27.1	32.82	V
17416.9628	61.36	28.5	32.86	V

802.11n-20MHz

Ch1 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.306388	23.2	-26.7	49.9	V
38.197684	24.05	-24.8	48.85	V
39.953876	25.5	-23.7	49.2	V
42.02796	26.51	-23.6	50.11	V
43.158144	25.68	-23.5	49.18	V
44.36208	25.04	-23.5	48.54	V

Ch1 1GHz~3GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity

2617.365192	51.34	9	42.34	H
2738.023846	52.92	9.4	43.52	V
2783.284038	52.8	9.6	43.2	H
2834.867692	52.86	10.5	42.36	H
2872.434038	52.71	10.7	42.01	V
2951.648653	53.54	10.5	43.04	H

Ch1 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
12838.093	52.63	16.6	36.03	H
13367.91693	54.05	17.5	36.55	V
14923.00273	56.17	22.1	34.07	H
15952.38673	58.94	25	33.94	V
16818.54293	60.09	27.3	32.79	V
17632.09633	61.74	29.2	32.54	H

Ch1 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
13367.91693	41.52	17.5	24.02	V
14923.00273	44.1	22.1	22	H
15952.38673	46.51	25	21.51	V
16818.54293	48.3	27.3	21	V
17632.09633	49.76	29.2	20.56	H

802.11n-40MHz

Ch3 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.431596	22.31	-26.7	49.01	V
39.39552	25.14	-24	49.14	V
40.216188	25.74	-23.7	49.44	V

42.226564	25.97	-23.6	49.57	V
42.93376	25.16	-23.6	48.76	V
44.825896	23.78	-23.5	47.28	V

Ch3 1GHz~3GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2667.396923	52.18	9.4	42.78	V
2749.003269	52.99	9.4	43.59	V
2848.618846	53.34	10.8	42.54	H
2901.606154	53.14	10.6	42.54	V
2943.419038	53.1	10.5	42.6	H
2978.343461	52.73	10.9	41.83	V

Ch3 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14313.43847	54.98	20.6	34.38	V
14937.67327	56.6	22	34.6	V
15981.27693	60.6	25.2	35.4	V
16535.0694	59.06	26.5	32.56	V
17002.12907	61.1	27.1	34	V
17575.48307	61.66	29.5	32.16	H

Ch3 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14313.43847	42.94	20.6	22.34	V
14937.67327	44.06	22	22.06	V
15981.27693	46.87	25.2	21.67	V
16535.0694	46.98	26.5	20.48	V
17002.12907	48.24	27.1	21.14	V
17575.48307	49.91	29.5	20.41	H

802.11b

Ch12 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.021436	11.97	-26.6	38.57	V
39.557268	18.41	-23.9	42.31	V
88.501972	20.35	-25.8	46.15	H
209.31426	9.71	-24.3	34.01	H
810.17624	18.17	-10.7	28.87	H
933.898388	20.22	-8.6	28.82	H

Ch12 1GHz~3GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2653.098462	52.41	9.4	43.01	H
2739.487116	53.58	9.4	44.18	H
2815.553654	53.22	10.1	43.12	V
2851.141923	53.33	10.8	42.53	V
2903.976923	53.31	10.6	42.71	H
2956.223846	54.23	10.6	43.63	V

Ch12 1GHz~3GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2956.223846	41.28	10.6	30.68	V

Ch12 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14331.78133	54.72	20.4	34.32	H
14831.6938	54.64	20.7	33.94	V
16014.07413	60.02	25.3	34.72	V
16499.40327	59.36	26.9	32.46	H
17319.2942	61.7	28.4	33.3	H

17605.36707	63.28	29.5	33.78	V

Ch12 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14331.78133	42.72	20.4	22.32	H
14831.6938	42.83	20.7	22.13	V
16014.07413	47.15	25.3	21.85	V
16499.40327	47.14	26.9	20.24	H
17319.2942	48.35	28.4	19.95	H
17605.36707	49.55	29.5	20.05	V

802.11b

Ch13 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.05382	11.23	-26.6	37.83	V
35.001688	12.43	-26.8	39.23	V
40.024784	20.38	-23.7	44.08	V
41.796344	19.67	-23.6	43.27	V
88.662728	23.23	-25.7	48.93	H
187.183	14.68	-25.1	39.78	H

Ch13 1GHz~3GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2617.027884	51.97	8.9	43.07	H
2702.221923	52.41	9.5	42.91	H
2802.063846	52.39	9.8	42.59	H
2880.296539	53.58	10.7	42.88	V
2939.279423	52.99	10.5	42.49	V
2995.299231	53.22	11.1	42.12	V

Ch13 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15148.4818	55.41	21.3	34.11	H
15704.43813	58.08	23.9	34.18	V
16175.11887	59.08	25.5	33.58	V
16511.99593	59.45	26.8	32.65	V
16858.5992	59.36	27.2	32.16	H
17586.65313	61.88	29.5	32.38	V

Ch13 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15148.4818	43.21	21.3	21.91	H
15704.43813	45.66	23.9	21.76	V
16175.11887	46.78	25.5	21.28	V
16511.99593	46.96	26.8	20.16	V
16858.5992	46.83	27.2	19.63	H
17586.65313	49.43	29.5	19.93	V

802.11g

Ch12 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.782868	14.54	-26.7	41.24	V
39.57856	19.47	-23.9	43.37	V
88.555184	20.94	-25.8	46.74	V
189.749016	15.83	-24.9	40.73	H
784.183328	17.7	-11.3	29	H
889.756048	19.47	-9.3	28.77	H

Ch12 1GHz~3GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2666.486923	52.36	9.4	42.96	V

2790.135	52.39	9.7	42.69	V
2847.286154	53.46	10.7	42.76	V
2900.064038	53.46	10.6	42.86	V
2940.645577	53.77	10.5	43.27	V
2978.016731	53.17	10.9	42.27	H

Ch12 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14912.035	55.83	22.2	33.63	H
15455.22927	57.25	23.3	33.95	H
16043.60493	58.68	25.1	33.58	H
16510.71973	58.98	26.8	32.18	H
16911.59467	59.81	27.1	32.71	V
17651.98353	61.42	29	32.42	H

Ch12 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14912.035	43.74	22.2	21.54	H
15455.22927	44.06	23.3	20.76	H
16043.60493	46.9	25.1	21.8	H
16510.71973	46.22	26.8	19.42	H
16911.59467	47.48	27.1	20.38	V
17651.98353	49.2	29	20.2	H

802.11g

Ch13 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.529824	13.37	-26.7	40.07	V
39.714632	19.99	-23.8	43.79	V
41.597072	19.82	-23.6	43.42	V

44.325184	20.31	-23.5	43.81	V
88.615964	23.22	-25.8	49.02	H
187.10142	9.58	-25.1	34.68	H

Ch13 1GHz~3GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2716.424615	52.22	9.4	42.82	H
2762.4525	52.67	9.5	43.17	V
2815.578077	53.06	10.1	42.96	H
2862.226923	52.98	10.7	42.28	H
2904.285577	53.29	10.6	42.69	V
2966.501154	53.24	10.7	42.54	H

Ch13 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15558.5132	57	23.1	33.9	H
15967.95587	59.07	25.1	33.97	H
16536.3448	58.59	26.5	32.09	H
16874.377	59.39	27.2	32.19	H
17344.09247	60.04	28.4	31.64	H
17622.1672	61.72	29.3	32.42	H

Ch13 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15558.5132	44.44	23.1	21.34	H
15967.95587	46.76	25.1	21.66	H
16536.3448	46.62	26.5	20.12	H
16874.377	47.13	27.2	19.93	H
17344.09247	48	28.4	19.6	H
17622.1672	49.7	29.3	20.4	H

802.11n-20Mhz

Ch12 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
32.383276	9.62	-26.3	35.92	V
39.561644	19.91	-23.9	43.81	V
88.673172	20.51	-25.7	46.21	H
165.705692	15.2	-26.7	41.9	H
856.548512	18.96	-10	28.96	H
936.366676	20.22	-8.6	28.82	H

Ch12 1GHz~3GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2672.234616	52.61	9.4	43.21	H
2703.417692	52.94	9.5	43.44	H
2831.212884	53.24	10.4	42.84	V
2903.602115	53.34	10.6	42.74	H
2943.83	53.6	10.5	43.1	V
2985.805192	53.73	11	42.73	H

Ch12 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15405.1522	56	23.2	32.8	V
16098.76113	58.81	24.7	34.11	V
16814.8274	59.86	27.3	32.56	H
17414.11787	60.33	28.4	31.93	V
17572.30527	61.66	29.4	32.26	H
17963.83327	61.21	30	31.21	V

Ch12 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity

15405.1522	43.91	23.2	20.71	V
16098.76113	46.65	24.7	21.95	V
16814.8274	47.03	27.3	19.73	H
17414.11787	48.35	28.4	19.95	V
17572.30527	49.6	29.4	20.2	H
17963.83327	49.51	30	19.51	V

802.11n-20Mhz

Ch13 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
31.71044	17.44	-26.1	43.54	V
39.756364	19.78	-23.8	43.58	V
54.511096	9.66	-23.8	33.46	V
88.544688	22.24	-25.8	48.04	H
185.887024	17.45	-25.2	42.65	H
908.119672	19.64	-9.1	28.74	H

Ch13 1GHz~3GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2665.27077	53	9.4	43.6	V
2739.551924	52.13	9.4	42.73	V
2851.454808	53.18	10.8	42.38	V
2902.7825	53.28	10.6	42.68	V
2953.064423	53.33	10.5	42.83	H
2965.343269	52.73	10.7	42.03	H

Ch13 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14034.37687	53.63	18.6	35.03	H

14910.7272	56.29	22.2	34.09	V
15965.92673	58.84	25.1	33.74	V
16516.61727	59.14	26.7	32.44	V
17117.73247	59.71	27.1	32.61	V
17622.8974	61.75	29.3	32.45	V

Ch13 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14034.37687	40.95	18.6	22.35	H
14910.7272	43.94	22.2	21.74	V
15965.92673	46.66	25.1	21.56	V
16516.61727	46.6	26.7	19.9	V
17117.73247	48.06	27.1	20.96	V
17622.8974	49.77	29.3	20.47	V

802.11n-40Mhz

Ch10 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.68942	10.48	-26.7	37.18	V
88.56162	19.53	-25.8	45.33	H
168.99936	17.42	-26.4	43.82	H
382.992736	11.52	-18.5	30.02	V
484.936248	14.78	-16.2	30.98	V
868.331544	19.07	-9.8	28.87	V

Ch10 1GHz~3GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2598.881346	51.92	8.7	43.22	H
2666.646538	52.66	9.4	43.26	H
2717.179424	52.28	9.4	42.88	H

2831.320384	53.39	10.4	42.99	H
2903.504423	53.2	10.6	42.6	H
2984.396539	53.28	11	42.28	H

Ch10 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14891.2168	55.95	22	33.95	V
15828.5042	59.19	24.7	34.49	V
16493.63907	58.9	26.9	32	V
16808.1012	59.54	27.4	32.14	H
17494.25413	60.71	29.1	31.61	V
17972.69453	61.94	30	31.94	H

Ch10 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14891.2168	44.16	22	22.16	V
15828.5042	46.39	24.7	21.69	V
16493.63907	46.71	26.9	19.81	V
16808.1012	47.38	27.4	19.98	H
17494.25413	49	29.1	19.9	V
17972.69453	49.93	30	19.93	H

802.11n-40Mhz

Ch11 30MHz~1GHz

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.143272	8.66	-26.6	35.26	V
38.965708	9.91	-24.3	34.21	V
88.545668	20.09	-25.8	45.89	H
187.293184	15.97	-25.1	41.07	H
600.74262	16.2	-13.8	30	V

951.928372	20.19	-8.8	28.99	H

Ch11 1GHz~3GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2571.375961	51.3	8.5	42.8	H
2710.268462	52.9	9.4	43.5	V
2751.195	51.97	9.4	42.57	V
2843.315	53.29	10.6	42.69	V
2893.280769	53.97	10.7	43.27	H
2987.049808	53.87	11	42.87	H

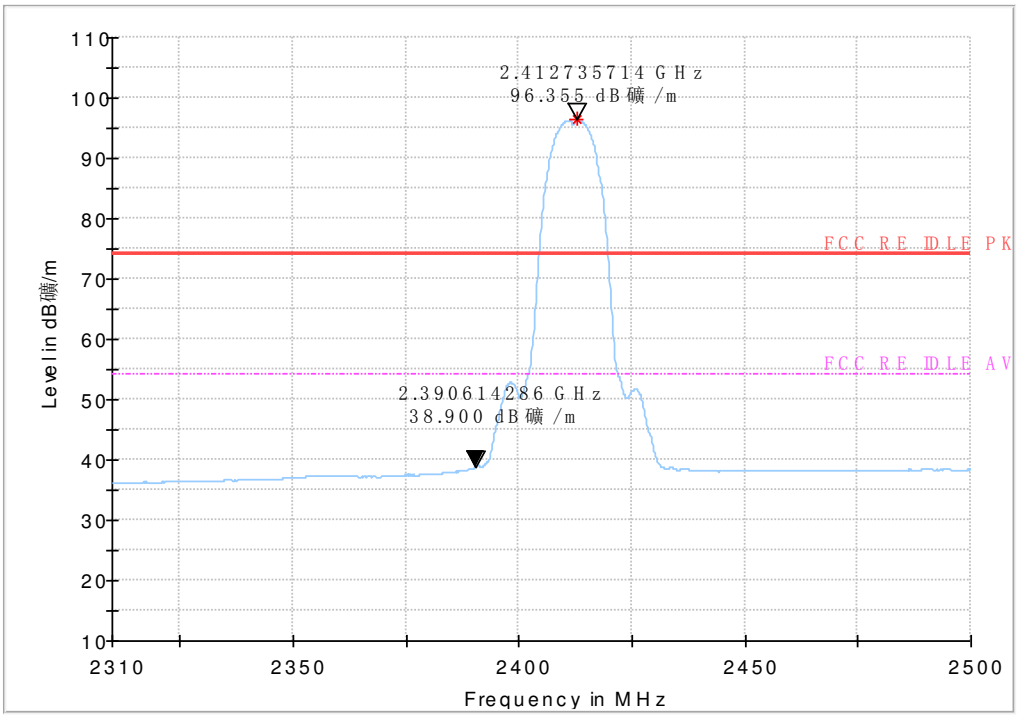
Ch11 3GHz~18GHz(Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14914.0934	57.12	22.1	35.02	V
15780.3042	58.51	24.5	34.01	H
16139.29227	59	25.1	33.9	V
16468.27707	58	26.5	31.5	H
16890.99573	59.54	27.1	32.44	H
17560.54627	62.05	29.4	32.65	V

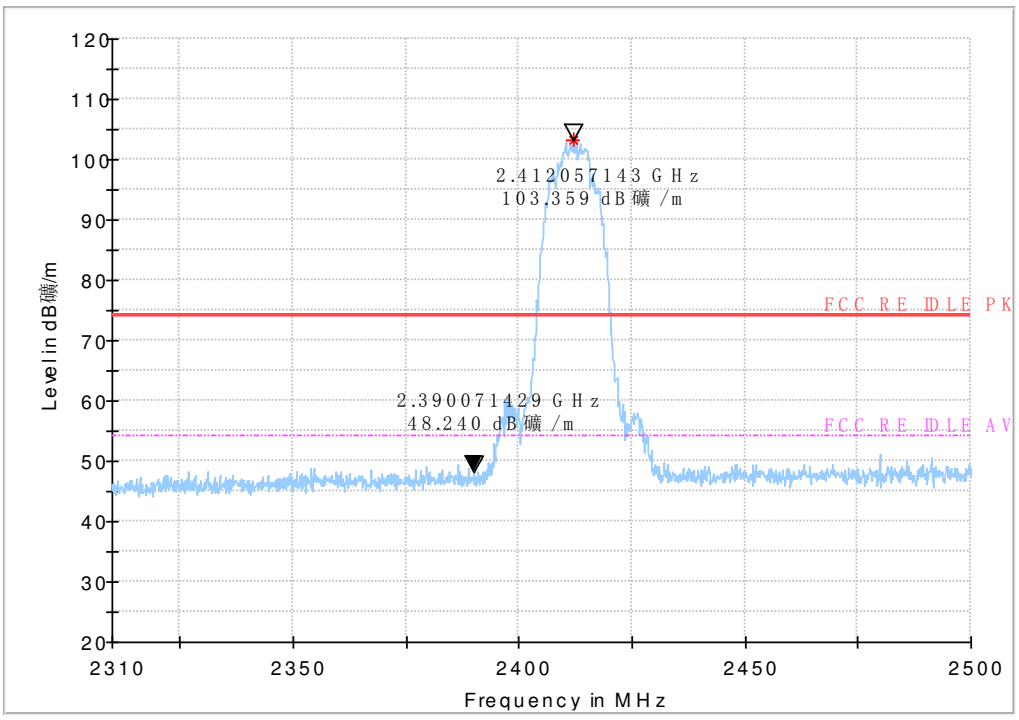
Ch11 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14914.0934	43.96	22.1	21.86	V
15780.3042	46.02	24.5	21.52	H
16139.29227	47.01	25.1	21.91	V
16468.27707	45.9	26.5	19.4	H
16890.99573	47.94	27.1	20.84	H
17560.54627	49.47	29.4	20.07	V

Test graphs as below:

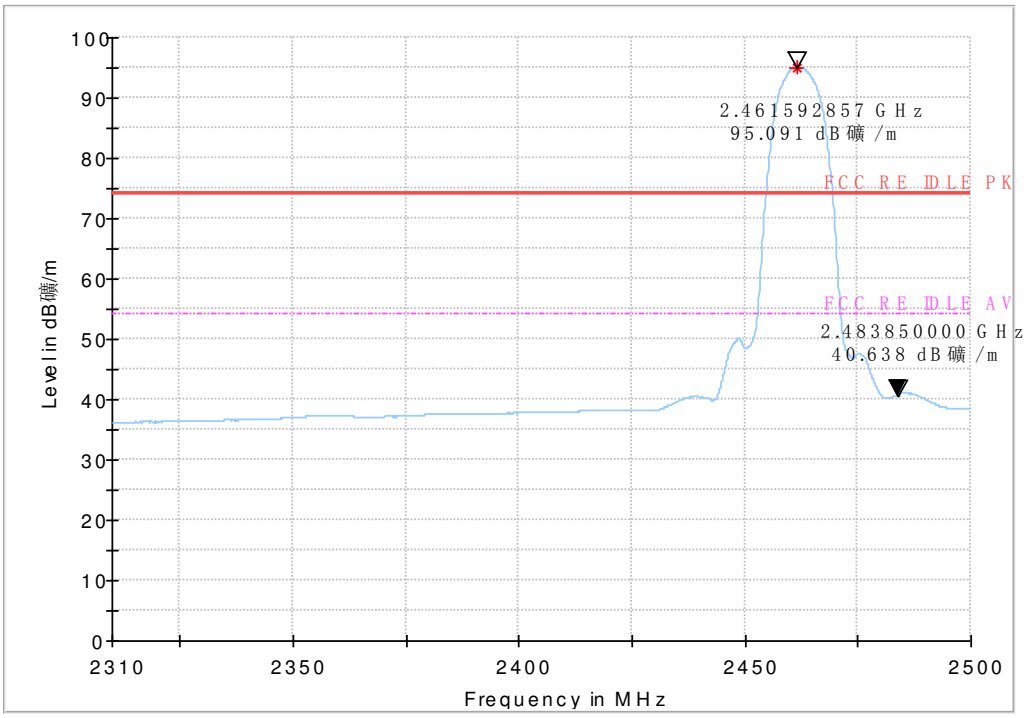


Average detector

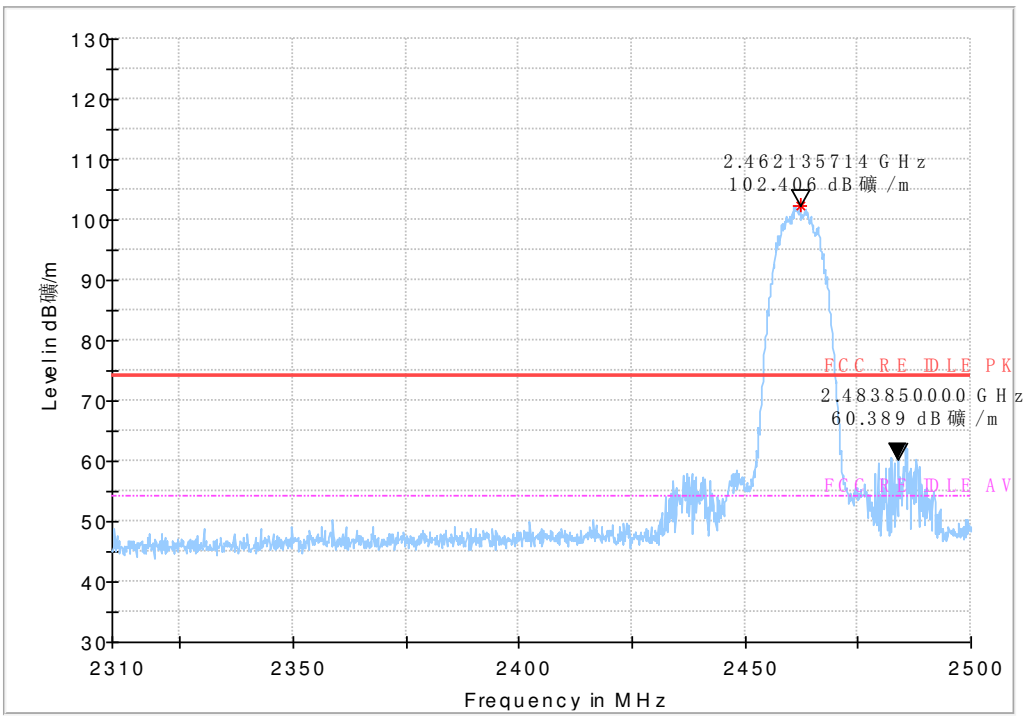


Peak detector

Fig.97 Radiated emission (Power): 802.11b, low channel



Average detector



Peak detector

Fig.98 Radiated emission (Power): 802.11b, high channel

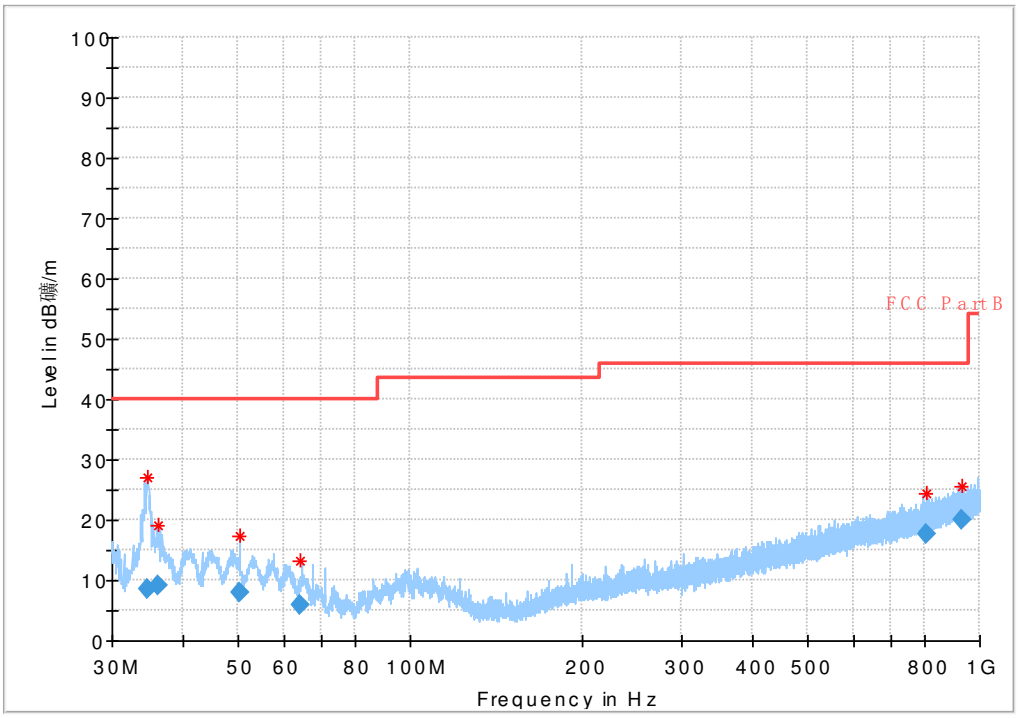


Fig.99 Radiated Spurious Emission (802.11b,Ch1,30MHz~1GHz)

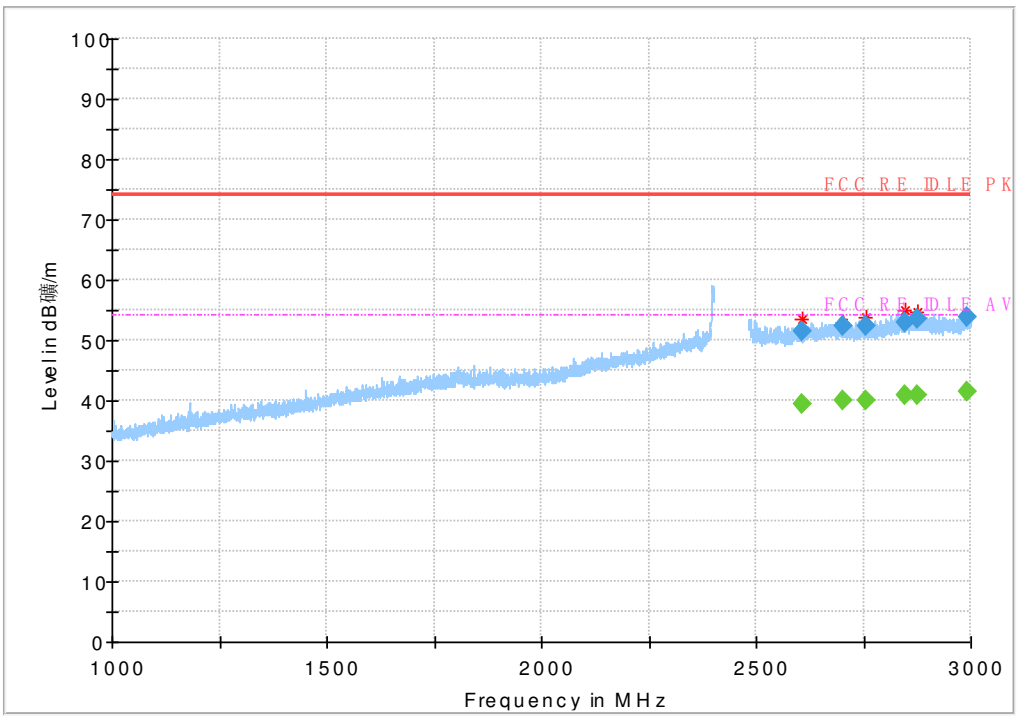


Fig.100 Radiated Spurious Emission (802.11b,Ch1,1GHz~3GHz)

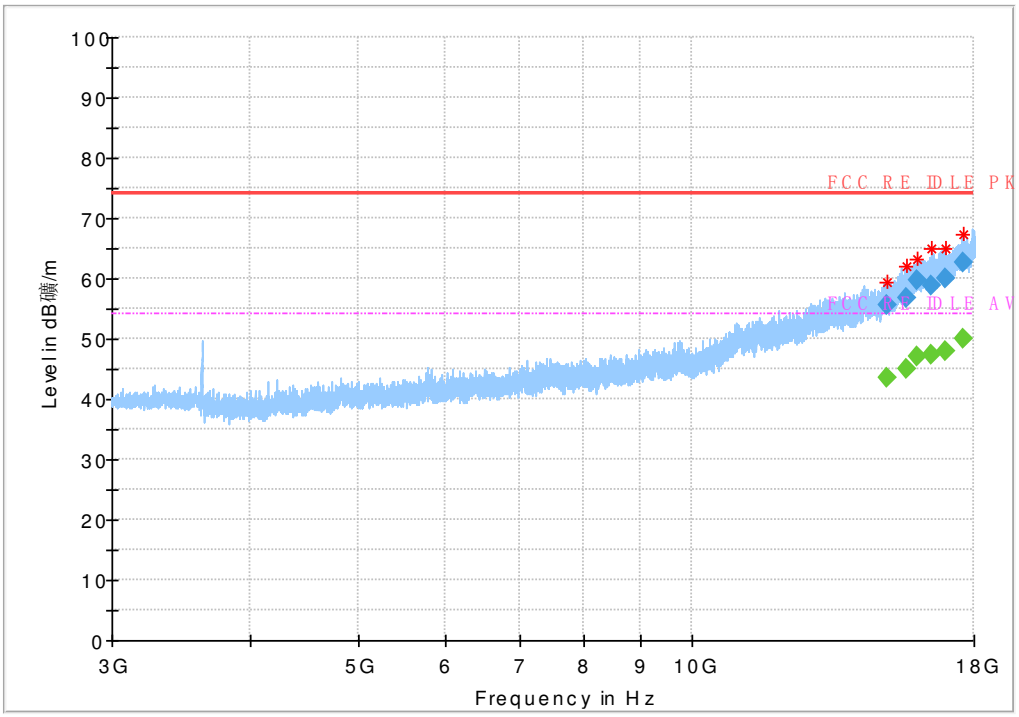
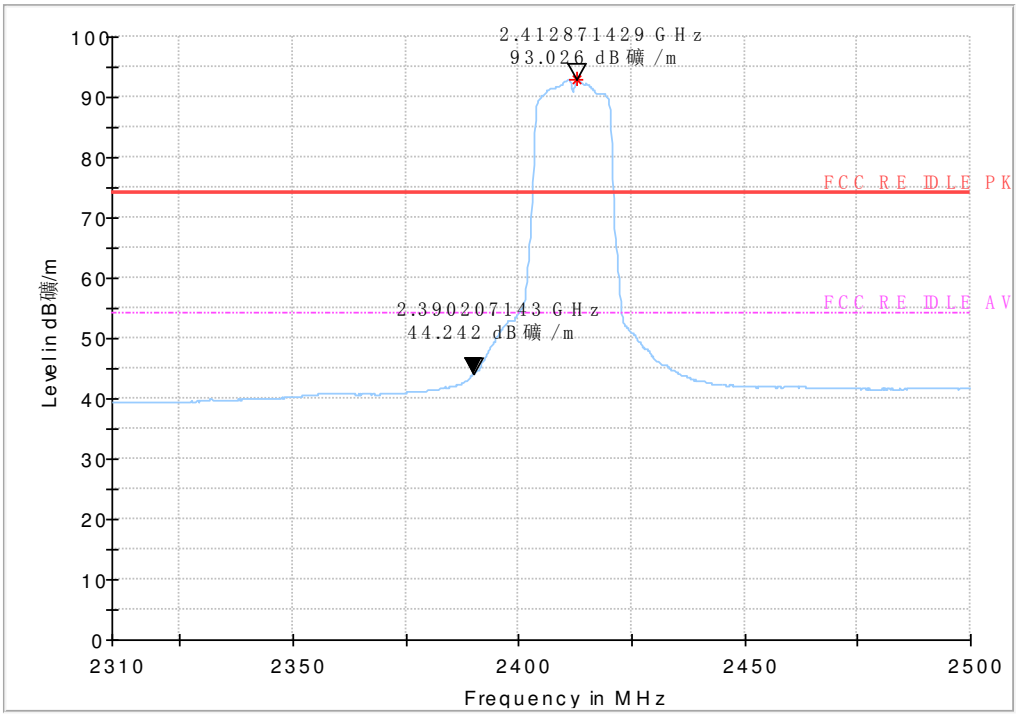
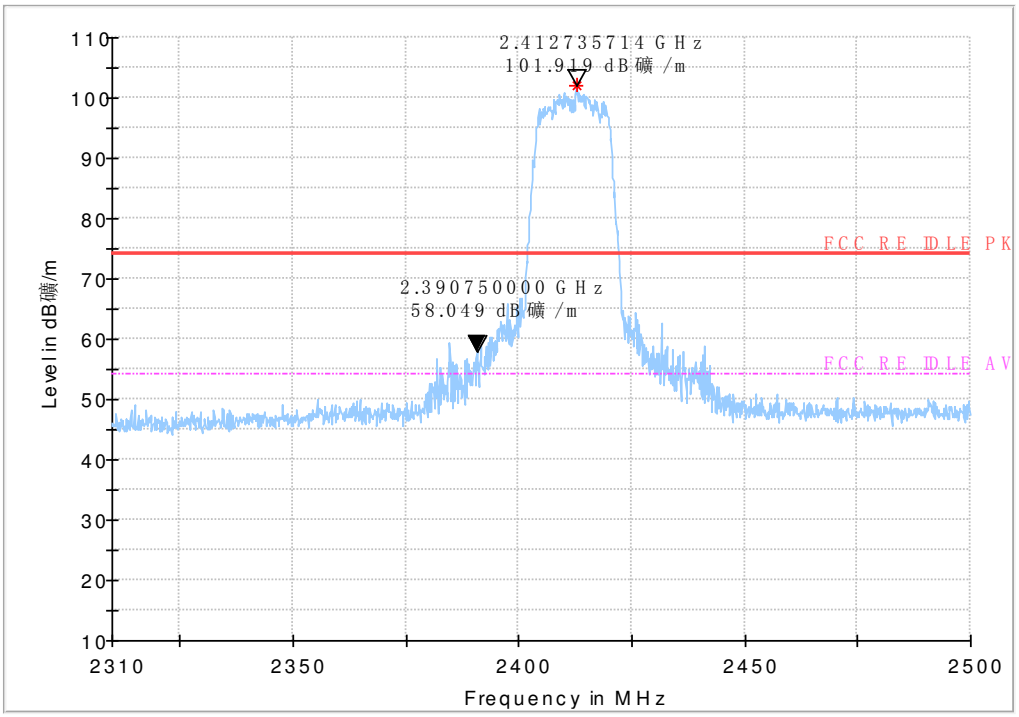


Fig.101 Radiated Spurious Emission (802.11b,Ch1,3GHz~18GHz)

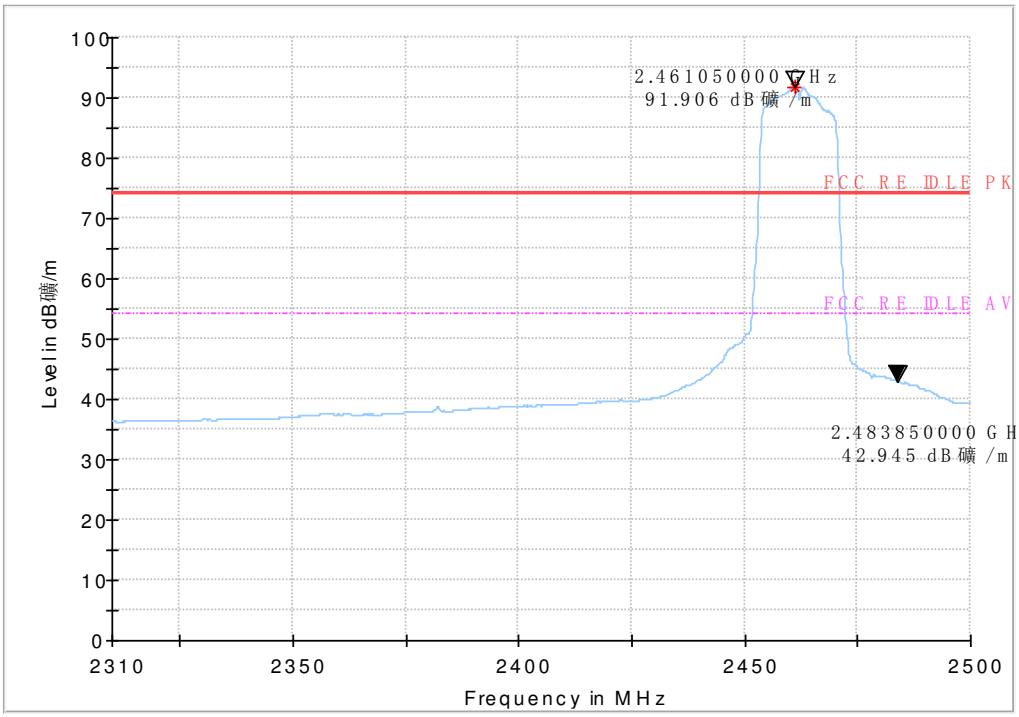


Average detector

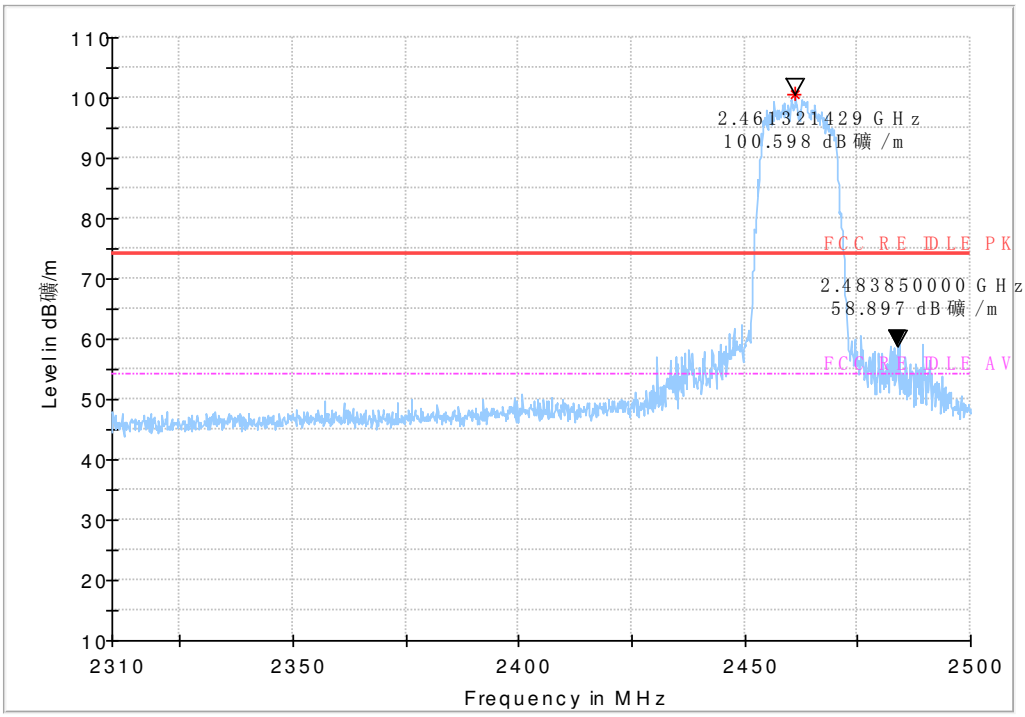


Peak detector

Fig.102 Radiated emission (Power): 802.11g, low channel



Average detector



Peak detector

Fig.103 Radiated emission (Power): 802.11g, high channel

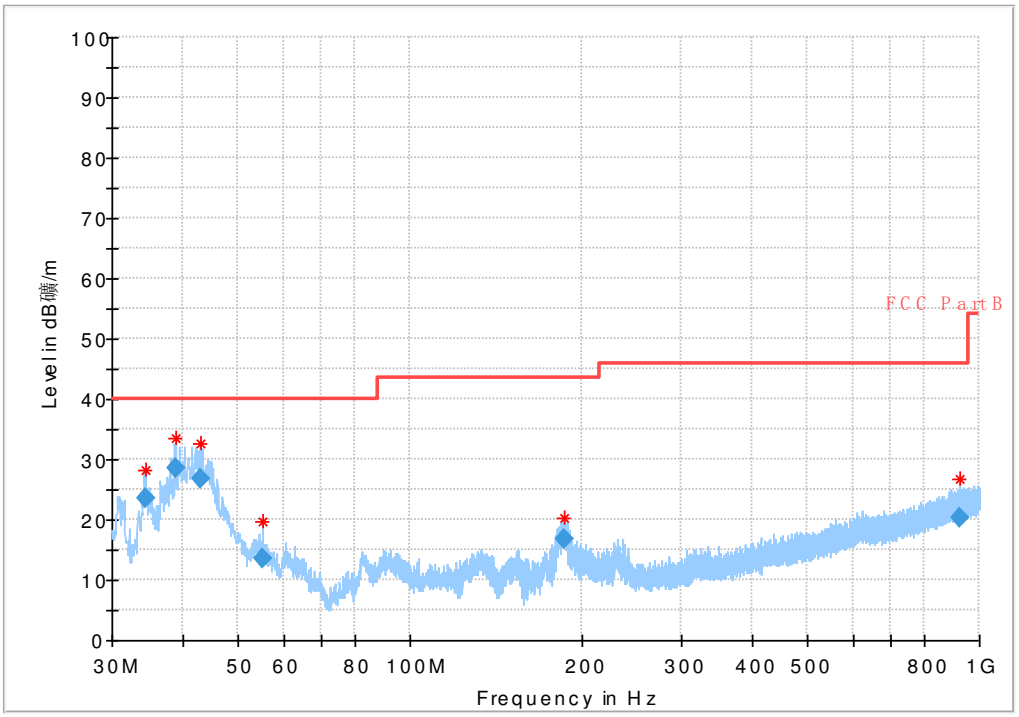


Fig.104 Radiated Spurious Emission (802.11g,Ch1,30MHz~1GHz)

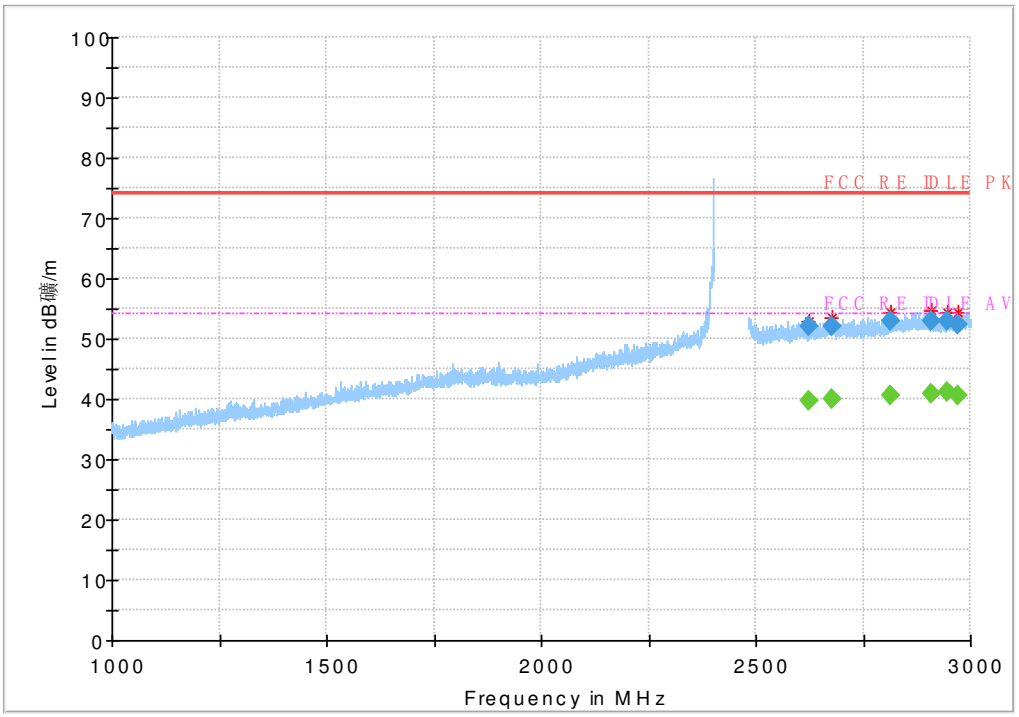


Fig.105 Radiated Spurious Emission (802.11g,Ch1,1GHz~3GHz)

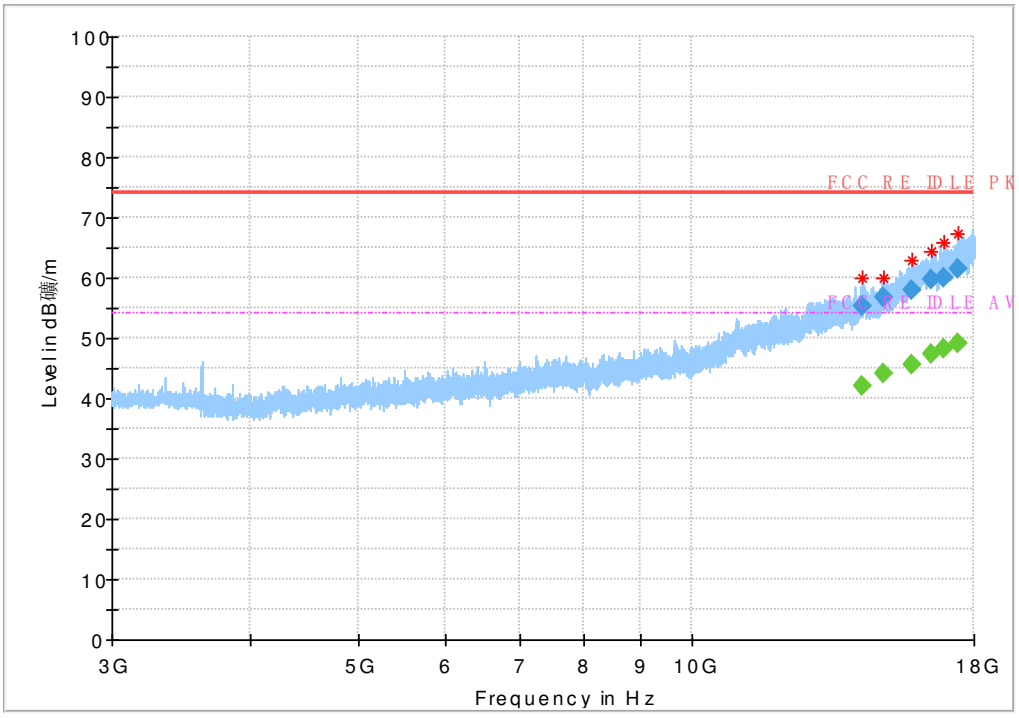
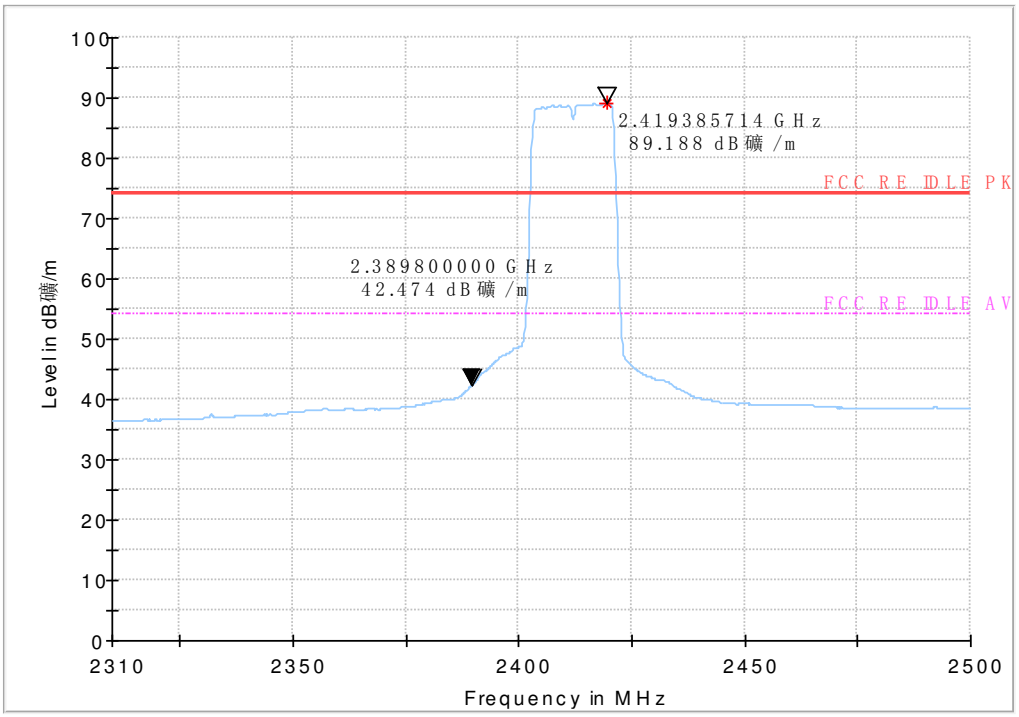
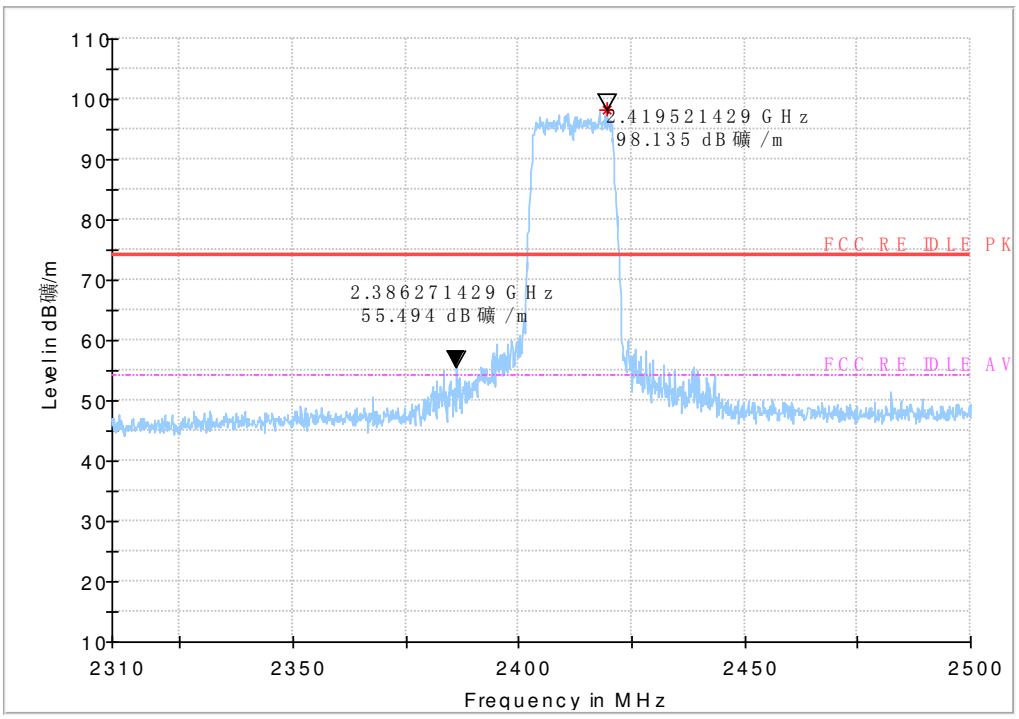


Fig.106 Radiated Spurious Emission (802.11g,Ch1,3GHz~18GHz)

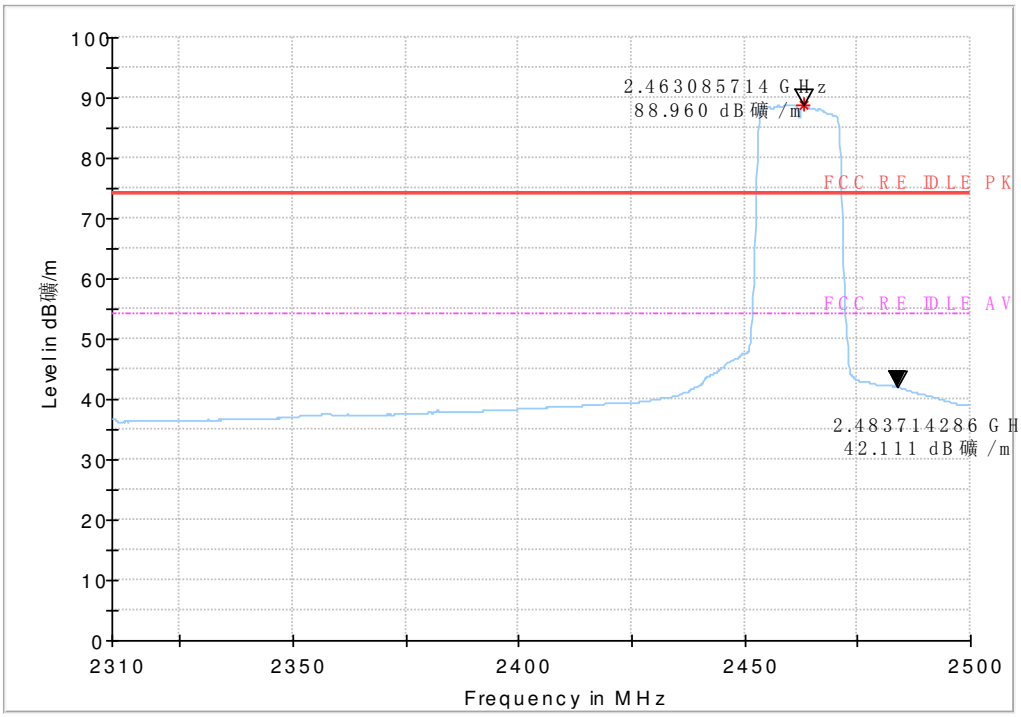


AV detector

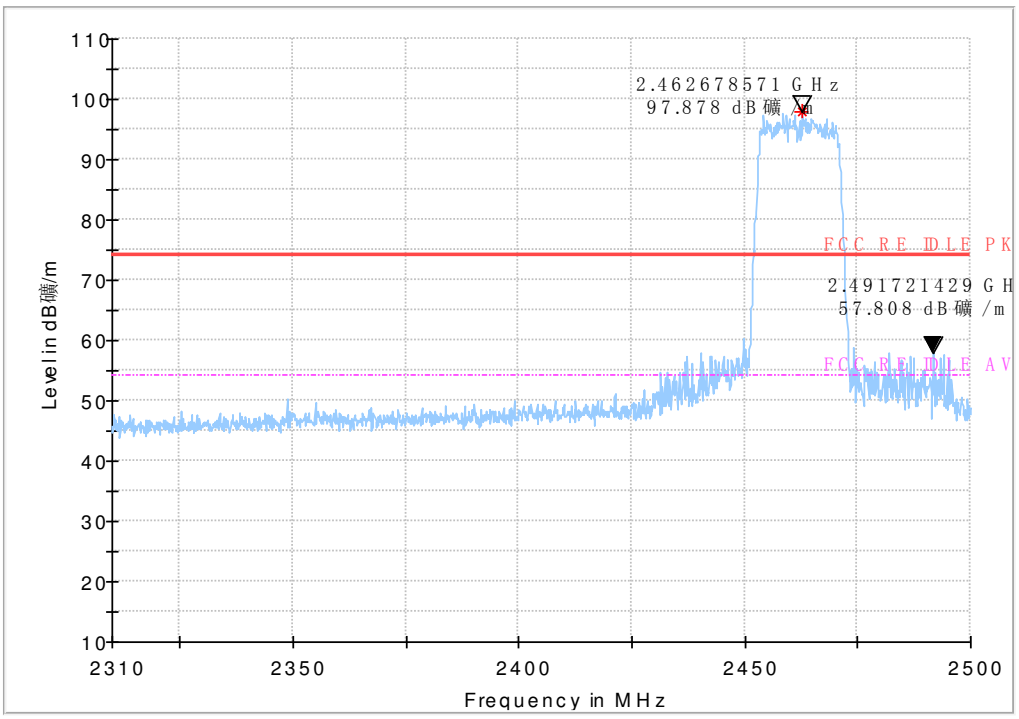


Peak detector

Fig.107 Radiated emission (Power): 802.11n, low channel



AV detector



Peak detector

Fig.108 Radiated emission (Power): 802.11n, high channel

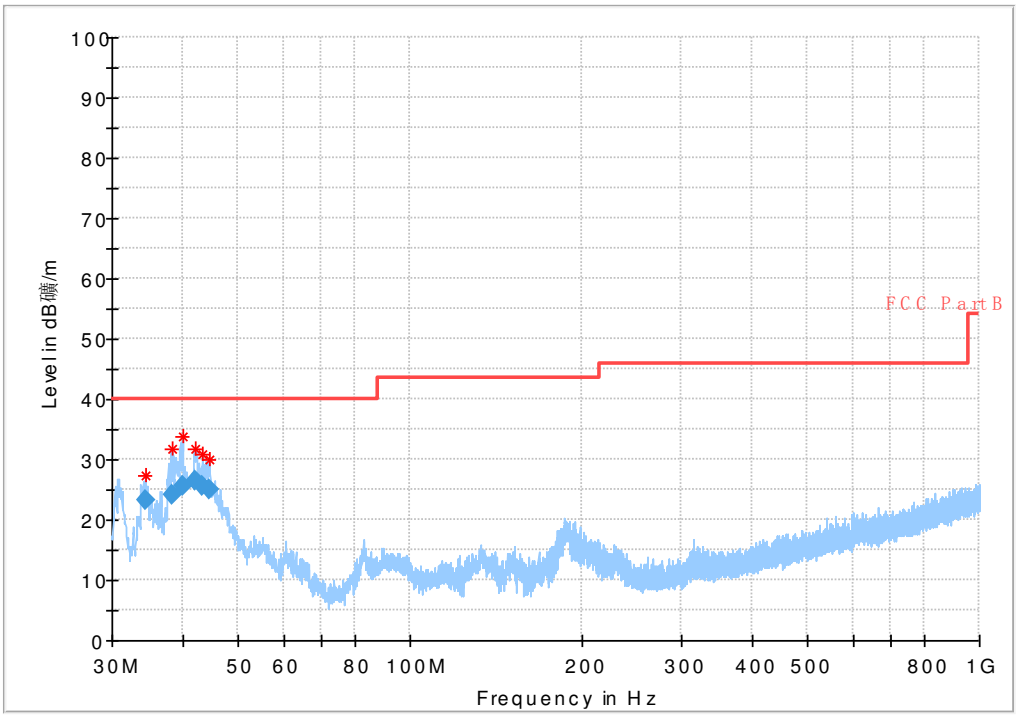


Fig.109 Radiated Spurious Emission (802.11 n-20MHz,Ch1,30MHz~1GHz)

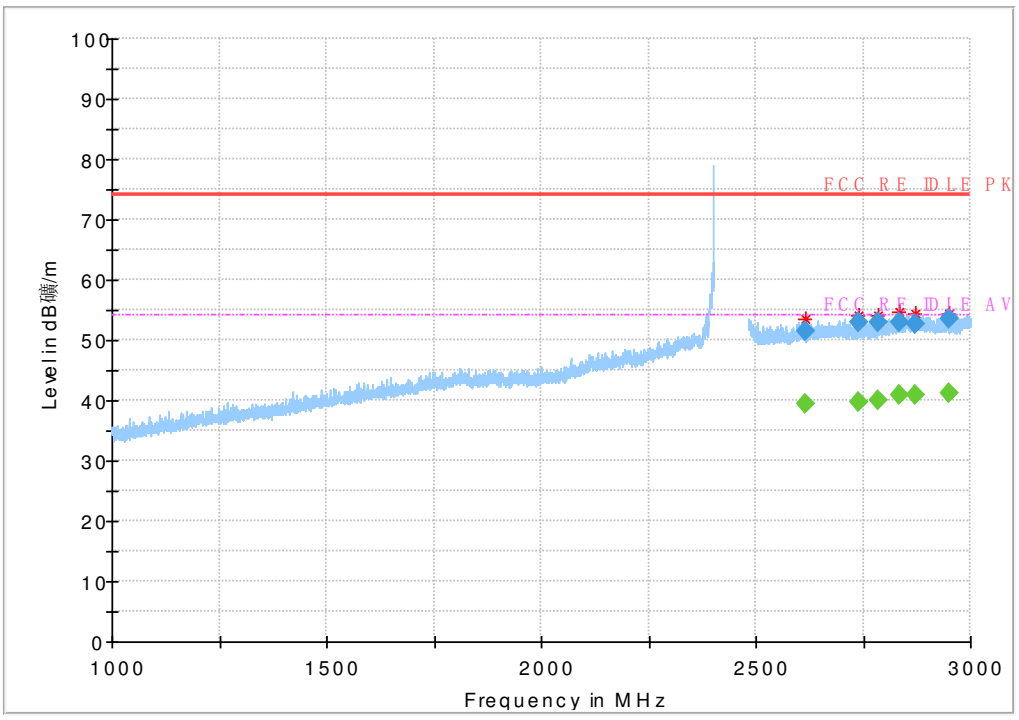


Fig.110 Radiated Spurious Emission (802.11 n-20MHz,Ch1,1GHz~3GHz)

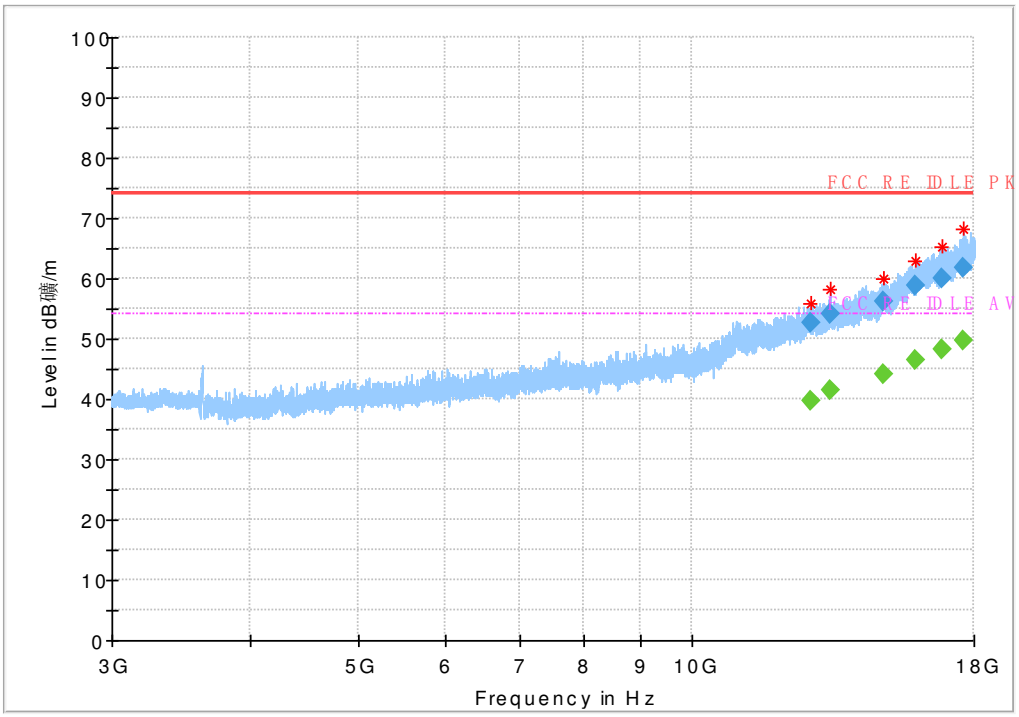
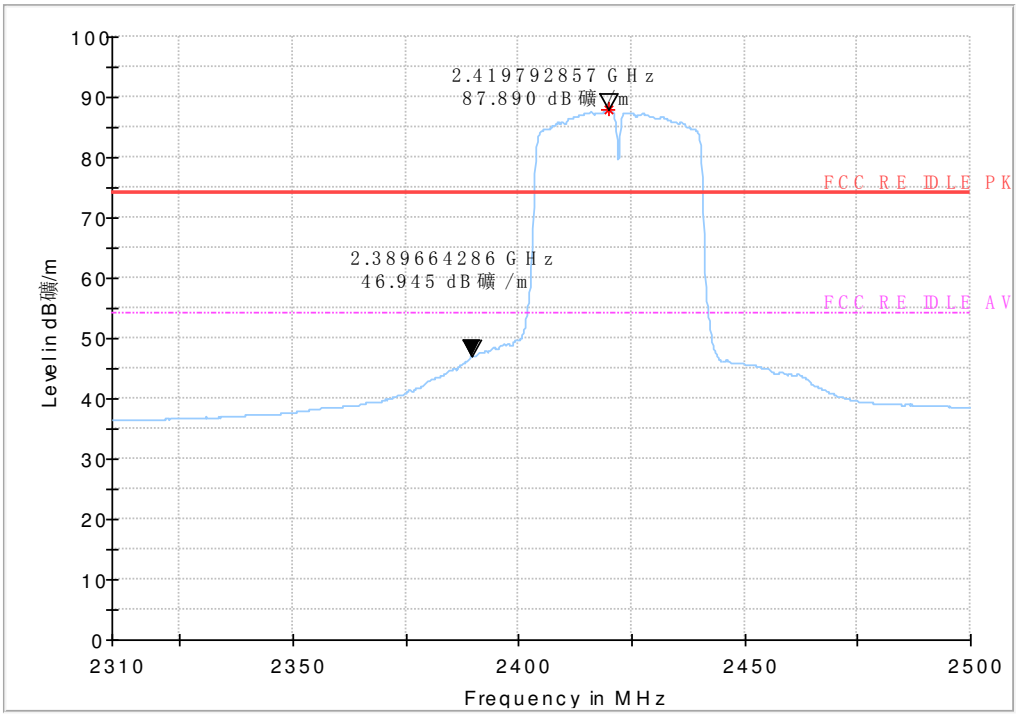
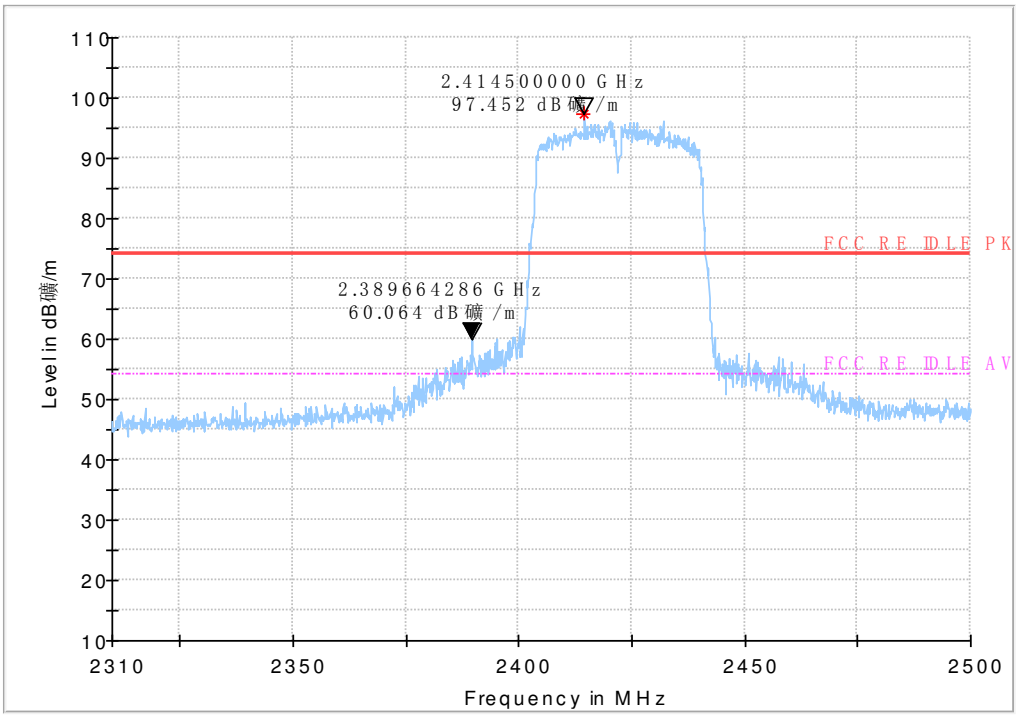


Fig.111 Radiated Spurious Emission (802.11 n-20MHz,Ch1,3GHz~18GHz)

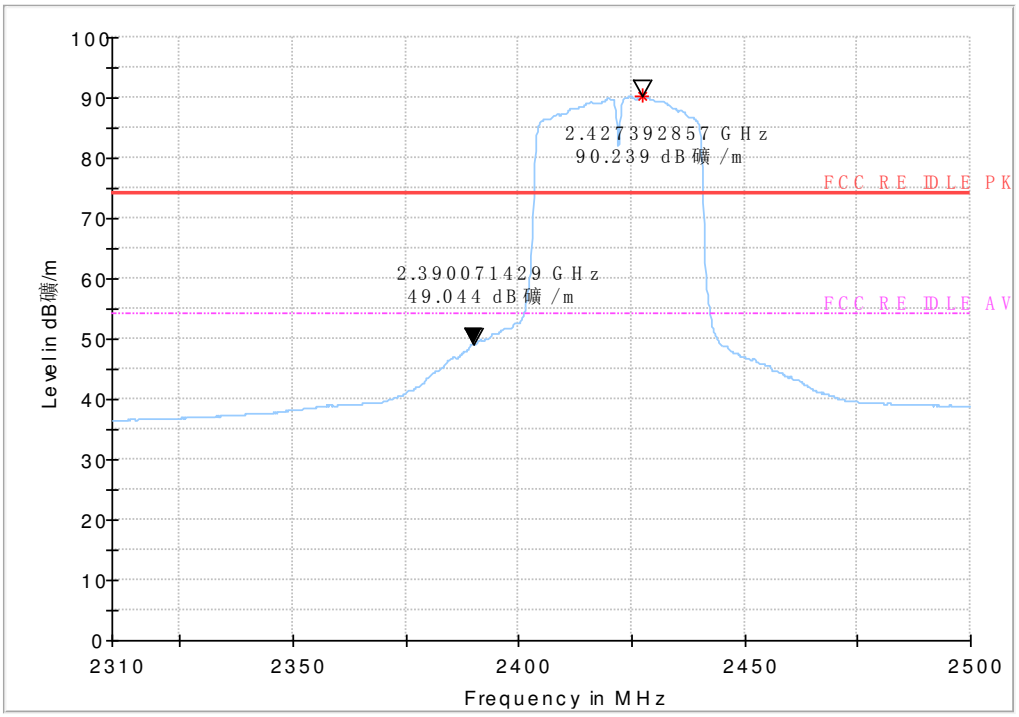


Average detector

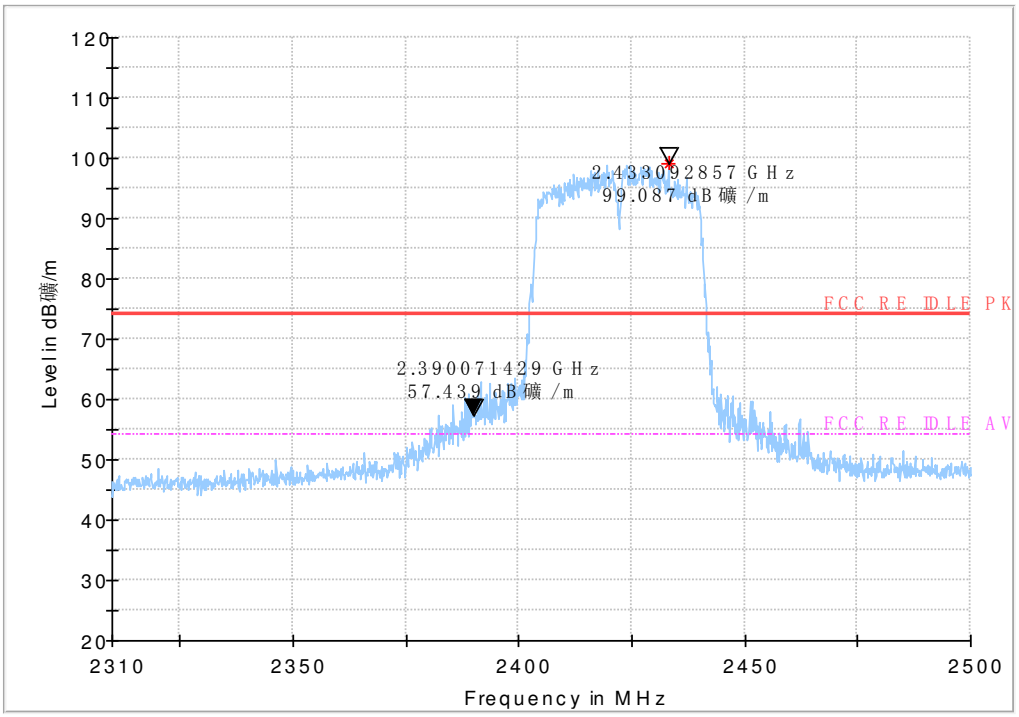


Peak detector

Fig.112 Radiated emission (Power): 802.11n（40M）, low channel



Average detector



Peak detector

Fig.113 Radiated emission (Power): 802.11n（40M）, high channel

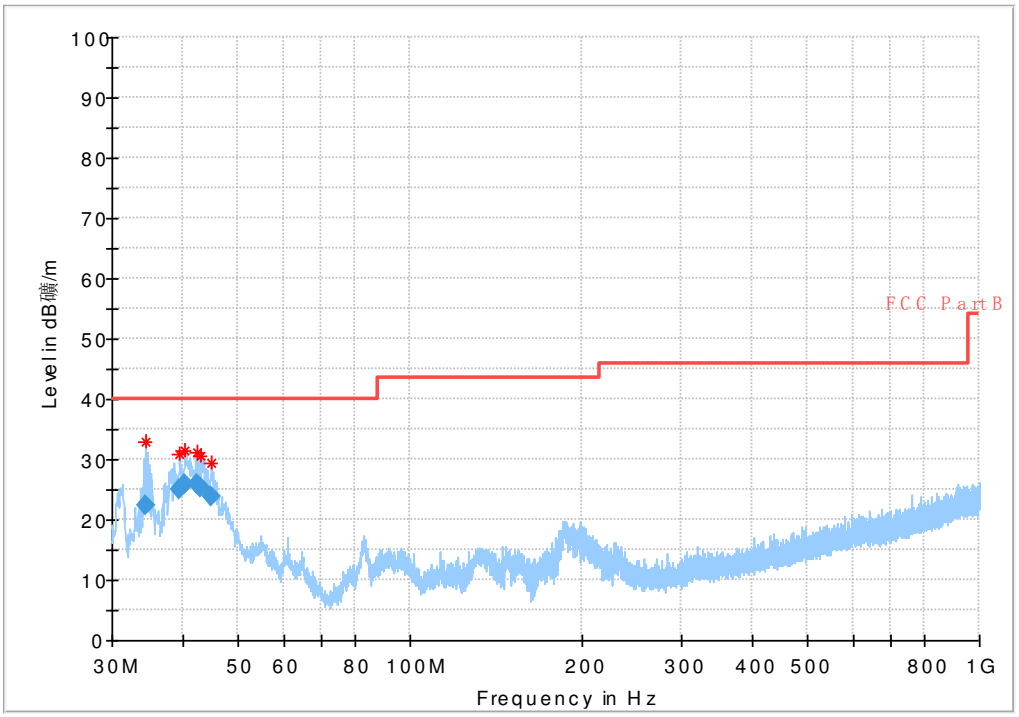


Fig.114 Radiated Spurious Emission (802.11 n-40MHz,Ch3,30MHz~1GHz)

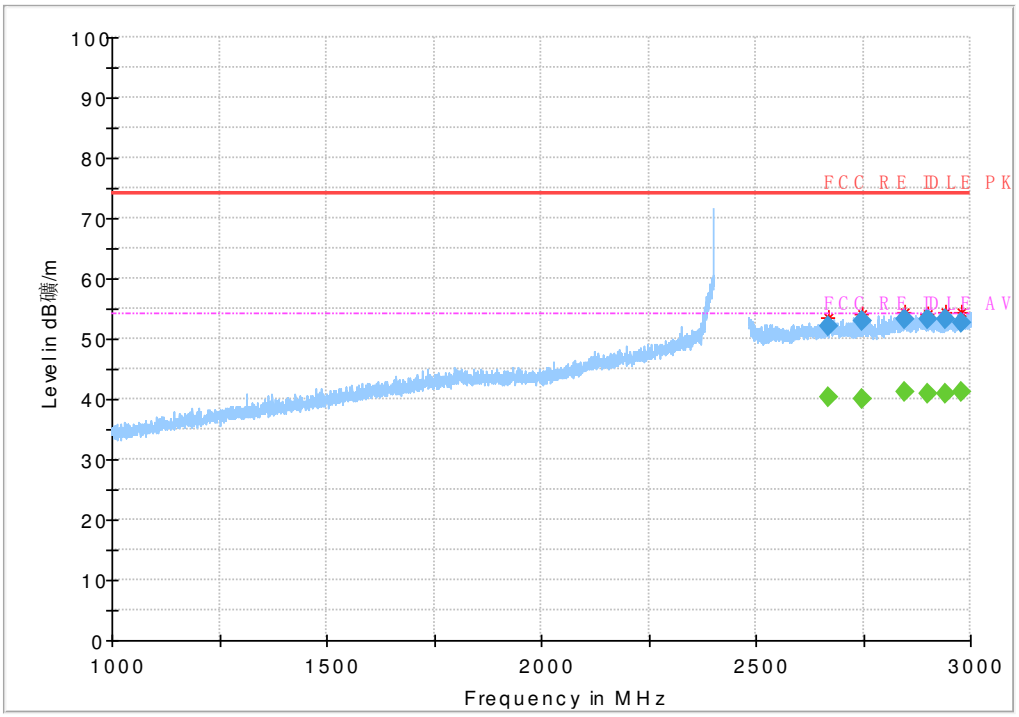


Fig.115 Radiated Spurious Emission (802.11 n-40MHz,Ch3,1GHz~3GHz)

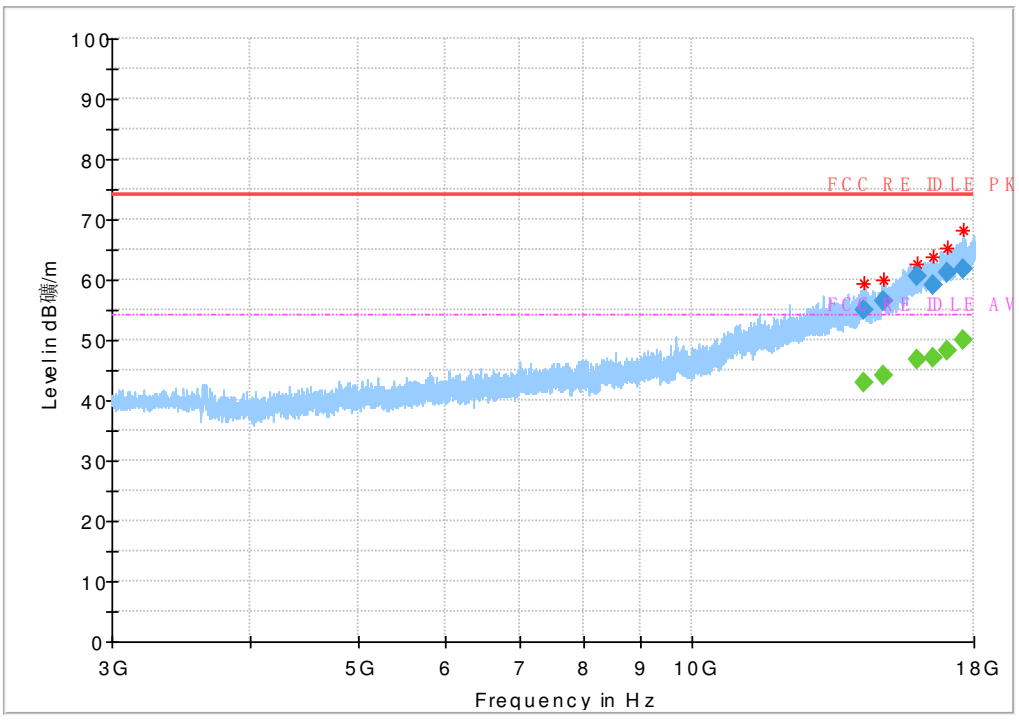
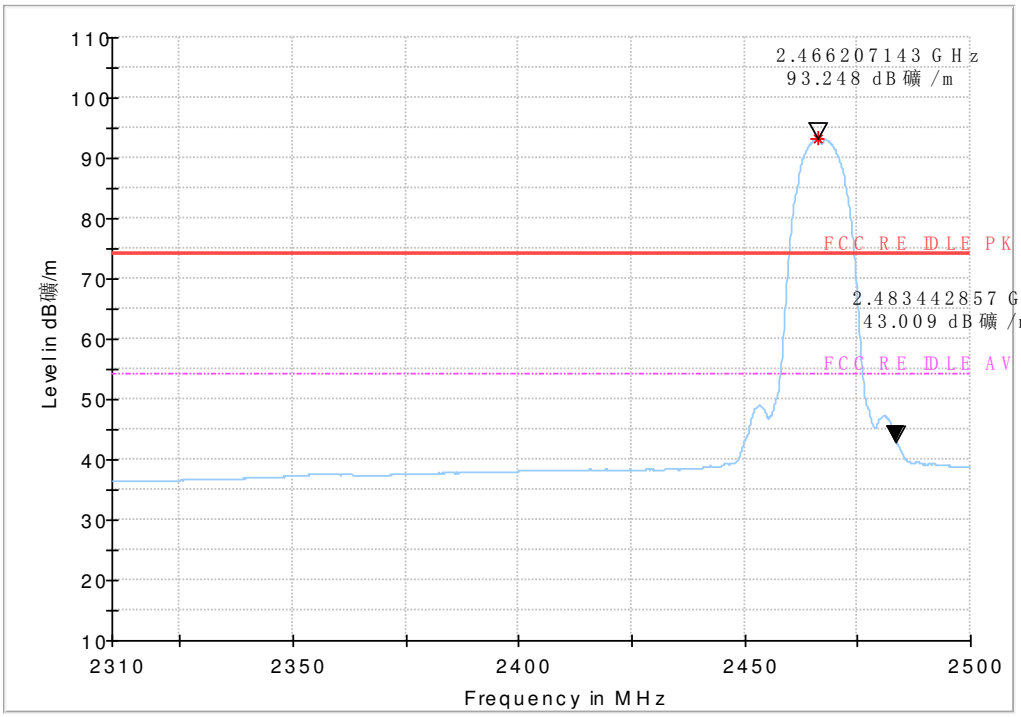
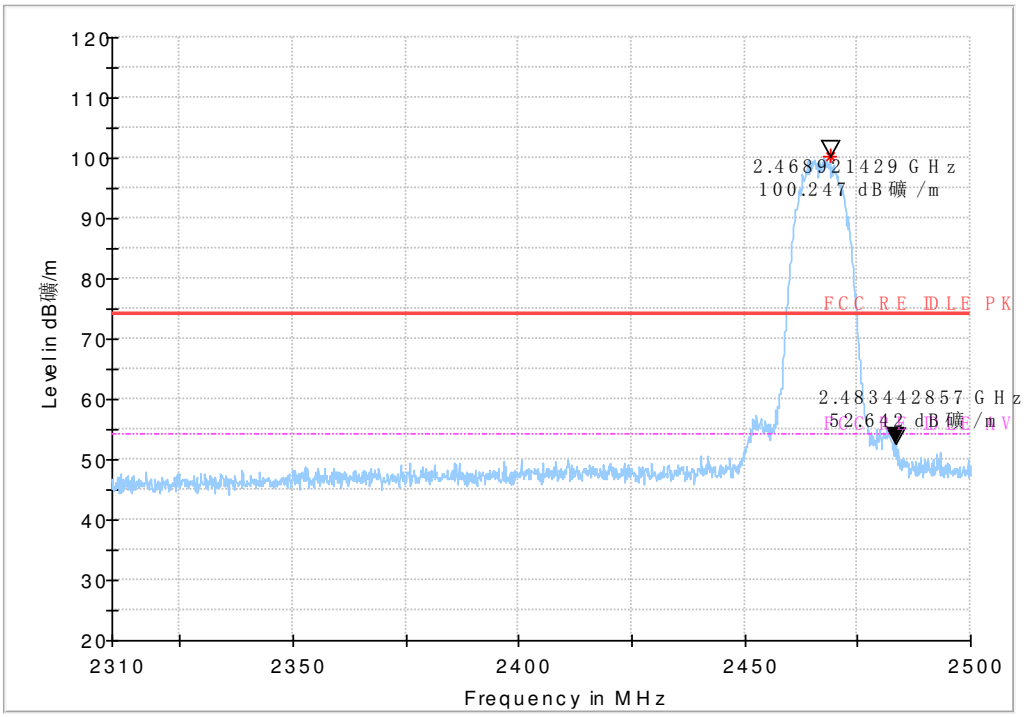


Fig.116 Radiated Spurious Emission (802.11 n-40MHz,Ch3,3GHz~18GHz)



Average detector

Fig.117 Radiated emission (Power): 802.11b,Ch12



Peak detector

Fig.118 Radiated emission (Power): 802.11b,Ch12

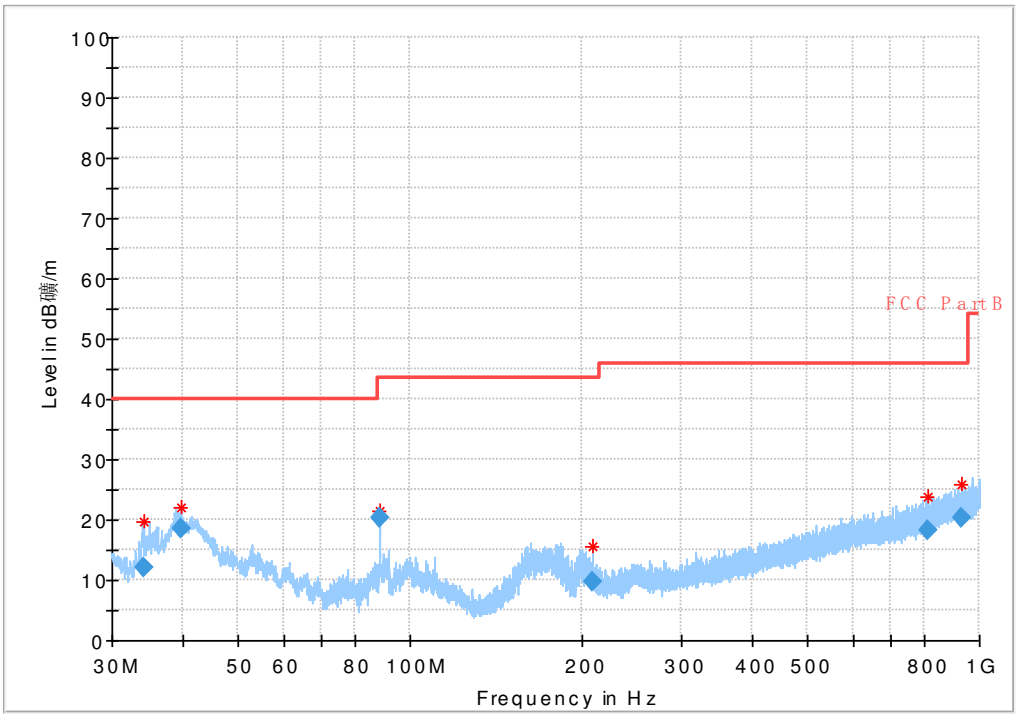


Fig.119 Radiated Spurious Emission (802.11b,Ch12,30MHz~1GHz)

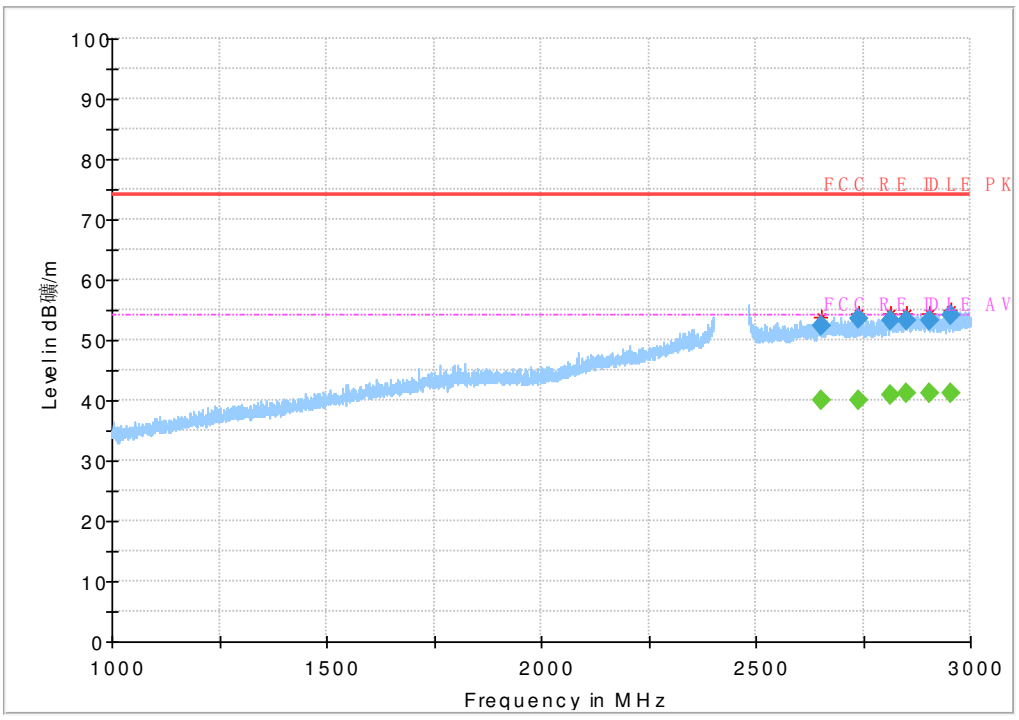


Fig.120 Radiated Spurious Emission (802.11b,Ch12,1GHz~3GHz)

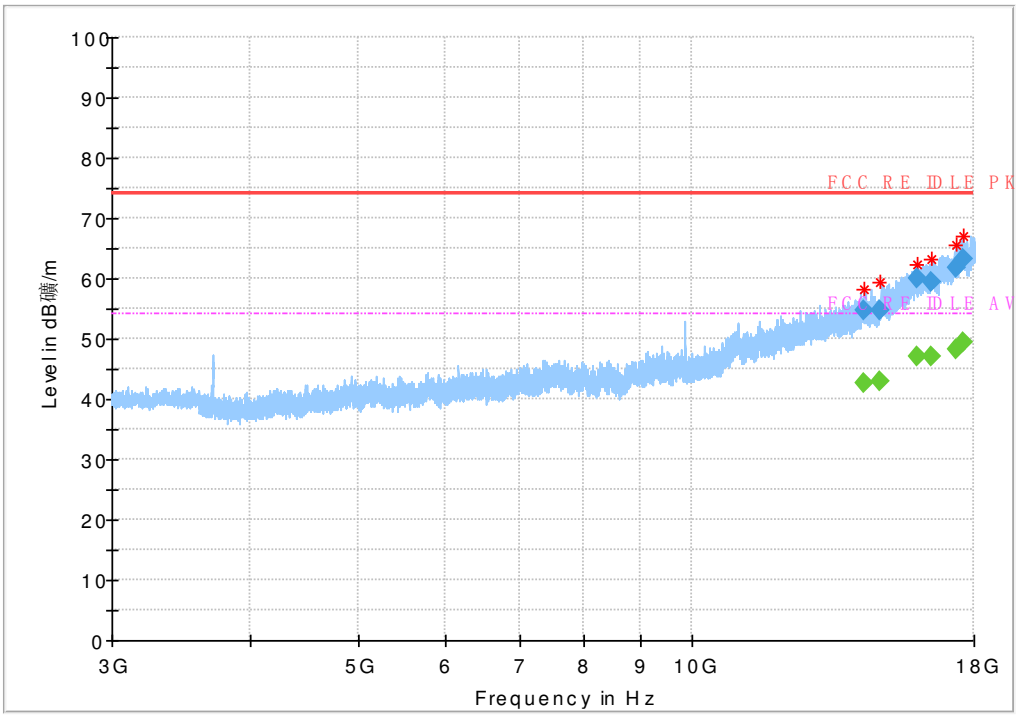
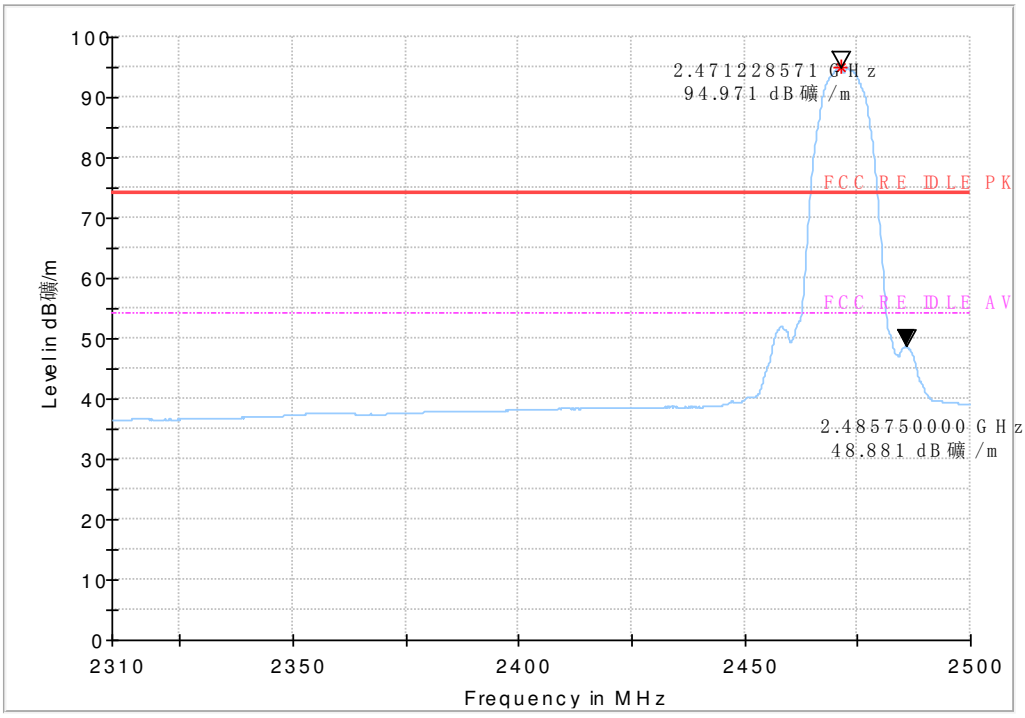
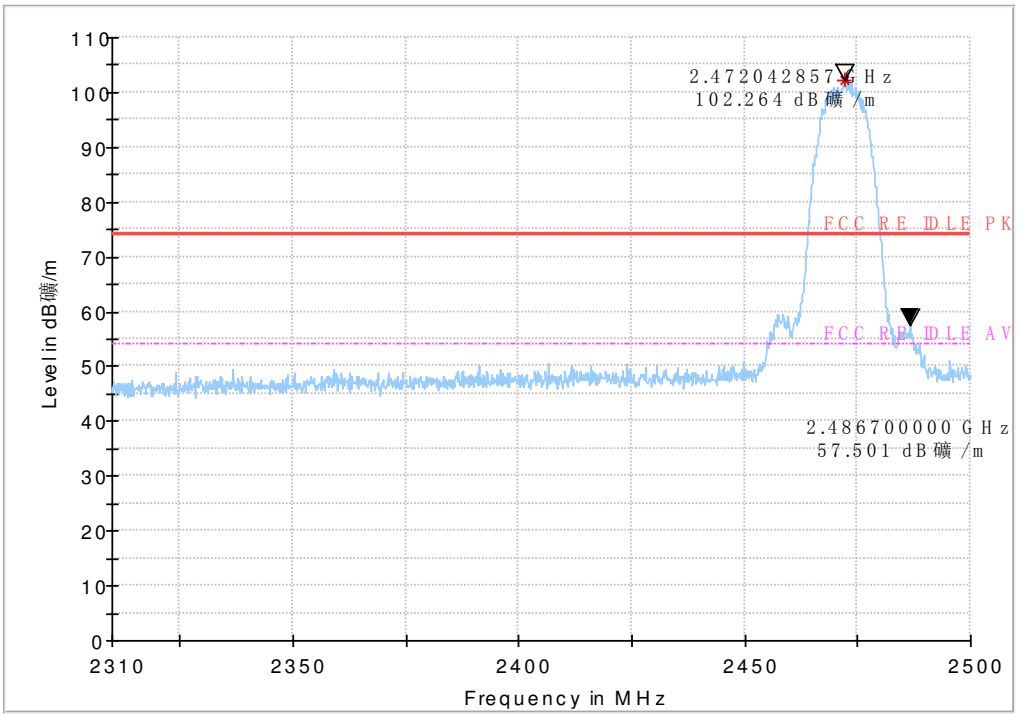


Fig.121 Radiated Spurious Emission (802.11b,Ch12,3GHz~18GHz)



Average detector

Fig.122 Radiated emission (Power): 802.11b,Ch13



Peak detector

Fig.123 Radiated emission (Power): 802.11b,Ch13

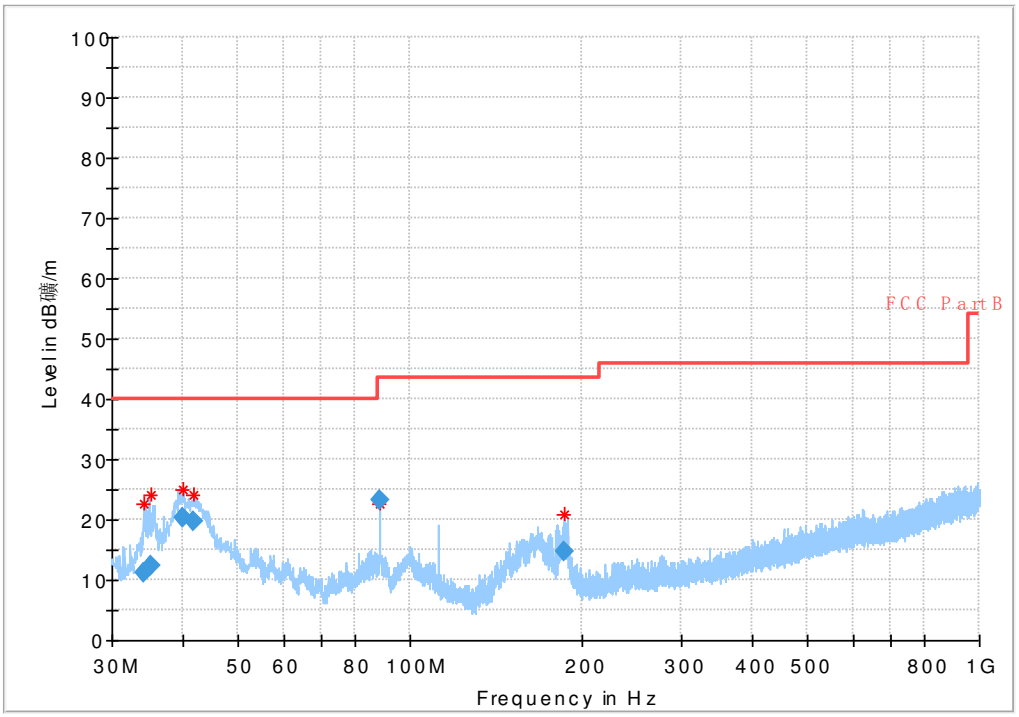


Fig.124 Radiated Spurious Emission (802.11b,Ch13,30MHz~1GHz)

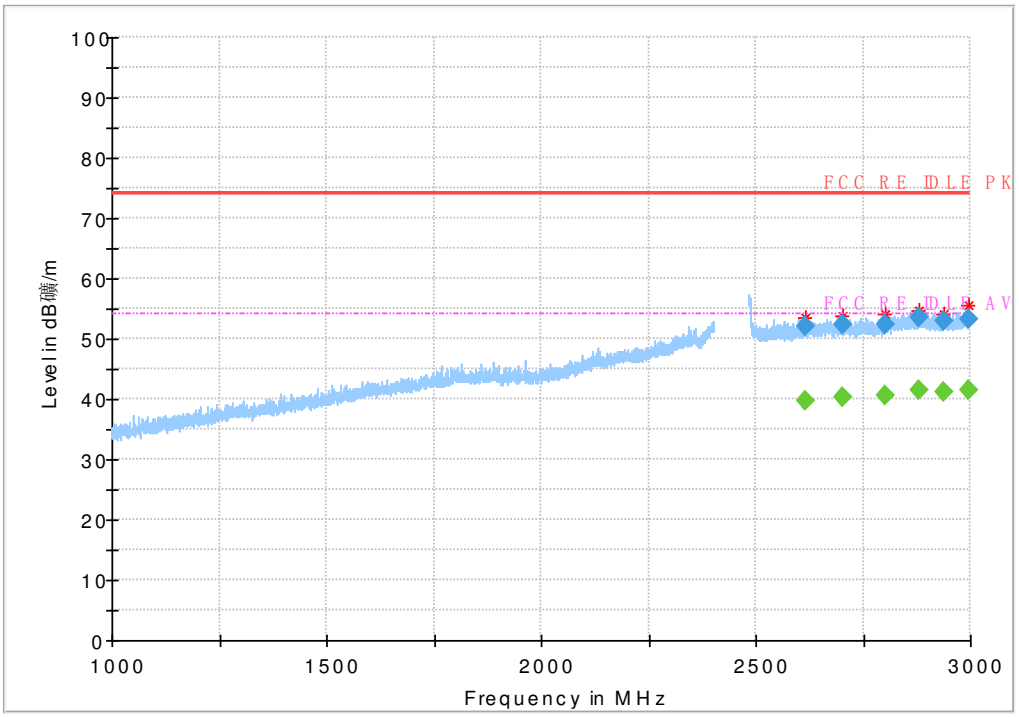


Fig.125 Radiated Spurious Emission (802.11b,Ch13,1GHz~3GHz)

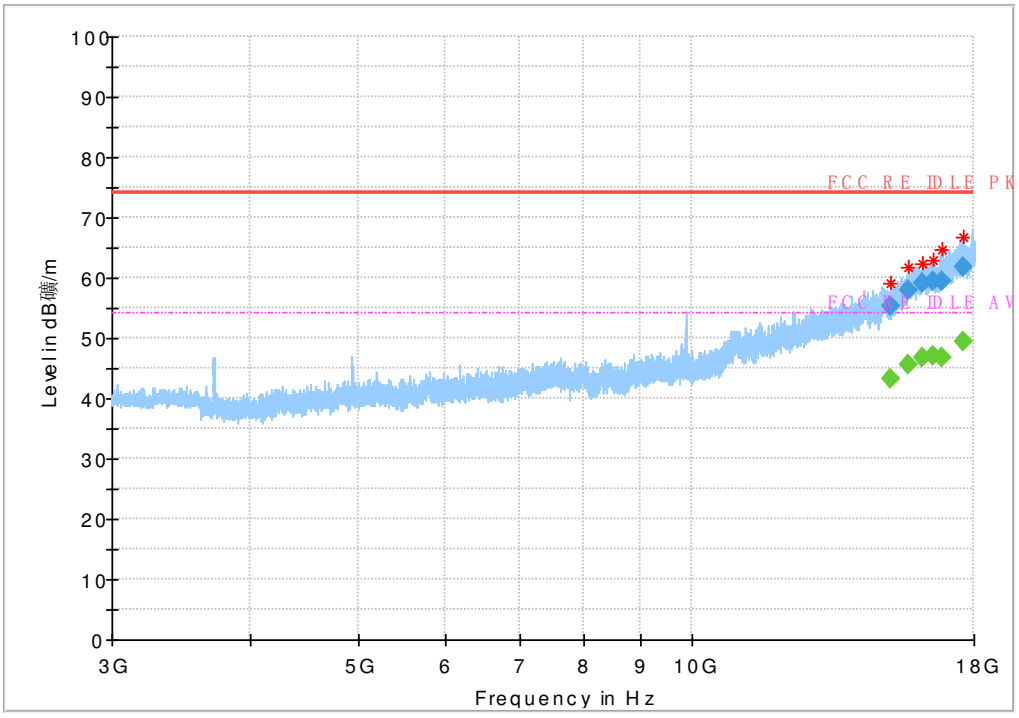
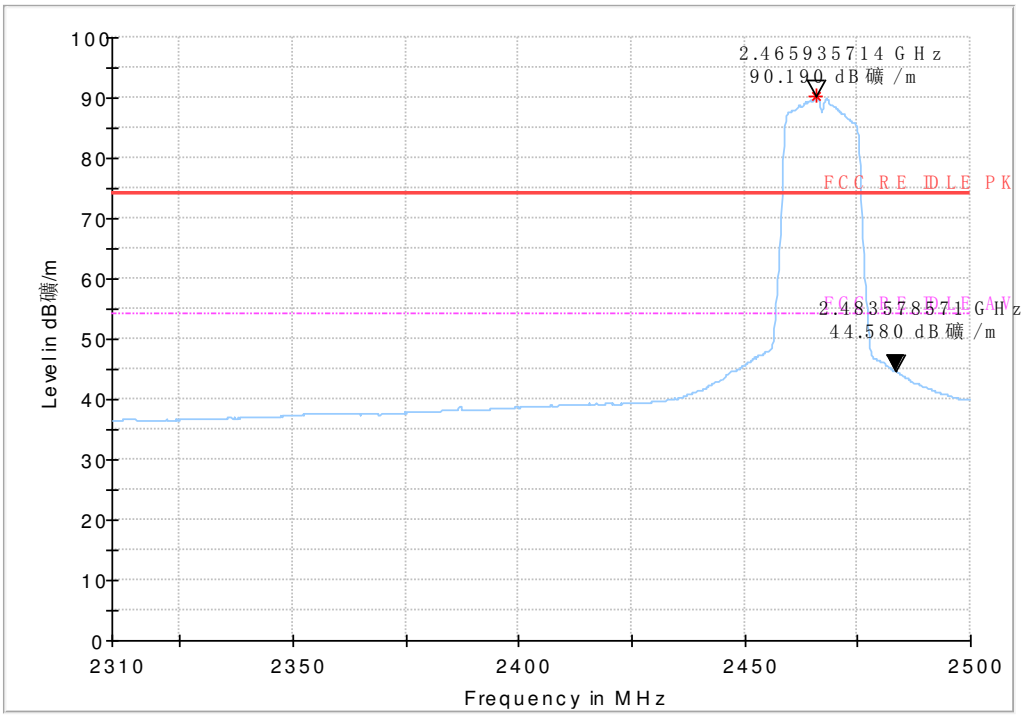
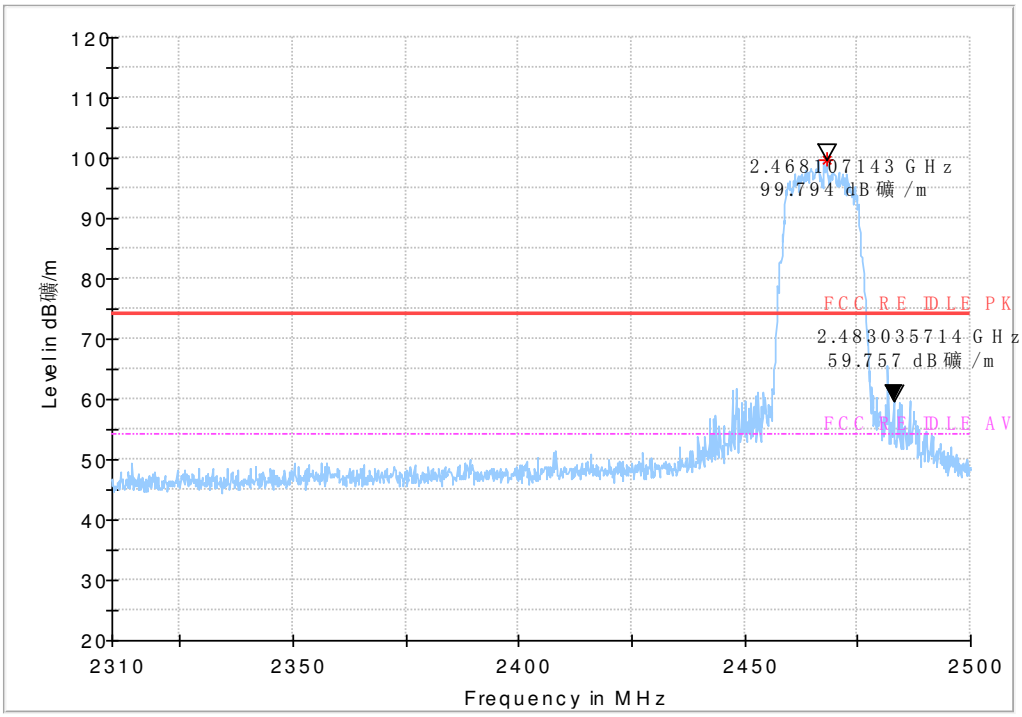


Fig.126 Radiated Spurious Emission (802.11b,Ch13,3GHz~18GHz)



Average detector

Fig.127 Radiated emission (Power): 802.11g,Ch12



Peak detector

Fig.128 Radiated emission (Power): 802.11g,Ch12

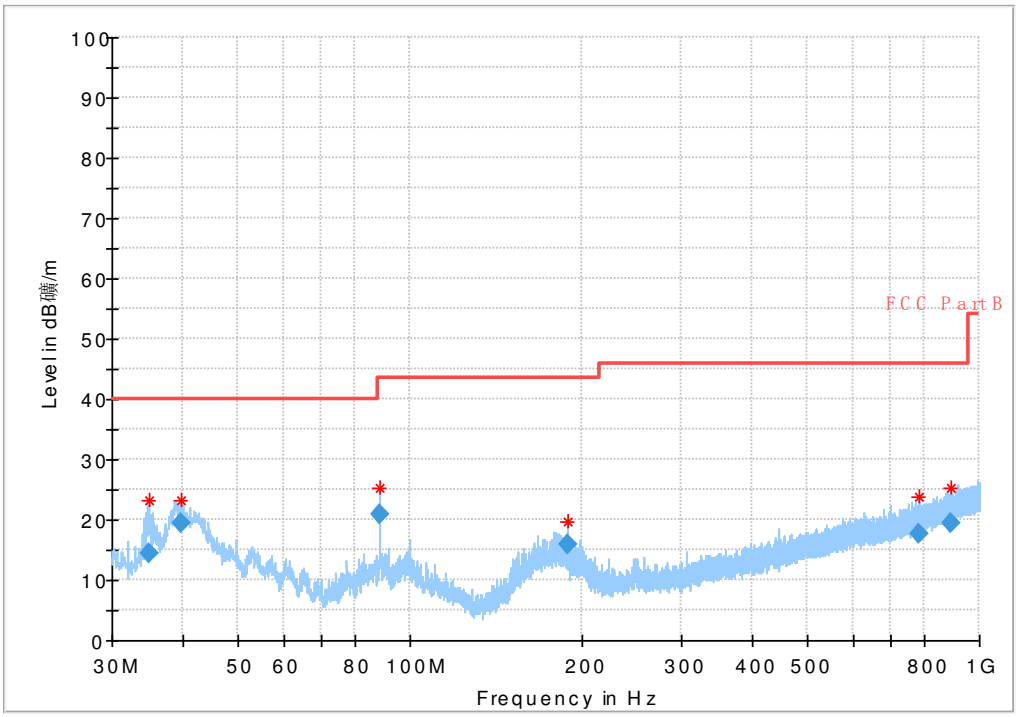


Fig.129 Radiated Spurious Emission (802.11g,Ch12,30MHz~1GHz)

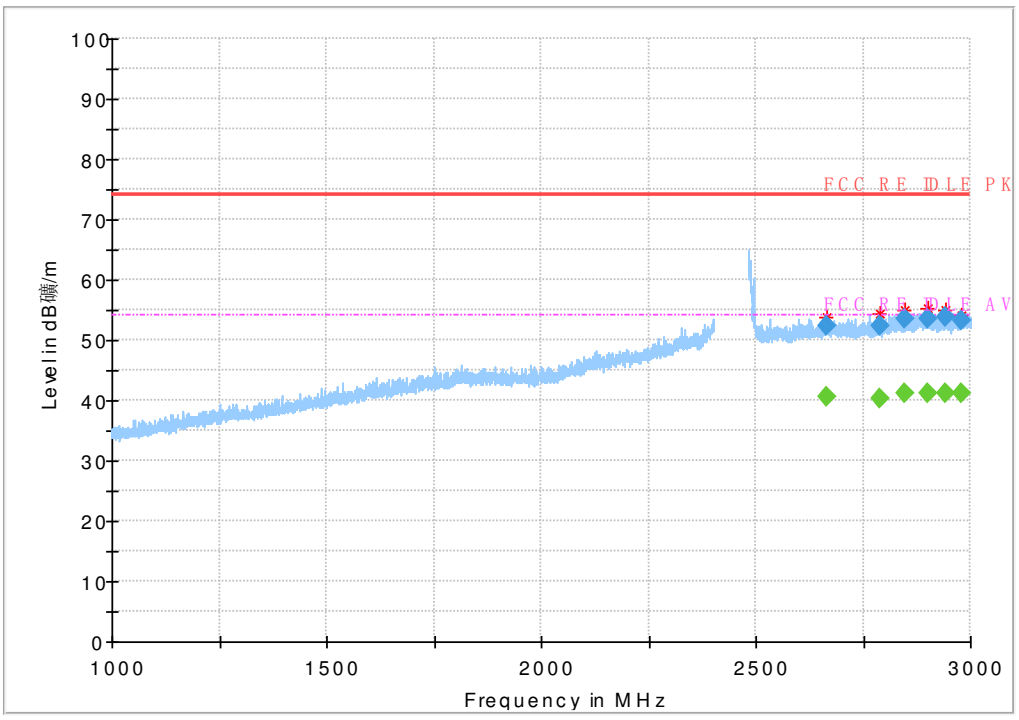


Fig.130 Radiated Spurious Emission (802.11g,Ch12,1GHz~3GHz)

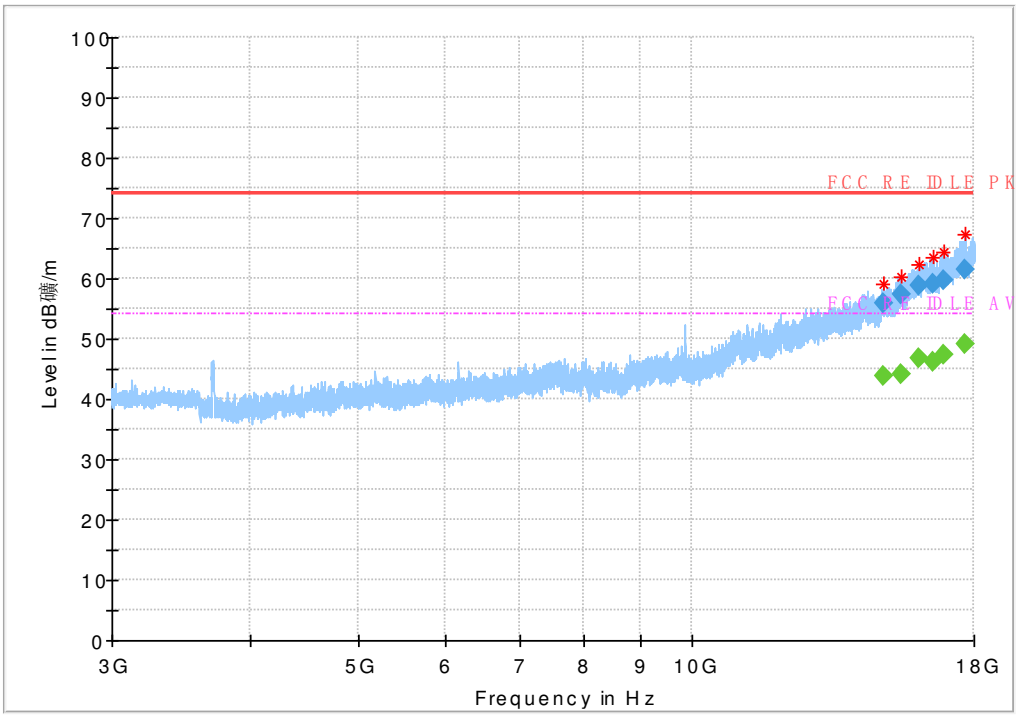
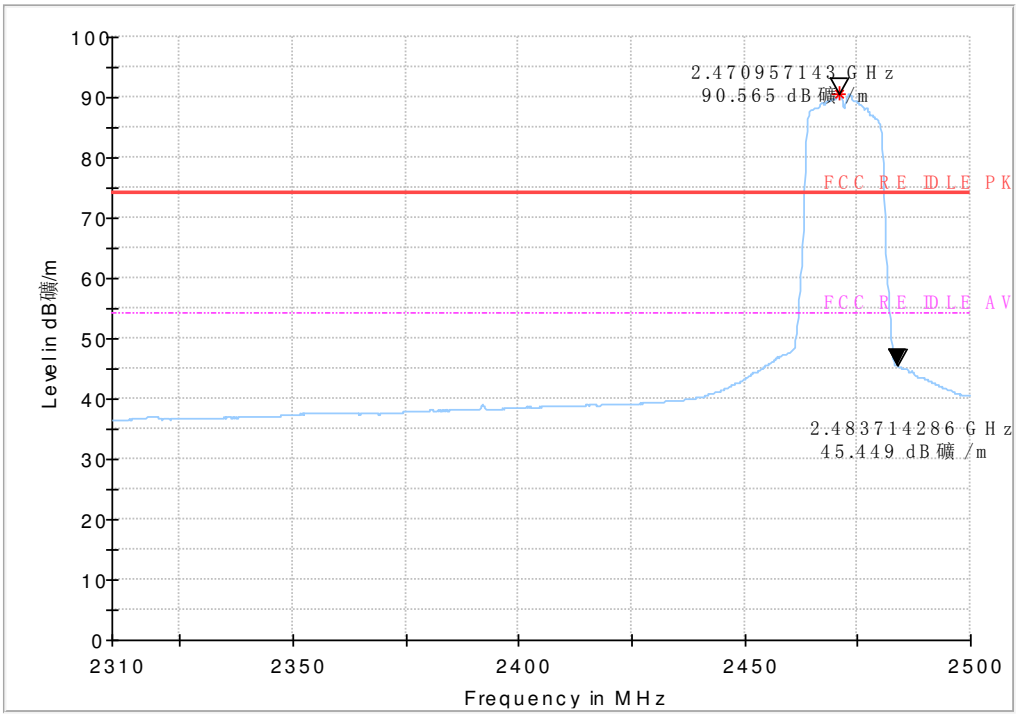
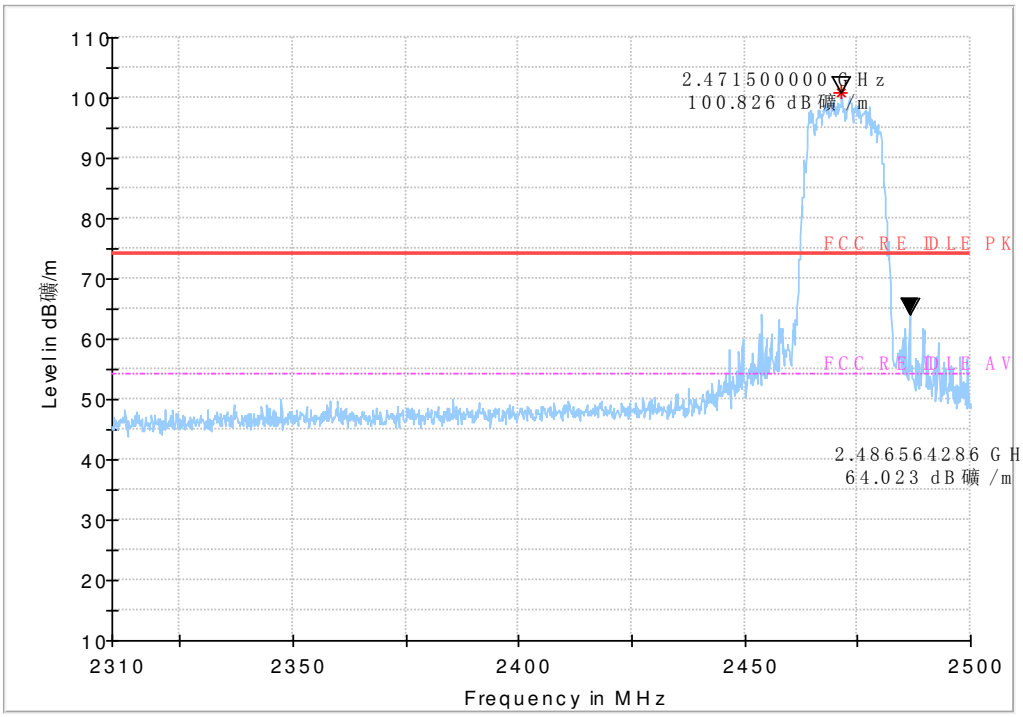


Fig.131 Radiated Spurious Emission (802.11g,Ch12,3GHz~18GHz)



Average detector

Fig.132 Radiated emission (Power): 802.11g,Ch13



Peak detector

Fig.133 Radiated emission (Power): 802.11g,Ch13

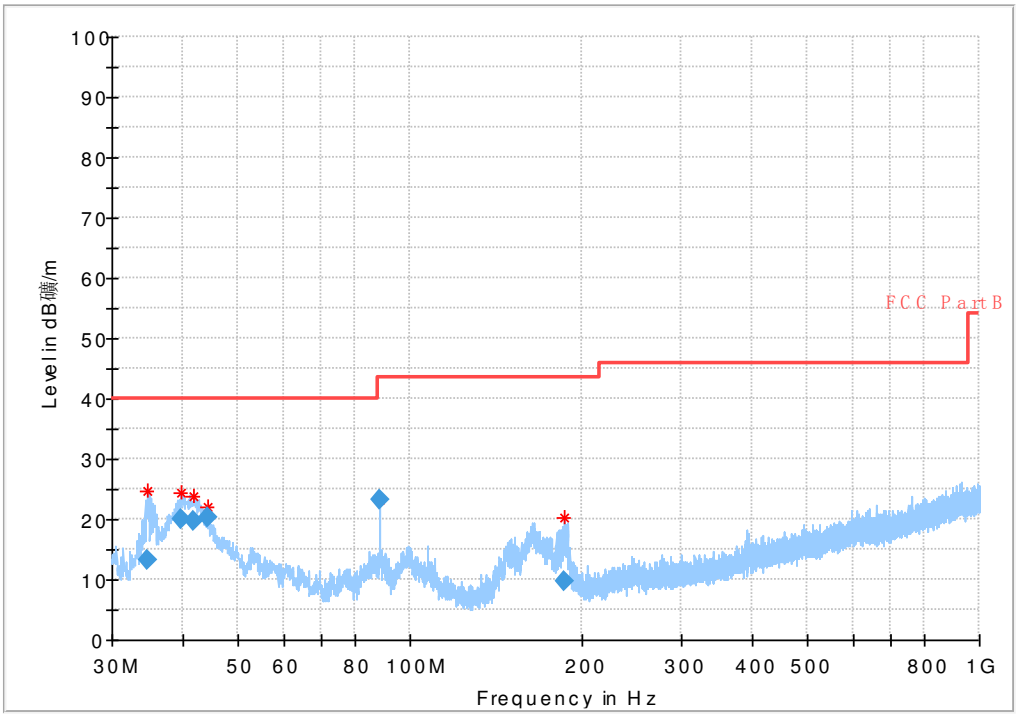


Fig.134 Radiated Spurious Emission (802.11g,Ch13,30MHz~1GHz)

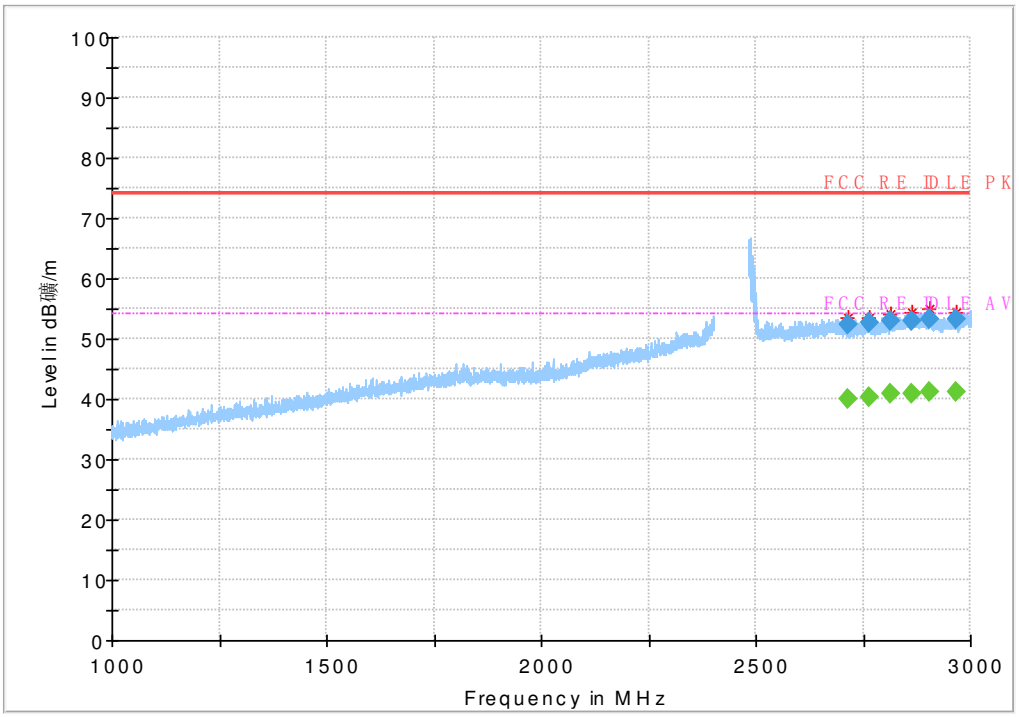


Fig.135 Radiated Spurious Emission (802.11g,Ch13,1GHz~3GHz)

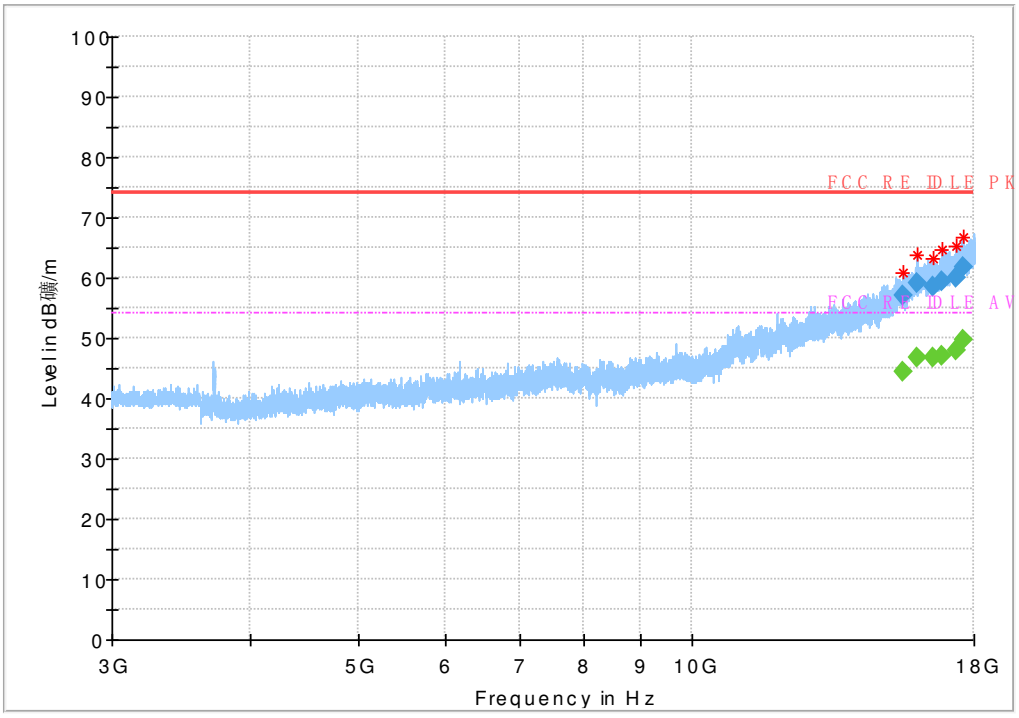
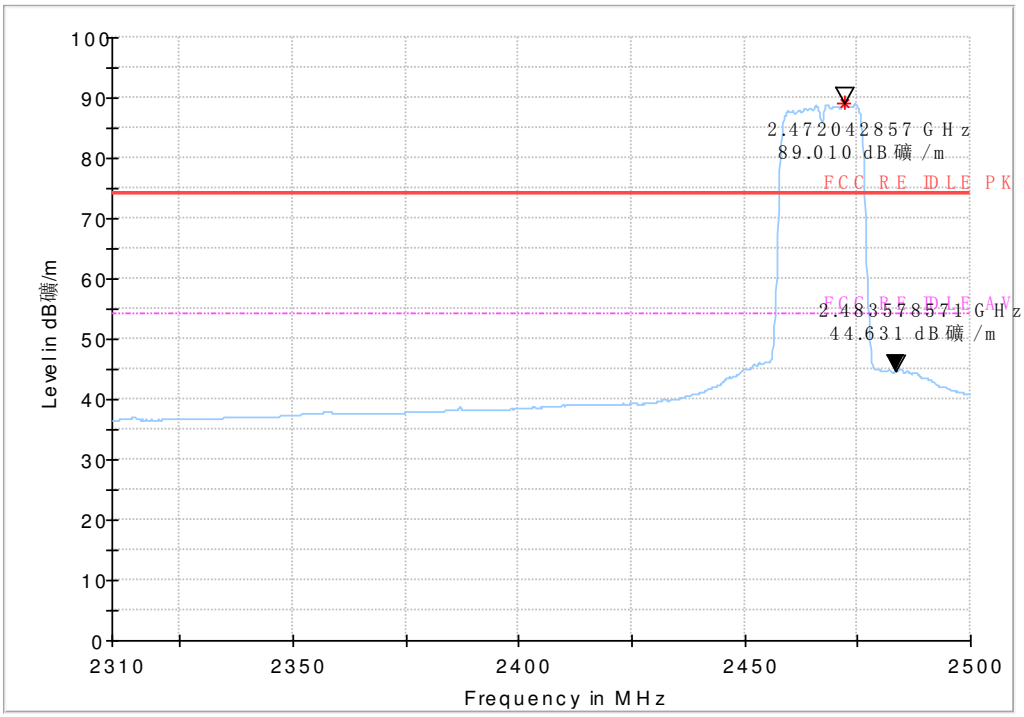
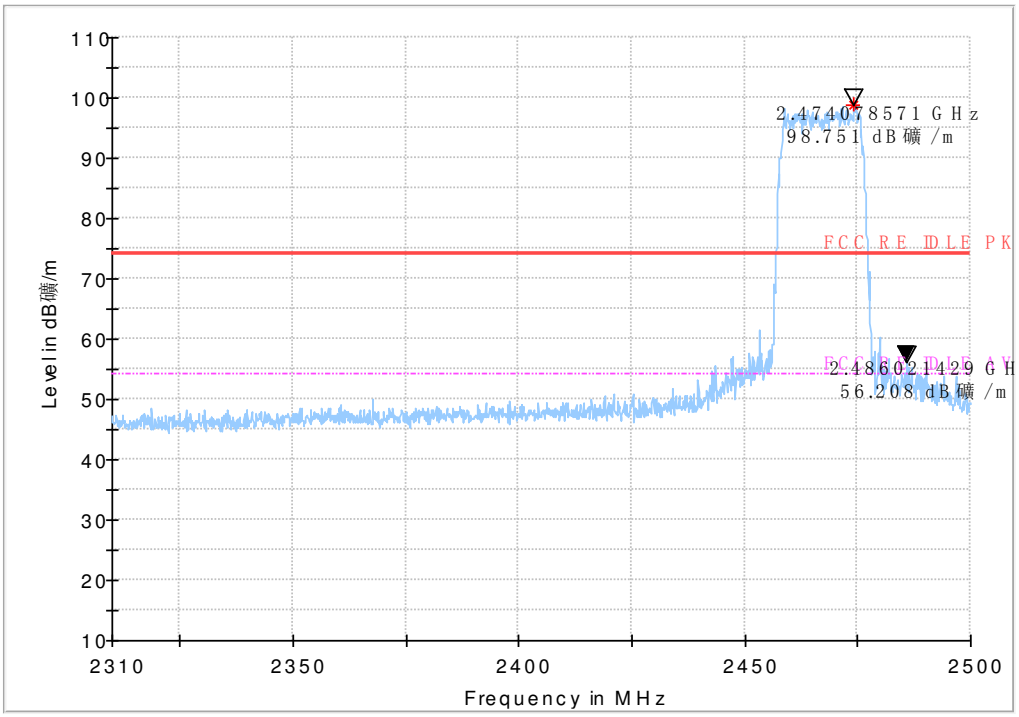


Fig.136 Radiated Spurious Emission (802.11g,Ch13,3GHz~18GHz)



Average detector

Fig.137 Radiated emission (Power): 802.11 n-20Mhz,Ch12



Peak detector

Fig.138 Radiated emission (Power): 802.11 n-20Mhz,Ch12

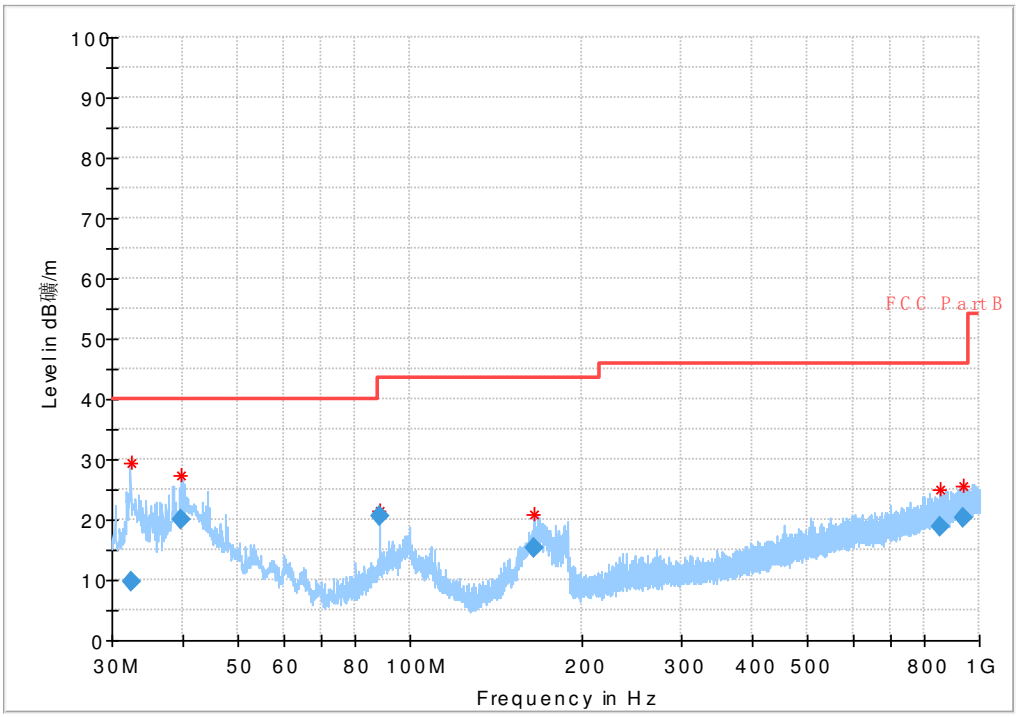


Fig.139 Radiated Spurious Emission (802.11 n-20Mhz,Ch12,30MHz~1GHz)

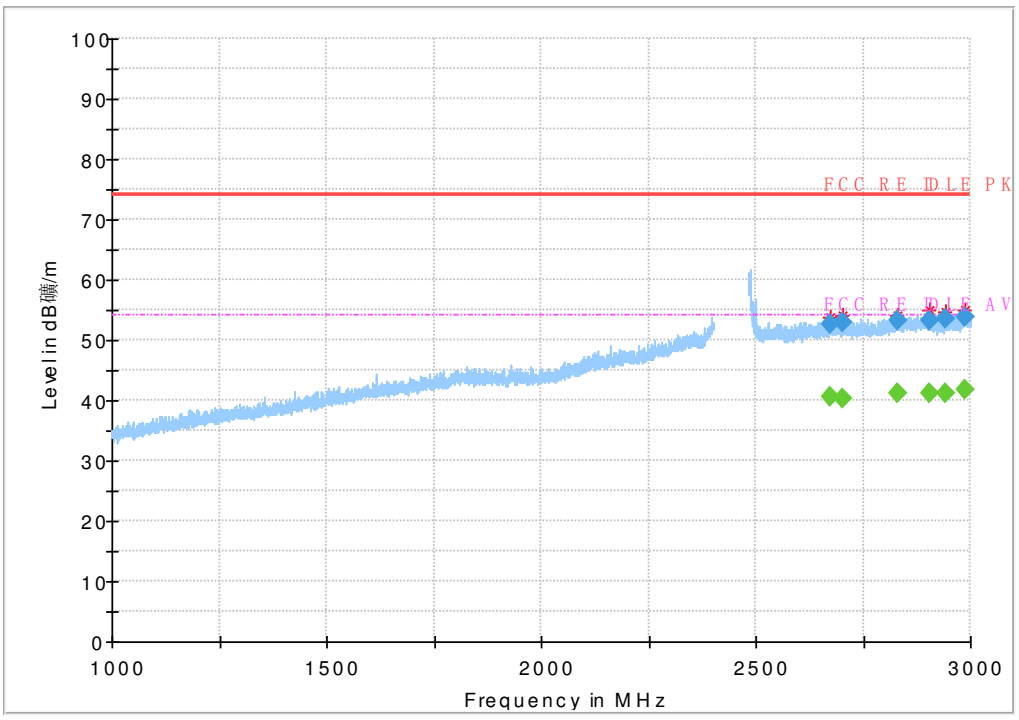


Fig.140 Radiated Spurious Emission (802.11 n-20Mhz,Ch12,1GHz~3GHz)

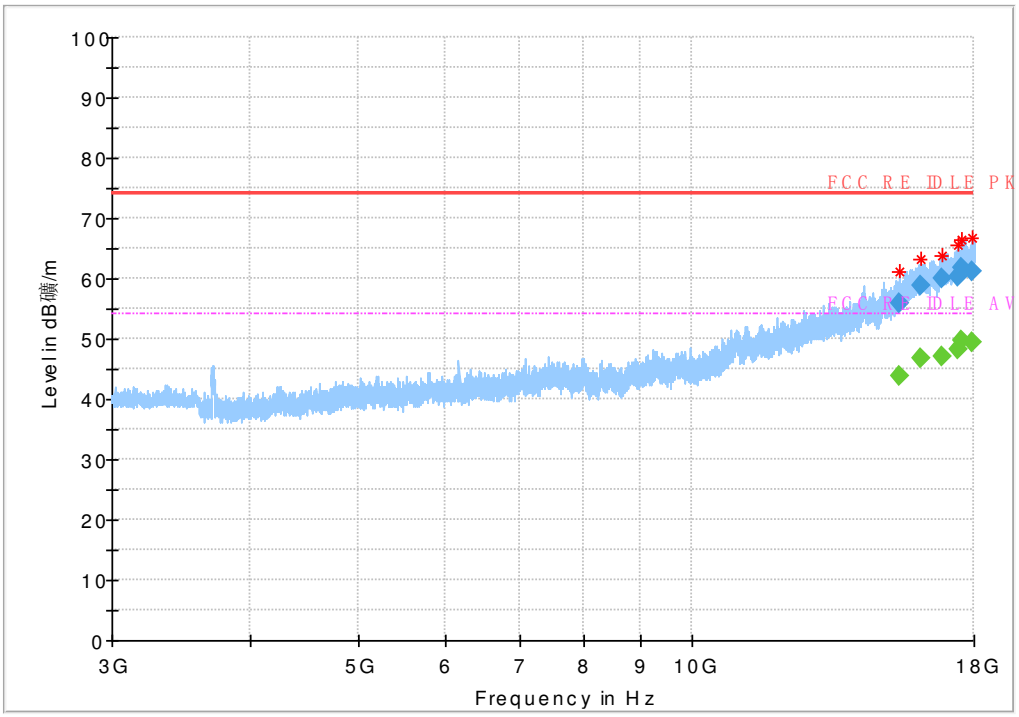
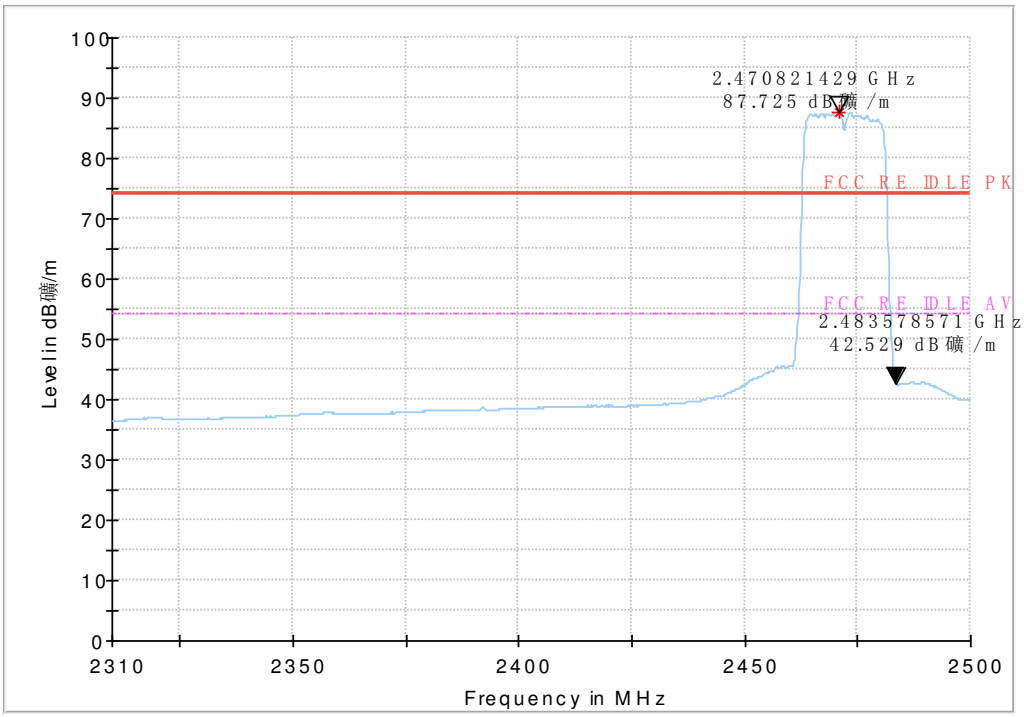
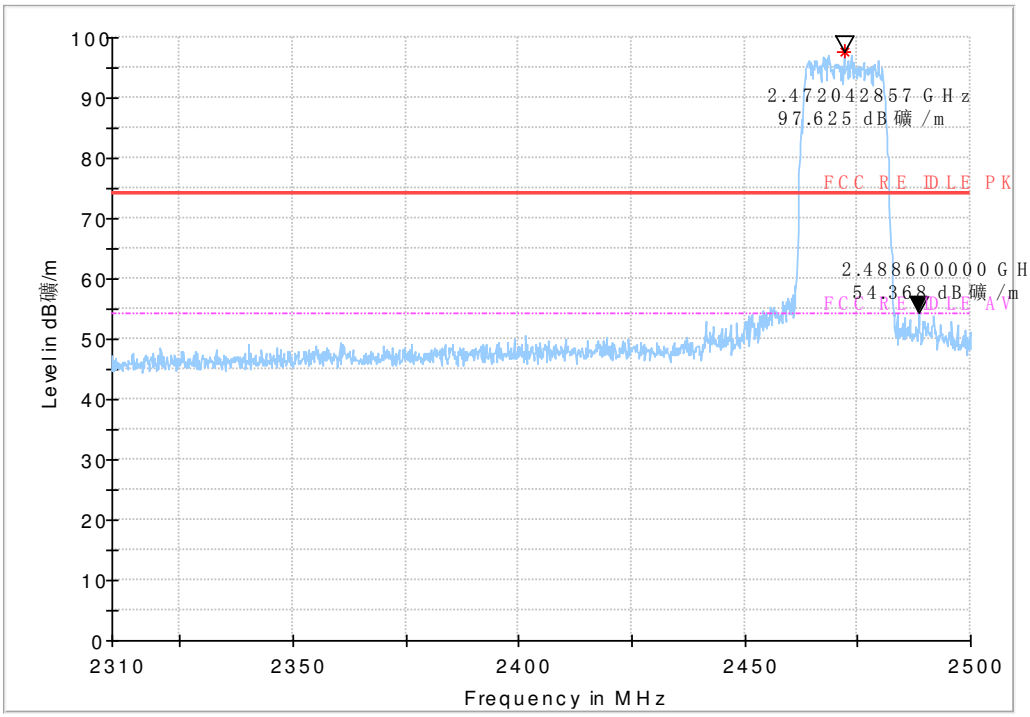


Fig.141 Radiated Spurious Emission (802.11 n-20Mhz,Ch12,3GHz~18GHz)



Average detector

Fig.142 Radiated emission (Power): 802.11 n-20Mhz,Ch13



Peak detector

Fig.143 Radiated emission (Power): 802.11 n-20Mhz,Ch13

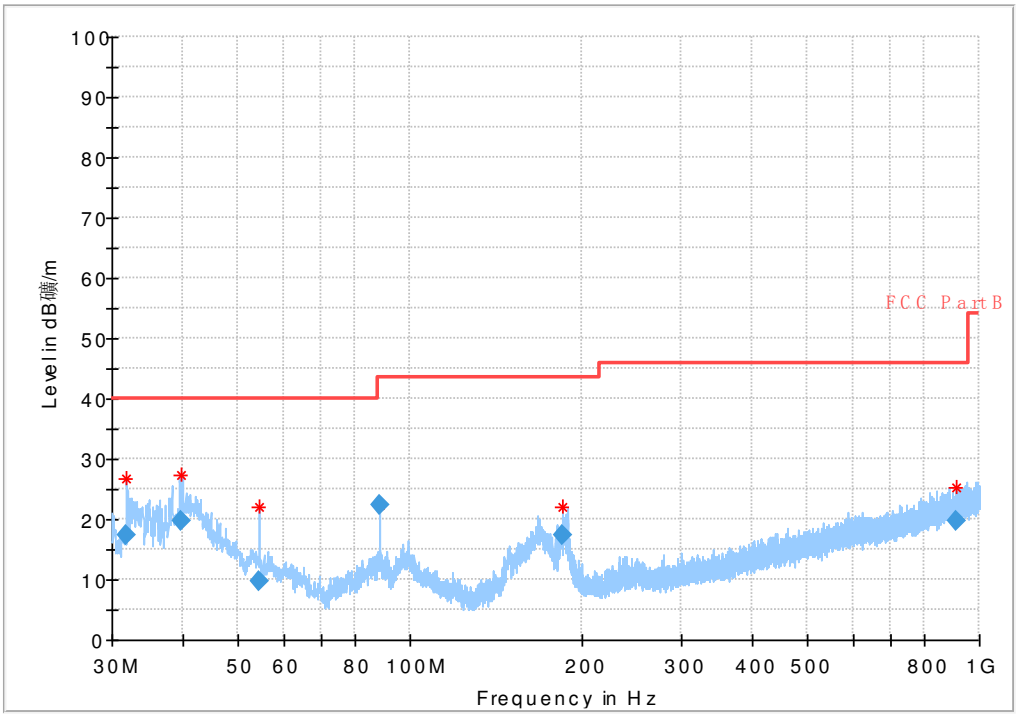


Fig.144 Radiated Spurious Emission (802.11 n-20Mhz,Ch13,30MHz~1GHz)

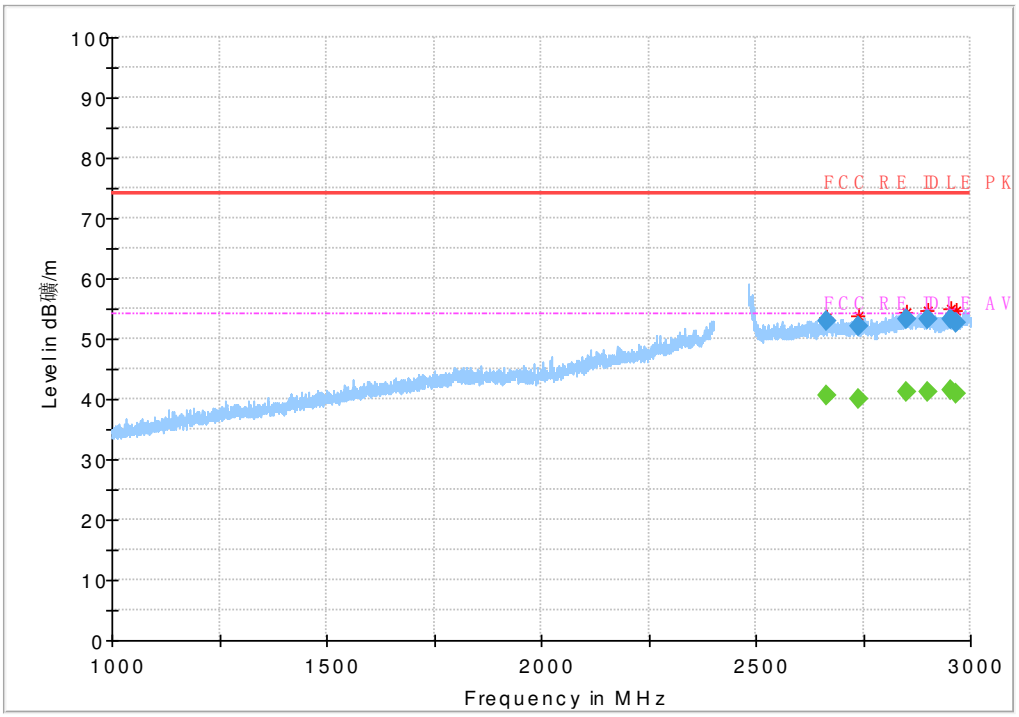


Fig.145 Radiated Spurious Emission (802.11 n-20Mhz,Ch13,1GHz~3GHz)

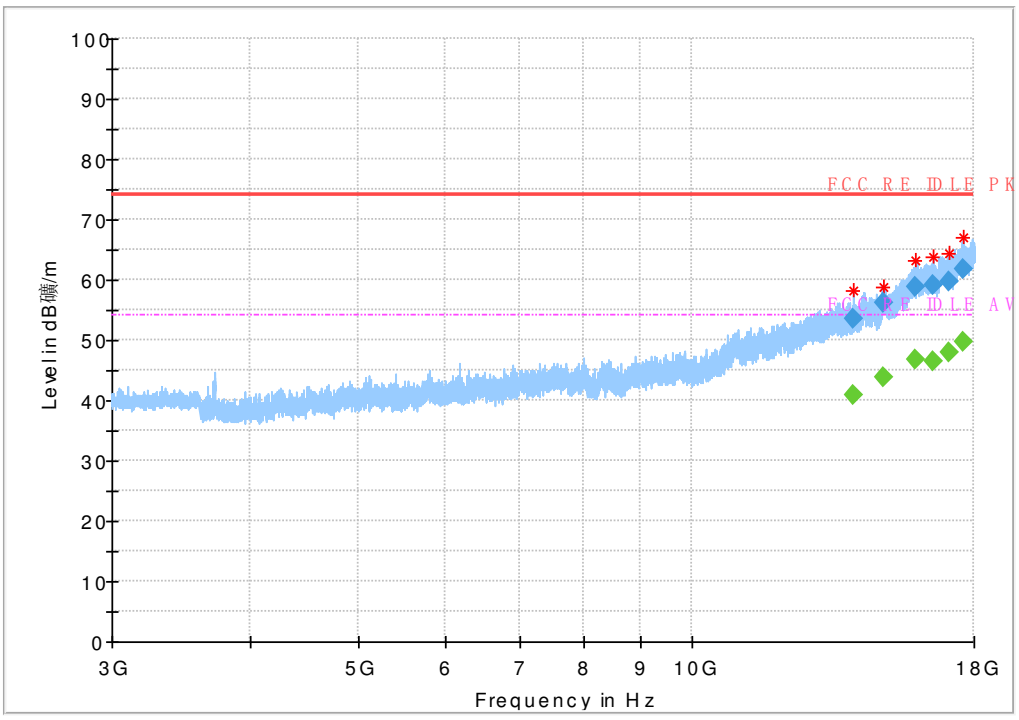
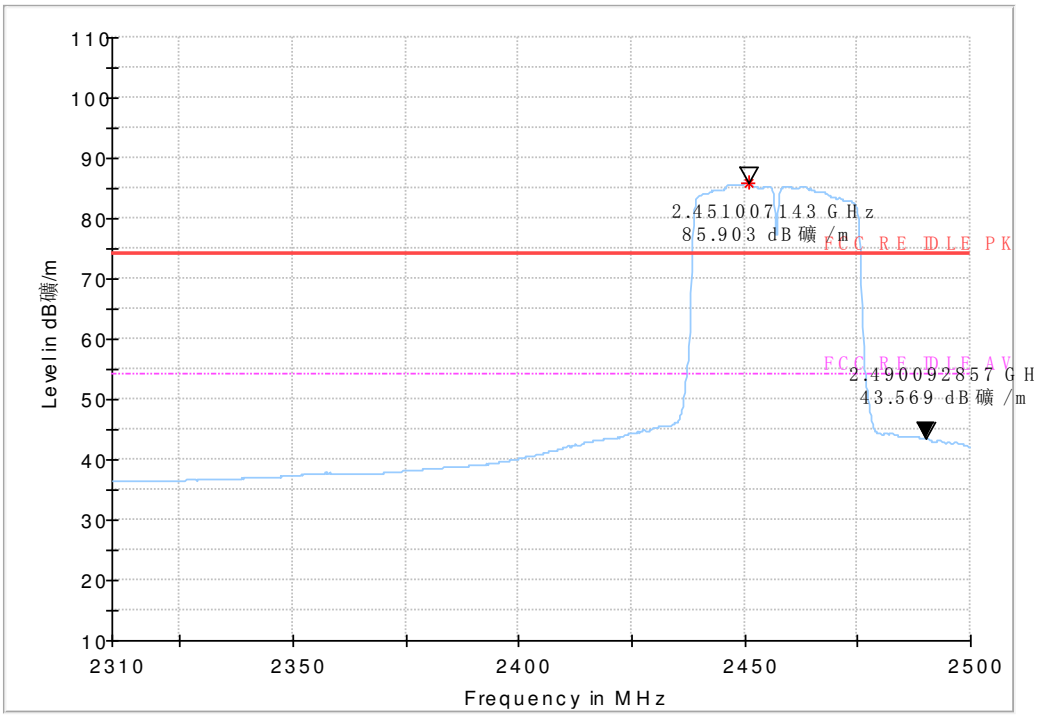
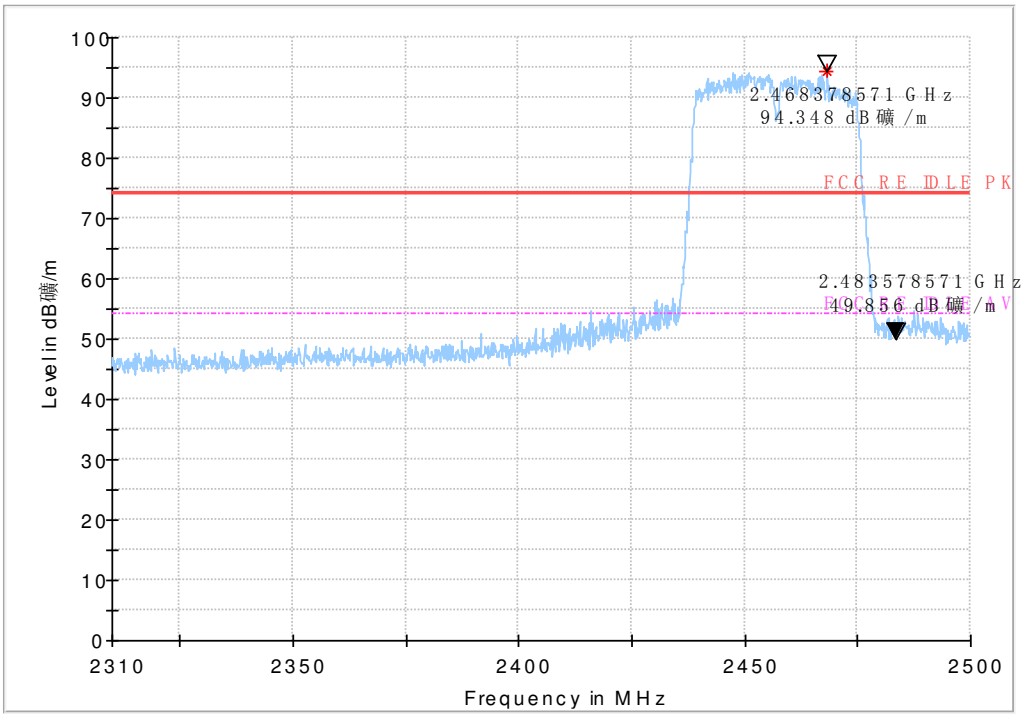


Fig.146 Radiated Spurious Emission (802.11 n-20Mhz,Ch13,3GHz~18GHz)



Average detector

Fig.147 Radiated emission (Power): 802.11 n-40Mhz,Ch10



Peak detector

Fig.148 Radiated emission (Power): 802.11 n-40Mhz,Ch10

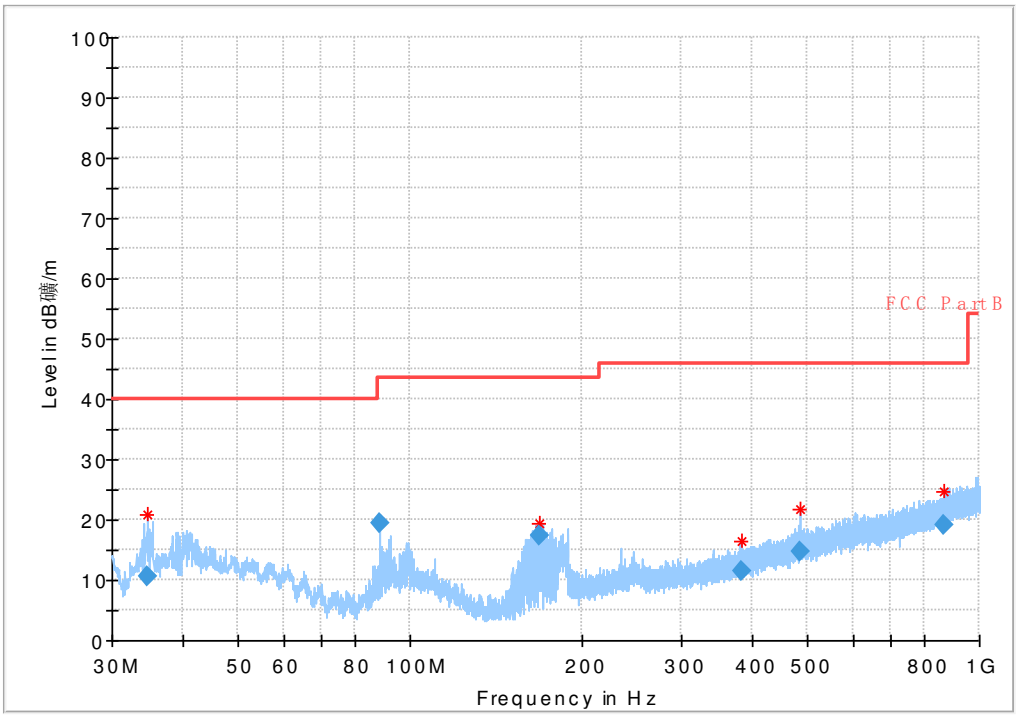


Fig.149 Radiated Spurious Emission (802.11 n-40Mhz,Ch10,30MHz~1GHz)

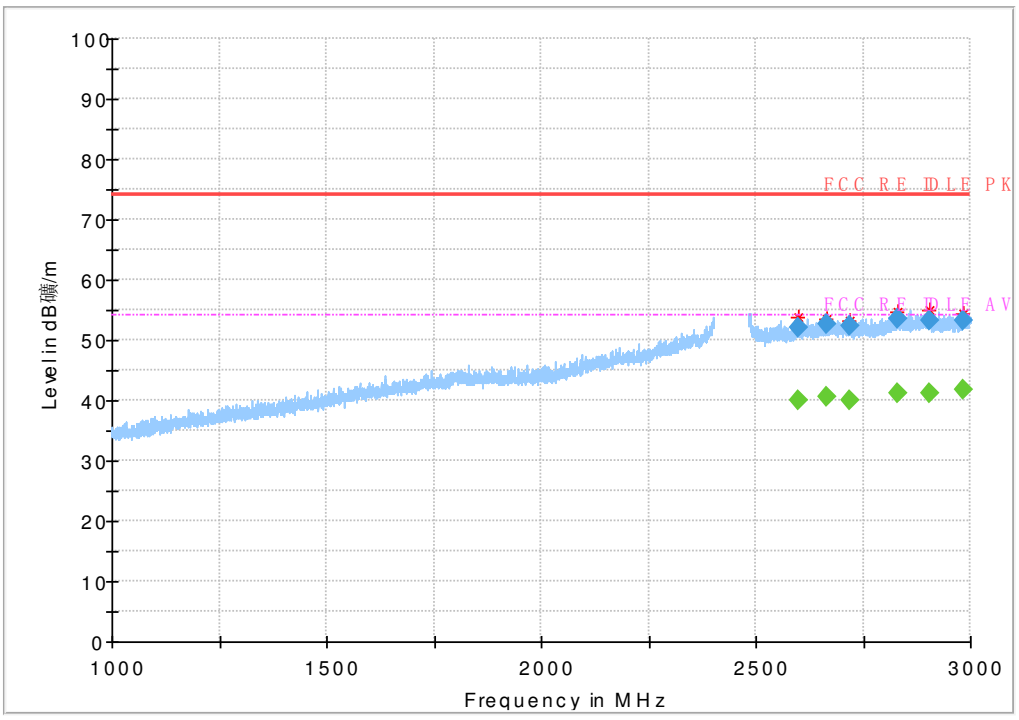


Fig.150 Radiated Spurious Emission (802.11 n-40Mhz,Ch10,1GHz~3GHz)

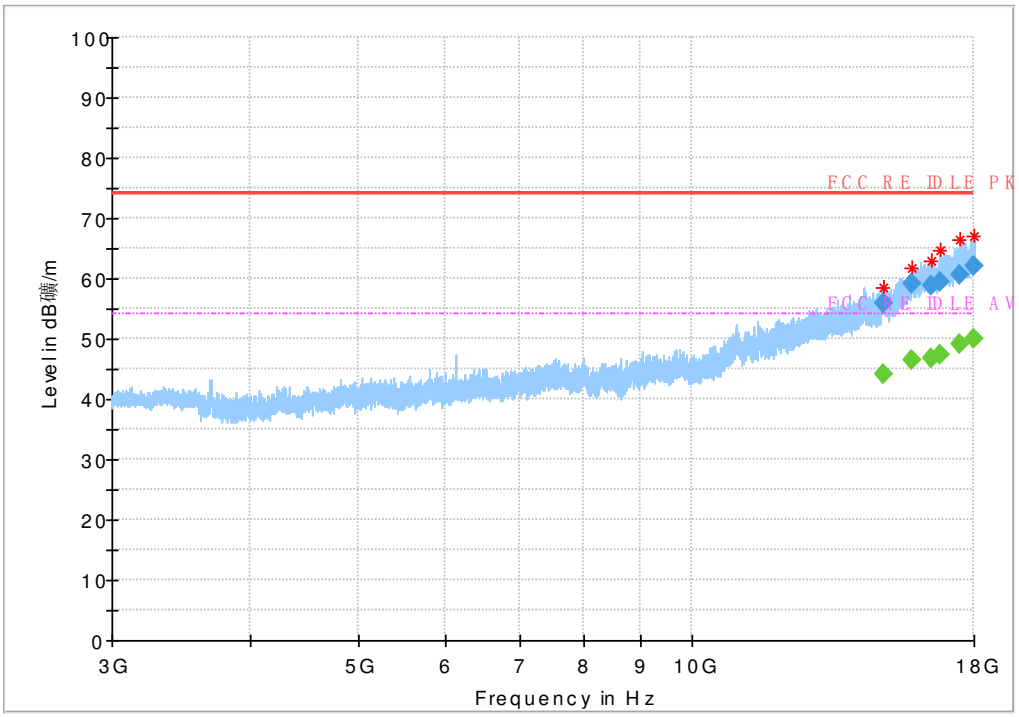
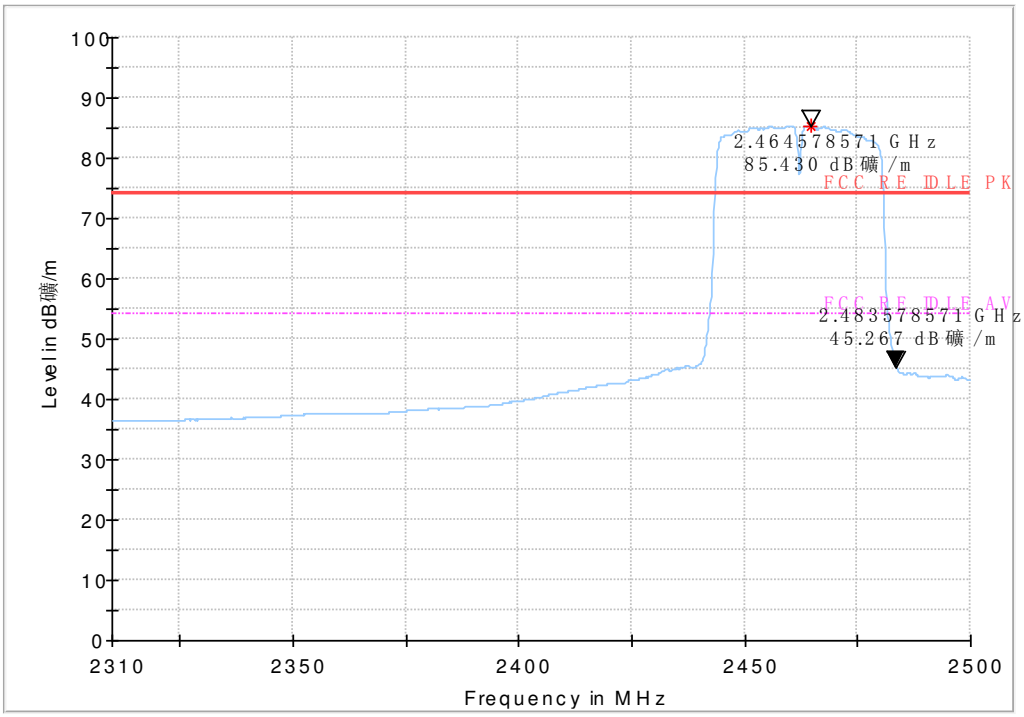
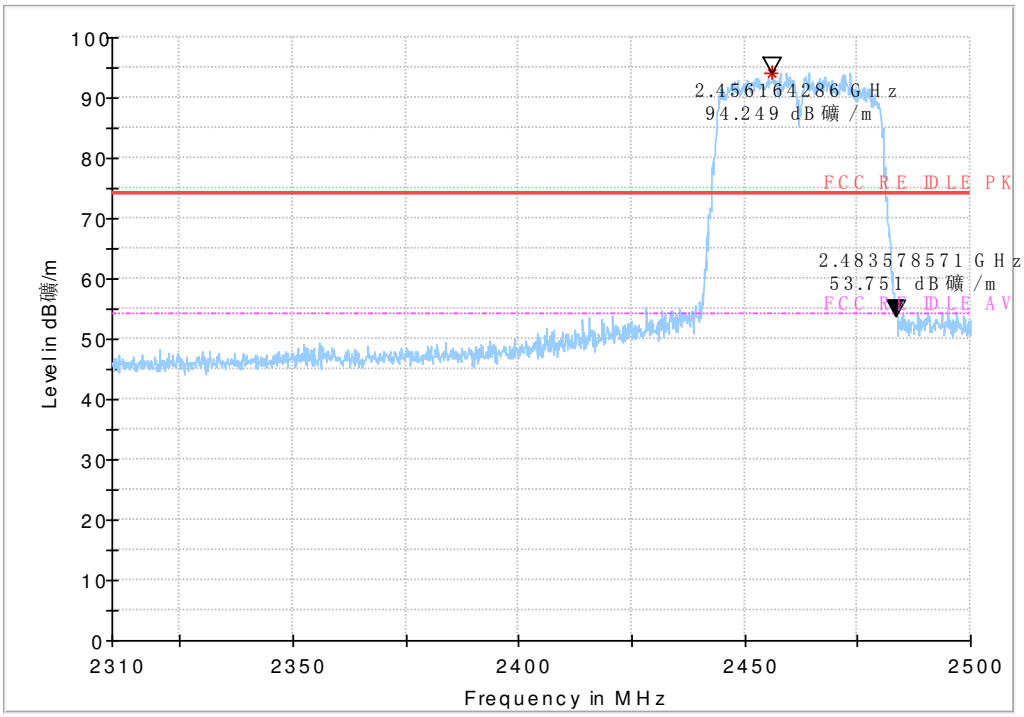


Fig.151 Radiated Spurious Emission (802.11 n-40Mhz,Ch10,3GHz~18GHz)



Average detector



Peak detector

Fig.152 Radiated emission (Power): 802.11 n-40Mhz,Ch11

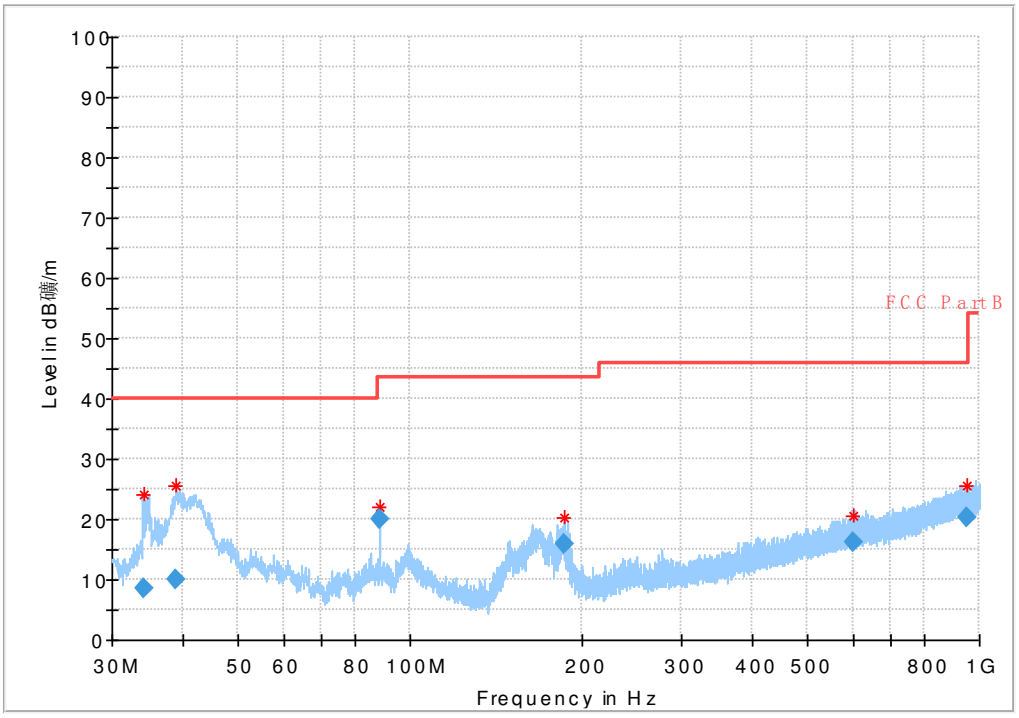


Fig.153 Radiated Spurious Emission (802.11 n-40Mhz,Ch11,30MHz~1GHz)

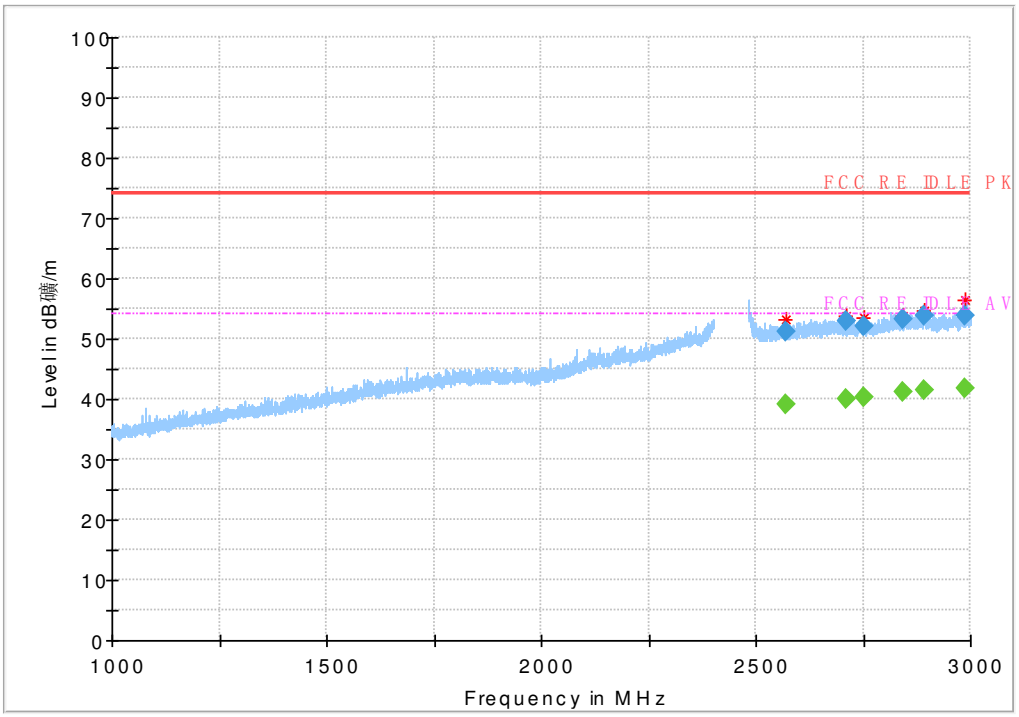


Fig.154 Radiated Spurious Emission (802.11 n-40Mhz,Ch11,1GHz~3GHz)

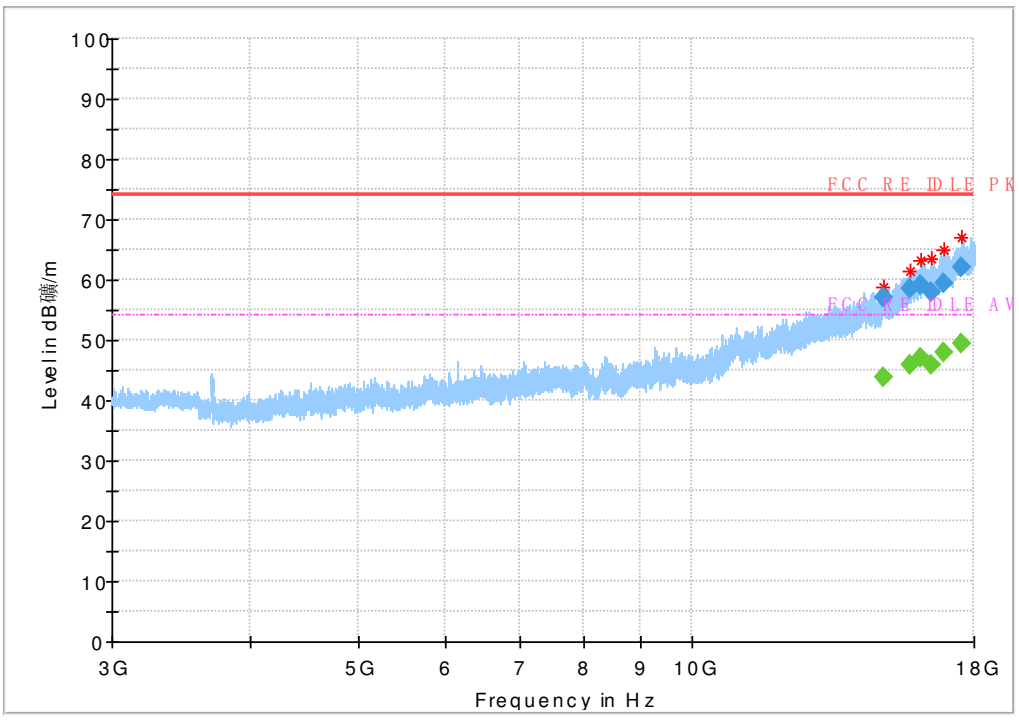


Fig.155 Radiated Spurious Emission (802.11 n-40Mhz,Ch11,3GHz~18GHz)

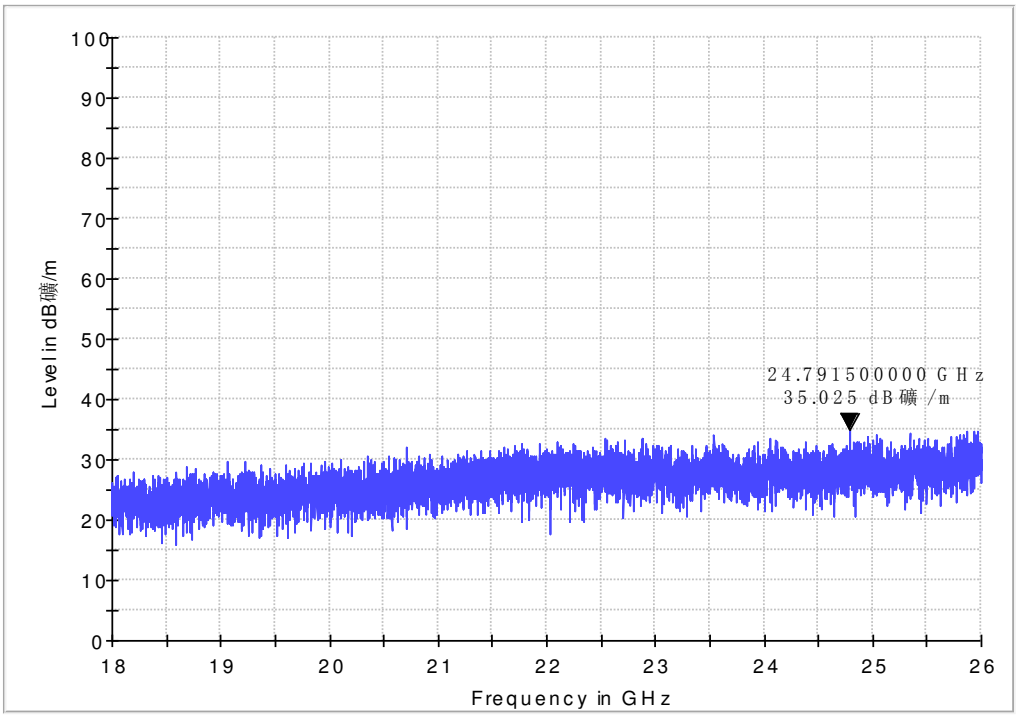


Fig.156 Radiated Spurious Emission (802.11b,ch1,18GHz~26GHz)

6.7. AC Powerline Conducted Emission

Method of Measurement: See ANSI C63.10-2013-clause 6.2

1 The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.

2 If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.

3 The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.

4 If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.

If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the

ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.36 Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Test Condition:

Voltage（V）	Frequency（Hz）
120	60

Measurement Result and limit:

(Quasi-peak-average Limit)

First Supply

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) With charger 802.11b	Conclusion
0.15 to 0.5	66 to 56	56 to 46	Fig 157.	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Conclusion: Pass

First Supply

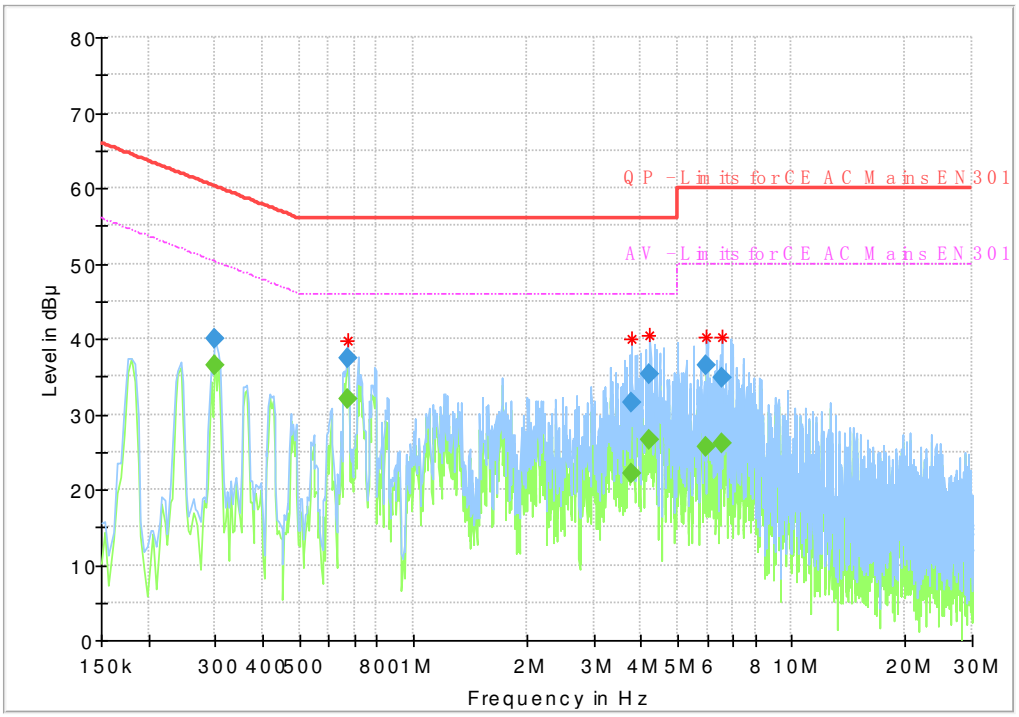


Fig.157 AC Powerline Conducted Emission

Frequency	QuasiPeak	Average	Limit	Margin	Meas.	Bandwidth	Line	Filter	Corr.
0.299250	---	36.45	50.2	13.81	1000.	9.000	L1	ON	9.6
0.299250	40.07	---	60.2	20.19	1000.	9.000	L1	ON	9.6
0.672375	---	32.03	46.0	13.97	1000.	9.000	L1	ON	9.7
0.672375	37.31	---	56.0	18.69	1000.	9.000	L1	ON	9.7
3.769312	31.59	---	56.0	24.41	1000.	9.000	N	ON	9.7
3.769312	---	22.22	46.0	23.78	1000.	9.000	N	ON	9.7
4.224525	35.21	---	56.0	20.79	1000.	9.000	L1	ON	9.7
4.224525	---	26.66	46.0	19.34	1000.	9.000	L1	ON	9.7
5.970750	36.43	---	60.0	23.57	1000.	9.000	L1	ON	9.8
5.970750	---	25.55	50.0	24.45	1000.	9.000	L1	ON	9.8
6.567750	34.87	---	60.0	25.13	1000.	9.000	L1	ON	9.8
6.567750	---	26.02	50.0	23.98	1000.	9.000	L1	ON	9.8

7. Test Equipment and Ancillaries Used For Tests

The test equipment and ancillaries used are as follows.

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration date	Cal.interval
1	Vector Signal	FSQ26	101096	R&S	2016-05-12	1 Year
2	DC Power Supply	ZUP60-14	LOC-22 0Z006	TDL-Lambda	2016-05-12	1 Year

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Cal.interval
1	Universal Radio Communication Tester	CMU200	123101	R&S	2016-05-12	1 Year
3	Test Receiver	ESU40	100307	R&S	2016-05-12	1 Year
4	Trilog Antenna	VULB9163	VULB9163-515	Schwarzbeck	2014-11-05	3 Year
5	Double Ridged Guide Antenna	ETS-3117	135885	ETS	2014-05-06	3 Year
8	2-Line V-Network	ENV216	101380	R&S	2016-05-12	1 Year

Anechoic chamber

Fully anechoic chamber by Frankonia German.

8. Test Environment

Shielding Room1 (6.0 meters×3.0 meters×2.7 meters) did not exceed following limits along the conducted RF performance testing:

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. = 25 %, Max. = 75 %
Shielding effectiveness	> 110 dB
Ground system resistance	< 0.5 Ω

Control room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. =25 %, Max. = 75 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

Fully-anechoic chamber1 (6.9 meters×10.9 meters×5.4 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. = 25 %, Max. = 75 %
Shielding effectiveness	> 100 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
VSWR	Between 0 and 6 dB, from 1GHz to 18GHz
Site Attenuation Deviation	Between -4 and 4 dB,30MHz to 1GHz
Uniformity of field strength	Between 0 and 6 dB, from 80MHz to 3000 MHz

ANNEX A. Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

**********End The Report**********