TEST REPORT

No. I17D00262-SRD03

For

Client : Shanghai Sunmi Technology Co.,Ltd.

Production : POS System

Model Name : W5920

FCC ID: 2AH25V1SNFC

Hardware Version: 2.0

Software Version: 1.1.0

Issued date: 2018-01-12

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of ECIT Shanghai.

Test Laboratory:

ECIT Shanghai, East China Institute of Telecommunications

Add: 7-8F, G Area, No.668, Beijing East Road, Huangpu District, Shanghai, P. R. China

Tel: (+86)-021-63843300, E-Mail: welcome@ecit.org.cn

Revision Version

Report Number	Revision	Date	Memo
I17D00262-SRD03	00	2018-01-12	Initial creation of test report

CONTENTS

1. TEST LABORATORY 4

1.1. TESTING LOCATION 4

1.2. TESTING ENVIRONMENT 4

1.3. PROJECT DATA 4

1.4. SIGNATURE 4

2. CLIENT INFORMATION 5

2.1. APPLICANT INFORMATION 5

2.2. MANUFACTURER INFORMATION 5

3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE) 6

3.1. ABOUT EUT 6

3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST 6

3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST 6

4. REFERENCE DOCUMENTS 7

4.1. REFERENCE DOCUMENTS FOR TESTING 7

5. SUMMARY OF TEST RESULTS 8

5.1. NOTES 9

5.2. STATEMENTS 9

6. TEST RESULT 10

6.1. TRANSMITTER SPURIOUS EMISSION-RADIATED 10

6.2. AC POWER LINE CONDUCTED EMISSION 31

7. TEST EQUIPMENT AND ANCILLARIES USED FOR TESTS 33

8. TEST ENVIRONMENT 34

ANNEX A. DEVIATIONS FROM PRESCRIBED TEST METHODS 35

1. Test Laboratory

1.1. Testing Location

Company Name:	ECIT Shanghai, East China Institute of Telecommunications
Address:	7-8F, G Area, No. 668, Beijing East Road, Huangpu District, Shanghai, P. R. China
Postal Code:	200433
Telephone:	(+86)-021-63843300
Fax:	(+86)-021-63843301

1.2. Testing Environment

Normal Temperature:	15-35℃
Extreme Temperature:	-10/+55℃
Relative Humidity:	20-75%

1.3. Project data

Project Leader:	Zhou Yan
Testing Start Date:	2017-12-14
Testing End Date:	2018-01-05

1.4. Signature

Shi Hongqi
(Prepared this test report)

Ding Li
(Reviewed this test report)

Zheng Zhongbin
Director of the laboratory
(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address:	Room 605, Block 7, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai, China
Postcode:	200433
Telephone:	18721763396

2.2. Manufacturer Information

Company Name:	Shanghai Sunmi Technology Co.,Ltd.
Address:	Room 605, Block 7, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai, China
Postcode:	200433
Telephone:	18721763396

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

EUT Description	Wireless data POS System
Model name	W5920
WLAN Frequency	2412MHz-2462MHz
WLAN Channel	Channel1-Channel11
WLAN type of modulation	802.11b:DSSS 802.11g/n: OFDM
Extreme Temperature	-10/+55℃
Nominal Voltage	3.6 V
Extreme High Voltage	4.2 V
Extreme Low Voltage	3.5 V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
N02	865150030317082	2.0	1.1.0	2017-11-24

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN
AE1	RF cable	---

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15	FCC CFR 47, Part 15,Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz.	Jun,2016 Edition
ANSI 63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9KHz to 40GHz	2013

5. Summary of Test Results

A brief summary of the tests carried out is shown as following.

Measurement Items	Sub-clause of Part15C	Sub-clause of IC	Verdict
Transmitter Spurious Emission-Radiated	15.247,15.209,	/	P
AC Powerline Conducted Emission	15.107,15.207	/	P

Please refer to part 5 for detail.

The measurements are according to Public notice KDB558074 and ANSI C63.4.

Terms used in Verdict column

P	Pass, the EUT complies with the essential requirements in the standard.
NP	Not Perform, the test was not performed by ECIT.
NA	Not Applicable, the test was not applicable.
F	Fail, the EUT does not comply with the essential requirements in the standard.

Test Conditions

Tnom	Normal temperature
Tmin	Low Temperature
Tmax	High Temperature
Vnom	Normal Voltage
Vmin	Low Voltage
Vmax	High Voltage
Hnom	Norm Humidity
Anom	Norm Air Pressure

For this report, all the test case listed above are tested under Normal Temperature and Normal Voltage, and also under norm humidity, the specific conditions as following:

Temperature	Tnom	22℃
Voltage	Vnom	3.6V
Humidity	Hnom	48%
Air Pressure	Anom	1010hPa

5.1. Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with section 3.

The test results of this test report relate exclusively to the item(s) tested as specified in section 5.

5.2. Statements

The W5920, supporting GSM /WCDMA /BT/BLE/WIFI/GPS/NFC, manufactured by Shanghai Sunmi Technology Co.,Ltd.. is a variant product for testing.

We only test worst-case of RSE and AC Power line ,The other test cases please refer to the prototype report No: CCISE170603504, which was prepared by Shenzhen Zhongjian Nanfang Testing Co.,Ltd

ECIT has verified that the compliance of the tested device specified in section 5 of this test report is successfully evaluated according to the procedure and test methods as defined in type certification requirement listed in section 5 of this test report.

6. Test result

6.1. Transmitter Spurious Emission-Radiated

6.1.1 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.

6.1.2 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

6.1.3 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 non-conducting 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 orthogonal 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 1.	P
	Power	2.45GHz~2.5GHz	Fig 2.	P
	1	30MHz~1GHz	Fig 3.	P
		1GHz~3GHz	Fig 4.	P
		3GHz~18GHz	Fig 5.	P
802.11g	Power	2.38GHz~2.45GHz	Fig 6.	P
	Power	2.45GHz~2.5GHz	Fig 7.	P
	1	30MHz~1GHz	Fig 8.	P
		1GHz~3GHz	Fig 9.	P
		3GHz~18GHz	Fig 10.	P

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(20MHz)	Power	2.38GHz~2.45GHz	Fig 11.	P
	Power	2.45GHz~2.5GHz	Fig 12.	P
	1	30MHz~1GHz	Fig 13.	P
		1GHz~3GHz	Fig 14.	P
		3GHz~18GHz	Fig 15.	P
802.11n(40MHz)	Power	2.38GHz~2.45GHz	Fig 16.	P
	Power	2.45GHz~2.5GHz	Fig 17.	P

	3	30MHz~1GHz	Fig 18.	P
		1GHz~3GHz	Fig 19.	P
		3GHz~18GHz	Fig 20.	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
34.923228	13.73	-21.9	35.63	V
35.66272	15.49	-21.8	37.29	V
40.6976	19.93	-20.6	40.53	V
149.190312	16.08	-27.9	43.98	V
271.221184	22.53	-22.6	45.13	V
896.343328	23.1	-9.9	33	H

Ch1 1GHz~3GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2691.871923	55.03	7.9	47.13	H
2731.888654	54.4	7.8	46.6	V
2789.344423	54.78	7.8	46.98	V
2831.446153	54.97	8.1	46.87	H
2872.302115	55.67	8.6	47.07	H
2931.321346	55.45	8.7	46.75	V

Ch1 1GHz~3GHz (Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2691.871923	42.59	7.9	34.69	H
2731.888654	42.58	7.8	34.78	V
2789.344423	42.85	7.8	35.05	V
2831.446153	42.86	8.1	34.76	H
2872.302115	43.37	8.6	34.77	H
2931.321346	43.68	8.7	34.98	V

Ch1 3GHz~18GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
3619.119267	52.47	-2.7	55.17	H
7235.810133	55.7	4.6	51.1	V
16126.13293	58.18	24.3	33.88	H
16454.27233	58.81	25.8	33.01	H
16830.36373	59.2	26.9	32.3	V
17397.54627	61.1	27.7	33.4	H

Ch1 3GHz~18GHz (Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
7235.810133	43.49	4.6	38.89	V
16126.13293	46.1	24.3	21.8	H
16454.27233	46.19	25.8	20.39	H
16830.36373	47.4	26.9	20.5	V
17397.54627	48.38	27.7	20.68	H

802.11g

Ch1 30MHz~1GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.879896	13.76	-21.9	35.66	V
36.54974	11.78	-21.5	33.28	V

149.166816	23.37	-27.9	51.27	H
271.18534	19.87	-22.6	42.47	H
876.360632	22.9	-9.9	32.8	H
945.028372	23.63	-9.2	32.83	H

Ch1 1GHz~3GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2592.244231	54.53	7.3	47.23	H
2682.251539	54.97	7.8	47.17	V
2739.432115	54.67	7.7	46.97	V
2837.309615	54.6	8.2	46.4	V
2917.753077	55.54	8.8	46.74	H
2995.341539	55.69	9	46.69	V

Ch1 1GHz~3GHz (Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2592.244231	42.2	7.3	34.9	H
2682.251539	42.58	7.8	34.78	V
2739.432115	42.58	7.7	34.88	V
2837.309615	42.77	8.2	34.57	V
2917.753077	43.47	8.8	34.67	H
2995.341539	43.59	9	34.59	V

Ch1 3GHz~18GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
3618.5612	51.72	-2.7	54.42	V
7235.8504	57.22	4.6	52.62	V
14837.2212	55.34	20.3	35.04	V
15546.59567	56.52	22.5	34.02	V
16484.5816	59.09	26.2	32.89	V

17495.69633	60.92	28.4	32.52	H

Ch1 3GHz~18GHz (Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
7235.8504	39.52	4.6	34.92	V
14837.2212	42.59	20.3	22.29	V
15546.59567	44.22	22.5	21.72	V
16484.5816	46.78	26.2	20.58	V
17495.69633	48.87	28.4	20.47	H

802.11n-20MHz

Ch1 30MHz~1GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.177016	12.71	-22	34.71	V
36.103292	14.12	-21.6	35.72	V
47.43806	12.37	-20	32.37	H
616.82278	19.11	-13.6	32.71	V
856.137208	22.52	-10.3	32.82	V
943.023684	23.61	-9.2	32.81	H

Ch1 1GHz~3GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2599.557308	54.28	7.3	46.98	V
2733.588269	56.07	7.8	48.27	V
2855.538077	56.09	8.4	47.69	V
2897.780769	55.69	8.9	46.79	V
2961.4575	55.65	8.7	46.95	V
2997.833654	56.62	9	47.62	V

Ch1 1GHz~3GHz (Average)

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

2599.557308	42.08	7.3	34.78	V
2733.588269	42.64	7.8	34.84	V
2855.538077	43.08	8.4	34.68	V
2897.780769	43.55	8.9	34.65	V
2961.4575	43.56	8.7	34.86	V
2997.833654	43.57	9	34.57	V

Ch1 3GHz~18GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
13426.39727	53.05	17.3	35.75	H
14319.366	54.08	20	34.08	H
15480.5916	56.54	22.7	33.84	H
16198.72427	58.39	25.1	33.29	V
16801.7358	59.8	27	32.8	H
17589.8292	61.59	28.7	32.89	V

Ch1 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14319.366	42.11	20	22.11	H
15480.5916	44.19	22.7	21.49	H
16198.72427	46.2	25.1	21.1	V
16801.7358	47.28	27	20.28	H
17589.8292	49.06	28.7	20.36	V

802.11n-40MHz

Ch3 30MHz~1GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
34.887284	19.07	-21.9	40.97	V
40.693004	30.75	-20.6	51.35	V
67.7995	27.77	-24.3	52.07	V

149.142012	32.69	-27.9	60.59	H
176.30342	24.23	-25.5	49.73	H
271.182948	20.15	-22.6	42.75	V

Ch3 1GHz~3GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
1794.4224	48.85	1.4	47.45	H
1946.6352	48.19	1.7	46.49	H
2089.724	49.3	2.5	46.8	H
2627.178846	54.16	7.5	46.66	V
2714.149231	54.69	7.8	46.89	H
2776.856538	54.66	7.8	46.86	V

Ch3 1GHz~3GHz (Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2627.178846	42.21	7.5	34.71	H
2714.149231	42.44	7.8	34.64	V
2776.856538	42.66	7.8	34.86	V

Ch3 3GHz~18GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
3634.140533	46.66	-2.4	49.06	H
4846.270933	56.6	-0.1	56.7	H
7259.955867	52.05	4.7	47.35	V
11007.32013	52.27	14.3	37.97	H
13502.75373	54.3	18.1	36.2	H
16510.88667	59.94	26.3	33.64	V

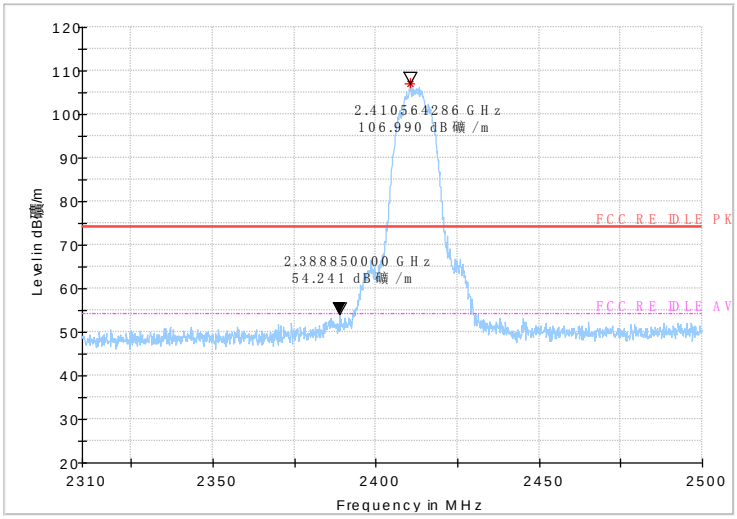
Ch3 3GHz~18GHz (Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
4846.270933	35.72	-0.1	35.82	H

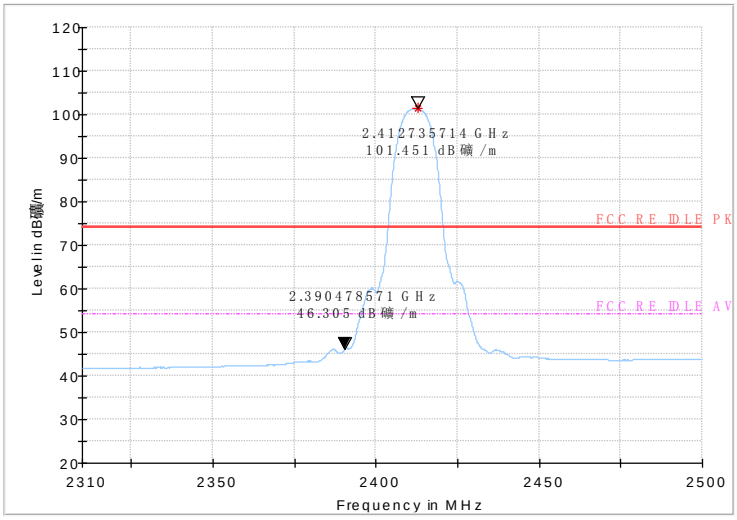
13502.75373	41.49	18.1	23.39	H
16510.88667	46.89	26.3	20.59	V

Note: Only the worst case is written in the report.

Test graphs as below:

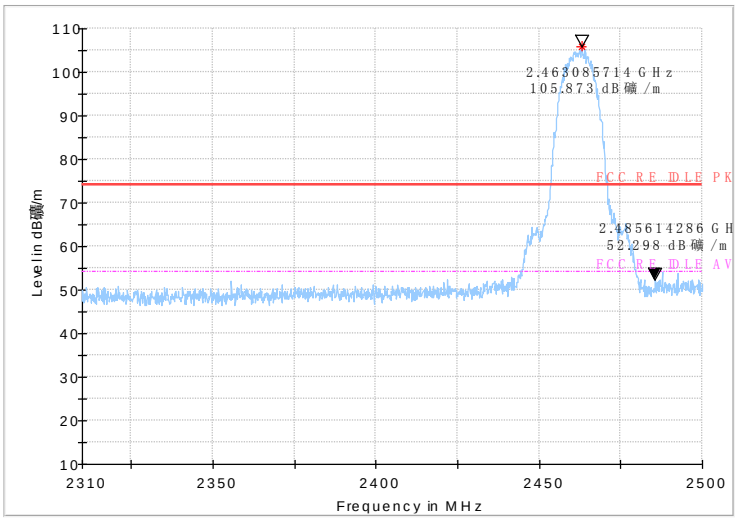


Peak detector

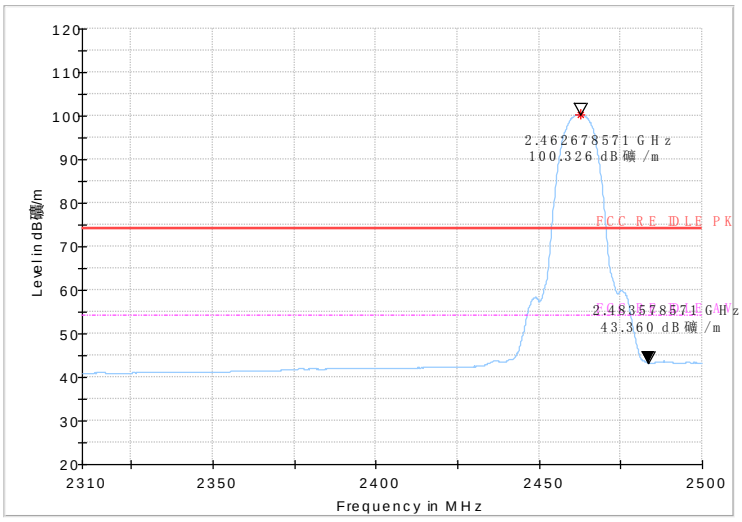


AV detector

Fig 1. Radiated emission (Power): 802.11b, low channel



Peak detector



AV detector

Fig 2. Radiated emission (Power): 802.11b, high channel

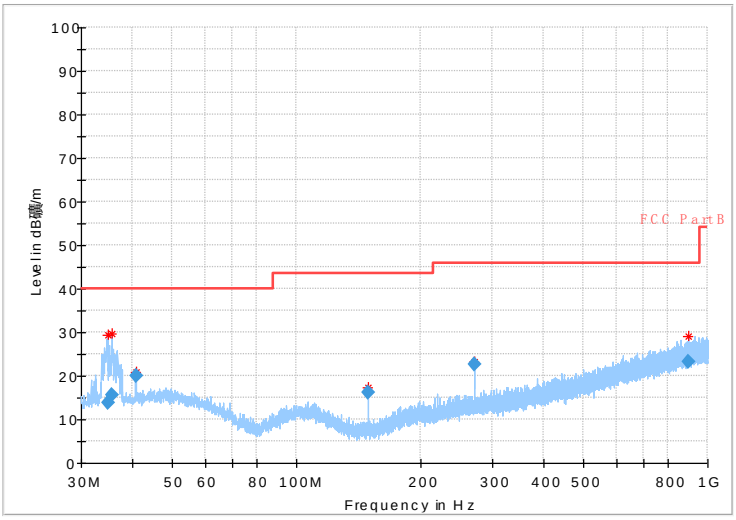


Fig 3. Radiated Spurious Emission (802.11b,Ch1,30MHz~1GHz)

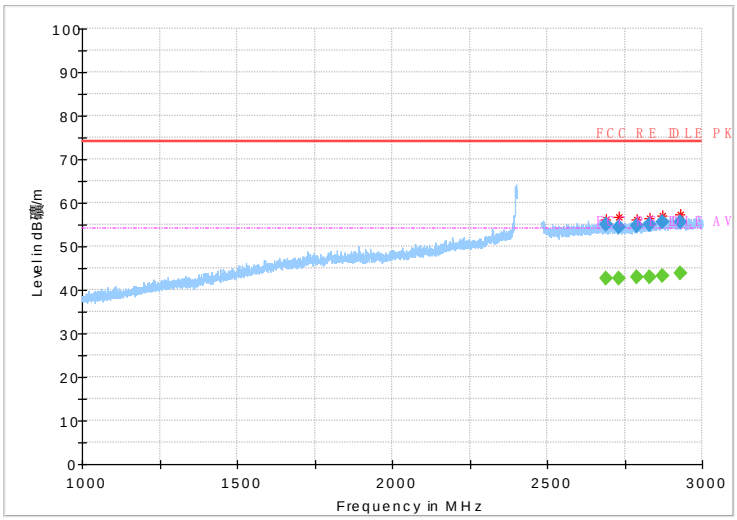


Fig 4. Radiated Spurious Emission (802.11b,Ch1,1GHz~3GHz)

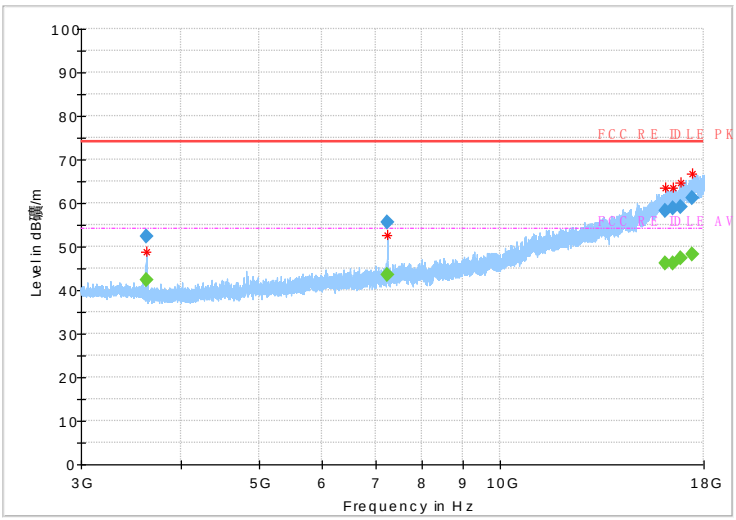
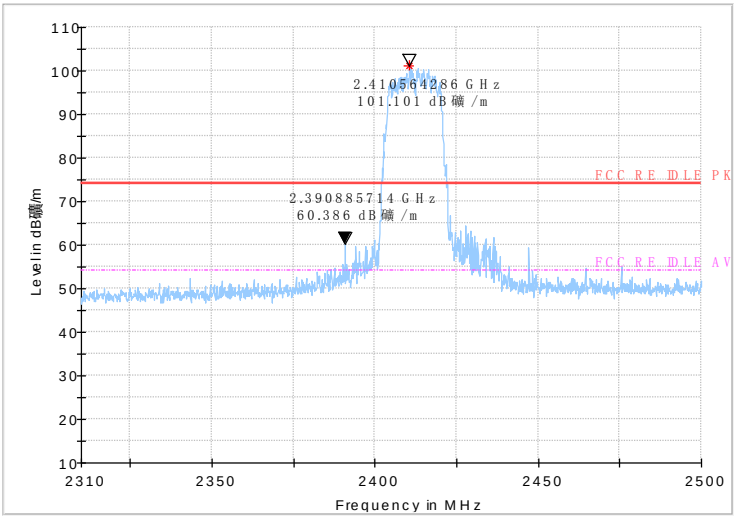
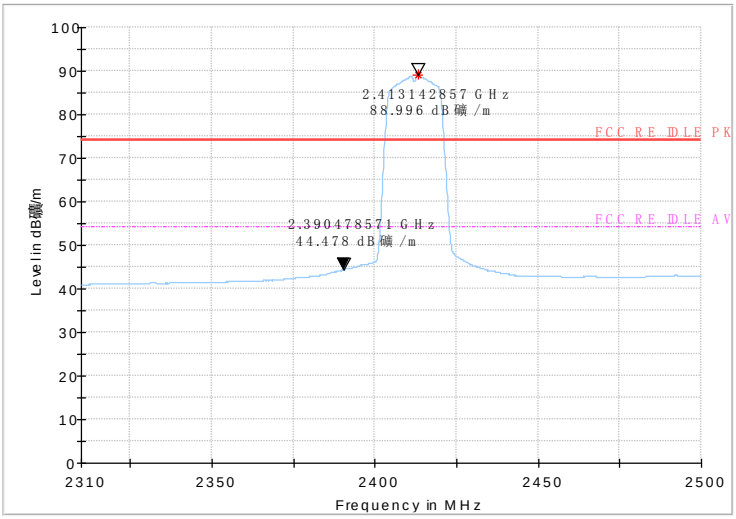


Fig 5. Radiated Spurious Emission (802.11b,Ch1,3GHz~18GHz)

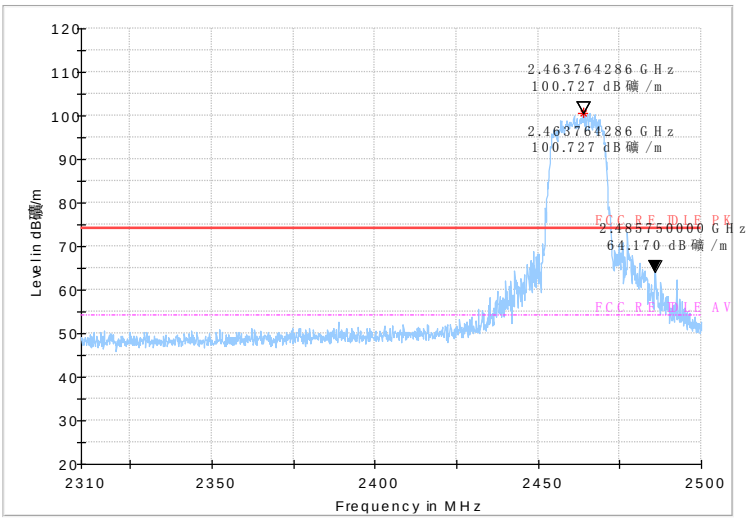


Peak detector

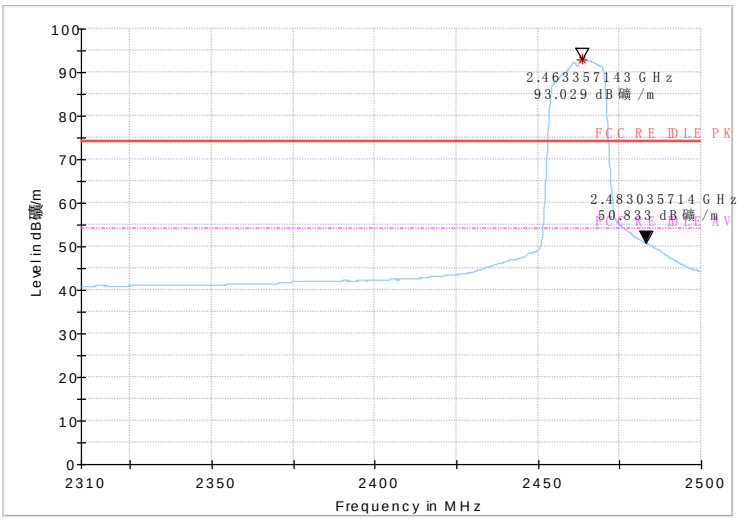


AV detector

Fig 6. Radiated emission (Power): 802.11g, low channel



Peak detector



AV detector

Fig 7. Radiated emission (Power): 802.11g, high channel

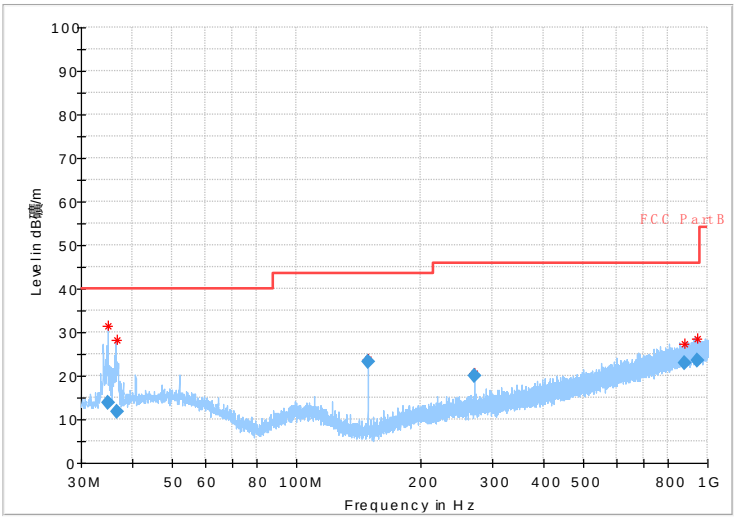


Fig 8. Radiated Spurious Emission (802.11g,Ch1,30MHz~1GHz)

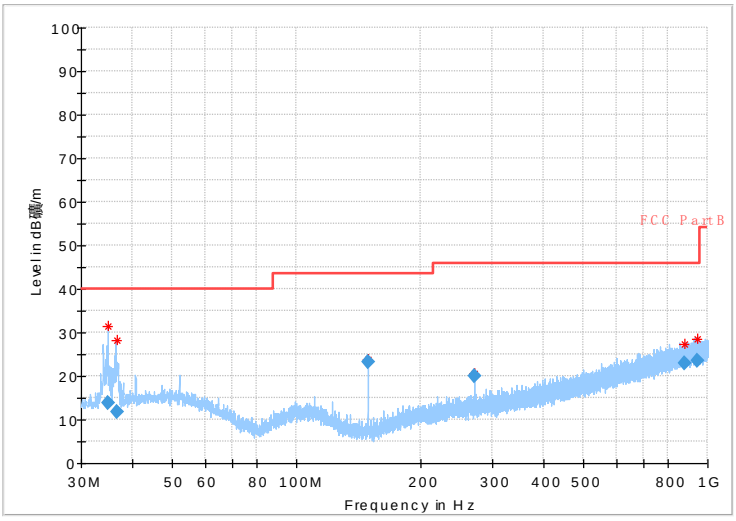


Fig 9. Radiated Spurious Emission (802. 1g,Ch11,1GHz~3GHz)

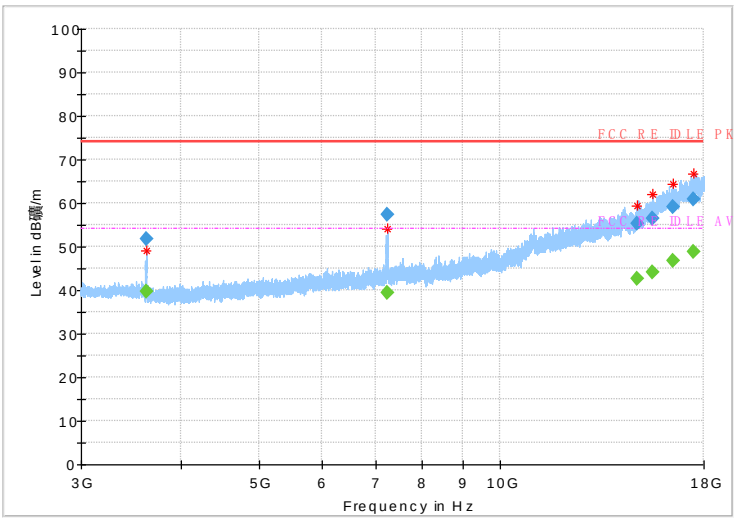
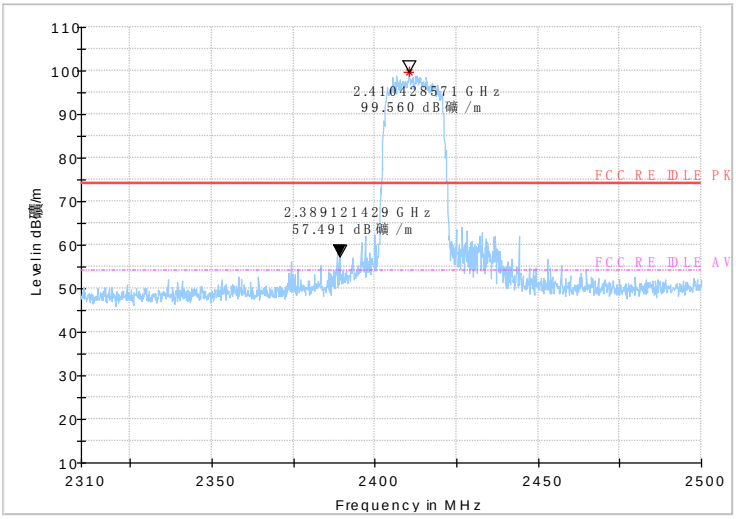
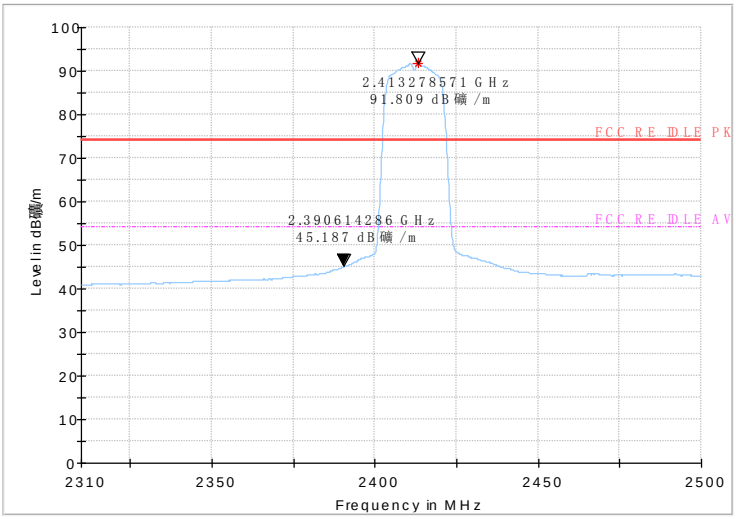


Fig 10. Radiated Spurious Emission (802.11g,Ch1,3GHz~18GHz)

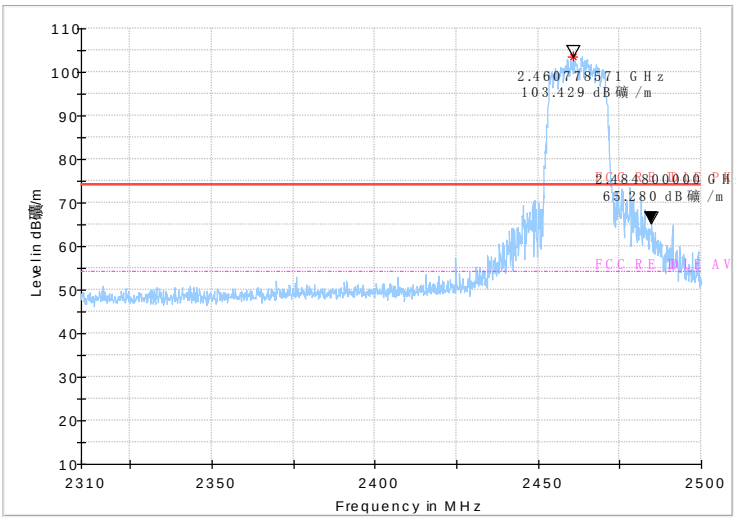


Peak detector

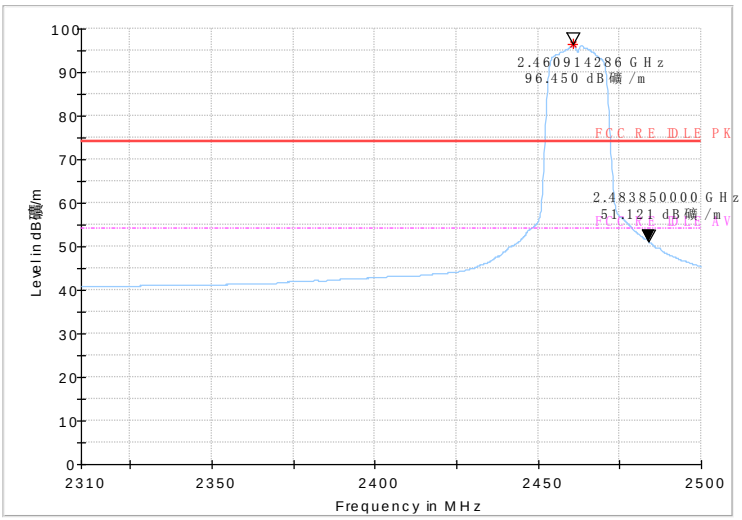


AV detector

Fig 11. Radiated emission (Power): 802.11n, low channel



Peak detector



AV detector

Fig 12. Radiated emission (Power): 802.11n, high channel

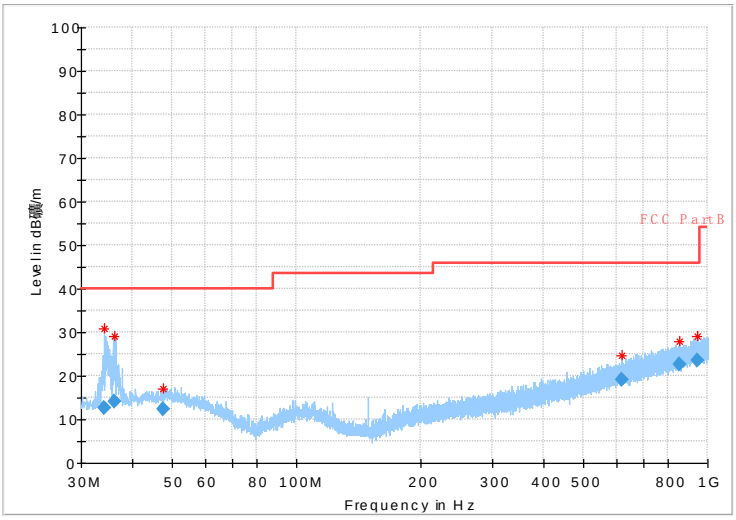


Fig 13. Radiated Spurious Emission (802.11 n-20MHz,Ch1,30MHz~1GHz)

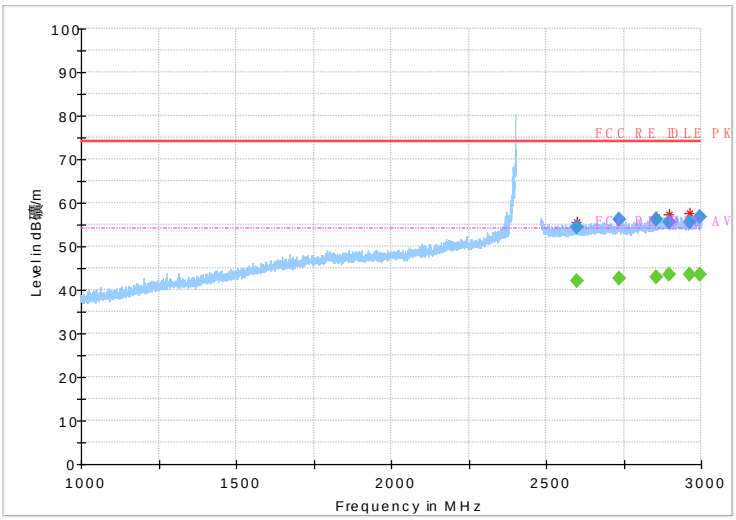


Fig 14. Radiated Spurious Emission (802.1 n-20MHz,Ch1,1GHz~3GHz)

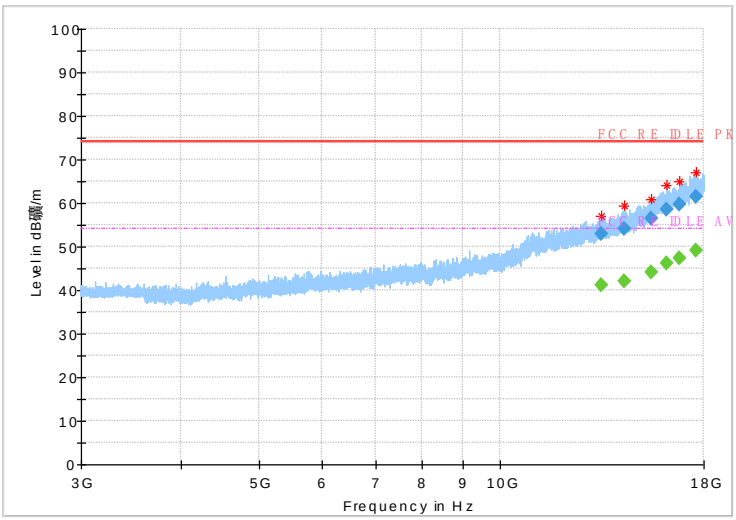
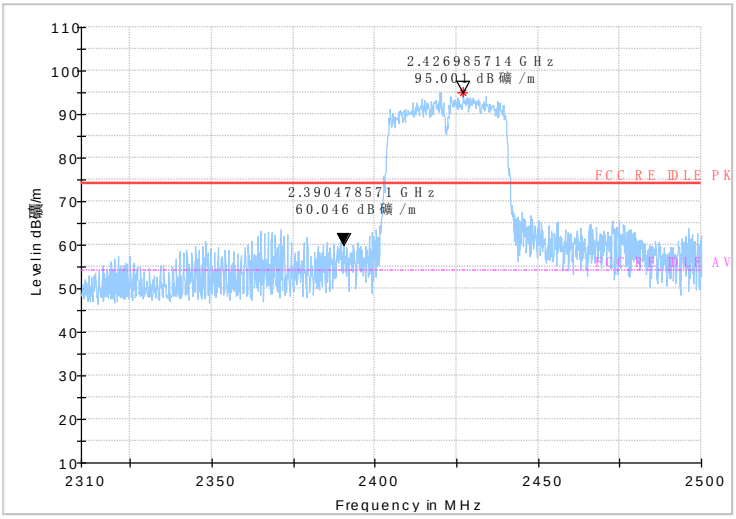
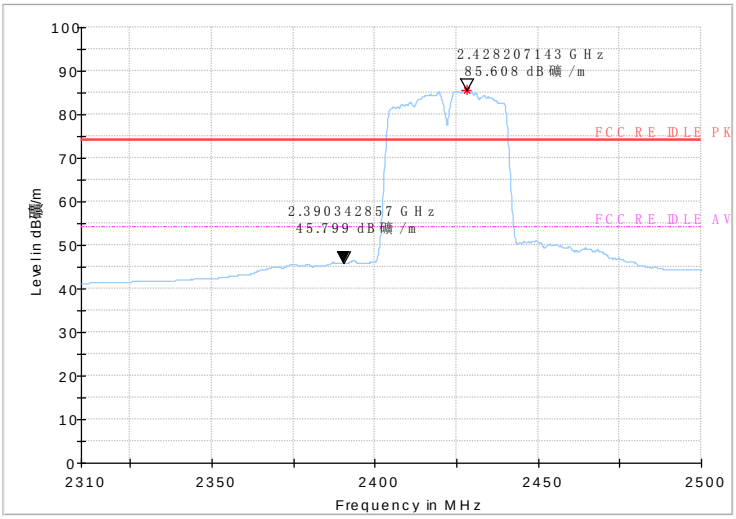


Fig 15. Radiated Spurious Emission (802.1 n-20MHz,Ch1,3GHz~18GHz)

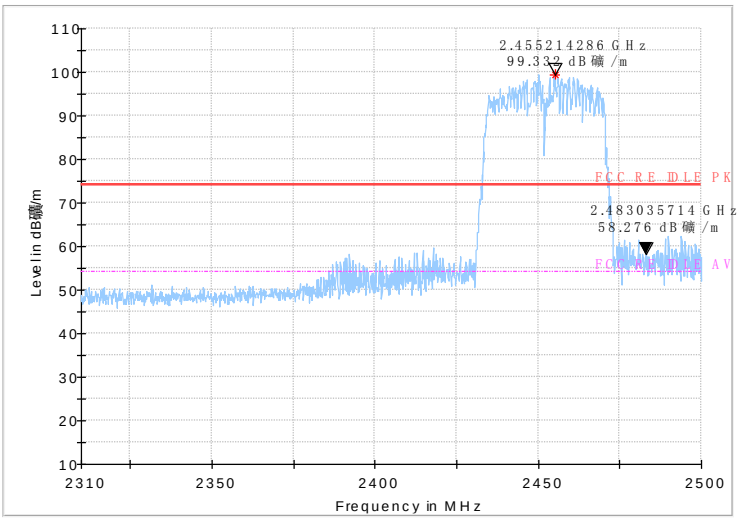


Peak detector

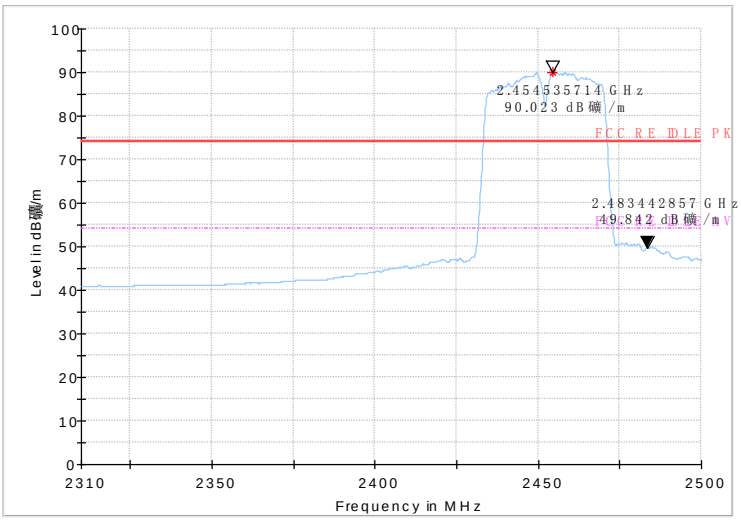


Average detector

Fig 16. Radiated emission (Power): 802.11n（40M）, low channel



Peak detector



Average detector

Fig 17. Radiated emission (Power): 802.11n（40M）, high channel

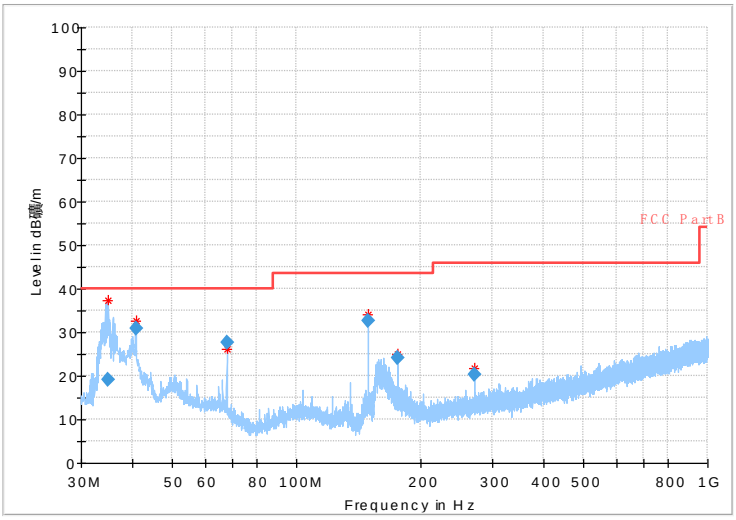


Fig 18. Radiated Spurious Emission (802.11 n-40MHz,Ch3,30MHz~1GHz)

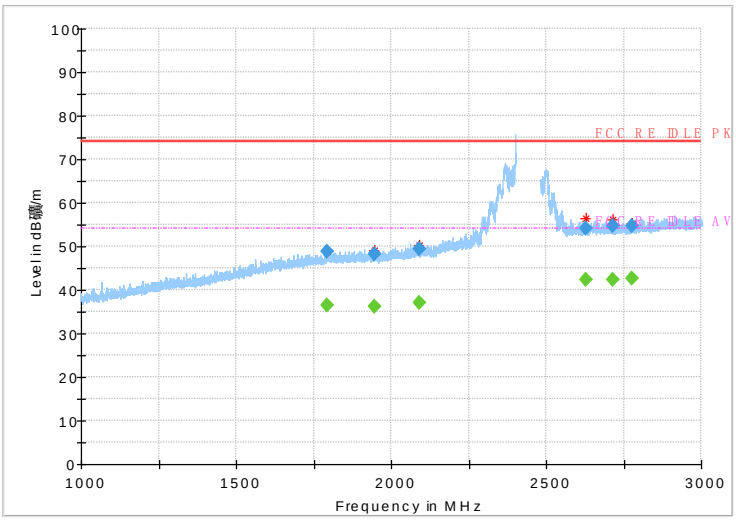


Fig 19. Radiated Spurious Emission (802.11 n-40MHz,Ch3,1GHz~3GHz)

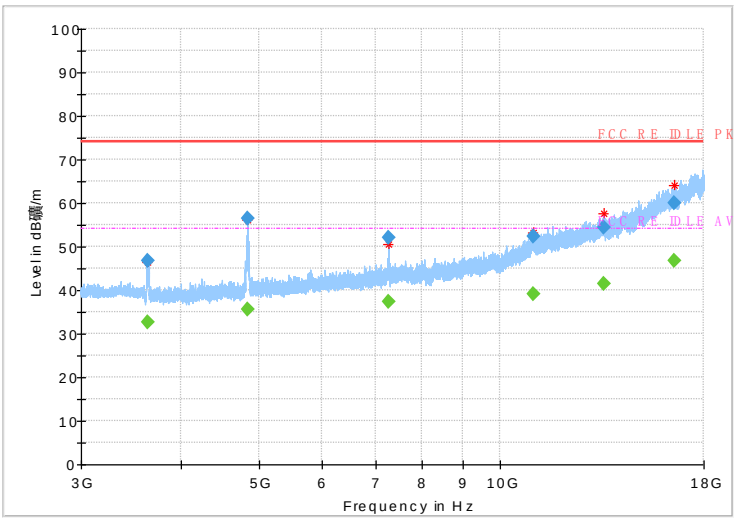
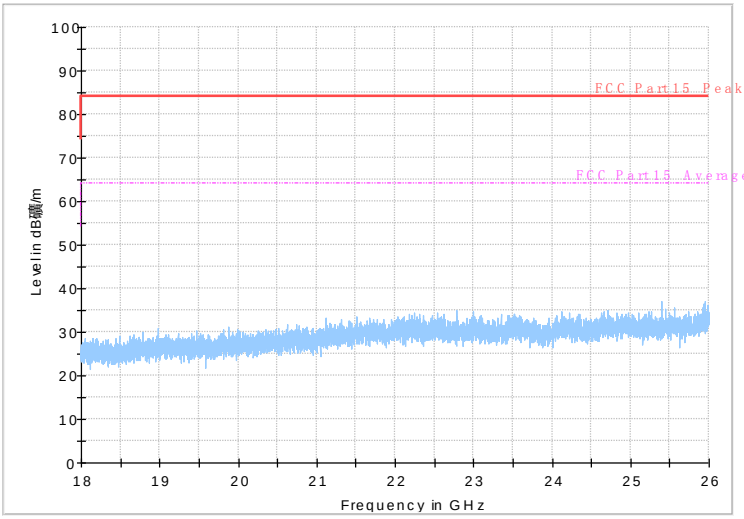


Fig 20. Radiated Spurious Emission (802.11 n-40MHz,Ch3,3GHz~18GHz)



18GHz~26GHz

6.2. AC Power line Conducted Emission

Method of Measurement: See ANSI C63.10 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)

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 21.	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

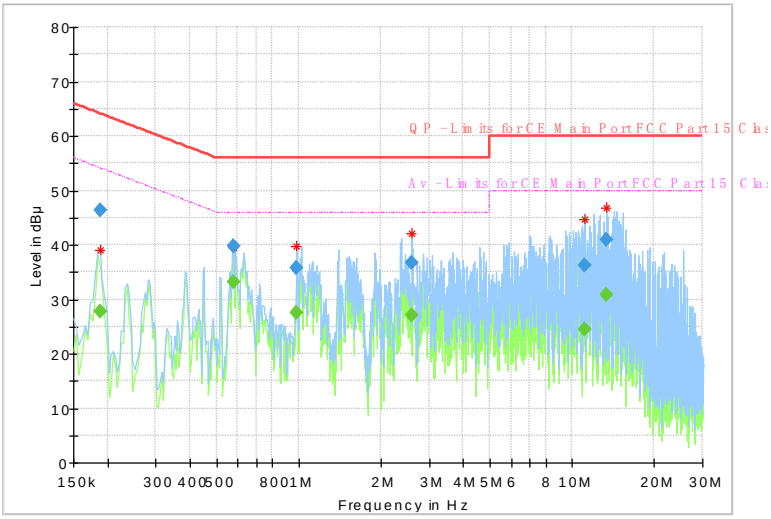


Fig.21 AC Power line Conducted Emission

Frequency (MHz)	QuasiPeak (dB µ V)	Average (dB µ V)	Limit (dB µ	Margin (dB)	Meas. Time	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.187312	46.41	---	64.15	17.74	1000.0	9.000	N	ON	9.6
0.187312	---	27.72	54.15	26.43	1000.0	9.000	N	ON	9.6
0.575362	39.65	---	56.00	16.35	1000.0	9.000	L1	ON	9.6
0.575362	---	33.27	46.00	12.73	1000.0	9.000	L1	ON	9.6
0.982069	35.87	---	56.00	20.13	1000.0	9.000	L1	ON	9.7
0.982069	---	27.63	46.00	18.37	1000.0	9.000	L1	ON	9.7
2.601431	---	27.11	46.00	18.89	1000.0	9.000	L1	ON	9.7
2.601431	36.72	---	56.00	19.28	1000.0	9.000	L1	ON	9.7
11.071369	36.24	---	60.00	23.76	1000.0	9.000	N	ON	9.8
11.071369	---	24.52	50.00	25.48	1000.0	9.000	N	ON	9.8
13.395938	---	30.76	50.00	19.24	1000.0	9.000	L1	ON	9.8
13.395938	40.91	---	60.00	19.09	1000.0	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 Analyzer	FSQ26	101096	Rohde&Schwarz	2017-05-11	1 Year
2	DC Power Supply	ZUP60-14	LOC-220Z006-0007	TDL-Lambda	2017-05-11	1 Year

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration date	Cal.interval
1	Universal Radio Communication Tester	CMU200	123123	R&S	2017-05-11	1 Year
2	EMI Test Receiver	ESU40	100307	R&S	2017-05-11	1 Year
3	TRILOG Broadband Antenna	VULB9163	VULB9163-515	Schwarzbeck	2017-02-25	3 Year
4	Double-ridged Waveguide Antenna	ETS-3117	00135890	ETS	2017-01-11	3 Year
5	2-Line V-Network	ENV216	101380	R&S	2017-05-11	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. = 20 %, Max. = 75 %
Shielding effectiveness	> 100 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	> 100 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 OF REPORT **********