TEST REPORT

No. I17D00247-SRD03

For

Client : Shanghai Sunmi Technology Co.,Ltd.

Production : POS System

Model Name : W1303

FCC ID: 2AH25W1301

Hardware Version: B3.2

Software Version: SUNMI_T1mini_GLOBAL_000009_170913

Issued date: 2018-01-09

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
I17D00247-SRD03	00	2017-12-29	Initial creation of test report
I17D00247-SRD03	01	2018-01-09	Second creation of test report

CONTENTS

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

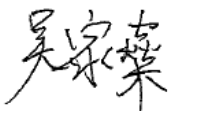
1.2. Testing Environment

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

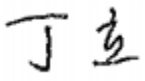
1.3. Project data

Project Leader:	Zhou Yan
Testing Start Date:	2017-12-26
Testing End Date:	2017-12-28

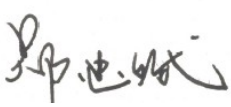
1.4. Signature



Wu Jiashen
(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	POS System
Model name	W1303
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	24V
Extreme High Voltage	25.2V
Extreme Low Voltage	22.8V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of receipt
N01	N/A	B3.2	SUNMI_T1mini_GLOBAL_000009_170913	2017-11-01

*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	24V
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 W1303, supporting WLAN/BT/BLE, manufactured by Shanghai Sunmi Technology Co.,Ltd. is a variant product for testing.

In this report, only worst-case of RSE and AC Power line are tested from the original report. The other test cases please refer to the prototype report No: I17D00239-SRD03, which was prepared by East China Institute of Telecommunications.

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 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 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
	11	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
34.287732	14.18	-12	26.18	V
48.670752	15.42	-9.2	24.62	V
65.462688	13.95	-11.9	25.85	H
156.8896	28.01	-13.2	41.21	H
224.888376	21.22	-9	30.22	V
438.053944	31.52	-2.2	33.72	H

Ch1 1GHz~3GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
1804.0796	47.07	19	28.07	V
1871.6244	49.18	21.3	27.88	V
2225.5588	48.53	20.5	28.03	V
2601.3775	51.94	24.5	27.44	H
2699.60173	51.84	25.1	26.74	V
2827.891539	53.24	25.8	27.44	H

Ch1 3GHz~18GHz (Peak)

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

3634.208267	40.28	-2.4	42.68	V
4942.554067	40.85	0	40.85	V
5776.5372	43.87	2.3	41.57	H
7928.548133	44.94	5.5	39.44	V
10997.2786	51.2	14.4	36.8	H
15416.27113	56.3	22.6	33.7	V

Ch1 3GHz~18GHz (Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15416.27113	44.1	22.6	21.5	V

802.11g

Ch11 30MHz~1GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
37.589344	16.38	-11.1	27.48	V
48.406072	15.41	-9.2	24.61	V
154.989896	26.87	-13.4	40.27	H
241.510788	20.98	-8.2	29.18	H
467.991328	30.03	-1.9	31.93	H
819.12128	17.97	5.2	12.77	V

Ch11 1GHz~3GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2573.113462	51.75	24.3	27.45	V
2685.778269	53.18	25	28.18	H
2758.311153	52.18	25.1	27.08	H
2835.95	53.48	25.9	27.58	V
2900.325385	53.08	26.2	26.88	V
2983.247307	53.39	26.6	26.79	V

Ch11 3GHz~18GHz (Peak)

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

7193.495067	45.7	4.2	41.5	H
13326.15747	53.16	16.7	36.46	V
14276.9782	53.76	19.9	33.86	H
14948.4782	56.01	21.4	34.61	V
16456.3874	57.89	25.8	32.09	H
17608.5184	60.84	28.7	32.14	V

Ch11 3GHz~18GHz (Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14948.4782	43.58	21.4	22.18	V
16456.3874	46.17	25.8	20.37	H
17608.5184	49.24	28.7	20.54	V

802.11n-20MHz

Ch1 30MHz~1GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
33.980452	15.11	-12	27.11	V
48.187412	15.47	-9.2	24.67	V
158.990508	25.18	-13	38.18	H
288.03714	22.06	-6.6	28.66	H
452.37832	30.64	-2.2	32.84	H
896.178476	19.12	5.8	13.32	V

Ch1 1GHz~3GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
2579.783846	52.18	24.3	27.88	H
2685.815385	52.43	25	27.43	V
2751.470961	52.36	25.1	27.26	H
2848.19	53.05	26.1	26.95	V
2915.241346	52.75	26.3	26.45	H

2944.78423	53.37	26.4	26.97	V

Ch1 3GHz~18GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14308.88867	53.93	20.1	33.83	H
15417.6096	55.77	22.6	33.17	H
16212.64333	57.83	25	32.83	V
16839.489	60.39	26.9	33.49	V
17577.97133	60.53	28.7	31.83	H
17898.31867	61.52	28.7	32.82	H

Ch1 3GHz~18GHz(Average)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
15417.6096	43.64	22.6	21.04	H
16212.64333	45.74	25	20.74	V
16839.489	47.59	26.9	20.69	V
17577.97133	49.01	28.7	20.31	H
17898.31867	49.04	28.7	20.34	H

802.11n-40MHz

Ch3 30MHz~1GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
71.984516	19.94	-13.3	33.24	V
144.0189	21.25	-14	35.25	H
208.802968	20.69	-9.5	30.19	H
283.702544	24.94	-6.7	31.64	H
360.555588	25.11	-4.3	29.41	H
459.079824	30.55	-2.2	32.75	H

Ch3 1GHz~3GHz (Peak)

Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
1873.7792	48.5	21.3	27.2	V

2316.78	49.38	22.4	26.98	V
2558.697885	51.04	24.2	26.84	H
2579.6675	52.03	24.3	27.73	V
2651.554423	52.48	24.9	27.58	H
2776.089038	52.86	25.3	27.56	V

Ch3 3GHz~18GHz (Peak)

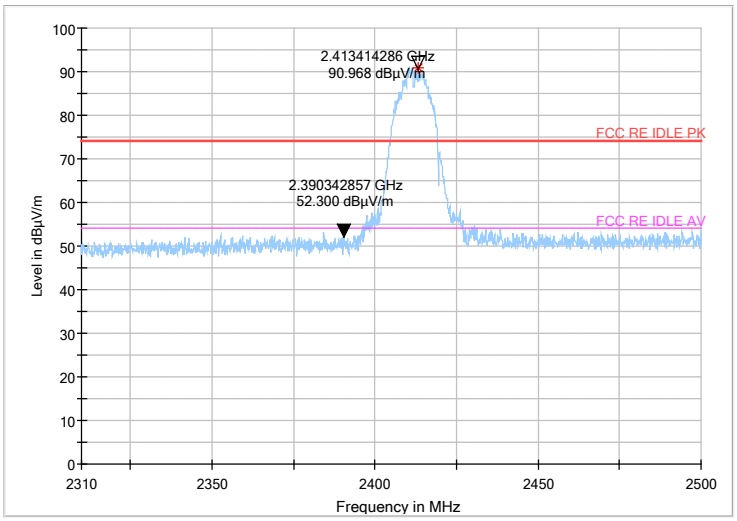
Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
13436.85093	52.83	17.4	35.43	H
14301.06067	54.08	20.2	33.88	V
14932.717	55.73	21.5	34.23	V
15813.71953	57.87	24	33.87	H
16507.18527	60.41	26.4	34.01	H
17578.78693	61.65	28.7	32.95	V

Ch3 3GHz~18GHz (Average)

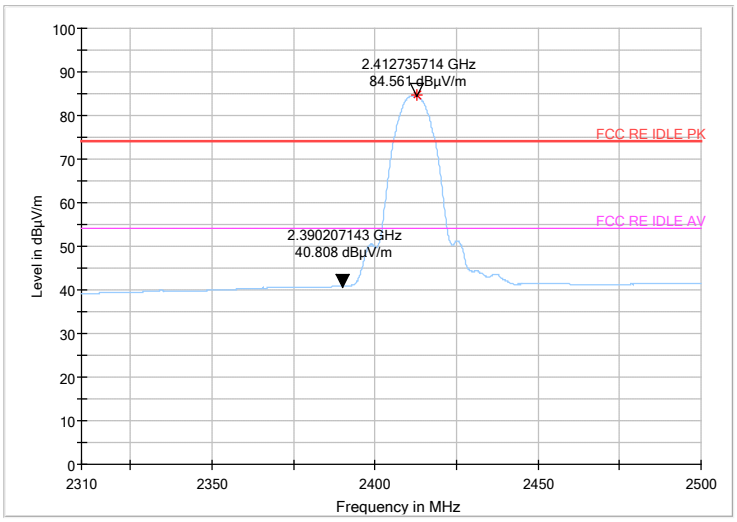
Frequency(MHz)	Result(dBuV/m)	ARpl (dB)	PMea(dBuV/m)	Polarity
14301.06067	42.3	20.2	22.1	V
14932.717	43.63	21.5	22.13	V
15813.71953	45.26	24	21.26	H
16507.18527	46.87	26.4	20.47	H
17578.78693	49.28	28.7	20.58	V

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

Test graphs as below:

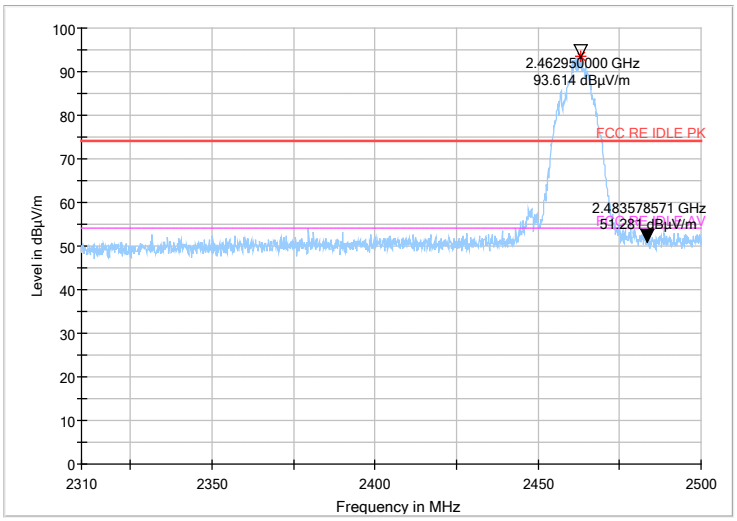


Peak detector

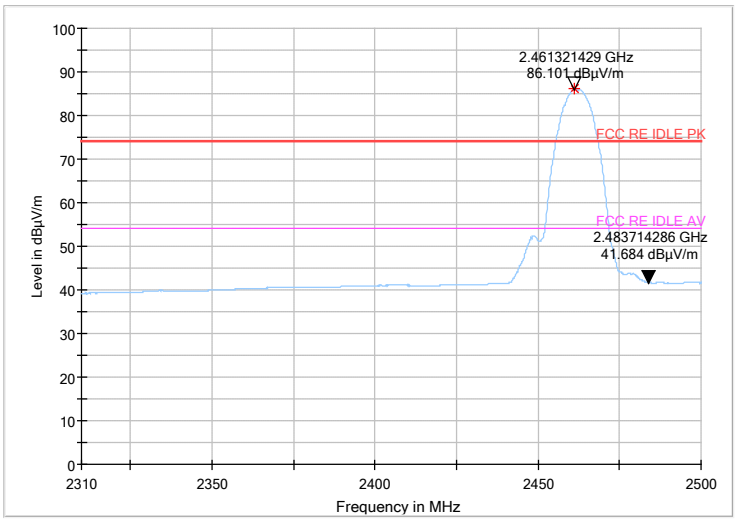


AV detector

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



Peak detector



AV detector

Fig 2. Fig.58 Radiated emission (Power): 802.11b, high channel

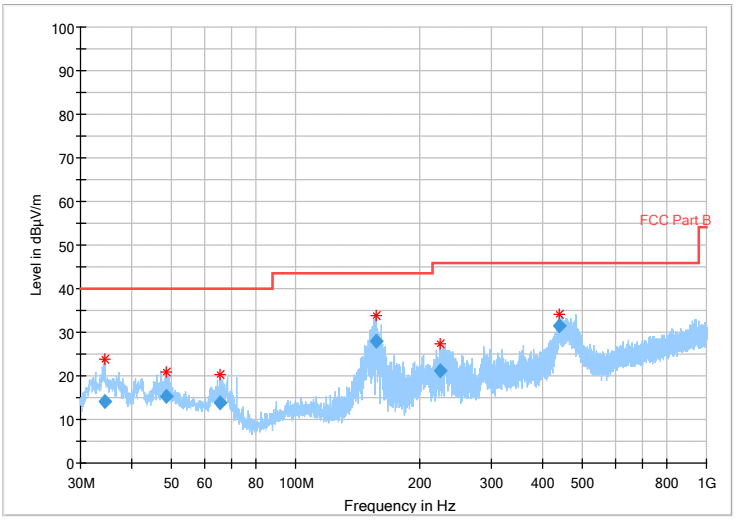


Fig 3. Fig.59 Radiated Spurious Emission (802.11b,Ch1,30MHz~1GHz)

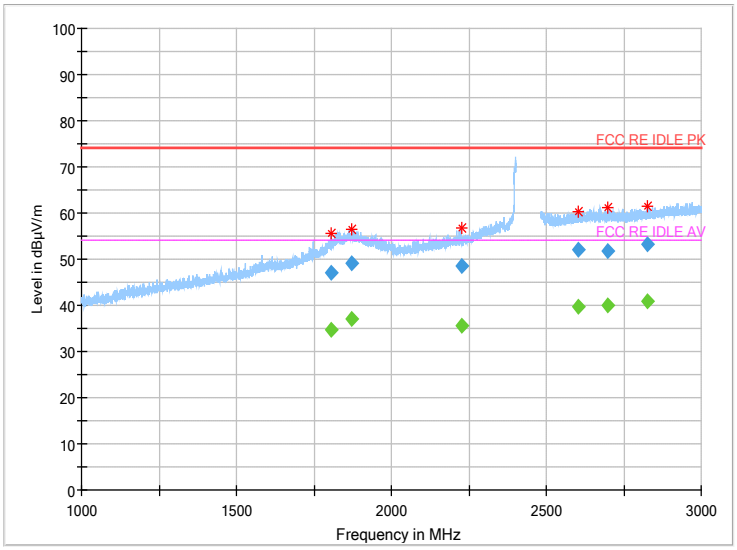


Fig 4. Radiated Spurious Emission (802.11b,Ch1,1GHz~3GHz)

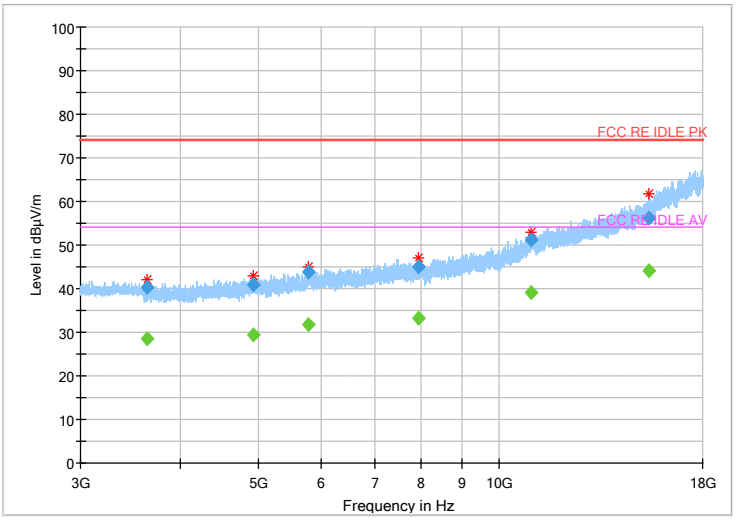
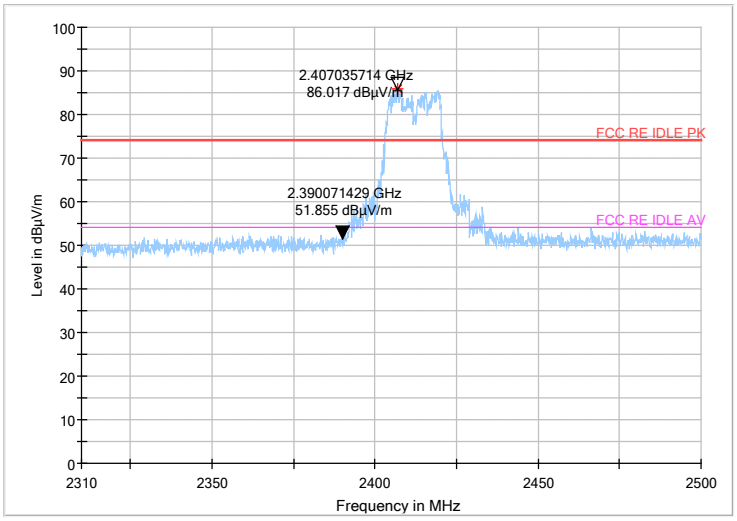
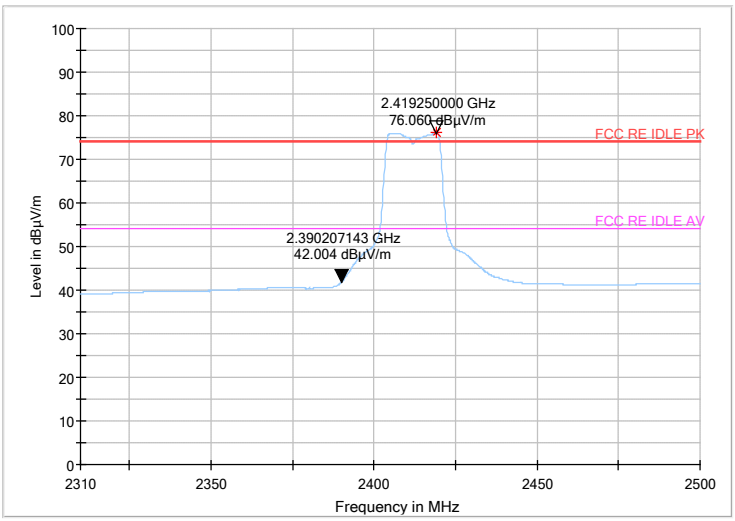


Fig 5. Radiated Spurious Emission (802.11b,Ch1,3GHz~18GHz)

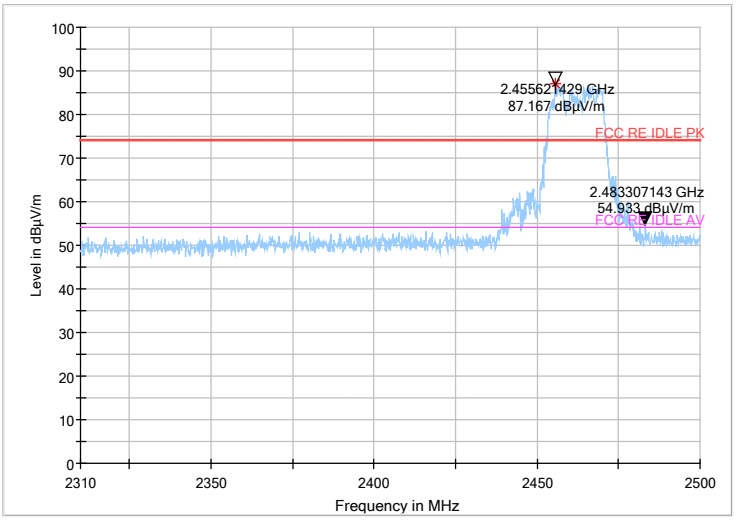


Peak detector

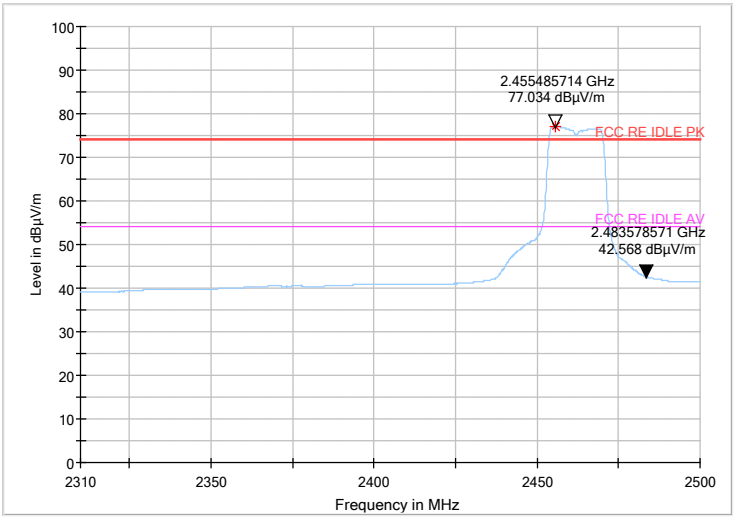


AV detector

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



Peak detector



AV detector

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

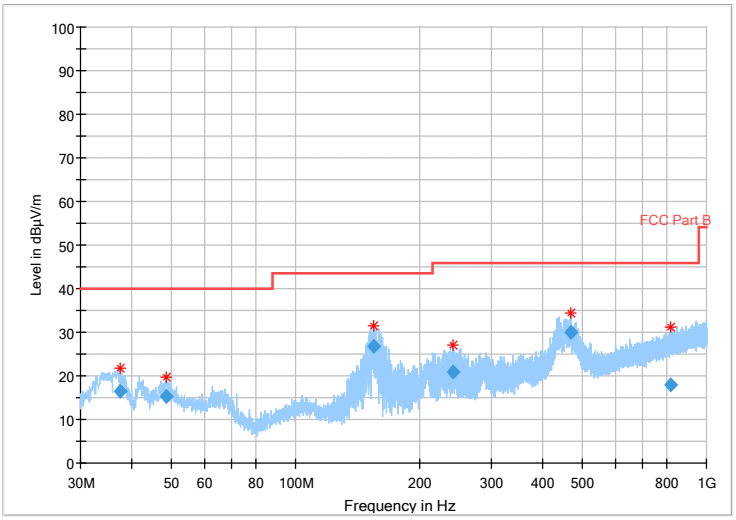


Fig 8. Radiated Spurious Emission (802.11g,Ch11,30MHz~1GHz)

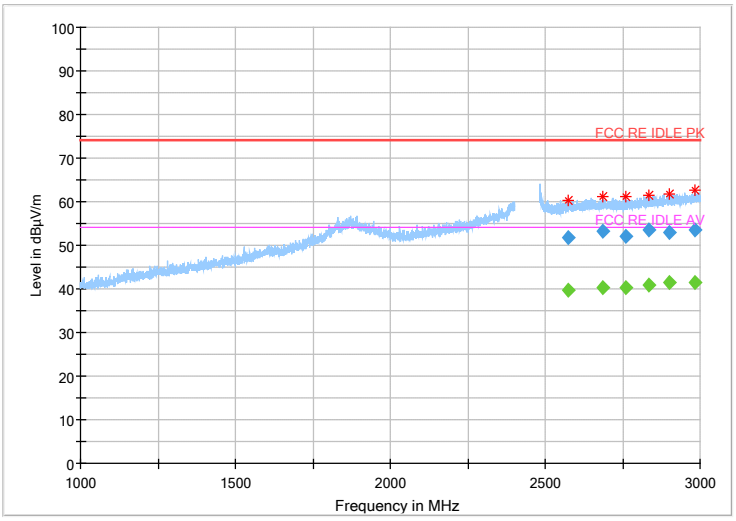


Fig 9. Fig.65 Radiated Spurious Emission (802.11g,Ch11,1GHz~3GHz)

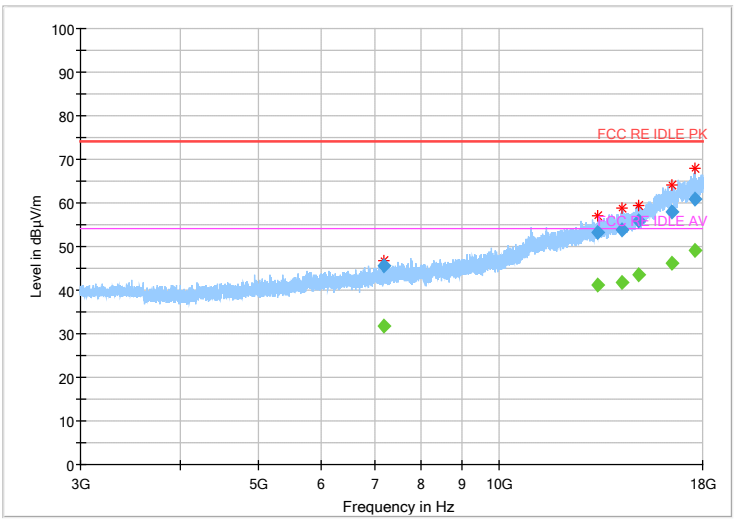
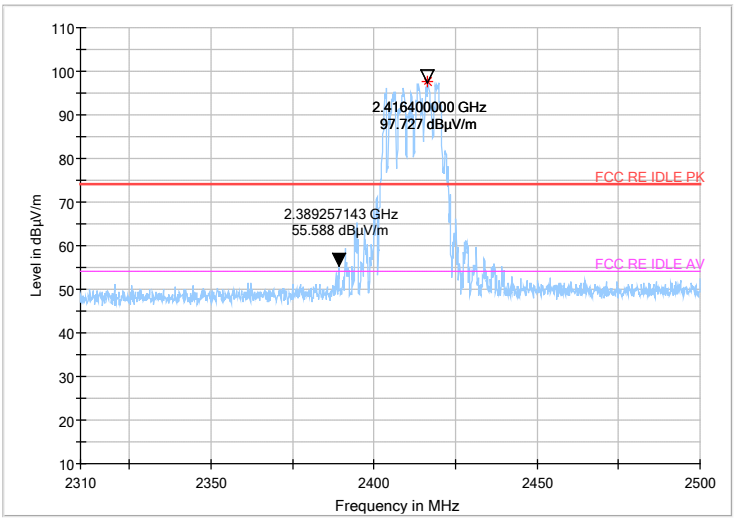
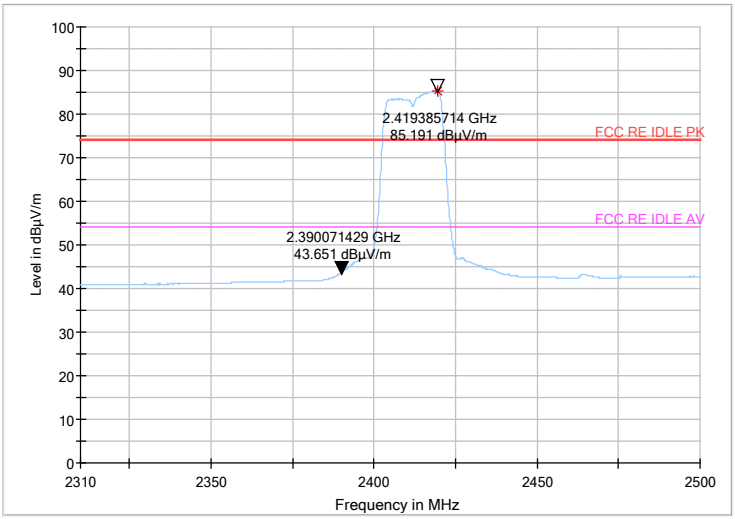


Fig 10. Fig.66 Radiated Spurious Emission (802.11g,Ch11,3GHz~18GHz)

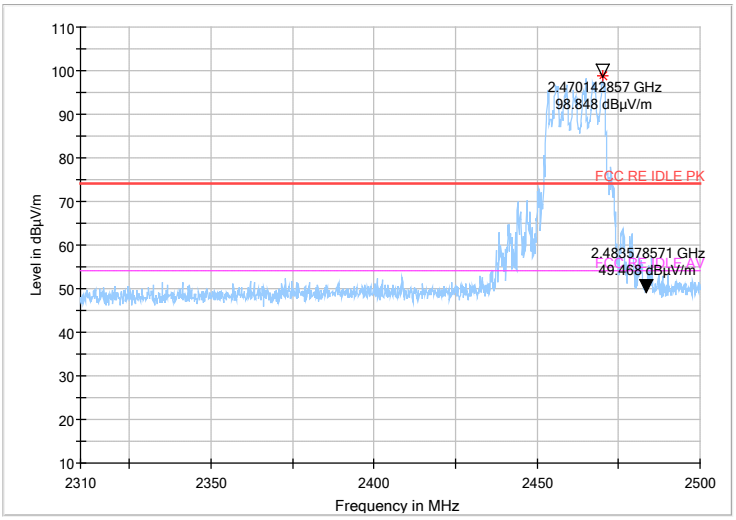


Peak detector

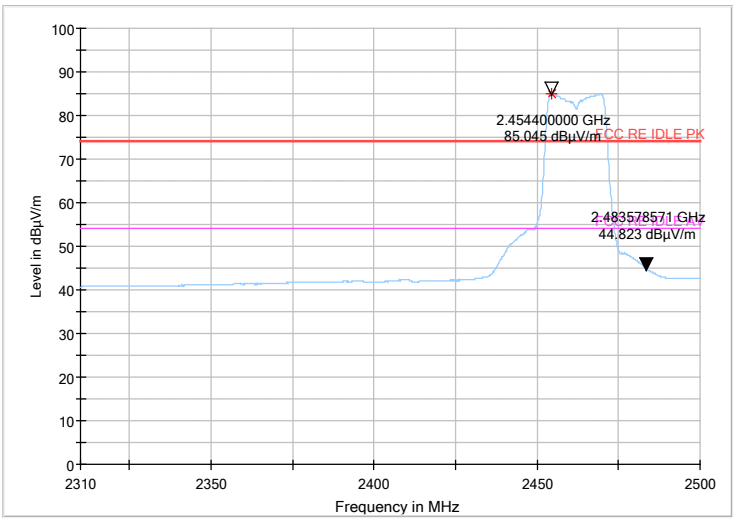


AV detector

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



Peak detector



AV detector

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

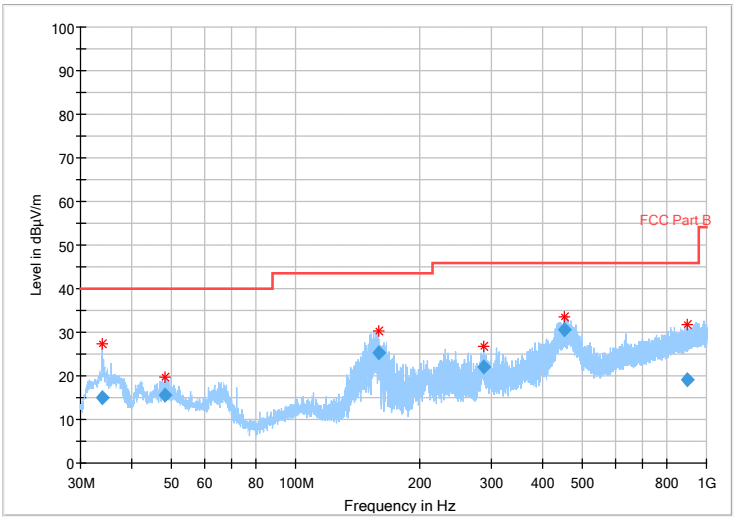


Fig 13. Radiated Spurious Emission (802.11 n-20MHz,Ch1,30MHz~1GHz)

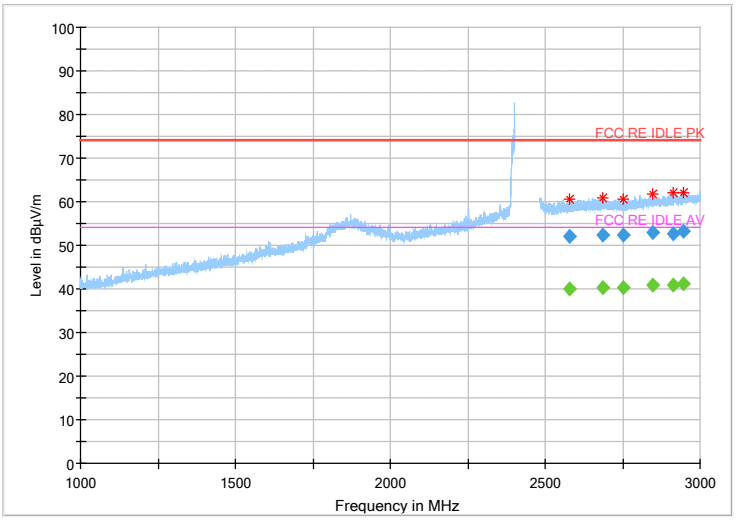


Fig 14. Radiated Spurious Emission (802.11 n-20MHz,Ch1,1GHz~3GHz)

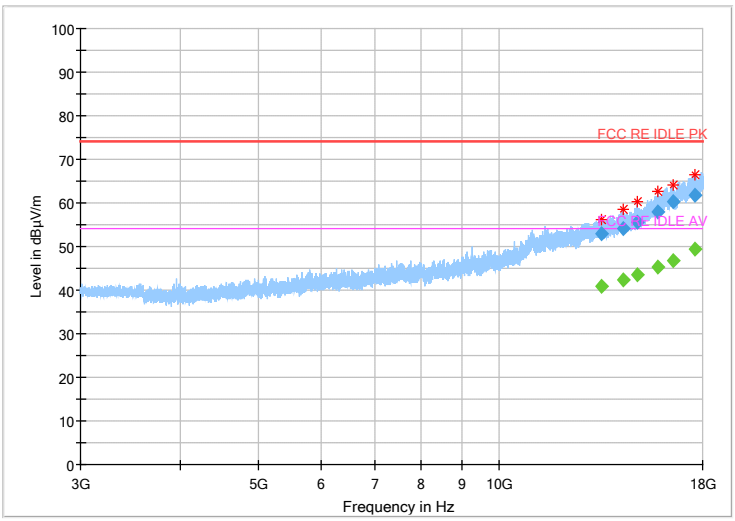
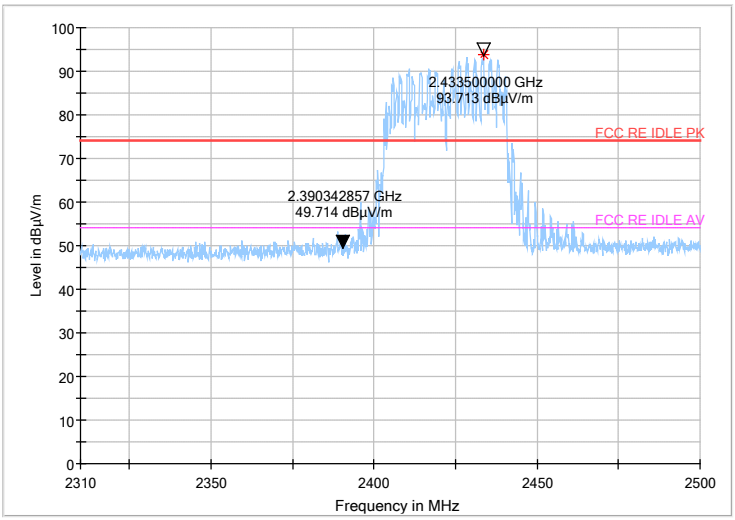
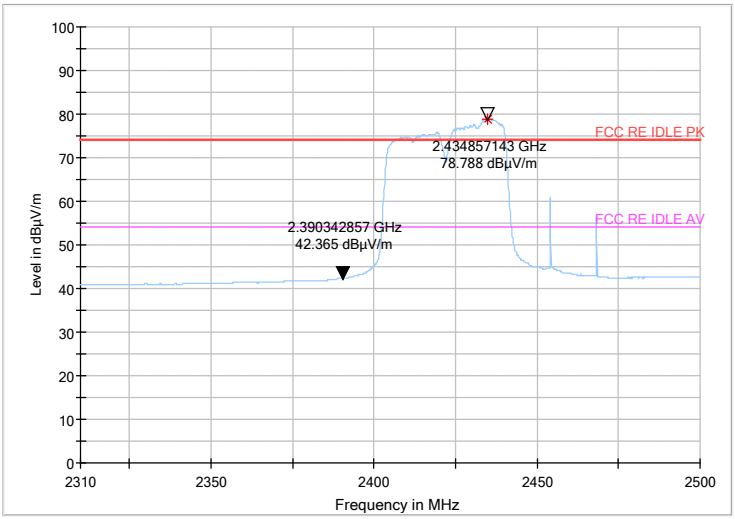


Fig 15. Radiated Spurious Emission (802.11 n-20MHz,Ch1,3GHz~18GHz)

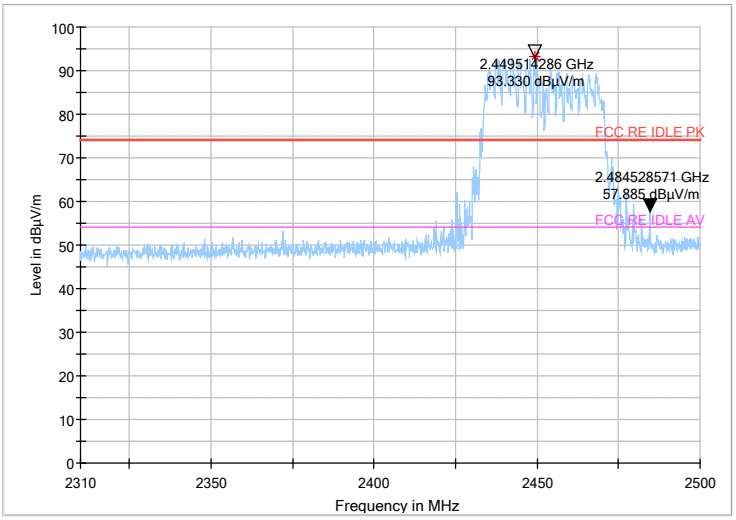


Peak detector

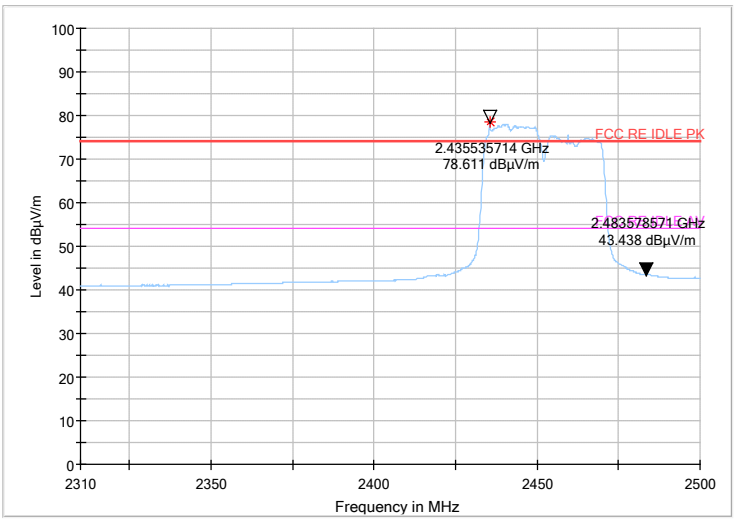


Average detector

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



Peak detector



Average detector

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

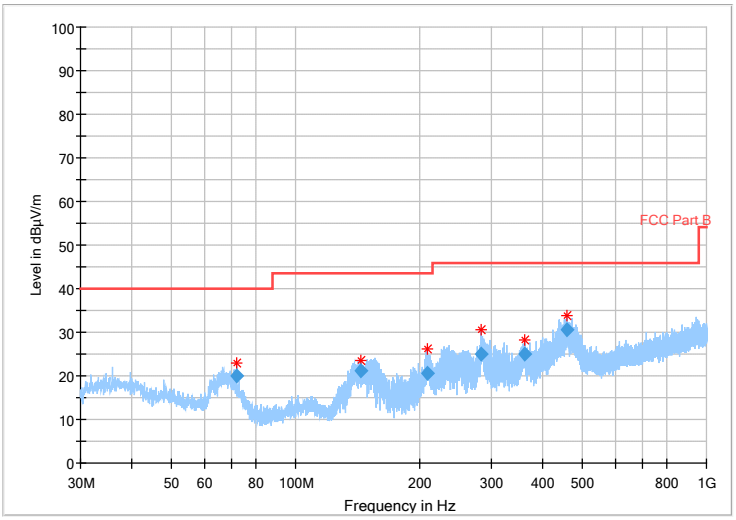


Fig 18. Radiated Spurious Emission (802.11 n-40MHz,Ch3,30MHz~1GHz)

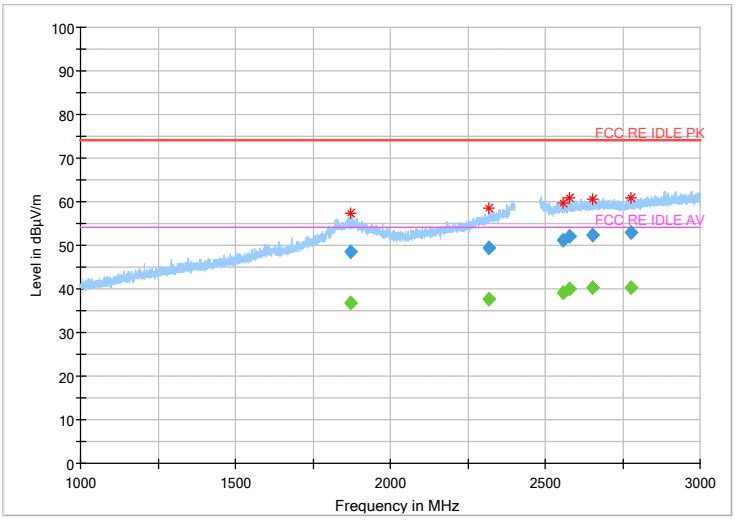


Fig 19. Radiated Spurious Emission (802.11 n-40MHz,Ch3,1GHz~3GHz)

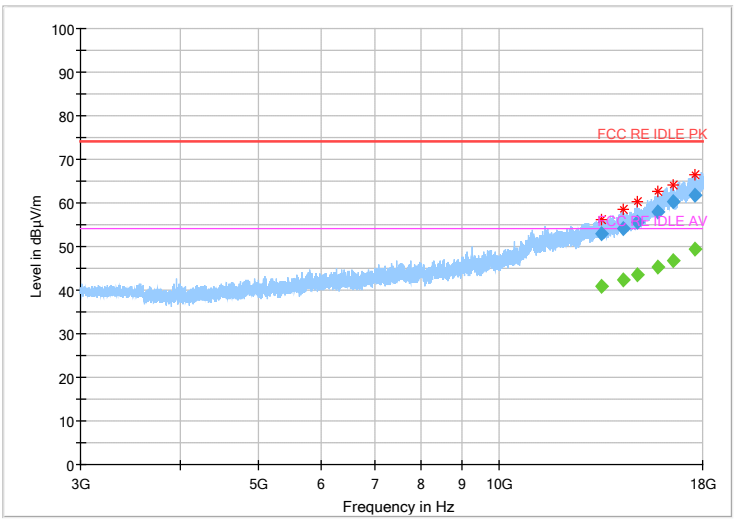
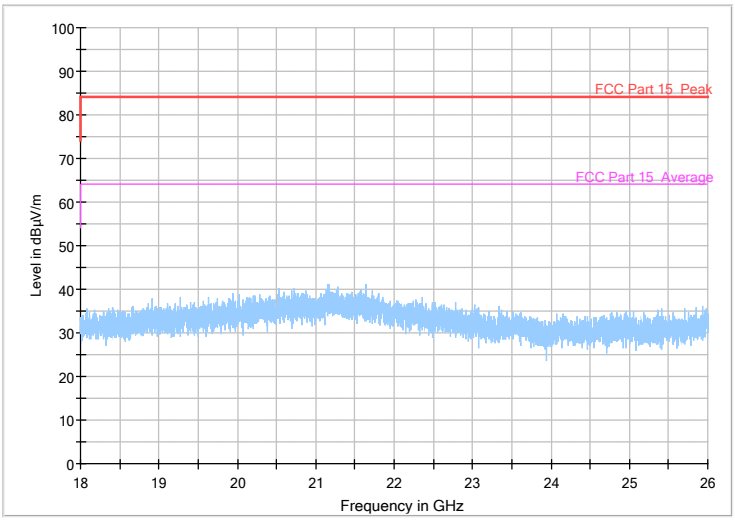


Fig 20. Radiated Spurious Emission (802.11 n-40MHz,Ch3,3GHz~18GHz)



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

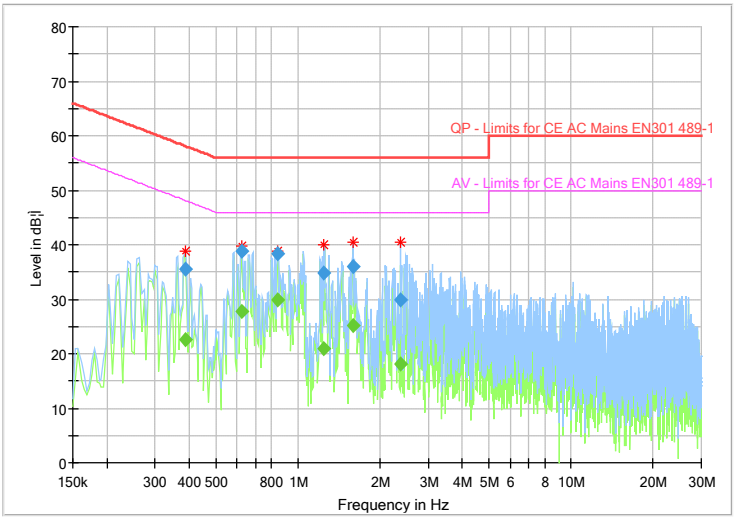


Fig.21 AC Power line Conducted Emission

Frequency (MHz)	QuasiPeak (dB µ V)	Average (dB µ V)	Limit (dB µ	Margin (dB)	Meas. Time	Bandwidth (kHz)	Line	Filter	Corr. (dB)
0.388800	35.56	---	58.09	22.53	1000.0	9.000	N	ON	9.7
0.388800	---	22.68	48.09	25.41	1000.0	9.000	N	ON	9.7
0.620138	38.94	---	56.00	17.06	1000.0	9.000	L1	ON	9.7
0.620138	---	27.70	46.00	18.30	1000.0	9.000	L1	ON	9.7
0.844012	---	29.84	46.00	16.16	1000.0	9.000	L1	ON	9.7
0.844012	38.43	---	56.00	17.57	1000.0	9.000	L1	ON	9.7
1.246988	---	20.93	46.00	25.07	1000.0	9.000	N	ON	9.7
1.246988	34.81	---	56.00	21.19	1000.0	9.000	N	ON	9.7
1.597725	---	25.15	46.00	20.85	1000.0	9.000	L1	ON	9.7
1.597725	36.00	---	56.00	20.00	1000.0	9.000	L1	ON	9.7
2.377556	---	18.18	46.00	27.82	1000.0	9.000	L1	ON	9.7
2.377556	29.99	---	56.00	26.01	1000.0	9.000	L1	ON	9.7

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.

ANNEX B. Accreditation Certificate

Accredited Laboratory

A2LA has accredited

EAST CHINA INSTITUTE OF TELECOMMUNICATIONS

Shanghai, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 15th day of March 2017.

President and CEO
For the Accreditation Council
Certificate Number 3682.01
Valid to February 28, 2019

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

********** END OF REPORT **********