



**Partial  
FCC PART 15C  
TEST REPORT  
No. I15Z42367-SRD02**

**for**

**Huawei Technologies Co., Ltd.**

**LTE/WCDMA/GSM Smart Phone**

**Model Name: H1512**

**With**

**Hardware Version: HL3 NINAMH**

**Software Version: User release M MDA2**

**FCC ID: QISH1512**

**Issued Date: Sep 10<sup>th</sup>, 2015**



**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 CTTL.

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I15Z42367-SRD02	Rev.0	1st edition	2015-09-10

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## **1. Test Laboratory**

### **1.1. Testing Location**

Location 1:CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,  
P. R. China100191

Location 2:CTTL(Shouxiang)

Address: No. 51 Shouxiang Science Building, Xueyuan Road,  
Haidian District, Beijing, P. R. China100191

### **1.2. Testing Environment**

Normal Temperature: 15-35°C  
Extreme Temperature: -20/+55°C  
Relative Humidity: 20-75%

### **1.3. Project data**

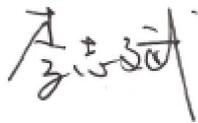
Testing Start Date: 2015-08-26  
Testing End Date: 2015-09-10

### **1.4. Signature**



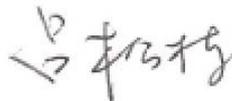
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**Xu Zhongfei**  
**(Prepared this test report)**



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**Li Zhibin**  
**(Reviewed this test report)**



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**Lv Songdong**  
**(Approved this test report)**



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: Huawei Technologies Co., Ltd.  
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### **2.2. Manufacturer Information**

Company Name: Huawei Technologies Co., Ltd.  
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Postal Code: /  
Country: China  
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### **3. Equipment Under Test (EUT) and Ancillary Equipment (AE)**

#### **3.1. About EUT**

Description	LTE/WCDMA/GSM Smart Phone
Model Name	H1512
Market Name	/
RF Protocol	IEEE 802.11b/g/n20
Operating Frequency	2412MHz~2462MHz
FCC ID	QISH1512

\*Note: Photographs of EUT are shown in ANNEX A of this test report.

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>IMEI</b>	<b>HW Version</b>	<b>SW Version</b>
EUT1	/	HL3 NINAMH	User release M MDA2

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

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>	<b>Type</b>	<b>SN</b>
AE1	Charger	HW-050300E00	/
AE2	Charger	HW-050300E00	/
AE3	Charger	HW-050300U00	/
AE4	Charger	HW-050300A00	/

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



## **4. Reference Documents**

### **4.1. Documents supplied by applicant**

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

### **4.2. Reference Documents for testing**

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

<b>Reference</b>	<b>Title</b>	<b>Version</b>
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, 2400–2483.5 MHz, and 5725–5850 MHz.	Oct, 2014
ANSI C63.10	American National Standard for Testing Unlicensed Wireless Devices	Jun,2013

## 5. Test Results

### 5.1. Summary of Test Results

No	Test cases	Standard Sub-clause	Verdict
0	Antenna Requirement	15.203	<b>P</b>
1	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	<b>P</b>

See **ANNEX B** and **ANNEX C** for details.

### 5.2. Statements

CTTL has evaluated the test cases requested by the applicant/manufacturer as listed in section 5.1 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2

The hardware of H1512 and H1511 are the same. The tests base on the model H1511 of I15Z42269-SRD02.

### 5.3. Terms used in the result table

Terms used in Verdict column

P	Pass
NA	Not Available
F	Fail

Abbreviations

AC	Alternating Current
AFH	Adaptive Frequency Hopping
BW	Band Width
E.I.R.P.	equivalent isotropical radiated power
ISM	Industrial, Scientific and Medical
R&TTE	Radio and Telecommunications Terminal Equipment
RF	Radio Frequency
Tx	Transmitter

#### 5.4. Laboratory Environment

**Semi-anechoic chamber** (23 meters×17 meters×10 meters) did not exceed following limits:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 M
Ground system resistance	< 4
Normalised site attenuation (NSA)	< ±4dB, 3m/10m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio ( $S_{VSWR}$ )	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 MHz

**Shielded room** did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 M
Ground system resistance	< 4

## 6. Test Facilities Utilized

### Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Semi-anechoic chamber	/	CT000332-1074	Frankonia German	/	/
2	Vector Signal Analyzer	FSV	101047	Rohde & Schwarz	2016-07-03	1 year
3	Test Receiver	ESCI 7	100948	Rohde & Schwarz	2016-07-16	1 year
4	Loop Antenna	HFH2-Z2	829324/007	Rohde & Schwarz	2017-12-16	3 years
5	EMI Antenna	VULB9163	9163-234	Schwarzbeck	2016-09-15	3 years
6	EMI Antenna	3115	6914	ECMO	2017-12-15	3 years
7	EMI Antenna	3116	2661	ETS-Lindgren	2017-06-17	3 years

### Anechoic chamber

Fully anechoic chamber by ETS-Lindgren.



## **ANNEX B: MEASUREMENT RESULTS FOR RECEIVER**

### **B.0 Antenna requirement**

#### **Measurement Limit:**

<b>Standard</b>	<b>Requirement</b>
FCC CRF Part 15.203	An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, § 15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

**Conclusion: The Directional gains of antenna used for transmitting is 1.0 dBi.**

**The RF transmitter uses an integrate antenna without connector.**

## B.1 Transmitter Spurious Emission

### B.1.1 Transmitter Spurious Emission - Radiated

#### 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 § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

#### Limit in restricted band:

Frequency of emission (MHz)	Field strength( $\mu\text{V}/\text{m}$ )	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

#### Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions 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 Time(s)
30-1000	120kHz/300kHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

#### Note:

According to the performance evaluation, the radiated emission margin of EUT is over 20dB in the band below 30MHz. Therefore, the measurement starts from 30MHz to tenth harmonic.

The measurement results include the horizontal polarization and vertical polarization measurements.

**Measurement Results:**

**802.11b/g mode**

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	1 GHz ~ 18 GHz	Fig.1	P
	6	9 kHz ~30 MHz	Fig.2	P
		30 MHz ~1 GHz	Fig.3	P
		1 GHz ~ 18 GHz	Fig.4	P
		18 GHz~ 26.5 GHz	Fig.5	P
	11	1 GHz ~ 18 GHz	Fig.6	P
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.7	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.8	P
802.11g	1	1 GHz ~ 18 GHz	Fig.9	P
	6	30 MHz ~1 GHz	Fig.10	P
		1 GHz ~ 18 GHz	Fig.11	P
		18 GHz~ 26.5 GHz	Fig.12	P
		11	1 GHz ~ 18 GHz	Fig.13
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.14	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.15	P

**802.11n mode**

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (20MHz)	1	1 GHz ~ 18 GHz	Fig.16	P
	6	30 MHz ~1 GHz	Fig.17	P
		1 GHz ~ 18 GHz	Fig.18	P
		18 GHz~ 26.5 GHz	Fig.19	P
		11	1 GHz ~ 18 GHz	Fig.20
	Power(CH1)	2.38 GHz ~ 2.45 GHz	Fig.21	P
	Power(CH11)	2.45 GHz ~ 2.5 GHz	Fig.22	P

802.11n (40MHz)	3	1 GHz ~ 18 GHz	Fig.23	P
	6	9 kHz ~30 MHz	Fig.24	P
		30 MHz ~1 GHz	Fig.25	P
		1 GHz ~ 18 GHz	Fig.26	P
		18 GHz~ 26.5 GHz	Fig.27	P
		9	1 GHz ~ 18 GHz	Fig.28
	Power(CH3)	2.38 GHz ~ 2.45 GHz	Fig.29	P
	Power(CH9)	2.45 GHz ~ 2.5 GHz	Fig.30	P



**802.11b CH1 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
4823.500000	56.7	H	3.0	17.3	74.0	
15179.000000	56.6	H	12.1	17.4	74.0	
15711.000000	57.7	V	12.8	16.3	74.0	
16279.000000	58.0	H	13.4	16.0	74.0	
16853.000000	58.6	H	14.0	15.4	74.0	
17356.000000	58.3	H	14.2	15.7	74.0	

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
4823.500000	46.8	H	3.0	7.2	54.0	
15119.000000	44.6	H	12.1	9.4	54.0	
15776.000000	45.9	H	12.9	8.1	54.0	
16240.000000	45.9	H	13.3	8.1	54.0	
16835.000000	46.3	H	14.0	7.7	54.0	
17278.000000	46.1	H	14.1	7.9	54.0	

**802.11b CH 6(1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
14515.000000	55.8	V	11.7	18.2	74.0	
15171.000000	56.9	V	12.1	17.1	74.0	
15699.000000	58.3	V	12.8	15.7	74.0	
16244.000000	59.4	H	13.3	14.6	74.0	
16698.000000	58.9	H	13.9	15.1	74.0	
17392.000000	59.6	V	14.3	14.4	74.0	



Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
14538.000000	44.2	V	11.8	9.8	54.0	
15154.000000	44.8	V	12.1	9.2	54.0	
15761.000000	46.5	V	12.9	7.5	54.0	
16227.000000	46.9	H	13.3	7.1	54.0	
16769.000000	47.5	H	14.0	6.5	54.0	
17271.000000	47.1	H	14.1	6.9	54.0	

**802.11b CH11 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
14475.000000	56.2	V	11.6	17.8	74.0	
15107.000000	56.0	V	12.0	18.0	74.0	
15776.000000	57.7	V	12.9	16.3	74.0	
16227.000000	57.5	V	13.3	16.5	74.0	
16838.000000	58.6	H	14.0	15.4	74.0	
17338.000000	58.4	H	14.2	15.6	74.0	

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)	Comment
14533.000000	43.6	H	11.8	10.4	54.0	
15124.000000	44.6	V	12.1	9.4	54.0	
15781.000000	46.1	V	13.0	7.9	54.0	
16235.000000	46.0	H	13.3	8.0	54.0	
16781.000000	46.5	V	14.0	7.5	54.0	
17381.000000	46.2	H	14.3	7.8	54.0	



**802.11g CH1 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4829.625000	59.7	H	3.0	14.3	74.0	
15131.000000	56.4	V	12.1	17.6	74.0	
15587.000000	58.3	V	12.6	15.7	74.0	
16225.000000	58.7	H	13.3	15.3	74.0	
16773.000000	59.3	V	14.0	14.7	74.0	
17405.000000	58.9	H	14.3	15.1	74.0	

Frequency (MHz)	Average-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4819.125000	43.1	H	3.0	10.9	54.0	
4829.625000	45.4	H	3.0	8.6	54.0	
15771.000000	46.4	H	12.9	7.6	54.0	
16197.000000	46.9	H	13.3	7.1	54.0	
16739.000000	47.3	H	14.0	6.7	54.0	
17325.000000	47.1	H	14.2	6.9	54.0	

**802.11g CH6 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
4872.500000	56.4	H	3.1	17.6	74.0	
15167.000000	57.4	V	12.1	16.6	74.0	
15812.000000	58.1	H	13.0	15.9	74.0	
16178.000000	58.7	H	13.3	15.3	74.0	
16666.000000	59.4	V	13.9	14.6	74.0	
17407.000000	59.0	H	14.3	15.0	74.0	



Frequency (MHz)	Average-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
4873.375000	45.4	H	3.1	8.6	54.0	
15149.000000	44.9	V	12.1	9.1	54.0	
15738.000000	46.3	H	12.9	7.7	54.0	
16196.000000	46.7	H	13.3	7.3	54.0	
16765.000000	47.2	H	14.0	6.8	54.0	
17286.000000	46.9	H	14.1	7.1	54.0	

**802.11g CH11 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14489.000000	55.8	H	11.7	18.2	74.0	
15154.000000	56.5	H	12.1	17.5	74.0	
15782.000000	58.2	H	13.0	15.8	74.0	
16179.000000	58.1	V	13.3	15.9	74.0	
16734.000000	58.9	V	13.9	15.1	74.0	
17268.000000	58.2	V	14.1	15.8	74.0	

Frequency (MHz)	Average-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
13945.000000	43.0	H	10.9	11.0	54.0	
15131.000000	44.7	H	12.1	9.3	54.0	
15692.000000	46.3	H	12.8	7.7	54.0	
16214.000000	46.5	H	13.3	7.5	54.0	
16744.000000	46.9	H	14.0	7.1	54.0	
17284.000000	46.7	H	14.1	7.3	54.0	



**802.11n-20MHz CH1 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
4833.125000	57.3	H	3.0	16.7	74.0	
15146.000000	56.6	V	12.1	17.4	74.0	
15723.000000	58.4	V	12.9	15.6	74.0	
16212.000000	58.8	H	13.3	15.2	74.0	
16716.000000	58.8	V	13.9	15.2	74.0	
17368.000000	58.7	V	14.3	15.3	74.0	

Frequency (MHz)	Average-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
4827.875000	43.9	H	3.0	10.1	54.0	
15129.000000	44.9	H	12.1	9.1	54.0	
15680.000000	46.6	H	12.8	7.4	54.0	
16229.000000	46.9	H	13.3	7.1	54.0	
16745.000000	47.5	H	14.0	6.5	54.0	
17332.000000	47.4	H	14.2	6.6	54.0	

**802.11n-20MHz CH6 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
4819.125000	58.9	H	3.0	15.1	74.0	
4828.750000	62.9	H	3.0	11.1	74.0	
15726.000000	58.1	H	12.9	15.9	74.0	
16202.000000	58.6	H	13.3	15.4	74.0	
16755.000000	59.8	V	14.0	14.2	74.0	
17966.000000	59.3	V	14.6	14.7	74.0	



Frequency (MHz)	Average-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
4819.125000	46.3	H	3.0	7.7	54.0	
4827.875000	49.5	H	3.0	4.5	54.0	
15687.000000	46.5	V	12.8	7.5	54.0	
16222.000000	47.0	V	13.3	7.0	54.0	
16773.000000	47.5	H	14.0	6.5	54.0	
17330.000000	47.2	H	14.2	6.8	54.0	

**802.11n-20MHz CH11 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14197.000000	56.2	H	11.3	17.8	74.0	
15117.000000	56.7	V	12.1	17.3	74.0	
15641.000000	58.3	V	12.7	15.7	74.0	
16236.000000	57.8	H	13.3	16.2	74.0	
16755.000000	59.5	V	14.0	14.5	74.0	
17399.000000	58.6	H	14.3	15.4	74.0	

Frequency (MHz)	Average-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14522.000000	44.1	H	11.7	9.9	54.0	
15149.000000	44.8	H	12.1	9.2	54.0	
15708.000000	46.3	V	12.8	7.7	54.0	
16196.000000	46.4	H	13.3	7.6	54.0	
16784.000000	46.8	H	14.0	7.2	54.0	
17332.000000	46.7	H	14.2	7.3	54.0	



**802.11n-40MHz CH3 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14544.000000	56.2	V	11.8	17.8	74.0	
15134.000000	57.0	H	12.1	17.0	74.0	
15719.000000	58.5	H	12.9	15.5	74.0	
16211.000000	58.6	H	13.3	15.4	74.0	
16766.000000	58.5	V	14.0	15.5	74.0	
17273.000000	59.1	H	14.1	14.9	74.0	

Frequency (MHz)	Average-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14544.000000	44.3	V	11.8	9.7	54.0	
15153.000000	44.9	H	12.1	9.1	54.0	
15768.000000	46.4	V	12.9	7.6	54.0	
16209.000000	46.7	V	13.3	7.3	54.0	
16747.000000	47.3	H	14.0	6.7	54.0	
17335.000000	47.1	H	14.2	6.9	54.0	

**802.11n-40MHz CH6 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14448.000000	56.8	V	11.6	17.2	74.0	
15085.000000	56.5	V	12.0	17.5	74.0	
15787.000000	58.7	V	13.0	15.3	74.0	
16298.000000	58.9	V	13.4	15.1	74.0	
16779.000000	58.7	V	14.0	15.3	74.0	
17776.000000	58.7	H	14.4	15.3	74.0	

Frequency (MHz)	Average-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14522.000000	44.0	H	11.7	10.0	54.0	
15141.000000	44.9	H	12.1	9.1	54.0	
15744.000000	46.2	H	12.9	7.8	54.0	
16196.000000	46.5	H	13.3	7.5	54.0	
16739.000000	46.9	H	14.0	7.1	54.0	
17345.000000	46.8	H	14.2	7.2	54.0	

**802.11n-40MHz CH9 (1-18GHz)**

Frequency (MHz)	MaxPeak-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14129.000000	54.9	V	11.2	19.1	74.0	
15052.000000	56.4	V	12.0	17.6	74.0	
15769.000000	57.7	H	12.9	16.3	74.0	
16279.000000	57.8	H	13.4	16.2	74.0	
16891.000000	58.5	V	14.1	15.5	74.0	
17399.000000	58.4	V	14.3	15.6	74.0	

Frequency (MHz)	Average-ClearWrite (dB $\mu$ V/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)	Comment
14517.000000	43.4	V	11.7	10.6	54.0	
15057.000000	44.5	H	12.0	9.5	54.0	
15777.000000	45.8	V	12.9	8.2	54.0	
16253.000000	45.7	V	13.3	8.3	54.0	
16773.000000	46.2	H	14.0	7.8	54.0	
17391.000000	46.1	H	14.3	7.9	54.0	



See ANNEX C for test graphs.

**Conclusion: PASS**

**Note:**

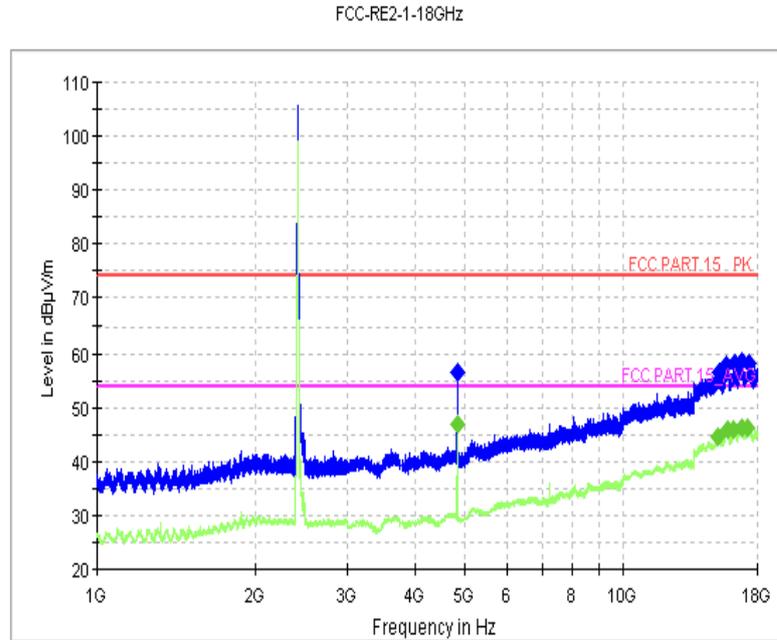
A "reference path loss" is established and the  $A_{Rpl}$  is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

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

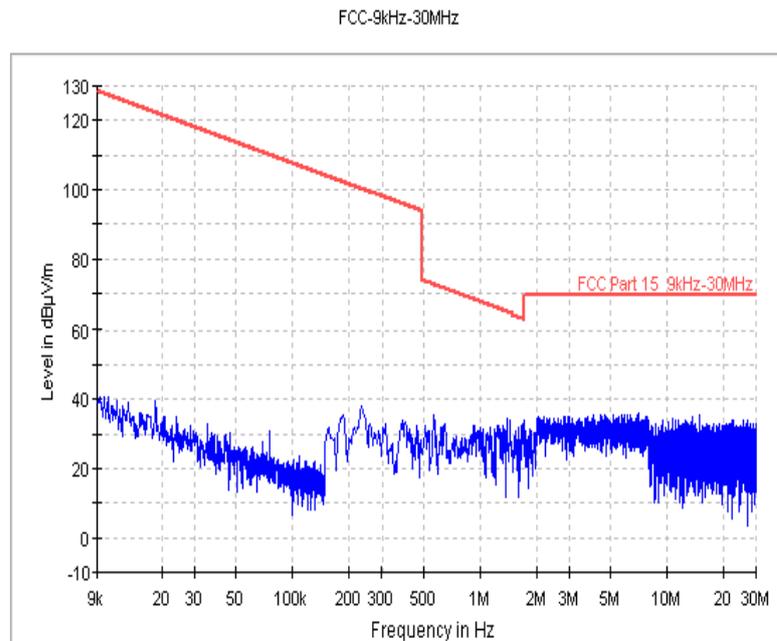
The measurement results are obtained as described below:

Result= $P_{Mea}+A_{Rpl}= P_{Mea}+Cable Loss+Antenna Factor$

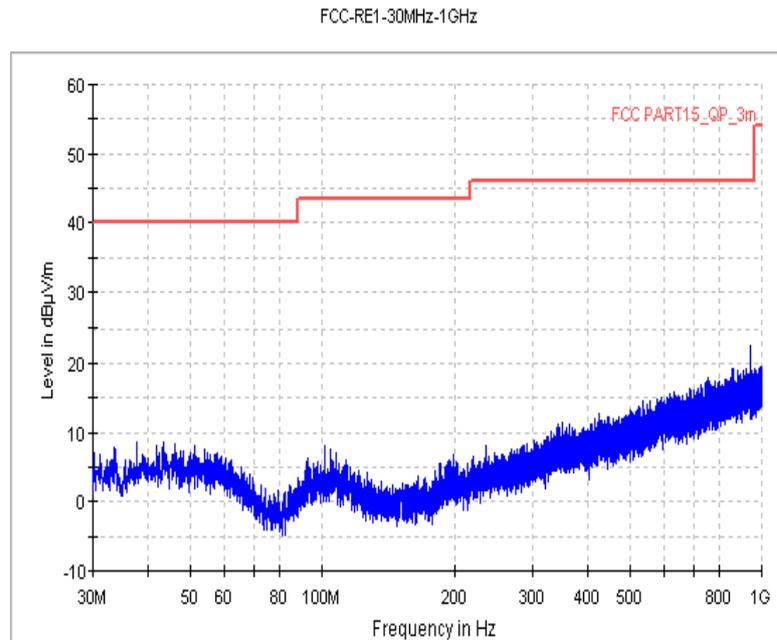
## ANNEX C: TEST LAYOUTS



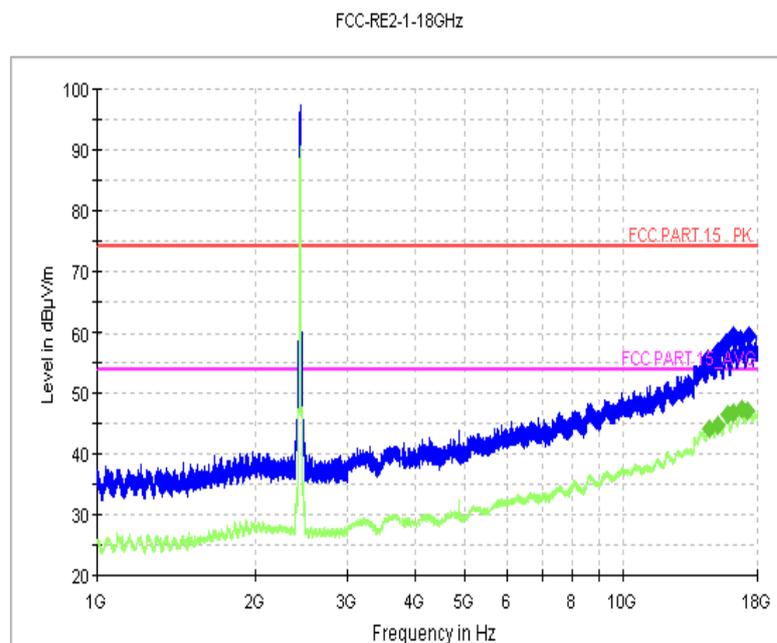
**Fig.1 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-18GHz)**



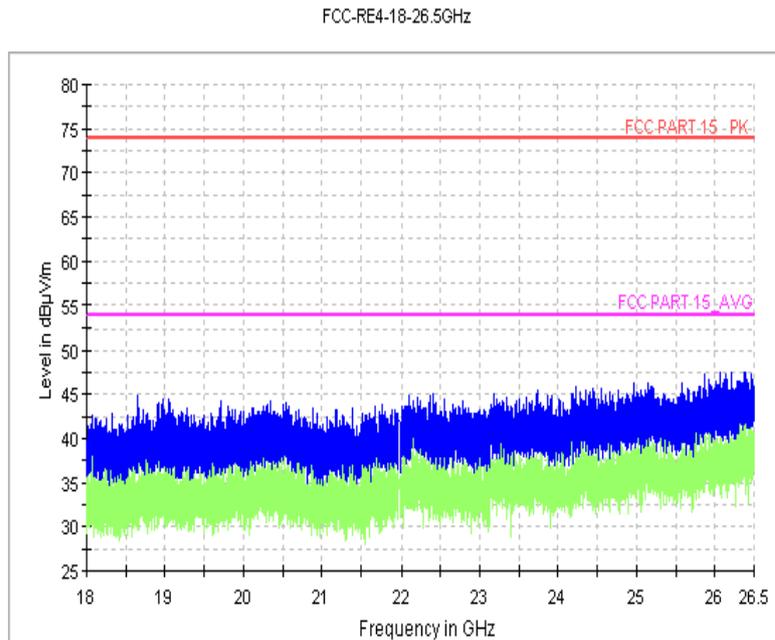
**Fig.2 Radiated Spurious Emission (802.11b, Ch6, 9 kHz-30MHz)**



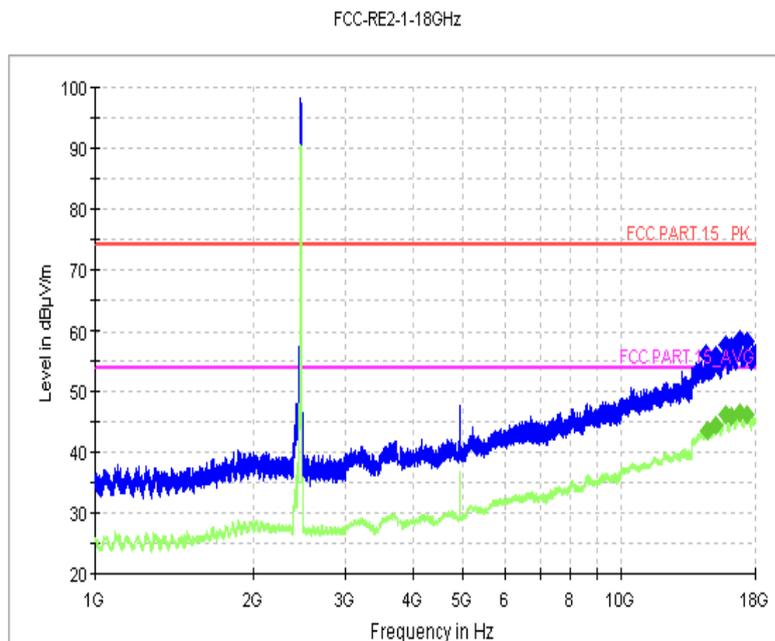
**Fig.3 Radiated Spurious Emission (802.11b, Ch6, 30MHz-1 GHz)**



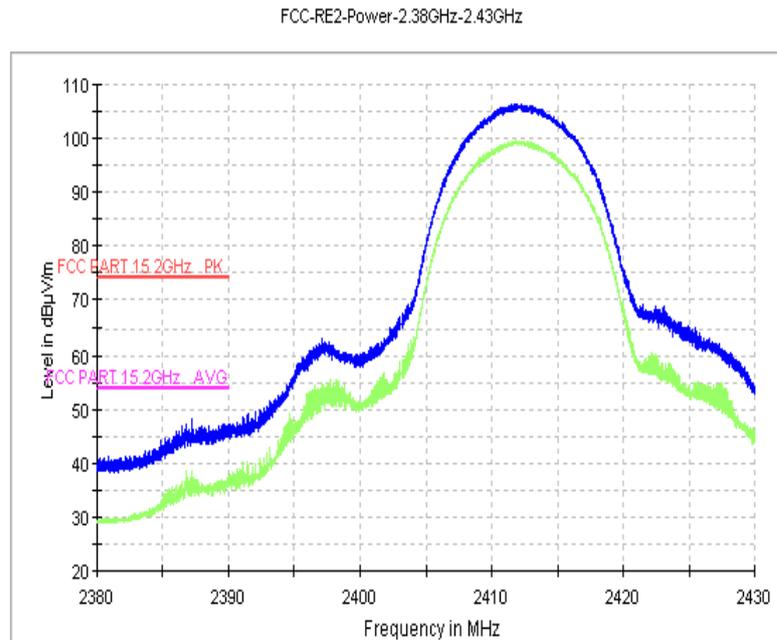
**Fig.4 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-18GHz)**



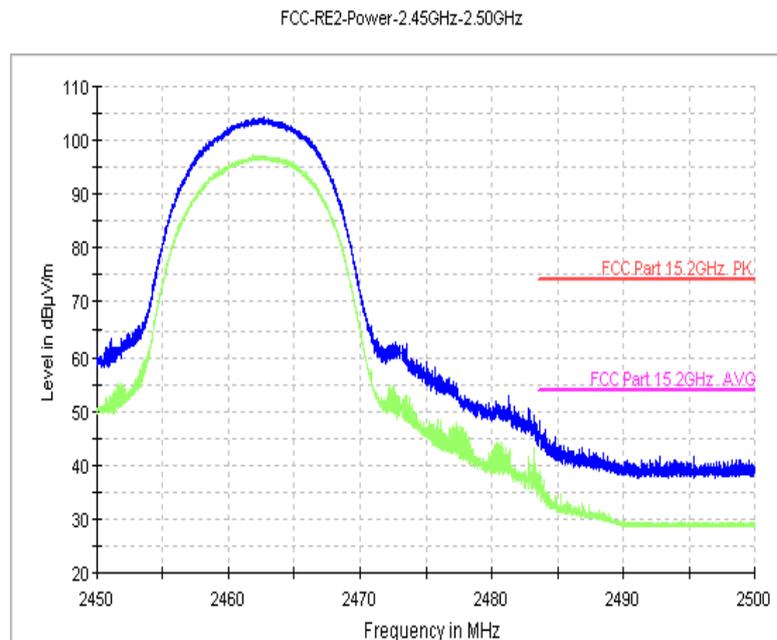
**Fig.5 Radiated Spurious Emission (802.11b, Ch6, 18 GHz-26.5GHz)**



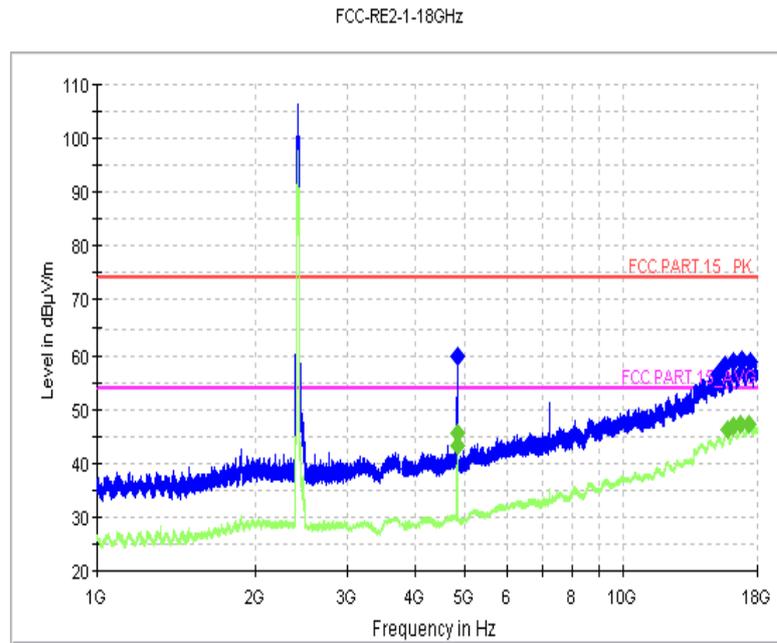
**Fig.6 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-18 GHz)**



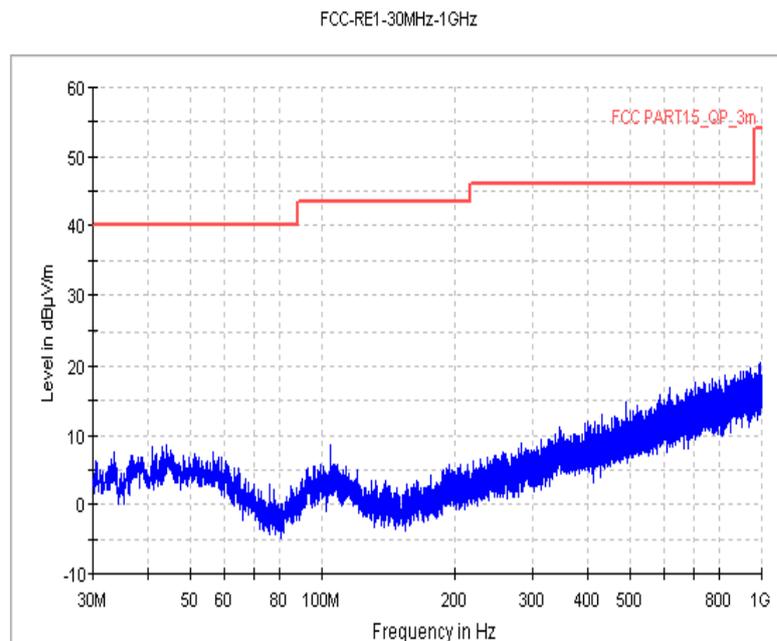
**Fig.7 Radiated Emission Power (802.11b, Ch1, 2380GHz~2450GHz)**



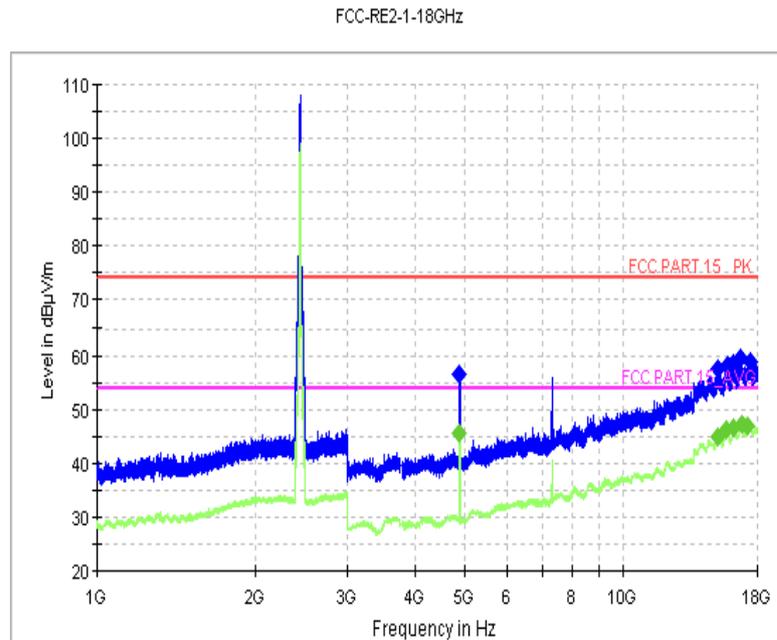
**Fig.8 Radiated Emission Power (802.11b, Ch11, 2450GHz~2500GHz)**



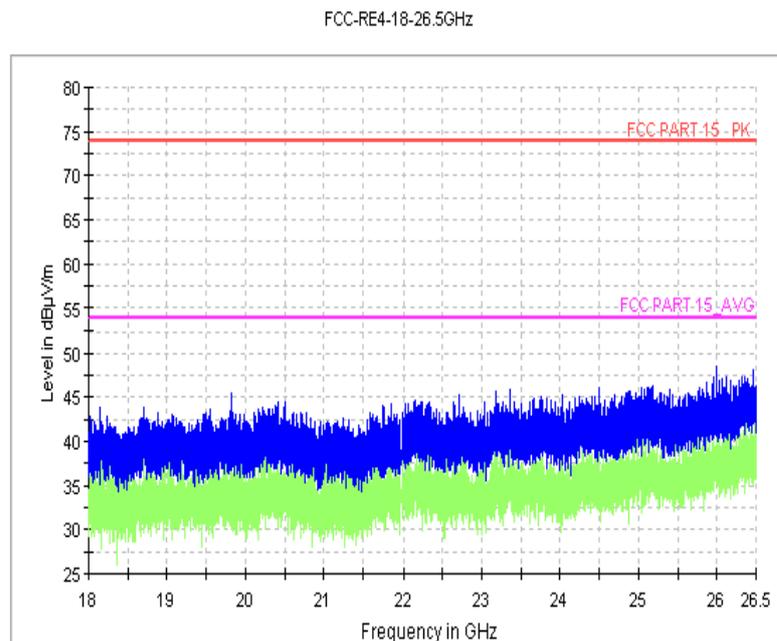
**Fig.9 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-18GHz)**



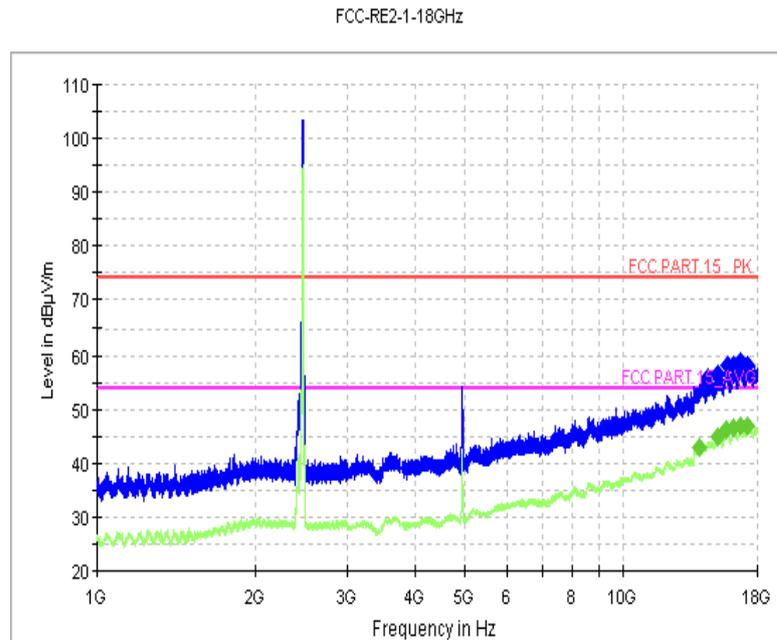
**Fig.10 Radiated Spurious Emission (802.11g, Ch6, 30MHz-1 GHz)**



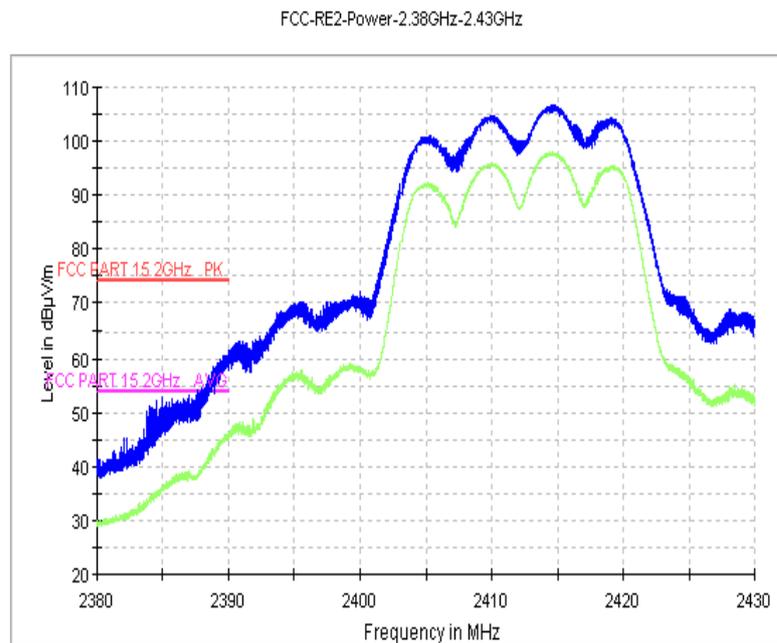
**Fig.11 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-18GHz)**



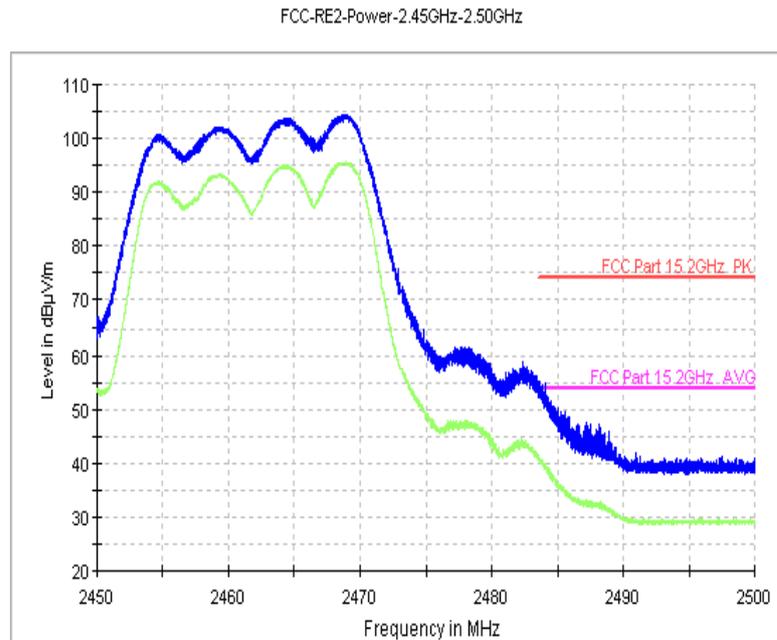
**Fig.12 Radiated Spurious Emission (802.11g, Ch6, 18 GHz-26.5GHz)**



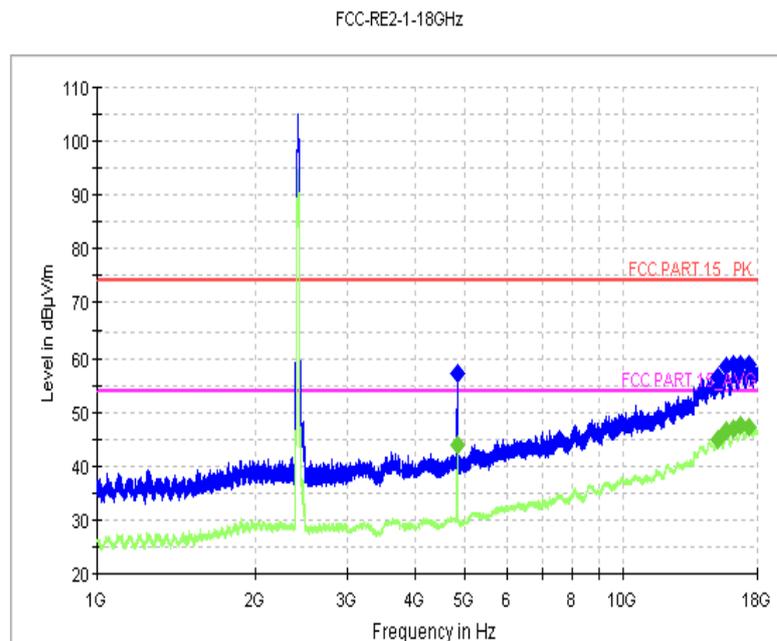
**Fig.13 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-18 GHz)**



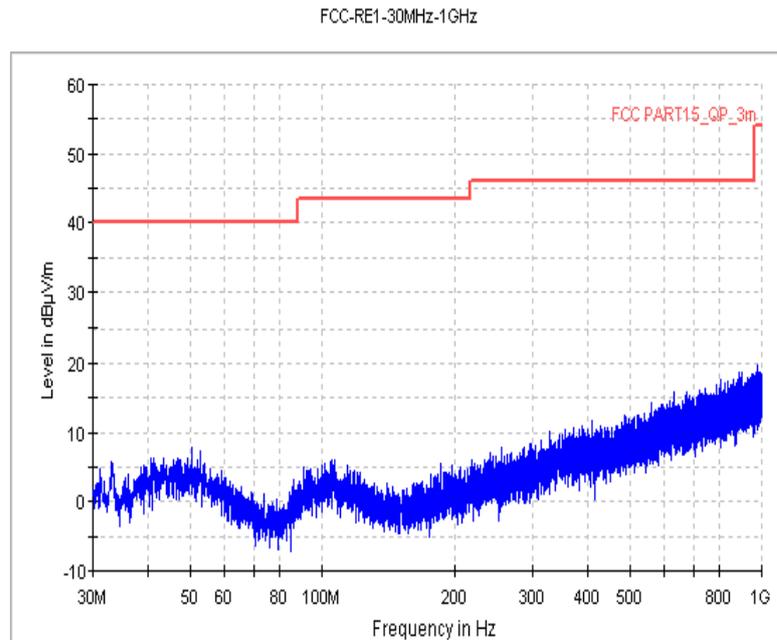
**Fig.14 Radiated Emission Power (802.11g, Ch1, 2380GHz~2450GHz)**



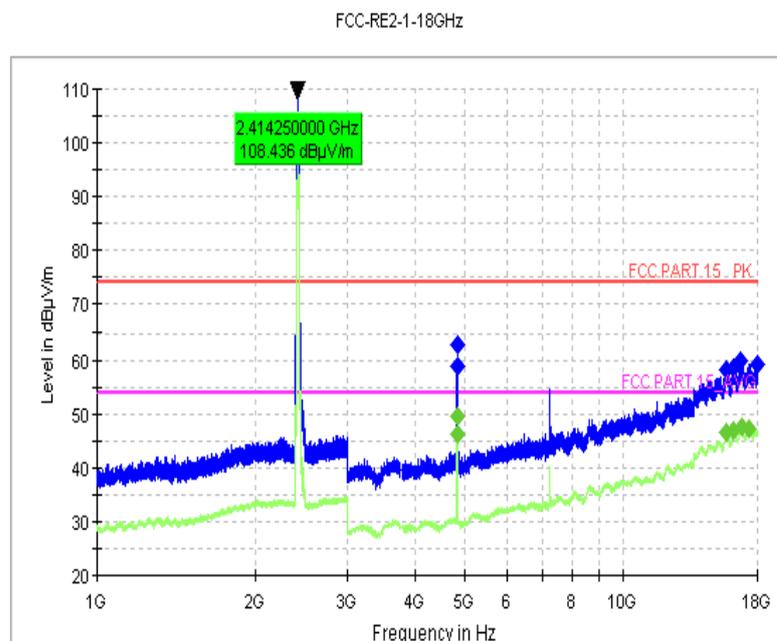
**Fig.15 Radiated Emission Power (802.11g, Ch11, 2450GHz~2500GHz)**



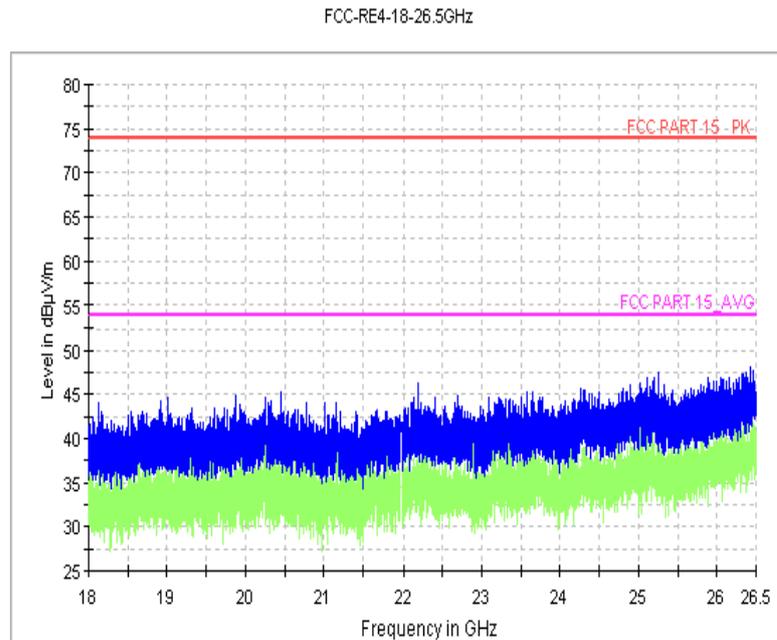
**Fig.16 Radiated Spurious Emission (802.11n, Ch1, 1 GHz-18GHz)**



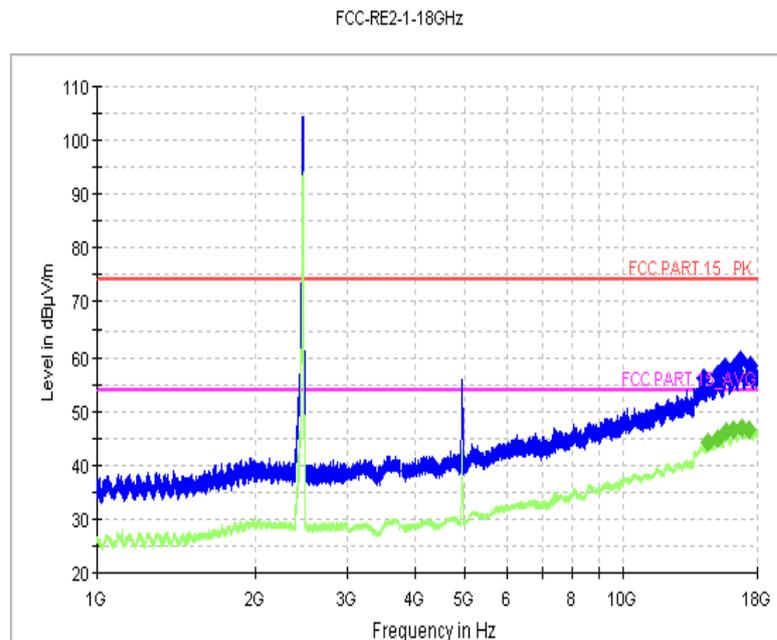
**Fig.17 Radiated Spurious Emission (802.11n, Ch6, 30MHz-1 GHz)**



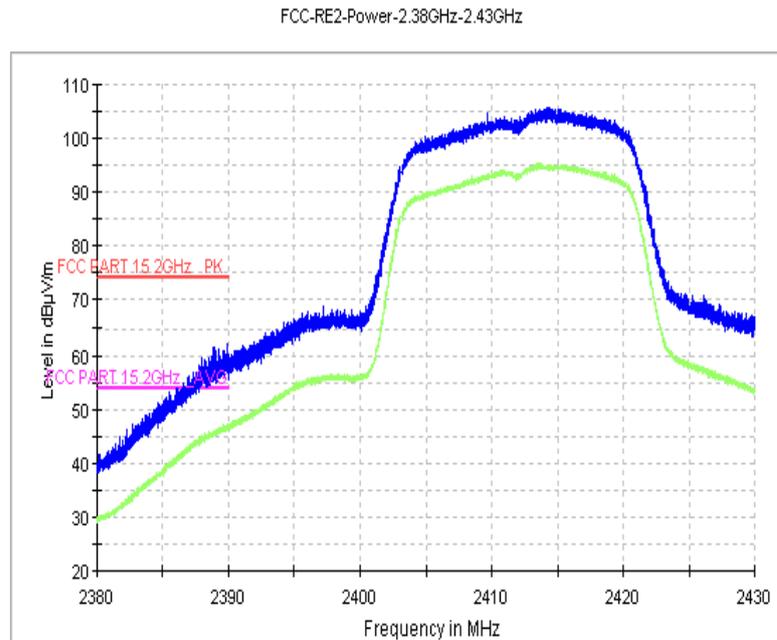
**Fig.18 Radiated Spurious Emission (802.11n, Ch6, 1 GHz-18GHz)**



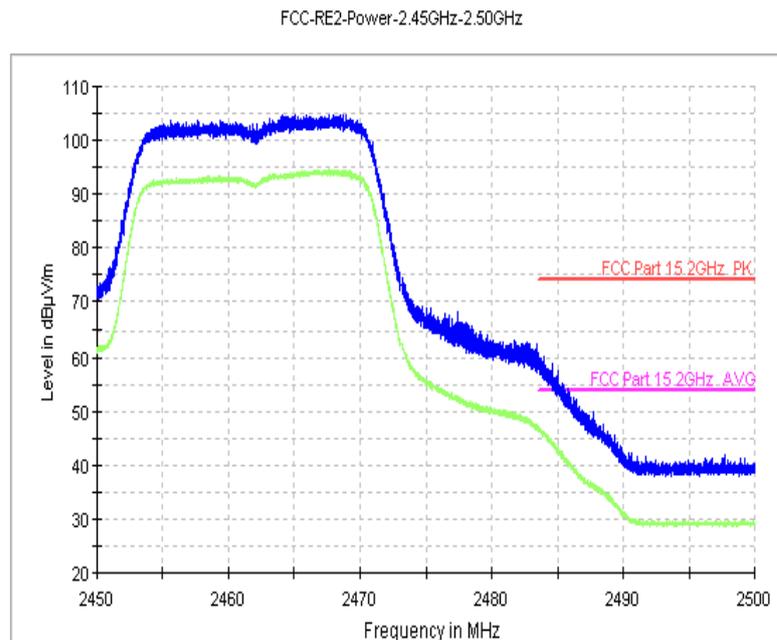
**Fig.19 Radiated Spurious Emission (802.11n, Ch6, 18 GHz-26.5GHz)**



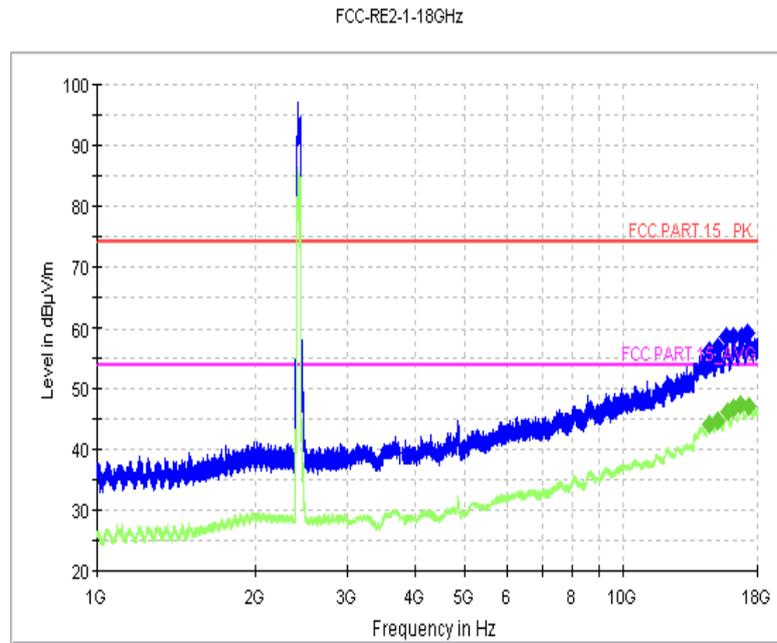
**Fig.20 Radiated Spurious Emission (802.11n, Ch11, 1 GHz-18 GHz)**



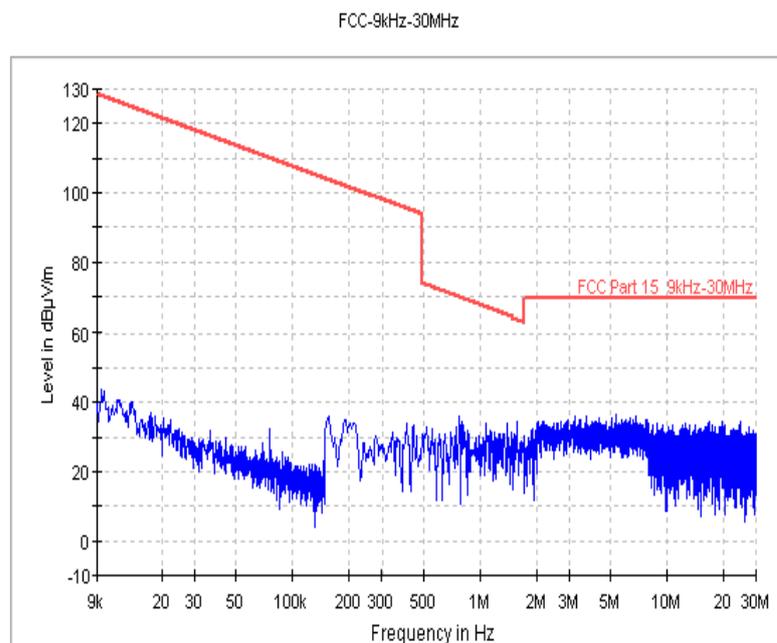
**Fig.21 Radiated Emission Power (802.11n, Ch1, 2380GHz~2450GHz)**



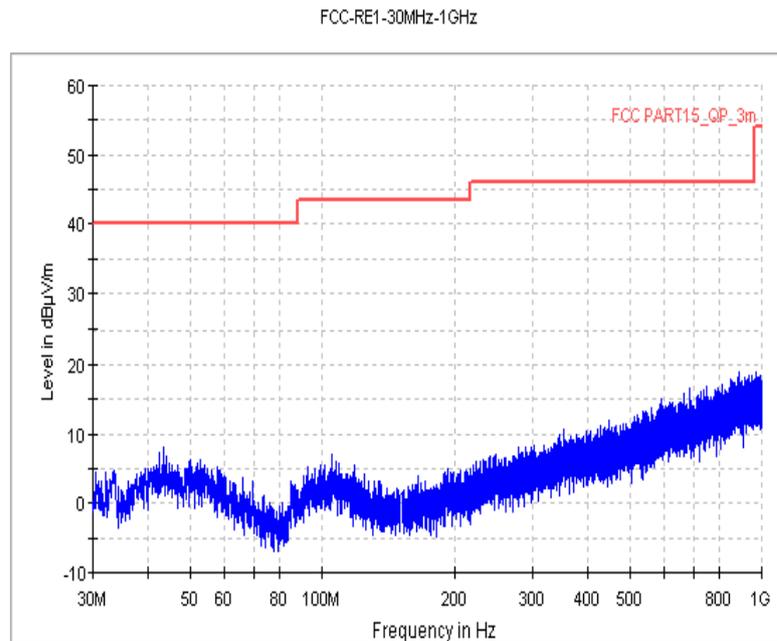
**Fig.22 Radiated Emission Power (802.11n, Ch11, 2450GHz~2500GHz)**



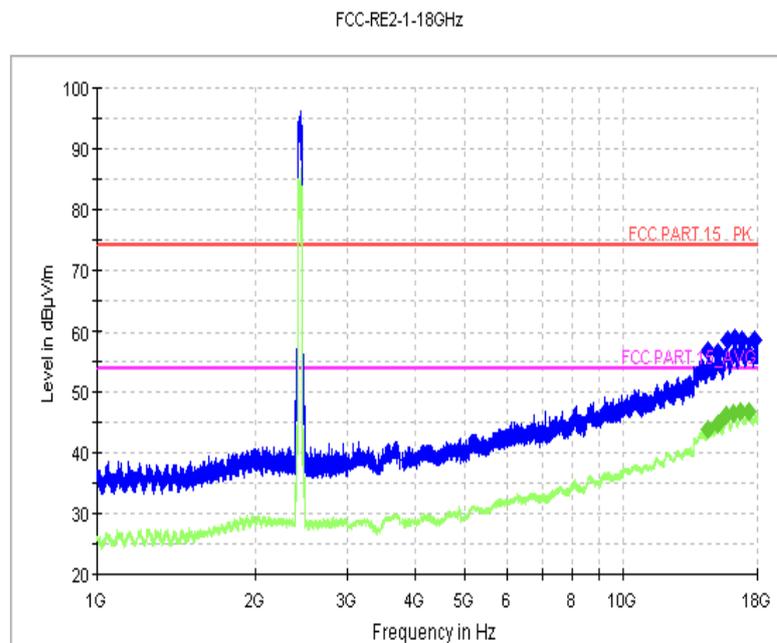
**Fig.23 Radiated Spurious Emission (802.11n-40MHz, Ch3, 1 GHz-18GHz)**



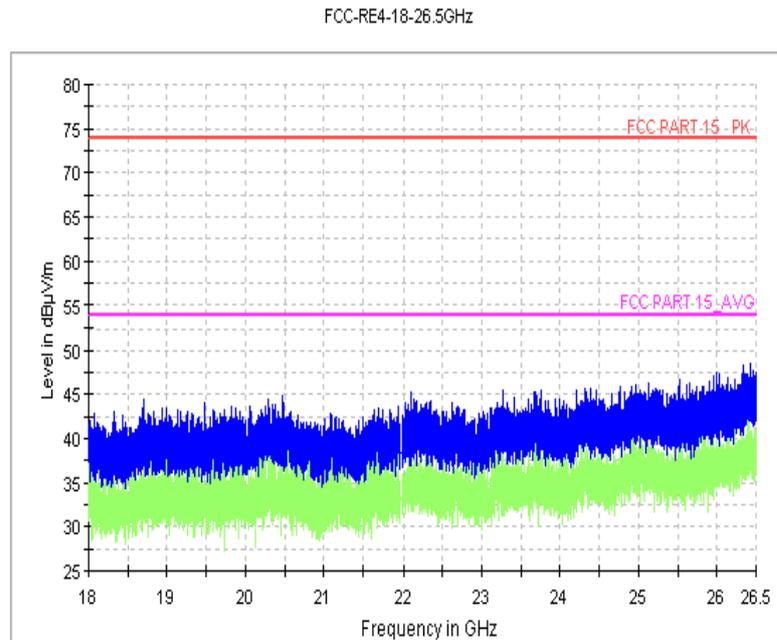
**Fig.24 Radiated Spurious Emission (802.11n-40MHz, Ch6, 9 kHz-30MHz)**



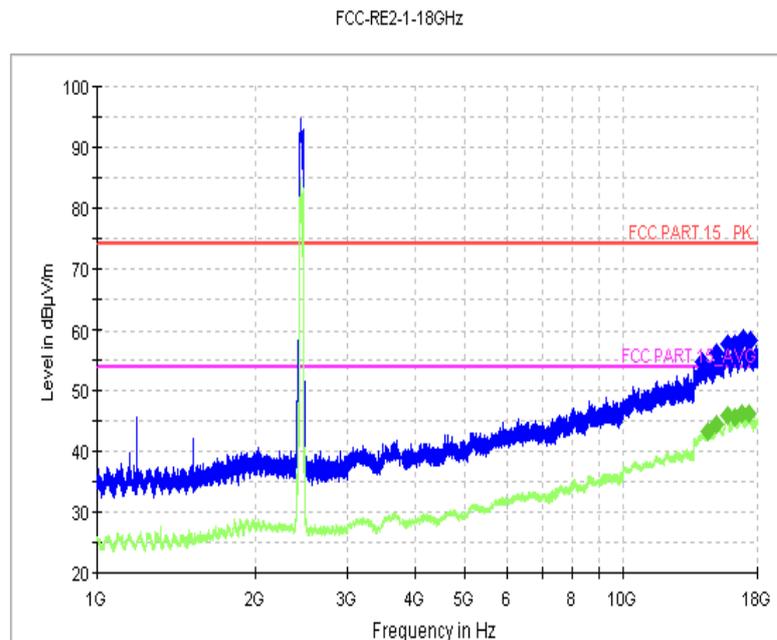
**Fig.25 Radiated Spurious Emission (802.11 n-40MHz, Ch6, 30MHz-1 GHz)**



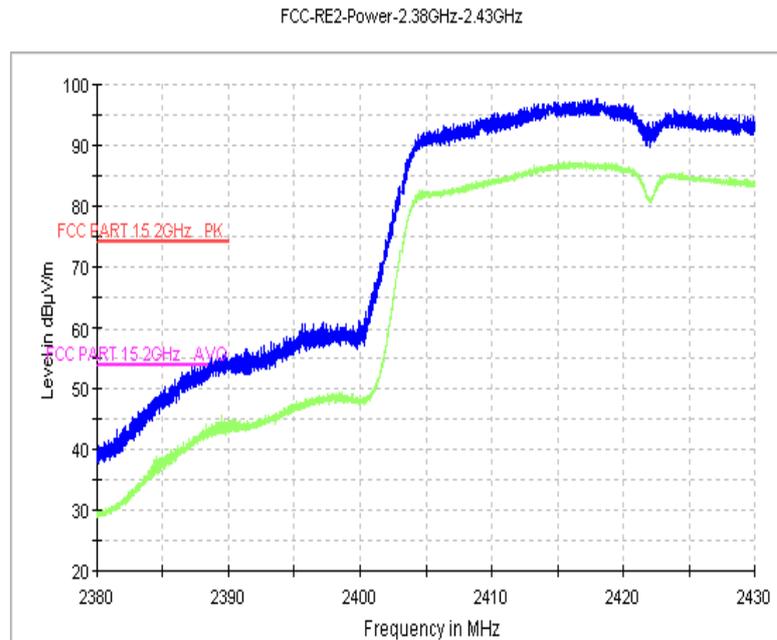
**Fig.26 Radiated Spurious Emission (802.11 n-40MHz, Ch6, 1 GHz-18GHz)**



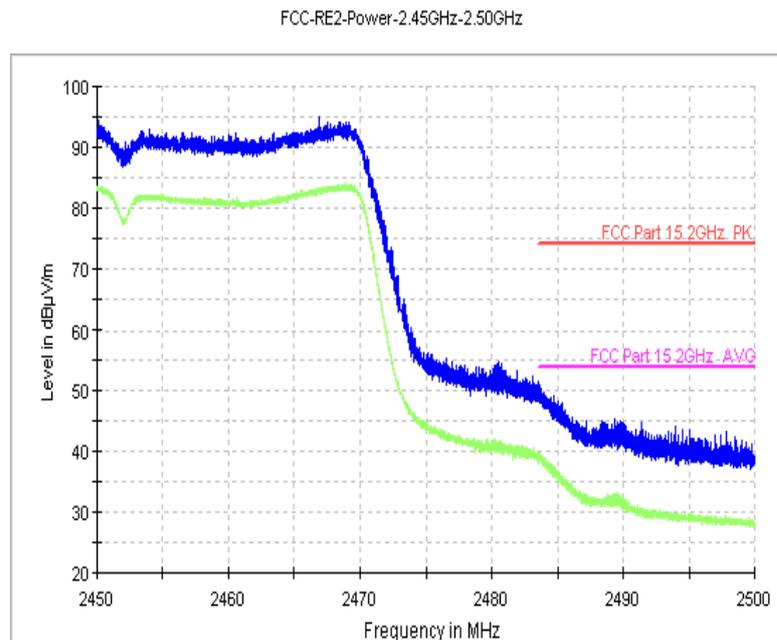
**Fig.27 Radiated Spurious Emission (802.11 n-40MHz, Ch6, 18 GHz-26.5GHz)**



**Fig.28 Radiated Spurious Emission (802.11 n-40MHz, Ch9, 1 GHz-18 GHz)**



**Fig.29 Radiated Emission Power (802.11 n-40MHz, Ch3, 2380GHz~2450GHz)**



**Fig.30 Radiated Emission Power (802.11 n-40MHz, Ch9, 2450GHz~2500GHz)**



**ANNEX D: Persons involved in this testing**

<b>Test Name</b>	<b>Tester</b>
Transmitter Spurious Emission - Radiated	Xu Zhongfei, Li Zhibin



**ANNEX E: Persons involved in this testing**

## ANNEX E: Accreditation Certificate

 
<b>China National Accreditation Service for Conformity Assessment</b>
<b>LABORATORY ACCREDITATION CERTIFICATE</b>
<b>(Registration No. CNAS L0570 )</b>
<b>China Academy of Telecommunication Research of MIIT</b> <u>No.52, Huayuan North Road, Haidian District, Beijing, China</u>
<i>is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence of testing and calibration.</i>
<i>The scope of accreditation is detailed in the attached appendices bearing the same registration number as above. The appendices form an integral part of this certificate.</i>
Date of Issue: 2014-06-20 Date of Expiry: 2017-06-19 Date of Initial Accreditation: 1998-07-03 Date of Update: 2014-06-20

Signed on behalf of China National Accreditation Service for Conformity Assessment
<small>China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA) and Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).</small>
No.CNAS AL 2 <span style="float: right;">0010037</span>

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