



**FCC PART 15C
TEST REPORT
No. 2013WLN0658**

for

ZTE Corporation

WCDMA Digital Mobile Handset

Model: ZTE V865M

With

FCC ID: Q78-V865M

Hardware Version: V865M_V1AMB_A

Software Version: V865M_SACCommon_1.05

Issued Date: 2013-04-02



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 TMC Beijing.

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1. TEST LABORATORY

1.1. Testing Location

Company Name: TMC Beijing, Telecommunication Metrology Center of MIIT
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1.2. Testing Environment

Normal Temperature: 15-30°C
Extreme Temperature: -20/+55°C
Relative Humidity: 30-60%
Air Pressure 990hPa-1040hPa

Note: The climatic requirements above are general exclude the special requirements for dedicated test environments listed in section 5 and some specific test cases in other parts of this report.

1.3. Project data

Testing Start Date: 2013-03-05
Testing End Date: 2013-03-18

1.4. Signature



Xu Zhongfei
(Prepared this test report)



Gao Hong
(Reviewed this test report)



Xiao Li
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2. CLIENT INFORMATION

2.1. Applicant Information

Company Name: ZTE Corporation
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2.2. Manufacturer Information

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Country: China
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3. EQUIPMENT UNDER TEST(EUT) AND ANCILLARY EQUIPMENT(AE)

3.1. About EUT

Description	WCDMA Digital Mobile Handset
Model	ZTE V865M
FCC ID	Q78-V865M
IC ID	/
With WLAN Function	Yes
Frequency Range	ISM 2400MHz~2483.5MHz
Type of Modulation	DSSS/CCK/OFDM
Number of Channels	11
Antenna	Integral Antenna
Power Supply	3.8V DC by Battery

Note: Photographs of EUT are shown in ANNEX C of this test report.

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version
EUT1	864339010002126	V865M_V1AMB_A	V865M_SACCommon_1.05

*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	Type	SN
AE1	Battery	Li3725T42P3h796342	/
AE2	Charger	STC-A22O50I1000USBA-C	/

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

3.4. General Description

Equipment Under Test (EUT) is a model of WCDMA Digital Mobile Handset with integrated antenna. It consists of normal options: Battery and Charger.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were provided by the Client.

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.

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, 2009 Edition
ANSI C63.10	Procedures for testing compliance of a wide variety of unlicensed wireless devices	2009

5. LABORATORY ENVIRONMENT

Semi-anechoic chamber (10 meters×6.7meters×6.15meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 2 M ohm
Ground system resistance	< 0.5 Ω
Normalised site attenuation (NSA)	< ±3.5 dB, 3 m distance
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
Normalised site attenuation (NSA)	< ±3.5 dB, 3 m distance, from 30 to 1000 MHz

Shielding Room2 (7.30 meters×4.00 meters×3.80 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
Uniformity of field strength	Between 0 and 6 dB, from 80MHz to 3000 MHz
Normalised site attenuation (NSA)	< ±3.5 dB, 3 m distance, from 30 to 1000 MHz

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of IC	Verdict
Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.109	/	P
Transmitter Spurious Emission - Radiated<30MHz	15.247, 15.205, 15.109	/	P
AC Powerline Conducted Emission	15.107, 15.207	/	P

Please refer to **ANNEX A** for detail.

The measurement is made according to ANSI C63.10.

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 TMC
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

6.2. Statements

TMC has evaluated the test cases requested by the client/manufacturer as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.1.

This report only deals with the WLAN function among the features described in section 3.

Test Conditions

T nom	Normal Temperature
T min	Low Temperature
T max	High Temperature
V nom	Normal Voltage
V min	Low Voltage
V max	High Voltage
H nom	Norm Humidity
A nom	Norm Air Pressure

For this report, all the test cases listed above are tested under Normal Temperature and Normal Voltage which is using a new battery, and also under norm humidity, the specific conditions as following:

Temperature	T nom	26°C
Voltage	V nom	3.8V(By battery)
Humidity	H nom	44%
Air Pressure	A nom	1010hPa

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Last Calibration	Calibration Period
1	Test receiver	ESS	847151/015	Rohde & Schwarz	2012-10-31	2013-10-30
2	LISN	ESH2-Z5	829991/012	Rohde & Schwarz	2012-08-13	2013-08-12

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Last Calibration	Calibration Period
1	Test Receiver	ESI40	831564/002	Rohde & Schwarz	2012-08-12	2013-08-11
2	EMI Antenna	VULB 9163	9163 301	Schwarzbeck	2012-08-31	2013-08-30
3	EMI Antenna	3117	00034610	EMCO	2012-07-02	2013-07-01
4	Dual-Ridge Waveguide Horn Antenna	3116	2663	EMCO	2012-07-11	2013-07-10
5	Dual-Ridge Waveguide Horn Antenna	3116	2661	EMCO	2012-07-06	2013-07-05
6	Universal Radio Communication Tester	CMU200	105948	Rohde & Schwarz	2012-08-15	2013-08-14
7	LISN	ESH2-Z5	829991/012	Rohde & Schwarz	2013-03-18	2014-03-17
8	Pre-amplifier(18GHz)	/	1005277	Rohde & Schwarz	/	/
9	Pre-amplifier(26.5GHz)	/	1005277	Rohde & Schwarz	/	/
10	Antenna	HFH2-Z6	100043	Rohde & Schwarz	2013-09-01	2014-08-31

Anechoic chamber

Anechoic chamber by Frankonia German.

ANNEX A: MEASUREMENT RESULTS

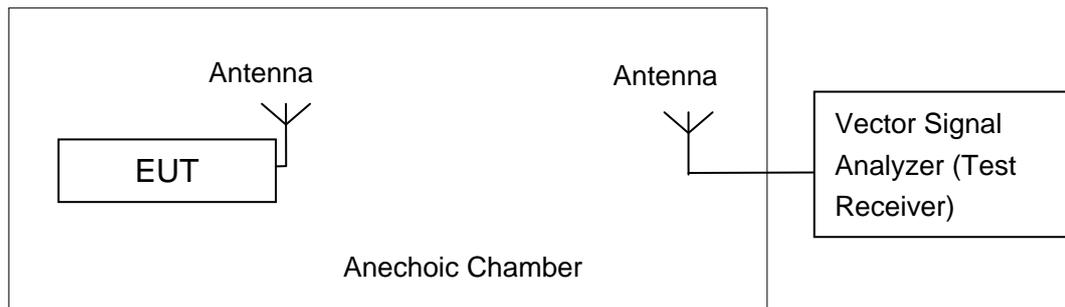
A.1. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 10Hz;

Note: After the pre-scan measurement, all signals between 9kHz and 30MHz are 20dB lower than the limit, so the results are not recorded in this report.



The measurement is made according to ANSI C63.10

A.2. Maximum Peak Output Power-conducted

Measurement Limit and Method:

Standard	Limit (dBm)
FCC CRF Part 15.247(b)	< 30

The measurement is made according to ANSI C63.10, and EUT is operating in continuous transmitting mode.

Measurement Uncertainty:

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k=2$, $U=0.44$ dB.

Measurement Results:

Network Standards	Data Rate	Peak Output Power (dBm)		
		CH 1	CH 6	CH 11
802.11b	1 Mbps	16.76	16.24	16.39
	2 Mbps	16.69	15.95	16.03
	5.5 Mbps	16.07	16.21	16.35
	11 Mbps	15.74	16.17	15.80
802.11g	6 Mbps	16.68	16.66	17.03
	9 Mbps	16.52	16.61	16.88
	12 Mbps	16.69	16.35	16.50
	18 Mbps	16.46	16.12	16.57
	24 Mbps	15.83	15.86	15.99
	36 Mbps	15.44	15.62	14.68
	48 Mbps	14.97	15.12	15.20
	54 Mbps	14.75	14.92	15.22
802.11n HT20	MCS0	14.84	14.71	15.03
	MCS1	14.81	14.67	14.83
	MCS2	12.66	14.74	14.94
	MCS3	12.54	14.07	14.26
	MCS4	11.98	13.71	13.83
	MCS5	12.94	13.30	13.60
	MCS6	11.62	13.47	13.60
	MCS7	12.58	12.95	13.05

Conclusion: PASS

A.2. 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)

The measurement is made according to ANSI C63.10.

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	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	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

Measurement Results:

Note: After the pre-scan measurement, all signals between 9kHz and 30MHz are 20dB lower than the limit, so the results are not recorded in this report.

802.11b/g mode

Mode	Channel	Frequency Range	Test Results	Conclusion	
802.11b	Power	2.38GHz ~2.45GHz	Fig.1	P	
	1	30 MHz ~1 GHz	Fig.2	P	
		1 GHz ~ 3 GHz	Fig.3	P	
		3 GHz ~ 18 GHz	Fig.4	P	
	6	30 MHz ~1 GHz	Fig.5	P	
		1 GHz ~ 3 GHz	Fig.6	P	
		3 GHz ~ 18 GHz	Fig.7	P	
	Power	2.45GHz ~2.5GHz	Fig.8	P	
	11	30 MHz ~1 GHz	Fig.9	P	
		1 GHz ~ 3 GHz	Fig.10	P	
		3 GHz ~ 18 GHz	Fig.11	P	
	802.11g	Power	2.38GHz ~2.43GHz	Fig.12	P
		1	30 MHz ~1 GHz	Fig.13	P
1 GHz ~ 3 GHz			Fig.14	P	
3 GHz ~ 18 GHz			Fig.15	P	
6		30 MHz ~1 GHz	Fig.16	P	
		1 GHz ~ 3 GHz	Fig.17	P	
		3 GHz ~ 18 GHz	Fig.18	P	
Power		2.45GHz ~2.5GHz	Fig.19	P	
11		30 MHz ~1 GHz	Fig.20	P	
		1 GHz ~ 3 GHz	Fig.21	P	
		3 GHz ~ 18 GHz	Fig.22	P	

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (20MHz)	Power	2.38GHz ~2.45GHz	Fig.23	P
	1	30 MHz ~1 GHz	Fig.24	P
		1 GHz ~ 3 GHz	Fig.25	P
		3 GHz ~ 18 GHz	Fig.26	P
	6	30 MHz ~1 GHz	Fig.27	P
		1 GHz ~ 3 GHz	Fig.28	P
		3 GHz ~ 18 GHz	Fig.29	P
	Power	2.45GHz ~2.5GHz	Fig.30	P
	11	30 MHz ~1 GHz	Fig.31	P
		1 GHz ~ 3 GHz	Fig.32	P
		3 GHz ~ 18 GHz	Fig.33	P
	/	All channels	18 GHz~ 26.5 GHz	Fig.34

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:

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

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17460.000	43.8	-25.3	42.6	26.497	VERTICAL
17555.250	43.8	-25.3	42.3	26.837	HORIZONTAL
17487.750	43.8	-25.3	43.0	26.057	HORIZONTAL
17494.500	43.8	-25.3	43.0	26.057	HORIZONTAL
17998.500	43.7	-24.7	42.3	26.154	HORIZONTAL
17482.500	43.7	-25.3	43.0	25.957	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17473.500	43.8	-25.3	42.6	26.497	HORIZONTAL
17523.000	43.7	-25.3	42.8	26.227	VERTICAL
17499.750	43.7	-25.3	43.0	25.957	VERTICAL
17487.000	43.7	-25.3	43.0	25.957	VERTICAL
17508.750	43.7	-25.3	42.8	26.227	HORIZONTAL
17510.250	43.6	-25.3	42.8	26.127	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17513.250	43.8	-25.3	42.8	26.327	VERTICAL
17539.500	43.7	-25.3	42.9	26.067	VERTICAL
17491.500	43.7	-25.3	43.0	25.957	VERTICAL
17499.000	43.7	-25.3	43.0	25.957	HORIZONTAL
17991.000	43.7	-24.7	42.3	26.154	HORIZONTAL
17517.750	43.7	-25.3	42.8	26.227	VERTICAL

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17502.000	43.9	-25.3	42.8	26.427	HORIZONTAL
17509.500	43.8	-25.3	42.8	26.327	VERTICAL
17520.000	43.8	-25.3	42.8	26.327	VERTICAL
17495.250	43.7	-25.3	43.0	25.957	HORIZONTAL
17505.750	43.7	-25.3	42.8	26.227	VERTICAL
17484.000	43.7	-25.3	43.0	25.957	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17506.500	43.9	-25.3	42.8	26.427	HORIZONTAL
17494.500	43.8	-25.3	43.0	26.057	HORIZONTAL
17508.000	43.7	-25.3	42.8	26.227	HORIZONTAL
17999.250	43.7	-24.7	42.3	26.154	VERTICAL
17538.750	43.7	-25.3	42.9	26.067	HORIZONTAL
17993.250	43.7	-24.7	42.3	26.154	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17491.500	43.8	-25.3	43.0	26.057	HORIZONTAL
17538.000	43.8	-25.3	42.9	26.167	VERTICAL
17523.750	43.7	-25.3	42.8	26.227	VERTICAL
17517.000	43.7	-25.3	42.8	26.227	VERTICAL
17484.750	43.7	-25.3	43.0	25.957	HORIZONTAL
17534.250	43.7	-25.3	42.9	26.067	HORIZONTAL

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17517.750	43.8	-25.3	42.8	26.327	HORIZONTAL
17490.750	43.8	-25.3	43.0	26.057	VERTICAL
17988.750	43.8	-24.7	42.3	26.254	VERTICAL
17497.500	43.7	-25.3	43.0	25.957	HORIZONTAL
17499.750	43.7	-25.3	43.0	25.957	HORIZONTAL
17518.500	43.7	-25.3	42.8	26.227	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17500.500	43.9	-25.3	42.8	26.427	HORIZONTAL
17483.250	43.7	-25.3	43.0	25.957	HORIZONTAL
17509.500	43.7	-25.3	42.8	26.227	VERTICAL
17523.750	43.7	-25.3	42.8	26.227	HORIZONTAL
17479.500	43.7	-25.3	43.0	25.957	VERTICAL
17490.000	43.7	-25.3	43.0	25.957	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P _{Mea} (dBuV/m)	Polarization
17507.250	43.9	-25.3	42.8	26.427	VERTICAL
17498.250	43.9	-25.3	43.0	26.157	HORIZONTAL
17992.500	43.8	-24.7	42.3	26.254	VERTICAL
17501.250	43.8	-25.3	42.8	26.327	HORIZONTAL
17532.000	43.7	-25.3	42.9	26.067	HORIZONTAL
17506.500	43.7	-25.3	42.8	26.227	VERTICAL

Test graphs as below:

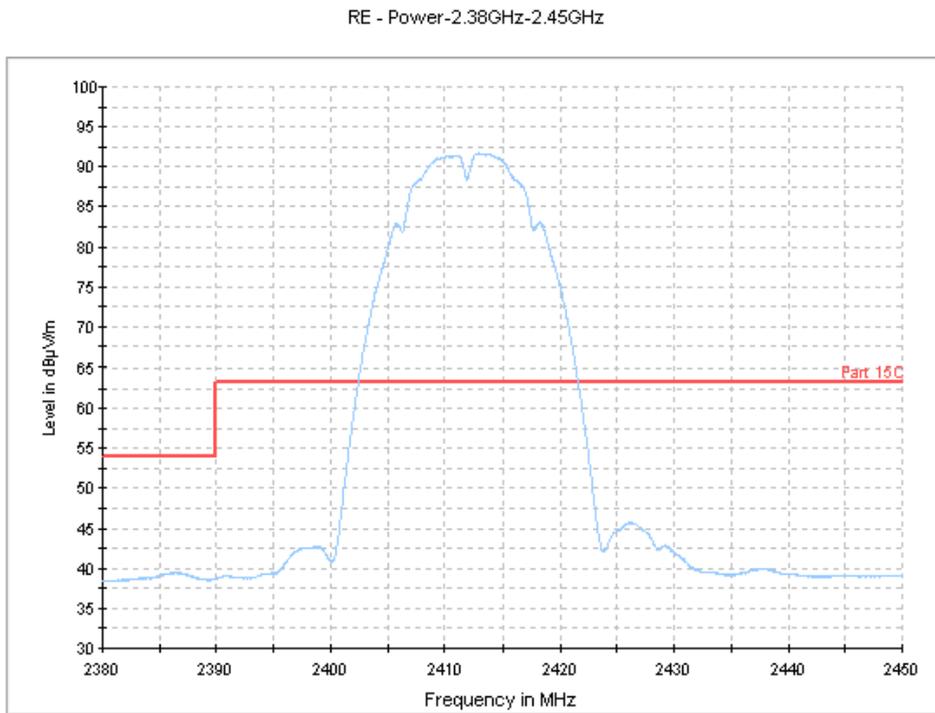


Fig. 1 Radiated Spurious Emission (Power): 802.11b, ch1, 2.38 GHz - 245GHz

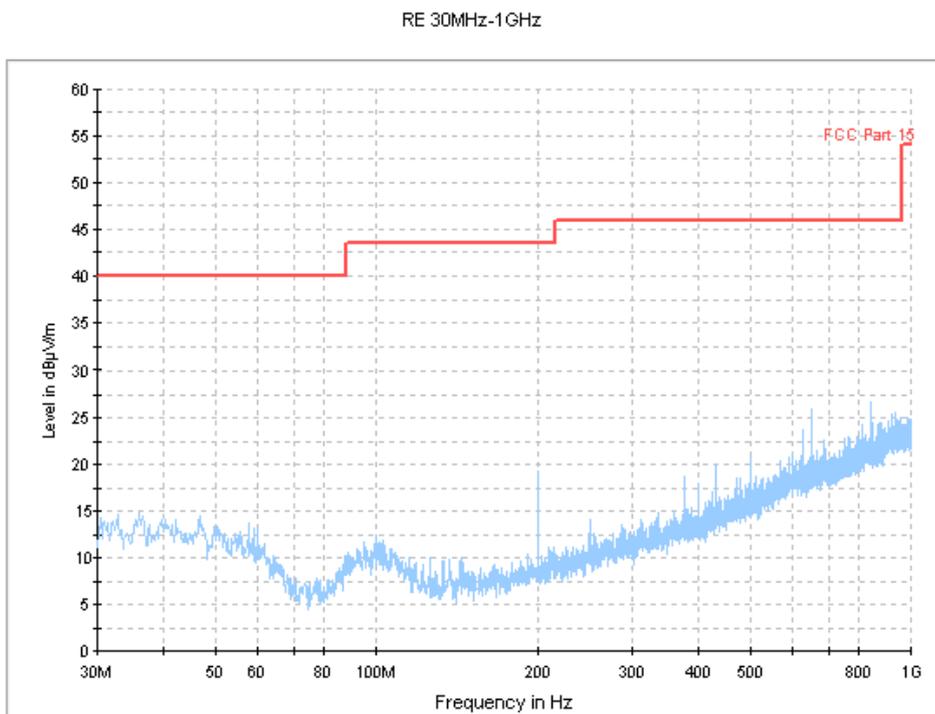


Fig. 2 Radiated Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

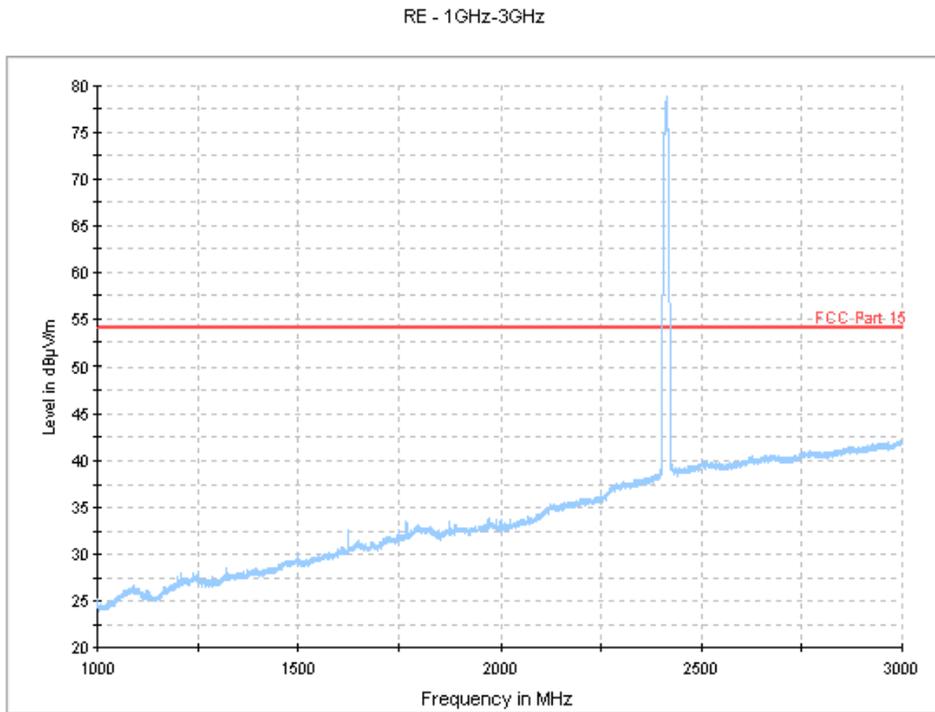


Fig. 3 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-3 GHz)

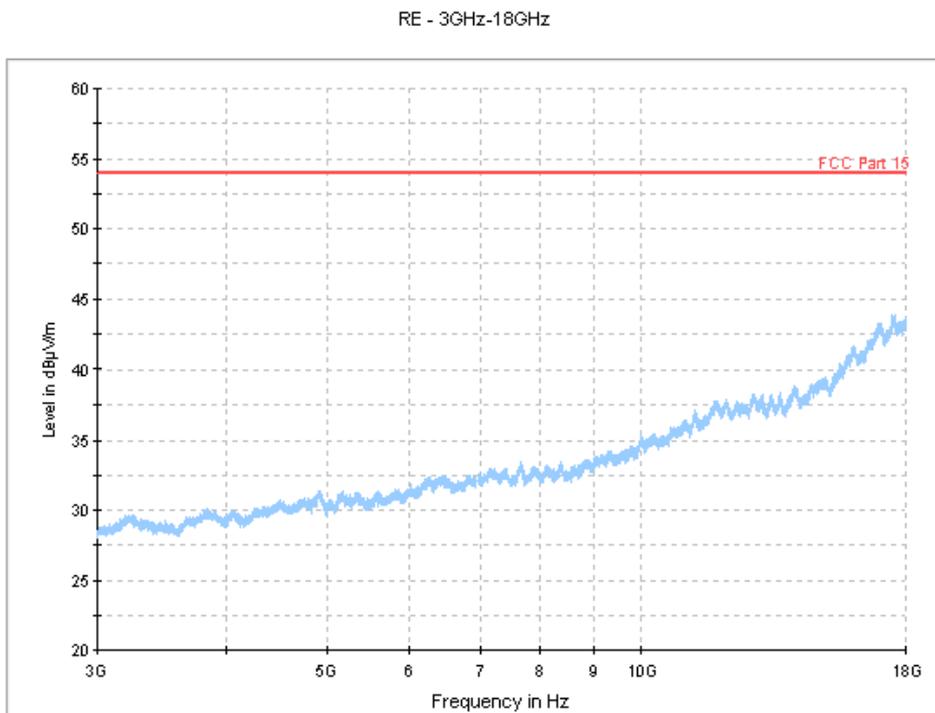


Fig. 4 Radiated Spurious Emission (802.11b, Ch1, 3 GHz-18 GHz)

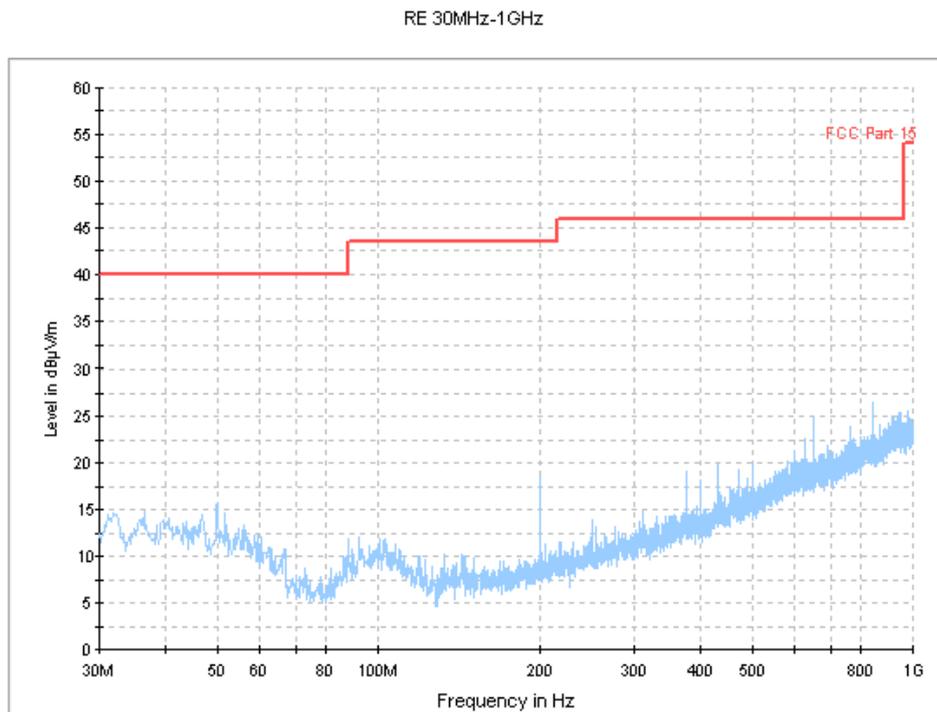


Fig. 5 Radiated Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

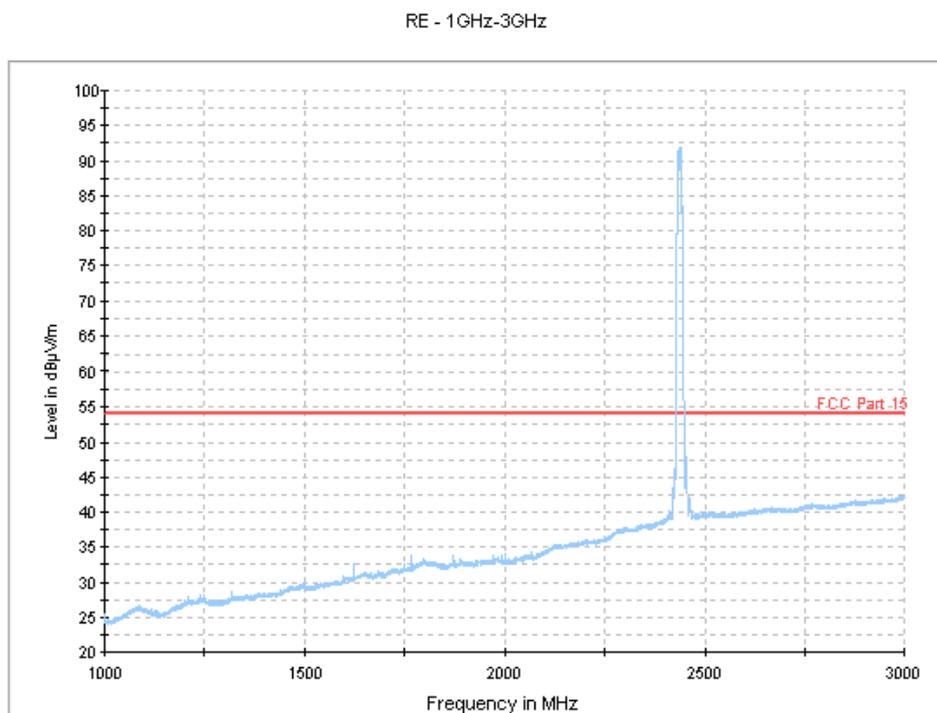


Fig. 6 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-3 GHz)

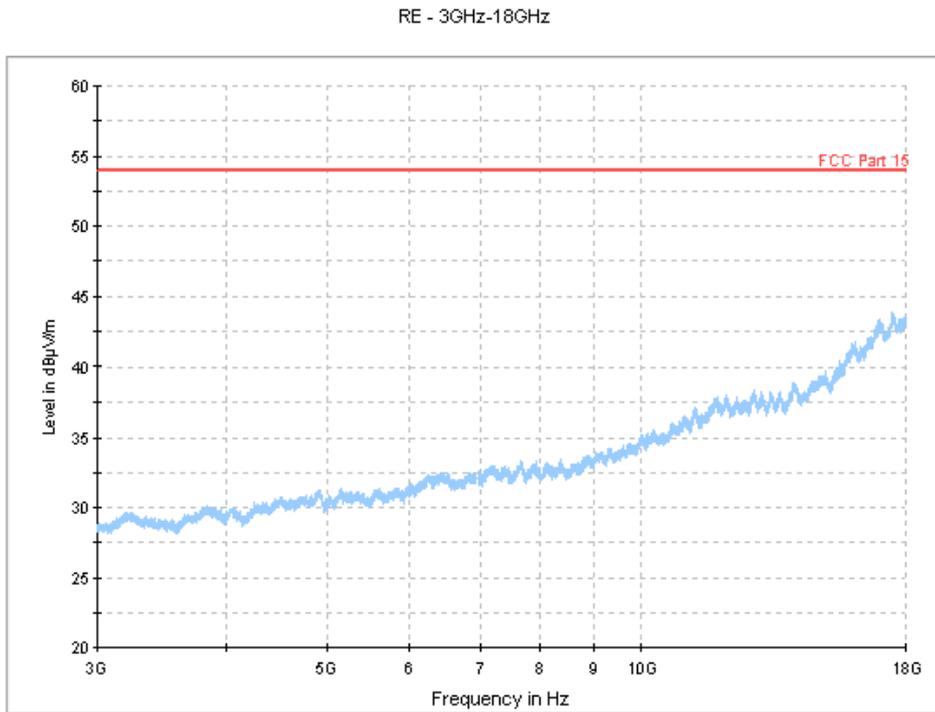


Fig. 7 Radiated Spurious Emission (802.11b, Ch6, 3 GHz-18 GHz)

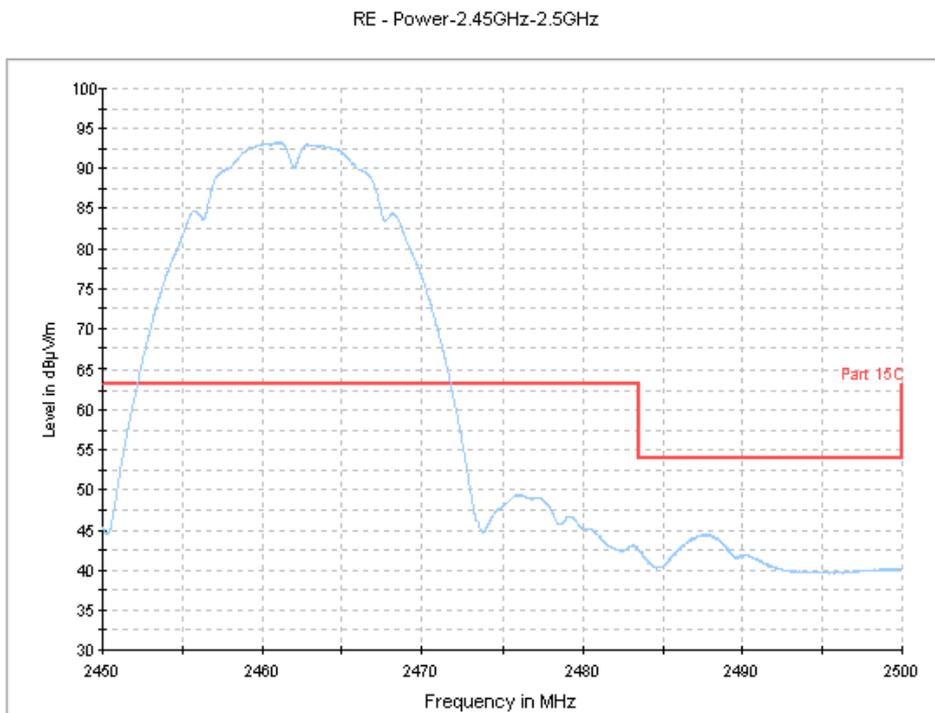


Fig. 8 Radiated Spurious Emission (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

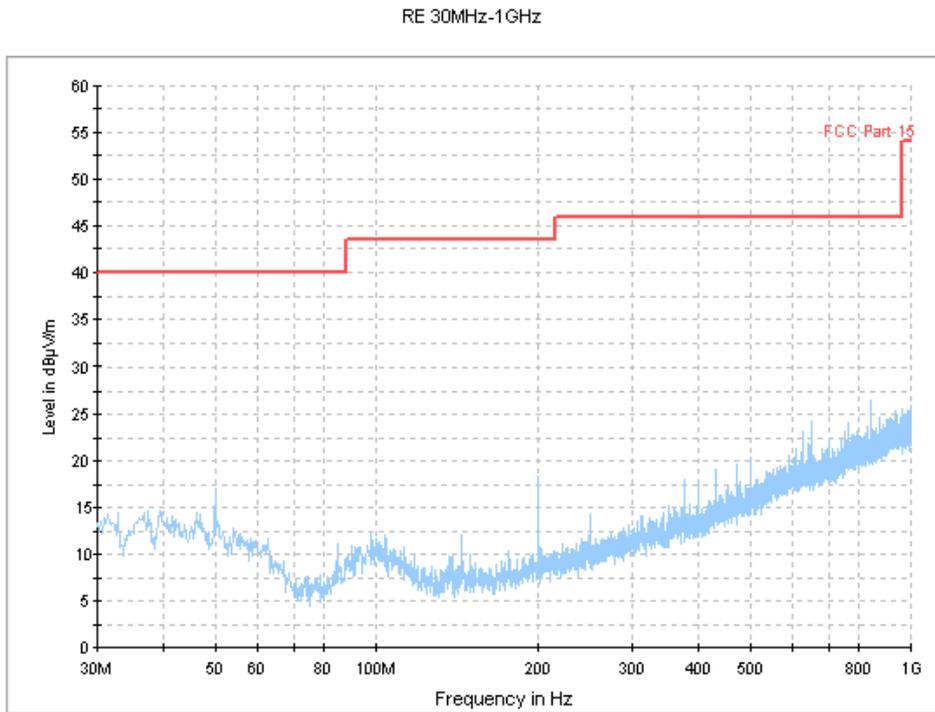


Fig. 9 Radiated Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

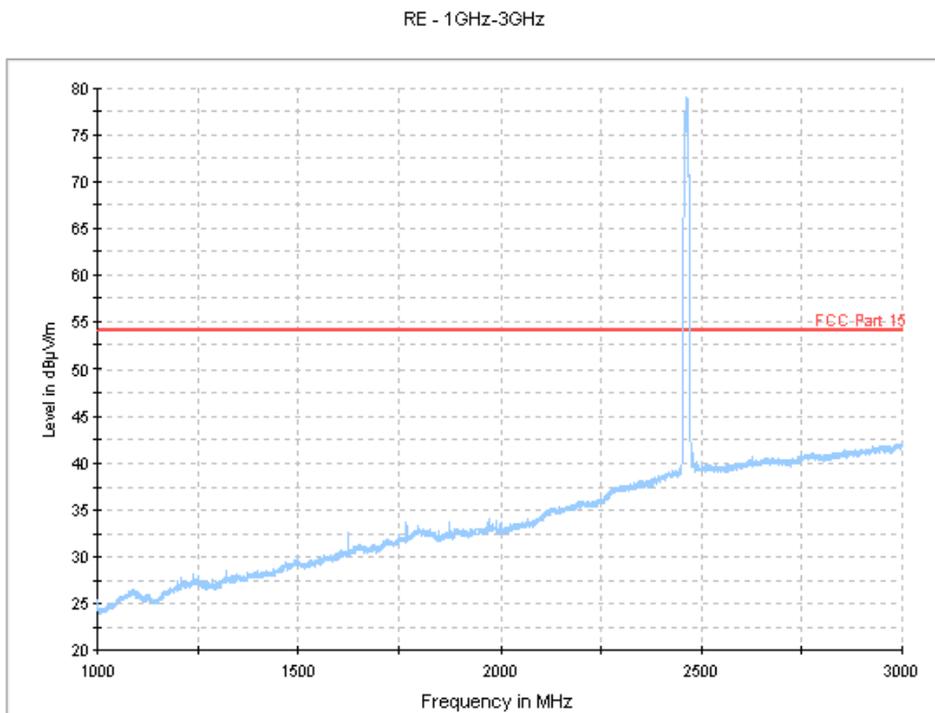


Fig. 10 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-3 GHz)

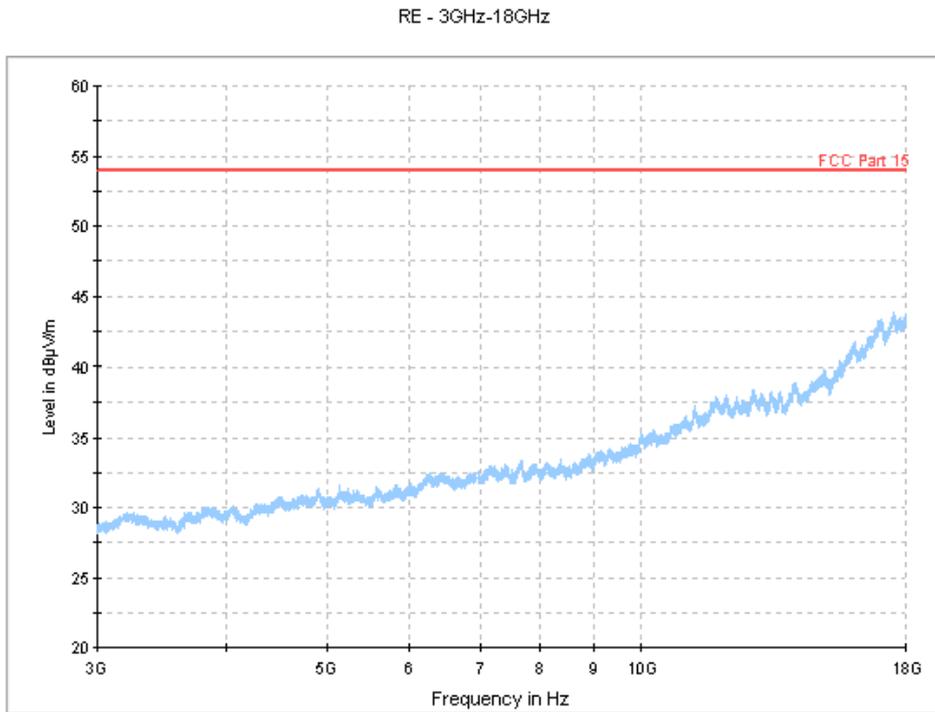


Fig. 11 Radiated Spurious Emission (802.11b, Ch11, 3 GHz-18 GHz)

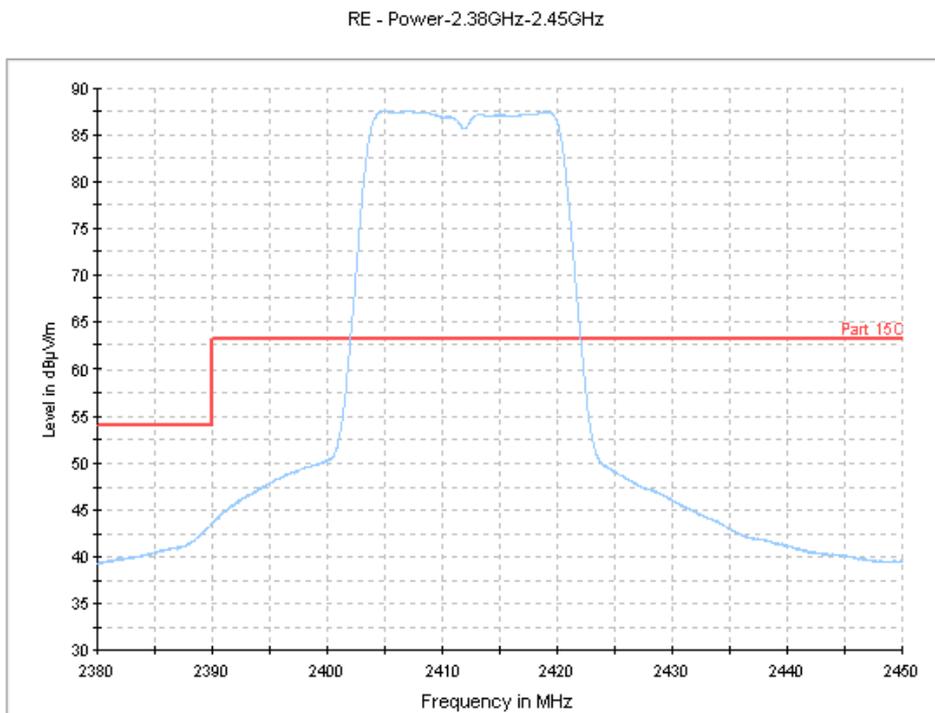


Fig. 12 Radiated Spurious Emission (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

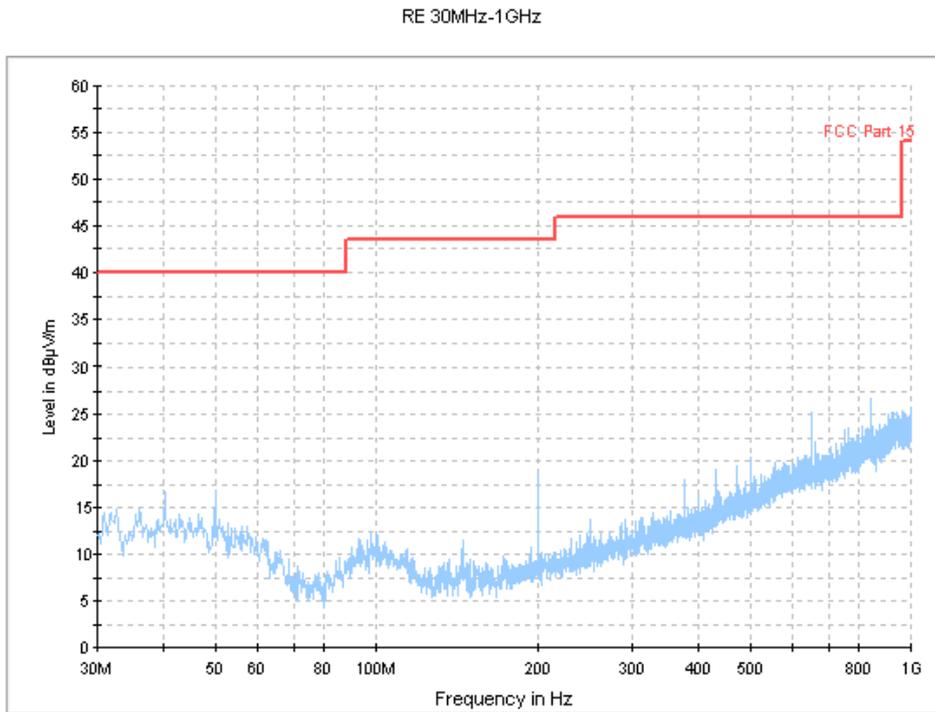


Fig. 13 Radiated Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

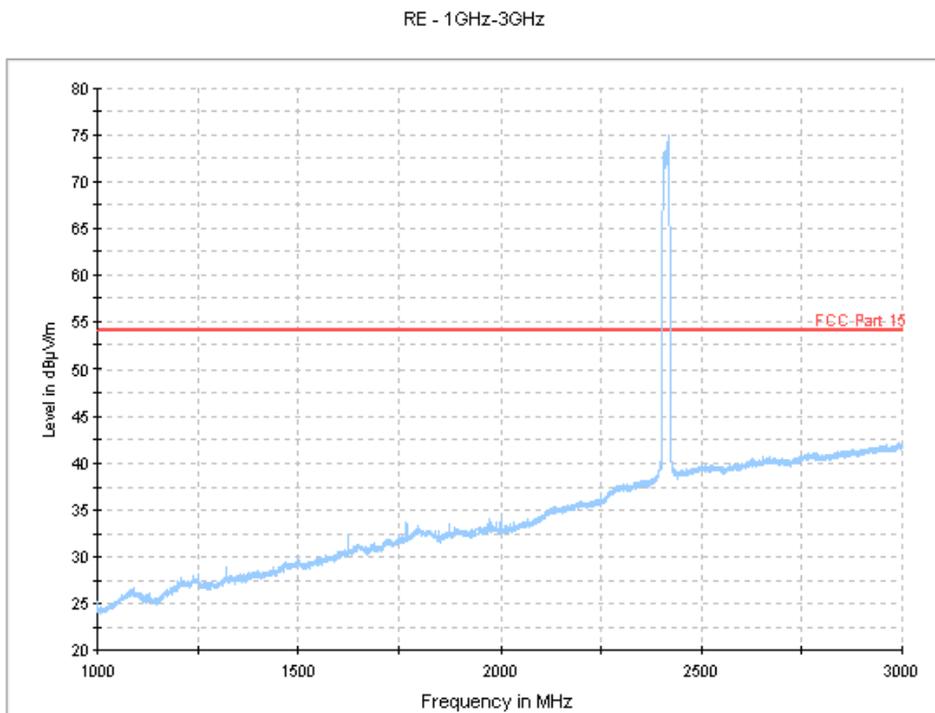


Fig. 14 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-3 GHz)

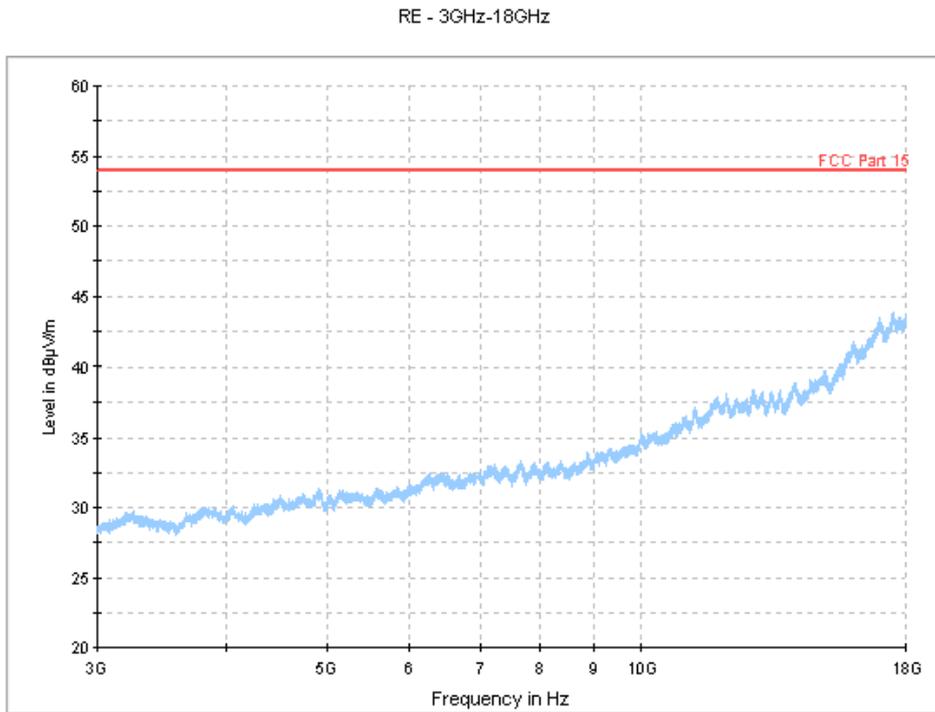


Fig. 15 Radiated Spurious Emission (802.11g, Ch1, 3 GHz-18 GHz)

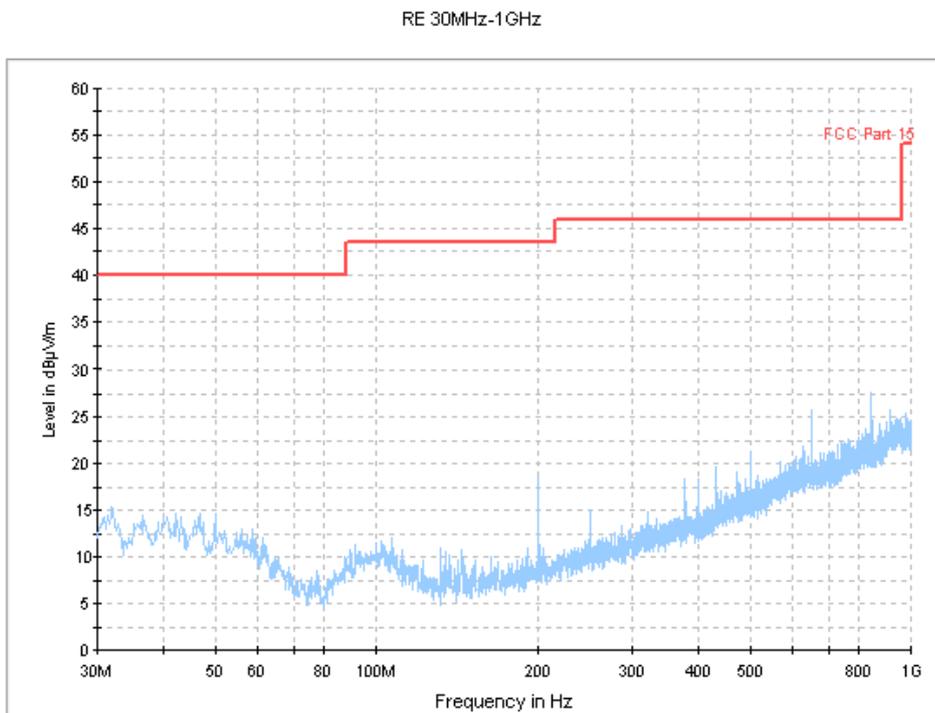


Fig. 16 Radiated Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

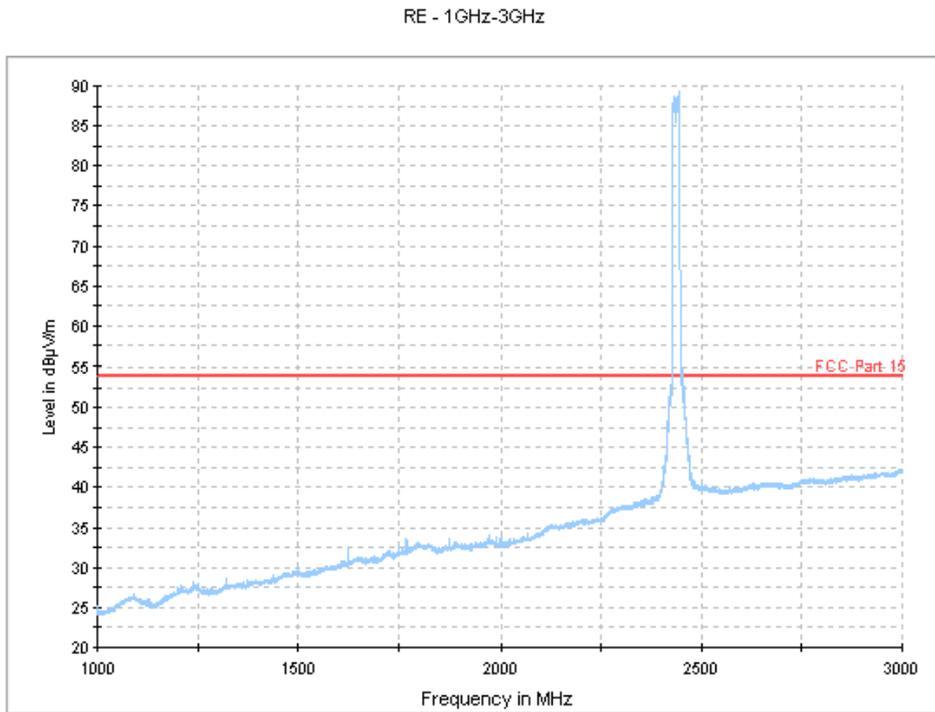


Fig. 17 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-3 GHz)

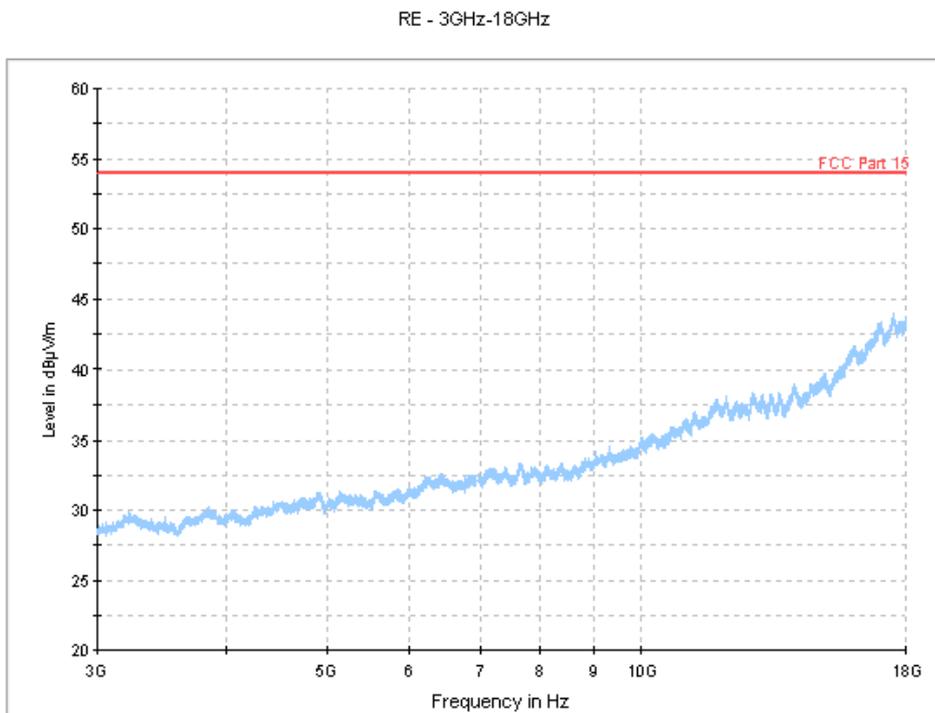


Fig. 18 Radiated Spurious Emission (802.11g, Ch6, 3 GHz-18 GHz)

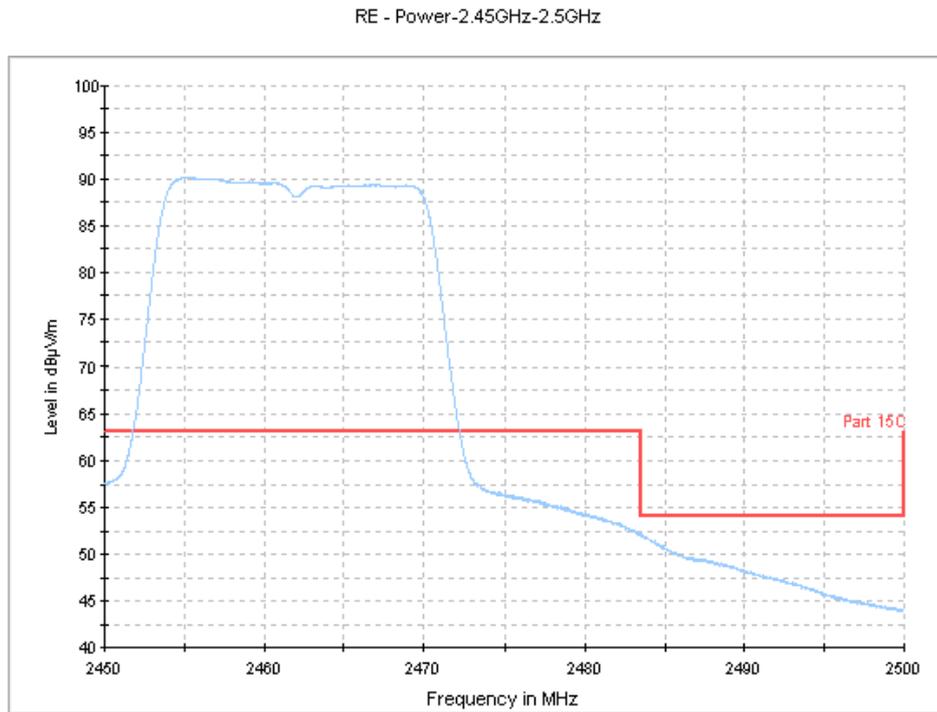


Fig. 19 Radiated Spurious Emission (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

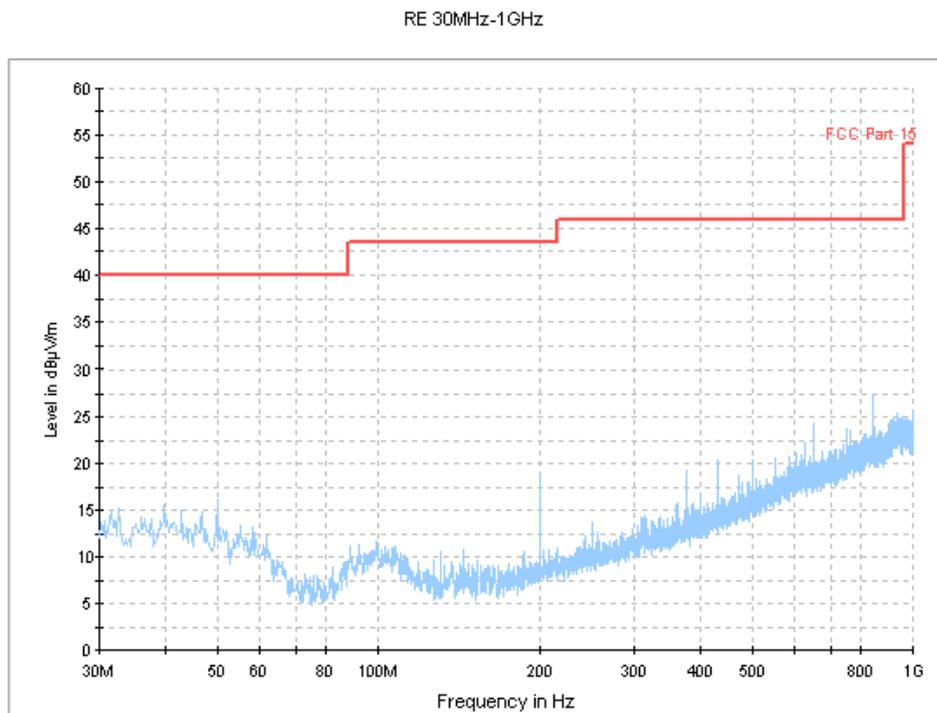


Fig. 20 Radiated Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

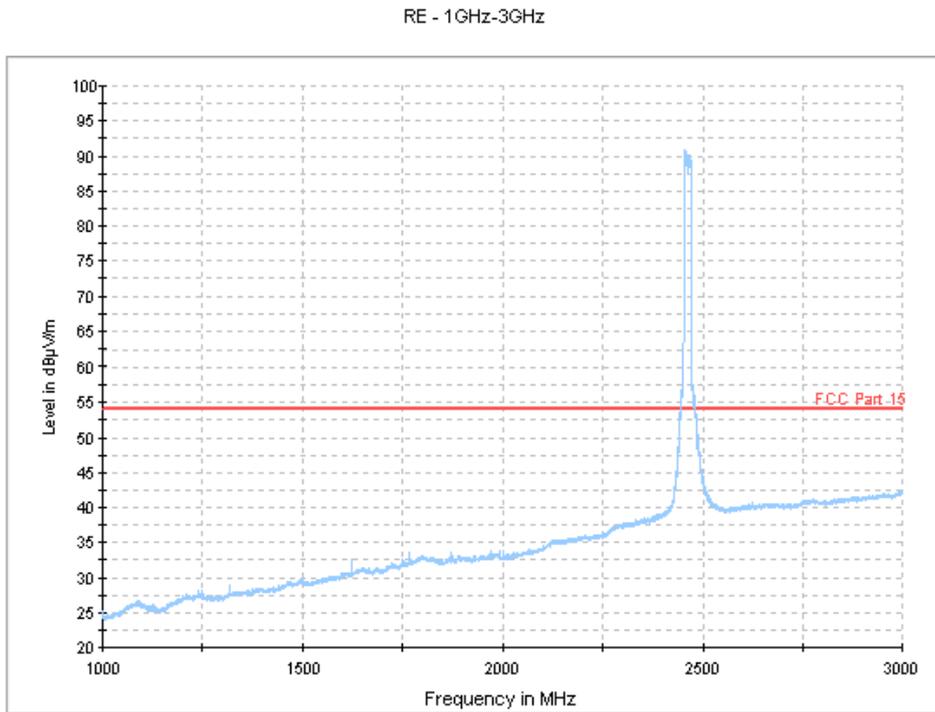


Fig. 21 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-3 GHz)

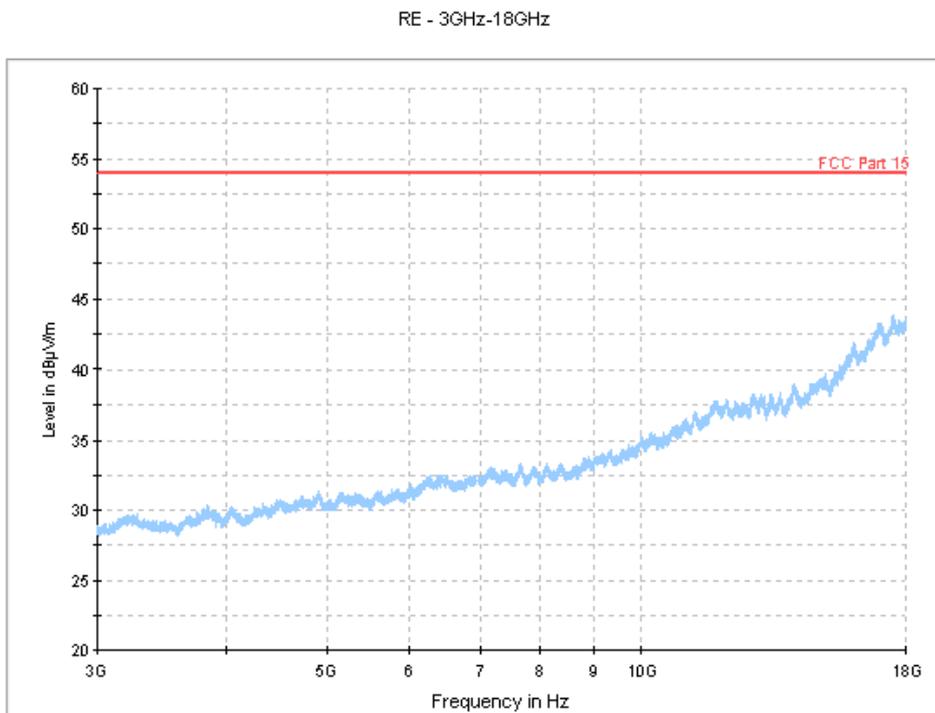


Fig. 22 Radiated Spurious Emission (802.11g, Ch11, 3 GHz-18 GHz)

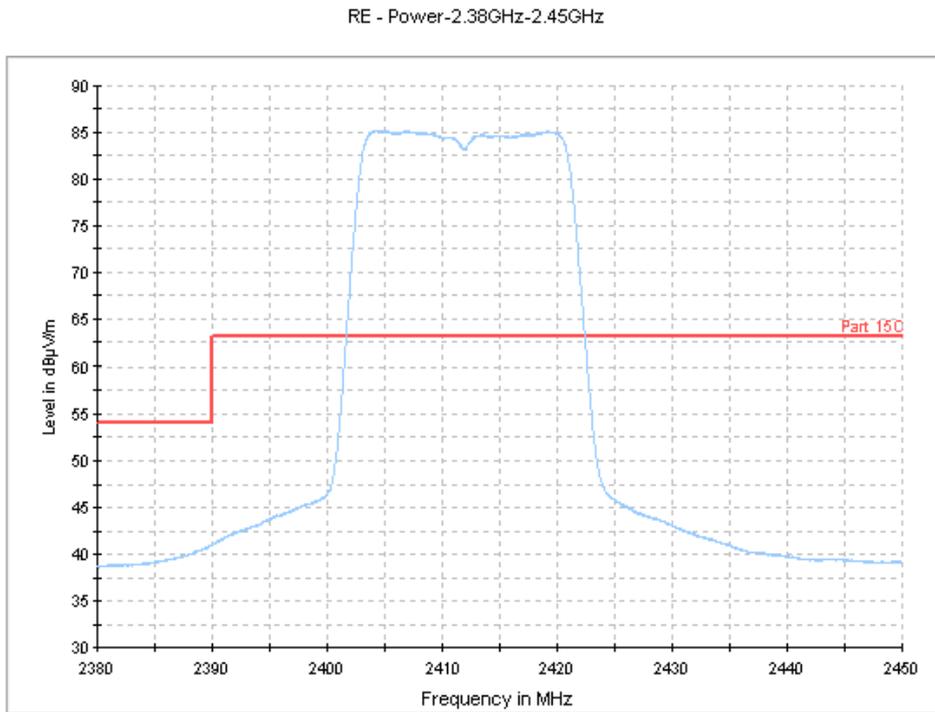


Fig. 23 Radiated Spurious Emission (Power): 802.11n-20MHz, ch1, 2.38 GHz - 2.45GHz

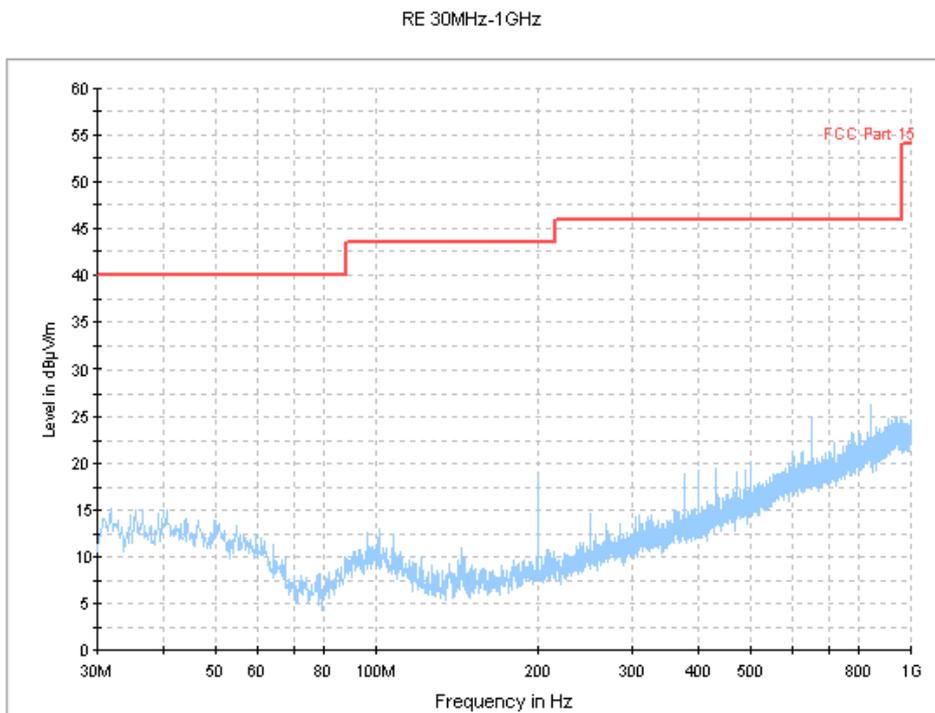


Fig. 24 Radiated Spurious Emission (802.11n-20MHz, Ch1, 30 MHz-1 GHz)

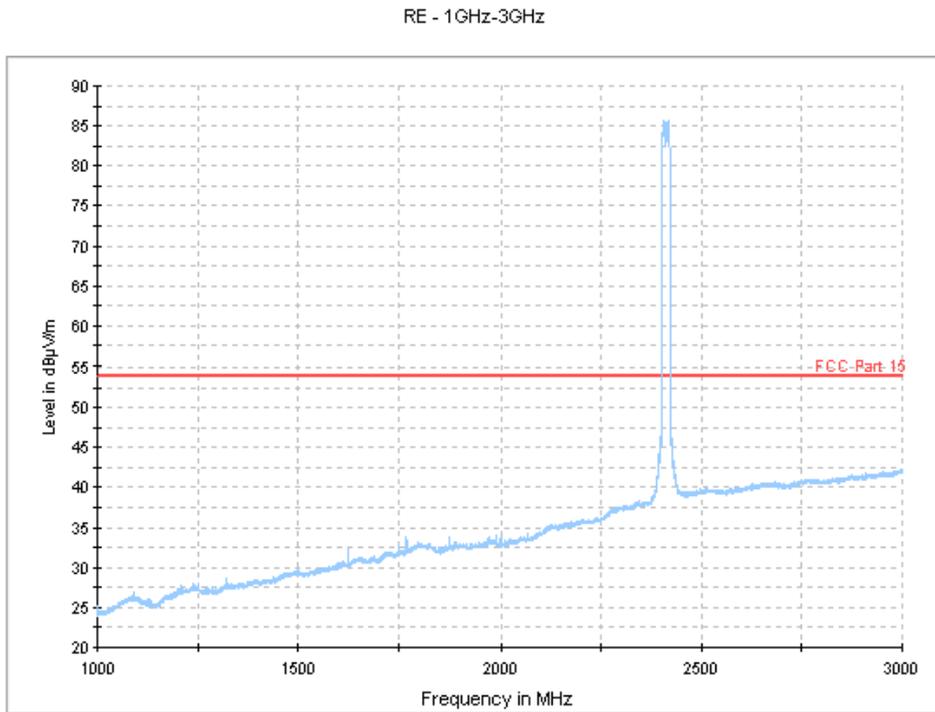


Fig. 25 Radiated Spurious Emission (802.11n-20MHz, Ch1, 1 GHz-3 GHz)

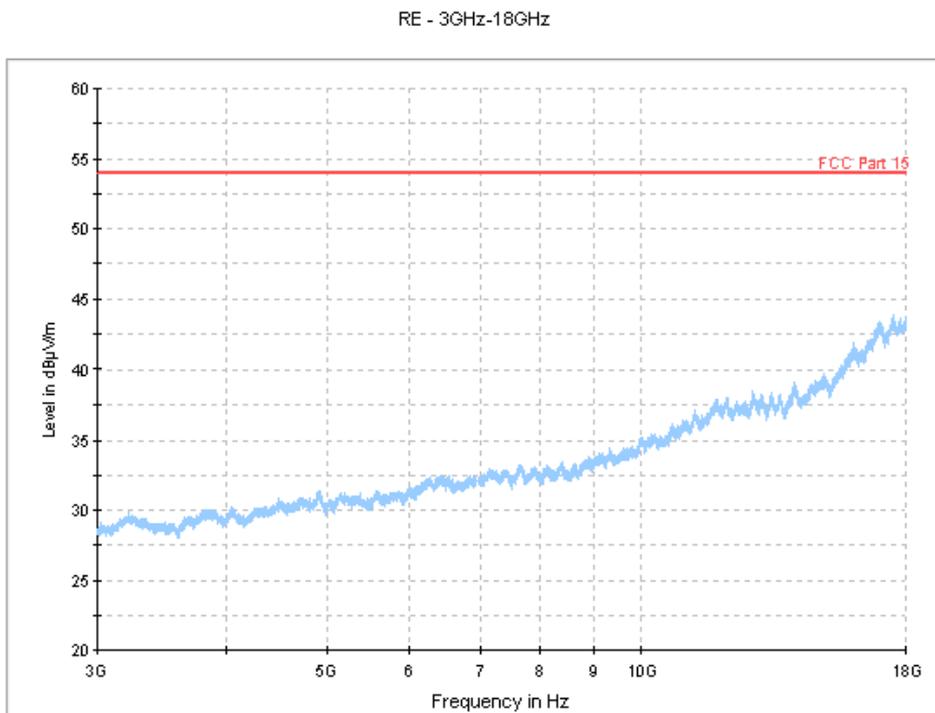


Fig. 26 Radiated Spurious Emission (802.11n-20MHz, Ch1, 3 GHz-18 GHz)

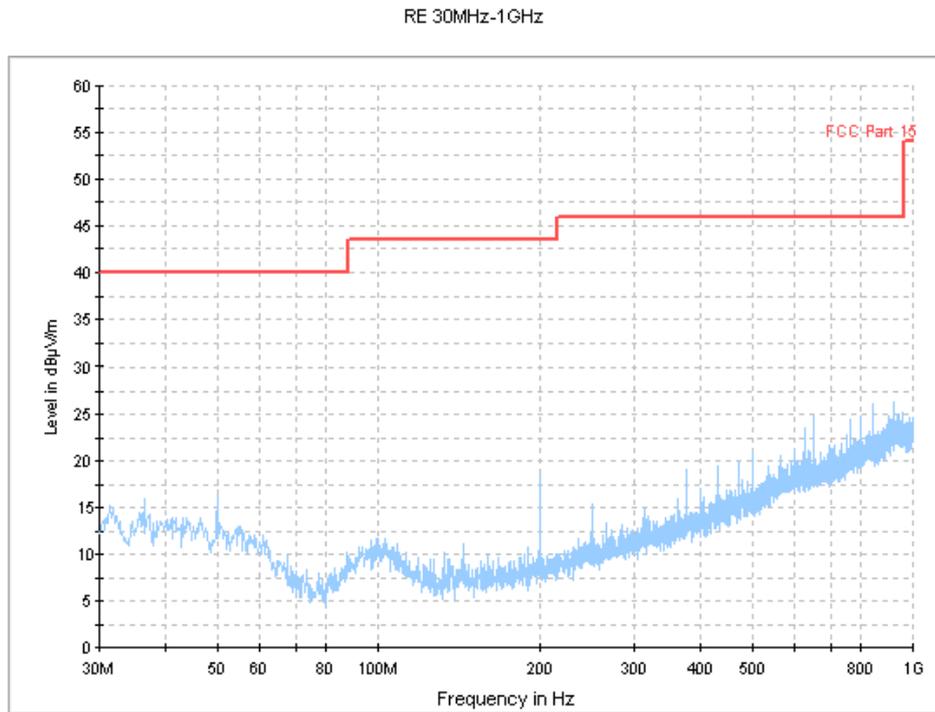


Fig. 27 Radiated Spurious Emission (802.11n-20MHz, Ch6, 30 MHz-1 GHz)

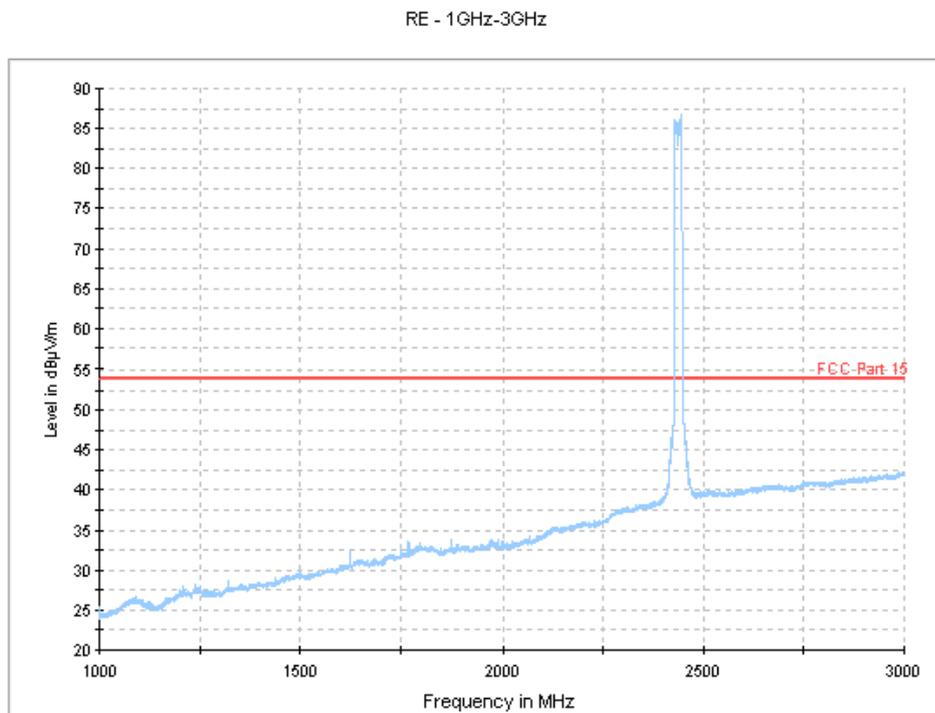


Fig. 28 Radiated Spurious Emission (802.11n-20MHz, Ch6, 1 GHz-3 GHz)

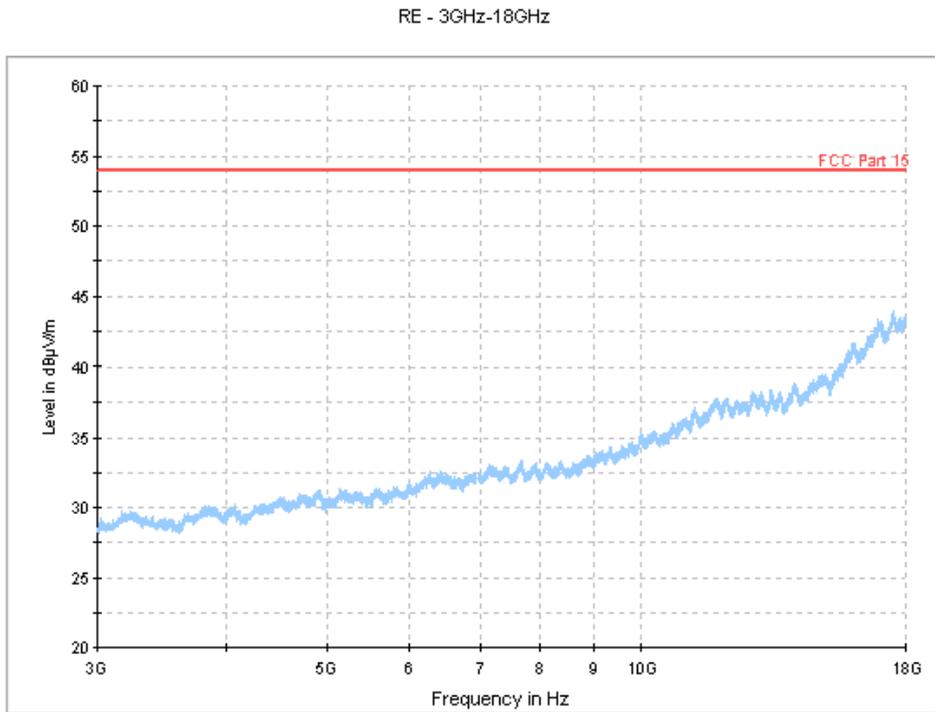


Fig. 29 Radiated Spurious Emission (802.11n-20MHz, Ch6, 3 GHz-18 GHz)

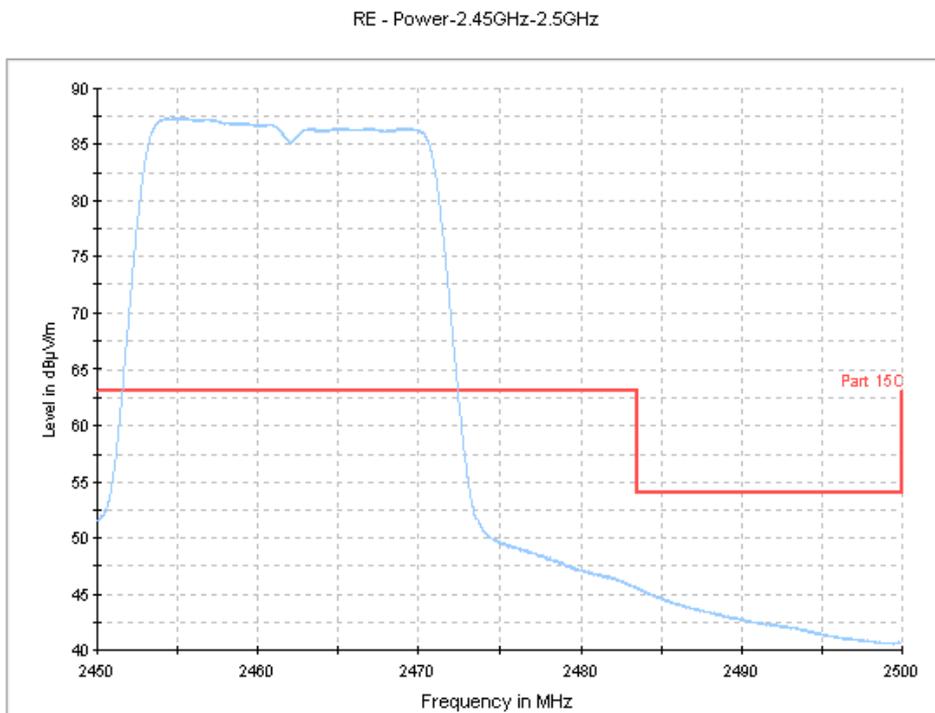


Fig. 30 Radiated Spurious Emission (Power): 802.11n-20MHz, ch11, 2.45 GHz - 2.50GHz

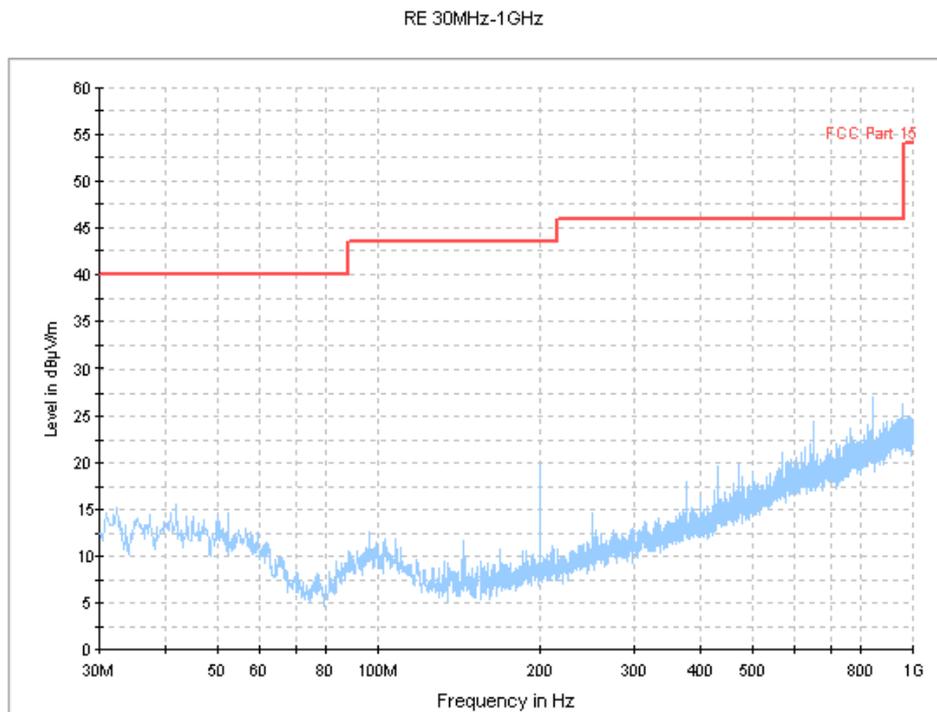


Fig. 31 Radiated Spurious Emission (802.11n-20MHz, Ch11, 30 MHz-1 GHz)

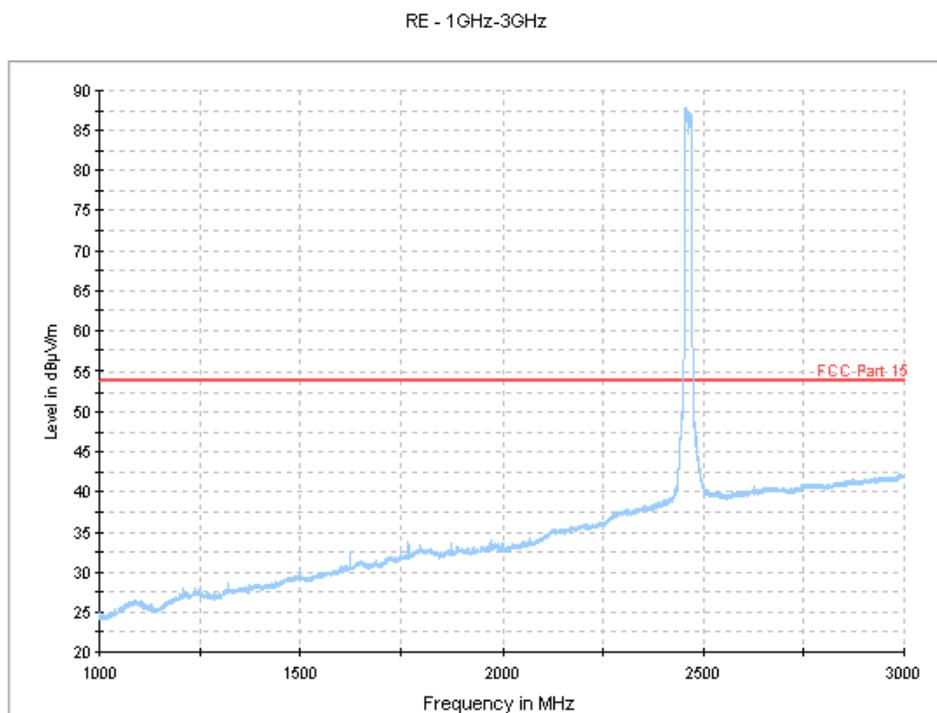


Fig. 32 Radiated Spurious Emission (802.11n-20MHz, Ch11, 1 GHz-3 GHz)

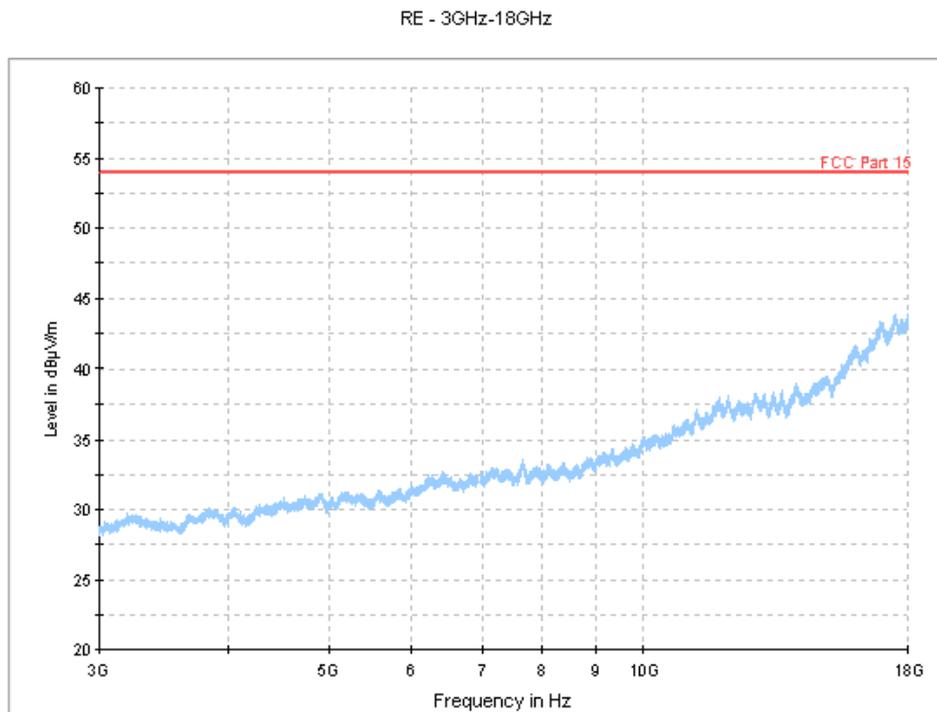


Fig. 33 Radiated Spurious Emission (802.11n-20MHz, Ch11, 3 GHz-18 GHz)

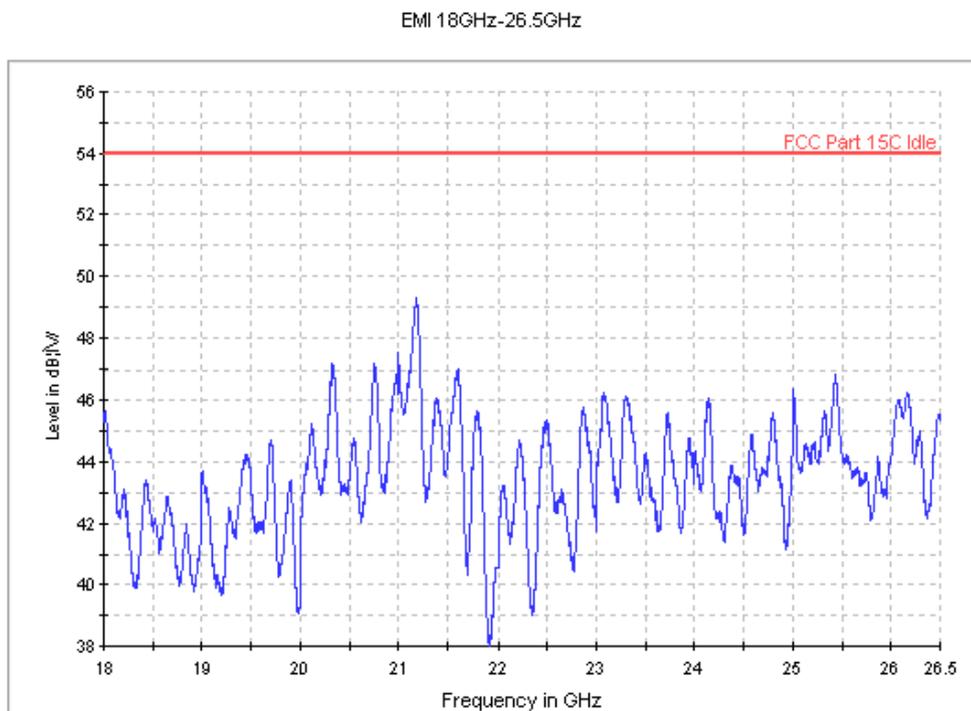


Fig. 34 Radiated Spurious Emission (All channels): 18GHz – 26.5GHz

A.3 Spurious Emissions Radiated < 30MHz

Measurement Limit:

Frequency (MHz)	Field strength(dB μ V/m)	Measurement distance
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

The measurement is made according to ANSI C63.10.

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 § 15.109(a) (see § 15.205(c)).

Measurement Results:

Frequency Range	Test Results	Conclusion
9 kHz ~30 MHz	Fig.35	P

Note: Above 18GHz measurement, all signals are 20dB lower than the limit, so the results are not recorded in this report

Conclusion: PASS

Test graphs as below:

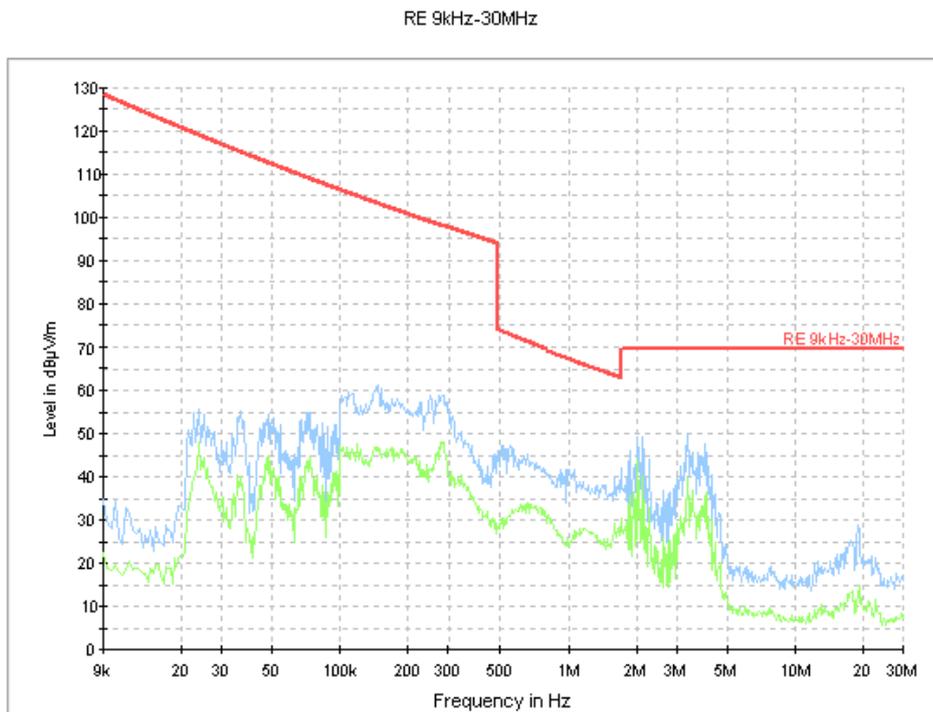


Fig. 35 Radiated Spurious Emission (802.11b, 9 kHz ~30 MHz)

A.4 AC Powerline Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)			Conclusion
		With charger			
		802.11b	802.11g	802.11n	
0.15 to 0.5	66 to 56	Fig. 36	Fig.37	Fig.38	P
0.5 to 5	56				
5 to 30	60				

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)			Conclusion
		With charger			
		802.11b	802.11g	802.11n	
0.15 to 0.5	56 to 46	Fig.36	Fig.37	Fig.38	P
0.5 to 5	46				
5 to 30	50				

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

The measurement is made according to ANSI C63.10

Conclusion: PASS

Test graphs as below:

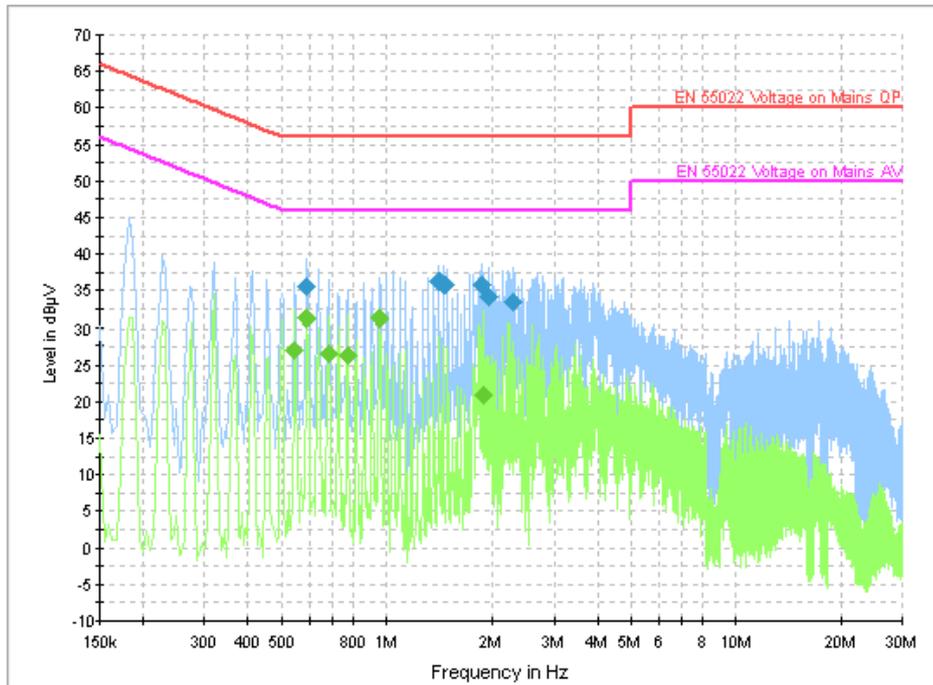


Fig. 36 AC Powerline Conducted Emission-802.11b

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.591000	35.5	GND	N	10.0	20.5	56.0
1.410000	36.2	GND	N	10.0	19.8	56.0
1.455000	35.8	GND	N	10.0	20.2	56.0
1.869000	35.8	GND	N	10.0	20.2	56.0
1.954500	34.2	GND	L1	10.0	21.8	56.0
2.274000	33.4	GND	N	10.0	22.6	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.546000	27.1	GND	L1	10.0	18.9	46.0
0.591000	31.2	GND	L1	10.0	14.8	46.0
0.685500	26.6	GND	L1	10.0	19.4	46.0
0.775500	26.4	GND	L1	10.0	19.6	46.0
0.955500	31.2	GND	L1	10.0	14.8	46.0
1.873500	20.9	GND	L1	10.0	25.1	46.0

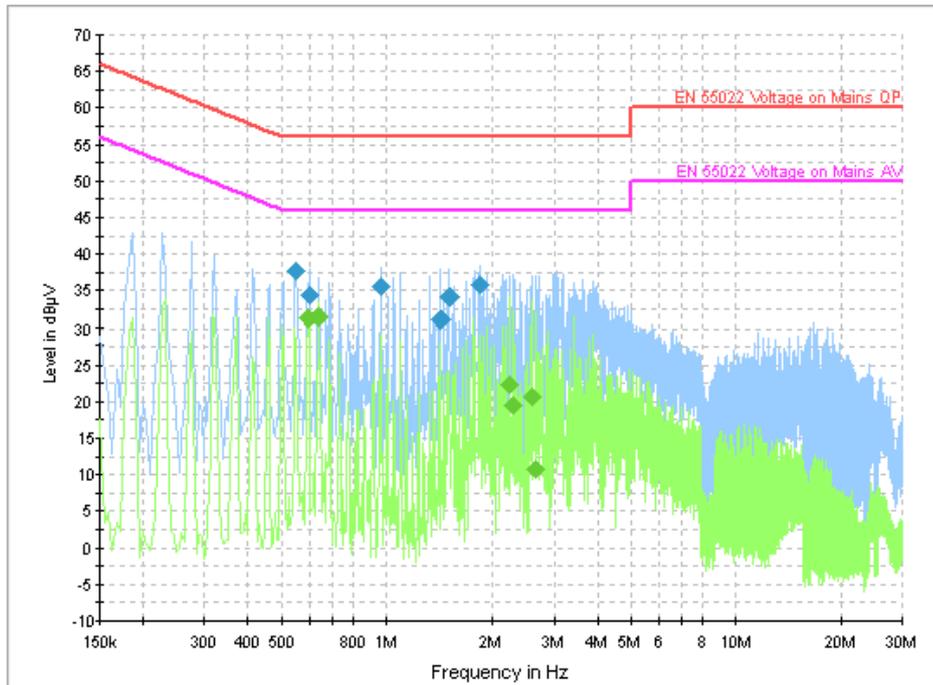


Fig. 37 AC Powerline Conducted Emission-802.11g

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.550500	37.6	GND	N	10.0	18.4	56.0
0.600000	34.4	GND	N	10.0	21.6	56.0
0.960000	35.4	GND	N	10.0	20.6	56.0
1.419000	31.1	GND	N	10.0	24.9	56.0
1.513500	34.1	GND	N	10.0	21.9	56.0
1.833000	35.7	GND	N	10.0	20.3	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.595500	31.4	GND	L1	10.0	14.6	46.0
0.640500	31.5	GND	L1	10.0	14.5	46.0
2.233500	22.2	GND	L1	10.0	23.8	46.0
2.278500	19.5	GND	L1	10.0	26.5	46.0
2.598000	20.7	GND	L1	10.0	25.3	46.0
2.656500	10.7	GND	L1	10.0	35.3	46.0

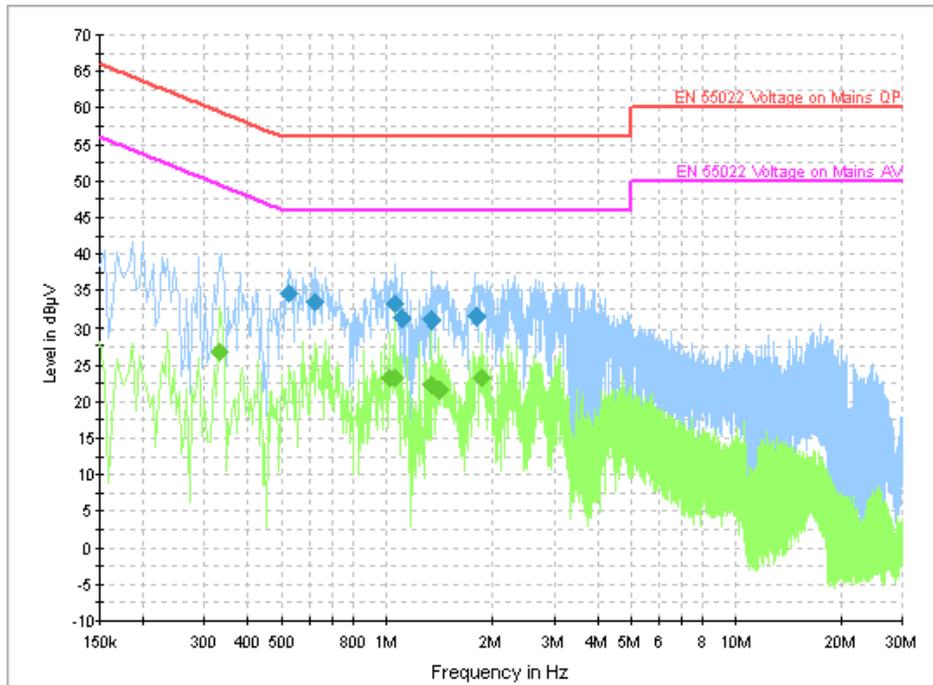


Fig. 38 AC Powerline Conducted Emission-802.11n

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.528000	34.6	GND	N	10.0	21.4	56.0
0.622500	33.5	GND	L1	10.0	22.5	56.0
1.054500	33.3	GND	L1	10.0	22.7	56.0
1.104000	31.3	GND	L1	10.0	24.7	56.0
1.347000	31.0	GND	L1	10.0	25.0	56.0
1.788000	31.6	GND	L1	10.0	24.4	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.330000	26.8	GND	L1	10.0	22.7	49.5
1.023000	23.4	GND	L1	10.0	22.6	46.0
1.054500	23.4	GND	L1	10.0	22.6	46.0
1.347000	22.2	GND	L1	10.0	23.8	46.0
1.405500	21.6	GND	L1	10.0	24.4	46.0
1.851000	23.4	GND	L1	10.0	22.6	46.0

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