



FCC PART 15C/IC RSS-210 TEST REPORT No. 2011WLN0277

for

Sony Ericsson Mobile Communications AB

GSM 850/900/1800/1900 quad bands mobile phone

Type: AAB-1880033-BV

Marketing Name: CK13i

With

FCC ID: PY7A1880033

IC ID: 4170B-A1880033

Hardware Version: A

Software Version: P5AB206

Issued Date: 2011-07-22



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IC O.A.T.S listed: No.6629A-1

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1. TEST LATORATORY

1.1. Testing Location

Company Name: TMC Beijing, Telecommunication Metrology Center of MIIT
Address: No. 52, Huayuan Bei Road, Haidian District, Beijing, P. R. China
Postal Code: 100191
Telephone: 00861062304633
Fax: 00861062304793

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

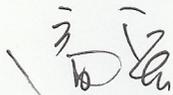
Testing Start Date: 2011-07-14
Testing End Date: 2011-07-17

1.4. Signature



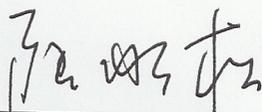
Sun Zhenyu

(Prepared this test report)



Gao Hong

(Reviewed this test report)



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Deputy Director of the laboratory

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2. CLIENT INFORMATION

2.1. Applicant Information

Company Name: Sony Ericsson Mobile Communications(China) Co., Ltd.
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2.2. Manufacturer Information

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Postal Code: 22188
Country: Sweden
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Email: Anders.Nordlof@sonyericsson.com
Telephone: +46-46-193919
Fax: +46-46-193295

3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY

EQUIPMENT(AE)

3.1. About EUT

Description	GSM 850/900/1800/1900 quad bands mobile phone
Model	AAB-1880033-BV
Marketing Name	CK13i
FCC ID	PY7A1880033
IC ID	4170B-A1880033
Frequency Range	ISM 2400MHz~2483.5MHz
Type of modulation	DSSS/CCK/OFDM
Number of Channels	11
Cellular Frequency Band	GSM850/900/1800/1900
Support Functions	WLAN, Bluetooth, Camera, FM, MP3, USB Memory
Antenna	Integral Antenna
MAX Radiated Power	18.23dBm(OFDM)
MAX Conducted Power	20.08dBm(OFDM)
Extreme Temperature	-20/+55°C
Normal Voltage	3.8V
Extreme Low Voltage	3.4V
Extreme High Voltage	4.2V

Note: Photographs of EUT are shown in ANNEX C of this test report. Components list, please refer to documents of the manufacturer; it is also included in the original test record of Telecommunication Metrology Center of MIIT of People's Republic of China.

3.2. Internal Identification of EUT used during the test

EUT ID*	S/N	IMEI	HW Version	SW Version
EUT1	/	004402142075534	A	P5AB206
EUT2	/	004402142075591	A	P5AB206
EUT3	/	004402142075666	A	P5AB206

*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	Travel Adapter	CAA-0004001-BV	/
AE2	Battery	CBA-0002016	/

*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 GSM 850/900/1800/1900 quad bands mobile phone with integrated antenna.

It has MP3, Camera, FM radio, USB memory, Bluetooth and WLAN (802.11 b/g) functions. It also supports GPRS function with multi-slots class 10 and EGPRS function with multi-slots class 10 too.

It consists of normal options: lithium battery and travel charger. Since subscribers often use MS during charging, EUT is to be test in accordance with “Base Station and ancillary equipment for fixed use” besides in accordance with “Portable and ancillary equipment for portable use”.

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

Samples undergoing test were selected 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 C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2009
KDB558074	Measurement of Digital Transmission Systems Operating under Section 15.247	March 23, 2005
RSS-GEN	Spectrum Management and Telecommunications - Radio Standards Specification General Requirements and Information for the Certification of Radiocommunication Equipment	Issue 2
RSS-210	Spectrum Management and Telecommunications - Radio Standards Specification Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment	Issue 8

5. LABORATORY 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 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Ground system resistance	< 0.5 Ω
Uniformity of field strength	Between 0 and 6 dB, from 80MHz to 3000 MHz

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

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

Fully-anechoic chamber (6.8 meters×3.08 meters×3.53 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 30 %, 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

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

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15C	Sub-clause of IC	Verdict
Maximum Peak Output Power	15.247 (a)	A8.4	P
Peak Power Spectral Density	15.247 (d)	A8.2, A8.3	P
Occupied 6dB Bandwidth	15.247 (d)	A8.2	P
Band Edges Compliance	15.247 (b)	A8.5	P
Transmitter Spurious Emission - Conducted	15.247	A8.5	P
Transmitter Spurious Emission - Radiated	15.247, 15.209, 15.209	A8.5	P
AC Powerline Conducted Emission	15.107, 15.207	7.2.2	P
Occupied 20dB Bandwidth	15.247 (d)	A8.2	P

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

The measurement is made 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.
NM	Not measured, The test was not measured 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.

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

Temperature	T nom	26°C
Voltage	V nom	3.6V(By battery)
Humidity	H nom	44%
Air Pressure	A nom	1010hPa

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	2012-07-19
2	Test Receiver	ESS	847151/015	Rohde & Schwarz	2011-10-30
3	LISN	ESH2-Z5	829991/012	Rohde & Schwarz	2011-08-13

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date
1	Test Receiver	ESI40	831564/002	Rohde & Schwarz	2011-08-11
2	BiLog Antenna	3142B	9908-1403	EMCO	2012-03-15
3	Dual-Ridge Waveguide Horn Antenna	3115	9906-5827	EMCO	2011-12-25

Anechoic chamber

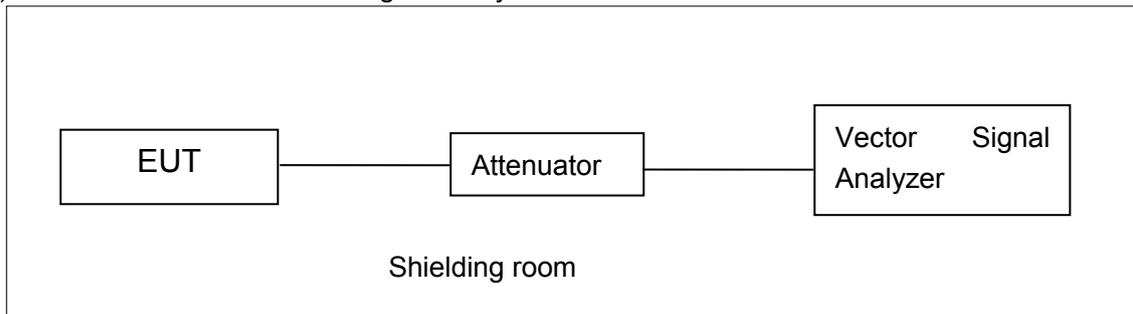
Fully anechoic chamber by Frankonia German.

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

A.1.1. Conducted Measurements

- 1). Connect the EUT to the test system correctly.
- 2). Set the EUT to the required work mode.
- 3). Set the EUT to the required channel.
- 4). Set the spectrum analyzer to start measurement.
- 5). Record the values. Vector Signal Analyzer

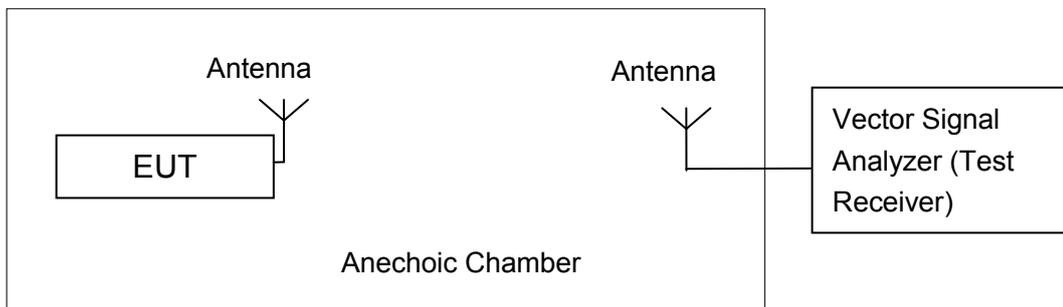


A.1.2. Radiated Emission Measurements

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;



The measurement is made according to ANSI C63.4 and KDB558074

The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

A.2. Maximum Peak Output Power

Measurement Limit and Method:

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

The measurement is made according to ANSI C63.4 and KDB558074

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
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A.2.1. Antenna Gain

The antenna gain of the complete system is calculated by the difference of radiated power and the conducted power of the EUT.

Test	Channel		
Tnom,Vnom	1	6	11
Conducted Power(dBm)	18.23	18.19	18.19
Radiated Power(dBm)	18.63	19.15	18.73
Gain(dBi)	0.40	0.96	0.54

Antenna Gain = Radiated value (with radiated sample) - Conducted values (with conducted samples)

A.2.2. Maximum Peak Output Power

Measurement Results:

Mode	Test Result (dBm)					
	2412MHz (Ch1)		2437MHz (Ch6)		2462 MHz (Ch11)	
	Conducted	Radiated	Conducted	Radiated	Conducted	Radiated
802.11b	18.23	18.63	18.19	19.15	18.19	18.19
802.11g	20.08	18.89	20.06	17.61	19.98	19.72

Conclusion: PASS

A.3. Peak Power Spectral Density

Measurement Limit:

Standard	Limit
FCC CRF Part 15.247(d)	< 8 dBm/3 kHz

The measurement is made according to ANSI C63.4 and KDB558074

Measurement Uncertainty:

Measurement Uncertainty	0.75dB
-------------------------	--------

Measurement Results:

Mode	Channel	Power Spectral Density (dBm/3 kHz)	Conclusion
802.11b	1	-12.31	P
	6	-12.20	P
	11	-12.00	P
802.11g	1	-15.42	P
	6	-15.45	P
	11	-15.87	P

Conclusion: PASS

A.4. Occupied 6dB Bandwidth

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

The measurement is made according to ANSI C63.4 and KDB558074

Measurement Uncertainty:

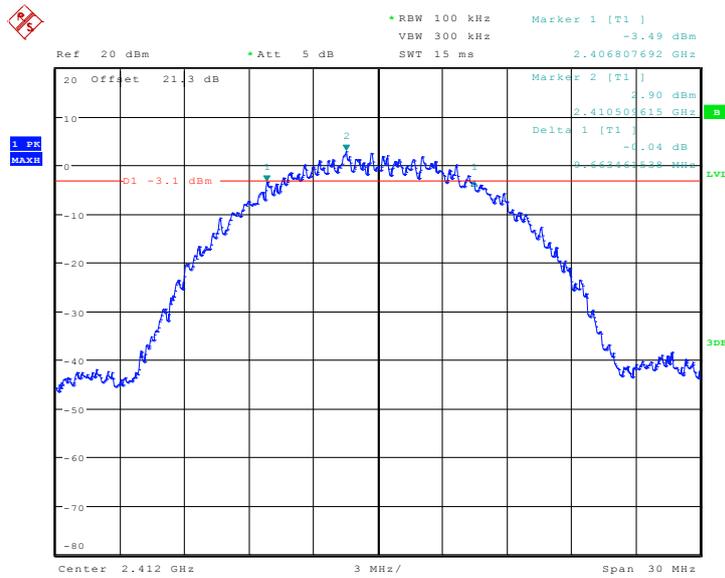
Measurement Uncertainty	60.80Hz
-------------------------	---------

Measurement Result:

Mode	Channel	Occupied 6dB Bandwidth (kHz)		conclusion
802.11b	1	Fig.1	9663	P
	6	Fig.2	9471	P
	11	Fig.3	9471	P
802.11g	1	Fig.4	16587	P
	6	Fig.5	16587	P
	11	Fig.6	16587	P

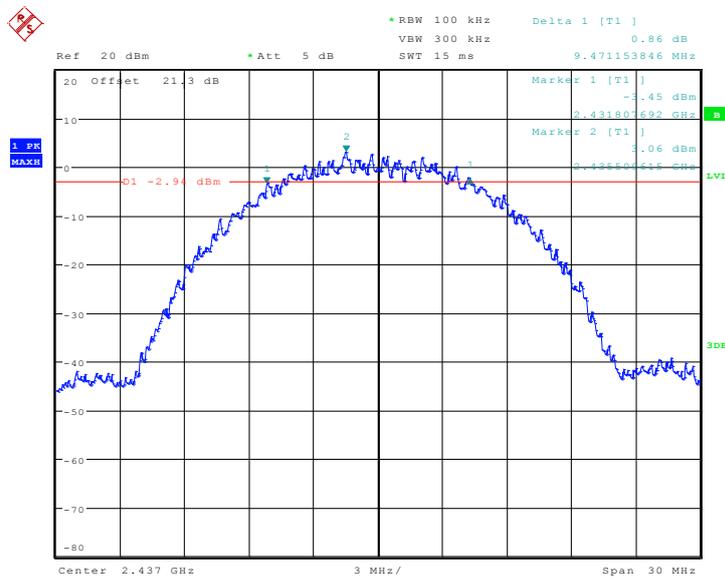
Conclusion: PASS

Test graphs as below:



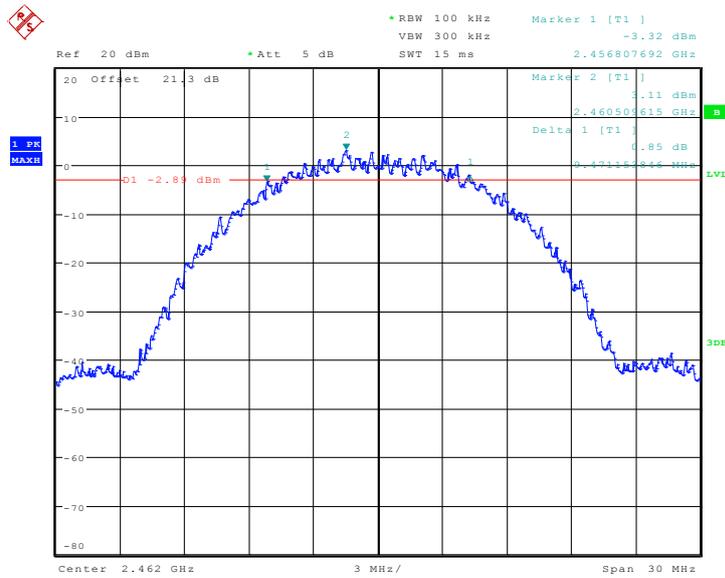
Date: 15.JUL.2011 17:25:10

Fig. 1 Occupied 6dB Bandwidth (802.11b, Ch 1)



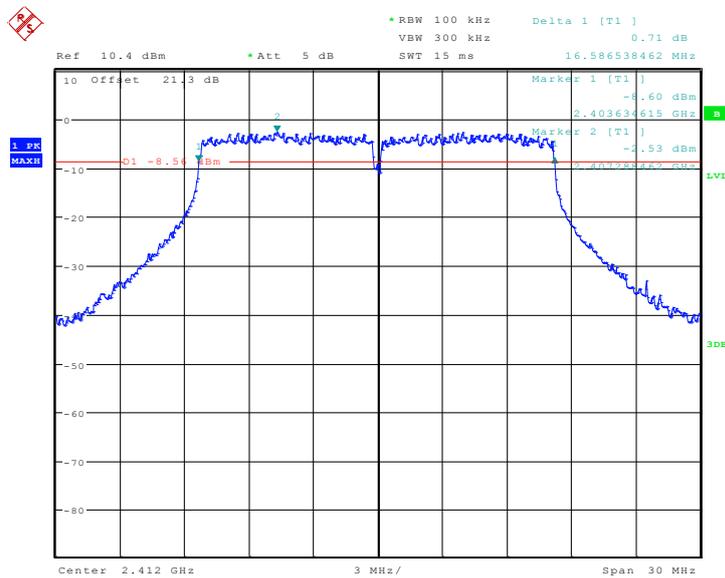
Date: 15.JUL.2011 17:31:05

Fig. 2 Occupied 6dB Bandwidth (802.11b, Ch 6)



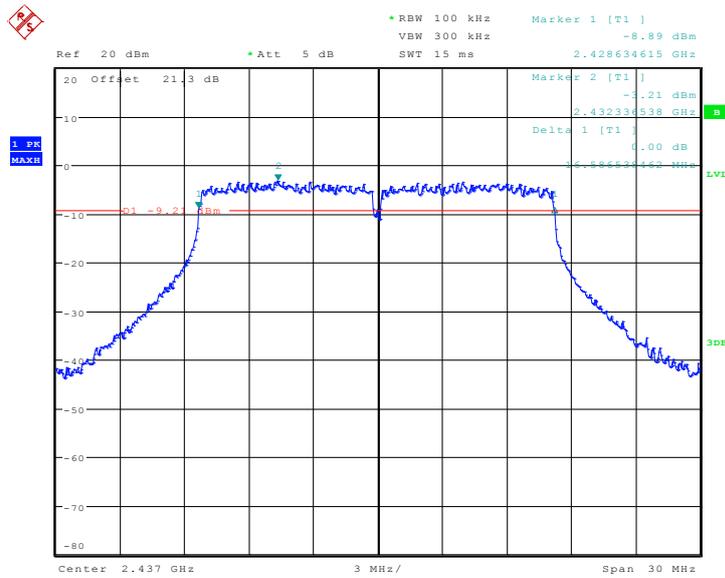
Date: 15.JUL.2011 17:47:21

Fig. 3 Occupied 6dB Bandwidth (802.11b, Ch 11)



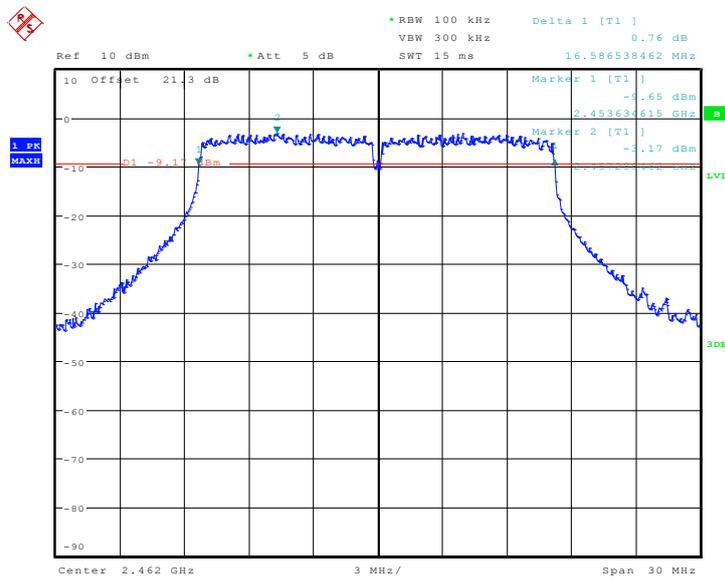
Date: 15.JUL.2011 14:13:00

Fig. 4 Occupied 6dB Bandwidth (802.11g, Ch 1)



Date: 15.JUL.2011 17:36:32

Fig. 5 Occupied 6dB Bandwidth (802.11g, Ch 6)



Date: 16.JUL.2011 17:24:30

Fig. 6 Occupied 6dB Bandwidth (802.11g, Ch 11)

A.5. Band Edges Compliance

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

The measurement is made according to ANSI C63.4 and KDB558074

Measurement Uncertainty:

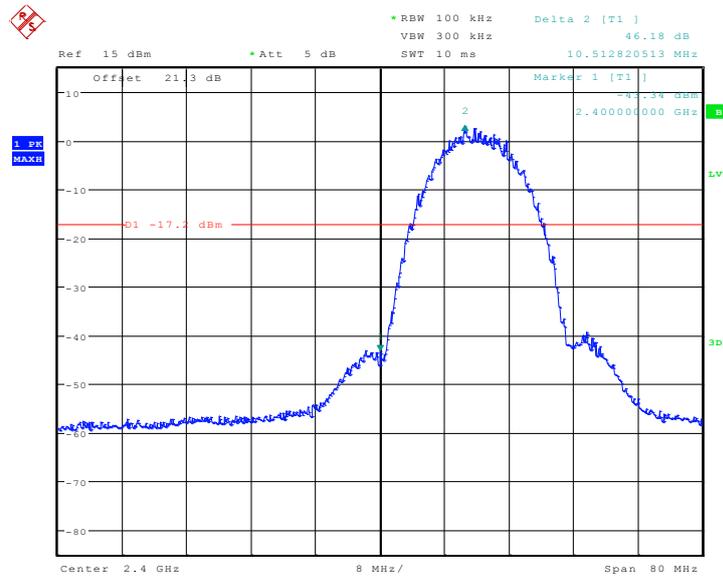
Measurement Uncertainty	0.75dB
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Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11b	1	Fig.7	P
	11	Fig.8	P
802.11g	1	Fig.9	P
	11	Fig.10	P

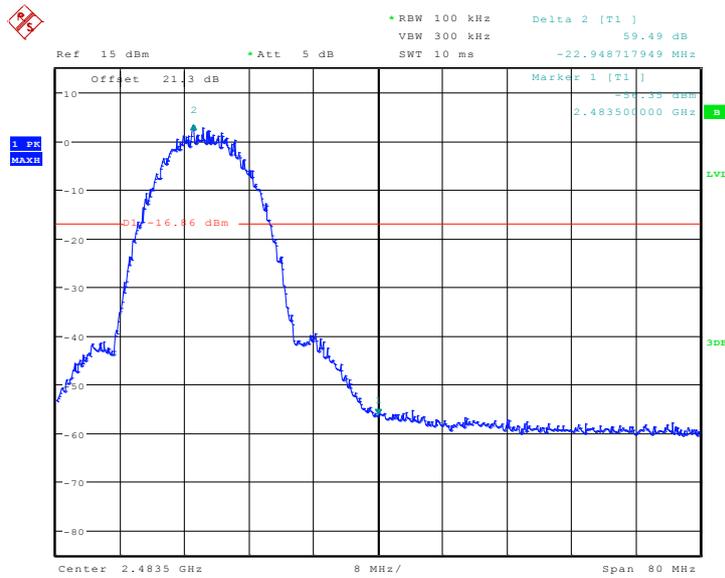
Conclusion: PASS

Test graphs as below:



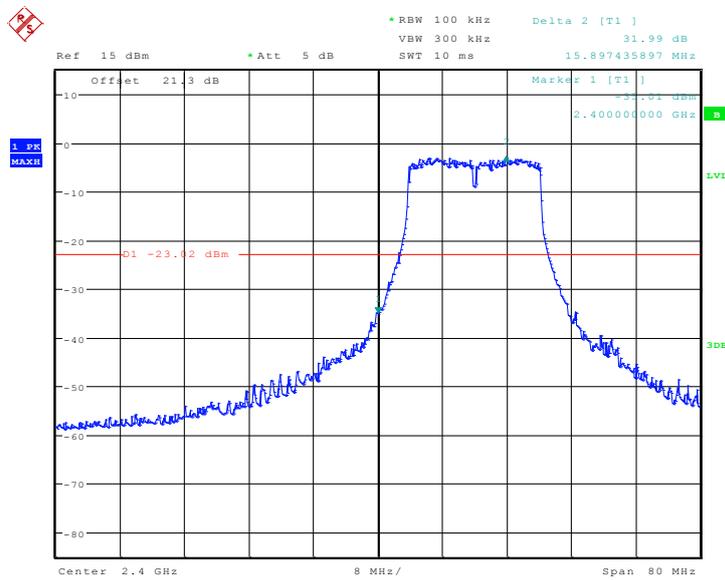
Date: 16.JUL.2011 18:25:20

Fig. 7 Band Edges (802.11b, Ch 1)



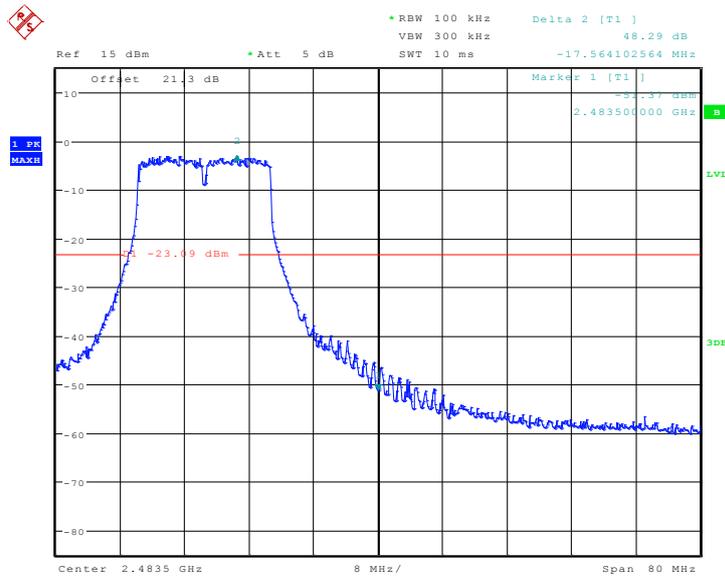
Date: 16.JUL.2011 18:16:20

Fig. 8 Band Edges (802.11b, Ch 11)



Date: 16.JUL.2011 18:19:04

Fig. 9 Band Edges (802.11g, Ch 1)



Date: 16.JUL.2011 18:17:29

Fig. 10 Band Edges (802.11g, Ch 11)

A.6. Transmitter Spurious Emission

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

The measurement is made according to ANSI C63.4 and KDB558074

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)).

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

Measurement Uncertainty:

Frequency Range	Uncertainty
$30\text{MHz} \leq f \leq 2\text{GHz}$	0.63
$2\text{GHz} \leq f \leq 3.6\text{GHz}$	0.82
$3.6\text{GHz} \leq f \leq 8\text{GHz}$	1.55
$8\text{GHz} \leq f \leq 20\text{GHz}$	1.86
$20\text{GHz} \leq f \leq 22\text{GHz}$	1.90
$22\text{GHz} \leq f \leq 26\text{GHz}$	2.20

A.6.1 Transmitter Spurious Emission - Conducted

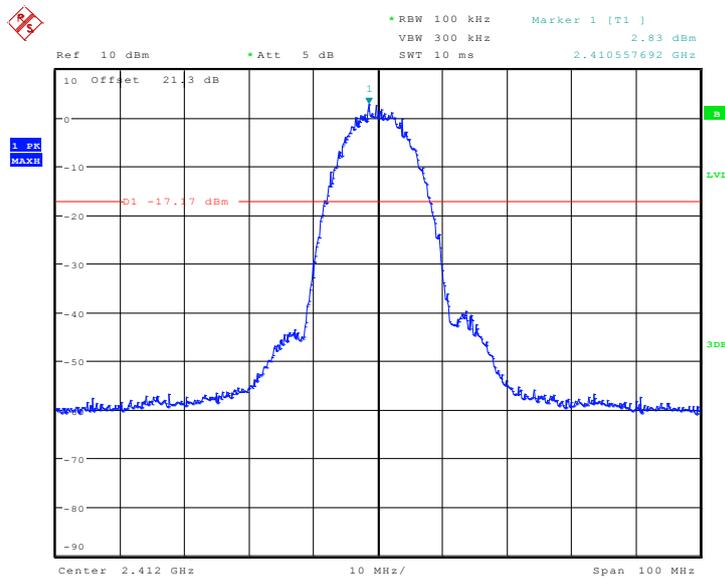
Measurement Results:

MODE	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.412 GHz	Fig.11	P
		30 MHz ~ 1 GHz	Fig.12	P
		1 GHz ~ 26 GHz	Fig.13	P
	6	2.437 GHz	Fig.14	P
		30 MHz ~ 1 GHz	Fig.15	P
		1 GHz ~ 26 GHz	Fig.16	P
	11	2.462 GHz	Fig.17	P
		30 MHz ~ 1 GHz	Fig.18	P
		1 GHz ~ 26 GHz	Fig.19	P
802.11g	1	2.412 GHz	Fig.20	P
		30 MHz ~ 1 GHz	Fig.21	P

	6	1 GHz ~ 26 GHz	Fig.22	P
		2.437 GHz	Fig.23	P
		30 MHz ~ 1 GHz	Fig.24	P
	11	1 GHz ~ 26 GHz	Fig.25	P
		2.462 GHz	Fig.26	P
		30 MHz ~ 1 GHz	Fig.27	P
		1 GHz ~ 26 GHz	Fig.28	P

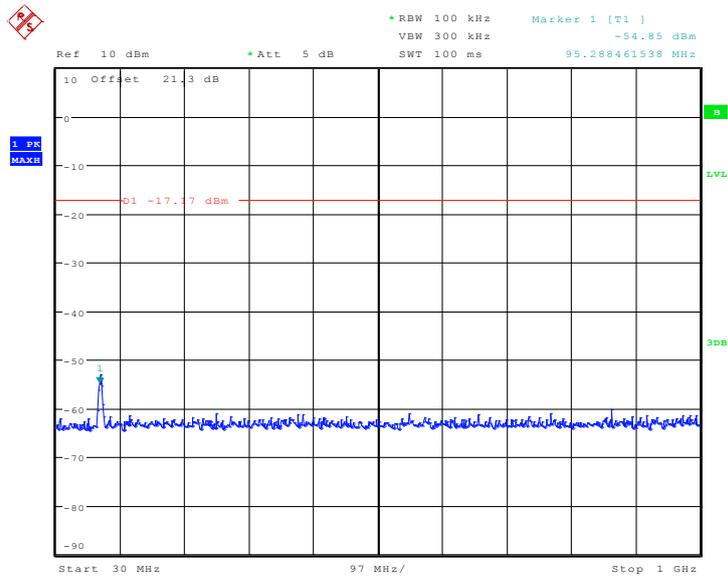
Conclusion: PASS

Test graphs as below:



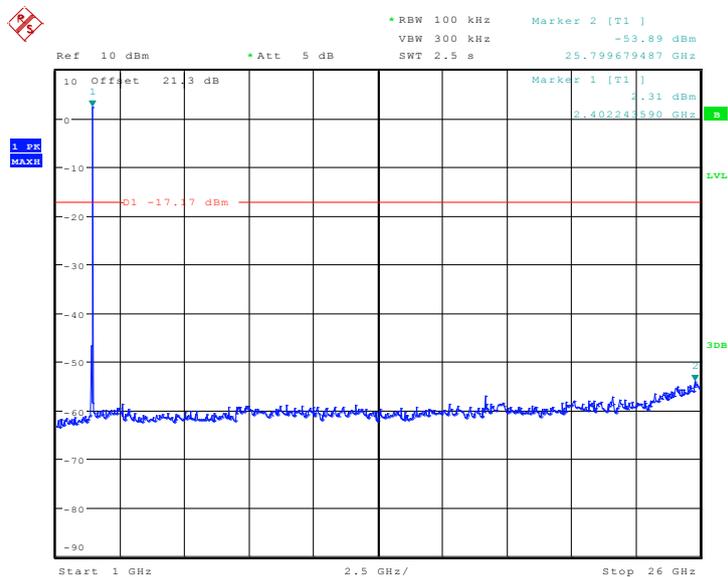
Date: 16.JUL.2011 17:46:24

Fig. 11 Conducted Spurious Emission (802.11b, Ch1, Center Frequency)



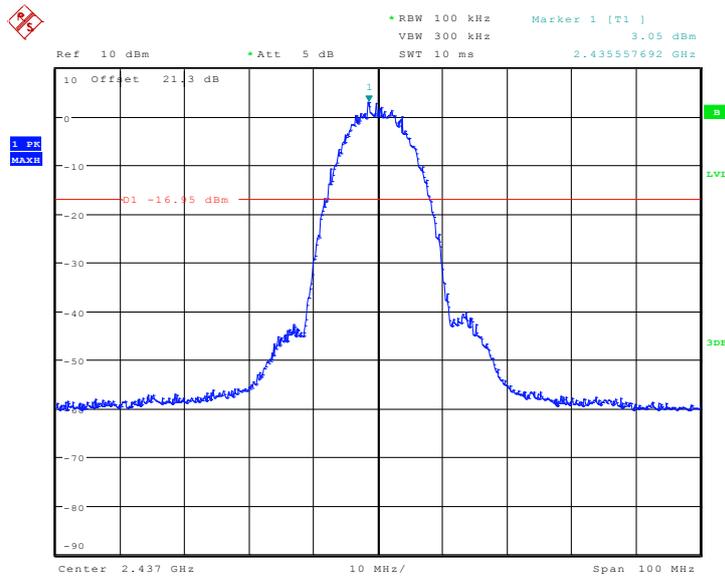
Date: 16.JUL.2011 17:46:50

Fig. 12 Conducted Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)



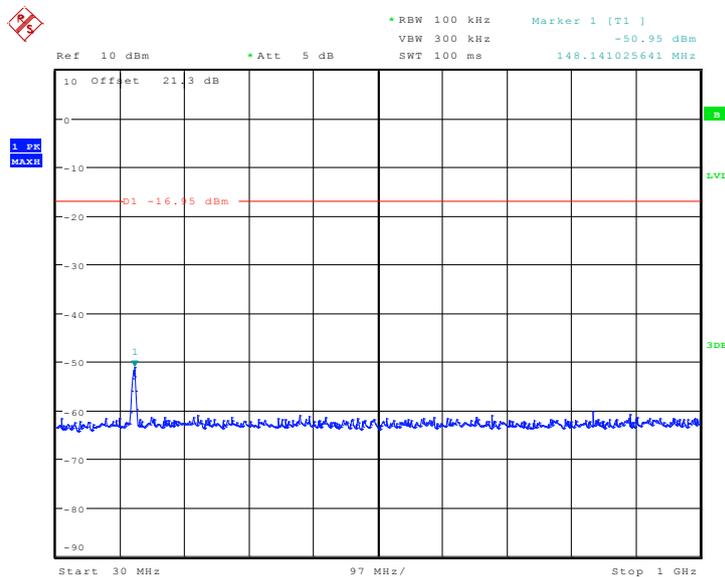
Date: 16.JUL.2011 17:47:17

Fig. 13 Conducted Spurious Emission (802.11b, Ch1, 1 GHz-26 GHz)



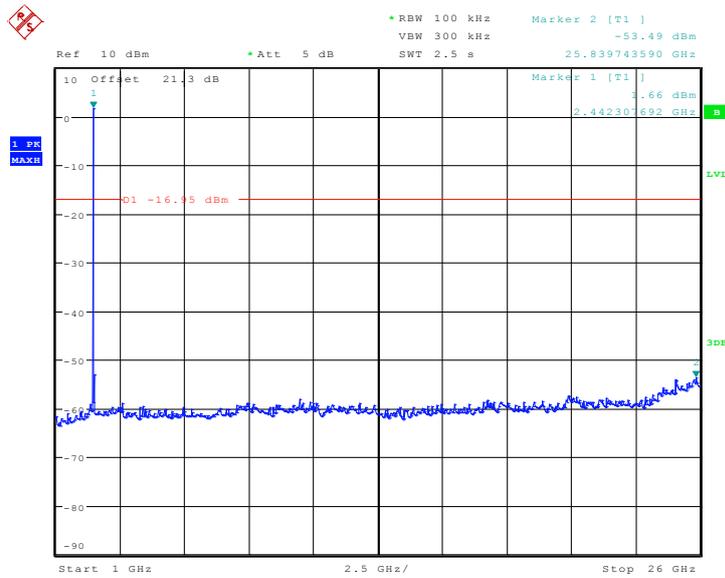
Date: 16.JUL.2011 17:55:36

Fig. 14 Conducted Spurious Emission (802.11b, Ch6, Center Frequency)



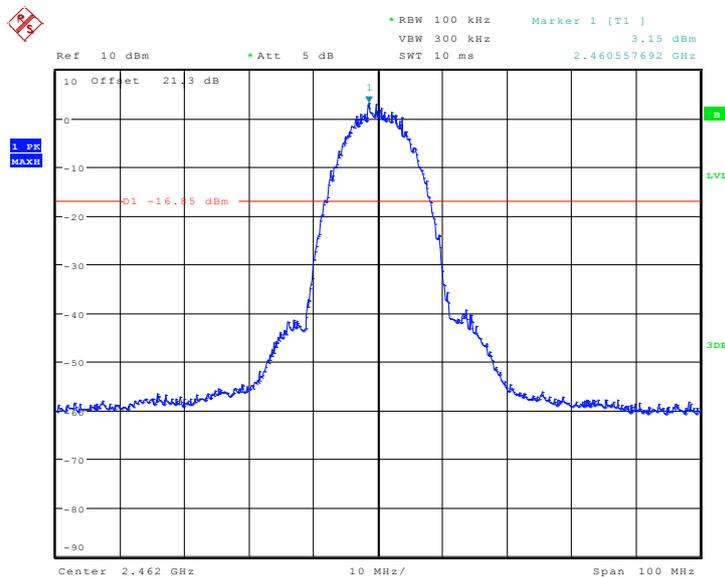
Date: 16.JUL.2011 18:05:21

Fig. 15 Conducted Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)



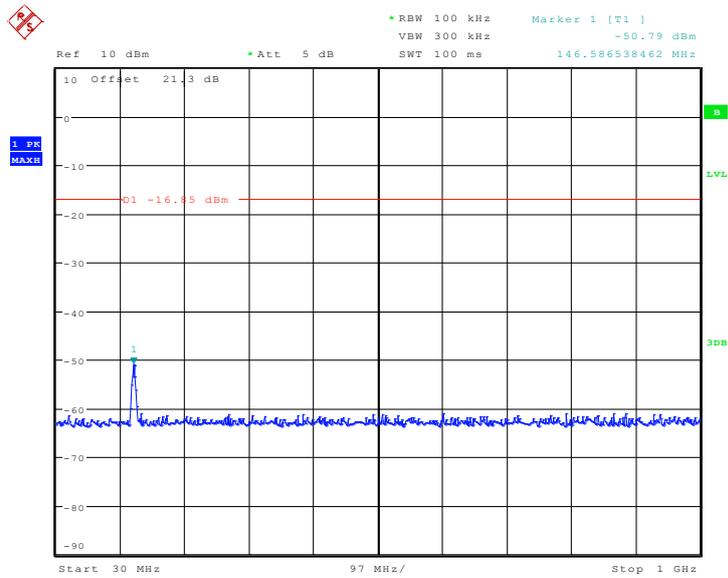
Date: 16.JUL.2011 18:05:57

Fig. 16 Conducted Spurious Emission (802.11b, Ch6, 1 GHz-26 GHz)



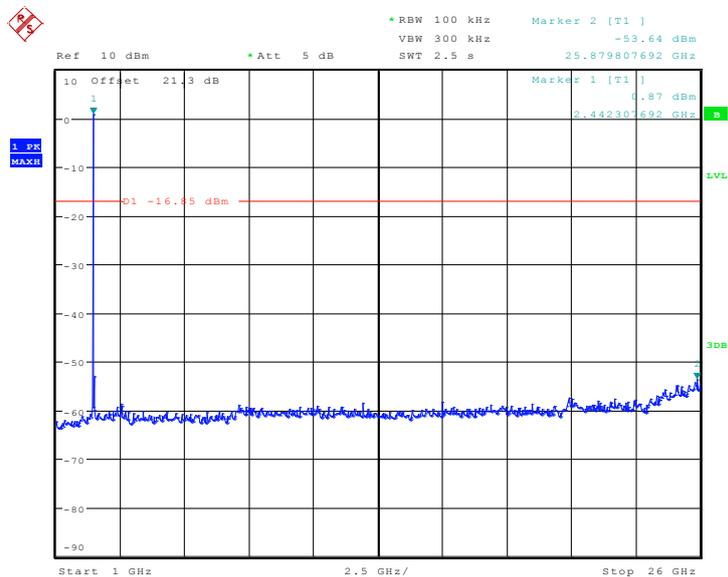
Date: 16.JUL.2011 18:01:41

Fig. 17 Conducted Spurious Emission (802.11b, Ch11, Center Frequency)



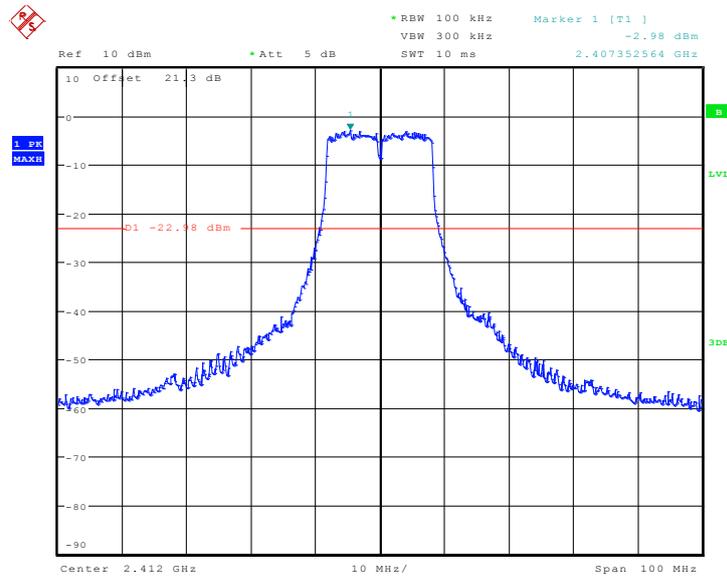
Date: 16.JUL.2011 18:02:45

Fig. 18 Conducted Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)



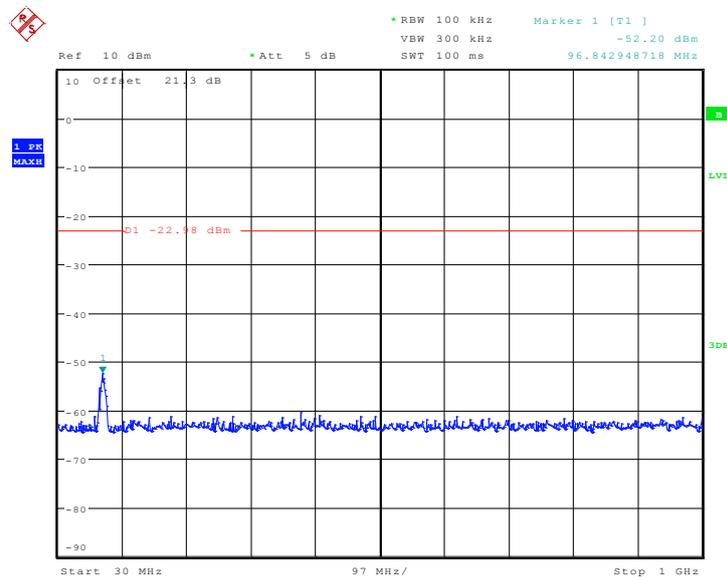
Date: 16.JUL.2011 18:03:10

Fig. 19 Conducted Spurious Emission (802.11b, Ch11, 1 GHz-26 GHz)



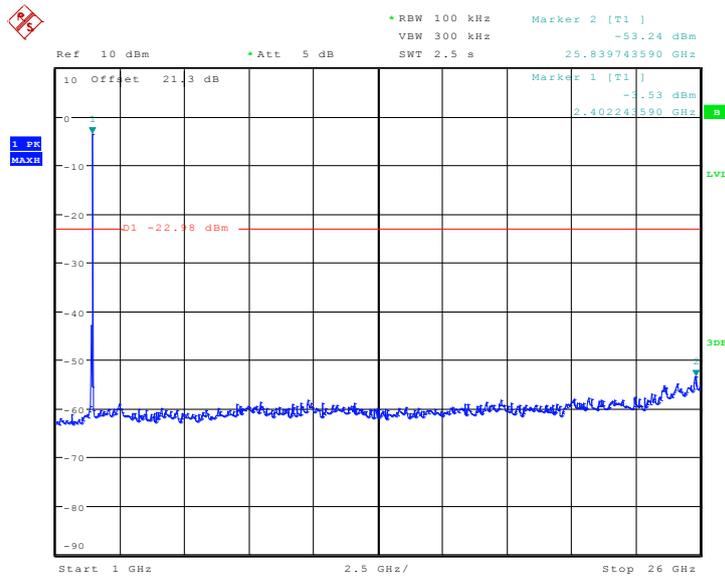
Date: 16.JUL.2011 17:35:27

Fig. 20 Conducted Spurious Emission (802.11g, Ch1, Center Frequency)



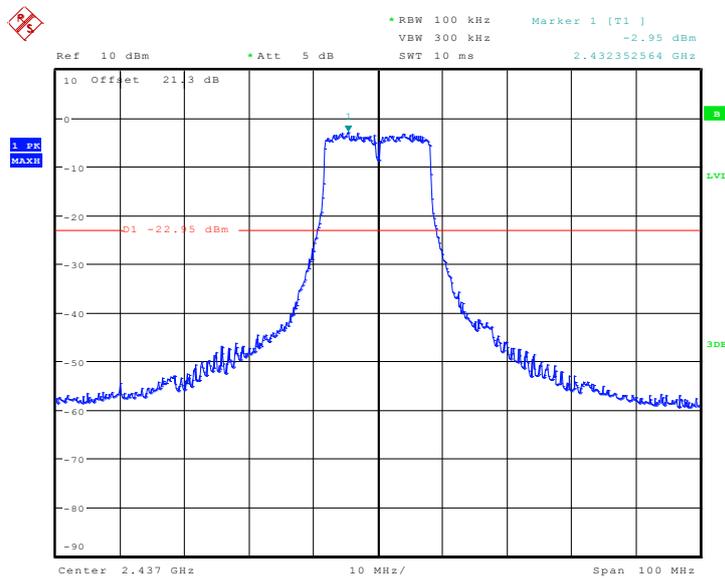
Date: 16.JUL.2011 17:35:43

Fig. 21 Conducted Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)



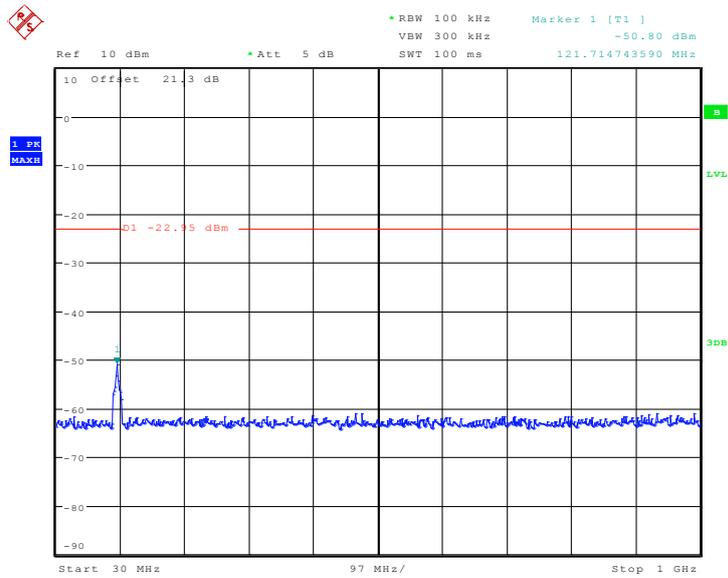
Date: 16.JUL.2011 17:36:02

Fig. 22 Conducted Spurious Emission (802.11g, Ch1, 1 GHz-26 GHz)



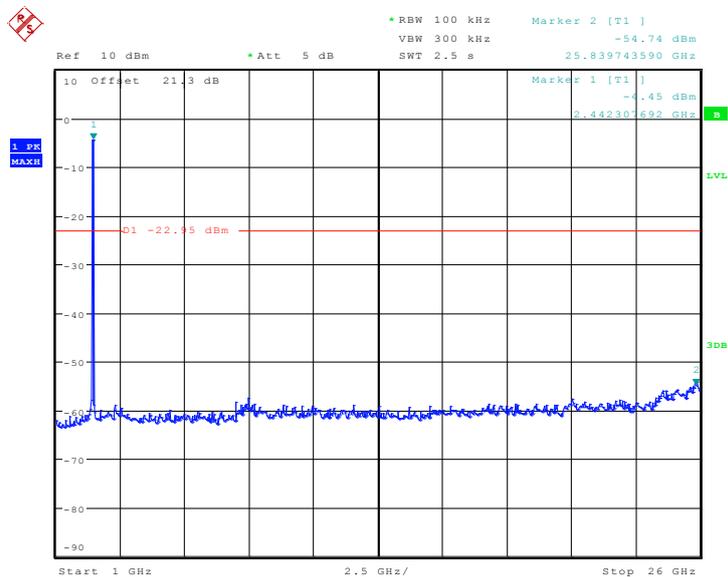
Date: 16.JUL.2011 17:30:21

Fig. 23 Conducted Spurious Emission (802.11g, Ch6, Center Frequency)



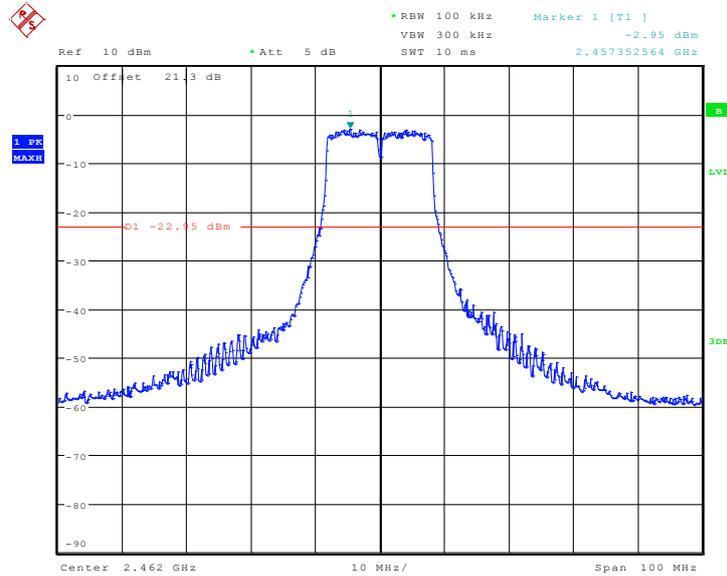
Date: 16.JUL.2011 17:30:45

Fig. 24 Conducted Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)



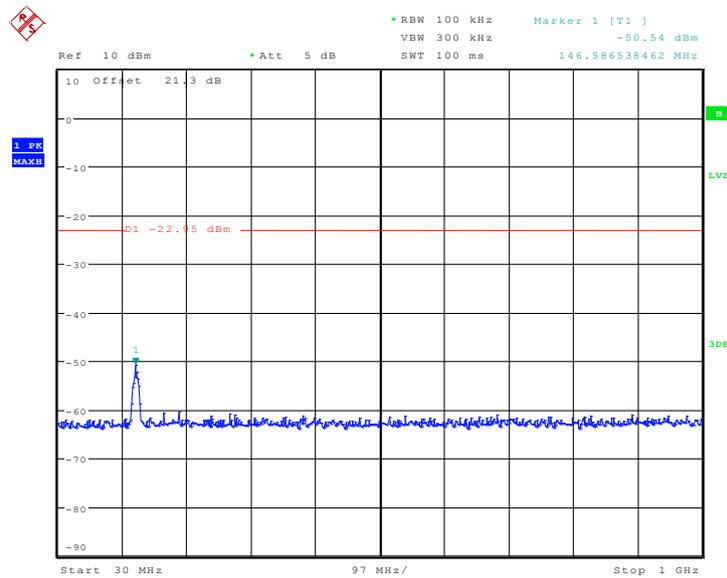
Date: 16.JUL.2011 17:31:05

Fig. 25 Conducted Spurious Emission (802.11g, Ch6, 1 GHz-26 GHz)



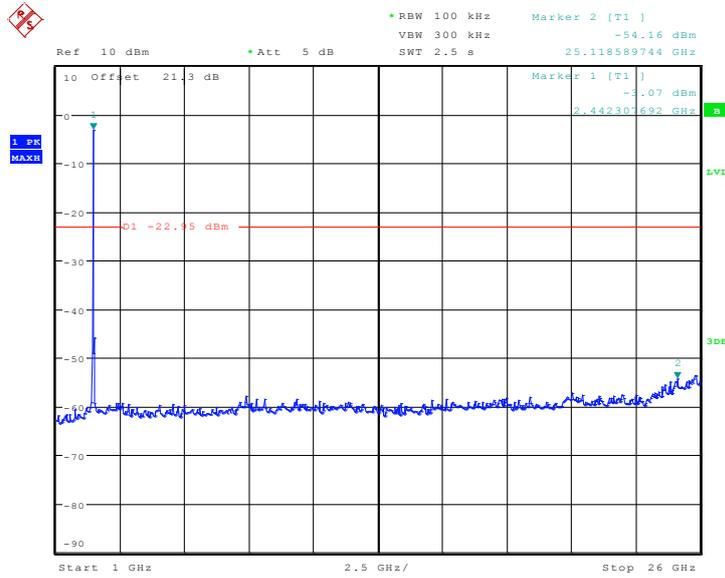
Date: 16.JUL.2011 17:32:14

Fig. 26 Conducted Spurious Emission (802.11g, Ch11, Center Frequency)



Date: 16.JUL.2011 17:33:03

Fig. 27 Conducted Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)



Date: 16.JUL.2011 17:34:24

Fig. 28 Conducted Spurious Emission (802.11g, Ch11, 1 GHz-26 GHz)

A.6.2 Transmitter Spurious Emission - Radiated

Limit in restricted band:

Measurement Results:

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.45GHz	Fig.29	P
	1	30 MHz ~1 GHz	Fig.30	P
		1 GHz ~ 4 GHz	Fig.31	P
		4 GHz ~ 18 GHz	Fig.32	P
	6	30 MHz ~1 GHz	Fig.33	P
		1 GHz ~ 4 GHz	Fig.34	P
		4 GHz ~ 18 GHz	Fig.35	P
	Power	2.45GHz ~2.5GHz	Fig.36	P
	11	30 MHz ~1 GHz	Fig.37	P
		1 GHz ~ 4 GHz	Fig.38	P
		4 GHz ~ 18 GHz	Fig.39	P
	802.11g	Power	2.38GHz ~2.45GHz	Fig.40
1		30 MHz ~1 GHz	Fig.41	P
		1 GHz ~ 4 GHz	Fig.42	P
		4 GHz ~ 18 GHz	Fig.43	P
6		30 MHz ~1 GHz	Fig.44	P
		1 GHz ~ 4 GHz	Fig.45	P
		4 GHz ~ 18 GHz	Fig.46	P
Power		2.45GHz~2.5GHz	Fig.47	P
11		30 MHz ~1 GHz	Fig.48	P
		1 GHz ~ 4 GHz	Fig.49	P
		4 GHz ~ 18 GHz	Fig.50	P
/		All channels	18 GHz~ 26 GHz	Fig.51

Conclusion: PASS

Test graphs as below:

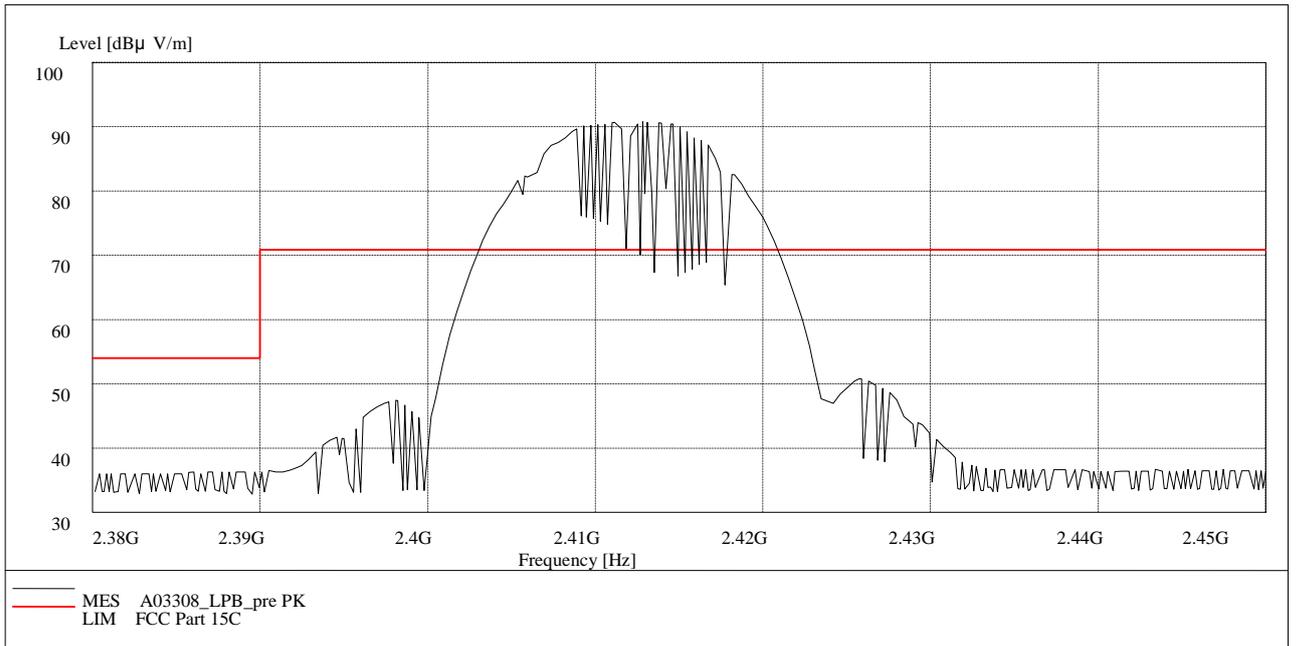


Fig. 29 Radiated Spurious Emission (Power): 802.11b, ch1, 2.38 GHz - 2.45GHz

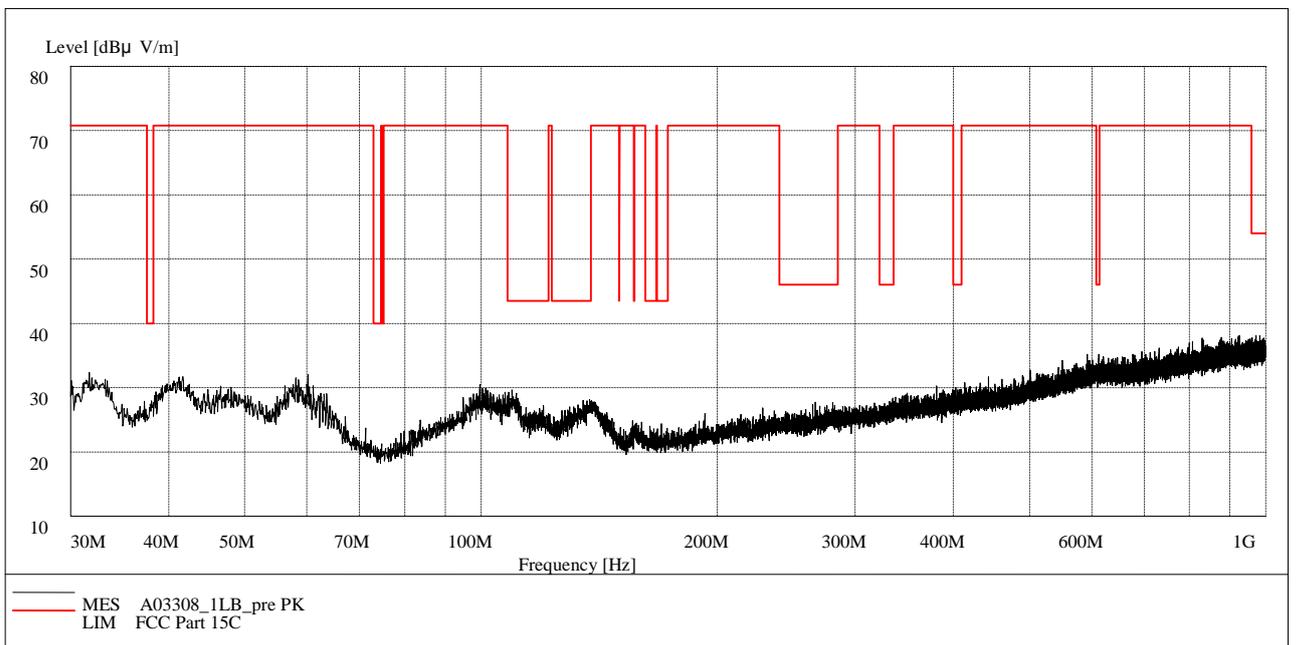


Fig. 30 Radiated Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

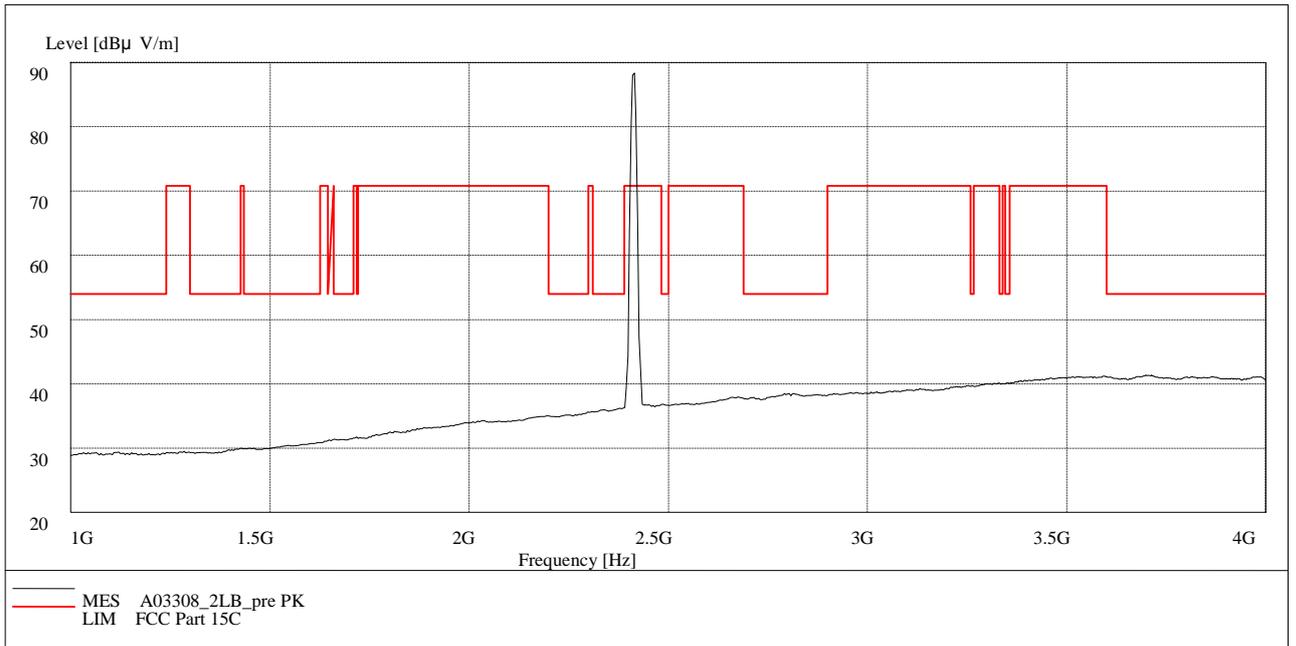


Fig. 31 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-4 GHz)

FCC 4-18G

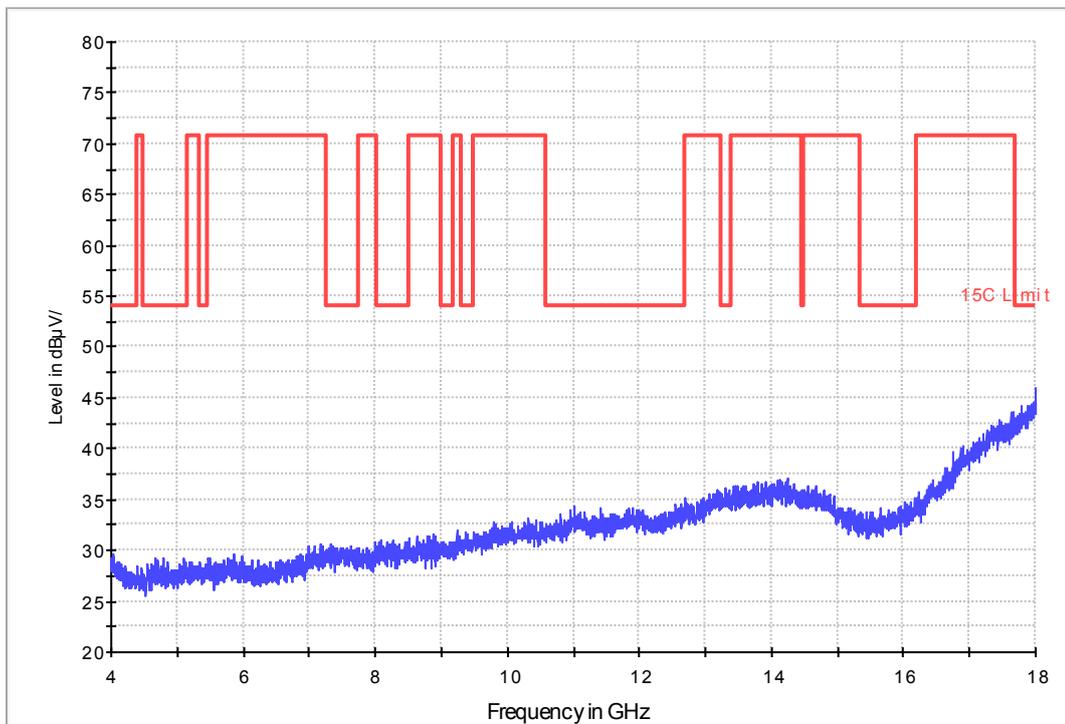


Fig. 32 Radiated Spurious Emission (802.11b, Ch1, 4 GHz-18 GHz)

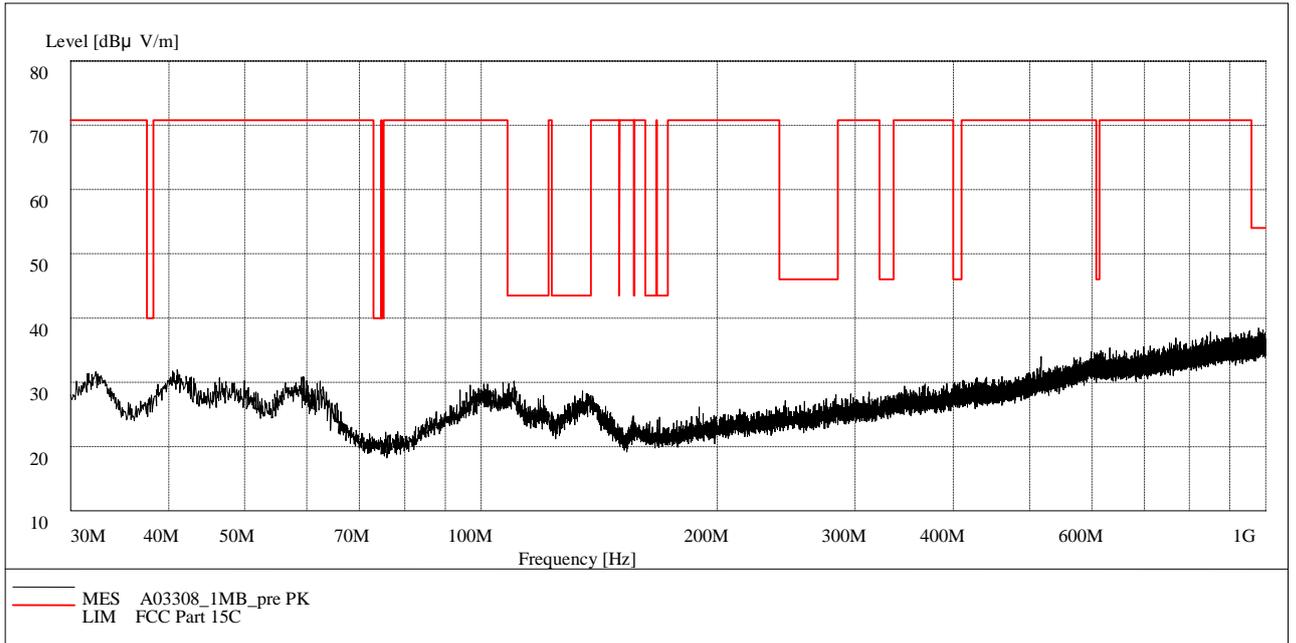


Fig. 33 Radiated Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

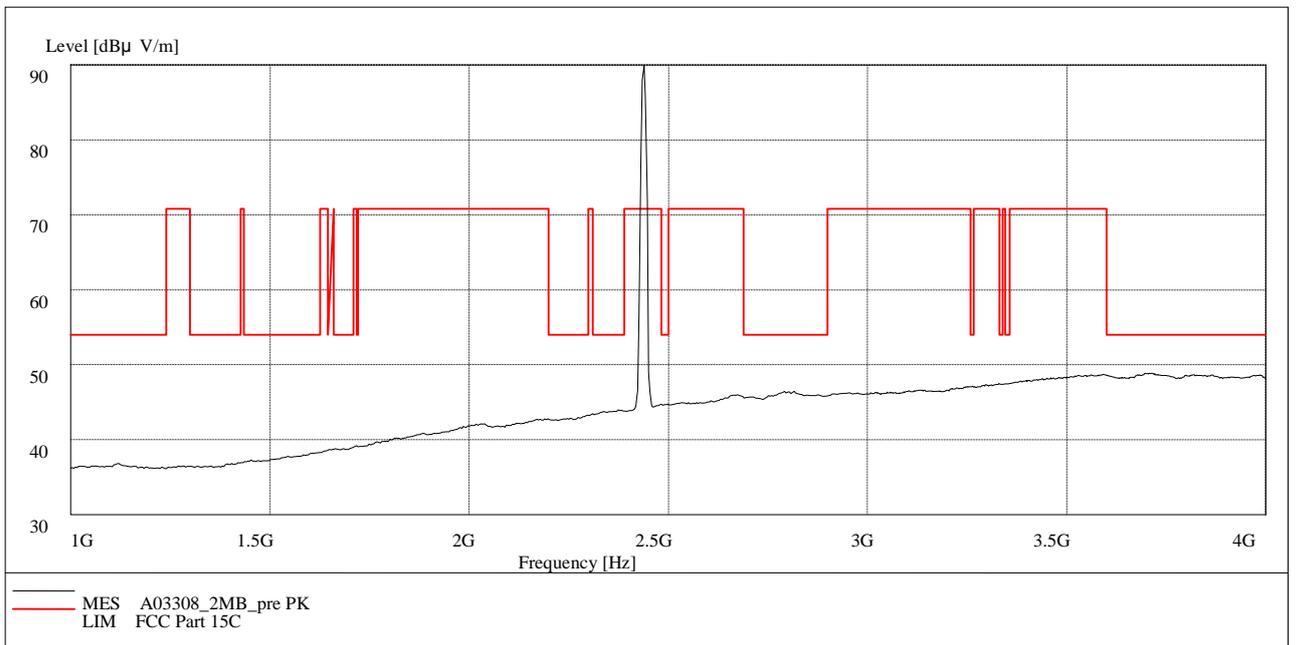


Fig. 34 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-4 GHz)

FCC 4-18G

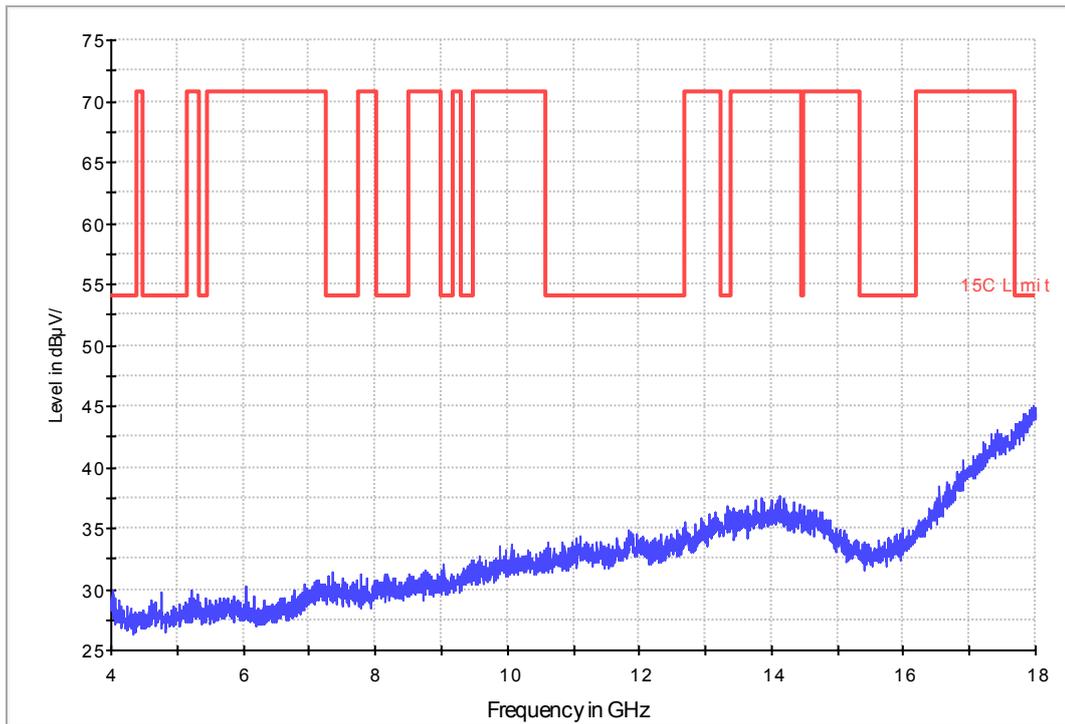


Fig. 35 Radiated Spurious Emission (802.11b, Ch6, 4 GHz-18 GHz)

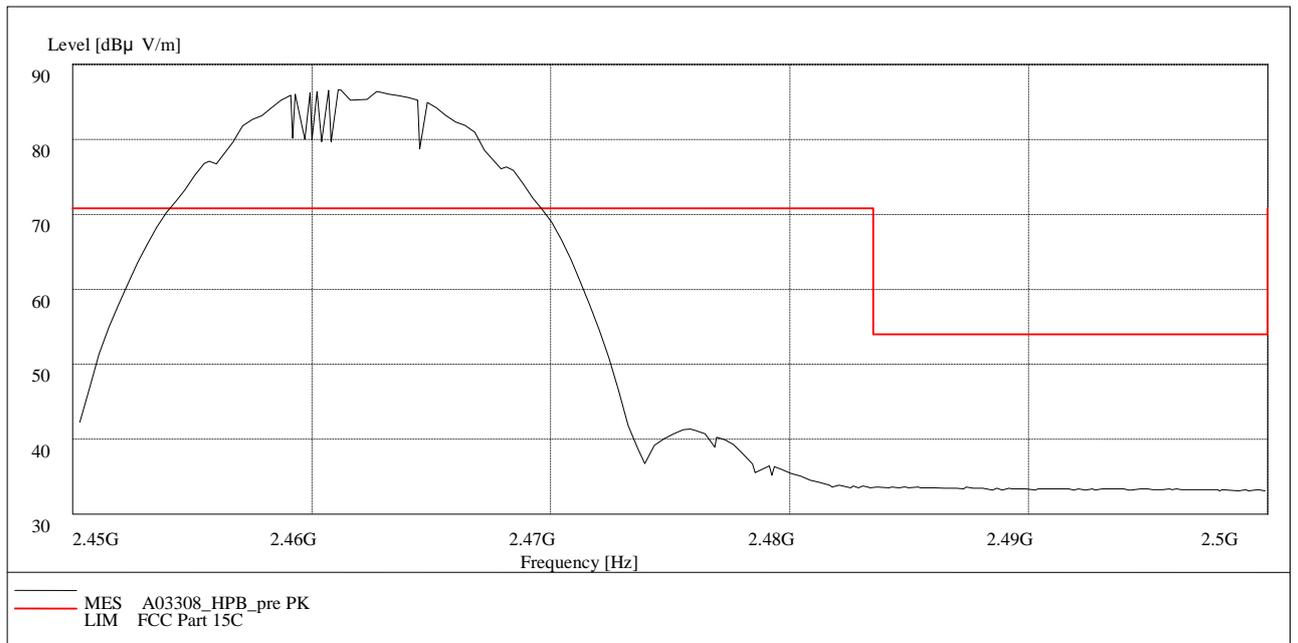


Fig. 36 Radiated Spurious Emission (Power): 802.11b, ch11, 2.45 GHz - 2.5GHz

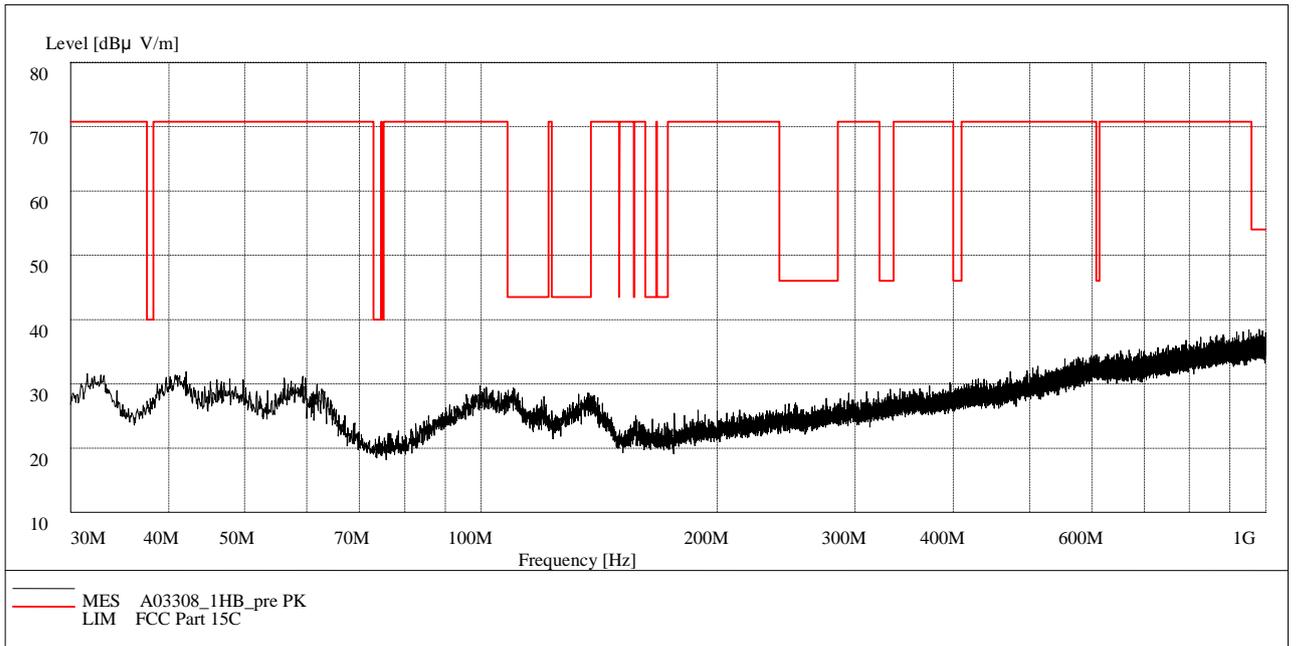


Fig. 37 Radiated Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

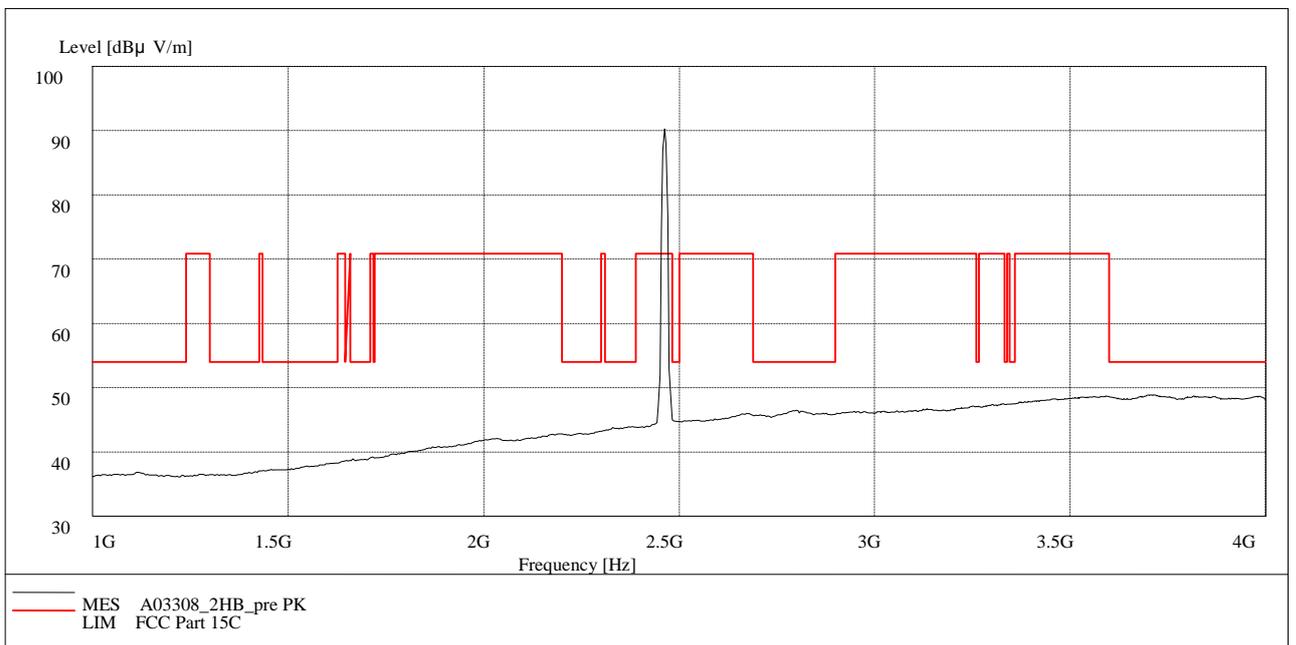


Fig. 38 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-4 GHz)

FCC 4-18G

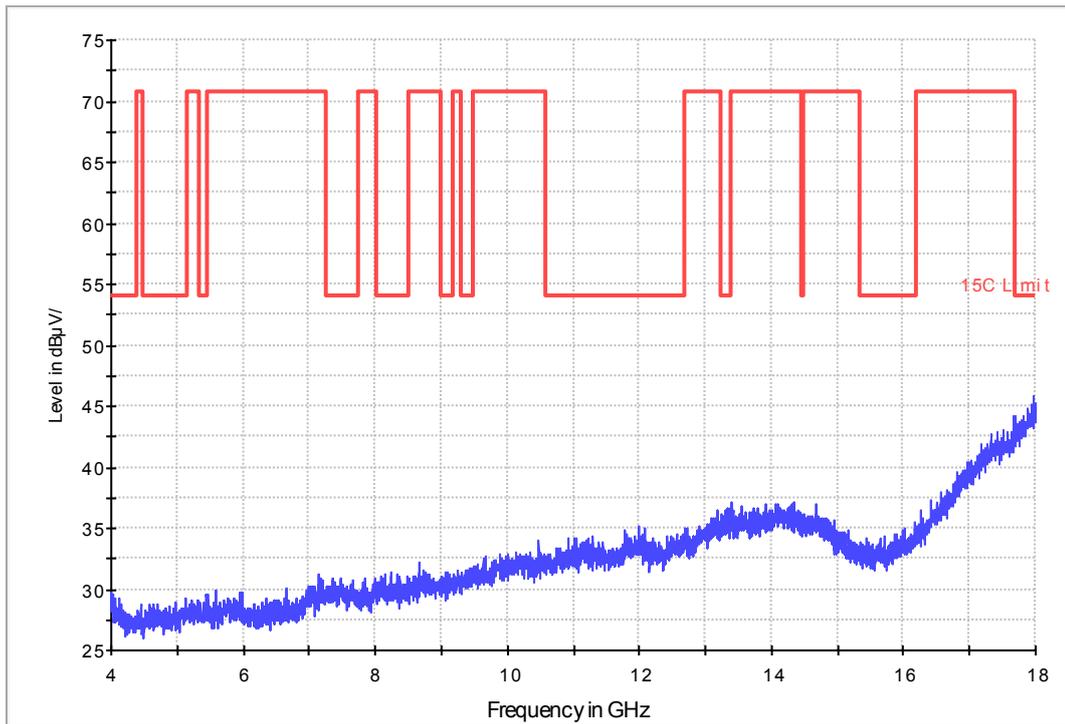


Fig. 39 Radiated Spurious Emission (802.11b, Ch11, 4 GHz-18 GHz)

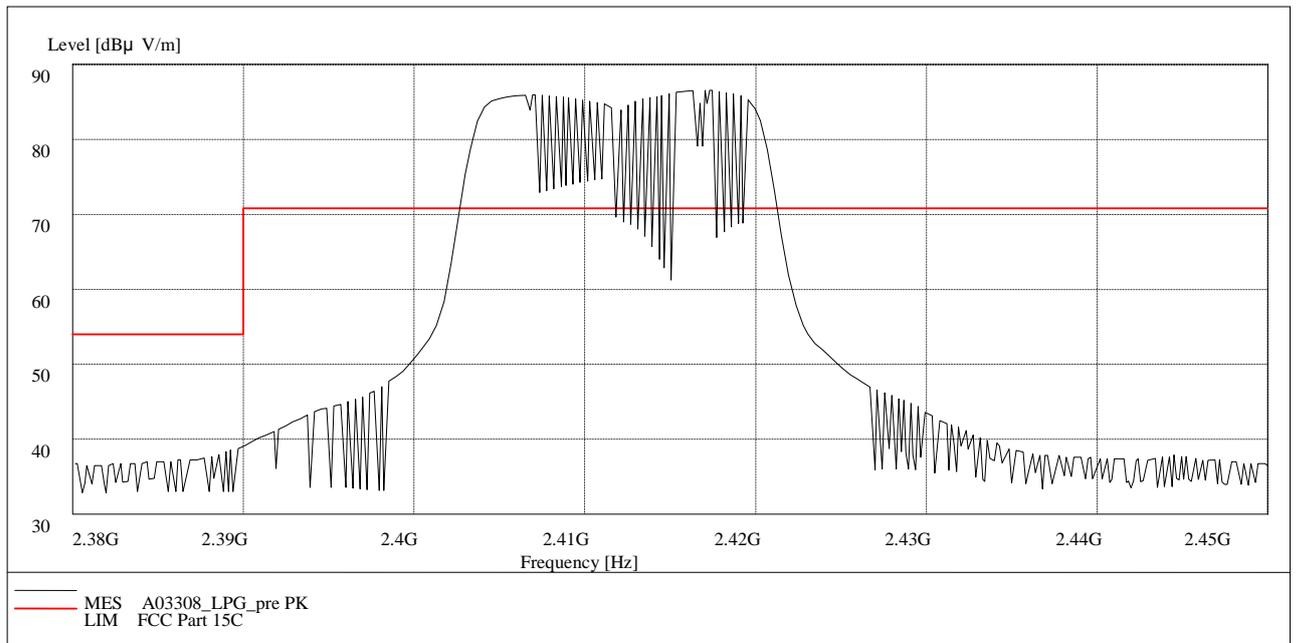


Fig. 40 Radiated Spurious Emission (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

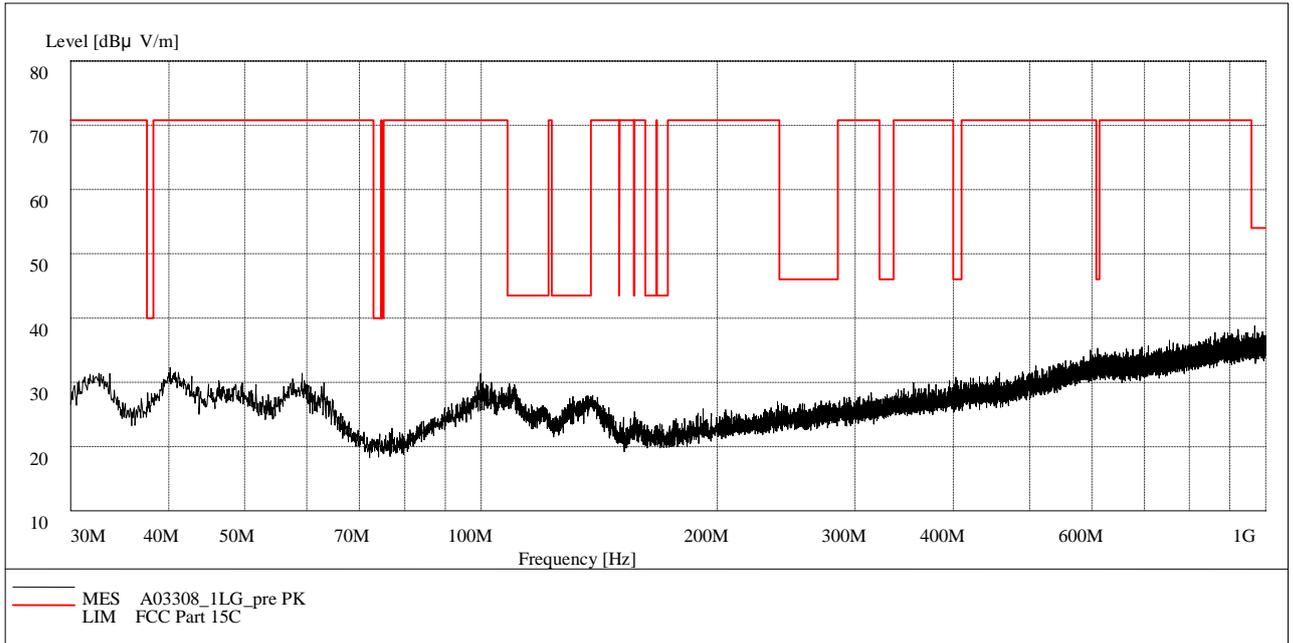


Fig. 41 Radiated Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

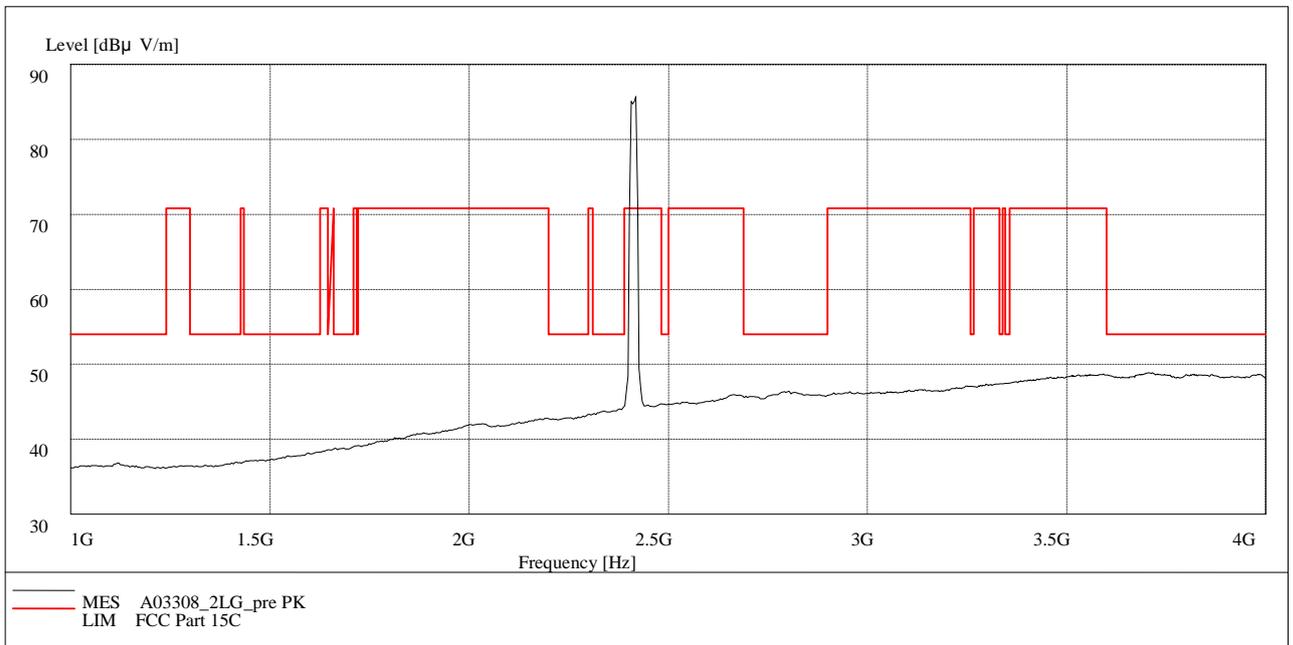


Fig. 42 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-4 GHz)

FCC 4-18G

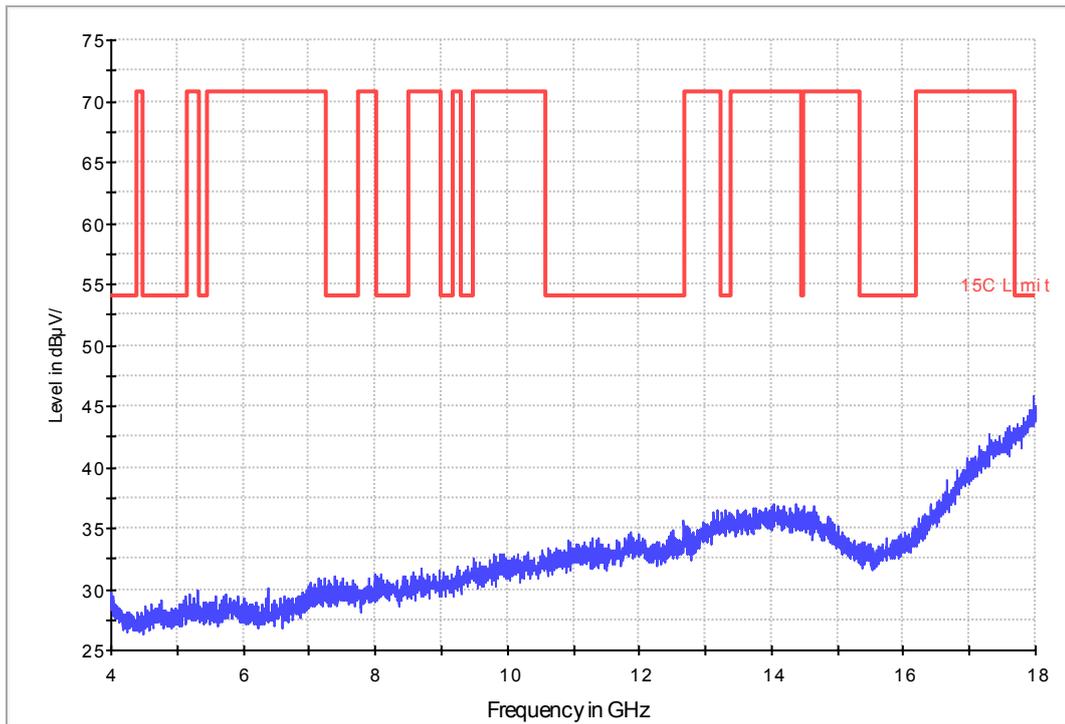


Fig. 43 Radiated Spurious Emission (802.11g, Ch1, 4 GHz-18 GHz)

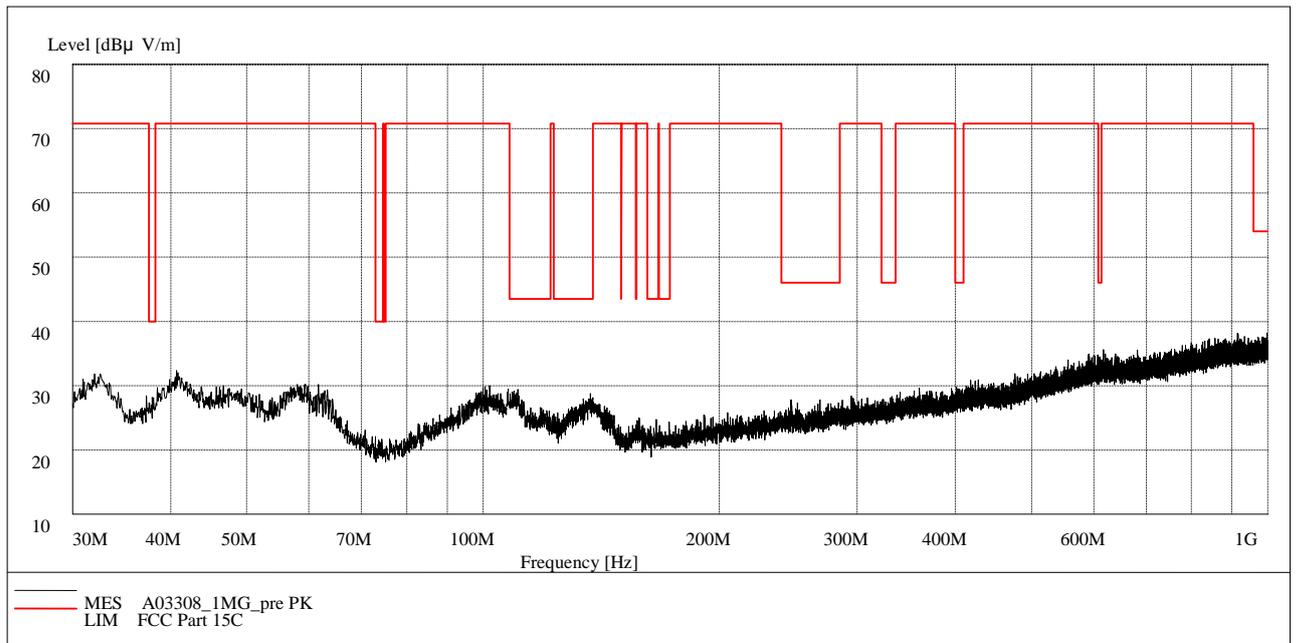


Fig. 44 Radiated Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

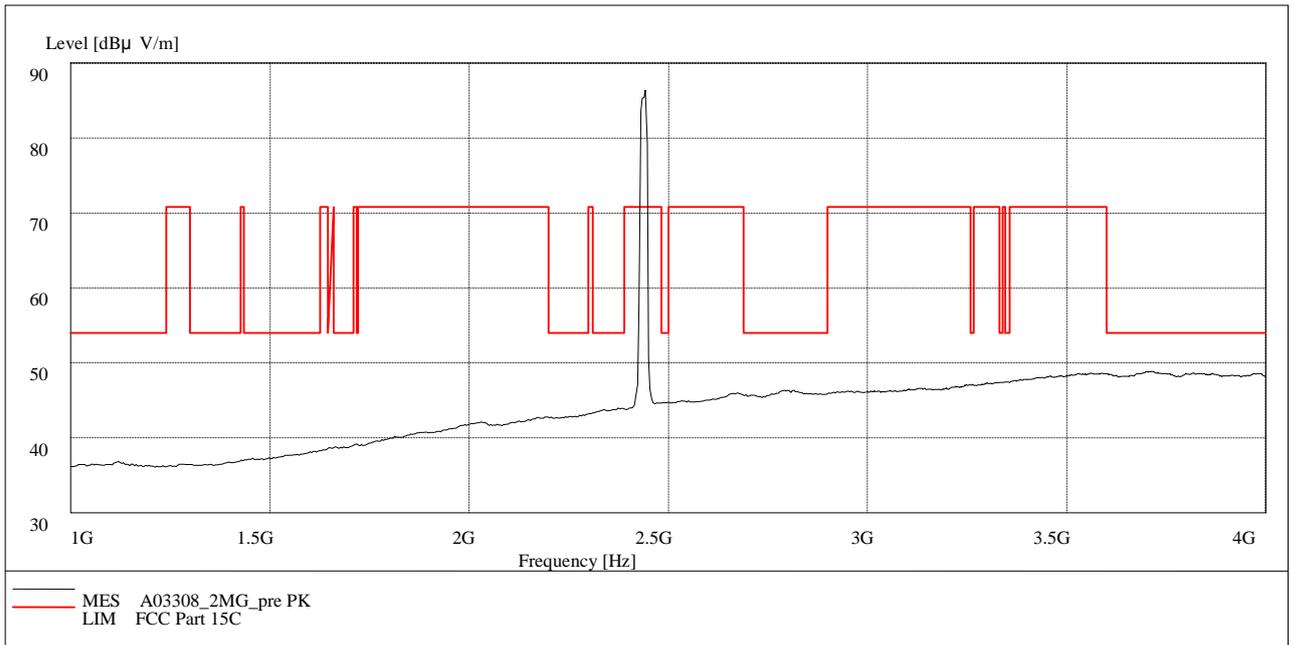


Fig. 45 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-4 GHz)

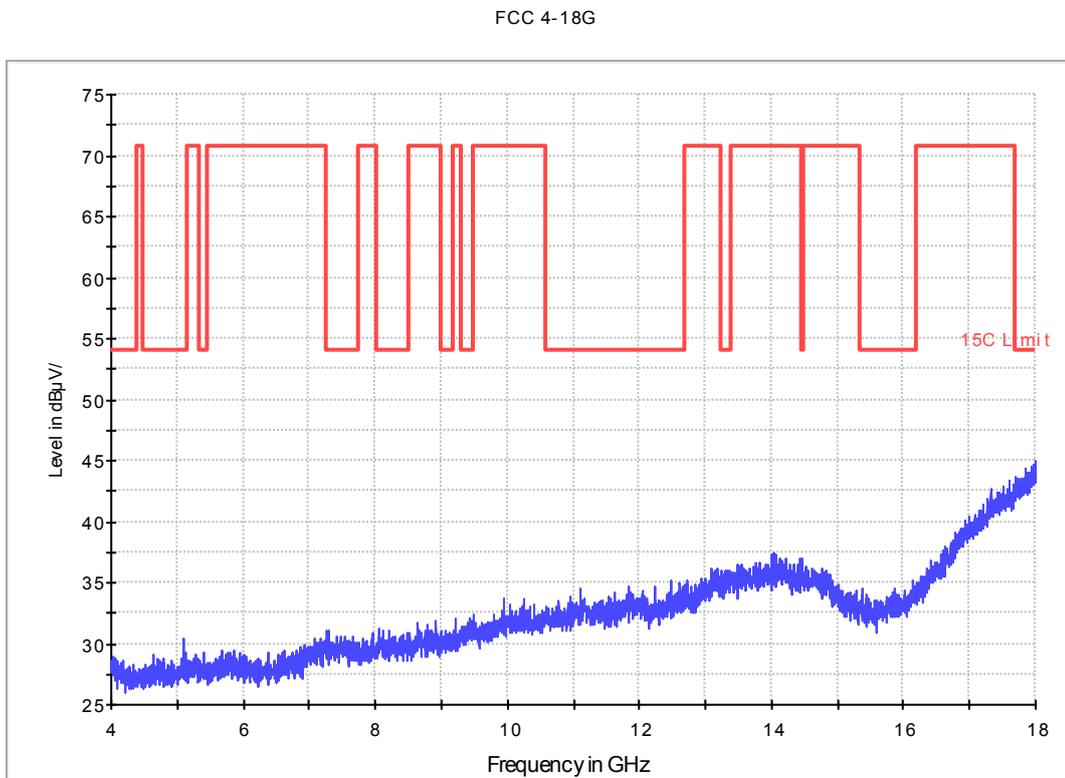


Fig. 46 Radiated Spurious Emission (802.11g, Ch6, 4 GHz-18 GHz)

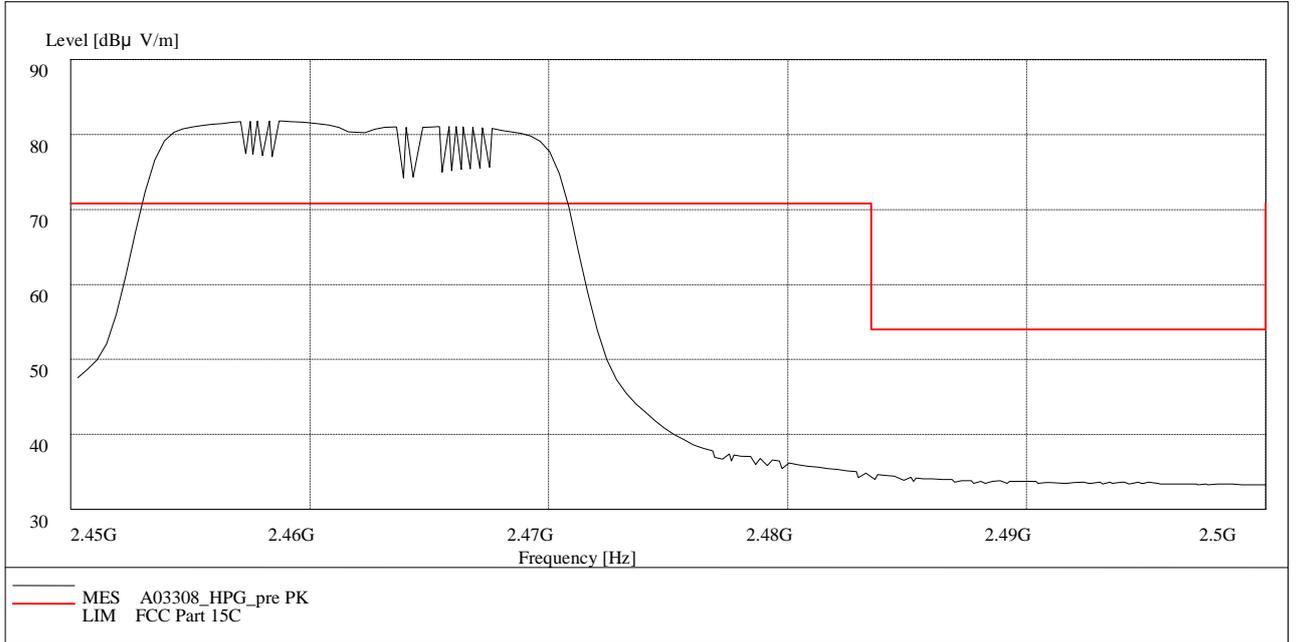


Fig. 47 Radiated Spurious Emission (Power): 802.11g, ch11, 2.45 GHz - 2.5GHz

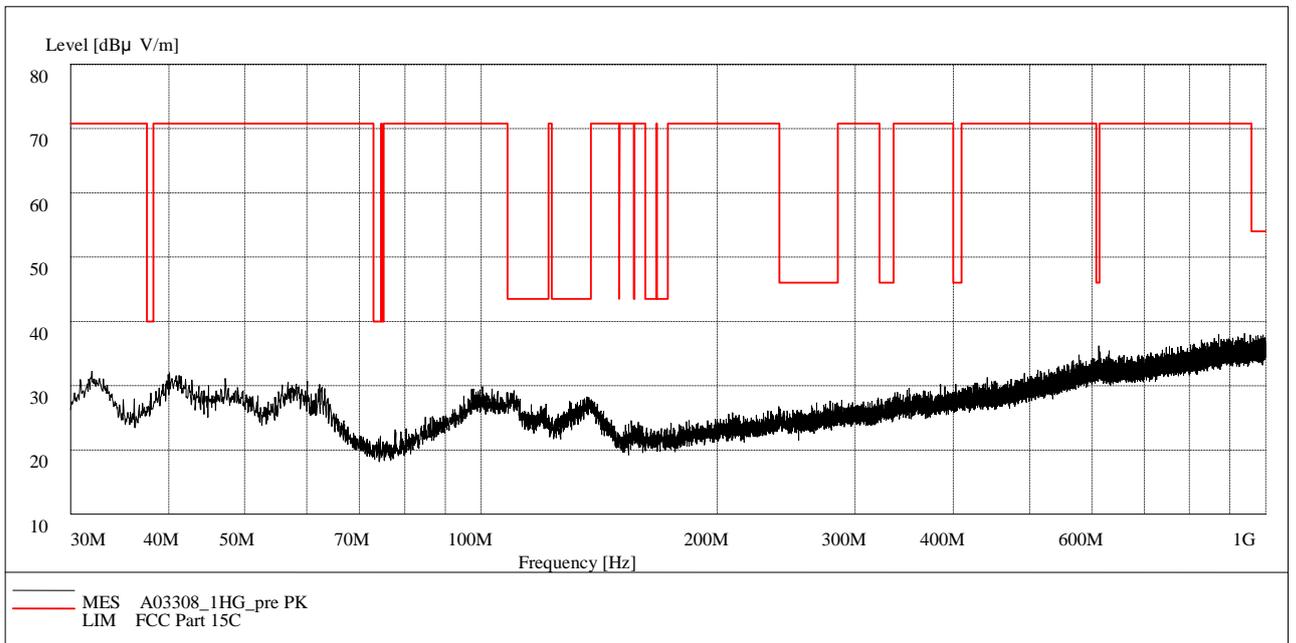


Fig. 48 Radiated Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

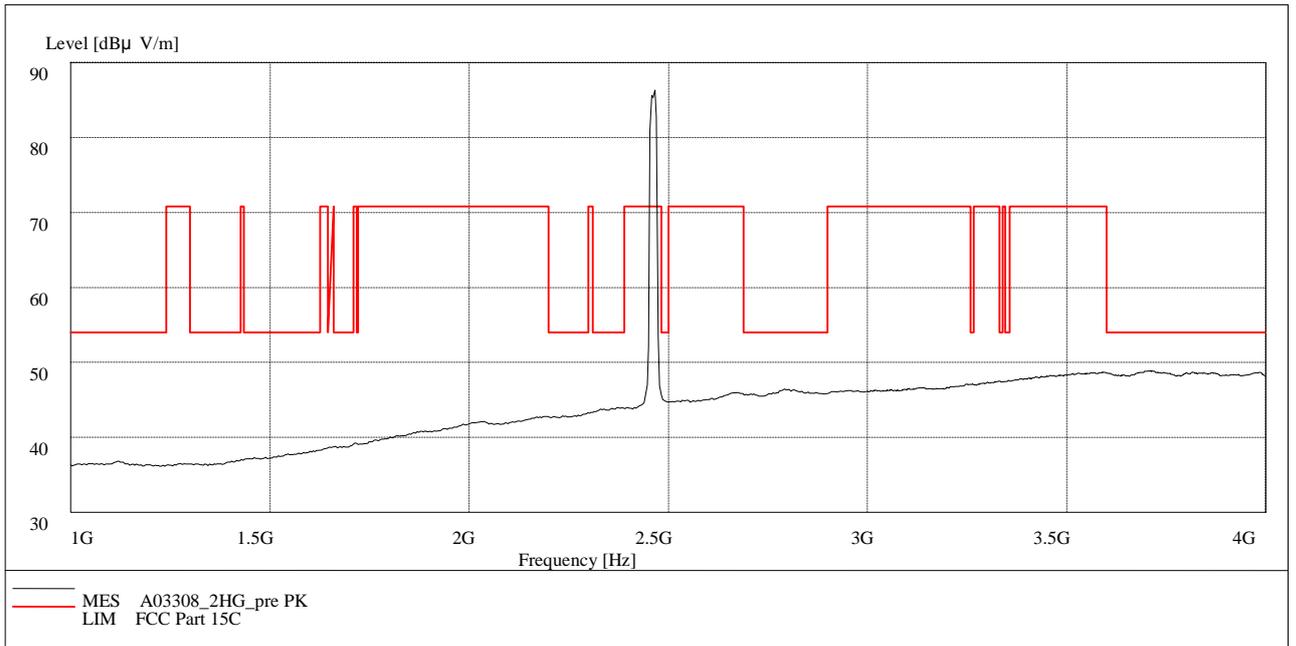


Fig. 49 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-4 GHz)

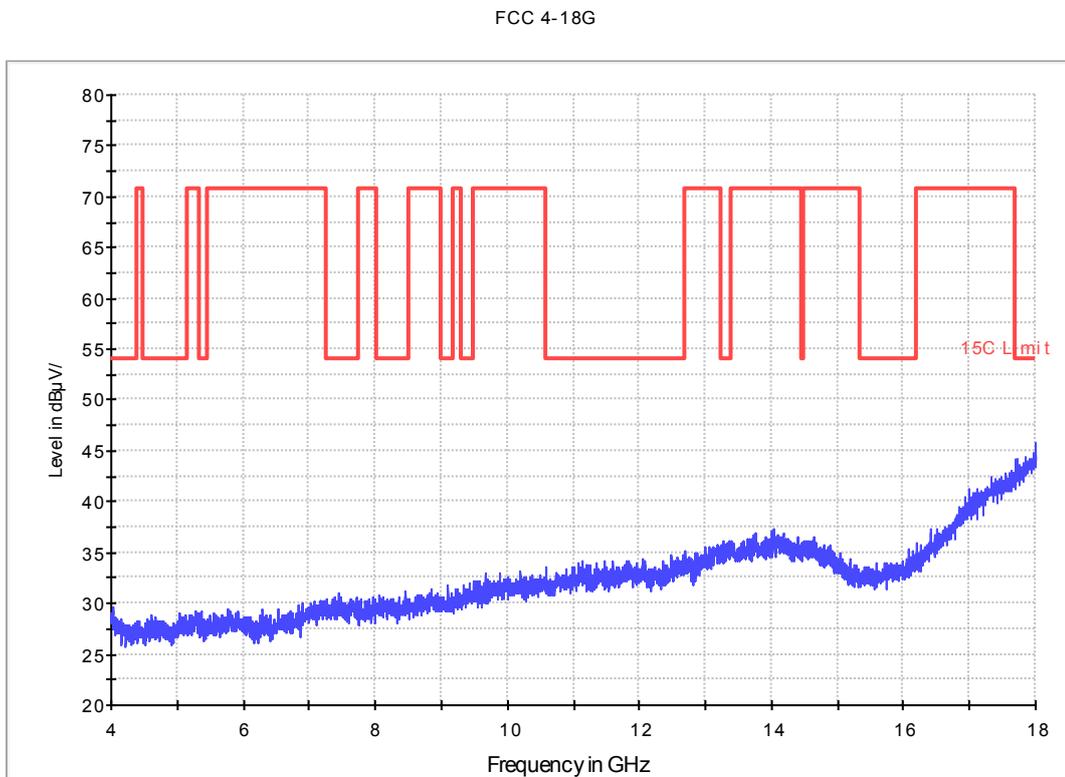


Fig. 50 Radiated Spurious Emission (802.11g, Ch11, 4 GHz-18 GHz)

FCC 18-26.5G

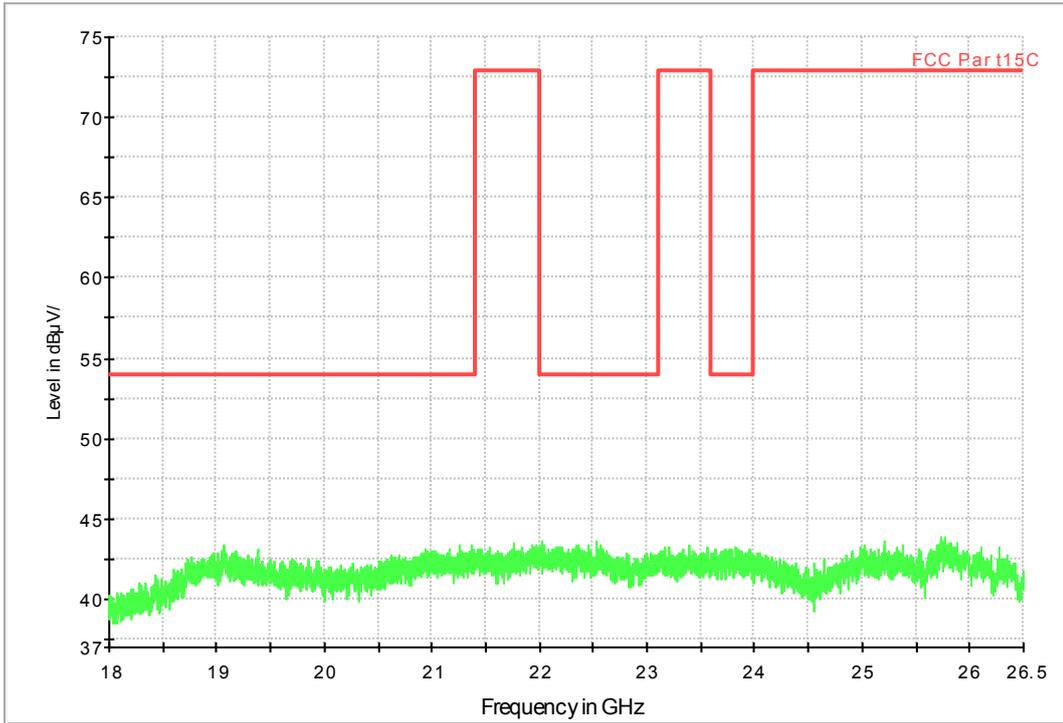


Fig. 51 Radiated emission: 18 GHz - 26 GHz

A.7. Occupied 20dB Bandwidth

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

The measurement is made according to ANSI C63.4 and KDB558074

Measurement Uncertainty:

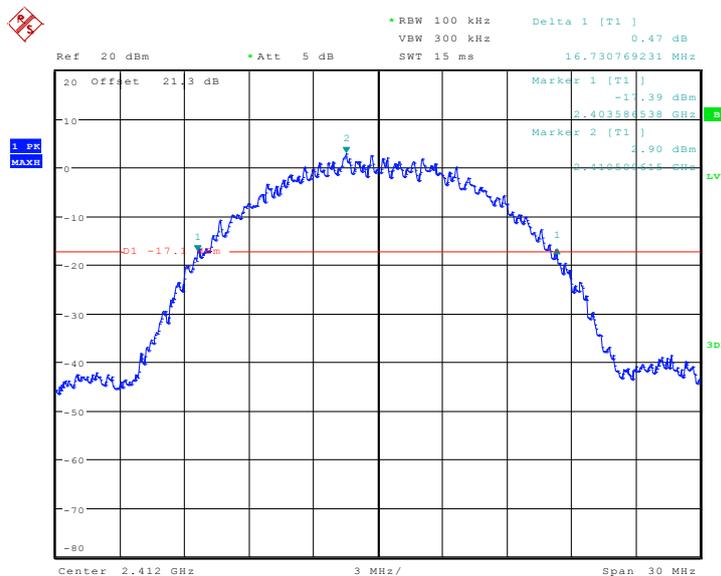
Measurement Uncertainty	60.80Hz
-------------------------	---------

Measurement Result:

Mode	Channel	Occupied 20dB Bandwidth (kHz)		conclusion
802.11b	1	Fig.52	16731	P
	6	Fig.53	16683	P
	11	Fig.54	16731	P
802.11g	1	Fig.55	18654	P
	6	Fig.56	18654	P
	11	Fig.57	18702	P

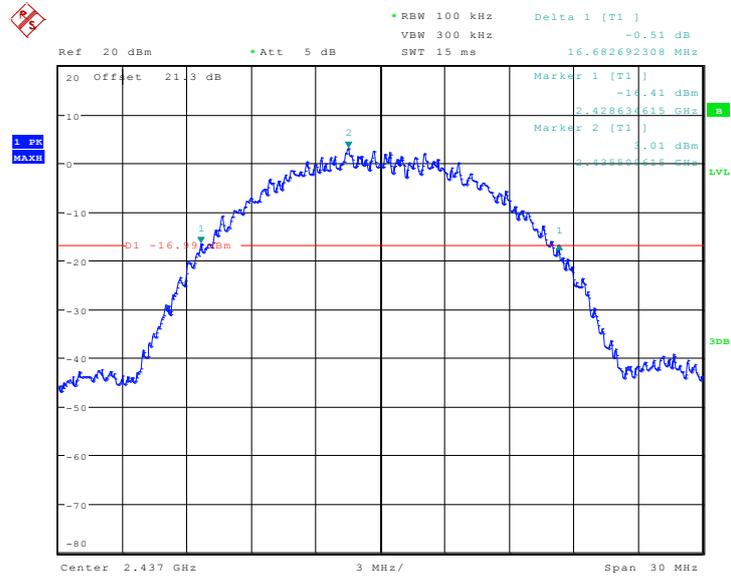
Conclusion: Pass

Test graphs as below:



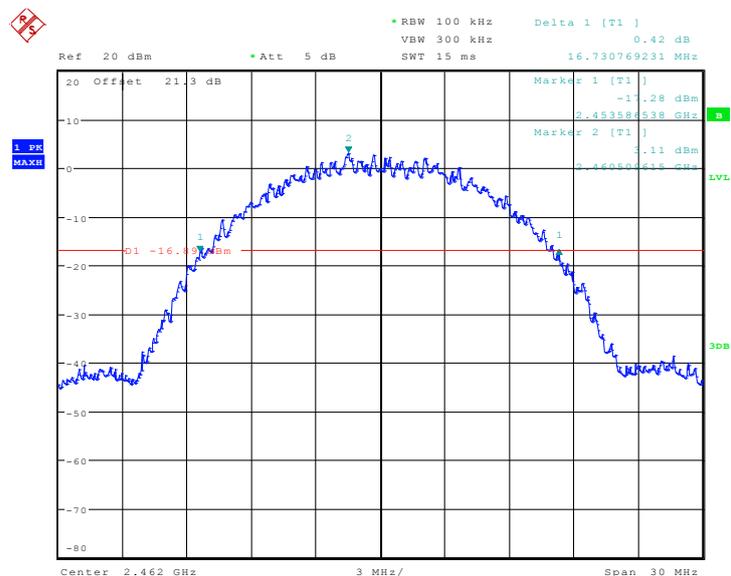
Date: 15.JUL.2011 17:23:53

Fig. 52 Occupied 20dB Bandwidth (802.11b, Ch 1)



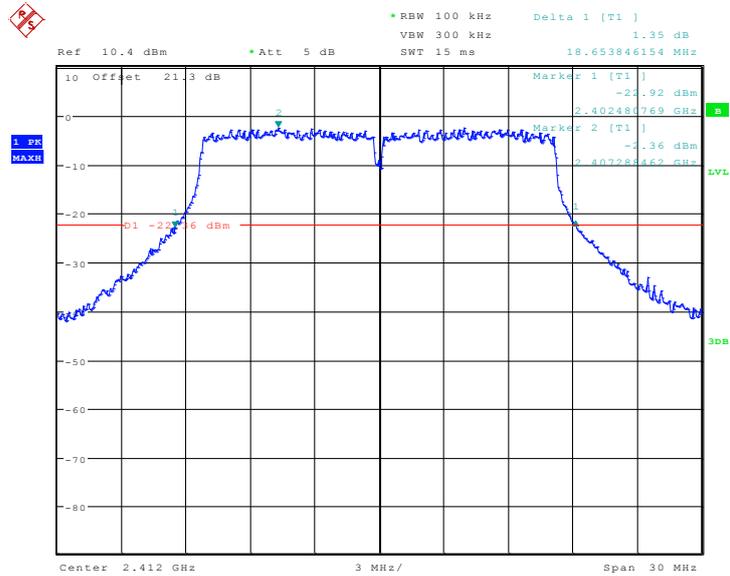
Date: 15.JUL.2011 17:32:45

Fig. 53 Occupied 20dB Bandwidth (802.11b, Ch 6)



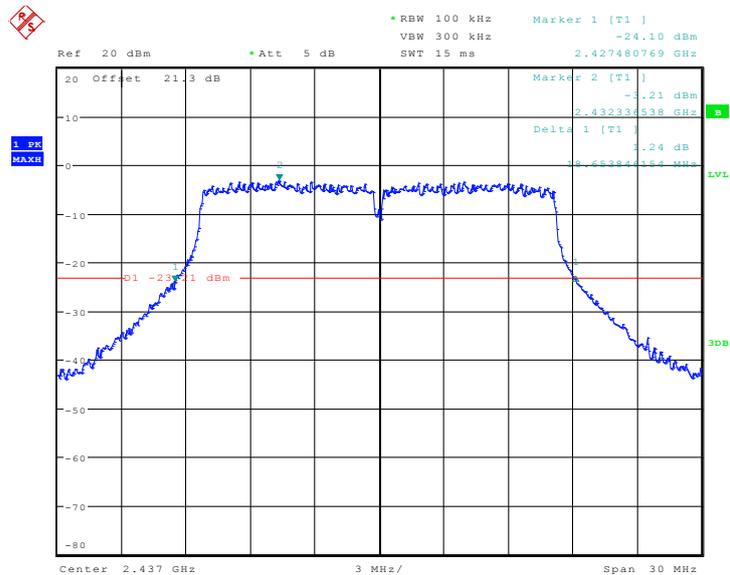
Date: 15.JUL.2011 17:46:24

Fig. 54 Occupied 20dB Bandwidth (802.11b, Ch 11)



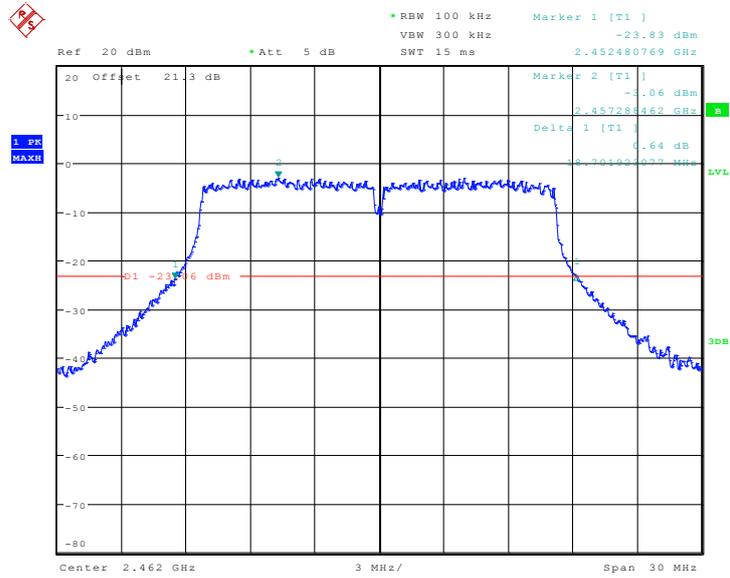
Date: 15.JUL.2011 14:16:36

Fig. 55 Occupied 20dB Bandwidth (802.11g, Ch 1)



Date: 15.JUL.2011 17:34:32

Fig. 56 Occupied 20dB Bandwidth (802.11g, Ch 6)



Date: 15.JUL.2011 17:44:39

Fig. 57 Occupied 20dB Bandwidth (802.11g, Ch 11)

A.8. AC Powerline Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
110	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	
0.15 to 0.5	66 to 56	Fig. 58	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	
0.15 to 0.5	56 to 46	Fig.58	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 C63.4 and KDB558074

Conclusion: PASS

Test graphs as below:

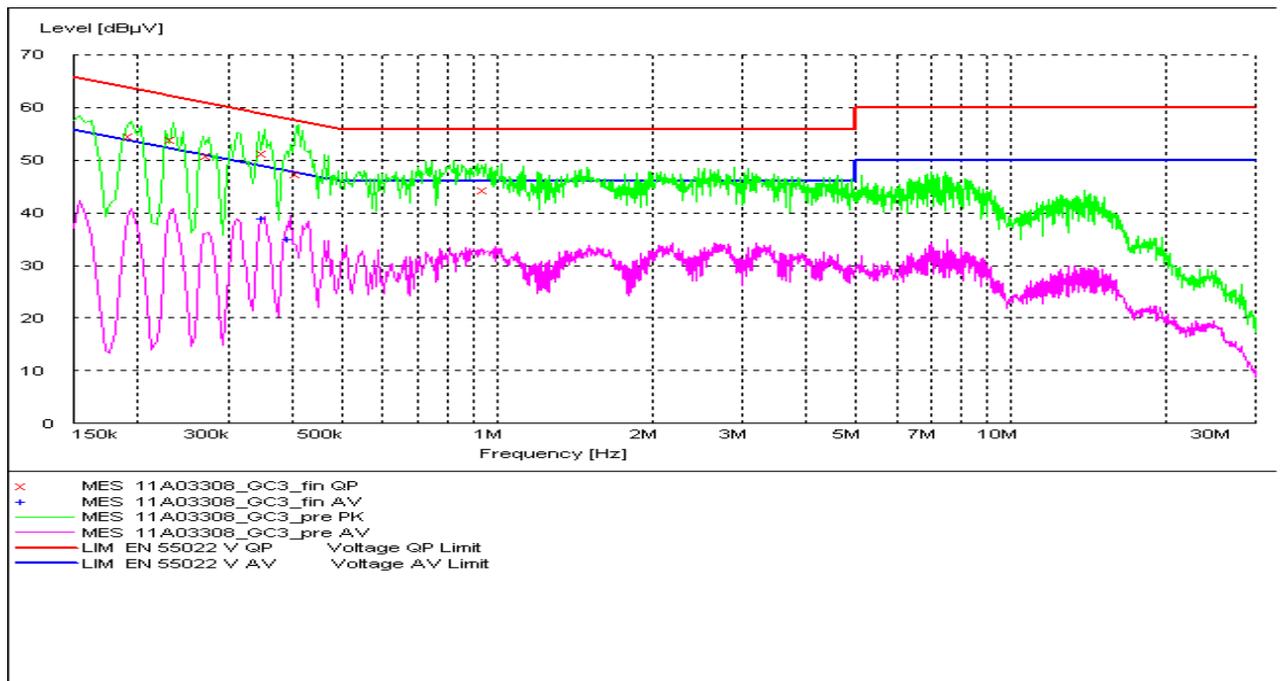


Fig. 58 AC Powerline Conducted Emission

Measurement Result: "11A02955_WGC_fin QP"

Frequency (MHz)	Level (dBµV)	Transd (dB)	Limit (dBµV)	Margin (dB)	Line	PE
0.195000	54.6	10.1	64	9.3	L1	GND
0.235500	53.9	10.1	62	8.3	N	GND
0.276000	50.9	10.1	61	10.1	N	GND
0.352500	51.3	10.1	59	7.6	L1	GND
0.411000	47.4	10.1	58	10.2	N	GND
0.951000	44.4	10.1	56	11.6	L1	GND

Measurement Result: "11A02955_WGC_fin AV"

Frequency (MHz)	Level (dBµV)	Transd (dB)	Limit (dBµV)	Margin (dB)	Line	PE
0.352500	38.9	10.1	49	10	L1	GND
0.397500	34.9	10.1	48	13	N	GND

ANNEX B: PHOTOGRAPHS OF THE TEST SET-UP

Layout of Radiated Spurious Emission Test



Layout of AC Powerline Conducted Emission



ANNEX C: PHOTOGRAPHS OF THE EUT

External Photo



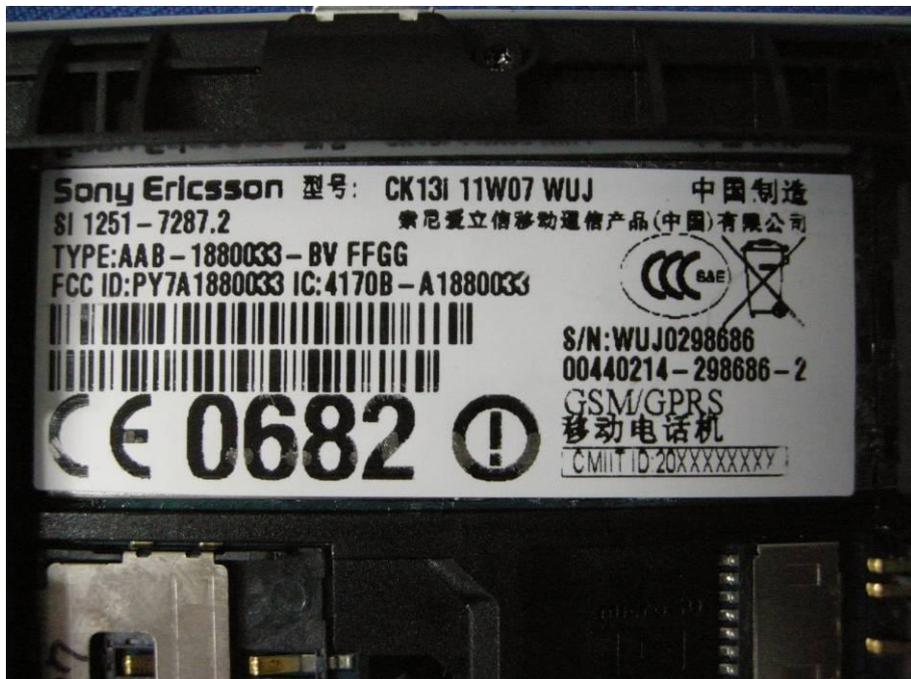
EUT Photo



EUT Photo



Back Label of Mobile Phone



Back Label of Mobile Phone

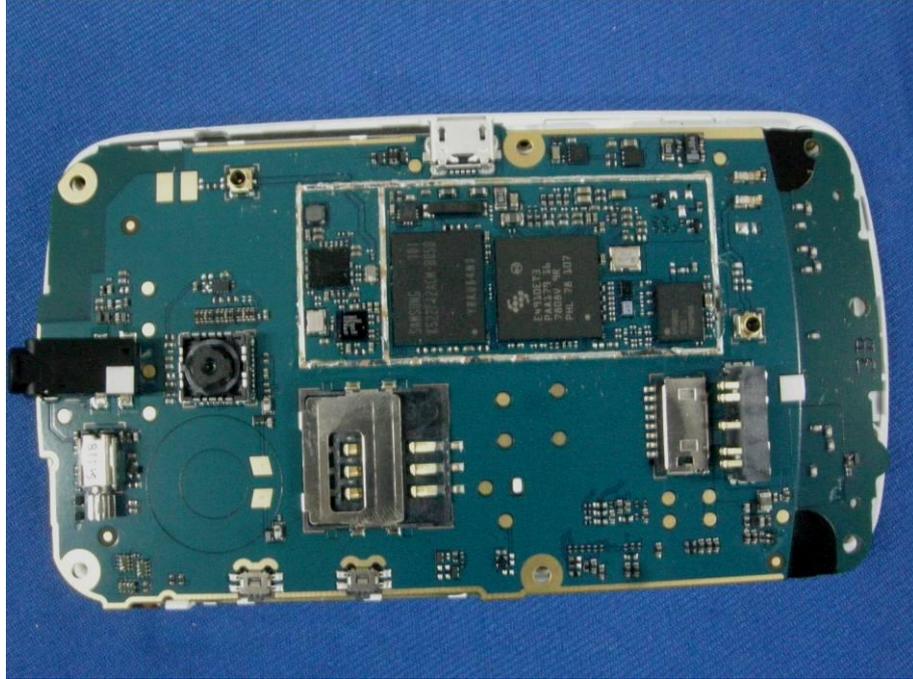


Travel Charger



Label of Travel Charger

Internal Photo



EUT Disassembly



EUT Disassembly



EUT Disassembly

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