



SGS-CSTC Standards Technical Services Co., Ltd.

198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technological
Development District, Guangzhou, China 510663

Telephone: +86 (0) 20 82155555

Fax: +86 (0) 20 82075059

Email: sgs_internet_operations@sgs.com

FEDERAL COMMUNICATIONS COMMISSION

Registration number: 282399

Report No.: GLEMO090300654RFT

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FCC ID: S7INBPC1022

TEST REPORT

Application No. : GLEMO090300654RF
Applicant: Coby Communications Ltd.
FCC ID: S7INBPC1022
Frequency Range: 2.412GHz to 2.462GHz
Equipment Under Test (EUT):
Name: NetBook
Model No.: NBPC1022
Trade Mark: COBY
Standards: FCC PART 15 Subpart C: 2008, Section 15.247
Date of Receipt: 15 March 2009
Date of Test: 20 March to 15 May 2009
Date of Issue: 15 May 2009

Test Result :	PASS *
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* In the configuration tested, the EUT detailed in this report complied with the standards specified above. Please refer to section 3 of this report for further detail.

Authorized Signature:

Stephen Guo
Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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2 Version

Version No.	Date	Description
00	15 May 2009	New application

Prepared By: Shrek He & Angel Liu **Date** 15 May 2009

Project Engineer

Check By: Gavin Wu **Date** 15 May 2009

Reviewer



3 Test Summary

Test	Test Requirement	Standard Paragraph	Result
Antenna Requirement	FCC PART 15 :2008	Section 15.247(b)(4)	PASS
Conducted Emission	FCC PART 15 :2008	Section 15.207	PASS
6dB Bandwidth	FCC PART 15 :2008	Section 15.247 (a)(2)	PASS
Maximum Peak Output Power	FCC PART 15 :2008	Section 15.247(b)(3)	PASS
Peak Power Spectral Density	FCC PART 15 :2008	Section 15.247(e)	PASS
Conducted Spurious Emission (30MHz to 25GHz)	FCC PART 15 :2008	Section 15.209 &15.247(d)	PASS
Band Edges Measurement	FCC PART 15 :2008	Section 15.247 (d) &15.205	PASS
Radiated Spurious Emission (30MHz to 25GHz)	FCC PART 15 :2008	Section 15.209 &15.247(d)	PASS



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5 General Information

5.1 Client Information

Applicant: Coby Communications Ltd.
Address of Applicant: Unit C-E, 8/F , PO Shau Centre, 115 How Ming Street, Kowloon, Hong Kong

5.2 General Description of E.U.T.

Name: NetBook
Model No.: NBPC1022
Trade Mark: COBY
Frequency Range: 802.11b mode:2412MHz to 2462MHz
802.11g mode:2412MHz to 2462MHz
Number of Channels: 11 channels
Type of Modulation: 802.11b :DSSS(CCK;DQPSK;DBPSK)
802.11g :OFDM
Transmit Data Rate: 802.11b :1M/2M/5.5M/11M bps
802.11g :6M/9M/12M/18M/24M/36M/48M/54M bps
Antenna Type: MS-6894 WLAN 802.11b/g Mini-Card
Antenna Gain: Max -2dBi from 2402MHz to 2480MHz
Power supply: AC 110-240V 50/60Hz by AC adaptor or DC 11.1V 2200mAh LI-ion recharge battery
Adapter: Model: 033A1865
Input: 100-240V~,50/60Hz 1.7A
Output: DC 18.5V/3.5A
Power cord: 1.8m x 3 wires unscreened AC cable
1.8m x 2 wires unscreened DC cable

5.3 Description of Support Units

The EUT has been tested as an independent unit for fixed frequency by testing lab.

5.4 Standards Applicable for Testing

The customer requested FCC tests for the EUT.

The standard used was FCC PART 15 Subpart C: 2008 section 15.247.

5.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory. 198 Kezhu Road, Sciencetech Park, Guangzhou Economic & Technology Development District, Guangzhou, Guangdong, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.



5.6 Other Information Requested by the Customer

None.

5.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP – Lab Code: 200611-0**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

- **FCC – Registration No.: 282399**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002.



6 Equipments Used during Test

RE in Chamber						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	N/A	N/A
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	28-01-2009	28-01-2010
EMC0056	EMI Test Receiver	Rohde & Schwarz	ESCI	10036	14-07-2008	14-07-2009
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2008	04-12-2009
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	12-08-2008	12-08-2009
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	12-08-2008	12-08-2009
EMC0517	Horn Antenna	Rohde & Schwarz	HF906	100095	12-08-2008	12-08-2009
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2008	05-12-2009
EMC0520	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A06252	11-03-2009	11-03-2010
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	11-03-2009	11-03-2010
EMC0075	310N Amplifier	Sonama	310N	272683	10-09-2008	10-09-2009
EMC0523	Active Loop Antenna	EMCO	6502	00042963	09-08-2008	09-08-2010
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	10-08-2008	10-08-2009

Conducted Emission						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0306	Shielding Room	Zhong Yu	8 x 3 x 3.8 m ³	N/A	N/A	N/A
EMC0102	LISN	Schaffner Chase	MNZ050D/1	1421	14-12-2008	14-12-2009
EMC0118	Two-line v-netwok	Rohde & Schwarz	ENV216	3560.6550.02	28-07-2008	28-07-2009
EMC0506	EMI Test Receiver	Rohde & Schwarz	ESCS30	100085	14-12-2008	14-12-2009
EMC0107	Coaxial Cable	SGS	2m	N/A	26-11-2008	26-11-2009
EMC0106	Voltage Probe	SGS	N/A	N/A	N/A	N/A
EMC0120	8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T8-02	20550	21-02-2009	21-02-2010
EMC0121	4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T4-02	20549	21-02-2009	21-02-2010
EMC0122	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T2-02	20548	21-02-2009	21-02-2010



7 Test Results

7.1 E.U.T. test conditions

Power supply: 15.31(e)&15.32
DC 11.1V 2200mAh LI-ion recharge batteries or by AC/DC adapter

Requirements: **15.31(e):** For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.
15.32: Power supplies and CPU boards used with personal computers and for which separate authorizations are required to be obtained shall be tested as follows: Testing shall be in accordance with the procedures specified in Section 15.31 of this part.

Operating Environment:

Temperature: 20.0 -25.0 °C

Humidity: 38-52 % RH

Atmospheric Pressure: 992 -1010 mbar

Test frequencies: According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and, if required, reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

EUT channels and frequencies list:



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Channel(802.11b & 802.11g)	Frequency (MHz)
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462

Test frequency is the lowest channel: 1 channel(2412MHz), middle channel: 6 channel(2437MHz) and highest channel: 11 channel(2462MHz)

7.2 Antenna Requirement

7.2.1 Standard requirement

15.203 requirement:

For intentional device. According to 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.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

7.2.2 EUT Antenna

The antenna is detached which the model name is NBPC1022 and no consideration of replacement. The best case gain of the antenna is -2.0dBi.



Test result: The unit does meet the FCC requirements.

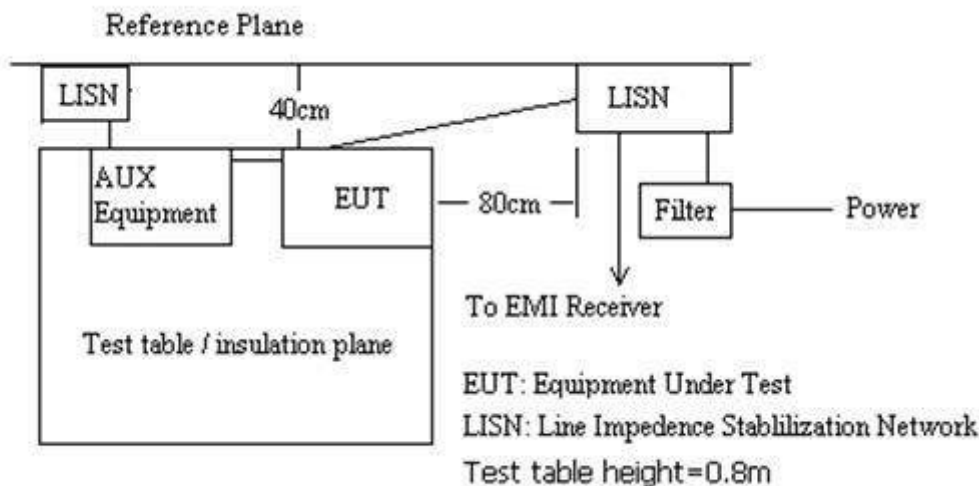
7.3 Conducted Emissions at Mains Terminals 150 kHz to 30MHz

Test Requirement: FCC Part 15.207
Test Method: ANSI C63.4
Test Date: 20 March 2009
Frequency Range: 150KHz to 30MHz
Detector: Peak for pre-scan (9kHz Resolution Bandwidth)
Quasi-Peak if maximised peak within 6dB of Quasi-Peak limit
EUT Operation: Test in normal mode. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.
Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

Plan View of Test Setup





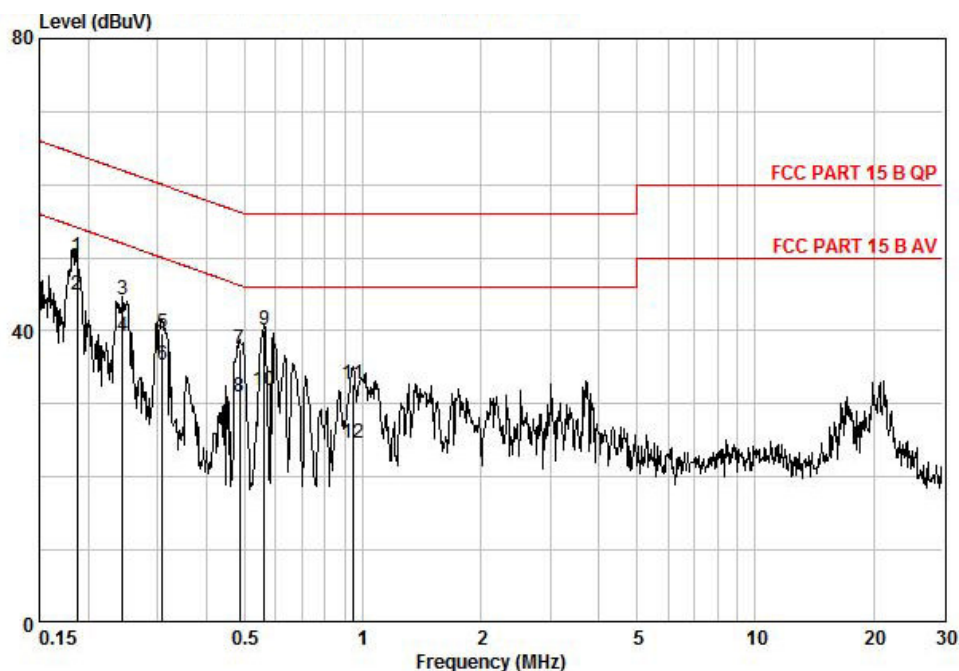
7.3.1.1 Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected. For EUT the communicating was worst case mode.

The following Quasi-Peak and Average measurements were performed on the EUT:

Live Line



Measure data:

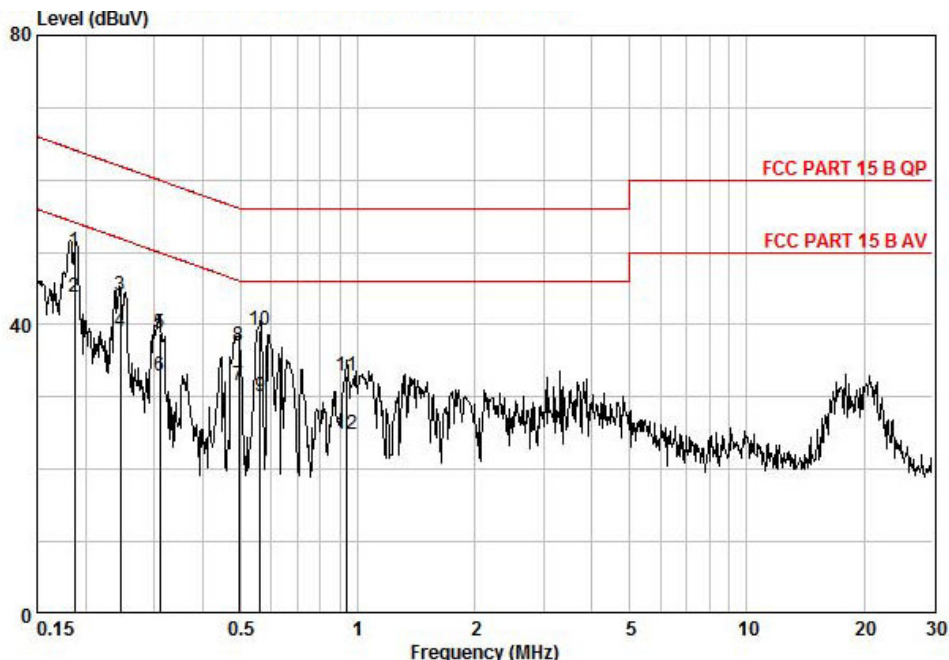
Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.187	40.40	0.12	9.58	50.10	64.15	-14.05	QP
0.187	35.11	0.12	9.58	44.81	54.15	-9.34	AVERAGE
0.244	34.60	0.15	9.58	44.33	61.95	-17.62	QP
0.244	29.55	0.15	9.58	39.28	51.95	-12.67	AVERAGE
0.308	29.92	0.18	9.58	39.68	60.02	-20.33	QP
0.308	25.65	0.18	9.58	35.41	50.02	-14.60	AVERAGE
0.486	27.78	0.22	9.59	37.59	56.23	-18.64	QP
0.486	21.18	0.22	9.59	30.99	46.23	-15.24	AVERAGE
0.561	30.34	0.24	9.59	40.17	56.00	-15.83	QP
0.561	22.02	0.24	9.59	31.85	46.00	-14.15	AVERAGE
0.948	22.88	0.29	9.59	32.76	56.00	-23.24	QP
0.948	14.69	0.29	9.59	24.57	46.00	-21.43	AVERAGE



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Neutral Line



Measure result:

Freq	Read Level	Cable Loss	LISN Factor	Level	Limit Line	Over Limit	Remark
MHz	dBuV	dB	dB	dBuV	dBuV	dB	
0.187	40.42	0.12	9.59	50.13	64.15	-14.02	QP
0.187	34.15	0.12	9.59	43.86	54.15	-10.29	AVERAGE
0.246	34.28	0.15	9.59	44.02	61.91	-17.89	QP
0.246	29.35	0.15	9.59	39.09	51.91	-12.82	AVERAGE
0.310	29.00	0.18	9.59	38.77	59.97	-21.20	QP
0.310	23.15	0.18	9.59	32.92	49.97	-17.05	AVERAGE
0.494	21.89	0.23	9.59	31.71	46.10	-14.39	AVERAGE
0.494	27.24	0.23	9.59	37.06	56.10	-19.04	QP
0.561	20.30	0.24	9.59	30.13	46.00	-15.87	AVERAGE
0.561	29.42	0.24	9.59	39.25	56.00	-16.75	QP
0.933	23.14	0.29	9.58	33.01	56.00	-22.99	QP
0.933	15.01	0.29	9.58	24.88	46.00	-21.12	AVERAGE

Remark: Level = Real Level + Cable loss + LISN factor

TEST RESULTS: The unit does meet the FCC requirements.



7.4 6dB Bandwidth

Test Requirement: FCC Part 15.247(a)(2)
Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test Method: ANSI C63.4:2003 and KDB558074
Remark: KDB558074, DTS test procedure of Oct 2002 KDB558074

Test Date: 01 April 2009

Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer;
2. Set the spectrum analyzer: RBW=100KHz. VBW = 300KHz. Sweep = auto; Detector Function = Peak. Trace = Max Hold, Set span to encompass the entire emission bandwidth of the signal.
3. Mark the peak power frequency and -6dB(upper and lower) power frequency.
4. Repeat until all the test status are investigated.
5. Report the worse case.

Test result:

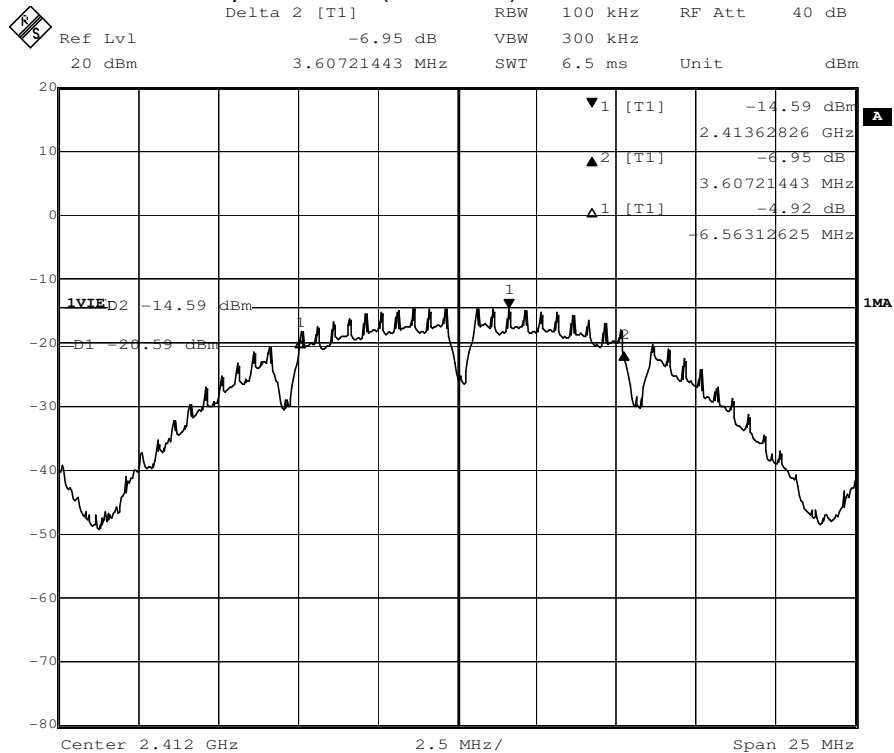
Channel No.	Frequency (MHz)	Mode	Data Rate	Measured 6dB bandwidth (MHz)	Limit	Result
1	2412	802.11b	1Mbps	10.17	≥500KHz	Pass
6	2437			10.17		Pass
11	2462			10.16		Pass
1	2412	802.11g	6Mbps	15.68	≥500KHz	Pass
6	2437			15.88		Pass
11	2462			15.88		Pass

Test result: The unit does meet the FCC requirements.

Result plot as follows:

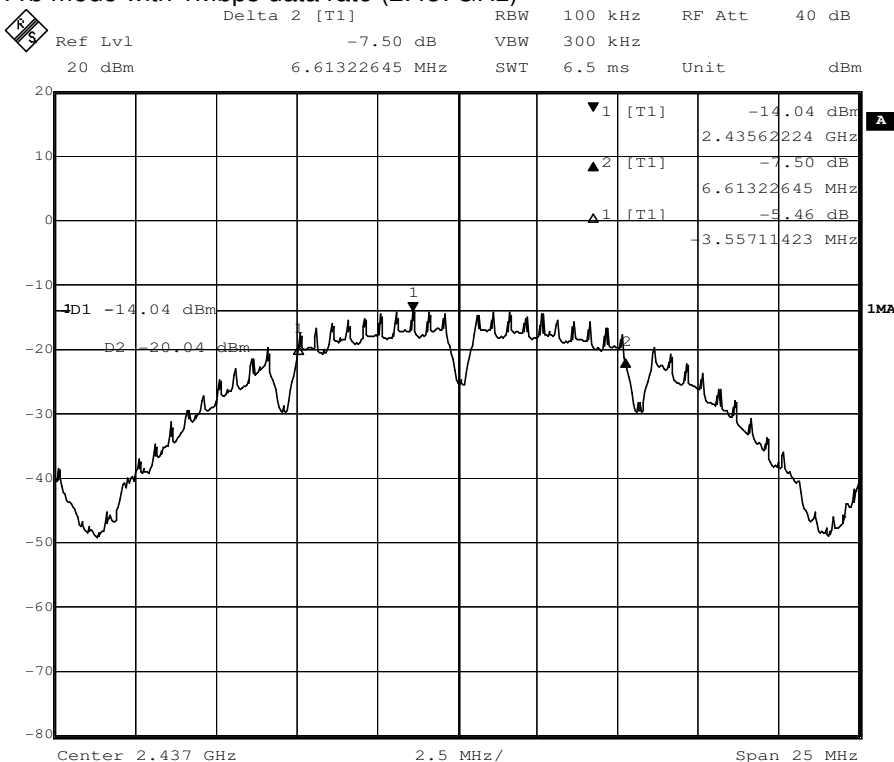


802.11b mode with 1Mbps data rate (2.412GHz)



Date: 1.APR.2009 13:43:06

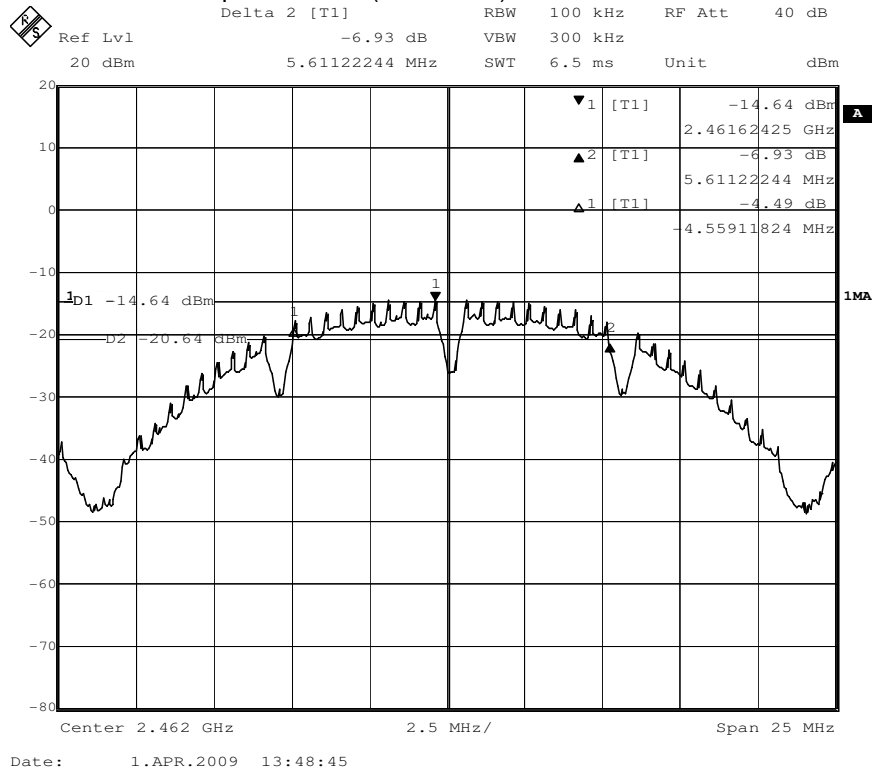
802.11b mode with 1Mbps data rate (2.437GHz)



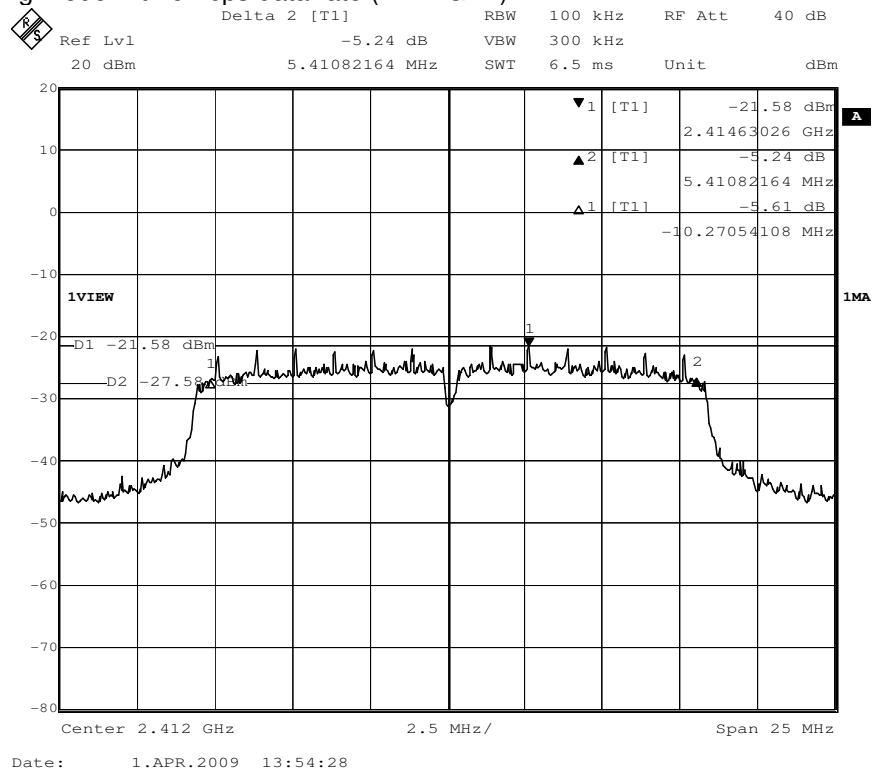
Date: 1.APR.2009 13:46:19



802.11b mode with 1Mbps data rate (2.462GHz)

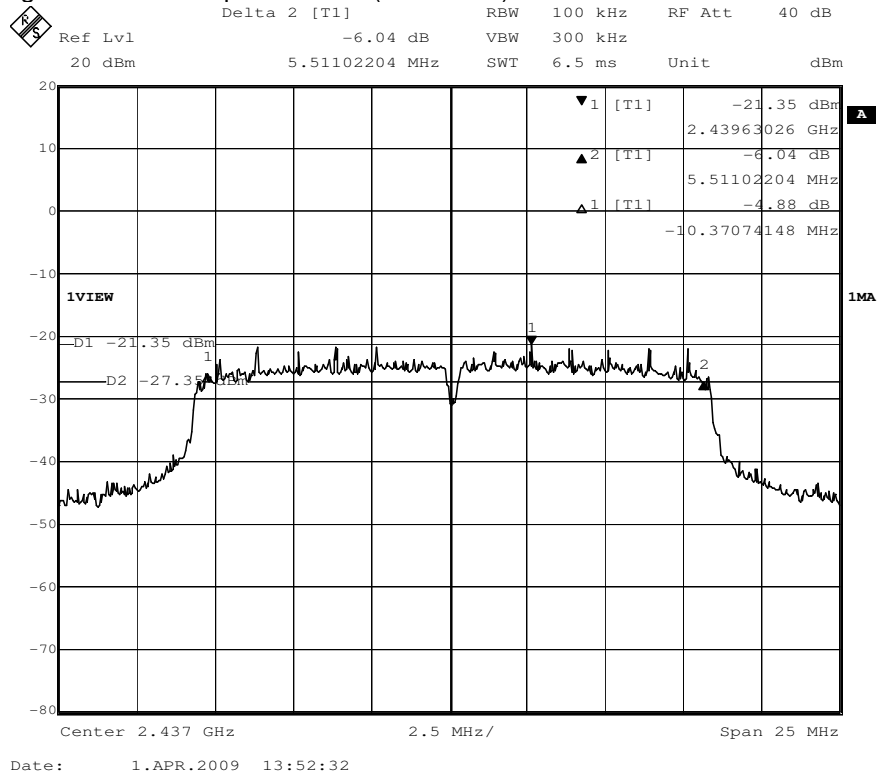


802.11g mode with 6Mbps data rate (2.412GHz)

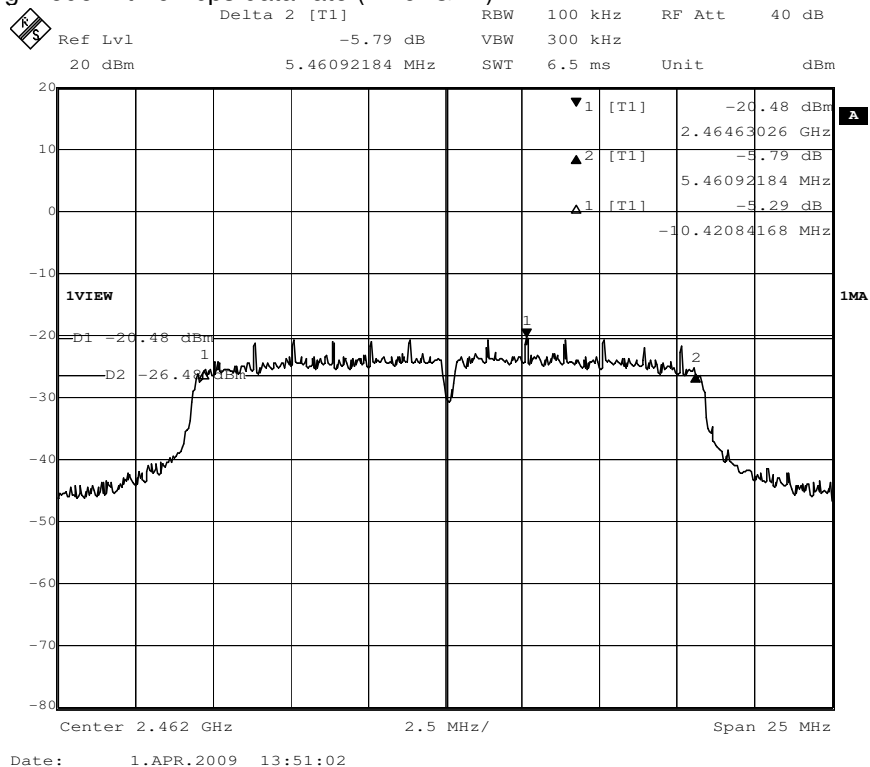




802.11g mode with 6Mbps data rate (2.437GHz)



802.11g mode with 6Mbps data rate (2.462GHz)





7.5 Maximum Conducted Output Power

Test Requirement: FCC Part 15.247(b)(3)
For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt.
Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Method: ANSI C63.4:2003 and KDB558074.
Remark: KDB558074, DTS test procedure of Oct 2002 KDB558074

Test Date: 15 May 2009

Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum.
2. Measure the channel power (11MHz for 802.11b mode, 22MHz for 802.11g mode) of the test frequency with special test status.
3. Repeat until all the test status are investigated.
4. Report the worse case.



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Test result:

802.11b mode

Channel No.	Frequency (MHz)	Mode	Data Rate	Measured Channel Power (dBm)	Limit	Result
1	2412	802.11b	1Mbps	15.46	1W(30dBm)	Pass
6	2437			15.63		Pass
11	2462			15.64		Pass
1	2412		2Mbps	15.44		Pass
6	2437			15.62		Pass
11	2462			15.65		Pass
1	2412		5.5Mbps	15.39		Pass
6	2437			15.69		Pass
11	2462			15.63		Pass
1	2412		11Mbps	15.40		Pass
6	2437			15.61		Pass
11	2462			15.72		Pass



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Test result:

802.11g mode

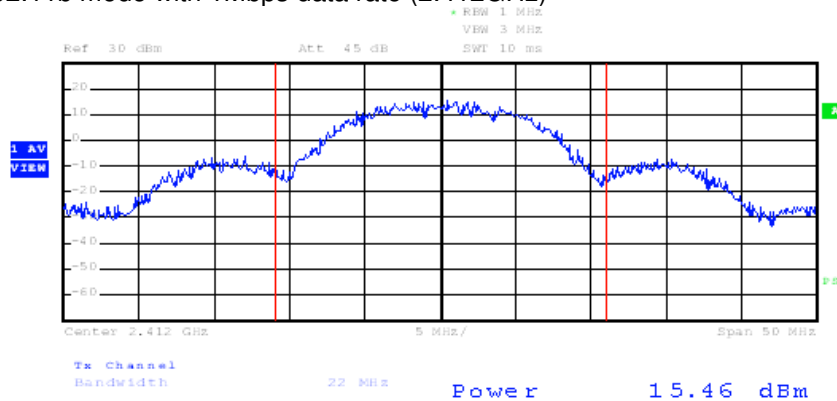
Channel No.	Frequency (MHz)	Mode	Data Rate	Measured Channel Power (dBm)	Limit	Result
1	2412	802.11g	6Mbps	14.13	1W(30dBm)	Pass
6	2437			14.19		Pass
11	2462			14.23		Pass
1	2412		9Mbps	14.15		Pass
6	2437			14.18		Pass
11	2462			14.19		Pass
1	2412		12Mbps	14.09		Pass
6	2437			14.17		Pass
11	2462			14.16		Pass
1	2412		18Mbps	14.08		Pass
6	2437			14.13		Pass
11	2462			14.15		Pass
1	2412		24Mbps	14.09		Pass
6	2437			14.13		Pass
11	2462			14.16		Pass
1	2412		36Mbps	14.14		Pass
6	2437			14.22		Pass
11	2462			14.15		Pass
1	2412		48Mbps	14.11		Pass
6	2437			14.16		Pass
11	2462			14.13		Pass
1	2412		54Mbps	14.07		Pass
6	2437			14.09		Pass
11	2462			14.26		Pass

Test result: The unit does meet the FCC requirements.

Max power result plots as follows:

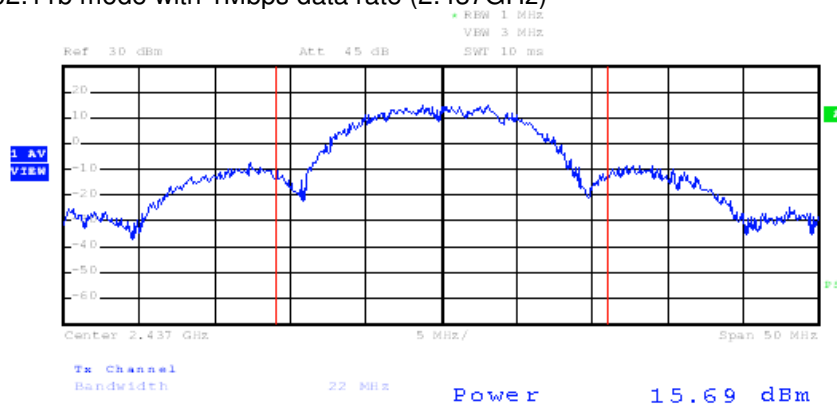


802.11b mode with 1Mbps data rate (2.412GHz)



Date: 15.MAY.2009 09:34:30

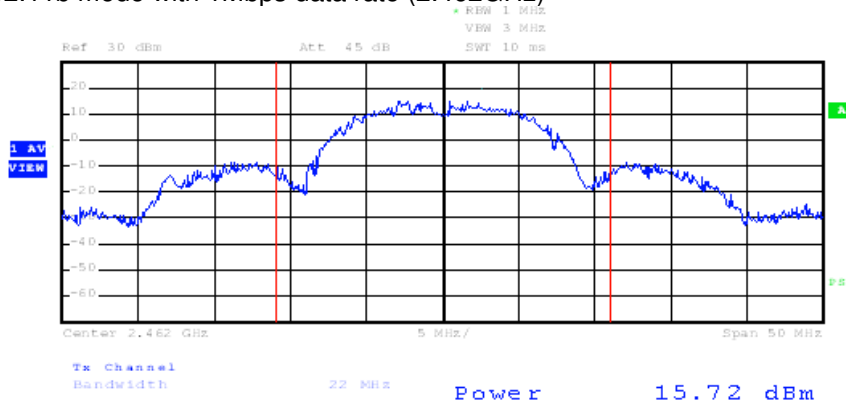
802.11b mode with 1Mbps data rate (2.437GHz)



Date: 15.MAY.2009 09:36:02

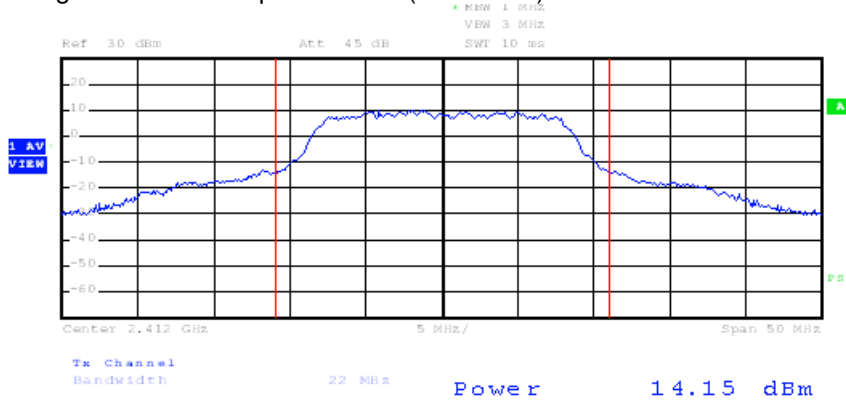


802.11b mode with 1Mbps data rate (2.462GHz)



Date: 15.MAY.2009 09:36:53

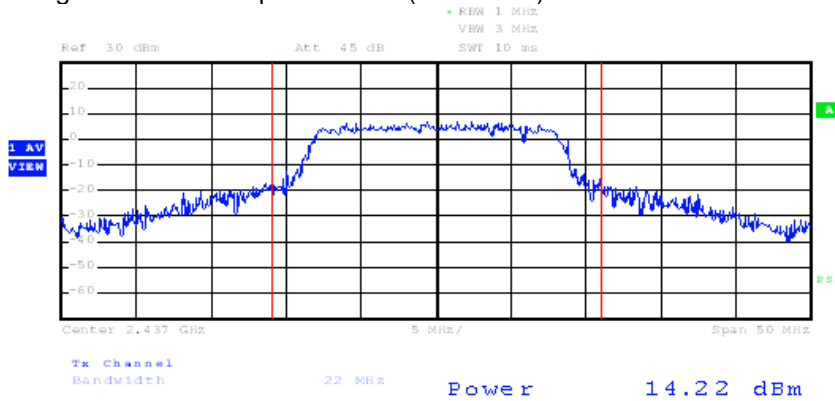
802.11g mode with 6Mbps data rate (2.412GHz)



Date: 15.MAY.2009 09:24:55

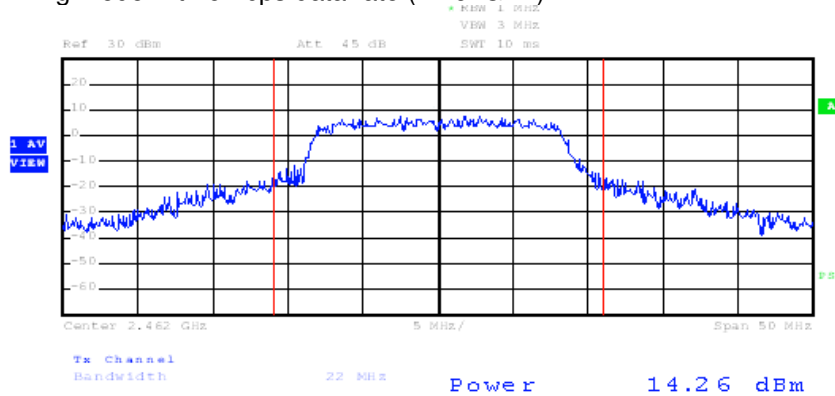


802.11g mode with 6Mbps data rate (2.437GHz)



Date: 15.MAY.2009 09:29:24

802.11g mode with 6Mbps data rate (2.462GHz)



Date: 15.MAY.2009 09:31:29



7.6 Peak Power Spectral Density

Test Requirement: FCC Part 15.247(e)
For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.
This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test Method: ANSI C63.4:2003 and KDB558074.
Remark: KDB558074, DTS test procedure of Oct 2002 KDB558074

Test Date: 14 April 2009

Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer or power meter.
2. Set the spectrum analyzer: RBW=3KHz. VBW = 10KHz. sweep= (SPAN/3 kHz); Detector Function = Peak. Trace = Max Hold, Centre = the Peak Power of the signal.
3. Measure the Power Spectral Density of the test frequency with special test status.
4. Repeat until all the test status are investigated.
5. Report the worse case.

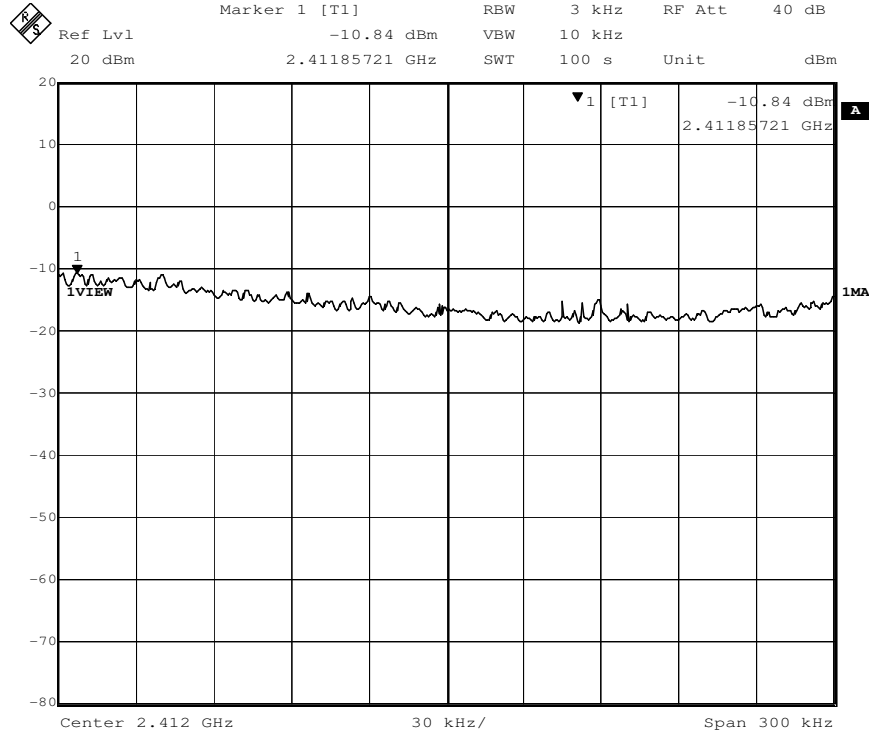
Channel No.	Frequency (MHz)	Mode	Data Rate	Measured Peak Power Spectral Density (dBm/3KHz)	Limit	Result
1	2412	802.11b	1Mbps	-10.84	8dBm/3KHz	Pass
6	2437			-9.48		Pass
11	2462			-29.78		Pass
1	2412	802.11g	6Mbps	-38.39	8dBm/3KHz	Pass
6	2437			-34.20		Pass
11	2462			-31.90		Pass

Test result: The unit does meet the FCC requirements.

Result plots as follows:

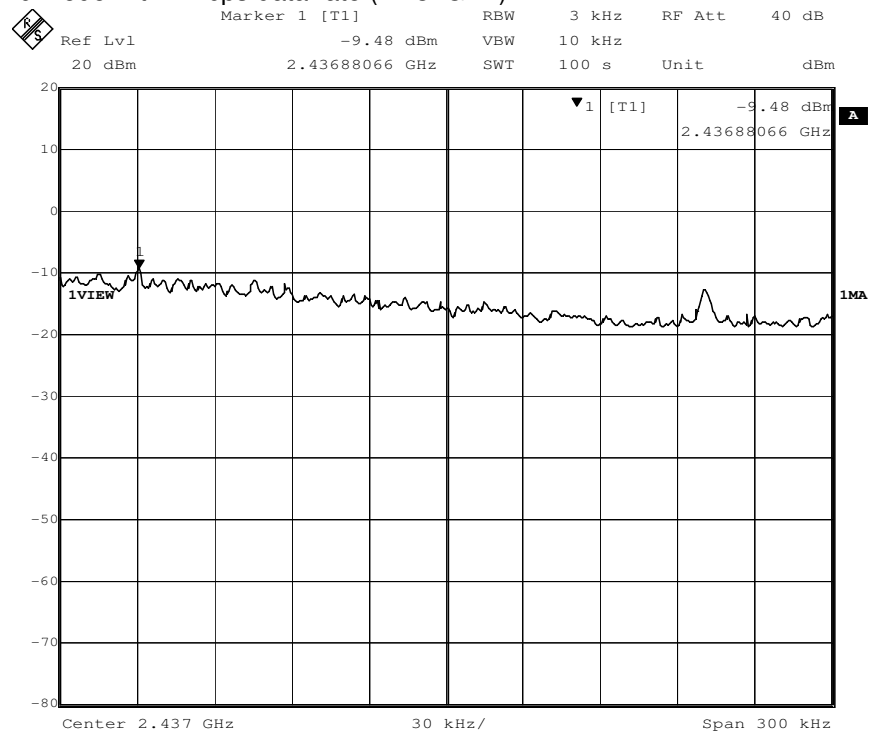


802.11b mode with 1Mbps data rate (2.412GHz)



Date: 1.APR.2009 10:31:20

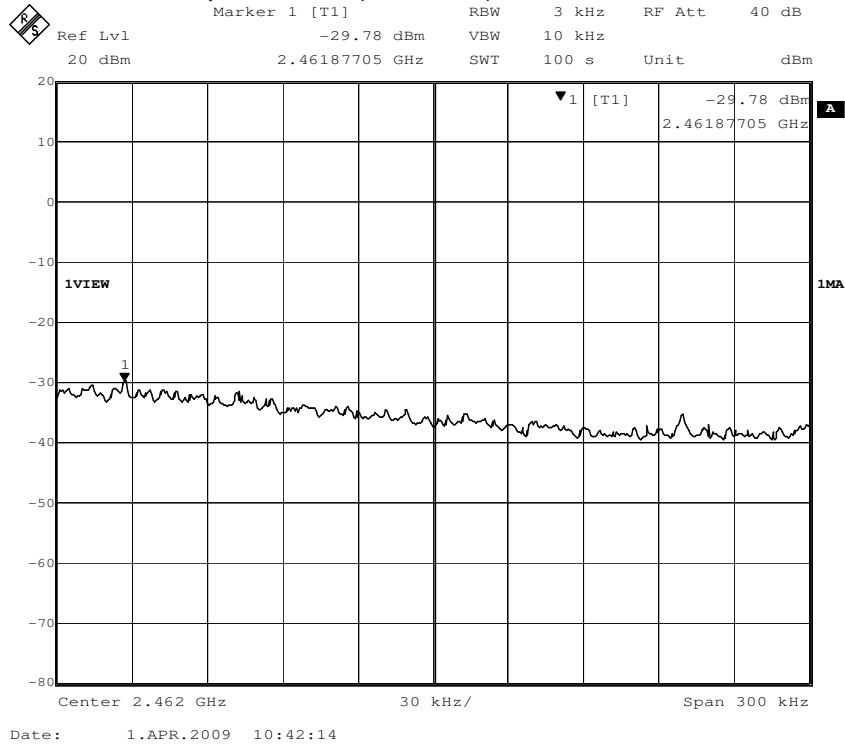
802.11b mode with 1Mbps data rate (2.437GHz)



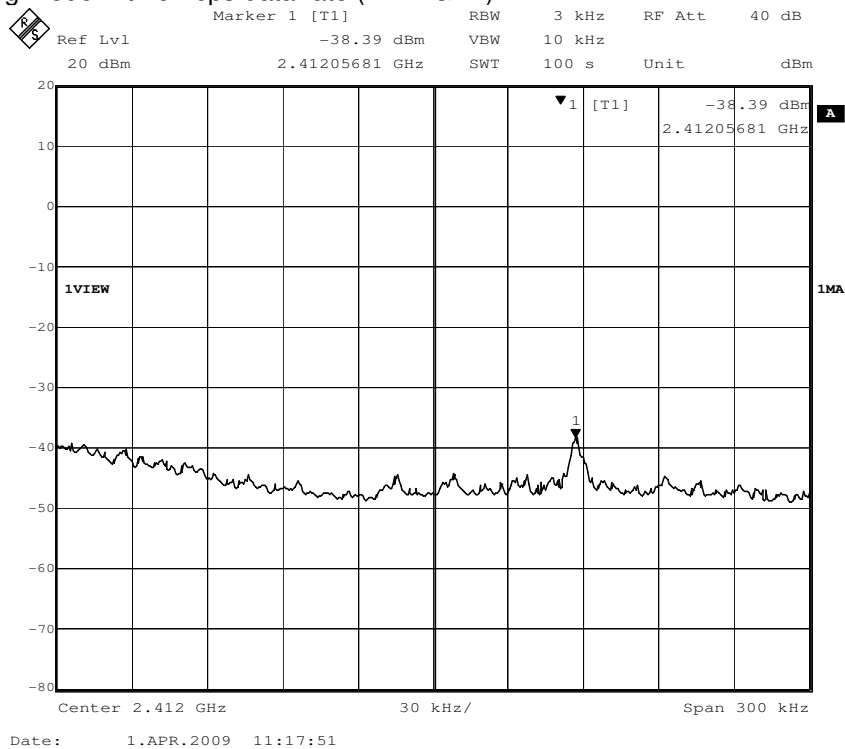
Date: 1.APR.2009 10:37:56



802.11b mode with 1Mbps data rate (2.462GHz)

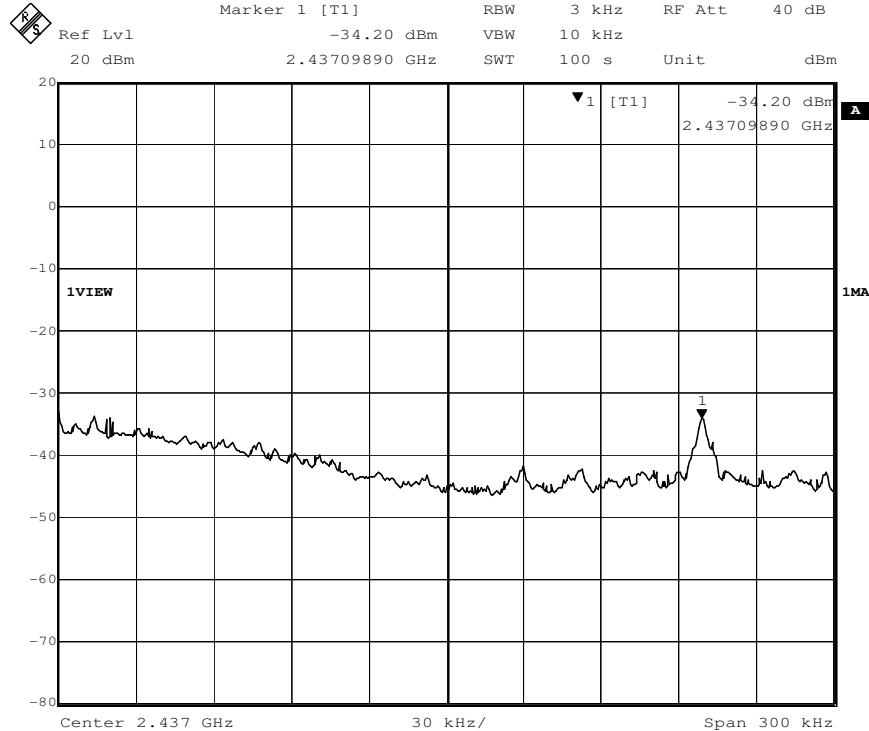


802.11g mode with 6Mbps data rate (2.412GHz)



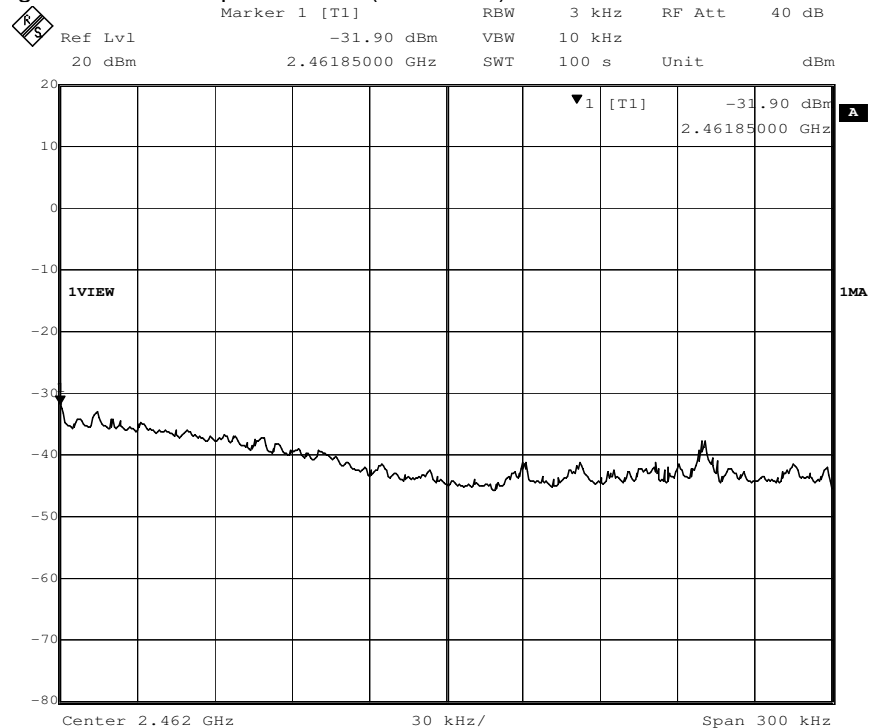


802.11g mode with 6Mbps data rate (2.437GHz)



Date: 1.APR.2009 10:48:14

802.11g mode with 6Mbps data rate (2.462GHz)



Date: 1.APR.2009 10:45:26



7.7 Conducted Spurious Emissions

Test Requirement: FCC Part 15.247(d)
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

Test Method: ANSI C63.4:2003 and KDB558074.

Test Date: 01 April 2009

Test Status: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Procedure:

1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer or power meter.
2. Set the spectrum analyzer: RBW=100KHz, VBW = 300KHz. Sweep = auto; Detector Function = Peak. Trace = Max Hold, Scan up through 10th harmonic..
3. Measure the Conducted Spurious Emissions of the test frequency with special test status.
4. Repeat until all the test status are investigated.
5. Report the worse case.

Test result plot as follows:



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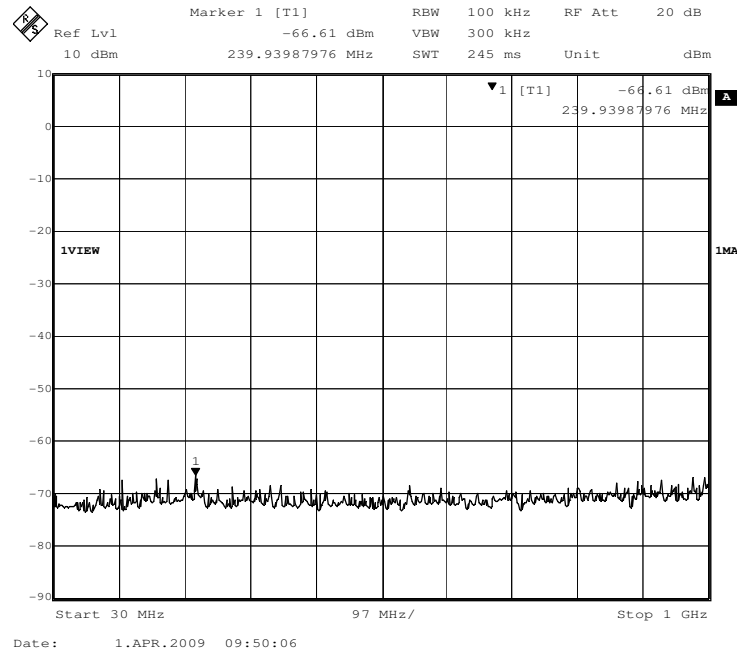
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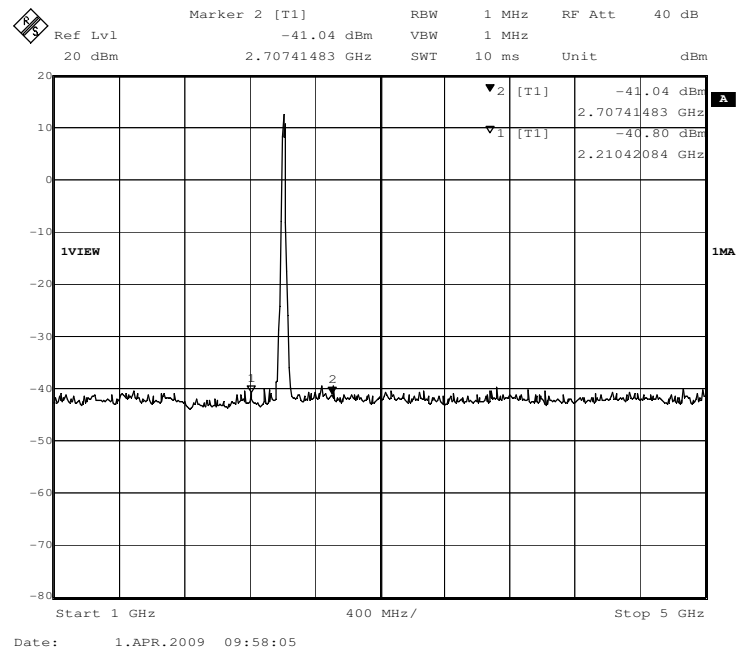
FCC ID:S7INBPC1022

Lowest Channel 2412MHz-802.11b mode with 1Mbps data rate:

30M to 1GHz



1G to 5GHz





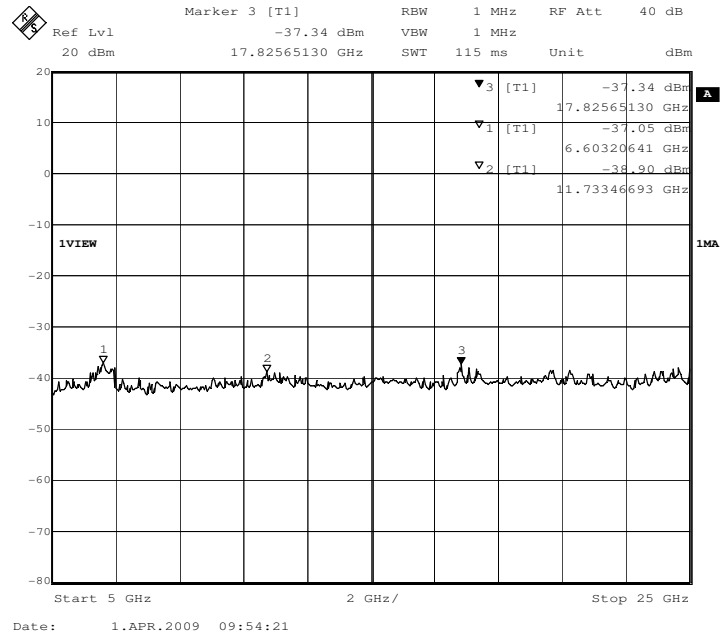
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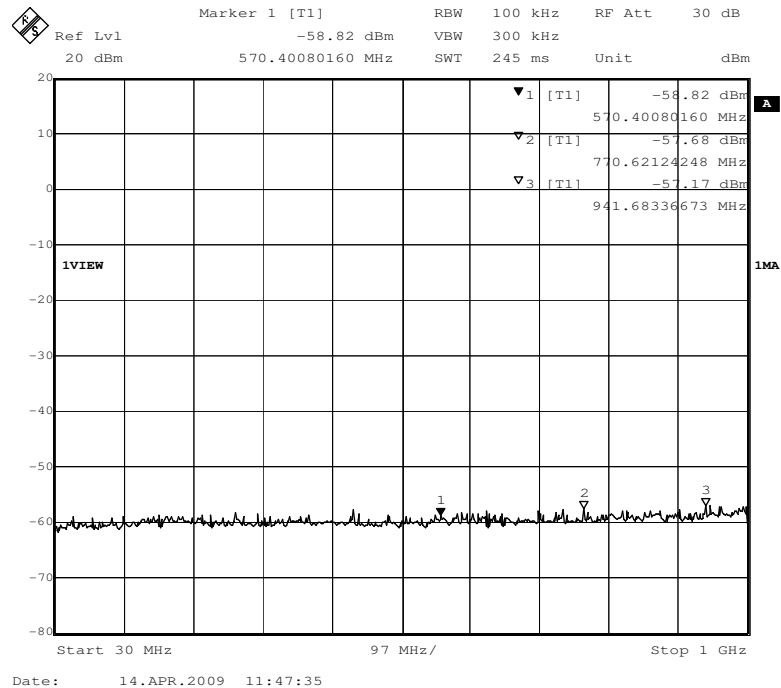
FCC ID:S7INBPC1022

5G to 25GHz



Middle Channel 2437MHz-802.11b mode with 1Mbps data rate:

30MHz to 1GHz





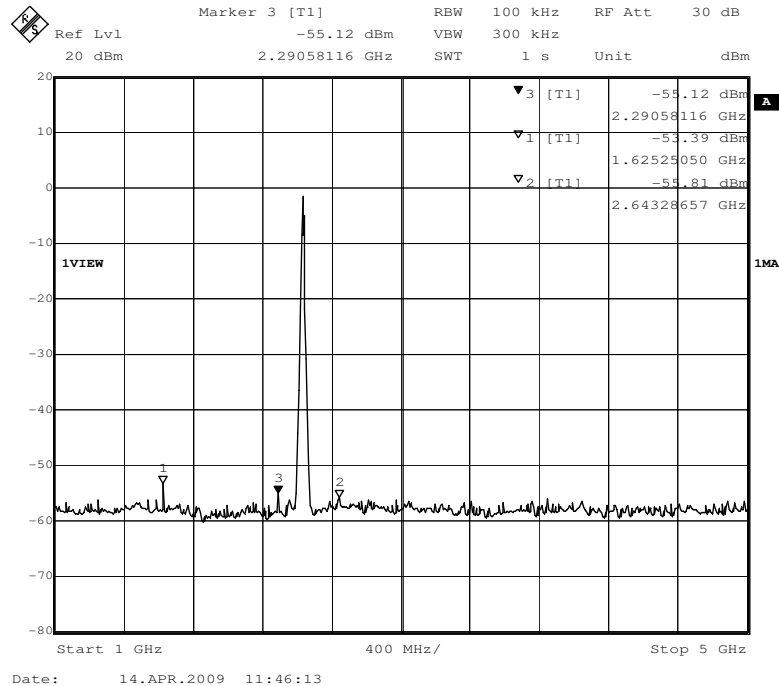
SGS-CSTC Standards Technical Services Co., Ltd.

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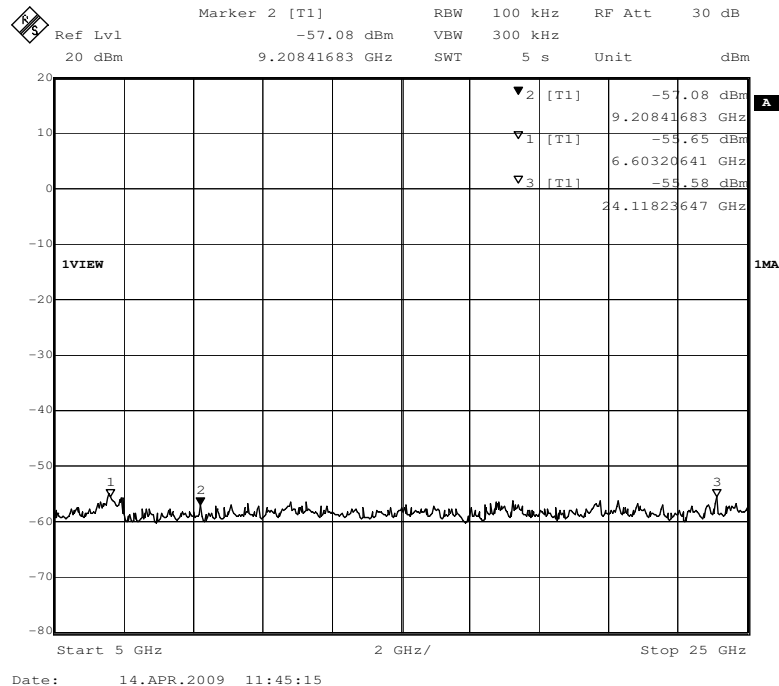
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FCC ID:S7INBPC1022

1G to 5GHz



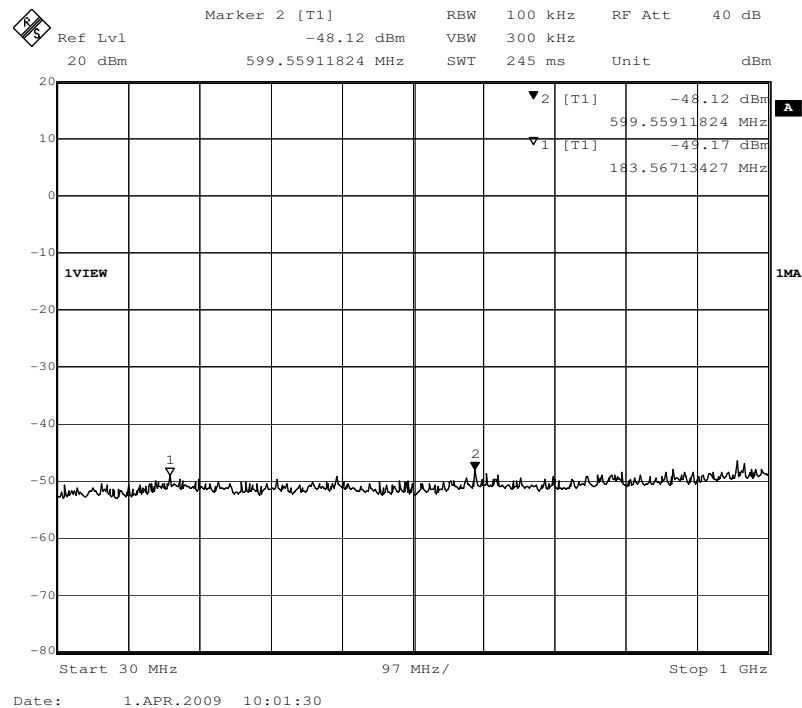
5G to 25GHz



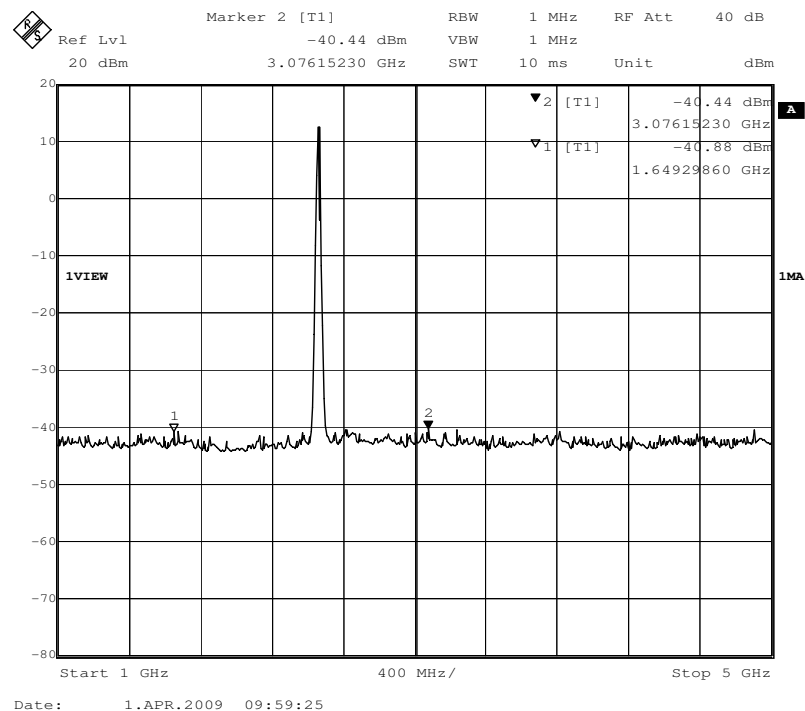


Highest Channel 2462MHz-802.11b mode with 1Mbps data rate:

30MHz to 1GHz



1G to 5GHz





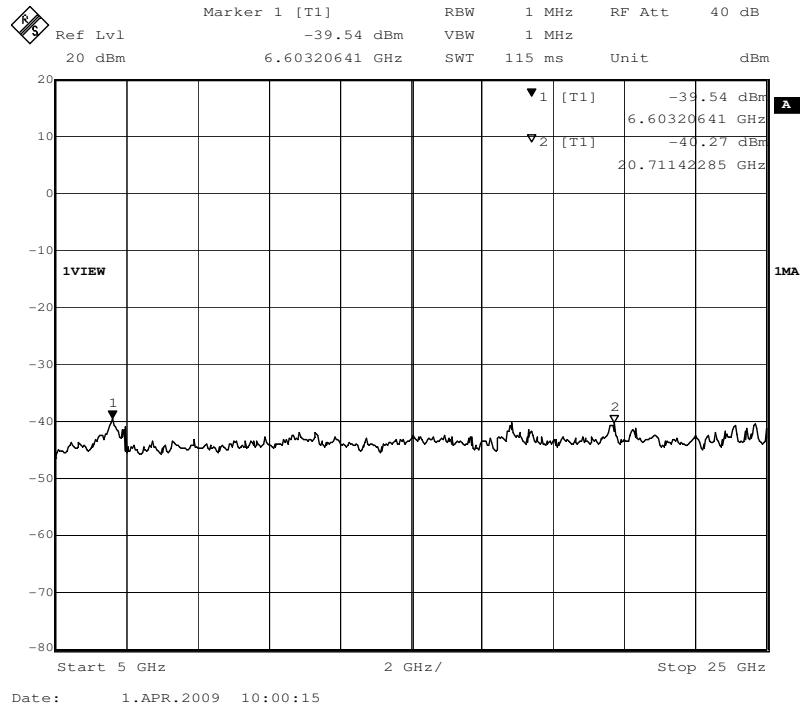
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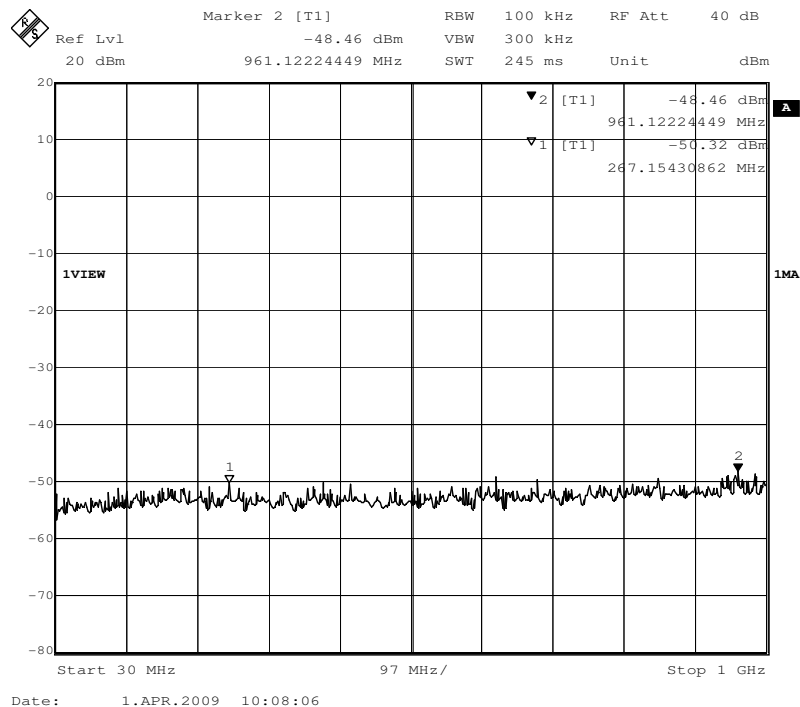
FCC ID:S7INBPC1022

5G to 25GHz



Lowest Channel 2412MHz-802.11g mode with 6Mbps data rate:

30M to 1GHz





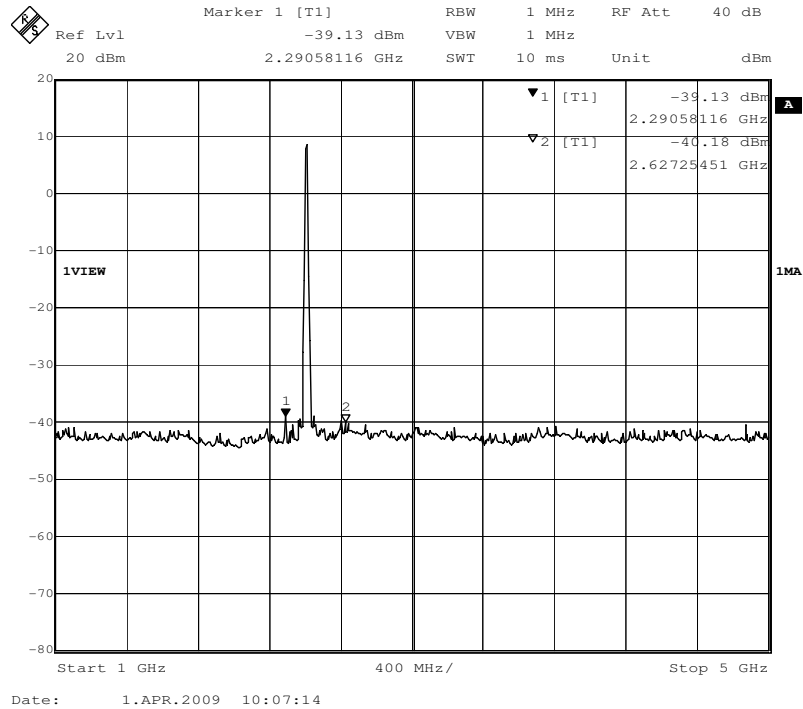
SGS-CSTC Standards Technical Services Co., Ltd.

Report No.: GLEMO090300654RFT

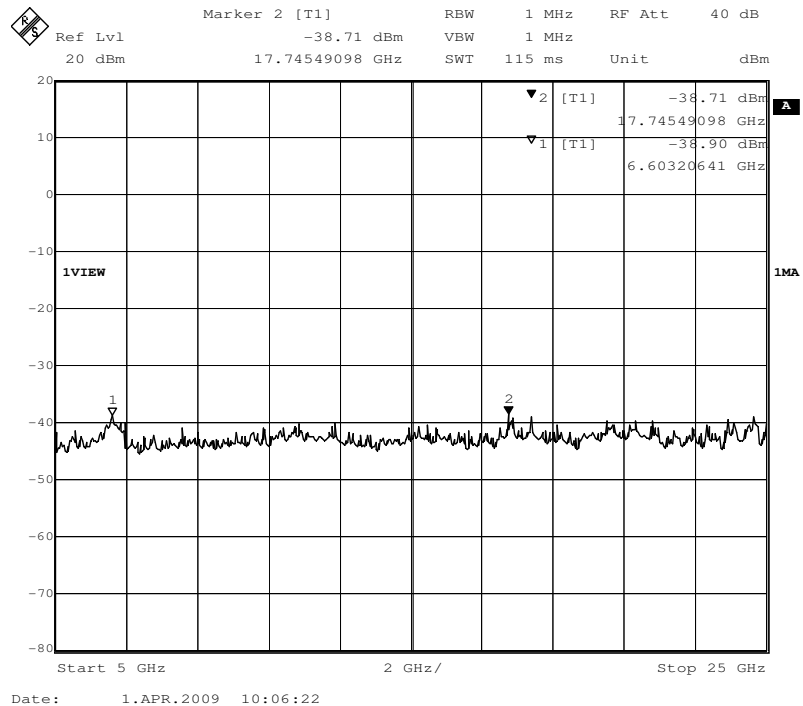
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FCC ID:S7INBPC1022

1G to 5GHz



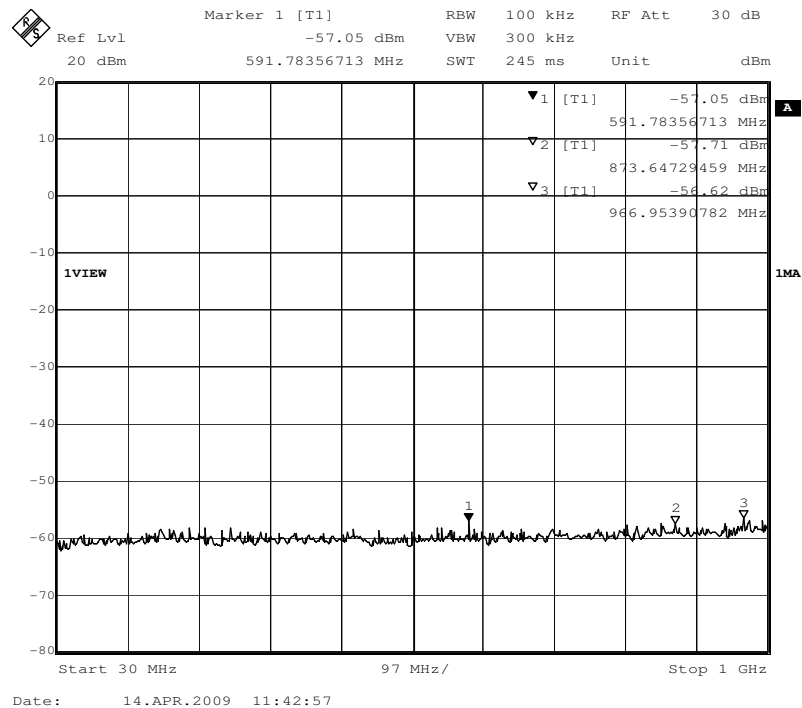
5G to 25GHz



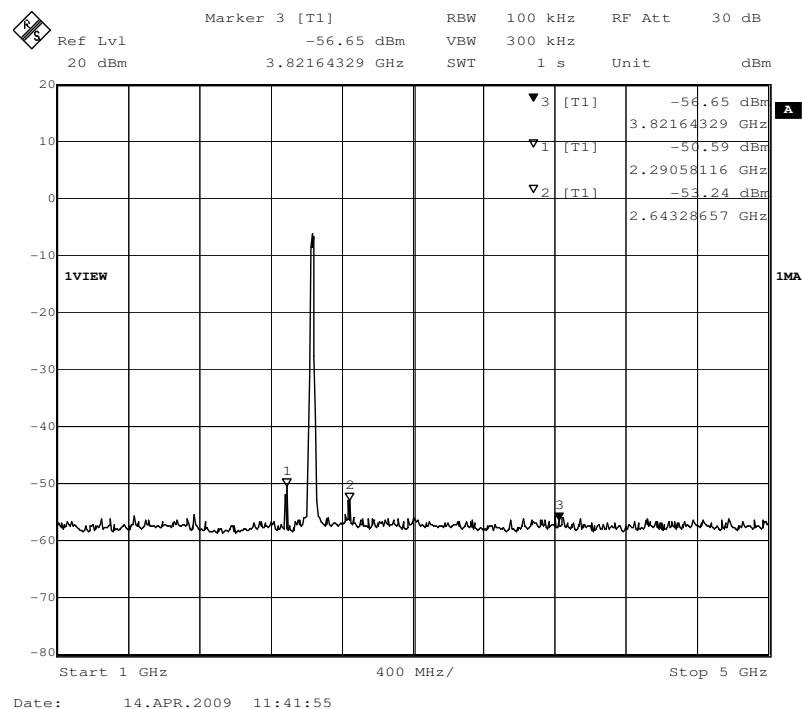


Middle Channel 2437MHz-802.11g mode with 6Mbps data rate:

30MHz to 1GHz



1G to 5GHz





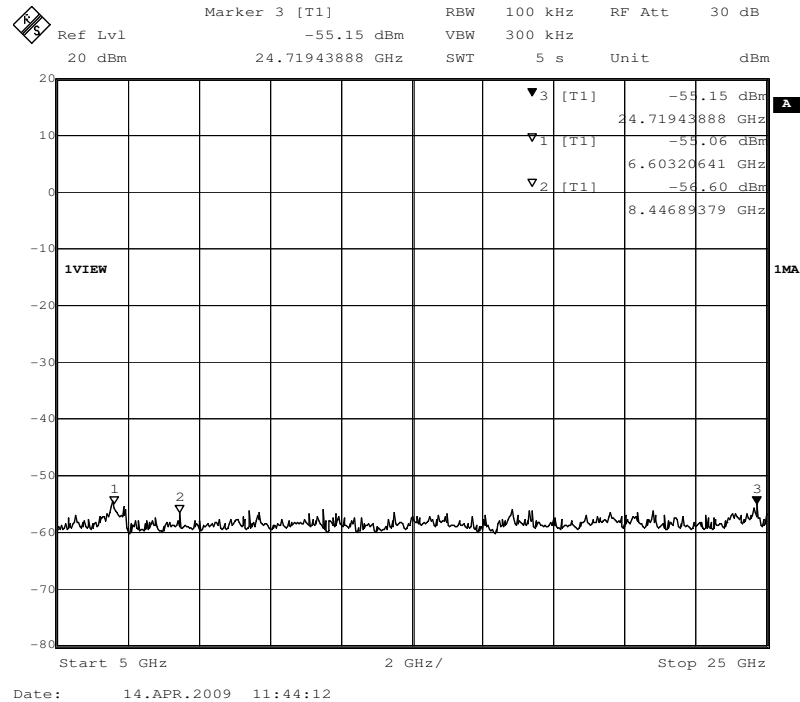
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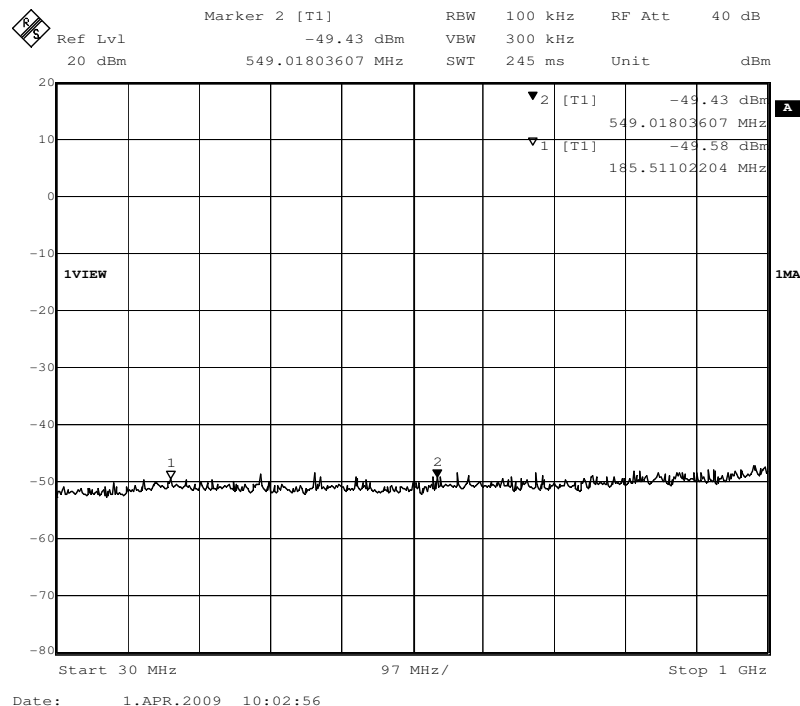
FCC ID:S7INBPC1022

5G to 25GHz



Highest Channel 2462MHz-802.11g mode with 6Mbps data rate:

30MHz to 1GHz





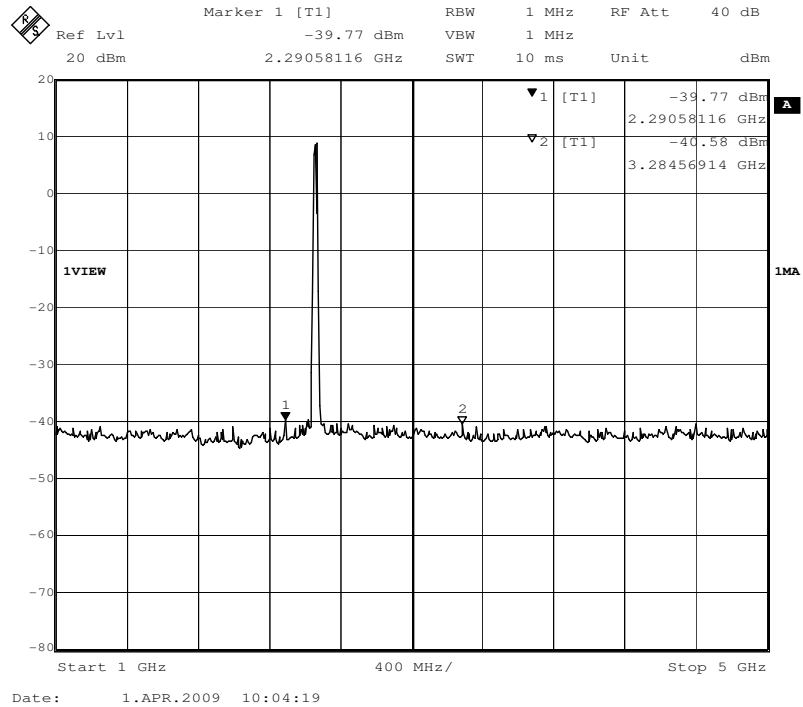
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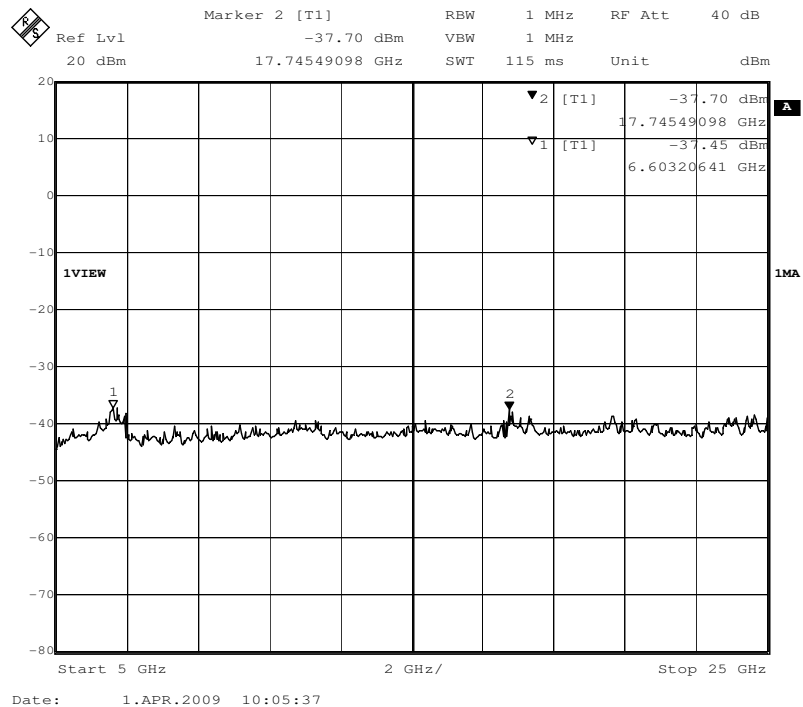
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FCC ID:S7INBPC1022

1G to 5GHz



5G to 25GHz





7.8 Radiated Spurious Emissions

Test Requirement:	FCC Part 15.247(d) & 15.209
15.209 Limit:	40.0 dB μ V/m between 30MHz & 88MHz 43.5 dB μ V/m between 88MHz & 216MHz 46.0 dB μ V/m between 216MHz & 960MHz 54.0 dB μ V/m above 960MHz
Test Method:	ANSI C63.4:2003 and KDB558074.
Test Date:	01 April 2009
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)

Test Procedure: The procedure used was ANSI Standard C63.4-2003. The receiver was scanned from 30MHz to 25GHz. When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. The worst case emissions were reported.

From 30MHz to 1GHz, read the Quasi-Peak field strength of the emissions with receiver QP detector RBW=120KHz.

Above 1GHz, read the Peak field strength and Average field strength.

Read the Peak field strength through RBW=1MHz, VBW=3MHz in spectrum analyzer setting;

Read the Average field strength through RBW=1MHz, VBW=10Hz in spectrum analyzer setting;

While maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the dwell time per channel of the hopping signal is less than 100 ms, then the average field strength reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from $20\log(\text{dwell time}/100 \text{ ms})$, in an effort to demonstrate compliance with the 15.209 limit.

Test Configuration:

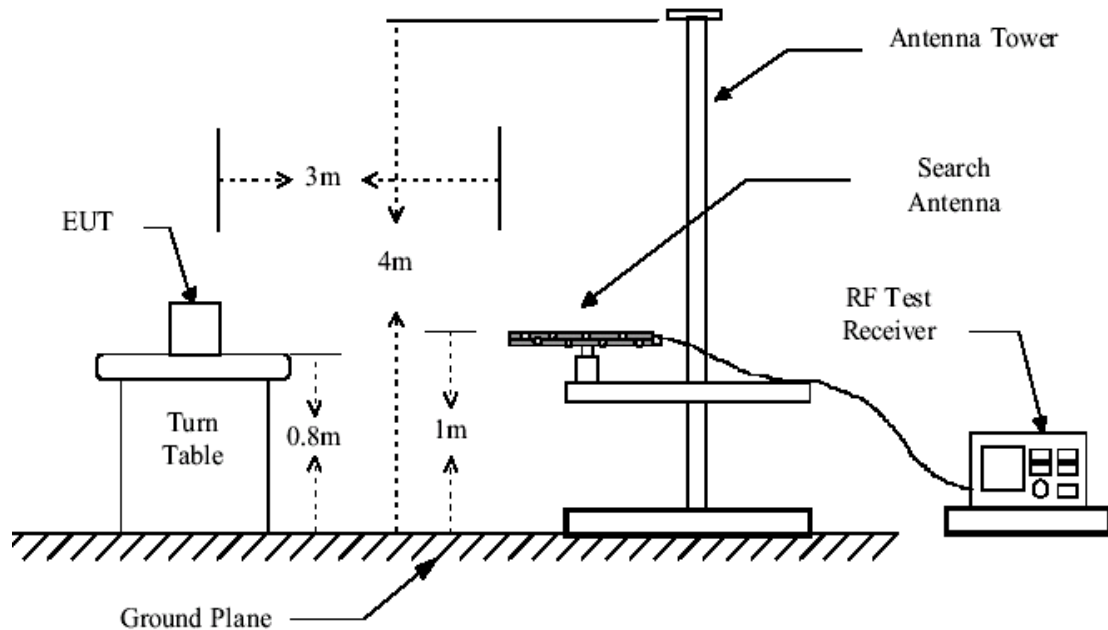


Figure 1. 30MHz to 1GHz radiated emissions test configuration

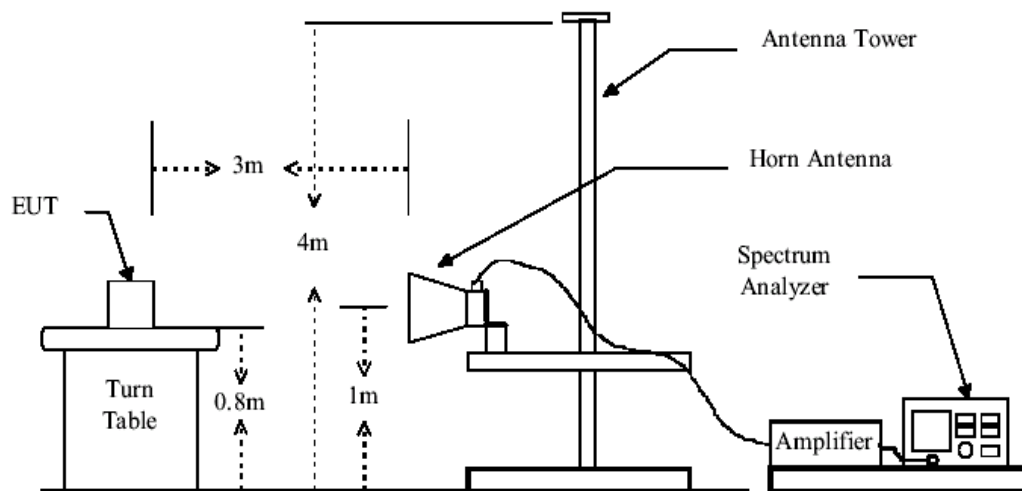


Figure 2. Above 1GHz radiated emissions test configuration



7.8.1 Harmonic and other spurious emissions

7.8.1.1 Test in 802.11b mode lowest channel 2412MHz with 1Mbps data rate:

30MHz~1GHz Spurious Emissions .Quasi-Peak Measurement

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamplifier factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
105.89	11.17	0.9	31.2	48.07	28.94	43.5	Vertical
117.05	11.58	0.9	31.2	45.62	26.9	43.5	V
133.79	11.41	1	31.2	47.77	28.98	43.5	V
173.56	8.44	1.18	31.18	50.18	28.62	43.5	V
288.02	12.53	1.5	31.1	51.59	34.52	46	V
314.55	13.2	1.6	31.16	54.02	37.66	46	V
50.03	8	0.7	31.2	41.39	18.89	40	Horizontal
105.66	11.17	0.9	31.2	45.55	26.42	43.5	H
136.39	11.17	1	31.2	44.84	25.81	43.5	H
144.01	10.64	1	31.2	49.34	29.78	43.5	H
166.01	8.97	1.1	31.1	53.4	32.37	43.5	H
225.09	9.3	1.3	31.2	53.02	32.42	46	H
50.03	8	0.7	31.2	41.39	18.89	40	H

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

Peak Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamplifier factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4824.000	33.19	6.9	33.01	51.12	58.2	74.00	Vertical
7236.000	36	8.36	32.2	40.11	52.27	74.00	V
9648.000	36.42	8.8	32.5	42.03	54.75	74.00	V
4824.000	33.19	6.9	33.01	45.01	52.09	74.00	Horizontal
7236.000	36.08	8.36	32.2	43.74	55.98	74.00	H
9648.000	36.4	8.8	32.5	50.77	63.47	74.00	H



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Average Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4824	33.19	6.9	33.01	20.58	27.66	54.00	Vertical
7236	36.05	8.36	32.2	23.63	35.84	54.00	V
9648	36.4	8.8	32.5	21.9	34.6	54.00	V
4824	33.19	6.9	33.01	37.05	44.13	54.00	Horizontal
7236	36.11	8.36	32.2	23.57	35.84	54.00	H
9648	36.42	8.8	32.5	23.11	35.83	54.00	H

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor.

7.8.1.2 Test in 802.11b mode middle channel 2442MHz with 1Mbps data rate:

30MHz~1GHz Spurious Emissions .Quasi-Peak Measurement

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
105.89	11.17	0.9	31.2	46.07	26.94	43.5	Vertical
117.05	11.58	0.9	31.2	45.62	26.9	43.5	V
133.79	11.41	1	31.2	47.17	28.38	43.5	V
173.56	8.44	1.18	31.18	50.08	28.52	43.5	V
288.02	12.53	1.5	31.1	51.99	34.92	46	V
314.55	13.2	1.6	31.16	54.32	37.96	46	V
50.03	8	0.7	31.2	40.39	17.89	40	Horizontal
105.66	11.17	0.9	31.2	44.55	25.42	43.5	H
136.39	11.17	1	31.2	43.84	24.81	43.5	H
144.01	10.64	1	31.2	46.34	26.78	43.5	H
166.01	8.97	1.1	31.1	50.4	29.37	43.5	H
225.09	9.3	1.3	31.2	51.02	30.42	46	H



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1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

Peak Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4884.000	33.27	7.20	32.97	51.05	58.55	74.00	Vertical
7326.000	36.16	6.95	32.29	37.18	48	74.00	V
9768.000	36.40	7.20	32.44	38.94	50.1	74.00	V
4884.000	33.27	7.20	32.97	50.81	58.31	74.00	Horizontal
7326.000	36.16	6.95	32.29	37.45	48.27	74.00	H
9768.000	36.40	7.20	32.44	38.69	49.85	74.00	H

Average Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4884.000	33.27	7.20	32.97	43.15	50.65	54.00	Vertical
7326.000	36.16	6.95	32.29	22.49	33.31	54.00	V
9768.000	36.40	7.20	32.44	23.96	35.12	54.00	V
4884.000	33.27	7.20	32.97	45.78	53.28	54.00	Horizontal
7326.000	36.16	6.95	32.29	22.95	33.77	54.00	H
9768.000	36.40	7.20	32.44	22.32	33.48	54.00	H

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.



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7.8.1.3 Test in 802.11b mode highest channel 2472MHz with 1Mbps data rate:

30MHz~1GHz Spurious Emissions .Quasi-Peak Measurement

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
105.89	11.17	0.9	31.2	45.14	26.01	43.5	Vertical
117.05	11.58	0.9	31.2	46.61	27.89	43.5	V
133.79	11.41	1	31.2	48.12	29.33	43.5	V
173.56	8.44	1.18	31.18	51.18	29.62	43.5	V
288.02	12.53	1.5	31.1	50.90	33.83	46	V
314.55	13.2	1.6	31.16	53.33	36.97	46	V
50.03	8	0.7	31.2	40.34	17.84	40	Horizontal
105.66	11.17	0.9	31.2	43.51	24.38	43.5	H
136.39	11.17	1	31.2	44.84	25.81	43.5	H
144.01	10.64	1	31.2	47.43	27.87	43.5	H
166.01	8.97	1.1	31.1	50.44	29.41	43.5	H
225.09	9.3	1.3	31.2	51.02	30.42	46	H

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

Peak Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4944.000	33.36	7.33	32.92	50.60	58.37	74.00	Vertical
7416.000	36.23	6.05	32.37	39.90	49.81	74.00	V
9888.000	36.50	7.04	32.50	40.60	51.64	74.00	V
4944.000	33.36	7.33	32.92	50.90	58.67	74.00	Horizontal
7416.000	36.23	6.05	32.37	40.31	50.22	74.00	H
9888.000	36.50	7.04	32.50	42.01	53.05	74.00	H



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Average Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4944.000	33.36	7.33	32.92	43.02	50.79	54.00	Vertical
7416.000	36.23	6.05	32.37	24.64	34.55	54.00	V
9888.000	36.50	7.04	32.50	24.04	35.08	54.00	V
4944.000	33.36	7.33	32.92	43.05	50.82	54.00	Horizontal
7416.000	36.23	6.05	32.37	34.80	44.71	54.00	H
9888.000	36.50	7.04	32.50	32.30	43.34	54.00	H

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor.

7.8.1.4 Test in 802.11g mode lowest channel 2412MHz with 6Mbps data rate:

30MHz~1GHz Spurious Emissions .Quasi-Peak Measurement

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
105.89	11.17	0.9	31.2	48.07	28.94	43.5	Vertical
117.05	11.58	0.9	31.2	45.62	26.9	43.5	V
133.79	11.41	1	31.2	47.77	28.98	43.5	V
173.56	8.44	1.18	31.18	50.18	28.62	43.5	V
288.02	12.53	1.5	31.1	51.59	34.52	46	V
314.55	13.2	1.6	31.16	54.02	37.66	46	V
50.03	8	0.7	31.2	41.39	18.89	40	Horizontal
105.66	11.17	0.9	31.2	45.55	26.42	43.5	H
136.39	11.17	1	31.2	44.84	25.81	43.5	H
144.01	10.64	1	31.2	49.34	29.78	43.5	H
166.01	8.97	1.1	31.1	53.4	32.37	43.5	H
225.09	9.3	1.3	31.2	53.02	32.42	46	H



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1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

Peak Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4824.000	33.19	6.90	33.01	51.42	58.5	74.00	Vertical
7236.000	36.00	8.36	32.20	40.51	52.67	74.00	V
9648.000	36.42	8.80	32.50	41.03	53.75	74.00	V
4824.000	33.19	6.90	33.01	44.01	51.09	74.00	Horizontal
7236.000	36.08	8.36	32.20	40.74	52.98	74.00	H
9648.000	36.40	8.80	32.50	35.77	48.47	74.00	H

Average Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4824.000	33.19	6.90	33.01	36.38	43.46	54.00	Vertical
7236.000	36.05	8.36	32.20	23.73	35.94	54.00	V
9648.000	36.40	8.80	32.50	21.97	34.67	54.00	V
4824.000	33.19	6.90	33.01	37.08	44.16	54.00	Horizontal
7236.000	36.11	8.36	32.20	23.27	35.54	54.00	H
9648.000	36.42	8.80	32.50	23.31	36.03	54.00	H

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.



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7.8.1.5 Test in 802.11g mode middle channel 2442MHz with 6Mbps data rate:

30MHz~1GHz Spurious Emissions .Quasi-Peak Measurement

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
105.89	11.17	0.9	31.2	46.07	26.94	43.5	Vertical
117.05	11.58	0.9	31.2	45.62	26.9	43.5	V
133.79	11.41	1	31.2	47.17	28.38	43.5	V
173.56	8.44	1.18	31.18	50.08	28.52	43.5	V
288.02	12.53	1.5	31.1	51.99	34.92	46	V
314.55	13.2	1.6	31.16	54.32	37.96	46	V
50.03	8	0.7	31.2	40.39	17.89	40	Horizontal
105.66	11.17	0.9	31.2	44.55	25.42	43.5	H
136.39	11.17	1	31.2	43.84	24.81	43.5	H
144.01	10.64	1	31.2	46.34	26.78	43.5	H
166.01	8.97	1.1	31.1	50.4	29.37	43.5	H
225.09	9.3	1.3	31.2	51.02	30.42	46	H

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

Peak Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4884.000	33.27	7.20	32.97	41.05	48.55	74.00	Vertical
7326.000	36.16	6.95	32.29	35.18	46.00	74.00	V
9768.000	36.40	7.20	32.44	34.94	46.10	74.00	V
4884.000	33.27	7.20	32.97	51.81	59.31	74.00	Horizontal
7326.000	36.16	6.95	32.29	38.45	49.27	74.00	H
9768.000	36.40	7.20	32.44	39.69	50.85	74.00	H



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Average Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4884.000	33.27	7.20	32.97	41.15	48.65	54.00	Vertical
7326.000	36.16	6.95	32.29	23.49	34.31	54.00	V
9768.000	36.40	7.20	32.44	24.96	36.12	54.00	V
4884.000	33.27	7.20	32.97	45.88	53.38	54.00	Horizontal
7326.000	36.16	6.95	32.29	23.95	34.77	54.00	H
9768.000	36.40	7.20	32.44	24.32	35.48	54.00	H

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor.

7.8.1.6 Test in 802.11g mode highest channel 2472MHz with 6Mbps data rate:

30MHz~1GHz Spurious Emissions .Quasi-Peak Measurement

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
105.89	11.17	0.9	31.2	45.14	26.01	43.5	Vertical
117.05	11.58	0.9	31.2	46.61	27.89	43.5	V
133.79	11.41	1	31.2	48.12	29.33	43.5	V
173.56	8.44	1.18	31.18	51.18	29.62	43.5	V
288.02	12.53	1.5	31.1	50.90	33.83	46	V
314.55	13.2	1.6	31.16	53.33	36.97	46	V
50.03	8	0.7	31.2	40.34	17.84	40	Horizontal
105.66	11.17	0.9	31.2	43.51	24.38	43.5	H
136.39	11.17	1	31.2	44.84	25.81	43.5	H
144.01	10.64	1	31.2	47.43	27.87	43.5	H
166.01	8.97	1.1	31.1	50.44	29.41	43.5	H
225.09	9.3	1.3	31.2	51.02	30.42	46	H



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1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

Peak Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4944.000	33.36	7.33	32.92	49.62	57.39	74.00	Vertical
7416.000	36.23	6.05	32.37	40.99	50.90	74.00	V
9888.000	36.50	7.04	32.50	41.66	52.70	74.00	V
4944.000	33.36	7.33	32.92	51.93	59.70	74.00	Horizontal
7416.000	36.23	6.05	32.37	46.32	56.23	74.00	H
9888.000	36.50	7.04	32.50	41.03	52.07	74.00	H

Average Measurement:

Frequency (MHz)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Reading Level (dBμV)	Emission Level (dBμV/m)	Limit (dBμV/m)	Antenna polarization
4944.000	33.36	7.33	32.92	40.06	47.83	54.00	Vertical
7416.000	36.23	6.05	32.37	26.69	36.60	54.00	V
9888.000	36.50	7.04	32.50	29.02	40.06	54.00	V
4944.000	33.36	7.33	32.92	40.07	47.84	54.00	Horizontal
7416.000	36.23	6.05	32.37	34.45	44.36	54.00	H
9888.000	36.50	7.04	32.50	32.74	43.78	54.00	H

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

Remark: No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



Remark:

- 1). N/A: For this intentional radiator operates below 25 GHz. The spectrum shall be investigated to the tenth harmonic of the highest fundamental frequency. And above the third harmonic of this intentional radiator, the disturbance is very low. So the test result only displays to 3rd harmonic.
- 2). As shown in Section, for frequencies above 1000 MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.
- 3). The test only perform the EUT in transmitting status since the test frequencies were over 1GHz only required transmitting status.

Test result: The unit does meet the FCC requirements.



7.8.2 Radiated Emissions which fall in the restricted bands

Test Requirement:	Section 15.247(d) In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).
Test Method:	ANSI 63.4:2003
Test Date:	01 April 2009
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Limit:	40.0 dB μ V/m between 30MHz & 88MHz; 43.5 dB μ V/m between 88MHz & 216MHz; 46.0 dB μ V/m between 216MHz & 960MHz; 54.0 dB μ V/m above 960MHz.

Section 15.205 Restricted bands of operation.

(a) Except as shown in paragraph (d) of this section. only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	
13.36 - 13.41	322 - 335.4		



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Test Result:

1. Low Channel

Frequency (MHz)	Antenna factors (dB/m)	Cable loss(dB)	Preamp factor(dB)	Peak Reading Level (dBμV)	Average Reading Level (dBμV)	Peak Emission Level (dBμV/m)	Average Emission Level (dBμV/m)
2390.000	27.88	4.65	34.30	50.5	31.2	48.73	29.43
2483.500	28.74	4.80	34.73	52.4	34.0	51.21	32.81

2. Middle Channel

Frequency (MHz)	Antenna factors (dB/m)	Cable loss(dB)	Preamp factor(dB)	Peak Reading Level (dBμV)	Average Reading Level (dBμV)	Peak Emission Level (dBμV/m)	Average Emission Level (dBμV/m)
2390.000	27.88	4.65	34.30	50.0	32.8	48.23	31.03
2483.500	28.74	4.80	34.73	52.1	31.2	50.91	30.01

3. High Channel

Frequency (MHz)	Antenna factors (dB/m)	Cable loss(dB)	Preamp factor(dB)	Peak Reading Level (dBμV)	Average Reading Level (dBμV)	Peak Emission Level (dBμV/m)	Average Emission Level (dBμV/m)
2390.000	27.88	4.65	34.30	51.1	33.6	49.33	31.83
2483.500	28.74	4.80	34.73	53.0	32.0	51.81	30.81

Remark: No any other emission which falls in restricted bands can be detected and be reported.

The unit does meet the FCC requirements.



7.9 Band Edges Requirement

Test Requirement:	FCC Part 15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.
Frequency Band:	2400MHz to 2483.5MHz
Test Method:	ANSI C63.4:2003 and KDB558074.
Test Date:	01 April 2009
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Procedure:	1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer or power meter. 2. Set RBW=100 kHz , VBW=100KHz ,suitable frequency span including 100 kHz bandwidth from band edge.. 3. Measure the Conducted Spurious Emissions and Radiated Emissions of the test frequency with special test status. 4. Repeat until all the test status are investigated. 5. Report the worse.

Test result with plots as follows:



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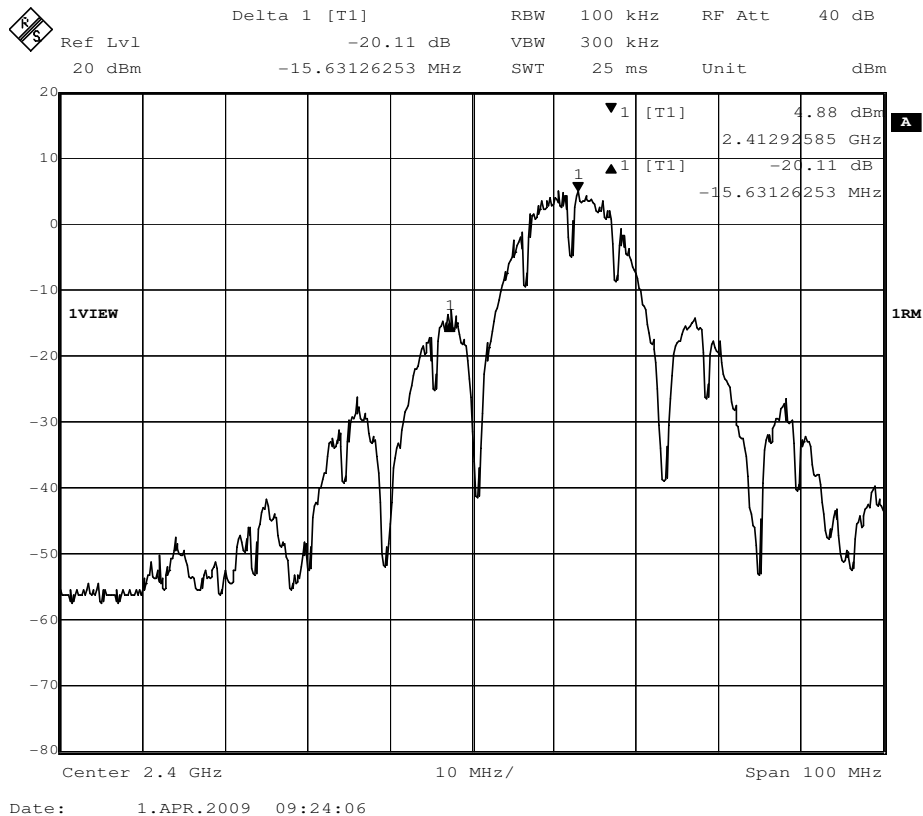
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The band edges was measured and recorded Result:

The Lower Edges attenuated more than 20dB.

The Upper Edges attenuated more than 20dB.

802.11b mode: Lower edge, lowest channel 2412MHz with 1Mbps data rates





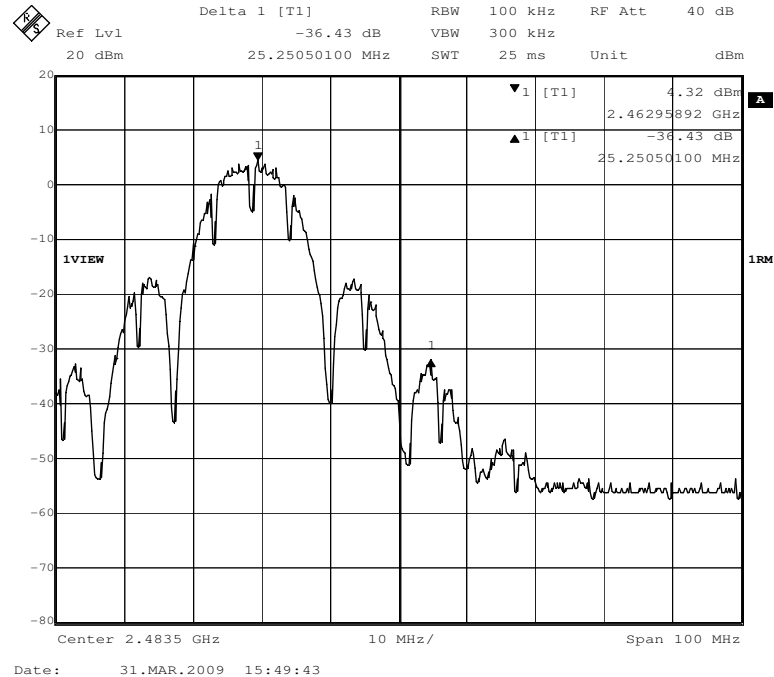
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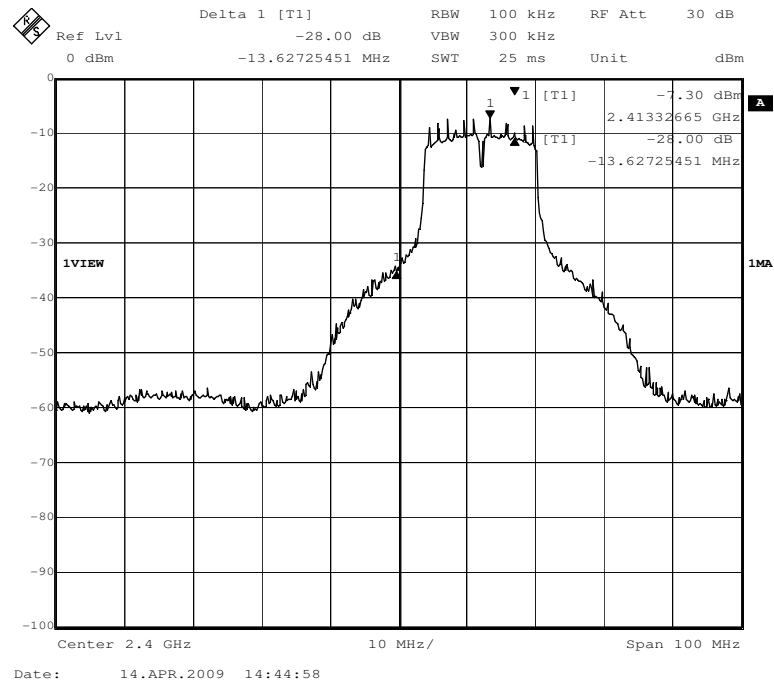
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802.11b mode: Higher edge, lowest channel 2462MHz with 1Mbps data rates



802.11g mode: Lower edge, lowest channel 2412MHz with 6Mbps data rates

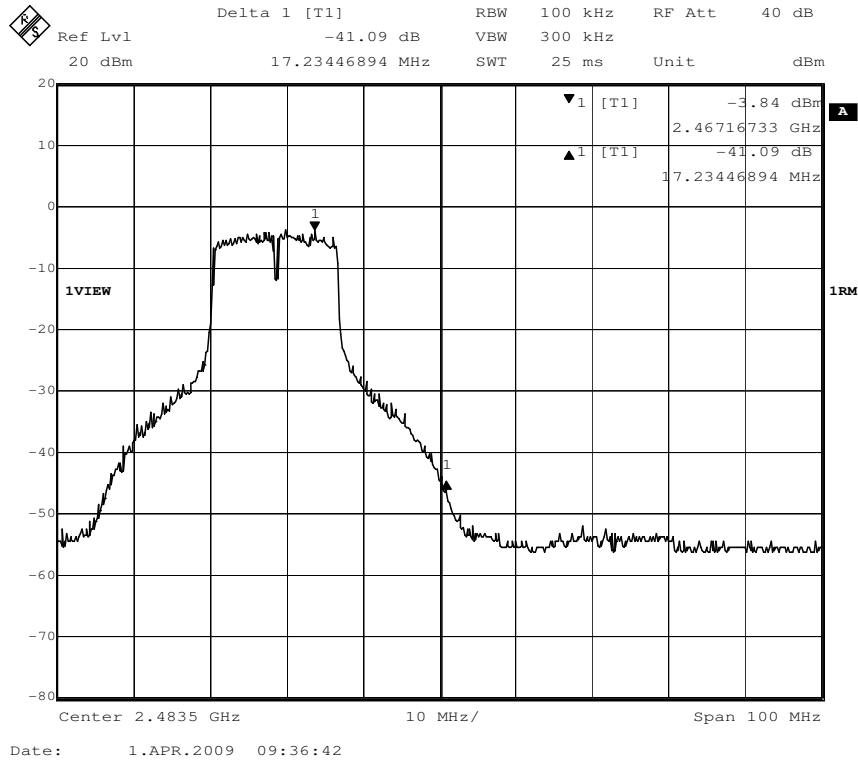




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802.11g mode: Higher edge, lowest channel 2462MHz with 6Mbps data rates



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