

FCC 47 CFR PART 15 SUBPART C

Product Type : Smartphone
Applicant : HTC Corporation
Address : No. 23, Xinghua Rd., Taoyuan City, Taoyuan County
330, Taiwan
Trade Name : HTC
Model Number : PB76110
Test Specification : FCC 47 CFR PART 15 SUBPART C: Oct, 2009
ANSI C63.4-2003
Issue Date : Mar. 31, 2010

Issue by

A Test Lab Techno Corp.
No. 140-1, Changan Street, Bade City,
Taoyuan Country 334, Taiwan R.O.C.
Tel : +86-3-2710188 / Fax : +86-3-2710190



Taiwan Accreditation Foundation accreditation number: 1330

Note: This report shall not be reproduced except in full, without the written approval of A Test Lab Techno Corp. This document may be altered or revised by A Test Lab Techno Corp. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by TAF, or any government agencies. The test results in the report only apply to the tested sample.

Revision History

Rev.	Issue Date	Revisions	Revised By
00	Mar. 31, 2010	Initial Issue	

Verification

Issued Date: 2010/03/30

Product Type : Smartphone
Applicant : HTC Corporation
Address : No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330,
Taiwan
Trade Name : HTC
Model Number : PB76110
FCC ID : NM8PB76110
EUT Rated Voltage : DC 5.0V, 1.0A
Test Voltage : 120 Vac / 60 Hz
Applicable : FCC 47 CFR PART 15 SUBPART C: Oct, 2009
Standard : ANSI C63.4-2003
Test Result : Complied
Performed Lab. : A Test Lab Techno Corp.

No. 140-1, Changan Street, Bade City,
Taoyuan Country 334, Taiwan R.O.C.


Tel : +86-3-2710188 / Fax : +86-3-2710190

Taiwan Accreditation Foundation accreditation number:
1330

<http://www.atl-lab.com.tw/e-index.htm>



The above equipment has been tested by A Test Lab Techno Corp., and found compliance with the requirements set forth in the Electromagnetic Compatibility Directive 2004/108/EC and technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved By : 
(Manager) (Miller Lee)

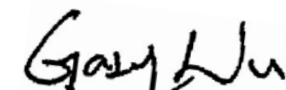
Reviewed By : 
(Testing Engineer) (Gary Wu)

TABLE OF CONTENTS

1	General Information.....	6
2	EUT Description.....	7
3	Test Methodology	8
3.1.	Mode of Operation	8
3.2.	EUT Exercise Software.....	8
3.3.	Configuration of Test System Details	9
3.4.	Test Site Environment.....	9
4	Conducted Emission Measurement.....	10
4.1.	Limit	10
4.2.	Test Instruments.....	10
4.3.	Test Setup	10
4.4.	Test Procedure.....	11
4.5.	Test Result	12
5	Radiated Interference Measurement.....	28
5.1.	Limit	28
5.2.	Test Instruments.....	28
5.3.	Setup.....	29
5.4.	Test Procedure.....	29
5.5.	Test Result	31
6	Maximum Conducted Output Power Measurement	47
6.1.	Limit	47
6.2.	Test Setup	47
6.3.	Test Instruments.....	47
6.4.	Test Procedure.....	47
6.5.	Test Result	48
7	6dB RF Bandwidth Measurement.....	49
7.1.	Limit	49
7.2.	Test Setup	49
7.3.	Test Instruments.....	49
7.4.	Test Procedure.....	49
7.5.	Test Result	50
7.6.	Test Graphs.....	51

8	Maximum Power Density Measurement.....	53
8.1.	Limit	53
8.2.	Test Setup	53
8.3.	Test Instruments.....	53
8.4.	Test Procedure.....	53
8.5.	Test Result	54
8.6.	Test Graphs.....	55
9	Out of Band Conducted Emissions Measurement	57
9.1.	Limit	57
9.2.	Test Setup	57
9.3.	Test Instruments.....	57
9.4.	Test Procedure.....	57
9.5.	Test Result	58
9.6.	Test Graphs.....	59
10	Band Edges Measurement.....	65
10.1.	Limit	65
10.2.	Test Setup	65
10.3.	Test Instruments.....	65
10.4.	Test Procedure.....	66
10.5.	Test Graphs.....	67
11	Antenna Measurement	75
11.1.	Limit	75
11.2.	Antenna Connector Construction.....	75

1 General Information

1.1 Summary of Test Result

Standard		Item	Result	Remark
15.247	RSS-GEN			
15.207	7.2.2	AC Power Conducted Emission	PASS	-----
-----	6	Receiver Radiated Emissions	PASS	-----
Standard		Item	Result	Remark
15.247	RSS-210			
15.247(d)	A8.5	Transmitter Radiated Emissions	PASS	-----
15.247(b)(3)	A8.4	Max. Output Power	PASS	-----
15.247(a)(2)	A8.2 (a)	6dB RF Bandwidth	PASS	-----
15.247(e)	A8.2 (b)	Power Spectral Density	PASS	-----
15.247(c)	A8.5	Out of Band Conducted Spurious Emission	PASS	-----
15.247(d)	A8.5	Band Edge Measurement	PASS	-----
15.247(c)	A8.5	Occupied Bandwidth Measurement	PASS	-----
15.203	-	Antenna Requirement	PASS	-----

The test results of this report relate only to the tested sample(s) identified in this report. Manufacturer or whom it may concern should recognize the pass or fail of the test result.

1.2 Measurement Uncertainty

Conducted Emission

The measurement uncertainty is evaluated as ± 2.24 dB.

Radiated Emission

The measurement uncertainty of 30 MHz - 1GHz is evaluated as ± 3.072 dB.

2 EUT Description

Product	:	Smartphone
Trade Name	:	HTC
Model No.	:	PB76110
Applicant	:	HTC Corporation No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan
Manufacturer	:	HTC Corporation No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan
FCC ID	:	NM8PB76110
Frequency Range	:	2412 ~ 2462 MHz
Modulation Type	:	IEEE 802.11b:DSSS(CCK, DQPSK, DBPSK) IEEE 802.11g:DSSS(CCK, DQPSK, DBPSK)+ OFDM(QPSK, BPSK, 16-QAM, 64-QAM)
Antenna Type	:	PIFA Type
Antenna Gain	:	0.8 dBi
RF Output Power	:	IEEE 802.11b: 24.66 dBm / 0.292 W IEEE 802.11g: 24.74 dBm / 0.298 W

3 Test Methodology

3.1. Mode of Operation

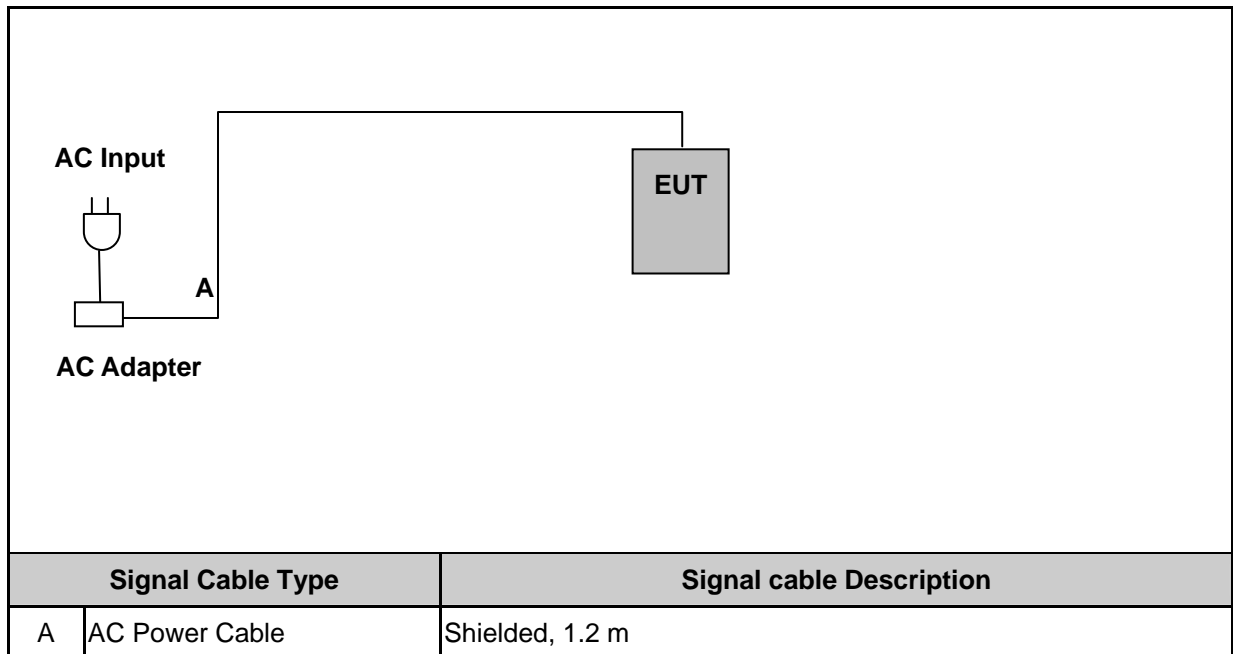
Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Pre-Test Mode	
1.	Mode 1: IDLE Mode
2.	Mode 2: Normal Operation Mode
3.	Mode 3: IEEE 802.11b Link Mode
4.	Mode 4: IEEE 802.11g Link Mode
Final-Test Mode	
1.	Mode 1: IDLE Mode
2.	Mode 2: Normal Operation Mode
3.	Mode 3: IEEE 802.11b Link Mode
4.	Mode 4: IEEE 802.11g Link Mode

3.2. EUT Exercise Software

1.	Setup the EUT shown on 3.3.
2.	Turn on the power of all equipment.
3.	Turn on Wi-Fi function link to AP.
4.	EUT run test program.

3.3. Configuration of Test System Details



3.4. Test Site Environment

Items	Required (IEC 68-1)	Actual
Temperature (°C)	15-35	25
Humidity (%RH)	25-75	50
Barometric pressure (mbar)	860-1060	950-1000

4 Conducted Emission Measurement

4.1. Limit

Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

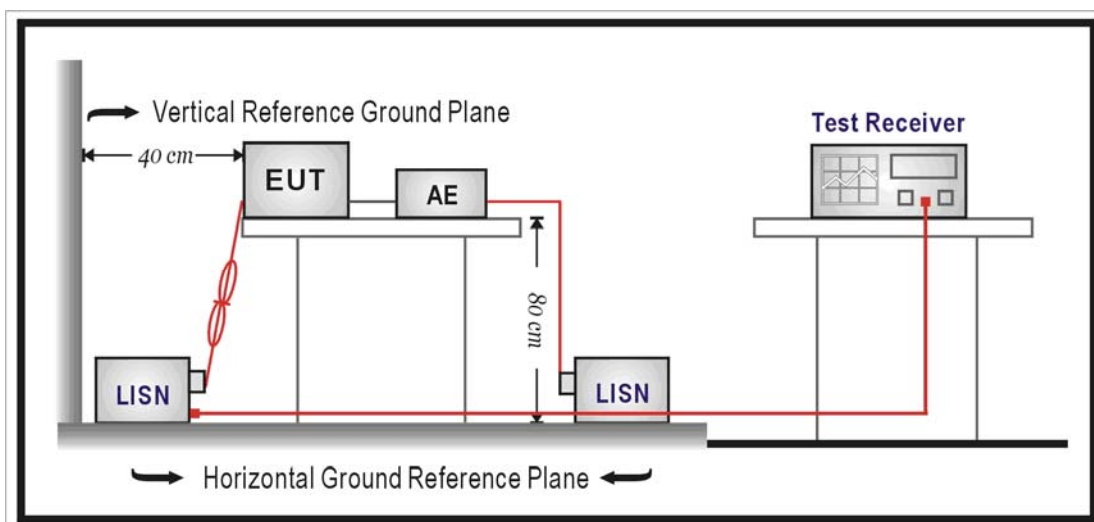
4.2. Test Instruments

Describe	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Test Receiver	R&S	ESCI	100367	07/01/2009	(1)
LISN	R&S	ENV216	101040	03/02/2010	(1)
LISN	R&S	ENV216	101041	03/02/2010	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

4.3. Test Setup



4.4. Test Procedure

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3162/2 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 4.1.

4.5. Test Result

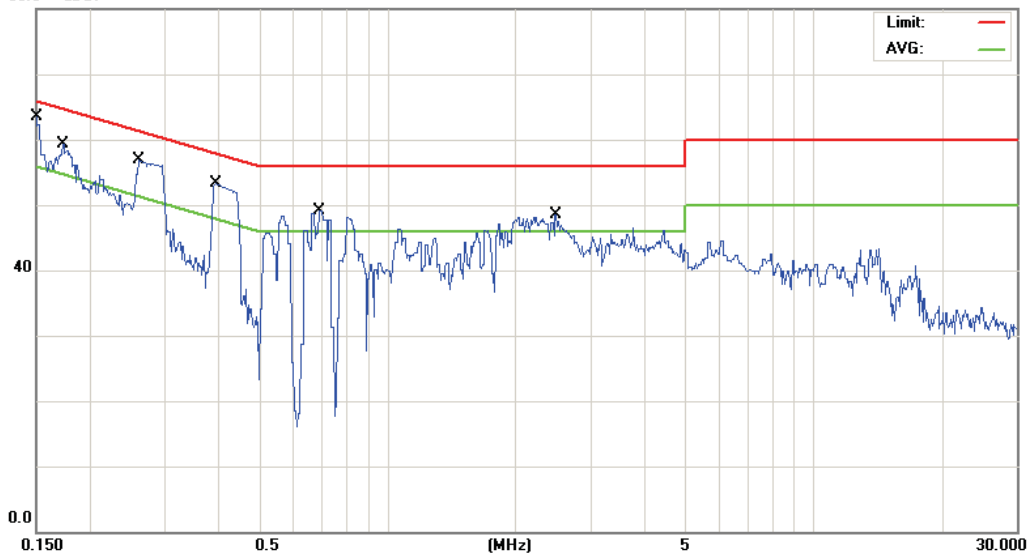
File :10-0084-SE(IDLE)1

Data :#1

Date: 2010/03/21

Time: 下午 05:24:48

80.0 dBuV



Site : Conducted

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #1

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	*	0.1500	49.20	10.11	59.31	65.99	-6.68	QP	
2		0.1500	27.60	10.11	37.71	55.99	-18.28	AVG	
3		0.1731	41.20	10.10	51.30	64.81	-13.51	QP	
4		0.1731	12.50	10.10	22.60	54.81	-32.21	AVG	
5		0.2606	42.10	10.06	52.16	61.41	-9.25	QP	
6		0.2606	22.00	10.06	32.06	51.41	-19.35	AVG	
7		0.3943	38.50	10.00	48.50	57.97	-9.47	QP	
8		0.3943	20.10	10.00	30.10	47.97	-17.87	AVG	
9		0.6980	34.20	9.87	44.07	56.00	-11.93	QP	
10		0.6980	15.90	9.87	25.77	46.00	-20.23	AVG	
11		2.4800	33.00	9.77	42.77	56.00	-13.23	QP	
12		2.4800	20.90	9.77	30.67	46.00	-15.33	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

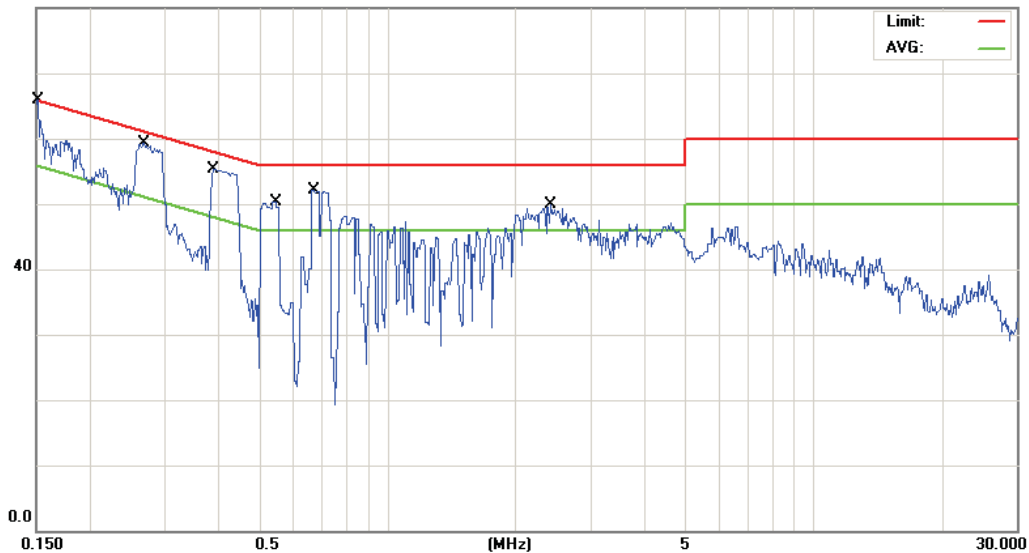
File :10-0084-SE(IDLE)1

Data :#2

Date: 2010/03/21

Time: 下午 05:42:10

80.0 dBuV



Site : Conducted

Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #1

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1514	48.90	10.10	59.00	65.92	-6.92	QP	
2	0.1514	25.40	10.10	35.50	55.92	-20.42	AVG	
3 *	0.2676	44.60	10.04	54.64	61.19	-6.55	QP	
4	0.2676	25.10	10.04	35.14	51.19	-16.05	AVG	
5	0.3887	38.40	10.00	48.40	58.09	-9.69	QP	
6	0.3887	14.10	10.00	24.10	48.09	-23.99	AVG	
7	0.5450	35.20	9.94	45.14	56.00	-10.86	QP	
8	0.5450	11.70	9.94	21.64	46.00	-24.36	AVG	
9	0.6710	36.80	9.88	46.68	56.00	-9.32	QP	
10	0.6710	13.80	9.88	23.68	46.00	-22.32	AVG	
11	2.4170	31.80	9.76	41.56	56.00	-14.44	QP	
12	2.4170	14.00	9.76	23.76	46.00	-22.24	AVG	

*:Maximum data x:Over limit !:over margin

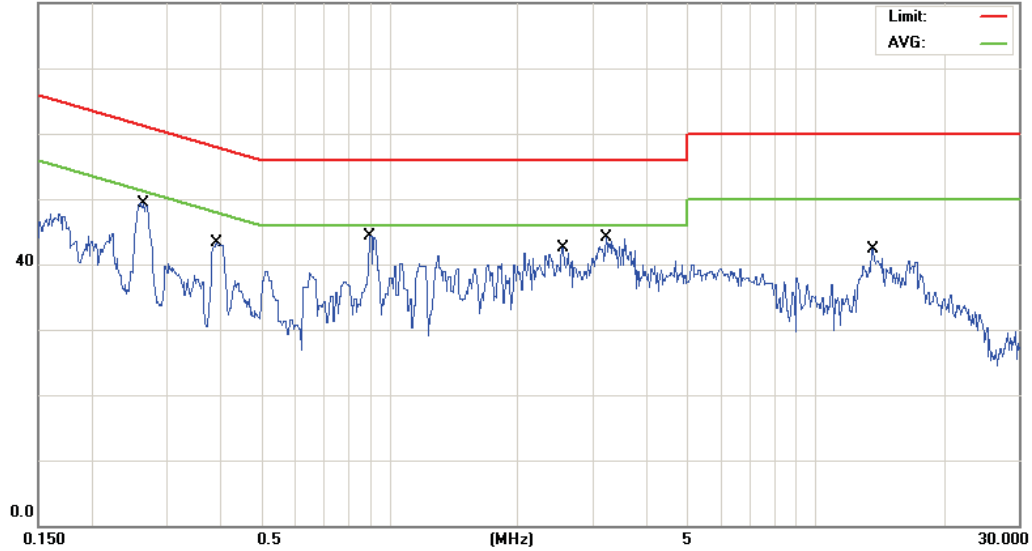
●Reference Only

File :10-0084-SE(IDLE)3
80.0 dBuV

Data :#1

Date: 2010/03/21

Time: 下午 05:33:39



Site : Conducted

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #2

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.2641	35.10	10.05	45.15	61.30	-16.15	QP	
2	0.2641	25.60	10.05	35.65	51.30	-15.65	AVG	
3	0.3922	29.40	10.00	39.40	58.02	-18.62	QP	
4	0.3922	14.80	10.00	24.80	48.02	-23.22	AVG	
5	0.9050	30.10	9.80	39.90	56.00	-16.10	QP	
6	0.9050	19.80	9.80	29.60	46.00	-16.40	AVG	
7	2.5430	29.00	9.78	38.78	56.00	-17.22	QP	
8	2.5430	18.30	9.78	28.08	46.00	-17.92	AVG	
9	3.2180	31.40	9.82	41.22	56.00	-14.78	QP	
10 *	3.2180	22.00	9.82	31.82	46.00	-14.18	AVG	
11	13.6000	27.10	10.32	37.42	60.00	-22.58	QP	
12	13.6000	18.40	10.32	28.72	50.00	-21.28	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

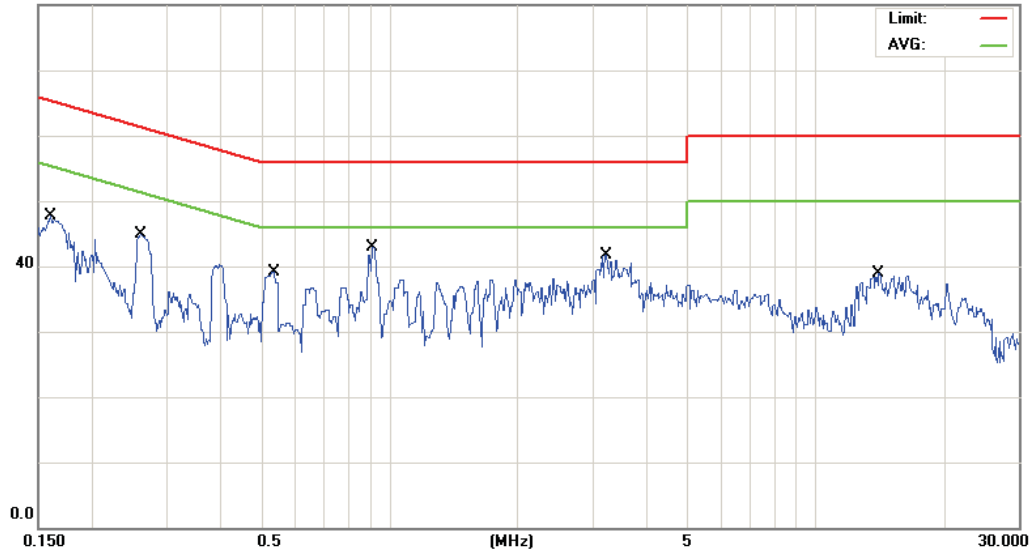
File :10-0084-SE(IDLE)3

Data :#2

Date: 2010/03/21

Time: 下午 05:36:12

80.0 dBuV



Site : Conducted

Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #2

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1598	30.50	10.10	40.60	65.47	-24.87	QP	
2	0.1598	9.80	10.10	19.90	55.47	-35.57	AVG	
3	0.2606	31.20	10.05	41.25	61.41	-20.16	QP	
4	0.2606	20.50	10.05	30.55	51.41	-20.86	AVG	
5	0.5360	26.30	9.94	36.24	56.00	-19.76	QP	
6	0.5360	15.70	9.94	25.64	46.00	-20.36	AVG	
7 *	0.9140	30.20	9.78	39.98	56.00	-16.02	QP	
8	0.9140	19.30	9.78	29.08	46.00	-16.92	AVG	
9	3.2090	28.20	9.81	38.01	56.00	-17.99	QP	
10	3.2090	17.60	9.81	27.41	46.00	-18.59	AVG	
11	14.1000	25.40	10.33	35.73	60.00	-24.27	QP	
12	14.1000	16.10	10.33	26.43	50.00	-23.57	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

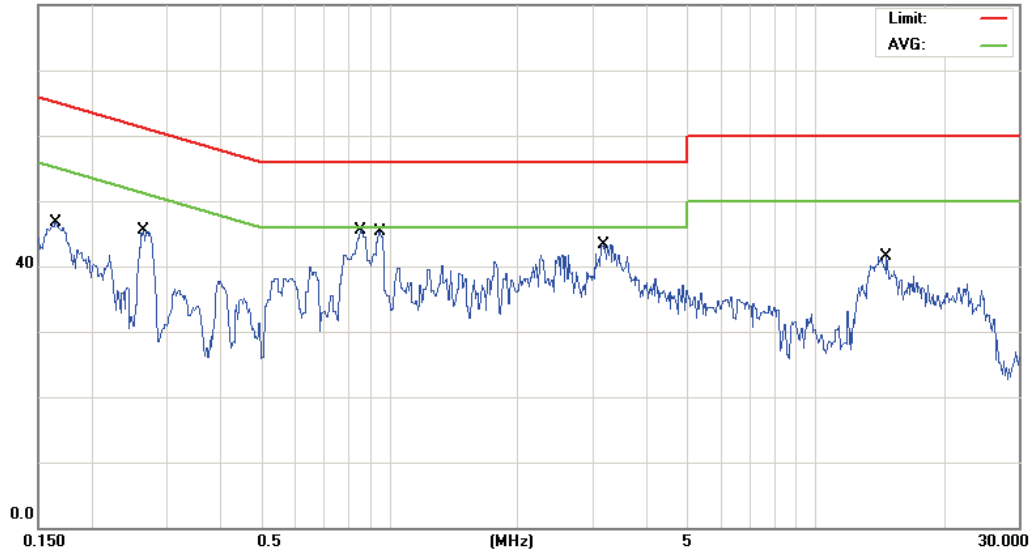
File :10-0084-SE(IDLE)2

Data :#1

Date: 2010/03/21

Time: 下午 05:30:09

80.0 dBuV



Site : Conducted

Phase: L1

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #3

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1647	29.40	10.10	39.50	65.22	-25.72	QP	
2	0.1647	11.20	10.10	21.30	55.22	-33.92	AVG	
3	0.2641	28.60	10.05	38.65	61.30	-22.65	QP	
4	0.2641	19.00	10.05	29.05	51.30	-22.25	AVG	
5	0.8600	29.10	9.82	38.92	56.00	-17.08	QP	
6	0.8600	19.40	9.82	29.22	46.00	-16.78	AVG	
7	0.9500	29.90	9.78	39.68	56.00	-16.32	QP	
8	0.9500	18.00	9.78	27.78	46.00	-18.22	AVG	
9	3.1730	30.70	9.82	40.52	56.00	-15.48	QP	
10 *	3.1730	21.40	9.82	31.22	46.00	-14.78	AVG	
11	14.6500	26.30	10.26	36.56	60.00	-23.44	QP	
12	14.6500	17.90	10.26	28.16	50.00	-21.84	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

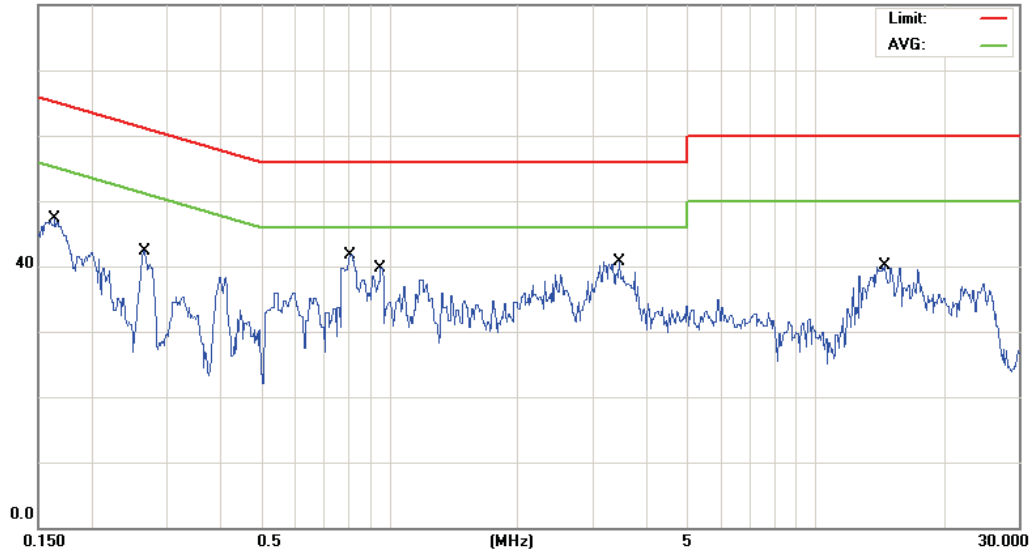
File :10-0084-SE(IDLE)2

Data :#2

Date: 2010/03/21

Time: 下午 05:39:23

80.0 dBuV



Site : Conducted

Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #3

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1640	29.90	10.09	39.99	65.25	-25.26	QP	
2	0.1640	9.10	10.09	19.19	55.25	-36.06	AVG	
3	0.2648	27.00	10.04	37.04	61.28	-24.24	QP	
4	0.2648	16.20	10.04	26.24	51.28	-25.04	AVG	
5 *	0.8150	28.20	9.82	38.02	56.00	-17.98	QP	
6	0.8150	16.70	9.82	26.52	46.00	-19.48	AVG	
7	0.9590	25.30	9.77	35.07	56.00	-20.93	QP	
8	0.9590	12.90	9.77	22.67	46.00	-23.33	AVG	
9	3.4610	23.60	9.81	33.41	56.00	-22.59	QP	
10	3.4610	16.50	9.81	26.31	46.00	-19.69	AVG	
11	14.5000	25.20	10.31	35.51	60.00	-24.49	QP	
12	14.5000	15.60	10.31	25.91	50.00	-24.09	AVG	

*:Maximum data x:Over limit !:over margin

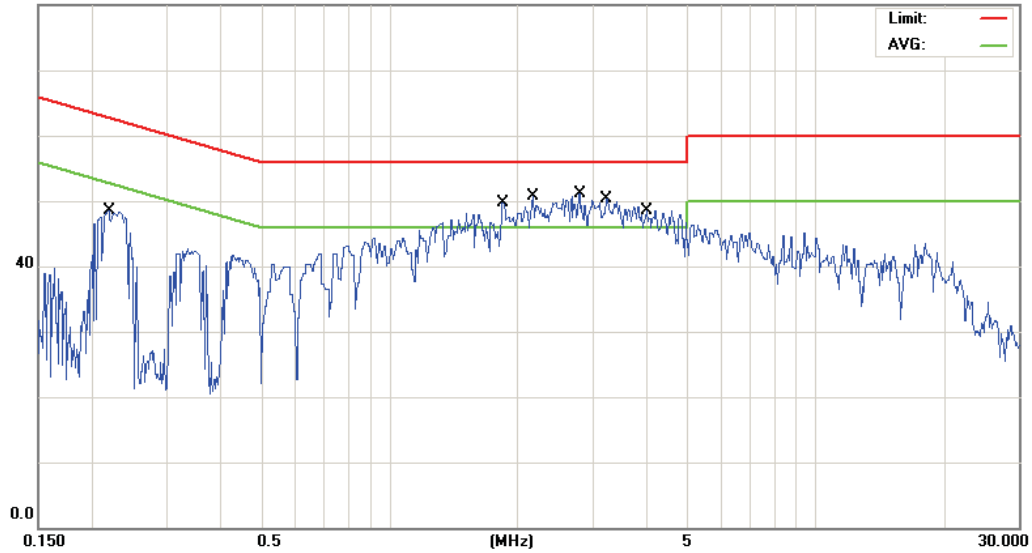
●Reference Only

File :10-0084-SE(IDLE)4
80.0 dBuV

Data :#1

Date: 2010/03/25

Time: 下午 05:11:56



Site : Conducted

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #4

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.2186	34.10	10.07	44.17	62.87	-18.70	QP	
2	0.2186	19.00	10.07	29.07	52.87	-23.80	AVG	
3	1.8410	32.10	9.69	41.79	56.00	-14.21	QP	
4	1.8410	20.90	9.69	30.59	46.00	-15.41	AVG	
5	2.1740	32.00	9.73	41.73	56.00	-14.27	QP	
6	2.1740	21.30	9.73	31.03	46.00	-14.97	AVG	
7 *	2.7860	32.20	9.82	42.02	56.00	-13.98	QP	
8	2.7860	21.80	9.82	31.62	46.00	-14.38	AVG	
9	3.2180	32.00	9.82	41.82	56.00	-14.18	QP	
10	3.2180	21.80	9.82	31.62	46.00	-14.38	AVG	
11	4.0010	30.90	9.85	40.75	56.00	-15.25	QP	
12	4.0010	21.10	9.85	30.95	46.00	-15.05	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

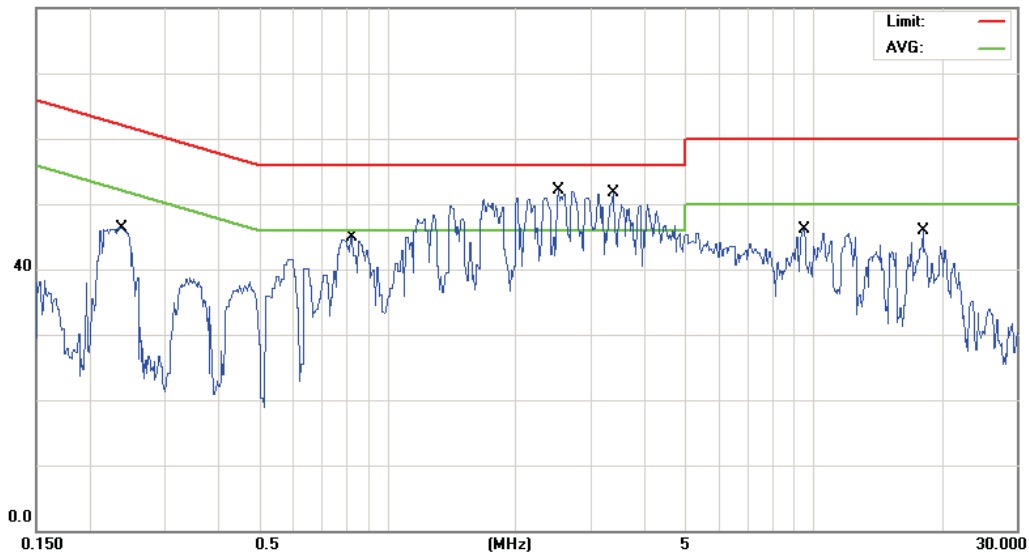
File :10-0084-SE(IDLE)4

Data :#2

Date: 2010/03/25

Time: 下午 05:38:15

80.0 dBuV



Site : Conducted

Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 1

Note: Adapter #4

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.2368	33.20	10.06	43.26	62.20	-18.94	QP	
2	0.2368	21.20	10.06	31.26	52.20	-20.94	AVG	
3	0.8240	28.10	9.82	37.92	56.00	-18.08	QP	
4	0.8240	15.60	9.82	25.42	46.00	-20.58	AVG	
5 *	2.5249	32.31	9.76	42.07	56.00	-13.93	QP	
6	2.5249	20.31	9.76	30.07	46.00	-15.93	AVG	
7	3.3800	31.10	9.81	40.91	56.00	-15.09	QP	
8	3.3800	20.00	9.81	29.81	46.00	-16.19	AVG	
9	9.5000	27.50	10.16	37.66	60.00	-22.34	QP	
10	9.5000	17.50	10.16	27.66	50.00	-22.34	AVG	
11	18.0000	26.10	10.45	36.55	60.00	-23.45	QP	
12	18.0000	16.40	10.45	26.85	50.00	-23.15	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

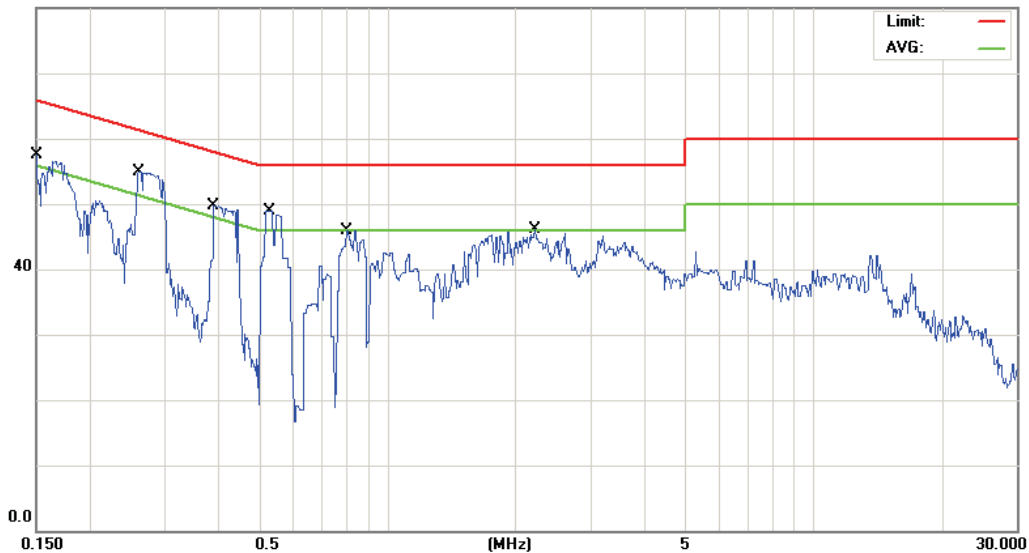
File :10-0084-SE(GSM850+BT+WIF

Data :#1

Date: 2010/03/21

Time: 下午 06:55:06

80.0 dBuV



Site : Conducted

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #1

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1500	43.30	10.11	53.41	65.99	-12.58	QP	
2	0.1500	20.80	10.11	30.91	55.99	-25.08	AVG	
3 *	0.2613	41.30	10.06	51.36	61.39	-10.03	QP	
4	0.2613	21.70	10.06	31.76	51.39	-19.63	AVG	
5	0.3908	34.20	10.00	44.20	58.05	-13.85	QP	
6	0.3908	14.40	10.00	24.40	48.05	-23.65	AVG	
7	0.5270	34.00	9.95	43.95	56.00	-12.05	QP	
8	0.5270	16.80	9.95	26.75	46.00	-19.25	AVG	
9	0.8059	32.60	9.84	42.44	56.00	-13.56	QP	
10	0.8059	15.20	9.84	25.04	46.00	-20.96	AVG	
11	2.2190	31.00	9.74	40.74	56.00	-15.26	QP	
12	2.2190	18.90	9.74	28.64	46.00	-17.36	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

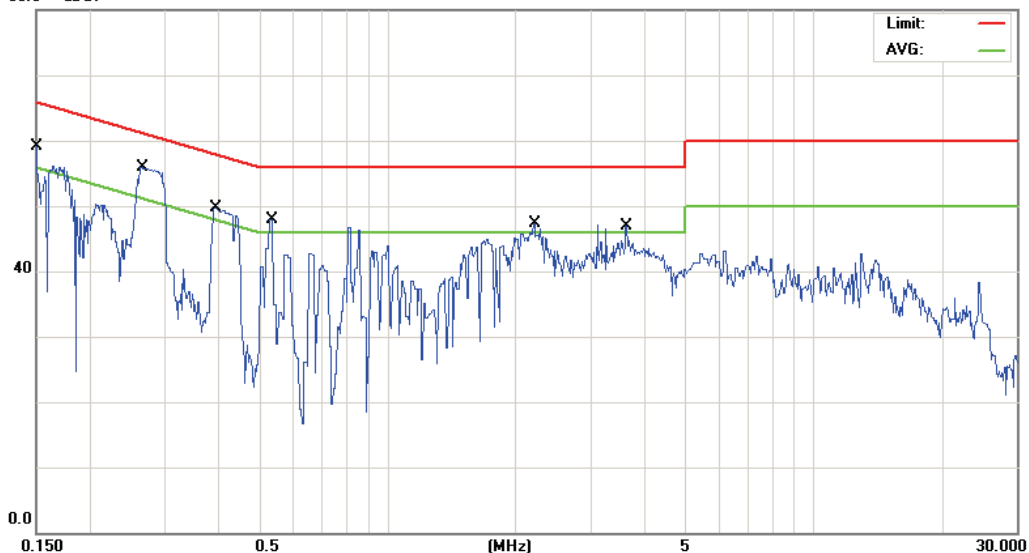
File :10-0084-SE(GSM850+BT+WIF

Data :#2

Date: 2010/03/21

Time: 下午 07:03:57

80.0 dBuV



Site : Conducted

Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #1

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1500	44.60	10.10	54.70	65.99	-11.29	QP	
2	0.1500	20.80	10.10	30.90	55.99	-25.09	AVG	
3 *	0.2669	42.80	10.04	52.84	61.21	-8.37	QP	
4	0.2669	22.10	10.04	32.14	51.21	-19.07	AVG	
5	0.3936	35.40	10.00	45.40	57.99	-12.59	QP	
6	0.3936	14.20	10.00	24.20	47.99	-23.79	AVG	
7	0.5360	34.10	9.94	44.04	56.00	-11.96	QP	
8	0.5360	12.90	9.94	22.84	46.00	-23.16	AVG	
9	2.2100	30.00	9.73	39.73	56.00	-16.27	QP	
10	2.2100	11.00	9.73	20.73	46.00	-25.27	AVG	
11	3.6230	28.20	9.83	38.03	56.00	-17.97	QP	
12	3.6230	15.50	9.83	25.33	46.00	-20.67	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

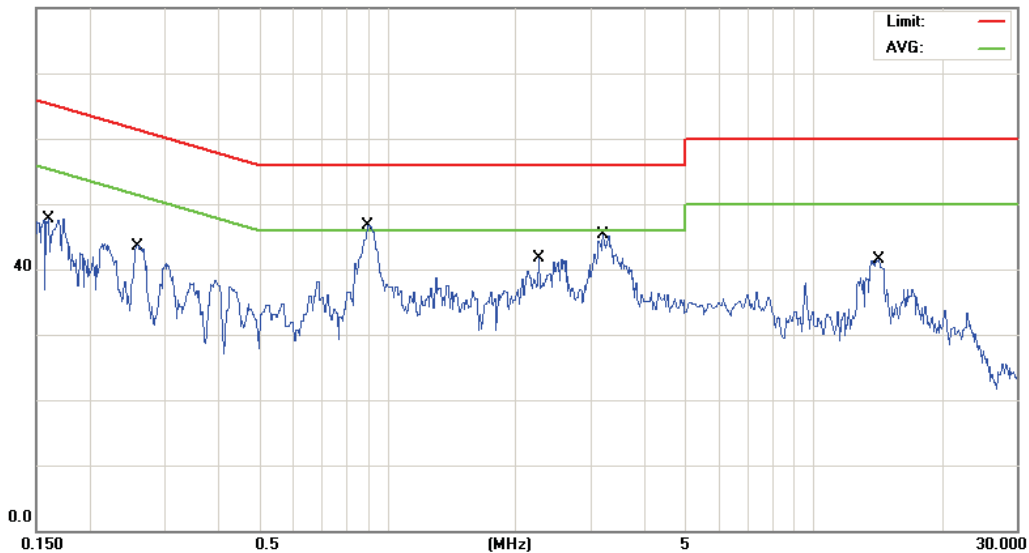
File :10-0084-SE(GSM850+BT+WIF

Data :#1

Date: 2010/03/21

Time: 下午 07:43:42

80.0 dBuV



Site : Conducted

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #2

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1604	29.80	10.11	39.91	65.44	-25.53	QP	
2	0.1604	9.00	10.11	19.11	55.44	-36.33	AVG	
3	0.2584	29.80	10.06	39.86	61.48	-21.62	QP	
4	0.2584	19.20	10.06	29.26	51.48	-22.22	AVG	
5	0.9050	33.40	9.80	43.20	56.00	-12.80	QP	
6 *	0.9050	23.70	9.80	33.50	46.00	-12.50	AVG	
7	2.2640	26.90	9.75	36.65	56.00	-19.35	QP	
8	2.2640	16.70	9.75	26.45	46.00	-19.55	AVG	
9	3.2000	30.30	9.82	40.12	56.00	-15.88	QP	
10	3.2000	21.20	9.82	31.02	46.00	-14.98	AVG	
11	14.2000	25.70	10.29	35.99	60.00	-24.01	QP	
12	14.2000	17.00	10.29	27.29	50.00	-22.71	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

File :10-0084-SE(GSM850+BT+WIF

Data :#2

Date: 2010/03/21

Time: 下午 08:14:58

80.0 dBuV



Site : Conducted

Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #2

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1619	29.90	10.10	40.00	65.36	-25.36	QP	
2	0.1619	8.00	10.10	18.10	55.36	-37.26	AVG	
3	0.6800	23.70	9.88	33.58	56.00	-22.42	QP	
4	0.6800	13.10	9.88	22.98	46.00	-23.02	AVG	
5 *	0.8780	31.50	9.80	41.30	56.00	-14.70	QP	
6	0.8780	19.30	9.80	29.10	46.00	-16.90	AVG	
7	2.5340	26.80	9.77	36.57	56.00	-19.43	QP	
8	2.5340	12.90	9.77	22.67	46.00	-23.33	AVG	
9	3.2270	27.20	9.81	37.01	56.00	-18.99	QP	
10	3.2270	17.00	9.81	26.81	46.00	-19.19	AVG	
11	13.8500	25.00	10.35	35.35	60.00	-24.65	QP	
12	13.8500	14.20	10.35	24.55	50.00	-25.45	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

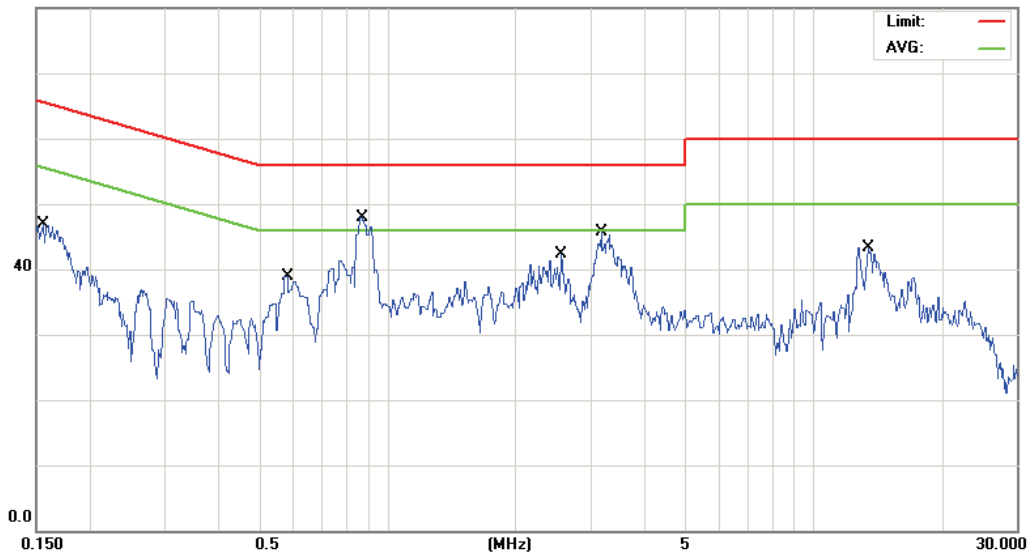
File :10-0084-SE(GSM850+BT+WIF

Data :#1

Date: 2010/03/21

Time: 下午 07:12:48

80.0 dBuV



Site : Conducted

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #3

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1556	29.60	10.11	39.71	65.69	-25.98	QP	
2	0.1556	7.70	10.11	17.81	55.69	-37.88	AVG	
3	0.5810	24.40	9.92	34.32	56.00	-21.68	QP	
4	0.5810	15.50	9.92	25.42	46.00	-20.58	AVG	
5 *	0.8690	34.30	9.81	44.11	56.00	-11.89	QP	
6	0.8690	23.80	9.81	33.61	46.00	-12.39	AVG	
7	2.5520	25.70	9.77	35.47	56.00	-20.53	QP	
8	2.5520	16.20	9.77	25.97	46.00	-20.03	AVG	
9	3.1730	30.30	9.82	40.12	56.00	-15.88	QP	
10	3.1730	20.60	9.82	30.42	46.00	-15.58	AVG	
11	13.4500	26.40	10.33	36.73	60.00	-23.27	QP	
12	13.4500	17.30	10.33	27.63	50.00	-22.37	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

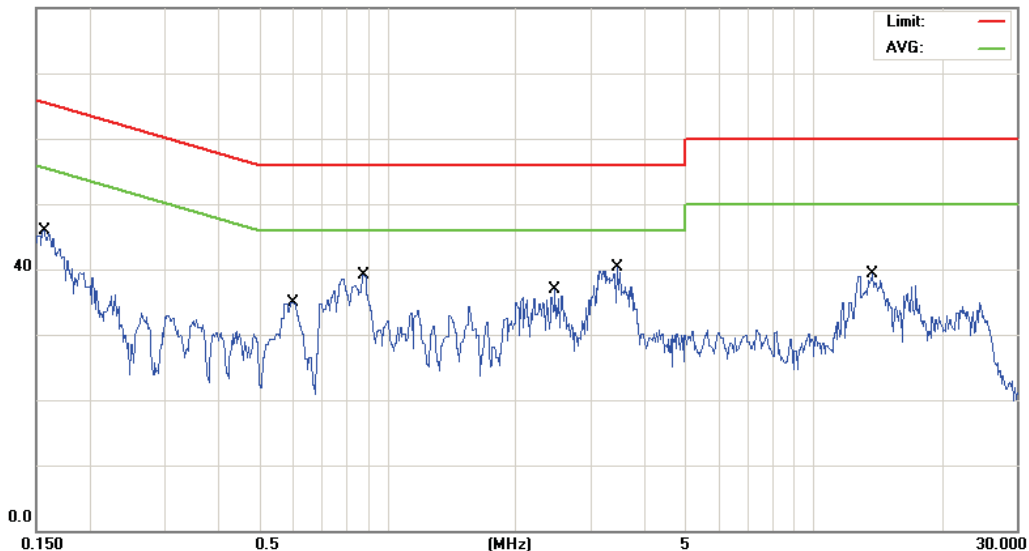
File :10-0084-SE(GSM850+BT+WIF

Data :#2

Date: 2010/03/21

Time: 下午 07:39:39

80.0 dBuV



Site : Conducted

Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #3

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1563	29.50	10.10	39.60	65.65	-26.05	QP	
2	0.1563	8.30	10.10	18.40	55.65	-37.25	AVG	
3	0.5990	19.60	9.91	29.51	56.00	-26.49	QP	
4	0.5990	9.10	9.91	19.01	46.00	-26.99	AVG	
5	0.8780	25.90	9.80	35.70	56.00	-20.30	QP	
6 *	0.8780	16.30	9.80	26.10	46.00	-19.90	AVG	
7	2.4710	24.50	9.76	34.26	56.00	-21.74	QP	
8	2.4710	13.20	9.76	22.96	46.00	-23.04	AVG	
9	3.4520	24.90	9.81	34.71	56.00	-21.29	QP	
10	3.4520	15.80	9.81	25.61	46.00	-20.39	AVG	
11	13.7000	26.41	10.34	36.75	60.00	-23.25	QP	
12	13.7000	15.81	10.34	26.15	50.00	-23.85	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

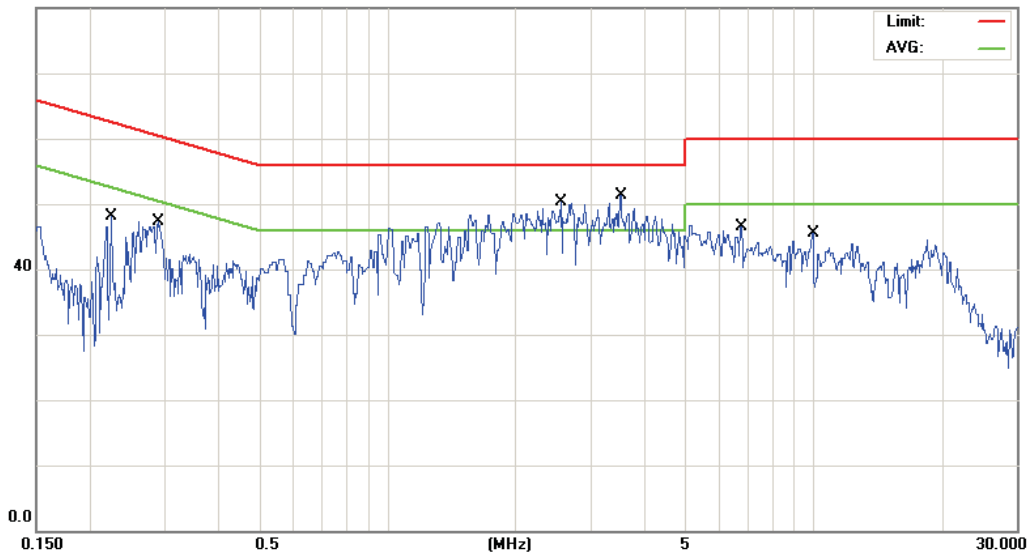
File :10-0084-SE(GSM850+BT+WIF

Data :#1

Date: 2010/03/25

Time: 下午 06:41:15

80.0 dBuV



Site : Conducted

Phase: **L1**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #4

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.2249	30.20	10.07	40.27	62.63	-22.36	QP	
2	0.2249	13.90	10.07	23.97	52.63	-28.66	AVG	
3	0.2921	24.60	10.04	34.64	60.46	-25.82	QP	
4	0.2921	12.20	10.04	22.24	50.46	-28.22	AVG	
5	2.5520	29.00	9.77	38.77	56.00	-17.23	QP	
6	2.5520	17.90	9.77	27.67	46.00	-18.33	AVG	
7 *	3.5150	30.10	9.83	39.93	56.00	-16.07	QP	
8	3.5150	18.50	9.83	28.33	46.00	-17.67	AVG	
9	6.7500	25.50	9.86	35.36	60.00	-24.64	QP	
10	6.7500	16.70	9.86	26.56	50.00	-23.44	AVG	
11	9.9500	26.20	10.22	36.42	60.00	-23.58	QP	
12	9.9500	18.10	10.22	28.32	50.00	-21.68	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

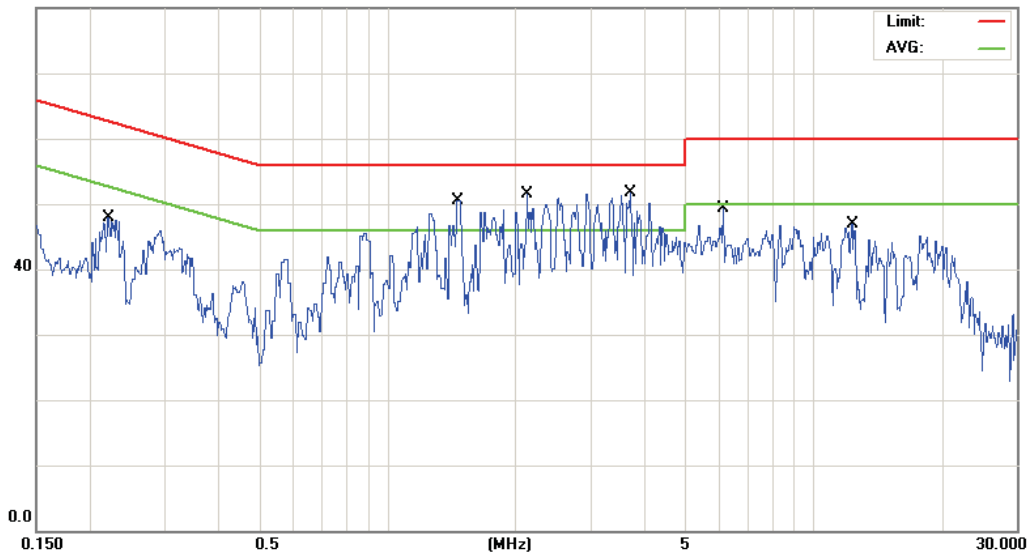
File :10-0084-SE(GSM850+BT+WIF

Data :#2

Date: 2010/03/25

Time: 下午 06:50:42

80.0 dBuV



Site : Conducted

Phase: **N**

Temperature: 26 °C

Limit: CISPR22 Class B Conduction(QP)

Power: AC 120V/60Hz

Humidity: 55 %

EUT: Smartphone

M/N: PB76110

Mode: 2

Note: Adapter #4

No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.2214	29.30	10.06	39.36	62.76	-23.40	QP	
2	0.2214	11.10	10.06	21.16	52.76	-31.60	AVG	
3 *	1.4630	30.10	9.69	39.79	56.00	-16.21	QP	
4	1.4630	17.70	9.69	27.39	46.00	-18.61	AVG	
5	2.1290	28.70	9.72	38.42	56.00	-17.58	QP	
6	2.1290	17.00	9.72	26.72	46.00	-19.28	AVG	
7	3.7130	29.10	9.83	38.93	56.00	-17.07	QP	
8	3.7130	18.50	9.83	28.33	46.00	-17.67	AVG	
9	6.1500	24.50	9.83	34.33	60.00	-25.67	QP	
10	6.1500	14.30	9.83	24.13	50.00	-25.87	AVG	
11	12.3000	26.70	10.38	37.08	60.00	-22.92	QP	
12	12.3000	15.50	10.38	25.88	50.00	-24.12	AVG	

*:Maximum data x:Over limit !:over margin

●Reference Only

5 Radiated Interference Measurement

5.1. Limit

Frequency Range (MHz)	Peak (dBuV)
30 to 88	40
88 to 216	43.5
216 to 960	46
Above 960	54

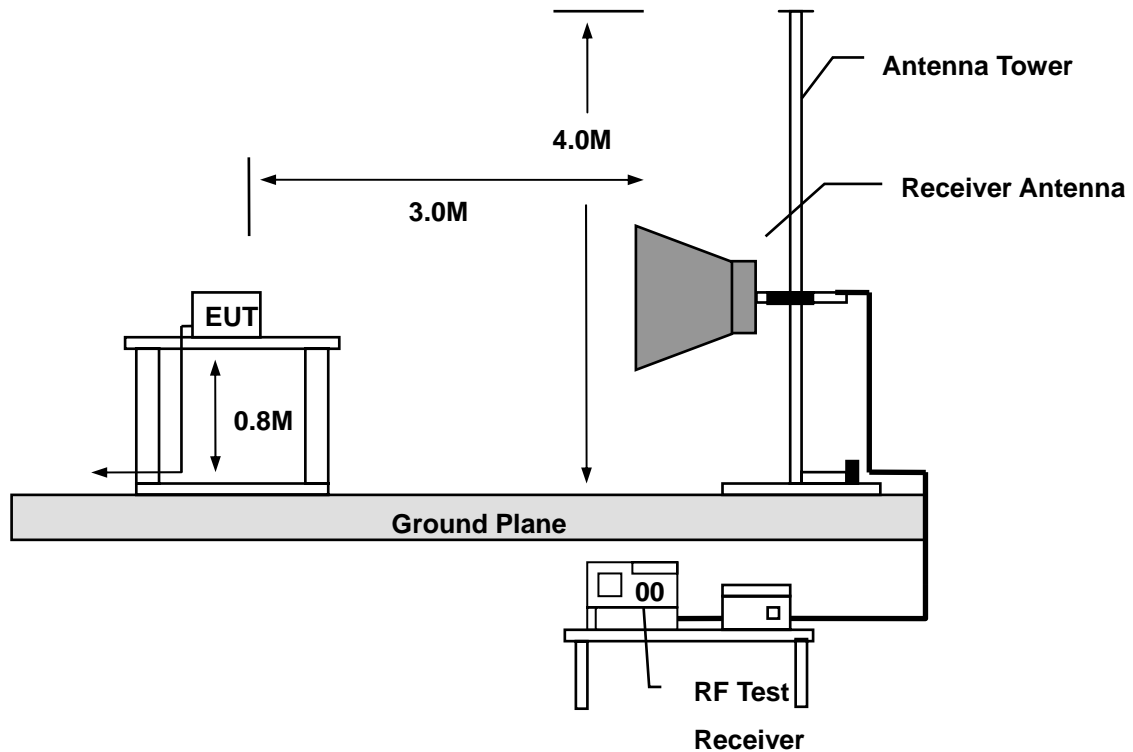
5.2. Test Instruments

3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/27/2009	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/20/2009	(2)
Pre Amplifier	Agilent	8449B	3008A02237	07/01/2009	(1)
Pre Amplifier	Agilent	8447D	2944A10961	06/30/2009	(1)
Bi-log Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	06/23/2009	(2)
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	07/01/2009	(2)
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/30/2009	(2)
Test Site	ATL	TE01	888001	08/06/2009	(1)

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

5.3. Setup



5.4. Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 30 MHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (mode VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 – 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts per meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field intensity in decibels referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{ Amplitude (dBuV/m) = FI (dBuV) +AF (dBuV) +CL (dBuV)-Gain (dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{ Actual Amplitude (dBuV/m) = Amplitude (dBuV)-Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency : Transmitter Output < +30dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

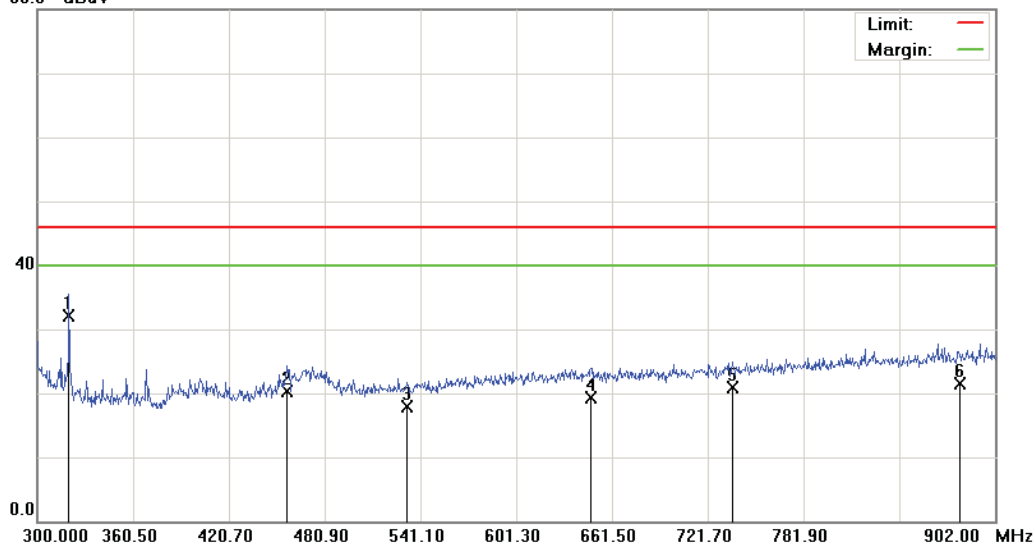
File :PB76110(Normal Link)

Data :#2

Date: 2010/3/21

Time: 下午 06:00:02

80.0 dBuV



Site: : 966 Chamber

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 120 KHz VBW: 300 KHz

M/N: PB76110

Mode: 2

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree	Comment
1	*	319.8660	41.98	-9.82	32.16	46.00	-13.84	QP		
2		457.1220	28.34	-7.96	20.38	46.00	-25.62	QP		
3		532.3720	24.25	-6.33	17.92	46.00	-28.08	QP		
4		647.9560	23.48	-4.27	19.21	46.00	-26.79	QP		
5		737.0520	24.29	-3.29	21.00	46.00	-25.00	QP		
6		879.4250	22.16	-0.71	21.45	46.00	-24.55	QP		

*:Maximum data x:Over limit !:over margin

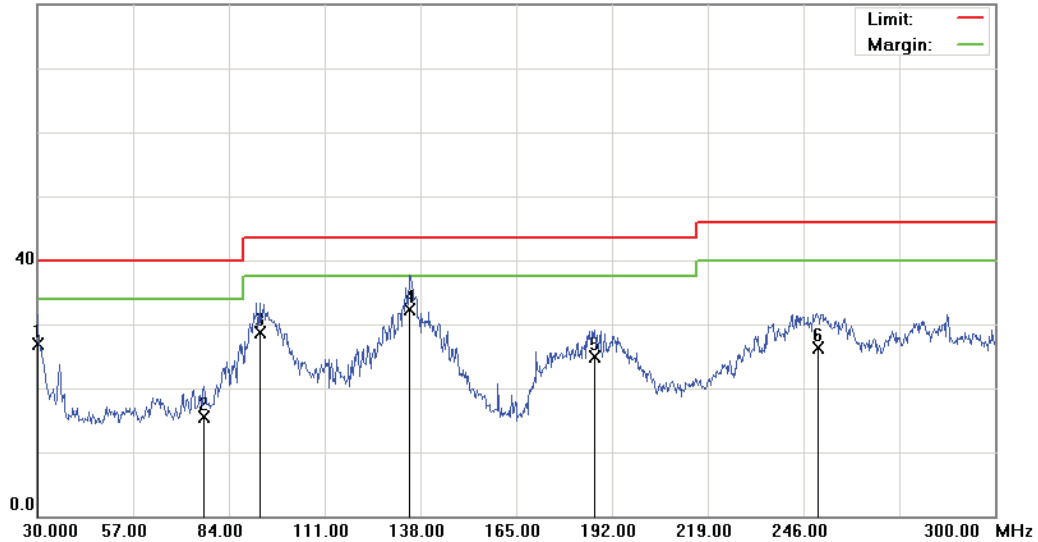
File :PB76110(Normal Link)

Data :#3

Date: 2010/3/21

Time: 下午 06:02:57

80.0 dBuV



Site: : 966 Chamber

Polarization: *Horizontal*

Temperature: 22 ℃

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 120 KHz VBW: 300 KHz

M/N: PB76110

Mode: 2

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree	Comment
1		30.0000	40.26	-13.32	26.94	40.00	-13.06	QP		
2		76.9800	32.49	-16.92	15.57	40.00	-24.43	QP		
3		92.6400	41.28	-12.57	28.71	43.50	-14.79	QP		
4	*	135.0300	48.19	-15.97	32.22	43.50	-11.28	QP		
5		187.1400	38.56	-13.62	24.94	43.50	-18.56	QP		
6		249.9150	37.08	-10.83	26.25	46.00	-19.75	QP		

*:Maximum data x:Over limit !:over margin

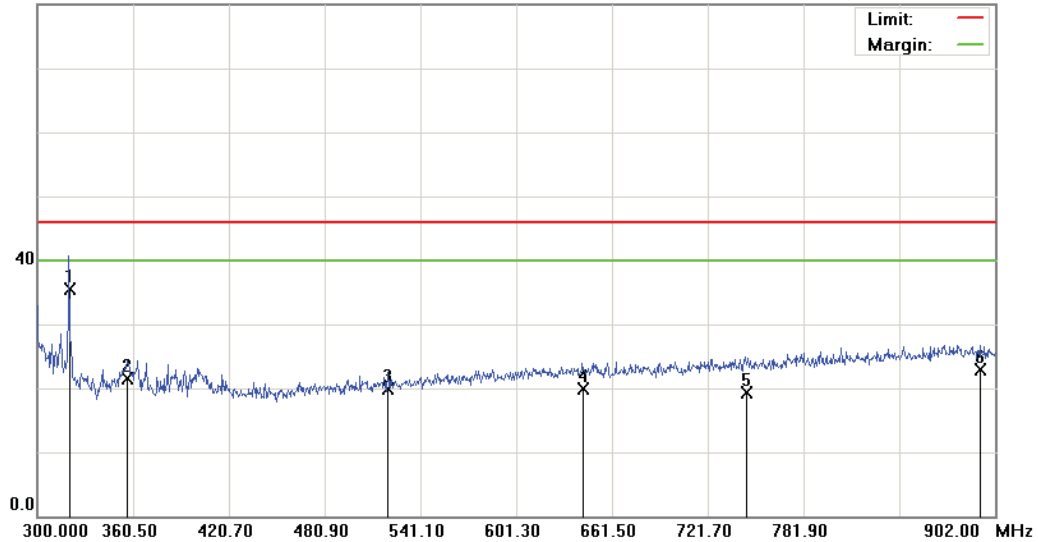
File :PB76110(Normal Link)

Data :#4

Date: 2010/3/21

Time: 下午 06:05:51

80.0 dBuV



Site: : 966 Chamber

Polarization: *Horizontal*

Temperature: 22 ℃

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 120 KHz VBW: 300 KHz

M/N: PB76110

Mode: 2

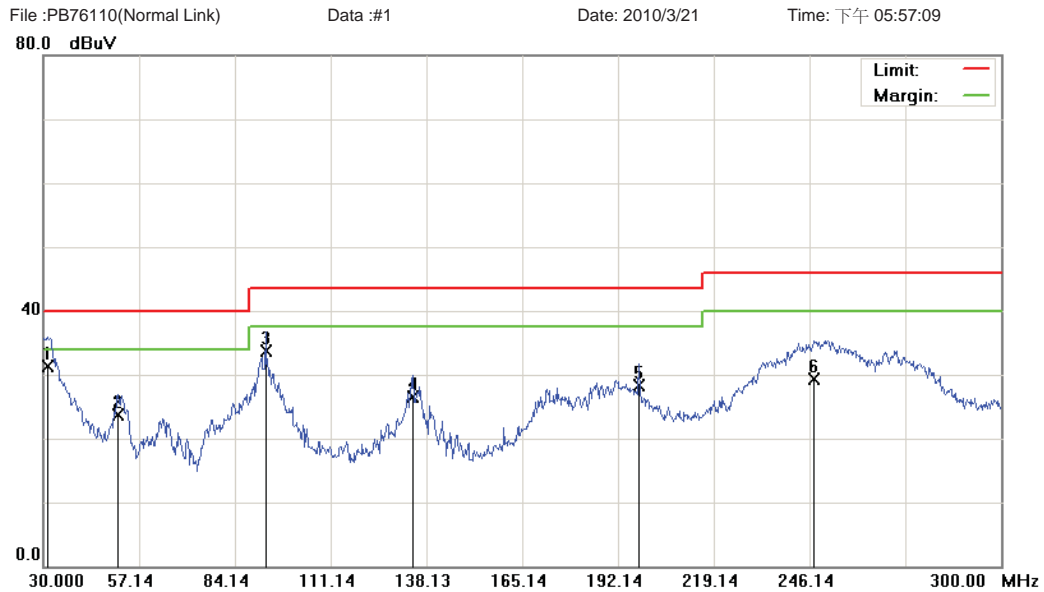
Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	320.1670	45.37	-9.81	35.56	46.00	-10.44	QP		
2		356.5880	30.29	-8.87	21.42	46.00	-24.58	QP		
3		520.3320	26.49	-6.57	19.92	46.00	-26.08	QP		
4		642.8390	24.39	-4.50	19.89	46.00	-26.11	QP		
5		745.1790	22.35	-3.11	19.24	46.00	-26.76	QP		
6		892.3680	23.67	-0.69	22.98	46.00	-23.02	QP		

*:Maximum data x:Over limit !:over margin

5.5. Test Result

5.5.1. Below 1GHz



Site: : 966 Chamber

Polarization: *Vertical*

Temperature: 22 °C

Limit: FCC Class B 3M Radiation

Power:

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 120 KHz VBW: 300 KHz

M/N: PB76110

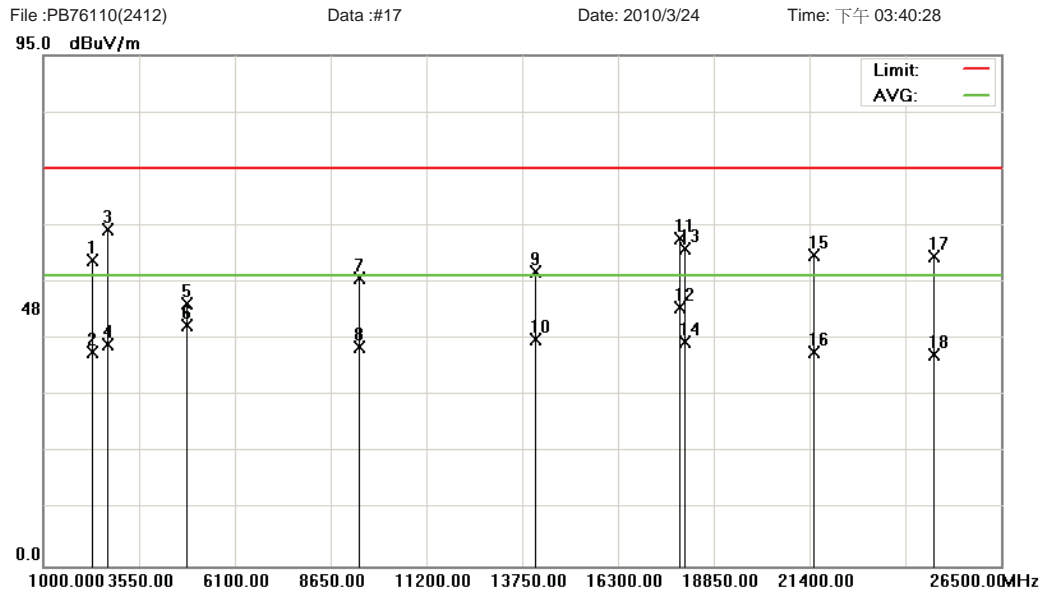
Mode: 2

Note:

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	31.2150	44.68	-13.29	31.39	40.00	-8.61	QP		
2		51.0600	35.78	-12.17	23.61	40.00	-16.39	QP		
3		92.6400	46.25	-12.57	33.68	43.50	-9.82	QP		
4		134.2200	42.36	-15.92	26.44	43.50	-17.06	QP		
5		197.9400	41.36	-13.14	28.22	43.50	-15.28	QP		
6		247.3500	40.26	-11.05	29.21	46.00	-16.79	QP		

*:Maximum data x:Over limit !:over margin

5.5.2. Above 1GHz



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PB76110
Mode: 3
Note: CH01(2412MHz)

Polarization: **Vertical**
Power: AC 120V/60Hz
Distance: 3m
Temperature: 22 °C
Humidity: 60 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2282.650	56.52	0.44	56.96	74.00	-17.04	peak		
2		2282.650	39.42	0.44	39.86	54.00	-14.14	AVG		
3		2700.000	40.01	22.58	62.59	74.00	-11.41	peak		
4		2700.000	18.52	22.58	41.10	54.00	-12.90	AVG		
5		4824.300	41.28	7.49	48.77	74.00	-25.23	peak		
6		4824.300	37.31	7.49	44.80	54.00	-9.20	AVG		
7		9412.350	36.51	17.07	53.58	74.00	-20.42	peak		
8		9412.350	23.73	17.07	40.80	54.00	-13.20	AVG		
9		14096.000	35.82	18.88	54.70	74.00	-19.30	peak		
10		14096.000	23.35	18.88	42.23	54.00	-11.77	AVG		
11		17944.000	36.13	24.69	60.82	74.00	-13.18	peak		
12	*	17944.000	23.42	24.69	48.11	54.00	-5.89	AVG		
13		18068.000	35.77	23.25	59.02	74.00	-14.98	peak		
14		18068.000	18.47	23.25	41.72	54.00	-12.28	AVG		
15		21527.500	36.42	21.35	57.77	74.00	-16.23	peak		
16		21527.500	18.54	21.35	39.89	54.00	-14.11	AVG		
17		24702.250	38.02	19.57	57.59	74.00	-16.41	peak		
18		24702.250	19.75	19.57	39.32	54.00	-14.68	AVG		

*:Maximum data x:Over limit !:over margin

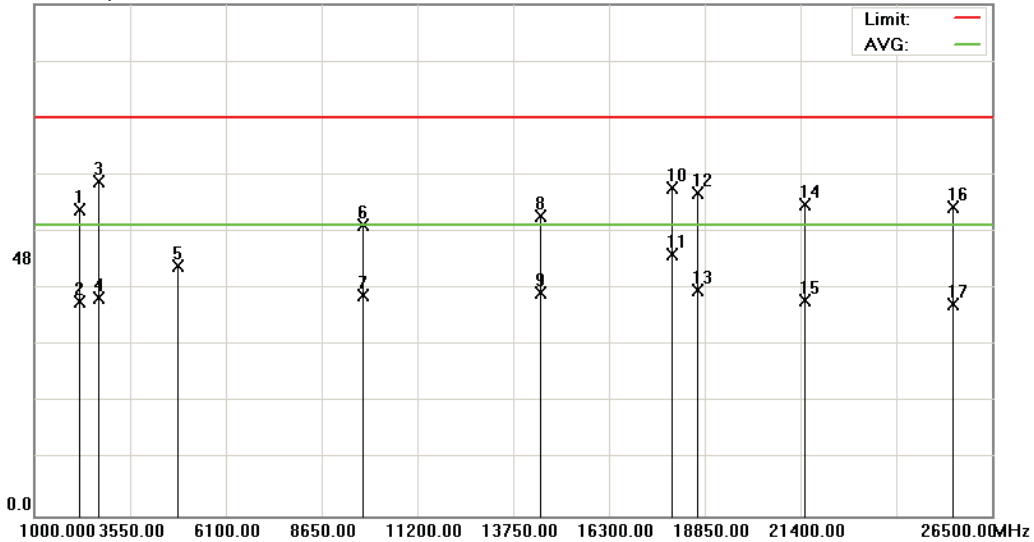
File :PB76110(2412)

Data :#18

Date: 2010/3/24

Time: 下午 03:41:46

95.0 dBuV/m



Site: : 966 Chamber

Polarization: **Horizontal**

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 3

Note: CH01(2412MHz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2181.500	56.64	0.26	56.90	74.00	-17.10	peak		
2		2181.500	39.57	0.26	39.83	54.00	-14.17	AVG		
3		2703.650	40.15	21.89	62.04	74.00	-11.96	peak		
4		2703.650	18.59	21.89	40.48	54.00	-13.52	AVG		
5		4824.300	38.98	7.49	46.47	74.00	-27.53	peak		
6		9726.250	36.34	17.60	53.94	74.00	-20.06	peak		
7		9726.250	23.43	17.60	41.03	54.00	-12.97	AVG		
8		14456.000	37.77	17.99	55.76	74.00	-18.24	peak		
9		14456.000	23.37	17.99	41.36	54.00	-12.64	AVG		
10		17980.000	35.62	25.21	60.83	74.00	-13.17	peak		
11	*	17980.000	23.46	25.21	48.67	54.00	-5.33	AVG		
12		18646.000	36.99	23.08	60.07	74.00	-13.93	peak		
13		18646.000	18.85	23.08	41.93	54.00	-12.07	AVG		
14		21514.750	36.55	21.35	57.90	74.00	-16.10	peak		
15		21514.750	18.76	21.35	40.11	54.00	-13.89	AVG		
16		25450.250	38.42	19.02	57.44	74.00	-16.56	peak		
17		25450.250	20.40	19.02	39.42	54.00	-14.58	AVG		

*:Maximum data x:Over limit !:over margin

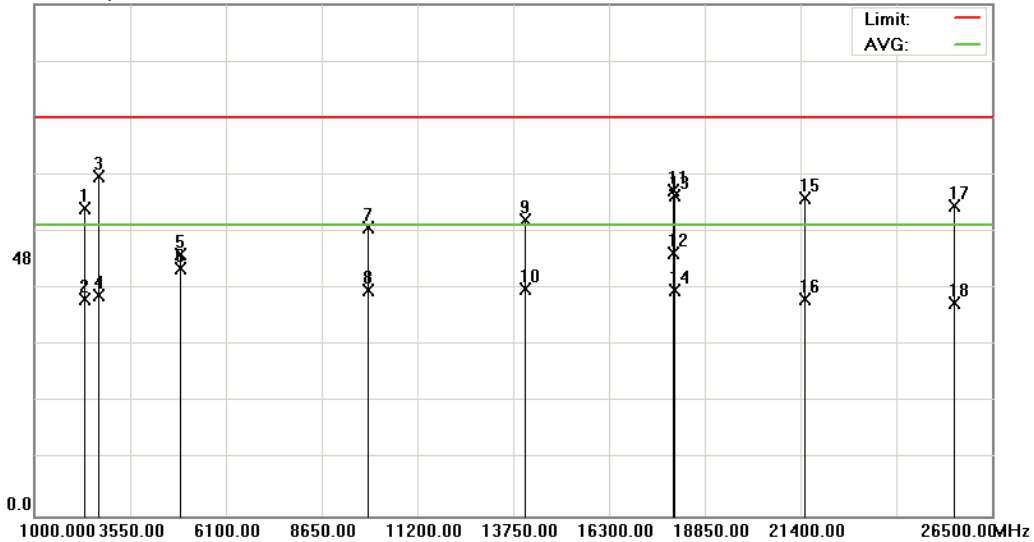
File :PB76110(2437)

Data :#17

Date: 2010/3/24

Time: 下午 03:37:31

95.0 dBuV/m



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PB76110
Mode: 3
Note: CH06(2437MHz)

Polarization: **Vertical**
Power: AC 120V/60Hz
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		2337.050	56.84	0.27	57.11	74.00	-16.89	peak		
2		2337.050	39.97	0.27	40.24	54.00	-13.76	AVG		
3		2700.000	40.43	22.58	63.01	74.00	-10.99	peak		
4		2700.000	18.43	22.58	41.01	54.00	-12.99	AVG		
5		4875.400	40.87	7.73	48.60	74.00	-25.40	peak		
6		4875.400	38.30	7.73	46.03	54.00	-7.97	AVG		
7		9850.350	35.65	17.89	53.54	74.00	-20.46	peak		
8		9850.350	23.92	17.89	41.81	54.00	-12.19	AVG		
9		14076.000	36.29	18.79	55.08	74.00	-18.92	peak		
10		14076.000	23.37	18.79	42.16	54.00	-11.84	AVG		
11		18000.000	34.98	25.57	60.55	74.00	-13.45	peak		
12	*	18000.000	23.31	25.57	48.88	54.00	-5.12	AVG		
13		18034.000	36.17	23.28	59.45	74.00	-14.55	peak		
14		18034.000	18.60	23.28	41.88	54.00	-12.12	AVG		
15		21519.000	37.77	21.34	59.11	74.00	-14.89	peak		
16		21519.000	18.94	21.34	40.28	54.00	-13.72	AVG		
17		25471.500	38.59	19.00	57.59	74.00	-16.41	peak		
18		25471.500	20.48	19.00	39.48	54.00	-14.52	AVG		

*:Maximum data x:Over limit !:over margin

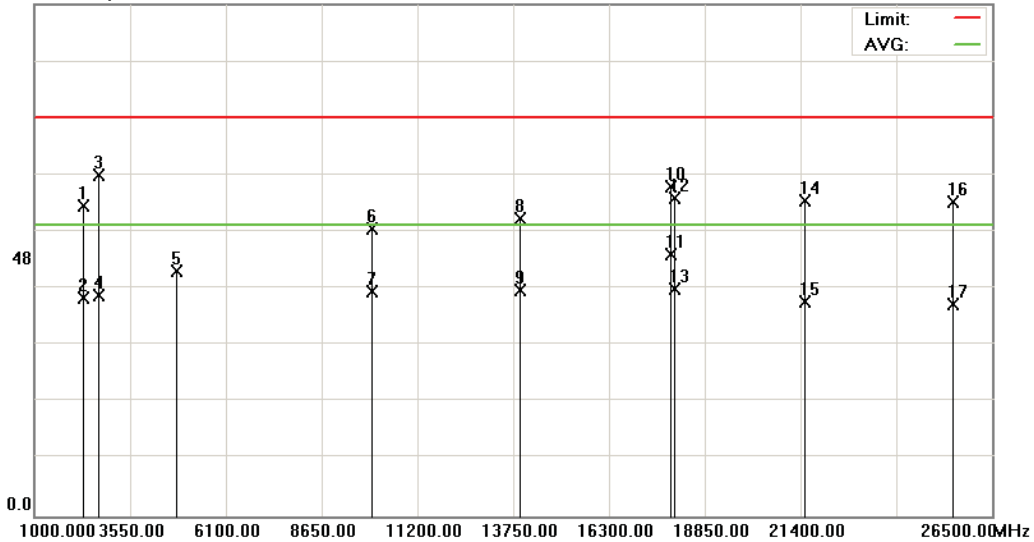
File :PB76110(2437)

Data :#18

Date: 2010/3/24

Time: 下午 03:38:49

95.0 dBuV/m



Site: : 966 Chamber

Polarization: **Horizontal**

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 3

Note: CH06(2437MHz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2278.400	57.03	0.45	57.48	74.00	-16.52	peak		
2		2278.400	40.10	0.45	40.55	54.00	-13.45	AVG		
3		2700.000	40.75	22.58	63.33	74.00	-10.67	peak		
4		2700.000	18.37	22.58	40.95	54.00	-13.05	AVG		
5		4758.600	38.34	7.14	45.48	74.00	-28.52	peak		
6		10000.000	35.45	17.94	53.39	74.00	-20.61	peak		
7		10000.000	23.85	17.94	41.79	54.00	-12.21	AVG		
8		13908.000	36.80	18.53	55.33	74.00	-18.67	peak		
9		13908.000	23.49	18.53	42.02	54.00	-11.98	AVG		
10		17916.000	36.28	24.87	61.15	74.00	-12.85	peak		
11	*	17916.000	23.62	24.87	48.49	54.00	-5.51	AVG		
12		18034.000	35.67	23.28	58.95	74.00	-15.05	peak		
13		18034.000	18.86	23.28	42.14	54.00	-11.86	AVG		
14		21514.750	37.08	21.35	58.43	74.00	-15.57	peak		
15		21514.750	18.43	21.35	39.78	54.00	-14.22	AVG		
16		25450.250	39.35	19.02	58.37	74.00	-15.63	peak		
17		25450.250	20.28	19.02	39.30	54.00	-14.70	AVG		

*:Maximum data x:Over limit !:over margin

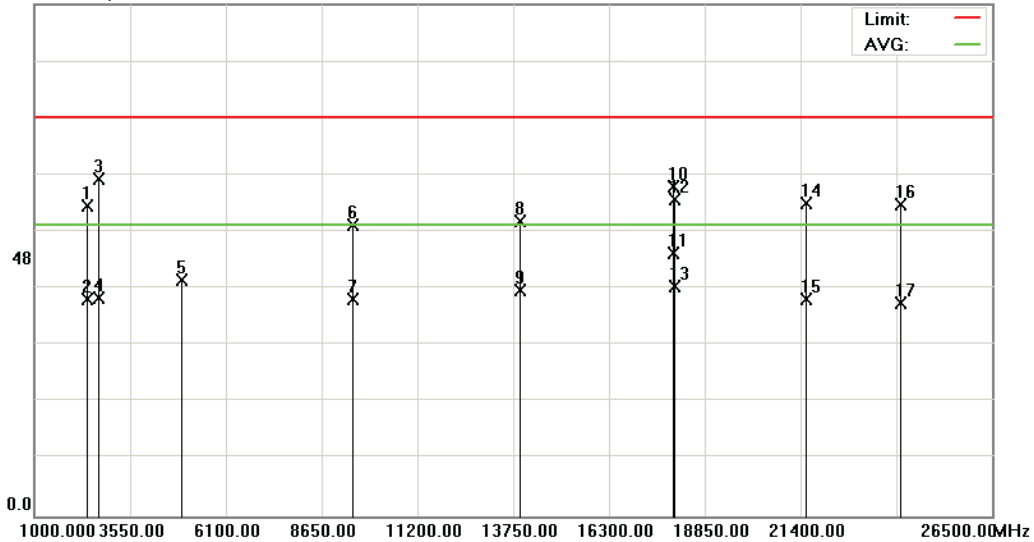
File :PB76110(2462)

Data :#17

Date: 2010/3/24

Time: 下午 03:34:32

95.0 dBuV/m



Site: : 966 Chamber

Polarization: **Vertical**

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 3

Note: CH11(2462MHz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2400.800	57.39	0.12	57.51	74.00	-16.49	peak		
2		2400.800	40.05	0.12	40.17	54.00	-13.83	AVG		
3		2703.650	40.81	21.89	62.70	74.00	-11.30	peak		
4		2703.650	18.72	21.89	40.61	54.00	-13.39	AVG		
5		4924.000	36.24	7.65	43.89	74.00	-30.11	peak		
6		9474.400	37.24	16.90	54.14	74.00	-19.86	peak		
7		9474.400	23.46	16.90	40.36	54.00	-13.64	AVG		
8		13920.000	36.14	18.54	54.68	74.00	-19.32	peak		
9		13920.000	23.41	18.54	41.95	54.00	-12.05	AVG		
10		18000.000	35.63	25.57	61.20	74.00	-12.80	peak		
11	*	18000.000	23.28	25.57	48.85	54.00	-5.15	AVG		
12		18017.000	35.57	23.29	58.86	74.00	-15.14	peak		
13		18017.000	19.39	23.29	42.68	54.00	-11.32	AVG		
14		21544.500	36.73	21.33	58.06	74.00	-15.94	peak		
15		21544.500	18.86	21.33	40.19	54.00	-13.81	AVG		
16		24056.250	37.95	19.97	57.92	74.00	-16.08	peak		
17		24056.250	19.50	19.97	39.47	54.00	-14.53	AVG		

*:Maximum data x:Over limit !:over margin

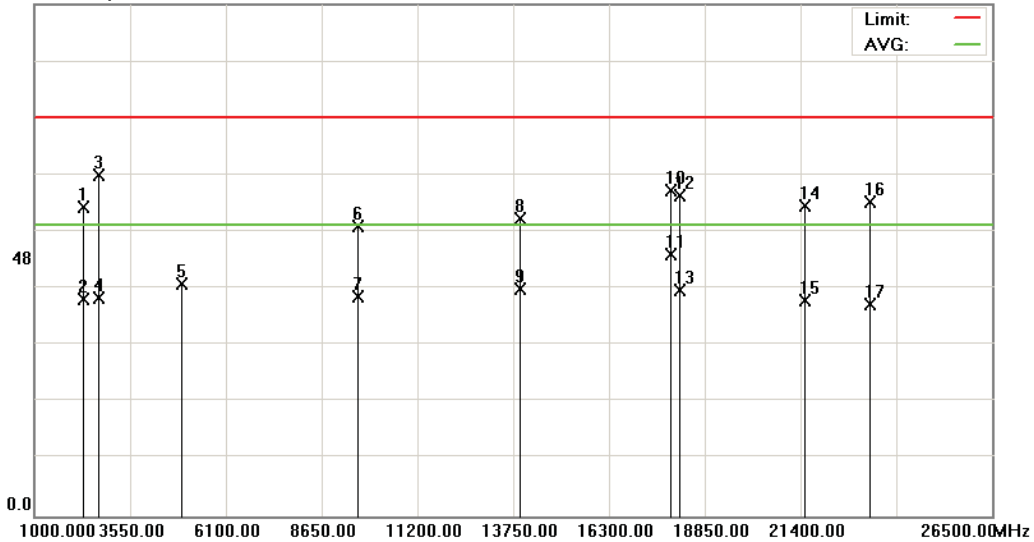
File :PB76110(2462)

Data :#18

Date: 2010/3/24

Time: 下午 03:35:50

95.0 dBuV/m



Site: : 966 Chamber

Polarization: **Horizontal**

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 3

Note: CH11(2462MHz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2287.750	56.89	0.41	57.30	74.00	-16.70	peak		
2		2287.750	39.79	0.41	40.20	54.00	-13.80	AVG		
3		2703.650	41.30	21.89	63.19	74.00	-10.81	peak		
4		2703.650	18.71	21.89	40.60	54.00	-13.40	AVG		
5		4924.000	35.53	7.65	43.18	74.00	-30.82	peak		
6		9598.500	36.40	17.41	53.81	74.00	-20.19	peak		
7		9598.500	23.34	17.41	40.75	54.00	-13.25	AVG		
8		13920.000	36.67	18.54	55.21	74.00	-18.79	peak		
9		13920.000	23.65	18.54	42.19	54.00	-11.81	AVG		
10		17928.000	35.73	24.78	60.51	74.00	-13.49	peak		
11	*	17928.000	23.74	24.78	48.52	54.00	-5.48	AVG		
12		18174.250	36.18	23.22	59.40	74.00	-14.60	peak		
13		18174.250	18.71	23.22	41.93	54.00	-12.07	AVG		
14		21519.000	36.35	21.34	57.69	74.00	-16.31	peak		
15		21519.000	18.76	21.34	40.10	54.00	-13.90	AVG		
16		23231.750	37.43	20.79	58.22	74.00	-15.78	peak		
17		23231.750	18.55	20.79	39.34	54.00	-14.66	AVG		

*:Maximum data x:Over limit !:over margin

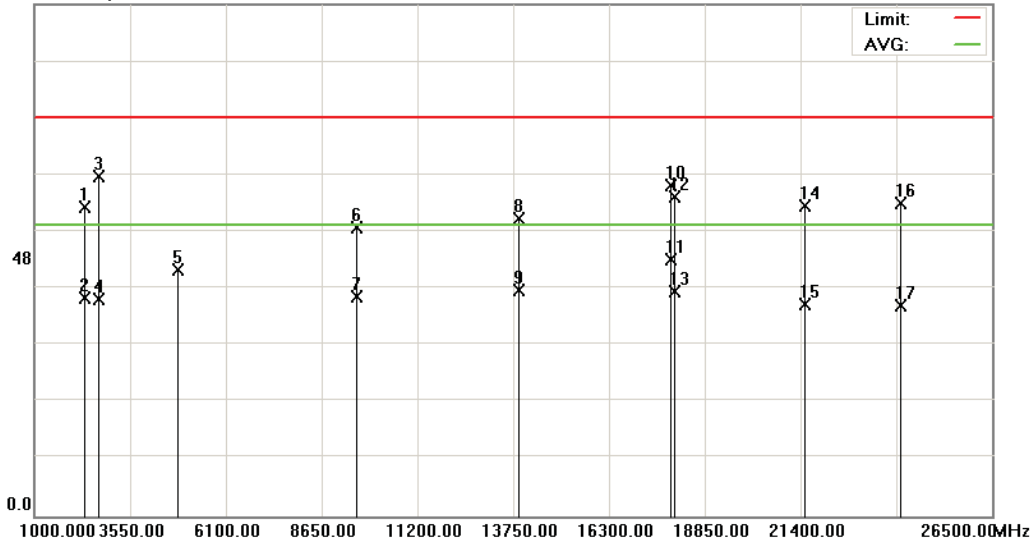
File :PB76110(2412)

Data :#17

Date: 2010/3/24

Time: 下午 03:46:41

95.0 dBuV/m



Site: : 966 Chamber

Polarization: **Vertical**

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 4

Note: CH01(2412MHz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		2307.300	56.93	0.43	57.36	74.00	-16.64	peak		
2		2307.300	40.11	0.43	40.54	54.00	-13.46	AVG		
3		2703.650	41.25	21.89	63.14	74.00	-10.86	peak		
4		2703.650	18.46	21.89	40.35	54.00	-13.65	AVG		
5		4824.000	38.19	7.48	45.67	74.00	-28.33	peak		
6		9591.200	36.09	17.37	53.46	74.00	-20.54	peak		
7		9591.200	23.41	17.37	40.78	54.00	-13.22	AVG		
8		13888.000	36.70	18.44	55.14	74.00	-18.86	peak		
9		13888.000	23.37	18.44	41.81	54.00	-12.19	AVG		
10		17936.000	36.58	24.73	61.31	74.00	-12.69	peak		
11	*	17936.000	23.00	24.73	47.73	54.00	-6.27	AVG		
12		18021.250	36.06	23.28	59.34	74.00	-14.66	peak		
13		18021.250	18.30	23.28	41.58	54.00	-12.42	AVG		
14		21502.000	36.29	21.36	57.65	74.00	-16.35	peak		
15		21502.000	18.06	21.36	39.42	54.00	-14.58	AVG		
16		24043.500	38.09	19.98	58.07	74.00	-15.93	peak		
17		24043.500	19.14	19.98	39.12	54.00	-14.88	AVG		

*:Maximum data x:Over limit !:over margin

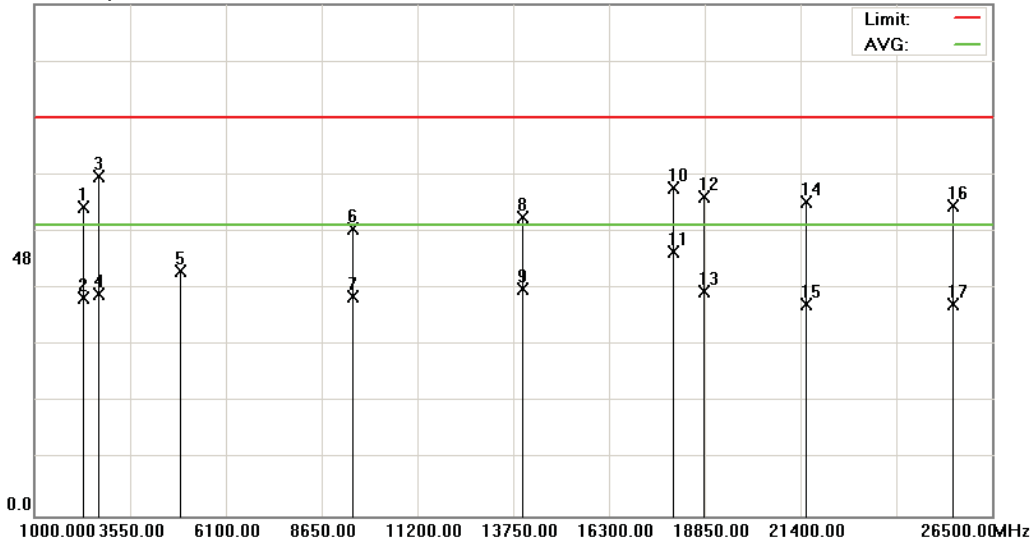
File :PB76110(2412)

Data :#18

Date: 2010/3/24

Time: 下午 03:47:59

95.0 dBuV/m



Site: : 966 Chamber

Polarization: Horizontal

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 4

Note: CH01(2412MHz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2298.800	56.89	0.53	57.42	74.00	-16.58	peak		
2		2298.800	39.95	0.53	40.48	54.00	-13.52	AVG		
3		2700.000	40.40	22.58	62.98	74.00	-11.02	peak		
4		2700.000	18.73	22.58	41.31	54.00	-12.69	AVG		
5		4864.450	37.77	7.69	45.46	74.00	-28.54	peak		
6		9448.850	36.20	17.02	53.22	74.00	-20.78	peak		
7		9448.850	23.76	17.02	40.78	54.00	-13.22	AVG		
8		13984.000	36.77	18.63	55.40	74.00	-18.60	peak		
9		13984.000	23.63	18.63	42.26	54.00	-11.74	AVG		
10		18000.000	35.37	25.57	60.94	74.00	-13.06	peak		
11	*	18000.000	23.48	25.57	49.05	54.00	-4.95	AVG		
12		18824.500	36.19	23.15	59.34	74.00	-14.66	peak		
13		18824.500	18.45	23.15	41.60	54.00	-12.40	AVG		
14		21536.000	36.94	21.34	58.28	74.00	-15.72	peak		
15		21536.000	18.06	21.34	39.40	54.00	-14.60	AVG		
16		25437.500	38.63	19.02	57.65	74.00	-16.35	peak		
17		25437.500	20.38	19.02	39.40	54.00	-14.60	AVG		

*:Maximum data x:Over limit !:over margin

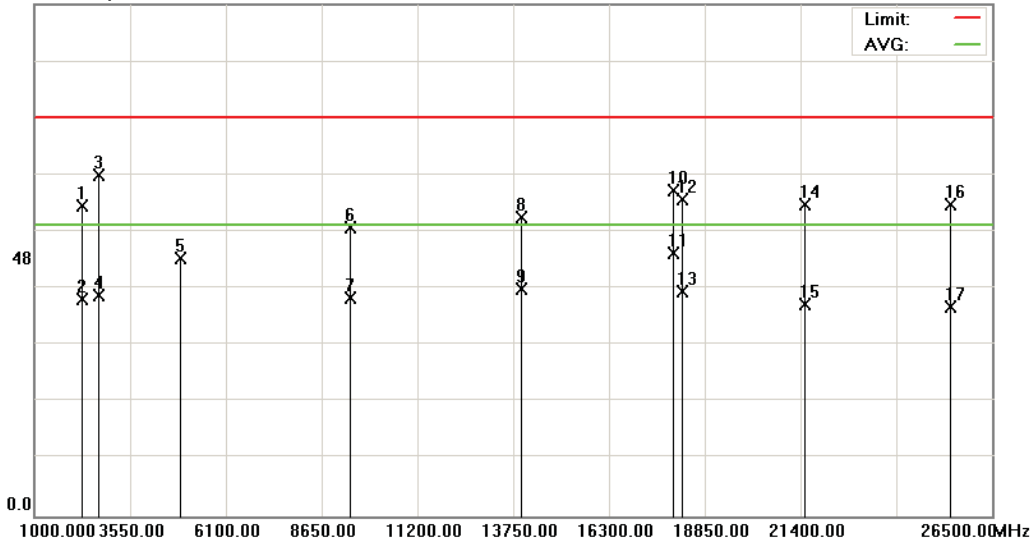
File :PB76110(2437)

Data :#17

Date: 2010/3/24

Time: 下午 03:50:09

95.0 dBuV/m



Site: : 966 Chamber

Polarization: **Vertical**

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 4

Note: CH06(2437MHz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		2270.750	57.29	0.42	57.71	74.00	-16.29	peak		
2		2270.750	39.79	0.42	40.21	54.00	-13.79	AVG		
3		2700.000	40.60	22.58	63.18	74.00	-10.82	peak		
4		2700.000	18.49	22.58	41.07	54.00	-12.93	AVG		
5		4875.400	40.24	7.73	47.97	74.00	-26.03	peak		
6		9405.050	36.48	17.09	53.57	74.00	-20.43	peak		
7		9405.050	23.31	17.09	40.40	54.00	-13.60	AVG		
8		13932.000	36.96	18.54	55.50	74.00	-18.50	peak		
9		13932.000	23.62	18.54	42.16	54.00	-11.84	AVG		
10		17988.000	35.20	25.34	60.54	74.00	-13.46	peak		
11	*	17988.000	23.57	25.34	48.91	54.00	-5.09	AVG		
12		18246.500	35.47	23.21	58.68	74.00	-15.32	peak		
13		18246.500	18.55	23.21	41.76	54.00	-12.24	AVG		
14		21514.750	36.40	21.35	57.75	74.00	-16.25	peak		
15		21514.750	18.06	21.35	39.41	54.00	-14.59	AVG		
16		25390.750	38.85	19.05	57.90	74.00	-16.10	peak		
17		25390.750	19.78	19.05	38.83	54.00	-15.17	AVG		

*:Maximum data x:Over limit !:over margin

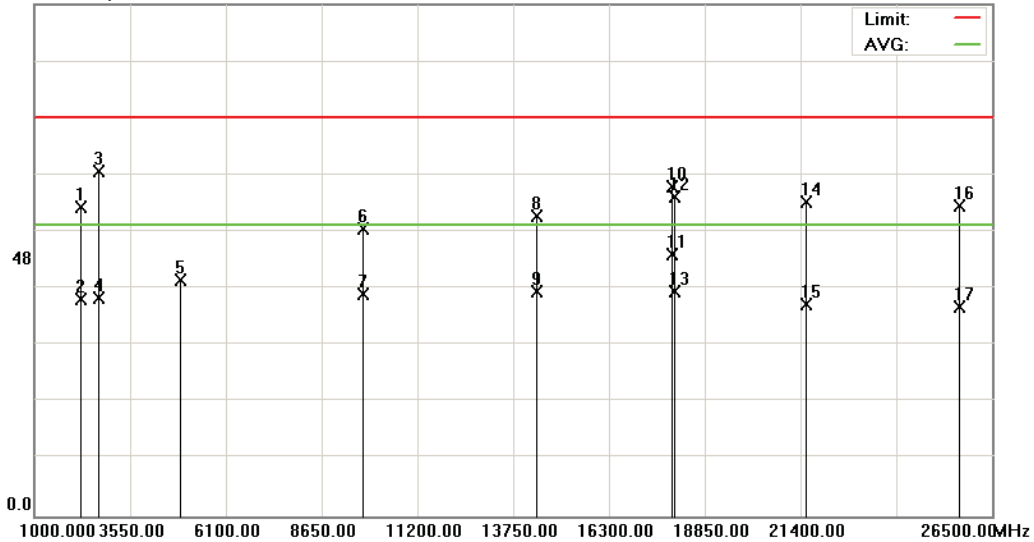
File :PB76110(2437)

Data :#18

Date: 2010/3/24

Time: 下午 03:51:27

95.0 dBuV/m



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PB76110
Mode: 4
Note: CH06(2437MHz)

Polarization: **Horizontal**
Power: AC 120V/60Hz
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %
RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree	Comment
1		2206.150	56.82	0.46	57.28	74.00	-16.72	peak		
2		2206.150	39.87	0.46	40.33	54.00	-13.67	AVG		
3		2703.650	42.19	21.89	64.08	74.00	-9.92	peak		
4		2703.650	18.72	21.89	40.61	54.00	-13.39	AVG		
5		4874.000	36.18	7.72	43.90	74.00	-30.10	peak		
6		9740.850	35.67	17.66	53.33	74.00	-20.67	peak		
7		9740.850	23.45	17.66	41.11	54.00	-12.89	AVG		
8		14376.000	37.52	18.22	55.74	74.00	-18.26	peak		
9		14376.000	23.39	18.22	41.61	54.00	-12.39	AVG		
10		17968.000	36.16	24.98	61.14	74.00	-12.86	peak		
11	*	17968.000	23.52	24.98	48.50	54.00	-5.50	AVG		
12		18055.250	35.93	23.26	59.19	74.00	-14.81	peak		
13		18055.250	18.46	23.26	41.72	54.00	-12.28	AVG		
14		21544.500	36.95	21.33	58.28	74.00	-15.72	peak		
15		21544.500	17.91	21.33	39.24	54.00	-14.76	AVG		
16		25620.250	38.68	18.89	57.57	74.00	-16.43	peak		
17		25620.250	19.97	18.89	38.86	54.00	-15.14	AVG		

*:Maximum data x:Over limit !:over margin

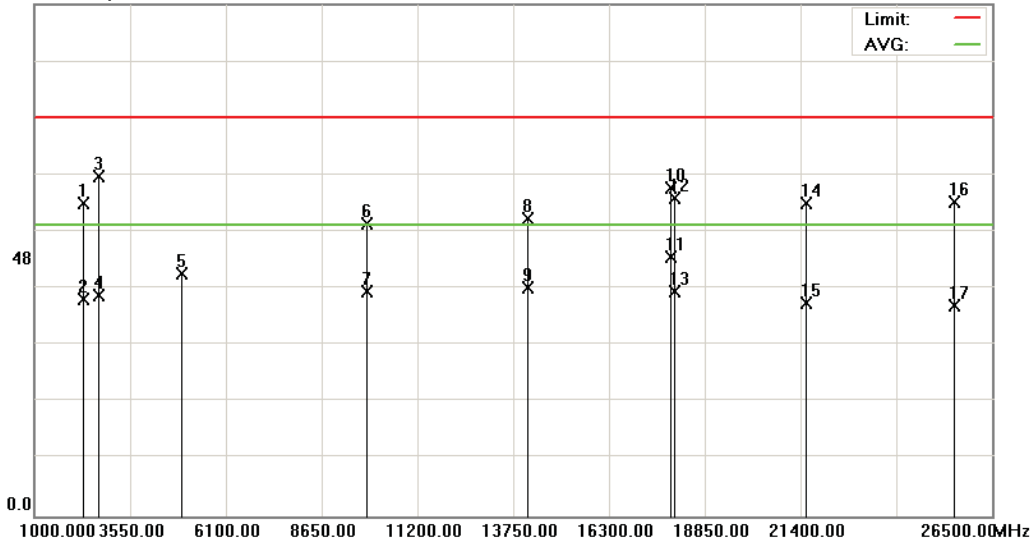
File :PB76110(2462)

Data :#17

Date: 2010/3/24

Time: 下午 03:43:39

95.0 dBuV/m



Site: : 966 Chamber

Limit: FCC part 15 (PK)

EUT: Smartphone

M/N: PB76110

Mode: 4

Note: CH11(2462MHz)

Polarization: **Vertical**

Power: AC 120V/60Hz

Distance: 3m

Temperature: 22 ℃

Humidity: 60 %

RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2286.900	57.59	0.41	58.00	74.00	-16.00	peak		
2		2286.900	39.89	0.41	40.30	54.00	-13.70	AVG		
3		2700.000	40.58	22.58	63.16	74.00	-10.84	peak		
4		2700.000	18.46	22.58	41.04	54.00	-12.96	AVG		
5		4924.000	37.46	7.65	45.11	74.00	-28.89	peak		
6		9846.700	36.42	17.88	54.30	74.00	-19.70	peak		
7		9846.700	23.86	17.88	41.74	54.00	-12.26	AVG		
8		14112.000	36.29	18.89	55.18	74.00	-18.82	peak		
9		14112.000	23.58	18.89	42.47	54.00	-11.53	AVG		
10		17920.000	36.18	24.84	61.02	74.00	-12.98	peak		
11	*	17920.000	23.19	24.84	48.03	54.00	-5.97	AVG		
12		18017.000	35.77	23.29	59.06	74.00	-14.94	peak		
13		18017.000	18.47	23.29	41.76	54.00	-12.24	AVG		
14		21536.000	36.62	21.34	57.96	74.00	-16.04	peak		
15		21536.000	18.22	21.34	39.56	54.00	-14.44	AVG		
16		25467.250	39.21	19.00	58.21	74.00	-15.79	peak		
17		25467.250	20.13	19.00	39.13	54.00	-14.87	AVG		

*:Maximum data x:Over limit !:over margin

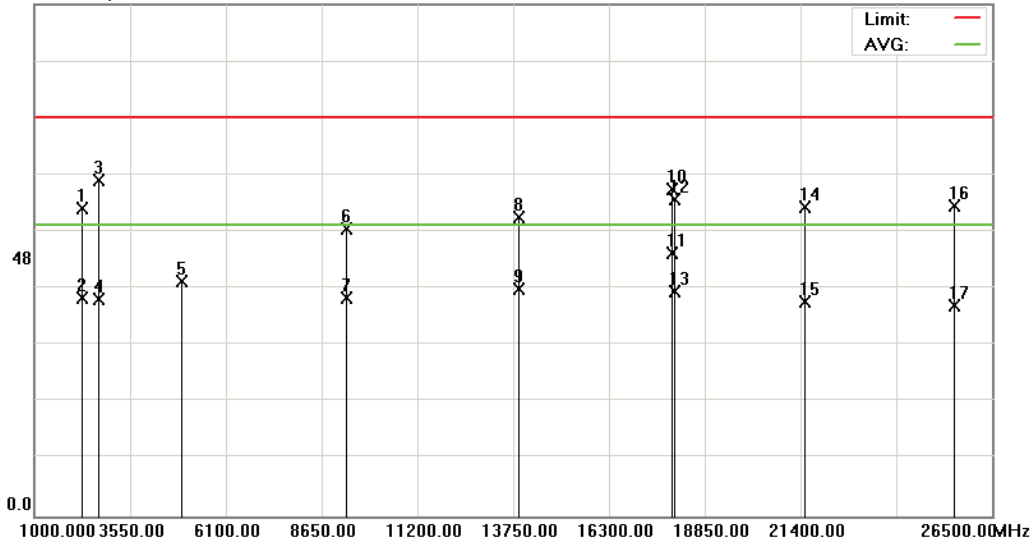
File :PB76110(2462)

Data :#18

Date: 2010/3/24

Time: 下午 03:44:57

95.0 dBuV/m



Site: : 966 Chamber

Polarization: **Horizontal**

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 4

Note: CH11(2462MHz)

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2273.300	56.79	0.43	57.22	74.00	-16.78	peak		
2		2273.300	40.03	0.43	40.46	54.00	-13.54	AVG		
3		2703.650	40.41	21.89	62.30	74.00	-11.70	peak		
4		2703.650	18.39	21.89	40.28	54.00	-13.72	AVG		
5		4924.000	35.91	7.65	43.56	74.00	-30.44	peak		
6		9299.200	36.37	16.88	53.25	74.00	-20.75	peak		
7		9299.200	23.56	16.88	40.44	54.00	-13.56	AVG		
8		13900.000	36.91	18.53	55.44	74.00	-18.56	peak		
9		13900.000	23.71	18.53	42.24	54.00	-11.76	AVG		
10		17980.000	35.40	25.21	60.61	74.00	-13.39	peak		
11	*	17980.000	23.63	25.21	48.84	54.00	-5.16	AVG		
12		18034.000	35.43	23.28	58.71	74.00	-15.29	peak		
13		18034.000	18.38	23.28	41.66	54.00	-12.34	AVG		
14		21519.000	36.08	21.34	57.42	74.00	-16.58	peak		
15		21519.000	18.46	21.34	39.80	54.00	-14.20	AVG		
16		25505.500	38.72	18.98	57.70	74.00	-16.30	peak		
17		25505.500	19.99	18.98	38.97	54.00	-15.03	AVG		

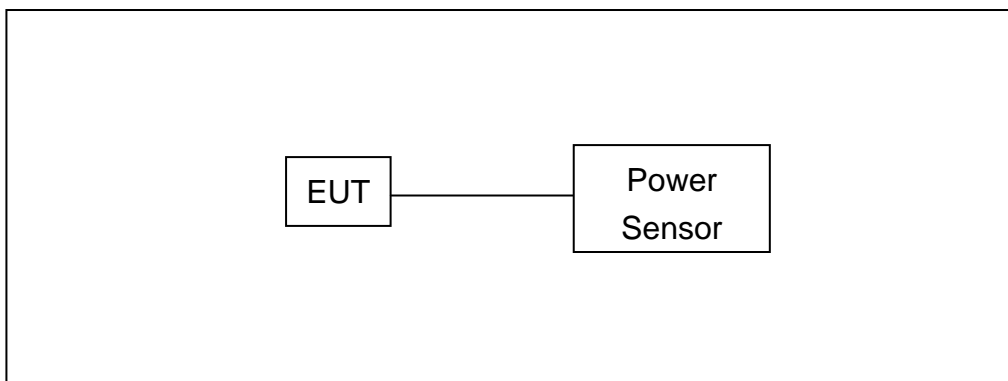
*:Maximum data x:Over limit !:over margin

6 Maximum Conducted Output Power Measurement

6.1. Limit

For systems using digital modulation in the 2400-2483.5MHz, the limit for peak output power is 30dBm.

6.2. Test Setup



6.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	⁽²⁾
Test Site	ATL	TE06	TE06	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

6.4. Test Procedure

The tests below are run with the EUT's transmitter set at high power in TX mode. The EUT is needed to force selection of output power level and channel number. While testing, EUT was set to transmit continuously. Remove the Subjective device's antenna and connect the RF output port to power sensor. The maximum peak output power shall not exceed 1 watt.

Use a direct connection between the antenna port of transmitter and the power sensor, for prevent the power sensor input attenuation 40-50 dB. Set the RBW Bandwidth of the emission or use a channel power meter mode.

For antennas with gains of 6 dBi or less, maximum allowed transmitter output is 1 watt (+30 dBm). For antennas with gains greater than 6 dBi, transmitter output level must be decreased by an amount equal to (GAIN - 6)/3 dBm.

The antenna port of the EUT was connected to the input of a power sensor. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.

6.5. Test Result

Product	Smartphone					
Test Item	Maximum Conducted Output Power					
Test Mode	Mode 3: IEEE 802.11b Link Mode					
Date of Test	03/19/2010			Test Site	TE06	
Frequency (MHz)	Data Rate	Average Power		Peak Power		Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	
2412	1	16.61	0.046	18.63	0.073	< 30
2437	1	17.08	0.051	23.60	0.229	< 30
2462	1	17.41	0.055	23.83	0.242	< 30
2412	11	15.74	0.037	23.86	0.243	< 30
2437	11	15.88	0.039	24.00	0.251	< 30
2462	11	16.30	0.043	24.66	0.292	< 30

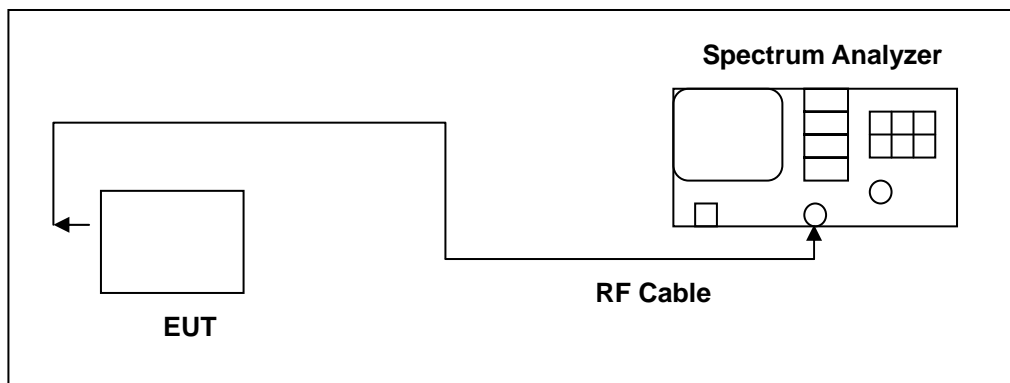
Product	Smartphone					
Test Item	Maximum Conducted Output Power					
Test Mode	Mode 4: IEEE 802.11g Link Mode					
Date of Test	03/19/2010			Test Site	TE06	
Frequency (MHz)	Data Rate	Average Power		Peak Power		Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	
2412	6	17.59	0.057	24.09	0.256	< 30
2437	6	18.01	0.063	24.40	0.275	< 30
2462	6	18.24	0.067	24.51	0.282	< 30
2412	54	17.15	0.052	23.95	0.248	< 30
2437	54	17.53	0.057	24.50	0.282	< 30
2462	54	17.85	0.061	24.74	0.298	< 30

7 6dB RF Bandwidth Measurement

7.1. Limit

Systems using digital modulation techniques may operate in the 2400–2483.5 MHz bands. The minimum 6 dB band-width shall be at least 500 kHz.

7.2. Test Setup



7.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	⁽²⁾
Test Site	ATL	TE06	TE06	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

7.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A peak output reading was taken, a DISPLAY line was drawn 6 dB lower than peak level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.

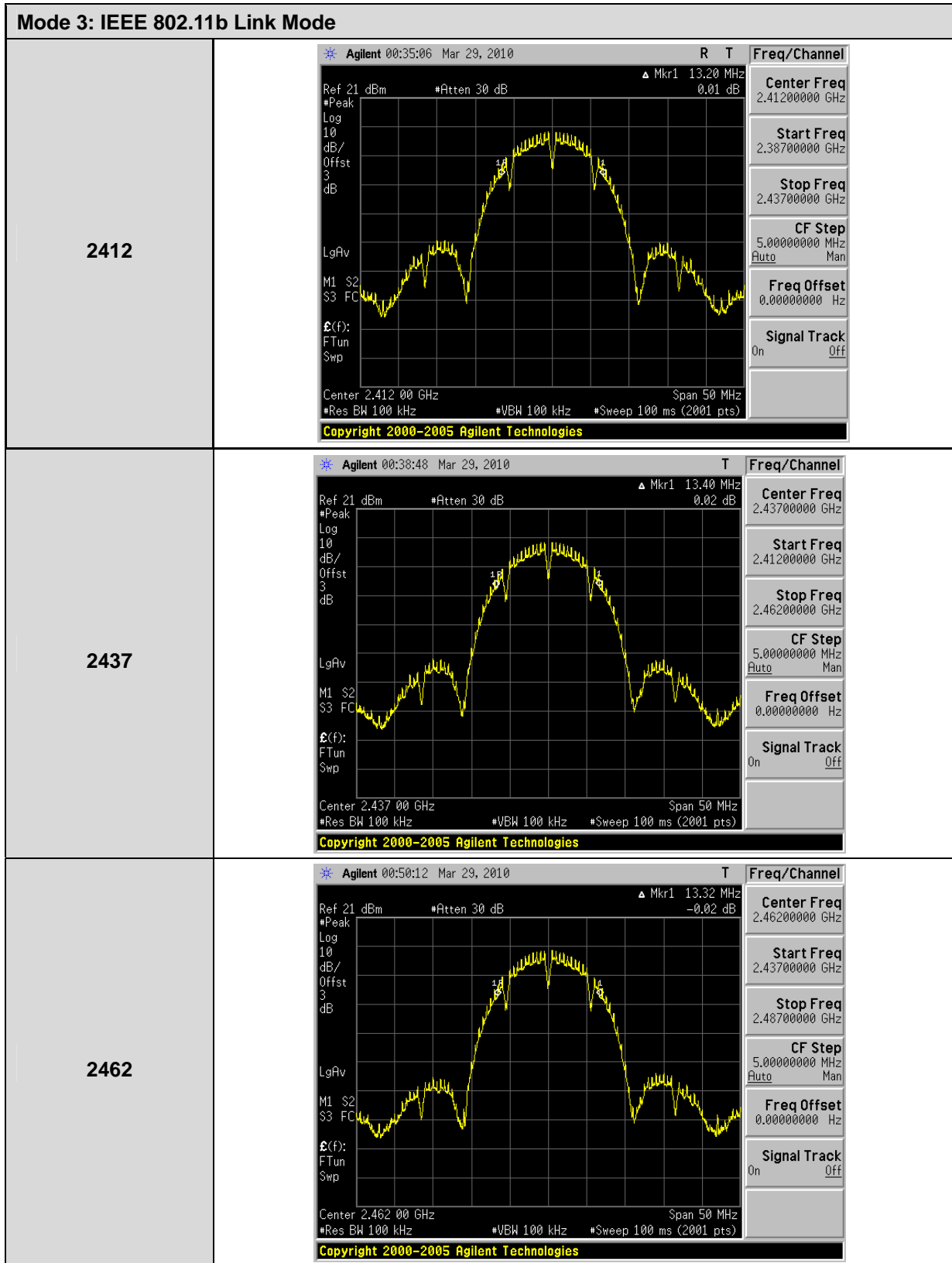
The test was performed at 3 channels (Channel 1, 6, 11)

7.5. Test Result

Product	Smartphone		
Test Item	6dB RF Bandwidth		
Test Mode	Mode 3: IEEE 802.11b Link Mode		
Date of Test	03/29/2010	Test Site	TE06
Frequency (MHz)	Measurement (kHz)	Limit (kHz)	
2412	13200	> 500	
2437	13400	> 500	
2462	13320	> 500	

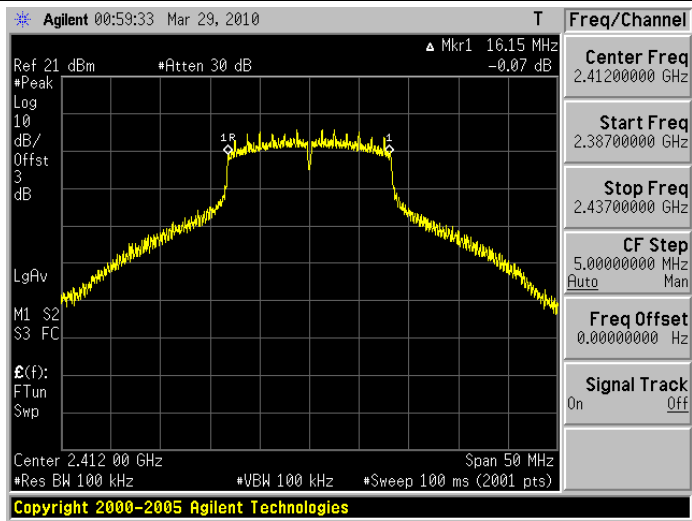
Product	Smartphone		
Test Item	6dB RF Bandwidth		
Test Mode	Mode 4: IEEE 802.11g Link Mode		
Date of Test	03/29/2010	Test Site	TE06
Frequency (MHz)	Measurement (kHz)	Limit (kHz)	
2412	16150	> 500	
2437	16120	> 500	
2462	15880	> 500	

7.6. Test Graphs

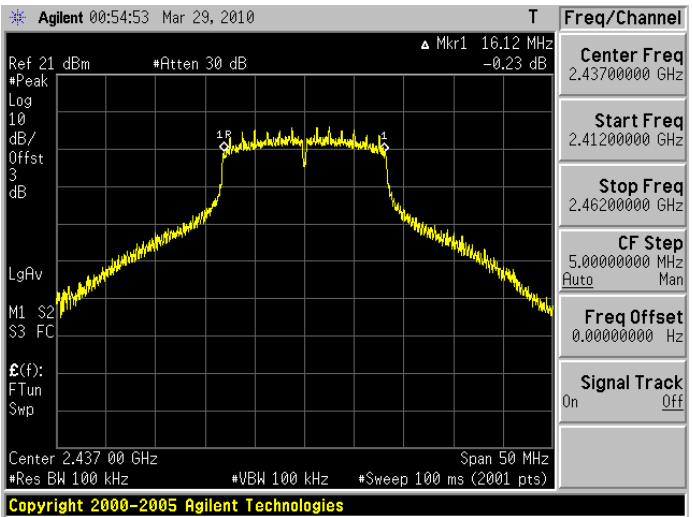


Mode 4: IEEE 802.11g Link Mode

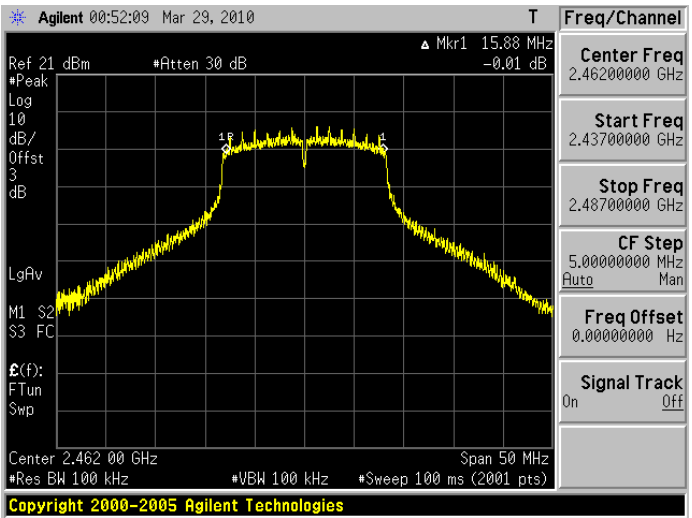
2412



2437



2462

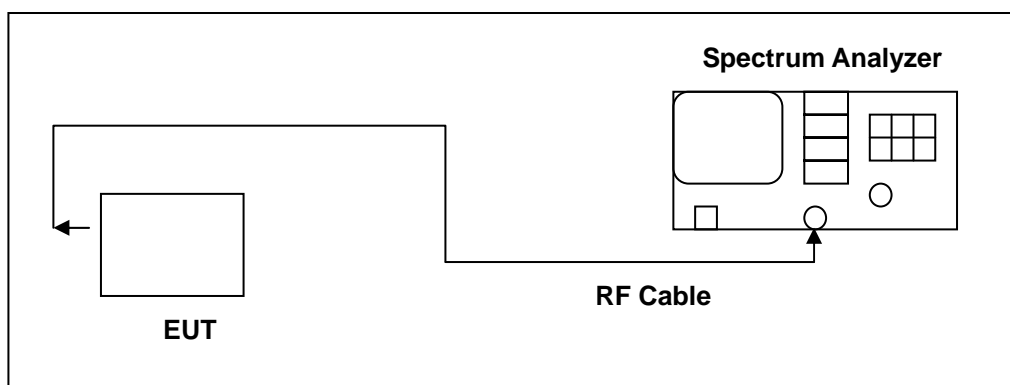


8 Maximum Power Density Measurement

8.1. Limit

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.

8.2. Test Setup



8.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	⁽²⁾
Test Site	ATL	TE06	TE06	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

8.4. Test Procedure

The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The spectrum analyzer RES BW was set to 3 kHz. The START and STOP frequencies were set to the band edges of the maximum output pass band. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs. The specification calls for a 1 second interval at each 3 kHz bandwidth; total SWEEP TIME is calculated as follows:

$$\text{SWEEP TIME (SEC)} = (\text{Fstop, kHz} - \text{Fstart, kHz}) / 3 \text{ kHz}$$

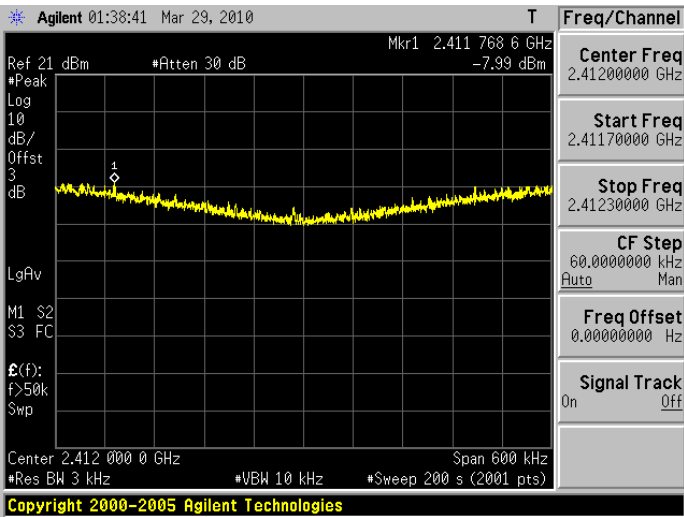
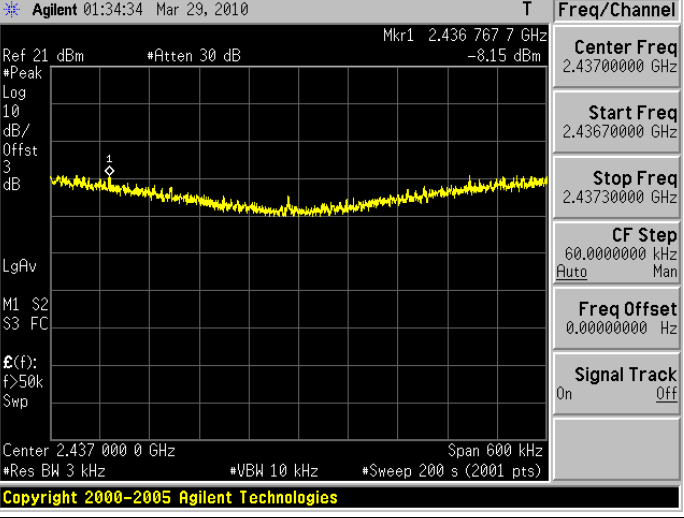
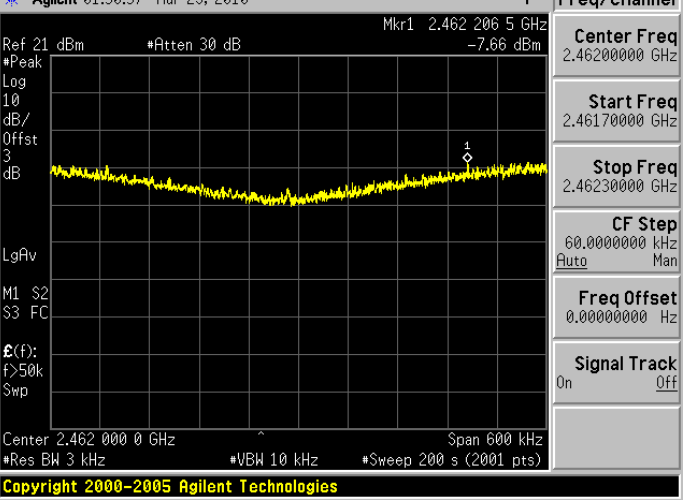
Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

8.5. Test Result

Product	Smartphone		
Test Item	Maximum Power Density		
Test Mode	Mode 3: IEEE 802.11b Link Mode		
Date of Test	03/29/2010	Test Site	TE06
Frequency (MHz)	Measurement (dBm)	Limit (dBm)	
2412	-7.99	< 8	
2437	-8.15	< 8	
2462	-7.66	< 8	

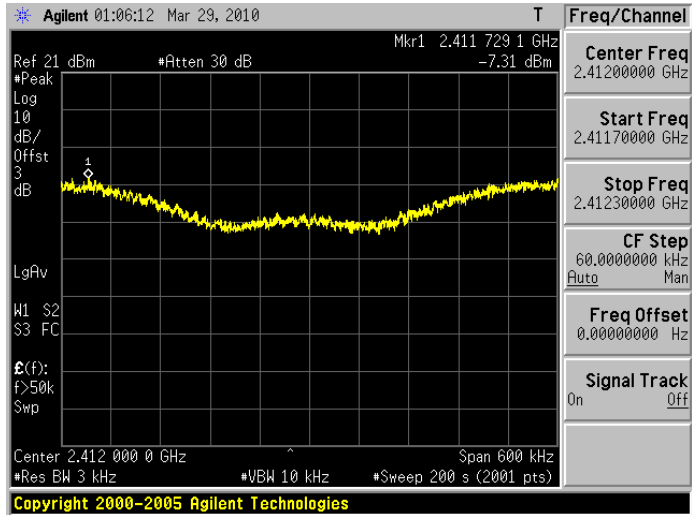
Product	Smartphone		
Test Item	Maximum Power Density		
Test Mode	Mode 4: IEEE 802.11g Link Mode		
Date of Test	03/29/2010	Test Site	TE06
Frequency (MHz)	Measurement (dBm)	Limit (dBm)	
2412	-7.31	< 8	
2437	-7.06	< 8	
2462	-7.04	< 8	

8.6. Test Graphs

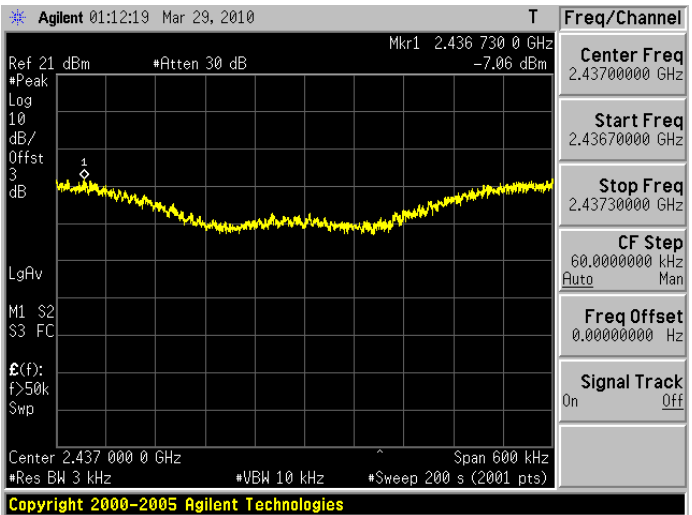
Mode 3: IEEE 802.11b Link Mode	
2412	 <p>Agilent 01:38:41 Mar 29, 2010</p> <p>Ref 21 dBm #Atten 30 dB Mkr1 2.411 768 6 GHz -7.99 dBm</p> <p>#Peak Log 10 dB/ Offst 3 dB</p> <p>LgAv</p> <p>M1 S2 S3 FC</p> <p>E(f): f>50k Swp</p> <p>Center 2.412 000 0 GHz Span 600 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 200 s (2001 pts)</p> <p>Copyright 2000-2005 Agilent Technologies</p> <p>Freq/Channel</p> <p>Center Freq 2.41200000 GHz</p> <p>Start Freq 2.41170000 GHz</p> <p>Stop Freq 2.41230000 GHz</p> <p>CF Step 60.0000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
2437	 <p>Agilent 01:34:34 Mar 29, 2010</p> <p>Ref 21 dBm #Atten 30 dB Mkr1 2.436 767 7 GHz -8.15 dBm</p> <p>#Peak Log 10 dB/ Offst 3 dB</p> <p>LgAv</p> <p>M1 S2 S3 FC</p> <p>E(f): f>50k Swp</p> <p>Center 2.437 000 0 GHz Span 600 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 200 s (2001 pts)</p> <p>Copyright 2000-2005 Agilent Technologies</p> <p>Freq/Channel</p> <p>Center Freq 2.43700000 GHz</p> <p>Start Freq 2.43670000 GHz</p> <p>Stop Freq 2.43730000 GHz</p> <p>CF Step 60.0000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>
2462	 <p>Agilent 01:30:37 Mar 29, 2010</p> <p>Ref 21 dBm #Atten 30 dB Mkr1 2.462 206 5 GHz -7.66 dBm</p> <p>#Peak Log 10 dB/ Offst 3 dB</p> <p>LgAv</p> <p>M1 S2 S3 FC</p> <p>E(f): f>50k Swp</p> <p>Center 2.462 000 0 GHz Span 600 kHz #Res BW 3 kHz #VBW 10 kHz #Sweep 200 s (2001 pts)</p> <p>Copyright 2000-2005 Agilent Technologies</p> <p>Freq/Channel</p> <p>Center Freq 2.46200000 GHz</p> <p>Start Freq 2.46170000 GHz</p> <p>Stop Freq 2.46230000 GHz</p> <p>CF Step 60.0000000 kHz Auto Man</p> <p>Freq Offset 0.00000000 Hz</p> <p>Signal Track On Off</p>

Mode 4: IEEE 802.11g Link Mode

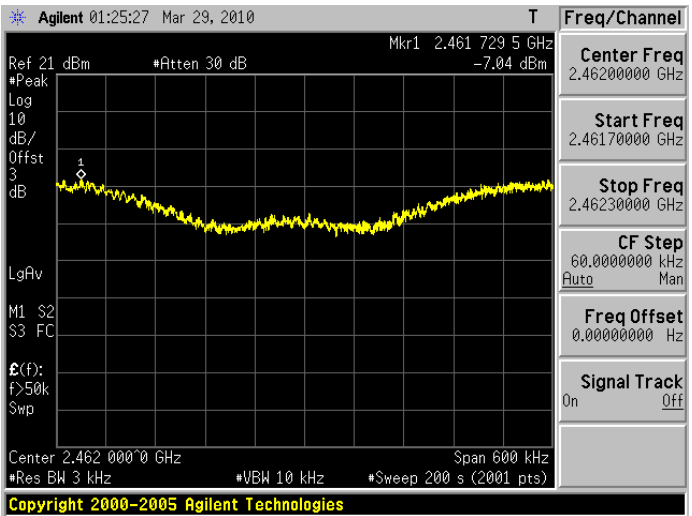
2412



2437



2462

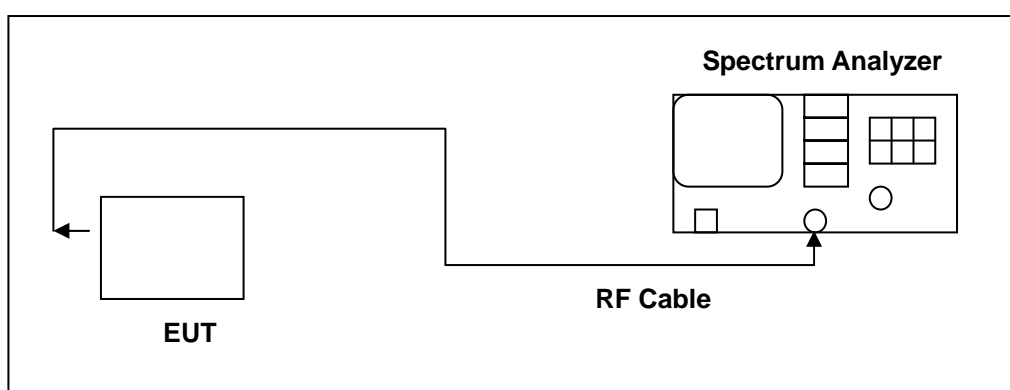


9 Out of Band Conducted Emissions Measurement

9.1. Limit

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

9.2. Test Setup



9.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY46181986	05/14/2009	⁽²⁾
Test Site	ATL	TE06	TE06	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

9.4. Test Procedure

In any 100 kHz bandwidth outside the EUT pass band, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission, antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

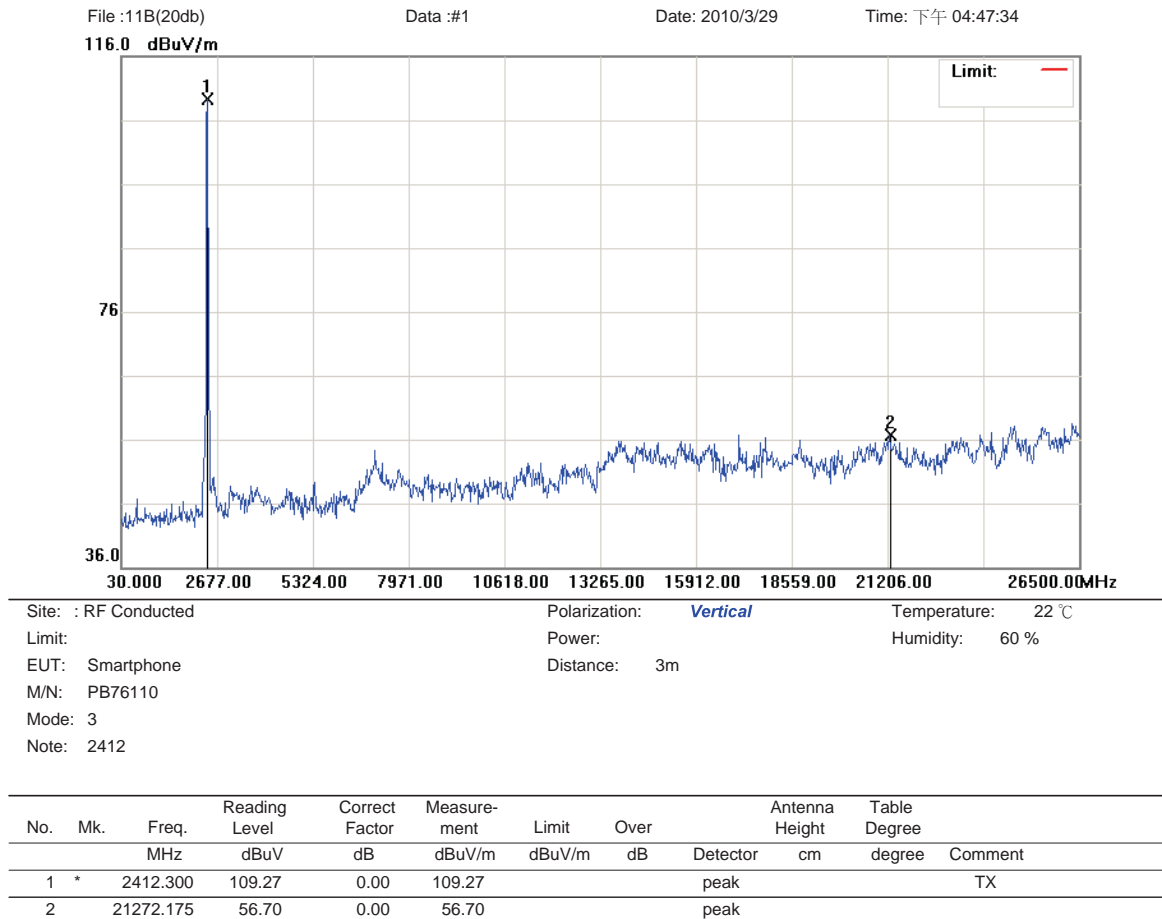
All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the pass band. The test was performed at 3 channels (Channel 1, 6, 11)

9.5. Test Result

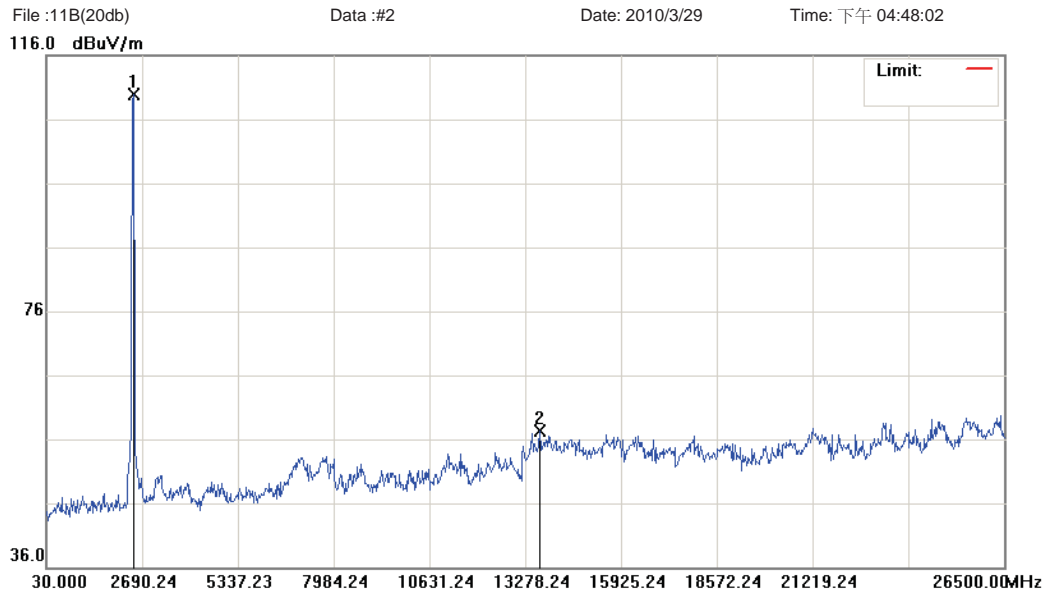
Product	Smartphone		
Test Item	Out of Band Conducted Emissions		
Test Mode	Mode 3: IEEE 802.11b Link Mode		
Date of Test	03/29/2010	Test Site	TE06
Frequency (MHz)	Fundamental (dBμV)	Limit (dBμV)	Measurement (dBμV)
2412	109.27	89.27	56.70
2437	109.81	89.81	57.28
2462	110.26	90.26	57.58

Product	Smartphone		
Test Item	Out of Band Conducted Emissions		
Test Mode	Mode 4: IEEE 802.11g Link Mode		
Date of Test	03/29/2010	Test Site	TE06
Frequency (MHz)	Fundamental (dBμV)	Limit (dBμV)	Measurement (dBμV)
2412	-1.03	-21.03	-50.67
2437	-1.77	-21.77	-52.22
2462	-1.96	-21.96	-51.68

9.6. Test Graphs



*:Maximum data x:Over limit !:over margin



Site: : RF Conducted Polarization: *Vertical* Temperature: 22 ℃
 Limit: Power: Humidity: 60 %
 EUT: Smartphone Distance: 3m
 M/N: PB76110
 Mode: 3
 Note: 2437

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2438.770	109.81	0.00	109.81			peak		TX
2		13662.050	57.28	0.00	57.28			peak		

*:Maximum data x:Over limit !:over margin

File :11B(20db)

Data :#3

Date: 2010/3/29

Time: 下午 04:48:30

116.0 dBuV/m



Site : RF Conducted

Polarization: *Vertical*

Temperature: 22 ℃

Limit:

Power:

Humidity: 60 %

EUT: Smartphone

Distance: 3m

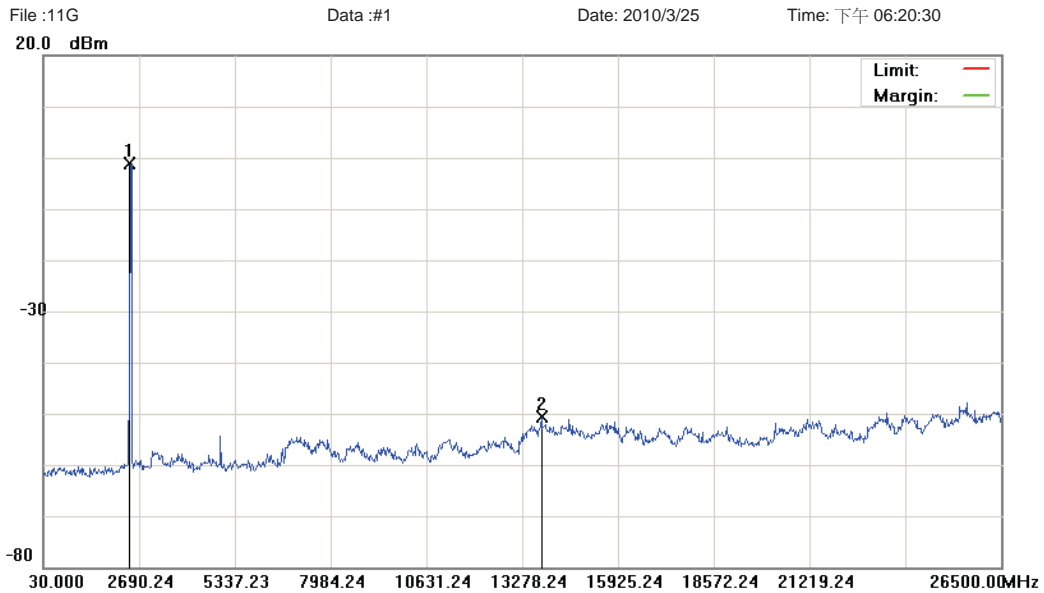
M/N: PB76110

Mode: 3

Note: 2462

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2465.240	110.26	0.00	110.26			peak		TX
2		21285.410	57.58	0.00	57.58			peak		

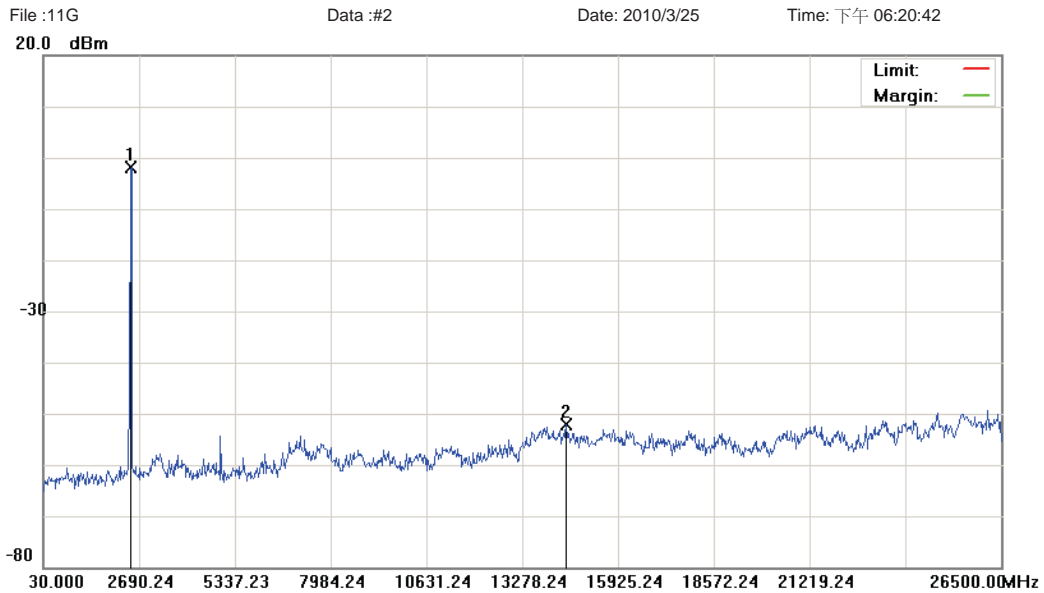
*:Maximum data x:Over limit !:over margin



Site: : RF Conducted Polarization: Temperature: 22 ℃
 Limit: Power: Humidity: 60 %
 EUT: Smartphone Distance:
 M/N: PB76110
 Mode: 4
 Note: CH01

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2412.000	-1.03	0.00	-1.03			peak		TX
2		13794.400	-50.67	0.00	-50.67			peak		

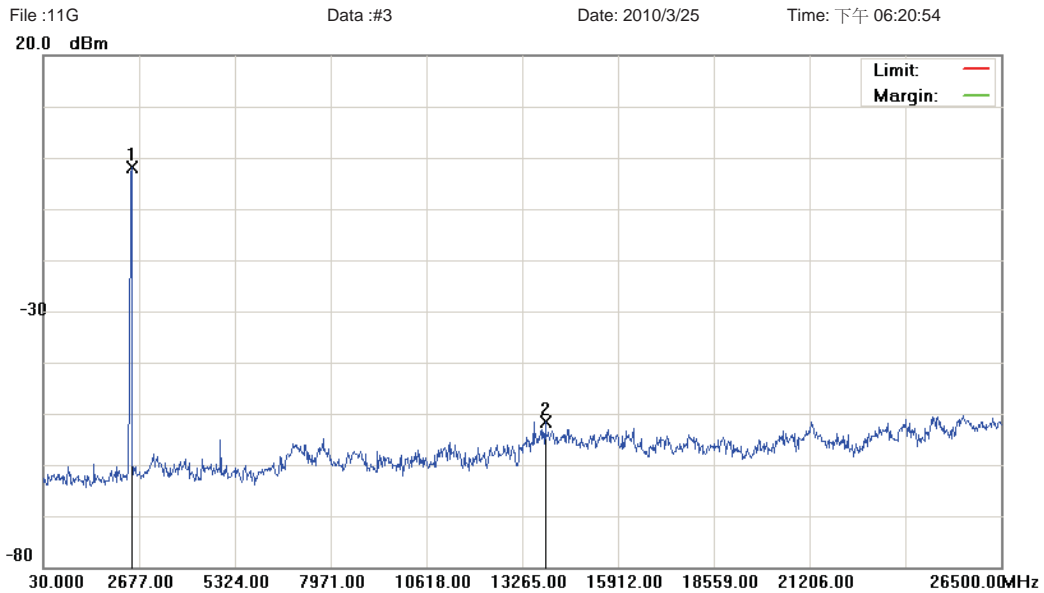
*:Maximum data x:Over limit !:over margin



Site: : RF Conducted	Polarization:	Temperature: 22 ℃
Limit:	Power:	Humidity: 60 %
EUT: Smartphone	Distance:	
M/N: PB76110		
Mode: 4		
Note: CH06		

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree
1	*	2437.000	-1.77	0.00	-1.77			peak		TX
2		14482.620	-52.22	0.00	-52.22			peak		

*:Maximum data x:Over limit !:over margin



Site: : RF Conducted	Polarization:	Temperature: 22 ℃
Limit:	Power:	Humidity: 60 %
EUT: Smartphone	Distance:	
M/N: PB76110		
Mode: 4		
Note: CH11		

No.	Mk.	Freq. MHz	Reading Level dBm	Correct Factor dB	Measure- ment dBm	Limit dBm	Over dB	Antenna Height cm	Table Degree degree	Comment
1	*	2462.000	-1.96	0.00	-1.96			peak		TX
2		13900.280	-51.68	0.00	-51.68			peak		

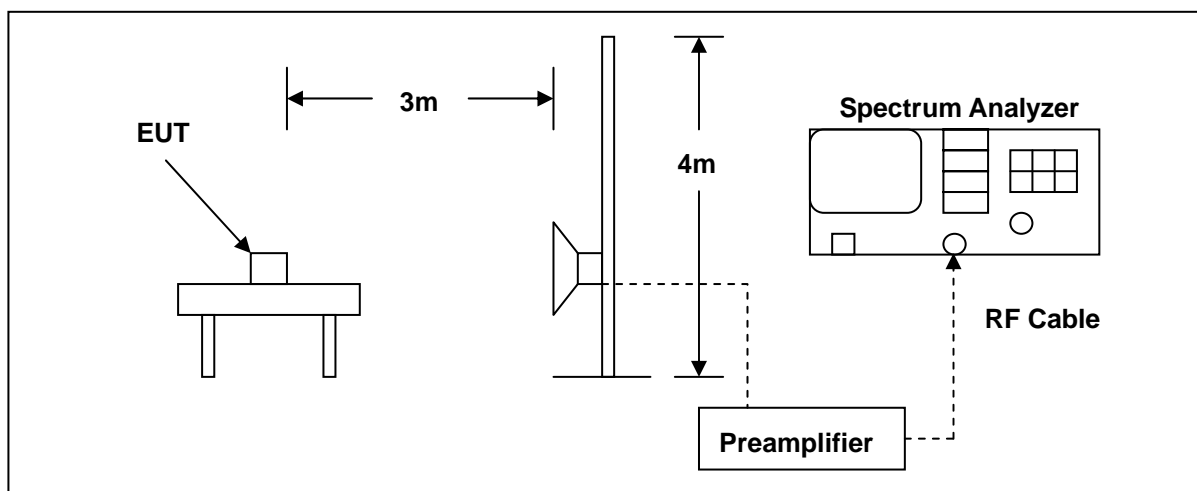
*:Maximum data x:Over limit !:over margin

10 Band Edges Measurement

10.1. Limit

In any 100 kHz bandwidth outside the intentional radiation frequency band, the radio frequency power shall be at least 20 dB below the highest level of the radiated power. In addition, radiated emissions which fall in the restricted bands must also comply with the radiated emission limits.

10.2. Test Setup



10.3. Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4408B	MY45107753	06/23/2009	(2)
Pre Amplifier	Agilent	8449B	3008A02237	07/01/2009	(1)
Horn Antenna	SCHWARZBECK MESS-ELEKTRONIK	9120D	9120D-550	07/01/2009	(2)
Test Site	ATL	TE06	TE06	N.C.R.	-----

Remark: ⁽¹⁾ Calibration period 1 year. ⁽²⁾ Calibration period 2 years.

NOTE: N.C.R. = No Calibration Request.

10.4. Test Procedure

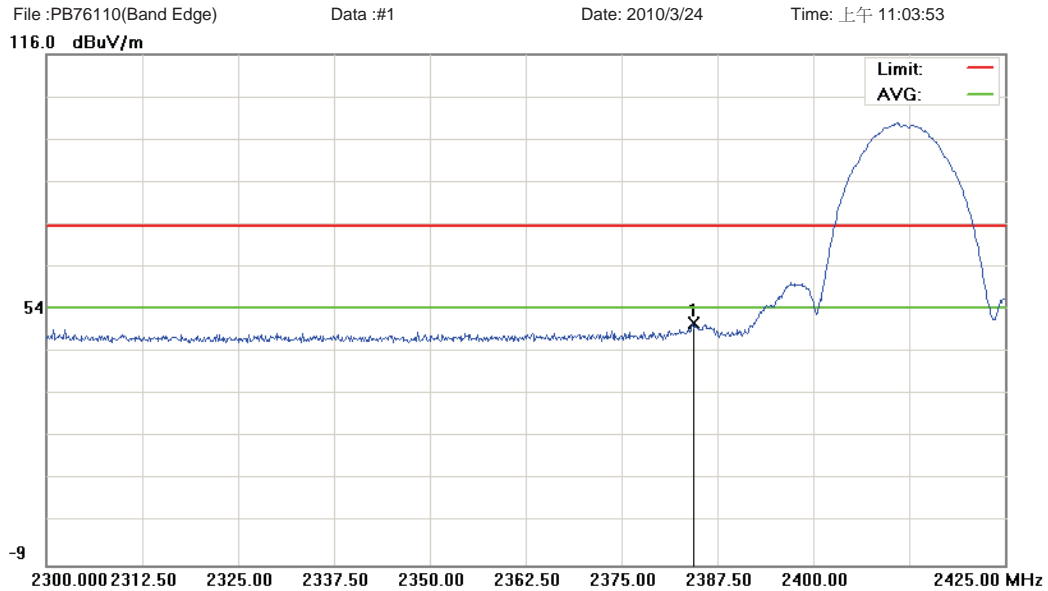
The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The emissions on the harmonics frequencies, the limits, and the margin of compliance are presented. These tests were made when the transmitter was in full radiated power. The additional test was performed to show compliance with the requirement at the band-edge frequency 2483.5 MHz and up to 2500 MHz and at 2390.0 MHz.

The transmitter was configured with the worst case antenna and setup to transmit at the highest channel. Then the field strength was measured at 2483.5 MHz.

The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel. Then the field strength was measured at 2390.0 MHz. These tests were performed at 4 different bit rates.

10.5. Test Graphs



Site: : 966 Chamber Polarization: **Vertical** Temperature: 22 °C
Limit: FCC part 15 (PK) Power: AC 120V/60Hz Humidity: 60 %
EUT: Smartphone Distance: 3m RBW: 1000 KHz VBW: 1000 KHz
M/N: PB76110
Mode: 3
Note: 2412MHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2384.313	50.06	0.18	50.24	74.00	-23.76	peak		Comment

*:Maximum data x:Over limit !:over margin

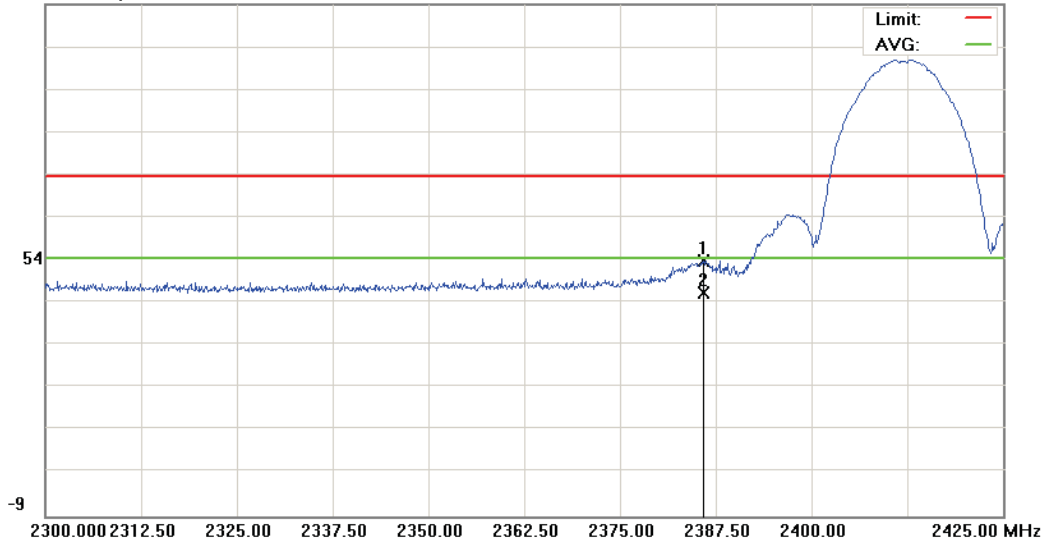
File :PB76110(Band Edge)

Data :#3

Date: 2010/3/24

Time: 上午 11:05:32

116.0 dBuV/m



Site: : 966 Chamber

Polarization: **Horizontal**

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 3

Note: 2412MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2385.875	53.26	0.18	53.44	74.00	-20.56	peak		
2	*	2385.875	45.50	0.18	45.68	54.00	-8.32	AVG		

*:Maximum data x:Over limit !:over margin

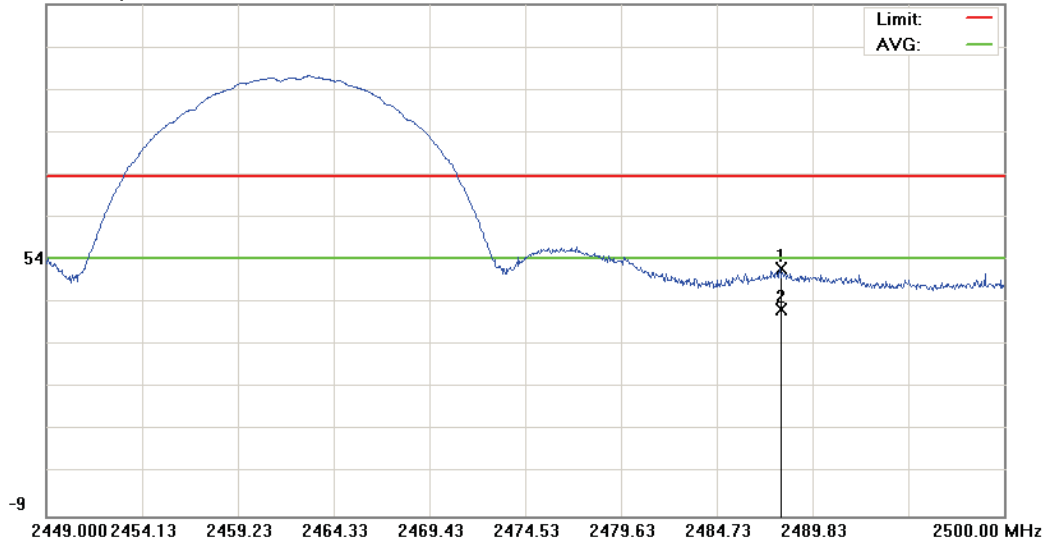
File :PB76110(Band Edge)

Data :#5

Date: 2010/3/24

Time: 上午 11:25:37

116.0 dBuV/m



Site: : 966 Chamber

Limit: FCC part 15 (PK)

EUT: Smartphone

M/N: PB76110

Mode: 3

Note: 2462MHz

Polarization: *Vertical*

Power: AC 120V/60Hz

Distance: 3m

Temperature: 22 ℃

Humidity: 60 %

RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2488.092	51.21	0.23	51.44	74.00	-22.56	peak		
2	*	2488.092	41.24	0.23	41.47	54.00	-12.53	AVG		

*:Maximum data x:Over limit !:over margin

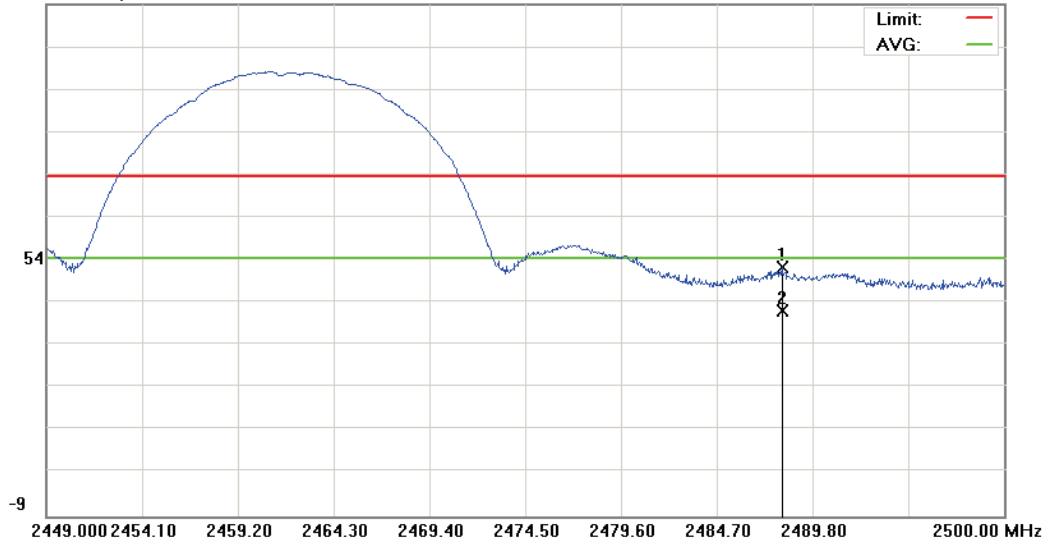
File :PB76110(Band Edge)

Data :#7

Date: 2010/3/24

Time: 上午 11:31:52

116.0 dBuV/m



Site: : 966 Chamber

Limit: FCC part 15 (PK)

EUT: Smartphone

M/N: PB76110

Mode: 3

Note: 2462MHz

Polarization: **Horizontal**

Power: AC 120V/60Hz

Distance: 3m

Temperature: 22 ℃

Humidity: 60 %

RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2488.168	51.66	0.23	51.89	74.00	-22.11	peak		
2	*	2488.168	40.98	0.23	41.21	54.00	-12.79	AVG		

*:Maximum data x:Over limit !:over margin

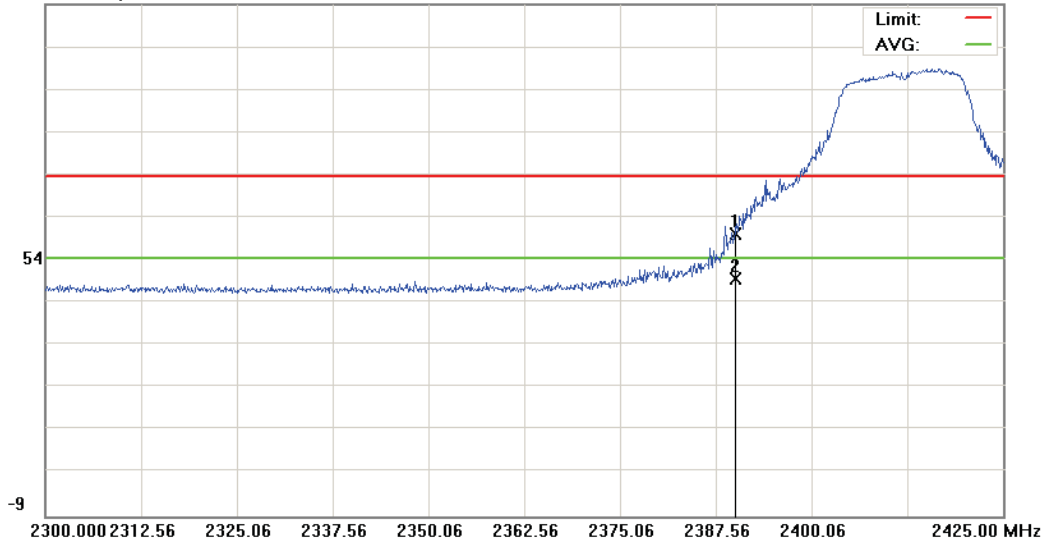
File :PB76110(Band Edge)

Data :#1

Date: 2010/3/24

Time: 上午 11:55:38

116.0 dBuV/m



Site: : 966 Chamber

Polarization: *Vertical*

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 4

Note: 2412MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2390.000	59.76	0.19	59.95	74.00	-14.05	peak		
2	*	2390.000	48.65	0.19	48.84	54.00	-5.16	AVG		

*:Maximum data x:Over limit !:over margin

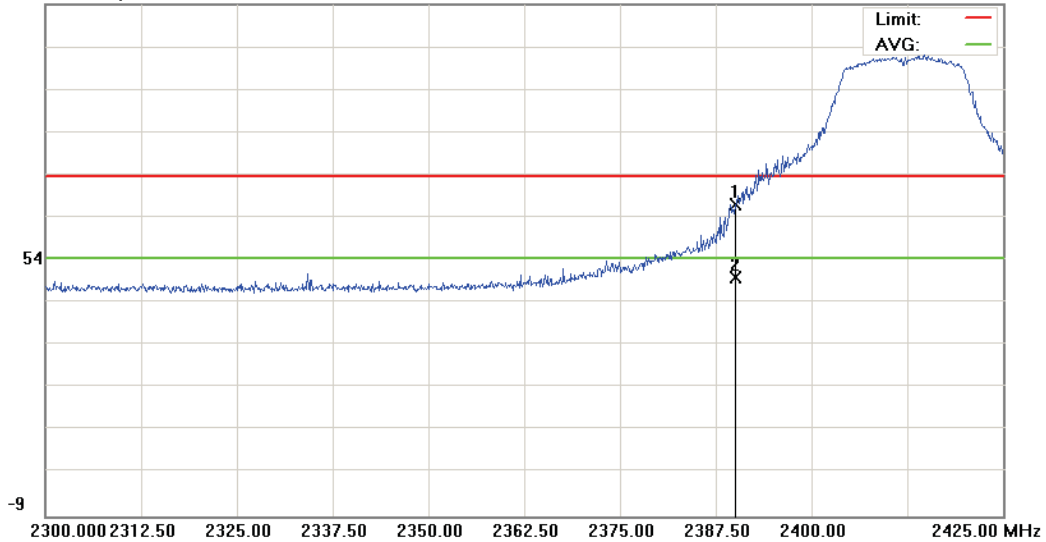
File :PB76110(Band Edge)

Data :#3

Date: 2010/3/24

Time: 下午 12:00:32

116.0 dBuV/m



Site: : 966 Chamber

Polarization: *Horizontal*

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 4

Note: 2412MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2390.000	67.02	0.19	67.21	74.00	-6.79	peak		
2	*	2390.000	49.06	0.19	49.25	54.00	-4.75	AVG		

*:Maximum data x:Over limit !:over margin

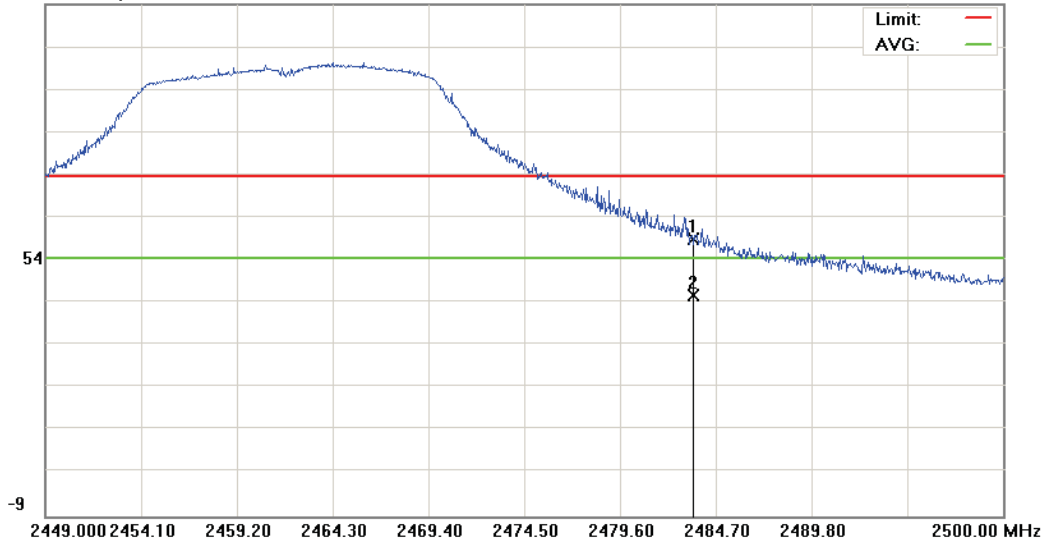
File :PB76110(Band Edge)

Data :#5

Date: 2010/3/24

Time: 下午 01:35:19

116.0 dBuV/m



Site: : 966 Chamber

Limit: FCC part 15 (PK)

EUT: Smartphone

M/N: PB76110

Mode: 4

Note: 2462MHz

Polarization: **Vertical**

Power: AC 120V/60Hz

Distance: 3m

Temperature: 22 ℃

Humidity: 60 %

RBW: 1000 KHz VBW: 1000 KHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2483.500	58.36	0.25	58.61	74.00	-15.39	peak		
2	*	2483.500	44.70	0.25	44.95	54.00	-9.05	AVG		

*:Maximum data x:Over limit !:over margin

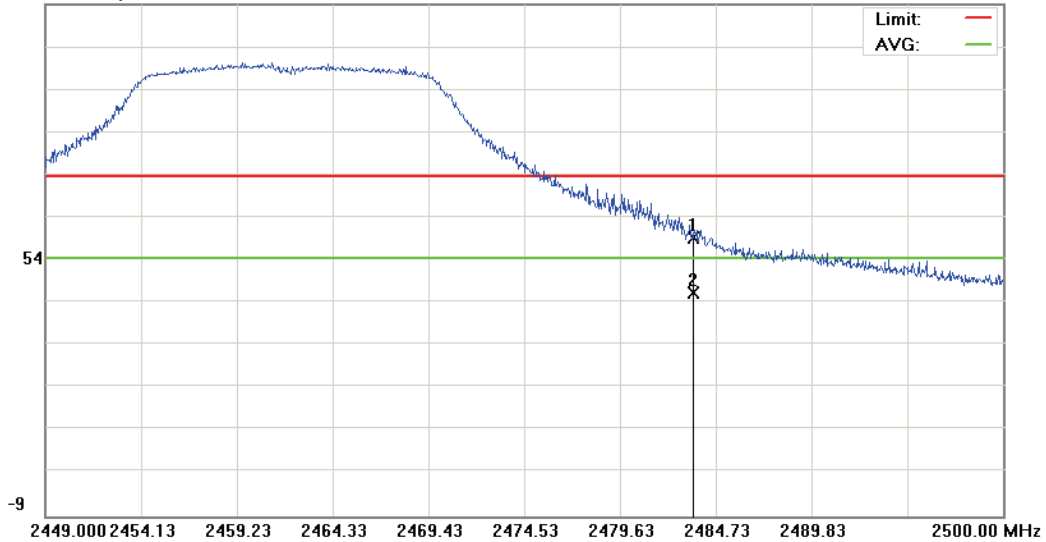
File :PB76110(Band Edge)

Data :#7

Date: 2010/3/24

Time: 下午 01:38:43

116.0 dBuV/m



Site: : 966 Chamber

Polarization: *Horizontal*

Temperature: 22 ℃

Limit: FCC part 15 (PK)

Power: AC 120V/60Hz

Humidity: 60 %

EUT: Smartphone

Distance: 3m

RBW: 1000 KHz VBW: 1000 KHz

M/N: PB76110

Mode: 4

Note: 2462MHz

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Antenna Height cm	Table Degree degree	Comment
1		2483.500	58.61	0.25	58.86	74.00	-15.14	peak		
2	*	2483.500	45.15	0.25	45.40	54.00	-8.60	AVG		

*:Maximum data x:Over limit !:over margin

11 Antenna Measurement

11.1. Limit

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.

And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. Antenna Connector Construction

The antenna used in this product is **PIFA antenna**. And the maximum Gain of this antenna is only **0.8 dBi**.