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	:	PC49100
Test Specification	:	FCC 47 CFR PART 15 SUBPART C: Oct, 2009 ANSI C63.4-2003
Issue Date	:	Apr. 29, 2010

Issue by

A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Apr. 29, 2010	Initial Issue	

Verification

Issued Date: 2010/04/29

Product Type	:	Smartphone
Applicant	:	HTC Corporation
Address	:	No. 23, Xinghua Rd., Taoyuan City, Taoyuan County 330, Taiwan
Trade Name	:	HTC
Model Number	:	PC49100
FCC ID	:	NM8PC49100
EUT Rated Voltage	:	DC 5.0V, 1.0A
Test Voltage	:	120 Vac / 60 Hz
Applicable Standard	:	FCC 47 CFR PART 15 SUBPART C: Oct, 2009 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	:		Reviewed By	:	
(Manager)		(Miller Lee)	(Testing Engineer)		(Gary Wu)

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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 ± 3.072dB.

2 EUT Description

Product	:	Smartphone
Trade Name	:	HTC
Model No.	:	PC49100
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	:	NM8PC49100
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	:	0.5 dBi
RF Output Power	:	IEEE 802.11b: 20.34 dBm / 0.108 W IEEE 802.11g: 22.55 dBm / 0.180 W

3 Test Methodology

3.1. Mode of Operation

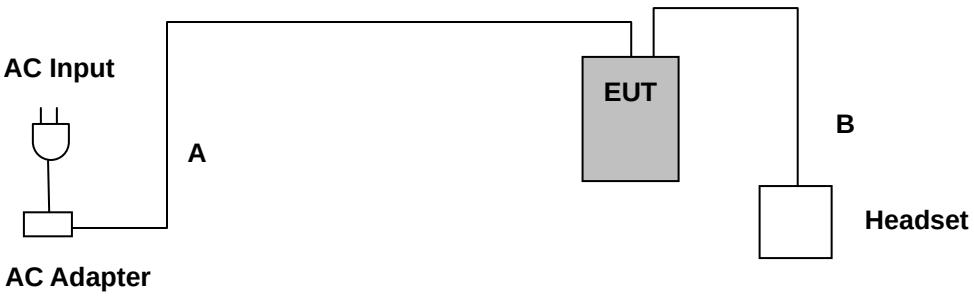
Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: IDLE Mode
Mode 2: Normal Operation Mode
Mode 3: IEEE 802.11b Link Mode
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 Notebook.
4.	EUT run test program.

3.3. Configuration of Test System Details



Signal Cable Type		Signal Cable Description
A	Power Cable	Shielded, 1.2 m
B	Headset Cable	Non-Shielded, 1.2 m

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

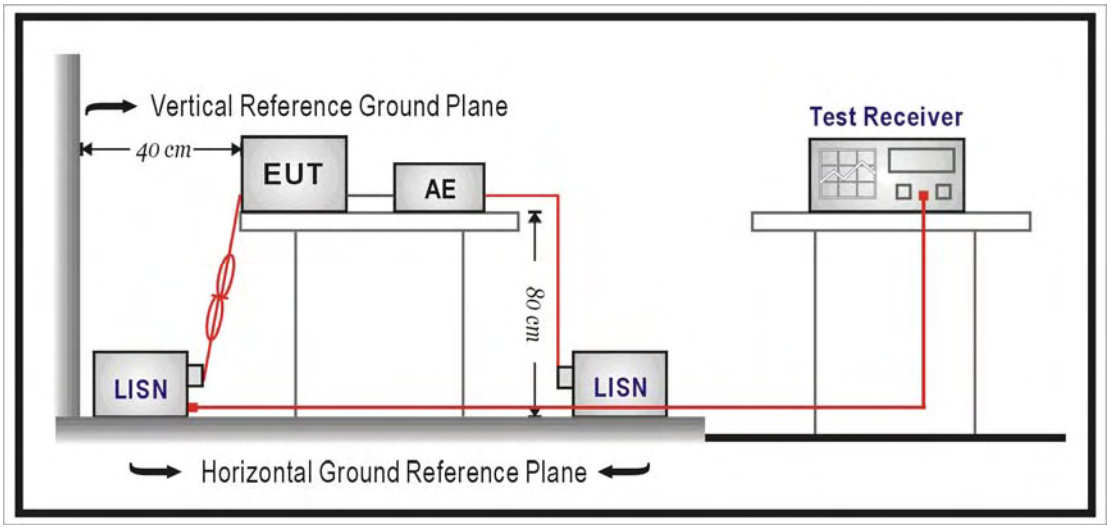
4.2. Test Instruments

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



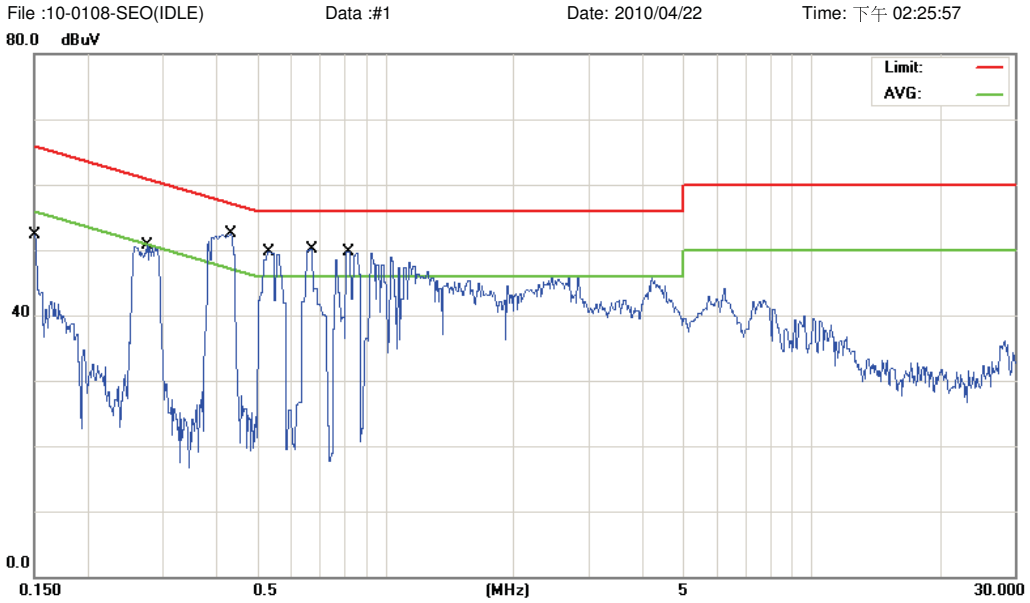
4.4. Test Procedure

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



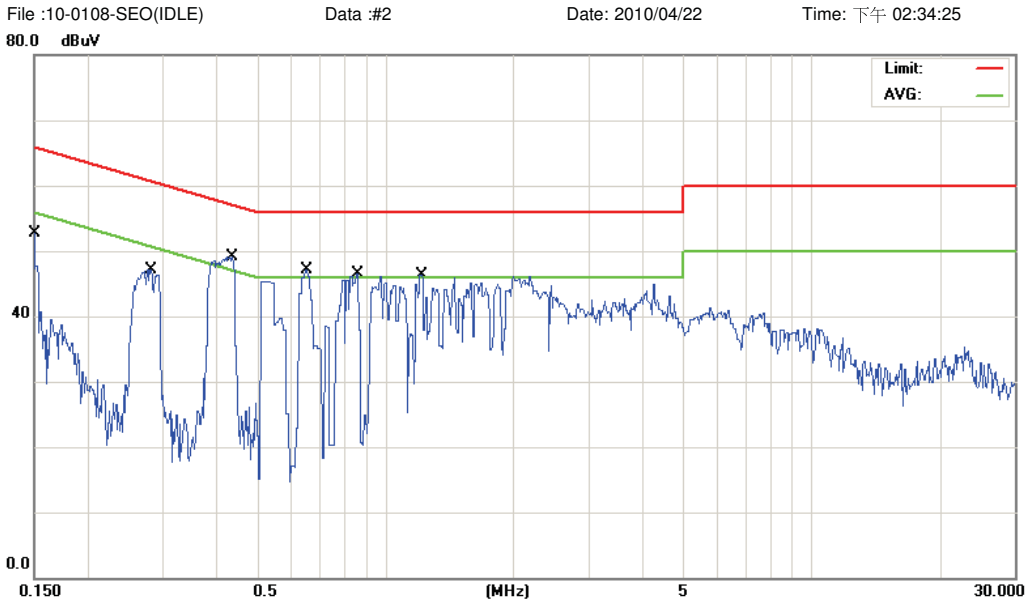
Site : Conduction
Limit: CISPR22 Class B Conduction(QP)
EUT: Smartphone
M/N: PC49100
Mode: 1
Note: AC Adapter #1

Phase: *L1*
Power: AC 120V/60Hz

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	39.70	10.11	49.81	65.99	-16.18	QP	
2		0.1500	17.80	10.11	27.91	55.99	-28.08	AVG	
3		0.2753	36.20	10.05	46.25	60.95	-14.70	QP	
4		0.2753	19.20	10.05	29.25	50.95	-21.70	AVG	
5		0.4342	37.60	9.99	47.59	57.17	-9.58	QP	
6		0.4342	13.90	9.99	23.89	47.17	-23.28	AVG	
7		0.5360	37.60	9.94	47.54	56.00	-8.46	QP	
8		0.5360	14.50	9.94	24.44	46.00	-21.56	AVG	
9		0.6710	39.10	9.88	48.98	56.00	-7.02	QP	
10		0.6710	18.30	9.88	28.18	46.00	-17.82	AVG	
11	*	0.8150	40.00	9.83	49.83	56.00	-6.17	QP	
12		0.8150	19.30	9.83	29.13	46.00	-16.87	AVG	

*:Maximum data x:Over limit !:over margin ●Reference Only



Site : Conduction
Limit: CISPR22 Class B Conduction(QP)
EUT: Smartphone
M/N: PC49100
Mode: 1
Note: AC Adapter #1

Phase: *N*
Power: AC 120V/60Hz

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	38.10	10.10	48.20	65.99	-17.79	QP	
2		0.1500	17.30	10.10	27.40	55.99	-28.59	AVG	
3		0.2809	32.80	10.04	42.84	60.79	-17.95	QP	
4		0.2809	18.10	10.04	28.14	50.79	-22.65	AVG	
5		0.4363	34.40	9.99	44.39	57.13	-12.74	QP	
6		0.4363	10.30	9.99	20.29	47.13	-26.84	AVG	
7	*	0.6530	33.40	9.89	43.29	56.00	-12.71	QP	
8		0.6530	13.70	9.89	23.59	46.00	-22.41	AVG	
9		0.8600	31.80	9.81	41.61	56.00	-14.39	QP	
10		0.8600	12.20	9.81	22.01	46.00	-23.99	AVG	
11		1.2109	30.90	9.66	40.56	56.00	-15.44	QP	
12		1.2109	13.20	9.66	22.86	46.00	-23.14	AVG	

*:Maximum data x:Over limit !:over margin ●Reference Only

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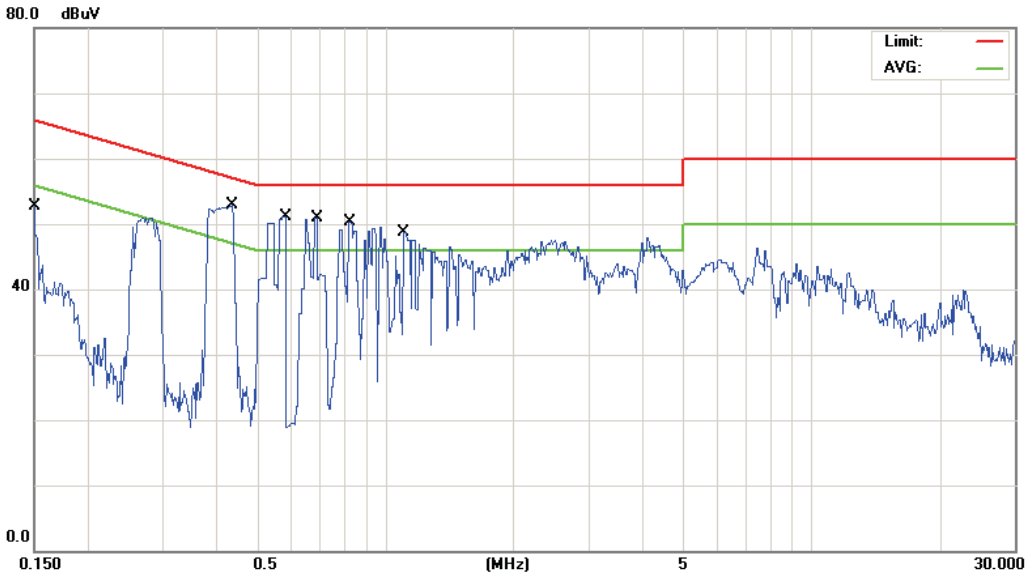


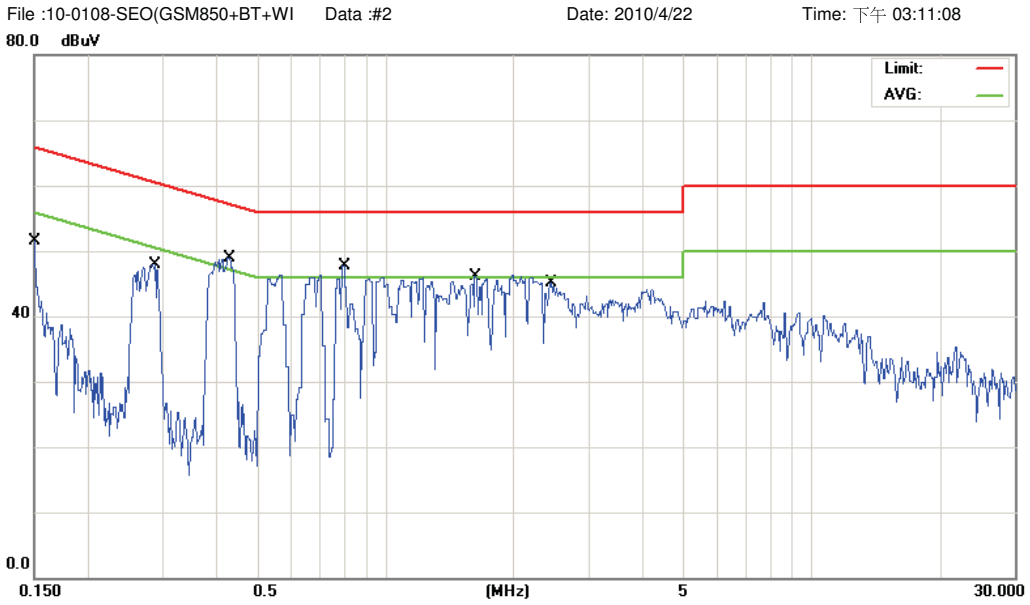
Site : Conduction
Limit: CISPR22 Class B Conduction(QP)
EUT: Smartphone
M/N: PC49100
Mode: 2
Note: AC Adapter #1

Phase: *L1*
Power: AC 120V/60Hz

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	39.50	10.11	49.61	65.99	-16.38	QP	
2		0.1500	17.80	10.11	27.91	55.99	-28.08	AVG	
3		0.4363	37.00	9.99	46.99	57.13	-10.14	QP	
4		0.4363	12.30	9.99	22.29	47.13	-24.84	AVG	
5		0.5810	35.20	9.92	45.12	56.00	-10.88	QP	
6		0.5810	11.30	9.92	21.22	46.00	-24.78	AVG	
7	*	0.6889	36.10	9.87	45.97	56.00	-10.03	QP	
8		0.6889	13.70	9.87	23.57	46.00	-22.43	AVG	
9		0.8240	34.20	9.83	44.03	56.00	-11.97	QP	
10		0.8240	11.50	9.83	21.33	46.00	-24.67	AVG	
11		1.1119	32.20	9.71	41.91	56.00	-14.09	QP	
12		1.1119	9.70	9.71	19.41	46.00	-26.59	AVG	

*:Maximum data x:Over limit !:over margin ●Reference Only



Site : Conduction
Limit: CISPR22 Class B Conduction(QP)
EUT: Smartphone
M/N: PC49100
Mode: 2
Note: AC Adapter #1

Phase: *N*
Power: AC 120V/60Hz

Temperature: 26 ℃
Humidity: 55 %

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1500	38.30	10.10	48.40	65.99	-17.59	QP	
2		0.1500	17.50	10.10	27.60	55.99	-28.39	AVG	
3		0.2872	33.20	10.04	43.24	60.60	-17.36	QP	
4		0.2872	17.50	10.04	27.54	50.60	-23.06	AVG	
5	*	0.4300	35.00	9.99	44.99	57.25	-12.26	QP	
6		0.4300	14.90	9.99	24.89	47.25	-22.36	AVG	
7		0.7970	32.70	9.83	42.53	56.00	-13.47	QP	
8		0.7970	14.40	9.83	24.23	46.00	-21.77	AVG	
9		1.6250	29.10	9.66	38.76	56.00	-17.24	QP	
10		1.6250	9.30	9.66	18.96	46.00	-27.04	AVG	
11		2.4350	28.30	9.76	38.06	56.00	-17.94	QP	
12		2.4350	11.60	9.76	21.36	46.00	-24.64	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

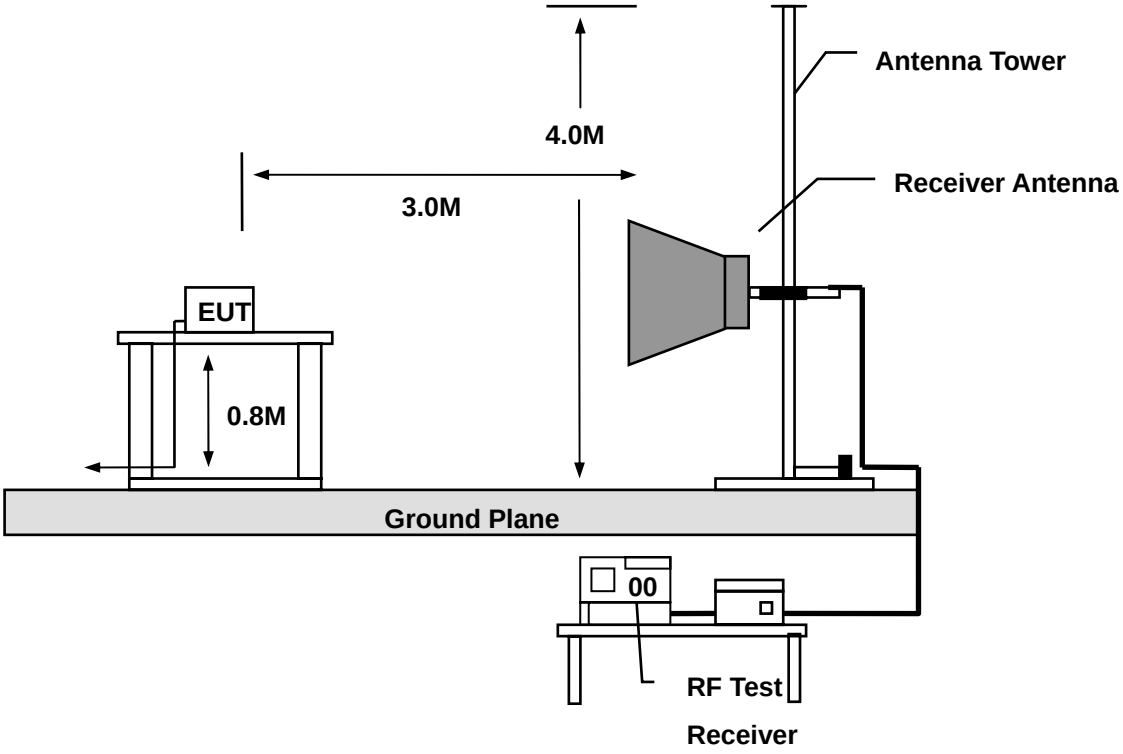
5.2. Test Instruments

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 tree 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 pre meter (uV/m).

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

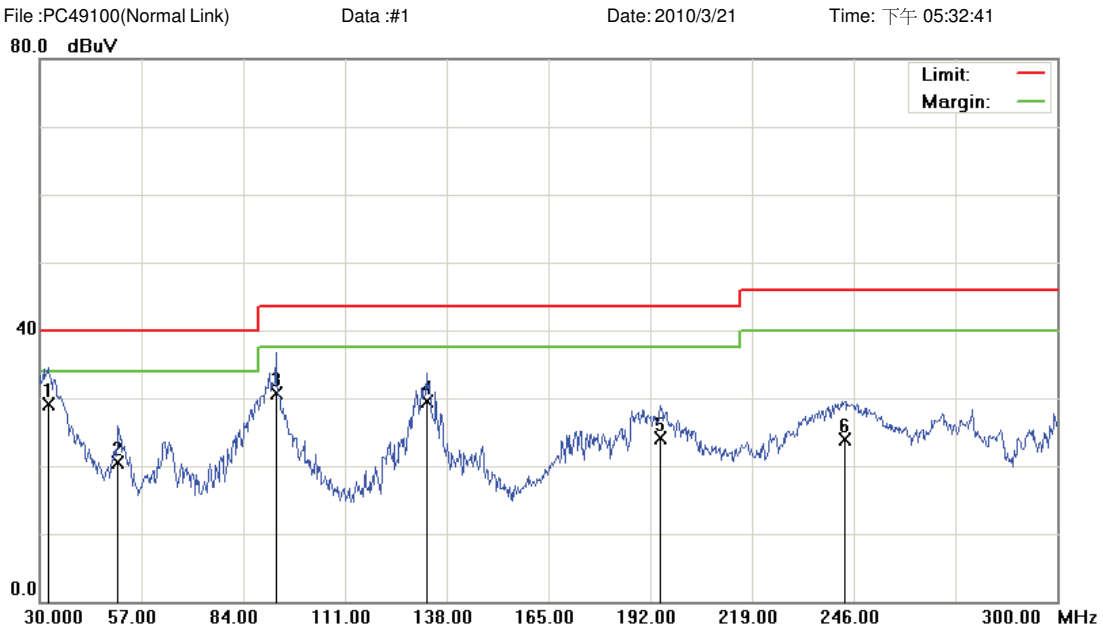
The actual field is intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

(1) 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) 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

5.5. Test Result

5.5.1. Below 1GHz



Site: : 966 Chamber
Limit: FCC Class B 3M Radiation
EUT: Smartphone
M/N: PC49100
Mode: 2
Note:

Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %
RBW: 120 KHz VBW: 300 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1	*	32.2950	42.27	-13.26	29.01	40.00	-10.99	QP			
2		50.7900	32.67	-12.17	20.50	40.00	-19.50	QP			
3		92.6400	43.19	-12.57	30.62	43.50	-12.88	QP			
4		132.6000	45.38	-15.81	29.57	43.50	-13.93	QP			
5		194.7000	37.24	-13.12	24.12	43.50	-19.38	QP			
6		243.5700	35.16	-11.31	23.85	46.00	-22.15	QP			

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

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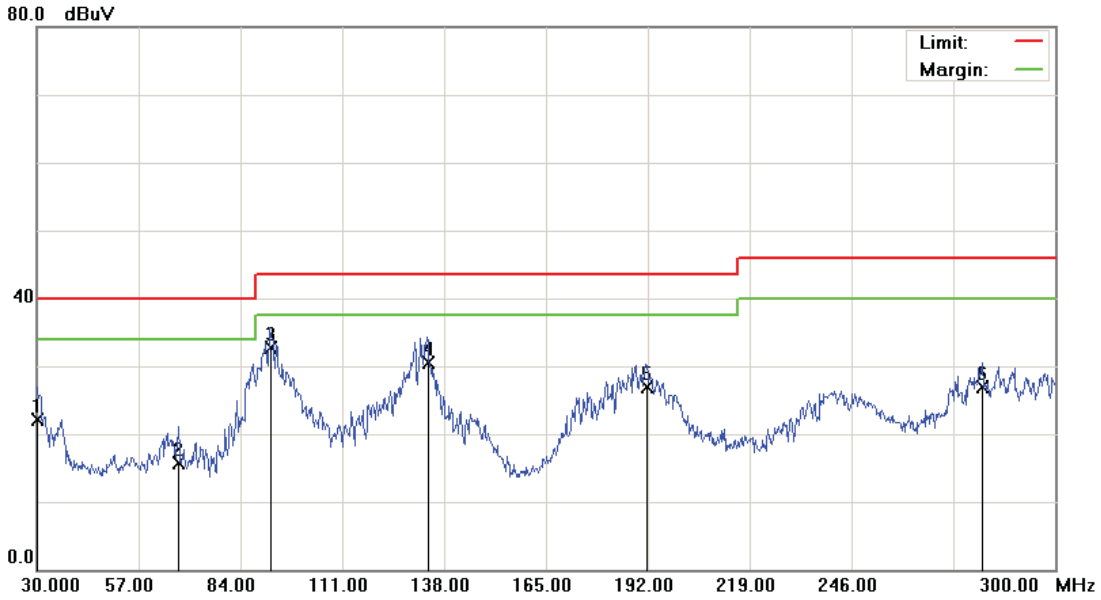


Site: : 966 Chamber
Limit: FCC Class B 3M Radiation
EUT: Smartphone
M/N: PC49100
Mode: 2
Note:

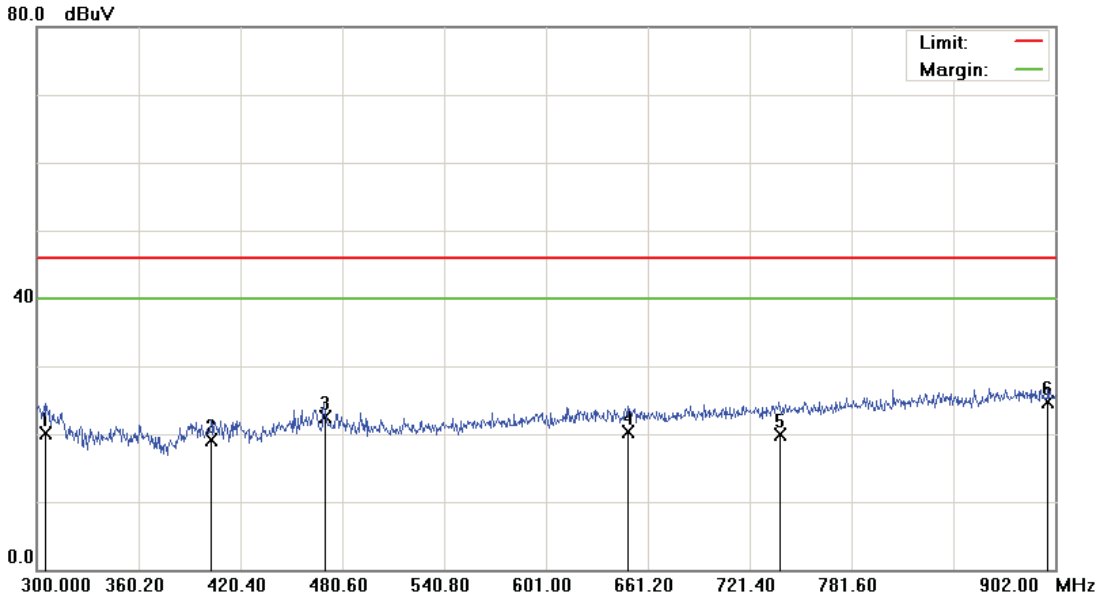
Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %
RBW: 120 KHz VBW: 300 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		30.0000	35.49	-13.32	22.17	40.00	-17.83	QP			
2		67.5300	31.25	-15.48	15.77	40.00	-24.23	QP			
3	*	91.9650	45.36	-12.73	32.63	43.50	-10.87	QP			
4		133.5450	46.28	-15.87	30.41	43.50	-13.09	QP			
5		191.5950	40.15	-13.28	26.87	43.50	-16.63	QP			
6		280.8300	37.26	-10.39	26.87	46.00	-19.13	QP			

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

File :PC49100(Normal Link) Data :#2 Date: 2010/3/21 Time: 下午 05:35:34



Site: : 966 Chamber
Limit: FCC Class B 3M Radiation
EUT: Smartphone
M/N: PC49100
Mode: 2
Note:

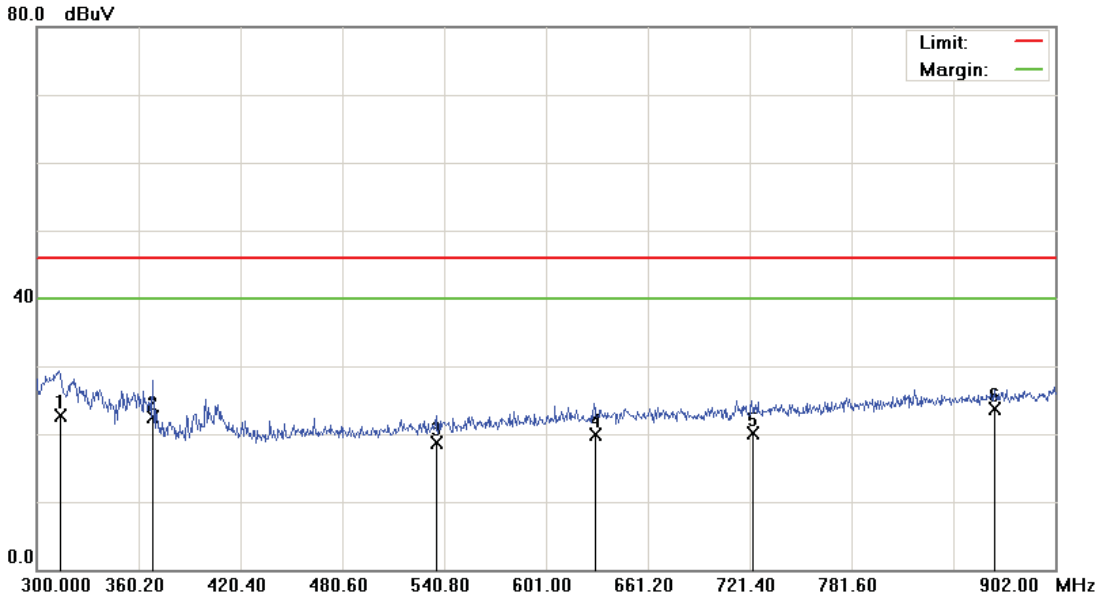
Polarization: *Vertical*
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %
RBW: 120 KHz VBW: 300 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		304.8160	30.15	-10.12	20.03	46.00	-25.97	QP			
2		402.9420	27.34	-8.28	19.06	46.00	-26.94	QP			
3		470.0650	30.28	-7.73	22.55	46.00	-23.45	QP			
4		649.7620	24.34	-4.11	20.23	46.00	-25.77	QP			
5		739.1590	23.16	-3.28	19.88	46.00	-26.12	QP			
6	*	897.7860	25.08	-0.43	24.65	46.00	-21.35	QP			

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

File :PC49100(Normal Link) Data :#4 Date: 2010/3/21 Time: 下午 05:41:24



Site: : 966 Chamber
Limit: FCC Class B 3M Radiation
EUT: Smartphone
M/N: PC49100
Mode: 2
Note:

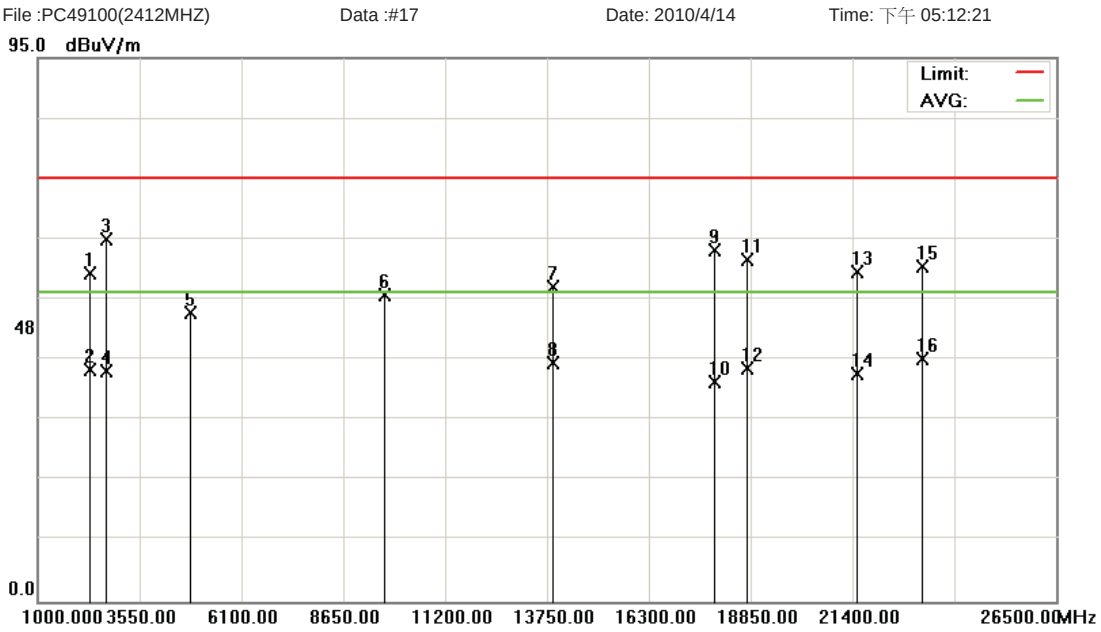
Polarization: *Horizontal*
Power:
Distance: 3m

Temperature: 22 ℃
Humidity: 60 %
RBW: 120 KHz VBW: 300 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		313.5450	32.57	-9.78	22.79	46.00	-23.21	QP			
2		368.6280	31.26	-8.70	22.56	46.00	-23.44	QP			
3		536.2850	24.97	-6.33	18.64	46.00	-27.36	QP			
4		629.5950	24.20	-4.38	19.82	46.00	-26.18	QP			
5		722.9050	23.67	-3.54	20.13	46.00	-25.87	QP			
6	*	866.1810	24.26	-0.61	23.65	46.00	-22.35	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: PC49100
Mode: 3
Note: 2412MHz

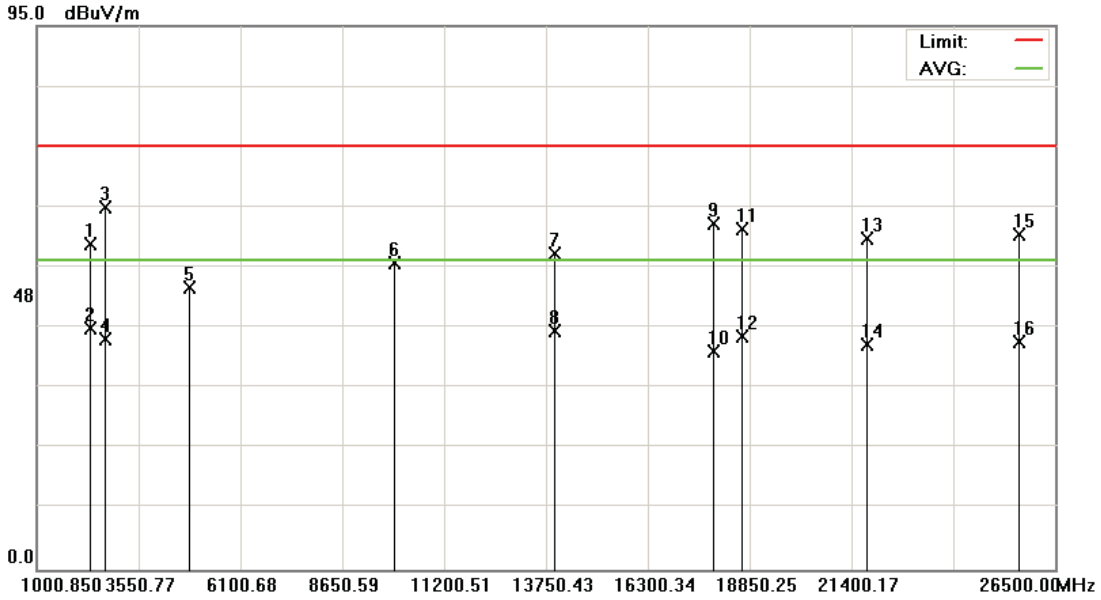
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2275.850	56.87	0.45	57.32	74.00	-16.68	peak			
2		2275.850	40.08	0.45	40.53	54.00	-13.47	AVG			
3	*	2703.650	41.45	21.89	63.34	74.00	-10.66	peak			
4		2703.650	18.30	21.89	40.19	54.00	-13.81	AVG			
5		4824.300	43.08	7.49	50.57	74.00	-23.43	peak			
6		9653.250	36.52	16.95	53.47	74.00	-20.53	peak			
7		13880.000	36.54	18.38	54.92	74.00	-19.08	peak			
8		13880.000	23.30	18.38	41.68	54.00	-12.32	AVG			
9		17932.000	36.59	24.76	61.35	74.00	-12.65	peak			
10		17932.000	13.60	24.76	38.36	54.00	-15.64	AVG			
11		18756.500	36.51	23.13	59.64	74.00	-14.36	peak			
12		18756.500	17.65	23.13	40.78	54.00	-13.22	AVG			
13		21502.000	36.25	21.36	57.61	74.00	-16.39	peak			
14		21502.000	18.39	21.36	39.75	54.00	-14.25	AVG			
15		23125.500	37.75	20.83	58.58	74.00	-15.42	peak			
16		23125.500	21.47	20.83	42.30	54.00	-11.70	AVG			

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

File :PC49100(2412MHZ) Data :#18 Date: 2010/4/14 Time: 下午 05:13:38



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: 2412MHz

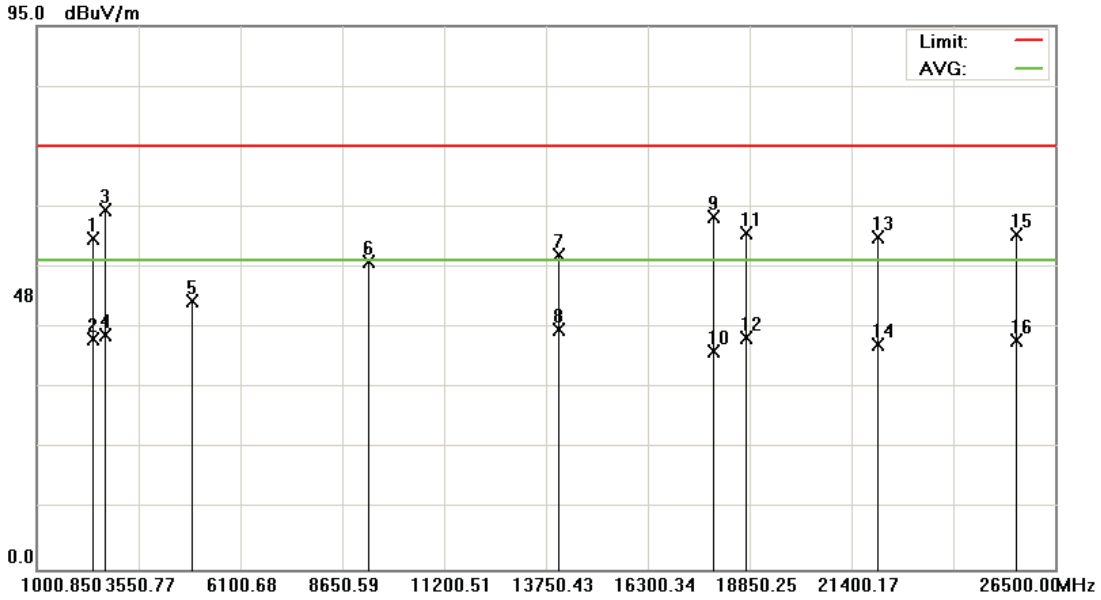
Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2340.450	56.53	0.25	56.78	74.00	-17.22	peak			
2		2340.450	41.84	0.25	42.09	54.00	-11.91	AVG			
3	*	2703.650	41.41	21.89	63.30	74.00	-10.70	peak			
4		2703.650	18.40	21.89	40.29	54.00	-13.71	AVG			
5		4824.300	41.74	7.49	49.23	74.00	-24.77	peak			
6		9941.600	35.74	17.77	53.51	74.00	-20.49	peak			
7		13956.000	36.57	18.56	55.13	74.00	-18.87	peak			
8		13956.000	23.20	18.56	41.76	54.00	-12.24	AVG			
9		17920.000	35.63	24.84	60.47	74.00	-13.53	peak			
10		17920.000	13.30	24.84	38.14	54.00	-15.86	AVG			
11		18667.250	36.44	23.10	59.54	74.00	-14.46	peak			
12		18667.250	17.67	23.10	40.77	54.00	-13.23	AVG			
13		21769.750	36.60	21.22	57.82	74.00	-16.18	peak			
14		21769.750	18.15	21.22	39.37	54.00	-14.63	AVG			
15		25569.250	39.51	18.94	58.45	74.00	-15.55	peak			
16		25569.250	20.85	18.94	39.79	54.00	-14.21	AVG			

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

File :PC49100(2437MHZ) Data :#17 Date: 2010/4/14 Time: 下午 05:17:10



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: 2437MHz

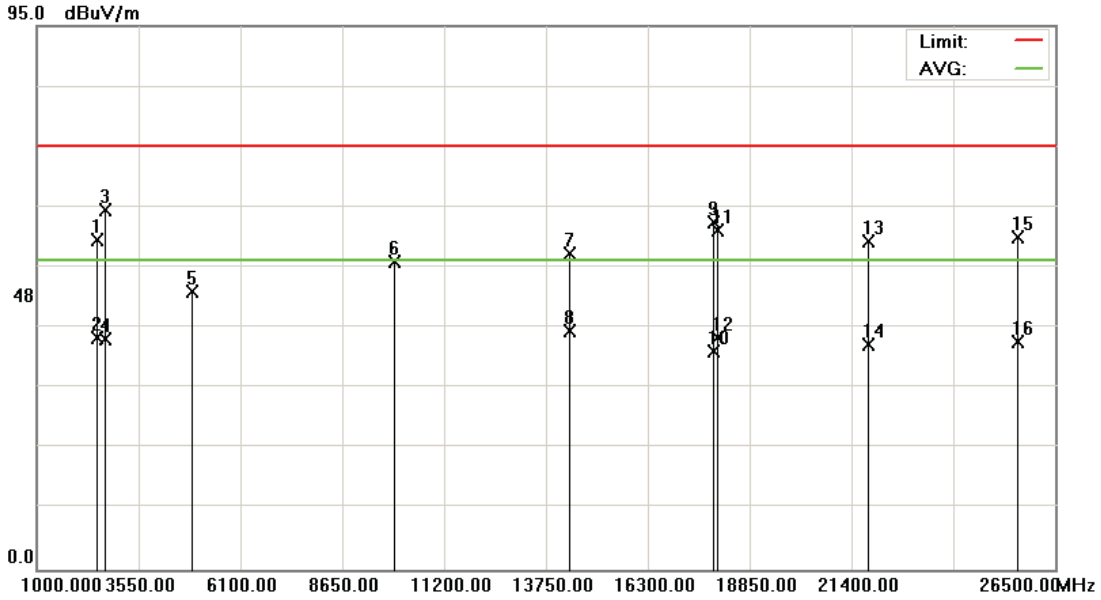
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2400.800	57.72	0.12	57.84	74.00	-16.16	peak			
2		2400.800	40.03	0.12	40.15	54.00	-13.85	AVG			
3	*	2700.000	40.14	22.58	62.72	74.00	-11.28	peak			
4		2700.000	18.30	22.58	40.88	54.00	-13.12	AVG			
5		4874.000	26.16	20.67	46.83	74.00	-27.17	peak			
6		9291.900	36.96	16.80	53.76	74.00	-20.24	peak			
7		14032.000	36.28	18.67	54.95	74.00	-19.05	peak			
8		14032.000	23.30	18.67	41.97	54.00	-12.03	AVG			
9		17908.000	36.65	24.91	61.56	74.00	-12.44	peak			
10		17908.000	13.20	24.91	38.11	54.00	-15.89	AVG			
11		18748.000	35.75	23.13	58.88	74.00	-15.12	peak			
12		18748.000	17.28	23.13	40.41	54.00	-13.59	AVG			
13		22058.750	36.89	21.09	57.98	74.00	-16.02	peak			
14		22058.750	18.11	21.09	39.20	54.00	-14.80	AVG			
15		25518.250	39.67	18.97	58.64	74.00	-15.36	peak			
16		25518.250	21.07	18.97	40.04	54.00	-13.96	AVG			

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

File :PC49100(2437MHZ) Data :#18 Date: 2010/4/14 Time: 下午 05:18:26



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: 2437MHz

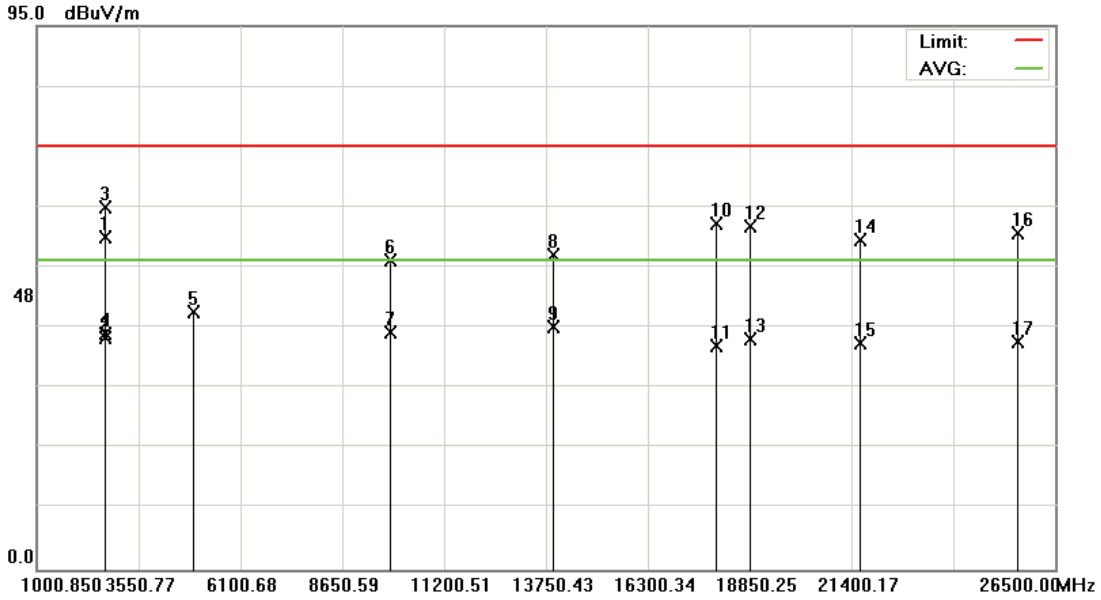
Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2504.500	57.30	0.30	57.60	74.00	-16.40	peak			
2		2504.500	40.15	0.30	40.45	54.00	-13.55	AVG			
3	*	2703.650	41.03	21.89	62.92	74.00	-11.08	peak			
4		2703.650	18.40	21.89	40.29	54.00	-13.71	AVG			
5		4874.000	40.88	7.72	48.60	74.00	-25.40	peak			
6		9948.900	35.94	17.78	53.72	74.00	-20.28	peak			
7		14336.000	36.68	18.54	55.22	74.00	-18.78	peak			
8		14336.000	23.20	18.54	41.74	54.00	-12.26	AVG			
9		17932.000	35.86	24.76	60.62	74.00	-13.38	peak			
10		17932.000	13.30	24.76	38.06	54.00	-15.94	AVG			
11		18029.750	35.94	23.28	59.22	74.00	-14.78	peak			
12		18029.750	17.30	23.28	40.58	54.00	-13.42	AVG			
13		21812.250	36.12	21.21	57.33	74.00	-16.67	peak			
14		21812.250	18.05	21.21	39.26	54.00	-14.74	AVG			
15		25543.750	39.22	18.95	58.17	74.00	-15.83	peak			
16		25543.750	20.87	18.95	39.82	54.00	-14.18	AVG			

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

File :PC49100(2462MHZ) Data :#17 Date: 2010/4/14 Time: 下午 05:20:03



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: 2462MHz

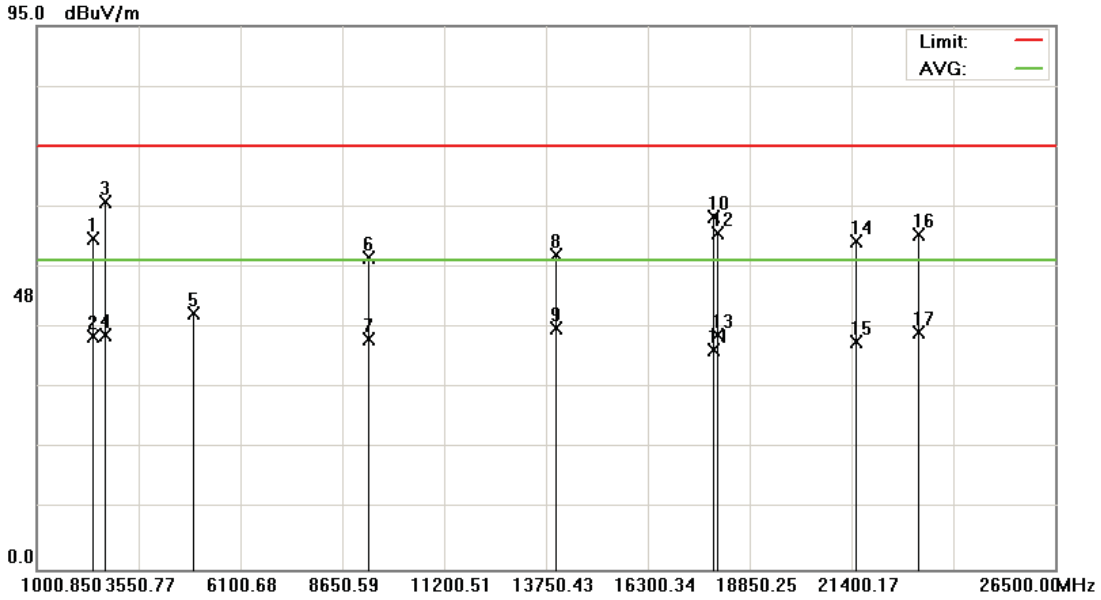
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2696.600	57.28	0.90	58.18	74.00	-15.82	peak			
2		2696.600	39.57	0.90	40.47	54.00	-13.53	AVG			
3	*	2700.000	40.66	22.58	63.24	74.00	-10.76	peak			
4		2700.000	18.60	22.58	41.18	54.00	-12.82	AVG			
5		4924.000	37.46	7.65	45.11	74.00	-28.89	peak			
6		9839.400	36.20	17.85	54.05	74.00	-19.95	peak			
7		9839.400	23.60	17.85	41.45	54.00	-12.55	AVG			
8		13908.000	36.37	18.53	54.90	74.00	-19.10	peak			
9		13908.000	23.86	18.53	42.39	54.00	-11.61	AVG			
10		18000.000	34.86	25.57	60.43	74.00	-13.57	peak			
11		18000.000	13.43	25.57	39.00	54.00	-15.00	AVG			
12		18858.500	36.73	23.15	59.88	74.00	-14.12	peak			
13		18858.500	17.19	23.15	40.34	54.00	-13.66	AVG			
14		21612.500	36.20	21.28	57.48	74.00	-16.52	peak			
15		21612.500	18.15	21.28	39.43	54.00	-14.57	AVG			
16		25543.750	39.76	18.95	58.71	74.00	-15.29	peak			
17		25543.750	20.78	18.95	39.73	54.00	-14.27	AVG			

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

File :PC49100(2462MHZ) Data :#18 Date: 2010/4/14 Time: 下午 05:21:20



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: 2462MHz

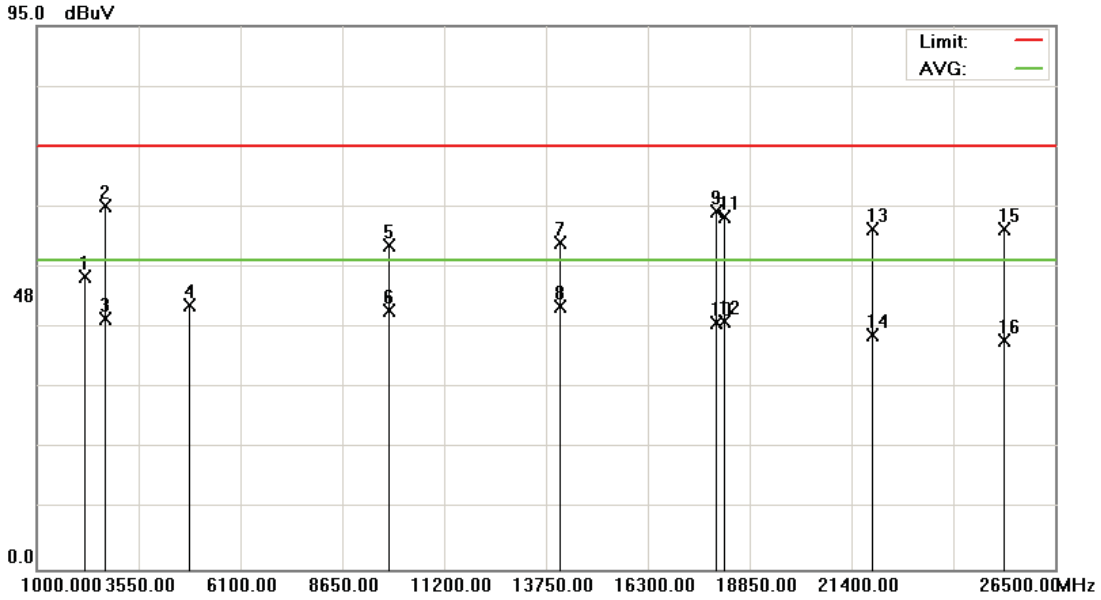
Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2401.650	57.65	0.12	57.77	74.00	-16.23	peak			
2		2401.650	40.51	0.12	40.63	54.00	-13.37	AVG			
3	*	2700.000	41.55	22.58	64.13	74.00	-9.87	peak			
4		2700.000	18.30	22.58	40.88	54.00	-13.12	AVG			
5		4924.000	37.11	7.65	44.76	74.00	-29.24	peak			
6		9310.150	37.60	16.89	54.49	74.00	-19.51	peak			
7		9310.150	23.30	16.89	40.19	54.00	-13.81	AVG			
8		13996.000	36.22	18.66	54.88	74.00	-19.12	peak			
9		13996.000	23.60	18.66	42.26	54.00	-11.74	AVG			
10		17932.000	36.91	24.76	61.67	74.00	-12.33	peak			
11		17932.000	13.52	24.76	38.28	54.00	-15.72	AVG			
12		18046.750	35.62	23.27	58.89	74.00	-15.11	peak			
13		18046.750	17.61	23.27	40.88	54.00	-13.12	AVG			
14		21502.000	36.09	21.36	57.45	74.00	-16.55	peak			
15		21502.000	18.34	21.36	39.70	54.00	-14.30	AVG			
16		23061.750	37.71	20.86	58.57	74.00	-15.43	peak			
17		23061.750	20.59	20.86	41.45	54.00	-12.55	AVG			

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

File :PC49100(2412MHZ) Data :#17 Date: 2010/4/14 Time: 上午 03:31:17



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2412MHz

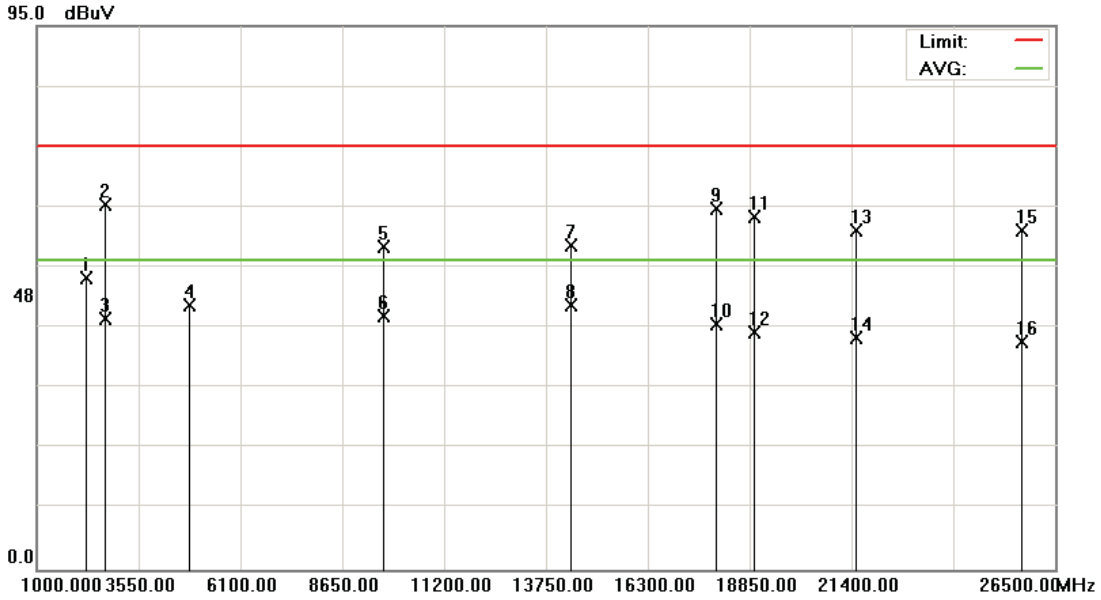
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		2186.600	50.71	0.37	51.08	74.00	-22.92	peak			
2		2700.000	41.00	22.58	63.58	74.00	-10.42	peak			
3		2700.000	21.34	22.58	43.92	54.00	-10.08	AVG			
4		4824.000	38.74	7.48	46.22	74.00	-27.78	peak			
5		9817.500	38.81	17.75	56.56	74.00	-17.44	peak			
6		9817.500	27.56	17.75	45.31	54.00	-8.69	AVG			
7		14100.000	38.15	18.90	57.05	74.00	-16.95	peak			
8	*	14100.000	27.14	18.90	46.04	54.00	-7.96	AVG			
9		18000.000	36.95	25.57	62.52	74.00	-11.48	peak			
10		18000.000	17.54	25.57	43.11	54.00	-10.89	AVG			
11		18191.250	38.51	23.22	61.73	74.00	-12.27	peak			
12		18191.250	20.20	23.22	43.42	54.00	-10.58	AVG			
13		21888.750	38.33	21.18	59.51	74.00	-14.49	peak			
14		21888.750	19.70	21.18	40.88	54.00	-13.12	AVG			
15		25203.750	40.20	19.18	59.38	74.00	-14.62	peak			
16		25203.750	20.84	19.18	40.02	54.00	-13.98	AVG			

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

File :PC49100(2412MHZ) Data :#18 Date: 2010/4/14 Time: 上午 03:32:44



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2412MHz

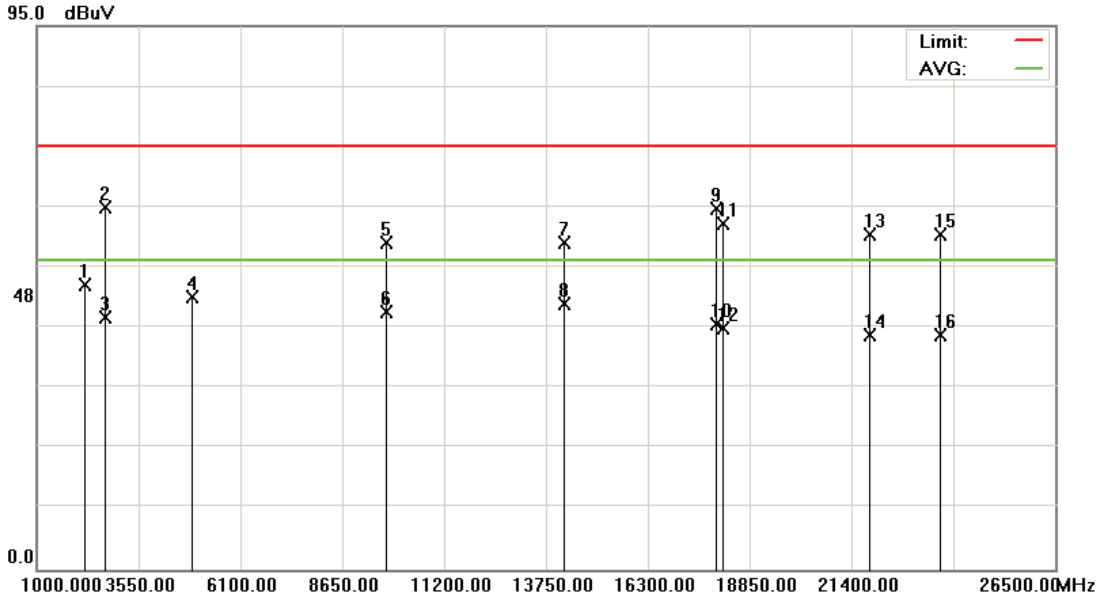
Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		2222.300	50.65	0.36	51.01	74.00	-22.99	peak			
2		2700.000	41.25	22.58	63.83	74.00	-10.17	peak			
3		2700.000	21.24	22.58	43.82	54.00	-10.18	AVG			
4		4824.000	38.76	7.48	46.24	74.00	-27.76	peak			
5		9653.250	39.34	16.95	56.29	74.00	-17.71	peak			
6		9653.250	27.36	16.95	44.31	54.00	-9.69	AVG			
7		14340.000	38.16	18.54	56.70	74.00	-17.30	peak			
8	*	14340.000	27.65	18.54	46.19	54.00	-7.81	AVG			
9		18000.000	37.55	25.57	63.12	74.00	-10.88	peak			
10		18000.000	17.24	25.57	42.81	54.00	-11.19	AVG			
11		18977.500	38.42	23.10	61.52	74.00	-12.48	peak			
12		18977.500	18.34	23.10	41.44	54.00	-12.56	AVG			
13		21527.500	37.80	21.35	59.15	74.00	-14.85	peak			
14		21527.500	19.20	21.35	40.55	54.00	-13.45	AVG			
15		25650.000	40.36	18.87	59.23	74.00	-14.77	peak			
16		25650.000	20.90	18.87	39.77	54.00	-14.23	AVG			

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

File :PC49100(2437MHZ) Data :#17 Date: 2010/4/14 Time: 上午 03:27:15



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2437MHz

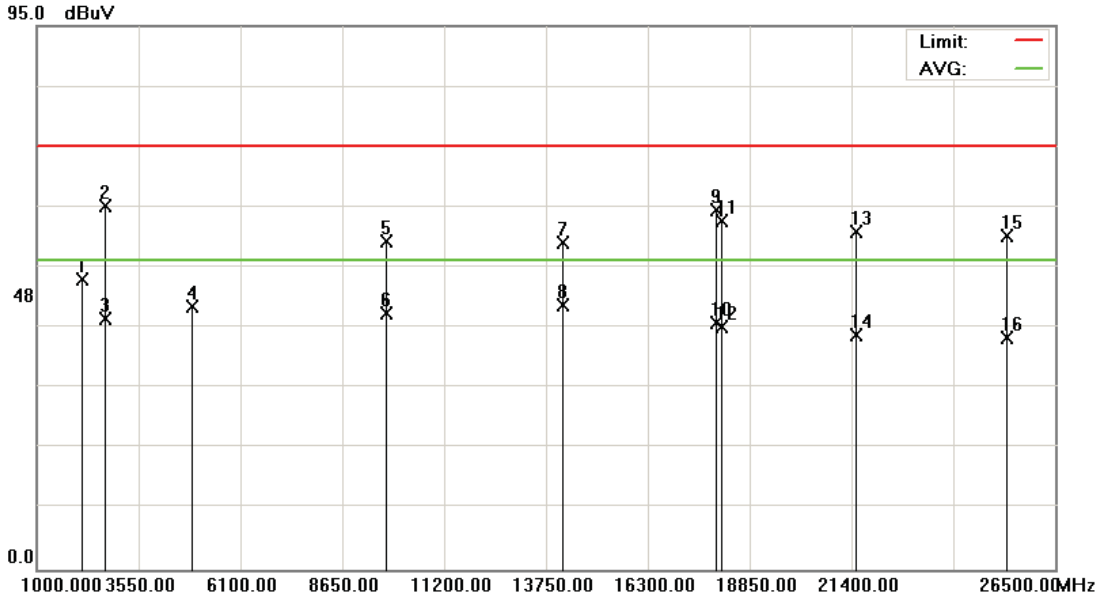
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		2196.800	49.30	0.50	49.80	74.00	-24.20	peak			
2		2700.000	40.75	22.58	63.33	74.00	-10.67	peak			
3		2700.000	21.48	22.58	44.06	54.00	-9.94	AVG			
4		4874.000	39.79	7.72	47.51	74.00	-26.49	peak			
5		9744.500	39.43	17.69	57.12	74.00	-16.88	peak			
6		9744.500	27.31	17.69	45.00	54.00	-9.00	AVG			
7		14200.000	38.18	18.86	57.04	74.00	-16.96	peak			
8	*	14200.000	27.65	18.86	46.51	54.00	-7.49	AVG			
9		18000.000	37.40	25.57	62.97	74.00	-11.03	peak			
10		18000.000	17.36	25.57	42.93	54.00	-11.07	AVG			
11		18170.000	37.24	23.23	60.47	74.00	-13.53	peak			
12		18170.000	18.92	23.23	42.15	54.00	-11.85	AVG			
13		21846.250	37.27	21.20	58.47	74.00	-15.53	peak			
14		21846.250	19.68	21.20	40.88	54.00	-13.12	AVG			
15		23610.000	38.22	20.44	58.66	74.00	-15.34	peak			
16		23610.000	20.60	20.44	41.04	54.00	-12.96	AVG			

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

File :PC49100(2437MHZ) Data :#18 Date: 2010/4/14 Time: 上午 03:28:41



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2437MHz

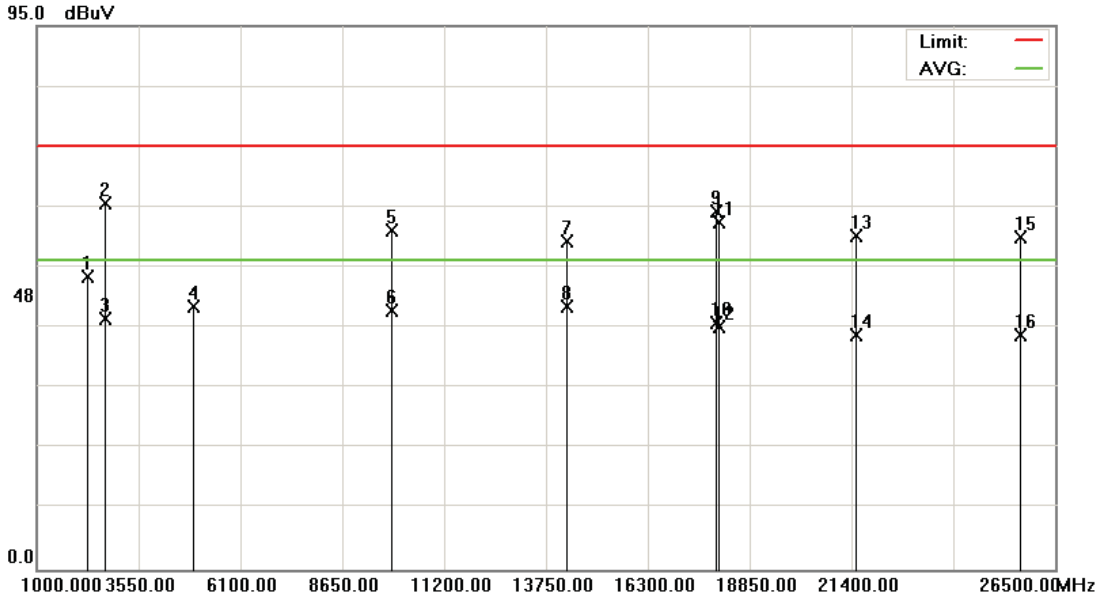
Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		2132.200	51.03	-0.21	50.82	74.00	-23.18	peak			
2		2700.000	40.95	22.58	63.53	74.00	-10.47	peak			
3		2700.000	21.33	22.58	43.91	54.00	-10.09	AVG			
4		4874.000	38.25	7.72	45.97	74.00	-28.03	peak			
5		9744.500	39.73	17.69	57.42	74.00	-16.58	peak			
6		9744.500	27.15	17.69	44.84	54.00	-9.16	AVG			
7		14180.000	38.37	18.85	57.22	74.00	-16.78	peak			
8	*	14180.000	27.34	18.85	46.19	54.00	-7.81	AVG			
9		18000.000	37.25	25.57	62.82	74.00	-11.18	peak			
10		18000.000	17.42	25.57	42.99	54.00	-11.01	AVG			
11		18148.750	37.67	23.22	60.89	74.00	-13.11	peak			
12		18148.750	19.07	23.22	42.29	54.00	-11.71	AVG			
13		21506.250	37.70	21.35	59.05	74.00	-14.95	peak			
14		21506.250	19.56	21.35	40.91	54.00	-13.09	AVG			
15		25267.500	39.13	19.13	58.26	74.00	-15.74	peak			
16		25267.500	21.30	19.13	40.43	54.00	-13.57	AVG			

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

File :PC49100(2462MHZ) Data :#17 Date: 2010/4/14 Time: 上午 03:23:00



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2462MHz

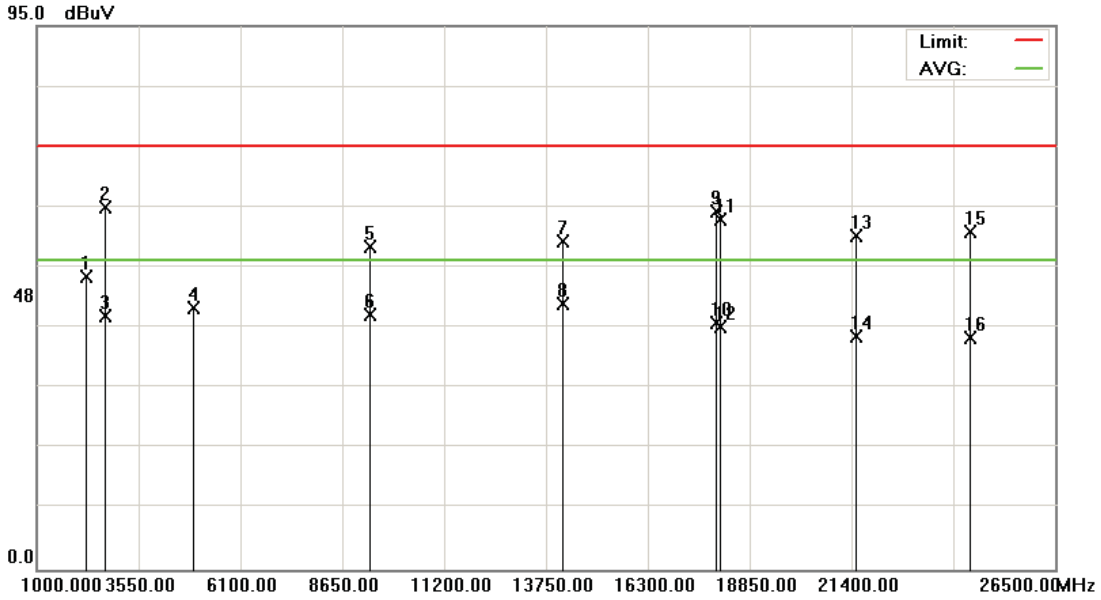
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		2258.000	50.61	0.46	51.07	74.00	-22.93	peak			
2		2700.000	41.37	22.58	63.95	74.00	-10.05	peak			
3		2700.000	21.21	22.58	43.79	54.00	-10.21	AVG			
4		4924.000	38.29	7.65	45.94	74.00	-28.06	peak			
5		9854.000	41.35	17.89	59.24	74.00	-14.76	peak			
6		9854.000	27.46	17.89	45.35	54.00	-8.65	AVG			
7		14240.000	38.57	18.71	57.28	74.00	-16.72	peak			
8	*	14240.000	27.15	18.71	45.86	54.00	-8.14	AVG			
9		18000.000	37.11	25.57	62.68	74.00	-11.32	peak			
10		18000.000	17.65	25.57	43.22	54.00	-10.78	AVG			
11		18063.750	37.38	23.26	60.64	74.00	-13.36	peak			
12		18063.750	19.23	23.26	42.49	54.00	-11.51	AVG			
13		21506.250	36.95	21.35	58.30	74.00	-15.70	peak			
14		21506.250	19.58	21.35	40.93	54.00	-13.07	AVG			
15		25628.750	39.08	18.89	57.97	74.00	-16.03	peak			
16		25628.750	22.02	18.89	40.91	54.00	-13.09	AVG			

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

File :PC49100(2462MHZ) Data :#18 Date: 2010/4/14 Time: 上午 03:24:27



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2462MHz

Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	cm	degree	Comment
1		2208.700	50.68	0.43	51.11	74.00	-22.89	peak			
2		2700.000	40.67	22.58	63.25	74.00	-10.75	peak			
3		2700.000	21.67	22.58	44.25	54.00	-9.75	AVG			
4		4924.000	38.13	7.65	45.78	74.00	-28.22	peak			
5		9324.750	39.38	16.91	56.29	74.00	-17.71	peak			
6		9324.750	27.64	16.91	44.55	54.00	-9.45	AVG			
7		14140.000	38.41	18.84	57.25	74.00	-16.75	peak			
8	*	14140.000	27.69	18.84	46.53	54.00	-7.47	AVG			
9		18000.000	37.11	25.57	62.68	74.00	-11.32	peak			
10		18000.000	17.46	25.57	43.03	54.00	-10.97	AVG			
11		18106.250	37.82	23.23	61.05	74.00	-12.95	peak			
12		18106.250	19.06	23.23	42.29	54.00	-11.71	AVG			
13		21506.250	36.99	21.35	58.34	74.00	-15.66	peak			
14		21506.250	19.39	21.35	40.74	54.00	-13.26	AVG			
15		24375.000	39.29	19.74	59.03	74.00	-14.97	peak			
16		24375.000	20.82	19.74	40.56	54.00	-13.44	AVG			

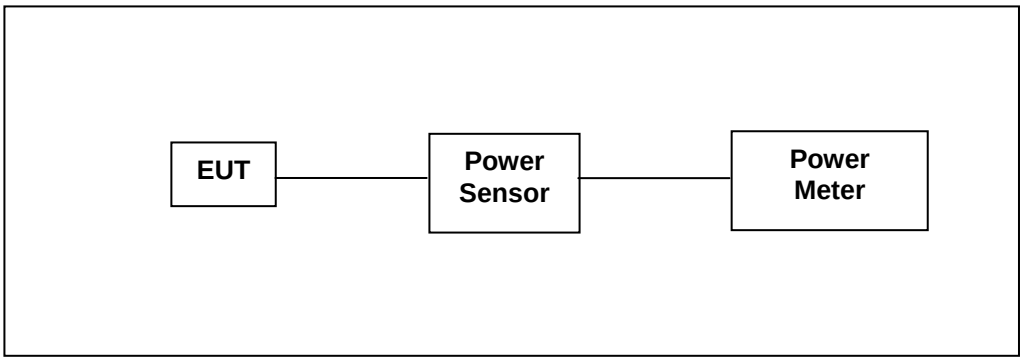
*:Maximum data x:Over limit !:over margin

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
Single Channel PK Power Sensor	Agilent	N1911A	MY15101619	07/14/2009	(1)
Wideband Power Meter	Agilent	N1921A	MY45241957	07/25/2009	(1)
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	04/23/2010			Test Site	TE06	
Frequency (MHz)	Data Rate	Average Power		Peak Power		Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	
2412	1	17.80	0.060	**20.34**	**0.108**	< 30
2437		17.50	0.056	20.00	0.100	< 30
2462		17.40	0.055	19.96	0.099	< 30
2412	2	17.48	0.056	19.93	0.098	< 30
2437		17.43	0.055	20.14	0.103	< 30
2462		17.38	0.055	19.94	0.099	< 30
2412	5.5	17.42	0.055	20.25	0.106	< 30
2437		17.34	0.054	20.01	0.100	< 30
2462		17.14	0.052	19.91	0.098	< 30
2412	11	17.29	0.054	20.13	0.103	< 30
2437		17.33	0.054	20.13	0.103	< 30
2462		17.17	0.052	19.99	0.100	< 30

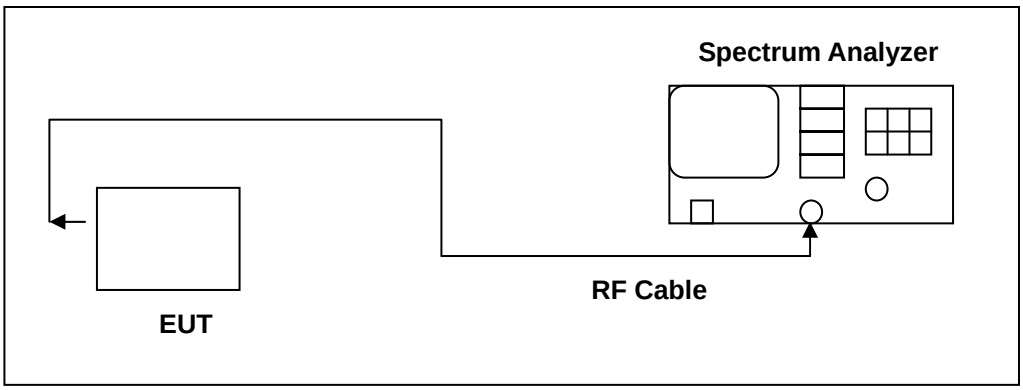
Product	Smartphone					
Test Item	Maximum Conducted Output Power					
Test Mode	Mode 4: IEEE 802.11g Link Mode					
Date of Test	04/23/2010			Test Site	TE06	
Frequency (MHz)	Data Rate	Average Power		Peak Power		Limit (dBm)
		(dBm)	(W)	(dBm)	(W)	
2412	6	13.15	0.021	21.90	0.155	< 30
2437		12.86	0.019	21.37	0.137	< 30
2462		13.05	0.020	22.12	0.163	< 30
2412	9	12.97	0.020	21.97	0.157	< 30
2437		12.84	0.019	**22.55**	**0.180**	< 30
2462		12.90	0.019	22.19	0.166	< 30
2412	12	12.91	0.020	22.01	0.159	< 30
2437		12.76	0.019	22.00	0.158	< 30
2462		12.83	0.019	21.82	0.152	< 30
2412	18	12.58	0.018	21.71	0.148	< 30
2437		12.84	0.019	22.04	0.160	< 30
2462		12.69	0.019	21.73	0.149	< 30
2412	24	12.41	0.017	21.65	0.146	< 30
2437		12.56	0.018	22.16	0.164	< 30
2462		12.43	0.017	22.05	0.160	< 30
2412	36	12.21	0.017	21.83	0.152	< 30
2437		12.30	0.017	22.03	0.160	< 30
2462		12.01	0.016	21.51	0.142	< 30
2412	48	12.04	0.016	21.83	0.152	< 30
2437		11.80	0.015	22.11	0.163	< 30
2462		11.82	0.015	21.74	0.149	< 30
2412	54	11.59	0.014	21.51	0.142	< 30
2437		11.54	0.014	22.26	0.168	< 30
2462		11.57	0.014	21.86	0.153	< 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

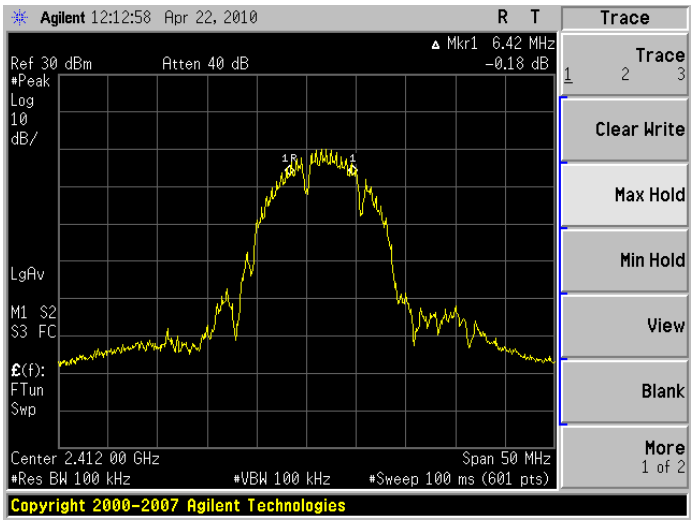
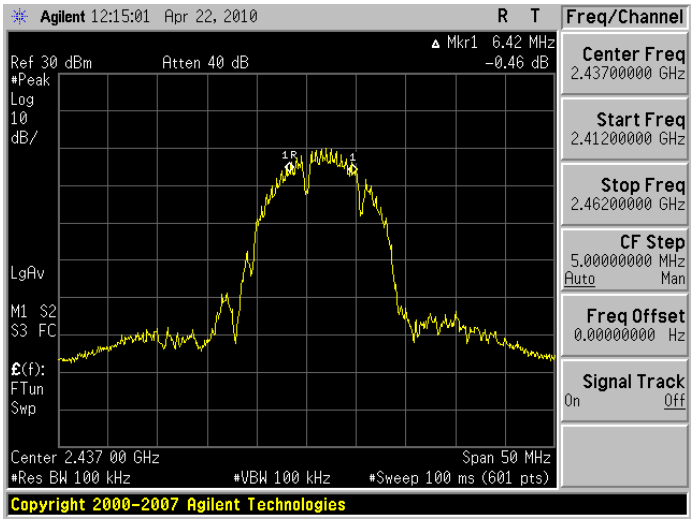
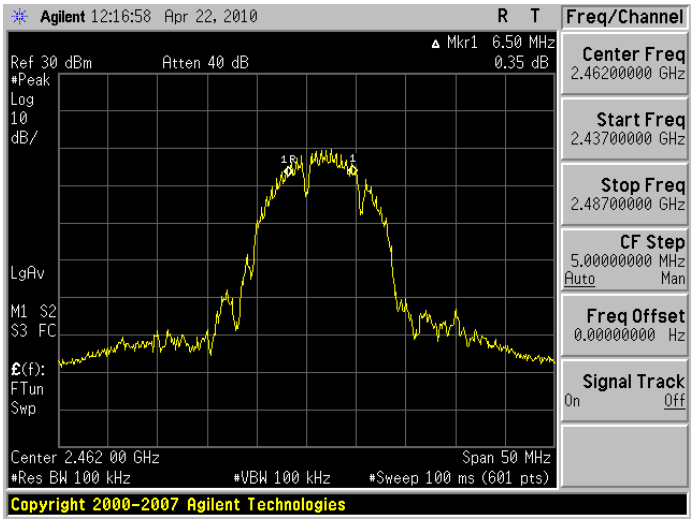
Product	Smartphone		
Test Item	6dB RF Bandwidth		
Test Mode	Mode 3: IEEE 802.11b Link Mode		
Date of Test	04/22/2010	Test Site	TE06

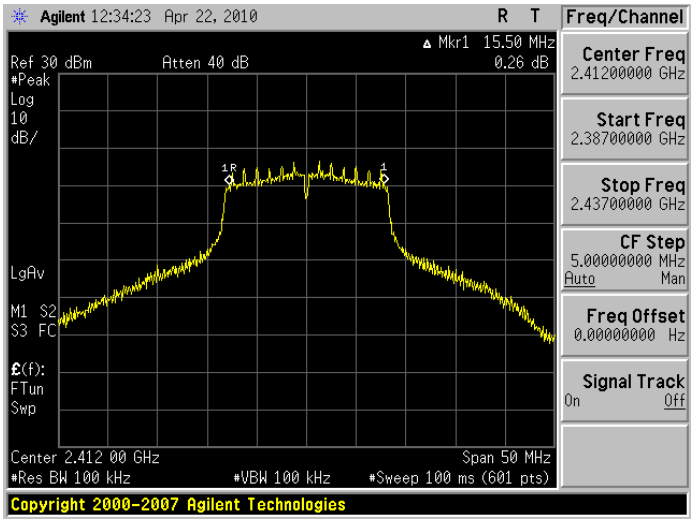
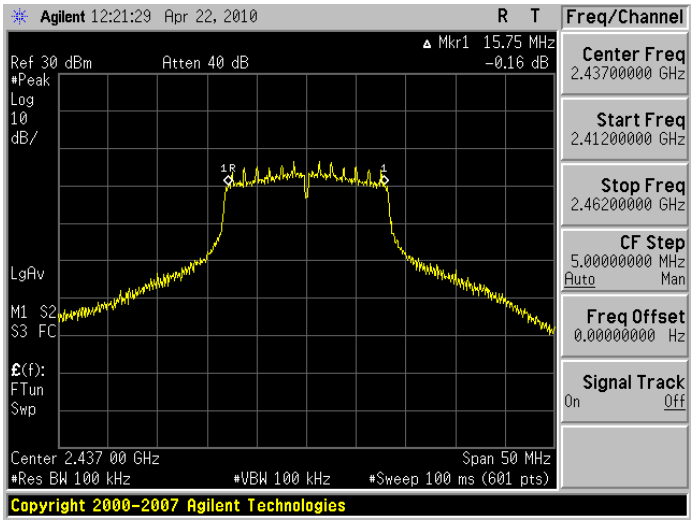
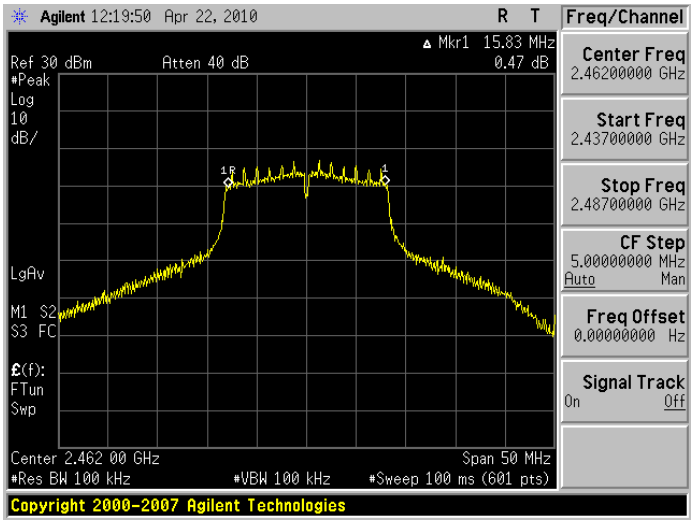
Frequency (MHz)	Measurement (kHz)	Limit (kHz)
2412	6420	> 500
2437	6420	> 500
2462	6500	> 500

Product	Smartphone		
Test Item	6dB RF Bandwidth		
Test Mode	Mode 4: IEEE 802.11g Link Mode		
Date of Test	04/22/2010	Test Site	TE06

Frequency (MHz)	Measurement (kHz)	Limit (kHz)
2412	15500	> 500
2437	15750	> 500
2462	15830	> 500

7.6. Test Graphs

Mode 3: IEEE 802.11b Link Mode	
2412	
2437	
2462	

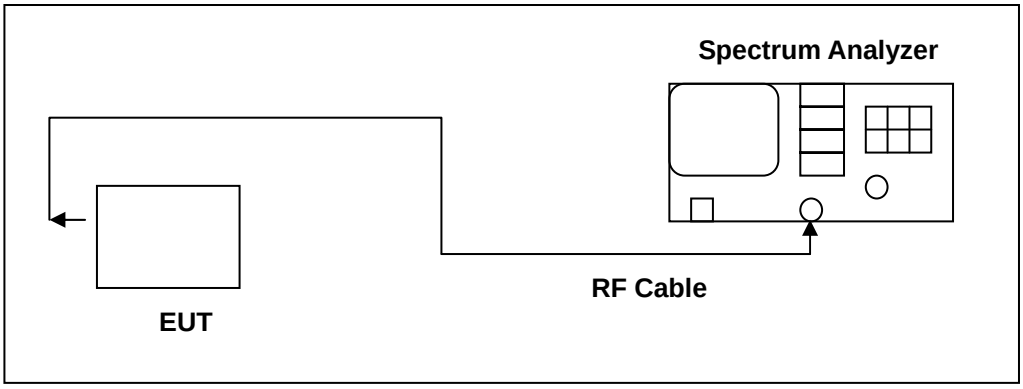
Mode 4: IEEE 802.11g Link Mode	
2412	
2437	
2462	

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:

SWEEP TIME (SEC) = (Fstop, kHz - Fstart, kHz)/3 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

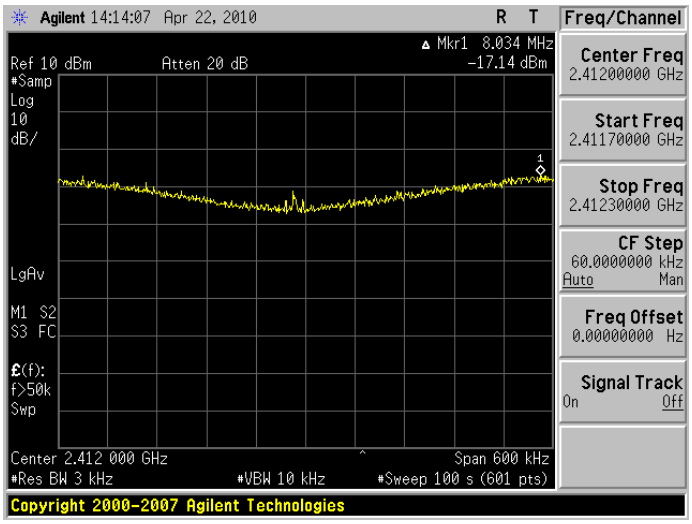
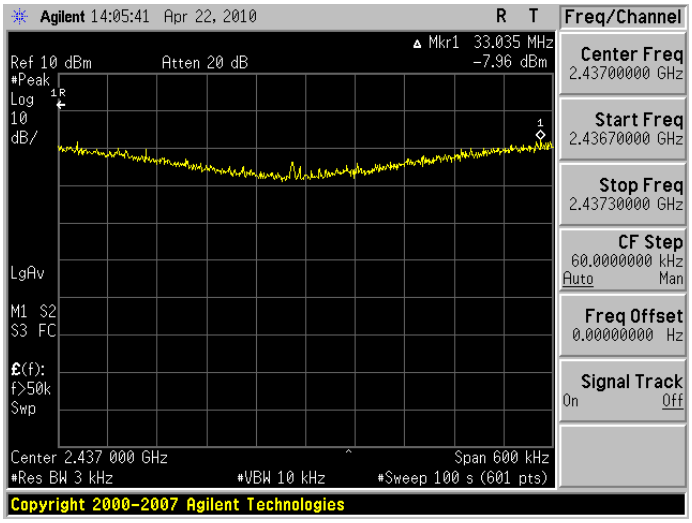
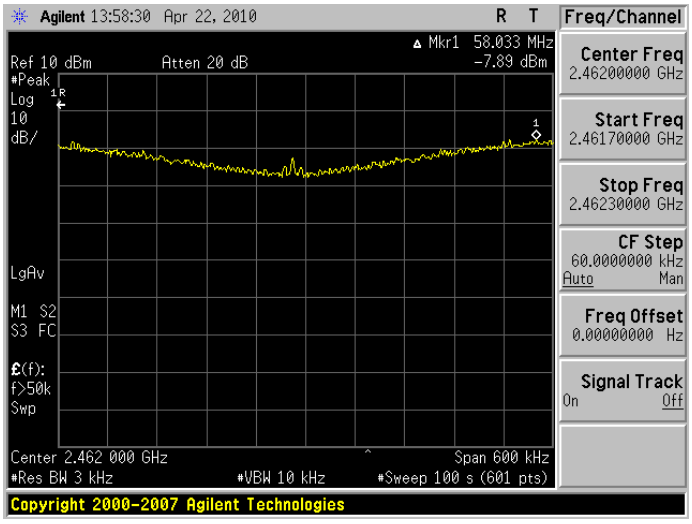
Product	Smartphone		
Test Item	Maximum Power Density		
Test Mode	Mode 3: IEEE 802.11b Link Mode		
Date of Test	04/22/2010	Test Site	TE06

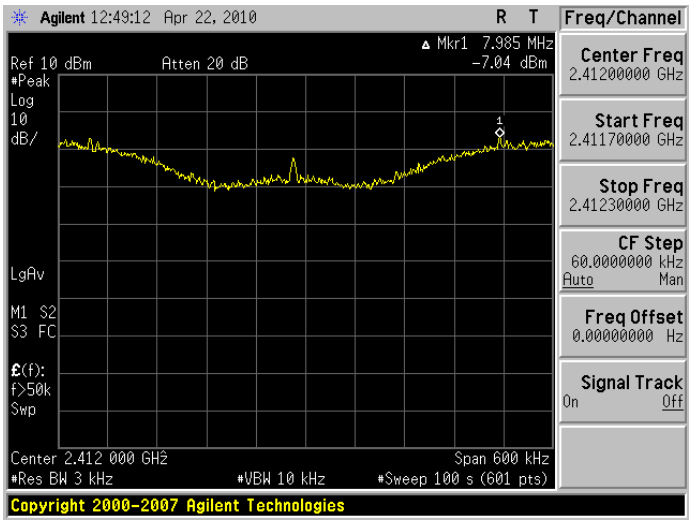
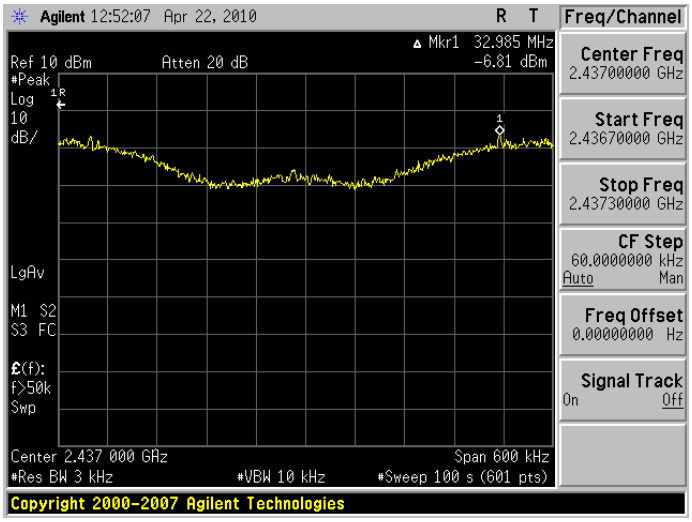
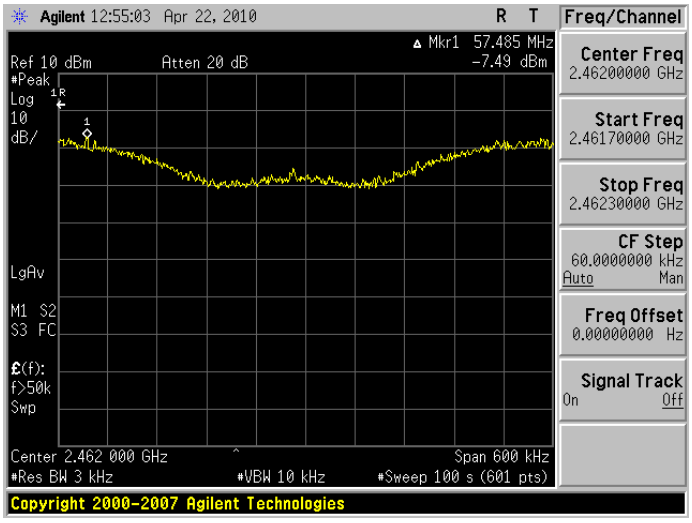
Frequency (MHz)	Measurement (dBm)	Limit (dBm)
2412	-17.14	< 8
2437	-7.96	< 8
2462	-7.89	< 8

Product	Smartphone		
Test Item	Maximum Power Density		
Test Mode	Mode 4: IEEE 802.11g Link Mode		
Date of Test	04/22/2010	Test Site	TE06

Frequency (MHz)	Measurement (dBm)	Limit (dBm)
2412	-7.04	< 8
2437	-6.81	< 8
2462	-7.49	< 8

8.6. Test Graphs

Mode 3: IEEE 802.11b Link Mode	
2412	
2437	
2462	

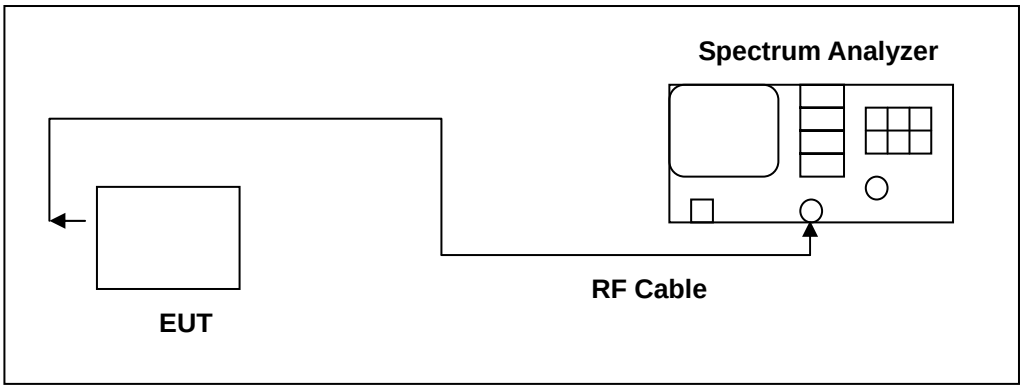
Mode 4: IEEE 802.11g Link Mode	
2412	
2437	
2462	

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

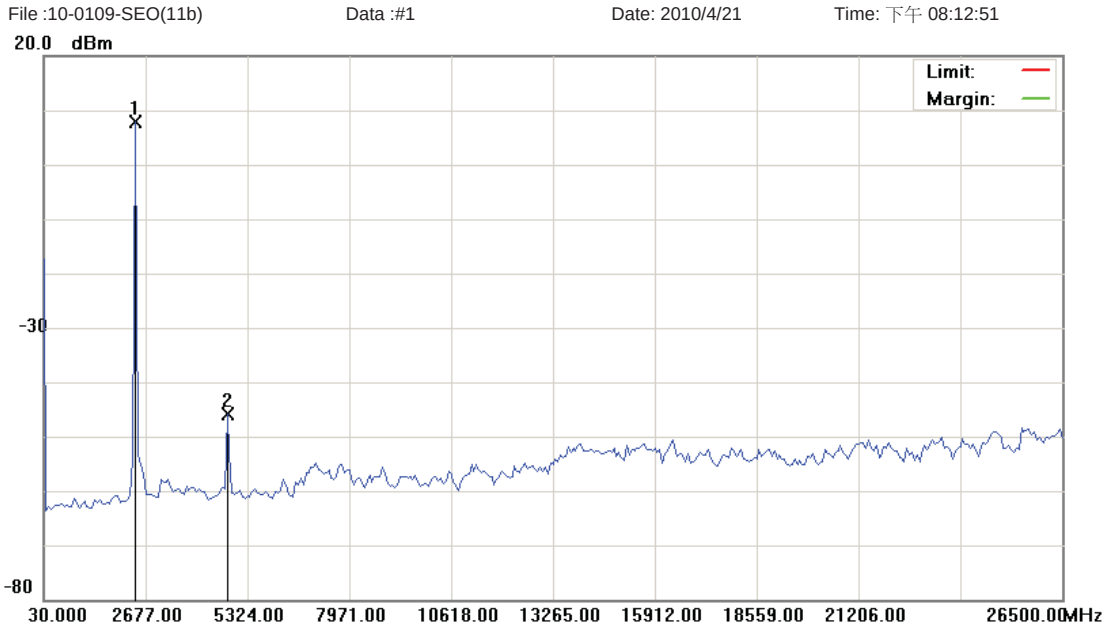
Product	Smartphone		
Test Item	Out of Band Conducted Emissions		
Test Mode	Mode 3: IEEE 802.11b Link Mode		
Date of Test	04/21/2010	Test Site	TE06

Frequency (MHz)	Fundamental (dBμV)	Limit (dBμV)	Measurement (dBμV)
2412	7.76	-12.24	-45.92
2437	9.46	-10.54	-45.92
2462	6.49	-13.51	-47.56

Product	Smartphone		
Test Item	Out of Band Conducted Emissions		
Test Mode	Mode 4: IEEE 802.11g Link Mode		
Date of Test	04/21/2010	Test Site	TE06

Frequency (MHz)	Fundamental (dBμV)	Limit (dBμV)	Measurement (dBμV)
2412	-9.77	-29.77	-47.97
2437	-9.79	-29.79	-48.43
2462	-7.57	-27.57	-48.78

9.6. Test Graphs



Site: : RF Conducted
Limit:
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: 2412Mhz

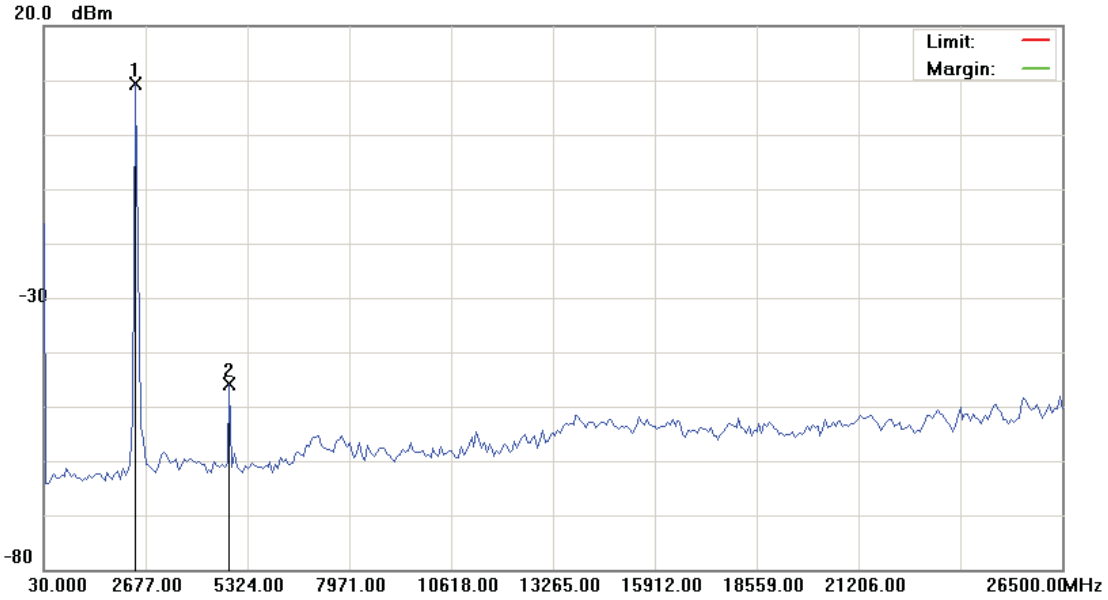
Polarization:
Power:
Distance:

Temperature: 22 ℃
Humidity: 60 %
RBW: 100 KHz VBW: 100 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2412.300	7.76	0.00	7.76			peak			TX
2		4794.600	-45.92	0.00	-45.92			peak			

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

File :10-0109-SEO(11b) Data :#2 Date: 2010/4/21 Time: 下午 08:17:38



Site: : RF Conducted
Limit:
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: 2437Mhz

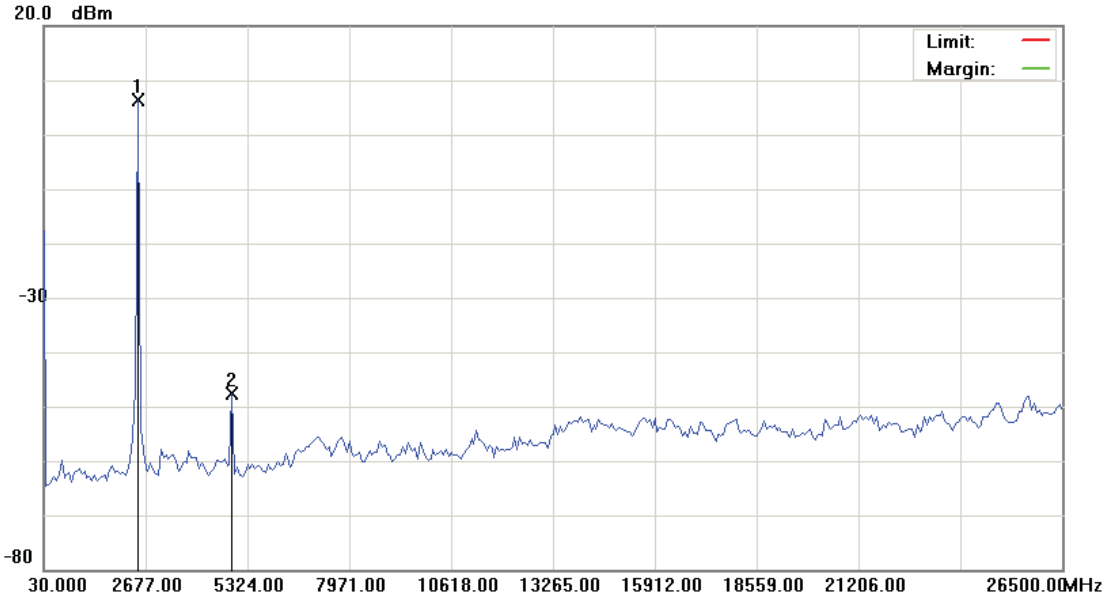
Polarization:
Power:
Distance:

Temperature: 22 ℃
Humidity: 60 %
RBW: 100 KHz VBW: 100 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2412.300	9.46	0.00	9.46			peak			TX
2		4860.775	-45.92	0.00	-45.92			peak			

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

File :10-0109-SEO(11b) Data :#3 Date: 2010/4/21 Time: 下午 08:18:36



Site: : RF Conducted
Limit:
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: 2462Mhz

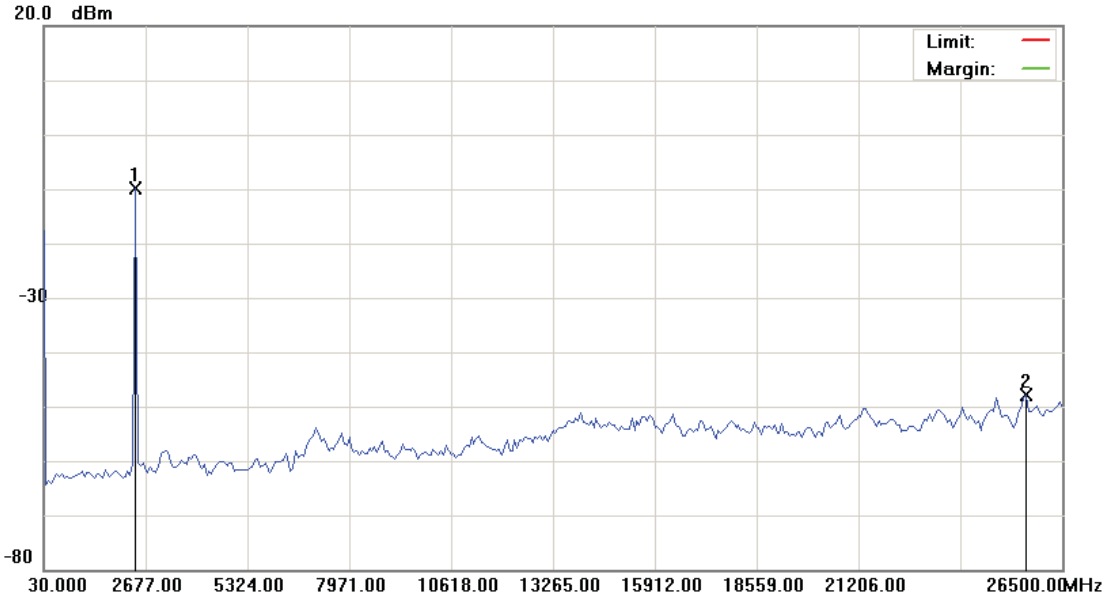
Polarization:
Power:
Distance:

Temperature: 22 ℃
Humidity: 60 %
RBW: 100 KHz VBW: 100 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2478.475	6.49	0.00	6.49			peak			TX
2		4926.950	-47.56	0.00	-47.56			peak			

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

File :10-0109-SEO(11g) Data :#1 Date: 2010/4/21 Time: 下午 08:22:02



Site: : RF Conducted
Limit:
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2412Mhz

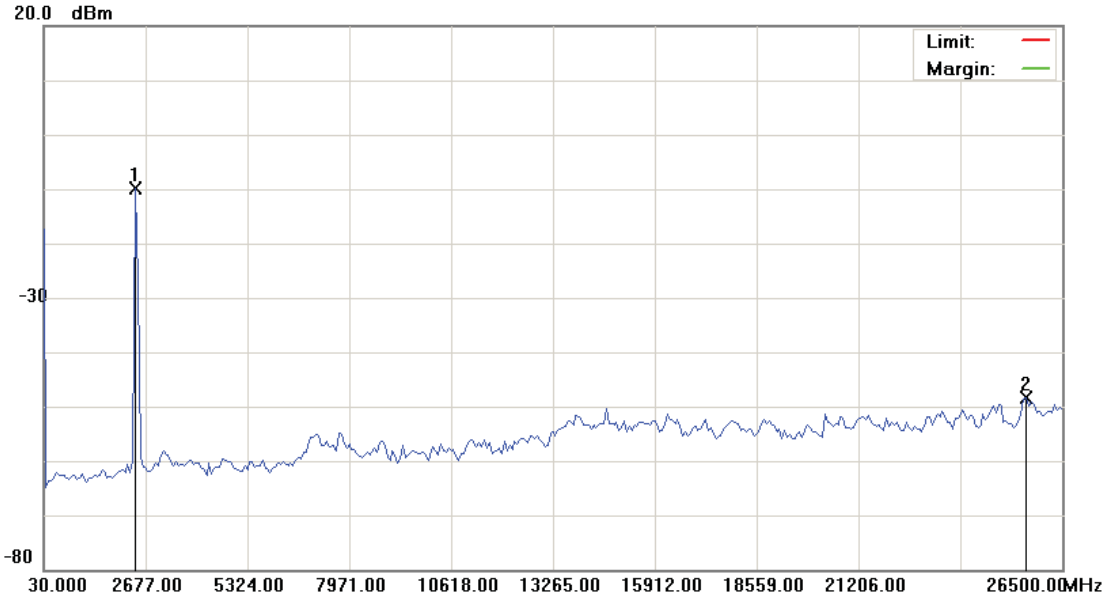
Polarization:
Power:
Distance:

Temperature: 22 ℃
Humidity: 60 %
RBW: 100 KHz VBW: 100 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2412.300	-9.77	0.00	-9.77			peak			TX
2		25573.550	-47.97	0.00	-47.97			peak			

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

File :10-0109-SEO(11g) Data :#2 Date: 2010/4/21 Time: 下午 08:23:12



Site: : RF Conducted
Limit:
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2437Mhz

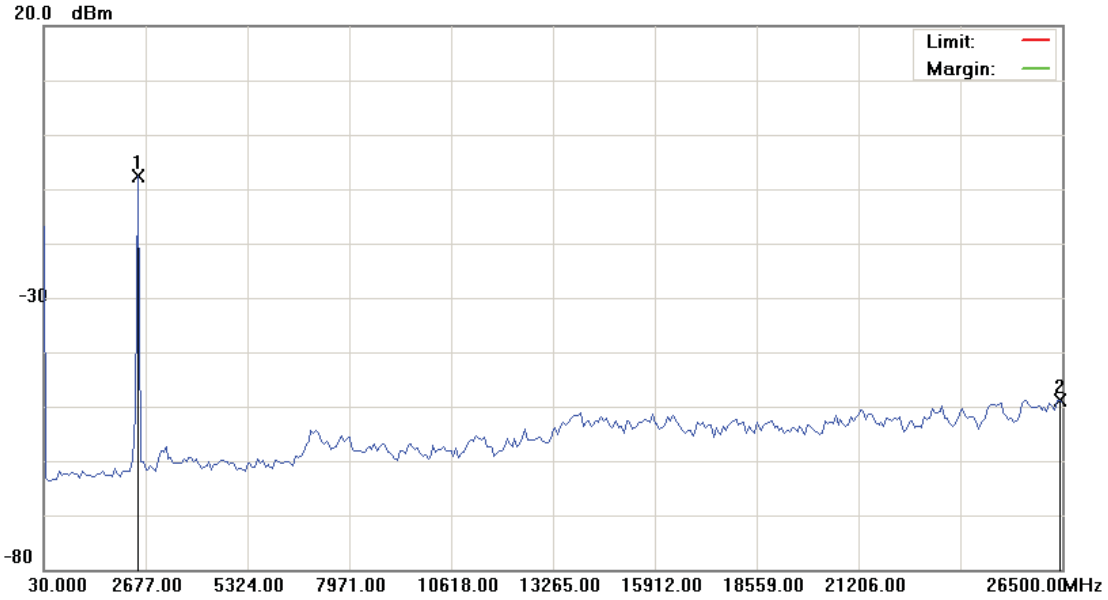
Polarization:
Power:
Distance:

Temperature: 22 ℃
Humidity: 60 %
RBW: 100 KHz VBW: 100 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2412.300	-9.79	0.00	-9.79			peak			TX
2		25573.550	-48.43	0.00	-48.43			peak			

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

File :10-0109-SEO(11g) Data :#3 Date: 2010/4/21 Time: 下午 08:24:04



Site: : RF Conducted
Limit:
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: 2462Mhz

Polarization:
Power:
Distance:

Temperature: 22 ℃
Humidity: 60 %
RBW: 100 KHz VBW: 100 KHz

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBm	dB	dBm	dBm	dB	Detector	cm	degree	Comment
1	*	2478.475	-7.57	0.00	-7.57			peak			TX
2		26433.825	-48.78	0.00	-48.78			peak			

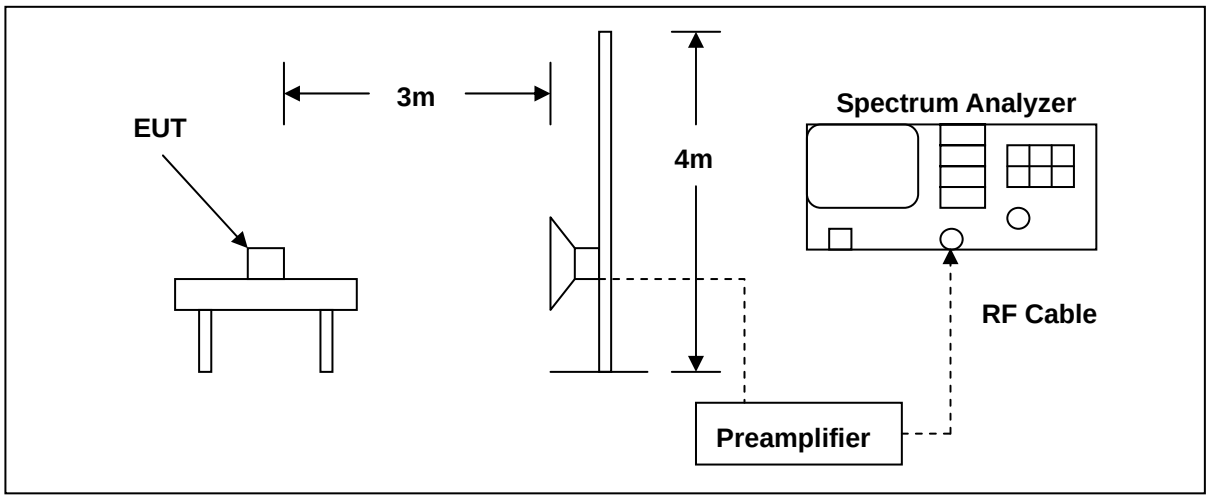
*:Maximum data x:Over limit !:over margin

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

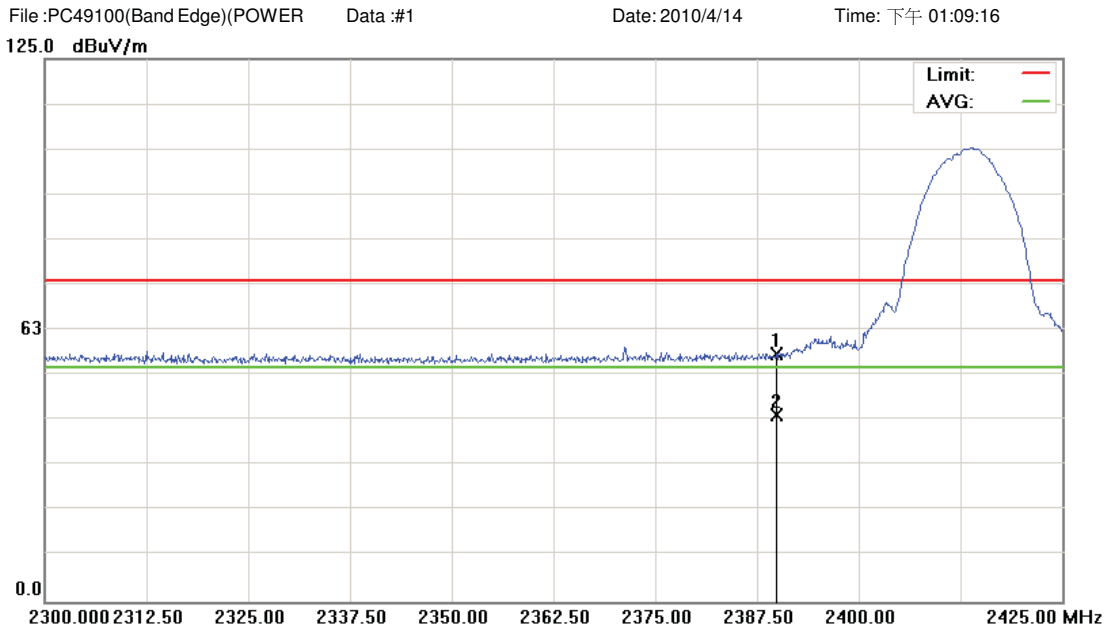
The EUT was setup to ANSI C63.4, 2003; tested to DTS test procedure of Oct 2002 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

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
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: CH01(2412MHz)

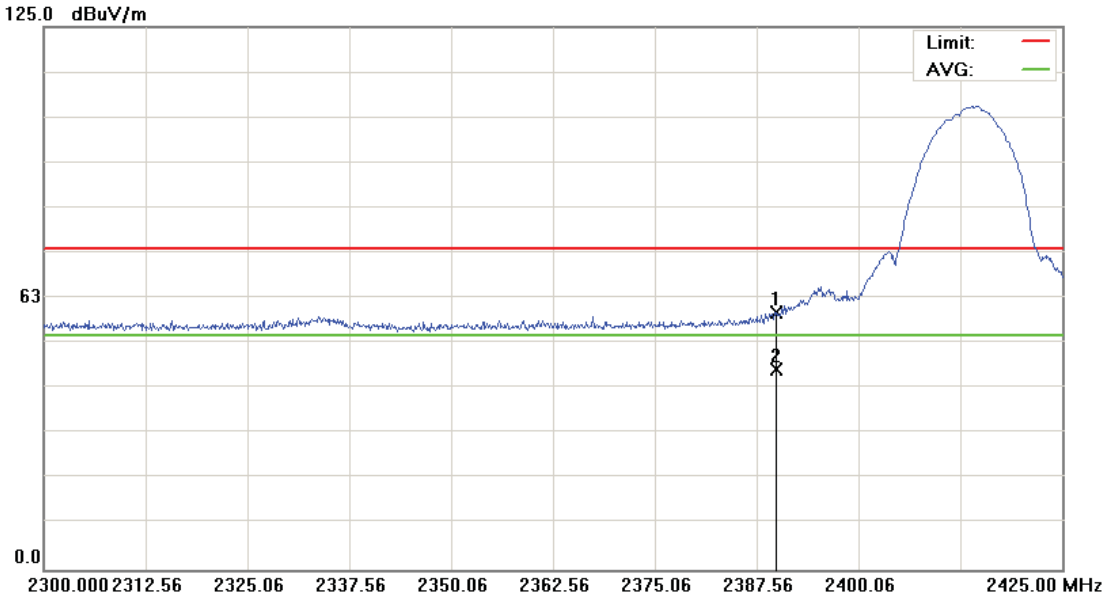
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2389.800	56.94	0.16	57.10	74.00	-16.90	peak			
2	*	2389.800	42.94	0.16	43.10	54.00	-10.90	AVG			

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

File :PC49100(Band Edge)(POWER Data :#5 Date: 2010/4/14 Time: 下午 01:18:45



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: CH01(2412MHz)

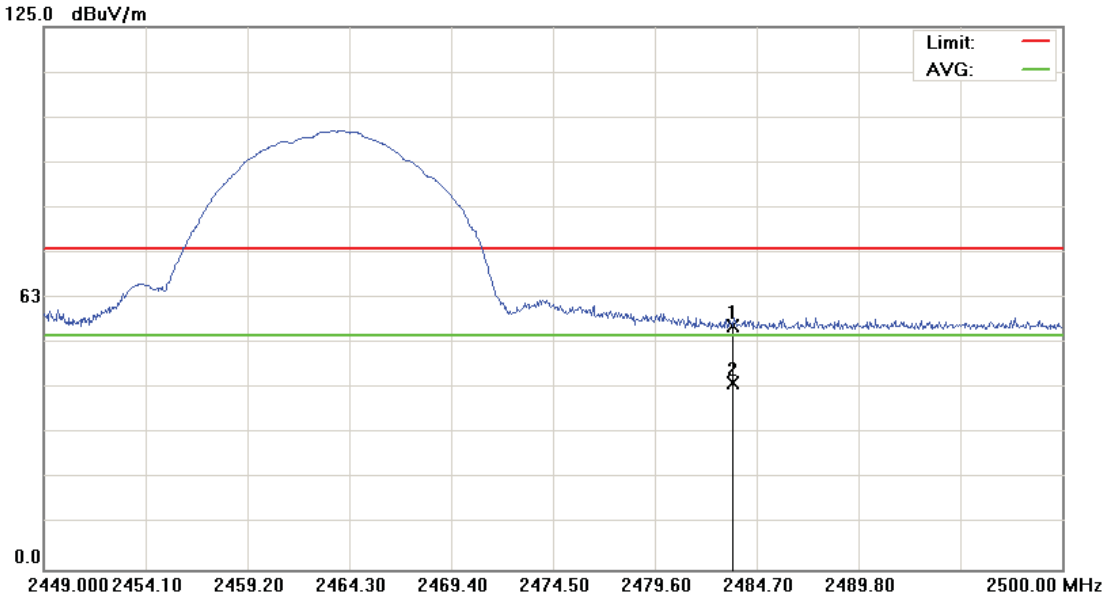
Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2389.800	59.16	0.16	59.32	74.00	-14.68	peak			
2	*	2389.800	45.78	0.16	45.94	54.00	-8.06	AVG			

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

File :PC49100(Band Edge)(POWER Data :#3 Date: 2010/4/14 Time: 下午 01:53:22



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: CH11(2462MHz)

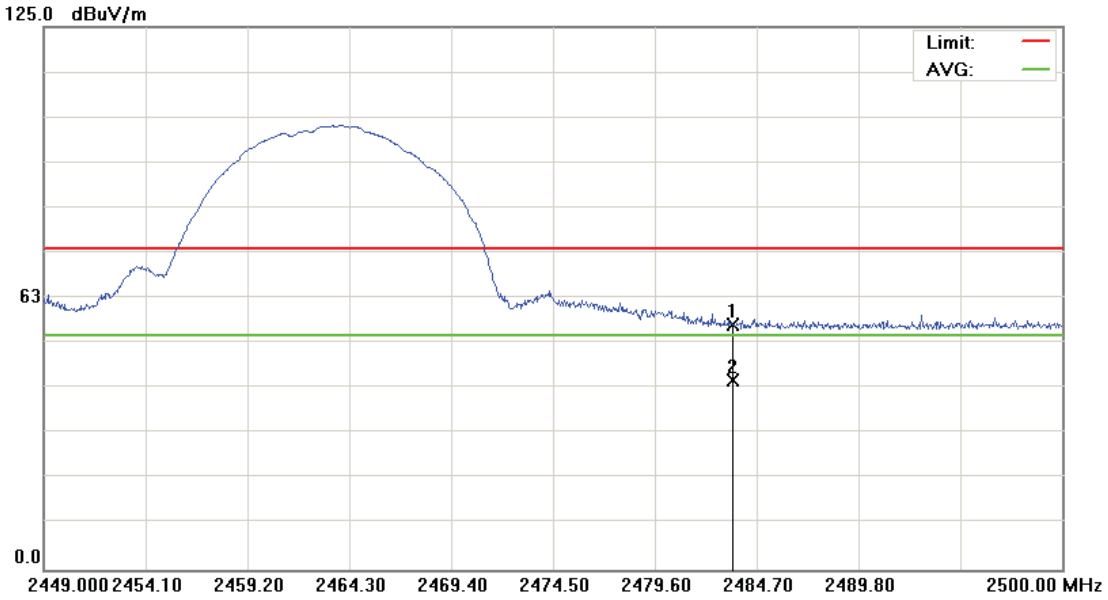
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2483.510	55.92	0.25	56.17	74.00	-17.83	peak			
2	*	2483.510	42.57	0.25	42.82	54.00	-11.18	AVG			

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

File :PC49100(Band Edge)(POWER Data :#7 Date: 2010/4/14 Time: 下午 02:00:27



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 3
Note: CH11(2462MHz)

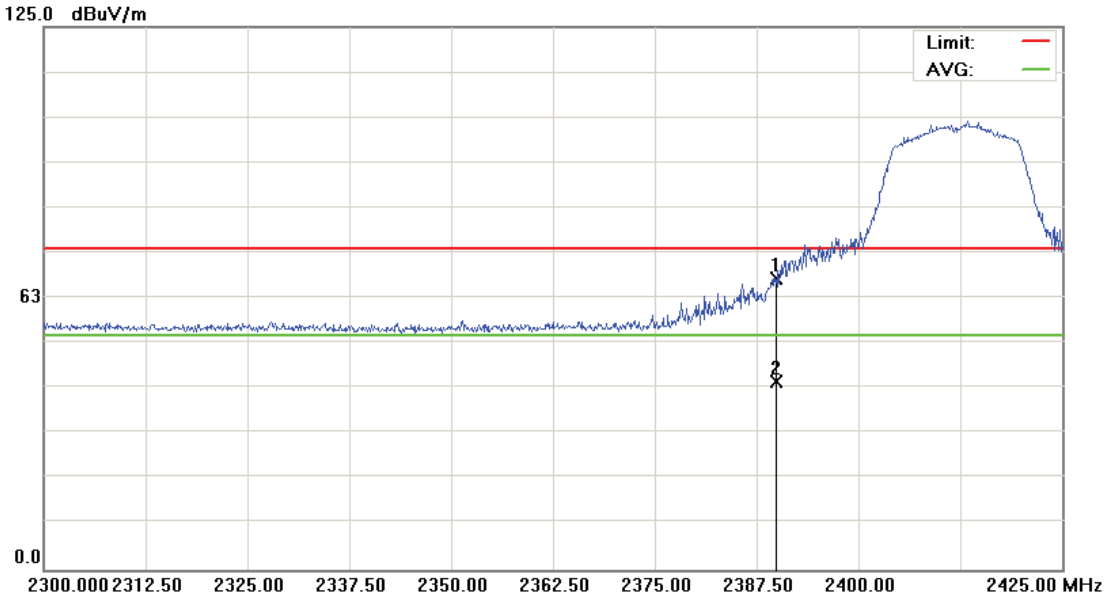
Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2483.510	56.23	0.25	56.48	74.00	-17.52	peak			
2	*	2483.510	43.40	0.25	43.65	54.00	-10.35	AVG			

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

File :PC49100(Band Edge)(POWER Data :#1 Date: 2010/4/14 Time: 下午 02:46:07



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: CH01(2412MHz)

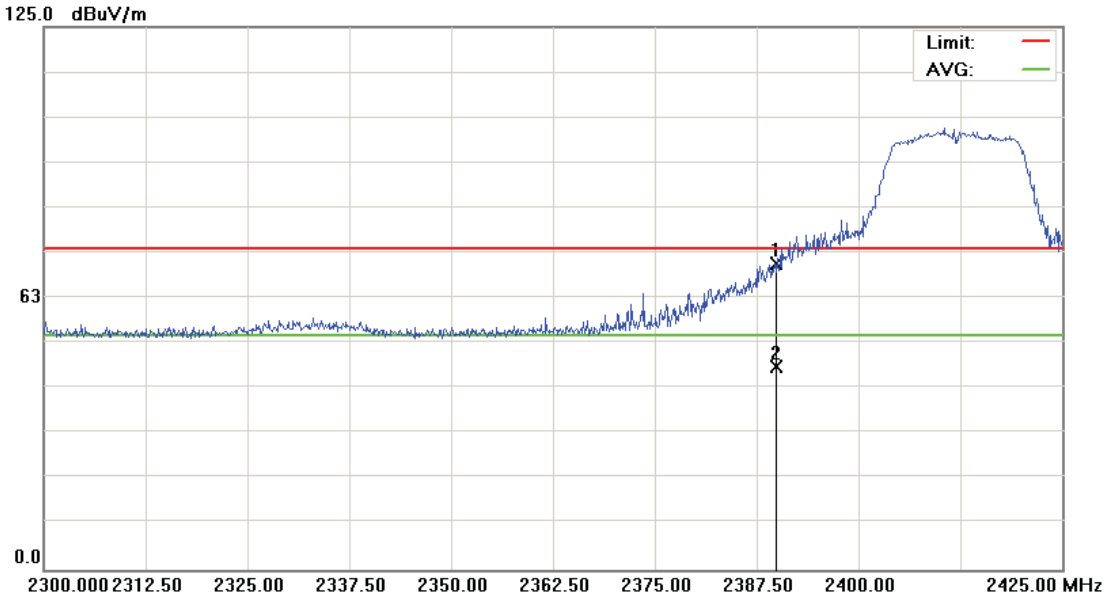
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2389.800	66.84	0.16	67.00	74.00	-7.00	peak			
2		2389.800	43.20	0.16	43.36	54.00	-10.64	AVG			

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

File :PC49100(Band Edge)(POWER Data :#5 Date: 2010/4/14 Time: 下午 02:50:56



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: CH01(2412MHz)

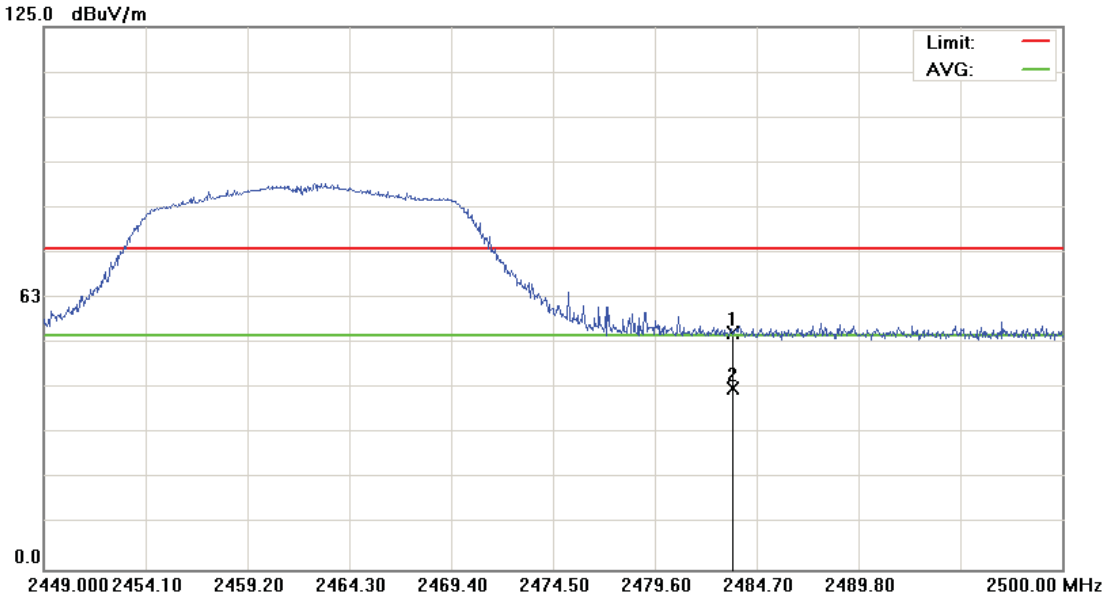
Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2389.800	70.35	0.16	70.51	74.00	-3.49	peak			
2		2389.800	46.50	0.16	46.66	54.00	-7.34	AVG			

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

File :PC49100(Band Edge)(POWER Data :#3 Date: 2010/4/14 Time: 下午 03:09:58



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: CH11(2462MHz)

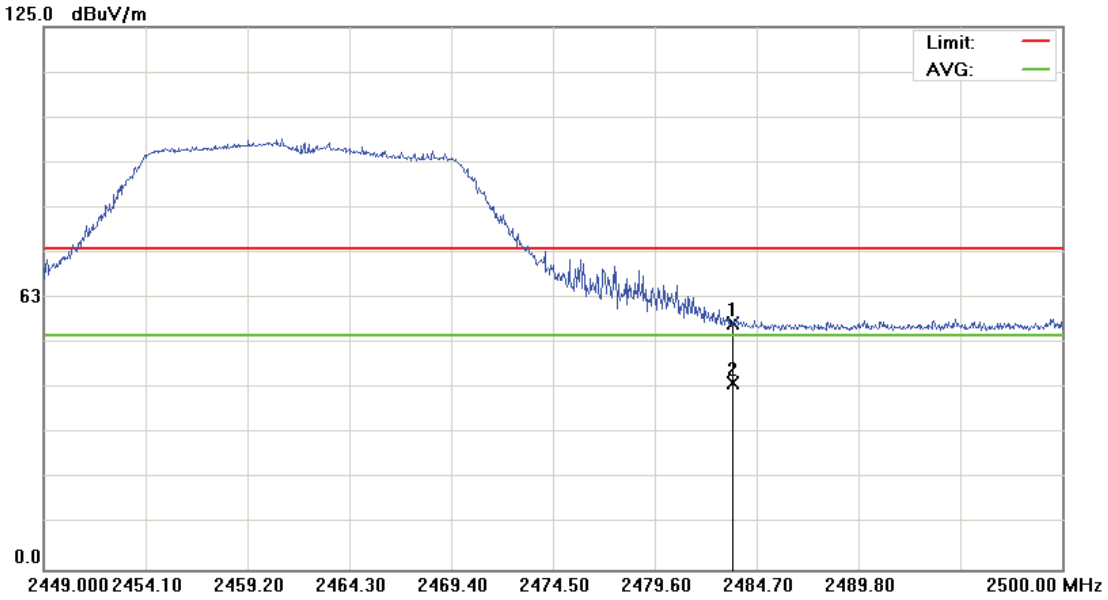
Polarization: *Vertical*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2483.510	54.29	0.25	54.54	74.00	-19.46	peak			
2	*	2483.510	41.58	0.25	41.83	54.00	-12.17	AVG			

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

File :PC49100(Band Edge)(POWER Data :#7 Date: 2010/4/14 Time: 下午 03:04:04



Site: : 966 Chamber
Limit: FCC part 15 (PK)
EUT: Smartphone
M/N: PC49100
Mode: 4
Note: CH11(2462MHz)

Polarization: *Horizontal*
Power:
Distance: 3m

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		2483.510	56.34	0.25	56.59	74.00	-17.41	peak			
2	*	2483.510	42.63	0.25	42.88	54.00	-11.12	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 **0.5 dBi**.