



FCC Test Report

for

47 CFR Part 15 Subpart C

Equipment : Neo 1973
Trade Name : FIC
Model No. : GTA02E
FCC ID : EUNGTA02E
Filing Type : Certification
Applicant : FIC (First International Computer, Inc.)
1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

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- The data shown in this test report were carried out on Dec. 24, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR832514, Report Version: Rev.01

Roy Wu
Manager

SPORTON International Inc.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.



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History of this test report

Report Issue Date: Apr. 01, 2008

Report No.	Description

1. General Description of Equipment under Test

1.1 Applicant

FIC (First International Computer, Inc.)

1-9F., No. 300, Yang Guang, NeiHu, Taipei, Taiwan, 114

1.2 Manufacturer

First International Computer (Suzhou) Inc.

No. 200, Central uhong Road, SuZhou Industrial Park, China

1.3 Basic Description of Equipment under Test

Equipment		Neo 1973
Trade Name		FIC
Model Name		GTA02E
FCC ID :		EUNGTA02E
AC Adapter	Manufacture	AKII TECHNOLOGY CO., LTD.
	Brand Name	AKII Technology
	Model Name	A10P1-05MP
	Power Rating	I/P: 100-240Vac, 47-63 Hz, 0.3A; O/P: 5Vdc, 2.0A
	AC Power Cord Type	1.49 meter non-shielded cable without ferrite core
Battery A	Manufacture	WELLDONE COMPANY
	Brand Name	FIC
	Model Name	GTC-01 / GTA-01
	Rating	3.7Vdc, 1200mAh
	Type	Li-ion
Battery B	Brand Name	FIC
	Model Name	GTA02
	Rating	3.7Vdc, 1200mAh
	Type	Li-ion
Earphone A	Brand Name	Xport
	Model Name	Ko-11-1020a
	Signal line Type	1.42 meter non-shielded cable without ferrite core
Earphone B	Brand Name	SEMDITECH
	Model Name	HP-GTA01-MP3JS-G
	Signal line Type	1.6 meter non-shielded cable without ferrite core
USB Cable	Brand Name	Golden Bridge
	Model Name	AS52-0607007
	Signal Line Type	1.29 meter non-shielded cable without ferrite core

Remark: Above EUT's information was declared by manufacturer. Please refer to the specifications of manufacturer or User's Manual for more detailed features description.

1.4 Feature of Equipment under Test

Product Feature & Specification	
DUT Type :	Neo 1973
Trade Name :	FIC
Model Name :	GTA02E
FCC ID :	EUNGTA02E
Tx Frequency :	PCS1900 : 1850 ~ 1910 MHz Bluetooth : 2400 ~ 2483.5 MHz WLAN : 2400 ~ 2483.5 MHz
Rx Frequency :	PCS1900 : 1930 ~ 1990 MHz Bluetooth : 2400 ~ 2483.5 MHz WLAN : 2400 ~ 2483.5 MHz GPS : 1575.42 MHz
Maximum Output Power to Antenna :	PCS1900 : 29.27 dBm (GSM) Bluetooth : 2.25 dBm (1Mbps) Bluetooth EDR : 2.4 dBm (2Mbps) / 2.53 dBm (3Mbps) WLAN : 14.02 dBm (802.11b) / 14.89 dBm (802.11g)
Type of Antenna Connector	N/A
Antenna Type :	GSM : Monopole Antenna GPS : Ceramic Antenna Bluetooth : Chip Antenna WLAN : Chip Antenna
Antenna Gain :	GSM : 0.07 dBi GPS : 0.5 dBi Bluetooth : -4.84 dBi WLAN : -3 dBi
HW Version :	A5
SW Version :	Moko5
Type of Modulation :	GSM / GPRS : GMSK Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK WLAN : DSSS / OFDM
DUT Stage :	Identical Prototype

2. Test Configuration of Equipment under Test

2.1 Test Manner

- a. The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.
- b. Power Table as below:

802.11b

Channel	Frequency (MHz)	Data Rate			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	13.47	13.31	13.85	13.64
CH 06	2437 MHz	13.62	13.73	13.66	13.82
CH 11	2462 MHz	13.61	13.66	13.84	14.02

802.11g

Channel	Frequency (MHz)	Data Rate							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	14.01	14.20	14.07	13.39	14.31	13.75	13.70	14.26
CH 06	2437 MHz	14.21	14.27	14.39	13.25	14.39	13.83	13.91	14.31
CH 11	2462 MHz	14.29	14.17	14.10	13.46	14.25	14.03	13.82	14.89

- c. The 802.11b/g data rate were set in 11Mbps and 54Mbps, due to the highest RF output power.
- d. The EUT is programmed to transmit signal continuously for all testings.
- e. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

2.2 Test Mode

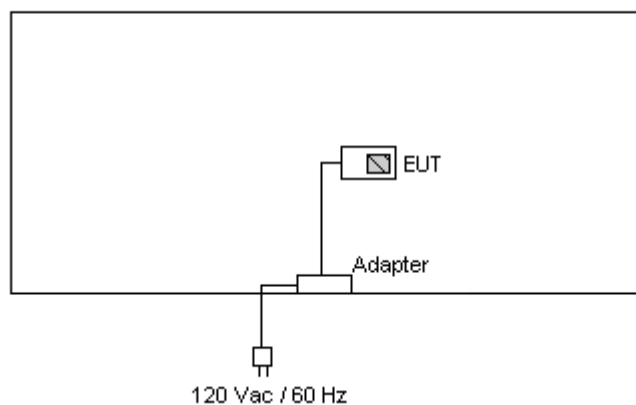
Application		
Radiated Emission	802.11b	802.11g
	Mode 1: CH01_2412 MHz	Mode 4: CH01_2412 MHz
	Mode 2: CH06_2437 MHz	Mode 5: CH06_2437 MHz
	Mode 3: CH11_2462 MHz	Mode 6: CH11_2462 MHz
	Mode 7: 802.11b CH01 + BT CH78	
Conducted Emission	Mode 1: PCS1900 Idle + GPS Rx + BT Link + Earphone + MP3 + Adapter	
	Mode 2: WLAN Link + GPS Rx + BT Link + Earphone + MP3 + Adapter	
	Mode 3: PCS1900 Idle + GPS Rx + BT Link + Earphone + MP3 + USB Link	

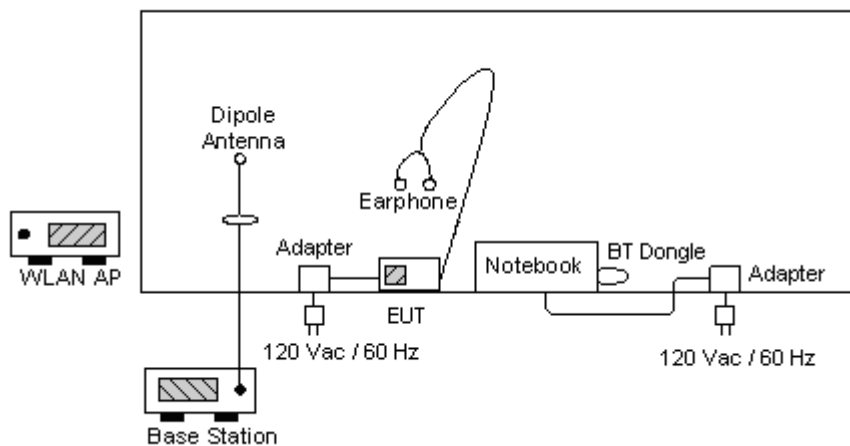
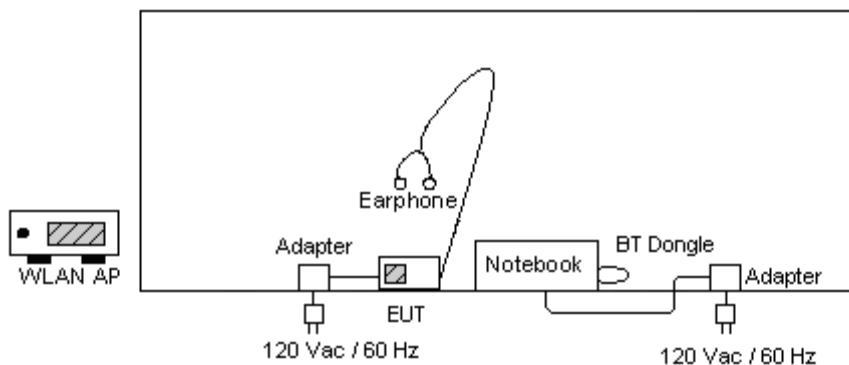
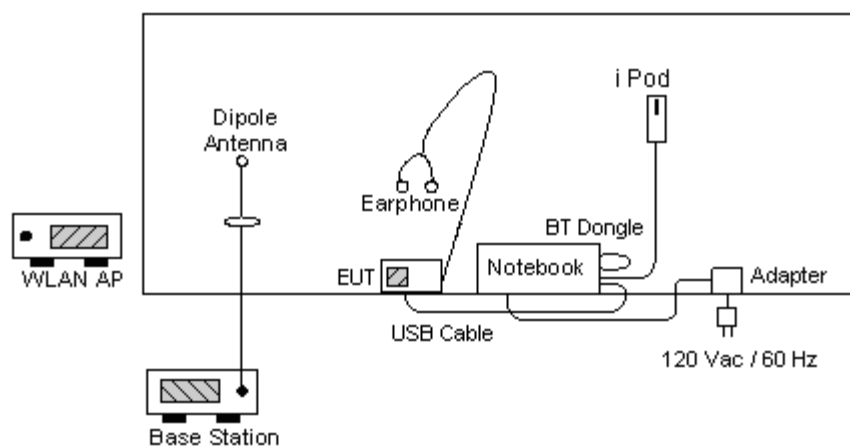
2.3 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable / Power Cord
1.	NOTEBOOK	DELL	D400	E2K24GBRL	1.2m
2.	Base Station	Agilent	E5515C	N/A	Unshielded, 1.8 m
3.	BT Base Station	Anritus	8852A	N/A	Unshielded, 1.8 m
4.	WLAN AP	SMC	SMC-100	HEDWG4005ACC	Unshielded, 1.8 m
5.	BT Dongle	Engotech	ET-BD201	PQY-4710874203662	N/A
6.	Dipole Antenna	Sporton	N/A	N/A	N/A
7.	iPod	Apple	A1199	DoC	Shielded, 1.2m

2.4 Connection Diagram of Test System

<Radiated Emission>



<Conducted Emission>
Mode 1

Mode 2

Mode 3 and 4




3. RF Utility

The programmed RF Utility is installed in EUT to provide channel selection, power level, data rate and the application type. RF Utility can send transmitting signal for all testings.



4. General Information of Test

Test Site Location : No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park,
Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.
TEL : 886-3-327-3456
FAX : 886-3-328-4978
Test Site No : CO04-HY, 03CH04-HY

4.1 Test Voltage

AC 120V / 60Hz

4.2 Standard for Methods of Measurement

ANSI C63.4-2003

4.3 Test Compliance

47 CFR Part 15 Subpart C

4.4 Frequency Range

- a. Conduction: from 150 kHz to 30 MHz
- b. Radiation: from 30 MHz to 25000 MHz

4.5 Test Distance

The test distance of radiated emission from antenna to EUT is 3 m.

5. Test Data and Test Result

5.1 List of Measurements and Examinations

The Emission Mode: Wireless LAN

FCC Rule	Description of Test	Result
15.207	Conducted Emission	Pass
15.247(a)(2)	6dB Bandwidth	Pass
15.247(b)(1)	Maximum Peak Output Power	Pass
15.209(a) 15.247(d)	Radiated Emission	Pass
15.247(d)	100 KHz Bandwidth of Frequency Band Edges	Pass
15.247(e)	Power Spectral Density	Pass
15.203 15.247(b)(4)	Antenna Requirement	Pass

5.2 6dB Bandwidth Measurement

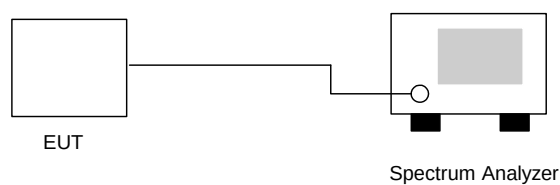
5.2.1 Measuring Instruments

As described in chapter 6 of this test report.

5.2.2 Test Procedure

1. The transmitter output was connected to the spectrum analyzer directly.
2. Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
3. The 6 dB bandwidth is defined as the frequency range where the power is higher than the peak power minus 6dB.

5.2.3 Test Setup Layout



5.2.4 Test Result

- Application Type : WLAN 802.11b/g
- Temperature : 24~27°C
- Relative Humidity : 49~51%
- Test Enginner : Ken

▪ 802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	11.52	> 0.5MHz	Mode 1
06	2437	11.52	> 0.5MHz	Mode 2
11	2462	11.52	> 0.5MHz	Mode 3

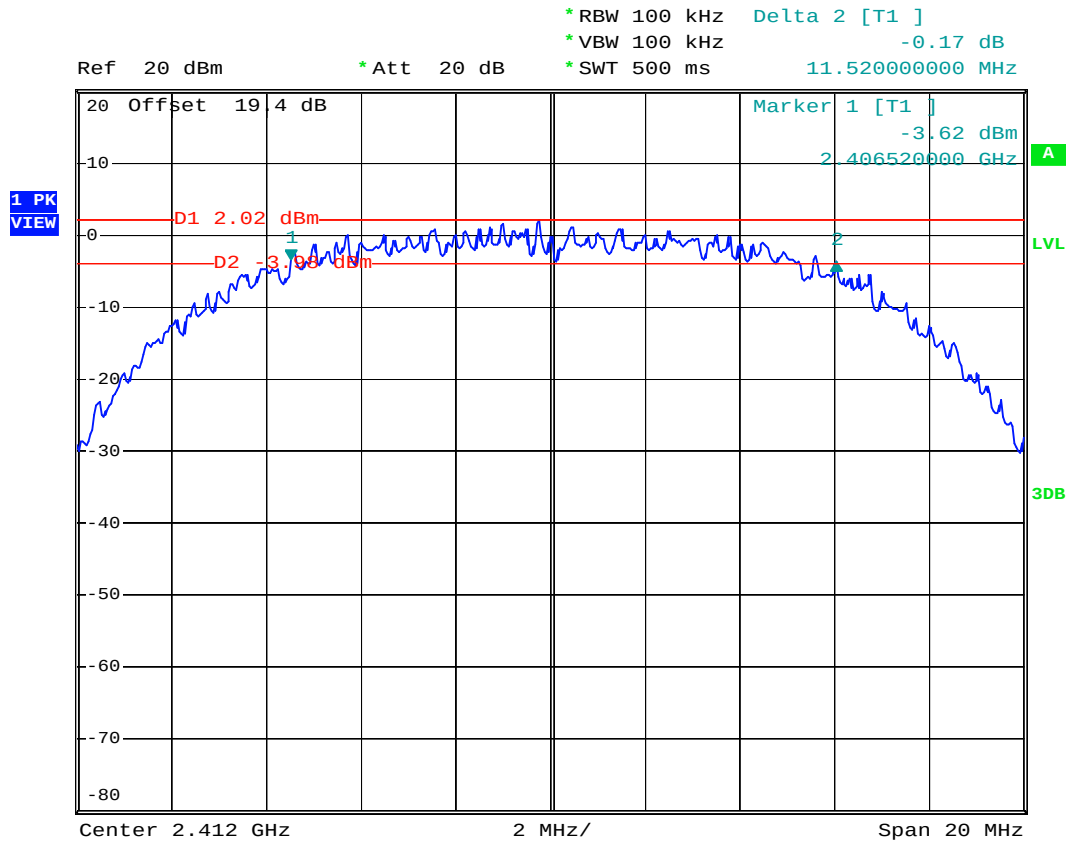
▪ 802.11g

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.48	> 0.5MHz	Mode 4
06	2437	16.48	> 0.5MHz	Mode 5
11	2462	16.48	> 0.5MHz	Mode 6



5.2.5 6dB Bandwidth

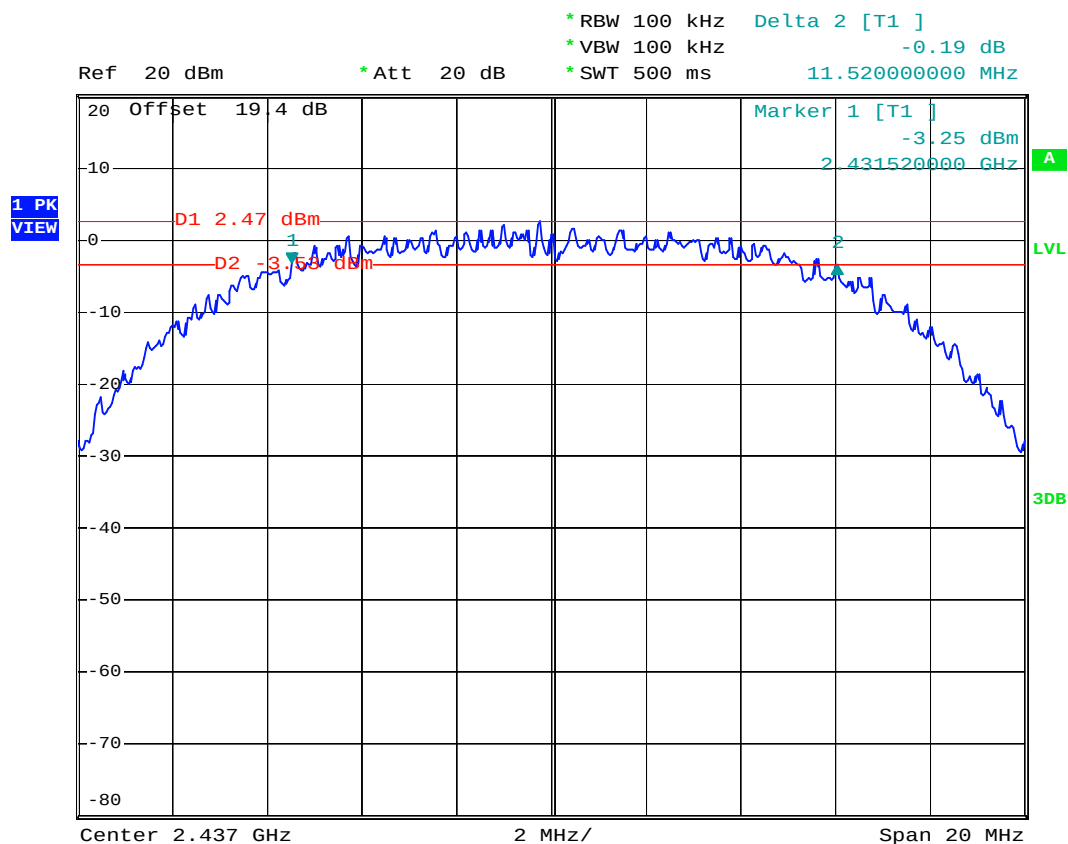
Mode 1



Date: 13.DEC.2007 00:15:22



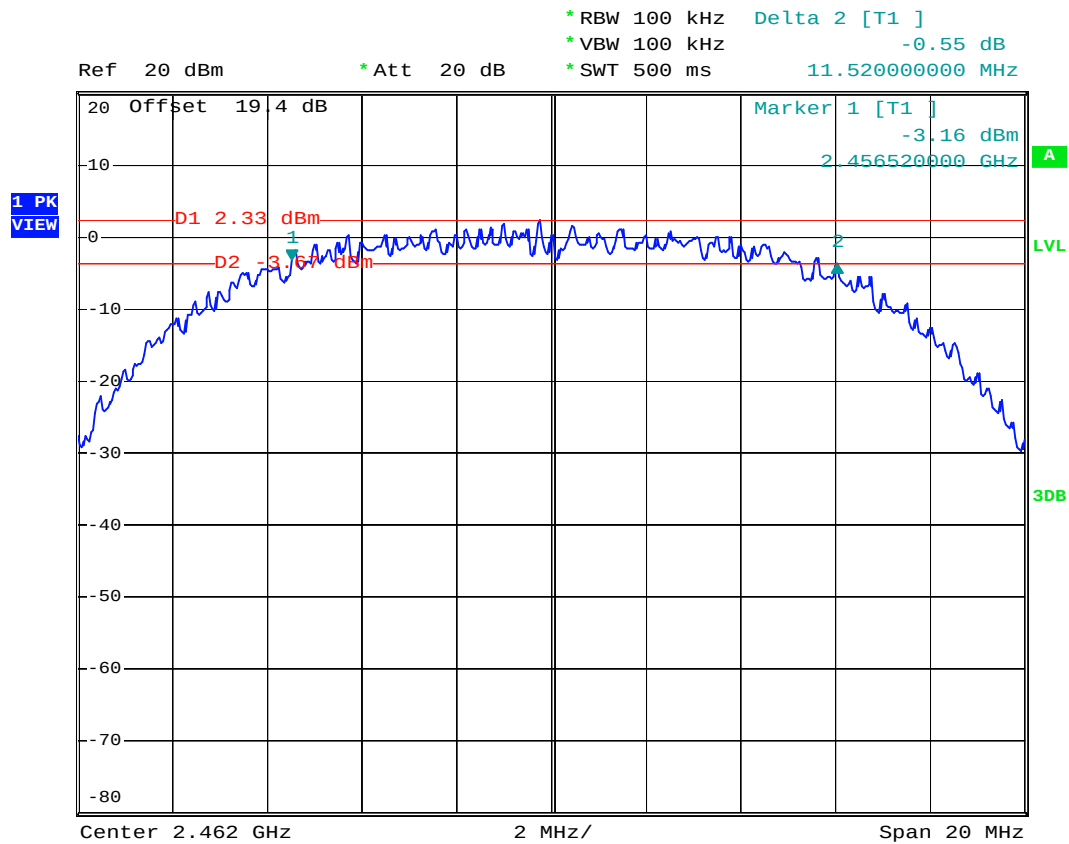
Mode 2



Date: 13.DEC.2007 00:16:41



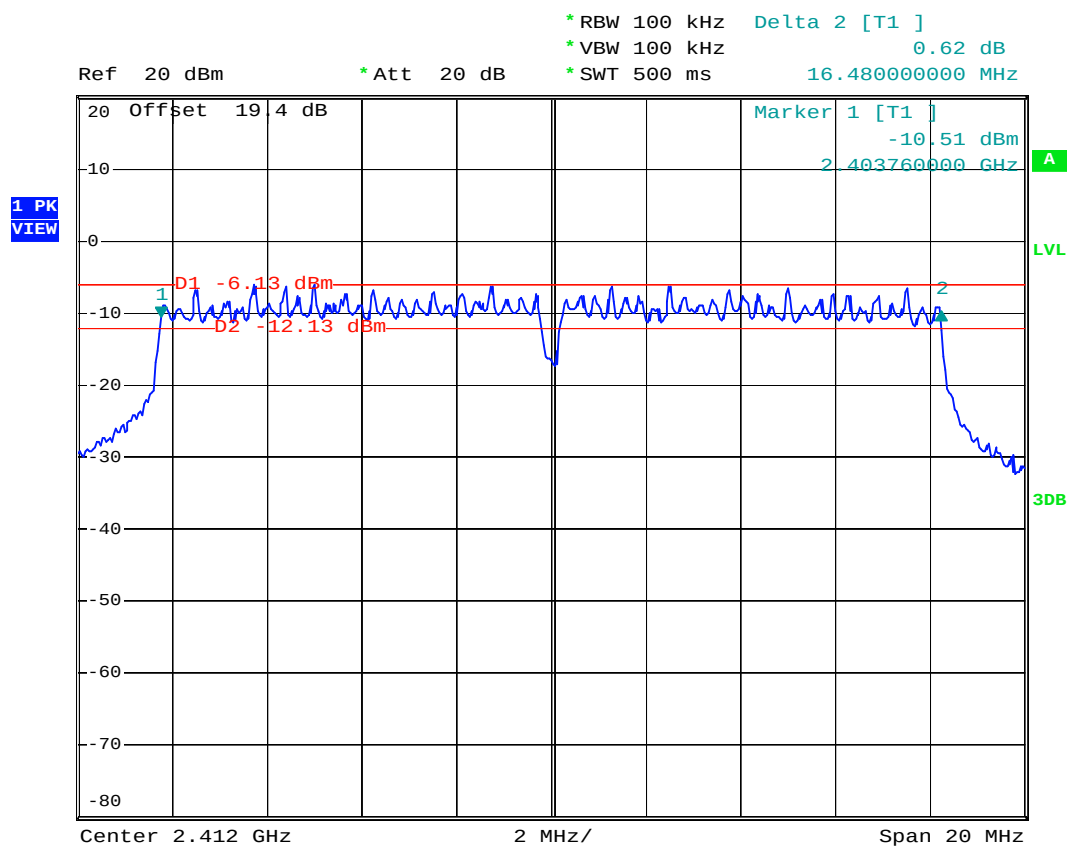
Mode 3



Date: 13.DEC.2007 00:18:05



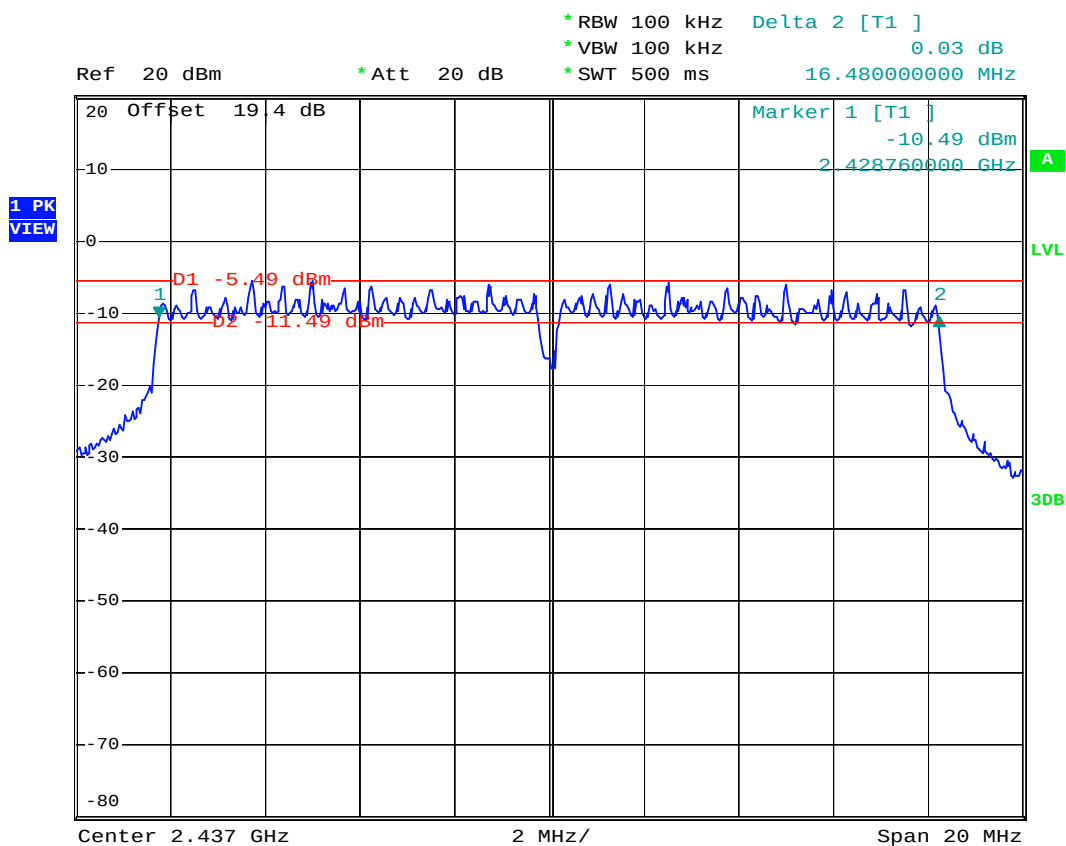
Mode 4



Date: 15.DEC.2007 03:29:12



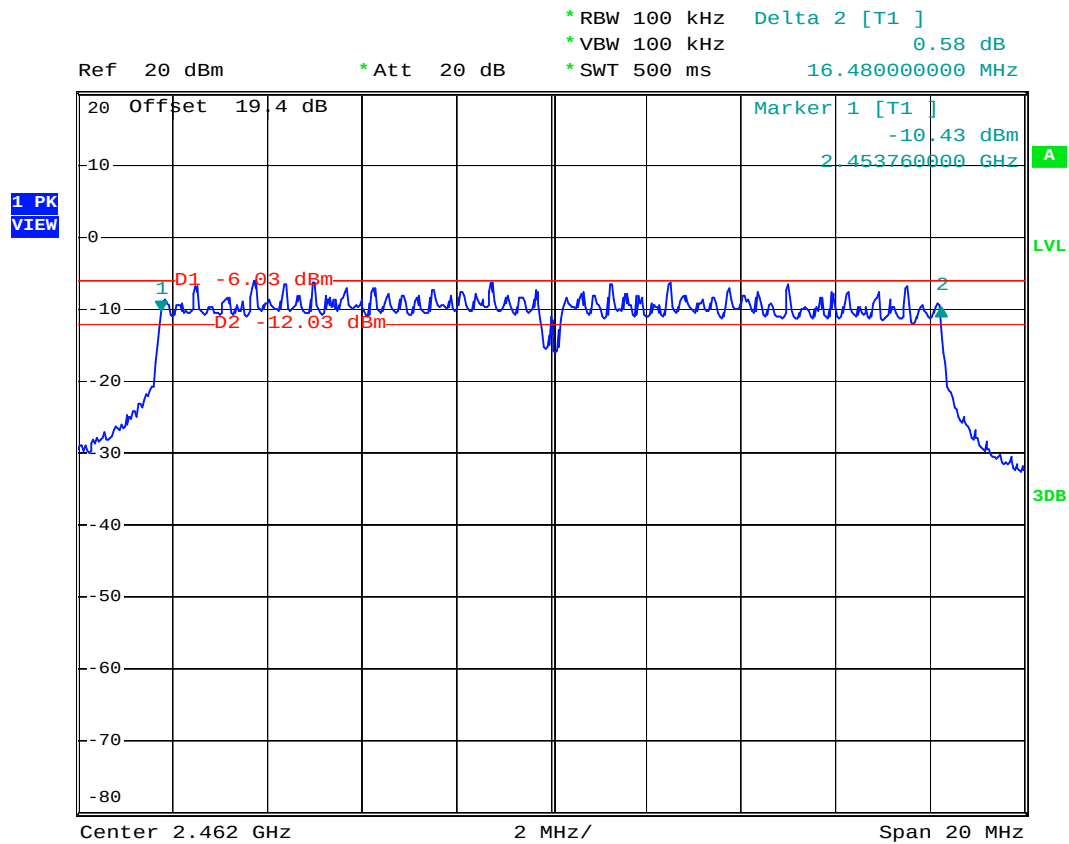
Mode 5



Date: 15.DEC.2007 03:30:04



Mode 6



Date: 15.DEC.2007 03:30:42

5.3 Power Spectral Density Measurement

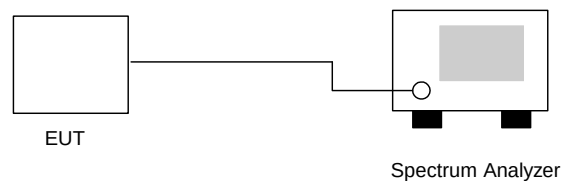
5.3.1 Measuring Instruments

As described in chapter 6 of this test report.

5.3.2 Test Procedure

1. The transmitter output was connected to spectrum analyzer directly.
2. The spectrum analyzer's resolution bandwidth was set at 3kHz RBW and 30kHz VBW as that of the fundamental frequency. Set the sweep time=span/3kHz.
3. The power spectral density was measured and recorded.
4. The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

5.3.3 Test Setup Layout



5.3.4 Test Result

- Application Type : 802.11b/g
- Temperature : 24~27°C
- Relative Humidity : 49~51%
- Test Enginner : Ken

802.11b

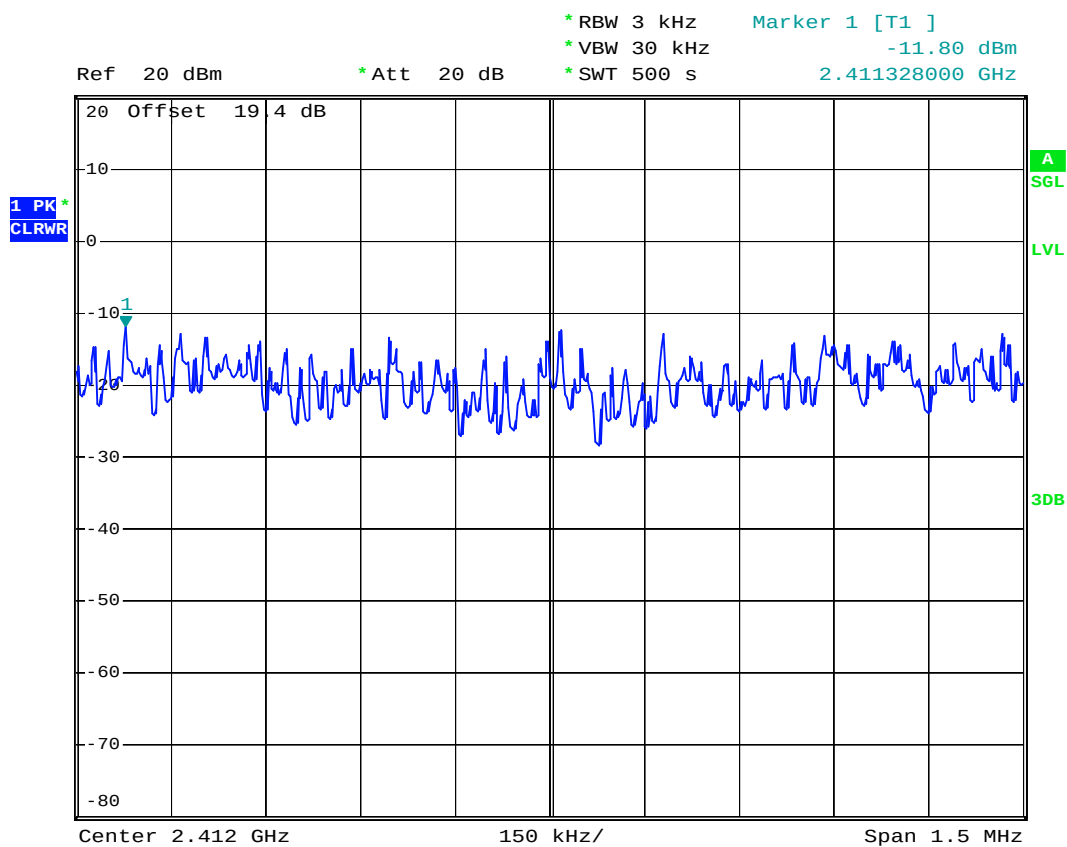
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-11.80	8	Mode 1
06	2437	-11.34	8	Mode 2
11	2462	-11.48	8	Mode 3

802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-19.61	8	Mode 4
06	2437	-19.49	8	Mode 5
11	2462	-19.67	8	Mode 6

**5.3.5 Power Spectral Density**

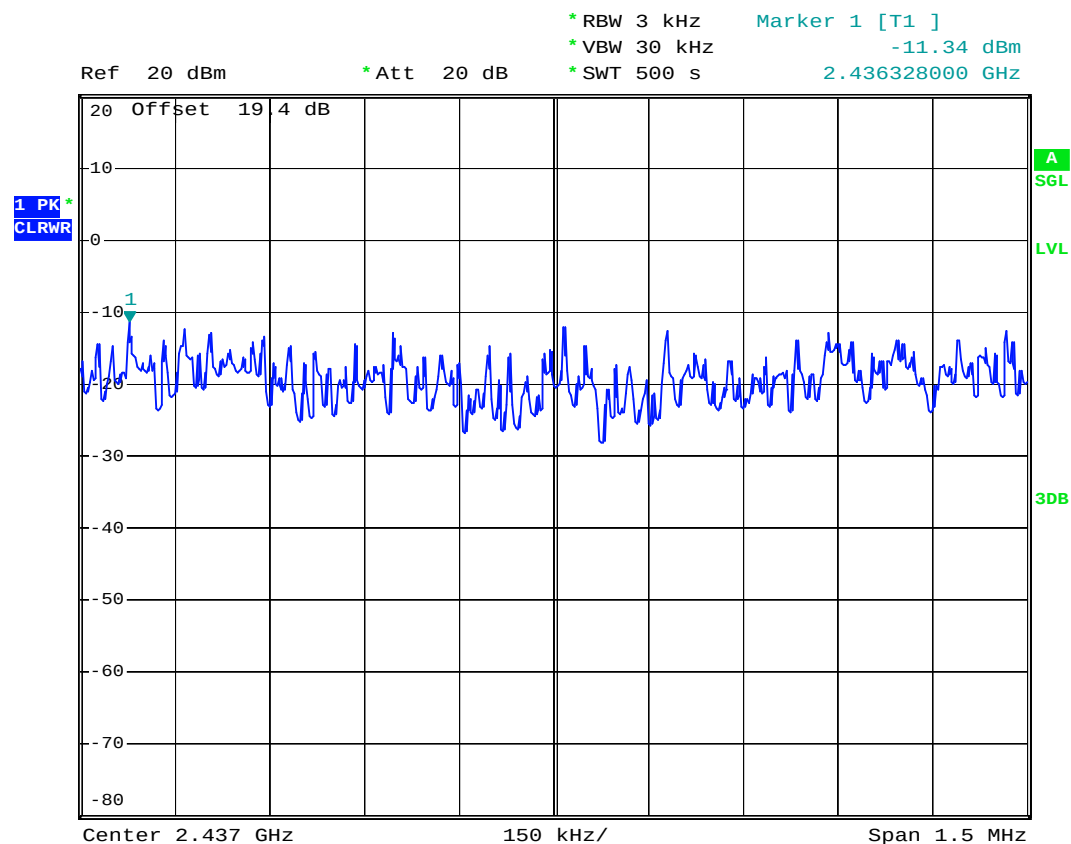
Mode 1



Date: 12.DEC.2007 23:53:29



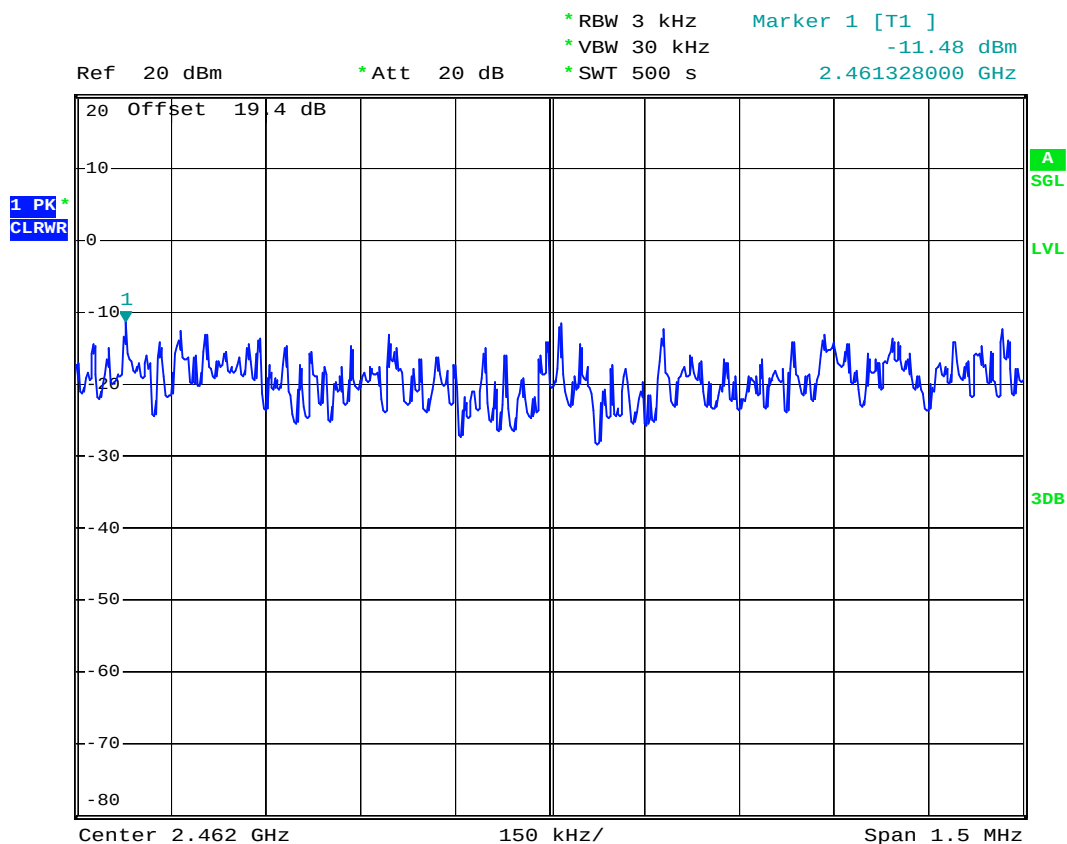
Mode 2



Date: 13.DEC.2007 00:02:51



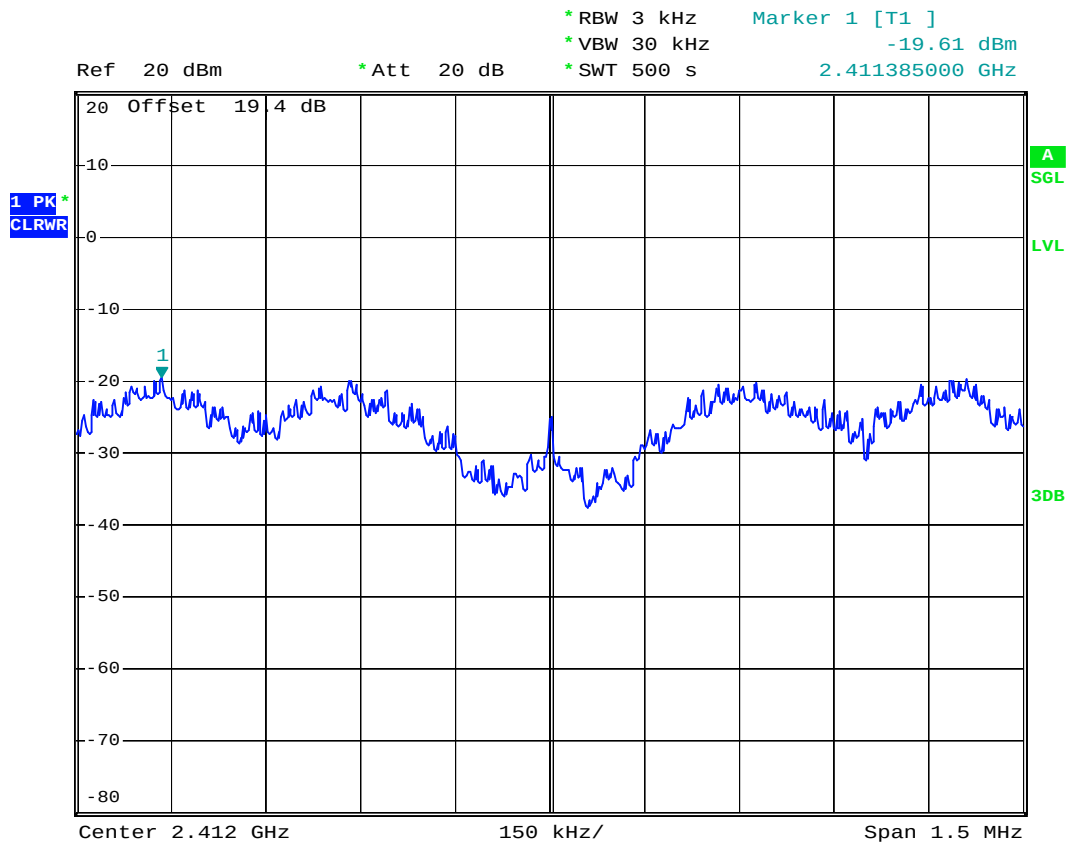
Mode 3



Date: 13.DEC.2007 00:12:06



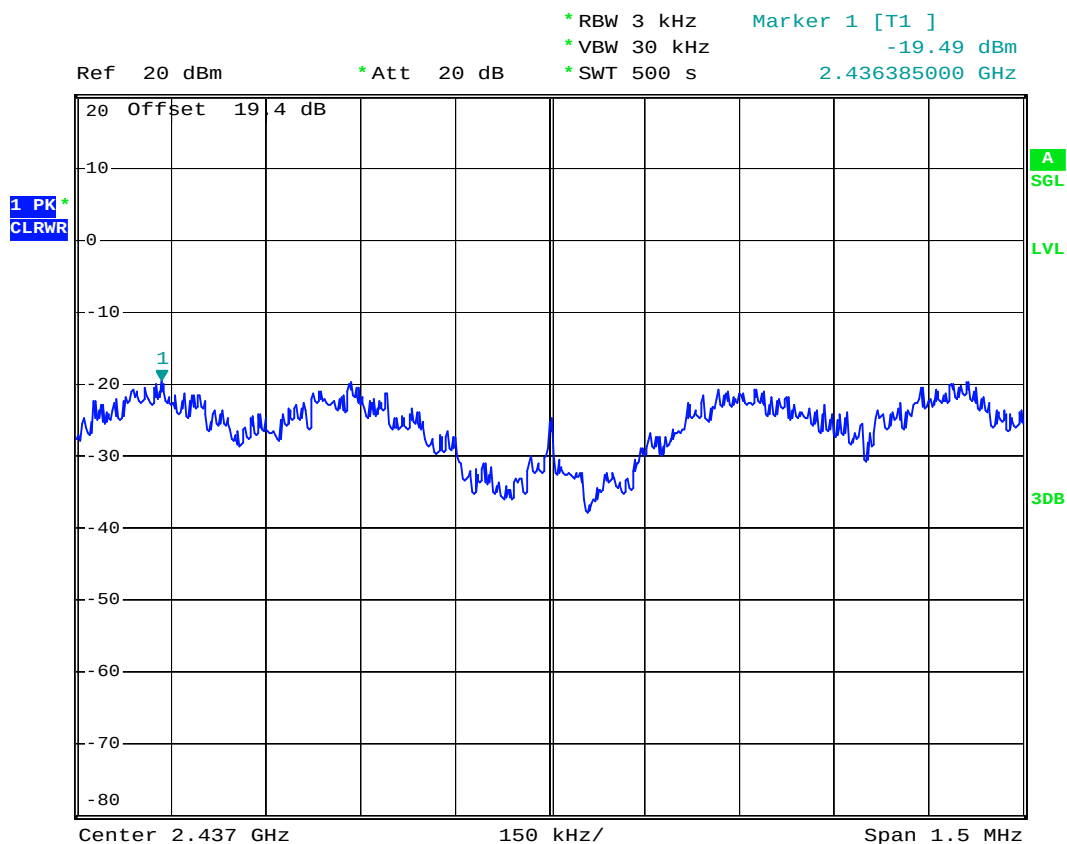
Mode 4



Date: 15.DEC.2007 03:28:05



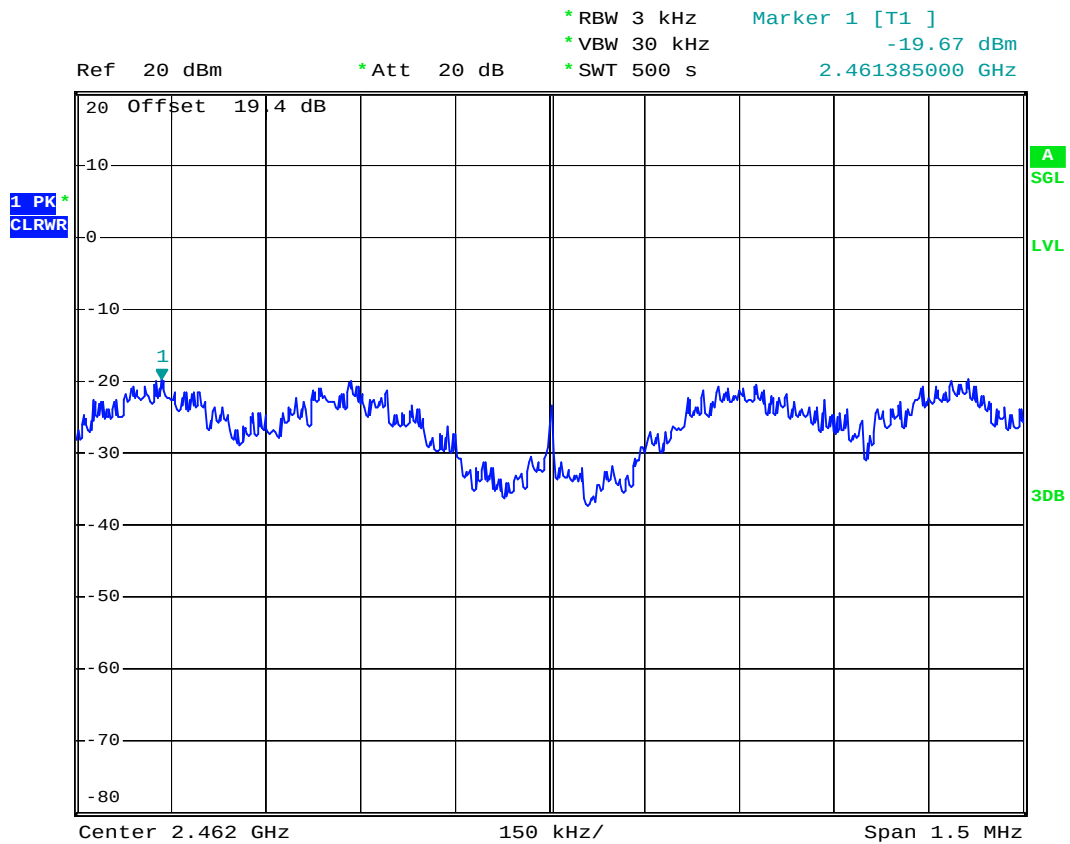
Mode 5



Date: 15.DEC.2007 03:47:29



Mode 6



Date: 15.DEC.2007 03:56:42



5.4 Band Edges Measurement

5.4.1 Measuring Instruments

As described in chapter 6 of this test report.

5.4.2 Test Procedure

1. The transmitter output was connected to the spectrum analyzer via a low lose cable.
2. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 100 kHz bandwidth from band edge.
3. The band edges was measured and recorded.

5.4.3 Test Result

- Application Type : WLAN 802.11b/g
- Temperature : 24~27°C
- Relative Humidity : 49~51%
- Test Enginner : Ken

- Test Result in WLAN lower band (802.11b/g) : PASS
- Test Result in WLAN higher band (802.11b/g) : PASS



5.4.4 Note on Band Edge Emission

➤ **WLAN 802.11b**

CH01 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.61	54.75	-19.25	74.00	52.25	32.54	3.74	33.78	100	0	Peak
2389.61	40.07	-13.93	54.00	37.57	32.54	3.74	33.78	160	280	Average

CH01 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390.00	55.20	-18.80	74.00	52.70	32.54	3.74	33.78	100	0	Peak
2390.00	39.23	-14.77	54.00	36.73	32.54	3.74	33.78	100	330	Average

CH11 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	48.90	-25.10	74.00	46.27	32.59	3.84	33.80	100	0	Peak
2483.50	36.28	-17.72	54.00	33.65	32.59	3.84	33.80	154	273	Average

CH11 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2486.89	48.62	-25.38	74.00	45.99	32.59	3.84	33.80	100	0	Peak
2486.89	35.35	-18.65	54.00	32.72	32.59	3.84	33.80	100	333	Average

**➤WLAN 802.11g**

CH01 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2389.61	52.77	-21.23	74.00	50.27	32.54	3.74	33.78	100	0	Peak
2389.61	36.69	-17.31	54.00	34.19	32.54	3.74	33.78	160	282	Average

CH01 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2390.00	54.34	-19.66	74.00	51.84	32.54	3.74	33.78	100	0	Peak
2390.00	37.06	-16.94	54.00	34.56	32.54	3.74	33.78	100	331	Average

CH11 (Horizontal)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.85	51.43	-22.57	74.00	48.80	32.59	3.84	33.80	100	0	Peak
2483.85	35.67	-18.33	54.00	33.04	32.59	3.84	33.80	155	274	Average

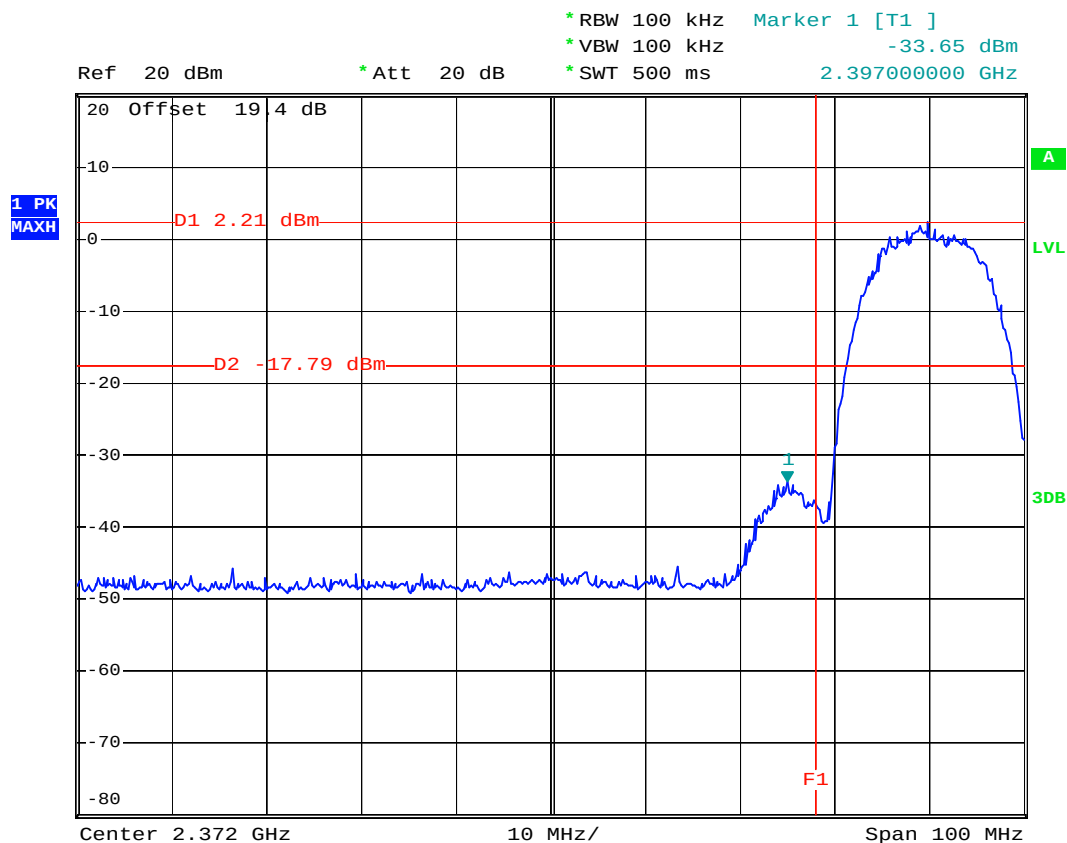
CH11 (Vertical)

Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.85	50.18	-23.82	74.00	47.55	32.59	3.84	33.80	100	0	Peak
2483.85	35.06	-18.94	54.00	32.43	32.59	3.84	33.80	100	333	Average

**5.4.5 20dB Band Edge**

WLAN 802.11b

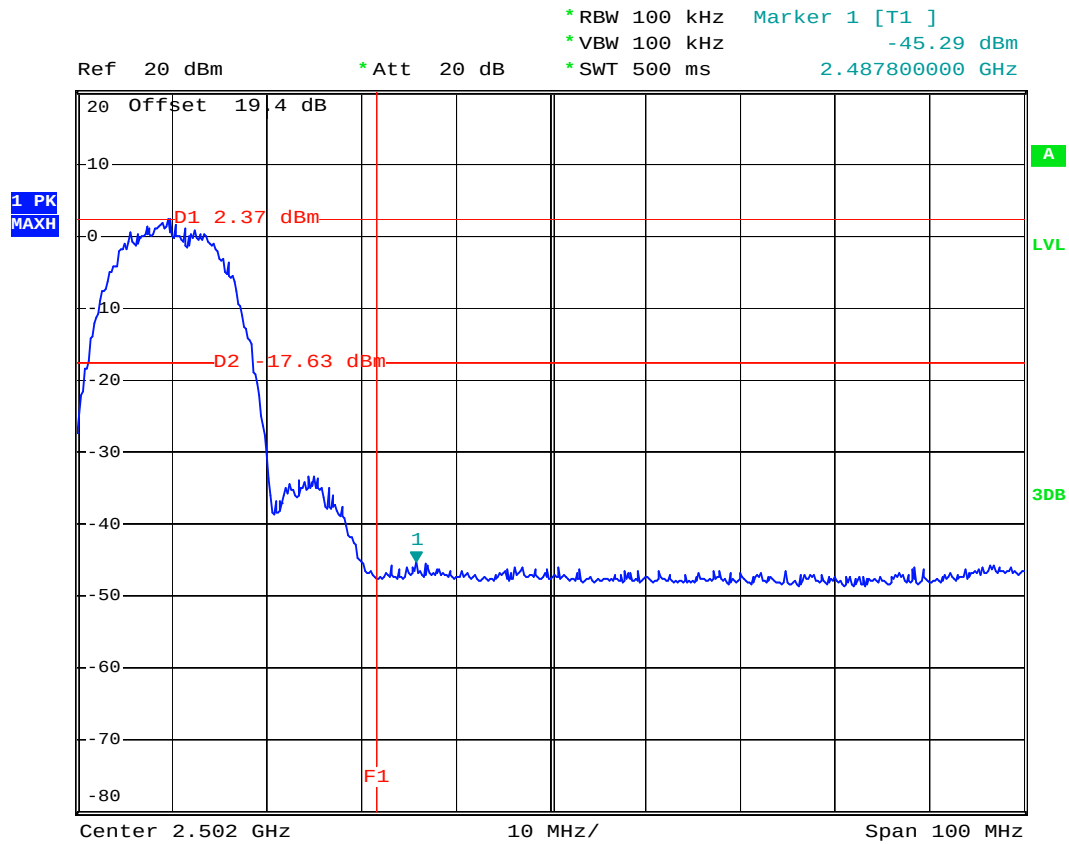
CH01



Date: 13.DEC.2007 00:23:59



CH11

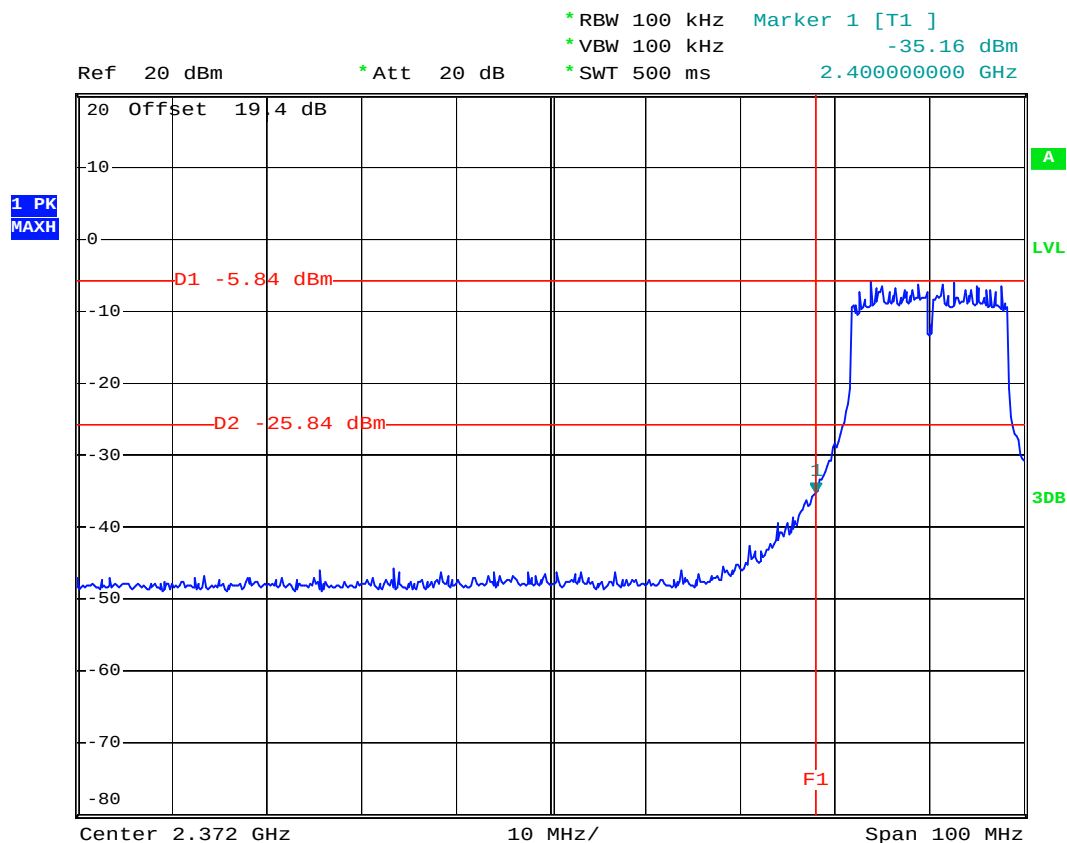


Date: 13.DEC.2007 00:27:34



WLAN 802.11g

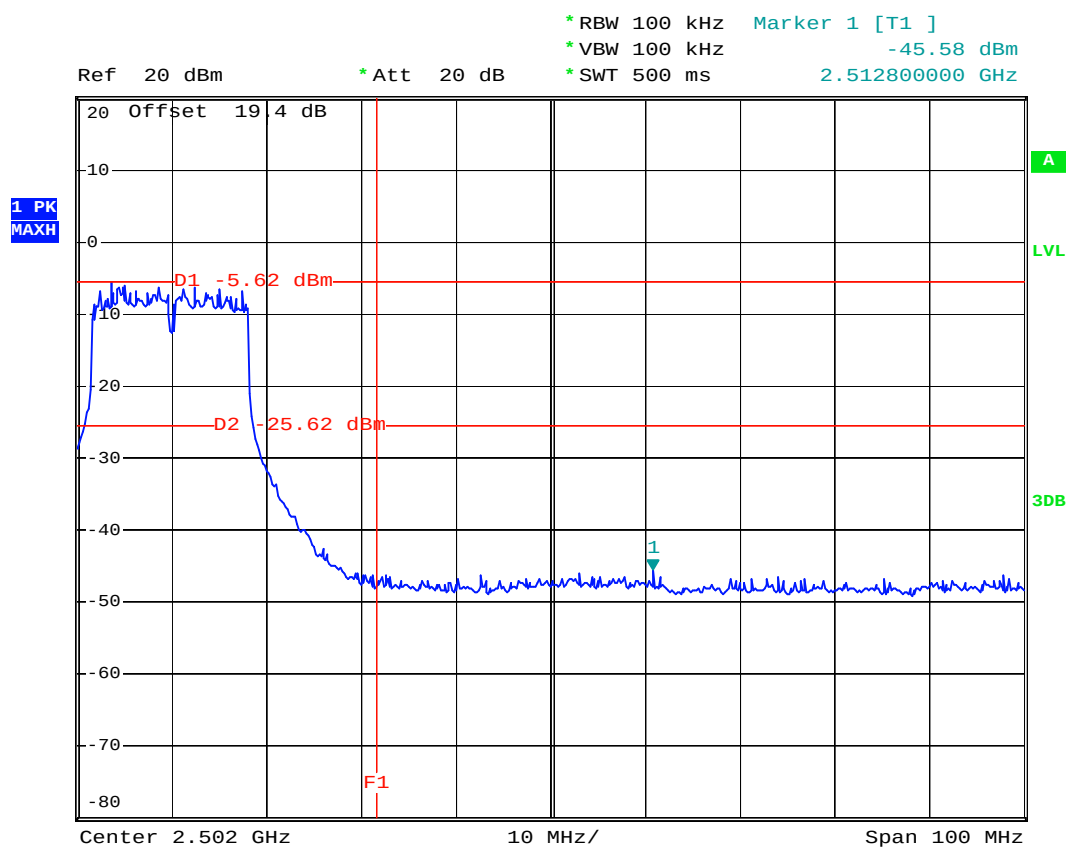
CH01



Date: 18.DEC.2007 20:39:36



CH11



Date: 18.DEC.2007 20:41:21

5.5 Peak Output Power Measurement

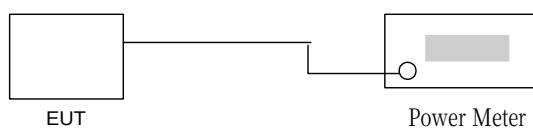
5.5.1 Measuring Instruments

As described in chapter 6 of this test report.

5.5.2 Test Procedure

1. The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter for WLAN measurement. The power is equal to the reading level on power meter plus cable loss at the EUT antenna terminal.
2. The antenna port (RF output) of the EUT was connected to the input (RF input) of a spectrum analyzer for BT measurement. RBW and VBW are set to 3MHz. The cable loss has been offset before testing.

5.5.3 Test Setup Layout



5.5.4 Test Result

- Application Type : WLAN 802.11b/g
- Temperature : 24~27°C
- Relative Humidity : 49~51%
- Test Enginner : Ken

▪ WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	13.64	1W/30 dBm
06	2437	13.82	1W/30 dBm
11	2462	14.02	1W/30 dBm

▪ WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	14.26	1W/30 dBm
06	2437	14.31	1W/30 dBm
11	2462	14.89	1W/30 dBm

5.6 Conducted Emission

5.6.1 Measuring Instruments

As described in chapter 6 of this test Report.

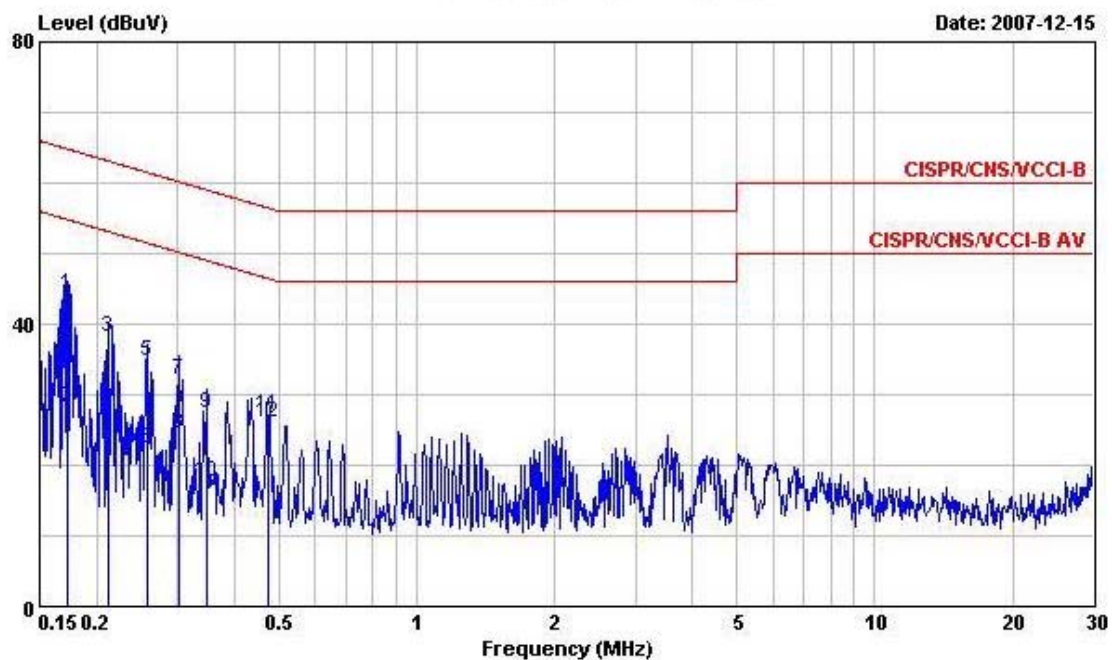
5.6.2 Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

5.6.3 Test Data

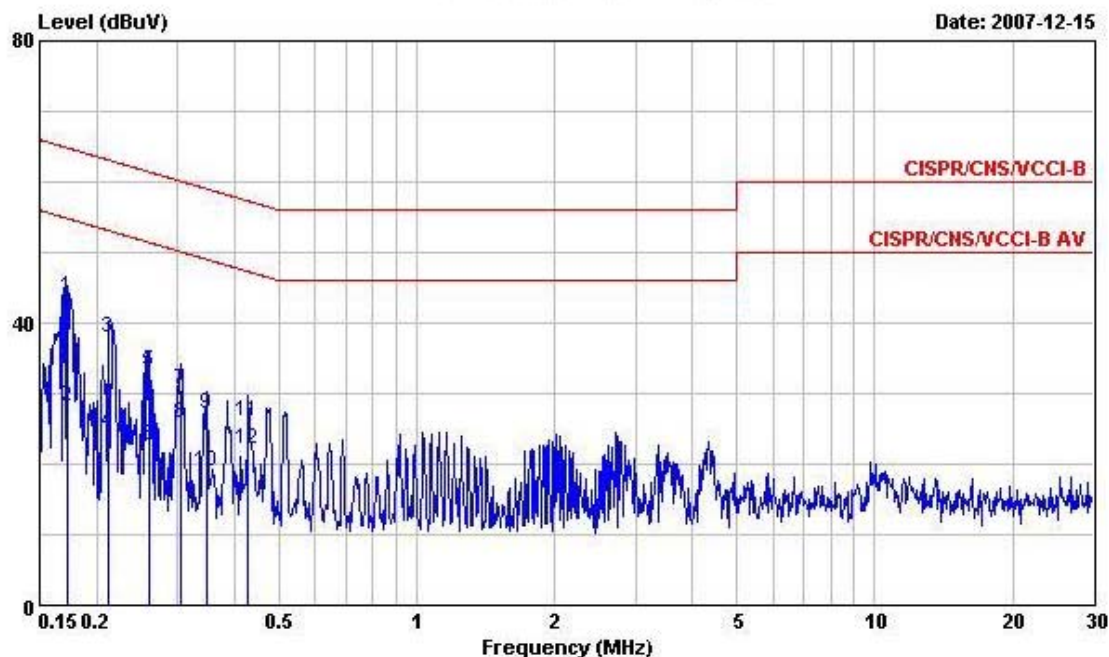
- Temperature : 24~27°C
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 1

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 LINE
 EUT : Smart Phone
 POWER: 120Vac/60Hz
 Model : FR 701101
 Memo : PCS1900 Idle + BT Link
 Memo : + Earphone + Adaptor + MP3 + GPS Rx

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1721540	44.13	-20.73	64.86	43.89	0.10	0.14	QP
2	0.1721540	28.18	-26.68	54.86	27.94	0.10	0.14	Average
3	0.2127940	38.26	-24.84	63.10	37.97	0.10	0.19	QP
4	0.2127940	23.75	-29.35	53.10	23.46	0.10	0.19	Average
5	0.2588790	34.69	-26.78	61.47	34.23	0.10	0.36	QP
6	0.2588790	22.24	-29.23	51.47	21.78	0.10	0.36	Average
7	0.3018750	32.03	-28.16	60.19	31.44	0.10	0.49	QP
8	0.3018750	24.50	-25.69	50.19	23.91	0.10	0.49	Average
9	0.3464610	27.43	-31.62	59.05	26.72	0.10	0.61	QP
10	0.3464610	17.70	-31.35	49.05	16.99	0.10	0.61	Average
11	0.4736030	27.20	-29.25	56.45	26.42	0.10	0.68	QP
12	0.4736030	26.08	-20.37	46.45	25.30	0.10	0.68	Average



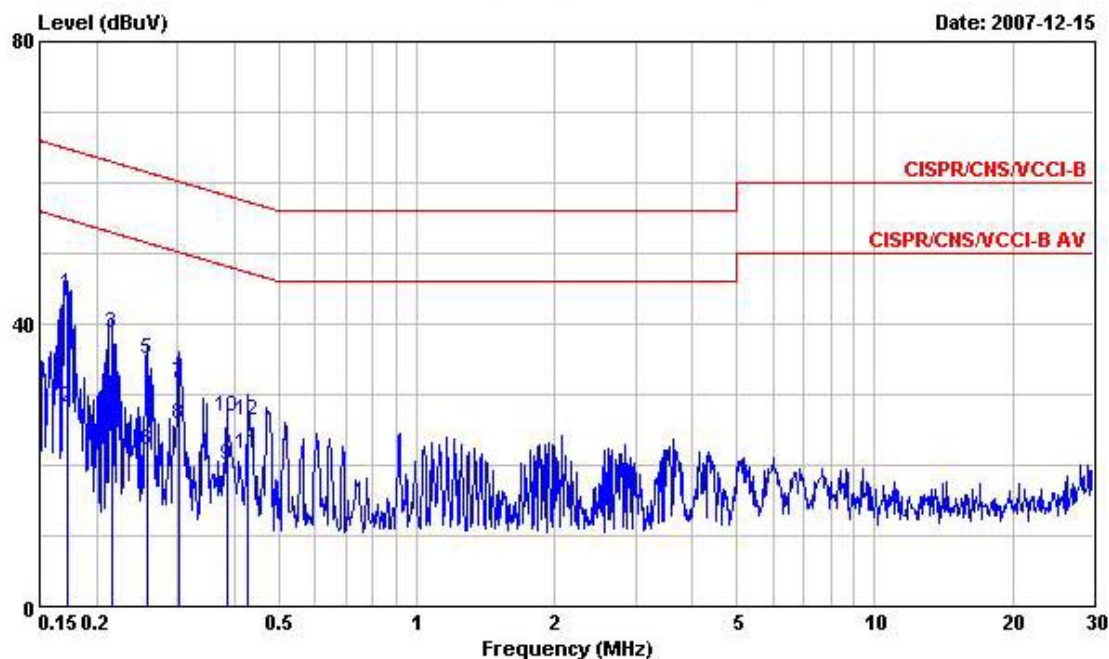
Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL
 EUT : Smart Phone
 POWER: 120Vac/60Hz
 Model : FR 701101
 Memo : PCS1900 Idle + BT Link
 Memo : + Earphone + Adaptor + MP3 + GPS Rx

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1721540	43.75	-21.11	64.86	43.51	0.10	0.14	QP
2	0.1721540	28.04	-26.82	54.86	27.80	0.10	0.14	Average
3	0.2127940	37.86	-25.24	63.10	37.57	0.10	0.19	QP
4	0.2127940	24.48	-28.62	53.10	24.19	0.10	0.19	Average
5	0.2602550	33.17	-28.25	61.42	32.70	0.10	0.37	QP
6	0.2602550	22.69	-28.73	51.42	22.22	0.10	0.37	Average
7	0.3050910	30.43	-29.67	60.10	29.83	0.10	0.50	QP
8	0.3050910	25.91	-24.19	50.10	25.31	0.10	0.50	Average
9	0.3464610	27.21	-31.84	59.05	26.50	0.10	0.61	QP
10	0.3464610	18.89	-30.16	49.05	18.18	0.10	0.61	Average
11	0.4282480	26.11	-31.18	57.29	25.30	0.10	0.71	QP
12	0.4282480	22.21	-25.08	47.29	21.40	0.10	0.71	Average



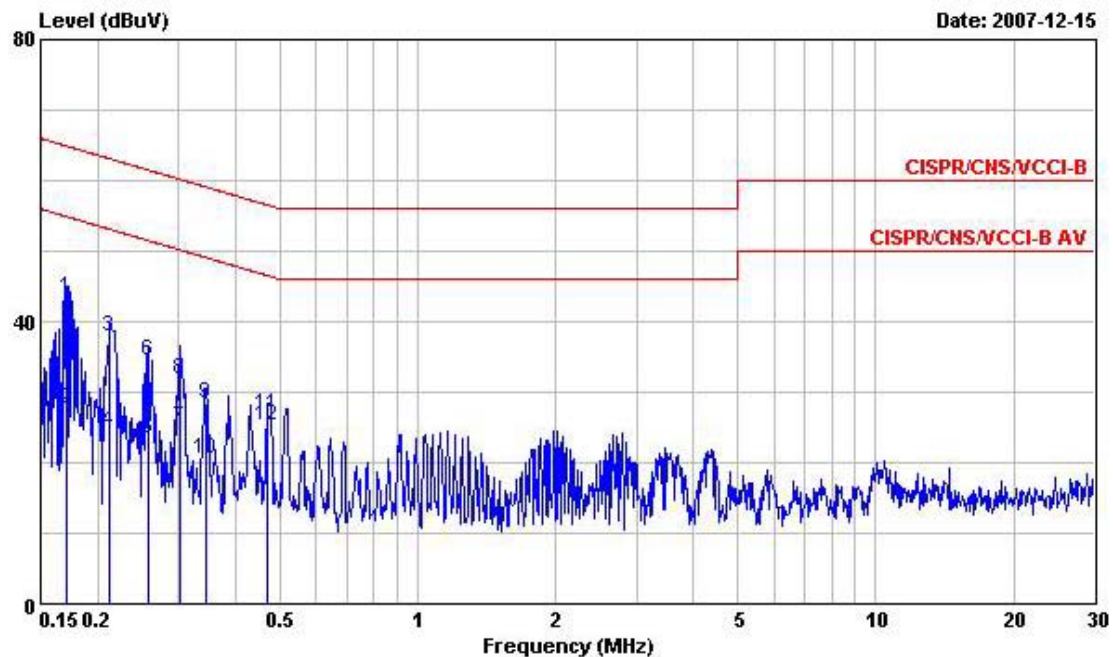
- Temperature : 24~27°C
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 2

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 LINE
 EUT : Smart Phone
 POWER: 120Vac/60Hz
 Model : FR 701101
 Memo : WLAN Link + BT Link + Earphone
 Memo : + Adaptor + MP3 + GPS Rx

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1721540	44.31	-20.55	64.86	44.07	0.10	0.14	QP
2	0.1721540	28.27	-26.59	54.86	28.03	0.10	0.14	Average
3	0.2162030	38.59	-24.37	62.96	38.28	0.10	0.21	QP
4	0.2162030	24.13	-28.83	52.96	23.82	0.10	0.21	Average
5	0.2588790	34.95	-26.52	61.47	34.49	0.10	0.36	QP
6	0.2588790	22.19	-29.28	51.47	21.73	0.10	0.36	Average
7	0.3034790	31.60	-28.55	60.15	31.00	0.10	0.50	QP
8	0.3034790	25.78	-24.37	50.15	25.18	0.10	0.50	Average
9	0.3851900	19.99	-28.18	48.17	19.19	0.10	0.70	Average
10	0.3851900	26.93	-31.24	58.17	26.13	0.10	0.70	QP
11	0.4282480	21.46	-25.83	47.29	20.65	0.10	0.71	Average
12	0.4282480	26.35	-30.94	57.29	25.54	0.10	0.71	QP



Site : CO04-HY

Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL

EUT : Smart Phone

POWER: 120Vac/60Hz

Model : FR 701101

Memo : WLAN Link + BT Link + Earphone

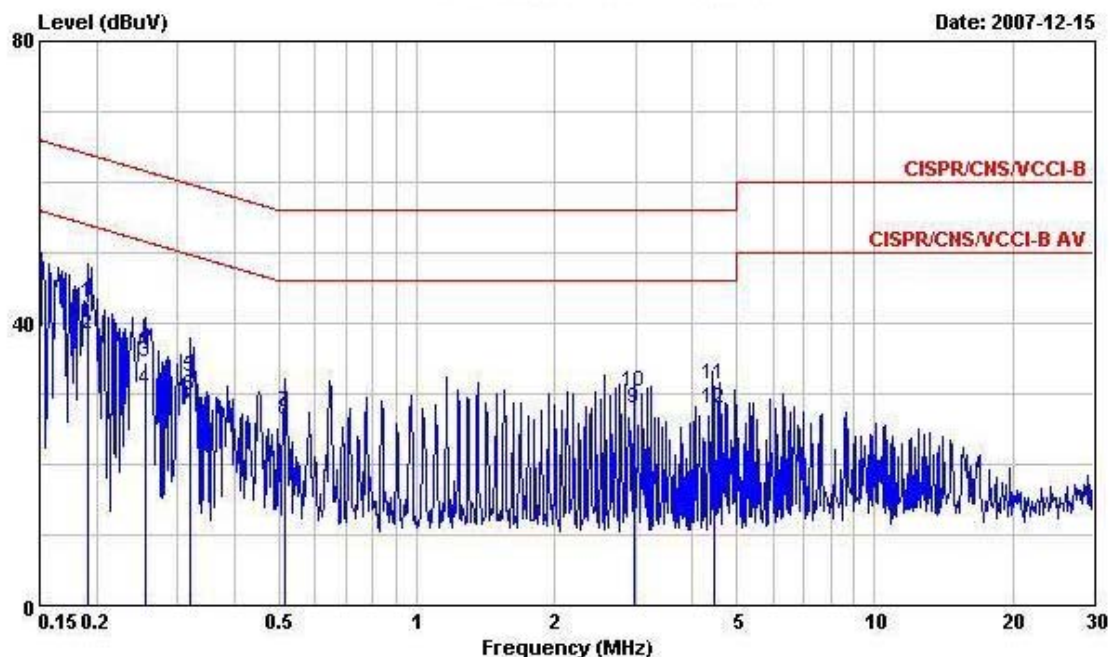
Memo : + Adaptor + MP3 + GPS Rx

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1703400	43.43	-21.51	64.94	43.19	0.10	0.14	QP
2	0.1703400	27.61	-27.33	54.94	27.37	0.10	0.14	Average
3	0.2127940	37.86	-25.24	63.10	37.57	0.10	0.19	QP
4	0.2127940	24.55	-28.55	53.10	24.26	0.10	0.19	Average
5	0.2588790	23.52	-27.95	51.47	23.06	0.10	0.36	Average
6	0.2588790	34.53	-26.94	61.47	34.07	0.10	0.36	QP
7	0.3018750	25.06	-25.13	50.19	24.47	0.10	0.49	Average
8	0.3018750	31.73	-28.46	60.19	31.14	0.10	0.49	QP
9	0.3446300	28.34	-30.75	59.09	27.64	0.10	0.60	QP
10	0.3446300	20.51	-28.58	49.09	19.81	0.10	0.60	Average
11	0.4711010	26.84	-29.65	56.49	26.06	0.10	0.68	QP
12	0.4711010	25.18	-21.31	46.49	24.40	0.10	0.68	Average



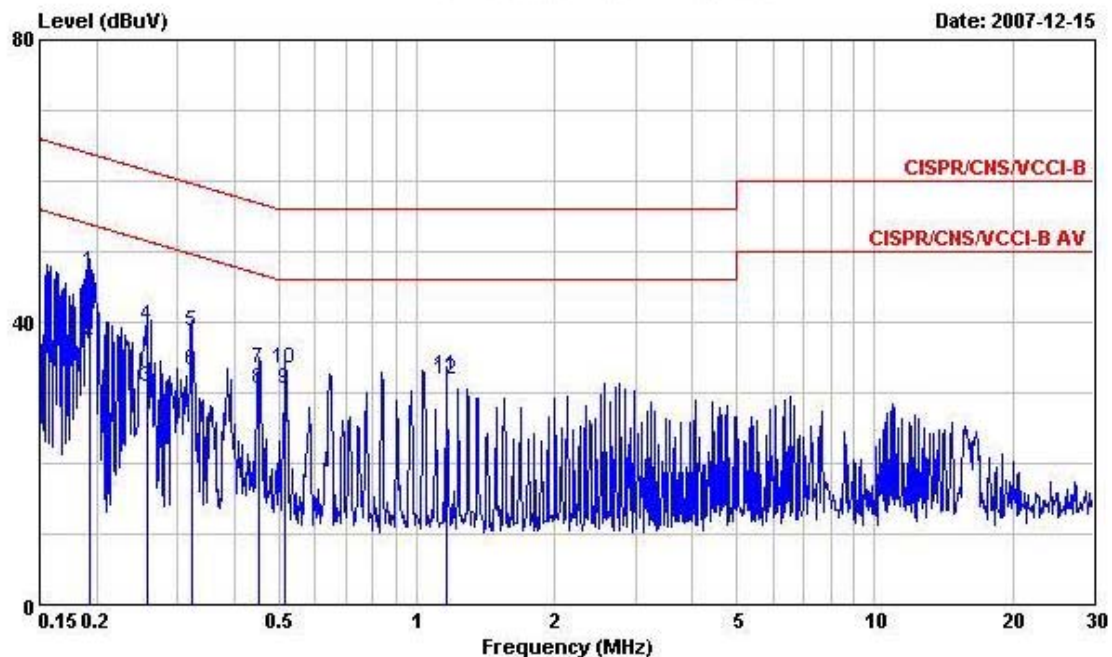
- Temperature : 24~27°C
- Relative Humidity : 49~51%
- Test Enginner : Sun
- Test Mode : Mode 3

■ The test that passed at minimum margin was marked by the frame in the following table.



Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 200704 99041 LINE
 EUT : Smart Phone
 POWER: From System
 Model : FR 701101
 Memo : PCS1900 Idle + BT Link + Earphone
 Memo : + USB Link + MP3 + GPS Rx

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1913990	42.97	-21.01	63.98	42.73	0.10	0.14	QP
2	0.1913990	38.48	-15.50	53.98	38.24	0.10	0.14	Average
3	0.2547970	34.50	-27.10	61.60	34.05	0.10	0.35	QP
4	0.2547970	30.57	-21.03	51.60	30.12	0.10	0.35	Average
5	0.3199920	32.38	-27.33	59.71	31.74	0.10	0.54	QP
6	0.3199920	29.79	-19.92	49.71	29.15	0.10	0.54	Average
7	0.5155030	27.40	-28.60	56.00	26.65	0.10	0.65	QP
8	0.5155030	26.25	-19.75	46.00	25.50	0.10	0.65	Average
9	2.972	27.86	-18.14	46.00	27.39	0.10	0.37	Average
10	2.972	30.24	-25.76	56.00	29.77	0.10	0.37	QP
11	4.458	31.36	-24.64	56.00	30.94	0.11	0.31	QP
12	4.458	27.85	-18.15	46.00	27.43	0.11	0.31	Average



Site : CO04-HY

Condition : CISPR/CNS/VCCI-B LISN 200704 99041 NEUTRAL

EUT : Smart Phone

POWER: From System

Model : FR 701101

Memo : PCS1900 Idle + BT Link + Earphone

Memo : + USB Link + MP3 + GPS Rx

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1924150	47.21	-16.72	63.93	46.97	0.10	0.14	QP
2	0.1924150	37.49	-16.44	53.93	37.25	0.10	0.14	Average
3	0.2575110	30.71	-20.80	51.51	30.26	0.10	0.35	Average
4	0.2575110	39.54	-21.97	61.51	39.09	0.10	0.35	QP
5	0.3216920	38.59	-21.07	59.66	37.95	0.10	0.54	QP
6	0.3216920	33.04	-16.62	49.66	32.40	0.10	0.54	Average
7	0.4515500	33.33	-23.52	56.85	32.54	0.10	0.69	QP
8	0.4515500	30.63	-16.22	46.85	29.84	0.10	0.69	Average
9	0.5155030	30.53	-15.47	46.00	29.78	0.10	0.65	Average
10	0.5155030	33.35	-22.65	56.00	32.60	0.10	0.65	QP
11	1.163	32.31	-23.69	56.00	31.77	0.10	0.44	QP
12	1.163	31.91	-14.09	46.00	31.37	0.10	0.44	Average

5.7 Radiated Emission Measurement

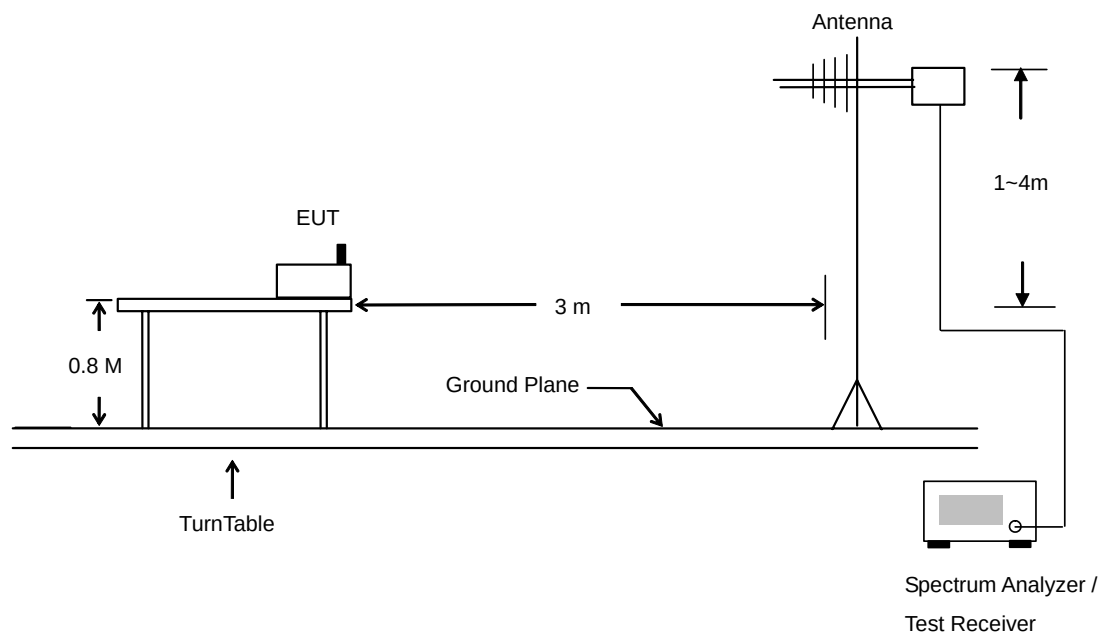
5.7.1 Measuring Instruments

As described in chapter 6 of this Report.

5.7.2 Test Procedures

- a. The EUT was placed on a rotatable table top 0.8 meter above ground.
- b. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- c. The table was rotated 360 degrees to determine the position of the highest radiation.
- d. The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- e. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- f. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- g. For testing below 1GHz, If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the quasi-peak method and reported.
- h. 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 average 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.

5.7.3 Typical Test Setup Layout of Radiated Emission

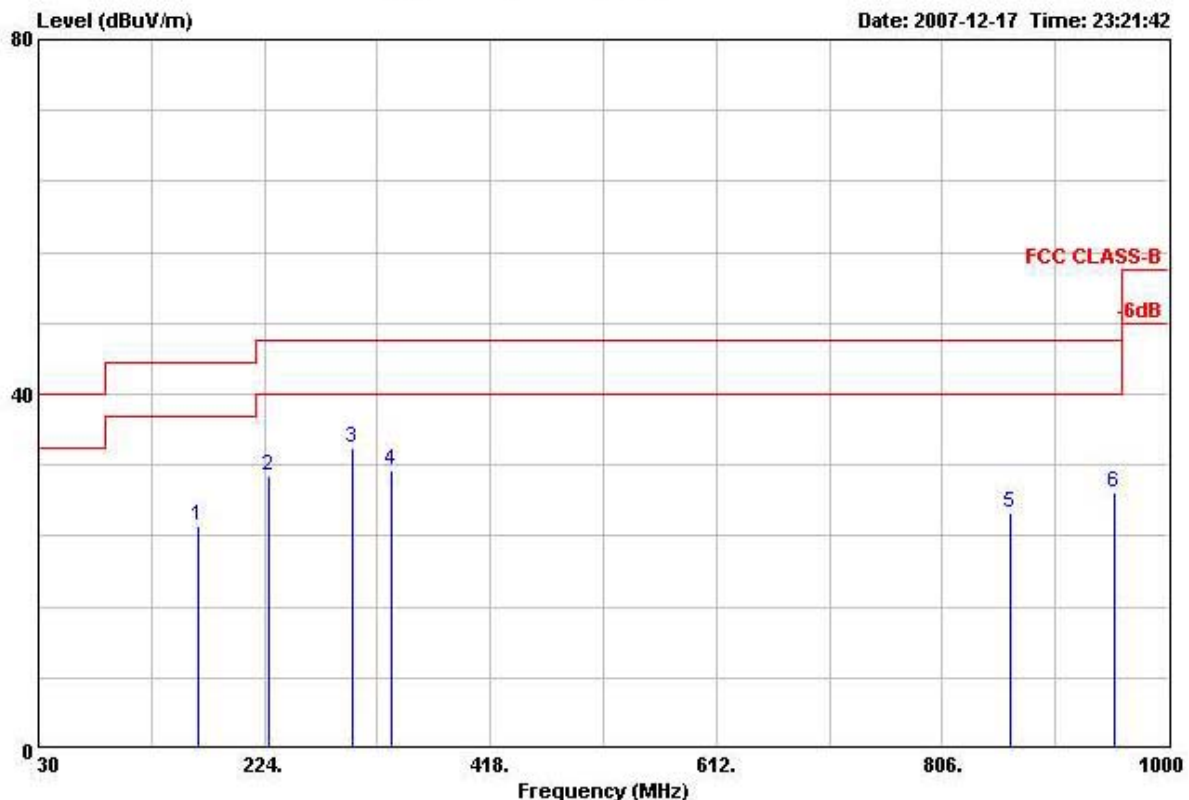




5.7.4 Test Data

- Temperature : 26~27°C
- Relating Humidity : 49~51%
- Test Enginner : Derek
- Test Mode : Mode 1
- Polarization : Horizontal (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



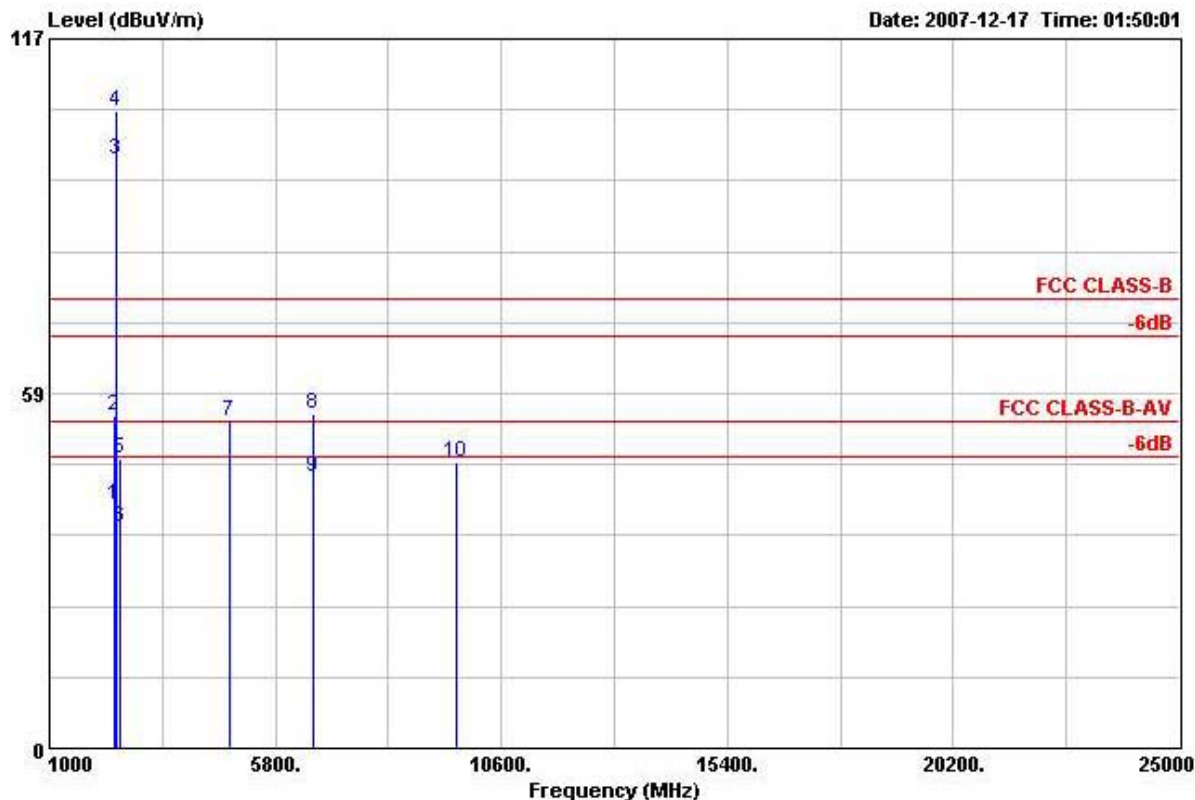
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch01;2412MHz
 PLANE : E2
 Data Rate: 11

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamplifier	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	167.970	25.10	-18.40	43.50	42.55	8.76	1.72	27.93	---	---	Peak
2	228.450	30.79	-15.21	46.00	45.62	10.94	1.98	27.74	---	---	Peak
3	299.460	34.03	-11.97	46.00	47.08	12.31	2.24	27.60	100	136	Peak
4	332.900	31.33	-14.67	46.00	43.37	13.45	2.35	27.83	---	---	Peak
5	864.900	26.54	-19.46	46.00	29.24	22.23	3.90	28.83	---	---	Peak
6	953.800	28.92	-17.08	46.00	28.76	24.87	3.98	28.69	---	---	Peak



- Polarization : Horizontal (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch01;2412MHz
 PLANE : E2
 Data Rate: 11

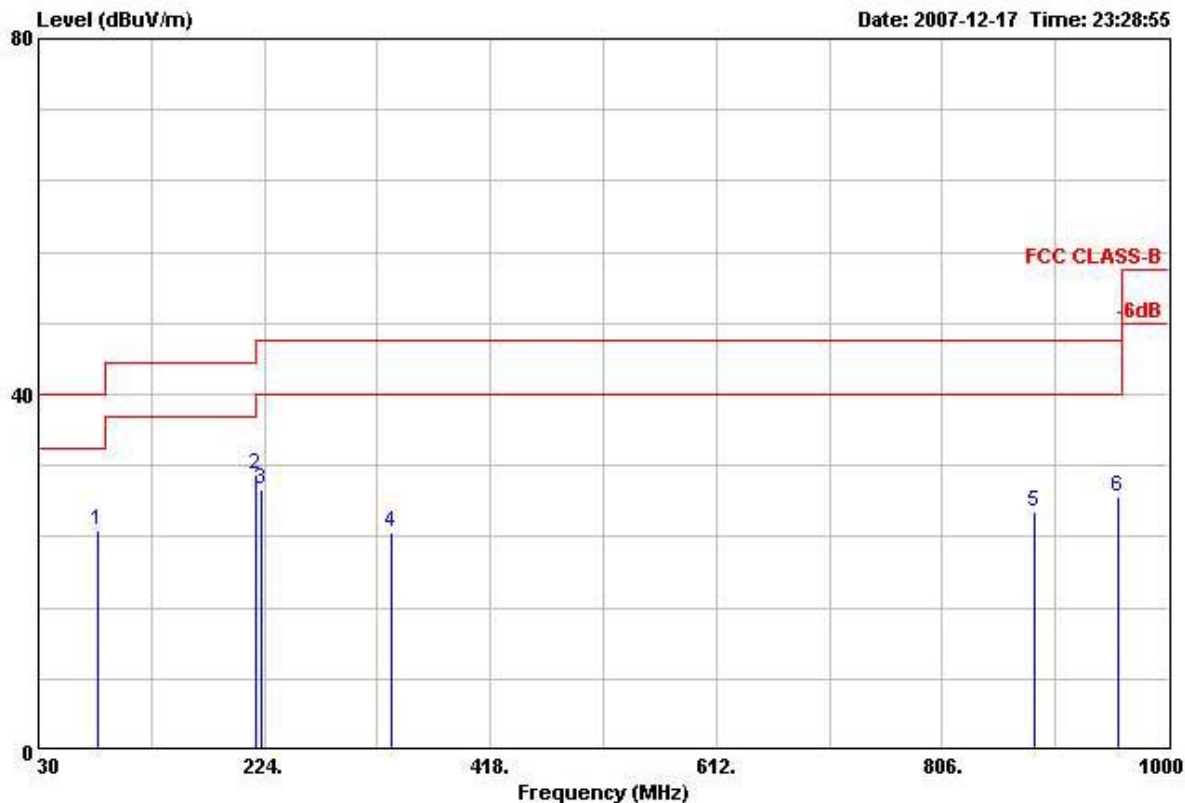
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.610	40.07	-13.93	54.00	37.57	32.54	3.74	33.78	160	280	Average
2	2389.610	54.75	-19.25	74.00	52.25	32.54	3.74	33.78	100	0	Peak
3 @	2412.000	97.12			94.59	32.55	3.76	33.78	160	280	Average
4 X	2412.000	105.13			102.60	32.55	3.76	33.78	100	0	Peak
5	2494.000	47.85	-26.15	74.00	45.21	32.60	3.84	33.80	100	0	Peak
6	2494.000	36.60	-17.40	54.00	33.96	32.60	3.84	33.80	160	280	Average
7	4821.000	53.86	-20.14	74.00	47.45	34.83	5.88	34.30	100	0	Peak
8	6594.000	55.10	-18.90	74.00	45.71	36.00	6.23	32.84	100	0	Peak
9	6594.000	44.71	-9.29	54.00	35.32	36.00	6.23	32.84	100	165	Average
10	9648.000	47.18	-26.82	74.00	84.65	-10.07	7.60	35.00	100	0	Peak

Remark: #3 and #4 are Fundamental Signal



- Polarization : Vertical (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



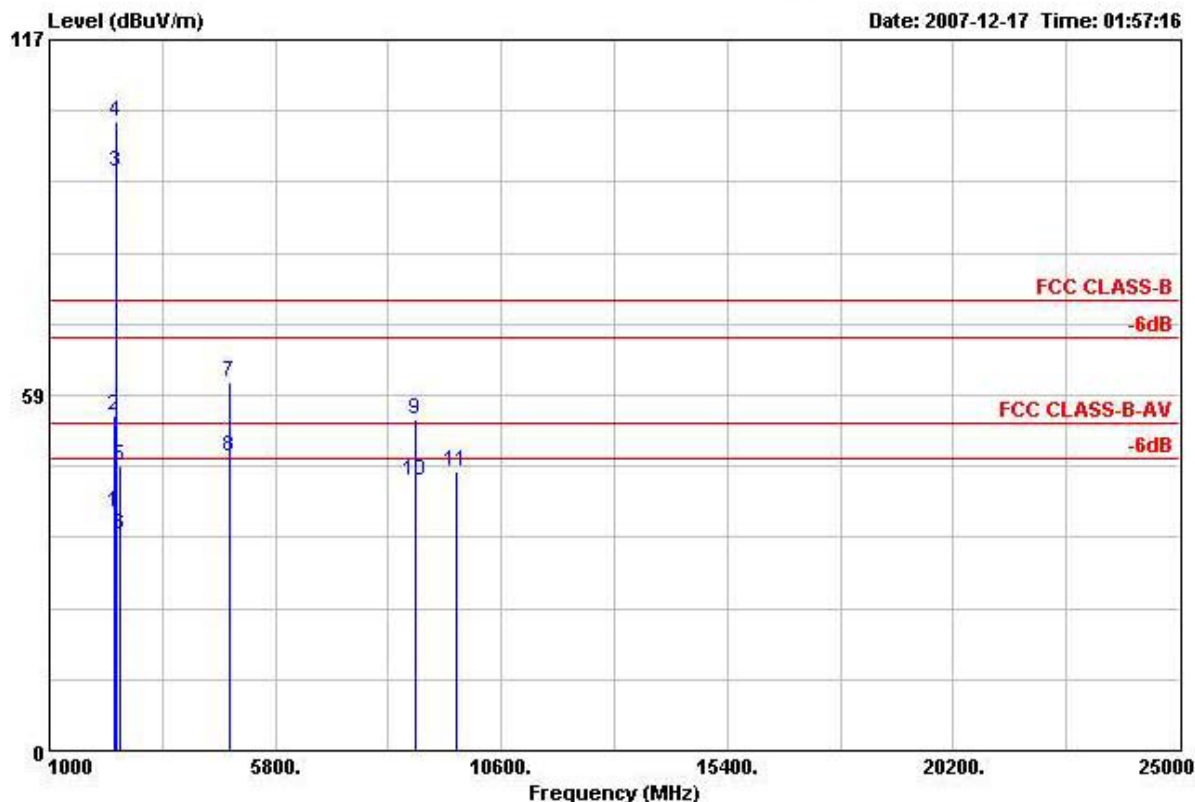
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch01;2412MHz
 PLANE : E2
 Data Rate: 11

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamplifier	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	81.570	24.67	-15.33	40.00	44.53	7.10	1.28	28.24	---	---	Peak
2	217.380	31.02	-14.98	46.00	46.79	10.05	1.94	27.77	100	48	Peak
3	220.890	29.36	-16.64	46.00	44.82	10.35	1.95	27.76	---	---	Peak
4	332.900	24.40	-21.60	46.00	36.44	13.45	2.35	27.83	---	---	Peak
5	884.500	26.71	-19.29	46.00	28.65	22.94	3.93	28.82	---	---	Peak
6	956.600	28.48	-17.52	46.00	28.24	24.94	3.98	28.69	---	---	Peak



- Polarization : Vertical (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch01;2412MHz
 PLANE : E2
 Data Rate: 11

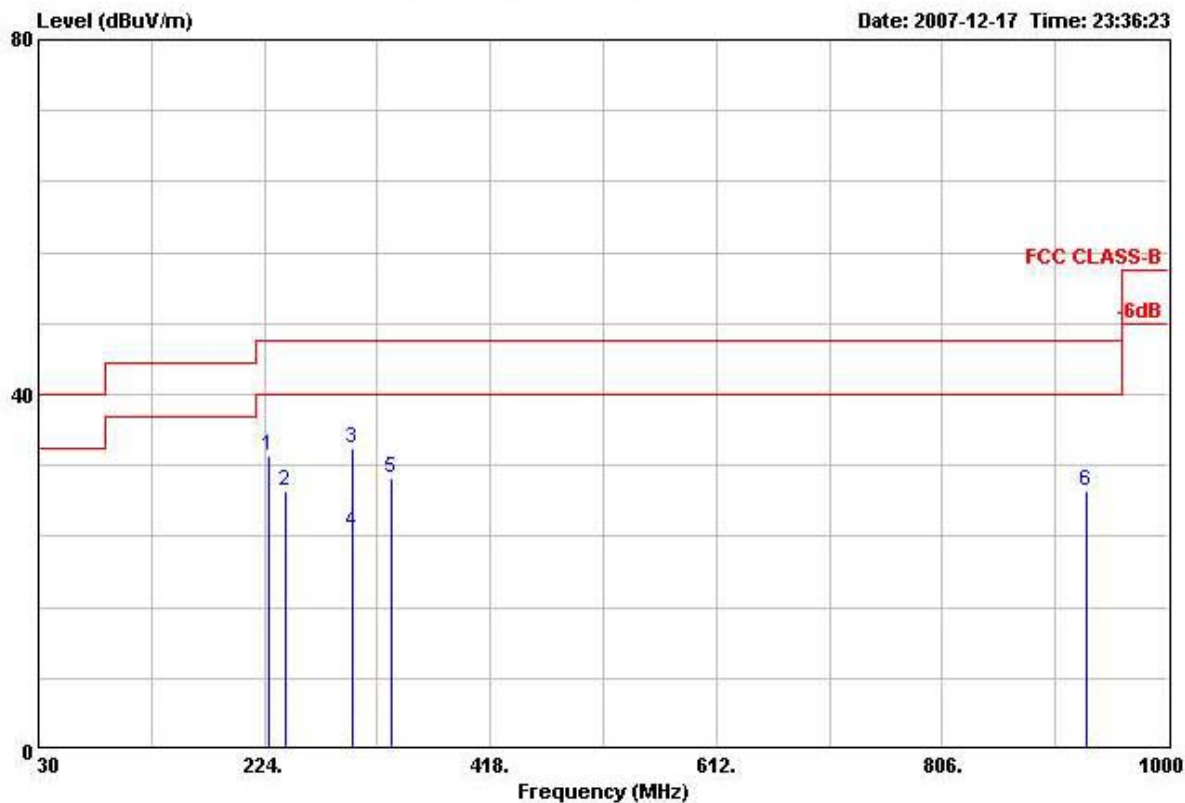
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.000	39.23	-14.77	54.00	36.73	32.54	3.74	33.78	100	330 Average
2	2390.000	55.20	-18.80	74.00	52.70	32.54	3.74	33.78	100	0 Peak
3 @	2412.000	95.15			92.62	32.55	3.76	33.78	100	330 Average
4 X	2412.000	103.52			100.99	32.55	3.76	33.78	100	0 Peak
5	2500.000	46.82	-27.18	74.00	44.18	32.60	3.84	33.80	100	0 Peak
6	2500.000	35.56	-18.44	54.00	32.92	32.60	3.84	33.80	100	330 Average
7	4821.000	60.73	-13.27	74.00	54.32	34.83	5.88	34.30	100	0 Peak
8 !	4821.000	48.54	-5.46	54.00	42.13	34.83	5.88	34.30	145	17 Average
9	8769.000	54.43	-19.57	74.00	45.38	36.51	7.16	34.62	100	0 Peak
10	8769.000	44.37	-9.63	54.00	35.32	36.51	7.16	34.62	100	182 Average
11	9648.000	46.08	-27.92	74.00	83.55	-10.07	7.60	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signal



- Test Mode : Mode 2
- Polarization : Horizontal (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



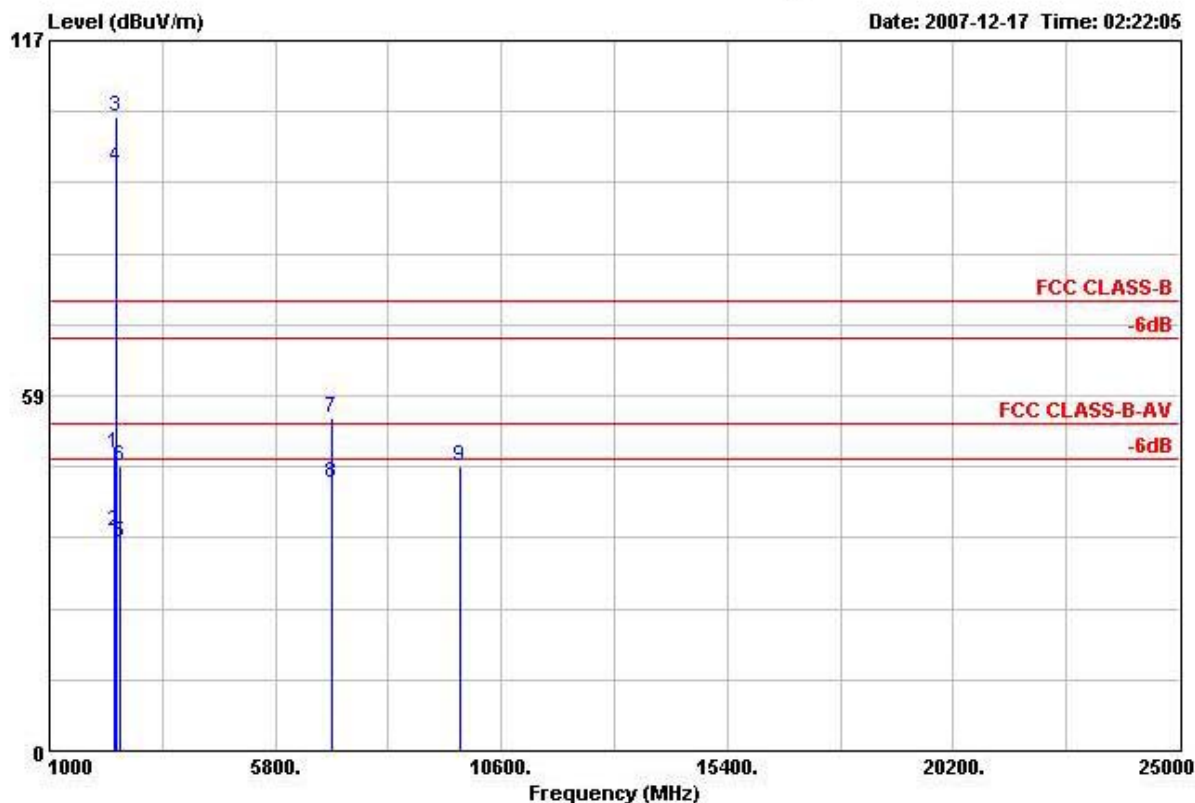
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch06;2437MHz
 PLANE : E2
 Data Rate: 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	228.450	33.08	-12.92	46.00	47.91	10.94	1.98	27.74	---	--- Peak
2	242.220	29.14	-16.86	46.00	42.85	11.98	2.02	27.71	---	--- Peak
3 @	299.460	34.02	-11.98	46.00	47.07	12.31	2.24	27.60	100	185 Peak
4	300.000	24.40	-21.60	46.00	37.45	12.31	2.24	27.60	---	--- Peak
5	332.900	30.58	-15.42	46.00	42.62	13.45	2.35	27.83	---	--- Peak
6	929.300	29.02	-16.98	46.00	29.54	24.25	3.97	28.74	---	--- Peak



- Polarization : Horizontal (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch06;2437MHz
 PLANE : E2
 Data Rate: 11

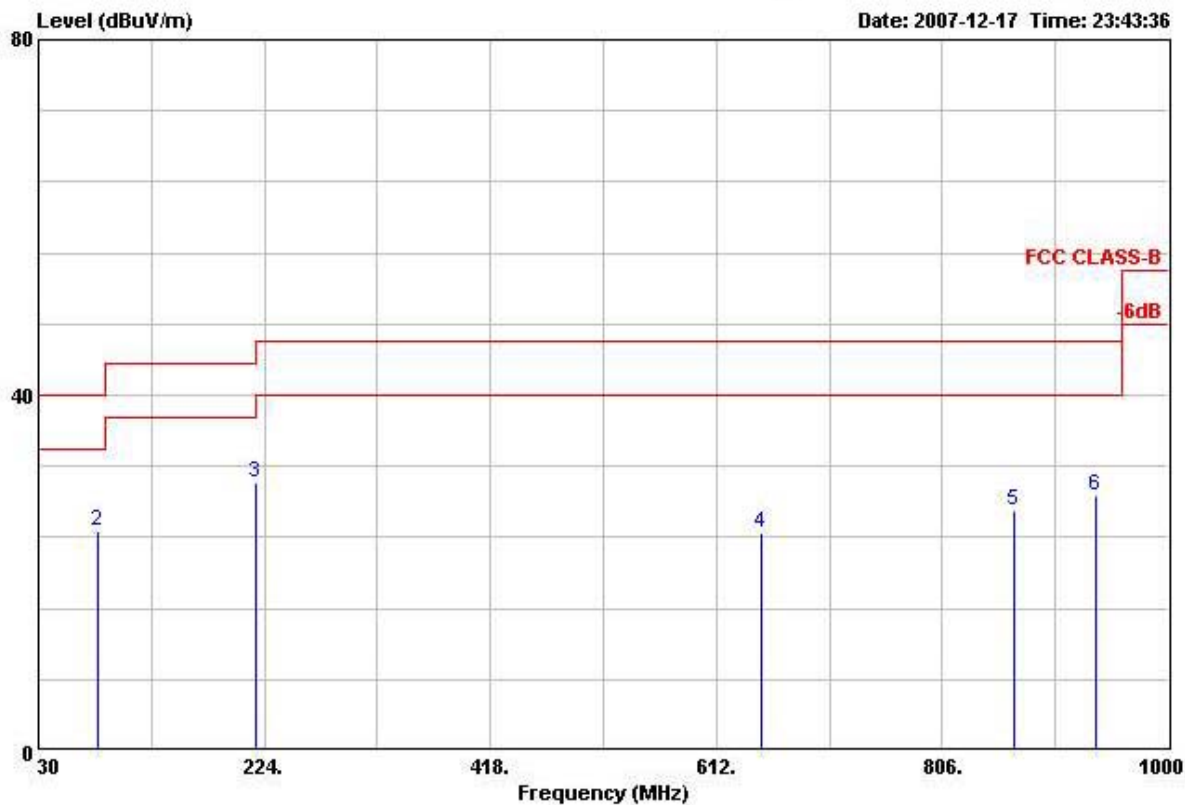
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamplifier	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.000	48.99	-25.01	74.00	46.49	32.54	3.74	33.78	100	0	Peak
2	2390.000	36.10	-17.90	54.00	33.60	32.54	3.74	33.78	157	274	Average
3 @	2437.000	104.43			101.86	32.57	3.79	33.79	100	0	Peak
4 @	2437.000	96.02			93.45	32.57	3.79	33.79	157	274	Average
5	2486.000	34.44	-19.56	54.00	31.81	32.59	3.84	33.80	157	274	Average
6	2486.000	46.95	-27.05	74.00	44.32	32.59	3.84	33.80	100	0	Peak
7	6981.000	54.90	-19.10	74.00	45.05	36.00	6.35	32.50	100	0	Peak
8 @	6981.000	44.07	-9.93	54.00	34.22	36.00	6.35	32.50	100	178	Average
9	9741.000	46.96	-27.04	74.00	84.18	-9.87	7.65	35.00	100	0	Peak

Remark: #3 and #4 are Fundamental Signals



- Polarization : Vertical (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



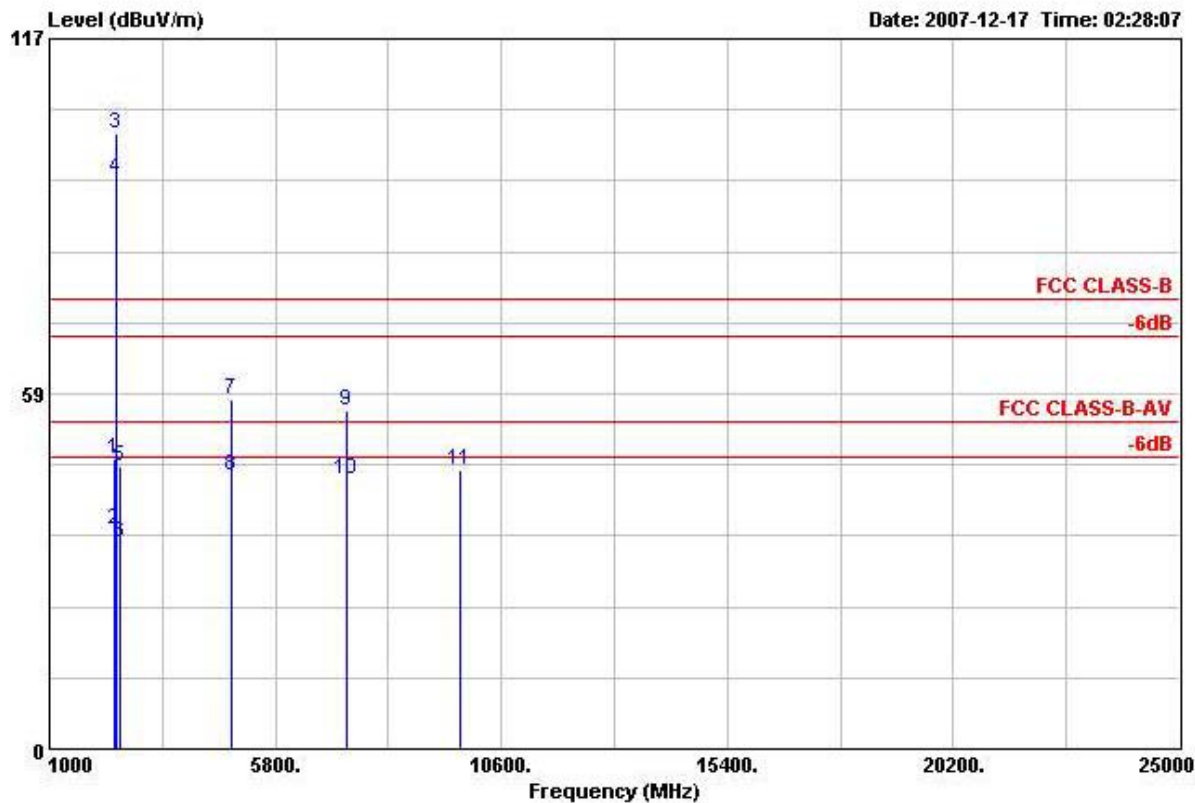
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch06;2437MHz
 PLANE : E2
 Data Rate: 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	30.540	22.30	-17.70	40.00	33.32	16.36	0.87	28.25	---	---
2	81.570	24.78	-15.22	40.00	44.64	7.10	1.28	28.24	100	177 Peak
3	217.380	30.24	-15.76	46.00	46.01	10.05	1.94	27.77	---	---
4	651.400	24.41	-21.59	46.00	30.06	20.02	3.43	29.10	---	---
5	867.700	27.04	-18.96	46.00	29.63	22.34	3.90	28.83	---	---
6	937.700	28.66	-17.34	46.00	28.94	24.47	3.98	28.72	---	---



- Polarization : Vertical (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch06;2437MHz
 PLANE : E2
 Data Rate: 11

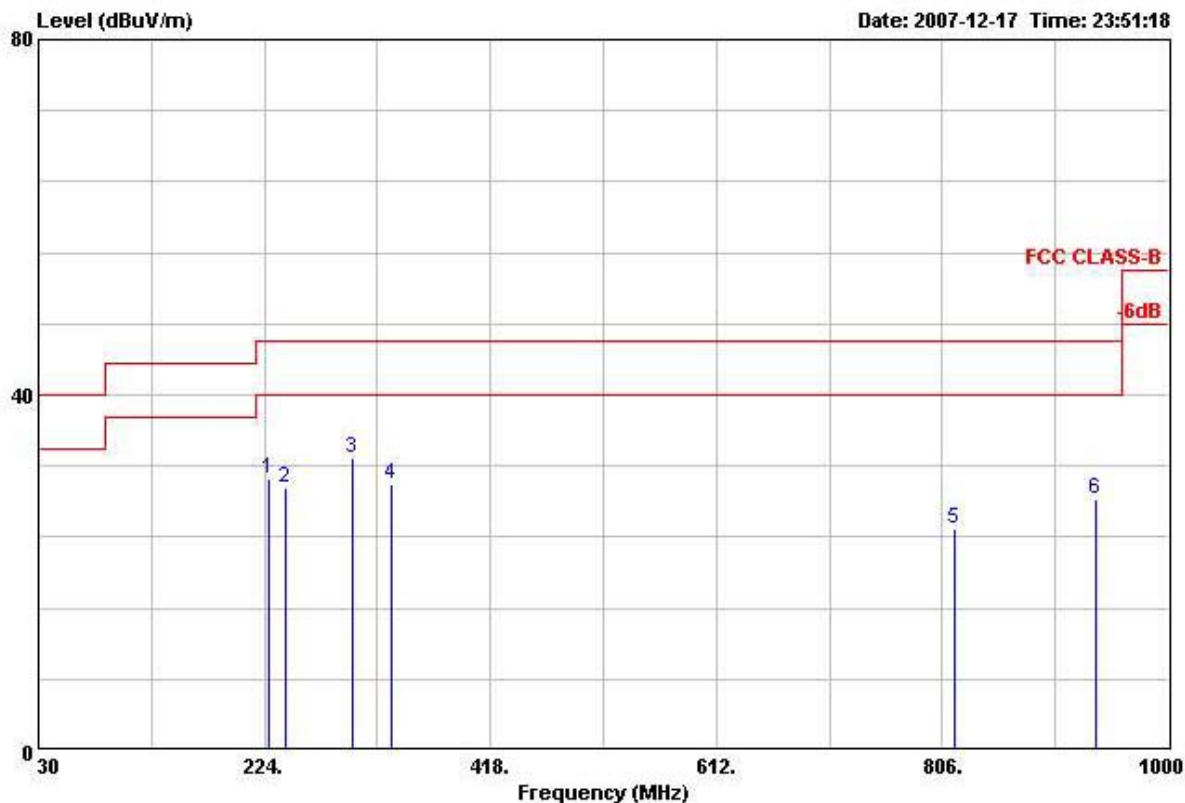
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.000	47.92	-26.08	74.00	45.42	32.54	3.74	33.78	100	0 Peak
2	2390.000	36.22	-17.78	54.00	33.72	32.54	3.74	33.78	100	332 Average
3 @	2437.000	101.35			98.78	32.57	3.79	33.79	100	0 Peak
4 @	2437.000	94.00			91.43	32.57	3.79	33.79	100	332 Average
5	2486.000	46.43	-27.57	74.00	43.80	32.59	3.84	33.80	100	0 Peak
6	2486.000	34.02	-19.98	54.00	31.39	32.59	3.84	33.80	100	332 Average
7	4878.000	57.62	-16.38	74.00	51.18	34.82	5.92	34.30	100	0 Peak
8 @	4878.000	45.05	-8.95	54.00	38.61	34.82	5.92	34.30	100	155 Average
9	7314.000	55.62	-18.38	74.00	46.48	36.00	6.48	33.35	100	0 Peak
10 @	7314.000	44.55	-9.45	54.00	35.41	36.00	6.48	33.35	100	169 Average
11	9741.000	45.99	-28.01	74.00	83.21	-9.87	7.65	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signals



- Test Mode : Mode 3
- Polarization : Horizontal (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



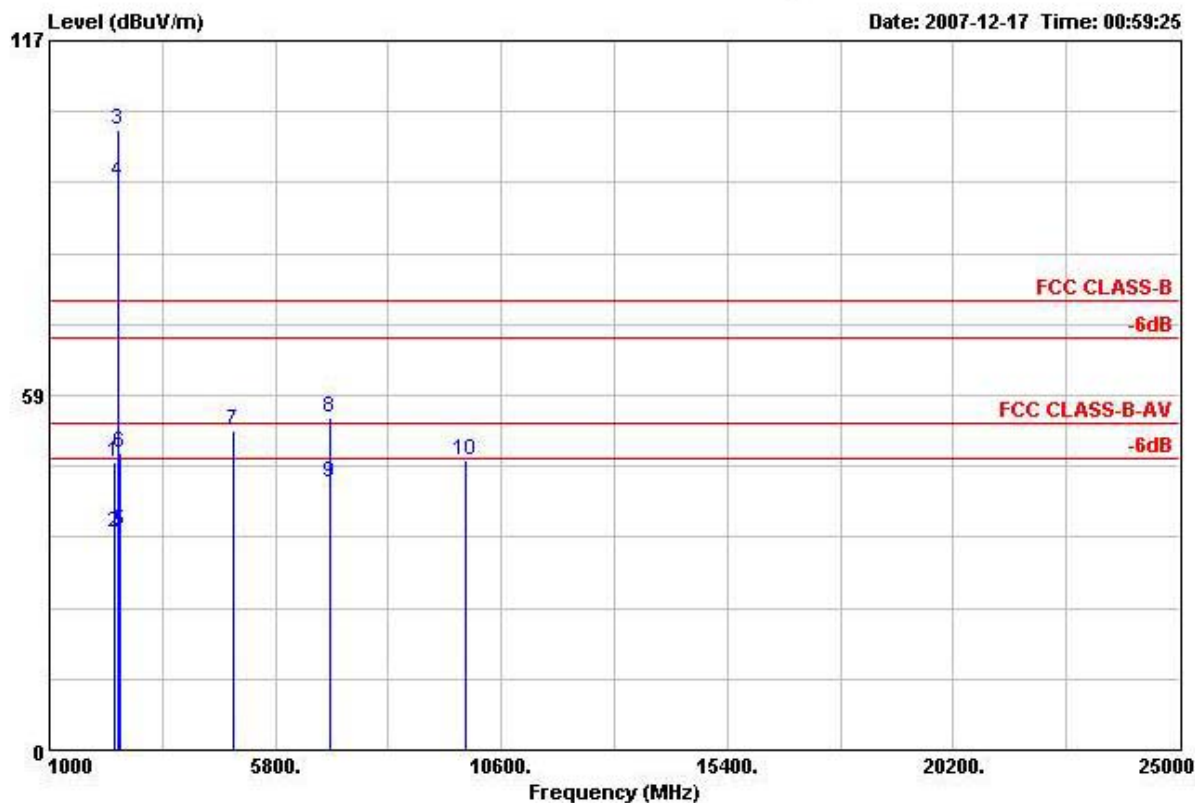
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch11;2462MHz
 PLANE : E2
 Data Rate: 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	228.450	30.54	-15.46	46.00	45.37	10.94	1.98	27.74	---	---
2	242.220	29.44	-16.56	46.00	43.15	11.98	2.02	27.71	---	---
3	299.460	32.83	-13.17	46.00	45.88	12.31	2.24	27.60	100	148 Peak
4	332.900	29.90	-16.10	46.00	41.94	13.45	2.35	27.83	---	---
5	816.600	24.83	-21.17	46.00	29.61	20.45	3.65	28.88	---	---
6	937.700	28.29	-17.71	46.00	28.57	24.47	3.98	28.72	---	---



- Polarization : Horizontal (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch11;2462MHz
 PLANE : E2
 Data Rate: 11

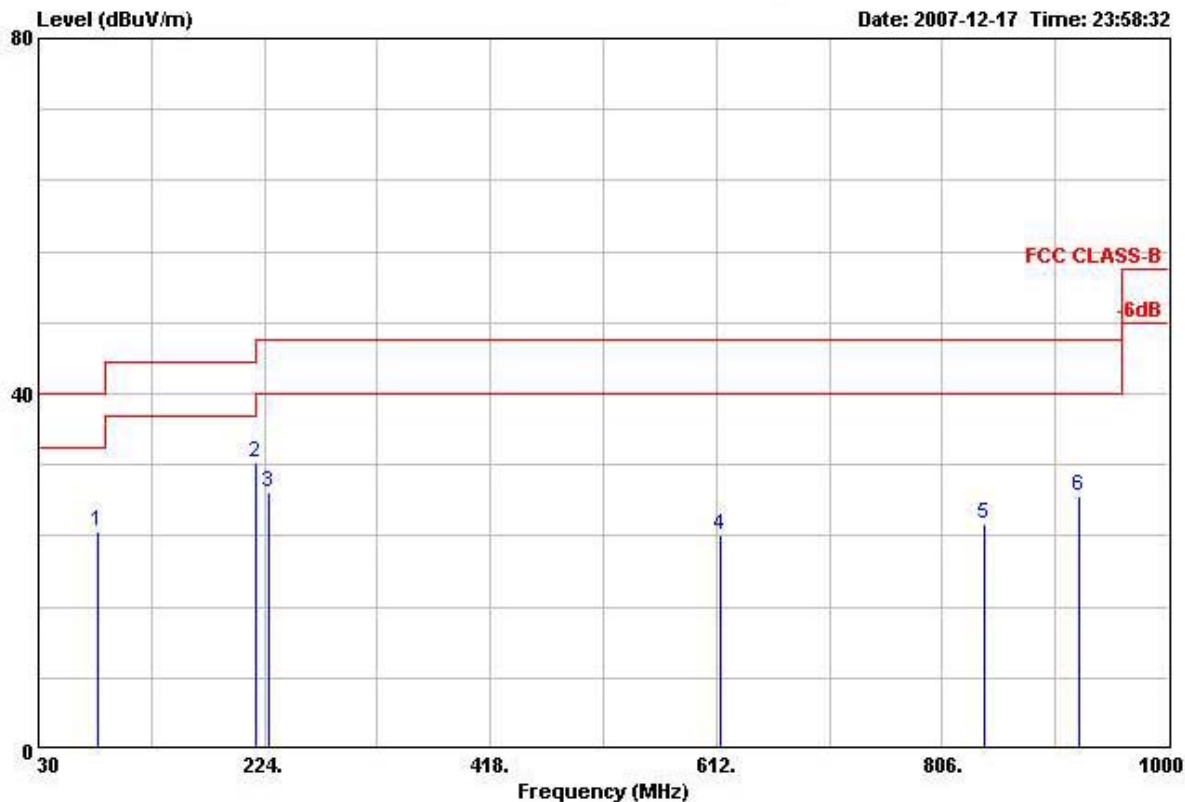
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2380.000	47.41	-26.59	74.00	44.92	32.53	3.74	33.78	100	0 Peak
2	2380.000	35.80	-18.20	54.00	33.31	32.53	3.74	33.78	154	273 Average
3 X	2462.000	102.18			99.58	32.58	3.81	33.79	100	0 Peak
4 @	2462.000	93.70			91.10	32.58	3.81	33.79	154	273 Average
5	2483.500	36.28	-17.72	54.00	33.65	32.59	3.84	33.80	154	273 Average
6	2483.500	48.90	-25.10	74.00	46.27	32.59	3.84	33.80	100	0 Peak
7	4926.000	52.64	-21.36	74.00	46.18	34.81	5.95	34.30	100	0 Peak
8	6969.000	54.80	-19.20	74.00	44.97	36.00	6.35	32.52	100	0 Peak
9	6969.000	43.96	-10.04	54.00	34.13	36.00	6.35	32.52	100	125 Average
10	9843.000	47.82	-26.18	74.00	84.77	-9.65	7.70	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signals



- Polarization : Vertical (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



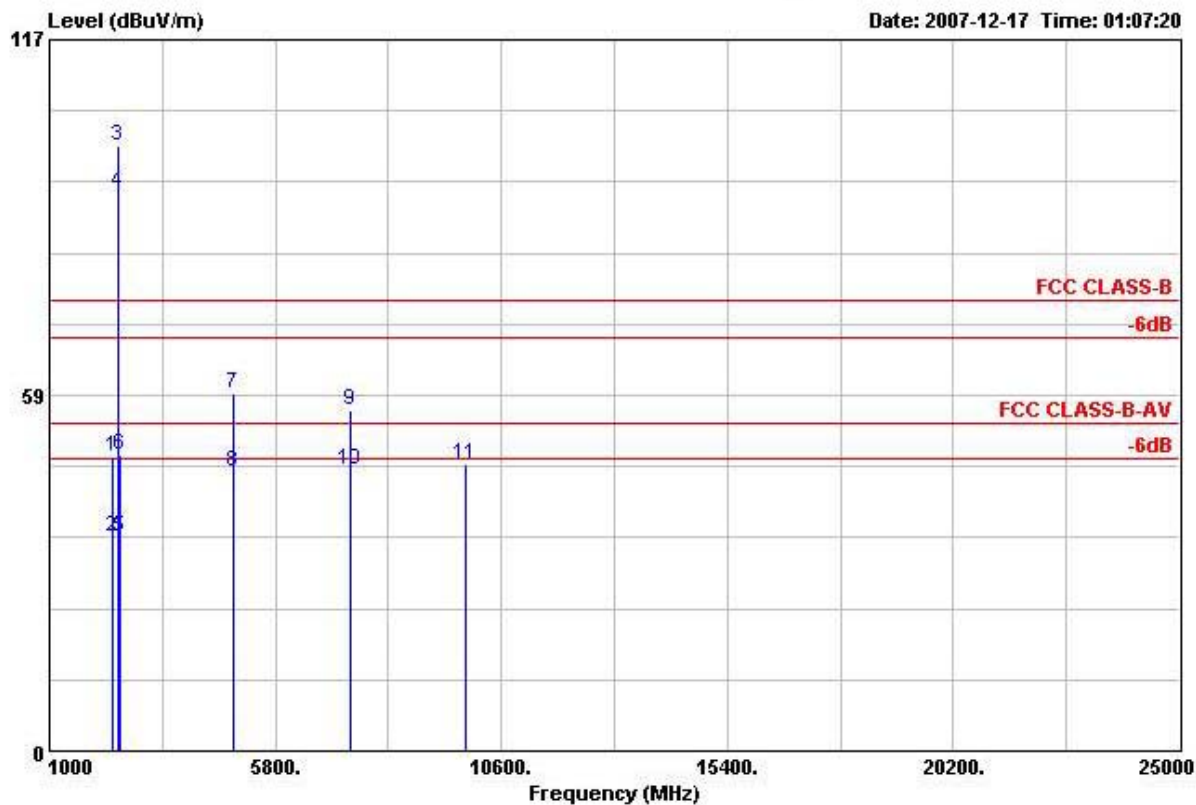
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch11;2462MHz
 PLANE : E2
 Data Rate: 11

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamplifier	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	81.570	24.46	-15.54	40.00	44.32	7.10	1.28	28.24	---	---	Peak
2	217.380	32.27	-13.73	46.00	48.04	10.05	1.94	27.77	100	147	Peak
3	227.100	28.90	-17.10	46.00	43.88	10.79	1.97	27.75	---	---	Peak
4	615.700	24.11	-21.89	46.00	30.07	19.94	3.20	29.10	---	---	Peak
5	841.800	25.44	-20.56	46.00	29.10	21.38	3.82	28.86	---	---	Peak
6	923.000	28.40	-17.60	46.00	29.09	24.10	3.97	28.75	---	---	Peak



- Polarization : Vertical (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11b Tx_Ch11;2462MHz
 PLANE : E2
 Data Rate: 11

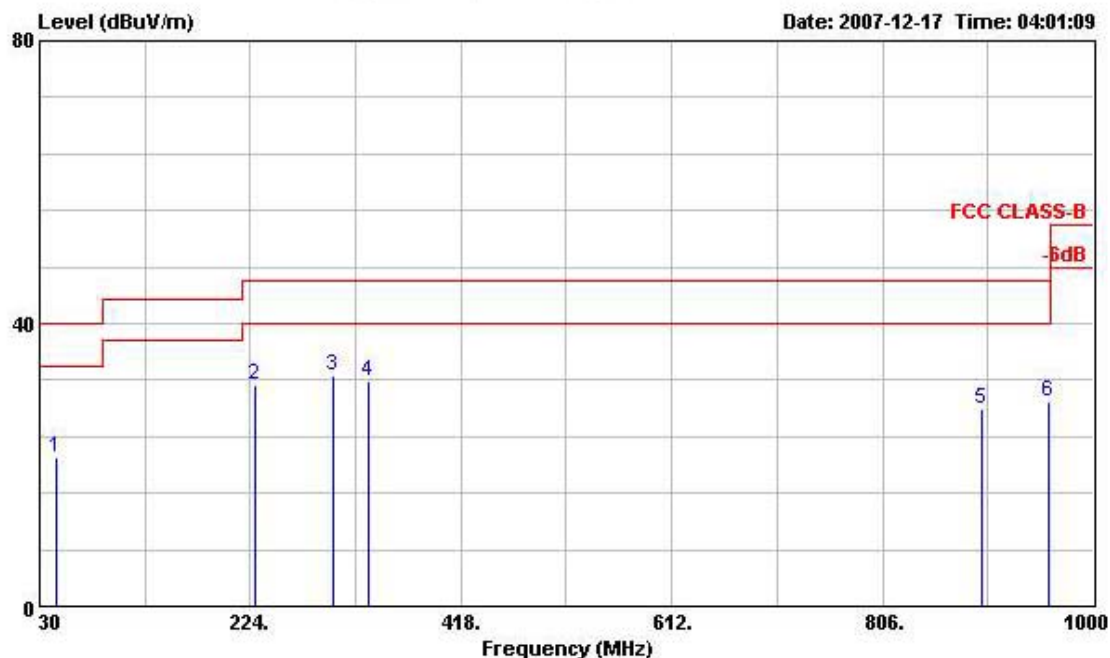
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2356.000	48.44	-25.56	74.00	46.00	32.52	3.69	33.77	100	0 Peak
2	2356.000	35.12	-18.88	54.00	32.68	32.52	3.69	33.77	100	333 Average
3 X	2462.000	99.66			97.06	32.58	3.81	33.79	100	0 Peak
4 @	2462.000	91.92			89.32	32.58	3.81	33.79	100	333 Average
5	2486.890	35.35	-18.65	54.00	32.72	32.59	3.84	33.80	100	333 Average
6	2486.890	48.62	-25.38	74.00	45.99	32.59	3.84	33.80	100	0 Peak
7	4926.000	58.79	-15.21	74.00	52.33	34.81	5.95	34.30	100	0 Peak
8	4926.000	45.98	-8.02	54.00	39.52	34.81	5.95	34.30	150	12 Average
9	7377.000	56.06	-17.94	74.00	47.02	36.00	6.51	33.48	100	0 Peak
10	7377.000	46.15	-7.85	54.00	37.11	36.00	6.51	33.48	100	188 Average
11	9843.000	47.03	-26.97	74.00	83.98	-9.65	7.70	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signals



- Test Mode : Mode 4
- Polarization : Horizontal (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



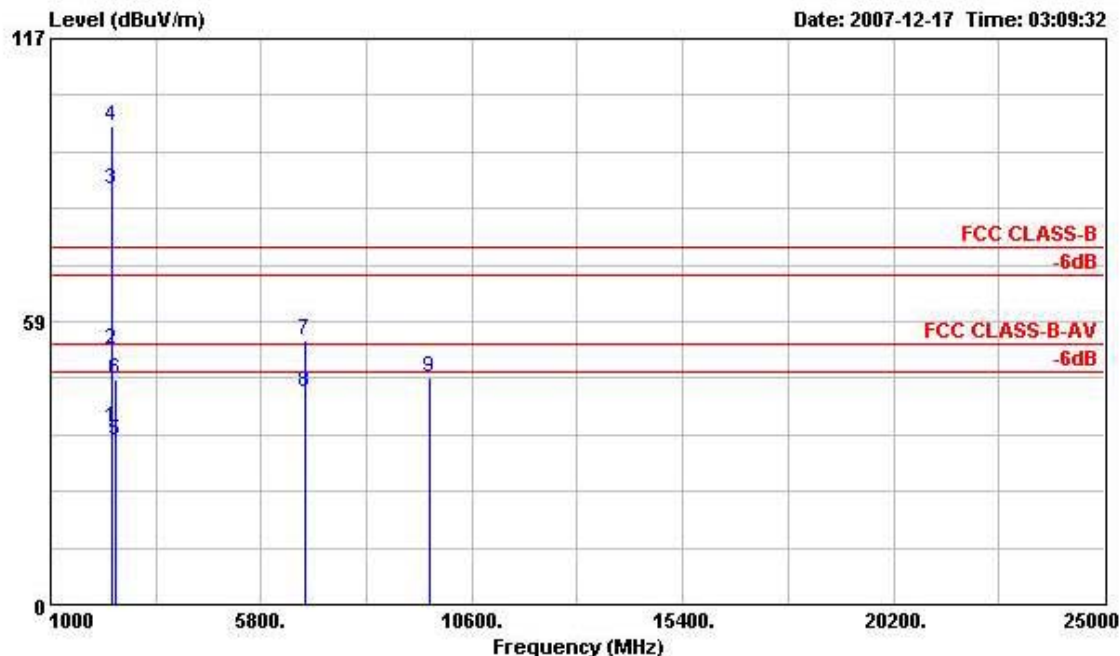
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch01;2412MHz
 PLANE : E2
 Data Rate: 54

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	44.580	20.94	-19.06	40.00	38.21	10.04	0.98	28.29	---	---	Peak
2	228.450	31.26	-14.74	46.00	46.09	10.94	1.98	27.74	---	---	Peak
3	299.460	32.58	-13.42	46.00	45.63	12.31	2.24	27.60	100	125	Peak
4	332.900	31.81	-14.19	46.00	43.85	13.45	2.35	27.83	---	---	Peak
5	897.800	27.79	-18.21	46.00	29.20	23.44	3.95	28.80	---	---	Peak
6	959.400	28.96	-17.04	46.00	28.64	25.01	3.99	28.68	---	---	Peak



- Polarization : Horizontal (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch01;2412MHz
 PLANE : E2
 Data Rate: 54

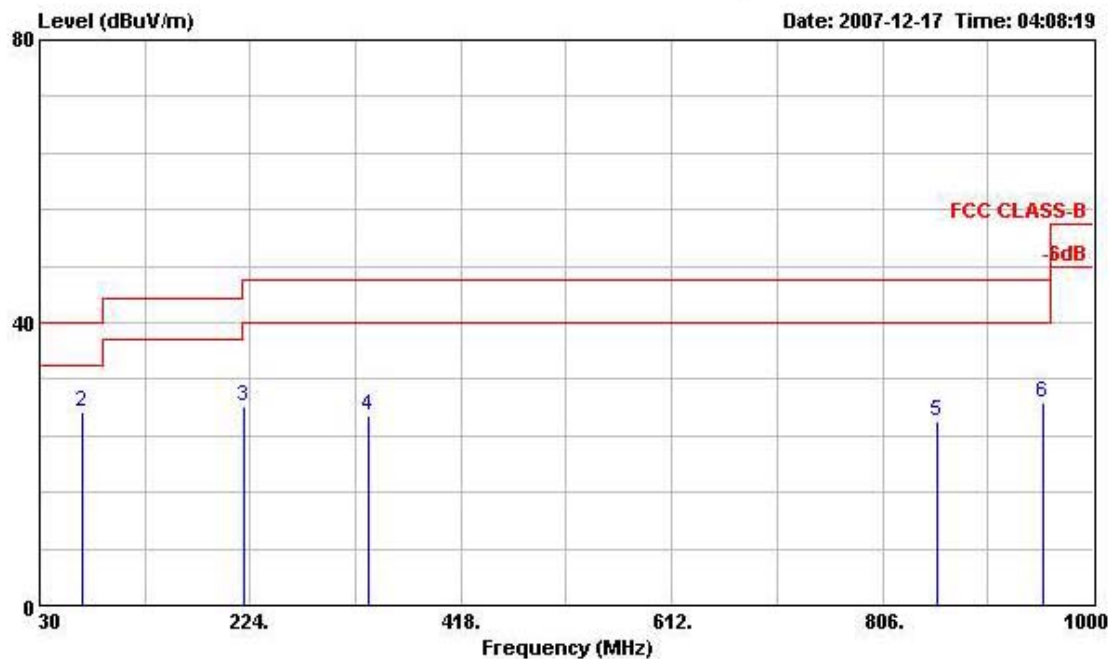
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2389.610	36.69	-17.31	54.00	34.19	32.54	3.74	33.78	160	282 Average
2	2389.610	52.77	-21.23	74.00	50.27	32.54	3.74	33.78	100	0 Peak
3 @	2412.000	85.77			83.24	32.55	3.76	33.78	160	282 Average
4 X	2412.000	98.92			96.39	32.55	3.76	33.78	100	0 Peak
5	2492.000	34.04	-19.96	54.00	31.40	32.60	3.84	33.80	160	282 Average
6	2492.000	46.58	-27.42	74.00	43.94	32.60	3.84	33.80	100	0 Peak
7	6813.000	54.59	-19.41	74.00	44.94	36.00	6.30	32.65	100	0 Peak
8	6813.000	43.94	-10.06	54.00	34.29	36.00	6.30	32.65	100	133 Average
9	9648.000	47.11	-26.89	74.00	84.58	-10.07	7.60	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signals



- Polarization : Vertical (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



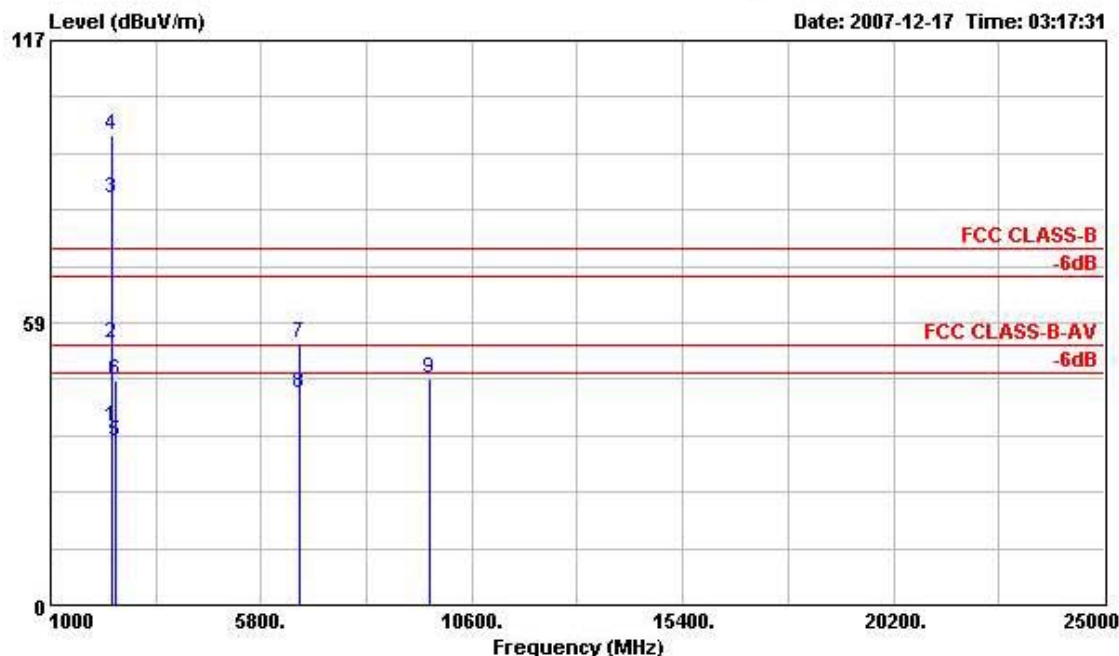
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch01;2412MHz
 PLANE : E2
 Data Rate: 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	30.000	24.40	-15.60	40.00	35.40	16.38	0.87	28.25	---	---
2	68.610	27.26	-12.74	40.00	48.95	5.40	1.18	28.26	100	186 Peak
3	217.380	28.03	-17.97	46.00	43.80	10.05	1.94	27.77	---	---
4	332.900	26.88	-19.12	46.00	38.92	13.45	2.35	27.83	---	---
5	856.500	26.17	-19.83	46.00	29.22	21.91	3.89	28.84	---	---
6	953.800	28.62	-17.38	46.00	28.46	24.87	3.98	28.69	---	---



- Polarization :Vertical (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site :03CH04-HY
 Condition:FCC CLASS-B 3m HF-ANT-3117 VERTICAL
 EUT :Smart Phone
 POWER :120Vac/60Hz
 MODEL :FR 701101
 MEMO :11g Tx_Ch01;2412MHz
 PLANE :E2
 Data Rate:54

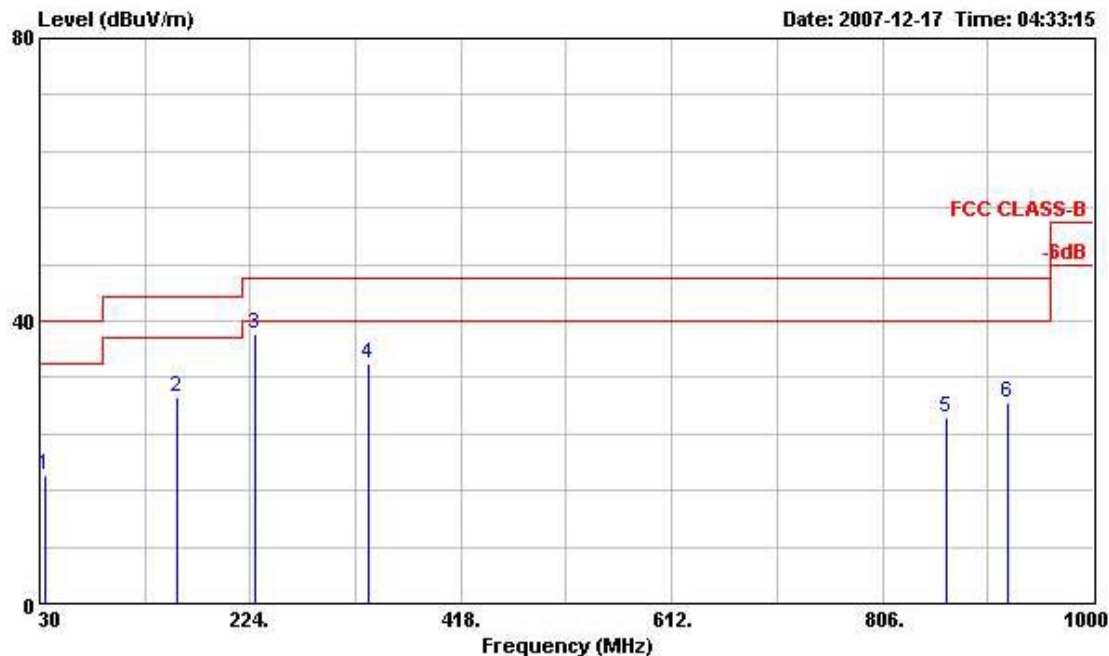
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.000	37.06	-16.94	54.00	34.56	32.54	3.74	33.78	100	331	Average
2	2390.000	54.34	-19.66	74.00	51.84	32.54	3.74	33.78	100	0	Peak
3 @	2412.000	84.35			81.82	32.55	3.76	33.78	100	331	Average
4 X	2412.000	97.27			94.74	32.55	3.76	33.78	100	0	Peak
5	2494.000	33.72	-20.28	54.00	31.08	32.60	3.84	33.80	100	331	Average
6	2494.000	46.48	-27.52	74.00	43.84	32.60	3.84	33.80	100	0	Peak
7	6654.000	54.28	-19.72	74.00	44.80	36.00	6.25	32.77	100	0	Peak
8	6654.000	43.80	-10.20	54.00	34.32	36.00	6.25	32.77	100	198	Average
9	9648.000	46.91	-27.09	74.00	84.38	-10.07	7.60	35.00	100	0	Peak

Remark: #3 and #4 are Fundamental Signals



- Test Mode : Mode 5
- Polarization : Horizontal (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



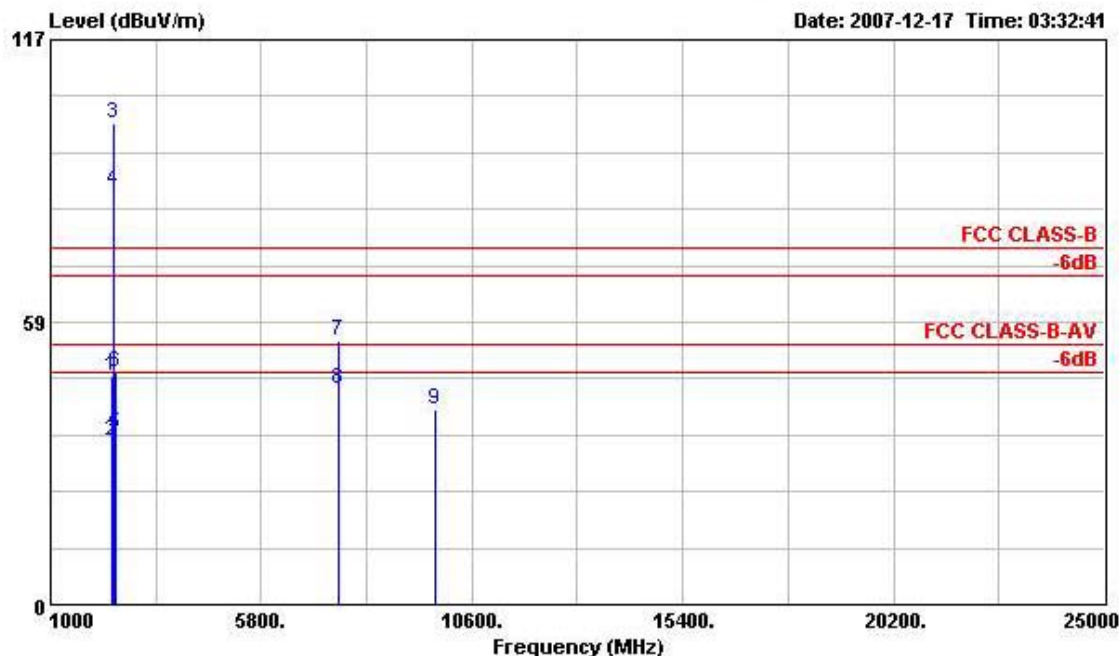
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch06;2437MHz
 PLANE : E2
 Data Rate: 54

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	35.130	18.24	-21.76	40.00	29.30	16.29	0.91	28.26	---	---
2	155.820	29.26	-14.24	43.50	45.73	9.83	1.68	27.98	---	---
3	229.260	38.22	-7.78	46.00	53.04	10.94	1.98	27.74	100	158
4	332.900	34.07	-11.93	46.00	46.11	13.45	2.35	27.83	---	---
5	864.900	26.34	-19.66	46.00	29.04	22.23	3.90	28.83	---	---
6	920.900	28.45	-17.55	46.00	29.21	24.03	3.97	28.76	---	---



- Polarization :Horizontal (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site :03CH04-HY
 Condition:FCC CLASS-B 3m HF-ANT-3117 HORIZONTAL
 EUT :Smart Phone
 POWER :120Vac/60Hz
 MODEL :FR 701101
 MEMO :11g Tx_Ch06;2437MHz
 PLANE :E2
 Data Rate:54

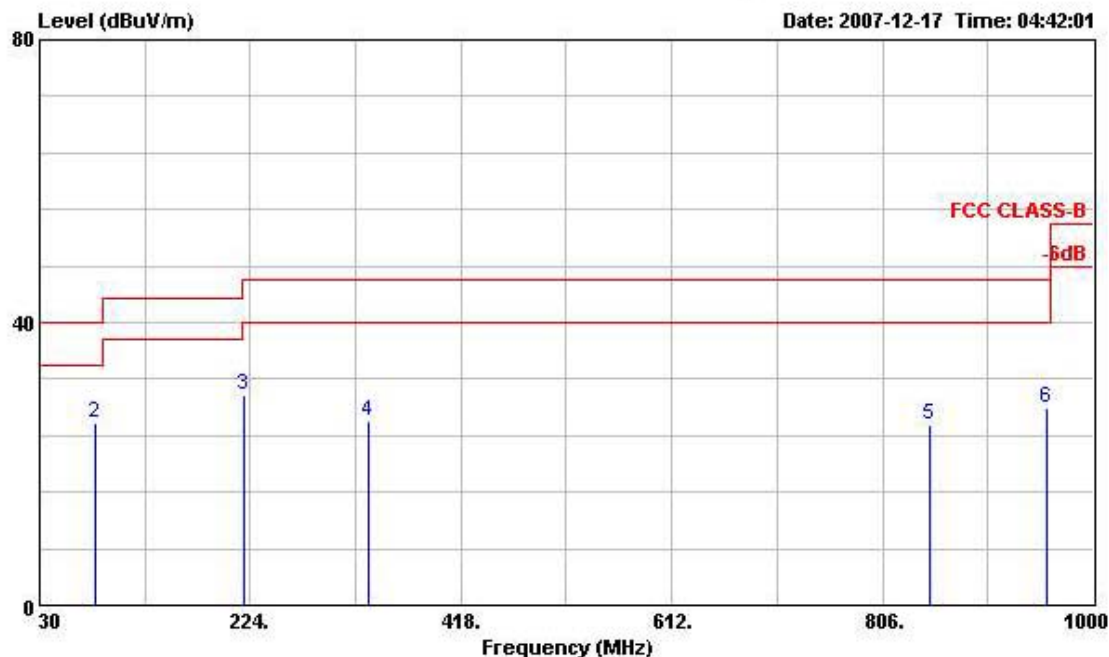
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2382.000	47.19	-26.81	74.00	44.70	32.53	3.74	33.78	100	0 Peak
2	2382.000	33.73	-20.27	54.00	31.24	32.53	3.74	33.78	157	274 Average
3 X	2437.000	99.62			97.05	32.57	3.79	33.79	100	0 Peak
4 @	2437.000	85.94			83.37	32.57	3.79	33.79	157	274 Average
5	2484.000	35.36	-18.64	54.00	32.73	32.59	3.84	33.80	157	274 Average
6	2484.000	47.92	-26.08	74.00	45.29	32.59	3.84	33.80	100	0 Peak
7	7566.000	54.54	-19.46	74.00	45.70	36.03	6.59	33.78	100	0 Peak
8	7566.000	44.62	-9.38	54.00	35.78	36.03	6.59	33.78	100	111 Average
9	9741.000	40.30	-33.70	74.00	77.52	-9.87	7.65	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signals



- Polarization : Vertivcal (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



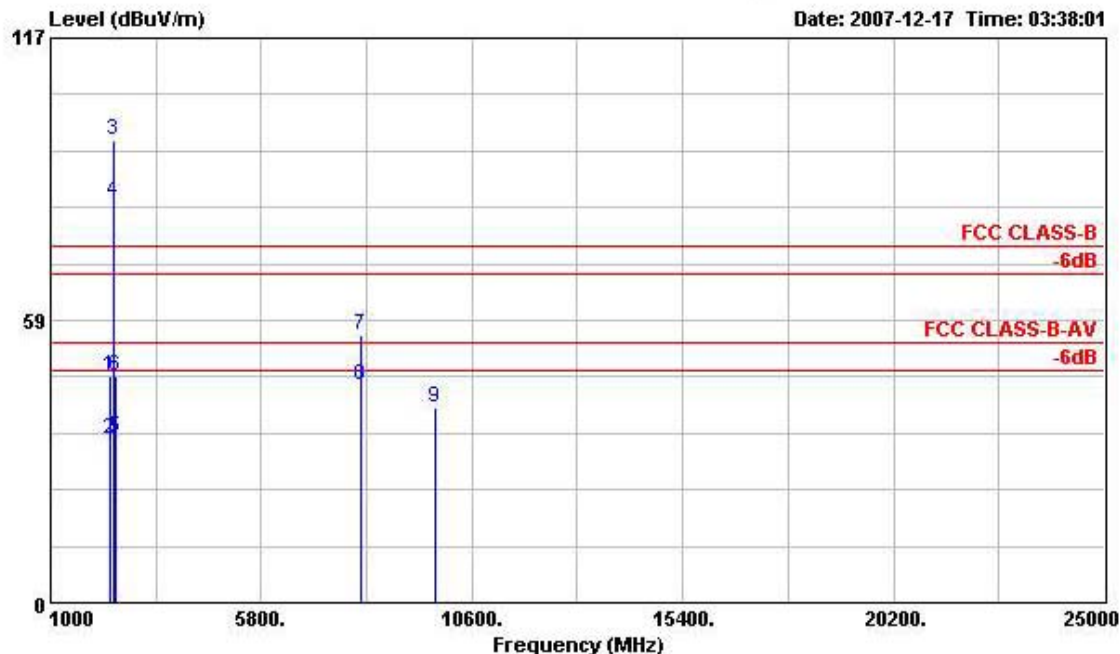
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch06;2437MHz
 PLANE : E2
 Data Rate: 54

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	30.540	22.10	-17.90	40.00	33.12	16.36	0.87	28.25	---	Peak
2	81.570	25.84	-14.16	40.00	45.70	7.10	1.28	28.24	100	133 Peak
3	217.650	29.85	-16.15	46.00	45.62	10.05	1.94	27.76	---	Peak
4	332.900	26.16	-19.84	46.00	38.20	13.45	2.35	27.83	---	Peak
5	850.200	25.50	-20.50	46.00	28.78	21.70	3.88	28.85	---	Peak
6	957.300	27.91	-18.09	46.00	27.65	24.96	3.98	28.69	---	Peak



- Polarization : Vertical (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
Condition: FCC CLASS-B 3m HF-ANT-3117 VERTICAL
EUT : Smart Phone
POWER : 120Vac/60Hz
MODEL : FR 701101
MEMO : 11g Tx_Ch06;2437MHz
PLANE : E2
Data Rate: 54

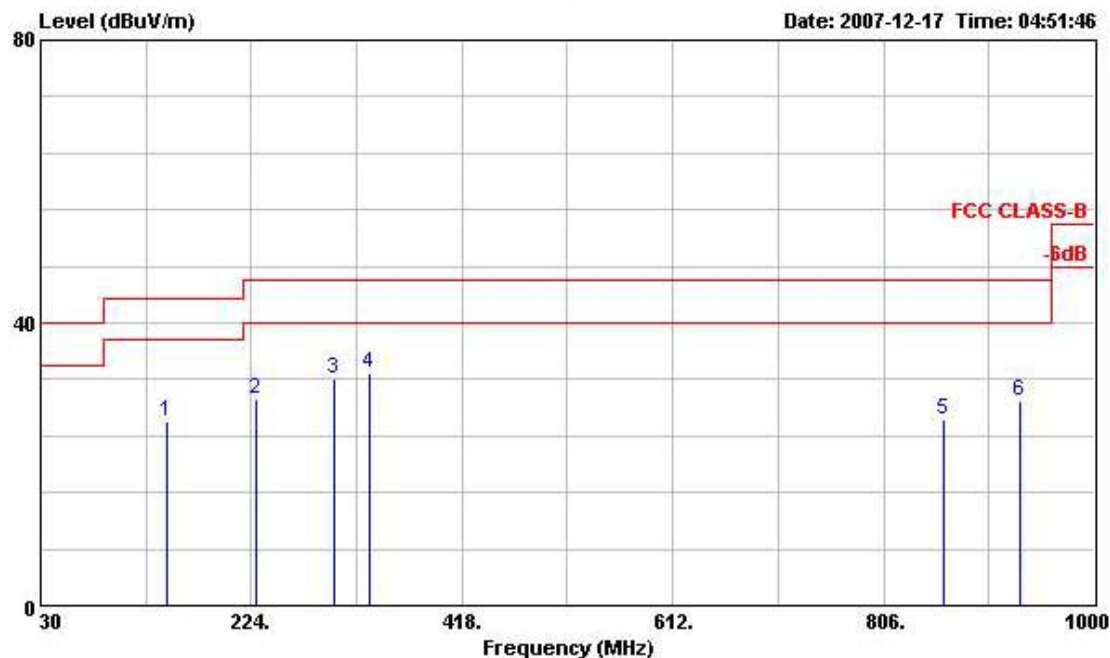
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2350.000	46.96	-27.04	74.00	44.53	32.51	3.69	33.77	100	0 Peak
2	2350.000	34.05	-19.95	54.00	31.62	32.51	3.69	33.77	100	330 Average
3 X	2437.000	95.91			93.34	32.57	3.79	33.79	100	0 Peak
4 @	2437.000	83.30			80.73	32.57	3.79	33.79	100	330 Average
5	2486.000	34.32	-19.68	54.00	31.69	32.59	3.84	33.80	100	330 Average
6	2486.000	47.00	-27.00	74.00	44.37	32.59	3.84	33.80	100	0 Peak
7	8082.000	55.38	-18.62	74.00	46.09	36.22	6.80	33.73	100	0 Peak
8	8082.000	45.10	-8.90	54.00	35.81	36.22	6.80	33.73	100	103 Average
9	9741.000	40.23	-33.77	74.00	77.45	-9.87	7.65	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signals



- Test Mode : Mode 6
- Polarization : Horizontal (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



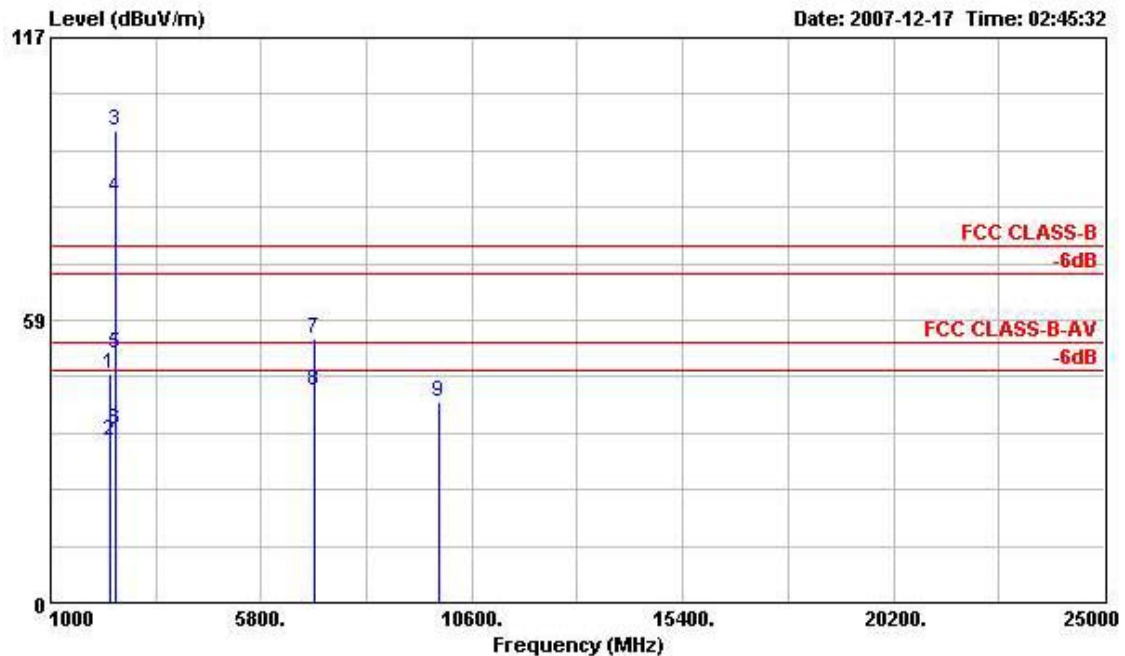
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch11;2462MHz
 PLANE : E2
 Data Rate: 54

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamplifier	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	147.180	25.93	-17.57	43.50	41.57	10.72	1.65	28.01	---	---	Peak
2	229.260	29.30	-16.70	46.00	44.12	10.94	1.98	27.74	---	---	Peak
3	299.460	32.14	-13.86	46.00	45.19	12.31	2.24	27.60	---	---	Peak
4 @	332.900	32.96	-13.04	46.00	45.00	13.45	2.35	27.83	100	112	Peak
5	862.100	26.32	-19.68	46.00	29.14	22.12	3.90	28.84	---	---	Peak
6	932.100	28.90	-17.10	46.00	29.34	24.32	3.97	28.74	---	---	Peak



- Polarization : Horizontal (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch11;2462MHz
 PLANE : E2
 Data Rate: 54

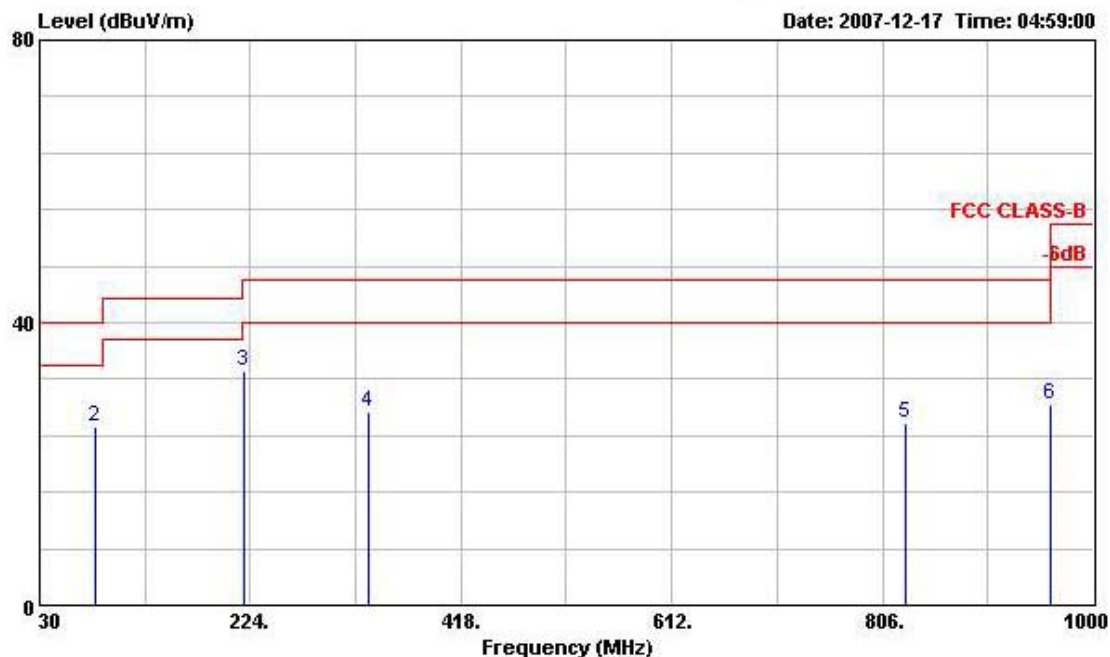
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2374.000	47.30	-26.70	74.00	44.83	32.53	3.71	33.78	100	0 Peak
2	2374.000	33.66	-20.34	54.00	31.19	32.53	3.71	33.78	155	274 Average
3 @	2462.000	97.64			95.04	32.58	3.81	33.79	100	0 Peak
4 @	2462.000	83.93			81.33	32.58	3.81	33.79	155	274 Average
5	2483.850	51.43	-22.57	74.00	48.80	32.59	3.84	33.80	100	0 Peak
6	2483.850	35.67	-18.33	54.00	33.04	32.59	3.84	33.80	155	274 Average
7	7014.000	54.62	-19.38	74.00	44.82	36.00	6.37	32.57	100	0 Peak
8 @	7014.000	43.80	-10.20	54.00	34.00	36.00	6.37	32.57	100	169 Average
9	9846.000	41.45	-32.55	74.00	78.36	-9.63	7.72	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signals



- Polarization : Vertical (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



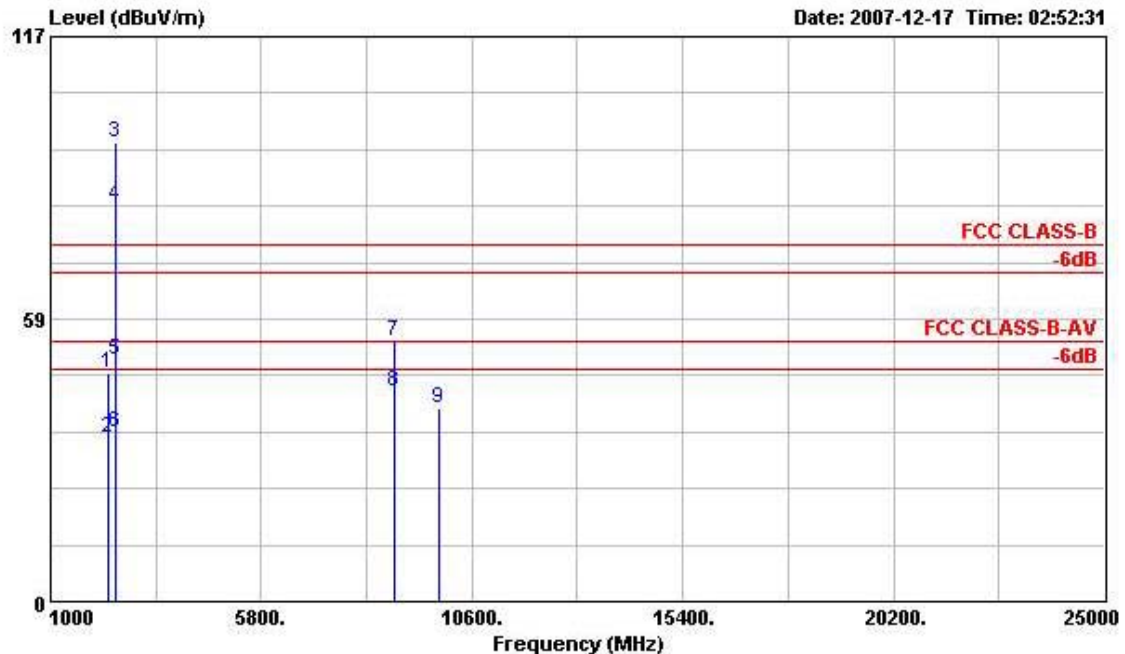
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch11;2462MHz
 PLANE : E2
 Data Rate: 54

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	30.540	22.30	-17.70	40.00	33.32	16.36	0.87	28.25	---	Peak
2	81.570	25.18	-14.82	40.00	45.04	7.10	1.28	28.24	---	Peak
3 @	217.650	33.10	-12.90	46.00	48.87	10.05	1.94	27.76	100	159 Peak
4	332.900	27.29	-18.71	46.00	39.33	13.45	2.35	27.83	---	Peak
5	827.800	25.85	-20.15	46.00	30.15	20.84	3.73	28.87	---	Peak
6	960.100	28.50	-25.50	54.00	28.16	25.04	3.99	28.68	---	Peak



- Polarization : Vertical (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : 11g Tx_Ch11;2462MHz
 PLANE : E2
 Data Rate: 54

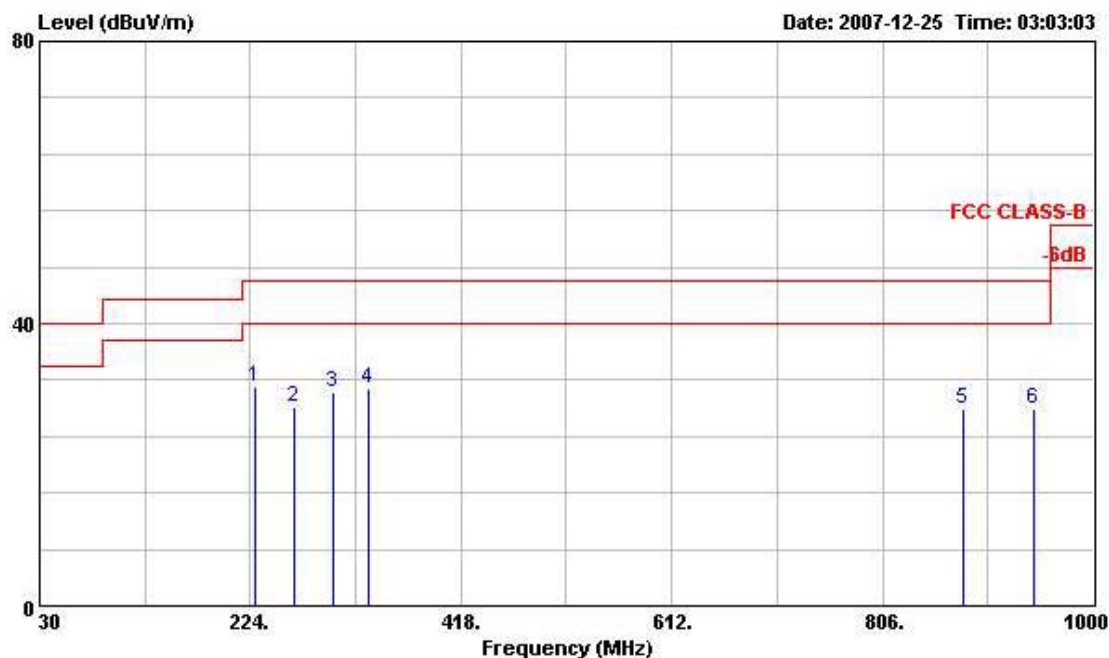
	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2326.000	47.24	-26.76	74.00	44.85	32.50	3.66	33.77	100	0 Peak
2	2326.000	33.85	-20.15	54.00	31.46	32.50	3.66	33.77	100	333 Average
3 @	2462.000	94.94			92.34	32.58	3.81	33.79	100	0 Peak
4 @	2462.000	82.14			79.54	32.58	3.81	33.79	100	333 Average
5	2483.850	50.18	-23.82	74.00	47.55	32.59	3.84	33.80	100	0 Peak
6	2483.850	35.06	-18.94	54.00	32.43	32.59	3.84	33.80	100	333 Average
7	8826.000	53.72	-20.28	74.00	44.64	36.55	7.18	34.66	100	0 Peak
8 @	8826.000	43.60	-10.40	54.00	34.52	36.55	7.18	34.66	100	180 Average
9	9846.000	40.00	-34.00	74.00	76.91	-9.63	7.72	35.00	100	0 Peak

Remark: #3 and #4 are Fundamental Signals



- Test Mode : Mode 7
- Polarization : Horizontal (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



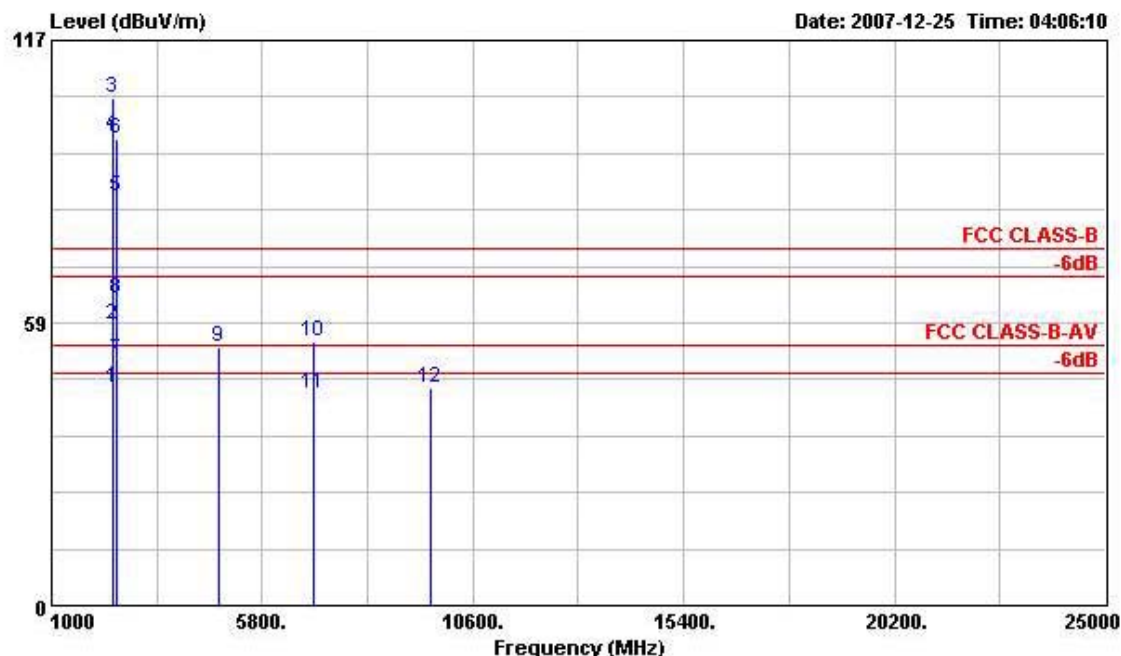
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : Bluetooth Tx_CH78:2480MHz +
 : 11b Tx_Ch01:2412MHz
 Data Rate: BT:3DH5 WLAN:11
 PLANE : E2

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos Remark
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	228.450	31.09	-14.91	46.00	45.92	10.94	1.98	27.74	100	125 Peak
2	264.090	28.26	-17.74	46.00	41.33	12.50	2.10	27.67	---	--- Peak
3	299.460	30.36	-15.64	46.00	43.41	12.31	2.24	27.60	---	--- Peak
4	332.900	30.84	-15.16	46.00	42.88	13.45	2.35	27.83	---	--- Peak
5	881.000	27.78	-18.22	46.00	29.87	22.80	3.92	28.82	---	--- Peak
6	945.400	27.87	-18.13	46.00	27.93	24.67	3.98	28.71	---	--- Peak



- Polarization : Horizontal (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 HORIZONTAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : Bluetooth Tx_CH78:2480MHz +
 : 11b Tx_Ch01:2412MHz
 Data Rate: BT:3DHS WLAN:11
 PLANE : E2

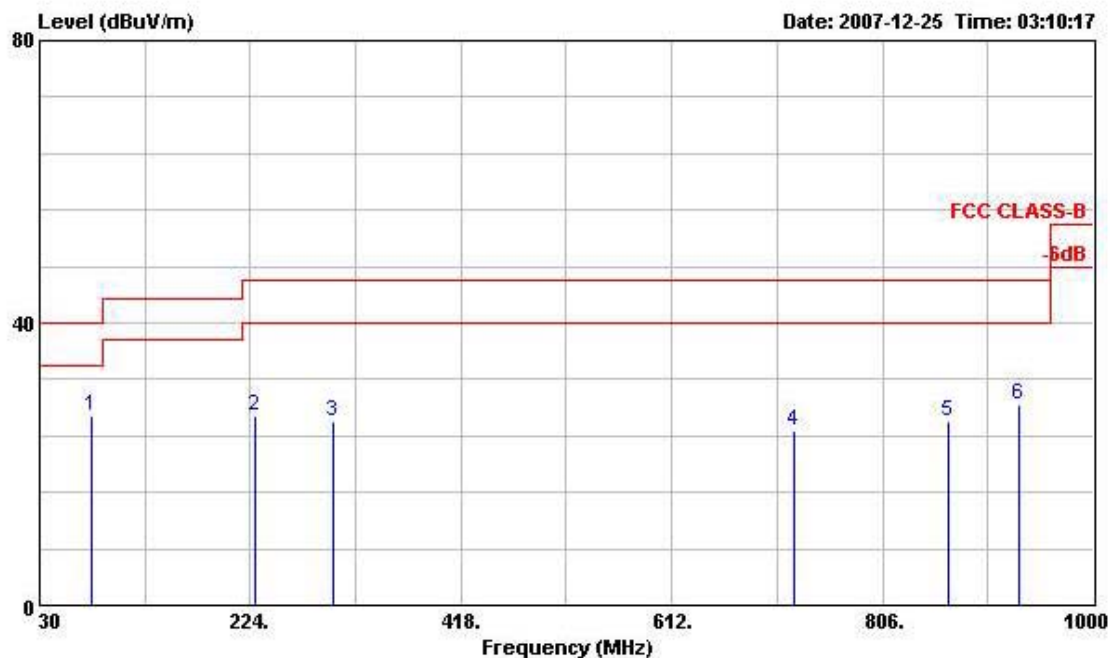
	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Factor	Preamp Loss	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	cm	deg	
1	2390.000	44.89	-9.11	54.00	42.39	32.54	3.74	157	341	Average
2	2390.000	58.24	-15.76	74.00	55.74	32.54	3.74	100	0	Peak
3 X	2412.000	105.22			102.69	32.55	3.76	100	0	Peak
4 @	2412.000	97.55			95.02	32.55	3.76	157	341	Average
5 X	2480.000	84.59			81.96	32.59	3.84	155	159	Average
6 X	2480.000	96.42			93.79	32.59	3.84	100	0	Peak
7 !	2483.500	50.97	-3.03	54.00	48.34	32.59	3.84	155	159	Average
8	2483.500	63.63	-10.37	74.00	61.00	32.59	3.84	100	0	Peak
9	4821.000	53.47	-20.53	74.00	47.06	34.83	5.88	100	0	Peak
10	6978.000	54.77	-19.23	74.00	44.94	36.00	6.35	100	0	Peak
11	6978.000	43.91	-10.09	54.00	34.08	36.00	6.35	100	107	Average
12	9648.000	45.11	-28.89	74.00	82.58	-10.07	7.60	100	0	Peak

Remark: #3, #4, #5, and #6 are Fundamental Signals



- Polarization : Vertical (30MHz-1GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



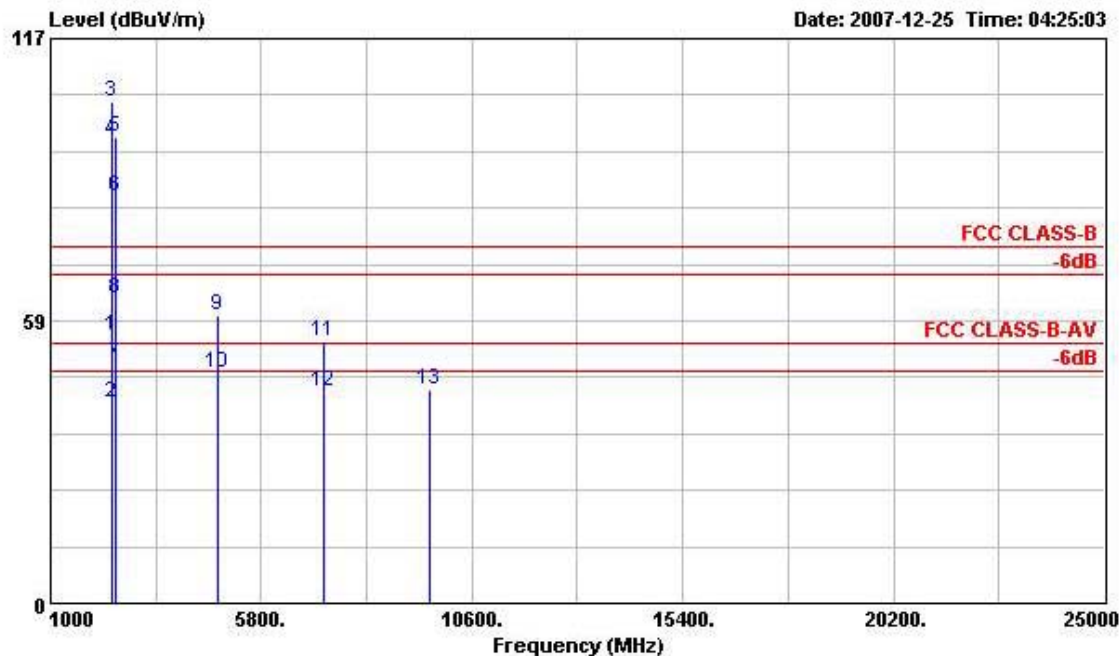
Site : 03CH04-HY
 Condition: FCC CLASS-B 3m ANT2724 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : Bluetooth Tx_CH78:2480MHz +
 : 11b Tx_Ch01:2412MHz
 Data Rate: BT:3DH5 WLAN:11
 PLANE : E2

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Antenna Factor	Cable Loss	Preamplifier	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	78.060	26.83	-13.17	40.00	47.02	6.80	1.26	28.24	100	136	Peak
2	228.450	26.82	-19.18	46.00	41.65	10.94	1.98	27.74	---	---	Peak
3	299.460	26.01	-19.99	46.00	39.06	12.31	2.24	27.60	---	---	Peak
4	724.200	24.74	-21.26	46.00	30.20	20.07	3.53	29.05	---	---	Peak
5	867.000	26.02	-19.98	46.00	28.65	22.30	3.90	28.83	---	---	Peak
6	932.100	28.53	-17.47	46.00	28.97	24.32	3.97	28.74	---	---	Peak



- Polarization : Vertical (1GHz-25GHz)

■ The test that passed at minimum margin was marked by the boldface in the following table.



Site : 03CH04-HY
 Condition: FCC CLASS-B 3m HF-ANT-3117 VERTICAL
 EUT : Smart Phone
 POWER : 120Vac/60Hz
 MODEL : FR 701101
 MEMO : Bluetooth Tx_CH78:2480MHz +
 : 11b Tx_Ch01:2412MHz
 Data Rate: BT:3DH5 WLAN:11
 PLANE : E2

	Freq	Level	Over Limit	Limit Line	ReadAntenna Level	Cable Loss	Preamplifier	Ant Pos	Table Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2390.000	55.37	-18.63	74.00	52.87	32.54	3.74	33.78	100	0 Peak
2	2390.000	41.68	-12.32	54.00	39.18	32.54	3.74	33.78	100	6 Average
3 X	2412.000	103.84			101.31	32.55	3.76	33.78	100	0 Peak
4 @	2412.000	95.80			93.27	32.55	3.76	33.78	100	6 Average
5 X	2480.000	96.77			94.14	32.59	3.84	33.80	100	0 Peak
6 X	2480.000	84.35			81.72	32.59	3.84	33.80	100	43 Average
7 !	2483.500	49.65	-4.35	54.00	47.02	32.59	3.84	33.80	100	43 Average
8	2483.500	63.17	-10.83	74.00	60.54	32.59	3.84	33.80	100	0 Peak
9	4821.000	59.81	-14.19	74.00	53.40	34.83	5.88	34.30	100	0 Peak
10	4821.000	47.63	-6.37	54.00	41.22	34.83	5.88	34.30	149	56 Average
11	7233.000	54.25	-19.75	74.00	44.88	36.00	6.46	33.09	100	0 Peak
12	7233.000	43.78	-10.22	54.00	34.41	36.00	6.46	33.09	100	146 Average
13	9648.000	44.26	-29.74	74.00	81.73	-10.07	7.60	35.00	100	0 Peak

Remark: #3, #4, #5, and #6 are Fundamental Signals



5.8 Antenna Requirements

5.8.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no other antenna except assembled by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if directional gain of transmitting antennas is greater than 6dBi, the power shall be reduced by the same level in dB comparing to gain minus 6dBi.

5.8.2 Antenna Connected Construction

The antennas used in this product are 錯誤! 找不到參照來源。 for WLAN without connector and it is considered to meet antenna requirement of FCC.

5.8.3 Antenna Gain

The antenna gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.



6. List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMC Receiver	R&S	ESCS 30	100359	9kHz – 2.75GHz	Mar. 01, 2007	Feb. 29, 2008	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Mar. 31, 2007	Mar. 30, 2008	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Mar. 22, 2007	Mar. 21, 2008	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB049	9kHz – 30MHz	Apr. 20, 2007	Apr. 19, 2008	Conduction (CO04-HY)
ISN	SCHAFFNER	ISN T400	21653	9kHz – 30MHz	Mar. 09, 2007	Mar. 08, 2008	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	N/A	Conduction (CO04-HY)
Isolation Transformer	Erika Fiedler OHG	D-65396 Walluf	58	45MHz-2.15GHz	N/A	N/A	Conduction (CO04-HY)
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH04-HY	30 MHz - 1 GHz 3m	Oct. 29, 2007	Oct. 28, 2008	Radiation (03CH04-HY)
Amplifier	HP	87405A	3950M00135	10MHz - 3 GHz	Mar. 02, 2007	Mar. 01, 2008	Radiation (03CH04-HY)
Spectrum Analyzer	R&S	FSP30	100792	9 kHz – 30GHz	Dec. 13, 2007	Dec. 12, 2008	Radiation (03CH04-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2724	30 MHz - 1 GHz	Aug. 13, 2007	Aug. 12 2008	Radiation (03CH04-HY)
Turn Table	HD	Deis HD 2000	420/610	0 - 360 degree	N/A	N/A	Radiation (03CH04-HY)
Antenna Mast	Chaintek	3000	N/A	1 m - 4 m	N/A	N/A	Radiation (03CH04-HY)
RF Cable-R03m	Suhner Switzerland + RFIDEN	RG223/U +RG8/U	CB024	30 MHz - 1 GHz	Sep. 20, 2007	Sep. 19, 2008	Radiation (03CH04-HY)
Isolation Transformer	Erika Fiedler OHG	D-65396 Walluf	N/A	45 MHz – 2.15 GHz 30dB	N/A	N/A	Radiation (03CH04-HY)

7. Uncertainty Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.10	Normal(k=2)	0.05
Cable loss	0.10	Normal(k=2)	0.05
AMN insertion loss	2.50	Rectangular	0.63
Receiver Spec	1.50	Rectangular	0.43
Site imperfection	1.39	Rectangular	0.80
Mismatch	+0.34/-0.35	U-shape	0.24
combined standard uncertainty Uc(y)	1.13		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.26		

Uncertainty of Radiated Emission Measurement (30MHz ~ 1000MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.41	Normal(k=2)	0.21
Antenna factor calibration	0.83	Normal(k=2)	0.42
Cable loss calibration	0.25	Normal(k=2)	0.13
Pre Amplifier Gain calibration	0.27	Normal(k=2)	0.14
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.43	Rectangular	0.83
Mismatch	+0.39/-0.41	U-shaped	0.28
combined standard uncertainty Uc(y)	1.27		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.54		

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Contribution	Uncertainty of x_i		$u(x_i)$	C_i	$C_i * u(x_i)$
	dB	Probability Distribution			
Receiver reading	±0.10	Normal(k=1)	0.10	1	0.10
Antenna factor calibration	±1.70	Normal(k=2)	0.85	1	0.85
Cable loss calibration	±0.50	Normal(k=2)	0.25	1	0.25
Receiver Correction	±2.00	Rectangular	1.15	1	1.15
Antenna Factor Directional	±1.50	Rectangular	0.87	1	0.87
Site imperfection	±2.80	Triangular	1.14	1	1.14
Mismatch Receiver VSWR $\Gamma_1 = 0.197$ Antenna VSWR $\Gamma_2 = 0.194$ Uncertainty = $20 \log(1 - \Gamma_1 * \Gamma_2 * \Gamma_3)$	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty $U_c(y)$	2.36				
Measuring uncertainty for a level of confidence of 95% $U = 2U_c(y)$	4.72				

The measured result is : $y \text{ dBuV} \pm U \text{ dB}$
for a level of confidence of approximately 95%, ($k = 2$)