



FCC Test Report

According to

47 CFR Part 15 Subpart C

Equipment : PDA Phone

Model Name : RAPH100

FCC ID : NM8RPLV

Filing Type : Certification

Applicant : HTC Corporation

23 Xinghua Rd., Taoyuan 330, Taiwan

- The test result refers exclusively to the test presented test model / sample.
- Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.
- **Certificate or Test Report must not be used by the applicant to claim the product in this test report endorsement by NVLAP or any agency of U.S. government.**
- The data shown in this test report were carried out during Jun. 24, 2008 at **Sporton International Inc. LAB.**
- Report No.: FR830418-01A, 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.

SPORTON International Inc.

TEL : 886-3-327-3456

FAX : 886-3-328-4978

Report Version: Rev.01

Table of Contents

History of This Test Report ii

1. General Description of Equipment under Test1

 1.1 Applicant.....1

 1.2 Manufacturer1

 1.3 Basic Description of Equipment under Test.....1

 1.4 Feature of Equipment under Test.....1

2. Test Configuration of Equipment under Test2

 2.1 Test Manner2

 2.2 Test Mode3

 2.3 Ancillary Equipment List3

 2.4 Connection Diagram of Test System4

3. RF Utility5

4. General Information of Test6

 4.1 Test Voltage6

 4.2 Standard for Methods of Measurement6

 4.3 Test Compliance.....6

 4.4 Frequency Range6

 4.5 Test Distance.....6

5. Test Data and Test Result7

 5.1 List of Measurements and Examinations.....7

 5.2 6dB Bandwidth Measurement8

 5.3 Power Spectral Density Measurement16

 5.4 Band Edges Measurement24

 5.5 Peak Output Power Measurement.....31

 5.6 Conducted Emission.....33

 5.7 Radiated Emission Measurement.....48

 5.8 Antenna Requirements.....74

6. List of Measuring Equipments75

7. Uncertainty Evaluation76

Appendix A – Photographs of EUT

Appendix B – Setup Photographs

1. General Description of Equipment under Test

1.1 Applicant

HTC Corporation
23 Xinghua Rd., Taoyuan 330, Taiwan

1.2 Manufacturer

HTC Corporation
23 Xinghua Rd., Taoyuan 330, Taiwan

1.3 Basic Description of Equipment under Test

Sample A	PDA Phone with Photo Camera 1 + Video Camera 1
Sample B	PDA Phone with Photo Camera 2 + Video Camera 2

1.4 Feature of Equipment under Test

Product Feature & Specification			
DUT Type :	PDA Phone		
Model Name :	RAPH100		
FCC ID :	NM8RPLV		
Tx Frequency :	2400 MHz ~ 2483.5 MHz		
Rx Frequency :	2400 MHz ~ 2483.5 MHz		
Number of Channels :	11		
Carrier Frequency of Each Channel :	2412+(n-1)*5 MHz; n=1~11		
Channel Spacing :	5 MHz		
Maximum Output Power to Antenna :	802.11b : 18.77 dBm 802.11g : 22.35 dBm		
Antenna Type :	PIFA Antenna		
Antenna Gain :	0 dBi		
Type of Modulation :	DSSS / OFDM		
Function Type :	Transmitter		Transceiver V
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 (dBm)			
		1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
CH 01	2412 MHz	18.42	18.63	18.39	18.77
CH 06	2437 MHz	17.03	17.19	16.86	17.18
CH 11	2462 MHz	17.92	17.92	17.75	17.89

802.11g

Channel	Frequency (MHz)	Data Rate (dBm)							
		6 Mbps	9 Mbps	12 Mbps	18 Mbps	24 Mbps	36 Mbps	48 Mbps	54 Mbps
CH 01	2412 MHz	22.15	22.35	20.62	20.72	19.99	20.06	18.29	18.33
CH 06	2437 MHz	21.39	21.35	19.82	20.26	18.46	18.56	17.21	17.09
CH 11	2462 MHz	22.13	22.11	20.54	20.56	19.98	19.74	18.38	17.83

The 802.11b data rate were set in 11Mbps and 802.11g set in 9Mbps, due to the highest RF output power for all testing cases.

- c. The EUT is programmed to transmit signal continuously for all testings.
- d. Frequency range investigated: conduction 150 kHz to 30 MHz, radiation 30 MHz to 25000MHz.

2.2 Test Mode

Test Item	Test Mode	
Radiated Emission / RF Conducted	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
Conducted Emission	Mode 1 : BT Link + WLAN Link + Battery 1 + Adapter 1 for Sample A	
	Mode 2 : BT Link + WLAN Link + Battery 1 + Adapter 2 for Sample A	
	Mode 3 : BT Link + WLAN Link + Battery 1 + Adapter 3 + USB Cable 1 for Sample A	
	Mode 4 : BT Link + WLAN Link + Battery 1 + Adapter 3 + USB Cable 2 for Sample A	
	Mode 5 : BT Link + WLAN Link + Battery 2 + USB Cable 1 Link with NB for Sample A	
	Mode 6 : BT Link + WLAN Link + Battery 2 + USB Cable 2 Link with NB for Sample A	
	Mode 7 : BT Link + WLAN Link + Battery 2 + USB Cable 1 Link with NB for Sample B	

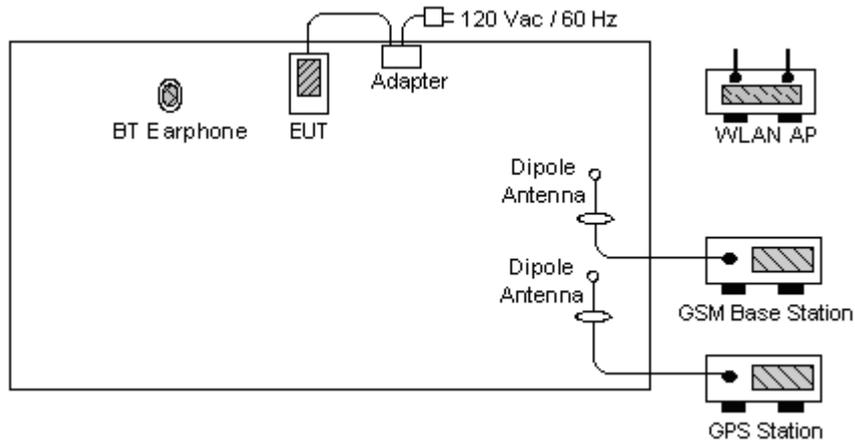
2.3 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	GSM Base Station	R&S	CMU 200	N/A	N/A	Unshielded, 1.8 m
2.	GPS Station	T&E	GS-50	N/A	N/A	Unshielded, 1.8 m
3.	WLAN AP	SMC	SMC-100	HEDWG4005ACC	N/A	Unshielded, 1.8 m
4.	Notebook	DELL	D400	E2K24GBRL	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Bluetooth Earphone	Engotech	ET-BH111	PQY471087	N/A	N/A
6.	RS-232 Mouse	State	MS-303	DoC	Unshielded, 1.2 m	N/A
7.	i-pod	Apple	A1199	N/A	Shielded, 1.2 m	N/A

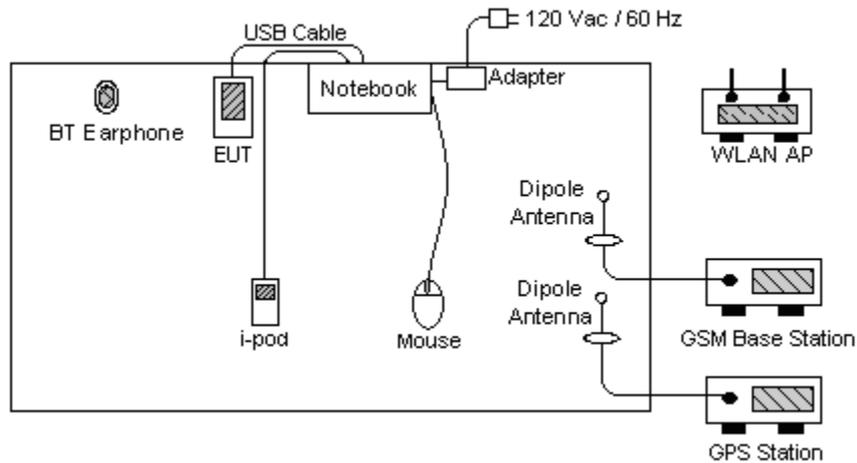
2.4 Connection Diagram of Test System

<Conducted Emission>

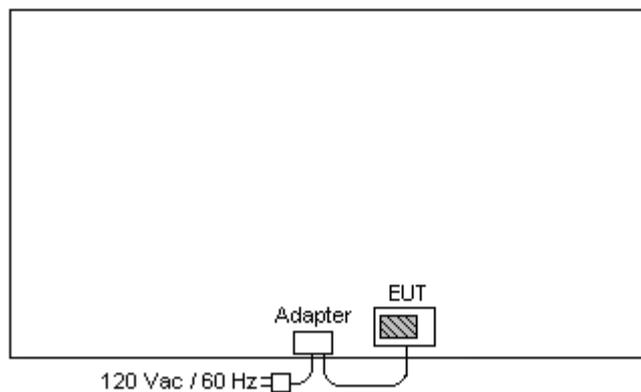
EUT with Adapter Mode



EUT with USB Link Mode



<Radiated Emission >



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, 03CH06-HY
FCC Designation No : TW1022

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

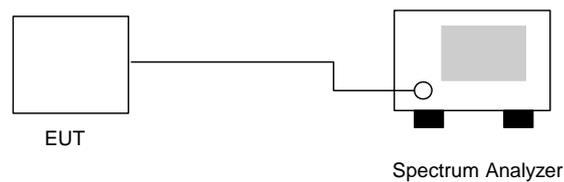
5.2.1 Measuring Instruments

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 : 29~30°C
- Relative Humidity : 50~51%
- Test Enginner : C.K.C.

▪ **802.11b**

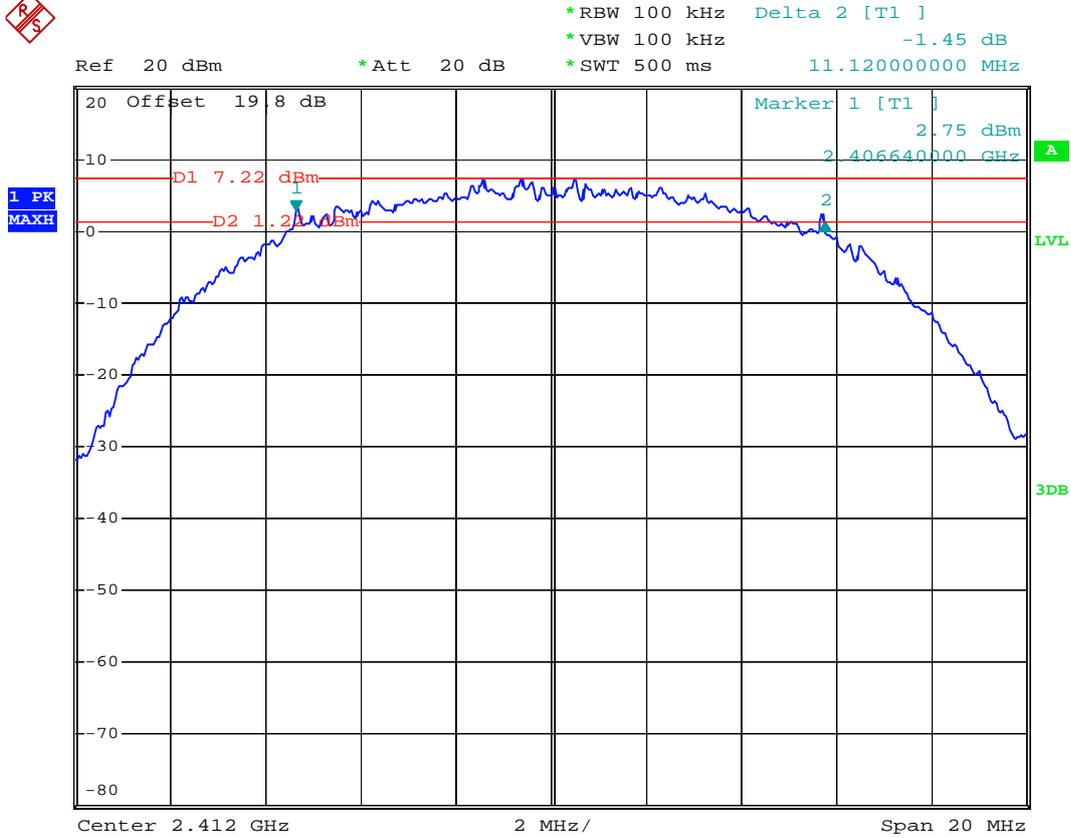
Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	11.12	> 0.5	Mode 1
06	2437	11.12	> 0.5	Mode 2
11	2462	11.12	> 0.5	Mode 3

▪ **802.11g**

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.32	> 0.5	Mode 4
06	2437	16.32	> 0.5	Mode 5
11	2462	16.32	> 0.5	Mode 6

5.2.5 6dB Bandwidth

Mode 1

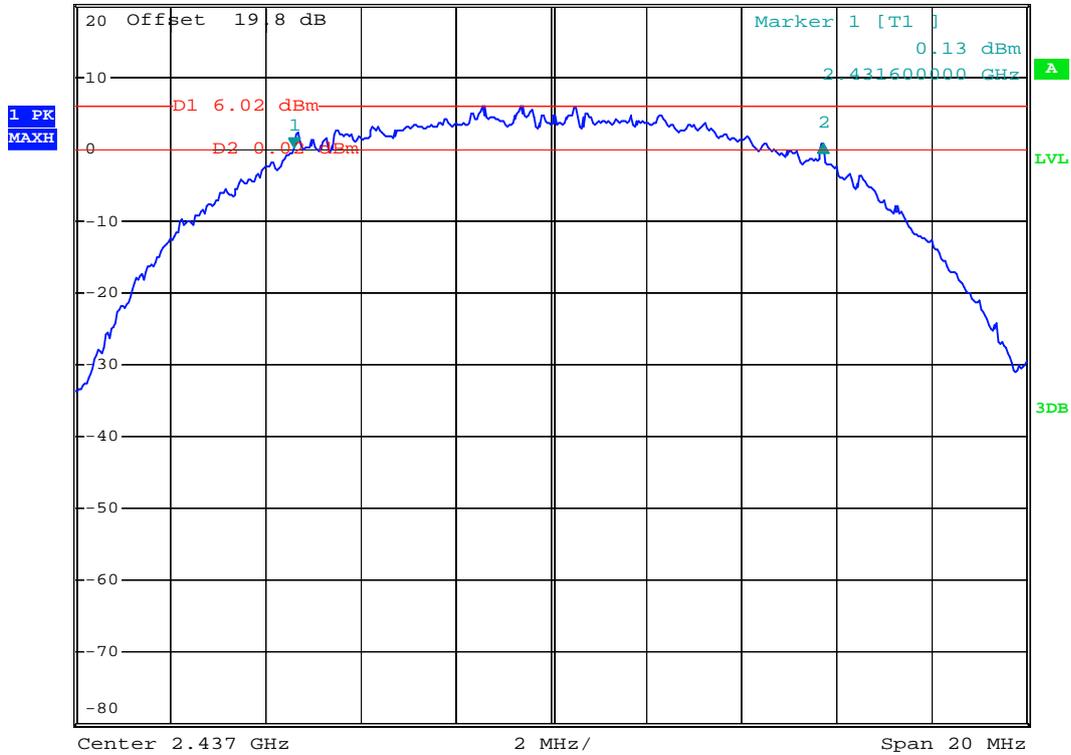


Date: 14.JUN.2008 01:32:34

Mode 2

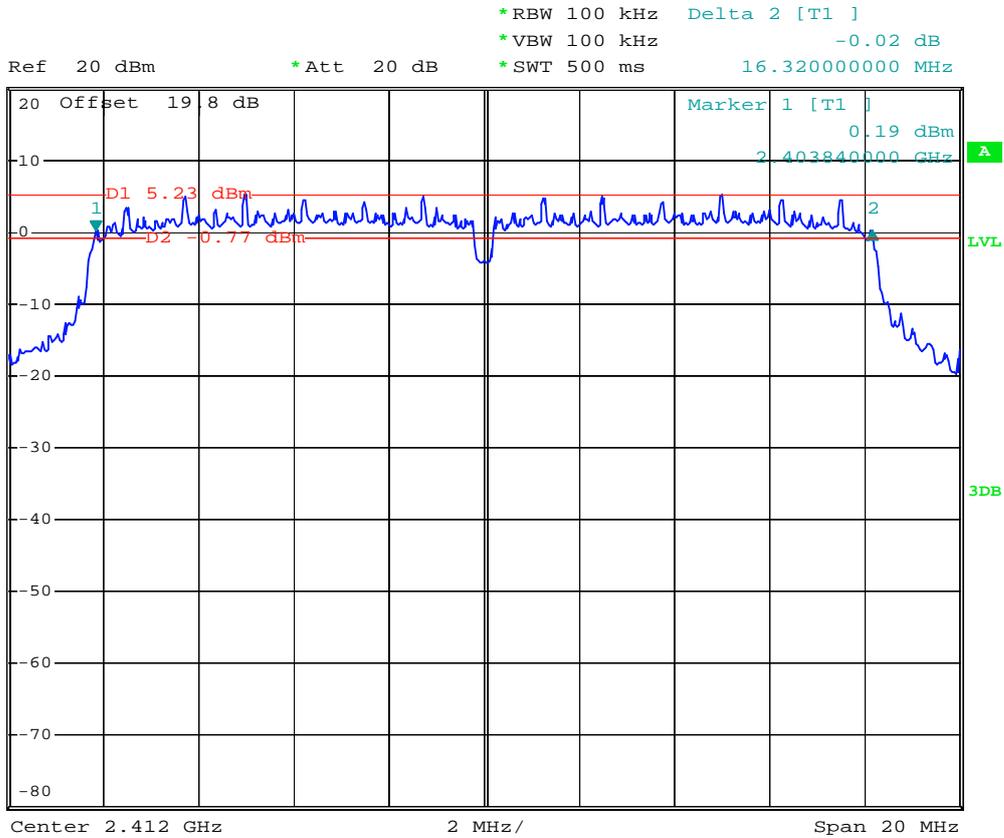


Ref 20 dBm *Att 20 dB *RBW 100 kHz Delta 2 [T1]
 *VBW 100 kHz 0.54 dB
 *SWT 500 ms 11.120000000 MHz



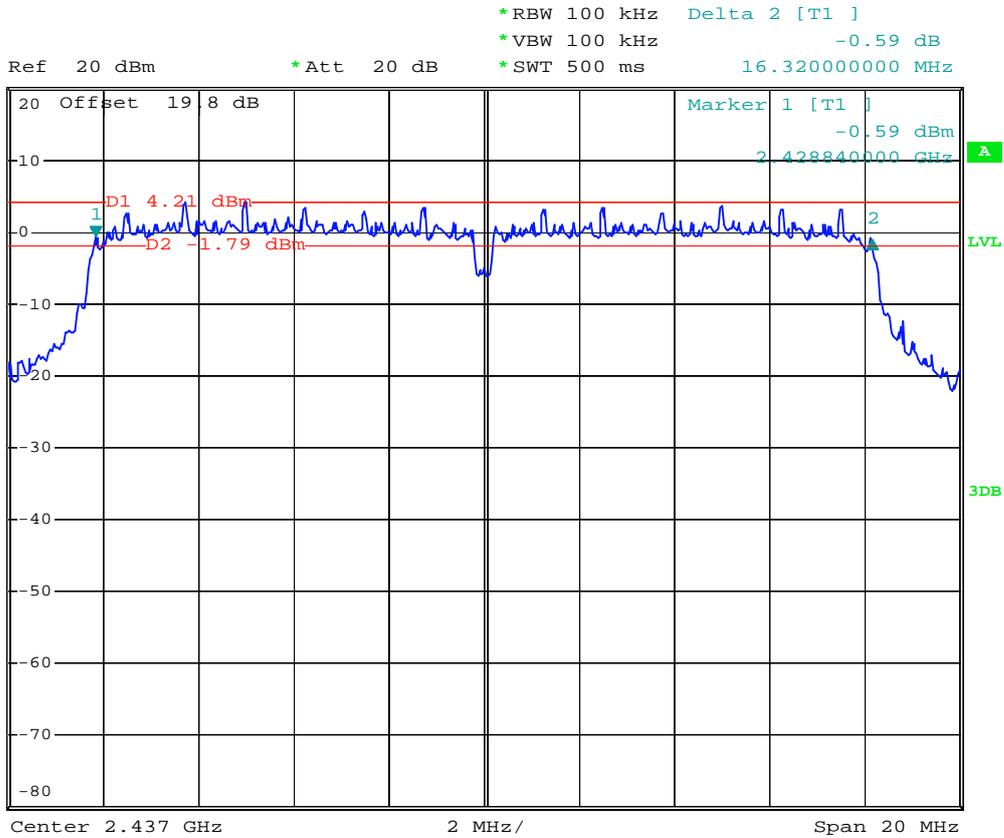
Date: 14.JUN.2008 01:33:29

Mode 4



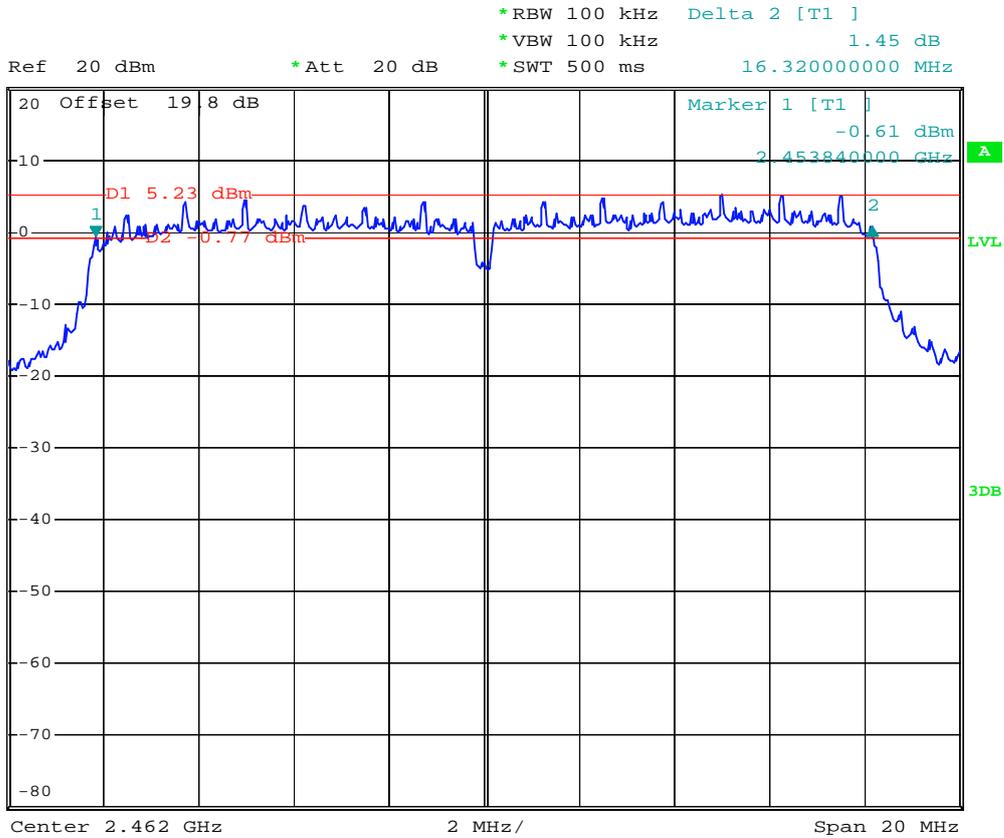
Date: 14.JUN.2008 02:41:52

Mode 5



Date: 14.JUN.2008 02:42:44

Mode 6



Date: 14.JUN.2008 02:43:36

5.3 Power Spectral Density Measurement

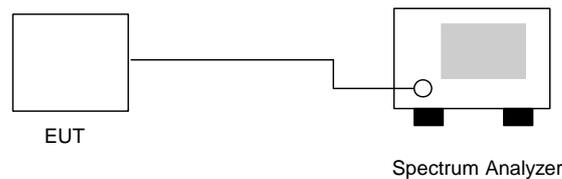
5.3.1 Measuring Instruments

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 : 29~30°C
- Relative Humidity : 50~51%
- Test Enginner : C.K.C.

802.11b

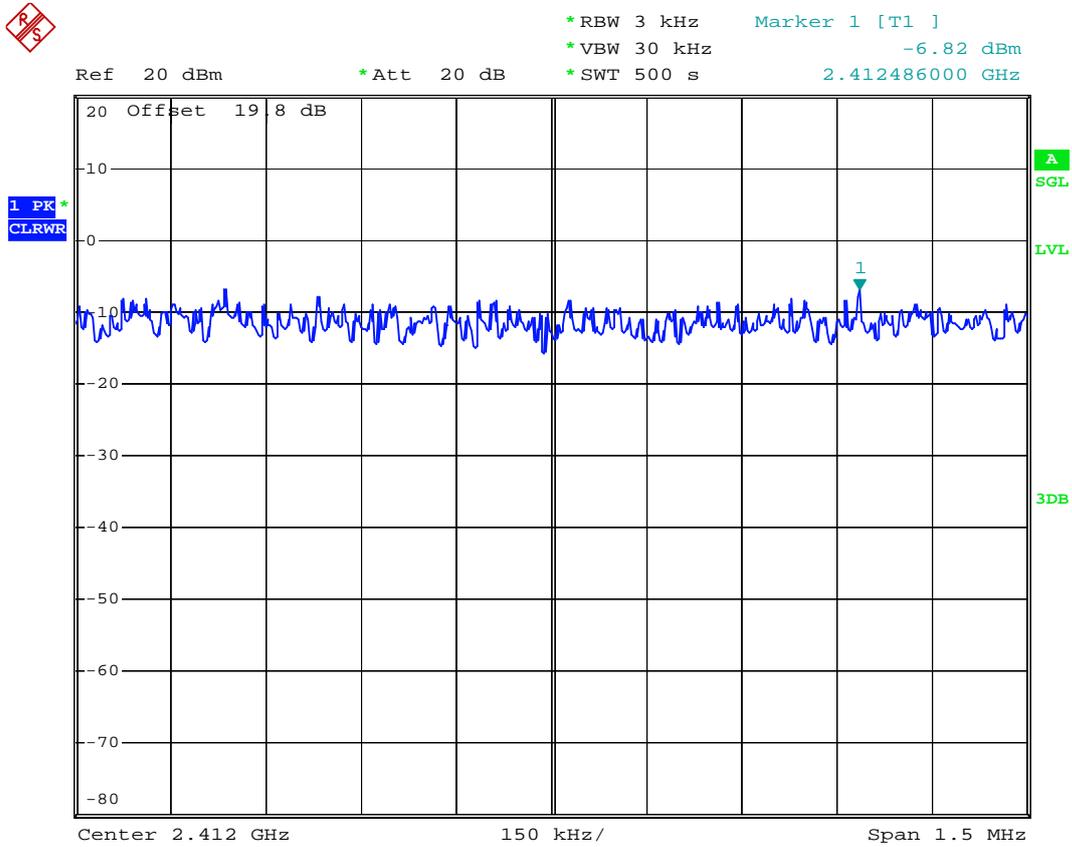
Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-6.82	8	Mode 1
06	2437	-8.16	8	Mode 2
11	2462	-7.34	8	Mode 3

802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-7.59	8	Mode 4
06	2437	-8.84	8	Mode 5
11	2462	-8.20	8	Mode 6

5.3.5 Power Spectral Density

Mode 1



Date: 14.JUN.2008 01:50:51

Mode 2

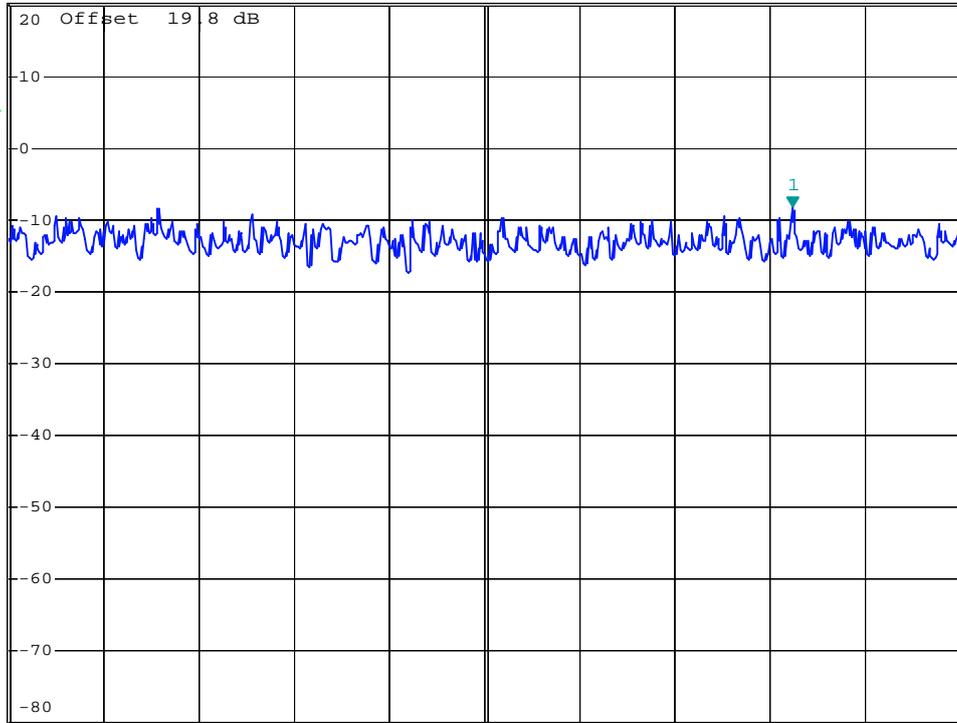


*RBW 3 kHz Marker 1 [T1]
 *VBW 30 kHz -8.16 dBm
 *SWT 500 s 2.437486000 GHz

Ref 20 dBm

*Att 20 dB

1 PK*
 CLRWR



Date: 14.JUN.2008 01:59:46

Mode 3

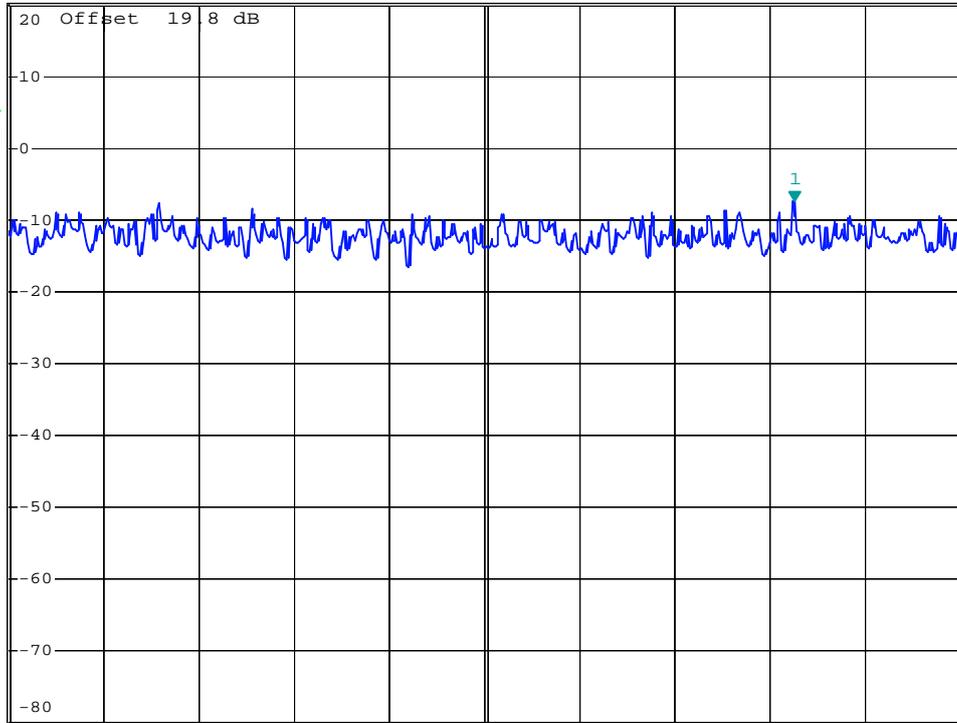


*RBW 3 kHz Marker 1 [T1]
 *VBW 30 kHz -7.34 dBm
 *SWT 500 s 2.462489000 GHz

Ref 20 dBm

*Att 20 dB

1 PK*
 CLRWR



Date: 14.JUN.2008 02:08:37

Mode 4

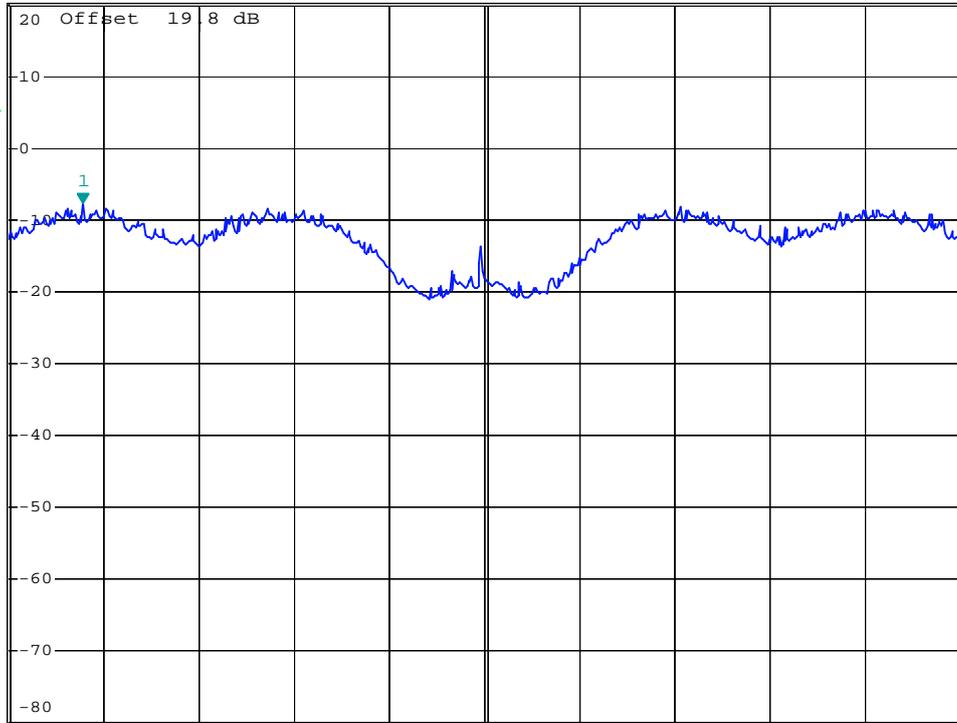


*RBW 3 kHz Marker 1 [T1]
 *VBW 30 kHz -7.59 dBm
 *SWT 500 s 2.411367000 GHz

Ref 20 dBm

*Att 20 dB

1 PK*
 CLRWR



Date: 14.JUN.2008 02:40:26

Mode 5

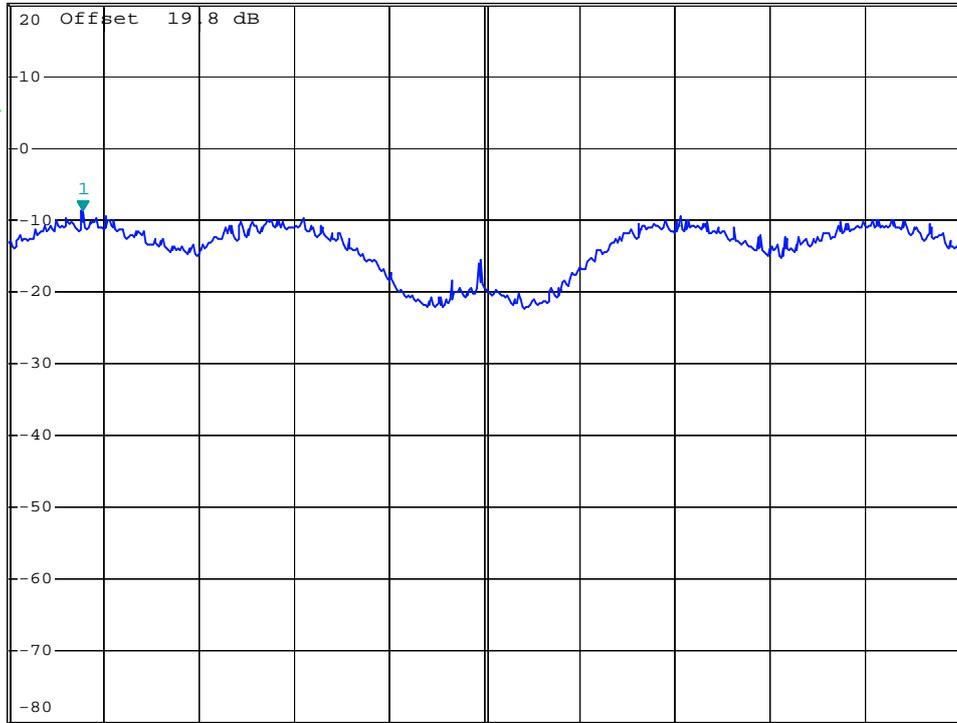


*RBW 3 kHz Marker 1 [T1]
 *VBW 30 kHz -8.84 dBm
 *SWT 500 s 2.436367000 GHz

Ref 20 dBm

*Att 20 dB

1 PK*
 CLRWR



Date: 14.JUN.2008 02:27:06

Mode 6

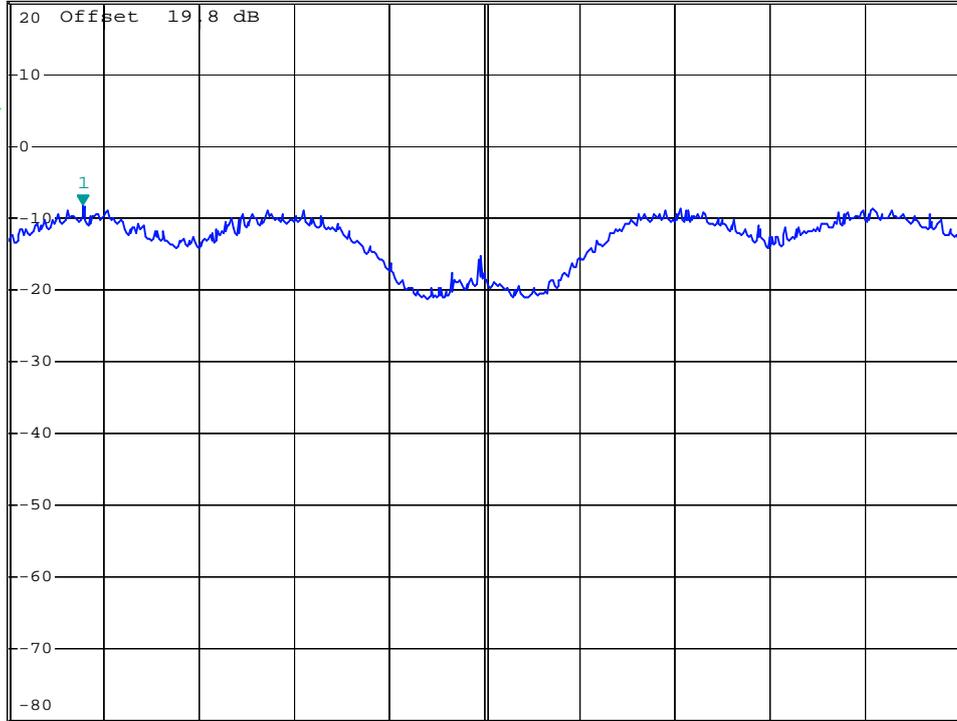


*RBW 3 kHz Marker 1 [T1]
 *VBW 30 kHz -8.20 dBm
 *SWT 500 s 2.461367000 GHz

Ref 20 dBm

*Att 20 dB

1 PK*
 CLRWR



Date: 14.JUN.2008 02:18:06

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 100 KHz 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 : 29~30°C
- Relative Humidity : 50~51%
- Test Enginner : C.K.C.

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
2384.10	49.06	-24.94	74.00	48.96	31.86	3.92	35.68	100	0	Peak
2384.10	36.48	-17.52	54.00	36.40	31.83	3.92	35.68	100	55	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
2389.61	45.98	-28.02	74.00	45.88	31.86	3.92	35.68	100	0	Peak
2389.61	33.90	-20.10	54.00	33.80	31.86	3.92	35.68	103	124	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
2488.98	49.01	-24.99	74.00	48.68	31.98	4.05	35.70	100	0	Peak
2488.98	34.86	-19.14	54.00	34.51	32.00	4.05	35.70	100	51	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	48.57	-25.43	74.00	48.24	31.98	4.05	35.70	100	0	Peak
2462.00	93.62	39.62	54.00	93.34	31.95	4.02	35.69	107	8	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
2389.99	74.62	-2.38	74.00	71.52	31.86	3.92	35.68	100	0	Peak
2389.99	50.14	-3.86	54.00	50.04	31.86	3.92	35.68	100	56	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
2389.99	38.25	-5.72	74.00	38.18	31.86	3.92	35.68	100	0	Peak
2389.99	47.28	-6.72	54.00	47.18	31.86	3.92	35.68	100	126	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	70.16	-3.84	74.00	69.83	31.98	4.05	35.70	100	0	Peak
2483.50	49.08	-4.92	54.00	48.72	31.98	4.05	35.70	100	50	Average

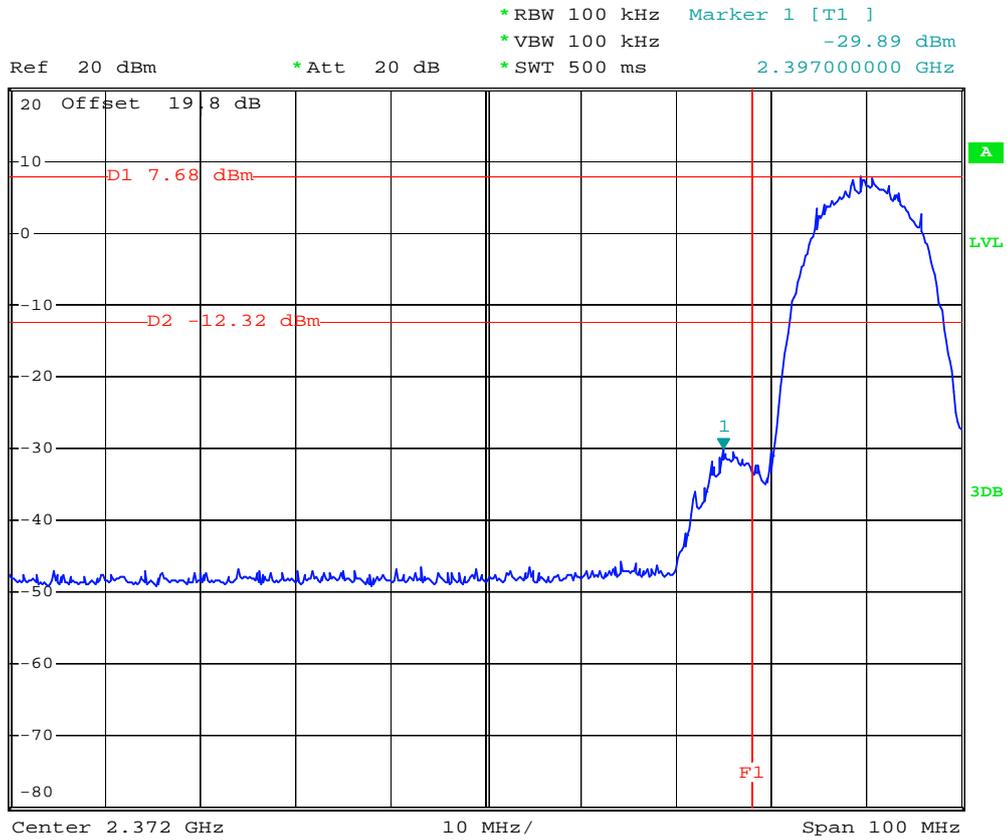
CH11 (Vertical)

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
2483.50	68.18	-5.82	74.00	67.85	31.98	4.05	35.70	100	0	Peak
2483.50	47.90	-6.10	54.00	47.57	31.98	4.05	35.70	108	9	Average

5.4.5 20dB Band Edge

WLAN 802.11b

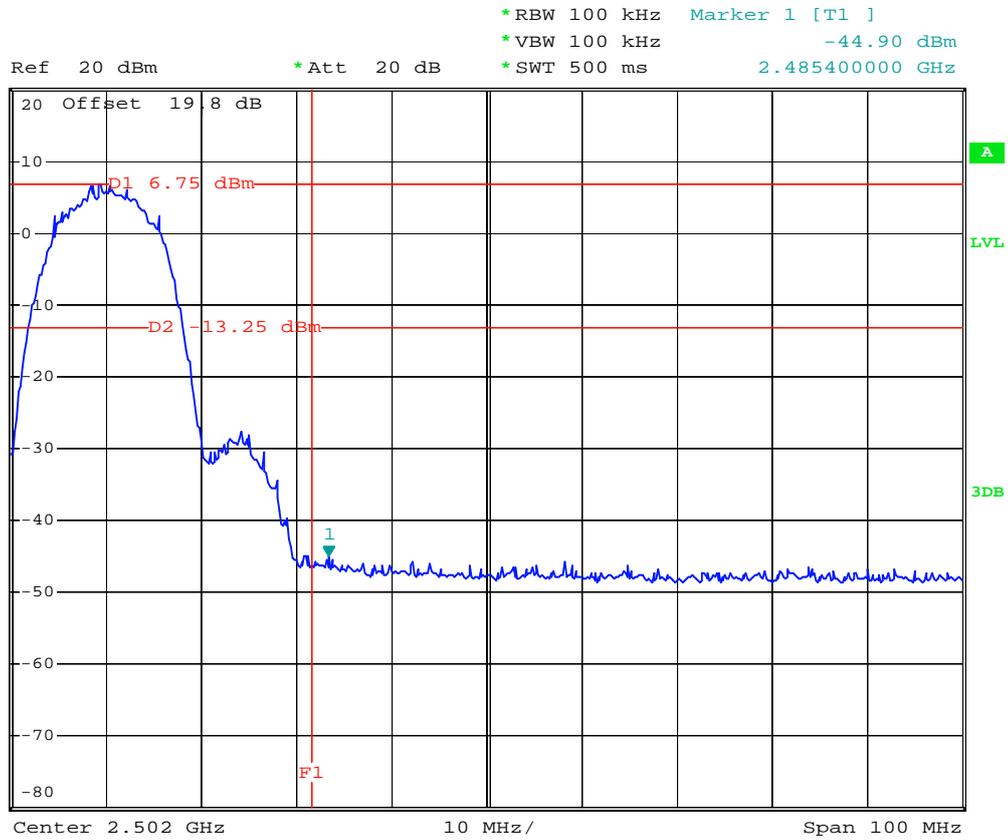
CH01



Date: 14.JUN.2008 01:40:02

WLAN 802.11b

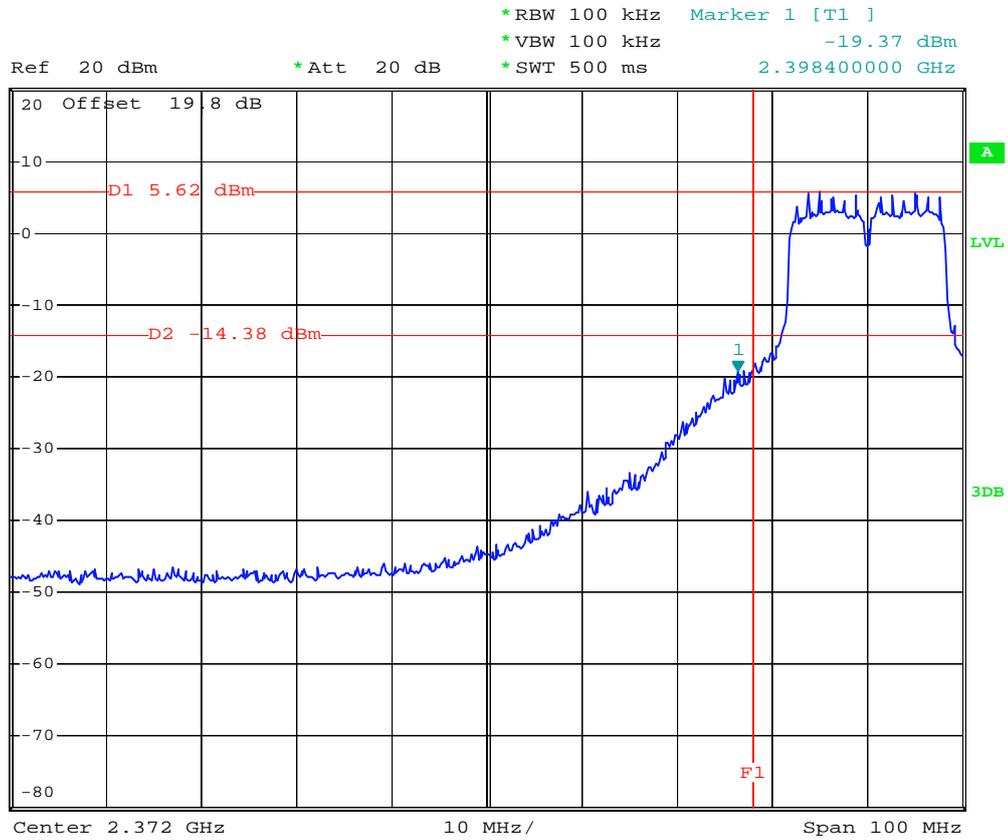
CH11



Date: 14.JUN.2008 01:38:56

WLAN 802.11g

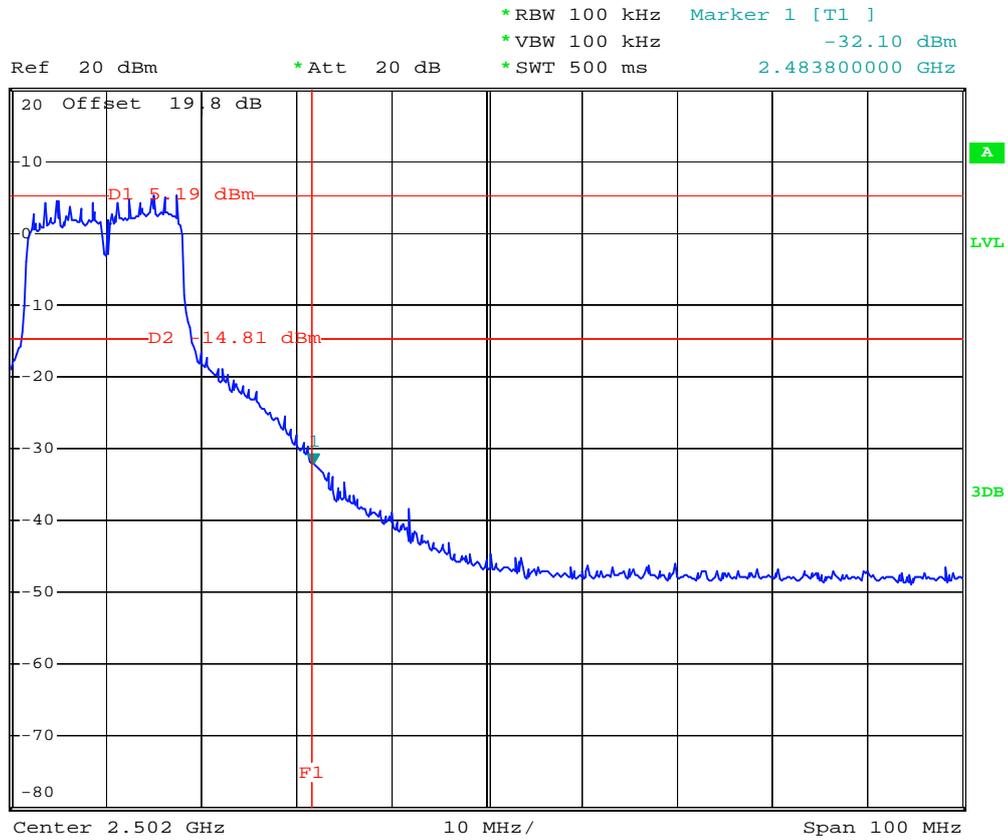
CH01



Date: 14.JUN.2008 02:46:09

WLAN 802.11g

CH11



Date: 14.JUN.2008 02:44:48

5.5 Peak Output Power Measurement

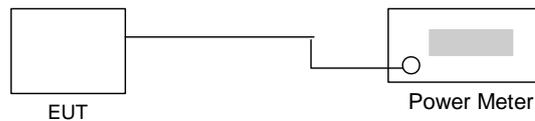
5.5.1 Measuring Instruments

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 3 MHz. 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 : 29~30°C
- Relative Humidity : 50~51%
- Test Enginner : C.K.C.

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	18.77	1W/30 dBm
06	2437	17.18	1W/30 dBm
11	2462	17.89	1W/30 dBm

WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	22.35	1W/30 dBm
06	2437	21.35	1W/30 dBm
11	2462	22.11	1W/30 dBm

5.6 Conducted Emission

5.6.1 Measuring Instruments

As described in chapter 6 of this test Report.

The receiver setting :

150 KHz ~ 30 MHz	Detector : Quasi – Peak and Average Bandwidth : 9 KHz
------------------	--

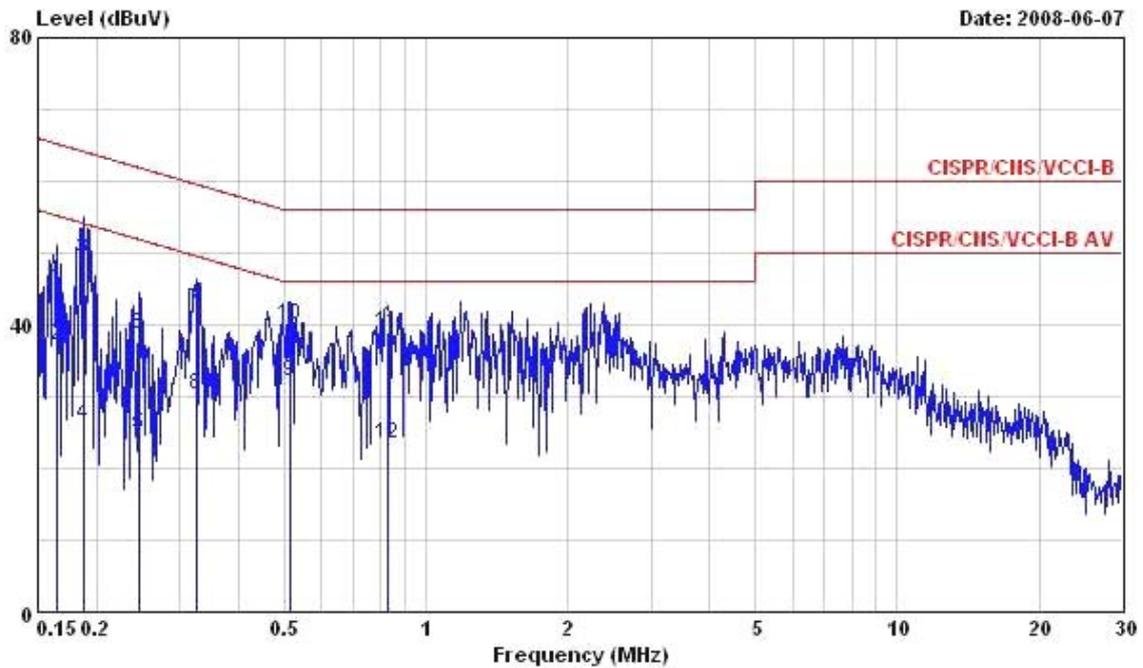
5.6.2 Test Procedures

1. 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.
2. Connect EUT to the power port of a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

5.6.3 Test Data

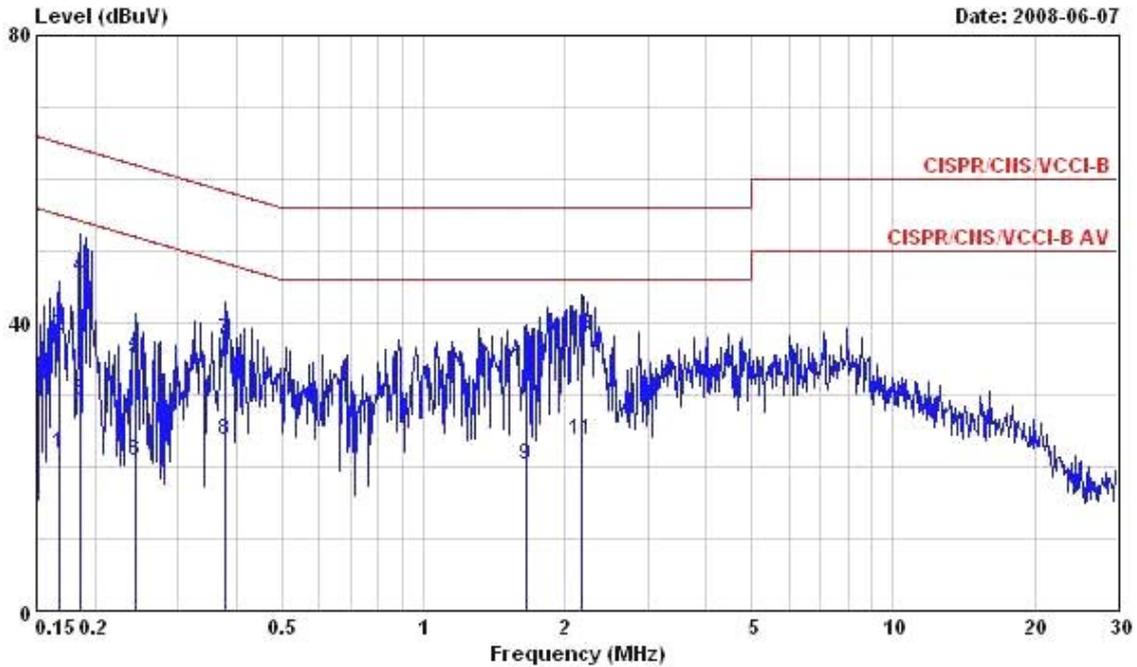
- Temperature : 29~30°C
- Relative Humidity : 50~51%
- Test Enginner : Darren
- Test Mode : Mode 1

■ 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 2008 0416 99041 LINE
 EUT : Samrt Phone
 POWER: 120V/60Hz
 Model : (FR) 830418-01
 Memo : Model
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.1641380	45.10	-20.15	65.25	44.98	0.09	0.03	QP
2	0.1641380	37.09	-18.16	55.25	36.97	0.09	0.03	Average
3	0.1873850	49.15	-15.00	64.15	49.04	0.09	0.02	QP
4	0.1873850	25.94	-28.21	54.15	25.83	0.09	0.02	Average
5	0.2455200	24.77	-27.14	51.91	24.65	0.09	0.03	Average
6	0.2455200	38.61	-23.30	61.91	38.49	0.09	0.03	QP
7	0.3268460	42.04	-17.49	59.53	41.89	0.10	0.05	QP
8	0.3268460	30.29	-19.24	49.53	30.14	0.10	0.05	Average
9	0.5155030	32.12	-13.88	46.00	31.97	0.10	0.05	Average
10	0.5155030	40.03	-15.97	56.00	39.88	0.10	0.05	QP
11	0.8304700	38.92	-17.08	56.00	38.78	0.11	0.03	QP
12	0.8304700	23.55	-22.45	46.00	23.41	0.11	0.03	Average

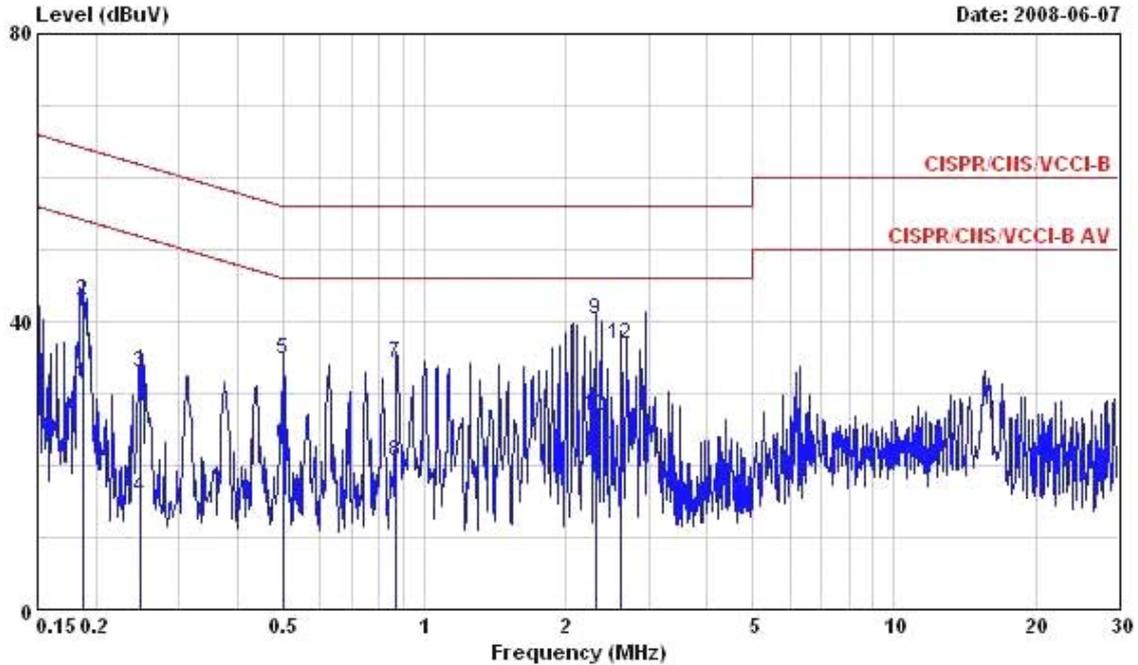


Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 NEUTRAL
 EUT : Samrt Phone
 POWER: 120V/60Hz
 Model : (FR) 830418-01
 Memo : Model
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.1685440	21.96	-33.07	55.03	21.86	0.08	0.02	Average
2	0.1685440	38.25	-26.78	65.03	38.15	0.08	0.02	QP
3	0.1863950	29.08	-25.12	54.20	28.98	0.08	0.02	Average
4	0.1863950	46.22	-17.98	64.20	46.12	0.08	0.02	QP
5	0.2429320	35.09	-26.91	62.00	34.98	0.08	0.03	QP
6	0.2429320	20.79	-31.21	52.00	20.68	0.08	0.03	Average
7	0.3791160	37.70	-20.60	58.30	37.55	0.09	0.06	QP
8	0.3791160	23.79	-24.51	48.30	23.64	0.09	0.06	Average
9	1.660	20.20	-25.80	46.00	20.05	0.12	0.03	Average
10	1.660	33.95	-22.05	56.00	33.80	0.12	0.03	QP
11	2.170	23.56	-22.44	46.00	23.40	0.12	0.04	Average
12	2.170	38.37	-17.63	56.00	38.21	0.12	0.04	QP

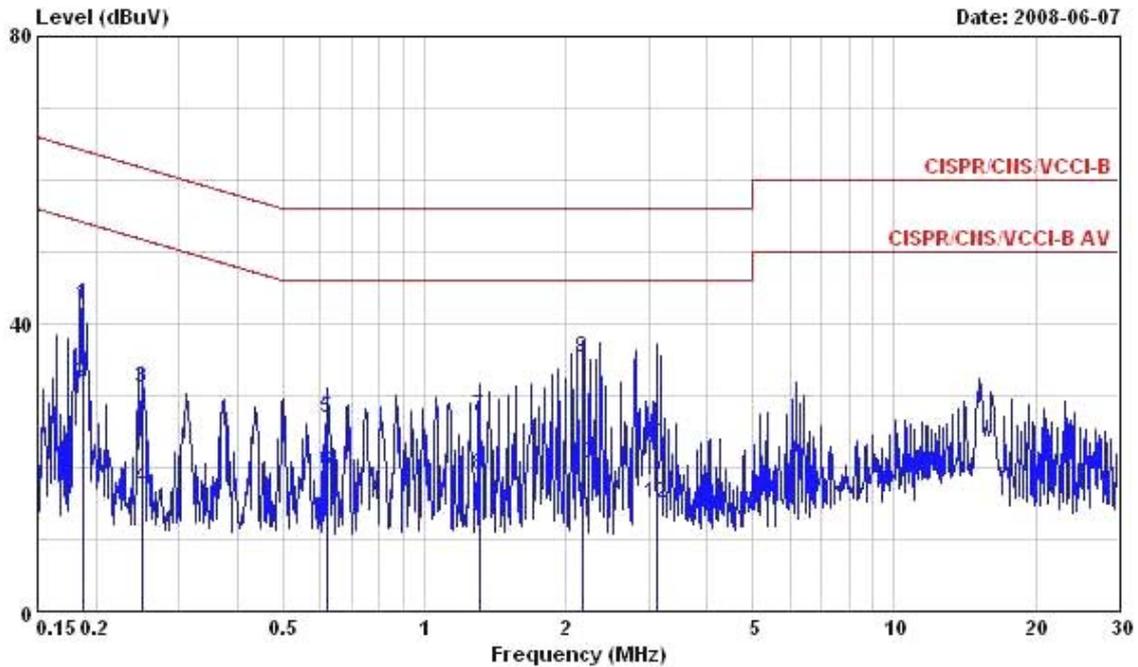
- Temperature : 29~30°C
- Relative Humidity : 50~51%
- Test Engineer : Darren
- Test Mode : Mode 2

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



Site : C004-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 LINE
 EUT : Samrt Phone
 POWER: 120V/60Hz
 Model : (FR) 830418-01
 Memo : Mode2
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1873850	31.34	-22.81	54.15	31.23	0.09	0.02	Average
2	0.1873850	42.86	-21.29	64.15	42.75	0.09	0.02	QP
3	0.2481360	33.03	-28.79	61.82	32.91	0.09	0.03	QP
4	0.2481360	15.41	-36.41	51.82	15.29	0.09	0.03	Average
5	0.4993730	34.75	-21.26	56.01	34.60	0.10	0.05	QP
6	0.4993730	22.95	-23.06	46.01	22.80	0.10	0.05	Average
7	0.8710300	34.15	-21.85	56.00	34.01	0.11	0.03	QP
8	0.8710300	20.48	-25.52	46.00	20.34	0.11	0.03	Average
9	2.310	40.20	-15.80	56.00	40.01	0.14	0.05	QP
10	2.310	26.75	-19.25	46.00	26.56	0.14	0.05	Average
11	2.620	21.57	-24.43	46.00	21.37	0.15	0.05	Average
12	2.620	36.96	-19.04	56.00	36.76	0.15	0.05	QP

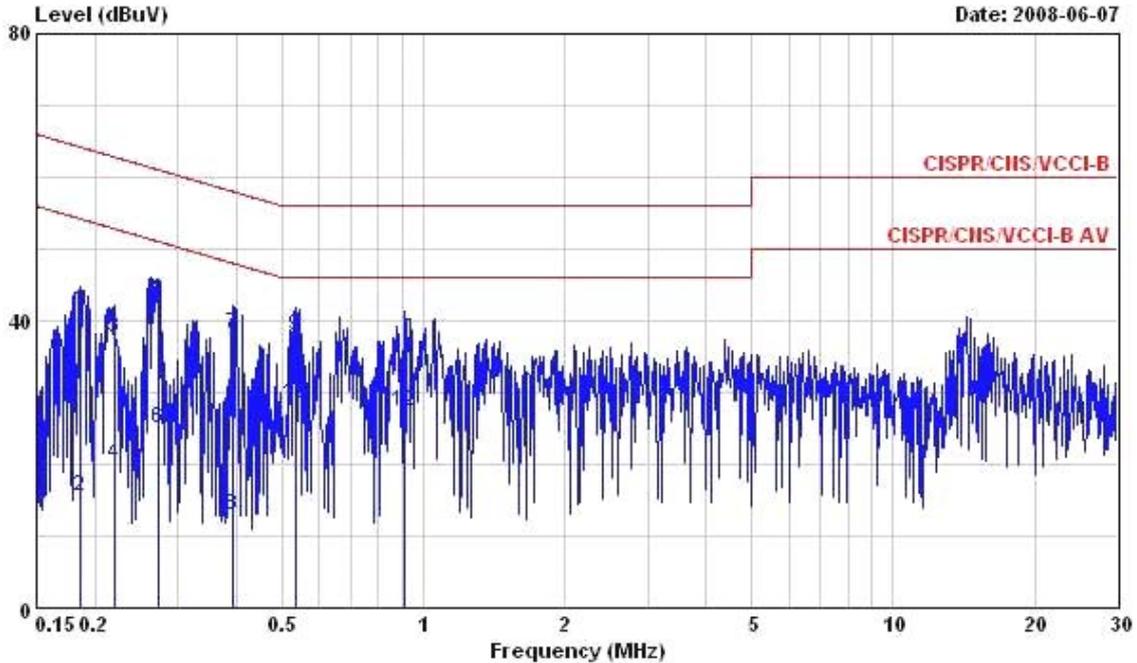


Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 NEUTRAL
 EUT : Samrt Phone
 POWER: 120V/60Hz
 Model : (FR) 830418-01
 Memo : Mode2
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1873850	42.59	-21.56	64.15	42.49	0.08	0.02	QP
2	0.1873850	31.93	-22.22	54.15	31.83	0.08	0.02	Average
3	0.2507790	30.97	-30.76	61.73	30.86	0.08	0.03	QP
4	0.2507790	17.05	-34.68	51.73	16.94	0.08	0.03	Average
5	0.6205370	26.93	-29.07	56.00	26.79	0.10	0.04	QP
6	0.6205370	19.47	-26.53	46.00	19.33	0.10	0.04	Average
7	1.310	27.16	-28.84	56.00	27.02	0.11	0.03	QP
8	1.310	18.94	-27.06	46.00	18.80	0.11	0.03	Average
9	2.180	35.18	-20.82	56.00	35.02	0.12	0.04	QP
10	2.180	20.61	-25.39	46.00	20.45	0.12	0.04	Average
11	3.120	23.33	-32.67	56.00	23.13	0.14	0.06	QP
12	3.120	14.91	-31.09	46.00	14.71	0.14	0.06	Average

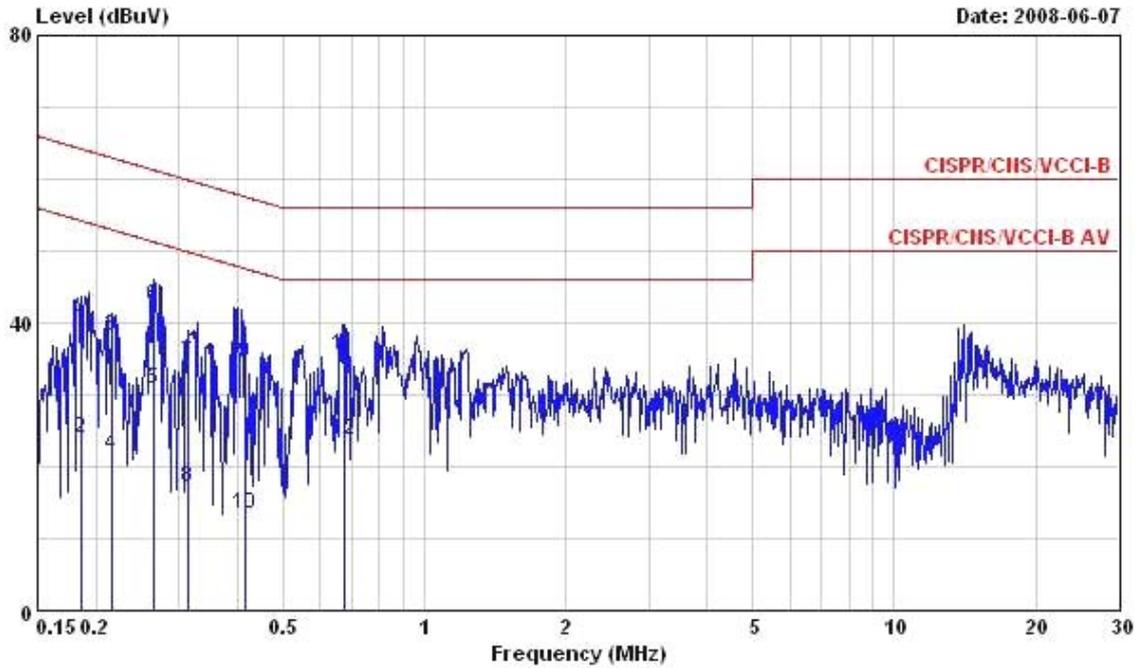
- Temperature : 29~30°C
- Relative Humidity : 50~51%
- Test Engineer : Darren
- Test Mode : Mode 3

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



Site : CO04-HY
 Condition : CISPR/CNS/VCCL-B LISN 2008 0416 99041 LINE
 EUT : Samrt Phone
 POWER: 120V/60Hz
 Model : (FR) 830418-01
 Memo : Mode3
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1854100	41.23	-23.01	64.24	41.12	0.09	0.02	QP
2	0.1854100	15.60	-38.64	54.24	15.49	0.09	0.02	Average
3	0.2196670	37.54	-25.29	62.83	37.42	0.09	0.03	QP
4	0.2196670	20.03	-32.80	52.83	19.91	0.09	0.03	Average
5	0.2729650	42.59	-18.44	61.03	42.46	0.09	0.04	QP
6	0.2729650	25.06	-25.97	51.03	24.93	0.09	0.04	Average
7	0.3934400	38.27	-19.72	57.99	38.11	0.10	0.06	QP
8	0.3934400	12.80	-35.19	47.99	12.64	0.10	0.06	Average
9	0.5349810	37.98	-18.02	56.00	37.83	0.10	0.05	QP
10	0.5349810	28.38	-17.62	46.00	28.23	0.10	0.05	Average
11	0.9135710	34.65	-21.35	56.00	34.52	0.11	0.02	QP
12	0.9135710	27.32	-18.68	46.00	27.19	0.11	0.02	Average

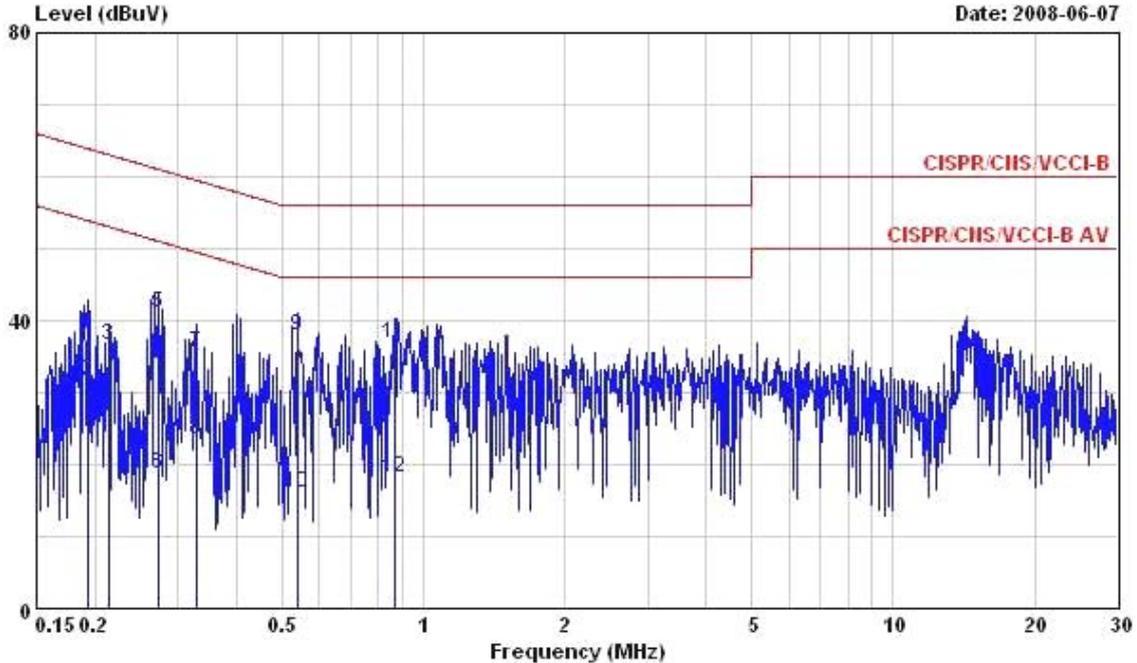


Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 NEUTRAL
 EUT : Samrt Phone
 POWER: 120V/60Hz
 Model : (FR) 830418-01
 Memo : Mode3
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1854100	39.28	-24.96	64.24	39.18	0.08	0.02	QP
2	0.1854100	23.93	-30.31	54.24	23.83	0.08	0.02	Average
3	0.2162030	38.26	-24.70	62.96	38.16	0.08	0.02	QP
4	0.2162030	21.58	-31.38	52.96	21.48	0.08	0.02	Average
5	0.2658290	30.87	-20.38	51.25	30.75	0.08	0.04	Average
6	0.2658290	42.47	-18.78	61.25	42.35	0.08	0.04	QP
7	0.3149460	34.40	-25.44	59.84	34.26	0.09	0.05	QP
8	0.3149460	17.04	-32.80	49.84	16.90	0.09	0.05	Average
9	0.4148480	34.37	-23.18	57.55	34.22	0.09	0.06	QP
10	0.4148480	13.43	-34.12	47.55	13.28	0.09	0.06	Average
11	0.6754350	35.53	-20.47	56.00	35.39	0.10	0.04	QP
12	0.6754350	23.56	-22.44	46.00	23.42	0.10	0.04	Average

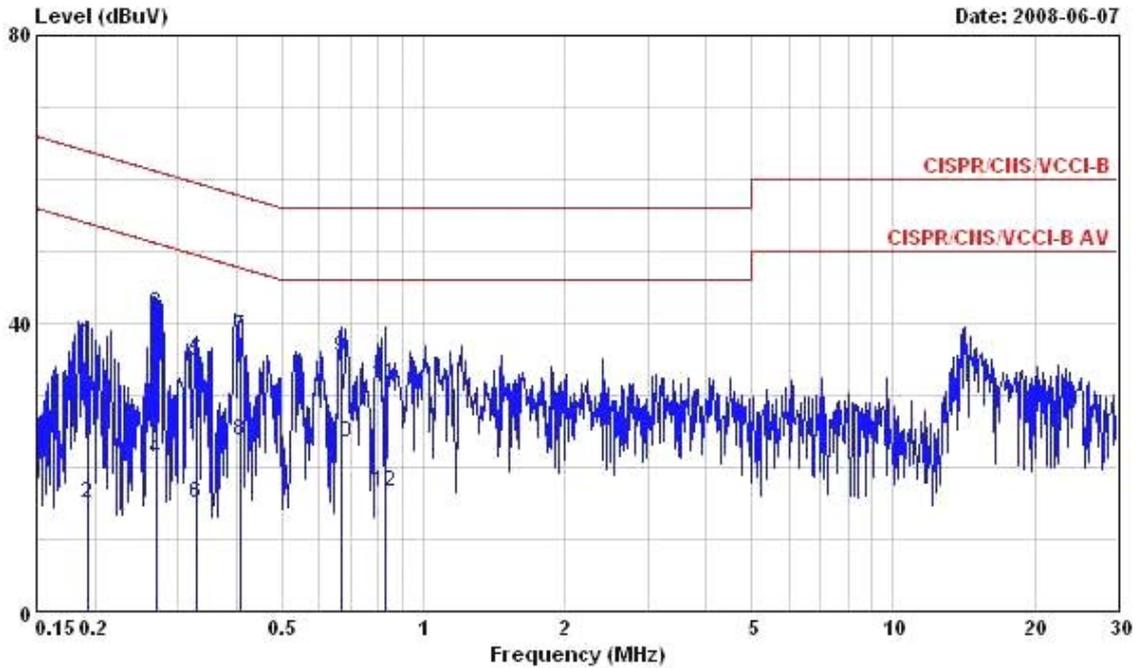
- Temperature : 29~30°C
- Relative Humidity : 50~51%
- Test Engineer : Darren
- Test Mode : Mode 4

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



Site : C004-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 LINE
 EUT : Samrt Phone
 POWER: 120V/60Hz
 Model : (FR) 830418-01
 Memo : Mode4
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1924150	38.17	-25.76	63.93	38.06	0.09	0.02	QP
2	0.1924150	31.69	-22.24	53.93	31.58	0.09	0.02	Average
3	0.2139240	36.61	-26.44	63.05	36.50	0.09	0.02	QP
4	0.2139240	29.58	-23.47	53.05	29.47	0.09	0.02	Average
5	0.2715230	41.06	-20.01	61.07	40.93	0.09	0.04	QP
6	0.2715230	18.72	-32.35	51.07	18.59	0.09	0.04	Average
7	0.3285820	35.49	-24.00	59.49	35.34	0.10	0.05	QP
8	0.3285820	23.50	-25.99	49.49	23.35	0.10	0.05	Average
9	0.5378230	38.00	-18.00	56.00	37.85	0.10	0.05	QP
10	0.5378230	15.95	-30.05	46.00	15.80	0.10	0.05	Average
11	0.8710300	36.75	-19.25	56.00	36.61	0.11	0.03	QP
12	0.8710300	18.17	-27.83	46.00	18.03	0.11	0.03	Average

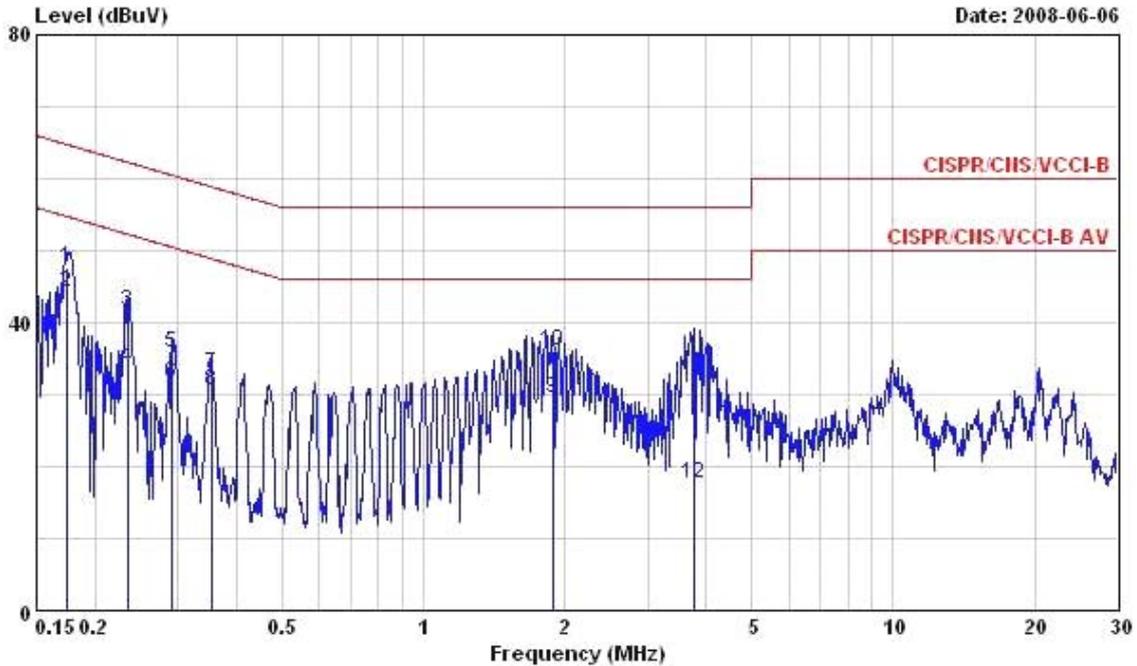


Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 NEUTRAL
 EUT : Samrt Phone
 POWER: 120V/60Hz
 Model : (FR) 830418-01
 Memo : Mode4
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1934380	37.02	-26.87	63.89	36.92	0.08	0.02	QP
2	0.1934380	14.97	-38.92	53.89	14.87	0.08	0.02	Average
3	0.2700880	41.33	-19.79	61.12	41.21	0.08	0.04	QP
4	0.2700880	21.08	-30.04	51.12	20.96	0.08	0.04	Average
5	0.3285820	34.80	-24.69	59.49	34.66	0.09	0.05	QP
6	0.3285820	15.01	-34.48	49.49	14.87	0.09	0.05	Average
7	0.4061490	38.15	-19.58	57.73	38.00	0.09	0.06	QP
8	0.4061490	23.61	-24.12	47.73	23.46	0.09	0.06	Average
9	0.6683160	35.25	-20.75	56.00	35.11	0.10	0.04	QP
10	0.6683160	23.32	-22.68	46.00	23.18	0.10	0.04	Average
11	0.8304700	31.49	-24.51	56.00	31.35	0.11	0.03	QP
12	0.8304700	16.51	-29.49	46.00	16.37	0.11	0.03	Average

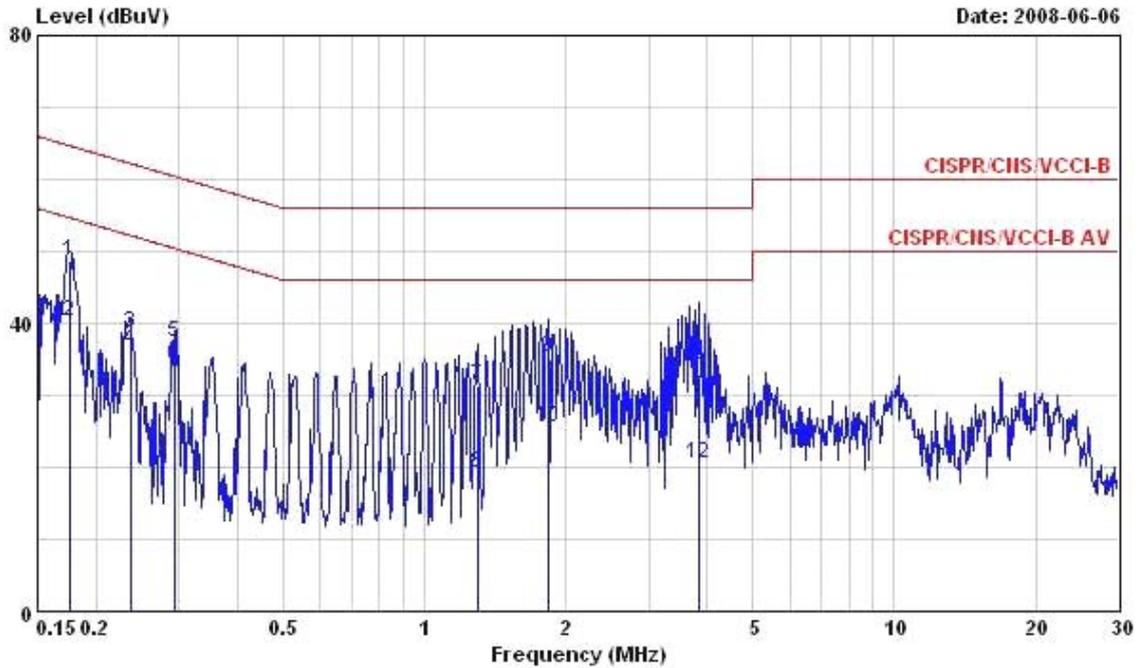
- Temperature : 29~30°C
- Relative Humidity : 50~51%
- Test Engineer : Darren
- Test Mode : Mode 5

■ 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 2008 0416 99041 LINE
 EUT : Samrt Phone
 POWER: From Notebook
 Model : (FR) 830418-01
 Memo : Mode5
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.1739880	47.75	-17.02	64.77	47.64	0.09	0.02	QP
2	0.1739880	44.20	-10.57	54.77	44.09	0.09	0.02	Average
3	0.2353310	41.46	-20.80	62.26	41.34	0.09	0.03	QP
4	0.2353310	33.67	-18.59	52.26	33.55	0.09	0.03	Average
5	0.2908840	35.68	-24.82	60.50	35.54	0.10	0.04	QP
6	0.2908840	31.60	-18.90	50.50	31.46	0.10	0.04	Average
7	0.3538820	32.78	-26.09	58.87	32.63	0.10	0.05	QP
8	0.3538820	30.40	-18.47	48.87	30.25	0.10	0.05	Average
9	1.880	29.38	-16.62	46.00	29.21	0.13	0.04	Average
10	1.880	36.00	-20.00	56.00	35.83	0.13	0.04	QP
11	3.760	31.79	-24.21	56.00	31.55	0.17	0.07	QP
12	3.760	17.75	-28.25	46.00	17.51	0.17	0.07	Average

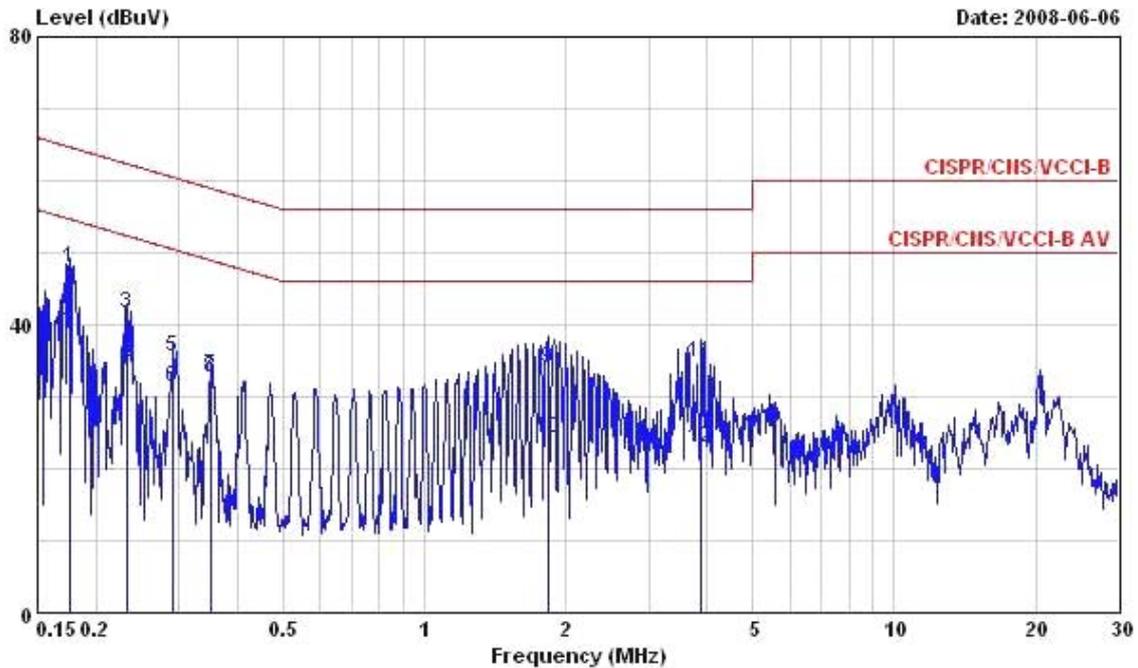


Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 NEUTRAL
 EUT : Samrt Phone
 POWER: From Notebook
 Model : (FR) 830418-01
 Memo : Mode5
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1758420	48.72	-15.96	64.68	48.62	0.08	0.02	QP
2	0.1758420	40.18	-14.50	54.68	40.08	0.08	0.02	Average
3	0.2365810	38.67	-23.55	62.22	38.56	0.08	0.03	QP
4	0.2365810	36.25	-15.97	52.22	36.14	0.08	0.03	Average
5	0.2939830	37.32	-23.09	60.41	37.19	0.09	0.04	QP
6	0.2939830	34.12	-16.29	50.41	33.99	0.09	0.04	Average
7	1.300	31.34	-24.66	56.00	31.20	0.11	0.03	QP
8	1.300	19.27	-26.73	46.00	19.13	0.11	0.03	Average
9	1.830	35.29	-20.71	56.00	35.13	0.12	0.04	QP
10	1.830	25.42	-20.58	46.00	25.26	0.12	0.04	Average
11	3.840	32.79	-23.21	56.00	32.57	0.15	0.07	QP
12	3.840	20.66	-25.34	46.00	20.44	0.15	0.07	Average

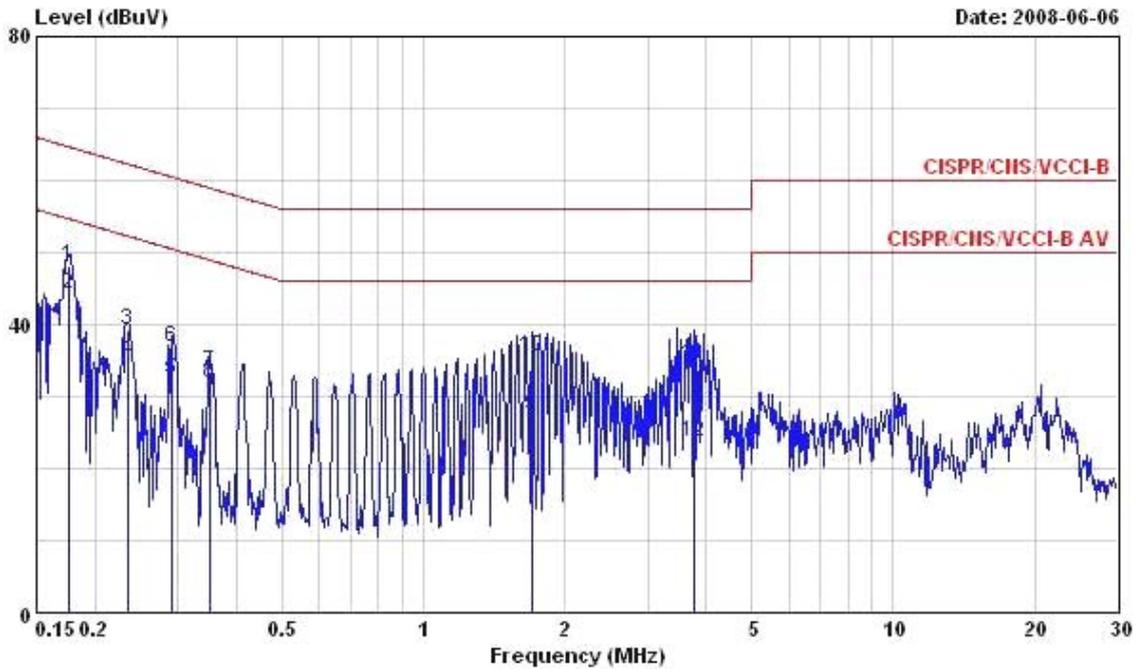
- Temperature : 29~30°C
- Relative Humidity : 50~51%
- Test Engineer : Darren
- Test Mode : Mode 6

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



Site : C004-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 LINE
 EUT : Samrt Phone
 POWER: From Notebook
 Model : (FR) 830418-01
 Memo : Mode6
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over	Limit	Read	LISN	Cable	
	MHz	dBuV	Limit	Line	Level	Factor	Loss	Remark
			dB	dBuV	dBuV	dB	dB	
1	0.1758420	48.00	-16.68	64.68	47.89	0.09	0.02	QP
2	0.1758420	40.50	-14.18	54.68	40.39	0.09	0.02	Average
3	0.2328500	41.45	-20.90	62.35	41.33	0.09	0.03	QP
4	0.2328500	34.18	-18.17	52.35	34.06	0.09	0.03	Average
5	0.2924290	35.65	-24.81	60.46	35.51	0.10	0.04	QP
6	0.2924290	31.40	-19.06	50.46	31.26	0.10	0.04	Average
7	0.3520120	33.00	-25.91	58.91	32.85	0.10	0.05	QP
8	0.3520120	32.60	-16.31	48.91	32.45	0.10	0.05	Average
9	1.830	34.05	-21.95	56.00	33.88	0.13	0.04	QP
10	1.830	24.09	-21.91	46.00	23.92	0.13	0.04	Average
11	3.880	34.80	-21.20	56.00	34.56	0.17	0.07	QP
12	3.880	22.85	-23.15	46.00	22.61	0.17	0.07	Average

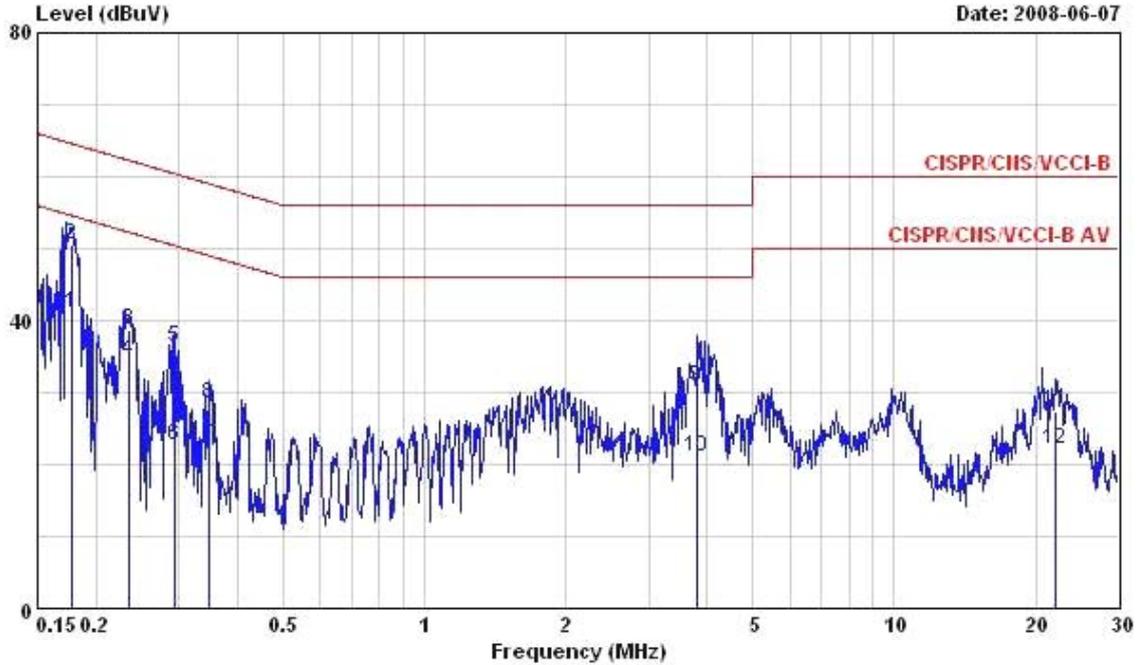


Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 NEUTRAL
 EUT : Samrt Phone
 POWER: From Notebook
 Model : (FR) 830418-01
 Memo : Mode6
 IMEI : 35835301006684401
 SAMPLE : A

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.1758420	48.28	-16.40	64.68	48.18	0.08	0.02	QP
2	@0.1758420	44.30	-10.38	54.68	44.20	0.08	0.02	Average
3	0.2340870	39.17	-23.13	62.30	39.06	0.08	0.03	QP
4	0.2340870	34.97	-17.33	52.30	34.86	0.08	0.03	Average
5	0.2924290	32.49	-17.97	50.46	32.36	0.09	0.04	Average
6	0.2924290	36.94	-23.52	60.46	36.81	0.09	0.04	QP
7	0.3501520	33.33	-25.63	58.96	33.19	0.09	0.05	QP
8	0.3501520	31.92	-17.04	48.96	31.78	0.09	0.05	Average
9	1.710	27.32	-18.68	46.00	27.16	0.12	0.04	Average
10	1.710	35.45	-20.55	56.00	35.29	0.12	0.04	QP
11	3.758	34.43	-21.57	56.00	34.21	0.15	0.07	QP
12	3.758	23.56	-22.44	46.00	23.34	0.15	0.07	Average

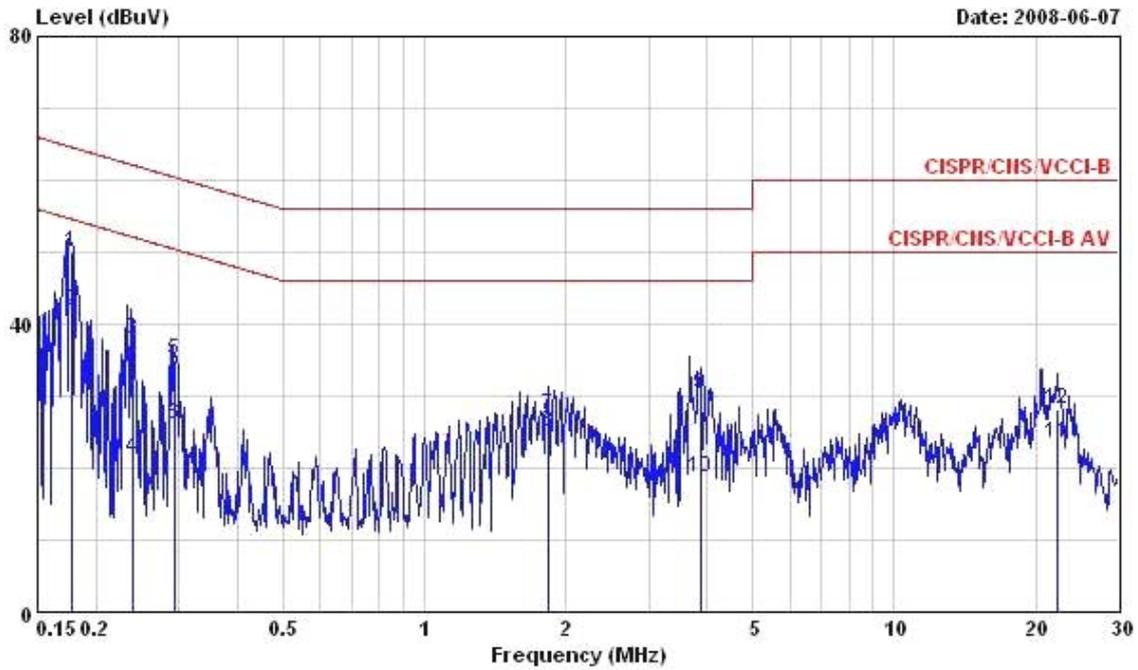
- Temperature : 29~30°C
- Relative Humidity : 50~51%
- Test Engineer : Darren
- Test Mode : Mode 7

■ 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 2008 0416 99041 LINE
 EUT : Samrt Phone
 POWER: From Notebook
 Model : (FR) 830418-01
 Memo : Mode7
 IMEI : 358353010066893
 SAMPLE : B

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1777150	41.00	-13.59	54.59	40.89	0.09	0.02	Average
2	0.1777150	50.41	-14.18	64.59	50.30	0.09	0.02	QP
3	0.2353310	38.78	-23.48	62.26	38.66	0.09	0.03	QP
4	0.2353310	34.56	-17.70	52.26	34.44	0.09	0.03	Average
5	0.2939830	36.21	-24.20	60.41	36.07	0.10	0.04	QP
6	0.2939830	22.51	-27.90	50.41	22.37	0.10	0.04	Average
7	0.3464610	22.51	-26.54	49.05	22.36	0.10	0.05	Average
8	0.3464610	28.33	-30.72	59.05	28.18	0.10	0.05	QP
9	3.820	30.73	-25.27	56.00	30.49	0.17	0.07	QP
10	3.820	21.10	-24.90	46.00	20.86	0.17	0.07	Average
11	21.950	27.26	-32.74	60.00	26.77	0.45	0.04	QP
12	21.950	22.06	-27.94	50.00	21.57	0.45	0.04	Average



Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 2008 0416 99041 LINE
 EUT : Samrt Phone
 POWER: From Notebook
 Model : (FR) 830418-01
 Memo : Mode7
 IMEI : 358353010066893
 SAMPLE : A

	Freq	Level	Over	Limit	Read	LISN	Cable	Remark
	MHz	dBuV	Limit	Line	Level	Factor	Loss	
			dB	dBuV	dBuV	dB	dB	
1	0.1777150	49.97	-14.62	64.59	49.86	0.09	0.02	QP
2	@0.1777150	41.79	-12.80	54.59	41.68	0.09	0.02	Average
3	0.2391010	37.84	-24.29	62.13	37.72	0.09	0.03	QP
4	0.2391010	21.36	-30.77	52.13	21.24	0.09	0.03	Average
5	0.2939830	34.95	-25.46	60.41	34.81	0.10	0.04	QP
6	0.2939830	26.13	-24.28	50.41	25.99	0.10	0.04	Average
7	1.830	27.49	-28.51	56.00	27.32	0.13	0.04	QP
8	1.830	24.92	-21.08	46.00	24.75	0.13	0.04	Average
9	3.860	30.36	-25.64	56.00	30.12	0.17	0.07	QP
10	3.860	18.64	-27.36	46.00	18.40	0.17	0.07	Average
11	22.180	23.43	-26.57	50.00	22.92	0.46	0.05	Average
12	22.180	28.26	-31.74	60.00	27.75	0.46	0.05	QP

5.7 Radiated Emission Measurement

5.7.1 Measuring Instruments

As described in chapter 6 of this Report.

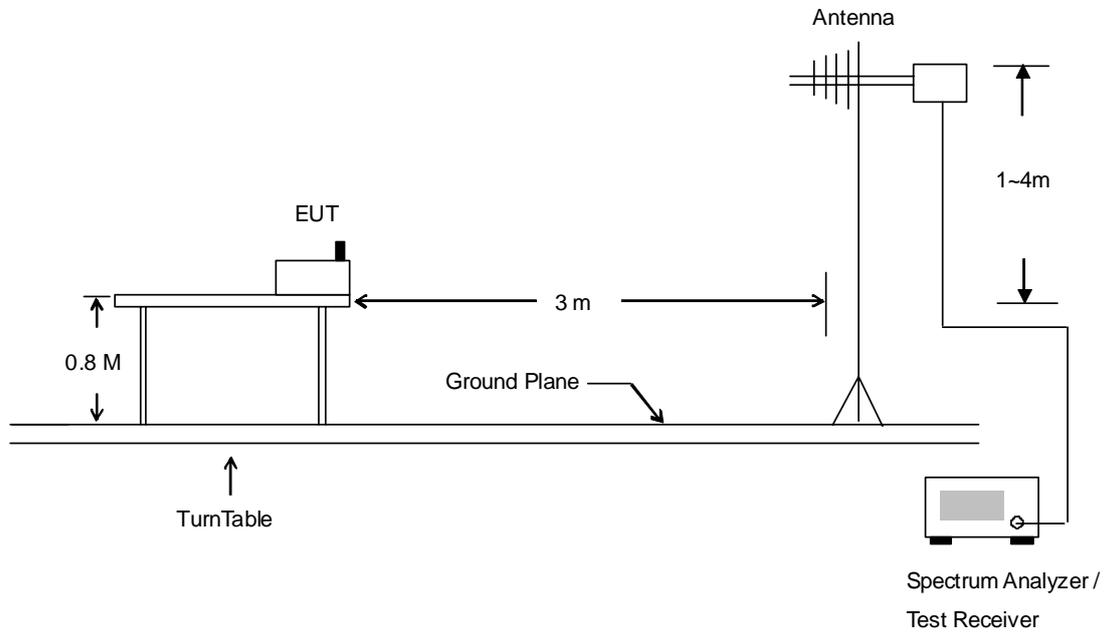
The spectrum analyzer setting :

30 ~ 1000 MHz	Detector : Quasi – Peak Bandwidth : 120 KHz
1 ~ 25 GHz	Detector : Peak and Average Bandwidth : 1 MHz

5.7.2 Test Procedures

1. The EUT was placed on a rotatable table top 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. 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.
5. 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.
6. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
7. 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.
8. 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.

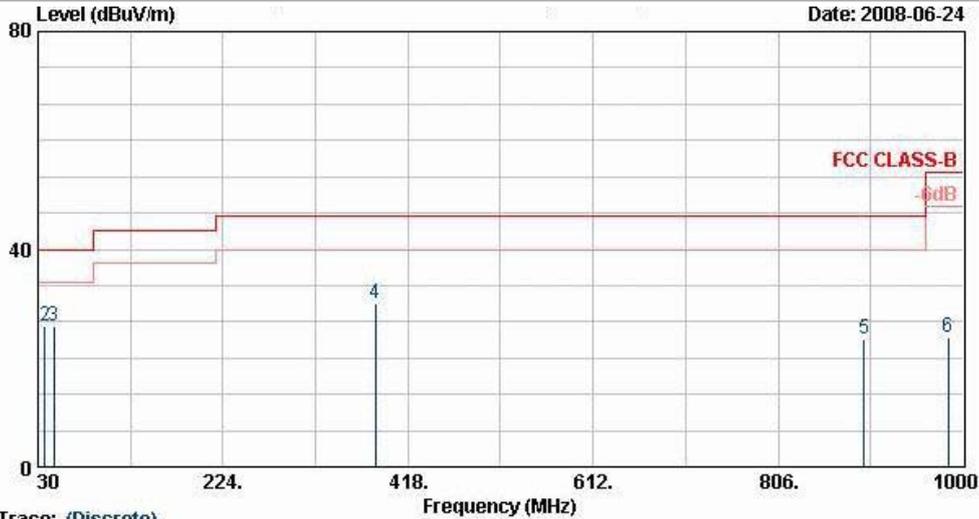
5.7.3 Typical Test Setup Layout of Radiated Emission



5.7.4 Test Data

- Temperature : 21~26°C
- Relating Humidity : 49~57%
- Test Enginner : Sun
- Test Mode : Mode 1
- Polarization : Horizontal (30MHz-1GHz)

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

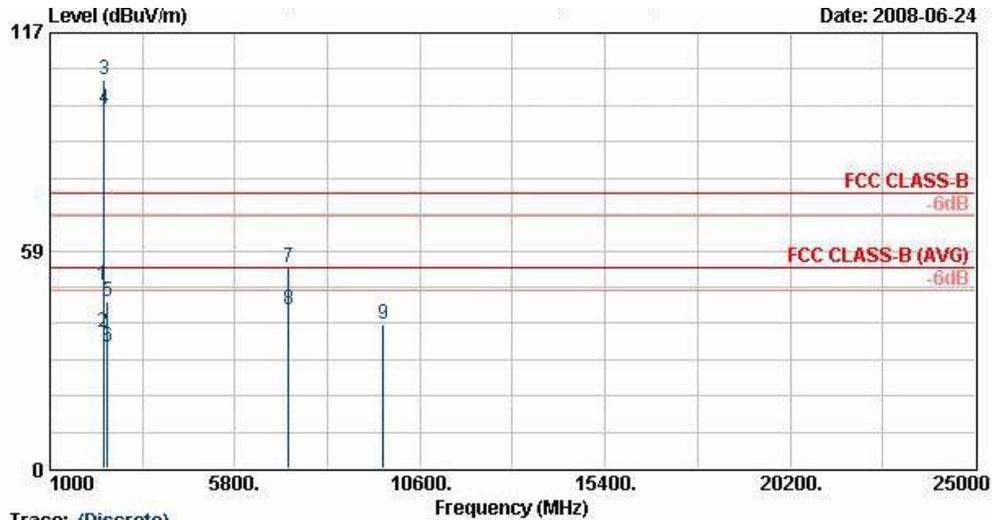


Trace: (Discrete)
 Site : D3CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/YTII)
 : +CSM/CPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 4
 Data Rate : 11
 Plane : H (slide off)
 IMEI : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	22.77	-17.23	40.00	36.31	19.66	0.30	33.50	---	---	Peak
2	37.29	25.88	-14.12	40.00	44.26	14.56	0.30	33.24	100	245	Peak
3	46.74	25.74	-14.26	40.00	48.52	10.04	0.30	33.12	---	---	Peak
4	383.30	29.98	-16.02	46.00	46.86	15.34	0.87	33.10	---	---	Peak
5	896.40	23.64	-22.36	46.00	34.63	20.50	1.30	32.79	---	---	Peak
6	983.90	23.74	-30.26	54.00	33.51	21.12	1.30	32.19	---	---	Peak

- Polarization : Horizontal (1GHz-25GHz)

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



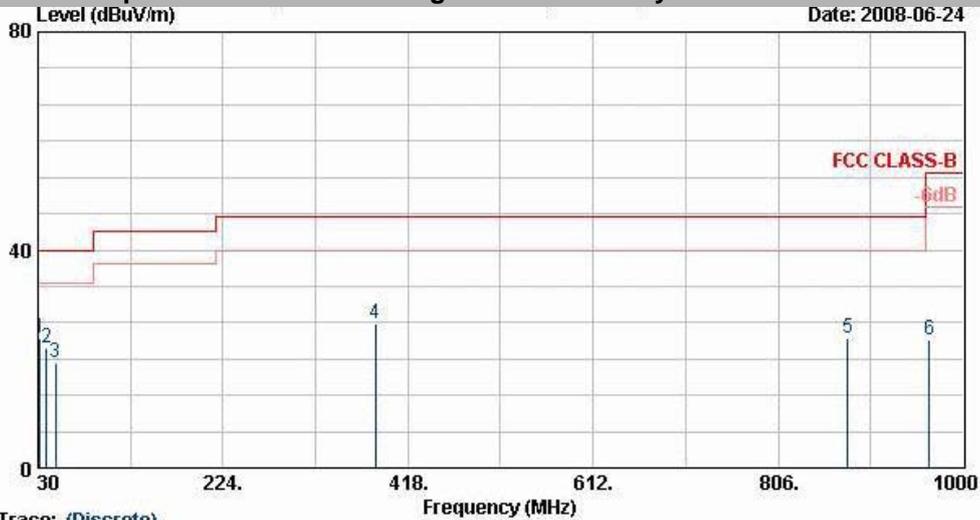
Trace: (Discrete)
 Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 4
 Data Rate : 11
 Plane : H (slide off)
 IMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2384.10	49.06	-24.94	74.00	48.96	31.86	3.92	35.68	100	0	Peak
2	2384.10	36.48	-17.52	54.00	36.40	31.83	3.92	35.68	100	55	Average
3 X	2412.00	104.40			104.25	31.88	3.95	35.68	100	0	Peak
4 @	2412.00	96.67			96.52	31.88	3.95	35.68	100	55	Average
5	2500.00	44.63	-29.37	74.00	44.28	32.00	4.05	35.70	100	0	Peak
6	2500.00	32.57	-21.43	54.00	32.22	32.00	4.05	35.70	100	55	Average
7	7191.00	53.72	-20.28	74.00	46.92	35.72	7.16	36.08	100	0	Peak
8	7191.00	42.61	-11.39	54.00	35.81	35.72	7.16	36.08	100	215	Average
9	9642.00	38.50	-35.50	74.00	77.38	-10.09	7.94	36.73	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.



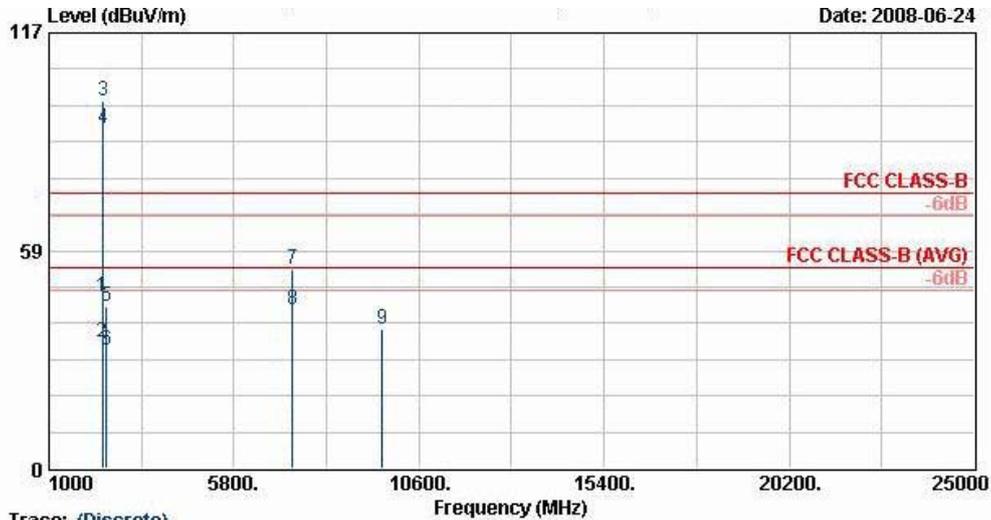
Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(051121) VERTICAL
 EUT : Smart Phone WCDMA(band 1/YT11)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 4
 Data Rate : 11
 Plane : H (slide off)
 TMET : 35835301006688501

Trace: (Discrete)

	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	31.89	23.87	-16.13	40.00	38.74	18.25	0.30	33.42	100	111	Peak
2	39.18	21.94	-18.06	40.00	40.83	14.03	0.30	33.22	---	---	Peak
3	48.63	19.20	-20.80	40.00	42.98	9.06	0.30	33.14	---	---	Peak
4	383.30	26.49	-19.51	46.00	43.38	15.34	0.87	33.10	---	---	Peak
5	878.90	23.79	-22.21	46.00	34.86	20.38	1.30	32.75	---	---	Peak
6	964.30	23.62	-30.38	54.00	33.67	20.98	1.30	32.33	---	---	Peak

- Polarization : Vertical (1GHz-25GHz)

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



Trace: (Discrete)

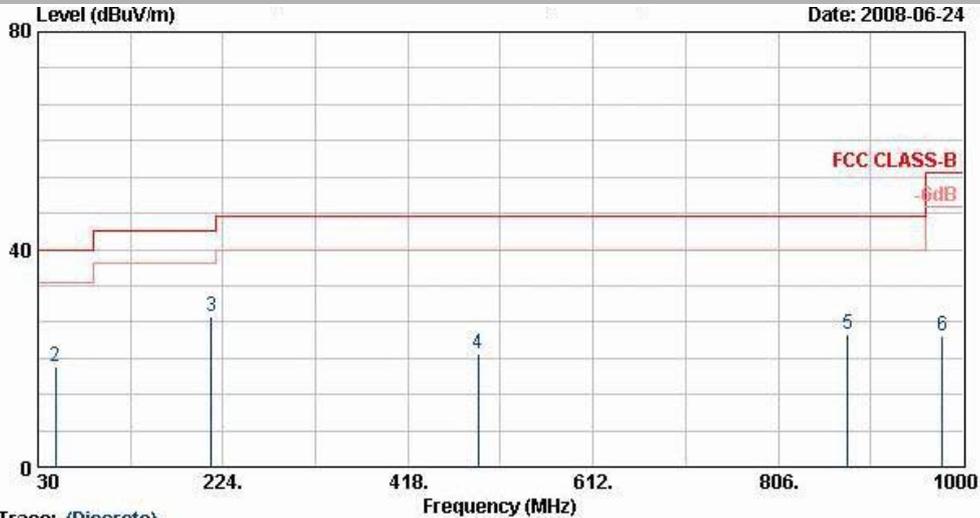
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 + GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 4
 Data Rate : 11
 Plane : H (slide off)
 IMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.61	45.98	-28.02	74.00	45.88	31.86	3.92	35.68	100	0	Peak
2	2389.61	33.90	-20.10	54.00	33.80	31.86	3.92	35.68	103	124	Average
3 X	2412.00	98.73			98.58	31.88	3.95	35.68	100	0	Peak
4 X	2412.00	91.20			91.05	31.88	3.95	35.68	103	124	Average
5	2486.00	43.33	-30.67	74.00	43.00	31.98	4.05	35.70	100	0	Peak
6	2486.00	31.71	-22.29	54.00	31.38	31.98	4.05	35.70	103	124	Average
7	7326.00	53.58	-20.42	74.00	46.83	35.67	7.21	36.13	100	0	Peak
8	7326.00	42.46	-11.54	54.00	35.71	35.67	7.21	36.13	100	154	Average
9	9642.00	37.32	-36.68	74.00	76.20	-10.09	7.94	36.73	100	0	Peak

Remark: #3 and #4 are Fundamental Signals.

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

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

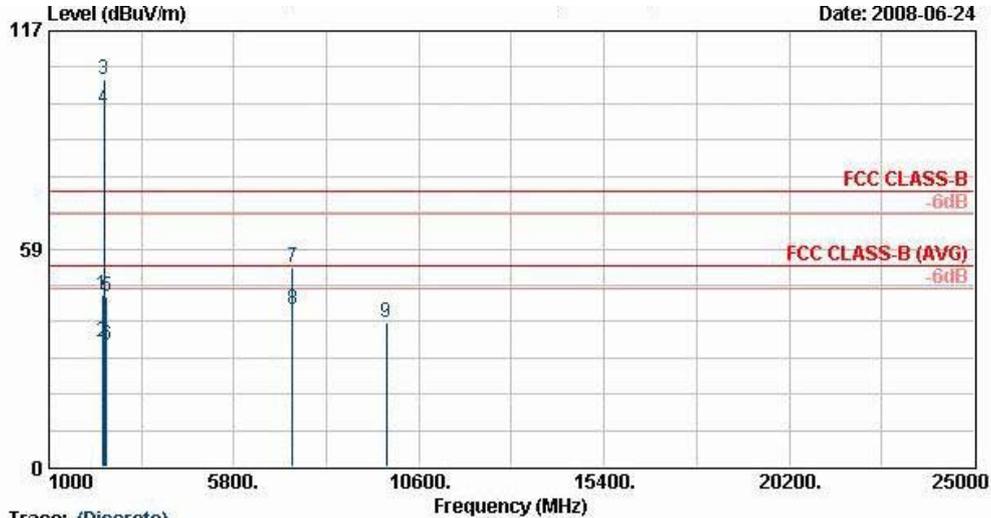


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/YT11)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 5
 Data Rate : 11
 Plane : H (slide off)
 TIME : 35835301006688501

	Freq	Level	Over Limit	Limit Line	Read 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	30.00	22.93	-17.07	40.00	36.47	19.66	0.30	33.50	---	---	Peak
2	48.63	18.32	-21.68	40.00	42.09	9.06	0.30	33.14	---	---	Peak
3	211.44	27.70	-15.80	43.50	50.61	9.99	0.61	33.51	100	287	Peak
4	491.80	20.73	-25.27	46.00	35.85	17.29	0.92	33.32	---	---	Peak
5	878.90	24.51	-21.49	46.00	35.58	20.38	1.30	32.75	---	---	Peak
6	978.30	23.96	-30.04	54.00	33.80	21.09	1.30	32.23	---	---	Peak

• Polarization : Horizontal (1GHz-25GHz)

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



Trace: (Discrete)

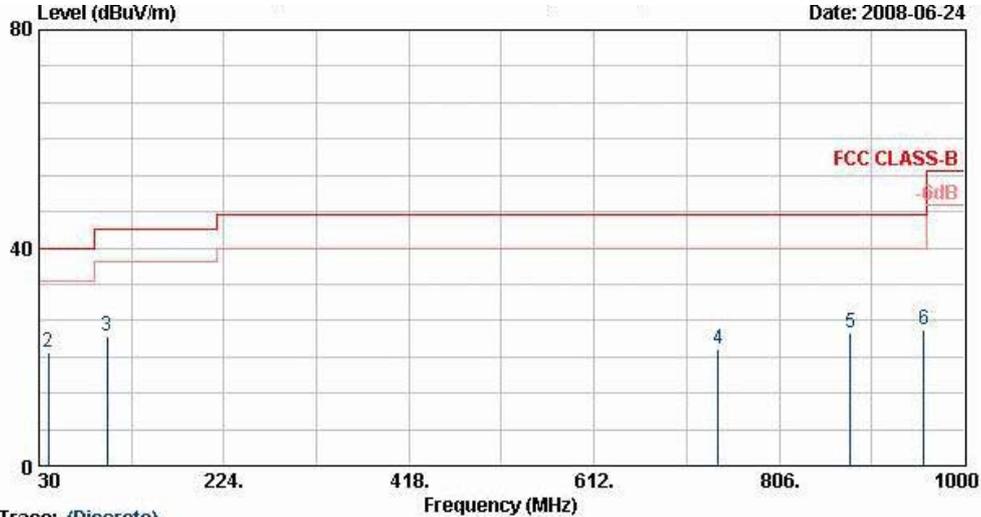
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/YTII)
 : +GSM/CDPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 5
 Data Rate : 11
 Plane : H (slide off)
 IMEI : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2382.00	46.22	-27.78	74.00	46.15	31.83	3.92	35.68	100	0	Peak
2	2382.00	33.34	-20.66	54.00	33.26	31.83	3.92	35.68	101	51	Average
3 X	2437.00	103.93			103.70	31.93	3.99	35.69	100	0	Peak
4 @	2437.00	96.08			95.85	31.93	3.99	35.69	101	51	Average
5	2494.00	45.58	-28.42	74.00	45.23	32.00	4.05	35.70	100	0	Peak
6	2494.00	32.70	-21.30	54.00	32.35	32.00	4.05	35.70	101	51	Average
7	7311.00	53.62	-20.38	74.00	46.86	35.68	7.20	36.12	100	0	Peak
8	7311.00	42.18	-11.82	54.00	35.42	35.68	7.20	36.12	100	113	Average
9	9747.00	38.50	-35.50	74.00	77.11	-9.85	7.98	36.75	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.



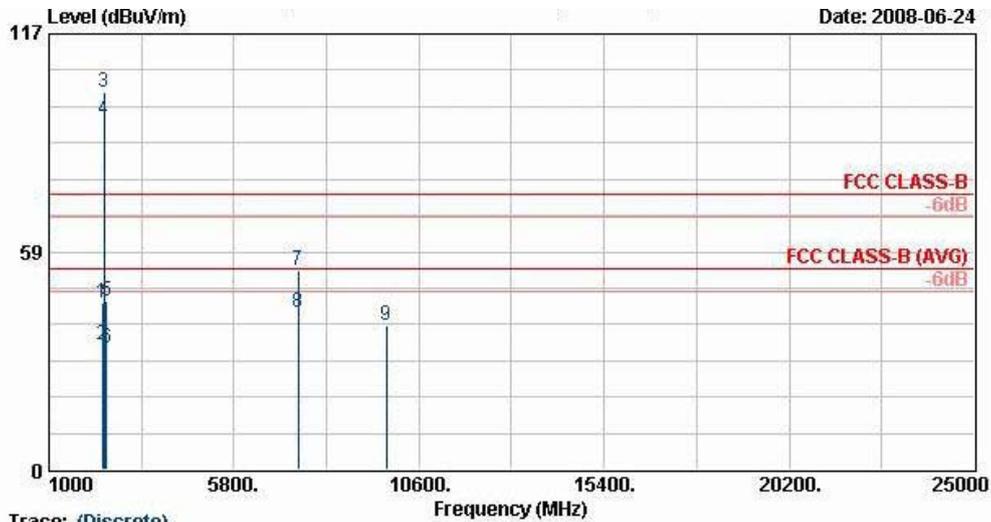
Trace: (Discrete)

Site : D3CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
 EUT : Smart Phone WCDMA(band 1/YTII)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 5
 Data Rate : 11
 Plane : H (slide off)
 TMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.54	23.92	-16.08	40.00	38.13	18.95	0.30	33.46	100	156	Peak
2	39.99	20.96	-19.04	40.00	40.35	13.51	0.30	33.20	---	---	Peak
3	101.28	23.72	-19.78	43.50	45.42	11.07	0.50	33.27	---	---	Peak
4	742.40	21.31	-24.69	46.00	33.85	19.28	1.10	32.92	---	---	Peak
5	880.30	24.46	-21.54	46.00	35.52	20.39	1.30	32.75	---	---	Peak
6	957.30	24.99	-21.01	46.00	35.17	20.94	1.27	32.38	---	---	Peak

- Polarization : Vertical (1GHz-25GHz)

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



Date: 2008-06-24

Trace: (Discrete)

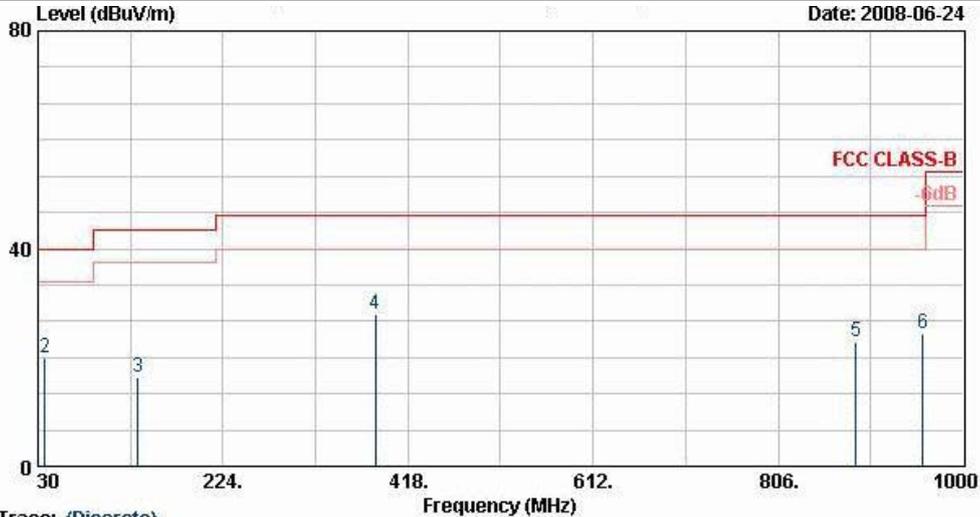
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 + GSM/GPRS/EDGE(850/900/1600/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 5
 Data Rate : 11
 Plane : H (slide off)
 IMET : 35835301006688501

	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	dB	cm	deg	
1	2382.00	45.00	-29.00	74.00	44.93	31.83	3.92	35.68	100	0 Peak
2	2382.00	33.49	-20.51	54.00	33.41	31.83	3.92	35.68	105	7 Average
3 X	2437.00	101.44			101.21	31.93	3.99	35.69	100	0 Peak
4 @	2437.00	94.13			93.90	31.93	3.99	35.69	105	7 Average
5	2484.00	45.31	-28.69	74.00	44.98	31.98	4.05	35.70	100	0 Peak
6	2484.00	32.81	-21.19	54.00	32.48	31.98	4.05	35.70	105	7 Average
7	7461.00	53.43	-20.57	74.00	46.75	35.61	7.25	36.18	100	0 Peak
8	7461.00	42.30	-11.70	54.00	35.61	35.61	7.25	36.18	100	211 Average
9	9747.00	38.52	-35.48	74.00	77.13	-9.85	7.98	36.75	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.

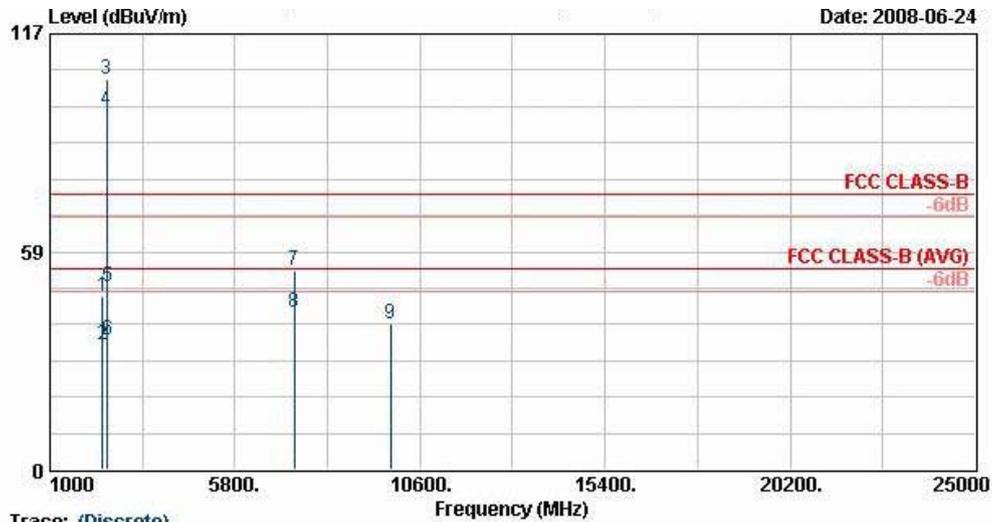


Trace: (Discrete)
 Site : D3CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/YTII)
 : +CSM/CPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 6
 Data Rate : 11
 Plane : H (slide off)
 IMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	22.71	-17.29	40.00	36.25	19.66	0.30	33.50	100	69	Peak
2	37.29	19.78	-20.22	40.00	38.16	14.56	0.30	33.24	---	---	Peak
3	135.03	16.34	-27.16	43.50	38.21	11.05	0.50	33.43	---	---	Peak
4	383.30	27.87	-18.13	46.00	44.76	15.34	0.87	33.10	---	---	Peak
5	887.30	22.91	-23.09	46.00	33.94	20.44	1.30	32.77	---	---	Peak
6	957.30	24.41	-21.59	46.00	34.58	20.94	1.27	32.38	---	---	Peak

- Polarization : Horizontal (1GHz-25GHz)

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



Trace: (Discrete)

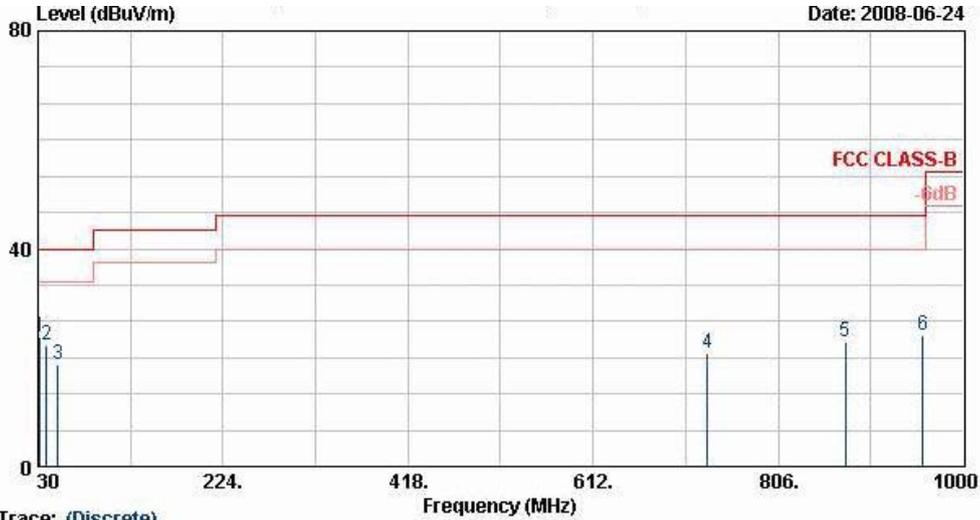
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 + GSM/GPRS/EDGE(850/900/1600/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 6
 Data Rate : 11
 Plane : H (slide off)
 IMET : 35835301006668501

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2366.00	46.51	-27.49	74.00	46.49	31.81	3.89	35.68	100	0 Peak
2	2366.00	33.64	-20.36	54.00	33.62	31.81	3.89	35.68	100	51 Average
3 X	2462.00	104.68			104.41	31.95	4.02	35.69	100	0 Peak
4 @	2462.00	96.48			96.20	31.95	4.02	35.69	100	51 Average
5	2488.98	49.01	-24.99	74.00	48.68	31.98	4.05	35.70	100	0 Peak
6	2488.98	34.86	-19.14	54.00	34.51	32.00	4.05	35.70	100	51 Average
7	7341.00	53.49	-20.51	74.00	46.76	35.66	7.21	36.14	100	0 Peak
8	7341.00	42.19	-11.81	54.00	35.46	35.66	7.21	36.14	100	181 Average
9	9846.00	39.06	-34.94	74.00	77.43	-9.63	8.04	36.77	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.

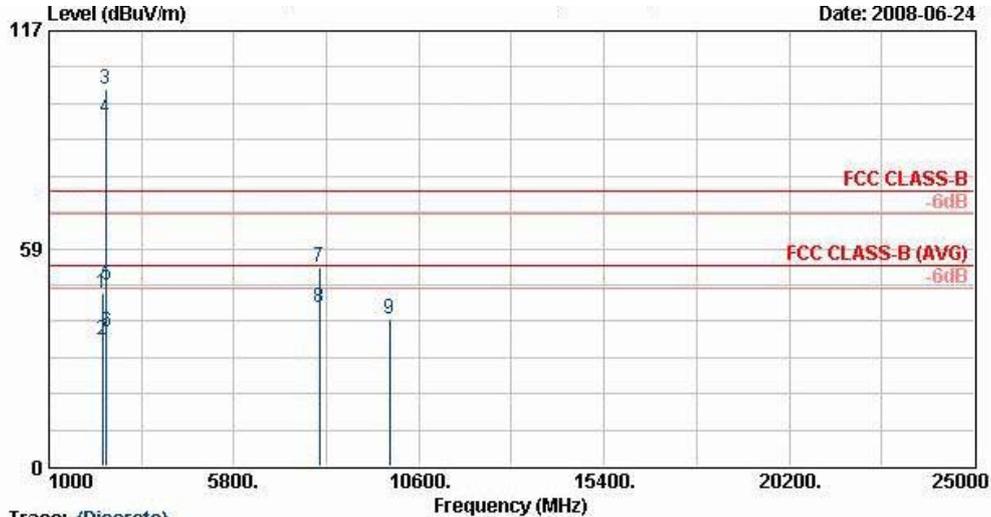


Trace: (Discrete)
 Site : D3CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
 EUT : Smart Phone WCDMA(band 1/YTII)
 : +GSM/CPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 6
 Data Rate : 11
 Plane : H (slide off)
 IMEI : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	31.89	23.72	-16.28	40.00	38.59	18.25	0.30	33.42	100	215	Peak
2	38.64	22.21	-17.79	40.00	41.10	14.03	0.30	33.22	---	---	Peak
3	50.79	18.77	-21.23	40.00	43.54	8.08	0.30	33.15	---	---	Peak
4	731.90	20.70	-25.30	46.00	33.39	19.19	1.10	32.97	---	---	Peak
5	876.80	22.93	-23.07	46.00	34.01	20.36	1.30	32.74	---	---	Peak
6	957.30	23.96	-22.04	46.00	34.14	20.94	1.27	32.38	---	---	Peak

- Polarization : Vertical (1GHz-25GHz)

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



Trace: (Discrete)

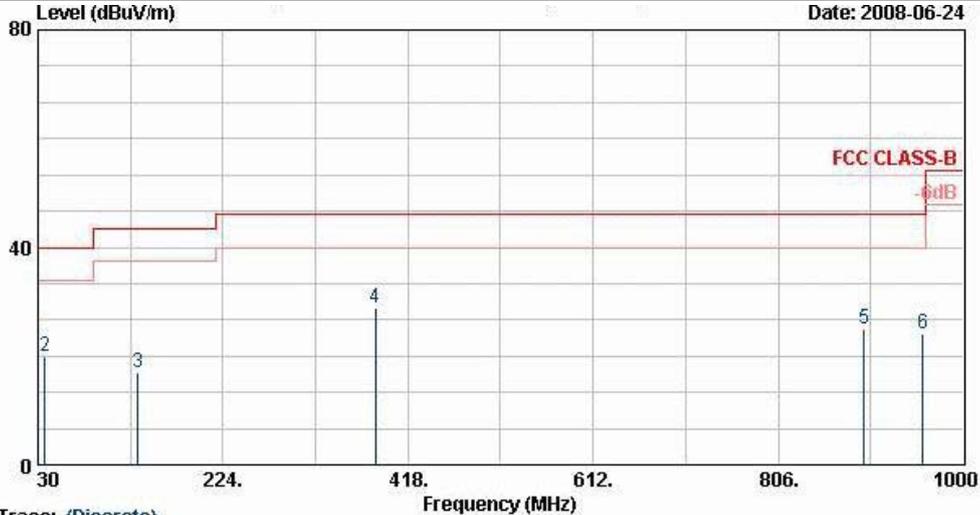
Site : 03CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : Smart Phone WCDMA(band 1/YTII)
 : +GSM/GPRS/EDGE(850/900/1600/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 6
 Data Rate : 11
 Plane : H (slide off)
 IMEI : 35835301006688501

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2390.00	46.65	-27.35	74.00	46.55	31.86	3.92	35.68	100	0 Peak
2	2390.00	33.97	-20.03	54.00	33.87	31.86	3.92	35.68	107	8 Average
3 X	2462.00	101.18			100.90	31.95	4.02	35.69	100	0 Peak
4 @	2462.00	93.62			93.34	31.95	4.02	35.69	107	8 Average
5	2483.85	48.57	-25.43	74.00	48.24	31.98	4.05	35.70	100	0 Peak
6	2483.85	35.97	-18.03	54.00	35.64	31.98	4.05	35.70	107	8 Average
7	8007.00	53.66	-20.34	74.00	46.74	35.70	7.52	36.30	100	0 Peak
8	8007.00	42.53	-11.47	54.00	35.61	35.70	7.52	36.30	100	264 Average
9	9846.00	39.77	-34.23	74.00	78.13	-9.63	8.04	36.77	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.

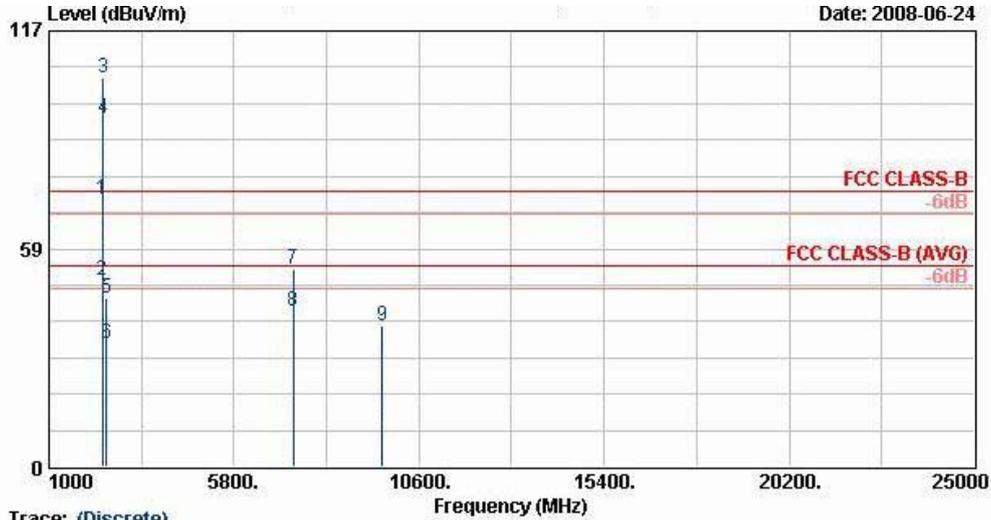


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(851121) HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/YT11)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 7
 Data Rate : 8
 Plane : H (slide off)
 TIME : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	22.58	-17.42	40.00	36.12	19.66	0.30	33.50	---	---	Peak
2	37.29	20.02	-19.98	40.00	38.40	14.56	0.30	33.24	---	---	Peak
3	135.03	16.87	-26.63	43.50	38.75	11.05	0.50	33.43	---	---	Peak
4	383.30	28.92	-17.08	46.00	45.81	15.34	0.87	33.10	100	92	Peak
5	896.40	25.05	-20.95	46.00	36.03	20.50	1.30	32.79	---	---	Peak
6	957.30	24.13	-21.87	46.00	34.30	20.94	1.27	32.38	---	---	Peak

• Polarization : Horizontal (1GHz-25GHz)

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



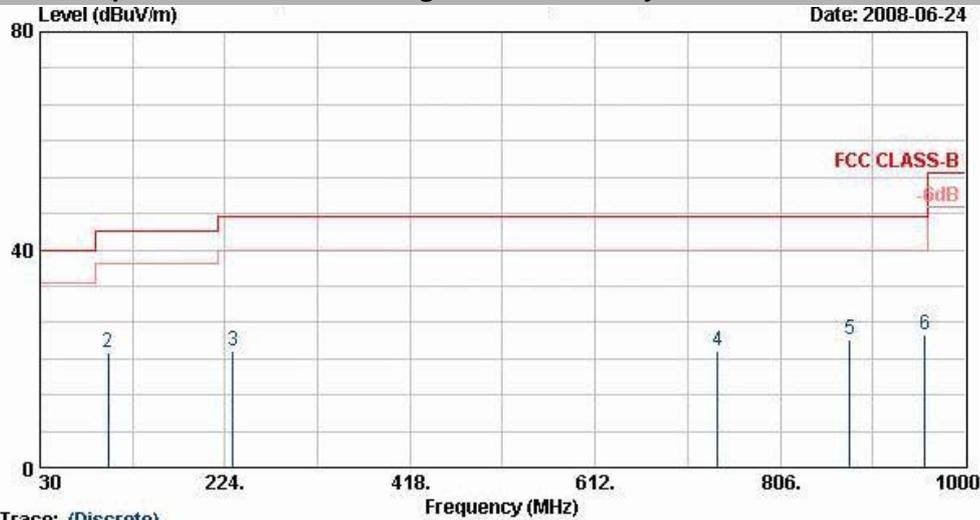
Trace: (Discrete)
 Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/YTII)
 : +GSM/CDPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 7
 Data Rate : 9
 Plane : H (slide off)
 IMEI : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	!	2389.99	71.62	-2.38	74.00	71.52	31.86	3.92	35.68	100	0 Peak
2	!	2389.99	50.14	-3.86	54.00	50.04	31.86	3.92	35.68	100	56 Average
3	X	2412.00	104.29			104.13	31.88	3.95	35.68	100	0 Peak
4	@	2412.00	93.58			93.43	31.88	3.95	35.68	100	56 Average
5		2484.00	45.20	-28.80	74.00	44.87	31.98	4.05	35.70	100	0 Peak
6		2484.00	33.18	-20.82	54.00	32.85	31.98	4.05	35.70	100	56 Average
7		7332.00	53.12	-20.88	74.00	46.37	35.67	7.21	36.13	100	0 Peak
8		7332.00	41.90	-12.10	54.00	35.15	35.67	7.21	36.13	100	256 Average
9		9651.00	37.91	-36.09	74.00	76.76	-10.07	7.94	36.73	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.



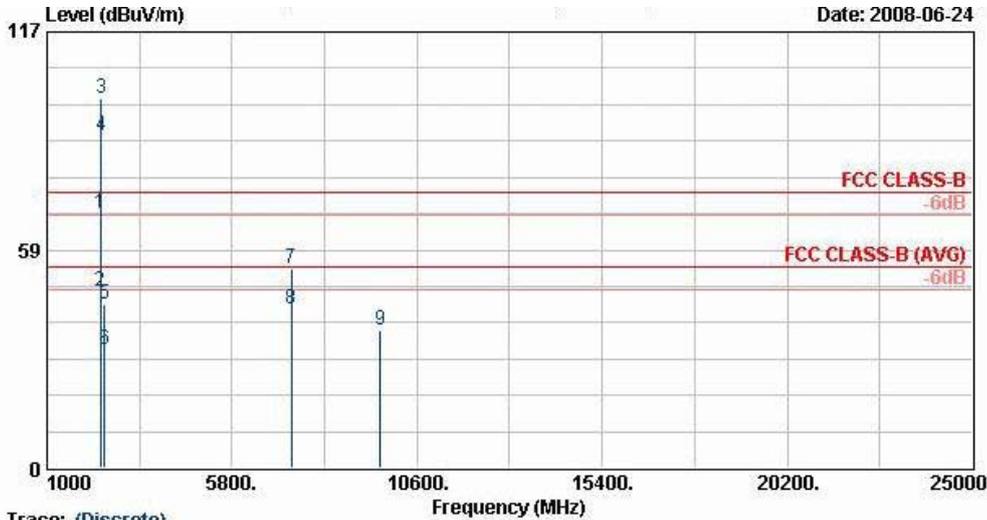
Trace: (Discrete)

Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
 EUT : Smart Phone WCDMA(band 1/VTTT)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 7
 Data Rate : 9
 Plane : H (slide off)
 TABLE : 35835301006688501

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos		
			dB	dBuV/m	dBuV	dB	dB	cm	deg		
1	30.00	22.84	-17.16	40.00	36.38	19.66	0.30	33.50	100	246 Peak	
2	101.28	20.97	-22.53	43.50	42.67	11.07	0.50	33.27	---	---	Peak
3	232.23	21.32	-24.68	46.00	42.90	11.18	0.70	33.47	---	---	Peak
4	740.30	21.47	-24.53	46.00	34.04	19.26	1.10	32.93	---	---	Peak
5	878.90	23.38	-22.62	46.00	34.45	20.38	1.30	32.75	---	---	Peak
6	957.30	24.50	-21.50	46.00	34.67	20.94	1.27	32.38	---	---	Peak

- Polarization :Vertical (1GHz-25GHz)

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



Trace: (Discrete)

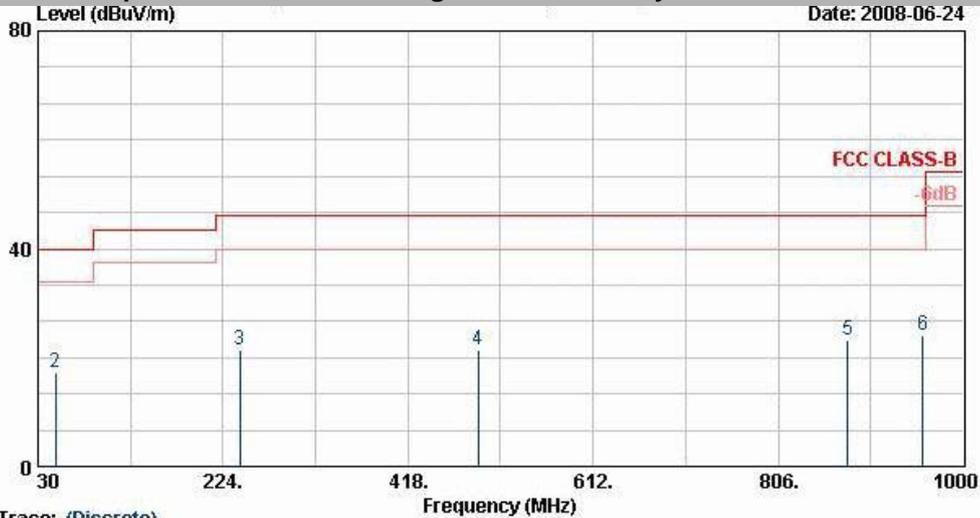
Site : 03CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 630418-01
 Memo : Mode 7
 Data Rate : 9
 Plane : H (slide off)
 IMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	Level	Factor	Loss	Factor	Pos	Pos	
					dBuV	dB/m	dB	dB	cm	deg	
1 !	2389.99	68.28	-5.72	74.00	68.18	31.86	3.92	35.68	100	0	Peak
2	2389.99	47.28	-6.72	54.00	47.18	31.86	3.92	35.68	100	126	Average
3 X	2412.00	99.06			98.88	31.90	3.95	35.69	100	0	Peak
4 @	2412.00	89.35			89.20	31.88	3.95	35.68	100	126	Average
5	2484.00	43.75	-30.25	74.00	43.42	31.98	4.05	35.70	100	0	Peak
6	2484.00	31.94	-22.06	54.00	31.61	31.98	4.05	35.70	100	126	Average
7	7341.00	53.68	-20.32	74.00	46.95	35.66	7.21	36.14	100	0	Peak
8	7341.00	42.54	-11.46	54.00	35.81	35.66	7.21	36.14	100	191	Average
9	9642.00	36.99	-37.01	74.00	75.86	-10.09	7.94	36.73	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.

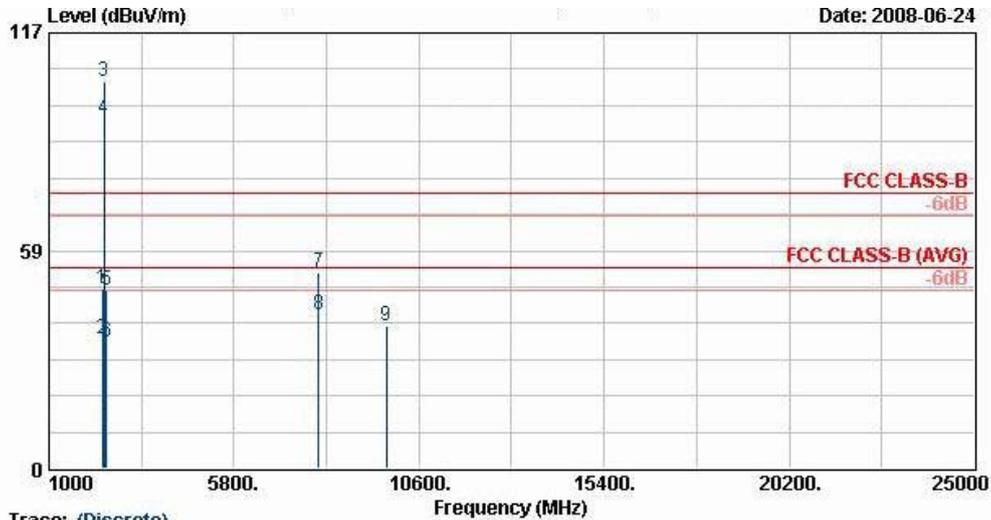


Trace: (Discrete)
 Site : D3CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/YTII)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 8
 Data Rate : 9
 Plane : H (slide off)
 TMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	23.36	-16.64	40.00	36.90	19.66	0.30	33.50	100	116	Peak
2	48.63	17.27	-22.73	40.00	41.04	9.06	0.30	33.14	---	---	Peak
3	241.68	21.44	-24.56	46.00	42.44	11.76	0.70	33.45	---	---	Peak
4	491.80	21.52	-24.48	46.00	36.64	17.29	0.92	33.32	---	---	Peak
5	878.90	23.19	-22.81	46.00	34.26	20.38	1.30	32.75	---	---	Peak
6	957.30	24.00	-22.00	46.00	34.17	20.94	1.27	32.38	---	---	Peak

• Polarization : Horizontal (1GHz-25GHz)

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



Trace: (Discrete)

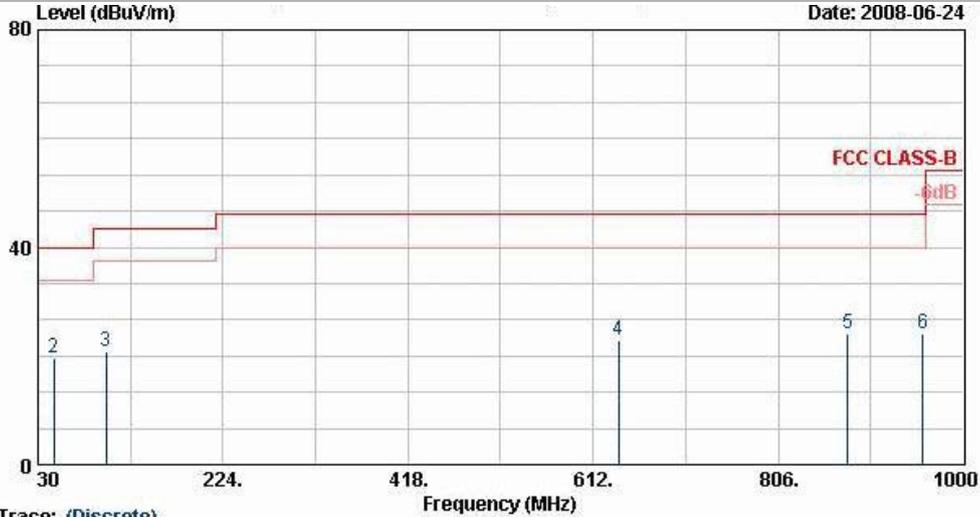
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 8
 Data Rate : 9
 Plane : H (slide off)
 IMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	48.42	-25.58	74.00	48.32	31.86	3.92	35.68	100	0	Peak
2	2390.00	34.90	-19.10	54.00	34.80	31.86	3.92	35.68	100	51	Average
3 X	2437.00	103.96			103.76	31.90	3.99	35.69	100	0	Peak
4 @	2437.00	93.83			93.60	31.93	3.99	35.69	100	51	Average
5	2486.00	47.92	-26.08	74.00	47.59	31.98	4.05	35.70	100	0	Peak
6	2486.00	33.92	-20.08	54.00	33.59	31.98	4.05	35.70	100	51	Average
7	8001.00	52.59	-21.41	74.00	45.67	35.70	7.52	36.30	100	0	Peak
8	8001.00	41.43	-12.57	54.00	34.51	35.70	7.52	36.30	100	291	Average
9	9747.00	38.32	-35.68	74.00	76.94	-9.85	7.98	36.75	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.

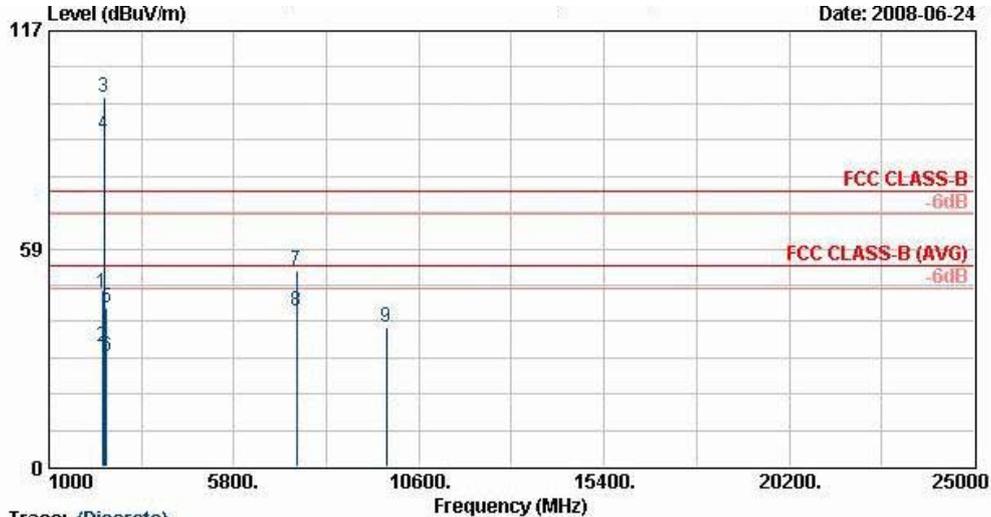


Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
 EUT : Smart Phone WCDMA(band 1/YT11)
 : +GSM/GPRS/EDGE(850/900/1600/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 8
 Data Rate : 0
 Plane : H (slide off)
 TMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	24.06	-15.94	40.00	37.60	19.66	0.30	33.50	100	246	Peak
2	46.74	19.71	-20.29	40.00	42.50	10.04	0.30	33.12	---	---	Peak
3	101.28	20.74	-22.76	43.50	42.44	11.07	0.50	33.27	---	---	Peak
4	638.80	22.99	-23.01	46.00	36.25	18.63	1.09	32.98	---	---	Peak
5	878.90	24.10	-21.90	46.00	35.17	20.38	1.30	32.75	---	---	Peak
6	957.30	24.15	-21.85	46.00	34.33	20.94	1.27	32.38	---	---	Peak

- Polarization : Vertical (1GHz-25GHz)

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



Trace: (Discrete)

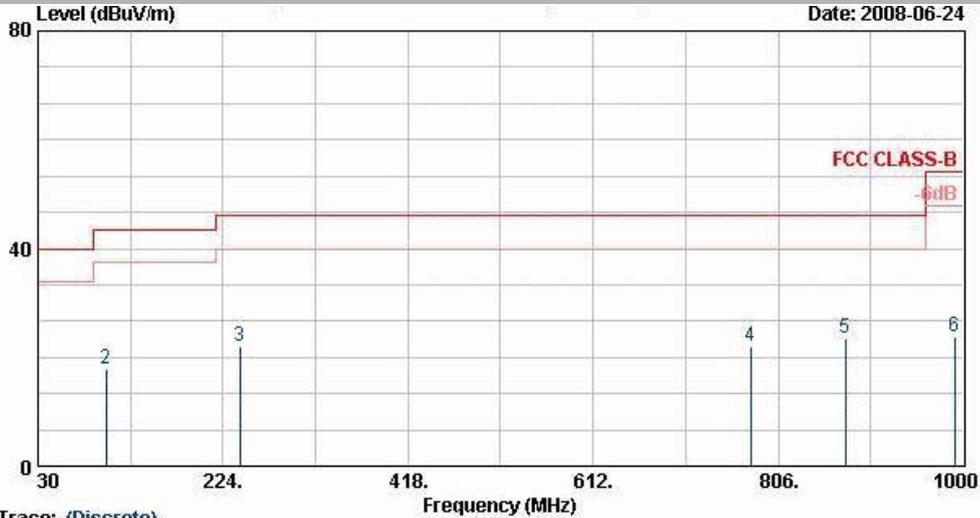
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 + GSM/GPRS/EDGE(850/900/1600/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 8
 Data Rate : 9
 Plane : H (slide off)
 IMET : 35835301006688501

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB	dB	cm	deg	
1	2390.00	46.34	-27.66	74.00	46.25	31.86	3.92	35.68	100	0 Peak
2	2390.00	32.24	-21.76	54.00	32.14	31.86	3.92	35.68	129	8 Average
3 X	2437.00	99.22			99.01	31.90	3.99	35.69	100	0 Peak
4 @	2437.00	89.13			88.90	31.93	3.99	35.69	129	8 Average
5	2484.00	42.64	-31.36	74.00	42.31	31.98	4.05	35.70	100	0 Peak
6	2484.00	29.52	-24.48	54.00	29.19	31.98	4.05	35.70	129	8 Average
7	7431.00	52.75	-21.25	74.00	46.05	35.63	7.24	36.17	100	0 Peak
8	7431.00	41.82	-12.18	54.00	35.12	35.63	7.24	36.17	100	107 Average
9	9747.00	37.43	-36.57	74.00	76.04	-9.85	7.98	36.75	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.



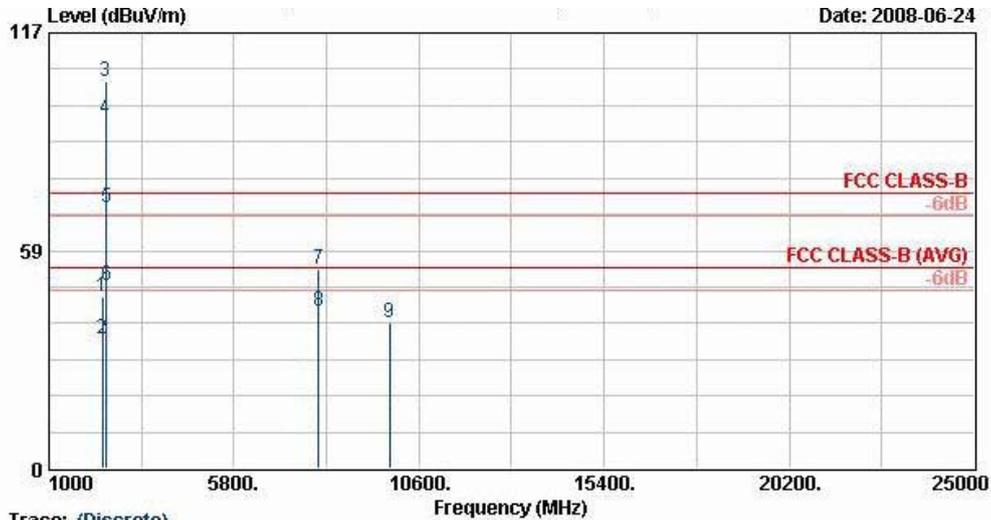
Trace: (Discrete)

Site : 03CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(851121) HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 6
 Data Rate : 8
 Plane : H (slide off)
 TNET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg	
1	30.00	22.69	-17.31	40.00	36.23	19.66	0.30	33.50	100	167	Peak
2	101.28	17.96	-25.54	43.50	39.66	11.07	0.50	33.27	---	---	Peak
3	241.68	22.09	-23.91	46.00	43.08	11.76	0.70	33.45	---	---	Peak
4	777.40	21.89	-24.11	46.00	33.79	19.61	1.18	32.70	---	---	Peak
5	876.80	23.56	-22.44	46.00	34.64	20.36	1.30	32.74	---	---	Peak
6	990.90	23.66	-30.34	54.00	33.32	21.18	1.30	32.13	---	---	Peak

- Polarization : Horizontal (1GHz-25GHz)

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



Trace: (Discrete)

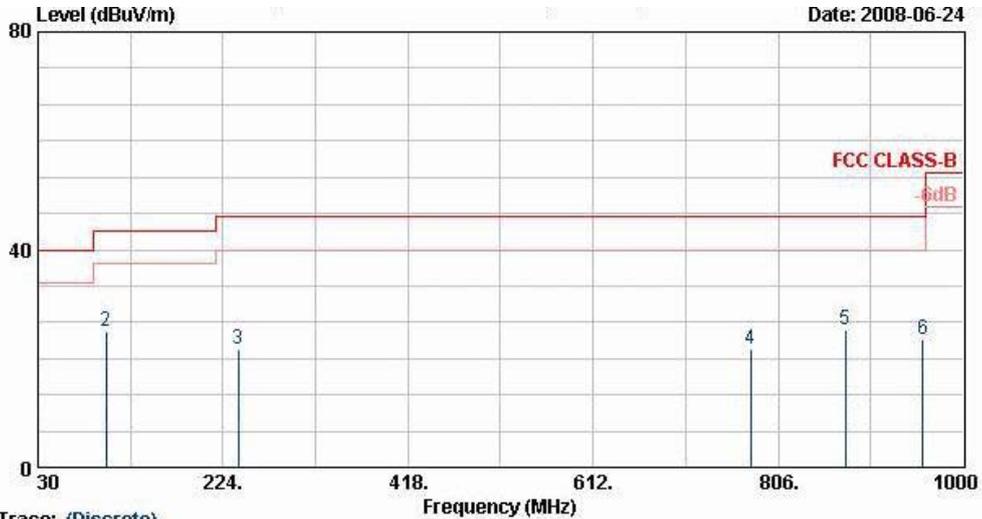
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 9
 Data Rate : 9
 Plane : H (slide off)
 IMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2388.00	46.02	-27.98	74.00	45.92	31.86	3.92	35.68	100	0	Peak
2	2388.00	34.82	-19.18	54.00	34.72	31.86	3.92	35.68	100	50	Average
3 X	2462.00	104.08			103.80	31.95	4.02	35.69	100	0	Peak
4 @	2462.00	93.83			93.55	31.95	4.02	35.69	100	50	Average
5 !	2483.50	70.16	-3.84	74.00	69.83	31.98	4.05	35.70	100	0	Peak
6 !	2483.50	49.08	-4.92	54.00	48.75	31.98	4.05	35.70	100	50	Average
7	7992.00	53.51	-20.49	74.00	46.60	35.70	7.51	36.30	100	0	Peak
8	7992.00	42.22	-11.78	54.00	35.31	35.70	7.51	36.30	100	228	Average
9	9846.00	39.08	-34.92	74.00	77.45	-9.63	8.04	36.77	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.

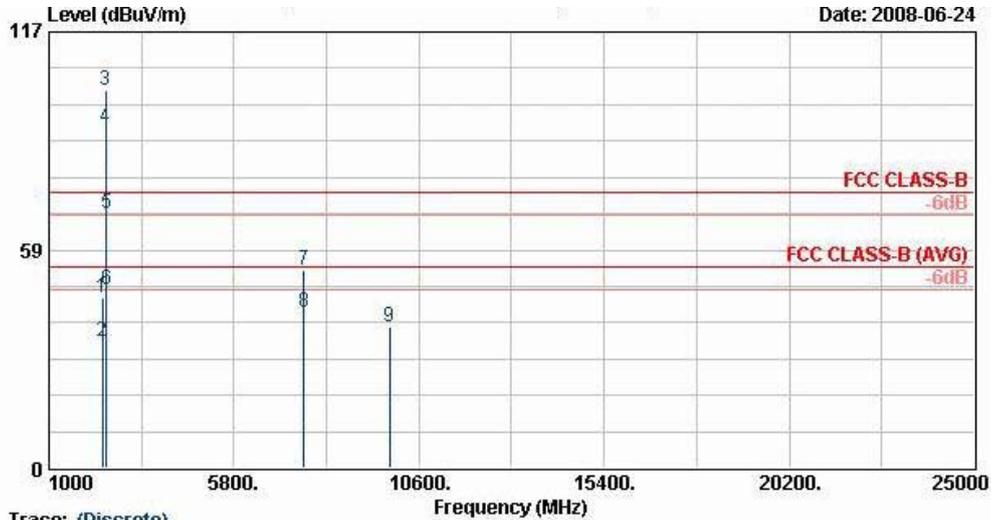


Trace: (Discrete)
 Site : D3CH06-HY
 Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 : +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 9
 Data Rate : 9
 Plane : H (slide off)
 TIME : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	Pos	deg
1	30.00	22.27	-17.73	40.00	35.81	19.66	0.30	33.50	100	227	Peak
2	101.28	25.05	-18.45	43.50	46.75	11.07	0.50	33.27	---	---	Peak
3	239.79	21.85	-24.15	46.00	42.96	11.64	0.70	33.45	---	---	Peak
4	777.40	21.84	-24.16	46.00	33.75	19.61	1.18	32.70	---	---	Peak
5	876.80	25.39	-20.61	46.00	36.47	20.36	1.30	32.74	---	---	Peak
6	957.30	23.64	-22.36	46.00	33.81	20.94	1.27	32.38	---	---	Peak

- Polarization : Vertical (1GHz-25GHz)

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



Trace: (Discrete)

Site : D3CH06-HY
 Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
 EUT : Smart Phone WCDMA(band 1/VIII)
 +GSM/GPRS/EDGE(850/900/1800/1900)
 Power : 120Vac/60Hz
 Model : FR 830418-01
 Memo : Mode 0
 Data Rate : 0
 Plane : H (slide off)
 IMET : 35835301006688501

	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2390.00	45.80	-28.20	74.00	45.71	31.86	3.92	35.68	100	0	Peak
2	2390.00	33.81	-20.19	54.00	33.71	31.86	3.92	35.68	108	9	Average
3 X	2462.00	101.18			100.91	31.95	4.02	35.70	100	0	Peak
4 @	2462.00	91.18			90.90	31.95	4.02	35.69	108	9	Average
5 !	2483.50	68.18	-5.82	74.00	67.85	31.98	4.05	35.70	100	0	Peak
6	2483.50	47.90	-6.10	54.00	47.57	31.98	4.05	35.70	108	9	Average
7	7611.00	53.18	-20.82	74.00	46.46	35.62	7.32	36.22	100	0	Peak
8	7611.00	41.93	-12.07	54.00	35.21	35.62	7.32	36.22	100	299	Average
9	9846.00	37.94	-36.06	74.00	76.31	-9.63	8.04	36.77	100	0	Peak

Remark: #3 and #4 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 antenna used in this product is PIFA Antenna 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. 03, 2008	Mar. 02, 2009	Conduction (CO04-HY)
LISN	MessTec	NNB-2/16Z	99079	9kHz – 30MHz	Mar. 31, 2008	Mar. 29, 2009	Conduction (CO04-HY)
LISN (Support Unit)	EMCO	3810/2NM	9703-1839	9kHz – 30MHz	Mar. 22, 2008	Mar. 21, 2009	Conduction (CO04-HY)
RF Cable-CON	UTIFLEX	3102-26886-4	CB049	9kHz – 30MHz	Apr. 20, 2008	Apr. 19, 2009	Conduction (CO04-HY)
ISN	SCHAFFNER	ISN T400	21653	9kHz –30MHz	Mar. 27, 2008	Mar. 26, 2009	Conduction (CO04-HY)
EMI Filter	LINDGREN	LRE-2030	2651	< 450 Hz	N/A	N/A	Conduction (CO04-HY)
Double Ridge Horn Antenna	EMCO	3117	66583	1G~18G	Aug. 29, 2007	Aug. 28, 2008	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211028	9KHz~26.5GHz	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-251	15G~40GHz	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1G~26.5G	Nov. 22, 2007	Nov. 21, 2008	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz~2GHz	Dec. 01, 2007	Nov. 31, 2008	Radiation (03CH06-HY)
Pre Amplifier	Agilent	310N	186713	9KHz~1GHz	Apr. 21, 2008	Apr. 20, 2009	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20~1000MHz	Apr. 24, 2008	Apr. 23, 2009	Radiation (03CH06-HY)
Base Station Simulator	R & S	CMU200	103937	Third-Band	Oct. 19, 2007	Oct. 18, 2008	Radiation (03CH06-HY)

7. Uncertainty Evaluation

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

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 (30 MHz ~ 1000 MHz)

Contribution	Uncertainty of x_i		$u(x_i)$
	dB	Probability Distribution	
Receiver reading	0.11	Normal(k=2)	0.06
Antenna factor calibration	0.91	Normal(k=2)	0.46
Cable loss calibration	0.12	Normal(k=2)	0.06
Pre Amplifier Gain calibration	0.15	Normal(k=2)	0.08
RCV/SPA specification	2.50	Rectangular	0.72
Antenna Factor Interpolation for Frequency	1.00	Rectangular	0.29
Site imperfection	1.52	Rectangular	0.88
Mismatch	+0.45/-0.48	U-shaped	0.33
Combined standard uncertainty Uc(y)	1.30		
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	2.60		

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

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 dBuV $\pm U$ dB
for a level of confidence of approximately 95% , ($k = 2$)



Appendix A. Photographs of EUT

Please refer to Sporton report number EP830418-01 as below.