



FCC / IC TEST REPORT

for

47 CFR Part 15 Subpart C and IC RSS-210

Equipment : iPAQ 600 series
Trade Name : HP
Model No. : HSTNH-I14C-N
FCC ID : B94HHI14CN
IC ID : 466Q-HHI14CN
Filing Type : Certification
Applicant : **Hewlett-Packard Company**
11445 Compaq Center Drive West Houston, Texas 77070

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- The data shown in this test report were carried out on Jun. 16, 2007 at **Sporton International Inc. LAB.**
- Report No.: FR750203-A, Report Version: Rev. 01

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1. General Description of Equipment under Test

1.1 Applicant

Hewlett-Packard Company
11445 Compaq Center Drive West Houston, Texas 77070

1.2 Manufacturer

Inventec Appliances(Pudong) Corp.
699, Pu Xin Road, Shanghai, PRC

1.3 Basic Description of Equipment under Test

Equipment		iPAQ 600 series
Trade Name		HP
Model Name		HSTNH-I14C-N
AC Adapter 1	Manufacturer Name	Phihong Technology Co., Ltd.
	Brand Name	HP / Phihong
	Model Name	PSB05R-050Q
	Power Rating	I/P:100-240Vac, 50-60Hz, 0.15A; O/P: 5Vdc, 1A
	AC Power Cord Type	1.4 meter shielded cable without ferrite core
AC Adapter 2	Manufacturer Name	Phihong Technology Co., Ltd.
	Brand Name	HP / Phihong
	Model Name	PSAA05X-050 (X=A, C, E, K or S)
	Power Rating	I/P:100-240Vac, 50-60Hz, 200mA; O/P: 5Vdc, 1A
	AC Power Cord Type	1.8 meter shielded cable without ferrite core
Battery	Brand Name	HP / Sony
	Model Name	HSTNH-K14B
	Rating	3.7Vdc, 1530mAH
	Type	Li-polymer
Earphone	Brand Name	Merry
	Model Name	EMC147-021-01
	Signal line Type	1.2 meter non-shielded cable without ferrite core
USB Cable	Brand Name	Phihong
	Model Name	419184-001
	Signal line Type	1.4 meter shielded cable without ferrite core
LCD Panel	Brand Name	Hitachi
	Model Name	TX07D05VM0APA
Camera	Brand Name	LITE-ON Semi
	Model Name	DCM-300MBD

Remark : PSAA05X-050 (X=A, C, E, K or S) have the same circuit design. The difference between these models is plug, only PSAA05A-050 used for testing.



1.4 Feature of Equipment under Test

Product Feature & Specification			
1. Type of Modulation	DSSS / OFDM		
2. Number of Channels	11 Channels		
3. Frequency Band	2400MHz ~ 2483.5MHz		
4. Carrier Frequency of each channel	2412MHz+(n-1)*5 MHz, n=1~11		
5. Channel Spacing	5 MHz		
6. Maximum Output Power to Antenna (Normal Condition)	802.11b : 14.06 dBm 802.11g : 18.83 dBm		
7. Type of Antenna Connector	N/A		
8. Antenna Type	PIFA Antenna		
9. Antenna Gain	-4 dBi		
10. Function Type	Transmitter		Transceiver V



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	13.89	13.91	13.94	14.02
CH 06	2437 MHz	13.78	13.85	14.83	13.86
CH 11	2462 MHz	13.96	13.94	14.04	14.06

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	17.25	17.52	17.81	17.59	17.57	17.54	17.05	17.94
CH 06	2437 MHz	18.18	18.57	18.8	18.75	18.81	18.34	17.95	18.83
CH 11	2462 MHz	18.28	18.07	18.11	17.78	17.54	17.52	17.51	18.56

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

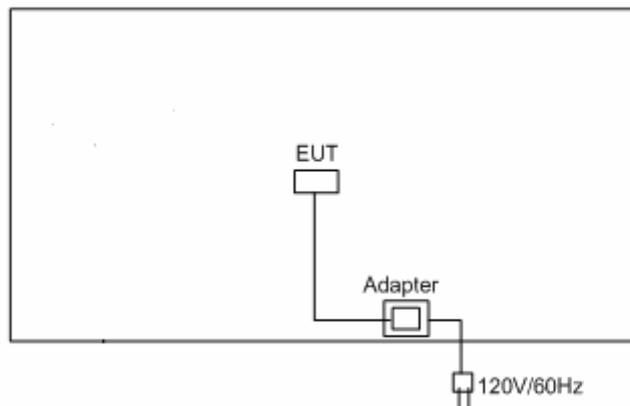
Application		
	802.11b	802.11g
Radiated Emission, RF Conducted	Mode 1: CH01_2412 MHz Mode 2: CH06_2437 MHz Mode 3: CH11_2462 MHz	Mode 4: CH01_2412 MHz Mode 5: CH06_2437 MHz Mode 6: CH11_2462 MHz
Conducted Emission	Mode 1: GSM850 Idle + BT Link + WLAN Link + MPEG4 + Camera + Adapter 1 Mode 2: GSM850 Idle + BT Link + WLAN Link + MPEG4 + Camera + USB Link Mode 3: PCS1900 Idle + BT Link + WLAN Link + MPEG4 + Camera + Adapter 1 Mode 4: GSM850 Idle + BT Link + WLAN Link + MPEG4 + Camera + Adapter 2	

2.3 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Power Cord / Cable
1.	Notebook	DELL	D400	E2K24GBRL	1.2m
2.	Base Station	R&S	CMU200	N/A	N/A
3.	BT Base Station	Anritus	8852A	N/A	N/A
4.	RS-232 MOUSE	State	MS-303	DoC	1.8 meter
5.	Bluetooth Device	Engotech	ET-BD201	PQY471087	N/A

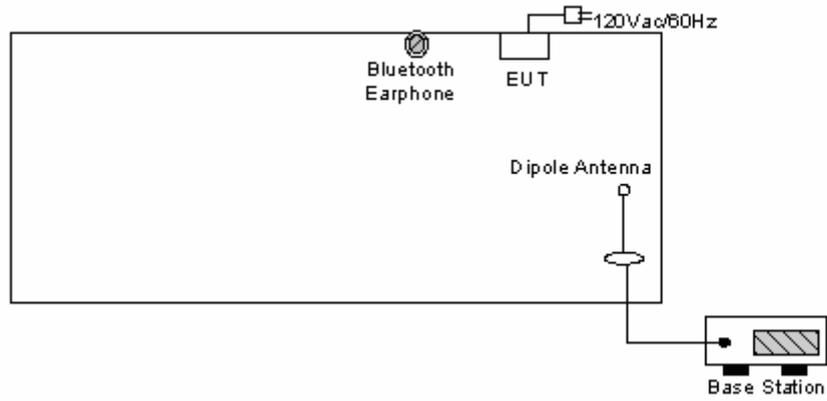
2.1 Connection Diagram of Test System

<Radiated Emission >

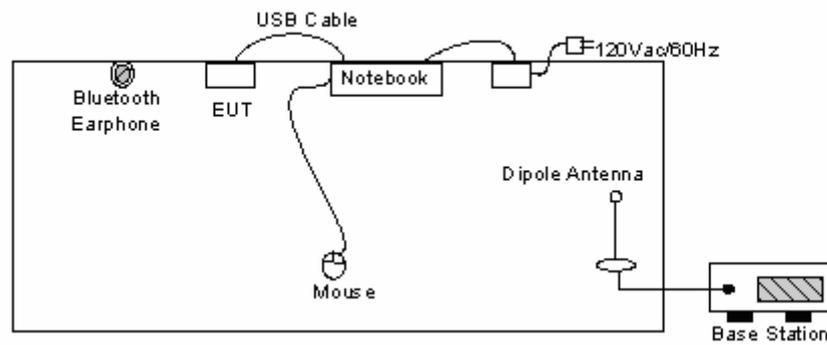


<Conducted Emission>

EUT + Earphone + Adapter



EUT + Adapter + USB Link





3. RF Utility

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



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 : 886-3-318-0055

Test Site No : CO01-HY, 03CH06-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 and IC RSS-210 Issued 7

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	IC Rule	Description of Test	Result	Section
15.207	RSS-Gen 7.2.2	Conducted Emission	Pass	5.6
15.247(a)(2)	A8.2 (a)	6dB Bandwidth	Pass	5.2
15.247(b)	A8.4 (4)	Maximum Peak Output Power	Pass	5.5
15.209(a)	2.6	Radiated Emission	Pass	5.7
15.247(c)	A8.5	100kHz Bandwidth of Frequency Band Edges	Pass	5.4
15.247(d)	A8.2 (b)	Power Spectral Density	Pass	5.3
15.203 15.247(b)(4)	A8.4 (6)	Antenna Requirement	Pass	5.8

5.2 6dB Bandwidth Measurement

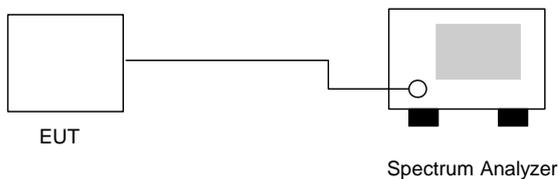
5.2.1 Measuring Instruments :

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 : 26
- Relative Humidity : 59%
- Test Engineer : Andy

802.11b

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	9.52	> 0.5MHz	Mode 1
06	2437	9.56	> 0.5MHz	Mode 2
11	2462	9.52	> 0.5MHz	Mode 3

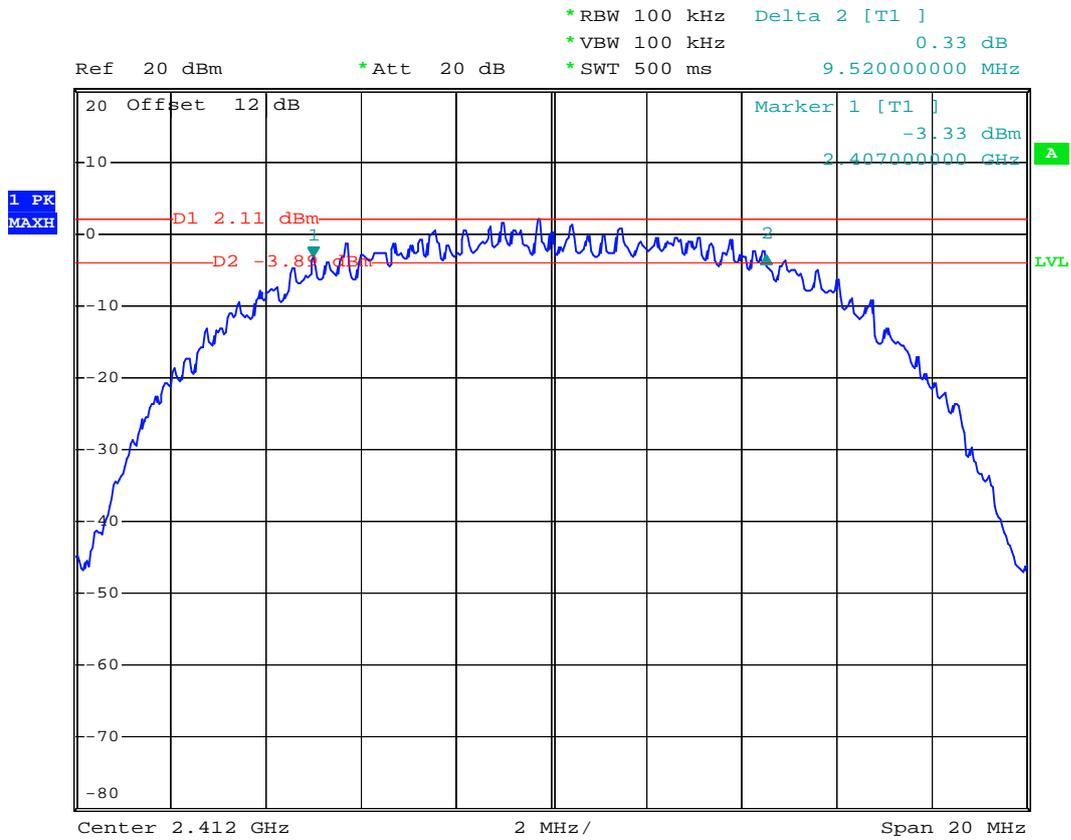
802.11g

Channel	Frequency (MHz)	6dB Emission bandwidth (MHz)	Limits (MHz)	Plot Ref. No.
01	2412	16.52	> 0.5MHz	Mode 4
06	2437	16.52	> 0.5MHz	Mode 5
11	2462	16.52	> 0.5MHz	Mode 6



5.2.5 6dB Bandwidth

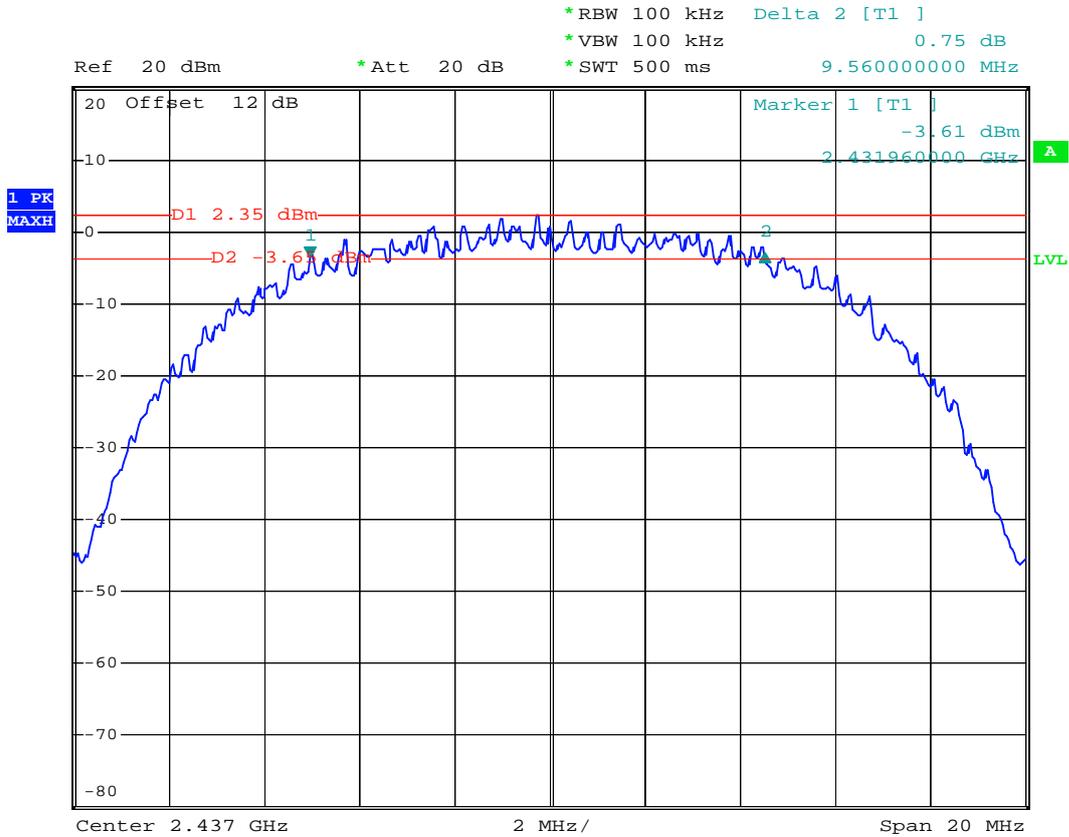
Mode 1



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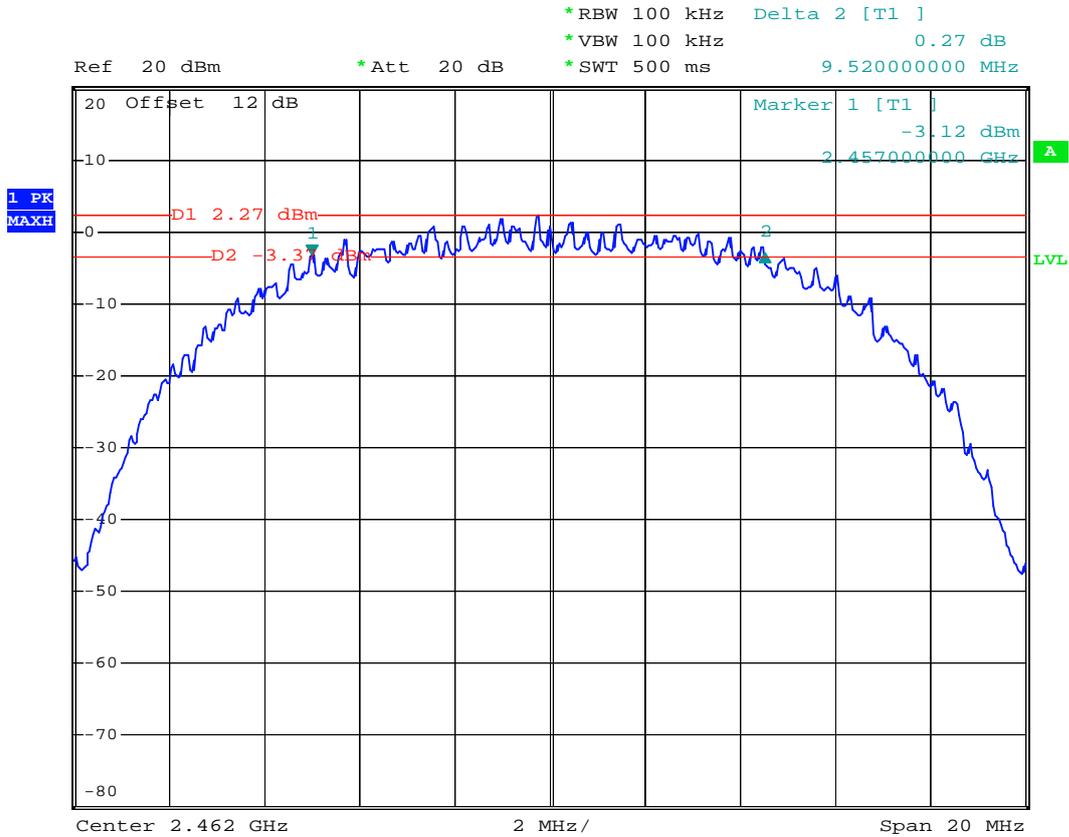
Mode 2



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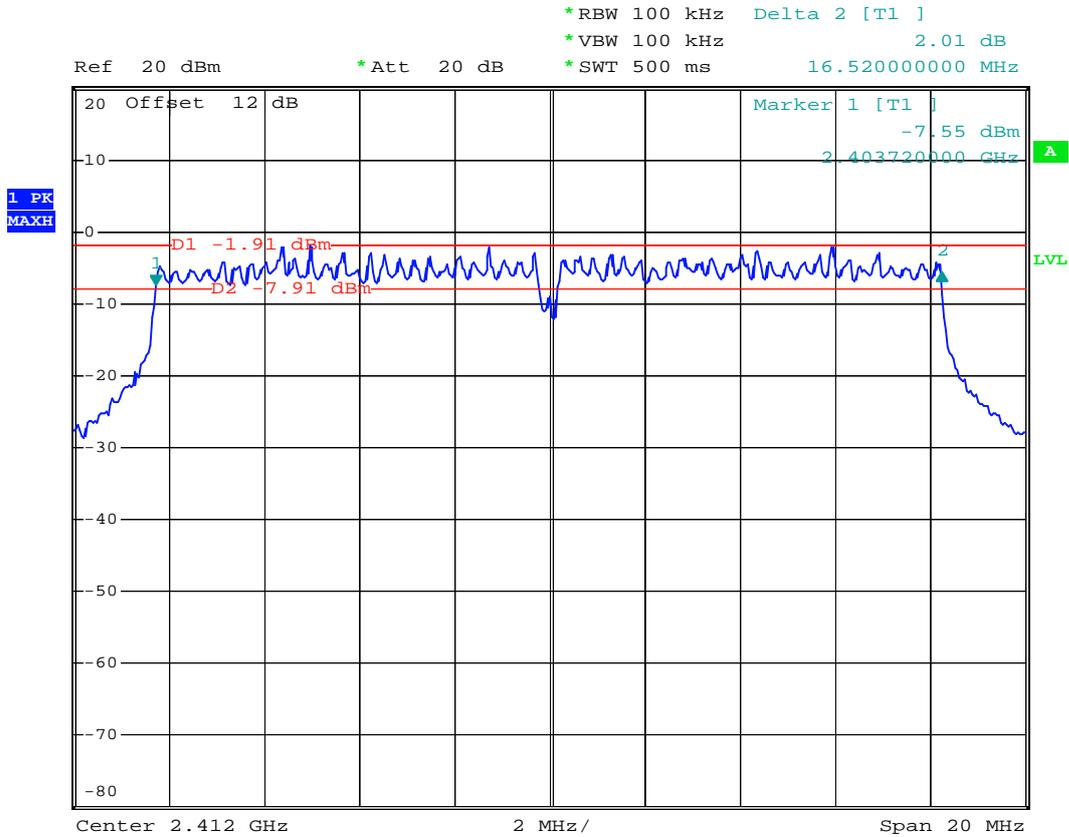
Mode 3



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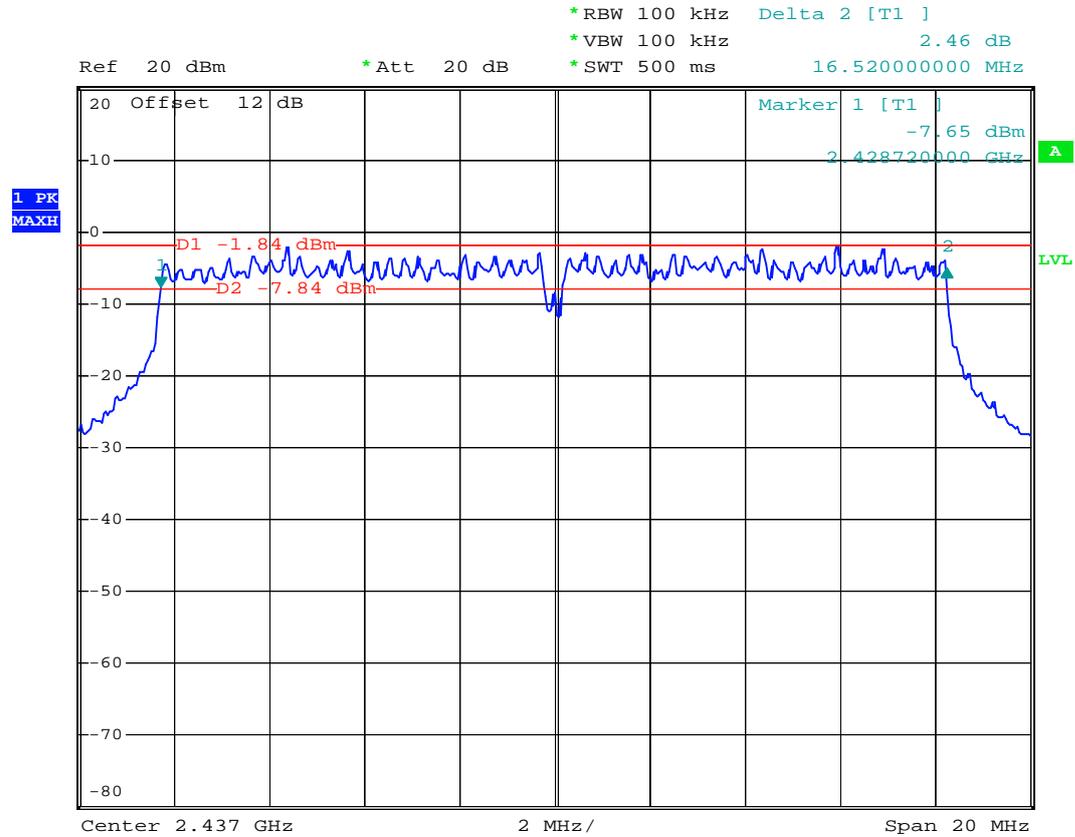
Mode 4



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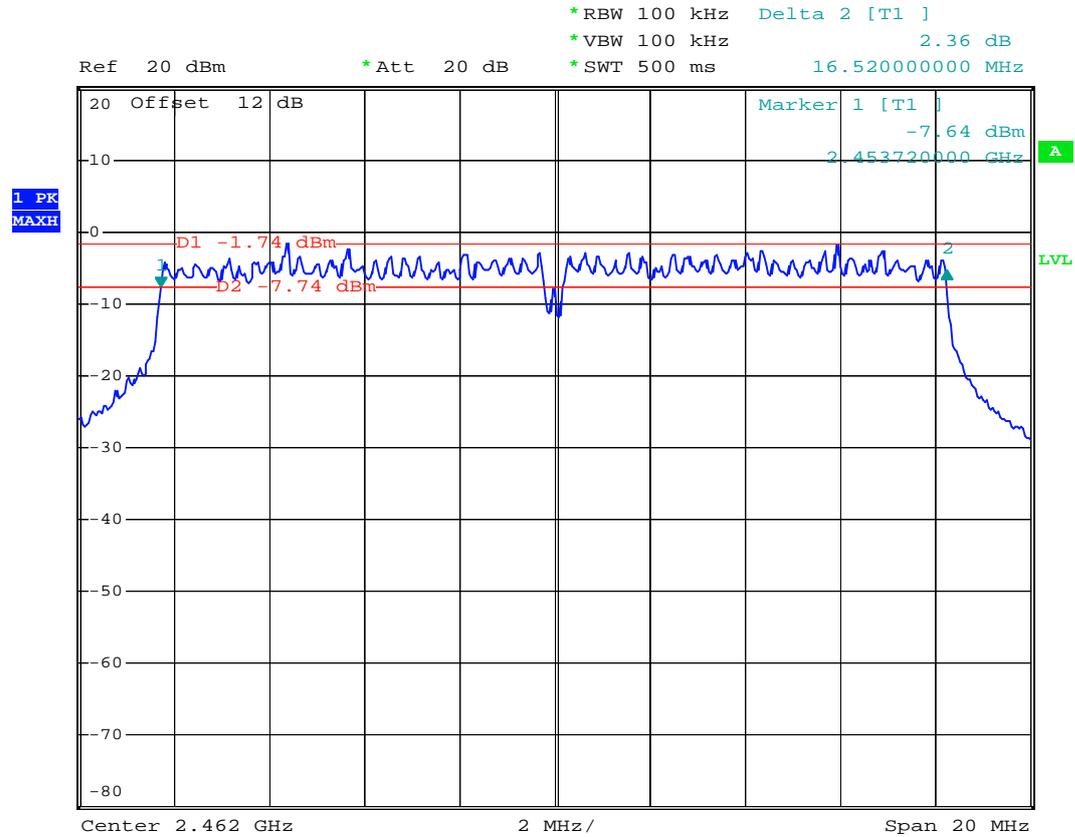
Mode 5



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Mode 6



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5.3 Power Spectral Density Measurement

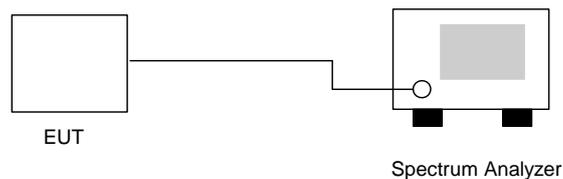
5.3.1 Measuring Instruments :

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 : 26
- Relative Humidity : 59%
- Test Enginner : Andy

802.11b

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-11.70	8	Mode 1
06	2437	-11.65	8	Mode 2
11	2462	-11.83	8	Mode 3

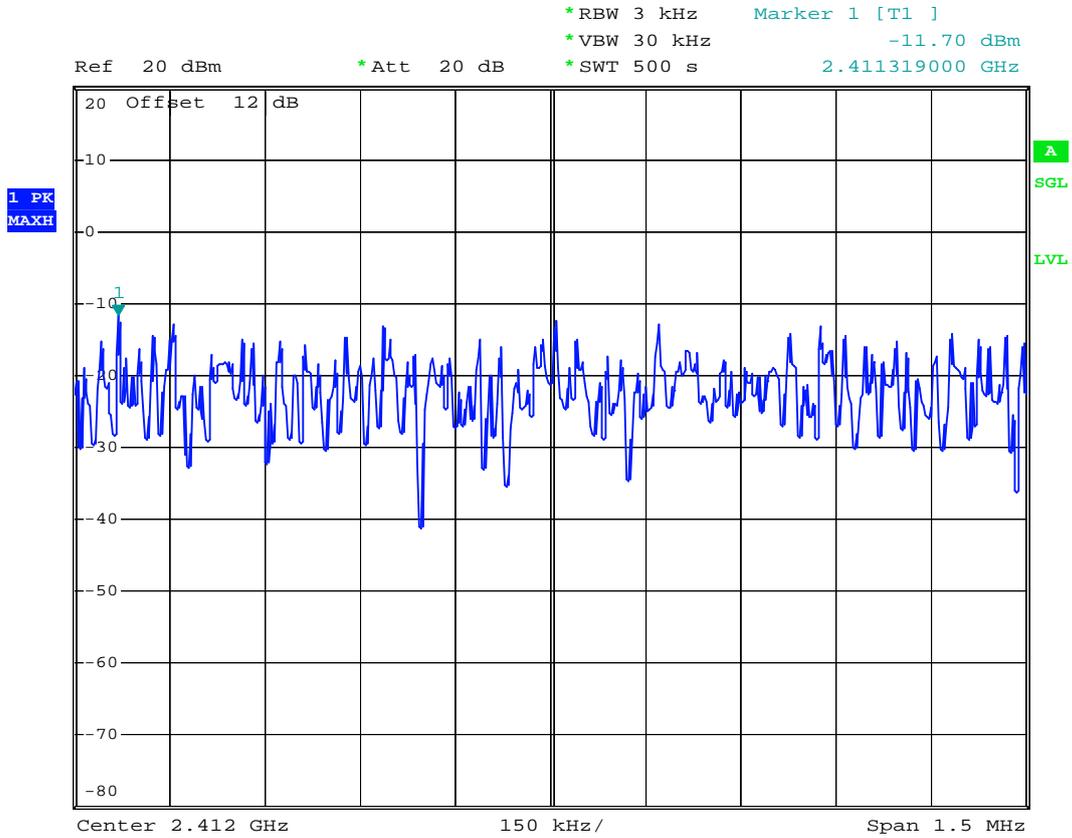
802.11g

Channel	Frequency (MHz)	Power Spectral Density (dBm)	Limits (dBm)	Plot Ref. No.
01	2412	-13.27	8	Mode 4
06	2437	-12.89	8	Mode 5
11	2462	-11.86	8	Mode 6



5.3.5 Power Spectral Density

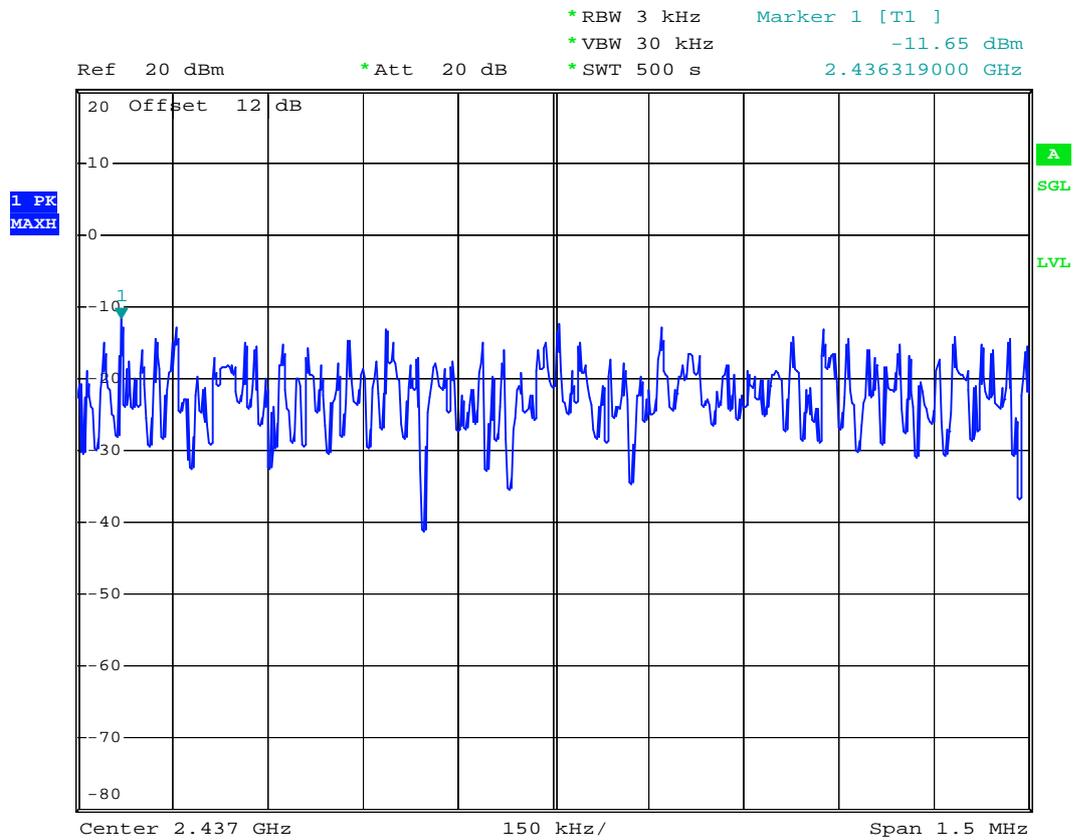
Mode 1



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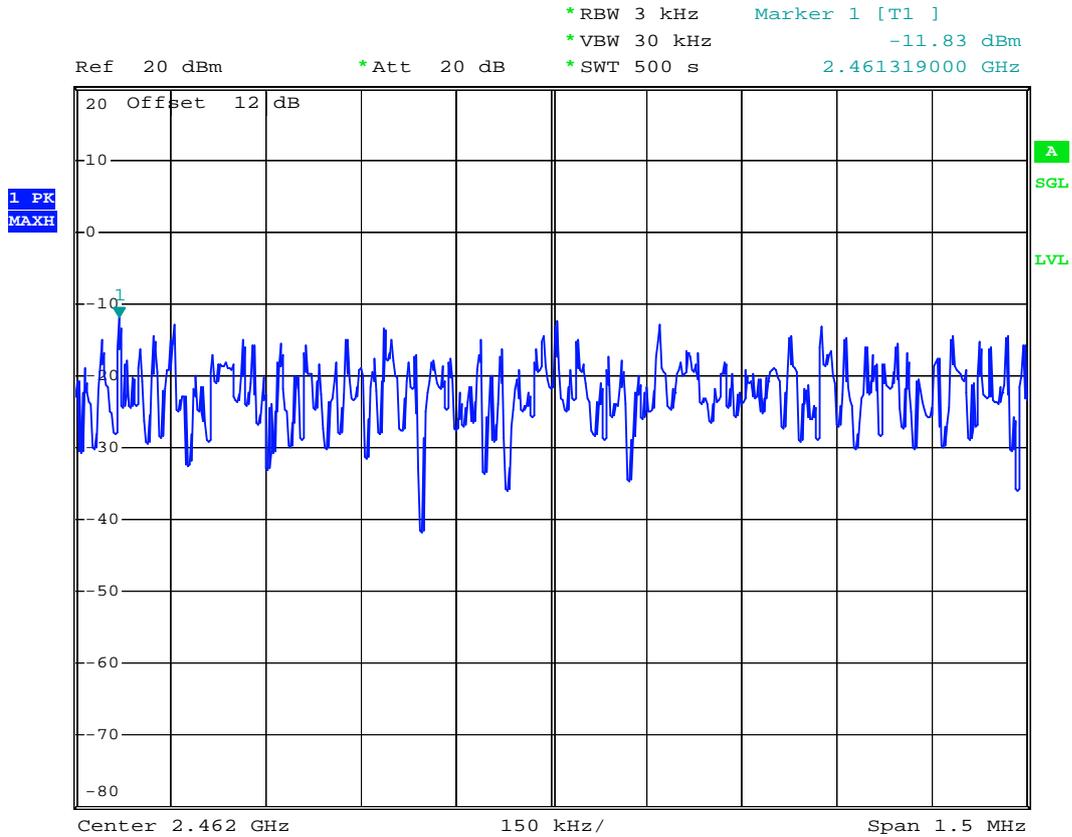
Mode 2



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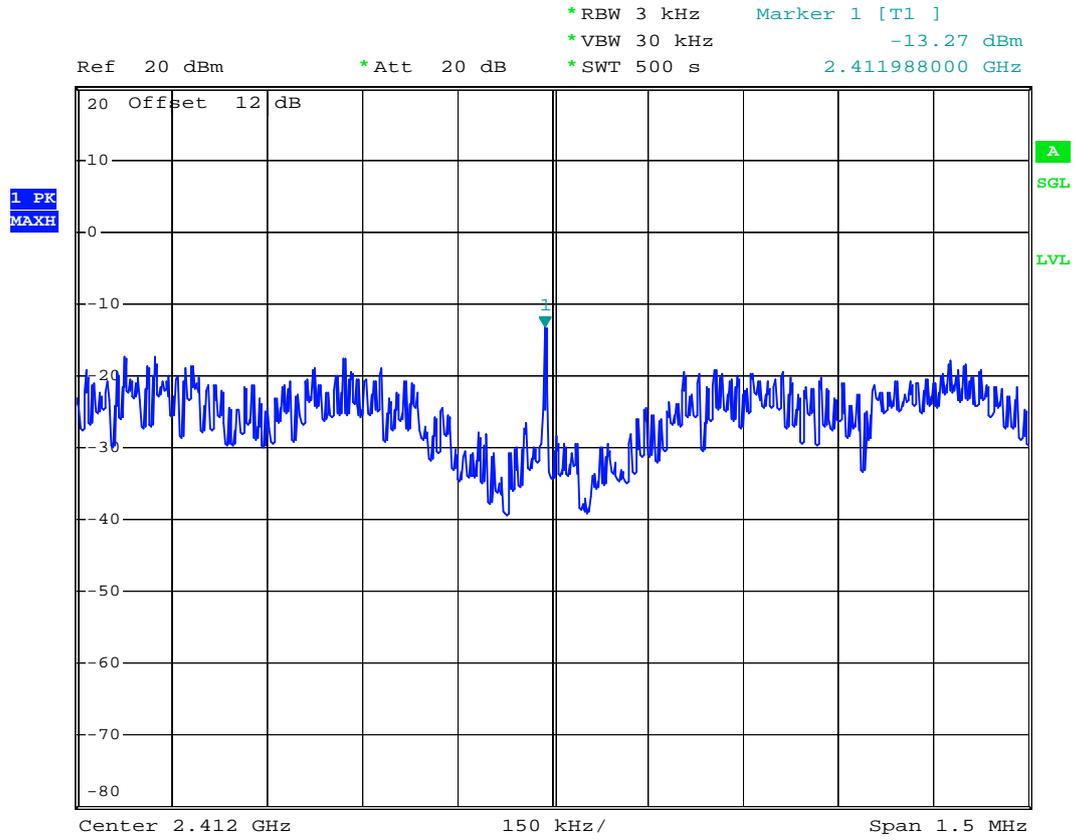
Mode 3



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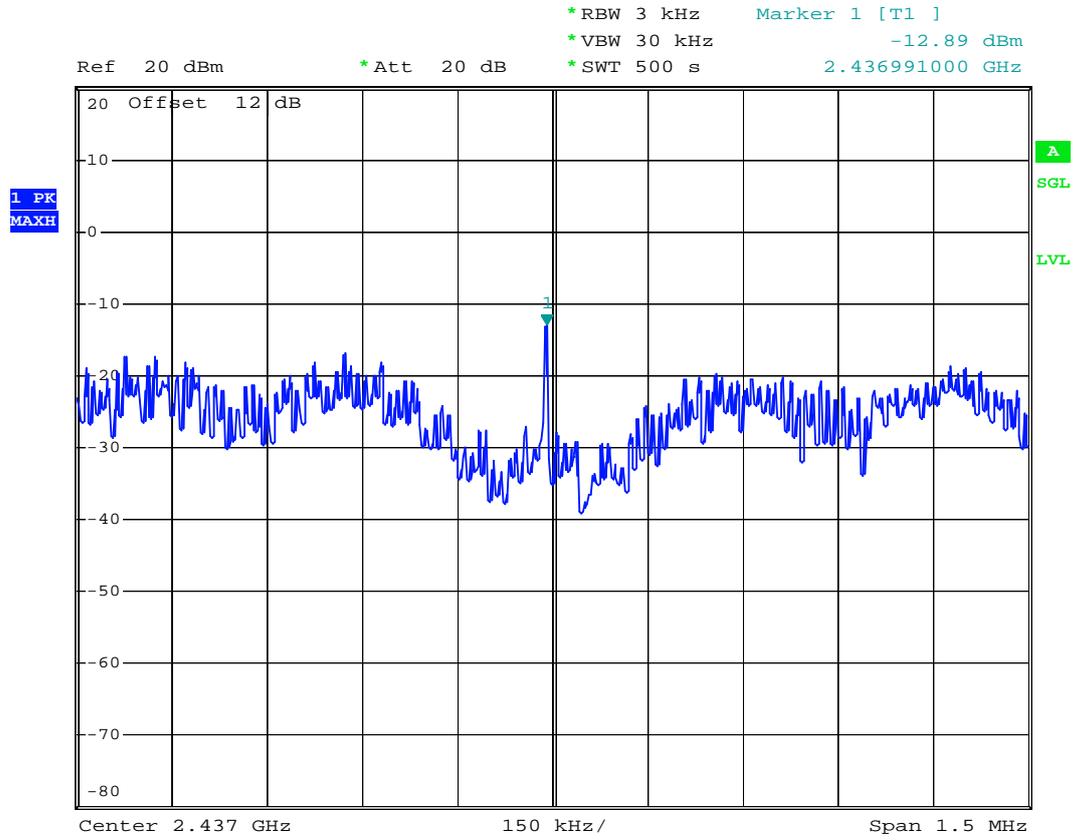
Mode 4



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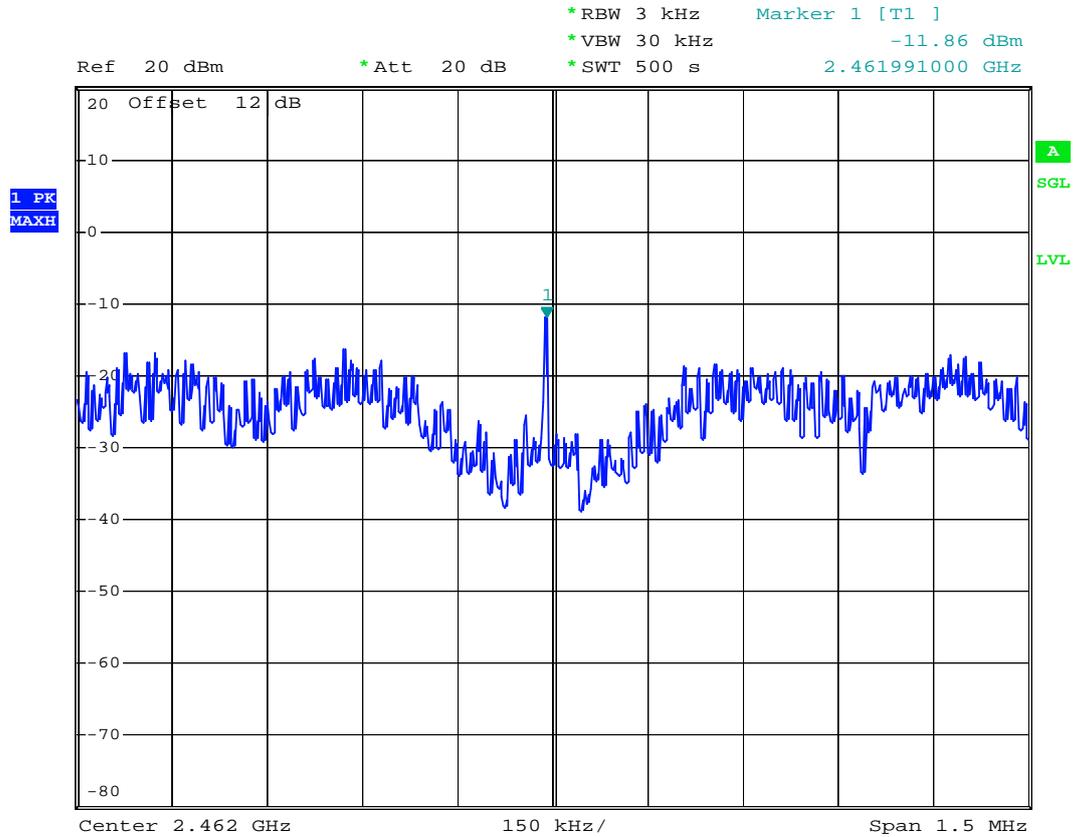
Mode 5



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Mode 6



Date: 13.JUN.2007 06:09:23



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 and
- Temperature : 24C
- Relative Humidity : 51%
- Test Enginner : Andy

- 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
2389.1	41.27	-12.73	54.00	42.70	30.26	3.75	35.44	100	166	Average
2389.1	51.18	-22.82	74.00	52.61	30.26	3.75	35.44	100	0	Peak

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
2389.4	48.68	-25.32	74.00	50.11	30.26	3.75	35.44	100	0	Peak
2389.4	39.47	-14.53	54.00	40.90	30.26	3.75	35.44	100	133	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
2483.57	56.49	-17.51	74.00	57.85	30.29	3.86	35.51	100	167	Peak
2483.57	44.91	-9.09	54.00	46.27	30.29	3.86	35.51	100	167	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
2483.57	56.49	-17.51	74.00	57.85	30.29	3.86	35.51	100	167	Peak
2483.57	44.91	-9.09	54.00	46.27	30.29	3.86	35.51	100	167	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
2389.92	60.49	-13.51	74.00	61.94	30.26	3.75	35.46	100	0	Peak
2389.92	45.00	-9.00	54.00	46.45	30.26	3.75	35.46	100	28	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
2389.92	60.49	-13.51	74.00	61.94	30.26	3.75	35.46	100	0	Peak
2389.92	45.00	-9.00	54.00	46.45	30.26	3.75	35.46	100	28	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
2389.92	60.49	-13.51	74.00	61.94	30.26	3.75	35.46	100	0	Peak
2389.92	45.00	-9.00	54.00	46.45	30.26	3.75	35.46	100	28	Average



CH11 (Vertical)

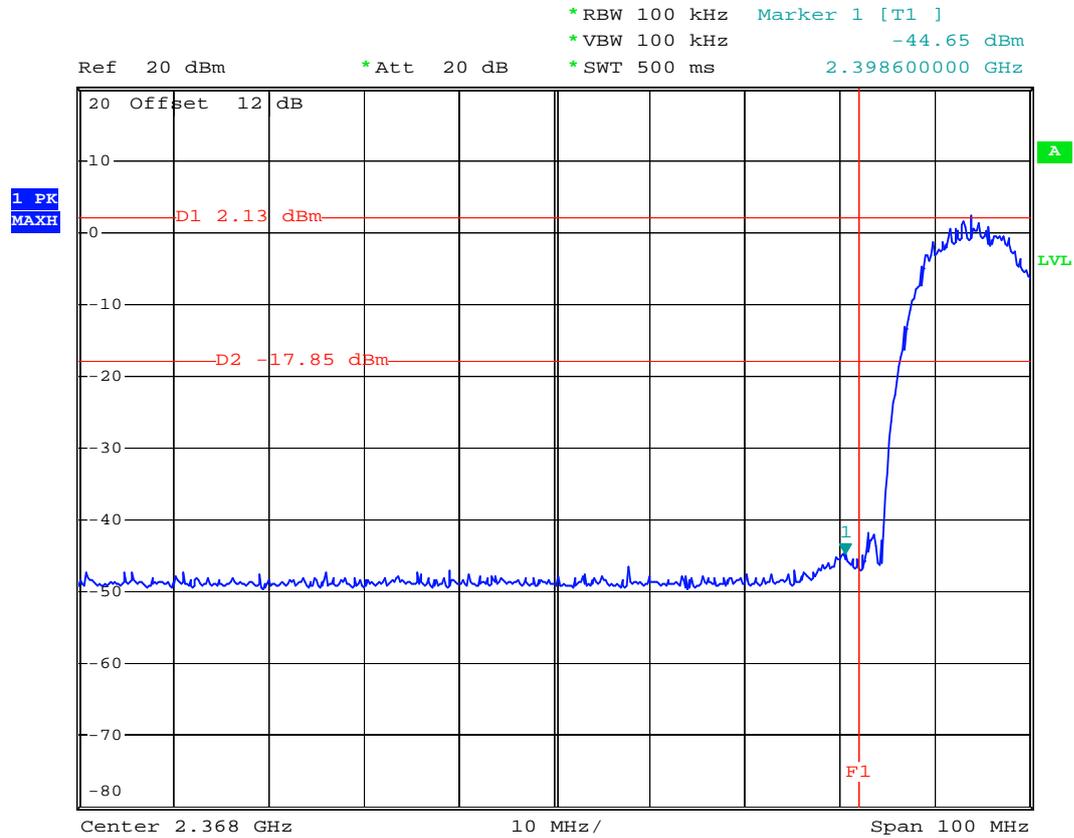
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.53	60.42	-13.58	74.00	61.78	30.29	3.86	35.51	100	0	Peak
2483.53	45.73	-8.27	54.00	47.09	30.29	3.86	35.51	100	138	Average



5.4.5 20dB Band Edge

WLAN 802.11b

CH01



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5.5 Peak Output Power Measurement

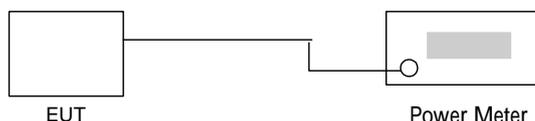
5.9.1 Measuring Instruments :

As described in chapter 6 of this test report.

5.9.2 Test Procedure :

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.

5.9.3 Test Setup Layout :



5.9.4 Test Result :

- Application Type : WLAN 802.11b/g
- Temperature : 26°C
- Relative Humidity : 59 %
- Test Enginner : Andy

WLAN 802.11b

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	14.02	1W/30 dBm
06	2437	13.86	1W/30 dBm
11	2462	14.06	1W/30 dBm

WLAN 802.11g

Channel	Frequency (MHz)	Measured Output Power (dBm)	Limits (Watt/dBm)
01	2412	17.94	1W/30 dBm
06	2437	18.83	1W/30 dBm
11	2462	18.56	1W/30 dBm



5.6 Conducted Emission

5.10.1 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
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5.10.2 Test Procedures :

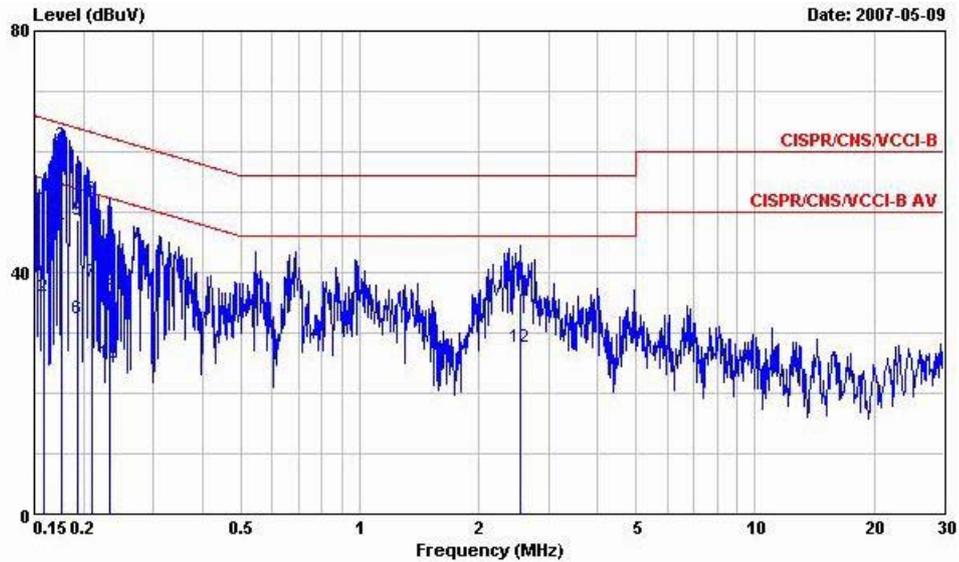
- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power port of a line impedance stabilization network (LISN).
- c. All the support units are connected to the other LISN.
- 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.



5.10.3 Test Data

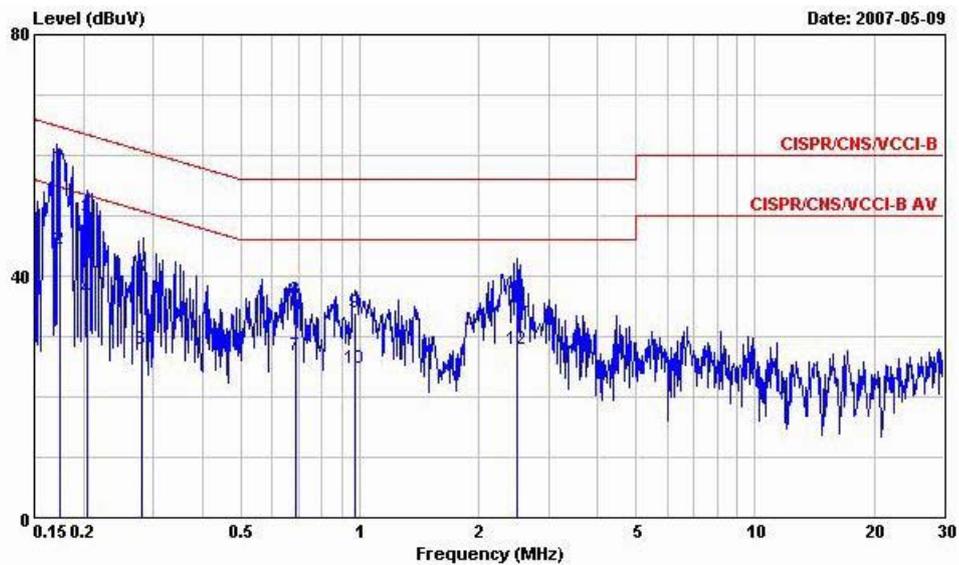
- Temperature : 26
- Relative Humidity : 59%
- Test Enginner : Andy
- Test Mode : Mode 1

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 200604 99041 LINE
 EUT : PDA PHONE
 POWER: 120V/60Hz
 Model : FR750203
 Memo : GSM 850 Idle+BT Link+WLAN Link
 Memo : +MPEG4+Camera+ADAPTER

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1590020	50.52	-15.00	65.52	50.28	0.10	0.14	QP
2	0.1590020	36.04	-19.48	55.52	35.80	0.10	0.14	Average
3	@0.1758420	60.93	-3.75	64.68	60.69	0.10	0.14	QP
4	@0.1758420	47.24	-7.44	54.68	47.00	0.10	0.14	Average
5	0.1934380	48.67	-15.22	63.89	48.43	0.10	0.14	QP
6	0.1934380	32.37	-21.52	53.89	32.13	0.10	0.14	Average
7	0.2100040	38.48	-14.73	53.21	38.20	0.10	0.18	Average
8	@0.2100040	52.10	-11.11	63.21	51.82	0.10	0.18	QP
9	0.2328500	37.18	-25.17	62.35	36.81	0.10	0.27	QP
10	0.2328500	25.06	-27.29	52.35	24.69	0.10	0.27	Average
11	2.550	36.67	-19.33	56.00	36.18	0.10	0.39	QP
12	2.550	27.55	-18.45	46.00	27.06	0.10	0.39	Average



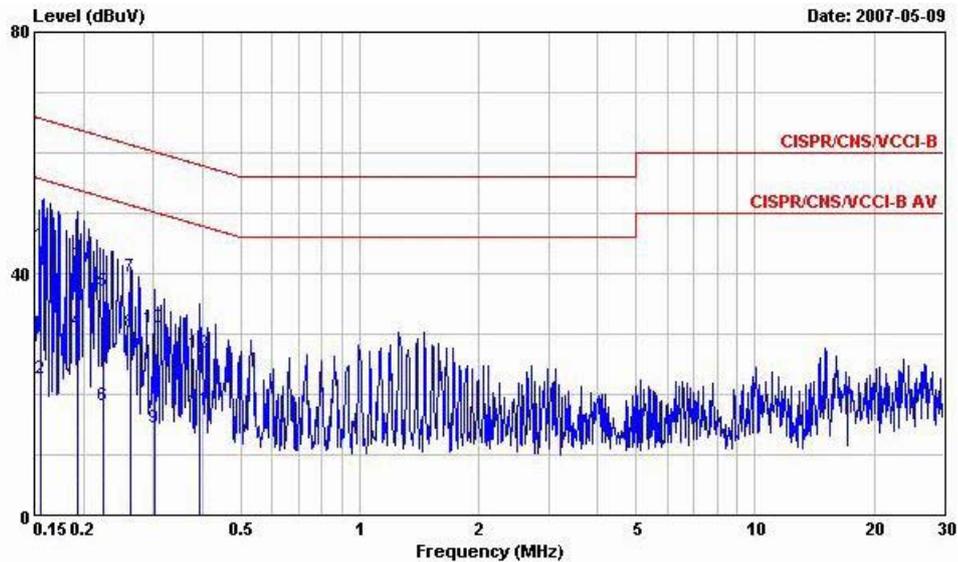
Site : CO04-HY
 Condition : CISPR/CNS/VCCI-B LISN 200604 99041 NEUTRAL
 EUT : PDA PHONE
 POWER: 120V/60Hz
 Model : FR750203
 Memo : GSM 850 Idle+BT Link+WLAN Link
 Memo : +MPEG4+Camera+ADAPTER

Freq	Level	Limit	Over	Limit	Read	LISN	Cable	Remark
MHz	dBuV	dB	Line	dBuV	dBuV	dB	dB	
1 @0.1739950	58.22	-6.55	64.77	57.98	0.10	0.14	QP	
2 @0.1739950	44.39	-10.38	54.77	44.15	0.10	0.14	Average	
3 0.2039630	49.66	-13.79	63.45	49.40	0.10	0.16	QP	
4 0.2039630	36.28	-17.17	53.45	36.02	0.10	0.16	Average	
5 0.2794590	39.67	-21.16	60.83	39.14	0.10	0.43	QP	
6 0.2794590	28.01	-22.82	50.83	27.48	0.10	0.43	Average	
7 0.6862570	26.86	-19.14	46.00	26.20	0.10	0.56	Average	
8 0.6862570	36.04	-19.96	56.00	35.38	0.10	0.56	QP	
9 0.9735420	33.88	-22.12	56.00	33.33	0.10	0.45	QP	
10 0.9735420	24.69	-21.31	46.00	24.14	0.10	0.45	Average	
11 2.490	37.07	-18.93	56.00	36.54	0.13	0.40	QP	
12 2.490	27.84	-18.16	46.00	27.31	0.13	0.40	Average	



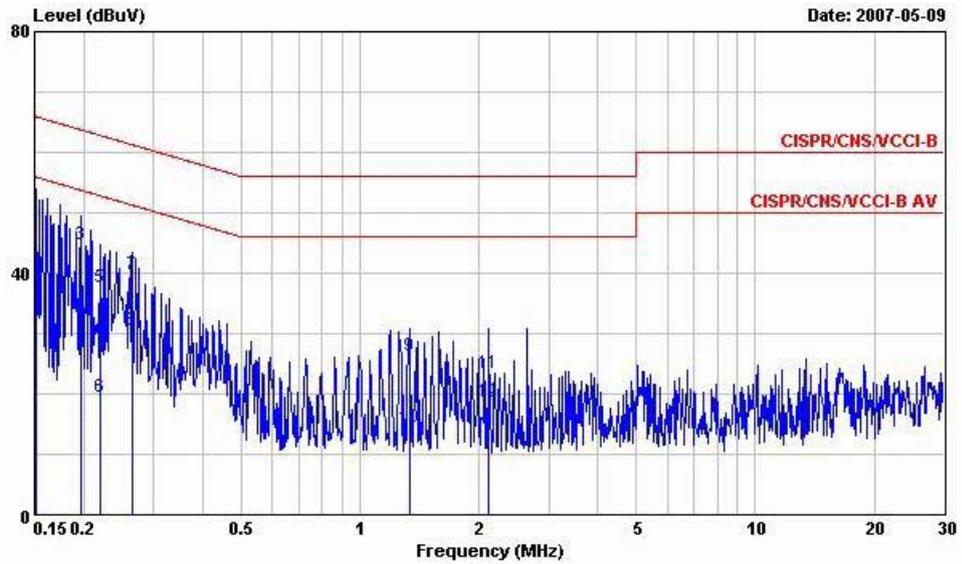
- Temperature : 26
- Relative Humidity : 59%
- Test Enginner : Andy
- Test Mode : Mode 2

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 200604 99041 LINE
 EUT : PDA PHONE
 POWER: 120V/60Hz
 Model : FR750203
 Memo : GSM 850 Idle+BT Link+WLAN Link
 Memo : +MPEG4+Camera+USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1556020	44.83	-20.87	65.70	44.59	0.10	0.14	QP
2	0.1556020	22.67	-33.03	55.70	22.43	0.10	0.14	Average
3	0.1934380	41.41	-22.48	63.89	41.17	0.10	0.14	QP
4	0.1934380	30.52	-23.37	53.89	30.28	0.10	0.14	Average
5	0.2243730	37.04	-25.62	62.66	36.70	0.10	0.24	QP
6	0.2243730	18.17	-34.49	52.66	17.83	0.10	0.24	Average
7	0.2630270	39.45	-21.89	61.34	38.98	0.10	0.37	QP
8	0.2630270	30.16	-21.18	51.34	29.69	0.10	0.37	Average
9	0.3018750	14.51	-35.68	50.19	13.92	0.10	0.49	Average
10	0.3018750	31.01	-29.18	60.19	30.42	0.10	0.49	QP
11	0.3913610	17.30	-30.73	48.03	16.49	0.10	0.71	Average
12	0.3913610	26.76	-31.27	58.03	25.95	0.10	0.71	QP



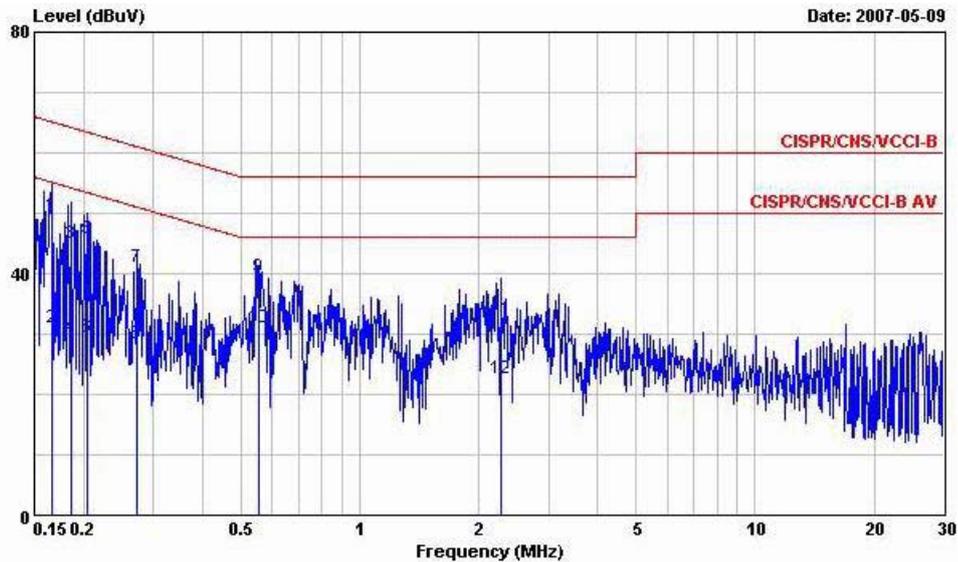
Site : C004-HY
 Condition : CISPR/CNS/VCCI-B LISN 200604 99041 NEUTRAL
 EUT : PDA PHONE
 POWER: 120V/60Hz
 Model : FR750203
 Memo : GSM 850 Idle+BT Link+WLAN Link
 Memo : +MPEG4+Camera+USB Link

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.1515980	45.10	-20.81	65.91	44.86	0.10	0.14	QP
2	0.1515980	33.03	-22.88	55.91	32.79	0.10	0.14	Average
3	0.1965370	44.61	-19.15	63.76	44.37	0.10	0.14	QP
4	0.1965370	32.70	-21.06	53.76	32.46	0.10	0.14	Average
5	0.2208340	37.61	-25.18	62.79	37.28	0.10	0.23	QP
6	0.2208340	19.59	-33.20	52.79	19.26	0.10	0.23	Average
7	0.2644240	39.82	-21.47	61.29	39.34	0.10	0.38	QP
8	0.2644240	30.50	-20.79	51.29	30.02	0.10	0.38	Average
9	1.330	26.33	-29.67	56.00	25.79	0.10	0.44	QP
10	1.330	14.53	-31.47	46.00	13.99	0.10	0.44	Average
11	2.120	23.48	-32.52	56.00	22.95	0.11	0.42	QP
12	2.120	18.61	-27.39	46.00	18.08	0.11	0.42	Average



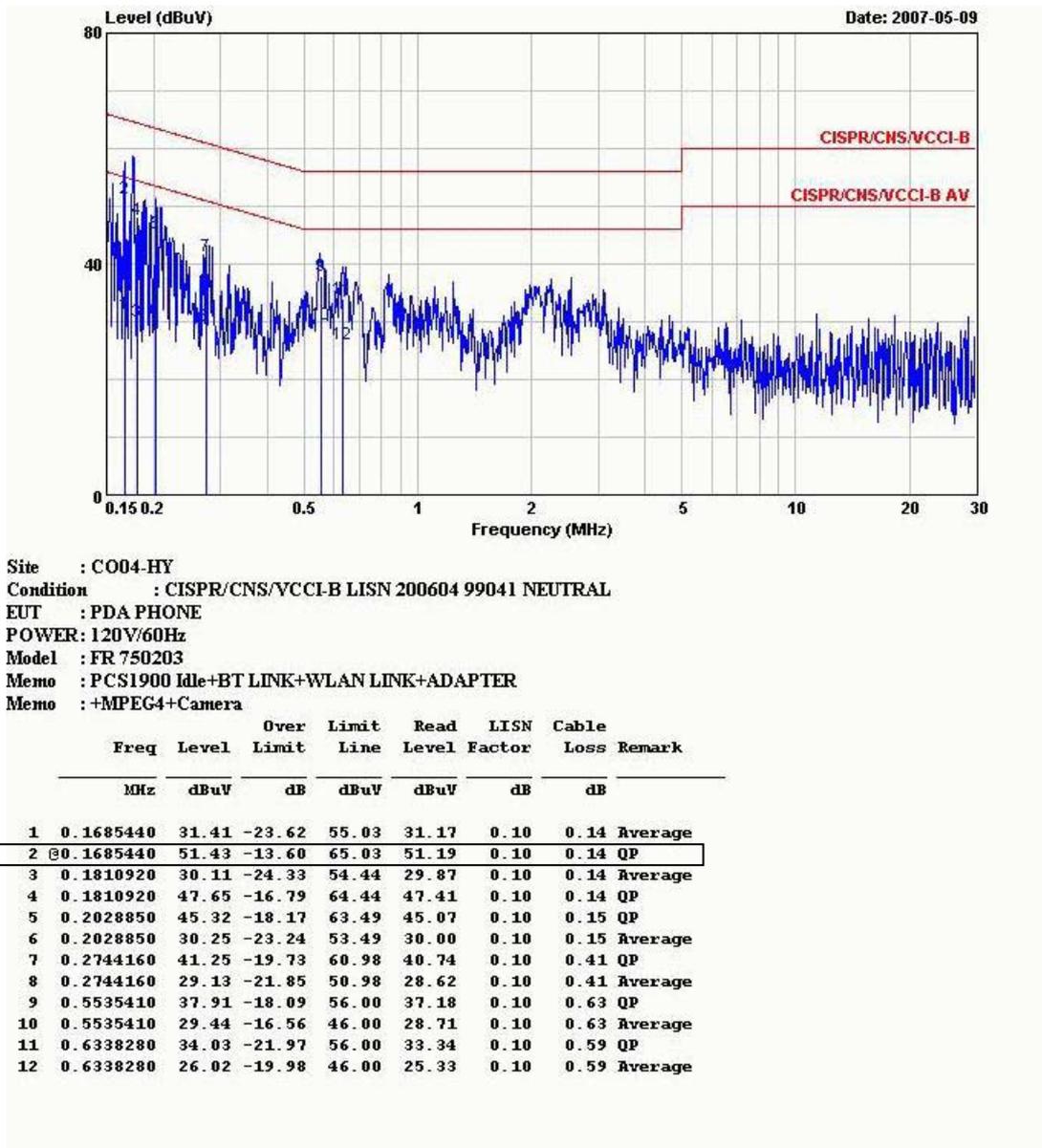
- Temperature : 26
- Relative Humidity : 59%
- Test Enginner : Andy
- Test Mode : Mode 3

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 200604 99041 LINE
 EUT : PDA PHONE
 POWER: 120V/60Hz
 Model : FR750203
 Memo : PCS1900 Idle+BT LINK+WLAN LINK+ADAPTER
 Memo : +MPEG4+Camera

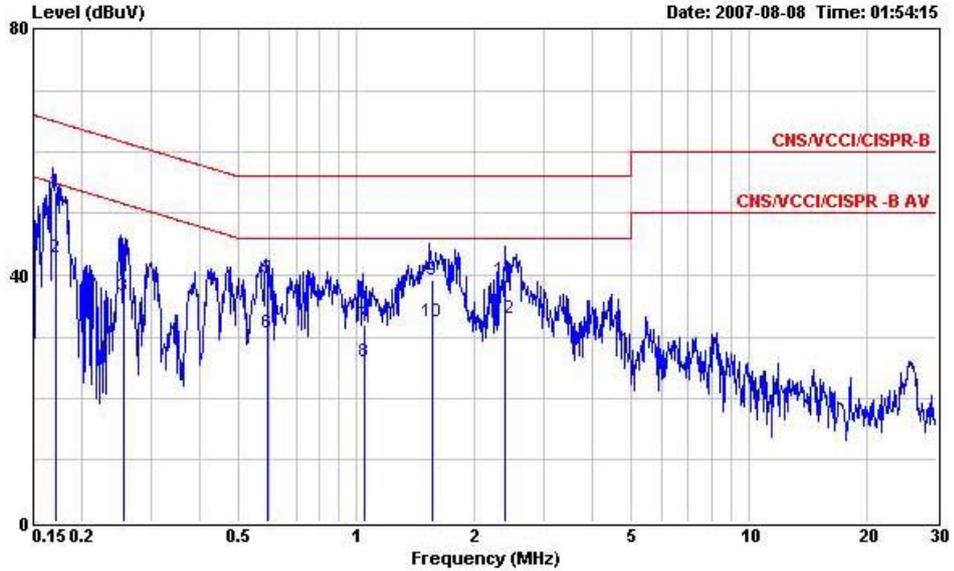
Freq	Level	Over	Limit	Read	LISN	Cable	Remark
MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1 @0.1667680	49.77	-15.35	65.12	49.53	0.10	0.14	QP
2 0.1667680	31.04	-24.08	55.12	30.80	0.10	0.14	Average
3 0.1854100	45.12	-19.12	64.24	44.88	0.10	0.14	QP
4 0.1854100	29.58	-24.66	54.24	29.34	0.10	0.14	Average
5 0.2050460	45.92	-17.48	63.40	45.66	0.10	0.16	QP
6 0.2050460	29.44	-23.96	53.40	29.18	0.10	0.16	Average
7 0.2729650	41.13	-19.90	61.03	40.62	0.10	0.41	QP
8 0.2729650	28.47	-22.56	51.03	27.96	0.10	0.41	Average
9 0.5541400	39.44	-16.56	56.00	38.71	0.10	0.63	QP
10 @0.5541400	31.16	-14.84	46.00	30.43	0.10	0.63	Average
11 2.270	32.41	-23.59	56.00	31.90	0.10	0.41	QP
12 2.270	22.52	-23.48	46.00	22.01	0.10	0.41	Average





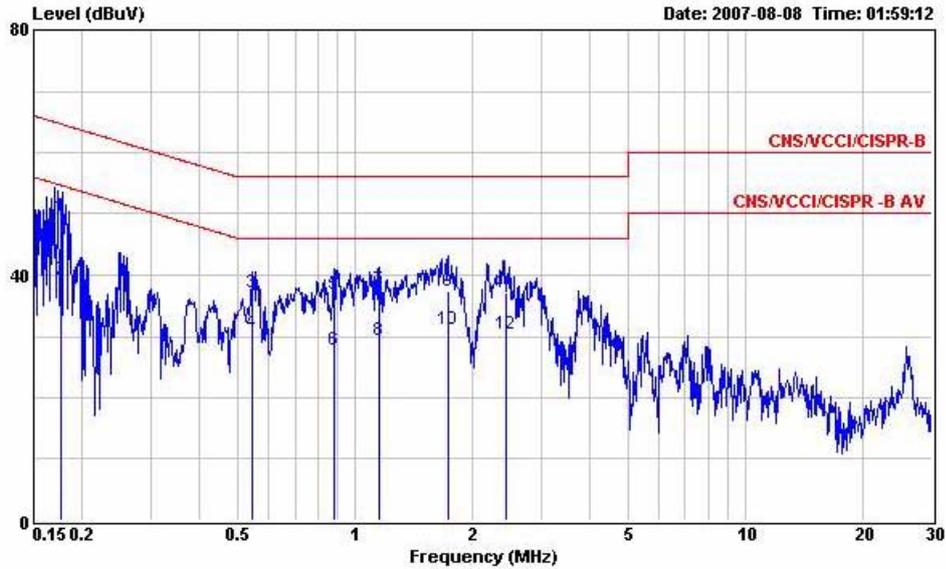
- Temperature : 27~28
- Relative Humidity : 49~50%
- Test Enginner : Sun
- Test Mode : Mode 4

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



Site : CO01-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 LINE
 EUT : PDA Phone
 Power : 120Vac/60Hz
 Model : FR 750203-02
 Memo : GSM 850 Idle+BT Idle+WLAN Idle+MPEG4
 Memo : +Camera+Adaptor2+GPS Rx

Freq MHz	Level dBuV	Over Limit dB	Limit Line dBuV	Read Level dBuV	Cable Loss dB	Probe Factor dB	Remark
1	0.171	53.50	-11.42	64.92	53.34	0.06	0.10 QP
2	0.171	42.98	-11.94	54.92	42.82	0.06	0.10 Average
3	0.254	36.63	-14.99	51.62	36.46	0.07	0.10 Average
4	0.254	42.18	-19.44	61.62	42.01	0.07	0.10 QP
5	0.593	39.43	-16.57	56.00	39.27	0.06	0.10 QP
6	0.593	30.76	-15.24	46.00	30.60	0.06	0.10 Average
7	1.043	31.96	-24.04	56.00	31.82	0.04	0.10 QP
8	1.043	26.03	-19.97	46.00	25.89	0.04	0.10 Average
9	1.558	39.30	-16.70	56.00	39.11	0.09	0.10 QP
10	1.558	32.35	-13.65	46.00	32.16	0.09	0.10 Average
11	2.385	39.28	-16.72	56.00	39.03	0.12	0.13 QP
12	2.385	32.97	-13.03	46.00	32.72	0.12	0.13 Average



Site : C001-HY
 Condition : CNS/VCCI/CISPR-B 2001/004 200604 NEUTRAL
 EUT : PDA Phone
 Power : 120Vac/60Hz
 Model : FR 750203-02
 Memo : GSM 850 Idle+BT Idle+WLAN Idle+MPEG4
 Memo : +Camera+Adaptor2+GPS Rx

	Freq	Level	Over Limit	Limit Line	Read Level	Cable Loss	Probe Factor	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.177	49.54	-15.08	64.62	49.38	0.06	0.10	QP
2	0.177	39.15	-15.47	54.62	38.99	0.06	0.10	Average
3	0.546	37.16	-18.84	56.00	36.99	0.07	0.10	QP
4	0.546	30.77	-15.23	46.00	30.60	0.07	0.10	Average
5	0.885	36.85	-19.15	56.00	36.70	0.05	0.10	QP
6	0.885	27.73	-18.27	46.00	27.58	0.05	0.10	Average
7	1.153	37.60	-18.40	56.00	37.44	0.06	0.10	QP
8	1.153	29.31	-16.69	46.00	29.15	0.06	0.10	Average
9	1.736	37.43	-18.57	56.00	37.23	0.10	0.10	QP
10	1.736	31.04	-14.96	46.00	30.84	0.10	0.10	Average
11	2.424	37.06	-18.94	56.00	36.84	0.12	0.10	QP
12	2.424	30.35	-15.65	46.00	30.13	0.12	0.10	Average



5.7 Radiated Emission Measurement

5.11.1 Measuring Instruments

As described in chapter 6 of this Report.

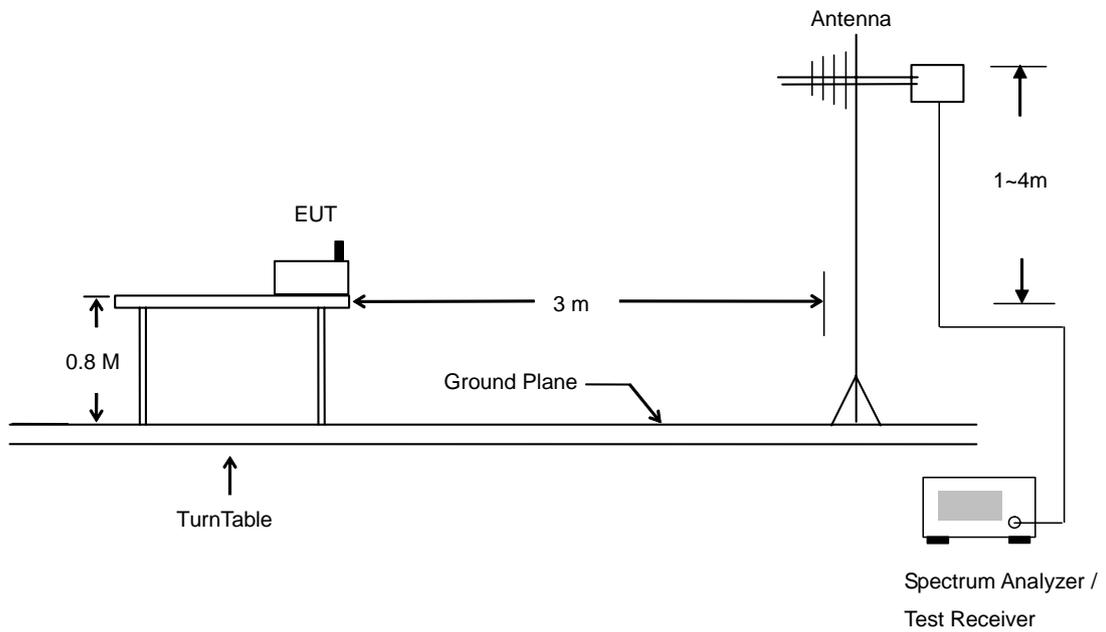
The spectrum analyzer setting :

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

5.11.2 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.

5.11.3 Typical Test Setup Layout of Radiated Emission

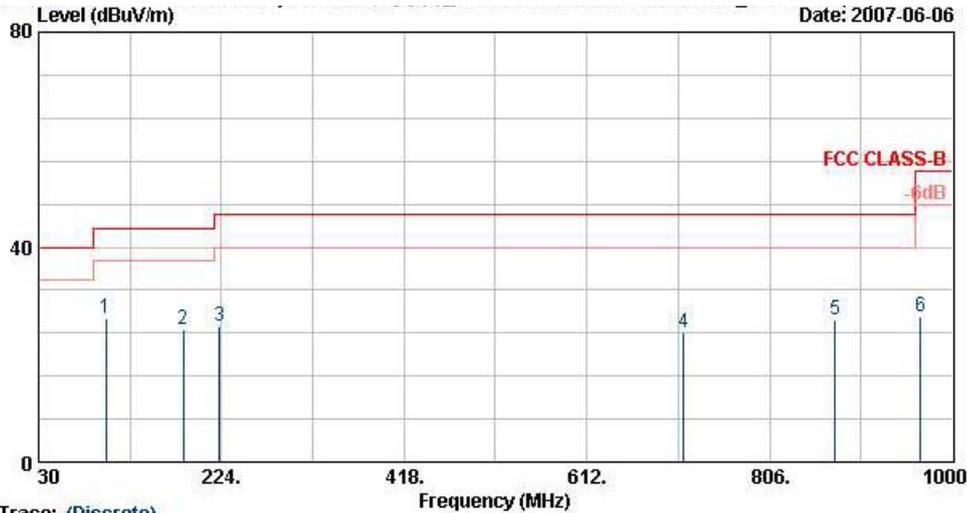




5.11.4 Test Data

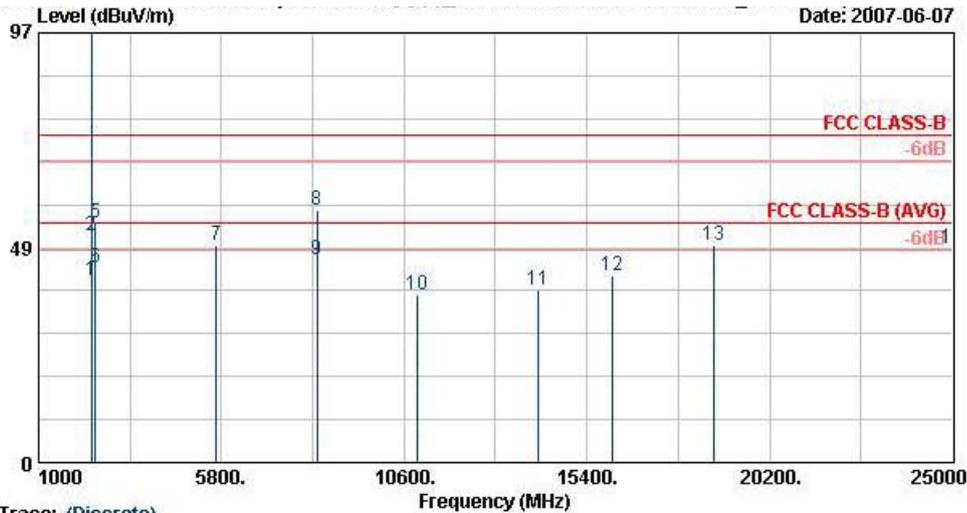
- Temperature : 26
- Relating Humidity : 59%
- Test Enginner : Anderson
- Test Mode : Mode 1
- Polarization : Horizontal

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



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) HORIZONTAL
 EUT : PDA Phone
 Power : 120Vac/60Hz
 Model : FR 750203
 Memo : 11b Tx_CN01_2412MHz
 Plane : E2
 Data Rate : 11

	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	101.3	26.71	-16.79	43.50	45.37	11.07	1.42	31.15	100	205	Peak
2	183.6	24.54	-18.96	43.50	44.21	9.42	1.95	31.03	---	---	Peak
3	222.2	25.28	-20.72	46.00	43.52	10.61	2.16	31.01	---	---	Peak
4	714.4	24.19	-21.81	46.00	31.45	19.03	4.29	30.57	---	---	Peak
5	875.4	26.43	-19.57	46.00	31.74	20.36	4.74	30.40	---	---	Peak
6	966.4	27.05	-26.95	54.00	31.31	21.00	5.02	30.28	---	---	Peak



Trace: (Discrete)

Site : 08CHD6-HY
 Condition : SHF-EHF HORN HORIZONTAL
 EUT : FDA Phone
 Power : 120Vac/60Hz
 Model : FR 750203
 Memo : 11b Tx_CH01,2412MHz
 Plane : E2
 Data Rate : 11

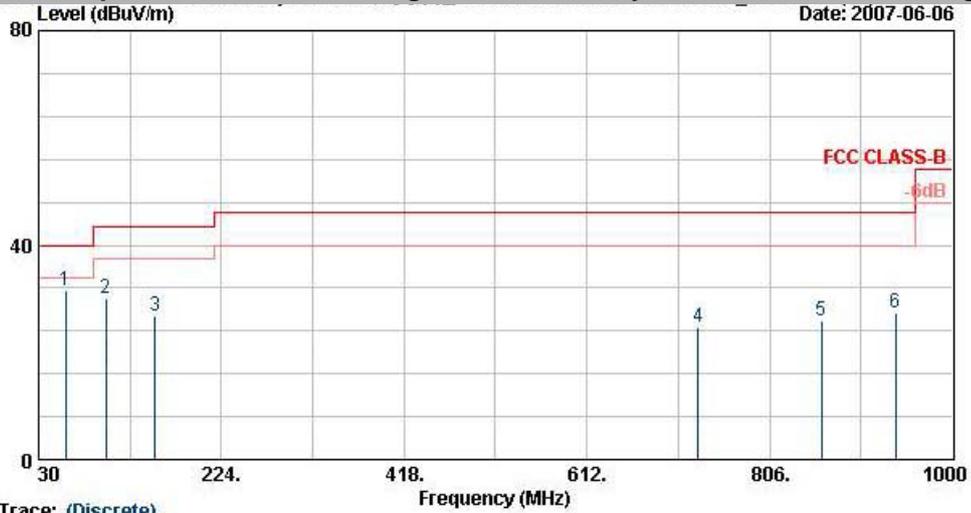
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.1	41.27	-12.73	54.00	42.70	30.26	3.75	35.44	100	166	Average
2	2389.1	51.18	-22.82	74.00	52.61	30.26	3.75	35.44	100	0	Peak
3 @	2412.0	95.93			97.35	30.27	3.77	35.46	100	166	Average
4 X	2412.0	102.86			104.27	30.27	3.77	35.46	100	0	Peak
5	2498.0	54.12	-19.88	74.00	55.47	30.30	3.88	35.53	100	0	Peak
6	2498.0	43.94	-10.06	54.00	45.29	30.30	3.88	35.53	100	166	Average
7	5661.0	49.10	-24.90	74.00	44.35	33.76	6.89	35.90	---	---	Peak
8	8316.0	56.94	-17.06	74.00	45.46	39.35	8.14	36.02	---	---	Peak
9	8316.0	45.67	-8.33	54.00	34.20	39.35	8.14	36.02	100	336	Average
10	10956.0	38.01	-35.99	74.00	72.53	-8.32	9.84	36.04	---	---	Peak
11	14112.0	39.04	-34.96	74.00	68.34	-6.21	11.65	34.73	---	---	Peak
12	16086.0	42.14	-31.86	74.00	70.61	-5.02	11.79	35.24	---	---	Peak
13	18756.0	49.00	-25.00	74.00	44.79	21.33	18.73	35.84	---	---	Peak
14	24988.0	48.19	-25.81	74.00	46.39	21.75	18.53	38.48	---	---	Peak
15	24988.0	48.19	-25.81	74.00	46.39	21.75	18.53	38.48	---	---	Peak

Remark: #3 and #4 Fundamental Signal



- Polarization : Vertical

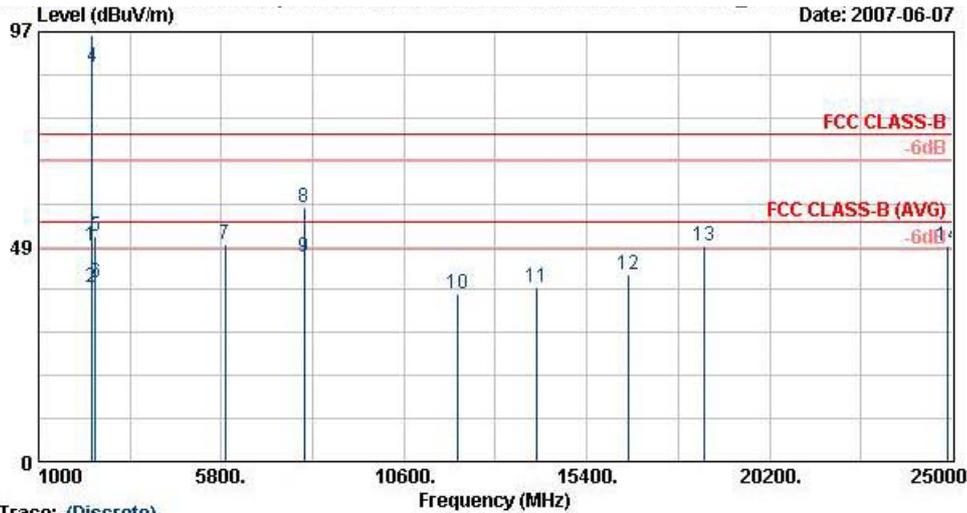
The test that passed at minimum margin was marked by the frame in the following table.



Trace: (Discrete)

Site : 08CH06-HY
 Condition : LF-ANT(951121) VERTICAL
 EUT : FDA Phone
 Power : 120Vac/60Hz
 Model : FR 750203
 Memo : 11b Tx_CM01_2412MHz
 Plane : E2
 Data Rate : 11

	Freq	Level	Over	Limit	ReadAntenna	Cable	Preamp	Ant	Table	Remark	
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	58.9	31.55	-8.45	40.00	54.90	6.77	1.11	31.23	100	158	Peak
2	101.3	30.17	-13.33	43.50	48.83	11.07	1.42	31.15	---	---	Peak
3	153.9	26.65	-16.85	43.50	45.57	10.29	1.84	31.05	---	---	Peak
4	729.8	24.61	-21.39	46.00	31.68	19.16	4.32	30.55	---	---	Peak
5	861.4	25.99	-20.01	46.00	31.47	20.25	4.69	30.42	---	---	Peak
6	939.8	27.38	-18.62	46.00	31.93	20.81	4.93	30.30	---	---	Peak



Trace: (Discrete)
 Site : 08CHD6-HY
 Condition : SHF-EHF HORN VERTICAL
 EUT : FDA Phone
 Power : 120Vac/60Hz
 Model : FR 750203
 Memo : 11b Tx_Ch01_2412MHz
 Plane : E2
 Data Rate : 11

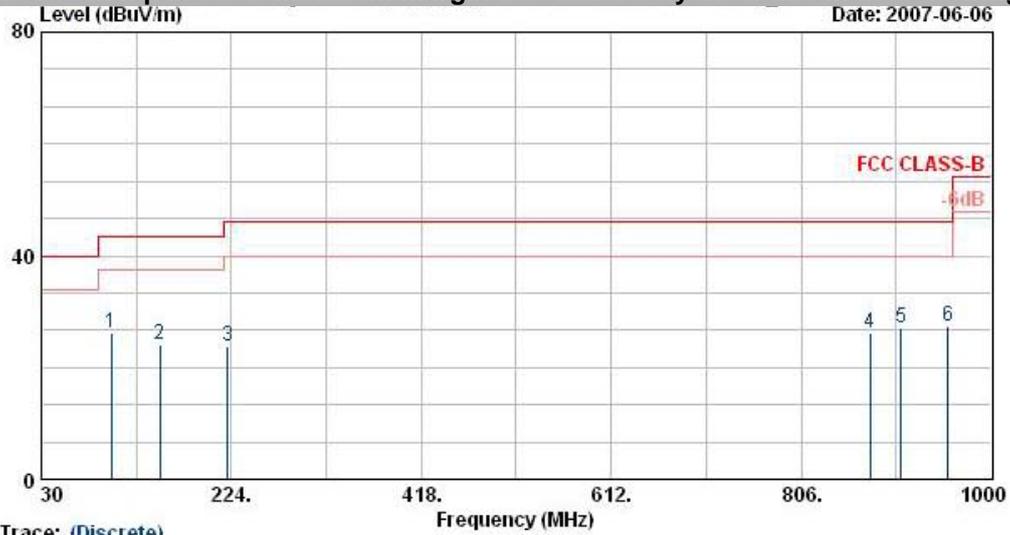
	Freq	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	
			dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	2389.4	48.68	-25.32	74.00	50.11	30.26	3.75	35.44	100	0	Peak
2	2389.4	39.47	-14.53	54.00	40.90	30.26	3.75	35.44	100	133	Average
3 X	2412.0	96.26			97.68	30.27	3.77	35.46	100	0	Peak
4 @	2412.0	88.94			90.36	30.27	3.77	35.46	100	133	Average
5	2498.0	50.73	-23.27	74.00	52.07	30.30	3.88	35.53	100	0	Peak
6	2498.0	40.28	-13.72	54.00	41.63	30.30	3.88	35.53	100	133	Average
7	5901.0	49.01	-24.99	74.00	43.83	34.00	6.93	35.75	---	---	Peak
8	7977.0	57.24	-16.76	74.00	45.75	39.55	7.78	35.85	---	---	Peak
9	7977.0	46.09	-7.91	54.00	34.60	39.55	7.78	35.85	100	228	Average
10	11997.0	37.84	-36.16	74.00	73.37	-9.60	10.64	36.58	---	---	Peak
11	14061.0	39.37	-34.63	74.00	68.52	-6.16	11.64	34.63	---	---	Peak
12	16482.0	42.36	-31.64	74.00	71.15	-9.85	11.88	30.81	---	---	Peak
13	18486.0	48.53	-25.47	74.00	43.92	21.19	19.36	35.94	---	---	Peak
14	24868.0	48.62	-25.38	74.00	46.47	21.94	18.80	38.59	---	---	Peak

Remark: #3 and #4 Fundamental Signal



- Test Mode : Mode 2
- Polarization : Horizontal

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



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : LF-ANT(951121) HORIZONTAL
 EUT : PDA Phone
 Power : 120Vac/60Hz
 Model : FR 750203
 Memo : 11b Tx_Ch06;2437MHz
 Plane : E2
 Data Rate : 11

	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 @	101.28	26.22	-17.28	43.50	44.88	11.07	1.42	31.15	100	205	Peak
2	150.69	24.09	-19.41	43.50	42.93	10.40	1.83	31.07	---	---	Peak
3	220.08	23.73	-22.27	46.00	42.10	10.50	2.16	31.03	---	---	Peak
4	876.80	26.23	-19.77	46.00	31.52	20.36	4.74	30.40	---	---	Peak
5	908.30	26.98	-19.02	46.00	31.91	20.59	4.84	30.35	---	---	Peak
6	955.90	27.45	-18.55	46.00	31.81	20.93	4.98	30.28	---	---	Peak