FCC Test Report

EQUIPMENT	:	**PDA Phone**
MODEL NAME	:	**RAPH600**
MARKETING NAME	:	**HT-01A**
FCC ID	:	**NM8RPLD**
STANDARD	:	**FCC Part 15 Subpart C §15.247**
CLASSIFICATION	:	**Digital Spread Spectrum (DSS)**
APPLICANT	:	**HTC Corporation** 23 Xinghua Rd., Taoyuan 330, Taiwan

The product sample received on Aug. 05, 2008 and completely tested on Aug. 29, 2008. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Roy Wu / Manager

Testing Laboratory 1190

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

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SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
4.1	15.247(b)(1)	A8.4(2)	Number of Channels	≥ 15Chs	Pass	
4.2	15.247(a)(1)	A8.1(a)	20dB Bandwidth	NA	Pass	-
4.3	15.247(a)(1)	A8.1(b)	Channel Separation	≥ 2/3 of 20dB BW	Pass	-
4.4	15.247(a)(1)	A8.1(d)	Dwell Time of Each Channel	≤ 0.4sec in 31.6sec period	Pass	-
4.5	15.247(a)(1)	A8.1(b)	Peak Output Power	≤ 0.125W	Pass	-
4.6	15.247(d)	A8.5	Frequency Band Edges	≤ 20dBc	Pass	-
4.7	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	Under limit 13.7dB at 0.262MHz
4.8	15.247(d)	A8.5	Transmitter Radiated Emission	15.209(a) & 15.247(d)	Pass	Under limit 3.98dB at 2483.50MHz
4.9	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR830416-05B	Rev. 01	Initial issue of report	Sep. 09, 2008

1 General Description

1.1 Applicant

HTC Corporation

23 Xinghua Rd., Taoyuan 330, Taiwan

1.2 Manufacturer

HTC Corporation

23 Xinghua Rd., Taoyuan 330, Taiwan

1.3 Feature of Equipment Under

Product Feature & Specification	
EUT Type	PDA Phone
PDA Phone 1	EUT with Photo Camera 1 + Video Camera 1
PDA Phone 2	EUT with Photo Camera 2 + Video Camera 2
Model Name	RAPH600
Marketing Name	HT-01A
FCC ID	NM8RPLD
Frequency Range	2400 - 2483.5 MHz
Number of Channels	79
Channel Spacing	1 MHz
Output Power to Antenna	3.87dBm
Antenna Type	PIFA antenna with gain 1 dBi
Antenna Connector Type	NA
Power Supply	DV 3.7V / AC 100~240V
Type of Modulation	GFSK(1Mbps) / π/4-DQPSK(EDR 2Mbps) / 8-DPSK (EDR 3Mbps)
DUT Stage	Identical Prototype

1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C TEL: +886-3-3273456 FAX: +886-3-3284978		
Test Site No.	Sporton Site No.		FCC/IC Registration No.
	CO05-HY	03CH06-HY	TW1022/4086B-1

1.5 Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart C §15.247
- FCC Public Notice DA 00-705
- ANSI C63.4-2003

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B (DoC) which recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable / Power Cord
1	WLAN AP	SMC	SMC-100	HEDWG4005ACC	Unshielded, 1.8 m
3	BT Base Station	Anritus	8852A	N/A	Unshielded, 1.8 m
4	BT Earphone	Sony Ericsson	HBH-PV702	PQY-471087	N/A
5	Dipole Antenna	Sporton	N/A	N/A	N/A

2 Test Configuration of Equipment Under Test

2.1 Pre-Scanned RF Power

Preliminary tests were performed in different data rate and recorded the RF power output in the following table:

Channel	Frequency (MHz)	RF Power (dBm)		
		GFSK	π/4-DQPSK	8-DPSK
		1Mbps	2Mbps	3Mbps
00	2402	1.30	3.33	**3.87**
39	2441	1.19	3.05	3.49
78	2480	1.75	3.21	3.65

Remark:

- The data rate **3Mbps** was set for all the test cases, due to the highest RF output power.
- The data rate 3Mbps was set for 20 dB band width and dwell time test cases.
- The EUT is programmed to transmit signal continuously for all testing.

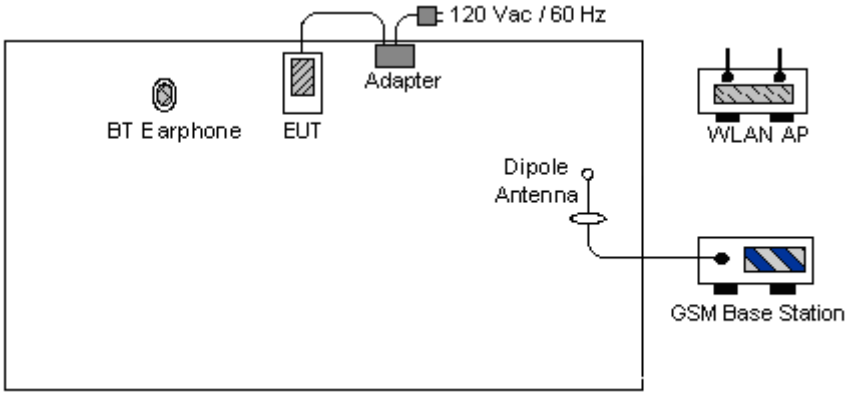
2.2 Test Mode

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. Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). Pre-scanned tests were conducted to determine the final configuration from all possible combinations. The following tables are showing the test modes as the worst cases and recorded in this report.

	Modulation		
Test Cases	**GFSK/1Mbps**	**π/4-DQPSK**	**8-DPSK/3Mbps**
Conducted TCs	Mode 1: CH00_2402 MHz Mode 2: CH39_2441 MHz Mode 3: CH78_2480 MHz	Mode 4: CH00_2402 MHz Mode 5: CH39_2441 MHz Mode 6: CH78_2480 MHz	Mode 7: CH00_2402 MHz Mode 8: CH39_2441 MHz Mode 9: CH78_2480 MHz
Radiated TCs	N/A	N/A	Mode 1: CH00_2402 MHz for PDA Phone 1 Mode 2: CH39_2441 MHz for PDA Phone 1 Mode 3: CH78_2480 MHz for PDA Phone 1 Mode 4 : CH39_2441 MHz for PDA Phone 2
AC Conducted Emission	Mode 1 : BT Link + WLAN Link + Battery 1 + Adapter 1 for PDA Phone 1 Mode 2 : BT Link + WLAN Link + Battery 1 + Adapter 2 for PDA Phone 1 **Mode 3 : BT Link + WLAN Link + Battery 2 + Adapter 3 + USB Cable 1 for PDA Phone 1** Mode 4 : BT Link + WLAN Link + Battery 2 + Adapter 3 + USB Cable 2 for PDA Phone 1 Mode 5 : BT Link + WLAN Link + Battery 2 + Adapter 4 for PDA Phone 1 Mode 6 : BT Link + WLAN Link + Battery 2 + Adapter 3 + USB Cable 1 for PDA Phone 1 Remark: The worst case of conducted emission is mode 3; only the test data of it was reported.		

2.3 Connection Diagram of Test System

<Conducted Emission >



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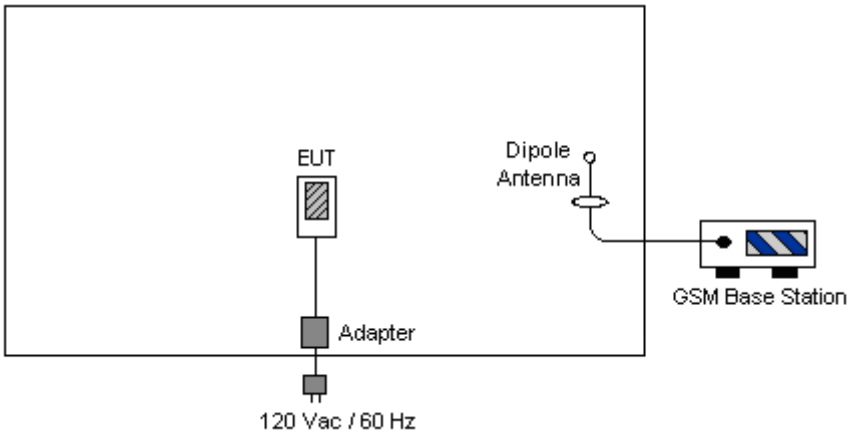


2.4 RF Utility

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 testing. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

3 Test Result

3.1 Number of Channel Measurement

3.1.1 Limits of Number of Hopping Frequency

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

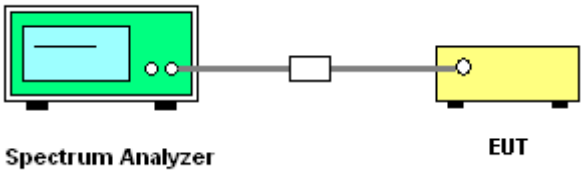
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 Test Procedure

1. The testing follows FCC Public Notice DA 00-705 Measurement Guidelines.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. The modulation types of EUT are irrelevant to number of hopping channels deviation.
4. The EUT must have its hopping function enabled. Use the following spectrum analyzer settings: Span = the frequency band of operation; RBW ≥ 1% of the span; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
5. The number of hopping frequency used is defined as the device has the numbers of total channel.

3.1.4 Test Setup

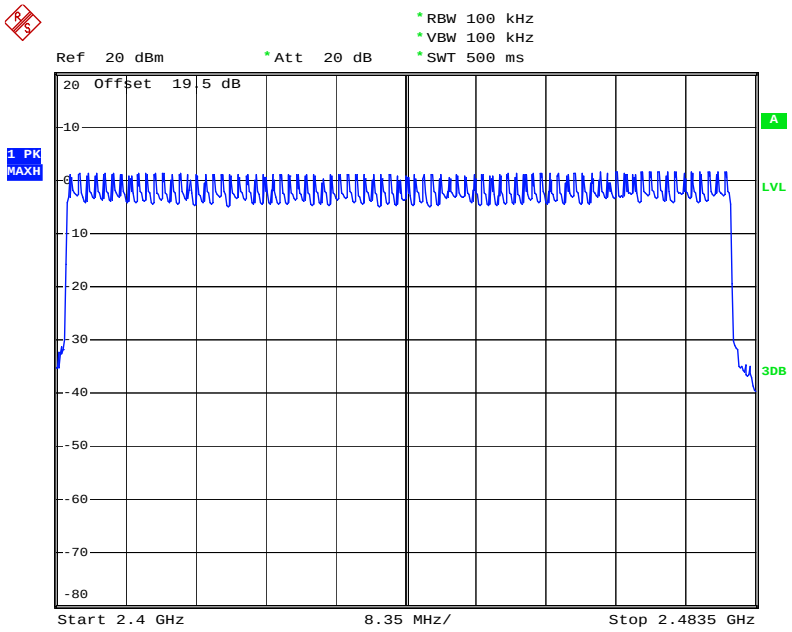


3.1.5 Test Result of Number of Hopping Frequency

EUT Mode :	3Mbps	**Temperature :**	21~26℃
Test Engineer :	Sun Wang	**Relative Humidity :**	49~57%

Number of Hopping Channels (Channel)	Limits (Channel)	Pass/Fail
79	> 15	Pass

Number of Hopping Channel Plot on Channel 0 - 78



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3.2 20dB Bandwidth Measurement

3.2.1 Limit of 20dB Bandwidth

N/A.

3.2.2 Measuring Instruments

See list of measuring instruments of this test report.

3.2.3 Test Procedures

1. The testing follows FCC Public Notice DA 00-705 Measurement Guidelines.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. The EUT should be transmitting at its maximum data rate as the worst cases.
4. Use the following spectrum analyzer settings:
   Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel;
   RBW ≥ 1% of the 20 dB bandwidth; VBW ≥ RBW; Sweep = auto; Detector function = peak;
   Trace = max hold.
5. The marker-delta reading at this point is the 20 dB bandwidth of the emission.

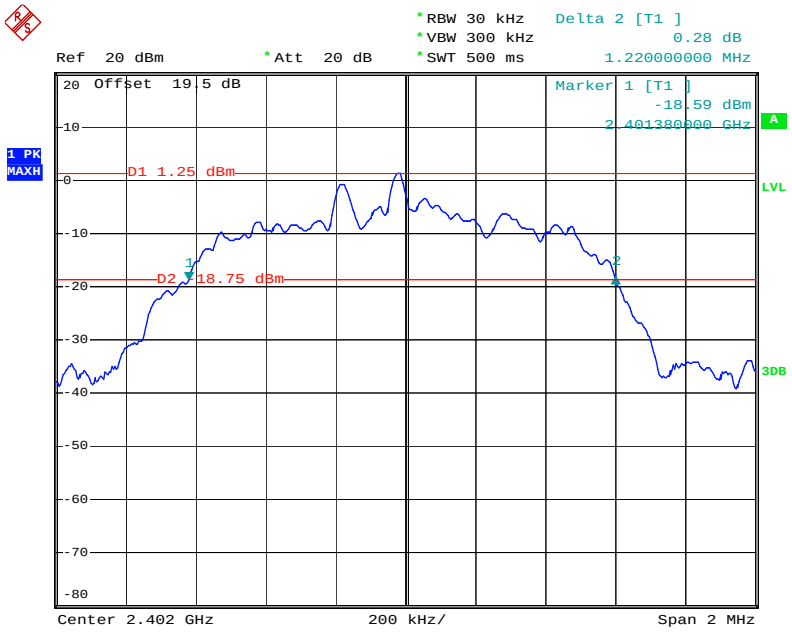
3.2.4 Test Setup

3.2.5 Test Result of 20dB Bandwidth

EUT Mode :	Mode 7~9	**Temperature :**	21~26℃
Test Engineer :	Sun Wang	**Relative Humidity :**	49~57%

Channel	Frequency (MHz)	20dB Bandwidth (MHz)
00	2402	1.220
39	2441	1.220
78	2480	1.224

20 dB Bandwidth Plot on Channel 0



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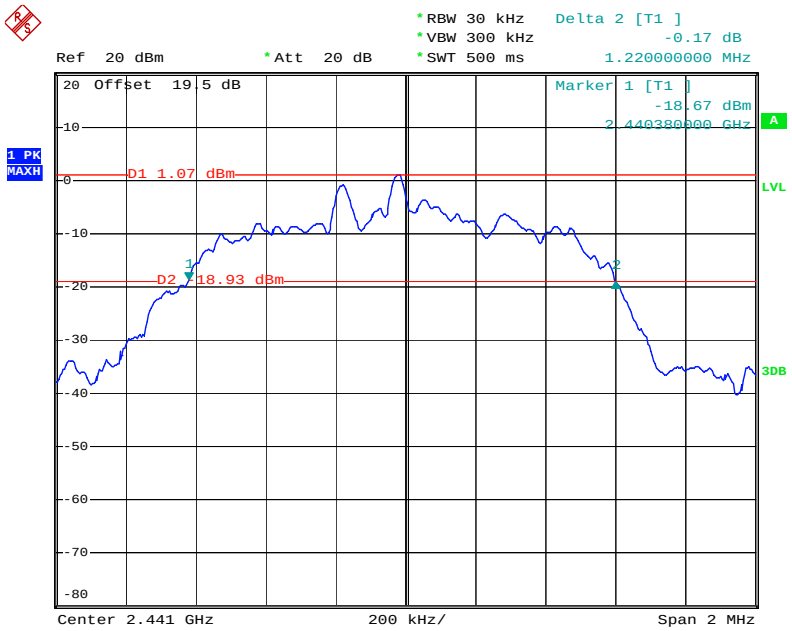
20 dB Bandwidth Plot on Channel 39



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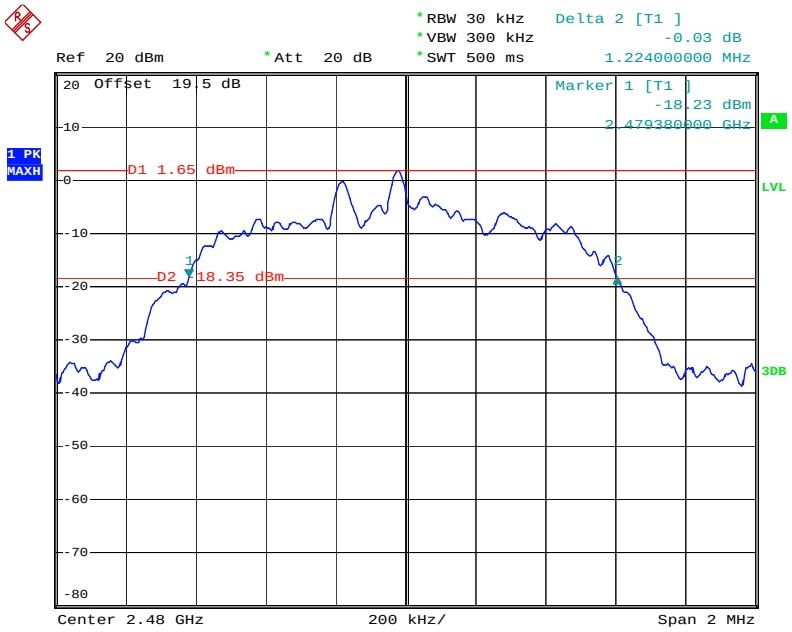
20 dB Bandwidth Plot on Channel 78



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3.3 Hopping Channel Separation Measurement

3.3.1 Limit of Hopping Channel Separation

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

3.3.2 Measuring Instruments

See list of measuring instruments of this test report.

3.3.3 Test Procedures

1. Please refer FCC Public Notice DA 00-705 Measurement Guidelines.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. The EUT should be transmitting at its maximum data rate as the worst cases.
4. Use the following spectrum analyzer settings:
   Span = wide enough to capture the peaks of two adjacent channels; RBW ≥ 1% of the span;
   VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
5. Use the marker-delta function to determine the separation between the peaks of the adjacent channels.

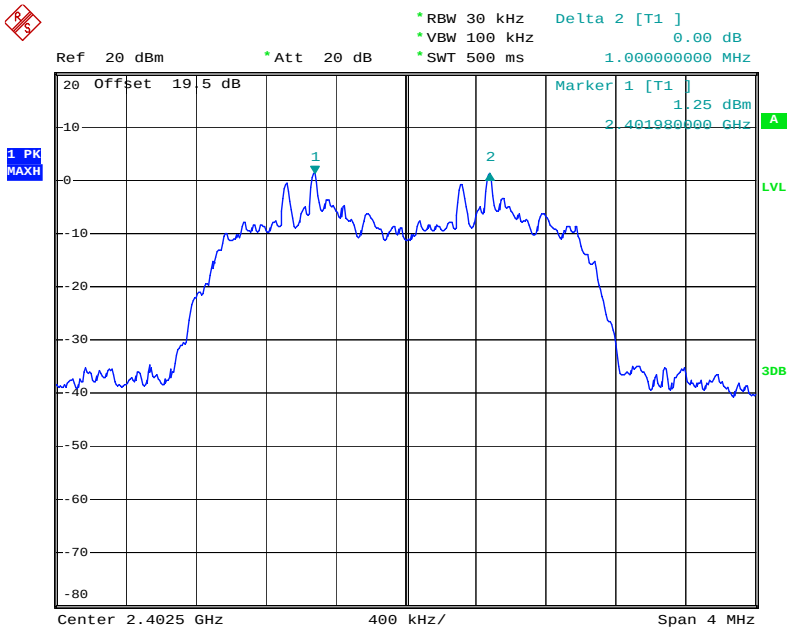
3.3.4 Test Setup

3.3.5 Test Result of Hopping Channel Separation

EUT Mode :	Mode 7~9	**Temperature :**	21~26℃
Test Engineer :	Sun Wang	**Relative Humidity :**	49~57%

Channel	Frequency (MHz)	Frequency Separation (MHz)	(2/3 of 20dB BW) Limits (MHz)	Pass/Fail
00	2402	1.000	0.813	Pass
39	2441	1.000	0.813	Pass
78	2480	1.000	0.816	Pass

Channel Separation Plot on Channel 0 - 1



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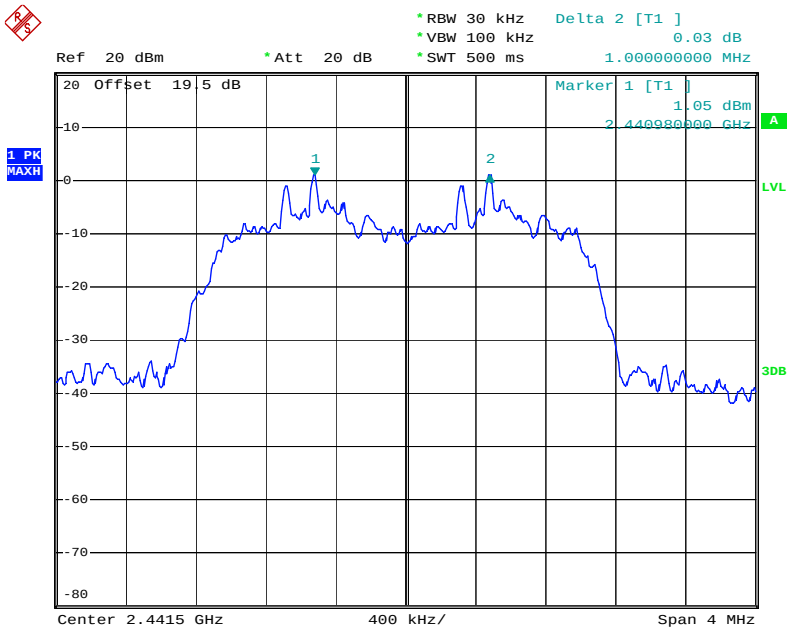
Channel Separation Plot on Channel 39 - 40



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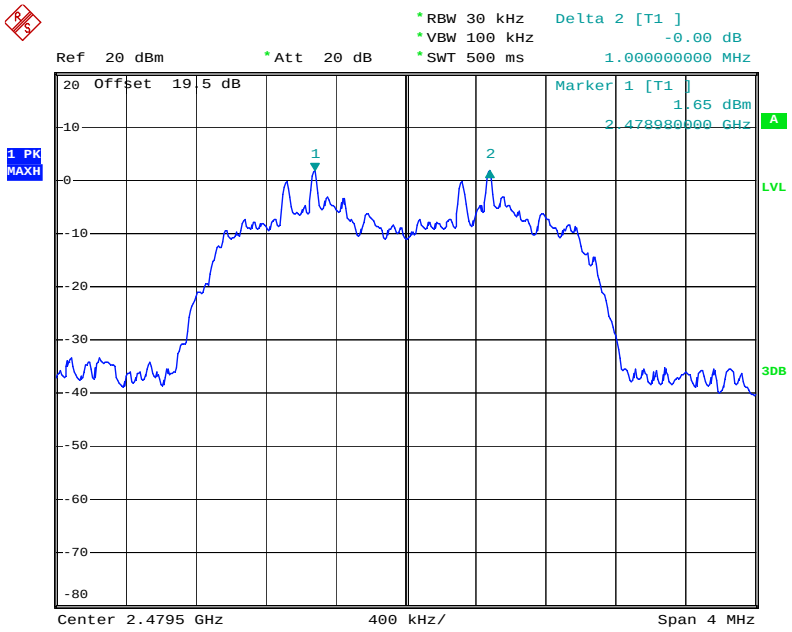
Channel Separation Plot on Channel 77 - 78



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3.4 Dwell Time of Each Channel Measurement

3.4.1 Limit of Dwell Time of Each Channel

The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

3.4.2 Measuring Instruments

See list of measuring instruments of this test report.

3.4.3 Test Procedures

1. The testing follows FCC Public Notice DA 00-705 Measurement Guidelines.
2. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
3. The EUT should be transmitting at its maximum data rate as the worst cases.
4. The EUT must have its hopping function enabled. Use the following spectrum analyzer settings: Span = zero span, centered on a hopping channel; RBW = 1 MHz; VBW ≥ RBW; Sweep = as necessary to capture the entire dwell time per hopping channel; Detector function = peak; Trace = max hold.
5. Use the marker-delta function to calculate the dwell time.

3.4.4 Test Setup

3.4.5 Test Result of Dwell Time of Each Channel

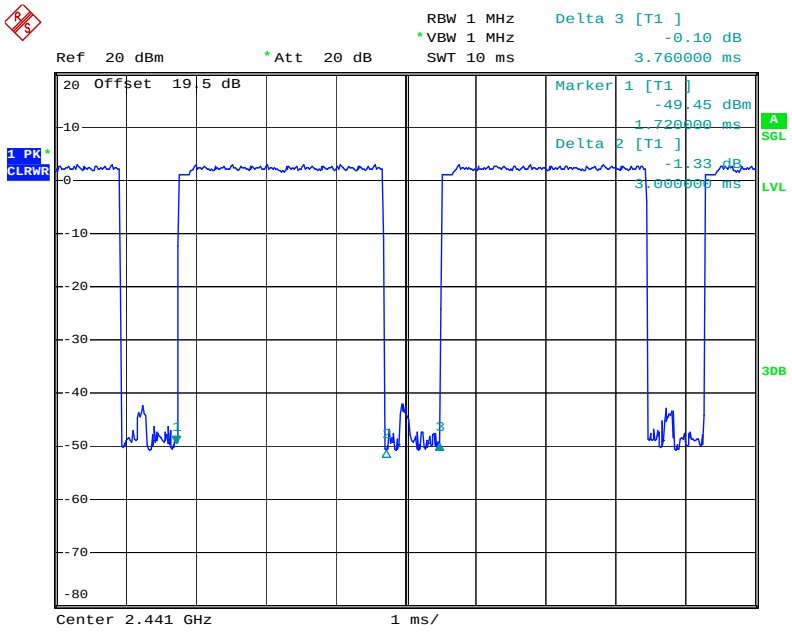
EUT Mode :	Mode 8	**Temperature :**	21~26℃
Test Engineer :	Sun Wang	**Relative Humidity :**	49~57%

Package Mode	Average Hopping Channel	Package Transfer Time (usec)	Dwell Time (sec)	Limits (sec)	Pass/Fail
3-DH5	3.40	3000.00	0.32	< 0.4s	Pass

Remark:

- Dwell Time=79(channels) x 0.4(s) x average hopping channel x package transfer time
- 79 channels come from the Hopping Channel number.
- Average Hopping Channel = hops/sweep time
- t: Package Transfer Time(us)

DH5 Dwell Time (One Pulse) Plot on Channel 39



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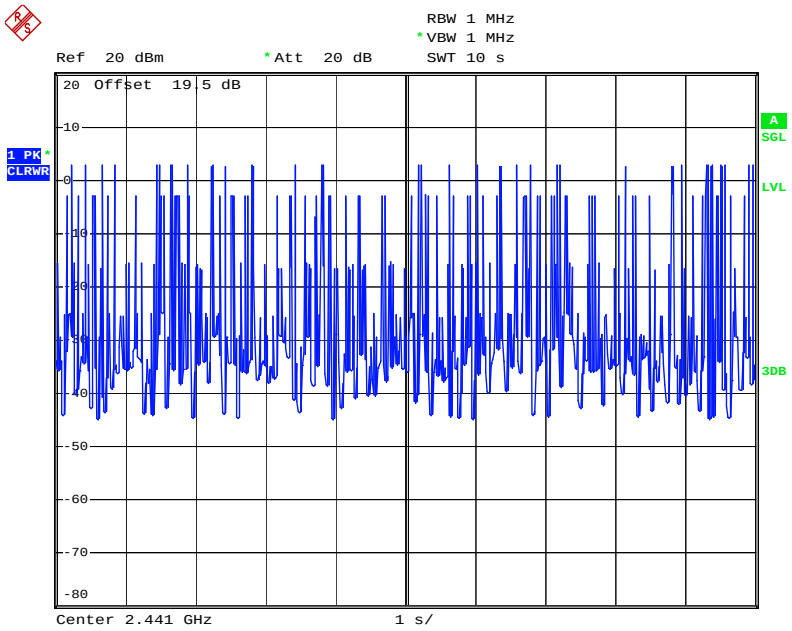
DH5 Dwell Time (Count Pulses) Plot on Channel 39



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3.5 Peak Output Power Measurement

3.5.1 Limit of Peak Output Power

Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW (20.97dBm).

3.5.2 Measuring Instruments

See list of measuring instruments of this test report.

3.5.3 Test Procedures

1. The testing follows FCC Public Notice DA 00-705 Measurement Guidelines.
2. The RF output of EUT was connected to the peak power meter by a low loss cable.

3.5.4 Test Setup

3.5.5 Test Result of Peak Output Power

EUT Mode :	Mode 7~9	Temperature :	21~26℃
Test Engineer :	Sun Wang	Relative Humidity :	49~51%

Channel	Frequency (MHz)	RF Power (dBm)		
		8-DPSK 3Mbps	Max. Limits (dBm)	Pass/Fail
00	2402	3.87	20.97	Pass
39	2441	3.49	20.97	Pass
78	2480	3.65	20.97	Pass

3.6 Band Edges Measurement

3.6.1 Limit of Band Edges

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

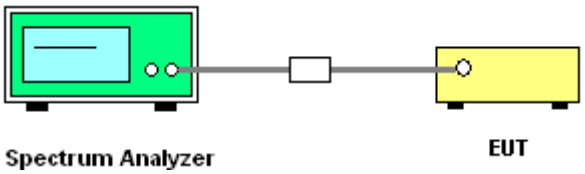
3.6.2 Measuring Instruments

See list of measuring instruments of this test report.

3.6.3 Test Procedures

1. The testing follows the guidelines in ANSI C63.4-2003 and FCC Public Notice DA 00-705 Measurement Guidelines.
2. RF antenna conducted test: Set RBW = 100 kHz, Video bandwidth (VBW) > RBW, scan up through 10th harmonic. Bandedge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100 kHz RBW. Note: If the device complies with the use of power option 2 the attenuation under this paragraph shall be 30 dB instead of 20 dB.
3. Radiated emission test: Applies to bandedge emissions that fall in the restricted bands listed in FCC Section 15.205. The maximum permitted average field strength is listed in FCC Section 15.209. A pre-amp is necessary for this measurement. For measurements above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation. See FCC Section 15.35(b) and (c).

3.6.4 Test Setup



3.6.5 Test Result of Radiated Band Edges

EUT Mode :	3Mbps	**Temperature :**	21~26℃
Test Channel :	00	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang		

PDA Phone 1										
ANTENNA POLARITY : 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
2389.42	45.73	-28.27	74.00	45.63	31.86	3.92	35.68	100	0	Peak
2389.42	31.14	-22.86	54.00	31.04	31.86	3.92	35.68	100	335	Average

PDA Phone 1										
ANTENNA POLARITY : 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
2311.33	44.45	-29.55	74.00	44.35	31.86	3.92	35.68	100	0	Peak
2311.33	30.48	-23.52	54.00	30.58	31.73	3.82	35.66	100	43	Average

EUT Mode :	3Mbps	**Temperature :**	21~26℃
Test Channel :	78	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang		

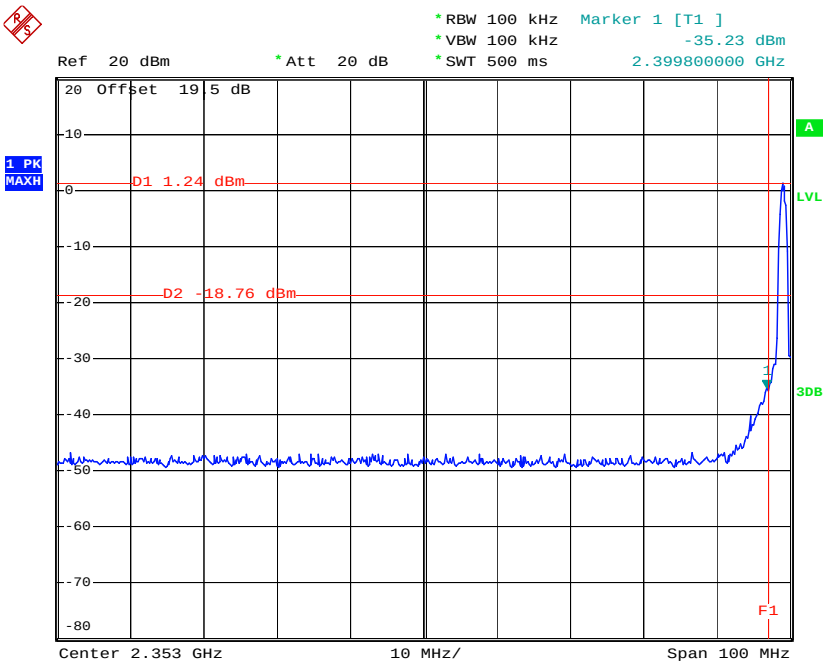
PDA Phone 1										
ANTENNA POLARITY : HORIZONTAL										
Frequency (MHz)	Level (dBuV/m)	Over Limit (dB)	Limit Line (dBuV/m)	Read Level (dBuV)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Remark
2483.50	60.63	-13.37	74.00	60.30	31.98	4.05	35.70	100	0	Peak
2483.50	50.02	-3.98	54.00	49.69	31.98	4.05	35.70	100	316	Average

PDA Phone 1										
ANTENNA POLARITY : 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	56.17	-17.83	74.00	55.84	31.98	4.05	35.70	100	0	Peak
2483.50	46.47	-7.53	54.00	46.14	31.98	4.05	35.70	161	347	Average

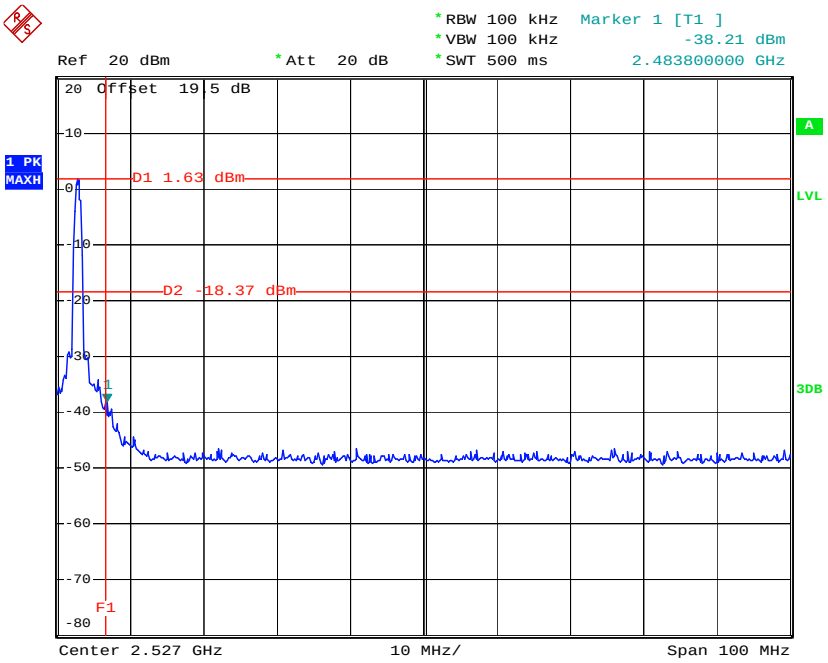
3.6.6 Test Result of Conducted Band Edges

EUT Mode :	3Mbps	Temperature :	21~26℃
Test Engineer :	Sun Wang	Relative Humidity :	49~57%

Low Band Edge Plot on Channel 0



High Band Edge Plot on Channel 78



3.7 AC Conducted Emission Measurement

3.7.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

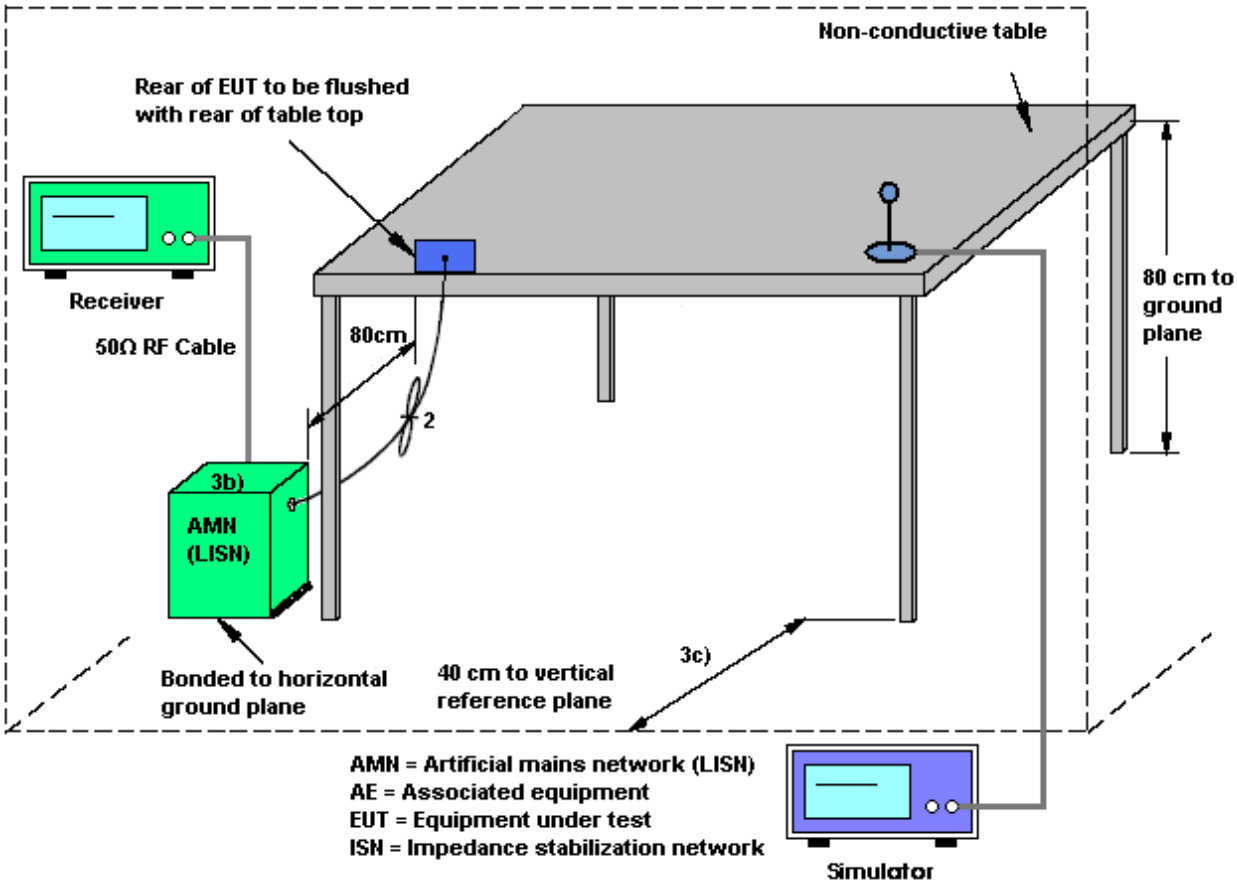
3.7.2 Measuring Instruments

See list of measuring instruments of this test report.

3.7.3 Test Procedures

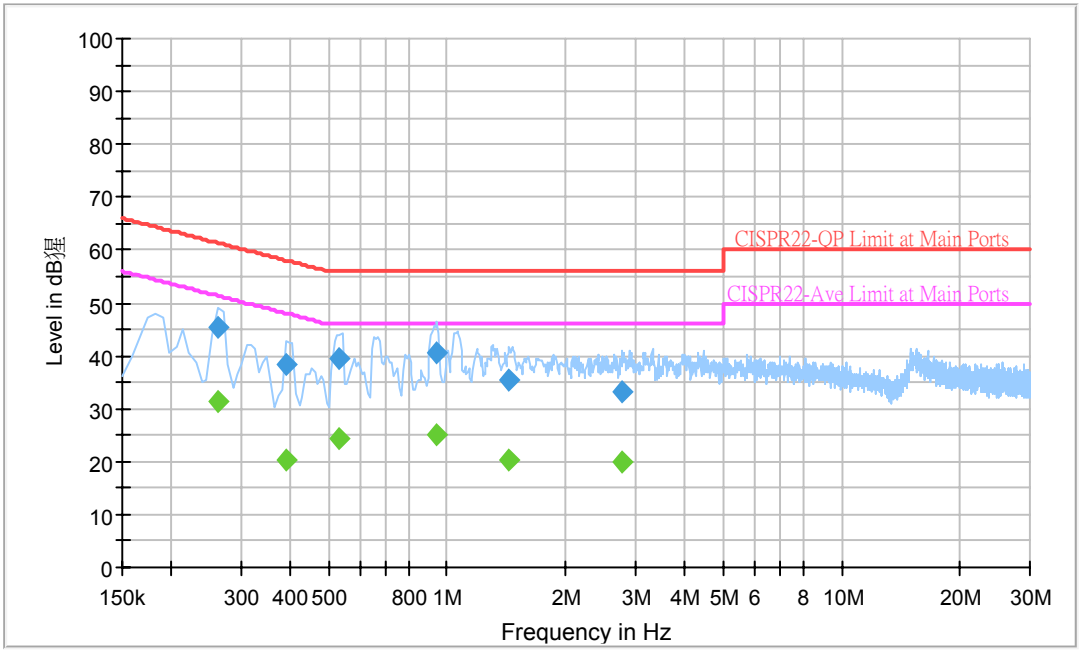
1. Please follow the guidelines in ANSI C63.4-2003.
2. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN).
4. All the support units are connecting to the other LISN.
5. The LISN provides 50 ohm coupling impedance for the measuring instrument.
6. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
7. Both sides of AC line were checked for maximum conducted interference.
8. The frequency range from 150 kHz to 30 MHz was searched.
9. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.7.4 Test Setup



3.7.5 Test Result of AC Conducted Emission

Test Mode :	Mode 3	Temperature :	25~26℃
Test Engineer :	Cona	Relative Humidity :	52~53%
		Phase :	Line
Function Type :	BT Link + WLAN Link + Battery 2 + Adapter 3 + USB Cable 1 for PDA Phone 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



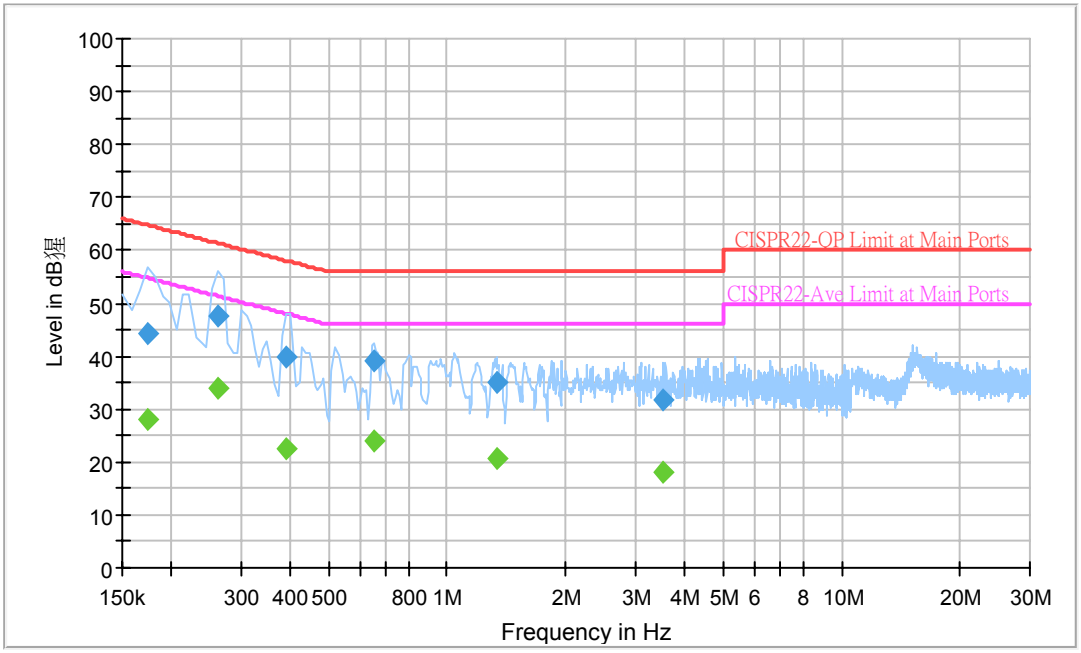
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.262000	45.2	Off	L1	19.3	16.2	61.4
0.390000	38.3	Off	L1	19.4	19.8	58.1
0.534000	39.6	Off	L1	19.3	16.4	56.0
0.942000	40.7	Off	L1	19.4	15.3	56.0
1.438000	35.4	Off	L1	19.4	20.6	56.0
2.766000	33.1	Off	L1	19.5	22.9	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.262000	31.5	Off	L1	19.3	19.9	51.4
0.390000	20.4	Off	L1	19.4	27.7	48.1
0.534000	24.5	Off	L1	19.3	21.5	46.0
0.942000	25.1	Off	L1	19.4	20.9	46.0
1.438000	20.3	Off	L1	19.4	25.7	46.0
2.766000	19.8	Off	L1	19.5	26.2	46.0

Test Mode :	Mode 3	**Temperature :**	25~26℃
Test Engineer :	Cona	**Relative Humidity :**	52~53%
		Phase :	Neutral
Function Type :	BT Link + WLAN Link + Battery 2 + Adapter 3 + USB Cable 1 for PDA Phone 1		
Remark :	All emissions not reported here are more than 10 dB below the prescribed limit.		



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	44.1	Off	N	19.3	20.7	64.8
0.262000	47.7	Off	N	19.4	13.7	61.4
0.390000	39.9	Off	N	19.4	18.2	58.1
0.654000	39.3	Off	N	19.4	16.7	56.0
1.334000	35.1	Off	N	19.4	20.9	56.0
3.534000	31.8	Off	N	19.5	24.2	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	28.0	Off	N	19.3	26.8	54.8
0.262000	34.0	Off	N	19.4	17.4	51.4
0.390000	22.5	Off	N	19.4	25.7	48.1
0.654000	24.1	Off	N	19.4	21.9	46.0
1.334000	20.8	Off	N	19.4	25.2	46.0
3.534000	18.1	Off	N	19.5	27.9	46.0

3.8 Radiated Emission Measurement

3.8.1 Limit of Radiated Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. In addition, radiated emissions which fall in the restricted bands must also comply with the FCC section 15.209 limits as below.

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

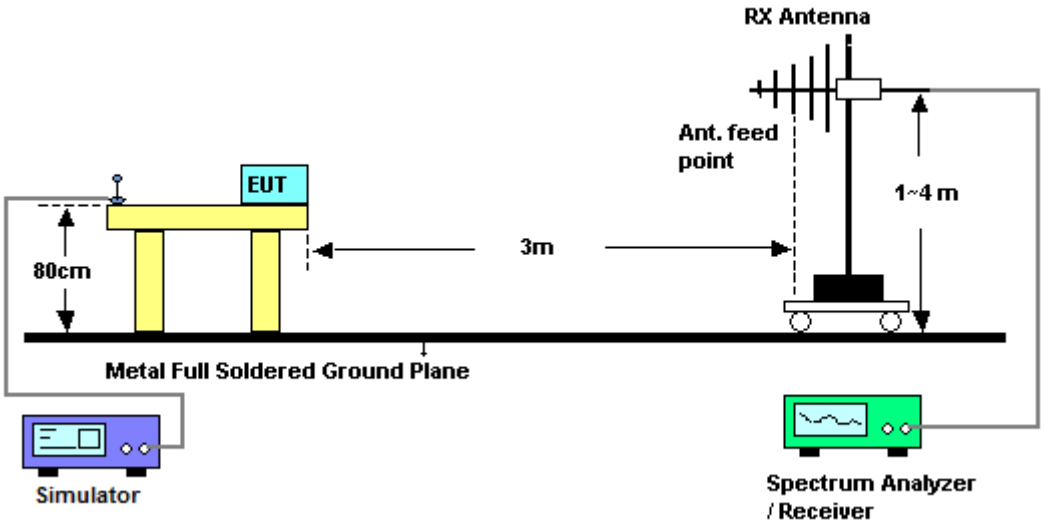
3.8.2 Measuring Instruments

See list of measuring instruments of this test report.

3.8.3 Test Procedures

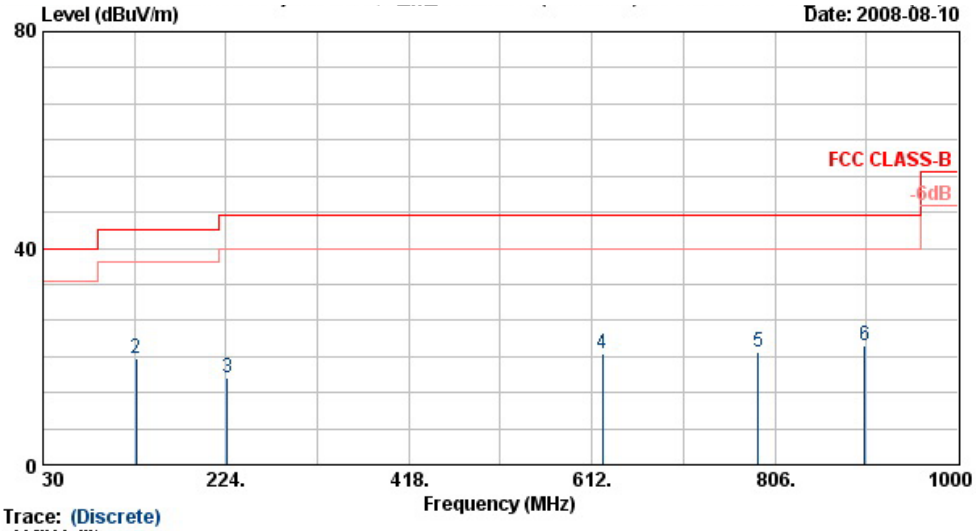
1. The testing follows the guidelines in FCC Public Notice DA 00-705 Measurement Guidelines.
2. Use the following spectrum analyzer settings:
   Span = wide enough to fully capture the emission being measured; RBW = 1 MHz for f ≥ 1 GHz, 100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold.
3. Follow the guidelines in ANSI C63.4-2003 with respect to maximizing the emission by rotating the EUT, measuring the emission for three EUT orthogonal planes, and adjusting the measurement antenna height and polarization. A pre-amp and a high pass filter are used for this test in order to get the good signal level.

3.8.4 Test Setup



3.8.5 Test Result of Radiated Emission < 1GHz

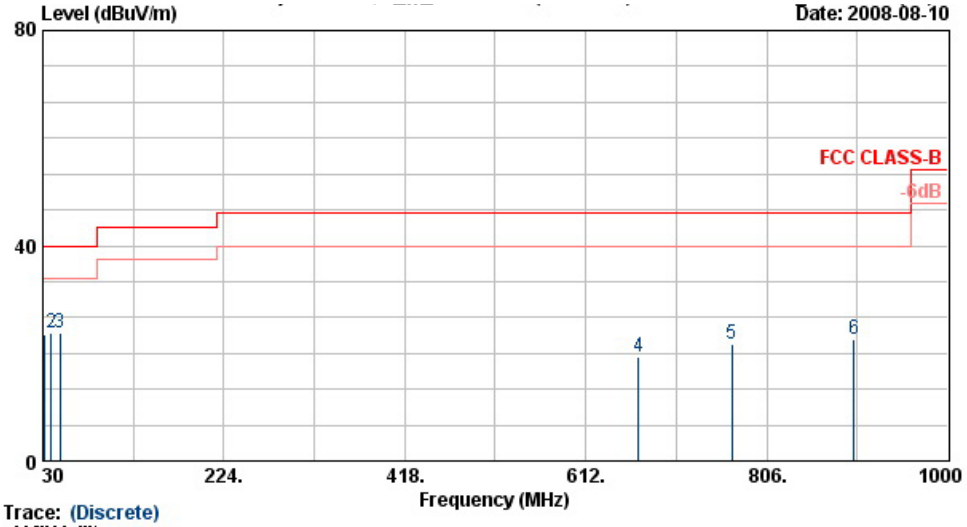
Test Mode :	Mode 1	**Temperature :**	21~26℃
Test Channel :	00	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Horizontal
Remark :	PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF-ANT(95112I) HORIZONTAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	30.54	19.39	-20.61	40.00	31.75	18.95	0.30	31.61	100	226
2	129.09	19.68	-23.82	43.50	38.86	12.02	0.50	31.69	---	---
3	225.48	15.95	-30.05	46.00	36.37	10.84	0.70	31.96	---	---
4	623.40	20.43	-25.57	46.00	32.83	18.57	1.06	32.04	---	---
5	787.90	20.86	-25.14	46.00	32.11	19.70	1.20	32.15	---	---
6	901.30	22.12	-23.88	46.00	31.94	20.54	1.30	31.67	---	---

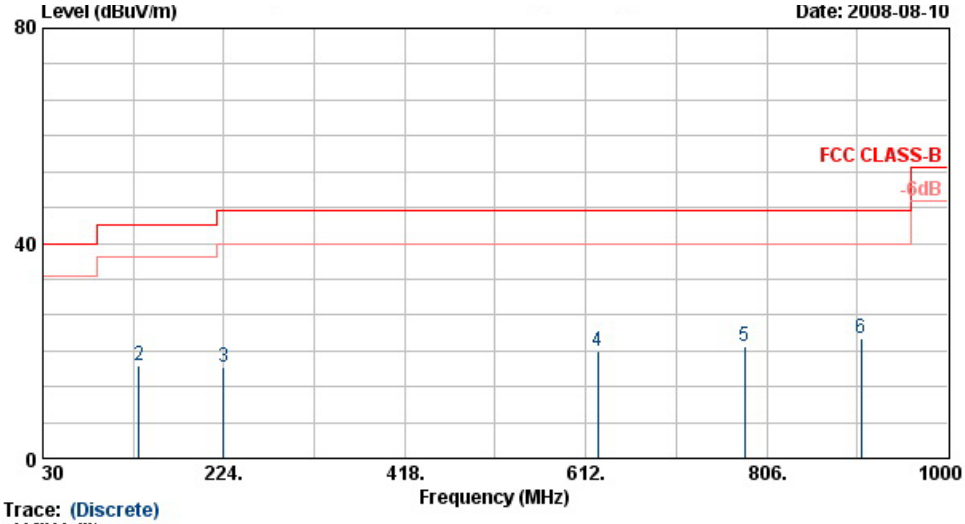
Test Mode :	Mode 1	Temperature :	21~26℃
Test Channel :	00	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	31.08	23.56	-16.44	40.00	35.92	18.95	0.30	31.61	---	---
2 @	39.18	23.68	-16.32	40.00	41.06	14.03	0.30	31.72	---	---
3 @	48.63	23.69	-16.31	40.00	46.24	9.06	0.30	31.91	100	174
4	668.90	19.43	-26.57	46.00	31.77	18.76	1.01	32.11	---	---
5	768.30	21.70	-24.30	46.00	33.18	19.52	1.10	32.10	---	---
6	899.90	22.46	-23.54	46.00	32.30	20.53	1.30	31.67	---	---

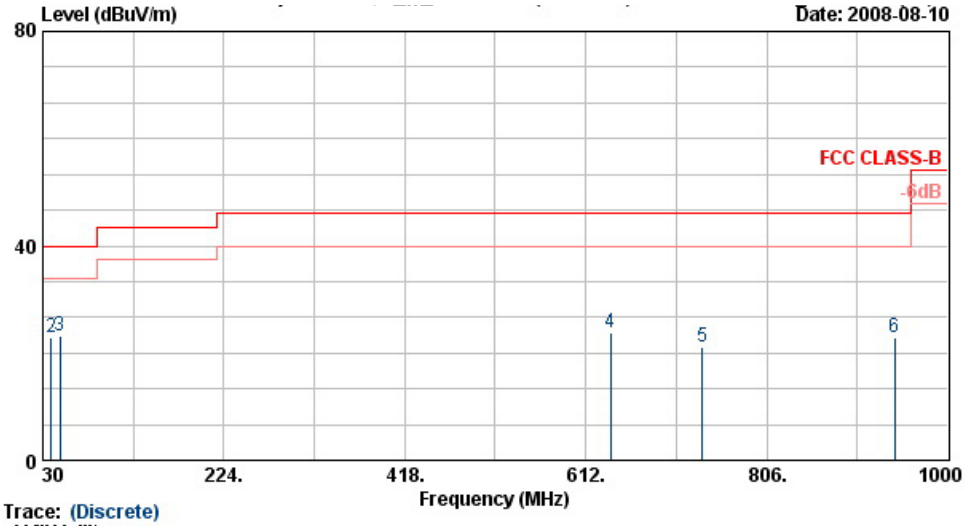
Test Mode :	Mode 2	Temperature :	21~26℃
Test Channel :	39	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	30.54	18.68	-21.32	40.00	31.04	18.95	0.30	31.61	100	65
2	133.14	17.37	-26.13	43.50	37.20	11.37	0.50	31.70	---	---
3	224.13	16.93	-29.07	46.00	37.44	10.73	0.70	31.94	---	---
4	624.80	19.87	-26.13	46.00	32.28	18.57	1.05	32.03	---	---
5	782.30	20.75	-25.25	46.00	32.03	19.66	1.20	32.14	---	---
6	906.90	22.36	-23.64	46.00	32.12	20.58	1.30	31.64	---	---

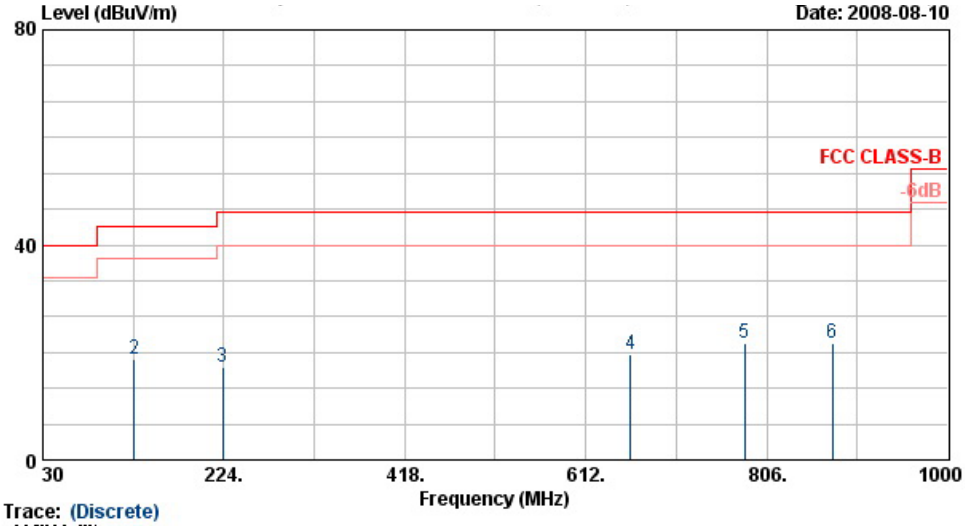
Test Mode :	Mode 2	Temperature :	21~26℃
Test Channel :	39	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	30.54	22.76	-17.24	40.00	35.12	18.95	0.30	31.61	---	---
2	38.64	23.01	-16.99	40.00	40.40	14.03	0.30	31.72	---	---
3	48.63	23.32	-16.68	40.00	45.87	9.06	0.30	31.91	100	126
4	638.80	23.82	-22.18	46.00	36.04	18.63	1.09	31.94	---	---
5	736.80	21.11	-24.89	46.00	32.94	19.23	1.10	32.17	---	---
6	943.30	22.93	-23.07	46.00	32.35	20.84	1.20	31.46	---	---

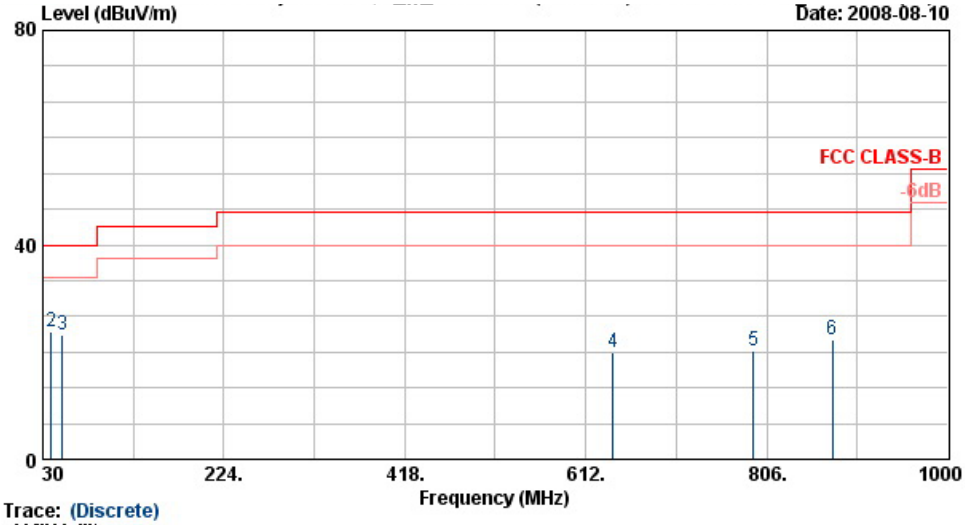
Test Mode :	Mode 3	Temperature :	21~26℃
Test Channel :	78	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
Model : FR 830416-05
Memo : Mode 3

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	30.00	19.08	-20.92	40.00	30.68	19.66	0.30	31.56	100	106
2	128.28	18.67	-24.83	43.50	37.69	12.18	0.50	31.70	---	---
3	222.78	17.16	-28.84	46.00	37.72	10.67	0.70	31.93	---	---
4	659.80	19.50	-26.50	46.00	31.68	18.72	1.10	32.00	---	---
5	782.30	21.59	-24.41	46.00	32.87	19.66	1.20	32.14	---	---
6	876.80	21.82	-24.18	46.00	32.16	20.36	1.30	32.01	---	---

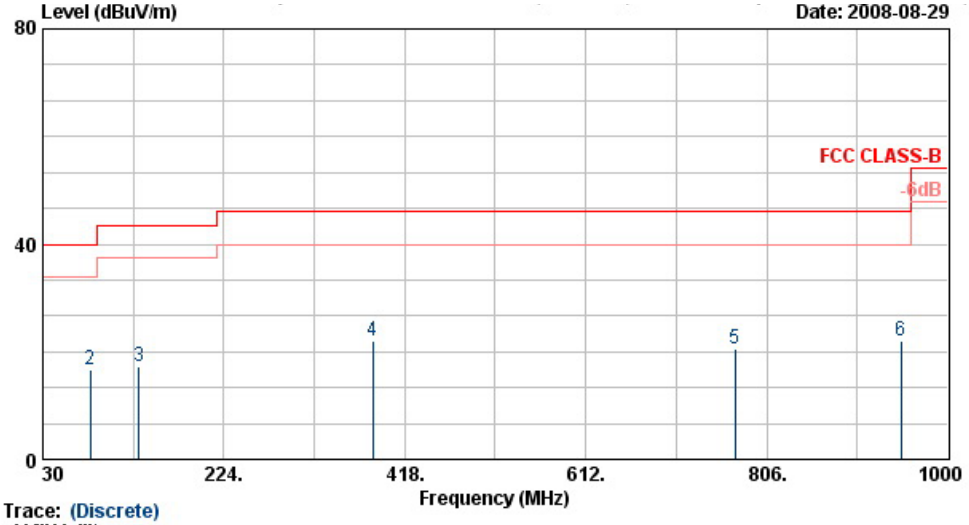
Test Mode :	Mode 3	Temperature :	21~26℃
Test Channel :	78	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF-ANT(951121) VERTICAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	30.54	22.70	-17.30	40.00	35.06	18.95	0.30	31.61	---	---
2 @	38.64	23.67	-16.33	40.00	41.05	14.03	0.30	31.72	100	205
3 @	51.33	23.21	-16.79	40.00	46.94	7.93	0.32	31.99	---	---
4	640.90	20.05	-25.95	46.00	32.24	18.64	1.10	31.93	---	---
5	791.40	20.35	-25.65	46.00	31.57	19.74	1.20	32.16	---	---
6	876.80	22.34	-23.66	46.00	32.69	20.36	1.30	32.01	---	---

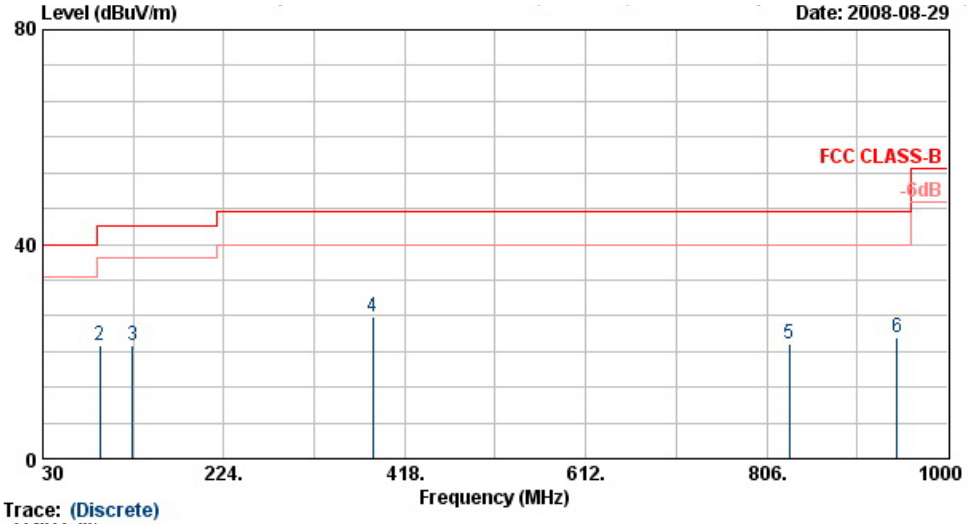
Test Mode :	Mode 4	Temperature :	21~26℃
Test Channel :	39	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	PDA Phone 2		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF-ANT(951121) HORIZONTAL
Model : FR 830416-05

	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	19.70	-20.30	40.00	31.30	19.66	0.30	31.56	100	92	Peak
2	80.49	16.73	-23.27	40.00	40.74	7.52	0.50	32.03	---	---	Peak
3	133.14	17.22	-26.28	43.50	37.05	11.37	0.50	31.70	---	---	Peak
4	383.30	22.08	-23.92	46.00	37.70	15.34	0.87	31.82	---	---	Peak
5	771.80	20.59	-25.41	46.00	32.03	19.56	1.12	32.11	---	---	Peak
6	950.30	21.89	-24.11	46.00	31.21	20.89	1.21	31.42	---	---	Peak

Test Mode :	Mode 4	Temperature :	21~26℃
Test Channel :	39	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	PDA Phone 2		

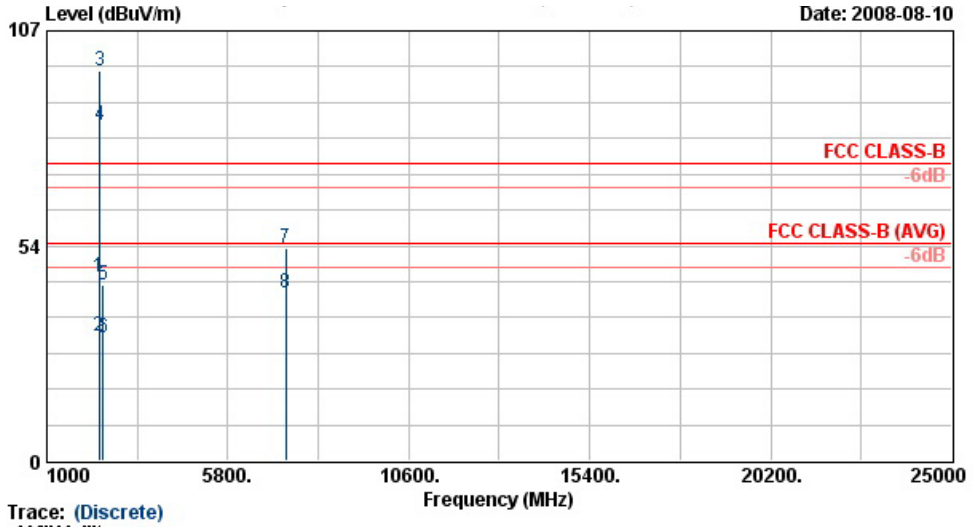


Site : 03CH06-HY
Condition : FCC CLASS-B 3m LF-ANT(9511121) VERTICAL
Model : FR 830416-05

	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	20.82	-19.18	40.00	32.42	19.66	0.30	31.56	100	263	Peak
2	91.29	20.98	-22.52	43.50	43.37	9.23	0.50	32.12	---	---	Peak
3	126.39	21.00	-22.50	43.50	39.70	12.50	0.50	31.71	---	---	Peak
4	383.30	26.54	-19.46	46.00	42.16	15.34	0.87	31.82	---	---	Peak
5	829.90	21.54	-24.46	46.00	32.62	20.03	1.20	32.31	---	---	Peak
6	945.40	22.58	-23.42	46.00	31.97	20.85	1.20	31.45	---	---	Peak

3.8.6 Test Result of Radiated Emission ≥ 1GHz

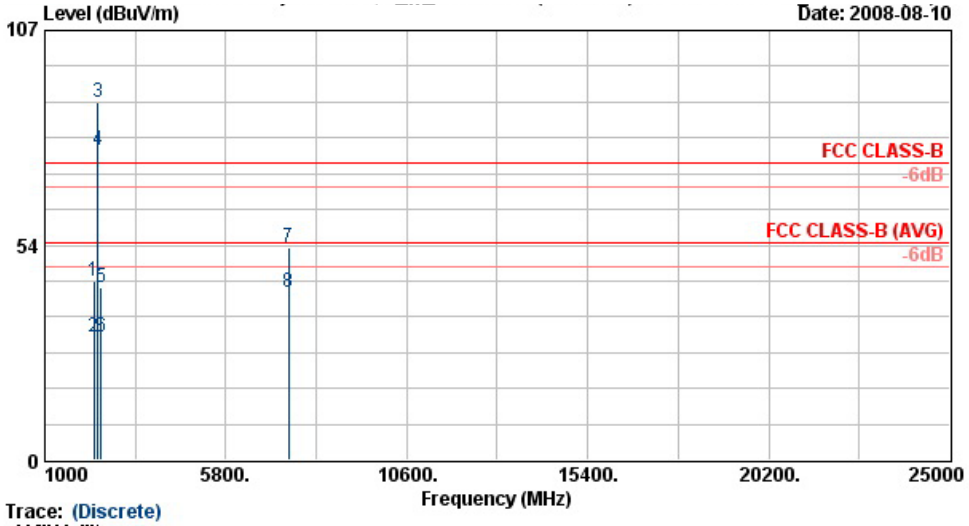
Test Mode :	Mode 1	Temperature :	21~26℃
Test Channel :	00	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Horizontal
Remark :	#3 and #4 are Fundamental Signals on PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2389.42	45.73	-28.27	74.00	45.63	31.86	3.92	35.68	100	0
2	2389.42	31.14	-22.86	54.00	31.04	31.86	3.92	35.68	100	335
3 @	2402.00	97.06			96.94	31.88	3.92	35.68	100	0
4 @	2402.00	83.71			83.61	31.86	3.92	35.68	100	335
5	2492.00	43.60	-30.40	74.00	43.25	32.00	4.05	35.70	100	0
6	2492.00	30.73	-23.27	54.00	30.38	32.00	4.05	35.70	100	335
7	7347.00	52.98	-21.02	74.00	46.25	35.66	7.21	36.14	100	0
8 @	7347.00	41.91	-12.09	54.00	35.18	35.66	7.21	36.14	100	247

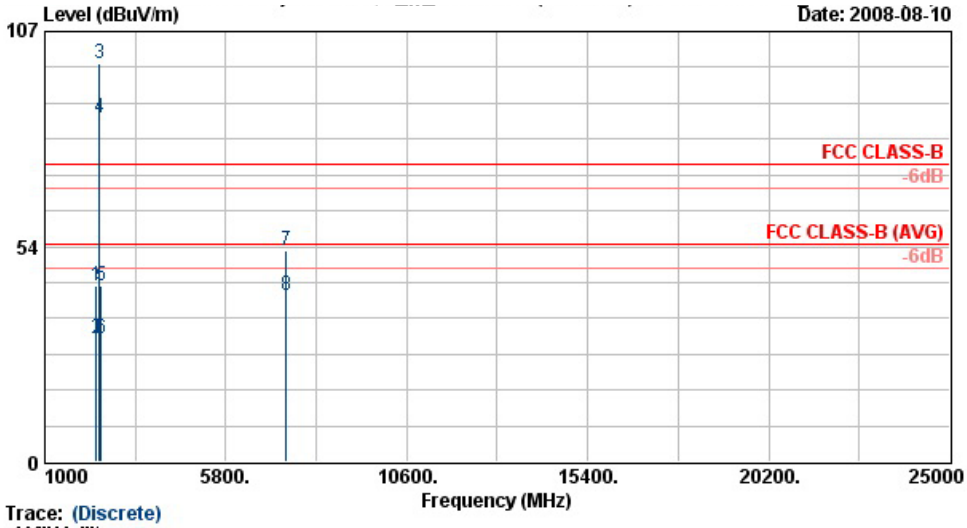
Test Mode :	Mode 1	**Temperature :**	21~26℃
Test Channel :	00	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Vertical
Remark :	#3 and #4 are Fundamental Signals on PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2311.33	44.45	-29.55	74.00	44.35	31.86	3.92	35.68	100	0
2	2311.33	30.48	-23.52	54.00	30.58	31.73	3.82	35.66	100	43
3 @	2402.00	89.23			89.11	31.88	3.92	35.68	100	0
4 @	2402.00	77.06			76.96	31.86	3.92	35.68	100	43
5	2484.00	42.78	-31.22	74.00	42.45	31.98	4.05	35.70	100	0
6	2484.00	30.72	-23.28	54.00	30.39	31.98	4.05	35.70	100	43
7	7467.00	52.82	-21.18	74.00	46.14	35.61	7.25	36.19	100	0
8 @	7467.00	41.70	-12.30	54.00	35.02	35.61	7.25	36.19	100	103

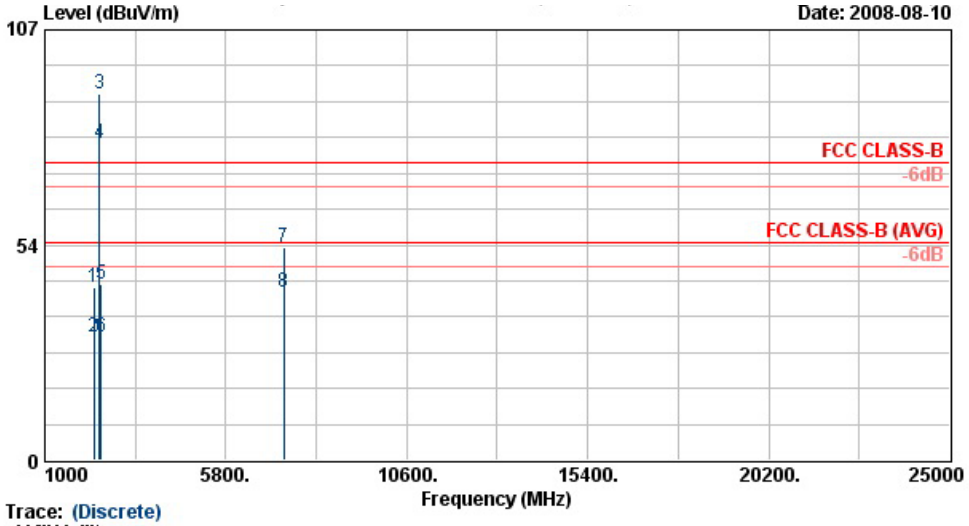
Test Mode :	Mode 2	**Temperature :**	21~26℃
Test Channel :	39	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Horizontal
Remark :	#3 and #4 are Fundamental Signals on PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2356.00	43.75	-30.25	74.00	43.76	31.81	3.86	35.67	100	0
2	2356.00	30.65	-23.35	54.00	30.66	31.81	3.86	35.67	100	334
3 @	2441.00	98.94			98.72	31.93	3.99	35.69	100	0
4 @	2441.00	85.62			85.40	31.93	3.99	35.69	100	334
5	2492.00	43.85	-30.15	74.00	43.50	32.00	4.05	35.70	100	0
6	2492.00	30.79	-23.21	54.00	30.44	32.00	4.05	35.70	100	334
7	7392.00	52.36	-21.64	74.00	45.66	35.64	7.23	36.16	100	0
8	7392.00	41.22	-12.78	54.00	34.51	35.64	7.23	36.16	100	122

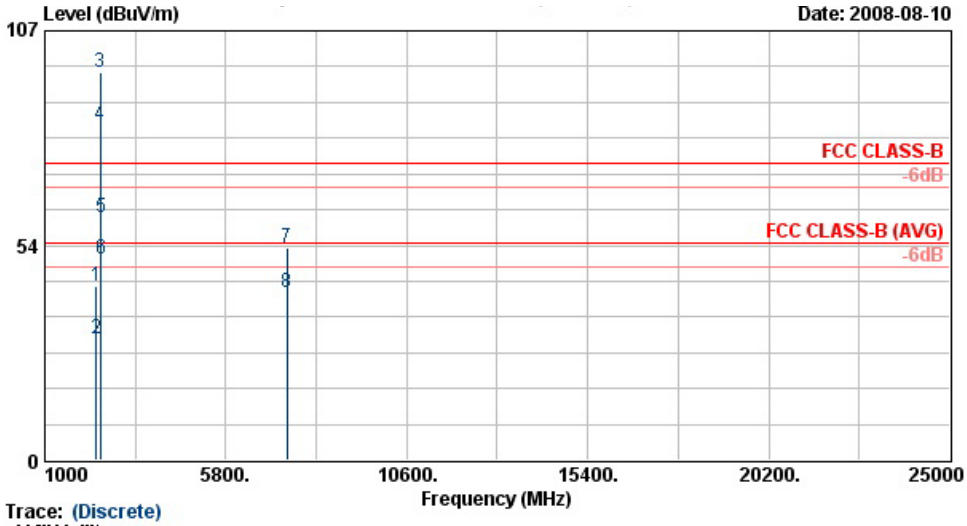
Test Mode :	Mode 2	**Temperature :**	21~26℃
Test Channel :	39	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Vertical
Remark :	#3 and #4 are Fundamental Signals on PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2310.00	43.12	-30.88	74.00	43.22	31.73	3.82	35.66	100	0
2	2310.00	30.48	-23.52	54.00	30.58	31.73	3.82	35.66	170	36
3 X	2441.00	91.03			90.80	31.93	3.99	35.69	100	0
4 @	2441.00	78.91			78.69	31.93	3.99	35.69	170	36
5	2484.00	43.93	-30.07	74.00	43.60	31.98	4.05	35.70	100	0
6	2484.00	30.74	-23.26	54.00	30.41	31.98	4.05	35.70	170	36
7	7341.00	52.87	-21.13	74.00	46.14	35.66	7.21	36.14	100	0
8	7341.00	41.75	-12.25	54.00	35.02	35.66	7.21	36.14	100	301

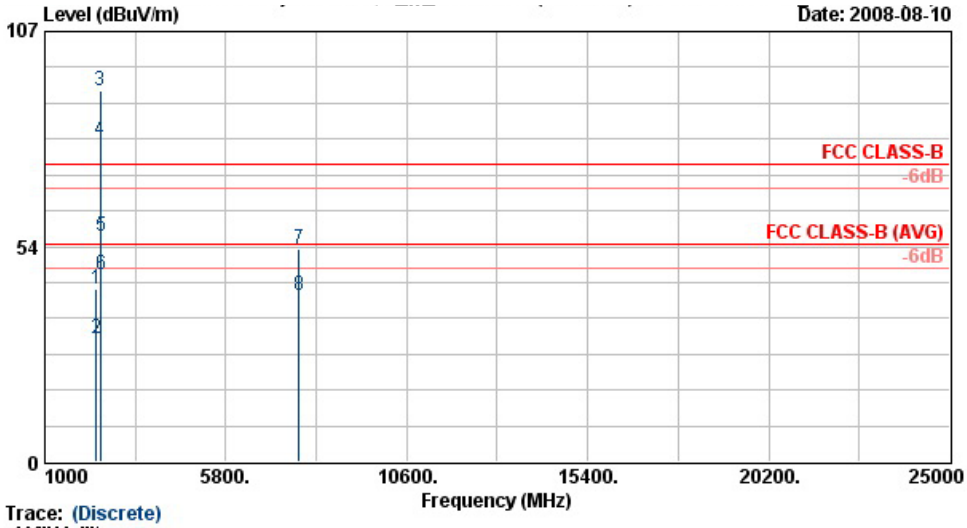
Test Mode :	Mode 3	**Temperature :**	21~26℃
Test Channel :	78	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Horizontal
Remark :	#3 and #4 are Fundamental Signals on PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2372.00	43.25	-30.75	74.00	43.20	31.83	3.89	35.68	100	0
2	2372.00	30.38	-23.62	54.00	30.34	31.83	3.89	35.68	100	316
3 @	2480.00	96.85			96.52	31.98	4.05	35.70	100	0
4 @	2480.00	83.45			83.12	31.98	4.05	35.70	100	316
5 @	2483.50	60.63	-13.37	74.00	60.30	31.98	4.05	35.70	100	0
6 @	2483.50	50.02	-3.98	54.00	49.69	31.98	4.05	35.70	100	316
7	7431.00	52.96	-21.04	74.00	46.26	35.63	7.24	36.17	100	0
8 @	7431.00	41.87	-12.13	54.00	35.17	35.63	7.24	36.17	100	271

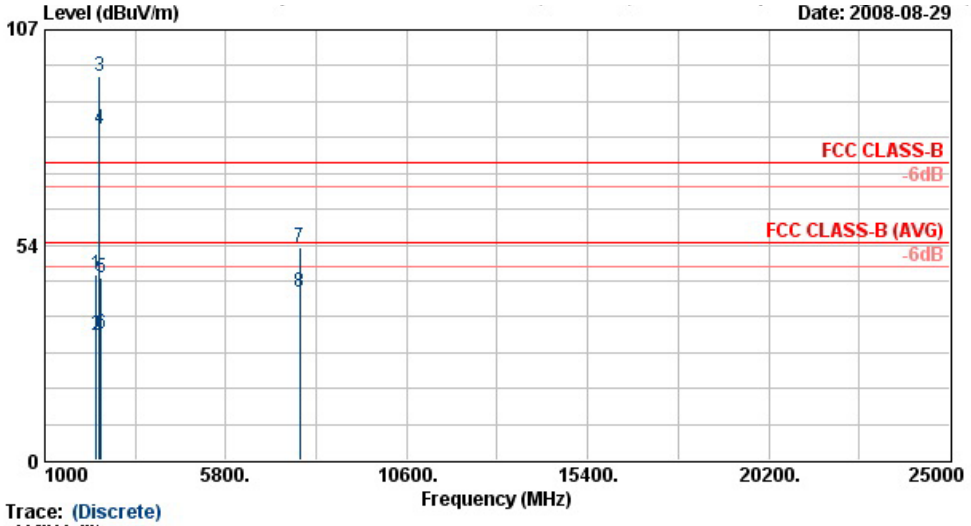
Test Mode :	Mode 3	Temperature :	21~26℃
Test Channel :	78	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals on PDA Phone 1		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
Model : FR 830416-05

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg
1	2358.00	43.15	-30.85	74.00	43.12	31.81	3.89	35.67	100	0
2	2358.00	30.47	-23.53	54.00	30.45	31.81	3.89	35.67	161	347
3 @	2480.00	92.26			91.93	31.98	4.05	35.70	100	0
4 @	2480.00	79.80			79.47	31.98	4.05	35.70	161	347
5 @	2483.50	56.17	-17.83	74.00	55.84	31.98	4.05	35.70	100	0
6 @	2483.50	46.47	-7.53	54.00	46.14	31.98	4.05	35.70	161	347
7	7731.00	52.76	-21.24	74.00	45.98	35.65	7.38	36.25	100	0
8 @	7731.00	41.42	-12.58	54.00	34.64	35.65	7.38	36.25	100	62

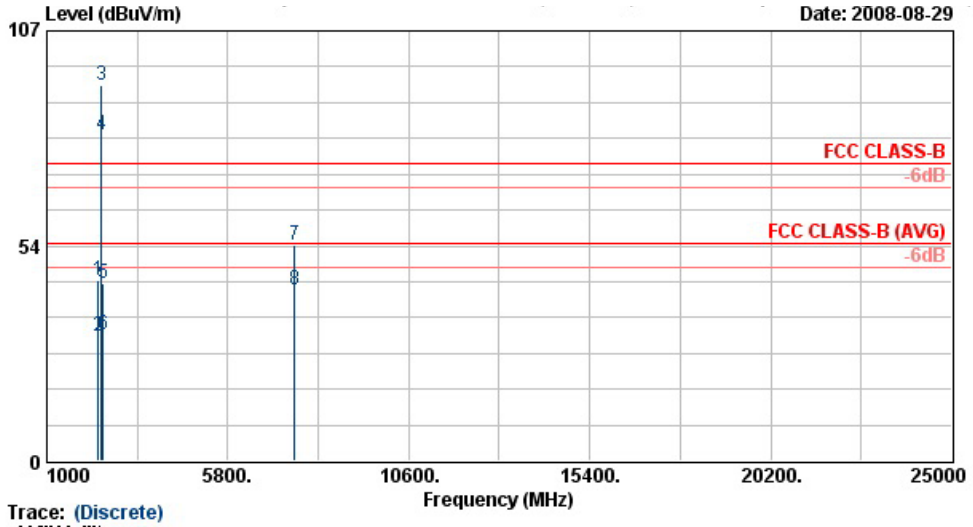
Test Mode :	Mode 4	**Temperature :**	21~26℃
Test Channel :	39	**Relative Humidity :**	49~57%
Test Engineer :	Sun Wang	**Polarization :**	Horizontal
Remark :	#3 and #4 are Fundamental Signals on PDA Phone 2		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN HORIZONTAL
Model : FR 830416-05

	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	2366.00	45.97	-28.03	74.00	45.83	31.93	3.89	35.68	100	0	Peak
2	2366.00	31.17	-22.83	54.00	31.02	31.93	3.89	35.68	127	347	Average
3 X	2441.00	95.46			95.13	32.04	3.99	35.69	100	0	Peak
4 @	2441.00	82.51			82.18	32.04	3.99	35.69	127	347	Average
5	2500.00	45.49	-28.51	74.00	45.04	32.10	4.05	35.70	100	0	Peak
6	2500.00	31.39	-22.61	54.00	30.94	32.10	4.05	35.70	127	347	Average
7	7767.00	53.00	-21.00	74.00	46.24	35.61	7.40	36.25	100	0	Peak
8	7767.00	41.90	-12.10	54.00	35.14	35.61	7.40	36.25	100	254	Average

Test Mode :	Mode 4	Temperature :	21~26℃
Test Channel :	39	Relative Humidity :	49~57%
Test Engineer :	Sun Wang	Polarization :	Vertical
Remark :	#3 and #4 are Fundamental Signals on PDA Phone 2		



Site : 03CH06-HY
Condition : FCC CLASS-B 3m SHF-EHF HORN VERTICAL
Model : FR 830416-05

	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	2364.00	44.76	-29.24	74.00	44.61	31.93	3.89	35.67	100	0	Peak
2	2364.00	31.21	-22.79	54.00	31.06	31.93	3.89	35.67	176	27	Average
3 X	2441.00	93.47			93.14	32.04	3.99	35.69	100	0	Peak
4 @	2441.00	81.22			80.89	32.04	3.99	35.69	176	27	Average
5	2492.00	44.06	-29.94	74.00	43.61	32.10	4.05	35.70	100	0	Peak
6	2492.00	31.39	-22.61	54.00	30.94	32.10	4.05	35.70	176	27	Average
7	7581.00	53.52	-20.48	74.00	46.90	35.53	7.31	36.22	100	0	Peak
8	7581.00	42.43	-11.57	54.00	35.81	35.53	7.31	36.22	100	126	Average

3.9 Antenna Requirements

3.9.1 Standard Applicable

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.

The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the FCC rule.

3.9.2 Antenna Connected Construction

The antennas type used in this product is PIFA antenna without connector and it is considered to meet antenna requirement.

3.9.3 Antenna Gain

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

4 List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
EMI Receiver	R&S	ESCS 30	100356	9kHz – 2.75GHz	Aug. 01, 2008	Jul. 31, 2009	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100081	9kHz – 30MHz	Dec. 06, 2007	Dec. 05, 2008	Conduction (CO05-HY)
Two-LISN	R&S	ENV216	11-100080	9kHz – 30MHz	Dec. 06, 2007	Dec. 05, 2008	Conduction (CO05-HY)
DC- LISN	R&S	ESH3-26	1000485	0.1MHz-200MHz	Feb. 04, 2008	Feb. 03, 2009	Conduction (CO05-HY)
DC- LISN	R&S	ESH3-26	1000484	0.1MHz-200MHz	Feb. 04, 2008	Feb. 03, 2009	Conduction (CO05-HY)
AC Power Source	APC	APC-1000W	N/A	N/A	N/A	N/A	Conduction (CO05-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211028	9KHz-26.5GHz	Oct. 17, 2007	Oct. 16, 2008	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/003	20MHz-1000MHz	Apr. 24, 2008	Apr. 23, 2009	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Dec. 01, 2007	Nov. 30, 2008	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1G~18GHz	Aug. 18, 2008	Aug. 17, 2009	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Training Research	AF-0801	95119	8G~18G	Oct. 17, 2007	Oct. 16, 2008	Radiation (05CH02-HY)
SHF-EHF Horn	SCHWARZBECK	BBHA 9170	9170-251	14G - 40G	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)
Pre Amplifier	Agilent	310N	186713	9KHz~1GHz	Apr. 21, 2008	Apr. 20, 2009	Radiation (03CH06-HY)
Base Station Simulator	R & S	CMU200	103937	Third-Band	Oct. 19, 2007	Oct. 18, 2008	Radiation (03CH06-HY)

5 Uncertainty of Evaluation

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

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

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

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

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

Contribution	Uncertainty of x_i		$u(x_i)$	Ci	$Ci*u(x_i)$
	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 Γ1= 0.197 Antenna VSWR Γ2= 0.194 Uncertainty=20log(1-Γ1*Γ2*Γ3)	+0.34/-0.35	U-shaped	0.244	1	0.244
Combined standard uncertainty Uc(y)	**2.36**				
Measuring uncertainty for a level of confidence of 95% U=2Uc(y)	**4.72**				

6 Certification of TAF Accreditation

Certificate No. : L1190-070110

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

Sporton International Inc.
EMC & Wireless Communications Laboratory
No.52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.

is accredited in respect of laboratory

Accreditation Criteria	:	ISO/IEC 17025:2005
Accreditation Number	:	1190
Originally Accredited	:	December 15, 2003
Effective Period	:	January 10, 2007 to January 09, 2010
Accredited Scope	:	Testing Field, see described in the Appendix
Specific Accreditation Program	:	Accreditation Program for Designated Testing Laboratory for Commodities Inspection Accreditation Program for Telecommunication Equipment Testing Laboratory

Jay-San Chen
President, Taiwan Accreditation Foundation
Date : January 10, 2007

P1, total 9 pages

The Appendix forms an integral part of this Certificate, which shall be invalid when used without the Appendix.

Appendix A. Photographs of EUT

Please refer to Sporton report number EP830416-05 as below.