

Variant FCC RF Test Report

APPLICANT : Motorola Mobility, Inc.
EQUIPMENT : Mobile Phone
BRAND NAME : MOTOROLA
MODEL NAME : XT530
GPPD NUMBER : 3057
FCC ID : IHDT56MY3
STANDARD : FCC Part 15 Subpart C §15.247
CLASSIFICATION : Digital Spread Spectrum (DSS)

This is a variant report which is only valid together with the original test report. The product was received on May 31, 2011 and completely tested on Jun. 08, 2011. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.4-2003 and shown the 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:



Jones Tsai / 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

FCC ID : IHDT56MY3

Page Number : 1 of 26

Report Issued Date : Jun. 16, 2011

Report Version : Rev. 01



TABLE OF CONTENTS

REVISION HISTORY.....3

SUMMARY OF TEST RESULT4

1 GENERAL DESCRIPTION.....5

 1.1 Applicant.....5

 1.2 Manufacturer.....5

 1.3 Feature of Equipment Under Test.....5

 1.4 Testing Site.....6

 1.5 Applied Standards.....6

 1.6 Ancillary Equipment List.....6

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST.....7

 2.1 Test Mode.....7

 2.2 Connection Diagram of Test System.....7

 2.3 RF Utility.....8

3 TEST RESULT9

 3.1 Band Edges Measurement.....9

 3.2 Radiated Emission Measurement.....19

 3.3 Antenna Requirements.....24

4 LIST OF MEASURING EQUIPMENT.....25

5 UNCERTAINTY OF EVALUATION.....26

APPENDIX A. PRODUCT EQUALITY DECLARATION

APPENDIX B. ORIGINAL REPORT



SUMMARY OF TEST RESULT

Report Section	FCC Rule	IC Rule	Description	Limit	Result	Remark
3.1	15.247(d)	A8.5	Frequency Band Edges	≤ 20dBc	Pass	-
3.2	15.207	Gen 7.2.2	AC Conducted Emission	15.207(a)	Pass	Under limit 2.22 dB at 7440 MHz
3.3	15.203 & 15.247(b)	A8.4	Antenna Requirement	N/A	Pass	-



1 General Description

1.1 Applicant

Motorola Mobility, Inc.

8F., No. 9, Songgao Rd., Taipei 110, Taiwan, R.O.C.

1.2 Manufacturer

Chi Mei Communication Systems, Inc.

No. 4, Mingsheng Street, Tucheng District, New Taipei City, 23678, Taiwan

1.3 Feature of Equipment Under Test

Product Feature & Specification	
Equipment	Mobile Phone
Brand Name	MOTOROLA
Model Name	XT530
FCC ID	IHDT56MY3
Tx/Rx Frequency Range	2400 MHz ~ 2483.5 MHz
Number of Channels	79
Carrier Frequency of Each Channel	2402+n*1 MHz; n=0~78
Channel Spacing	1 MHz
Antenna Type	PIFA Antenna with gain 0.723 dBi
HW Version	V3.0
SW Version	V4.170
Type of Modulation	Bluetooth (1Mbps) : GFSK Bluetooth EDR (2Mbps) : $\pi/4$ -DQPSK Bluetooth EDR (3Mbps) : 8-DPSK
EUT Stage	Identical Prototype

Remark:

1. For other wireless features of this EUT, test report will be issued separately.
2. This test report recorded only product characteristics and test results of Digital Spread Spectrum (DSS).
3. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.



1.4 Testing Site

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1 st 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.
	03CH06-HY	722060/4086B-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
- ♦ IC RSS-210 Issue 8

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), recorded in a separate test report.

1.6 Ancillary Equipment List

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Base Station	R&S	CBT32	N/A	N/A	Unshielded, 1.8 m

2 Test Configuration of Equipment Under Test

2.1 Test Mode

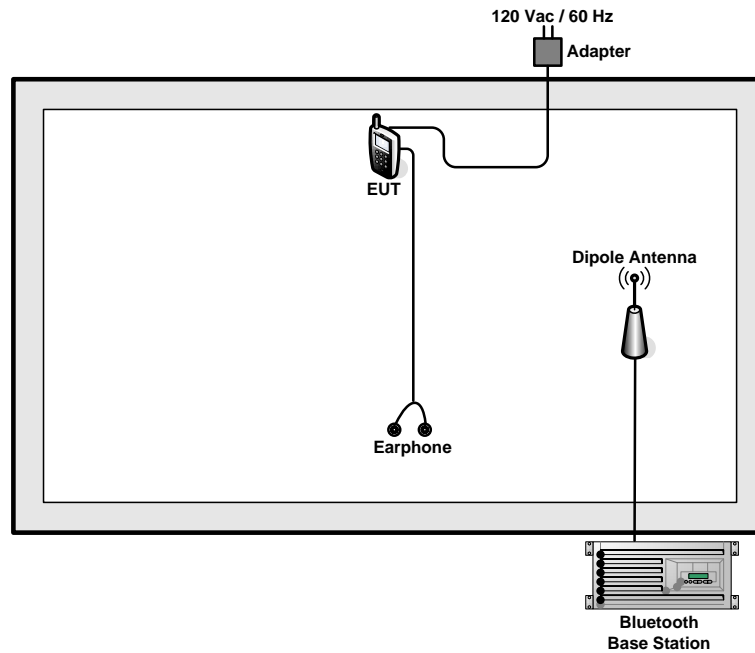
The EUT has been associated with peripherals pursuant to ANSI C63.4-2003 and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (9 kHz to the 10th harmonic of the highest 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.

Test Cases			
Test Item	Data Rate / Modulation		
	Bluetooth 1Mbps GFSK	Bluetooth EDR 2Mbps $\pi/4$ -DQPSK	Bluetooth EDR 3Mbps 8-DPSK
Radiated TCs	Mode 1: CH78_2480 MHz + TC		
Remark: TC stands for Test Configuration, and consists of earphone and adapter.			

2.2 Connection Diagram of Test System





2.3 RF Utility

For Bluetooth function, the RF utility, “* # * # 767 # * # *” was installed in EUT which was programmed in order to make the EUT into the engineering modes to contact with Bluetooth base station for transmitting and receiving signals continuously.



3 Test Result

3.1 Band Edges Measurement

3.1.1 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.

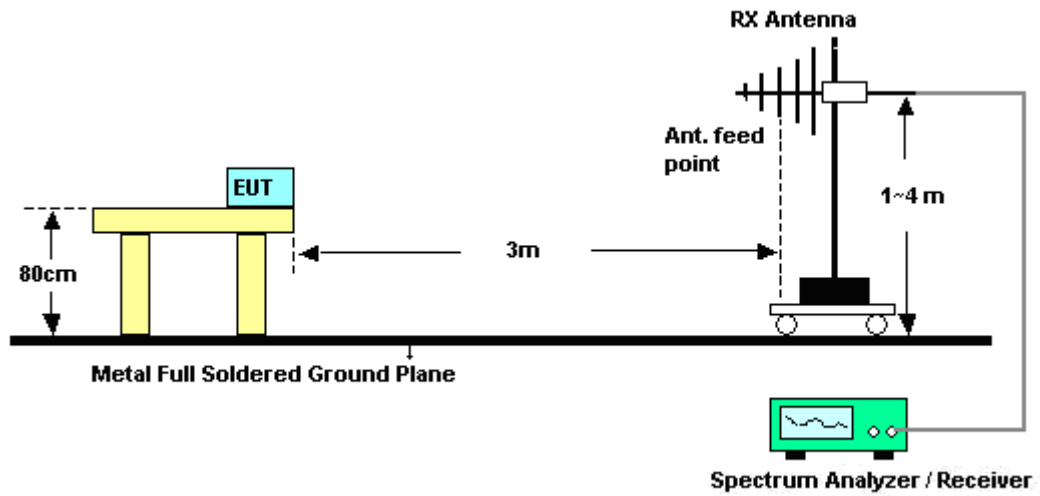
3.1.2 Measuring Instruments

See list of measuring instruments of this test report.

3.1.3 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 = 300kHz, Video bandwidth (VBW) \geq RBW. Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 300k Hz 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 band edge 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 = 1MHz, Sweep: Auto for Peak; set RBW = 1MHz, VBW = 10 Hz, Sweep: Auto for Average. 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).
4. In case the emission is fail due to the used RBW / VBW is too wide, marker-delta method of FCC Public Notice DA 00-705 will be followed.

3.1.4 Test Setup





3.1.5 Test Result of Radiated Band Edges

Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
		Test Engineer :	Hayden Wu

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
2483.5	55.13	-18.87	74	52	31.98	5.52	34.37	170	37	Peak
2483.5	36.25	-17.75	54	33.12	31.98	5.52	34.37	170	37	Average

Summary results of marker -delta method:

Test mode	Maximum field strength of the fundamental emission (dBµV/m)	Delta Result (dB)	Peak Result (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
Single Carrier Mode	109.99	59.88	50.11	74	-23.89	Pass
Hopping Mode	109.99	54.86	55.13	74	-18.87	Pass

Note : Peak result = Maximum field strength – Delta result

Test mode	Maximum field strength of the fundamental emission (dBµV/m)	Delta Result (dB)	Average Result (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
Single Carrier Mode	93.08	59.88	33.2	54	-20.8	Pass
Hopping Mode	93.08	54.86	38.22	54	-15.78	Pass

Note : Average result = Maximum field strength – Delta result



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
2483.5	52.5	-21.5	74	49.37	31.98	5.52	34.37	100	38	Peak
2483.5	38.22	-15.78	54	35.09	31.98	5.52	34.37	100	38	Average

Summary results of marker -delta method:

Test mode	Maximum field strength of the fundamental emission (dBµV/m)	Delta Result (dB)	Peak Result (dBµV/m)	Peak Limit (dBµV/m)	Margin (dB)	Result
Single Carrier Mode	107.51	58.3	49.21	74	-24.79	Pass
Hopping Mode	107.51	55.01	52.5	74	-21.5	Pass

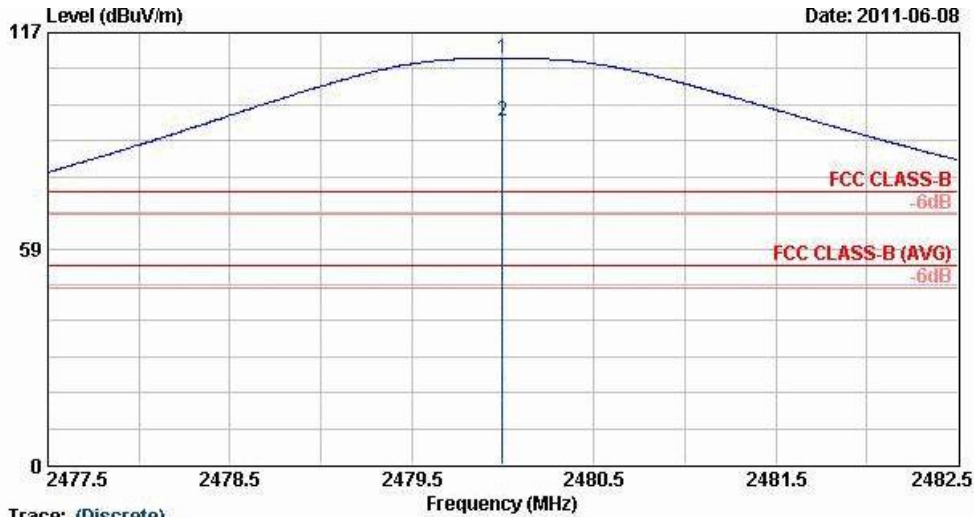
Note : Peak result = Maximum field strength – Delta result

Test mode	Maximum field strength of the fundamental emission (dBµV/m)	Delta Result (dB)	Average Result (dBµV/m)	Average Limit (dBµV/m)	Margin (dB)	Result
Single Carrier Mode	91.26	58.3	32.96	54	-21.04	Pass
Hopping Mode	91.26	55.01	36.25	54	-17.75	Pass

Note : Average result = Maximum field strength – Delta result



Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
Test Engineer :	Hayden Wu	Polarization :	Horizontal



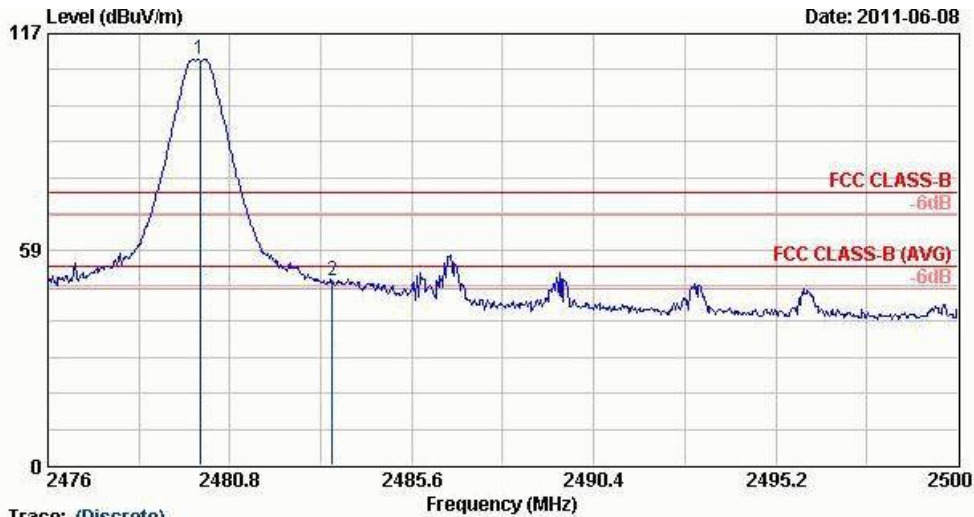
Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m HF-ANT_100802 HORIZONTAL
 Project : FR 142113-02
 Memo : Mode 1

	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 @	2480.00	109.99	35.99	74.00	106.86	31.98	5.52	34.37	170	37	Peak
2 @	2480.00	93.08	39.08	54.00	89.95	31.98	5.52	34.37	170	37	Average

* Maximum field strength of the fundamental emission



Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
Test Engineer :	Hayden Wu	Polarization :	Horizontal



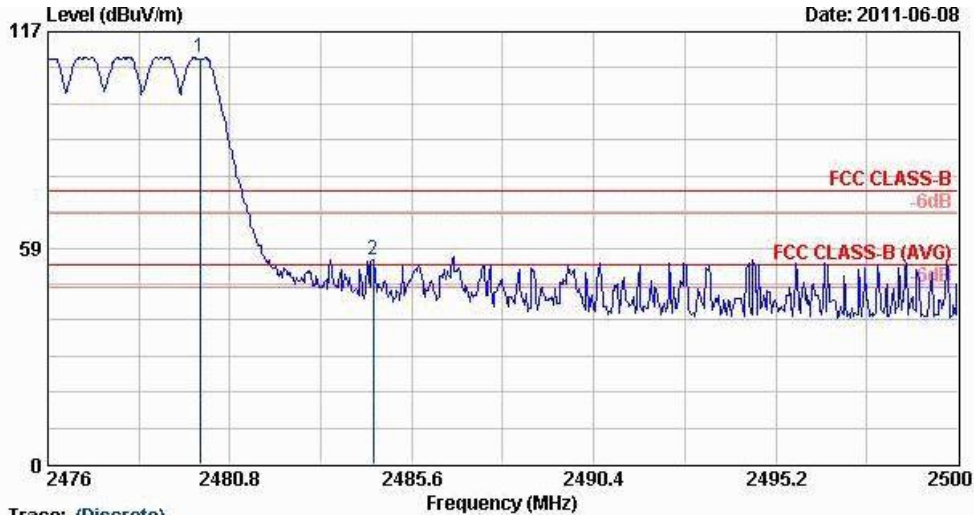
Trace: (Discrete)
 Site : 08CH06-HY
 Condition : FCC CLASS-B 3m HF-ANT_100602 HORIZONTAL
 Project : FR 142113-02
 Memo : Mode 1

	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 @	2480.00	109.95	35.95	74.00	106.82	31.98	5.52	34.37	170	37	Peak
2	2483.50	50.07	-23.93	74.00	46.94	31.98	5.52	34.37	170	37	Peak

* Marker-Delta Method (RBW/VBW=100KHz): 59.88 dB , single carrier Mode



Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
Test Engineer :	Hayden Wu	Polarization :	Horizontal



Trace: (Discrete)

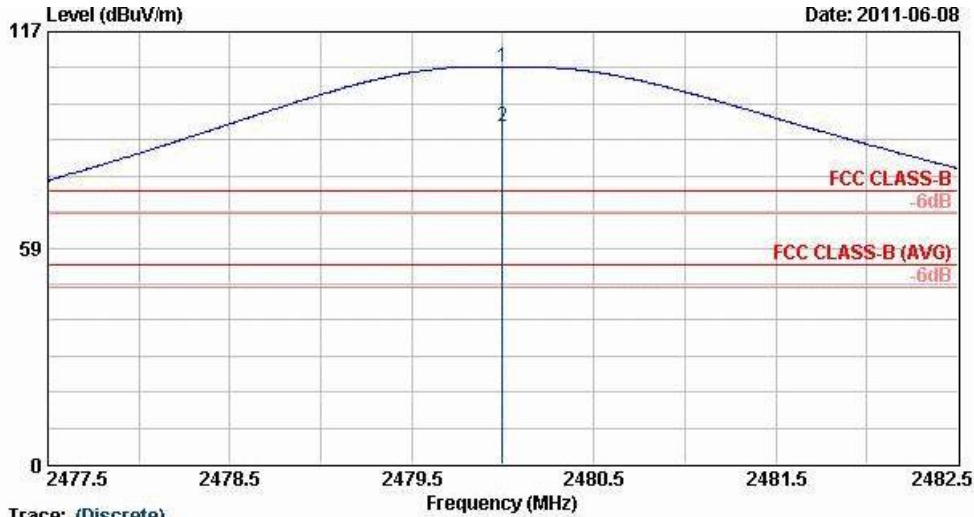
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m HF-ANT_100602 HORIZONTAL
 Project : FR 142113-02
 Memo : Mode 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB	dB	cm	deg	
1 @	2480.00	110.08	36.08	74.00	106.95	31.98	5.52	34.37	170	37 Peak
2	2484.59	55.22	-18.78	74.00	52.09	31.98	5.52	34.37	170	37 Peak

* Marker-Delta Method (RBW/VBW=100KHz): 54.86 dB , Hopping Mode



Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
Test Engineer :	Hayden Wu	Polarization :	Vertical



Trace: (Discrete)

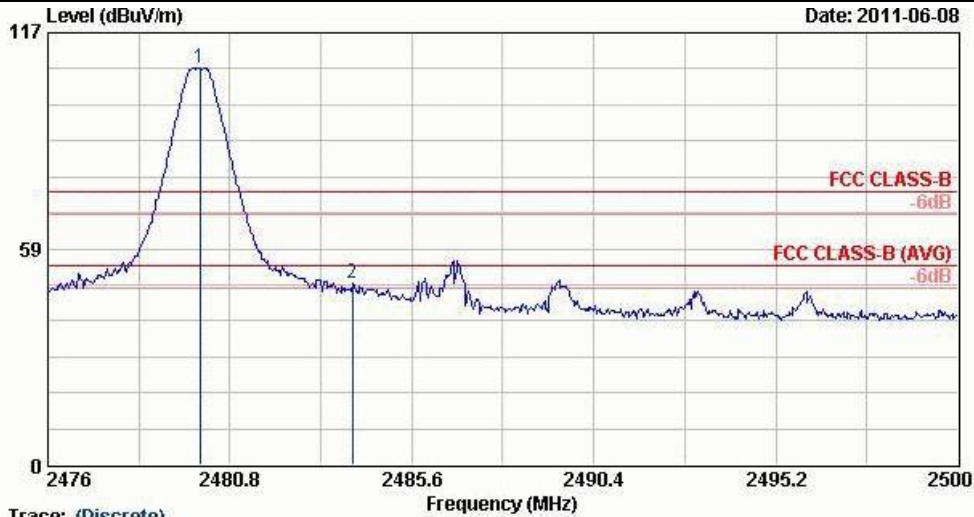
Site : D3CH06-HY
 Condition : FCC CLASS-B 3m HF-ANT_100602 VERTICAL
 Project : FR 142113-02
 Memo : Mode 1

	Freq	Level	Over Limit	Limit Line	ReadAntenna	Cable	Preamp	Ant	Table	Remark
	MHz	dBUV/m	dB	dBUV/m	dBuV	dB/m	dB	dB	cm	deg
1 @	2480.00	107.51	33.51	74.00	104.38	31.98	5.52	34.37	100	38 Peak
2 @	2480.00	91.26	37.26	54.00	88.13	31.98	5.52	34.37	100	38 Average

* Maximum field strength of the fundamental emission



Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
Test Engineer :	Hayden Wu	Polarization :	Vertical



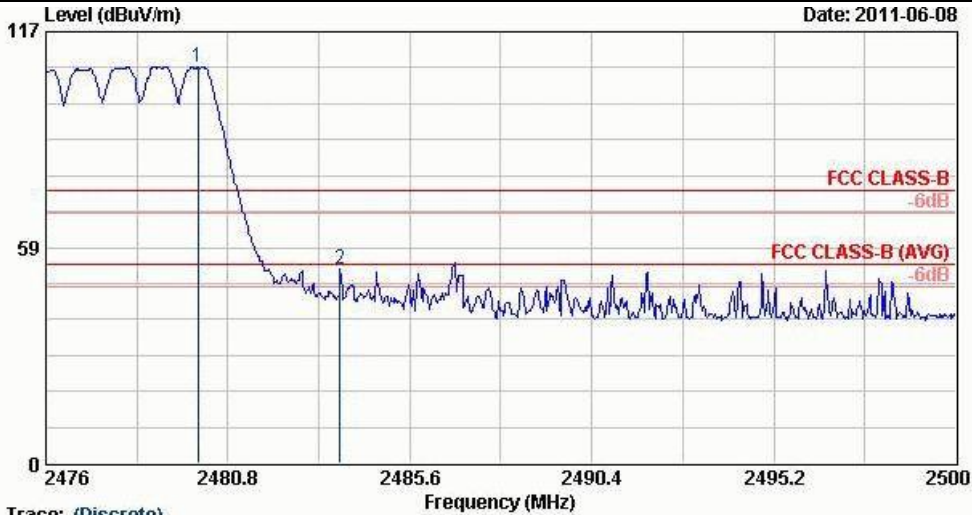
Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m HF-ANT_100802 VERTICAL
 Project : FR 142113-02
 Memo : Mode 1

	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 X	2480.00	107.45	33.45	74.00	104.31	31.98	5.52	34.37	100	38	Peak
2	2484.04	49.15	-24.85	74.00	46.02	31.98	5.52	34.37	100	38	Peak

* Marker-Delta Method (RBW/VBW=100KHz): 58.3 dB , single carrier Mode



Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
Test Engineer :	Hayden Wu	Polarization :	Vertical



Trace: (Discrete)
 Site : 03CH06-HY
 Condition : FCC CLASS-B 3m HF-ANT_100802 VERTICAL
 Project : FR 142113-02
 Memo : Mode 1

	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 @	2480.00	107.48	33.48	74.00	104.35	31.98	5.52	34.37	100	38	Peak
2	2483.75	52.47	-21.53	74.00	49.34	31.98	5.52	34.37	100	38	Peak

* Marker-Delta Method (RBW/VBW=100KHz): 55.01 dB , Hopping Mode

3.2 Radiated Emission Measurement

3.2.1 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

3.2.2 Measuring Instruments

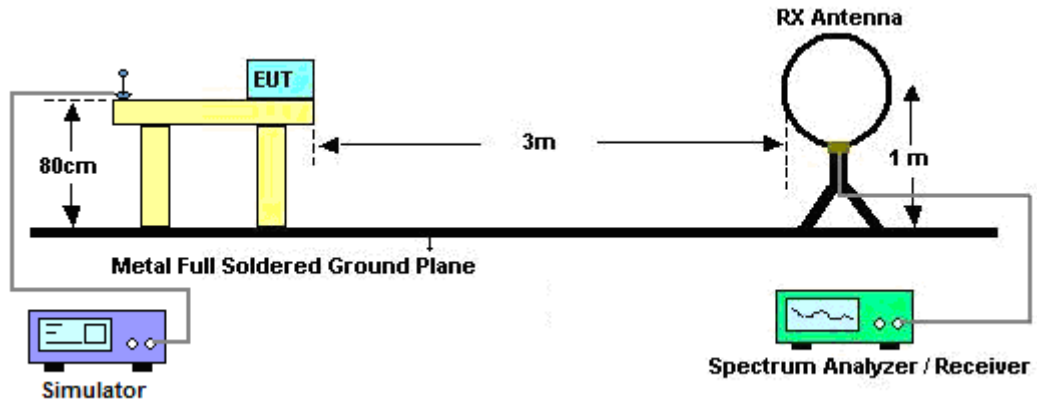
See list of measuring instruments of this test report.

3.2.3 Test Procedures

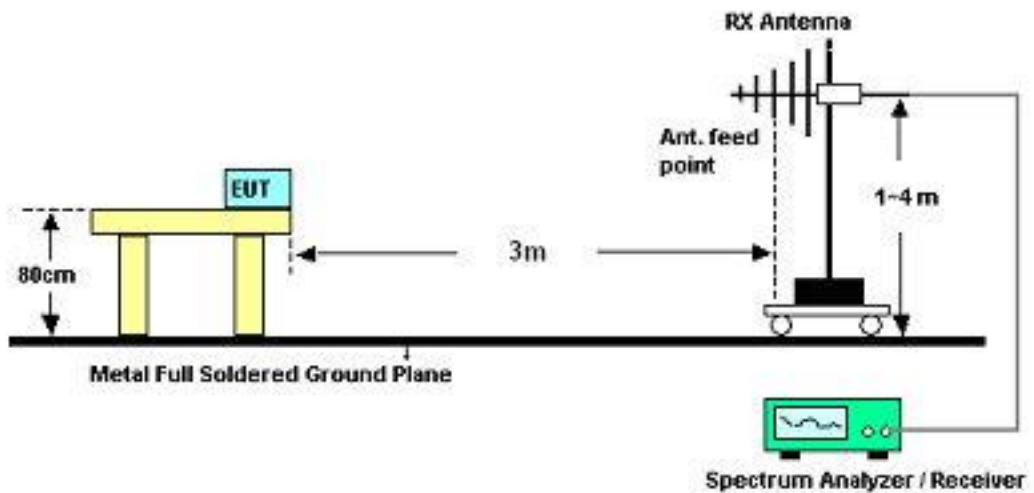
1. The testing follows the guidelines in FCC Public Notice DA 00-705 Measurement Guidelines.
2. Use the following spectrum analyzer settings:
 - (1) Span = wide enough to fully capture the emission being measured; RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz; VBW \geq RBW; Sweep = auto; Detector function = peak; Trace = max hold.
 - (2) Above 18 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade from 3m to 1m.
 Distance extrapolation factor = $20 \log(\text{specific distance [3m]} / \text{test distance [1m]})$ (dB)
1. 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.
2. Measured average value for the peak value is greater than 54 dBuV/m

3.2.4 Test Setup

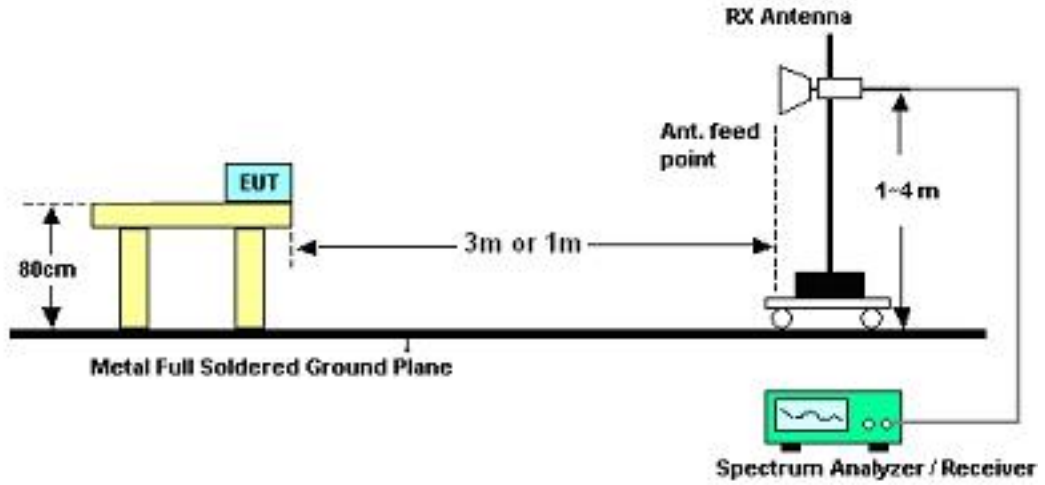
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.2.5 Test Results of Radiated Emissions (9 kHz ~ 30 MHz)

Test Engineer :	Hayden Wu	Temperature :	21~22°C	
		Relative Humidity :	47~48%	
Frequency (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

The amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.



3.2.6 Test Result of Radiated Emission (30 MHz ~ 10th Harmonic)

Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
Test Engineer :	Hayden Wu	Polarization :	Horizontal
Remark :	2480 MHz is Fundamental Signals which can be ignored.		

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
30	18.53	-21.47	40	31.62	17.91	0.72	31.72	-	-	Peak
101.28	18.22	-25.28	43.5	37.91	10.76	1.23	31.68	-	-	Peak
152.58	15.67	-27.83	43.5	35.32	10.58	1.46	31.69	-	-	Peak
749.4	24.04	-21.96	46	32.73	20.07	3.35	32.11	-	-	Peak
806.8	25.58	-20.42	46	33.33	20.83	3.38	31.96	-	-	Peak
889.4	30.66	-15.34	46	37.07	21.54	3.71	31.66	100	217	Peak
2380	33.68	-20.32	54	30.79	31.88	5.4	34.39	170	37	Average
2380	50.75	-23.25	74	47.86	31.88	5.4	34.39	170	37	Peak
2480	93.08	-	-	89.95	31.98	5.52	34.37	170	37	Average
2480	109.94	-	-	106.81	31.98	5.52	34.37	170	37	Peak
2483.5	36.25	-17.75	54	33.12	31.98	5.52	34.37	170	37	Average
2483.5	55.13	-18.87	74	52	31.98	5.52	34.37	170	37	Peak
7440	59.12	-14.88	74	69.21	35.53	11.29	56.91	119	42	Peak
7440	51.8	-2.2	54	61.89	35.53	11.29	56.91	119	42	Average



Test Mode :	Mode 1	Temperature :	21~22°C
Test Channel :	78	Relative Humidity :	47~48%
Test Engineer :	Hayden Wu	Polarization :	Vertical
Remark :	2480 MHz is Fundamental Signals which can be ignored.		

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
33.78	27.7	-12.3	40	43.13	15.53	0.74	31.7	115	244	Peak
101.28	23.78	-19.72	43.5	43.47	10.76	1.23	31.68	-	-	Peak
108.84	23.67	-19.83	43.5	42.76	11.35	1.27	31.71	-	-	Peak
782.3	24.85	-21.15	46	32.98	20.53	3.36	32.02	-	-	Peak
841.8	25.55	-20.45	46	32.83	21.13	3.51	31.92	-	-	Peak
889.4	28.6	-17.4	46	35.01	21.54	3.71	31.66	-	-	Peak
2348	33.53	-20.47	54	30.76	31.84	5.34	34.41	100	38	Average
2348	59.53	-14.47	74	56.76	31.84	5.34	34.41	100	38	Peak
2480	91.26	-	-	88.13	31.98	5.52	34.37	100	38	Average
2480	107.44	-	-	104.31	31.98	5.52	34.37	100	38	Peak
2483.5	38.22	-15.78	54	35.09	31.98	5.52	34.37	100	38	Average
2483.5	52.5	-21.5	74	49.37	31.98	5.52	34.37	100	38	Peak
7440	55.84	-18.16	74	65.93	35.53	11.29	56.91	100	310	Peak
7440	48.48	-5.52	54	58.57	35.53	11.29	56.91	100	310	Average



3.3 Antenna Requirements

3.3.1 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.

3.3.2 Antenna Connected Construction

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

3.3.3 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 Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100057	9KHz-40GHz	Oct. 25, 2010	Oct. 24, 2011	Radiation (03CH06-HY)
EMI TEST RECEIVER	R&S	ESCI 7	100724	9kHz~7GHz	Aug.19, 2010	Aug.19, 2011	Radiation (03CH06-HY)
Bilog Antenna	SCHAFFNER	CBL6112B	2885	30MHz -2GHz	Oct. 31, 2010	Oct. 31, 2011	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz~18GHz	Aug. 02, 2010	Aug. 01, 2011	Radiation (03CH06-HY)
Double Ridge Horn Antenna	Training Research	AH-0801	95119	8GHz~18GHz	Oct. 20, 2010	Oct. 19, 2011	Radiation (03CH06-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	15GHz- 40GHz	Oct. 18, 2010	Oct. 17, 2011	Radiation (03CH06-HY)
Pre Amplifier	Agilent	8449B	3008A01917	1GHz- 26.5GHz	Apr. 14, 2011	Apr. 13, 2012	Radiation (03CH06-HY)
Amplifier	Agilent	310N	186713	9KHz~1GHz	Apr. 14, 2011	Apr. 13, 2012	Radiation (03CH06-HY)
Loop Antenna	R&S	HFH2-Z2	860004/001	9 kHz~30 MHz	Jul. 29, 2010	Jul. 28, 2011	Radiation (03CH06-HY)
Bluetooth Base Station	R&S	CBT32	100522	N/A	Jan.13, 2011	Jan.13, 2013	Radiation (03CH06-HY)

5 Uncertainty of Evaluation

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

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-Shape	0.28
Combined Standard Uncertainty $U_c(y)$	1.27		
Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.54		

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=2)	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 = $20\text{Log}(1-\Gamma_1*\Gamma_2)$	+0.34 / -0.35	U-Shape	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				



Appendix A. Product Equality Declaration

Chi Mei Communication System Inc.

Tel: 886-2-2268-5511; Fax: 886-2-2269-2922

Date: June 14, 2011

Product Equality Declaration

We, Chi Mei Communication System Inc., declare on our sole responsibility for the product of XT530 (model name) as below:

The difference between XT530 (900/2100) and XT531 (850/2100) is:

- ◆ WCDMA Band difference : from Band I & V to Band I & VIII.
- ◆ XT531 use Non-OMTP type earphone; XT530 use OMTP type earphone.
- ◆ Schematic is the same with XT531 (850/2100). Only BOM difference listed below.

Reference #	Parent Model XT531 (850/2100)	Current Model XT530 (900/2100)
R811	SR042230230	NA
R1321/R1302	NA	SR000000252
R1320/R1317	SR000000252	NA
U2401	SF25836M0A1	SF1X897M0A1
U2402	SA077704170	SA077705170
U2403	SF2X836M021	S09FP897000
C2414	SR000000452	SI229J20801

Except Listings above, the others are the same as previous version.

Should you have any questions or comments regarding this matter, please have my best attention.

Sincerely yours,

Sylvia Wu
 Chi Mei Communication System Inc.
 Tel: 886-2-2268-5511
 Fax: 886-2-2269-2922
 E-Mail: sylviawu@fih-foxconn.com



Appendix B. Original Report

Please refer to Sporton report number FR142113A as below.