FCC Test Report

APPLICANT : Motorola Mobility, LLC EQUIPMENT : Mobile Cellular Phone

BRAND NAME : Motorola

MODEL NAME : 4241

FCC ID : IHDT56QC8

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION: Certification

The product was received on Nov. 15, 2014 and testing was completed on Dec. 24, 2014. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2009 and has been in 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: Louis Wu / Manager

Louis Win

Approved by: Jones Tsai / Manager





Report No.: FC4N1482-03

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: IHDT56QC8 Page Number : 1 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

TABLE OF CONTENTS

RE	VISIO	N HISTORY	3
SU	MMAF	RY OF TEST RESULT	4
1.	GEN	ERAL DESCRIPTION	
	1.1.	Applicant	5
	1.2.	Manufacturer	
	1.3.	Product Feature of Equipment Under Test	5
	1.4.	Product Specification subjective to this standard	6
	1.5.	Modification of EUT	7
	1.6.	Test Location	7
	1.7.	Applicable Standards	8
2.	TEST	CONFIGURATION OF EQUIPMENT UNDER TEST	9
	2.1.	Test Mode	9
	2.2.	Connection Diagram of Test System	
	2.3.	Support Unit used in test configuration and system	11
	2.4.	EUT Operation Test Setup	
3.	TEST	RESULT	12
	3.1.	Test of AC Conducted Emission Measurement	12
	3.2.	Test of Radiated Emission Measurement	
4.	LIST	OF MEASURING EQUIPMENT	20
5.	UNC	ERTAINTY OF EVALUATION	21

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 2 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report No. : FC4N1482-03

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC4N1482-03	Rev. 01	Initial issue of report	Jan. 14, 2015

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 3 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

SUMMARY OF TEST RESULT

Report Section	FCC Rule Description Limit		Result	Remark	
					Under limit
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	7.20 dB at
					0.190 MHz
					Under limit
2.2	45 400	Dadiated Emississ	45 400 limita	DACC	5.65 dB at
3.2	15.109	15.109 Radiated Emission	< 15.109 limits	PASS	720.000 MHz
					for Quasi-Peak

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 4 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

1. General Description

1.1. Applicant

Motorola Mobility, LLC

222 W. Merchandise Mart Plaza, Chicago IL 60654 USA

1.2. Manufacturer

Motorola Mobility, LLC

222 W. Merchandise Mart Plaza, Chicago IL 60654 USA

1.3. Product Feature of Equipment Under Test

	Product Feature
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	4241
FCC ID	IHDT56QC8
IMEI Code	990005450014726
	CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE
EUT supports Radios application	WLAN 11b/g/n (HT20)
EOT Supports Radios application	Bluetooth v2.1 EDR
	Bluetooth v4.0 - LE
HW Version	P2B
EUT Stage	Identical Prototype

Report No.: FC4N1482-03

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

Accessory List				
LICD Calda	Brand Name: Motorola			
USB Cable	Model Name: SKN6447A			

 SPORTON INTERNATIONAL INC.
 Page Number
 : 5 of 21

 TEL: 886-3-327-3456
 Report Issued Date
 : Jan. 14, 2015

 FAX: 886-3-328-4978
 Report Version
 : Rev. 01

FCC ID : IHDT56QC8 Report Template No.: BU5-FD15B Version 1.0

1.4. Product Specification subjective to this standard

Product Specification subjective to this standard					
Tx Frequency	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz CDMA2000 BC0: 824.70 MHz ~ 848.31 MHz CDMA2000 BC1: 1851.25 MHz ~ 1908.75 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz				
	802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GSM850 : 869.2 MHz ~ 893.8 MHz				
Rx Frequency	GSM1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band IV: 2112.4 MHz ~ 2152.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz CDMA2000 BC0: 869.70 MHz ~ 893.31 MHz CDMA2000 BC1: 1931.25 MHz ~ 1988.75 MHz LTE Band 5: 869.7 MHz ~ 893.3 MHz LTE Band 2: 1930.7 MHz ~ 1989.3 MHz LTE Band 4: 2110.7 MHz ~ 2154.3 MHz LTE Band 13: 748.5 MHz ~ 753.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS: 1.57542 GHz				
Antenna Type	WWAN : Fixed Internal Antenna LTE : Fixed Internal Antenna WLAN : Fixed Internal Antenna Bluetooth : Fixed Internal Antenna GPS : Fixed Internal Antenna				
Type of Modulation	GSM: GMSK GPRS: GMSK EDGE(MCS 0-4): GMSK / (MCS 5-9): 8PSK WCDMA: QPSK (Uplink) HSDPA: 64QAM (Downlink) HSUPA: QPSK (Uplink) LTE: QPSK / 16QAM CDMA2000 : QPSK CDMA2000 1xEV-DO : QPSK/8PSK 802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : \pi /4-DQPSK Bluetooth (3Mbps) : 8-DPSK GPS : BPSK				

SPORTON INTERNATIONAL INC.
TEL: 886-3-327-3456

FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 6 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

1.5. Modification of EUT

No modifications are made to the EUT during all test items.

1.6. Test Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation TW1022 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.			
	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park,			
Took Cita Looption	Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.			
Test Site Location	TEL: +886-3-327-3456			
	FAX: +886-3-328-4978			
Took Oiko No	Sporton Site No.			
Test Site No.	CO05-HY	03CH06-HY		

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TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 7 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

1.7. Applicable Standards

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

- FCC 47 CFR FCC Part 15 Subpart B
- ANSI C63.4-2009

Remark:

- All test items were verified and recorded according to the standards and without any deviation during the test.
- For FCC 15 Subpart B Unintentional Radiators, device supports FM Radio (Receiver) shall be authorized as "FM broadcast receiver" per the Section 15.101 (a) Equipment authorization of unintentional radiators.
- 3. For other Unintentional Radiators features of this EUT, test reports are issued separately. Per the Note of the Section 15.101, when device supports features (USB, FM Radio, digital devices...etc.) more than one category of authorization, type of authorization shall be appropriately chosen for FCC 15B compliance rule, and the Section 15.101 (b), only those receivers that operate (tune) within the frequency range of 30-960 MHz, CB receivers and radar detectors are subject to the authorizations shown in paragraph (a) of the Section 15.101. However, receivers indicated as being subject to Declaration of Conformity that are contained within a transceiver, the transmitter portion of which is subject to certification, shall be authorized under the verification procedure

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 8 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2009 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 (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

The following tables are showing the test modes as the worst cases and recorded in this report.

		Test Co	ondition
Item	EUT Configuration	EMI	EMI
		AC	RE
1.	Data application transferred mode (EUT with notebook)	\boxtimes	\boxtimes

Abbreviations:

EMI AC: AC conducted emissions
 EMI RE: EUT radiated emissions

Test Items EUT Configure Mode		Function Type
AC Conducted Emission	1	Mode 1: LTE Band 13 Idle + Bluetooth Idle + WLAN Idle + Earphone + GPS Rx + Battery + USB Cable (Data Link with Notebook)
Radiated Emissions	1	Mode 1: LTE Band 13 Idle + Bluetooth Idle + WLAN Idle + Earphone + GPS Rx + Battery + USB Cable (Data Link with Notebook)

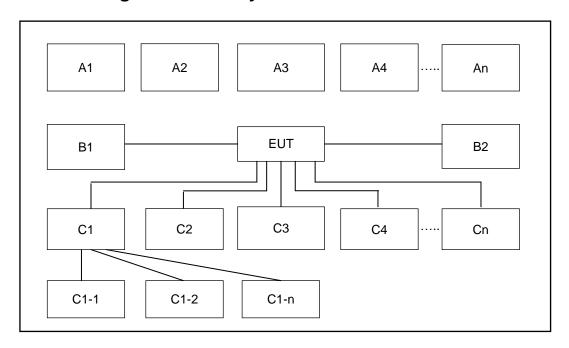
Remark: Data Link with Notebook means data application transferred mode between EUT and Notebook.

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 9 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

2.2. Connection Diagram of Test System



	Test Setup								
No	Minalana Otatian	O-marking Tons		Test Mode					
No.	Wireless Station	Connection Type	1	-	-	-	-	-	-
A1	Bluetooth Earphone	Bluetooth	Х						
A2	System Simulator	GSM/UMTS/CDMA/ WCDMA/LTE	Х						
А3	GPS Station	GPS	Х						
A4	WLAN AP	WiFi	Х						
No.	Setup Peripherals	Connection Type	1	-	-	-	-	-	-
C1	Notebook	USB cable	Х						
C1-1	iPod	USB Cable to C1	Х						
C1-2	WLAN AP	RJ-45 Cable to C1	Х						
C3	Earphone	Earphone jack	Х						
C4	SD Card	SD I/O interface without Cable	Х						

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 10 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord	
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m	
2.	System Simulator	R&S	CMW 500	N/A	N/A	Unshielded, 1.8 m	
3.	GPS Station	Pendulum	GSG-54	N/A	N/A	Unshielded, 1.8 m	
4.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A	
5.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m	
6.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A	
7.	iPod	Apple	A1199	FCC DoC	Shielded, 1.0 m	N/A	
8.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m	
9.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A	
10.	Earphone	MOTOROLA	SJYN1181B	N/A	Unshielded, 1 m	N/A	

2.4. EUT Operation Test Setup

The EUT was in LTE idle mode during the testing. The EUT was synchronized to the BCCH, and was in continuous receiving mode by setting system simulator's paging reorganization.

The EUT was attached to the Bluetooth earphone and WLAN AP, and the following programs installed in the EUT were programmed during the test.

- 1. Data application is transferred between Laptop and EUT via USB cable.
- 2. Execute "GPS Test" to make the EUT continuously receive signals from GPS station.

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 11 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits 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	Conducted	limit (dBuV)
(MHz)	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.

3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

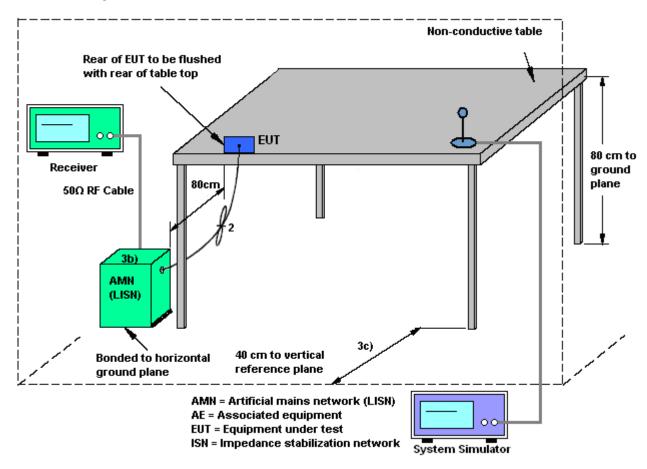
- The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least
 80 centimeters from any other grounded conducting surface.
- 2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- 3. All the support units are connecting to the other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

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 12 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report No.: FC4N1482-03

C Test Report No.: FC4N1482-03

3.1.4 Test Setup

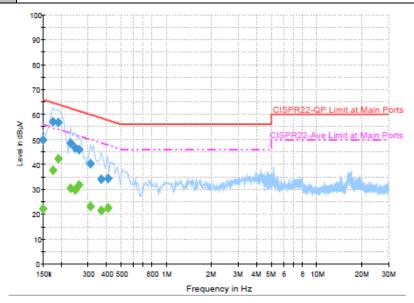


TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 13 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Line
	LTC Dand 12 Idla - Divistant	bldla i WI AN Idla i I	Torobono I CDC Dv I Bottom I

Function Type : LTE Band 13 Idle + Bluetooth Idle + WLAN Idle + Earphone + GPS Rx + Battery + USB Cable (Data Link with Notebook)



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	50.0	Off	L1	19.5	16.0	66.0
0.174000	57.2	Off	L1	19.5	7.6	64.8
0.190000	56.8	Off	L1	19.5	7.2	64.0
0.230000	48.4	Off	L1	19.5	14.0	62.4
0.246000	46.6	Off	L1	19.5	15.3	61.9
0.262000	45.9	Off	L1	19.5	15.5	61.4
0.310000	40.3	Off	L1	19.4	19.7	60.0
0.366000	33.9	Off	L1	19.4	24.7	58.6
0.406000	34.5	Off	L1	19.5	23.2	57.7

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	22.2	Off	L1	19.5	33.8	56.0
0.174000	37.7	Off	L1	19.5	17.1	54.8
0.190000	42.2	Off	L1	19.5	11.8	54.0
0.230000	30.4	Off	L1	19.5	22.0	52.4
0.246000	29.6	Off	L1	19.5	22.3	51.9
0.262000	31.8	Off	L1	19.5	19.6	51.4
0.310000	23.1	Off	L1	19.4	26.9	50.0
0.366000	21.4	Off	L1	19.4	27.2	48.6
0.406000	22.3	Off	L1	19.5	25.4	47.7

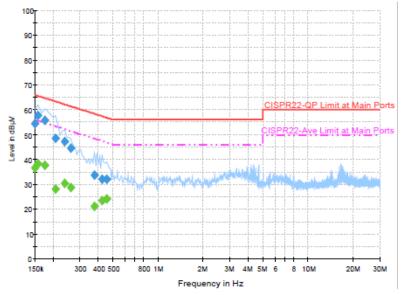
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TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 14 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

Report No. : FC4N1482-03

Test Mode :	Mode 1	Temperature :	21~23℃
Test Engineer :	Eric Jeng	Relative Humidity :	46~48%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type	LTE Band 13 Idle + Bluetoot	th Idle + WLAN Idle + E	Earphone + GPS Rx + Battery +
Function Type :	USB Cable (Data Link with I	Notebook)	



Final Result : Quasi-Peak

Frequency (MHz)	Quasi-Peak (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	54.5	Off	N	19.5	11.5	66.0
0.158000	57.8	Off	N	19.5	7.8	65.6
0.174000	55.8	Off	N	19.5	9.0	64.8
0.206000	48.4	Off	N	19.4	15.0	63.4
0.238000	47.3	Off	N	19.5	14.9	62.2
0.262000	44.7	Off	N	19.5	16.7	61.4
0.374000	33.6	Off	N	19.5	24.8	58.4
0.422000	32.0	Off	N	19.5	25.4	57.4
0.454000	32.1	Off	N	19.5	24.7	56.8

Final Result : Average

Frequency (MHz)	Average (dBµV)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	36.7	Off	N	19.5	19.3	56.0
0.158000	38.2	Off	N	19.5	17.4	55.6
0.174000	37.7	Off	N	19.5	17.1	54.8
0.206000	28.0	Off	N	19.4	25.4	53.4
0.238000	30.3	Off	N	19.5	21.9	52.2
0.262000	28.7	Off	N	19.5	22.7	51.4
0.374000	21.1	Off	N	19.5	27.3	48.4
0.422000	23.3	Off	N	19.5	24.1	47.4
0.454000	24.1	Off	N	19.5	22.7	46.8

SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8

Page Number : 15 of 21 Report Issued Date: Jan. 14, 2015 Report Version : Rev. 01

3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

Frequency	Field Strength	Measurement Distance
(MHz)	(microvolts/meter)	(meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
- 5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
- 6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
- 7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
- 8. Emission level $(dB\mu V/m) = 20 \log Emission level (\mu V/m)$
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

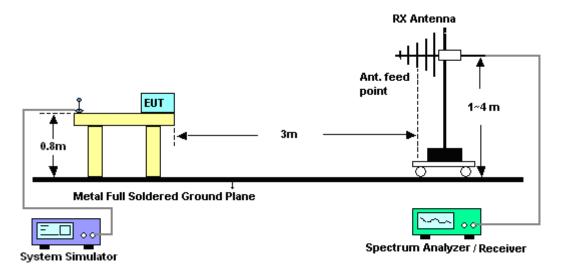
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TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 16 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

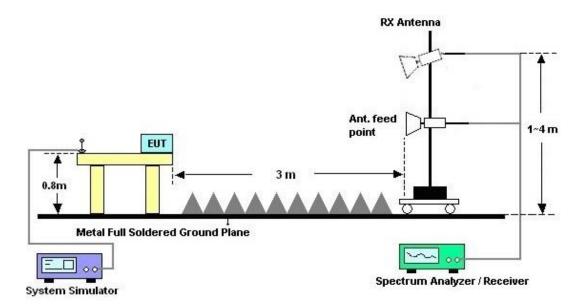
Report No.: FC4N1482-03

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



SPORTON INTERNATIONAL INC.

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 17 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0

3.2.5. Test Result of Radiated Emission

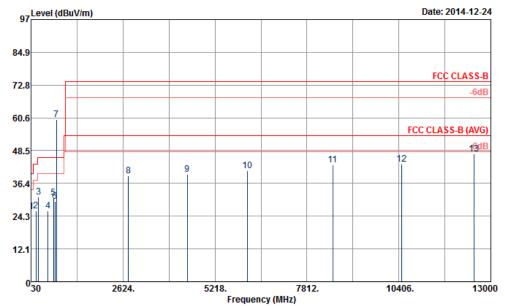
Test Mode :	Mode '	1			Temp	erature	:	20~2	23°C		
Test Engineer :	Daniel	Lee			Relati	ive Hun	nidity	: 50~5	53%		
Test Distance :	3m				Polar	ization	:	Horiz	zontal		
Function Tune	LTE Ba	and 13	ldle + E	Sluetoo	th Idle	+ WLAI	N Idle -	+ Earph	one + (SPS R	x + Batte
Function Type :	USB C	able (D	Data Lir	nk with I	Votebo	ook)					
Remark :	#7 is s	ystem	simulat	or signa	al whic	h can b	e ignor	ed.			
97 Leve	el (dBuV/m))								Date: 201	4-12-24
31											
84.9											
72.8										FCC CL	-6dB
60.6	7										
									FCC	CLASS-E	-6dB
48.5	6	8				10	11		12		13
36.4				'			+				
24.3	5										
12.1											
030		2624	 -	52 °			7812.		10406.		13000
Site	:	03 <i>C</i> H0	6-H y		rieque	ency (MHz)					
Conditio Project		FCC CL		m HF-AN	VT_583	_140731	HORIZ	ONTAL			
Power	:	From S	ystem								
Mode		Mode 1 Level	Over Limit			Antenna Factor		Preamp Factor	A/Pos	T/Pos	Remark
	MHz	$\overline{d}\overline{B}\overline{u}\overline{V}\overline{7}\overline{m}$	$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	$\overline{\mathtt{d}}\overline{\mathtt{B}}\overline{\mathtt{u}}\overline{\mathtt{V}}\overline{\mathtt{7}}\overline{\mathtt{m}}$	dBu∀	<u>dB</u> 7m	<u>dB</u>	$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	CM	deg	
1 2 3 4 5 6 7 *	30.00 169.86 240.06 480.60	25.26 34.71 30.42	-23.44 -18.24 -11.29 -15.58	40.00 43.50 46.00 46.00	29.32 45.68 53.37 42.71	18.40 9.70 11.39 17.31	0.64 1.63 1.69 2.31	31.80 31.75 31.74 31.91			Peak Peak Peak Peak
8	665.40 720.00 750.80 2832.00 3986.00	40.35 58.54 38.92	-17.46 -5.65 -35.08 -35.28	46.00 46.00 74.00 74.00	38.79 50.31 67.68 60.60 59.34	18.95 19.10 19.79 32.53 33.40	2.83 2.95 3.05 6.62 7.68	32.03 32.01 31.98 60.83 61.70	100	26 	Peak QP Peak Peak Peak
10 11 12 1	6446.00 8438.00 0540.00 2906.00	42.43 41.90 43.76	-31.57 -32.10 -30.24 -28.68	74.00 74.00 74.00 74.00 74.00	57.37 52.98 53.58 50.04	35.73 35.62 37.42 39.46	9.79 12.82 13.16 15.94	60.46 59.52 60.40 60.12	100		Peak Peak Peak Peak Peak

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 18 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report No. : FC4N1482-03

FCC Test Report No.: FC4N1482-03

Test Mode :	Mode 1	Temperature :	20~23°C
Test Engineer :	Daniel Lee	Relative Humidity :	50~53%
Test Distance :	3m	Polarization :	Vertical
Eurotion Type	LTE Band 13 Idle + Bluetoot	h Idle + WLAN Idle + I	Earphone + GPS Rx + Battery +
Function Type :	USB Cable (Data Link with I	Notebook)	
Remark :	#7 is system simulator signa	l which can be ignored	i.



Site : 03CH06-HY

Condition : FCC CLASS-B 3m HF-ANT_583_140731 VERTICAL

Project : 4N1482-04
Power : From System
Mode : Mode 1

Freq Level									
	Over Limit	Limit Line		ntenna Factor		Preamp Factor	A/Pos	T/Pos	Remark
1 30.54 26.04	<u>dB</u>	$\overline{\mathtt{d}}\overline{\mathtt{B}}\overline{\mathtt{u}}\overline{\mathtt{V}}\overline{\mathtt{I}}\overline{\mathtt{m}}$	—dBu∀	<u>d</u> B7m	āB	$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$		deg	
2 170.94 26.18 3 240.06 31.34 4 504.40 26.21 5 665.40 31.15 6 704.60 29.68 7 * 750.80 60.11 8 2780.00 39.08 9 4436.00 39.71 10 6132.00 41.15 11 8536.00 43.16 12 10492.00 43.47	-19.79 -14.85 -16.32 -34.92 -34.29 -32.85 -30.84 -30.53	46.00 46.00 46.00 46.00 74.00 74.00 74.00 74.00 74.00	39.17 46.66 50.00 38.26 41.40 39.90 69.25 60.83 59.25 56.48 54.23 53.51	18.02 9.66 11.39 17.40 18.95 18.90 19.79 32.45 34.01 35.43 35.63 37.39	0.65 1.61 1.69 2.49 2.83 2.90 3.05 6.58 8.06 9.52 12.86 13.09	31.80 31.75 31.74 31.94 32.03 32.02 31.98 60.78 61.61 60.28 59.56 60.52	100		Peak Peak Peak Peak Peak Peak Peak Peak
13 12526.00 47.23	-26.77	74.00	52.14	39.31	15.61	59.83	100	26	Peak

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 19 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	Rohde & Schwarz	ESCS 30	100356	9kHz ~ 2.75GHz	Dec. 01, 2014	Dec. 23, 2014	Nov. 30, 2015	Conduction (CO05-HY)
LISN (for auxiliary equipment)	Rohde & Schwarz	ENV216	100081	9kHz ~ 30MHz	Dec. 08, 2014	Dec. 23, 2014	Dec. 07, 2015	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz ~ 30MHz	Dec. 02, 2014	Dec. 23, 2014	Dec. 01, 2015	Conduction (CO05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Dec. 23, 2014	N/A	Conduction (CO05-HY)
Spectrum Analyzer	R&S	FSP30	101067	9kHz ~ 30GHz	Nov. 21, 2014	Dec. 24, 2014	Nov. 20, 2015	Radiation (03CH06-HY)
Spectrum Analyzer	Agilent	E4408B	MY44211030	9kHz ~ 26.5GHz	Nov. 27, 2014	Dec. 24, 2014	Nov. 26, 2015	Radiation (03CH06-HY)
EMI Test Receiver	R&S	ESVS10	834468/0003	20MHz ~ 1000MHz	May 06, 2014	Dec. 24, 2014	May 05, 2015	Radiation (03CH06-HY)
Bilog Antenna	Schaffner	CBL6112B	2885	30MHz ~ 2GHz	Sep. 27, 2014	Dec. 24, 2014	Sep. 26, 2015	Radiation (03CH06-HY)
Loop Antenna	R&S	HFH2-Z2	100315	9kHz ~ 30MHz	Jul. 28, 2014	Dec. 24, 2014	Jul. 27, 2015	Radiation (03CH06-HY)
Double Ridge Horn Antenna	EMCO	3117	00066583	1GHz ~ 18GHz	Jul. 24, 2014	Dec. 24, 2014	Jul. 23, 2015	Radiation (03CH06-HY)
Amplifier	SONOMA	310N	186713	9kHz ~ 1GHz	Apr. 16, 2014	Dec. 24, 2014	Apr. 15, 2015	Radiation (03CH06-HY)
Preamplifier	EMCI	EMC051845	SN980048	1GHz ~ 18GHz	Jul. 17, 2014	Dec. 24, 2014	Jul. 16, 2015	Radiation (03CH06-HY)
Turn Table	INN-CO	DS2000	420/650/00	0 ~ 360 degree	N/A	Dec. 24, 2014	N/A	Radiation (03CH06-HY)
Antenna Mast	MF	MF-7802	MF780208212	1 m ~ 4 m	N/A	Dec. 24, 2014	N/A	Radiation (03CH06-HY)

TEL: 886-3-327-3456 FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 20 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0



5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y)) 2.26

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

Measuring Uncertainty for a Level of	
Confidence of 95% (U = 2Uc(y))	4.50

SPORTON INTERNATIONAL INC.
TEL: 886-3-327-3456

FAX: 886-3-328-4978 FCC ID: IHDT56QC8 Page Number : 21 of 21
Report Issued Date : Jan. 14, 2015
Report Version : Rev. 01

Report Template No.: BU5-FD15B Version 1.0