FCC Test Report

APPLICANT : TCL Communication Ltd.

EQUIPMENT: LTE Tablet

BRAND NAME : ALCATEL ONETOUCH

MODEL NAME : 9021A

MARKETING NAME : ONETOUCH POP™ 8 LTE

FCC ID : 2ACCJB023

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION: Certification

The product was received on Dec. 08, 2014 and testing was completed on Jan. 12, 2015. We, SPORTON INTERNATIONAL (SHENZHEN) 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 (SHENZHEN) INC., the test report shall not be reproduced except in full.

Reviewed by: Louis Wu / Manager

Louis Wu

Approved by: Jones Tsai / Manager

once/sur

SPORTON INTERNATIONAL (SHENZHEN) INC.

1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 1 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

2353

TABLE OF CONTENTS

RE	EVISION HISTORY3					
SU	MMAF	RY OF TEST RESULT				
		ERAL DESCRIPTION				
	1.1. 1.2.	Applicant Manufacturer	5			
	1.3. 1.4.	Product Feature of Equipment Under Test	6			
	1.5. 1.6. 1.7.	Modification of EUT Test Location Applicable Standards	7			
2.	TEST	CONFIGURATION OF EQUIPMENT UNDER TEST	8			
	2.1.2.2.2.3.2.4.	Test Mode Connection Diagram of Test System Support Unit used in test configuration and system EUT Operation Test Setup	10			
3.	TEST	RESULT	13			
	3.1. 3.2.					
4.	LIST	OF MEASURING EQUIPMENT	23			
		ERTAINTY OF EVALUATION	24			
ΑP	PEND	IX A. SETUP PHOTOGRAPHS				

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 2 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

REVISION HISTORY

VERSION	DESCRIPTION	ISSUED DATE
Rev. 01	This is a variant product of 9020A. The test result is not affected, all test cases were performed on original report which can be referred to sporton report number FC4D0805 (Model name: 9020A; FCC ID: 2ACCJB003).	Jul. 06, 2015
		This is a variant product of 9020A. The test result is not affected, all test cases were performed on original report which can be referred to sporton report number FC4D0805 (Model name: 9020A; FCC

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 3 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

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	13.47 dB at
					0.150 MHz
					Under limit
3.2	15 100	Dadiated Emission	< 15 100 limita	DACC	3.01 dB at
3.2	15.109	15.109 Radiated Emission	< 15.109 limits	PASS	32.700 MHz for
					Quasi-Peak

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 4 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

1. General Description

1.1. Applicant

TCL Communication Ltd.

5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area Shanghai, P.R. China. 201203

1.2. Manufacturer

TCL Communication Ltd.

5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area Shanghai, P.R. China. 201203

1.3. Product Feature of Equipment Under Test

	Product Feature
Equipment	LTE Tablet
Brand Name	ALCATEL ONETOUCH
Model Name	9021A
Marketing Name	ONETOUCH POP™ 8 LTE
FCC ID	2ACCJB023
EUT supports Radios application	WCDMA/HSPA/HSPA+(Downlink Only)/LTE/ WLAN 2.4GHz 802.11b/g/n HT20/ WLAN 5GHz 802.11a/n HT20/HT40/ Bluetooth v3.0 + EDR/Bluetooth v4.0 LE
HW Version	V05
SW Version	C43
EUT Stage	Production Unit

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

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 5 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

1.4. Product Specification subjective to this standard

Product Specification subjective to this standard						
WCDMA Band V : 826.4 MHz ~ 846.6 MHz						
	WCDMA Band II : 1852.4 MHz ~ 1907.6 MHz					
	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz					
	LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz					
	LTE Band 5 : 824.7 MHz ~ 848.3 MHz					
Tx Frequency	LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz					
	LTE Band 17 : 706.5 MHz ~ 713.5 MHz					
	802.11b/g/n: 2412 MHz ~ 2462 MHz					
	802.11a/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz;					
	5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz;					
	Bluetooth: 2402 MHz ~ 2480 MHz					
	WCDMA Band V : 871.4 MHz ~ 891.6 MHz					
	WCDMA Band II : 1932.4 MHz ~ 1987.6 MHz					
	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz					
	LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz					
	LTE Band 5 : 869.7 MHz ~ 893.3 MHz					
	LTE Band 7 : 2622.5 MHz ~ 2687.5 MHz					
Rx Frequency	LTE Band 17 : 736.5 MHz ~ 743.5 MHz					
	802.11b/g/n: 2412 MHz ~ 2462 MHz					
	802.11a/n: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz;					
	5500 MHz ~ 5580 MHz and 5660 MHz ~ 5700 MHz;					
	Bluetooth: 2402 MHz ~ 2480 MHz					
	GPS: 1.57542 GHz					
	Glonass : 1602 MHz + n× 0.5625MHz (n=-7,-6,-5,0,,6)					
	WWAN: IFA Antenna					
	WLAN: IFA Antenna					
Antenna Type	Bluetooth: IFA Antenna					
	GPS: IFA Antenna					
	Glonass: IFA Antenna					
	WCDMA: QPSK (Uplink)					
	HSDPA: QPSK (Uplink)					
	HSUPA: QPSK (Uplink)					
	HSPA+: 16QAM (Downlink Only)					
	LTE: QPSK / 16QAM					
	802.11b: DSSS (DBPSK / DQPSK / CCK)					
Type of Modulation	802.11a/g/n/: OFDM (BPSK / QPSK / 16QAM / 64QAM)					
	Bluetooth v4.0 LE : GFSK					
	Bluetooth (1Mbps) : GFSK					
	Bluetooth (2Mbps) : π /4-DQPSK					
	Bluetooth (3Mbps) : 8-DPSK					
	GPS: BPSK					
	Glonass : BPSK					

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 6 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

1.5. Modification of EUT

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

1.6. Test Location

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.
	1F & 2F,Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town,
	Nanshan District, Shenzhen, Guangdong, P. R. China
Test Site Location	TEL: +86-755-8637-9589
	FAX: +86-755-8637-9595
Test Site No.	Sporton Site No.
rest Site No.	CO01-SZ

Test Site	SPORTON INTERNATIONAL (SHENZHEN) INC.				
Test Site Location	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China				
	TEL: +86-755- 3320-2398				
Took Cita No	Sporton Site No. FCC Registration No.				
Test Site No.	03CH01-SZ	831040			

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.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 7 of 24
Report Issued Date : Jul. 06, 2015

Report No.: FC4D0805-02

Report Version : Rev. 01

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 Condition			
Item	EUT Configuration		EMI	EMI	
			RE<1G	RE≥1G	
1.	Charging Mode (EUT with adapter)	\boxtimes	\boxtimes	\boxtimes	
2.	Data application transferred mode		\boxtimes	\boxtimes	
	(EUT connected with notebook)				

Abbreviations:

EMI AC: AC conducted emissions

• EMI RE ≥ 1G: EUT radiated emissions ≥ 1GHz

• EMI RE < 1G: EUT radiated emissions < 1GHz

SPORTON INTERNATIONAL (SHENZHEN) INC.

FAX: 86-755-8637-9595 FCC ID: 2ACCJB023

TEL: 86-755-8637-9589

Page Number : 8 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

Test Items	EUT Configure Mode	Function Type	
		Mode 1: WCDMA Band V Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Charging from Adapter) + Camera + Battery + Earphone <fig.1></fig.1>	
AC Conducted	1/0	Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable (Charging from Adapter) + MPEG4 + Battery + Earphone <fig.1></fig.1>	
Emission	1/2	Mode 3: LTE Band 7 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Data Link with Notebook) + GPS Rx + Earphone <fig.2></fig.2>	
		Mode 4: LTE Band 7 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Data Link with Notebook) + Glonass Rx + Earphone <fig.2></fig.2>	
	1/2	Mode 1: WCDMA Band V Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Charging from Adapter) + Camera + Battery + Earphone <fig.1></fig.1>	
Radiated		Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN (5G) Idle + USB Cable (Charging from Adapter) + MPEG4 + Battery + Earphone <fig.1></fig.1>	
Emissions < 1GHz		Mode 3: LTE Band 7 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Data Link with Notebook) + GPS Rx + Earphone <fig.2></fig.2>	
		Mode 4: LTE Band 7 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Data Link with Notebook) + Glonass Rx + Earphone <fig.2></fig.2>	
Radiated	1/2	Mode 1: WCDMA Band V Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Charging from Adapter) + Camera + Battery + Earphone <fig.1></fig.1>	
Emissions ≥ 1GHz		Mode 2: LTE Band 7 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Data Link with Notebook) + GPS Rx + Earphone <fig.2></fig.2>	

Remark:

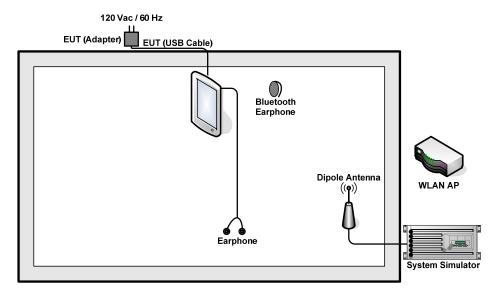
- 1. The worst case of AC is mode 4, the test data of these modes is reported.
- The worst case of RE < 1G is mode 1, and the USB Link mode of RE is mode 3, the test data of these modes are reported.
- 3. Link with notebook means data application transferred mode between EUT and notebook.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 9 of 24
Report Issued Date : Jul. 06, 2015

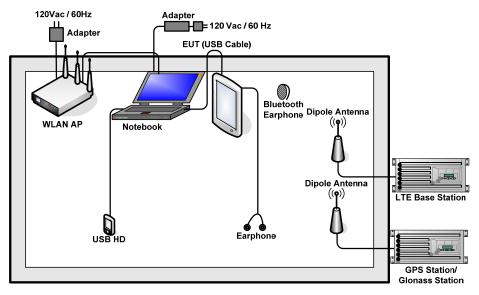
Report No. : FC4D0805-02

Report Version : Rev. 01

2.2. Connection Diagram of Test System



<Fig.1>



<Fig.2>

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 10 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

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	R&S	CMU 200	N/A	N/A	Unshielded,1.8m
2.	System Simulator	Agilent	8960	N/A	N/A	Unshielded, 1.8 m
3.	LTE Base Station	Anitsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
4.	GPS Station	ADIVIC	MP9000	N/A	N/A	Unshielded, 1.8 m
5.	Glonass Station	RACELOGIC	RLLS03-2RP	N/A	N/A	Unshielded, 1.8 m
6	Bluetooth Earphone	lenovo	LBH 301	FCC DoC	N/A	N/A
7	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
8.	SD Card	SanDisk	4G class 4	FCC DoC	N/A	N/A
9.	Notebook	Lenovo	E540	FCC DoC	N/A	AC I/P: Unshielded, 1.2m DC O/P: Shielded, 1.8 m
10.	Notebook	Lenovo	G480	FCC DoC	N/A	AC I/P: Unshielded, 1.2m DC O/P: Shielded, 1.8 m
11.	WLAN AP	D-link	DIR-615	N/A	N/A	Unshielded,1.8m
12.	WLAN AP	D-link	DIR-815	KA2IR815A1	N/A	Unshielded, 1.8 m
13.	WLAN AP	ASUSTek	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,2.7m
14.	iPod	Apple	MC525 ZP/A	FCC DoC	Shielded, 1.0 m	N/A
15.	iPod Earphone	Apple	MC690ZP/A	FCC DoC	Unshielded,1.6m	N/A

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 11 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

2.4. EUT Operation Test Setup

The EUT was in WCDMA or 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.

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

- 1. Data application is transferred between notebook and EUT via USB cable.
- 2. Execute "GPS/Glonass Test" to make the EUT receive continuous signals from GPS/Glonass station.
- 3. Execute "Video Player" to play MPEG4 files.
- 4. Turn on camera to capture images.

SPORTON INTERNATIONAL (SHENZHEN) INC.

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 12 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

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.
- 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: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 13 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

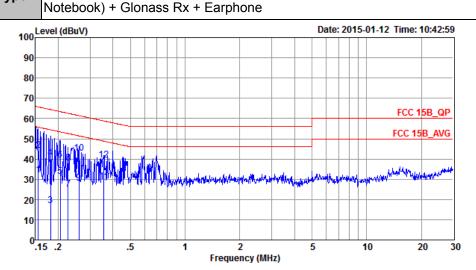
3.1.4 Test Setup



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 14 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 4	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity: 41~42%	
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	LTE Band 7 Idle + Bluetooth	Idle + WLAN (2.4G) Id	dle + USB Cable (Data Link with



Site : CO01-SZ

Condition: FCC 15B_QP LISN_L_20140304 LINE

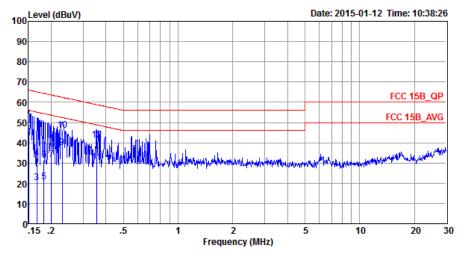
Mode : Mode 4

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBu∀	dBuV	dB	dB	
1	0.16	32.27	-23.42	55.69	21.70	0.22	10.35	Average
2	0.16	44.37	-21.32	65.69	33.80	0.22	10.35	QP
3	0.18	17.04	-37.38	54.42	6.50	0.22	10.32	Average
4	0.18	40.64	-23.78	64.42	30.10	0.22	10.32	QP
5	0.21	31.21	-22.19	53.40	20.70	0.22	10.29	Average
6	0.21	39.61	-23.79	63.40	29.10	0.22	10.29	QP
7	0.23	25.20	-27.37	52.57	14.71	0.23	10.26	Average
8	0.23	37.90	-24.67	62.57	27.41	0.23	10.26	QP
9	0.26	28.18	-23.24	51.42	17.71	0.24	10.23	Average
10 *	0.26	42.68	-18.74	61.42	32.21	0.24	10.23	QP
11	0.36	28.95	-19.83	48.78	18.50	0.27	10.18	Average
12	0.36	39.35	-19.43	58.78	28.90	0.27	10.18	QP

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 15 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01



Test Mode :	Mode 4	Temperature :	21~22℃						
Test Engineer :	Jack Tian	Relative Humidity :	41~42%						
Test Voltage :	120Vac / 60Hz	Phase :	Neutral						
Function Tune	LTE Band 7 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Data Link with								
Function Type :	 Notebook) + Glonass Rx + E	Notebook) + Glonass Rx + Earphone							



Site : C001-SZ Condition: FCC 15B_QP LISN_N_20140304 NEUTRAL

: Mode 4

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBuV	dB	dBuV	dBu₹	dB	dB	
1 *	0.15	42.49	-13.47	55.96	31.80	0.33	10.36	Average
2	0.15	45.89	-20.07	65.96	35.20	0.33	10.36	QP
3	0.17	20.36	-34.76	55.12	9.69	0.33	10.34	Average
4	0.17	32.36	-32.76	65.12	21.69	0.33	10.34	QP
5	0.18	20.64	-33.73	54.37	10.01	0.32	10.31	Average
6	0.18	31.44	-32.93	64.37	20.81	0.32	10.31	QP
7	0.20	31.81	-21.77	53.58	21.20	0.32	10.29	Average
8	0.20	35.31	-28.27	63.58	24.70	0.32	10.29	QP
9	0.23	37.80	-14.64	52.44	27.21	0.33	10.26	Average
10	0.23	46.20	-16.24	62.44	35.61	0.33	10.26	QP
11	0.36	30.16	-18.67	48.83	19.60	0.38	10.18	Average
12	0.36	41.46	-17.37	58.83	30.90	0.38	10.18	QP

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023

Page Number : 16 of 24 Report Issued Date: Jul. 06, 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

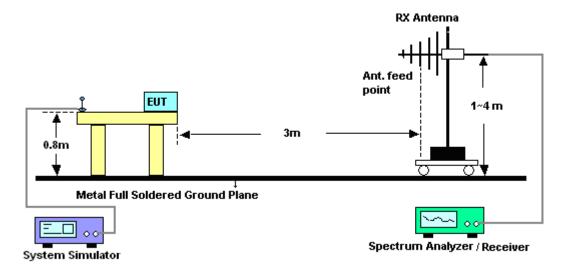
- 1. The EUT was placed on a turntable with 0.8 meter above ground.
- 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
- 3. The table was rotated 360 degrees to determine the position of the highest radiation.
- 4. The antenna 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 μ V/m) = 20 log Emission level (μ V/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

SPORTON INTERNATIONAL (SHENZHEN) INC.

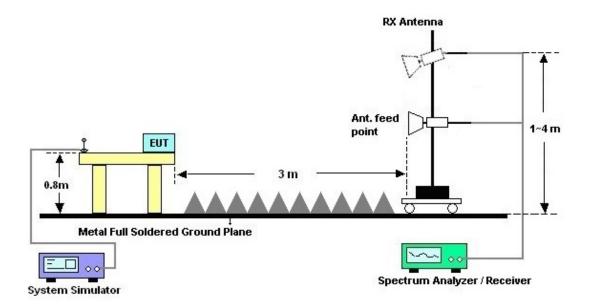
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 17 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz

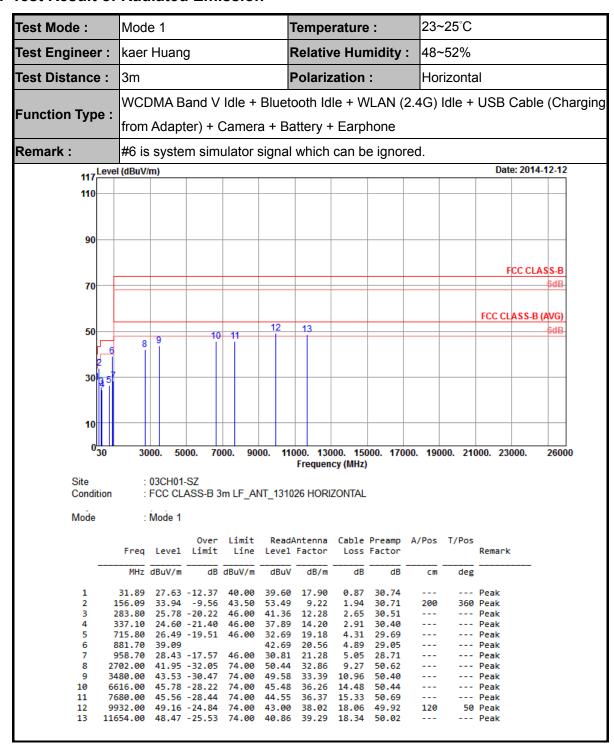


For radiated emissions above 1GHz



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 18 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

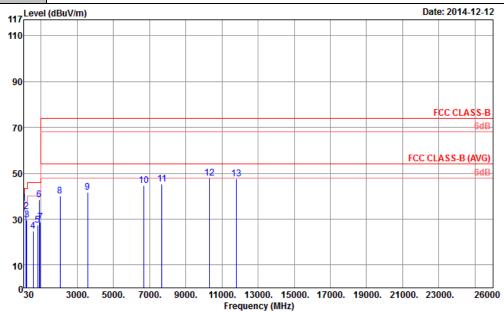
3.2.5. Test Result of Radiated Emission



TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 19 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01



23~25°C Test Mode: Mode 1 Temperature: kaer Huang Relative Humidity: 48~52% Test Engineer: Polarization: Test Distance: Vertical 3m WCDMA Band V Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Charging Function Type: from Adapter) + Camera + Battery + Earphone Remark: #6 is system simulator signal which can be ignored.



Site : 03CH01-SZ

Condition : FCC CLASS-B 3m LF_ANT_131026 VERTICAL

Mode : Mode 1

	Freq	Level	Over Limit			Antenna Factor		Preamp Factor		T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1 !	32.70	36.99	-3.01	40.00	49.55	17.30	0.88	30.74	200	360	QP
2	156.90	33.38	-10.12	43.50	53.01	9.14	1.94	30.71			Peak
3	206.04	29.73	-13.77	43.50	48.89	9.26	2.24	30.66			Peak
4	559.00	24.70	-21.30	46.00	32.87	17.92	3.80	29.89			Peak
5	806.10	27.38	-18.62	46.00	31.85	20.24	4.64	29.35			Peak
6	882.40	38.37			41.98	20.55	4.89	29.05			Peak
7	956.60	28.75	-17.25	46.00	31.16	21.26	5.04	28.71			Peak
8	2048.00	39.95	-34.05	74.00	50.60	32.25	8.07	50.97			Peak
9	3572.00	41.68	-32.32	74.00	47.60	33.47	11.19	50.58			Peak
10	6674.00	44.55	-29.45	74.00	44.33	36.23	14.50	50.51			Peak
11	7684.00	45.18	-28.82	74.00	44.17	36.37	15.33	50.69			Peak
12	10318.00	48.04	-25.96	74.00	42.47	38.35	17.46	50.24	152	74	Peak
13	11794 00	47 51	-26 49	74 99	39 39	39 38	18 73	49 99			Deak

SPORTON INTERNATIONAL (SHENZHEN) INC.

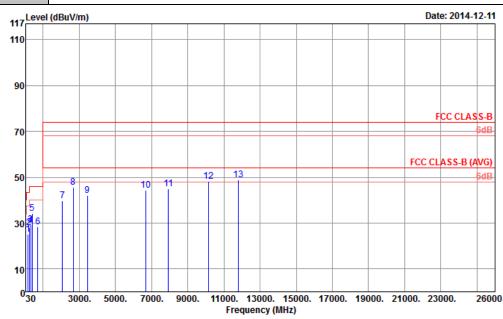
TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 20 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

FCC Test Report **Report No. : FC4D0805-02**

Test Mode :	Mode 3	Temperature :	23~25°C
Test Engineer :	kaer Huang	Relative Humidity :	48~52%
Test Distance :	3m	Polarization :	Horizontal

LTE Band 7 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Data Link with Function Type: Notebook) + GPS Rx + Earphone

Remark: #8 is system simulator signal which can be ignored.



Site : 03CH01-SZ

Condition : FCC CLASS-B 3m LF_ANT_131026 HORIZONTAL

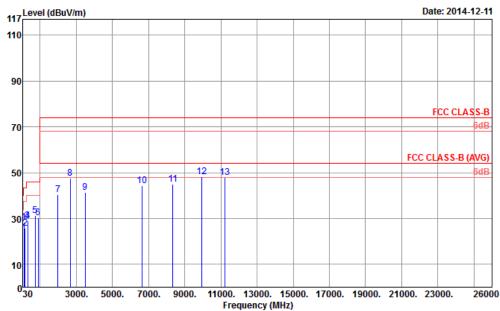
Mode : Mode 3

			Over	Limit		Antenna		Preamp	A/Pos	T/Pos	
	Freq	Level	Limit	Line	Level	Factor	Loss	Factor			Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	166.62	24.97	-18.53	43.50	45.05	8.62	2.01	30.71			Peak
2	233.31	27.88	-18.12	46.00	45.32	10.76	2.39	30.59			Peak
3	298.65	29.44	-16.56	46.00	44.88	12.31	2.73	30.48			Peak
4	300.00	29.17	-16.83	46.00	44.62	12.30	2.73	30.48			Peak
5	391.00	34.13	-11.87	46.00	45.79	15.54	3.15	30.35	100	20	Peak
6	699.70	28.37	-17.63	46.00	34.66	18.95	4.27	29.51			Peak
7	2066.00	39.82	-34.18	74.00	50.43	32.27	8.07	50.95			Peak
8	2652.00	45.51			54.15	32.82	9.11	50.57			Peak
9	3446.00	41.90	-32.10	74.00	48.12	33.37	10.85	50.44			Peak
10	6684.00	44.46	-29.54	74.00	44.22	36.23	14.52	50.51			Peak
11	7928.00	44.85	-29.15	74.00	43.16	36.47	15.65	50.43			Peak
12	10128.00	48.11	-25.89	74.00	42.08	38.21	17.88	50.06			Peak
13	11788.00	48.97	-25.03	74.00	40.85	39.38	18.73	49.99	150	80	Peak

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023

Page Number : 21 of 24 Report Issued Date: Jul. 06, 2015 Report Version : Rev. 01

23~25°C Test Mode: Mode 3 Temperature: Test Engineer: kaer Huang Relative Humidity: 48~52% Test Distance: 3m Polarization: Vertical LTE Band 7 Idle + Bluetooth Idle + WLAN (2.4G) Idle + USB Cable (Data Link with **Function Type:** Notebook) + GPS Rx + Earphone Remark: #8 is system simulator signal which can be ignored. Date: 2014-12-11



Site : 03CH01-SZ

Condition : FCC CLASS-B 3m LF_ANT_131026 VERTICAL

Mode : Mode 3

	Freq	Level	Over Limit	Limit Line		Antenna Factor		Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	100.20	28.39	-15.11	43.50	46.40	11.20	1.55	30.76			Peak
2	166.62	25.89	-17.61	43.50	45.97	8.62	2.01	30.71			Peak
3	298.92	29.08	-16.92	46.00	44.52	12.31	2.73	30.48			Peak
4	300.00	28.98	-17.02	46.00	44.43	12.30	2.73	30.48			Peak
5	715.10	31.43	-14.57	46.00	37.67	19.15	4.30	29.69	125	80	Peak
6	896.40	30.29	-15.71	46.00	33.83	20.64	4.85	29.03			Peak
7	1972.00	40.28	-33.72	74.00	51.51	31.89	7.90	51.02			Peak
8	2652.00	47.52			56.16	32.82	9.11	50.57			Peak
9	3480.00	41.29	-32.71	74.00	47.34	33.39	10.96	50.40			Peak
10	6632.00	44.40	-29.60	74.00	44.13	36.25	14.48	50.46			Peak
11	8330.00	44.98	-29.02	74.00	42.15	36.30	16.23	49.70			Peak
12	9938.00	48.18	-25.82	74.00	42.00	38.04	18.06	49.92	110	20	Peak
13	11230.00	47.92	-26.08	74.00	40.93	38.99	18.44	50.44			Peak

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 22 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
ESCIO TEST Receiver	R&S	ESCI	100724	9kHz~3GHz	Feb. 21, 2014	Jan. 12, 2015	Feb. 20, 2015	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	00103912	9kHz~30MHz	Mar. 04, 2014	Jan. 12, 2015	Mar. 03, 2015	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	EMCO	3816/2SH	00103892	9kHz~30MHz	Mar. 04, 2014	Jan. 12, 2015	Mar. 03, 2015	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	616020000 891	100Vac~250Vac	Sep. 29, 2014	Jan. 12, 2015	Sep. 28, 2015	Conduction (CO01-SZ)
ESCIO TEST Receiver	R&S	ESCI	100724	9kHz~3GHz	Feb. 21, 2014	Dec. 11, 2014~ Dec. 12, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Spectrum Analyzer	Agilent Technologies	N9038A	MY522601 85	20Hz~26.5GHz	May 26, 2014	Dec. 11, 2014~ Dec. 12, 2014	May 25, 2015	Radiation (03CH01-SZ)
Bilog Antenna	TESEQ	CBL 6112D	37877	30MHz~2GHz	Oct. 15, 2014	Dec. 11, 2014~ Dec. 12, 2014	Oct. 14, 2015	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 15, 2014	Dec. 11, 2014~ Dec. 12, 2014	Oct. 14, 2015	Radiation (03CH01-SZ)
Double Ridged Horn Antenna	COM-POWER	AH-840	101073	18GHz~40GHz	Jan. 27, 2014	Dec. 11, 2014~ Dec. 12, 2014	Jan. 26, 2015	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz	Feb. 21, 2014	Dec. 11, 2014~ Dec. 12, 2014	Feb. 20, 2015	Radiation (03CH01-SZ)
Amplifier	Yiai	AV3860B	04030	2GHz~26.5GHz	May 08, 2014	Dec. 11, 2014~ Dec. 12, 2014	May 07, 2015	Radiation (03CH01-SZ)
AC Source(AVR)	Chroma	61601	616010001 985	100Vac~250Vac	Mar. 25, 2014	Dec. 11, 2014~ Dec. 12, 2014	Mar. 24, 2015	Radiation (03CH01-SZ)
Turn Table	EM Electronics	EM 1000	N/A	0~360 degree	NCR	Dec. 11, 2014~ Dec. 12, 2014	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM Electronics	EM 1000	N/A	1 m~4 m	NCR	Dec. 11, 2014~ Dec. 12, 2014	NCR	Radiation (03CH01-SZ)

TEL: 86-755-8637-9589 FAX: 86-755-8637-9595 FCC ID: 2ACCJB023 Page Number : 23 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01



5. Uncertainty of Evaluation

<u>Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)</u>

Measuring Uncertainty for a Level of	2.3 dB
Confidence of 95% (U = 2Uc(y))	2.3 UB

<u>Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)</u>

Measuring Uncertainty for a Level of	20.40
Confidence of 95% (U = 2Uc(y))	3.9 dB

SPORTON INTERNATIONAL (SHENZHEN) INC.

FAX: 86-755-8637-9595 FCC ID: 2ACCJB023

TEL: 86-755-8637-9589

Page Number : 24 of 24
Report Issued Date : Jul. 06, 2015
Report Version : Rev. 01