FCC Test Report

APPLICANT : Solnik S.A.

EQUIPMENT: Mobile phone

BRAND NAME : HYUNDAI

MODEL NAME : HY1-1137BL

FCC ID : 2AFRUHY1-1137

STANDARD : FCC 47 CFR FCC Part 15 Subpart B

CLASSIFICATION: Certification

The product was received on Oct. 21, 2015 and testing was completed on Oct. 26, 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.

Prepared by: James Huang / Manager

James Huang

Approved by: Jones Tsai / Manager

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.

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Testing Laboratory 2353

Report No.: FC581308-01

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC581308-01	Rev. 01	Initial issue of report	Oct. 29, 2015

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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	16.25 dB at
					3.780 MHz
					Under limit
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	3.61 dB at
					34.320 MHz

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1. General Description

1.1. Applicant

Solnik S.A.

Dr Emilio Ravignani 1724, C.A.B.A. - Republic Argentina

1.2. Manufacturer

Gionee Communication Equipment Co.,Ltd.

21/F, Times Technology Building, No. 7028, Shennan Avenue, Futian District, Shenzhen, China

1.3. Product Feature of Equipment Under Test

Product Feature				
Equipment	Mobile phone			
Brand Name	HYUNDAI			
Model Name	HY1-1137BL			
FCC ID	2AFRUHY1-1137			
EUT supports Radios application	GSM/GPRS/EGPRS/WCDMA/HSPA/HSPA+/DC-HSDPA/LTE/ WLAN 2.4GHz 802.11b/g/n HT20/HT40/ Bluetooth v3.0 + EDR/Bluetooth v4.0 LE			
IMEI Code	Conduction: 354147042017237/354147042052234 Radiation: 354147042018409/354147042053406			
HW Version	Ultra Energy Plus_Mainboard_P3			
SW Version	Ultra Energy Plus_0304_V5414			
EUT Stage	Pre-Production			

Remark:

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

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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 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 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz			
Rx Frequency	GSM850: 869.2 MHz ~ 893.8 MHz GSM1900: 1930.2 MHz ~ 1989.8 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 7: 2622.5 MHz~ 2687.5 MHz LTE Band 17: 736.5 MHz ~ 743.5 MHz 802.11b/g/n: 2412 MHz ~ 2462 MHz Bluetooth: 2402 MHz ~ 2480 MHz GPS: 1.57542 GHz			
Antenna Type	WWAN : Fixed Internal Antenna 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/DC-HSDPA: QPSK (Uplink) HSUPA: QPSK (Uplink) HSPA+: 16QAM DC-HSDPA: 64QAM 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			

1.5. Modification of EUT

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

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1.6. Test Location

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

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

SPORTON INTERNATIONAL (SHENZHEN) INC.

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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.

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

Abbreviations:

EMI AC: AC conducted emissions

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

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

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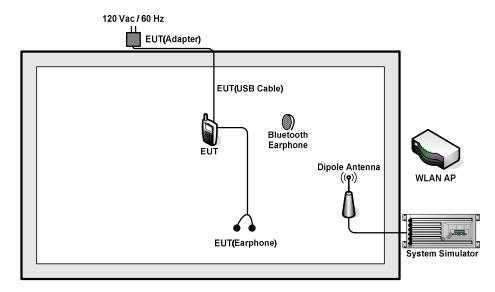
Test Items	EUT Configure Mode	Function Type
		Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM1 <fig.1></fig.1>
AC Conducted Emission	1/2	Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM2 <fig.1></fig.1>
		Mode 3: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM1 <fig.2></fig.2>
	1/2	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM1 <fig.1></fig.1>
Radiated Emissions < 1GHz		Mode 2: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM2 <fig.1></fig.1>
		Mode 3: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM1 <fig.2></fig.2>
Radiated	(Charging from Adapter SIM1 <fig.1></fig.1>	Mode 1: GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + Camera + SIM1 <fig.1></fig.1>
Emissions ≥ 1GHz	1/2	Mode 2: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM1 <fig.2></fig.2>

Remark:

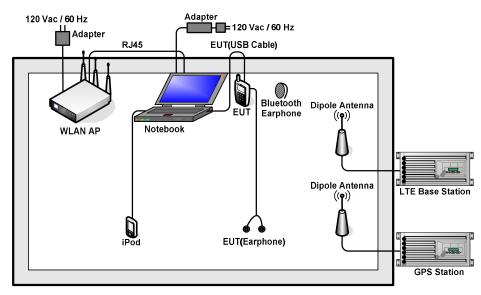
- 1. The worst case of AC is mode 2, and the USB Link mode of AC is mode 3, the test data of these modes were reported.
- 2. The worst case of RE < 1G is mode 1, and the USB Link mode of AC is mode 3, the test data of these modes were reported.
- 3. Link with Notebook means data application transferred mode between EUT and Notebook.

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2.2. Connection Diagram of Test System



<Fig.1>



<Fig.2>

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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, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	GPS Station	ADIVIC	MP9000	N/A	N/A	Unshielded, 1.8 m
4.	WLAN AP	D-Link	DIR-628	KA2DIR628A2	N/A	Unshielded, 1.8 m
5.	WLAN AP	D-Link	DIR-615	N/A	N/A	Unshielded, 1.8 m with Core
6.	WLAN AP	ASUSTek	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 2.7 m with Core
7.	Bluetooth Earphone	Nokia	BH-108	PYAHS-107W	N/A	N/A
8.	Bluetooth Earphone	Samsung	HS3000	A3LHS3000	N/A	N/A
9.	iPod	Apple	A1199	FCC DoC	N/A	N/A
10.	iPod nano 8GB	Apple	MC690ZP/A	FCC DoC	Unshielded, 1.2 m	N/A
11.	SD Card	SanDisk	4G class 4	FCC DoC	N/A	N/A

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2.4. EUT Operation Test Setup

The EUT was in GSM or 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 "Video Player" to play MPEG4 files.
- 3. Turn on camera to capture images.
- 4. Turn on GPS function to make the EUT receive continuous signals from GPS station.

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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.

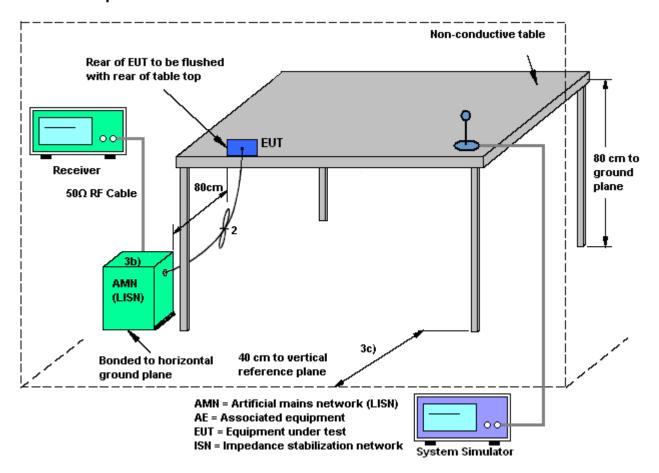
3.1.3 Test Procedure

- 1. 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.

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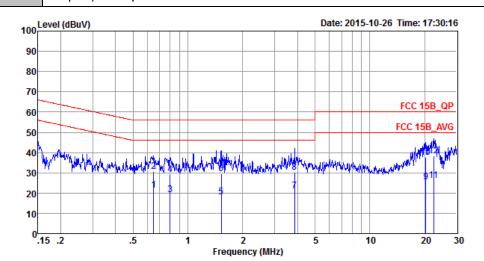
3.1.4 Test Setup



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3.1.5 Test Result of AC Conducted Emission

Test Mode :	Mode 2	Temperature :	21~23℃
Test Engineer :	Jacky Yang	Relative Humidity: 41~43%	
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type	WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from		
Function Type :	Adapter) + Earphone + MPE	EG4 + SIM2	



Site : CO01-SZ

Condition: FCC 15B_QP LISN_L_20150304 LINE

Mode : Mode 1

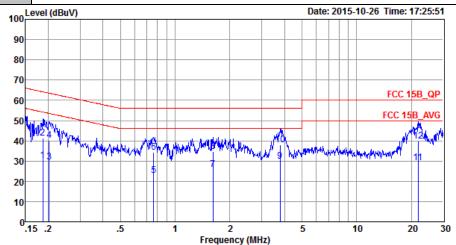
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBu∀	dB	dBu∀	dBu∀	dB	dB	
1	0.65	21.52	-24.48	46.00	10.80	0.57	10.15	Average
2	0.65	30.72	-25.28	56.00	20.00	0.57	10.15	QP
3	0.80	19.28	-26.72	46.00	8.60	0.53	10.15	Average
4	0.80	29.18	-26.82	56.00	18.50	0.53	10.15	QP
5	1.53	18.15	-27.85	46.00	7.50	0.48	10.17	Average
6	1.53	29.35	-26.65	56.00	18.70	0.48	10.17	QP
7	3.86	21.13	-24.87	46.00	10.30	0.60	10.23	Average
8	3.86	30.13	-25.87	56.00	19.30	0.60	10.23	QP
9	20.27	25.30	-24.70	50.00	13.80	0.88	10.62	Average
10	20.27	37.60	-22.40	60.00	26.10	0.88	10.62	QP
11	22.42	26.13	-23.87	50.00	14.69	0.85	10.59	Average
12 *	22.42	38.53	-21.47	60.00	27.09	0.85	10.59	QP

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Test Mode :	Mode 2	Temperature :	21~23 ℃
Test Engineer :	Jacky Yang	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral

Function Type: WCDMA Band II Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) + Earphone + MPEG4 + SIM2



Site : CO01-SZ

Condition: FCC 15B_QP LISN_N_20150304 NEUTRAL

Mode : Mode 1

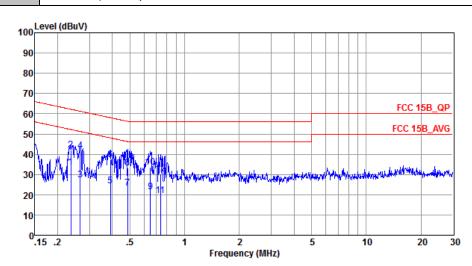
	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBu∀	dB	dBu₹	dBu₹	dB	dB	
1	0.19	30.21	-23.99	54.20	19.40	0.50	10.31	Average
2	0.19	41.21	-22.99	64.20	30.40	0.50	10.31	QP
3	0.20	29.70	-23.79	53.49	18.90	0.51	10.29	Average
4	0.20	40.40	-23.09	63.49	29.60	0.51	10.29	QP
5	0.76	23.00	-23.00	46.00	12.30	0.55	10.15	Average
6	0.76	34.20	-21.80	56.00	23.50	0.55	10.15	QP
7	1.62	25.84	-20.16	46.00	15.09	0.57	10.18	Average
8	1.62	34.74	-21.26	56.00	23.99	0.57	10.18	QP
9 *	3.78	29.75	-16.25	46.00	18.90	0.63	10.22	Average
10	3.78	37.95	-18.05	56.00	27.10	0.63	10.22	QP
11	21.83	29.13	-20.87	50.00	17.80	0.73	10.60	Average
12	21.83	39.93	-20.07	60.00	28.60	0.73	10.60	QP

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Test Mode:	Mode 3	Temperature :	21~22℃
Test Engineer :	Jack Tian	Relative Humidity :	41~43%
Test Voltage :	120Vac / 60Hz	Phase :	Line

LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Function Type: Notebook) + Earphone + GPS Rx + SIM1



: CO01-SZ Site

Condition: FCC 15B QP LISN_L_20150304 LINE

Mode : Mode 3

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBu∀	dB	dBu∀	dBu∀	dB	dB	
1 *	0.24	33.40	-18.82	52.22	22.61	0.54	10.25	Average
2	0.24	42.20	-20.02	62.22	31.41	0.54	10.25	QP
3	0.27	27.18	-24.07	51.25	16.39	0.56	10.23	Average
4	0.27	41.68	-19.57	61.25	30.89	0.56	10.23	QP
5	0.39	24.32	-23.71	48.03	13.61	0.54	10.17	Average
6	0.39	37.12	-20.91	58.03	26.41	0.54	10.17	QP
7	0.49	23.21	-23.02	46.23	12.39	0.66	10.16	Average
8	0.49	33.11	-23.12	56.23	22.29	0.66	10.16	QP
9	0.65	21.52	-24.48	46.00	10.80	0.57	10.15	Average
10	0.65	33.42	-22.58	56.00	22.70	0.57	10.15	QP
11	0.74	19.59	-26.41	46.00	8.90	0.54	10.15	Average
12	0.74	30.19	-25.81	56.00	19.50	0.54	10.15	QP

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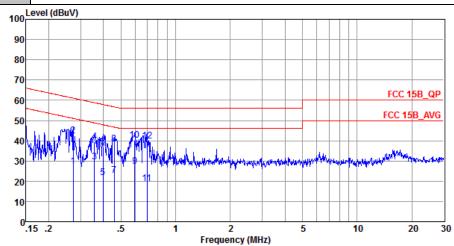


 Test Mode :
 Mode 3
 Temperature :
 21~22℃

 Test Engineer :
 Jack Tian
 Relative Humidity :
 41~43%

 Test Voltage :
 120Vac / 60Hz
 Phase :
 Neutral

Function Type: LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with Notebook) + Earphone + GPS Rx + SIM1



Site : CO01-SZ

Condition: FCC 15B QP LISN_N_20150304 NEUTRAL

Mode : Mode 3

			Over	Limit	Read	LISN	Cable	
	Freq	Level	Limit	Line	Level	Factor	Loss	Remark
	MHz	dBu∀	dB	dBu∀	dBu₹	dB	dB	
1	0.27	27.39	-23.64	51.03	16.60	0.57	10.22	Average
2	0.27	42.29	-18.74	61.03	31.50	0.57	10.22	QP
3	0.36	29.35	-19.43	48.78	18.60	0.57	10.18	Average
4	0.36	39.55	-19.23	58.78	28.80	0.57	10.18	QP
5	0.40	21.62	-26.28	47.90	10.90	0.55	10.17	Average
6	0.40	36.82	-21.08	57.90	26.10	0.55	10.17	QP
7	0.46	23.05	-23.66	46.71	12.30	0.59	10.16	Average
8	0.46	38.55	-18.16	56.71	27.80	0.59	10.16	QP
9	0.59	27.23	-18.77	46.00	16.50	0.58	10.15	Average
10 *	0.59	40.13	-15.87	56.00	29.40	0.58	10.15	QP
11	0.70	18.70	-27.30	46.00	8.00	0.55	10.15	Average
12	0.70	39.90	-16.10	56.00	29.20	0.55	10.15	QP

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Test of Radiated Emission Measurement 3.2.

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		

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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 μ V/m) = 20 log Emission level (μ V/m)
- 9. Corrected Reading: Antenna Factor + Cable Loss + Read Level Preamp Factor = Level

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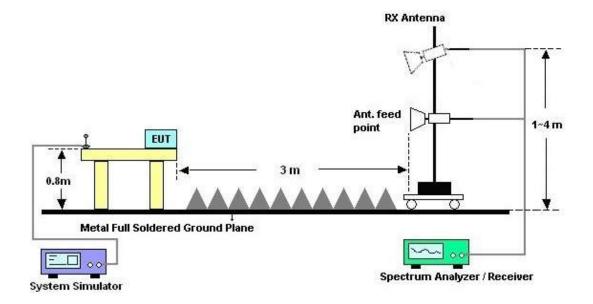
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3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz

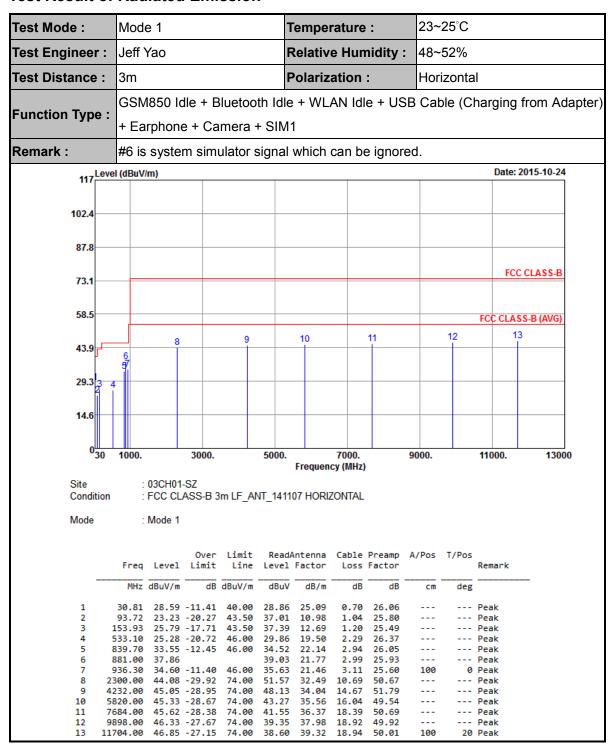


For radiated emissions above 1GHz



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3.2.5. Test Result of Radiated Emission



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23~25°C Test Mode: Mode 1 Temperature: **Relative Humidity:** Test Engineer: Jeff Yao 48~52% Test Distance: Polarization: 3m Vertical GSM850 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Charging from Adapter) **Function Type:** + Earphone + Camera + SIM1 Remark: #6 is system simulator signal which can be ignored. 117 Level (dBuV/m) Date: 2015-10-24 102.4 87.8 FCC CLASS-B 73.1 58.5 FCC CLASS-B (AVG) 13 10 43.9 29.3 14.6 030 3000. 9000. 11000. 13000 1000. 5000. 7000. Frequency (MHz) Site : 03CH01-SZ Condition : FCC CLASS-B 3m LF_ANT_141107 VERTICAL Mode : Mode 1 ReadAntenna Cable Preamp A/Pos T/Pos Over Limit Remark Freq Level Limit Line Level Factor Loss Factor MHz dBuV/m dB dBuV/m dB dBuV dB/m dB deg cm 34.32 36.39 -3.61 40.00 43.17 18.56 0.70 100 150 Peak 152.31 30.85 -12.65 43.50 42.30 12.85 1.20 25.50 Peak 22.62 -23.38 271.38 46.00 32.95 13.13 25.10 --- Peak 1.64 624.10 25.85 -20.15 46.00 29.87 19.84 2.56 26.42 Peak 839.70 30.53 -15.47 46.00 31.50 Peak 881.00 36.82 37.99 21.77 2.99 25.93 --- Peak 31.65 -22.35 54.00 983.90 32.40 21.27 3.22 25.24 ---Peak 74.00 2446.00 44.20 -29.80 --- Peak 50.82 32.65 11.21 50.48 44.65 -29.35 47.74 4218.00 74.00 34.03 14.67 51.79 Peak 10 6456.00 44.42 -29.58 74.00 41.86 36.25 16.57 50.26 Peak

11

12

8188.00

10270.00

11970.00

45.36 -28.64

45.48 -28.52

46.23 -27.77

74.00

74.00

74.00

41.30

38.69 37.18 36.39

38.31

39.48

17.65

18.67

19.53

49.98

50.19

49.96

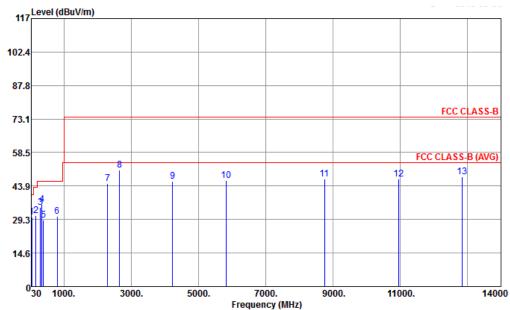
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--- Peak

20 Peak

Peak

23~25°C Test Mode: Mode 3 Temperature: Test Engineer: Relative Humidity: Gavin Zhang 48~52% Test Distance : 3m Polarization: Horizontal LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with **Function Type:** Notebook) + Earphone + GPS Rx + SIM1 Remark: #8 is system simulator signal which can be ignored. 117 Level (dBuV/m)



Site : 03CH01-SZ

Condition : FCC CLASS-B 3m LF_ANT_141107 HORIZONTAL

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	46.74	30.20	-9.80	40.00	42.65	12.57	0.96	25.98	150	230	Peak
2	166.62	31.12	-12.38	43.50	42.71	11.97	1.86	25.42			Peak
3	298.65	34.67	-11.33	46.00	43.12	14.07	2.52	25.04			Peak
4	344.80	35.72	-10.28	46.00	43.72	14.69	2.70	25.39			Peak
5	391.00	29.12	-16.88	46.00	36.69	15.29	2.88	25.74			Peak
6	799.80	30.71	-15.29	46.00	30.02	22.50	4.36	26.17			Peak
7	2300.00	45.08	-28.92	74.00	52.57	32.49	10.69	50.67			Peak
8	2654.00	50.85			56.79	32.82	11.81	50.57			Peak
9	4232.00	46.05	-27.95	74.00	49.13	34.04	14.67	51.79			Peak
10	5820.00	46.33	-27.67	74.00	44.27	35.56	16.04	49.54			Peak
11	8756.00	46.91	-27.09	74.00	42.07	36.50	17.93	49.59			Peak
12	10954.00	46.92	-27.08	74.00	40.50	38.78	18.40	50.76			Peak
13	12854.00	47.75	-26.25	74.00	39.88	39.09	18.74	49.96	100	20	Peak

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Mode 3

Test Mode:

FCC Test Report Report No.: FC581308-01

Temperature:

23~25°C

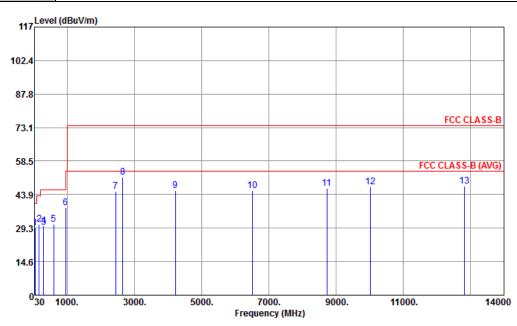
Test Engineer : Gavin Zhang Relative Humidity : 48~52%

Test Distance :3mPolarization :Vertical

LTE Band 7 Idle + Bluetooth Idle + WLAN Idle + USB Cable (Data Link with

Notebook) + Earphone + GPS Rx + SIM1

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



Site : 03CH01-SZ

Condition : FCC CLASS-B 3m LF_ANT_141107 VERTICAL

Mode : Mode 3

	Freq	Level	Over Limit			Antenna Factor			A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	46.47	29.30	-10.70	40.00	41.75	12.57	0.96	25.98	200	300	Peak
2	166.62	31.08	-12.42	43.50	42.67	11.97	1.86	25.42			Peak
3	299.73	29.80	-16.20	46.00	38.22	14.10	2.52	25.04			Peak
4	300.00	30.35	-15.65	46.00	38.77	14.10	2.52	25.04			Peak
5	598.20	30.90	-15.10	46.00	33.97	19.69	3.68	26.44			Peak
6	960.10	38.23	-15.77	54.00	37.39	21.36	4.89	25.41			Peak
7	2446.00	45.20	-28.80	74.00	51.82	32.65	11.21	50.48			Peak
8	2654.00	51.58			57.52	32.82	11.81	50.57			Peak
9	4218.00	45.65	-28.35	74.00	48.74	34.03	14.67	51.79			Peak
10	6510.00	45.73	-28.27	74.00	43.13	36.30	16.62	50.32			Peak
11	8726.00	46.66	-27.34	74.00	41.81	36.46	17.95	49.56			Peak
12	10016.00	47.37	-26.63	74.00	40.08	38.11	19.13	49.95			Peak
13	12828.00	47.71	-26.29	74.00	39.84	39.10	18.72	49.95	100	160	Peak

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4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver&SA	Agilent Technologies	N9038A	MY52260185	20Hz~26.5GHz	May 26, 2015	Oct. 24, 2015	May 25, 2016	Radiation (03CH01-SZ)
Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz;M ax 30dBm	Jun. 07, 2015	Oct. 24, 2015	Jun. 06, 2016	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 06, 2015	Oct. 24, 2015	May 05, 2016	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz-2GHz	Oct. 17, 2015	Oct. 24, 2015	Oct. 16, 2016	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS Lindgren	3117	00119436	1GHz~18GHz	Oct. 17, 2015	Oct. 24, 2015	Oct. 16, 2016	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35-H G	1871923	18GHz~40GHz	Jul. 18. 2015	Oct. 24, 2015	Jul. 17. 2016	Radiation (03CH01-SZ
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Aug. 19, 2015	Oct. 24, 2015	Aug. 18, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5G Hz	Jan. 28, 2015	Oct. 24, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	61601000198 5	N/A	NCR	Oct. 24, 2015	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Oct. 24, 2015	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Oct. 24, 2015	NCR	Radiation (03CH01-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz / 30 dB	Jan. 28, 2015	Oct. 24, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
Amplifier	Agilent Technologies	83017A	MY39501302	500MHz~26.5G Hz	Jan. 28, 2015	Oct. 24, 2015	Jan. 27, 2016	Radiation (03CH01-SZ)
EMI Receiver	R&S	ESCI7	100724	9kHz~3GHz;	Jan. 28, 2015	Oct. 26, 2015	Jan. 27, 2016	Conduction (CO01-SZ)
AC LISN	EMCO	3816/2SH	103892	9kHz~30MHz	Feb.02, 2015	Oct. 26, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC LISN (for auxiliary equipment)	MessTec	AN3016	16850	9kHz~30MHz	Feb. 02, 2015	Oct. 26, 2015	Feb. 01, 2016	Conduction (CO01-SZ)
AC Power Source	Chroma	61602	61602000089 1	100Vac~250Vac	Aug. 07, 2015	Oct. 26, 2015	Aug. 06, 2016	Conduction (CO01-SZ)
Pulse Limiter	COM-POWER	LIT-153 Transient Limiter	53139	150kHz~30MHz	Oct. 20,2015	Oct. 26, 2015	Oct. 19, 2016	Conduction (CO01-SZ)
Radio communication analyzer	Anritsu	MT8820C	6201432833	GSM/WCDMA/L TE	Jan. 28.2015	Oct. 26, 2015	Jan. 27.2016	Conduction (CO01-SZ)

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5. Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of	2.3dB
Confidence of 95% (U = 2Uc(y))	2.306

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

Measuring Uncertainty for a Level of	4 EAD
Confidence of 95% (U = 2Uc(y))	4.5dB

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