RF TEST REPORT



Report No.: 15070952-FCC-R1
Supersede Report No.: N/A

Applicant	Sun Cupid Technology (HK) Ltd.			
Product Name	Moblie phone			
Model No.	F1			
Serial No.	N/A			
Test Standard	FCC Part 22(H), FCC Part 24(E),ANSI/TIAC603 D: 2010			
Test Date	October 17 to October 31, 2015			
Issue Date	October 31, 2015			
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
Winnie Zhang		David	Huang	
Winnie Zhang Test Engineer			rid Huang ecked By	

This test report may be reproduced in full only

Test result presented in this test report is applicable to the tested sample only

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

Zone A, Floor 1, Building 2 Wan Ye Long Technology Park
South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108
Phone: +86 0755 2601 4629801 Email: China@siemic.com.cn



Test Report	15070952-FCC-R1
Page	2 of 44

Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety



Test Report	15070952-FCC-R1
Page	3 of 44

This page has been left blank intentionally.



Test Report	15070952-FCC-R1
Page	4 of 44

CONTENTS

1. REPORT REVISION HISTORY	5
2. CUSTOMER INFORMATION	5
3. TEST SITE INFORMATION	5
4. EQUIPMENT UNDER TEST (EUT) INFORMATION	6
5. TEST SUMMARY	8
6. MEASUREMENTS, EXAMINATION AND DERIVED RESULTS	9
6.1 RF EXPOSURE (SAR)	9
6.2 RF OUTPUT POWER	10
6.3 PEAK-AVERAGE RATIO	14
6.4 MODULATION CHARACTERISTIC	16
6.5 OCCUPIED BANDWIDTH	17
6.6 SPURIOUS EMISSIONS AT ANTENNA TERMINALS	20
6.7 SPURIOUS RADIATED EMISSIONS	23
6.8 BAND EDGE	27
6.9 FREQUENCY STABILITY	30
ANNEX A. TEST INSTRUMENT	33
ANNEX B. EUT AND TEST SETUP PHOTOGRAPHS	34
ANNEX C. TEST SETUP AND SUPPORTING EQUIPMENT	40
ANNEX C.II. EUT OPERATING CONKITIONS	42
ANNEX D. USER MANUAL / BLOCK DIAGRAM / SCHEMATICS / PARTLIST	43
ANNEX E. DECLARATION OF SIMILARITY	44



Test Report	15070952-FCC-R1
Page	5 of 44

1. Report Revision History

Report No.	Report Version	Description	Issue Date
15070952-FCC-R1	NONE	Original	October 31, 2015

2. Customer information

Applicant Name	Sun Cupid Technology (HK) Ltd.
Applicant Add	16/F, CEO Tower, 77 Wing Hong St, Cheung Sha Wan, Kowloon
Manufacturer	SUNCUPID (SHENZHEN) ELECTRONIC LTD
Manufacturer Add	Baolong Industrial City, Longgang District, Shenzhen Hi-Tech Road, Building 1, A 7

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park
Lab Address	South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China
	518108
FCC Test Site No.	718246
IC Test Site No.	4842E-1
Test Software	Radiated Emission Program-To Shenzhen v2.0



Test Report	15070952-FCC-R1
Page	6 of 44

4. Equipment under Test (EUT) Information

Description of EUT:	Moblie phone

Main Model: F1

Serial Model: N/A

Date EUT received: October 16, 2015

Test Date(s): October 17 to October 31, 2015

Equipment Category : PCE

GSM850: 0.8dBi

Antenna Gain: PCS1900: 0.5dBi

Bluetooth: -1.0dBi

GSM / GPRS: GMSK Type of Modulation:

Bluetooth: GFSK, π /4DQPSK, 8DPSK

GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz

RF Operating Frequency (ies): PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz

Bluetooth: 2402-2480 MHz

Maximum Conducted GSM850: 32.49 dBm

AV Power to Antenna: PCS1900: 30.31 dBm

GSM850: 31.30 dBm / ERP ERP/EIRP:

PCS1900: 30.70 dBm / EIRP

GSM 850: 124CH

Number of Channels: PCS1900: 299CH

Bluetooth: 79CH

Port: Power Port, Earphone Port, USB Port

Input Power: Adapter:



Test Report	15070952-FCC-R1
Page	7 of 44

Model:K002-05050U

Input: AC 100-240V, 50/60Hz, 0.2A

Output: DC 5.0V, 0.5A

Battery:

Model:BL-4C

Spec: 3.7V, 600mAh, 2.22Wh

Trade Name:

NUU

GPRS Multi-slot class

8/10/12

FCC ID:

2ADINNUUF1



Test Report	15070952-FCC-R1
Page	8 of 44

5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result	
§ 1.1307; § 2.1093	RF Exposure (SAR)	Compliance	
§2.1046; § 22.913(a); § 24.232(c)	RF Output Power	Compliance	
§ 24.232 (d)	Peak-Average Ratio	Compliance	
§ 2.1047	Modulation Characteristics	Compliance	
§ 2.1049; § 22.905; § 22.917;	000/ 9, 26 dB Occurried Boardwidth	Compliance	
§ 24.238	99% & -26 dB Occupied Bandwidth		
§ 2.1051; § 22.917(a);	Spurious Emissions at Antonna Torminal	Compliance	
§ 24.238(a)	Spurious Emissions at Antenna Terminal	Compliance	
§ 2.1053; § 22.917(a);	Field Strength of Spurious Radiation	Compliance	
§ 24.238(a)	Field Strength of Spurious Radiation		
§ 22.917(a); § 24.238(a)	Out of band emission, Band Edge	Compliance	
\$ 2.4055, \$ 22.255, \$ 24.225	Frequency stability vs. temperature	Compliance	
§ 2.1055; § 22.355; § 24.235	Frequency stability vs. voltage		

Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different

Measurement Uncertainty

Emissions				
Test Item	Uncertainty			
Band Edge and Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB		
-	-	-		



Test Report	15070952-FCC-R1
Page	9 of 44

6. MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

6.1 RF Exposure (SAR)

Test Result: Pass

The EUT is a portable device, thus requires SAR evaluation;

Please refer to RF Exposure Evaluation Report: 15070952-FCC-H.



Test Report	15070952-FCC-R1
Page	10 of 44

6.2 RF Output Power

Temperature	25°C
Relative Humidity	52%
Atmospheric Pressure	1028mbar
Test date :	October 28, 2015
Tested By :	Winnie Zhang

Requirement(s):

Requirement(s):	T		<u> </u>					
Spec	Item Requirement Ap							
§22.913 (a)	a)							
§24.232 (c)	b)	EIRP:33dBm						
Test Setup								
	Fo	or Conducted Power:						
	-	The transmitter output port was connected to base stat	ion.					
	-	Set EUT at maximum power through base station.						
	-	- Select lowest, middle, and highest channels for each band and						
	different test mode.							
	For ERP/EIRP:							
	- The transmitter was placed on a wooden turntable, and it was							
	transmitting into a non-radiating load which was also placed on the							
Test Procedure	turntable.							
rest Procedure	- The measurement antenna was placed at a distance of 3 meters							
	from the EUT. During the tests, the antenna height and							
	polarization as well as EUT azimuth were varied in order to identify							
	the maximum level of emissions from the EUT. The test was							
	performed by placing the EUT on 3-orthogonal axis.							
	- The frequency range up to tenth harmonic of the fundamental							
	frequency was investigated.							
	-	Remove the EUT and replace it with substitution anten	na. A signal					
		generator was connected to the substitution antenna b	y a non-					



Test Report	15070952-FCC-R1
Page	11 of 44

	radiating cable. The absolute levels of the spurious emissions were measured by the substitution.				
	- Spurious emissions in dB = 10 log (TX power in Watts/0.001) –				
	the absolute level				
	- Spurious attenuation limit in dB = 43 + 10 Log10 (power out in				
	Watts.				
Remark					
Result	Pass				
Test Data Yes	N/A				
Test Plot Yes	(See below) N/A				



Test Report	15070952-FCC-R1
Page	12 of 44

Conducted Power

GSM Mode:

Burst Average Power (dBm);								
Band	GSM850				PCS1900			
Channel	128	190	251	Tune up Power tolerant	512	661	810	Tune up Power tolerant
Frequency (MHz)	824.2	836.6	848.8	1	1850.2	1880	1909.8	1
GSM Voice (1 uplink),GMSK	32.49	32.5	32.46	32±1	30.31	30.09	29.96	30±1
GPRS Multi-Slot Class 8 (1 uplink),GMSK	32.47	32.43	32.44	32±1	29.65	29.47	29.61	29±1
GPRS Multi-Slot Class 10 (2 uplink) GMSK	31.97	32.13	32.16	32±1	29.24	29.20	29.35	29±1

Remark:

GPRS, CS1 coding scheme.

Multi-Slot Class 8 , Support Max 4 downlink, 1 uplink , 5 working link

Multi-Slot Class 10, Support Max 4 downlink, 2 uplink, 5 working link

Multi-Slot Class 12 , Support Max 4 downlink, 4 uplink , 5 working link

Note: Since GSM mode has higher power, so the test items below were not performed to GPRS mode.



Test Report	15070952-FCC-R1	
Page	13 of 44	

UMTS Mode:

ERP & EIRP

ERP for Cellular Band (Part 22H)

Frequency (MHz)	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
824.2	25.02	V	6.8	0.53	31.29	38.45
824.2	24.18	Н	6.8	0.53	30.45	38.45
836.6	24.89	V	6.8	0.53	31.16	38.45
836.6	24.06	Н	6.8	0.53	30.33	38.45
848.8	24.93	V	6.9	0.53	31.30	38.45
848.8	24.05	Н	6.9	0.53	30.42	38.45

EIRP for PCS Band (Part 24E)

Frequency (MHz)	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1850.2	22.61	V	7.88	0.85	29.64	33
1850.2	21.83	Н	7.88	0.85	28.86	33
1880	23.34	V	7.88	0.85	30.37	33
1880	22.61	Н	7.88	0.85	29.64	33
1909.8	23.69	V	7.86	0.85	30.70	33
1909.8	22.85	Н	7.86	0.85	29.86	33

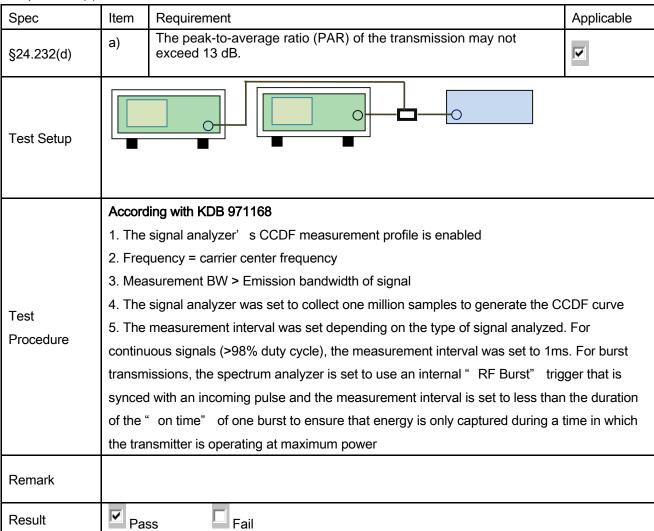


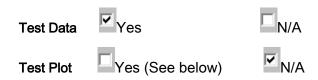
Test Report	15070952-FCC-R1	
Page	14 of 44	

6.3 Peak-Average Ratio

Temperature	25°C
Relative Humidity	52%
Atmospheric Pressure	1028mbar
Test date :	October 28, 2015
Tested By :	Winnie Zhang

Requirement(s):







Test Report	15070952-FCC-R1	
Page	15 of 44	

PCS1900

Frequency	Conducted power(dBm)		Peak-Average
(MHz)	Peak Average		Ratio(PAR)
1850.2	31.63	29.96	1.67
1880	31.59	30.09	1.50
1909.8	31.52	30.31	1.21



Test Report	15070952-FCC-R1	
Page	16 of 44	

6.4 Modulation Characteristic

According to FCC § 2.1047(d), Part 22H, 24E there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.



Test Report	15070952-FCC-R1	
Page	17 of 44	

6.5 Occupied Bandwidth

Temperature	25°C
Relative Humidity	52%
Atmospheric Pressure	1028mbar
Test date :	October 28, 2015
Tested By :	Winnie Zhang

Requirement(s):

Spec	Item	Requirement	Applicable
§2.1049,	a)	99% Occupied Bandwidth(kHz)	S
§22.917,			
§22.905	b)	26 dB Bandwidth(kHz)	
§24.238			_
Test Setup			
	-	The EUT was connected to Spectrum Analyzer and Base	Station via
Test		power divider.	
Procedure	-	The 99% and 26 dB occupied bandwidth (BW) of the midd	dle channel
		for the highest RF powers.	
Remark			
Result	Pa	ass Fail	



Test Report	15070952-FCC-R1	
Page	18 of 44	

Cellular Band (Part 22H) result

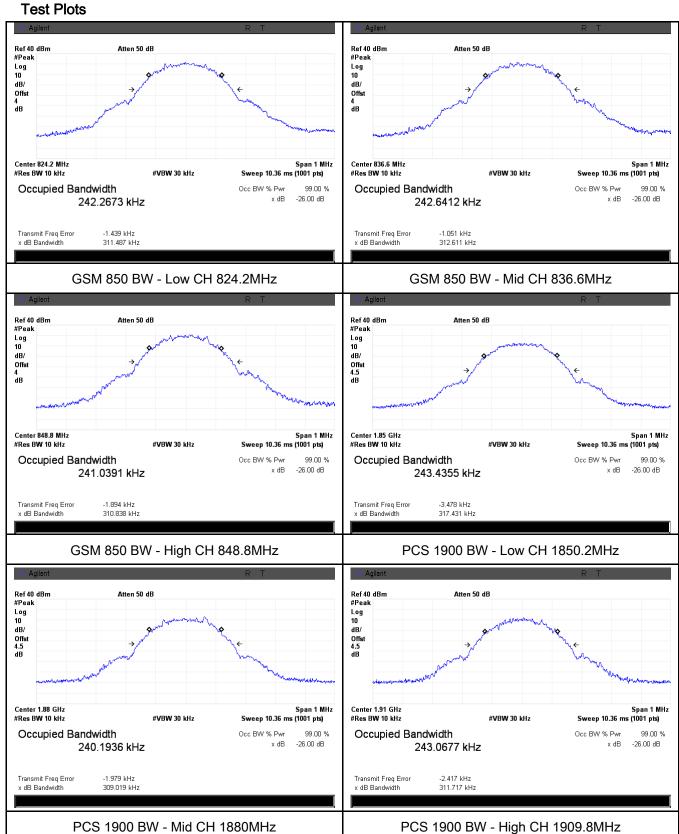
Channel	Frequency (MHz)	99% Occupied Bandwidth (kHz)	26 dB Bandwidth (kHz)
128	824.2	242.2673	311.487
190	836.6	242.6412	312.611
251	848.8	241.0391	310.838

PCS Band (Part 24E) result

Channel	Frequency	99% Occupied	26 dB Bandwidth
	(MHz)	Bandwidth (kHz)	(kHz)
512	1850.2	243.4355	317.431
661	1880.0	240.1936	309.019
810	1909.8	243.0677	311.717



Test Report	15070952-FCC-R1
Page	19 of 44





Test Report	15070952-FCC-R1
Page	20 of 44

6.6 Spurious Emissions at Antenna Terminals

Temperature	25°C
Relative Humidity	52%
Atmospheric Pressure	1028mbar
Test date :	October 28, 2015
Tested By :	Winnie Zhang

Requirement(s):

Spec	Item	Requirement	Applicable
§2.1051, §22.917(a)& §24.238(a)	a)	The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB	(
Test Setup			
Test Procedure	-	The EUT was connected to Spectrum Analyzer and Base via power divider. The Band Edges of low and high channels for the highest powers were measured. Setting RBW as roughly BW/100.	
Remark			
Result	☑ Pa	ss Fail	

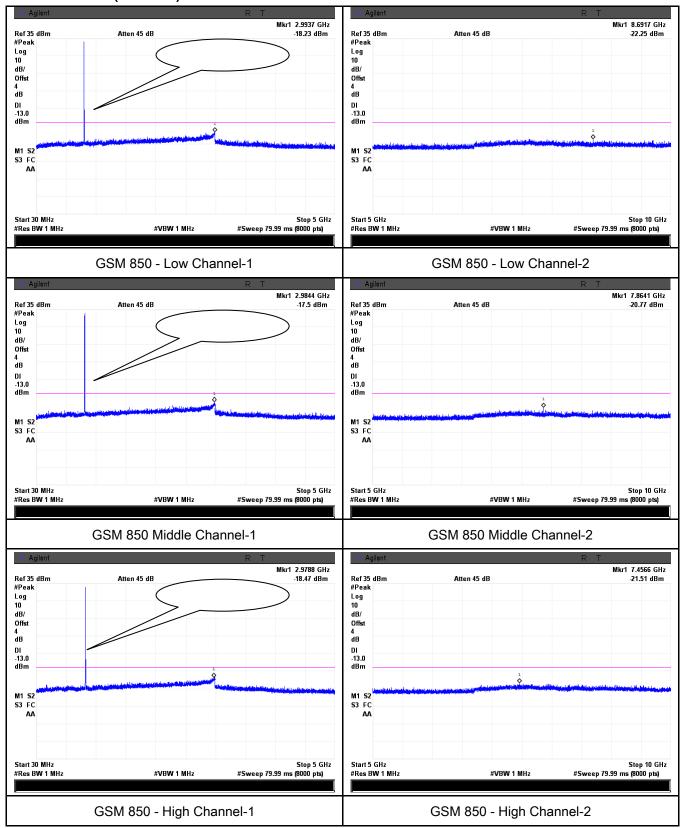
Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	□ _{N/A}



Test Report	15070952-FCC-R1
Page	21 of 44

Test Plots

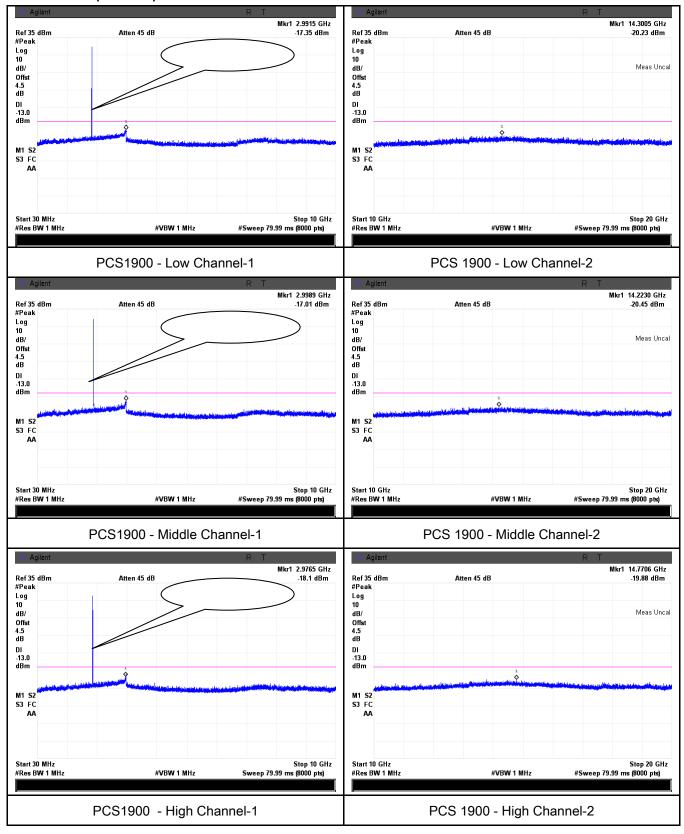
Cellular Band (Part 22H) result





Test Report	15070952-FCC-R1
Page	22 of 44

PCS Band (Part24E) result





Test Report	15070952-FCC-R1
Page	23 of 44

6.7 Spurious Radiated Emissions

Temperature	25°C
Relative Humidity	52%
Atmospheric Pressure	1028mbar
Test date :	October 28, 2015
Tested By :	Winnie Zhang

Requirement(s):

Requirement(s):			
Spec	Item	Requirement	Applicable
§2.1053, §22.917 & §24.238	a)	The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.	<u><</u>
Test setup	EUT& Suppo	Turn Table	
Test Procedure	 The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution. Sample Calculation: EUT Field Strength = Raw Amplitude (dBμV/m) – Amplifier Gain (dB) + Antenna Factor (dB) + Cable Loss (dB) + Filter Attenuation (dB, if used) 		



Test Report	15070952-FCC-R1
Page	24 of 44

Remark		
Result	Pass	Fail

Test Data

Yes

N/A

Test Plot

Yes (See below)

N/A

Cellular Band (Part 22H) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1648.4	-45.81	٧	7.95	0.78	-38.64	-13	-25.64
1648.4	-46.28	Н	7.95	0.78	-39.11	-13	-26.11
49.1	-35.62	V	-4.9	0.11	-40.63	-13	-27.63
110.5	-39.34	Н	-1.6	0.17	-41.11	-13	-28.11

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1673.2	-45.76	V	7.95	0.78	-38.59	-13	-25.59
1673.2	-46.13	Η	7.95	0.78	-38.96	-13	-25.96
49.5	-35.57	V	-4.9	0.11	-40.58	-13	-27.58
110.8	-39.41	Н	-1.6	0.17	-41.18	-13	-28.18

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1697.6	-45.77	V	7.95	0.78	-38.6	-13	-25.60
1697.6	-46.15	Н	7.95	0.78	-38.98	-13	-25.98
49.3	-35.49	V	-4.9	0.11	-40.50	-13	-27.50



Test Report	15070952-FCC-R1
Page	25 of 44

1								
	110.2	-39.45	Н	-1.6	0.17	-41.22	-13	-28.22



Test Report	15070952-FCC-R1
Page	26 of 44

PCS Band (Part24E) result

Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3700.4	-47.95	V	10.25	2.73	-40.43	-13	-27.43
3700.4	-48.69	Н	10.25	2.73	-41.17	-13	-28.17
49.5	-35.82	V	-4.9	0.11	-40.83	-13	-27.83
110.7	-39.75	Н	-1.6	0.17	-41.52	-13	-28.52

Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3760	-47.91	V	10.25	2.73	-40.39	-13	-27.39
3760	-48.75	Н	10.25	2.73	-41.23	-13	-28.23
49.6	-35.99	V	-4.9	0.11	-41.00	-13	-28.00
110.1	-39.82	Н	-1.6	0.17	-41.59	-13	-28.59

High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3819.6	-47.88	V	10.36	2.73	-40.25	-13	-27.25
3819.6	-48.73	Н	10.36	2.73	-41.10	-13	-28.10
49.8	-35.91	٧	-4.9	0.11	-40.92	-13	-27.92
110.5	-39.87	Н	-1.6	0.17	-41.64	-13	-28.64



Test Report	15070952-FCC-R1
Page	27 of 44

6.8 Band Edge

Temperature	25°C
Relative Humidity	52%
Atmospheric Pressure	1028mbar
Test date :	October 28, 2015
Tested By:	Winnie Zhang

Requirement(s):

Spec	Item	Requirement	Applicable
§22.917(a) §24.238(a)	a)	The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.	>
Test setup			
Procedure	-	The EUT was connected to Spectrum Analyzer and Base S power divider. The Band Edges of low and high channels for the highest R were measured. Setting RBW as roughly BW/100.	
Remark			
Result	✓ Pa	ss Fail	_

Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	□ _{N/A}



Test Report	15070952-FCC-R1
Page	28 of 44

Cellular Band (Part 22H) result

Frequency (MHz)	Emission (dBm)	Limit (dBm)
823.976	-18.23	-13
849.002	-17.10	-13

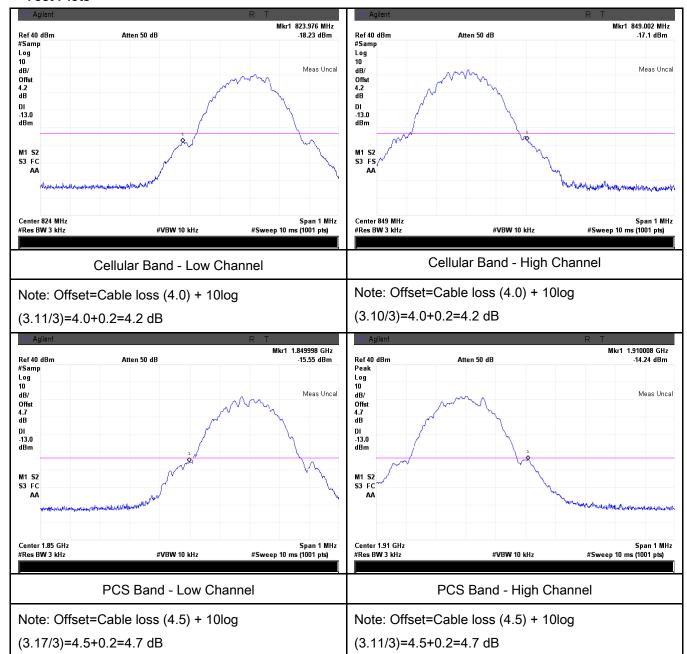
PCS Band (Part24E) result

Frequency (MHz)	Emission (dBm)	Limit (dBm)
1850.0000	-15.55	-13
1910.0200	-14.24	-13



Test Report	15070952-FCC-R1
Page	29 of 44

Test Plots





Test Report	15070952-FCC-R1
Page	30 of 44

6.9 Frequency Stability

Temperature	25°C
Relative Humidity	52%
Atmospheric Pressure	1028mbar
Test date :	October 28, 2015
Tested By :	Winnie Zhang

Requirement(s):

Spec	Item	Requirement Applicable				
•	According to §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table below: Frequency Tolerance for Transmitters in the Public Mobile Services					
		Frequency	Base,	Mobile ≤ 3	Mobile ≤ 3	
		Range	fixed	watts	watts	
§2.1055,		(MHz)	(ppm)	(ppm)	(ppm)	
§22.355 &	a)	25 to 50	20.0	20.0	50.0	~
§24.235		5 to 450	5.0	5 0	50.0	_
3		450 to 512	2.5	5.0	5.0	
		821 to 896	1.5	2.5	2.5	
		928 to 29.	5.0	N/A	N/A	
		929 to 960.	1.5	N/A	N/A	
		2110 to 2220	10.0	N/A	N/A	
		According to §24.2	35, the frequ	ency stability sha	ll be sufficient to	
		ensure that the fundamental emissions stay within the authorized				
		frequency block.				
Test setup						



Test Report	15070952-FCC-R1
Page	31 of 44

	A communication link was established between EUT and base station. The		
	frequency error was monitored and measured by base station under variation		
Procedure	of ambient temperature and variation of primary supply voltage.		
	Limit: The frequency stability of the transmitter shall be maintained within		
	±0.00025% (±2.5ppm) of the center frequency.		
Remark			
Result	Pass Fail		

Test Data	Yes	□ _{N/A}
Test Plot	Yes (See below)	✓ _{N/A}



Test Report	15070952-FCC-R1
Page	32 of 44

Cellular Band (Part 22H) result

Middle Channel, f₀ = 836.6 MHz				
Temperature (°C)	Power Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10		20	0.0106	2.5
0		21	0.0112	2.5
10		20	0.0106	2.5
20	2.7	16	0.0085	2.5
30	3.7	15	0.0080	2.5
40		19	0.0101	2.5
50		20	0.0106	2.5
55		23	0.0122	2.5
25	4.2	21	0.0112	2.5
20	3.5	21	0.0112	2.5

PCS Band (Part 24E) result

1 00 Dana (1 art 2+L) 163ait				
Middle Channel, f₀ = 1880 MHz				
Temperature (°C)	Power Supplied (V _{DC})	Frequency Error (Hz)	Frequency Error (ppm)	Limit (ppm)
-10		22	0.0263	2.5
0		21	0.0251	2.5
10		22	0.0263	2.5
20	0.7	17	0.0203	2.5
30	3.7	16	0.0191	2.5
40		20	0.0239	2.5
50		16	0.0191	2.5
55		24	0.0287	2.5
25	4.2	25	0.0299	2.5
25	3.5	21	0.0251	2.5



Test Report	15070952-FCC-R1
Page	33 of 44

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
RF Conducted Test					
Agilent ESA-E SERIES SPECTRUM ANALYZER	E4407B	MY45108319	09/16/2015	09/15/2016	<u>\</u>
Power Splitter	1#	1#	09/01/2015	08/31/2016	•
Universal Radio Communication Tester	CMU200	121393	09/25/2015	09/24/2016	(
Temperature/Humidity Chamber	UHL-270	001	10/09/2015	10/08/2016	>
DC Power Supply	E3640A	MY40004013	09/17/2015	09/16/2016	•
Radiated Emissions					
EMI test receiver	ESL6	100262	09/17/2015	09/16/2016	•
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	09/01/2015	08/31/2016	>
Microwave					
Preamplifier	8449B	3008A02402	03/25/2015	03/24/2016	•
(1 ~ 26.5GHz)					
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/21/2015	09/20/2016	•
Bilog Antenna (30MHz~2GHz)	JB1	A112017	09/21/2015	09/20/2016	(
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71259	09/24/2015	09/23/2016	(
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/24/2015	09/23/2016	<u><</u>
SYNTHESIZED SIGNAL GENERATOR	8665B	3744A01293	09/17/2015	09/16/2016	Y
Tunable Notch Filter	3NF- 800/1000-S	AA4	09/01/2015	08/31/2016	V
Tunable Notch Filter	3NF- 1000/2000-S	AM 4	09/01/2015	08/31/2016	V



Test Report	15070952-FCC-R1
Page	34 of 44

Annex B. EUT And Test Setup Photographs

Annex B.i. Photograph: EUT External Photo





Test Report	15070952-FCC-R1
Page	35 of 44



EUT - Top View



EUT - Bottom View



EUT - Left View

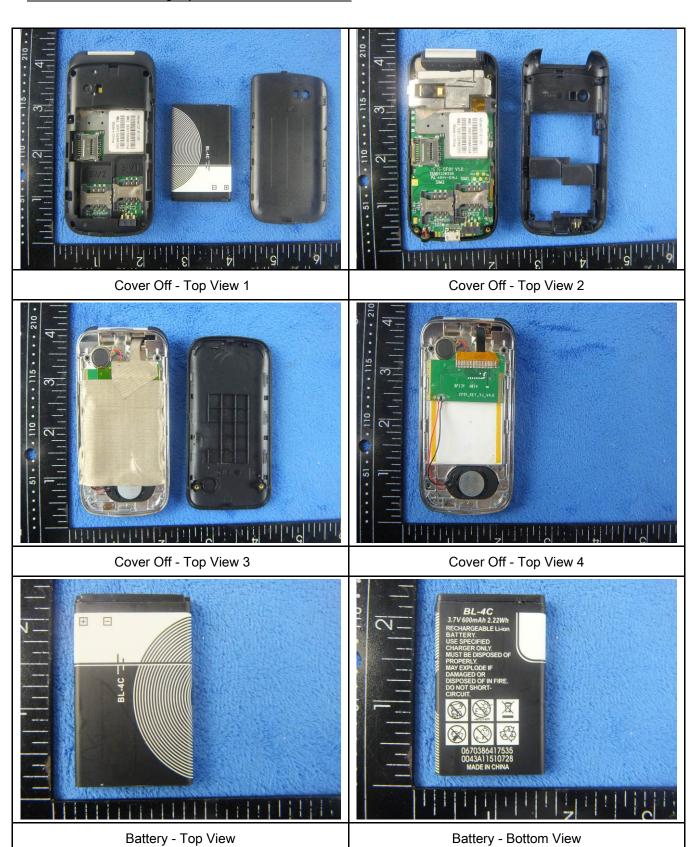


EUT - Right View



Test Report	15070952-FCC-R1
Page	36 of 44

Annex B.ii. Photograph: EUT Internal Photo

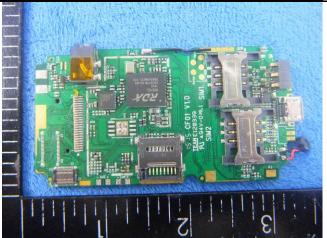




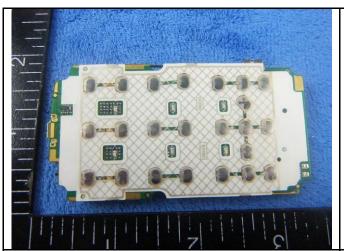
Test Report	15070952-FCC-R1
Page	37 of 44



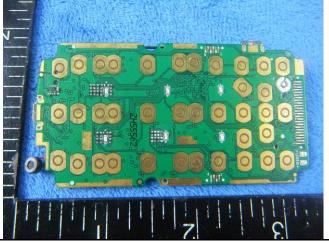
Mainborad With Shielding - Front View



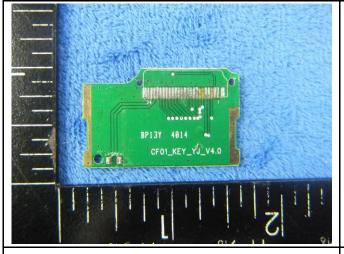
Mainborad Without Shielding - Front View



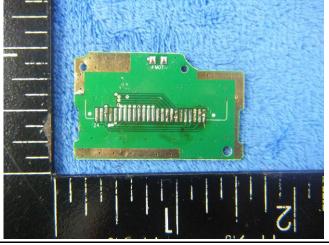
Mainborad With Button Cover - Rear View



Mainborad Without Button Cover - Rear View



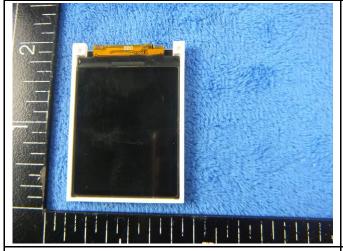
Small board - Front View

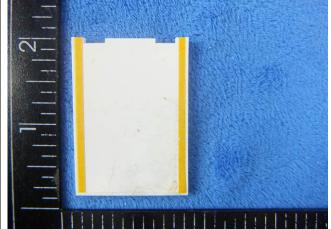


Small board - Rear View



Test Report	15070952-FCC-R1
Page	38 of 44

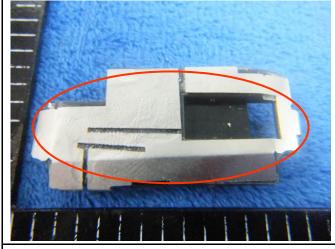




LCD - Front View

LCD - Rear View

WEI: 328015084845224





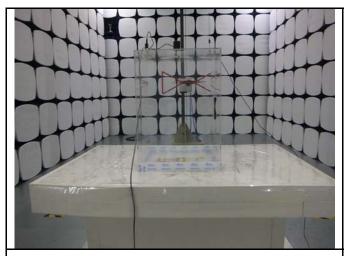
GSM/PCS Antenna View

BT - Antenna View



Test Report	15070952-FCC-R1
Page	39 of 44

Annex B.iii. Photograph: Test Setup Photo



Radiated Spurious Emissions Test Setup Below 1GHz



Radiated Spurious Emissions Test Setup Above 1GHz

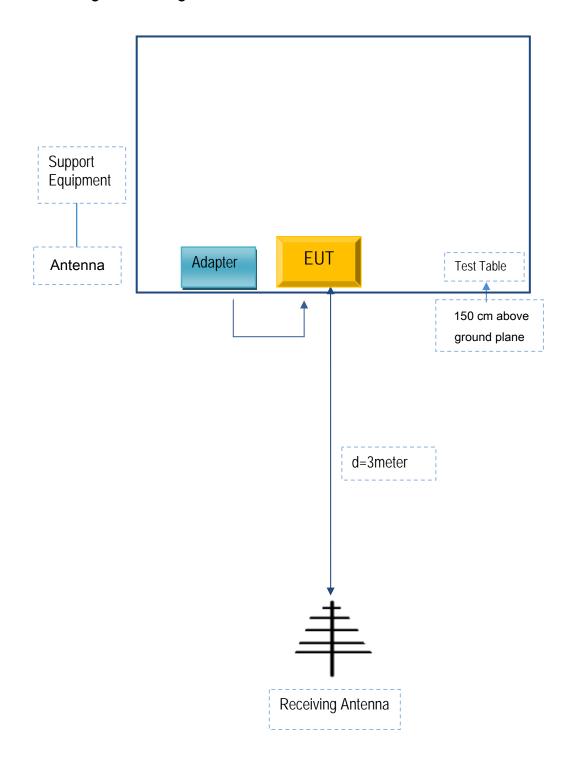


Test Report	15070952-FCC-R1	
Page	40 of 44	

Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

Annex C.ii. TEST SET UP BLOCK

Block Configuration Diagram for Radiated Emissions





Test Report	15070952-FCC-R1
Page	41 of 44

Annex C. il. SUPPORTING EQUIPMENT DESCRIPTION

The following is a description of supporting equipment and details of cables used with the EUT.

Manufacturer	Equipment Description	Model	Calibration Date	Calibration Due Date
N/A	N/A	N/A	N/A	N/A



Test Report	15070952-FCC-R1
Page	42 of 44

Annex C.ii. EUT OPERATING CONKITIONS

N/A



Test Report	15070952-FCC-R1	
Page	43 of 44	

Annex D. User Manual / Block Diagram / Schematics / Partlist

Please see attachment



Test Report	15070952-FCC-R1	
Page	44 of 44	

Annex E. DECLARATION OF SIMILARITY

N/A