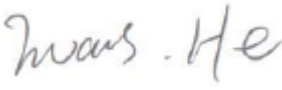
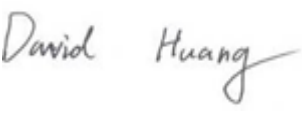



# RF TEST REPORT



Report No.: 17070565-FCC-R1

Supersede Report No.: N/A

Applicant	BLU Products , Inc	
Product Name	Mobile phone	
Model No.	ADVANCE 4.0M	
Serial No.	N/A	
Test Standard	FCC Part 22(H):2016 ;FCC Part 24(E):2016; ANSI/TIA-603-D: 2010	
Test Date	July 07 to 11, 2017	
Issue Date	July 12, 2017	
Test Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	
Equipment complied with the specification <input checked="" type="checkbox"/>		
Equipment did not comply with the specification <input type="checkbox"/>		
		
Evans He Test Engineer	David Huang Checked 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](mailto:China@siemic.com.cn)

## 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	17070565-FCC-R1
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## 1. Report Revision History

Report No.	Report Version	Description	Issue Date
17070565-FCC-R1	NONE	Original	July 12, 2017

## 2. Customer information

Applicant Name	BLU Products , Inc
Applicant Add	10814 NW 33rd St # 100 Doral, FL 33172
Manufacturer	BLU Products , Inc
Manufacturer Add	10814 NW 33rd St # 100 Doral, FL 33172

## 3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park 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(ICP-03A1)

#### 4. Equipment under Test (EUT) Information

Description of EUT:	Mobile phone
---------------------	--------------

Main Model: ADVANCE 4.0M

Serial Model: N/A

Date EUT received: July 06, 2017

Test Date(s): July 07 to 11, 2017

Equipment Category : PCE

Antenna Gain:	GSM850:-0.3dBi
	PCS1900: 0.1dBi
	UMTS-FDD Band V: -0.6dBi
	UMTS-FDD Band II: -0.8dBi
	WIFI: 0.3dBi
	Bluetooth: -0.2dBi

Antenna Type: PIFA antenna

	GSM / GPRS: GMSK
	EGPRS: GMSK, 8PSK
Type of Modulation:	UMTS-FDD: QPSK
	802.11b/g/n: DSSS, OFDM
	Bluetooth: GFSK, $\pi/4$ DQPSK, 8DPSK

RF Operating Frequency (ies): GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz  
PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz  
UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz  
UMTS-FDD Band II TX: 1852.4 ~ 1907.6 MHz;  
RX: 1932.4 ~ 1987.6 MHz  
WIFI: 802.11b/g/n(20M): 2412-2462 MHz  
Bluetooth: 2402-2480 MHz

Number of Channels: GSM 850: 124CH  
PCS1900: 299CH  
UMTS-FDD Band V : 102CH  
UMTS-FDD Band II : 277CH  
WIFI :802.11b/g/n(20M): 11CH  
Bluetooth: 79CH

Port: USB Port, Earphone Port

Input Power: Adapter:  
Model: US-WW-0502  
Input: AC100-240V~50/60Hz,0.15A  
Output: DC 5.0V,500mA  
Battery :  
Model: C615044130L  
Spec: 3.7V,1300mAh, 4.81Wh

Trade Name : BLU

GPRS/ EGPRS Multi-slot class 8/10/12

FCC ID: YHLBLUADVANCE4M

**Note: The difference between the old case RSZ160906003-00D and new case 17070565: Antenna and Appearance shape , accessories are the same . The only difference is added one LCD bonding pad on PCB, the other construction is the same.**  
**So, we have retested the Radiated Emissions data in this report.**

## 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
§ 2.1051; § 22.917; § 24.238;	Spurious Radiated Emissions	Compliance

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

### Measurement Uncertainty

Emissions		
Test Item	Description	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
-	-	-



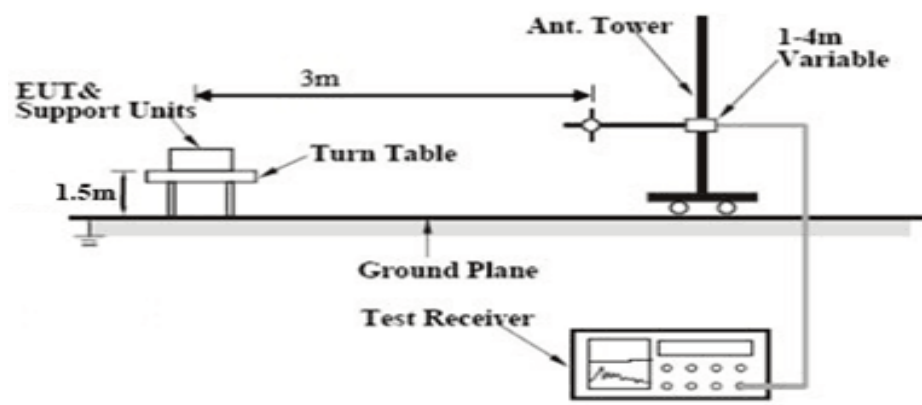
## 6. MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

### 6.1 Spurious Radiated Emissions

Temperature	25°C
Relative Humidity	57%
Atmospheric Pressure	1015mbar
Test date :	July 07, 2017
Tested By :	Evans He

#### 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.	<input checked="" type="checkbox"/>

Test setup	
------------	--

Test Procedure	<ol style="list-style-type: none"> <li>1. The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable.</li> <li>2. 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.</li> <li>3. 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.</li> </ol>
----------------	---

	<p>Sample Calculation:</p> <p>EUT Field Strength = Raw Amplitude (dBμV/m) – Amplifier Gain (dB) + Antenna Factor (dB) + Cable Loss (dB) + Filter Attenuation (dB, if used)</p>
Remark	
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> 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	-46.21	V	7.95	0.67	-38.93	-13	-25.93
1648.4	-45.86	H	7.95	0.67	-38.58	-13	-25.58
149.8	-49.88	V	1	0.19	-49.07	-13	-36.07
246.7	-50.37	H	6	0.24	-44.61	-13	-31.61

### 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	-47.33	V	7.95	0.67	-40.05	-13	-27.05
1673.2	-45.21	H	7.95	0.67	-37.93	-13	-24.93
153.9	-43.61	V	1	0.19	-42.8	-13	-29.8
394.6	-44.21	H	6	0.3	-38.51	-13	-25.51

### 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	-49.13	V	7.95	0.68	-41.86	-13	-28.86
1697.6	-47.28	H	7.95	0.68	-40.01	-13	-27.01
309.5	-43.61	V	5.6	0.25	-38.26	-13	-25.26
704.2	-47.12	H	6.3	0.4	-41.22	-13	-28.22

#### Note:

1, The testing has been conformed to  $10 \times 848.8 \text{ MHz} = 8,488 \text{ MHz}$

2, All other emissions more than 30 dB below the limit

3, GSM voice, GPRS and EGPRS mode were investigated. The results above show only the worse cases

4, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.

## 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	-46.58	V	10.25	1	-37.33	-13	-24.33
3700.4	-44.31	H	10.25	1	-35.06	-13	-22.06
196.3	-39.87	V	3.7	0.18	-36.35	-13	-23.35
311.5	-42.51	H	5.6	0.25	-37.16	-13	-24.16

### 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	-45.28	V	10.25	1.01	-36.04	-13	-23.04
3760	-44.31	H	10.25	1.01	-35.07	-13	-22.07
403.6	-37.64	V	6	0.3	-31.94	-13	-18.94
554.8	-45.16	H	6.4	0.35	-39.11	-13	-26.11

### 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	-46.52	V	10.36	1.02	-37.18	-13	-24.18
3819.6	-44.35	H	10.36	1.02	-35.01	-13	-22.01
303.8	-45.12	V	5.6	0.25	-39.77	-13	-26.77
749.6	-42.87	H	6.4	0.43	-36.9	-13	-23.90

#### Note:

1, The testing has been conformed to  $10 \times 1909.8 \text{ MHz} = 19,098 \text{ MHz}$

2, All other emissions more than 30 dB below the limit

3, GSM voice, GPRS and EGPRS mode were investigated. The results above show only the worse cases

4, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.

## UMTS-FDD Band V (Part 22H)

### Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1652.8	-46.82	V	7.95	0.67	-39.54	-13	-26.54
1652.8	-44.38	H	7.95	0.67	-37.1	-13	-24.1
349.5	-50.92	V	5.9	0.27	-45.29	-13	-32.29
652.1	-43.85	H	6.1	0.39	-38.14	-13	-25.14

### Middle channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1670	-44.23	V	7.95	0.67	-36.95	-13	-23.95
1670	-43.17	H	7.95	0.67	-35.89	-13	-22.89
548.6	-39.65	V	6.4	0.35	-33.6	-13	-20.6
756.3	-38.12	H	6.4	0.43	-32.15	-13	-19.15

### High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
1693.2	-45.28	V	7.95	0.68	-38.01	-13	-25.01
1693.2	-43.78	H	7.95	0.68	-36.51	-13	-23.51
598.3	-37.52	V	6.1	0.37	-31.79	-13	-18.79
854.5	-42.16	H	6.2	0.44	-36.4	-13	-23.40

#### Note:

1, The testing has been conformed to  $10 \times 846.6 \text{ MHz} = 8,466 \text{ MHz}$

2, All other emissions more than 30 dB below the limit

3, RMC, HSUPA and HSDPA mode were investigated. The results above show only the worse cases

4, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.

## UMTS-FDD Band II (Part 24E)

### Low channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3704.8	-46.81	V	10.25	1	-37.56	-13	-24.56
3704.8	-44.72	H	10.25	1	-35.47	-13	-22.47
395.7	-43.15	V	6	0.3	-37.45	-13	-24.45
643.8	-45.27	H	6.1	0.39	-39.56	-13	-26.56

### 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	-46.31	V	10.25	1.01	-37.07	-13	-24.07
3760	-44.75	H	10.25	1.01	-35.51	-13	-22.51
308.9	-45.82	V	5.6	0.25	-40.47	-13	-27.47
647.2	-49.71	H	6.1	0.39	-44	-13	-31

### High channel

Frequency (MHz)	Substituted level (dBm)	Polarity (H/V)	Antenna Gain Correction (dB)	Cable Loss (dB)	Corrected Reading (dBm)	Limit (dBm)	Margin (dB)
3815.2	-50.21	V	10.36	1.02	-40.87	-13	-27.87
3815.2	-50.06	H	10.36	1.02	-40.72	-13	-27.72
299.6	-47.13	V	5.6	0.25	-41.78	-13	-28.78
902.7	-46.9	H	6.2	0.44	-41.14	-13	-28.14

#### Note:

1, The testing has been conformed to  $10 \times 1907.6 \text{ MHz} = 19,076 \text{ MHz}$

2, All other emissions more than 30 dB below the limit

3, RMC, HSUPA and HSDPA mode were investigated. The results above show only the worse cases

4, X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case

## Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Due	In use
<b>Radiated Emissions</b>					
EMI test receiver	ESL6	100262	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
OPT 010 AMPLIFIER (0.1-1300MHz)	8447E	2727A02430	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>
Microwave Preamplifier (1 ~ 26.5GHz)	8449B	3008A02402	03/23/2017	03/22/2018	<input checked="" type="checkbox"/>
Bilog Antenna (30MHz~6GHz)	JB6	A110712	09/20/2016	09/19/2017	<input checked="" type="checkbox"/>
Bilog Antenna (30MHz~2GHz)	JB1	A112017	09/20/2016	09/19/2017	<input checked="" type="checkbox"/>
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71259	09/23/2016	09/22/2017	<input checked="" type="checkbox"/>
Double Ridge Horn Antenna (1 ~18GHz)	AH-118	71283	09/23/2016	09/22/2017	<input checked="" type="checkbox"/>
SYNTHESIZED SIGNAL GENERATOR	8665B	3744A01293	09/16/2016	09/15/2017	<input checked="" type="checkbox"/>
Power Amplifier	SMC150D	R1553-0313	03/08/2017	03/07/2018	<input checked="" type="checkbox"/>
Power Amplifier	S41-25D	R1553-0314	05/26/2017	05/25/2018	<input checked="" type="checkbox"/>
Tunable Notch Filter	3NF-800/1000- S	AA4	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>
Tunable Notch Filter	3NF- 1000/2000-S	AM 4	08/31/2016	08/30/2017	<input checked="" type="checkbox"/>



## Annex B. EUT And Test Setup Photographs

### Annex B.i. Photograph: EUT External Photo

Whole Package View



Adapter - Label View





EUT - Front View



EUT - Rear View





EUT - Top View



EUT - Bottom View



EUT - Left View



EUT - Right View





**Annex B.ii. Photograph: EUT Internal Photo**

Cover Off - Top View 1



Cover Off - Top View 2

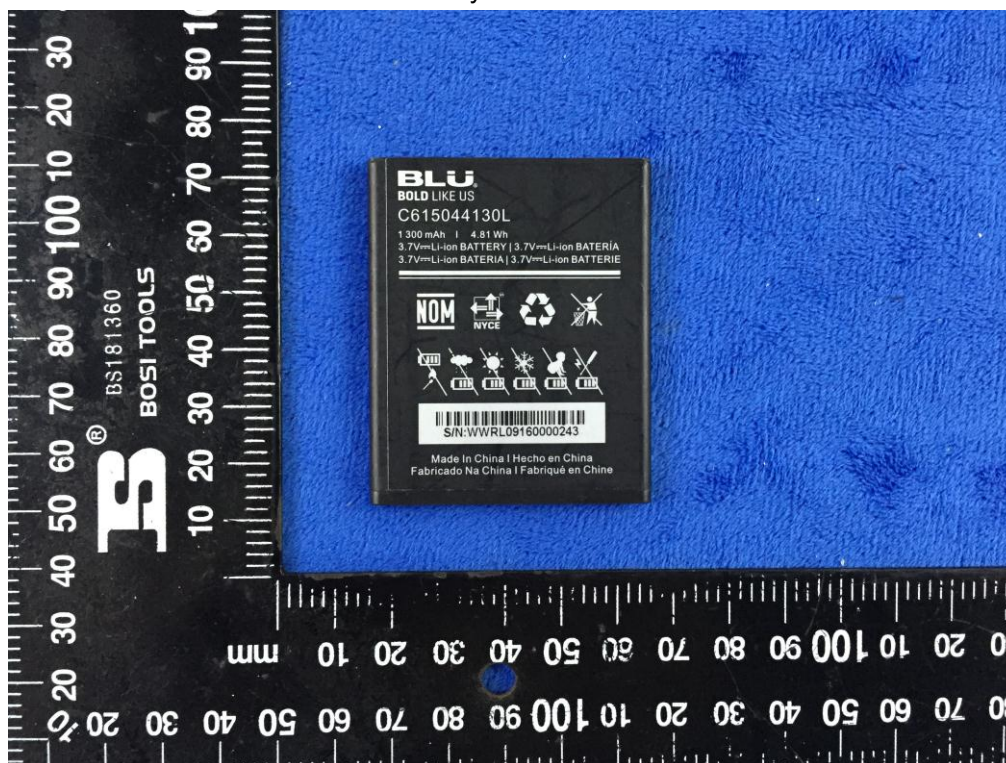




Battery - Front View

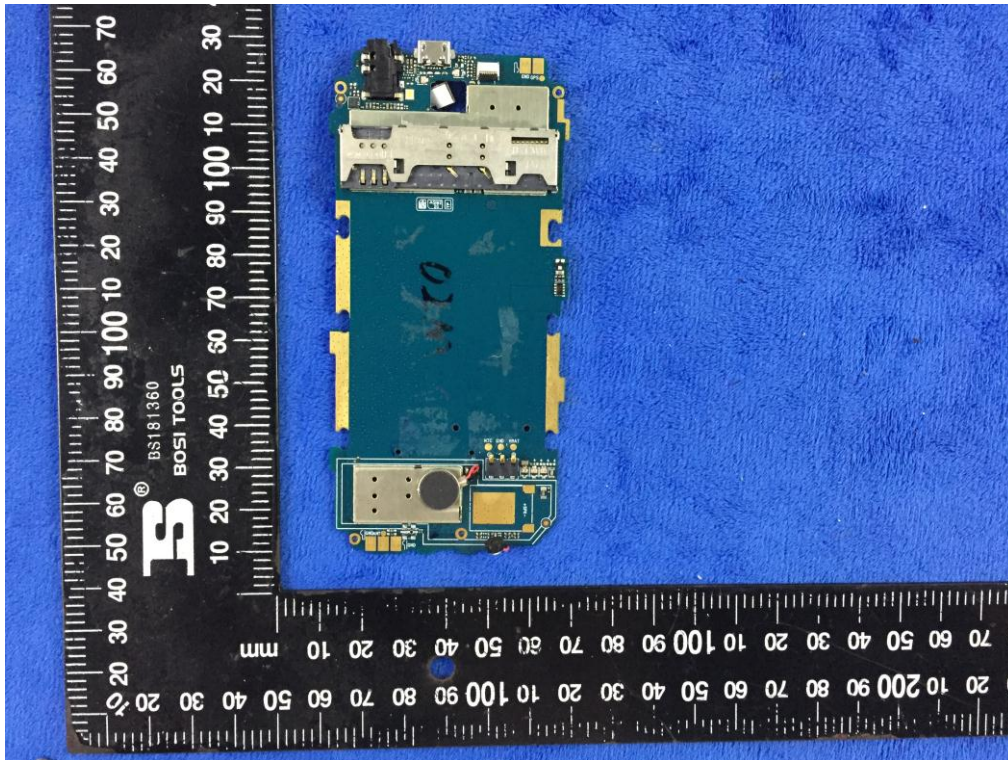


Battery - Rear View

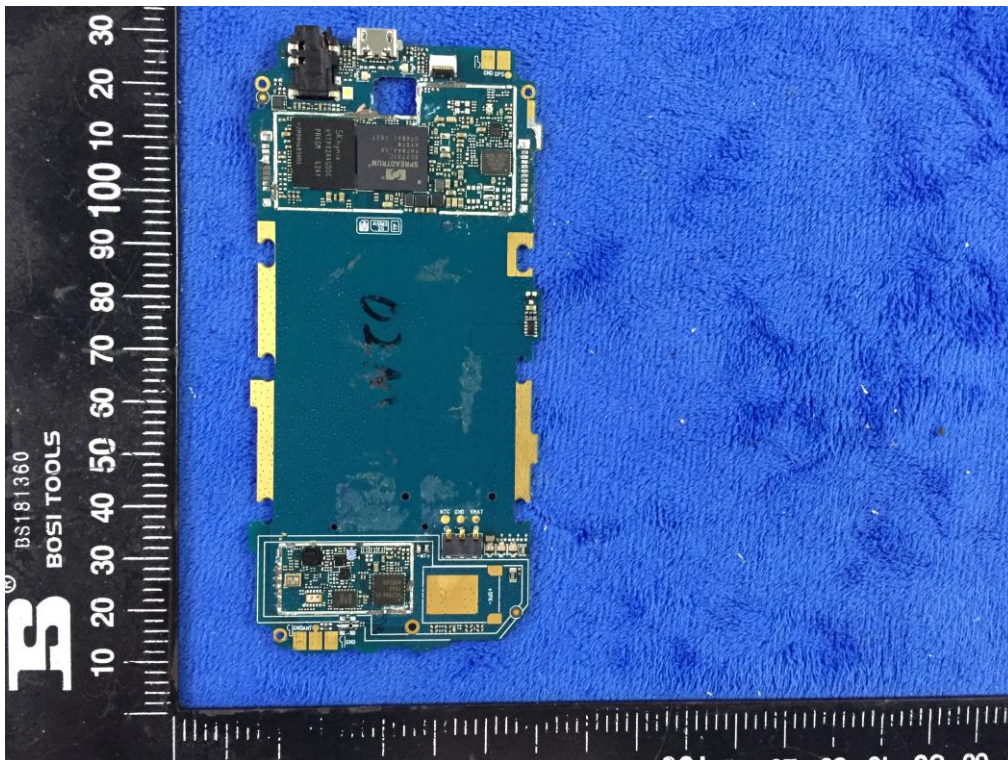




Mainboard with Shielding - Front View

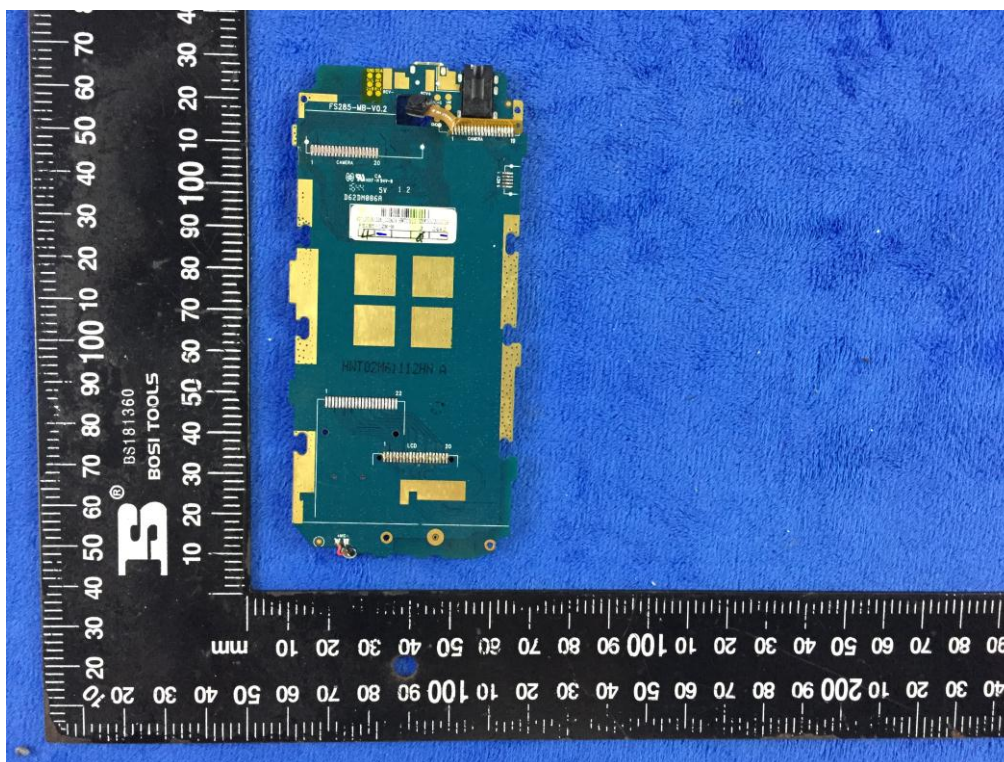


Mainboard without Shielding - Front View

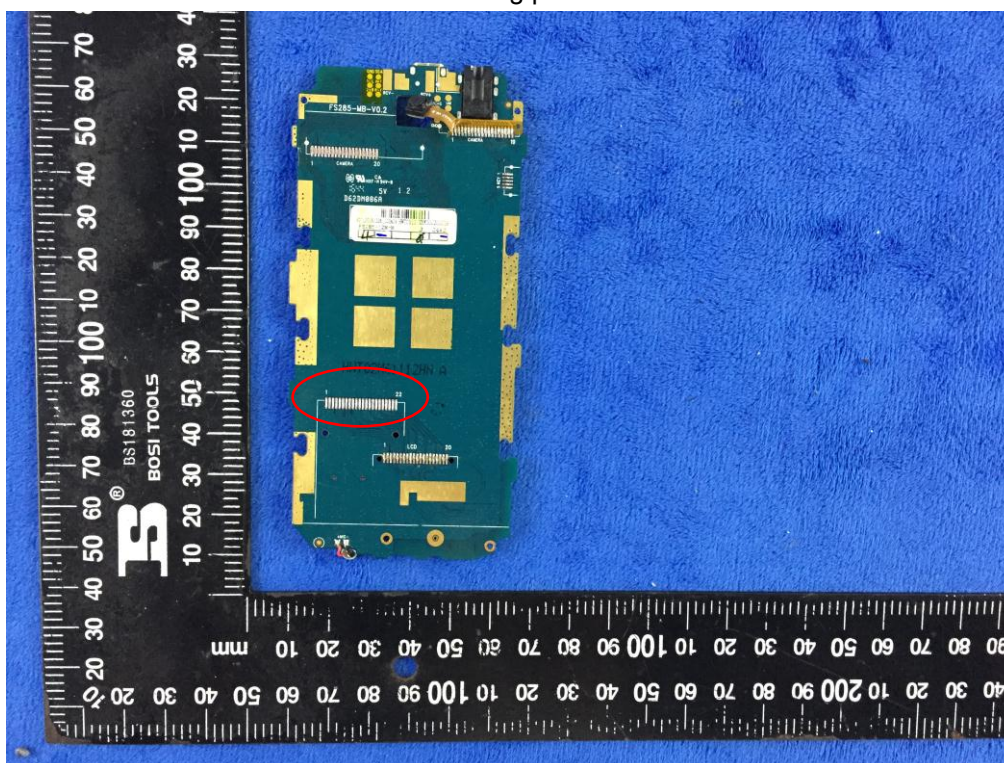




Mainboard – Rear View

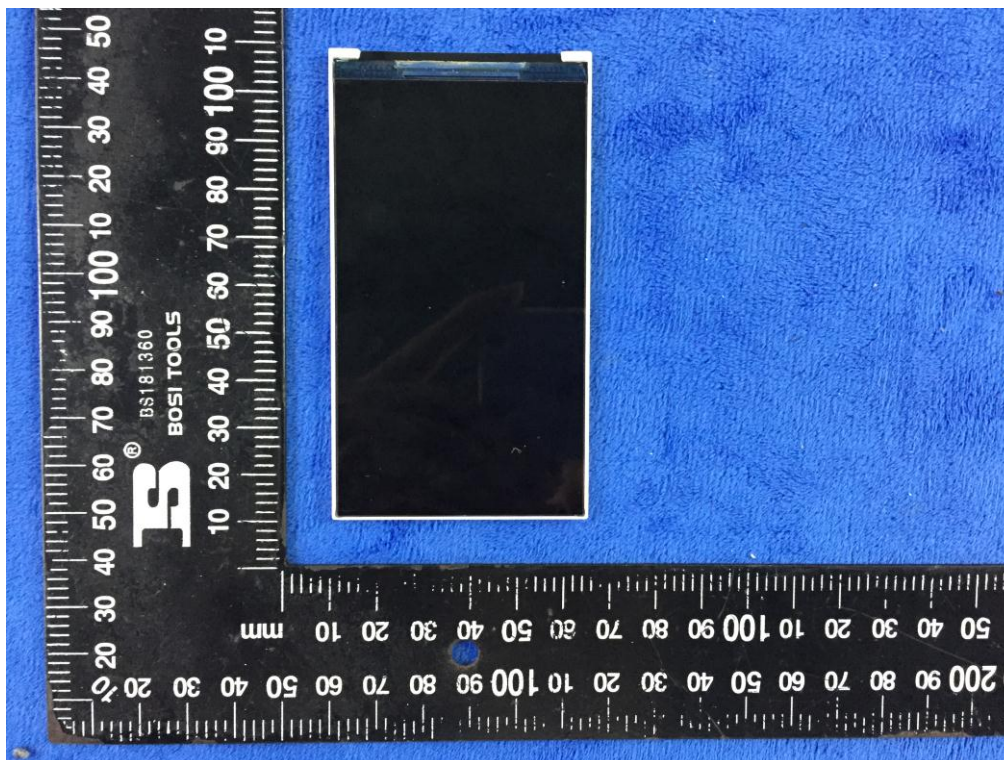


LCD bonding pads View

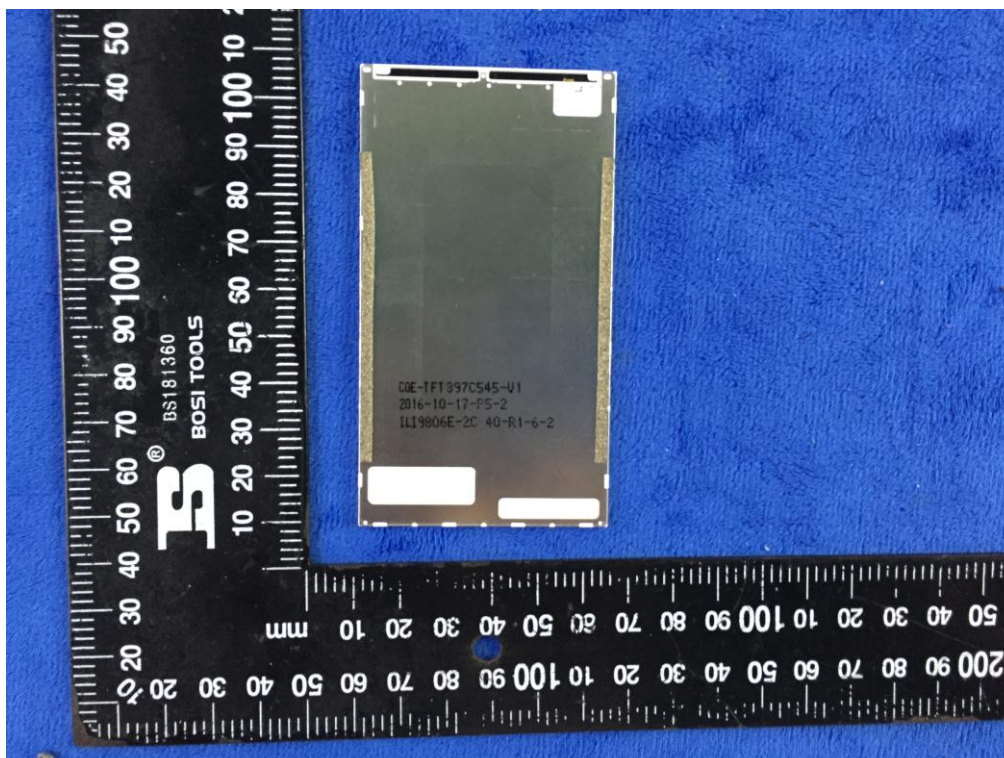




LCD – Front View

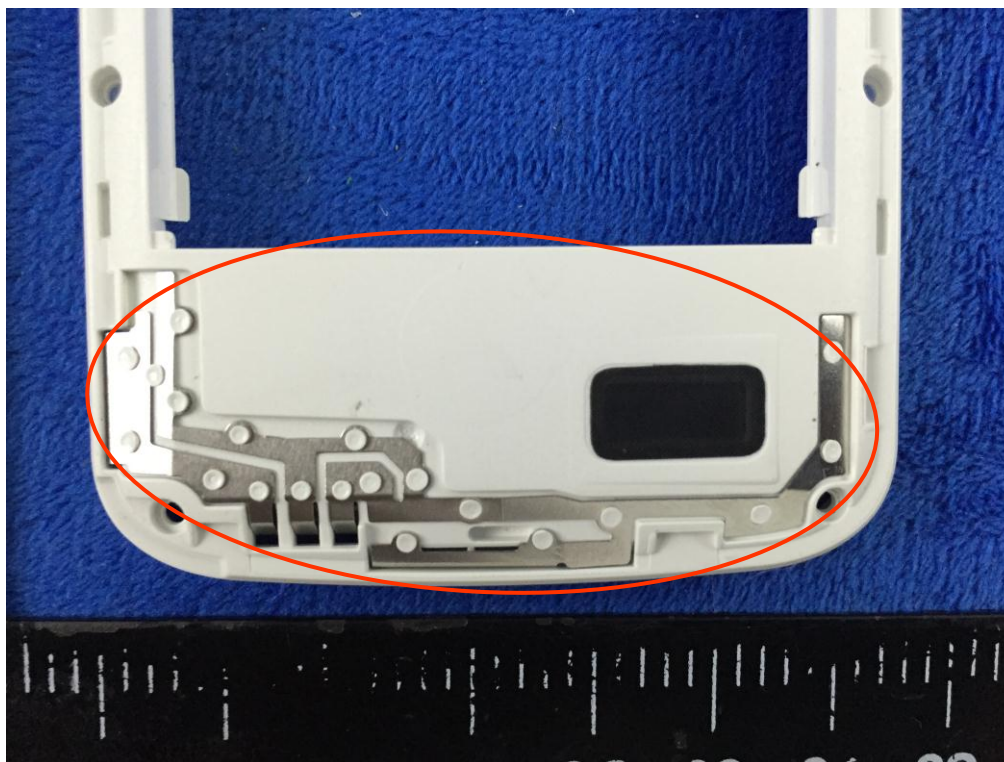


LCD – Rear View





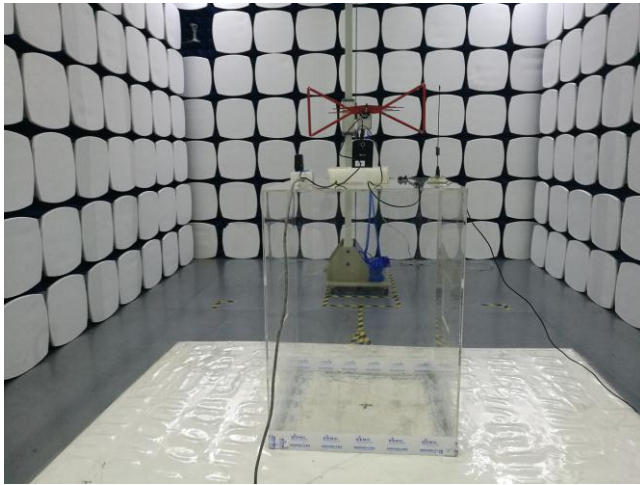
GSM/PCS/UMTS-FDD Antenna View



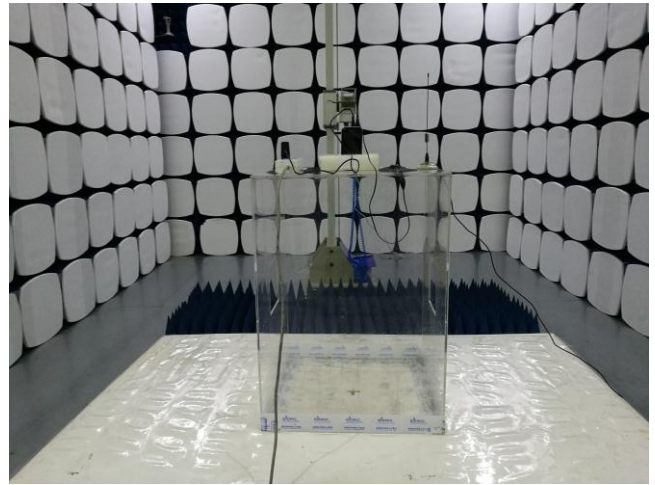
WIFI/BT - Antenna View



**Annex B.iii. Photograph: Test Setup Photo**



Radiated Spurious Emissions Test Setup Below 1GHz

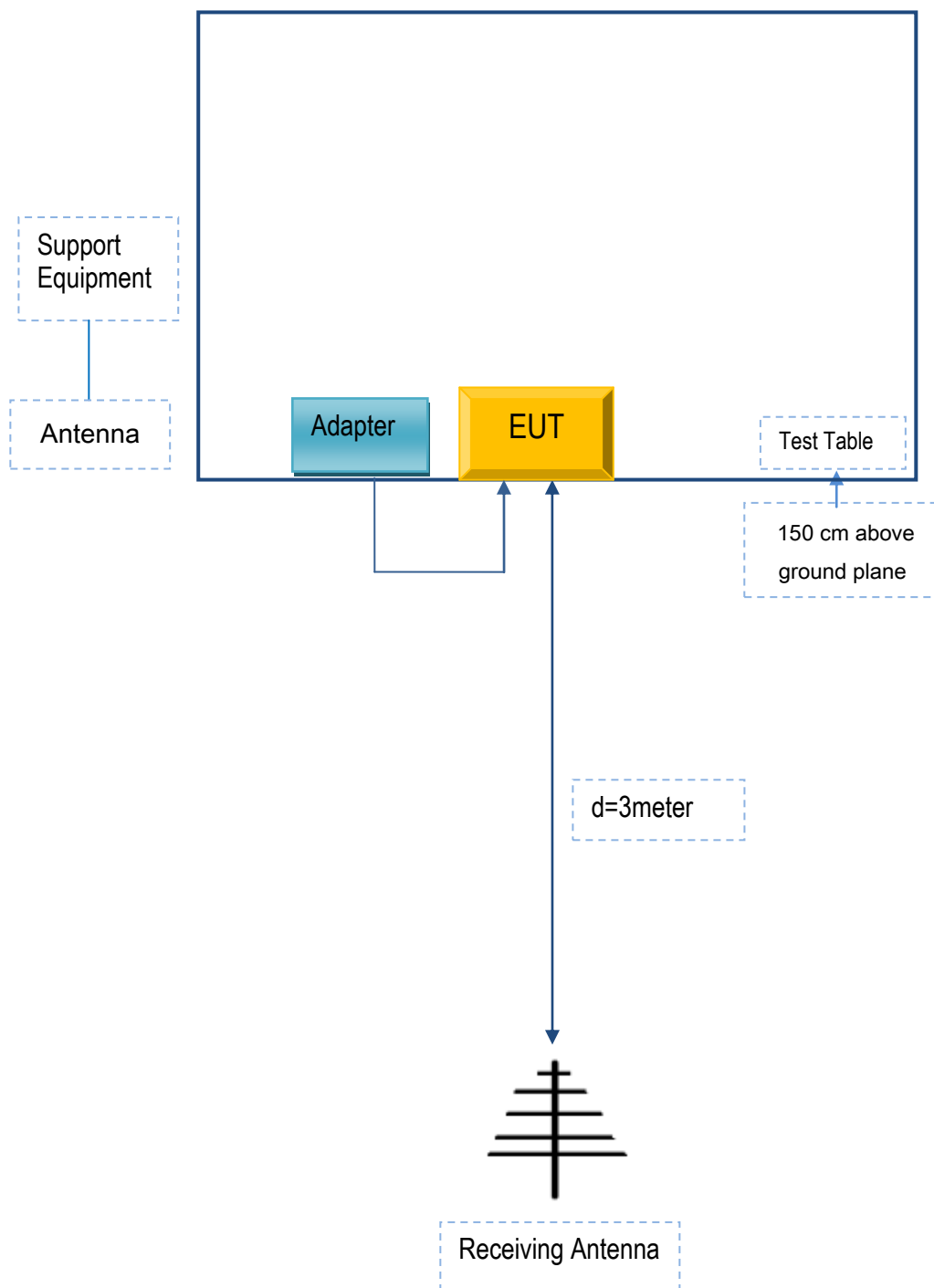


Radiated Spurious Emissions Test Setup Above  
1GHz

## Annex C. TEST SETUP AND SUPPORTING EQUIPMENT

### Annex C.ii. TEST SET UP BLOCK

#### Block Configuration Diagram for Radiated Emissions



## **Annex C. ii. SUPPORTING EQUIPMENT DESCRIPTION**

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

### **Supporting Equipment:**

Manufacturer	Equipment Description	Model	Serial No
BLU Products , Inc	Earphone	ADVANCE 4.0M	N/A
BLU Products , Inc	Adapter	US-WW-0502	N/A
OEM	omnidirectional antenna	AntSuck	N/A

### **Supporting Cable:**

Cable type	Shield Type	Ferrite Core	Length	Serial No
USB Cable	Un-shielding	No	0.8m	N/A
Earphone Cables	Un-shielding	No	0.5m	N/A
Antenna Cables	Un-shielding	No	0.5m	N/A

## Annex C.ii. EUT OPERATING CONKITIONS

N/A

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

Please see the attachment

## Annex E. DECLARATION OF SIMILARITY

### Declaration Letter

(Original approval holder)

Company name	BLU Products, Inc
Address	10814 NW 33rd St # 100 Doral, FL 33172

Declare that the following company:

(New approval holder)

Company name	BLU Products, Inc
Address	10814 NW 33rd St # 100 Doral, FL 33172

is here to declare that PCBA ,Antenna and Appearance shape , accessories are the same . The only difference is listed as below

(Difference from original approval holder's)

	Model	Difference
Original	ADVANCE 4.0M	Only add one LCD bonding pad on PCB
New	ADVANCE 4.0M	

and apply for own approval or certificate.

Attestation:

Date:	Name: (this must be a person)	Function:	Signature: (or official company stamp)
2017-7-13	Zeng wei		Zeng Wei