# RF EXPOSURE REPORT



Report No.: 16071035-FCC-H2
Supersede Report No.: N/A

Applicant	ent ESG group SA			
Product Name	Mobile Phone			
Model No.	Ultra			
Serial No.	N/A			
Test Standard	FCC 2.109	3:2015		
Test Date	September	03 to 20, 201	6	
Issue Date	September 21, 2016			
Test Result	Pass Fail			
Equipment complied with the specification				
Equipment did not comply with the specification				
Loven	Luo	Dewiol	Huang	
Loren Luo Test Engineer			Huang ked By	

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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



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#### **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	



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## 1. Report Revision History

Report No.	Report Version	Description	Issue Date
16071035-FCC-H2	NONE	Original	September 21, 2016

## 2. Customer information

Applicant Name	ESG group SA
Applicant Add	14 Rue Capois, Port-au-Prince Haiti
Manufacturer	ESG group SA
Manufacturer Add	30 Rue des Nimes, route de l'aeoport Port-au-Prince, Haiti

## 3. Test site information

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



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## 4. Equipment under Test (EUT) Information

Description of EUT:	Mobile Phone
Main Model:	Ultra
Serial Model:	N/A
Date EUT received:	September 02, 2016
Test Date(s):	September 03 to 20, 2016
Antenna Gain:	GSM850: -0.14dBi PCS1900: -0.39dBi Bluetooth:-5.8dBi
Antenna Type:	GSM:PIFA antenna BT: Monopole antenna
Type of Modulation:	GSM / GPRS: GMSK Bluetooth: GFSK, π /4DQPSK, 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 Bluetooth: 2402-2480 MHz
Number of Channels:	GSM 850: 124CH PCS1900: 299CH Bluetooth: 79CH
Port:	Power Port, Earphone Port, USB Port



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Adapter:

Model: GCH-001

Input: AC100-240V~50/60Hz,0.15A

Output: DC 5.0V-500mA

Input Power: Battery:

Model: BT012600

Spec: 3.7V, 1500mAh

Charging limit voltage: 4.2V

Trade Name : Gravity

GPRS Multi-slot class 8/10/12

FCC ID: 2AGOOULTRAHT



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## 5. FCC §2.1093 - Radiofrequency radiation exposure evaluation: portable devices.

#### 5.1 RF Exposure

#### Standard Requirement:

According to §15.247 (i) and §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]  $\cdot \sqrt{f_{(GHz)}} \le 3.0$  for 1-g SAR and  $\le 7.5$  for 10-g extremity SAR,  $^{16}$  where

- f<sub>(GHz)</sub> is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $\leq 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by § 2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, portable transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

result =  $P\sqrt{F}/D$ 

P= Maximum turn-up power in mW

F= Channel frequency in GHz

D= Minimum test separation distance in mm



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#### 5.2 Test Result

#### Bluetooth Mode:

Modulation	СН	Freque	Conducted Power	Tune Up Power	Max Tune Up Power	Max Tune Up Power	Result	Limit
		(MHz)	(dBm)	(dBm)	(dBm)	(mW)		
GFSK	Low	2402	2.848	3±1	4	2.512	0.78	3
	Mid	2441	6.397	6±1	7	5.012	1.57	3
	High	2480	6.175	6±1	7	5.012	1.58	3
π /4 DQPSK	Low	2402	4.300	4±1	5	3.162	0.98	3
	Mid	2441	6.475	6±1	7	5.012	1.57	3
	High	2480	6.216	6±1	7	5.012	1.58	3
8-DPSK	Low	2402	4.413	4±1	5	3.162	0.98	3
	Mid	2441	6.504	6±1	7	5.012	1.57	3
	High	2480	6.225	6±1	7	5.012	1.58	3

Result: Compliance

No SAR measurement is required.