

# SHENZHEN UNIVERSAL VIRTUOUS BELIEF CO.,LTD

## Bluetooth candle speaker

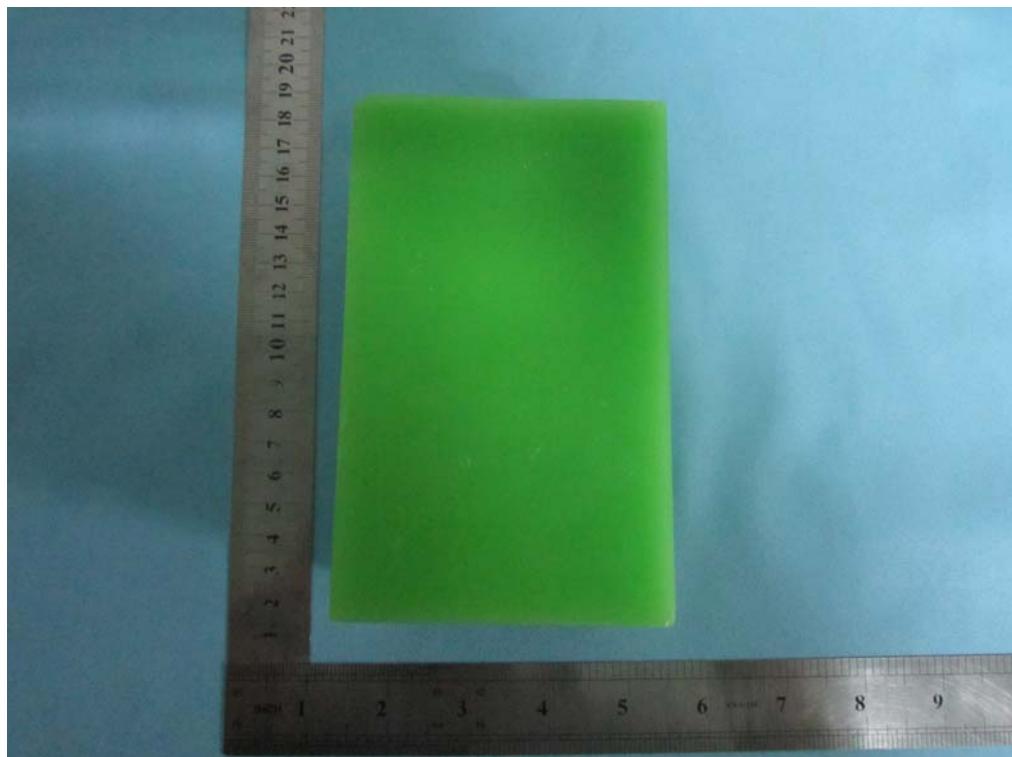
**Main Model: UVBC131201**

**Serial Model: See P5**

**July 08, 2013**

**Report No.: 13070210-FCC-H1**

**(This report supersedes NONE)**



**Modifications made to the product : None**

**This Test Report is Issued Under the Authority of:**

<i>Chris You</i>	<i>Alex Liu</i>	
Chris You Compliance Engineer	Alex Liu Technical Manager	

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Test result presented in this test report is applicable to the representative sample only.**

**RF Exposure Evaluation Report**

**SIEMIC, Inc.**  
Accessing global markets

To: FCC 2.1091: 2012

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## Laboratory 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 through out 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	Accreditation Body	Scope
USA	FCC, A2LA	EMC , RF/Wireless , Telecom
Canada	IC, A2LA, NIST	EMC, RF/Wireless , Telecom
Taiwan	BSMI , NCC , NIST	EMC, RF, Telecom , Safety
Hong Kong	OFTA , NIST	RF/Wireless , Telecom
Australia	NATA, NIST	EMC, RF, Telecom , Safety
Korea	KCC/RRA, NIST	EMI, EMS, RF , Telecom, Safety
Japan	VCCI, JATE, TELEC, RFT	EMI, RF/Wireless, Telecom
Mexico	NOM, COFETEL, Caniety	Safety, EMC , RF/Wireless, Telecom
Europe	A2LA, NIST	EMC, RF, Telecom , Safety

### Accreditations for Product Certifications

Country/Region	Accreditation Body	Scope
USA	FCC TCB, NIST	EMC , RF , Telecom
Canada	IC FCB , NIST	EMC , RF , Telecom
Singapore	iDA, NIST	EMC , RF , Telecom
EU	NB	EMC & R&TTE Directive
Japan	MIC, (RCB 208)	RF , Telecom
Hong Kong	OFTA (US002)	RF , Telecom



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## **1. EXECUTIVE SUMMARY & EUT INFORMATION**

**The purpose of this test programme was to demonstrate compliance of the SHENZHEN UNIVERSAL VIRTUOUS BELIEF CO.,LTD, Bluetooth candle speaker and model: UVBC131201 against the current Stipulated Standards. The Bluetooth candle speaker has demonstrated compliance with the FCC 2.1091: 2012.**

### **EUT Information**

**EUT Description** : Bluetooth candle speaker

**Main Model** : UVBC131201  
UVBC131101; UVBC132101; UVBC132101C; UVBC132102;  
UVBC132103; UVBC132104; UVBJZ120823; UVBC132105;  
UVBC132106; UVBC132107; UVBC132108; UVBC132109;  
UVBC132110; UVBC132111; UVBC132112; UVBJZ120719;  
UVBJZ120721; UVBJZ120722; UVBJZ120723; UVBJZ120724;  
UVBJZ120726

**Antenna Gain** : Bluetooth: -1 dBi

**Input Power** : Lithium Battery:  
Model: 18350  
Spec: 3.7V 800mAh  
Limited charger voltage: 4.2V

**Maximum Conducted Peak Power to Antenna** : 2.291 dBm

**Classification Per Stipulated Test Standard** : FCC 2.1091: 2012

Note: The difference between Main Model and Serial Models are only for shape, color, Non-metallic materials. Per pre-scan, they are not affecting any test; we only show the test result for Main model. For details, please refer to the manufacturer's declaration letter.

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## 2. TECHNICAL DETAILS

<b>Purpose</b>	Compliance testing of Bluetooth candle speaker with stipulated standard
<b>Applicant / Client</b>	SHENZHEN UNIVERSAL VIRTUOUS BELIEF CO.,LTD Room 1207, Building A, Tower 3, Excellence Century Center, Fuhua 3 RD, Futian District, Shenzhen, Guangdong, China
<b>Manufacturer</b>	SHENZHEN UNIVERSAL VIRTUOUS BELIEF CO.,LTD Room 1207, Building A, Tower 3, Excellence Century Center, Fuhua 3 RD, Futian District, Shenzhen, Guangdong, China
<b>Laboratory performing the tests</b>	Zone A, Floor 1, Building 2, Wan Ye Long Technology Park, South Side of Zhoushi Road, Bao'an District, Shenzhen, Guangdong, China Tel: +86-0755-2601 4629 / 2601 4953 Fax: +86-0755-2601 4953-810 Email: China@siemic.com.cn
<b>Test report reference number</b>	13070210-FCC-H1
<b>Date EUT received</b>	June 24, 2013
<b>Standard applied</b>	FCC 2.1091: 2012
<b>Dates of test</b>	July 04, 2013 to July 05, 2013
<b>No of Units</b>	#1
<b>Equipment Category</b>	DSS
<b>Trade Name</b>	N/A
<b>RF Operating Frequency (ies)</b>	Bluetooth: 2402-2480 MHz
<b>Number of Channels</b>	Bluetooth: 79CH
<b>Modulation</b>	Bluetooth: GFSK& $\pi$ /4DQPSK&8DPSK
<b>FCC ID</b>	2AAKBUVB-CANDLE-SPK

### 3. MAXIMUM PERMISSIBLE EXPOSURE (MPE)

#### FCC §2.1091 - MAXIMUM PERMISSIBLE EXPOSURE (MPE)

##### Applicable Standard

According to §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.

According to §1.1310 and §2.1091 RF exposure is calculated.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Averaging Time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz

\* = Plane-wave equivalent power density

Test Data

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

Where: S = power density (in appropriate units, e.g. mW/cm<sup>2</sup>)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)



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## **Bluetooth: 8DPSK Transmitting**

Maximum peak output power at antenna input terminal: 2.291 (dBm)

Maximum peak output power at antenna input terminal: 1.695 (mW)

Prediction distance: >20 (cm)

Predication frequency: 2480 (MHz)

Antenna Gain (typical): 0 (dBi)

Antenna Gain (typical): 1 (numeric)

The worst case is power density at predication frequency at 20 cm: 0.000337 (mW/cm<sup>2</sup>)

MPE limit for general population exposure at prediction frequency: 1.0 (mW/cm<sup>2</sup>)

0.000337(mW/cm<sup>2</sup>) < 1.0(mW/cm<sup>2</sup>)

**Result: Pass**