



# SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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Report No.: SHEM131100225302  
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## 1 Cover Page

# FCC MPE REPORT

Application No.:	SHEM1311002253RF
Applicant:	Linet Technologies Inc
Manufacturer:	Brio Technology Ltd.
FCC ID:	QY3LNQTBLE01
<b>Equipment Under Test (EUT):</b> <b>NOTE:</b> The following sample(s) submitted was/were identified on behalf of the client as	
Product Name:	Bluetooth Key Chain
Model No.(EUT):	Linet-BLE1
Standards:	FCC Rules 47 CFR §2.1093 KDB447498 D01 General RF Exposure Guidance
Date of Receipt:	November 13, 2013
Date of Test:	December 11, 2013 to December 12, 2013
Date of Issue:	December 16, 2013
Test Result:	<b>Pass*</b>

\* In the configuration tested, the EUT complied with the standards specified above.



Tony Wu  
E&E Section Manager

SGS-CSTC (Shanghai) Co., Ltd.



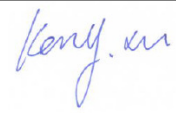
The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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## 2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
00	/	December 16, 2013	/	Original

Authorized for issue by:			
Engineer	Eddy Zong		
	Print Name		
Clerk	Susie Liu		
	Print Name		
Reviewer	Keny Xu		
	Print Name		

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## 4 General Information

### 4.1 Client Information

Applicant:	Linquet Technologies Inc
Address of Applicant:	950 Cambie St, Vancouver, BC, Canada – V6B 5X5
Manufacturer:	Brio Technology Ltd.
Address of Manufacturer:	8988 Fraserton Court, Burnaby, BC V5J 5H8
Factory:	Beijing Brio Technology Co., Ltd.
Address of Factory:	No 10, 5th Bo Xing Road, Beijing Economical & Technology Development Zone CINA 100176

### 4.2 General Description of E.U.T.

Product Name:	Bluetooth Key Chain
Model No.(EUT):	Linquet-BLE1
Brand Name:	N/A
Product Description:	Portable product

### 4.3 Details of E.U.T.

Operation Frequency:	2402MHz-2480MHz
Bluetooth Version:	BT 4.0
Modulation Type:	GFSK
Number of Channel:	40
Antenna Type	Integral
Antenna Gain	0dBi
Power Supply:	DC 3V (The new Button Cell is used for the EUT during the test)
Transmitting mode:	Using test software to control EUT working in continuous transmitting, and select channel and modulation type.

#### **4.4 Test Location**

All tests were performed at SGS E&E EMC lab

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

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#### **4.5 Test Facility**

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing. Date of expiry: 2014-07-26.

- **FCC – Registration No.: 402683**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered and fully described in a report filed with the Federal Communications Commission (FCC). The acceptance letter from the FCC is maintained in our files. Registration No.: 402683, Expiry Date: 2015-02-22.

- **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A. Expiry Date: 2014-09-20.

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-3868 and C-4336 respectively. Date of Registration: 2012-05-29. Date of Expiry: 2015-05-28.

## 5 Test Standards and Limits

According to §1.1310 Radiofrequency radiation exposure limits:

The limit for general population/uncontrolled exposures

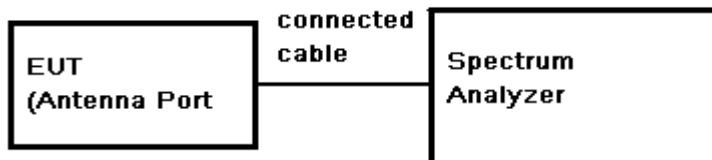
Frequency	Power density( $\text{mW}/\text{cm}^2$ )	Averaging time(minutes)
300MHz~1.5GHz	f/1500	30
1.5GHz~100GHz	1.0	30

## 6 Measurement and Calculation

### 6.1 Maximum transmit power

**EUT Operation:** Test in fixing frequency operating mode at lowest, middle and highest frequency.

**Test Configuration:**



**Test data:**

Channel	Reading Peak Power (dBm)	Cable Loss (dB)	Output Peak Power (dBm)	Output Peak Power (mW)	Peak Power Limit (dBm)	Result
Lowest	-10.71	0.5	-10.21	0.10	30	PASS
Middle	-10.83	0.5	-10.33	0.09	30	PASS
Highest	-11.42	0.5	-10.92	0.08	30	PASS

### 6.2 MPE Calculation

According to the formula  $S = \frac{PG}{4R^2\pi}$ , we can calculate S which is MPE.

Note:

- 1)  $P$  (Watts) = Power Input to antenna =  $10^{\frac{dBm}{10}} / 1000$
- 2)  $G$  (Antenna gain in numeric) =  $10^{\text{(Antenna gain in dBi / 10)}}$
- 3)  $R$  = distance to the center of radiation of antenna (in meter) = 20cm
- 4) MPE limit = 1mW/cm<sup>2</sup>

The Max Conducted Peak Output Power is 0.10mW in lowest channel;

The best case gain of the antenna is 0dBi. 3dB logarithmic terms convert to numeric result is nearly 0

$$\text{So, } S = \frac{PG}{4R^2\pi} = \frac{0.10 \times 0}{4 \times 400 \times 3.14} = 0 \text{ mW/cm}^2 < 1 \text{ mW/cm}^2$$

So the device is exclusion from SAR test.

## **7 EUT Constructional Details**

Refer to the < Linquet-BLE1\_External Photos-FCC > & < Linquet-BLE1\_Internal Photos-FCC>.

**--End of the Report--**