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RF Exposure REPORT

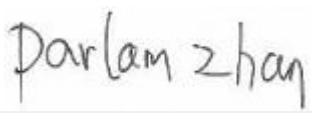
Application No.:	SHEM2009007331CR
FCC ID:	2AXQV-G2
Applicant:	Chinabase Industrial Co., Ltd.
Address of Applicant:	No.9 Chenguang Road, Yongyang Town, Lishui, Nanjing, Jiangsu, China
Manufacturer:	Chinabase Industrial Co., Ltd.
Address of Manufacturer:	No.9 Chenguang Road, Yongyang Town, Lishui, Nanjing, Jiangsu, China
Factory:	Chinabase Industrial Co., Ltd.
Address of Factory:	No.9 Chenguang Road, Yongyang Town, Lishui, Nanjing, Jiangsu, China
Equipment Under Test (EUT):	
EUT Name:	Bluetooth cable Buderfly
Model No.:	G2
Standard(s) :	FCC Rules 47 CFR §2.1093
	KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt:	2020-09-01
Date of Test:	2020-09-15 to 2020-09-21
Date of Issue:	2020-09-21
Test Result:	**Pass***

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

Parlam Zhan
E&E Section Manager

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. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

Revision Record			
Version	**Description**	**Date**	**Remark**
00	Original	2030-09-21	/

Authorized for issue by:				
				
		Vincent Zhu / Project Engineer		
				
		Parlam Zhan / Reviewer		

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3 General Information

3.1 General Description of E.U.T.

Power supply:	Rechargeable Li-ion Battery(3.7V 110mAh)
Test voltage:	DC 3.7V

3.2 Details of E.U.T.

BT:

Antenna Gain:	2.67dBi
Antenna Type:	Ceramic Antenna
Bluetooth Version:	V5.0 Dual mode
Channel Spacing:	1MHz
Modulation Type:	GFSK, π/4DQPSK, 8DPSK
Data Rate:	1/2/3Mbps
Number of Channels:	79
Operation Frequency:	2402MHz to 2480MHz
Spectrum Spread Technology:	Frequency Hopping Spread Spectrum(FHSS)

BLE:

Antenna Gain:	2.67dBi
Antenna Type:	Ceramic Antenna
Bluetooth Version:	V5.0 Dual mode
Data Rate:	1Mbps
Channel Spacing:	2MHz
Modulation Type:	GFSK
Number of Channels:	40
Operation Frequency:	2402MHz to 2480MHz

3.3 Test Location

All tests were performed at:
SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China
Tel: +86 21 6191 5666 Fax: +86 21 6191 5678
No tests were sub-contracted.

3.4 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 17025:2017 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.

- **NVLAP (LAB CODE: 201034-0)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

- **FCC (Designation Number: CN5033)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

- **ISED (CAB Identifier: CN0020)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory

- **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-13868, C-14336, T-12221, G-10830 respectively.

4 Test Standards and Limits

4.1 FCC Radiofrequency radiation exposure limits

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)/(min test separation distance)]*[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

• f(GHz) is the RF channel transmit frequency in GHz

• Power and distance are rounded to the nearest mW and mm

• The result is rounded to one decimal place for comparison

• 3.0 and 7.5 are referred to as the numeric thresholds

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

For 2.4G band device, the limit of worse case is

$P_{max} \leq 3.0 * D_{min} / \sqrt{f} = 3.0 * 5 / \sqrt{2.480} = 9.525 mW$

5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHEM200900733101 & SHEM200900733102

Test Data:

For BT Classic mode

Test mode	Channel	Peak Power (dBm)	Peak Power (mW)
GFSK	2402	-2.19	0.60
	2441	-3.62	0.43
	2480	-5.14	0.31
π/4DQPSK	2402	-0.08	0.98
	2441	-1.51	0.71
	2480	-2.96	0.51
8DPSK	2402	0.3	**1.07**
	2441	-1.25	0.75
	2480	-2.6	0.55

For BT BLE mode

Test mode	Channel	Peak Power (dBm)	Peak Power (mW)
GFSK	2402	-2.41	**0.57**
	2440	-3.69	0.43
	2480	-5.21	0.30

5.2 RF Exposure Calculation

The Max Conducted Peak Output Power is 1.07mW. The best case gain of the antenna is 2.67dBi.

2.67dBi logarithmic terms convert to numeric result is nearly 1.85.

According to the formula. calculate the EIRP test result:

EIRP= P x G = 1.07 mW x 1.85 = 1.98mW < 9.525mW

So the SAR report is not required.

--End of the Report--