



Report No.: SZEM190101024303 Page: 1 of 7

# **SAR Evaluation Report**

Application No.:	SZEM1901010243CR	
Applicant:	SHENZHEN HEALTHCARE ELECTRONIC TECHNOLOGY CO., LTD.	
Address of Applicant:	Block 48, Changxing Industrial Zone, Changzhen, Gongming Town, Guangming District, Shenzhen, 518132 China	
Manufacturer:	SHENZHEN HEALTHCARE ELECTRONIC TECHNOLOGY CO., LTD.	
Address of Manufacturer:	s of Manufacturer: Block 48, Changxing Industrial Zone, Changzhen, Gongming Town, Guangming District, Shenzhen, 518132 China	
Factory:	SHENZHEN HEALTHCARE ELECTRONIC TECHNOLOGY CO., LTD.	
Address of Factory:	Block 48, Changxing Industrial Zone, Changzhen, Gongming Town, Guangming District, Shenzhen, 518132 China	
Equipment Under Test (EUT	):	
EUT Name:	Bluetooth <sup>®</sup> body fat scale	
Model No.:	SBF70	
Trade mark:	Vitalcontrol	
FCC ID:	2AAJ7-SBF70	
Standards:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06	
Date of Receipt:	2019-01-10	
Date of Test:	2019-01-11 to 2019-01-18	
Date of Issue:	2019-01-22	
Test Result :	PASS*	

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

Keny. Ku

Keny Xu EMC Laboratory Manager



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#### Version 2

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2019-01-22		Original

Authorized for issue by:		
	Ceo. Ci	
	Leo Li /Project Engineer	-
	Evic Fu	
	Eric Fu /Reviewer	-



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#### **General Information** 4

### 4.1 General Description of EUT

Power supply:	4.5V DC(1.5Vx3"AAA" Size Batteries)
Test voltage:	DC 4.5V
Operation Frequency:	2402MHz to 2480MHz
Bluetooth Version:	V4.0 LE
Channel Spacing:	2MHz
Modulation Type:	GFSK
Number of Channels:	40
Antenna Type:	PIFA Antenna
Antenna Gain:	0.5dBi



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### 4.2 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594 No tests were sub-contracted.

### 4.3 Test Facility

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

### CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab 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.

### A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

#### • VCCI

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

### FCC – Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

### Innovation, Science and Economic Development Canada

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.



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### 4.4 Deviation from Standards

None.

### 4.5 Abnormalities from Standard Conditions

None.

### 4.6 Other Information Requested by the Customer

None.



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# 5 SAR Evaluation

### 5.1 RF Exposure Compliance Requirement

### 5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### 5.1.2 Limits

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

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]  $\cdot$  [ $\sqrt{f}(GHz)$ ]  $\leq$  3.0 for 1-g SAR and  $\leq$  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 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 < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

### 5.1.3 EUT RF Exposure

The Max. power (including tune-up tolerance) is -0.61 dBm on the lowest channel	2.402	GHz (*)
-0.61 dBm logarithmic terms convert to numeric result is nearly 0.87 mW		
According to the formula. calculate the test exclusion thresholds:		
[(max.power of channel, including tune-up tolerance, mW)/(min.test separation [vf(GHz)]	distance,	mm)] ·
General RF Exposure = (0.87 mW / 5 mm) x $\sqrt{2.402}$ GHz = 0.27	(1)	
SAR requirement:		
S = 3.0	(2)	
(1) < (2)		
So the SAR report is not required.		
(*) Max. power refer to Report No.:SZEM190101024302		

- End of the Report -



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