# SAR Evaluation Report

| | |
|---|---|
| **Application No.**: | SZEM1906015082CR |
| **Applicant:** | Shenzhen Hugh ANG Electronic Co., Limited |
| **Address of Applicant:** | 3 Floor D Building A Area, Hua Feng first science and technology Park, San Wei, Bao An District, Shenzhen, China |
| **Manufacturer:** | Shenzhen Hugh ANG Electronic Co., Limited |
| **Address of Manufacturer:** | 3 Floor D Building A Area, Hua Feng First Science and Technology Park, San Wei, Bao An District, Shenzhen China |
| **Factory:** | Shenzhen Wood High Electronic Technology Co., Limited |
| **Address of Factory:** | 3 Floor D Building A Area, Hua Feng First Science and Technology Park, San Wei, Bao An District, Shenzhen China |
| **Equipment Under Test (EUT):** | |
| **EUT Name:** | Fitness tracker |
| **Model No.:** | Viv-imp-1016, SS69-BTT-TA, FT-69-RB, FT-69-CR, FT-69-GR, FT-69-WH, M2 ♣ |
| ♣ | Please refer to section 4.1 of this report which indicates which model was actually tested and which were electrically identical. |
| **FCC ID:** | 2AURG-IMP-1016 |
| **Standards:** | 47 CFR Part 1.1307<br>47 CFR Part 2.1093<br>KDB447498D01 General RF Exposure Guidance v06 |
| **Date of Receipt:** | 2019-06-12 |
| **Date of Test:** | 2019-06-14 to 2019-08-01 |
| **Date of Issue:** | 2019-08-02 |
| **Test Result :** | **PASS*** |

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

Keny Xu
EMC Laboratory Manager

# 2 Version

| Revision Record | | | | |
|---|---|---|---|---|
| **Version** | **Chapter** | **Date** | **Modifier** | **Remark** |
| 01 | | 2019-08-02 | | Original |
| | | | | |
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|---|---|---|---|---|
| **Authorized for issue by:** | | | | |
| | |  | | |
| | | **Leo Li /Project Engineer** | | |
| | |  | | |
| | | **Eric Fu /Reviewer** | | |

# 3 Contents

# 4 General Information

## 4.1 General Description of EUT

| | |
|---|---|
| Power supply: | Lithium Ion Battery: 3.7V 55mAh rechargeable battery which charged by USB port |
| Operation Frequency: | 2402MHz to 2480MHz |
| Bluetooth Version: | V4.0 LE |
| Modulation Type: | GFSK |
| Number of Channels: | 40 |
| Channel Spacing: | 2MHz |
| Antenna Type: | Monopole Antenna |
| Antenna Gain: | 0dBi |

**Remark:**

Model No.: Viv-imp-1016, SS69-BTT-TA, FT-69-RB, FT-69-CR, FT-69-GR, FT-69-WH, M2

Only the model SS69-BTT-TA was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, with only difference on model No. and color.

## 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.

## 4.4 Deviation from Standards

None.

## 4.5 Abnormalities from Standard Conditions

None.

## 4.6 Other Information Requested by the Customer

None.



SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch, Testing Center, EEC Laboratory.
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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 ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√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 before calculation[17]

The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusion

### 5.1.3 EUT RF Exposure

The Max. power (including tune-up tolerance) is -2.95 dBm on the middle channel 2.44 GHz (*)

-2.95 dBm logarithmic terms convert to numeric result is nearly 0.51 mW

According to the formula. calculate the test exclusion thresholds:

$$General\ RF\ Exposure = \frac{(Max.\ Power\ of\ channel, including\ tune-up\ tolerance, mW) * \sqrt{f\ (GHz)}}{(min.\ test\ separation\ distance, mm)}$$

$$General\ RF\ Exposure = (0.51\ mW / 5\ mm)\ x\ \sqrt{2.44\ GHz} = 0.16 \quad (1)$$

SAR requirement:

$$S = 3.0 \quad (2)$$

(1) < (2)

So the SAR report is not required.

(*) Max. power refer to Report No.:SZEM190601508202

- End of the Report -