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Report No.: SHEM180300167402

Page: 1 of 8

## 1 Cover Page

# RF MPE REPORT

<b>Application No.:</b>	SHEM1803001674CR
<b>Applicant:</b>	Anhui Huami Information Technology Co.,Ltd.
<b>FCC ID:</b>	2AC8UXMSH05HM
<b>Equipment Under Test (EUT):</b>	
<b>NOTE:</b> The following sample(s) was/were submitted and identified by the client as	
<b>Product Name:</b>	Mi Band 3
<b>Model No.(EUT):</b>	XMSH05HM
<b>Standards:</b>	FCC Rules 47 CFR §2.1093 KDB447498 D01 General RF Exposure Guidance v06
<b>Date of Receipt:</b>	2018-03-06
<b>Date of Test:</b>	2018-03-29
<b>Date of Issue:</b>	2018-03-31
<b>Test Result:</b>	<b>Pass*</b>

\* In the configuration tested, the EUT detailed in this report 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.

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Revision Record			
Version	Description	Date	Remark
00	Original	2018-03-31	/

<b>Authorized for issue by:</b>			
		<i>Leon Wu</i>	
		_____ <b>Leon Wu /Project Engineer</b>	
		<i>Parlam zhan</i>	
		_____ <b>Parlam /Reviewer</b>	



## 2 Contents

	Page
<b>1 COVER PAGE.....</b>	<b>1</b>
<b>2 CONTENTS .....</b>	<b>3</b>
<b>3 GENERAL INFORMATION .....</b>	<b>4</b>
3.1 CLIENT INFORMATION.....	4
3.2 GENERAL DESCRIPTION OF E.U.T.....	4
3.3 TECHNICAL SPECIFICATIONS .....	4
3.4 TEST LOCATION .....	5
3.5 TEST FACILITY .....	5
<b>4 TEST STANDARDS AND LIMITS .....</b>	<b>6</b>
4.1 FCC RADIOFREQUENCY RADIATION EXPOSURE LIMITS: .....	6
<b>5 MEASUREMENT AND CALCULATION .....</b>	<b>7</b>
5.1 MAXIMUM TRANSMIT POWER .....	7
5.2 MPE CALCULATION.....	8

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### 3 General Information

#### 3.1 Client Information

Applicant:	Anhui Huami Information Technology Co.,Ltd.
Address of Applicant:	Building A4, 12th Floor, No.800 Wangjiang Road, Hefei, China (230088)
Manufacturer:	Anhui Huami Information Technology Co.,Ltd.
Address of Manufacturer:	Building A4, 12th Floor, No.800 Wangjiang Road, Hefei, China (230088)
Factory:	Anhui Huami Information Technology Co.,Ltd.
Address of Factory:	Building A4, 12th Floor, No.800 Wangjiang Road, Hefei, China (230088)

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

Power supply:	Battery: DC 3.8V 110mAh rechargeable Li-ion battery
Test voltage:	DC 3.7V
Cable:	DC cable: 10cm

#### 3.3 Technical Specifications

Antenna Gain	0 dBi
Antenna Type	PCB antenna
Channel Spacing	2MHz
Modulation Type	GFSK
Number of Channels	40
Operation Frequency	2402MHz to 2480MHz

### 3.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab  
588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China  
Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

### 3.5 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.

- **NVLAP (Certificate No. 201034-0)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program(NVLAP). Certificate No. 201034-0.

- **FCC –Designation Number: CN5033**

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

Designation Number: CN5033. Test Firm Registration Number: 479755.

- **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-1.

- **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,C-4336,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  $\leq$  50 mm are determined by:

$[(\text{max power of channel})/(\text{min test separation distance})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, where

- $f(\text{GHz})$  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  $\leq$  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 according to 4.1 f) is applied to determine SAR test exclusion. For 2.4G band device, the limit of worse case is

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

## 5 Measurement and Calculation

### 5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHEM180300167401

Test Mode	Test Channel	Ant	Power[dBm]	Power[mW]	Limit[dBm]
BLE	2402	Ant1	-0.60	0.87	30
BLE	2440	Ant1	-0.75	0.84	30
BLE	2480	Ant1	-0.83	0.83	30



## 5.2 MPE Calculation

The Max Conducted Peak Output Power is 0.87mW;

The best case gain of the antenna is 0dBi. 0dB logarithmic terms convert to numeric result is nearly 1.

According to the formula. calculate the EIRP test result:

$$\text{EIRP} = P \times G = 0.87 \text{ mW} \times 1 = 0.87\text{mW} < 9.525\text{mW}$$

So the device is exclusion from SAR test.

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