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Report No.: SHEM161100734105
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1 Cover Page

RF Exposure REPORT

Application No.:	SHEM1611007341CR
Applicant:	Anhui Huami Information Technology Co.,Ltd.
FCC ID:	2AC8UA1612
IC:	21806-A1612
Equipment Under Test (EUT):	
NOTE: The following sample(s) submitted was/were identified on behalf of the client as	
Product Name:	AMAZFIT PACE
Model No.(EUT):	A1612
Standards:	FCC Rules 47 CFR §2.1093 KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt:	2016-11-16
Date of Test:	2016-11-16 to 2016-11-30
Date of Issue:	2017-01-04
Test Result:	Pass*

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





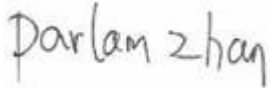
The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant 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	/	2017-01-04	/	Original

Authorized for issue by:			
Engineer		Eddy Zong _____ Print Name	 _____ Print Name
Clerk		Vincent Zhu _____ Print Name	 _____ Print Name
Reviewer		Parlam Zhan _____ Print Name	 _____ Print Name

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4 General Information

4.1 Client Information

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

4.2 General Description of E.U.T.

Brand Name:	Amazfit
Product Description:	Portable product with BT function
Rechargeable Batteries:	DC 3.8V by Built-in lithium-ion polymer battery (280mAH) Supply the EUT with fully charged battery during the testing.
Rated Input:	DC 5V via USB port

4.3 Details of E.U.T.

Operation Frequency:	BT: 2402-2480MHz WiFi: 2412MHz-2462MHz
BT Version	BT 4.0 BLE+EDR
Modulation Technique:	BT: GFSK, $\pi/4$ DQPSK, 8DPSK DTS: 802.11 b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n OFDM(64QAM, 16QAM, QPSK, BPSK)
Number of Channel:	BT: 40(BLE) / 79(EDR) WiFi: 11
Antenna Type:	Integral Antenna
Antenna Gain:	-3.5dBi

4.4 Test Location

All tests were performed at:

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

No.588 West Jindu Road, Songjiang District, Shanghai, China.201612.

Tel: +86 21 6191 5666

Fax: +86 21 6191 5678

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: 2017-07-14.

- **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: 2017-09-16.

- **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. Expiry Date: 2017-06-18.

- **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-2221, G-830 respectively. Date of Expiry: 2017-11-16.

5 Test Standards and Limits

5.1 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:

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

The practical use condition for this device is as a limb-worn accessories. So the applicable limit is 10-g extremity SAR

For 2.4G band device, the limit of worse case is $P_{\text{max}} \leq 7.5 \cdot D_{\text{min}} / \sqrt{f} = 7.5 \cdot 5 / \sqrt{2.480} = 23.81 \text{ mW}$

5.2 IC Radiofrequency radiation exposure limits

According to RSS-102 section 2.5.1, SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance

MHz	5	10	15	20	25	30	35	40	45	50	mm
≤ 300	71	101	132	162	193	223	254	284	315	345	mW
450	52	70	88	106	123	141	159	177	195	213	
835	17	30	42	55	67	80	92	105	117	130	
1900	7	10	18	34	60	99	153	225	316	431	
2450	4	7	15	30	52	83	123	173	235	309	
3500	2	6	16	32	55	86	124	170	225	290	
5800	1	6	15	27	41	56	71	85	97	106	

Output power level shall be the higher of the maximum conducted or equivalent isotropically radiated power (e.i.r.p.) source-based, time-averaged output power. For controlled use devices where the 8 W/kg for 1 gram of tissue applies, the exemption limits for routine evaluation are multiplied by a factor of 5. For limb-worn devices where the 10 gram value applies, the exemption limits for routine evaluation in Table 1 are multiplied by a factor of 2.5. If the operating frequency of the device is between two frequencies located in Table 1, linear interpolation shall be applied for the applicable separation distance. For test

separation distance less than 5 mm, the exemption limits for a separation distance of 5 mm can be applied to determine if a routine evaluation is required.

The practical use condition for this device is as a limb-worn accessories. So the applicable limit is 10-g extremity SAR

For 2.4G band device, the limit is $P_{max} \leq 2.5 \times 3.8 = 9.5 \text{mW}$

6 Measurement and Calculation

6.1 Maximum transmit power

The BT Power Data is based on the RF Test Report SHEM161100734103 & SHEM161100734104.

Test Data:

For BT Classic mode

Test mode	Channel	Peak Power (dBm)	Peak Power (mW)
GFSK	2402	0.06	1.01
	2441	-0.63	0.86
	2480	-1.91	0.64
$\pi/4$ DQPSK	2402	0.08	1.02
	2441	-0.62	0.87
	2480	-1.91	0.64
8DPSK	2402	-3.07	0.49
	2441	-3.78	0.42
	2480	-4.76	0.33

For BT BLE mode

Test mode	Channel	Peak Power (dBm)	Peak Power (mW)
GFSK	2402	6.90	4.90
	2440	6.73	4.71
	2480	5.81	3.81

For WiFi

Test mode	Test Frequency (MHz)	Average Power (dBm)	Average Power (mW)
802.11b	2412	5.84	3.84
	2437	6.28	4.25
	2462	6.23	4.20
802.11g	2412	6.76	4.74
	2437	6.66	4.63
	2462	7.07	5.09
802.11 n(HT20)	2412	6.90	4.90
	2437	6.49	4.46
	2462	6.92	4.92

6.2 RF Exposure Calculation

The Max Conducted Output Power is 5.09mW, so the SAR report is not required.

The BT and the DTS modules can't simultaneous transmitting at frequency 2.4GHz band, according to the KDB447498 section 7.1 determine the device is exclusion from SAR test.

7 EUT Constructional Details

Refer to the < A1612_External Photos > & < A1612 _Internal Photos>.

--End of the Report--