FCC SAR Exemption Evaluation Report

Product Name: ColorBand

Model: AF500

Report No.: SYBH(Z-SAR)015032015-2

FCC ID: QISAF500

	APPROVED (Lab Manager)	PREPARED (Test Engineer)
BY	Wei Huanbin	Sun Shaobin
DATE	2015-04-07	2015-04-07

Reliability Laboratory of Huawei Technologies Co., Ltd.

Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C
Tel: +86 755 28780808 Fax: +86 755 89652518

※ ※ Modified History ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
Rev.1.0	Initial Test Report Release	2015-04-07	Sun Shaobin

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1 EUT Description

Device Information：			
Product Name:	ColorBand		
Model:	AF500		
FCC ID :	QISAF500		
Device Type :	Portable device		
Device Phase:	Identical Prototype		
Exposure Category:	Uncontrolled environment / general population		
Hardware Version :	A3.33D		
Software Version :	12.03.12.01.00		
Antenna Type :	Internal Antenna		
Antenna Gain :	0dBi		
Device Operating Configurations:			
Supporting Mode(s)	BT		
Test Modulation	GFSK		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	BT	2402-2480	2402-2480

Table 1:Device information and operating configuration

1.1 General Description

ColorBand(AF500) is a product thought bluetooth 4.0 technology connect with smart phone.It has G-Sensor inside, which inset special algorithm.So colour band could track user`s sleep & physical activity,and calories burned.In the same time,the colour can do cloud data synchronization, find phone, remote control camera, phone calls reminding and many other functions.

2 Test specification(s)

ANSI Std C95.1-1992	Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz – 300 GHz.(IEEE Std C95.1-1991)
KDB447498 D01	General RF Exposure Guidance v05r02

3 Testing laboratory

Test Site	The Reliability Laboratory of Huawei Technologies Co., Ltd.
Test Location	Zone G1,Huawei Industrial Base, Bantian Industry Area, Longgang District, Shenzhen, Guangdong, China
Telephone	+86 755 28780808
Fax	+86 755 89652518
State of accreditation	The Test laboratory (area of testing) is accredited according to ISO/IEC 17025. CNAS Registration number: L0310 A2LA TESTING CERT #2174.01

4 Applicant and Manufacturer

Company Name	HUAWEI TECHNOLOGIES CO., LTD
Address	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

5 Application details

Start Date of test	2015-04-07
End Date of test	2015-04-07

6 Ambient Condition

Ambient temperature	20°C – 24°C
Relative Humidity	30% – 70%

7 RF exposure limits

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR* (Brain/Body/Arms/Legs)	1.60 mW/g	8.00 mW/g
Spatial Average SAR** (Whole Body)	0.08 mW/g	0.40 mW/g
Spatial Peak SAR*** (Hands/Feet/Ankle/Wrist)	**4.00 mW/g**	20.00 mW/g

Table 2: RF exposure limits

The limit applied in this test report is shown in **bold** letters

Notes:

* The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time

** The Spatial Average value of the SAR averaged over the whole body.

*** The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

Controlled Environments are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation

8 SAR Exemption Evaluation

Per FCC KDB 447498D01v05r02, the 1-g SAR 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
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Band	Exposure condition	P_{max} (dBm)*	P_{max} (mW)	Distance (mm)	f (GHz)	Calculation Result	Exclusion threshold	SAR evaluation
BT	10-g extremity	4.00	2.51	<5	2.450	0.79	7.5	Not required

Table 3: Standalone SAR test exclusion in 10-g extremity exposure condition

Note:

1)* - Maximum possible output power(including tune-up tolerance) declared by manufacturer

2) The test separation distance for this device is < 5 mm, so a distance of 5 mm is applied to determine SAR test exclusion per FCC KDB 447498D01.

3) 10-g Extremity SAR Test Exclusion Power Thresholds are 2.5 times higher than the 1-g SAR Test Exclusion Thresholds per FCC KDB 447498D01.

According to the table above, the device can meet the SAR test exclusion thresholds requirement of FCC KDB 447498 D01 and SAR evaluation is not required.

End