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CNAS L0310



FCC RF Exposure Evaluation Report

Project Name: Talk Band

Model : GMN-BX9

Report No. : SYBH(Z-SAR)015032016-2

FCC ID : QISGMN-BX9

	APPROVED (Lab Manager)	PREPARED (Test Engineer)
BY	<i>Wei Kuanbin</i>	<i>Pan Man</i>
DATE	2016-04-06	2016-04-06

Reliability Laboratory of Huawei Technologies Co., Ltd.

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1. The laboratory has passed the accreditation by China National Accreditation Service for Conformity Assessment (CNAS). The accreditation number is L0310.
2. The laboratory has passed the accreditation by The American Association for Laboratory Accreditation (A2LA). The accreditation number is 2174.01.
3. The laboratory (Reliability Lab of Huawei Technologies Co., Ltd) is also named as “Global Compliance and Testing Center of Huawei Technologies Co., Ltd”, the both names have coexisted since 2009.
4. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
5. The test report is invalid if there is any evidence of erasure and/or falsification.
6. The test report is only valid for the test samples.
7. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

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※ ※ **Modified History** ※ ※

REV.	DESCRIPTION	ISSUED DATE	REMARK
Rev.1.0	Initial Test Report Release	2016-04-06	Pan Man

1 EUT Description

Device Information:			
Product Name:	Talk Band		
Model:	GMN-BX9		
FCC ID :	QISGMN-BX9		
Device Type :	portable device		
Device Phase:	Identical Prototype		
Exposure Category:	uncontrolled environment / general population		
Hardware Version :	309000500199R3		
Software Version :	1.1.12		
Antenna Type :	internal antenna		
Antenna Gain :	0.5dBi		
Device Operating Configurations:			
Supporting Mode(s)	BT		
Test Modulation	GFSK/π/4-DQPSK/8DPSK		
Operating Frequency Range(s)	Band	Tx (MHz)	Rx (MHz)
	BT	2402-2480	

Table 1:Device information and operating configuration

1.1 General Description

GMN-BX9 is a smart watch based on Android wear OS; it can be communicated with mobile phone via Bluetooth. It supports Bluetooth. Watch also support MP3 player function, alarm clock, gyro sensor, intelligent user can judge the state of motion, with PPG measurement of heart rate and supports IP57 dustproof and waterproof level.

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 v06

3 Testing laboratory

Test Site	The Reliability Laboratory of Huawei Technologies Co., Ltd.
Test Location	Section G1,Huawei Base Bantian, Longgang District, Shenzhen 518129, P.R. 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	2016-04-06
End Date of test	2016-04-06

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 447498D01, 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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ 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 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.

Exposure Condition*	Band	P_{max} (dBm)**	P_{max} (mW)	Distance (mm)	f (GHz)	Calculation Result	Exclusion threshold	SAR evaluation
Head	BT	9.00	7.94	5	2.480	2.50	3.0	Not required
10g Extremity	BT	9.00	7.94	5	2.480	2.50	7.5	Not required

Table 3: Standalone SAR test exclusion for BT

Note:

- 1) * - The device can be used as a BT Headset, so head exposure condition evaluation is also required .
- 2) ** - Maximum possible output power(including tune-up tolerance) declared by manufacturer
- 3) 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.

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