TESTING (OR CALIBRATION)
NVLAP LAB CODE 600141-0

Registration
No.788871

FCC MPE REPORT

Report No: SRTC2019-9004(F)-19010206(I)

Product Name: Body Composition Scale

Product Model: H1

Applicant: Tongfang Health Technology (Beijing) Co., Ltd.

Manufacturer: Tongfang Health Technology (Beijing) Co., Ltd.

Specification: FCC Part §2.1093, §1.1307(b), KDB447498 D01

FCC ID: 2AR8T-TFHT-H1

The State Radio_monitoring_center Testing Center (SRTC)

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1 GENERAL INFORMATION

1.1 Notes of the test report

The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written permission of The State Radio_monitoring_center Testing Center (SRTC).
The test results relate only to individual items of the samples which have been tested.
The certification and accreditation identifiers used in this report shall not be applicable to the tested or calibrated samples thereof. The manufacturer shall not mark the tested samples or items (or a separate part of the item) with the identifiers of certification and accreditation to mislead relevant parties about the tested samples or items.

1.2 Information about the testing laboratory

Company:	The State Radio_monitoring_center Testing Center (SRTC)
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Email:	qin_t@thtf.com.cn

2 DESCRIPTION OF THE DEVICE UNDER TEST

2.1 Final Equipment Build Status

Frequency Range	2.402GHz~2.480GHz
Number of Channel	40
Modulation Type	GFSK
Equipment Class	DTS
Channel Spacing	2MHz
Data Rate	1Mbps
Power Supply	Battery
HW Version	v19A
SW Version	LTK1458v3
SN	Sample 1#
Antenna type	Refer to Note
Antenna connector	Refer to Note

Note:
The antenna provide to the EUT, please refer to the following table:

Brand	Model	Antenna gain	Frequency range(GHz)	Antenna type	Connecter Type
N/A	N/A	2.0dBi	2.402GHz~2.480GHz	Fixed Internal Antenna	N/A
Manufacturers ensure that their designs will not be modified by the user or third parties arbitrary antenna parameters and performance.					

3 REFERENCE SPECIFICATION

Specification	Version	Title
2.1093	2019	Radiofrequency radiation exposure evaluation: portable devices.
1.1307(b)	2019	Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.
KDB447498	October 23, 2015	RF exposure procedures and equipment authorization policies for mobile and portable devices

4 RESULT SUMMARY

No.	Test case	FCC reference
1	MPE Calculation	FCC Part §2.1093, FCC Part §1.1307(b) KDB 447498

This Test Report Is Issued by: Mr. Peng Zhen	Checked by: Mr. Li Bin
Tested by: Mr. He Dengshun	Issued date: 20190301

5 Test Results

5.1 Average Power Output

5.1.1 Ambient condition

Temperature	Relative humidity	Pressure
22°C	40%	101.5kPa

5.1.2 Test Description

A transmitter antenna terminal of EUT is connected to the power meter. Measurement is made using a broadband power meter capable of making peak and average measurements while the EUT is operating at its maximum duty cycle (>98%), at maximum power, and at the appropriate frequencies.

5.1.3 Test Procedure Used

KDB 558074 D01 DTS Meas Guidance v05 – Section 9.2.3

5.1.4 Test Settings

The maximum average conducted output power may be measured using a broadband average RF power meter. The power meter shall have a video bandwidth that is greater than or equal to the DTS bandwidth and shall utilize a fast-responding diode detector.

a) As an alternative to spectrum analyzer or EMI receiver measurements, measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied.

1) The EUT is configured to transmit continuously, or to transmit with a constant duty factor.

2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.

3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.

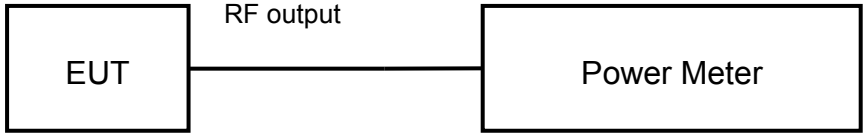
b) If the transmitter does not transmit continuously, measure the duty cycle (x) of the transmitter output signal as described in Section 6.0.

c) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.

d) Adjust the measurement in dBm by adding 10log (1/x), where x is the duty cycle to the measurement result.

5.1.5 Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



5.1.6 Test Result

BLE output power

Modulation type	Average Power Output (dBm)		
	2402MHz (Ch0)	2440MHz (Ch19)	2480MHz (Ch39)
GFSK (LE 1Mbps)	-4.10	-5.18	-6.05

Tune-up tolerance

Modulation type	Average Power Output (dBm)		
	2402MHz (Ch0)	2440MHz (Ch19)	2480MHz (Ch39)
GFSK (LE)	-8.0~-4.0	-8.0~-4.0	-8.0~-4.0

5.2 SAR Test Exclusion Thresholds

According to the KDB447498 4.3.1(a)
For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:
[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] ·[√f(GHz)] ≤ 3.0 for 1-g 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
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.

Summary of Transmitters

Mode/Band	Freq (GHz)	Max. power of channel, including tune-up tolerance, (dBm)	Max. power of channel, including tune-up tolerance, (mW)	Min. test separation distance, (mm)	The calculation results (1g)	SAR test exclusion Threshold (1g)	SAR Required
BT-LE	2.402	-4.00	0.40	5	0.124	≤3.0	No
BT-LE	2.440	-4.00	0.40	5	0.125	≤3.0	No
BT-LE	2.480	-4.00	0.40	5	0.126	≤3.0	No

---End of Test Report---