Registration
No.910917

MPE REPORT

Report No.: SRTC2017-9004(F)-17061602(I)

Product Name: Comper Smart weight scale

Product Model: SWS1

Applicant: Comper Chuangxiang(Beijing) Technology. Co., Ltd

Manufacturer: Comper Chuangxiang(Beijing) Technology. Co., Ltd

Specification: FCC Part §2.1091, §2.1093, §1.1307(b)

FCC ID: 2AH2D-SWS1003

The State Radio_monitoring_center Testing Center (SRTC)

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CONTENTS

1. GENERAL INFORMATION

1.1 Notes of the test report

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The test results relate only to individual items of the samples which have been tested.

1.2 Information about the testing laboratory

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2 DESCRIPTION OF THE DEVICE UNDER TEST

2.1 Final Equipment Build Status

Bluetooth BLE

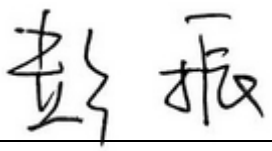
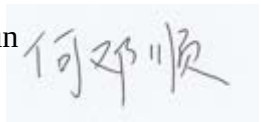
Frequency Range	2.4GHz~2.4835GHz
Number of Channel	40
Modulation Type	GFSK
Duplex Mode	TDD
Channel Spacing	2MHz
Data Rate	1Mbps
Antenna Type	PCB Antenna
Antenna Gain	0dBi
Power Supply	-------
Rated Power Supply Voltage	6.0V
HW Version	PCB V2.1
SW Version	1.0.0.9
Serial number	-------

3 REFERENCE SPECIFICATION

Specification	Version	Title
2.1091	June 23, 2015	Radiofrequency radiation exposure evaluation: mobile devices.
2.1093	June 23, 2015	Radiofrequency radiation exposure evaluation: portable devices.
1.1307(b)	Apr. 22, 1986	Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared.
KDB447498	D01	General RF Exposure Guidance

4 RESULT SUMMARY

No.	Test case	FCC reference
1	MPE	FCC Part §2.1091, FCC Part §2.1093, FCC Part §1.1307(b) KDB447498 D01

This Test Report Is Issued by: Mr. Peng Zhen 	Checked by: Ms. Liu Jia 
Tested by: Mr. He Dengshun 	Issued date: 20170628

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 v04 – 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.

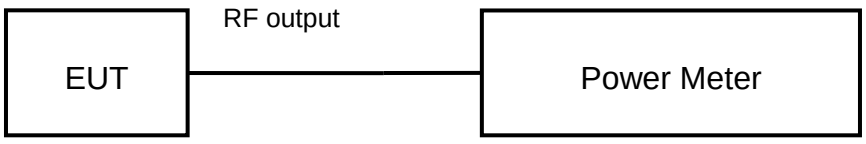
b) If the transmitter does not transmit continuously, measure the duty cycle (x) of the transmitter output signal as described in Section 6.0.

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

Modulation type	Average Power Output (dBm)		
	2402MHz (Ch0)	2440MHz (Ch19)	2480MHz (Ch39)
GFSK (LE)	-9.91	-9.92	-9.94

5.2 SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

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 for Head

Band/Mode	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
(2.4~2.4835)GHz Bluetooth	-9.91	0.10	5	0.03	≤3.0	No

According to the KDB447498 appendix A

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	*SAR Test Exclusion Threshold* (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

Summary of Transmitters for Body

Band/Mode	Max.RF output power (dBm)	Max.RF output power (mW)	SAR test exclusion Threshold (mW)	SAR Required
(2.4~2.4835)GHz Bluetooth	-9.91	0.10	≤10	No

According to the KDB447498 D01 section 7.1 determine the device is exclusion from SAR test.

6 MEASUREMENT UNCERTAINTIES

Items	Uncertainty
Average Power Output	0.67dB

7 TEST EQUIPMENTS

No.	Name/ Model	Manufacturer	S/N	Cal date	Cal Due date
1.	Power Meter E4416A	Agilent	MY52370013	2017.03.01	2018.02.28
2.	Peak and Avg Power Sensor E9327A	Agilent	MY52420006	2017.03.01	2018.02.28

---End of Test Report---