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Report No.: SHEM120500070204
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FCC MPE REPORT

Application No. : SHEM1205000702TX
Applicant: ANDON HEALTH Co., Ltd
FCC ID: ZRYHS5
IC ID: 9775A-HS5
Equipment Under Test (EUT):
Product Name: Wi-Fi Body Analysis Scale
Brand Name: Not supplied by the client
Model: HS5
Date of Issue: July. 12, 2012

The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.

E&E Section Head
SGS-CSTC(Shanghai) Co., Ltd.

E&E EMC Engineer
SGS-CSTC(Shanghai) Co., Ltd.

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1 Antenna Requirement

1.1 Standard requirement

15.203 requirement:

For intentional device. according to 15.203. an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

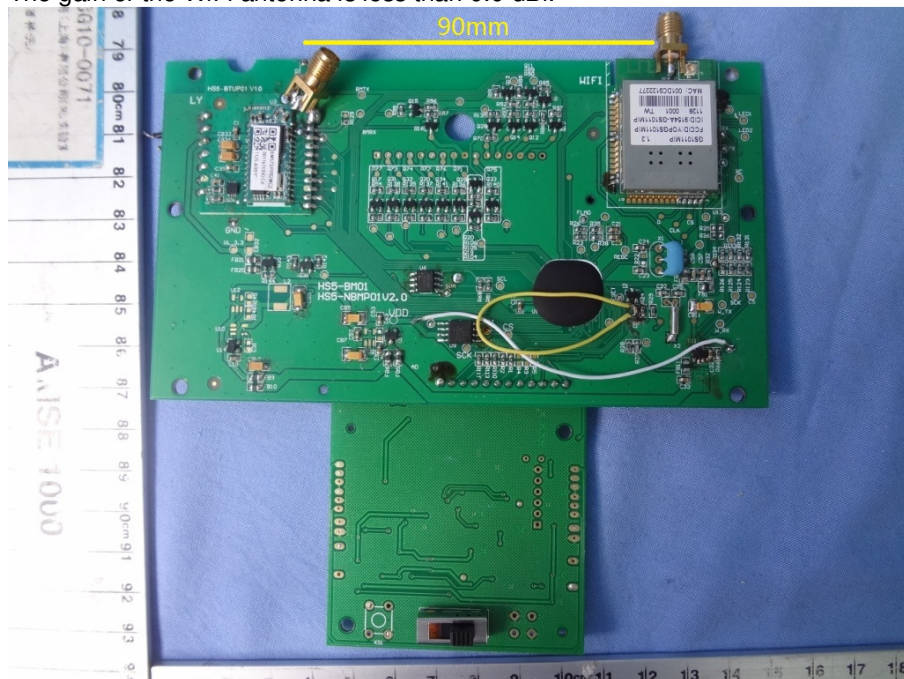
15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

1.2 EUT Antenna

The antenna is integrated on the main PCB and no consideration of replacement. The gain of the bluetooth antenna is less than 2.45 dBi.

The gain of the WiFi antenna is less than 0.0 dBi.



2 RF Exposure Compliance Requirement

2.1 Standard requirement

KDB 447498 3) b) ii) requirement:

SAR is not required for the following simultaneous transmission conditions

- i) When excluded by the procedures in KDB 616217 or KDB 648474.
- ii) When specific requirements for simultaneous transmission SAR evaluation have not been established for the host platform or device configuration:
 - (1) for the antennas that are located < 5 cm from persons, where
 - (a) The closest antenna separation distance is ≥ 5 cm for all simultaneous transmitting antennas within the host or device; and
 - (b) The sum of the 1-g SAR is < 1.6 W/kg for all simultaneous transmitting antennas that require stand-alone SAR evaluation or the SAR to peak location separation ratios are < 0.3 for all simultaneous transmitting antenna pairs; and
 - (c) The output power is $\leq 60/f(\text{GHz})$ mW for any simultaneous transmitting antenna(s) for which stand-alone SAR evaluation is not required.
 - (2) for the antennas that are located ≥ 5 cm from persons, contact the FCC Laboratory to determine if the simultaneous transmission SAR exclusion procedures for laptop/notebook/netbook computers in KDB 616217 and its supplement may be applied.

15.247(b)(4) requirement:

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section. if transmitting antennas of directional gain greater than 6 dBi are used. the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1). (b)(2). and (b)(3) of this section. as appropriate. by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TCB Exclusion List (7 July 2002)

Exposure category	low threshold	high threshold
General population	(60/fGHz) mW. $d < 2.5$ cm (120/fGHz) mW. $d \geq 2.5$ cm	(900/fGHz) mW. $d < 20$ cm
Occupational	(375/fGHz) mW. $d < 2.5$ cm (900/fGHz) mW. $d \geq 2.5$ cm	(2250/fGHz) mW. $d < 20$ cm

2.2 Output power Results:

For Bluetooth output power:

Test Channel	Modulation	Fundamental Frequency (MHz)	Reading Peak Power (dBm)	Cable Loss (dB)	Output Power	
					(dBm)	(mW)
Lowest	GFSK	2402	0.06	0.6	0.66	1.164
Middle	GFSK	2441	-0.24	0.6	0.36	1.086
Highest	GFSK	2480	-0.02	0.6	0.58	1.143
Lowest	$\pi/4$ DQPSK	2402	-0.03	0.6	0.57	1.140
Middle	$\pi/4$ DQPSK	2441	-0.26	0.6	0.34	1.081
Highest	$\pi/4$ DQPSK	2480	-0.01	0.6	0.59	1.146
Lowest	8DPSK	2402	0.35	0.6	0.95	1.245
Middle	8DPSK	2441	0.04	0.6	0.64	1.159
Highest	8DPSK	2480	0.27	0.6	0.87	1.222

Mark: the RF output power is from report SHEM120500070202. The test method please reference the report section 6.7.

For WiFi output power:

Test Channel	Frequency (MHz)	Modulation	Reading Peak Power (dBm)	Cable Loss (dB)	Output Peak Power (dBm)	Output Peak Power (mW)
Lowest	2412	DQPSK	9.39	0.5	9.89	9.75
Middle	2437	DQPSK	10.03	0.5	10.53	11.30
Highest	2462	DQPSK	10.82	0.5	11.32	13.55
Lowest	2412	CCK	10.91	0.5	11.41	13.84
Middle	2437	CCK	11.62	0.5	12.12	16.29
Highest	2462	CCK	12.08	0.5	12.58	18.11

Mark: the RF output power is from report SHEM120500070203. The test method please reference the report section 6.3.

2.3 EUT RF Exposure

The Max Conducted Peak Output Power for bluetooth is 0.95dBm(1.245mW) at 2402MHz.
And the antenna gain at 2402MHz is 2.45dBi PCB integrated in the actual use logarithmic terms
convert to numeric result is nearly 1.758;

According to the formula. calculate the EIRP test result:
 $EIRP = P \times G = 1.245 \text{ mW} \times 1.758 = 2.189 \text{ mW}$ ①

The Max Conducted Peak Output Power for WiFi is 12.58dBm(18.11mW) at 2462MHz.
And the antenna gain at 2462MHz is 0dBi PCB integrated in the actual use logarithmic terms
convert to numeric result is nearly 1;

According to the formula. calculate the EIRP test result:
 $EIRP = P \times G = 18.11 \text{ mW} \times 1 = 18.11 \text{ mW}$ ②

SAR requirement:

$$S = 60 / f(\text{GHz}) = 60 / 2.462 = 24.37 \text{ mW} \text{ ③};$$

$$\text{①} + \text{②} < \text{③}$$

So the SAR test for Bluetooth is not required.

End of Report