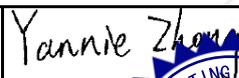


# EMF Exposure Report

Test Report No..... :	TCT230224E014	
Date of issue..... :	Mar. 02, 2023	
Testing laboratory .....	Shenzhen TCT Testing Technology Co., Ltd.	
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China	
Applicant's name..... :	Shenzhen Huafurui Technology Co., Ltd	
Address..... :	Unit 1401 &1402, 14/F, Jinqi Zhigu Mansion (No. 4 Building of Chongwen Garden), Crossing of the Liuxian Street and Tangling Road, Taoyuan Street, Nanshan District, Shenzhen, P.R. China	
Manufacturer's name ... :	Shenzhen Huafurui Technology Co., Ltd	
Address..... :	Unit 1401 &1402, 14/F, Jinqi Zhigu Mansion (No. 4 Building of Chongwen Garden), Crossing of the Liuxian Street and Tangling Road, Taoyuan Street, Nanshan District, Shenzhen, P.R. China	
Standard(s) .....	EN 50663:2017; EN 62479:2010	
Product Name..... :	SmartWatch	
Trade Mark .....	CUBOT	
Model/Type reference..... :	C20_Pro	
Rating(s)..... :	Rechargeable Li-ion Battery DC 3.7V	
Date of receipt of test item .....	Feb. 24, 2023	
Date (s) of performance of test..... :	Feb. 24, 2023 ~ Mar. 02, 2023	
Tested by (+signature) ... :	Yannie ZHONG	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	



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## 1. General Product Information

### 1.1. EUT description

Product Name.....:	SmartWatch
Model/Type reference.....:	C20_Pro
Hardware Version .....	MOY.M81006.02
Software Version .....	MOY-DGG5-2.0.3-DD06EB5F
Operation Frequency .....	2402MHz ~ 2480MHz
Modulation Technology .....	For BT: GFSK, $\pi/4$ -DQPSK, 8DPSK For BLE: GFSK
Antenna Type.....:	Internal Antenna
Antenna Gain.....:	0dBi
Rating(s).....:	Rechargeable Li-ion Battery DC 3.7V

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

### 1.2. Model(s) list

None.

## 2. General Information

### 2.1. Test environment and mode

Item	Normal condition
Temperature	+25°C
Voltage	DC 3.7V
Humidity	56%
Atmospheric Pressure:	1008 mbar
<b>Test Mode:</b>	
Bluetooth Mode:	Keep the EUT in transmitting mode with modulation.

### 2.2. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
/	/	/	/	/

**Note:**

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

**2.3. Test Instruments List**

Conducted Emission				
Name	Model No.	Manufacturer	Date of Cal.	Due Date
Spectrum Analyzer	N9020A	Agilent	Jul. 05, 2022	Jul. 04, 2023
Signal Generator	N5182A	Agilent	Jul. 04, 2022	Jul. 03, 2023
Signal Generator	E4421B	Agilent	Jul. 05, 2022	Jul. 04, 2023

### 3. Facilities and Accreditations

#### 3.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Registration No.: 645098

SHENZHEN TONGCE TESTING LAB

Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1

SHENZHEN TONGCE TESTING LAB

CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

#### 3.2. Location

Shenzhen TCT Testing Technology Co., Ltd.

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

TEL: +86-755-27673339

#### 3.3. Measurement Uncertainty

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Temperature	$\pm 0.1^\circ\text{C}$
2	Humidity	$\pm 1.0\%$
3	Spurious Emissions, Conducted	$\pm 3.10\text{ dB}$
4	All emissions, radiated(<1 GHz)	$\pm 4.56\text{ dB}$
5	All emissions, radiated(1 GHz - 18 GHz)	$\pm 4.22\text{ dB}$

## 4. Technical Requirements Specification

<b>Test Requirement:</b>	EN 50663		
<b>Limit:</b>	Exposure tier	Region of body	Pmax (mW)
	General public	Head and trunk	20
		Limbs	40
<b>Test Setup:</b>			
<b>Test Procedure</b>	<p><b>Step 1:</b> Use a fast power sensor suitable for 2,4 GHz and capable of 1 MS/s. Use the following settings:</p> <ul style="list-style-type: none"> <li>- Sample speed 1 MS/s or faster.</li> <li>- The samples must represent the power of the signal.</li> <li>- Measurement duration: For non-adaptive equipment: equal to the observation period defined in clauses 4.3.1.2.1 or 4.3.2.3.1. For adaptive equipment, the measurement duration shall be long enough to ensure a minimum number of bursts (at least 10) are captured.</li> </ul> <p><b>Note 1:</b> For adaptive equipment, to increase the measurement accuracy, a higher number of bursts may be used.</p> <p><b>Step 2:</b> For conducted measurements on devices with one transmit chain: -Connect the power sensor to the transmit port, sample the transmit signal and store the raw data. Use these stored samples in all following steps. For conducted measurements on devices with multiple transmit chains: -Connect one power sensor to each transmit port for a synchronous measurement on all transmits ports. -Trigger the power sensors so that they start sampling at the same time. Make sure the time difference between the samples of all sensors is less than half the time between two samples. -For each instant in time, sum the power of the individual samples of all ports and store them. Use these stored samples in all following steps.</p> <p><b>Step 3:</b></p>		

	<p>Find the start and stop times of each burst in the stored measurement samples.</p> <p><b>Note 2:</b> The start and stop times are defined as the points where the power is at least 20 dB below the RMS burst power calculated in step 4.</p> <p><b>Step 4:</b> Between the start and stop times of each individual burst calculate the RMS power over the burst. Save these Pburst values, as well as the start and stop times for each burst.</p> <p><b>Step 5:</b> The highest of all Pburst values (value "A" in dBm) will be used for maximum e.i.r.p. calculations.</p> <p><b>Step 6:</b> Add the (stated) antenna assembly gain "G" in dBi of the individual antenna. If applicable, add the additional beamforming gain "Y" in dB. If more than one antenna assembly is intended for this power setting, the maximum overall antenna gain (G or G + Y) shall be used. The RF Output Power (P) shall be calculated using the formula below: <math display="block">P = A + G + Y</math></p>
<b>Test Instrument:</b>	Refer to section 2.3 for details
<b>Test Mode:</b>	Refer to section 2.1 for details
<b>Test Results:</b>	PASS

**4.1.1. Test Data**

For BDR+EDR

Maximum Emissions Level				
Modulation	EIRP Level (dBm)	EIRP Level(mW)	Limit (mW)	Result
GFSK	6.78	4.76	20	PASS
Pi/4 DQPSK	2.35	1.72		
8DPSK	2.35	1.72		

For BLE(1M):

Maximum Emissions Level				
Frequency(MHz)	EIRP Level (dBm)	EIRP Level(mW)	Limit (mW)	Result
<b>GFSK Mode</b>				
2402	6.20	4.17	20	PASS
2440	1.81	1.52		
2480	2.15	1.64		

For BLE(2M):

Maximum Emissions Level				
Frequency(MHz)	EIRP Level (dBm)	EIRP Level(mW)	Limit (mW)	Result
<b>GFSK Mode</b>				
2402	6.26	4.23	20	PASS
2440	2.11	1.63		
2480	1.94	1.56		

**Note:** PASS means EUT complies with the essential requirements in the standard.

**\*\*\*\*\*END OF REPORT\*\*\*\*\***