TCT 通测检测 TESTING CENTRE TECHNOLOGY

TEST REPORT

FCC ID. ..... :	WOI-IG500BT	
Test Report No..... :	TCT230530E064	
Date of issue..... :	Jul. 03, 2023	
Testing laboratory ..... :	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name..... :	Champtek Incorporated	
Address..... :	1F, No.4, Alley 2, Shih-Wei Lane, Chung-Cheng Rd., Xindian Dist., New Taipei City, 231 Taiwan	
Manufacturer's name ... :	Champtek Incorporated	
Address..... :	1F, No.4, Alley 2, Shih-Wei Lane, Chung-Cheng Rd., Xindian Dist., New Taipei City, 231 Taiwan	
Standard(s) ..... :	KDB 447498 D01 General RF Exposure Guidance v06	
Product Name..... :	Gun-Type 2D Barcode Scanner	
Trade Mark ..... :	SCANTECH ID	
Model/Type reference..... :	IG500BT+RF	
Rating(s)..... :	Rechargeable Li-ion Battery DC 3.7V	
Date of receipt of test item ..... :	May 30, 2023	
Date (s) of performance of test..... :	May 30, 2023 - Jul. 03, 2023	
Tested by (+signature) ... :	Ronaldo LUO	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	

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Hotline: 400-6611-140 Tel: 86-755-27673339 Fax: 86-755-27673332 http://www.tct-lab.com

1. General Product Information

1.1. EUT description

Product Name.....:	Gun-Type 2D Barcode Scanner
Model/Type reference.....:	IG500BT+RF
Sample Number.....:	TCT230530E024-0101
Operation Frequency.....:	For BT/BLE: 2402MHz~2480MHz For 2.4G TX: 2410MHz~2470MHz
Modulation Type.....:	For BT: GFSK, π/4-DQPSK, 8DPSK For BLE: GFSK For 2.4G TX: GFSK
Antenna Type.....:	For BT/BLE: PCB Antenna For 2.4G TX: Spring Antenna
Antenna Gain.....:	For BT/BLE: 0.55dBi For 2.4G TX: 0.53dBi
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.

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2. General Information

2.1. Test environment and mode

Item	Normal condition
Temperature	+25ºC
Voltage	DC 3.7V
Humidity	56%
Atmospheric Pressure:	1008 mbar
Test Mode:	
Transmitting mode:	Keep the EUT in continuous transmitting by select channel

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.*
3. *For conducted measurements (Output Power, 20dB Occupied Bandwidth, Carrier Frequencies Separation, Hopping Channel Number, Dwell Time, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.*

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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 TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4. Test Results and Measurement Data

According to KDB 447498 D01 General RF Exposure Guidance v06, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the commission's guidance.

The 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(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
- When the minimum test separation distance is < 5 mm, a distance of 5 mm according is applied to determine SAR test exclusion.
- The result is rounded to one decimal place for comparison

- BDR+EDR:

Channel	Frequency (GHz)	Max. Power (dBm)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 39	2.441	1.57	1±1	2	1.58	5	0.50	3.0

- BLE:

Channel	Frequency (GHz)	Max. Power (dBm)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 19	2.440	2.07	2±1	3	2.00	5	0.62	3.0

2.4G TX:

The maximum peak radiation emission for the EUT is 91.52dBuV/m at 3 m with frequency 2410 MHz, EIRP[dBm] = E[dBμV/m] + 20 log (d[m]) − 104.77 =-3.71dBm.

Channel	Frequency (GHz)	Max. Power (dBm)	Tune up Power (dBm)	Max. Tune up Power (dBm)	Max. Tune up Power (mW)	Test distance (mm)	Result	exclusion thresholds for 1-g SAR
CH 0	2.410	-3.71	-4±1	-3	0.50	5	0.16	3.0

Note: BT and 2.4GTX unable to transmit simultaneously.

Result:

Base on the calculation value, No SAR measurement is required.

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

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