

TEST REPORT						
FCC ID:	2BFEP-DBCAM5					
Test Report No::	TCT241010E045					
Date of issue::	Oct. 23, 2024					
Testing laboratory:	SHENZHEN TONGCE TESTING	G 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::	CONVERGE BEAUTY LIMITED					
Address::	FLAT/RM C 22/F FORD GLORY STREET LAI CHI KOK KOWLO					
Manufacturer's name:	CONVERGE BEAUTY LIMITED	(3)				
Address::	FLAT/RM C 22/F FORD GLORY PLAZA 37 WING HONG STREET LAI CHI KOK KOWLOON HONG KONG, China					
Standard(s):	FCC CFR Title 47 Part 1.1307					
Product Name::	Doorbell Camera					
Trade Mark:	N/A	Ch				
Model/Type reference:	G50, G20, G30, G60, G70, G80, T70, T80, T90, P60, P70, P90	, G90, M60, M70, M80, M90, T60				
Rating(s)::	Rechargeable Li-ion Battery DC	3.7V				
Date of receipt of test item:	Oct. 10, 2024					
Date (s) of performance of test:	Oct. 10, 2024 ~ Oct. 23, 2024					
Tested by (+signature):	Onnado YE	Onrado MAGCE				
Check by (+signature):	Beryl ZHAO	Boyl 2 TCT)				
Approved by (+signature):	e): Tomsin					

General disclaimer:

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1. General Product Information

1.1. EUT description

Product Name:	Doorbell Camera
Model/Type reference:	G50
Sample Number:	TCT241010E032-0101
Operation Frequency:	For BLE: 2402MHz~2480MHz For WIFI: 2412MHz~2462MHz (802.11b/802.11g/802.11n(HT20)) For SRD: 433.92MHz
Modulation Type:	For BLE: GFSK For WIFI: 802.11b: Direct Sequence Spread Spectrum (DSSS) 802.11g/802.11n: Orthogonal Frequency Division Multiplexing(OFDM) For SRD: FSK
Antenna Type:	For BLE/WIFI: Internal Antenna For SRD: Spring Antenna
Antenna Gain:	For BLE/WIFI: 2.99dBi For SRD: 0.84dBi
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

No.	Model No.	Tested with
1	G50	
Other models	G20, G30, G60, G70, G80, G90, M60, M70, M80, M90, T60, T70, T80, T90, P60, P70, P90	

Note: G50 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of G50 can represent the remaining models.





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			
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	
/			1	1	

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

SHENZHEN TONGCE TESTING LAB

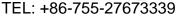
CAB identifier: CN0031

The testing lab has been registered by Innovation, Science and Economic Development 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







4. Test Results and Measurement Data

According to §1.1307(b), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Remark: 1) **For BLE:** The maximum output power for antenna is 0.48dBm (1.12mW) at 2480MHz, 2.99dBi antenna gain(with 1.99 numeric antenna gain.)

For WIFI: The maximum output power for antenna is 12.05dBm(16.03mW) at 2437MHz, 2.99dBi antenna gain(with 1.99 numeric antenna gain.)

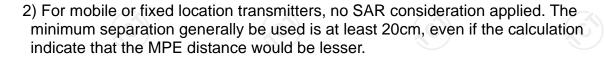
For SRD: The maximum output power for antenna is -30.52dBm (9*10⁻⁴mW) at 433.92MHz, 0.84dBi antenna gain(with 1.21 numeric antenna gain.)

Note: E[dBµV/m]=69.41 computational formula

 $EIRP[dBm] = E[dB\mu V/m] + 20 log (d[m]) - 104.77;$

Conducted Power = EIRP-4.7;

Where E is the electric field strength in V/m; d is the measurement distance in meters (m)



Calculation

Given

$$E = \sqrt{\frac{30 \times P \times G}{d}} \quad \& \quad S = \frac{E^2}{3770}$$

Where

E = Field Strength in Volts / meter

P = Power in Watts

G=Numeric antenna gain

d=Distance in meters

S=Power Density in milliwatts / square centimeter

Substituting the MPE safe distance using d=20cm into above equation.

Yields: S=0.000199*P*G

Mode	Power (dBm)	Power (mW)	numeric antenna gain	Power density (mW/cm²)	Limit (mW/cm²)	Result
BLE	0.48	1.12	1.99	0.000444	1.00	
WIFI	12.05	16.03	1.99	0.006348	1.00	PASS
SRD	-30.52	9*10 ⁻⁴	1.21	2*10 ⁻⁷	0.29	

Note: BLE/WIFI/SRD Can be transmitted simultaneously, MPE calculate is as follow, MPE= $0.000444/1.0+0.006348/1.0+2*10^{-7}/0.29=0.006793<1$.

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