

# RF Exposure Evaluation Report

**Product** : Smart Dumbbell  
**Trade mark** : N/A  
**Model/Type reference** : S68  
**Serial Number** : N/A  
**Report Number** : EED32Q80931003  
**FCC ID** : 2BKGR-S68  
**Date of Issue** : Sep. 06, 2024  
**Test Standards** : 47 CFR Part 1.1307  
47 CFR Part 1.1310  
47 CFR Part 2.1093  
KDB 447498 D04 Interim General RF  
Exposure Guidance v01  
**Test result** : PASS

Prepared for:

**SHENZHEN JULU SMART TECH COMPANY LIMITED**  
Room 1402, Building A1, No.2533 Guanguang Road, Fenghuang Street.  
Guangming District, Shenzhen

Prepared by:

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Date:

Sep. 06, 2024



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## 1 Version

Version No.	Date	Description
00	Sep. 06, 2024	Original

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### 3 General Information

#### 3.1 Client Information

Applicant:	SHENZHEN JULU SMART TECH COMPANY LIMITED
Address of Applicant:	Room 1402, Building A1, No.2533 GuanguangRoad, Fenghuang Street. Guangming District, Shenzhen
Manufacturer:	DONGGUAN HOWELL TECHNOLOGY COMPANY LIMITED
Address of Manufacturer:	Building 1, Huaweikegu Industrial Park, DalingshanTown, Dongguan, Guangdong, China 523820
Factory:	DONGGUAN HOWELL TECHNOLOGY COMPANY LIMITED
Address of Factory:	Building 1, Huaweikegu Industrial Park, DalingshanTown, Dongguan, Guangdong, China 523820

#### 3.2 General Description of EUT

Product Name:	Smart Dumbbell
Model No.(EUT):	S68
Trade Mark:	N/A

#### 3.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Test Power Grade:	Default
Test Software of EUT:	FCC_assist_1.0.2.2.exe
Antenna Type:	PCB Antenna
Antenna Gain:	-9.35dBi
Power Supply:	DC 3.7V
Sample Received Date:	Jul. 23, 2024
Sample tested Date:	Jul. 23, 2024 to Jul. 25, 2024
Remark:	Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

### 3.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

### 3.5 Deviation from Standards

None.

### 3.6 Abnormalities from Standard Conditions

None.

### 3.7 Other Information Requested by the Customer

None.

## 4 SAR Evaluation

### 4.1 RF Exposure Compliance Requirement

#### 4.1.1 Limits

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold  $P_{th}$  (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive).  $P_{th}$  is given by Formula

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and  $f$  is in GHz,  $d$  is the separation distance (cm), and  $ERP_{20 \text{ cm}}$  is per Formula (B.1).

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

The 1 mW Blanket Exemption of § 1.1307(b)(3)(i)(A) applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power of no more than 1 mW, regardless of separation distance.

#### 4.1.2 Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

### 4.1.3 EUT RF Exposure Evaluation

For Stand alone:

For Bluetooth LE:

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2480	1.58	-9.35	-9.92	0.102	2.717	PASS

For Bluetooth Classic:

Frequency (MHz)	Max. Conducted Output power (dBm)	Antenna Gain (dBi)	ERP (dBm)	ERP (mW)	Limit (mW)	Result
2480	2.89	-9.35	-8.61	0.138	2.717	PASS

**Note:**

- ① EIRP=conducted power+antenna gain;
- ② ERP=EIRP-2.15;
- ③ EIRP(dBm) = Field strength of the fundamental signal(dBuV/m@3m) – 95.23;
- ④ ERP(mW) =  $10^{(ERP \text{ (dBm)}/10)}$ ;
- ⑤ The estimation distance is 0.5cm;
- ⑥ The test data please refer to the report of EED32Q80931001 and EED32Q80931002, only the worst case data was recorded

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

\*\*\* End of Report \*\*\*