



**中认信通**

CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)



# RF EXPOSURE EVALUATION

**Applicant: D-ROBOTICS HOLDING LIMITED**

**Address:** SUITE 603, 6/F LAWS COMM PLAZA 788 CHEUNG SHA WAN RD  
KLN HONG KONG, CHINA

**FCC ID: 2BGUG-RDKX3K**

**Product Name: RDK X3**

**Standard(s): 47 CFR §1.1307, 47 CFR §2.1091  
447498 D04 Interim General RF Exposure Guidance  
v01**

The above device has been tested and found compliant with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

**Report Number: 2403T78338E-RF-00F**

**Date Of Issue: 2024/7/18**

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Title: RF Engineer

**Approved By: Sun Zhong**

Title: Manager

**Test Laboratory: China Certification ICT Co., Ltd (Dongguan)**

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## Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

## Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol “▲”. Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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## DOCUMENT REVISION HISTORY

| Revision Number | Report Number      | Description of Revision | Date of Revision |
|-----------------|--------------------|-------------------------|------------------|
| 1.0             | 2403T78338E-RF-00F | Original Report         | 2024/7/18        |

## 1. GENERAL INFORMATION

### 1.1 Product Description for Equipment under Test (EUT)

|                             |                        |
|-----------------------------|------------------------|
| <b>EUT Name:</b>            | RDK X3                 |
| <b>EUT Model:</b>           | RDK X3 4G              |
| <b>Multiple Model:</b>      | RDK X3 2G              |
| <b>Rated Input Voltage:</b> | DC 5V from Type-C port |
| <b>EUT Received Date:</b>   | 2024/5/24              |
| <b>EUT Received Status:</b> | Good                   |

Note: The multiple models are electrically identical with the test model except internal storage. Please refer to the declaration letter for more detail, which was provided by manufacturer.

## 2. RF EXPOSURE EVALUATION

### 2.1 Applicable Standard

According to §1.1307(b)(3)(i)

(C) Or using Table 1 and the minimum separation distance (R in meters) from the body of a nearby person for the frequency (f in MHz) at which the source operates, the ERP (watts) is no more than the calculated value prescribed for that frequency. For the exemption in Table 1 to apply, R must be at least  $\lambda/2\pi$ , where  $\lambda$  is the free-space operating wavelength in meters. If the ERP of a single RF source is not easily obtained, then the available maximum time-averaged power may be used in lieu of ERP if the physical dimensions of the radiating structure(s) do not exceed the electrical length of  $\lambda/4$  or if the antenna gain is less than that of a half-wave dipole (1.64 linear value).

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

| RF Source frequency (MHz) | Threshold ERP (watts) |
|---------------------------|-----------------------|
| 0.3-1.34                  | $1,920 R^2$ .         |
| 1.34-30                   | $3,450 R^2/f^2$ .     |
| 30-300                    | $3.83 R^2$ .          |
| 300-1,500                 | $0.0128 R^2 f$ .      |
| 1,500-100,000             | $19.2 R^2$ .          |

### 2.2 Measurement Result

| Radio      | Frequency (MHz) | $\lambda/2\pi$ (mm) | Distance (mm) | Exemption ERP (mW) | Maximum Conducted Power including Tune-up Tolerance (dBm) | Antenna Gain (dBi) | ERP   |        |
|------------|-----------------|---------------------|---------------|--------------------|---|--------------------|-------|--------|
|            |                 |                     |               |                    |   |                    | dBm   | mW     |
| BDR/EDR    | 2402-2480       | 19.88               | 200           | 768                | 7   | 2.76               | 7.61  | 5.77   |
| BLE        | 2402-2480       | 19.88               | 200           | 768                | 7   | 2.76               | 7.61  | 5.77   |
| 2.4G Wi-Fi | 2412-2462       | 19.80               | 200           | 768                | 22  | 2.76               | 22.61 | 182.39 |
| 5.2G Wi-Fi | 5180-5240       | 9.22                | 200           | 768                | 14  | 2.33               | 14.18 | 26.18  |
| 5.8G Wi-Fi | 5745-5825       | 8.31                | 200           | 768                | 14  | 2.24               | 14.09 | 25.64  |

Note:

1. The Maximum Conducted Power including Tune-up Tolerance was declared by manufacturer.
2. The Bluetooth and Wi-Fi cannot transmit simultaneously.

**Result: The device compliant the MPE-Based Exemption at 20cm distances.**

### **3. EUT PHOTOGRAPHS**

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Please refer to the attachment 2403T78338E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and  
2403T78338E-RF-INP EUT INTERNAL PHOTOGRAPHS

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