



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-RDKX3M

Product Name: RDK X3 Module

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: 2403T78343E-RF-00F

Date Of Issue: 2024/7/10

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Title: RF Engineer

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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	2403T78343E-RF-00F	Original Report	2024/7/10

1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Name:	RDK X3 Module
EUT Model:	RDK X3 MD 104064
Multiple Model:	RDK X3 MD 102032, RDK X3 MD 104032, RDK X3 MD 102016, RDK X3 MD 102000
Rated Input Voltage:	DC 5V
Serial Number:	2M3N-1
EUT Received Date:	2024/5/27
EUT Received Status:	Good

Note: The multiple models are electrically identical with the test model. 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 λ 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	8	2.76	8.61	7.26
BLE	2402-2480	19.88	200	768	6	2.76	6.61	4.58
2.4G Wi-Fi	2412-2462	19.80	200	768	23	2.76	23.61	229.61
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	1.56	13.41	21.93

Note:

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

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

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