



RF EXPOSURE EVALUATION

Applicant: Dnake (Xiamen) Intelligent Technology Co., Ltd.

Address: No.8, Haijing North 2nd Road, Haicang District, Xiamen, Fujian

361026, China

FCC ID: 2ATT5-C112A

Product Name: Door Station

Standard(s): 47 CFR §1.1310, 47 CFR §2.1091

447498 D01 General RF Exposure Guidance v06

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: CR231164424-00E

Date Of Issue: 2023/12/27

Reviewed By: Julie Tan Title: RF Engineer

Approved By: Sun Zhong

Julize Tan Sun 2hong Title: Manager

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

No. 113, Pingkang Road, Dalang Town, Dongguan,

Guangdong, China Tel: +86-769-82016888

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.

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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.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

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 "\(^{\text{a}}\)". 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	CR231164424-00E	Original Report	2023/12/27	

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1.1 Applicable Standard

According to subpart §1.1310, 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 guidelines.

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Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure								
Frequency Range (MHz)			Magnetic Field Power Density Strength (A/m) (Mw/cm²)					
0.3-1.34	614	1.63	*(100)	30				
1.34–30	824/f	2.19/f	*(180/f²)	30				
30–300	27.5	0.073	0.2	30				
300–1500	/	/	f/1500	30				
1500-100,000	/	/	1.0	30				

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

1.2 Calculation formula:

For Power Density:

Prediction of power density at the distance of the applicable MPE limit

 $S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_{i} \frac{S_{i}}{S_{Limit,i}} \le 1$$

1.3 Calculated Data:

Power Density Calculation:

Operation Modes	Frequency (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm²)
		(dBi)	(numeric)	(dBm)	(mW)			
2.4G Wifi	2412-2462	2.09	1.62	22.5	177.83	20.00	0.0573	1.0
5G Wifi	5150-5250	2.62	1.83	7	5.01	20.00	0.0018	1.0
JG WIII	5725-5850	2.0	1.58	13.5	22.39	20.00	0.0071	1.0

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Note:

The Above Parameters were provided by the manufacturer.

Operation Modes	Frequency (MHz)	Antenna Gain		Conducted output power including Tune-up Tolerance		Evaluation Distance (cm)	Power Density (mW/cm²)	MPE Limit (mW/cm²)
		(dBi)	(numeric)	(dBm)	(mW)			
NFC	13.56	/	/	-26.68	0.002	20.00	<<0.0001	0.98

Note:

- 1. The Above Parameters were provided by the manufacturer.
- 2. *NFC field strength is $68.52B\mu\text{V/m}$ @ 3m = -26.68 dBm(0.002mW) EIRP. That equal to antenna gain is 0dBi and used the EIRP value as conducted power.

Simultaneous transmission:

2.4G Wifi can't transmission simultaneously with 5G Wifi ,butNFC, 2.4G Wifi/5G Wifi can transmission simultaneously:

$$\sum_{i} \frac{S_{i}}{S_{Limit,i}} \le 1$$

- $= S_{2.4G~Wifi}/S_{limit-~2.4G~Wifi} + S_{NFC}/S_{limit-~NFC}$
- =0.0537/1+0.0001/0.98
- =0.054

< 1.0

Result: The device meet FCC MPE at 20 cm distance

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