



Test Report

Report No.: RKEYS250903721

Date: Oct..09, 2025

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RF EXPOSURE EVALUATION REPORT

for

Product: card reader

Model: CR01

FCC ID:2BCUQ-CR01

Report No.: RKEYS250903721

Issued for

Fanvil Link Technology Co.,LTD

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1. TEST CERTIFICATION

Product: card reader

Trade mark: 

FCC ID: 2BCUQ-CR01

Model: CR01

Model List(s): /

Applicant : Fanvil Link Technology Co.,LTD

Address: 13th Floor, Building 2, Runzhi R&D Center, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

Manufacturer: Fanvil Link Technology Co.,LTD

Address: 13th Floor, Building 2, Runzhi R&D Center, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

Applicable Standards: CFR 47, FCC Part 2.1091

The above equipment has been tested by Guangdong KEYS Testing Technology Co., Ltd. and found compliance with the requirements in the technical standards mentioned above. The test results presented in this report only relate to the product/system tested. The other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.



Prepared by:

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Approved by:

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2. GENERAL INFORMATION

2.1. General Description of E.U.T.

Product Name	card reader
Model Name	CR01
Specification	NFC
Operating frequency	13.56MHz
Number of Channel	1
Antenna installation	PCB antenna
Type of Modulation	ASK

3. RF EXPOSURE EVALUATION

3.1. Limits

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

3.2. Calculation method

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:

S: Power density(W/m²)

P: power input to antenna (Watt)

G: is the antenna gain relative to an isotropic antenna;

R: is the distance from observation point to the antenna

Note:

1) P (Watts)=(10[^] (dBm /10))/1000

2) G (Antenna gain in numeric) = 10[^] (Antenna gain in dBi /10)

3) π=3.142

3.3. Tune-up Result

Frequency (MHz)	Max Field strength(dBuV/m)	EIRP (dBm)	Maximum Tune up Power (dBm)
13.56	50.42	-44.83	-44 ± 1
Note: $E = EIRP - 20 \log D + 104.8$ E=electric field strength in dBuV/m EIRP=equivalent isotropic radiated power in dBm D=specified measurement distance in meters(3m)			

3.4. Evaluation Result

The maximum power density at a distance of 0.2 m is shown as below:

Mode	Maximum Tune up Power (dBm)	Antenna Gain(dBi)	Maximum E.I.R.P. (W)	Power density (W/m ²)	Power density Limit (W/m ²)	Result
RFID	-43	0	0.00000005	0.0000001	1	PASS

3.5. Conclusion

According to 47 CFR 2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

****End of Report****