

RF Exposure Evaluation Report

Report No.: JYTSZ-R12-2500199

Applicant: Remote Tech LLC

Address of Applicant: 310 ALDER RD, DOVER DE 19904 USA

Equipment Under Test (EUT)

Product Name: Smart Key

Model No.: RT-NYO2208

Trade mark: N/A

FCC ID: 2AOKM-HK40

Applicable standards: KDB 447498 D04 Interim General RF Exposure Guidance v01

Date of sample receipt: 28 Feb., 2025

Date of Test: 01 Mar., to 28 Mar., 2025

Date of report issue: 31 Mar., 2025

Test Result: PASS

Project by: _____

Date: 31 Mar., 2025

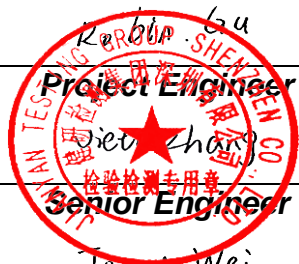
Reviewed by: _____

Date: 31 Mar., 2025

Approved by: _____

Date: 31 Mar., 2025

Manager



This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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1 Version

Version No.	Date	Description
00	31Mar., 2025	Original

2 Contents

	Page
Cover Page	1
1 Version	2
2 Contents	3
3 General Information	4
3.1 Client Information	4
3.2 General Description of E.U.T.	4
3.3 Operating Modes	5
3.4 Additions to, Deviations, or Exclusions from the Method	5
3.5 Laboratory Facility	5
3.6 Laboratory Location	5
4 Technical Requirements Specification	6
4.1 Limits	6
4.2 Result	6
4.3 Conclusion	6

3 General Information

3.1 Client Information

Applicant:	Remote Tech LLC
Address:	310 ALDER RD, DOVER DE 19904 USA
Manufacturer:	Remote Tech LLC
Address:	310 ALDER RD, DOVER DE 19904 USA

3.2 General Description of E.U.T.

Product Name:	Smart Key
Model No.:	RT-NYO2208
Operation Frequency:	433.92 MHz
Modulation technology:	FSK
Antenna Type:	PCB Antenna
Antenna gain:	-12.88 dBi (declare by Applicant)
Power Supply:	DC 3V
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

3.3 Operating Modes

Operating mode	Detail description
Tx mode	Keep the EUT in continuously transmitting mode

3.4 Additions to, Deviations, or Exclusions from the Method

No

3.5 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

3.6 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website:<http://jyt.lets.com>

4 Technical Requirements Specification

4.1 Limits

According to KDB 447498 D04 Interim General RF Exposure Guidance v01 RF Exposure Procedures and Equipment Authorization Policies for Mobile and Portable Devices.

RF Exposure Test Exemptions for Single Source

B.4 SAR-based Exemption

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 (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

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).

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

4.2 Result

According to the calculation formula of power:

$EIRP = P \cdot G = (E \cdot d)^2 / 30$, So $P = (E \cdot d)^2 / (30 \cdot G)$.

Where:

P = transmitter output power in watts,

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator (unitless),

E = electric field strength in V/m, --- $10^{((dBuV/m)/20)}/10^6$,

d = measurement distance in meters (m)---3m,

Thus, Worse case below:

Frequency (MHz)	ERP _{20cm} (mW)	Distance (cm)	P _{th} (mW)
433.92	885.20	0.5	23.17

Frequency (MHz)	Maximum field strength@3m (dBuV/m)	Maximum field strength@3m (V/m)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (m)	Output power (mW)	P _{th} (mW)
433.92	87.45	0.0236	-12.88	0.05	3	3.24	23.17

4.3 Conclusion

Cuz 3.24mW < 23.17mW, The device is exempt from the SAR test and satisfies RF exposure evaluation.

-----End of report-----