

RF Exposure Evaluation Report

Applicant: Remote Tech LLC
Address of Applicant: 310 ALDER RD, DOVER DE 19904 USA
Equipment Under Test (EUT)
Product Name: Keyless Transmitter
Model No.: RT-FD4-3BB, RT-FD4-4BB
FCC ID: 2AOKM-FD4B
Applicable standards: FCC CFR Title 47 Part 2J (§2.1093)
Date of sample receipt: 19 Apr., 2022
Date of Test: 20 Apr., to 10 May, 2022
Date of report issue: 11 May, 2022
Test Result: PASS

Tested by:
Test Engineer**Date:**

11 May, 2022

Reviewed by:
Project Engineer**Date:**

11 May, 2022

Approved by:
Manager**Date:**

11 May, 2022

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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2 Version

Version No.	Date	Description
00	11 May, 2022	Original

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4 General Information

4.1 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

4.2 General Description of E.U.T.

Product Name:	Keyless Transmitter
Model No.:	RT-FD4-3BB, RT-FD4-4BB
Operation Frequency:	315 MHz
Modulation technology:	ASK
Antenna Type:	PCB Antenna
Antenna gain:	0 dBi
Power Supply:	DC 3V (CR2032 battery)
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

4.3 Operating Modes

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

4.4 Additions to, Deviations, or Exclusions from the Method

No

4.5 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>

4.6 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>

5 Technical Requirements Specification in FCC CFR Title 47 Part 2.1093

5.1 Limits

According to 447498 D01 General RF Exposure Guidance v06 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

5.2 Result

According to the calculation formula of power:

$$\text{EIRP} = P \cdot G = (E \cdot d)^2 / 30$$

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, --- $10^{((\text{dBuV/m})/20)/10^6}$,

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

So,

$$P = (E \cdot d)^2 / 30 \cdot G$$

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)
315	73.38	0.0047	0	1	3	0.0065

Thus, Worse case below:

Frequency (MHz)	Max Output power (mW)	Min test distance (mm)	Result	Limit of 10-g SAR test exclusion thresholds
315	0.0065	5	0.0007	7.5

5.3 Conclusion

Cuz $0.0007 < 7.5$ for 10-g SAR, the device is exempt from the SAR test and satisfies RF exposure evaluation.

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