

RF Exposure Report

Report No.: FCC_RF Exposure_SL21031201-SMK-001 Rev_2.0-R1S

FCC ID: 2AW3A-1WWG20R1SKFB

Test Model: R1S

Series Model: N/A

Received Date: 04/23/2021

Test Date: 04/23/2021-08/03/2021

Issued Date: 08/03/2021

Applicant: Rivian Automotive, LLC

Address: 13250 North Haggerty Rd. Plymouth, Michigan 48170

Manufacturer: SMK Manufacturing, Inc

Address: Calle Aguila Azteca #19308, Nave No.B Planta 2, Col. Bajamaq El Aguila
Tijuana B.C. Mexico C.P. 22215

Issued By: Bureau Veritas Consumer Products Services, Inc.

Lab Address: 775 Montague Expressway, Milpitas, CA 95035

Test Location (1): 775 Montague Expressway, Milpitas, CA 95035

**FCC Registration /
Designation Number:** 540430



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Release Control Record

Issue No.	Description	Date Issued
FCC_RF Exposure_SL21031201-SMK-001 Rev_2.0-R1S	Original Release	08/03/2021

1 Certificate of Conformity

Product: Rivian R1 Key Fob

Brand: Rivian

Test Model: R1S

Series Model: N/A

Sample Status: Engineering sample

Applicant: Rivian Automotive, LLC


Test Date: 04/23/2021-08/03/2021

Standards: FCC Part 2 (Section 2.1093)

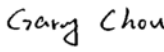
KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

The above equipment has been tested by **Bureau Veritas Consumer Products Services, Inc., Milpitas Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : 
Said Abdelwafi/ Test Engineer

Date: 08/03/2021

Approved by : 
Gary Chou / Engineer Reviewer

Date: 08/03/2021

2 Evaluation Result

Following FCC KDB 447498 D01 "General SAR test exclusion guidance"

The corresponding SAR Exclusion Threshold condition, listed below:

- 1) 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:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$$

$$\leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
 - $f(\text{GHz})$ 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. The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
- 2) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:
 - a) [Threshold at 50 mm in step 1) + (test separation distance - 50mm) · (f(MHz)/150)] mW, at 100MHz to 1500 MHz
 - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 6 GHz
- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
 - a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by $[1 + \log(100/f(\text{MHz}))]$ for test separation distances > 50 mm and < 200 mm.
 - b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$ for test separation distances ≤ 50 mm.
 - c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

3 SAR Test Exclusion Thresholds

Mode	Frequency (MHz)	Max. Power (mW)	Tune-Up Tolerance	Min. test separation distance (mm)	SAR test exclusion calculation value	1-g SAR test exclusion thresholds	Result
DATA RATE 2Mbps	2402	2.14	±1dB	5	0.8362	3	Pass

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The antenna type is SMT antenna with 3.7 dBi gain.
3. Calculate SAR test exclusion thresholds from condition “1” formulas.

4 Conclusion

The SAR evaluation is not required.

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