

RF Exposure Report

Report No.: FCC_SL21032601-RIVIAN-007_MPE_NDH Rev 1.0

Product(PMN): NFC Door Handle

Test Model: NDH 1.0

HW Version: D

SW Version: 2.27

Series Model: N/A

FCC ID: 2AW3A-1NAG20NDH

Received Date: 04/23/2021

Test Date: 04/23/2021-04/27/2021

Issued Date: 08/06/2021

Applicant: RIVIAN

Address: 2708 Orchard Pkwy Ste. 10 San Jose, CA 95134

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_ SL21032601-RIVIAN-007_MPE	Original Release	06/10/2021
FCC_ SL21032601-RIVIAN-007_MPE Rev_1.0	Change model name description per client review	06/23/2021
FCC_ SL21032601-RIVIAN-007_MPE_NDH	Update per review	07/08/2021
FCC_ SL21032601-RIVIAN-007_MPE_NDH Rev 1.0	Update the result	08/06/2021

1 Certificate of Conformity

Product(PMN): NFC Door Handle

Brand: RIVIAN

Test Model: NDH 1.0

HW Version: D

SW Version: 2.27

Series Model: N/A

Sample Status: Engineering sample

Applicant: RIVIAN

Test Date: 04/23/2021-04/27/2021

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 :

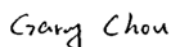


Said Abdelwafi / Test Engineer

Date:

08/06/2021

Approved by :



Gary Chou/ Engineer Reviewer

Date:

08/06/2021

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

Model	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
NDH	13.56	0.00001033	±1dB	5	0.000000303	3	Pass

Power Level in EIRP(dBm) = E (dBμV/m) + 20log(D) - 104.8; where D is the measurement distance in meters.

$$45.4 + 20\log(3) - 104.8 = -49.857$$

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The antenna type is PCB Loop antenna.

4 Conclusion

Since Source-base time average power is below SAR test exclusion power thresholds, the SAR evaluation is not required.

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