

RF Exposure Report

Report No.: MFBDBO-WTW-P25100521

FCC ID: G7H-PARARDR005

Test Model: PARARDR005

Series Model: PARARDR005-2

Received Date: 2025/10/27

Test Date: 2025/11/21 ~ 2025/12/17

Issued Date: 2025/12/24

Applicant: Semnox Solutions Private Limited

Address: No.4-1-145, 3rd Floor, Punja Building Annexe M G Road, Lalbagh,
Mangalore, India - 575003

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

FCC Registration /
Designation Number: 198487 / TW2021



This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 RF Exposure	5
2.1 Limits for Maximum Permissible Exposure (MPE).....	5
2.1 MPE Calculation Formula	5
2.2 Classification	5
3 Calculation Result of Maximum Conducted Power	6
4 Conclusion	6

Release Control Record

Issue No.	Description	Date Issued
MFBDBO-WTW-P25100521	Original release.	2025/12/24

1 Certificate of Conformity

Product: XCESS-DUAL

Brand: SEMNOX

Test Model: PARARDR005

Series Model: PARARDR005-2

Sample Status: Engineering sample

Applicant: Semnox Solutions Private Limited

Test Date: 2025/11/21 ~ 2025/12/17

Standards: FCC Part 2 (Section 2.1091)

References Test Guidance: KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan 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 RF characteristics under the conditions specified in this report.

Prepared by :

Annie Chang
Annie Chang / Senior Specialist

, Date:

2025/12/24

Approved by :

Jeremy Lin
Jeremy Lin / Project Engineer

, Date:

2025/12/24

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
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

f = Frequency in MHz ; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

3 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Average Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	15.46	4.07	20	0.0179	1

Note:

Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

Frequency Band (MHz)	Max Power (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
13.56	-53.72	20	0.0000000000000374	0.978

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. Calculate the EIRP of NFC from the radiated field strength:

$$\text{EIRP (dBm)} = \text{Radiated field strength (dBuV/m)} + 20 \times \text{Log(d)} - 104.77$$

d is the measurement distance, in 3 m.
Radiated Field strength conversion 30m to 3m : $21.5\text{dBuV/m} + 40\log(30/3) = 61.5\text{dBuV/m}$
 $\text{EIRP} = 57.4 + 20 \times \text{Log}(3) - 104.77 = -53.72 \text{ dBm}$
Maximum output power used for calculation is the max tune-up including tolerance.

4 Conclusion

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

--- END ---