



RF EXPOSURE

REPORT

FOR

Product Name: Locomotive driving recorder

Model : S3

Series : S3PRO, S3PLUS

Trade Name : Global Eagle

Issued to

**NAVSTAR ELECTRONICS CO., LTD.
5F.,-5 No.16, LN.609, SEC.5, CHONGXIN Rd., SANCHONG Dist., NEW Taipei City
241, Taiwan**

Issued by

**Global Certification Corp.
No.146, Sec. 2, Xiangzhang Rd., Xizhi Dist., New Taipei City 221,
Taiwan (R.O.C.)**

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Revision History

Revision	No.	Report Number	Issue Date	Description	Author/ Revised by
1.	3N2105	FR2-3N2105a	Apr.01, 2025	Original Report	Judy



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1. GENERAL INFORMATION

Applicant : NAVSTAR ELECTRONICS CO., LTD.

Address : 5F.,-5 No.16, LN.609, SEC.5, CHONGXIN Rd., SANCHONG Dist., NEW Taipei City 241, Taiwan

Manufacturer : NAVSTAR ELECTRONICS CO., LTD.

Address : 5F.,-5 No.16, LN.609, SEC.5, CHONGXIN Rd., SANCHONG Dist., NEW Taipei City 241, Taiwan

EUT : Locomotive driving recorder

Model No. : S3

Series No. : S3PRO, S3PLUS

Trade Name : Global Eagle

Model Differences : The major electrical and mechanical constructions of series models are identical to the basic model, except different marketing purpose. The model, S3 is the testing sample, and the final test data are shown on this test report.

Is here with confirmed to comply with the requirements set out in the FCC Rules and Regulations. The said equipment has been tested and found compliance with the requirement of the relative standards .

Test Standard : FCC Title 47 Part 2.1091, KDB 447498 D01 V06

Tested By:

Jan.15.2024
Date

Approved by:

Apr.01, 2025
Date


Alex Huang

Alex Huang, Engineer


Adam Chou

Adam Chou, Manager

Designation Number: TW1640



1.1 DESCRIPTION OF THE TESTED SAMPLES

EUT Name : Locomotive driving recorder
Model : S3
FCC ID : 2BMUNS3
Power From : Inside Outside
Adaptor Battery DC Power Source Support Unit PC
Power Rating(Battery) : 5 Vdc
Power Rating(Adapter) : 12Vdc to 5Vdc
Operate Frequency : Refer to the channel list as described below
Basic Spec : Bluetooth Bluetooth LE 802.11b 802.11g 802.11n HT20/HT40
Operate Frequency : 2412 MHz ~ 2462 MHz
Number of Channels : 11
Step of Channel : N/A _____ MHz
Modulation Type : OFDM FHSS DSSS CCK GFSK
Antenna Quantity : 1Tx/1Rx
Antenna Type : FPC
Antenna gain : -0.92 dBi
EUT Received Date : Nov.07.2023
EUT Channel List :

Channel \ Wifi type	802.11b 、 802.11g 、 802.11 n20	802.11 n40
Low CH	2412MHz	2422MHz
Mid CH	2437MHz	2437MHz
High CH	3462MHz	2452MHz



2. GENERAL SAR TEST REDUCTION AND EXCLUSION GUIDANCE

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

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] .

- $[\sqrt{f(\text{GHz})}] \leq 3.0$ 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

The test exclusions are applicable only when the minimum test separation distance is \leq 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.

2.2 At 100 MHz to 6 GHz and for test separation distances $>$ 50 mm, the SAR test exclusion threshold is determined according to the following

- [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)·($f(\text{MHz})/150$)] mW, at 100 MHz to 1500 MHz
- [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)· 10] mW at $>$ 1500 MHz and \leq 6 GHz

2.3 At frequencies below 100 MHz, the following may be considered for SAR test exclusion

- 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
- The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$ for test separation distances \leq 50 mm
- 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. MPE EVALUATION

3.1 CACULATION METHOD

Calculate SAR test exclusion thresholds from section 2.1 formulas.

3.2. CALCULATED RESULT

Test Mode	Frequency (MHz)	Max Output Power (dBm)	Max Output Power (mW)	Min distance (mm)	Calculation value	Limit (1-g SAR)
802.11b	2412	8.8	7.59	5	2.36	3

The calculated distance was 5 mm and the max output power test mode was chosen.

END