

FCC SAR Exclusion Report



The RvA is signatory to ILAC - MRA

Product name : BM-IA007-1

Applicant : Velux America Inc.

FCC ID : XSG866062

IC : 8642A-866062

Test report No. : P000327337 003 Ver 1.00

Laboratory information

Accreditation

Kiwa Nederland B.V. complies with the accreditation criteria for test laboratories as laid down in ISO/IEC 17025:2017. The accreditation covers the quality system of the laboratory as well as the specific activities as described in the authorized annex bearing the accreditation number L248 and is granted by the Dutch Council For Accreditation (RvA: Raad voor Accreditatie).

Kiwa Nederland B.V. is designated by the FCC as an Accredited Test Firm for compliance testing of equipment subject to Certification under Parts 15 & 18. The Designation number is: NL0001.

Kiwa Nederland B.V. is a Wireless Device Testing laboratory recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements.

The Industry Canada company number for Kiwa Nederland B.V. is: 4173A. The CABID is NL0001.

Kiwa Nederland B.V. is a registered Conformity Assessment body (CAB) under the Japan-EC MRA (Agreement on Mutual Recognition between Japan and the European Community). The registration number is: 201.

Documentation

The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory. The documentation of the testing performed on the tested devices is archived for 10 years at Kiwa Nederland B.V.

Testing Location

| | |
|---------------------------|---|
| Test Site | Kiwa Nederland B.V. |
| Test Site location | Wilmersdorf 50 7327 AC Apeldoorn The Netherlands Tel. +31 88998 3393 |
| Test Site FCC | NL0001 |
| CABID | NL0001 |

Revision History

| Version | Date | Remarks | By |
|---------|------------|---------------|-----|
| v0.50 | 31-10-2023 | First draft | RvB |
| v1.00 | 24-01-2024 | Final release | RvB |
| | | | |

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1 General Description

1.1 Applicant

Client name: Velux America Inc.
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E-mail: j.a.m.thomsen@velux.com
Contact name: Mr. J.A Thomsen

1.2 Manufacturer

Manufacturer name: Velux America Inc.
Address: Greenwood, South Carolina, United States of America
Zip code: 29648
Telephone: +45 30581588
E-mail: j.a.m.thomsen@velux.com
Contact name: Mr. J.A Thomsen

1.3 Tested Equipment Under Test (EUT)

Product name: BM-IA007-1
Brand name: Velux
FCC ID: XSG86062
IC: 8642A-866062
Product description: Blind
Variant model(s): --
Batch and/or serial No. --
Software version: --
Hardware version: --
Date of receipt: 21-09-2023
Tests started: 26-09-2023
Testing ended: 25-10-2023

1.4 Applicable standards

47 CFR § 1.1307 (b)(1)(i)(A)

1.5 Conclusions

The sample of the product showed **NO NON-COMPLIANCES** to the specifications stated in paragraph 1.4 of this report.

The results of the test as stated in this report, are exclusively applicable to the product items as identified in this report. Kiwa Nederland B.V. accepts no responsibility for any properties of product items in this test report, which are not supported by the tests as specified in paragraph 1.4 "*Applicable standards*".

Assessment is performed by:

Name : ing. R. van Barneveld

Review of assessment methods and report by:

Name : P. van Wanrooij, BASc

The above conclusions have been verified by the following signatory:

Date : 25-01-2024

Name : P. van Wanrooij

Function : Test Engineer

Signature :

2 SAR exclusion Evaluation

2.1 Transmitter specifications

Transmitter 1

| Variable (unit) | Value | Symbol |
|---|-------------|------------------------|
| Conducted time-averaged output power (mW) | 6.45 | P |
| Time-averaged output power ERP (mW) | 7.94 | P_{ERP} |
| Operating frequency range (MHz) | 2425 | f |
| Separation distance (cm) | 20 | d |
| Separation distance (m) | 0.2 | R |

2.2 Evaluation calculations

Transmitter 1

Transmitter 1 is evaluated according to method B of KDB 447498 D04 v01

Method B:

$$P_{th}(mW) = \begin{cases} ERP_{20cm} \left(\frac{d}{20cm} \right)^x & d \leq 20 \text{ cm} \\ ERP_{20cm} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases}$$

Where:

$$x = -\log_{10} \left(\frac{60}{ERP_{20cm} * \sqrt{f}} \right)$$

$$ERP_{20cm}(mW) = \begin{cases} 2040 * f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6.0 \text{ GHz} \end{cases}$$

Filling in the values of d (cm) and f (GHz) as reported in clause 2.1 in the equations above gives the result:

P_{th} = 3060 mW

P or P_{ERP} = 7.94 mW which is less than the calculated P_{th} so the EUT complies with the SAR based exemption requirement.

2.3 Conclusion

Since the EUT does not cause exposure in excess of the general population limit, no additional mitigation actions are required.

<<END OF REPORT>>