

FCC SAR Exclusion Report



Product name : SMART FLUX TONE
Applicant : in-lite design bv
FCC ID : 2AU26-SMARTFLUX
IC : 25679-SMARTFLUX

Test report No. : P000359568 003 Ver 2.0

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 L015 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
v0.5	12-11-2024	First draft	PvW
v1.0	06-12-2024	Final release	PvW
V2.0	19-11-2025	Updated antenna gain and calculation Updated HW and SW version Changed Kiwa registration number and logo	PvW

Table of Contents

Revision History	2
1 General Description	4
1.1 Applicant	4
1.2 Manufacturer	4
1.3 Tested Equipment Under Test (EUT)	4
1.4 Applicable standards	4
1.5 Conclusions	5
2 SAR exclusion Evaluation	6
2.1 Transmitter specifications	6
2.2 Evaluation calculations	6
2.3 Conclusion	6

1 General Description

1.1 Applicant

Client name:	in-lite design bv
Address:	Stephensonweg 18
Zip code:	4207 HB Gorinchem
Telephone:	0184 688760
E-mail:	wilbrand.menzo@in-lite.nl
Contact name:	Wilbrand Menzo

1.2 Manufacturer

Manufacturer name:	in-lite design bv
Address:	Stephensonweg 18
Zip code:	4207 HB Gorinchem, the Netherlands
Telephone:	+31 (0)184 688760
E-mail:	wilbrand.menzo@in-lite.nl
Contact name:	Wilbrand Menzo

1.3 Tested Equipment Under Test (EUT)

Product name:	SMART FLUX TONE
Brand name:	in-lite
FCC ID:	2AU26-SMARTFLUX
IC:	25679-SMARTFLUX
Product type:	2.4 GHz wideband data transmission equipment
Model(s):	--
Batch and/or serial No.	--
Software version:	V36
Hardware version:	V8
Date of receipt	27-02-2024
Tests started:	08-03-2024
Testing ended:	29-10-2024

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 : P. van Wanrooij, BASc

Review of assessment methods and report by:

Name : ing. M.H. Khan

The above conclusions have been verified by the following signatory:

Date : 01-12-2025

Name : ing. R. van Barneveld

Function : Test Engineer

Signature :



2 SAR exclusion Evaluation

2.1 Transmitter specifications

Transmitter 1

Variable (unit)	Value	Symbol
Conducted time-averaged output power (mW)	35.3	P
Time-averaged output power ERP (mW)	83	P_{ERP}
Operating frequency range (MHz)	2402 – 2480	f
Separation distance (cm)	20	d
Separation distance (m)	0.20	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:

$P_{th} = 3060 \text{ mW}$

P or P_{ERP} = 83 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 (defined in 47 CFR 1.1310 e) (ii)), no additional mitigation actions are required.

<<END OF REPORT>>