

FCC RF Exposure Report



Product name : WIB-2100
Applicant : Cowmanager BV
FCC ID : Y8K-WIB2100

Test report No. : P000535365 004 V1.0

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	21-01-2026	First draft	TK
v1.0	30-01-2026	Initial release	PVW

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1 General Description

1.1 Applicant

Client name:	Cowmanager BV
Address:	Gerverscop 9
Zip code:	3481LT, Harmelen, the Netherlands
Telephone:	31348443840
E-mail:	certification@cowmanager.com
Contact name:	Natasha Parisha

1.2 Manufacturer

Manufacturer name:	Cowmanager BV
Address:	Gerverscop 9
Zip code:	3481LT, Harmelen, the Netherlands
Telephone:	31348443840
E-mail:	certification@cowmanager.com
Contact name:	Natasha Parisha

1.3 Tested Equipment Under Test (EUT)

Product name:	WIB-2100
Brand name:	CowManager
FCC ID:	Y8K-WIB2100
Product type:	Long range router
Model(s):	WIB
Batch and/or serial No.	00 8744
Software version:	6.135 (this is the test version of (identical) 6.4)
Hardware version:	21.1
Date of receipt	16-01-2026
Tests started:	16-01-2026
Testing ended:	21-01-2026

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. T. Keltjens

Review of assessment methods and report by:

Name : P. van Wanrooij, BASc

The above conclusions have been verified by the following signatory:

Date : 30-01-2026

Name : P. van Wanrooij

Function : Test Engineer

Signature :



2 SAR exclusion Evaluation

2.1 Transmitter specifications

Transmitter 1 – setting 21

Variable (unit)	Value	Symbol
Conducted time-averaged output power (mW)	75.9	P
Time-averaged output power EIRP (mW)	478.6	P _{ERP}
Operating frequency range (MHz)	2405	f
Separation distance (cm)	25	d
Separation distance (m)	0.25	R

Variable (unit)	Value	Symbol
Conducted time-averaged output power (mW)	93.3	P
Time-averaged output power ERP (mW)	588.8	P _{ERP}
Operating frequency range (MHz)	2440	f
Separation distance (cm)	25	d
Separation distance (m)	0.25	R

Variable (unit)	Value	Symbol
Conducted time-averaged output power (mW)	91.2	P
Time-averaged output power ERP (mW)	575.4	P _{ERP}
Operating frequency range (MHz)	2480	f
Separation distance (cm)	25	d
Separation distance (m)	0.25	R

Transmitter 1 – setting 25

Variable (unit)	Value	Symbol
Conducted time-averaged output power (mW)	190.5	P
Time-averaged output power ERP (mW)	1202.3	P _{ERP}
Operating frequency range (MHz)	2405	f
Separation distance (cm)	25	d
Separation distance (m)	0.25	R

Variable (unit)	Value	Symbol
Conducted time-averaged output power (mW)	239.9	P
Time-averaged output power ERP (mW)	1513.6	P _{ERP}
Operating frequency range (MHz)	2440	f
Separation distance (cm)	25	d
Separation distance (m)	0.25	R

Variable (unit)	Value	Symbol
Conducted time-averaged output power (mW)	263	P
Time-averaged output power ERP (mW)	1659.6	P _{ERP}
Operating frequency range (MHz)	2480	f
Separation distance (cm)	25	d
Separation distance (m)	0.25	R

Results taken from P000535365 002 V1.0 and P000535365 005 V1.0.

Note: Both the power levels with power setting 21 and 25 are reported.

2.2 Evaluation calculations

Transmitter 1 – setting 21

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 $P_{ERP} = 478.6\text{mW}$, 588.8mW or 575.4mW which are less than the calculated P_{th} so the EUT complies with the SAR based exemption requirement.

Transmitter 1 – setting 25

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 $P_{ERP} = 1202.3\text{mW}$, 1513.6mW or 1659.6 mW which are less than the calculated P_{th} so the EUT complies with the SAR based exemption requirement.

Assessment for multiple transmitters capable of transmitting simultaneously

No simultaneous transmission possible.

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>>