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RADIO TEST REPORT

Report ID

REP134050

Project ID

PRJ0054981

Type of assessment:

MPE Calculation report

Manufacturer:

ASSA ABLOY Global Solutions Norway AS

Hardware Version Identification Number (HVIN):

GW4035C1

Product Marketing Name (PMN):

Wireless Gateway

FCC identifier:

FCC ID: Y7V-GW4035C1

ISED certification number:

IC: 9514A-GW4035C1

Specification:

- ◆ FCC 47 CFR Part 1 Subpart I, §1.1307, §1.1310
- ◆ FCC 47 CFR Part 2 Subpart J, §2.1091
- ◆ FCC KDB 447498 D01 General RF Exposure Guidance v06
- ◆ ISED Canada RSS-102 Issue 6 (December 2023)

RSS-102 Annex A

ATTESTATION: I attest that the information provided in Annex A is correct; that the Technical Brief was prepared and the information contained therein is correct; that the device evaluation was performed or supervised by me; that applicable measurement methods and evaluation methodologies have been followed; and that the device meets the applicable RF exposure limits set forth in RSS-102.

Date of issue: **November 19, 2025**

Sagarkumar Patel, EMC/RF Specialist

Prepared by

Signature

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ANAB File Number: AT-3195 (Ottawa); AT-3193 (Pointe-Claire); AT-3194 (Cambridge)



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Website	www.nemko.com

Limits of responsibility

Note that the results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

This test report has been completed in accordance with the requirements of ISO/IEC 17025. All results contained in this report are within Nemko Canada's ISO/IEC 17025 accreditation.

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Section 1 Evaluation summary

1.1 MPE calculation for standalone transmission

1.1.1 References, definitions and limits

FCC §2.1091(d)

- (2) For operations within the frequency range of 300 kHz and 6 GHz (inclusive), the limits for maximum permissible exposure (MPE), derived from whole-body SAR limits and listed in Table 1 in paragraph (e)(1) of this section, may be used instead of whole-body SAR limits as set forth in paragraphs (a) through (c) of this section to evaluate the environmental impact of human exposure to RF radiation as specified in §1.1307(b) of this part, except for portable devices as defined in §2.1093 of this chapter as these evaluations shall be performed according to the SAR provisions in §2.1093.

Table 1.1-1: Table 1 to §1.1310(e)(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)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3–3.0	614	1.63	*(100)	≤6
3.0–30	1842 / f	4.89 / f	*(900 / f ²)	<6
30–300	61.4	0.163	1.0	<6
300–1500	–	–	f / 300	<6
1500–100000	–	–	5	<6
(ii) 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
1500–100000	–	–	1.0	<30

Notes: f = frequency in MHz, * = Plane-wave equivalent power density.

References, definitions and limits, continued

RSS-102, Section 5.1

Through this standard, ISED adopts Health Canada's RF exposure guideline entitled Limits of Human Exposure to Radiofrequency Electromagnetic Energy in the Frequency Range from 3 kHz to 300 GHz (Safety Code 6) and its Notice: Localized human exposure limits for radiofrequency fields in the range of 6 GHz to 300 GHz.

Table 1.1-2: Table 7&8 to RSS-102 — RF Field Strength and power density Limits

Frequency range (MHz)	Electric field strength (V/m rms)	Magnetic field strength (A/m rms)	Power density (W/m ²)	Reference Period (minutes)
Limits for controlled-use devices (controlled environment)				
10–20	61.4	0.163	10	6
20–48	129.8 / $f^{0.25}$	0.3444 / $f^{0.25}$	44.72 / $f^{0.5}$	6
48–100	49.33	0.1309	6.455	6
100–6000	15.60 $f^{0.25}$	0.04138 $f^{0.25}$	0.6455 $f^{0.5}$	6
6000–15000	137	0.364	50	6
15000–150000	137	0.364	50	616000 / $f^{1.2}$
150000–300000	0.354 $f^{0.5}$	9.40 × 10 ⁻⁴ $f^{0.5}$	3.33 × 10 ⁻⁴ f	616000 / $f^{1.2}$
Limits for r devices used by the general public (uncontrolled environment)				
10–20	27.46	0.0728	2	6
20–48	58.07 / $f^{0.25}$	0.1540 / $f^{0.25}$	8.944 / $f^{0.5}$	6
48–300	22.06	0.05852	1.291	6
300–6000	3.142 $f^{0.3417}$	0.008335 $f^{0.3417}$	0.02619 $f^{0.6834}$	6
6000–15000	61.4	0.163	10	6
15000–150000	61.4	0.163	10	616000 / $f^{1.2}$
150000–300000	0.158 $f^{0.5}$	4.21 × 10 ⁻⁴ $f^{0.5}$	6.67 × 10 ⁻⁵ f	616000 / $f^{1.2}$

Notes: f = frequency in MHz

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density (mW/cm² or W/m²)
P = power input to the antenna (mW or W)
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna (cm or m)

1.1.2 EUT technical information

Prediction frequency	2400–2483.5 MHz
Antenna type	PCB inverted F-antenna
Antenna gain	3 dBi
Number of antennas	1
Maximum transmitter power	4.61 dBm (conducted)
Prediction distance (declared)	20 cm

1.1.3 MPE calculation

For conducted measurement

Fundamental transmit (prediction) frequency:	2402 MHz	
Maximum measured conducted peak output power:	4.61 dBm	
Cable and/or jumper loss:	0 dB	
Maximum peak power at antenna input terminal:	4.61 dBm	
Duty cycle:	100 %	
Maximum calculated average power at antenna input terminal:	2.89067988 mW	
Single Antenna gain (typical):	3 dBi	
Number of antennae:	1	
Total system gain:	3.00 dBi	
FCC limit:		
MPE limit for <u>uncontrolled</u> exposure at prediction frequency:	1.000000 mW/cm ²	0.535080 mW/cm ²
	10.000000 W/m ²	5.350805 W/m ²
MPE limit for <u>controlled</u> exposure at prediction frequency:	5.000000 mW/cm ²	3.163609 mW/cm ²
	50.000000 W/m ²	31.636086 W/m ²
Minimum calculated prediction distance for compliance:	20 cm	20 cm
Typical (declared) distance:	20 cm	20 cm
ISSED limit:		
Average power density at prediction frequency:	0.001147 mW/cm ²	0.001147 mW/cm ²
	0.011474 W/m ²	0.011474 W/m ²
Margin of Compliance for uncontrolled environment:	29.40 dB	26.69 dB
with Maximum permitted antenna gain:	32.40 dBi	29.69 dBi
Margin of Compliance for controlled environment:	36.39 dB	34.40 dB
with Maximum permitted antenna gain:	44.00 dBi	42.01 dBi

1.1.4 Verdict

The calculation is below the limit; therefore, the product is passing the RF Exposure requirements for the declared distance.

End of the test report