

RADIO TEST REPORT

Report ID

REP119213

Project ID

PRJ0084878

Type of assessment:

MPE Calculation report

Manufacturer:

BLINQ Networks Inc.

Hardware Version Identification Number (HVIN):

PWRF-400

Product Marketing Name (PMN):

5G Enterprise Small cell with Wi-Fi

HVIN/Model variants:

PCRF-400, PC-400, PCW-400

FCC identifier:

FCC ID: ROR2003

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
- ◆

Date of issue: March 23, 2026

**Tarek Elkholy, EMC/RF Engineer**

Prepared by

Signature

Nemko Canada Inc., a testing laboratory, is accredited by ANSI National Accreditation Board (ANAB).
The tests included in this report are within the scope of this accreditation.
The ANAB symbol is an official symbol of the ANSI National Accreditation Board, used under licence.

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



Lab locations

Company name	Nemko Canada Inc.
Facilities	Ottawa site: 303 River Road, Ottawa, ON, Canada, K1V 1H2 Tel: +1 613 737 9680 Test site registration number: CA2040 Montréal site: 292 Labrosse Avenue, Pointe-Claire, QC, Canada, H9R 5L8 Tel: +1 514 694 2684 Test site registration number: CA2041 Cambridge site: 1-130 Saltsman Drive, Cambridge, ON, Canada, N3E 0B2 Tel: +1 519 650 4811 Test site registration number: CA0101
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.

Copyright notification

Nemko Canada Inc. authorizes the applicant to reproduce this report provided it is reproduced in its entirety and for use by the company's employees only. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. Nemko Canada Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.
© Nemko Canada Inc.

Section 1 Evaluation summary

1.1 MPE calculation for simultaneous transmission

1.1.1 References, definitions and limits

FCC §2.1091(d)

- (2) (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.

RSS-102, Section 5

For the purpose of this standard, ISED has adopted the SAR and RF field strength limits established in Health Canada's RF exposure guideline, Safety Code 6:

Table 1.1-2: Table 4 to RSS-102 — RF Field Strength 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 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
Limits for 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

Notes: f = frequency in MHz

References, definitions and limits, continued

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

	Transmitter 1 (5G NR)	Transmitter 2 (2.4 GHz Wi-Fi)	Transmitter 3 (5 GHz Wi-Fi)
Prediction frequency	3544.98 MHz	2412 MHz	5260 MHz
Antenna type	Sector	Patch antenna	Patch antenna
Antenna gain	14.5 dBi	10.4 dBi	13.9 dBi
Maximum transmitter conducted power	13.07 dBm	25.13 dBm	19.32 dBm
Prediction distance (declared)	35 cm	35 cm	35 cm

1.1.3 MPE calculation

	Transmitter 1	Transmitter 2	Transmitter 3
Fundamental transmit (prediction) frequency:	3544.98 MHz	2412 MHz	5260 MHz
Maximum measured conducted peak output power:	13.07 dBm	25.13 dBm	19.32 dBm
Cable and/or jumper loss:	1.5 dB	1 dB	6 dB
Maximum peak power at antenna input terminal:	11.57 dBm	24.13 dBm	13.32 dBm
Duty cycle:	100 %	100 %	100 %
Maximum calculated average power at antenna input terminal:	14.3548943 mW	258.8212915 mW	21.47830474 mW
Single Antenna gain (typical):	14.5 dBi	10.4 dBi	13.9 dBi
Number of antennae:	1	1	1
Total system gain:	14.50 dBi	10.40 dBi	13.90 dBi
MPE limit for <u>uncontrolled</u> exposure at prediction frequency:	FCC limit 1.00000 mW/cm ² 10.00000 W/m ²	FCC limit 1.00000 mW/cm ² 10.00000 W/m ²	FCC limit 1.00000 mW/cm ² 10.00000 W/m ²
MPE limit for <u>controlled</u> exposure at prediction frequency:	5.00000 mW/cm ² 50.00000 W/m ²	5.00000 mW/cm ² 50.00000 W/m ²	5.00000 mW/cm ² 50.00000 W/m ²
Minimum calculated prediction distance for compliance:	20 cm	20 cm	20 cm
Typical (declared) distance:	35 cm	35 cm	35 cm
Average power density at prediction frequency:	0.026282 mW/cm ² 0.262817 W/m ²	0.184355 mW/cm ² 1.843546 W/m ²	0.034249 mW/cm ² 0.342495 W/m ²
MPE compliance for simultaneous operation:			
Margin of Compliance for <u>controlled</u> environment:	22.79 dB	14.33 dB	21.64 dB
with Maximum permitted antenna gain:	37.29 dBi	24.73 dBi	35.54 dBi
Margin of Compliance for <u>uncontrolled</u> environment:	15.80 dB	7.34 dB	14.65 dB
with Maximum permitted antenna gain:	15.80 dBi	7.34 dBi	14.65 dBi
Average power density to MPE limit ratio (<u>uncontrolled</u>):	0.026	0.184	0.034
Average power density to MPE limit ratio (<u>controlled</u>):	0.005	0.037	0.007
Total sum of ratios for FCC (uncontrolled):	0.245 <1		0.049 <1
Maximum allowed sum of ratios:	1		

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