

**RF Exposure Report
(mobile devices)
47 CFR 2.1091
RSS-102 Issue 6**

Report No.: WIRS141361 – FCC & ISSED RF Exposure_Rev.1

Test Model: NextConnect (NC5)

Received Date: 06/29/2026

Test Date(s): 06/29/2026 – 06/30/2026, 07/06/2026

Issued Date: 08/27/2026

Applicant: Next Meters Global, LLC

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Issued By: Eurofins Electrical and Electronic Testing NA, Inc.

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1. Certificate of Conformity

Product: Next Meters

Brand: Next Meters

Test Model: NextConnect (NC5)

Sample Status: Production

Applicant: Next Meters Global, LLC

Test Date(s): 06/29/2026 – 06/30/2026, 07/06/2026

Standard: 47 CFR FCC Part 2.1091 and FCC Part 1.1310
RSS-102 Issue 6



Chin Ming Lui
Senior Wireless Test Engineer

Engineering Statement: The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of Part 22 Subpart H and Part 24 Subpart E and Part 27 Subpart L of the FCC Rules under normal use and maintenance.



Kevin Nguyen
Senior Wireless Test Engineer

Report Status Sheet

Revision	Report Date	Reason for Revision
Ø	July 17, 2026	Initial Issue.
1	August 27, 2026	Added supported cellular bands to EUT General Info. Added maximum output power information and RF exposure calculation for cellular radio module.

1. EUT General info

The NC5 contains an integrated ISM radio that handles RF transceiver functions in both the 902-928 MHz band as well as the 2.4GHz ISM bands. This chip contains a 39 MHz and a 32 kHz crystal for frequency generation. The NC5 also contains the Nordic NRF9151 series chip for Cell communications.

The NextConnect is powered by a 3.6V ER34615C battery. This is used to power all components on the board.

The 900 MHz RF path is connected to an amplifier. This output is fed into a switch that connects to an Antenova Inpai (SR4L099) chip antenna. The Cell RF path connects to the same switch that connects to the Antenova chip antenna. The 2.4GHz path is connected to a switch that connects the path to a PCB trace antenna with a gain of -1.0dBi or to a 50 Ohm ground. The BLE path is connected to the 50 Ohm ground during Cell or 900 MHz to prevent harmonics from coming out the BLE antenna.

The 900 MHz radio uses frequency hopping spread spectrum. 50 equally spaced channels in the 902-928MHz band are used. The radio uses a pseudo-random hop sequence that transmits at most 385ms per channel. The devices sample the first channel, and when the channel is clear transmits a packet.

The 2.4GHz radio is used for BLE and follows the BLE standards for advertising and transmitting data.

The cell is using both CAT-M and NB-IoT protocols. The cell chip is FCC pre-certified and we follow the modular approval. The CAT-M Bands include 2, 4, 5, 8, 12, 13, 25, 26, 66, and 85. The NB-IoT Bands include 2,4, 5, 8, 12, 13, 17, 25, 26, 66, and 85.

No radios are allowed to cotransmit.

Note: The information in this section is supplied by Next Meters Global, LLC. Eurofins did not test or verify the antenna gains.

2. RF Exposure Limits

In this document, we evaluate the RF Exposure to human body due the intentional transmission from the transmitter (EUT). The limits for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 and RSS-102 issue 6 were followed.

2.1 FCC ID and IC

FCC ID: 2A8EC-NC5 Contains FCC ID: 2ANPO00NRF9151

IC: 28950-NC5 Contains IC: 24529-NRF9151

2.2 FCC Limits

According to FCC 1.1310 Table 1: The criteria listed in the following table shall be used to evaluate the environmental impact of human exposure to Radio-Frequency (RF) radiation as specified in 1.1307(b)

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)	Average Time (minutes)
(A) Limits For Occupational / Control Exposures				
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 - 100,000	...	...	5	6
(B) 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 - 100,000	...	...	1.0	30

F = Frequency in MHz

* = plane wave equivalent density

2.3 Industry Canada Limits

According to RSS-102, Industry Canada has adopted the SAR and RF field strength limits established in Health Canada's RF exposure guideline, Safety Code 6.

Table 4: RF Field Strength Limits for Devices Used by the General Public (Uncontrolled Environment)				
Frequency Range	Electric Field	Magnetic Field	Power Density	Reference Period
(MHz)	(V/m rms)	(A/m rms)	(W/m ²)	(minutes)
0.003-10	83	90	-	Instantaneous*
0.1-10	-	$0.73/f$	-	6**
1.1-10	$87/f^{0.5}$	-	-	6**
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	$0.158 f^{0.5}$	$4.21 \times 10^{-4} f^{0.5}$	$6.67 \times 10^{-5} f$	$616000/f^{1.2}$
Note: f is frequency in MHz. * Based on nerve stimulation (NS). ** Based on specific absorption rate (SAR).				

3 Test Results (Mobile Configuration)

3.1 Classification

Radio is installed inside a mobile host device. The antenna of the product, under normal use condition, is at least 20 cm away from the body of the user and accessible to the end user. Warning statement to the user for keeping at least 20 cm or more separation distance with the antenna should be included in user's manual.

3.2 Maximum RF Power

BLE Radio:

Modulation	Frequency Range (MHz)	Max. RF output power ¹ (dBm)	Max. RF output Power with Tune Up ² (dBm)	Max. Antenna Gain ³ (dBi)	Max. EIRP ⁴ (dBm)	Max. EIRP (mWatts)
GFSK	2400 – 2483.5	6.70	7.70	-1.0	6.70	4.677

¹Note: Measured max conducted output power obtained from test report WIRS141361-FCC 15.247_BLE

²Note: Tune-up tolerance of +1 dB.

³Note: Max internal antenna gain obtained from “Theory of Operation Model: NextConnect (NC5)” by Next Meters Global, LLC.

Antenna Information:

- Antenna Type: PCB Trace
- Max Gain: -1.0 dBi

⁴Note: Max. EIRP (dBm) = Max RF Output Power with Tune Up (dBm) + Max Antenna Gain (dBi)

ISM Radio:

Modulation	Frequency Range (MHz)	Max. RF output power ¹ (dBm)	Max. RF output Power with Tune Up ² (dBm)	Max. Antenna Gain ³ (dBi)	Max. EIRP ⁴ (dBm)	Max. EIRP (mWatts)
FHSS	902 – 928	25.51	26.51	0.15	26.66	463.45

¹Note: Measured max conducted output power obtained from test report WIRS141361-FCC 15.247_ISM

²Note: Tune-up tolerance of +1 dB.

³Note: Peak gain obtained from “Datasheet: Inpai SR4L099-PS-2.01” by Antenova.

Antenna Information:

- Part No: SR4L099
- Antenna Type: SMD
- Peak Gain: 0.15 dBi for 698-960MHz

⁴Note: Max. EIRP (dBm) = Max RF Output Power with Tune Up (dBm) + Max Antenna Gain (dBi)

Cellular Radio:

LTE CAT-M1

Band	Frequency Range (MHz)	Maximum Conducted Output Power (Incl. Tune-Up) (dBm) ^{1,2}	Max. Antenna Gain ³ (dBi)	Max EIRP ⁴ (dBm)	Max EIRP (mWatts)
LTE CAT-M1 Band 2	1850 – 1910	24	3.1	27.1	512.86
LTE CAT-M1 Band 4	1710 – 1755	24	3.1	27.1	512.86
LTE CAT-M1 Band 5	824 – 849	24	0.15	24.15	260.02
LTE CAT-M1 Band 8	880 – 915	24	0.15	24.15	260.02
LTE CAT-M1 Band 12	699 – 716	24	0.15	24.15	260.02
LTE CAT-M1 Band 13	777 – 787	24	0.15	24.15	260.02
LTE CAT-M1 Band 25	1850 – 1915	24	3.1	27.1	512.86
LTE CAT-M1 Band 26	814 – 849	24	0.15	24.15	260.02
LTE CAT-M1 Band 66	1710 – 1780	24	3.1	27.1	512.86
LTE CAT-M1 Band 85	698 – 716	24	0.15	24.15	260.02

¹Note: Maximum Conducted Output Power (Incl. Tune-Up) leveraged from FCC RF Exposure Report for Nordic Semiconductor ASA nRF9151 cellular module:

- Test report No: NIE: 77535RAN.002
- Test report provided by: DEKRA Testing and Certification, S.A.U.

²Note: Tune-up tolerance of +1 dB.

³Note: Peak gain obtained from “Datasheet: Inpai SR4L099-PS-2.01” by Antenova.

Antenna Information:

- Part No: SR4L099
- Antenna Type: SMD
- Peak Gain: 0.15 dBi for 698-960MHz, 3.1 dBi for 1710-2170MHz

⁴Note: Max. EIRP (dBm) = Maximum Conducted Output Power (Incl. Tune-Up) (dBm)+ Max Antenna Gain (dBi)

NB-IoT

Band	Frequency Range (MHz)	Maximum Conducted Output Power (Incl. Tune-Up) (dBm) ^{1,2}	Max. Antenna Gain ³ (dBi)	Max EIRP ⁴ (dBm)	Max EIRP (mWatts)
NB-IoT Band 2	1850 – 1910	24	3.1	27.1	512.86
NB-IoT Band 4	1710 – 1755	24	3.1	27.1	512.86
NB-IoT Band 5	824 – 849	24	0.15	24.15	260.02
NB-IoT Band 8	880 – 915	24	0.15	24.15	260.02
NB-IoT Band 12	699 – 716	24	0.15	24.15	260.02
NB-IoT Band 13	777 – 787	24	0.15	24.15	260.02
NB-IoT Band 17	704 – 716	24	0.15	24.15	260.02
NB-IoT Band 25	1850 – 1915	24	3.1	27.1	512.86
NB-IoT Band 26	814 – 849	24	0.15	24.15	260.02
NB-IoT Band 66	1710 – 1780	24	3.1	27.1	512.86
NB-IoT Band 85	698 – 716	24	0.15	24.15	260.02

¹**Note:** Maximum Conducted Output Power (Incl. Tune-Up) leveraged from FCC RF Exposure Report for Nordic Semiconductor ASA nRF9151 cellular module:

- Test report No: NIE: 77535RAN.002
- Test report provided by: DEKRA Testing and Certification, S.A.U.

²**Note:** Tune-up tolerance of +1 dB.

³**Note:** Peak gain obtained from “Datasheet: Inpai SR4L099-PS-2.01” by Antenova.

Antenna Information:

- Part No: SR4L099
- Antenna Type: SMD
- Peak Gain: 0.15 dBi for 698-960MHz, 3.1 dBi for 1710-2170MHz

⁴**Note:** Max. EIRP (dBm) = Maximum Conducted Output Power (Incl. Tune-Up) (dBm) + Max Antenna Gain (dBi)

3.3 RF Exposure Calculation

FCC limits

Calculations for this report are based on measured maximum conducted output power

BLE Radio:

Evaluation of 20cm distance:

Modulation	Frequency Range (MHz)	Max. EIRP ¹ (dBm)	Max. EIRP (mW)	Power Density (mW/cm ²) @20 cm	FCC Limit (mW/cm ²)	Results
GFSK	2400 – 2483.5	6.70	4.677	0.00093	1.0	Complies

¹Note: Max. EIRP (dBm) = Max RF Output Power with Tune Up (dBm) + Max Antenna Gain (dBi)

ISM Radio:

Evaluation of 20cm distance:

Modulation	Frequency Range (MHz)	Max. EIRP ¹ (dBm)	Max. EIRP (mW)	Power Density (mW/cm ²) @20 cm	FCC Limit (mW/cm ²)	Results
FHSS	902 – 928	26.66	463.45	0.0922	0.601	Complies

¹Note: Max. EIRP (dBm) = Max RF Output Power with Tune Up (dBm) + Max Antenna Gain (dBi)

Cellular Radio:

LTE CAT-M1

Evaluation of 20cm distance:

Band	Frequency Range (MHz)	Max. EIRP¹ (dBm)	Max. EIRP (mW)	Power Density (mW/cm²) @20 cm	FCC Limit (mW/cm²)	Results
LTE CAT-M1 Band 2	1850 – 1910	27.1	512.86	0.102	1.0	Complies
LTE CAT-M1 Band 4	1710 – 1755	27.1	512.86	0.102	1.0	Complies
LTE CAT-M1 Band 5	824 – 849	24.15	260.02	0.0517	0.549	Complies
LTE CAT-M1 Band 8	880 – 915	24.15	260.02	0.0517	0.587	Complies
LTE CAT-M1 Band 12	699 – 716	24.15	260.02	0.0517	0.466	Complies
LTE CAT-M1 Band 13	777 – 787	24.15	260.02	0.0517	0.518	Complies
LTE CAT-M1 Band 25	1850 – 1915	27.1	512.86	0.102	1.0	Complies
LTE CAT-M1 Band 26	814 – 849	24.15	260.02	0.0517	0.543	Complies
LTE CAT-M1 Band 66	1710 – 1780	27.1	512.86	0.102	1.0	Complies
LTE CAT-M1 Band 85	698 – 716	24.15	260.02	0.0517	0.465	Complies

¹**Note:** Max. EIRP (dBm) = Maximum Conducted Output Power (Incl. Tune-Up) (dBm)+ Max Antenna Gain (dBi)

NB-IoT

Evaluation of 20cm distance:

Band	Frequency Range (MHz)	Max. EIRP ¹ (dBm)	Max. EIRP (mW)	Power Density (mW/cm ²) @20 cm	FCC Limit (mW/cm ²)	Results
NB-IoT Band 2	1850 – 1910	27.1	512.86	0.102	1.0	Complies
NB-IoT Band 4	1710 – 1755	27.1	512.86	0.102	1.0	Complies
NB-IoT Band 5	824 – 849	24.15	260.02	0.0517	0.549	Complies
NB-IoT Band 8	880 – 915	24.15	260.02	0.0517	0.587	Complies
NB-IoT Band 12	699 – 716	24.15	260.02	0.0517	0.466	Complies
NB-IoT Band 13	777 – 787	24.15	260.02	0.0517	0.518	Complies
NB-IoT Band 17	704 – 716	24.15	260.02	0.0517	0.469	Complies
NB-IoT Band 25	1850 – 1915	27.1	512.86	0.102	1.0	Complies
NB-IoT Band 26	814 – 849	24.15	260.02	0.0517	0.543	Complies
NB-IoT Band 66	1710 – 1780	27.1	512.86	0.102	1.0	Complies
NB-IoT Band 85	698 – 716	24.15	260.02	0.0517	0.465	Complies

¹Note: Max. EIRP (dBm) = Maximum Conducted Output Power (Incl. Tune-Up) (dBm)+ Max Antenna Gain (dBi)

ISED Limits

Calculations for this report are based on measured maximum conducted output power

BLE Radio:

Evaluation of 20cm distance:

Modulation	Frequency Range (MHz)	Max. EIRP ¹ (dBm)	Max. EIRP (mW)	Power Density (W/m ²) @20 cm	RSS Limit (W/m ²)	Results
GFSK	2400 – 2483.5	6.70	4.677	0.0093	5.348	Complies

¹Note: Max. EIRP (dBm) = Max RF Output Power with Tune Up (dBm) + Max Antenna Gain (dBi)

ISM Radio:

Evaluation of 20cm distance:

Modulation	Frequency Range (MHz)	Max. EIRP ¹ (dBm)	Max. EIRP (mW)	Power Density (W/m ²) @20 cm	RSS Limit (W/m ²)	Results
FHSS	902 – 928	26.66	463.45	0.922	2.74	Complies

¹Note: Max. EIRP (dBm) = Max RF Output Power with Tune Up (dBm) + Max Antenna Gain (dBi)

Cellular Radio:

LTE CAT-M1

Evaluation of 20cm distance:

Band	Frequency Range (MHz)	Max. EIRP ¹ (dBm)	Max. EIRP (mW)	Power Density (W/m ²) @20 cm	RSS Limit (W/m ²)	Results
LTE CAT-M1 Band 2	1850 – 1910	27.1	512.86	1.02	4.476	Complies
LTE CAT-M1 Band 4	1710 – 1755	27.1	512.86	1.02	4.242	Complies
LTE CAT-M1 Band 5	824 – 849	24.15	260.02	0.517	2.576	Complies
LTE CAT-M1 Band 8	880 – 915	24.15	260.02	0.517	2.694	Complies
LTE CAT-M1 Band 12	699 – 716	24.15	260.02	0.517	2.302	Complies
LTE CAT-M1 Band 13	777 – 787	24.15	260.02	0.517	2.474	Complies
LTE CAT-M1 Band 25	1850 – 1915	27.1	512.86	1.02	4.476	Complies
LTE CAT-M1 Band 26	814 – 849	24.15	260.02	0.517	2.554	Complies
LTE CAT-M1 Band 66	1710 – 1780	27.1	512.86	1.02	4.242	Complies
LTE CAT-M1 Band 85	698 – 716	24.15	260.02	0.517	2.299	Complies

¹Note: Max. EIRP (dBm) = Maximum Conducted Output Power (Incl. Tune-Up) (dBm)+ Max Antenna Gain (dBi)

NB-IoT

Evaluation of 20cm distance:

Band	Frequency Range (MHz)	Max. EIRP ¹ (dBm)	Max. EIRP (mW)	Power Density (W/m ²) @20 cm	RSS Limit (W/m ²)	Results
NB-IoT Band 2	1850 – 1910	27.1	512.86	1.02	4.476	Complies
NB-IoT Band 4	1710 – 1755	27.1	512.86	1.02	4.242	Complies
NB-IoT Band 5	824 – 849	24.15	260.02	0.517	2.576	Complies
NB-IoT Band 8	880 – 915	24.15	260.02	0.517	2.694	Complies
NB-IoT Band 12	699 – 716	24.15	260.02	0.517	2.302	Complies
NB-IoT Band 13	777 – 787	24.15	260.02	0.517	2.474	Complies
NB-IoT Band 17	704 – 716	24.15	260.02	0.517	2.313	Complies
NB-IoT Band 25	1850 – 1915	27.1	512.86	1.02	4.476	Complies
NB-IoT Band 26	814 – 849	24.15	260.02	0.517	2.554	Complies
NB-IoT Band 66	1710 – 1780	27.1	512.86	1.02	4.242	Complies
NB-IoT Band 85	698 – 716	24.15	260.02	0.517	2.299	Complies

¹Note: Max. EIRP (dBm) = Maximum Conducted Output Power (Incl. Tune-Up) (dBm)+ Max Antenna Gain (dBi)

Power Density Calculation

$$P_d = (P_{out} * G) / (4 * \pi * R^2)$$

Where:

P_d = Power density in W/m²

P_{out} = Output power from the antenna in watts (W)

G = Gain of the antenna in linear scale

R = Distance between observation point and center of the radiator in meters (m)

4 Conclusion

This device is compliant with RF Exposure requirements of the limits for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 and RSS-102 Issue 6 for General Public (Uncontrolled Environment).

The BLE, ISM, and cellular (CAT-M1 and NB-IoT) radios comply with the FCC and ISED limits at 20cm away from the body of the user.

The BLE, ISM, and cellular radios cannot simultaneously transmit.

In conclusion, the EUT, under normal use condition, must be at least 20 cm away from the body of the user and accessible to the end user. Warning statement to the user for keeping at least 20 cm or more separation distance with the antenna should be included in user's manual.