

RF Exposure Evaluation Report

APPLICANT : Rolling Wireless S.a r.l.
EQUIPMENT : 5G Module
BRAND NAME : Rolling Wireless
MODEL NAME : RW135R-GL
FCC ID : 2AX2URW135RGL
STANDARD : 47 CFR Part 2.1091

The product evaluation date was started from Jun. 10, 2026 and completed on Jun. 10, 2026. We, Sporton International Inc. (Shenzhen), would like to declare that the device has been evaluated in accordance with 47 CFR Part 2.1091 and FCC KDB 447498 D01 v06, and pass the limit. Without written approval of Sporton International Inc. (Shenzhen), the test report shall not be reproduced except in full.

Hank Huang



Approved by: Hank Huang

Sporton International Inc. (Shenzhen)

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People's Republic of China



Table of Contents

1. ADMINISTRATION DATA	4
1.1. Testing Laboratory	4
2. DESCRIPTION OF EQUIPMENT UNDER TEST (EUT)	5
3. MAXIMUM RF AVERAGE OUTPUT TUNE UP POWER AMONG PRODUCTION UNITS	7
4. RF EXPOSURE LIMIT INTRODUCTION	9
5. RADIO FREQUENCY RADIATION EXPOSURE EVALUATION	10
5.1. Standalone Power Density Calculation	10

**Revision History**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA642201	Rev. 01	Initial issue of report.	Jun. 16, 2026



1. Administration Data

1.1. Testing Laboratory

Sporton International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-SZ	CN1256	421272

Applicant	
Company Name	Rolling Wireless S.a r.l.
Address	8-10, rue Mathias Hardt 1717, Luxembourg

Manufacturer	
Company Name	Rolling Wireless S.a r.l.
Address	8-10, rue Mathias Hardt 1717, Luxembourg



2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	5G Module
Brand Name	Rolling Wireless
Model Name	RW135R-GL
FCC ID	2AX2URW135RGL
Wireless Technology and Frequency Range	LTE Band 2 : 1850 MHz ~ 1910 MHz LTE Band 4 : 1710 MHz ~ 1755 MHz LTE Band 5 : 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 13 : 777 MHz ~ 787 MHz LTE Band 14: 788 MHz ~ 798 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25 : 1850 MHz ~ 1915 MHz LTE Band 26 : 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3550 MHz ~ 3600 MHz LTE Band 43: 3600 MHz ~ 3700MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66 : 1710 MHz ~ 1780 MHz LTE Band 70: 1695 MHz ~ 1710 MHz LTE Band 71: 663 MHz ~ 698 MHz LTE Band 106: 897.5 MHz ~ 900.5 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n13 : 777 MHz ~ 787 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Mode	LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna Gain	LTE Band 2 : 4.0 dBi LTE Band 4 : 3.0 dBi LTE Band 5 : 3.0 dBi LTE Band 7 : 3.0 dBi LTE Band 12 : 3.0 dBi LTE Band 13 : 3.0 dBi LTE Band 14 : 3.0 dBi LTE Band 17 : 3.0 dBi LTE Band 25 : 4.0 dBi LTE Band 26 : 3.0 dBi LTE Band 30 : 1.0 dBi LTE Band 38 : 3.0 dBi LTE Band 41 : 3.0 dBi LTE Band 42 : 1.0 dBi LTE Band 43 : 1.0 dBi LTE Band 48 : 1.0 dBi

	LTE Band 66 : 3.0 dBi LTE Band 70 : 3.0 dBi LTE Band 71 : 3.0 dBi LTE Band 106 : 3.0 dBi 5G NR n2 : 4.0 dBi 5G NR n5 : 3.0 dBi 5G NR n7 : 3.0 dBi 5G NR n12 : 3.0 dBi 5G NR n13 : 3.0 dBi 5G NR n14 : 3.0 dBi 5G NR n25 : 4.0 dBi 5G NR n26 : 3.0 dBi 5G NR n30 : 1.0 dBi 5G NR n38 : 3.0 dBi 5G NR n41 : 3.0 dBi 5G NR n48 : 1.0 dBi 5G NR n66 : 3.0 dBi 5G NR n70 : 3.0 dBi 5G NR n71 : 3.0 dBi 5G NR n77 : 3.0 dBi 5G NR n78 : 3.0 dBi
Antenna Type	WWAN : PIFA Antenna
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. 5GNR n2/5/7/12/13/14/25/26/30/38/41/48/66/70/71/77/78 supports SA mode and 5G Redcap mode.
3. The maximum RF output tune up power of SA and 5G Redcap modes among the same frequency WWAN bands was selected to perform MPE calculation conservatively.
4. This device supports HPUE for 5GNR n41/77/78, so HPUE has been performed to do MPE analysis.
5. There are two types of EUT. For details, please refer to the RW135R-GL_Operational Description of Product Equality Declaration exhibit separately, and the differences do not affect the MPE analysis results.

Comments and Explanations:

1. The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.
2. The maximum RF output tune up power, antenna gain also the safe distance used for evaluate RF exposure were declared by manufacturer.

**3. Maximum RF average output tune up power among production units****<LTE>**

Mode		Maximum Average power(dBm)
LTE	Band 2	25.00
	Band 4	25.00
	Band 5	25.00
	Band 7	25.00
	Band 12	25.00
	Band 13	25.00
	Band 14	25.00
	Band 17	25.00
	Band 25	25.00
	Band 26	25.00
	Band 30	23.00
	Band 38	25.00
	Band 41	25.00
	Band 42	22.00
	Band 43	22.00
	Band 48	22.00
	Band 66	25.00
	Band 70	25.00
	Band 71	25.00
	Band 106	25.00

<5GNR>

Mode		Maximum Average power(dBm)
5GNR	n2	25.00
	n5	25.00
	n7	25.00
	n12	25.00
	n13	25.00
	n14	25.00
	n25	25.00
	n26	25.00
	n30	23.00
	n38	25.00
	n41	25.00
	n41 HPUE	27.00
	n48	22.00
	n66	25.00
	n70	25.00
	n71	25.00
	n77	25.00
	n77 HPUE	27.00
	n78	25.00
	n78 HPUE	27.00



4. RF Exposure Limit Introduction

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled 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

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

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

Where:

S = Power Density

P = Output Power at Antenna Terminals

G = Gain of Transmit Antenna (linear gain)

R = Distance from Transmitting Antenna



5. Radio Frequency Radiation Exposure Evaluation

5.1. Standalone Power Density Calculation

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm ²)	Limit (mW/cm ²)
LTE Band 2	1850.0	4.00	25.00	29.000	794.328	0.158	1.000
LTE Band 4	1710.0	3.00	25.00	28.000	630.957	0.126	1.000
LTE Band 5	824.0	3.00	25.00	28.000	630.957	0.126	0.549
LTE Band 7	2500.0	3.00	25.00	28.000	630.957	0.126	1.000
LTE Band 12	699.0	3.00	25.00	28.000	630.957	0.126	0.466
LTE Band 13	777.0	3.00	25.00	28.000	630.957	0.126	0.518
LTE Band 14	788.0	3.00	25.00	28.000	630.957	0.126	0.525
LTE Band 17	704.0	3.00	25.00	28.000	630.957	0.126	0.469
LTE Band 25	1850.0	4.00	25.00	29.000	794.328	0.158	1.000
LTE Band 26	814.0	3.00	25.00	28.000	630.957	0.126	0.543
LTE Band 30	2305.0	1.00	23.00	24.000	251.189	0.050	1.000
LTE Band 38	2570.0	3.00	25.00	28.000	630.957	0.126	1.000
LTE Band 41	2496.0	3.00	25.00	28.000	630.957	0.126	1.000
LTE Band 42	3550.0	1.00	22.00	23.000	199.526	0.040	1.000
LTE Band 43	3600.0	1.00	22.00	23.000	199.526	0.040	1.000
LTE Band 48	3550.0	1.00	22.00	23.000	199.526	0.040	1.000
LTE Band 66	1710.0	3.00	25.00	28.000	630.957	0.126	1.000
LTE Band 70	1695.0	3.00	25.00	28.000	630.957	0.126	1.000
LTE Band 71	663.0	3.00	25.00	28.000	630.957	0.126	0.442
LTE Band 106	897.5	3.00	25.00	28.000	630.957	0.126	0.598
5G NR n2	1850.0	4.00	25.00	29.000	794.328	0.158	1.000
5G NR n5	824.00	3.00	25.00	28.000	630.957	0.126	0.549
5G NR n7	2500.00	3.00	25.00	28.000	630.957	0.126	1.000
5G NR n12	699.00	3.00	25.00	28.000	630.957	0.126	0.466
5G NR n13	777.00	3.00	25.00	28.000	630.957	0.126	0.518
5G NR n14	788.00	3.00	25.00	28.000	630.957	0.126	0.525
5G NR n25	1850.00	4.00	25.00	29.000	794.328	0.158	1.000
5G NR n26	814.00	3.00	25.00	28.000	630.957	0.126	0.543
5G NR n30	2305.00	1.00	23.00	24.000	251.189	0.050	1.000
5G NR n38	2570.00	3.00	25.00	28.000	630.957	0.126	1.000
5G NR n41	2496.00	3.00	27.00	30.000	1000.000	0.199	1.000
5G NR n48	3550.00	1.00	22.00	23.000	199.526	0.040	1.000
5G NR n66	1710.00	3.00	25.00	28.000	630.957	0.126	1.000
5G NR n70	1695.00	3.00	25.00	28.000	630.957	0.126	1.000
5G NR n71	663.00	3.00	25.00	28.000	630.957	0.126	0.442
5G NR n77	3450.00	3.00	27.00	30.000	1000.000	0.199	1.000
5G NR n78	3450.00	3.00	27.00	30.000	1000.000	0.199	1.000

Note:

1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

-----THE END-----