

RF Exposure Evaluation Report

APPLICANT : AUMOVIO Systems, Inc.
EQUIPMENT : FE5RW0020
BRAND NAME : Continental
MODEL NAME : FE5RW0020
FCC ID : LHJ-FE5RW0020
STANDARD : 47 CFR Part 2.1091

The product evaluation date was started from May. 09, 2026 and completed on May. 09, 2026. We, Sporton International Inc. (Kunshan), 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. (Kunshan), the test report shall not be reproduced except in full.



Approved by: Si Zhang

Sporton International Inc. (Kunshan)

***No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China***



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**Revision History**

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA630307	Rev. 01	Initial issue of report.	May 11, 2026



1. Administration Data

1.1. Testing Laboratory

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-KS	CN1257	314309

Applicant	
Company Name	AUMOVIO Systems, Inc.
Address	21440 West Lake Cook Road, Deer Park, Illinois 60010, United States

Manufacturer	
Company Name	AUMOVIO Systems, Inc.
Address	21440 West Lake Cook Road, Deer Park, Illinois 60010, United States

2. Description of Equipment Under Test (EUT)

Product Feature & Specification	
EUT Type	FE5RW0020
Brand Name	Continental
Model Name	FE5RW0020
FCC ID	LHJ-FE5RW0020
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850MHz ~ 1910MHz WCDMA Band V: 824 MHz ~ 849 MHz 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 25 : 1850 MHz ~ 1915 MHz LTE Band 26 : 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n77 : 3700 MHz ~ 3980 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is not supported) LTE: QPSK, 16QAM, 64QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM
Antenna Gain	GSM850: 2.56 dBi GSM1900: 1.93 dBi WCDMA Band V: 2.56 dBi LTE Band 2 : 1.93 dBi LTE Band 4 : 1.93 dBi LTE Band 5 : 2.56 dBi LTE Band 7 : 1.24 dBi LTE Band 25 : 1.93 dBi LTE Band 26 : 2.56 dBi LTE Band 38 : 1.24 dBi LTE Band 41 : 1.24 dBi 5G NR n41 : 1.24 dBi 5G NR n77 : -0.84 dBi
Antenna Type	WWAN : Monopole Antenna
EUT Stage	Production Unit

Remark:

- The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
- 5GNR n41/77 supports SA mode.
- The intra-band mode combination could be referred to the product spec.
- This device supports intra-band ULCA, due to intra-band ULCA and non-CA power is same, so non-CA MPE analysis can represent ULCA MPE analysis.
- This device supports HPUE for LTE Band 41 and 5GNR n41/n77, so HPUE has been performed to do MPE analysis.

Comments and Explanations:

- 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.
- 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

<GSM>

Mode		Maximum Average power(dBm)	
		GSM850	GSM1900
GSM	GSM 1 Tx slot	33.00	31.00
	GPRS 1 Tx slot	33.00	31.00
	GPRS 2 Tx slots	31.00	28.00
	GPRS 3 Tx slots	30.00	27.00
	GPRS 4 Tx slots	28.00	25.00
	EDGE 1 Tx slot	28.00	27.00
	EDGE 2 Tx slots	26.00	25.00
	EDGE 3 Tx slots	25.00	24.00
	EDGE 4 Tx slots	24.00	23.00

<WCDMA>

Mode		Maximum Average power(dBm)
WCDMA	Band V	25.00

<LTE>

Mode		Maximum Average power(dBm)
LTE	Band 2	25.00
	Band 4	25.00
	Band 5	25.00
	Band 7	25.00
	Band 25	25.00
	Band 26	25.00
	Band 38	25.00
	Band 41	25.00
	Band 41 HPUE	28.00

<5G NR>

Mode		Maximum Average power(dBm)
5G NR	n41	25.00
	n41 PC2	28.00
	n77	25.00
	n77 PC2	28.00

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)
GSM 850 (1 Tx slot)	824.2	2.56	33.00	35.560	452.898	0.090	0.549
GPRS 850 (1 Tx slot)	824.2	2.56	33.00	35.560	452.898	0.090	0.549
GPRS 850 (2 Tx slots)	824.2	2.56	33.00	35.560	903.649	0.180	0.549
GPRS 850 (3 Tx slots)	824.2	2.56	33.00	35.560	1348.963	0.269	0.549
GPRS 850 (4 Tx slots)	824.2	2.56	33.00	35.560	1803.018	0.359	0.549
EGPRS 850 (1 Tx slot)	824.2	2.56	33.00	35.560	452.898	0.090	0.549
EGPRS 850 (2 Tx slots)	824.2	2.56	33.00	35.560	903.649	0.180	0.549
EGPRS 850 (3 Tx slots)	824.2	2.56	33.00	35.560	1348.963	0.269	0.549
EGPRS 850 (4 Tx slots)	824.2	2.56	33.00	35.560	1803.018	0.359	0.549
GSM 1900 (1 Tx slot)	1850.2	1.93	31.00	32.930	247.172	0.049	1.000
GPRS 1900 (1 Tx slot)	1850.2	1.93	31.00	32.930	247.172	0.049	1.000
GPRS 1900 (2 Tx slots)	1850.2	1.93	31.00	32.930	493.174	0.098	1.000
GPRS 1900 (3 Tx slots)	1850.2	1.93	31.00	32.930	736.207	0.147	1.000
GPRS 1900 (4 Tx slots)	1850.2	1.93	31.00	32.930	984.011	0.196	1.000
EGPRS 1900 (1 Tx slot)	1850.2	1.93	31.00	32.930	247.172	0.049	1.000
EGPRS 1900 (2 Tx slots)	1850.2	1.93	31.00	32.930	493.174	0.098	1.000
EGPRS 1900 (3 Tx slots)	1850.2	1.93	31.00	32.930	736.207	0.147	1.000
EGPRS 1900 (4 Tx slots)	1850.2	1.93	31.00	32.930	984.011	0.196	1.000
WCDMA Band 5	826.4	2.56	25.00	27.560	570.164	0.113	0.551
LTE Band 2	1850.0	1.93	25.00	26.930	493.174	0.098	1.000
LTE Band 4	1710.0	1.93	25.00	26.930	493.174	0.098	1.000
LTE Band 5	824.0	2.56	25.00	27.560	570.164	0.113	0.549
LTE Band 7	2500.0	1.24	25.00	26.240	420.727	0.084	1.000
LTE Band 25	1850.0	1.93	25.00	26.930	493.174	0.098	1.000
LTE Band 26	814.0	2.56	25.00	27.560	570.164	0.113	0.543
LTE Band 38	2570.0	1.24	25.00	26.240	420.727	0.084	1.000
LTE Band 41	2496.0	1.24	28.00	29.240	839.460	0.167	1.000
5G NR n41	2496.0	1.24	28.00	29.240	839.460	0.167	1.000
5G NR n77	3700.0	-0.84	28.00	27.160	519.996	0.104	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-----