

TEST REPORT

FCC MPE Test for LGSWCAX71
Certification

APPLICANT

LG Electronics Inc.

REPORT NO.

HCT-RF-2609-FC007

DATE OF ISSUE

September 04, 2026

Tested by

Se Wook Park

(signature)

Technical Manager

Jong Seok Lee

(signature)

Accredited by KOLAS, Republic of KOREA

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September 04, 2026

Applicant

LG Electronics Inc.

222, LG-ro, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do 17709, Republic of Korea

Product Name

RF Module

Model Name

LGSWCAX71

FCC ID

2B03LLGSWCAX71

Frequency range

2 402 MHz – 2 480 MHz (Bluetooth, Bluetooth LE)

2 412 MHz ~ 2 472 MHz (WLAN)

5 180 MHz ~ 5 825 MHz (UNII)

5 955 MHz ~ 7 115 MHz (UNII 6G)

Date of Test

July 07, 2026 ~ September 04, 2026

Test Standard Used

§1.1310, §2.1091

Location of Test

■ Permanent Testing Lab □ On Site Testing Lab

(Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)

Test Results

PASS

Brand

LG

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	September 04, 2026	Initial Release

Notice

Content
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 the FCC Rules under normal use and maintenance. The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s). The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***. When confirmation of authenticity of this test report is required, please contact www.hct.co.kr This test report provides test result(s) under the scope accredited by the Korea Laboratory Accreditation Scheme (KOLAS), which signed the ILAC-MRA. (KOLAS (KS Q ISO/IEC 17025) Accreditation No. KT197)

RF Exposure Statement

1. Limit

According to §1.1310, §2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures				
Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	^(a) (100)	30
1.34 - 30.....	824/f	2.19/f	^(a) (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

^(a) = Plane-wave equivalent power density

2. Maximum Permissible Exposure Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = Power input to antenna

G = Power gain to the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

3. RESULTS

3-1. Bluetooth

Average output Power at antenna input terminal	10.00	dBm
Average output Power at antenna input terminal	10.00	mW
Prediction distance	20.00	cm
Prediction frequency	2402 ~ 2480	MHz
Antenna Gain(typical)	0.92	dBi
Antenna Gain(numeric)	1.236	-
Power density at prediction frequency(S)	0.0025	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-2. Bluetooth LE

Average output Power at antenna input terminal	10.00	dBm
Average output Power at antenna input terminal	10.00	mW
Prediction distance	20.00	cm
Prediction frequency	2402 ~ 2480	MHz
Antenna Gain(typical)	0.92	dBi
Antenna Gain(numeric)	1.236	-
Power density at prediction frequency(S)	0.0025	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-3. DTS SISO ANT1

Average output Power at antenna input terminal	19.00	dBm
Average output Power at antenna input terminal	79.43	mW
Prediction distance	20.00	cm
Prediction frequency	2412 ~ 2472	MHz
Antenna Gain(typical)	1.74	dBi
Antenna Gain(numeric)	1.493	-
Power density at prediction frequency(S)	0.0236	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-4. DTS SISO ANT2

Average output Power at antenna input terminal	19.00	dBm
Average output Power at antenna input terminal	79.43	mW
Prediction distance	20.00	cm
Prediction frequency	2412 ~ 2472	MHz
Antenna Gain(typical)	2.03	dBi
Antenna Gain(numeric)	1.596	-
Power density at prediction frequency(S)	0.0252	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-5. DTS MIMO

Average output Power at antenna input terminal	22.00	dBm
Average output Power at antenna input terminal	158.49	mW
Prediction distance	20.00	cm
Prediction frequency	2412 ~ 2472	MHz
Antenna Gain(typical)	4.90	dBi
Antenna Gain(numeric)	3.090	-
Power density at prediction frequency(S)	0.0974	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-6. UNII 5 GHz SISO ANT1

Average output Power at antenna input terminal	15.00	dBm
Average output Power at antenna input terminal	31.62	mW
Prediction distance	20.00	cm
Prediction frequency	5180 ~ 5825	MHz
Antenna Gain(typical)	1.78	dBi
Antenna Gain(numeric)	1.507	-
Power density at prediction frequency(S)	0.0095	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-7. UNII 5 GHz SISO ANT2

Average output Power at antenna input terminal	15.00	dBm
Average output Power at antenna input terminal	31.62	mW
Prediction distance	20.00	cm
Prediction frequency	5180 ~ 5825	MHz
Antenna Gain(typical)	1.59	dBi
Antenna Gain(numeric)	1.442	-
Power density at prediction frequency(S)	0.0091	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-8. UNII 5 GHz MIMO

Average output Power at antenna input terminal	18.00	dBm
Average output Power at antenna input terminal	63.10	mW
Prediction distance	20.00	cm
Prediction frequency	5180 ~ 5825	MHz
Antenna Gain(typical)	4.70	dBi
Antenna Gain(numeric)	2.951	-
Power density at prediction frequency(S)	0.0370	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-9. UNII 6 GHz SISO ANT1

Average output Power at antenna input terminal	8.00	dBm
Average output Power at antenna input terminal	6.31	mW
Prediction distance	20.00	cm
Prediction frequency	5 955 ~ 7 115	MHz
Antenna Gain(typical)	2.17	dBi
Antenna Gain(numeric)	1.648	-
Power density at prediction frequency(S)	0.0021	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-10. UNII 6 GHz SISO ANT2

Average output Power at antenna input terminal	8.00	dBm
Average output Power at antenna input terminal	6.31	mW
Prediction distance	20.00	cm
Prediction frequency	5 955 ~ 7 115	MHz
Antenna Gain(typical)	1.73	dBi
Antenna Gain(numeric)	1.489	-
Power density at prediction frequency(S)	0.0019	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-11. UNII 6 GHz MIMO

Average output Power at antenna input terminal	11.00	dBm
Average output Power at antenna input terminal	12.59	mW
Prediction distance	20.00	cm
Prediction frequency	5 955 ~ 7 115	MHz
Antenna Gain(typical)	4.95	dBi
Antenna Gain(numeric)	3.126	-
Power density at prediction frequency(S)	0.0078	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

Simultaneous transmission operations

Worst Case: Simultaneous MPE 20cm is

$$\sum_{i=1}^n \frac{\text{Power density } i}{\text{Limit } i} < 1$$

Simultaneous MPE

- BT(0.0025) + 2.4 GHz WLAN MIMO (0.0974) = 0.0999 < 1
- BT(0.0025) + 5G WLAN MIMO (0.0370) = 0.0395 < 1
- BT(0.0025) + 6G WLAN MIMO (0.0078) = 0.0103 < 1
- BT(0.0025) + 2.4 GHz WLAN SISO ANT2(0.0252) + 5 GHz WLAN SISO ANT1 (0.0095) = 0.0372 < 1
- BT(0.0025) + 2.4 GHz WLAN SISO ANT2(0.0252) + 6 GHz WLAN SISO ANT1 (0.0021) = 0.0298 < 1