



TEST REPORT

FCC MPE Test for LGSWAAC63
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2508-FC006-R1

DATE OF ISSUE
August 13, 2025

Tested by
Kwang Il Yoon

Technical Manager
Jong Seok Lee

Accredited by KOLAS, Republic of KOREA

HCT CO., LTD.
BongJai Huh
BongJai Huh / CEO



HCT CO.,LTD.

2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea
Tel. +82 31 645 6300 Fax. +82 31 645 6401



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Applicant	LG Electronics Inc. 222, LG-ro, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do 17709, Republic of Korea
Product Name	RF Module
Model Name	LGSWAAC63
FCC ID	2BO3LLGSAAC63
Date of Test	June 18, 2025 ~ August 04, 2025
Frequency range	2 402 MHz – 2 480 MHz (Bluetooth, BT LE) 2 412 MHz – 2 472 MHz (WLAN) 5 180 MHz – 5 825 MHz (UNII)
Test Standard Used	§ 1.1310, § 2.1091
Test Results	PASS
Location of Test	<input checked="" type="checkbox"/> Permanent Testing Lab <input type="checkbox"/> On Site Testing Lab (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)
Brand	LG

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	August 05, 2025	Initial Release
1	August 13, 2025	Revised the frequency range on page 2 and 6.

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 -	1.0	30
100.000.....				

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)	-1.77	dBi
Antenna Gain(numeric)	0.665	-
Power density at prediction frequency(S)	0.0013	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)	-1.77	dBi
Antenna Gain(numeric)	0.665	-
Power density at prediction frequency(S)	0.0013	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-3. 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)	-0.13	dBi
Antenna Gain(numeric)	0.971	-
Power density at prediction frequency(S)	0.0306	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-4. UNII 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)	5.22	dBi
Antenna Gain(numeric)	3.327	-
Power density at prediction frequency(S)	0.0418	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

- 5 GHz WLAN (0.0418) + BT (0.0013) = 0.0431 < 1

- 2.4 GHz WLAN (0.0306) + BT (0.0013) = 0.0319 < 1