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CERT #4114.01

TEST REPORT

FCC SAR Exclusion Test for LCWB-008
Class II Permissive Change

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-SR-2601-FC002-R1

DATE OF ISSUE
January 19, 2026

Tested by Da Sol Lee	이다솔
Technical Manager Yun Jeang Heo	Yjno

Accredited by KOLAS, Republic of KOREA

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TEST REPORT

FCC SAR Exclusion Report

REPORT NO.
HCT-SR-2601-FC002-R1

DATE OF ISSUE
Jan. 19, 2026

FCC ID
BEJ-LCWB008

Applicant	LG Electronics Inc. 170, Seongsan Pachong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do 51533, Republic of Korea
EUT Type Model Name	RF Module LCWB-008
Application Type	Class II Permissive Change
Date of Test	Jan. 12, 2026
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)
FCC Rule	47CFR § 2.1093

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
This test results were applied only to the test methods required by the standard.

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REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Jan. 12, 2026	Initial Release
1	Jan. 19, 2026	Revised typo, simultaneous transmission, ant. peak gain

Notice

Content
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) This test report provides test result(s) under the lab's valid Scope of Accreditation by A2LA (American Association for Laboratory Accreditation), signatory of the ILAC-MRA. (A2LA (ISO/IEC 17025) Certificate No. 4114.01)

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1. EUT DESCRIPTION

Model Name		LCWB-008
EUT Type		RF Module
Frequency Range	Bluetooth LE	2 402 MHz – 2 480 MHz
	2.4 GHz WLAN	2 412 MHz – 2 462 MHz
Max. RF Output Power	Bluetooth LE	Target Power: 4.5 dBm Tolerance + 2.0 dB(6.5 dBm)
	2.4 GHz WLAN	Target Power: 17 dBm Tolerance + 1.5 dB(18.5 dBm)
Modulation Type	Bluetooth LE	GFSK
	2.4 GHz WLAN	DSS/CCK: 802.11b, OFDM: 802.11g, 802.11n(HT20)
Number of Channels	Bluetooth LE	40 Channels
	2.4 GHz WLAN	11 Channels
Antenna Specification		Antenna type: PCB Pattern Antenna
		Peak Gain: 1.7 dBi

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2. TEST METHODOLOGY

2.1 FCC

According to the FCC KDB 447498 D01 v06 section 4.3.1, for 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

a) For 100 MHz to 6 GHz and test separation distances ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:
[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, where

$$\cdot\frac{Max\ Power\ of\ Channel(mW)}{Test\ \ Separation\ Distance\ (mm)} * \sqrt{Frequency(GHz)} \leq\ 3.0\ \text{For 1g SAR},\ \ 7.5.\ \text{for 10g SAR}$$

where
- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The 40mm[Body], 20.93mm[Extremity] separation distance for evaluating RF exposure for this model was declared by the manufacturer.

Bluetooth LE Calculation Result:

Tx frequency range: 2 402 MHz ~ 2 480 MHz
Body SAR Consideration Min. test separation distance: 40 mm
Maximum Output Power: 6.5 dBm (4.47 mW)
The Highest RF channel frequency: 2 480 MHz

Tx frequency range: 2 402 MHz ~ 2 480 MHz
Extremity SAR Consideration Min. test separation distance: 20.93 mm
Maximum Output Power: 6.5 dBm (4.47 mW)
The Highest RF channel frequency: 2 480 MHz

2.4 GHz WLAN Calculation Result:

Tx frequency range: 2 412 MHz ~ 2 462 MHz
Body SAR Consideration Min. test separation distance: 40 mm
Maximum Output Power: 18.5 dBm (70.79 mW)
The Highest RF channel frequency: 2 462 MHz

Tx frequency range: 2 412 MHz ~ 2 462 MHz
Extremity SAR Consideration Min. test separation distance: 20.93 mm
Maximum Output Power: 18.5 dBm (70.79 mW)
The Highest RF channel frequency: 2 462 MHz

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For SAR Exclusion

Mode	Frequency	Maximum Allowed Power	Separation Distance	≤ 3.0 for 1 g SAR
	[MHz]	[mW]	[mm]	
Bluetooth LE	2 480	4.47	40	0.1759
2.4 GHz WLAN	2 462	70.79	40	2.7771

Based on the maximum output power of Bluetooth LE, 2.4 GHz WLAN and antenna to use separation distance, Bluetooth, 2.4 GHz WLAN Body SAR were not required.

Mode	Frequency	Maximum Power	Separation Distance	≤ 7.5 for 10 g SAR
	[MHz]	[mW]	[mm]	
Bluetooth LE	2 480	4.47	20.93	0.3361
2.4 GHz WLAN	2 462	70.79	20.93	5.3073

Based on the maximum output power of Bluetooth LE, 2.4 GHz WLAN and antenna to use separation distance, Bluetooth, 2.4 GHz WLAN Extremity SAR were not required.

For Estimated SAR

$$Estimated\ SAR = \frac{\sqrt{f(\text{GHz})}}{7.5} * \frac{(Max\ Power\ of\ channel\ mW)}{Min\ Seperation\ Distance}$$

Mode	Frequency	Maximum Allowed Power	Separation Distance (Body)	Estimated 1g SAR (Body)
	[MHz]	[mW]	[mm]	[W/kg]
Bluetooth LE	2 480	4.47	40	0.023
2.4 GHz WLAN	2 462	70.79	40	0.370

$$Estimated\ SAR = \frac{\sqrt{f(\text{GHz})}}{18.5} * \frac{(Max\ Power\ of\ channel\ mW)}{Min\ Seperation\ Distance}$$

Mode	Frequency	Maximum Power	Separation Distance	Estimated 10g SAR (Extremity)
	[MHz]	[mW]	[mm]	[W/kg]
Bluetooth LE	2 480	4.47	20.93	0.018
2.4 GHz WLAN	2 462	70.79	20.93	0.283

End.

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