

TEST REPORT

FCC MPE Test for ETWMCBSL01
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2605-FC020

DATE OF ISSUE
July 20, 2026

Tested by
Jin Gwan Lee



Technical Manager
Jong Seok Lee



Accredited by KOLAS, Republic of KOREA

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Applicant

LG Electronics Inc.

128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea

Product Name

RF Module

Model Name

ETWMCBSL01

FCC ID

2B03LETWMCBSL01

Frequency range

2 402 MHz ~ 2 480 MHz (Bluetooth LE, Thread)

2 412 MHz ~ 2 462 MHz (WLAN)

5 180 MHz ~ 5 240, 5 745 ~ 5 805 MHz (UNII)

Date of Test

April 06, 2026 ~ July 20, 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	July 20, 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. Thread

Average output Power at antenna input terminal	20.00	dBm
Average output Power at antenna input terminal	100.00	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	1.00	dBi
Antenna Gain(numeric)	1.259	-
Power density at prediction frequency(S)	0.0250	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	11.00	dBm
Average output Power at antenna input terminal	12.59	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	1.00	dBi
Antenna Gain(numeric)	1.259	-
Power density at prediction frequency(S)	0.0032	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-3. DTS

Average output Power at antenna input terminal	23.00	dBm
Average output Power at antenna input terminal	199.53	mW
Prediction distance	20.00	cm
Prediction frequency	2412 – 2462	MHz
Antenna Gain(typical)	3.96	dBi
Antenna Gain(numeric)	2.49	-
Power density at prediction frequency(S)	0.0988	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

3-4. UNII

Average output Power at antenna input terminal	24.00	dBm
Average output Power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	5180 - 5825	MHz
Antenna Gain(typical)	3.91	dBi
Antenna Gain(numeric)	2.46	-
Power density at prediction frequency(S)	0.1230	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 (0.1230) + Thread (0.0250) = 0.1480 < 1
- 5 GHz WLAN (0.1230) + BT LE(0.0032) = 0.1262 < 1