TEST REPORT

FCC MPE Test for LCWB-007
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2406-FC001

DATE OF ISSUE
June 13, 2024

Tested by
Jin Gwan Lee

Technical Manager
Jong Seok Lee

Accredited by KOLAS, Republic of KOREA

HCT CO., LTD.
BongJai Huh / CEO

HCT CO., LTD. 2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA Tel. +82 31 645 6300 Fax. +82 31 645 6401

HCT CO.,LTD.
2-6, 73, 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
Tel. +82 31 645 6300 Fax. +82 31 645 6401

TEST REPORT

REPORT NO.
HCT-RF-2406-FC001

DATE OF ISSUE
June 13, 2024

Applicant	**LG Electronics Inc.** 170, Seongsan Pachong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do 51533, Republic of Korea
Product Name Model Name	RF Module LCWB-007
FCC ID	BEJ-LCWB007
Date of Test	May 24, 2024~ June 11, 2024
Frequency range	2 402 MHz – 2 480 MHz (Bluetooth LE) 2 412 MHz ~ 2 462 MHz (WLAN)
Brand	LG
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)

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	June 13, 2024	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) 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)

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 LE

Maximum output Power at antenna input terminal	6.00	dBm
Maximum output Power at antenna input terminal	3.98	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	1.67	dBi
Antenna Gain(numeric)	1.469	-
Power density at prediction frequency(S)	0.0012	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

2.1091

EIRP	7.67	(dBm)
ERP	5.52	(dBm)
ERP	0.004	(W)
ERP Limit	3.00	(W)
MARGIN	29.25	(dB)

3-2. DTS

Maximum output Power at antenna input terminal	18.50	dBm
Maximum output Power at antenna input terminal	70.79	mW
Prediction distance	20.00	cm
Prediction frequency	2412 – 2462	MHz
Antenna Gain(typical)	1.67	dBi
Antenna Gain(numeric)	1.469	-
Power density at prediction frequency(S)	0.0207	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

2.1091

EIRP	20.17	(dBm)
ERP	18.02	(dBm)
ERP	0.063	(W)
ERP Limit	3.00	(W)
MARGIN	16.75	(dB)