

# TEST REPORT

FCC MPE Test for TFHOBIB1F4  
Certification

**APPLICANT**  
LG Electronics Inc.

**REPORT NO.**  
HCT-RF-2412-FC090

**DATE OF ISSUE**  
December 31, 2024

**Tested by**  
Kyung Jun Woo



**Technical Manager**  
Jong Seok Lee



Accredited by KOLAS, Republic of KOREA

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

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# TEST REPORT

**REPORT NO.**

HCT-RF-2412-FC090

**DATE OF ISSUE**

December 31, 2024

**Applicant****LG Electronics Inc.**

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

**Product Name**

Telematics

**Model Name**

TFHOBIBI1F4

**FCC ID**

BEJTFHOBIBI1F4

**Date of Test**

November 07, 2024 ~ December 23, 2024

**Frequency range**

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	December 31, 2024	Initial Release

## Notice

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### Content

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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](http://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)

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## 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 <sup>2</sup> )	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	<sup>(a)</sup> (100)	30
1.34 - 30.....	824/f	2.19/f	<sup>(a)</sup> (180/ f <sup>2</sup> )	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

<sup>(a)</sup> = 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. DTS

Maximum output Power at antenna input terminal	20.00	dBm
Maximum output Power at antenna input terminal	100.00	mW
Prediction distance	20.00	cm
Prediction frequency	2412 – 2462	MHz
Antenna Gain(typical)	6.000	dBi
Antenna Gain(numeric)	3.981	-
Power density at prediction frequency( S)	0.0792	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

#### 3-2. WCDMA B2<sup>#</sup>

Maximum output Power at antenna input terminal	24.00	dBm
Maximum output Power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	1852.4 ~ 1907.6	MHz
Antenna Gain(typical)	1.77	dBi
Antenna Gain(numeric)	1.50	-
Power density at prediction frequency( S)	0.2487	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

#### #Note

The worst-case band from the contained Licensed band module [FCC ID: BEJTM19FNEUHD2] which transmits simultaneously with Wi-Fi 2.4 GHz.

#### Worst Case: Simultaneous MPE 20cm is

DTS (0.0792) + WCDMA B2 (0.2487) = 0.3279 < 1