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# **TEST REPORT**

FCC MPE Test for ETWFAFML01 Certification

APPLICANT LG Innotek Co., Ltd.

REPORT NO. HCT-RF-2210-FI002

DATE OF ISSUE October 14, 2022

> Tested by Sang Hoon Lee

263

Technical Manager Se Wook Park

Accredited by KOLAS, Republic of KOREA

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

HCT CO., LTD. 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA Tel. +82 31 634 6300 Fax. +82 31 645 6401 The report shall not be reproduced except in full(only partly) without approval of the laboratory.

F-TP22-03(Rev.04)

1/5



**REPORT NO.** 

TEST REPORT FCC MPE Test for ETWFAFML01	HCT-RF-2210-FI002 DATE OF ISSUE October 14, 2022 Additional Model -
Applicant	<b>LG Innotek Co., Ltd.</b> 26, Hanamsandan 5 beon-ro, Gwangsan-gu, Gwangju, 506-731, South Korea
Eut Type Model Name	RF Module ETWFAFML01
FCC ID	YZP-ETWFAFML01
Frequency range	2 412 MHz ~ 2 462 MHz (WLAN)
	The result shown in this test report refer only to the sample(s) tested unless

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.







## **REVISION HISTORY**

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

Revision No.	Date of Issue	Description
0	October 14, 2022	Initial Release

#### **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

#### **KOLAS Statement:**

The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (KOLAS Accreditation No. KT197)

If this report is required to confirmation of authenticity, please contact to www.hct.co.kr



# **RF Exposure Statement**

# 1. Limit

According to §1.1310, §2.1091 RF exposure is calculated.

Frequency range (MHz)	Electric field Strength (V/m)	Magneticfield Strength (A/m)	Powerdensity (mW/cm²)	Averagingtime (minutes)
0.3 -				
1.34	614	1.63	*(100)	30
1.34 - 30	824/f	2.19/f	*(180/ f <sup>2</sup> )	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

\* = 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

Max. Average output Power at antenna input terminal	19.00	dBm
Max. Average output Power at antenna input terminal	79.43	mW
Prediction distance	20.00	cm
Prediction frequency	2412 - 2462	MHz
Antenna Gain(typical)	1.50	dBi
Antenna Gain(numeric)	1.413	-
Power density at prediction frequency(S)	0.0223	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm <sup>2</sup>

#### 2.1091

EIRP	20.50	(dBm)
ERP	18.35	(dBm)
ERP	0.068	(W)
ERP Limit	3.00	(W)
MARGIN	16.42	(dB)