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TEST REPORT

FCC MPE Test for ETWFAEWC01

Certification

APPLICANT
LG Innotek Co., Ltd.

REPORT NO.
HCT-RF-2004-FI007

DATE OF ISSUE
April 16, 2020

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Additional Model
-

Applicant	LG Innotek Co., Ltd. 26, Hanamsandan 5beon-ro Gwangsan-gu, Gwangju, 506-731, South Korea
EUT Type **Model Name**	RF Module ETWFAEWC01
FCC ID	YZP-ETWFAEWC01
Date of Receipt	April 01, 2020
Frequency range	2 412 MHz ~ 2 462 MHz (WLAN)

This test results were applied only to the test methods required by the standard.

Tested by
Sang Hoon Lee (signature)

Technical Manager
Kwon Jeong (signature)

HCT CO., LTD. (signature)
SooChan Lee / CEO

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	April 16, 2020	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

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	*(100)	30
1.34 - 30	824/f	2.19/f	*(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

* = 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

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	2412 – 2462	MHz
Antenna Gain(typical)	1.500	dBi
Antenna Gain(numeric)	1.413	-
Power density at prediction frequency(S)	0.0281	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm^2

2.1091

EIRP	21.50	(dBm)
ERP	19.35	(dBm)
ERP	0.086	(W)
ERP Limit	3.00	(W)
MARGIN	15.42	(dB)