

TEST REPORT

FCC MPE Test for ETPFFRPP01

APPLICANT
LG Innotek Co., Ltd.

REPORT NO.
HCT-RF-2101-FI001

DATE OF ISSUE
January 19, 2021

Tested by
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REPORT**

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ETPFFRPP01

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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**

4PPoE WLAN Bridge
ETPFFRPP01

FCC ID

YZP-ETPFFRPP01

Frequency range

2 412 MHz ~ 2 462 MHz (DTS)
5 180 MHz ~ 5 825 MHz (UNII)

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	January 19, 2021	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

* The report shall not be reproduced except in full(only partly) without approval of the laboratory.

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	22.00	dBm
Average output Power at antenna input terminal	158.49	mW
Prediction distance	20.00	cm
Prediction frequency	2412 – 2462	MHz
Antenna Gain(typical)	3.27	dBi
Antenna Gain(numeric)	2.123	-
Power density at prediction frequency(S)	0.0669	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

2.1091

EIRP	25.27	(dBm)
ERP	23.12	(dBm)
ERP	0.205	(W)
ERP Limit	3.00	(W)
MARGIN	11.65	(dB)

3-2. UNII

Average output Power at antenna input terminal	21.00	dBm
Average output Power at antenna input terminal	125.89	mW
Prediction distance	20.00	cm
Prediction frequency	5180 – 5825	MHz
Antenna Gain(typical)	3.72	dBi
Antenna Gain(numeric)	2.355	-
Power density at prediction frequency(S)	0.0590	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

2.1091

EIRP	24.72	(dBm)
ERP	22.57	(dBm)
ERP	0.181	(W)
ERP Limit	3.00	(W)
MARGIN	12.20	(dB)