TEST REPORT

FCC MPE Test for PWLGWB100

Certification

APPLICANT
LG Electronics Inc.

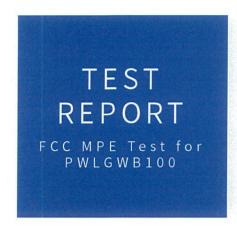**REPORT NO.**
HCT-RF-1912-FI002

DATE OF ISSUE
December 09, 2019

HCT

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FCC MPE Test for
PWLGWB100

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HCT-RF-1912-FI002

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FCC ID
BEJ-PWLGWB100

Applicant	**LG Electronics Inc.** 170, Seongsanpaechong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, 51533, Korea
Eut Type **Model Name**	Zigbee Dongle PWLGWB100
Date of Receipt	November 13, 2019
Frequency range	2405 MHz ~ 2480 MHz (Zigbee)

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

Tested by
Se Wook Park   (signature)

Technical Manager
Jong Seok Lee   (signature)

HCT CO., LTD.
Soo Chan Lee
SooChan Lee   / CEO

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	December 09, 2019	Initial Release

The measurements shown in this report were made in accordance with the procedures specified in §2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)

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/cm²)	Averaging time (minutes)
0.3 - 1.34……………………………………	614	1.63	*(100)	30
1.34 - 30………………………………….	824/f	2.19/f	*(180/ f²)	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. Zigbee

Peak output Power at antenna input terminal	17.50	dBm
Peak output Power at antenna input terminal	56.23	mW
Prediction distance	20.00	cm
Prediction frequency	2405 – 2480	MHz
Antenna Gain(typical)	2.370	dBi
Antenna Gain(numeric)	1.726	-
Power density at prediction frequency(S)	0.01931	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm^2

2.1091

EIRP	19.87	(dBm)
ERP	17.72	(dBm)
ERP	0.059	(W)
ERP Limit	3.00	(W)
MARGIN	17.05	(dB)