

FCC MPE REPORT

Certification

Applicant Name:
LG Electronics Inc.

Address:
84, Wanam-ro, Seongsan-gu, Changwon-si,
Gyeongsangnam-do, 51554, Korea

Date of Issue:
October 26, 2018

Test Site/Location:
HCT CO., LTD., 74, Seoicheon-ro 578beon-gil, Majang-
myeo, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA
Report No.: HCT-RF-1810-FI022

FCC ID: BEJ-LZM001

APPLICANT: LG Electronics Inc.

Model: LZM-001

EUT Type: Zigbee Module

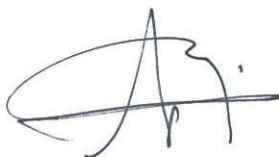
Frequency Range: 2405 MHz - 2480 MHz (Zigbee)

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)



Report prepared by : Jeong Ho Kim
Engineer of Telecommunication testing center



Approved by : Jong Seok Lee
Manager of Telecommunication testing center

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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-RF-1810-FI022	October 26, 2018	- First Approval Report

RF Exposure Statement

1. LIMITS

According to §1.1310 and §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 of 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

Average output Power at antenna input terminal	9.00	dBm
Average output Power at antenna input terminal	7.943	mW
Prediction distance	20.00	cm
Prediction frequency	2 405 ~ 2 480	MHz
Antenna Gain(typical)	1.50	dBi
Antenna Gain(numeric)	1.413	-
Power density at prediction frequency(S)	0.00223	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.00	mW/cm ²

2.1091

EIRP	10.50 (dBm)
ERP	8.35 (dBm)
ERP	0.007 (W)
ERP Limit	3.0 (W)
MARGIN	26.42 (dB)