

TEST REPORT

MPE Test for LCW-008

APPLICANT

LG Electronics Inc.

REPORT NO.

HCT-RF-1911-FI002

DATE OF ISSUE

November 07, 2019

HCT Co., Ltd.

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FCC ID/IC
BEJ-LCW008/2703N-LCW008

Applicant

LG Electronics Inc.
170, Seongsanpaechong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-

Product Name
Model Name

RF Module
LCW-008

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.

Tested by
Park Se Wook

(signature)

Technical Manager
Kwon Jeong

(signature)

HCT CO., LTD.

Soo Chon Lee
SooChon Lee / CEO

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	November 07, 2019	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. 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. DTS

Average output Power at antenna input terminal	19.00	dBm
Average output Power at antenna input terminal	79.433	mW
Prediction distance	20.000	cm
Prediction frequency	2412 ~ 2462	MHz
Antenna Gain(typical)	2.500	dBi
Antenna Gain(numeric)	1.778	-
Power density at prediction frequency(S)	0.028	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	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)