

FCC MPE REPORT

FCC Certification

Applicant Name:

LG Electronics Inc.

Address:

222 LG-ro Jinwi-myeon, Pyeongtaek-si,

Gyeonggi-do 451-713, Korea

Date of issue:

May 30, 2016

Test Site/Location:

HCT CO., LTD., 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383, Rep. of KOREA

Report No.: HCT-R-1605-E005**HCT FRN:** 0005866421**IC Recognition No.:** 5944A-5**FCC ID : BEJLC7FD****APPLICANT : LG Electronics Inc****Model(s):**

LC7F-D

EUT Type:

Faceplate RADIO ASM-RECEIVER

Frequency Range:

2402 MHz - 2480 MHz (Bluetooth)

2412 MHz - 2462 MHz (2.4 GHz Band_WLAN)

5180 MHz - 5240 MHz (5GHz Band_UNII 1 BAND)

5765 MHz - 5825 MHz (5GHz Band_UNII 3 BAND)

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****: Kyung Soo Kang****Test engineer of RF Team****Approved by****: Jong Seok Lee****Manager of RF Team**

This report only responds to the tested sample and may not be reproduced, except in full, without written approval of the HCT Co., Ltd.

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-R-1605-E005	May 30, 2016	- 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. BT BAND

Max Average output Power at antenna input terminal (dBm)	3.3450
Max Average output Power at antenna input terminal (mW)	2.160
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2441.00000
Antenna Gain(Peak) (dBi)	2.10000
Antenna Gain(numeric)	1.62181
Power density at prediction frequency (mW/cm ²)	0.000697
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3-2. DTS(802.11b) BAND

Max Average output Power at antenna input terminal (dBm)	17.6000
Max Average output Power at antenna input terminal (mW)	57.544
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2437.00000
Antenna Gain(Peak) (dBi)	2.10000
Antenna Gain(numeric)	1.62181
Power density at prediction frequency (mW/cm ²)	0.018567
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3-3. DTS(802.11g) BAND

Max Average output Power at antenna input terminal (dBm)	24.0400
Max Average output Power at antenna input terminal (mW)	253.513
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2437.00000
Antenna Gain(Peak) (dBi)	2.10000
Antenna Gain(numeric)	1.62181
Power density at prediction frequency (mW/cm ²)	0.081796
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3-3. DTS(802.11n) BAND

Max Average output Power at antenna input terminal (dBm)	24.0300
Max Average output Power at antenna input terminal (mW)	252.930
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	2437.00000
Antenna Gain(Peak) (dBi)	2.10000
Antenna Gain(numeric)	1.62181
Power density at prediction frequency (mW/cm ²)	0.081608
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3-4. UNII 1 (802.11a) BAND

Max Average output Power at antenna input terminal (dBm)	11.0700
Max Average output Power at antenna input terminal (mW)	12.794
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	5180.00000
Antenna Gain(Peak) (dBi)	3.90000
Antenna Gain(numeric)	2.45471
Power density at prediction frequency (mW/cm ²)	0.006248
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3-5. UNII 1 (802.11n) BAND

Max Average output Power at antenna input terminal (dBm)	10.9200
Max Average output Power at antenna input terminal (mW)	12.359
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	5180.00000
Antenna Gain(Peak) (dBi)	3.90000
Antenna Gain(numeric)	2.45471
Power density at prediction frequency (mW/cm ²)	0.006036
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3-6. UNII 3 (802.11a) BAND

Max Average output Power at antenna input terminal (dBm)	17.2300
Max Average output Power at antenna input terminal (mW)	52.845
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	5765.00000
Antenna Gain(Peak) (dBi)	3.90000
Antenna Gain(numeric)	2.45471
Power density at prediction frequency (mW/cm ²)	0.025807
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000

3-7. UNII 3 (802.11n) BAND

Max Average output Power at antenna input terminal (dBm)	16.1700
Max Average output Power at antenna input terminal (mW)	41.400
Prediction distance (cm)	20.00000
Prediction frequency (MHz)	5765.00000
Antenna Gain(Peak) (dBi)	3.90000
Antenna Gain(numeric)	2.45471
Power density at prediction frequency (mW/cm ²)	0.020218
MPE limit for uncontrolled exposure at prediction frequency (mW/cm ²)	1.00000