

# FCC MPE REPORT

## Certification

**Applicant Name:**  
LG Electronics USA**Address:**  
1000 Sylvan Avenue, Englewood Cliffs NJ 07632**Date of Issue:**

December 13, 2017

**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-1712-E012**FCC ID:** BEJ-LCW005**APPLICANT:** LG Electronics USA**Model(s):** LCW-005**EUT Type:** WLAN Module**Frequency Range:** 2412 MHz - 2462 MHz (2.4 GHz 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)



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**Approved by : Jong Seok Lee**  
Manager of Telecommunication testing center

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## Version

| TEST REPORT NO. | DATE              | DESCRIPTION             |
|-----------------|-------------------|-------------------------|
| HCT-R-1712-E012 | December 13, 2017 | - 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 <sup>2</sup> ) | Averaging time (minutes) |
|-----------------------|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| 0.3 - 1.34.....       | 614                           | 1.63                          | *(100)                              | 30                       |
| 1.34 - 30.....        | 824/f                         | 2.19/f                        | *(180/ f <sup>2</sup> )             | 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

**\*. 802.11b Mode**

|   |          |                    |
|---|----------|--------------------|
| Max Peak output Power at antenna input terminal             | 19.290   | dBm                |
| Max Peak output Power at antenna input terminal             | 84.918   | mW                 |
| Prediction distance   | 20.000   | cm                 |
| Prediction frequency  | 2462.000 | MHz                |
| Antenna Gain(typical)                                       | 1.720    | dBi                |
| Antenna Gain(numeric)                                       | 1.486    | -                  |
| Power density at prediction frequency( S)                   | 0.0251   | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000    | mW/cm <sup>2</sup> |

**\*. 802.11g Mode**

|   |          |                    |
|---|----------|--------------------|
| Max Peak output Power at antenna input terminal             | 25.430   | dBm                |
| Max Peak output Power at antenna input terminal             | 349.140  | mW                 |
| Prediction distance   | 20.000   | cm                 |
| Prediction frequency  | 2437.000 | MHz                |
| Antenna Gain(typical)                                       | 1.720    | dBi                |
| Antenna Gain(numeric)                                       | 1.486    | -                  |
| Power density at prediction frequency( S)                   | 0.1032   | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000    | mW/cm <sup>2</sup> |

**\*. 802.11n\_HT20 Mode**

|   |          |                    |
|---|----------|--------------------|
| Max Peak output Power at antenna input terminal             | 25.300   | dBm                |
| Max Peak output Power at antenna input terminal             | 338.844  | mW                 |
| Prediction distance   | 20.000   | cm                 |
| Prediction frequency  | 2437.000 | MHz                |
| Antenna Gain(typical)                                       | 1.720    | dBi                |
| Antenna Gain(numeric)                                       | 1.486    | -                  |
| Power density at prediction frequency( S)                   | 0.1002   | mW/cm <sup>2</sup> |
| MPE limit for uncontrolled exposure at prediction frequency | 1.000    | mW/cm <sup>2</sup> |