

# FCC MPE REPORT

## FCC Certification

**Applicant Name:**  
LG Electronics USA

**Address:**  
1000 Sylvan Avenue Englewood Cliffs, NJ 07632  
  
United States

**Date of Issue:**

July 7, 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-1607-E004

**HCT FRN:** 0005866421

**IC Recognition No.:** 5944A-5

**FCC ID:** BEJ-ISC61-V1

**APPLICANT:** LG Electronics USA

**Model(s):** ISC61G-ZB

**EUT Type:** Smart ThinQ Sensor

**Frequency Range:** 2405 MHz -2480 MHz (Zigbee Mode)

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**  
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**Manager of RF Team**

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## Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-R-1607-E004	July 7, 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 <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

#### \*. Zigbee Mode

Max Peak output Power at antenna input terminal	17.016	dBm
Max Peak output Power at antenna input terminal	50.304	mW
Prediction distance	20.00000	cm
Prediction frequency	2405.00000	MHz
Antenna Gain(Peak)	2.76000	dBi
Antenna Gain(numeric)	1.88799	-
Power density at prediction frequency (S)	0.018894	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.00000	mW/cm <sup>2</sup>