

## FCC MPE REPORT

### FCC Certification

**Applicant Name:**  
LG Electronics USA

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

**Date of Issue:**

September 15, 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-1709-E007

**HCT FRN:** 0005866421

**FCC ID** : BEJID7SF

**APPLICANT** : LG Electronics USA

**Model:** ID7SF

**EUT Type:** Silverbox RADIO ASM-RECEIVER

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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**Manager of Telecommunication testing center**

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## Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-R-1709-E007	September 15, 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

#### BT

Max Peak output Power at antenna input terminal	1.687	dBm
Max Peak output Power at antenna input terminal	1.475	mW
Prediction distance	20.000	cm
Prediction frequency	2441.000	MHz
Antenna Gain(typical)	3.700	dBi
Antenna Gain(numeric)	2.344	-
Power density at prediction frequency( S )	0.000688	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm <sup>2</sup>

#### WLAN 2.4 GHz

Max Peak output Power at antenna input terminal	24.550	dBm
Max Peak output Power at antenna input terminal	285.102	mW
Prediction distance	20.000	cm
Prediction frequency	2462.000	MHz
Antenna Gain(typical)	3.700	dBi
Antenna Gain(numeric)	2.344	-
Power density at prediction frequency( S )	0.132963	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm <sup>2</sup>

#### WLAN 5 GHz (UNII 1)

Max Peak output Power at antenna input terminal	6.320	dBm
Max Peak output Power at antenna input terminal	4.285	mW
Prediction distance	20.000	cm
Prediction frequency	5190.000	MHz
Antenna Gain(typical)	4.700	dBi
Antenna Gain(numeric)	2.951	-
Power density at prediction frequency( S )	0.002516	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm <sup>2</sup>

WLAN 5 GHz (UNII 3)

Max Peak output Power at antenna input terminal	13.190	dBm
Max Peak output Power at antenna input terminal	20.845	mW
Prediction distance	20.000	cm
Prediction frequency	5785.000	MHz
Antenna Gain(typical)	3.200	dBi
Antenna Gain(numeric)	2.089	-
Power density at prediction frequency( S)	0.008664	mW/cm <sup>2</sup>
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm <sup>2</sup>