

FCC MPE REPORT

FCC Certification

Applicant Name:
LG Electronics USA

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

Date of Issue:

September 14, 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-1708-E003

HCT FRN: 0005866421

FCC ID : BEJID7SB

APPLICANT : LG Electronics USA

Model: ID7SB

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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Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-R-1708-E003	September 14, 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 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

BT

Max Peak output Power at antenna input terminal	3.602	dBm
Max Peak output Power at antenna input terminal	2.292	mW
Prediction distance	20.000	cm
Prediction frequency	2480.000	MHz
Antenna Gain(typical)	3.700	dBi
Antenna Gain(numeric)	2.344	-
Power density at prediction frequency(S)	0.001069	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

WLAN 2.4 GHz

Max Peak output Power at antenna input terminal	22.950	dBm
Max Peak output Power at antenna input terminal	197.242	mW
Prediction distance	20.000	cm
Prediction frequency	2412.000	MHz
Antenna Gain(typical)	3.700	dBi
Antenna Gain(numeric)	2.344	-
Power density at prediction frequency(S)	0.091988	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

WLAN 5 GHz (UNII 1)

Max Peak output Power at antenna input terminal	12.650	dBm
Max Peak output Power at antenna input terminal	18.408	mW
Prediction distance	20.000	cm
Prediction frequency	5180.000	MHz
Antenna Gain(typical)	4.700	dBi
Antenna Gain(numeric)	2.951	-
Power density at prediction frequency(S)	0.010808	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²

WLAN 5 GHz (UNII 3)

Max Peak output Power at antenna input terminal	12.610	dBm
Max Peak output Power at antenna input terminal	18.239	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)	0.007581	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm ²