



TEST REPORT

FCC MPE Test for EVW011SK-SN
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2310-FI002-R1

DATE OF ISSUE
November 6, 2023

Tested by
Kyung Jun Woo



Technical Manager
Jong Seok Lee

Accredited by KOLAS, Republic of KOREA

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<h1 style="margin: 0;">TEST REPORT</h1> <p style="margin: 0;">FCC MPE Test for EVW011SK-SN</p>	<p>REPORT NO. HCT-RF-2310-FI002-R1</p> <p>DATE OF ISSUE November 06, 2023</p> <p>Additional model -</p>
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Applicant	LG Electronics Inc. 222, LG-ro, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do 17709, Republic of Korea
Eut Type Model Name	Electric Vehicle Charger EVW011SK-SN
FCC ID	BEJEVW011SK-SN
Frequency range	13.56 MHz
Brand	LG
Test Location	<input checked="" type="checkbox"/> Permanent Testing Lab (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea) <input type="checkbox"/> On Site Testing

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.
 This test results were applied only to the test methods required by the standard.
 This laboratory is not accredited for the test results marked *.



REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	October 17, 2023	Initial Release
1	November 06, 2023	Added Test Methodology(KDB 447498 D01 v06) Updated RF Exposure for WLAN/BT module and simultaneous transmission Revised Model Name, FCC ID, IC

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. It is further stated that upon the basis of the measurements made, the equipment tested is capable of operation in accordance with the requirements of the FCC Rules under normal use and maintenance

KOLAS Statement:

The above Test Report is the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS(Korea Laboratory Accreditation Scheme), which signed the ILAC-MRA. (KOLAS Accreditation No. KT197)

If this report is required to confirmation of authenticity, please contact to www.hct.co.kr



RF Exposure Statement

1. Limit

According to § 1.1310, § 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 to the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

3. TEST METHODOLOGY

According to KDB 447498 D01 v06 RF exposure is reported.

4. RESULTS

4-1. RFID

Fundamental Peak Power	42.89	dBuV/m
EIRP	-12.34	dBm
EIRP	0.05839	mW
Prediction frequency	13.56	MHz
Prediction distance	20.00	cm
Power density at prediction frequency	0.00001	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.97893	mW/cm ²

4-2. Bluetooth

Max Average output Power at antenna input terminal	10.00	dBm
Max Average output Power at antenna input terminal	10.00	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	1.12	dBi
Antenna Gain(numeric)	1.294	-
Power density at prediction frequency(S)	0.00257	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.00000	mW/cm ²

2.1091

EIRP	11.12	(dBm)
ERP	8.97	(dBm)
ERP	0.008	(W)
ERP Limit	3.00	(W)
MARGIN	25.80	(dB)

4-3. BT LE

Max Average output Power at antenna input terminal	10.00	dBm
Max Average output Power at antenna input terminal	10.00	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	1.12	dBi
Antenna Gain(numeric)	1.294	-
Power density at prediction frequency(S)	0.00257	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.00000	mW/cm ²

2.1091

EIRP	11.12	(dBm)
ERP	8.97	(dBm)
ERP	0.008	(W)
ERP Limit	3.00	(W)
MARGIN	25.80	(dB)



4-4. DTS_MIMO

Max Average output Power at antenna input terminal	23.00	dBm
Max Average output Power at antenna input terminal	199.53	mW
Prediction distance	20.00	cm
Prediction frequency	2412 – 2472	MHz
Directional Gain (typical)	1.71	dBi
Directional Gain (numeric)	1.483	-
Power density at prediction frequency(S)	0.05885	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.00000	mW/cm ²

2.1091

EIRP	24.71	(dBm)
ERP	22.56	(dBm)
ERP	0.180	(W)
ERP Limit	3.00	(W)
MARGIN	12.21	(dB)

4-5. UNII_MIMO

Max Average output Power at antenna input terminal	19.00	dBm
Max Average output Power at antenna input terminal	79.43	mW
Prediction distance	20.00	cm
Prediction frequency	5180 – 5825	MHz
Directional Gain (typical)	4.51	dBi
Directional Gain (numeric)	2.825	-
Power density at prediction frequency(S)	0.04464	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.00000	mW/cm ²

2.1091

EIRP	23.51	(dBm)
ERP	21.36	(dBm)
ERP	0.137	(W)
ERP Limit	3.00	(W)
MARGIN	13.41	(dB)

Worst Case: Simultaneous MPE 20cm is

RFID (0.00001) + 2.4G MIMO WLAN (0.05885) + BT (0.00257) = 0.06143 < 1