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TEST REPORT

FCC MPE Test for LAN5910WR

Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-1911-FC019-R2

DATE OF ISSUE
January 03, 2020

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FCC ID
BEJLAN5910WR

Applicant	**LG Electronics Inc.** 10, Magokjungang 10-ro, Gangseo-gu, Seoul, Republic of Korea
Eut Type Model Name	RADIO-CAR LAN5910WR
Date of Receipt	November 11, 2019
Frequency range	2 402 MHz ~ 2 480 MHz(Bluetooth)

This test results were applied only to the test methods required by the standard.

Tested by
Se Wook Park (signature)

Technical Manager
Jong Seok Lee (signature)

HCT CO., LTD.
Soo Chan Lee
SooChan Lee / CEO

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	November 21, 2019	Initial Release
1	December 24, 2019	Deleted the Additional Model.
2	January 03, 2020	Revised the Ant gain on page 5

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)

The front design of LAN5910WR is changed by applied RENAULT vehicle variant without PCB and circuit design

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. RESULTS

3-1. Bluetooth

Average output Power at antenna input terminal	4.00	dBm
Average output Power at antenna input terminal	2.512	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	2.80	dBi
Antenna Gain(numeric)	1.905	-
Power density at prediction frequency(S)	0.0010	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.000	mW/cm^2

2.1091

EIRP	6.8	(dBm)
ERP	4.65	(dBm)
ERP	0.003	(W)
ERP Limit	3.00	(W)
MARGIN	30.12	(dB)