TEST REPORT

FCC MPE Test for TM19FNNAHD4
Certification

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-RF-2501-FC001

DATE OF ISSUE
January 2, 2025

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Applicant	LG Electronics Inc. 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea
Product Name Model Name	Telematics TM19FNNAHD4
Date of Test	September 30, 2024 ~ December 5, 2024
Location of Test	■ Permanent Testing Lab ☐ On Site Testing (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea)
FCC ID	BEJTM19FNNAHD4
FCC Classification:	PCB Licensed Transmitter (PCB)
Test Standard Used	FCC Rule Part(s) : § 1.1310, § 2.1091
Test Results	PASS

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	January 02, 2025	Initial Release

Notice

Content
The measurements shown in this report were made in accordance with the procedures specified in CFR47 section § 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 results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s).
The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***.
When confirmation of authenticity of this test report is required, please contact www.hct.co.kr
The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

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 LTE Band

- LTE Band 2-

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	1850.7 ~ 1900.0	MHz
Antenna gain (typical)	3.90	dBi
Antenna gain (numeric)	2.45	-
Power density at prediction frequency (S)	0.1227	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- LTE Band 5 -

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	824.7 ~ 844.0	MHz
Antenna gain (typical)	4.04	dBi
Antenna gain (numeric)	2.535	-
Power density at prediction frequency (S)	0.1267	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5498	mW/cm^2

- LTE Band 7 -

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	2502.5 ~ 2560.0	MHz
Antenna gain (typical)	4.65	dBi
Antenna gain (numeric)	2.92	-
Power density at prediction frequency (S)	0.1458	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- LTE Band 13 -

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	779.5 ~ 784.5	MHz
Antenna gain (typical)	4.49	dBi
Antenna gain (numeric)	2.812	-
Power density at prediction frequency (S)	0.1405	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5197	mW/cm^2

- LTE Band 48-

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	3552.5 ~ 3690.0	MHz
Antenna gain (typical)	4.77	dBi
Antenna gain (numeric)	2.999	-
Power density at prediction frequency (S)	0.1499	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- LTE Band 66(4)-

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	1710.7 ~ 1770.0	MHz
Antenna gain (typical)	4.06	dBi
Antenna gain (numeric)	2.547	-
Power density at prediction frequency (S)	0.1273	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

3.2 NR Band

- NR2 -

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	1852.5 ~ 1900.0	MHz
Antenna gain (typical)	3.90	dBi
Antenna gain (numeric)	2.45	-
Power density at prediction frequency (S)	0.1227	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- NR5 -

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	826.5 ~ 839.0	MHz
Antenna gain (typical)	4.04	dBi
Antenna gain (numeric)	2.535	-
Power density at prediction frequency (S)	0.1267	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	0.5510	mW/cm^2

- NR7 -

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	2502.5 ~ 2550.0	MHz
Antenna gain (typical)	4.65	dBi
Antenna gain (numeric)	2.92	-
Power density at prediction frequency (S)	0.1458	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- NR48 -

Max output power at antenna input terminal	22.00	dBm
Max output power at antenna input terminal	158.49	mW
Prediction distance	20.00	cm
Prediction frequency	3560.01 ~ 3679.98	MHz
Antenna gain (typical)	4.77	dBi
Antenna gain (numeric)	2.999	-
Power density at prediction frequency (S)	0.0946	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- NR66 -

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	1712.5 ~ 1760.0	MHz
Antenna gain (typical)	4.06	dBi
Antenna gain (numeric)	2.547	-
Power density at prediction frequency (S)	0.1273	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2

- NR77 -

Max output power at antenna input terminal	24.00	dBm
Max output power at antenna input terminal	251.19	mW
Prediction distance	20.00	cm
Prediction frequency	3460.02 ~ 3930.00	MHz
Antenna gain (typical)	4.87	dBi
Antenna gain (numeric)	3.069	-
Power density at prediction frequency (S)	0.1534	mW/cm^2
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm^2