



TEST REPORT

FCC SAR Exclusion Report for BEJTFGMEIBBCD4

Class 2 Permissive Change

APPLICANT
LG Electronics Inc.

REPORT NO.
HCT-SR-2410-FC001

DATE OF ISSUE
Oct. 07, 2024

Technical Manager
Yun Jeang Heo

(signature) *Yun Jeang Heo*

Accredited by KOLAS, Republic of KOREA

HCT CO., LTD.
BongJai Huh
BongJai Huh / CEO



HCT Co., Ltd.

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
Tel. +82 31 634 6300 Fax. +82 31 645 6401



C2PCTest
Exclusion
REPORT
for TFGMEIBBCD4

REPORT NO.
HCT-SR-2410-FC001

DATE OF ISSUE
Oct 07, 2024

Applicant	LG Electronics Inc. 10, MagokJungang-ro, Gangseo-gu, Seoul 07796, Republic of Korea
EUT Type Model Name	GM Onstar Gen12 ROW TFGMEIBBCD4
Additional Model Name	TFGMEIBBCD5, TFGMEIBBCD6, TFGMEIBBCD7, TFGMEIBBCD8 TFGMEIBBCD9, TFGMEIBBCDA, TFGMEIBBCDB
FCC ID	BEJTFGMEIBBCD4
Maximum Output Power(dBm)	LTE B12/13/17/41/38 :25.5 dBm, n12/13/71 :25.5dBm, n38:25.5 dBm, n41:27 dBm, n41 MIMO 27. 5 dBm
FCC Rule Part(s)	47CFR §2.1093

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.

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	Oct. 07, 2024	Initial Release

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.

This laboratory is not accredited for the test results marked *.

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. (HCT Accreditation No.: KT197)

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



CONTENTS

1. EUT DESCRIPTION	5
2. TEST METHODOLOGY	7

1. EUT DESCRIPTION

Applicant Name:	LG Electronics Inc.	
Address:	10, Magok Jungang-ro, Gangseo-gu, Seoul 07796, Republic of Korea	
FCC ID:	BEJTFGMEIBBCD4	
EUT Type:	GM Onstar Gen12 ROW	
Model(s):	TFGMEIBBCD4	
Additional Model:	TFGMEIBBCD5, TFGMEIBBCD6, TFGMEIBBCD7, TFGMEIBBCD8 TFGMEIBBCD9, TFGMEIBBCDA, TFGMEIBBCDB	
Device Wireless Specification overview	Band	Tx Frequency
	GSM/GPRS/EDGE 850	824.2 MHz ~ 848.8 MHz
	GSM/GPRS/EDGE 1900	1 850.2 MHz ~ 1 909.8 MHz
	UMTS Band 5	826.4 MHz ~ 846.6 MHz
	UMTS Band 4	1 712.4 MHz ~ 1 752.6 MHz
	UMTS Band 2	1 852.4 MHz ~ 1 907.6 MHz
	LTE Band 2 (PCS)	1 850.7 MHz ~ 1 909.3 MHz
	LTE Band 4 (AWS)	1 710.7 MHz ~ 1 754.3 MHz
	LTE Band 5 (Cell)	824.7 MHz ~ 848.3 MHz
	LTE Band 7	2 502.5 MHz ~ 2 567.5 MHz
	LTE Band 12	699.7 MHz ~ 715.3 MHz
	LTE Band 13	779.5 MHz ~ 784.5 MHz
	LTE Band 41	2 498.5 MHz ~ 2 687.5 MHz
	LTE Band 38	2 572.5 MHz ~ 2 617.5 MHz
	LTE Band 71	665.5 MHz ~ 695.5 MHz
	NR Band n2	1 852.5 MHz ~ 1 907.5 MHz
	NR Band n5	826.5 MHz ~ 846.5 MHz
	NR Band n7	2 502.5 MHz ~ 2 567.5 MHz
	NR Band n12	701.5 MHz ~ 713.5 MHz

	NR Band n13	779.5 MHz ~ 784.5 MHz
	NR Band n38	2 580.0 MHz ~ 2 610.0 MHz
	NR Band n41	2 506.020 MHz ~ 2 679.990 MHz
	NR Band n71	665.5 MHz ~ 695.5 MHz
	NR Band n77(3 700 MHz ~ 3 980 MHz) NR Band n78(3 700 MHz ~ 3 800 MHz)	3 710.01 MHz ~ 3 969.99 MHz
	NR Band n77(DoD),n78 (3 450 MHz ~3 550 MHz)	3 460.02 MHz ~ 3 540.0 MHz
Serial number:	Conducted : EBR36018829_#75	
External Antenna Information	ANT5 : 86531607 ANT4 : 86575530 DUT4 : 85608774	

BAND	Target PWR	Tolerance(dB)
GSM 850	32.5 dBm	2 / -1.5
GSM 1900	29.5 dBm	1 / -1.5
WCDMA B2/B5	24 dBm	1.5/ -2
WCDMA B4	24 dBm	1/ -2
LTE B4 (Include ULCA)	23.5 dBm	1 / -2
LTE B5	24.2 dBm	1.5 / -2
LTE B7	24 dBm	1 / -2
LTE B2, B12, B13,, B41, B38, B71 (Include ULCA)	24 dBm	1.5 / -2
NR NSA (all band)	24 dBm	1 / -2.5
NR SA (n77/n78/n41)	26 dBm	1 / -2.5
NR SA (n77/n78/n41) MIMO	26 dBm	(# Note : CP-OFDM, -1.5) 1.5 / -2
NR SA /NSA(n2, n5, n7, n12, n13, n38, n71)	24 dBm	1.5 / -2
ULCA 5B	24.2 dBm	1 / -2
ULCA 7C	24 dBm	1 / -2
Inter-band ULCA	24 dBm	1 / -2
	(PCC: 22 dBm/	
	SCC: 19 dBm)	

2. TEST METHODOLOGY

2.1 FCC for Class II permissive change

The following bands added by the software change have been evaluated against the SAR test exclusions in FCC KDB447498D01v06 for C2PCs with the basic model [FCC ID: BEJTFGMEIBBCD4].

- Adding following capabilities by Software changes
 - 1) LTE: B12/13/41/38/71
 - 2) 5G NR: n12/13/41/38/71
 - 3) ULCA: 2A-12A, 4A-12A, 2A-13A, 38C, 41C
 - 4) EN-DC combination
 - 5) Adding Modulation 256QAM in all existing 5G NR Bands
 - 6) UL MIMO: n41

Body SAR Test Exclusions Applied LTE B 12,13,20,38,41,71 NR n12,13,20,38,41,71
it is used by most users in the Body. In addition, antennas must be installed at all times a distance minimum of at least 170 mm Between antenna and any individual.
an exception evaluation is applied at a distance of 170 mm from the Body SAR.

According to the FCC KDB 447498 D01 v06 section 4.3.1 b), for 100 MHz to 6 GHz and test separation distances ≥ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

a) For 100 MHz to 6 GHz and test separation distances ≥ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following(also illustrated in appendix B):

1) $\{[(\text{Power allowed at numeric threshold for 50mm in step a})] + [(\text{Test separation distance} - 50\text{mm}) \cdot (f(\text{MHz})/150)]\}$ mW, for 100MHz to 1500 MHz

2) $\{[(\text{Power allowed at numeric threshold for 50mm in step a}) + ((\text{Test separation distance} - 50\text{mm}) \cdot 10)]\}$ mW, for >1500MHz and $\leq 6\text{GHz}$

Calculation Result:**Band 100 MHz to 1500 MHz****LTE B12**

Tx frequency range: 699.7 MHz ~ 715.3 MHz

Body SAR Consideration Min. test separation distance: 170 mm

Maximum Output Power: 25.5 dBm (354.81 mW)

The Highest RF channel frequency: 715.3 MHz

LTE B13

Tx frequency range: 779.5 MHz ~ 784.5 MHz

Body SAR Consideration Min. test separation distance: 170 mm

Maximum Output Power: 25.5 dBm (354.81 mW)

The Highest RF channel frequency: 784.5 MHz

LTE B71

Tx frequency range: 665.5 MHz ~ 695.5 MHz

Body SAR Consideration Min. test separation distance: 170 mm

Maximum Output Power: 25.5 dBm (354.81 mW)

The Highest RF channel frequency: 862 MHz

NR B12

Tx frequency range: 701.5 MHz ~ 713.5 MHz

Body SAR Consideration Min. test separation distance: 170 mm

Maximum Output Power: 25.5 dBm (354.81 mW)

The Highest RF channel frequency: 713.5 MHz

NR B13

Tx frequency range: 779.5 MHz ~ 784.5 MHz

Body SAR Consideration Min. test separation distance: 170 mm

Maximum Output Power: 25.5 dBm (354.81 mW)

The Highest RF channel frequency: 784.5 MHz

NR B71

Tx frequency range: 665.5 MHz ~ 695.5 MHz

Body SAR Consideration Min. test separation distance: 170 mm

Maximum Output Power: 25.5 dBm (354.81 mW)

The Highest RF channel frequency: 695.5 MHz

>1500MHz and ≤ 6GHz**LTE B41**

Tx frequency range: 2502.5 MHz ~ 2687.5 MHz

Body SAR Consideration Min. test separation distance: 170 mm

Maximum Output Power: 25.5 dBm (354.81 mW)

The Highest RF channel frequency: 2 687.5 MHz

LTE B38

Tx frequency range: 2 572.5 MHz ~ 2 617.5 MHz

Body SAR Consideration Min. test separation distance: 170 mm
Maximum Output Power: 25.5 dBm (354.81 mW)
The Highest RF channel frequency: 2 617.5 MHz

NR B38

Tx frequency range: 2 580.0 MHz ~ 2 610.0 MHz
Body SAR Consideration Min. test separation distance: 170 mm
Maximum Output Power: 25.5 dBm (354.81 mW)
The Highest RF channel frequency: 2 610.0 MHz

NR B41

Tx frequency range: 2506.020 MHz ~ 2679.990 MHz
Body SAR Consideration Min. test separation distance: 170 mm
Maximum Output Power: 27.0 dBm (501.19 mW)
The Highest RF channel frequency: 2679.990 MHz

NR B41 MIMO

Tx frequency range: 2506.020 MHz ~ 2679.99 MHz
Body SAR Consideration Min. test separation distance: 170 mm
Maximum Output Power: 27.5 dBm (562.34 mW)
The Highest RF channel frequency: 2679.99 MHz

For Body SAR Exclusion

Mode	Frequency [MHz]	Maximum Allowed Power [mW]	Separation Distance [mm]	SAR Test Exclusion Thresholds for >50mm [mW]	SAR Test Exclusion
LTE B12	715.3	354.81	170	749.60	Yes
LTE B13	784.5	354.81	170	796.95	Yes
LTE B71	695.5	354.81	170	736.26	Yes
NR n12	713.5	354.81	170	748.38	Yes
NR n13	784.5	354.81	170	796.95	Yes
NR n71	695.5	354.81	170	736.26	Yes
LTE B41	2687.5	354.81	170	1291.50	Yes
LTE B38	2 610.0	354.81	170	1292.85	Yes
NR n41[MIMO]	2679.99	562.34	170	1291.63	Yes
NR n38	2610.0	354.81	170	1292.85	Yes

SAR testing was not required by FCC KDB447498 D01v06 considering the maximum output power and SAR separation distance of the LTE B12,13,38,41,71 and NR n12,13,38,41.