

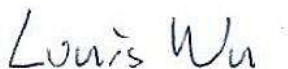


FCC RADIO TEST REPORT

FCC ID : 2BO3L-14U40V
Equipment : Notebook Computer
Brand Name : LG
Model Name : 14U40V
Series Model Name : 14UD40V, 14UG40V, 14UB40V, 14US40V, 14UT40V
Applicant : LG Electronics Inc.
222, LG-ro, Jinwi-myeon Pyeongtaek-si, Gyeonggi-do
17709, REPUBLIC OF KOREA
Manufacturer : LG Electronics Inc.
222, LG-ro, Jinwi-myeon Pyeongtaek-si, Gyeonggi-do
17709, REPUBLIC OF KOREA
Standard : FCC Part 15 Subpart E §15.407

The product was received on Jun. 01, 2026 and testing was performed from Jun. 08, 2026 to Jun. 24, 2026. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.



Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test.....	5
1.2 Modification of EUT	7
1.3 Testing Location	7
1.4 Applicable Standards.....	7
2 Test Configuration of Equipment Under Test	8
2.1 Carrier Frequency and Channel	8
2.2 Test Mode.....	10
2.3 Connection Diagram of Test System.....	11
2.4 Support Unit used in test configuration and system	11
2.5 EUT Operation Test Setup	11
2.6 Measurement Results Explanation Example.....	12
3 Test Result	13
3.1 Fundamental Maximum EIRP Measurement	13
3.2 Unwanted Emissions Measurement	14
3.3 Antenna Requirements.....	20
4 List of Measuring Equipment.....	21
5 Measurement Uncertainty	23
Appendix A. Conducted Test Results	
Appendix B. Conducted Spurious Emission	
Appendix C. Conducted Spurious Emission Plots	
Appendix D. Radiated Spurious Emission Test Data	
Appendix E. Duty Cycle Plots	
Appendix F. Setup Photographs	
Appendix G. Sample List	



History of this test report

Report No.	Version	Description	Issue Date
FR651934H	01	Initial issue of report	Jul. 09, 2026

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.407(a)(8)	Fundamental Maximum EIRP	Pass	-
3.2	15.407(b)	Unwanted Emissions	Pass	-
3.3	15.203 15.407(a)	Antenna Requirement	Pass	-

Note:

1. The original module test report (Report No.: 201120-03.TR38 and 201120-03.TR39) was referenced for applicable test data. Conducted Power and Unwanted Radiated Emissions (Spurious Emissions) were verified on the host.

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty".

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Sheng Kuo**Report Producer: Julia Chang**

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
General Specs Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ax, Wi-Fi 5GHz 802.11a/n/ac/ax , Wi-Fi 6GHz 802.11ax.	
Antenna Type WLAN <Main / Antenna 2>: PIFA Antenna <Aux. / Antenna 1>: PIFA Antenna Bluetooth: <Aux. / Antenna 1>: PIFA Antenna	
Integrated WLAN module	Brand Name: Intel Model Name: AX211D2W FCC ID: PD9AX211D2
Remark: The detailed sample list is shown in Appendix G.	

Antenna information		
Manufacturer	INNOWAVE	
Antenna Type	PIFA Antenna	PIFA Antenna
Model Number	F001R7113111000	F001R7113111000
Peak Gain (dBi)	Antenna 2:	Antenna 1:
	WLAN (6GHz B5): 1.88	WLAN (6GHz B5): 2.11
	WLAN (6GHz B6): 1.94	WLAN (6GHz B6): 1.99
	WLAN (6GHz B7): 2.02	WLAN (6GHz B7): 1.65
	WLAN (6GHz B8): 2.43	WLAN (6GHz B8): 2.28
Manufacturer	SPEED	
Antenna Type	PIFA Antenna	PIFA Antenna
Model Number	F-0G-XZ-0446-000-K0	F-0G-XZ-0446-000-K0
Peak Gain (dBi)	Antenna 2:	Antenna 1:
	WLAN (6GHz B5): 2.82	WLAN (6GHz B5): 1.52
	WLAN (6GHz B6): 1.27	WLAN (6GHz B6): 1.75
	WLAN (6GHz B7): 1.16	WLAN (6GHz B7): 1.87
	WLAN (6GHz B8): 1.17	WLAN (6GHz B8): 1.82

Remark:

- The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.1.1 Antenna Directional Gain

<For CDD Mode>

Follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01 F2)f)ii)

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows:

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

G_{ANT} is set equal to the gain of the antenna having the highest gain.

For PSD measurements, the directional gain calculation.

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the k th antenna is being fed by spatial stream j , or zero if it is not;
 G_k is the gain in dBi of the k th antenna.

As minimum $N_{SS}=1$ is supported by EUT, the formula can be simplified as:

Directional gain = $10 \cdot \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}]$ dBi

Where $G_1, G_2, \dots, G_N$ denote single antenna gain.

The directional gain "DG" is calculated as following table.

Band			DG	DG		
	Ant 1	Ant 2	for	for		
	(dBi)	(dBi)	Power	PSD		
	(dBi)	(dBi)	(dBi)	(dBi)		
U-NII-5	1.52	2.82	2.82	5.20		
U-NII-6	1.99	1.94	1.99	4.98		
U-NII-7	1.65	2.02	2.02	4.85		
U-NII-8	2.28	2.43	2.43	5.37		

Calculation example:

If a device has two antenna, $G_{ANT1} = 1.52$ dBi; $G_{ANT2} = 2.82$ dBi

Directional gain of power measurement = $\max(1.52, 2.82) + 0 = 2.82$ dBi

Directional gain of PSD derived from formula which is

$10 \times \log \{ [10^{(2.82 \text{ dBi} / 20)} + 10^{(1.52 \text{ dBi} / 20)}]^2 / 2 \} = 5.20$ dBi

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Location

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. TH05-HY, 03CH21-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW3786

1.4 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01
- ♦FCC KDB 987594 D02 U-NII 6 GHz EMC Measurement v03
- ♦FCC KDB 414788 D01 Radiated Test Site v01r01
- ♦FCC KDB 662911 D01 Multiple Transmitter Output v02r01
- ♦ FCC Part 15 Subpart E
- ♦ ANSI C63.10-2020 + Cor.1-2023

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

2.1 Carrier Frequency and Channel

BW 20M	Channel	1	5	9	13	17	21	25	29
	Freq. (MHz)	5955	5975	5995	6015	6035	6055	6075	6095
BW 40M	Channel	3		11		19		27	
	Freq. (MHz)	5965		6005		6045		6085	
BW 80M	Channel	7				23			
	Freq. (MHz)	5985				6065			
BW 160M	Channel	15							
	Freq. (MHz)	6025							

BW 20M	Channel	33	37	41	45	49	53	57	61
	Freq. (MHz)	6115	6135	6155	6175	6195	6215	6235	6255
BW 40M	Channel	35		43		51		59	
	Freq. (MHz)	6125		6165		6205		6245	
BW 80M	Channel	39				55			
	Freq. (MHz)	6145				6225			
BW 160M	Channel	47							
	Freq. (MHz)	6185							

BW 20M	Channel	65	69	73	77	81	85	89	93
	Freq. (MHz)	6275	6295	6315	6335	6355	6375	6395	6415
BW 40M	Channel	67		75		83		91	
	Freq. (MHz)	6285		6325		6365		6405	
BW 80M	Channel	71				87			
	Freq. (MHz)	6305				6385			
BW 160M	Channel	79							
	Freq. (MHz)	6345							



BW 20M	Channel	97	101	105	109	113	117	121	125
	Freq. (MHz)	6435	6455	6475	6495	6515	6535	6555	6575
BW 40M	Channel	99		107		115		123	
	Freq. (MHz)	6445		6485		6525		6565	
BW 80M	Channel	103				119			
	Freq. (MHz)	6465				6545			
BW 160M	Channel	111							
	Freq. (MHz)	6505							

BW 20M	Channel	129	133	137	141	145	149	153	157
	Freq. (MHz)	6595	6615	6635	6655	6675	6695	6715	6735
BW 40M	Channel	131		139		147		155	
	Freq. (MHz)	6605		6645		6685		6725	
BW 80M	Channel	135				151			
	Freq. (MHz)	6625				6705			
BW 160M	Channel	143							
	Freq. (MHz)	6665							

BW 20M	Channel	161	165	169	173	177	181	185	189
	Freq. (MHz)	6755	6775	6795	6815	6835	6855	6875	6895
BW 40M	Channel	163		171		179		187	
	Freq. (MHz)	6765		6805		6845		6885	
BW 80M	Channel	167				183			
	Freq. (MHz)	6785				6865			
BW 160M	Channel	175							
	Freq. (MHz)	6825							

BW 20M	Channel	193	197	201	205	209	213	217	221
	Freq. (MHz)	6915	6935	6955	6975	6995	7015	7035	7055
BW 40M	Channel	195		203		211		219	
	Freq. (MHz)	6925		6965		7005		7045	
BW 80M	Channel	199				215			
	Freq. (MHz)	6945				7025			
BW 160M	Channel	207							
	Freq. (MHz)	6985							

BW 20M	Channel	225	229
	Freq. (MHz)	7075	7095
BW 40M	Channel	227	
	Freq. (MHz)	7085	



BW 20M	Channel	233
	Freq. (MHz)	7115

2.2 Test Mode

This device support 26/52/106/242/484/996-tone RU.

The final test modes include the worst data rates for each modulation shown in the table below.

Single Mode

Modulation	Data Rate
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0
802.11ax HE160	MCS0

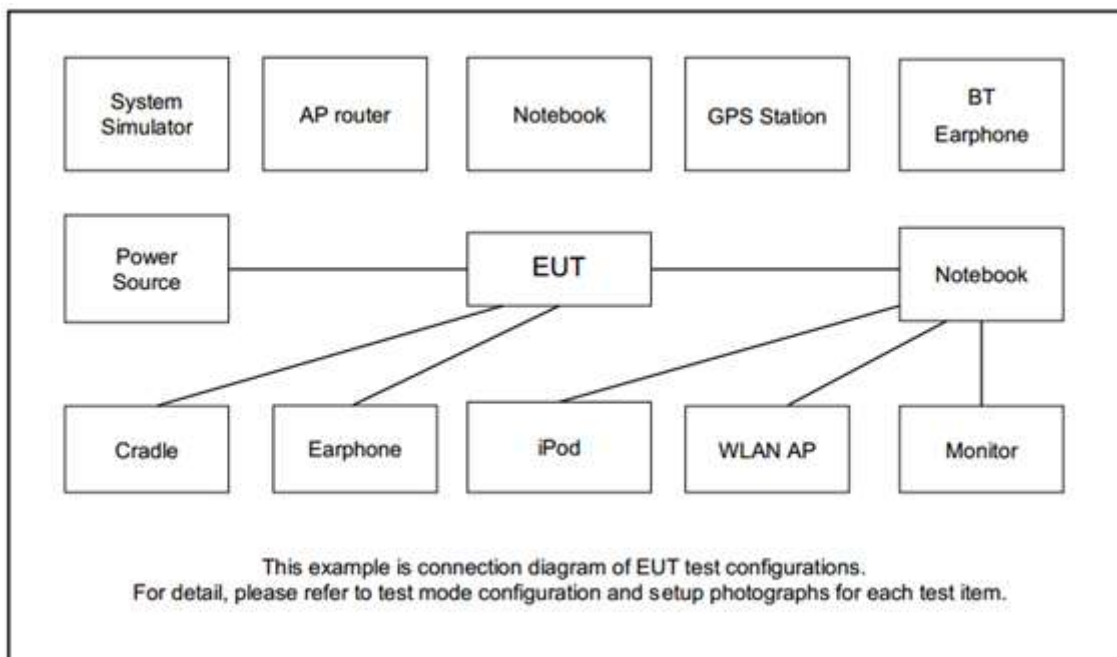
MIMO Mode

Modulation	Data Rate
802.11ax HE20	MCS0
802.11ax HE40	MCS0
802.11ax HE80	MCS0
802.11ax HE160	MCS0

Remark:

1. For All Test Cases, the tests were performed with Sample 1.
2. The detailed Radiated test modes are shown in Appendix D.

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Earphone	Apple	A1475	N/A	Shielded, 1.2m	N/A

2.5 EUT Operation Test Setup

The RF test items, utility "DRTU.10389.24.30.0" was installed in EUT which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

$$\text{Offset(dB)} = \text{RF cable loss(dB)} + \text{attenuator factor(dB)} = 4.2 + 10 = 14.2 \text{ (dB)}$$

For EIRP output power:

The EIRP output power result is derived from RF conducted power plus directional antenna gain.

EIRP = RF conducted power + directional antenna gain.

Following shows an offset computation example with conducted power 20.2 dBm and directional antenna gain 3dBi.

$$\text{EIRP(dBm)} = \text{RF conducted power(dBm)} + \text{directional antenna gain(dBi)} = 20.2 + 3 = 23.2 \text{ (dBm)}$$

3 Test Result

3.1 Fundamental Maximum EIRP Measurement

3.1.1 Limit of Fundamental Maximum EIRP

<FCC 14-30 CFR 15.407>

(a)(8) For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.

3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

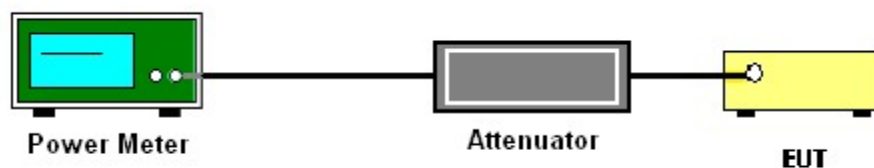
3.1.3 Test Procedures

The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter.
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.
5. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

3.1.4 Test Setup



3.1.5 Test Result of Fundamental Maximum EIRP

Please refer to Appendix A.

3.2 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.2.1 Limit of Unwanted Emissions

- (1) For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of -27 dBm/MHz.

EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27 (RMS)	68.3
- 7 (Peak)	88.3

According 987594 D02 U-NII 6GHz EMC Measurement v03 section G:

Unwanted emissions outside of restricted bands are measured with a RMS detector.

In addition, 15.35(b) applies where the peak emissions must be limited to no more than 20 dB above the average limit

- (2) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

Note: The following formula is used to convert the EIRP to field strength.

$$E = \frac{1000000 \sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts)}$$

3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.2.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section G) Unwanted emissions measurement.
 - (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold
 - (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold
 - (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Power averaging (rms), if $[\text{span} / (\# \text{ of points in sweep})] \leq (\text{RBW} / 2)$. Satisfying this condition might require increasing the number of points in the sweep or reducing the span. If this condition cannot be satisfied, then the detector mode shall be set to peak.
 - Averaging type = power averaging (rms)
 - Sweep time = auto.
 - Perform a trace average of at least 100 traces.
 - If tests are performed with the EUT transmitting at a duty cycle less than 98%, a correction factor shall be added to the measurement results prior to comparing to the emission limit in order to compute the emission level that would have been measured had the test been performed at 100% duty cycle. The correction factor is computed as follows:
 - a. If power averaging (rms) mode was used in step d), then the applicable correction factor is
 $[10 \log (1 / D)]$, where D is the duty cycle.
 - b. If a specific emission is demonstrated to be continuous (100% duty cycle) rather than turning on and off with the transmit cycle, no duty cycle correction is required for that emission.
2. Measure the conducted output power (in dBm) using the peak detector.
3. Add the maximum transmit antenna gain (in dBi) to the measured output power level to determine the EIRP.
4. Add the appropriate maximum ground reflection factor to the EIRP (6 dB for frequencies $\leq$ 30 MHz; 4.7 dB for frequencies between 30 MHz and 1000 MHz, inclusive; and 0 dB for frequencies $>$ 1000 MHz).



5. Convert the resultant EIRP to an equivalent electric field strength using the following relationship:
$$E = \text{EIRP} - 20 \log d + 104.8,$$

Where
E is the electric field strength in dB μ V/m
EIRP is the equivalent isotropically radiated power in dBm
d is the specified measurement distance in 3m
6. Compare the resultant electric field strength level with the applicable regulatory limit.
7. Corrected Reading for conducted spurious emission: Antenna Factor + Cable Loss + Read Level = Level.
8. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
9. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
10. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
11. For each suspected emission, the EUT is arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
12. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as “-”.
13. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as “-”.