

EVALUATION REPORT

Applicant Name:
LG Electronics Inc.

Date of Issue:
March 11, 2025

Address:
128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea

Location:
HCT CO., LTD.,
74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Republic of Korea

FCC ID: **BEJTFJLEENN5E3**

APPLICANT: **LG Electronics Inc.**

Equipment Class(es) : DTS, UNII

FCC Rule Part(s) : 15

Application's Statement : The applicant takes full responsibility that the test data referenced below

Statement : Represents compliance for this FCC ID.

Test Reference : KDB 484596 D01 Reference Test Data v02r03

The detail test data can be found in this documents, Appendix A.

Category	Spot Check	Verdict
Unlicensed EMC	Conducted output Power	Share
	Band Edge	Share
	Spurious Emissions	Share
	Field Strength	Share

The data from that application has been verified through appropriate spot checks to demonstrate compliance for this device as shown in the Cross Reference Table. The detail test data can be found in this documents, Appendix A.



Report prepared by : Jeong Ho Kim

Engineer of Telecommunication testing center



Approved by : Jong Seok Lee

Manager of Telecommunication testing center

REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	March 11, 2025	Initial Release

1. Cross Reference Table (Unlicensed EMC)

- 1) Data referencing
- [UNII], [DTS] Test Report

Equipment Class	Rule Part	Test item	Data Referencing	Comments
DTS	15.247(a)(2)	6 dB Bandwidth	Y	-
	15.247(b)(3)	Conducted Maximum output power	Y	Spot-check
	15.247(e).	Power Spectral Density	Y	-
	15.247(d)	Band Edge (Out of Band Emissions)	Y	-
	15.207	AC Power line conducted Emissions	N	Not Tested
	15.247(d) 15.205 15.209	Radiated Spurious Emissions	Y	Spot-check
	15.247(d) 15.205 15.209	Radiated Restricted Band Edge	Y	Spot-check

Equipment Class	Rule Part	Test item	Data Referencing	Comments
NII	15.407 (for Power Measurement)	26 dB Bandwidth	Y	-
	15.407(e)	6 dB Bandwidth	Y	-
	15.407(a)(1),(3)	Maximum Conducted output power	Y	Spot-check
	15.407(a)(1),(3)	Maximum Power Spectral Density	Y	-
	15.207 15.407(b)(8)	AC conducted Emission	N	Not Tested
	15.407(g) 2.1055	Frequency Stability	Y	-
	15.407(b) (1),(3) 15.407(b)(5)(ii),(iii) 15.35(b)	Undesirable Emissions	Y	Spot-check
	15.205, 15.407(b)(9),(10)	General Field Strength (Restricted bands and Radiated emission)	Y	Spot-check

Appendix A. The Spot check test data

1. Summary of the spot check for Unlicensed EMC

1.1 Radiated Spot Check Result

Report	Test Item	Mode/Channel	Measured Frequency [MHz]	BEJTVJLPENN5E2 Result [dBμV/m]		BEJTFJLEENN5E3 Result [dBμV/m]		Deviation (dB)	
				Peak	Average	Peak	Average	Peak	Average
DTS	Band Edge	802.11n(20M) MCS0/ch.11	#2483.5 MHz~2493.5 MHz	62.58	50.92	62.55	50.92	-0.03	0.00
	RSE	802.11b 1Mbps/ch.11	4924 MHz (2nd Harmonic)	51.85	45.15	51.22	44.92	-0.63	-0.23
UNII	Band Edge Avg	802.11ac(80M)_ MCS0/ch.42	4500 MHz ~ 5150 MHz	66.25	50.84	65.18	50.52	-1.07	-0.32
	Band Edge Pk	802.11n(40M)_ MCS0/ch.38	4500 MHz ~ 5150 MHz	69.45	49.28	68.44	49.23	-1.01	-0.05
	RSE	802.11a 6Mbps/ch.36	10360 MHz	59.89	-	60.21	-	0.32	-
			6906 MHz	63.21	-	63.91	-	0.70	-
simultaneous Tx	5G + WWAN	802.11a 6Mbps/ch.36	10360 MHz	58.00	-	60.18	-	2.18	-
			6906 MHz	63.21	-	64.05	-	0.84	-

: DTS integration method Used (ANSI C63.10 Section11.13.3), UNII integration method Used (KDB 789033 D02 v02r01 Section 3) d) (ii)

1.2 Conducted Spot Check Result

Report	Test Item	Mod/Channel	Measured Frequency [MHz]	BEJTVJLPENN5E2 Result [dBμV/m]		BEJTFJLEENN5E3 Result [dBμV/m]		Deviation (dB)	
				Peak	Average	Peak	Average	Peak	Average
DTS	Conducted	802.11b 1Mbps/ch.6	2437 MHz	-	13.09	-	13.05	-	-0.04
UNII	Output Power	802.11a 6Mbps/ch.40	5200 MHz	-	7.09	-	7.07	-	-0.02

2. TEST RESULT

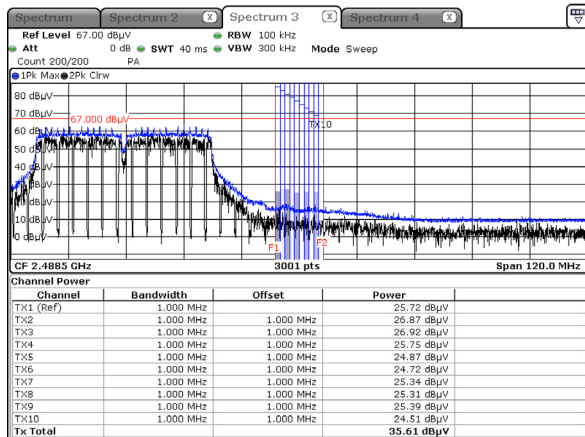
DTS Band Edge (802.11n(20M) MCS0/ch.11)

Frequency	Measured Value	Duty Cycle Factor	A.F.+C.L+D.F	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
#2483.5~2493.5	26.92	0.00	35.63	H	62.55	73.98	11.43	PK
#2483.5~2493.5	14.83	0.46	35.63	H	50.92	53.98	3.06	AV
2493.5~2500	33.12	0.00	35.63	H	68.75	73.98	5.23	PK
2493.5~2500	14.19	0.46	35.63	H	50.28	53.98	3.70	AV

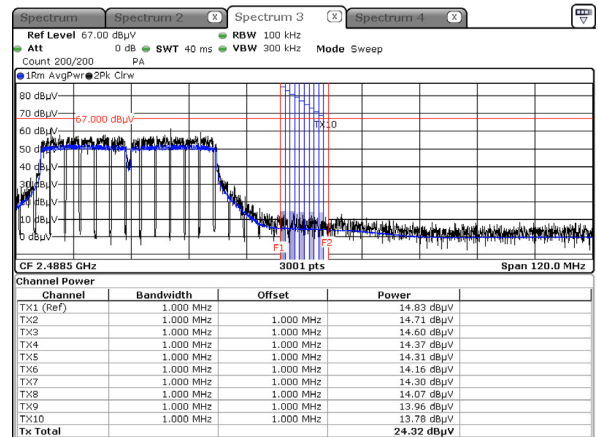
Note : integration method Used (ANSI C63.10 Section11.13.3)

Test Plot

[Peak Result]



[Average Result]

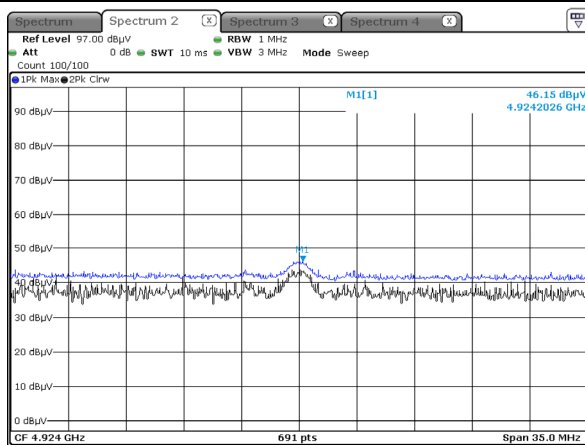


DTS R.S.E Harmonic (802.11b 1Mbps/ch.11)

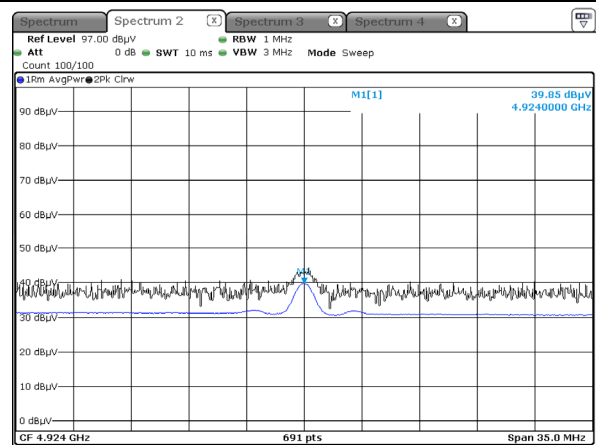
Band :	DTS			Operation Mode : 802.11b				
CH.11	2462		MHz	Transfer Rate : 1 Mbps				
Frequency	Measured value	D.C.F	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	[dBμV]	[dB]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	Type
4924	45.73	0.00	5.07	V	50.80	73.98	23.18	PK
4924	38.97	0.00	5.07	V	44.04	53.98	9.94	AV
7386	38.94	0.00	12.82	V	51.76	73.98	22.22	PK
7386	27.11	0.00	12.82	V	39.93	53.98	14.05	AV
4924	46.15	0.00	5.07	H	51.22	73.98	22.76	PK
4924	39.85	0.00	5.07	H	44.92	53.98	9.06	AV
7386	39.62	0.00	12.82	H	52.44	73.98	21.54	PK
7386	27.52	0.00	12.82	H	40.34	53.98	13.64	AV

Test Plot

[Peak Result]



[Average Result]



UNII Band Edge (802.11ac(80M)_ MCS0/ch.42) - [Average Result]

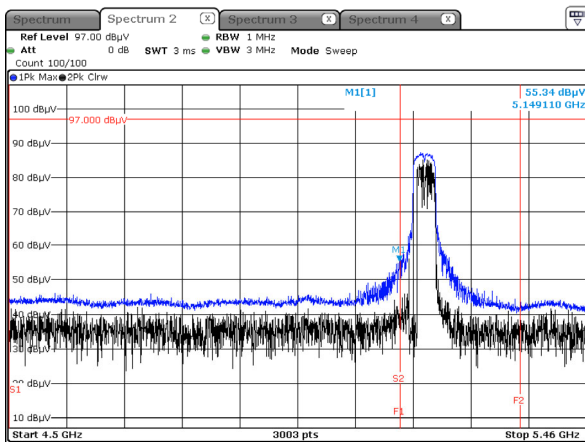
Frequency	Measured Value	CL+AF+DF-AG+ATT	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
5150	52.08	13.10	H	65.18	73.98	8.80	PK
5150	37.42	13.10	H	50.52	53.98	3.46	AV

UNII Band Edge (802.11n(40M)_ MCS0/ch.38) - [Peak Result]

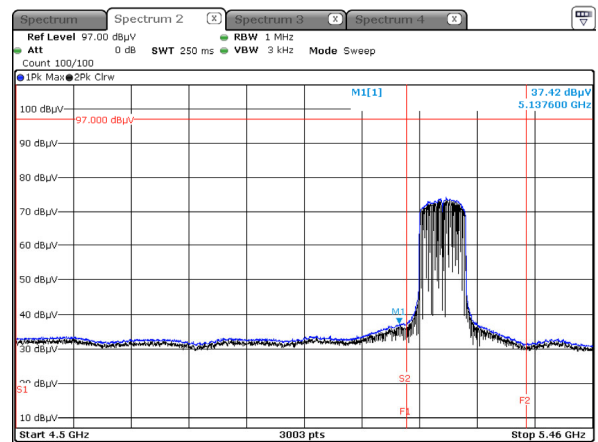
Frequency	Measured Value	CL+AF+DF-AG+ATT	ANT. POL	Total	Limit	Margin	Measurement Type
[MHz]	[dBμV]	[dB]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	
5150	55.34	13.10	H	68.44	73.98	5.54	PK
5150	36.13	13.10	H	49.23	53.98	4.75	AV

■ Test Plot

[Peak Result]



[Average Result]

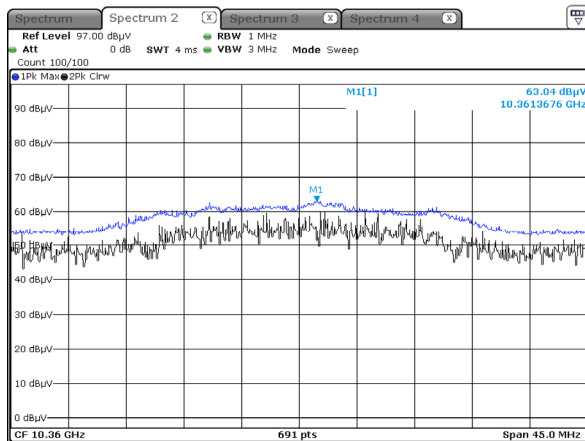


UNII R.S.E Harmonic (802.11a 6Mbps/ch.36)

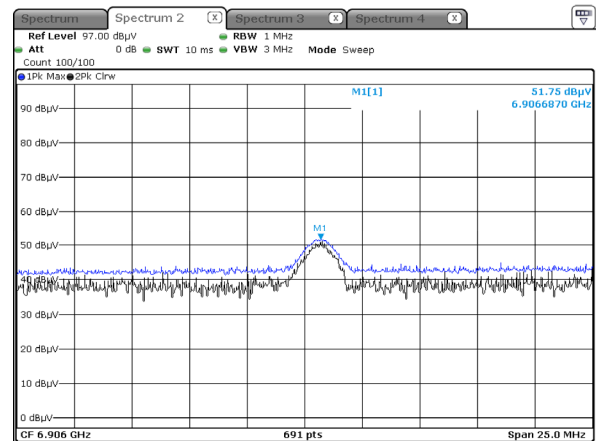
Band :	UNII 1		Operation Mode :		802.11a		
CH.36	5180	MHz	Transfer Rate :		6Mbps		
Frequency	Measured value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	Type
10360	62.92	-2.83	V	60.09	68.20	8.11	PK
15540	52.58	-0.82	V	51.76	73.98	22.22	PK
15540	39.24	-0.82	V	38.42	53.98	15.56	AV
10360	63.04	-2.83	H	60.21	68.20	7.99	PK
15540	52.24	-0.82	H	51.42	73.98	22.56	PK
15540	39.05	-0.82	H	38.23	53.98	15.75	AV
6906	51.75	12.16	H	63.91	68.20	4.29	PK
6906	50.41	12.16	V	62.57	68.20	5.63	PK

Test Plot

[Peak Result]



[Peak Result]



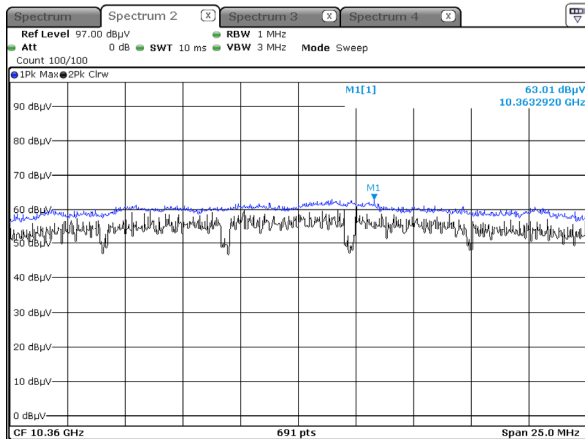
Simultaneous transmission Scenario

5 GHz 802.11a 6 Mbps (Ch. 36) + WWAN

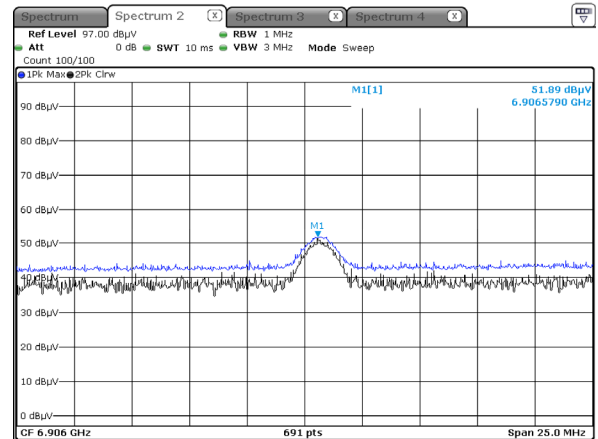
Band :	UNII 1		Operation Mode :		802.11a		
CH.36	5180	MHz	Transfer Rate :		6 Mbps		
Frequency	Measured value	CL+AF+DF-AG	ANT. POL	Total	Limit	Margin	Measurement
[MHz]	[dBμV]	[dB/m]	[H/V]	[dBμV/m]	[dBμV/m]	[dB]	Type
10360	63.01	-2.83	V	60.18	68.20	8.02	PK
15540	51.94	-0.82	V	51.12	73.98	22.86	PK
15540	39.01	-0.82	V	38.19	53.98	15.79	AV
10360	61.55	-2.83	H	58.72	68.20	9.48	PK
15540	52.21	-0.82	H	51.39	73.98	22.59	PK
15540	39.07	-0.82	H	38.25	53.98	15.73	AV
6906	51.89	12.16	H	64.05	68.20	4.15	PK
6906	51.51	12.16	V	63.67	68.20	4.53	PK

Test Plot

[Peak Result]



[Peak Result]



3. List of test equipment(Unlicensed)

Equipment	Model	Manufacturer	Serial No.	Due to Calibration	Calibration Interval
Controller(Antenna mast)	CO3000	Innco system	CO3000-4p	N/A	N/A
Antenna Position Tower	MA4640/800-XP-EP	Innco system	N/A	N/A	N/A
Controller	EM1000	Audix	060520	N/A	N/A
Turn Table	N/A	Audix	N/A	N/A	N/A
Loop Antenna	FMZB 1513	Rohde & Schwarz	1513-333	03/07/2026	Biennial
Hybrid Antenna	VULB 9168	Schwarzbeck	760	02/17/2027	Biennial
Horn Antenna	BBHA 9120D	Schwarzbeck	02299	01/29/2026	Biennial
Horn Antenna (15GHz ~ 40 GHz)	BBHA9170	Schwarzbeck	BBHA9170342	09/20/2026	Biennial
Spectrum Analyzer	FSV40	Rohde & Schwarz	100901	02/21/2026	Annual
Signal Analyzer	N9030A	Agilent	MY49431210	12/12/2025	Annual
Band Reject Filter	WRCJV12-4900-5100-5900-6100-50SS	Wainwright Instruments	5	06/04/2025	Annual
Band Reject Filter	WRCJV12-4900-5100-5900-6100-50SS	Wainwright Instruments	6	06/04/2025	Annual
Band Reject Filter	WRCJV2400/2483.5-2370/2520-60/12SS	Wainwright Instruments	2	12/26/2025	Annual
Band Reject Filter	WRCJV5100/5850-40/50-8EEK	Wainwright Instruments	1	01/09/2026	Annual
RF Switching System	FMSR-04B (3G HPF+LNA)	T&M SYSTEM	S2L1	12/23/2025	Annual
RF Switching System	FMSR-04B (10dB ATT+LNA)	T&M SYSTEM	S2L2	12/23/2025	Annual
RF Switching System	FMSR-04B (3dB ATT+LNA)	T&M SYSTEM	S2L3	12/23/2025	Annual
RF Switching System	FMSR-04B (LNA)	T&M SYSTEM	S2L4	12/23/2025	Annual
RF Switching System	FMSR-04B (7G HPF+LNA)	T&M SYSTEM	S2L5	12/23/2025	Annual
Power Amplifier	CBL18265035	CERNEX	22966	11/07/2025	Annual
Power Amplifier	CBL26405040	CERNEX	25956	02/19/2026	Annual
LISN	ENV216	Rohde & Schwarz	102245	07/17/2025	Annual
EMI Test Receiver	ESR	Rohde & Schwarz	101910	07/02/2025	Annual
Temperature Chamber	SU-642	ESPEC	0093008124	02/11/2026	Annual
Signal Analyzer	N9030A	Agilent	MY49431210	12/12/2025	Annual
Power Measurement Set	OSP 120	Rohde & Schwarz	101231	10/17/2025	Annual
Power Meter	N1911A	Agilent	MY45100523	02/21/2026	Annual
Power Sensor	N1921A	Agilent	MY57820067	02/04/2026	Annual
Directional Coupler	87300B	Agilent	3116A03621	10/21/2025	Annual
Power Splitter	11667B	Hewlett Packard	05001	04/17/2025	Annual
DC Power Supply	E3632A	H.P	KR75303243	04/19/2025	Annual
Attenuator(10 dB)	8493C	Hewlett Packard	07560	06/05/2025	Annual
Software	EMC32	Rohde & Schwarz	N/A	N/A	N/A
FCC WLAN&BT&BLE Conducted Test Software v3.0	N/A	HCT CO., LTD.	N/A	N/A	N/A

Note:

1. Equipment listed above that calibrated during the testing period was set for test after the calibration.
2. Equipment listed above that has a calibration due date during the testing period, the testing is completed before equipment expiration date.
3. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5(Version : 2017).