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EMI CERTIFICATION REPORT

Applicant:

LG Electronics Inc.

**60-39, Gasan-dong, Gumchon-gu, Seoul
153-023, Korea**

Date of Issue: February 21, 2011

Test Report No.: HCTE1102FE13

Test Site: HCT CO., LTD.

HCT FRN: 0005-8664-21

FCC ID:

BEJV909

Rule Part(s) / Standard(s) : FCC PART 15 Subpart B Class B
Equipment Type : Cellular/PCS GSM/EDGE and AWS/WCDMA Tablet with Bluetooth & WLAN
Trade Name : LG Electronics Inc
Model Name(s) : V909, LG-V909, V909DW, LG-V909DW
Port / Connector(s) : USB Data Port / HDMI Port / Headset Port / DC In Port

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2003. (See Test Report if any modifications were made for compliance)

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

HCT certifies that no party to application has been subject to a denial of Federal benefits that includes FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 862.

**Report prepared by
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ATTACHMENT: TEST SETUP PHOTOGRAPHS

1. GENERAL INFORMATION

1.1 Product Description

Equipment Under Test (E.U.T) is **Cellular/PCS GSM/EDGE and AWS/WCDMA Tablet with Bluetooth & WLAN, Model: V909** manufactured by **LG Electronics Inc.** Its basic purpose is used for communications.

Model (s)	V909
Additional Model(s)	LG-V909, V909DW, LG-V909DW
FCC ID	BEJV909
E.U.T Type	Cellular/PCS GSM/EDGE and AWS/WCDMA Tablet with Bluetooth & WLAN
TX Frequency	824.20 MHz to 848.80 MHz (GSM 850) 1 850.20 MHz to 1 909.80 MHz (GSM 1 900) 1 711.25 MHz to 1 753.75 MHz (AWS CDMA)
RX Frequency	869.20 MHz to 893.80 MHz (GSM 850) 1 930.20 MHz to 1 989.80 MHz (GSM 1 900) 2 111.25 MHz to 2 153.75 MHz (AWS CDMA)

1.2 Related Submittal(s) / Grant(s)

Original submittal only.

1.3 Tested System Details

All equipment descriptions used in the tested system (including inserted cards) are:

Device Type	Manufacturer	Model Number/ Serial Number	FCC ID / DoC	Connected To
Cellular/PCS GSM/EDGE and AWS/WCDMA Tablet with Bluetooth & WLAN	LG	V909	BEJV909	Notebook PC TV Monitor
Travel adaptor	Tempao Electronics Co., Ltd.	PSTA-DO1KT	-	E.U.T
TV Monitor	LG	W2261Vp-PF 912NDDMOC242	-	E.U.T
Notebook PC	LG	X140-02 009QTAF022208	-	E.U.T
Notebook PC adaptor	LG	ADP-40PHAD DTA100A3502301	-	Notebook PC
Mouse	Microsoft	Intellimouse optical USB and PS/2 compatible 3902B008	-	Notebook PC
HDMI cable	-	-	-	E.U.T TV Monitor
USB Cable	-	-	-	E.U.T Notebook PC
Headset	-	-	-	E.U.T

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
Cellular/PCS GSM/EDGE and AWS/WCDMA Tablet with Bluetooth & WLAN	DC IN	N	-	(P)1.6
	Ear Jack	-	N	(D)1.2
	USB	Y	Y	(P,D)1.2
	HDMI	N	Y	(D)1.0
Notebook PC	USB	-	Y	(D)1.8
TV Monitor	AC IN	N	-	(P)1.8

* The marked "(D)" means the data cable and "(P)" means the power cable.

1.5 Noise Suppression Parts on Cable. (I/O cable)

Product Name	Port	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
Cellular/PCS GSM/EDGE and AWS/WCDMA Tablet with Bluetooth & WLAN	DC IN	N	E.U.T End	Y	E.U.T End
	Ear Jack	N	Not Applicable	Y	E.U.T End
	USB	N	Not Applicable	Y	Both End
	HDMI	N	Not Applicable	Y	Both End
Notebook PC	USB	Y	Notebook PC End	Y	Notebook PC End
TV Monitor	AC IN	N	Not Applicable	N	Not Applicable

1.6 Test Methodology

Both Conducted and Radiated testing was performed according to the procedures in ANSI C63.4/2003. Radiated testing was performed at an antenna to E.U.T distance of 3 m

1.7 Test Facility

The 10 m semi anechoic chamber used to collect the radiated data is located at the 105-1, Jangam-Ri, Majang-Myeon, Icheon-Si, Kyongki-Do, South Korea, and the conducted measurement facility used to measure the conducted data are located at San 136-1, Ami-Ri Bubal-Eup, Icheon-Si, Kyongki-Do, 467-701, South Korea. Those measurement facilities are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description of test facilities was submitted to the Commission and accepted dated Sep. 03, 2010 (Registration Number: 90661)

1.8 Frequency Range of Radiated Measurements

An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table

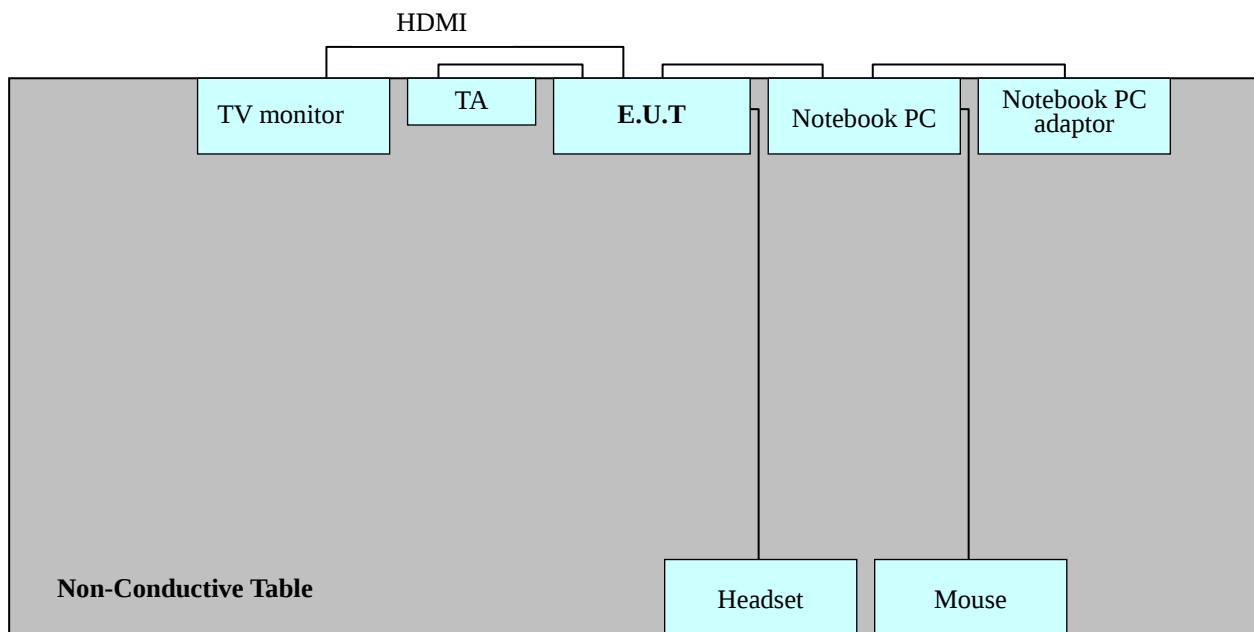
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 to 108	1 000
108 to 500	2 000
500 to 1 000	5 000
Above 1 000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

2. SYSTEM TEST CONFIGURATION

2.1 Configuration of Test System

- Power Line Conducted test : E.U.T was connected to LISN via Notebook PC adaptor.
Preliminary Power Line Conducted Emission tests were performed by using the procedure in ANSI C63.4/2003 7.2.3 to determine the worst operating conditions.
- Radiated Emission test : Preliminary Radiated Emission tests were performed by using the procedure in ANSI C63.4/2003 8.3.1.1 to determine the worst operating condition. Final Radiated Emission tests were performed at 3 m semi-anechoic chamber.

[Configuration of Tested System]



Power Line: 110 VAC

3. PRELIMINARY TEST

3.1 Conducted Emission Test

- Test E.U.T with Data Communication mode, after connecting all peripheral devices.

During preliminary tests, the following operating mode was investigated:

Operation Mode	The Worst Operating Condition
Data Communication	○

3. 2 Radiated Emission Test

- Test E.U.T with Data Communication mode, after connecting all peripheral devices.

During preliminary tests, the following operating mode was investigated:

Operation Mode	The Worst Operating Condition
Data Communication	○

4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

4.1 Conducted Emission Test

The following table shows the highest levels of conducted emissions on both polarization of hot and neutral line.

Limit apply to	: FCC PART 15 Subpart B Class B
Operating condition	: Data Communication mode
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 24.1 °C
Humidity level	: 44.2 %
Test date	: February 21, 2011

※ **NOTE:** Refer to page 10 to page 13 for details.

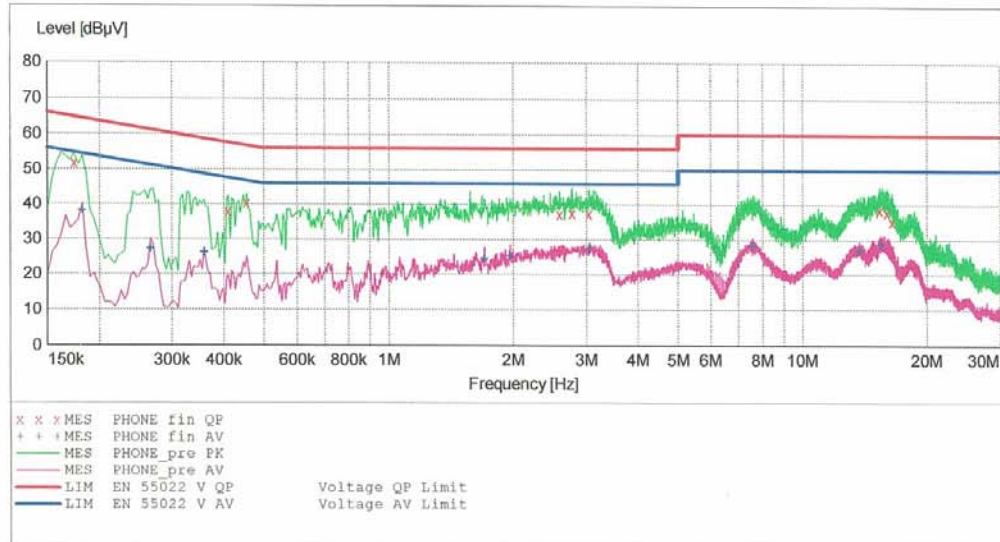
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EUT: V909
Manufacturer: LG
Operating Condition: DATA MODE
Test Site: SHIELD ROOM
Operator: DH-RYU
Test Specification: FCC PART 15 CLASS B
Comment: H

SCAN TABLE: "FCC PART 15 CLASS B"

Short Description:			FCC PART 15 CLASS B			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	500.0 kHz	4.0 kHz	MaxPeak	10.0 ms	9 kHz	None
			Average			
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak	10.0 ms	9 kHz	None
			Average			
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak	10.0 ms	9 kHz	None
			Average			



MEASUREMENT RESULT: "PHONE_fin QP"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.174010	51.70	10.1	65	13.1	---	---
0.410010	38.00	10.1	58	19.7	---	---
0.454010	40.50	10.1	57	16.3	---	---
2.588000	37.20	10.3	56	18.8	---	---
2.772000	37.50	10.3	56	18.5	---	---
3.040000	37.30	10.3	56	18.7	---	---
15.336000	38.60	11.2	60	21.4	---	---
15.984000	37.90	11.2	60	22.1	---	---
16.484000	35.10	11.3	60	24.9	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

2/21/2011 10:53AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.182010	38.10	10.1	54	16.3	---	---
0.266010	27.20	10.1	51	24.1	---	---
0.358010	26.20	10.1	49	22.6	---	---
1.704000	24.50	10.2	46	21.5	---	---
1.968000	25.20	10.3	46	20.8	---	---
3.052000	27.20	10.3	46	18.8	---	---
7.584000	28.20	10.7	50	21.8	---	---
13.728000	26.80	11.1	50	23.2	---	---
15.464000	28.70	11.2	50	21.3	---	---

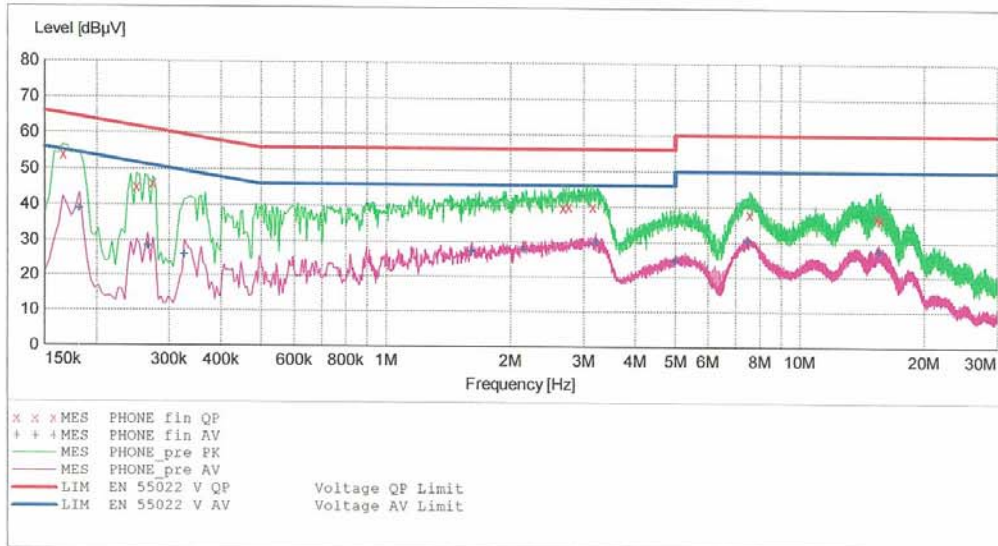
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EMC

EUT: V909
Manufacturer: LG
Operating Condition: DATA MODE
Test Site: SHIELD ROOM
Operator: DH-RYU
Test Specification: FCC PART 15 CLASS B
Comment: N

SCAN TABLE: "FCC PART 15 CLASS B"

Short Description:				FCC PART 15 CLASS B			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer	
150.0 kHz	500.0 kHz	4.0 kHz	MaxPeak	10.0 ms	9 kHz	None	
			Average				
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak	10.0 ms	9 kHz	None	
			Average				
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak	10.0 ms	9 kHz	None	
			Average				



MEASUREMENT RESULT: "PHONE_fin QP"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.166010	54.00	10.1	65	11.1	---	---
0.250010	45.20	10.1	62	16.5	---	---
0.274010	46.10	10.1	61	14.9	---	---
2.680000	39.70	10.3	56	16.3	---	---
2.768000	40.00	10.3	56	16.0	---	---
3.160000	40.00	10.4	56	16.0	---	---
7.580000	38.10	10.7	60	21.9	---	---
15.384000	37.20	11.2	60	22.8	---	---
15.680000	36.60	11.2	60	23.4	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

2/21/2011 10:50AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.182010	38.80	10.1	54	15.6	---	---
0.266010	28.40	10.1	51	22.9	---	---
0.326010	25.90	10.1	50	23.7	---	---
1.616000	27.20	10.2	46	18.8	---	---
2.152000	27.90	10.3	46	18.1	---	---
3.220000	29.90	10.4	46	16.1	---	---
5.000000	24.70	10.5	46	21.3	---	---
7.464000	30.20	10.6	50	19.8	---	---
15.544000	27.30	11.2	50	22.7	---	---

4.2 Radiated Emission Test

The following table shows the highest levels of Radiated Emissions on both polarization of horizontal and vertical.

Limit apply to	: FCC PART 15 Subpart B Class B
Operating condition	: Data Communication mode
Detector	: Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature	: 20.0 °C
Humidity level	: 37.0 %
Test date	: February 18, 2011

Frequency	Reading	Ant. Factor	Cable Loss	Ant. POL	Total	Limit	Margin
MHz	dB μ V	dB/m	dB	(H/V)	dB μ V/m	dB μ V/m	dB
36.6	16.0	11.8	0.8	V	28.6	40.0	11.4
129.2	19.4	11.9	1.4	V	32.7	43.5	10.8
142.7	15.8	12.9	1.5	H	30.2	43.5	13.3
268.9	18.4	12.2	2.1	V	32.7	46.0	13.3
397.2	14.9	15.5	2.6	H	33.0	46.0	13.0
480.1	13.9	17.2	2.9	H	34.0	46.0	12.0

※ NOTE:

1. For measurement above 1 GHz, noise level is more than 10 dB below the limit, specified in FCC Part 15.35

5. FIELD STRENGTH CALCULATION

The field strength is calculated by adding the antenna factor and cable factor.
The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CF$$

Where FS = Field Strength

RA = Receiver Amplitude

AF = Antenna Factor

CF = Cable Attenuation Factor

Assume a receiver reading of 21.5 dB μ V is obtained. The antenna factor of 7.4 dB/m and a cable factor of 1.1 dB are added. The 30 dB μ V/m value is mathematically converted to its corresponding level in μ V/m.

$$FS = 21.5 + 7.4 + 1.1 = 30 \text{ dB}\mu\text{V/m}$$

[Radiated Emission Limits]

Frequency of Emission (MHz)	Field Strength	
	μ V/m	dB μ V/m
30 to 88	100	40.0
88 to 216	150	43.5
216 to 960	200	46.0
Above 960	500	54.0

6. TEST EQUIPMENT

<u>Type</u>	<u>Manufacturer</u>	<u>Model Number</u>	<u>Serial Number</u>	<u>Next CAL Date</u>
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Conducted Emission

☒ EMI Test Receiver	Rohde & Schwarz	ESCI	100584	2011.05.28
☒ LISN	Rohde & Schwarz	ESH3-Z5	100282	2012.02.01
☒ LISN	Rohde & Schwarz	ENV216	3560.6550.02	2011.04.05
☒ Attenuator	Rohde & Schwarz	ESH3-Z2	357.8810.52	2011.10.25

Radiated Emission

☐ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	2011.10.29
☒ EMI Test Receiver	Rohde & Schwarz	ESU26	100241	2011.09.01
☒ Trilog Antenna	Schwarzbeck	VULB9160	3301	2012.09.13
☒ Antenna master	INNCO Systems	MA4000-EP	MA4000/283	-
☒ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	-
☒ Communication Antenna	Schwarzbeck	USLP9142	9142-248	-
☐ RF-Amplifier	MITEQ	AMF-6D-0010 1800-35.20P.PS	-	2011.05.20
☐ Base Station	Rohde & Schwarz	CMU 200	1100000802	2012.02.16

7. CONCLUSION

The data collected shows that the **LG Electronics Inc, Cellular/PCS GSM/EDGEN and AWS/WCDMA Tablet with Bluetooth & WLAN, Model: V909, FCC ID: BEJV909** complies with §15.107 and §15.109 of the FCC rules.