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EMI CERTIFICATION REPORT

Applicant:

LG Electronics Inc.

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

Date of Issue: March 17, 2011

Test Report No.: HCTE1103FE18

Test Site: HCT CO., LTD.

HCT FRN: 0005-8664-21

FCC ID:

BEJL07C

Rule Part(s) / Standard(s) : FCC PART 15 Subpart B Class B

Equipment Type : PCS GSM/GPRS Phone with Bluetooth and WLAN

Trade Name : LG Electronics Inc

Model(s) : L-07C

Port / Connector(s) : USB Data Port / Headset 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

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ATTACHMENT: TEST SETUP PHOTOGRAPHS

1. GENERAL INFORMATION

1.1 Product Description

Equipment Under Test (E.U.T) is **PCS GSM/GPRS Phone with Bluetooth and WLAN, Model: L-07C** manufactured by **LG Electronics Inc.** Its basic purpose is used for communications.

Model (s)	L-07C
FCC ID	BEJL07C
E.U.T Type	PCS GSM/GPRS Phone with Bluetooth and WLAN
TX Frequency	1 850.20 MHz to 1 909.80 MHz (GSM 1 900)
RX Frequency	1 930.20 MHz to 1 989.80 MHz (GSM 1 900)

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
PCS GSM/GPRS Phone with Bluetooth And WLAN	LG	L-07C	BEJL07C	Notebook PC
Notebook PC	LG	X140-02 009QTAF022208	DoC	E.U.T
Notebook PC adaptor	DELTA (JIANG SU)	ADP-40PH AD EAY60725501	-	Notebook PC
Mouse	Microsoft	Intellimouse optical USB and PS/2 compatible 3902B008	DoC	Notebook PC
USB cable	-	-	-	E.U.T Notebook PC
Headset	-	-	-	E.U.T
SD card (4 GB)	HC	-	-	E.U.T

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
PCS GSM/GPRS Phone with Bluetooth And WLAN	Headset jack	-	N	(D)1.2
	USB data	Y	Y	(P,D)1.2
Notebook PC	USB (Mouse)	-	Y	(D)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
PCS GSM/GPRS Phone with Bluetooth And WLAN	Headset jack	N	-	Y	E.U.T End
	USB data	N	-	Y	Both End
Notebook PC	USB (Mouse)	Y	Notebook PC End	Y	Notebook PC End

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 10 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, Kyoungki-Do, 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

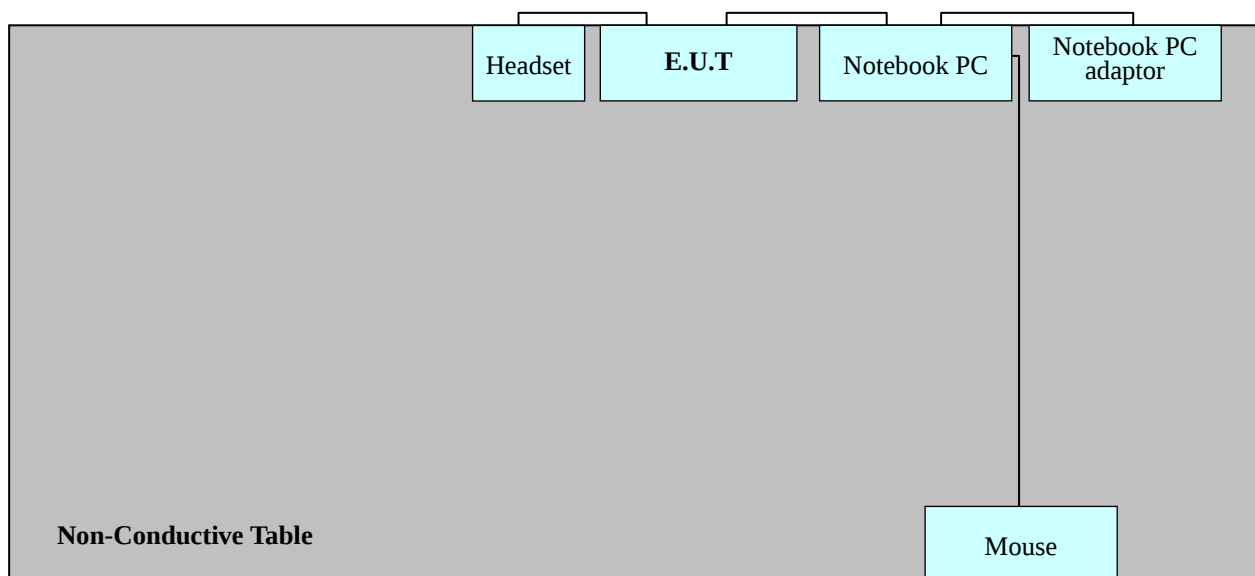
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 to 108	1 000
108 to 500	2 000
500 to 1 000	5 000
Above 1 000	5 th harmonic of the highest frequency or 40 GHz, whichever is lower

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 10 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
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 23.8°C
Humidity level	: 42.7%
Test date	: March 11, 2011

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

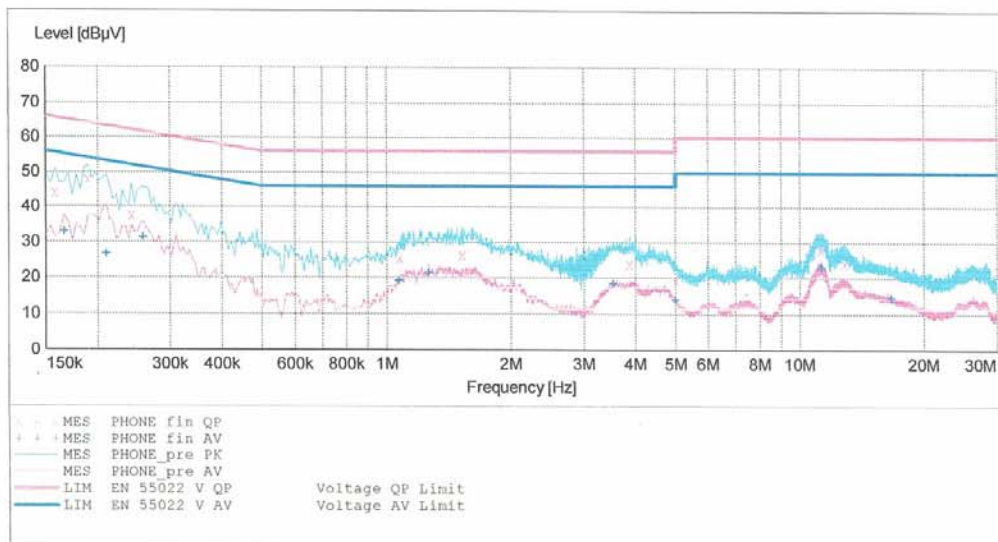
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EUT: L-07C
Manufacturer: LG
Operating Condition: DATA MODE
Test Site: SHIELD ROOM
Operator: DH-RYU
Test Specification: FCC PART 15 CLASS B
Comment: H

SCAN TABLE: "FCC PART 15 CLASS B"

Short Description:		FCC PART 15 CLASS B					
Start Frequency	Stop Frequency	Step Width	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
0.158010	44.00	10.3	66	21.6	---	---
0.190010	47.90	10.3	64	16.2	---	---
0.242010	37.80	10.3	62	24.2	---	---
1.076000	25.60	10.4	56	30.4	---	---
1.528000	26.50	10.4	56	29.5	---	---
3.872000	23.90	10.6	56	32.1	---	---
5.000000	19.30	10.7	56	36.7	---	---
11.244000	28.30	11.1	60	31.7	---	---
12.848000	24.20	11.2	60	35.8	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.166010	33.00	10.3	55	22.1	---	---
0.210010	26.70	10.3	53	26.5	---	---
0.258010	31.30	10.3	52	20.2	---	---
1.072000	19.20	10.4	46	26.8	---	---
1.264000	21.40	10.4	46	24.6	---	---
3.536000	18.50	10.6	46	27.5	---	---
5.000000	14.00	10.7	46	32.0	---	---
11.280000	22.90	11.1	50	27.1	---	---
16.676000	14.50	11.5	50	35.5	---	---

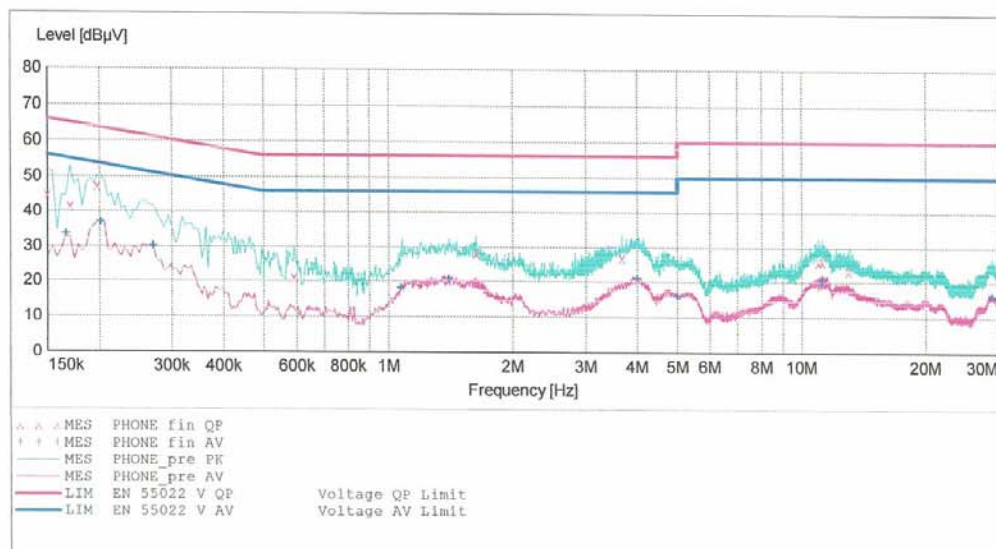
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EMC

EUT: L-07C
 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
Frequency	Frequency	Width				
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
0.150010	44.60	10.3	66	21.4	---	---
0.170010	41.50	10.3	65	23.4	---	---
0.198010	47.20	10.3	64	16.5	---	---
0.592000	21.30	10.3	56	34.7	---	---
1.632000	28.30	10.4	56	27.7	---	---
3.676000	26.90	10.6	56	29.1	---	---
10.968000	25.90	11.1	60	34.1	---	---
11.232000	26.10	11.1	60	33.9	---	---
12.972000	23.40	11.2	60	36.6	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

3/11/2011 10:10AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.166010	33.50	10.3	55	21.7	---	---
0.202010	37.00	10.3	54	16.5	---	---
0.270010	30.10	10.3	51	21.0	---	---
1.072000	18.10	10.4	46	27.9	---	---
1.404000	20.80	10.4	46	25.2	---	---
4.008000	21.20	10.6	46	24.8	---	---
5.000000	16.10	10.7	46	29.9	---	---
11.232000	20.30	11.1	50	29.7	---	---
28.948000	16.10	11.9	50	33.9	---	---

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
Detector	: Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature	: 23.7 °C
Humidity level	: 43.6 %
Test date	: March 14, 2011

※ **NOTE:**

1. Refer to page 15 for details.
2. For measurement above 1 GHz, noise level is more than 14 dB below the limit, specified in FCC Part 15.35

HCT Test Report

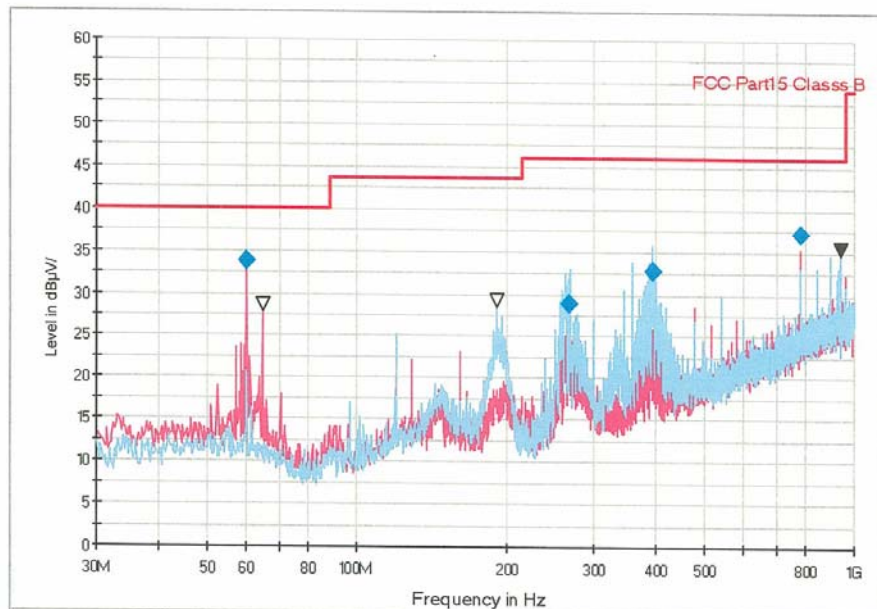
Common Information

/*-

EUT Name: L-07C
Test Description: Data Mode
Environment Conditions: PHONE+HEADSET+NOTEBOOK(LG)
Operator Name:
Comment:

FCC Part15 Class B

FCC Part15 Class B



Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)	Comment
60.018500	33.7	100.0	V	0.0	12.9	6.3	40.0	
268.043200	29.0	100.0	H	0.0	14.4	17.0	46.0	
393.572500	32.7	100.0	H	0.0	18.1	13.3	46.0	
780.030000	37.1	121.0	V	0.0	26.1	8.9	46.0	

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 **PCS GSM/GPRS Phone with Bluetooth and WLAN, Model: L-07C, FCC ID: BEJL07C** complies with §15.107 and §15.109 of the FCC rules.