HCT CO., LTD.

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EMI REPORT (Certification)

LG Electronics Inc. **60-39, Gasan-dong, Gumchon-gu, Seoul, 153-023, Korea**	**Date of Issue: December 17, 2008** **Test Report No.: HCT-F08-1101-1** **Test Site: HCT CO., LTD.** **HCT FRN: 0005-8664-21**

FCC ID: **BEJLXU-800**

Classification/ Standard(s):	FCC PART 15 Subpart B / CISPR 22 CLASS B
Equipment (EUT) Type:	Cellular USB Modem
Trade Name/Model(s):	LG Electronics Inc. / LXU-800
Port/ Connector(s):	USB Port / Ear Phone 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 denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse of 1988, 21 U.S.C.853 (a).

Report prepared by
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Test engineer of EMC Tech. Part

Approved by
: Kyoung Hee Yoon
Manager of EMC Tech. Part

TABLE OF CONTENTS

ATTACHMENT : TEST SETUP PHOTOGRAPHS

1. GENERAL INFORMATION

1.1 Product Description

The **LG Electronics Inc. LXU-800, Cellular USB Modem**.

It's basic purpose is used for communications. It transmits from CDMA 835 (824.7 MHz – 848.31 MHz) receives from CDMA 835 (869.70 MHz – 893.31 MHz).

Model	LXU-800
FCC ID	BEJLXU-800
EUT Type	Cellular USB Modem
TX Frequency	824.70 MHz – 848.31 MHz (CDMA 835)
RX Frequency	869.70 MHz – 893.31 MHz (CDMA 835)

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 /Part Number	FCC ID / DoC	Connected To
Cellular USB Modem	LG	LXU-800	BEJLXU-800	Notebook PC
Notebook PC	Toshiba	PSMA2K-01D002	DoC	EUT, TA
Notebook PC Adaptor	Delta	SADP-65KB B	-	Notebook PC
Mouse	Logitech	M-BT96a	DoC	Notebook PC
Ear Phone	Cresyn	SGEY0000301	-	EUT

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
Cellular USB Modem	Ear Jack	N/A	N	(D)1.3
Notebook PC	USB(Mouse)	N/A	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
Cellular USB Modem	Ear Jack	N	-	Y	EUT End
Notebook PC	USB(Mouse)	N	-	Y	Notebook 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 EUT distance of 3 meters.

1.7 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1, Maekok-Ri, Hobup-Myun, Ichon-Si, Kyounggi-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated July 6, 2006(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

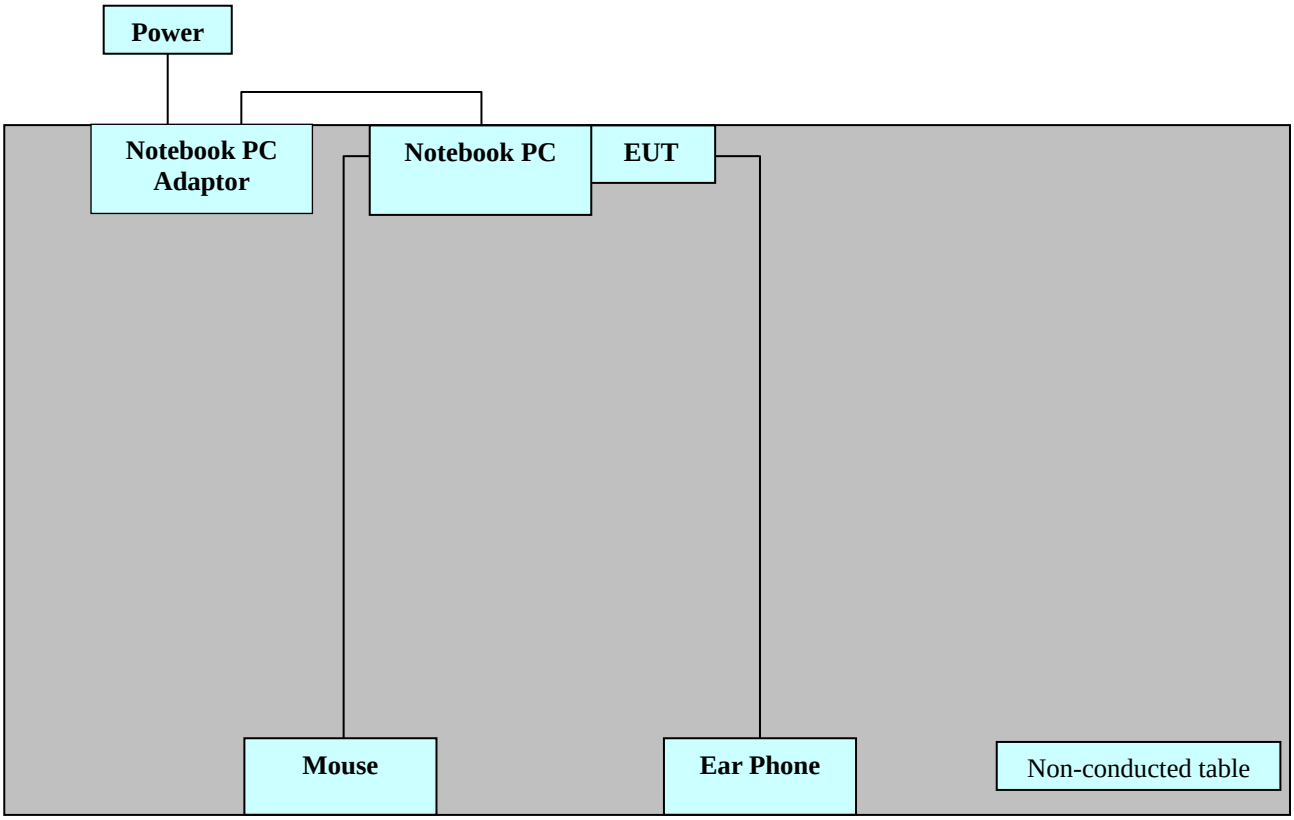
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

2. SYSTEM TEST CONFIGURATION

2.1 Configuration of Test System

Line Conducted Test : EUT was connected to LISN, all other supporting equipment were Connected to another LISN. 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 meter open area test site.



Power Line: 110V AC

[Configuration of Tested System]

3. PRELIMINARY TEST

3.1 Conducted Emission Test

During preliminary tests, the following operating mode was investigated

Operation Mode	The worst operating condition
Idle(835)	○

3. 2 Radiated Emission Test

During preliminary test, the following operation mode was investigated

Operation Mode	The worst operating condition
Idle(835)	○

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	: CISPR 22 CLASS B
Result	: PASSED BY 10.0 dB
Operating Condition	: Idle Mode
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 22.0 °C
Humidity Level	: 33.5 %
Test Date	: October 23, 2008

Power Line Conducted Emissions				CISPR 22 Class B	
Frequency (MHz)	Amplitude (dBuV)	Conductor	Result	Limit (dBuV)	Margin (dB)
0.2026	52.2	HOT	Quasi-Peak	64.0	11.3
0.2026	43.5	HOT	Average	54.0	10.0
4.9840	44.5	NEUTRAL	Quasi-Peak	56.0	11.5
0.2001	42.7	NEUTRAL	Average	54.0	10.9

*Line Conducted Emissions Tabulated Data

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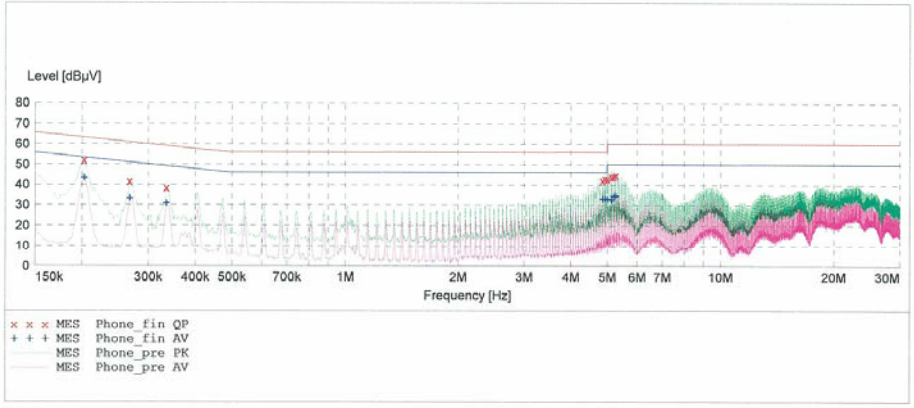
EUT: LXU-800
Manufacturer: LG
Operating Condition: Idle Mode
Test Site: SHIELD ROOM
Operator: YH,LEE
Test Specification: CISPR 22 CLASS B
Comment: H

SCAN TABLE: "CISPR 22 Voltage"

Short Description: CISPR 22 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "Phone_fin QP"

10/23/2008 9:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.202600	52.20	10.0	64	11.3	---	---
0.267600	41.80	10.0	61	19.4	---	---
0.335100	38.50	10.0	59	20.8	---	---
4.856000	42.20	10.6	56	13.8	---	---
4.924000	43.10	10.6	56	12.9	---	---
4.992000	43.00	10.6	56	13.0	---	---
5.124000	44.00	10.6	60	16.0	---	---
5.192000	44.30	10.6	60	15.7	---	---
5.260000	44.70	10.7	60	15.3	---	---

Page 1/2 10/23/2008 9:38AM HCT EMC LAB

MEASUREMENT RESULT: "Phone_fin AV"

10/23/2008 9:38AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.202600	43.50	10.0	54	10.0	---	---
0.267600	33.40	10.0	51	17.8	---	---
0.335100	31.00	10.0	49	18.3	---	---
4.856000	33.10	10.6	46	12.9	---	---
4.924000	33.20	10.6	46	12.8	---	---
4.992000	33.00	10.6	46	13.0	---	---
5.124000	32.70	10.6	50	17.3	---	---
5.192000	34.30	10.6	50	15.7	---	---
5.260000	34.50	10.7	50	15.5	---	---

Page 2/2 10/23/2008 9:38AM HCT EMC LAB

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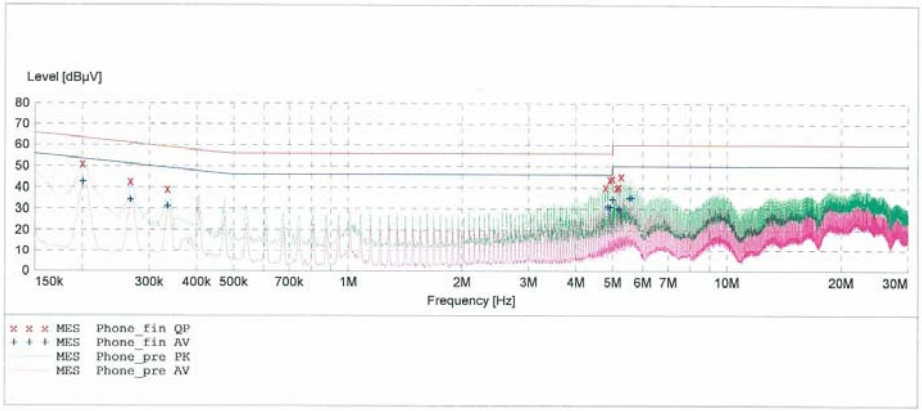
EMC TEST LAB.

```
EUT:                    LXU-800
Manufacturer:           LG
Operating Condition:    Idle Mode
Test Site:              SHIELD ROOM
Operator:               YH,LEE
Test Specification:     CISPR 22 CLASS B
Comment:                N
```

SCAN TABLE: "CISPR 22 Voltage"

Short Description: CISPR 22 Voltage

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "Phone_fin QP"

10/23/2008 9:34AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.200100	51.20	10.0	64	12.4	---	---
0.267600	43.00	10.0	61	18.2	---	---
0.335100	39.40	10.0	59	19.9	---	---
4.784000	40.20	10.6	56	15.8	---	---
4.916000	44.00	10.6	56	12.0	---	---
4.984000	44.50	10.6	56	11.5	---	---
5.116000	40.10	10.6	60	19.9	---	---
5.184000	40.60	10.6	60	19.4	---	---
5.256000	45.40	10.7	60	14.6	---	---

Page 1/2 10/23/2008 9:34AM HCT EMC LAB

MEASUREMENT RESULT: "Phone_fin AV"

10/23/2008 9:34AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.200100	42.70	10.0	54	10.9	---	---
0.267600	34.30	10.0	51	16.9	---	---
0.335100	31.30	10.0	49	18.0	---	---
4.852000	31.10	10.6	46	14.9	---	---
4.920000	30.80	10.6	46	15.2	---	---
4.984000	34.50	10.6	46	11.5	---	---
5.184000	30.10	10.6	50	19.9	---	---
5.524000	35.20	10.7	50	14.8	---	---
5.592000	35.40	10.7	50	14.6	---	---

Page 2/2 10/23/2008 9:34AM HCT EMC LAB

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
Result	: PASSED BY 10.6 dB
Operating Condition	: Idle Mode
Detector	: Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature	: 22.0 °C
Humidity Level	: 33.5 %
Test Date	: October 23, 2008

Frequency	Reading	Ant. Factor	Cable Loss	ANT POL	Total	Limit	Margin
MHz	dBuV	dB/m	dB	(H/V)	dBuV/m	dBuV/m	dB
240.0	17.7	10.8	3.7	H	32.2	46.0	13.8
480.0	13.3	16.9	5.2	H	35.4	46.0	10.6
480.0	9.8	16.9	5.2	V	31.9	46.0	14.1

*For measurement over 1 GHz, noise level was more than 10 dB below the limit.

5. FIELD STRENTH 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 dBuV is obtained. The Antenna Factor of 7.4 dB/m and a Cable Factor of 1.1 dB is added. The 30 dBuV/m value is mathematically converted to its corresponding level in uV/m.

FS = 21.5 + 7.4 + 1.1 = 30 dBuV/m

Radiated emission limits

Frequency of emission	Field strength	
	μV / m	dB μV / m
30 ~ 88	100	40.0
88 ~ 216	150	43.5
216 ~ 960	200	46.0
Above 960	500	54.0

6. TEST EQUIPMENT

Type	Manufacture	Model Number	Next CAL Date
EMI Test Receiver	Rohde & Schwarz	ESI40	2009.10.31
EMI Test Receiver	Rohde & Schwarz	ESCI	2009.06.01
LISN	EMCO	703125	2009.05.04
LISN	Rohde & Schwarz	ESH2-Z5	2009.04.18
LISN	Rohde & Schwarz	ESH3-Z5	2009.06.13
LISN	EMCO	3816/2SH	2009.02.01
Attenuator	Rohde & Schwarz	ESH3-Z2	2009.10.30
TRILOG Antenna	Schwarzbeck	VULB9168	2009.01.18
Communication Antenna	TDK	LPDA-0802	N/A
Antenna Position Tower	HD	240/520/00	N/A
Base Station	Rohde & Schwarz	CMU 200	2009.02.28
Horn Antenna	Schwarzbeck	BBHA 9120D	2009.03.18
RF-Amplifier	MITEQ	AMF-6D-00101800-35.20P.PS	2009.04.25
Bluetooth Base Station	TESCOM	TC-3000A	2009.01.11

7. CONCLUSION

The data collected shows that the **LG Electronics Inc. LXU-800, Cellular USB Modem. FCC ID: BEJLXU-800** Complies with §15.107 and §15.109 of the FCC Rules.