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EMI REPORT (Certification)

LG Electronics, Inc.

**60-39, Kasan-Dong, Kumchon-Gu, Seoul
153-801, Korea.**

Date of Issue: March 12, 2008

Test Report No.: HCT-F08-0309

Test Site: HCT CO., LTD.

HCT FRN: 0005-8664-21

FCC ID:

BEJHB620

Classification/ Standard(s): FCC PART 15 Subpart B / CISPR 22 CLASS B
Equipment (EUT) Type: PCS GSM/EDGE Phone with Bluetooth
Trade Name/Model(s): LG Electronics, Inc. / HB620
Additional Model(s): KB620, HB620T
Application Type: Certification
Port/ Connector(s): DC Input 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
: Yong Hyun Lee
Test engineer of EMC Tech.Part

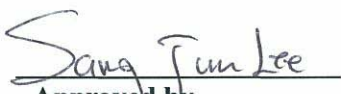

Approved by
: Sang Jun Lee
Manager of EMC Tech.Part

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ATTACHMENT : TEST SETUP PHOTOGRAPHS

1. GENERAL INFORMATION

1.1 Product Description

The LG Electronics, Inc. HB620 PCS GSM/EDGE Phone with Bluetooth. It's basic purpose is used for communications. It transmits from GSM1900 (1850.20 MHz – 1909.80 MHz) and receives from GSM1900 (1930.20 MHz – 1989.80 MHz).

MODEL	HB620
FCC ID	BEJHB620
EUT Type	PCS GSM/EDGE Phone with Bluetooth
TX Frequency	1850.20 MHz – 1909.80 MHz (GSM1900) 2402 MHz – 2480 MHz (Bluetooth)
RX Frequency	1930.20 MHz – 1989.80 MHz (GSM1900) 2402 MHz – 2480 MHz (Bluetooth)

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
PCS GSM/EDGE Phone with Bluetooth	LG Electronics, Inc.	HB620	BEJHB620	PC, TA
Travel Adaptor	Solcomp	STA-P52ES	-	EUT
Notebook PC	Toshiba	PSMA2K-01D002	DoC	EUT, TA
Notebook Adaptor	Delta	SADP-65KB B		Notebook PC
Mouse	DELL	MO56U0	DoC	Notebook PC
Ear phone	-	-	-	EUT
USB Cable	I-TECH	SGDY0010901	-	EUT, PC

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
PCS GSM/EDGE Phone with Bluetooth	DC In	N	N/A	(P)1.8
	Ear Jack	N/A	N	(D)1.1
	USB Data	Y	Y	(P, D)1.6
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
PCS GSM/EDGE Phone with Bluetooth	DC-In	N	-	Y	EUT End
	Ear-jack	N	-	Y	EUT End
	USB Data	N	-	Y	Both End
Notebook PC	USB (Mouse)	N	-	Y	Notebook End

1.6 Test Methodology

Both conducted and radiated testing were 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

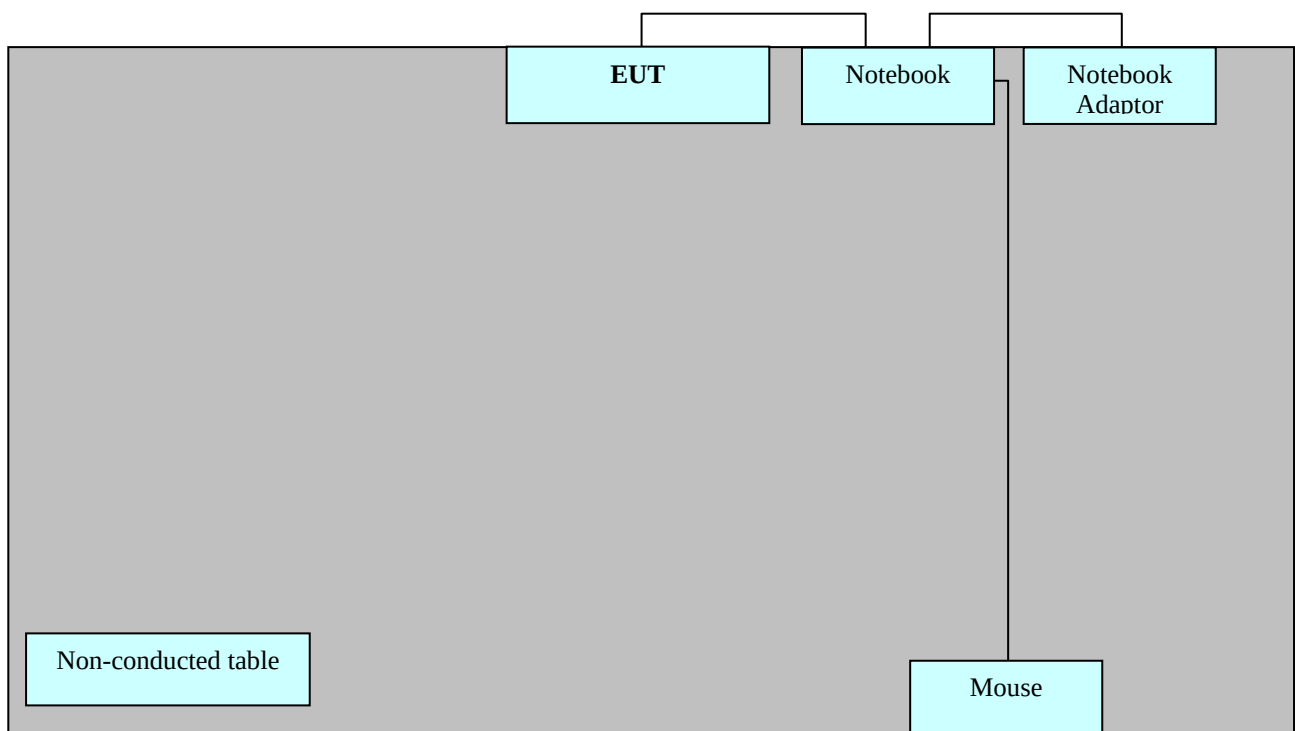
The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1, Maekok-Ri, Hobup-Myun, Ichon-Si, Kyoungki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated July 6, 2006(Registration Number: 90661)

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
Camera Mode	
Idle (1900) Mode	
MP3 Mode	
Bluetooth Mode	
Data Communication Mode	○

3. 2 Radiated Emission Test

During Preliminary Test, the Following operation mode was investigated

Operation Mode	The worst operating condition
Camera Mode	○
Idle (1900) Mode	
MP3 Mode	
Bluetooth Mode	
Data Communication Mode	

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 3.8 dB
Operating Condition	: Data Communication Mode
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 4.0 °C
Humidity Level	: 37.0 %
Test Date	: March 4, 2008

Power Line Conducted Emissions					
Frequency (MHz)	Amplitude (dBuV)	Conductor	Result	Limit (dBuV)	Margin (dB)
0.5560	42.9	HOT	Quasi-Peak	56.0	13.1
0.5560	42.2	HOT	Average	46.0	3.8
0.2051	45.3	NEUTRAL	Quasi-Peak	63.0	18.1
0.2076	41.7	NEUTRAL	Average	53.0	11.6

Line Conducted Emissions Tabulated Data

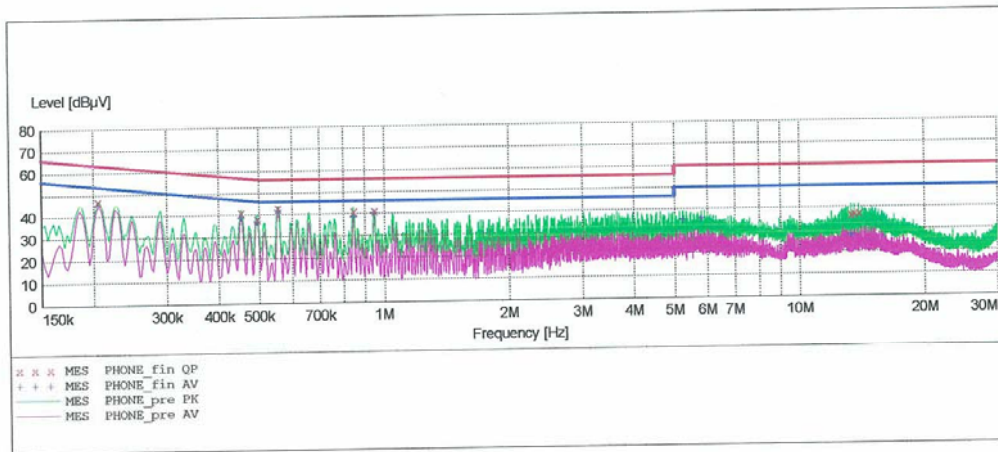
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EMC TEST LAB.

EUT: HB620
Manufacturer: LG Electronics Inc.
Operating Condition: Data Communication 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				Transducer
Start	Stop	Step	Detector	Meas. Time	IF Bandw.		
Frequency	Frequency	Width					
150.1 kHz	500.0 kHz	2.5 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 OP"

3/4/2008 7:09PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.205100	46.90	10.0	63	16.5	---	---
0.452600	40.90	10.1	57	15.9	---	---
0.495100	38.20	10.1	56	17.9	---	---
0.556000	42.90	10.1	56	13.1	---	---
0.844000	41.10	10.1	56	14.9	---	---
0.948000	41.00	10.1	56	15.0	---	---
13.336000	36.70	11.6	60	23.3	---	---
13.560000	37.10	11.7	60	22.9	---	---
13.892000	37.30	11.7	60	22.7	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

3/4/2008 7:09PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.205100	45.40	10.0	53	8.0	---	---
0.452600	39.10	10.1	47	7.8	---	---
0.495100	37.10	10.1	46	9.0	---	---
0.556000	42.20	10.1	46	3.8	---	---
0.844000	38.70	10.1	46	7.3	---	---
0.948000	40.30	10.1	46	5.7	---	---
5.248000	35.20	10.7	50	14.8	---	---
5.804000	35.60	10.7	50	14.4	---	---
13.332000	27.50	11.6	50	22.5	---	---

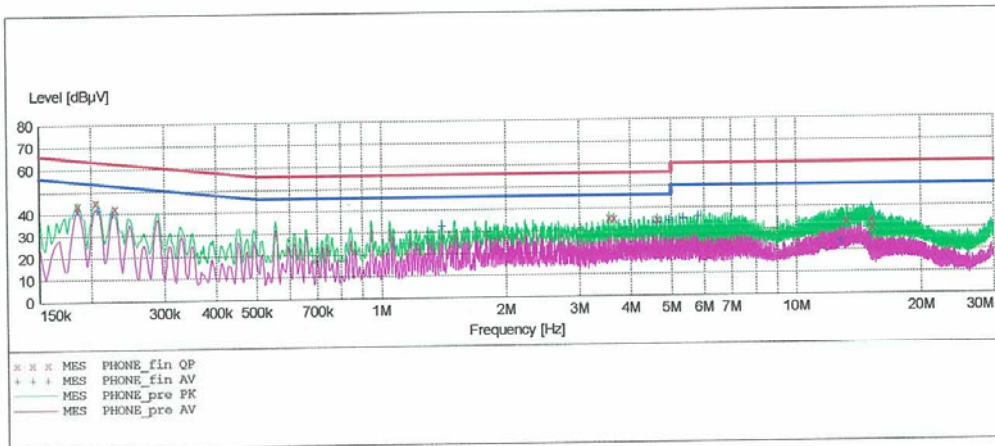
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EMC TEST LAB.

EUT: HB620
Manufacturer: LG Electronics Inc.
Operating Condition: Data Communication 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	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
150.1 kHz	500.0 kHz	2.5 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 OP"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.185100	43.90	10.0	64	20.3	---	---
0.205100	45.30	10.0	63	18.1	---	---
0.227600	42.40	10.0	63	20.2	---	---
3.536000	35.70	10.5	56	20.3	---	---
3.640000	35.50	10.5	56	20.5	---	---
4.628000	34.80	10.6	56	21.2	---	---
13.224000	33.50	11.6	60	26.5	---	---
15.220000	34.20	11.9	60	25.8	---	---
15.280000	30.70	11.9	60	29.3	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

3/4/2008 7:05PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.185100	41.90	10.0	54	12.4	---	---
0.207600	41.70	10.0	53	11.6	---	---
0.225100	40.30	10.0	53	12.4	---	---
1.400000	32.90	10.2	46	13.1	---	---
4.628000	33.70	10.6	46	12.3	---	---
4.956000	34.20	10.6	46	11.8	---	---
5.348000	35.30	10.7	50	14.7	---	---
5.800000	36.00	10.7	50	14.0	---	---
12.836000	24.50	11.5	50	25.5	---	---

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 7.5 dB
Operating Condition	: Camera mode
Detector	: Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature	: 6.0 °C
Humidity Level	: 42.0 %
Test Date	: March 10, 2008

Frequency	Reading	Ant. Factor	Cable Loss	ANT POL	Total	Limit	Margin
MHz	dBuV/m	dB/m	dB	(H/V)	dBuV/m	dBuV/m	dB
184.6	21.7	10.1	3.2	V	35.0	43.5	8.5
196.1	23.4	9.2	3.4	V	36.0	43.5	7.5
207.1	18.6	9.2	3.5	V	31.3	43.5	12.2
571.9	11.7	18.3	5.6	H	35.6	46.0	10.4
590.1	9.9	18.7	5.7	H	34.3	46.0	11.7
607.0	10.2	19.0	5.7	H	34.9	46.0	11.1

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

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 dBuV/m is obtained. The Antenna Factor of 7.4 dB 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.

$$FS = 21.5 + 7.4 + 1.1 = 30 \text{ dBuV/m}$$

Radiated emission limits

Frequency of emission	Field strength	
	$\mu\text{V} / \text{m}$	$\text{dB } \mu\text{V} / \text{m}$
30 ~ 88	100	40.0
88 ~ 216	150	43.5
216 ~ 960	200	46.0
Above 960	500	54.0

6. Test Equipment

<u>Type</u>	<u>Manufacture</u>	<u>Model Number</u>	<u>Next CAL Date</u>
EMI Test Receiver	Rohde & Schwarz	ESI40	2008.11.06
EMI Test Receiver	Rohde & Schwarz	ESCI	2008.06.01
LISN	EMCO	703125	2008.05.04
LISN	Rohde & Schwarz	ESH2-Z5	2008.04.20
LISN	Rohde & Schwarz	ESH3-Z5	2008.06.13
LISN	EMCO	3816/2	2008.06.13
Attenuator	Rohde & Schwarz	ESH3-Z2	2008.10.30
TRILOG Antenna	Schwarzbeck	VULB9168	2008.03.19
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	2008.03.31
RF-Amplifier	MITEQ	AMF-6D-00101800-35.20P.PS	2008.04.25
Bluetooth Base Station	TESCOM	TC-3000A	2009.01.11

7. Conclusion

The data collected shows that the LG Electronics, Inc. PCS GSM/EDGE Phone with Bluetooth.
FCC ID: BEJHB620 Complies with §15.107 and §15.109 of the FCC Rules.