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EMI REPORT (Certification)

LG Electronics, Inc.

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

Date of Issue: January 25, 2008

Test Report No.: HCT-F08-0116

Test Site: HCT CO., LTD.

HCT FRN: 0005-8664-21

FCC ID:

BEJKT520

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. / KT520

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).

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ATTACHMENT : TEST SETUP PHOTOGRAPHS

1. GENERAL INFORMATION

1.1 Product Description

The LG Electronics, Inc. KT520 PCS GSM/EDGE Phone with Bluetooth. Its 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	KT520
FCC ID	BEJKT520
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.	KT520	BEJKT520	PC, Travel Adaptor
Travel Adaptor	Dongdo	STA-P52ED	-	EUT
Notebook PC	TOSHIBA	PSMA2K-01D002	DoC	EUT
Notebook PC Adaptor	DELTA	SADP-65KB B	-	Notebook
Mouse	DELL	MO56U0	DoC	Notebook
Ear phone	i-sound	SGEY0003213	-	EUT
USB Cable	-	-	-	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)1.7
	Ear Jack	N/A	N	(D)1.4
	USB Data	Y	Y	(P, D)0.9
Notebook	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	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

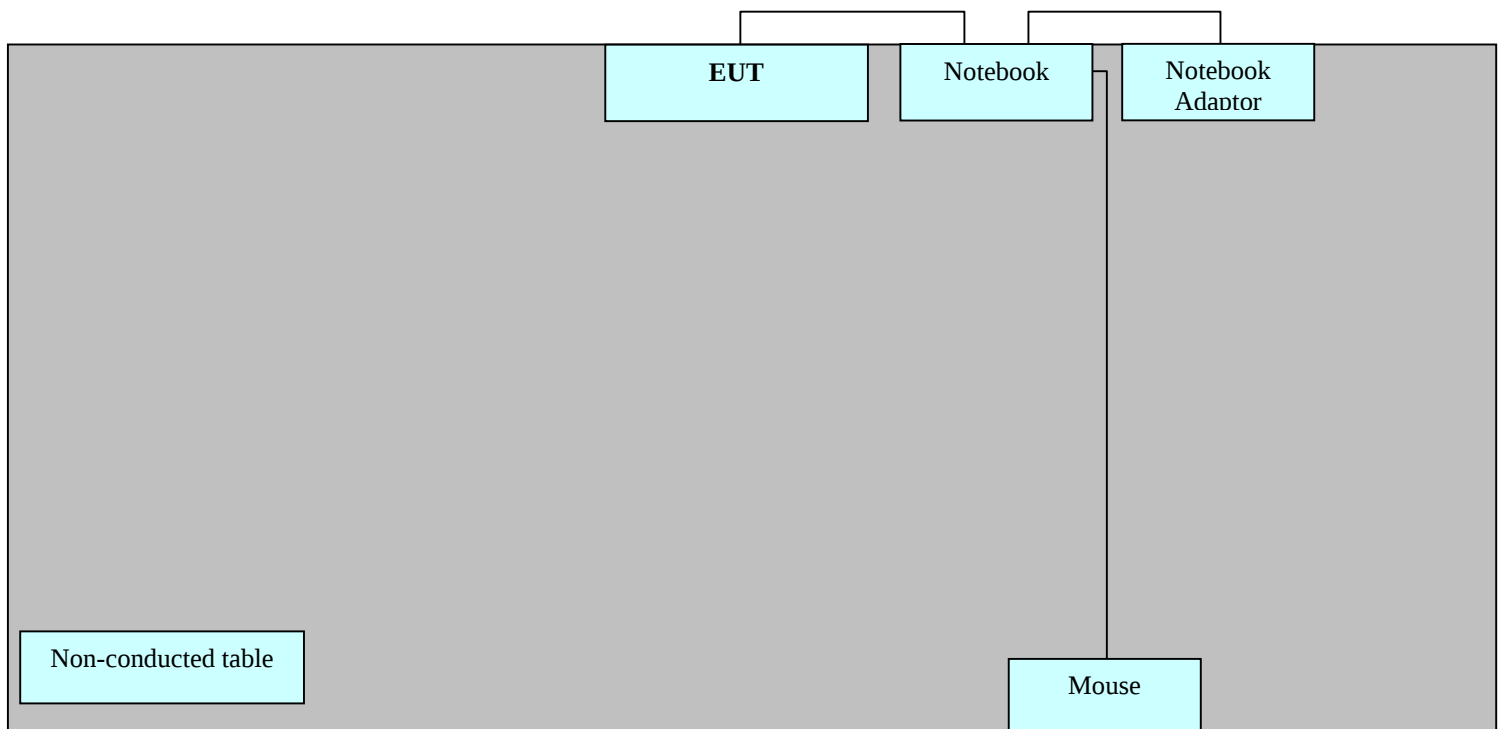
The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1, Maekok-Ri, Hobup-Myun, Ichon-Si, Kyongki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description 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)	
MP3 Mode	
Bluetooth 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)	
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 – 14.8 dB
Operating Condition	: Camera mode
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 2.0 °C
Humidity Level	: 39.0 %
Test Date	: January 17, 2008

Power Line Conducted Emissions				CISPR 22 Class B	
Frequency (MHz)	Amplitude (dBuV)	Conductor	Result	Limit (dBuV)	Margin (dB)
0.1526	48.10	HOT	Quasi-Peak	66.0	-17.7
0.1551	39.00	NEUTRAL	Average	56.0	-16.7
0.1551	50.90	NEUTRAL	Quasi-Peak	66.0	-14.8
7.0280	33.10	HOT	Average	50.0	-16.9

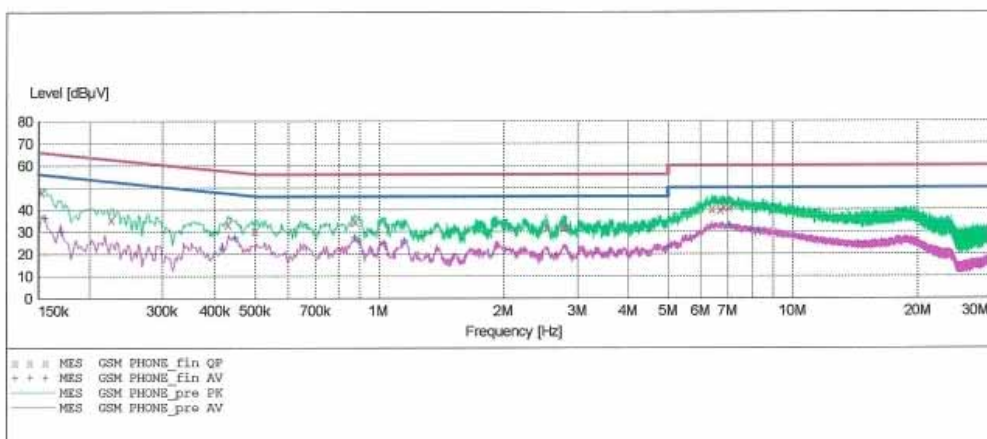
Line Conducted Emissions Tabulated Data

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EMC TEST LAB.

EUT: KT520
Manufacturer: LG
Operating Condition: CAMERA MODE
Test Site: SHIELD ROOM
Operator: DH. RYU
Test Specification: CISPR 22 CLASS B
Comment: H

SCAN TABLE: "CISPR 22 Voltage"

Short Description:		CISPR 22 Voltage				
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
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: "GSM_PHONE_fin_QP"

1/17/2008 5:34PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.152600	48.10	10.0	66	17.7	---	---
0.225100	35.80	10.0	63	26.8	---	---
0.430100	33.50	10.0	57	23.8	---	---
0.500000	30.50	10.1	56	25.5	---	---
0.876000	34.80	10.1	56	21.2	---	---
2.524000	32.00	10.4	56	24.0	---	---
2.780000	31.90	10.4	56	24.1	---	---
2.792000	32.20	10.4	56	23.8	---	---
6.384000	40.30	10.8	60	19.7	---	---
6.708000	40.10	10.8	60	19.9	---	---
6.824000	40.90	10.9	60	19.1	---	---
7.036000	40.90	10.9	60	19.1	---	---

MEASUREMENT RESULT: "GSM PHONE_fin AV"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.155100	36.70	10.0	56	19.0	---	---
0.170100	30.40	10.0	55	24.6	---	---
0.417600	22.80	10.0	48	24.7	---	---
0.447600	27.50	10.1	47	19.4	---	---
0.876000	27.50	10.1	46	18.5	---	---
0.892000	26.00	10.1	46	20.0	---	---
1.032000	24.80	10.1	46	21.2	---	---
1.152000	26.20	10.2	46	19.8	---	---
5.000000	23.30	10.6	46	22.7	---	---
7.028000	33.10	10.9	50	16.9	---	---
7.920000	31.10	11.0	50	18.9	---	---
8.312000	30.50	11.0	50	19.5	---	---

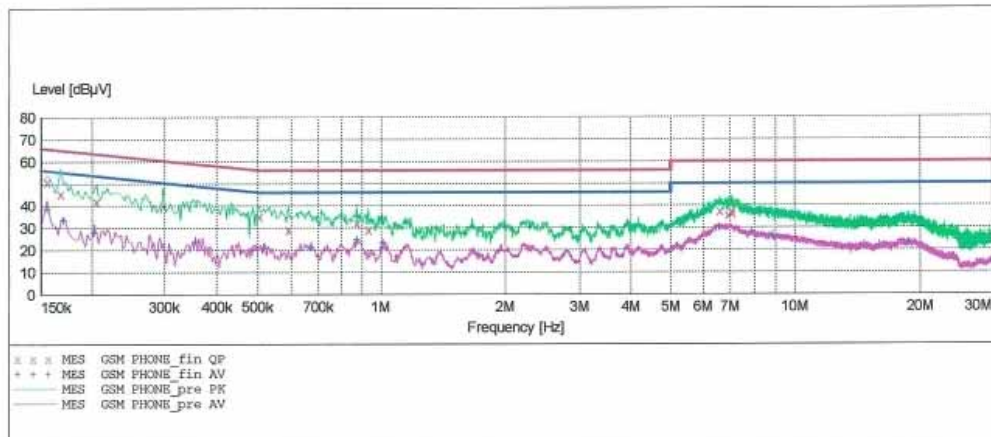
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EMC TEST LAB.

EUT: KT520
Manufacturer: LG
Operating Condition: CAMERA MODE
Test Site: SHIELD ROOM
Operator: DH. RYU
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	
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: "GSM PHONE_fin QP"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.155100	50.90	10.0	66	14.8	---	---
0.167600	45.50	10.0	65	19.5	---	---
0.205100	41.80	10.0	63	21.6	---	---
0.297600	40.20	10.0	60	20.1	---	---
0.504000	35.10	10.1	56	20.9	---	---
0.592000	29.20	10.1	56	26.8	---	---
0.872000	32.30	10.1	56	23.7	---	---
0.932000	29.10	10.1	56	26.9	---	---
6.588000	37.50	10.8	60	22.5	---	---
6.892000	35.70	10.9	60	24.3	---	---
7.032000	37.80	10.9	60	22.2	---	---
7.076000	36.40	10.9	60	23.6	---	---

MEASUREMENT RESULT: "GSM PHONE_fin AV"

1/17/2008 5:31PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.155100	39.00	10.0	56	16.7	---	---
0.170100	33.60	10.0	55	21.4	---	---
0.202600	28.30	10.0	54	25.2	---	---
0.355100	23.90	10.0	49	25.0	---	---
0.516000	20.90	10.1	46	25.1	---	---
0.672000	21.30	10.1	46	24.7	---	---
0.872000	24.90	10.1	46	21.1	---	---
1.012000	23.30	10.1	46	22.7	---	---
6.580000	30.20	10.8	50	19.8	---	---
7.892000	28.30	11.0	50	21.7	---	---
8.868000	26.20	11.0	50	23.8	---	---
18.772000	23.20	12.2	50	26.8	---	---

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 – 8.4 dB
Operating Condition : Data Communication mode
Detector            : Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature         : 3.0 °C
Humidity Level      : 42.0 %
Test Date           : January 18, 2008
  
```

Frequency MHz	Reading dBuV/m	Ant. Factor dB/m	Cable Loss dB	ANT POL (H/V)	Total dBuV/m	Limit dBuV/m	Margin dB
61.2	14.6	11.5	1.8	H	27.9	40.0	-12.1
61.7	12.5	11.5	1.8	V	25.8	40.0	-14.2
177.7	20.3	11.0	3.2	H	34.5	43.5	-9.0
177.9	20.6	11.0	3.2	V	34.8	43.5	-8.7
239.3	20.8	10.9	3.7	V	35.4	46.0	-10.6
233.9	23.2	10.7	3.7	H	37.6	46.0	-8.4

Radiated Emissions Tabulated Data

*** 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	2008.02.03
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	2008.02.27
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: BEJKT520 Complies with §15.107 and §15.109 of the FCC Rules.