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EMI REPORT (Certification)

LG Electronics, Inc.

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153-801, Korea.

Date of Issue: January 17, 2008

Test Report No.: HCT-F08-0111

Test Site: HCT CO., LTD.

HCT FRN: 0005-8664-21

FCC ID:

BEJKP130A

Classification/ Standard(s): FCC PART 15 Subpart B / CISPR 22 CLASS B

Equipment (EUT) Type: Cellular/ PCS GSM Phone

Trade Name/Model(s): LG Electronics, Inc. / KP130a

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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TABLE OF CONTENTS

	PAGE
1. GENERAL INFORMATION	3
1.1 Product Description.....	3
1.2 Related submittal(s)/Grant(s).....	3
1.3 Tested System Details.....	4
1.4 Cable Description.....	4
1.5 Noise Suppression Parts on Cable. (I/O CABLE)	5
1.6 Test Methodology.....	6
1.7 Test Facility.....	6
2. SYSTEM TEST CONFIGURATION.....	7
2.1 Configuration of Tested System.....	7
3. PRELIMINARY TEST.....	8
3.1 Conducted Emission Test.....	8
3.2 Radiated Emission Test.....	8
4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY.....	9
4.1 Conducted Emission Test.....	9 – 13
4.2 Radiated Emission Test.....	14
5. FIELD STRENGTH CALCULATION.....	15
6. Test Equipment.....	16
7. Conclusion.....	17

ATTACHMENT : TEST SETUP PHOTOGRAPHS

1. GENERAL INFORMATION

1.1 Product Description

The LG Electronics, Inc. KP130a Cellular/ PCS GSM Phone. Its basic purpose is used for communications. It transmits from GSM 850 (824.20 MHz – 848.80 MHz), GSM1900 (1850.20 MHz – 1909.80 MHz) and receives from GSM 850 (869.20 MHz – 893.80 MHz), GSM1900 (1930.20 MHz – 1989.80 MHz).

MODEL	KP130a
FCC ID	BEJKP130A
EUT Type	Cellular/ PCS GSM Phone
TX Frequency	824.20 MHz – 848.80 MHz (GSM850) 1850.20 MHz – 1909.80 MHz (GSM1900)
RX Frequency	869.20 MHz – 893.80 MHz (GSM850) 1930.20 MHz – 1989.80 MHz (GSM1900)

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/ PCS GSM Phone	LG Electronics, Inc.	KP130a	BEJKP130A	PC, Travel Adaptor
Travel Adaptor	Sunlin	STA-P53WR	-	EUT
PC	DELL	OPTIPLEX GX620	DoC	EUT
Monitor	DELL	1704FPTt	DoC	PC
Mouse	DELL	MO56U0	DoC	PC
Keyboard	DELL	SK-8115	DoC	PC
Printer	H.P	C4569A	DoC	PC
Ear phone	-	-	-	EUT
Serial cable	-	-	-	EUT

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
Cellular/ PCS GSM Phone	DC In	N	N/A	(P)1.5
	Ear Jack	N/A	N	(D)1.3
	Serial	N/A	Y	(D)1.1
PC	USB (Mouse)	N/A	Y	(D)1.8
	USB (Keyboard)	N/A	Y	(D)1.8
	D-Sub (Monitor)	N/A	Y	(D)1.6
	Parallel (Printer)	N/A	Y	(D)1.8
	AC In	N	N/A	(P)1.8
Monitor	AC In	N	N/A	(P)1.8
Printer	AC In	N	N/A	(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 Phone	DC-In	N	-	Y	EUT End
	Ear-jack	N	-	Y	EUT End
	Serial	Y	EUT End	Y	Both End
PC	USB (Mouse)	N	-	Y	PC End
	USB (Keyboard)	N	-	Y	PC End
	D-Sub (Monitor)	Y	Both End	Y	Both End
	Parallel (Printer)	N	-	Y	Both 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

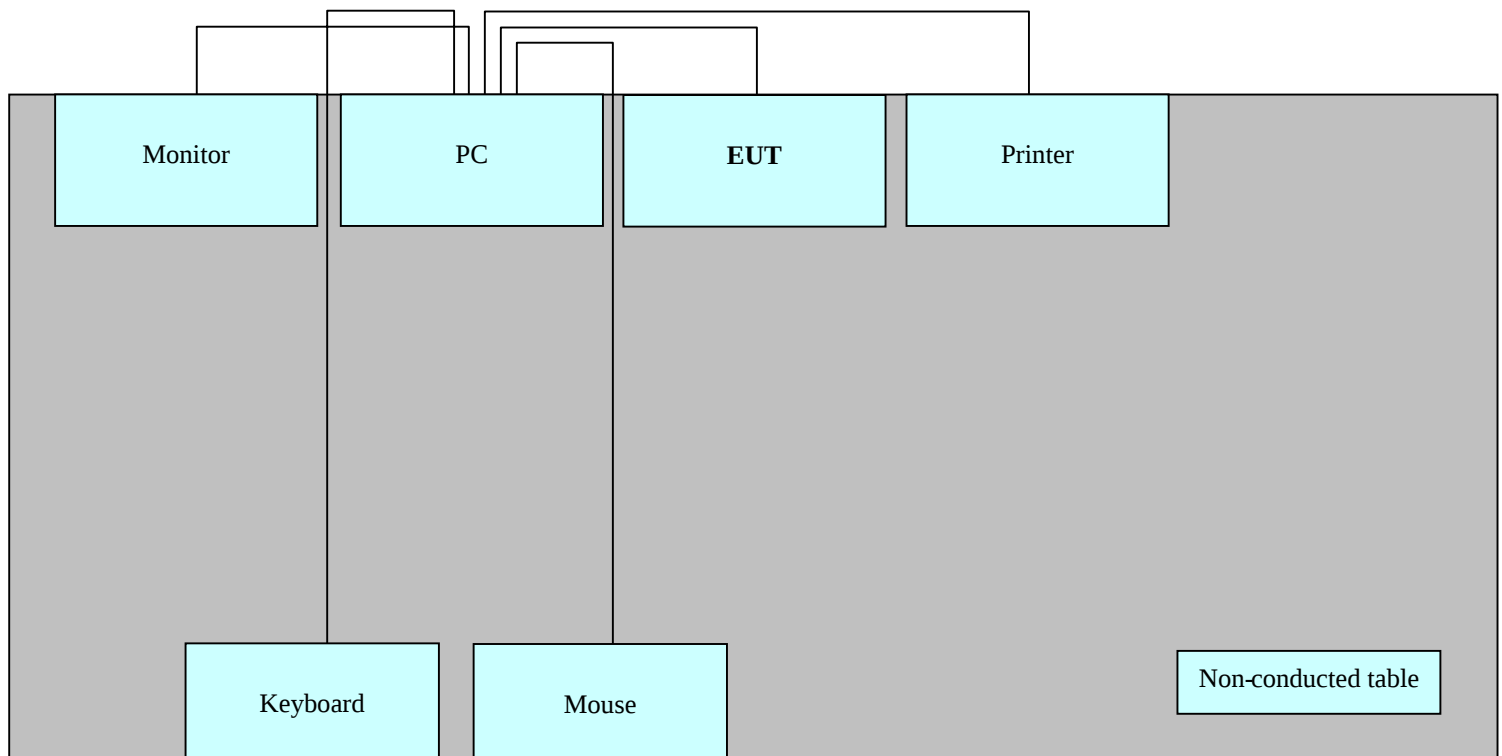
The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1, Maekok-Ri, Hobup-Myun, Ichon-Si, Kyongki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description 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 (GSM 850, GSM1900) Mode	

3. 2 Radiated Emission Test

During Preliminary Test, the Following operation mode was investigated

Operation Mode	The worst operating condition
Camera Mode	○
Idle (GSM 850, GSM1900) 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 – 14.0 dB
Operating Condition	: Camera mode
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 3.0 °C
Humidity Level	: 39.0 %
Test Date	: January 08, 2008

Power Line Conducted Emissions				CISPR 22 Class B	
Frequency (MHz)	Amplitude (dBuV)	Conductor	Result	Limit (dBuV)	Margin (dB)
4.888	39.9	HOT	Quasi-Peak	56.0	-16.1
4.948	30.9	HOT	Average	46.0	-15.1
5.000	39.9	NEUTRAL	Quasi-Peak	56.0	-16.1
4.956	32.0	NEUTRAL	Average	46.0	-14.0

Line Conducted Emissions Tabulated Data

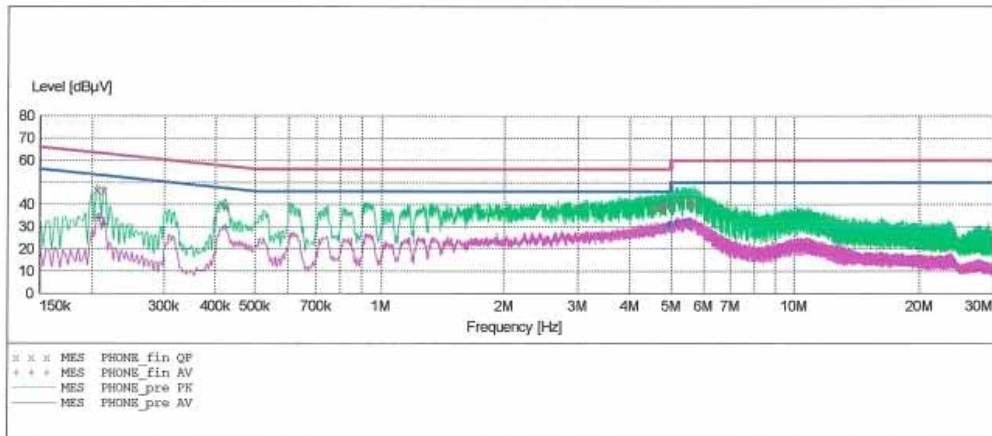
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EMC TEST LAB.

EUT: KPI30a
 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: "PHONE_fin QP"

1/8/2008 5:32PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.205100	46.70	10.0	63	16.7	---	---
0.212600	46.40	10.0	63	16.7	---	---
0.425100	39.30	10.0	57	18.0	---	---
4.584000	39.00	10.6	56	17.0	---	---
4.764000	39.00	10.6	56	17.0	---	---
4.888000	39.90	10.6	56	16.1	---	---
5.152000	41.80	10.6	60	18.2	---	---
5.556000	42.20	10.7	60	17.8	---	---
5.700000	40.70	10.7	60	19.3	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

1/8/2008 5:32PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.207600	34.30	10.0	53	19.0	---	---
0.212600	31.50	10.0	53	21.6	---	---
0.425100	29.70	10.0	47	17.6	---	---
4.924000	30.40	10.6	46	15.6	---	---
4.948000	30.90	10.6	46	15.1	---	---
4.984000	30.80	10.6	46	15.2	---	---
5.152000	31.90	10.6	50	18.1	---	---
5.504000	32.30	10.7	50	17.7	---	---
5.552000	32.30	10.7	50	17.7	---	---

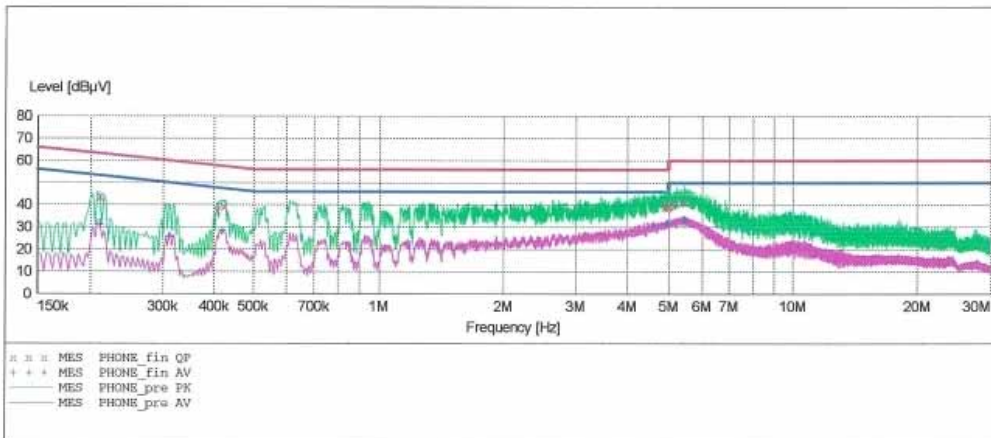
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EMC TEST LAB.

EUT: KPl30a
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: "PHONE_fin QP"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.210100	44.00	10.0	63	19.2	---	---
0.407600	37.80	10.0	58	19.9	---	---
0.422600	39.50	10.0	57	17.9	---	---
4.892000	39.50	10.6	56	16.5	---	---
4.980000	39.80	10.6	56	16.2	---	---
4.988000	39.20	10.6	56	16.8	---	---
5.000000	39.90	10.6	56	16.1	---	---
5.220000	40.90	10.6	60	19.1	---	---
5.448000	41.30	10.7	60	18.7	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

1/8/2008 5:37PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.210100	31.30	10.0	53	21.9	---	---
0.310100	25.80	10.0	50	24.1	---	---
0.420100	28.70	10.0	47	18.8	---	---
4.588000	30.30	10.6	46	15.7	---	---
4.956000	32.00	10.6	46	14.0	---	---
4.980000	31.80	10.6	46	14.2	---	---
5.000000	31.60	10.6	46	14.4	---	---
5.424000	32.90	10.7	50	17.1	---	---
5.460000	33.70	10.7	50	16.3	---	---

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 – 11.7 dB
Operating Condition : Camera mode
Detector            : Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature         : 3.0 °C
Humidity Level      : 37.0 %
Test Date           : January 07, 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
58.8	14.8	11.8	1.7	V	28.3	40.0	-11.7
124.8	8.8	11.4	2.6	V	22.8	43.5	-20.7
143.6	5.0	12.6	2.8	V	20.4	43.5	-23.1

*** 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	2008.02.03
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	2008.01.24

7. Conclusion

The data collected shows that the LG Electronics, Inc. Cellular/ PCS GSM Phone. FCC ID: BEJKP130A Complies with §15.107 and §15.109 of the FCC Rules.