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EMI REPORT (Certification)

LG Electronics, Inc.

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Date of Issue: March 3, 2008

Test Report No.: HCT-F08-0301

Test Site: HCT CO., LTD.

HCT FRN: 0005-8664-21

FCC ID:

BEJKM385D

Classification/ Standard(s): FCC PART 15 Subpart B / CISPR 22 CLASS B
Equipment (EUT) Type: Cellular/PCS GSM/EDGE Phone with Bluetooth
Trade Name/Model(s): LG Electronics, Inc. / KM385d
Additional Model(s): KM380, KM380c, KM380d, KM380T, KM386c
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. KM385d Cellular/PCS GSM/EDGE Phone with Bluetooth. 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	KM385d
FCC ID	BEJKM385D
EUT Type	Cellular/PCS GSM/EDGE Phone with Bluetooth
TX Frequency	824.20 MHz – 848.80 MHz (GSM850) 1850.20 MHz – 1909.80 MHz (GSM1900) 2402 MHz – 2480 MHz (Bluetooth)
RX Frequency	869.20 MHz – 893.80 MHz (GSM850) 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
Cellular/PCS GSM/EDGE Phone with Bluetooth	LG Electronics, Inc.	KM385d	BEJKM385D	PC, TA
Travel Adaptor	DONGDO	STA-P53ED	-	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	-	-	-	EUT, PC

1.4 Cable Descriptio

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
Cellular/PCS GSM/EDGE Phone with Bluetooth	DC In	N	N/A	(P)1.5
	Ear Jack	N/A	N	(D)1.1
	USB Data	Y	Y	(P, D)1.5
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/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	PC 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

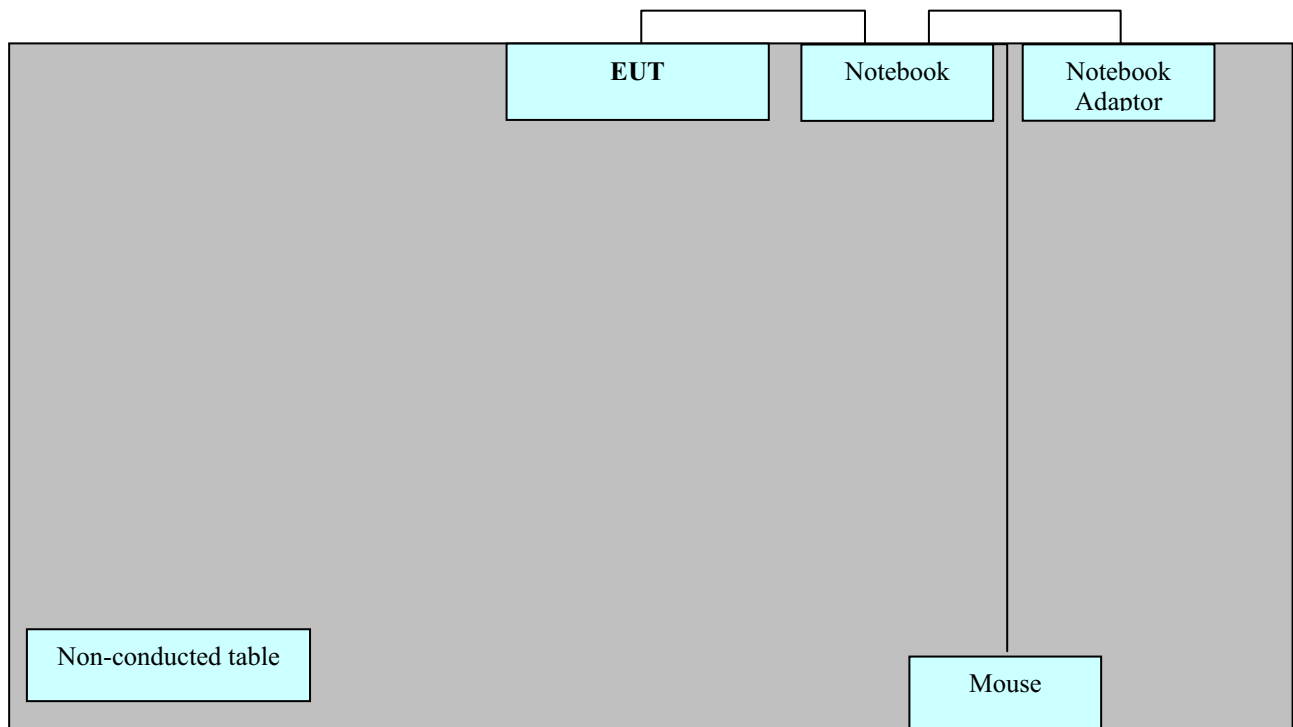
The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1, Maekok-Ri, Hobup-Myun, Ichon-Si, Kyoungki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description 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 (850, 1900)	
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 (850, 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 – 4.5 dB
Operating Condition	: Data Communication Mode
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 5.0 °C
Humidity Level	: 40.0 %
Test Date	: February 29, 2008

Power Line Conducted Emissions				CISPR 22 Class B	
Frequency (MHz)	Amplitude (dBuV)	Conductor	Result	Limit (dBuV)	Margin (dB)
0.2051	45.30	HOT	Quasi-Peak	64.0	18.7
1.6920	35.6	HOT	Average	46.0	10.4
0.5520	42.20	NEUTRAL	Quasi-Peak	64.0	21.8
0.5520	41.50	NEUTRAL	Average	46.0	4.5

Line Conducted Emissions Tabulated Data

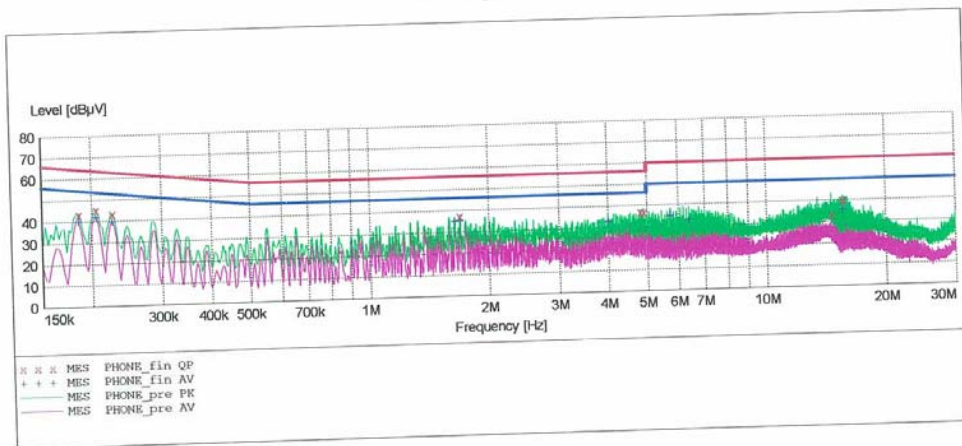
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EMC TEST LAB.

EUT: KM385d
Manufacturer: LG Electronics Inc.
Operating Condition: Data Communication Mode
Test Site: SHIELD ROOM
Operator: KH YOON
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	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"

2/29/2008 4:06PM

Frequency MHz	Level dBuV	Transd dB	Limit dBuV	Margin dB	Line	PE
0.185100	43.10	10.0	64	21.2	---	---
0.205100	45.30	10.0	63	18.1	---	---
0.225100	43.00	10.0	63	19.7	---	---
1.692000	37.20	10.3	56	18.8	---	---
4.816000	36.90	10.6	56	19.1	---	---
4.920000	37.00	10.6	56	19.0	---	---
14.616000	33.00	11.9	60	27.0	---	---
15.604000	40.20	12.0	60	19.8	---	---
15.656000	39.70	12.0	60	20.3	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

2/29/2008 4:06PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.185100	40.30	10.0	54	14.0	---	---
0.205100	42.30	10.0	53	11.1	---	---
0.225100	39.80	10.0	53	12.8	---	---
1.640000	35.30	10.2	46	10.7	---	---
1.692000	35.60	10.3	46	10.4	---	---
4.000000	33.10	10.5	46	12.9	---	---
5.736000	35.00	10.7	50	15.0	---	---
6.388000	32.90	10.8	50	17.1	---	---
15.604000	35.70	12.0	50	14.3	---	---

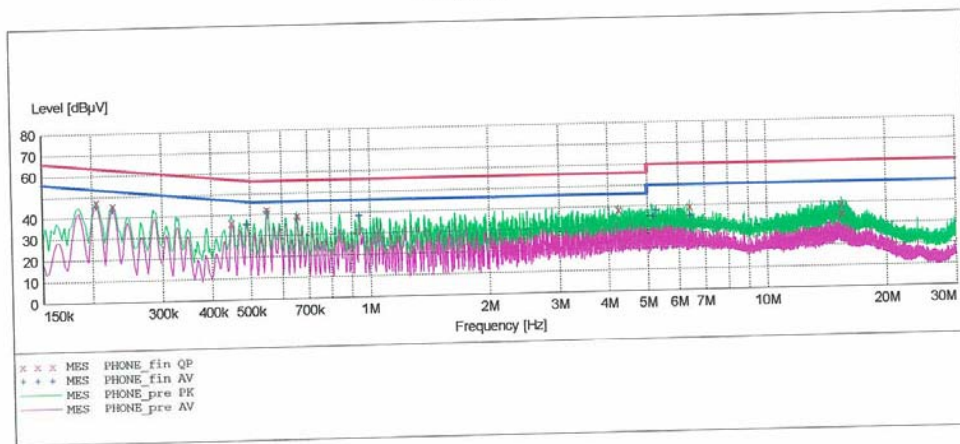
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EMC TEST LAB.

EUT: KM385d
Manufacturer: LG Electronics Inc.
Operating Condition: Data Communication Mode
Test Site: SHIELD ROOM
Operator: KH YOON
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	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
0.205100	47.30	10.0	63	16.1	---	---
0.225100	45.50	10.0	63	17.2	---	---
0.447600	36.30	10.1	57	20.6	---	---
0.552000	42.20	10.1	56	13.8	---	---
0.656000	38.90	10.1	56	17.1	---	---
4.232000	38.40	10.5	56	17.6	---	---
6.400000	39.40	10.8	60	20.6	---	---
15.480000	34.70	12.0	60	25.3	---	---
15.496000	39.30	12.0	60	20.7	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

2/29/2008 4:11PM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.205100	45.40	10.0	53	8.0	---	---
0.225100	43.70	10.0	53	9.0	---	---
0.490100	35.80	10.1	46	10.4	---	---
0.552000	41.50	10.1	46	4.5	---	---
0.656000	38.10	10.1	46	7.9	---	---
0.940000	38.70	10.1	46	7.3	---	---
5.172000	35.30	10.6	50	14.7	---	---
5.276000	38.10	10.7	50	11.9	---	---
6.400000	35.20	10.8	50	14.8	---	---

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 – 3.5 dB
Operating Condition : Data Communication mode
Detector            : Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature         : 5.0 °C
Humidity Level      : 40.0 %
Test Date           : February 29, 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
143.2	17.8	12.6	2.8	V	33.2	43.5	-10.3
480.0	19.5	16.6	5.2	V	41.3	46.0	-4.7
960.0	8.9	23.0	7.7	V	39.6	46.0	-6.4
143.0	14.4	12.6	2.8	H	29.8	43.5	-13.7
480.0	20.7	16.6	5.2	H	42.5	46.0	-3.5
960.0	6.7	23.0	7.7	H	37.4	46.0	-8.6

*** 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. Cellular/PCS GSM/EDGE Phone with Bluetooth. FCC ID: BEJKM385D Complies with §15.107 and §15.109 of the FCC Rules.