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EMI REPORT (Certification)

LG Electronics, Inc.

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Date of Issue: January 03, 2008

Test Report No.: HCT-F08-0102

Test Site: HCT CO., LTD.

HCT FRN: 0005-8664-21

FCC ID:

BEJRD6100

Classification/ Standard(s):	FCC PART 15 Subpart B / CISPR 22 CLASS B
Equipment (EUT) Type:	Single-Band CDMA Phone (CDMA835)
Trade Name/Model(s):	LG Electronics, Inc. / RD6100
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

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ATTACHMENT : TEST SETUP PHOTOGRAPHS

1. GENERAL INFORMATION

1.1 Product Description

The LG Electronics, Inc. RD6100 Single-Band CDMA Phone (CDMA835). Its basic purpose is used for communications. It transmits from CDMA 835 (824.7 MHz – 848.31 MHz) and receives from CDMA 835 (869.70 MHz – 893.31 MHz).

MODEL	RD6100
FCC ID	BEJRD6100
EUT Type	Single-Band CDMA Phone (CDMA835)
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
Single-Band CDMA Phone	LG Electronics, Inc.	RD6100	BEJRD6100	PC, Travel Adaptor
Travel Adaptor	Sunlin	STA-U32WR	-	EUT
Ear phone	-	-	-	EUT
USB Cable	-	-	-	EUT
Notebook PC	Toshiba	PSMA2K-01D002	DoC	EUT
Notebook Adaptor	Delta	SADP-65KB B	-	Notebook
Mouse	DELL	MO56U0	DoC	Notebook

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (M)
Single-Band CDMA Phone	DC In	N	N/A	(P)1.8
	USB	Y	Y	(P.D)1.5
	Ear Jack	N/A	N	(D)1.05
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
Single-Band CDMA Phone	USB	N	-	Y	Both End
	Ear-jack	N	-	Y	EUT 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

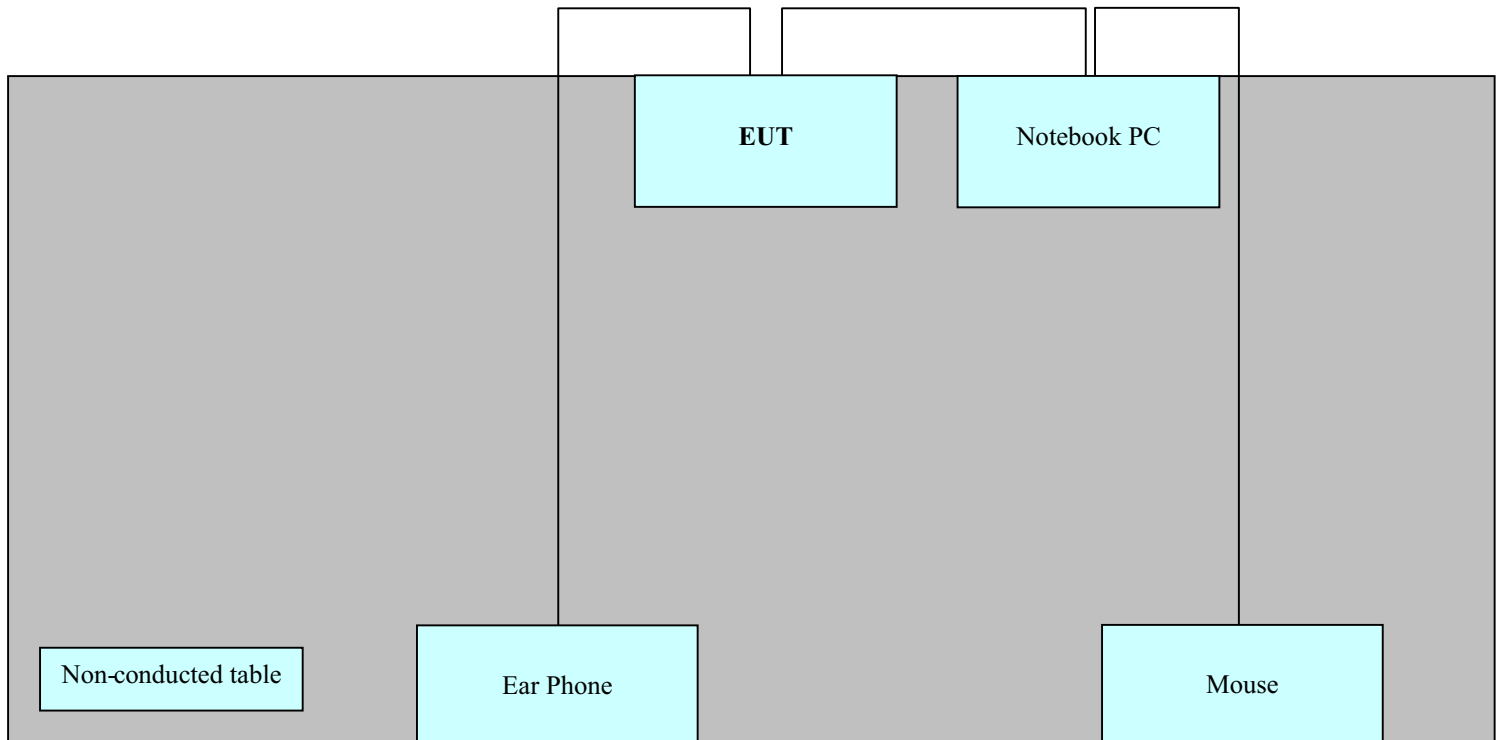
The open area test site and conducted measurement facility used to collect the radiated data are located at the 254-1, Maekok-Ri, Hobup-Myun, Ichon-Si, Kyungki-Do, 467-701, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description 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: 220V 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 (CDMA835) 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 (CDMA835) 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 – 3.4 dB
Operating Condition	: Camera mode
Detector	: Quasi-Peak, Average (6 dB Bandwidth: 9 kHz)
Temperature	: 2.0 °C
Humidity Level	: 44.0 %
Test Date	: December 18, 2007

Power Line Conducted Emissions				CISPR 22 Class B	
Frequency (MHz)	Amplitude (dBuV)	Conductor	Result	Limit (dBuV)	Margin (dB)
0.194	54.9	HOT	Quasi-Peak	64.0	-9.0
4.984	34.2	HOT	Average	46.0	-11.8
0.198	60.3	NEUTRAL	Quasi-Peak	64.0	-3.4
0.198	45.2	NEUTRAL	Average	54.0	-8.5

Line Conducted Emissions Tabulated Data

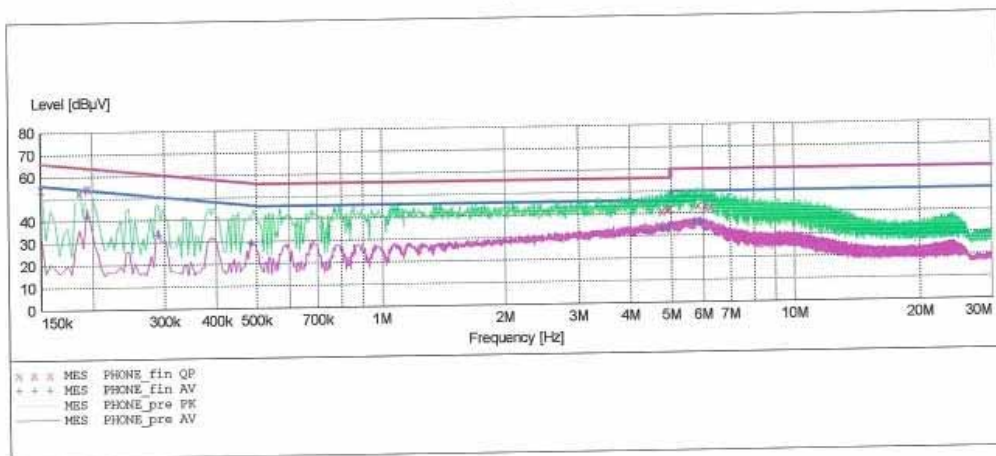
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EMC TEST LAB

EUT: RD6100
Manufacturer: LG
Operating Condition: CAMERA
Test Site: SHIELD ROOM
Operator: DH-RYU
Test Specification: CISPR CLASS B
Comment: H

SCAN TABLE: "EN 55022 Voltage"

Short Description:			EN 55022 Voltage			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
Frequency	Frequency	Width				
150.0 kHz	500.0 kHz	4.0 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 dBuV	Transd dB	Limit dBuV	Margin dB	Line	PE
0.150000	54.60	10.0	66	11.4	---	---
0.186000	52.80	10.0	64	11.4	---	---
0.194000	54.90	10.0	64	9.0	---	---
4.744000	41.00	10.6	56	15.0	---	---
4.912000	41.70	10.6	56	14.3	---	---
4.972000	42.20	10.6	56	13.8	---	---
5.816000	43.70	10.7	60	16.3	---	---
6.084000	43.40	10.8	60	16.6	---	---
6.244000	42.70	10.8	60	17.3	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.194000	42.00	10.0	54	11.9	---	---
0.290000	33.50	10.0	51	17.1	---	---
0.486000	29.40	10.1	46	16.8	---	---
4.776000	33.70	10.6	46	12.3	---	---
4.960000	34.10	10.6	46	11.9	---	---
4.984000	34.20	10.6	46	11.8	---	---
5.720000	35.70	10.7	50	14.3	---	---
5.864000	35.60	10.7	50	14.4	---	---
5.936000	35.50	10.7	50	14.5	---	---

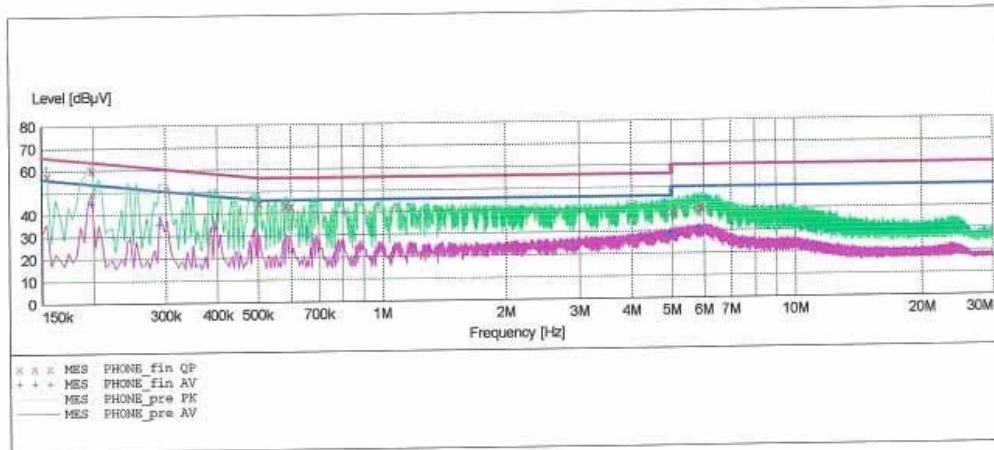
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EMC TEST LAB

EUT: RD6100
Manufacturer: LG
Operating Condition: CAMERA
Test Site: SHIELD ROOM
Operator: DH-RYU
Test Specification: CISPR CLASS B
Comment: N

SCAN TABLE: "EN 55022 Voltage"

Short Description:			EN 55022 Voltage			
Start	Stop	Step	Detector	Meas. Time	IF Bandw.	Transducer
Frequency	Frequency	Width				
150.0 kHz	500.0 kHz	4.0 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"

Frequency	Level	Transd	Limit	Margin	Line	PE
MHz	dBuV	dB	dBuV	dB		
0.154000	57.60	10.0	66	8.2	---	---
0.198000	60.30	10.0	64	3.4	---	---
0.302000	50.90	10.0	60	9.3	---	---
0.504000	44.50	10.1	56	11.5	---	---
0.584000	43.70	10.1	56	12.3	---	---
0.600000	43.00	10.1	56	13.0	---	---
5.000000	38.70	10.6	56	17.3	---	---
5.908000	40.60	10.7	60	19.4	---	---
5.940000	40.30	10.7	60	19.7	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

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Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Line	PE
0.198000	45.20	10.0	54	8.5	---	---
0.290000	35.50	10.0	51	15.0	---	---
0.394000	33.60	10.0	48	14.4	---	---
4.932000	28.60	10.6	46	17.4	---	---
4.968000	28.70	10.6	46	17.3	---	---
4.992000	28.70	10.6	46	17.3	---	---
5.000000	28.80	10.6	46	17.2	---	---
5.848000	30.70	10.7	50	19.3	---	---
5.864000	30.80	10.7	50	19.2	---	---

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 – 10.2 dB
Operating Condition : Camera mode
Detector            : Quasi-Peak (6 dB Bandwidth: 120 kHz)
Temperature         : 2.0 °C
Humidity Level      : 44.0 %
Test Date           : January 03, 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
36.1	15.8	12.4	1.4	V	29.6	40.0	-10.4
39.4	15.6	12.8	1.4	V	29.8	40.0	-10.2
127.6	8.6	11.5	2.7	V	22.8	43.5	-20.7
36.1	6.6	12.4	1.4	H	20.4	40.0	-19.6
100.7	5.8	9.1	2.4	H	17.3	43.5	-26.2
116.8	5.1	10.7	2.6	H	18.4	43.5	-25.1

*** 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
AC Power Source	PACIFIC	Magnetic Module	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
Bluetooth Base Station	TESCOM	TC-3000A	2008.01.19

7. Conclusion

The data collected shows that the LG Electronics, Inc. Single-Band CDMA Phone (CDMA835).
FCC ID: BEJRD6100 Complies with §15.107 and §15.109 of the FCC Rules.