HCT CO., LTD.

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EMI CERTIFICATION REPORT

Applicant:

LG Electronics MobileComm U.S.A., Inc.

1000 Sylvan Avenue, Englewood Cliffs NJ 07632

Date of Issue: July 23, 2013
Test Report No.: HCTE1307FE31

Test Site: HCT CO., LTD.
HCT FRN: 0005-8664-21

FCC ID: **ZNFLS980**

Rule Part(s) / Standard(s)	: FCC PART 15 Subpart B Class B
Equipment Type	: CDMA, GSM, WCDMA and LTE Phone with WLAN, Bluetooth and NFC
Model Name	: LG-LS980
Port / Connector(s)	: USB / Earphone Port
Date of Test	: July 18, 2013 – July 19, 2013

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 FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 862

Report prepared by
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Test Engineer of EMC Team

Approved by
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DOCUMENT HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCTE1307FE31	July 23, 2013	Initial Release

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1. GENERAL INFORMATION

1.1 Product Description

Equipment Under Test is **EUT type: CDMA, GSM, WCDMA and LTE Phone with WLAN, Bluetooth and NFC, Model: LG-LS980** manufactured by **LG Electronics MobileComm U.S.A., Inc.** Its basic purpose is used for communications.

Model	LG-LS980
FCC ID	ZNFLS980
EUT Type	CDMA, GSM, WCDMA and LTE Phone with WLAN, Bluetooth and NFC
TX Frequency	824.70 ㎒ to 848.31 ㎒ (CDMA BC0) 1 851.25 ㎒ to 1 908.75 ㎒ (CDMA BC1) 817.90 ㎒ to 823.10 ㎒ (CDMA BC10) 824.20 ㎒ to 848.80 ㎒ (GSM 850) 1 850.20 ㎒ to 1 909.80 ㎒ (GSM 1 900) 1 850 ㎒ to 1 910 ㎒ (WCDMA B2) 824 ㎒ to 849 ㎒ (WCDMA B5) 1 850 ㎒ to 1 915 ㎒ (LTE B25) 814 ㎒ to 849 ㎒ (LTE B26) 2 496 ㎒ to 2 690 ㎒ (LTE B41)
RX Frequency	869.70 ㎒ to 893.31 ㎒ (CDMA BC0) 1 931.25 ㎒ to 1 988.75 ㎒ (CDMA BC1) 862.00 ㎒ to 894.00 ㎒ (CDMA BC10) 869.20 ㎒ to 893.80 ㎒ (GSM 850) 1 930.20 ㎒ to 1 989.80 ㎒ (GSM 1 900) 1 930 ㎒ to 1 990 ㎒ (WCDMA B2) 869 ㎒ to 894 ㎒ (WCDMA B5) 1 930 ㎒ to 1 995 ㎒ (LTE B25) 859 ㎒ to 894 ㎒ (LTE B26) 2 496 ㎒ to 2 690 ㎒ (LTE B41)

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 Name	FCC ID / DoC	Connected To
EUT	LG	LG-LS980	ZNFLS980	Notebook PC, Ear-phone
USB cable (2.0)	INTERFACESAMIL	IFS0001D	-	E.U.T, Notebook PC
USB cable (3.0)	Ningbo	LG0107	-	E.U.T, Notebook PC
Ear-phone	I-SOUND	HC-MYD-LG149	-	E.U.T
Notebook PC	ProBook 6570b	H.P	DoC	Notebook PC adaptor
Notebook PC adaptor	PPP012D-S	DELTA Electronics (JIANGSU)LTD	-	Notebook PC
Mouse	Serial mouse	Radio shack	FSUGMZE3	Notebook PC
Gateway	Axesstel	MV440R	-	Notebook PC, Adaptor
Adaptor	Yang Ming Industrial	DA-60M12	-	Gateway
RJ45 cable	-	-	-	Notebook PC, Gateway

1.4 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
EUT	Micro USB (USB 2.0)	Y	Y	(P,D)1.1
	Ear-phone	N/A	Y	(D)1.2
	Micro USB (USB 3.0)	Y	Y	(P,D)0.1
Notebook PC	RJ 45	N/A	N	(D)1.5
	Serial(Mouse)	N/A	Y	(D)1.8
	DC in	N	N/A	(P)1.8
Gateway	DC 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
EUT	Micro USB (USB 2.0)	N	N/A	Y	Both End
	Ear-phone	N	N/A	Y	EUT End
	Micro USB (USB 3.0)	N	N/A	Y	Both End
Notebook PC	RJ 45	N	N/A	N	N/A
	Serial(Mouse)	N	N/A	Y	Notebook PC End

1.6 Test Methodology

Both Conducted and Radiated testing was performed according to the procedures in ANSI C63.4/2003. Radiated testing was performed at an antenna to EUT distance of 3 ㎜

1.7 Test Facility

Chamber used to collect the test data is located at the 74, SEOICHEON-RO, 578BEON-GIL, MAJANG-MYEON, ICHEON-SI, GYEONGGI-DO, KOREA. Those measurement facilities are constructed in conformance with the requirements of ANSI C63.4.

Measurement Facilities	Reg. No.
Radiated Field strength measurement facility (3m)	90661(Mar. 02, 2011)
Radiated Field strength measurement facility (10m)	90661 (Sep. 03, 2010)

1.8 Frequency Range of Radiated Measurements

An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table

Highest frequency generated or used in the device or on which the device operates or tunes (㎒)	Upper frequency of measurement range (㎒)
Below 1.705	30
1.705 to 108	1 000
108 to 500	2 000
500 to 1 000	5 000
Above 1 000	5^{th} harmonic of the highest frequency or 40 ㎓, whichever is lower

2. SYSTEM TEST CONFIGURATION

2.1 Configuration of Test System

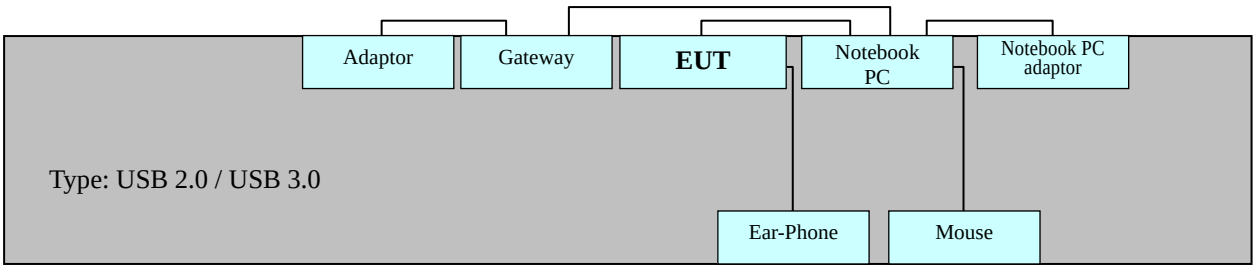
2.1.1 Conducted Emission Test

EUT was connected to LISN via Notebook PC adaptor and Base Station. 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.

2.1.2 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 m semi-anechoic chamber.

[Configuration of Tested System]



Non-Conductive Table
Power Line: 120 VAC

3. PRELIMINARY TEST

3.1 Conducted Emission Test

■ It was tested Data Communication mode, after connecting all peripheral devices.

Operation Mode: ☒ Data Communication mode (Type: USB 2.0)
☒ Data Communication mode (Type: USB 3.0)

3. 2 Radiated Emission Test

■ It was tested Data Communication mode, after connecting all peripheral devices.

Operation Mode: ☒ Data Communication mode (Type: USB 2.0)
☒ Data Communication mode (Type: USB 3.0)

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.

[Type: USB 2.0]

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak, Average (6 dB Bandwidth: 9 ㎑)

Operation Mode : Data Communication mode

Temperature : 24.9 °C

Humidity Level : 55.4 %

Test Date : July 19, 2013

Frequency	Transd	Conductor	Quasi-Peak			Average		
			Limit	Measurement Level	Result Level	Limit	Measurement Level	Result Level
(MHz)	(dB)		(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dBuV]
0.490	10.0	N	56	-	-	46	22.7	32.7
0.494	9.8	H	56	32.3	42.1	46	21.7	31.5
0.494	10.0	N	56	32.2	42.2	46	-	-
0.500	10.0	N	56	29.4	39.4	46	18.0	28.0
0.500	9.8	H	56	29.5	39.3	46	-	-
0.720	9.8	H	56	-	-	46	17.3	27.1

※ **NOTE:** Refer to page 11 to page 14 for details.

1. Line H = Hot, Line N = Neutral
2. Transd = LISN factor + Cable Loss factor

HCT

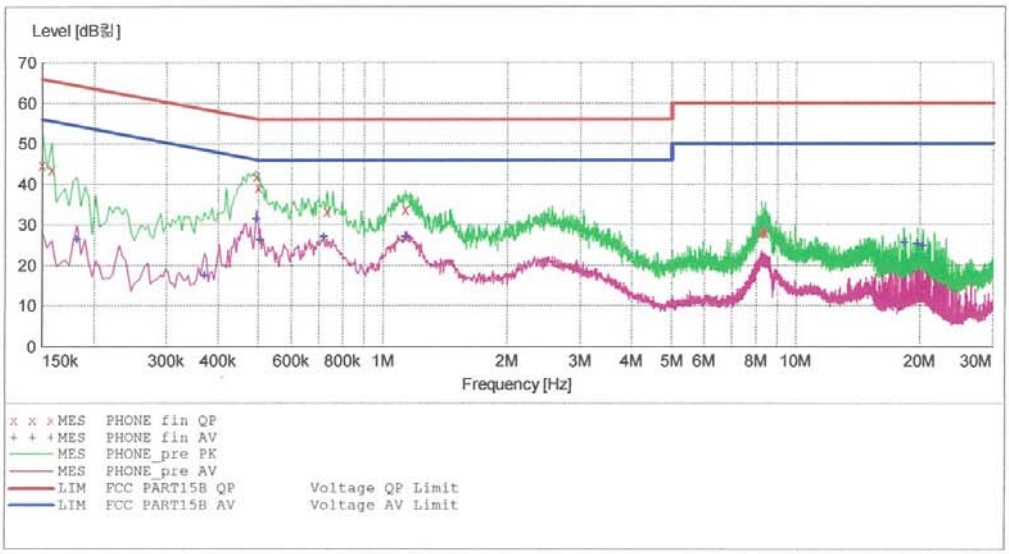
EMC

```
EUT:                  LG-LS980
Manufacturer:         LG
Operating Condition:  DATA MODE (USB 2.0)
Test Site:            SHIELD ROOM
Operator:             GC YOON
Test Specification:   FCC PART15 B
Comment:              H
```

SCAN TABLE: "FCC CLASS B(H)"

Short Description: KN22 CLASS B

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	500.0 kHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "PHONE_fin QP"

2013-07-19 3:09오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.150001	44.80	9.8	66	21.2	---	---
0.158001	43.70	9.8	66	21.9	---	---
0.494001	42.10	9.8	56	14.0	---	---
0.500000	39.30	9.8	56	16.7	---	---
0.732000	33.40	9.8	56	22.6	---	---
1.132000	33.90	9.9	56	22.1	---	---
8.256000	28.20	10.4	60	31.8	---	---
8.348000	28.60	10.4	60	31.4	---	---
8.440000	28.00	10.4	60	32.0	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

2013-07-19 3:09오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.182001	26.50	9.8	54	27.9	---	---
0.370001	17.50	9.8	49	31.0	---	---
0.494001	31.50	9.8	46	14.6	---	---
0.504000	26.40	9.8	46	19.6	---	---
0.720000	27.10	9.8	46	18.9	---	---
1.132000	27.10	9.9	46	18.9	---	---
18.244000	25.60	10.9	50	24.4	---	---
19.708000	25.40	10.9	50	24.6	---	---
20.260000	24.80	10.9	50	25.2	---	---

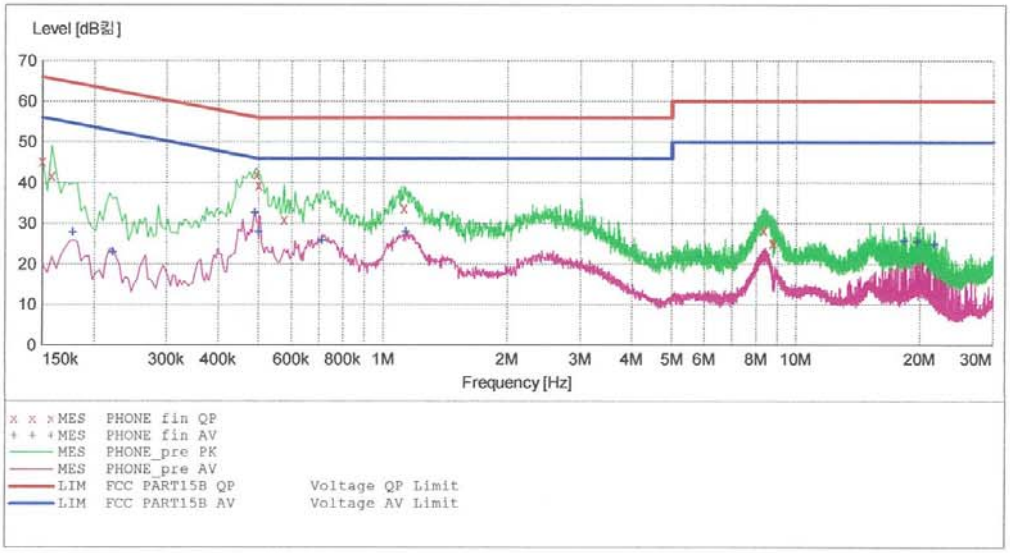
HCT

EMC

```
EUT:                  LG-LS980
Manufacturer:         LG
Operating Condition:  DATA MODE (USB 2.0)
Test Site:            SHIELD ROOM
Operator:             GC YOON
Test Specification:   FCC PART15 B
Comment:              N
```

SCAN TABLE: "FCC CLASS B(N)"

```
Short Description:                KN22 CLASS B
Start      Stop       Step       Detector   Meas.     IF       Transducer
Frequency  Frequency  Width                 Time      Bandw.
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"

2013-07-19 3:12오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.150001	45.40	10.0	66	20.6	---	---
0.158001	41.80	10.0	66	23.8	---	---
0.494001	42.20	10.0	56	13.9	---	---
0.500000	39.40	10.0	56	16.6	---	---
0.576000	31.10	10.0	56	24.9	---	---
1.124000	33.90	10.1	56	22.1	---	---
8.348000	28.40	10.6	60	31.6	---	---
8.776000	25.10	10.6	60	34.9	---	---
8.800000	25.30	10.6	60	34.7	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

2013-07-19 3:12오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.178001	27.80	10.0	55	26.8	---	---
0.222001	23.10	10.0	53	29.6	---	---
0.490001	32.70	10.0	46	13.5	---	---
0.500000	28.00	10.0	46	18.0	---	---
0.712000	25.80	10.0	46	20.2	---	---
1.136000	28.00	10.1	46	18.0	---	---
18.244000	25.70	11.2	50	24.3	---	---
19.708000	25.50	11.2	50	24.5	---	---
21.664000	24.80	11.3	50	25.2	---	---

[Type: USB 3.0]

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak, Average (6 ㏈ Bandwidth: 9 ㎑)
Operation Mode : Data Communication mode

Temperature : 24.9 °C
Humidity Level : 55.4 %
Test Date : July 19, 2013

Frequency	Transd	Conductor	Quasi-Peak			Average		
			Limit	Measurement Level	Result Level	Limit	Measurement Level	Result Level
(MHz)	(dB)		(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dBuV]
0.150	9.8	H	66	40.3	50.1	56	-	-
0.150	10.0	N	66	38.7	48.7	56	-	-
0.462	10.0	N	57	29.1	39.1	47	15.8	25.8
0.732	9.9	H	56	-	-	46	17.5	27.4
1.124	9.8	H	56	-	-	46	18.1	27.9
1.140	10.1	N	56	26.1	36.2	46	18.5	28.6

※ **NOTE:** Refer to page 16 to page 19 for details.

1. Line H = Hot, Line N = Neutral
2. Transd = LISN factor + Cable Loss factor

HCT

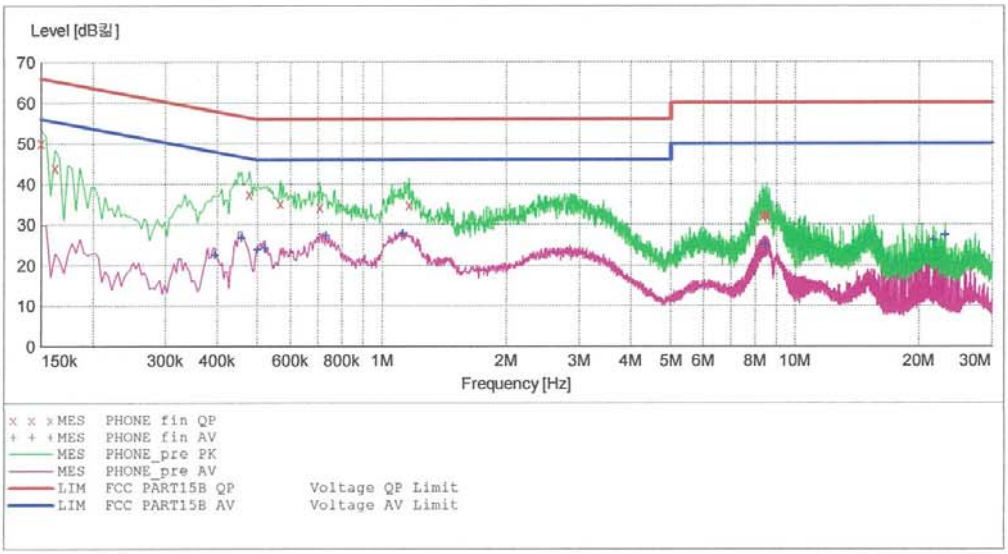
EMC

```
EUT:                  LG-LS980
Manufacturer:         LG
Operating Condition:  DATA MODE (USB 3.0)
Test Site:            SHIELD ROOM
Operator:             GC YOON
Test Specification:   FCC PART15 B
Comment:              H
```

SCAN TABLE: "FCC CLASS B(H)"

Short Description: KN22 CLASS B

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	500.0 kHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "PHONE_fin QP"

2013-07-19 3:24오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.150001	50.10	9.8	66	15.9	---	---
0.162001	44.00	9.8	65	21.4	---	---
0.478001	37.50	9.8	56	18.9	---	---
0.568000	35.30	9.8	56	20.7	---	---
0.708000	34.40	9.8	56	21.6	---	---
1.164000	34.90	9.9	56	21.1	---	---
8.344000	32.30	10.4	60	27.7	---	---
8.480000	32.50	10.4	60	27.5	---	---
8.560000	32.20	10.4	60	27.8	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

2013-07-19 3:24오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.394001	22.50	9.8	48	25.4	---	---
0.458001	26.70	9.8	47	20.1	---	---
0.500000	23.80	9.8	46	22.2	---	---
0.520000	24.20	9.8	46	21.8	---	---
0.732000	27.40	9.8	46	18.6	---	---
1.124000	27.90	9.9	46	18.1	---	---
8.484000	25.00	10.4	50	25.0	---	---
21.664000	26.20	11.0	50	23.8	---	---
23.128000	27.40	11.1	50	22.6	---	---

HCT

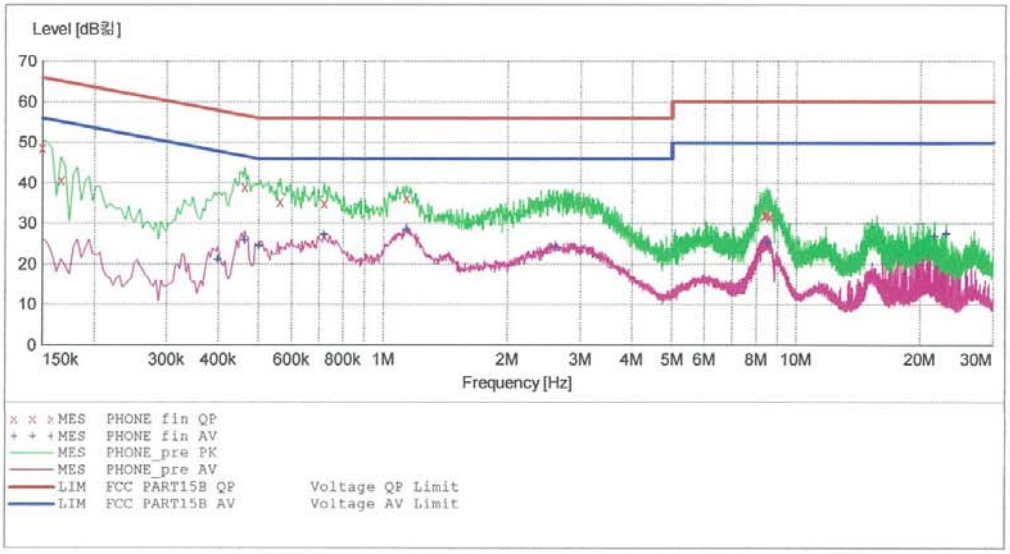
EMC

EUT: LG-LS980
Manufacturer: LG
Operating Condition: DATA MODE (USB 3.0)
Test Site: SHIELD ROOM
Operator: GC YOON
Test Specification: FCC PART15 B
Comment: N

SCAN TABLE: "FCC CLASS B(N)"

Short Description: KN22 CLASS B

Start Frequency	Stop Frequency	Step Width	Detector	Meas. Time	IF Bandw.	Transducer
150.0 kHz	500.0 kHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "PHONE_fin QP"

2013-07-19 3:20오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.150001	48.70	10.0	66	17.3	---	---
0.166001	40.80	10.0	65	24.4	---	---
0.462001	39.10	10.0	57	17.6	---	---
0.564000	35.40	10.0	56	20.6	---	---
0.720000	35.00	10.0	56	21.0	---	---
1.140000	36.20	10.1	56	19.8	---	---
8.364000	32.00	10.6	60	28.0	---	---
8.488000	32.20	10.6	60	27.8	---	---
8.612000	31.80	10.6	60	28.2	---	---

MEASUREMENT RESULT: "PHONE_fin AV"

2013-07-19 3:20오후

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.398001	21.20	10.0	48	26.7	---	---
0.462001	25.80	10.0	47	20.8	---	---
0.500000	24.50	10.0	46	21.5	---	---
0.720000	27.20	10.0	46	18.8	---	---
1.140000	28.60	10.1	46	17.4	---	---
2.608000	24.00	10.2	46	22.0	---	---
8.536000	25.20	10.6	50	24.8	---	---
21.664000	26.80	11.3	50	23.2	---	---
23.128000	27.50	11.4	50	22.5	---	---

4.2 Radiated Emission Test

The following table shows the highest levels of Radiated Emissions on both polarization of horizontal and vertical.

[Type: USB 2.0]

-For measurement below 1 ㎓

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak (6 ㏈ Bandwidth: 120 ㎑)
Operation Mode : Data Communication mode

Temperature : 25.4 °C
Humidity Level : 56.6 %
Test Date : July 19, 2013

Frequency (MHz)	Reading (dBuV)	Polarity (H/V)	Antenna Height (m)	Correction Factor		Limit (dBuV/m)	Level (dBuV/m)	Margin (dB)
				Antenna (dB/m)	Cable (dB)			
93.90	16.00	H	1.0	8.15	3.75	43.5	27.90	15.60
132.00	13.83	V	1.0	12.35	3.93	43.5	30.11	13.39
214.90	21.80	H	1.3	10.38	4.23	43.5	36.41	7.09
250.00	23.09	H	1.3	11.77	4.35	46.0	39.21	6.79
325.80	19.91	H	1.0	13.98	4.63	46.0	38.52	7.48
480.00	9.15	V	1.0	17.23	5.08	46.0	31.46	14.54

-For measurement above 1 ㎓

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Peak mode: Peak (RBW: 1 ㎒, VBW: 1 ㎒)

: Average mode: Peak (RBW: 1 ㎒, VBW: 10 ㎐)

Operation Mode : Data Communication mode

Temperature : 25.1 °C

Humidity Level : 57.7 %

Test Date : July 18, 2013

Frequency (㎓)	Peak			POL	Average		
	Total (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)		Total (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
2.2473	52.90	74	21.1	V	35.20	54	18.8
2.2393	54.10	74	19.9	V	31.90	54	22.1

※ **NOTE:**

1. Measurement above 1 ㎓ was performed from 1 ㎓ to the 5th harmonic of highest fundamental frequency. Test was measured by 12 ㎓.

[Type: USB 3.0]

-For measurement below 1 ㎓

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak (6 ㏈ Bandwidth: 120 ㎑)
Operation Mode : Data Communication mode

Temperature : 25.4 °C
Humidity Level : 56.6 %
Test Date : July 19, 2013

Frequency (MHz)	Reading (dBuV)	Polarity (H/V)	Antenna Height (m)	Correction Factor		Limit (dBuV/m)	Level (dBuV/m)	Margin (dB)
				Antenna (dB/m)	Cable (dB)			
96.40	13.56	H	1.0	8.59	3.75	43.5	25.90	17.60
125.40	14.18	V	1.0	12.03	3.90	43.5	30.11	13.39
214.20	22.24	H	1.3	10.35	4.23	43.5	36.82	6.68
249.90	23.99	H	1.3	11.77	4.35	46.0	40.11	5.89
324.00	17.37	H	1.3	13.94	4.63	46.0	35.94	10.06
624.00	6.05	V	1.0	19.96	5.39	46.0	31.40	14.60

-For measurement above 1 ㎓

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Peak mode: Peak (RBW: 1 ㎒, VBW: 1 ㎒)

: Average mode: Peak (RBW: 1 ㎒, VBW: 10 ㎐)

Operation Mode : Data Communication mode

Temperature : 25.1 °C

Humidity Level : 57.7 %

Test Date : July 18, 2013

Frequency (㎓)	Peak			POL	Average		
	Total (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)		Total (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
2.3929	52.40	74	21.6	V	31.00	54	23.0

※ **NOTE:**

1. Measurement above 1 ㎓ was performed from 1 ㎓ to the 5th harmonic of highest fundamental frequency. Test was measured by 12 ㎓.

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 dBμV is obtained. The antenna factor of 7.4 dB/m and a cable factor of 1.1 dB are added. The 30 dBμV/m value is mathematically converted to its corresponding level in μV/m.

FS = 21.5 + 7.4 + 1.1 = 30 dBμV/m

[Radiated Emission Limits]

Frequency of Emission (㎒)	Field Strength	
	μV/m	dBμV/m
30 to 88	100	40.0
88 to 216	150	43.5
216 to 960	200	46.0
Above 960	500	54.0

6. TEST EQUIPMENT

	Type	Manufacturer	Model Name	Serial Number	Calibration Cycle	Next CAL Date
Conducted Emission						
☒	EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	2014.04.25
☐	EMI Test Receiver	Rohde & Schwarz	ESCI	100033	1 year	2014.06.23
☐	LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	2014.07.03
☒	LISN	Rohde & Schwarz	ENV216	100073	1 year	2014.02.06
☒	LISN	EMCO	3816/2SH	9706-1070	1 year	2014.04.26
☐	Attenuator	Rohde & Schwarz	ESH3-Z2	357.8810.352	1 year	2014.07.03
Radiated Emission						
-For measurement below 1 ㎓						
☒	EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	2014.04.16
☒	Trilog Antenna	Schwarzbeck	VULB9160	3301	2 year	2014.12.17
☒	Antenna master	HD GmbH	MA240	240/520	N/A	-
☒	Turn Table	HD GmbH	2090	9702/1224	N/A	-
☐	EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	2014.07.01
☐	Trilog Antenna	Schwarzbeck	VULB9168	185	2 year	2015.04.16
☐	Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☐	Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
-For measurement above 1 ㎓						
☒	EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	2014.04.16
☒	Antenna master	HD GmbH	MA240	240/520	N/A	-
☒	Turn Table	HD GmbH	2090	9702/1224	N/A	-
☐	EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	2014.07.01
☐	Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☐	Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☒	Power Amplifier	Rohde & Schwarz	SCU-18	10094	1 year	2013.09.11
☒	Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	2014.12.13

7. CONCLUSION

The data collected shows that the **EUT type: CDMA, GSM, WCDMA and LTE Phone with WLAN, Bluetooth and NFC, FCC ID: ZNFLS980, Model: LG-LS980** complies with §15.107 and §15.109 of the FCC rules.