

EMI CERTIFICATION REPORT

Applicant:

LG Electronics MobileComm U.S.A., Inc.
1000 Sylvan Avenue, Englewood Cliffs NJ 07632

Date of Receipt: July 28, 2015**Date of Issue: September 03, 2015****Test Report No. HCT-E-1509-F003****HCT FRN: 0005866421****FCC ID:****ZNFH960**

Rule Part(s) / Standard(s): FCC CFR 47 PART 15 Subpart B Class B
FCC Classification: JBP (Part 15 B – Class B Computing Device Peripheral)
EUT Type: Cellular/PCS GSM/WCDMA/LTE Phone with WLAN, Bluetooth and NFC
Model Name: LG-H960
Additional Model Name: LGH960, H960, LG-H960P, LGH960P, H960P, LG-H960AR, LGH960AR, H960AR, LG-H960YK, LGH960YK, H960YK
Test Port: USB / Earphone Port
Date of Test: August 26, 2015 / September 01, 2015

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 Act of 1988, 21 U.S.C 862

Tested By

Gu-Cheol Yoon
Test Engineer
EMC Team
Certification Division

Reviewed By

Jin-Pyo Hong
Technical Manager
EMC Team
Certification Division

This report only responds to the tested sample and may not be reproduced, except in full, without written approval of the HCT Co., Ltd.



DOCUMENT HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCT-E-1509-F003	September 03, 2015	Initial Release



TABLE OF CONTENTS

	PAGE
1. GENERAL INFORMATION	4
1.1 Description of EUT	4
1.2 Related Submittal(s) / Grant(s).....	4
1.3 Test Facility	5
1.4 Tested System Details.....	6
1.5 Cable Description	7
1.6 Noise Suppression Parts on Cable. (I/O Cable)	7
2. DESCRIPTION OF TEST	8
3. PRELIMINARY TEST	11
3.1 Conducted Emission Test	11
3. 2 Radiated Emission Test	11
4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY	12
4.1 Conducted Emission Test	12
4.2 Radiated Emission Test	26
5. LIST OF TEST EQUIPMENT	30
6. CONCLUSION	31

ATTACHMENT: TEST SETUP PHOTOGRAPHS



1. GENERAL INFORMATION

1.1 Description of EUT

Equipment Under Test is manufactured by **LG Electronics MobileComm U.S.A., Inc.**
Its basic purpose is used for communications.

Model	LG-H960
FCC ID	ZNFH960
Additional Model	LGH960, H960, LG-H960P, LGH960P, H960P, LG-H960AR, LGH960AR, H960AR, LG-H960YK, LGH960YK, H960YK
EUT Type	Cellular/PCS GSM/WCDMA/LTE Phone with WLAN, Bluetooth and NFC
TX Frequency	824.20 MHz to 848.80 MHz (GSM 850) 1 850.20 MHz to 1 909.80 MHz (GSM 1 900) 826.40 MHz to 846.60 MHz (WCDMA 850) 1 852.4 MHz to 1 907.6 MHz (WCDMA 1 900) 1 850 MHz to 1 910 MHz (LTE B2) 1 710 MHz to 1 755 MHz (LTE B4) 824 MHz to 849 MHz (LTE B5) 2 500 MHz to 2 570 MHz (LTE B7) 699 MHz to 716 MHz (LTE B12) 704 MHz to 716 MHz (LTE B17)
RX Frequency	869.20 MHz to 893.80 MHz (GSM 850) 1 930.20 MHz to 1 989.80 MHz (GSM 1 900) 871.40 MHz to 891.60 MHz (WCDMA 850) 1 932.4 MHz to 1 987.6 MHz (WCDMA 1 900) 1 930 MHz to 1 990 MHz (LTE B2) 2 110 MHz to 2 155 MHz (LTE B4) 869 MHz to 894 MHz (LTE B5) 2 620 MHz to 2 690 MHz (LTE B7) 729 MHz to 746 MHz (LTE B12) 734 MHz to 746 MHz (LTE B17)



1.2 Related Submittal(s) / Grant(s)

Original submittal only.

1.3 Test Facility

Test site is located at 74, SEOICHEON-RO, 578BEON-GIL, MAJANG-MYEON, ICHEON-SI, GYEONGGI-DO, SOUTH KOREA. Those measurement facilities are constructed in conformance with the requirements of ANSI C63.4-2003.

Measurement Facilities	Reg. No.
Radiated Field strength measurement facility (3 m)	90661 (February 28, 2014)
Radiated Field strength measurement facility (10 m)	90661 (February 28, 2014)



1.4 Tested System Details

All equipment descriptions used in the tested system (including inserted cards) are:

Device Type	Model Name	Manufacturer	FCC ID / DoC	Connected To
EUT	LG-H960	LG	ZNFH960	Notebook PC
USB cable	EAD63665203	KSD	-	EUT, Notebook PC
Earphone	EAB64168901	I-SOUND	-	EUT
Standard Cover	-	-	-	EUT
Wireless Charging Cover	AAA76393001	Young Kwang	-	EUT
Notebook PC	ProBook6560b	HP	DoC	EUT, Notebook PC adaptor
Notebook PC adaptor	PPP009D	DELTA Electronics (Jiangsu) LTD	-	Notebook PC
Gateway	MV440	Axesstel	PH7MV440	Notebook PC, Adaptor
Serial mouse	Serial 2 button mouse	Radio shack	FSUGMZE3	Notebook PC
Adaptor	DA-60M12	Yang Ming Industrial	-	Gateway
RJ45 cable	-	-	-	Notebook PC, Gateway
Micro SD card	16 GB	Samsung	-	EUT



1.5 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
EUT	Micro USB	Y	Y	(P,D)1.2
	Earphone	N/A	Y	(D)1.2
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.

1.6 Noise Suppression Parts on Cable. (I/O Cable)

Product Name	Port	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
EUT	Micro USB	N	N/A	Y	Both End
	Earphone	N	N/A	Y	EUT End
Notebook PC	RJ 45	N	N/A	N	N/A
	Serial (Mouse)	N	N/A	Y	Notebook PC End



2. DESCRIPTION OF TEST

2.1 Measurement of Conducted Emission

The test procedure was in accordance with ANSI C63.4-2003, Clause 7

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN).
If the EUT is connected to the PC through USB, the AC power-line adapter of the PC is directly connected to a line impedance stabilization network (LISN).
Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both conducted lines are measured in Quasi-Peak and Average mode, including the worst-case data points for each tested configuration.
- c. The frequency range from 150 kHz to 30 MHz was searched.

[Conducted Emission Limits]

Frequency (MHz)	Resolution Bandwidth (kHz)	Quasi-Peak (dBμV)	Average (dBμV)
0.15 to 0.5	9	66 to 56*	56 to 46*
0.5 to 5	9	56	46
5 to 30	9	60	50

**Decreases with the logarithm of the frequency.*



2.2 Measurement of Radiated Emission

The test procedure was in accordance with ANSI C63.4-2003, Clause 8

- a. The EUT was placed on the top of a turn table 0.8 meters above the ground at a semi anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 m away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from 1 m to 4 m above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 m to 4 m and the turn table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to Peak and Average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.
- g. The antenna height scans apply for both horizontal and vertical polarizations, except that for vertical polarization, the minimum height of the center of the antenna shall be increased so that the lowest point of the bottom of the lowest antenna element clears the site reference ground plane by at least 25 cm. (below 1 GHz)

[Radiated Emission Limits]

Frequency (MHz)	Antenna Distance (m)	Field Strength ($\mu\text{V/m}$)	Quasi-Peak (dB $\mu\text{V/m}$)
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0
Frequency (MHz)	Antenna Distance (m)	Peak (dB $\mu\text{V/m}$)	Average (dB $\mu\text{V/m}$)
Above 1 000	3	74	54

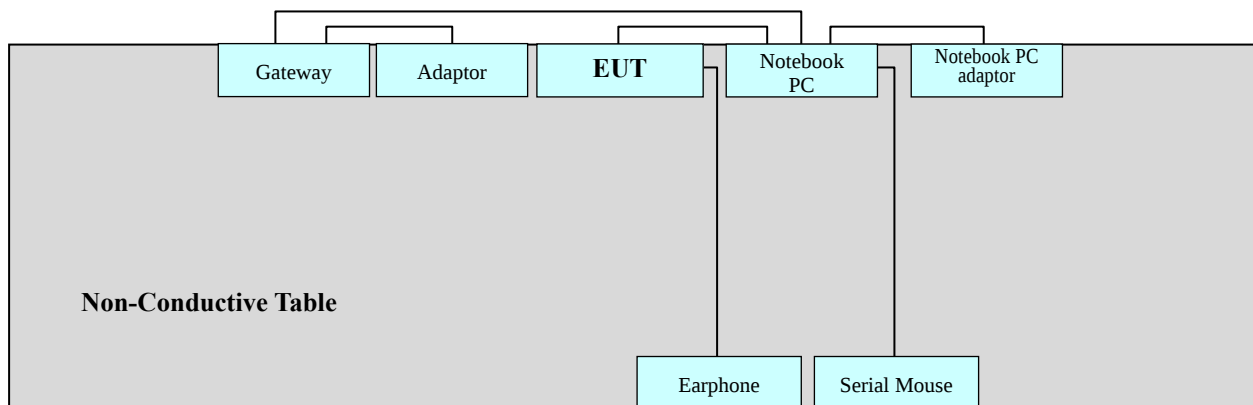


2.2.1 Frequency Range of Radiated Measurements

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 (MHz)	Upper frequency of measurement range (MHz)
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 GHz, whichever is lower

2.3 Configuration of Tested System



Power Line: 120 VAC, 60 Hz



3. PRELIMINARY TEST

3.1 Conducted Emission Test

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

Operation Mode: ☒ Data Communication mode

3. 2 Radiated Emission Test

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

Operation Mode: ☒ Data Communication mode



4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

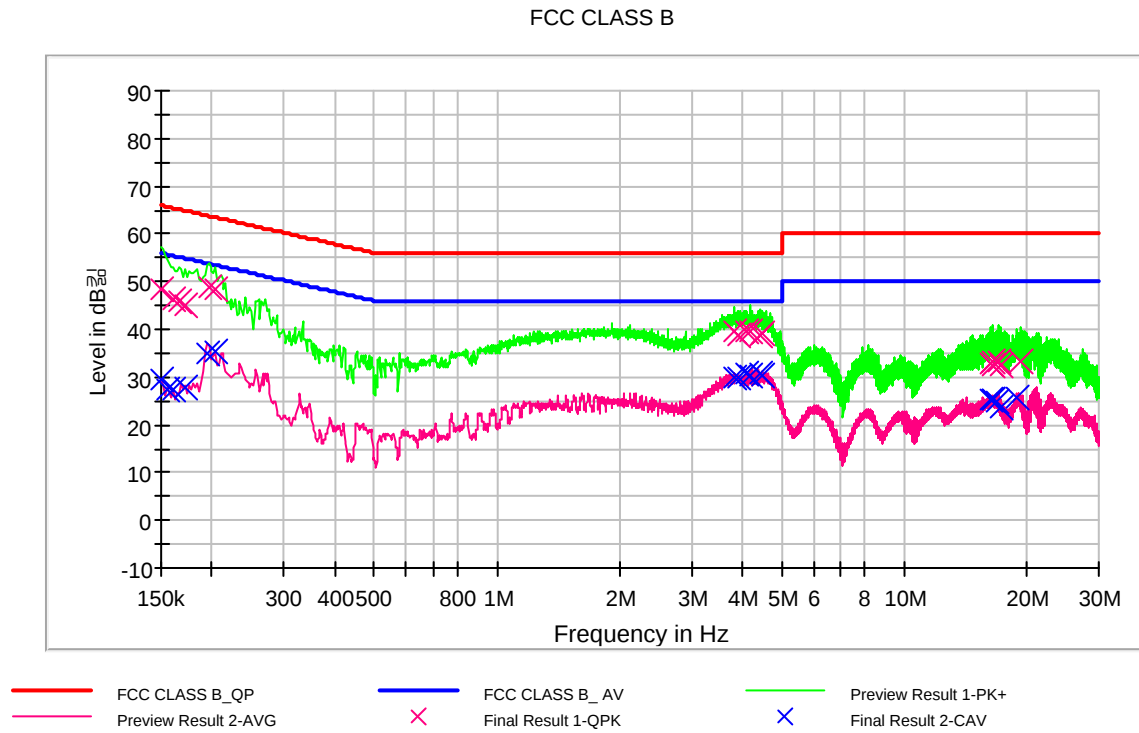
4.1 Conducted Emission Test

The test results of conducted emission at mains ports provide the following information:

Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Operation Mode	Data Communication mode
Cover Type	Standard Cover
Kind of Test Site	Shielded Room
Temperature	23.8 °C
Relative Humidity	48.2 %
Test Date	August 26, 2015

- Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. QuasiPeak or CAverage= Receiver Reading + Corr.
4. Margin = Limit – QuasiPeak or CAverage

**Figure 1: Spectral Diagrams, Conducted Emission, AC Main Port, Line (L1)**



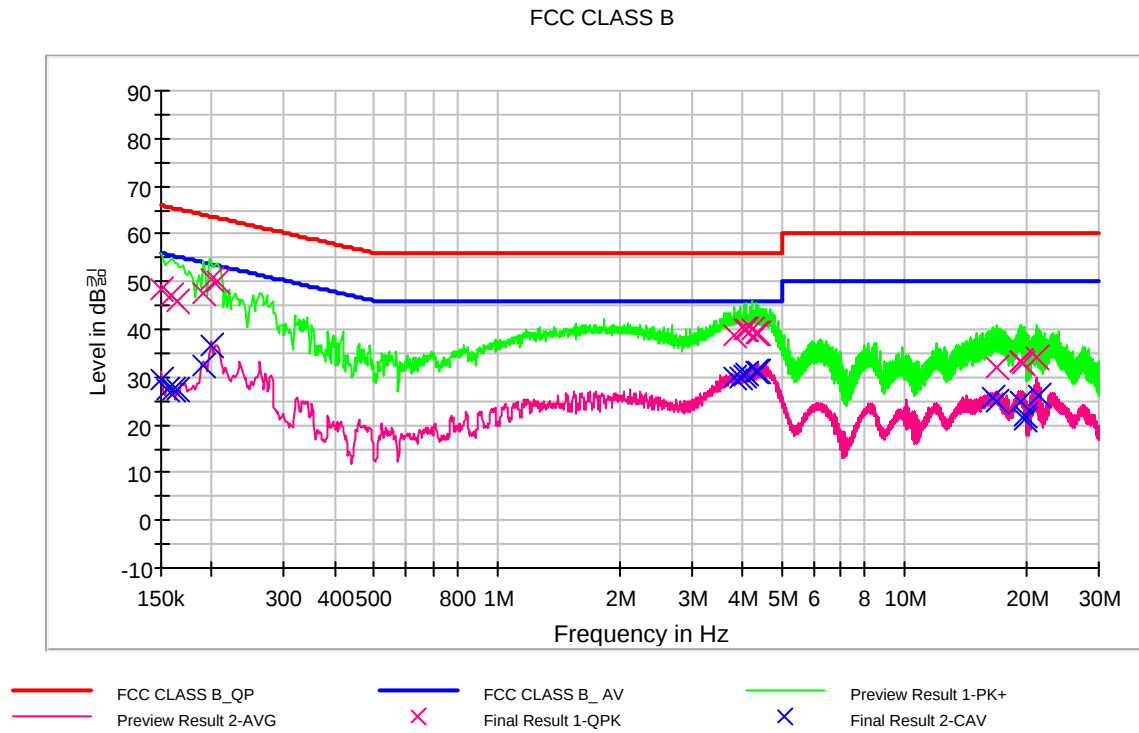
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	48.3	9.000	L1	9.6	17.7	66.0
0.160000	46.3	9.000	L1	9.6	19.2	65.5
0.166000	46.0	9.000	L1	9.6	19.2	65.2
0.172000	45.0	9.000	L1	9.6	19.9	64.9
0.196000	48.7	9.000	L1	9.6	15.1	63.8
0.204000	48.3	9.000	L1	9.6	15.1	63.4
3.818000	39.4	9.000	L1	9.8	16.6	56.0
3.908000	38.8	9.000	L1	9.8	17.2	56.0
4.104000	39.7	9.000	L1	9.8	16.3	56.0
4.172000	39.5	9.000	L1	9.8	16.5	56.0
4.452000	38.7	9.000	L1	9.8	17.3	56.0
4.456000	39.0	9.000	L1	9.8	17.0	56.0
16.338000	33.0	9.000	L1	10.2	27.0	60.0
16.406000	33.2	9.000	L1	10.2	26.8	60.0
16.410000	32.3	9.000	L1	10.2	27.7	60.0
16.972000	33.1	9.000	L1	10.2	26.9	60.0
17.254000	32.3	9.000	L1	10.2	27.7	60.0
19.232000	33.4	9.000	L1	10.3	26.6	60.0



CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	29.6	9.000	L1	9.6	26.4	56.0
0.156000	27.4	9.000	L1	9.6	28.3	55.7
0.160000	27.5	9.000	L1	9.6	28.0	55.5
0.172000	27.7	9.000	L1	9.6	27.2	54.9
0.194000	34.8	9.000	L1	9.6	19.1	53.9
0.204000	35.2	9.000	L1	9.6	18.2	53.4
3.818000	30.0	9.000	L1	9.8	16.0	46.0
3.892000	29.7	9.000	L1	9.8	16.3	46.0
4.104000	30.6	9.000	L1	9.8	15.4	46.0
4.174000	30.3	9.000	L1	9.8	15.7	46.0
4.452000	30.7	9.000	L1	9.8	15.3	46.0
4.456000	30.3	9.000	L1	9.8	15.7	46.0
16.338000	25.4	9.000	L1	10.2	24.6	50.0
16.406000	25.5	9.000	L1	10.2	24.5	50.0
16.410000	25.3	9.000	L1	10.2	24.7	50.0
16.900000	24.9	9.000	L1	10.2	25.1	50.0
17.252000	23.5	9.000	L1	10.2	26.5	50.0
18.954000	25.8	9.000	L1	10.3	24.2	50.0

**Figure 2: Spectral Diagrams, Conducted Emission, AC Main Port, Line (N)**



QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	48.5	9.000	N	9.6	17.5	66.0
0.158000	47.3	9.000	N	9.6	18.3	65.6
0.164000	45.9	9.000	N	9.6	19.4	65.3
0.190000	47.7	9.000	N	9.6	16.3	64.0
0.198000	50.6	9.000	N	9.6	13.1	63.7
0.206000	50.0	9.000	N	9.6	13.4	63.4
3.822000	38.8	9.000	N	9.8	17.2	56.0
4.030000	39.9	9.000	N	9.8	16.1	56.0
4.104000	40.1	9.000	N	9.8	15.9	56.0
4.242000	40.1	9.000	N	9.8	15.9	56.0
4.316000	39.3	9.000	N	9.8	16.7	56.0
4.386000	39.3	9.000	N	9.8	16.7	56.0
16.790000	32.1	9.000	N	10.2	27.9	60.0
19.238000	33.3	9.000	N	10.3	26.7	60.0
19.306000	33.2	9.000	N	10.3	26.8	60.0
19.378000	33.4	9.000	N	10.3	26.6	60.0
19.518000	32.8	9.000	N	10.3	27.2	60.0
21.074000	34.3	9.000	N	10.3	25.7	60.0



CAverage Final Result, Line (N)

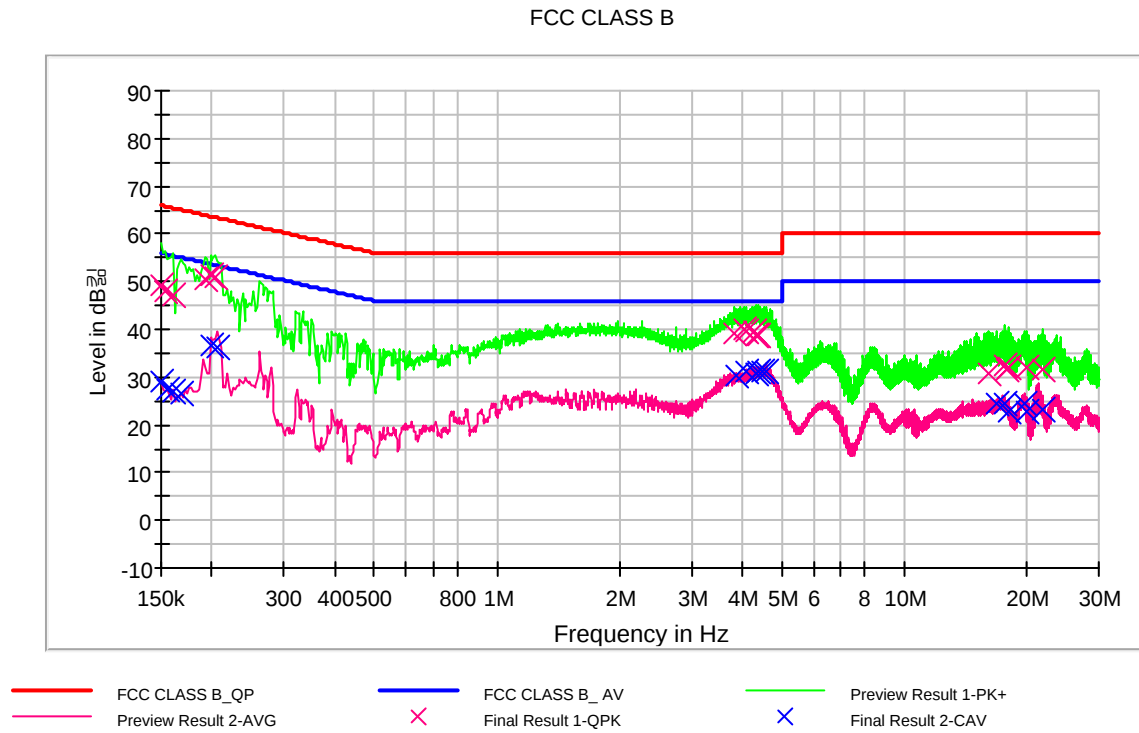
Frequency (MHz)	CAverage (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	29.3	9.000	N	9.6	26.7	56.0
0.156000	27.6	9.000	N	9.6	28.1	55.7
0.160000	27.5	9.000	N	9.6	28.0	55.5
0.164000	27.5	9.000	N	9.6	27.8	55.3
0.190000	32.3	9.000	N	9.6	21.7	54.0
0.200000	36.5	9.000	N	9.6	17.1	53.6
3.822000	29.8	9.000	N	9.8	16.2	46.0
3.974000	30.0	9.000	N	9.8	16.0	46.0
4.032000	30.2	9.000	N	9.8	15.8	46.0
4.102000	30.9	9.000	N	9.8	15.1	46.0
4.316000	31.3	9.000	N	9.8	14.7	46.0
4.384000	31.1	9.000	N	9.8	14.9	46.0
16.476000	25.9	9.000	N	10.2	24.1	50.0
16.790000	24.8	9.000	N	10.2	25.2	50.0
19.312000	25.0	9.000	N	10.3	25.0	50.0
19.666000	21.9	9.000	N	10.3	28.1	50.0
19.730000	21.3	9.000	N	10.3	28.7	50.0
21.274000	26.3	9.000	N	10.3	23.7	50.0



Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Operation Mode	Data Communication mode
Cover Type	Wireless Charging Cover
Kind of Test Site	Shielded Room
Temperature	24.9 °C
Relative Humidity	49.2 %
Test Date	September 01, 2015

- Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. QuasiPeak or CAverage= Receiver Reading + Corr.
4. Margin = Limit – QuasiPeak or CAverage

**Figure 3: Spectral Diagrams, Conducted Emission, AC Main Port, Line (L1)**



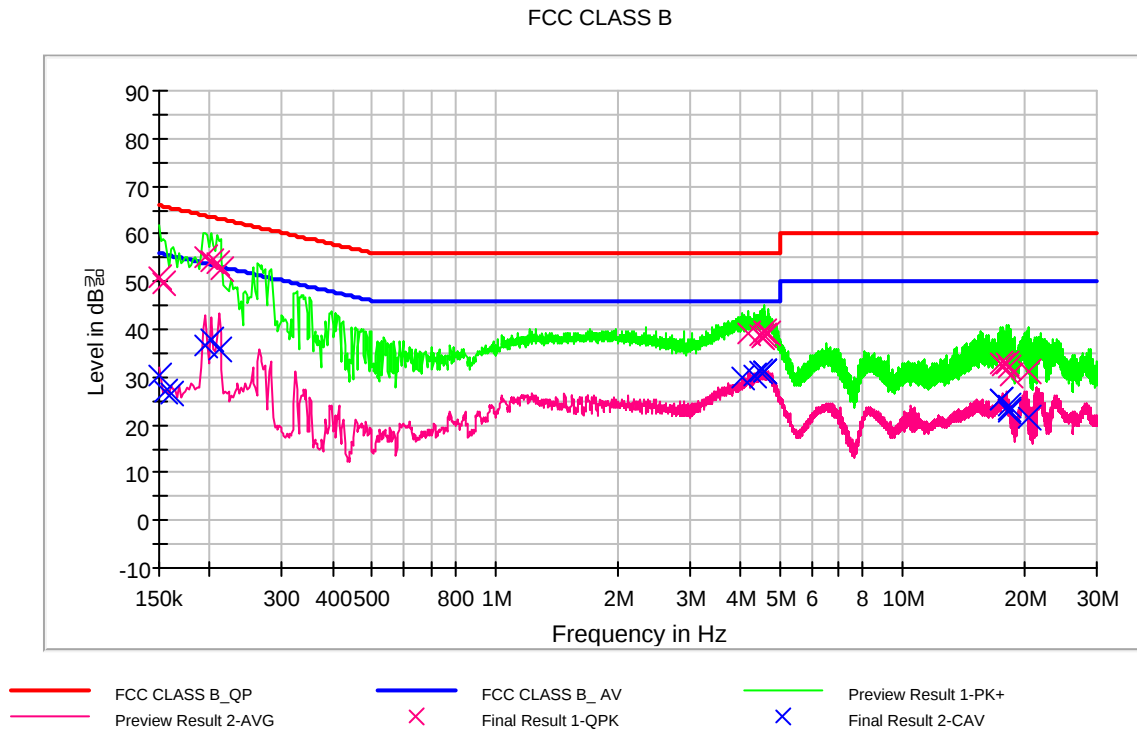
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	49.4	9.000	L1	9.6	16.6	66.0
0.154000	48.2	9.000	L1	9.6	17.6	65.8
0.160000	47.0	9.000	L1	9.6	18.5	65.5
0.192000	50.7	9.000	L1	9.6	13.2	63.9
0.198000	51.4	9.000	L1	9.6	12.3	63.7
0.204000	51.0	9.000	L1	9.6	12.4	63.4
3.826000	39.1	9.000	L1	9.8	16.9	56.0
4.036000	40.1	9.000	L1	9.8	15.9	56.0
4.110000	39.8	9.000	L1	9.8	16.2	56.0
4.300000	39.5	9.000	L1	9.8	16.5	56.0
4.324000	38.8	9.000	L1	9.8	17.2	56.0
4.368000	38.6	9.000	L1	9.8	17.4	56.0
16.076000	30.9	9.000	L1	10.2	29.1	60.0
17.632000	32.4	9.000	L1	10.2	27.6	60.0
17.846000	31.7	9.000	L1	10.2	28.3	60.0
18.054000	32.0	9.000	L1	10.2	28.0	60.0
19.968000	31.8	9.000	L1	10.3	28.2	60.0
21.808000	31.5	9.000	L1	10.3	28.5	60.0



CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	28.9	9.000	L1	9.6	27.1	56.0
0.156000	27.4	9.000	L1	9.6	28.3	55.7
0.160000	26.8	9.000	L1	9.6	28.7	55.5
0.168000	26.7	9.000	L1	9.6	28.4	55.1
0.198000	36.8	9.000	L1	9.6	16.9	53.7
0.206000	36.1	9.000	L1	9.6	17.3	53.4
3.868000	30.4	9.000	L1	9.8	15.6	46.0
4.108000	31.2	9.000	L1	9.8	14.8	46.0
4.324000	30.9	9.000	L1	9.8	15.1	46.0
4.368000	31.3	9.000	L1	9.8	14.7	46.0
4.464000	31.0	9.000	L1	9.8	15.0	46.0
4.604000	31.0	9.000	L1	9.8	15.0	46.0
16.780000	24.7	9.000	L1	10.2	25.3	50.0
17.632000	24.5	9.000	L1	10.2	25.5	50.0
18.054000	22.6	9.000	L1	10.2	27.4	50.0
19.772000	24.7	9.000	L1	10.3	25.3	50.0
19.968000	22.9	9.000	L1	10.3	27.1	50.0
21.808000	23.3	9.000	L1	10.3	26.7	50.0

**Figure 4: Spectral Diagrams, Conducted Emission, AC Main Port, Line (N)**



QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	50.8	9.000	N	9.6	15.2	66.0
0.154000	49.7	9.000	N	9.6	16.1	65.8
0.194000	55.0	9.000	N	9.6	8.9	63.9
0.202000	54.4	9.000	N	9.6	9.1	63.5
0.208000	53.7	9.000	N	9.6	9.6	63.3
0.212000	52.6	9.000	N	9.6	10.5	63.1
4.180000	39.3	9.000	N	9.8	16.7	56.0
4.468000	38.7	9.000	N	9.8	17.3	56.0
4.540000	38.5	9.000	N	9.8	17.5	56.0
4.560000	38.8	9.000	N	9.8	17.2	56.0
4.604000	39.6	9.000	N	9.8	16.4	56.0
4.676000	39.3	9.000	N	9.8	16.7	56.0
17.502000	32.8	9.000	N	10.2	27.2	60.0
17.574000	32.6	9.000	N	10.2	27.4	60.0
17.996000	32.9	9.000	N	10.2	27.1	60.0
18.212000	32.1	9.000	N	10.2	27.9	60.0
18.426000	30.2	9.000	N	10.2	29.8	60.0
20.478000	31.2	9.000	N	10.3	28.8	60.0



CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	30.1	9.000	N	9.6	25.9	56.0
0.156000	26.8	9.000	N	9.6	28.9	55.7
0.160000	26.7	9.000	N	9.6	28.8	55.5
0.194000	36.7	9.000	N	9.6	17.2	53.9
0.202000	38.0	9.000	N	9.6	15.5	53.5
0.210000	35.9	9.000	N	9.6	17.3	53.2
4.038000	29.8	9.000	N	9.8	16.2	46.0
4.334000	30.2	9.000	N	9.8	15.8	46.0
4.464000	31.0	9.000	N	9.8	15.0	46.0
4.560000	31.1	9.000	N	9.8	14.9	46.0
4.584000	31.2	9.000	N	9.8	14.8	46.0
4.604000	31.0	9.000	N	9.8	15.0	46.0
17.502000	25.2	9.000	N	10.2	24.8	50.0
17.506000	25.3	9.000	N	10.2	24.7	50.0
18.138000	23.8	9.000	N	10.2	26.2	50.0
18.212000	23.1	9.000	N	10.2	26.9	50.0
18.280000	22.7	9.000	N	10.2	27.3	50.0
20.478000	21.7	9.000	N	10.3	28.3	50.0



4.2 Radiated Emission Test

The test results of radiated emission provide the following information:

-For Measurement Below 1 GHz

Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Operation Mode	Data Communication mode
Cover Type	Standard Cover
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.9 °C
Relative Humidity	47.7 %
Test Date	August 26, 2015

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
34.687776	24.7	100.0	V	107.0	15.0	15.3	40.0
77.613307	31.7	250.0	H	105.0	12.4	8.3	40.0
85.652745	29.0	231.0	H	107.0	11.6	11.0	40.0

- Calculation Formula:

1. POL. H = Horizontal, POL. V = Vertical
2. QuasiPeak = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor + Cable Loss
4. Margin = Limit - QuasiPeak



Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Operation Mode	Data Communication mode
Cover Type	Wireless Charging Cover
Kind of Test Site	3 m semi anechoic chamber
Temperature	24.4 °C
Relative Humidity	49.6 %
Test Date	September 01, 2015

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
34.951663	22.4	100.0	V	160.0	15.0	17.6	40.0
77.213307	33.4	250.0	H	130.0	12.5	6.6	40.0



-For Measurement Above 1 GHz

Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)
Highest Operating Frequency	1.8 GHz
Testing Frequency Range	1 GHz to 9 GHz
Operation Mode	Data Communication mode
Cover Type	Standard Cover
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.9 °C
Relative Humidity	47.7 %
Test Date	August 26, 2015

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1331.112225	52.1	143.0	V	122.0	-9.7	21.9	74.0
1992.835671	54.4	100.0	V	233.0	-7.9	19.6	74.0
2664.278557	50.6	100.0	V	236.0	-5.4	23.4	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1331.112225	33.0	143.0	V	122.0	-9.7	21.0	54.0
1992.835671	38.0	100.0	V	233.0	-7.9	16.0	54.0
2664.278557	33.6	100.0	V	236.0	-5.4	20.4	54.0

- Calculation Formula:

1. POL. H = Horizontal, POL. V = Vertical
2. Peak or CAverage = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor+ Cable Loss –Amplifier Gain
4. Margin = Limit - Peak or CAverage



Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)
Highest Operating Frequency	1.8 GHz
Testing Frequency Range	1 GHz to 9 GHz
Operation Mode	Data Communication mode
Cover Type	Wireless Charging Cover
Kind of Test Site	3 m semi anechoic chamber
Temperature	24.4 °C
Relative Humidity	49.6 %
Test Date	September 01, 2015

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1996.943888	56.3	100.0	V	227.0	-7.9	17.7	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1996.943888	38.4	100.0	V	227.0	-7.9	15.6	54.0



5. LIST OF TEST EQUIPMENT

<u>Type</u>	<u>Manufacturer</u>	<u>Model Name</u>	<u>Serial Number</u>	<u>Calibration Cycle</u>	<u>CAL Date</u>
<u>Conducted Emission</u>					
☒ EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	01.13.2015
☒ LISN	Rohde & Schwarz	ENV216	100073	1 year	01.13.2015
☒ LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	06.11.2015
☒ Software	Rohde & Schwarz	EMC32	-	-	-
<u>Radiated Emission</u>					
-For measurement below 1 GHz					
☒ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	04.01.2015
☒ Trilog Antenna	Schwarzbeck	VULB9160	3301	2 year	11.17.2014
☒ Antenna master	HD GmbH	MA240	240/520	N/A	-
☒ Antenna master controller	HD GmbH	HD 100	100/637	N/A	-
☒ Turn Table	EMCO	1060-2M	-	N/A	-
☒ Turn Table controller	EMCO	2090	9702-1224	N/A	-
☐ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	06.05.2015
☐ Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☐ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☒ Software	Rohde & Schwarz	EMC32	-	-	-
-For measurement above 1 GHz					
☒ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	04.01.2015
☒ Antenna master	HD GmbH	MA240	240/520	N/A	-
☒ Antenna master controller	HD GmbH	HD 100	100/637	N/A	-
☒ Turn Table	EMCO	1060-2M	-	N/A	-
☒ Turn Table controller	EMCO	2090	9702-1224	N/A	-
☐ Power Amplifier	CERNEX	CBLU1183540	21691	1 year	07.06.2015
☒ Power Amplifier	CERNEX	CBLU5183530	24348	1 year	06.15.2015
☒ Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	10.07.2014
☐ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	06.05.2015
☐ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☒ Software	Rohde & Schwarz	EMC32	-	-	-



6. CONCLUSION

The data collected shows that the **EUT Type: Cellular/PCS GSM/WCDMA/LTE Phone with WLAN, Bluetooth and NFC, FCC ID: ZNFH960, Model: LG-H960** complies with §15.107 and §15.109 of the FCC rules.