

# EMI CERTIFICATION REPORT

**Applicant:**

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

**Date of Receipt: August 04, 2015****Date of Issue: October 05, 2015****Test Report No. HCT-E-1508-F008-1****HCT FRN: 0005866421****FCC ID:****ZNFH901**

**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:** Multi-band GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth and NFC  
**Model Name:** LG-H901  
**Additional Model Name:** LGH901, H901  
**Test Port:** USB / Earphone Port  
**Date of Test:** August 07, 2015 - August 11, 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**  
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**EMC Team**  
**Certification Division**

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## DOCUMENT HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCT-E-1508-F008	August 12, 2015	Initial Release
HCT-E-1508-F008-1	October 05, 2015	Deleted the testing of Quick Cover



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**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.

<b>Model</b>	LG-H901
<b>FCC ID</b>	ZNFH901
<b>Additional Model</b>	LGH901, H901
<b>EUT Type</b>	Multi-band GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth and NFC
<b>TX Frequency</b>	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) 1712.4 MHz to 1752.6 MHz (WCDMA 1 700) 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) 2 496 MHz to 2 570 MHz (LTE B7) 699 MHz to 716 MHz (LTE B12)
<b>RX Frequency</b>	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) 2 112.4 MHz to 2 152.6 MHz (WCDMA 1 700) 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) 2 516 MHz to 2 690 MHz (LTE B7) 729 MHz to 746 MHz (LTE B12)

### 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-H901	LG	ZNFH901	Notebook PC
USB cable	EAD63665203	KSD	-	EUT, Notebook PC
USB cable	EAD63665202	Ningbo Broad	-	EUT, Notebook PC
USB cable	EAD63665201	CRESYN	-	EUT, Notebook PC
Earphone	EAB63728203	I-SOUND	-	EUT
Standard Cover	-	-	-	EUT
Wireless Charging Cover	ACQ88524601	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 (dB $\mu$ V)	Average (dB $\mu$ V)
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

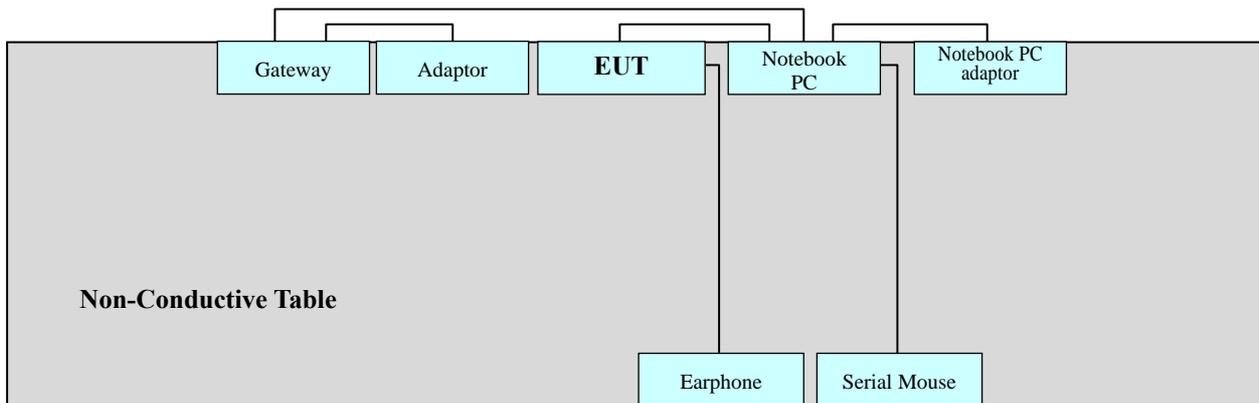


### 2.2.1 Frequency Range of Radiated Measurements

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 <sup>th</sup> 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:

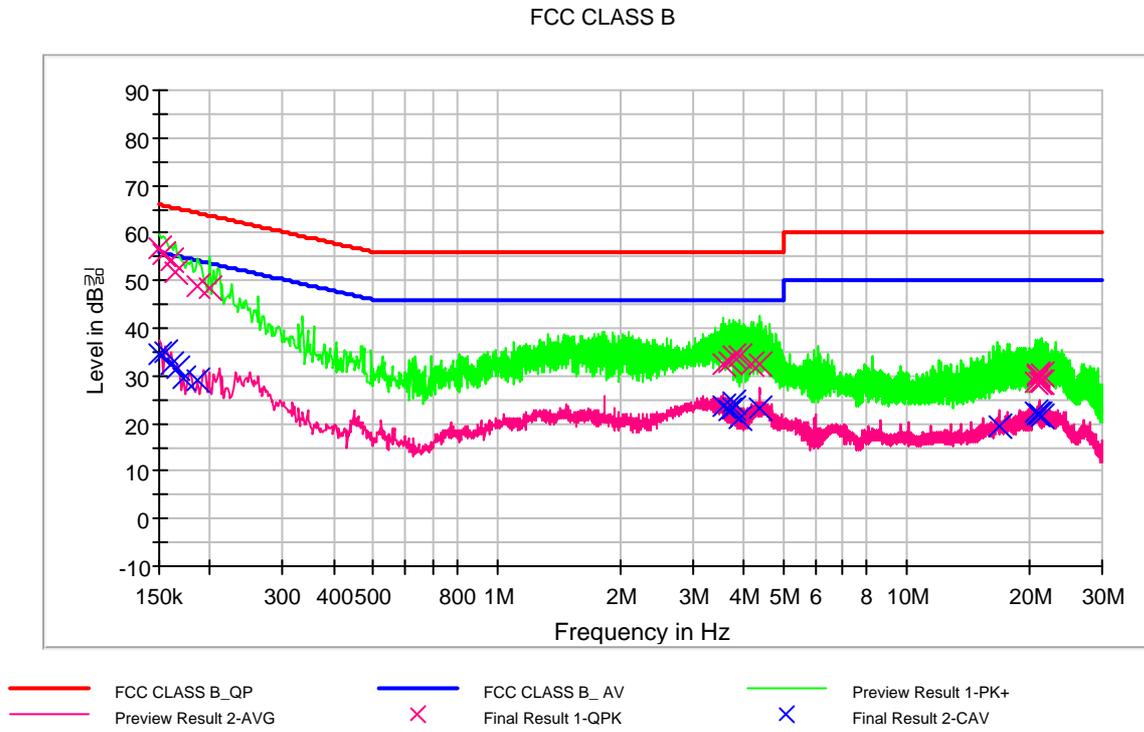
<b>Rule Part / Standard</b>	FCC PART 15 Subpart B Class B
<b>Detector</b>	Quasi-Peak, CISPR-Average
<b>Bandwidth</b>	9 kHz (6 dB)
<b>Operation Mode</b>	Data Communication mode
<b>Cover Type</b>	Standard Cover
<b>USB Cable Type</b>	CRESYN *NOTE: The worst-case emissions are reported.
<b>Kind of Test Site</b>	Shielded Room
<b>Temperature</b>	24.1 °C
<b>Relative Humidity</b>	53.9 %
<b>Test Date</b>	August 10, 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 (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	56.6	9.000	L1	9.6	9.4	66.0
0.154000	55.4	9.000	L1	9.6	10.4	65.8
0.160000	54.1	9.000	L1	9.6	11.4	65.5
0.164000	51.9	9.000	L1	9.6	13.4	65.3
0.186000	48.8	9.000	L1	9.6	15.4	64.2
0.200000	48.4	9.000	L1	9.6	15.2	63.6
3.554000	32.3	9.000	L1	9.8	23.7	56.0
3.694000	33.0	9.000	L1	9.8	23.0	56.0
3.786000	34.2	9.000	L1	9.8	21.8	56.0
3.898000	34.0	9.000	L1	9.8	22.0	56.0
4.194000	32.5	9.000	L1	9.8	23.5	56.0
4.368000	32.6	9.000	L1	9.8	23.4	56.0
20.604000	28.5	9.000	L1	10.3	31.5	60.0
20.854000	30.2	9.000	L1	10.3	29.8	60.0
20.964000	30.1	9.000	L1	10.3	29.9	60.0
21.162000	28.8	9.000	L1	10.3	31.2	60.0
21.244000	30.1	9.000	L1	10.3	29.9	60.0
21.382000	28.8	9.000	L1	10.3	31.2	60.0

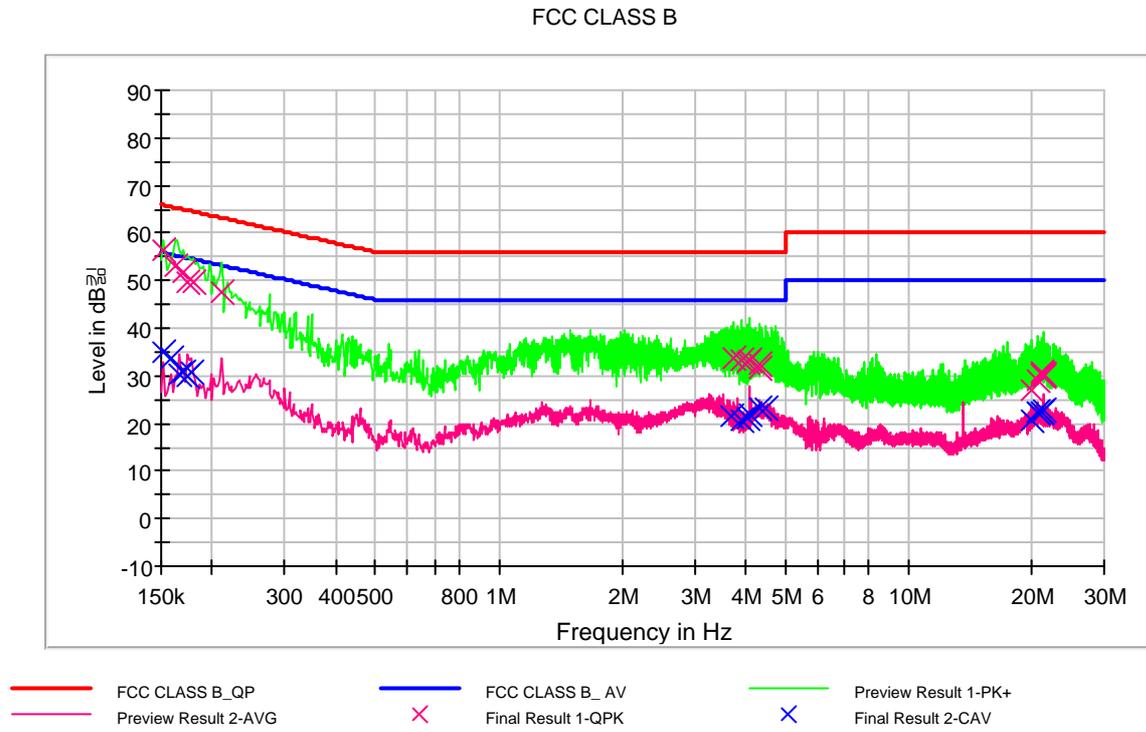


## CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	34.4	9.000	L1	9.6	21.6	56.0
0.156000	35.1	9.000	L1	9.6	20.6	55.7
0.160000	32.6	9.000	L1	9.6	22.9	55.5
0.166000	31.7	9.000	L1	9.6	23.5	55.2
0.172000	29.6	9.000	L1	9.6	25.3	54.9
0.186000	29.1	9.000	L1	9.6	25.1	54.2
3.554000	23.6	9.000	L1	9.8	22.4	46.0
3.694000	22.6	9.000	L1	9.8	23.4	46.0
3.762000	24.4	9.000	L1	9.8	21.6	46.0
3.786000	23.2	9.000	L1	9.8	22.8	46.0
3.898000	21.3	9.000	L1	9.8	24.8	46.0
4.368000	23.3	9.000	L1	9.8	22.7	46.0
16.856000	19.3	9.000	L1	10.2	30.7	50.0
20.604000	22.2	9.000	L1	10.3	27.8	50.0
20.854000	22.0	9.000	L1	10.3	28.0	50.0
20.964000	22.0	9.000	L1	10.3	28.0	50.0
21.162000	21.7	9.000	L1	10.3	28.3	50.0
21.244000	21.7	9.000	L1	10.3	28.3	50.0



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





## QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	56.3	9.000	N	9.6	9.6	65.9
0.162000	53.2	9.000	N	9.6	12.2	65.4
0.170000	51.6	9.000	N	9.6	13.4	65.0
0.174000	49.7	9.000	N	9.6	15.1	64.8
0.180000	49.6	9.000	N	9.6	14.9	64.5
0.210000	47.4	9.000	N	9.6	15.8	63.2
3.750000	33.7	9.000	N	9.8	22.3	56.0
3.916000	33.4	9.000	N	9.8	22.6	56.0
4.022000	32.7	9.000	N	9.8	23.3	56.0
4.108000	33.4	9.000	N	9.8	22.6	56.0
4.344000	31.5	9.000	N	9.8	24.5	56.0
4.350000	32.2	9.000	N	9.8	23.8	56.0
19.940000	27.2	9.000	N	10.3	32.8	60.0
20.730000	29.0	9.000	N	10.3	31.0	60.0
21.032000	30.2	9.000	N	10.3	29.8	60.0
21.174000	30.9	9.000	N	10.3	29.1	60.0
21.306000	30.0	9.000	N	10.3	30.0	60.0
21.384000	30.1	9.000	N	10.3	29.9	60.0



## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	34.9	9.000	N	9.6	21.0	55.9
0.158000	33.6	9.000	N	9.6	22.0	55.6
0.166000	30.4	9.000	N	9.6	24.8	55.2
0.170000	30.8	9.000	N	9.6	24.2	55.0
0.174000	29.9	9.000	N	9.6	24.9	54.8
0.178000	30.8	9.000	N	9.6	23.8	54.6
3.710000	21.7	9.000	N	9.8	24.3	46.0
3.916000	20.8	9.000	N	9.8	25.2	46.0
4.022000	21.1	9.000	N	9.8	24.9	46.0
4.108000	21.7	9.000	N	9.8	24.3	46.0
4.350000	23.1	9.000	N	9.8	22.9	46.0
4.486000	23.1	9.000	N	9.8	22.9	46.0
19.940000	20.5	9.000	N	10.3	29.5	50.0
20.724000	22.1	9.000	N	10.3	27.9	50.0
20.730000	22.3	9.000	N	10.3	27.7	50.0
21.032000	22.3	9.000	N	10.3	27.7	50.0
21.174000	22.4	9.000	N	10.3	27.6	50.0
21.306000	22.6	9.000	N	10.3	27.4	50.0



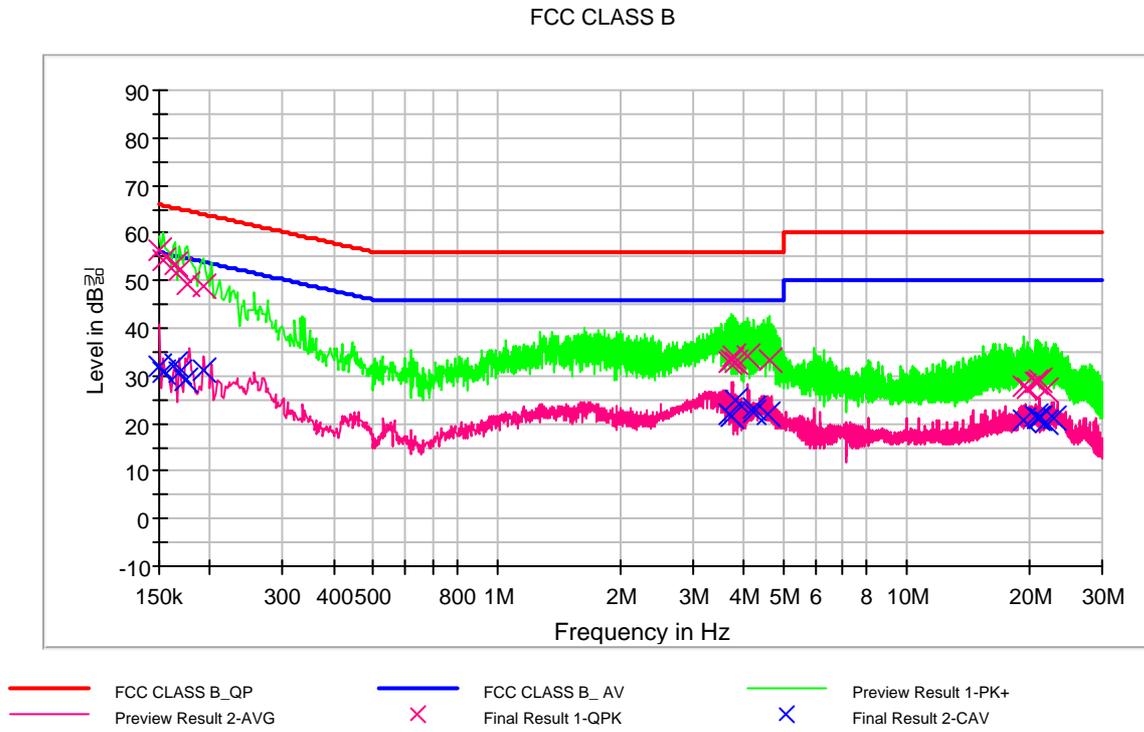
<b>Rule Part / Standard</b>	FCC PART 15 Subpart B Class B
<b>Detector</b>	Quasi-Peak, CISPR-Average
<b>Bandwidth</b>	9 kHz (6 dB)
<b>Operation Mode</b>	Data Communication mode
<b>Cover Type</b>	Wireless Charging Cover
<b>USB Cable Type</b>	CRESYN *NOTE: The worst-case emissions are reported.
<b>Kind of Test Site</b>	Shielded Room
<b>Temperature</b>	24.1 °C
<b>Relative Humidity</b>	53.9 %
<b>Test Date</b>	August 10, 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 (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	56.4	9.000	L1	9.6	9.6	66.0
0.154000	54.2	9.000	L1	9.6	11.6	65.8
0.164000	53.6	9.000	L1	9.6	11.7	65.3
0.168000	52.3	9.000	L1	9.6	12.8	65.1
0.176000	49.4	9.000	L1	9.6	15.3	64.7
0.192000	48.7	9.000	L1	9.6	15.2	63.9
3.682000	32.9	9.000	L1	9.8	23.1	56.0
3.754000	33.4	9.000	L1	9.8	22.6	56.0
3.766000	34.2	9.000	L1	9.8	21.8	56.0
3.842000	33.1	9.000	L1	9.8	22.9	56.0
4.108000	33.9	9.000	L1	9.8	22.1	56.0
4.622000	33.1	9.000	L1	9.8	22.9	56.0
19.400000	27.6	9.000	L1	10.3	32.4	60.0
19.726000	27.6	9.000	L1	10.3	32.4	60.0
20.724000	28.8	9.000	L1	10.3	31.2	60.0
20.962000	28.6	9.000	L1	10.3	31.4	60.0
21.034000	29.0	9.000	L1	10.3	31.0	60.0
21.758000	27.0	9.000	L1	10.3	33.0	60.0

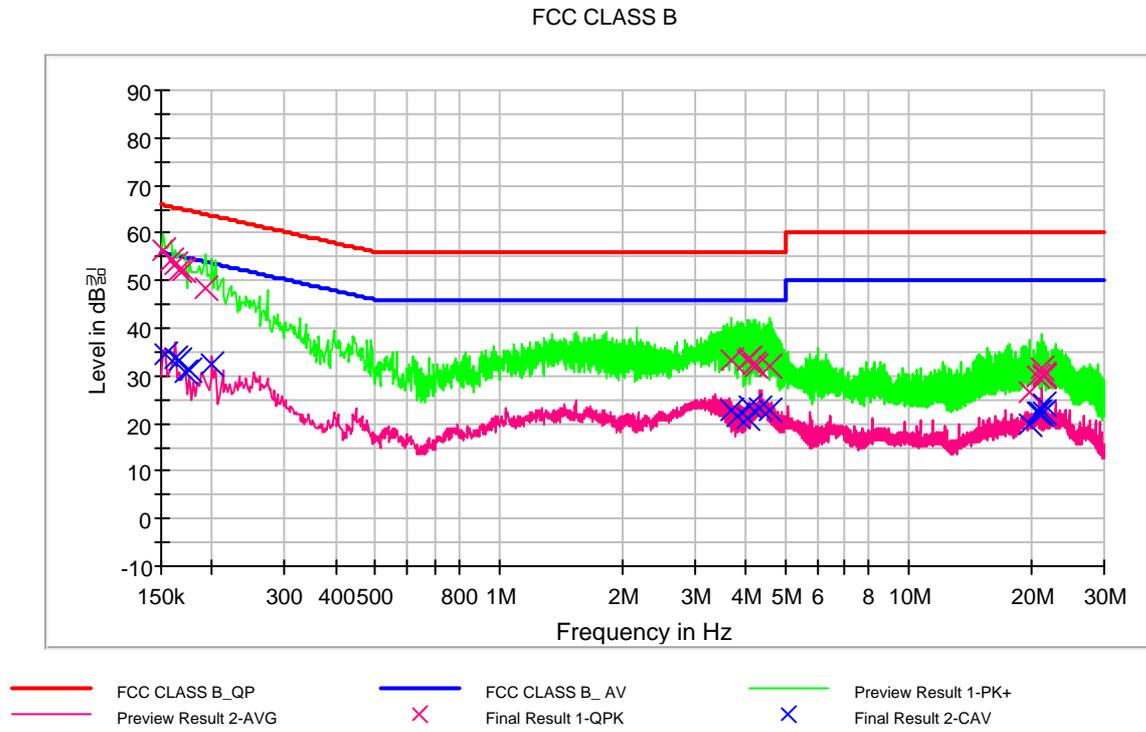


## CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	32.0	9.000	L1	9.6	24.0	56.0
0.154000	30.9	9.000	L1	9.6	24.9	55.8
0.164000	32.3	9.000	L1	9.6	23.0	55.3
0.168000	30.9	9.000	L1	9.6	24.2	55.1
0.174000	29.0	9.000	L1	9.6	25.8	54.8
0.192000	31.0	9.000	L1	9.6	22.9	53.9
3.682000	21.9	9.000	L1	9.8	24.1	46.0
3.754000	21.7	9.000	L1	9.8	24.3	46.0
3.842000	24.8	9.000	L1	9.8	21.2	46.0
4.212000	23.2	9.000	L1	9.8	22.8	46.0
4.248000	22.5	9.000	L1	9.8	23.6	46.0
4.598000	22.0	9.000	L1	9.8	24.0	46.0
19.400000	20.8	9.000	L1	10.3	29.2	50.0
20.724000	21.4	9.000	L1	10.3	28.6	50.0
20.968000	21.0	9.000	L1	10.3	29.0	50.0
21.034000	20.9	9.000	L1	10.3	29.1	50.0
21.758000	20.1	9.000	L1	10.3	29.9	50.0
22.948000	21.0	9.000	L1	10.3	29.0	50.0



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





## QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	56.3	9.000	N	9.6	9.6	65.9
0.158000	54.5	9.000	N	9.6	11.1	65.6
0.162000	53.5	9.000	N	9.6	11.9	65.4
0.166000	52.2	9.000	N	9.6	13.0	65.2
0.170000	52.3	9.000	N	9.6	12.7	65.0
0.192000	48.5	9.000	N	9.6	15.4	63.9
3.684000	33.3	9.000	N	9.8	22.7	56.0
4.030000	33.1	9.000	N	9.8	22.9	56.0
4.110000	33.5	9.000	N	9.8	22.5	56.0
4.204000	32.5	9.000	N	9.8	23.5	56.0
4.236000	32.0	9.000	N	9.8	24.0	56.0
4.600000	32.0	9.000	N	9.8	24.0	56.0
19.686000	26.5	9.000	N	10.3	33.5	60.0
20.722000	29.8	9.000	N	10.3	30.2	60.0
21.104000	31.7	9.000	N	10.3	28.3	60.0
21.242000	30.0	9.000	N	10.3	30.0	60.0
21.250000	30.1	9.000	N	10.3	29.9	60.0
21.316000	30.4	9.000	N	10.3	29.6	60.0



## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	34.7	9.000	N	9.6	21.1	55.8
0.162000	33.9	9.000	N	9.6	21.5	55.4
0.166000	33.1	9.000	N	9.6	22.1	55.2
0.172000	30.8	9.000	N	9.6	24.1	54.9
0.176000	31.1	9.000	N	9.6	23.6	54.7
0.200000	32.4	9.000	N	9.6	21.2	53.6
3.684000	22.9	9.000	N	9.8	23.1	46.0
3.812000	21.4	9.000	N	9.8	24.6	46.0
4.030000	21.1	9.000	N	9.8	24.9	46.0
4.110000	23.7	9.000	N	9.8	22.3	46.0
4.318000	23.2	9.000	N	9.8	22.8	46.0
4.600000	22.6	9.000	N	9.8	23.4	46.0
19.686000	20.0	9.000	N	10.3	30.0	50.0
20.722000	22.5	9.000	N	10.3	27.5	50.0
20.826000	22.2	9.000	N	10.3	27.8	50.0
21.102000	21.8	9.000	N	10.3	28.2	50.0
21.250000	22.3	9.000	N	10.3	27.7	50.0
21.316000	24.0	9.000	N	10.3	26.0	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
USB Cable Type	CRESYN *NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	24.7 °C
Relative Humidity	54.1 %
Test Date	August 07, 2015

Frequency (MHz)	Quasi Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
76.293307	30.1	250.0	H	263.0	12.7	9.9	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



<b>Rule Part / Standard</b>	FCC PART 15 Subpart B Class B
<b>Detector</b>	Quasi-Peak
<b>Bandwidth</b>	120 kHz (6 dB)
<b>Operation Mode</b>	Data Communication mode
<b>Cover Type</b>	Wireless Charging Cover
<b>USB Cable Type</b>	CRESYN ※NOTE: The worst-case emissions are reported.
<b>Kind of Test Site</b>	3 m semi anechoic chamber
<b>Temperature</b>	24.7 °C
<b>Relative Humidity</b>	54.1 %
<b>Test Date</b>	August 07, 2015

Frequency (MHz)	Quasi Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
77.653307	31.5	231.0	H	290.0	12.4	8.5	40.0



## -For Measurement Above 1 GHz

<b>Rule Part / Standard</b>	FCC PART 15 Subpart B Class B
<b>Detector</b>	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)
<b>Highest Operating Frequency</b>	1.8 GHz
<b>Testing Frequency Range</b>	1 GHz to 9 GHz
<b>Operation Mode</b>	Data Communication mode
<b>Cover Type</b>	Standard Cover
<b>USB Cable Type</b>	CRESYN ※NOTE: The worst-case emissions are reported.
<b>Kind of Test Site</b>	3 m semi anechoic chamber
<b>Temperature</b>	24.7 °C
<b>Relative Humidity</b>	54.9 %
<b>Test Date</b>	August 11, 2015

Frequency (MHz)	Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
1328.406814	51.4	100.0	V	23.0	-9.7	22.6	74.0
1999.248497	57.4	100.0	V	29.0	-7.9	16.6	74.0

Frequency (MHz)	CAverage (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
1328.406814	33.8	100.0	V	23.0	-9.7	20.2	54.0
1999.248497	39.6	100.0	V	29.0	-7.9	14.4	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



<b>Rule Part / Standard</b>	FCC PART 15 Subpart B Class B
<b>Detector</b>	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)
<b>Highest Operating Frequency</b>	1.8 GHz
<b>Testing Frequency Range</b>	1 GHz to 9 GHz
<b>Operation Mode</b>	Data Communication mode
<b>Cover Type</b>	Wireless Charging Cover
<b>USB Cable Type</b>	CRESYN ※NOTE: The worst-case emissions are reported.
<b>Kind of Test Site</b>	3 m semi anechoic chamber
<b>Temperature</b>	24.7 °C
<b>Relative Humidity</b>	54.9 %
<b>Test Date</b>	August 11, 2015

Frequency (MHz)	Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
1330.310622	52.6	100.0	V	24.0	-9.7	21.4	74.0
1992.334669	56.3	100.0	V	24.0	-7.9	17.7	74.0

Frequency (MHz)	CAverage (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
1330.310622	34.6	100.0	V	24.0	-9.7	19.4	54.0
1992.334669	39.0	100.0	V	24.0	-7.9	15.0	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>
<b><u>Conducted Emission</u></b>					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	01.13.2015
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ENV216	100073	1 year	01.13.2015
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	06.11.2015
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-
<b><u>Radiated Emission</u></b>					
<b>-For measurement below 1 GHz</b>					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	04.01.2015
<input checked="" type="checkbox"/> Trilog Antenna	Schwarzbeck	VULB9160	3301	2 year	11.17.2014
<input checked="" type="checkbox"/> Antenna master	HD GmbH	MA240	240/520	N/A	-
<input checked="" type="checkbox"/> Antenna master controller	HD GmbH	HD 100	100/637	N/A	-
<input checked="" type="checkbox"/> Turn Table	EMCO	1060-2M	-	N/A	-
<input checked="" type="checkbox"/> Turn Table controller	EMCO	2090	9702-1224	N/A	-
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	06.05.2015
<input type="checkbox"/> Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
<input type="checkbox"/> Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-
<b>-For measurement above 1 GHz</b>					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	04.01.2015
<input checked="" type="checkbox"/> Antenna master	HD GmbH	MA240	240/520	N/A	-
<input checked="" type="checkbox"/> Antenna master controller	HD GmbH	HD 100	100/637	N/A	-
<input checked="" type="checkbox"/> Turn Table	EMCO	1060-2M	-	N/A	-
<input checked="" type="checkbox"/> Turn Table controller	EMCO	2090	9702-1224	N/A	-
<input type="checkbox"/> Power Amplifier	CERNEX	CBLU1183540	21691	1 year	07.06.2015
<input checked="" type="checkbox"/> Power Amplifier	CERNEX	CBLU5183530	24348	1 year	06.15.2015
<input checked="" type="checkbox"/> Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	10.07.2014
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	06.05.2015
<input type="checkbox"/> Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-



## 6. CONCLUSION

The data collected shows that the **EUT Type: Multi-band GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth and NFC, FCC ID: ZNFH901, Model: LG-H901** complies with §15.107 and §15.109 of the FCC rules.