

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: August 13, 2015****Test Report No. HCT-E-1508-F010****HCT FRN: 0005866421****FCC ID:****ZNFH900**

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-H900
Additional Model Name: LGH900, H900
Test Port: USB / Earphone Port
Date of Test: August 05, 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
Technical Manager
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-F010	August 13, 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	33
5. LIST OF TEST EQUIPMENT	39
6. CONCLUSION	40

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-H900
FCC ID	ZNFH900
Additional Model	LGH900, H900
EUT Type	Multi-band GSM/EDGE/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) 699 MHz to 716 MHz (LTE B12) 704 MHz to 716 MHz (LTE B17) 2 305 MHz to 2 315 MHz (LTE B30)
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) 729 MHz to 746 MHz (LTE B12) 734 MHz to 746 MHz (LTE B17) 717 MHz to 728 MHz (LTE B29) 2 350 MHz to 2 360 MHz (LTE B30)

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-H900	LG	ZNFH900	Notebook PC
USB cable	EAD62589001	CRESYN	-	EUT, Notebook PC
USB cable	EAD62627001	KSD	-	EUT, Notebook PC
USB cable	EAD62567001	Ningbo Broad	-	EUT, Notebook PC
Earphone	EAB62950102	CRESYN	-	EUT
Standard Cover	-	-	-	EUT
Quick Cover	ACQ88484701	DK UIL	-	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 (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

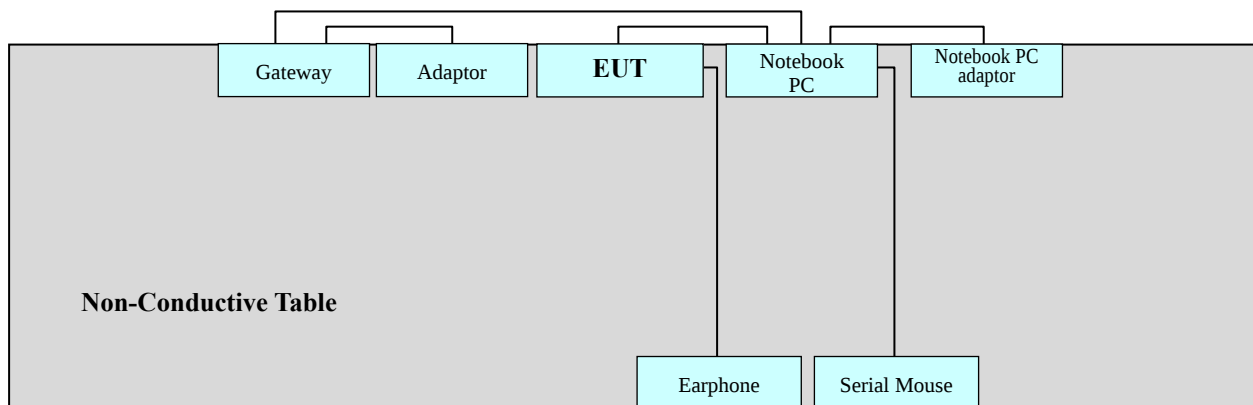


2.2.1 Frequency Range of Radiated Measurements

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

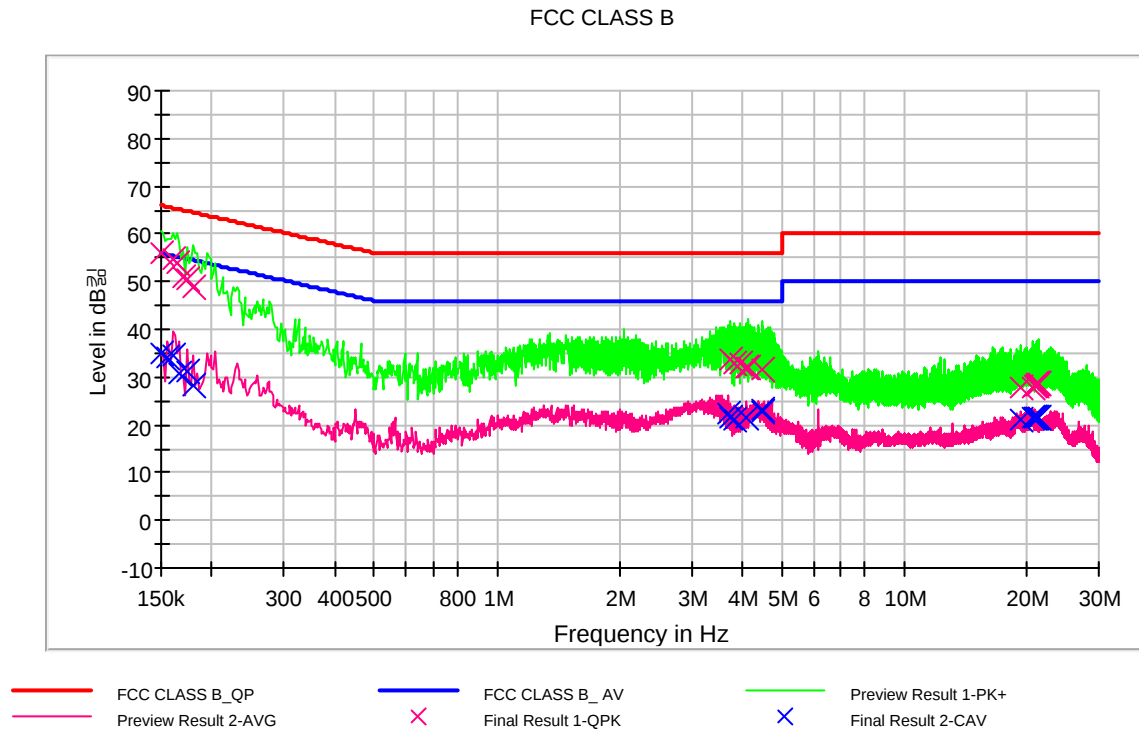
4.1 Conducted Emission Test

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
USB Cable Type	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	Shielded Room
Temperature	24.1 °C
Relative Humidity	53.9 %
Test Date	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)**



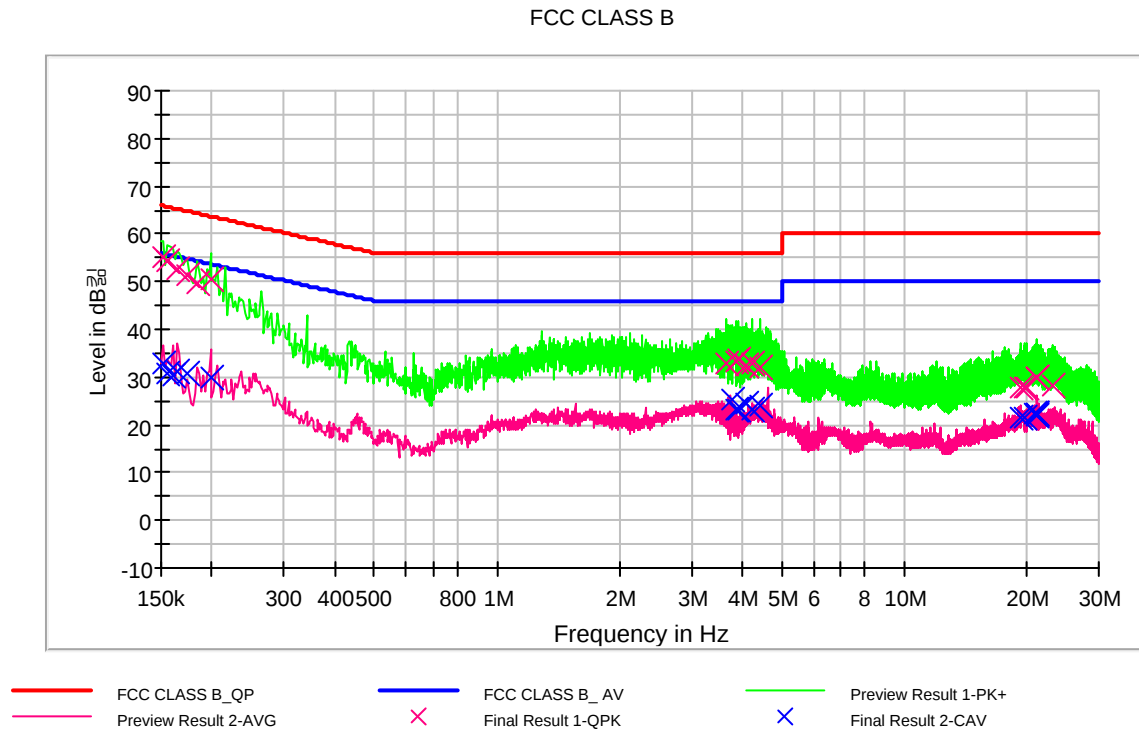
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	56.1	9.000	L1	9.6	9.9	66.0
0.160000	54.7	9.000	L1	9.6	10.8	65.5
0.164000	53.7	9.000	L1	9.6	11.6	65.3
0.170000	50.9	9.000	L1	9.6	14.1	65.0
0.174000	50.7	9.000	L1	9.6	14.1	64.8
0.180000	48.8	9.000	L1	9.6	15.7	64.5
3.752000	33.6	9.000	L1	9.8	22.4	56.0
3.826000	32.9	9.000	L1	9.8	23.1	56.0
3.946000	32.8	9.000	L1	9.8	23.2	56.0
4.098000	32.1	9.000	L1	9.8	23.9	56.0
4.138000	31.8	9.000	L1	9.8	24.2	56.0
4.462000	31.5	9.000	L1	9.8	24.5	56.0
19.258000	27.7	9.000	L1	10.3	32.3	60.0
20.744000	27.6	9.000	L1	10.3	32.4	60.0
20.820000	28.2	9.000	L1	10.3	31.8	60.0
21.092000	28.4	9.000	L1	10.3	31.6	60.0
21.096000	28.8	9.000	L1	10.3	31.2	60.0
21.380000	28.5	9.000	L1	10.3	31.5	60.0



CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	35.0	9.000	L1	9.6	21.0	56.0
0.156000	34.3	9.000	L1	9.6	21.4	55.7
0.160000	34.7	9.000	L1	9.6	20.8	55.5
0.166000	30.8	9.000	L1	9.6	24.4	55.2
0.174000	31.1	9.000	L1	9.6	23.7	54.8
0.180000	28.2	9.000	L1	9.6	26.3	54.5
3.680000	22.4	9.000	L1	9.8	23.6	46.0
3.752000	21.5	9.000	L1	9.8	24.5	46.0
3.826000	21.0	9.000	L1	9.8	25.0	46.0
4.098000	21.6	9.000	L1	9.8	24.4	46.0
4.462000	22.7	9.000	L1	9.8	23.3	46.0
4.484000	23.2	9.000	L1	9.8	22.8	46.0
19.258000	21.2	9.000	L1	10.3	28.8	50.0
20.744000	21.4	9.000	L1	10.3	28.6	50.0
20.812000	21.4	9.000	L1	10.3	28.6	50.0
20.820000	21.6	9.000	L1	10.3	28.4	50.0
21.096000	21.4	9.000	L1	10.3	28.6	50.0
21.380000	21.5	9.000	L1	10.3	28.5	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	55.1	9.000	N	9.6	10.8	65.9
0.156000	54.4	9.000	N	9.6	11.3	65.7
0.164000	52.6	9.000	N	9.6	12.7	65.3
0.174000	51.6	9.000	N	9.6	13.2	64.8
0.184000	49.8	9.000	N	9.6	14.5	64.3
0.198000	50.7	9.000	N	9.6	13.0	63.7
3.658000	32.8	9.000	N	9.8	23.2	56.0
3.866000	33.3	9.000	N	9.8	22.7	56.0
3.894000	33.6	9.000	N	9.8	22.4	56.0
4.094000	32.4	9.000	N	9.8	23.6	56.0
4.244000	33.0	9.000	N	9.8	23.0	56.0
4.450000	32.1	9.000	N	9.8	24.0	56.0
19.258000	28.0	9.000	N	10.3	32.0	60.0
19.752000	27.7	9.000	N	10.3	32.3	60.0
19.980000	27.7	9.000	N	10.3	32.3	60.0
21.168000	29.9	9.000	N	10.3	30.1	60.0
21.174000	29.9	9.000	N	10.3	30.1	60.0
23.154000	28.3	9.000	N	10.3	31.7	60.0



CAverage Final Result, Line (N)

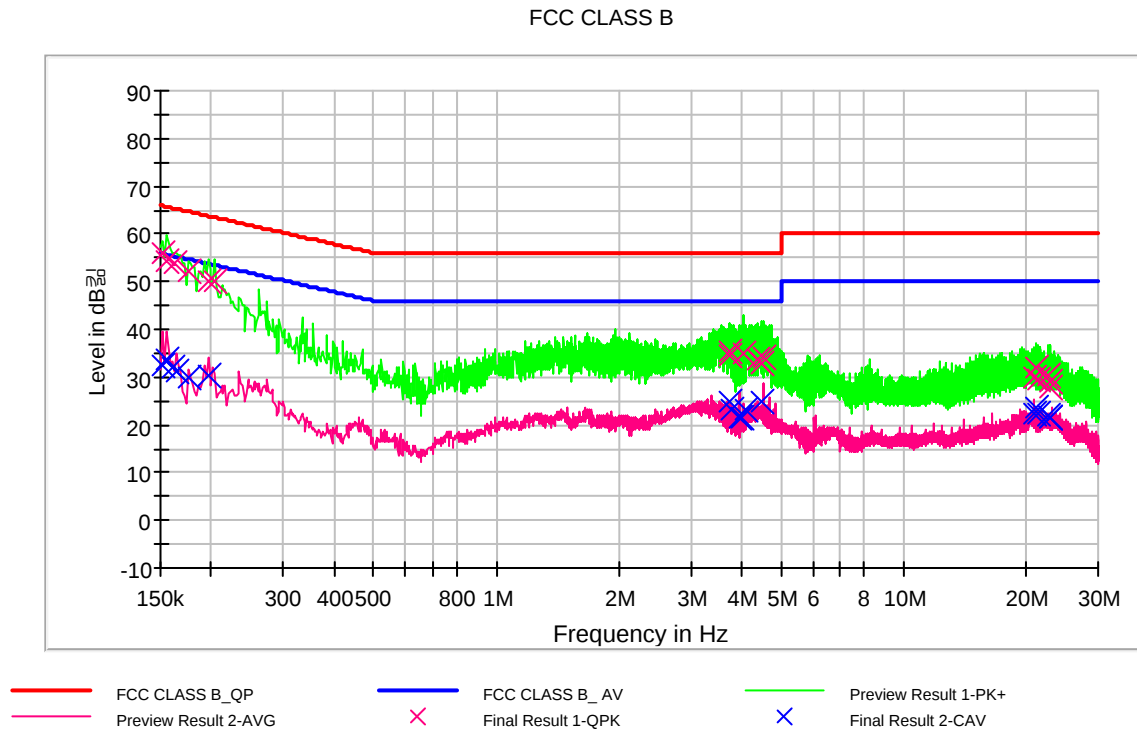
Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	32.9	9.000	N	9.6	23.0	55.9
0.156000	30.8	9.000	N	9.6	24.9	55.7
0.160000	30.3	9.000	N	9.6	25.2	55.5
0.164000	31.1	9.000	N	9.6	24.2	55.3
0.174000	30.9	9.000	N	9.6	23.9	54.8
0.198000	29.8	9.000	N	9.6	23.9	53.7
3.798000	25.2	9.000	N	9.8	20.8	46.0
3.864000	23.3	9.000	N	9.8	22.7	46.0
3.894000	23.2	9.000	N	9.8	22.8	46.0
4.094000	24.4	9.000	N	9.8	21.6	46.0
4.244000	23.3	9.000	N	9.8	22.7	46.0
4.450000	24.0	9.000	N	9.8	22.0	46.0
19.258000	21.7	9.000	N	10.3	28.3	50.0
19.692000	21.6	9.000	N	10.3	28.4	50.0
20.924000	22.5	9.000	N	10.3	27.5	50.0
21.028000	22.5	9.000	N	10.3	27.5	50.0
21.036000	22.1	9.000	N	10.3	27.9	50.0
21.168000	22.2	9.000	N	10.3	27.8	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	Quick Cover
USB Cable Type	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	Shielded Room
Temperature	24.1 °C
Relative Humidity	53.9 %
Test Date	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)**



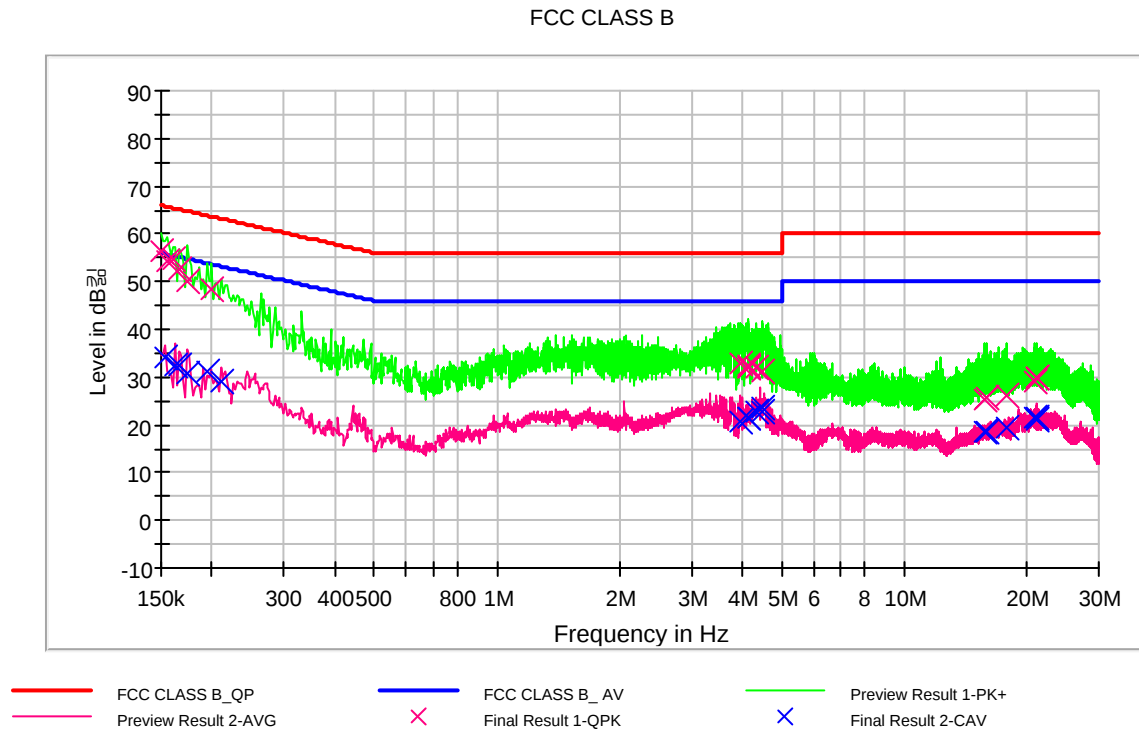
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	55.9	9.000	L1	9.6	10.0	65.9
0.156000	54.5	9.000	L1	9.6	11.2	65.7
0.162000	53.7	9.000	L1	9.6	11.7	65.4
0.176000	52.1	9.000	L1	9.6	12.6	64.7
0.196000	49.9	9.000	L1	9.6	13.9	63.8
0.204000	50.0	9.000	L1	9.6	13.4	63.4
3.734000	35.4	9.000	L1	9.8	20.6	56.0
3.756000	34.5	9.000	L1	9.8	21.5	56.0
4.052000	34.9	9.000	L1	9.8	21.1	56.0
4.386000	33.7	9.000	L1	9.8	22.3	56.0
4.476000	32.8	9.000	L1	9.8	23.2	56.0
4.540000	34.0	9.000	L1	9.8	22.0	56.0
20.970000	29.8	9.000	L1	10.3	30.2	60.0
21.038000	31.8	9.000	L1	10.3	28.2	60.0
21.452000	29.7	9.000	L1	10.3	30.3	60.0
22.726000	30.2	9.000	L1	10.3	29.8	60.0
22.798000	29.0	9.000	L1	10.3	31.0	60.0
22.810000	27.7	9.000	L1	10.3	32.3	60.0



CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	32.6	9.000	L1	9.6	23.3	55.9
0.156000	33.8	9.000	L1	9.6	21.9	55.7
0.160000	32.0	9.000	L1	9.6	23.5	55.5
0.164000	31.2	9.000	L1	9.6	24.1	55.3
0.176000	30.1	9.000	L1	9.6	24.6	54.7
0.196000	30.3	9.000	L1	9.6	23.5	53.8
3.734000	24.9	9.000	L1	9.8	21.1	46.0
3.768000	23.1	9.000	L1	9.8	22.9	46.0
3.962000	21.7	9.000	L1	9.8	24.3	46.0
4.020000	21.3	9.000	L1	9.8	24.7	46.0
4.074000	23.4	9.000	L1	9.8	22.6	46.0
4.502000	24.8	9.000	L1	9.8	21.2	46.0
20.970000	22.3	9.000	L1	10.3	27.7	50.0
21.038000	23.5	9.000	L1	10.3	26.5	50.0
21.452000	22.2	9.000	L1	10.3	27.8	50.0
22.726000	21.8	9.000	L1	10.3	28.2	50.0
22.798000	21.4	9.000	L1	10.3	28.6	50.0
22.810000	21.7	9.000	L1	10.3	28.3	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)
0.150000	56.5	9.000	N	9.6	9.5	66.0
0.156000	54.4	9.000	N	9.6	11.3	65.7
0.160000	54.6	9.000	N	9.6	10.9	65.5
0.166000	52.8	9.000	N	9.6	12.4	65.2
0.174000	50.0	9.000	N	9.6	14.8	64.8
0.200000	48.3	9.000	N	9.6	15.3	63.6
3.948000	32.8	9.000	N	9.8	23.2	56.0
4.124000	32.1	9.000	N	9.8	23.9	56.0
4.130000	32.0	9.000	N	9.8	24.0	56.0
4.148000	32.3	9.000	N	9.8	23.7	56.0
4.346000	31.9	9.000	N	9.8	24.1	56.0
4.490000	31.0	9.000	N	9.8	25.0	56.0
15.720000	25.3	9.000	N	10.2	34.7	60.0
15.850000	25.8	9.000	N	10.2	34.2	60.0
17.842000	25.9	9.000	N	10.2	34.1	60.0
20.962000	28.9	9.000	N	10.3	31.1	60.0
21.170000	29.8	9.000	N	10.3	30.2	60.0
21.176000	29.7	9.000	N	10.3	30.3	60.0



CAverage Final Result, Line (N)

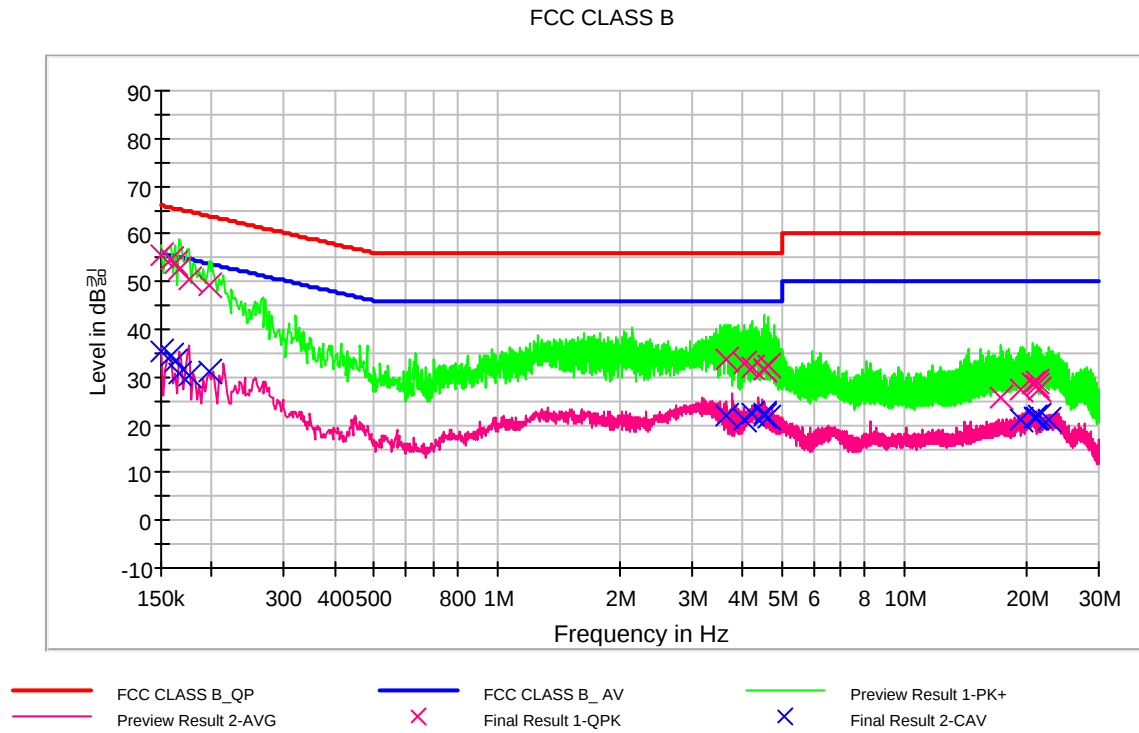
Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	34.3	9.000	N	9.6	21.5	55.8
0.162000	32.5	9.000	N	9.6	22.9	55.4
0.166000	32.4	9.000	N	9.6	22.8	55.2
0.174000	30.9	9.000	N	9.6	23.9	54.8
0.194000	31.1	9.000	N	9.6	22.8	53.9
0.210000	29.0	9.000	N	9.6	24.2	53.2
3.948000	20.6	9.000	N	9.8	25.4	46.0
4.130000	21.6	9.000	N	9.8	24.4	46.0
4.148000	21.7	9.000	N	9.8	24.3	46.0
4.346000	22.8	9.000	N	9.8	23.2	46.0
4.476000	23.8	9.000	N	9.8	22.2	46.0
4.490000	23.0	9.000	N	9.8	23.0	46.0
15.720000	18.6	9.000	N	10.2	31.4	50.0
15.850000	18.6	9.000	N	10.2	31.4	50.0
17.842000	19.6	9.000	N	10.2	30.4	50.0
20.962000	21.4	9.000	N	10.3	28.6	50.0
21.170000	21.3	9.000	N	10.3	28.7	50.0
21.176000	21.4	9.000	N	10.3	28.6	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
USB Cable Type	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	Shielded Room
Temperature	24.1 °C
Relative Humidity	53.9 %
Test Date	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 5: Spectral Diagrams, Conducted Emission, AC Main Port, Line (L1)**



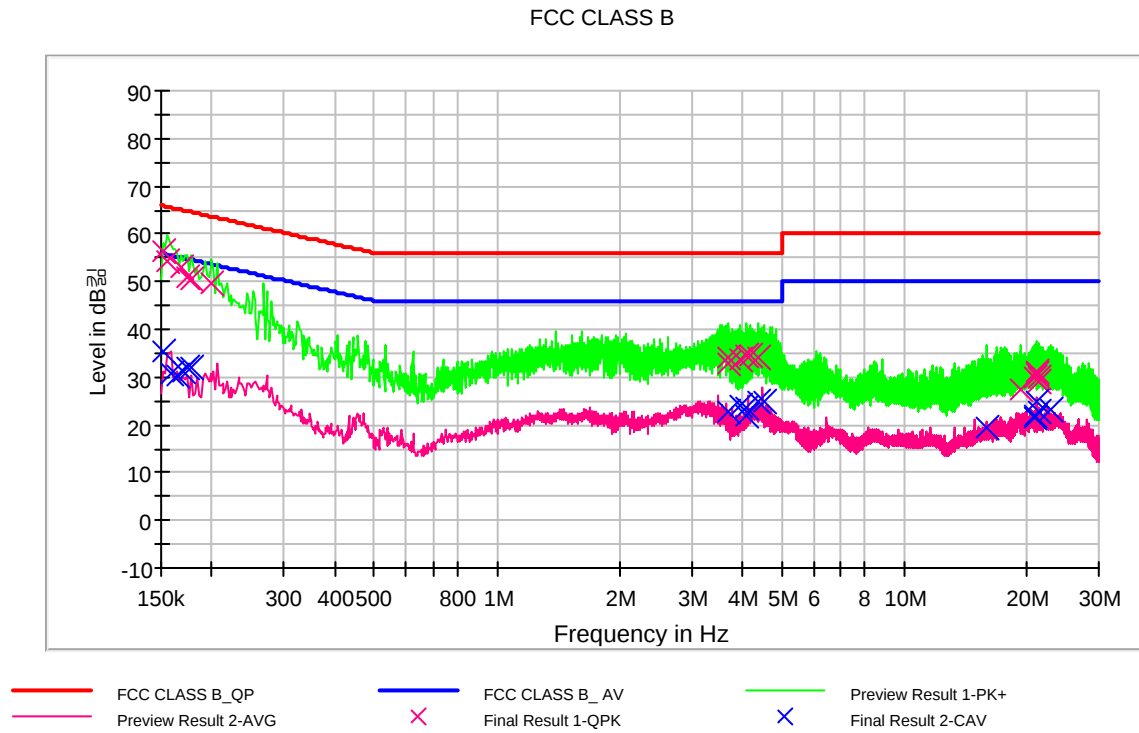
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	55.6	9.000	L1	9.6	10.4	66.0
0.158000	54.6	9.000	L1	9.6	11.0	65.6
0.162000	54.0	9.000	L1	9.6	11.4	65.4
0.166000	52.5	9.000	L1	9.6	12.7	65.2
0.176000	50.4	9.000	L1	9.6	14.3	64.7
0.196000	49.3	9.000	L1	9.6	14.5	63.8
3.656000	33.6	9.000	L1	9.8	22.4	56.0
4.040000	32.9	9.000	L1	9.8	23.1	56.0
4.232000	32.1	9.000	L1	9.8	23.9	56.0
4.550000	31.4	9.000	L1	9.8	24.6	56.0
4.554000	31.8	9.000	L1	9.8	24.2	56.0
4.640000	32.2	9.000	L1	9.8	23.8	56.0
17.306000	25.8	9.000	L1	10.2	34.2	60.0
19.192000	27.2	9.000	L1	10.3	32.8	60.0
20.752000	28.5	9.000	L1	10.3	31.5	60.0
21.044000	28.3	9.000	L1	10.3	31.7	60.0
21.106000	29.1	9.000	L1	10.3	30.9	60.0
21.386000	27.5	9.000	L1	10.3	32.5	60.0



CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	35.6	9.000	L1	9.6	20.4	56.0
0.158000	34.7	9.000	L1	9.6	20.9	55.6
0.162000	33.3	9.000	L1	9.6	22.1	55.4
0.166000	30.7	9.000	L1	9.6	24.5	55.2
0.176000	30.2	9.000	L1	9.6	24.5	54.7
0.196000	31.1	9.000	L1	9.6	22.7	53.8
3.656000	21.8	9.000	L1	9.8	24.2	46.0
4.040000	21.2	9.000	L1	9.8	24.8	46.0
4.232000	22.4	9.000	L1	9.8	23.6	46.0
4.550000	22.1	9.000	L1	9.8	23.9	46.0
4.554000	22.2	9.000	L1	9.8	23.8	46.0
4.640000	21.7	9.000	L1	9.8	24.4	46.0
19.192000	21.1	9.000	L1	10.3	28.9	50.0
20.794000	21.6	9.000	L1	10.3	28.4	50.0
20.900000	21.5	9.000	L1	10.3	28.5	50.0
21.106000	21.6	9.000	L1	10.3	28.4	50.0
21.386000	22.1	9.000	L1	10.3	27.9	50.0
22.706000	21.1	9.000	L1	10.3	28.9	50.0

**Figure 6: 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
0.156000	54.2	9.000	N	9.6	11.5	65.7
0.168000	52.9	9.000	N	9.6	12.2	65.1
0.174000	50.7	9.000	N	9.6	14.1	64.8
0.178000	50.7	9.000	N	9.6	13.9	64.6
0.200000	49.7	9.000	N	9.6	13.9	63.6
3.680000	34.0	9.000	N	9.8	22.0	56.0
3.710000	32.7	9.000	N	9.8	23.3	56.0
3.958000	33.5	9.000	N	9.8	22.5	56.0
4.072000	34.5	9.000	N	9.8	21.5	56.0
4.180000	34.5	9.000	N	9.8	21.5	56.0
4.382000	34.2	9.000	N	9.8	21.8	56.0
19.280000	27.3	9.000	N	10.3	32.7	60.0
20.786000	29.7	9.000	N	10.3	30.3	60.0
21.030000	31.2	9.000	N	10.3	28.8	60.0
21.106000	30.7	9.000	N	10.3	29.3	60.0
21.396000	29.0	9.000	N	10.3	31.0	60.0
21.454000	30.0	9.000	N	10.3	30.0	60.0



CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	35.3	9.000	N	9.6	20.6	55.9
0.158000	30.9	9.000	N	9.6	24.7	55.6
0.164000	30.3	9.000	N	9.6	25.0	55.3
0.170000	31.0	9.000	N	9.6	24.0	55.0
0.174000	32.1	9.000	N	9.6	22.7	54.8
0.178000	32.0	9.000	N	9.6	22.6	54.6
3.710000	22.6	9.000	N	9.8	23.4	46.0
3.958000	23.9	9.000	N	9.8	22.1	46.0
4.068000	22.0	9.000	N	9.8	24.0	46.0
4.072000	23.7	9.000	N	9.8	22.3	46.0
4.382000	24.7	9.000	N	9.8	21.3	46.0
4.522000	24.7	9.000	N	9.8	21.3	46.0
15.930000	19.5	9.000	N	10.2	30.5	50.0
20.786000	21.9	9.000	N	10.3	28.2	50.0
20.960000	21.4	9.000	N	10.3	28.6	50.0
21.030000	24.7	9.000	N	10.3	25.3	50.0
21.454000	22.9	9.000	N	10.3	27.1	50.0
22.800000	23.1	9.000	N	10.3	26.9	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	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.7-25.0 °C
Relative Humidity	55.0-58.5 %
Test Date	August 05, 2015 - August 06, 2015

Frequency (MHz)	Quasi Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
32.943888	27.9	100.0	V	240.0	14.9	12.1	40.0
49.638878	23.2	100.0	V	331.0	15.9	16.8	40.0
76.933307	31.3	232.0	H	254.0	12.6	8.7	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	Quick Cover
USB Cable Type	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.7-25.0 °C
Relative Humidity	55.0-58.5 %
Test Date	August 05, 2015 - August 06, 2015

Frequency (MHz)	Quasi Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
32.943888	25.4	100.0	V	265.0	14.9	14.6	40.0
77.253307	33.3	250.0	H	284.0	12.5	6.7	40.0
265.570421	33.3	125.0	H	302.0	16.8	12.7	46.0



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
USB Cable Type	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.7-25.0 °C
Relative Humidity	55.0-58.5 %
Test Date	August 05, 2015 - August 06, 2015

Frequency (MHz)	Quasi Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
32.823888	27.8	100.0	V	270.0	14.9	12.2	40.0
77.013307	31.8	229.0	H	270.0	12.6	8.2	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	1.82 GHz
Testing Frequency Range	1 GHz to 9.1 GHz
Operation Mode	Data Communication mode
Cover Type	Standard Cover
USB Cable Type	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	24.7 °C
Relative Humidity	54.9 %
Test Date	August 11, 2015

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1329.609219	49.6	100.0	V	122.0	-9.7	24.4	74.0
1995.741483	56.5	100.0	V	28.0	-7.9	17.5	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1329.609219	31.9	100.0	V	122.0	-9.7	22.1	54.0
1995.741483	38.7	100.0	V	28.0	-7.9	15.3	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	1.82 GHz
Testing Frequency Range	1 GHz to 9.1 GHz
Operation Mode	Data Communication mode
Cover Type	Quick Cover
USB Cable Type	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	24.7 °C
Relative Humidity	54.9 %
Test Date	August 11, 2015

Frequency (MHz)	Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1332.615231	51.3	100.0	V	27.0	-9.7	22.7	74.0
1990.931864	56.6	100.0	V	27.0	-7.9	17.4	74.0

Frequency (MHz)	CAverage (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1332.615231	33.3	100.0	V	27.0	-9.7	20.7	54.0
1990.931864	38.8	100.0	V	27.0	-7.9	15.2	54.0



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	1.82 GHz
Testing Frequency Range	1 GHz to 9.1 GHz
Operation Mode	Data Communication mode
Cover Type	Wireless Charging Cover
USB Cable Type	Ningbo Broad ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	24.7 °C
Relative Humidity	54.9 %
Test Date	August 11, 2015

Frequency (MHz)	Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1327.805612	51.6	100.0	V	27.0	-9.7	22.4	74.0
1991.633267	57.2	100.0	V	27.0	-7.9	16.8	74.0

Frequency (MHz)	CAverage (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1327.805612	33.4	100.0	V	27.0	-9.7	20.6	54.0
1991.633267	39.5	100.0	V	27.0	-7.9	14.5	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: Multi-band GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth and NFC, FCC ID: ZNFH900, Model: LG-H900** complies with §15.107 and §15.109 of the FCC rules.