

EMI CERTIFICATION REPORT

Applicant:

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

Date of Receipt: March 30, 2015**Date of Issue: April 20, 2015****Test Report No. HCT-E-1504-F042****HCT FRN: 0005866421****FCC ID:****ZNFVS986**

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: Potable Handset
Model Name: LG-VS986
Additional Model Name: LGVS986, VS986
Test Port: USB / Earphone Port
Date of Test: April 15, 2015 - April 17, 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

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EMC Team
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Reviewed By

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DOCUMENT HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCT-E-1504-F042	April 20, 2015	Initial Release



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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.

Model	LG-VS986
FCC ID	ZNFVS986
Additional Model	LGVS986, VS986
EUT Type	Potable Handset
TX Frequency	824.70 MHz to 848.31 MHz (CDMA 850) 1 851.25 MHz to 1 908.75 MHz (CDMA 1 900) 824.20 MHz to 848.80 MHz (GSM 850) 1 850.20 MHz to 1 909.80 MHz (GSM 1 900) 1 852.4 MHz to 1 907.6 MHz (WCDMA B2) 826.40 MHz to 846.60 MHz (WCDMA B5) 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) 777 MHz to 787 MHz (LTE B13)
RX Frequency	869.70 MHz to 893.31 MHz (CDMA 850) 1 931.25 MHz to 1 988.75 MHz (CDMA 1 900) 869.20 MHz to 893.80 MHz (GSM 850) 1 930.20 MHz to 1 989.80 MHz (GSM 1 900) 1 932.4 MHz to 1 987.6 MHz (WCDMA B2) 871.40 MHz to 891.60 MHz (WCDMA B5) 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) 746 MHz to 756 MHz (LTE B13)



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-VS986	LG	ZNFVS986	Notebook PC, Earphone
USB cable	EAD62767904	Ningbo broad	-	EUT, Notebook PC
USB cable	EAD62767906	CRESYN	-	EUT, Notebook PC
USB cable	EAD62767905	KSD	-	EUT, Notebook PC
Earphone	EAB62910501	I-SOUND	-	EUT
Standard case	-	-	-	EUT
Quick cover	CFR-100	DKUIL	-	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 3 m shield room. 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

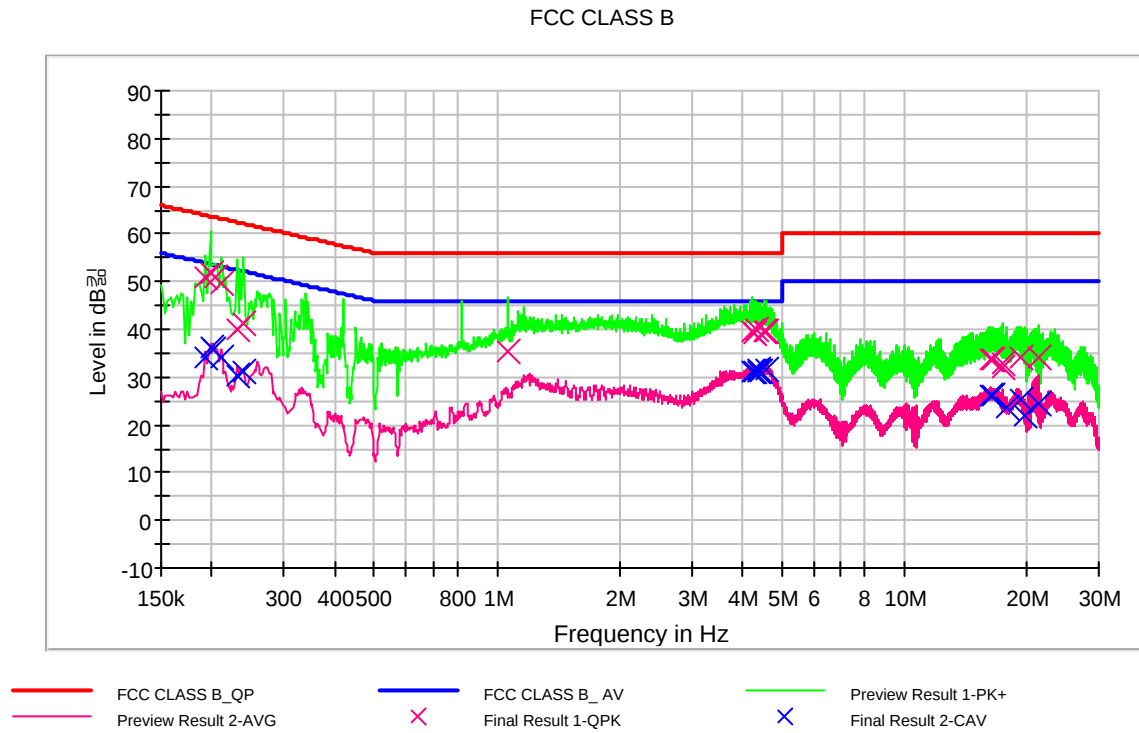
4.1 Conducted Emission Test

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
EUT Cover Type	Standard Cover
USB Cable Type	KSD ※NOTE: The worst-case emissions are reported.
Kind of Test Site	Shielded Room
Temperature	23.4 °C
Relative Humidity	38.1 %
Test Date	April 15, 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)**



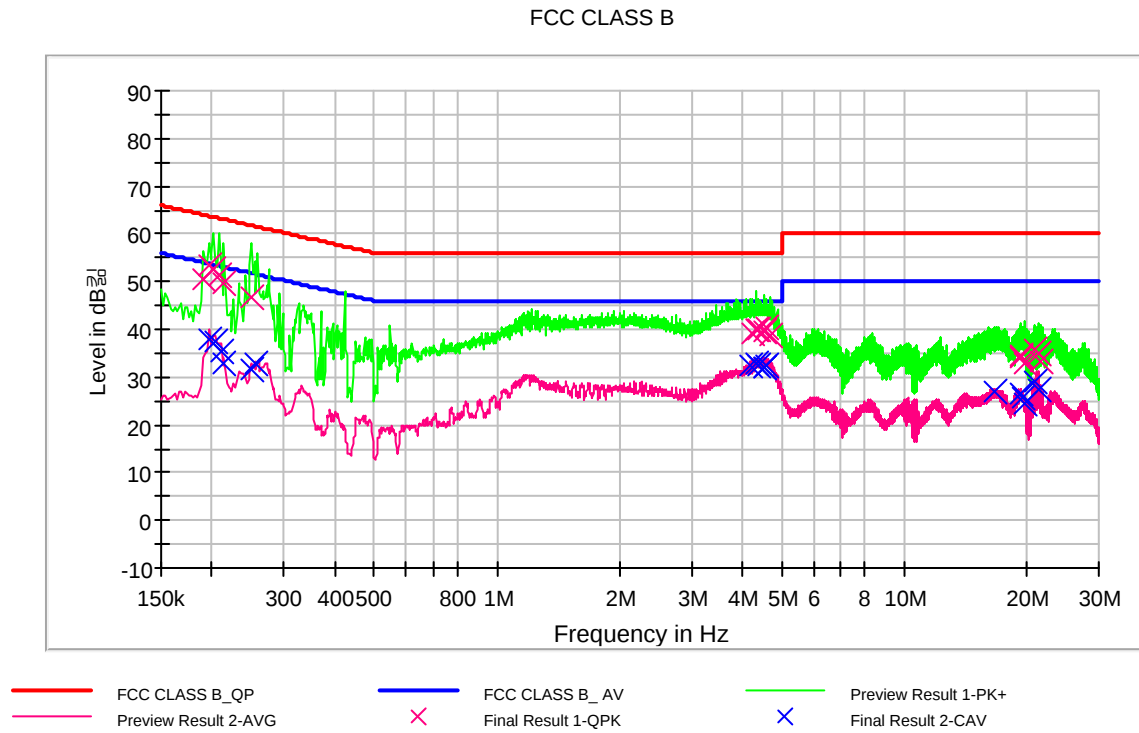
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.192000	51.0	9.000	L1	9.6	12.9	63.9
0.198000	51.8	9.000	L1	9.6	11.9	63.7
0.204000	50.8	9.000	L1	9.7	12.6	63.4
0.210000	49.8	9.000	L1	9.7	13.4	63.2
0.230000	40.1	9.000	L1	9.7	22.3	62.4
0.238000	41.2	9.000	L1	9.7	21.0	62.2
1.064000	35.3	9.000	L1	9.7	20.7	56.0
4.238000	39.8	9.000	L1	9.9	16.2	56.0
4.288000	39.2	9.000	L1	9.9	16.8	56.0
4.306000	39.9	9.000	L1	9.9	16.1	56.0
4.520000	39.8	9.000	L1	9.9	16.2	56.0
4.590000	39.5	9.000	L1	9.9	16.5	56.0
16.242000	33.7	9.000	L1	10.2	26.3	60.0
16.450000	33.5	9.000	L1	10.2	26.5	60.0
17.372000	32.8	9.000	L1	10.2	27.2	60.0
17.444000	31.9	9.000	L1	10.3	28.1	60.0
19.210000	34.0	9.000	L1	10.3	26.0	60.0
21.328000	34.0	9.000	L1	10.3	26.0	60.0



CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.192000	33.9	9.000	L1	9.6	20.0	53.9
0.198000	36.2	9.000	L1	9.6	17.5	53.7
0.202000	35.7	9.000	L1	9.7	17.8	53.5
0.210000	34.0	9.000	L1	9.7	19.2	53.2
0.230000	30.2	9.000	L1	9.7	22.2	52.4
0.238000	31.3	9.000	L1	9.7	20.9	52.2
4.238000	31.1	9.000	L1	9.9	14.9	46.0
4.288000	31.3	9.000	L1	9.9	14.7	46.0
4.354000	31.7	9.000	L1	9.9	14.3	46.0
4.382000	31.2	9.000	L1	9.9	14.8	46.0
4.450000	31.1	9.000	L1	9.9	14.9	46.0
4.590000	31.5	9.000	L1	9.9	14.5	46.0
16.242000	26.3	9.000	L1	10.2	23.7	50.0
16.450000	26.2	9.000	L1	10.2	23.8	50.0
17.726000	23.4	9.000	L1	10.3	26.6	50.0
19.210000	25.3	9.000	L1	10.3	24.7	50.0
19.652000	21.7	9.000	L1	10.3	28.3	50.0
21.398000	24.6	9.000	L1	10.3	25.4	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)
0.190000	50.5	9.000	N	9.6	13.5	64.0
0.196000	53.4	9.000	N	9.6	10.4	63.8
0.202000	52.6	9.000	N	9.6	10.9	63.5
0.208000	51.5	9.000	N	9.6	11.8	63.3
0.214000	49.7	9.000	N	9.6	13.3	63.0
0.250000	46.7	9.000	N	9.7	15.1	61.8
4.244000	39.2	9.000	N	9.8	16.8	56.0
4.312000	39.9	9.000	N	9.8	16.1	56.0
4.382000	39.9	9.000	N	9.9	16.1	56.0
4.522000	39.7	9.000	N	9.9	16.3	56.0
4.592000	40.4	9.000	N	9.9	15.6	56.0
4.664000	38.9	9.000	N	9.9	17.1	56.0
19.286000	34.6	9.000	N	10.3	25.4	60.0
19.320000	34.1	9.000	N	10.3	25.9	60.0
19.640000	32.9	9.000	N	10.3	27.1	60.0
20.980000	35.8	9.000	N	10.3	24.2	60.0
21.334000	34.8	9.000	N	10.3	25.2	60.0
21.546000	33.2	9.000	N	10.3	26.8	60.0



CAverage Final Result, Line (N)

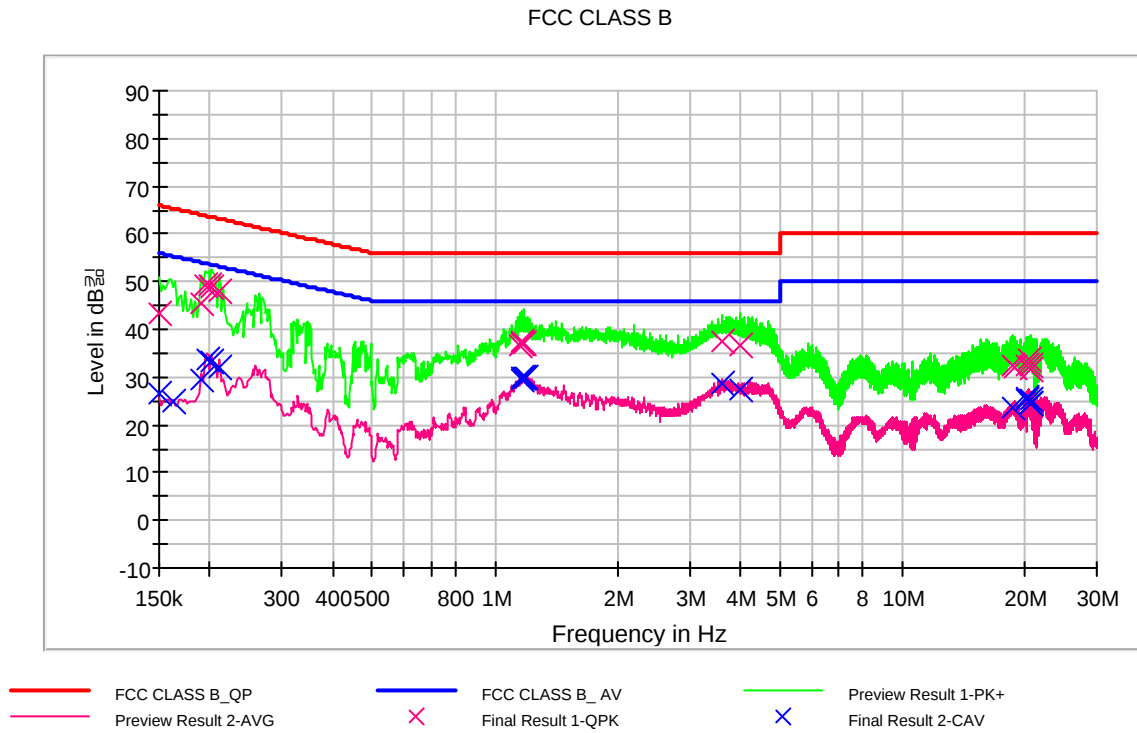
Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.196000	37.8	9.000	N	9.6	16.0	53.8
0.204000	37.3	9.000	N	9.6	16.1	53.4
0.210000	35.5	9.000	N	9.6	17.7	53.2
0.214000	33.0	9.000	N	9.6	20.0	53.0
0.250000	31.6	9.000	N	9.7	20.2	51.8
0.254000	32.7	9.000	N	9.7	18.9	51.6
4.168000	32.2	9.000	N	9.8	13.8	46.0
4.310000	32.7	9.000	N	9.8	13.3	46.0
4.382000	32.3	9.000	N	9.9	13.7	46.0
4.520000	32.1	9.000	N	9.9	13.9	46.0
4.524000	32.0	9.000	N	9.9	14.0	46.0
4.592000	32.3	9.000	N	9.9	13.7	46.0
16.710000	26.8	9.000	N	10.2	23.2	50.0
19.286000	26.8	9.000	N	10.3	23.2	50.0
19.496000	25.8	9.000	N	10.3	24.2	50.0
19.662000	24.6	9.000	N	10.3	25.4	50.0
20.980000	29.0	9.000	N	10.3	21.0	50.0
21.334000	27.5	9.000	N	10.3	22.5	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
EUT Cover Type	Quick Cover
USB Cable Type	KSD ※NOTE: The worst-case emissions are reported.
Kind of Test Site	Shielded Room
Temperature	23.4 °C
Relative Humidity	38.1 %
Test Date	April 15, 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)**



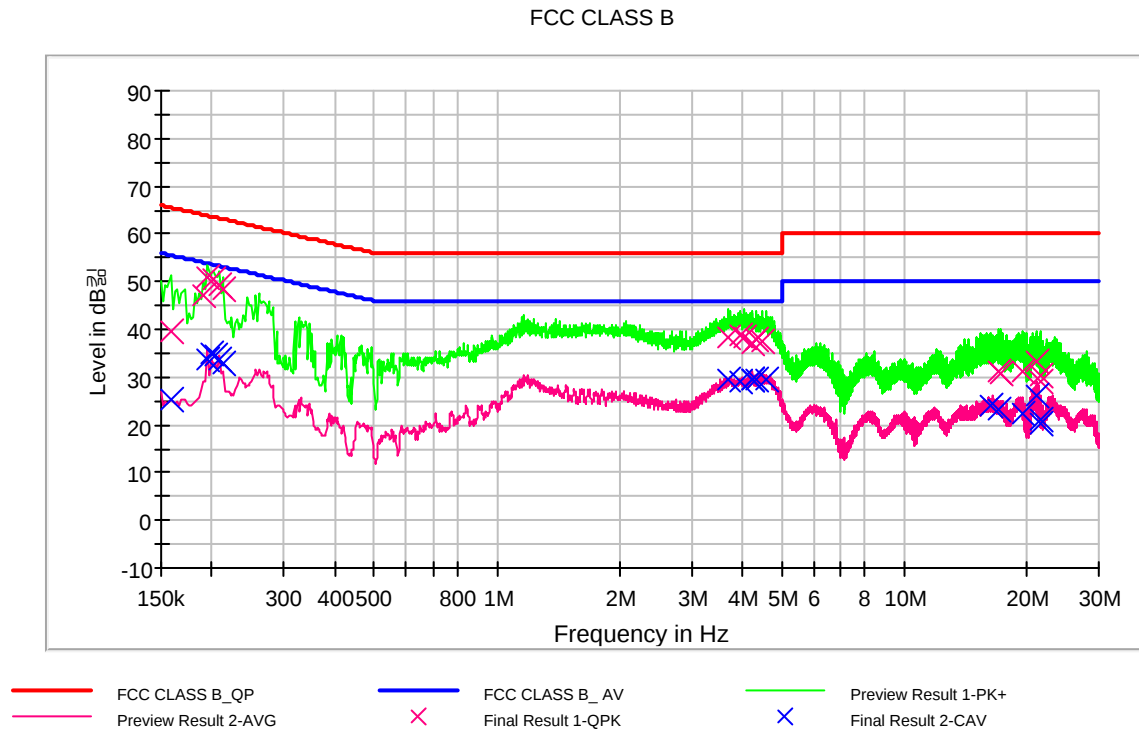
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	43.3	9.000	L1	9.6	22.7	66.0
0.190000	45.6	9.000	L1	9.6	18.4	64.0
0.194000	49.4	9.000	L1	9.6	14.5	63.9
0.198000	49.3	9.000	L1	9.6	14.4	63.7
0.202000	49.0	9.000	L1	9.7	14.5	63.5
0.210000	47.8	9.000	L1	9.7	15.4	63.2
1.152000	36.6	9.000	L1	9.7	19.4	56.0
1.160000	36.8	9.000	L1	9.7	19.2	56.0
1.164000	37.6	9.000	L1	9.7	18.4	56.0
1.182000	37.1	9.000	L1	9.7	18.9	56.0
3.608000	37.4	9.000	L1	9.8	18.6	56.0
4.014000	36.5	9.000	L1	9.9	19.5	56.0
18.738000	32.6	9.000	L1	10.3	27.4	60.0
18.878000	31.8	9.000	L1	10.3	28.2	60.0
20.098000	32.4	9.000	L1	10.3	27.6	60.0
20.368000	33.7	9.000	L1	10.3	26.3	60.0
20.574000	32.4	9.000	L1	10.3	27.6	60.0
20.644000	31.5	9.000	L1	10.3	28.5	60.0



CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	26.5	9.000	L1	9.6	29.5	56.0
0.162000	24.9	9.000	L1	9.6	30.5	55.4
0.190000	29.4	9.000	L1	9.6	24.6	54.0
0.196000	33.8	9.000	L1	9.6	20.0	53.8
0.202000	33.3	9.000	L1	9.7	20.2	53.5
0.210000	32.1	9.000	L1	9.7	21.1	53.2
1.160000	29.6	9.000	L1	9.7	16.4	46.0
1.164000	30.1	9.000	L1	9.7	15.9	46.0
1.182000	29.8	9.000	L1	9.7	16.2	46.0
1.186000	30.0	9.000	L1	9.7	16.0	46.0
3.608000	28.7	9.000	L1	9.8	17.3	46.0
4.014000	27.5	9.000	L1	9.9	18.5	46.0
18.596000	23.4	9.000	L1	10.3	26.6	50.0
20.098000	25.4	9.000	L1	10.3	24.6	50.0
20.296000	25.9	9.000	L1	10.3	24.1	50.0
20.574000	25.5	9.000	L1	10.3	24.5	50.0
20.648000	24.6	9.000	L1	10.3	25.4	50.0
20.718000	24.4	9.000	L1	10.3	25.6	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)
0.158000	39.8	9.000	N	9.6	25.8	65.6
0.190000	47.1	9.000	N	9.6	16.9	64.0
0.194000	50.9	9.000	N	9.6	13.0	63.9
0.202000	50.4	9.000	N	9.6	13.1	63.5
0.208000	49.3	9.000	N	9.6	14.0	63.3
0.212000	48.4	9.000	N	9.6	14.7	63.1
3.680000	38.3	9.000	N	9.8	17.7	56.0
3.962000	38.9	9.000	N	9.8	17.1	56.0
4.034000	38.5	9.000	N	9.8	17.5	56.0
4.250000	37.2	9.000	N	9.8	18.8	56.0
4.316000	37.7	9.000	N	9.8	18.3	56.0
4.458000	37.4	9.000	N	9.9	18.6	56.0
17.046000	31.3	9.000	N	10.2	28.7	60.0
17.260000	30.7	9.000	N	10.2	29.3	60.0
19.522000	31.3	9.000	N	10.3	28.7	60.0
21.222000	33.3	9.000	N	10.3	26.7	60.0
21.640000	30.3	9.000	N	10.3	29.7	60.0
21.718000	29.2	9.000	N	10.3	30.8	60.0



CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.158000	25.1	9.000	N	9.6	30.5	55.6
0.194000	33.6	9.000	N	9.6	20.3	53.9
0.200000	35.1	9.000	N	9.6	18.5	53.6
0.204000	34.4	9.000	N	9.6	19.0	53.4
0.208000	33.8	9.000	N	9.6	19.5	53.3
0.212000	32.8	9.000	N	9.6	20.3	53.1
3.678000	29.6	9.000	N	9.8	16.4	46.0
3.962000	29.2	9.000	N	9.8	16.8	46.0
4.246000	29.4	9.000	N	9.8	16.6	46.0
4.250000	29.5	9.000	N	9.8	16.5	46.0
4.316000	29.7	9.000	N	9.8	16.3	46.0
4.598000	29.4	9.000	N	9.9	16.6	46.0
16.278000	24.2	9.000	N	10.2	25.8	50.0
17.046000	23.2	9.000	N	10.2	26.8	50.0
19.522000	22.5	9.000	N	10.3	27.5	50.0
21.222000	26.3	9.000	N	10.3	23.7	50.0
21.640000	21.0	9.000	N	10.3	29.0	50.0
21.718000	20.1	9.000	N	10.3	29.9	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
EUT Cover Type	Standard Cover
USB Cable Type	KSD ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	22.7 °C
Relative Humidity	33.5 %
Test Date	April 17, 2015

Frequency (MHz)	Quasi Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
33.927776	26.3	100.0	V	285.0	14.9	13.7	40.0
62.326092	24.2	100.0	V	31.0	15.2	15.8	40.0
77.653307	34.7	241.0	H	275.0	12.4	5.3	40.0
85.268858	29.5	265.0	H	261.0	11.6	10.5	40.0
133.306052	30.7	125.0	V	147.0	16.4	12.8	43.5
265.610421	33.6	100.0	H	312.0	16.9	12.4	46.0

- 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
EUT Cover Type	Quick Cover
USB Cable Type	KSD ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	22.7 °C
Relative Humidity	33.5 %
Test Date	April 17, 2015

Frequency (MHz)	Quasi Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
33.887776	21.6	125.0	V	1.0	14.9	18.4	40.0
59.678317	20.7	115.0	V	27.0	15.5	19.3	40.0
77.533307	34.5	235.0	H	274.0	12.4	5.5	40.0
266.554309	34.9	115.0	H	305.0	16.9	11.1	46.0



-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	1.44 GHz
Testing Frequency Range	1 GHz to 7 GHz
Operation Mode	Data Communication mode
EUT Cover Type	Standard Cover
USB Cable Type	KSD ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	22.7 °C
Relative Humidity	33.5 %
Test Date	April 17, 2015

Frequency (MHz)	Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
1249.849699	50.2	100.0	V	1.0	-9.4	23.8	74.0
1331.813628	49.8	100.0	V	28.0	-9.3	24.2	74.0
2079.909820	49.4	100.0	V	22.0	-7.4	24.6	74.0

Frequency (MHz)	CAverage (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
1249.849699	43.9	100.0	V	1.0	-9.4	10.1	54.0
1331.813628	28.4	100.0	V	28.0	-9.3	25.6	54.0
2079.909820	29.8	100.0	V	22.0	-7.4	24.2	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	1.44 GHz
Testing Frequency Range	1 GHz to 7.2 GHz
Operation Mode	Data Communication mode
EUT Cover Type	Quick Cover
USB Cable Type	KSD ※NOTE: The worst-case emissions are reported.
Kind of Test Site	3 m semi anechoic chamber
Temperature	22.7 °C
Relative Humidity	33.5 %
Test Date	April 17, 2015

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1250.250501	49.4	115.0	V	349.0	-9.4	24.6	74.0
2036.122244	50.7	100.0	V	34.0	-7.6	23.3	74.0
2057.364730	48.4	100.0	V	34.0	-7.5	25.6	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1250.250501	41.8	115.0	V	349.0	-9.4	12.2	54.0
2036.122244	29.9	100.0	V	34.0	-7.6	24.1	54.0
2057.364730	29.4	100.0	V	34.0	-7.5	24.6	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	ESH3-Z5	100282	1 year	06.10.2014
☒ LISN	Rohde & Schwarz	ENV216	100073	1 year	01.13.2015
☒ 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	06.18.2014
☐ 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	07.11.2014
☒ Power Amplifier	CERNEX	CBLU5183530	24348	1 year	06.11.2014
☒ Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	10.07.2014
☐ Horn Antenna	Schwarzbeck	BBHA 9120D	1151	2 year	07.05.2013
☐ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	06.18.2014
☐ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☐ Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170124	2 year	10.30.2013
☐ Power Amplifier	CERNEX	CBL18265035	22966	1 year	07.23.2014
☒ Software	Rohde & Schwarz	EMC32	-	-	-



6. CONCLUSION

The data collected shows that the **EUT Type: Potable Handset, FCC ID: ZNFVS986, Model: LG-VS986** complies with §15.107 and §15.109 of the FCC rules.