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EMI CERTIFICATION REPORT

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

Date of Receipt: May 07, 2014
Date of Issue: May 28, 2014
Test Report No. HCT-E-1405-F040
HCT FRN: 0005866421

FCC ID: **ZNFVS985**

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	: CDMA, GSM, WCDMA and LTE Phone with Bluetooth, WLAN, NFC and Wireless Charging
Model Name	: LG-VS985
Additional Model Name	: LGVS985, VS985
Port	: USB / Earphone Port
Date of Test	: May 14, 2014 - May 24, 2014

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

Tested By

Ki-Min Lee
Test Engineer
EMC Team
Certification Division

Reviewed By

Sang-Jun Lee
Technical Manager
EMC Team
Certification Division

DOCUMENT HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCT-E-1405-F040	April 21, 2014	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-VS985
FCC ID	ZNFVS985
Additional Model	LGVS985, VS985
EUT Type	CDMA, GSM, WCDMA and LTE Phone with Bluetooth, WLAN, NFC and Wireless Charging
TX Frequency	824.20 ㎒ to 848.80 ㎒ (GSM 850) 1 850.20 ㎒ to 1 909.80 ㎒ (GSM 1 900) 826.40 ㎒ to 846.60 ㎒ (WCDMA 850) 1 852.4 ㎒ to 1 907.6 ㎒ (WCDMA 1 900) 1 710 ㎒ to 1 755 ㎒ (LTE B4) 2500 ㎒ to 2570 ㎒ (LTE B7) 777 ㎒ to 787 ㎒ (LTE B13) 824.70 ㎒ to 848.31 ㎒ (CDMA BC0) 1 851.25 ㎒ to 1 908.75 ㎒ (CDMA BC1)
RX Frequency	869.20 ㎒ to 893.80 ㎒ (GSM 850) 1 930.20 ㎒ to 1 989.80 ㎒ (GSM 1 900) 871.40 ㎒ to 891.60 ㎒ (WCDMA 850) 1 932.4 ㎒ to 1 987.6 ㎒ (WCDMA 1 900) 2 110 ㎒ to 2 155 ㎒ (LTE B4) 2620 ㎒ to 2690 ㎒ (LTE B7) 746 ㎒ to 756 ㎒ (LTE B13) 869.70 ㎒ to 893.31 ㎒ (CDMA BC0) 1 931.25 ㎒ to 1 988.75 ㎒ (CDMA BC1)

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-VS985	LG	ZNFVS985	Notebook PC, Earphone
USB cable	EAD62590301**	Ningbo Broad	-	EUT, Notebook PC
USB cable	EAD62589201	CRESYN	-	EUT, Notebook PC
USB cable	EAD62590001	KSD	-	EUT, Notebook PC
Earphone	EAB62691101	I-SOUND	-	EUT
Standard cover	-	LG	-	EUT
Double standard cover	-	LG	-	EUT
Wireless cover	-	LG	-	EUT
Notebook PC	ProBook6560b	HP	DoC	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 (8 GB)	-	-	-	EUT

※ NOTE: **The USB Cable connection mode is the worst case of the original report.

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	N	(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).
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 ㎑ to 30 ㎒ was searched.

[Conducted Emission Limits]

Frequency (㎒)	Resolution Bandwidth	Quasi-Peak(dB㎶)	Average(dB㎶)
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 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]

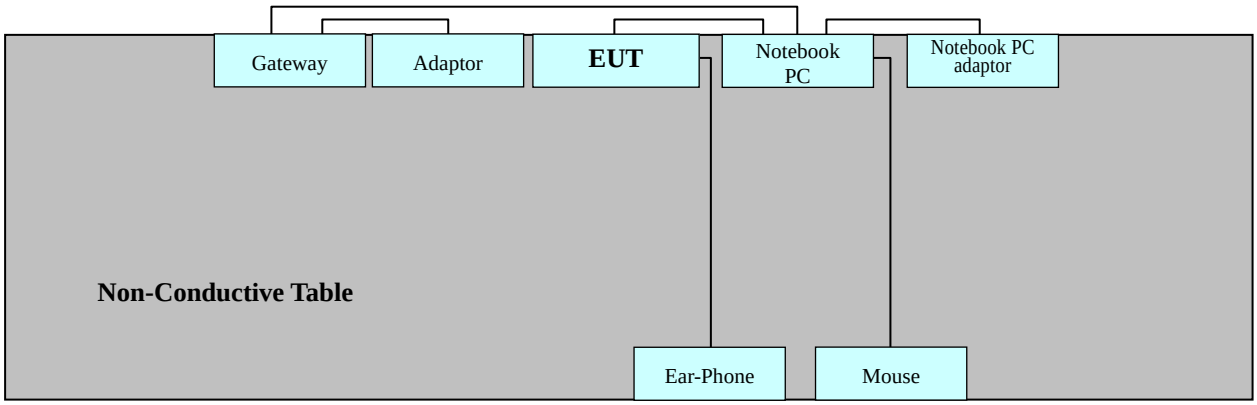
Frequency (㎒)	Antenna Distance (m)	Field Strength (㎶/m)	Quasi-Peak (dB㎶/m)
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0
Frequency (㎒)	**Antenna Distance (m)**	**Peak (dB㎶/m)**	**Average (dB㎶/m)**
Above 1 000	3	74	54

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 (㎒)	**Upper frequency of measurement range** (㎒)
Below 1.705	30
1.705 to 108	1 000
108 to 500	2 000
500 to 1 000	5 000
Above 1 000	5th harmonic of the highest frequency or 40 ㎓, 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

Test Configuration:
☒ USB cable (EAD62590301) & Standard cover
☒ USB cable (EAD62590301) & Double standard cover
☒ USB cable (EAD62590301) & Wireless cover

3. 2 Radiated Emission Test

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

Operation Mode: ☒ Data Communication mode

Test Configuration:
☒ USB cable (EAD62590301) & Standard cover
☒ USB cable (EAD62590301) & Double standard cover
☒ USB cable (EAD62590301) & Wireless cover

4. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

4.1 Conducted Emission Test

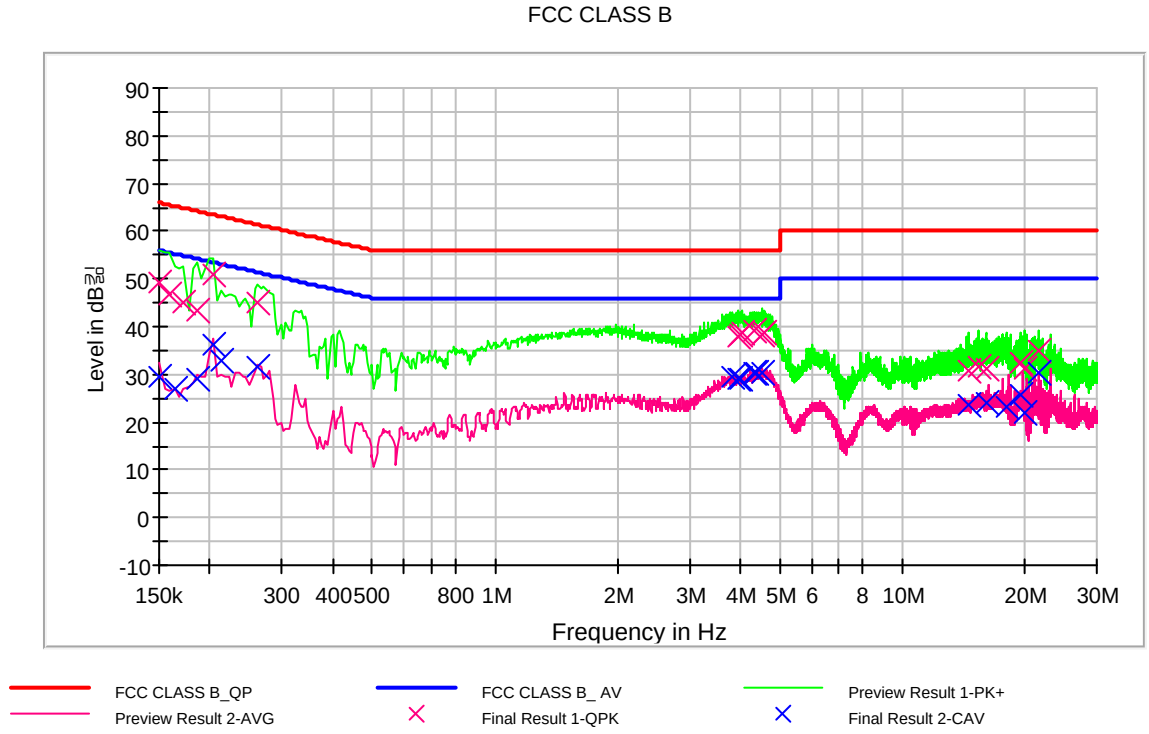
The following table shows the highest levels of conducted emissions on both polarization of hot and neutral line.

Limit Apply to	: FCC PART 15 Subpart B Class B
Detector	: Quasi-Peak, CISPR-Average
6 dB Bandwidth	: 9 ㎑
Operation Mode	: Data Communication mode
Temperature	: 24.0°C
Humidity Level	: 46.1 % RH
Test Date	: May 24, 2014

※ *NOTE: Refer to page 13 to page 30 for test data.*

[Standard Cover]

Figure 1: Spectral Diagrams, Conducted Emission, Phase (L1)



※ Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. Margin = Limit - Quasi-Peak

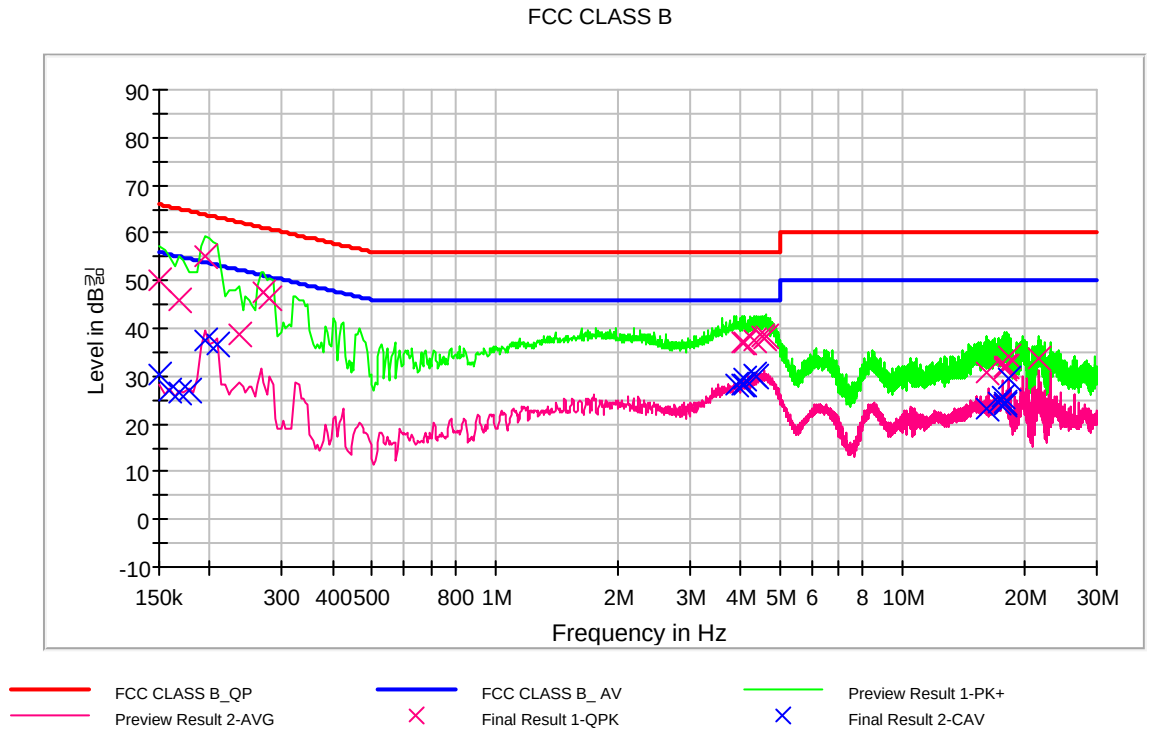
Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	49.2	9.000	L1	9.7	16.8	66.0
0.159000	46.7	9.000	L1	9.7	18.8	65.5
0.172500	44.8	9.000	L1	9.7	20.0	64.8
0.186000	43.2	9.000	L1	9.7	21.0	64.2
0.204000	51.1	9.000	L1	9.7	12.3	63.4
0.262500	45.2	9.000	L1	9.7	16.2	61.4
3.956000	37.9	9.000	L1	10.0	18.1	56.0
3.987500	38.3	9.000	L1	10.0	17.7	56.0
4.037000	38.8	9.000	L1	10.1	17.2	56.0
4.320500	39.0	9.000	L1	10.1	17.0	56.0
4.536500	38.3	9.000	L1	10.1	17.7	56.0
4.604000	38.8	9.000	L1	10.1	17.2	56.0
14.522000	30.7	9.000	L1	10.6	29.3	60.0
15.444500	31.5	9.000	L1	10.7	28.5	60.0
16.007000	31.0	9.000	L1	10.7	29.0	60.0
19.526000	32.5	9.000	L1	10.9	27.5	60.0
19.980500	31.1	9.000	L1	10.9	28.9	60.0
21.663500	35.2	9.000	L1	11.0	24.8	60.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	29.5	9.000	L1	9.7	26.5	56.0
0.163500	27.2	9.000	L1	9.7	28.1	55.3
0.186000	28.9	9.000	L1	9.7	25.3	54.2
0.204000	36.4	9.000	L1	9.7	17.0	53.4
0.213000	33.0	9.000	L1	9.7	20.1	53.1
0.262500	31.5	9.000	L1	9.7	19.9	51.4
3.825500	29.5	9.000	L1	10.0	16.5	46.0
3.956000	29.3	9.000	L1	10.0	16.7	46.0
3.987500	28.9	9.000	L1	10.0	17.1	46.0
4.320500	30.2	9.000	L1	10.1	15.8	46.0
4.370000	30.3	9.000	L1	10.1	15.7	46.0
4.536500	30.3	9.000	L1	10.1	15.7	46.0
14.522000	23.7	9.000	L1	10.6	26.3	50.0
16.007000	24.1	9.000	L1	10.7	25.9	50.0
18.036500	23.2	9.000	L1	10.8	26.8	50.0
19.526000	25.6	9.000	L1	10.9	24.4	50.0
19.980500	22.0	9.000	L1	10.9	28.0	50.0
21.663500	30.5	9.000	L1	11.0	19.5	50.0

Figure 2: Spectral Diagrams, Conducted Emission, Phase (N)



※ Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. Margin = Limit - Quasi-Peak

Final Result 1

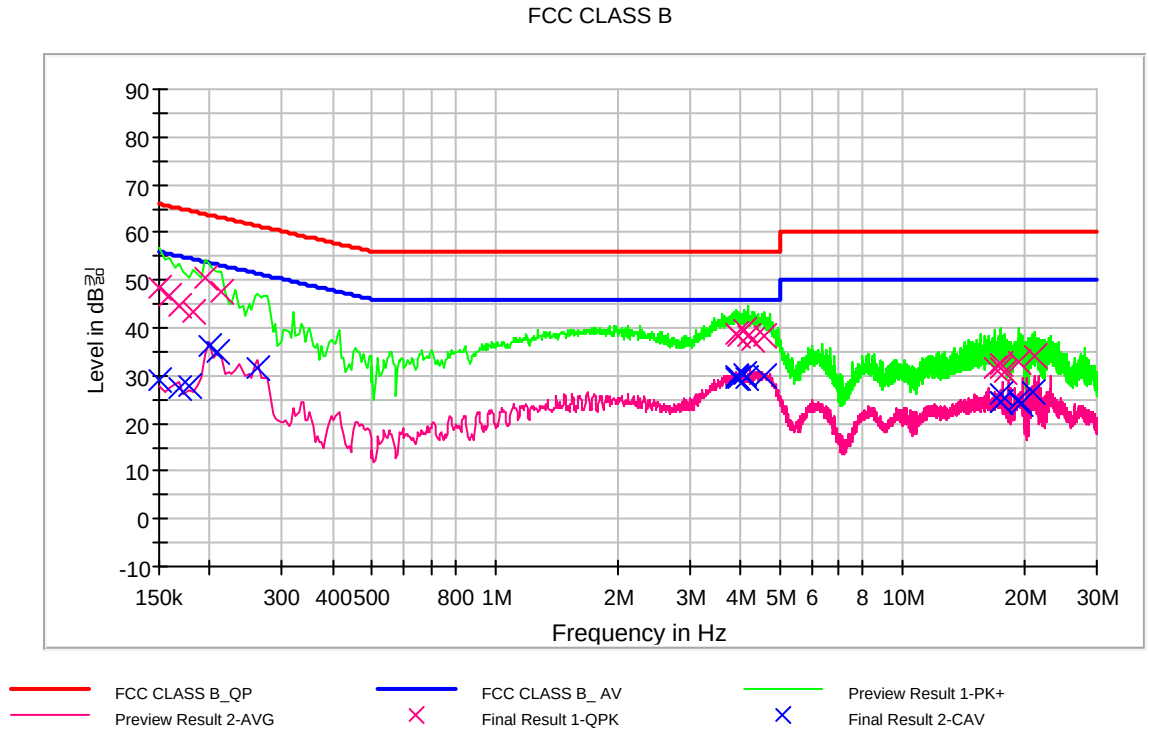
Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	50.3	9.000	N	9.7	15.7	66.0
0.168000	46.0	9.000	N	9.7	19.1	65.1
0.195000	55.0	9.000	N	9.7	8.8	63.8
0.235500	38.6	9.000	N	9.7	23.7	62.3
0.271500	47.4	9.000	N	9.7	13.7	61.1
0.280500	46.4	9.000	N	9.7	14.4	60.8
4.032500	37.2	9.000	N	10.1	18.8	56.0
4.082000	37.0	9.000	N	10.1	19.0	56.0
4.311500	37.6	9.000	N	10.1	18.4	56.0
4.536500	38.4	9.000	N	10.1	17.6	56.0
4.586000	37.9	9.000	N	10.1	18.1	56.0
4.608500	38.4	9.000	N	10.1	17.6	56.0
16.020500	30.7	9.000	N	10.6	29.3	60.0
17.807000	32.1	9.000	N	10.7	27.9	60.0
17.888000	31.7	9.000	N	10.7	28.4	60.0
18.072500	31.9	9.000	N	10.7	28.1	60.0
18.243500	34.3	9.000	N	10.7	25.7	60.0
21.659000	33.6	9.000	N	10.9	26.4	60.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	30.3	9.000	N	9.7	25.7	56.0
0.159000	27.2	9.000	N	9.7	28.3	55.5
0.168000	26.7	9.000	N	9.7	28.4	55.1
0.177000	27.0	9.000	N	9.7	27.6	54.6
0.195000	37.4	9.000	N	9.7	16.4	53.8
0.208500	36.6	9.000	N	9.7	16.7	53.3
3.897500	28.2	9.000	N	10.0	17.8	46.0
4.032500	28.3	9.000	N	10.1	17.7	46.0
4.082000	28.1	9.000	N	10.1	17.9	46.0
4.113500	29.6	9.000	N	10.1	16.4	46.0
4.311500	30.4	9.000	N	10.1	15.6	46.0
4.397000	29.7	9.000	N	10.1	16.3	46.0
16.020500	23.3	9.000	N	10.6	26.7	50.0
17.276000	24.2	9.000	N	10.7	25.8	50.0
17.568500	25.8	9.000	N	10.7	24.2	50.0
17.807000	24.4	9.000	N	10.7	25.6	50.0
17.888000	24.1	9.000	N	10.7	25.9	50.0
18.243500	29.4	9.000	N	10.7	20.6	50.0

[Double Standard Cover]

Figure 3: Spectral Diagrams, Conducted Emission, Phase (L1)



※ Calculation Formula:

1. *Conductor L1 = Hot, Conductor N = Neutral*
2. *Corr. = LISN Factor + Cable Loss*
3. *Margin = Limit - Quasi-Peak*

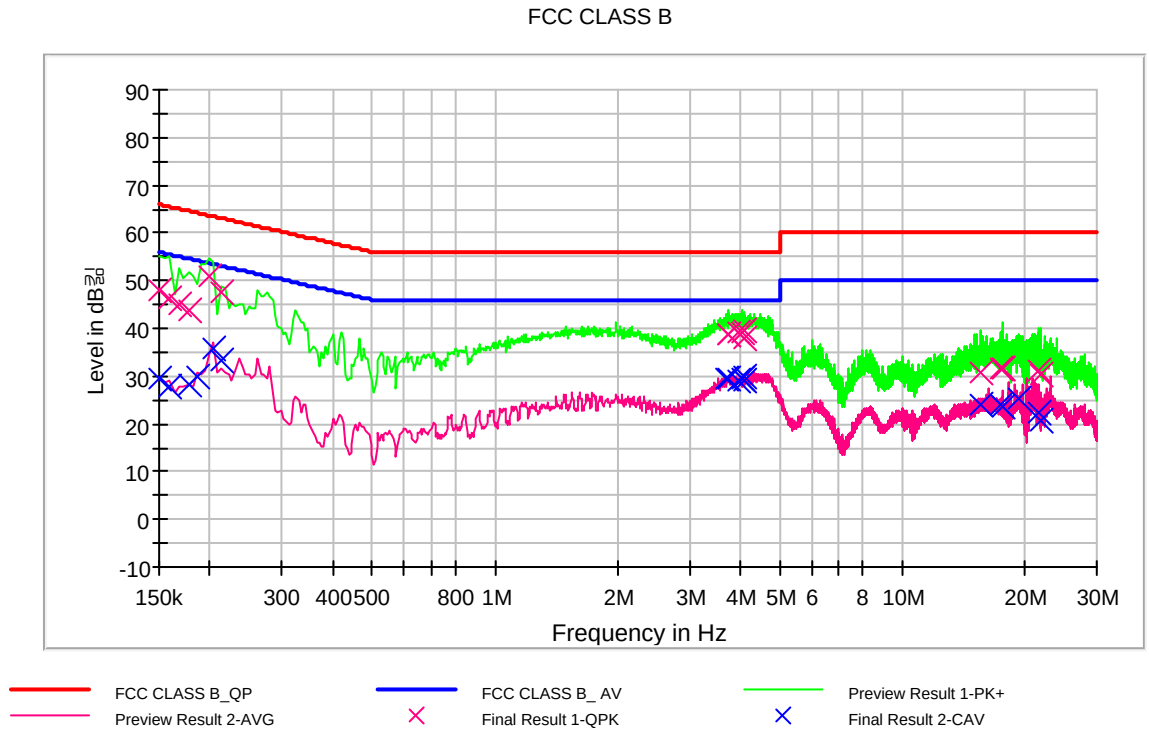
Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	48.5	9.000	L1	9.7	17.5	66.0
0.159000	46.6	9.000	L1	9.7	18.9	65.5
0.168000	44.8	9.000	L1	9.7	20.3	65.1
0.181500	43.6	9.000	L1	9.7	20.8	64.4
0.195000	50.5	9.000	L1	9.7	13.3	63.8
0.213000	47.5	9.000	L1	9.7	15.6	63.1
3.897500	38.7	9.000	L1	10.0	17.3	56.0
3.938000	38.3	9.000	L1	10.0	17.7	56.0
4.109000	39.4	9.000	L1	10.1	16.6	56.0
4.181000	38.3	9.000	L1	10.1	17.7	56.0
4.289000	37.3	9.000	L1	10.1	18.7	56.0
4.604000	38.2	9.000	L1	10.1	17.8	56.0
16.785500	31.5	9.000	L1	10.7	28.5	60.0
17.352500	31.7	9.000	L1	10.8	28.3	60.0
17.388500	32.3	9.000	L1	10.8	27.7	60.0
17.793500	30.7	9.000	L1	10.8	29.3	60.0
19.332500	32.8	9.000	L1	10.9	27.2	60.0
21.029000	34.2	9.000	L1	11.0	25.8	60.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	29.3	9.000	L1	9.7	26.7	56.0
0.168000	27.4	9.000	L1	9.7	27.7	55.1
0.177000	27.8	9.000	L1	9.7	26.8	54.6
0.199500	36.2	9.000	L1	9.7	17.4	53.6
0.208500	34.9	9.000	L1	9.7	18.4	53.3
0.262500	31.5	9.000	L1	9.7	19.9	51.4
3.893000	29.7	9.000	L1	10.0	16.3	46.0
3.929000	29.7	9.000	L1	10.0	16.3	46.0
3.965000	29.6	9.000	L1	10.0	16.4	46.0
4.109000	30.4	9.000	L1	10.1	15.6	46.0
4.149500	29.5	9.000	L1	10.1	16.5	46.0
4.604000	30.1	9.000	L1	10.1	15.9	46.0
17.352500	24.4	9.000	L1	10.8	25.6	50.0
17.388500	26.0	9.000	L1	10.8	24.0	50.0
17.487500	24.5	9.000	L1	10.8	25.5	50.0
19.332500	25.1	9.000	L1	10.9	24.9	50.0
19.562000	24.2	9.000	L1	10.9	25.8	50.0
20.822000	26.5	9.000	L1	11.0	23.5	50.0

Figure 4: Spectral Diagrams, Conducted Emission, Phase (N)



※ Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. Margin = Limit - Quasi-Peak

Final Result 1

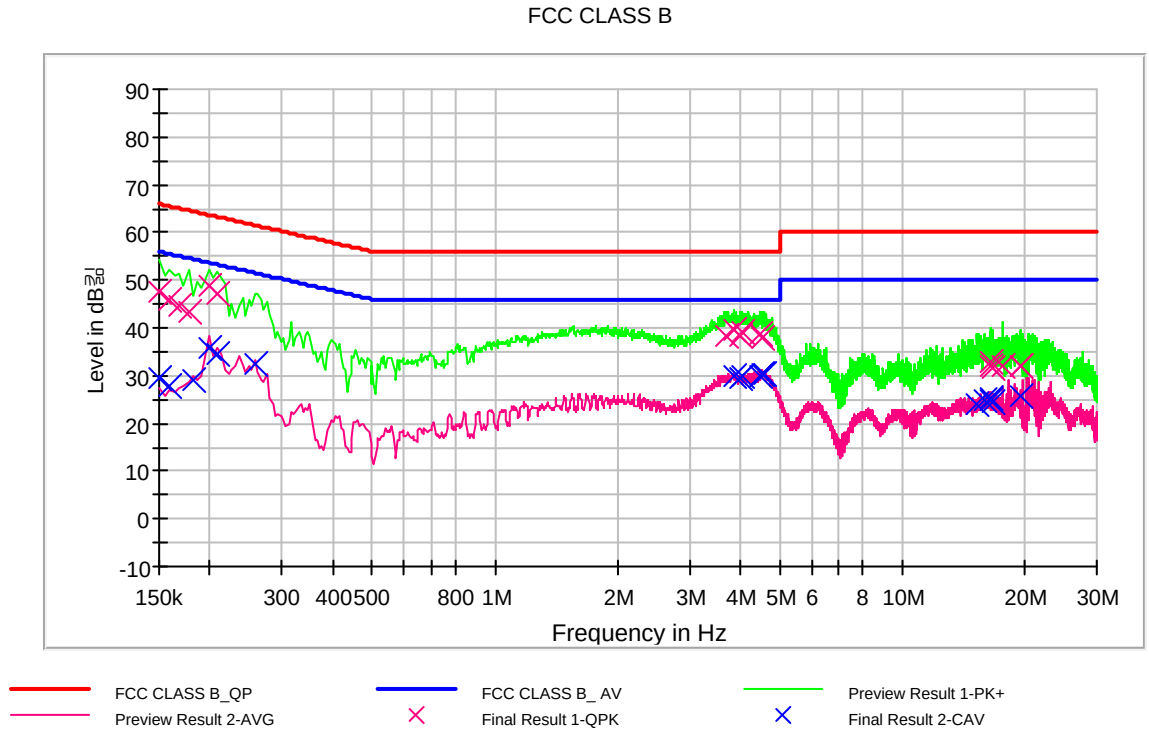
Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	48.1	9.000	N	9.7	17.9	66.0
0.159000	46.3	9.000	N	9.7	19.2	65.5
0.168000	44.9	9.000	N	9.7	20.2	65.1
0.177000	43.6	9.000	N	9.7	21.0	64.6
0.199500	50.9	9.000	N	9.7	12.7	63.6
0.213000	47.7	9.000	N	9.7	15.4	63.1
3.722000	38.7	9.000	N	10.0	17.3	56.0
3.753500	38.6	9.000	N	10.0	17.4	56.0
3.965000	39.2	9.000	N	10.1	16.8	56.0
4.032500	39.1	9.000	N	10.1	16.9	56.0
4.086500	38.0	9.000	N	10.1	18.0	56.0
4.104500	39.5	9.000	N	10.1	16.5	56.0
15.575000	30.8	9.000	N	10.6	29.2	60.0
17.415500	31.7	9.000	N	10.7	28.3	60.0
17.555000	31.6	9.000	N	10.7	28.4	60.0
17.699000	31.6	9.000	N	10.7	28.4	60.0
21.596000	31.0	9.000	N	10.9	29.0	60.0
21.807500	30.3	9.000	N	10.9	29.7	60.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	29.5	9.000	N	9.7	26.5	56.0
0.159000	27.8	9.000	N	9.7	27.7	55.5
0.177000	28.3	9.000	N	9.7	26.3	54.6
0.186000	29.8	9.000	N	9.7	24.4	54.2
0.204000	35.7	9.000	N	9.7	17.7	53.4
0.213000	33.2	9.000	N	9.7	19.9	53.1
3.681500	29.4	9.000	N	10.0	16.6	46.0
3.722000	29.5	9.000	N	10.0	16.5	46.0
3.965000	29.1	9.000	N	10.1	16.9	46.0
4.032500	29.4	9.000	N	10.1	16.6	46.0
4.086500	29.2	9.000	N	10.1	16.8	46.0
4.104500	29.9	9.000	N	10.1	16.1	46.0
15.575000	24.0	9.000	N	10.6	26.0	50.0
17.415500	24.2	9.000	N	10.7	25.8	50.0
17.555000	23.8	9.000	N	10.7	26.2	50.0
19.251500	25.2	9.000	N	10.8	24.8	50.0
21.596000	22.2	9.000	N	10.9	27.8	50.0
21.807500	20.8	9.000	N	10.9	29.2	50.0

[Wireless Cover]

Figure 5: Spectral Diagrams, Conducted Emission, Phase (L1)



※ Calculation Formula:

1. *Conductor L1 = Hot, Conductor N = Neutral*
2. *Corr. = LISN Factor + Cable Loss*
3. *Margin = Limit - Quasi-Peak*

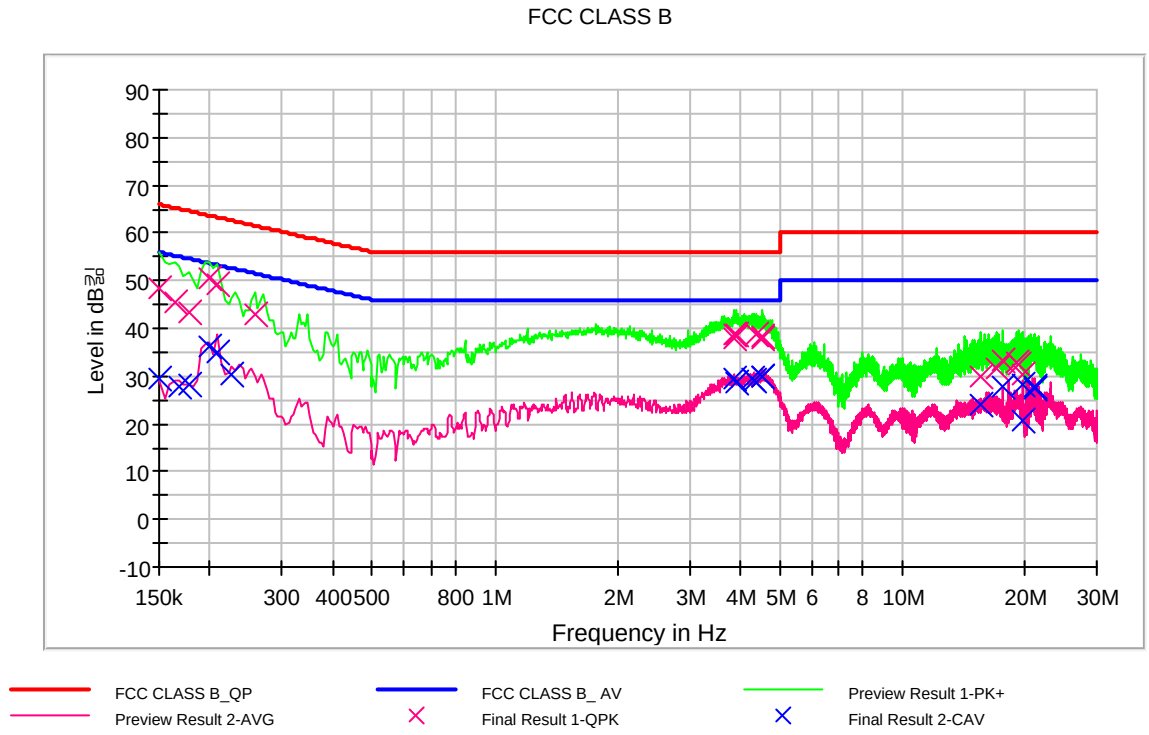
Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	47.6	9.000	L1	9.7	18.4	66.0
0.159000	46.1	9.000	L1	9.7	19.4	65.5
0.168000	44.8	9.000	L1	9.7	20.3	65.1
0.177000	43.5	9.000	L1	9.7	21.1	64.6
0.199500	48.7	9.000	L1	9.7	14.9	63.6
0.208500	47.2	9.000	L1	9.7	16.1	63.3
3.686000	38.5	9.000	L1	10.0	17.5	56.0
3.848000	39.4	9.000	L1	10.0	16.6	56.0
4.001000	38.2	9.000	L1	10.1	17.8	56.0
4.037000	39.1	9.000	L1	10.1	16.9	56.0
4.455500	38.6	9.000	L1	10.1	17.4	56.0
4.509500	37.7	9.000	L1	10.1	18.3	56.0
16.416500	32.8	9.000	L1	10.7	27.2	60.0
16.488500	32.1	9.000	L1	10.7	27.9	60.0
16.704500	31.6	9.000	L1	10.7	28.4	60.0
17.550500	31.8	9.000	L1	10.8	28.2	60.0
19.530500	32.1	9.000	L1	10.9	27.9	60.0
19.589000	31.9	9.000	L1	10.9	28.1	60.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	29.3	9.000	L1	9.7	26.7	56.0
0.159000	27.8	9.000	L1	9.7	27.7	55.5
0.181500	29.0	9.000	L1	9.7	25.4	54.4
0.199500	35.7	9.000	L1	9.7	17.9	53.6
0.208500	34.7	9.000	L1	9.7	18.6	53.3
0.258000	32.4	9.000	L1	9.7	19.1	51.5
3.848000	29.9	9.000	L1	10.0	16.1	46.0
4.001000	29.6	9.000	L1	10.1	16.4	46.0
4.037000	30.0	9.000	L1	10.1	16.0	46.0
4.460000	30.1	9.000	L1	10.1	15.9	46.0
4.509500	30.4	9.000	L1	10.1	15.6	46.0
4.599500	30.3	9.000	L1	10.1	15.7	46.0
15.287000	24.1	9.000	L1	10.7	25.9	50.0
15.998000	24.7	9.000	L1	10.7	25.3	50.0
16.416500	25.1	9.000	L1	10.7	24.9	50.0
16.488500	24.7	9.000	L1	10.7	25.3	50.0
16.704500	24.6	9.000	L1	10.7	25.4	50.0
19.589000	25.6	9.000	L1	10.9	24.4	50.0

Figure 6: Spectral Diagrams, Conducted Emission, Phase (N)



※ Calculation Formula:

1. Conductor L1 = Hot, Conductor N = Neutral
2. Corr. = LISN Factor + Cable Loss
3. Margin = Limit - Quasi-Peak

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	48.2	9.000	N	9.7	17.8	66.0
0.163500	45.6	9.000	N	9.7	19.7	65.3
0.177000	43.4	9.000	N	9.7	21.2	64.6
0.199500	50.5	9.000	N	9.7	13.1	63.6
0.208500	49.2	9.000	N	9.7	14.1	63.3
0.258000	43.1	9.000	N	9.7	18.4	61.5
3.848000	38.9	9.000	N	10.0	17.1	56.0
3.875000	38.0	9.000	N	10.0	18.0	56.0
3.902000	38.5	9.000	N	10.0	17.5	56.0
4.388000	38.6	9.000	N	10.1	17.4	56.0
4.527500	38.3	9.000	N	10.1	17.7	56.0
4.554500	38.1	9.000	N	10.1	17.9	56.0
15.503000	30.1	9.000	N	10.6	29.9	60.0
16.983500	31.7	9.000	N	10.7	28.3	60.0
17.694500	33.4	9.000	N	10.7	26.6	60.0
19.157000	32.9	9.000	N	10.8	27.1	60.0
19.323500	32.4	9.000	N	10.8	27.6	60.0
19.823000	30.3	9.000	N	10.8	29.7	60.0

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	29.4	9.000	N	9.7	26.6	56.0
0.168000	27.9	9.000	N	9.7	27.2	55.1
0.177000	28.4	9.000	N	9.7	26.2	54.6
0.199500	36.0	9.000	N	9.7	17.6	53.6
0.208500	34.8	9.000	N	9.7	18.5	53.3
0.226500	30.5	9.000	N	9.7	22.1	52.6
3.848000	29.4	9.000	N	10.0	16.6	46.0
3.902000	28.8	9.000	N	10.0	17.2	46.0
4.280000	29.4	9.000	N	10.1	16.6	46.0
4.329500	29.2	9.000	N	10.1	16.8	46.0
4.527500	29.9	9.000	N	10.1	16.1	46.0
4.554500	30.1	9.000	N	10.1	15.9	46.0
15.503000	23.9	9.000	N	10.6	26.1	50.0
17.694500	27.7	9.000	N	10.7	22.4	50.0
19.710500	28.4	9.000	N	10.8	21.6	50.0
19.823000	20.5	9.000	N	10.8	29.5	50.0
21.173000	27.4	9.000	N	10.9	22.6	50.0
21.227000	27.8	9.000	N	10.9	22.2	50.0

4.2 Radiated Emission Test

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

-For Measurement Below 1 ㎓

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Quasi-Peak
6 ㏈ Bandwidth: : RBW 120 ㎑, VBW 300 ㎑

Operation Mode : Data Communication mode

Temperature : 24.6 / 23.8°C
Humidity Level : 35.5 / 37.2 % RH
Test Date : May 14, 2014 / May 22, 2014

[Standard Cover]

Frequency (MHz)	Reading (dBuV)	Polarity (H/V)	Antenna Height (m)	Correction Factor		Limit (dBuV/m)	Total Level (dBuV/m)	Margin (dB)
				Antenna (dB/m)	Cable (dB)			
81.5	24.22	H	2.5	8.88	1.50	40.0	34.6	5.4
125.0	20.88	V	1.0	10.65	1.87	43.5	33.4	10.1
265.6	17.53	V	2.0	12.73	2.74	46.0	33.0	13.0
375.0	16.02	H	3.0	15.72	3.27	46.0	35.0	11.0
625.0	14.17	V	1.0	20.99	4.25	46.0	39.4	6.6
800.0	10.03	H	1.0	23.16	4.81	46.0	38.0	8.0

[Double Standard Cover]

Frequency (MHz)	Reading (dBuV)	Polarity (H/V)	Antenna Height (m)	Correction Factor		Limit (dBuV/m)	Total Level (dBuV/m)	Margin (dB)
				Antenna (dB/m)	Cable (dB)			
79.3	19.38	H	2.5	9.24	1.48	40.0	30.1	9.9
110.7	16.70	V	1.0	9.34	1.76	43.5	27.8	15.7
181.5	8.15	H	1.5	11.59	2.26	43.5	22.0	21.5
250.0	17.37	H	1.2	12.27	2.66	46.0	32.3	13.7
375.0	11.02	H	3.0	15.72	3.27	46.0	30.0	16.0
625.0	10.57	V	1.0	20.99	4.25	46.0	35.8	10.2

[Wireless Cover]

Frequency (MHz)	Reading (dBuV)	Polarity (H/V)	Antenna Height (m)	Correction Factor		Limit (dBuV/m)	Total Level (dBuV/m)	Margin (dB)
				Antenna (dB/m)	Cable (dB)			
81.2	24.28	H	2.5	8.92	1.50	40.0	34.7	5.3
125.0	18.08	V	1.0	10.65	1.87	43.5	30.6	12.9
266.6	17.80	H	1.2	12.76	2.74	46.0	33.3	12.7
375.0	13.82	H	2.0	15.72	3.27	46.0	32.8	13.2
625.0	14.57	V	1.0	20.99	4.25	46.0	39.8	6.2
800.0	11.63	H	2.0	23.16	4.81	46.0	39.6	6.4

※ Calculation Formula:

1. Polarity H = Horizontal, Polarity V = Vertical
2. Reading (Receiver Reading) = Total Level – Correction Factor
3. Margin = Limit - Total Level
4. Total Level = Quasi-Peak

-For Measurement Above 1 ㎓

Limit Apply to : FCC PART 15 Subpart B Class B

Detector : Peak mode: Peak (RBW: 1 ㎒, VBW: 3 ㎒)
Average mode: Peak (RBW: 1 ㎒, VBW: 10 ㎐)

Highest Operating Frequency : 2.45 ㎓

※This product was tested up to the 5th harmonic above frequency.

Operation Mode : Data Communication mode

Temperature : 24.4 / 23.8°C
Humidity Level : 34.5 / 37.2 % RH
Test Date : May 17, 2014 / May 22, 2014

[Standard Cover]

Frequency (㎓)	Polarity (H/V)	Antenna Height (m)	Peak			Average		
			Total Level (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)	Total Level (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1.3302	V	1.0	49.8	74	24.2	32.1	54	21.9
1.9936	V	1.0	56.6	74	17.4	38.6	54	15.4
2.6616	V	1.0	51.5	74	22.5	33.8	54	20.2

[Double Standard Cover]

Frequency (㎓)	Polarity (H/V)	Antenna Height (m)	Peak			Average		
			Total Level (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)	Total Level (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1.3302	H	1.0	47.5	74	26.5	30.0	54	24.0
1.3302	V	1.0	50.4	74	23.6	32.6	54	21.4
1.9936	V	1.0	57.1	74	16.9	39.0	54	15.0
2.6616	V	1.0	51.3	74	22.7	33.6	54	20.4

[Wireless Cover]

Frequency (㎓)	Polarity (H/V)	Antenna Height (m)	Peak			Average		
			Total Level (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)	Total Level (dB㎶/m)	Limit (dB㎶/m)	Margin (dB)
1.3302	V	1.0	50.0	74	24.0	32.4	54	21.6
1.9936	V	1.0	56.7	74	17.3	38.7	54	15.3
2.6616	V	1.0	51.0	74	23.0	33.4	54	20.6

※ Calculation Formula:

1. Polarity H = Horizontal, Polarity V = Vertical
2. Margin = Limit - Total Level

5. LIST OF TEST EQUIPMENT

Type	Manufacturer	Model Name	Serial Number	Calibration Cycle	Next CAL Date
Conducted Emission					
☒ EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	2015.01.24
☒ LISN	EMCO	3816/2SH	9706-1070	1 year	2015.04.07
☒ LISN	Rohde & Schwarz	ENV216	100073	1 year	2015.01.29
☐ EMI Test Receiver	Rohde & Schwarz	ESCI	100033	1 year	2014.06.23
☐ LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	2014.07.03
☐ Attenuator	Rohde & Schwarz	ESH3-Z2	357.8810.352	1 year	2014.07.03
☒ Software	Rohde & Schwarz	EMC32	-	-	-
Radiated Emission					
-For measurement below 1 ㎓					
☐ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	2015.04.07
☐ Trilog Antenna	Schwarzbeck	VULB9160	3301	2 year	2014.12.17
☐ Antenna master	HD GmbH	MA240	240/520	N/A	-
☐ Turn Table	HD GmbH	2090	9702/1224	N/A	-
☒ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	2014.07.01
☒ Bi-Log Antenna	Schwarzbeck	VULB9168	185	2 year	2015.04.16
☒ Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☒ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☒ Software	Rohde & Schwarz	EMC32	-	-	-
-For measurement above 1 ㎓					
☐ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	2015.04.07
☐ Antenna master	HD GmbH	MA240	240/520	N/A	-
☐ Turn Table	HD GmbH	2090	9702/1224	N/A	-
☒ Power Amplifier	CERNEX	CBLU1183540	21691	1 year	2014.07.24
☐ Power Amplifier	CERNEX	CBLU1183540	21690	1 year	2014.07.12
☐ Power Amplifier	CERNEX	CBLU1183540	22964	1 year	2014.07.24
☒ Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	2014.12.13
☒ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	2014.07.01
☒ Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☒ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☐ Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170124	2 year	2014.10.30
☐ Power Amplifier	CERNEX	CBL18265035	22966	1 year	2014.07.24
☐ Power Amplifier	CERNEX	CBL26405040	19660	1 year	2015.04.04
☐ Software	Rohde & Schwarz	EMC32	-	-	-

6. CONCLUSION

The data collected shows that the **EUT type: CDMA, GSM, WCDMA and LTE Phone with Bluetooth, WLAN, NFC and Wireless Charging, FCC ID: ZNFVS985, Model: LG-VS985** complies with §15.107 and §15.109 of the FCC rules.