

## EMI TEST REPORT FCC CERTIFICATION

**Applicant:**

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

**Date of Receipt: January 17, 2017**

**Date of Issue: February 07, 2017**

**Test Report No. HCT-E-1702-F015**

**HCT FRN: 0005866421**

**FCC ID :**

**ZNFAS110**

**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/WCDMA/LTE phone with Bluetooth and WLAN  
**Model Name:** LG-AS110  
**Additional Model Name:** LGAS110, AS110  
**Date of Test:** January 24, 2017 - February 07, 2017

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 C63.4-2014. (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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Certification Division

**Reviewed By**



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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-1702-F015	February 07, 2017	Initial Release



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**ATTACHMENT:     TEST SETUP PHOTOGRAPHS**



## 1. GENERAL INFORMATION

### 1.1 Description of EUT

Its basic purpose is used for communications.

<b>FCC ID</b>	ZNFAS110
<b>Model</b>	LG-AS110
<b>Additional Model</b>	LGAS110, AS110
<b>EUT Type</b>	Multi-band GSM/WCDMA/LTE phone with Bluetooth and WLAN
<b>TX Frequency</b>	824.70 MHz to 848.31 MHz (CDMA 850) 1 851.25 MHz to 1 908.75 MHz (CDMA 1 900) 1 852.4 MHz to 1 907.6 MHz (WCDMA B2) 1712.4 MHz to 1752.6 MHz (WCDMA B4) 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) 2 412 MHz to 2 462 MHz (WiFi 2.4 GHz)
<b>RX Frequency</b>	869.70 MHz to 893.31 MHz (CDMA 850) 1 931.25 MHz to 1 988.75 MHz (CDMA 1 900) 1 932.4 MHz to 1 987.6 MHz (WCDMA B2) 2 112.4 MHz to 2 152.6 MHz (WCDMA B4) 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) 2 412 MHz to 2 462 MHz (WiFi 2.4 GHz)



## 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 C63.4-2014.

Measurement Facilities	Registration Number
Radiated Field strength measurement facility (3 m)	90661 (July 07, 2015)
Radiated Field strength measurement facility (10 m)	

## 1.4 Calibration of Measuring Instrument

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturers recommendations for utilizing calibration equipments, which is traceable to recognized national standards.

Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2006).



## 1.5 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-AS110	LG	ZNFAS110	Notebook PC, Earphone
USB Cable	EAD62377902	Ningbo Broad	-	EUT, Notebook PC
USB Cable	EAD62377903	KSD	-	EUT, Notebook PC
USB Cable	EAD62377908	LEAGTECH	-	EUT, Notebook PC
USB Cable	EAD62377914	CRESYN	-	EUT, Notebook PC
Earphone	EAB64269001	BUJEN	-	EUT
Notebook PC	ProBook6560b	HP	DoC	Gateway , Notebook PC adaptor, RJ45 cable, Serial mouse
Notebook PC adaptor	Series PPP009L-E	LITE-On Technology	-	Notebook PC
Gateway	TL-WR747N	TP-LINK	-	RJ45 cable, Gateway adaptor
Gateway adaptor	T120150-2H1	TP-LINK	-	Gateway
Serial mouse	Serial 2 button mouse	Radio shack	FSUGMZE3	Notebook PC
RJ45 cable	-	-	-	Notebook PC, Gateway
Micro SD card	Micro SDHC 32GB	SANDISK	-	EUT



## 1.6 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)1.0
	Earphone	N/A	Y	(D)1.1
Notebook PC	RJ 45	N/A	N	(D)1.6
	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.

## 1.7 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	Both End
Notebook PC	RJ 45	N	N/A	N	N/A
	Serial (Mouse)	N	N/A	Y	Notebook PC End



## 2. MEASUREMENT UNCERTAINTY

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014.

All measurement uncertainty values are shown with a coverage factor of  $k = 2$  to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the  $U_{\text{CISPR}}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty (dB)
Conducted Emission (0.158 MHz to 30 MHz)	$\pm 1.82$ dB ( $k = 2$ )
Radiated Emissions (30 MHz to 1 GHz)	$\pm 5.06$ dB ( $k = 2$ )
Radiated Emissions (1 GHz to 6 GHz)	$\pm 5.0$ dB ( $k = 2$ )
Radiated Emissions (6 GHz to 18 GHz)	$\pm 5.4$ dB ( $k = 2$ )





### 3. DESCRIPTION OF TEST

#### 3.1 Measurement of Conducted Emission

The test procedure was in accordance with ANSI C63.4-2014, Clause 7.3

- 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(μV))	Average (dB(μV))
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.*



## 3.2 Measurement of Radiated Emission

The test procedure was in accordance with ANSI C63.4-2014, Clause 8.3

- 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. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.(1 GHz to 40 GHz)

### [ Radiated Emission Limits ]

Frequency (MHz)	Antenna Distance (m)	Field Strength ( $\mu\text{V}/\text{m}$ )	Quasi-Peak ( $\text{dB}(\mu\text{V})/\text{m}$ )
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 ( $\text{dB}(\mu\text{V})/\text{m}$ )	Average ( $\text{dB}(\mu\text{V})/\text{m}$ )
Above 1 000	3	74	54

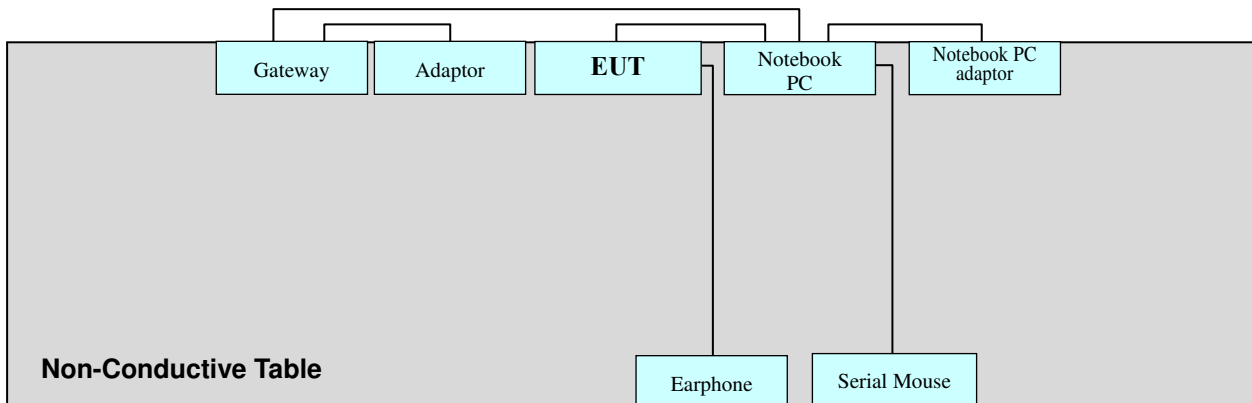


### 3.2.1 Frequency Range of Radiated Measurements

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

### 3.3 Configuration of Tested System



Power Line: 120 VAC, 60 Hz



## 4. PRELIMINARY TEST

### 4.1 Conducted Emission Test

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

**Operation Mode:**       Data Communication mode

### 4.2 Radiated Emission Test

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

**Operation Mode:**       Data Communication mode



## 5. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

### 5.1 Conducted Emission Test

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

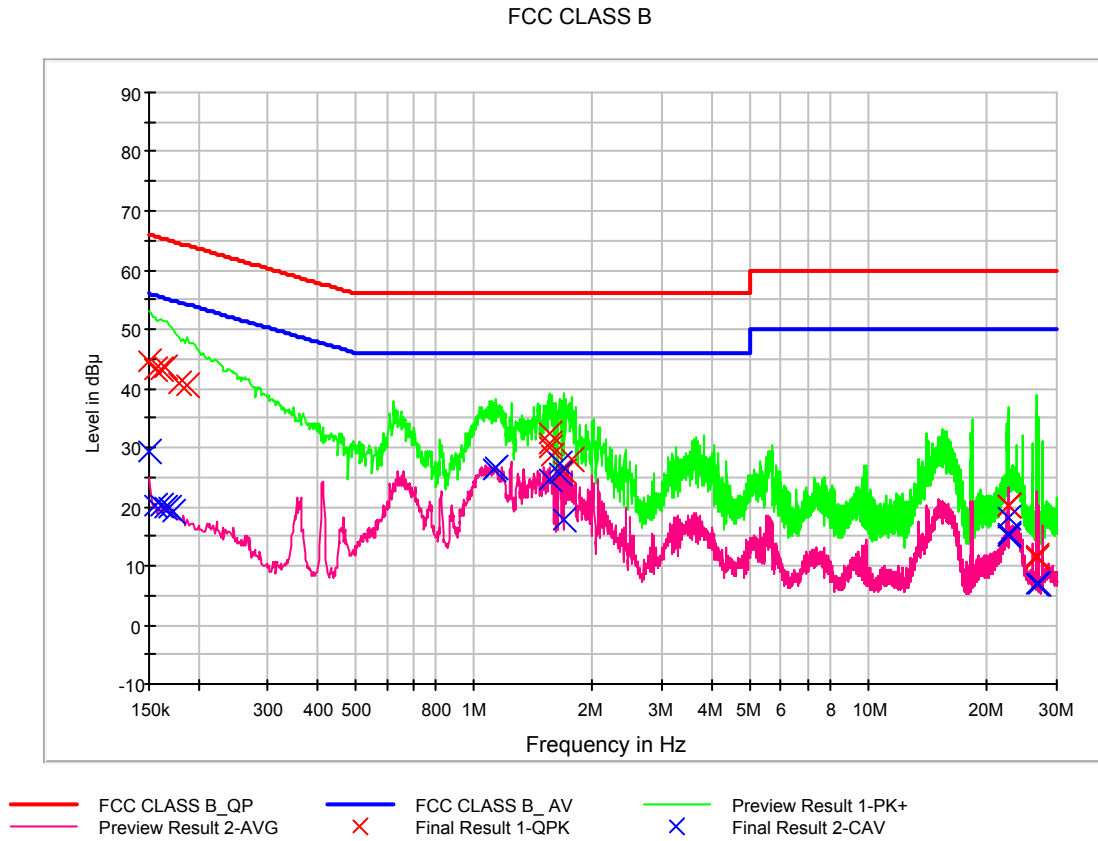
<b>Rule Part / Standard</b>	FCC PART 15 Subpart B Class B
<b>Detector</b>	Quasi-Peak, CISPR-Average
<b>Bandwidth</b>	9 kHz (6 dB)
<b>Operation Mode</b>	Data Communication mode
<b>Worst Case of USB Cable</b>	KSD (EAD62377903)
<b>Kind of Test Site</b>	Shielded Room
<b>Temperature</b>	24.0 / 23.2 °C
<b>Relative Humidity</b>	26.4 / 36.9 %
<b>Test Date</b>	January 24 / January 25, 2017

#### ***- 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	44.6	9.000	L1	9.6	21.4	66.0
0.156000	43.4	9.000	L1	9.6	22.3	65.7
0.160000	43.2	9.000	L1	9.6	22.2	65.5
0.164000	43.4	9.000	L1	9.6	21.8	65.3
0.178000	40.9	9.000	L1	9.6	23.7	64.6
0.188000	40.4	9.000	L1	9.6	23.7	64.1
1.548000	32.3	9.000	L1	9.8	23.7	56.0
1.552000	30.6	9.000	L1	9.8	25.4	56.0
1.556000	29.9	9.000	L1	9.8	26.1	56.0
1.578000	28.8	9.000	L1	9.8	27.2	56.0
1.686000	26.0	9.000	L1	9.8	30.0	56.0
1.766000	27.8	9.000	L1	9.8	28.2	56.0
22.560000	20.1	9.000	L1	10.4	39.9	60.0
22.586000	20.0	9.000	L1	10.4	40.0	60.0
22.682000	20.3	9.000	L1	10.4	39.7	60.0
22.692000	20.1	9.000	L1	10.4	39.9	60.0
26.790000	11.5	9.000	L1	10.4	48.5	60.0
26.822000	11.5	9.000	L1	10.4	48.5	60.0



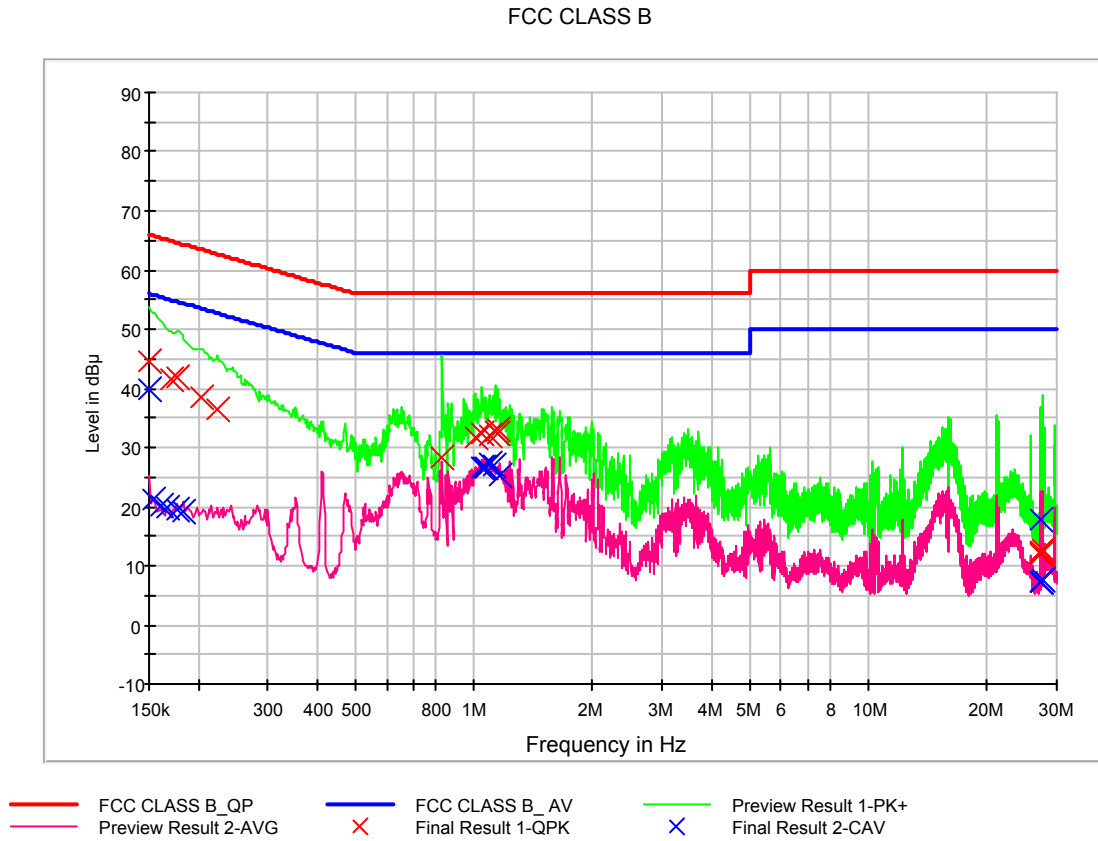
## CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	29.3	9.000	L1	9.6	26.7	56.0
0.156000	20.2	9.000	L1	9.6	35.4	55.7
0.160000	20.2	9.000	L1	9.6	35.2	55.5
0.164000	19.8	9.000	L1	9.6	35.4	55.3
0.168000	20.0	9.000	L1	9.6	35.1	55.1
0.172000	19.3	9.000	L1	9.6	35.6	54.9
1.122000	26.4	9.000	L1	9.7	19.6	46.0
1.138000	26.5	9.000	L1	9.7	19.5	46.0
1.550000	24.7	9.000	L1	9.8	21.3	46.0
1.646000	25.6	9.000	L1	9.8	20.4	46.0
1.656000	27.2	9.000	L1	9.8	18.8	46.0
1.684000	17.7	9.000	L1	9.8	28.3	46.0
22.560000	15.1	9.000	L1	10.4	34.9	50.0
22.586000	18.0	9.000	L1	10.4	32.0	50.0
22.682000	15.3	9.000	L1	10.4	34.7	50.0
22.692000	15.2	9.000	L1	10.4	34.8	50.0
26.822000	6.9	9.000	L1	10.4	43.1	50.0
26.896000	7.1	9.000	L1	10.4	42.9	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)
0.150000	44.5	9.000	N	9.6	21.5	66.0
0.170000	41.4	9.000	N	9.6	23.6	65.0
0.176000	41.8	9.000	N	9.6	22.8	64.7
0.204000	38.6	9.000	N	9.6	24.9	63.4
0.224000	36.4	9.000	N	9.6	26.2	62.7
0.832000	28.3	9.000	N	9.7	27.7	56.0
1.004000	31.7	9.000	N	9.7	24.3	56.0
1.046000	32.4	9.000	N	9.7	23.6	56.0
1.096000	32.1	9.000	N	9.7	23.9	56.0
1.130000	32.8	9.000	N	9.7	23.2	56.0
1.142000	33.0	9.000	N	9.7	23.0	56.0
1.150000	32.3	9.000	N	9.7	23.7	56.0
27.290000	11.9	9.000	N	10.4	48.1	60.0
27.314000	11.9	9.000	N	10.4	48.1	60.0
27.368000	12.0	9.000	N	10.4	48.0	60.0
27.382000	12.2	9.000	N	10.4	47.8	60.0
27.410000	12.3	9.000	N	10.4	47.7	60.0
27.500000	12.6	9.000	N	10.4	47.4	60.0



## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	39.8	9.000	N	9.6	16.2	56.0
0.154000	21.3	9.000	N	9.6	34.5	55.8
0.160000	20.3	9.000	N	9.6	35.2	55.5
0.166000	19.9	9.000	N	9.6	35.2	55.2
0.176000	19.4	9.000	N	9.6	35.2	54.7
0.184000	19.2	9.000	N	9.6	35.1	54.3
1.046000	26.8	9.000	N	9.7	19.2	46.0
1.062000	26.5	9.000	N	9.7	19.5	46.0
1.076000	26.7	9.000	N	9.7	19.3	46.0
1.092000	27.2	9.000	N	9.7	18.8	46.0
1.116000	26.9	9.000	N	9.7	19.1	46.0
1.162000	25.2	9.000	N	9.7	20.8	46.0
27.290000	7.1	9.000	N	10.4	42.9	50.0
27.312000	17.8	9.000	N	10.4	32.2	50.0
27.368000	7.3	9.000	N	10.4	42.7	50.0
27.382000	7.4	9.000	N	10.4	42.6	50.0
27.410000	7.4	9.000	N	10.4	42.6	50.0
27.500000	7.7	9.000	N	10.4	42.3	50.0



## 5.2 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
Worst Case of USB Cable	KSD (EAD62377903)
Kind of Test Site	3 m semi anechoic chamber
Temperature	26.0 °C
Relative Humidity	36.0 %
Test Date	February 07, 2017

Frequency (MHz)	Quasi Peak (dBuV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
84.727455	25.1	212.0	H	122.0	18.1	14.9	40.0
125.264529	26.1	100.0	V	315.0	21.1	17.4	43.5
240.342686	34.0	150.0	H	349.0	21.7	12.0	46.0
265.589179	35.8	125.0	H	314.0	22.6	10.2	46.0
276.014028	32.6	150.0	H	280.0	23.0	13.4	46.0
602.130261	31.5	150.0	V	189.0	30.9	14.5	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



## -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	2 462 MHz
Upper Frequency of Measurement Range	1 GHz to 12.31 GHz
Operation Mode	Data Communication mode
Worst Case of USB Cable	KSD (EAD62377903)
Kind of Test Site	3 m semi anechoic chamber
Temperature	26.0 °C
Relative Humidity	36.0 %
Test Date	February 07, 2017

Frequency (MHz)	Peak (dB $\mu$ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)
1399.749499	49.9	343.8	V	42.0	-12.8	24.1	74.0
1799.849699	44.4	367.7	V	27.0	-12.3	29.6	74.0
1991.633267	51.3	111.7	V	215.0	-12.2	22.7	74.0
2663.076152	43.2	367.5	V	-1.0	-9.1	30.8	74.0
3000.050100	42.1	340.7	V	152.0	-8.1	31.9	74.0
4499.048096	41.5	363.7	H	0.0	-5.6	32.5	74.0

Frequency (MHz)	CAverage (dB $\mu$ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)
1399.749499	46.9	343.8	V	42.0	-12.8	7.1	54.0
1799.849699	37.9	367.7	V	27.0	-12.3	16.1	54.0
1991.633267	24.7	111.7	V	215.0	-12.2	29.3	54.0
2663.076152	22.1	367.5	V	-1.0	-9.1	31.9	54.0
3000.050100	26.0	340.7	V	152.0	-8.1	28.0	54.0
4499.048096	26.5	363.7	H	0.0	-5.6	27.5	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



## 6. 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	12.23.2016
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	06.09.2016
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ENV216	100073	1 year	12.23.2016
<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	11.04.2016
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESIB26	100298	1 year	02.11.2016
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU40	100514	1 year	10.10.2016
<input checked="" type="checkbox"/> Trilog Antenna	Schwarzbeck	VULB9168	255	2 year	04.15.2015
<input checked="" type="checkbox"/> 6dB Attenuator	HP	8491A	24257	2 year	04.15.2015
<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"/> EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	05.27.2016
<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	11.04.2016
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESIB26	100298	1 year	02.11.2016
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU40	100514	1 year	10.10.2016
<input type="checkbox"/> Antenna master	HD GmbH	MA240	240/520	N/A	-
<input type="checkbox"/> Antenna master controller	HD GmbH	HD 100	100/637	N/A	-
<input checked="" type="checkbox"/> Antenna master	INNCO Systems	MA4000-XP-ET	48709515	N/A	-
<input checked="" type="checkbox"/> Antenna master controller	INNCO Systems	CO 3000	CO 3000/870/ 35990515	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	07.04.2016
<input checked="" type="checkbox"/> Power Amplifier	CERNEX	CBLU5183530	24348	1 year	06.07.2016
<input checked="" type="checkbox"/> Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	10.12.2016
<input type="checkbox"/> Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170541	2 year	09.03.2015
<input type="checkbox"/> Power Amplifier	CERNEX	CBL18265035	21873	1 year	01.19.2017
<input type="checkbox"/> Power Amplifier	CERNEX	CBL26405040	19660	1 year	07.15.2016
<input type="checkbox"/> Horn Antenna	Schwarzbeck	BBHA 9120D	1300	2 year	08.25.2016
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	05.27.2016
<input type="checkbox"/> Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-



## 7. CONCLUSION

The data collected shows that the **EUT Type: Multi-band GSM/WCDMA/LTE phone with Bluetooth and WLAN, Model: LG-AS110, FCC ID: ZNFAS110** complies with §15.107 and §15.109 of the FCC rules.