

## EMI TEST REPORT FCC CERTIFICATION

**Applicant:**

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

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

**Date of Issue: August 18, 2017**

**Test Report No. HCT-E-1708-F022**

**HCT FRN: 0005866421**

**FCC ID :**

**ZNFLK460**

**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 CDMA/LTE tablet with WLAN, Bluetooth

**Model Name:** LG-LK460

**Additional Model Name:** LGLK460, LK460

**Date of Test:** August 10, 2017 – August 16, 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**



**Dong-Hwan Seo**  
**Test Engineer**  
**EMC Team**  
**Certification Division**

**Reviewed By**



**Jin-Pyo Hong**  
**Technical Manager**  
**EMC Team**  
**Certification Division**

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## REVISION HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCT-E-1708-F022	August 18, 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.

FCC ID	ZNFLK460
Model	LG-LK460
Additional Model	LGLK460, LK460
EUT Type	Multi-band CDMA/LTE tablet with WLAN, Bluetooth
TX Frequency	824.70 MHz to 848.31 MHz (CDMA BC0) 1 851.25 MHz to 1 908.75 MHz (CDMA BC1) 817.90 MHz to 823.10 MHz (CDMA BC10) 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) 1 850 MHz to 1 915 MHz (LTE B25) 814 MHz to 849 MHz (LTE B26) 2 496 MHz to 2 690 MHz (LTE B41) 2 402 MHz to 2 480 MHz (Bluetooth) 2 412 MHz to 2 462 MHz (WiFi 2.4 GHz)
RX Frequency	869.70 MHz to 893.31 MHz (CDMA BC0) 1 931.25 MHz to 1 988.75 MHz (CDMA BC1) 862.00 MHz to 894.00 MHz (CDMA BC10) 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) 1 925 MHz to 1 990 MHz (LTE B25) 859 MHz to 894 MHz (LTE B26) 2 496 MHz to 2 690 MHz (LTE B41) 2 402 MHz to 2 480 MHz (Bluetooth) 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 Semi Anechoic chamber	90661 (July 07, 2015)
Radiated Field strength measurement facility 10 m Semi Anechoic chamber	

## 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	Serial Number	Manufacturer	FCC ID / DoC
EUT	LG-LK460	-	LG	ZNFLK460
USB cable	EAD62377921	-	LEAGTECH	-
Earphone	EAB64468401	-	CRESYN	-
Sound pack	SDP-100	-	EM TECH	-
Notebook PC	ProBook6560b	5CB2053MXF	HP	DoC
Notebook PC adaptor	Series PPP009L-E	-	LITE-On Technology	-
RJ45 cable	-	-	-	-
Gateway	TL-WR747N	-	TP-LINK	-
Gateway adaptor	T120150-2H1	-	TP-LINK	-
Serial mouse	Serial 2 button mouse	02031069	Radio shack	FSUGMZE3
SD card	256 GB EVD+UHS -1 microSDXC UI	-	SAMSUNG	-



## 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)1.2
	Sound pack	N/A	N/A	N/A
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	EUT End
	Sound pack	N	N/A	N	N/A
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 (0.15 MHz to 30 MHz)	1.82 dB ( $k = 2$ )
Radiated Emissions (30 MHz to 1 GHz)	5.20 dB ( $k = 2$ )
Radiated Emissions (1 GHz to 18 GHz)	5.24 dB ( $k = 2$ )
Radiated Emissions (18 GHz to 40 GHz)	5.40 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

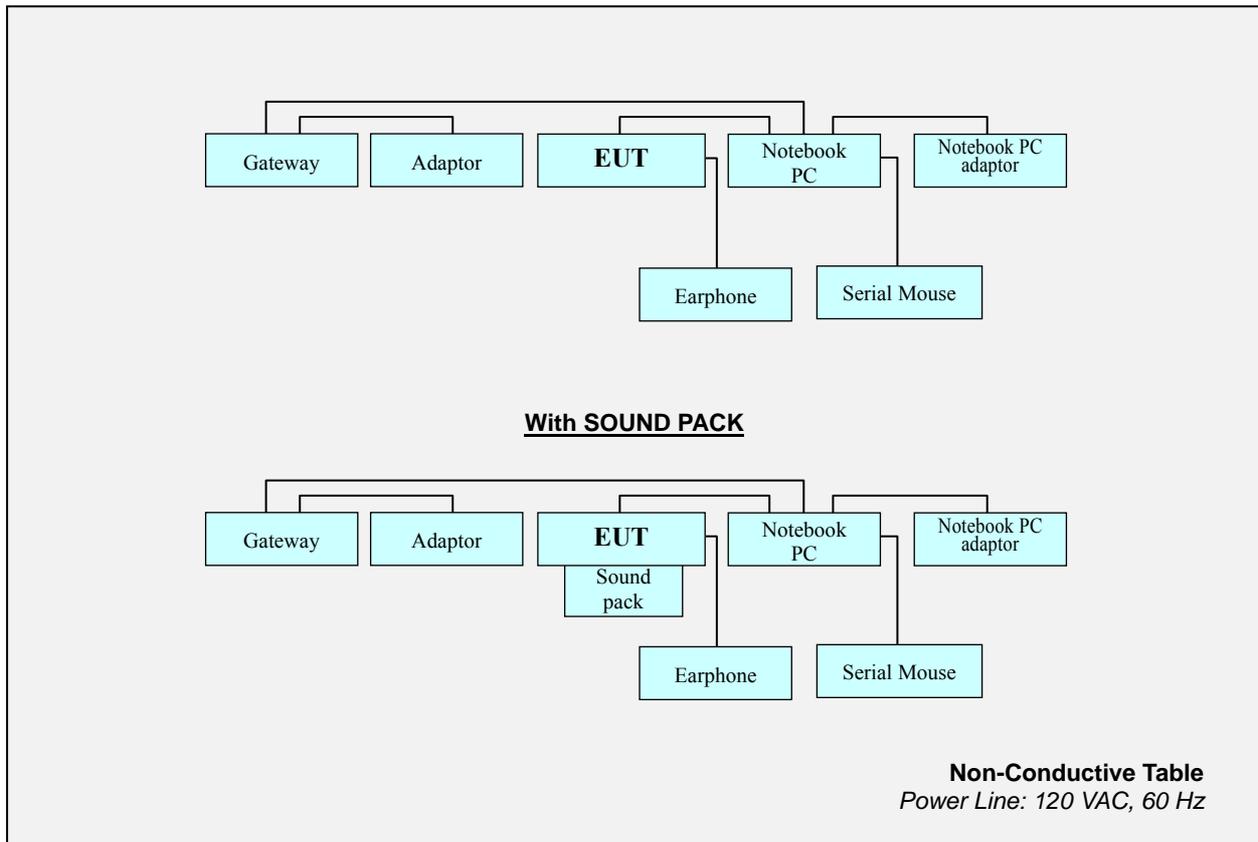


### 3.2.1 Frequency Range of Radiated Measurements

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





## 4. PRELIMINARY TEST

### 4.1 Conducted Emission Test

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

**Operation Mode:**       Data Communication mode  
                                  Data Communication mode (with Sound Pack)

### 4. 2 Radiated Emission Test

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

**Operation Mode:**       Data Communication mode  
                                  Data Communication mode (with Sound Pack)



## 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:

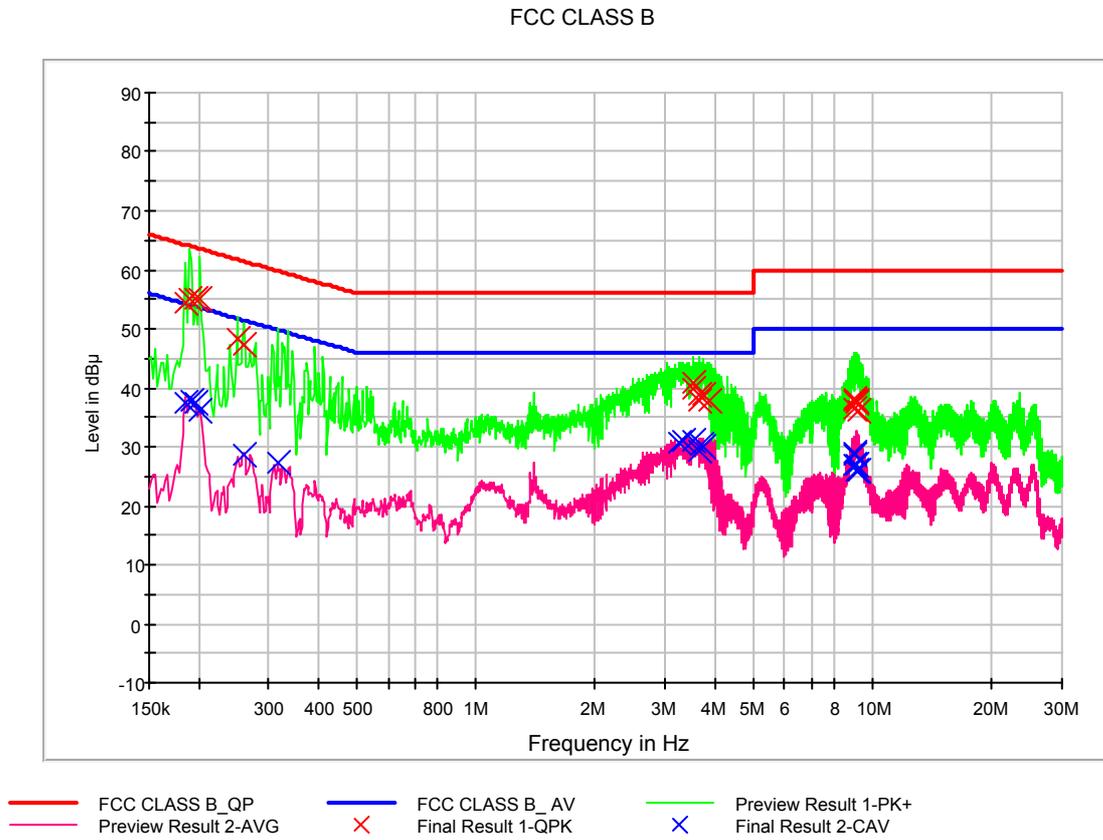
Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Operation Mode	Data Communication mode Data Communication mode (with SOUND PACK)
Kind of Test Site	Shielded Room
Temperature	23.1 °C
Relative Humidity	55.7 %
Test Date	August 16, 2017

#### - 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: Conducted Emission, AC Main Port, Data Communication Mode, Line (L1)





### QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.186000	54.5	9.000	L1	9.6	9.7	64.2
0.190000	55.2	9.000	L1	9.6	8.9	64.0
0.196000	54.9	9.000	L1	9.6	8.8	63.8
0.202000	54.9	9.000	L1	9.6	8.6	63.5
0.250000	48.2	9.000	L1	9.6	13.5	61.8
0.260000	47.3	9.000	L1	9.6	14.1	61.4
3.528000	40.8	9.000	L1	9.8	15.2	56.0
3.540000	39.7	9.000	L1	9.8	16.3	56.0
3.662000	38.7	9.000	L1	9.8	17.3	56.0
3.666000	37.8	9.000	L1	9.8	18.2	56.0
3.732000	38.7	9.000	L1	9.8	17.3	56.0
3.868000	37.7	9.000	L1	9.8	18.3	56.0
8.994000	36.6	9.000	L1	10.0	23.4	60.0
9.014000	38.0	9.000	L1	10.0	22.0	60.0
9.042000	37.9	9.000	L1	10.0	22.1	60.0
9.110000	37.7	9.000	L1	10.0	22.3	60.0
9.120000	37.5	9.000	L1	10.0	22.5	60.0
9.160000	36.0	9.000	L1	10.0	24.0	60.0

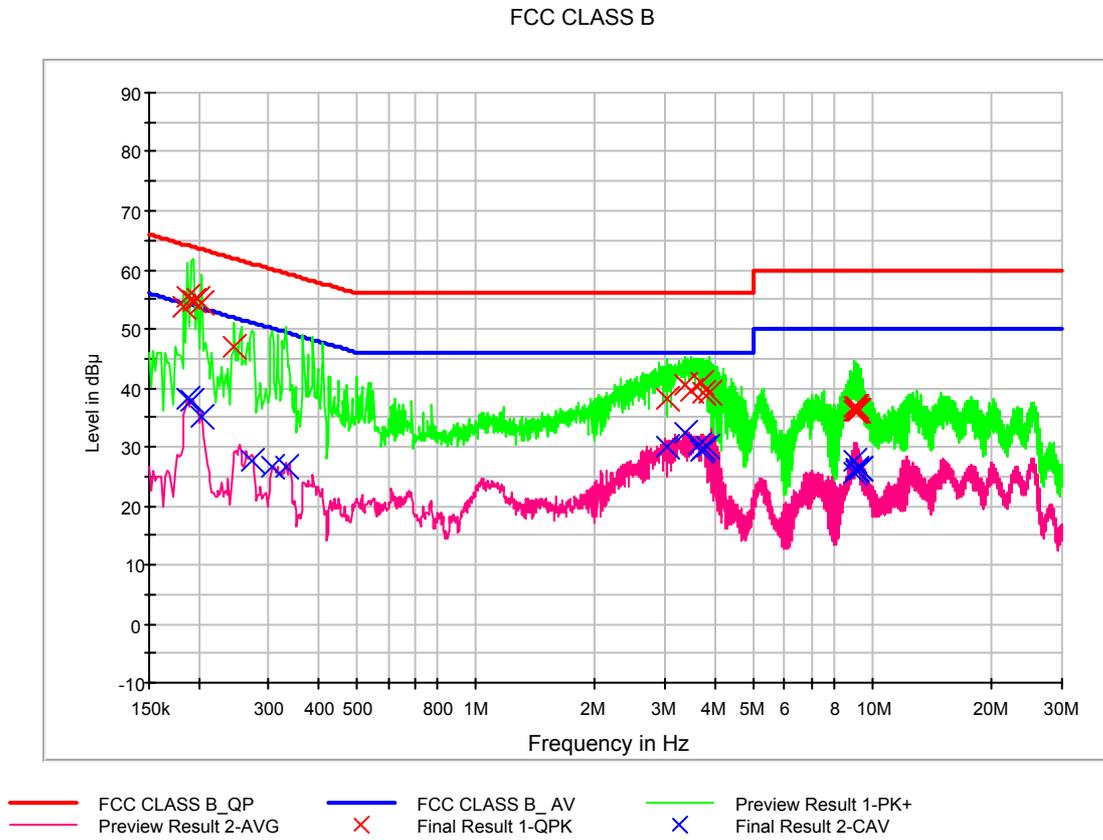


### CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.186000	37.4	9.000	L1	9.6	16.8	54.2
0.192000	37.7	9.000	L1	9.6	16.2	53.9
0.196000	37.3	9.000	L1	9.6	16.4	53.8
0.202000	36.0	9.000	L1	9.6	17.5	53.5
0.260000	28.7	9.000	L1	9.6	22.8	51.4
0.316000	27.2	9.000	L1	9.6	22.6	49.8
3.246000	30.8	9.000	L1	9.8	15.2	46.0
3.314000	31.1	9.000	L1	9.8	14.9	46.0
3.540000	30.9	9.000	L1	9.8	15.1	46.0
3.662000	29.2	9.000	L1	9.8	16.8	46.0
3.690000	30.4	9.000	L1	9.8	15.6	46.0
3.732000	30.1	9.000	L1	9.8	15.9	46.0
8.942000	27.0	9.000	L1	10.0	23.0	50.0
9.014000	29.1	9.000	L1	10.0	20.9	50.0
9.042000	28.5	9.000	L1	10.0	21.5	50.0
9.120000	26.8	9.000	L1	10.0	23.2	50.0
9.130000	25.8	9.000	L1	10.0	24.2	50.0
9.260000	25.8	9.000	L1	10.0	24.2	50.0



Figure 2: Conducted Emission, AC Main Port, Data Communication Mode, Line (N)





### QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.184000	53.6	9.000	N	9.6	10.7	64.3
0.188000	55.3	9.000	N	9.6	8.9	64.1
0.194000	54.6	9.000	N	9.6	9.3	63.9
0.198000	54.9	9.000	N	9.6	8.8	63.7
0.204000	54.3	9.000	N	9.6	9.1	63.4
0.246000	47.0	9.000	N	9.6	14.9	61.9
3.036000	38.3	9.000	N	9.8	17.7	56.0
3.378000	40.4	9.000	N	9.8	15.6	56.0
3.478000	39.5	9.000	N	9.8	16.5	56.0
3.718000	40.9	9.000	N	9.8	15.1	56.0
3.728000	39.0	9.000	N	9.8	17.0	56.0
3.890000	39.2	9.000	N	9.8	16.8	56.0
8.960000	36.6	9.000	N	10.0	23.4	60.0
9.002000	36.1	9.000	N	10.0	23.9	60.0
9.068000	36.8	9.000	N	10.0	23.2	60.0
9.072000	36.3	9.000	N	10.0	23.7	60.0
9.104000	36.2	9.000	N	10.0	23.8	60.0
9.214000	36.1	9.000	N	10.0	23.9	60.0

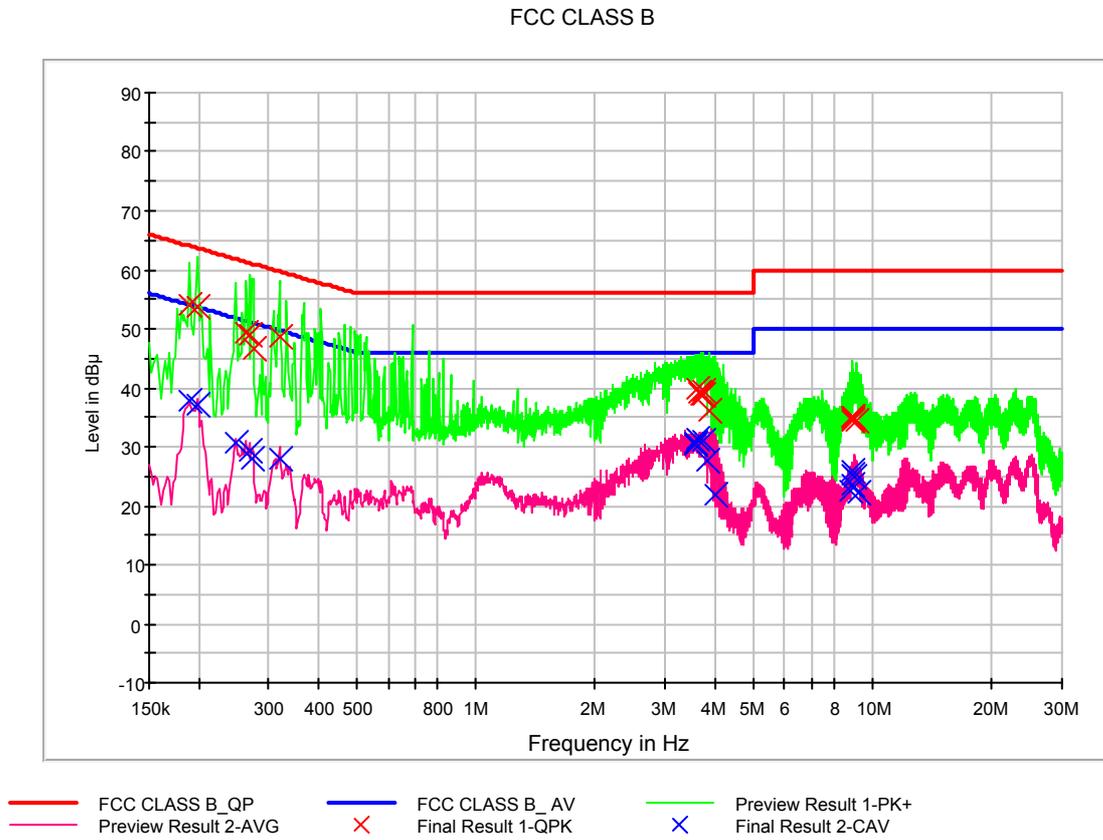


## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.188000	38.1	9.000	N	9.6	16.1	54.1
0.192000	37.9	9.000	N	9.6	16.1	53.9
0.204000	35.1	9.000	N	9.6	18.4	53.4
0.272000	27.7	9.000	N	9.6	23.4	51.1
0.306000	26.8	9.000	N	9.6	23.3	50.1
0.332000	26.6	9.000	N	9.6	22.8	49.4
3.036000	30.0	9.000	N	9.8	16.0	46.0
3.378000	32.2	9.000	N	9.8	13.8	46.0
3.658000	30.3	9.000	N	9.8	15.7	46.0
3.702000	29.3	9.000	N	9.8	16.7	46.0
3.722000	29.7	9.000	N	9.8	16.3	46.0
3.830000	30.1	9.000	N	9.8	15.9	46.0
8.960000	27.5	9.000	N	10.0	22.5	50.0
9.002000	25.7	9.000	N	10.0	24.3	50.0
9.072000	25.8	9.000	N	10.0	24.2	50.0
9.104000	26.3	9.000	N	10.0	23.7	50.0
9.270000	26.2	9.000	N	10.1	23.8	50.0
9.274000	26.3	9.000	N	10.1	23.7	50.0



Figure 3: Conducted Emission, AC Main Port, Data Communication Mode(with sound pack), Line (L1)





### QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.190000	54.2	9.000	L1	9.6	9.9	64.0
0.198000	53.7	9.000	L1	9.6	10.0	63.7
0.264000	49.3	9.000	L1	9.6	12.0	61.3
0.268000	49.0	9.000	L1	9.6	12.2	61.2
0.274000	46.6	9.000	L1	9.6	14.4	61.0
0.320000	48.7	9.000	L1	9.6	11.0	59.7
3.608000	40.0	9.000	L1	9.8	16.0	56.0
3.656000	39.1	9.000	L1	9.8	16.9	56.0
3.710000	38.8	9.000	L1	9.8	17.2	56.0
3.724000	39.0	9.000	L1	9.8	17.0	56.0
3.742000	39.6	9.000	L1	9.8	16.4	56.0
3.884000	36.1	9.000	L1	9.8	19.9	56.0
8.864000	35.2	9.000	L1	10.0	24.8	60.0
8.886000	35.2	9.000	L1	10.0	24.8	60.0
8.890000	34.8	9.000	L1	10.0	25.2	60.0
8.910000	34.5	9.000	L1	10.0	25.5	60.0
8.920000	35.2	9.000	L1	10.0	24.8	60.0
9.144000	34.4	9.000	L1	10.0	25.6	60.0

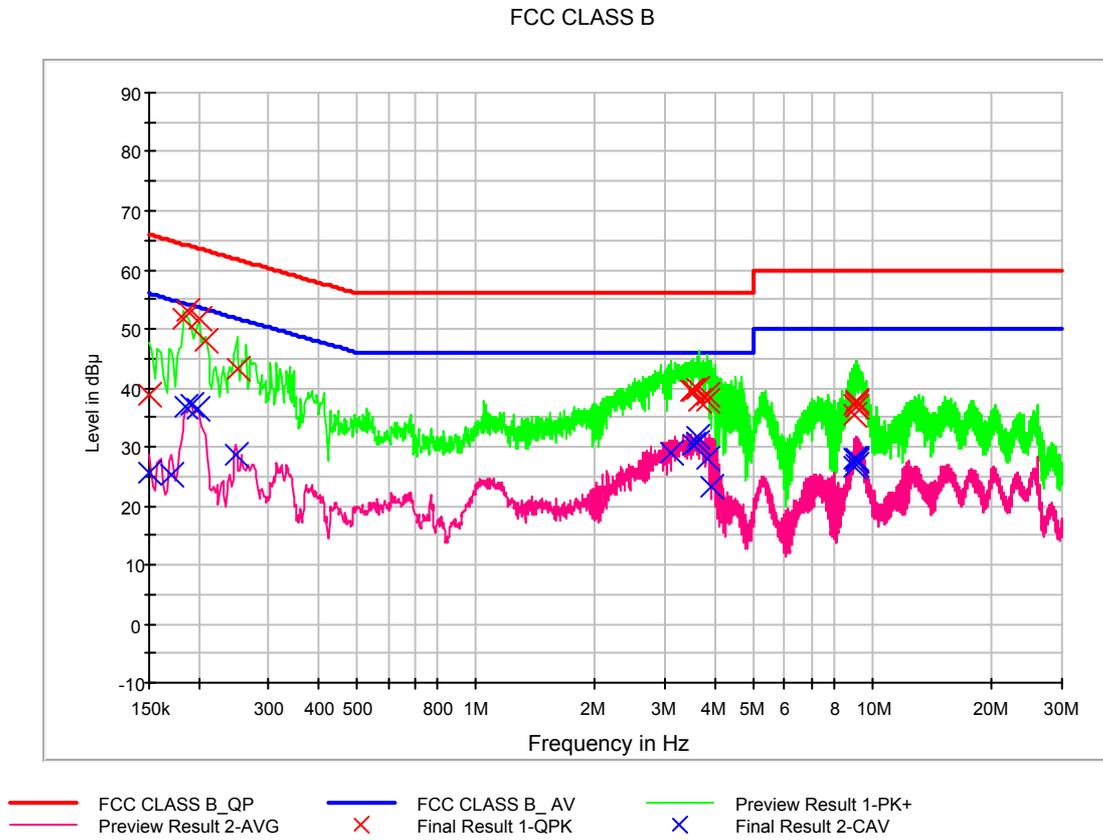


### CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.190000	37.9	9.000	L1	9.6	16.1	54.0
0.198000	37.1	9.000	L1	9.6	16.6	53.7
0.248000	30.5	9.000	L1	9.6	21.3	51.8
0.268000	29.3	9.000	L1	9.6	21.9	51.2
0.272000	28.1	9.000	L1	9.6	23.0	51.1
0.320000	28.1	9.000	L1	9.6	21.6	49.7
3.580000	30.6	9.000	L1	9.8	15.4	46.0
3.590000	30.3	9.000	L1	9.8	15.7	46.0
3.608000	31.3	9.000	L1	9.8	14.7	46.0
3.742000	30.9	9.000	L1	9.8	15.1	46.0
3.820000	27.8	9.000	L1	9.8	18.2	46.0
4.012000	22.0	9.000	L1	9.8	24.0	46.0
8.766000	22.6	9.000	L1	10.0	27.4	50.0
8.886000	25.1	9.000	L1	10.0	24.9	50.0
8.910000	23.5	9.000	L1	10.0	26.5	50.0
8.920000	25.9	9.000	L1	10.0	24.1	50.0
8.980000	24.8	9.000	L1	10.0	25.2	50.0
9.208000	22.2	9.000	L1	10.0	27.8	50.0



Figure 4: Conducted Emission, AC Main Port, Data Communication Mode(with sound pack), Line (N)





### QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	38.8	9.000	N	9.6	27.2	66.0
0.184000	51.8	9.000	N	9.6	12.5	64.3
0.188000	53.0	9.000	N	9.6	11.1	64.1
0.202000	51.7	9.000	N	9.6	11.9	63.5
0.208000	48.1	9.000	N	9.6	15.2	63.3
0.250000	43.4	9.000	N	9.6	18.4	61.8
3.506000	39.6	9.000	N	9.8	16.4	56.0
3.522000	39.4	9.000	N	9.8	16.6	56.0
3.600000	39.9	9.000	N	9.8	16.1	56.0
3.672000	37.9	9.000	N	9.8	18.1	56.0
3.810000	38.7	9.000	N	9.8	17.3	56.0
3.824000	38.0	9.000	N	9.8	18.0	56.0
8.992000	35.6	9.000	N	10.0	24.4	60.0
8.996000	37.0	9.000	N	10.0	23.0	60.0
9.048000	36.8	9.000	N	10.0	23.2	60.0
9.058000	36.8	9.000	N	10.0	23.2	60.0
9.078000	37.3	9.000	N	10.0	22.7	60.0
9.140000	37.7	9.000	N	10.0	22.3	60.0



## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	25.7	9.000	N	9.6	30.3	56.0
0.170000	25.2	9.000	N	9.6	29.8	55.0
0.186000	36.9	9.000	N	9.6	17.3	54.2
0.192000	37.2	9.000	N	9.6	16.7	53.9
0.198000	36.5	9.000	N	9.6	17.2	53.7
0.248000	28.8	9.000	N	9.6	23.1	51.8
3.118000	29.1	9.000	N	9.8	16.9	46.0
3.542000	30.4	9.000	N	9.8	15.6	46.0
3.600000	30.5	9.000	N	9.8	15.5	46.0
3.616000	31.5	9.000	N	9.8	14.5	46.0
3.842000	27.9	9.000	N	9.8	18.1	46.0
3.910000	23.3	9.000	N	9.8	22.7	46.0
8.992000	26.8	9.000	N	10.0	23.2	50.0
8.996000	28.1	9.000	N	10.0	21.9	50.0
9.048000	27.0	9.000	N	10.0	23.0	50.0
9.058000	27.9	9.000	N	10.0	22.1	50.0
9.122000	27.6	9.000	N	10.0	22.4	50.0
9.140000	27.8	9.000	N	10.0	22.2	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 Data Communication mode (with SOUND PACK)
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.1 / 24.1 °C
Relative Humidity	61.9 / 60.5 %
Test Date	August 10 / August 11, 2017

### - 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



### Data Communication Mode

Frequency (MHz)	Quasi Peak (dB $\mu$ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)
30.268531	29.1	100.0	V	117.0	21.7	10.9	40.0
84.187200	31.2	283.0	H	101.0	18.3	8.8	40.0
162.532800	28.6	100.0	V	281.0	23.3	14.9	43.5
249.992800	34.2	150.0	H	340.0	22.2	11.8	46.0
265.560000	34.0	115.0	H	288.0	22.8	12.0	46.0
600.008800	40.2	100.0	V	4.0	31.3	5.8	46.0

### Data Communication Mode (with sound pack)

Frequency (MHz)	Quasi Peak (dB $\mu$ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)
54.919200	26.0	124.0	V	162.0	23.1	14.0	40.0
77.208330	25.7	283.0	H	28.0	19.6	22.3	40.0
85.396000	30.4	384.0	H	99.0	18.1	9.6	40.0
133.267200	23.7	303.0	H	112.0	22.3	19.9	43.5
197.537600	21.6	100.0	V	191.0	20.4	21.9	43.5
265.600000	32.9	143.0	H	289.0	22.8	13.1	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	2 690 MHz
Upper Frequency of Measurement Range	1 GHz to 13.45 GHz
Operation Mode	Data Communication mode Data Communication mode (with SOUND PACK)
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.1 / 24.1 °C
Relative Humidity	61.9 / 60.5 %
Test Date	August 10 / August 11, 2017

#### - 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



### Data Communication Mode

Frequency (MHz)	Peak (dB $\mu$ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)
1400.045000	46.2	391.5	V	177.0	-12.9	27.8	74.0
1499.250000	43.6	360.4	V	181.0	-12.6	30.4	74.0
2016.485000	49.0	110.5	V	204.0	-11.7	25.0	74.0
2598.905000	52.1	399.8	V	168.0	-9.5	21.9	74.0
2996.740000	41.5	399.9	V	229.0	-8.7	32.5	74.0
4497.050000	40.0	399.9	V	274.0	-5.4	34.0	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)
1400.045000	44.4	391.5	V	177.0	-12.9	9.6	54.0
1499.250000	35.7	360.4	V	181.0	-12.6	18.3	54.0
2016.485000	33.9	110.5	V	204.0	-11.7	20.1	54.0
2598.905000	32.7	399.8	V	168.0	-9.5	21.3	54.0
2996.740000	25.1	399.9	V	229.0	-8.7	28.9	54.0
4497.050000	26.8	399.9	V	274.0	-5.4	27.2	54.0

### Data Communication Mode(with sound pack)

Frequency (MHz)	Peak (dB $\mu$ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)
1400.000000	44.7	377.6	V	180.0	-12.9	29.3	74.0
1994.525000	50.0	99.7	V	208.0	-11.8	24.0	74.0
2590.940000	53.0	399.9	V	157.0	-9.5	21.0	74.0
2657.380000	49.4	399.9	V	203.0	-9.4	24.6	74.0
2999.655000	44.2	399.9	V	240.0	-8.7	29.8	74.0
4473.080000	39.3	123.8	V	50.0	-5.5	34.7	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)
1400.000000	42.6	377.6	V	180.0	-12.9	11.4	54.0
1994.525000	34.4	99.7	V	208.0	-11.8	19.6	54.0
2590.940000	33.9	399.9	V	157.0	-9.5	20.1	54.0
2657.380000	30.3	399.9	V	203.0	-9.4	23.7	54.0
2999.655000	29.5	399.9	V	240.0	-8.7	24.5	54.0
4473.080000	26.6	123.8	V	50.0	-5.5	27.4	54.0



## 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	100033	1 year	06.27.2017
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	06.20.2017
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ENV216	100073	1 year	12.23.2016
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	05.22.2017
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32 VER 8.54.0	-	-	-

### **Radiated Emission**

#### **-For measurement below 1 GHz**

<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	11.04.2016
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	04.05.2017
<input checked="" type="checkbox"/> Trilog Antenna	Schwarzbeck	VULB9168	760	2 year	04.06.2017
<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 type="checkbox"/> Turn Table controller	EMCO	2090	9702-1224	N/A	-
<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	05.16.2017
<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 VER 8.40.0	-	-	-

#### **-For measurement above 1 GHz**

<input type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	11.04.2016
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	04.05.2017
<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/L	N/A	-
<input checked="" type="checkbox"/> Turn Table	EMCO	1060-2M	-	N/A	-
<input checked="" type="checkbox"/> Power Amplifier	CERNEX	CBLU5183530	24348	1 year	06.01.2017
<input type="checkbox"/> Power Amplifier	CERNEX	CBL18265035	21873	1 year	01.19.2017
<input type="checkbox"/> Power Amplifier	CERNEX	CBL26405040	19660	1 year	07.11.2017
<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"/> Turn Table controller	EMCO	2090	9702-1224	N/A	-
<input type="checkbox"/> Power Amplifier	CERNEX	CBLU1183540	21691	1 year	06.28.2017
<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	05.16.2017
<input type="checkbox"/> Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32 VER 8.40.0	-	-	-



## 7. CONCLUSION

The data collected shows that the **EUT Type: Multi-band CDMA/LTE tablet with WLAN, Bluetooth,**  
**Model: LG-LK460, FCC ID: ZNFLK460** complies with §15.107 and §15.109 of the FCC rules.