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EMI TEST REPORT
FCC CERTIFICATION / ISED

Applicant: **LG Electronics USA, Inc.** **1000 Sylvan Avenue, Englewood Cliffs NJ 07632** **United Stats**	**Date of Issue: February 15, 2019** **Test Report No. HCT-EM-1901-FI002-R1** **Test Site: HCT CO., LTD.**

FCC ID	**ZNFG820UM**
IC	**2703C-G820UM**

Rule Part(s) / Standard(s)	: FCC CFR 47 PART 15 Subpart B Class B ICES-003 Issue 6 Class B ANSI C63.4-2014
EUT Type	: Multi-band CDMA/GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth and RFID
Model Name	: LM-G820UM
Additional Model Name	: LMG820UM, G820UM, LM-G820TM, LMG820TM, G820TM, LM-G820QM, LMG820QM, G820QM
Travel Adaptor Information	: Model Name: MCS-H06WA / Manufacturer: AOHAI
Date of Test	: January 02, 2019 to January 09, 2019

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 denial 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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Reviewed

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REVISION HISTORY

The revision history for this document is shown in table.

Report No.	Issue Date	Information About Changes
HCT-EM-1901-FI002	January 18, 2019	Initial Release
HCT-EM-1901-FI002-R1	February 15, 2019	Revised FCC ID

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1. GENERAL INFORMATION

1.1 Description of EUT

Its basic purpose is used for communications.

FCC ID	ZNFG820UM
IC	2703C-G820UM
Model	LM-G820UM
Series Model Name	LMG820UM, G820UM, LM-G820TM, LMG820TM, G820TM, LM-G820QM, LMG820QM, G820QM
EUT Type	Multi-band CDMA/GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth and RFID
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) 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) 1712.4 MHz to 1752.6 MHz (WCDMA B4) 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) 699 MHz to 716 MHz (LTE B12) 777 MHz to 787 MHz (LTE B13) 788 MHz to 798 MHz (LTE B14) 704 MHz to 716 MHz (LTE B17) 1 850 MHz to 1 915 MHz (LTE B25) 814 MHz to 849 MHz (LTE B26) 2 305 MHz to 2 315 MHz (LTE B30) 2 496 MHz to 2 690 MHz (LTE B41) 3550 MHz to 3700 MHz (LTE B48) 1 710 MHz to 1 780 MHz (LTE B66) 663 MHz to 698 MHz (LTE B71) 2 402 MHz to 2 480 MHz (Bluetooth) 2 412 MHz to 2 462 MHz (WiFi 2.4 GHz) 5 180 MHz to 5 240 MHz (WiFi 5 GHz_UNII 1) 5 260 MHz to 5 320 MHz (WiFi 5 GHz_UNII 2A) 5 500 MHz to 5 720 MHz (WiFi 5 GHz_UNII 2C) 5 745 MHz to 5 825 MHz (WiFi 5 GHz_UNII 3) 13.56 MHz (RFID)

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) 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) 2 112.4 MHz to 2 152.6 MHz (WCDMA B4) 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) 729 MHz to 746 MHz (LTE B12) 746 MHz to 756 MHz (LTE B13) 758 MHz to 768 MHz (LTE B14) 734 MHz to 746 MHz (LTE B17) 1 925 MHz to 1 990 MHz (LTE B25) 859 MHz to 894 MHz (LTE B26) 717 MHz to 728 MHz (LTE B29) 2 350 MHz to 2 360 MHz (LTE B30) 2 496 MHz to 2 690 MHz (LTE B41) 5 150 MHz to 5 925 MHz (LTE B46) 3550 MHz to 3700 MHz (LTE B48) 2 110 MHz to 2 200 MHz (LTE B66) 617 MHz to 652 MHz (LTE B71) 2 402 MHz to 2 480 MHz (Bluetooth) 2 412 MHz to 2 462 MHz (WiFi 2.4 GHz) 5 180 MHz to 5 240 MHz (WiFi 5 GHz_UNII 1) 5 260 MHz to 5 320 MHz (WiFi 5 GHz_UNII 2A) 5 500 MHz to 5 720 MHz (WiFi 5 GHz_UNII 2C) 5 745 MHz to 5 825 MHz (WiFi 5 GHz_UNII 3) 13.56 MHz (RFID)

1.2 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	LM-G820UM	-	LG	ZNFG820UM
Data Cable	EAD64746102	-	LUXSHARE	-
Earphone	EAB63728251	-	CRESYN	-
TA	MCS-H06WA	-	AOHAI	-
Micro SD card	SAMSUNG EVO +microSDXC CLASS10 UHS-1 (256 GB)	-	SAMSUNG	-

1.3 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
EUT	USB type C	Y	N/A	(P)1.0
	Earphone	N/A	N	(D)1.2

* The marked “(D)” means the data cable and “(P)” means the power cable.

1.4 Noise Suppression Parts on Cable. (I/O Cable)

Product Name	Port	Ferrite Bead (Y/N)	Location	Metal Hood (Y/N)	Location
EUT	USB type C	N	N/A	Y	Both End
	Earphone	N	N/A	Y	EUT End

1.5 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. The Normalized site attenuations (30 MHz to 1 GHz) and Site validation (1 GHz to 18 GHz) were performed in accordance with the standard in ANSI C63.4-2014

Measurement Facilities	Registration Number
Radiated Field strength measurement facility 3 m Semi Anechoic chamber	90661
Radiated Field strength measurement facility 10 m Semi Anechoic chamber	
Filing the EMI Measurement Facility (3 m Semi Anechoic Chamber and Shielded Room)	IC 5944A-4
Filing the EMI Measurement Facility (10 m Semi-Anechoic Chamber)	IC 5944A-2

1.6 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).

1.7 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_{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
Radiated Emissions (30 MHz to 1 GHz)	5.20 dB
Radiated Emissions (1 GHz to 18 GHz)	5.24 dB
Radiated Emissions (18 GHz to 40 GHz)	5.40 dB

2. LIST OF TEST EQUIPMENT

	Type	Manufacturer	Model Name	Serial Number	Calibration Cycle	CAL Date
Conducted Emission						
☒	EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	06.25.2018
☒	LISN	Rohde & Schwarz	ENV216	102245	1 year	12.12.2018
☐	LISN	Rohde & Schwarz	ENV216	100073	1 year	05.03.2018
☒	Software	Rohde & Schwarz	EMC32 VER8.54.0	-	-	-
Radiated Emission						
-For measurement below 1 GHz						
☒	EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	07.27.2018
☒	Trilog Antenna	Schwarzbeck	VULB 9168	760	2 year	04.06.2017
☒	Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
☒	Antenna master controller	INNCO Systems	CO 3000	CO3000/870/ 35990515/L	N/A	-
☒	Turn Table	INNCO Systems	1060	-	N/A	-
☒	Turn Table controller	INNCO Systems	CO2000	CO2000/095/ 7590304/L	N/A	-
☐	EMI Test Receiver	Rohde & Schwarz	ESU26	100241	1 year	08.14.2018
☐	Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☐	Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☒	Software	Rohde & Schwarz	EMC32 VER8.40.0	-	-	-
-For measurement above 1 GHz						
☒	EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	07.27.2018
☒	Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
☒	Antenna master controller	INNCO Systems	CO3000	CO3000/870/ 35990515/L	N/A	-
☒	Turn Table	INNCO Systems	1060	-	N/A	-
☒	Turn Table controller	INNCO Systems	CO2000	CO2000/095/ 7590304/L	N/A	-
☒	Horn Antenna	Schwarzbeck	BBHA 9120D	01836	2 year	05.14.2018
☒	Low Noise Amplifier	TESTEK	TK-PA18H	170034-L	1 year	03.06.2018
☒	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170#786	2 year	12.05.2017
☒	Power Amplifier	TESTEK	TK-PA1840H	170030-L	1 year	12.17.2018
☐	Antenna master controller	HD GmbH	HD 100	100/637	N/A	-
☐	Power Amplifier	CERNEX	CBLU1183540	21691	1 year	06.25.2018
☐	Antenna master	HD GmbH	MA240	240/520	N/A	-
☐	EMI Test Receiver	Rohde & Schwarz	ESU26	100241	1 year	08.14.2018
☐	Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☒	Software	Rohde & Schwarz	EMC32 VER8.40.0	-	-	-

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]

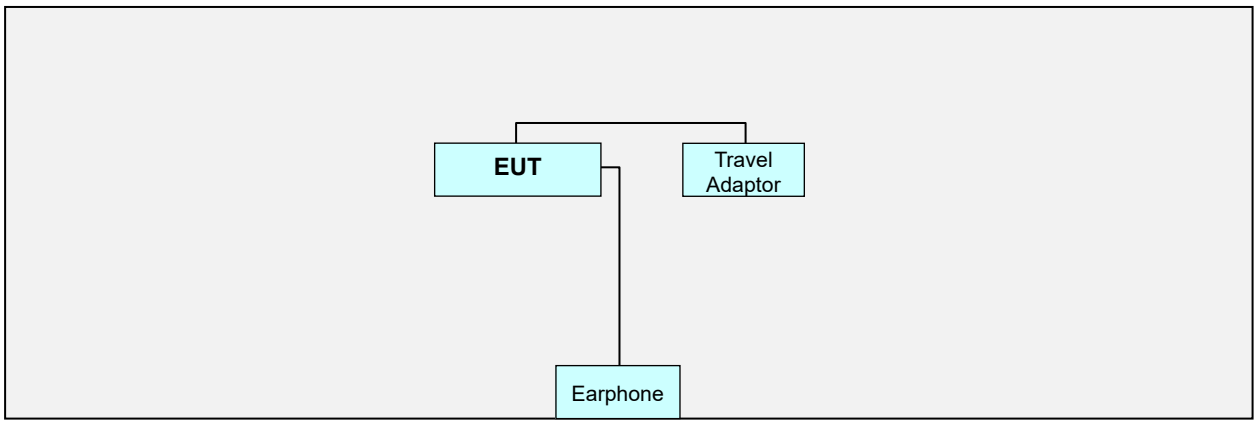
Frequency (MHz)	Antenna Distance (m)	Field Strength (μV/m)	Quasi-Peak (dB(μV)/m)
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0
Frequency (MHz)	Antenna Distance (m)	Peak (dB(μV)/m)	Average (dB(μV)/m)
Above 1 000	3	74	54

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	5th harmonic of the highest frequency or 40 ㎓, whichever is lower

3.3 Configuration of Tested System



Non-Conductive Table
Power Line: 120 VAC, 60 Hz

4. PRELIMINARY TEST

4.1 Conducted Emission

It was tested the following operating mode, after connecting all peripheral devices.

Operating Modes:

☒ FRONT CAMERA & MP3 mode
☒ REAR CAMERA & FM RADIO mode
☒ ToF CAMERA mode
☒ IDLE mode

NOTE. The worst-case emissions are reported.

4.2 Radiated Emission

It was tested the following operating mode, after connecting all peripheral devices.

Operating Modes:

☒ FRONT CAMERA & MP3 mode
☒ REAR CAMERA & FM RADIO mode
☒ ToF CAMERA mode
☒ IDLE mode

NOTE. The worst-case emissions are reported.

5. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

5.1 Conducted Emission

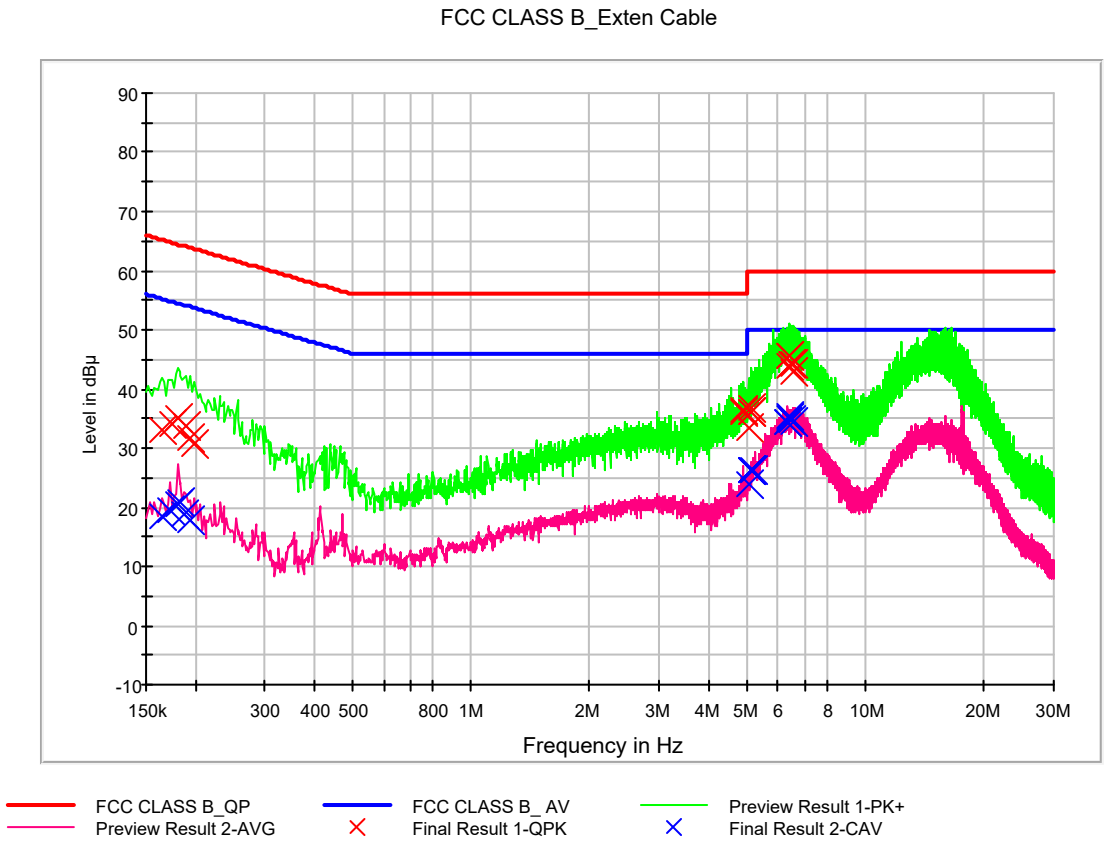
The test results of conducted emission at mains ports provide the following information:

Rule Part / Standard	FCC PART 15 Subpart B Class B ICES-003 Issue 6 Class B ANSI C63.4-2014
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Operating Mode	ToF CAMERA mode
Kind of Test Site	Shielded Room
Temperature	20.1 °C
Relative Humidity	41.5 %
Test Date	January 04, 2019

- 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, Line (L1)



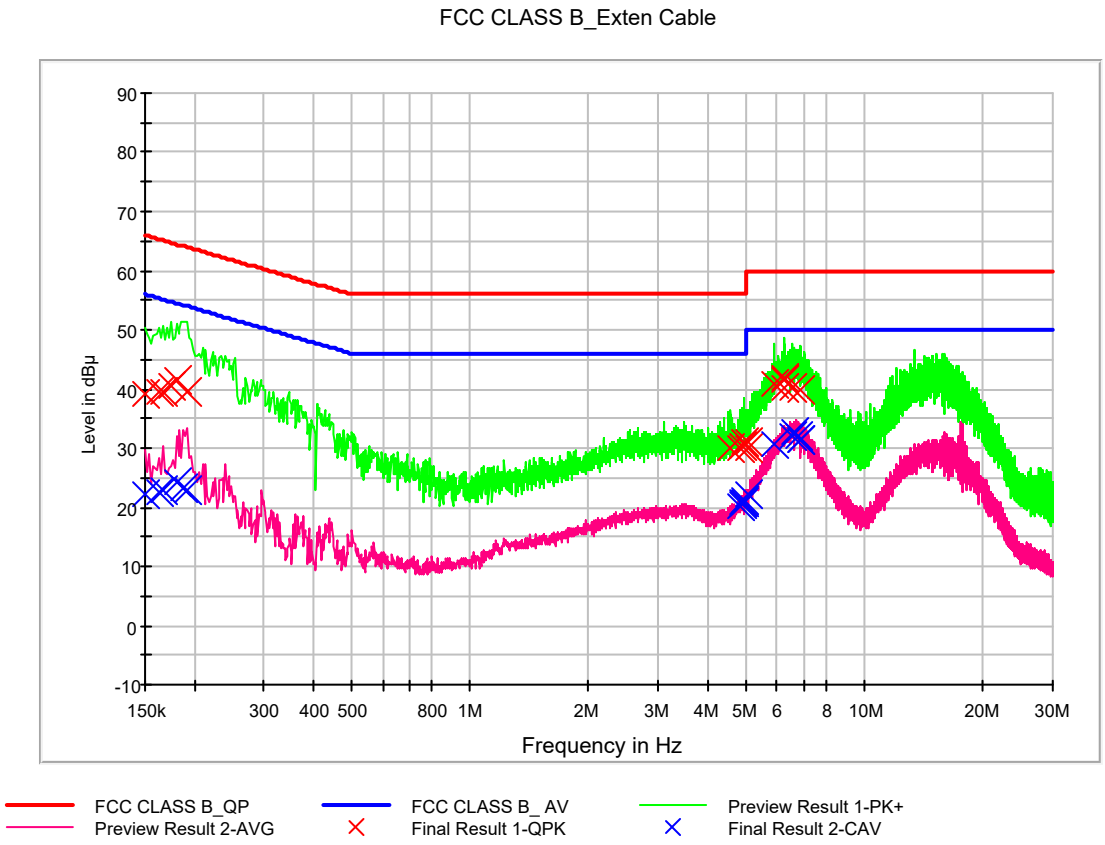
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.164000	33.0	9.000	L1	9.7	32.2	65.3
0.174000	34.2	9.000	L1	9.7	30.5	64.8
0.180000	35.2	9.000	L1	9.7	29.3	64.5
0.190000	33.8	9.000	L1	9.7	30.2	64.0
0.194000	31.7	9.000	L1	9.7	32.1	63.9
0.198000	30.7	9.000	L1	9.7	33.0	63.7
4.870000	36.1	9.000	L1	10.0	19.9	56.0
4.882000	36.3	9.000	L1	10.0	19.7	56.0
5.042000	33.5	9.000	L1	10.0	26.5	60.0
5.134000	36.2	9.000	L1	10.0	23.8	60.0
5.146000	36.8	9.000	L1	10.0	23.2	60.0
5.152000	36.1	9.000	L1	10.0	23.9	60.0
6.388000	43.9	9.000	L1	10.1	16.1	60.0
6.434000	45.6	9.000	L1	10.1	14.4	60.0
6.438000	45.6	9.000	L1	10.1	14.4	60.0
6.518000	44.2	9.000	L1	10.1	15.8	60.0
6.560000	42.9	9.000	L1	10.1	17.1	60.0
6.592000	44.3	9.000	L1	10.1	15.7	60.0

CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.164000	18.5	9.000	L1	9.7	36.7	55.3
0.172000	19.5	9.000	L1	9.7	35.4	54.9
0.180000	20.6	9.000	L1	9.7	33.9	54.5
0.184000	21.0	9.000	L1	9.7	33.3	54.3
0.188000	18.9	9.000	L1	9.7	35.2	54.1
0.194000	17.7	9.000	L1	9.7	36.1	53.9
5.042000	24.1	9.000	L1	10.0	25.9	50.0
5.134000	26.1	9.000	L1	10.0	23.9	50.0
5.146000	26.1	9.000	L1	10.0	23.9	50.0
5.156000	26.2	9.000	L1	10.0	23.8	50.0
5.160000	26.3	9.000	L1	10.0	23.7	50.0
5.168000	26.4	9.000	L1	10.0	23.6	50.0
6.310000	34.3	9.000	L1	10.1	15.7	50.0
6.368000	34.3	9.000	L1	10.1	15.7	50.0
6.434000	35.1	9.000	L1	10.1	14.9	50.0
6.438000	35.5	9.000	L1	10.1	14.5	50.0
6.518000	34.6	9.000	L1	10.1	15.4	50.0
6.560000	34.3	9.000	L1	10.1	15.7	50.0

Figure 2: 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	39.1	9.000	N	9.8	26.9	66.0
0.162000	39.4	9.000	N	9.8	25.9	65.4
0.166000	39.6	9.000	N	9.8	25.6	65.2
0.174000	40.5	9.000	N	9.8	24.2	64.8
0.180000	41.4	9.000	N	9.8	23.1	64.5
0.192000	39.6	9.000	N	9.8	24.4	63.9
4.590000	30.1	9.000	N	10.2	25.9	56.0
4.862000	30.0	9.000	N	10.2	26.0	56.0
4.902000	30.3	9.000	N	10.2	25.7	56.0
4.936000	31.0	9.000	N	10.2	25.0	56.0
5.056000	30.1	9.000	N	10.2	29.9	60.0
5.090000	30.9	9.000	N	10.2	29.1	60.0
5.932000	40.9	9.000	N	10.3	19.1	60.0
6.226000	40.2	9.000	N	10.3	19.8	60.0
6.238000	41.7	9.000	N	10.3	18.3	60.0
6.248000	41.7	9.000	N	10.3	18.3	60.0
6.552000	40.1	9.000	N	10.3	19.9	60.0
6.898000	39.7	9.000	N	10.3	20.3	60.0

CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	22.1	9.000	N	9.8	33.9	56.0
0.162000	22.4	9.000	N	9.8	33.0	55.4
0.166000	23.0	9.000	N	9.8	32.2	55.2
0.180000	24.3	9.000	N	9.8	30.2	54.5
0.188000	23.3	9.000	N	9.8	30.8	54.1
0.192000	22.9	9.000	N	9.8	31.1	53.9
4.862000	20.3	9.000	N	10.2	25.7	46.0
4.880000	20.9	9.000	N	10.2	25.1	46.0
4.902000	20.5	9.000	N	10.2	25.5	46.0
4.928000	20.9	9.000	N	10.2	25.1	46.0
4.936000	21.0	9.000	N	10.2	25.0	46.0
5.094000	22.3	9.000	N	10.2	27.7	50.0
5.932000	30.6	9.000	N	10.3	19.4	50.0
6.552000	32.2	9.000	N	10.3	17.8	50.0
6.604000	32.7	9.000	N	10.3	17.3	50.0
6.810000	32.0	9.000	N	10.3	18.0	50.0
6.844000	31.3	9.000	N	10.3	18.7	50.0
6.898000	31.4	9.000	N	10.3	18.6	50.0

5.2 Radiated Emission

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 ICES-003 Issue 6 Class B ANSI C63.4-2014
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Operating Mode	ToF CAMERA mode
Kind of Test Site	3 m semi anechoic chamber
Temperature	22.7 °C
Relative Humidity	41.6 %
Test Date	January 07, 2019

Frequency (MHz)	Quasi Peak (dBµV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
41.256000	23.8	100.0	V	30.0	19.7	16.2	40.0
52.297600	21.6	100.0	V	12.0	20.2	18.4	40.0
98.279200	22.0	207.8	H	109.0	15.3	21.5	43.5
120.723200	24.5	199.7	H	291.0	17.8	19.0	43.5
160.048800	27.1	100.0	H	94.0	20.2	16.4	43.5
604.032800	27.5	100.0	V	170.0	27.5	18.5	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 ICES-003 Issue 6 Class B ANSI C63.4-2014
Detector	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)
Highest Frequency	5 925 MHz
Tested Frequency Range	1 GHz to 30 GHz
Operating Mode	ToF CAMERA mode
Kind of Test Site	3 m semi anechoic chamber
Temperature	20.7 / 22.0 °C
Relative Humidity	40.2 / 40.6 %
Test Date	January 02 / January 09, 2019

Frequency (MHz)	Peak (dBµV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1600.650000	32.9	124.6	H	20.0	-27.5	41.1	74.0
3062.490000	34.6	319.6	V	274.0	-22.7	39.4	74.0
4943.220000	36.4	150.0	V	50.0	-18.7	37.6	74.0
6721.960000	39.7	149.6	V	37.0	-14.9	34.3	74.0
8046.075000	42.1	149.6	V	73.0	-12.4	31.9	74.0
9912.390000	44.2	100.0	V	277.0	-9.5	29.8	74.0

Frequency (MHz)	CAverage (dBµV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
1600.650000	18.3	124.6	H	20.0	-27.5	35.7	54.0
3062.490000	21.5	319.6	V	274.0	-22.7	32.5	54.0
4943.220000	23.9	150.0	V	50.0	-18.7	30.1	54.0
6721.960000	26.5	149.6	V	37.0	-14.9	27.5	54.0
8046.075000	29.4	149.6	V	73.0	-12.4	24.6	54.0
9912.390000	31.2	100.0	V	277.0	-9.5	22.8	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. CONCLUSION

The data collected shows that the **EUT Type: Multi-band CDMA/GSM/EDGE/WCDMA/LTE Phone with WLAN, Bluetooth and RFID, Model: LM-G820UM** complies with §15.107 and §15.109 of the FCC rules and ICES-003 Issue 6 of the IC rules.

7. APPENDIX A. TEST SETUP PHOTOGRAPHS

Please refer to Appendix A