

On your side

HCT

TEST REPORT

EMI Test for FCC Certification of LM-K200AM Model

APPLICANT

LG Electronics USA, Inc.

REPORT NO.

HCT-EM-2012-FC019-R1

DATE OF ISSUE

February 15, 2021

Tested by

Na-Eun Song

(signature)


Technical Manager

Gu-Cheol Yoon

(signature)


HCT CO., LTD.

Soo Chan Lee

SooChan Lee

/ CEO

HCT Co., Ltd.

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA

Tel. +82 31 645 6300 Fax. +82 31 645 6401



HCT Co., Ltd.

74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
Tel. +82 31 645 6300 Fax. +82 31 645 6401

<h1 style="margin: 0;">TEST REPORT</h1> <p style="margin: 0;">EMI Test for FCC Certification</p>	<p>REPORT NO. HCT-EM-2012-FC019-R1</p> <p>DATE OF ISSUE February 15, 2021</p> <p>FCC ID. ZNFK200AM</p>
--	---

Applicant	LG Electronics USA, Inc. 111 Sylvan Avenue, North Building , Englewood Cliffs NJ 07632 United States
Product Name	Smart Phone
Model Name	LM-K200AM
Series Model Name	Refer to the clause 1.1 Description of EUT
Travel Adaptor Information	Model name: MCS-V01WA Manufacturer: AOHAI
Date of Test	December 21, 2020 to December 28, 2020
Test Standard Used	FCC CFR 47 PART 15 Subpart B Class B ANSI C63.4-2014
Test Results	Refer to the present document
Manufacturer	LG Electronics Inc.

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test results were applied only to the test methods required by the standard

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	December 29, 2020	Initial Release
1	February 15, 2021	Revised the Series Model Name in Clause 1.1

The above Test Report is not related to the accredited test result by (KS Q) ISO/IEC 17025 and KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation), which signed the ILAC-MRA.

* The report shall not be reproduced except in full (only partly) without approval of the laboratory.

CONTENTS

1. GENERAL INFORMATION	5
1.1 Description of EUT	5
1.2 Tested System Details	5
1.3 Cable Description	6
1.4 Noise Suppression Parts on Cable. (I/O Cable)	6
1.5 Test Facility	7
1.6 Calibration of Measuring Instrument	7
1.7 Measurement Uncertainty	7
2. DESCRIPTION OF TEST	8
2.1 Measurement of Conducted Emission	8
2.2 Measurement of Radiated Emission	9
2.3 Configuration of Tested System	10
3. PRELIMINARY TEST	11
3.1 Conducted Emission	11
3.2 Radiated Emission	11
4. CONDUCTED EMISSION AND RADIATED EMISSION TEST SUMMARY	12
4.1 Conducted Emission	12
4.2 Radiated Emission Below 1 GHz	19
4.3 Radiated Emission Above 1 GHz	21
5. CONCLUSION	23
6. APPENDIX A. TEST SETUP PHOTO	24

1. GENERAL INFORMATION

1.1 Description of EUT

FCC ID	ZNFK200AM
Model Name	LM-K200AM
Series Model Name	LMK200AM, K200AM, LM-K200CMR, LMK200CMR, K200CMR
Product Name	Smart Phone
Frequency Range TX	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) 699 MHz to 716 MHz (LTE B12) 2 402 MHz to 2 480 MHz (Bluetooth) 2 412 MHz to 2 462 MHz (WiFi 2.4 GHz)
Frequency Range RX	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) 729 MHz to 746 MHz (LTE B12) 2 402 MHz to 2 480 MHz (Bluetooth) 2 412 MHz to 2 462 MHz (WiFi 2.4 GHz)

1.2 Tested System Details

All equipment descriptions used in the tested system (including inserted cards) are:

Device Type	Model Name	Serial Number	Manufacturer
EUT	LM-K200AM	-	LG
DATA Cable	EAD62377921	-	LEAGTECH
Earphone	EAB64468444	-	CRESYN
TA	MCS-V01WA	-	AOHAI
Micro SD Card	Extreme MicroSDHC UHS-I CLASS 10 (32 GB)	-	SANDISK

1.3 Cable Description

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

NOTE. 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	Micro USB	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, 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. Our laboratories are accredited and designated in accordance with the provisions of Radio Waves ACT and International Standard ISO/IEC 17025:2017. (National Radio Research Agency, Designation No. KR0032)

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 equipment, which is traceable to recognized national standards. Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5:2017

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
Conducted Emission (0.15 MHz to 30 MHz)	1.58 dB
3 m Radiated Emissions (30 MHz to 1 GHz)	4.86 dB
3 m Radiated Emissions (1 GHz to 18 GHz)	4.58 dB
3 m Radiated Emissions (18 GHz to 40 GHz)	5.54 dB

2. DESCRIPTION OF TEST

2.1 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)	Class A		Class B	
		Quasi-Peak (dB μ V)	Average (dB μ V)	Quasi-Peak (dB μ V)	Average (dB μ V)
0.15 to 0.5	9	79	66	66 to 56*	56 to 46*
0.5 to 5	9	73	60	56	46
5 to 30	9	73	60	60	50

NOTE. Decreases with the logarithm of the frequency.

2.2 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

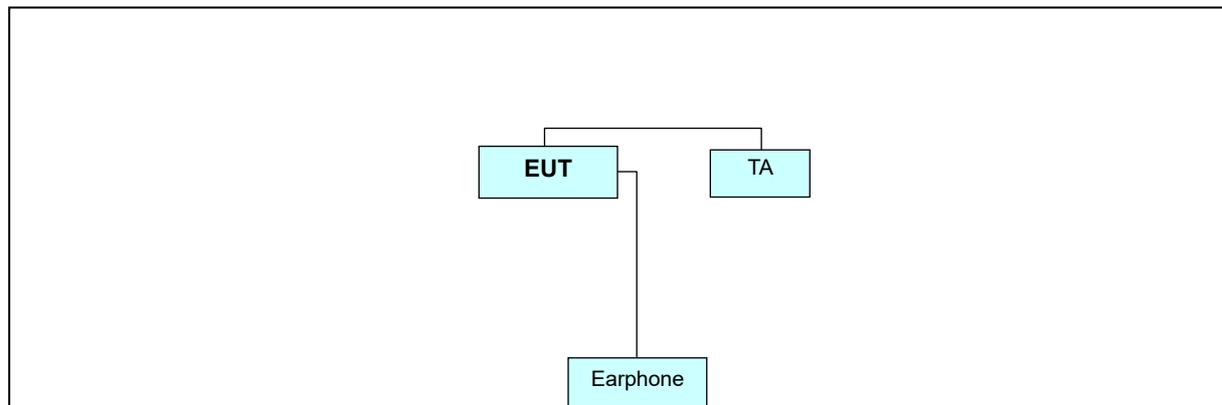
Frequency (MHz)	Class A			Class B		
	Antenna Distance (m)	Field Strength ($\mu\text{V/m}$)	Quasi-Peak ($\text{dB}\mu\text{V/m}$)	Antenna Distance (m)	Field Strength ($\mu\text{V/m}$)	Quasi-Peak ($\text{dB}\mu\text{V/m}$)
30 to 88	10	90	39.0	3	100	40.0
88 to 216	10	150	43.5	3	150	43.5
216 to 960	10	210	46.4	3	200	46.0
Above 960	10	300	49.5	3	500	54.0
Frequency (MHz)	Antenna Distance (m)	Class A		Class B		
		Peak ($\text{dB}\mu\text{V/m}$)	Average ($\text{dB}\mu\text{V/m}$)	Peak ($\text{dB}\mu\text{V/m}$)	Average ($\text{dB}\mu\text{V/m}$)	
Above 1 000	3	80	60	74	54	

2.2.1 Frequency Range of Radiated Measurements

An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705 to 108	1 000
108 to 500	2 000
500 to 1 000	5 000
Above 1 000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

2.3 Configuration of Tested System



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

3. PRELIMINARY TEST

3.1 Conducted Emission

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

Operating Modes: FRONT CAMERA & MP3 mode

REAR CAMERA mode

IDLE mode

NOTE. The worst-case emissions are reported.

3.2 Radiated Emission

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

Operating Modes: FRONT CAMERA & MP3 mode

REAR CAMERA mode

IDLE mode

NOTE. The worst-case emissions are reported.

4. CONDUCTED EMISSION AND RADIATED EMISSION TEST SUMMARY

4.1 Conducted Emission

4.1.1 Measuring instruments

	Type	Manufacturer	Model Name	Serial Number	Calibration Cycle	Calibration Date
<input checked="" type="checkbox"/>	EMI Test Receiver	Rohde & Schwarz	ESR7	101910	1 year	09.16.2020
<input checked="" type="checkbox"/>	LISN	Rohde & Schwarz	ENV216	102245	1 year	09.04.2020
<input checked="" type="checkbox"/>	Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.19.2020
<input checked="" type="checkbox"/>	Antenna (for Communication)	Schwarzbeck	USLP9142	USLP 9142-200	-	-
<input checked="" type="checkbox"/>	Software	Rohde & Schwarz	EMC32	-	-	-

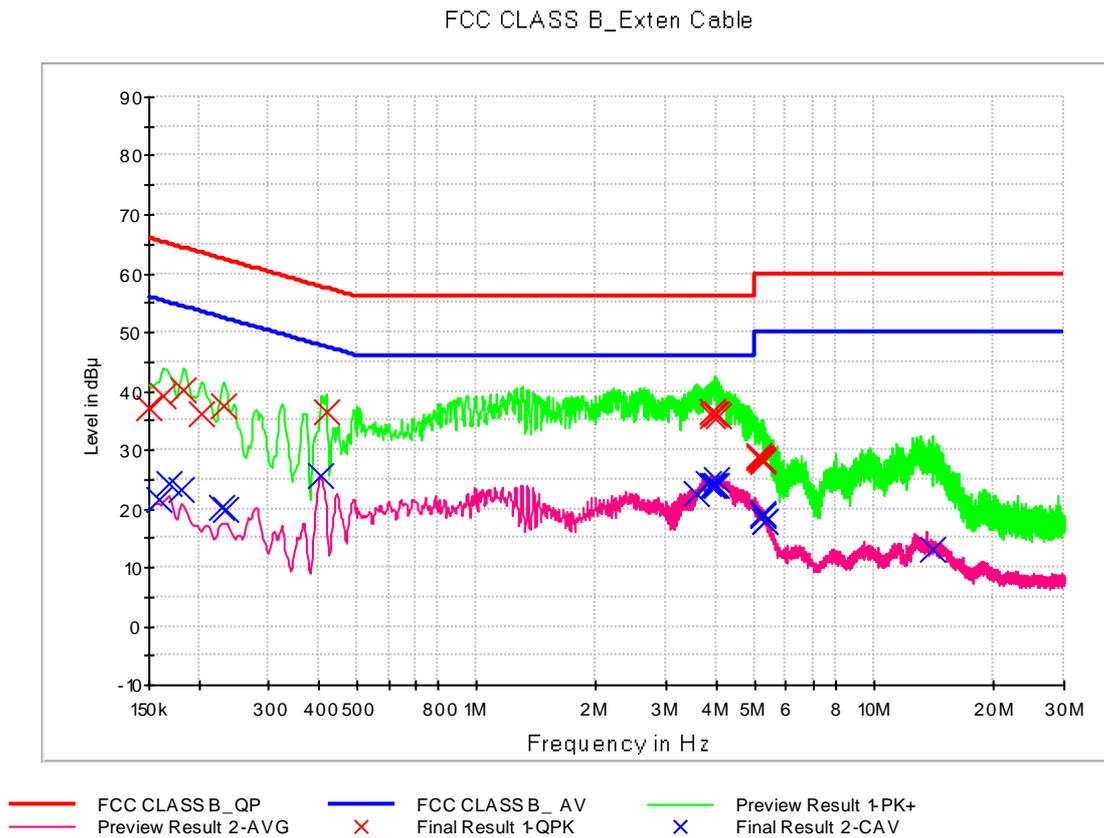
4.1.2 Operating Condition

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

Test Standard Used	FCC CFR 47 PART 15 Subpart B Class B ANSI C63.4-2014
Frequency Range	150 kHz to 30 MHz
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Worst Case of Operating Mode	REAR CAMERA mode
Kind of Test Site	EMI Shielded Room
Temperature	22.8 °C
Relative Humidity	44.6 %
Test Date	December 23, 2020

4.1.3 Measuring Data

Figure 1: Conducted Emission (150 kHz to 30 MHz), Line (L1)



QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	37.2	9.000	L1	9.8	28.8	66.0
0.163500	39.0	9.000	L1	9.8	26.3	65.3
0.183750	40.2	9.000	L1	9.8	24.1	64.3
0.204000	36.1	9.000	L1	9.8	27.3	63.4
0.231000	37.6	9.000	L1	9.8	24.9	62.4
0.417750	36.4	9.000	L1	9.8	21.1	57.5
3.897500	36.6	9.000	L1	9.9	19.4	56.0
3.913250	35.9	9.000	L1	9.9	20.1	56.0
3.942500	36.4	9.000	L1	9.9	19.6	56.0
3.958250	36.1	9.000	L1	9.9	19.9	56.0
4.005500	36.0	9.000	L1	10.0	20.0	56.0
4.052750	35.6	9.000	L1	10.0	20.4	56.0
5.141750	28.9	9.000	L1	10.0	31.1	60.0
5.148500	28.8	9.000	L1	10.0	31.2	60.0
5.171000	28.5	9.000	L1	10.0	31.5	60.0
5.191250	28.4	9.000	L1	10.0	31.6	60.0
5.234000	28.2	9.000	L1	10.0	31.8	60.0
5.279000	28.0	9.000	L1	10.0	32.0	60.0

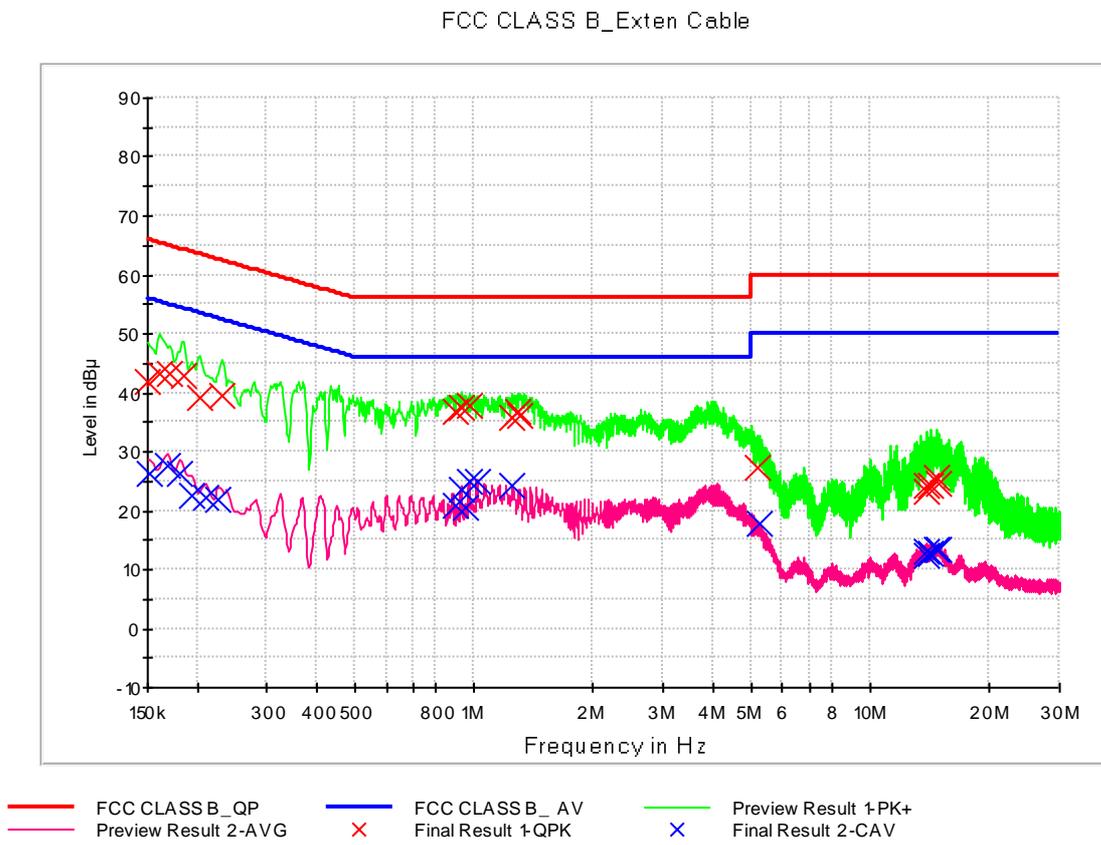
Calculation Formula:

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

CAverage Final Result

Frequency (MHz)	CAverage (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.159000	21.7	9.000	L1	9.8	33.8	55.5
0.168000	24.2	9.000	L1	9.8	30.9	55.1
0.181500	23.2	9.000	L1	9.8	31.2	54.4
0.228750	20.2	9.000	L1	9.8	32.3	52.5
0.233250	19.9	9.000	L1	9.8	32.4	52.3
0.406500	25.6	9.000	L1	9.8	22.1	47.7
3.555500	22.5	9.000	L1	9.9	23.5	46.0
3.814250	24.1	9.000	L1	9.9	21.9	46.0
3.911000	24.0	9.000	L1	9.9	22.0	46.0
3.956000	23.9	9.000	L1	9.9	22.1	46.0
4.007750	23.8	9.000	L1	10.0	22.2	46.0
4.030250	24.9	9.000	L1	10.0	21.1	46.0
5.231750	18.9	9.000	L1	10.0	31.1	50.0
5.265500	18.6	9.000	L1	10.0	31.4	50.0
5.276750	19.2	9.000	L1	10.0	30.8	50.0
5.288000	17.9	9.000	L1	10.0	32.1	50.0
5.312750	17.9	9.000	L1	10.0	32.1	50.0
14.069750	13.1	9.000	L1	10.3	36.9	50.0

Figure 2: Conducted Emission (150 kHz to 30 MHz), Line (N)



QuasiPeak Final Result

Frequency (MHz)	QuasiPeak (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	41.9	9.000	N	9.8	24.1	66.0
0.161250	43.2	9.000	N	9.8	22.2	65.4
0.170250	43.2	9.000	N	9.8	21.8	64.9
0.186000	42.8	9.000	N	9.8	21.4	64.2
0.204000	39.2	9.000	N	9.8	24.2	63.4
0.231000	39.4	9.000	N	9.8	23.0	62.4
0.902750	36.8	9.000	N	9.8	19.2	56.0
0.927500	37.5	9.000	N	9.8	18.5	56.0
0.972500	37.6	9.000	N	9.8	18.4	56.0
1.247000	35.7	9.000	N	9.8	20.3	56.0
1.294250	36.8	9.000	N	9.8	19.2	56.0
1.307750	36.0	9.000	N	9.8	20.0	56.0
5.184500	27.2	9.000	N	10.0	32.8	60.0
13.808750	23.3	9.000	N	10.4	36.7	60.0
13.865000	24.3	9.000	N	10.4	35.7	60.0
14.222750	24.2	9.000	N	10.4	35.8	60.0
14.699750	25.5	9.000	N	10.4	34.5	60.0
14.823500	24.7	9.000	N	10.5	35.3	60.0

CAverage Final Result

Frequency (MHz)	CAverage (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.152250	26.1	9.000	N	9.8	29.8	55.9
0.168000	27.8	9.000	N	9.8	27.3	55.1
0.181500	26.4	9.000	N	9.8	28.0	54.4
0.195000	22.7	9.000	N	9.8	31.1	53.8
0.210750	22.2	9.000	N	9.8	31.0	53.2
0.226500	21.8	9.000	N	9.8	30.8	52.6
0.902750	20.7	9.000	N	9.8	25.3	46.0
0.925250	23.6	9.000	N	9.8	22.4	46.0
0.947750	20.4	9.000	N	9.8	25.6	46.0
0.972500	24.8	9.000	N	9.8	21.2	46.0
1.017500	24.9	9.000	N	9.8	21.1	46.0
1.249250	24.2	9.000	N	9.8	21.8	46.0
5.231750	17.9	9.000	N	10.0	32.1	50.0
13.808750	12.5	9.000	N	10.4	37.5	50.0
13.865000	13.1	9.000	N	10.4	36.9	50.0
14.225000	12.7	9.000	N	10.4	37.3	50.0
14.699750	13.5	9.000	N	10.4	36.5	50.0
14.823500	13.4	9.000	N	10.5	36.6	50.0

4.2 Radiated Emission Below 1 GHz

4.2.1 Measuring instruments

Type	Manufacturer	Model Name	Serial Number	Calibration Cycle	Calibration Date
<input checked="" type="checkbox"/> EMI test receiver	Rohde & Schwarz	ESU40	100524	1 year	05.12.2020
<input checked="" type="checkbox"/> Bi-Log antenna	Schwarzbeck	VULB 9168	255	2 year	03.26.2019
<input checked="" type="checkbox"/> Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
<input checked="" type="checkbox"/> Antenna master controller	INNCO Systems	CO3000	CO3000/870/ 35990515/L	N/A	-
<input checked="" type="checkbox"/> Turn table	INNCO Systems	1060	-	N/A	-
<input checked="" type="checkbox"/> Turn table controller	INNCO Systems	CO2000	CO2000/095/ 7590304/L	N/A	-
<input checked="" type="checkbox"/> Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.19.2020
<input checked="" type="checkbox"/> Antenna (for communication)	Schwarzbeck	USLP9142	USLP 9142-200	-	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-

4.2.2 Operating Condition

The test results of radiated emission provide the following information:

Used Test Standard	FCC CFR 47 PART 15 Subpart B Class B ANSI C63.4-2014
Frequency Range	30 MHz to 1 000 MHz
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Worst Case of Operating Mode	REAR CAMERA mode
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.9 / 22.4 °C
Relative Humidity	44.5 / 45.6 %
Test Date	December 21 / December 22, 2020

4.2.3 Measuring Data

Frequency (MHz)	Quasi Peak (dB μ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
30.759280	20.5	174.9	V	32.0	18.4	19.5	40.0
56.138520	19.6	100.0	V	45.0	19.6	20.4	40.0
97.183320	17.0	207.8	H	319.0	14.9	26.5	43.5
114.508160	20.5	174.8	V	73.0	16.8	23.0	43.5
287.981280	25.9	125.2	H	65.0	20.1	20.1	46.0
483.428600	24.6	174.8	V	286.0	24.8	21.4	46.0

- Calculation Formula:

1. POL. H = Horizontal, POL. V = Vertical
2. QuasiPeak = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor + Cable Loss
4. Margin = Limit - QuasiPeak

4.3 Radiated Emission Above 1 GHz

4.3.1 Measuring instruments

	Type	Manufacturer	Model Name	Serial Number	Calibration Cycle	Calibration Date
<input checked="" type="checkbox"/>	EMI test receiver	Rohde & Schwarz	ESU40	100524	1 year	05.12.2020
<input checked="" type="checkbox"/>	Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
<input checked="" type="checkbox"/>	Antenna master controller	INNCO Systems	CO3000	CO3000/870/ 35990515/L	N/A	-
<input checked="" type="checkbox"/>	Turn table	INNCO Systems	1060	-	N/A	-
<input checked="" type="checkbox"/>	Turn table controller	INNCO Systems	CO2000	CO2000/095/ 7590304/L	N/A	-
<input checked="" type="checkbox"/>	Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.19.2020
<input checked="" type="checkbox"/>	Antenna (for Communication)	Schwarzbeck	USLP9142	USLP 9142-200	-	-
<input checked="" type="checkbox"/>	Low noise amplifier	TESTEK	TK-PA18H	170034-L	1 year	03.03.2020
<input type="checkbox"/>	Low noise amplifier	TESTEK	TK-PA1840H	170030-L	1 year	02.13.2020
<input checked="" type="checkbox"/>	Horn antenna	Schwarzbeck	BBHA 9120D	01836	1 year	07.23.2020
<input type="checkbox"/>	Horn antenna	Schwarzbeck	BBHA 9170	BBHA9170#786	1 year	11.18.2020
<input checked="" type="checkbox"/>	Software	Rohde & Schwarz	EMC32	-	-	-

4.3.2 Operating Condition

The test results of radiated emission provide the following information:

Used Test Standard	FCC CFR 47 PART 15 Subpart B 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	2 480 MHz
Tested Frequency Range	1 GHz to 18 GHz
Worst Case of Operating Mode	REAR CAMERA mode
Kind of Test Site	3 m semi anechoic chamber
Temperature	21.7 / 23.2 °C
Relative Humidity	45.0 / 46.3 %
Test Date	December 24 / December 28, 2020

4.3.3 Measuring Data

Frequency (MHz)	Peak (dB μ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
1765.845000	31.5	350.0	H	247.0	-27.0	42.5	74.0
2858.165000	32.8	100.0	V	86.0	-22.9	41.2	74.0
5297.890000	35.9	150.0	H	197.0	-17.4	38.1	74.0
9902.435000	43.7	218.4	V	126.0	-8.7	30.3	74.0
14802.300000	46.5	139.6	V	69.0	-0.8	27.5	74.0
17973.775000	55.7	199.4	V	4.0	9.3	18.3	74.0

Frequency (MHz)	CAverage (dB μ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
1765.845000	18.2	350.0	H	247.0	-27.0	35.8	54.0
2858.165000	20.2	100.0	V	86.0	-22.9	33.8	54.0
5297.890000	23.4	150.0	H	197.0	-17.4	30.6	54.0
9902.435000	30.5	218.4	V	126.0	-8.7	23.5	54.0
14802.300000	34.0	139.6	V	69.0	-0.8	20.0	54.0
17973.775000	42.8	199.4	V	4.0	9.3	11.2	54.0

- Calculation Formula:

1. POL. H = Horizontal, POL. V = Vertical
2. Peak or CAverage = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor+ Cable Loss –Amplifier Gain
4. Margin = Limit - Peak or CAverage

5. CONCLUSION

The data collected shows that the **Product Name: Smart Phone, Model: LM-K200AM** complies with §15.107 and §15.109 of the FCC rules.

6. APPENDIX A. TEST SETUP PHOTO

Please refer to Appendix. A and test setup photo file no. as follows;

File No.	Date of Issue	Description
HCT-EM-2012-FC019-P	December 29, 2020	Initial Release

End of report