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HCT

TEST REPORT

EMI Test for FCC Certification of LM-G900VM Model

APPLICANT

LG Electronics USA, Inc.

REPORT NO.

HCT-EM-2006-FC015-R1

DATE OF ISSUE

July 29, 2020

Tested by
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<h1 style="margin: 0;">TEST REPORT</h1> <p style="margin: 0;">EMI Test for FCC Certification</p>	<p>REPORT NO. HCT-EM-2006-FC015-R1</p> <p>DATE OF ISSUE July 29, 2020</p> <p>FCC ID. ZNFG900VM</p>
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Applicant	LG Electronics USA, Inc. 111 Sylvan Avenue, North Building , Englewood Cliffs NJ 07632 United States
Product Name	Multi-band CDMA/GSM/WCDMA/LTE/5G NR Phone with WLAN, Bluetooth and NFC
Model Name	LM-G900VM
Series Model Name	Refer to the clause 1.1 Description of EUT
Travel Adaptor Information	Model name: MCS-P02WA Manufacturer: AOHAI
Date of Test	June 17, 2020 to June 21, 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	June 22, 2020	Initial Release
1	July 29, 2020	Revised the Frequency Range

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

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.

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1. GENERAL INFORMATION

1.1 Description of EUT

FCC ID	ZNFG900VM	
Model Name	LM-G900VM	
Series Model Name	LM-G900VM, LMG900VM, G900VM, LM-G900QM6, LMG900QM6, G900QM6, LM-G902V, LMG902V, G902V	
Product Name	Multi-band CDMA/GSM/WCDMA/LTE/5G NR Phone with WLAN, Bluetooth and NFC	
Frequency Range	RX Frequency	TX Frequency
CDMA BC0	869.70 MHz to 893.31 MHz	824.70 MHz to 848.31 MHz
CDMA BC1	1 931.25 MHz to 1 988.75 MHz	1 851.25 MHz to 1 908.75 MHz
GSM 850	869.20 MHz to 893.80 MHz	824.20 MHz to 848.80 MHz
GSM 1 900	1 930.20 MHz to 1 989.80 MHz	1 850.20 MHz to 1 909.80 MHz
WCDMA B2	1 932.4 MHz to 1 987.6 MHz	1 852.4 MHz to 1 907.6 MHz
WCDMA B5	871.40 MHz to 891.60 MHz	826.40 MHz to 846.60 MHz
LTE B2	1 930 MHz to 1 990 MHz	1 850 MHz to 1 910 MHz
LTE B4	2 110 MHz to 2 155 MHz	1 710 MHz to 1 755 MHz
LTE B5	869 MHz to 894 MHz	824 MHz to 849 MHz
LTE B12	729 MHz to 746 MHz	699 MHz to 716 MHz
LTE B13	746 MHz to 756 MHz	777 MHz to 787 MHz
LTE B46	5 150 MHz to 5 925 MHz	-
LTE B48	3 550 MHz to 3 700 MHz	3 550 MHz to 3 700 MHz
Bluetooth	2 402 MHz to 2 480 MHz	2 402 MHz to 2 480 MHz
WiFi 2.4 GHz	2 412 MHz to 2 462 MHz	2 412 MHz to 2 462 MHz
WiFi 5 GHz_UNII 1	5 180 MHz to 5 240 MHz	5 180 MHz to 5 240 MHz
WiFi 5 GHz_UNII 2A	5 260 MHz to 5 320 MHz	5 260 MHz to 5 320 MHz
WiFi 5 GHz_UNII 2C	5 500 MHz to 5 720 MHz	5 500 MHz to 5 720 MHz
WiFi 5 GHz_UNII 3	5 745 MHz to 5 825 MHz	5 745 MHz to 5 825 MHz
NFC	13.56 MHz	13.56 MHz
5G NR n2	1 930 MHz to 1 990 MHz	1 850 MHz to 1 910 MHz
5G NR n5	869 MHz to 894 MHz	824 MHz to 849 MHz
5G NR n66	2 110 MHz to 2 200 MHz	1 710 MHz to 1 780 MHz
5G NR n260	-	37 000 MHz to 40 000 MHz
5G NR n261	-	27 500 MHz to 28 350 MHz

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-G900VM	-	LG
Data Cable	EAD65830101	-	LUXSHARE
Earphone	EAB63728252	-	BUJEON
TA	MCS-P02WA	-	AOHAI
Micro SD Card	SAMSUNG EVO+ microSDXC CLASS10 UHS-I (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 (Data Cable)	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	USB Type C (Data Cable)	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	Designation No.
Radiated Field strength measurement facility 3 m Semi Anechoic chamber	KR0032
Radiated Field strength measurement facility 10 m Semi Anechoic chamber #1	
Radiated Field strength measurement facility 10 m Semi Anechoic chamber #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 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)	1.8 dB
3 m Radiated Emissions (30 MHz to 1 GHz)	4.8 dB
3 m Radiated Emissions (1 GHz to 18 GHz)	5.4 dB
3 m Radiated Emissions (18 GHz to 40 GHz)	5.7 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

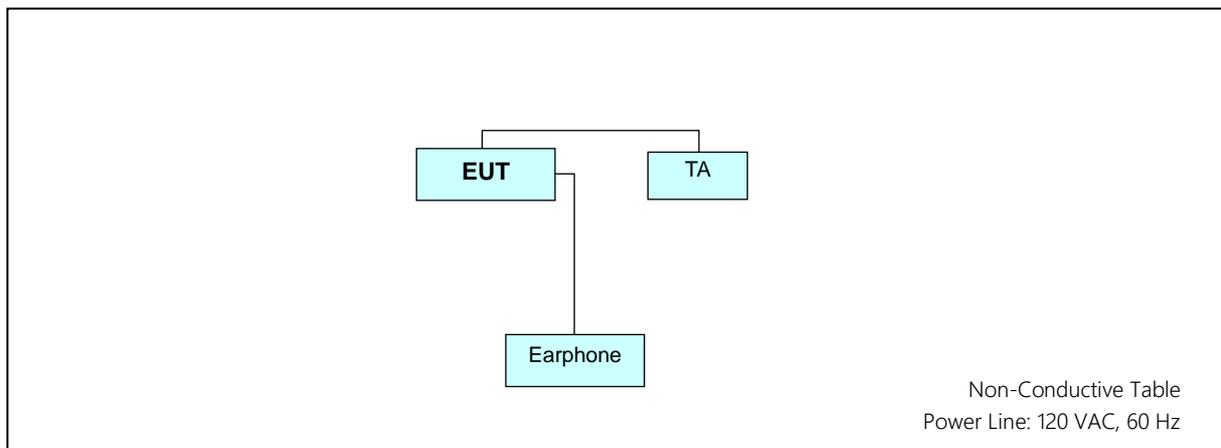
Frequency (MHz)	Class A			Class B		
	Antenna Distance (m)	Field Strength ($\mu\text{V}/\text{m}$)	Quasi-Peak ($\text{dB}\mu\text{V}/\text{m}$)	Antenna Distance (m)	Field Strength ($\mu\text{V}/\text{m}$)	Quasi-Peak ($\text{dB}\mu\text{V}/\text{m}$)
30 to 88	10	90	39.0	3	100	40.0
88 to 216	10	150	43.5	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 ($\text{dB}\mu\text{V}/\text{m}$)	Average ($\text{dB}\mu\text{V}/\text{m}$)	Peak ($\text{dB}\mu\text{V}/\text{m}$)	Average ($\text{dB}\mu\text{V}/\text{m}$)	
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



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 & FM RADIO 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 & FM RADIO 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	ESCI	100584	1 year	06.10.2020
<input checked="" type="checkbox"/>	LISN	Rohde & Schwarz	ENV216	102245	1 year	09.11.2019
<input checked="" type="checkbox"/>	Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.20.2019
<input checked="" type="checkbox"/>	Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
<input checked="" type="checkbox"/>	UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY58300756	1 year	01.07.2020
<input checked="" type="checkbox"/>	ANTENNA (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-201	-	-
<input checked="" type="checkbox"/>	Software	Rohde & Schwarz	EMC32	-	-	-

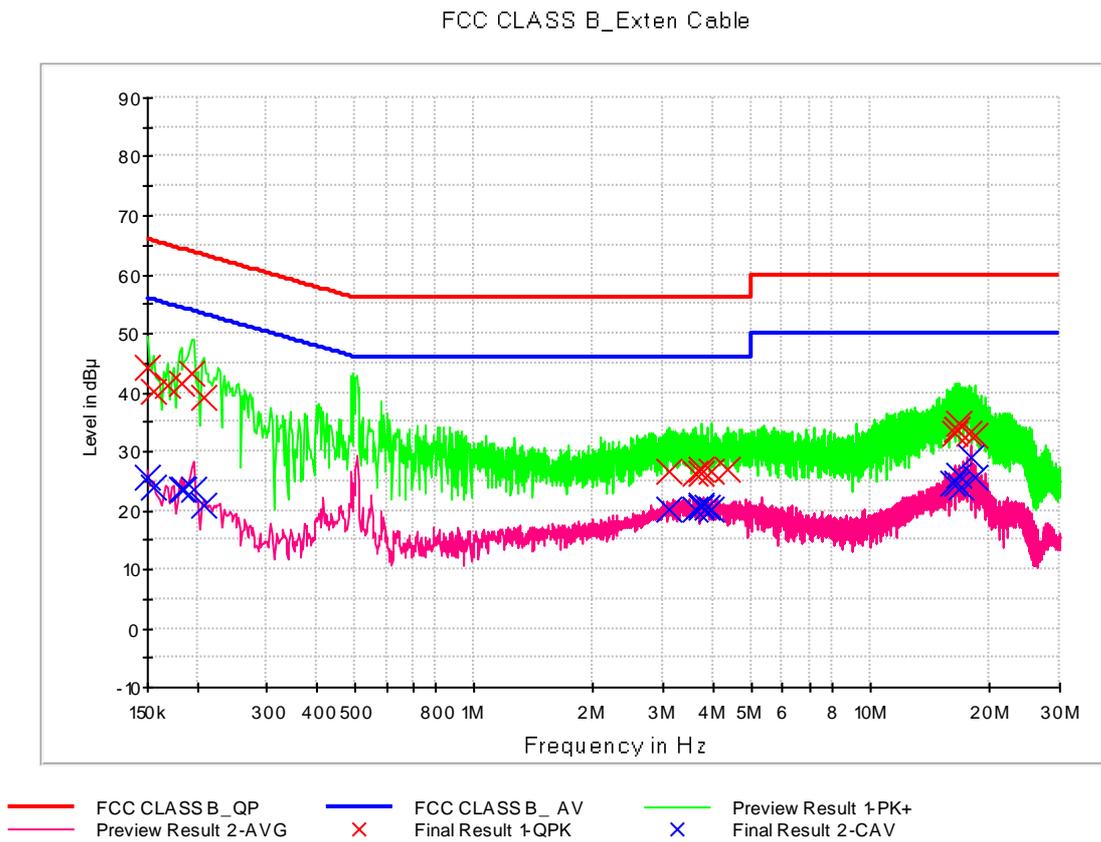
4.1.2 Operating Condition

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	FRONT CAMERA & MP3 mode
Kind of Test Site	EMI Shielded Room
Temperature	24.1 / 23.7 / 25.1°C
Relative Humidity	43.5 / 42.8 / 44.9 %
Test Date	June 17 / June 18 / June 21, 2020

4.1.3 Measuring Data

Figure 1: Conducted Emission (150 kHz to 30 MHz), FRONT CAMERA & MP3 mode, Line (L1)



QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	44.1	9.000	L1	9.8	21.9	66.0
0.156000	40.3	9.000	L1	9.8	25.4	65.7
0.168000	41.0	9.000	L1	9.8	24.0	65.1
0.182000	41.5	9.000	L1	9.8	22.9	64.4
0.194000	43.3	9.000	L1	9.8	20.6	63.9
0.208000	39.1	9.000	L1	9.8	24.2	63.3
3.096000	26.5	9.000	L1	9.9	29.5	56.0
3.612000	26.4	9.000	L1	9.9	29.6	56.0
3.732000	26.8	9.000	L1	10.0	29.2	56.0
3.760000	26.3	9.000	L1	10.0	29.7	56.0
3.982000	26.7	9.000	L1	10.0	29.3	56.0
4.356000	27.0	9.000	L1	10.0	29.0	56.0
16.362000	33.1	9.000	L1	10.4	26.9	60.0
16.488000	33.6	9.000	L1	10.4	26.4	60.0
16.518000	33.9	9.000	L1	10.4	26.1	60.0
16.726000	34.7	9.000	L1	10.4	25.3	60.0
17.784000	33.0	9.000	L1	10.5	27.0	60.0
18.368000	32.7	9.000	L1	10.5	27.3	60.0

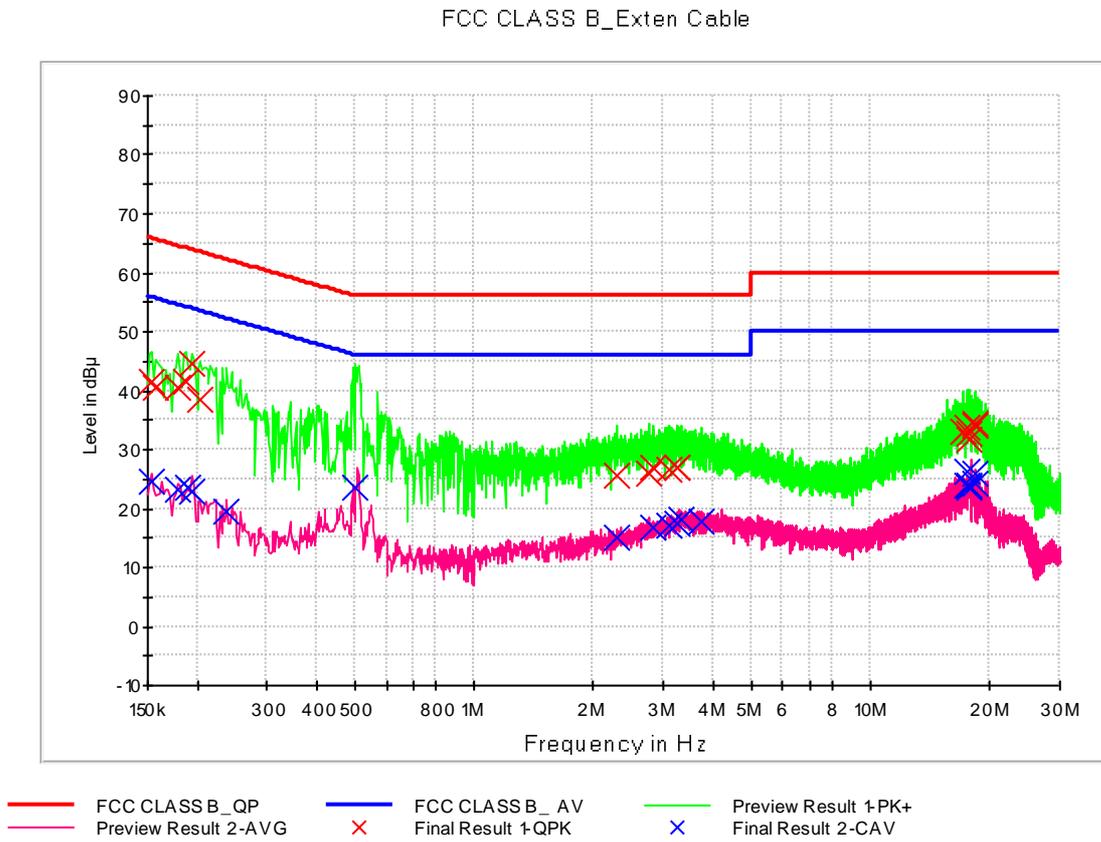
Calculation Formula:

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, Line (L1)

Frequency (MHz)	CAverage (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	25.6	9.000	L1	9.8	30.4	56.0
0.156000	23.9	9.000	L1	9.8	31.8	55.7
0.182000	23.7	9.000	L1	9.8	30.7	54.4
0.186000	23.5	9.000	L1	9.8	30.7	54.2
0.196000	23.7	9.000	L1	9.8	30.1	53.8
0.208000	20.8	9.000	L1	9.8	32.5	53.3
3.096000	20.1	9.000	L1	9.9	25.9	46.0
3.612000	20.1	9.000	L1	9.9	25.9	46.0
3.732000	20.7	9.000	L1	10.0	25.3	46.0
3.760000	20.5	9.000	L1	10.0	25.5	46.0
3.858000	20.6	9.000	L1	10.0	25.4	46.0
3.982000	20.2	9.000	L1	10.0	25.8	46.0
16.134000	24.7	9.000	L1	10.4	25.3	50.0
16.518000	24.6	9.000	L1	10.4	25.4	50.0
16.726000	25.8	9.000	L1	10.4	24.2	50.0
16.834000	24.0	9.000	L1	10.4	26.0	50.0
17.982000	29.0	9.000	L1	10.5	21.0	50.0
18.314000	25.7	9.000	L1	10.5	24.3	50.0

Figure 2: Conducted Emission (150 kHz to 30 MHz), FRONT CAMERA & MP3 mode, Line (N)



QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.154000	41.4	9.000	N	9.8	24.4	65.8
0.158000	40.4	9.000	N	9.8	25.2	65.6
0.178000	40.4	9.000	N	9.8	24.2	64.6
0.188000	41.4	9.000	N	9.8	22.7	64.1
0.194000	44.4	9.000	N	9.8	19.4	63.9
0.204000	38.6	9.000	N	9.8	24.8	63.4
2.282000	25.6	9.000	N	9.9	30.4	56.0
2.748000	26.0	9.000	N	9.9	30.0	56.0
2.816000	26.9	9.000	N	9.9	29.1	56.0
3.106000	26.5	9.000	N	9.9	29.5	56.0
3.234000	26.8	9.000	N	9.9	29.2	56.0
3.240000	26.8	9.000	N	9.9	29.2	56.0
17.122000	32.9	9.000	N	10.5	27.1	60.0
17.520000	33.6	9.000	N	10.5	26.4	60.0
17.770000	32.6	9.000	N	10.6	27.4	60.0
17.794000	31.8	9.000	N	10.6	28.2	60.0
18.402000	34.5	9.000	N	10.6	25.5	60.0
18.406000	33.9	9.000	N	10.6	26.1	60.0

CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.154000	24.4	9.000	N	9.8	31.4	55.8
0.178000	23.4	9.000	N	9.8	31.2	54.6
0.190000	23.7	9.000	N	9.8	30.4	54.0
0.194000	23.0	9.000	N	9.8	30.8	53.9
0.238000	19.5	9.000	N	9.8	32.7	52.2
0.502000	23.4	9.000	N	9.8	22.6	46.0
2.282000	14.9	9.000	N	9.9	31.1	46.0
2.816000	16.8	9.000	N	9.9	29.2	46.0
3.106000	17.2	9.000	N	9.9	28.8	46.0
3.240000	17.6	9.000	N	9.9	28.4	46.0
3.312000	18.1	9.000	N	9.9	27.9	46.0
3.738000	17.9	9.000	N	10.0	28.1	46.0
17.432000	26.4	9.000	N	10.5	23.6	50.0
17.520000	24.0	9.000	N	10.5	26.0	50.0
17.774000	23.8	9.000	N	10.6	26.2	50.0
17.794000	23.5	9.000	N	10.6	26.5	50.0
18.402000	25.8	9.000	N	10.6	24.2	50.0
18.406000	24.4	9.000	N	10.6	25.6	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	08.20.2019
<input checked="" type="checkbox"/>	Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
<input checked="" type="checkbox"/>	UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY58300756	1 year	01.07.2020
<input checked="" type="checkbox"/>	Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-201	-	-
<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	FRONT CAMERA & MP3 mode
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.8 / 22.1 °C
Relative Humidity	48.3 / 49.6 %
Test Date	June 17 / June 18, 2020

- 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

4.2.3 Measuring Data

FRONT CAMERA & MP3 mode

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)
36.745800	22.2	125.1	V	81.0	18.8	17.8	40.0
82.447400	23.5	307.7	H	309.0	15.4	16.5	40.0
86.753200	23.0	191.8	H	92.0	14.7	17.0	40.0
143.417600	20.3	100.0	V	138.0	19.1	23.2	43.5
182.238000	21.4	174.9	H	137.0	18.1	22.1	43.5
624.333000	27.9	100.0	H	216.0	27.7	18.1	46.0

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"/>	Low noise amplifier	TESTEK	TK-PA18H	170034-L	1 year	03.03.2020
<input checked="" 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	07.19.2019
<input checked="" type="checkbox"/>	Horn antenna	Schwarzbeck	BBHA 9170	BBHA9170#786	1 year	12.03.2019
<input checked="" type="checkbox"/>	Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.20.2019
<input checked="" type="checkbox"/>	Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
<input checked="" type="checkbox"/>	UXM 5G Wireless Test Platform	KEYSIGHT	E7515B	MY58300756	1 year	01.07.2020
<input checked="" type="checkbox"/>	ANTENNA (for Communication)	USLP9142	Schwarzbeck	VSLP 9142-201	-	-
<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 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	40 000 MHz
Tested Frequency Range	1 GHz to 40 GHz
Worst Case of Operating Mode	FRONT CAMERA & MP3 mode
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.8 / 22.1 / 25.5 °C
Relative Humidity	48.3 / 49.6 / 45.8 %
Test Date	June 17 / June 18 / June 21, 2020

- 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

4.3.3 Measuring Data

FRONT CAMERA & MP3 mode

Frequency (MHz)	Peak (dB μ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
1420.120000	30.9	150.0	V	20.0	-28.1	43.1	74.0
4327.590000	34.1	149.5	V	206.0	-19.6	39.9	74.0
7711.725000	41.6	189.6	V	50.0	-11.9	32.4	74.0
11296.210000	45.3	100.0	V	307.0	-4.7	28.7	74.0
14499.675000	47.4	160.5	V	271.0	-1.1	26.6	74.0
17978.203000	55.1	149.5	V	49.0	9.3	18.9	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)
1420.120000	18.3	150.0	V	20.0	-28.1	35.7	54.0
4327.590000	21.8	149.5	V	206.0	-19.6	32.2	54.0
7711.725000	29.0	189.6	V	50.0	-11.9	25.0	54.0
11296.210000	32.6	100.0	V	307.0	-4.7	21.4	54.0
14499.675000	34.7	160.5	V	271.0	-1.1	19.3	54.0
17978.203000	42.9	149.5	V	49.0	9.3	11.1	54.0

5. CONCLUSION

The data collected shows that the **Product Name: Multi-band CDMA/GSM/WCDMA/LTE/5G NR Phone with WLAN, Bluetooth and NFC, Model Name: LM-G900VM** 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-2006-FC015-P	June 22, 2020	Initial Release

End of report