On your side

TEST REPORT

EMI Test for FCC Certification of LM-X320TA Model

APPLICANT
LG Electronics USA, Inc.

REPORT NO.
HCT-EM-1907-FC005-R1

DATE OF ISSUE
July 25, 2019

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FCC ID.
ZNFX320TA

Applicant	LG Electronics USA, Inc. 1000 Sylvan Avenue, Englewood Cliffs NJ 07632 United States
Product Name Model Name Series Model Name	Multi-band CDMA/GSM/EDGE/WCDMA/LTE Phone with WLAN and Bluetooth LM-X320TA Refer to the clause 1.1 Description of EUT
Travel Adaptor Information	Model name: MCS-V01WA Manufacturer: AOHAI
Date of Test	June 19, 2019 to June 25, 2019
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.

Tested by
Na-Eun Song (signature)

Technical Manager
Jeong-Hyun Choi (signature)

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REVISION HISTORY

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

Revision No.	Date of Issue	Description
0	July 03, 2019	Initial Release
1	July 25, 2019	Revised Clause 1.6 Calibration of Measuring Instrument

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

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1. GENERAL INFORMATION

1.1 Description of EUT

Its basic purpose is used for communications.

FCC ID	ZNFX320TA
Model	LM-X320TA
Series Model Name	LMX320TA, X320TA, LM-X320MA, LMX320MA, X320MA
EUT Type	Multi-band CDMA/GSM/EDGE/WCDMA/LTE Phone with WLAN and 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) 824.2 MHz to 848.8 MHz (GSM 850) 1 850.2 MHz to 1 909.8 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) 777 MHz to 787 MHz (LTE B13) 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) 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)

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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) 869.2 MHz to 893.8 MHz (GSM 850) 1 930.2 MHz to 1 989.8 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) 746 MHz to 756 MHz (LTE B13) 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) 2 110 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)

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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-X320TA	-	LG
Data Cable	EAD62377927	-	Ningbo
Earphone	EAB64468444	-	CRESYN
TA	MCS-V01WA	-	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	Micro USB	Y	Y	(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

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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 ac cordance with the manufacturers recommendations for utilizing calibration equipment, which is traceable to recognized national standards.Espectially, 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)	1.78 dB
Radiated Emissions (30 MHz to 1 GHz)	6.00 dB
Radiated Emissions (1 GHz to 18 GHz)	4.78 dB
Radiated Emissions (18 GHz to 40 GHz)	4.94 dB

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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 (dBµV)	Average (dBµV)	Quasi-Peak (dBµV)	Average (dBµV)
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.

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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 (μV/m)	Quasi-Peak (dBμV/m)	Antenna Distance (m)	Field Strength (μV/m)	Quasi-Peak (dBμV/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 (dBμV/m)	Average (dBμV/m)	Peak (dBμV/m)	Average (dBμV/m)
Above 1 000	3	80	60	74	54

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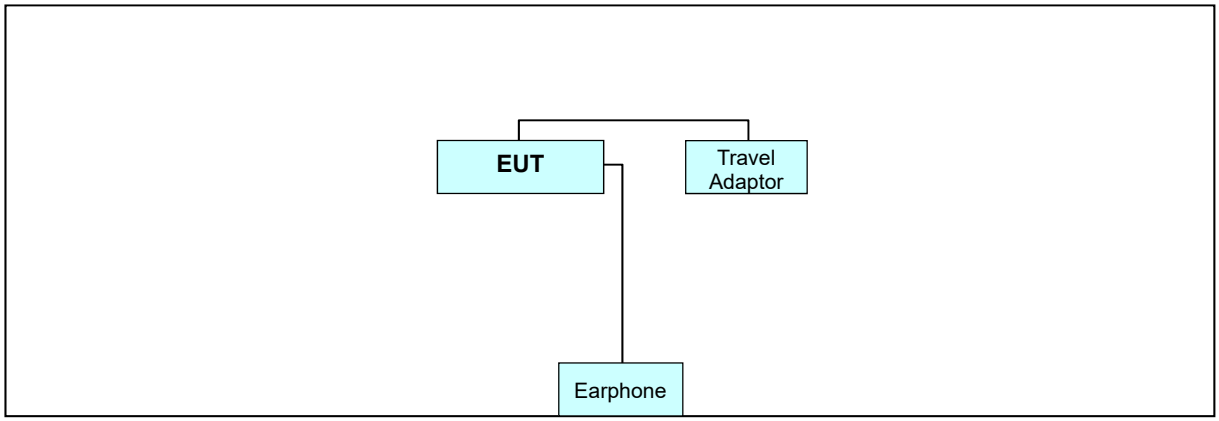
2.2.1 Frequency Range of Radiated Measurements

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

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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.

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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
☒	EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	06.18.2019
☒	LISN	Rohde & Schwarz	ENV216	102245	1 year	12.12.2018
☒	Software	Rohde & Schwarz	EMC32 VER8.54.0	-	-	-

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
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Worst Case of Operation Mode	FRONT CAMERA & MP3 mode
Kind of Test Site	Shielded Room
Temperature	22.5 °C
Relative Humidity	42.9 %
Test Date	June 19, 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

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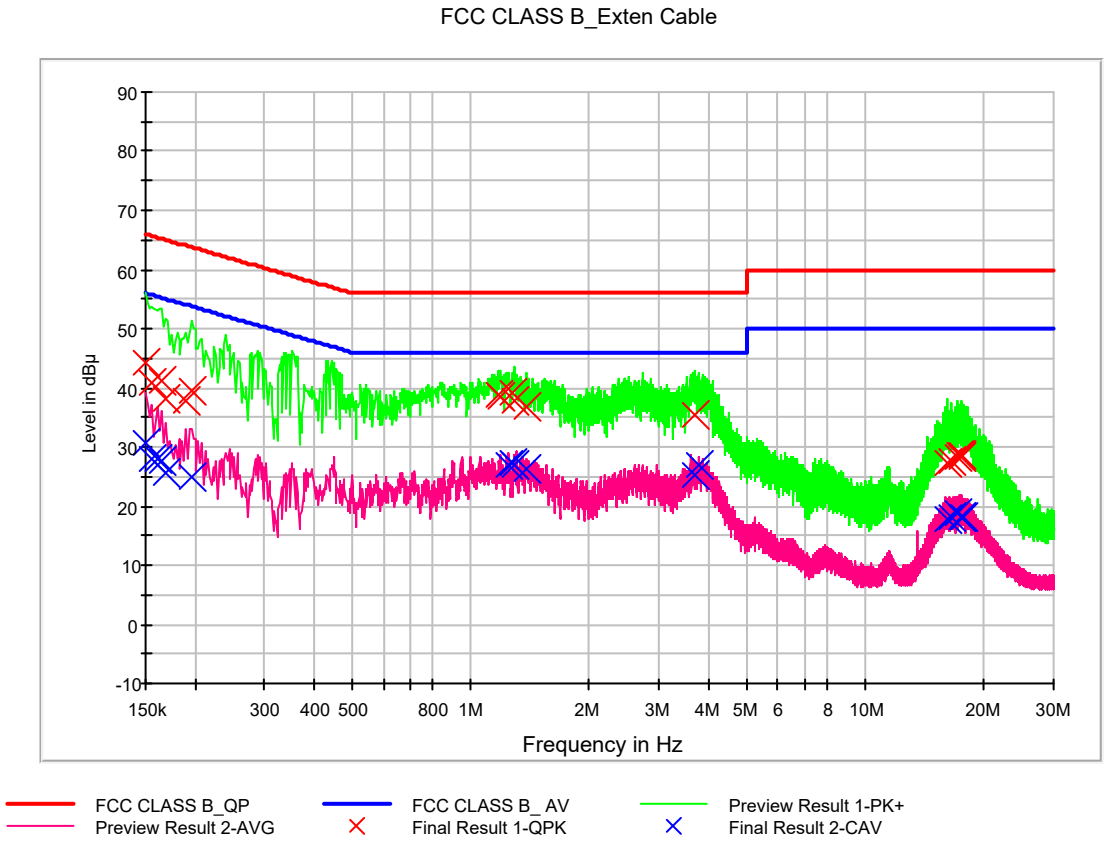
4.1.3 Measuring Data

Figure 1: Conducted Emission, AC Main Port, Line (L1)



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QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	44.1	9.000	L1	9.7	21.9	66.0
0.156000	41.0	9.000	L1	9.7	24.7	65.7
0.164000	41.1	9.000	L1	9.7	24.2	65.3
0.168000	38.0	9.000	L1	9.7	27.1	65.1
0.190000	38.0	9.000	L1	9.7	26.1	64.0
0.196000	39.6	9.000	L1	9.7	24.2	63.8
1.178000	38.9	9.000	L1	9.8	17.1	56.0
1.188000	38.6	9.000	L1	9.8	17.4	56.0
1.276000	39.2	9.000	L1	9.9	16.8	56.0
1.286000	38.0	9.000	L1	9.9	18.0	56.0
1.380000	36.7	9.000	L1	9.9	19.3	56.0
3.710000	35.3	9.000	L1	10.0	20.7	56.0
16.190000	27.2	9.000	L1	10.5	32.8	60.0
16.520000	27.6	9.000	L1	10.5	32.4	60.0
17.186000	28.3	9.000	L1	10.5	31.7	60.0
17.318000	28.5	9.000	L1	10.5	31.5	60.0
17.448000	28.8	9.000	L1	10.5	31.2	60.0
17.598000	28.2	9.000	L1	10.5	31.8	60.0

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CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	30.6	9.000	L1	9.7	25.4	56.0
0.156000	28.0	9.000	L1	9.7	27.7	55.7
0.160000	27.9	9.000	L1	9.7	27.6	55.5
0.164000	27.5	9.000	L1	9.7	27.8	55.3
0.168000	25.7	9.000	L1	9.7	29.3	55.1
0.196000	24.8	9.000	L1	9.7	28.9	53.8
1.242000	27.1	9.000	L1	9.9	18.9	46.0
1.276000	27.3	9.000	L1	9.9	18.7	46.0
1.286000	27.1	9.000	L1	9.9	18.9	46.0
1.380000	26.4	9.000	L1	9.9	19.6	46.0
3.710000	25.4	9.000	L1	10.0	20.6	46.0
3.778000	27.1	9.000	L1	10.0	18.9	46.0
16.190000	17.8	9.000	L1	10.5	32.2	50.0
16.520000	18.1	9.000	L1	10.5	31.9	50.0
17.186000	18.7	9.000	L1	10.5	31.3	50.0
17.598000	18.1	9.000	L1	10.5	31.9	50.0
17.616000	18.1	9.000	L1	10.5	31.9	50.0
17.652000	18.1	9.000	L1	10.5	31.9	50.0

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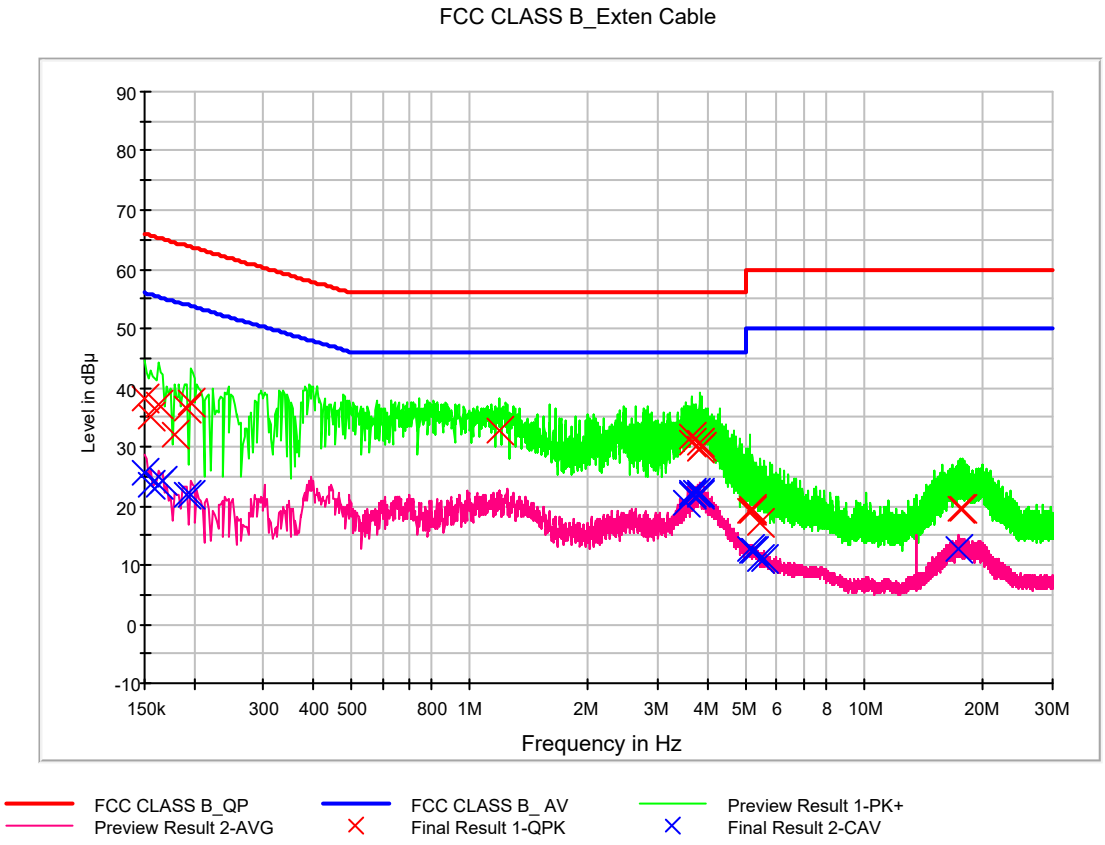
Figure 2: Conducted Emission, AC Main Port, Line (N)



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QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	38.1	9.000	N	9.8	27.9	66.0
0.156000	35.0	9.000	N	9.8	30.6	65.7
0.162000	37.0	9.000	N	9.8	28.4	65.4
0.178000	31.9	9.000	N	9.8	32.7	64.6
0.192000	36.4	9.000	N	9.8	27.5	63.9
0.196000	37.6	9.000	N	9.8	26.2	63.8
1.186000	32.6	9.000	N	10.0	23.4	56.0
3.660000	30.7	9.000	N	10.1	25.3	56.0
3.668000	31.6	9.000	N	10.2	24.4	56.0
3.816000	30.8	9.000	N	10.2	25.2	56.0
3.850000	29.6	9.000	N	10.2	26.4	56.0
3.894000	29.8	9.000	N	10.2	26.2	56.0
5.158000	19.0	9.000	N	10.2	41.0	60.0
5.210000	19.4	9.000	N	10.2	40.6	60.0
5.220000	19.0	9.000	N	10.2	41.0	60.0
5.458000	17.2	9.000	N	10.2	42.8	60.0
17.616000	19.6	9.000	N	10.8	40.4	60.0
17.814000	19.5	9.000	N	10.8	40.5	60.0

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CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	25.7	9.000	N	9.8	30.3	56.0
0.156000	23.7	9.000	N	9.8	32.0	55.7
0.162000	23.6	9.000	N	9.8	31.7	55.4
0.166000	24.4	9.000	N	9.8	30.8	55.2
0.192000	21.9	9.000	N	9.8	32.0	53.9
0.196000	21.7	9.000	N	9.8	32.1	53.8
3.510000	20.4	9.000	N	10.1	25.6	46.0
3.660000	21.8	9.000	N	10.1	24.2	46.0
3.668000	22.1	9.000	N	10.2	23.9	46.0
3.762000	22.3	9.000	N	10.2	23.7	46.0
3.816000	22.0	9.000	N	10.2	24.0	46.0
3.848000	22.1	9.000	N	10.2	23.9	46.0
5.158000	12.6	9.000	N	10.2	37.4	50.0
5.220000	12.4	9.000	N	10.2	37.6	50.0
5.228000	12.3	9.000	N	10.2	37.7	50.0
5.458000	11.0	9.000	N	10.2	39.0	50.0
5.542000	11.1	9.000	N	10.3	38.9	50.0
17.402000	12.8	9.000	N	10.8	37.2	50.0

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4.2 Radiated Emission Below 1 GHz

4.2.1 Measuring instruments

Type		Manufacturer	Model Name	Serial Number	Calibration Cycle	Calibration Date
☒	EMI test receiver	Rohde & Schwarz	ESI40	831564103	1 year	10.31.2018
☒	Trilog antenna	Schwarzbeck	VULB 9168	255	2 year	03.26.2019
☒	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	-
☒	Software	Rohde & Schwarz	EMC32 VER8.40.0	-	-	-

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
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Worst Case of Operation Mode	FRONT CAMERA & MP3 mode
Kind of Test Site	3 m semi anechoic chamber
Temperature	24.6 °C
Relative Humidity	43.7 %
Test Date	June 20, 2019

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4.2.3 Measuring Data

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
31.547200	18.3	100.0	V	184.0	18.4	21.7	40.0
53.888800	18.9	100.0	V	1.0	19.7	21.2	40.0
114.539200	21.0	174.9	V	123.0	16.8	22.5	43.5
484.808800	24.1	225.1	H	53.0	24.9	21.9	46.0
624.384800	27.9	100.0	H	1.0	27.8	18.1	46.0
920.357600	31.8	325.2	H	343.0	31.7	14.2	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

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4.3 Radiated Emission Above 1 GHz

4.3.1 Measuring instruments

	Type	Manufacturer	Model Name	Serial Number	Calibration Cycle	Calibration Date
☒	EMI test receiver	Rohde & Schwarz	ESU40	100524	1 year	05.17.2019
☒	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	1 year	07.20.2018
☒	Low Noise amplifier	TESTEK	TK-PA18H	170034-L	1 year	03.04.2019
☒	Power Amplifier	TK-PA1840H	TESTEK	170030-L	1 year	12.17.2018
☒	Horn Antenna	BBHA 9170	Schwarzbeck	BBHA 9170 #786	2 year	12.05.2017
☒	Software	Rohde & Schwarz	EMC32 VER8.40.0	-	-	-

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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	5 825 MHz
Tested Frequency Range	1 GHz to 30 GHz
Worst Case of Operation Mode	FRONT CAMERA & MP3 mode
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.9 / 22.5 °C
Relative Humidity	41.1 / 42.1 %
Test Date	June 21, 2019 / June 25, 2019

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4.3.3 Measuring Data

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3047.900000	35.1	100.0	V	320.0	-21.0	38.9	74.0
4878.510000	39.1	100.0	V	91.0	-16.2	34.9	74.0
7300.585000	44.2	124.7	V	162.0	-9.8	29.8	74.0
9557.715000	49.1	150.0	V	335.0	-5.1	24.9	74.0
10182.245000	48.3	199.4	V	73.0	-4.5	25.7	74.0
14793.580000	49.2	299.4	V	20.0	1.1	24.8	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3047.900000	22.3	100.0	V	320.0	-21.0	31.7	54.0
4878.510000	26.0	100.0	V	91.0	-16.2	28.0	54.0
7300.585000	31.1	124.7	V	162.0	-9.8	22.9	54.0
9557.715000	35.6	150.0	V	335.0	-5.1	18.4	54.0
10182.245000	35.2	199.4	V	73.0	-4.5	18.8	54.0
14793.580000	36.3	299.4	V	20.0	1.1	17.7	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

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5. CONCLUSION

The data collected shows that the **EUT Type: Multi-band CDMA/GSM/EDGE/WCDMA/LTE Phone with WLAN and Bluetooth, Model: LM-X320TA** complies with §15.107 and §15.109 of the FCC rules.

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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-1907-FC005-P	July 03, 2019	Initial Release

End of report

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