

# EMI TEST REPORT

## FCC CERTIFICATION

**Applicant:**

**SAMSUNG Electronics Co., Ltd.**  
**129, Samsung-ro, Yeongtong-gu, Suwon-si,**  
**Gyeonggi-do, 16677, Korea**

**Date of Issue: March 13, 2019**

**Test Report No. HCT-EM-1903-FC003**

**Test Site: HCT CO., LTD.**

**FCC ID :**

**A3LSMA6060**

Applicable Standards : FCC CFR 47 PART 15 Subpart B Class B  
ANSI C63.4-2014

EUT Type : Mobile Phone

Model Name : SM-A6060

Date of Test : February 22, 2019 to March 04, 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**



**Na-Eun Song**  
**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.*

Report No.	Issue Date	Information About Changes
HCT-EM-1903-FC003	March 13, 2019	Initial Release



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## 1. GENERAL INFORMATION

### 1.1 Description of EUT

Its basic purpose is used for communications.

FCC ID	A3LSMA6060
Model name	SM-A6060
EUT type	Mobile Phone
Frequency band	GSM 850/1900, WCDMA 850/1900, LTE B5/41, BT 5.0, WLAN a/b/g/n/ac, NFC, ANT+
Power supply	Travel adaptor: Input: AC 100 to 240 V, 50/60 Hz, 0.5 A Output: DC 9.0 V 1.67 A or DC 5.0 V 2.0 A Battery: Low : 3.6 V / Normal :3.85 V / High : 4.4 V, Li-ion Battery

### 1.2 Equipment Units Tested

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

Device Type	Model Name	Serial Number	Manufacturer	FCC ID / DoC
EUT	SM-A6060	-	SAMSUNG	A3LSMA6060
Notebook PC	ProBook6560b	5CB2053MXF	HP	-
Notebook PC adaptor	Series PPP009L-E	-	LITE-ON TECHNOLOGY (CHANGZHOU)	-
Gateway	TL-WR747N	-	TP Link	-
Gateway adaptor	T090060-2H1	-	TP Link	-
Serial mouse	Serial 2 Button mouse	02031069	Radio Shack	FSUGMZE3
RJ45 cable	-	-	-	-
TA	EP-TA200	-	DYREL	-
Data Cable	EP-DR140AWE	-	KSD	-
Earphone	GHSS028-W4	-	BUJOEN	-
Micro SD Card	-	-	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	Y	(P,D) 1.0
	Earphone (Type C)	N/A	N	(D) 1.2
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.

### 1.4 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 (Type C)	N	N/A	Y	EUT End
Notebook PC	RJ 45	N	N/A	N	N/A
	Serial(Mouse)	N	N/A	Y	Notebook 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	

### 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 (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

<u>Type</u>	<u>Manufacturer</u>	<u>Model Name</u>	<u>Serial Number</u>	<u>Calibration Cycle</u>	<u>CAL Date</u>
<u>Conducted Emission</u>					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	06.25.2018
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ENV216	102245	1 year	12.12.2018
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ENV216	100073	1 year	05.03.2018
<input checked="" type="checkbox"/> Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.21.2018
<input checked="" type="checkbox"/> Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32 VER8.54.0	-	-	-
<u>Radiated Emission</u>					
-For measurement below 1 GHz					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	07.27.2018
<input checked="" type="checkbox"/> Trilog Antenna	Schwarzbeck	VULB 9168	760	2 year	04.06.2018
<input checked="" type="checkbox"/> Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
<input checked="" type="checkbox"/> Antenna master controller	INNCO Systems	CO 3000	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	08.21.2018
<input checked="" type="checkbox"/> Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32 VER8.40.0	-	-	-
-For measurement above 1 GHz					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	07.27.2018
<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"/> Horn Antenna	Schwarzbeck	BBHA 9120D	01836	2 year	07.20.2018
<input checked="" type="checkbox"/> Low Noise Amplifier	TESTEK	TK-PA18H	170034-L	1 year	03.04.2019
<input checked="" type="checkbox"/> Power Amplifier	TESTEK	TK-PA1840H	170030-L	1 year	12.17.2018
<input checked="" type="checkbox"/> Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170#786	2 year	12.05.2017
<input checked="" type="checkbox"/> Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.21.2018
<input checked="" type="checkbox"/> Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
<input type="checkbox"/> Highpass Filter	Wainwright Instruments	WHKX1.0/15G-12SS	42	1 year	08.02.2018
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32 VER8.40.0	-	-	-



### 3. DESCRIPTION OF MEASUREMENTS

#### 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

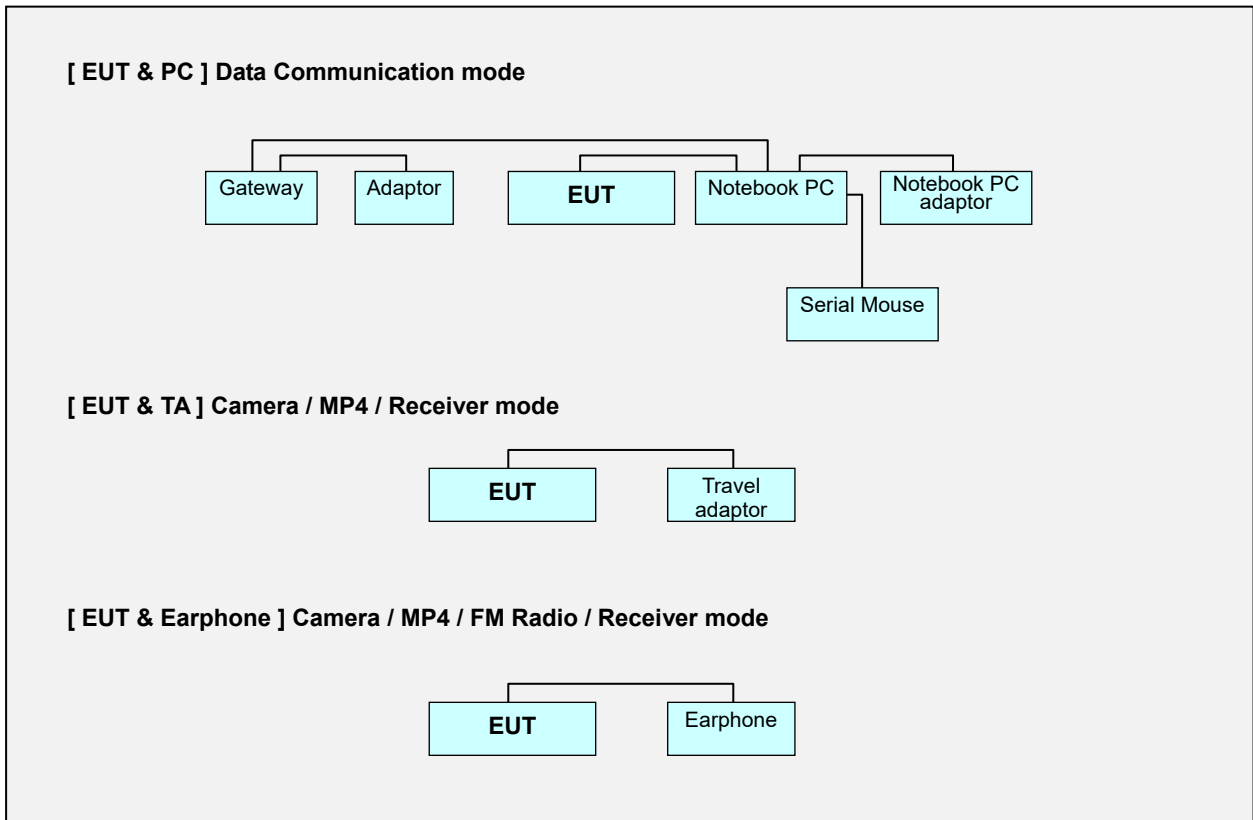


### 3.2.1 Frequency Range of Radiated Measurements

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	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower

### 3.3 Configuration of Tested System



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



## 4. PRELIMINARY TEST

During preliminary tests, the following operating mode was investigated.

- Data Communication
- Rear / Front Camera (Preview / Recording)
- MP4 Play
- FM Radio mode (Low / Middle / High CH)
- LTE B5 Idle (Middle CH)
- WCDMA 850 Idle (Middle CH)
- GSM 850 Idle (Middle CH)

### 4.1 Conducted Emission

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

#### Operating Modes:

##### [ EUT & PC ]

- Data Communication

##### [ EUT & TA ]

- Rear / Front Camera Preview
- MP4 Play
- Receiver mode (LTE B5 Low CH Idle) + Rear Camera Recording
- Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording
- Receiver mode (LTE B5 High CH Idle)

#### NOTE.

1. The worst case of operating mode is reported.

### 4.2 Radiated Emission

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

#### Operating Modes:

##### [ EUT & PC ]

- Data Communication

##### [ EUT & TA ]

- Rear / Front Camera Preview
- MP4 Play
- Receiver mode (LTE B5 Low CH Idle) + Camera Recording (Rear)
- Receiver mode (LTE B5 Middle CH Idle) + Camera Recording (Front)
- Receiver mode (LTE B5 High CH Idle)

**[ EUT & Earphone ]**

Rear Camera Preview +FM Radio (Low CH)  
Front Camera Preview + FM Radio (Middle CH)  
FM Radio (High CH)  
MP4 Play  
Receiver mode (LTE B5 Low CH Idle) + Camera Recording (Rear)  
Receiver mode (LTE B5 Middle CH Idle) + Camera Recording (Front)  
Receiver mode (LTE B5 High CH Idle)

## NOTE.

1. Three orientations have been investigated and the worst case orientation is reported.
2. The worst case of operating mode is 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:

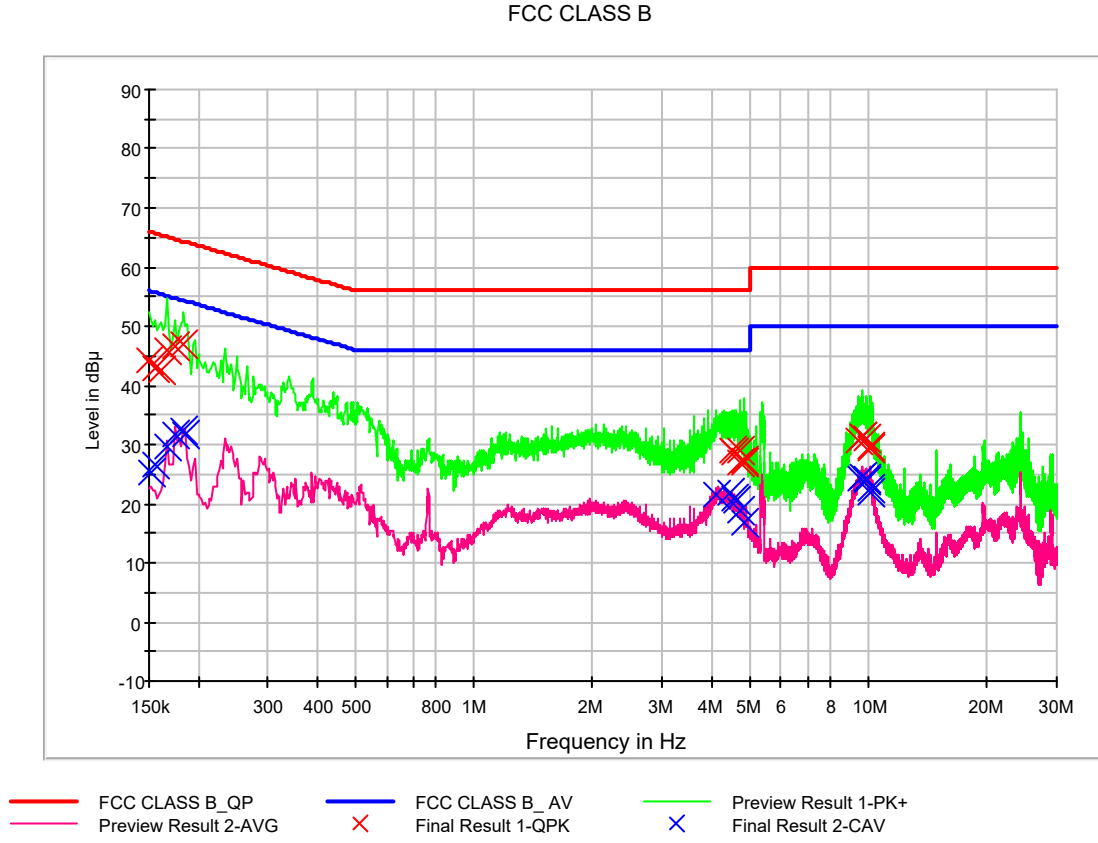
Applicable Standards	FCC PART 15 Subpart B Class B ANSI C63.4-2014
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Worst Case of Operating Mode	Data Communication MP4 Play Rear Camera Preview Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording
Kind of Test Site	Shielded Room
Temperature	21.3/ 22.0 °C
Relative Humidity	42.5/ 43.5 %
Test Date	February 22/ February 27, 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, Data Communication, Line (L1)





### QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	44.1	9.000	L1	9.6	21.9	66.0
0.156000	42.9	9.000	L1	9.6	22.8	65.7
0.160000	42.7	9.000	L1	9.6	22.8	65.5
0.166000	46.1	9.000	L1	9.6	19.1	65.2
0.174000	46.7	9.000	L1	9.6	18.1	64.8
0.184000	46.9	9.000	L1	9.6	17.4	64.3
4.536000	28.9	9.000	L1	9.8	27.1	56.0
4.562000	28.6	9.000	L1	9.8	27.4	56.0
4.712000	28.9	9.000	L1	9.8	27.1	56.0
4.740000	26.9	9.000	L1	9.8	29.1	56.0
4.816000	27.1	9.000	L1	9.8	28.9	56.0
4.852000	27.0	9.000	L1	9.8	29.0	56.0
9.442000	30.7	9.000	L1	10.0	29.3	60.0
9.608000	31.5	9.000	L1	10.0	28.5	60.0
9.688000	31.5	9.000	L1	10.0	28.5	60.0
9.888000	30.9	9.000	L1	10.0	29.1	60.0
10.072000	29.6	9.000	L1	10.0	30.4	60.0
10.106000	29.4	9.000	L1	10.0	30.6	60.0



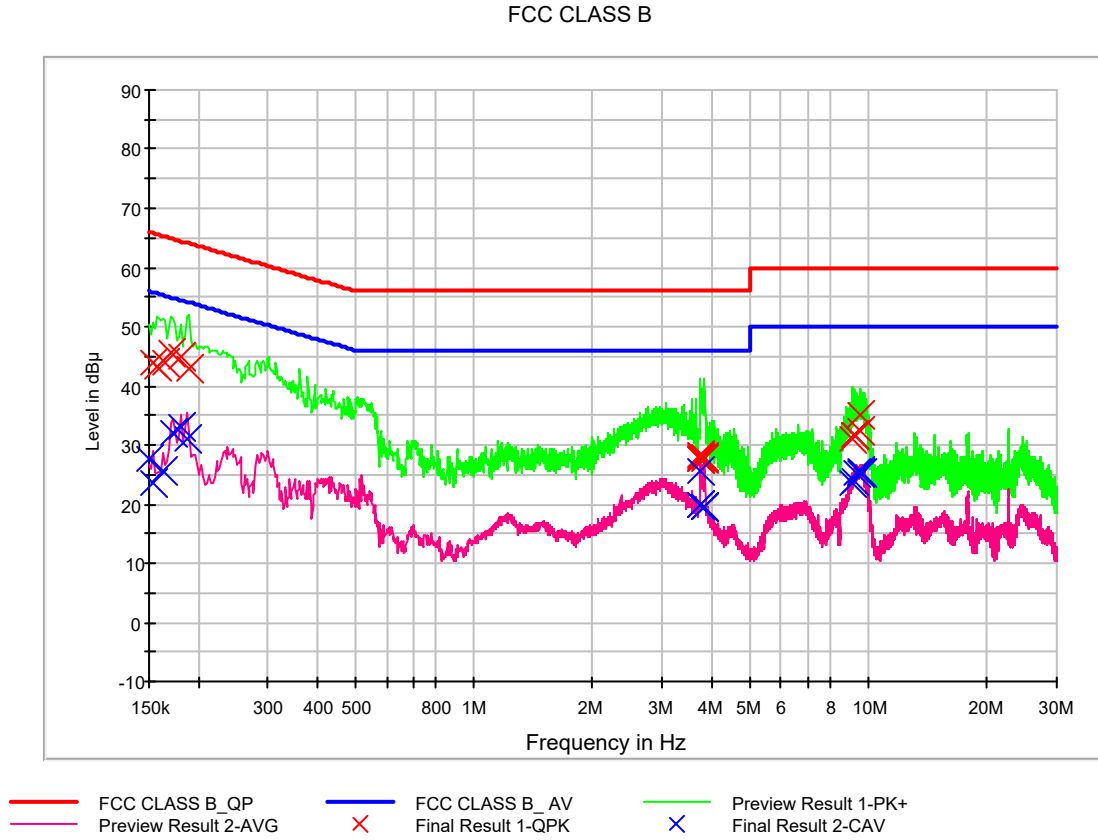
### CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	25.2	9.000	L1	9.6	30.7	55.9
0.156000	26.8	9.000	L1	9.6	28.9	55.7
0.166000	29.6	9.000	L1	9.6	25.5	55.2
0.174000	31.5	9.000	L1	9.6	23.2	54.8
0.182000	32.4	9.000	L1	9.6	22.0	54.4
0.186000	31.6	9.000	L1	9.7	22.6	54.2
4.124000	21.4	9.000	L1	9.8	24.6	46.0
4.446000	21.7	9.000	L1	9.8	24.3	46.0
4.562000	20.9	9.000	L1	9.8	25.1	46.0
4.616000	20.6	9.000	L1	9.8	25.4	46.0
4.712000	18.8	9.000	L1	9.8	27.2	46.0
4.852000	16.9	9.000	L1	9.8	29.1	46.0
9.496000	24.1	9.000	L1	10.0	25.9	50.0
9.688000	24.6	9.000	L1	10.0	25.4	50.0
9.850000	24.1	9.000	L1	10.0	25.9	50.0
9.888000	24.0	9.000	L1	10.0	26.0	50.0
10.072000	22.6	9.000	L1	10.0	27.4	50.0
10.106000	22.0	9.000	L1	10.0	28.0	50.0





Figure 2: Conducted Emission, Data Communication, Line (N)





### QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154000	43.7	9.000	N	9.6	22.0	65.8
0.158000	43.3	9.000	N	9.6	22.2	65.6
0.164000	43.9	9.000	N	9.6	21.4	65.3
0.170000	45.7	9.000	N	9.6	19.3	65.0
0.180000	44.8	9.000	N	9.6	19.7	64.5
0.190000	42.7	9.000	N	9.6	21.3	64.0
3.730000	27.7	9.000	N	9.8	28.3	56.0
3.736000	28.1	9.000	N	9.8	27.9	56.0
3.746000	27.6	9.000	N	9.8	28.4	56.0
3.750000	28.3	9.000	N	9.8	27.7	56.0
3.812000	27.8	9.000	N	9.8	28.2	56.0
3.832000	27.5	9.000	N	9.8	28.5	56.0
9.130000	30.9	9.000	N	9.9	29.1	60.0
9.164000	31.8	9.000	N	9.9	28.2	60.0
9.228000	31.8	9.000	N	9.9	28.2	60.0
9.242000	31.7	9.000	N	9.9	28.3	60.0
9.484000	35.2	9.000	N	9.9	24.8	60.0
9.532000	32.3	9.000	N	9.9	27.7	60.0

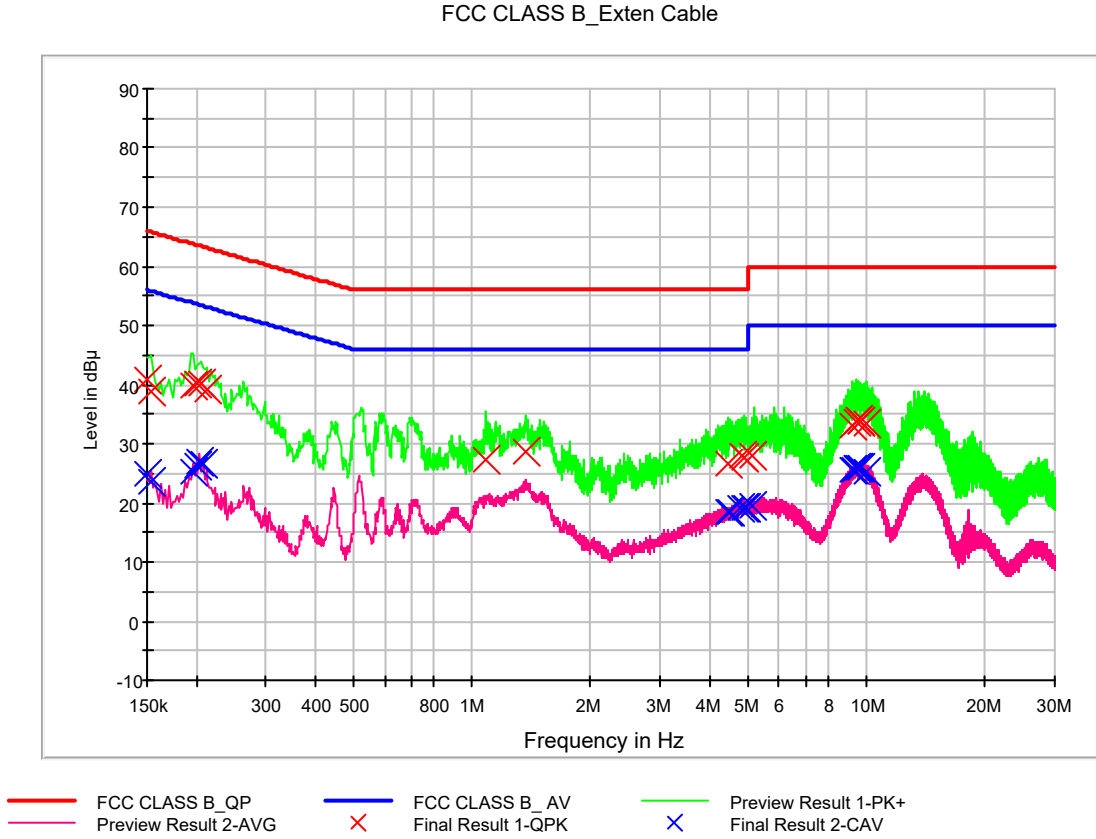


## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	27.7	9.000	N	9.6	28.4	56.0
0.154000	23.5	9.000	N	9.6	32.3	55.8
0.162000	25.5	9.000	N	9.6	29.8	55.4
0.172000	32.0	9.000	N	9.6	22.9	54.9
0.180000	32.9	9.000	N	9.6	21.6	54.5
0.188000	31.1	9.000	N	9.6	23.0	54.1
3.728000	19.9	9.000	N	9.8	26.1	46.0
3.746000	19.7	9.000	N	9.8	26.3	46.0
3.754000	25.7	9.000	N	9.8	20.3	46.0
3.812000	19.6	9.000	N	9.8	26.4	46.0
3.832000	19.3	9.000	N	9.8	26.7	46.0
3.838000	19.5	9.000	N	9.8	26.5	46.0
9.130000	23.7	9.000	N	9.9	26.3	50.0
9.228000	23.9	9.000	N	9.9	26.1	50.0
9.332000	25.2	9.000	N	9.9	24.8	50.0
9.496000	25.6	9.000	N	9.9	24.4	50.0
9.522000	25.3	9.000	N	9.9	24.7	50.0
9.592000	25.2	9.000	N	9.9	24.8	50.0



Figure 3: Conducted Emission, MP4 Play, Line (L1)





### QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	40.8	9.000	L1	9.7	25.2	66.0
0.154000	38.8	9.000	L1	9.7	27.0	65.8
0.196000	39.9	9.000	L1	9.7	23.8	63.8
0.200000	40.3	9.000	L1	9.8	23.3	63.6
0.206000	40.3	9.000	L1	9.7	23.1	63.4
0.212000	39.2	9.000	L1	9.7	24.0	63.1
1.086000	27.3	9.000	L1	9.8	28.7	56.0
1.368000	28.8	9.000	L1	9.9	27.2	56.0
4.464000	26.5	9.000	L1	10.0	29.5	56.0
4.830000	27.8	9.000	L1	10.0	28.2	56.0
4.912000	27.7	9.000	L1	10.0	28.3	56.0
5.124000	27.9	9.000	L1	10.0	32.1	60.0
9.254000	33.2	9.000	L1	10.2	26.8	60.0
9.476000	33.8	9.000	L1	10.2	26.2	60.0
9.498000	33.9	9.000	L1	10.2	26.1	60.0
9.628000	33.9	9.000	L1	10.2	26.1	60.0
9.680000	33.8	9.000	L1	10.2	26.2	60.0
10.016000	33.4	9.000	L1	10.2	26.6	60.0

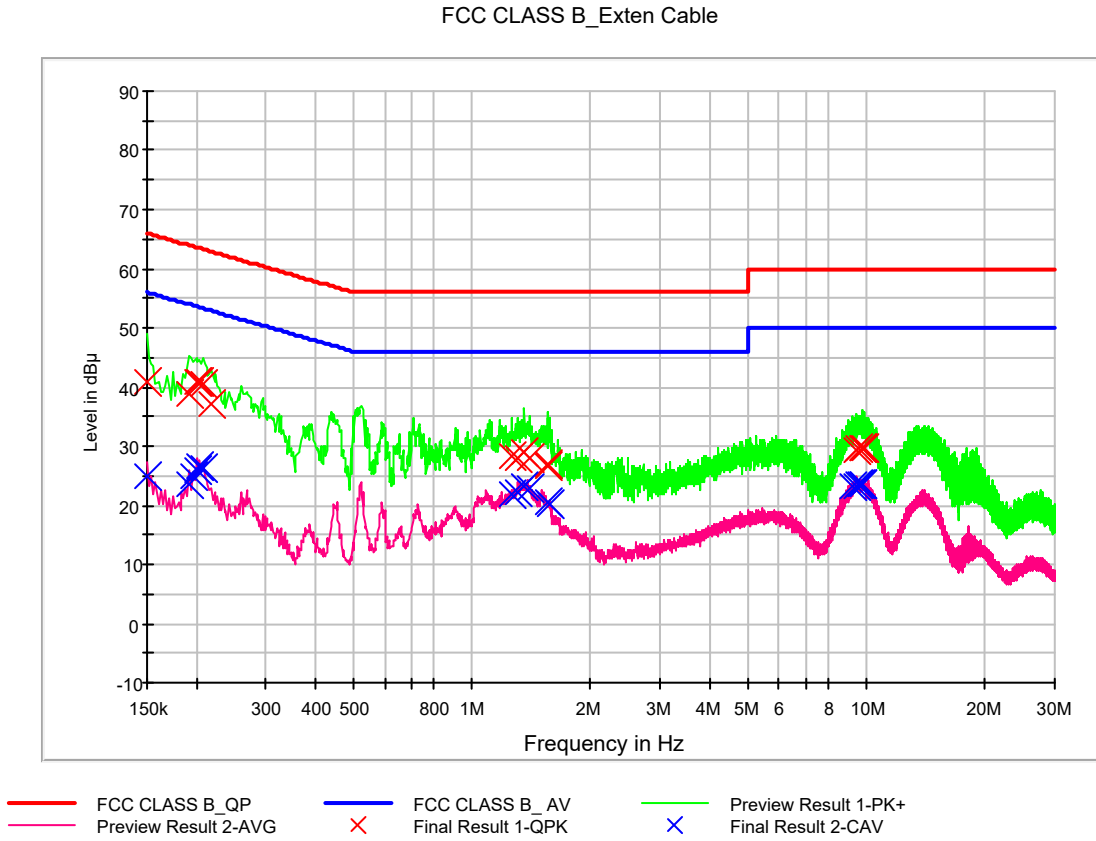


### CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	25.1	9.000	L1	9.7	30.9	56.0
0.154000	23.7	9.000	L1	9.7	32.1	55.8
0.196000	25.2	9.000	L1	9.7	28.6	53.8
0.200000	26.3	9.000	L1	9.8	27.3	53.6
0.204000	26.9	9.000	L1	9.7	26.6	53.4
0.208000	26.5	9.000	L1	9.7	26.8	53.3
4.464000	18.5	9.000	L1	10.0	27.5	46.0
4.510000	18.6	9.000	L1	10.0	27.4	46.0
4.774000	19.3	9.000	L1	10.0	26.7	46.0
4.912000	19.1	9.000	L1	10.0	26.9	46.0
4.950000	19.2	9.000	L1	10.0	26.8	46.0
5.124000	19.5	9.000	L1	10.0	30.5	50.0
9.254000	25.5	9.000	L1	10.2	24.5	50.0
9.270000	25.4	9.000	L1	10.2	24.6	50.0
9.476000	25.9	9.000	L1	10.2	24.1	50.0
9.552000	26.0	9.000	L1	10.2	24.0	50.0
9.680000	25.9	9.000	L1	10.2	24.1	50.0
10.016000	25.2	9.000	L1	10.2	24.8	50.0



Figure 4: Conducted Emission, MP4 Play, Line (N)





### QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	41.0	9.000	N	9.8	25.0	66.0
0.192000	38.7	9.000	N	9.8	25.2	63.9
0.200000	40.7	9.000	N	9.9	22.9	63.6
0.204000	40.8	9.000	N	9.9	22.7	63.4
0.208000	40.6	9.000	N	9.9	22.7	63.3
0.218000	37.2	9.000	N	9.9	25.7	62.9
1.264000	28.2	9.000	N	10.0	27.8	56.0
1.302000	28.1	9.000	N	10.0	27.9	56.0
1.360000	29.0	9.000	N	10.1	27.0	56.0
1.402000	28.1	9.000	N	10.1	27.9	56.0
1.558000	27.0	9.000	N	10.1	29.0	56.0
1.562000	26.8	9.000	N	10.1	29.2	56.0
9.386000	29.4	9.000	N	10.4	30.6	60.0
9.520000	29.8	9.000	N	10.4	30.2	60.0
9.712000	29.6	9.000	N	10.4	30.4	60.0
9.800000	29.5	9.000	N	10.4	30.5	60.0
9.814000	29.6	9.000	N	10.4	30.4	60.0
9.860000	29.6	9.000	N	10.4	30.4	60.0



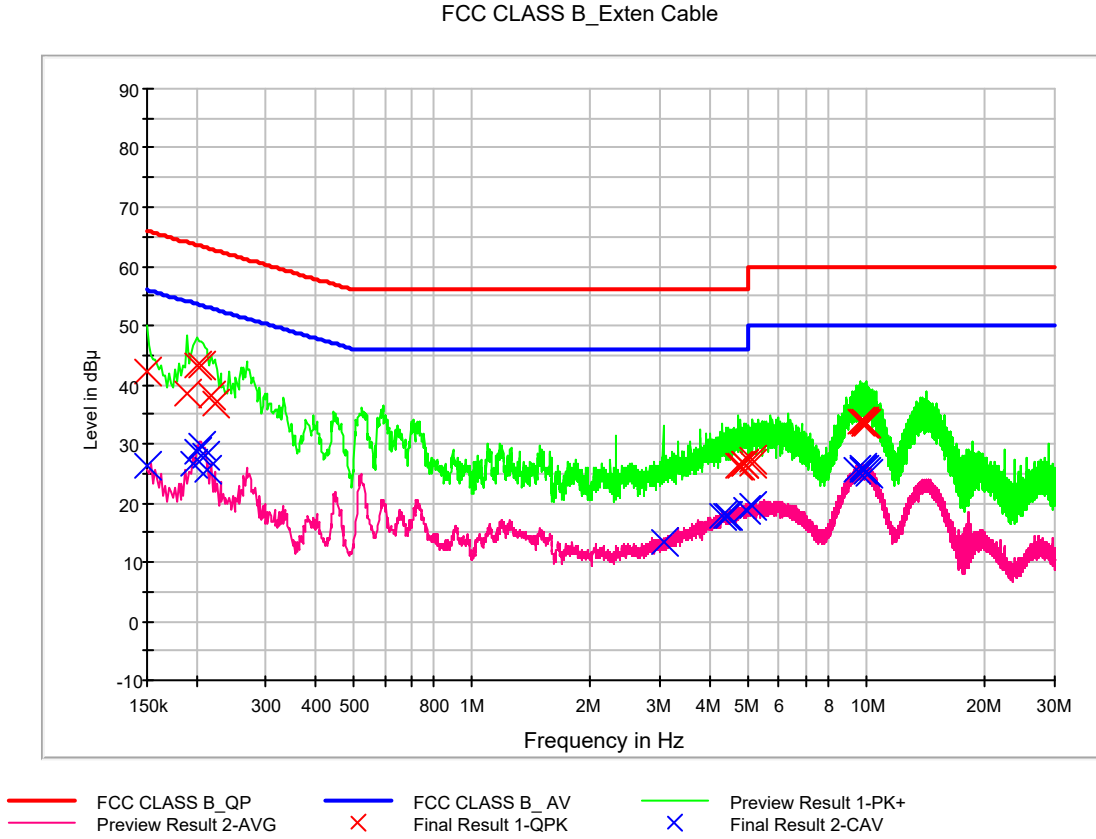


## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	25.1	9.000	N	9.8	30.9	56.0
0.192000	23.4	9.000	N	9.8	30.5	53.9
0.196000	24.8	9.000	N	9.8	29.0	53.8
0.200000	25.9	9.000	N	9.9	27.7	53.6
0.204000	26.6	9.000	N	9.9	26.9	53.4
0.208000	26.3	9.000	N	9.9	27.0	53.3
1.264000	22.0	9.000	N	10.0	24.0	46.0
1.302000	22.3	9.000	N	10.0	23.7	46.0
1.360000	23.2	9.000	N	10.1	22.8	46.0
1.402000	22.8	9.000	N	10.1	23.2	46.0
1.562000	20.5	9.000	N	10.1	25.5	46.0
1.568000	20.3	9.000	N	10.1	25.7	46.0
9.260000	23.1	9.000	N	10.4	26.9	50.0
9.386000	23.4	9.000	N	10.4	26.6	50.0
9.544000	23.5	9.000	N	10.4	26.5	50.0
9.648000	23.6	9.000	N	10.4	26.4	50.0
9.800000	23.4	9.000	N	10.4	26.6	50.0
9.814000	23.5	9.000	N	10.4	26.5	50.0



Figure 5: Conducted Emission, Rear Camera Preview, Line (L1)





### QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	42.1	9.000	L1	9.7	23.9	66.0
0.190000	38.5	9.000	L1	9.7	25.6	64.0
0.200000	43.2	9.000	L1	9.8	20.4	63.6
0.206000	43.3	9.000	L1	9.7	20.0	63.4
0.218000	38.2	9.000	L1	9.7	24.7	62.9
0.222000	36.9	9.000	L1	9.7	25.8	62.7
4.710000	26.4	9.000	L1	10.0	29.6	56.0
4.798000	26.2	9.000	L1	10.0	29.8	56.0
4.916000	26.6	9.000	L1	10.0	29.4	56.0
4.924000	26.7	9.000	L1	10.0	29.3	56.0
5.104000	27.2	9.000	L1	10.0	32.8	60.0
5.116000	26.6	9.000	L1	10.0	33.4	60.0
9.622000	33.7	9.000	L1	10.2	26.3	60.0
9.808000	33.8	9.000	L1	10.2	26.2	60.0
9.836000	33.4	9.000	L1	10.2	26.6	60.0
9.848000	33.7	9.000	L1	10.2	26.3	60.0
9.898000	33.5	9.000	L1	10.2	26.5	60.0
10.024000	33.4	9.000	L1	10.2	26.6	60.0

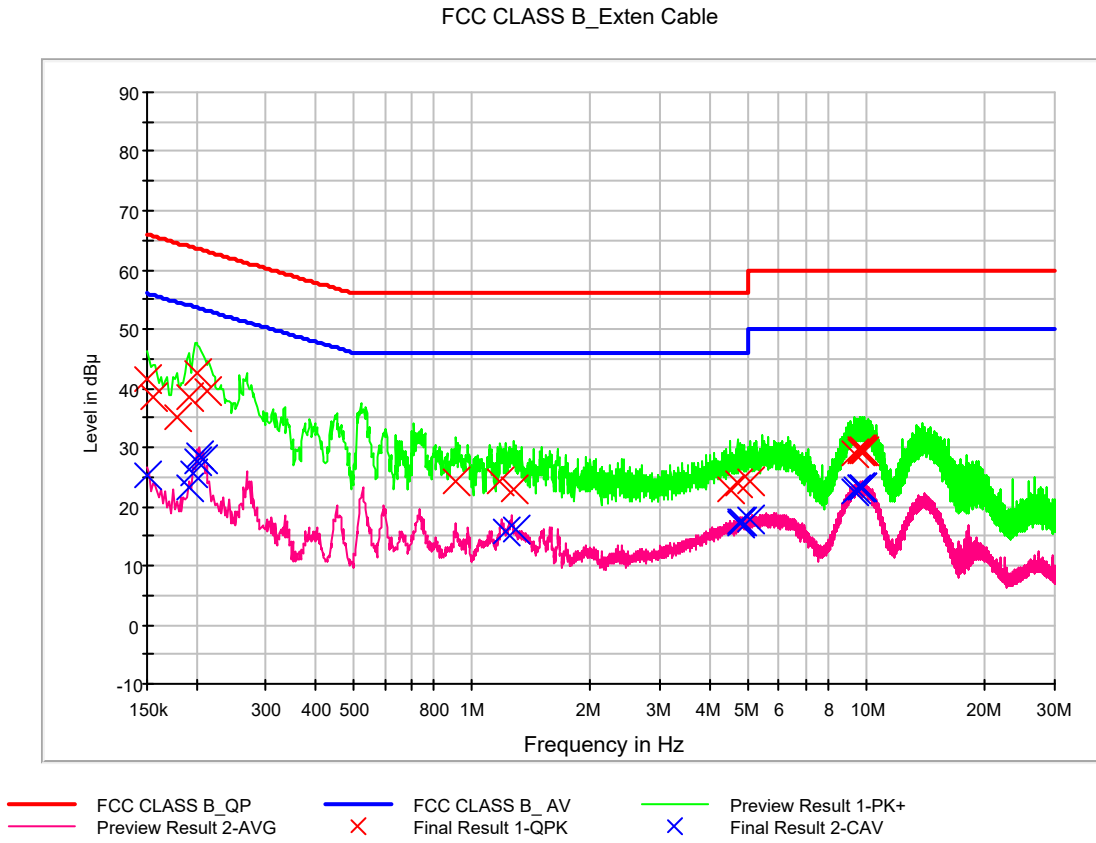


## CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	26.2	9.000	L1	9.7	29.8	56.0
0.196000	26.6	9.000	L1	9.7	27.2	53.8
0.200000	28.5	9.000	L1	9.8	25.1	53.6
0.206000	29.5	9.000	L1	9.7	23.9	53.4
0.210000	27.9	9.000	L1	9.7	25.3	53.2
0.214000	25.5	9.000	L1	9.7	27.6	53.0
3.050000	13.2	9.000	L1	9.9	32.8	46.0
4.298000	17.6	9.000	L1	10.0	28.4	46.0
4.394000	17.7	9.000	L1	10.0	28.3	46.0
4.452000	17.7	9.000	L1	10.0	28.3	46.0
4.956000	18.8	9.000	L1	10.0	27.2	46.0
5.104000	19.3	9.000	L1	10.0	30.7	50.0
9.440000	25.5	9.000	L1	10.2	24.5	50.0
9.770000	25.8	9.000	L1	10.2	24.2	50.0
9.794000	25.7	9.000	L1	10.2	24.3	50.0
9.898000	25.5	9.000	L1	10.2	24.5	50.0
10.024000	25.3	9.000	L1	10.2	24.7	50.0
10.128000	25.0	9.000	L1	10.2	25.0	50.0



Figure 6: Conducted Emission, Rear Camera Preview, Line (N)





### QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	41.4	9.000	N	9.8	24.6	66.0
0.156000	38.6	9.000	N	9.8	27.1	65.7
0.178000	35.2	9.000	N	9.8	29.4	64.6
0.192000	38.3	9.000	N	9.8	25.6	63.9
0.200000	42.6	9.000	N	9.9	21.0	63.6
0.214000	39.6	9.000	N	9.9	23.5	63.0
0.912000	24.3	9.000	N	10.0	31.7	56.0
1.182000	24.4	9.000	N	10.0	31.6	56.0
1.276000	23.0	9.000	N	10.0	33.0	56.0
4.490000	23.0	9.000	N	10.2	33.0	56.0
4.700000	23.9	9.000	N	10.2	32.1	56.0
5.086000	24.2	9.000	N	10.2	35.8	60.0
9.302000	28.9	9.000	N	10.4	31.1	60.0
9.608000	29.5	9.000	N	10.4	30.5	60.0
9.616000	29.5	9.000	N	10.4	30.5	60.0
9.774000	29.5	9.000	N	10.4	30.5	60.0
9.808000	29.3	9.000	N	10.4	30.7	60.0
9.880000	29.2	9.000	N	10.4	30.8	60.0

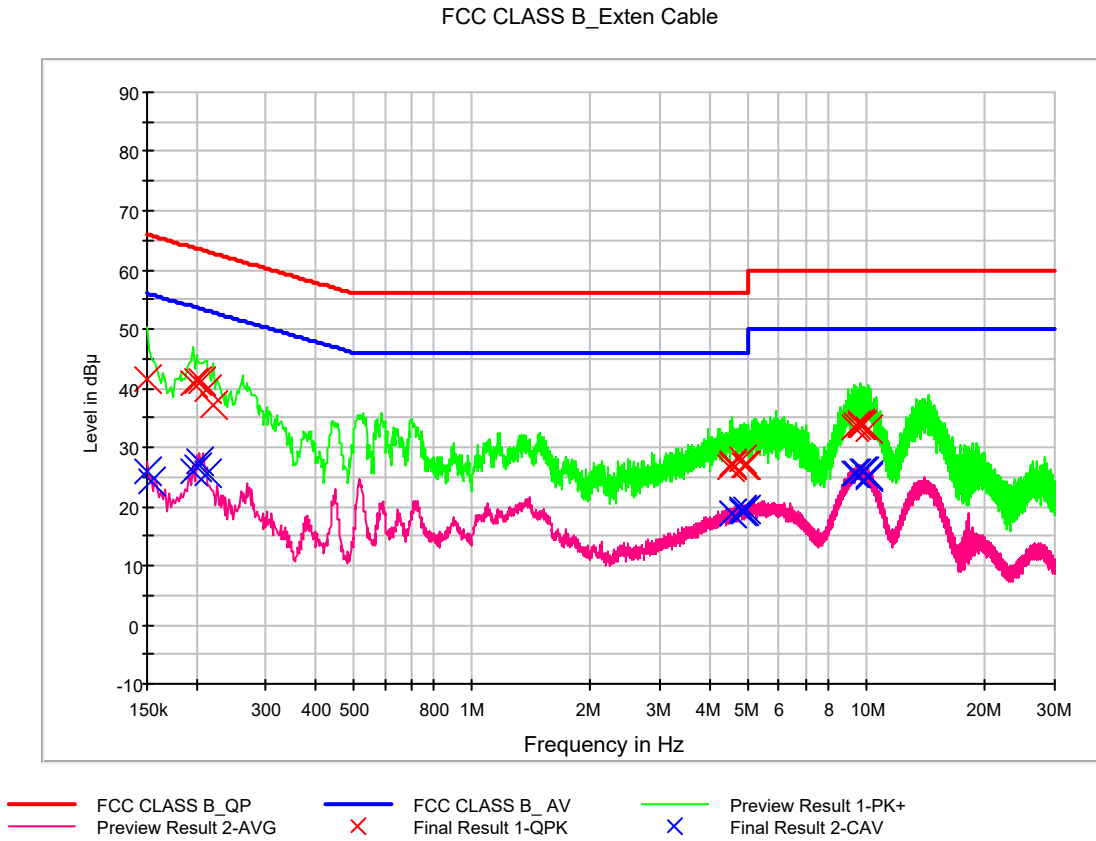


## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	25.2	9.000	N	9.8	30.8	56.0
0.192000	23.2	9.000	N	9.8	30.7	53.9
0.196000	25.5	9.000	N	9.8	28.3	53.8
0.200000	27.7	9.000	N	9.9	25.9	53.6
0.204000	28.8	9.000	N	9.9	24.6	53.4
0.208000	27.9	9.000	N	9.9	25.3	53.3
1.214000	15.8	9.000	N	10.0	30.2	46.0
1.284000	16.1	9.000	N	10.0	30.0	46.0
4.768000	17.4	9.000	N	10.2	28.6	46.0
4.794000	17.2	9.000	N	10.2	28.8	46.0
4.852000	17.4	9.000	N	10.2	28.6	46.0
5.086000	17.7	9.000	N	10.2	32.3	50.0
9.302000	22.7	9.000	N	10.4	27.3	50.0
9.388000	23.0	9.000	N	10.4	27.0	50.0
9.608000	23.3	9.000	N	10.4	26.7	50.0
9.618000	23.4	9.000	N	10.4	26.6	50.0
9.774000	23.3	9.000	N	10.4	26.7	50.0
9.808000	23.2	9.000	N	10.4	26.8	50.0



Figure 7: Conducted Emission, Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording, Line (L1)







### QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	41.6	9.000	L1	9.7	24.4	66.0
0.196000	40.8	9.000	L1	9.7	23.0	63.8
0.200000	41.0	9.000	L1	9.8	22.6	63.6
0.206000	41.1	9.000	L1	9.7	22.3	63.4
0.212000	39.9	9.000	L1	9.7	23.3	63.1
0.220000	37.0	9.000	L1	9.7	25.8	62.8
4.496000	26.6	9.000	L1	10.0	29.4	56.0
4.558000	26.9	9.000	L1	10.0	29.1	56.0
4.562000	27.3	9.000	L1	10.0	28.7	56.0
4.856000	27.9	9.000	L1	10.0	28.1	56.0
4.902000	27.0	9.000	L1	10.0	29.0	56.0
4.970000	26.9	9.000	L1	10.0	29.1	56.0
9.308000	33.4	9.000	L1	10.2	26.6	60.0
9.406000	33.7	9.000	L1	10.2	26.3	60.0
9.684000	33.9	9.000	L1	10.2	26.1	60.0
9.688000	33.7	9.000	L1	10.2	26.3	60.0
9.744000	33.7	9.000	L1	10.2	26.3	60.0
10.066000	33.1	9.000	L1	10.2	26.9	60.0

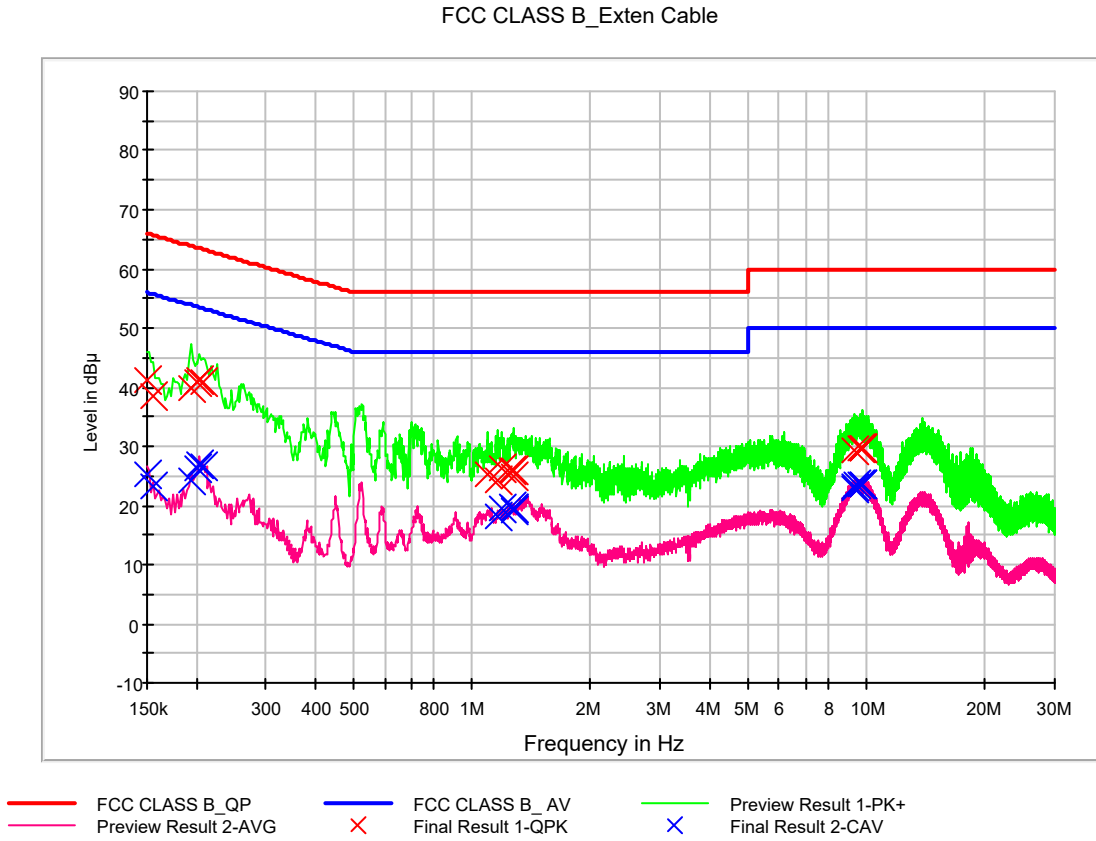


## CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	25.8	9.000	L1	9.7	30.2	56.0
0.154000	24.4	9.000	L1	9.7	31.4	55.8
0.196000	25.8	9.000	L1	9.7	28.0	53.8
0.200000	26.8	9.000	L1	9.8	26.8	53.6
0.204000	27.5	9.000	L1	9.7	25.9	53.4
0.212000	25.7	9.000	L1	9.7	27.4	53.1
4.558000	18.7	9.000	L1	10.0	27.3	46.0
4.562000	18.7	9.000	L1	10.0	27.3	46.0
4.852000	19.3	9.000	L1	10.0	26.7	46.0
4.856000	19.4	9.000	L1	10.0	26.6	46.0
4.868000	19.2	9.000	L1	10.0	26.8	46.0
4.944000	19.4	9.000	L1	10.0	26.6	46.0
9.308000	25.4	9.000	L1	10.2	24.6	50.0
9.406000	25.7	9.000	L1	10.2	24.3	50.0
9.732000	25.9	9.000	L1	10.2	24.1	50.0
9.826000	25.8	9.000	L1	10.2	24.2	50.0
10.066000	25.2	9.000	L1	10.2	24.8	50.0
10.106000	25.1	9.000	L1	10.2	24.9	50.0



Figure 8: Conducted Emission, Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording, Line (N)





### QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	41.3	9.000	N	9.8	24.7	66.0
0.156000	38.4	9.000	N	9.8	27.3	65.7
0.194000	40.0	9.000	N	9.8	23.9	63.9
0.200000	40.9	9.000	N	9.9	22.7	63.6
0.204000	41.1	9.000	N	9.9	22.3	63.4
0.208000	40.7	9.000	N	9.9	22.6	63.3
1.092000	25.3	9.000	N	10.0	30.7	56.0
1.160000	24.3	9.000	N	10.0	31.7	56.0
1.188000	26.3	9.000	N	10.0	29.7	56.0
1.266000	25.8	9.000	N	10.0	30.2	56.0
1.274000	26.0	9.000	N	10.0	30.0	56.0
1.278000	25.0	9.000	N	10.0	31.0	56.0
9.328000	29.4	9.000	N	10.4	30.6	60.0
9.660000	29.8	9.000	N	10.4	30.2	60.0
9.706000	29.7	9.000	N	10.4	30.3	60.0
9.748000	29.7	9.000	N	10.4	30.3	60.0
9.774000	29.7	9.000	N	10.4	30.3	60.0
9.800000	29.6	9.000	N	10.4	30.4	60.0



## CAverage Final Result, Line (N)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	25.2	9.000	N	9.8	30.8	56.0
0.156000	23.3	9.000	N	9.8	32.4	55.7
0.194000	24.3	9.000	N	9.8	29.6	53.9
0.200000	26.2	9.000	N	9.9	27.4	53.6
0.204000	26.9	9.000	N	9.9	26.6	53.4
0.208000	26.5	9.000	N	9.9	26.7	53.3
1.160000	18.1	9.000	N	10.0	27.9	46.0
1.188000	19.3	9.000	N	10.0	26.7	46.0
1.266000	19.7	9.000	N	10.0	26.3	46.0
1.274000	19.5	9.000	N	10.0	26.5	46.0
1.278000	19.2	9.000	N	10.0	26.8	46.0
1.282000	19.5	9.000	N	10.0	26.5	46.0
9.298000	23.0	9.000	N	10.4	27.0	50.0
9.328000	23.3	9.000	N	10.4	26.7	50.0
9.478000	23.6	9.000	N	10.4	26.4	50.0
9.650000	23.7	9.000	N	10.4	26.3	50.0
9.706000	23.5	9.000	N	10.4	26.5	50.0
9.748000	23.5	9.000	N	10.4	26.5	50.0



## 5.2 Radiated Emission

The test results of radiated emission provide the following information:

### -For Measurement Below 1 GHz

Applicable Standards	FCC PART 15 Subpart B Class B ANSI C63.4-2014
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Worst Case of Operating Mode	Data Communication  [ TA ] MP4 Play Rear Camera Preview Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording  [ Earphone ] Rear Camera Preview +FM Radio(Low CH) Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.7/ 22.3 °C
Relative Humidity	41.7/ 39.8 %
Test Date	February 28 / March 04, 2019

### - 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

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)
47.799200	31.4	100.0	V	58.0	20.2	8.6	40.0
69.101600	28.6	325.2	H	1.0	18.1	11.4	40.0
132.811200	29.9	225.0	H	280.0	19.0	13.6	43.5
375.005600	34.9	100.0	H	118.0	22.4	11.1	46.0
600.058400	38.0	125.0	H	136.0	27.5	8.0	46.0
875.044000	39.1	100.0	H	248.0	30.9	6.9	46.0

### [ TA ] MP4 Play

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)
45.566400	27.0	100.0	V	57.0	20.0	13.0	40.0
65.058400	25.2	100.0	V	286.0	18.9	14.8	40.0
80.617600	22.0	100.0	V	251.0	15.6	18.0	40.0
169.924000	25.1	100.0	V	90.0	19.5	18.4	43.5
688.510400	28.4	274.7	H	14.0	28.6	17.6	46.0
796.084000	30.3	174.7	H	227.0	30.2	15.7	46.0

### [ TA ] Rear Camera Preview

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)
45.592800	28.4	125.3	V	75.0	20.0	11.6	40.0
67.805600	23.4	100.0	V	344.0	18.4	16.6	40.0
87.116000	25.1	100.0	V	266.0	14.7	14.9	40.0
170.280000	27.3	100.0	V	75.0	19.5	16.2	43.5
603.561600	27.6	174.8	V	276.0	27.5	18.4	46.0
793.559200	30.3	125.2	V	64.0	30.1	15.7	46.0


**[ TA ] Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording**

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)
41.280000	25.9	100.0	V	247.0	19.7	14.1	40.0
45.677600	29.5	100.0	V	67.0	20.0	10.5	40.0
66.716000	25.0	100.0	V	240.0	18.6	15.0	40.0
86.015200	25.5	100.0	V	264.0	14.9	14.5	40.0
163.804800	23.9	100.0	V	89.0	19.9	19.6	43.5
695.086400	28.5	125.0	H	276.0	28.6	17.5	46.0

**[ Earphone ] Front Camera Preview + FM Radio(Middle CH)**

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)
33.088000	19.0	174.9	V	239.0	19.0	21.0	40.0
51.867200	18.6	100.0	V	167.0	20.2	21.4	40.0
64.264000	16.7	274.9	V	269.0	19.0	23.3	40.0
154.096000	18.6	125.3	H	30.0	20.0	24.9	43.5
494.672000	24.1	100.0	V	1.0	25.1	21.9	46.0
698.338400	28.5	117.9	V	321.0	28.7	17.5	46.0

**[ Earphone ] Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording**

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)
32.832000	19.4	208.8	V	186.0	19.0	20.6	40.0
55.593600	17.5	174.7	V	97.0	20.0	22.5	40.0
65.165600	16.6	174.9	V	73.0	18.8	23.4	40.0
185.976000	24.7	100.0	H	30.0	18.2	18.8	43.5
492.373600	24.0	174.9	H	111.0	25.0	22.0	46.0
695.974400	35.8	100.0	H	77.0	28.6	10.2	46.0





**-For Measurement Above 1 GHz**

Applicable Standards	FCC 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 Operating Mode	Data Communication  <b>[ TA ]</b> MP4 Play Rear Camera Preview Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording  <b>[ Earphone ]</b> Rear Camera Preview +FM Radio(Low CH) Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.9/ 24.1/ 22.3 °C
Relative Humidity	43.6/ 42.4/ 39.8 %
Test Date	February 25 / February 26 / March 04, 2019

**- 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

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1400.105000	51.3	335.5	V	214.0	-28.2	22.7	74.0
1997.230000	49.9	100.0	V	55.0	-26.7	24.1	74.0
2654.100000	46.1	111.5	V	46.0	-26.7	25.9	74.0
4481.465000	42.1	216.4	V	12.0	-19.6	31.9	74.0
5986.385000	44.7	320.4	V	41.0	-17.1	29.3	74.0
14775.335000	46.7	189.4	H	262.0	-1.4	27.3	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1400.105000	49.4	335.5	V	214.0	-28.2	4.6	54.0
1997.230000	27.4	100.0	V	55.0	-26.7	26.6	54.0
2654.100000	25.5	111.5	V	46.0	-26.7	28.5	54.0
4481.465000	25.8	216.4	V	12.0	-19.6	28.2	54.0
5986.385000	27.8	320.4	V	41.0	-17.1	26.2	54.0
14775.335000	33.7	189.4	H	262.0	-1.4	20.3	54.0

## [ TA ] MP4 Play

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3802.275000	34.3	191.5	V	12.0	-21.4	39.7	74.0
5335.105000	36.8	277.4	H	158.0	-18.1	37.2	74.0
7552.250000	41.1	321.5	V	0.0	-12.6	32.9	74.0
9835.480000	42.9	278.6	V	112.0	-9.6	31.1	74.0
10959.270000	45.2	350.0	V	182.0	-5.7	28.8	74.0
14735.385000	47.4	176.5	V	60.0	-1.4	26.6	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3802.275000	21.6	191.5	V	12.0	-21.4	32.4	54.0
5335.105000	23.7	277.4	H	158.0	-18.1	30.3	54.0
7552.250000	28.6	321.5	V	0.0	-12.6	25.4	54.0
9835.480000	30.6	278.6	V	112.0	-9.6	23.4	54.0
10959.270000	32.6	350.0	V	182.0	-5.7	21.4	54.0
14735.385000	33.9	176.5	V	60.0	-1.4	20.1	54.0



## [ TA ] Rear Camera Preview

Frequency (MHz)	Peak (dB $\mu$ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)
1004.442500	30.4	340.5	V	69.0	-29.9	43.6	74.0
1418.945000	30.9	350.0	H	0.0	-28.1	43.1	74.0
9745.860000	43.1	149.5	H	260.0	-9.7	31.0	74.0
11614.940000	45.2	299.4	H	189.0	-4.9	28.8	74.0
14481.285000	47.2	100.0	H	50.0	-1.6	26.8	74.0
17926.425000	52.9	217.5	V	125.0	6.9	21.1	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)
1004.442500	17.8	340.5	V	69.0	-29.9	36.2	54.0
1418.945000	17.8	350.0	H	0.0	-28.1	36.2	54.0
9745.860000	30.2	149.5	H	260.0	-9.7	23.8	54.0
11614.940000	32.0	299.4	H	189.0	-4.9	22.0	54.0
14481.285000	34.2	100.0	H	50.0	-1.6	19.8	54.0
17926.425000	40.1	217.5	V	125.0	6.9	13.9	54.0

## [ TA ] Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording

Frequency (MHz)	Peak (dB $\mu$ V/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V/m)
5585.640000	37.5	150.0	H	340.0	-17.7	36.5	74.0
7465.035000	40.6	149.6	V	282.0	-12.8	33.4	74.0
9771.085000	42.9	100.0	V	184.0	-9.7	31.1	74.0
10929.685000	45.2	320.5	H	294.0	-5.8	28.8	74.0
12797.335000	42.8	299.4	V	254.0	-4.9	31.2	74.0
14695.375000	46.2	100.0	V	86.0	-1.4	27.8	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)
5585.640000	24.0	150.0	H	340.0	-17.7	30.0	54.0
7465.035000	28.3	149.6	V	282.0	-12.8	25.7	54.0
9771.085000	30.4	100.0	V	184.0	-9.7	23.6	54.0
10929.685000	32.5	320.5	H	294.0	-5.8	21.5	54.0
12797.335000	30.4	299.4	V	254.0	-4.9	23.6	54.0
14695.375000	33.8	100.0	V	86.0	-1.4	20.2	54.0


**[ Earphone ] Front Camera Preview + FM Radio(Middle CH)**

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1986.125000	30.4	198.6	V	217.0	-26.7	43.6	74.0
5318.965000	36.8	350.0	H	90.0	-18.1	37.2	74.0
7295.960000	40.2	100.0	H	172.0	-13.5	33.8	74.0
9881.385000	43.9	100.0	V	340.0	-9.5	30.1	74.0
10738.260000	44.8	350.1	V	218.0	-6.4	29.2	74.0
14727.060000	46.5	350.0	V	187.0	-1.4	27.5	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1986.125000	17.4	198.6	V	217.0	-26.7	36.6	54.0
5318.965000	23.7	350.0	H	90.0	-18.1	30.3	54.0
7295.960000	27.6	100.0	H	172.0	-13.5	26.4	54.0
9881.385000	30.7	100.0	V	340.0	-9.5	23.3	54.0
10738.260000	32.2	350.1	V	218.0	-6.4	21.8	54.0
14727.060000	33.8	350.0	V	187.0	-1.4	20.2	54.0

**[ Earphone ] Receiver mode (LTE B5 Middle CH Idle) + Front Camera Recording**

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3075.345000	33.9	113.3	H	78.0	-22.7	40.1	74.0
5335.115000	36.6	350.1	H	103.0	-18.1	37.4	74.0
7372.790000	40.9	234.3	V	238.0	-13.2	33.1	74.0
9847.865000	42.6	150.0	V	92.0	-9.5	31.4	74.0
10992.845000	45.4	161.7	H	286.0	-5.6	28.6	74.0
14732.280000	46.0	261.4	H	119.0	-1.4	28.0	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
3075.345000	21.0	113.3	H	78.0	-22.7	33.0	54.0
5335.115000	23.7	350.1	H	103.0	-18.1	30.3	54.0
7372.790000	28.1	234.3	V	238.0	-13.2	25.9	54.0
9847.865000	30.5	150.0	V	92.0	-9.5	23.5	54.0
10992.845000	32.4	161.7	H	286.0	-5.6	21.6	54.0
14732.280000	33.6	261.4	H	119.0	-1.4	20.4	54.0



## 6. CONCLUSION

The data collected shows that the **EUT Type: Mobile Phone, FCC ID: A3LSMA6060, Model: SM-A6060** complies with §15.107 and §15.109 of the FCC rules.



## 7. APPENDIX A. TEST SETUP PHOTOGRAPHS

Please refer to ANNEX A\_Test Setup Photo