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# EMI TEST REPORT
## FCC CERTIFICATION

| | |
|---|---|
| **Applicant:**<br>**SAMSUNG Electronics Co., Ltd.**<br>**129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Korea** | **Date of Issue: December 06, 2018**<br>**Test Report No. HCT-EM-1811-FC014-R1**<br>**Test Site: HCT CO., LTD.** |

**FCC ID :** **A3LSMG8870**

| | |
|---|---|
| Applicable Standards | : FCC CFR 47 PART 15 Subpart B Class B<br>ANSI C63.4-2014 |
| EUT Type | : Mobile Phone |
| Model Name | : SM-G8870 |
| Date of Test | : November 13, 2018 to November 21, 2018 |

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*** | ***Reviewed By*** |
|---|---|
| **Na-Eun Song**<br>**Test Engineer**<br>**EMC Team**<br>**Certification Division** | **Jin-Pyo Hong**<br>**Technical Manager**<br>**EMC Team**<br>**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-1811-FC014 | November 22, 2018 | Initial Release |
| HCT-EM-1811-FC014-R1 | December 06, 2018 | Revised operating mode (Clause 4.0) |

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# TABLE OF CONTENTS

PAGE

1. GENERAL INFORMATION ..... 4
1.1 Description of EUT ..... 4
1.2 Equipment Units Tested ..... 4
1.3 Cable Description ..... 5
1.4 Noise Suppression Parts on Cable (I/O Cable) ..... 5
1.5. Test Facility ..... 6
1.6 Calibration of Measuring Instrument ..... 6
1.7 Measurement Uncertainty ..... 6
2. LIST OF TEST EQUIPMENT ..... 7
3. DESCRIPTION OF MEASUREMENTS ..... 8
3.1 Measurement of Conducted Emission ..... 8
3.2 Measurement of Radiated Emission ..... 9
4. PRELIMINARY TEST ..... 11
4.1 Operating Modes ..... 11
5. CONDUCTED AND RADIATED EMISSION TEST SUMMARY ..... 12
5.1 Conducted Emission ..... 12
5.2 Radiated Emission ..... 37
6. CONCLUSION ..... 46
7. APPENDIX A. TEST SETUP PHOTOGRAPHS ..... 47

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# 1. GENERAL INFORMATION

## 1.1 Description of EUT

Its basic purpose is used for communications.

| | |
|---|---|
| FCC ID | A3LSMG8870 |
| Model | SM-G8870 |
| EUT Type | Mobile Phone |
| Frequency Band | GSM 850/1900, WCDMA B2/B5, LTE B4/B5/B12/B17/B41, WLAN 2.4 GHz/5 GHz, BT, NFC, ANT+ |

## 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-G8870 | - | SAMSUNG | A3LSMG8870 |
| 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 | - |
| RJ45 cable | - | - | - | - |
| TA | EP-TA200 | - | SOLUM | - |
| Data Cable | EP-DR140AWE | - | KSDCO | - |
| Earphone | GHSM028-W3 | - | GLONIC | - |

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## 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 | 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 | N | N/A | Y | EUT End |
| Notebook PC | RJ 45 | N | N/A | N | N/A |
| | Serial(Mouse) | N | N/A | Y | Notebook 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 | Registration Number |
|---|---|
| Radiated Field strength measurement facility<br>3 m Semi Anechoic chamber | 90661 |
| Radiated Field strength measurement facility<br>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 |

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## 2. LIST OF TEST EQUIPMENT

| Type | Manufacturer | Model Name | Serial Number | Calibration Cycle | CAL Date |
|---|---|---|---|---|---|
| **Conducted Emission** | | | | | |
| ☒ EMI Test Receiver | Rohde & Schwarz | ESCI | 100584 | 1 year | 06.25.2018 |
| ☒ LISN | Rohde & Schwarz | ENV216 | 102245 | 1 year | 12.20.2017 |
| ☒ LISN | Rohde & Schwarz | ENV216 | 100073 | 1 year | 05.03.2018 |
| ☒ Radio communication analyzer | ANRITSU | MT8820C | 6201138643 | 1 year | 08.21.2018 |
| ☒ Antenna (for Communication) | Schwarzbeck | USLP9142 | VSLP 9142-200 | - | - |
| ☒ Software | Rohde & Schwarz | EMC32 VER8.54.0 | - | - | - |
| **Radiated Emission** | | | | | |
| -For measurement below 1 GHz | | | | | |
| ☒ EMI Test Receiver | Rohde & Schwarz | ESU40 | 100524 | 1 year | 07.27.2018 |
| ☒ Trilog Antenna | Schwarzbeck | VULB 9168 | 760 | 2 year | 04.06.2017 |
| ☒ Antenna master | INNCO Systems | MA4640-XP-ET | - | N/A | - |
| ☒ Antenna master controller | INNCO Systems | CO 3000 | CO3000/870/ 35990515/L | N/A | - |
| ☒ Turn Table | INNCO Systems | 1060-2M | - | N/A | - |
| ☒ Turn Table controller | INNCO Systems | CO2000 | CO2000/095/ 7590304/L | N/A | - |
| ☒ Radio communication analyzer | ANRITSU | MT8820C | 6201138643 | 1 year | 08.21.2018 |
| ☒ Antenna (for Communication) | Schwarzbeck | USLP9142 | VSLP 9142-200 | - | - |
| ☒ Software | Rohde & Schwarz | EMC32 VER8.40.0 | - | - | - |
| -For measurement above 1 GHz | | | | | |
| ☒ EMI Test Receiver | Rohde & Schwarz | ESU40 | 100524 | 1 year | 07.27.2018 |
| ☒ Antenna master | INNCO Systems | MA4640-XP-ET | - | N/A | - |
| ☒ Antenna master controller | INNCO Systems | CO3000 | CO3000/870/ 35990515/L | N/A | - |
| ☒ Turn Table | INNCO Systems | 1060-2M | - | N/A | - |
| ☒ Turn Table controller | INNCO Systems | CO2000 | CO2000/095/ 7590304/L | N/A | - |
| ☒ Horn Antenna | Schwarzbeck | BBHA 9120D | 01836 | 2 year | 05.14.2018 |
| ☒ Low Noise Amplifier | TESTEK | TK-PA18H | 170034-L | 1 year | 03.06.2018 |
| ☒ Power Amplifier | TESTEK | TK-PA1840H | 170030-L | 1 year | 12.20.2017 |
| ☒ Horn Antenna | Schwarzbeck | BBHA 9170 | BBHA9170#786 | 2 year | 12.05.2017 |
| ☒ Radio communication analyzer | ANRITSU | MT8820C | 6201138643 | 1 year | 08.21.2018 |
| ☒ Antenna (for Communication) | Schwarzbeck | USLP9142 | VSLP 9142-200 | - | - |
| ☒ Highpass Filter | Wainwright Instruments | WHKX1.0/15G-12SS | 42 | 1 year | 08.02.2018 |
| ☒ Software | Rohde & Schwarz | EMC32 VER8.40.0 | - | - | - |

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# 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.*

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## 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 |

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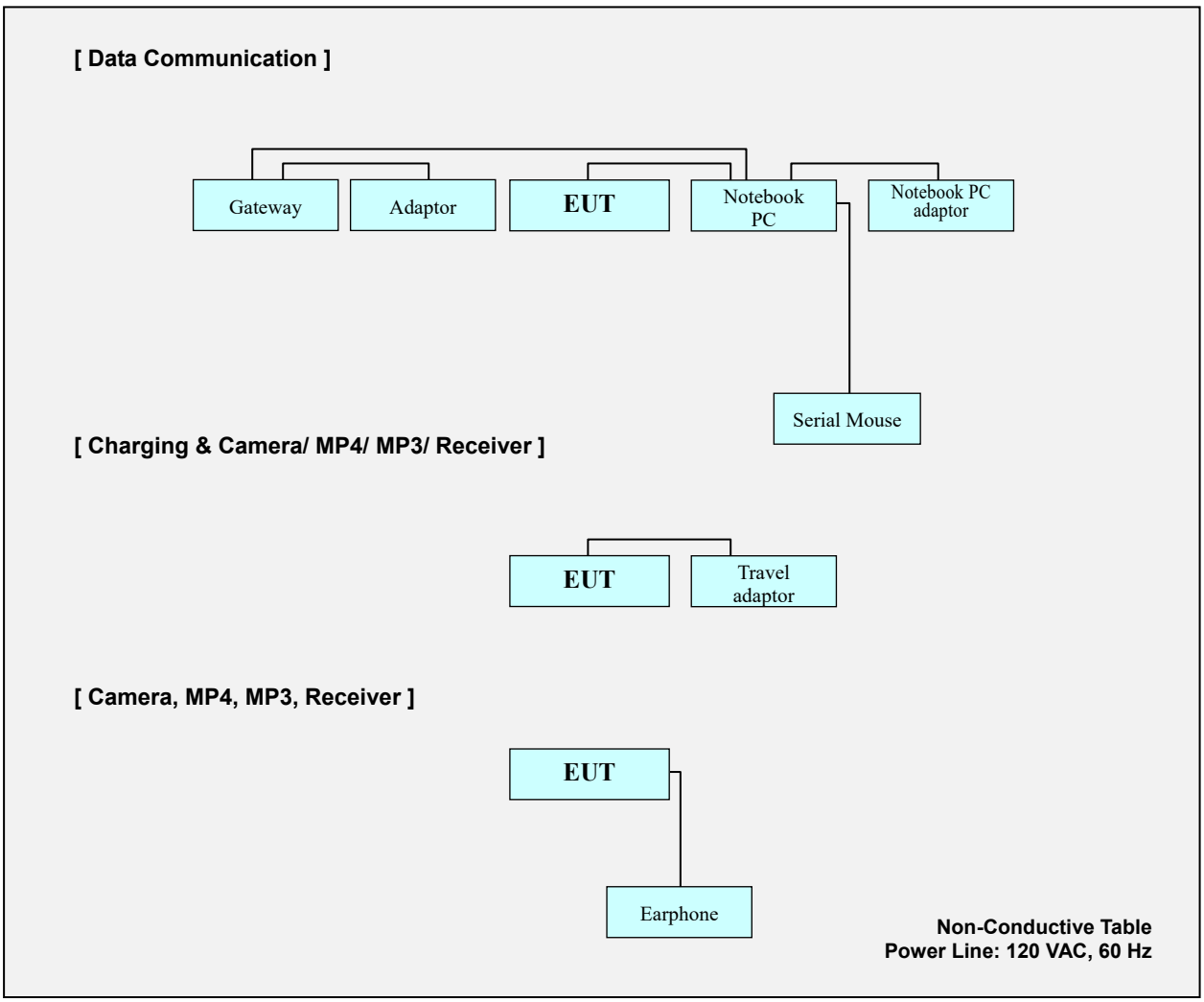
### 3.2.1 Frequency Range of Radiated Measurements

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

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

## 3.3 Configuration of Tested System



# 4. PRELIMINARY TEST

During preliminary tests, the following operating mode was investigated.

Rear Camera (Preview / Recording) mode
Front Camera (Preview / Recording) mode
MP3 Play mode
MP4 Play mode
Data Communication (Read / Write) mode
Charging mode
Receiver mode at LTE B12, LTE B17 (Low CH / Middle CH / High CH Idle)
Receiver mode at WCDMA 850, GSM 850, LTE B5 (Low CH / Middle CH / High CH Idle)

## 4.1 Operating Modes

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

### 4.1.1 Conducted Emission

[ EUT & PC ]

Data Communication (Read / Write)

[ EUT & TA ]

Charging & Rear Camera Preview & MP3 Play
Charging & Rear Camera Recording
Charging & Front Camera Preview
Charging & Front Camera Recording
Charging & MP4 Play
Charging & Receiver at LTE B12, LTE B17 (Low CH Idle / Middle CH Idle / High CH Idle)
Charging & Receiver at WCDMA 850, GSM 850, LTE B5 (Low CH Idle / Middle CH Idle / High CH Idle)

### 4.1.2 Radiated Emission

[ EUT & PC ]

Data Communication (Read / Write)

[ EUT & TA ]

Charging & Rear Camera Preview & MP3 Play
Charging & Rear Camera Recording
Charging & Front Camera Preview
Charging & Front Camera Recording
Charging & MP4 Play
Charging & Receiver at LTE B12, LTE B17 (Low CH Idle / Middle CH Idle / High CH Idle)
Charging & Receiver at WCDMA 850, GSM 850, LTE B5 (Low CH Idle / Middle CH Idle / High CH Idle)

[ EUT & Earphone ]

Rear Camera Preview & MP3 Play
Rear Camera Recording
Front Camera Preview
Front Camera Recording
MP4 Play
Receiver at LTE B12, LTE B17 (Low CH Idle / Middle CH Idle / High CH Idle)
Receiver at WCDMA 850, GSM 850, LTE B5) (Low CH Idle / Middle CH Idle / High CH Idle)

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# 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<br>ANSI C63.4-2014 |
| Detector | Quasi-Peak, CISPR-Average |
| Bandwidth | 9 kHz (6 dB) |
| Worst Case<br>of Operating Mode | Data communication (Read)<br>Charging & Front Camera Recording<br>Charging & Receiver at LTE B12, LTE B17 (Middle CH Idle)<br>Charging & Receiver at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle)<br><br>NOTE. The worst case of operating mode is reported. |
| Kind of Test Site | Shielded Room |
| Temperature | 21.6-22.3 °C |
| Relative Humidity | 41.9-43.8 % |
| Test Date | November 19, 2018 to November 21, 2018 |

### *- 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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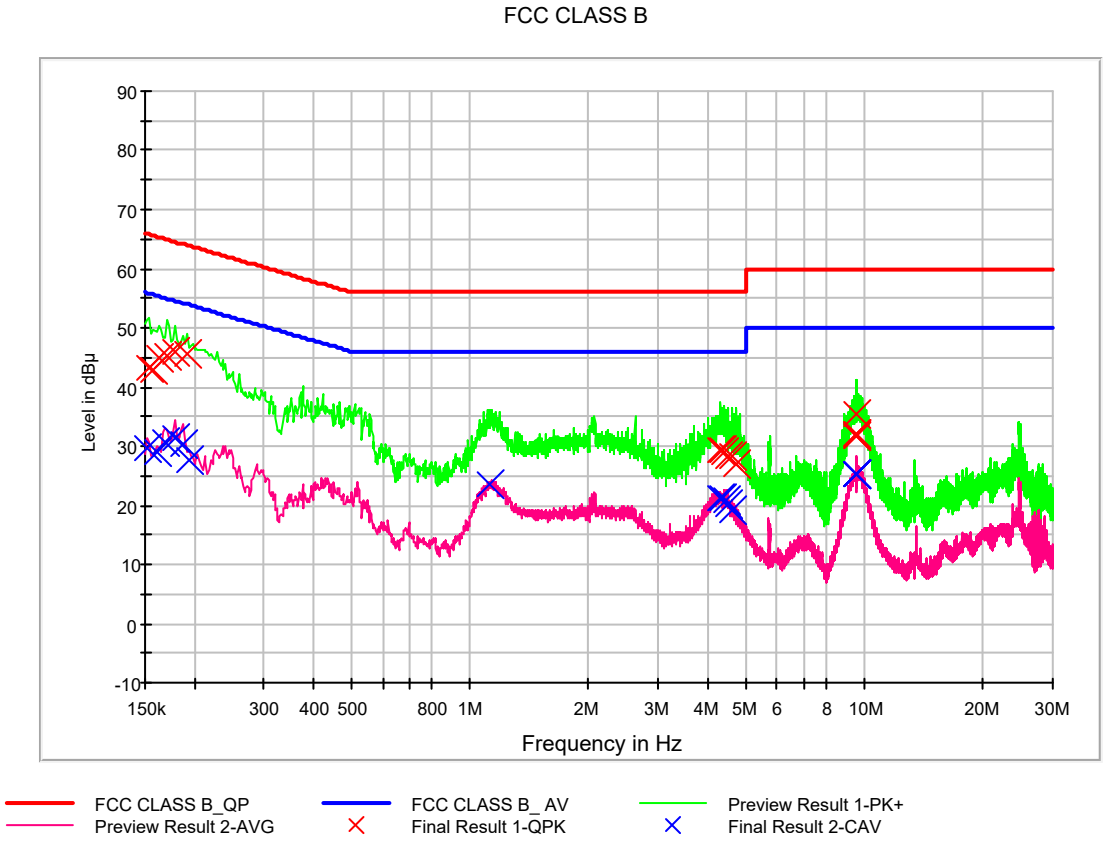
**Figure 1: Conducted Emission, Data communication (Read) mode, Line (L1)**



**QuasiPeak Final Result, Line (L1)**

| Frequency (MHz) | QuasiPeak (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.154000 | 43.2 | 9.000 | L1 | 9.6 | 22.6 | 65.8 |
| 0.158000 | 43.0 | 9.000 | L1 | 9.6 | 22.6 | 65.6 |
| 0.162000 | 44.8 | 9.000 | L1 | 9.6 | 20.5 | 65.4 |
| 0.170000 | 45.4 | 9.000 | L1 | 9.6 | 19.5 | 65.0 |
| 0.178000 | 46.1 | 9.000 | L1 | 9.6 | 18.5 | 64.6 |
| 0.192000 | 45.5 | 9.000 | L1 | 9.6 | 18.4 | 63.9 |
| 4.328000 | 29.4 | 9.000 | L1 | 9.8 | 26.6 | 56.0 |
| 4.338000 | 29.4 | 9.000 | L1 | 9.8 | 26.6 | 56.0 |
| 4.420000 | 28.9 | 9.000 | L1 | 9.8 | 27.1 | 56.0 |
| 4.502000 | 28.3 | 9.000 | L1 | 9.8 | 27.7 | 56.0 |
| 4.608000 | 28.2 | 9.000 | L1 | 9.8 | 27.8 | 56.0 |
| 4.706000 | 27.0 | 9.000 | L1 | 9.8 | 29.0 | 56.0 |
| 9.518000 | 31.8 | 9.000 | L1 | 10.0 | 28.2 | 60.0 |
| 9.524000 | 31.8 | 9.000 | L1 | 10.0 | 28.2 | 60.0 |
| 9.534000 | 31.9 | 9.000 | L1 | 10.0 | 28.1 | 60.0 |
| 9.540000 | 35.3 | 9.000 | L1 | 10.0 | 24.7 | 60.0 |
| 9.546000 | 32.0 | 9.000 | L1 | 10.0 | 28.0 | 60.0 |
| 9.554000 | 32.1 | 9.000 | L1 | 10.0 | 27.9 | 60.0 |

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**CAverage Final Result, Line (L1)**

| Frequency (MHz) | CAverage (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.152000 | 29.7 | 9.000 | L1 | 9.6 | 26.2 | 55.9 |
| 0.160000 | 28.8 | 9.000 | L1 | 9.6 | 26.6 | 55.5 |
| 0.168000 | 30.7 | 9.000 | L1 | 9.6 | 24.3 | 55.1 |
| 0.178000 | 31.5 | 9.000 | L1 | 9.6 | 23.1 | 54.6 |
| 0.188000 | 30.3 | 9.000 | L1 | 9.6 | 23.8 | 54.1 |
| 0.194000 | 27.8 | 9.000 | L1 | 9.6 | 26.1 | 53.9 |
| 1.116000 | 23.4 | 9.000 | L1 | 9.7 | 22.6 | 46.0 |
| 4.328000 | 21.3 | 9.000 | L1 | 9.8 | 24.7 | 46.0 |
| 4.338000 | 21.1 | 9.000 | L1 | 9.8 | 24.9 | 46.0 |
| 4.456000 | 20.7 | 9.000 | L1 | 9.8 | 25.3 | 46.0 |
| 4.502000 | 20.2 | 9.000 | L1 | 9.8 | 25.8 | 46.0 |
| 4.608000 | 19.3 | 9.000 | L1 | 9.8 | 26.7 | 46.0 |
| 9.518000 | 25.4 | 9.000 | L1 | 10.0 | 24.6 | 50.0 |
| 9.534000 | 25.3 | 9.000 | L1 | 10.0 | 24.7 | 50.0 |
| 9.540000 | 25.2 | 9.000 | L1 | 10.0 | 24.8 | 50.0 |
| 9.548000 | 25.3 | 9.000 | L1 | 10.0 | 24.7 | 50.0 |
| 9.552000 | 25.3 | 9.000 | L1 | 10.0 | 24.7 | 50.0 |
| 9.562000 | 25.4 | 9.000 | L1 | 10.0 | 24.6 | 50.0 |

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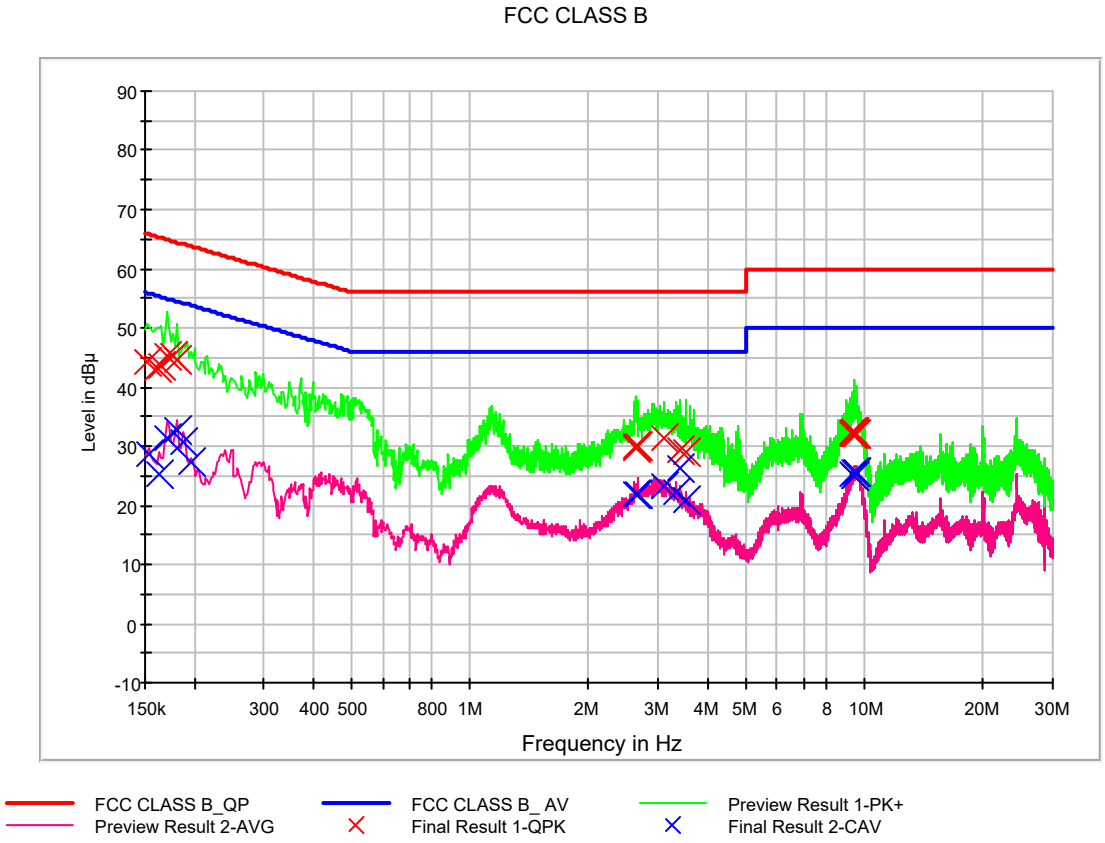
**Figure 2: Conducted Emission, Data communication (Read) mode, Line (N)**



**QuasiPeak Final Result, Line (N)**

| Frequency (MHz) | QuasiPeak (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.152000 | 44.4 | 9.000 | N | 9.6 | 21.5 | 65.9 |
| 0.160000 | 43.2 | 9.000 | N | 9.6 | 22.3 | 65.5 |
| 0.164000 | 43.7 | 9.000 | N | 9.6 | 21.6 | 65.3 |
| 0.170000 | 45.1 | 9.000 | N | 9.6 | 19.9 | 65.0 |
| 0.176000 | 45.1 | 9.000 | N | 9.6 | 19.5 | 64.7 |
| 0.180000 | 44.6 | 9.000 | N | 9.6 | 19.8 | 64.5 |
| 2.620000 | 29.8 | 9.000 | N | 9.8 | 26.2 | 56.0 |
| 2.624000 | 30.1 | 9.000 | N | 9.8 | 25.9 | 56.0 |
| 2.650000 | 30.1 | 9.000 | N | 9.8 | 25.9 | 56.0 |
| 3.118000 | 31.2 | 9.000 | N | 9.8 | 24.8 | 56.0 |
| 3.416000 | 29.4 | 9.000 | N | 9.8 | 26.6 | 56.0 |
| 3.518000 | 29.0 | 9.000 | N | 9.8 | 27.0 | 56.0 |
| 9.312000 | 32.3 | 9.000 | N | 10.0 | 27.7 | 60.0 |
| 9.326000 | 32.2 | 9.000 | N | 10.0 | 27.8 | 60.0 |
| 9.382000 | 32.1 | 9.000 | N | 10.0 | 27.9 | 60.0 |
| 9.396000 | 32.5 | 9.000 | N | 10.0 | 27.5 | 60.0 |
| 9.416000 | 32.5 | 9.000 | N | 10.0 | 27.5 | 60.0 |
| 9.496000 | 32.1 | 9.000 | N | 10.0 | 27.9 | 60.0 |

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**CAverage Final Result, Line (N)**

| Frequency (MHz) | CAverage (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.154000 | 28.6 | 9.000 | N | 9.6 | 27.2 | 55.8 |
| 0.162000 | 25.1 | 9.000 | N | 9.6 | 30.2 | 55.4 |
| 0.170000 | 31.4 | 9.000 | N | 9.6 | 23.6 | 55.0 |
| 0.180000 | 32.7 | 9.000 | N | 9.6 | 21.8 | 54.5 |
| 0.188000 | 30.7 | 9.000 | N | 9.7 | 23.4 | 54.1 |
| 0.196000 | 27.3 | 9.000 | N | 9.7 | 26.5 | 53.8 |
| 2.624000 | 21.8 | 9.000 | N | 9.8 | 24.2 | 46.0 |
| 2.650000 | 21.8 | 9.000 | N | 9.8 | 24.2 | 46.0 |
| 3.118000 | 23.2 | 9.000 | N | 9.8 | 22.8 | 46.0 |
| 3.316000 | 22.2 | 9.000 | N | 9.8 | 23.8 | 46.0 |
| 3.414000 | 26.3 | 9.000 | N | 9.8 | 19.7 | 46.0 |
| 3.518000 | 20.8 | 9.000 | N | 9.8 | 25.2 | 46.0 |
| 9.312000 | 25.2 | 9.000 | N | 10.0 | 24.8 | 50.0 |
| 9.382000 | 25.0 | 9.000 | N | 10.0 | 25.0 | 50.0 |
| 9.394000 | 25.4 | 9.000 | N | 10.0 | 24.6 | 50.0 |
| 9.416000 | 25.1 | 9.000 | N | 10.0 | 24.9 | 50.0 |
| 9.486000 | 25.6 | 9.000 | N | 10.0 | 24.4 | 50.0 |
| 9.496000 | 25.4 | 9.000 | N | 10.0 | 24.6 | 50.0 |

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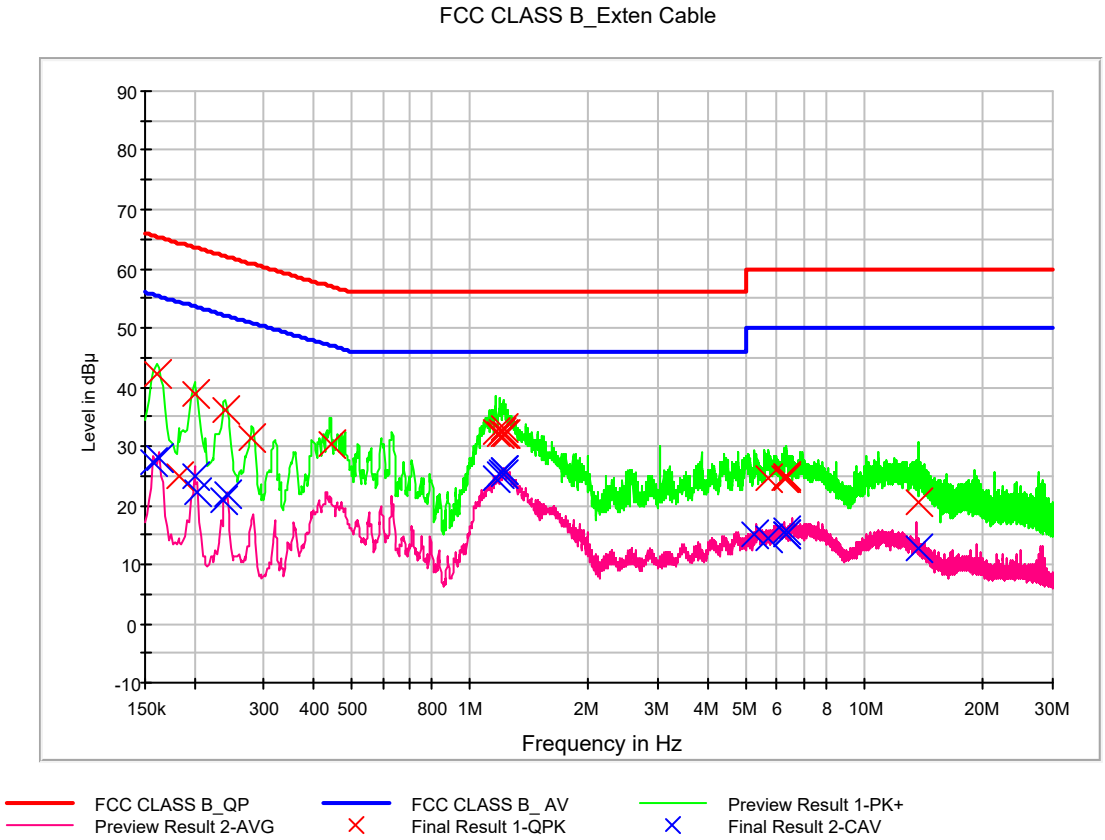
**Figure 3: Conducted Emission, Charging & Front Camera Recording mode, Line (L1)**



**QuasiPeak Final Result, Line (L1)**

| Frequency (MHz) | QuasiPeak (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.160000 | 42.2 | 9.000 | L1 | 9.7 | 23.3 | 65.5 |
| 0.182000 | 24.8 | 9.000 | L1 | 9.7 | 39.6 | 64.4 |
| 0.200000 | 38.8 | 9.000 | L1 | 9.7 | 24.8 | 63.6 |
| 0.240000 | 36.1 | 9.000 | L1 | 9.7 | 26.0 | 62.1 |
| 0.280000 | 31.4 | 9.000 | L1 | 9.7 | 29.4 | 60.8 |
| 0.444000 | 30.5 | 9.000 | L1 | 9.7 | 26.5 | 57.0 |
| 1.166000 | 32.5 | 9.000 | L1 | 9.8 | 23.5 | 56.0 |
| 1.190000 | 32.1 | 9.000 | L1 | 9.8 | 23.9 | 56.0 |
| 1.204000 | 32.5 | 9.000 | L1 | 9.8 | 23.5 | 56.0 |
| 1.214000 | 33.1 | 9.000 | L1 | 9.8 | 22.9 | 56.0 |
| 1.220000 | 32.2 | 9.000 | L1 | 9.8 | 23.8 | 56.0 |
| 1.226000 | 31.9 | 9.000 | L1 | 9.8 | 24.1 | 56.0 |
| 5.702000 | 24.6 | 9.000 | L1 | 10.0 | 35.4 | 60.0 |
| 6.280000 | 24.7 | 9.000 | L1 | 10.1 | 35.3 | 60.0 |
| 6.332000 | 24.9 | 9.000 | L1 | 10.1 | 35.1 | 60.0 |
| 6.342000 | 24.5 | 9.000 | L1 | 10.1 | 35.5 | 60.0 |
| 6.356000 | 24.8 | 9.000 | L1 | 10.1 | 35.2 | 60.0 |
| 13.704000 | 20.4 | 9.000 | L1 | 10.2 | 39.6 | 60.0 |

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**CAverage Final Result, Line (L1)**

| Frequency (MHz) | CAverage (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.158000 | 27.2 | 9.000 | L1 | 9.7 | 28.4 | 55.6 |
| 0.162000 | 27.9 | 9.000 | L1 | 9.7 | 27.4 | 55.4 |
| 0.200000 | 25.1 | 9.000 | L1 | 9.7 | 28.5 | 53.6 |
| 0.204000 | 22.1 | 9.000 | L1 | 9.7 | 31.3 | 53.4 |
| 0.238000 | 20.8 | 9.000 | L1 | 9.7 | 31.3 | 52.2 |
| 0.242000 | 21.7 | 9.000 | L1 | 9.7 | 30.3 | 52.0 |
| 1.164000 | 24.5 | 9.000 | L1 | 9.8 | 21.5 | 46.0 |
| 1.190000 | 25.2 | 9.000 | L1 | 9.8 | 20.8 | 46.0 |
| 1.204000 | 25.5 | 9.000 | L1 | 9.8 | 20.5 | 46.0 |
| 1.214000 | 25.8 | 9.000 | L1 | 9.8 | 20.2 | 46.0 |
| 1.218000 | 25.8 | 9.000 | L1 | 9.8 | 20.2 | 46.0 |
| 1.222000 | 25.4 | 9.000 | L1 | 9.8 | 20.6 | 46.0 |
| 5.282000 | 15.0 | 9.000 | L1 | 10.0 | 35.0 | 50.0 |
| 5.702000 | 14.4 | 9.000 | L1 | 10.0 | 35.6 | 50.0 |
| 6.332000 | 15.6 | 9.000 | L1 | 10.1 | 34.4 | 50.0 |
| 6.342000 | 15.0 | 9.000 | L1 | 10.1 | 35.0 | 50.0 |
| 6.356000 | 15.1 | 9.000 | L1 | 10.1 | 34.9 | 50.0 |
| 13.704000 | 12.7 | 9.000 | L1 | 10.2 | 37.3 | 50.0 |

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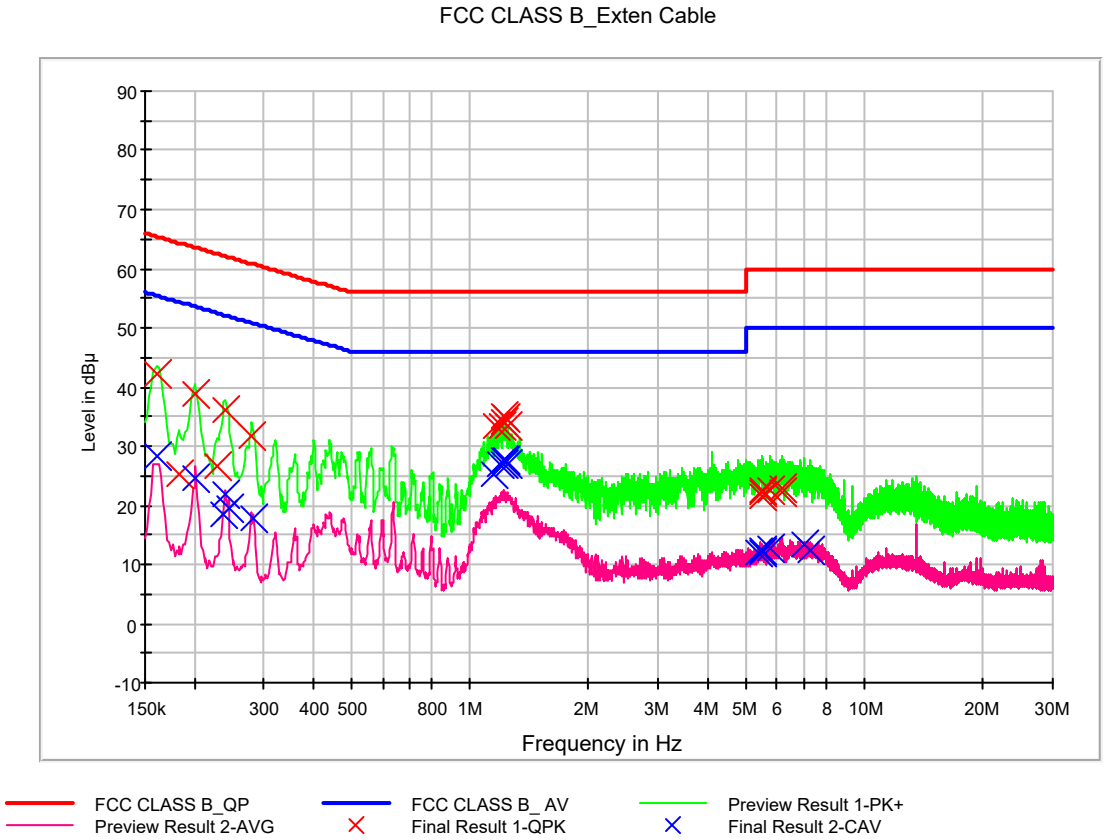
**Figure 4: Conducted Emission, Charging & Front Camera Recording mode, Line (N)**



**QuasiPeak Final Result, Line (N)**

| Frequency (MHz) | QuasiPeak (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.160000 | 42.2 | 9.000 | N | 9.7 | 23.3 | 65.5 |
| 0.182000 | 25.3 | 9.000 | N | 9.7 | 39.1 | 64.4 |
| 0.200000 | 38.8 | 9.000 | N | 9.7 | 24.8 | 63.6 |
| 0.228000 | 26.7 | 9.000 | N | 9.7 | 35.9 | 62.5 |
| 0.240000 | 36.1 | 9.000 | N | 9.7 | 26.0 | 62.1 |
| 0.280000 | 31.5 | 9.000 | N | 9.7 | 29.3 | 60.8 |
| 1.162000 | 33.3 | 9.000 | N | 9.8 | 22.7 | 56.0 |
| 1.210000 | 33.4 | 9.000 | N | 9.8 | 22.6 | 56.0 |
| 1.216000 | 35.1 | 9.000 | N | 9.8 | 20.9 | 56.0 |
| 1.220000 | 34.2 | 9.000 | N | 9.8 | 21.8 | 56.0 |
| 1.226000 | 34.9 | 9.000 | N | 9.8 | 21.1 | 56.0 |
| 1.240000 | 33.3 | 9.000 | N | 9.8 | 22.7 | 56.0 |
| 5.498000 | 22.3 | 9.000 | N | 10.0 | 37.7 | 60.0 |
| 5.512000 | 22.4 | 9.000 | N | 10.0 | 37.6 | 60.0 |
| 5.532000 | 21.6 | 9.000 | N | 10.0 | 38.4 | 60.0 |
| 5.782000 | 22.5 | 9.000 | N | 10.1 | 37.5 | 60.0 |
| 6.180000 | 22.9 | 9.000 | N | 10.1 | 37.1 | 60.0 |
| 6.214000 | 22.3 | 9.000 | N | 10.1 | 37.7 | 60.0 |

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**CAverage Final Result, Line (N)**

| Frequency (MHz) | CAverage (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.160000 | 28.2 | 9.000 | N | 9.7 | 27.3 | 55.5 |
| 0.202000 | 24.6 | 9.000 | N | 9.7 | 29.0 | 53.5 |
| 0.236000 | 18.3 | 9.000 | N | 9.7 | 33.9 | 52.2 |
| 0.240000 | 22.0 | 9.000 | N | 9.7 | 30.1 | 52.1 |
| 0.244000 | 19.4 | 9.000 | N | 9.7 | 32.5 | 52.0 |
| 0.282000 | 17.9 | 9.000 | N | 9.7 | 32.8 | 50.8 |
| 1.142000 | 25.3 | 9.000 | N | 9.8 | 20.7 | 46.0 |
| 1.192000 | 27.1 | 9.000 | N | 9.8 | 18.9 | 46.0 |
| 1.214000 | 27.6 | 9.000 | N | 9.8 | 18.4 | 46.0 |
| 1.222000 | 27.1 | 9.000 | N | 9.8 | 18.9 | 46.0 |
| 1.226000 | 27.5 | 9.000 | N | 9.8 | 18.5 | 46.0 |
| 1.240000 | 27.0 | 9.000 | N | 9.8 | 19.0 | 46.0 |
| 5.404000 | 12.1 | 9.000 | N | 10.0 | 37.9 | 50.0 |
| 5.490000 | 12.0 | 9.000 | N | 10.0 | 38.0 | 50.0 |
| 5.498000 | 12.4 | 9.000 | N | 10.0 | 37.6 | 50.0 |
| 5.782000 | 12.6 | 9.000 | N | 10.1 | 37.4 | 50.0 |
| 7.052000 | 13.4 | 9.000 | N | 10.1 | 36.6 | 50.0 |
| 7.302000 | 12.4 | 9.000 | N | 10.2 | 37.6 | 50.0 |

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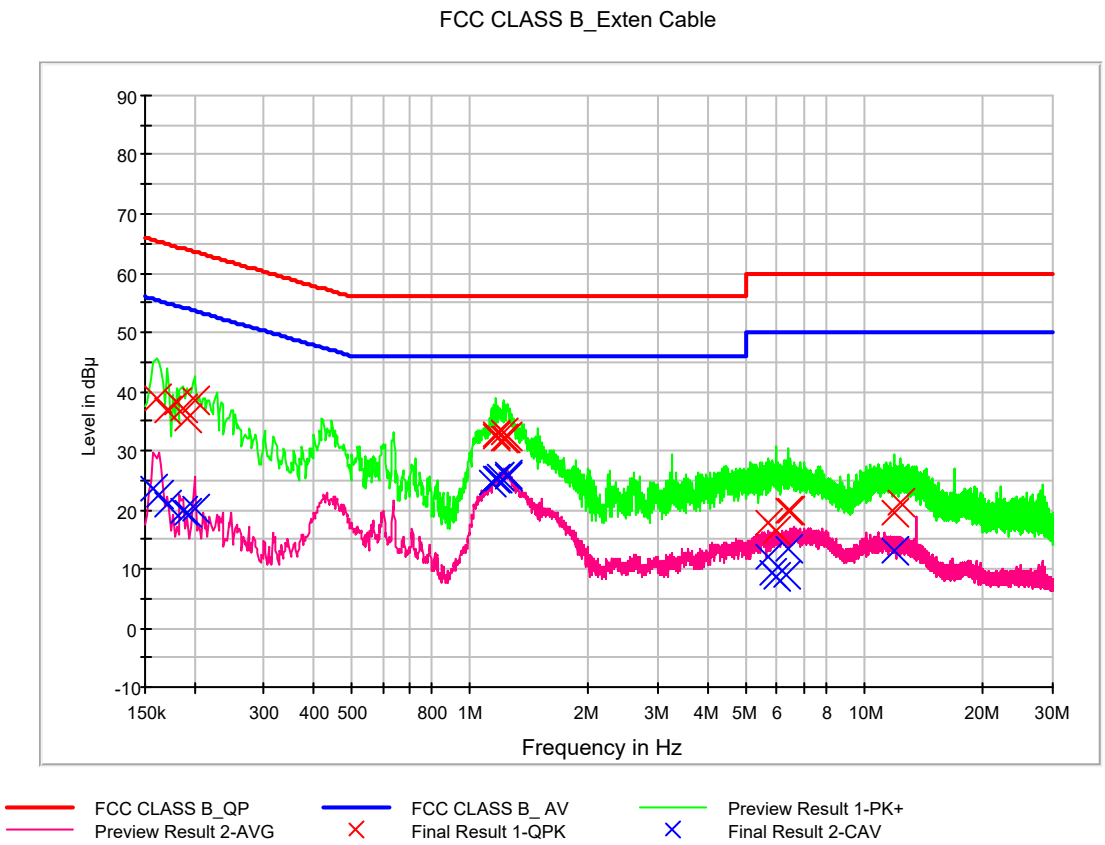
**Figure 5: Conducted Emission, Charging & Receiver mode at LTE B12, LTE B17 (Middle CH Idle), Line (L1)**



**QuasiPeak Final Result, Line (L1)**

| Frequency (MHz) | QuasiPeak (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.160000 | 38.9 | 9.000 | L1 | 9.7 | 26.5 | 65.5 |
| 0.170000 | 36.8 | 9.000 | L1 | 9.7 | 28.2 | 65.0 |
| 0.180000 | 38.0 | 9.000 | L1 | 9.7 | 26.4 | 64.5 |
| 0.188000 | 37.1 | 9.000 | L1 | 9.7 | 27.0 | 64.1 |
| 0.192000 | 35.6 | 9.000 | L1 | 9.7 | 28.4 | 63.9 |
| 0.200000 | 38.5 | 9.000 | L1 | 9.7 | 25.1 | 63.6 |
| 1.162000 | 32.7 | 9.000 | L1 | 9.8 | 23.3 | 56.0 |
| 1.166000 | 32.5 | 9.000 | L1 | 9.8 | 23.5 | 56.0 |
| 1.212000 | 33.1 | 9.000 | L1 | 9.8 | 22.9 | 56.0 |
| 1.222000 | 31.9 | 9.000 | L1 | 9.8 | 24.1 | 56.0 |
| 1.238000 | 32.0 | 9.000 | L1 | 9.8 | 24.0 | 56.0 |
| 1.250000 | 32.5 | 9.000 | L1 | 9.8 | 23.5 | 56.0 |
| 5.698000 | 17.9 | 9.000 | L1 | 10.0 | 42.1 | 60.0 |
| 5.958000 | 16.5 | 9.000 | L1 | 10.0 | 43.5 | 60.0 |
| 6.390000 | 19.9 | 9.000 | L1 | 10.1 | 40.1 | 60.0 |
| 6.514000 | 19.7 | 9.000 | L1 | 10.1 | 40.3 | 60.0 |
| 11.972000 | 19.3 | 9.000 | L1 | 10.2 | 40.7 | 60.0 |
| 12.356000 | 21.1 | 9.000 | L1 | 10.2 | 38.9 | 60.0 |

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**CAverage Final Result, Line (L1)**

| Frequency (MHz) | CAverage (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.158000 | 23.5 | 9.000 | L1 | 9.7 | 32.1 | 55.6 |
| 0.162000 | 22.4 | 9.000 | L1 | 9.7 | 33.0 | 55.4 |
| 0.170000 | 20.7 | 9.000 | L1 | 9.7 | 34.3 | 55.0 |
| 0.188000 | 20.0 | 9.000 | L1 | 9.7 | 34.1 | 54.1 |
| 0.192000 | 19.6 | 9.000 | L1 | 9.7 | 34.3 | 53.9 |
| 0.200000 | 20.2 | 9.000 | L1 | 9.7 | 33.4 | 53.6 |
| 1.138000 | 24.6 | 9.000 | L1 | 9.8 | 21.4 | 46.0 |
| 1.162000 | 25.1 | 9.000 | L1 | 9.8 | 20.9 | 46.0 |
| 1.178000 | 25.2 | 9.000 | L1 | 9.8 | 20.8 | 46.0 |
| 1.188000 | 25.6 | 9.000 | L1 | 9.8 | 20.4 | 46.0 |
| 1.240000 | 25.8 | 9.000 | L1 | 9.8 | 20.2 | 46.0 |
| 1.250000 | 25.7 | 9.000 | L1 | 9.8 | 20.3 | 46.0 |
| 5.698000 | 12.0 | 9.000 | L1 | 10.0 | 38.0 | 50.0 |
| 5.832000 | 9.5 | 9.000 | L1 | 10.0 | 40.5 | 50.0 |
| 5.958000 | 8.5 | 9.000 | L1 | 10.0 | 41.5 | 50.0 |
| 6.348000 | 9.1 | 9.000 | L1 | 10.1 | 40.9 | 50.0 |
| 6.390000 | 13.3 | 9.000 | L1 | 10.1 | 36.7 | 50.0 |
| 11.972000 | 13.0 | 9.000 | L1 | 10.2 | 37.0 | 50.0 |

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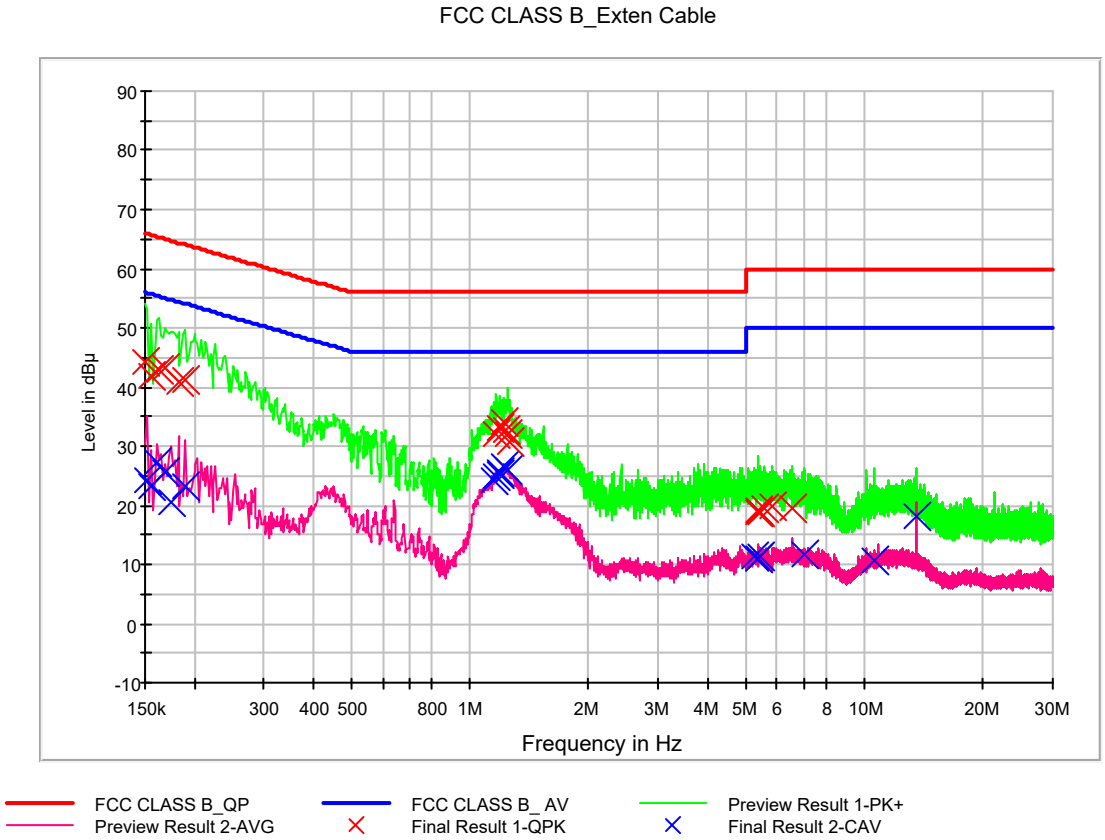
**Figure 6: Conducted Emission, Charging & Receiver mode at LTE B12, LTE B17 (Middle CH Idle), Line (N)**



**QuasiPeak Final Result, Line (N)**

| Frequency (MHz) | QuasiPeak (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.150000 | 44.2 | 9.000 | N | 9.7 | 21.8 | 66.0 |
| 0.156000 | 41.7 | 9.000 | N | 9.7 | 23.9 | 65.7 |
| 0.162000 | 43.0 | 9.000 | N | 9.7 | 22.3 | 65.4 |
| 0.168000 | 43.1 | 9.000 | N | 9.7 | 21.9 | 65.1 |
| 0.182000 | 41.0 | 9.000 | N | 9.7 | 23.4 | 64.4 |
| 0.190000 | 41.0 | 9.000 | N | 9.7 | 23.0 | 64.0 |
| 1.168000 | 32.1 | 9.000 | N | 9.8 | 23.9 | 56.0 |
| 1.192000 | 33.2 | 9.000 | N | 9.8 | 22.8 | 56.0 |
| 1.214000 | 34.0 | 9.000 | N | 9.8 | 22.0 | 56.0 |
| 1.228000 | 32.8 | 9.000 | N | 9.8 | 23.2 | 56.0 |
| 1.242000 | 32.2 | 9.000 | N | 9.8 | 23.8 | 56.0 |
| 1.262000 | 30.7 | 9.000 | N | 9.8 | 25.3 | 56.0 |
| 5.368000 | 19.1 | 9.000 | N | 10.0 | 40.9 | 60.0 |
| 5.372000 | 18.9 | 9.000 | N | 10.0 | 41.1 | 60.0 |
| 5.450000 | 18.9 | 9.000 | N | 10.0 | 41.1 | 60.0 |
| 5.600000 | 19.6 | 9.000 | N | 10.0 | 40.4 | 60.0 |
| 5.862000 | 19.7 | 9.000 | N | 10.1 | 40.3 | 60.0 |
| 6.534000 | 19.4 | 9.000 | N | 10.1 | 40.6 | 60.0 |

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**CAverage Final Result, Line (N)**

| Frequency (MHz) | CAverage (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.152000 | 24.2 | 9.000 | N | 9.7 | 31.7 | 55.9 |
| 0.156000 | 23.3 | 9.000 | N | 9.7 | 32.3 | 55.7 |
| 0.160000 | 27.2 | 9.000 | N | 9.7 | 28.2 | 55.5 |
| 0.168000 | 25.7 | 9.000 | N | 9.7 | 29.4 | 55.1 |
| 0.174000 | 20.4 | 9.000 | N | 9.7 | 34.3 | 54.8 |
| 0.190000 | 23.1 | 9.000 | N | 9.7 | 30.9 | 54.0 |
| 1.154000 | 24.3 | 9.000 | N | 9.8 | 21.7 | 46.0 |
| 1.162000 | 24.9 | 9.000 | N | 9.8 | 21.1 | 46.0 |
| 1.184000 | 25.3 | 9.000 | N | 9.8 | 20.7 | 46.0 |
| 1.190000 | 25.6 | 9.000 | N | 9.8 | 20.4 | 46.0 |
| 1.216000 | 26.5 | 9.000 | N | 9.8 | 19.5 | 46.0 |
| 1.242000 | 25.9 | 9.000 | N | 9.8 | 20.1 | 46.0 |
| 5.270000 | 11.3 | 9.000 | N | 10.0 | 38.7 | 50.0 |
| 5.360000 | 11.0 | 9.000 | N | 10.0 | 39.0 | 50.0 |
| 5.450000 | 11.2 | 9.000 | N | 10.0 | 38.8 | 50.0 |
| 7.032000 | 11.8 | 9.000 | N | 10.1 | 38.2 | 50.0 |
| 10.602000 | 10.7 | 9.000 | N | 10.3 | 39.3 | 50.0 |
| 13.560000 | 18.1 | 9.000 | N | 10.4 | 31.9 | 50.0 |

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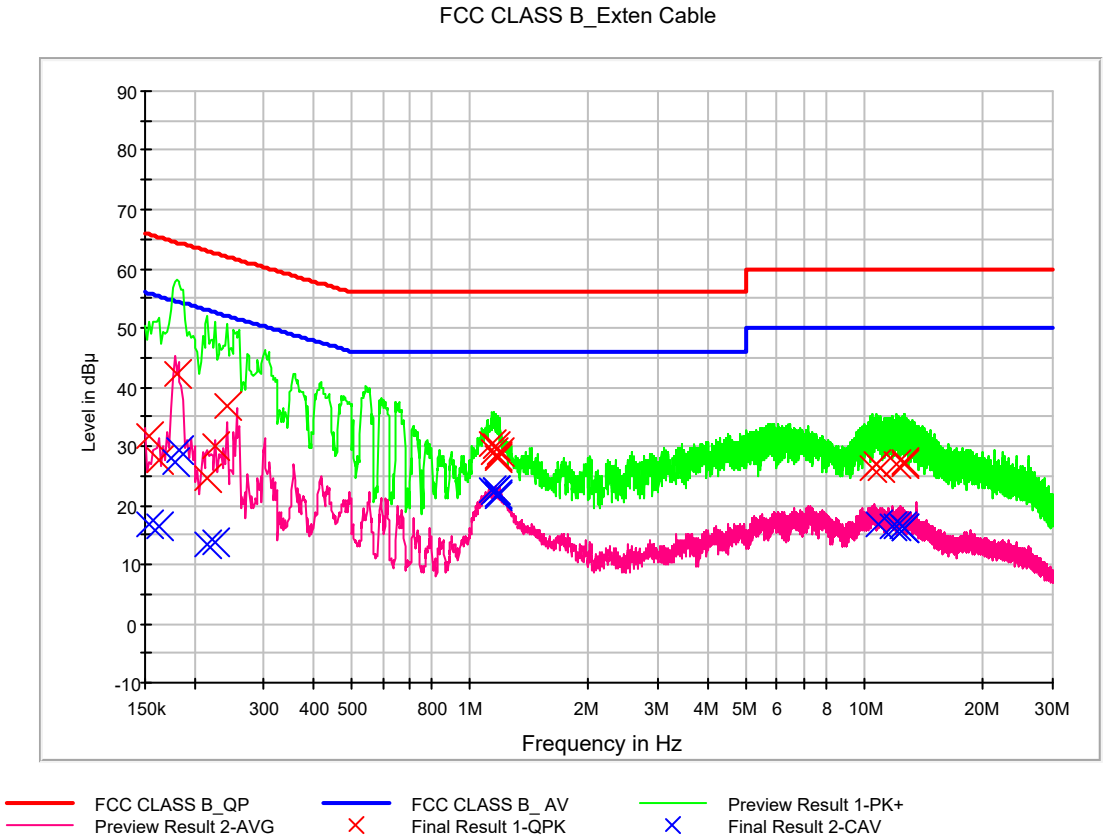
**Figure 7: Conducted Emission, Charging & Receiver at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle), Line (L1)**



**QuasiPeak Final Result, Line (L1)**

| Frequency (MHz) | QuasiPeak (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.154000 | 31.8 | 9.000 | L1 | 9.7 | 34.0 | 65.8 |
| 0.162000 | 27.8 | 9.000 | L1 | 9.7 | 37.6 | 65.4 |
| 0.180000 | 42.2 | 9.000 | L1 | 9.7 | 22.2 | 64.5 |
| 0.216000 | 24.6 | 9.000 | L1 | 9.7 | 38.3 | 63.0 |
| 0.226000 | 30.1 | 9.000 | L1 | 9.7 | 32.5 | 62.6 |
| 0.242000 | 36.8 | 9.000 | L1 | 9.7 | 25.2 | 62.0 |
| 1.140000 | 30.5 | 9.000 | L1 | 9.8 | 25.6 | 56.0 |
| 1.150000 | 28.8 | 9.000 | L1 | 9.8 | 27.2 | 56.0 |
| 1.164000 | 30.1 | 9.000 | L1 | 9.8 | 25.9 | 56.0 |
| 1.172000 | 28.1 | 9.000 | L1 | 9.8 | 27.9 | 56.0 |
| 1.182000 | 28.3 | 9.000 | L1 | 9.8 | 27.7 | 56.0 |
| 1.188000 | 29.1 | 9.000 | L1 | 9.8 | 26.9 | 56.0 |
| 10.520000 | 26.2 | 9.000 | L1 | 10.2 | 33.8 | 60.0 |
| 10.690000 | 27.1 | 9.000 | L1 | 10.2 | 32.9 | 60.0 |
| 10.966000 | 26.1 | 9.000 | L1 | 10.2 | 33.9 | 60.0 |
| 12.012000 | 27.0 | 9.000 | L1 | 10.2 | 33.0 | 60.0 |
| 12.600000 | 27.2 | 9.000 | L1 | 10.2 | 32.8 | 60.0 |
| 12.658000 | 27.1 | 9.000 | L1 | 10.2 | 32.9 | 60.0 |

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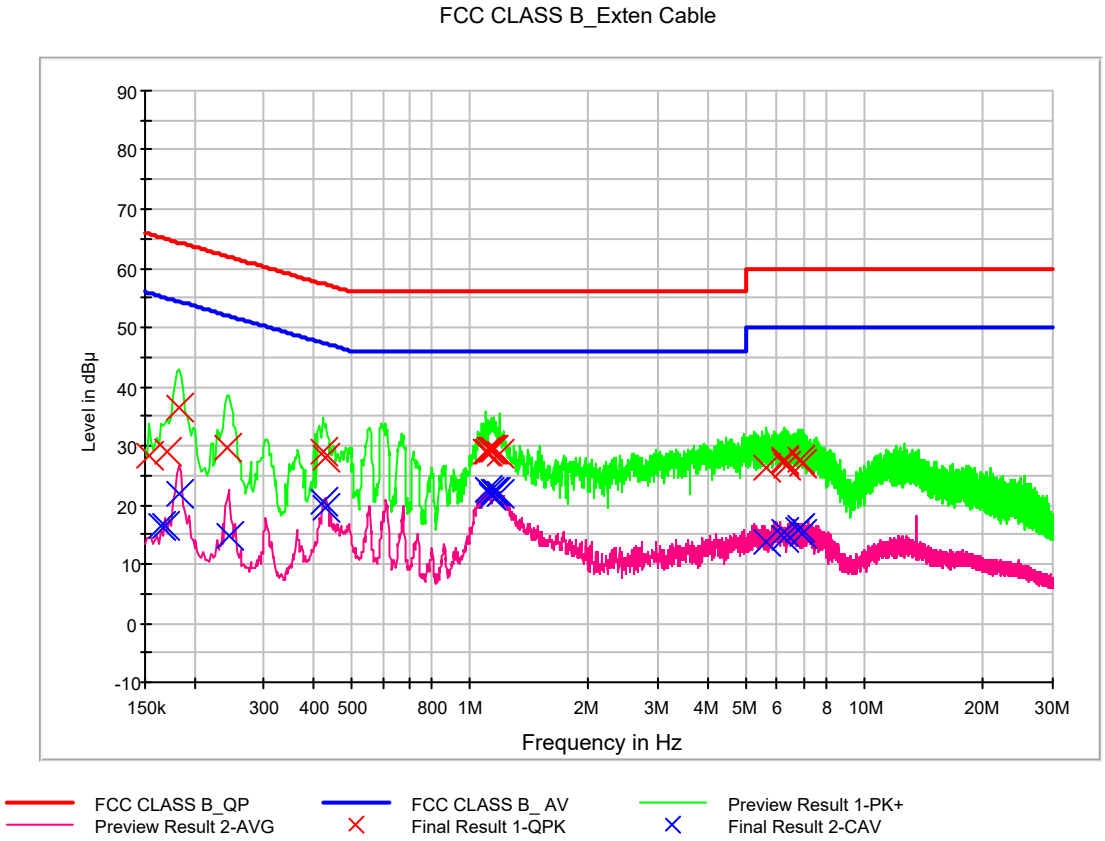
**CAverage Final Result, Line (L1)**

| Frequency (MHz) | CAverage (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.154000 | 16.7 | 9.000 | L1 | 9.7 | 39.1 | 55.8 |
| 0.162000 | 16.4 | 9.000 | L1 | 9.7 | 38.9 | 55.4 |
| 0.178000 | 27.4 | 9.000 | L1 | 9.7 | 27.2 | 54.6 |
| 0.182000 | 29.4 | 9.000 | L1 | 9.7 | 25.0 | 54.4 |
| 0.216000 | 13.5 | 9.000 | L1 | 9.7 | 39.5 | 53.0 |
| 0.226000 | 13.9 | 9.000 | L1 | 9.7 | 38.7 | 52.6 |
| 1.136000 | 22.6 | 9.000 | L1 | 9.8 | 23.4 | 46.0 |
| 1.152000 | 22.3 | 9.000 | L1 | 9.8 | 23.7 | 46.0 |
| 1.160000 | 22.4 | 9.000 | L1 | 9.8 | 23.6 | 46.0 |
| 1.164000 | 22.4 | 9.000 | L1 | 9.8 | 23.6 | 46.0 |
| 1.172000 | 21.8 | 9.000 | L1 | 9.8 | 24.2 | 46.0 |
| 1.182000 | 21.6 | 9.000 | L1 | 9.8 | 24.4 | 46.0 |
| 10.888000 | 16.8 | 9.000 | L1 | 10.2 | 33.2 | 50.0 |
| 11.796000 | 16.5 | 9.000 | L1 | 10.2 | 33.5 | 50.0 |
| 12.012000 | 16.4 | 9.000 | L1 | 10.2 | 33.6 | 50.0 |
| 12.536000 | 16.4 | 9.000 | L1 | 10.2 | 33.6 | 50.0 |
| 12.600000 | 16.3 | 9.000 | L1 | 10.2 | 33.7 | 50.0 |
| 12.658000 | 16.0 | 9.000 | L1 | 10.2 | 34.0 | 50.0 |

This report only responds to the tested sample and may not be reproduced, except in full, without written approval of the HCT Co., Ltd.

**Figure 8: Conducted Emission, Charging & Receiver at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle), Line (N)**



**QuasiPeak Final Result, Line (N)**

| Frequency (MHz) | QuasiPeak (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.154000 | 28.2 | 9.000 | N | 9.7 | 37.6 | 65.8 |
| 0.170000 | 28.9 | 9.000 | N | 9.7 | 36.1 | 65.0 |
| 0.184000 | 36.4 | 9.000 | N | 9.7 | 27.9 | 64.3 |
| 0.242000 | 29.7 | 9.000 | N | 9.7 | 32.3 | 62.0 |
| 0.424000 | 28.8 | 9.000 | N | 9.7 | 28.5 | 57.4 |
| 0.432000 | 27.9 | 9.000 | N | 9.7 | 29.3 | 57.2 |
| 1.098000 | 28.8 | 9.000 | N | 9.8 | 27.2 | 56.0 |
| 1.114000 | 29.0 | 9.000 | N | 9.8 | 27.0 | 56.0 |
| 1.126000 | 29.3 | 9.000 | N | 9.8 | 26.7 | 56.0 |
| 1.132000 | 29.2 | 9.000 | N | 9.8 | 26.8 | 56.0 |
| 1.148000 | 29.3 | 9.000 | N | 9.8 | 26.7 | 56.0 |
| 1.186000 | 28.7 | 9.000 | N | 9.8 | 27.3 | 56.0 |
| 5.618000 | 26.1 | 9.000 | N | 10.1 | 33.9 | 60.0 |
| 6.250000 | 27.6 | 9.000 | N | 10.1 | 32.4 | 60.0 |
| 6.288000 | 27.3 | 9.000 | N | 10.1 | 32.7 | 60.0 |
| 6.296000 | 26.7 | 9.000 | N | 10.1 | 33.3 | 60.0 |
| 6.870000 | 27.5 | 9.000 | N | 10.1 | 32.5 | 60.0 |
| 6.924000 | 27.1 | 9.000 | N | 10.1 | 32.9 | 60.0 |

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**CAverage Final Result, Line (N)**

| Frequency (MHz) | CAverage (dBuV) | Bandwidth (kHz) | Line | Corr. (dB) | Margin (dB) | Limit (dBuV) |
|---|---|---|---|---|---|---|
| 0.164000 | 16.3 | 9.000 | N | 9.7 | 39.0 | 55.3 |
| 0.168000 | 16.5 | 9.000 | N | 9.7 | 38.5 | 55.1 |
| 0.184000 | 21.9 | 9.000 | N | 9.7 | 32.4 | 54.3 |
| 0.244000 | 14.7 | 9.000 | N | 9.7 | 37.2 | 52.0 |
| 0.424000 | 20.4 | 9.000 | N | 9.7 | 27.0 | 47.4 |
| 0.432000 | 19.6 | 9.000 | N | 9.7 | 27.6 | 47.2 |
| 1.114000 | 22.5 | 9.000 | N | 9.8 | 23.5 | 46.0 |
| 1.126000 | 22.1 | 9.000 | N | 9.8 | 23.9 | 46.0 |
| 1.132000 | 21.6 | 9.000 | N | 9.8 | 24.4 | 46.0 |
| 1.150000 | 22.2 | 9.000 | N | 9.8 | 23.8 | 46.0 |
| 1.164000 | 22.3 | 9.000 | N | 9.8 | 23.7 | 46.0 |
| 1.186000 | 21.9 | 9.000 | N | 9.8 | 24.1 | 46.0 |
| 5.618000 | 13.7 | 9.000 | N | 10.1 | 36.3 | 50.0 |
| 6.250000 | 15.5 | 9.000 | N | 10.1 | 34.5 | 50.0 |
| 6.288000 | 14.5 | 9.000 | N | 10.1 | 35.5 | 50.0 |
| 6.792000 | 15.8 | 9.000 | N | 10.1 | 34.2 | 50.0 |
| 6.870000 | 15.9 | 9.000 | N | 10.1 | 34.1 | 50.0 |
| 6.924000 | 15.2 | 9.000 | N | 10.1 | 34.8 | 50.0 |

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## 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<br>ANSI C63.4-2014 |
| Detector | Quasi-Peak |
| Bandwidth | 120 kHz (6 dB) |
| Worst Case<br>of Operating Mode | Data communication (Read)<br>Charging & Front Camera Recording<br>Charging & Receiver at LTE B12, LTE B17 (Middle CH Idle)<br>Charging & Receiver at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle)<br>Rear Camera Preview & MP3<br>Receiver at LTE B12, LTE B17 (Middle CH Idle)<br>Receiver at WCDMA 850, GSM 850, LTE B5) (Middle CH Idle)<br><br>NOTE.<br>1. Three orientations have been investigated and the worst case orientation is reported.<br>2. The worst case of operating mode is reported. |
| Kind of Test Site | 3 m semi anechoic chamber |
| Temperature | 21.5 - 23.0 °C |
| Relative Humidity | 41.8 - 43.8 % |
| Test Date | November 13, 2018 to November 20, 2018 |

### *- 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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**Data communication (Read) mode**

| Frequency (MHz) | Quasi Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 61.623200 | 23.2 | 100.0 | V | 223.0 | 19.5 | 16.8 | 40.0 |
| 200.069600 | 24.5 | 100.0 | V | 76.0 | 16.8 | 19.0 | 43.5 |
| 266.537600 | 33.1 | 117.7 | H | 140.0 | 19.4 | 12.9 | 46.0 |
| 276.212000 | 31.6 | 100.0 | H | 324.0 | 19.7 | 14.4 | 46.0 |
| 600.024800 | 36.5 | 100.0 | V | 346.0 | 27.5 | 9.5 | 46.0 |
| 800.006400 | 38.7 | 100.0 | H | 92.0 | 30.2 | 7.3 | 46.0 |

**Charging & Front Camera Recording mode**

| Frequency (MHz) | Quasi Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 32.216800 | 21.2 | 174.9 | V | 17.0 | 18.9 | 18.8 | 40.0 |
| 41.268800 | 24.9 | 175.0 | V | 46.0 | 19.7 | 15.1 | 40.0 |
| 150.367200 | 21.2 | 125.3 | V | 33.0 | 19.9 | 22.3 | 43.5 |
| 204.474400 | 23.1 | 100.0 | V | 198.0 | 17.0 | 20.4 | 43.5 |
| 500.097600 | 26.7 | 174.7 | H | 308.0 | 25.2 | 19.3 | 46.0 |
| 815.449600 | 30.4 | 174.9 | V | 106.0 | 30.4 | 15.6 | 46.0 |

**Charging & Receiver mode at LTE B12, LTE B17 (Middle CH Idle)**

| Frequency (MHz) | Quasi Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 32.552000 | 20.3 | 190.0 | V | 31.0 | 18.9 | 19.7 | 40.0 |
| 40.864000 | 23.8 | 100.0 | V | 22.0 | 19.7 | 16.2 | 40.0 |
| 102.944000 | 22.2 | 191.3 | V | 256.0 | 17.2 | 21.3 | 43.5 |
| 227.880000 | 24.3 | 100.0 | V | 255.0 | 16.9 | 19.2 | 43.5 |
| 612.000000 | 27.4 | 200.0 | V | 90.0 | 27.6 | 18.6 | 46.0 |
| 922.400000 | 30.8 | 220.3 | H | 22.0 | 31.4 | 15.2 | 46.0 |

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**Charging & Receiver mode at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle)**

| Frequency (MHz) | Quasi Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 42.804000 | 23.5 | 100.0 | V | 130.0 | 19.7 | 16.5 | 40.0 |
| 51.728000 | 20.3 | 100.0 | V | 80.0 | 19.8 | 19.7 | 40.0 |
| 180.156000 | 23.6 | 180.0 | V | 33.0 | 14.5 | 19.9 | 43.5 |
| 223.224000 | 22.1 | 175.0 | H | 236.0 | 16.3 | 23.9 | 46.0 |
| 291.900000 | 21.3 | 100.0 | H | 151.0 | 25.2 | 24.7 | 46.0 |
| 801.000000 | 30.5 | 302.0 | V | 166.0 | 30.3 | 15.5 | 46.0 |

**Rear Camera Preview & MP3 mode**

| Frequency (MHz) | Quasi Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 36.173600 | 16.9 | 116.8 | H | 50.0 | 19.3 | 23.1 | 40.0 |
| 45.694400 | 17.5 | 100.0 | V | 65.0 | 20.0 | 22.5 | 40.0 |
| 66.162400 | 16.3 | 100.0 | V | 269.0 | 18.7 | 23.7 | 40.0 |
| 495.374400 | 24.1 | 125.3 | H | 0.0 | 25.1 | 21.9 | 46.0 |
| 693.786400 | 28.4 | 100.0 | V | 76.0 | 28.6 | 17.6 | 46.0 |
| 938.936000 | 31.6 | 100.0 | V | 42.0 | 31.5 | 14.4 | 46.0 |

**Receiver mode at LTE B12, LTE B17 (Middle CH Idle)**

| Frequency (MHz) | Quasi Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 34.268000 | 17.0 | 115.0 | H | 43.0 | 19.9 | 23.0 | 40.0 |
| 51.728000 | 17.3 | 100.0 | V | 63.0 | 14.8 | 22.7 | 40.0 |
| 72.292000 | 16.0 | 105.0 | V | 250.0 | 14.9 | 24.0 | 40.0 |
| 518.492000 | 24.0 | 121.3 | H | 10.0 | 20.2 | 22.0 | 46.0 |
| 602.688000 | 27.9 | 100.0 | V | 73.0 | 19.1 | 18.1 | 46.0 |
| 836.652000 | 31.3 | 100.0 | V | 44.0 | 30.2 | 14.7 | 46.0 |

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**Receiver mode at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle)**

| Frequency (MHz) | Quasi Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 33.173000 | 17.3 | 100.0 | H | 44.0 | 19.3 | 22.7 | 40.0 |
| 43.580000 | 17.5 | 100.0 | V | 78.0 | 20.0 | 22.5 | 40.0 |
| 68.177000 | 15.8 | 100.0 | V | 105.0 | 18.7 | 24.2 | 40.0 |
| 431.580000 | 24.0 | 113.0 | H | 53.0 | 25.1 | 22.0 | 46.0 |
| 721.880000 | 27.5 | 100.0 | V | 89.0 | 28.6 | 18.5 | 46.0 |
| 831.441000 | 30.4 | 100.0 | V | 30.0 | 31.5 | 15.6 | 46.0 |

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**-For Measurement Above 1 GHz**

| | |
|---|---|
| Applicable Standards | FCC PART 15 Subpart B Class B<br>ANSI C63.4-2014 |
| Detector | Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz)<br>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<br>of Operating Mode | Data communication (Read)<br>Charging & Front Camera Recording<br>Charging & Receiver at LTE B12, LTE B17 (Middle CH Idle)<br>Charging & Receiver at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle)<br>Rear Camera Preview & MP3<br>Receiver at LTE B12, LTE B17 (Middle CH Idle)<br>Receiver at WCDMA 850, GSM 850, LTE B5) (Middle CH Idle)<br><br>NOTE.<br>1. Three orientations have been investigated and the worst case orientation is reported.<br>2. The worst case of operating mode is reported. |
| Kind of Test Site | 3 m semi anechoic chamber |
| Temperature | 21.5 - 22.7 °C |
| Relative Humidity | 41.1 - 43.8 % |
| Test Date | November 15, 2018 to November 21, 2018 |

## *- 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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**Data communication (Read) mode**

| Frequency (MHz) | Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1399.955000 | 49.2 | 249.8 | V | 229.0 | -28.2 | 24.8 | 74.0 |
| 2055.680000 | 48.2 | 100.0 | V | 56.0 | -26.5 | 25.8 | 74.0 |
| 2663.820000 | 48.1 | 126.7 | V | 0.0 | -24.2 | 25.9 | 74.0 |
| 4486.710000 | 42.8 | 100.0 | V | 0.0 | -19.6 | 31.2 | 74.0 |
| 5990.540000 | 43.2 | 100.0 | V | 115.0 | -17.1 | 30.8 | 74.0 |
| 9828.945000 | 43.7 | 174.5 | V | 210.0 | -9.6 | 30.3 | 74.0 |

| Frequency (MHz) | CAverage (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1399.955000 | 48.0 | 249.8 | V | 229.0 | -28.2 | 6.0 | 54.0 |
| 2055.680000 | 24.4 | 100.0 | V | 56.0 | -26.5 | 29.6 | 54.0 |
| 2663.820000 | 22.1 | 126.7 | V | 0.0 | -24.2 | 31.9 | 54.0 |
| 4486.710000 | 26.8 | 100.0 | V | 0.0 | -19.6 | 27.2 | 54.0 |
| 5990.540000 | 27.2 | 100.0 | V | 115.0 | -17.1 | 26.8 | 54.0 |
| 9828.945000 | 30.8 | 174.5 | V | 210.0 | -9.6 | 23.2 | 54.0 |

**Charging & Front Camera Recording mode**

| Frequency (MHz) | Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1747.235000 | 31.4 | 100.0 | H | 19.0 | -27.2 | 42.6 | 74.0 |
| 3948.105000 | 34.5 | 100.0 | H | 338.0 | -21.1 | 39.5 | 74.0 |
| 5379.485000 | 36.9 | 203.6 | H | 322.0 | -18.0 | 37.1 | 74.0 |
| 6684.950000 | 39.7 | 149.9 | H | 272.0 | -14.9 | 34.3 | 74.0 |
| 8088.070000 | 41.8 | 244.4 | H | 71.0 | -12.4 | 32.2 | 74.0 |
| 9842.750000 | 43.5 | 199.4 | V | 52.0 | -9.6 | 30.5 | 74.0 |

| Frequency (MHz) | CAverage (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1747.235000 | 18.3 | 100.0 | H | 19.0 | -27.2 | 35.7 | 54.0 |
| 3948.105000 | 22.0 | 100.0 | H | 338.0 | -21.1 | 32.0 | 54.0 |
| 5379.485000 | 23.8 | 203.6 | H | 322.0 | -18.0 | 30.2 | 54.0 |
| 6684.950000 | 26.2 | 149.9 | H | 272.0 | -14.9 | 27.8 | 54.0 |
| 8088.070000 | 29.2 | 244.4 | H | 71.0 | -12.4 | 24.8 | 54.0 |
| 9842.750000 | 30.9 | 199.4 | V | 52.0 | -9.6 | 23.1 | 54.0 |

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**Charging & Receiver mode at LTE B12, LTE B17 (Middle CH Idle)**

| Frequency (MHz) | Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1789.860000 | 30.5 | 150.0 | H | 57.0 | -27.1 | 43.5 | 74.0 |
| 3609.435000 | 34.2 | 100.0 | H | 12.0 | -22.0 | 39.8 | 74.0 |
| 5615.885000 | 37.0 | 100.0 | H | 0.0 | -17.7 | 37.0 | 74.0 |
| 7566.025000 | 42.3 | 125.7 | H | 57.0 | -12.6 | 31.7 | 74.0 |
| 9027.010000 | 42.9 | 100.0 | H | 248.0 | -11.3 | 31.1 | 74.0 |
| 9825.425000 | 43.6 | 150.0 | V | 50.0 | -9.6 | 30.4 | 74.0 |

| Frequency (MHz) | CAverage (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1789.860000 | 18.2 | 150.0 | H | 57.0 | -27.1 | 35.8 | 54.0 |
| 3609.435000 | 21.5 | 100.0 | H | 12.0 | -22.0 | 32.5 | 54.0 |
| 5615.885000 | 24.1 | 100.0 | H | 0.0 | -17.7 | 29.9 | 54.0 |
| 7566.025000 | 28.5 | 125.7 | H | 57.0 | -12.6 | 25.5 | 54.0 |
| 9027.010000 | 29.8 | 100.0 | H | 248.0 | -11.3 | 24.2 | 54.0 |
| 9825.425000 | 30.6 | 150.0 | V | 50.0 | -9.6 | 23.4 | 54.0 |

**Charging & Receiver mode at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle)**

| Frequency (MHz) | Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1399.500000 | 33.3 | 229.4 | V | 90.0 | -28.2 | 40.7 | 74.0 |
| 3167.500000 | 33.5 | 100.0 | V | 57.0 | -26.7 | 40.5 | 74.0 |
| 4580.200000 | 35.7 | 229.4 | H | 250.0 | -25.3 | 38.3 | 74.0 |
| 6322.700000 | 36.0 | 204.6 | V | 44.0 | -19.6 | 38.0 | 74.0 |
| 7698.000000 | 41.3 | 176.5 | H | 22.0 | -17.1 | 32.7 | 74.0 |
| 9870.600000 | 43.8 | 111.4 | V | 152.0 | -10.9 | 30.2 | 74.0 |

| Frequency (MHz) | CAverage (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1399.500000 | 17.3 | 229.4 | V | 90.0 | -28.2 | 36.7 | 54.0 |
| 3167.500000 | 20.9 | 100.0 | V | 57.0 | -26.7 | 33.1 | 54.0 |
| 4580.200000 | 23.1 | 229.4 | H | 250.0 | -25.3 | 30.9 | 54.0 |
| 6322.700000 | 24.7 | 204.6 | V | 44.0 | -19.6 | 19.3 | 54.0 |
| 7698.000000 | 27.6 | 176.5 | H | 22.0 | -17.1 | 26.4 | 54.0 |
| 9870.600000 | 30.3 | 111.4 | V | 152.0 | -10.9 | 23.7 | 54.0 |

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**Rear Camera Preview & MP3 mode**

| Frequency (MHz) | Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1776.035000 | 31.0 | 150.0 | V | 160.0 | -27.2 | 43.0 | 74.0 |
| 2858.650000 | 33.2 | 111.4 | H | 61.0 | -23.4 | 40.8 | 74.0 |
| 4904.610000 | 35.8 | 112.4 | V | 211.0 | -18.7 | 38.2 | 74.0 |
| 5978.950000 | 37.2 | 100.0 | V | 205.0 | -17.1 | 36.8 | 74.0 |
| 8085.545000 | 41.9 | 140.6 | H | 76.0 | -12.4 | 32.1 | 74.0 |
| 9491.650000 | 43.7 | 150.0 | V | 163.0 | -10.1 | 30.3 | 74.0 |

| Frequency (MHz) | CAverage (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1776.035000 | 18.2 | 150.0 | V | 160.0 | -27.2 | 35.8 | 54.0 |
| 2858.650000 | 20.4 | 111.4 | H | 61.0 | -23.4 | 33.6 | 54.0 |
| 4904.610000 | 23.2 | 112.4 | V | 211.0 | -18.7 | 30.8 | 54.0 |
| 5978.950000 | 24.4 | 100.0 | V | 205.0 | -17.1 | 29.6 | 54.0 |
| 8085.545000 | 29.2 | 140.6 | H | 76.0 | -12.4 | 24.8 | 54.0 |
| 9491.650000 | 31.3 | 150.0 | V | 163.0 | -10.1 | 22.7 | 54.0 |

**Receiver mode at LTE B12, LTE B17 (Middle CH Idle)**

| Frequency (MHz) | Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1805.800000 | 30.8 | 150.0 | V | 139.0 | -27.2 | 43.2 | 74.0 |
| 3109.700000 | 32.8 | 111.4 | H | 55.0 | -23.4 | 41.2 | 74.0 |
| 5044.300000 | 35.3 | 112.4 | V | 201.0 | -18.7 | 38.7 | 74.0 |
| 5607.000000 | 37.4 | 100.0 | V | 203.0 | -17.1 | 36.6 | 74.0 |
| 8852.300000 | 42.0 | 140.6 | H | 79.0 | -12.4 | 32.0 | 74.0 |
| 9535.700000 | 43.8 | 150.0 | V | 160.0 | -10.1 | 30.2 | 74.0 |

| Frequency (MHz) | CAverage (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1805.800000 | 17.9 | 150.0 | V | 139.0 | -27.2 | 36.1 | 54.0 |
| 3109.700000 | 20.2 | 111.4 | H | 55.0 | -23.4 | 33.8 | 54.0 |
| 5044.300000 | 22.8 | 112.4 | V | 201.0 | -18.7 | 31.2 | 54.0 |
| 5607.000000 | 25.0 | 100.0 | V | 203.0 | -17.1 | 29.0 | 54.0 |
| 8852.300000 | 29.8 | 140.6 | H | 79.0 | -12.4 | 24.2 | 54.0 |
| 9535.700000 | 31.4 | 150.0 | V | 160.0 | -10.1 | 22.6 | 54.0 |

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**Receiver mode at WCDMA 850, GSM 850, LTE B5 (Middle CH Idle)**

| Frequency (MHz) | Peak (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1389.300000 | 28.0 | 150.0 | V | 100.0 | -28.3 | 46.0 | 74.0 |
| 3017.900000 | 32.2 | 111.4 | H | 88.0 | -27.7 | 41.8 | 74.0 |
| 4894.700000 | 34.0 | 112.4 | V | 176.0 | -25.3 | 40.0 | 74.0 |
| 5471.000000 | 36.5 | 100.0 | V | 203.0 | -20.6 | 37.5 | 74.0 |
| 7318.900000 | 41.3 | 140.6 | H | 33.0 | -12.4 | 32.7 | 74.0 |
| 9824.700000 | 43.2 | 150.0 | V | 142.0 | -9.9 | 30.8 | 74.0 |

| Frequency (MHz) | CAverage (dBµV/m) | Antenna Height (cm) | POL. (H/V) | Azimuth (deg) | Corr. (dB) | Margin (dB) | Limit (dBµV/m) |
|---|---|---|---|---|---|---|---|
| 1389.300000 | 15.7 | 150.0 | V | 100.0 | -28.3 | 38.3 | 54.0 |
| 3017.900000 | 18.7 | 111.4 | H | 88.0 | -27.7 | 35.3 | 54.0 |
| 4894.700000 | 21.5 | 112.4 | V | 176.0 | -25.3 | 32.5 | 54.0 |
| 5471.000000 | 26.1 | 100.0 | V | 203.0 | -20.6 | 27.9 | 54.0 |
| 7318.900000 | 28.8 | 140.6 | H | 33.0 | -12.4 | 25.2 | 54.0 |
| 9824.700000 | 30.9 | 150.0 | V | 142.0 | -9.9 | 23.1 | 54.0 |

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## 6. CONCLUSION

The data collected shows that the **EUT Type: Mobile Phone, FCC ID: A3LSMG8870, Model: SM-G8870** complies with §15.107 and §15.109 of the FCC rules.

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## 7. APPENDIX A. TEST SETUP PHOTOGRAPHS

Please refer to Appendix A

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