

## ANNEX B\_ EMI Test Result

### 1. Revision History

Rev. No.	Issue Date	Description
0	September 30, 2019	First approval report

### 2. Test Report No.

No.	File No.
1	HCT-RF-1909-FC009

**TABLE OF CONTENTS**

	<b>PAGE</b>
1. GENERAL INFORMATION .....	2
1.1 Description of EUT .....	2
1.2 Equipment Units Tested.....	2
1.3 Cable Description .....	3
1.4 Noise Suppression Parts on Cable (I/O Cable).....	3
1.5. Test Facility .....	4
1.6 Calibration of Measuring Instrument.....	4
1.7 Measurement Uncertainty.....	4
2. LIST OF TEST EQUIPMENT .....	5
3. DESCRIPTION OF MEASUREMENTS .....	6
3.1 Measurement of Conducted Emission .....	6
3.2 Measurement of Radiated Emission .....	7
4. PRELIMINARY TEST .....	9
4.1 Conducted Emission .....	11
4.2 Radiated Emission .....	11
5. CONDUCTED AND RADIATED EMISSION TEST SUMMARY .....	10
5.1 Conducted Emission .....	10
5.2 Radiated Emission .....	17
6. CONCLUSION .....	25
7. TEST SETUP PHOTO.....	26

## 1. GENERAL INFORMATION

### 1.1 Description of EUT

Its basic purpose is used for communications.

FCC ID		A3LSMW767U
Model Name		SM-W767V, SM-W767P, SM-W767A, SM-W767W, SM-W767U
EUT Type		Note PC
Frequency Band		WCDMA 850/1700/1900, LTE B2/4/5/7/12/13/14/25/26/30/38/40/41/46/66/71 BT BDR/EDR/LE(5.0), WLAN a/b/g/n/ac(MIMO)
Power Supply	TA	Input: AC 100 to 240 V, 50/60 Hz, 0.7 A Output: (PDO) 9.0 V, 2.77 A or DC 5.0 V, 3.0 A (PPS) 3.3~5.9 V, 3.0 A or 3.3~11.0 V, 2.25 A
	Battery	Low 7.3 V / Normal 7.7 V / High 8.8 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
EUT	SM-W767V, SM-W767P, SM-W767A, SM-W767W, SM-W767U	-	SAMSUNG
TA	EP-TA800	-	DONGYANG E&P
Data Cable	EP-DW767JBZ	-	RFTECH
Earphone	EHS64AVFBE	-	ALMUS
LED Monitor	LU28R550	-	SAMSUNG
Monitor Adapter	A5919KPNL	-	SAMSUNG
HDMI Cable	VODCA	-	Audioquest
C Type Multi Gender	EE-P5000	-	SAMSUNG

### 1.3 Cable Description

Product Name	Port	Power Cord Shielded (Y/N)	I/O Cable Shielded (Y/N)	Length (m)
EUT	USB Type C (Data Cable)	Y	N/A	(P) 1.8
	USB Type C (Gender)	N/A	Y	(D) 0.19
	Earphone	N/A	N	(D) 1.2
C Type Multi Gender	HDMI	N/A	Y	(D) 1.1
LED Monitor	DC IN	Y	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 (Data Cable)	N	N/A	Y	Both End
	USB Type C (Gender)	N	N/A	Y	Both End
	Earphone	N	N/A	Y	EUT End
C Type Multi Gender	HDMI	N	N/A	Y	Both End
LED Monitor	DC IN	Y	Monitor End	Y	Monitor 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	KR0032
Radiated Field strength measurement facility 10 m Semi Anechoic chamber #1	
Radiated Field strength measurement facility 10 m Semi Anechoic chamber #2	

## 1.6 Calibration of Measuring Instrument

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturers recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5:2017

## 1.7 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.4-2014.

All measurement uncertainty values are shown with a coverage factor of  $k = 2$  to indicate a 95 % level of confidence. The measurement data shown herein meets or exceeds the  $U_{CISPR}$  measurement uncertainty values specified in CISPR 16-4-2 and, thus, can be compared directly to specified limits to determine compliance.

Parameter	Expanded Uncertainty
Conducted Emission (0.15 MHz to 30 MHz)	1.8 dB
Radiated Emissions (30 MHz to 1 GHz)	4.8 dB
Radiated Emissions (1 GHz to 18 GHz)	5.4 dB
Radiated Emissions (18 GHz to 40 GHz)	5.7 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>
<b><u>Conducted Emission</u></b>					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESCI	100584	1 year	06.18.2019
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ENV216	102245	1 year	09.11.2019
<input checked="" type="checkbox"/> LISN	Rohde & Schwarz	ENV216	100073	1 year	04.30.2019
<input checked="" type="checkbox"/> Radio communication analyzer	ANRITSU	MT8820C	6201138643	1 year	08.20.2019
<input checked="" type="checkbox"/> Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-
<b><u>Radiated Emission</u></b>					
<b>-For measurement below 1 GHz</b>					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	05.17.2019
<input checked="" type="checkbox"/> Trilog Antenna	Schwarzbeck	VULB 9168	255	2 year	03.26.2019
<input checked="" type="checkbox"/> Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
<input checked="" type="checkbox"/> Antenna master controller	INNCO Systems	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	08.20.2019
<input checked="" type="checkbox"/> Antenna (for Communication)	Schwarzbeck	USLP9142	VSLP 9142-200	-	-
<input checked="" type="checkbox"/> Software	Rohde & Schwarz	EMC32	-	-	-
<b>-For measurement above 1 GHz</b>					
<input checked="" type="checkbox"/> EMI Test Receiver	Rohde & Schwarz	ESU40	100524	1 year	05.17.2019
<input checked="" type="checkbox"/> Antenna master	INNCO Systems	MA4640-XP-ET	-	N/A	-
<input checked="" type="checkbox"/> Antenna master controller	INNCO Systems	CO3000	CO3000/870/ 35990515/L	N/A	-
<input checked="" type="checkbox"/> Turn Table	INNCO Systems	1060	-	N/A	-
<input checked="" type="checkbox"/> Turn Table controller	INNCO Systems	CO2000	CO2000/095/ 7590304/L	N/A	-
<input checked="" type="checkbox"/> Horn Antenna	Schwarzbeck	BBHA 9120D	01836	1 year	07.19.2019
<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	08.20.2019
<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	-	-	-

### 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 ]

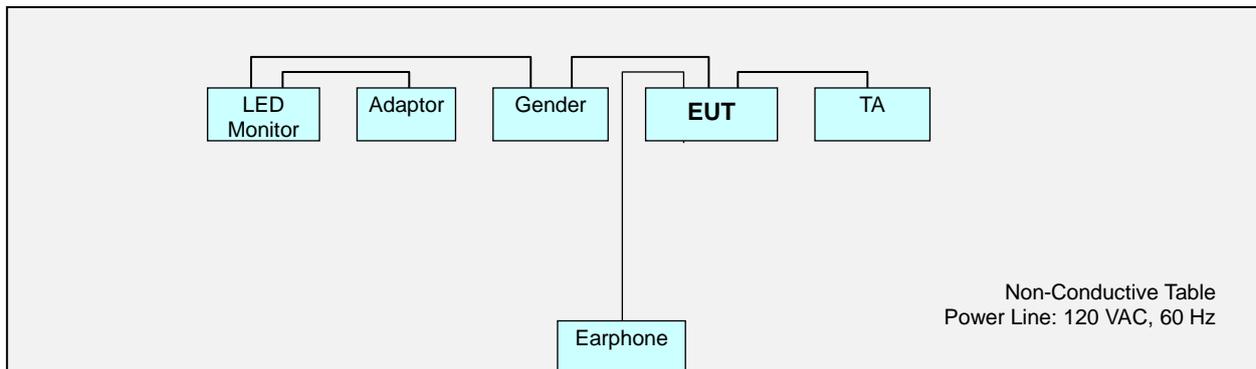
Frequency (MHz)	Antenna Distance (m)	Field Strength ( $\mu\text{V}/\text{m}$ )	Quasi-Peak ( $\text{dB}(\mu\text{V})/\text{m}$ )
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0
Frequency (MHz)	Antenna Distance (m)	Peak ( $\text{dB}(\mu\text{V})/\text{m}$ )	Average ( $\text{dB}(\mu\text{V})/\text{m}$ )
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



## 4. PRELIMINARY TEST

During preliminary tests, the following operating mode was investigated.

WCDMA 850 Idle (Low/Middle/High CH)  
LTE B5 Idle (Low/Middle/High CH)  
LTE B12 Idle (Low/Middle/High CH)  
LTE B13 Idle (Low/Middle/High CH)  
LTE B14 Idle (Low/Middle/High CH)  
LTE B26 Idle (Low/Middle/High CH)  
LTE B71 Idle (Low/Middle/High CH)

### 4.1 Conducted Emission

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

#### Operating Modes:

Receiver mode (LTE B26+B5 Low 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:

##### -For measurement below 1 GHz

Receiver mode (LTE B26+B5 Low CH Idle)  
Receiver mode (LTE B26+B5 Middle CH Idle)  
Receiver mode (LTE B26+B5 High CH Idle)  
Receiver mode (LTE B12+B13 Low CH Idle)  
Receiver mode (LTE B12+B13 Middle CH Idle)  
Receiver mode (LTE B12+B13 High CH Idle)  
Receiver mode (LTE B14 Low CH Idle)  
Receiver mode (LTE B14 Middle CH Idle)  
Receiver mode (LTE B14 High CH Idle)  
Receiver mode (LTE B71 Low CH Idle)  
Receiver mode (LTE B71 Middle CH Idle)  
Receiver mode (LTE B71 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.

##### -For measurement above 1 GHz

Receiver mode (LTE B26+B5 Low CH Idle)

NOTE. 1. The worst case of operating mode is reported.

## 5. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

### 5.1 Conducted Emission

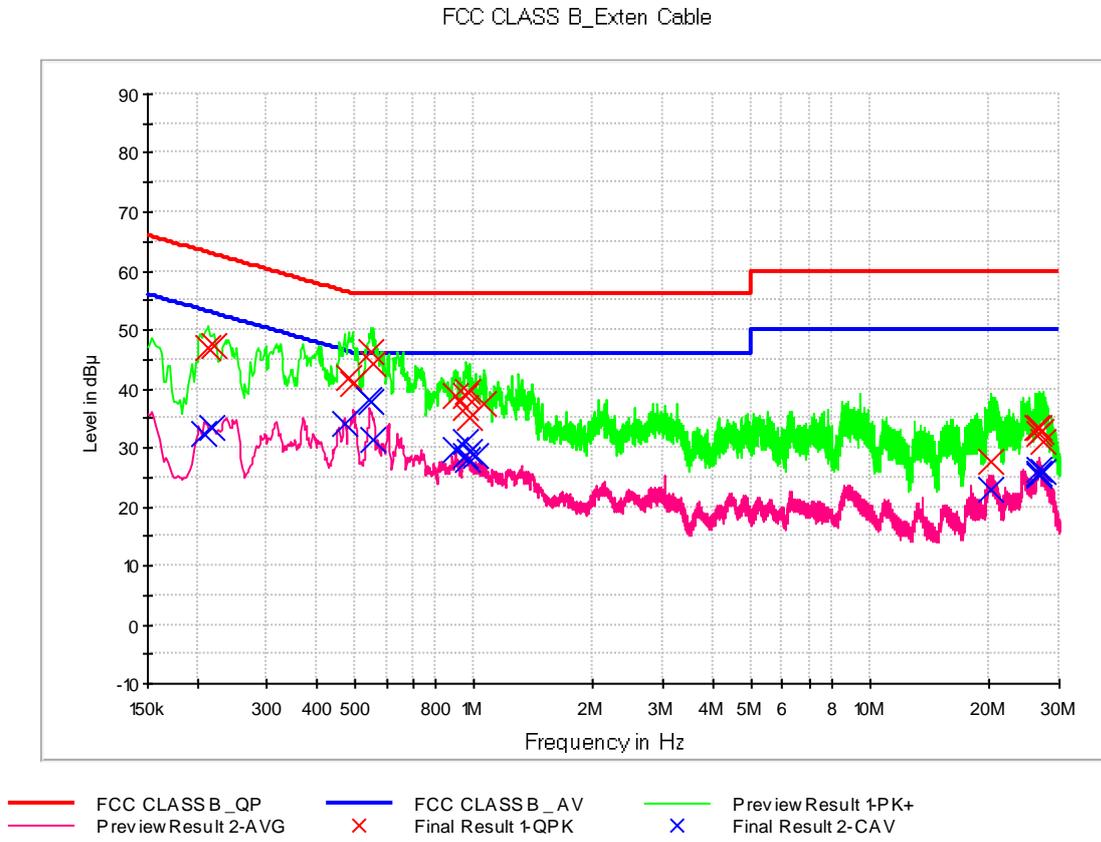
The test results of conducted emission at mains ports provide the following information:

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	Receiver mode (LTE B26+B5 Low CH Idle)
Kind of Test Site	Shielded Room
Temperature	24.1 °C
Relative Humidity	45.2 %
Test Date	September 29, 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, Receiver mode (LTE B26+B5 Low CH Idle), Line (L1)



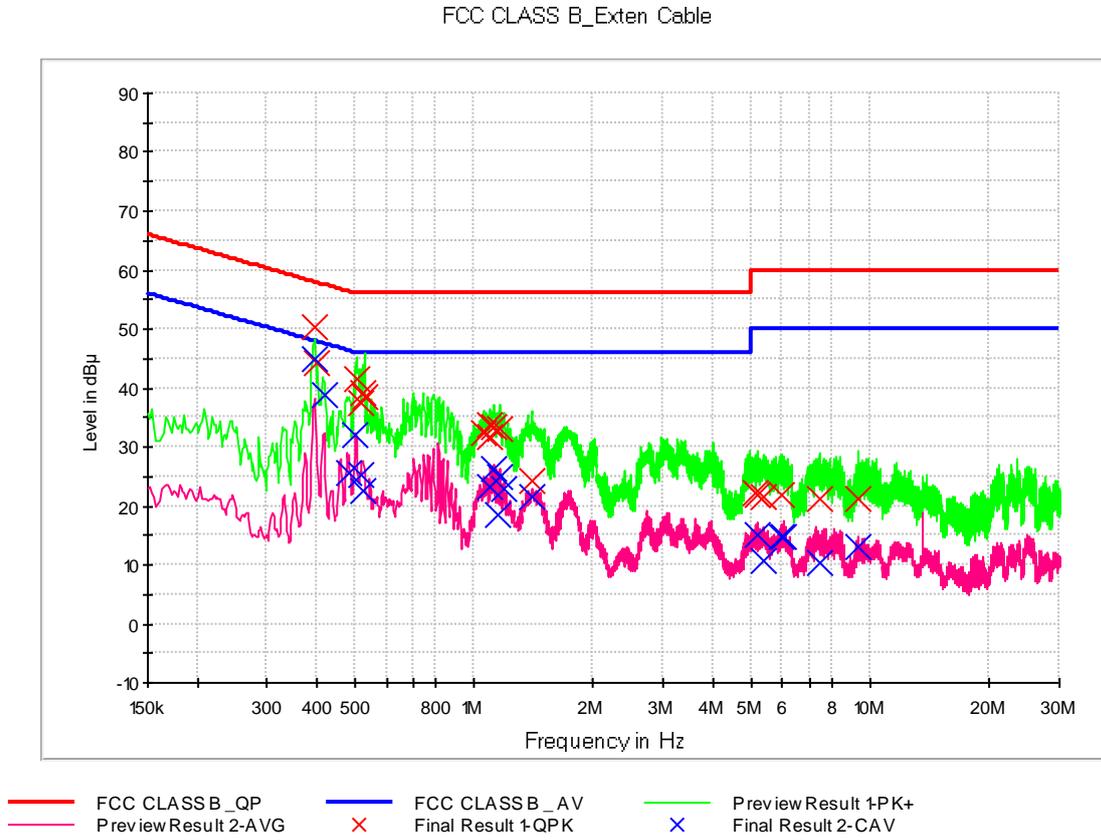
**QuasiPeak Final Result, Line (L1)**

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.214000	46.9	9.000	L1	9.8	16.2	63.0
0.220000	47.4	9.000	L1	9.8	15.4	62.8
0.482000	41.7	9.000	L1	9.8	14.6	56.3
0.492000	40.9	9.000	L1	9.8	15.2	56.1
0.550000	46.3	9.000	L1	9.8	9.7	56.0
0.558000	44.1	9.000	L1	9.8	11.9	56.0
0.894000	39.0	9.000	L1	9.9	17.0	56.0
0.950000	36.9	9.000	L1	9.9	19.1	56.0
0.956000	39.0	9.000	L1	9.9	17.0	56.0
0.960000	39.3	9.000	L1	9.9	16.7	56.0
0.972000	35.0	9.000	L1	9.9	21.0	56.0
1.062000	37.5	9.000	L1	9.9	18.5	56.0
20.240000	27.5	9.000	L1	10.7	32.5	60.0
26.500000	33.4	9.000	L1	10.9	26.6	60.0
26.592000	32.5	9.000	L1	10.9	27.5	60.0
26.810000	33.3	9.000	L1	10.9	26.7	60.0
26.914000	32.7	9.000	L1	10.9	27.3	60.0
27.294000	31.2	9.000	L1	10.9	28.8	60.0

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

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.208000	32.4	9.000	L1	9.8	20.9	53.3
0.218000	33.5	9.000	L1	9.8	19.4	52.9
0.470000	34.1	9.000	L1	9.8	12.5	46.5
0.546000	38.3	9.000	L1	9.8	7.7	46.0
0.550000	37.9	9.000	L1	9.8	8.1	46.0
0.558000	31.5	9.000	L1	9.8	14.5	46.0
0.896000	29.6	9.000	L1	9.9	16.4	46.0
0.950000	28.8	9.000	L1	9.9	17.2	46.0
0.956000	31.1	9.000	L1	9.9	14.9	46.0
0.962000	28.1	9.000	L1	9.9	17.9	46.0
0.974000	29.4	9.000	L1	9.9	16.6	46.0
1.008000	28.8	9.000	L1	9.9	17.2	46.0
20.240000	22.7	9.000	L1	10.7	27.3	50.0
26.592000	26.4	9.000	L1	10.9	23.6	50.0
26.610000	25.1	9.000	L1	10.9	24.9	50.0
26.810000	25.7	9.000	L1	10.9	24.3	50.0
26.816000	25.4	9.000	L1	10.9	24.6	50.0
27.294000	25.9	9.000	L1	10.9	24.1	50.0

Figure 2: Conducted Emission, Receiver mode (LTE B26+B5 Low CH Idle), Line (N)



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

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.398000	50.3	9.000	N	9.8	7.6	57.9
0.402000	44.3	9.000	N	9.8	13.5	57.8
0.504000	41.6	9.000	N	9.8	14.4	56.0
0.516000	37.3	9.000	N	9.8	18.7	56.0
0.524000	39.2	9.000	N	9.8	16.8	56.0
0.528000	38.6	9.000	N	9.8	17.4	56.0
1.054000	32.4	9.000	N	9.9	23.6	56.0
1.094000	31.6	9.000	N	9.9	24.4	56.0
1.100000	33.7	9.000	N	9.9	22.3	56.0
1.120000	33.3	9.000	N	9.9	22.7	56.0
1.166000	33.1	9.000	N	9.9	22.9	56.0
1.394000	24.1	9.000	N	9.9	31.9	56.0
5.150000	22.2	9.000	N	10.1	37.8	60.0
5.180000	21.8	9.000	N	10.1	38.2	60.0
5.362000	21.5	9.000	N	10.1	38.5	60.0
5.976000	21.7	9.000	N	10.1	38.3	60.0
7.416000	21.3	9.000	N	10.2	38.7	60.0
9.308000	21.0	9.000	N	10.3	39.0	60.0

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

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.396000	45.1	9.000	N	9.8	2.9	47.9
0.418000	38.8	9.000	N	9.8	8.7	47.5
0.482000	25.6	9.000	N	9.8	20.7	46.3
0.502000	32.1	9.000	N	9.8	13.9	46.0
0.516000	25.2	9.000	N	9.8	20.8	46.0
0.522000	22.5	9.000	N	9.8	23.5	46.0
1.100000	23.3	9.000	N	9.9	22.7	46.0
1.122000	26.2	9.000	N	9.9	19.8	46.0
1.146000	18.4	9.000	N	9.9	27.6	46.0
1.166000	24.8	9.000	N	9.9	21.2	46.0
1.188000	22.7	9.000	N	9.9	23.3	46.0
1.394000	21.7	9.000	N	9.9	24.3	46.0
5.178000	15.2	9.000	N	10.1	34.8	50.0
5.362000	10.7	9.000	N	10.1	39.3	50.0
6.000000	14.7	9.000	N	10.1	35.3	50.0
6.024000	14.6	9.000	N	10.1	35.4	50.0
7.416000	10.2	9.000	N	10.2	39.8	50.0
9.308000	13.1	9.000	N	10.3	36.9	50.0

## 5.2 Radiated Emission

The test results of radiated emission provide the following information:

### 5.2.1 For Measurement Below 1 GHz

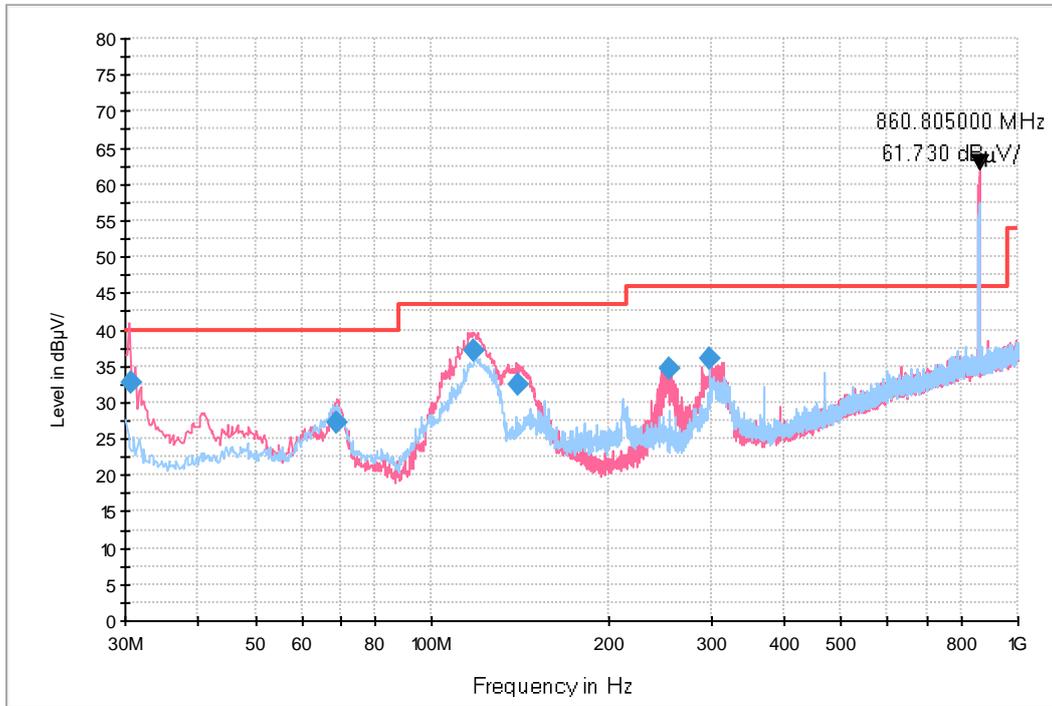
Applicable Standards	FCC PART 15 Subpart B Class B ANSI C63.4-2014
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Worst Case of Operating Mode	Receiver mode (LTE B26+B5 Low CH Idle) Receiver mode (LTE B12+B13 Low CH Idle) Receiver mode (LTE B14 Middle CH Idle) Receiver mode (LTE B71 Low CH Idle)
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.4 °C
Relative Humidity	42.1 %
Test Date	September 29, 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

**Figure 3: Radiated Emission, Receiver mode (LTE B26+B5 Low CH Idle)**

FCC PART 15 CLASS B

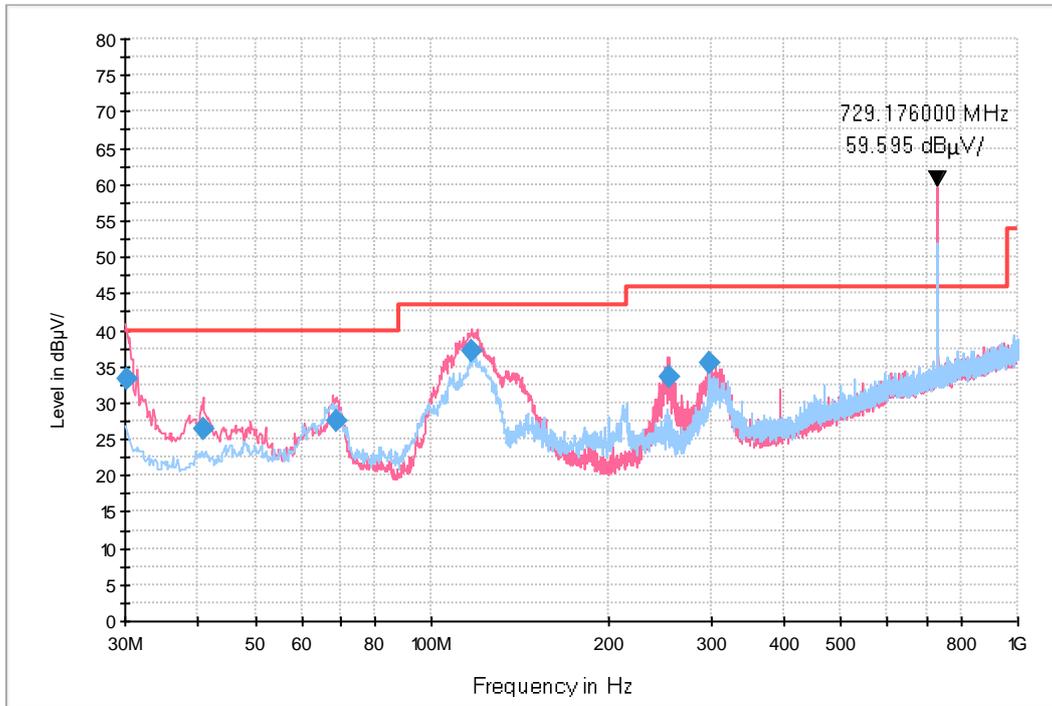


- NOTE. 1. LTE B26+B5 Low CH RX Frequency: 860.805 MHz  
2. These are signals for fundamental frequency from the base station

Frequency (MHz)	Quasi Peak (dBµV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.605138	32.7	125.3	V	24.0	18.4	7.3	40.0
68.763000	27.2	100.0	V	123.0	18.2	12.8	40.0
117.612800	37.2	100.0	V	149.0	17.2	6.3	43.5
140.492400	32.3	100.0	V	70.0	19.0	11.2	43.5
254.590400	34.6	174.9	V	1.0	18.9	11.4	46.0
296.996000	36.1	100.0	H	282.0	20.5	9.9	46.0

**Figure 4: Radiated Emission, Receiver mode (LTE B12+B13 Low CH Idle)**

FCC PART 15 CLASS B

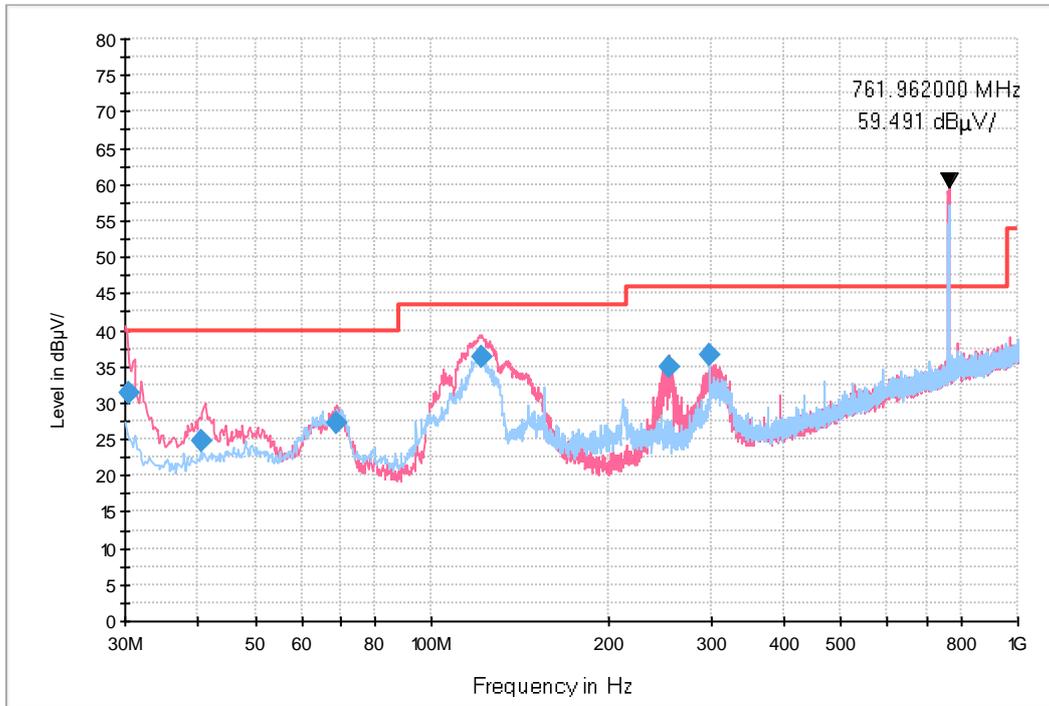


- NOTE. 1. LTE B12+B13 Low CH RX Frequency: 729.176 MHz  
2. These are signals for fundamental frequency from the base station

Frequency (MHz)	Quasi Peak (dBµV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.135041	33.2	100.0	V	315.0	18.3	6.8	40.0
40.915600	26.3	100.0	V	298.0	19.1	13.7	40.0
68.787600	27.5	100.0	V	102.0	18.2	12.5	40.0
117.097800	37.1	100.0	V	174.0	17.1	6.4	43.5
253.296800	33.7	174.8	V	2.0	18.9	12.3	46.0
297.010600	35.5	100.0	H	289.0	20.5	10.5	46.0

**Figure 5: Radiated Emission, Receiver mode (LTE B14 Middle CH Idle)**

FCC PART 15 CLASS B

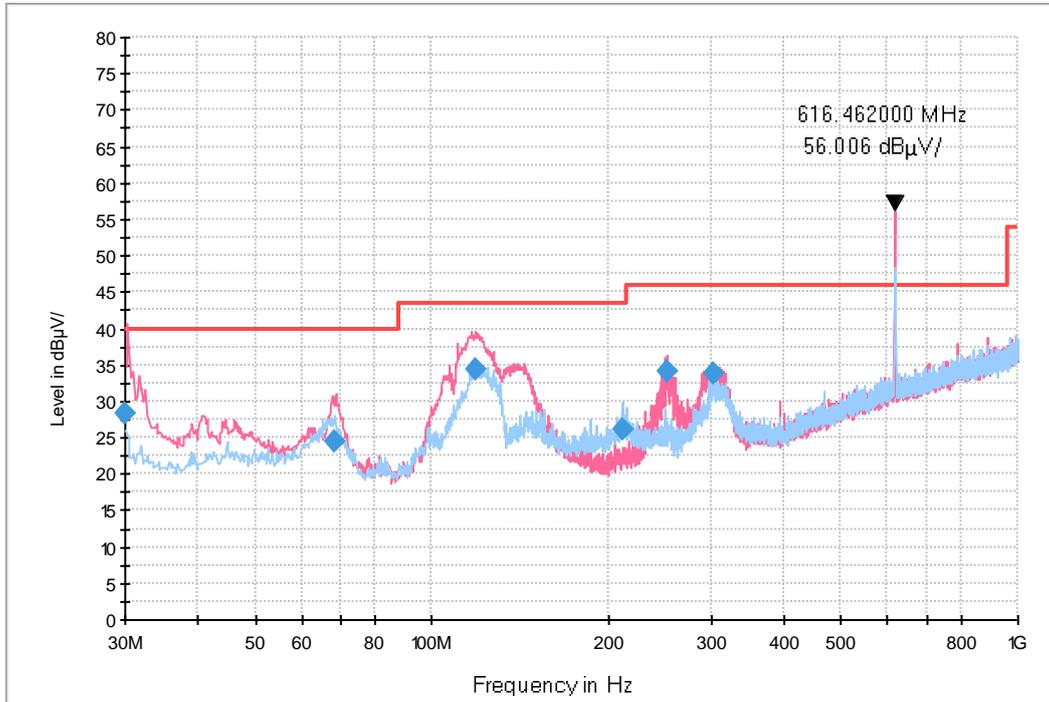


- NOTE. 1. LTE B14 Middle CH RX Frequency: 761.962 MHz  
2. These are signals for fundamental frequency from the base station

Frequency (MHz)	Quasi Peak (dBµV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.479700	31.4	125.3	V	332.0	18.4	8.6	40.0
40.431600	24.8	100.0	V	339.0	19.0	15.2	40.0
68.978000	27.3	100.0	V	110.0	18.2	12.7	40.0
121.395800	36.2	100.0	V	71.0	17.6	7.3	43.5
254.715600	34.8	174.9	V	7.0	18.9	11.2	46.0
296.998200	36.7	100.0	H	302.0	20.5	9.3	46.0

**Figure 6: Radiated Emission, Receiver mode (LTE B71 Low CH Idle)**

FCC PART 15 CLASS B



- NOTE. 1. LTE B71 Low CH RX Frequency: 616.462 MHz  
2. These are signals for fundamental frequency from the base station

Frequency (MHz)	Quasi Peak (dBµV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.063259	28.2	100.0	V	17.0	18.3	11.8	40.0
68.374600	24.6	100.0	V	104.0	18.3	15.4	40.0
118.501200	34.4	100.0	V	78.0	17.3	9.1	43.5
211.370800	26.2	100.0	H	0.0	17.2	17.3	43.5
253.000000	34.1	174.9	V	2.0	18.9	11.9	46.0
302.836600	33.9	125.3	V	325.0	20.6	12.1	46.0

### 5.2.2 For Measurement Above 1 GHz

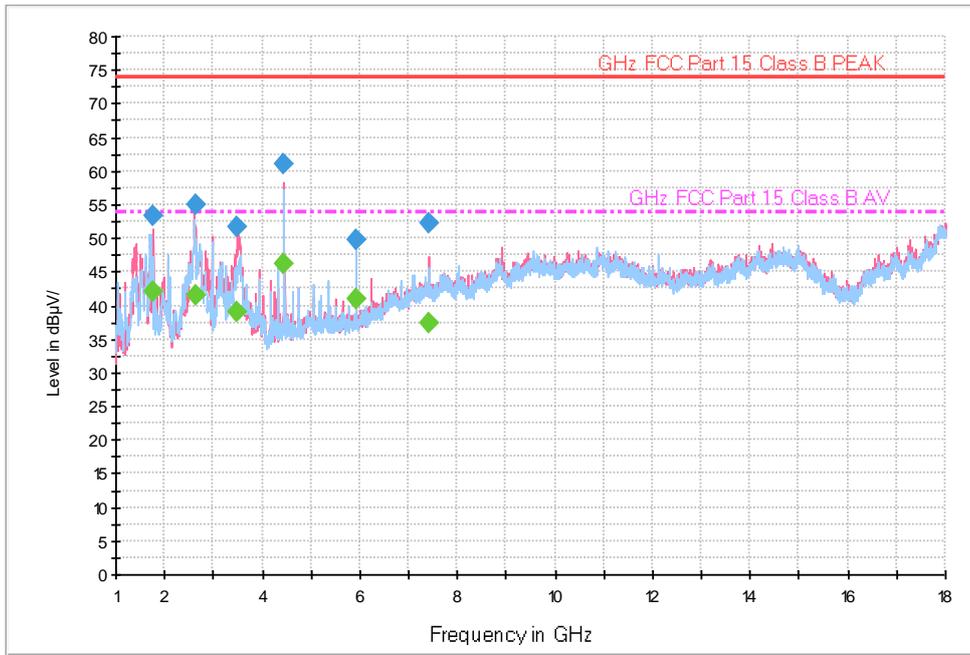
Applicable Standards	FCC PART 15 Subpart B Class B ANSI C63.4-2014
Detector	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)
Highest Frequency	5 925 MHz
Tested Frequency Range	1 GHz to 30 GHz
Worst Case of Operating Mode	Receiver mode (LTE B26+B5 Low CH Idle)
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.3 °C
Relative Humidity	41.9 %
Test Date	September 30, 2019

**- Calculation Formula:**

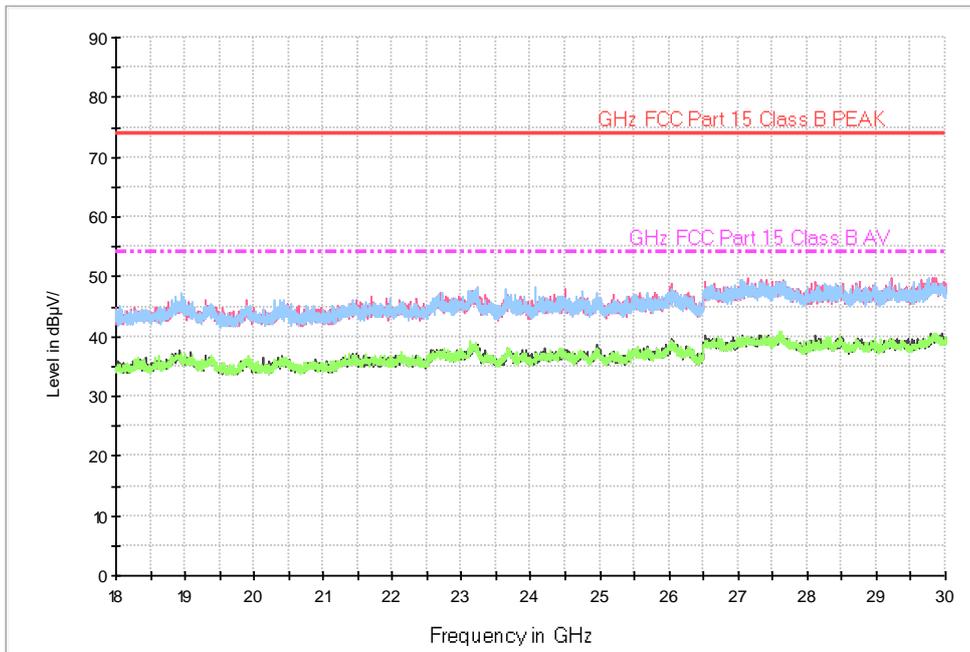
1. POL. H = Horizontal, POL. V = Vertical
2. Peak or CAverage = Reading (Receiver Reading) + Corr.
3. Corr. (Correction Factor) = Antenna Factor+ Cable Loss –Amplifier Gain
4. Margin = Limit - Peak or CAverage

**Figure 7: Radiated Emission, Receiver mode (LTE B26+B5 Low CH Idle)**

Tiltinq of GHz FCC PART 15 CLASS B



Tiltinq of GHz FCC PART 15 CLASS B\_18~40GHz



Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1781.975000	53.2	299.4	V	183.0	-25.4	20.8	74.0
2623.770000	55.0	100.0	V	148.0	-22.8	19.0	74.0
3490.095000	51.8	125.8	V	257.0	-20.6	22.2	74.0
4455.065000	61.1	299.5	V	270.0	-17.6	12.9	74.0
5939.905000	49.8	150.0	H	251.0	-14.8	24.2	74.0
7424.910000	52.3	298.5	V	236.0	-9.4	21.7	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1781.975000	42.0	299.4	V	183.0	-25.4	12.0	54.0
2623.770000	41.4	100.0	V	148.0	-22.8	12.6	54.0
3490.095000	39.1	125.8	V	257.0	-20.6	14.9	54.0
4455.065000	46.2	299.5	V	270.0	-17.6	7.8	54.0
5939.905000	40.9	150.0	H	251.0	-14.8	13.1	54.0
7424.910000	37.3	298.5	V	236.0	-9.4	16.7	54.0

## 6. CONCLUSION

The data collected shows that the **EUT Type: Note PC, FCC ID: A3LSMW767U,**  
**Model Name: SM-W767V, SM-W767P, SM-W767A, SM-W767W, SM-W767U** complies with  
§15.107 and §15.109 of the FCC rules.

## 7. TEST SETUP PHOTO

Please refer to EMI Test Setup Photo and test setup photo file no. as follows;

Rev. No.	Issue Date	File No.
0	September 30, 2019	HCT-RF-1909-FC009-P

End of report