

EMI TEST REPORT FCC CERTIFICATION

Applicant:

SAMSUNG Electronics Co., Ltd.

**129, Samsung-ro, Yeongtong-gu, Suwon-si,
Gyeonggi-do, 16677, Korea**

Date of Receipt: May 02, 2017

Date of Issue: June 20, 2017

Test Report No. HCT-E-1706-F003-1

HCT FRN: 0005866421

FCC ID :

A3LSMW627Y

Rule Part(s) / Standard(s): FCC CFR 47 PART 15 Subpart B Class B
FCC Classification: JBC (Part 15 B – Class B Computing Device Personal Computer)
EUT Type: Tablet
Model Name: SM-W627Y
Date of Test: May 16, 2017 - May 30, 2017

The device bearing the trade name and model specified above, has been shown to comply with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2014. (See Test Report if any modifications were made for compliance)

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

HCT certifies that no party to application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C 862

Tested By



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Reviewed By



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DOCUMENT HISTORY

The revision history for this document is shown in table.

Version	Date	Description
HCT-E-1706-F003	June 08, 2017	Initial Release
HCT-E-1706-F003-1	June 20, 2017	2 ND Edition: Revision of text



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ATTACHMENT: TEST SETUP PHOTOGRAPHS



1. GENERAL INFORMATION

1.1 Description of EUT

Its basic purpose is used for communications.

FCC ID	A3LSMW627Y
Model	SM-W627Y
EUT Type	Tablet
TX Frequency	826.40 MHz to 846.60 MHz (WCDMA 850) 1 852.4 MHz to 1 907.6 MHz (WCDMA 1 900) 824 MHz to 849 MHz (LTE B5) 2 496 MHz to 2 570 MHz (LTE B7) 2 402 MHz to 2 480 MHz (Bluetooth) 2 412 MHz to 2 472 MHz (WiFi 2.4 GHz) 5 180 MHz to 5 240 MHz (WiFi 5 GHz band_UNII 1) 5 260 MHz to 5 320 MHz (WiFi 5 GHz band_UNII 2A) 5 500 MHz to 5 720 MHz (WiFi 5 GHz band_UNII 2C) 5 745 MHz to 5 825 MHz (WiFi 5 GHz band_UNII 3(DTS))
RX Frequency	871.40 MHz to 891.60 MHz (WCDMA 850) 1 932.4 MHz to 1 987.6 MHz (WCDMA 1 900) 869 MHz to 894 MHz (LTE B5) 2 516 MHz to 2 690 MHz (LTE B7) 2 402 MHz to 2 480 MHz (Bluetooth) 2 412 MHz to 2 472 MHz (WiFi 2.4 GHz) 5 180 MHz to 5 240 MHz (WiFi 5 GHz band_UNII 1) 5 260 MHz to 5 320 MHz (WiFi 5 GHz band_UNII 2A) 5 500 MHz to 5 720 MHz (WiFi 5 GHz band_UNII 2C) 5 745 MHz to 5 825 MHz (WiFi 5 GHz band_UNII 3(DTS))



1.2 Related Submittal(s) / Grant(s)

Original submittal only.

1.3 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.

Measurement Facilities	Registration Number
Radiated Field strength measurement facility 3 m Semi Anechoic chamber	90661 (July 07, 2015)
Radiated Field strength measurement facility 10 m Semi Anechoic chamber	

1.4 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 equipments, which is traceable to recognized national standards.

Especially, all antenna for measurement is calibrated in accordance with the requirements of C63.5 (Version : 2006).



1.5 Tested System Details

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

Device Type	Model Name	Manufacturer	FCC ID / DoC	Connected To
EUT	SM-W627Y	SAMSUNG	A3LSMW627Y	Travel adapter, LED Monitor, Earphone, LAN Dongle
USB Cable	EP-DW720CWE	RFTECH	-	EUT, Travel adaptor, LAN Dongle
Earphone	GH59-14338A	BUJEON	-	EUT
Gateway	TL-WR747N	TP-LINK	-	LAN Dongle, Gateway adaptor
Gateway adaptor	T120150-2H1	TP-LINK	-	Gateway
RJ45 cable	-	-	-	LAN Dongle, Gateway
Travel adaptor	EP-TA600	SOLU-M	-	EUT
Micro SD card	Micro SDXC Class 10 UHS-1 Pro plus U3 64GB	SAMSUNG	-	EUT
Keyboard Cover	EJ-CW620	SAMSUNG	-	EUT
LAN Dongle	NM-CF322P	GANGWON CO. Ltd	-	EUT, Gateway
S-Pen	CP-902-11B	Wacom	-	-
UHD LED Monitor	U32D970Q	SAMSUNG	-	EUT



1.6 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)1.5
	Earphone	N/A	Y	(D)1.2
Gateway	DC in	N	N/A	(P)1.8
	RJ 45	N/A	N	(D)1.6
Monitor	Display	N/A	Y	(D)2.0
	AC in	N	N/A	(P)1.8

* The marked “(D)” means the data cable and “(P)” means the power cable.

1.7 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	Both End
	RJ 45	N	N/A	N	N/A
Monitor	Display	N	N/A	Y	Both End



2. 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)	$\pm 1.82 \text{ dB } (k = 2)$
Radiated Emissions (30 MHz to 1 GHz)	$\pm 5.06 \text{ dB } (k = 2)$
Radiated Emissions (1 GHz to 6 GHz)	$\pm 5.0 \text{ dB } (k = 2)$
Radiated Emissions (6 GHz to 18 GHz)	$\pm 5.4 \text{ dB } (k = 2)$



3. DESCRIPTION OF TEST

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

- 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.
- The EUT was set 3 m away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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.
- 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.
- 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.
- 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 ($\mu\text{V/m}$)	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

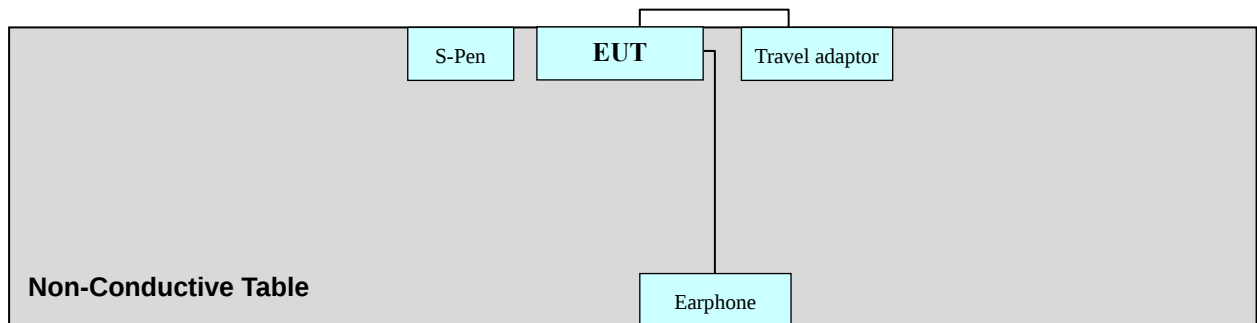
An unintentional radiator, including a digital device, the spectrum shall be investigated from the lowest radio frequency signal generated or used in the device, without going below the lowest frequency for which a Radiated Emission limit is specified, up to the frequency shown in the following table

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 th harmonic of the highest frequency or 40 GHz, whichever is lower



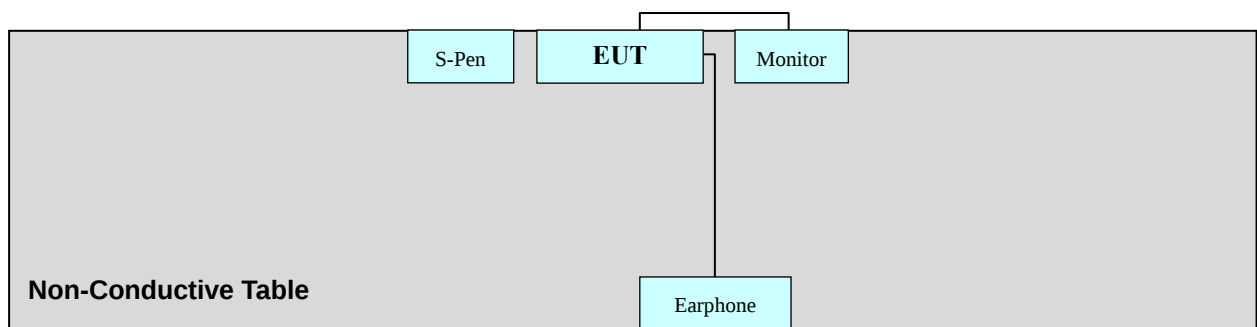
3.3 Configuration of Tested System

[Charging Mode]



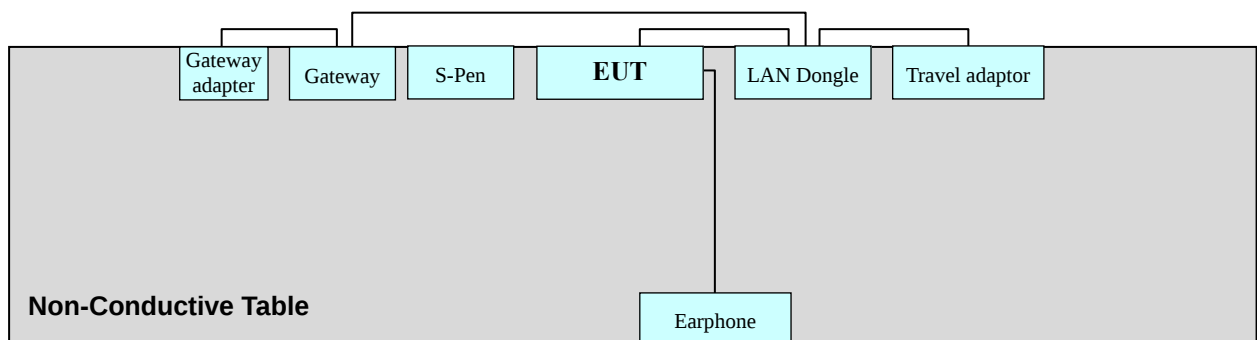
Power Line: 120 VAC, 60 Hz

[Display Mode]



Power Line: 120 VAC, 60 Hz

[LAN Dongle Mode]



Power Line: 120 VAC, 60 Hz



4. PRELIMINARY TEST

4.1 Conducted Emission Test

It was tested Data Communication mode, after connecting all peripheral devices.

Operation Mode:

MODE 1:

Charging & Memory Read and Write (External SD Card to Internal), Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on mode

MODE 2:

LAN & Charging & Memory Read and Write (External SD Card to Internal), Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on mode

4.2 Radiated Emission Test

It was tested Data Communication mode, after connecting all peripheral devices.

Operation Mode:

MODE 1:

Charging & Memory Read and Write (External SD Card to Internal), Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on mode

MODE 2:

DP Display & Charging & Memory Read and Write (External SD Card to Internal), Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on mode

MODE 3:

LAN & Charging & Memory Read and Write (External SD Card to Internal), Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on mode



5. CONDUCTED AND RADIATED EMISSION TEST SUMMARY

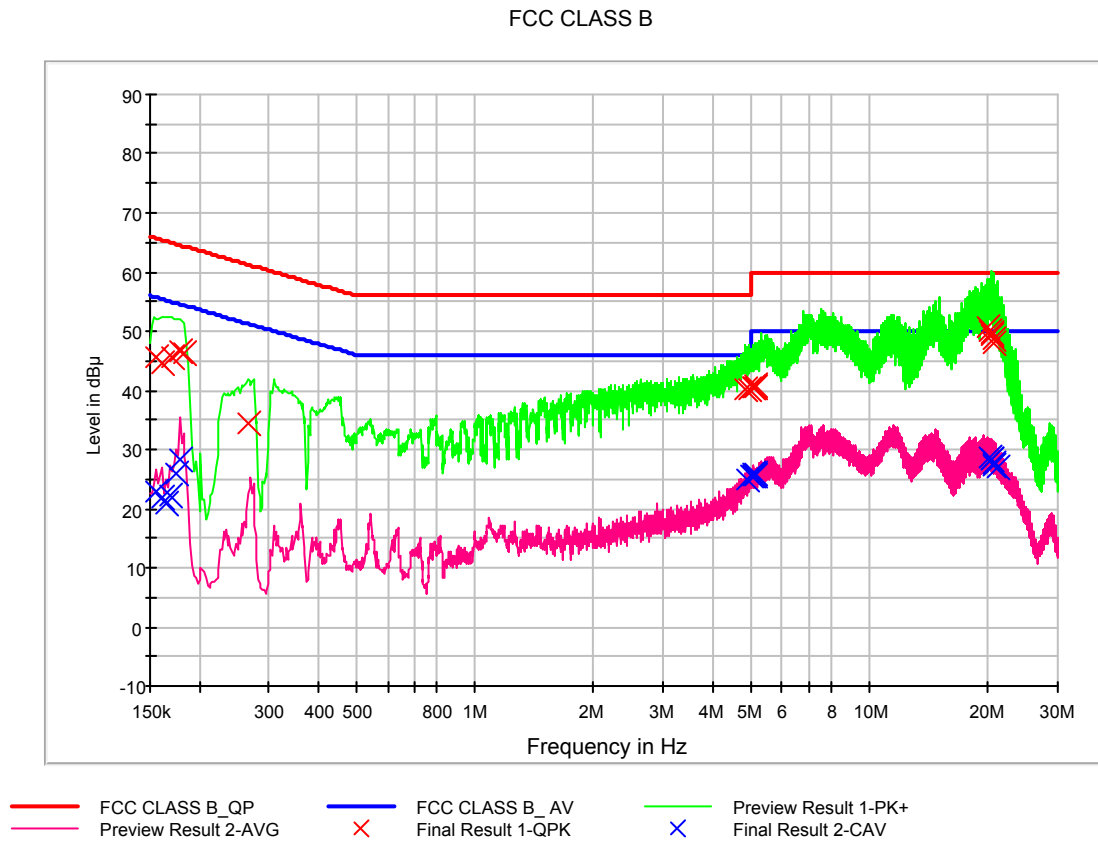
5.1 Conducted Emission Test

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

Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Operation Mode	MODE 1: Charging & Memory Read and Write (External SD Card to Internal), Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on mode
Kind of Test Site	Shielded Room
Temperature	25.1 °C
Relative Humidity	38.6 %
Test Date	May 25, 2017

- 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: Spectral Diagrams, Conducted Emission, Line (L1)**



QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.156000	45.6	9.000	L1	9.6	20.0	65.7
0.160000	44.5	9.000	L1	9.6	21.0	65.5
0.170000	45.5	9.000	L1	9.6	19.4	65.0
0.178000	46.5	9.000	L1	9.6	18.0	64.6
0.184000	46.1	9.000	L1	9.6	18.2	64.3
0.266000	34.5	9.000	L1	9.7	26.7	61.2
4.844000	40.2	9.000	L1	9.9	15.8	56.0
4.974000	40.3	9.000	L1	9.9	15.7	56.0
5.062000	40.4	9.000	L1	9.9	19.6	60.0
5.072000	40.6	9.000	L1	9.9	19.4	60.0
5.138000	40.6	9.000	L1	9.9	19.4	60.0
5.150000	40.8	9.000	L1	9.9	19.2	60.0
20.030000	50.8	9.000	L1	10.4	9.2	60.0
20.252000	50.0	9.000	L1	10.4	10.0	60.0
20.368000	49.7	9.000	L1	10.4	10.3	60.0
20.418000	49.3	9.000	L1	10.4	10.7	60.0
20.574000	48.7	9.000	L1	10.4	11.3	60.0
20.708000	48.0	9.000	L1	10.4	12.0	60.0

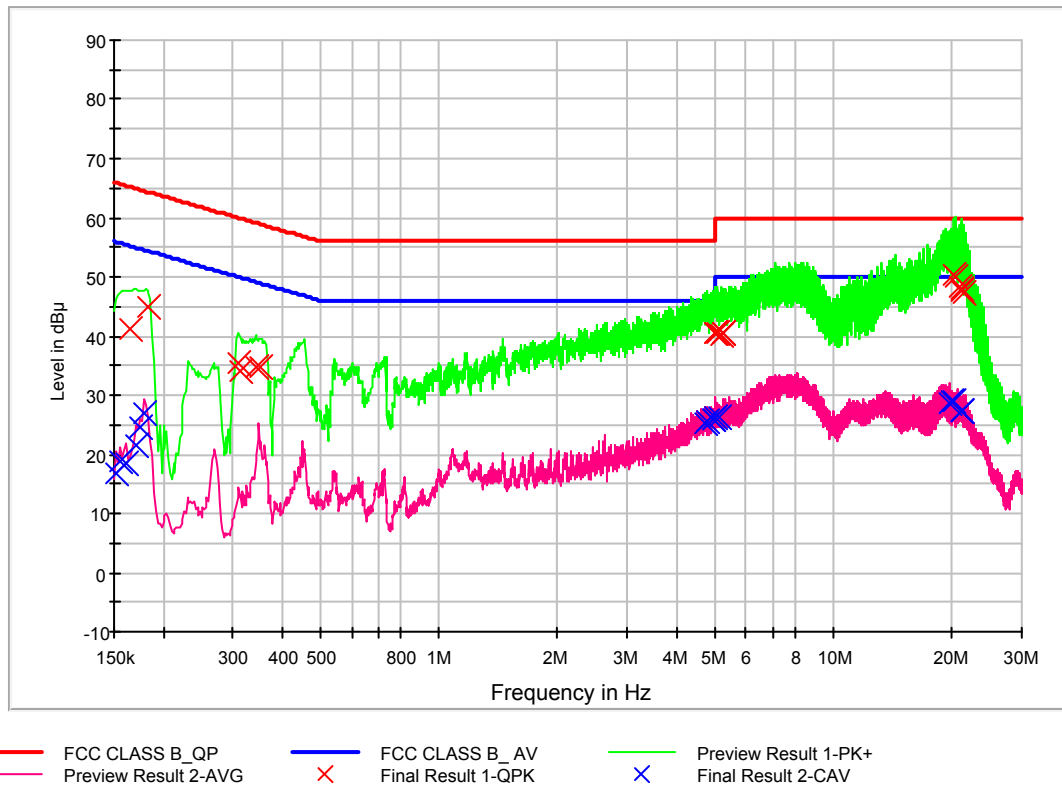


CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.156000	22.8	9.000	L1	9.6	32.9	55.7
0.160000	21.9	9.000	L1	9.6	33.6	55.5
0.164000	20.9	9.000	L1	9.6	34.3	55.3
0.168000	22.1	9.000	L1	9.6	32.9	55.1
0.174000	25.9	9.000	L1	9.6	28.8	54.8
0.178000	28.3	9.000	L1	9.6	26.2	54.6
4.870000	25.0	9.000	L1	9.9	21.0	46.0
5.028000	25.6	9.000	L1	9.9	24.4	50.0
5.072000	25.9	9.000	L1	9.9	24.1	50.0
5.084000	25.7	9.000	L1	9.9	24.3	50.0
5.132000	25.7	9.000	L1	9.9	24.3	50.0
5.150000	25.9	9.000	L1	9.9	24.1	50.0
20.252000	28.7	9.000	L1	10.4	21.3	50.0
20.418000	28.3	9.000	L1	10.4	21.7	50.0
20.446000	28.2	9.000	L1	10.4	21.8	50.0
20.622000	27.6	9.000	L1	10.4	22.4	50.0
20.708000	27.2	9.000	L1	10.4	22.8	50.0
21.020000	26.9	9.000	L1	10.4	23.1	50.0

**Figure 2: Spectral Diagrams, Conducted Emission, Line (N)**

FCC CLASS B





QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.164000	41.3	9.000	N	9.6	23.9	65.3
0.182000	45.0	9.000	N	9.6	19.4	64.4
0.308000	35.6	9.000	N	9.7	24.4	60.0
0.314000	34.0	9.000	N	9.7	25.9	59.9
0.344000	34.7	9.000	N	9.7	24.4	59.1
0.354000	34.7	9.000	N	9.7	24.2	58.9
5.002000	40.5	9.000	N	9.9	19.5	60.0
5.014000	40.4	9.000	N	9.9	19.6	60.0
5.082000	40.4	9.000	N	9.9	19.6	60.0
5.220000	40.2	9.000	N	9.9	19.8	60.0
5.258000	40.4	9.000	N	9.9	19.6	60.0
5.268000	40.6	9.000	N	9.9	19.4	60.0
20.192000	50.3	9.000	N	10.3	9.7	60.0
20.500000	49.9	9.000	N	10.3	10.1	60.0
20.998000	48.4	9.000	N	10.3	11.6	60.0
21.038000	48.1	9.000	N	10.3	11.9	60.0
21.116000	47.7	9.000	N	10.4	12.3	60.0
21.318000	47.2	9.000	N	10.4	12.8	60.0



CAverage Final Result, Line (N)

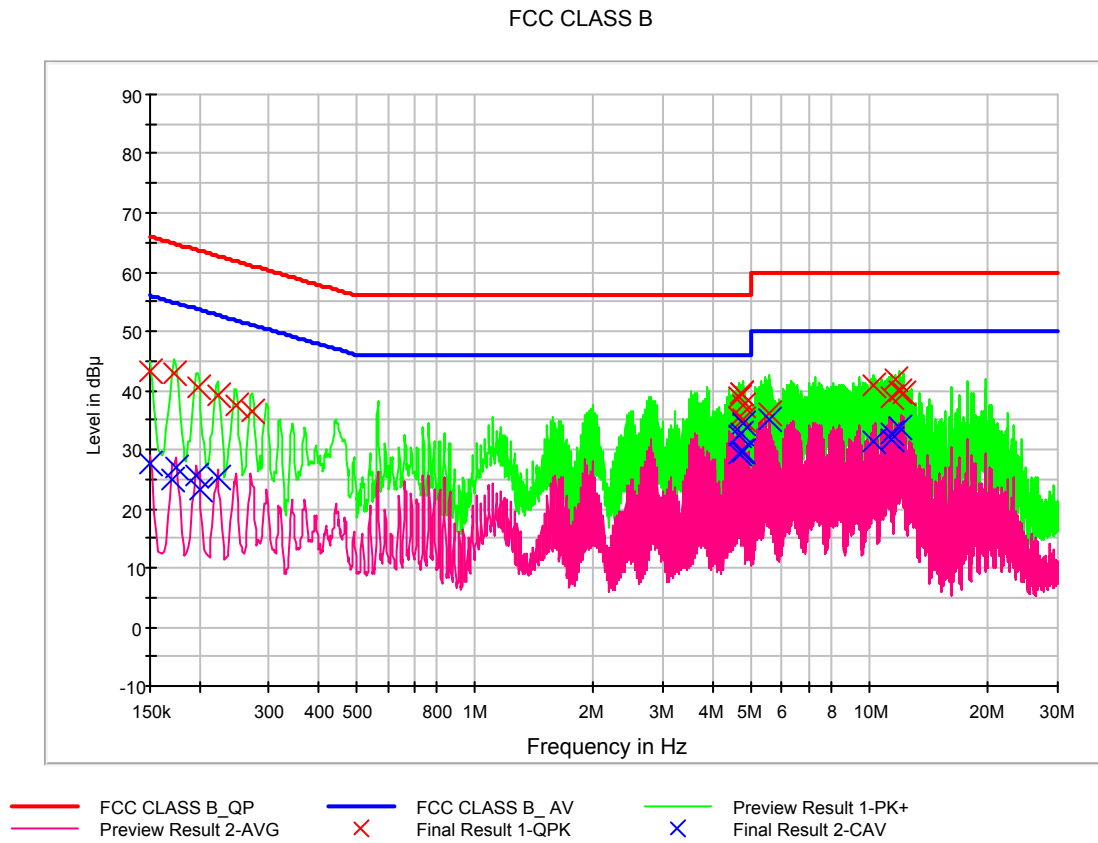
Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.152000	16.7	9.000	N	9.6	39.2	55.9
0.156000	19.0	9.000	N	9.6	36.7	55.7
0.160000	18.5	9.000	N	9.6	37.0	55.5
0.170000	21.7	9.000	N	9.6	33.3	55.0
0.174000	24.6	9.000	N	9.6	30.2	54.8
0.178000	27.0	9.000	N	9.6	27.6	54.6
4.744000	25.3	9.000	N	9.9	20.7	46.0
4.784000	25.5	9.000	N	9.9	20.5	46.0
4.956000	25.8	9.000	N	9.9	20.2	46.0
4.960000	26.0	9.000	N	9.9	20.0	46.0
5.002000	26.1	9.000	N	9.9	23.9	50.0
5.140000	26.3	9.000	N	9.9	23.7	50.0
19.650000	28.7	9.000	N	10.3	21.3	50.0
20.018000	29.1	9.000	N	10.3	20.9	50.0
20.192000	28.9	9.000	N	10.3	21.1	50.0
21.016000	27.4	9.000	N	10.3	22.6	50.0
21.116000	27.5	9.000	N	10.4	22.5	50.0
21.164000	27.3	9.000	N	10.4	22.7	50.0



Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Quasi-Peak, CISPR-Average
Bandwidth	9 kHz (6 dB)
Operation Mode	MODE 2: LAN & Charging & Memory Read and Write (External SD Card to Internal), Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on mode
Kind of Test Site	Shielded Room
Temperature	25.1 °C
Relative Humidity	38.6 %
Test Date	May 25, 2017

- 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 3: Spectral Diagrams, Conducted Emission, Line (L1)**



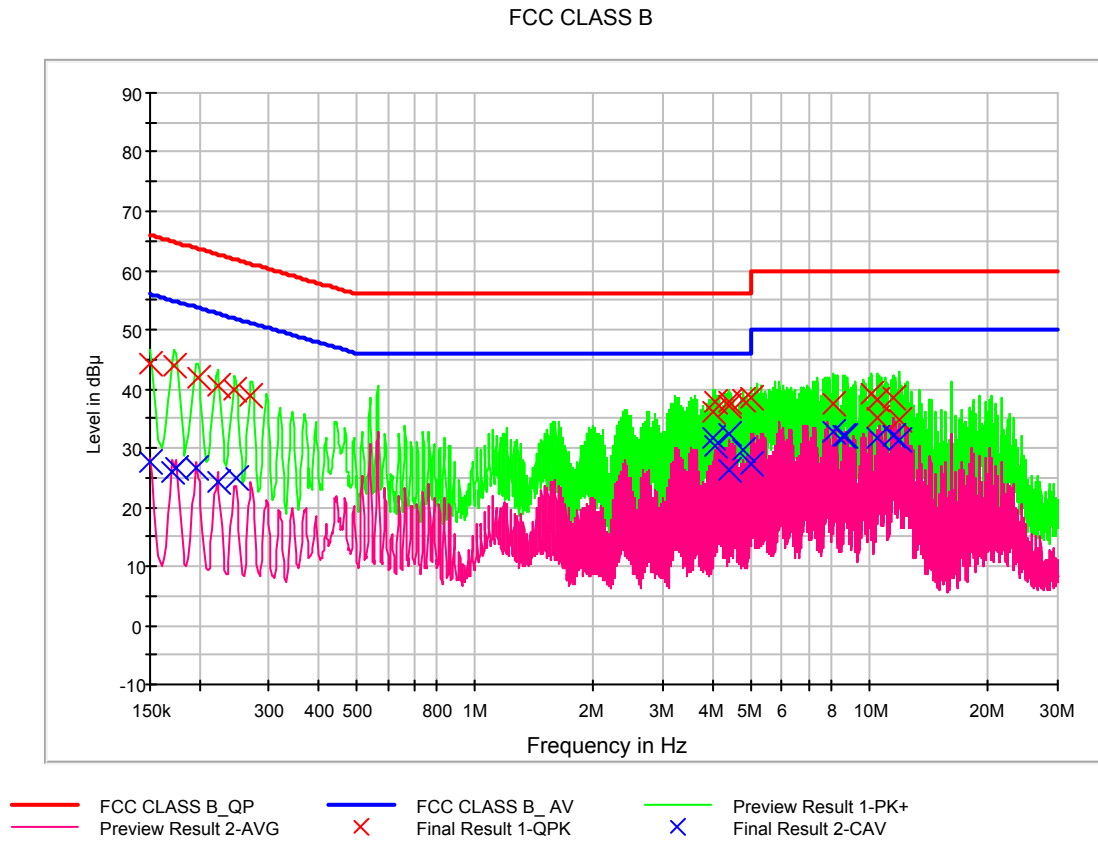
QuasiPeak Final Result, Line (L1)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	43.1	9.000	L1	9.6	22.9	66.0
0.172000	42.7	9.000	L1	9.6	22.1	64.9
0.198000	40.6	9.000	L1	9.6	23.1	63.7
0.222000	39.3	9.000	L1	9.6	23.5	62.7
0.248000	37.6	9.000	L1	9.6	24.2	61.8
0.272000	36.5	9.000	L1	9.7	24.5	61.1
4.656000	38.7	9.000	L1	9.9	17.3	56.0
4.680000	35.6	9.000	L1	9.9	20.4	56.0
4.704000	39.7	9.000	L1	9.9	16.3	56.0
4.752000	39.4	9.000	L1	9.9	16.6	56.0
4.776000	35.2	9.000	L1	9.9	20.8	56.0
4.804000	37.3	9.000	L1	9.9	18.7	56.0
5.540000	36.0	9.000	L1	9.9	24.0	60.0
10.246000	40.7	9.000	L1	10.1	19.3	60.0
11.330000	38.8	9.000	L1	10.1	21.2	60.0
11.648000	41.8	9.000	L1	10.2	18.2	60.0
11.894000	39.7	9.000	L1	10.2	20.3	60.0
12.192000	39.5	9.000	L1	10.2	20.5	60.0



CAverage Final Result, Line (L1)

Frequency (MHz)	CAverage (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	27.6	9.000	L1	9.6	28.4	56.0
0.170000	24.9	9.000	L1	9.6	30.1	55.0
0.174000	26.8	9.000	L1	9.6	28.0	54.8
0.196000	25.5	9.000	L1	9.6	28.3	53.8
0.200000	23.1	9.000	L1	9.6	30.6	53.6
0.222000	25.2	9.000	L1	9.6	27.6	52.7
4.654000	29.3	9.000	L1	9.9	16.7	46.0
4.680000	32.5	9.000	L1	9.9	13.5	46.0
4.704000	29.6	9.000	L1	9.9	16.4	46.0
4.752000	32.8	9.000	L1	9.9	13.2	46.0
4.778000	34.4	9.000	L1	9.9	11.6	46.0
4.804000	29.6	9.000	L1	9.9	16.4	46.0
5.540000	35.0	9.000	L1	9.9	15.0	50.0
10.246000	31.4	9.000	L1	10.1	18.6	50.0
11.330000	31.8	9.000	L1	10.1	18.2	50.0
11.352000	32.6	9.000	L1	10.1	17.4	50.0
11.376000	31.8	9.000	L1	10.1	18.2	50.0
11.896000	33.8	9.000	L1	10.2	16.2	50.0

**Figure 4: Spectral Diagrams, Conducted Emission, Line (N)**



QuasiPeak Final Result, Line (N)

Frequency (MHz)	QuasiPeak (dBuV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.150000	44.1	9.000	N	9.6	21.9	66.0
0.172000	44.0	9.000	N	9.6	20.9	64.9
0.198000	41.7	9.000	N	9.6	22.0	63.7
0.222000	40.6	9.000	N	9.6	22.2	62.7
0.246000	39.7	9.000	N	9.6	22.2	61.9
0.270000	38.7	9.000	N	9.6	22.4	61.1
4.014000	36.1	9.000	N	9.8	19.9	56.0
4.038000	37.9	9.000	N	9.8	18.1	56.0
4.382000	37.1	9.000	N	9.9	18.9	56.0
4.408000	37.9	9.000	N	9.9	18.1	56.0
4.778000	38.3	9.000	N	9.9	17.7	56.0
5.024000	38.3	9.000	N	9.9	21.7	60.0
8.128000	37.5	9.000	N	10.0	22.5	60.0
10.120000	39.1	9.000	N	10.1	20.9	60.0
10.466000	35.0	9.000	N	10.1	25.0	60.0
10.488000	38.1	9.000	N	10.1	21.9	60.0
11.522000	38.4	9.000	N	10.2	21.6	60.0
11.896000	34.7	9.000	N	10.2	25.3	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	28.3	56.0
0.170000	26.0	9.000	N	9.6	28.9	55.0
0.174000	26.5	9.000	N	9.6	28.3	54.8
0.196000	26.7	9.000	N	9.6	27.1	53.8
0.222000	24.1	9.000	N	9.6	28.6	52.7
0.248000	24.9	9.000	N	9.6	27.0	51.8
4.014000	31.8	9.000	N	9.8	14.2	46.0
4.038000	30.2	9.000	N	9.8	15.8	46.0
4.382000	26.3	9.000	N	9.9	19.7	46.0
4.408000	32.5	9.000	N	9.9	13.5	46.0
4.778000	29.6	9.000	N	9.9	16.4	46.0
5.024000	27.2	9.000	N	9.9	22.8	50.0
8.128000	32.8	9.000	N	10.0	17.2	50.0
8.594000	32.2	9.000	N	10.0	17.8	50.0
8.718000	31.9	9.000	N	10.1	18.1	50.0
10.466000	31.7	9.000	N	10.1	18.3	50.0
11.522000	32.1	9.000	N	10.2	17.9	50.0
11.892000	31.5	9.000	N	10.2	18.5	50.0



5.2 Radiated Emission Test

The test results of radiated emission provide the following information:

-For Measurement Below 1 GHz

Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Quasi-Peak
Bandwidth	120 kHz (6 dB)
Operation Mode	MODE 1, MODE 2, MODE 3
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.2 / 23.3 / 23.0 °C
Relative Humidity	37.2 / 37.1 / 38.0 %
Test Date	May 16, 2017 / May 29, 2017 / May 30, 2017

- 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



**MODE 1: Charging & Memory Read and Write (External SD Card to Internal), Camera on,
H pattern on, MP3 Play, WiFi, BT, GPS on Mode**

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
30.070140	34.6	142.0	V	304.0	21.7	5.4	40.0
36.442885	35.3	100.0	V	350.0	22.3	4.7	40.0
65.172345	34.7	400.0	H	158.0	22.0	5.3	40.0
65.989980	36.8	400.0	H	128.0	21.8	3.2	40.0
599.559118	32.3	100.0	H	301.0	31.2	13.7	46.0
801.723447	36.0	100.0	V	276.0	34.2	8.0	46.0

**MODE 2: DP Display & Charging & Memory Read and Write (External SD Card to Internal),
Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on Mode**

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
34.503006	25.5	100.0	V	128.0	22.1	14.5	40.0
58.198397	22.2	131.0	V	56.0	22.9	17.8	40.0
149.156312	24.9	100.0	V	147.0	23.1	18.6	43.5
233.120241	32.1	100.0	H	299.0	21.5	13.9	46.0
243.324649	30.2	202.0	V	204.0	22.0	15.8	46.0
298.158317	26.8	150.0	V	269.0	23.9	19.2	46.0

**MODE 3: LAN & Charging & Memory Read and Write (External SD Card to Internal), Camera on,
H pattern on, MP3 Play, WiFi, BT, GPS on Mode**

Frequency (MHz)	Quasi Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
38.170341	32.8	100.0	V	204.0	22.5	7.2	40.0
64.775551	33.7	100.0	V	188.0	22.0	6.3	40.0
499.973948	36.8	100.0	H	157.0	28.9	9.2	46.0
599.941884	34.0	219.0	V	127.0	31.3	12.0	46.0
773.505010	35.6	100.0	H	246.0	33.7	10.4	46.0
922.102204	39.8	100.0	H	223.0	35.4	6.2	46.0



-For Measurement Above 1 GHz

Rule Part / Standard	FCC PART 15 Subpart B Class B
Detector	Peak mode: Peak (RBW: 1 MHz, VBW: 3 MHz) CISPR-Average mode: Peak (RBW: 1 MHz, VBW: 10 Hz)
Highest Operating Frequency	5 825 MHz
Upper Frequency of Measurement Range	1 GHz to 29.125 GHz
Operation Mode	MODE 1, MODE 2, MODE 3
Kind of Test Site	3 m semi anechoic chamber
Temperature	23.2 / 23.1 / 23.3 / 23.0 °C
Relative Humidity	37.2 / 39.1 / 37.1 / 38.0 %
Test Date	May 16, 2017 / May 26, 2017 / May 29, 2017 / May 30, 2017

- 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



**MODE 1: Charging & Memory Read and Write (External SD Card to Internal), Camera on,
H pattern on, MP3 Play, WiFi, BT, GPS on Mode**

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1231.212425	33.6	367.7	V	237.0	-13.3	40.4	74.0
1470.290581	33.6	100.0	H	312.0	-12.6	40.4	74.0
3026.002004	35.8	100.0	H	134.0	-8.1	38.2	74.0
3307.665331	36.2	299.9	V	326.0	-8.3	37.8	74.0
4146.042084	35.7	199.5	V	226.0	-7.1	38.3	74.0
5562.174349	40.4	100.0	V	52.0	-3.0	33.6	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1231.212425	20.6	367.7	V	237.0	-13.3	33.4	54.0
1470.290581	20.7	100.0	H	312.0	-12.6	33.3	54.0
3026.002004	23.3	100.0	H	134.0	-8.1	30.7	54.0
3307.665331	23.0	299.9	V	326.0	-8.3	31.0	54.0
4146.042084	23.3	199.5	V	226.0	-7.1	30.7	54.0
5562.174349	27.7	100.0	V	52.0	-3.0	26.3	54.0



**MODE 2: DP Display & Charging & Memory Read and Write (External SD Card to Internal),
Camera on, H pattern on, MP3 Play, WiFi, BT, GPS on Mode**

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1041.733467	51.9	100.0	V	324.0	-13.8	22.1	74.0
1500.851704	50.4	100.0	H	323.0	-12.5	23.6	74.0
2700.050101	52.1	100.0	V	350.0	-9.0	21.9	74.0
4771.392786	49.4	100.0	V	0.0	-5.2	24.6	74.0
5400.050100	46.3	100.0	H	300.0	-3.4	27.7	74.0
5930.410821	46.3	100.0	V	302.0	-2.5	27.7	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1041.733467	32.7	100.0	V	324.0	-13.8	21.3	54.0
1500.851704	36.0	100.0	H	323.0	-12.5	18.0	54.0
2700.050101	48.4	100.0	V	350.0	-9.0	5.6	54.0
4771.392786	41.3	100.0	V	0.0	-5.2	12.7	54.0
5400.050100	41.5	100.0	H	300.0	-3.4	12.5	54.0
5930.410821	30.0	100.0	V	302.0	-2.5	24.0	54.0



**MODE 3: LAN & Charging & Memory Read and Write (External SD Card to Internal), Camera on,
H pattern on, MP3 Play, WiFi, BT, GPS on Mode**

Frequency (MHz)	Peak (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1399.749499	47.7	299.8	V	12.0	-12.8	26.3	74.0
1799.949900	49.3	367.5	H	137.0	-12.3	24.7	74.0
1919.789579	49.2	100.0	H	323.0	-12.3	24.8	74.0
2045.841683	33.2	199.9	V	298.0	-12.0	40.8	74.0
2686.122245	53.7	100.0	V	50.0	-9.0	20.3	74.0
4989.929860	43.5	100.0	H	48.0	-4.8	30.5	74.0

Frequency (MHz)	CAverage (dBμV/m)	Antenna Height (cm)	POL. (H/V)	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
1399.749499	44.8	299.8	V	12.0	-12.8	9.2	54.0
1799.949900	37.6	367.5	H	137.0	-12.3	16.4	54.0
1919.789579	44.1	100.0	H	323.0	-12.3	9.9	54.0
2045.841683	21.1	199.9	V	298.0	-12.0	32.9	54.0
2686.122245	41.4	100.0	V	50.0	-9.0	12.6	54.0
4989.929860	28.3	100.0	H	48.0	-4.8	25.7	54.0



6. 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>					
☒ EMI Test Receiver	Rohde & Schwarz	ESCI	100033	1 year	06.29.2016
☒ LISN	Rohde & Schwarz	ENV216	100073	1 year	12.23.2016
☒ LISN	Rohde & Schwarz	ESH3-Z5	100282	1 year	05.22.2017
☒ Software	Rohde & Schwarz	EMC32	-	-	-
<u>Radiated Emission</u>					
-For measurement below 1 GHz					
☒ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	11.04.2016
☐ EMI Test Receiver	Rohde & Schwarz	ESU40	100514	1 year	10.10.2016
☒ Trilog Antenna	Schwarzbeck	VULB9168	760	2 year	04.06.2017
☒ Antenna master	HD GmbH	MA240	240/520	N/A	-
☒ Antenna master controller	HD GmbH	HD 100	100/637	N/A	-
☒ Turn Table	EMCO	1060-2M	-	N/A	-
☒ Turn Table controller	EMCO	2090	9702-1224	N/A	-
☐ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	05.16.2017
☐ Antenna master	INNCO Systems	MA4000-EP	MA4000/283	N/A	-
☐ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☒ Software	Rohde & Schwarz	EMC32	-	-	-
-For measurement above 1 GHz					
☒ EMI Test Receiver	Rohde & Schwarz	ESI40	831564103	1 year	11.04.2016
☐ EMI Test Receiver	Rohde & Schwarz	ESU40	100514	1 year	10.10.2016
☐ Antenna master	HD GmbH	MA240	240/520	N/A	-
☐ Antenna master controller	HD GmbH	HD 100	100/637	N/A	-
☒ Antenna master	INNCO Systems	MA4000-XP-ET	48709515	N/A	-
☒ Antenna master controller	INNCO Systems	CO 3000	CO 3000/870/ 35990515	N/A	-
☒ Turn Table	EMCO	1060-2M	-	N/A	-
☒ Turn Table controller	EMCO	2090	9702-1224	N/A	-
☐ Power Amplifier	CERNEX	CBLU1183540	21691	1 year	07.04.2016
☒ Power Amplifier	CERNEX	CBLU5183530	24348	1 year	06.01.2017
☒ Horn Antenna	Schwarzbeck	BBHA 9120D	296	2 year	10.12.2016
☒ Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170541	2 year	09.03.2015
☒ Power Amplifier	CERNEX	CBL18265035	21873	1 year	01.19.2017
☒ Power Amplifier	CERNEX	CBL26405040	19660	1 year	07.15.2016
☐ Horn Antenna	Schwarzbeck	BBHA 9120D	1300	2 year	08.25.2016
☐ EMI Test Receiver	Rohde & Schwarz	ESU 26	100241	1 year	05.16.2017
☐ Turn Table	INNCO Systems	DT3000-3T	DT3000/69	N/A	-
☒ Software	Rohde & Schwarz	EMC32	-	-	-



7. CONCLUSION

The data collected shows that the **EUT Type: Tablet, Model: SM-W627Y, FCC ID: A3LSMW627Y** complies with §15.107 and §15.109 of the FCC rules.