

TEST REPORT

Applicant: AOC

Address of Applicant: 14F-5, No. 258, Liancheng Rd., Zhonghe Dist., New Taipei City 23511, Taiwan

Manufacturer: AOC

Address of Manufacturer: 14F-5, No. 258, Liancheng Rd., Zhonghe Dist., New Taipei City 23511, Taiwan

Equipment Under Test (EUT)

Product Name: Tablet PC

Model No.: A941

Trade Mark: AOC

FCC ID: 2AEB5-A941

Applicable standards: FCC CFR Title 47 Part 15 Subpart B

Date of sample receipt: March 19, 2018

Date of Test: March 20, 2018-April 08, 2018

Date of report issued: April 08, 2018

Test Result : PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Lo

Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	April 08, 2018	Original

Prepared by:

Tiger Chen

Date:

April 08, 2018

Project Engineer

Reviewed by:

Andy Wu

Date:

April 08, 2018

Reviewer

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4 Test Summary

Test Item	Test Requirement	Test Method	Class / Severity	Result
Conducted Emission	FCC Part15.107	ANSI C63.4	Class B	PASS
Radiated Emissions #	FCC Part15.109	ANSI C63.4	Class B	PASS

Remark:

1. Pass: The EUT complies with the essential requirements in the standard.
2. # Refer to FCC Part 15.33 (b)(1) conditional testing procedure :

The highest frequency generated or used in the EUT	Test frequency range of Radiated emission
<108MHz	30MHz ~ 1GHz
108MHz ~ 500MHz	30MHz ~ 2GHz
500MHz ~ 1GHz	30MHz ~ 5GHz
>1GHz	30MHz ~ 5th harmonic of the highest frequency or 40 GHz, whichever is lower.

The highest frequency of the internal sources of the EUT is more than 108MHz.

5 General Information

5.1 General Description of EUT

Product Name:	Tablet PC
Model No.:	A941
Serial No.:	2000377596056
Test sample(s) ID:	GTS201803000219-1
Sample(s) Status	Normal sample
Hardware:	TH900-BT-V4.0
Software:	A941-2018
Power supply:	Adapter: Model:JHD-AP013U-050200BA-A Input: AC 100-240V, 50/60Hz, 0.35A Output: DC 5V, 2000mA Or Battery: DC 3.7V, 4000mAh, 14.8Wh

5.2 Test mode and Test voltage

Test mode:	
TF card playing mode	Keep the EUT in TF card playing status
PC mode	Keep the EUT in data exchange with PC mode
REC mode	Keep the EUT in video record mode
Test voltage	
AC 120V	

5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
Lenovo	Notebook PC	E40	N/A
DELL	KEYBOARD	SK-8115	N/A
DELL	MOUSE	N/A	N/A

5.4 Deviation from Standards

None.

5.5 Abnormalities from Standard Conditions

None.

5.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **FCC —Registration No.: 381383**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383, Jan. 08, 2018.

- **Industry Canada (IC) —Registration No.: 9079A-2**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, August 15, 2016

5.7 Test Location

The test was performed at:

Global United Technology Services Co., Ltd.

Address: No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

6 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.0(L)*6.0(W)* 6.0(H)	GTS250	July. 03 2015	July. 02 2020
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	ESU EMI Test Receiver	R&S	ESU26	GTS203	June.28 2017	June.27 2018
4	BiConiLog Antenna	SCHWARZBECK	VULB9163	GTS214	June.28 2017	June.27 2018
5	Double-ridged horn antenna	SCHWARZBECK	9120D	GTS208	June.28 2017	June.27 2018
6	Horn Antenna	ETS-LINDGREN	3160-09	GTS218	June.28 2017	June.27 2018
7	RF Amplifier	HP	8347A	GTS204	June.28 2017	June.27 2018
8	Broadband Preamplifier	SCHWARZBECK	BBV9718	GTS535	June.28 2017	June.27 2018
9	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
10	Coaxial Cable	GTS	N/A	GTS211	June.28 2017	June.27 2018
11	Coaxial Cable	GTS	N/A	GTS210	June.28 2017	June.27 2018
12	Coaxial Cable	GTS	N/A	GTS212	June.28 2017	June.27 2018
13	Thermo meter	N/A	N/A	GTS256	June.28 2017	June.27 2018

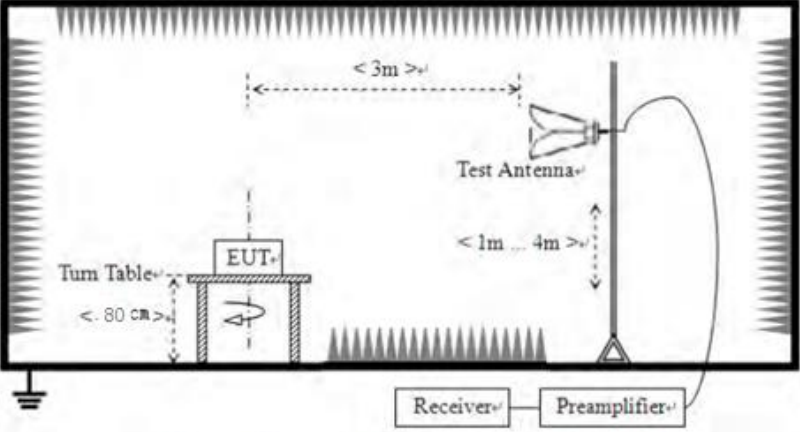
Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.16 2014	May.15 2019
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June.28 2017	June.27 2018
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June.28 2017	June.27 2018
4	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June.28 2017	June.27 2018
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	KTJ	TA328	GTS233	June.28 2017	June.27 2018

General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
1	Barometer	ChangChun	DYM3	GTS257	June.28 2017	June.27 2018

7 Test Results and Measurement Data

7.1 Radiated Emission

Test Requirement:	FCC Part15 B Section 15.109				
Test Method:	ANSI C63.4:2014				
Test Frequency Range:	30MHz to 25GHz				
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
Peak		1MHz	10Hz	Average Value	
Limit:	Frequency	Limit (dBuV/m @3m)		Remark	
	30MHz-88MHz	40.00		Quasi-peak Value	
	88MHz-216MHz	43.50		Quasi-peak Value	
	216MHz-960MHz	46.00		Quasi-peak Value	
	960MHz-1GHz	54.00		Quasi-peak Value	
	Above 1GHz	54.00		Average Value	
74.00		Peak Value			
Test setup:	Below 1GHz				
Test setup:	Above 1GHz				

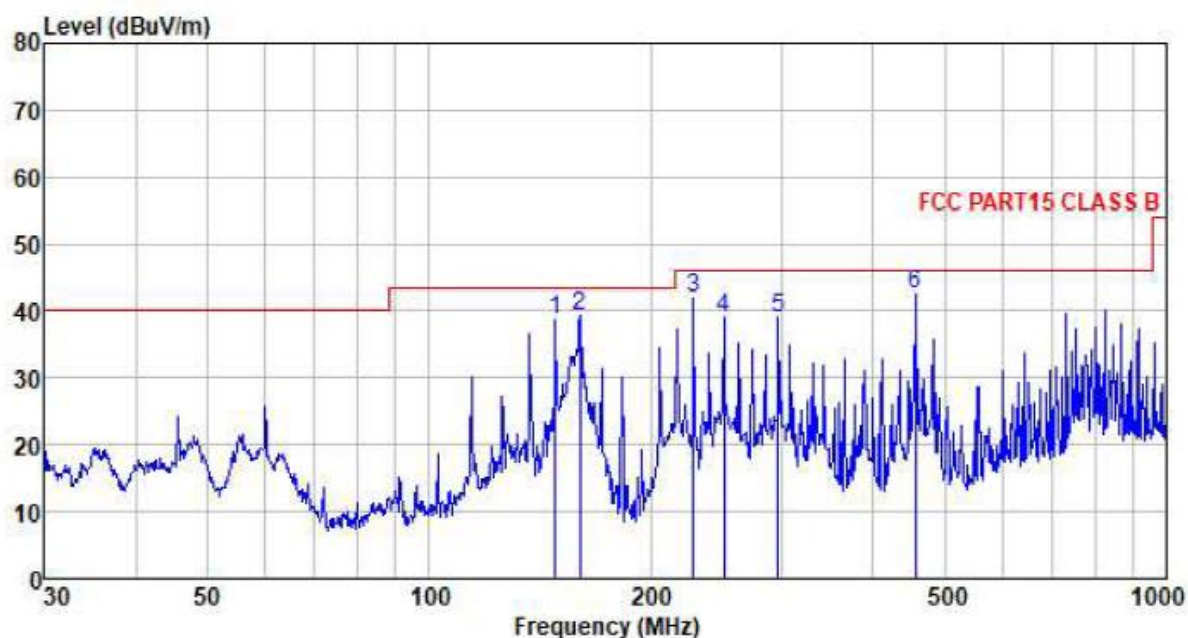
	
<p>Test Procedure:</p>	<ol style="list-style-type: none"> 1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters 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. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
<p>Test environment:</p>	<p>Temp.: 25 °C Humid.: 52% Press.: 1 012mbar</p>
<p>Measurement Record:</p>	<p>Uncertainty: ± 4.50dB</p>
<p>Test Instruments:</p>	<p>Refer to section 6 for details</p>
<p>Test mode:</p>	<p>Refer to section 5.2 for details. Only show the worst case.</p>
<p>Test results:</p>	<p>Pass</p>

Note: Only report worse case from 30MHz to 6GHz

Measurement Data

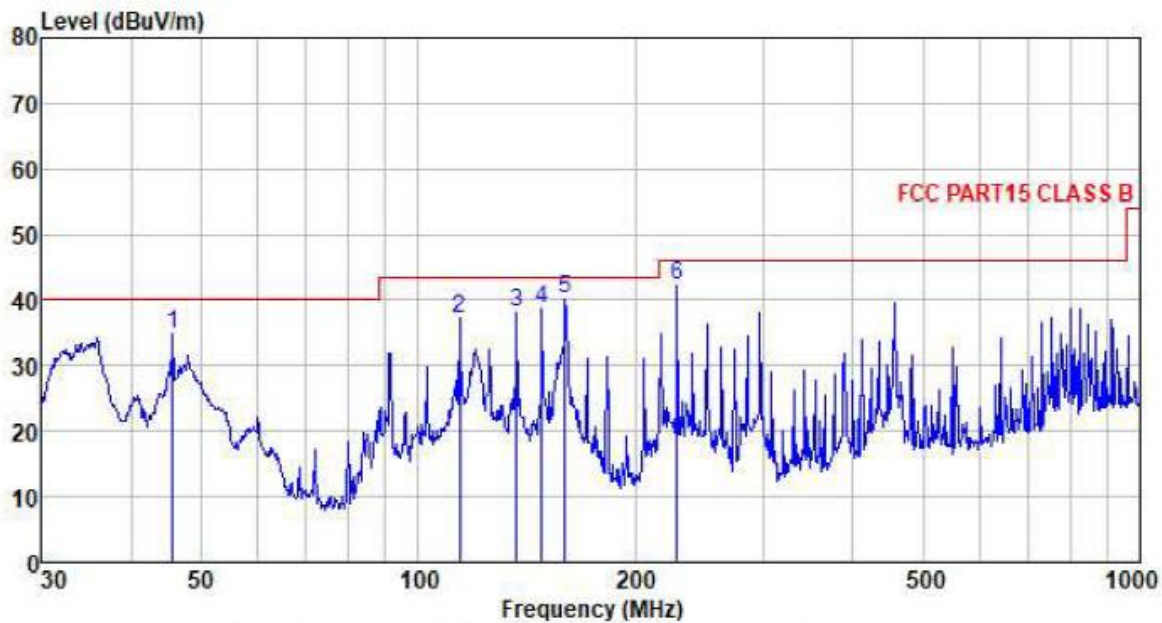
Below 1GHz

Test mode:	PC mode	Antenna Polarity:	Horizontal
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
148.441	66.52	7.57	1.56	37.07	38.58	43.50	-4.92	QP
160.346	66.35	8.31	1.63	37.14	39.15	43.50	-4.35	QP
228.490	65.71	11.45	2.01	37.36	41.81	46.00	-4.19	QP
251.180	61.96	12.18	2.13	37.38	38.89	46.00	-7.11	QP
297.224	60.65	13.53	2.35	37.42	39.11	46.00	-6.89	QP
455.906	60.47	16.48	3.11	37.51	42.55	46.00	-3.45	QP

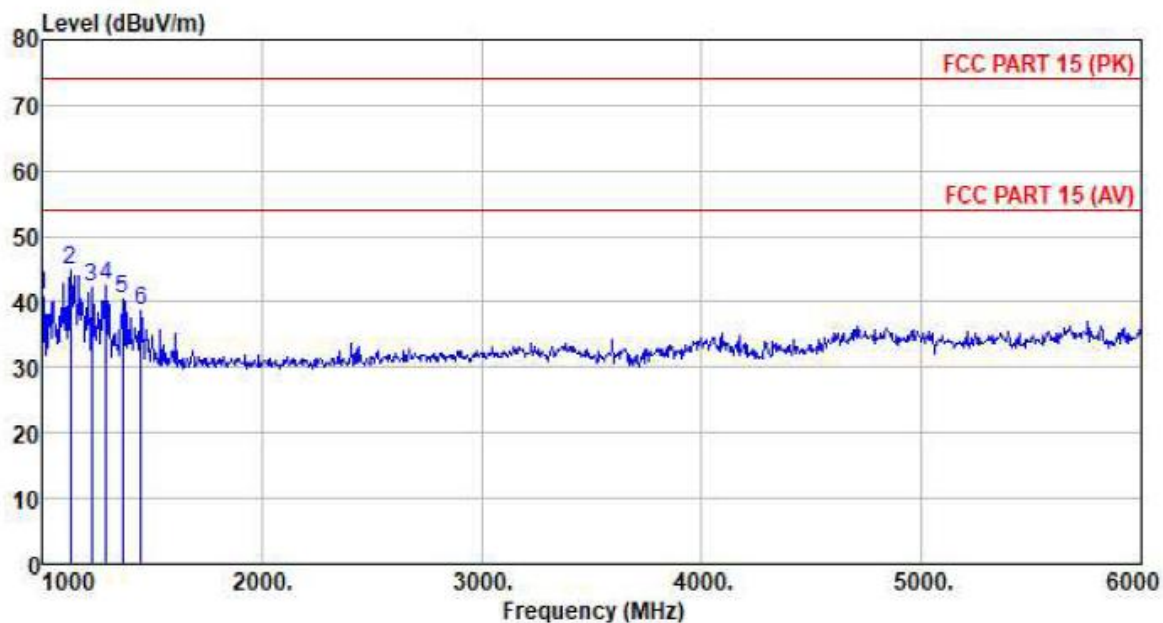
Test mode:	PC mode	Antenna Polarity:	Vertical
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
45.695	57.74	12.26	0.73	35.97	34.76	40.00	-5.24	QP
114.114	62.30	10.43	1.31	36.84	37.20	43.50	-6.30	QP
136.939	66.00	7.64	1.48	37.00	38.12	43.50	-5.38	QP
148.441	66.49	7.57	1.56	37.07	38.55	43.50	-4.95	QP
159.784	67.23	8.30	1.63	37.13	40.03	43.50	-3.47	QP
228.490	66.24	11.45	2.01	37.36	42.34	46.00	-3.66	QP

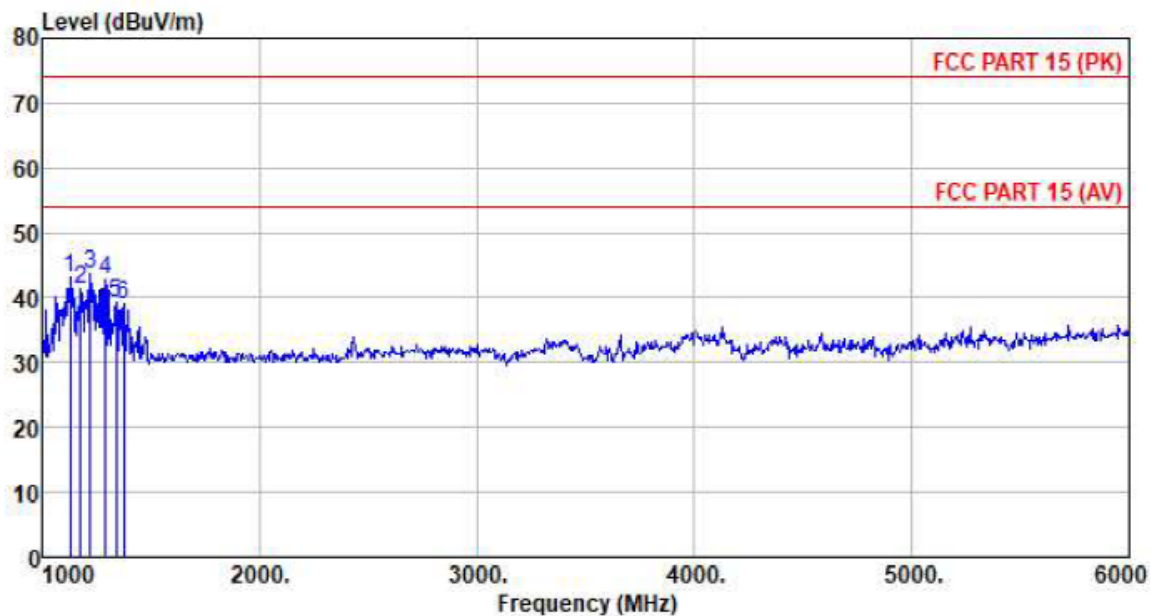
Above 1GHz

Test mode:	PC mode	Antenna Polarity:	Horizontal
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	PK level dBuV	Limit level dBuV/m	Over limit dB	Remark
1000.000	47.99	24.40	4.29	35.70	40.98	54.00	-13.02	
1130.000	51.49	24.67	4.41	35.84	44.73	54.00	-9.27	
1225.000	48.67	24.85	4.49	35.93	42.08	54.00	-11.92	
1290.000	48.97	24.97	4.54	35.99	42.49	54.00	-11.51	
1365.000	46.87	25.09	4.59	36.06	40.49	54.00	-13.51	
1450.000	45.05	25.23	4.65	36.13	38.80	54.00	-15.20	

Test mode:	PC mode	Antenna Polarity:	Vertical
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Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	PK level dBuV	Limit level dBuV/m	Over limit dB	Remark
1130.000	49.93	24.67	4.41	35.84	43.17	54.00	-10.83	
1180.000	48.14	24.77	4.45	35.89	41.47	54.00	-12.53	
1220.000	50.22	24.84	4.48	35.93	43.61	54.00	-10.39	
1290.000	49.15	24.97	4.54	35.99	42.67	54.00	-11.33	
1340.000	45.56	25.05	4.57	36.04	39.14	54.00	-14.86	
1375.000	45.32	25.11	4.60	36.07	38.96	54.00	-15.04	

Note:

The field strength is calculated by adding the Antenna Factor, Cable Factor & Pre-amplifier. The basic equation with a sample calculation is as follows:

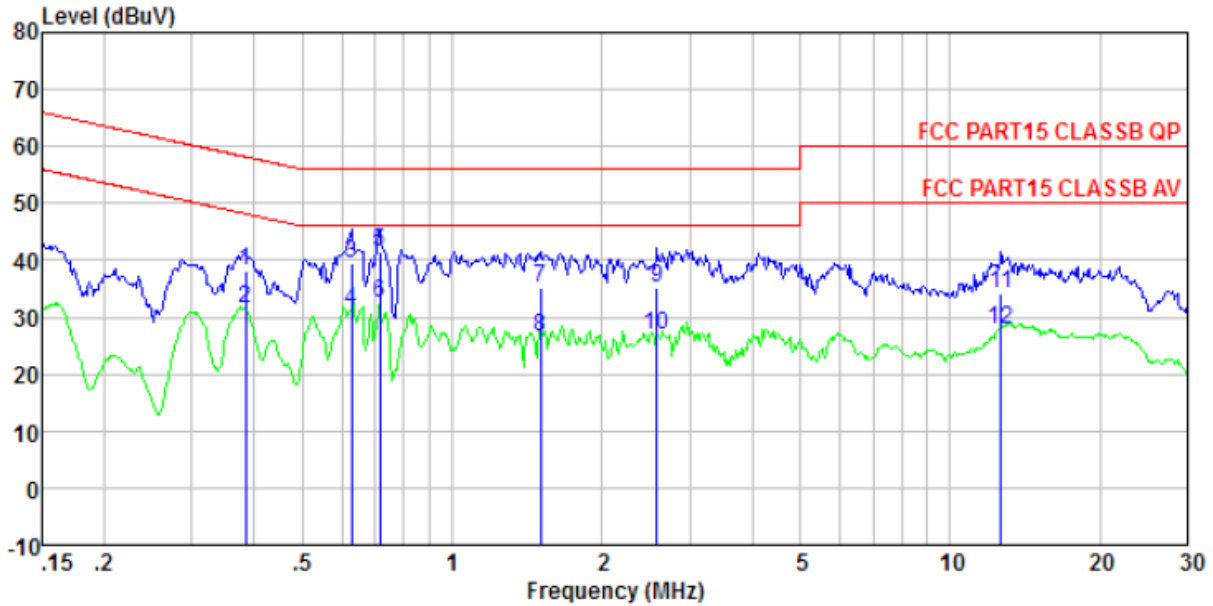
$$\text{Final Test Level} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Factor} - \text{Pre-amplifier Factor}$$

7.2 Conducted Emissions

Test Requirement:	FCC Part15 B Section 15.107														
Test Method:	ANSI C63.4:2014														
Test Frequency Range:	150kHz to 30MHz														
Class / Severity:	Class B														
Receiver setup:	RBW=9kHz, VBW=30kHz														
Limit:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBμV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td>0.15-0.5</td> <td>66 to 56*</td> <td>56 to 46*</td> </tr> <tr> <td>0.5-5</td> <td>56</td> <td>46</td> </tr> <tr> <td>0.5-30</td> <td>60</td> <td>50</td> </tr> </tbody> </table>	Frequency range (MHz)	Limit (dB μ V)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	0.5-30	60	50
Frequency range (MHz)	Limit (dB μ V)														
	Quasi-peak	Average													
0.15-0.5	66 to 56*	56 to 46*													
0.5-5	56	46													
0.5-30	60	50													
Test setup:	<p><i>Remark</i> <i>E.U.T: Equipment Under Test</i> <i>LISN: Line Impedance Stabilization Network</i> <i>Test table height=0.8m</i></p>														
Test procedure	<ol style="list-style-type: none"> 1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement. 														
Test environment:	Temp.: 25 °C ; Humid.: 52% ; Press.: 1 012mbar														
Test Instruments:	Refer to section 6 for details														
Test mode:	Refer to section 5.2 for details. Only show the worst case.														
Test results:	Pass														

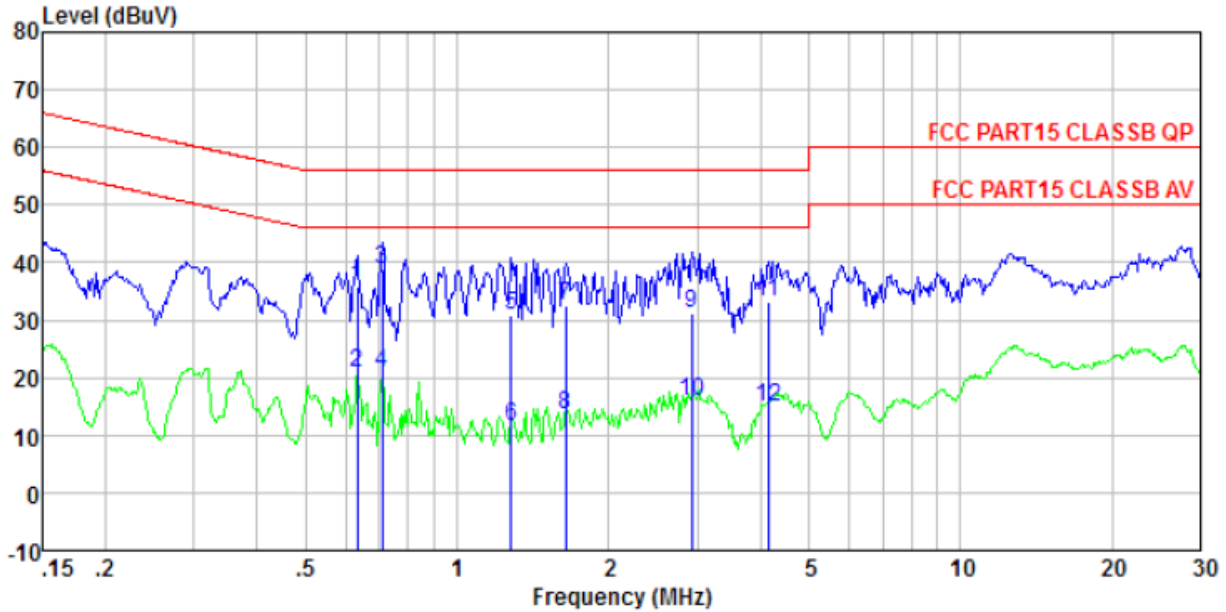
Measurement Data

Test mode:	PC mode	Phase Polarity:	Line
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Freq MHz	Reading level dBuV	IISN/ISN factor dB	Cable loss dB	level dBuV	Limit level dBuV	Over limit dB	Remark
0.385	37.71	0.36	0.10	38.17	58.17	-20.00	QP
0.385	30.96	0.36	0.10	31.42	48.17	-16.75	Average
0.627	39.15	0.28	0.12	39.55	56.00	-16.45	QP
0.627	30.74	0.28	0.12	31.14	46.00	-14.86	Average
0.716	41.05	0.26	0.13	41.44	56.00	-14.56	QP
0.716	32.21	0.26	0.13	32.60	46.00	-13.40	Average
1.503	34.91	0.20	0.16	35.27	56.00	-20.73	QP
1.503	26.29	0.20	0.16	26.65	46.00	-19.35	Average
2.581	34.83	0.20	0.18	35.21	56.00	-20.79	QP
2.581	26.41	0.20	0.18	26.79	46.00	-19.21	Average
12.649	33.73	0.20	0.21	34.14	60.00	-25.86	QP
12.649	27.34	0.20	0.21	27.75	50.00	-22.25	Average

Test mode:	PC mode	Phase Polarity:	Neutral
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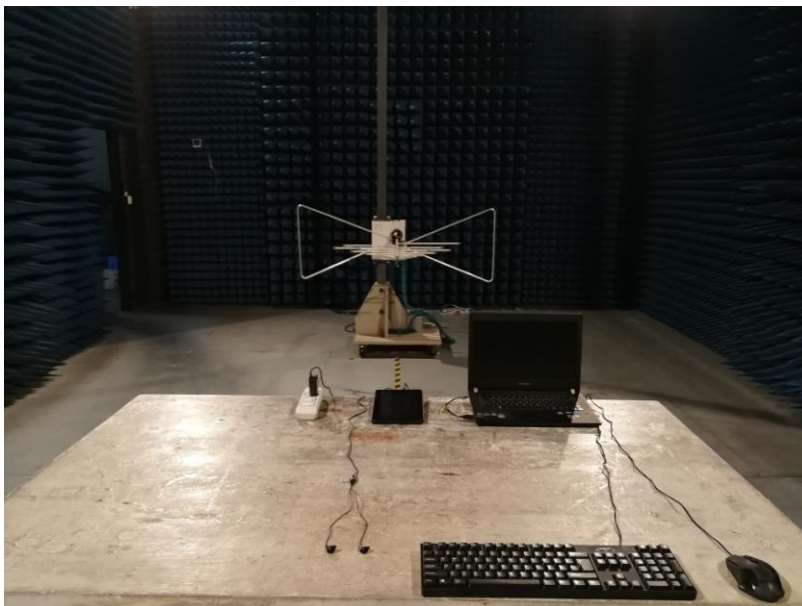
Freq MHz	Reading level dBuV	LISN/ISN factor dB	Cable loss dB	level dBuV	Limit level dBuV	Over limit dB	Remark
0.634	35.29	0.28	0.12	35.69	56.00	-20.31	QP
0.634	20.61	0.28	0.12	21.01	46.00	-24.99	Average
0.708	38.45	0.26	0.13	38.84	56.00	-17.16	QP
0.708	20.63	0.26	0.13	21.02	46.00	-24.98	Average
1.282	30.61	0.20	0.16	30.97	56.00	-25.03	QP
1.282	11.39	0.20	0.16	11.75	46.00	-34.25	Average
1.645	32.13	0.20	0.17	32.50	56.00	-23.50	QP
1.645	13.24	0.20	0.17	13.61	46.00	-32.39	Average
2.931	30.86	0.20	0.19	31.25	56.00	-24.75	QP
2.931	15.54	0.20	0.19	15.93	46.00	-30.07	Average
4.158	32.80	0.20	0.18	33.18	56.00	-22.82	QP
4.158	14.66	0.20	0.18	15.04	46.00	-30.96	Average

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.

8 Test Setup Photo

Radiated Emission



Conducted Emission



9 EUT Constructional Details

Reference to the test report No. : GTS201803000219F01

-----End-----