TEST REPORT

Applicant:	Shenzhen Konka Mobility Co.,Ltd
Address of Applicant:	NO.7 Shantou Street, Overseas Chinese Town, Nanshan District, Shenzhen, China
Manufacturer:	Shenzhen Scope Corporation Limited
Address of Manufacturer:	12-13F, Block C2, Nanshan Zhiyuan, No 1001, Xueyuan Road, Nanshan District, Shenzhen, China
Factory:	Youke Digital Technology(Hui zhou)Co.,Ltd
Address of Factory:	Queens Village,Zhelong Town, Huiyang District,Huizhou City, China

Equipment Under Test (EUT)

Product Name:	Notebook
Model No.:	N119A, N119X, N118X, N116X, N109X, N108X, N106X, N139X, N159X(X=A-Z,Xonly indicate the different client modeland color)
FCC ID:	2AQYRSCOK1
Applicable standards:	FCC CFR Title 47 Part 15 Subpart B
Date of sample receipt:	July 16, 2018
Date of Test:	July 16, 2018-August 07, 2018
Date of report issued:	August 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	*August 08, 2018*	*Original*

Prepared By: Bill. Yuan ***Date:*** *August 08, 2018*

Project Engineer

Check By: Andy. wu ***Date:*** *August 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.*

5 General Information

5.1 General Description of EUT

Product Name:	Notebook
Model No.:	N119A, N119X, N118X, N116X, N109X, N108X, N106X, N139X, N159X(X=A-Z,Xonly indicate the different client modeland color)
Test Model No:	N119A
Remark: All above models are identical in the same PCB layout, interior structure and electrical circuits. The differences are color and model name for commercial purpose.	
Serial No.:	NP116-000001
Test sample(s) ID:	GTS201808000042-2
Sample(s) Status	Normal sample
Hardware version:	INET-X116J-REV10 SMTBOMV01
Software version:	OS: Windows 10 HOME 64bit V1803（OS Build 17134.191） BIOS:M07x.WX116J.NLNASIL01
Power supply:	Adapter : Model:JHD-AP036U-120250AA-A Input: AC100-240V, 50/60Hz, 1.2A Output: DC 12V, 2500mA Battery: Model: HW-4580140 2P DC 7.6V, 6500mAh

5.2 Test mode and Test voltage

Test mode description:	
Mode 1	Camera(By Adapter Charging)
Mode 2	Audio Play(By Adapter Charging)
Mode 3	Video Play(By Adapter Charging)
Mode 4	USB Mode(By Adapter Charging)
Mode 5	TF card Mode(By Adapter Charging)
Mode 6	HDMI Mode(By Adapter Charging)
Mode 7	GPS Mode(By Adapter Charging)
Mode 8	Burning Test Mode (By Adapter Charging)
Test voltage	
AC120V 60Hz & DC 7.6V	

5.3 Description of Support Units

Manufacturer	Description	Model	Serial Number
DELL	KEYBOARD	SK-8115	GTS237-2
DELL	MOUSE	MOC5UO	GTS237-3
SanDisk	TF card	16GB	N/A
PHILIPS	LCD monitor	19PFL3120/T3	AU1A1212002906
CHANG TAI	HDMI cable	E81280-D	N/A
SanDisk	USB disk	16GB	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, January 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	9.2(L)*6.2(W)* 6.4(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	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 27 2018	June. 26 2019
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 27 2018	June. 26 2019
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June. 27 2018	June. 26 2019
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 27 2018	June. 26 2019
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 27 2018	June. 26 2019
9	Coaxial Cable	GTS	N/A	GTS211	June. 27 2018	June. 26 2019
10	Coaxial cable	GTS	N/A	GTS210	June. 27 2018	June. 26 2019
11	Coaxial Cable	GTS	N/A	GTS212	June. 27 2018	June. 26 2019
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 27 2018	June. 26 2019
13	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	June. 27 2018	June. 26 2019
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 27 2018	June. 26 2019
15	Band filter	Amindeon	82346	GTS219	June. 27 2018	June. 26 2019
16	Power Meter	Anritsu	ML2495A	GTS540	June. 27 2018	June. 26 2019
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 27 2018	June. 26 2019
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS588	June. 27 2018	June. 26 2019
19	Splitter	Agilent	11636B	GTS237	June. 27 2018	June. 26 2019
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	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. 27 2018	June. 26 2019
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 27 2018	June. 26 2019
4	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June. 27 2018	June. 26 2019
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. 27 2018	June. 26 2019
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	June. 27 2018	June. 26 2019

General used equipment:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	Humidity/ Temperature Indicator	Shanghai	ZJ1-2B	GTS243	June. 27 2018	June. 26 2019
2	Barometer	ChangChun	DYM3	GTS255	June. 27 2018	June. 26 2019

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 40GHz
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)

Receiver setup:

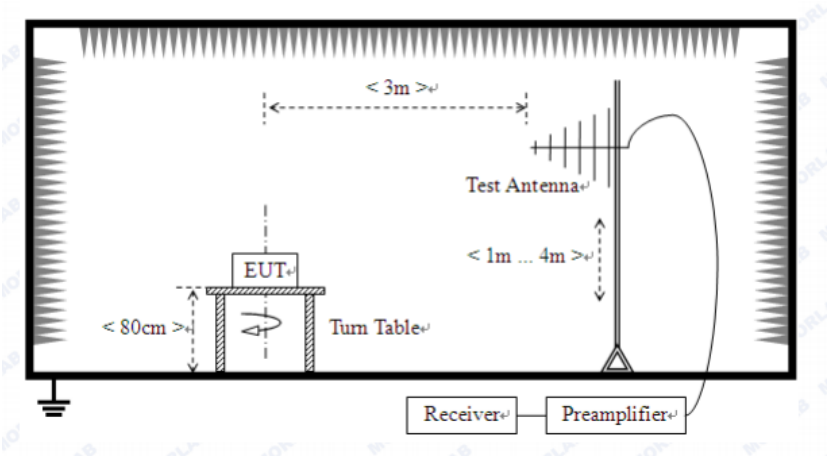
Frequency	Detector	RBW	VBW	Remark
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	Peak	1MHz	10Hz	Average Value

Limit:

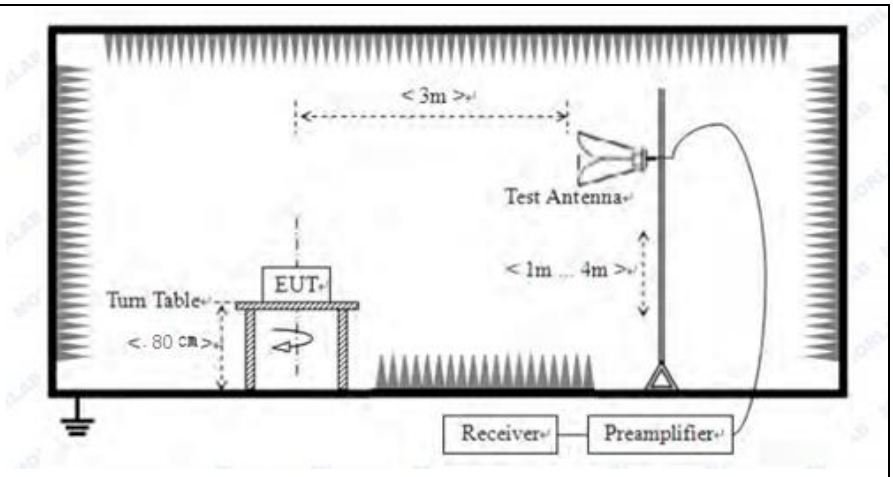
Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.00	Quasi-peak Value
88MHz-216MHz	43.50	Quasi-peak Value
216MHz-960MHz	46.00	Quasi-peak Value
960MHz-1GHz	54.00	Quasi-peak Value
Above 1GHz	54.00	Average Value
	74.00	Peak Value

Test setup:

For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz

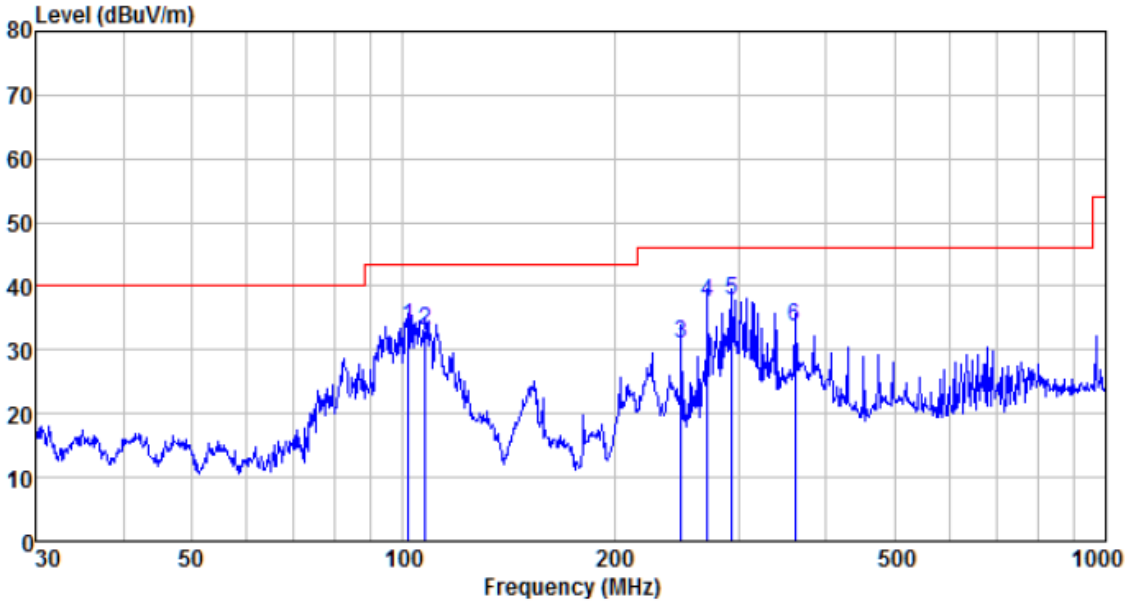
	
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was 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.
Test environment:	Temp.: 25 °C | Humid.: 52% | Press.: 1 012mbar
Measurement Record:	Uncertainty: ± 4.50dB
Test Instruments:	Refer to section 6 for details
Test mode:	Refer to section 5.2 for details.
Test results:	Pass

Remark: Both high and low voltages have been tested to show only the worst low voltage test data.

Measurement Data

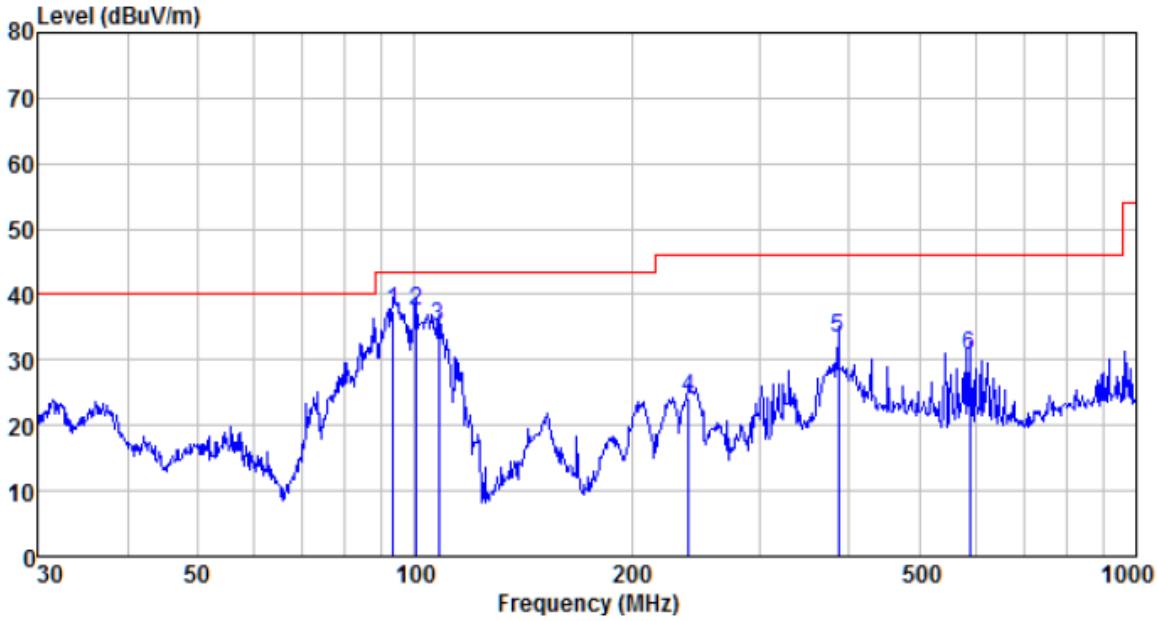
Below 1GHz

Test mode:	Burning test mode	Antenna Polarity:	Horizontal
Temp.:	35℃	Humidity.	54%



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
101.644	57.22	11.99	1.21	36.73	33.69	43.50	-9.81	QP
107.510	57.27	11.36	1.26	36.78	33.11	43.50	-10.39	QP
248.552	54.13	12.11	2.12	37.38	30.98	46.00	-15.02	QP
271.325	59.86	12.80	2.23	37.40	37.49	46.00	-8.51	QP
294.114	59.34	13.45	2.33	37.42	37.70	46.00	-8.30	QP
361.714	53.82	14.72	2.68	37.49	33.73	46.00	-12.27	QP

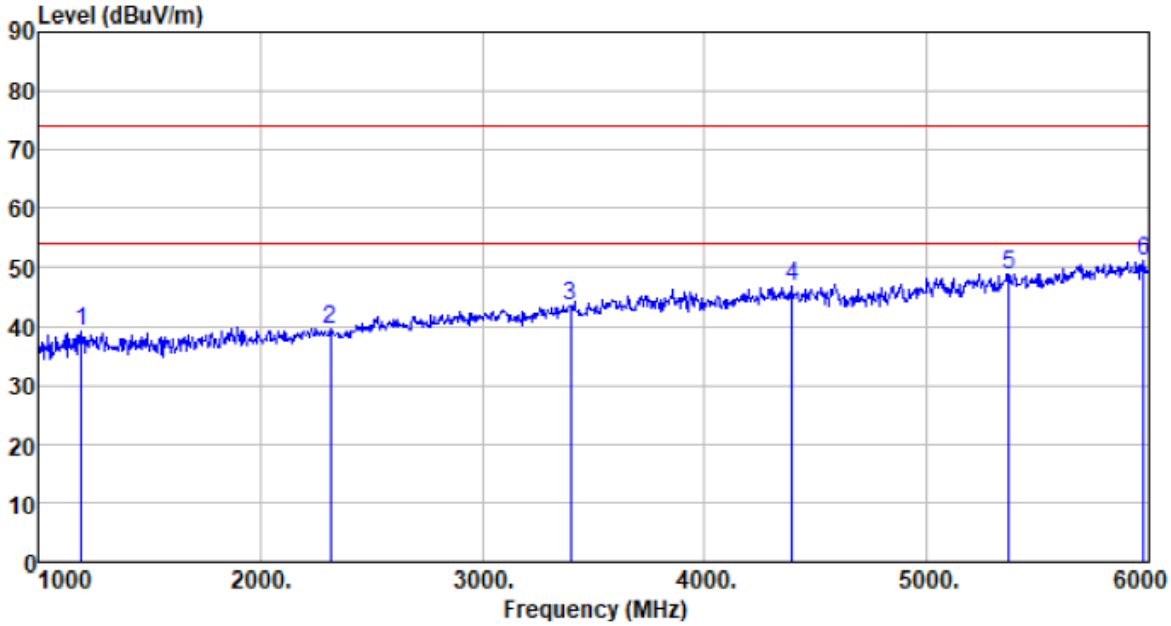
Test mode:	Burning test mode	Antenna Polarity:	Vertical
Temp.:	35℃	Humidity.	54%



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
93.440	61.75	11.25	1.14	36.67	37.47	43.50	-6.03	QP
100.581	60.82	12.10	1.19	36.73	37.38	43.50	-6.12	QP
107.888	59.26	11.31	1.26	36.79	35.04	43.50	-8.46	QP
239.987	47.63	11.85	2.07	37.37	24.18	46.00	-21.82	QP
386.634	52.86	15.11	2.79	37.51	33.25	46.00	-12.75	QP
586.844	45.33	19.23	3.67	37.54	30.69	46.00	-15.31	QP

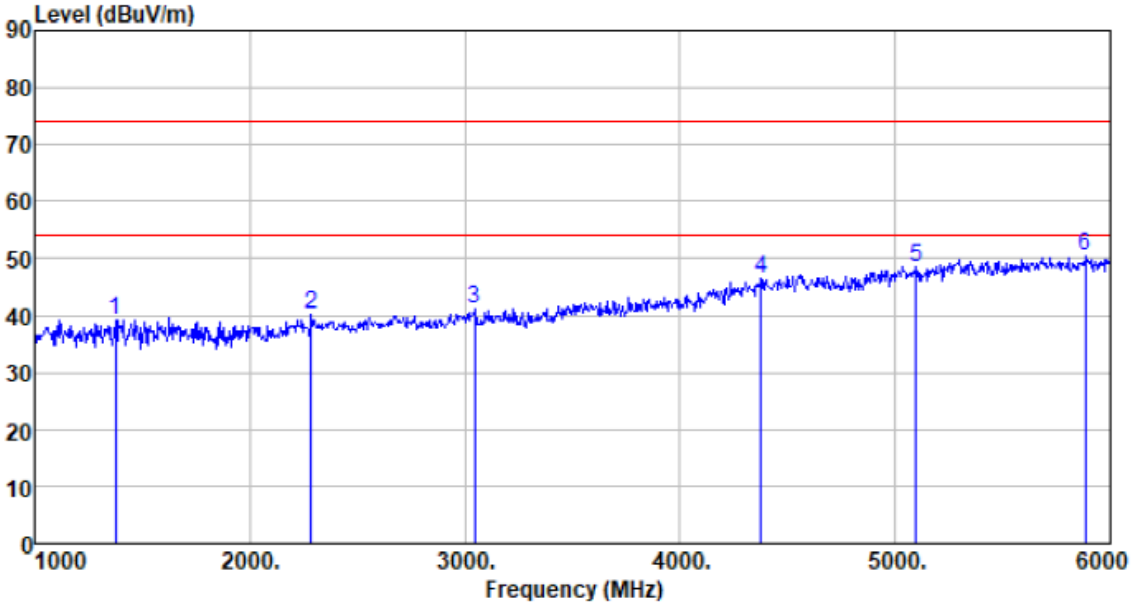
Above 1GHz

Test mode:	Burning test mode	Antenna Polarity:	Horizontal
Temp.:	35℃	Humidity.	54%



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
1195.000	42.48	25.33	4.46	33.07	39.20	74.00	-34.80	Peak
2315.000	40.48	27.88	5.30	34.11	39.55	74.00	-34.45	Peak
3395.000	41.11	28.60	6.76	32.87	43.60	74.00	-30.40	Peak
4395.000	39.38	31.05	8.24	31.89	46.78	74.00	-27.22	Peak
5370.000	40.07	31.77	9.33	32.36	48.81	74.00	-25.19	Peak
5975.000	40.42	32.86	10.15	32.14	51.29	74.00	-22.71	Peak

Test mode:	Burning test mode	Antenna Polarity:	Vertical
Temp.:	35℃	Humidity.	54%



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
1375.000	42.45	25.65	4.60	33.39	39.31	74.00	-34.69	Peak
2285.000	40.96	27.99	5.28	34.13	40.10	74.00	-33.90	Peak
3045.000	39.90	28.65	6.02	33.28	41.29	74.00	-32.71	Peak
4375.000	39.01	31.01	8.23	31.88	46.37	74.00	-27.63	Peak
5095.000	39.94	32.03	8.90	32.23	48.64	74.00	-25.36	Peak
5885.000	40.04	32.74	10.04	32.20	50.62	74.00	-23.38	Peak

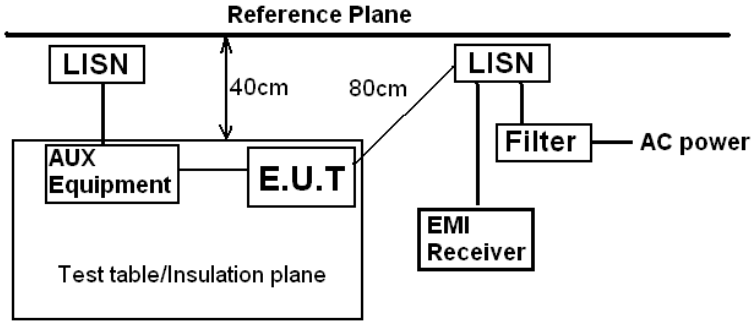
Note:
The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:
Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor

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:	

Frequency range (MHz)	Limit (dBµV)	
	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:



Remark:
E.U.T: Equipment Under Test
LISN: Line Impedence Stabilization Network
Test table height=0.8m

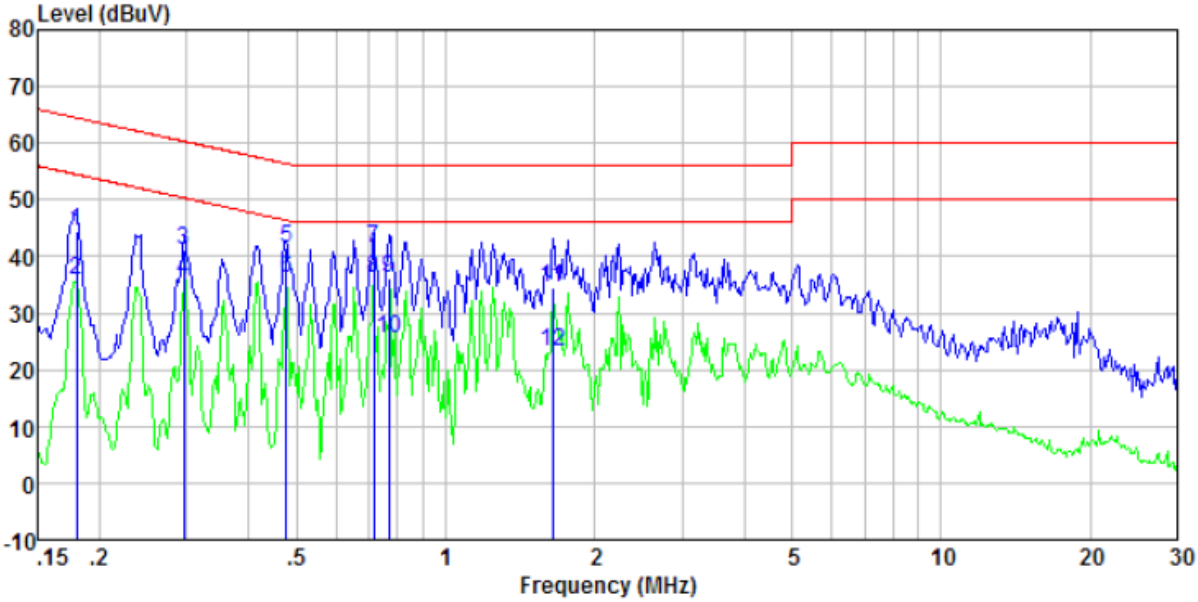
Test procedure

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.					
Test results:	Pass					

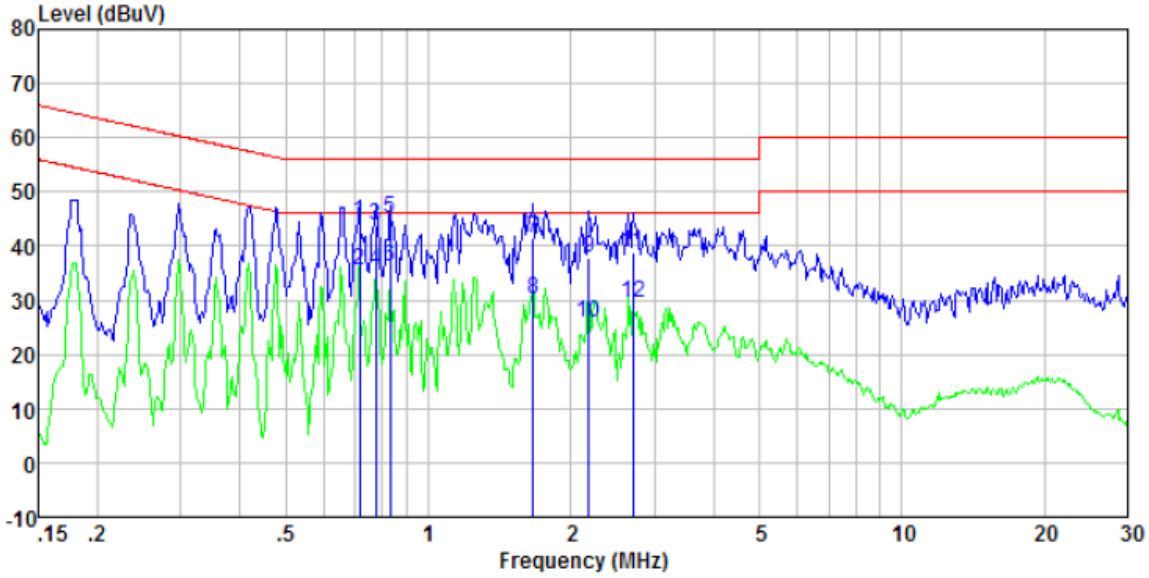
Measurement Data

Test mode:	Burning test mode	Phase Polarity:	Line
Temp.:	35℃	Humidity.	55%



Freq MHz	Reading level dBuV	LISN/ISN factor dB/m	Cable loss dB	Level dBuV	Limit level dBuV	Over limit dB	Remark
0.18	43.93	0.40	0.10	44.43	64.50	-20.07	QP
0.18	35.21	0.40	0.10	35.71	54.50	-18.79	Average
0.30	40.72	0.40	0.10	41.22	60.37	-19.15	QP
0.30	35.24	0.40	0.10	35.74	50.37	-14.63	Average
0.48	41.15	0.32	0.11	41.58	56.41	-14.83	QP
0.48	35.66	0.32	0.11	36.09	46.41	-10.32	Average
0.72	40.97	0.26	0.13	41.36	56.00	-14.64	QP
0.72	35.85	0.26	0.13	36.24	46.00	-9.76	Average
0.77	35.84	0.24	0.13	36.21	56.00	-19.79	QP
0.77	25.25	0.24	0.13	25.62	46.00	-20.38	Average
1.64	34.23	0.20	0.17	34.60	56.00	-21.40	QP
1.64	22.68	0.20	0.17	23.05	46.00	-22.95	Average

Test mode:	Burning test mode	Phase Polarity:	Neutral
Temp.:	35℃	Humidity.	55%

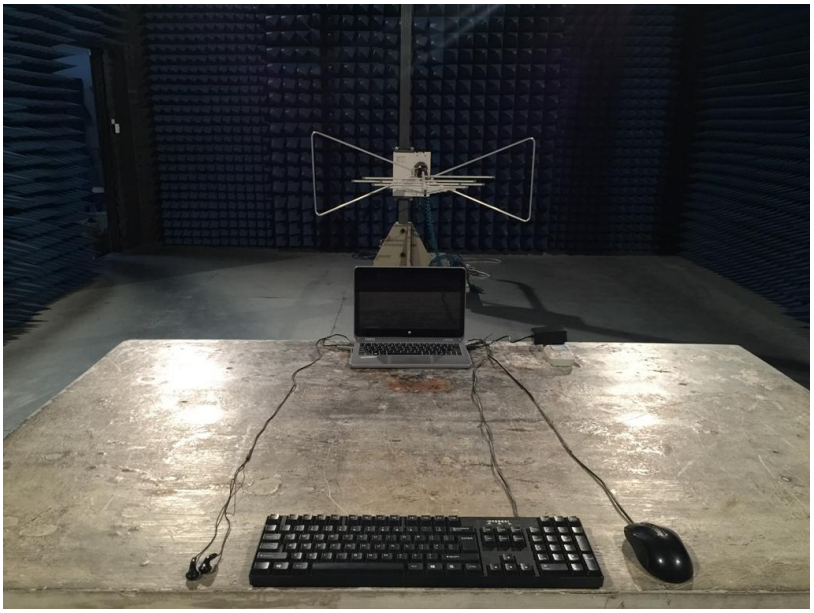


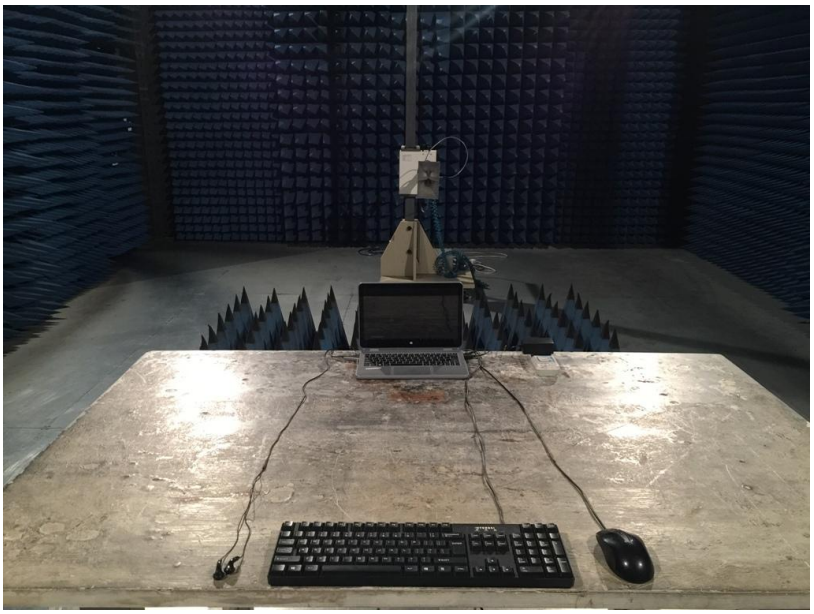
Freq MHz	Reading level dBuV	LISN/ISN factor dB/m	Cable loss dB	Level dBuV	Limit level dBuV	Over limit dB	Remark
0.72	43.92	0.26	0.13	44.31	56.00	-11.69	QP
0.72	35.11	0.26	0.13	35.50	46.00	-10.50	Average
0.78	43.27	0.24	0.14	43.65	56.00	-12.35	QP
0.78	35.02	0.24	0.14	35.40	46.00	-10.60	Average
0.83	44.70	0.23	0.14	45.07	56.00	-10.93	QP
0.83	35.66	0.23	0.14	36.03	46.00	-9.97	Average
1.66	41.04	0.20	0.17	41.41	56.00	-14.59	QP
1.66	29.72	0.20	0.17	30.09	46.00	-15.91	Average
2.18	37.44	0.20	0.18	37.82	56.00	-18.18	QP
2.18	25.39	0.20	0.18	25.77	46.00	-20.23	Average
2.71	38.34	0.20	0.19	38.73	56.00	-17.27	QP
2.71	29.27	0.20	0.19	29.66	46.00	-16.34	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. : GTS201808000042F01

------End------