



TEST REPORT

No. I21Z70396-EMC01

for

Samsung Electronics Co., Ltd.

Notebook PC

NP750TDA

with

FCC ID: ZCANP750TDA

Hardware Version: REV1.0

Software Version: Windows11-Pro

Issued Date: 2021-09-10

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21Z70396-EMC01	Rev.0	1 st edition	2021-09-10

Note: the latest revision of the test report supersedes all previous versions.

CONTENTS

1. TEST LABORATORY	4
1.1. INTRODUCTION & ACCREDITATION	4
1.2. TESTING LOCATION	4
1.3. TESTING ENVIRONMENT	4
1.4. PROJECT DATA	4
1.5. SIGNATURE	4
2. CLIENT INFORMATION	5
2.1. APPLICANT INFORMATION	5
2.2. MANUFACTURER INFORMATION	5
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	6
3.1. ABOUT EUT	6
3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	6
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	6
3.4. EUT SET-UPS	8
4. REFERENCE DOCUMENTS	9
4.1. REFERENCE DOCUMENTS FOR TESTING	9
5. LABORATORY ENVIRONMENT	10
6. SUMMARY OF TEST RESULTS	11
7. TEST EQUIPMENTS UTILIZED	12
ANNEX A: MEASUREMENT RESULTS	13
ANNEX B: PERSONS INVOLVED IN THIS TESTING	28

1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#: 24849). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

CTTL (Huayuan North Road)

Address: No. 52 Huayuan North Road, Haidian District, Beijing 100191, P.R.
China

1.3. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.4. Project data

Testing Start Date: 2021-08-10

Testing End Date: 2021-09-08

1.5. Signature



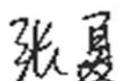
Li Yan

(Prepared this test report)



Zhang Ying

(Reviewed this test report)



Zhang Xia

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name: Samsung Electronics Co., Ltd.
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Postal Code: /
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Contact: Jenni Chun
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2.2. Manufacturer Information

Company Name: Samsung Electronics. Co., Ltd.
Address: Samsung R5, Maetan dong 129, Samsung ro
Youngtong gu, Suwon city 443 742, Korea
City: /
Postal Code: /
Country: /
Contact: Sunghoon Cho
Email: ggobi.cho@samsung.com
Telephone: +82-10-2722-4159

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description Notebook PC
Model name NP750TDA
FCC ID ZCANP750TDA

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL, Telecommunication Technology Labs, CAICT.

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI/SN	HW Version	SW Version
EUT1	2170396UT13a	REV1.0	Windows11-Pro
EUT2	2170396UT22a	REV1.0	Windows11-Pro
EUT3	2170396UT32a	REV1.0	Windows11-Pro
EUT4	2170396UT18a	REV1.0	Windows11-Pro

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN	Remarks
AE1	Travel Adapter	/	/
AE2	Battery	/	/
AE3	USB Cable	/	/
AE4	Headset	/	/
AE5	HDMI Cable	/	/
AE6	LCD Display	/	/
AE7	Hard Disk	/	/
AE8	Hard Disk	/	/
AE9	Hard Disk	/	Type-C
AE10	SD card	/	/

Note: The USB cables are shielded.

3.4. General Description

Equipment under Test (EUT) is a model of Notebook PC with integrated antenna.

It consists of normal options: lithium battery and charger.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

For more EUT information please refers to the manufacturer's specifications or user's manual.

3.5. Key component list

Item	Spec.	Vendor	Vendor P/N
CPU	Intel Tiger Lake-U 15W(I7)	Intel	Intel® Core™ i7-1165G7 Processor
	Intel Tiger Lake-U 15W(I5)	Intel	Intel® Core™ i5-1135G7 Processor
	Intel Tiger Lake-U 15W(I3)	Intel	Intel® Core™ i3-1115G4 Processor
	PDC	PDC	Intel Pentium Processor 7505
	Cel	Cel	Intel Celeron Processor 6305
GPU	DG1	Intel	AV8071004382514
WLAN	802.11 ax 2x2	Intel	AX201.D2WG.SNVW
Memory	LPDDR4X 4GB (16Gb*2)	SEC	K4U6E3S4AA-MGCR
	LPDDR4X 8GB (16Gb*4)	SEC	K4U6E3S4AA-MGCR
	LPDDR4X 16GB (32Gb*4)	SEC	K4UBE3D4AA-MGCR
SSD	128G M.2 2280 PCIe(NVMe)	SEC	MZVLQ128HCHQ-00BKN
		SSSTC	CL1-8D128
		LITEON(Calcomp)	CL1-8D128
	256G M.2 2280 PCIe(NVMe)	SEC	MZVLQ256HBJD-00BKN
		SSSTC	CL1-8D256
		WD	SDBPNPZ-256G-1004
		Calcomp	CL1-8D256
	512G M.2 2280	SEC	MZVLQ512HBLU-00BKN
		SSSTC	CL1-8D512
		WD	SDBPNPZ-512G-1004
	1TB M.2 2280 PCIe(NVMe)	SEC	MZVLQ1T0HBLB-00BKN
		WD	SDBPNPZ-1T00-1004
VRAM	GDDR6 2GB (8Gb*2)	SEC	K4Z80325BC-HC14
	LPDDR4x (32b*4)	SEC	K4U8E3S4AD-MGCL
LCD	15.6" TSP (On cell touch)	BOE	NT156FHM-TS0
Battery	54Wh	SDI (TI)	P41GCJ-02-N01 (AA-PBSN4AF)
		SDI (Renesas)	PN3533P101A (AA-PBSN4AT)
Adapter	65W Type-C TA	Dong Yang	EP-TA865
DLC	1.8M, 5A	RF Tech	EP-DP930JWE
Antenna	/	Inpaq	/
	/	Speed	/

Note: EUT1-EUT4 correspond to different key component configurations.

3.6. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT1+ AE1+AE2+AE3+AE4+AE5+AE6+AE7+AE8+AE9+AE10	EUT1+Adapter1
Set.2	EUT2+ AE1+AE2+AE3+AE4+AE5+AE6+AE7+AE8+AE9+AE10	EUT2+Adapter1
Set.3	EUT3+ AE1+AE2+AE3+AE4+AE5+AE6+AE7+AE8+AE9+AE10	EUT3+ Adapter1
Set.4	EUT4+ AE1+AE2+AE3+AE4+AE5+AE6+AE7+AE8+AE9+AE10	EUT4+Adapter1

4. Reference Documents

4.1. Documents supplied by applicant

EUT parameters are supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC 47 CFR	Radio frequency devices - Unintentional Radiators	2019
Part 15, Subpart B		
ANSI C63.4	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2014

Note: The test methods have no deviation with standards.

5. LABORATORY ENVIRONMENT

Semi-anechoic chamber SAC-1 (23 meters×17meters×10meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4 Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

Shielded room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz, >60dB; 1MHz—1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4 Ω

6. SUMMARY OF TEST RESULTS

Abbreviations used in this clause:		
Verdict Column	P	Pass
	NA	Not applicable
	F	Fail
	BR	Re-use test data from basic model report.

Items	Test Name	Clause in FCC rules	Section in this report	Verdict	Test Location
1	Radiated Emission	15.109(a)	A.1	P	CTTL(Huayuan North Road)
2	Conducted Emission	15.107(a)	A.2	P	CTTL(Huayuan North Road)

7. Test Equipments Utilized

NO.	DESCRIPTION	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESCI	100344	R&S	2022-02-23	1 year
2	LISN	ENV216	101200	R&S	2022-05-30	1 year
3	EMI Antenna	VULB 9163	9163-01223	Schwarzbeck	2022-03-22	1 year
4	EMI Antenna	3115	9614	ETS-Lindgren	2022-02-03	1 year
5	Test Receiver	ESU26	100235	Rohde & Schwarz	2022-02-23	1 year
6	Test Receiver	FSW67	103290	Rohde & Schwarz	2022-02-04	1 year

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V9.01.00	R&S
Conducted Emission	EMC32 V8.52.0	R&S

ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission

Reference

FCC: CFR Part 15.109(a).

A.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator at distances of 10 meters(for 30MHz-1GHz) and 3 meters (for above 1GHz) is tested. Tested in accordance with the procedures of ANSI C63.4 – 2014, section 8.3.

The EUT was placed on a non-conductive table and arranged in a typical configuration in accordance with ANSI C63.4-2014 and manipulated to obtain worst case emissions. The measurement antenna was placed at a distance of 3 /10 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT.

For the test setup photographs please see the test setup photos document.

A.1.2 EUT Operating Mode

The EUT exercise program was tested using the Burn-in test program for windows.

The system was configured for testing in a typical mode that a customer would normal use.

Cables were attached to each of the available I/O ports. Where applicable, peripherals were attached to the I/O cables. All the external I/O ports were exercised.

LABTM software is used to let the EUT to continuously copy data to external (Hard Disk & SD card) storage media, read and erase the data after copy action was finished. During the test, the Color Bar image with a moving element via HDMI cable display on the LCD panel; the camera was in video mode; the music was repetitively played through the headset; the WIFI and BT function was on and worked in receiver mode.

A.1.3 Measurement Limit

Frequency range (MHz)	Field strength limit (μ V/m)		
	Quasi-peak	Average	Peak
30-88	100		
88-216	150		
216-960	200		
960-1000	500		
>1000		500	5000

Note: the above limit is for 3 meters test distance. 10 meters' limit is got by converting.

Limit (10m) = limit (3m) + 20(log (3/10))

A.1.4 Test Condition

Voltage (V)	Frequency (Hz)
120	60

Frequency range (MHz)	RBW/VBW	Sweep Time (s)	Detector
30-1000	120kHz (IF Bandwidth)	5	Peak/Quasi-peak
Above 1000	1MHz/3MHz	15	Peak, Average

A.1.5 Measurement Results

A "reference path loss" is established and the A_{RPL} is the attenuation of "reference path loss". It includes the antenna factor of receive antenna and the path loss.

The measurement results are obtained as described below:

$$\text{Result} = P_{\text{Mea}} + A_{RPL} = P_{\text{Mea}} + G_A + G_{PL}$$

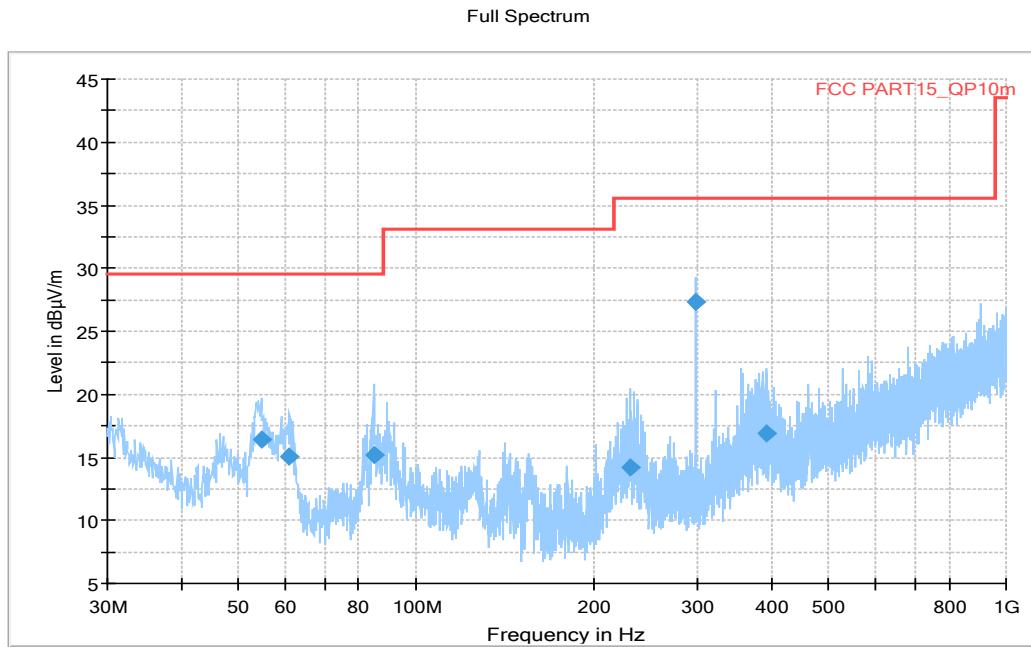
Where

G_A : Antenna factor of receive antenna

G_{PL} : Path Loss

P_{Mea} : Measurement result on receiver.

Measurement uncertainty (worst case): 30MHz-1GHz: 5.16dB, 1GHz-18GHz: 5.44dB, $k=2$.

Set.1

Figure A.1 Radiated Emission from 30MHz to 1GHz
Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
54.73500	16.41	29.50	13.13	1000.0	120.000	116.0	V	12.0
61.13700	15.05	29.50	14.49	1000.0	120.000	103.0	V	163.0
84.70800	15.24	29.50	14.30	1000.0	120.000	179.0	V	185.0
230.5960	14.21	35.60	21.35	1000.0	120.000	189.0	V	173.0
297.0410	27.34	35.60	8.22	1000.0	120.000	103.0	V	168.0
392.0040	16.94	35.60	18.62	1000.0	120.000	102.0	V	169.0

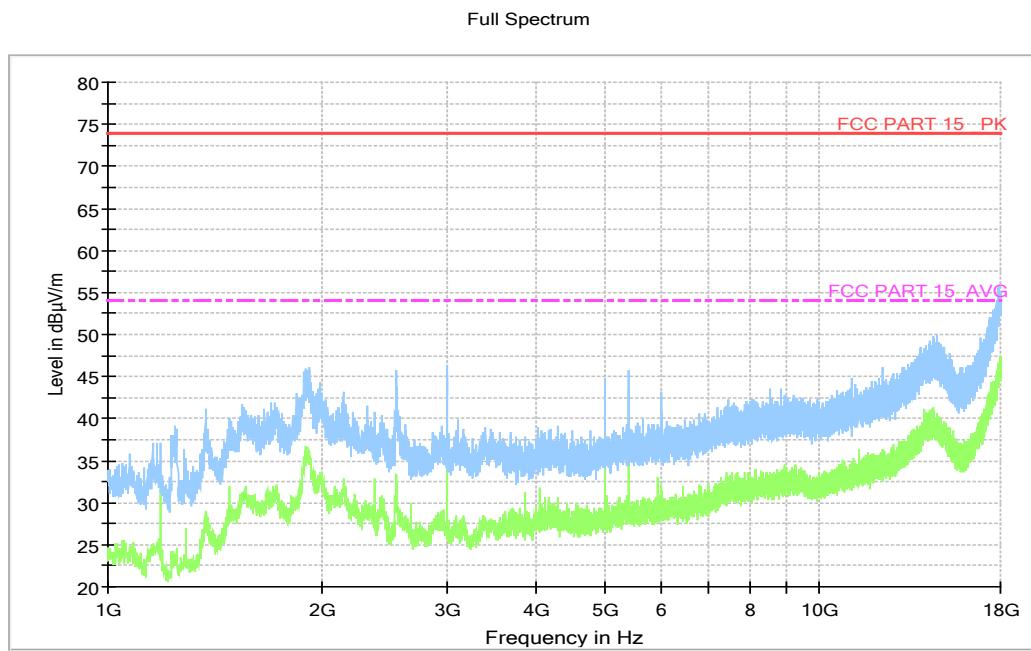


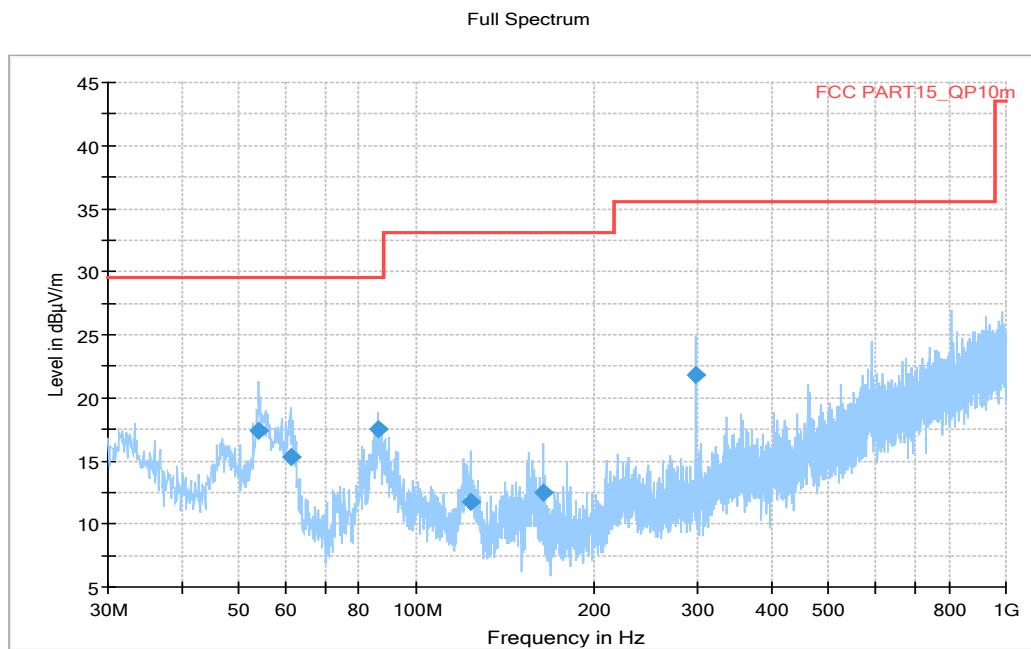
Figure A.2 Radiated Emission from 1GHz to 18GHz

Average detector result

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17948.433	47.5	-28.9	46.7	29.783	54.0	6.5	V
17991.500	47.3	-29.1	46.7	29.698	54.0	6.7	H
17997.733	46.8	-29.1	46.7	29.198	54.0	7.2	V
17983.000	46.8	-29.1	46.7	29.198	54.0	7.2	H
17960.900	46.7	-29.1	46.7	29.101	54.0	7.3	V
17994.333	46.7	-29.1	46.7	29.098	54.0	7.3	V

Peak detector result

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17874.767	55.8	-29.4	46.0	39.239	74.0	18.2	H
17903.667	55.5	-29.3	46.0	38.872	74.0	18.5	H
17940.500	55.4	-28.9	46.7	37.683	74.0	18.6	H
17902.533	55.3	-29.3	46.0	38.672	74.0	18.7	V
17990.367	55.2	-29.1	46.7	37.598	74.0	18.8	H
17989.800	55.2	-29.1	46.7	37.598	74.0	18.8	H

Set.2

Figure A.3 Radiated Emission from 30MHz to 1GHz
Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
54.05600	17.39	29.50	12.15	1000.0	120.000	325.0	V	-6.0
61.23400	15.27	29.50	14.27	1000.0	120.000	121.0	V	160.0
85.96900	17.46	29.50	12.08	1000.0	120.000	179.0	V	210.0
123.6050	11.80	33.10	21.26	1000.0	120.000	125.0	V	210.0
164.5390	12.44	33.10	20.62	1000.0	120.000	125.0	V	-30.0
296.9440	21.80	35.60	13.76	1000.0	120.000	101.0	V	171.0

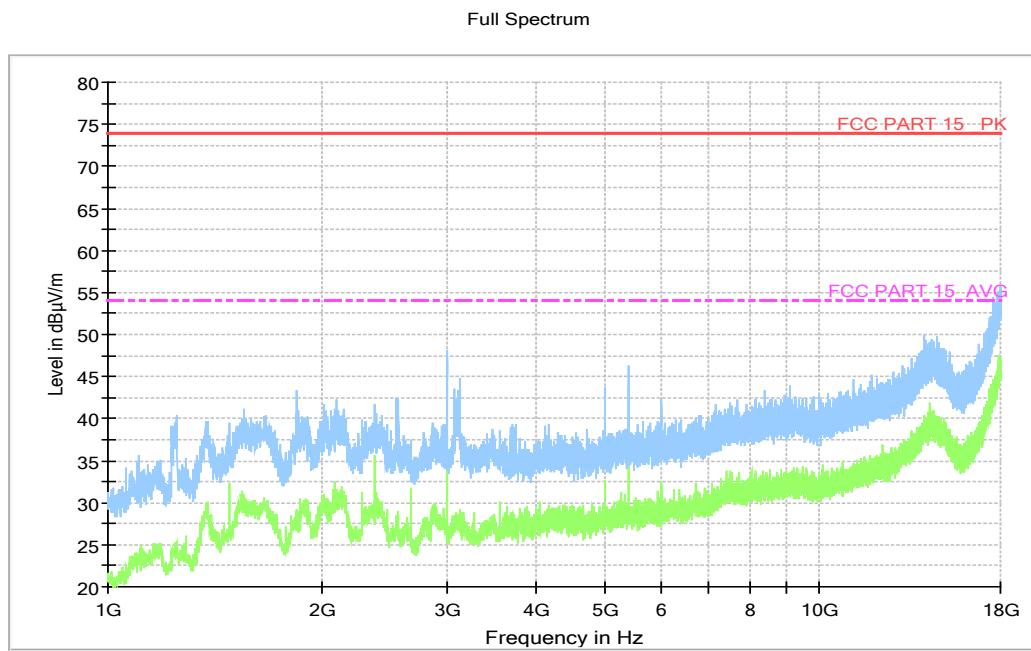


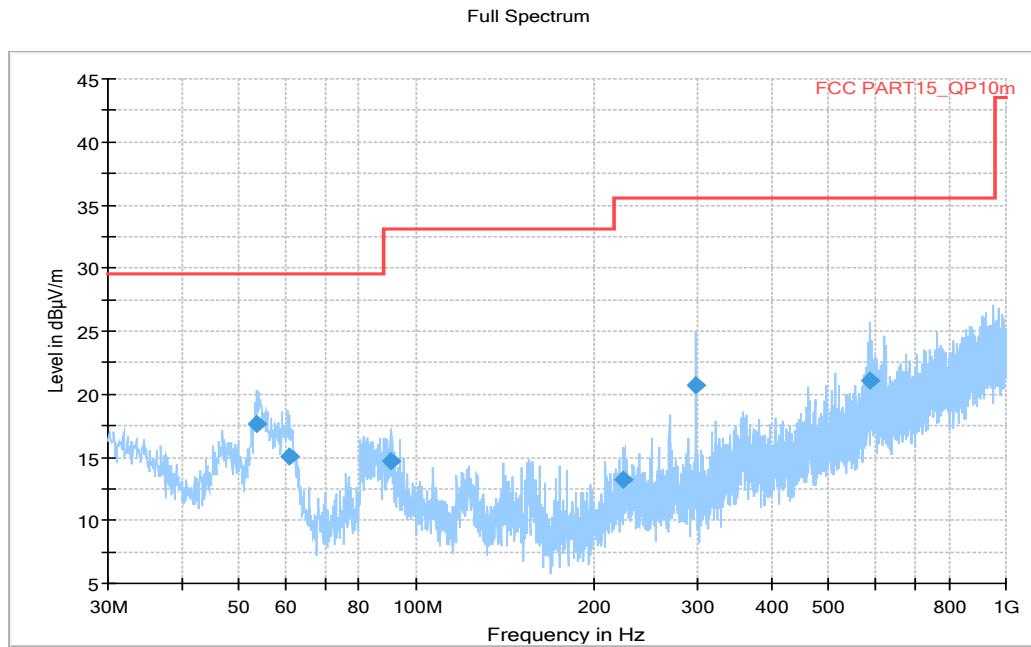
Figure A.4 Radiated Emission from 1GHz to 18GHz

Average detector result

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17944.467	47.5	-28.9	46.7	29.783	54.0	6.5	V
17996.600	47.1	-29.1	46.7	29.498	54.0	6.9	V
17924.633	46.9	-29.4	46.7	29.639	54.0	7.1	H
17962.600	46.8	-29.1	46.7	29.201	54.0	7.2	H
17998.867	46.8	-29.1	46.7	29.198	54.0	7.2	V
17979.033	46.7	-29.1	46.7	29.101	54.0	7.3	V

Peak detector result

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17972.800	55.900	-29.062	46.661	38.301	74.0	18.1	V
17990.367	55.600	-29.059	46.661	37.998	74.0	18.4	H
17920.667	55.200	-29.400	46.661	37.939	74.0	18.8	V
17941.067	55.200	-28.944	46.661	37.483	74.0	18.8	H
17921.233	54.900	-29.400	46.661	37.639	74.0	19.1	V
17983.567	54.900	-29.059	46.661	37.298	74.0	19.1	V

Set.3

Figure A.5 Radiated Emission from 30MHz to 1GHz
Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
53.66800	17.64	29.50	11.90	1000.0	120.000	125.0	V	-25.0
60.94300	15.06	29.50	14.48	1000.0	120.000	120.0	V	-1.0
90.81900	14.65	33.10	18.41	1000.0	120.000	112.0	V	300.0
224.1940	13.27	35.60	22.29	1000.0	120.000	216.0	V	300.0
296.9440	20.68	35.60	14.88	1000.0	120.000	315.0	V	83.0
586.3920	21.03	35.60	14.53	1000.0	120.000	216.0	V	190.0

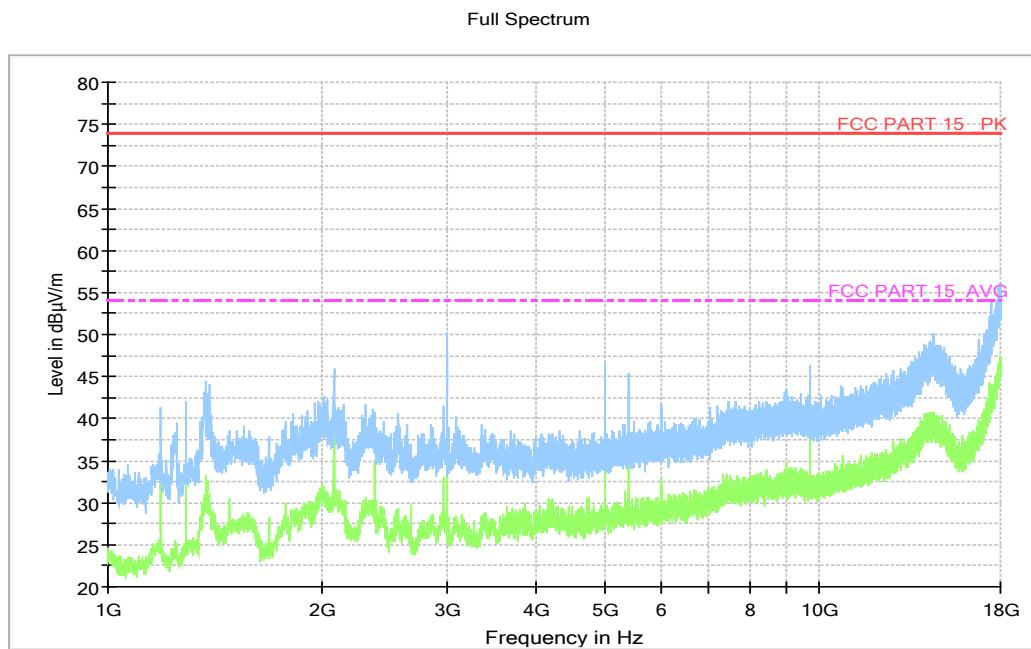


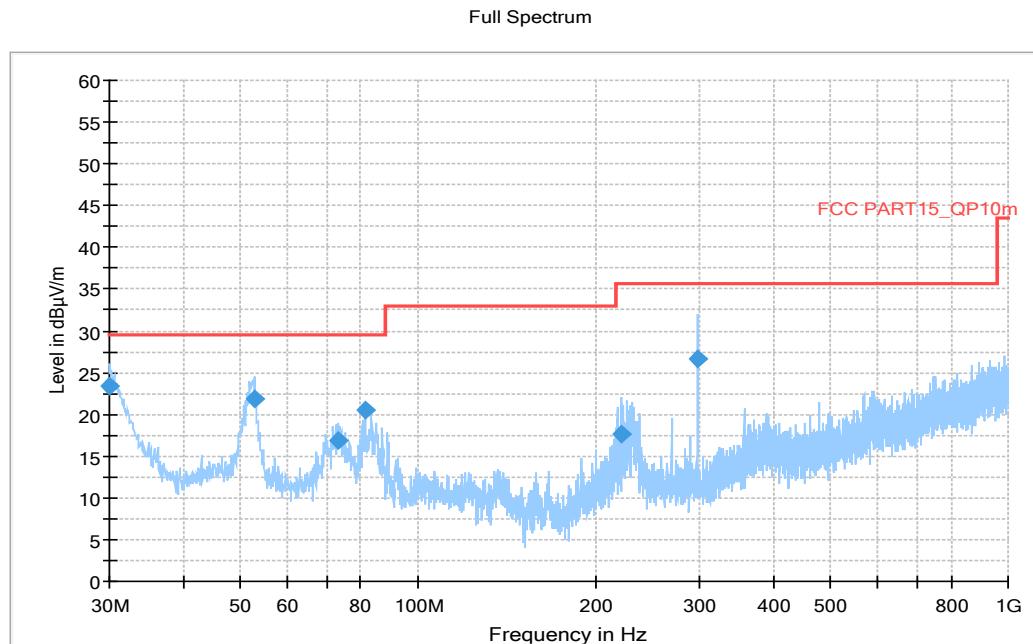
Figure A.6 Radiated Emission from 1GHz to 18GHz

Average detector result

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
18000.000	47.5	-29.2	47.0	29.743	54.0	6.5	H
17994.900	47.4	-29.1	46.7	29.798	54.0	6.6	H
17965.433	47.1	-29.1	46.7	29.501	54.0	6.9	H
17976.200	47.0	-29.1	46.7	29.401	54.0	7.0	V
17998.300	46.8	-29.1	46.7	29.198	54.0	7.2	V
17966.000	46.8	-29.1	46.7	29.201	54.0	7.2	H

Peak detector result

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17963.733	56.1	-29.1	46.7	38.501	74.0	17.9	V
17911.033	55.8	-29.3	46.0	39.172	74.0	18.2	V
17877.600	55.5	-29.4	46.0	38.939	74.0	18.5	V
17963.167	55.3	-29.1	46.7	37.701	74.0	18.7	H
17901.400	55.3	-29.3	46.0	38.672	74.0	18.7	V
17985.267	55.1	-29.1	46.7	37.498	74.0	18.9	H

Set.4

Figure A.7 Radiated Emission from 30MHz to 1GHz
Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
30.09700	23.34	29.54	6.20	1000.0	120.000	102.0	V	271.0
52.89200	21.90	29.54	7.64	1000.0	120.000	102.0	V	30.0
73.45600	16.92	29.54	12.62	1000.0	120.000	189.0	V	252.0
81.50700	20.51	29.54	9.03	1000.0	120.000	115.0	V	8.0
220.89600	17.72	35.56	17.84	1000.0	120.000	104.0	V	-16.0
296.9440	26.62	35.56	8.94	1000.0	120.000	101.0	V	30.0

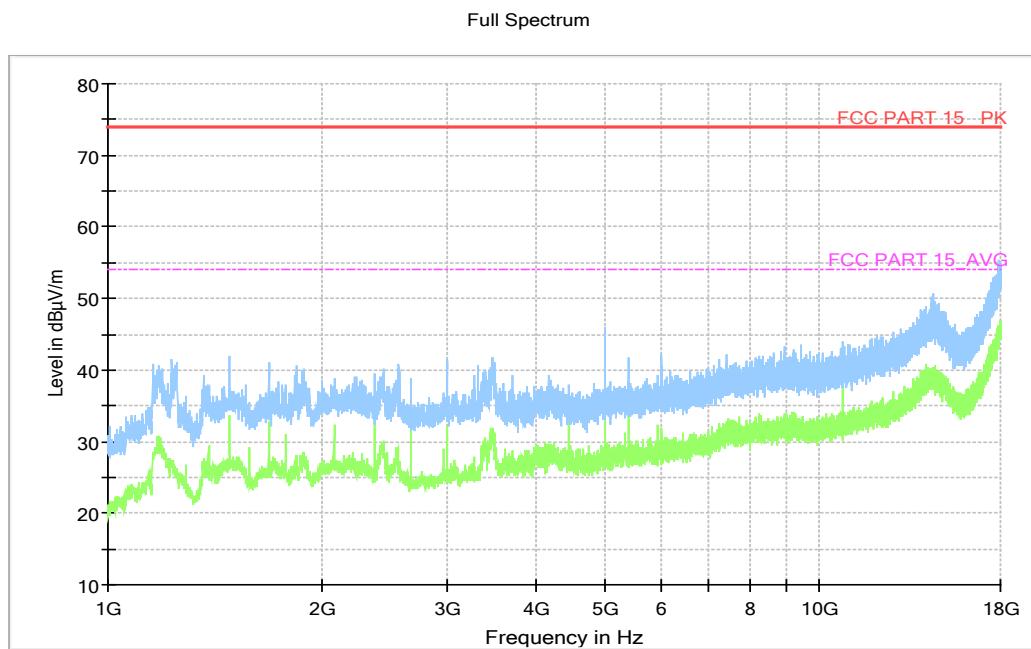


Figure A.8 Radiated Emission from 1GHz to 18GHz

Average detector result

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17994.900	46.2	-29.1	46.7	28.598	54.0	7.8	V
17888.367	46.2	-29.5	46.0	29.780	54.0	7.8	V
17990.933	46.2	-29.1	46.7	28.598	54.0	7.8	H
17993.200	46.2	-29.1	46.7	28.598	54.0	7.8	V
17944.467	46.1	-28.9	46.7	28.383	54.0	7.9	H
17927.467	46.0	-29.4	46.7	28.739	54.0	8.0	H

Peak detector result

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17901.400	55.4	-29.3	46.0	38.772	74.0	18.6	V
17979.033	55.0	-29.1	46.7	37.401	74.0	19.0	H
17952.400	55.0	-28.9	46.7	37.283	74.0	19.0	H
17985.267	54.9	-29.1	46.7	37.298	74.0	19.1	V
17979.600	54.8	-29.1	46.7	37.201	74.0	19.2	V
17942.767	54.8	-28.9	46.7	37.083	74.0	19.2	H

A.2 Conducted Emission

Reference

FCC: CFR Part 15.107(a).

A.2.1 Method of measurement

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits. Tested in accordance with the procedures of ANSI C63.4 – 2014, section 7.3.

For the test setup photographs please see the test setup photos document.

A.2.2 EUT Operating Mode

The EUT exercise program was tested using the Burn-in test program for windows.

The system was configured for testing in a typical mode that a customer would normal use.

Cables were attached to each of the available I/O ports. Where applicable, peripherals were attached to the I/O cables. All the external I/O ports were exercised.

LABTM software is used to let the EUT to continuously copy data to external (Hard Disk & SD card) storage media, read and erase the data after copy action was finished.

During the test, the Color Bar image with a moving element via HDMI cable display on the LCD panel; the camera was in video mode; the music was repetitively played through the headset; the WIFI and BT function was on and worked in receiver mode.

A.2.3 Measurement Limit

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency

A.2.4 Test Condition in charging mode

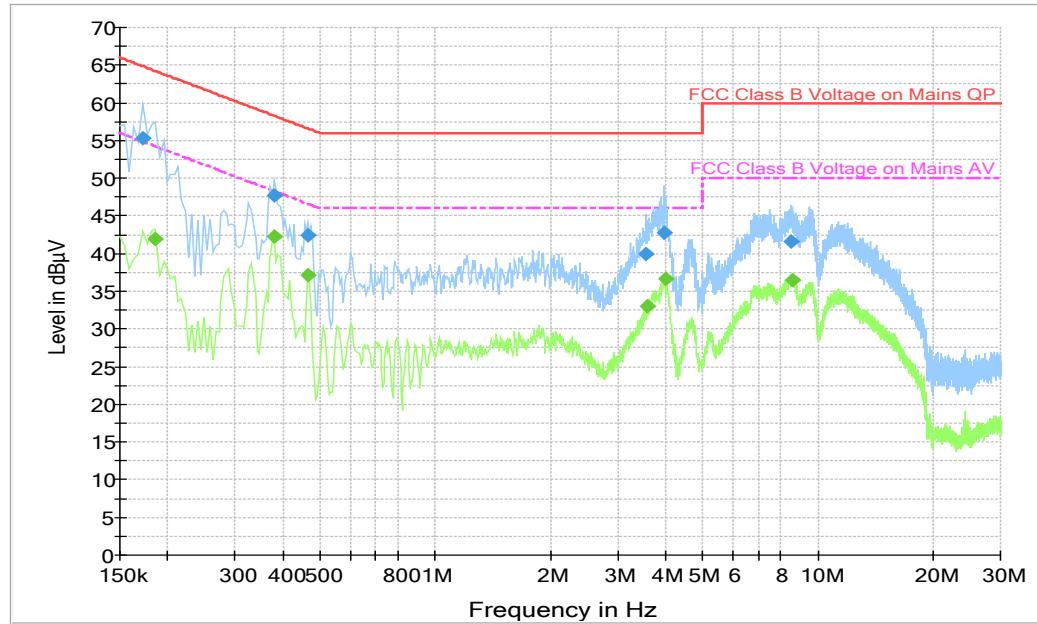
Voltage (V)	Frequency (Hz)
120	60

RBW/IF bandwidth	Sweep Time(s)
9kHz	1

A.2.5 Measurement Results

Measurement uncertainty: $U = 3.08 \text{ dB}$, $k=2$.

Set.1



Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

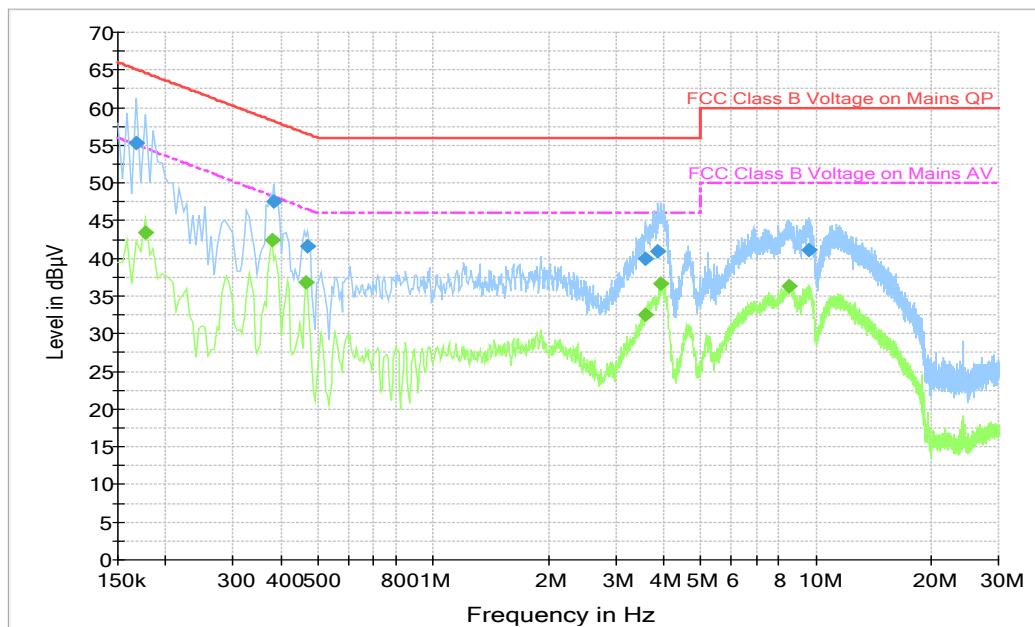
Figure A.9 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.172500	55.2	1000.0	9.000	On	N	19.7	9.6	64.8
0.379500	47.6	1000.0	9.000	On	N	19.9	10.6	58.3
0.465000	42.4	1000.0	9.000	On	N	20.0	14.2	56.6
3.543000	39.9	1000.0	9.000	On	N	19.7	16.1	56.0
3.961500	42.7	1000.0	9.000	On	N	19.7	13.3	56.0
8.488500	41.6	1000.0	9.000	On	L1	19.6	18.4	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.186000	41.9	1000.0	9.000	On	N	19.7	12.3	54.2
0.379500	42.3	1000.0	9.000	On	N	19.9	6.0	48.3
0.465000	37.2	1000.0	9.000	On	N	20.0	9.4	46.6
3.588000	33.1	1000.0	9.000	On	L1	19.5	12.9	46.0
3.997500	36.6	1000.0	9.000	On	N	19.7	9.4	46.0
8.551500	36.5	1000.0	9.000	On	L1	19.6	13.5	50.0

Set.2


Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

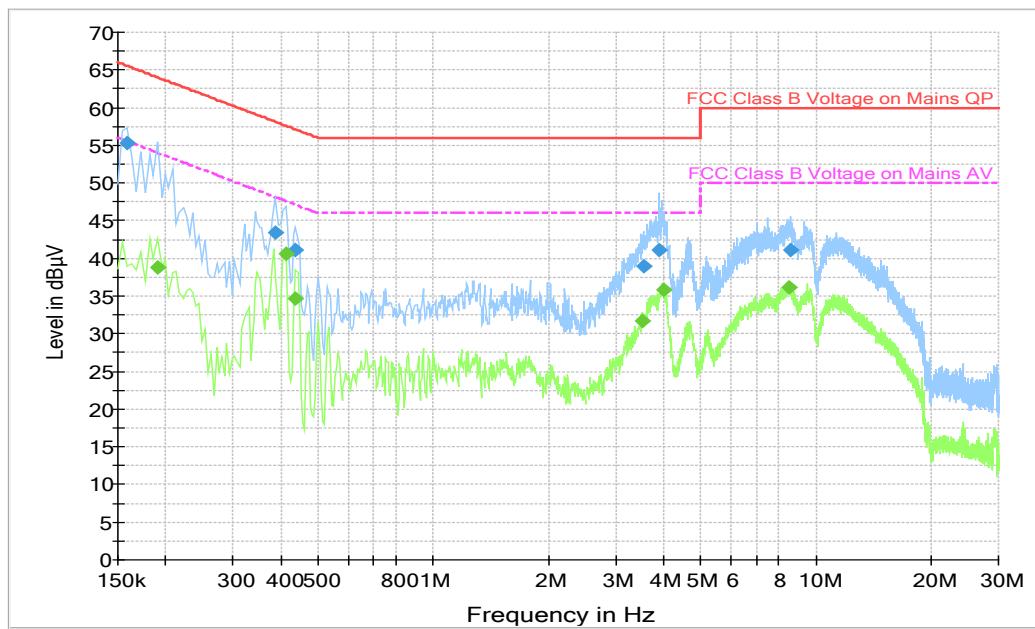
Figure A.10 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.168000	55.3	1000.0	9.000	On	N	19.7	9.7	65.1
0.384000	47.6	1000.0	9.000	On	N	19.9	10.6	58.2
0.469500	41.5	1000.0	9.000	On	N	20.0	15.0	56.5
3.597000	39.9	1000.0	9.000	On	N	19.7	16.1	56.0
3.871500	40.9	1000.0	9.000	On	N	19.7	15.1	56.0
9.559500	41.1	1000.0	9.000	On	L1	19.6	18.9	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.177000	43.5	1000.0	9.000	On	N	19.7	11.2	54.6
0.379500	42.4	1000.0	9.000	On	N	19.9	5.9	48.3
0.465000	36.9	1000.0	9.000	On	N	20.0	9.7	46.6
3.597000	32.5	1000.0	9.000	On	N	19.7	13.5	46.0
3.943500	36.7	1000.0	9.000	On	N	19.7	9.3	46.0
8.488500	36.4	1000.0	9.000	On	L1	19.6	13.6	50.0

Set.3


Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

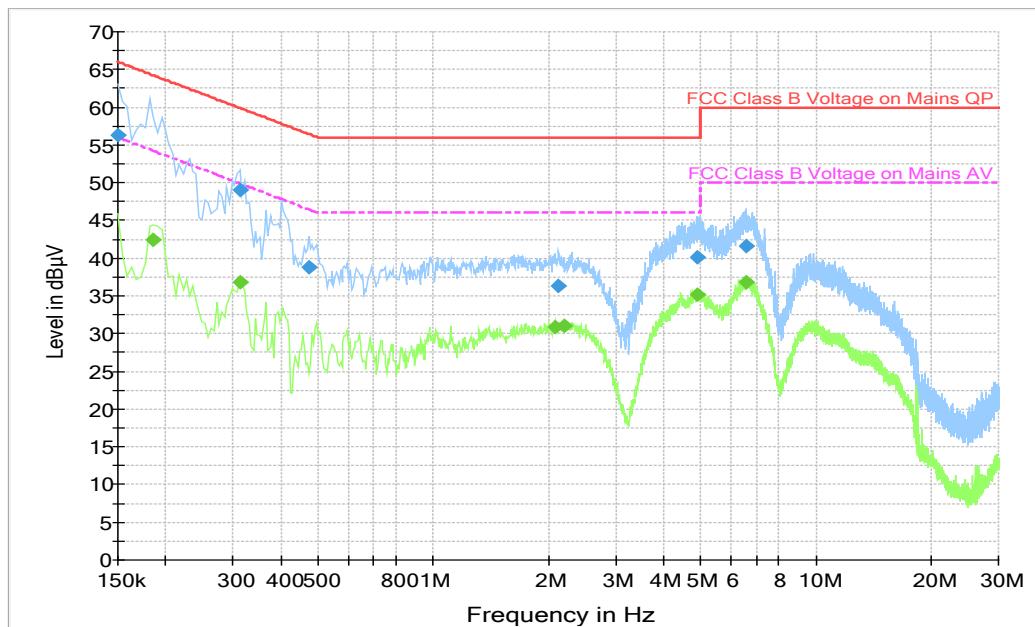
Figure A.11 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.159000	55.4	1000.0	9.000	On	N	19.7	10.2	65.5
0.388500	43.4	1000.0	9.000	On	L1	19.9	14.7	58.1
0.438000	41.1	1000.0	9.000	On	L1	19.9	16.0	57.1
3.538500	38.9	1000.0	9.000	On	L1	19.5	17.1	56.0
3.889500	41.2	1000.0	9.000	On	L1	19.5	14.8	56.0
8.605500	41.1	1000.0	9.000	On	L1	19.6	18.9	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.190500	38.8	1000.0	9.000	On	N	19.8	15.2	54.0
0.411000	40.6	1000.0	9.000	On	N	19.9	7.0	47.6
0.438000	34.7	1000.0	9.000	On	L1	19.9	12.4	47.1
3.534000	31.8	1000.0	9.000	On	L1	19.5	14.2	46.0
4.002000	35.8	1000.0	9.000	On	L1	19.6	10.2	46.0
8.520000	36.1	1000.0	9.000	On	L1	19.6	13.9	50.0

Set.4


Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Figure A.12 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	56.3	1000.0	9.000	On	L1	20.2	9.7	66.0
0.312000	49.0	1000.0	9.000	On	L1	20.0	10.9	59.9
0.474000	38.8	1000.0	9.000	On	N	20.0	17.6	56.4
2.130000	36.4	1000.0	9.000	On	N	19.8	19.6	56.0
4.897500	40.1	1000.0	9.000	On	L1	19.6	15.9	56.0
6.571500	41.6	1000.0	9.000	On	L1	19.5	18.4	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.186000	42.4	1000.0	9.000	On	L1	20.0	11.8	54.2
0.312000	36.8	1000.0	9.000	On	N	19.9	13.1	49.9
2.076000	30.9	1000.0	9.000	On	N	19.7	15.1	46.0
2.202000	31.0	1000.0	9.000	On	L1	19.5	15.0	46.0
4.897500	35.2	1000.0	9.000	On	L1	19.6	10.8	46.0
6.585000	36.8	1000.0	9.000	On	L1	19.5	13.2	50.0

ANNEX B: Persons involved in this testing

Test Item	Tester
Radiated Emission	DING Zai, ZHANG Tianli
Conducted Emission	ZHANG Tianli, LI Pengfei

*****END OF REPORT*****