TEST REPORT

No. I21Z70160-EMC07

for

Samsung Electronics Co., Ltd.

Notebook PC

NP760XDA, NP762XDA

with

FCC ID: ZCANP760XDA

Hardware Version: REV1.0

Software Version: Windows10-Pro

Issued Date: 2021-06-03

Note:

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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

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

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21Z70160-EMC07	Rev.0	1st edition	2021-06-07

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

CONTENTS

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, P. R. China100191

1.3. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.4. Project data

Testing Start Date: 2021-04-25

Testing End Date: 2021-05-30

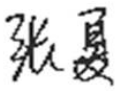
1.5. Signature

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.
Address:	19 Chapin Rd.,Building D Pine Brook, NJ 07058
City:	/
Postal Code:	/
Country:	/
Contact:	Jenni Chun
Email:	j1.chun@samsung.com
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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	NP760XDA, NP762XDA
FCC ID	ZCANP760XDA

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	2170160UT15a	REV1.0	Windows10-Pro
EUT2	2170160UT16a	REV1.0	Windows10-Pro
EUT3	2170160UT23a	REV1.0	Windows10-Pro
EUT4	2170160UT33a	REV1.0	Windows10-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	Adapter	/	/
AE2	Battery	/	/
AE3	Headset	/	/
AE4	Ethernet Cable	/	/
AE5	HDMI Cable	/	/
AE6	Display	/	/
AE7	Hard Disk	/	/
AE8	Hard Disk	/	/
AE9	Hard Disk	/	/
AE10	Hard Disk	/	Type-C
AE11	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.
The difference of the model name is only for different marketing purposes.

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	TGL R-0 BGA 45W i7 (T4P) 8+1 Core	Intel	i7-11800H
	TGL R-0 BGA 45W i5 (T3) 6(f)+1 Core		i5-11400H
	TGL R-0 BGA 45W i5 (T2) 6(f)+1 Core		i5-11260H
PCH	TGL QWC2 B-Step HM570 PCH-H		HM570
WLAN	802.11 ax 2x2	Intel	AX201.D2WG.SNVW
GPU	RTX 3050	Nvidia	GN20-P0
	RTX 3050 Ti		GN20-P1
Memory	DDR4 8GB(16Gb*4)	SEC	K4AAG165WA-BCWE
	DDR4 16GB(16Gb*4+8GB)	SEC	K4AAG165WA-BCWE
		SEC	M471A1G44AB0-CWE
	DDR4 16GB(32Gb*4)	SEC	K4ABG165WA-MCWE
	DDR4 32GB(32Gb*4+16GB)	SEC	K4ABG165WA-MCWE
		SEC	M471A2G43AB2-CWE
SSD	256G M.2 2280 PCIe(NVMe)	SEC	MZVLQ256HBJD-00BKN
		SSSTC	CL1-8D256
		Calcomp	CL1-8D256
	512G M.2 2280 PCIe(NVMe)	SEC	MZVLQ512HBLU-00BKN
		SSSTC	CL1-8D512
	1TB M.2 2280 PCIe(NVMe)	SEC	MZVLQ1T0HBLB-00BKN
		WD	SDBPNPZ-1T00-1004
VRAM	GDDR6 4GB	SEC	K4Z80325BC-HC14
LCD	15.6" FHD IPS	Panda	LM156LF5L03
		Innolux	/
Battery	83W	Sunwoda	/
Adaptor	135W PD brick	Chicony	PD-135ABH
Antenna	PIFA	INPAQ	WA-F-LA-02-090
	PIFA	SPEED	F-0G-XZ-0272-000-00

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+ AE2+AE3+AE6+AE7+AE8+AE9+AE10+AE11+AE12+AE13	EUT1+Charger1
Set.2	EUT2+ AE1+AE2+AE3+ AE2+AE3+AE6+AE7+AE8+AE9+AE10+AE11+AE12+AE13	EUT2+Charger1
Set.3	EUT3+ AE1+AE2+AE3+ AE2+AE3+AE6+AE7+AE8+AE9+AE10+AE11+AE12+AE13	EUT3+Charger1
Set.4	EUT4+ AE1+AE2+AE3+ AE2+AE3+AE6+AE7+AE8+AE9+AE10+AE11+AE12+AE13	EUT4+Charger1

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 Part 15, Subpart B	Radio frequency devices - Unintentional Radiators	2019
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	ESH3-Z5	825562/028	R&S	2021-09-05	1 year
3	Test Receiver	ESU 26	100235	R&S	2022-02-23	1 year
4	BiLog Antenna	VULB9163	9163-483	Schwarzbeck	2021-08-07	1 year
5	EMI Antenna	3115	6914	R&S	2022-02-23	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 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 & USB flash disk & SD card) storage media, read and erase the data after copy action was finished. The EUT was connected to another PC via Ethernet Cable, as well as using a ping program established a communication.

During the test, the Color Bar image with a moving element via HDMI cable display on the LCD panel; 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 (μV/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:

Result = $P_{Mea} + A_{Rpl} = P_{Mea} + G_A + G_{PL}$

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

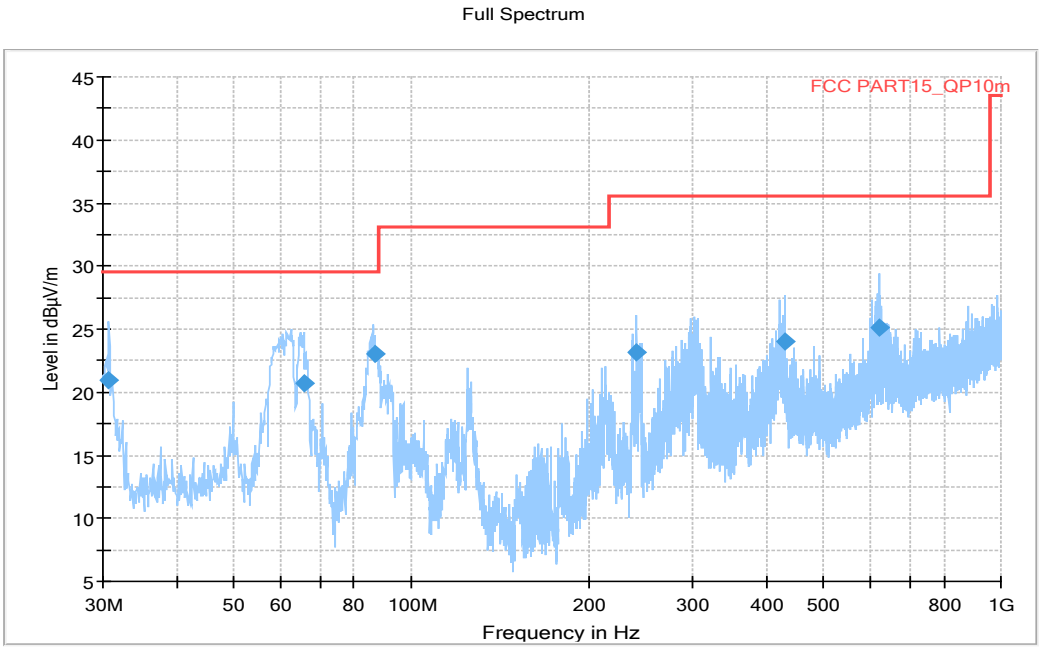


Figure A.1 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
30.67900	20.89	29.50	8.65	1000.0	120.000	121.0	V	151.0
65.69600	20.74	29.50	8.80	1000.0	120.000	103.0	V	98.0
86.93900	23.07	29.50	6.47	1000.0	120.000	125.0	V	286.0
241.4600	23.17	35.60	12.39	1000.0	120.000	104.0	V	-28.0
431.1920	24.03	35.60	11.53	1000.0	120.000	100.0	V	186.0
623.3490	25.09	35.60	10.47	1000.0	120.000	228.0	V	175.0

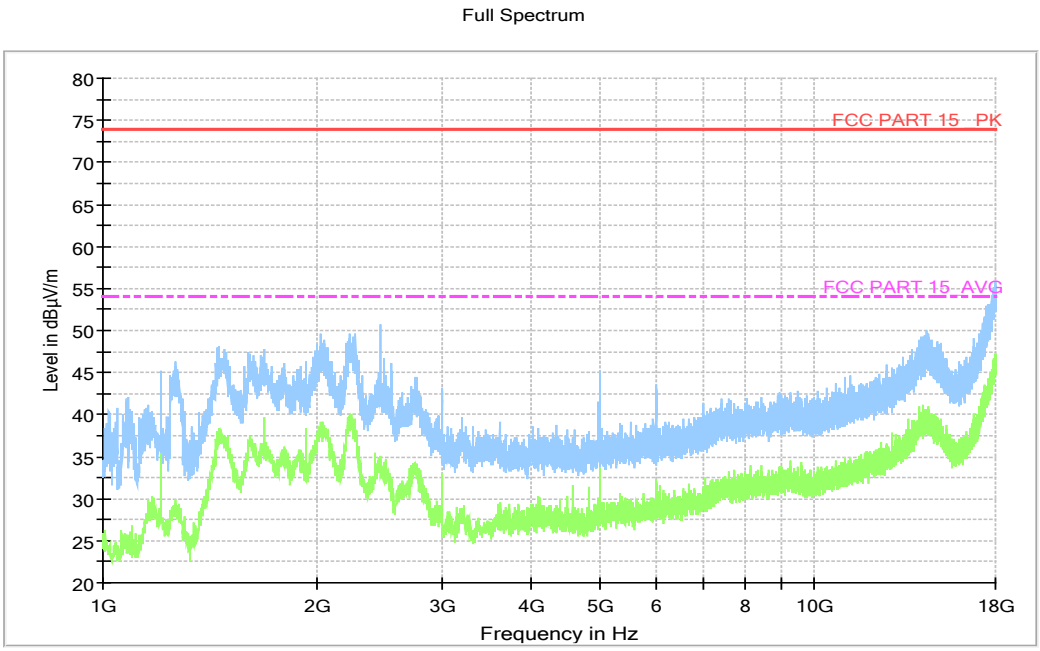


Figure A.2 Radiated Emission from 1GHz to 18GHz

Average detector result

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
17969.967	47.1	-29.1	46.7	29.501	54.0	6.9	H
17990.933	47.0	-29.1	46.7	29.398	54.0	7.0	V
17971.100	46.7	-29.1	46.7	29.101	54.0	7.3	V
17981.300	46.7	-29.1	46.7	29.098	54.0	7.3	H
18000.000	46.7	-29.2	47.0	28.943	54.0	7.3	V
17980.167	46.5	-29.1	46.7	28.898	54.0	7.5	H

Peak detector result

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
17994.333	56.0	-29.1	46.7	38.398	74.0	18.0	H
17984.700	55.3	-29.1	46.7	37.698	74.0	18.7	H
17993.767	55.3	-29.1	46.7	37.698	74.0	18.7	V
17940.500	55.1	-28.9	46.7	37.383	74.0	18.9	H
17975.633	55.0	-29.1	46.7	37.401	74.0	19.0	H
17968.833	55.0	-29.1	46.7	37.401	74.0	19.0	H

Set.2

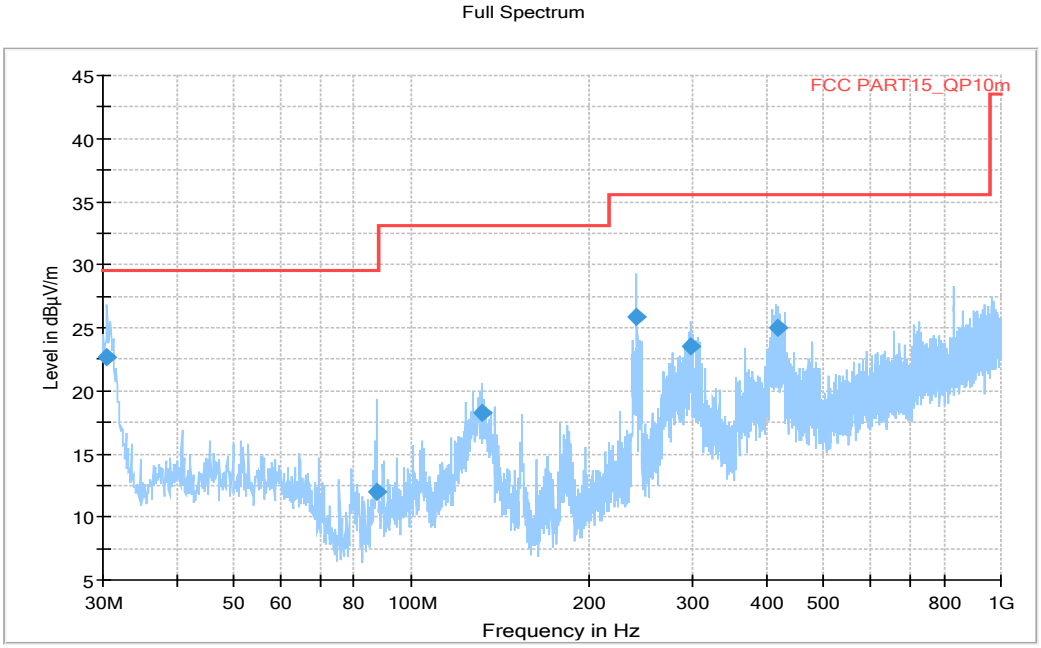


Figure A.3 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
30.48500	22.68	29.50	6.86	1000.0	120.000	120.0	V	194.0
87.42400	11.95	29.50	17.59	1000.0	120.000	125.0	V	259.0
131.4620	18.24	33.10	14.82	1000.0	120.000	187.0	V	168.0
241.4600	25.85	35.60	9.71	1000.0	120.000	104.0	V	169.0
298.7870	23.48	35.60	12.08	1000.0	120.000	117.0	V	191.0
418.4850	25.01	35.60	10.55	1000.0	120.000	345.0	V	189.0

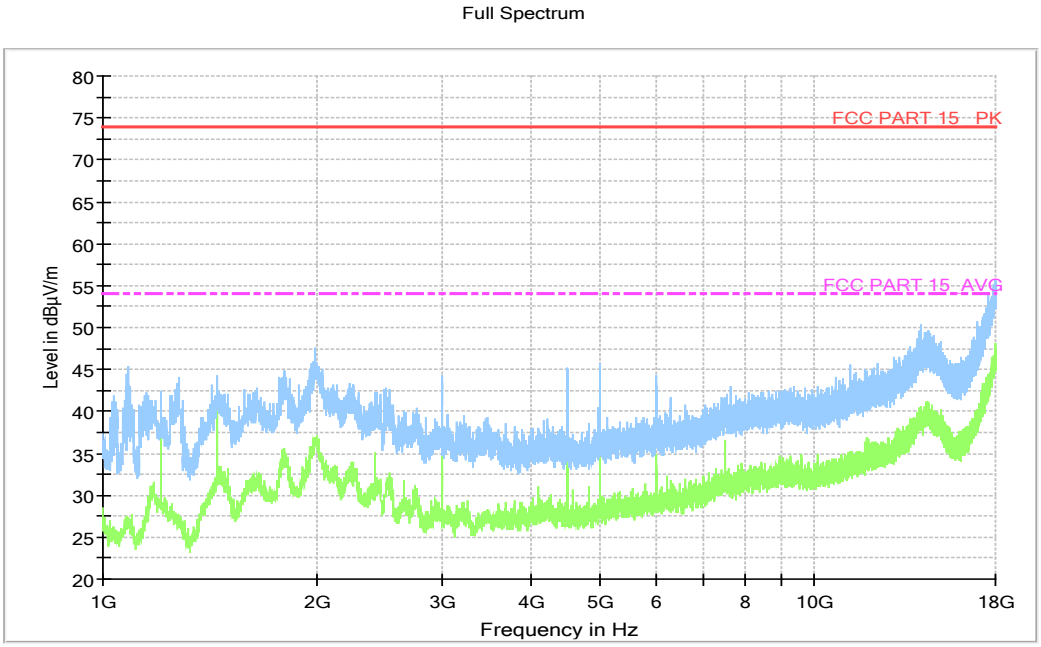


Figure A.4 Radiated Emission from 1GHz to 18GHz

Average detector result

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
17986.400	47.0	-29.1	46.7	29.398	54.0	7.0	H
17974.500	47.0	-29.1	46.7	29.401	54.0	7.0	V
17969.400	47.0	-29.1	46.7	29.401	54.0	7.0	V
17986.967	46.9	-29.1	46.7	29.298	54.0	7.1	H
17973.367	46.9	-29.1	46.7	29.301	54.0	7.1	V
17991.500	46.8	-29.1	46.7	29.198	54.0	7.2	V

Peak detector result

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
17981.867	55.7	-29.1	46.7	38.098	74.0	18.3	V
17955.233	55.3	-28.9	46.7	37.583	74.0	18.7	V
17975.067	55.3	-29.1	46.7	37.701	74.0	18.7	H
17933.700	55.1	-29.4	46.7	37.839	74.0	18.9	V
17961.467	55.1	-29.1	46.7	37.501	74.0	18.9	H
17878.167	55.0	-29.4	46.0	38.439	74.0	19.0	V

Set.3

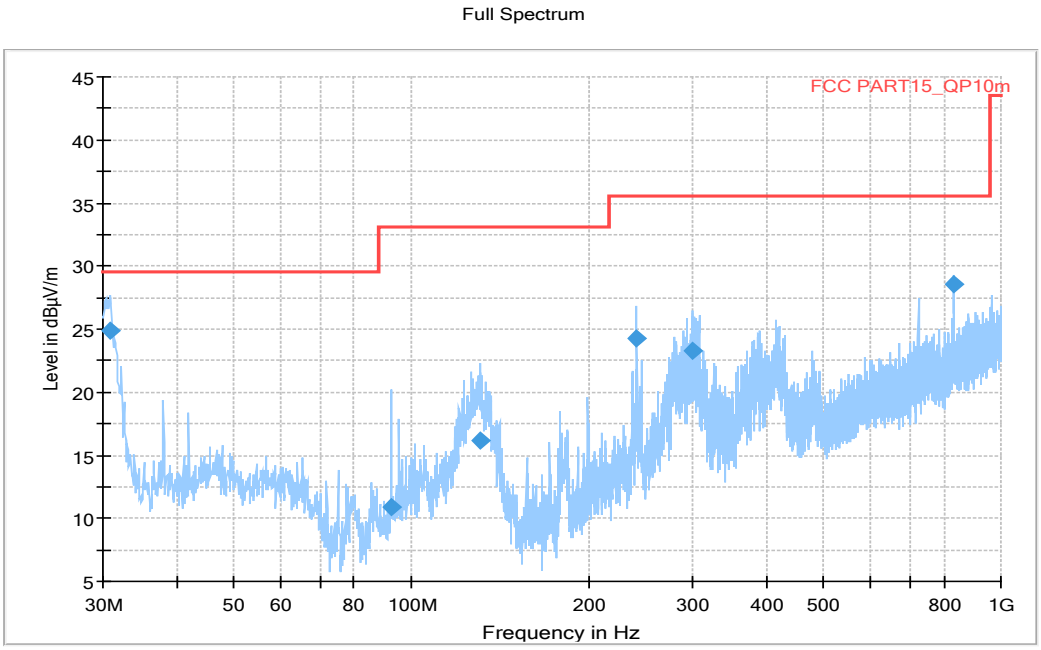


Figure A.5 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
30.97000	24.84	29.50	4.70	1000.0	120.000	105.0	V	60.0
92.66200	10.92	33.10	22.14	1000.0	120.000	235.0	V	300.0
130.9770	16.17	33.10	16.89	1000.0	120.000	125.0	V	99.0
241.4600	24.31	35.60	11.25	1000.0	120.000	101.0	V	-5.0
300.5330	23.34	35.60	12.22	1000.0	120.000	105.0	V	-8.0
831.8990	28.56	35.60	7.00	1000.0	120.000	235.0	V	6.0

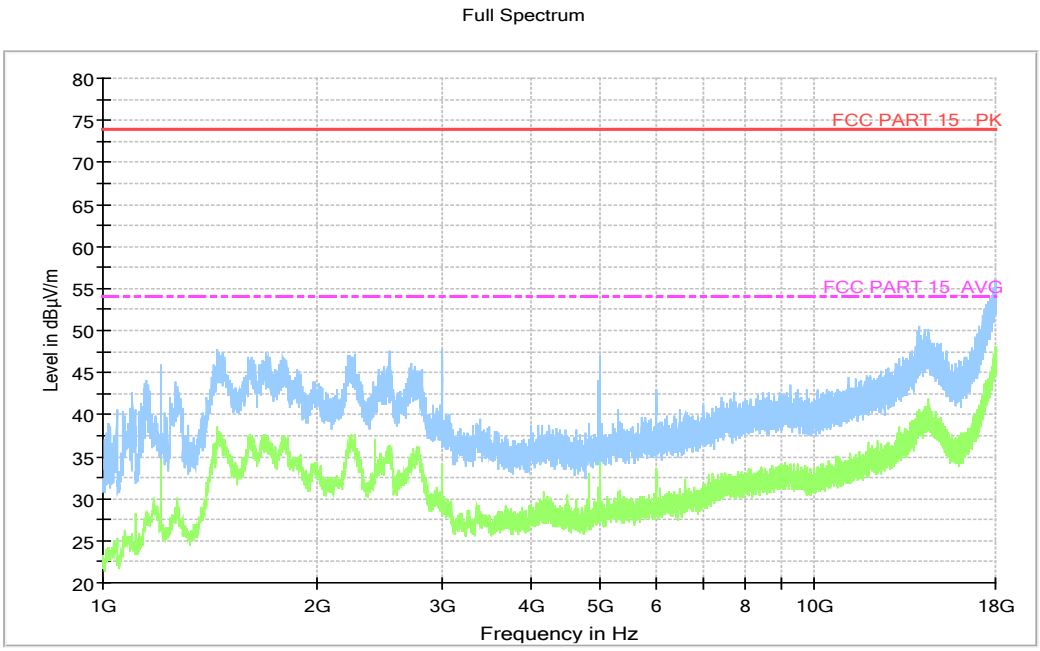


Figure A.6 Radiated Emission from 1GHz to 18GHz

Average detector result

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
17966.000	48.1	-29.1	46.7	30.501	54.0	5.9	V
17985.833	47.9	-29.1	46.7	30.298	54.0	6.1	H
17963.167	47.4	-29.1	46.7	29.801	54.0	6.6	V
17943.900	47.2	-28.9	46.7	29.483	54.0	6.8	V
17998.300	46.7	-29.1	46.7	29.098	54.0	7.3	V
17944.467	46.7	-28.9	46.7	28.983	54.0	7.3	H

Peak detector result

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
17997.167	56.1	-29.1	46.7	38.498	74.0	17.9	V
17966.000	56.1	-29.1	46.7	38.501	74.0	17.9	H
17956.367	55.6	-28.9	46.7	37.883	74.0	18.4	H
17987.533	55.5	-29.1	46.7	37.898	74.0	18.5	H
17967.700	55.3	-29.1	46.7	37.701	74.0	18.7	V
17979.033	55.3	-29.1	46.7	37.701	74.0	18.7	H

Set.4

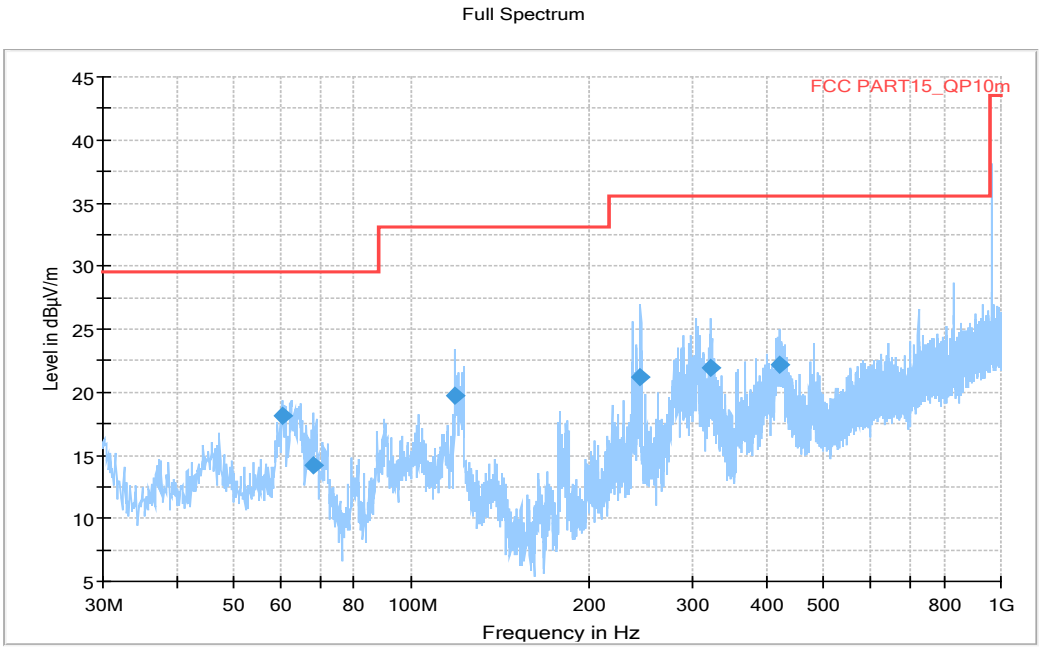


Figure A.7 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Polarization	Azimuth (deg)
60.36100	18.18	29.50	11.36	1000.0	120.000	235.0	V	277.0
68.21800	14.19	29.50	15.35	1000.0	120.000	219.0	V	286.0
118.75500	19.69	33.10	13.37	1000.0	120.000	194.0	V	0.0
245.0490	21.25	35.60	14.31	1000.0	120.000	101.0	V	184.0
322.8430	21.88	35.60	13.68	1000.0	120.000	103.0	V	-22.0
421.4920	22.16	35.60	13.40	1000.0	120.000	101.0	V	14.0

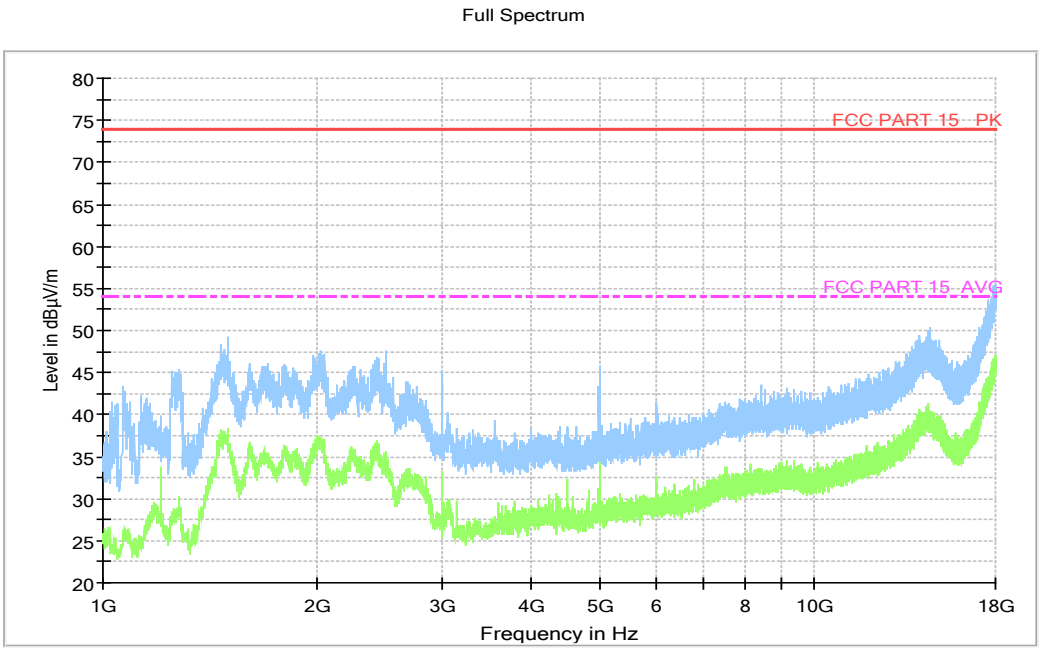


Figure A.8 Radiated Emission from 1GHz to 18GHz

Average detector result

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.367	47.1	-29.1	46.7	29.501	54.0	6.9	V
17973.933	47.0	-29.1	46.7	29.401	54.0	7.0	H
17980.733	46.9	-29.1	46.7	29.298	54.0	7.1	V
17979.600	46.7	-29.1	46.7	29.101	54.0	7.3	H
17952.400	46.7	-28.9	46.7	28.983	54.0	7.3	H
17930.867	46.7	-29.4	46.7	29.439	54.0	7.3	H

Peak detector result

Frequency (MHz)	Measurement Result (dBµV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBµV)	Limit (dBµV/m)	Margin (dB)	Antenna Pol. (H/V)
17966.567	55.5	-29.1	46.7	37.901	74.0	18.5	H
17928.033	55.4	-29.4	46.7	38.139	74.0	18.6	V
17955.800	55.4	-28.9	46.7	37.683	74.0	18.6	H
17991.500	55.4	-29.1	46.7	37.798	74.0	18.6	H
17876.467	55.2	-29.4	46.0	38.639	74.0	18.8	H
17883.833	55.2	-29.5	46.0	38.780	74.0	18.8	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 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 & USB flash disk & SD card) storage media, read and erase the data after copy action was finished. The EUT was connected to another PC via Ethernet Cable, as well as using a ping program established a communication.

During the test, the Color Bar image with a moving element via HDMI cable display on the LCD panel; 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 (dBμV)	
	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

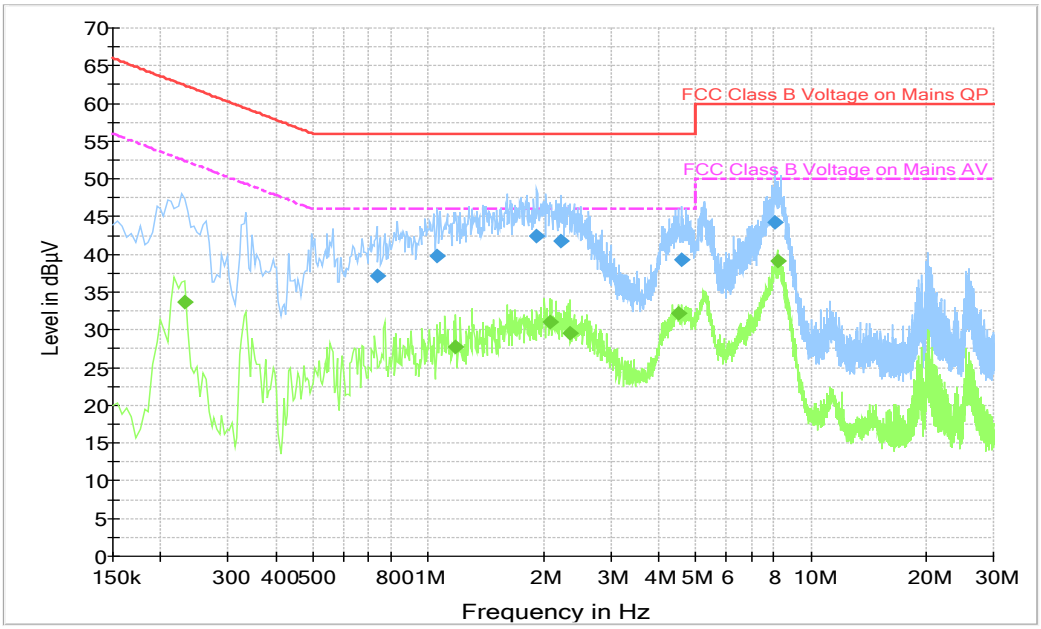
Voltage（V）	Frequency（Hz）
120	60

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

A.2.5 Measurement Results

Measurement uncertainty: *U*= 3.08 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

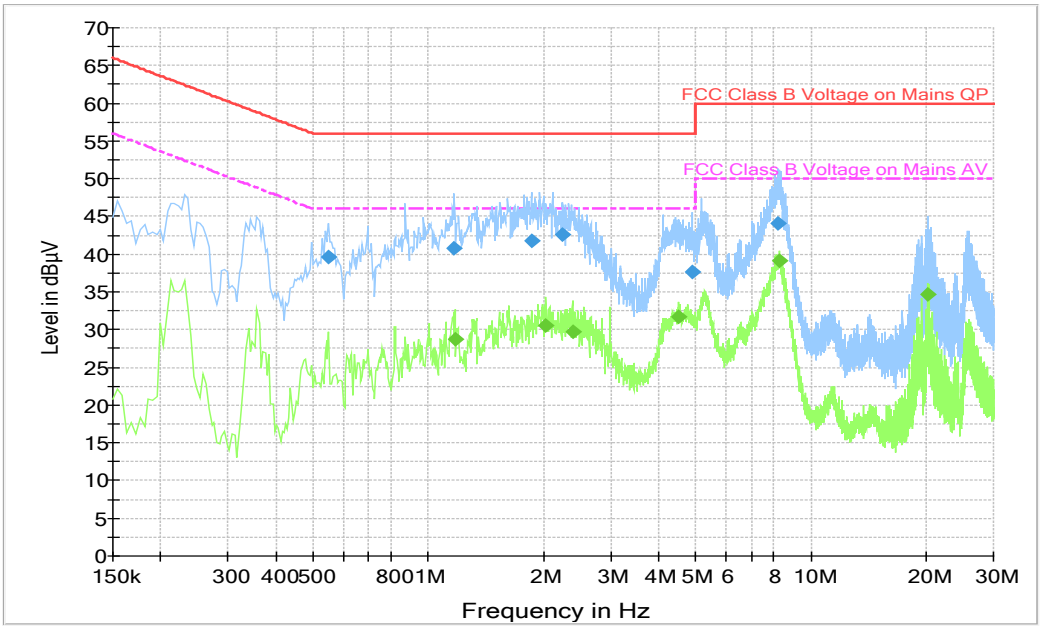
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.735000	37.2	1000.0	9.000	On	L1	19.6	18.8	56.0
1.059000	39.8	1000.0	9.000	On	N	19.6	16.2	56.0
1.923000	42.4	1000.0	9.000	On	L1	19.5	13.6	56.0
2.215500	41.8	1000.0	9.000	On	N	19.6	14.2	56.0
4.582500	39.3	1000.0	9.000	On	L1	19.8	16.7	56.0
8.020500	44.2	1000.0	9.000	On	L1	19.8	15.8	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.231000	33.6	1000.0	9.000	On	N	19.6	18.8	52.4
1.180500	27.8	1000.0	9.000	On	N	19.6	18.2	46.0
2.089500	31.0	1000.0	9.000	On	N	19.5	15.0	46.0
2.350500	29.6	1000.0	9.000	On	N	19.6	16.4	46.0
4.506000	32.1	1000.0	9.000	On	L1	19.8	13.9	46.0
8.164500	39.2	1000.0	9.000	On	N	19.7	10.8	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)
0.550500	39.6	1000.0	9.000	On	N	19.5	16.4	56.0
1.171500	40.8	1000.0	9.000	On	L1	19.6	15.2	56.0
1.860000	41.7	1000.0	9.000	On	N	19.5	14.3	56.0
2.242500	42.6	1000.0	9.000	On	L1	19.6	13.4	56.0
4.884000	37.6	1000.0	9.000	On	N	19.7	18.4	56.0
8.196000	44.1	1000.0	9.000	On	L1	19.8	15.9	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.176000	28.8	1000.0	9.000	On	L1	19.6	17.2	46.0
2.031000	30.6	1000.0	9.000	On	L1	19.5	15.4	46.0
2.382000	29.7	1000.0	9.000	On	N	19.6	16.3	46.0
4.506000	31.8	1000.0	9.000	On	L1	19.8	14.2	46.0
8.290500	39.1	1000.0	9.000	On	L1	19.8	10.9	50.0
20.211000	34.7	1000.0	9.000	On	L1	19.9	15.3	50.0

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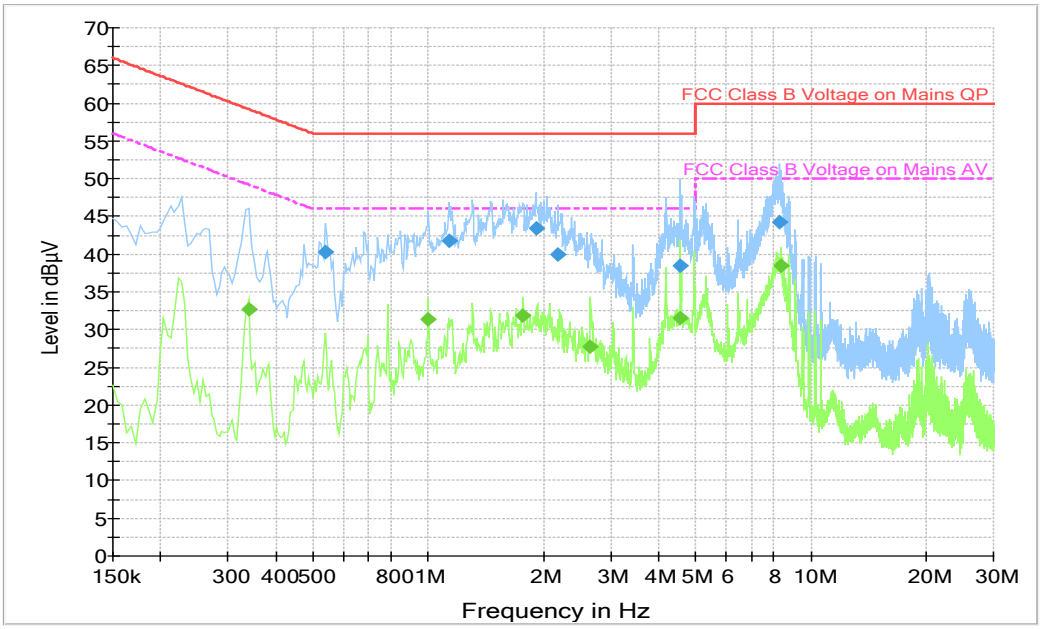
Set.3



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

Figure A.11 Conducted Emission

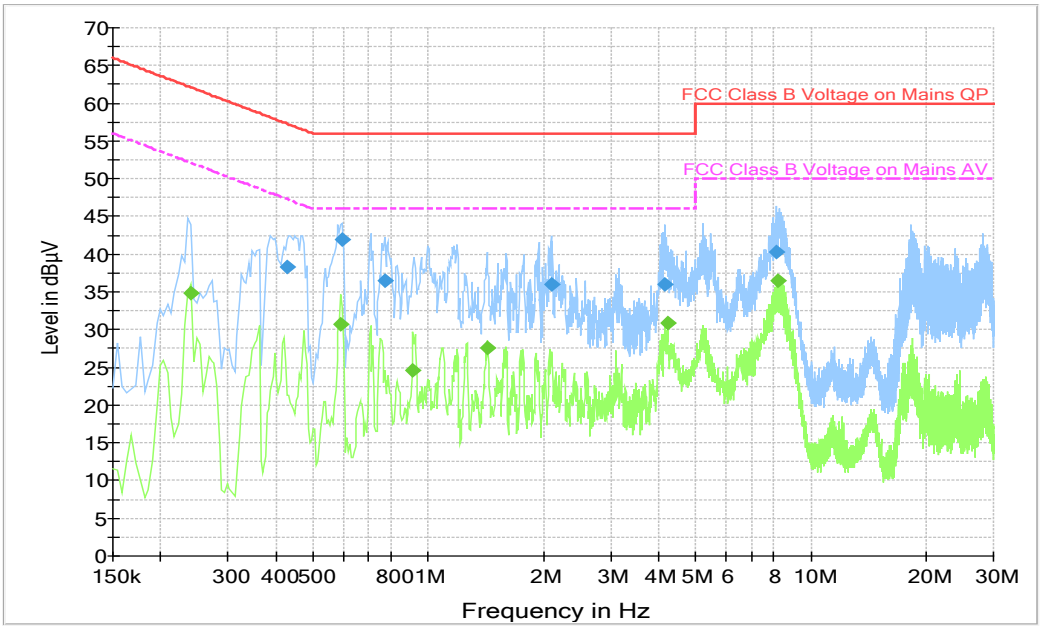
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.537000	40.2	1000.0	9.000	On	N	19.5	15.8	56.0
1.135500	41.7	1000.0	9.000	On	L1	19.6	14.3	56.0
1.909500	43.4	1000.0	9.000	On	N	19.5	12.6	56.0
2.179500	39.9	1000.0	9.000	On	L1	19.6	16.1	56.0
4.560000	38.4	1000.0	9.000	On	N	19.7	17.6	56.0
8.254500	44.2	1000.0	9.000	On	L1	19.8	15.8	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.339000	32.7	1000.0	9.000	On	N	19.6	16.6	49.2
1.000500	31.4	1000.0	9.000	On	N	19.6	14.6	46.0
1.770000	31.9	1000.0	9.000	On	N	19.5	14.1	46.0
2.656500	27.8	1000.0	9.000	On	N	19.6	18.2	46.0
4.555500	31.5	1000.0	9.000	On	N	19.7	14.5	46.0
8.349000	38.4	1000.0	9.000	On	N	19.7	11.6	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)
0.429000	38.3	1000.0	9.000	On	N	19.6	18.9	57.3
0.595500	41.9	1000.0	9.000	On	N	19.5	14.1	56.0
0.771000	36.5	1000.0	9.000	On	N	19.5	19.5	56.0
2.094000	36.0	1000.0	9.000	On	N	19.5	20.0	56.0
4.146000	36.0	1000.0	9.000	On	N	19.7	20.0	56.0
8.115000	40.3	1000.0	9.000	On	L1	19.8	19.7	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.240000	34.8	1000.0	9.000	On	N	19.6	17.3	52.1
0.591000	30.7	1000.0	9.000	On	L1	19.6	15.3	46.0
0.910500	24.6	1000.0	9.000	On	L1	19.6	21.4	46.0
1.428000	27.6	1000.0	9.000	On	N	19.6	18.4	46.0
4.222500	30.9	1000.0	9.000	On	L1	19.8	15.1	46.0
8.232000	36.6	1000.0	9.000	On	N	19.7	13.4	50.0

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ANNEX B: Persons involved in this testing

Test Item	Tester
Radiated Emission	YAN Hanchen, ZHANG Tianli
Conducted Emission	YANG Mengke

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