



TESTREPORT

No.I18N00901-EMC

For

Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd

Feature phone

Model Name: 3311A

FCC ID: R38YL3311A

Hardware Version: V1

Software Version: 8.1.3311A.TMO.180830.05

Issued Date: 2018-09-06

Designation Number: CN1210

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 SAICT.

Test Laboratory:

Shenzhen Academy of Information and Communications Technology

Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen,
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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I18N00901-EMC	Rev.0	1st edition	2018-09-06

CONTENTS

1. TEST LABORATORY	4
1.1. TESTING LOCATION	4
1.2. TESTING ENVIRONMENT	4
1.3. PROJECT DATA	4
1.4. 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	6
3.3. INTERNAL IDENTIFICATION OF AE	6
3.4. EUT SET-UPS	7
4. REFERENCE DOCUMENTS	8
4.1. REFERENCE DOCUMENTS FOR TESTING	8
5. LABORATORY ENVIRONMENT	9
6. SUMMARY OF TEST RESULTS	10
7. TEST FACILITIES UTILIZED	11
ANNEX A: MEASUREMENT RESULTS	12

1. Test Laboratory

1.1. Testing Location

Company Name: Shenzhen Academy of Information and Communications Technology
Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China
Postal Code: 518026
Telephone: +86(0)755-33322000
Fax: +86(0)755-33322001

1.2. Testing Environment

Normal Temperature: 15-35℃
Relative Humidity: 20-75%

1.3. Project data

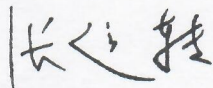
Testing Start Date: 2018-07-25
Testing End Date: 2018-08-20

1.4. Signature



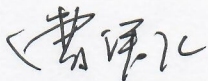
Liang Yong

(Prepared this test report)



Zhang Yunzhuan

(Reviewed this test report)



Cao Junfei

Director of the laboratory
(Approved this test report)

2. ClientInformation

2.1. Applicant Information

Company Name: Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd
Address: Coolpad Information Harbor, High-tech Industrial Park (North),
Nanshan District, Shenzhen, P.R.C.

2.2. Manufacturer Information

Company Name: Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd
Address: Coolpad Information Harbor, High-tech Industrial Park (North),
Nanshan District, Shenzhen, P.R.C.

3. Equipment UnderTest (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Feature phone
Model Name	3311A
FCC ID	R38YL3311A
Condition of EUT as received	No obvious damage in appearance

The Equipment Under Test (EUT)are a model of Feature phone with integrated antenna.

The EUT supports GPRS service and EGPRS service.

Remark: The above EUT's information is declared by manufacturer. Please refer to the specifications or user's manual for more detailed information.

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI
EUT1	862718040003349

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

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	Battery	/
AE2	Travel charger	/
AE3	USB cable	/

AE1-1

Model	CPLD-194
Manufacturer	ShangHai BYD COMPANY LIMITED
Capacitance	1390 mAh
Nominal Voltage	3.7V

AE1-2

Model	CPLD-194
Manufacturer	SHENZHEN RUIDE ELECTRONIC INDUSTRIAL CO.,LTD
Capacitance	1390 mAh
Nominal Voltage	3.7V

AE2

Model	RD0501000-USBA-18MG
Manufacturer	SHENZHEN RUIDE ELECTRONIC INDUSTRIAL CO.,LTD
S/N	/

AE3-1

Model	USB A/M TO MICRO 5P
Manufacturer	Dongguan Guojun Plastic Electronic Co., Ltd

AE3-2

Model USB A/M TO MICRO 5P
Manufacturer King Power Electronics Co., Ltd

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

3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT1+ AE1-1+AE2+AE3-1	Charging mode
Set.2	EUT1+ AE1-2+AE2+AE3-2	Charging mode
Set.3	EUT2+ AE1-1+AE2+AE3-1	Charging mode
Set.4	EUT2+ AE1-2+AE2+AE3-2	Charging mode
Set.5	EUT1+ AE1-1+AE3-1	USB mode
Set.6	EUT1+ AE1-2+AE3-2	USB mode
Set.7	EUT1+ AE1-1+AE3-1	USB mode
Set.8	EUT1+ AE1-2+AE3-2	USB mode

4. Reference Documents

4.1. Reference Documents for testing

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

Reference	Title	Version
FCC Part 15, Subpart B	Radio frequency devices	10-1-2017 Edition
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2014

5. LABORATORY ENVIRONMENT

Semi-anechoic chamber 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-18000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω
Normalised site attenuation (NSA)	<±4 dB, 3 m distance, from 30 to 1000 MHz

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

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. =20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-10000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω

Fully-anechoic chamber 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-18000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω
VoltageStandingWaveRatio (VSWR)	≤ 6 dB, from 1 to 18GHz, 3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

6. SUMMARY OF TEST RESULTS

Abbreviations used in this clause:	
P	Pass
NA	Not applicable
F	Fail

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

7. Test Facilities Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CALDUE DATE	CAL PERIOD
1.	Test Receiver	ESR7	101676	R&S	2018.11.29	1 year
2.	TestReceiver	ESCI	100702	R&S	2019.06.20	1 year
3.	Spectrum Analyzer	FSV40	101192	R&S	2019.05.21	1 year
4.	BiLog Antenna	3142E	00224831	ETS-lindgren	2021.05.17	3 years
5.	LISN	ENV216	102067	R&S	2019.07.18	1 year
6.	Horn Antenna	3117	00066577	ETS-lindgren	2019.04.05	3 years
7.	Universal Radio Communication Tester	CMU200	114545	R&S	2019.05.17	1 year
8.	PC	ThinkPad E480	PF-0Z56NV	Lenovo	/	/
9.	Printer	P1008	VNF6C12491	HP	/	/
10.	Mouse	MOEUUOA	44NY517	Lenovo	/	/
11.	Chamber	FACT3-2.0	1285	ETS-Lindgren	2020.07.20	3 years

ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§15.109(a))

Reference

FCC: CFR Part 15.109(a)

A.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator (USB mode of MS and charging mode of MS) at a distance of 3 meters 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. The measurement antenna was placed at a distance of 3 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. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

A.1.2 EUT Operating Mode:

MP3 mode: The EUT is keeping on playing mp3.

Camera mode: The EUT is keeping on taking photos.

Charging mode: The MS is synchronized to SS, and able to respond to paging messages and incoming call. An established call has been released. The MS is connected to a charger.

USB mode: The model of the PC is Lenovo ThinkPad E480, and the serial number of the PC is PF-0Z56NV. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

A.1.3 Measurement Limit

Limit from CFR Part 15.109(a)

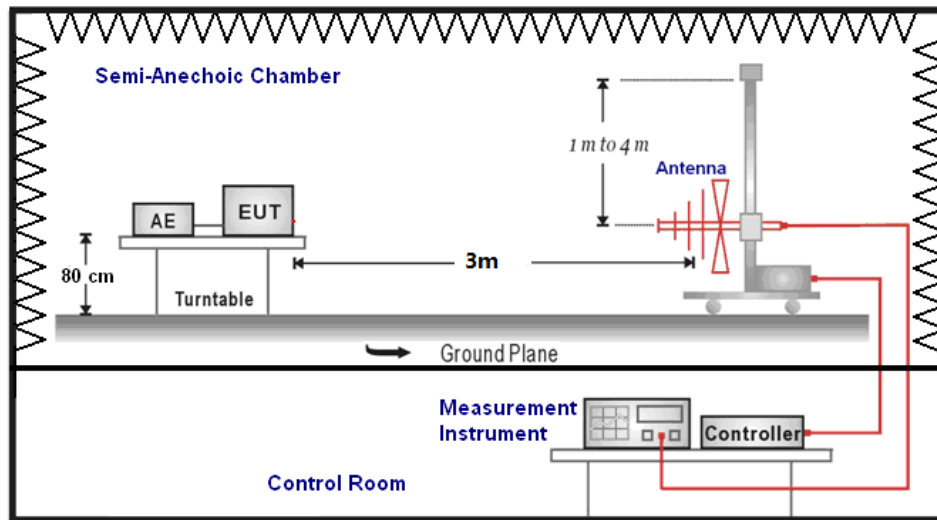
Frequency range (MHz)	Field strength limit (μV/m)		
	Quasi-peak	Average	Peak
30-88	100		
88-216	150		
216-960	200		
960-1000	500		
>1000		500	5000

*Note: The original limit is defined at 10m test distance. This limit is calculated according to CISPR requirements.

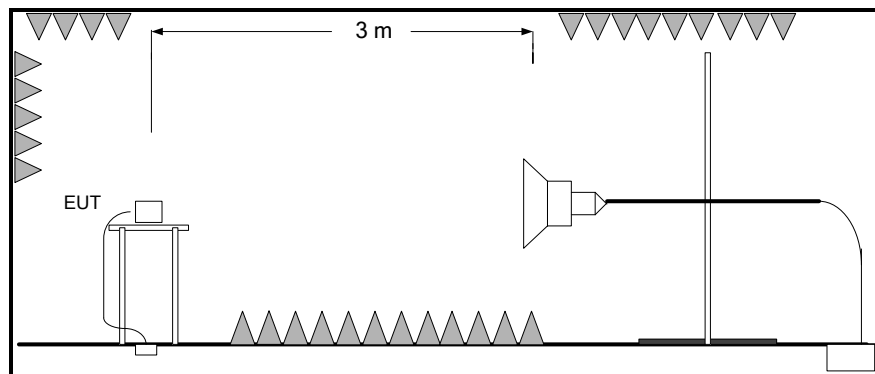
A.1.4 Test Condition

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz (IF bandwidth)	5
Above 1000	1MHz/3MHz	15

**A.1.5 Test set-up:
30MHz-1GHz**



1GHz-18GHz



A.1.6 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:

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

Where

G_A : Antenna factor of receive antenna

G_{PL} : PathLoss

P_{Mea} : Measurement result on receiver.

Note: the result contains vertical part and Horizontal part

RE Measurement uncertainty: 30M-1GHz: 4.90dB (k=2);

1GHz-18GHz: 5.12 dB (k=2)

Set.1 MP3 mode / Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
13966	57.3	74	16.7	H	19.6	37.7
14777.5	58.58	74	15.42	V	20.8	37.78
15576	57.78	74	16.22	H	21	36.78
15664	59.48	74	14.52	H	21.3	38.18
16593	58.1	74	15.9	H	22.8	35.3
17986.5	57.12	74	16.88	H	23.1	34.02

Set.1 MP3 mode / Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
13960.5	45.01	54	8.99	H	19.7	25.31
14559.5	46.2	54	7.8	V	20.4	25.8
15576	46.1	54	7.9	V	21	25.1
15645.5	47.17	54	6.83	H	21.3	25.87
16597.5	47.09	54	6.91	H	22.9	24.19
17703.5	46.27	54	7.73	H	22.9	23.37

Set.2 Camera mode / Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
12827.5	56.3	74	17.7	V	19.6	36.7
13899.5	56.36	74	17.64	V	19.8	36.56
15576	57.1	74	16.9	H	21	36.1
15752.5	58.68	74	15.32	H	21	37.68
16608.5	58.79	74	15.21	V	22.8	35.99
17743	57.46	74	16.54	V	22.8	34.66

Set.2 Camera mode / Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
12649	44.72	54	9.28	V	20	24.72
14018.5	45.03	54	8.97	V	19.5	25.53
15576.5	46.17	54	7.83	V	21.1	25.07
15672.5	47.08	54	6.92	V	21.3	25.78
16618.5	47.01	54	6.99	V	22.7	24.31
17698	46.41	54	7.59	H	22.9	23.51

Set.3 MP3 mode / Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
14022.5	56.53	74	17.47	V	19.5	37.03
14650	57.5	74	16.5	V	20.6	36.9
15571.5	57.77	74	16.23	H	21	36.77
15666	59.93	74	14.07	H	21.3	38.63
16587	58.81	74	15.19	H	22.8	36.01
17696.5	59.15	74	14.85	H	22.9	36.25

Set.3 MP3 mode / Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
13973.5	45.06	54	8.94	V	19.6	25.46
14672.5	46.19	54	7.81	H	20.7	25.49
15571.5	45.85	54	8.15	H	21	24.85
15656.5	47.5	54	6.5	H	21.3	26.2
16594.5	47.03	54	6.97	H	22.8	24.23
17697	46.37	54	7.63	H	22.9	23.47

Set.4 Camera mode / Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
14044.5	56.55	74	17.45	V	19.4	37.15
14570.5	58.28	74	15.72	H	20.5	37.78
15214	57.14	74	16.86	V	20.3	36.84
15629.5	58.57	74	15.43	H	21.3	37.27
16650.5	58.66	74	15.34	V	22.3	36.36
17996	57.7	74	16.3	H	23	34.7

Set.4 Camera mode / Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
12523.5	44.59	54	9.41	H	20	24.59
14546	46.29	54	7.71	H	20.4	25.89
15572	46.09	54	7.91	V	21	25.09
15657	47.45	54	6.55	H	21.3	26.15
16657.5	47.09	54	6.91	V	22.3	24.79
17694	46.41	54	7.59	V	22.9	23.51

Set.5 USB mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
13765	56.91	74	17.09	H	19.3	37.61
14680.5	57.92	74	16.08	V	20.7	37.22
15311	57.05	74	16.95	V	20.2	36.85
15650.5	60.68	74	13.32	H	21.3	39.38
16622	58.59	74	15.41	V	22.7	35.89
17204.5	57.86	74	16.14	H	21.3	36.56

Set.5 USB mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
13958.5	45.07	54	8.93	H	19.7	25.37
14554	46.33	54	7.67	H	20.4	25.93
15575	46.1	54	7.9	V	21	25.1
15660.5	47.47	54	6.53	V	21.3	26.17
16614	47.02	54	6.98	H	22.8	24.22
17700	46.49	54	7.51	H	22.9	23.59

Set.6 USB mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
13958	56.54	74	17.46	V	19.7	36.84
14675	57.55	74	16.45	H	20.7	36.85
15125.5	57.34	74	16.66	V	20	37.34
16148	59.34	74	14.66	V	22.3	37.04
16639.5	58.71	74	15.29	V	22.5	36.21
17890	57.94	74	16.06	V	23.9	34.04

Set.6 USB mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
12570.5	44.77	54	9.23	V	20.1	24.67
12901.5	45.13	54	8.87	V	20	25.13
14557.5	46.19	54	7.81	V	20.4	25.79
15667.5	47.16	54	6.84	V	21.3	25.86
16621.5	47.03	54	6.97	H	22.7	24.33
17690.5	46.15	54	7.85	H	22.8	23.35

Set.7 USB mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
13935.5	56.89	74	17.11	H	19.7	37.19
14624	57.18	74	16.82	V	20.6	36.58
15183	57.42	74	16.58	V	20.2	37.22
16035	58.83	74	15.17	H	21.7	37.13
16735	58.33	74	15.67	V	21.9	36.43
17869.5	57.4	74	16.6	V	23.6	33.8

Set.7 USB mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
13946	45.2	54	8.8	H	19.7	25.5
14559.5	46.36	54	7.64	H	20.4	25.96
15575.5	45.83	54	8.17	H	21	24.83
15663	47.33	54	6.67	V	21.3	26.03
16588.5	47.2	54	6.8	V	22.8	24.4
17690.5	46.04	54	7.96	H	22.8	23.24

Set.8 USB mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
13928.5	56.69	74	17.31	H	19.7	36.99
14537	57.94	74	16.06	V	20.4	37.54
15575	57.24	74	16.76	V	21	36.24
16155	59.52	74	14.48	H	22.4	37.12
16589	58.65	74	15.35	V	22.8	35.85
17967.5	57.53	74	16.47	H	23.3	34.23

Set.8 USB mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBμV)
13956	44.99	54	9.01	V	19.7	25.29
14561	46.03	54	7.97	V	20.4	25.63
15575	46.36	54	7.64	H	21	25.36
15652	47.23	54	6.77	H	21.3	25.93
16622	47.17	54	6.83	H	22.7	24.47
17697.5	46.37	54	7.63	V	22.9	23.47

Note: The measurement result of Set.1, Set.2, Set.3, Set.4, Set.5, Set.6, Set.7 and Set.8 showed here are worst cases of combinations of different batteries and USB cables.

MP3 mode / Charging mode: Set 1

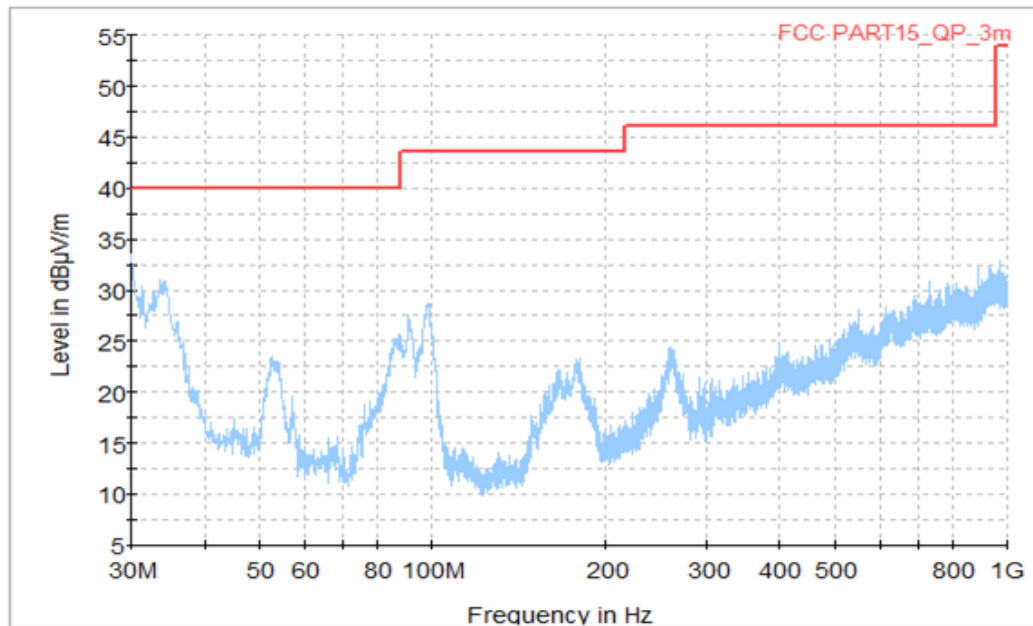


Figure A.1 Radiated Emission from 30MHz to 1GHz

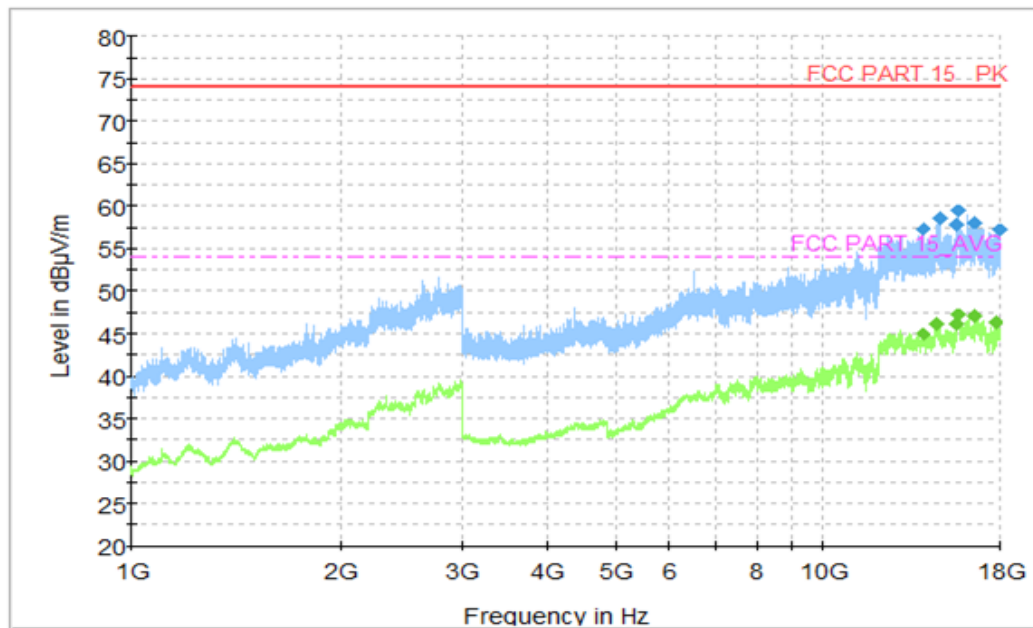


Figure A.2 Radiated Emission from 1GHz to 18GHz

Camera mode / Charging mode: Set 2

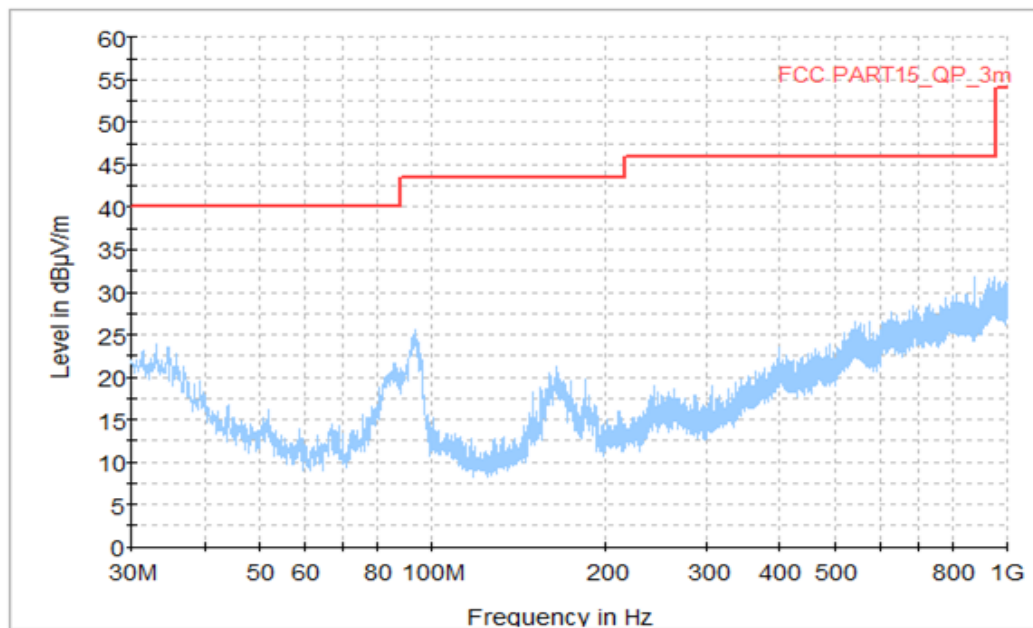


Figure A.3 Radiated Emission from 30MHz to 1GHz

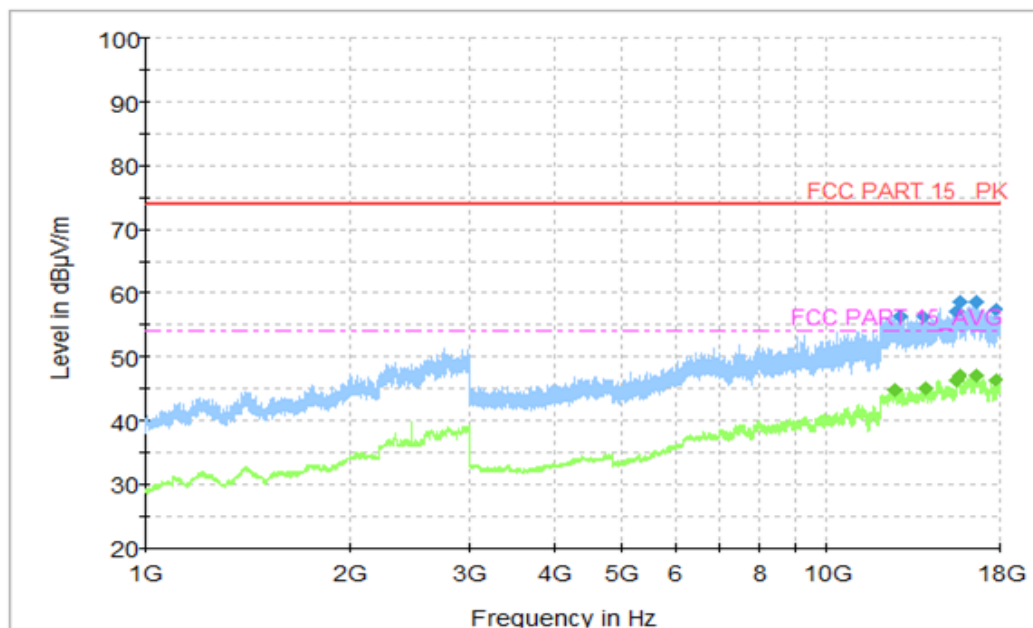


Figure A.4 Radiated Emission from 1GHz to 18GHz

MP3 mode / Charging mode: Set 3

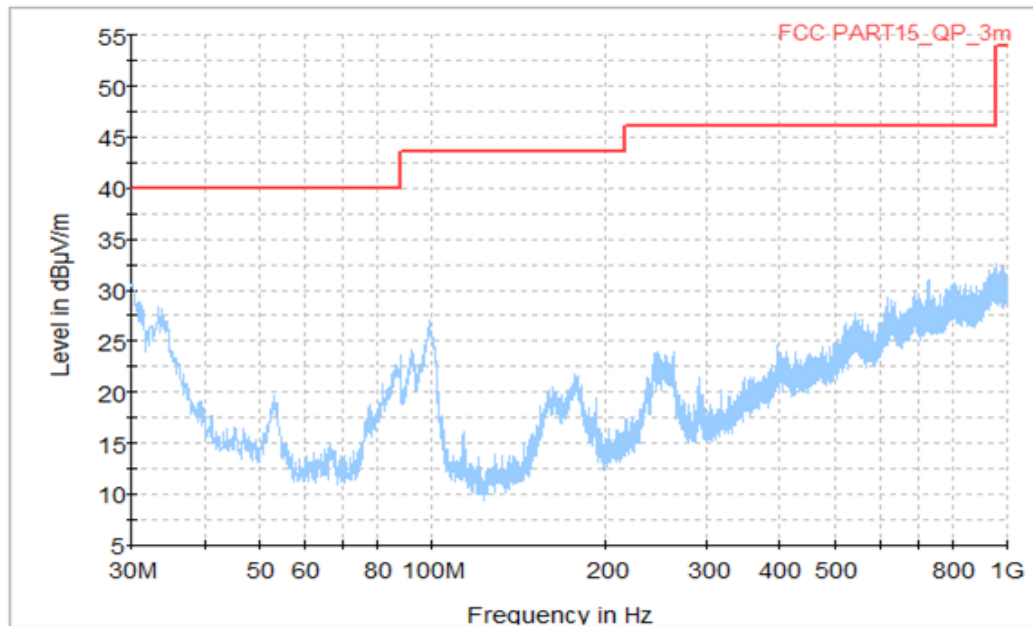


Figure A.5 Radiated Emission from 30MHz to 1GHz

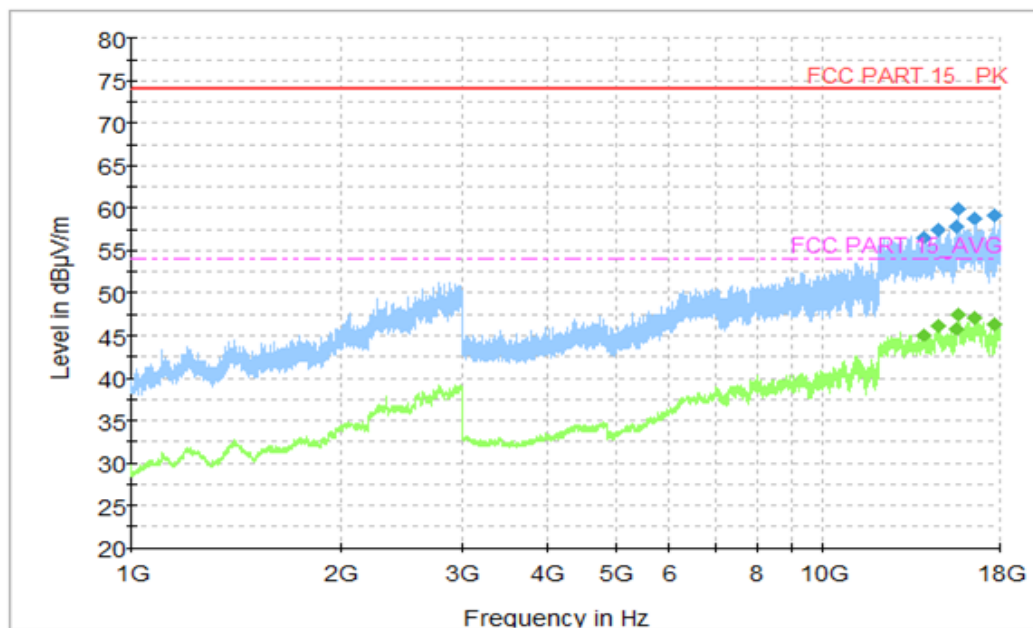


Figure A.6 Radiated Emission from 1GHz to 18GHz

Camera mode / Charging mode: Set 4

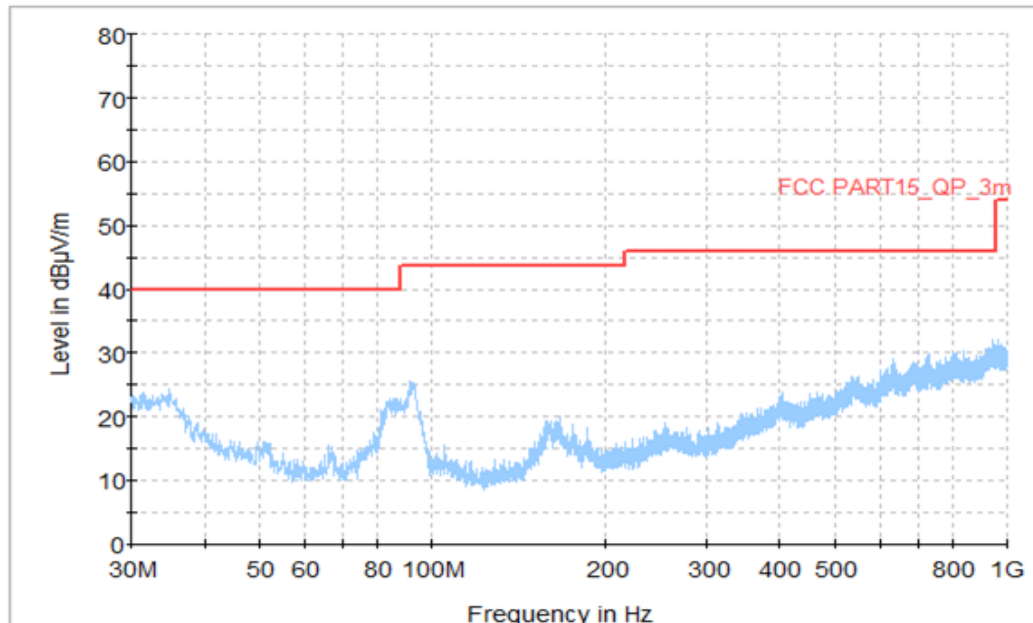


Figure A.7 Radiated Emission from 30MHz to 1GHz

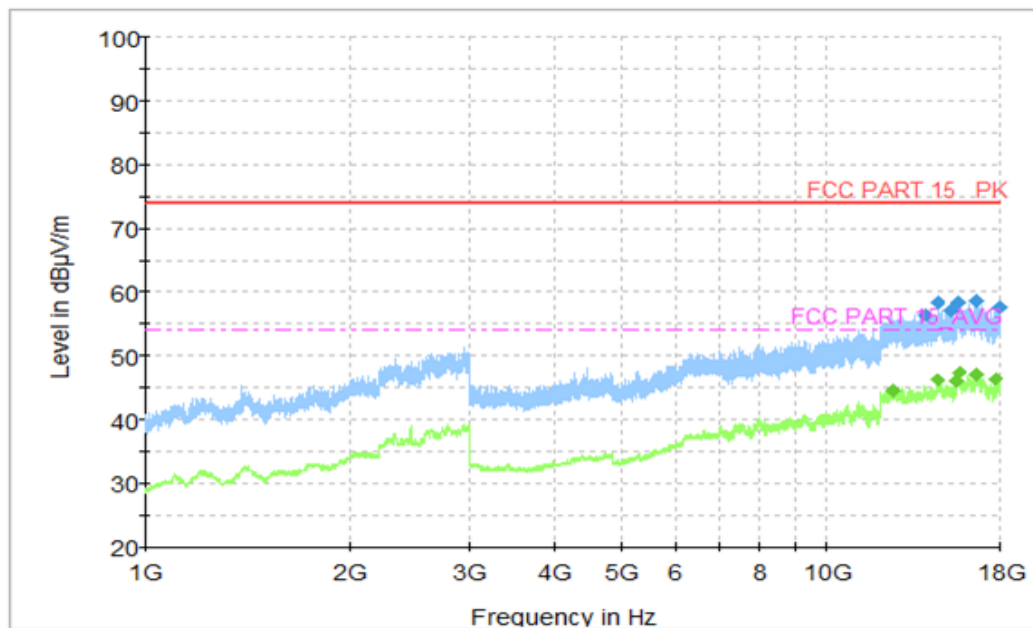


Figure A.8 Radiated Emission from 1GHz to 18GHz

USB mode: Set 5

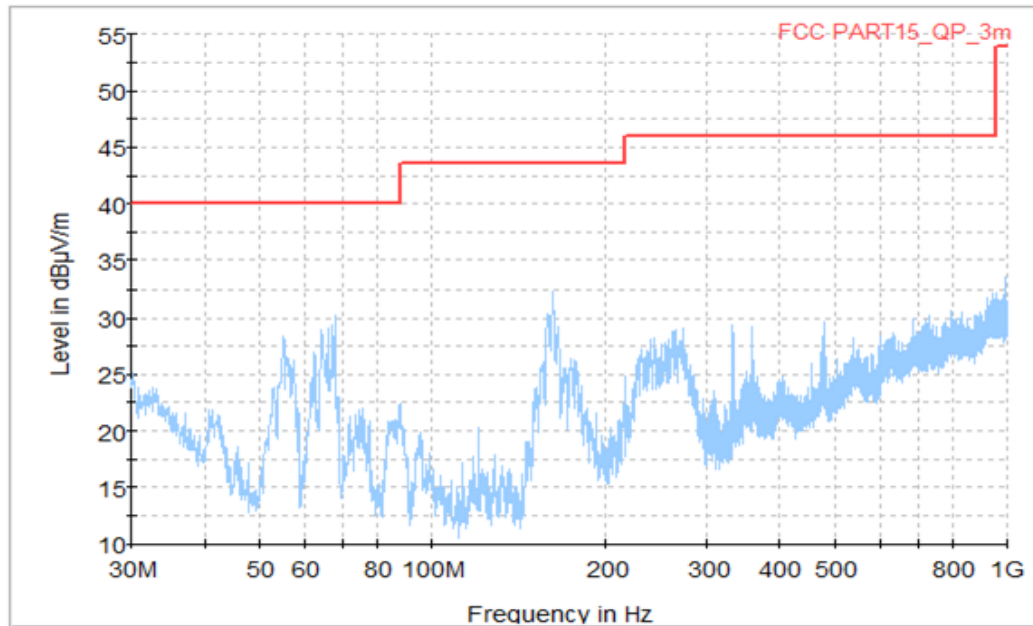


Figure A.9 Radiated Emission from 30MHz to 1GHz

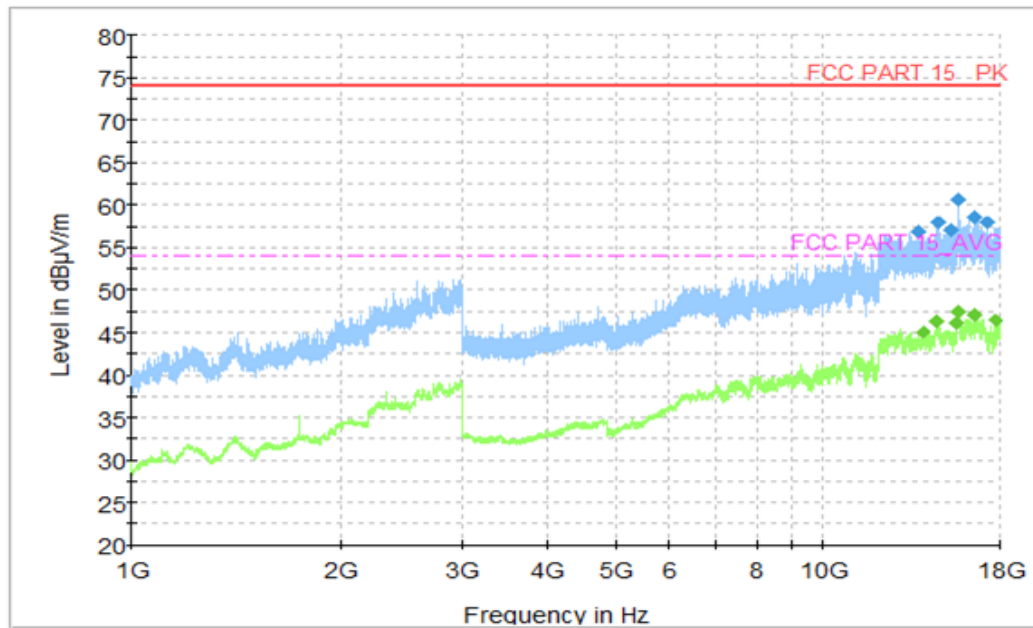


Figure A.10 Radiated Emission from 1GHz to 18GHz

USB mode: Set 6

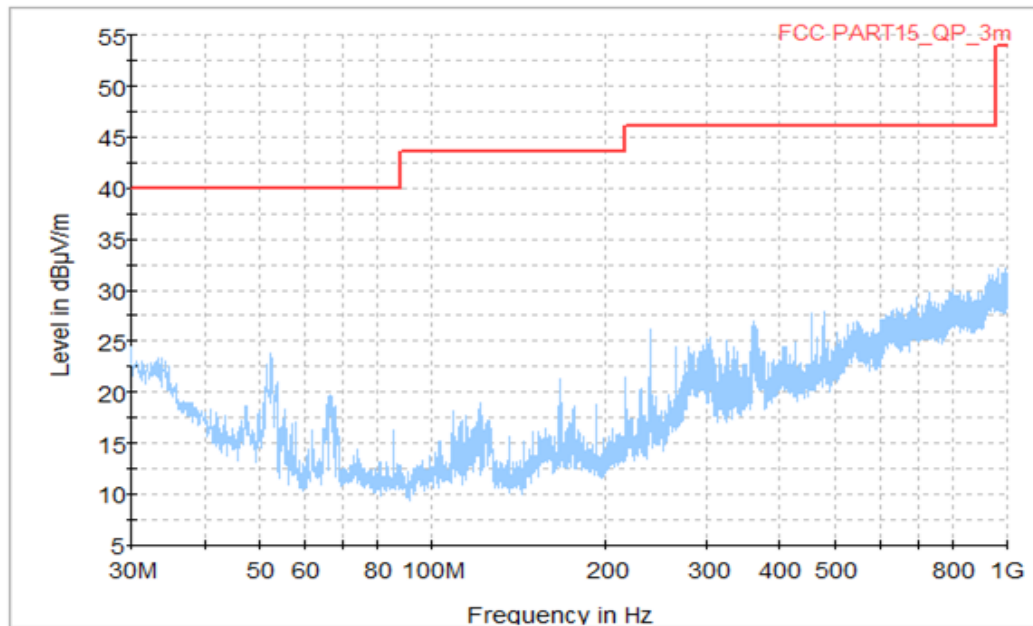


Figure A.11 Radiated Emission from 30MHz to 1GHz

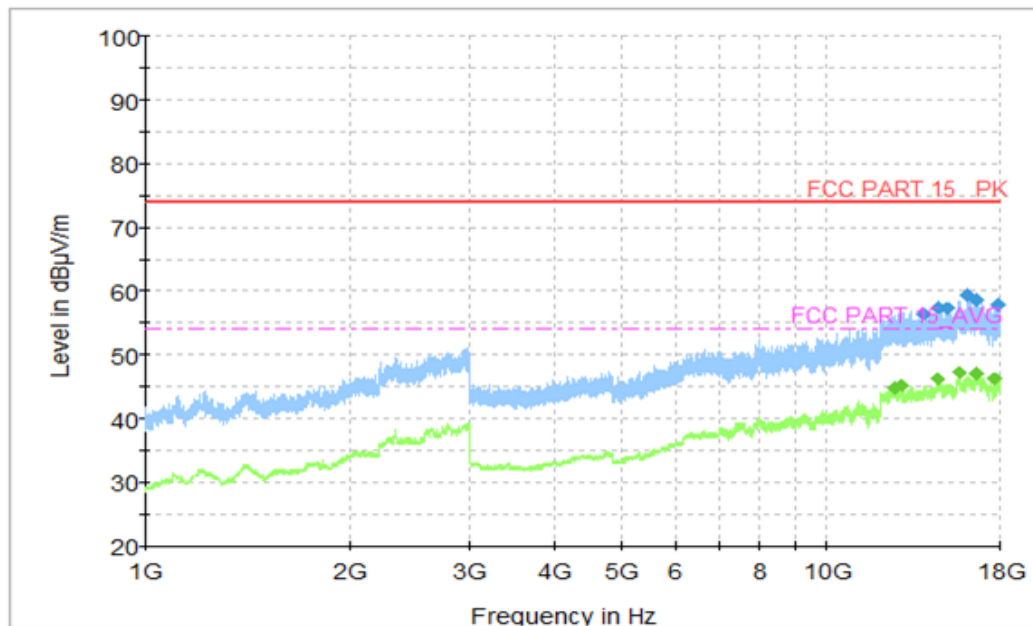


Figure A.12 Radiated Emission from 1GHz to 18GHz

USB mode: Set 7

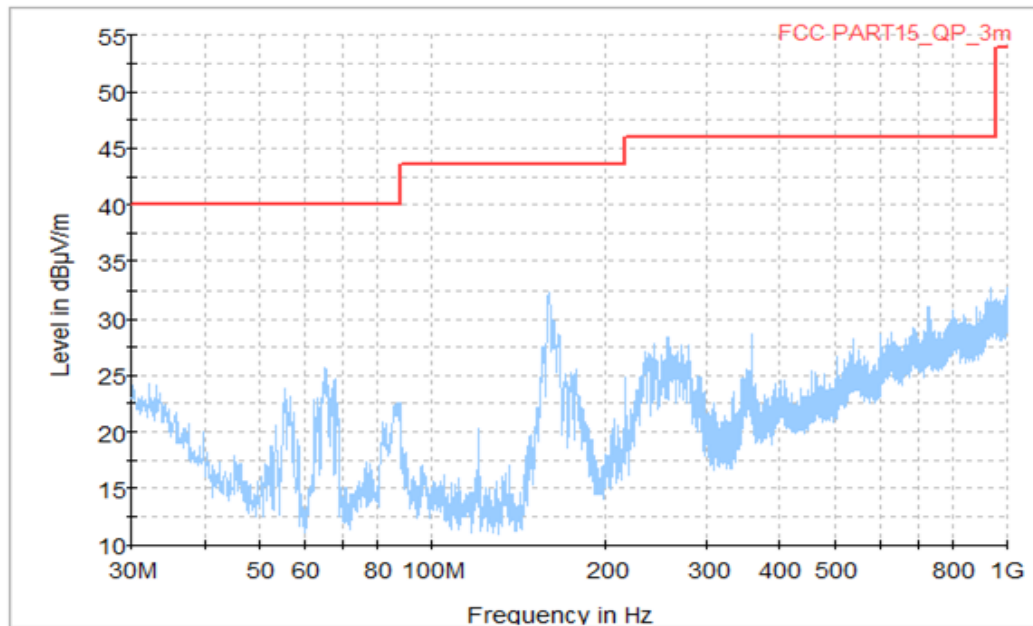


Figure A.13 Radiated Emission from 30MHz to 1GHz

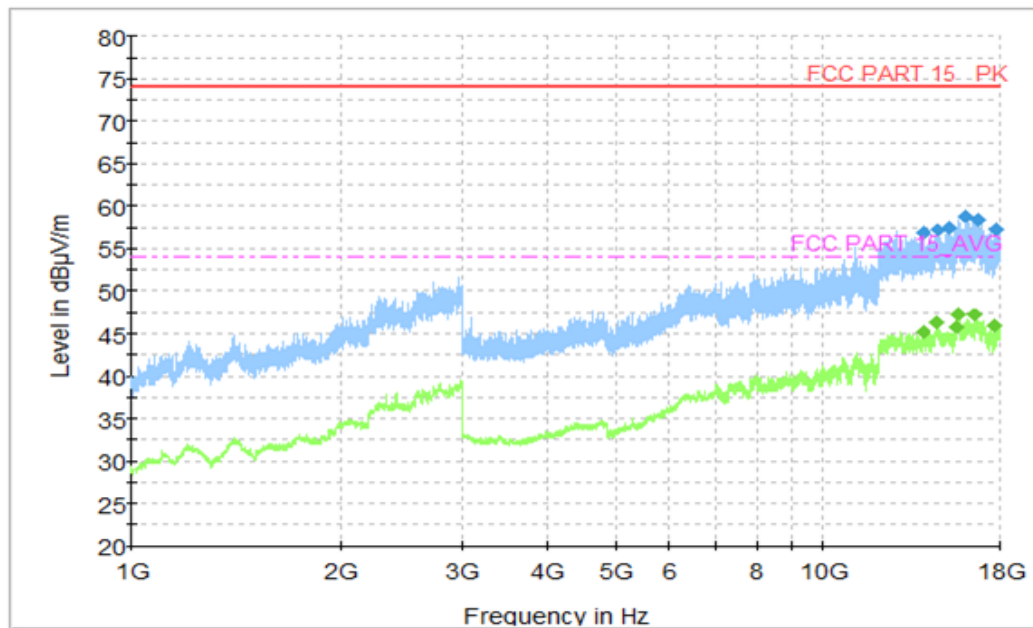


Figure A.14 Radiated Emission from 1GHz to 18GHz

USB mode: Set 8

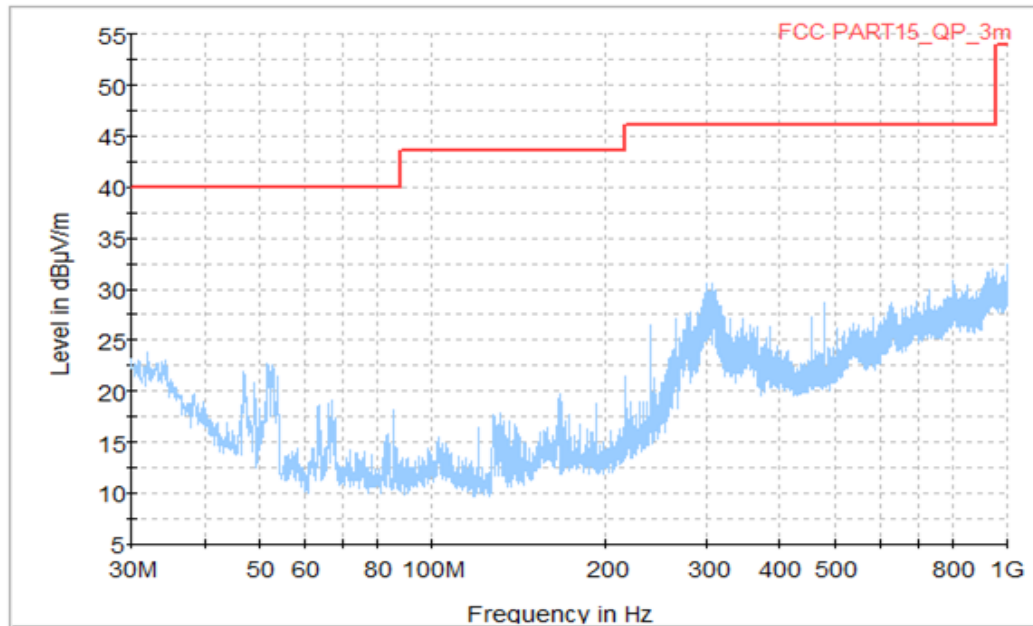


Figure A.15 Radiated Emission from 30MHz to 1GHz

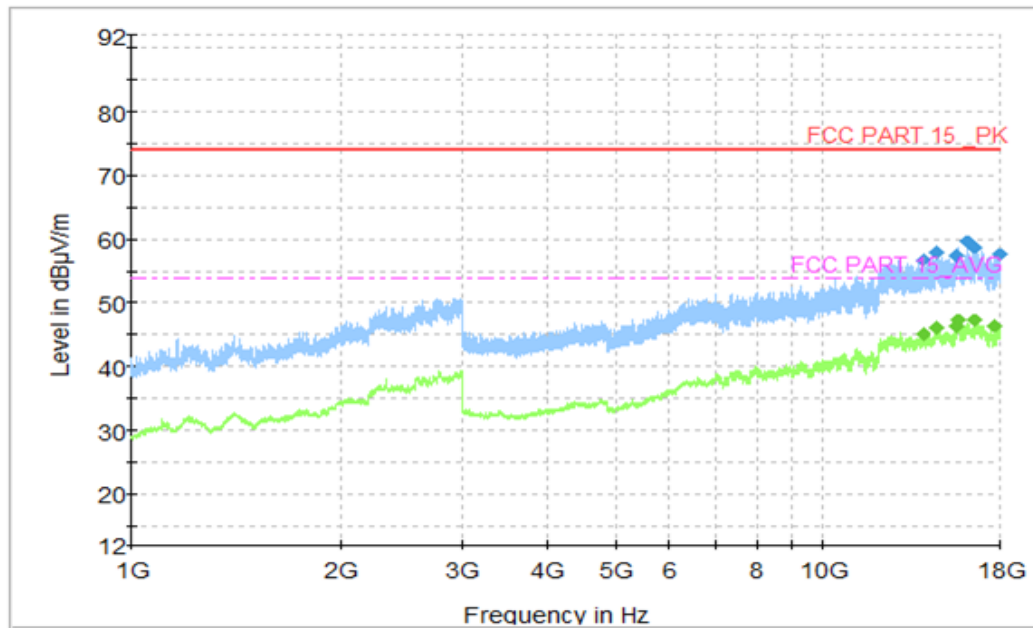


Figure A.16 Radiated Emission from 1GHz to 18GHz

B.2 Conducted Emission (§15.107(a))

Reference

FCC: CFR Part 15.107(a)

B.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 150kHz to 30MHz shall not exceed the limits. Tested in accordance with the procedures of ANSI C63.4 -2014, section 7.3.

B.2.2 EUT Operating Mode:

MP3 mode: The EUT is keeping on playing mp3.

Camera mode: The EUT is keeping on taking photos.

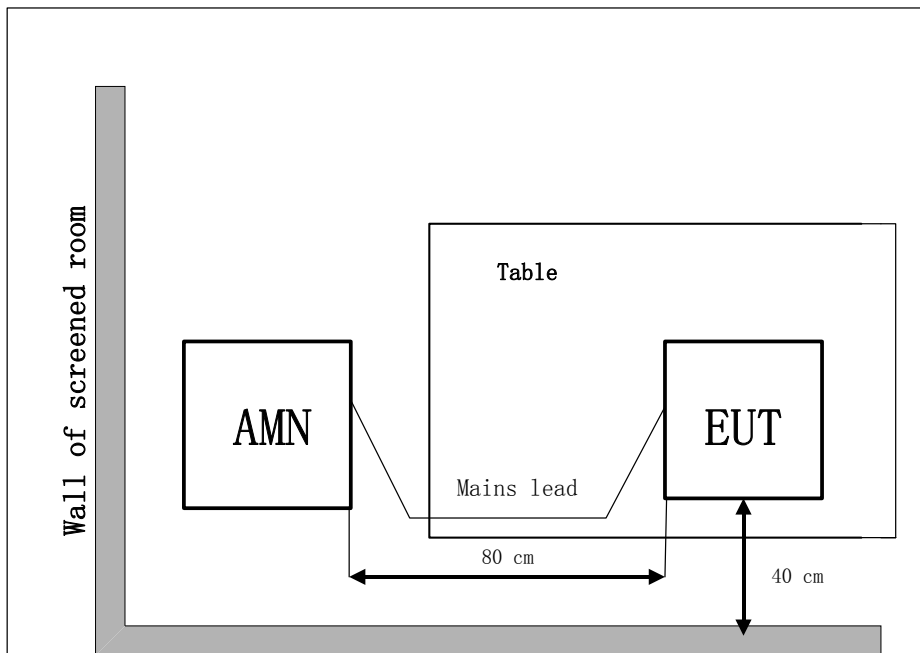
Charging mode: The MS is synchronized to SS, and able to respond to paging messages and incoming call. An established call has been released. The MS is connected to a charger.

USB mode: The model of the PC is Lenovo ThinkPad E480, and the serial number of the PC is PF-0Z56NV. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

B.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		

B.2.4 Test set-up:



B.2.5 Test Condition in charging mode

Voltage (V)	Frequency (Hz)
120	50
240	50

RBW	Sweep Time(s)
9kHz	1

CE Measurement uncertainty: 3.10 dB (k=2)

B.2.6 Measurement Results

$\text{QuasiPeak(dB}\mu\text{V)} / \text{Average(dB}\mu\text{V)} = P_{\text{Mea}} + \text{Corr}$

Where

Corr: PathLoss + Voltage Division Factor

P_{Mea} : Measurement result on receiver.

MP3 mode / Charging mode: Set 1
Voltage: 120V

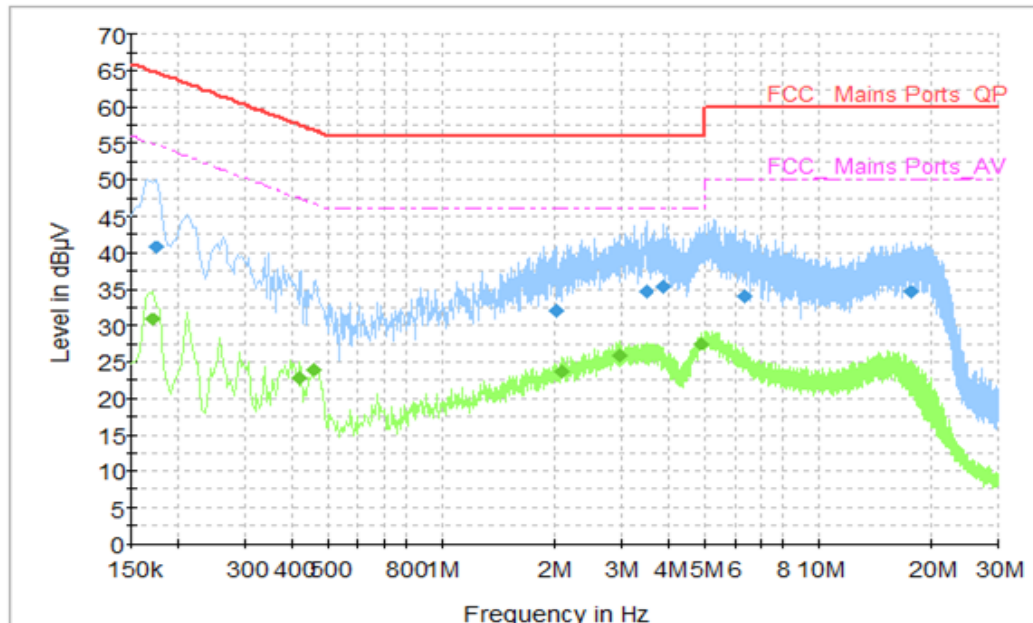


Figure B.1 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dB μ V)
0.174	40.68	64.77	24.09	N	9.6	31.08
2.014	32.08	56	23.92	N	9.7	22.38
3.482	34.69	56	21.31	N	9.7	24.99
3.874	35.18	56	20.82	N	9.7	25.48
6.35	34.04	60	25.96	N	9.8	24.24
17.67	34.56	60	25.44	L1	10.1	24.46

Final Measurement Detector 2

Frequency (MHz)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dB μ V)
0.17	30.91	54.96	24.05	N	9.6	21.31
0.418	22.75	47.49	24.73	N	9.7	13.05
0.458	24.03	46.73	22.7	N	9.6	14.43
2.082	23.7	46	22.3	L1	9.7	14
2.982	25.85	46	20.15	L1	9.7	16.15
4.87	27.58	46	18.42	L1	9.8	17.78

Camera mode / Charging mode: Set 2

Voltage: 120V

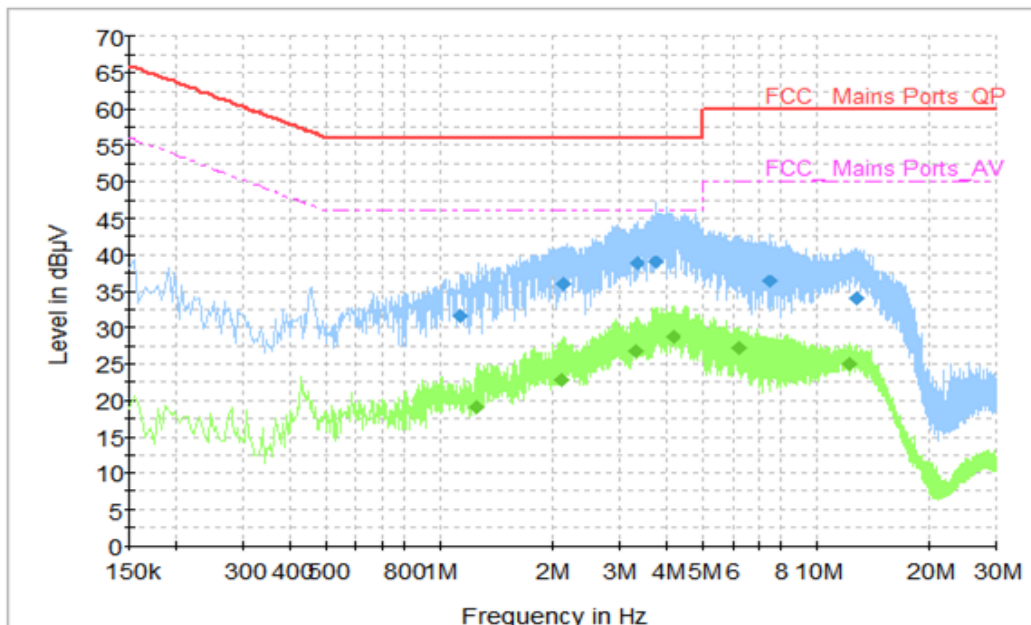


Figure B.2 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dB μ V)
1.134	31.5	56	24.5	N	9.7	21.8
2.114	35.91	56	20.09	N	9.7	26.21
3.346	38.79	56	17.21	N	9.7	29.09
3.738	38.88	56	17.12	N	9.7	29.18
7.538	36.3	60	23.7	N	9.8	26.5
12.766	33.99	60	26.01	N	9.9	24.09

Final Measurement Detector 2

Frequency (MHz)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dB μ V)
1.242	19.06	46	26.94	N	9.7	9.36
2.094	22.78	46	23.22	N	9.7	13.08
3.294	26.75	46	19.25	N	9.7	17.05
4.142	28.78	46	17.22	N	9.7	19.08
6.206	27.14	50	22.86	N	9.8	17.34
12.254	25.05	50	24.95	N	9.9	15.15

MP3 mode / Charging mode: Set 3
Voltage: 120V

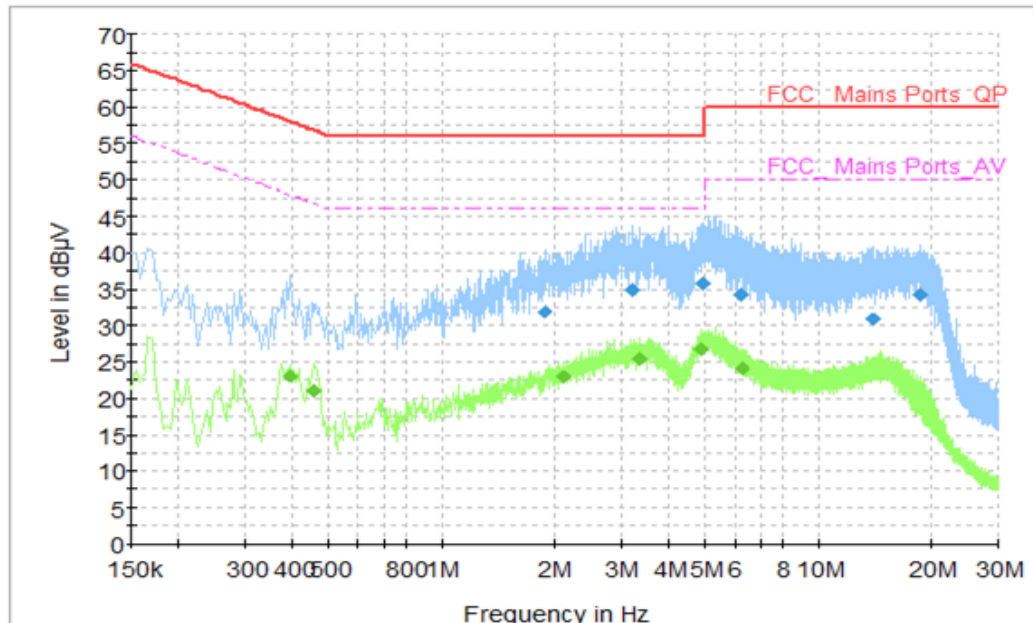


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
1.866	31.88	56	24.12	L1	9.7	22.18
3.214	34.87	56	21.13	N	9.7	25.17
4.918	35.81	56	20.19	L1	9.8	26.01
6.178	34.28	60	25.72	N	9.8	24.48
13.958	30.82	60	29.18	N	9.9	20.92
18.53	34.13	60	25.87	L1	10.1	24.03

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.394	23.11	47.98	24.87	L1	9.7	13.41
0.458	20.97	46.73	25.75	N	9.6	11.37
2.102	22.98	46	23.02	L1	9.7	13.28
3.362	25.41	46	20.59	L1	9.7	15.71
4.89	26.82	46	19.18	L1	9.8	17.02
6.274	24.2	50	25.8	L1	9.8	14.4

Camera mode / Charging mode: Set 4

Voltage: 120V

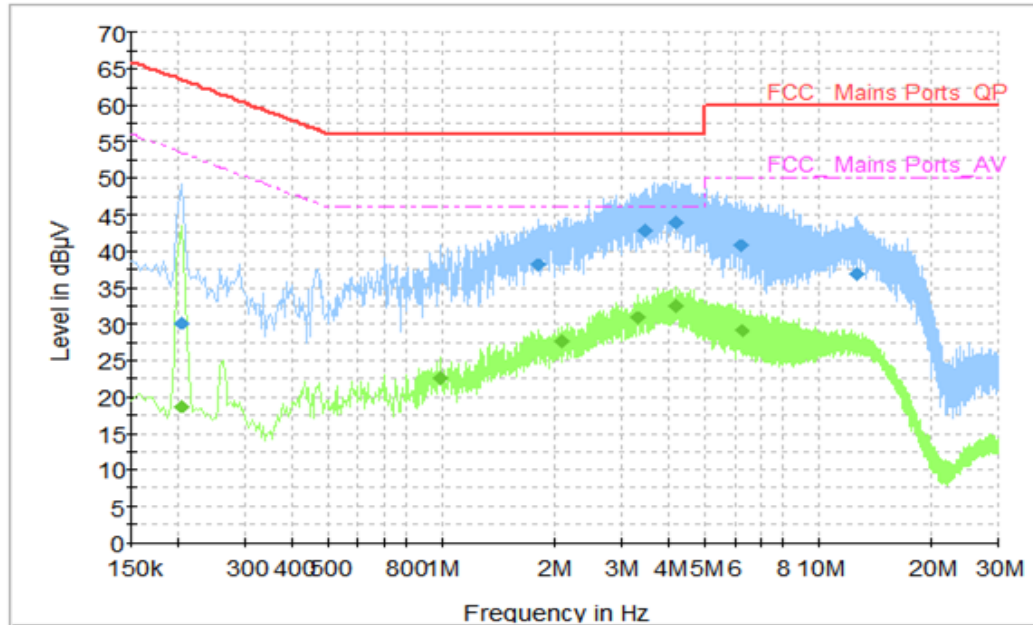


Figure B.4 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.202	30.18	63.53	33.35	N	9.6	20.58
1.802	38.04	56	17.96	N	9.7	28.34
3.446	42.89	56	13.11	N	9.7	33.19
4.186	43.88	56	12.12	N	9.7	34.18
6.186	40.65	60	19.35	N	9.8	30.85
12.538	36.91	60	23.09	N	9.9	27.01

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.202	18.64	53.53	34.89	N	9.6	9.04
0.986	22.49	46	23.51	N	9.7	12.79
2.09	27.72	46	18.28	N	9.7	18.02
3.318	30.78	46	15.22	N	9.7	21.08
4.21	32.47	46	13.53	N	9.7	22.77
6.238	29.04	50	20.96	N	9.8	19.24

USB mode: Set 5

Voltage: 120V

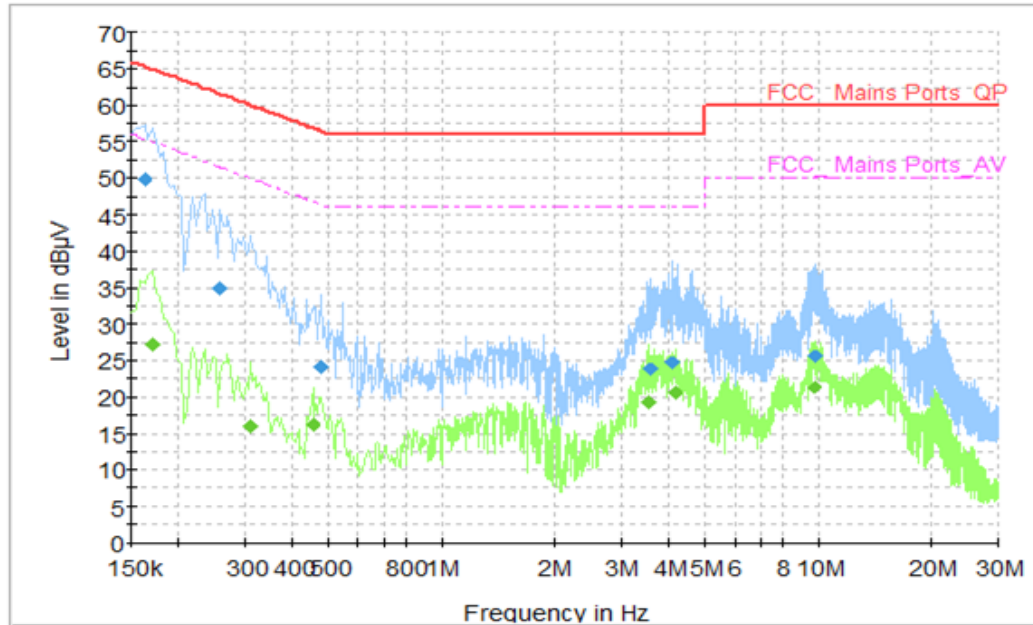


Figure B.5 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.162	49.95	65.36	15.41	N	9.6	40.35
0.258	34.83	61.5	26.67	L1	9.7	25.13
0.478	24.13	56.37	32.25	L1	9.7	14.43
3.59	23.88	56	32.12	N	9.7	14.18
4.086	24.61	56	31.39	N	9.7	14.91
9.842	25.63	60	34.37	L1	9.8	15.83

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.17	27.14	54.96	27.82	N	9.6	17.54
0.31	16	49.97	33.97	N	9.6	6.4
0.454	16.2	46.8	30.6	N	9.7	6.5
3.554	19.25	46	26.75	N	9.7	9.55
4.166	20.7	46	25.3	N	9.7	11
9.774	21.32	50	28.68	L1	9.8	11.52

USB mode: Set 6

Voltage: 120V

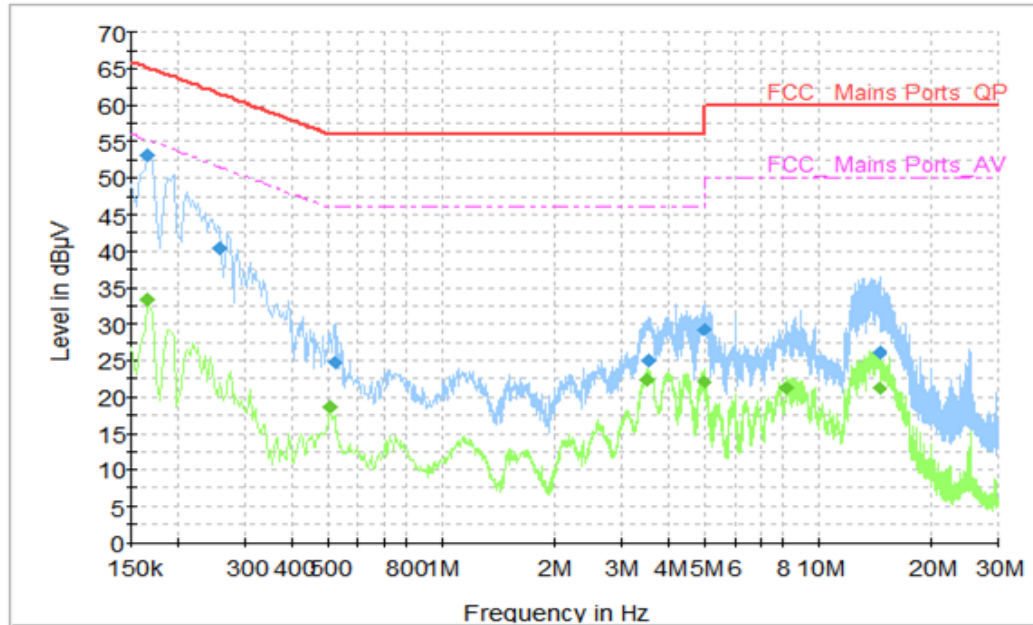


Figure B.6 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.166	53.14	65.16	12.02	N	9.6	43.54
0.258	40.4	61.5	21.1	N	9.6	30.8
0.518	24.63	56	31.37	L1	9.7	14.93
3.546	24.99	56	31.01	L1	9.7	15.29
4.966	29.36	56	26.64	N	9.7	19.66
14.522	26.07	60	33.93	L1	10.1	15.97

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.166	33.4	55.16	21.76	N	9.6	23.8
0.506	18.73	46	27.27	L1	9.7	9.03
3.518	22.45	46	23.55	N	9.7	12.75
4.946	22.06	46	23.94	N	9.7	12.36
8.202	21.1	50	28.9	L1	9.8	11.3
14.53	21.1	50	28.9	L1	10.1	11

USB mode: Set 7

Voltage: 120V

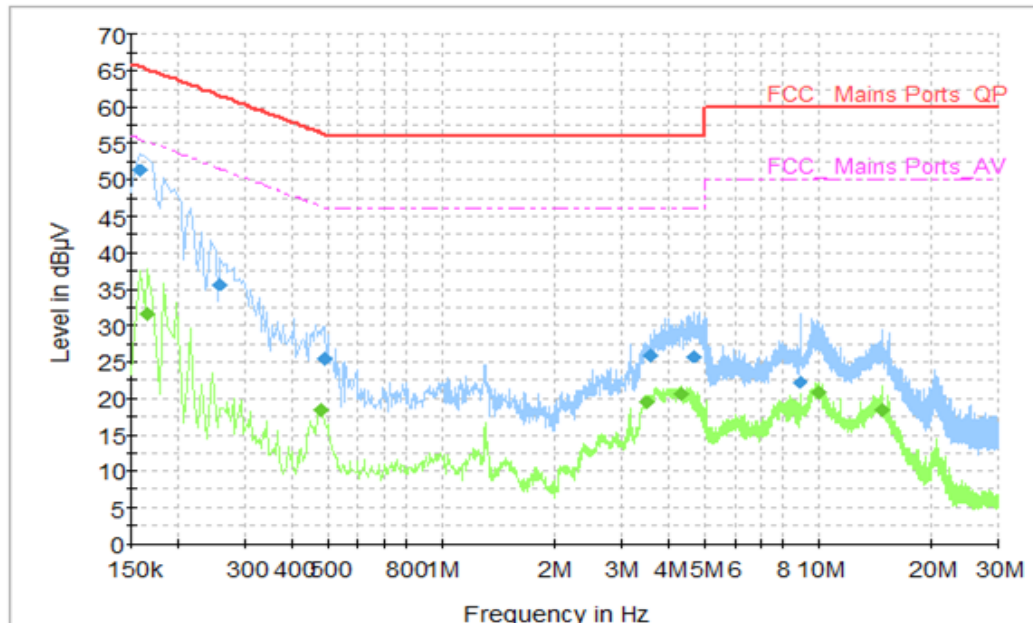


Figure B.7 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dB μ V)
0.158	51.33	65.57	14.24	L1	9.7	41.63
0.258	35.66	61.5	25.84	L1	9.7	25.96
0.486	25.44	56.24	30.79	N	9.7	15.74
3.578	25.92	56	30.08	N	9.7	16.22
4.666	25.81	56	30.19	N	9.7	16.11
8.938	22.2	60	37.8	L1	9.8	12.4

Final Measurement Detector 2

Frequency (MHz)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dB μ V)
0.166	31.47	55.16	23.68	N	9.6	21.87
0.478	18.37	46.37	28	N	9.7	8.67
3.502	19.46	46	26.54	N	9.7	9.76
4.326	20.61	46	25.39	N	9.7	10.91
10.014	20.79	50	29.21	L1	9.8	10.99
14.706	18.4	50	31.6	N	10	8.4

USB mode: Set 8

Voltage: 120V

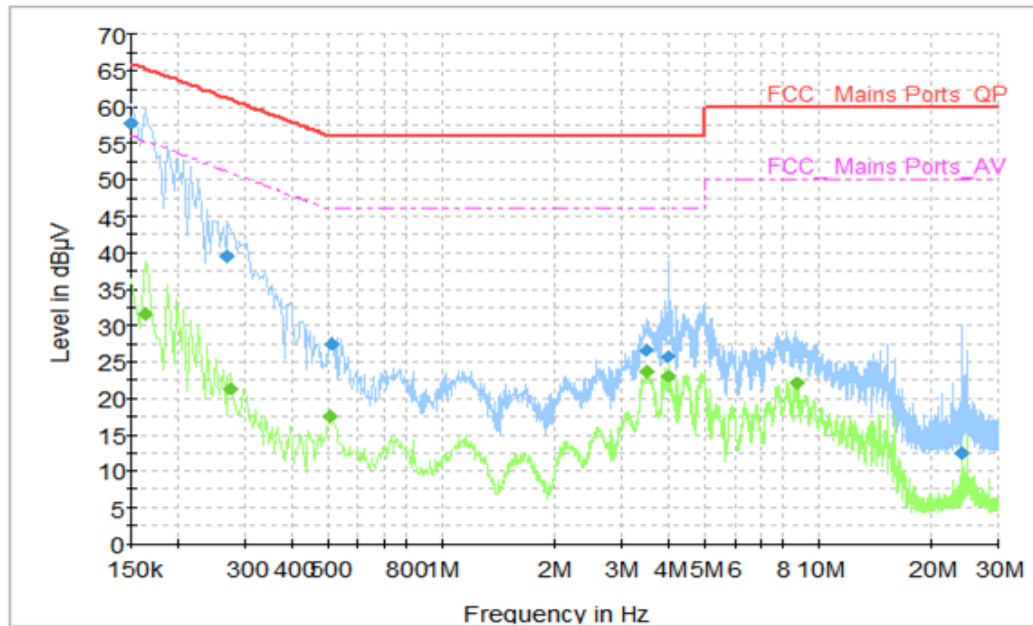


Figure B.8 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.15	57.75	66	8.25	N	9.6	48.15
0.27	39.52	61.12	21.6	N	9.6	29.92
0.51	27.45	56	28.55	N	9.7	17.75
3.486	26.63	56	29.37	N	9.7	16.93
3.978	25.66	56	30.34	N	9.7	15.96
24.054	12.58	60	47.42	N	10.3	2.28

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.162	31.57	55.36	23.79	N	9.6	21.97
0.274	21.27	51	29.73	N	9.6	11.67
0.506	17.53	46	28.47	L1	9.7	7.83
3.51	23.55	46	22.45	N	9.7	13.85
3.998	23.09	46	22.91	N	9.7	13.39
8.762	22.02	50	27.98	N	9.8	12.22

MP3 mode / Charging mode: Set 1
Voltage: 240V

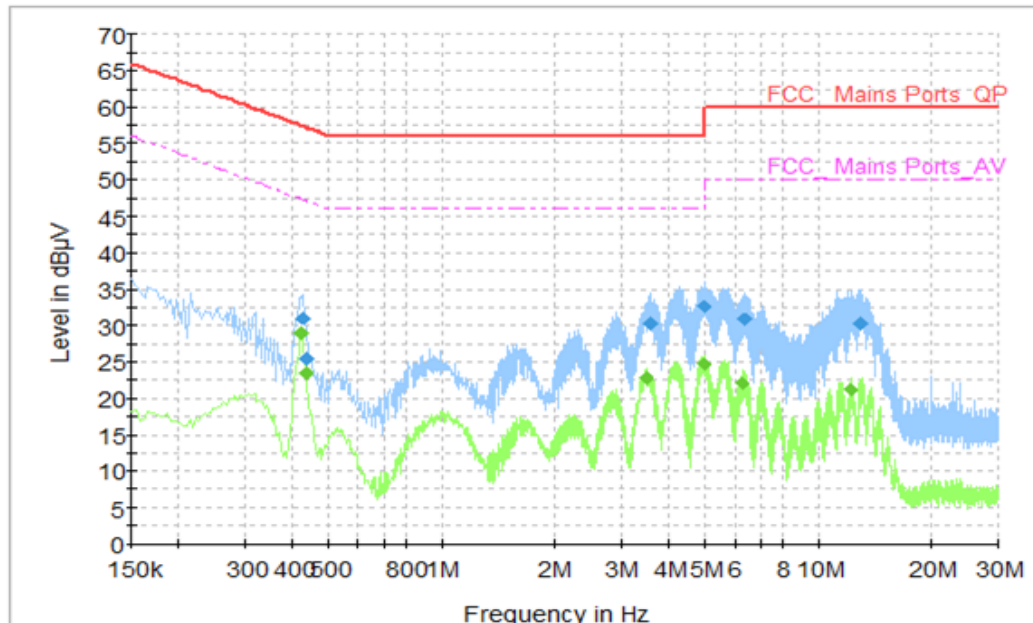


Figure B.9 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.426	31.01	57.33	26.32	N	9.7	21.31
0.438	25.37	57.1	31.73	N	9.7	15.67
3.59	30.25	56	25.75	N	9.7	20.55
4.982	32.57	56	23.43	N	9.7	22.87
6.346	30.83	60	29.17	N	9.8	21.03
12.898	30.39	60	29.61	N	9.9	20.49

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.422	28.98	47.41	18.42	N	9.7	19.28
0.434	23.39	47.18	23.79	N	9.7	13.69
3.486	22.8	46	23.2	N	9.7	13.1
4.946	24.71	46	21.29	N	9.7	15.01
6.278	22.01	50	27.99	N	9.8	12.21
12.178	21.12	50	28.88	N	9.9	11.22

Camera mode / Charging mode: Set 2

Voltage: 240V

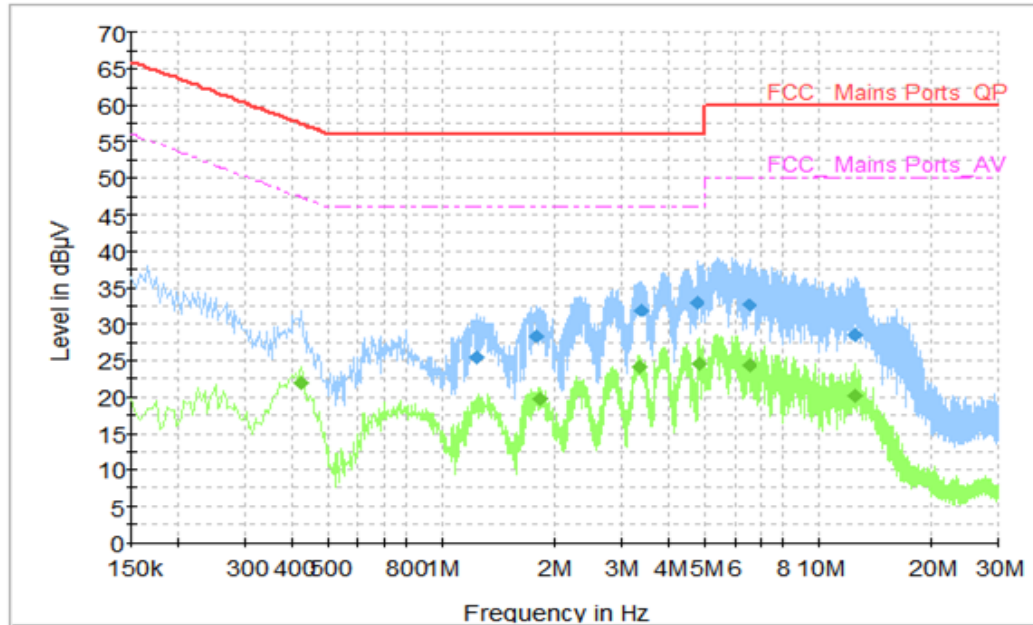


Figure B.10 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
1.234	25.42	56	30.58	N	9.7	15.72
1.782	28.35	56	27.65	N	9.7	18.65
3.382	31.93	56	24.07	N	9.7	22.23
4.77	33.05	56	22.95	N	9.7	23.35
6.518	32.59	60	27.41	N	9.8	22.79
12.486	28.5	60	31.5	N	9.9	18.6

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.422	21.88	47.41	25.52	L1	9.7	12.18
1.822	19.76	46	26.24	N	9.7	10.06
3.374	24.13	46	21.87	N	9.7	14.43
4.83	24.51	46	21.49	N	9.7	14.81
6.55	24.36	50	25.64	N	9.8	14.56
12.486	20.14	50	29.86	N	9.9	10.24

MP3 mode / Charging mode: Set 3
Voltage: 240V

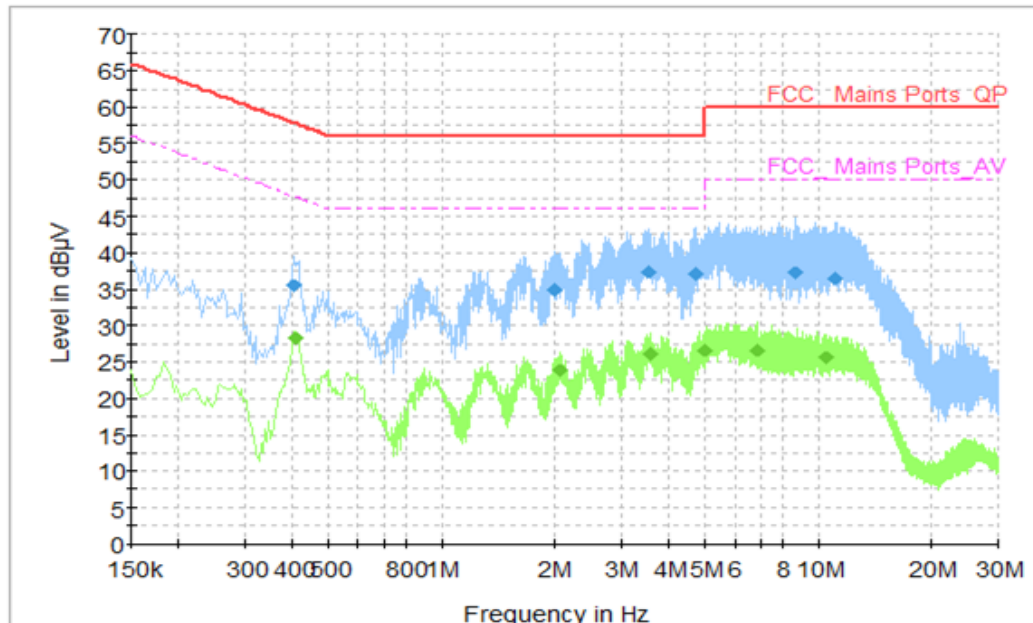


Figure B.11 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.406	35.53	57.73	22.2	N	9.7	25.83
1.99	34.95	56	21.05	N	9.7	25.25
3.546	37.31	56	18.69	N	9.7	27.61
4.726	37	56	19	N	9.7	27.3
8.662	37.2	60	22.8	N	9.8	27.4
10.978	36.48	60	23.52	N	9.8	26.68

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.41	28.13	47.65	19.51	N	9.7	18.43
2.062	23.8	46	22.2	N	9.7	14.1
3.582	26.13	46	19.87	N	9.7	16.43
4.994	26.6	46	19.4	N	9.7	16.9
6.878	26.69	50	23.31	N	9.8	16.89
10.426	25.6	50	24.4	N	9.8	15.8

Camera mode / Charging mode: Set 4

Voltage: 240V

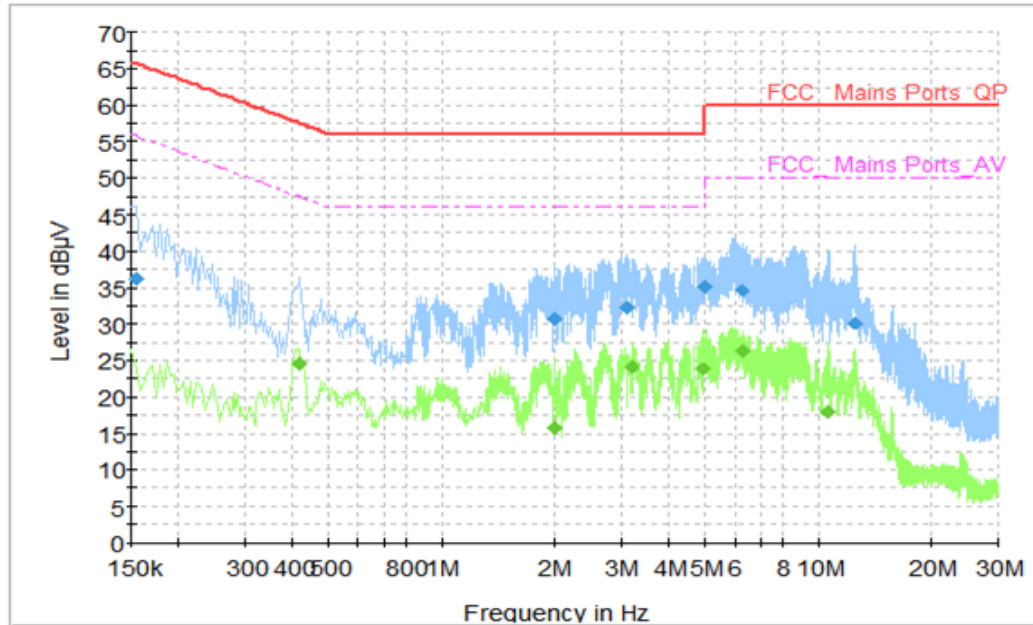


Figure B.12 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.154	36.15	65.78	29.63	N	9.6	26.55
1.986	30.74	56	25.26	N	9.7	21.04
3.118	32.26	56	23.74	N	9.7	22.56
4.994	35.14	56	20.86	N	9.7	25.44
6.25	34.58	60	25.42	N	9.8	24.78
12.438	30.07	60	29.93	N	9.9	20.17

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.418	24.53	47.49	22.96	N	9.7	14.83
1.994	15.78	46	30.22	N	9.7	6.08
3.178	24.2	46	21.8	N	9.7	14.5
4.934	23.78	46	22.22	N	9.7	14.08
6.326	26.33	50	23.67	N	9.8	16.53
10.558	18.01	50	31.99	N	9.8	8.21

USB mode: Set 5

Voltage: 240V

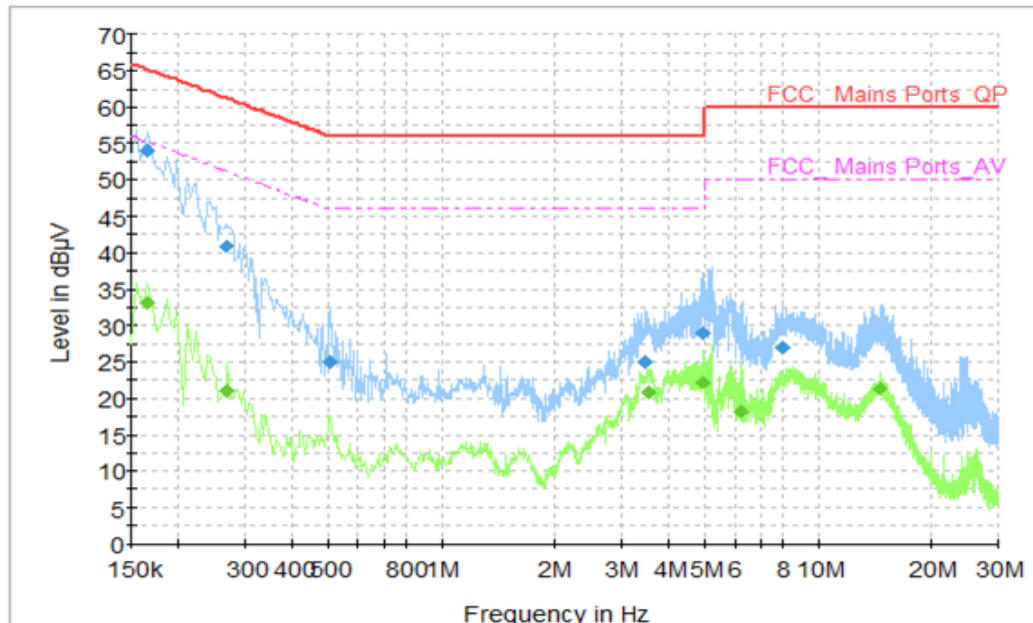


Figure B.13 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dB μ V)
0.166	53.96	65.16	11.2	L1	9.7	44.26
0.266	40.85	61.24	20.39	L1	9.7	31.15
0.506	24.97	56	31.03	L1	9.7	15.27
3.446	24.97	56	31.03	L1	9.7	15.27
4.942	28.94	56	27.06	N	9.7	19.24
7.986	26.97	60	33.03	N	9.8	17.17

Final Measurement Detector 2

Frequency (MHz)	Average (dB μ V)	Limit (dB μ V)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dB μ V)
0.166	33.13	55.16	22.02	L1	9.7	23.43
0.27	20.98	51.12	30.14	N	9.6	11.38
3.534	20.72	46	25.28	N	9.7	11.02
4.942	22.18	46	23.82	N	9.7	12.48
6.222	18.18	50	31.82	N	9.8	8.38
14.53	21.31	50	28.69	L1	10.1	11.21

USB mode: Set 6

Voltage: 240V

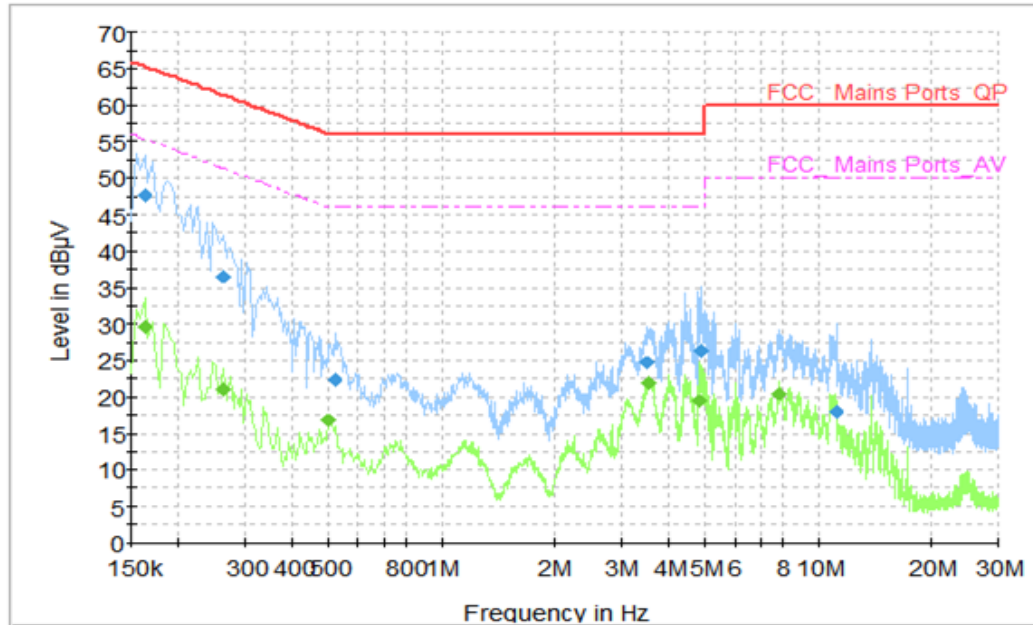


Figure B.14 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.162	47.53	65.36	17.83	N	9.6	37.93
0.262	36.5	61.37	24.86	N	9.6	26.9
0.518	22.42	56	33.58	N	9.7	12.72
3.518	24.7	56	31.3	L1	9.7	15
4.886	26.2	56	29.8	N	9.7	16.5
11.078	17.97	60	42.03	N	9.9	8.07

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.162	29.61	55.36	25.76	N	9.6	20.01
0.262	20.98	51.37	30.39	N	9.6	11.38
0.502	16.77	46	29.23	L1	9.7	7.07
3.534	21.81	46	24.19	N	9.7	12.11
4.85	19.34	46	26.66	N	9.7	9.64
7.862	20.37	50	29.63	N	9.8	10.57

USB mode: Set 7

Voltage: 240V

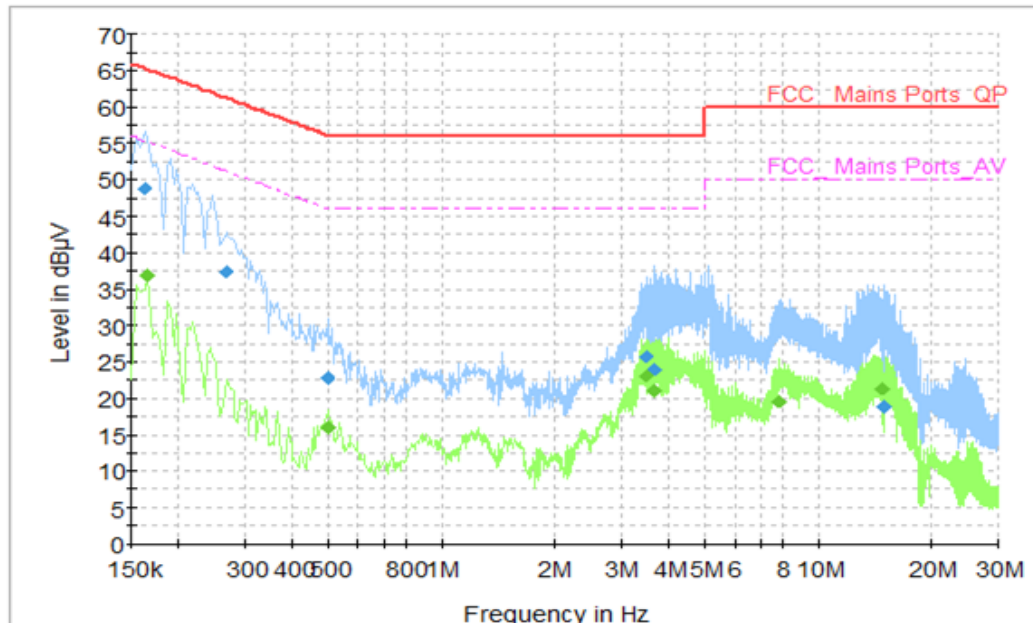


Figure B.15 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.162	48.9	65.36	16.46	L1	9.7	39.2
0.266	37.35	61.24	23.89	N	9.6	27.75
0.498	22.82	56.03	33.21	N	9.7	13.12
3.482	25.83	56	30.17	L1	9.7	16.13
3.69	24.02	56	31.98	L1	9.7	14.32
14.922	18.82	60	41.18	L1	10.1	8.72

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.166	36.77	55.16	18.39	N	9.6	27.17
0.502	16.02	46	29.98	N	9.7	6.32
3.482	23.1	46	22.9	L1	9.7	13.4
3.69	21	46	25	L1	9.7	11.3
7.854	19.58	50	30.42	L1	9.8	9.78
14.794	21.39	50	28.61	L1	10.1	11.29

USB mode: Set 8

Voltage: 240V

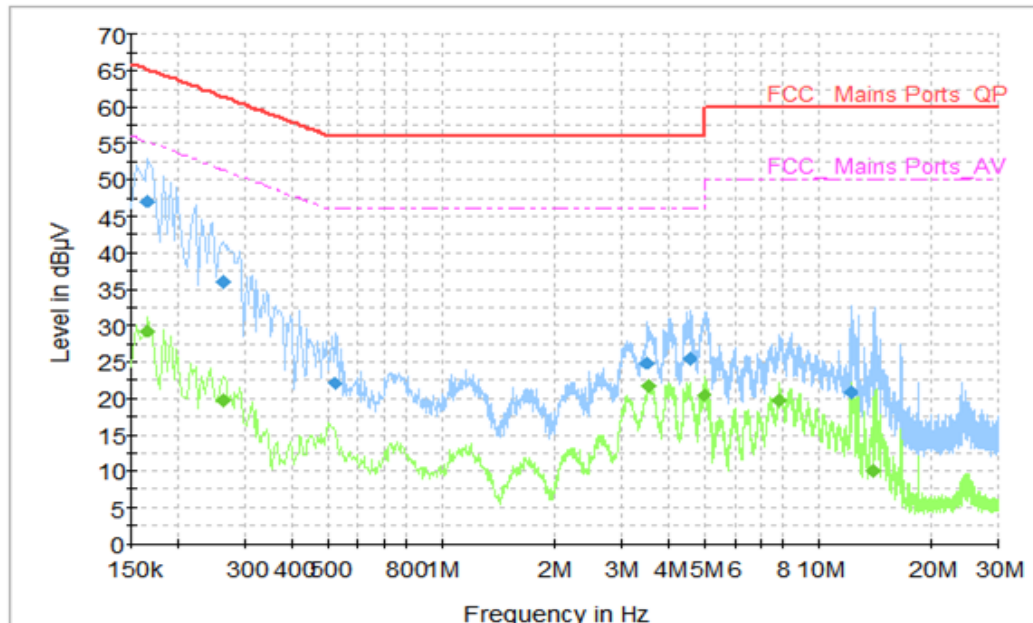


Figure B.16 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.166	47.01	65.16	18.15	N	9.6	37.41
0.262	36.02	61.37	25.34	N	9.6	26.42
0.518	22.09	56	33.91	N	9.7	12.39
3.51	24.82	56	31.18	N	9.7	15.12
4.538	25.46	56	30.54	N	9.7	15.76
12.202	20.78	60	39.22	N	9.9	10.88

Final Measurement Detector 2

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBμV)
0.166	29.22	55.16	25.94	N	9.6	19.62
0.262	19.75	51.37	31.62	N	9.6	10.15
3.534	21.72	46	24.28	N	9.7	12.02
4.962	20.39	46	25.61	N	9.7	10.69
7.886	19.8	50	30.2	N	9.8	10
13.994	10.01	50	39.99	N	9.9	0.11

END OF REPORT