



TESTREPORT

No.I18N00717-EMC

for

Doro AB

LTE phone

Model Name: DSB-0090

FCC ID: WS5DSB0090

Hardware Version: 1XX1

Software Version:

FRANK01A-S10A_DSB0090_600_USERDEBUG_180503

Issued Date: 2018-06-08

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:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I18N00717-EMC	Rev.0	1st edition	2018-06-08

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1. Test Laboratory

1.1. TestingLocation

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
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1.2. TestingEnvironment

Normal Temperature: 15-35°C
Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2018-05-17
Testing End Date: 2018-06-01

1.4. Signature



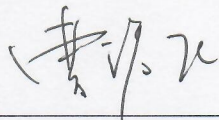
Liang Yong

(Prepared this test report)



Zhang Yunzhan

(Reviewed this test report)



Cao Junfei

Director of the laboratory

(Approved this test report)

2. ClientInformation

2.1. Applicant Information

Company Name: Doro AB
Address: Magistratsvägen 10 SE-226 43 Lund Sweden

2.2. Manufacturer Information

Company Name: CK TELECOM LTD.
Address: Technology Road. High-Tech Development Zone. Heyuan,
Guangdong, P.R. China

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

3.1. About EUT

Description	LTE phone
Model Name	DSB-0090
FCC ID	WS5DSB0090
Condition of EUT as received	No obvious damage in appearance

The Equipment Under Test (EUT)are a model of LTE 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*	IMEI	HW Version	SW Version
EUT1	355115080817817	1011	FRANK01A-S10A_DSB0090_600_USER DEBUG_180503
EUT2	355115080818443	1021	FRANK01A-S10A_DSB0090_600_USER DEBUG_180503

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

Note1: According to CK TELECOM LTD's description that The differences between Doro8040(DSB-0090) previous HW version 2011 and new HW versions is that CK TELECOM LTD added Substitute materials.

Note2: Series Hardware Version: 1XX1, XX=01~16, XX means different combinations of the components from 2 suppliers. The combinations are as below.

doro8040 HW	G sensor	M sensor	TVS	Memory
1011	1st	1st	1st	1st
1021	2nd	2nd	2nd	2nd
1031	1st	1st	1st	2nd
1041	1st	1st	2nd	1st
1051	1st	1st	2nd	2nd
1061	1st	2nd	1st	1st
1071	1st	2nd	1st	2nd
1081	1st	2nd	2nd	1st
1091	1st	2nd	2nd	2nd
1101	2nd	1st	1st	1st
1111	2nd	1st	1st	2nd
1121	2nd	1st	2nd	1st
1131	2nd	1st	2nd	2nd
1141	2nd	2nd	1st	1st
1151	2nd	2nd	2nd	1st

1161	2nd	2nd	1st	2nd
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3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	Battery	/
AE2	Travel charger	/
AE3	USB cable	/
AE4	Charging Cradle	/
AE1		
Model	DBN-2920A	
Manufacturer	Coslight Technology International Group Co., Ltd.	
Capacitance	2920mAh	
Nominal Voltage	3.8V	
AE2-1		
Model	A2-501000	
Manufacturer	Dongguan Aohai Power Technolgy Co., LTD	
S/N	/	
AE2-2		
Model	A806A-050100U-UK1	
Manufacturer	Dongguan Aohai Power Technolgy Co.,LTD	
S/N	/	
AE3		
Model	150C-333E-3.5MM-24	
Manufacturer	QUANCHENG ELECTRONIC CO., LTD	
AE4		
Model	Charging Cradle	
Manufacturer	CK Telecom(Heyuan)	

*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+AE2-1+AE3	Charging mode
Set.2	EUT1+ AE1+AE2-2+AE3	Charging mode
Set.3	EUT1+ AE1+AE2-1+AE3+AE4	Charging mode
Set.4	EUT1+ AE1+AE2-2+AE3+AE4	Charging mode
Set.5	EUT2+ AE1+AE2-1+AE3	Charging mode
Set.6	EUT2+ AE1+AE2-2+AE3	Charging mode
Set.7	EUT1+ AE1+ AE3	USB mode
Set.8	EUT2+ AE1+ AE3	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	2018.06.25	1 year
3.	Spectrum Analyzer	FSV40	101192	R&S	2019.05.22	1 year
4.	BiLog Antenna	VULB9163	9163 329	SCHWARZBECK	2020.02.27	3 years
5.	LISN	ENV216	102067	R&S	2018.07.19	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 E460	PF-0I0TM1	Lenovo	/	/
9.	Printer	P1008	VNF6C12491	HP	/	/
10.	Mouse	MOEUUOA	44NY517	Lenovo	/	/
11.	Chamber	FACT3-2.0	1285	ETS-Lindgren	2019.11.27	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:

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 E460, and the serial number of the PC is PF-0I0TM1. 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)

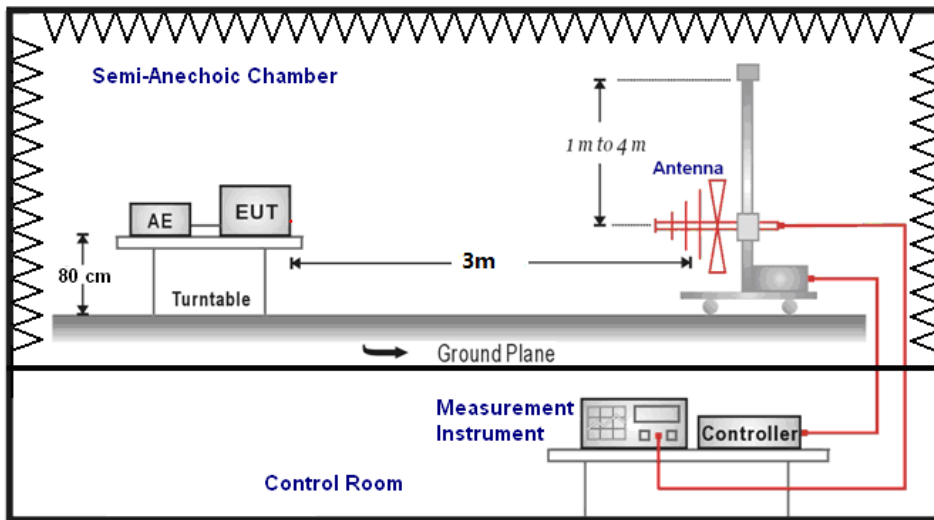
Frequency range (MHz)	Field strength limit ($\mu\text{V}/\text{m}$)		
	Quasi-peak	Average	Peak
30-88	100		
88-216	150		
216-960	200		
960-1000	500		
>1000		500	5000

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

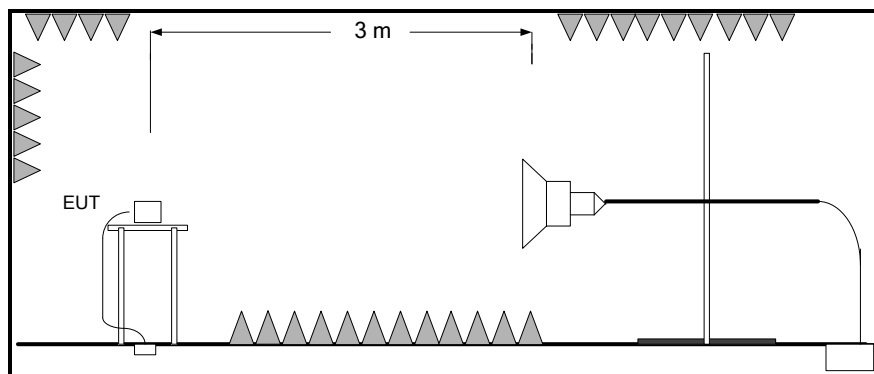
A.1.4 Test Condition

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:

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

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: 5.32 dB (k=2)

Set.1 Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dB μ V)
13979.5	56.51	74	17.49	H	19.6	36.91
14692.5	58.13	74	15.87	V	20.7	37.43
15547.5	57.22	74	16.78	V	20.8	36.42
16190.5	58.99	74	15.01	H	22.5	36.49
16643	58.91	74	15.09	V	22.4	36.51
17681.5	58.41	74	15.59	V	22.7	35.71

Set.1 Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dB μ V)
13958	45.39	54	8.61	V	19.7	25.69
14540.5	46.24	54	7.76	H	20.4	25.84
15561.5	46.43	54	7.57	H	20.9	25.53
15664	47.47	54	6.53	H	21.3	26.17
16655.5	47.32	54	6.68	H	22.3	25.02
17707.5	46.83	54	7.17	H	22.9	23.93

Set.2 Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
13922.5	56.77	74	17.23	V	19.8	36.97
14579	58.16	74	15.84	V	20.5	37.66
15438.5	57.43	74	16.57	H	20.2	37.23
16269.5	59.06	74	14.94	H	21.8	37.26
16639.5	59.09	74	14.91	V	22.5	36.59
17162	58	74	16	V	21.4	36.6

Set.2 Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
14018.5	45.24	54	8.76	H	19.5	25.74
14543.5	46.26	54	7.74	H	20.4	25.86
15575	46.33	54	7.67	V	21	25.33
15651.5	47.33	54	6.67	H	21.3	26.03
16587.5	47.22	54	6.78	H	22.8	24.42
17703.5	46.59	54	7.41	V	22.9	23.69

Set.3 Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
13973.5	56.93	74	17.07	H	19.6	37.33
14537.5	57.85	74	16.15	V	20.4	37.45
14990	57.74	74	16.26	V	20.1	37.64
15593	58.79	74	15.21	V	21.2	37.59
16605	58.78	74	15.22	H	22.9	35.88
17698.5	58.37	74	15.63	H	22.9	35.47

Set.3 Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
13954.5	45.42	54	8.58	H	19.7	25.72
14689.5	46.31	54	7.69	H	20.7	25.61
15574.5	46.49	54	7.51	V	21	25.49
15649	47.51	54	6.49	H	21.3	26.21
16643.5	47.43	54	6.57	V	22.4	25.03
17913	46.57	54	7.43	V	23.9	22.67

Set.4 Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
13945.5	57.88	74	16.12	V	19.7	38.18
14604.5	57.93	74	16.07	H	20.6	37.33
14960	58.24	74	15.76	V	20.3	37.94
15704.5	58.92	74	15.08	V	21.3	37.62
16653.5	58.34	74	15.66	V	22.3	36.04
17878.5	58.22	74	15.78	H	23.7	34.52

Set.4 Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
13955.5	45.33	54	8.67	V	19.7	25.63
14559.5	46.21	54	7.79	V	20.4	25.81
15565	46.27	54	7.73	H	20.9	25.37
15646	47.35	54	6.65	H	21.3	26.05
16638.5	47.22	54	6.78	V	22.5	24.72
17693.5	46.51	54	7.49	H	22.9	23.61

Set.6 Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
12948.5	57.56	74	16.44	H	20	37.56
14010.5	57.19	74	16.81	V	19.5	37.69
14683.5	57.57	74	16.43	V	20.7	36.87
15571.5	56.93	74	17.07	H	21	35.93
16594.5	58.81	74	15.19	H	22.8	36.01
17699.5	58.06	74	15.94	V	22.9	35.16

Set.6 Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
12889	45.74	54	8.26	V	19.9	25.84
13953	45.69	54	8.31	H	19.7	25.99
14679	46.41	54	7.59	H	20.7	25.71
15575	46.42	54	7.58	H	21	25.42
16647.5	47.54	54	6.46	H	22.4	25.14
17895.5	46.68	54	7.32	V	24	22.68

Set.7 USB mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
13970	56.15	74	17.85	H	19.6	36.55
14543	56.62	74	17.38	H	20.4	36.22
15038	56.34	74	17.66	V	20	36.34
15644	57.36	74	16.64	H	21.3	36.06
16423	57.7	74	16.3	V	21.7	36
17702	57.17	74	16.83	H	22.9	34.27

Set.7 USB mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
13928.5	44.45	54	9.55	V	19.7	24.75
14674.5	45.41	54	8.59	V	20.7	24.71
15575	45.2	54	8.8	V	21	24.2
15644	46.48	54	7.52	H	21.3	25.18
16650	46.56	54	7.44	V	22.3	24.26
17707	45.55	54	8.45	H	22.9	22.65

Set.8 USB mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
13978.5	57.42	74	16.58	H	19.6	37.82
14690	59.15	74	14.85	H	20.7	38.45
15566	57.45	74	16.55	H	20.9	36.55
15707	58.98	74	15.02	V	21.2	37.78
16606	59.13	74	14.87	V	22.8	36.33
17997.5	58.17	74	15.83	H	23	35.17

Set.8 USB mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Limit (dB μ V/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dB μ V)
12903.5	45.71	54	8.29	H	20	25.71
14007	45.69	54	8.31	V	19.5	26.19
14530.5	46.65	54	7.35	H	20.3	26.35
15660	47.83	54	6.17	H	21.3	26.53
16592	47.87	54	6.13	V	22.8	25.07
17697	46.78	54	7.22	V	22.9	23.88

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

Charging mode: Set 1

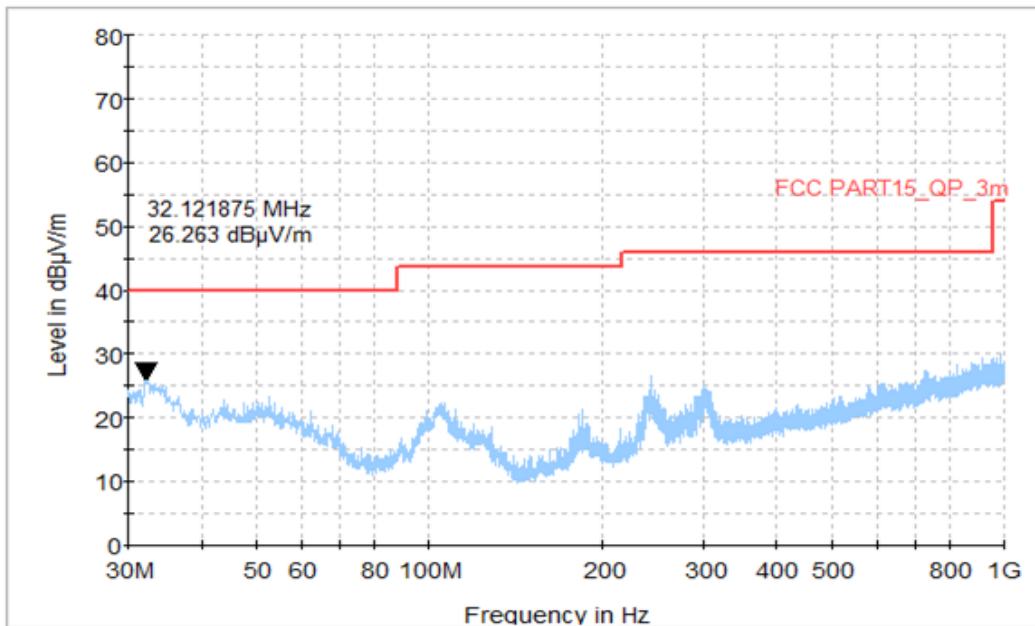


Figure A.1 Radiated Emission from 30MHz to 1GHz

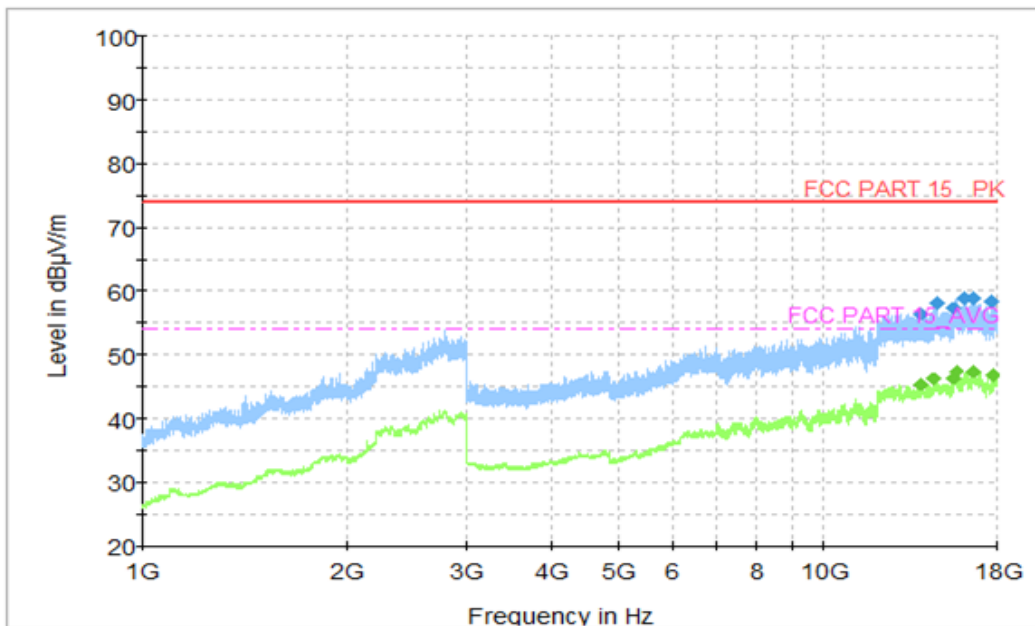


Figure A.2 Radiated Emission from 1GHz to 18GHz

Charging mode: Set 2

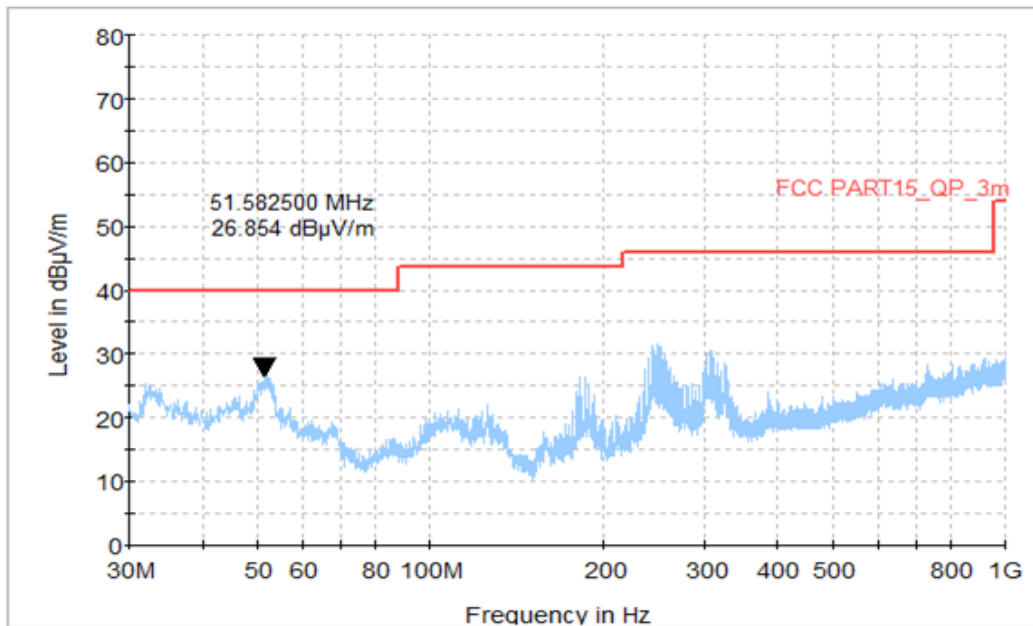


Figure A.1 Radiated Emission from 30MHz to 1GHz



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

Charging mode: Set 3

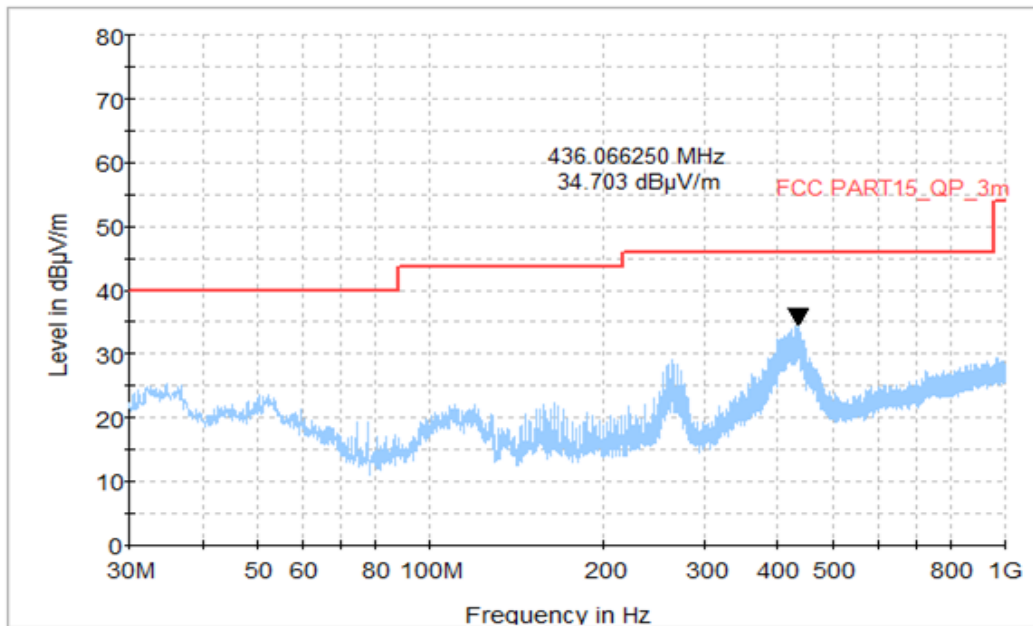


Figure A.1 Radiated Emission from 30MHz to 1GHz

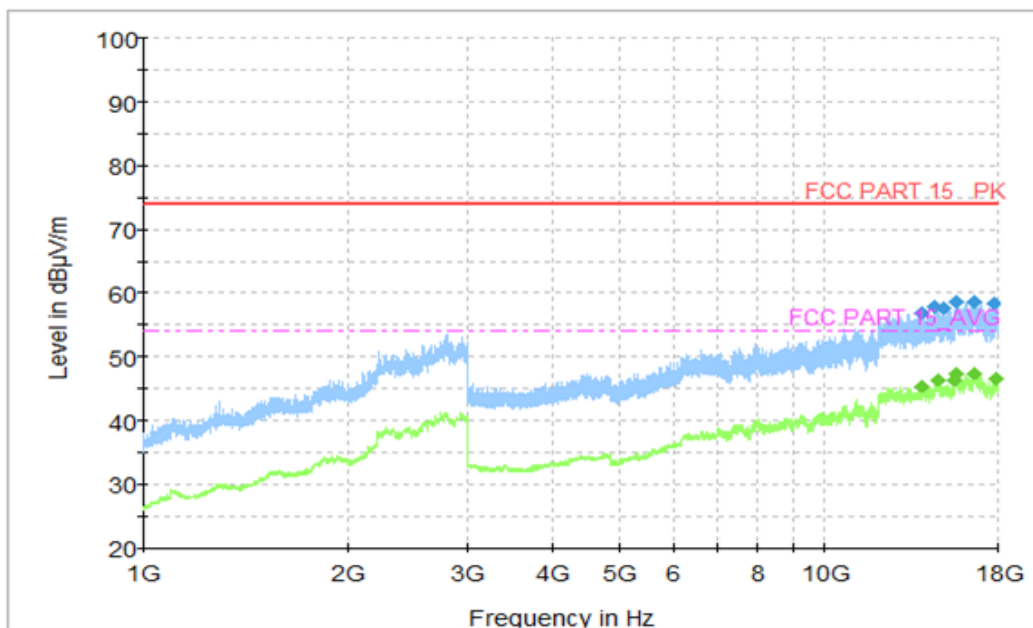


Figure A.2 Radiated Emission from 1GHz to 18GHz

Charging mode: Set 4

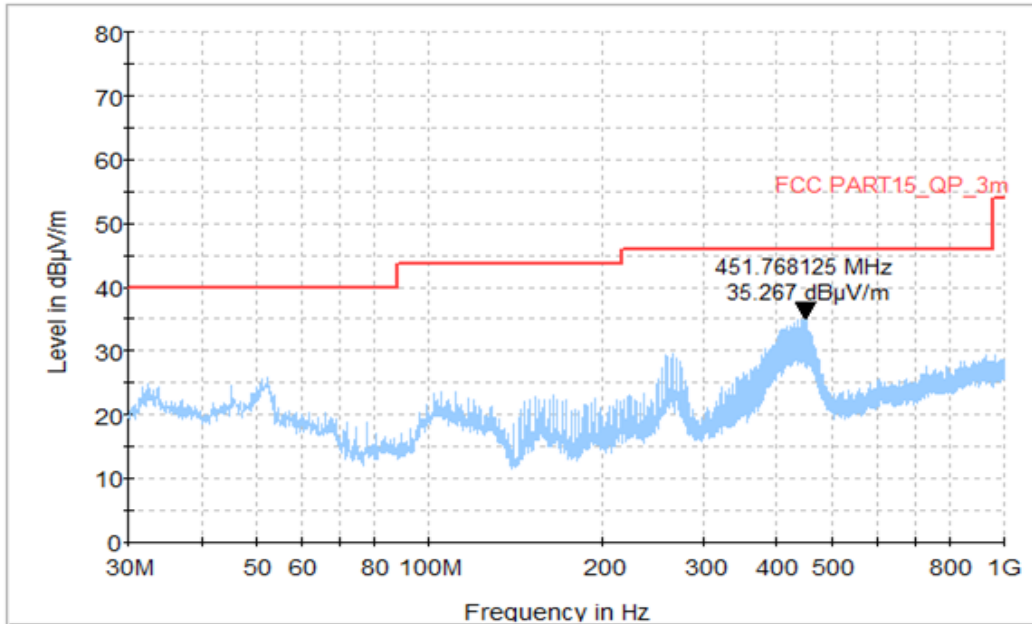


Figure A.3 Radiated Emission from 30MHz to 1GHz

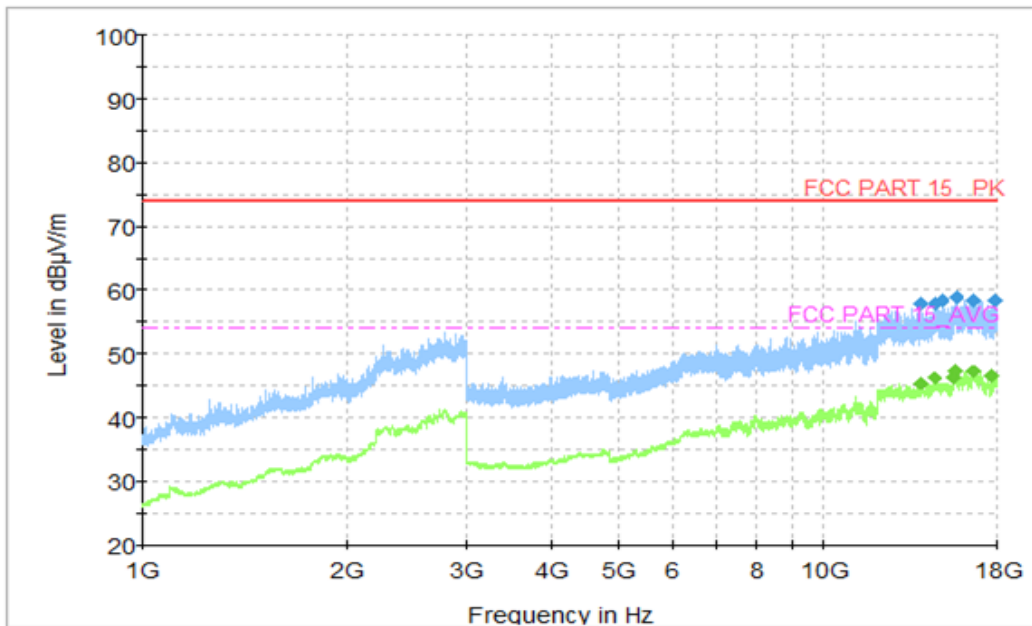


Figure A.4 Radiated Emission from 1GHz to 18GHz

Charging mode: Set 6

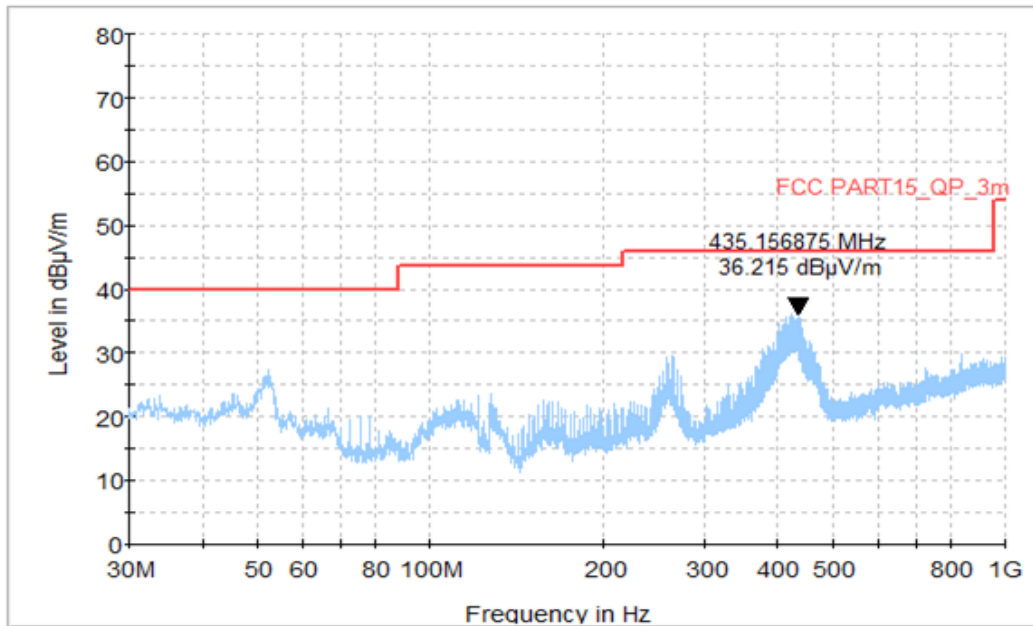


Figure A.5 Radiated Emission from 30MHz to 1GHz

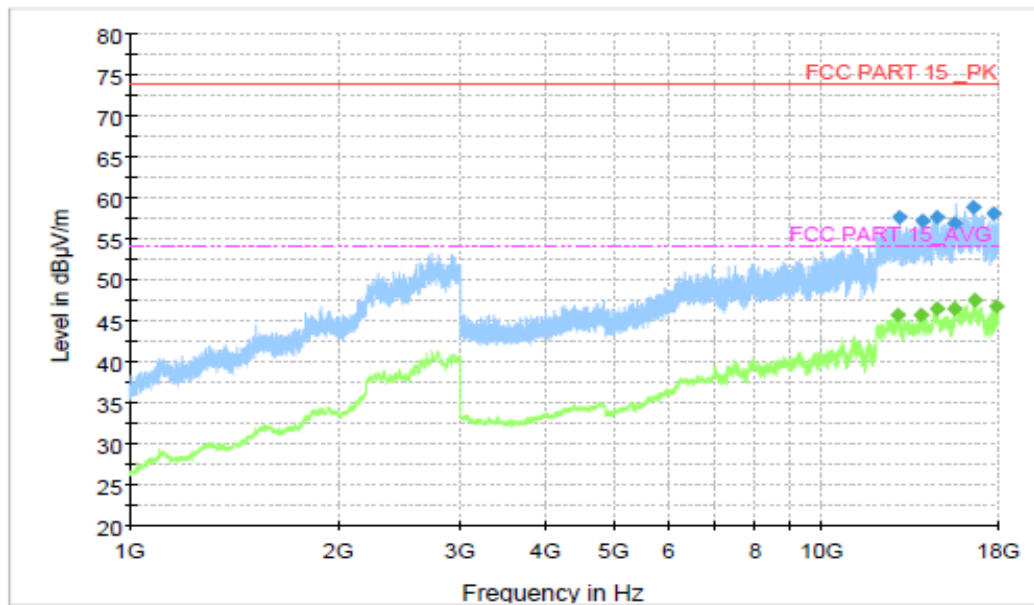


Figure A.6 Radiated Emission from 1GHz to 18GHz

USB mode: Set 7

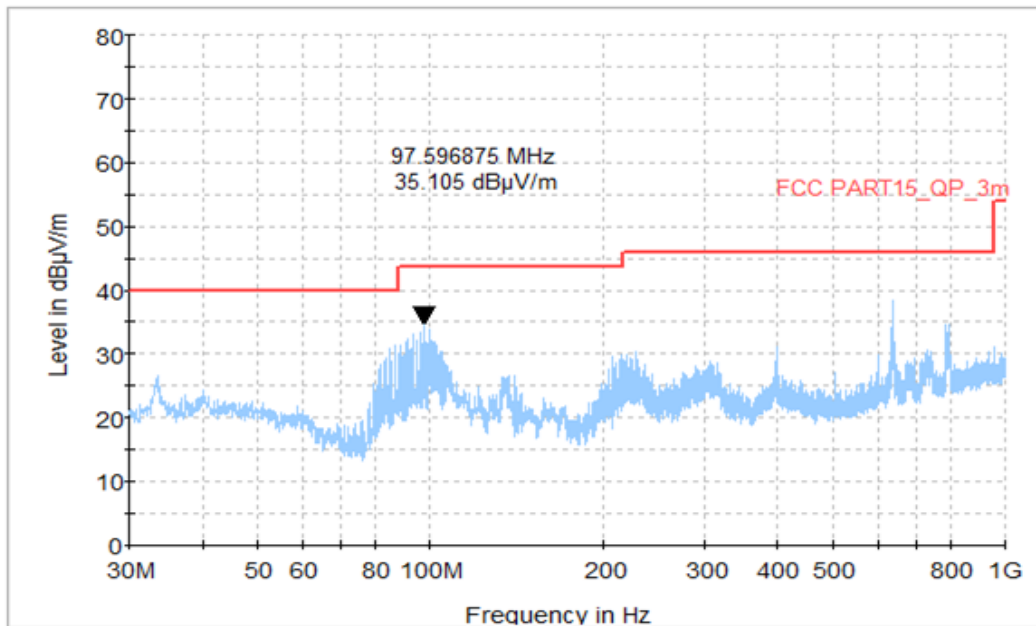


Figure A.7 Radiated Emission from 30MHz to 1GHz

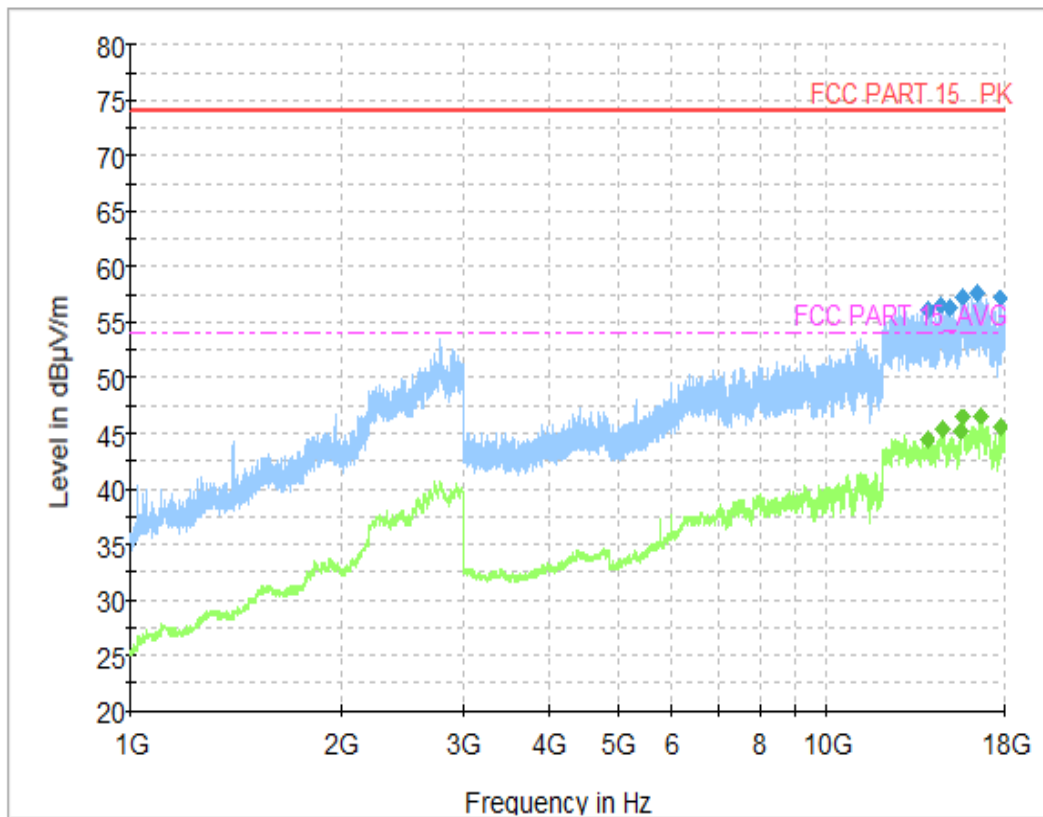


Figure A.8 Radiated Emission from 1GHz to 18GHz

USB mode: Set 8

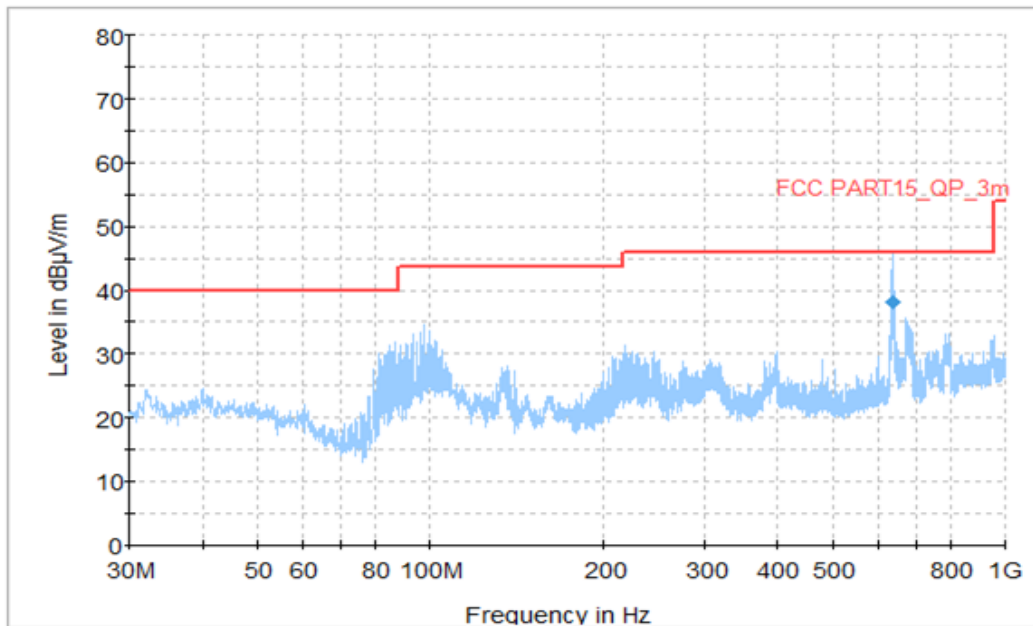


Figure A.1 Radiated Emission from 30MHz to 1GHz

Final_Result

Frequency (MHz)	QuasiPeak (dB µV/m)	Limit (dB µV/m)	Margin (dB)	Pol	Corr. (dB)
639.643750	38.08	46.02	7.94	V	-5.9

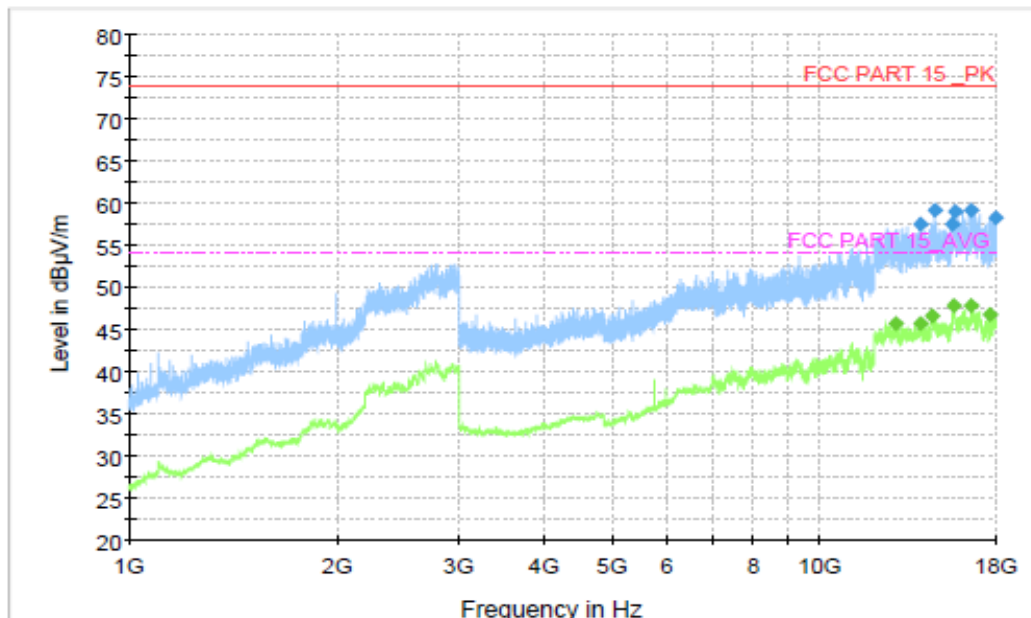


Figure A.2 Radiated Emission from 1GHz to 18GHz

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:

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.

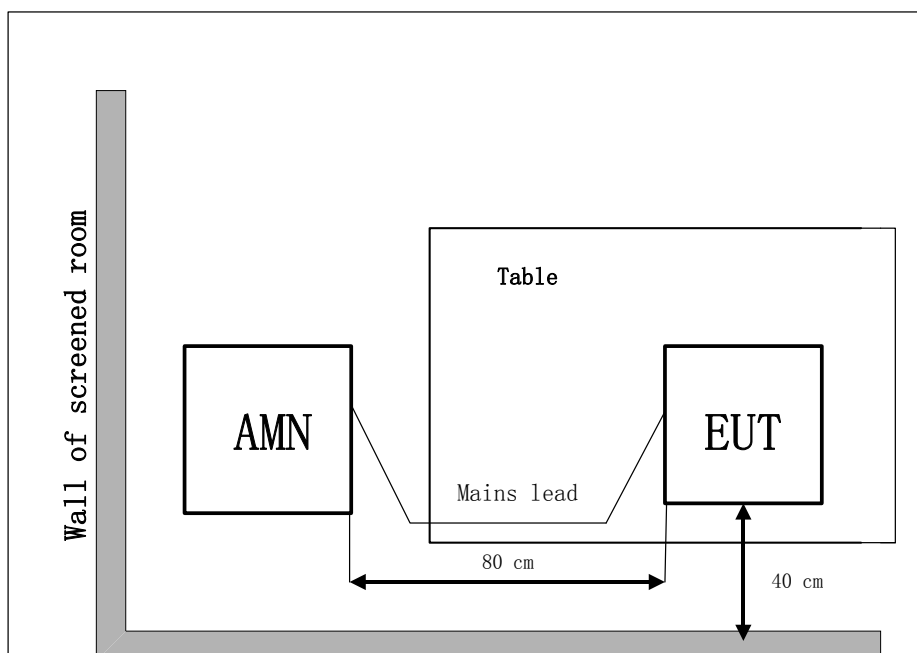
USB mode: The model of the PC is Lenovo ThinkPad E460, and the serial number of the PC is PF-0I0TM1. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

B.2.3 Measurement Limit

Frequency of emission (MHz)	Conducted limit (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

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:2.72 dB (k=2)

B.2.6 Measurement Results

QuasiPeak(dB μV) /Average(dB μV) =P_{Mea}+Corr

Where

Corr: PathLoss + Voltage Division Factor

P_{Mea}: Measurement result on receiver.

Charging mode: Set 1
Voltage: 120V

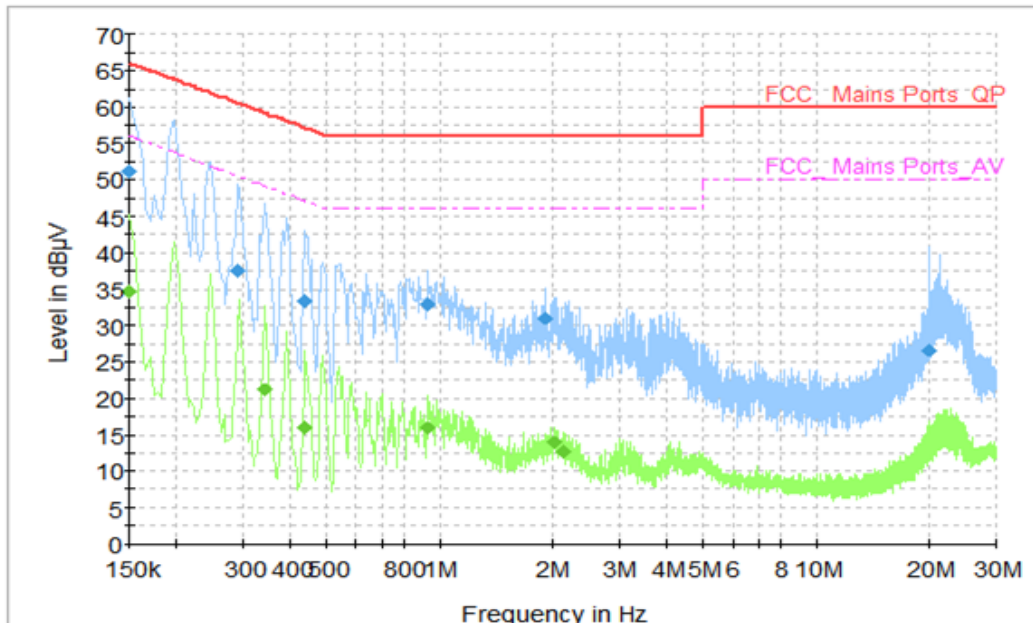


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.15	51.2	66	14.8	N	9.6	41.6
0.29	37.52	60.52	23.01	N	9.6	27.92
0.438	33.34	57.1	23.76	N	9.7	23.64
0.93	32.94	56	23.06	L1	9.7	23.24
1.91	31.01	56	24.99	N	9.7	21.31
20.002	26.62	60	33.38	L1	10.2	16.42

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.15	34.7	56	21.3	N	9.6	25.1
0.342	21.12	49.16	28.04	N	9.6	11.52
0.438	15.99	47.1	31.11	N	9.7	6.29
0.934	15.92	46	30.08	L1	9.7	6.22
2.006	13.89	46	32.11	L1	9.7	4.19
2.13	12.77	46	33.23	L1	9.7	3.07

Charging mode: Set 2
Voltage: 120V

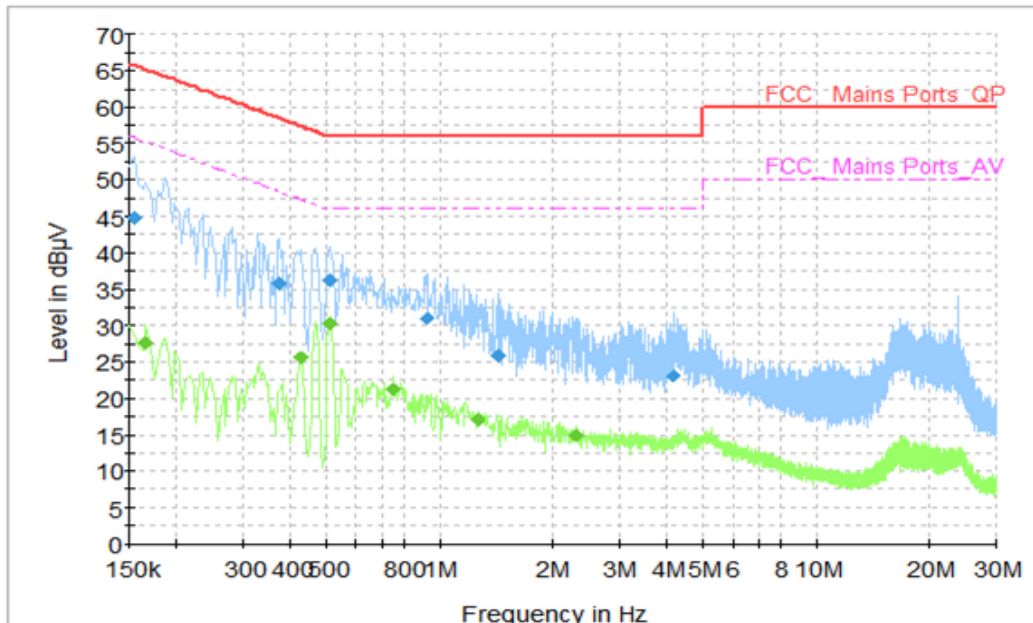


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.154	44.76	65.78	21.02	L1	9.7	35.06
0.374	35.74	58.41	22.67	N	9.6	26.14
0.51	36.09	56	19.91	L1	9.7	26.39
0.922	31	56	25	N	9.7	21.3
1.43	25.99	56	30.01	N	9.7	16.29
4.166	23.03	56	32.97	N	9.7	13.33

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.166	27.7	55.16	27.46	N	9.6	18.1
0.426	25.57	47.33	21.77	L1	9.7	15.87
0.51	30.26	46	15.74	L1	9.7	20.56
0.754	21.11	46	24.89	N	9.7	11.41
1.254	17.08	46	28.92	L1	9.7	7.38
2.298	14.99	46	31.01	L1	9.7	5.29

Charging mode: Set 3
Voltage: 120V

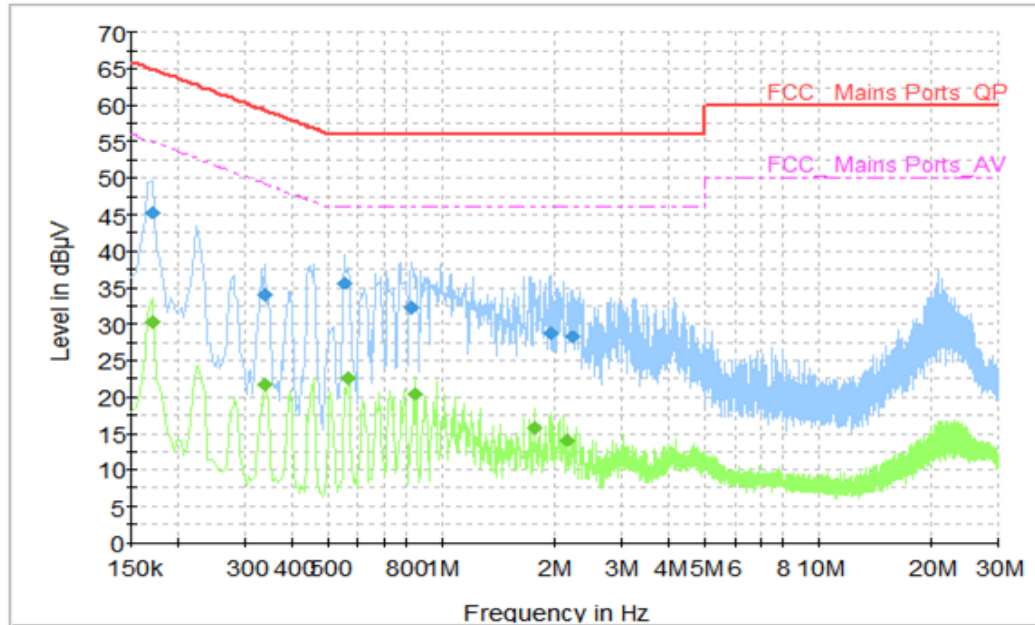


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.17	45.32	64.96	19.64	L1	9.7	35.62
0.338	34.02	59.25	25.23	L1	9.7	24.32
0.55	35.64	56	20.36	L1	9.7	25.94
0.83	32.19	56	23.81	N	9.7	22.49
1.938	28.67	56	27.33	N	9.7	18.97
2.21	28.24	56	27.76	N	9.7	18.54

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.17	30.25	54.96	24.71	L1	9.7	20.55
0.338	21.75	49.25	27.5	L1	9.7	12.05
0.562	22.52	46	23.48	L1	9.7	12.82
0.854	20.39	46	25.61	L1	9.7	10.69
1.762	15.74	46	30.26	L1	9.7	6.04
2.162	14.07	46	31.93	L1	9.7	4.37

Charging mode: Set 4
Voltage: 120V

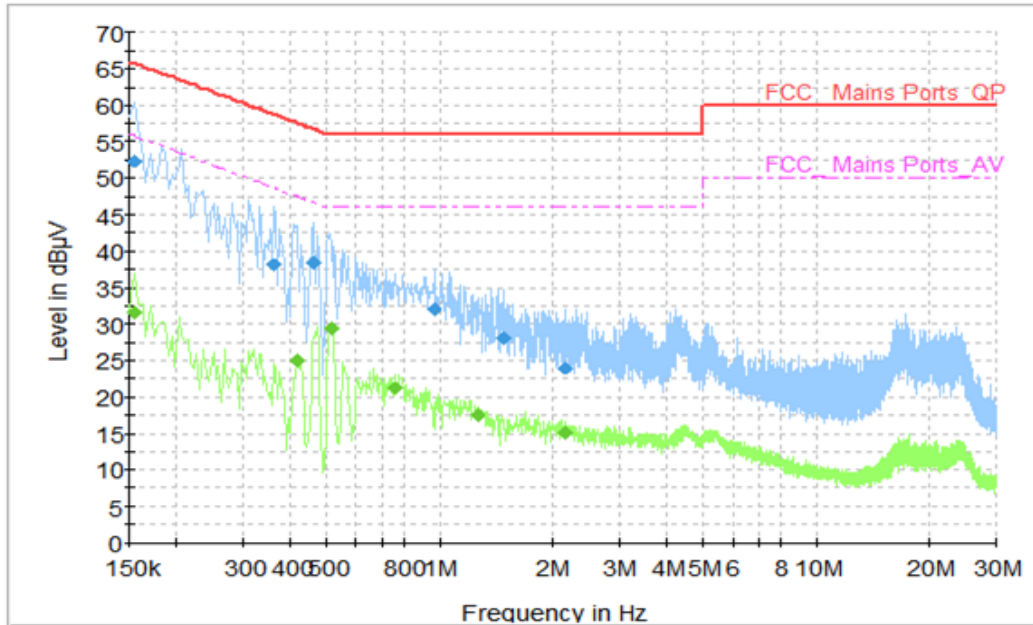


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.154	52.41	65.78	13.37	N	9.6	42.81
0.362	38.03	58.68	20.66	N	9.6	28.43
0.462	38.5	56.66	18.16	N	9.7	28.8
0.966	32.11	56	23.89	N	9.7	22.41
1.474	27.96	56	28.04	N	9.7	18.26
2.162	23.99	56	32.01	N	9.7	14.29

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.154	31.5	55.78	24.28	N	9.6	21.9
0.418	25.06	47.49	22.43	L1	9.7	15.36
0.514	29.38	46	16.62	L1	9.7	19.68
0.762	21.24	46	24.76	N	9.7	11.54
1.258	17.53	46	28.47	L1	9.7	7.83
2.162	15.23	46	30.77	L1	9.7	5.53

Charging mode: Set 5
Voltage: 120V

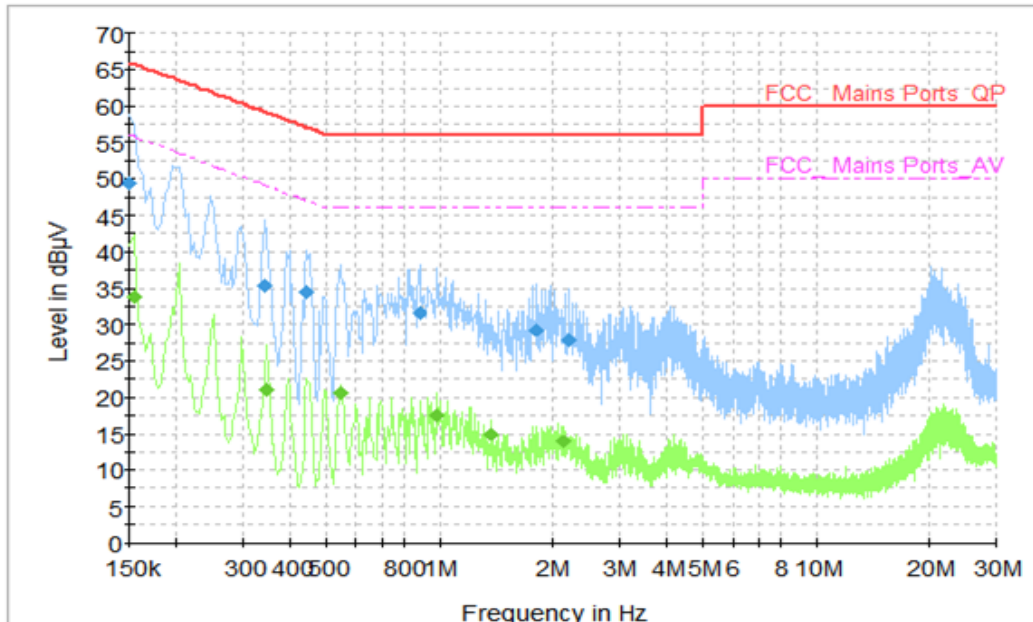


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.15	49.44	66	16.56	N	9.6	39.84
0.342	35.29	59.16	23.87	N	9.6	25.69
0.442	34.3	57.02	22.73	N	9.7	24.6
0.882	31.59	56	24.41	N	9.7	21.89
1.81	29.19	56	26.81	N	9.7	19.49
2.198	27.78	56	28.22	N	9.7	18.08

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.154	33.79	55.78	21.99	N	9.6	24.19
0.346	21.02	49.06	28.04	N	9.6	11.42
0.546	20.59	46	25.41	N	9.7	10.89
0.982	17.45	46	28.55	N	9.7	7.75
1.366	14.98	46	31.02	N	9.7	5.28
2.122	13.88	46	32.12	N	9.7	4.18

USB mode: Set 7
Voltage: 120V

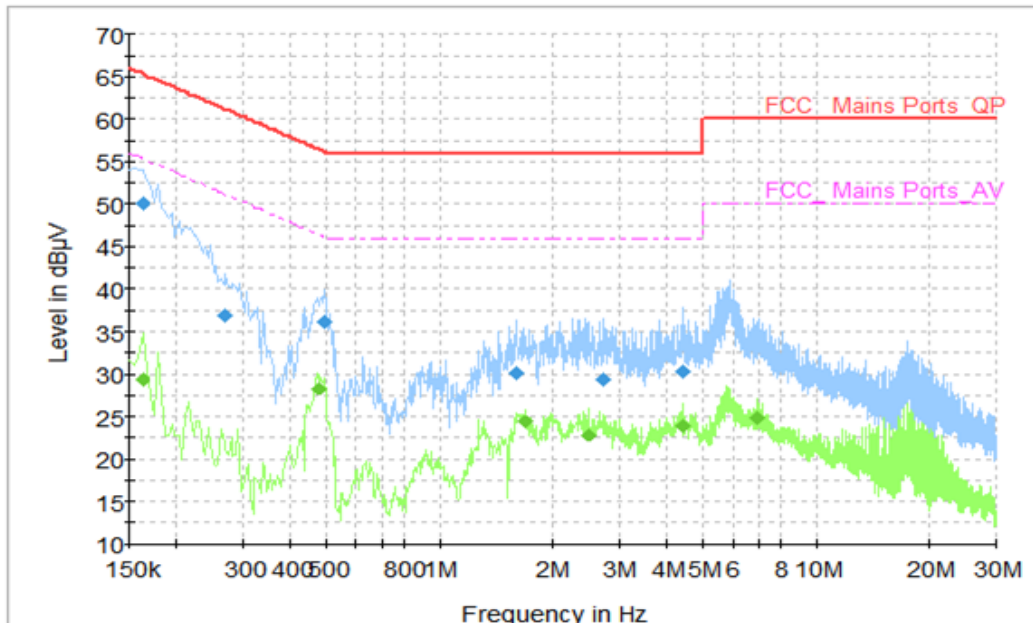


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.162	50.02	65.36	15.34	L1	9.7	40.32
0.27	36.98	61.12	24.14	N	9.6	27.38
0.49	36.2	56.17	19.97	L1	9.7	26.5
1.598	30.15	56	25.85	N	9.7	20.45
2.722	29.29	56	26.71	N	9.7	19.59
4.41	30.24	56	25.76	L1	9.8	20.44

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.162	29.37	55.36	26	L1	9.7	19.67
0.478	28.22	46.37	18.15	L1	9.7	18.52
1.678	24.29	46	21.71	N	9.7	14.59
2.482	22.91	46	23.09	L1	9.7	13.21
4.422	23.93	46	22.07	L1	9.8	14.13
6.962	24.74	50	25.26	L1	9.8	14.94

USB mode: Set 8

Voltage: 120V

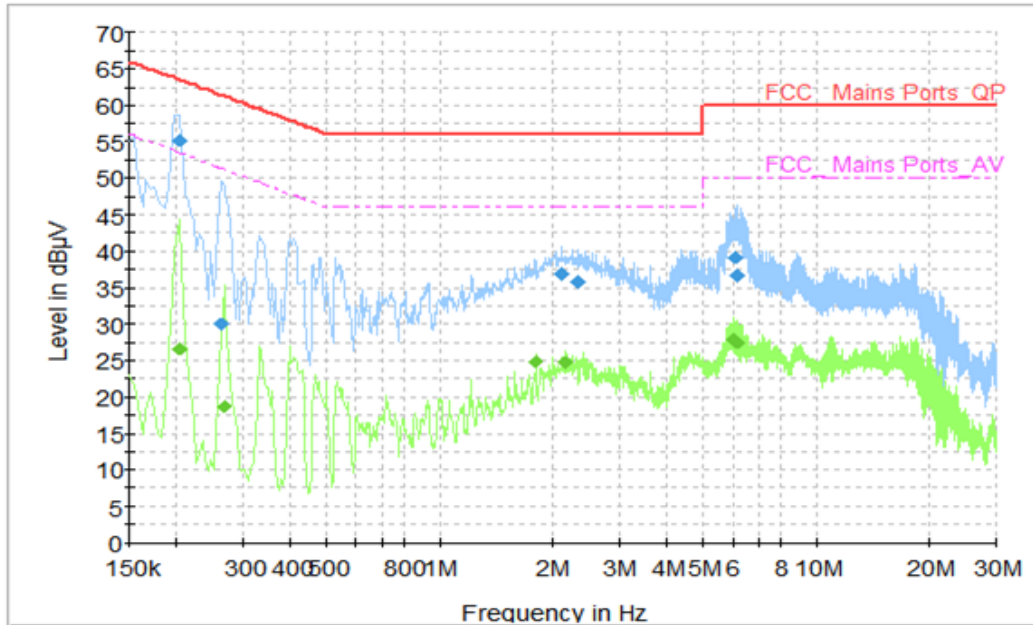


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.202	55.21	63.53	8.32	N	9.6	45.61
0.262	29.91	61.37	31.46	N	9.6	20.31
2.098	36.93	56	19.07	N	9.7	27.23
2.314	35.78	56	20.22	N	9.7	26.08
6.094	39.23	60	20.77	N	9.8	29.43
6.162	36.66	60	23.34	N	9.8	26.86

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.202	26.69	53.53	26.84	L1	9.7	16.99
0.266	18.63	51.24	32.61	L1	9.7	8.93
1.798	24.93	46	21.07	N	9.7	15.23
2.166	24.74	46	21.26	N	9.7	15.04
6.05	27.8	50	22.2	N	9.8	18
6.162	27.53	50	22.47	N	9.8	17.73

Charging mode: Set 1
Voltage: 240V

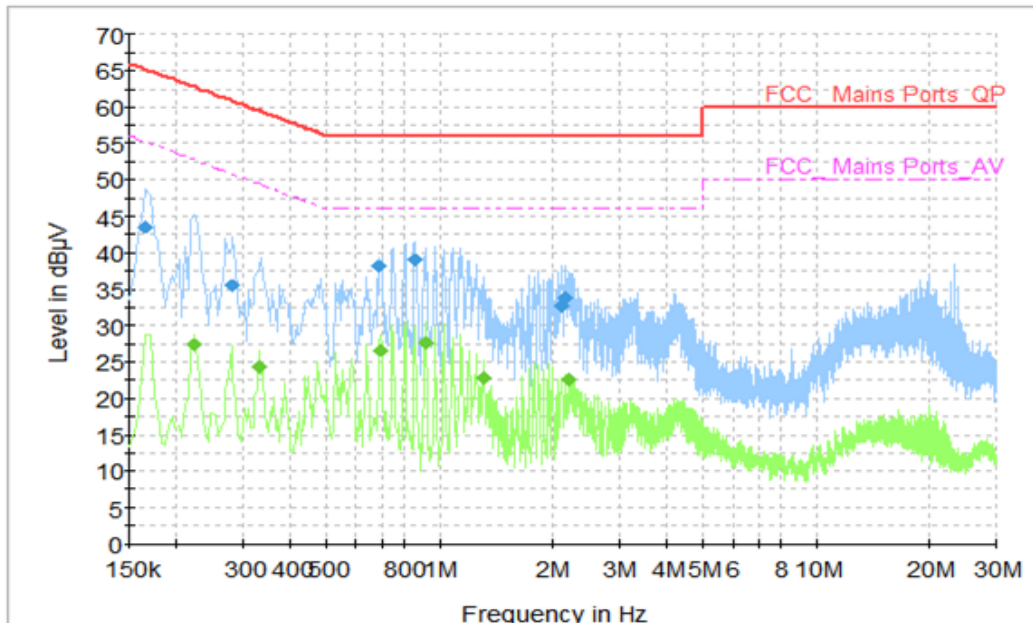


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.166	43.53	65.16	21.63	L1	9.7	33.83
0.282	35.49	60.76	25.27	L1	9.7	25.79
0.69	38.08	56	17.92	N	9.7	28.38
0.858	38.9	56	17.1	N	9.7	29.2
2.106	32.7	56	23.3	N	9.7	23
2.158	33.79	56	22.21	N	9.7	24.09

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.222	27.26	52.74	25.48	N	9.6	17.66
0.33	24.26	49.45	25.19	N	9.6	14.66
0.694	26.62	46	19.38	N	9.7	16.92
0.914	27.74	46	18.26	N	9.7	18.04
1.298	22.82	46	23.18	N	9.7	13.12
2.206	22.62	46	23.38	N	9.7	12.92

Charging mode: Set 2

Voltage: 240V

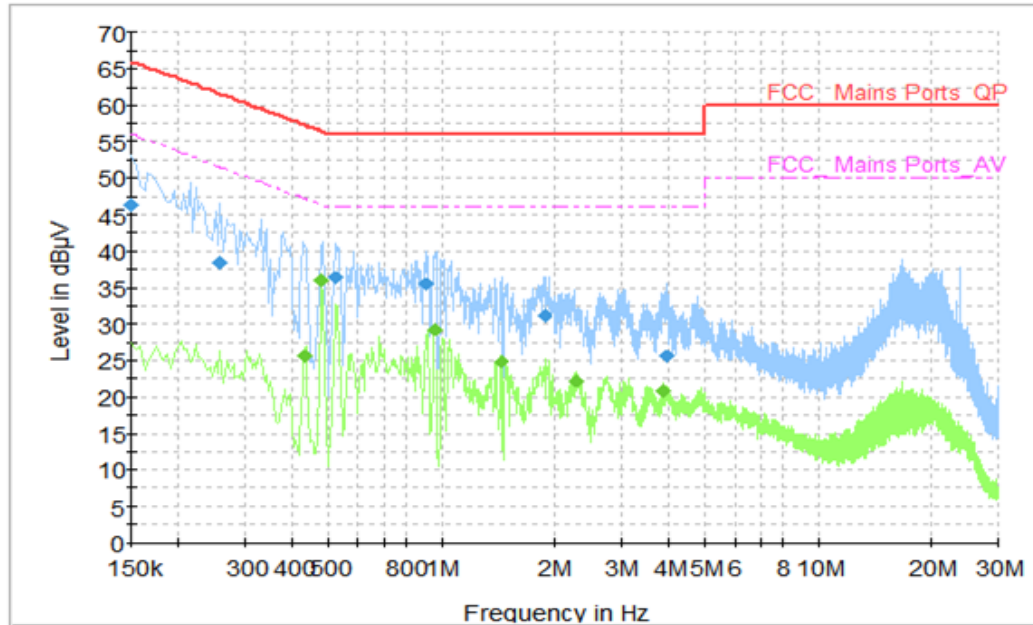


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.15	46.38	66	19.62	L1	9.7	36.68
0.258	38.37	61.5	23.12	N	9.6	28.77
0.522	36.24	56	19.76	N	9.7	26.54
0.906	35.4	56	20.6	N	9.7	25.7
1.874	31.27	56	24.73	L1	9.7	21.57
3.954	25.59	56	30.41	N	9.7	15.89

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.43	25.64	47.25	21.62	N	9.7	15.94
0.478	36	46.37	10.37	L1	9.7	26.3
0.954	29.21	46	16.79	N	9.7	19.51
1.438	24.89	46	21.11	L1	9.7	15.19
2.27	22.23	46	23.77	L1	9.7	12.53
3.886	20.82	46	25.18	L1	9.7	11.12

Charging mode: Set 3
Voltage: 240V

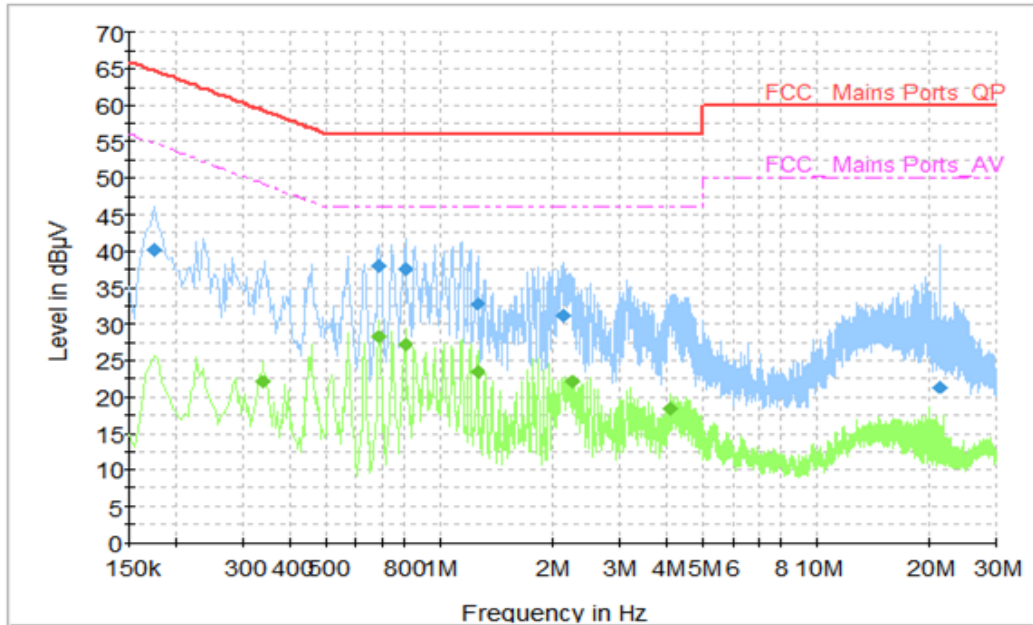


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.174	40.22	64.77	24.54	L1	9.7	30.52
0.69	37.86	56	18.14	N	9.7	28.16
0.806	37.53	56	18.47	N	9.7	27.83
1.258	32.88	56	23.12	N	9.7	23.18
2.122	31.29	56	24.71	N	9.7	21.59
21.246	21.42	60	38.58	L1	10.1	11.32

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.338	22.12	49.25	27.14	N	9.6	12.52
0.69	28.23	46	17.77	N	9.7	18.53
0.806	27.15	46	18.85	N	9.7	17.45
1.258	23.54	46	22.46	N	9.7	13.84
2.266	22.02	46	23.98	N	9.7	12.32
4.086	18.42	46	27.58	N	9.7	8.72

Charging mode: Set 4
Voltage: 240V

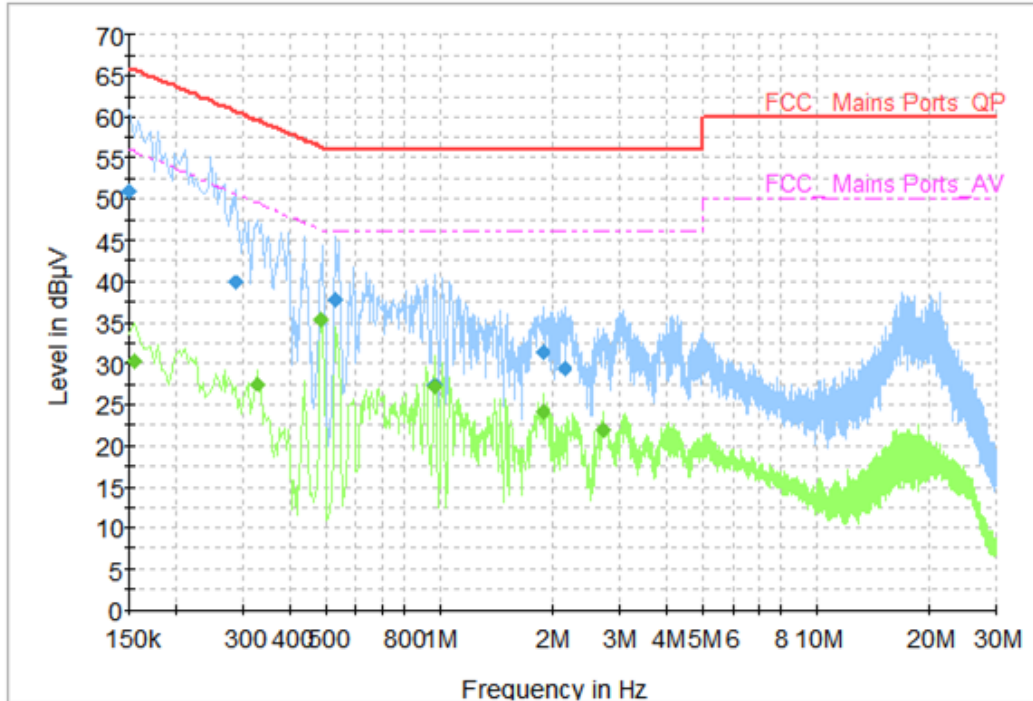


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.15	51	66	15	N	9.6	41.4
0.286	39.92	60.64	20.72	N	9.6	30.32
0.53	37.8	56	18.2	N	9.7	28.1
0.974	27.38	56	28.62	N	9.7	17.68
1.882	31.34	56	24.66	L1	9.7	21.64
2.146	29.51	56	26.49	N	9.7	19.81

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.154	30.4	55.78	25.39	N	9.6	20.8
0.326	27.47	49.55	22.08	L1	9.7	17.77
0.482	35.31	46.31	11	L1	9.7	25.61
0.966	27.17	46	18.83	N	9.7	17.47
1.882	24.08	46	21.92	L1	9.7	14.38
2.722	21.83	46	24.17	L1	9.7	12.13

Charging mode: Set 5
Voltage: 240V

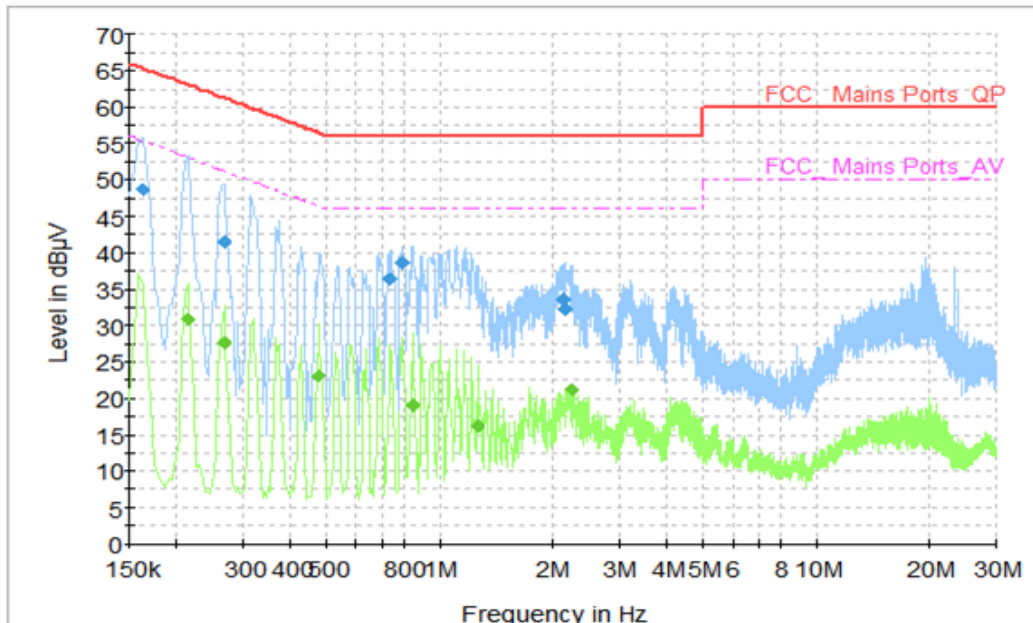


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.162	48.66	65.36	16.7	N	9.6	39.06
0.266	41.5	61.24	19.74	N	9.6	31.9
0.734	36.28	56	19.72	N	9.7	26.58
0.794	38.6	56	17.4	N	9.7	28.9
2.118	33.55	56	22.45	N	9.7	23.85
2.158	32.28	56	23.72	N	9.7	22.58

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.214	30.94	53.05	22.11	N	9.6	21.34
0.266	27.66	51.24	23.58	N	9.6	18.06
0.474	23.09	46.44	23.35	N	9.6	13.49
0.842	19.01	46	26.99	N	9.7	9.31
1.262	16.14	46	29.86	N	9.7	6.44
2.246	21.08	46	24.92	N	9.7	11.38

USB mode: Set 7
Voltage: 240V

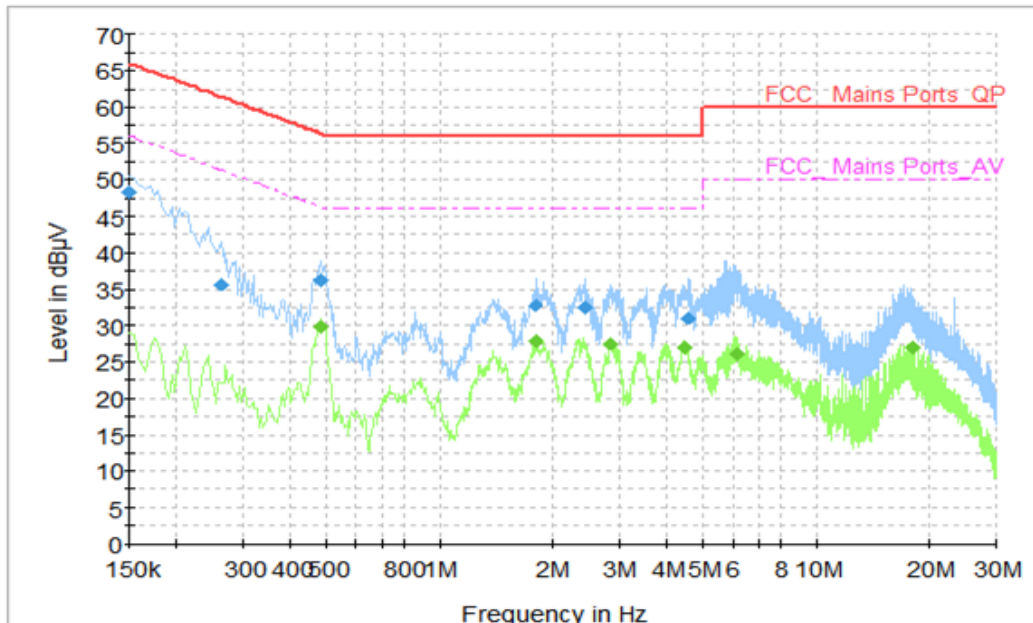


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.15	48.38	66	17.62	L1	9.7	38.68
0.262	35.63	61.37	25.74	L1	9.7	25.93
0.482	36.12	56.31	20.18	L1	9.7	26.42
1.798	32.88	56	23.12	N	9.7	23.18
2.414	32.43	56	23.57	L1	9.7	22.73
4.578	31.09	56	24.91	L1	9.8	21.29

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.482	29.88	46.31	16.42	L1	9.7	20.18
1.798	27.92	46	18.08	N	9.7	18.22
2.846	27.46	46	18.54	L1	9.7	17.76
4.474	27	46	19	L1	9.8	17.2
6.146	26.15	50	23.85	L1	9.8	16.35
18.014	27.01	50	22.99	N	10.2	16.81

USB mode: Set 8
Voltage: 240V

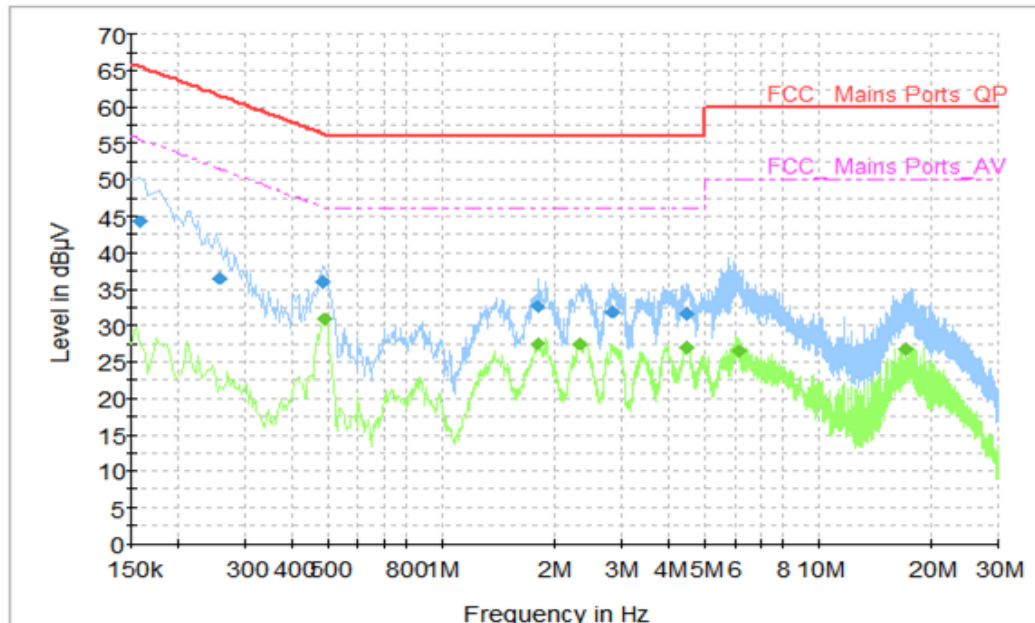


Figure B.3 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.158	44.21	65.57	21.36	L1	9.7	34.51
0.258	36.47	61.5	25.02	N	9.6	26.87
0.482	36.04	56.31	20.27	L1	9.7	26.34
1.798	32.69	56	23.31	N	9.7	22.99
2.854	31.92	56	24.08	L1	9.7	22.22
4.482	31.64	56	24.36	L1	9.8	21.84

Final Measurement Detector 2

Frequency (MHz)	Average (dB µV)	Limit (dB µV)	Margin (dB)	Line	Corr. (dB)	P _{Mea} (dBµV)
0.486	30.85	46.24	15.38	L1	9.7	21.15
1.794	27.56	46	18.44	N	9.7	17.86
2.314	27.44	46	18.56	L1	9.7	17.74
4.454	27.03	46	18.97	L1	9.8	17.23
6.126	26.48	50	23.52	L1	9.8	16.68
17.066	26.73	50	23.27	N	10.2	16.53

END OF REPORT