



FCC PART 15B TEST REPORT

No. 25T04Z100116-002

for

Guangdong OPPO Mobile Telecommunications Corp., Ltd.

Mobile Phone

CPH2735

FCC ID: R9C-OP24314

with

Hardware Version: 11

Software Version: ColorOS 15.0

Issued Date: 2025-02-25

Note:

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

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
25T04Z100116-002	Rev.0	1 st edition	2025-02-25

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

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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

1.2. Testing Location

CTTL (huayuan North Road)

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

1.3. Testing Environment

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

1.4. Project data

Testing Start Date: 2025-02-10
Testing End Date: 2025-02-16

1.5. Signature



Wang Xue

(Prepared this test report)



Zhang Ying

(Reviewed this test report)



Zhang Xia

(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address/Post: NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City,
Guangdong Province, P.R. China
Contact Person: Xiong Bo
Contact Email: xiongbo@oppo.com
Telephone: (86)76986076999

2.2. Manufacturer Information

Company Name: Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address/Post: NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City,
Guangdong Province, P.R. China
Contact Person: Xiong Bo
Contact Email: xiongbo@oppo.com
Telephone: (86)76986076999

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

3.1. About EUT

Description	Mobile Phone
Model Name	CPH2735
FCC ID:	R9C-OP24314

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*	SN or IMEI	HW Version	SW Version
UT03a	862170070019656/ 862170070019649	11	ColorOS 15.0

*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	Model	Manufacturer
AE1	Battery1	BLPC21	Dongguan NVT Technology Co., Ltd
AE2	Battery2	BLPC21	SUNWODA Electronic Co.,Ltd.
AE3	Charger1	VCB4JAUH	Huizhou Golden Lake Industrial Co., Ltd.
AE4	Charger2	VCB4HAUH	Shenzhen Huntkey Electric Co.,Ltd
AE5	Charger3	VCB4HAUH	Huizhou Golden Lake Industrial Co., Ltd.
AE6	Charger2	VCB4JAUH	Jiangsu Chenyang Electron Co., Ltd
AE7	USB Cable	DL154	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
AE8	Headset	/	Provided by lab

*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	UT03a + AE1 + AE2 + AE6	Charger1+MP3+F Camera +GSM 850 idle
Set.2	UT03a + AE1 + AE3 + AE7	Charger2+R Camera + WCDMA B5 idle
Set.3	UT03a + AE1 + AE4+ AE6	Charger3+FM+ LTE B5 idle
Set.4	UT03a + AE1 + AE5 + AE7	Charger4+LTE B28 idle
Set.5	UT03a + AE1 +AE6	USB data copy
Set.6	UT03a + UT04a	OTG + NR n5 idle

Note:

Equipment Under Test (EUT) is a model of mobile phone.

It supports

GSM Band 850/900/1800/1900

UMTS Band B1/2/4/5/6/8/19

LTE Band FDD Bands 1/2/3/4/5/7/8/12/13/17/18/19/20/26/28/66, TDD Bands 38/39/40/41

NR Band n1/n2/n3/n5/n7/n8/n12/n20/n26/n28/n38/n40/n41/n66/n71/n77/n78, n12
supports only SA

It has MP3, Camera, USB memory, Bluetooth 5.4, Wi-Fi (802.11a/b/g/n/ac, 802.11n supports 20MHz and 40MHz bandwidth, 802.11ac supports 20MHz, 40MHz and 80MHz bandwidth) and GNSS function.

The device contains receivers which tune and operate between 30MHz-960MHz in the following mode: GSM 850, WCDMA850, LTE Band 5/12/13/17/26, NR n5/n12/n13/n17/n26. All licensed band receivers that tune in the range of 30MHz-960MHz are investigated. Only the worst-case emissions are reported.

Both two chargers were evaluated, only the worst cases were reported.

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 - Unintentional Radiators	2024
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. SUMMARY OF TEST RESULTS

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

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

6. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESW44	103023	R&S	2025-06-06	1 year
2	Test Receiver	ESCI 3	100344	R&S	2025-04-01	1 year
3	LISN	ENV216	101200	R&S	2025-05-16	1 year
4	EMI Antenna	VULB 9163	01222	SCHWARZBECK	2025-09-11	1 year
5	EMI Antenna	3115	00167250	ETS-Lindgren	2025-04-11	1 year
6	Universal Communication Tester	CMW500	163975	R&S	2026-01-20	1 year
7	Universal Communication Tester	CMW500	116588	R&S	2026-01-25	1 year
8	Universal Communication Tester	E7515B	MY60102215	Keysight	2025-07-09	1 year
9	Broadcast Test Center	BTC	101024	R&S	2025-04-01	1 year

Test software information		
Test Item	Software	Version
Radiated Emission	EMC32	V11.50.00
Conducted Emission	EMC32	V8.53.00

Semi-anechoic chamber utilized did not exceed following limits along the 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, 10 m distance
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 6GHz

Shielded room utilized did not exceed following limits along the 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

7. Measurement Uncertainty

Where relevant, the following measurement uncertainty(worse case) levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Location 1: CTTL(huayuan North Road)

Test item	Frequency ranges	Measurement uncertainty
Radiated Emission	30MHz-1GHz	4.72dB($k=2$)
	1GHz-18GHz	4.84dB($k=2$)
Conducted Emission	150kHz-30MHz	AC Power Line: 3.08dB($k=2$)

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 (USB/OTG mode of MS and charging mode of MS) at distances 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 3/10 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. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

A.1.2 EUT Operating Mode

The MS is operating in the USB mode and charging mode. During the test MS is connected to a PC via a USB cable in the case of USB mode, and is connected to the other device for charging in OTG mode and is connected to a charger in the case of charging mode.

The EUT was tested while operating in licensed band Rx mode. All licensed band receivers that tune in the range of 30MHz-960MHz, as listed in section 3.4, are investigated. Only the worst case emissions are reported.

All equipment is placed on the test table top and arranged in a typical configuration in accordance with ANSI C63.4-2014 and manipulated to obtain worst case emissions.

The model of the PC is M4000E-17, and the serial number of the PC is M706GWXD. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

Note: I/O information: Printer – USB, Mouse – PS/2, Keyboard – USB.

The EUT was tested while operating in licensed band Rx mode. All licensed band receivers that tune in the range of 30MHz-960MHz, as listed in section 3.4, are investigated. Only the worst case emissions are reported.

All equipment is placed on the test table top and arranged in a typical configuration in accordance with ANSI C63.4-2014 and manipulated to obtain worst case emissions.

A.1.3 Measurement Limit

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

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

A.1.4 Test Condition

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

A.1.5 Measurement Results

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

The measurement results are obtained as described below:

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

Where

G_A : Antenna factor of receive antenna

G_{PL} : Path Loss

P_{Mea} : Measurement result on receiver.

Measurement results for Set.1:

Charing Mode/Average detector

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)
17922.800	44.52	-26.80	42.30	29.02	54.00	9.48	V
17979.900	44.33	-26.80	42.30	28.83	54.00	9.67	V
17875.600	44.30	-26.80	42.30	28.80	54.00	9.70	V
17967.700	44.27	-26.80	42.30	28.77	54.00	9.73	V
17910.200	44.17	-26.80	42.30	28.67	54.00	9.83	V
17948.700	44.13	-26.80	42.30	28.63	54.00	9.87	H

Charging Mode/Peak detector

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)
17950.700	55.55	-26.80	42.30	40.05	74.00	18.45	V
17986.400	55.02	-26.80	42.30	39.52	74.00	18.98	V
17874.500	55.00	-26.80	42.30	39.50	74.00	19.00	V
17913.300	55.00	-26.80	42.30	39.50	74.00	19.00	V
17949.700	54.95	-26.80	42.30	39.45	74.00	19.05	V
17980.600	54.90	-26.80	42.30	39.40	74.00	19.10	V

Measurement results for Set.2:
Charging Mode/Average detector

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)
17972.500	44.55	-26.80	42.30	29.05	54.00	9.45	V
17912.600	44.44	-26.80	42.30	28.94	54.00	9.56	V
17989.500	44.26	-26.80	42.30	28.76	54.00	9.74	V
17972.100	44.20	-26.80	42.30	28.70	54.00	9.80	H
17944.200	44.16	-26.80	42.30	28.66	54.00	9.84	H
17959.200	44.16	-26.80	42.30	28.66	54.00	9.84	V

Charging Mode/Peak detector

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)
17988.400	55.89	-26.80	42.30	40.39	74.00	18.11	H
17951.000	55.84	-26.80	42.30	40.34	74.00	18.16	V
17906.500	55.26	-26.80	42.30	39.76	74.00	18.74	H
17894.300	55.12	-26.80	42.30	39.62	74.00	18.88	V
17927.200	55.01	-26.80	42.30	39.51	74.00	18.99	V
17948.000	54.98	-26.80	42.30	39.48	74.00	19.02	H

Measurement results for Set.3:
Charing Mode/Average detector

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)
17981.300	44.50	-26.80	42.30	29.00	54.00	9.50	H
17977.200	44.38	-26.80	42.30	28.88	54.00	9.62	H
17986.700	44.36	-26.80	42.30	28.86	54.00	9.64	V
17992.200	44.35	-26.80	42.30	28.85	54.00	9.65	H
17892.200	44.34	-26.80	42.30	28.84	54.00	9.66	V
17954.100	44.24	-26.80	42.30	28.74	54.00	9.76	V

Charging Mode/Peak detector

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)
17956.100	55.13	-26.80	42.30	39.63	74.00	18.87	H
17945.900	55.10	-26.80	42.30	39.60	74.00	18.90	H
17568.900	54.95	-28.23	42.20	40.98	74.00	19.05	H

17962.600	54.85	-26.80	42.30	39.35	74.00	19.15	V
17977.200	54.85	-26.80	42.30	39.35	74.00	19.15	H
17918.700	54.84	-26.80	42.30	39.34	74.00	19.16	H

Measurement results for Set.4:

Charging Mode/Average detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17924.200	44.61	-26.80	42.30	29.11	54.00	9.39	H
17921.100	44.50	-26.80	42.30	29.00	54.00	9.50	V
17920.400	44.48	-26.80	42.30	28.98	54.00	9.52	V
17968.700	44.41	-26.80	42.30	28.91	54.00	9.59	V
17901.400	44.32	-26.80	42.30	28.82	54.00	9.68	H
17932.700	44.15	-26.80	42.30	28.65	54.00	9.85	V

Charging Mode/Peak detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17977.900	55.10	-26.80	42.30	39.60	74.00	18.90	H
17919.400	55.08	-26.80	42.30	39.58	74.00	18.92	V
17913.000	54.97	-26.80	42.30	39.47	74.00	19.03	V
17959.200	54.96	-26.80	42.30	39.46	74.00	19.04	V
17962.600	54.92	-26.80	42.30	39.42	74.00	19.08	H
17975.500	54.91	-26.80	42.30	39.41	74.00	19.09	H

Measurement results for Set.5:

USB Mode/Average detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
6055.100	46.55	-36.15	35.40	47.30	54.00	7.45	V
6054.800	46.22	-36.15	35.40	46.97	54.00	7.78	V
17955.500	44.43	-26.80	42.30	28.93	54.00	9.57	V
6055.500	44.37	-36.15	35.40	45.12	54.00	9.63	V
17922.800	44.24	-26.80	42.30	28.74	54.00	9.76	V
17976.900	44.19	-26.80	42.30	28.69	54.00	9.81	H

USB Mode/Peak detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17910.200	55.17	-26.80	42.30	39.67	74.00	18.83	V
17899.400	55.09	-26.80	42.30	39.59	74.00	18.91	V
17883.000	54.81	-26.80	42.30	39.31	74.00	19.19	H
17927.900	54.77	-26.80	42.30	39.27	74.00	19.23	H
17945.900	54.76	-26.80	42.30	39.26	74.00	19.24	H
1199.600	54.75	-39.88	24.70	69.93	74.00	19.25	V

Measurement results for Set.6:

OTG Mode/Average detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17951.000	44.71	-26.80	42.30	29.21	54.00	9.29	H
17984.700	44.56	-26.80	42.30	29.06	54.00	9.44	H
17990.800	44.23	-26.80	42.30	28.73	54.00	9.77	H
17983.700	44.22	-26.80	42.30	28.72	54.00	9.78	H
17910.600	44.19	-26.80	42.30	28.69	54.00	9.81	H
17948.300	44.14	-26.80	42.30	28.64	54.00	9.86	H

OTG Mode/Peak detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17932.300	55.57	-26.80	42.30	40.07	74.00	18.43	H
17956.100	55.34	-26.80	42.30	39.84	74.00	18.66	H
17959.900	55.15	-26.80	42.30	39.65	74.00	18.85	V
17911.600	55.11	-26.80	42.30	39.61	74.00	18.89	V
17954.400	55.09	-26.80	42.30	39.59	74.00	18.91	H
17917.000	54.95	-26.80	42.30	39.45	74.00	19.05	V

Measurement results for Set.1:

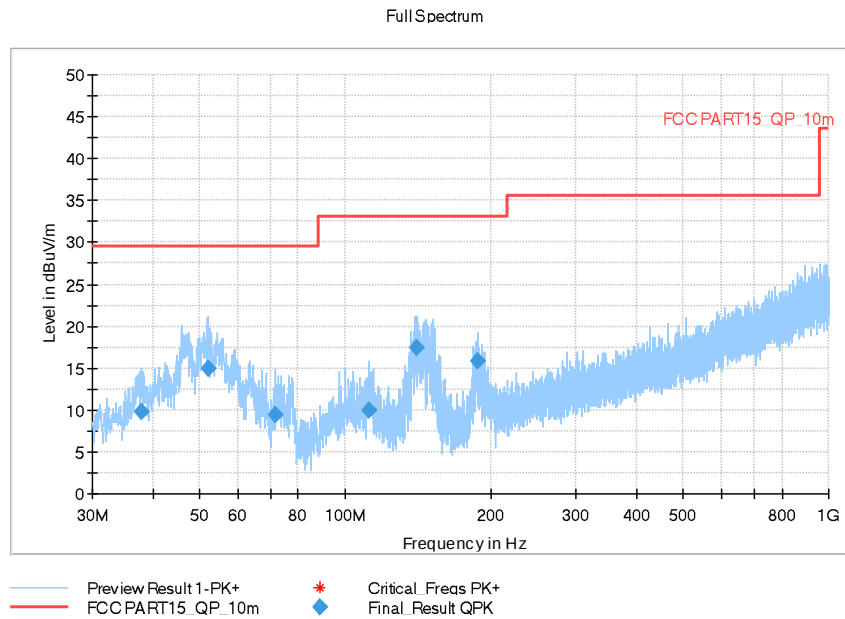


Fig A.1 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
37.808500	9.77	29.54	19.77	120.000	108.0	V	112.0
51.970500	14.93	29.54	14.61	120.000	108.0	V	-37.0
71.564500	9.37	29.54	20.17	120.000	175.0	V	23.0
112.353000	9.97	33.06	23.09	120.000	175.0	V	8.0
140.337500	17.47	33.06	15.59	120.000	193.0	V	-1.0
188.352500	15.88	33.06	17.18	120.000	108.0	V	69.0

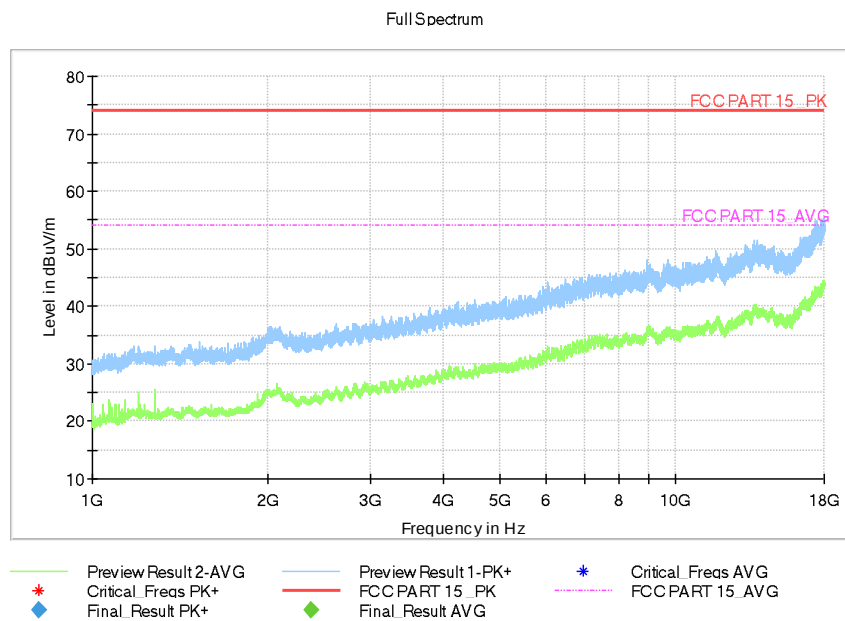


Fig A.2 Radiated Emission from 1GHz to 18GHz

Measurement results for Set.2:

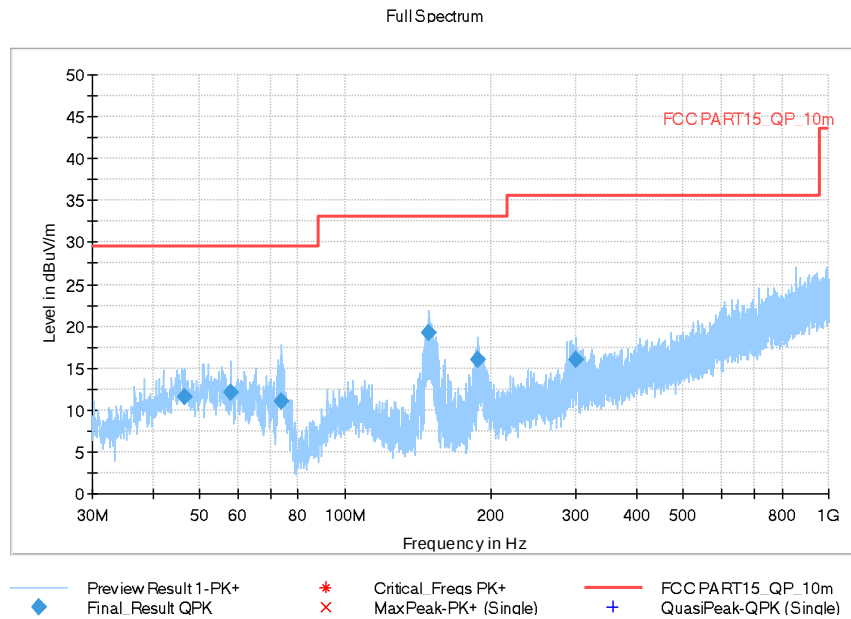


Fig A.3 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
46.684000	11.61	29.54	17.93	120.000	108.0	V	-8.0
58.033000	12.03	29.54	17.51	120.000	275.0	V	308.0
73.989500	11.11	29.54	18.43	120.000	175.0	V	271.0
149.261500	19.27	33.06	13.79	120.000	100.0	V	-7.0
188.498000	15.94	33.06	17.12	120.000	100.0	V	75.0
299.223500	16.02	35.56	19.54	120.000	108.0	V	112.0

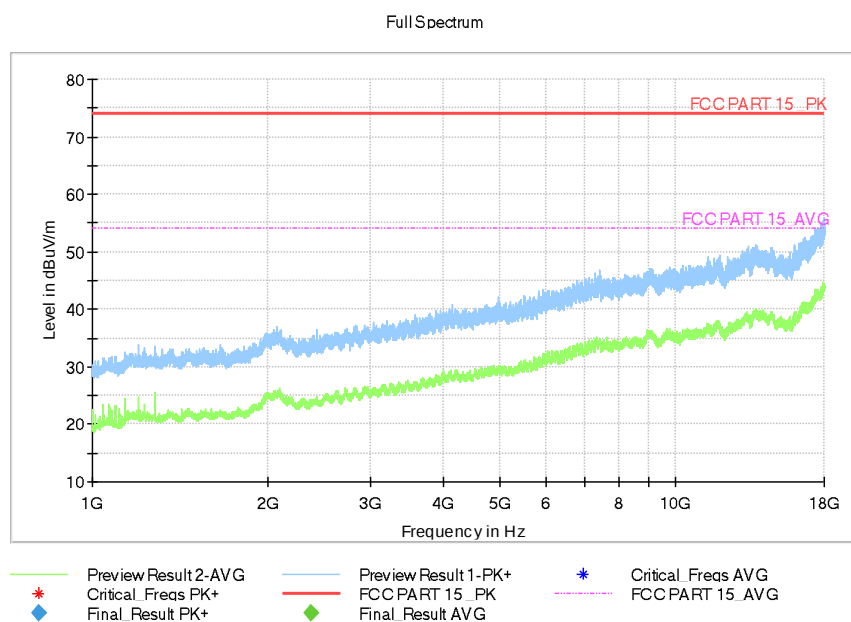


Fig A.4 Radiated Emission from 1GHz to 18GHz

Measurement results for Set.3:

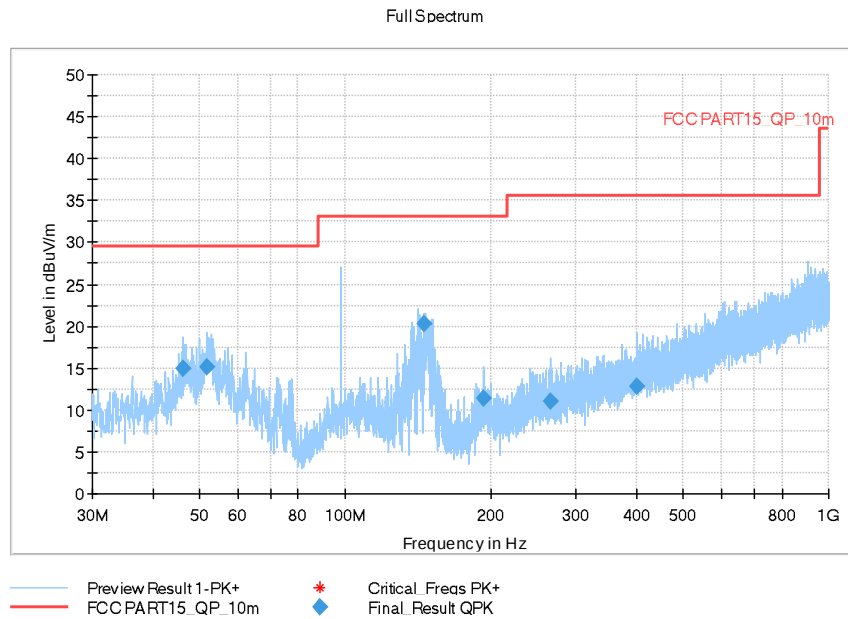


Fig A.5 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
46.150500	15.00	29.54	14.54	120.000	125.0	V	-1.0
51.873500	15.20	29.54	14.34	120.000	225.0	V	61.0
146.109000	20.29	33.06	12.77	120.000	125.0	V	0.0
193.251000	11.41	33.06	21.65	120.000	175.0	V	76.0
265.855500	10.95	35.56	24.61	120.000	100.0	V	151.0
401.558500	12.74	35.56	22.82	120.000	275.0	V	227.0

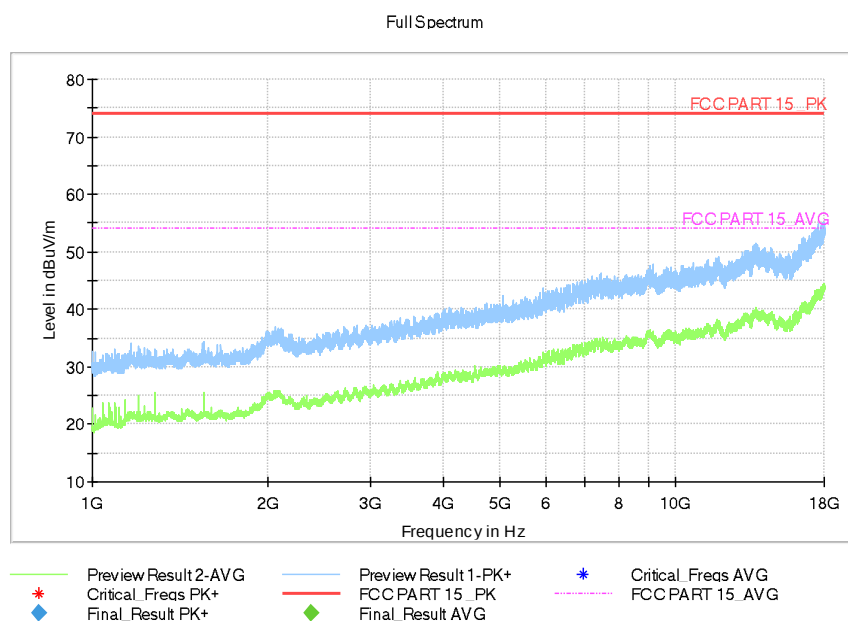


Fig A.6 Radiated Emission from 1GHz to 18GHz

Measurement results for Set.4:

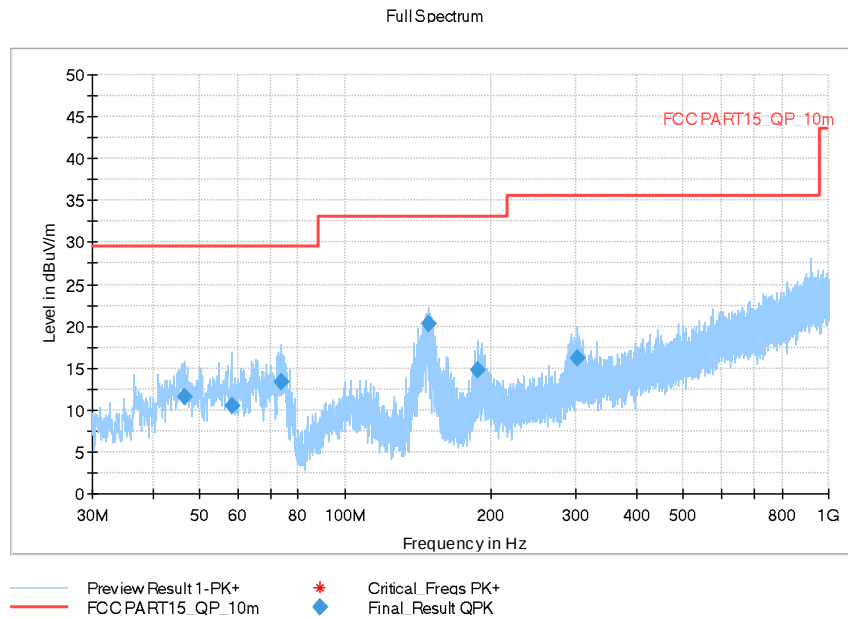


Fig A.7 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
46.393000	11.49	29.54	18.05	120.000	283.0	V	135.0
58.227000	10.52	29.54	19.02	120.000	108.0	V	45.0
73.892500	13.31	29.54	16.23	120.000	275.0	V	248.0
148.582500	20.32	33.06	12.74	120.000	119.0	V	-16.0
187.673500	14.77	33.06	18.29	120.000	225.0	V	61.0
302.036500	16.22	35.56	19.34	120.000	108.0	V	119.0

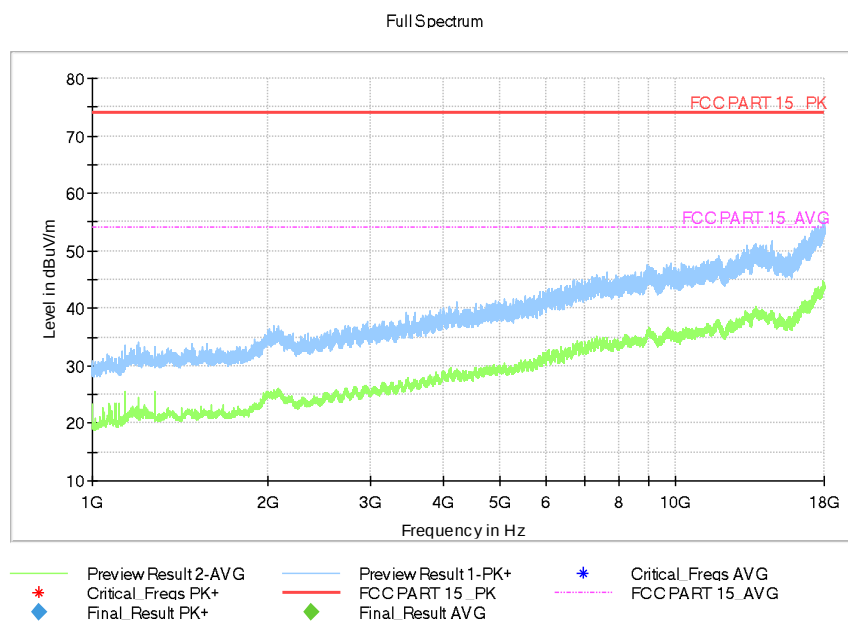


Fig A.8 Radiated Emission from 1GHz to 18GHz

Measurement results for Set.5:

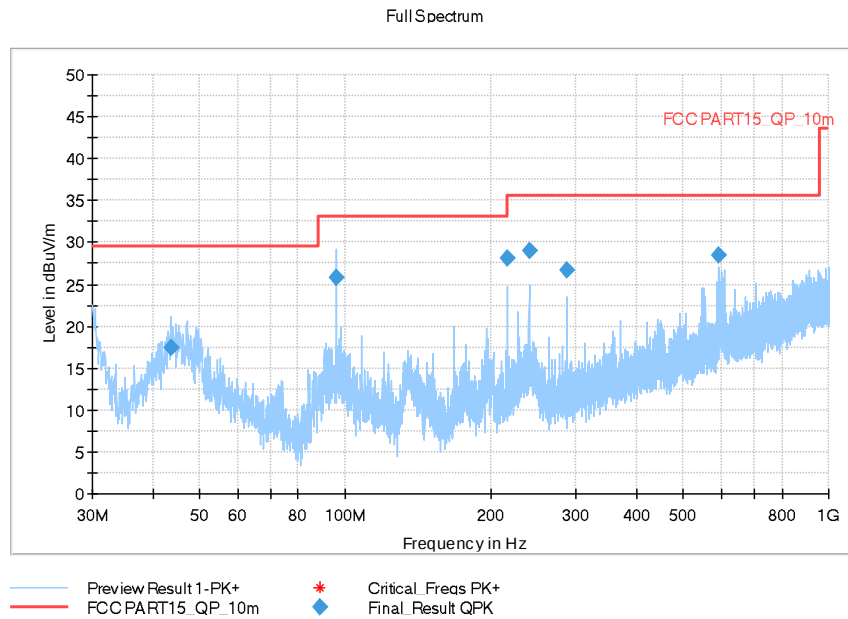


Fig A.9 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
43.580000	17.43	29.54	12.11	120.000	275.0	V	-14.0
96.008500	25.79	33.06	7.27	120.000	115.0	V	45.0
215.997500	28.09	33.06	4.97	120.000	284.0	H	151.0
240.005000	29.03	35.56	6.53	120.000	325.0	H	-30.0
288.020000	26.75	35.56	8.81	120.000	325.0	H	-45.0
590.126500	28.44	35.56	7.12	120.000	225.0	V	315.0

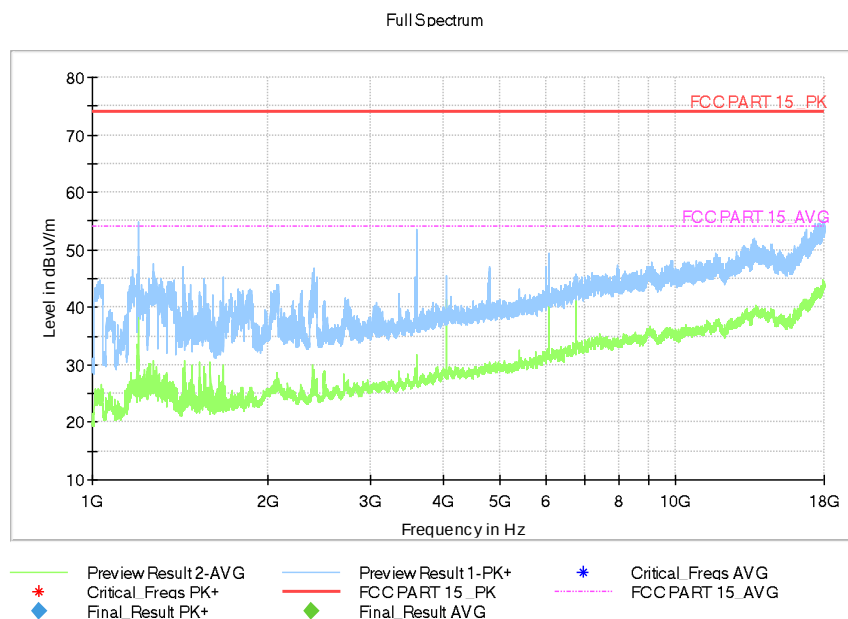


Fig A.10 Radiated Emission from 1GHz to 18GHz

Measurement results for Set.6:

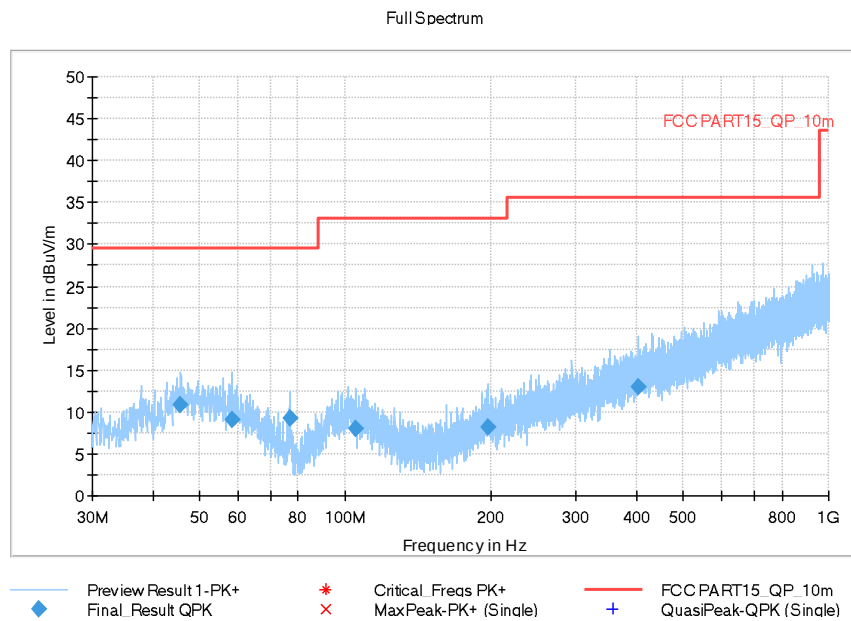


Fig A.11 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
45.714000	10.79	29.54	18.75	120.000	325.0	V	151.0
58.227000	9.03	29.54	20.51	120.000	225.0	H	83.0
77.093500	9.19	29.54	20.35	120.000	175.0	V	22.0
105.417500	7.94	33.06	25.12	120.000	325.0	H	248.0
197.276500	8.24	33.06	24.82	120.000	325.0	V	225.0
402.722500	12.97	35.56	22.59	120.000	225.0	V	16.0

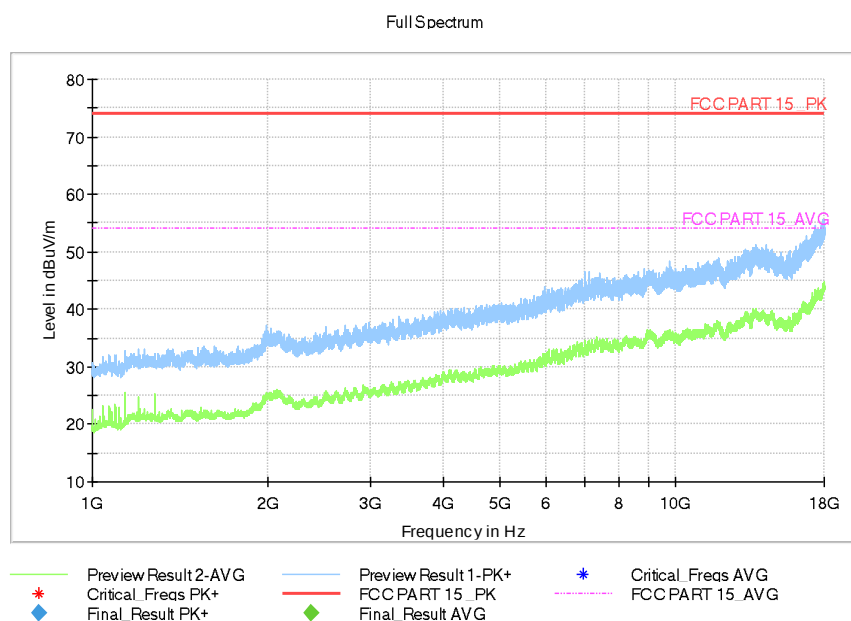


Fig A.12 Radiated Emission from 1GHz to 18GHz

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.

A.2.2 EUT Operating Mode

The MS is operating in the USB mode and charging mode. During the test MS is connected to a PC via a USB cable in the case of USB mode and is connected to a charger in the case of charging mode. The model of the PC is DELL M4000E-17, and the serial number of the PC is M706GWXD. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

Note: I/O information: Printer – USB, Mouse – PS/2, Keyboard – USB.

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

Charging Mode, Set.1:

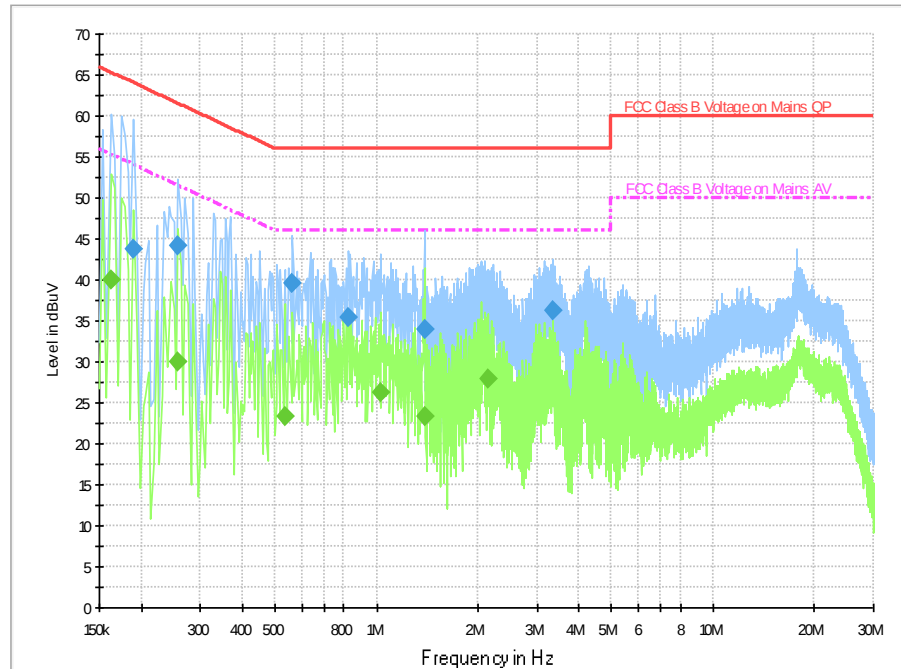


Fig A.13 Conducted Emission from 150kHz to 30MHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.190000	43.7	2000.0	9.000	On	L1	19.9	20.3	64.0	
0.258000	44.1	2000.0	9.000	On	L1	19.9	17.4	61.5	
0.562000	39.5	2000.0	9.000	On	L1	20.0	16.5	56.0	
0.826000	35.4	2000.0	9.000	On	L1	19.9	20.6	56.0	
1.386000	34.0	2000.0	9.000	On	L1	19.9	22.0	56.0	
3.346000	36.3	2000.0	9.000	On	L1	19.8	19.7	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.162000	40.1	2000.0	9.000	On	L1	19.9	15.3	55.4	
0.258000	29.9	2000.0	9.000	On	L1	19.9	21.6	51.5	
0.534000	23.3	2000.0	9.000	On	L1	20.0	22.7	46.0	
1.030000	26.2	2000.0	9.000	On	L1	19.9	19.8	46.0	
1.386000	23.4	2000.0	9.000	On	L1	19.9	22.6	46.0	
2.142000	27.8	2000.0	9.000	On	L1	19.8	18.2	46.0	

Charging Mode, Set.2:

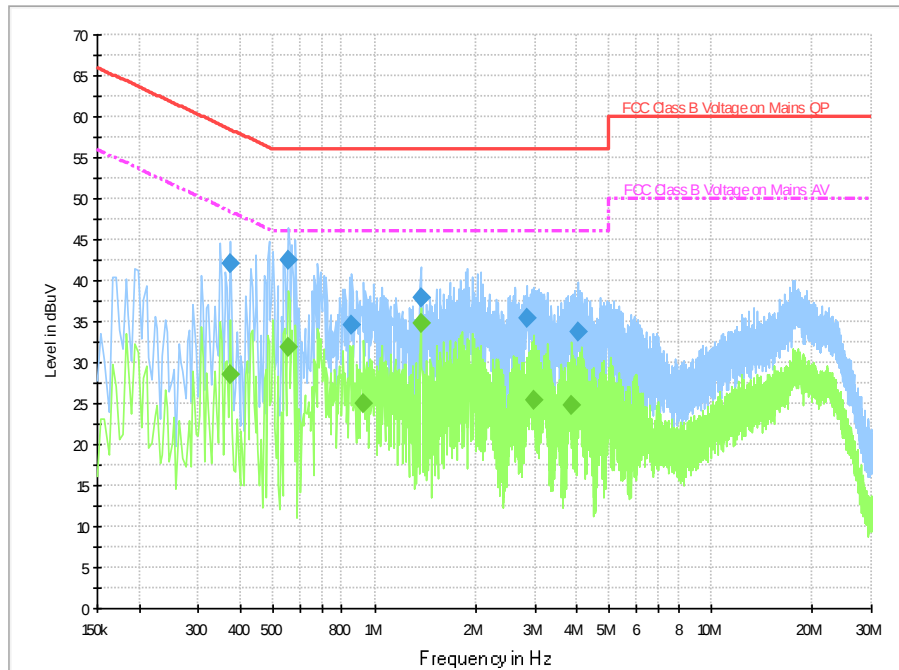


Fig A.14 Conducted Emission from 150kHz to 30MHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.374000	42.1	2000.0	9.000	On	L1	19.9	16.3	58.4	
0.554000	42.6	2000.0	9.000	On	L1	20.0	13.4	56.0	
0.858000	34.5	2000.0	9.000	On	L1	19.9	21.5	56.0	
1.370000	37.8	2000.0	9.000	On	N	19.7	18.2	56.0	
2.830000	35.4	2000.0	9.000	On	L1	19.8	20.6	56.0	
4.014000	33.7	2000.0	9.000	On	L1	19.8	22.3	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.374000	28.6	2000.0	9.000	On	L1	19.9	19.8	48.4	
0.554000	32.0	2000.0	9.000	On	L1	20.0	14.0	46.0	
0.930000	25.1	2000.0	9.000	On	N	19.7	20.9	46.0	
1.370000	34.8	2000.0	9.000	On	N	19.7	11.2	46.0	
2.974000	25.3	2000.0	9.000	On	L1	19.8	20.7	46.0	
3.866000	24.7	2000.0	9.000	On	L1	19.8	21.3	46.0	

Charging Mode, Set.3:

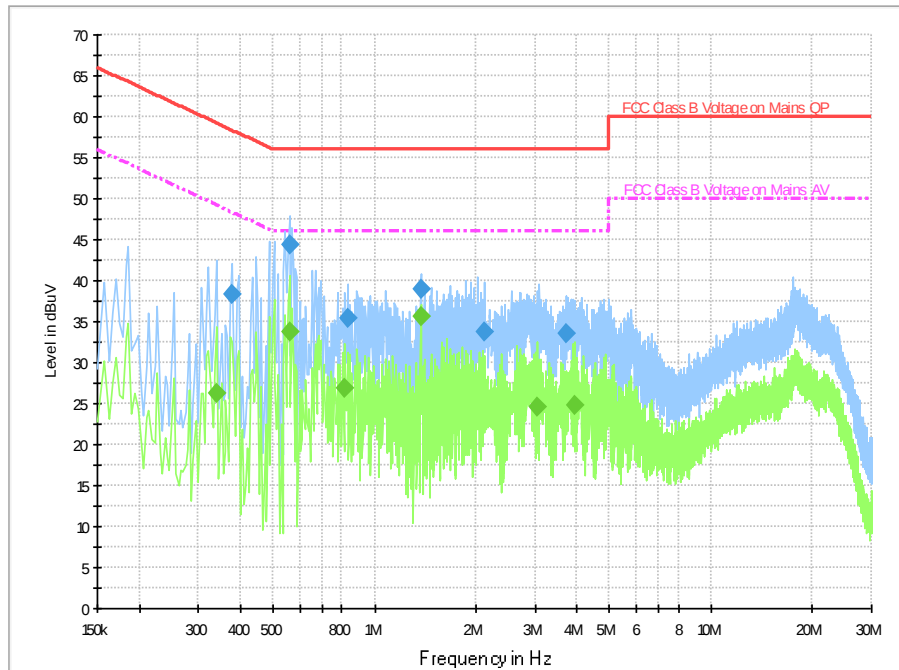


Fig A.15 Conducted Emission from 150kHz to 30MHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.378000	38.3	2000.0	9.000	On	L1	19.9	20.0	58.3	
0.558000	44.3	2000.0	9.000	On	L1	20.0	11.7	56.0	
0.830000	35.4	2000.0	9.000	On	N	19.8	20.6	56.0	
1.370000	38.9	2000.0	9.000	On	L1	19.9	17.1	56.0	
2.126000	33.8	2000.0	9.000	On	L1	19.8	22.2	56.0	
3.698000	33.6	2000.0	9.000	On	L1	19.8	22.4	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.338000	26.2	2000.0	9.000	On	L1	19.9	23.0	49.3	
0.558000	33.7	2000.0	9.000	On	L1	20.0	12.3	46.0	
0.814000	26.8	2000.0	9.000	On	N	19.8	19.2	46.0	
1.370000	35.6	2000.0	9.000	On	L1	19.9	10.4	46.0	
3.038000	24.7	2000.0	9.000	On	L1	19.8	21.3	46.0	
3.930000	24.9	2000.0	9.000	On	L1	19.8	21.1	46.0	

Charging Mode, Set.4:

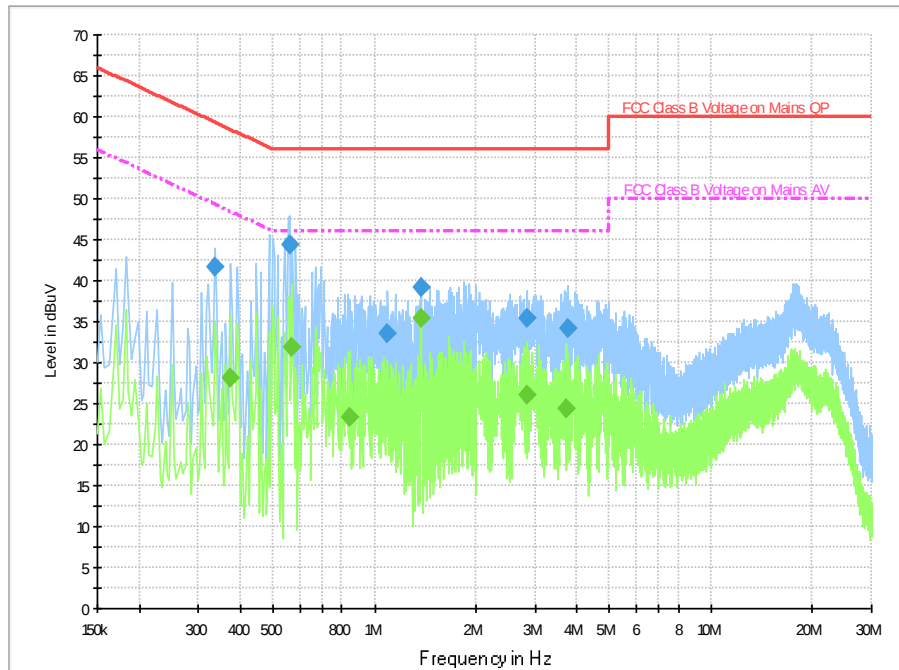


Fig A.16 Conducted Emission from 150kHz to 30MHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.334000	41.6	2000.0	9.000	On	L1	19.9	17.7	59.4	
0.558000	44.3	2000.0	9.000	On	L1	20.0	11.7	56.0	
1.094000	33.6	2000.0	9.000	On	N	19.7	22.4	56.0	
1.370000	39.1	2000.0	9.000	On	L1	19.9	16.9	56.0	
2.838000	35.3	2000.0	9.000	On	L1	19.8	20.7	56.0	
3.742000	34.1	2000.0	9.000	On	L1	19.8	21.9	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.374000	28.1	2000.0	9.000	On	L1	19.9	20.3	48.4	
0.570000	31.9	2000.0	9.000	On	L1	20.0	14.1	46.0	
0.846000	23.4	2000.0	9.000	On	L1	19.9	22.6	46.0	
1.370000	35.4	2000.0	9.000	On	L1	19.9	10.6	46.0	
2.838000	26.0	2000.0	9.000	On	L1	19.8	20.0	46.0	
3.718000	24.5	2000.0	9.000	On	L1	19.8	21.5	46.0	

USB Mode, Set.5:

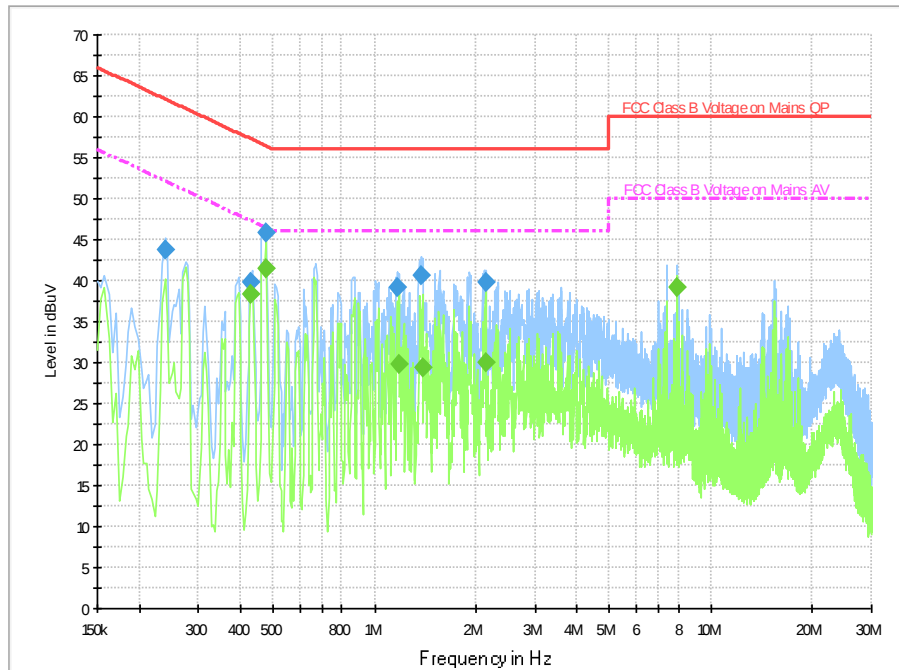


Fig A.17 Conducted Emission from 150kHz to 30MHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.238000	43.7	2000.0	9.000	On	L1	19.9	18.5	62.2	
0.430000	39.8	2000.0	9.000	On	L1	20.0	17.4	57.3	
0.474000	45.8	2000.0	9.000	On	L1	20.0	10.7	56.4	
1.170000	39.1	2000.0	9.000	On	L1	19.9	16.9	56.0	
1.378000	40.7	2000.0	9.000	On	N	19.7	15.3	56.0	
2.134000	39.8	2000.0	9.000	On	N	19.6	16.2	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.430000	38.3	2000.0	9.000	On	L1	20.0	8.9	47.3	
0.474000	41.5	2000.0	9.000	On	L1	20.0	4.9	46.4	
1.186000	29.8	2000.0	9.000	On	N	19.7	16.2	46.0	
1.386000	29.5	2000.0	9.000	On	L1	19.9	16.5	46.0	
2.134000	30.1	2000.0	9.000	On	N	19.6	15.9	46.0	
7.922000	39.3	2000.0	9.000	On	N	19.7	10.8	50.0	

END OF REPORT