



TEST REPORT

No. I21Z60861-EMC01

For

Tablet PC

Model Name: 9198S

FCC ID:2ACCJB155

with

Hardware Version:03

Software Version: 2C61

Issued Date: 2021-6-25

Note:

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

Test Laboratory:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21Z60861-EMC01	Rev.0	1 st edition	2021-6-25

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

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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 NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#:24849). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

CTTL(Huayuan North Road)

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

1.3. Testing Environment

Normal Temperature: 15-35°C

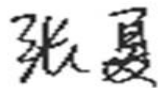
Relative Humidity: 20-75%

1.4. Project data

Testing Start Date: 2021-05-26

Testing End Date: 2021-06-20

1.5. Signature



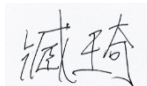
Zhang Xia

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2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park,
Shatin, NT, Hong Kong
Contact: Gong Zhizhou
Email: zhizhou.gong@tcl.com
Telephone: 0086-755-36611722

2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park,
Shatin, NT, Hong Kong
Contact: Gong Zhizhou
Email: zhizhou.gong@tcl.com
Telephone: 0086-755-36611722

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

3.1. About EUT

Description	Tablet PC
Model Name	9198S
FCC ID	2ACCJB155
Extreme vol. Limits	3.5VDC to 4.4VDC (nominal: 3.85VDC)

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
UT65a	35886140001072	03	2C61

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

Note: the SW version information was provided by the client.

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN	Remarks
AE1	Charger	/	CBA0064AGTC1
AE2	Cable	/	/
AE3	Headset	/	Not the part of EUT
AE4	Computer	/	Not the part of EUT

AE1

Model	QC13US
Manufacturer	BYD
Length of cable	/

AE2

Type	Data Cable
Manufacturer	SHENGHUA
Length of cable	0.8 meter

AE3

Type	TYPE C headset
Manufacturer	Not marked
Length of cable	1.5 meter

AE4

Model	E42-B0114
Manufacturer	Lenovo

Note: the remark information of AE1 was provided by the client.

3.4. General Description

The device contains receivers which tune and operate between 30MHz-960MHz in the following bands: GSM 850, WCDMA850, LTE Band 5/12/13, Carrier aggregation 5B, 5G, and support FM, MP3, Camera, USB data transfer, memory card, power reduction.

3.5. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	UT66a+AE1+AE2	Charger+Cable
Set.2	UT66a+AE4	Cable +Computer



Set.3

UT66a+AE3

Headset

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	2019
ANSI C63.4	American National Standard for Methods of Measurement of Radio- Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2014

Note: The test methods have no deviation with standards.

5. LABORATORY ENVIRONMENT

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

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 15 %, Max. = 75 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3m/10m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 18GHz

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

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

6. SUMMARY OF TEST RESULTS

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

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

7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATI ON INTERVAL
1	Test Receiver	ESU26	100235	R&S	2022-02-23	1 year
2	LISN	ESH3-Z5	8255621028	R&S	2021-10-15	1 year
3	BiLog Antenna	VULB9163	9163-1223	Schwarzbeck	2022-03-22	1 year
4	EMI Antenna	3115	6914	ETS-Lindgren	2022-02-03	1 year
5	Universal Radio Communication Tester	CMW500	116588	R&S	2021-12-07	1 year
6	Test Receiver	ESCI	100344	R&S	2022-02-23	1 year
7	Signal Generator	SMBV100A	260613	R&S	2022-01-06	1 year
8	Signal Generator	SMF100A	102063	R&S	2021-01-06	1 year

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

ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission

Reference

FCC: CFR Part 15.109(a).

A.1.1 Method of measurement

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

The EUT was placed on a non-conductive table. 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

The MS is operating in the charging mode and USB 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 the 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.

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

A.1.3 Measurement Limit

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

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

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

A.1.4 Test Condition

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

A.1.5 Measurement Results

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

The measurement results are obtained as described below:

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

Where

G_A : Antenna factor of receive antenna

G_{PL} : Path Loss

P_{Mea} : Measurement result on receiver.

Measurement uncertainty (worst case): 30MHz-1GHz: 5.40dB, 1GHz-18GHz: 4.32dB, $k=2$.

Measurement results

Charging, and camera 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)
17992.633	47.6	-29.1	46.7	29.998	54	5.5	V
17969.400	47.5	-29.1	46.7	29.901	54	5.7	H
17960.900	47.3	-29.1	46.7	29.701	54	6.1	V
17989.800	47.3	-29.1	46.7	29.698	54	6.4	H
17936.533	47.0	-29.4	46.7	29.739	54	6.4	V
17968.267	47.0	-29.1	46.7	29.401	54	6.5	H

Charging, and camera 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)
17992.633	57.1	-29.1	46.7	39.498	74	16.6	H
17983.567	56.1	-29.1	46.7	38.498	74	17.3	V
17987.533	55.9	-29.1	46.7	38.298	74	18.3	V
17966.567	55.7	-29.1	46.7	38.101	74	18.3	V
17932.567	55.7	-29.4	46.7	38.439	74	18.3	H
17964.867	55.5	-29.1	46.7	37.901	74	18.3	V

Charging and GSM 850 RX 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)
17953.533	47.2	-28.9	46.7	29.483	54	5.1	V
17969.400	47.1	-29.1	46.7	29.501	54	5.4	H
17941.067	47.1	-28.9	46.7	29.383	54	5.9	H
17973.933	47.1	-29.1	46.7	29.501	54	6.1	V
17952.400	47.0	-28.9	46.7	29.283	54	6.3	H
17980.733	46.9	-29.1	46.7	29.298	54	6.4	H

Charging and GSM 850 RX 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)
17965.433	56.1	-29.1	46.7	38.501	74	17.4	V
17981.867	56.0	-29.1	46.7	38.398	74	17.6	H
17973.933	55.9	-29.1	46.7	38.301	74	18.1	H
17977.900	55.8	-29.1	46.7	38.201	74	18.3	H
17953.533	55.8	-28.9	46.7	38.083	74	18.4	V
17978.467	55.7	-29.1	46.7	38.101	74	18.4	H

Charging and WCDMA 850 RX 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)
17964.300	47.6	-29.1	46.7	30.0	54	6.4	V
17974.500	47.2	-29.1	46.7	29.6	54	6.8	V
17971.100	47.2	-29.1	46.7	29.6	54	6.8	H
17973.933	46.9	-29.1	46.7	29.3	54	7.1	V
17971.667	46.7	-29.1	46.7	29.1	54	7.3	V
17996.600	46.7	-29.1	46.7	29.1	54	7.3	H

Charging and WCDMA 850 RX 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)
17980.167	57.0	-29.1	46.7	39.4	74	17.0	H
17959.767	56.8	-28.9	46.7	39.1	74	17.2	V
17994.900	56.5	-29.1	46.7	38.9	74	17.5	V
17993.200	56.1	-29.1	46.7	38.5	74	17.9	H
17965.433	55.9	-29.1	46.7	38.3	74	18.1	V
17994.333	55.9	-29.1	46.7	38.3	74	18.1	V

Charging and LTE Band 12 RX 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)
17984.700	47.7	-29.1	46.7	30.1	54	6.3	V
17976.200	47.2	-29.1	46.7	29.6	54	6.8	H
17994.333	47.1	-29.1	46.7	29.5	54	6.9	V
17972.233	46.9	-29.1	46.7	29.3	54	7.1	V
17989.233	46.8	-29.1	46.7	29.2	54	7.2	H
17985.267	46.6	-29.1	46.7	29.0	54	7.4	H

Charging and LTE Band 12 RX 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)
17981.300	55.6	-29.1	46.7	38.0	74	18.4	H
17918.967	55.6	-29.3	46.7	38.3	74	18.4	H
17951.267	55.5	-28.9	46.7	37.8	74	18.5	V
17952.967	55.5	-28.9	46.7	37.8	74	18.5	H
17994.333	55.4	-29.1	46.7	37.8	74	18.6	V
17969.967	55.4	-29.1	46.7	37.8	74	18.6	V

FM 88MHz 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)
17976.767	47.5	-29.1	46.7	29.901	54	6.1	H
17990.367	47.2	-29.1	46.7	29.598	54	6.2	V
17995.467	47.0	-29.1	46.7	29.398	54	6.4	H
17942.767	47.0	-28.9	46.7	29.283	54	6.4	V
17983.000	46.9	-29.1	46.7	29.298	54	6.5	H
17955.233	46.9	-28.9	46.7	29.183	54	6.6	V

FM 88MHz 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)
17966.000	56.3	-29.1	46.7	38.701	74	17.5	V
17990.367	55.7	-29.1	46.7	38.098	74	17.7	V
17968.833	55.6	-29.1	46.7	38.001	74	17.8	H
17976.767	55.4	-29.1	46.7	37.801	74	18.1	V
17949.567	55.3	-28.9	46.7	37.583	74	18.1	H
17984.700	55.3	-29.1	46.7	37.698	74	18.2	H

USB and MP3 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)
17996.600	47.6	-29.1	46.7	29.998	54	5.5	H
17983.000	47.0	-29.1	46.7	29.398	54	5.8	H
17993.200	46.5	-29.1	46.7	28.898	54	5.9	V
17977.333	46.5	-29.1	46.7	28.901	54	6.2	V
17999.433	46.4	-29.1	46.7	28.798	54	6.2	V
17954.667	46.3	-28.9	46.7	28.583	54	6.3	H

USB and MP3 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)
17976.767	55.4	-29.1	46.7	37.801	74	17.1	H
17979.600	55.2	-29.1	46.7	37.601	74	17.3	H
17939.367	55.1	-29.4	46.7	37.839	74	17.4	H
17989.800	55.1	-29.1	46.7	37.498	74	17.4	V
17969.400	55.0	-29.1	46.7	37.401	74	17.5	V
17836.800	54.8	-29.7	46.0	38.524	74	17.5	H

Charging, and camera mode

Full Spectrum

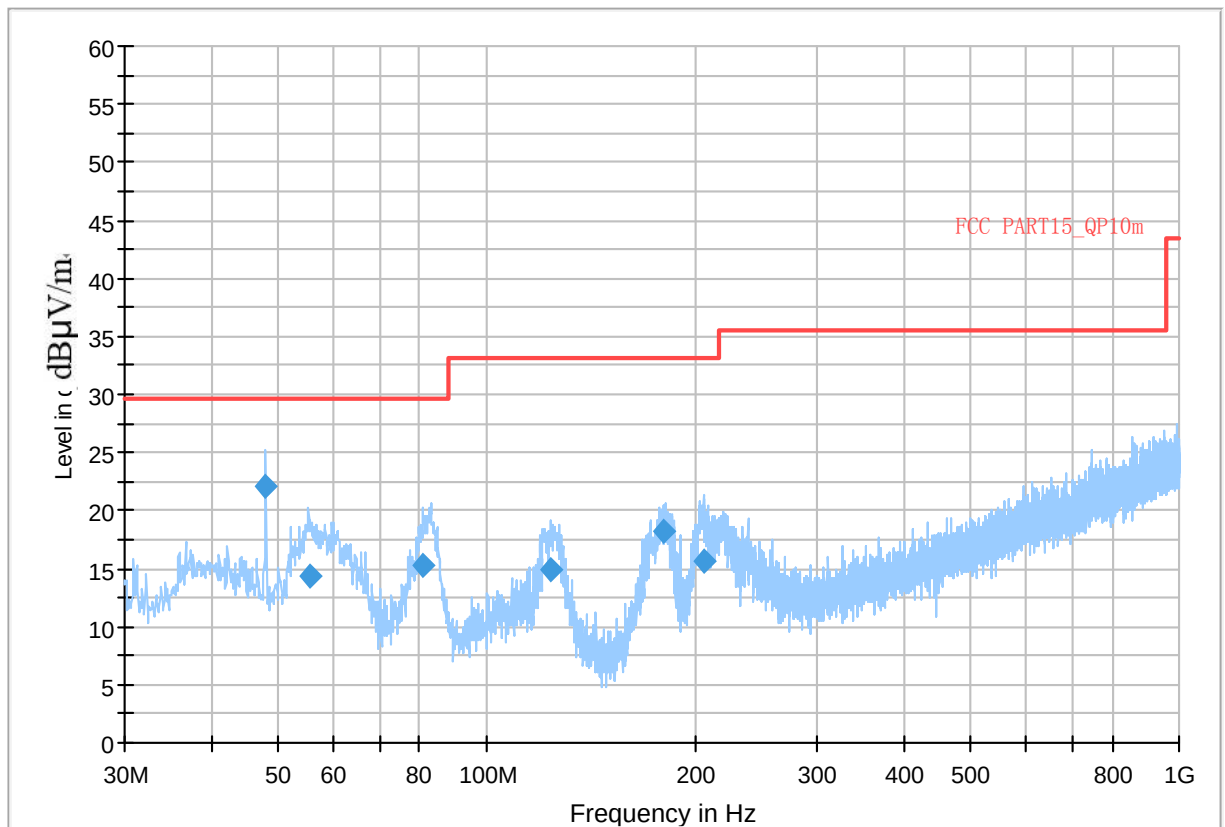


Figure A.1 Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dB $\mu\text{V/m}$)	Limit (dB $\mu\text{V/m}$)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
48.042000	22.00	29.50	7.54	1000.0	120.000	187.0	V	210.0	-11.5
55.608000	14.39	29.50	15.15	1000.0	120.000	226.0	V	101.0	-11.2
81.022000	15.19	29.50	14.35	1000.0	120.000	196.0	V	253.0	-16.9
123.702000	14.93	33.10	18.13	1000.0	120.000	121.0	V	-16.0	-14.8
180.253000	18.27	33.10	14.79	1000.0	120.000	103.0	V	-2.0	-13.9
205.376000	15.63	33.10	17.43	1000.0	120.000	114.0	V	30.0	-12.0

Full Spectrum

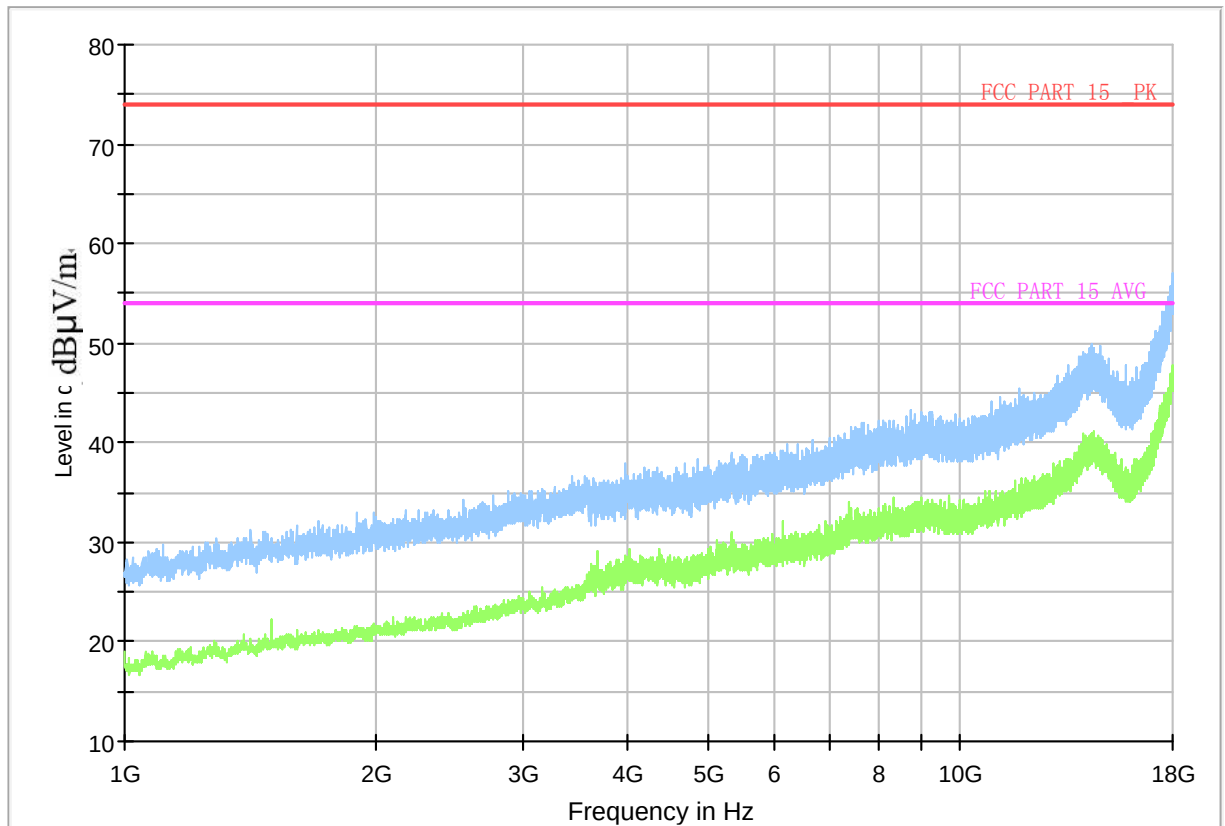


Figure A.2 Radiated Emission from 1GHz to 18GHz

Charging and GSM 850 RX mode

Full Spectrum

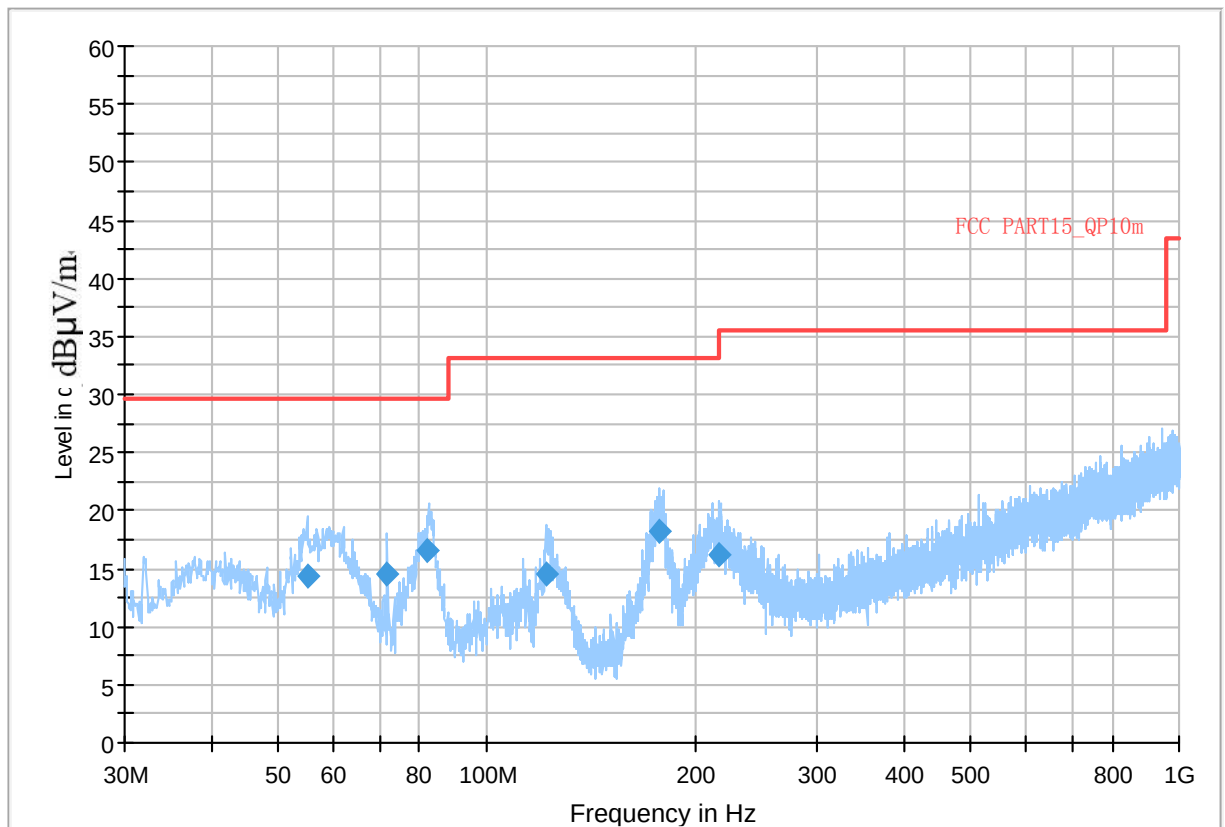


Figure A.3 Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
55.026000	14.39	29.50	15.15	1000.0	120.000	318.0	V	-3.0	-11.2
71.904000	14.50	29.50	15.04	1000.0	120.000	201.0	V	30.0	-15.7
81.895000	16.60	29.50	12.94	1000.0	120.000	187.0	V	263.0	-16.6
121.956000	14.59	33.10	18.47	1000.0	120.000	125.0	V	-21.0	-14.6
177.634000	18.31	33.10	14.75	1000.0	120.000	111.0	V	-4.0	-14.1
217.016000	16.22	35.60	19.34	1000.0	120.000	107.0	V	160.0	-11.6

Full Spectrum

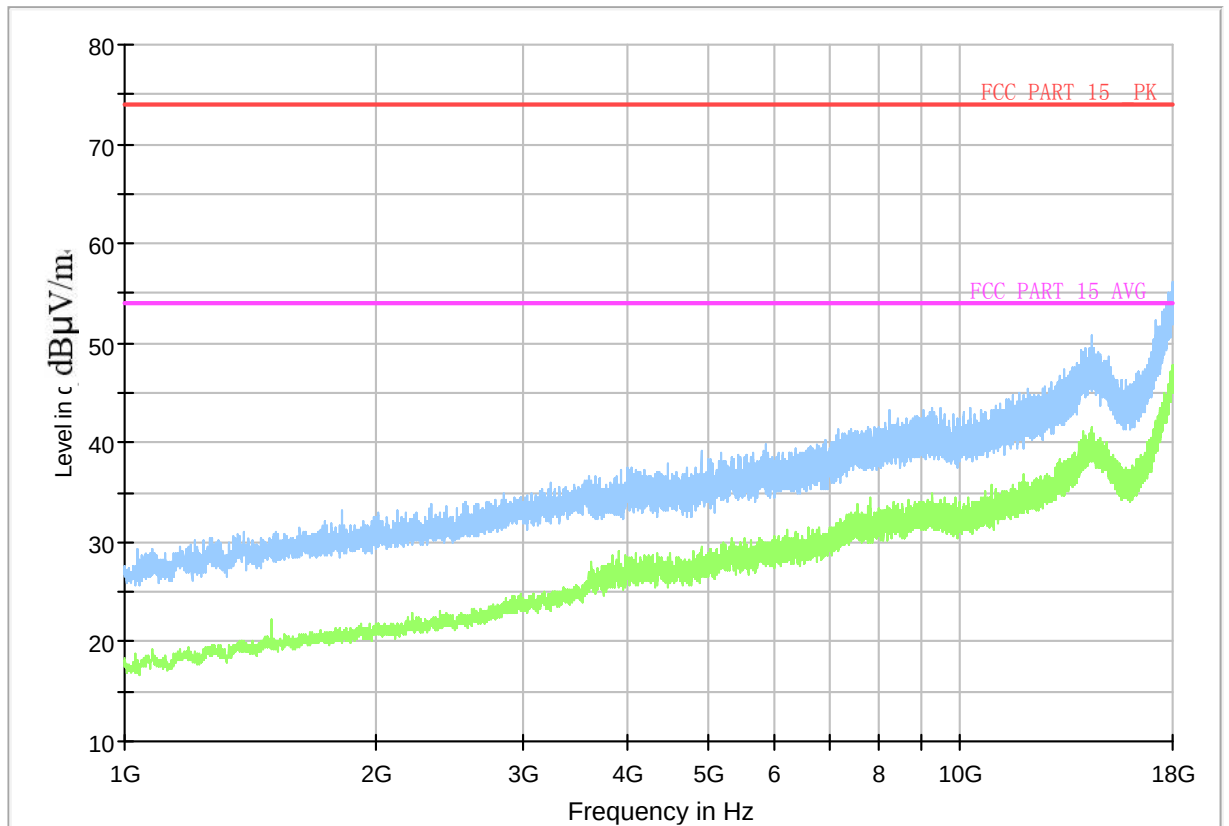


Figure A.4 Radiated Emission from 1GHz to 18GHz

Charging and WCDMA 850 RX mode

Full Spectrum

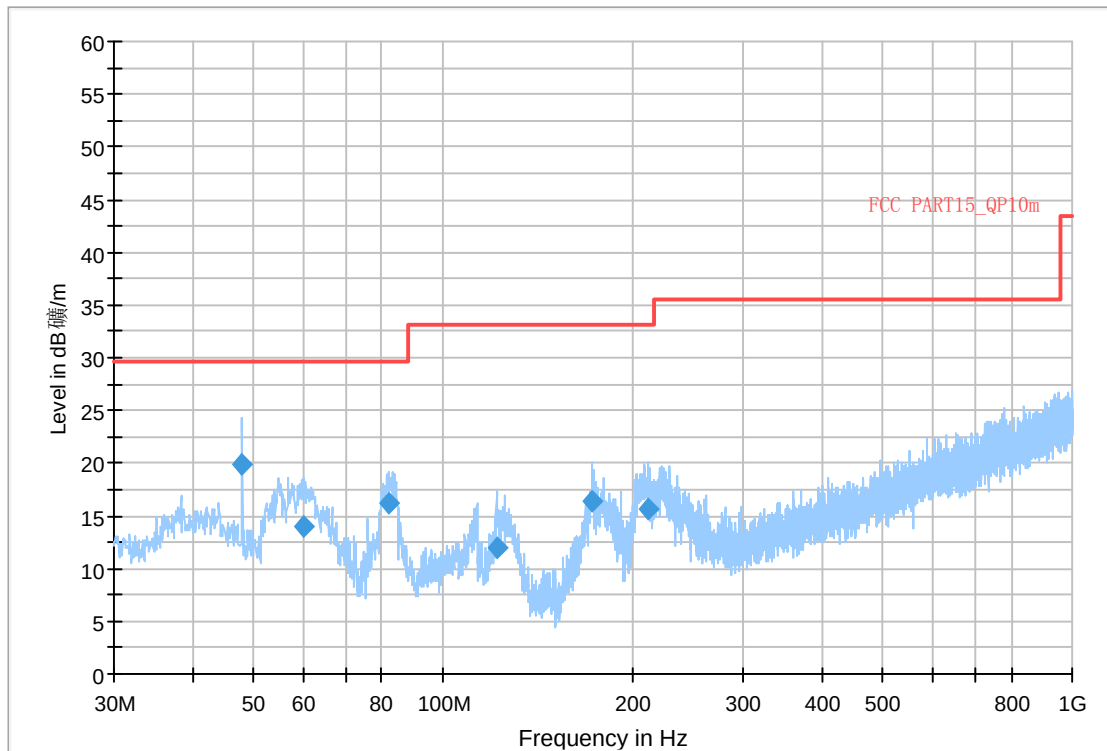


Figure A.5 Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
47.945000	19.82	29.50	9.72	1000.0	120.000	334.0	V	-20.0	-11.5
59.973000	13.96	29.50	15.58	1000.0	120.000	191.0	V	0.0	-11.4
81.895000	16.23	29.50	13.31	1000.0	120.000	125.0	V	251.0	-16.6
121.665000	12.04	33.10	21.02	1000.0	120.000	235.0	V	61.0	-14.5
173.075000	16.33	33.10	16.73	1000.0	120.000	113.0	V	6.0	-14.5
211.972000	15.71	33.10	17.35	1000.0	120.000	235.0	V	65.0	-11.9

Full Spectrum

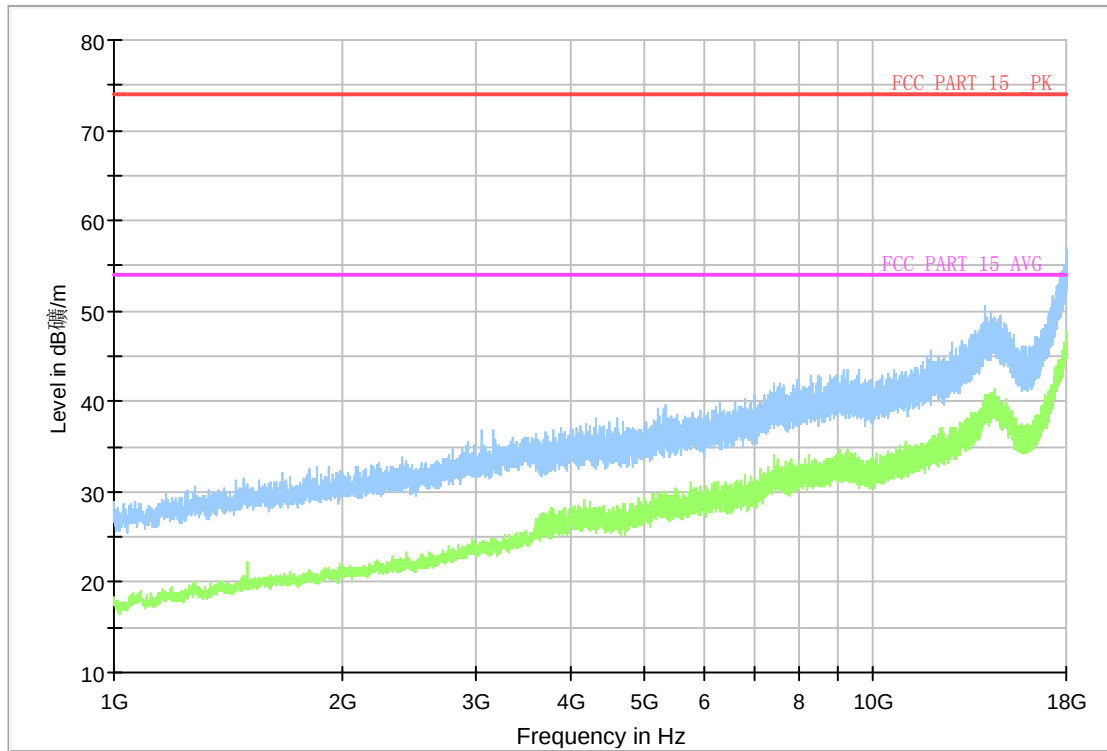


Figure A.6 Radiated Emission from 1GHz to 18GHz

Charging and LTE Band 12 RX mode

Full Spectrum

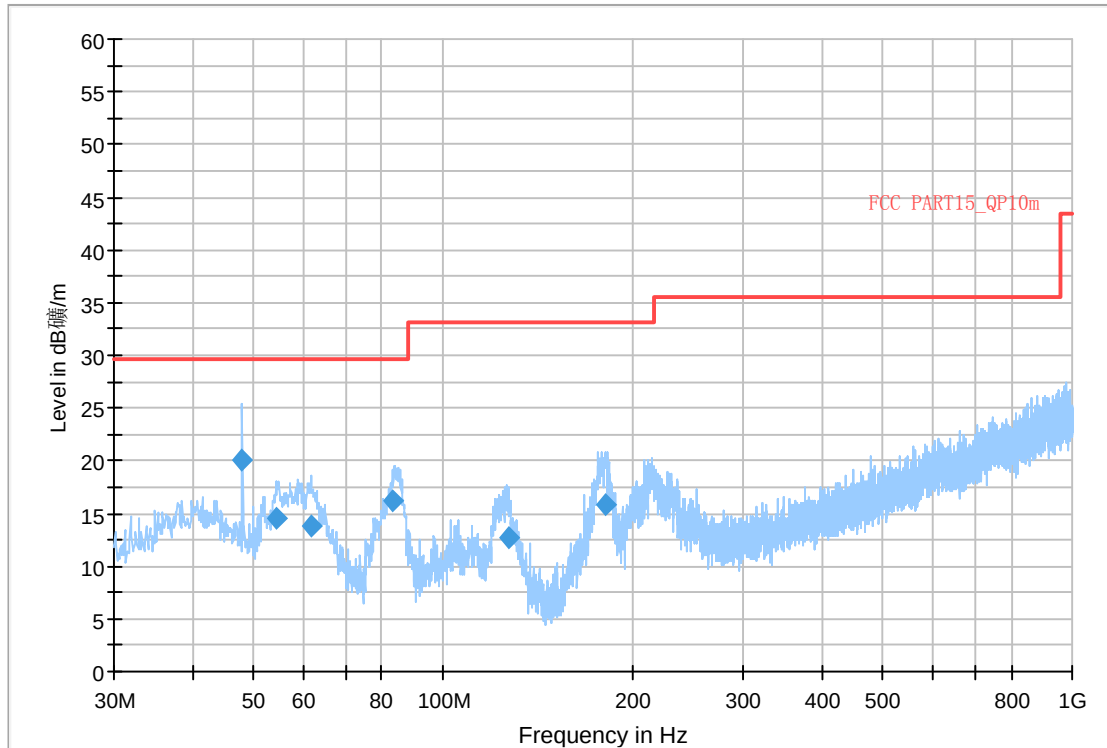


Figure A.7 Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
47.945000	19.97	29.50	9.57	1000.0	120.000	298.0	V	279.0	-11.5
54.347000	14.45	29.50	15.09	1000.0	120.000	300.0	V	-12.0	-11.4
61.913000	13.73	29.50	15.81	1000.0	120.000	203.0	V	9.0	-12.3
83.156000	16.19	29.50	13.35	1000.0	120.000	125.0	V	240.0	-16.3
127.097000	12.75	33.10	20.31	1000.0	120.000	125.0	V	-9.0	-15.2
181.514000	15.81	33.10	17.25	1000.0	120.000	107.0	V	-10.0	-13.8

Full Spectrum

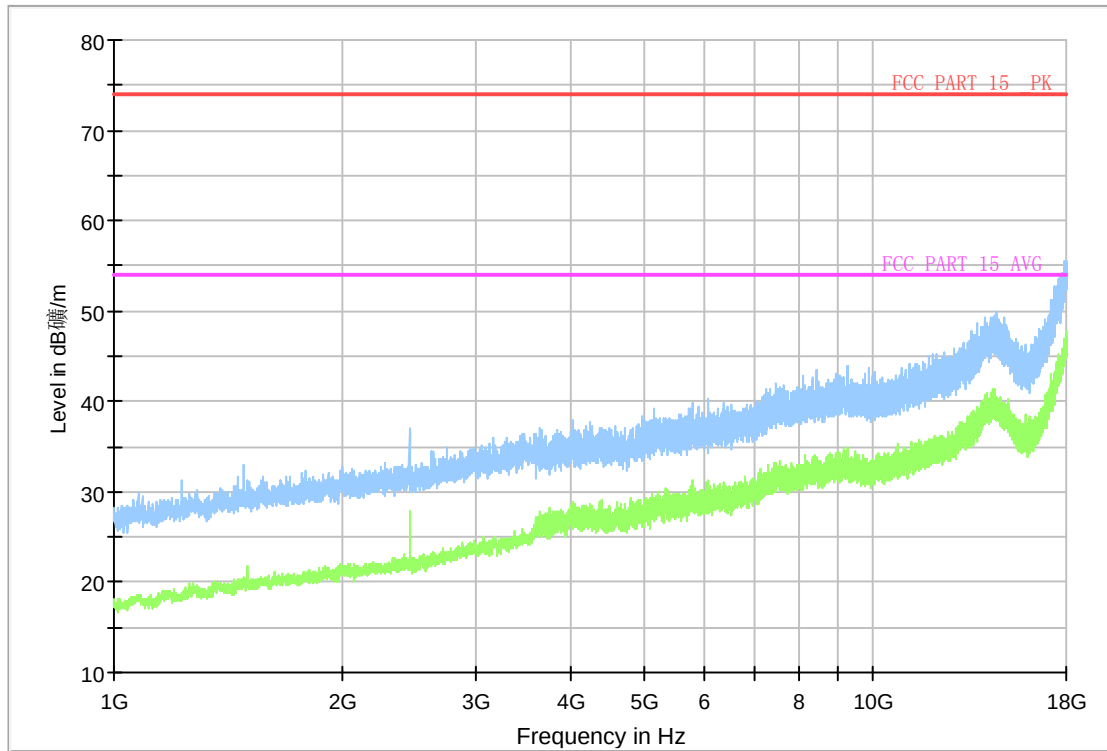


Figure A.8 Radiated Emission from 1GHz to 18GHz

FM 88MHz mode

Full Spectrum

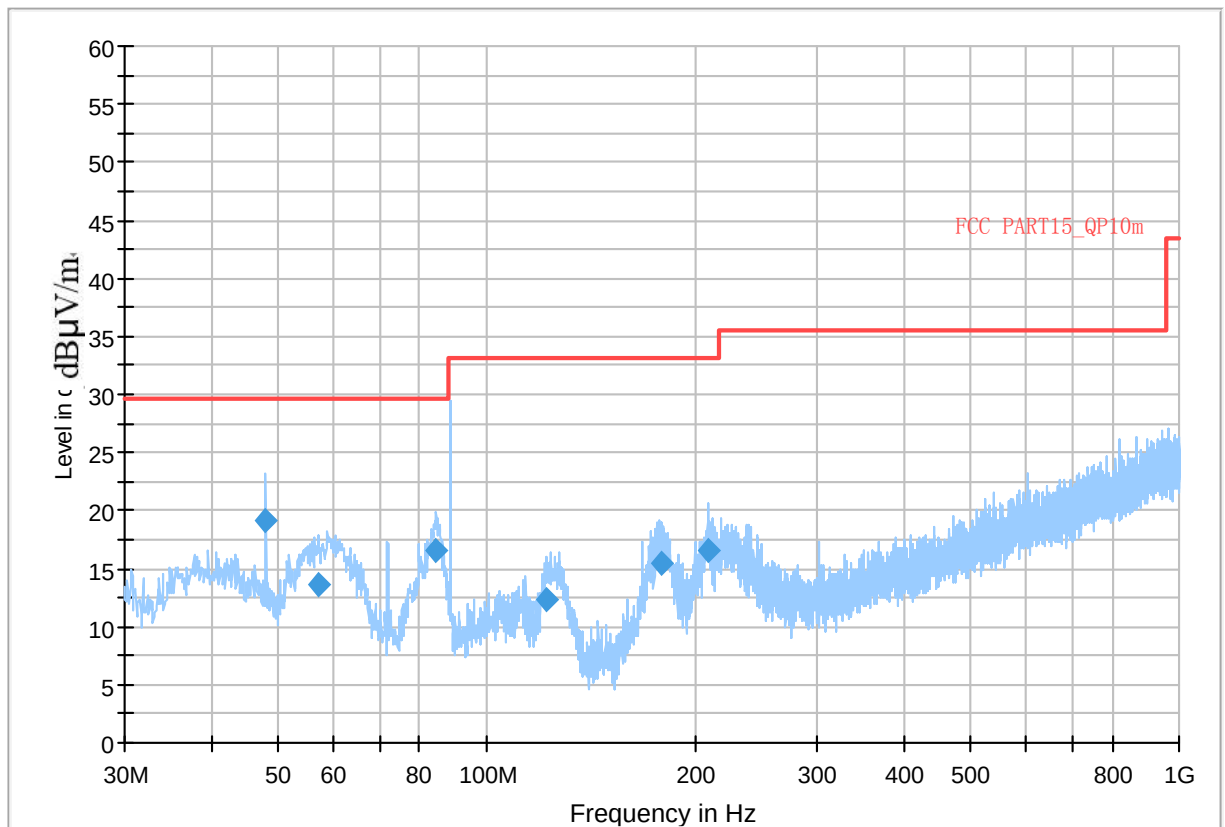


Figure A.9 Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
47.945000	19.06	29.50	10.48	1000.0	120.000	331.0	V	79.0	-11.5
57.063000	13.56	29.50	15.98	1000.0	120.000	345.0	V	120.0	-11.2
84.611000	16.59	29.50	12.95	1000.0	120.000	125.0	V	254.0	-16.0
121.956000	12.26	33.10	20.80	1000.0	120.000	125.0	V	5.0	-14.6
179.380000	15.40	33.10	17.66	1000.0	120.000	191.0	V	-6.0	-14.0
209.062000	16.56	33.10	16.50	1000.0	120.000	105.0	V	78.0	-12.0

Full Spectrum

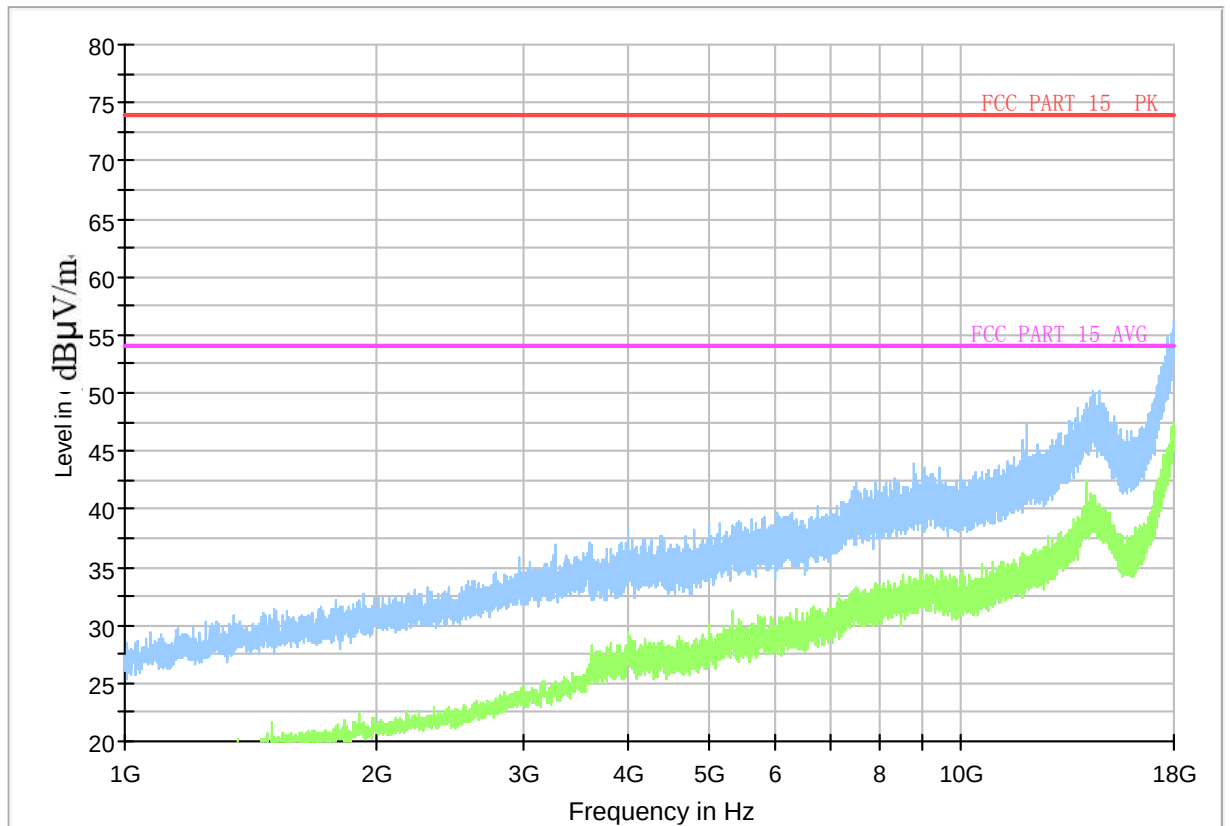


Figure A.10 Radiated Emission from 1GHz to 18GHz

USB and MP3 mode

Full Spectrum

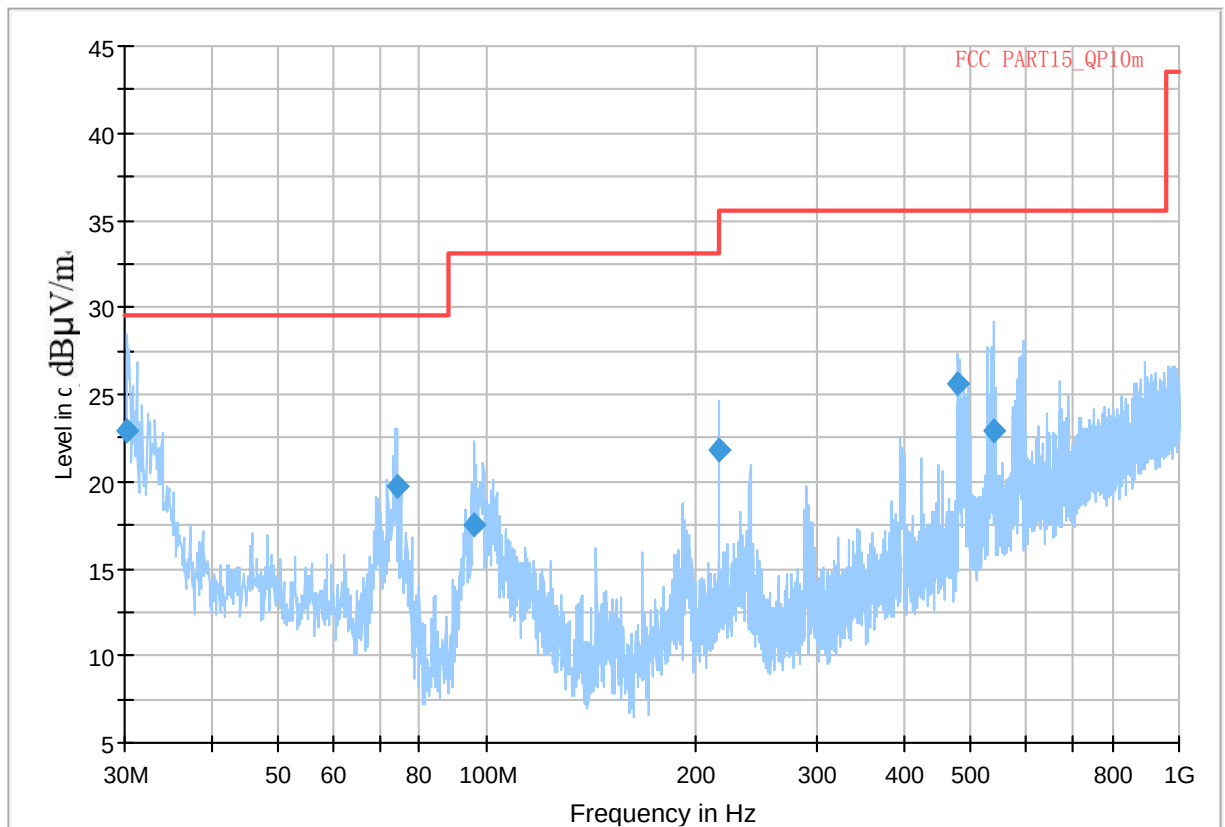


Figure A.11 Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
30.291000	22.94	29.50	6.60	1000.0	120.000	301.0	V	202.0
74.038000	19.69	29.50	9.85	1000.0	120.000	186.0	V	245.0
95.766000	17.51	33.10	15.55	1000.0	120.000	100.0	V	245.0
215.949000	21.86	33.10	11.20	1000.0	120.000	120.0	V	-5.0
480.371000	25.57	35.60	9.99	1000.0	120.000	297.0	V	16.0
538.377000	22.87	35.60	12.69	1000.0	120.000	235.0	V	2.0

Full Spectrum

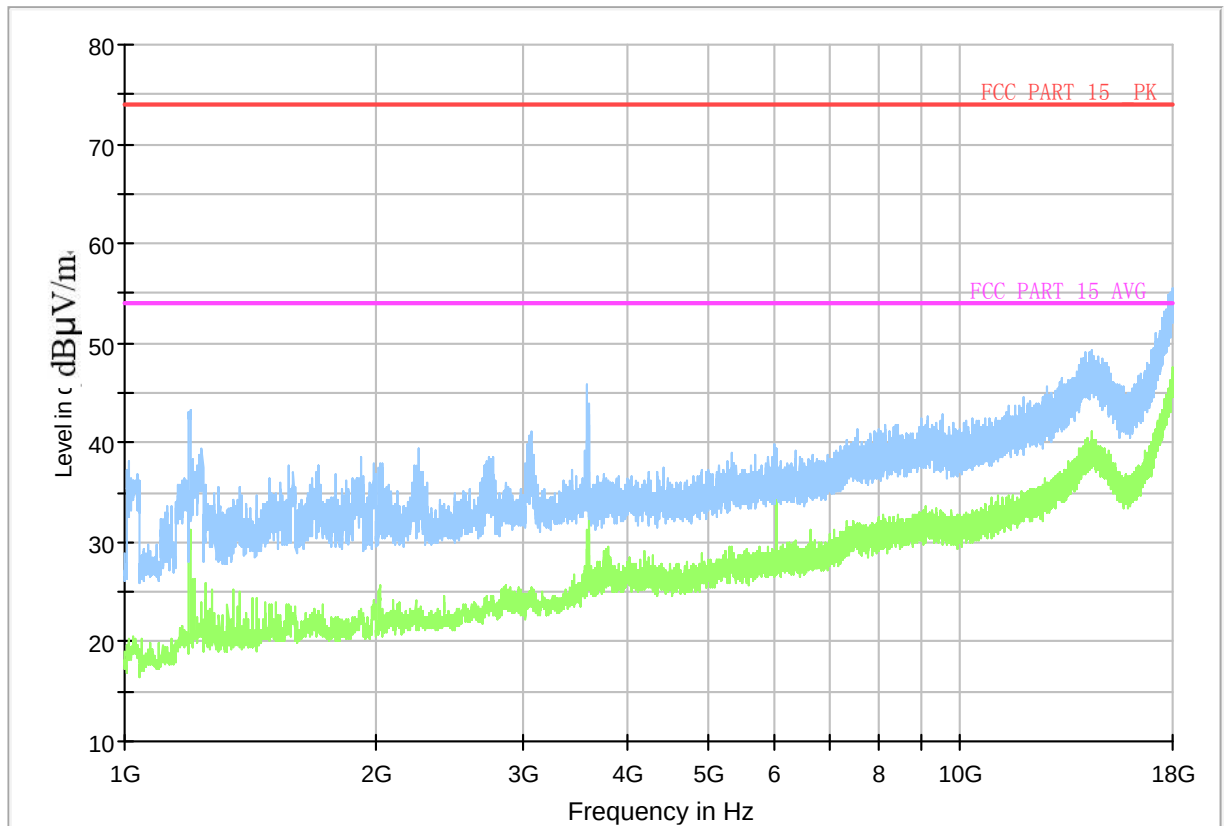


Figure A.12 Radiated Emission from 1GHz to 18GHz

Charging and NSA 2A_n5A RX mode

Full Spectrum

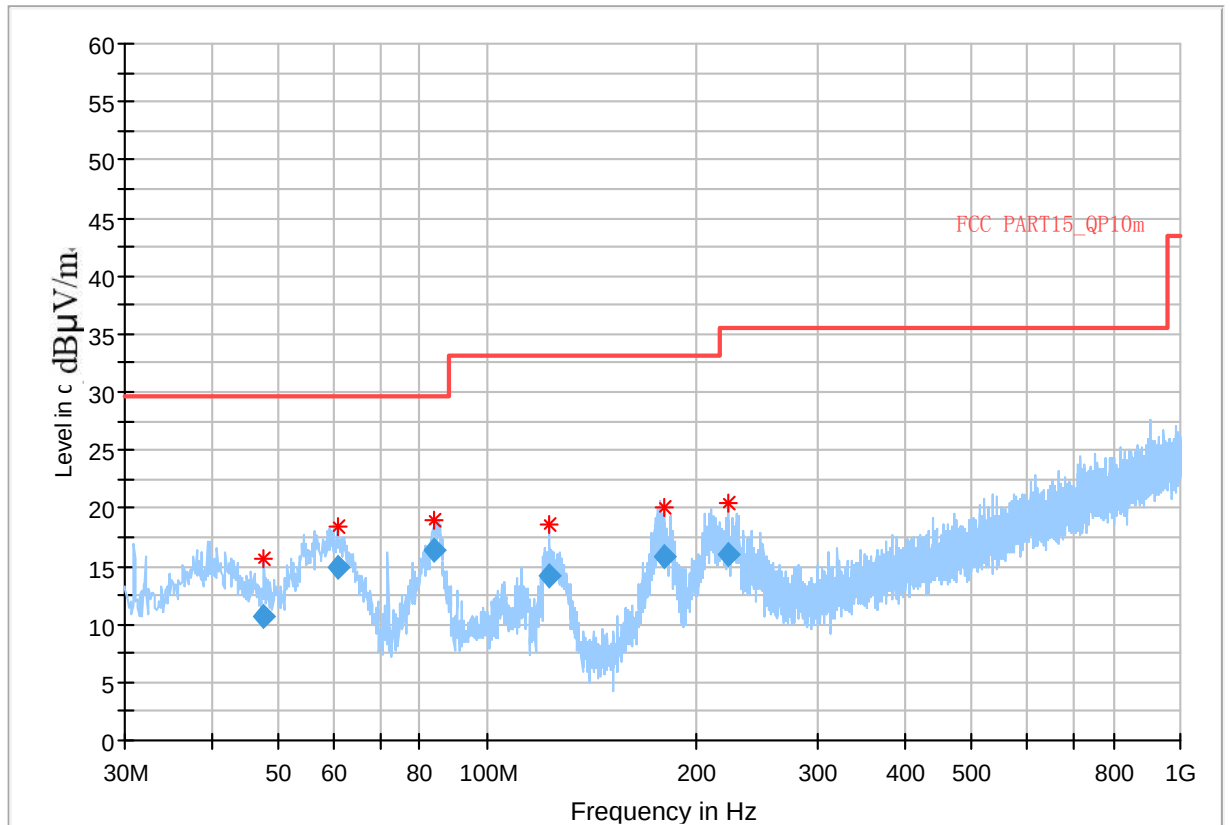


Figure A.13 Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
47.654000	10.72	29.50	18.82	1000.0	120.000	235.0	V	-25.0	-11.5
61.040000	15.00	29.50	14.54	1000.0	120.000	210.0	V	160.0	-11.9
84.029000	16.29	29.50	13.25	1000.0	120.000	120.0	V	256.0	-16.1
123.120000	14.20	33.10	18.86	1000.0	120.000	125.0	V	-20.0	-14.7
179.768000	15.76	33.10	17.30	1000.0	120.000	121.0	V	12.0	-14.0
222.254000	16.03	35.60	19.53	1000.0	120.000	110.0	V	157.0	-11.3

Full Spectrum

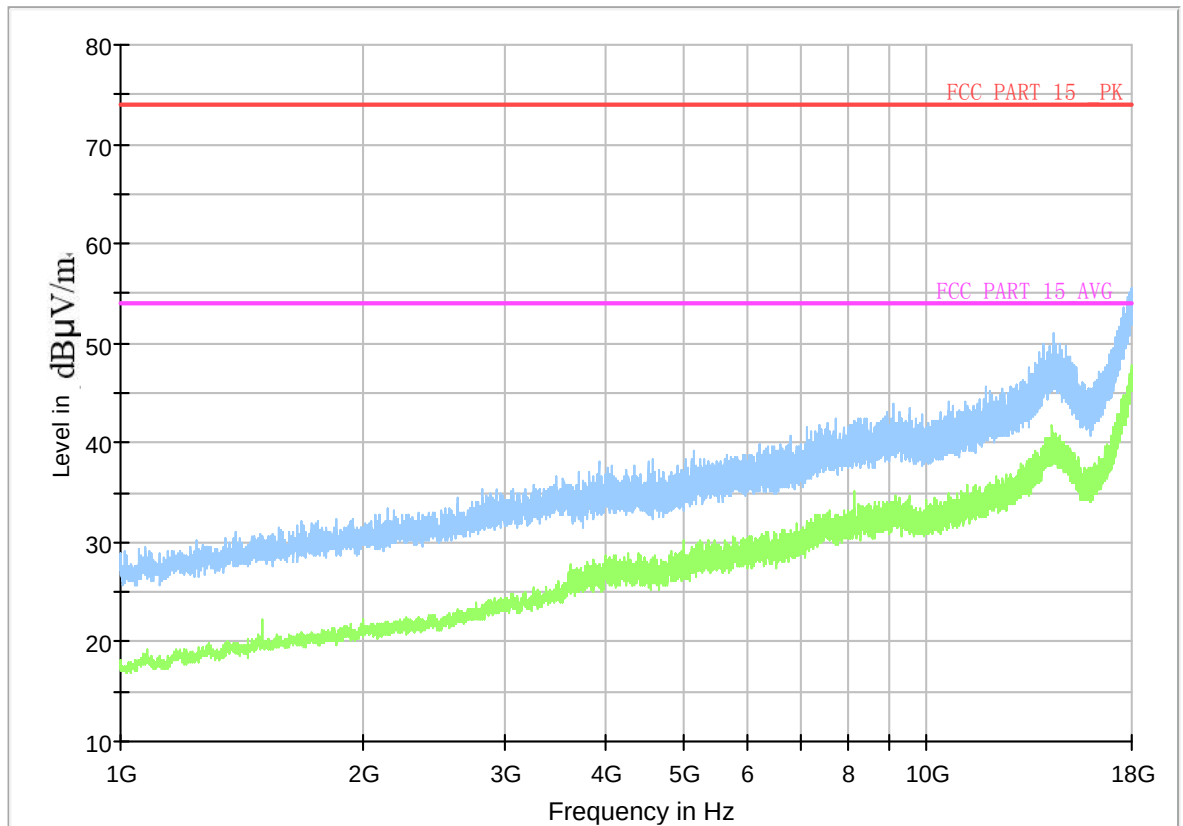


Figure A.14 Radiated Emission from 1GHz to 18GHz

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 charging mode and USB mode.

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: $U = 3.10 \text{ dB}$, $k=2$.

Charging and camera mode

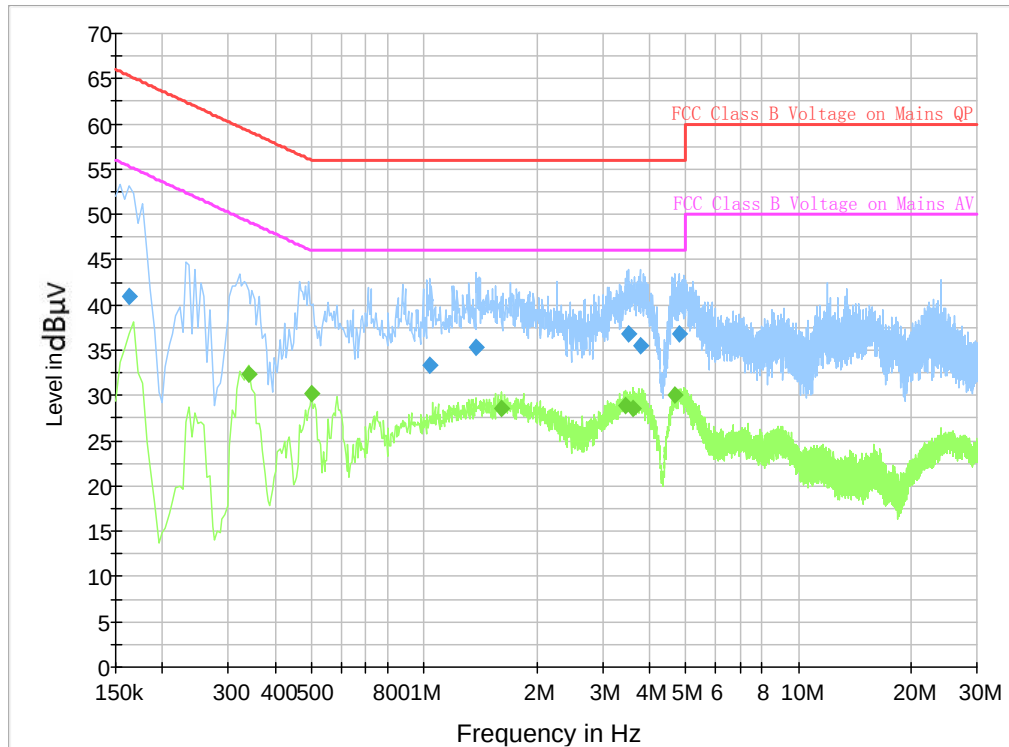


Figure A.15 Conducted Emission

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.163500	41.0	GND	L1	10.0	24.3	65.3
1.036500	33.4	GND	L1	10.0	22.6	56.0
1.378500	35.4	GND	L1	10.0	20.6	56.0
3.511500	36.8	GND	L1	10.1	19.2	56.0
3.772500	35.5	GND	L1	10.1	20.5	56.0
4.816500	36.9	GND	L1	10.2	19.1	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.339000	32.3	GND	N	10.0	16.9	49.2
0.501000	30.2	GND	N	10.0	15.8	46.0
1.612500	28.6	GND	L1	10.0	17.4	46.0
3.448500	28.9	GND	N	10.1	17.1	46.0
3.628500	28.5	GND	L1	10.1	17.5	46.0
4.699500	30.0	GND	N	10.1	16.0	46.0

Charging and GSM 850 RX mode

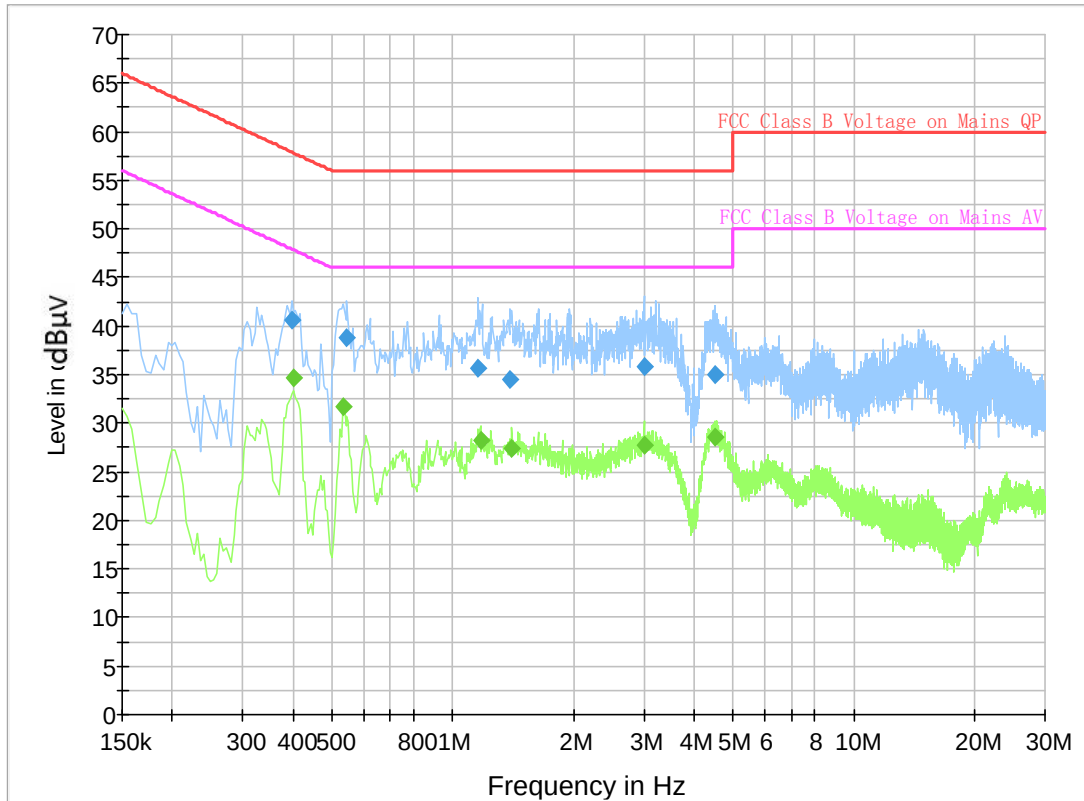


Figure A.16 Conducted Emission

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.397500	40.6	GND	N	9.9	17.3	57.9
0.546000	38.8	GND	N	10.0	17.2	56.0
1.158000	35.6	GND	N	10.0	20.4	56.0
1.392000	34.5	GND	L1	10.0	21.5	56.0
2.998500	35.8	GND	N	10.0	20.2	56.0
4.519500	35.1	GND	L1	10.1	20.9	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.402000	34.7	GND	N	9.9	13.1	47.8
0.532500	31.7	GND	N	10.0	14.3	46.0
1.176000	28.2	GND	L1	10.0	17.8	46.0
1.405500	27.4	GND	N	10.0	18.6	46.0
2.998500	27.7	GND	L1	10.1	18.3	46.0
4.492500	28.6	GND	N	10.1	17.4	46.0

USB and MP3 mode

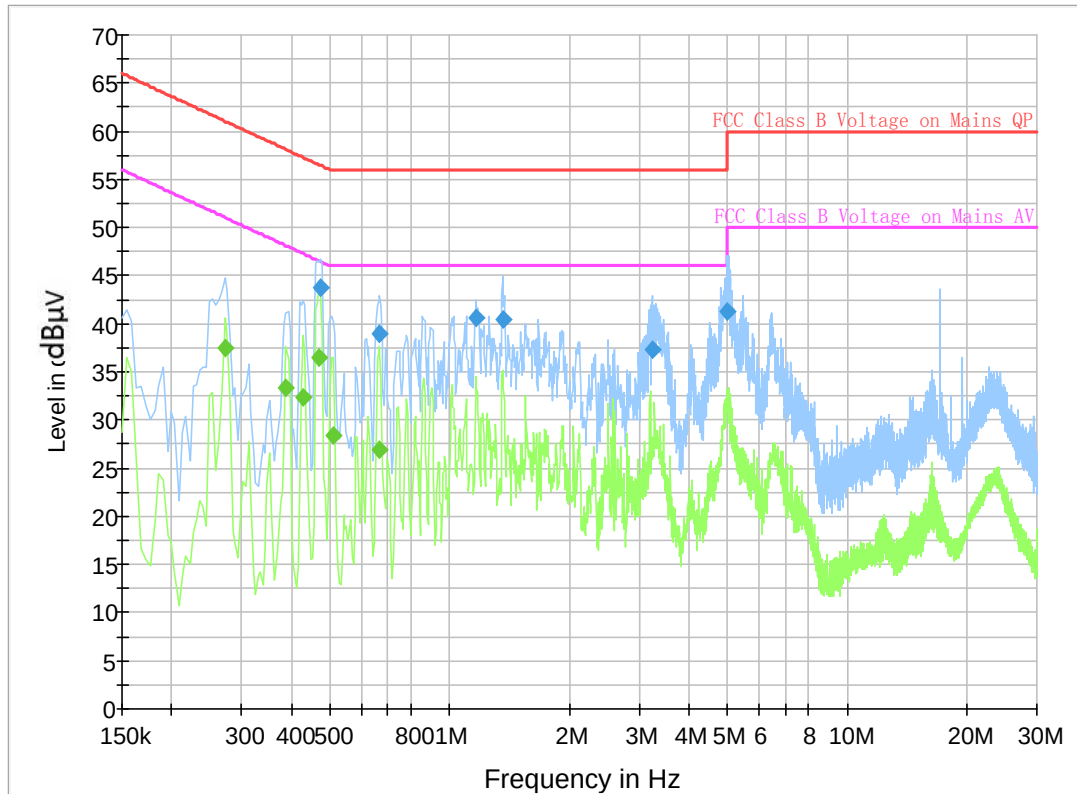


Figure A.17 Conducted Emission

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.474000	43.8	GND	N	10.0	12.7	56.4
0.667500	39.0	GND	L1	9.9	17.0	56.0
1.167000	40.7	GND	L1	10.0	15.3	56.0
1.360500	40.4	GND	L1	10.0	15.6	56.0
3.228000	37.3	GND	L1	10.0	18.7	56.0
4.996500	41.3	GND	L1	10.2	14.7	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.271500	37.4	GND	N	10.0	13.7	51.1
0.388500	33.4	GND	N	10.0	14.7	48.1
0.429000	32.4	GND	L1	10.0	14.9	47.3
0.469500	36.5	GND	N	10.0	10.1	46.5
0.510000	28.4	GND	N	10.0	17.6	46.0
0.667500	27.0	GND	N	9.9	19.0	46.0

ANNEX B: Persons involved in this testing

Test Item	Tester
Radiated Emission	Wang Huan, Ding Zai
Conducted Emission	Yang Mengke
Edit of this report	Wan Sijia, Zhang Xia

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