



FCC PART 15B TEST REPORT

No. I23Z61098-EMC01

for

TCL Communication Ltd.

LTE/WCDMA/GSM mobile phone

Model name: T312A, T312E

FCC ID: 2ACCJB211

with

Hardware Version: T300_MB_V1.01

Software Version: T312A_1SIM_V1.0_20230826_UNLOCK/

T312E_2SIM_V1.0_20230906_UNLOCK

Issued Date: 2023-09-21

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.

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

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: ctl_terminals@caict.ac.cn, website: www.caict.ac.cn



REPORT HISTORY

Report Number	Revision	Description	Issue Date
I23Z61098-EMC01	Rev.0	1 st edition	2023-09-18
I23Z61098-EMC01	Rev.1	Revised the description in the P6 note	2023-09-21

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



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 USED DURING THE TEST	6
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST.....	6
3.4. EUT SET-UPS	6
4. REFERENCE DOCUMENTS.....	8
4.1. REFERENCE DOCUMENTS FOR TESTING.....	8
5. LABORATORY ENVIRONMENT.....	9
6. SUMMARY OF TEST RESULTS.....	10
7. TEST EQUIPMENTS UTILIZED.....	11
ANNEX A: MEASUREMENT RESULTS	12

1. Test Laboratory

1.1. Testing Location

CTTL (huayuan North Road)

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

1.2. Testing Environment

Normal Temperature: 15-35°C

Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2023-09-06

Testing End Date: 2023-09-12

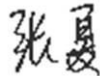
1.4. Signature



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: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact: Annie Jiang
Email: nianxiang.jiang@tcl.com
Tel: +86 755 3661 1621
Fax: +86 755 3661 2000-81722

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: Annie Jiang
Email: nianxiang.jiang@tcl.com
Tel: +86 755 3661 1621
Fax: +86 755 3661 2000-81722

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

3.1. About EUT

Description	LTE/WCDMA/GSM mobile phone
Model Name	T312A T312E
FCC ID:	2ACCJB211

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
EUT1(T312A)	35303263000178	T300_MB_V1.01	T312A_1SIM_V1.0_20230826_UNLOCK
EUT2(T312E)	/	T300_MB_V1.01	T312E_2SIM_V1.0_20230906_UNLOCK

*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	Manufacture
AE1	Battery	TLi015MA	ZhongShan Tianmao Battery CO.,Ltd.
AE2	Battery	TLi015MB	ShenzhenAerospaceElectronic Co.,Ltd
AE3	Charger1	XT-252A-5055	Shenzhen Baijunda Electronic Co.,Ltd.
AE4	Charger2	XT-536B-5055	Shenzhen Baijunda Electronic Co.,Ltd.
AE5	Charger3	MC-701	Shenzhen Baijunda Electronic Co.,Ltd.
AE6	USB Cable	CDA0000162C1	HUIZHOU JUWEI ELECTRONICS CO.,LTD.
AE7	USB Cable	CDA0000162C2	Huizhou Shenghua Technology Co., Ltd.
AE8	Headset1	CCB0046A15C1	HUIZHOU JUWEI ELECTRONICS CO.,LTD.
AE9	Headset2	JWEP1277-C02R	HUIZHOU JUWEI ELECTRONICS CO.,LTD.
AE10	Charger4	XT-252E-5055	Shenzhen Baijunda Electronic 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 + AE1/2 + AE3 +AE6/7	Charger1+MP3+ Camera +GSM850 idle
Set.2	EUT1 + AE1/2 + AE4 +AE6/7+AE8	Charger2+Headset1+FM +WCDMA B5 idle
Set.3	EUT1 + AE1/2 + AE3 +AE5 + Cable	Charger3+Headset2+FM +LTE B5 idle+Charger1
Set.4	EUT1 + AE1/2 + AE6/7	USB

Note:

Equipment Under Test (EUT) is a model of LTE/WCDMA/GSM mobile phone.

It supports

GSM Band	850/900/1800/1900
UMTS Band	Bands I/II/IV/V/VIII
LTE Band	FDD Bands 1/2/3/4/5/7/8/13/28, TDD Bands 40/41

It has MP3, Camera, USB memory, Bluetooth 4.2 functions.

The device contains receivers which tune and operate between 30MHz-960MHz in the following mode: GSM 850, UMTS Band 5, LTE Band 5, LTE Band 13 and FM. All licensed band



receivers that tune in the range of 30MHz-960MHz are investigated. Only the worst-case emissions are reported.

Note: The model T312A and T312E are differ in the number of supported SIM cards. T312A is a single SIM card model and T312E is a dual SIM cards model. According to the difference statement, no further testing has been conducted on T312E.

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 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 M Ω
Ground system resistance	< 4 Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3m distance
Site voltage standing-wave ratio (S_{VSWR})	Between 0 and 6 dB, from 1GHz to 6GHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

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

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

6. 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)

7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESW44	103144	R&S	2023-10-25	1 Year
2	LISN	ENV216	101200	R&S	2024-06-05	1 year
3	Test Receiver	ESCI 7	100344	R&S	2024-02-21	1 Year
4	EMI Antenna	VULB 9163	01222	SCHWARZBECK	2024-02-28	1 year
5	EMI Antenna	3115	6914	ETS-Lindgren	2024-04-25	1 year
6	Universal Communication Tester	CMW500	150344	R&S	2024-01-03	1 year
7	Signal Generator	SMBV100A	260613	R&S	2024-02-14	1 year
8	Software	EMC32	/	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/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, OTG 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.

A.1.3 Measurement Limit

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

A.1.4 Test Condition

Frequency range (MHz)	RBW/BW	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 uncertainty (worst case): $U = 4.84 \text{ dB}$, $k=2$.

Measurement results for Set.1:

Charing 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)
17997.280	45.30	-29.06	46.66	27.70	54.00	8.70	H
17981.980	45.20	-29.06	46.66	27.60	54.00	8.80	V
17999.660	45.10	-29.06	46.66	27.50	54.00	8.90	V
17986.740	45.00	-29.06	46.66	27.40	54.00	9.00	H
17994.560	45.00	-29.06	46.66	27.40	54.00	9.00	V
17987.080	44.90	-29.06	46.66	27.30	54.00	9.10	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)
17960.560	55.90	-29.06	46.66	38.30	74.00	18.10	V
17994.220	55.70	-29.06	46.66	38.10	74.00	18.30	V
17979.600	55.40	-29.06	46.66	37.80	74.00	18.60	V
17930.640	55.30	-29.40	46.66	38.04	74.00	18.70	H
17933.360	55.30	-29.40	46.66	38.04	74.00	18.70	V
17801.780	55.20	-29.63	45.95	38.88	74.00	18.80	V

Measurement results for Set.2:
Charing 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)
17991.160	44.80	-29.06	46.66	27.20	54.00	9.20	H
17997.960	44.80	-29.06	46.66	27.20	54.00	9.20	V
17985.380	44.80	-29.06	46.66	27.20	54.00	9.20	V
17981.300	44.80	-29.06	46.66	27.20	54.00	9.20	H
17973.480	44.70	-29.06	46.66	27.10	54.00	9.30	V
18000.000	44.70	-29.24	47.00	26.94	54.00	9.30	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)
17986.740	55.90	-29.06	46.66	38.30	74.00	18.10	V
17977.220	55.90	-29.06	46.66	38.30	74.00	18.10	V
17973.480	55.20	-29.06	46.66	37.60	74.00	18.80	H
17930.980	55.10	-29.40	46.66	37.84	74.00	18.90	H
17969.740	55.10	-29.06	46.66	37.50	74.00	18.90	V
17928.940	55.10	-29.40	46.66	37.84	74.00	18.90	H

Measurement results for Set.3:
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)
17976.880	45.30	-29.06	46.66	27.70	54.00	8.70	H
17994.220	45.20	-29.06	46.66	27.60	54.00	8.80	H
17962.260	44.90	-29.06	46.66	27.30	54.00	9.10	H
17968.040	44.90	-29.06	46.66	27.30	54.00	9.10	V
17975.180	44.70	-29.06	46.66	27.10	54.00	9.30	V
17995.240	44.70	-29.06	46.66	27.10	54.00	9.30	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)
17943.900	55.90	-28.94	46.66	38.18	74.00	18.10	H
17983.340	55.70	-29.06	46.66	38.10	74.00	18.30	V
17986.060	55.60	-29.06	46.66	38.00	74.00	18.40	V
17929.620	55.60	-29.40	46.66	38.34	74.00	18.40	V
17984.020	55.60	-29.06	46.66	38.00	74.00	18.40	V
17998.640	55.40	-29.06	46.66	37.80	74.00	18.60	H

Measurement results for Set.4:
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)
17994.220	46.60	-29.06	46.66	29.00	54.00	7.40	H
17998.980	46.50	-29.06	46.66	28.90	54.00	7.50	H
17996.940	46.40	-29.06	46.66	28.80	54.00	7.60	V
17801.440	46.20	-29.63	45.95	29.88	54.00	7.80	H
17992.180	46.10	-29.06	46.66	28.50	54.00	7.90	V
17886.100	46.00	-29.53	45.95	29.58	54.00	8.00	V

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)
17961.920	57.40	-29.06	46.66	39.80	74.00	16.60	V
17999.320	57.30	-29.06	46.66	39.70	74.00	16.70	V
17795.320	56.60	-29.89	45.95	40.53	74.00	17.40	V
17972.800	56.50	-29.06	46.66	38.90	74.00	17.50	V
17794.640	56.50	-29.89	45.95	40.43	74.00	17.50	V
17984.360	56.50	-29.06	46.66	38.90	74.00	17.50	H

Measurement results for Set.1:

Full Spectrum

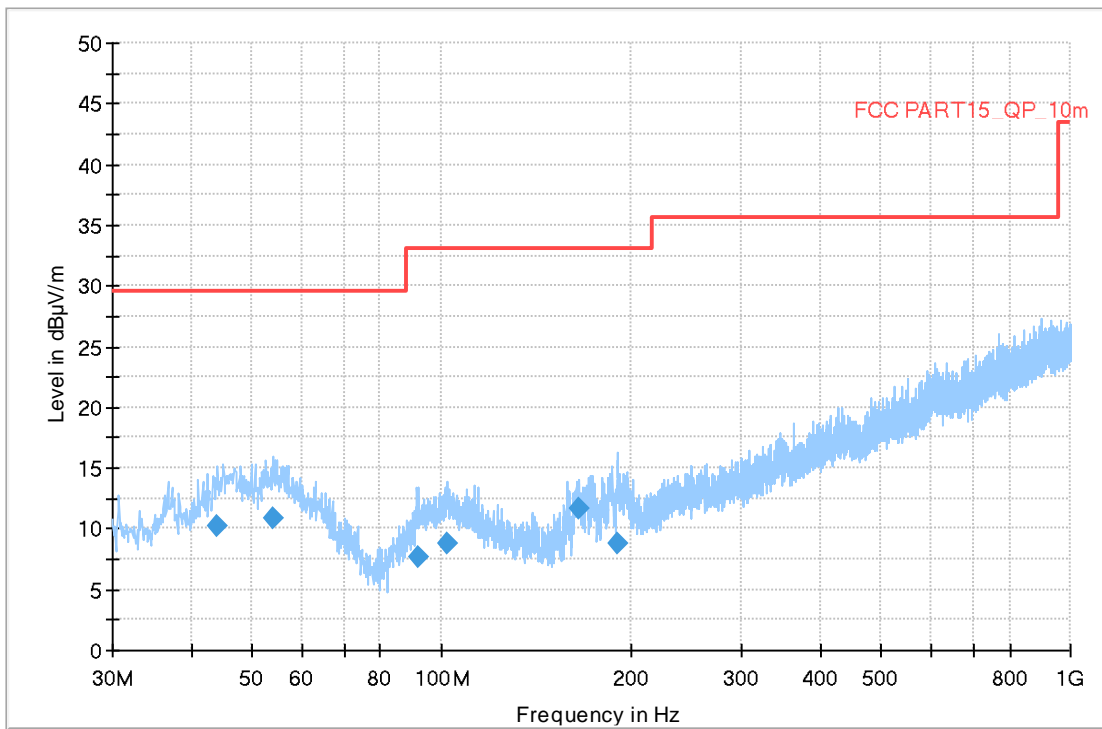


Fig A.1 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
44.065000	10.26	29.54	19.28	120.000	302.0	V	265.0
53.862000	10.90	29.54	18.64	120.000	202.0	V	305.0
91.983000	7.63	33.06	25.43	120.000	225.0	V	-5.0
102.168000	8.80	33.06	24.26	120.000	223.0	H	124.0
165.897000	11.71	33.06	21.35	120.000	125.0	V	-43.0
190.535000	8.86	33.06	24.20	120.000	100.0	V	46.0

Full Spectrum

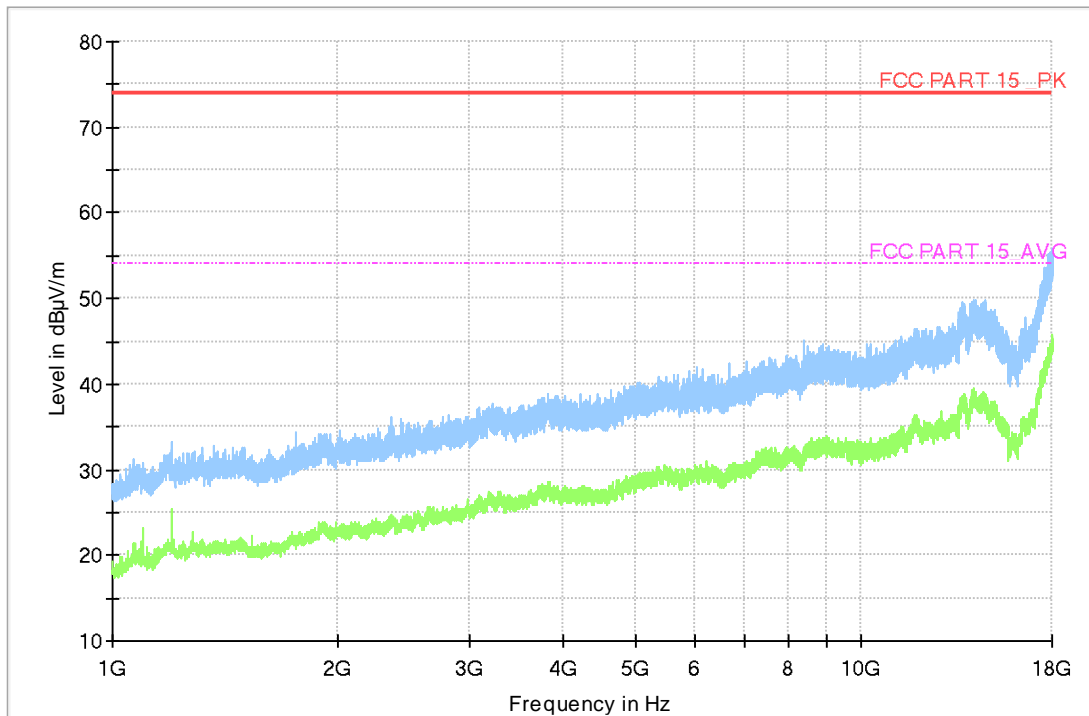


Fig A.2 Radiated Emission from 1GHz to 18GHz

Measurement results for Set.2:

Full Spectrum

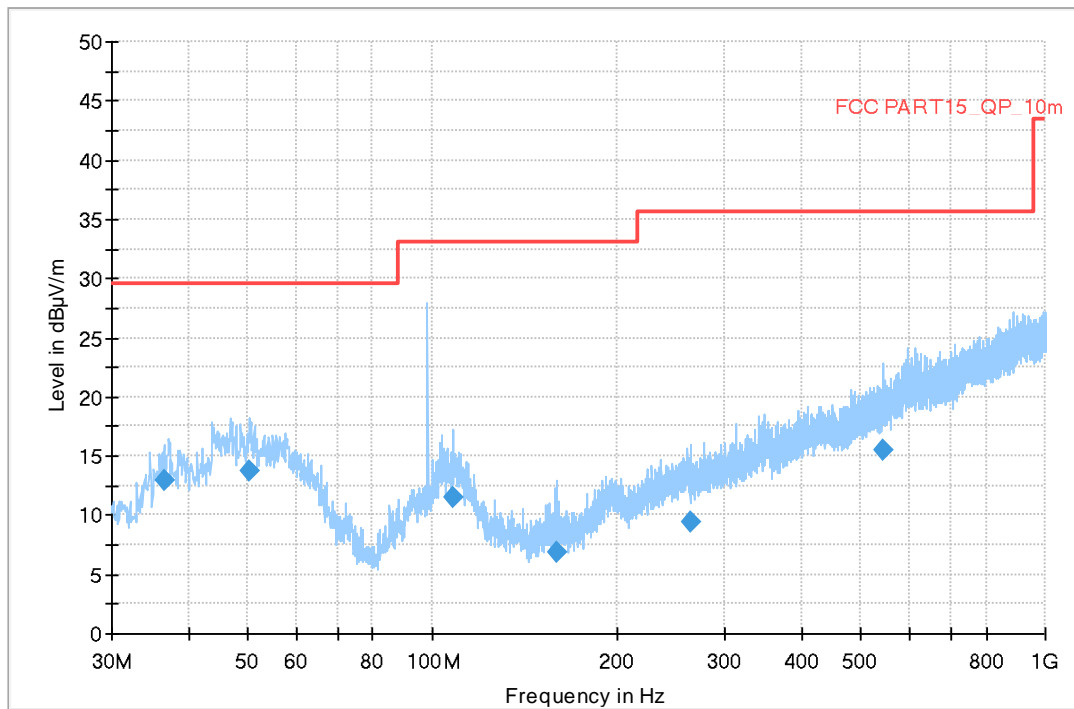


Fig A.3 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
36.596000	12.87	29.54	16.67	120.000	108.0	V	227.0
50.370000	13.67	29.54	15.87	120.000	125.0	V	225.0
108.279000	11.50	33.06	21.56	120.000	100.0	V	137.0
159.786000	6.82	33.06	26.24	120.000	108.0	V	149.0
263.382000	9.43	35.56	26.13	120.000	283.0	H	-44.0
542.451000	15.54	35.56	20.02	120.000	183.0	H	240.0

Full Spectrum

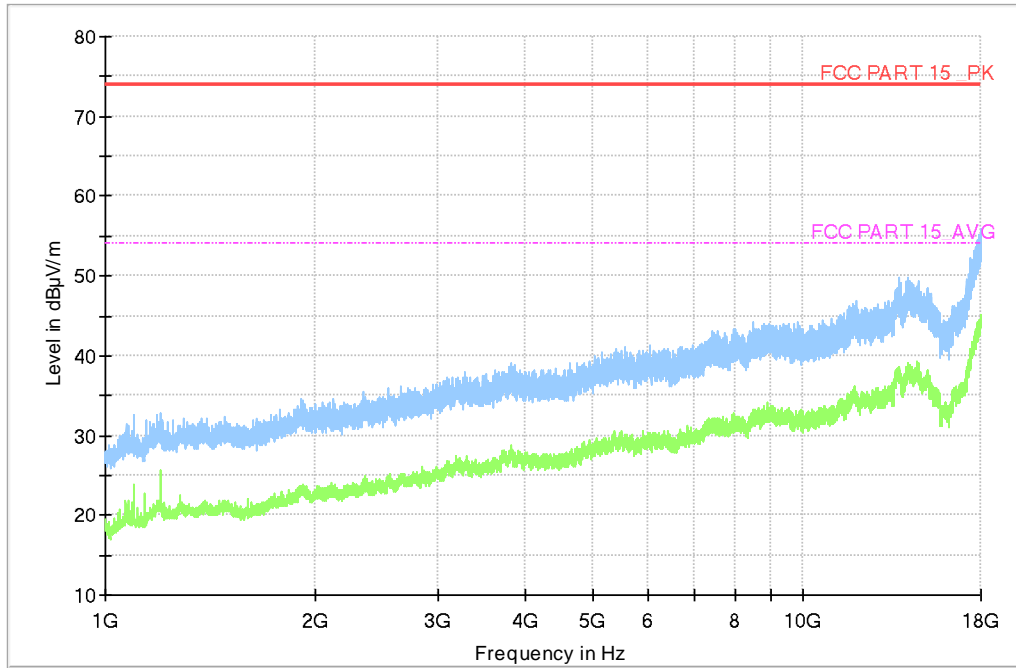


Fig A.4 Radiated Emission from 1GHz to 18GHz

Measurement results for Set.3:

Full Spectrum

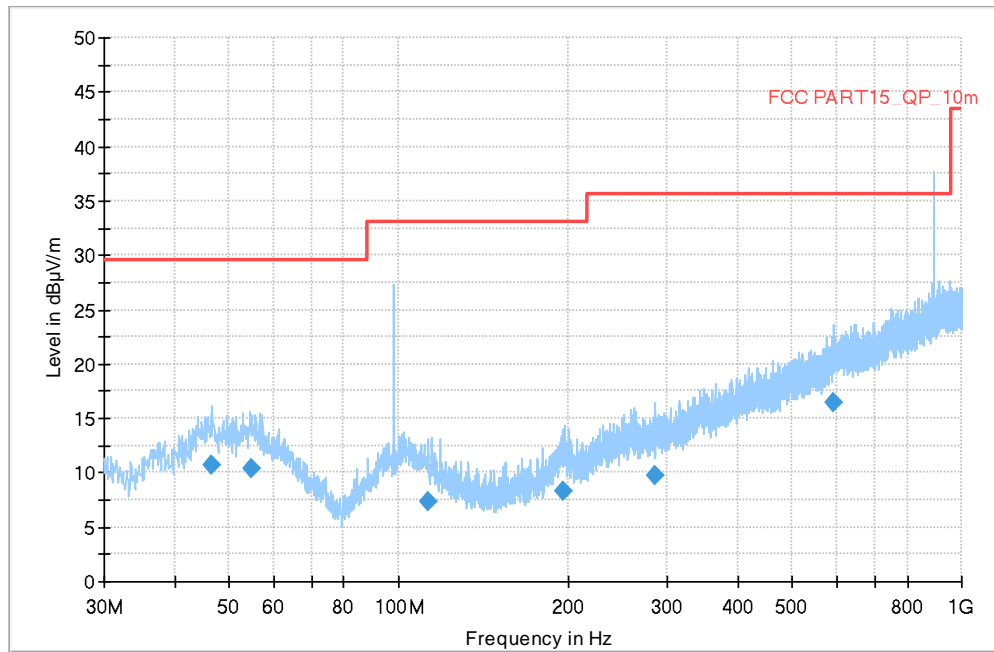


Fig A.5 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
46.684000	10.76	29.54	18.78	120.000	100.0	V	225.0
54.832000	10.38	29.54	19.16	120.000	283.0	H	47.0
113.032000	7.37	33.06	25.69	120.000	225.0	V	-4.0
195.773000	8.30	33.06	24.76	120.000	183.0	H	45.0
284.431000	9.68	35.56	25.88	120.000	223.0	V	265.0
591.145000	16.48	35.56	19.08	120.000	222.0	H	315.0

Full Spectrum

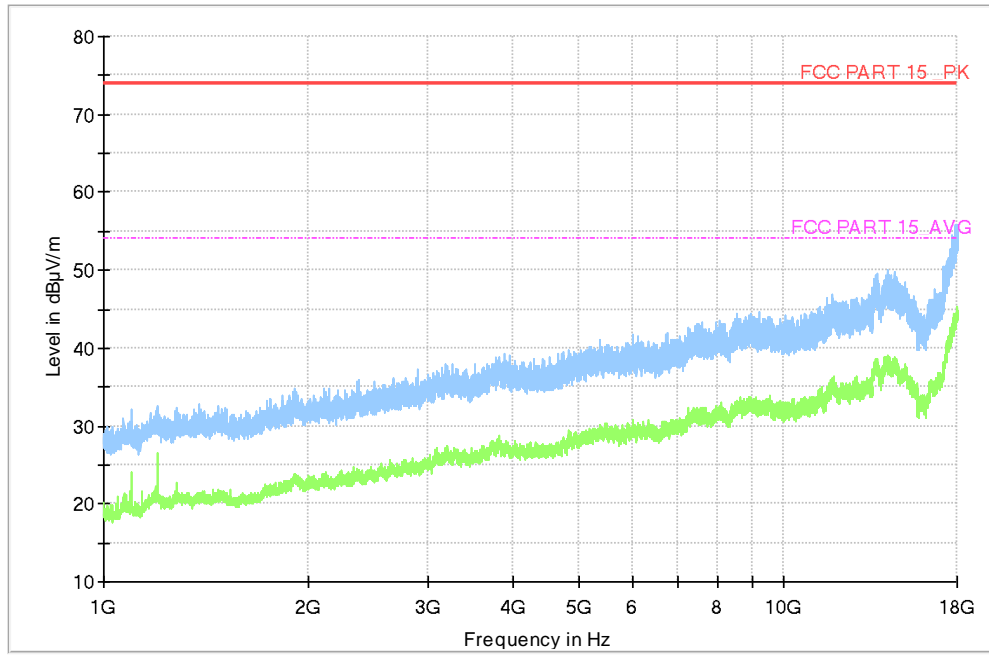


Fig A.6 Radiated Emission from 1GHz to 18GHz

Measurement results for Set.4:

Full Spectrum

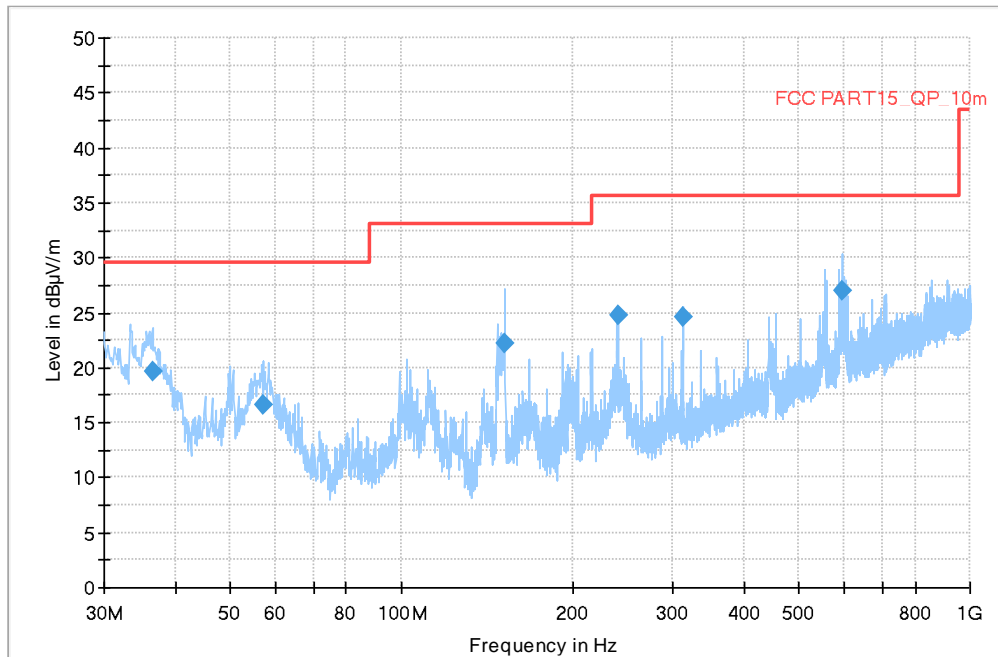


Fig A.7 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
36.499000	19.63	29.54	9.91	120.000	100.0	V	175.0
57.257000	16.57	29.54	12.97	120.000	100.0	V	125.0
151.832000	22.16	33.06	10.90	120.000	108.0	V	315.0
240.005000	24.70	35.56	10.86	120.000	100.0	V	136.0
311.979000	24.55	35.56	11.01	120.000	283.0	H	188.0
597.547000	27.03	35.56	8.53	120.000	225.0	V	-45.0

Full Spectrum

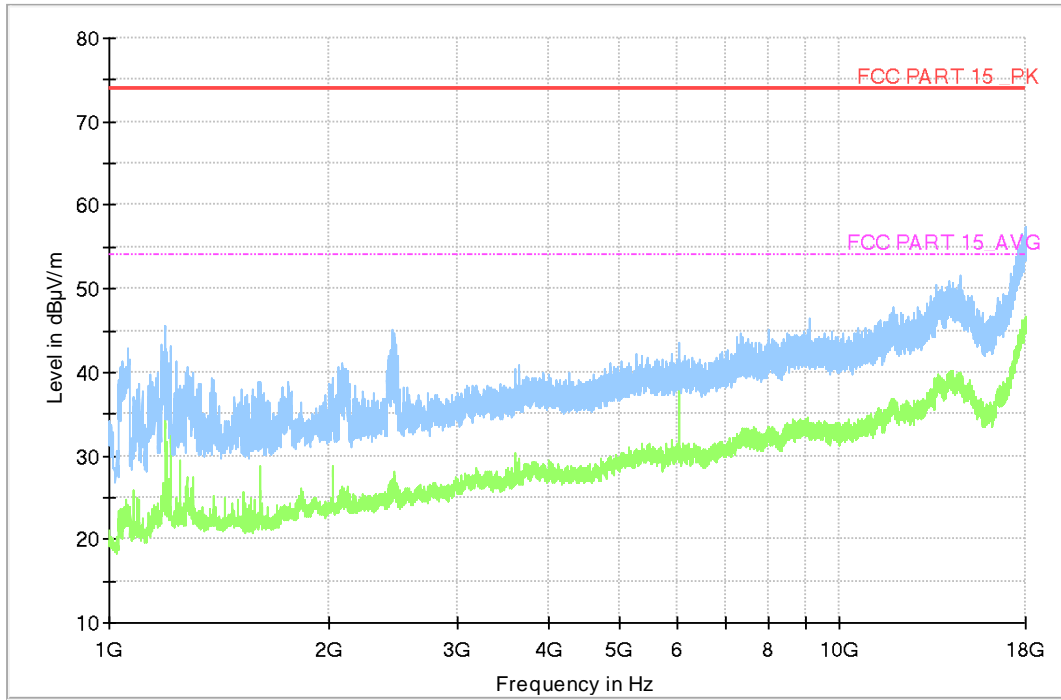


Fig A.8 Radiated Emission from 1GHz to 18GHz

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 (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

A.2.4 Test Condition in charging mode

Voltage (V)	Frequency (Hz)
120	60

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

A.2.5 Measurement Results

Measurement uncertainty: $U= 3.08$ dB, $k=2$.

Charging Mode, Set.1:

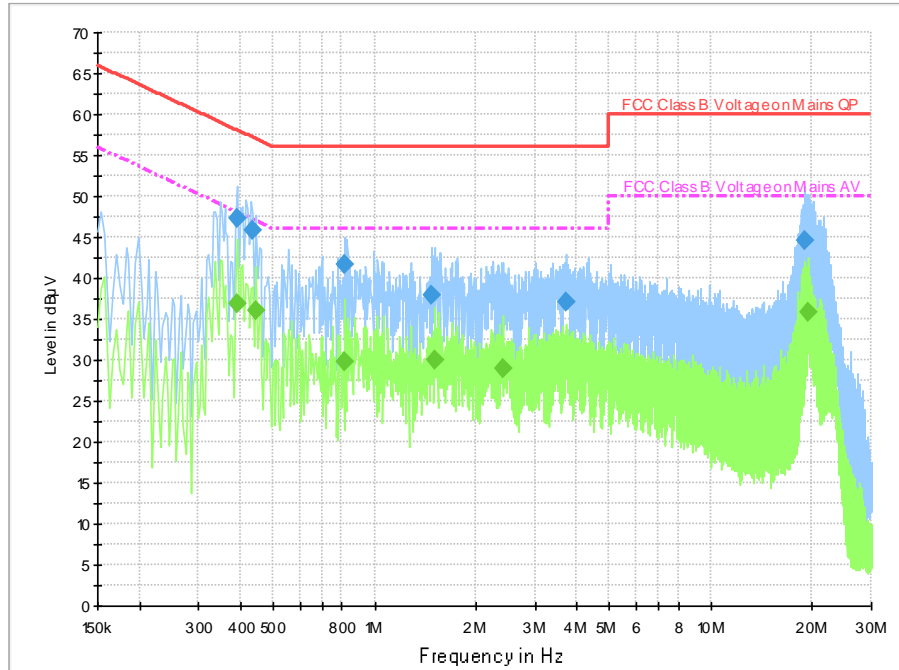


Fig A.9 Conducted Emission from 150kHz to 30MHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.390000	47.2	2000.0	9.000	On	N	19.7	10.8	58.1	
0.434000	45.9	2000.0	9.000	On	N	19.7	11.3	57.2	
0.818000	41.6	2000.0	9.000	On	N	19.7	14.4	56.0	
1.482000	37.9	2000.0	9.000	On	L1	19.7	18.1	56.0	
3.710000	37.1	2000.0	9.000	On	L1	19.6	18.9	56.0	
18.994000	44.5	2000.0	9.000	On	N	19.8	15.5	60.0	

Final Result 2

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.390000	36.9	2000.0	9.000	On	N	19.7	11.1	48.1	
0.442000	36.1	2000.0	9.000	On	L1	19.7	10.9	47.0	
0.818000	29.8	2000.0	9.000	On	N	19.7	16.2	46.0	
1.506000	29.9	2000.0	9.000	On	L1	19.6	16.1	46.0	
2.414000	29.0	2000.0	9.000	On	L1	19.6	17.0	46.0	
19.386000	35.9	2000.0	9.000	On	L1	19.7	14.1	50.0	

Charging Mode, Set.2:

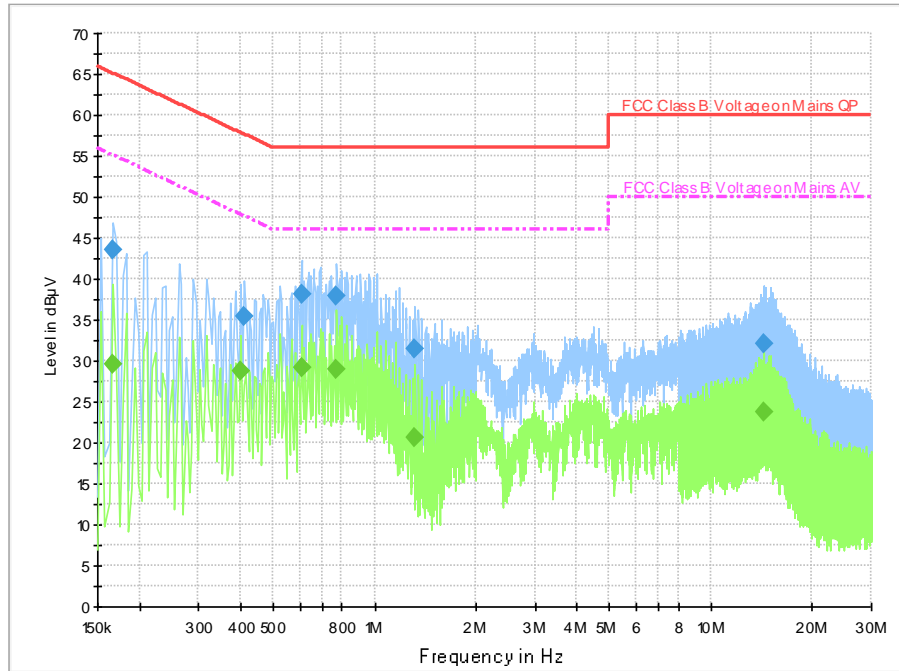


Fig A.10 Conducted Emission from 150kHz to 30MHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.166000	43.6	2000.0	9.000	On	L1	19.8	21.6	65.2	
0.410000	35.4	2000.0	9.000	On	L1	19.7	22.3	57.6	
0.606000	38.2	2000.0	9.000	On	L1	19.7	17.8	56.0	
0.770000	37.9	2000.0	9.000	On	L1	19.7	18.1	56.0	
1.322000	31.5	2000.0	9.000	On	L1	19.6	24.5	56.0	
14.450000	32.2	2000.0	9.000	On	L1	19.7	27.8	60.0	

Final Result 2

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.166000	29.5	2000.0	9.000	On	L1	19.8	25.7	55.2	
0.402000	28.8	2000.0	9.000	On	L1	19.7	19.0	47.8	
0.606000	29.1	2000.0	9.000	On	L1	19.7	16.9	46.0	
0.770000	28.9	2000.0	9.000	On	L1	19.7	17.1	46.0	
1.322000	20.6	2000.0	9.000	On	L1	19.6	25.4	46.0	
14.386000	23.7	2000.0	9.000	On	N	19.7	26.3	50.0	

Charging Mode, Set.3:

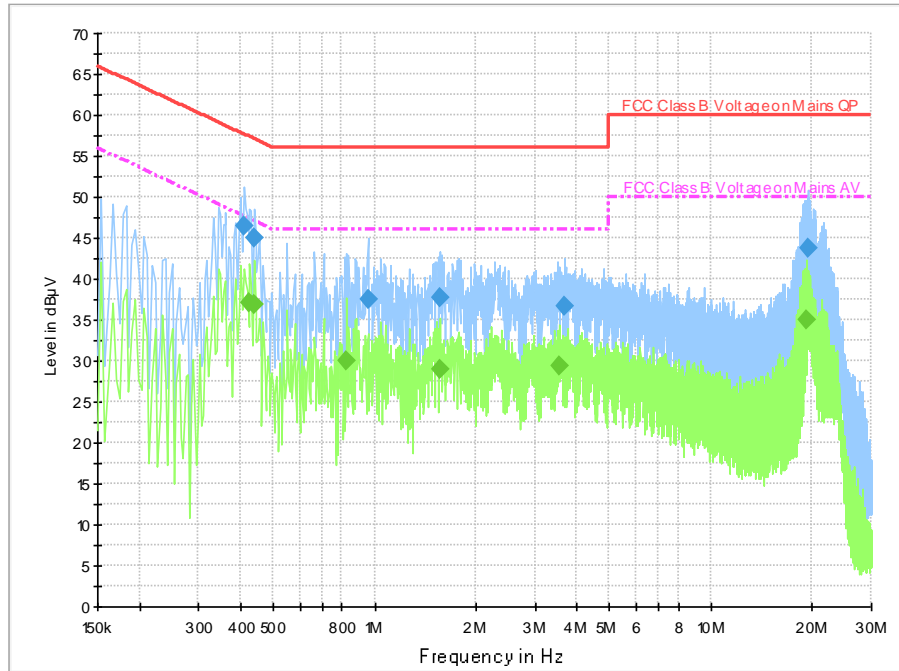


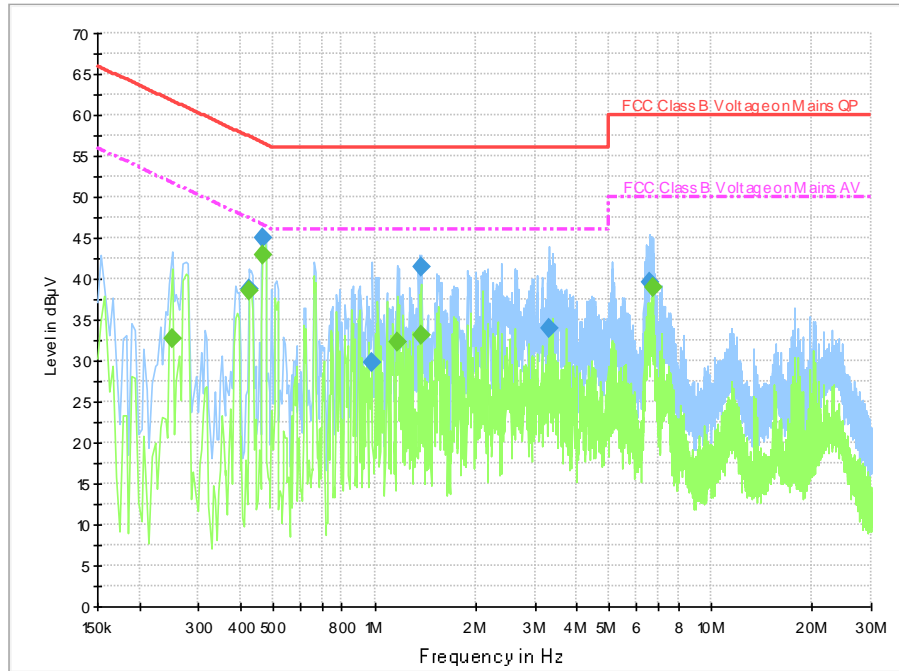
Fig A.11 Conducted Emission from 150kHz to 30MHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.410000	46.4	2000.0	9.000	On	N	19.7	11.2	57.6	
0.438000	45.0	2000.0	9.000	On	N	19.7	12.1	57.1	
0.954000	37.6	2000.0	9.000	On	N	19.6	18.4	56.0	
1.570000	37.8	2000.0	9.000	On	L1	19.6	18.2	56.0	
3.666000	36.7	2000.0	9.000	On	N	19.6	19.3	56.0	
19.438000	43.8	2000.0	9.000	On	N	19.8	16.2	60.0	

Final Result 2

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.426000	37.1	2000.0	9.000	On	L1	19.7	10.2	47.3	
0.438000	36.8	2000.0	9.000	On	N	19.7	10.3	47.1	
0.826000	30.0	2000.0	9.000	On	L1	19.7	16.0	46.0	
1.570000	29.0	2000.0	9.000	On	L1	19.6	17.0	46.0	
3.554000	29.3	2000.0	9.000	On	L1	19.6	16.7	46.0	
19.202000	34.9	2000.0	9.000	On	N	19.8	15.1	50.0	

USB Mode, Set.4:

Fig A.12 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
0.422000	38.7	2000.0	9.000	On	L1	19.7	18.7	57.4	
0.466000	45.0	2000.0	9.000	On	L1	19.7	11.6	56.6	
0.986000	29.8	2000.0	9.000	On	L1	19.7	26.2	56.0	
1.370000	41.4	2000.0	9.000	On	L1	19.6	14.6	56.0	
3.302000	33.9	2000.0	9.000	On	L1	19.6	22.1	56.0	
6.594000	39.6	2000.0	9.000	On	L1	19.6	20.4	60.0	

Final Result 2

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.250000	32.8	2000.0	9.000	On	L1	19.7	19.0	51.8	
0.426000	38.6	2000.0	9.000	On	N	19.7	8.7	47.3	
0.466000	42.8	2000.0	9.000	On	L1	19.7	3.8	46.6	
1.166000	32.4	2000.0	9.000	On	N	19.6	13.6	46.0	
1.370000	33.2	2000.0	9.000	On	L1	19.6	12.8	46.0	
6.702000	38.9	2000.0	9.000	On	N	19.6	11.1	50.0	

END OF REPORT