



# FCC PART 15B TEST REPORT

No. 23T04Z80611-05

for

**TCL Communication Ltd.**

**GSM/UMTS/LTE Mobile phone**

**Model name: T612B**

**FCC ID: 2ACCJH176**

with

**Hardware Version: 05**

**Software Version: 3FS2**

**Issued Date: 2023-12-04**

**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:**

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
23T04Z80611-05	Rev.0	1 <sup>st</sup> edition	2023-12-04

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



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## 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: 2023-07-11

Testing End Date: 2023-07-28

### 1.4. Signature




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Wang Xue  
(Prepared this test report)



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Zhang Ying  
(Reviewed this test report)



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Zhang Xia  
(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

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### **2.2. Manufacturer Information**

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

#### **3.1. About EUT**

Description	GSM/UMTS/LTE Mobile phone
Model Name	T612B
FCC ID:	2ACCJH176

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
/	/	/	/

\*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	Remark
AE1	Battery	CAC4900009CA	TIANMAO	/
AE2	Battery	CAC4900007C7	VEKEN	/
AE3	Charger1	CBA0118BG0C7	CHENYANG	/
AE4	USB Cable	CDA0000205C1	JUWEI	/
AE5	Headset	CCB0046A15C1	DALIN	/
AE6	Charger2	CBA0118BA0C7	CHENYANG	Require no test
AE7	Charger3	CBA0118BHNC7	CHENYANG	Require no test
AE8	Charger4	CBA0118BB0C7	CHENYANG	Require no test
AE9	Charger5	CBA0118BC0C7	CHENYANG	Require no test

\*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 + AE4	Charger1+Rear Camera+ GSM 850 idle
Set.2	EUT1 + AE1/2 + AE3 + AE4	Charger1+MP4+ WCDMA B5 idle
Set.3	EUT1 + AE1/2 + AE3 + AE4	Charger1+Front Camera + LTE B5 idle
Set.4	EUT1 + AE1/2 + AE5 + Cable	USB + FM
Set.5	EUT1 + EUT2 + Cable	OTG

Note:

Equipment Under Test (EUT) is a model of GSM/UMTS/LTE Mobile phone.

It supports

GSM Band GSM 850/900 DCS1800 PCS1900

UMTS Band FDD I(W2100)/FDD Band II(W1900) /FDD Band IV(W1700)/FDD V(W850)/  
FDD VI(W800)

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

It has MP3, Camera, USB memory, Bluetooth 5.1, 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 functions. The device support both single SIM and dual SIM, only dual SIM were tested and reported.

The device contains receivers which tune and operate between 30MHz-960MHz in the following mode: GSM850, WCDMA850, LTE Band 5/12/13/17/26, FM. All licensed band receivers that tune in the range of 30MHz-960MHz are investigated. Only the worst-case emissions are reported.

Note: According to the declaration of changes, all test results are derived from I23Z61283-EMC01.

## **4. Reference Documents**

### **4.1. Reference Documents for testing**

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

<b>Reference</b>	<b>Title</b>	<b>Version</b>
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 $\Omega$
Ground system resistance	< 4 $\Omega$
Normalised site attenuation (NSA)	< $\pm 4$ 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 $\Omega$
Ground system resistance	< 4 $\Omega$

## 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	Signal Generator	SMBV100A	102063	R&S	2024-01-16	1 year
7	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.

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 ( $\mu\text{V}/\text{m}$ )		
	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/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

$G_{\text{PL}}$ : Path Loss

$P_{\text{Mea}}$ : 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 $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17974.500	43.10	-29.06	46.66	25.50	54.00	10.90	V
17988.100	42.50	-29.06	46.66	24.90	54.00	11.50	H
17427.780	42.30	-29.71	44.35	27.66	54.00	11.70	H
17612.060	42.30	-29.52	45.25	26.57	54.00	11.70	V
17786.140	42.30	-29.89	45.95	26.23	54.00	11.70	H
17396.160	42.30	-29.83	44.35	27.78	54.00	11.70	H

#### Charging Mode/Peak detector

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17524.680	53.70	-29.32	44.35	38.67	74.00	20.30	V
17603.560	53.20	-29.52	45.25	37.47	74.00	20.80	V
17988.100	53.10	-29.06	46.66	35.50	74.00	20.90	V
17502.240	53.00	-29.26	44.35	37.90	74.00	21.00	H
17556.300	52.90	-29.49	44.35	38.03	74.00	21.10	H
17443.420	52.90	-29.87	44.35	38.42	74.00	21.10	H

**Measurement results for Set.2:**
**Charing Mode/Average detector**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17394.800	42.30	-29.83	44.35	27.78	54.00	11.70	H
17991.840	42.30	-29.06	46.66	24.70	54.00	11.70	V
17806.540	42.20	-29.63	45.95	25.88	54.00	11.80	V
17983.680	42.20	-29.06	46.66	24.60	54.00	11.80	H
17993.880	42.20	-29.06	46.66	24.60	54.00	11.80	H
17996.260	42.10	-29.06	46.66	24.50	54.00	11.90	V

**Charging Mode/Peak detector**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17457.020	53.20	-29.87	44.35	38.72	74.00	20.80	H
17419.960	53.00	-29.44	44.35	38.09	74.00	21.00	V
17330.200	53.00	-29.70	43.36	39.34	74.00	21.00	H
17434.240	53.00	-29.71	44.35	38.36	74.00	21.00	V
17231.600	52.80	-29.57	43.36	39.01	74.00	21.20	H
17469.260	52.70	-30.06	44.35	38.40	74.00	21.30	H

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

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17995.920	42.60	-29.06	46.66	25.00	54.00	11.40	H
17386.300	42.10	-29.83	43.36	28.57	54.00	11.90	V
17996.940	42.10	-29.06	46.66	24.50	54.00	11.90	H
17783.080	42.10	-29.89	45.95	26.03	54.00	11.90	H
17387.660	42.00	-29.83	44.35	27.48	54.00	12.00	V
17452.260	42.00	-29.87	44.35	27.52	54.00	12.00	H

**Charging Mode/Peak detector**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17640.280	53.10	-29.60	45.25	37.45	74.00	20.90	H
17962.940	53.10	-29.06	46.66	35.50	74.00	20.90	V
17417.240	52.70	-29.44	44.35	37.79	74.00	21.30	H
17540.320	52.60	-29.49	44.35	37.73	74.00	21.40	V
17236.020	52.50	-29.57	43.36	38.71	74.00	21.50	V
17406.020	52.50	-29.44	44.35	37.59	74.00	21.50	V

**Measurement results for Set.4:**
**USB Mode/Average detector**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
6050.020	44.70	-37.82	34.40	48.12	54.00	9.30	V
6049.680	43.80	-37.82	34.40	47.22	54.00	10.20	H
6050.360	42.80	-37.82	34.40	46.22	54.00	11.20	V
17995.580	42.70	-29.06	46.66	25.10	54.00	11.30	V
17434.920	42.30	-29.71	44.35	27.66	54.00	11.70	V
17951.040	42.30	-28.94	46.66	24.58	54.00	11.70	H

**USB Mode/Peak detector**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17450.900	53.80	-29.87	44.35	39.32	74.00	20.20	H
17357.740	53.20	-29.97	43.36	39.81	74.00	20.80	H
17828.640	53.20	-29.68	45.95	36.92	74.00	20.80	V
17753.160	53.10	-29.61	45.95	36.76	74.00	20.90	H
17862.640	52.90	-29.39	45.95	36.34	74.00	21.10	H
17593.700	52.70	-29.70	45.25	37.15	74.00	21.30	V



**Measurement results for Set.5:**
**OTG Mode/Average detector**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17442.060	42.10	-29.87	44.35	27.62	54.00	11.90	H
17942.880	42.00	-28.94	46.66	24.28	54.00	12.00	H
17546.100	42.00	-29.49	44.35	27.13	54.00	12.00	V
17995.920	41.90	-29.06	46.66	24.30	54.00	12.10	V
17999.660	41.80	-29.06	46.66	24.20	54.00	12.20	V
17621.580	41.80	-29.40	45.25	25.95	54.00	12.20	H

**OTG Mode/Peak detector**

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17996.940	53.30	-29.06	46.66	35.70	74.00	20.70	H
17994.220	53.00	-29.06	46.66	35.40	74.00	21.00	H
17855.500	53.00	-29.34	45.95	36.38	74.00	21.00	V
17355.020	52.40	-29.97	43.36	39.01	74.00	21.60	H
17458.040	52.40	-29.87	44.35	37.92	74.00	21.60	V
17346.860	52.30	-29.97	43.36	38.91	74.00	21.70	V

Measurement results for Set.1:

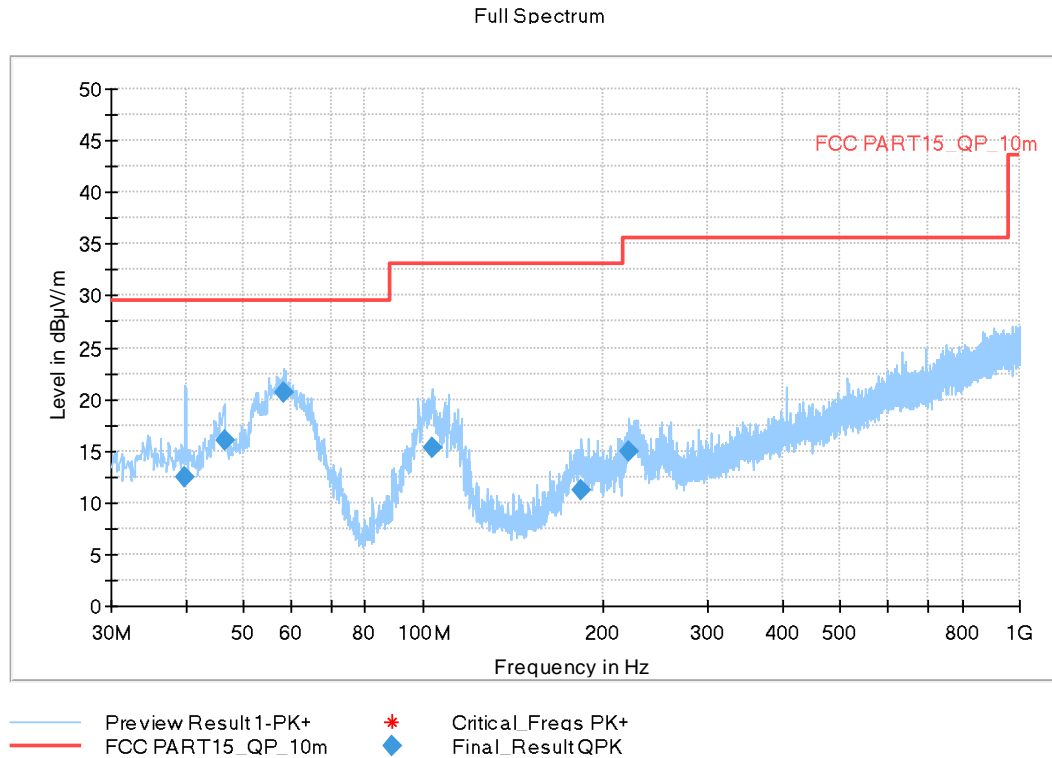
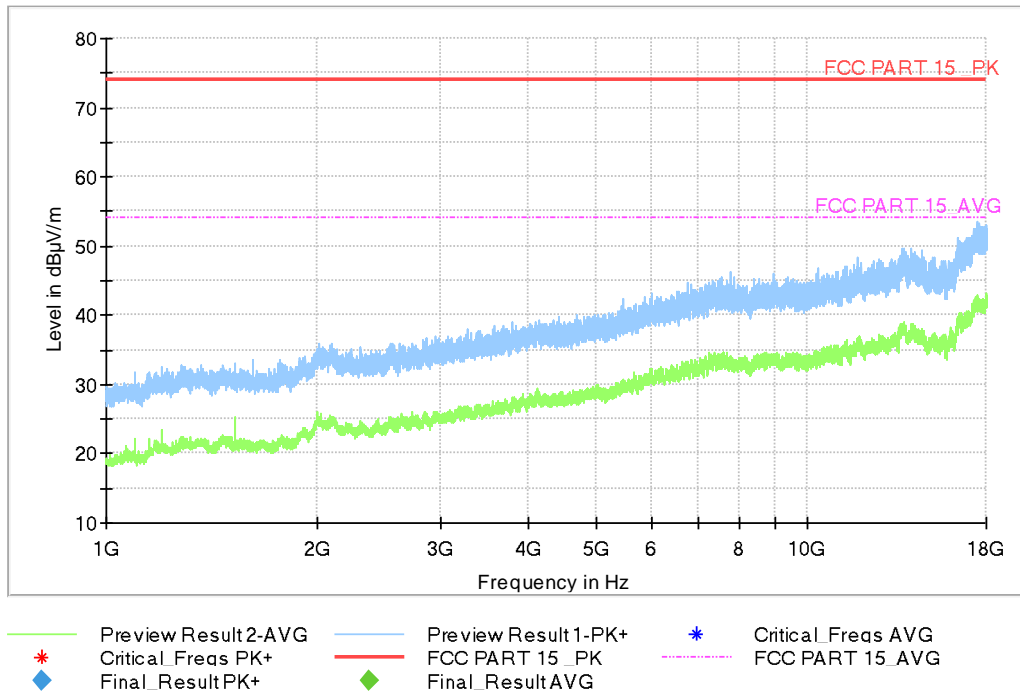


Fig A.1 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
39.894000	12.51	29.54	17.03	120.000	183.0	V	216.0
46.393000	16.01	29.54	13.53	120.000	108.0	V	189.0
58.324000	20.64	29.54	8.90	120.000	281.0	V	227.0
103.429000	15.21	33.06	17.85	120.000	108.0	V	-31.0
184.521000	11.22	33.06	21.84	120.000	225.0	V	73.0
221.672000	15.02	35.56	20.54	120.000	125.0	V	239.0

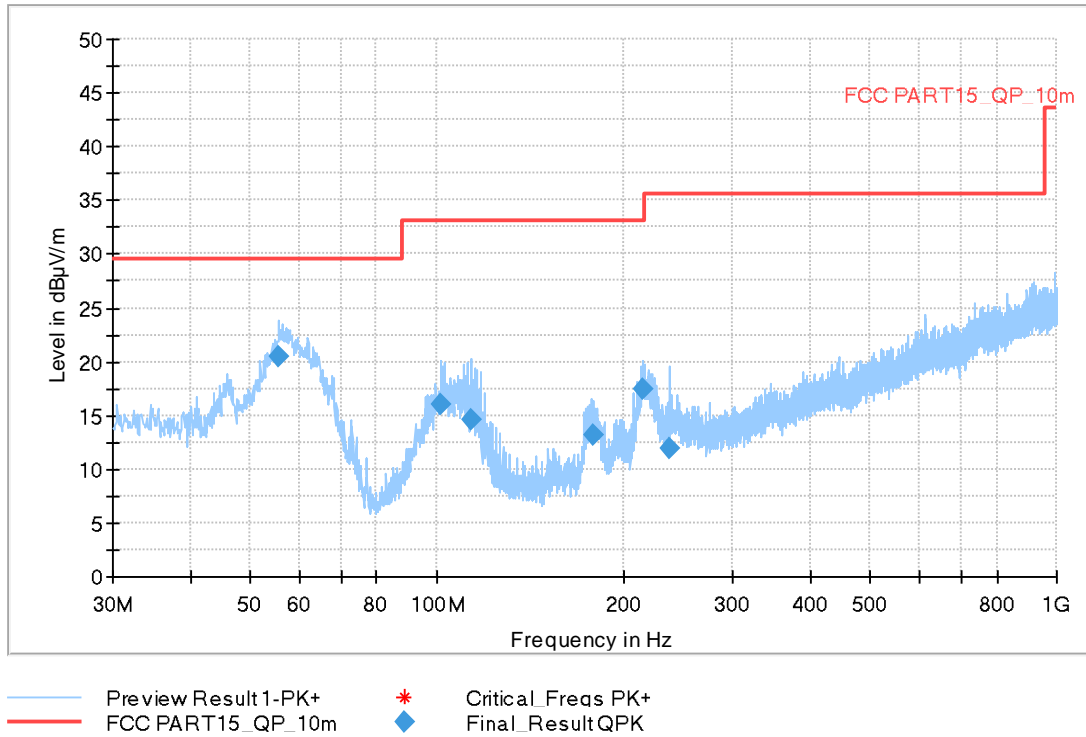
Full Spectrum



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

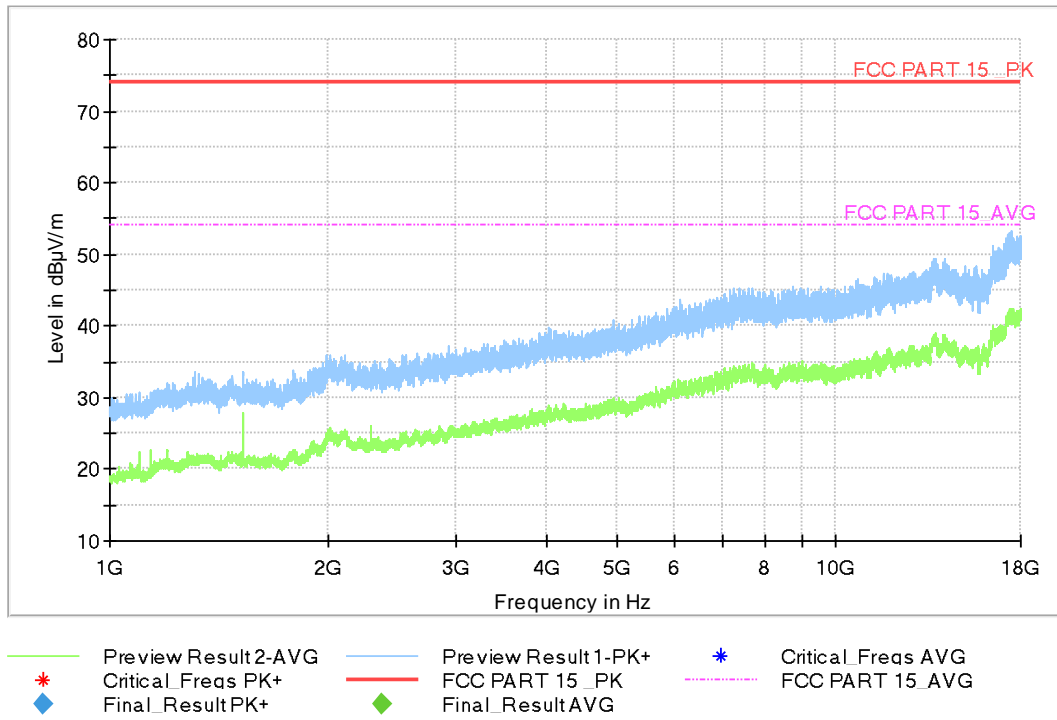
**Measurement results for Set.2:**

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)	PoI	Azimuth (deg)
55.608000	20.40	29.54	9.14	120.000	322.0	V	225.0
101.683000	15.93	33.06	17.13	120.000	125.0	V	175.0
113.711000	14.51	33.06	18.55	120.000	125.0	V	189.0
178.992000	13.25	33.06	19.81	120.000	175.0	V	73.0
214.494000	17.47	33.06	15.59	120.000	100.0	V	47.0
237.774000	11.83	35.56	23.73	120.000	175.0	V	266.0

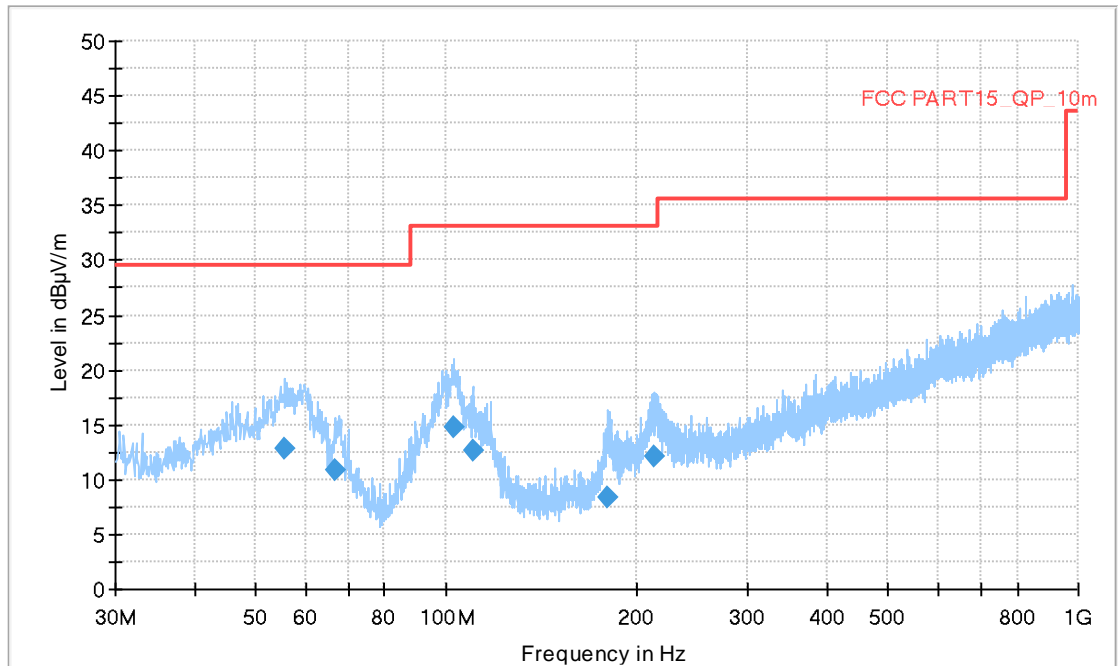
Full Spectrum



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

Measurement results for Set.3:

Full Spectrum



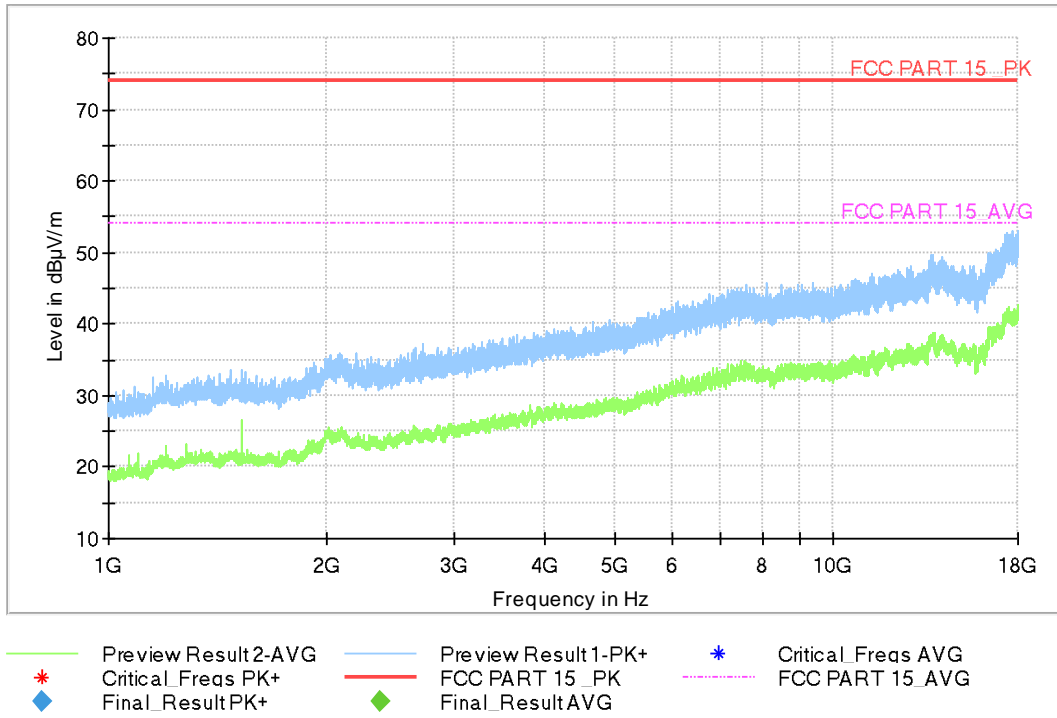
— Preview Result 1-PK+      \* Critical\_Freqs PK+  
— FCC PART15\_QP\_10m      ◆ Final\_Result QPK

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)
55.511000	12.78	29.54	16.76	120.000	125.0	V	45.0
66.569000	10.84	29.54	18.70	120.000	125.0	V	-44.0
102.653000	14.83	33.06	18.23	120.000	100.0	V	-30.0
110.122000	12.65	33.06	20.41	120.000	125.0	V	-44.0
180.641000	8.36	33.06	24.70	120.000	100.0	V	46.0
214.203000	12.08	33.06	20.98	120.000	108.0	V	45.0

Full Spectrum



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

Measurement results for Set.4:

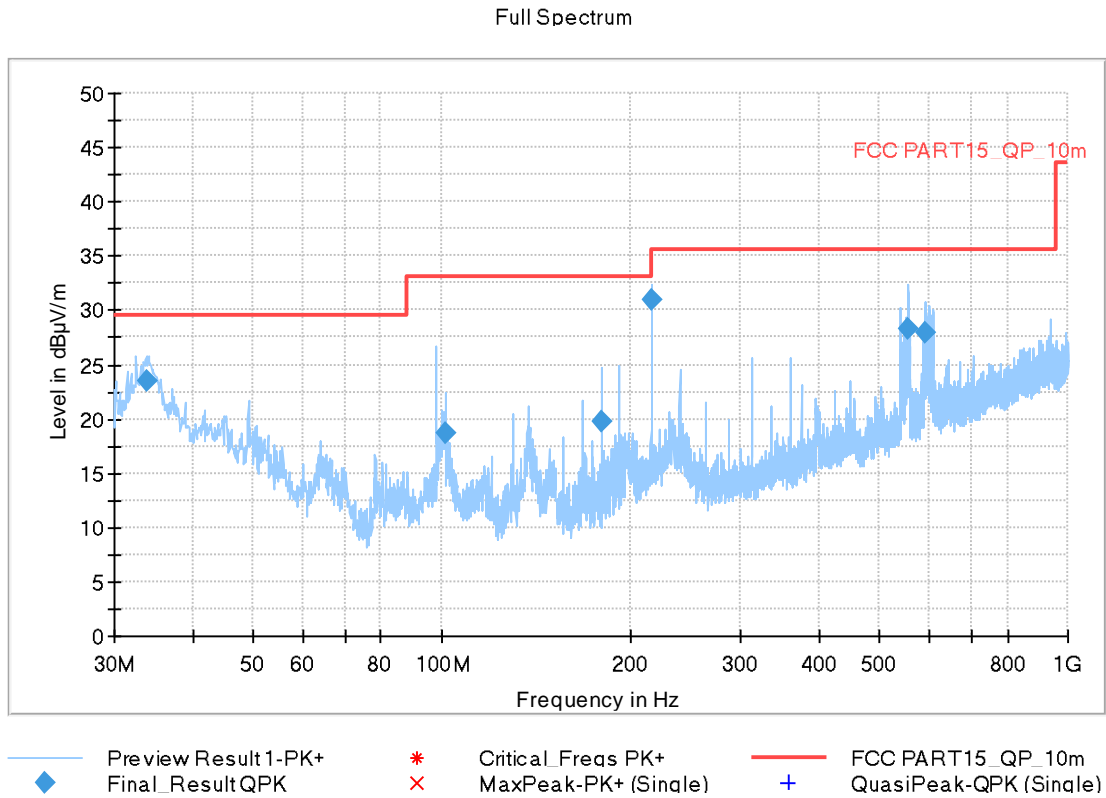


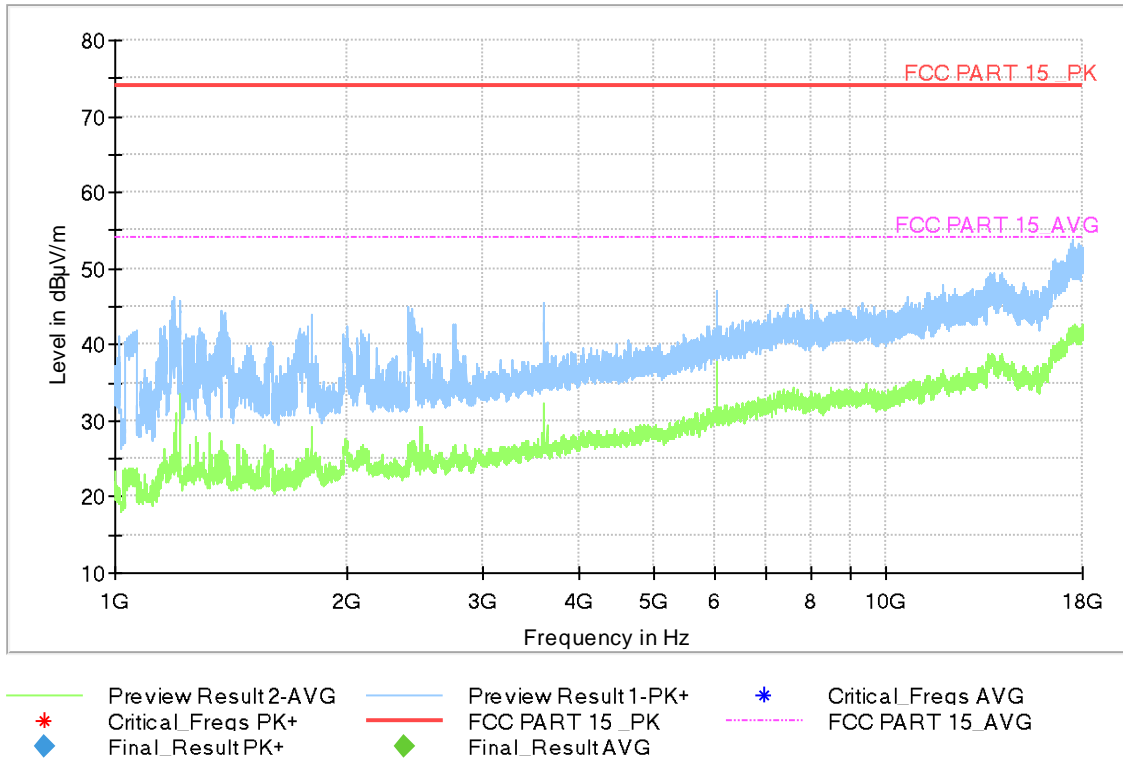
Fig A.7 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	PoI	Azimuth (deg)
33.783000	23.56	29.54	5.98	120.000	100.0	V	225.0
101.198000	18.67	33.06	14.39	120.000	125.0	V	8.0
180.059000	19.71	33.06	13.35	120.000	100.0	V	176.0
215.949000	30.88	33.06	2.18	120.000	100.0	V	99.0
555.934000	28.23	35.56	7.33	120.000	223.0	V	8.0
590.563000	27.96	35.56	7.60	120.000	225.0	V	-31.0



Full Spectrum



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

Measurement results for Set.5:

Full Spectrum

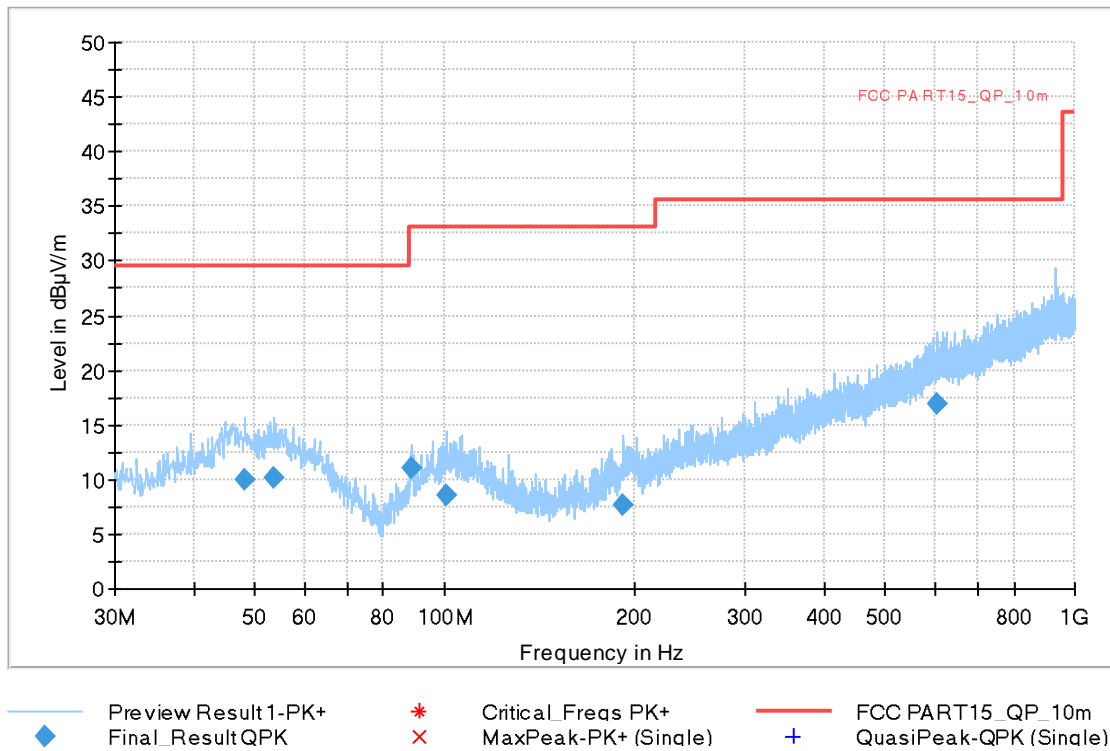
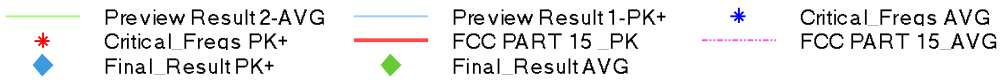
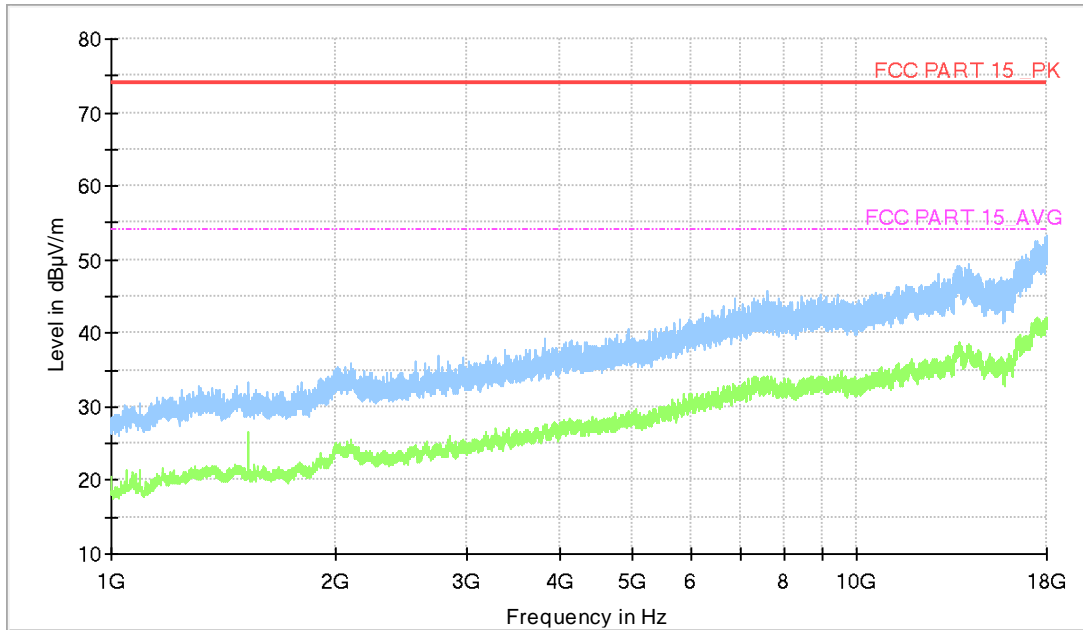


Fig A.9 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)
48.236000	10.01	29.54	19.53	120.000	325.0	V	215.0
53.668000	10.14	29.54	19.40	120.000	223.0	H	162.0
88.588000	11.05	33.06	22.01	120.000	175.0	V	266.0
100.907000	8.59	33.06	24.47	120.000	183.0	V	-44.0
192.572000	7.74	33.06	25.32	120.000	225.0	V	-4.0
606.665000	16.88	35.56	18.68	120.000	283.0	H	-5.0

Full Spectrum



**Fig A.10 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 $\mu$ 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:

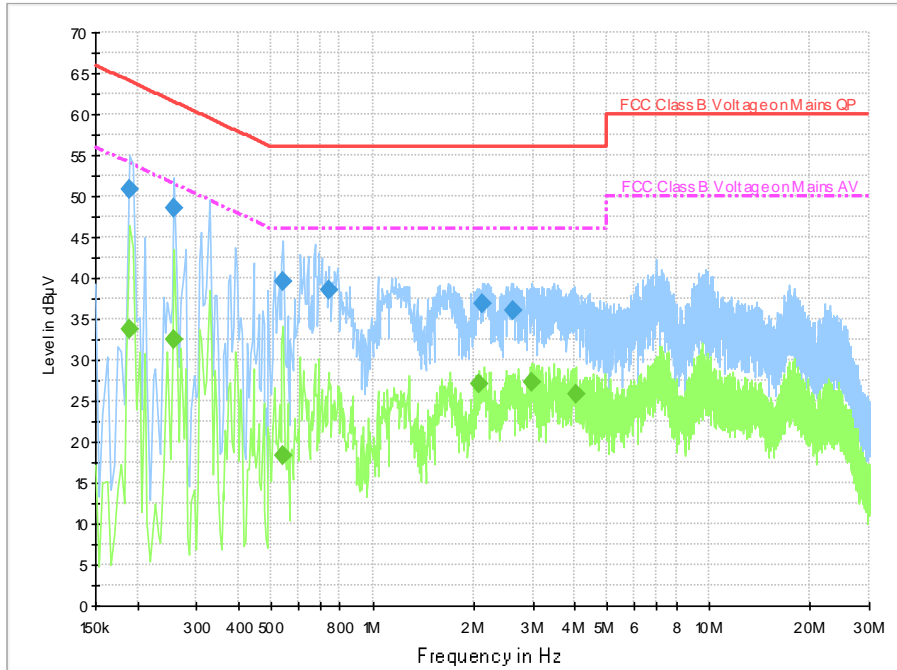


Fig A.11 Conducted Emission from 150kHz to 30MHz

#### Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.190000	50.9	2000.0	9.000	On	N	19.7	13.2	64.0	
0.258000	48.5	2000.0	9.000	On	N	19.7	13.0	61.5	
0.542000	39.6	2000.0	9.000	On	L1	19.7	16.4	56.0	
0.742000	38.5	2000.0	9.000	On	L1	19.7	17.5	56.0	
2.114000	36.8	2000.0	9.000	On	N	19.6	19.2	56.0	
2.618000	36.0	2000.0	9.000	On	N	19.6	20.0	56.0	

#### Final Result 2

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.190000	33.8	2000.0	9.000	On	N	19.7	20.2	54.0	
0.258000	32.5	2000.0	9.000	On	N	19.7	19.0	51.5	
0.542000	18.4	2000.0	9.000	On	L1	19.7	27.6	46.0	
2.082000	27.1	2000.0	9.000	On	N	19.6	18.9	46.0	
2.970000	27.3	2000.0	9.000	On	N	19.6	18.7	46.0	
4.038000	25.9	2000.0	9.000	On	N	19.6	20.1	46.0	

### Charging Mode, Set.2:

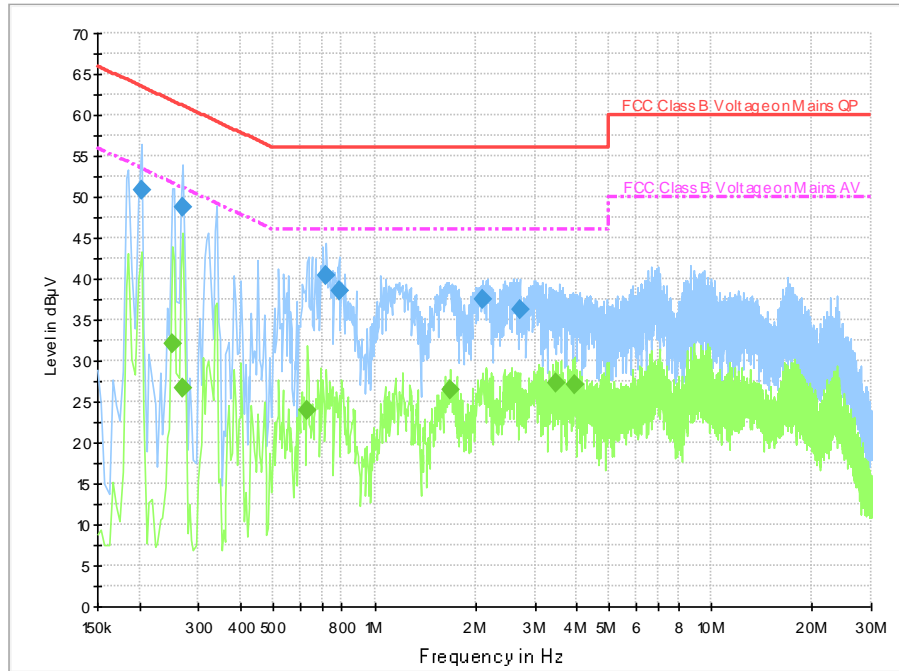


Fig A.12 Conducted Emission from 150kHz to 30MHz

#### Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.202000	50.9	2000.0	9.000	On	L1	19.7	12.6	63.5	
0.270000	48.7	2000.0	9.000	On	L1	19.7	12.4	61.1	
0.718000	40.4	2000.0	9.000	On	L1	19.7	15.6	56.0	
0.786000	38.5	2000.0	9.000	On	L1	19.7	17.5	56.0	
2.102000	37.5	2000.0	9.000	On	N	19.6	18.5	56.0	
2.698000	36.2	2000.0	9.000	On	N	19.6	19.8	56.0	

#### Final Result 2

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.250000	32.1	2000.0	9.000	On	N	19.7	19.7	51.8	
0.270000	26.7	2000.0	9.000	On	L1	19.7	24.4	51.1	
0.630000	23.9	2000.0	9.000	On	N	19.6	22.1	46.0	
1.678000	26.4	2000.0	9.000	On	N	19.6	19.6	46.0	
3.462000	27.4	2000.0	9.000	On	N	19.6	18.6	46.0	
3.946000	27.1	2000.0	9.000	On	N	19.6	18.9	46.0	

### Charging Mode, Set.3:

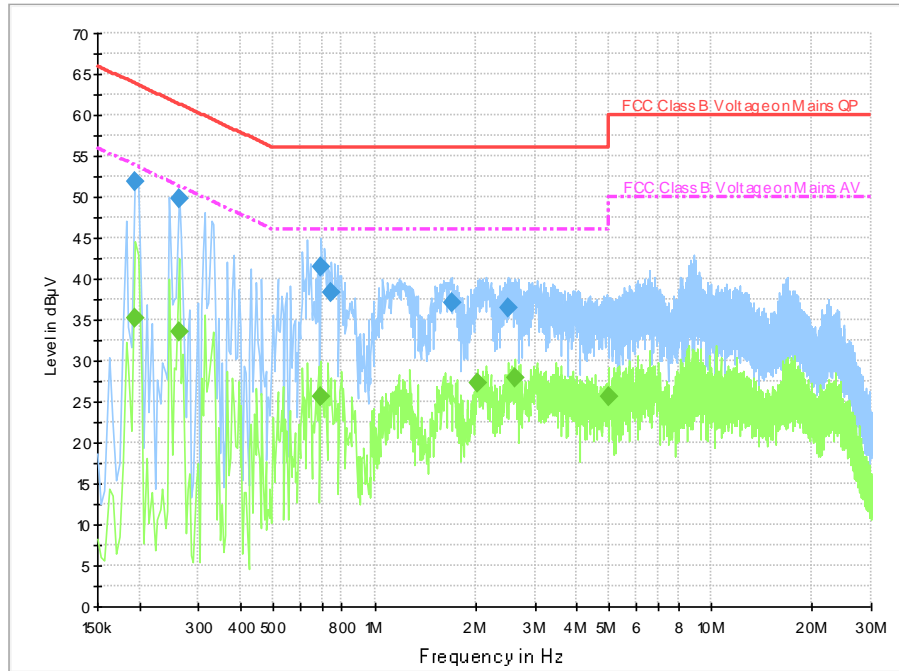


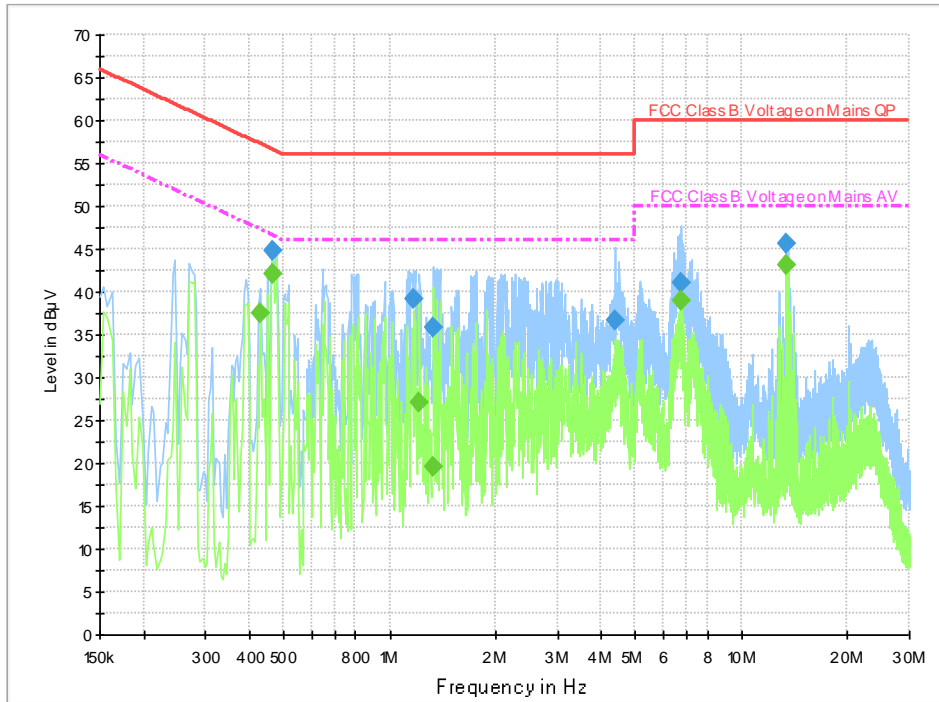
Fig A.13 Conducted Emission from 150kHz to 30MHz

#### Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.194000	51.9	2000.0	9.000	On	N	19.7	12.0	63.9	
0.262000	49.7	2000.0	9.000	On	N	19.7	11.7	61.4	
0.694000	41.4	2000.0	9.000	On	L1	19.7	14.6	56.0	
0.746000	38.3	2000.0	9.000	On	L1	19.7	17.7	56.0	
1.690000	37.0	2000.0	9.000	On	N	19.6	19.0	56.0	
2.498000	36.4	2000.0	9.000	On	N	19.6	19.6	56.0	

#### Final Result 2

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.194000	35.3	2000.0	9.000	On	N	19.7	18.6	53.9	
0.262000	33.6	2000.0	9.000	On	N	19.7	17.7	51.4	
0.690000	25.6	2000.0	9.000	On	N	19.6	20.4	46.0	
2.022000	27.3	2000.0	9.000	On	N	19.6	18.7	46.0	
2.606000	28.0	2000.0	9.000	On	N	19.6	18.0	46.0	
4.950000	25.6	2000.0	9.000	On	N	19.6	20.4	46.0	

**USB Mode, Set.4:**

**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
0.466000	44.8	2000.0	9.000	On	L1	19.7	11.8	56.6	
1.174000	39.2	2000.0	9.000	On	N	19.6	16.8	56.0	
1.330000	35.7	2000.0	9.000	On	L1	19.6	20.3	56.0	
4.386000	36.7	2000.0	9.000	On	N	19.6	19.3	56.0	
6.714000	41.1	2000.0	9.000	On	L1	19.6	18.9	60.0	
13.358000	45.6	2000.0	9.000	On	N	19.7	14.4	60.0	

**Final Result 2**

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.430000	37.4	2000.0	9.000	On	L1	19.7	9.8	47.3	
0.466000	42.0	2000.0	9.000	On	L1	19.7	4.6	46.6	
1.214000	27.0	2000.0	9.000	On	L1	19.6	19.0	46.0	
1.330000	19.6	2000.0	9.000	On	L1	19.6	26.4	46.0	
6.702000	39.0	2000.0	9.000	On	N	19.6	11.0	50.0	
13.358000	43.2	2000.0	9.000	On	N	19.7	6.8	50.0	

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