



# FCC 15B TEST REPORT

No. I19Z61261-EMC01

for

**TCL Communication Ltd.**

**HSUPA/HSDPA/UMTS Bi-Bands/GSM Quad-Bands/LTE 7**

**Bands/CDMA Tri-bands mobile phone**

**Model Name: 4053S**

**FCC ID: 2ACCJN033**

with

**Hardware Version: 05**

**Software Version: 1A38**

**Issued Date: 2019-08-29**

**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](mailto:ctl_terminals@caict.ac.cn), website: [www.caict.ac.cn](http://www.caict.ac.cn)



## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I19Z61261-EMC01	Rev.0	1 <sup>st</sup> edition	2019-08-29



## **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.....	7
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
ANNEX B: PERSONS INVOLVED IN THIS TESTING.....	29

## **1. Test Laboratory**

### **1.1. Testing Location**

**Location 1: 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: 2018-08-16  
Testing End Date: 2018-08-28

### **1.4. Signature**



---

Zhang Ying


(Prepared this test report)



---

Wang Junqing

(Reviewed this test report)



---

Liu Baodian

(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: TCL Communication Ltd.  
Address /Post: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science  
Park, Shatin, NT, Hong Kong  
City: Hong Kong  
Country: China  
Telephone: 0086-755-36611722  
Fax: 0086-755-36612000-81722

### **2.2. Manufacturer Information**

Company Name: TCL Communication Ltd.  
Address /Post: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science  
Park, Shatin, NT, Hong Kong  
City: Hong Kong  
Country: China  
Telephone: 0086-755-36611722  
Fax: 0086-755-36612000-81722

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

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

Description	HSUPA/HSDPA/UMTS Bi-Bands/GSM Quad-Bands/LTE 7 Bands/CDMA Tri-bands mobile phone
Model Name	4053S
FCC ID	2ACCJN033
Extreme vol. Limits	3.5VDC to 4.35VDC (nominal: 3.8VDC)

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT.

#### **3.2. Internal Identification of EUT used during the test**

EUT ID*	SN or IMEI	HW Version	SW Version
EUT5	01550100000858	05	1A38

\*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	SN	Remarks
AE1	battery		
AE2	Travel charger	/	CH014
AE3	Travel charger	/	CH002
AE4	USB Cable	/	DC017
AE5	USB Cable	/	DC007
AE6	docking		CH026

##### AE1

Model	TLi017C1
Manufacturer	/
Capacitance	1780 mAh
Nominal voltage	3.8V

##### AE2

Model	UC11US
Manufacturer	PUAN
Length of cable	/

##### AE3

Model	UC11US
Manufacturer	Chenyang
Length of cable	/

##### AE4

Model	CDA0000123C1
Manufacturer	Juwei
Length of cable	/



AE5

Model CDA0000123C2  
Manufacturer Shenghua  
Length of cable /

AE6

Model CBC0032A00C5  
Manufacturer PUAN  
Length of cable /

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

**3.4. EUT set-ups**

<b>EUT set-up No.</b>	<b>Combination of EUT and AE</b>	<b>Remarks</b>
Set.7	EUT5 + AE1 + AE2 + AE4	Charger + FM
Set.8	EUT5 + AE1 + AE3 + AE5	Charger + FM
Set.9	EUT5 + AE4	USB
Set.10	EUT5 + AE5	USB
Set.11	EUT5 + AE1 + AE2 + AE4 + AE6	docking

## **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	10-1-16 Edition
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×17meters×10meters) 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	< 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
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 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 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
Location Column	1/2/4	The test is performed in test location 1/2/4 which is described in section 1.1 of this report

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



## 7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESCI 3	100344	Rohde & Schwarz	2020-02-14	1 year
2	LISN	ENV216	101200	Rohde & Schwarz	2020-04-27	1 year
3	EMI Antenna	VULB 9163	9163-1222	Schwarzbeck	2019-09-21	1 year
4	EMI Antenna	3115	00167250	ETS-Lindgren	2020-05-14	1 year
5	Test Receiver	ESU26	100235	Rohde & Schwarz	2020-02-27	1 year
6	PC	OPTIPLEX 380	2X1YV2X	DELL	N/A	N/A
7	Printer	P1606dn	VNC3L52122	HP	N/A	N/A
8	Keyboard	L100	CN0RH6596589 07ATOI40	DELL	N/A	N/A
9	Mouse	M-UAE119	LZ935220ZRC	Lenovo	N/A	N/A

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V9.01.0	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 (charging mode and FM 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 3/10 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 charging mode. During the test MS is connected to a charger in the case of charging mode.

#### **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/1MHz	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

$P_{\text{Mea}}$ : Measurement result on receiver.

Measurement uncertainty (worst case): 30MHz-1GHz: 5.16dB, 1GHz-18GHz: 5.44dB,  $k=2$ .

#### Measurement results for Set.7:

##### Charging & FM Mode /QP detector

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ )	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
35.986000	11.56	30.00	18.44	102.0	V	120.0
42.014000	10.54	30.00	19.46	214.0	V	162.0
51.830000	10.11	30.00	19.89	225.0	V	84.0
102.422000	7.79	33.50	25.73	212.0	V	179.0
218.864000	8.62	36.00	27.40	225.0	V	169.0
438.929000	13.93	36.00	22.09	213.0	V	100.0

##### Charging & FM Mode/Average detector

Frequency (MHz)	Result(dB $\mu$ V/m)	$G_{PL}$ (dB)	$G_A$ (dB/m)	$P_{\text{Mea}}$ (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17927.467	46.4	-17.7	45.6	18.5	54.00	H
17951.833	46.4	-17.7	45.6	18.5	54.00	H
17958.633	46.4	-17.7	45.6	18.5	54.00	V
17508.700	46.3	-19.2	45.6	19.9	54.00	H
17381.200	46.2	-19.5	41.5	24.2	54.00	H
17960.333	46.2	-17.7	45.6	18.3	54.00	H

##### Charging & FM Mode/Peak detector

Frequency (MHz)	Result(dB $\mu$ V/m)	$G_{PL}$ (dB)	$G_A$ (dB/m)	$P_{\text{Mea}}$ (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17606.733	57.6	-18.9	45.6	30.9	74.00	H
17637.333	57.5	-18.9	45.6	30.8	74.00	H
17823.767	57.4	-18.5	45.6	30.3	74.00	V
17476.400	57.3	-19.2	41.5	35.0	74.00	H
17955.233	57.2	-17.7	45.6	29.3	74.00	H
17402.733	57.2	-19.2	41.5	34.9	74.00	H

Sample calculation: Peak detector, 17606.733MHz

$$\text{Result} = P_{\text{Mea}} (30.9 \text{ dB}\mu\text{V}) + G_A (45.6\text{dB/m}) + G_{PL}(-18.9\text{dB}) = 57.6 \text{ dB}\mu\text{V/m}$$

**Measurement results for Set.8:**

**Charging & FM Mode /QP detector**

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ )	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
35.709000	12.64	30.00	17.36	125.0	V	68.0
40.684000	12.23	30.00	17.77	176.0	V	82.0
53.705000	10.04	30.00	19.96	225.0	V	164.0
103.249000	7.79	33.50	25.73	225.0	V	210.0
234.901000	11.07	36.00	24.95	125.0	V	67.0
613.820000	18.06	36.00	17.96	183.0	V	120.0

**Charging & FM Mode/Average detector**

Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17941.067	46.5	-17.7	45.6	18.6	54.00	H
17820.933	46.5	-18.5	45.6	19.4	54.00	H
17825.467	46.4	-18.5	45.6	19.3	54.00	V
17822.067	46.4	-18.5	45.6	19.3	54.00	H
17942.200	46.4	-17.7	45.6	18.5	54.00	H
17954.667	46.4	-17.7	45.6	18.5	54.00	H

**Charging & FM Mode/Peak detector**

Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17840.200	57.9	-18.5	45.6	30.8	74.00	H
17946.733	57.7	-17.7	45.6	29.8	74.00	H
17501.900	57.6	-19.2	45.6	31.2	74.00	V
17892.333	57.4	-18.5	45.6	30.3	74.00	H
17509.267	57.3	-19.2	45.6	30.9	74.00	H
17605.033	57.3	-18.9	45.6	30.6	74.00	H

Sample calculation: Peak detector, 17840.200MHz

Result = P<sub>Mea</sub> (30.8 dB $\mu$ V) + G<sub>A</sub> (45.6dB/m) + G<sub>PL</sub>(-18.5 dB) =57.9dB $\mu$ V/m

**Measurement results for Set.9:**

**USB Mode/QP detector**

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ )	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
37.672000	8.45	30.00	21.55	102.0	V	241.0
61.229000	8.23	30.00	21.77	325.0	V	300.0
112.256000	7.93	33.50	25.59	106.0	V	300.0
239.954000	9.56	36.00	26.46	325.0	V	158.0
297.646000	9.91	36.00	26.11	325.0	V	182.0
557.652000	17.21	36.00	18.81	286.0	V	191.0

**USB Mode/Average detector**

Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17950.133	46.8	-17.7	45.6	18.9	54.00	H
17949.000	46.6	-17.7	45.6	18.7	54.00	H
17959.767	46.3	-17.7	45.6	18.4	54.00	V
17820.933	46.2	-18.5	45.6	19.1	54.00	H
17826.600	46.2	-18.5	45.6	19.1	54.00	H
17934.833	46.1	-17.7	45.6	18.2	54.00	H

**USB Mode/Peak detector**

Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17925.200	58.3	-17.7	45.6	30.4	74.00	H
17608.433	57.8	-18.9	45.6	31.1	74.00	H
17827.167	57.6	-18.5	45.6	30.5	74.00	V
17942.200	57.4	-17.7	45.6	29.5	74.00	H
17606.167	57.4	-18.9	45.6	30.7	74.00	H
17493.400	57.4	-19.2	41.5	35.1	74.00	H

Sample calculation: Peak detector, 17925.200MHz

Result =P<sub>Mea</sub> (30.4dB $\mu$ V)+ G<sub>A</sub> (45.6dB/m)+ G<sub>PL</sub>(-17.7 dB) =58.3dB $\mu$ V/m

**Measurement results for Set.10:**

**USB Mode/QP detector**

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ )	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
48.019000	9.38	30.00	20.62	110.0	V	199.0
90.556000	6.72	33.50	26.80	325.0	V	172.0
113.120000	7.70	33.50	25.82	102.0	V	202.0
155.851000	5.28	33.50	28.24	109.0	V	194.0
398.586000	13.79	36.00	22.23	308.0	V	200.0
577.422000	17.51	36.00	18.51	108.0	V	184.0

**USB Mode/Average detector**

Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17948.433	46.6	-17.7	45.6	18.7	54.00	H
17821.500	46.5	-18.5	45.6	19.4	54.00	H
17959.767	46.5	-17.7	45.6	18.6	54.00	V
17611.833	46.5	-18.9	45.6	19.8	54.00	H
17606.733	46.5	-18.9	45.6	19.8	54.00	H
17949.567	46.3	-17.7	45.6	18.4	54.00	H

**USB Mode/Peak detector**

Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17823.767	57.5	-18.5	45.6	30.4	74.00	H
17935.967	57.4	-17.7	45.6	29.5	74.00	H
17817.533	57.4	-18.5	45.6	30.3	74.00	V
17805.067	57.4	-18.5	45.6	30.3	74.00	H
17966.000	57.4	-17.7	45.6	29.5	74.00	H
17862.867	57.3	-18.5	45.6	30.2	74.00	H

Sample calculation: Peak detector, 17823.767MHz

Result =P<sub>Mea</sub> (30.4dB $\mu$ V)+ G<sub>A</sub> (45.6 dB/m)+ G<sub>PL</sub>(-18.5 dB) =57.5dB $\mu$ V/m



**Measurement results for Set.11:**

**Charging & FM Mode /QP detector**

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ )	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
40.347000	8.34	30.00	21.66	102.0	V	108.0
51.446000	9.55	30.00	20.45	102.0	V	120.0
77.484000	4.77	30.00	25.23	125.0	V	169.0
110.122000	8.05	33.50	25.47	216.0	V	84.0
377.828000	12.76	36.00	23.26	125.0	V	210.0
758.327000	19.46	36.00	16.56	125.0	V	61.0

**Charging & FM Mode/Average detector**

Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17821.500	46.7	-18.5	45.6	19.6	54.00	H
17943.333	46.7	-17.7	45.6	18.8	54.00	H
17611.267	46.5	-18.9	45.6	19.8	54.00	V
17952.967	46.4	-17.7	45.6	18.5	54.00	H
17941.633	46.4	-17.7	45.6	18.5	54.00	H
17822.633	46.4	-18.5	45.6	19.3	54.00	H

**Charging & FM Mode/Peak detector**

Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Polarity
17946.733	58.4	-17.7	45.6	30.5	74.00	H
17610.700	58.2	-18.9	45.6	31.5	74.00	H
17490.000	58.1	-19.2	41.5	35.8	74.00	V
17854.933	58.0	-18.5	45.6	30.9	74.00	H
17974.500	57.8	-17.7	45.6	29.9	74.00	H
17917.833	57.6	-17.7	45.6	29.7	74.00	H

Sample calculation: Peak detector, 17946.733MHz

Result = P<sub>Mea</sub> (30.5 dB $\mu$ V) + G<sub>A</sub> (45.6dB/m) + G<sub>PL</sub>(-17.7 dB) =58.4dB $\mu$ V/m

Charging & FM Mode, Set.7

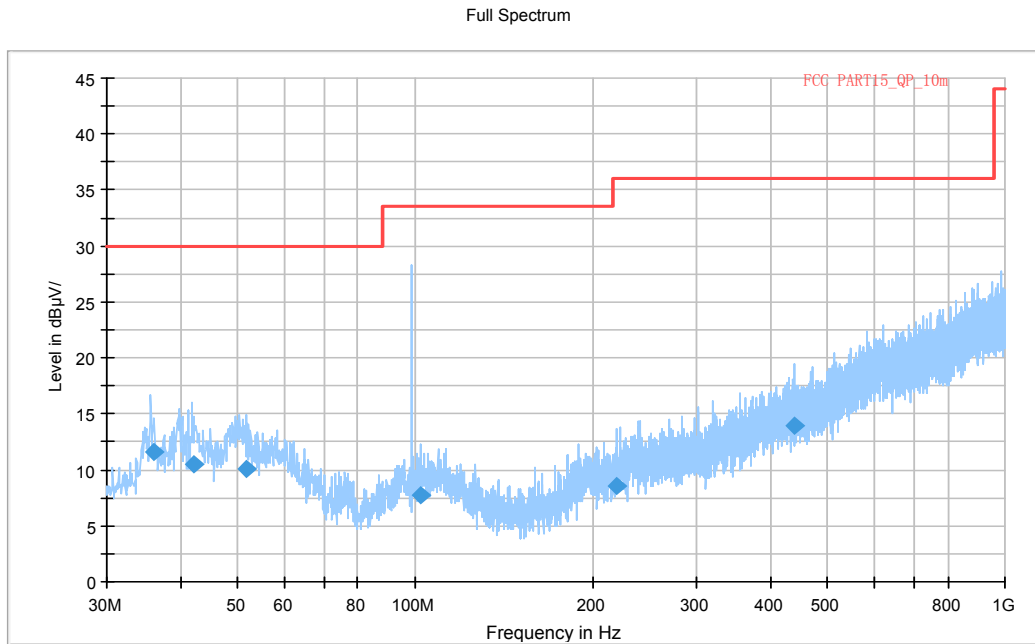


Figure A.1 Radiated Emission from 30MHz to 1GHz

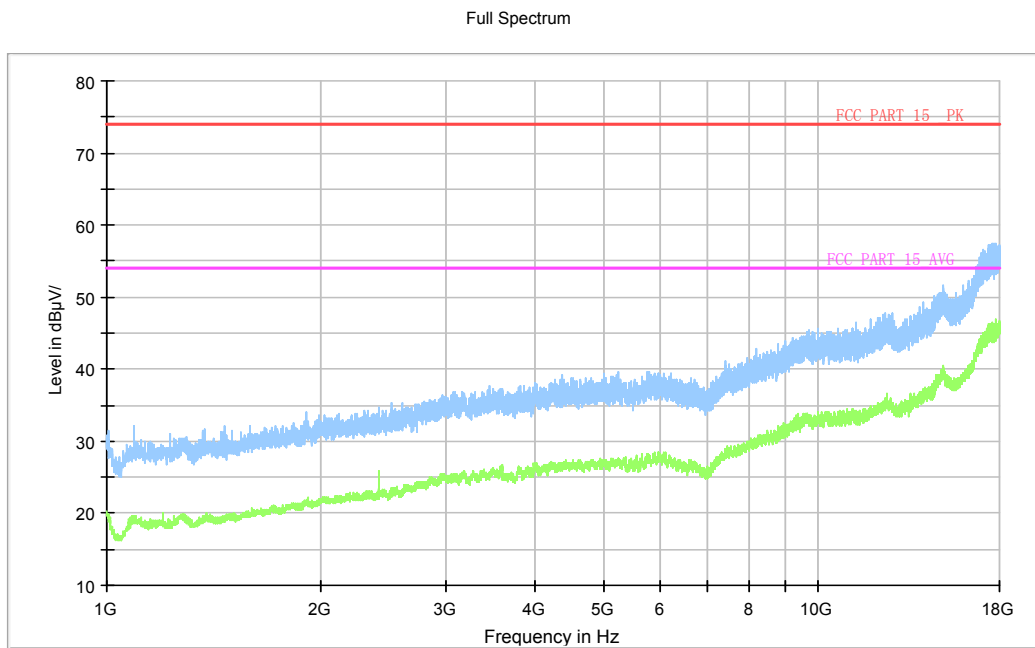


Figure A.2 Radiated Emission from 1GHz to 18GHz

Charging & FM Mode, Set.8

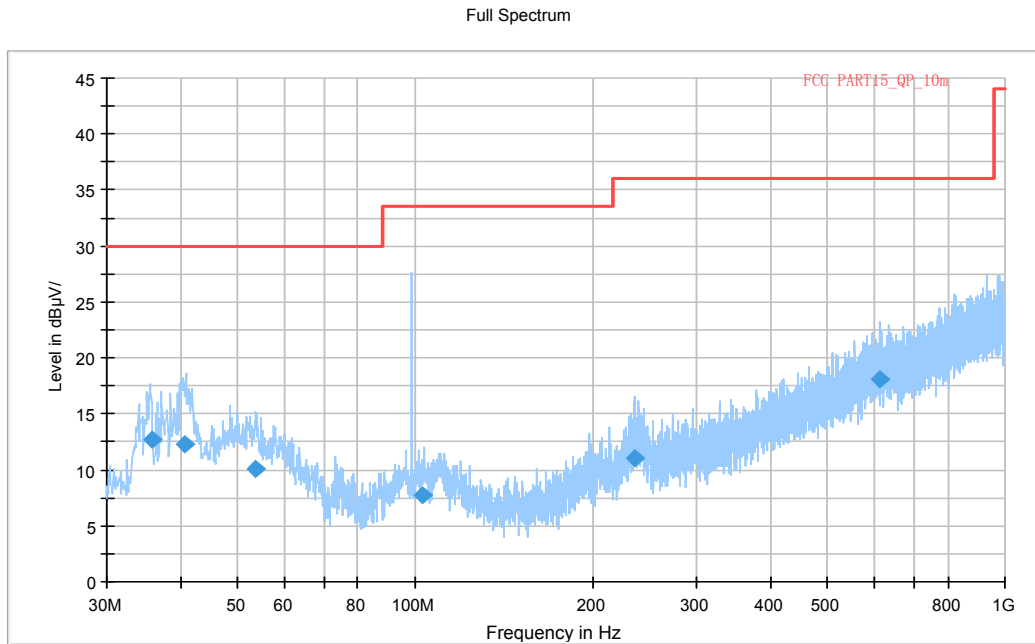


Figure A.3 Radiated Emission from 30MHz to 1GHz

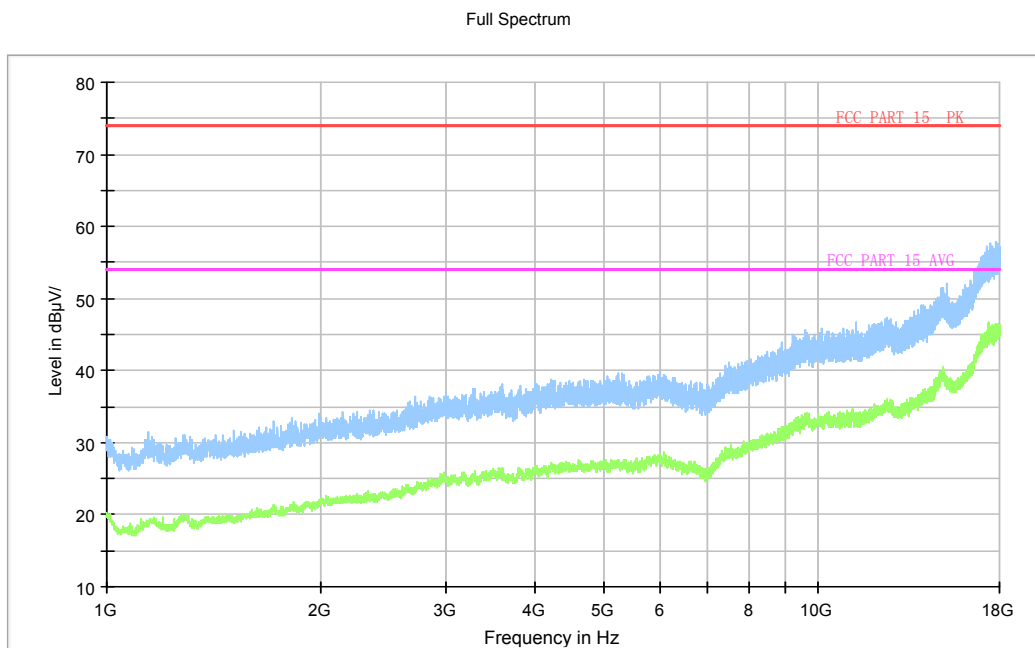


Figure A.4 Radiated Emission from 1GHz to 18GHz

USB Mode, Set.9

Full Spectrum

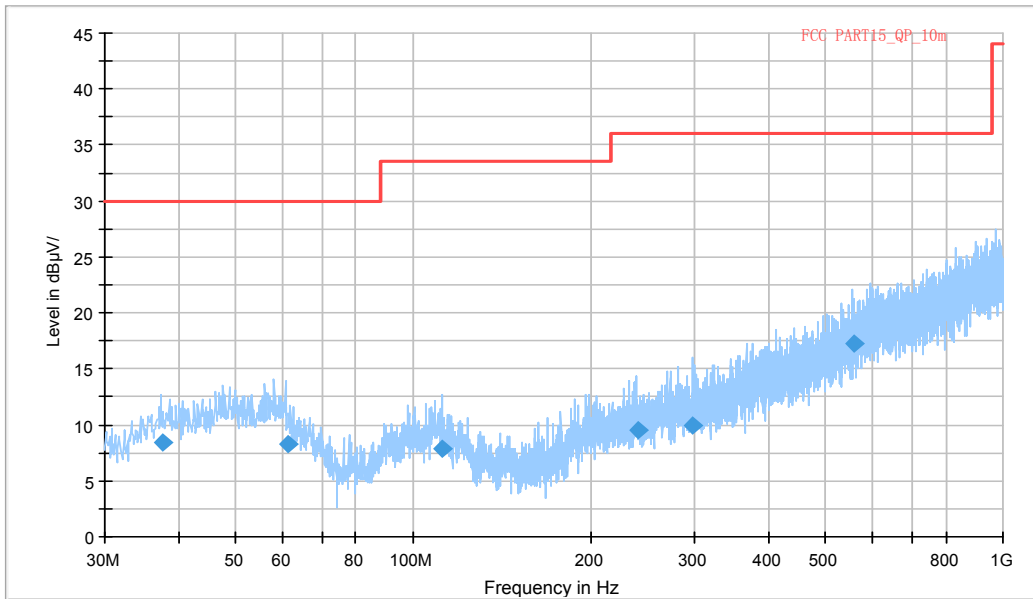


Figure A.5 Radiated Emission from 30MHz to 1GHz

Full Spectrum

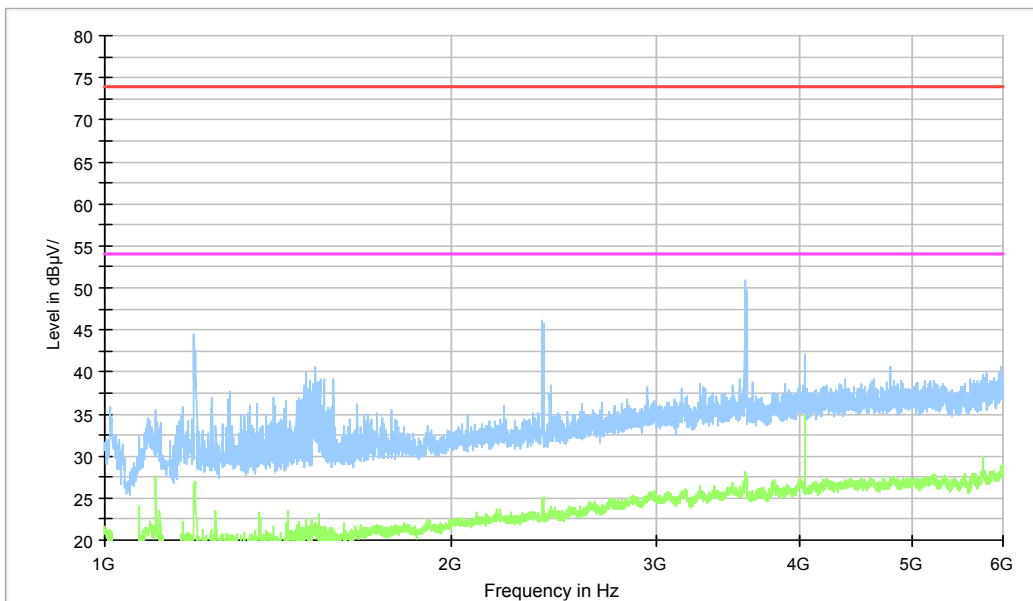


Figure A.6 Radiated Emission from 1GHz to 18GHz

USB Mode, Set.10

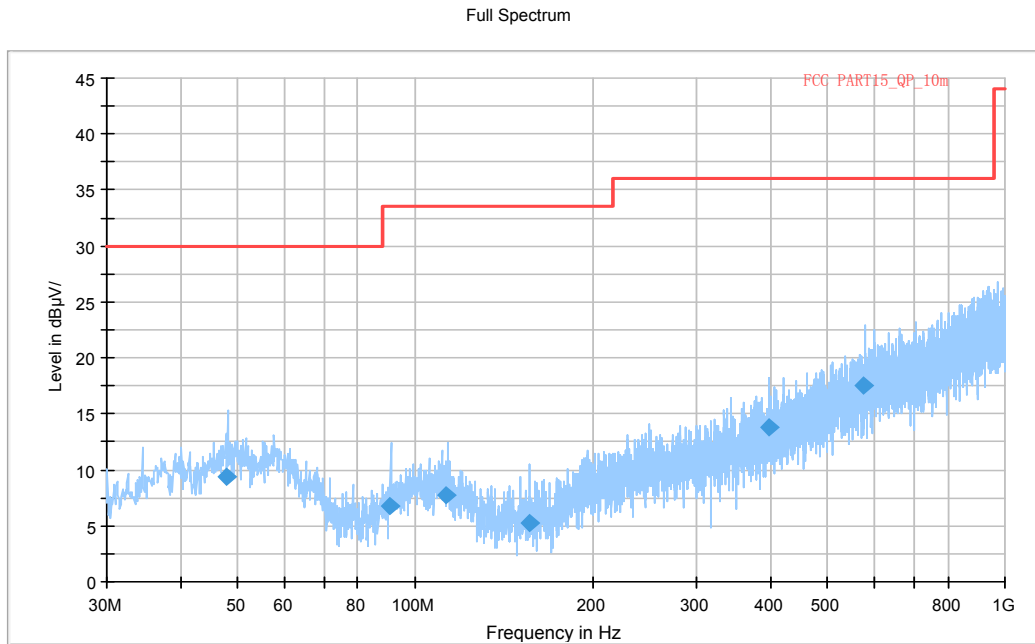


Figure A.7 Radiated Emission from 30MHz to 1GHz

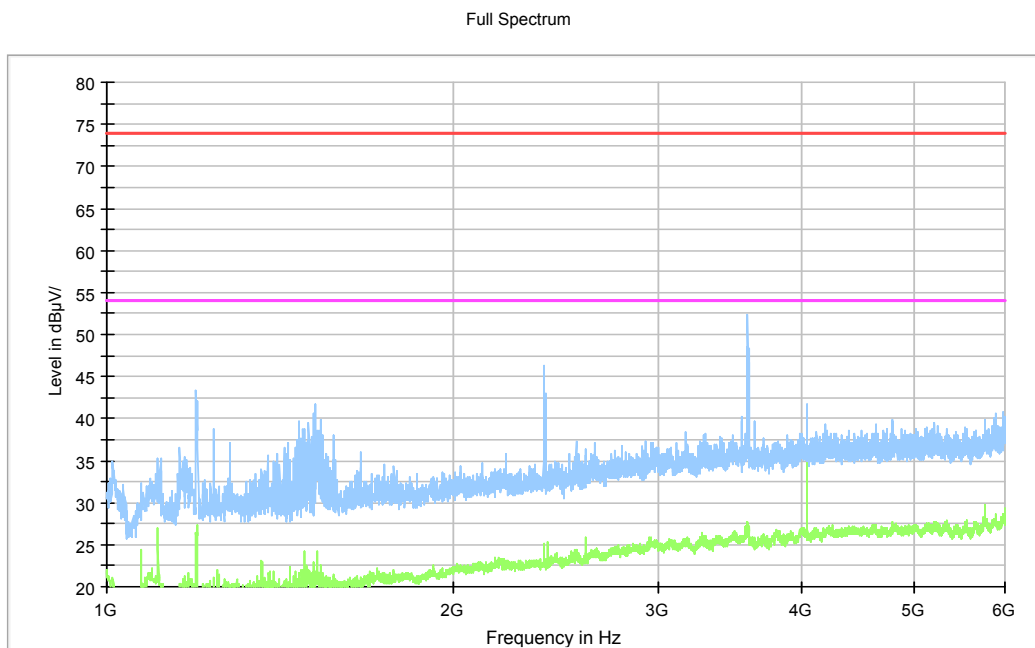


Figure A.8 Radiated Emission from 1GHz to 18GHz

Charging & FM Mode, Set.11

Full Spectrum

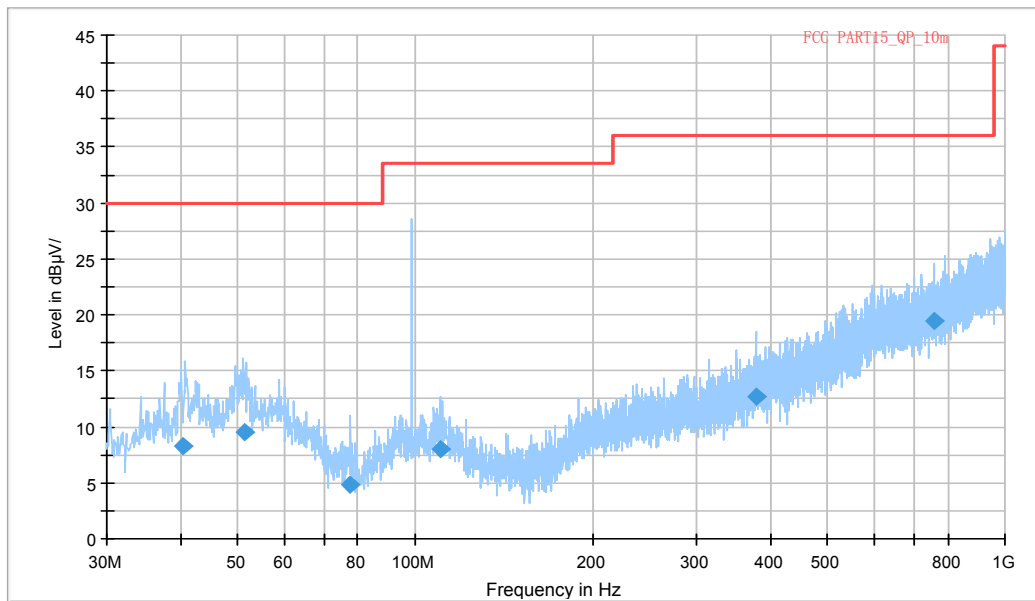


Figure A.9 Radiated Emission from 30MHz to 1GHz

Full Spectrum

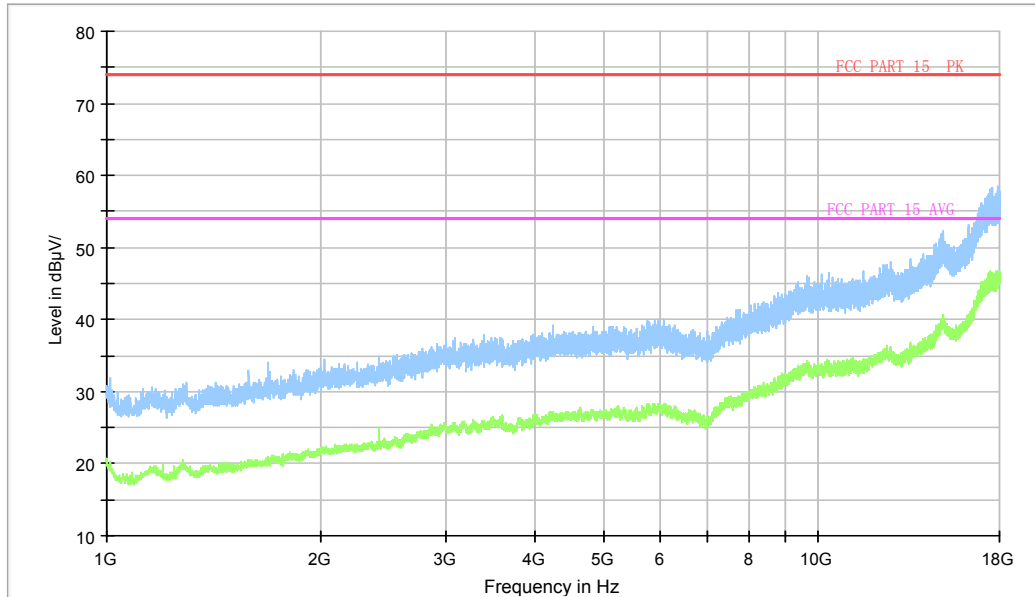


Figure A.10 Radiated Emission from 1GHz to 18GHz

## 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 charging mode. During the test MS is connected to a charger in the case of charging mode.

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

#### Charging & FM Mode, Set.7

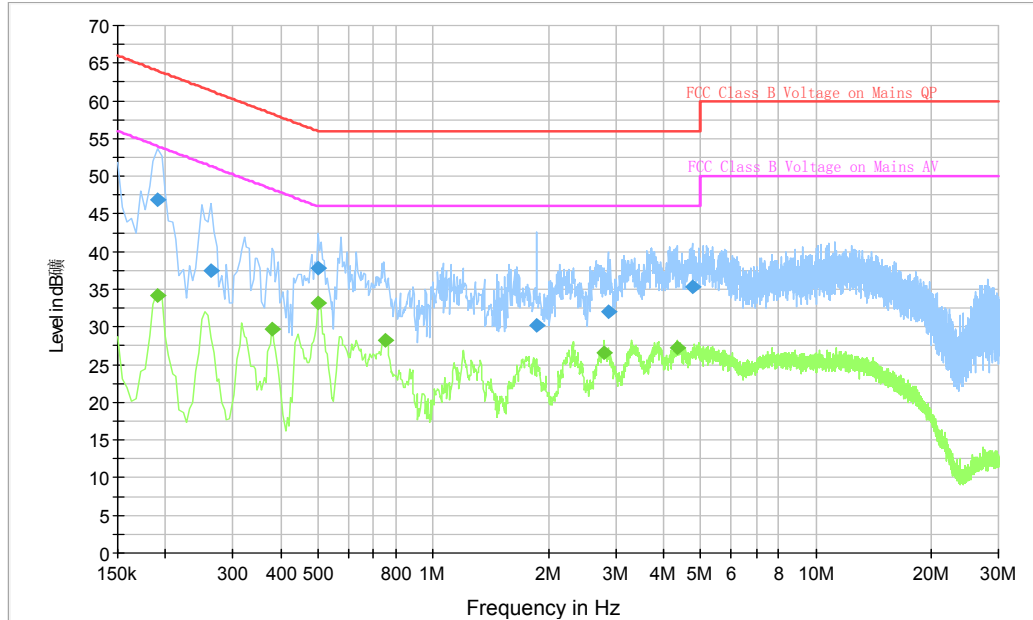


Figure A.11 Conducted Emission

#### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.190500	47.0	L1	21.9	17.1	64.0
0.262500	37.5	N	19.8	23.8	61.4
0.501000	37.8	L1	19.8	18.2	56.0
1.864500	30.2	L1	19.6	25.8	56.0
2.863500	32.0	L1	19.6	24.0	56.0
4.744500	35.3	L1	19.6	20.7	56.0

#### Final Result 2

Frequency (MHz)	CAverage (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.190500	34.2	L1	21.9	19.8	54.0
0.379500	29.7	L1	19.8	18.6	48.3
0.501000	33.2	L1	19.8	12.8	46.0
0.753000	28.2	L1	19.8	17.8	46.0
2.805000	26.5	L1	19.6	19.5	46.0
4.344000	27.2	L1	19.6	18.8	46.0



Charging & FM Mode, Set.8

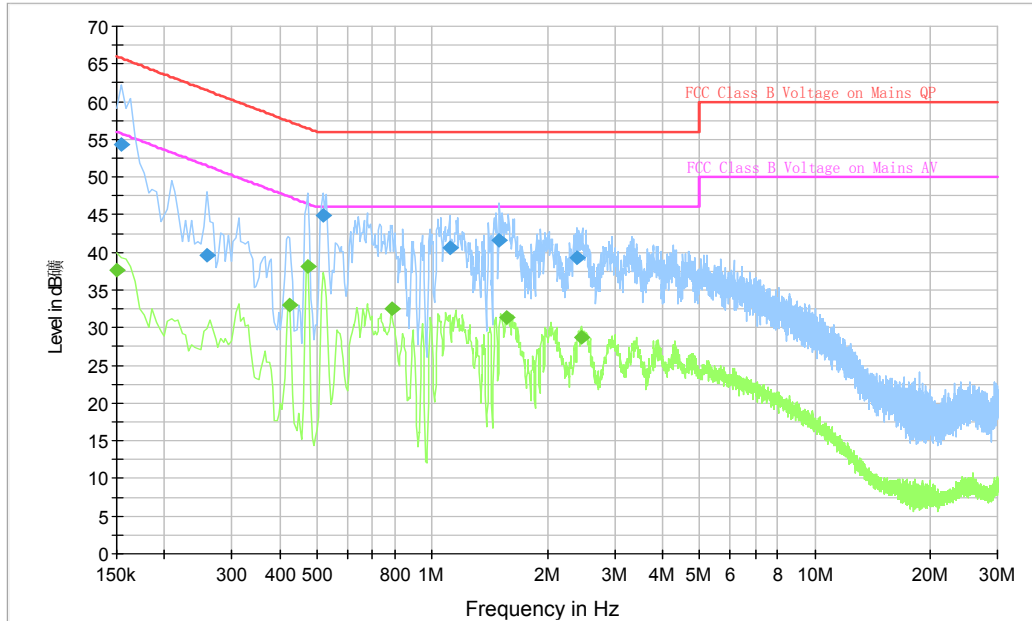


Figure A.12 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	54.4	L1	29.7	11.4	65.8
0.258000	39.6	L1	19.8	21.9	61.5
0.519000	44.9	L1	19.8	11.1	56.0
1.113000	40.6	L1	19.7	15.4	56.0
1.500000	41.6	L1	19.6	14.4	56.0
2.391000	39.3	L1	19.6	16.7	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	37.6	L1	30.7	18.4	56.0
0.424500	33.1	N	19.8	14.3	47.4
0.474000	38.1	N	19.8	8.3	46.4
0.784500	32.5	N	19.7	13.5	46.0
1.567500	31.4	N	19.6	14.6	46.0
2.449500	28.8	N	19.6	17.2	46.0

USB Mode, Set.9

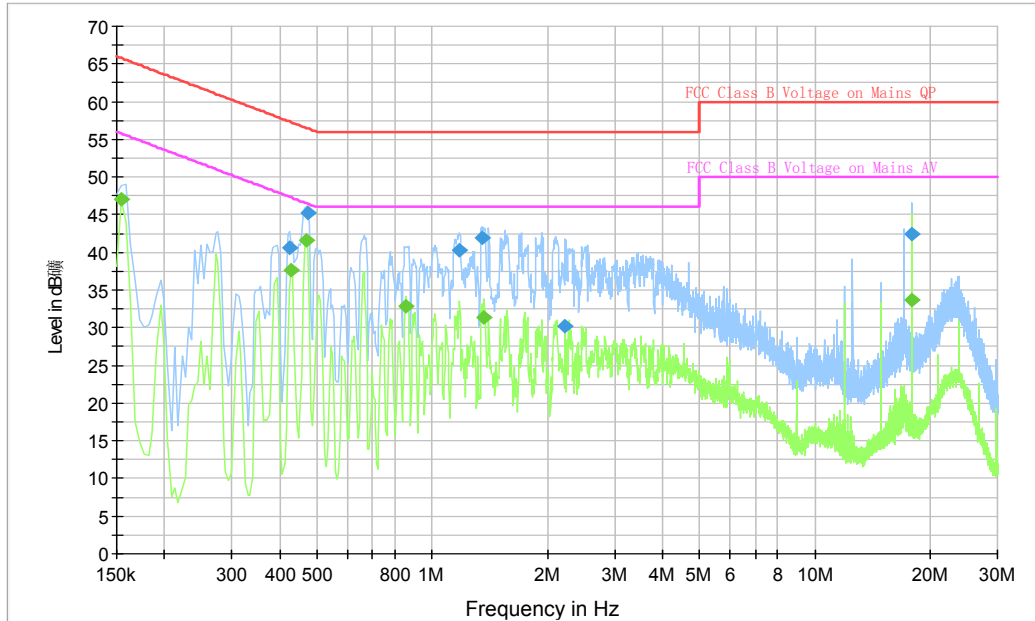


Figure A.13 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.424500	40.6	L1	19.8	16.7	57.4
0.474000	45.2	L1	19.8	11.2	56.4
1.180500	40.4	L1	19.7	15.6	56.0
1.356000	41.9	L1	19.6	14.1	56.0
2.215500	30.2	L1	19.6	25.8	56.0
17.916000	42.5	L1	19.8	17.5	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	47.0	L1	29.7	8.7	55.8
0.429000	37.7	L1	19.8	9.6	47.3
0.469500	41.6	N	19.8	4.9	46.5
0.852000	32.9	N	19.7	13.1	46.0
1.369500	31.3	N	19.6	14.7	46.0
17.916000	33.7	L1	19.8	16.3	50.0

USB Mode, Set.10

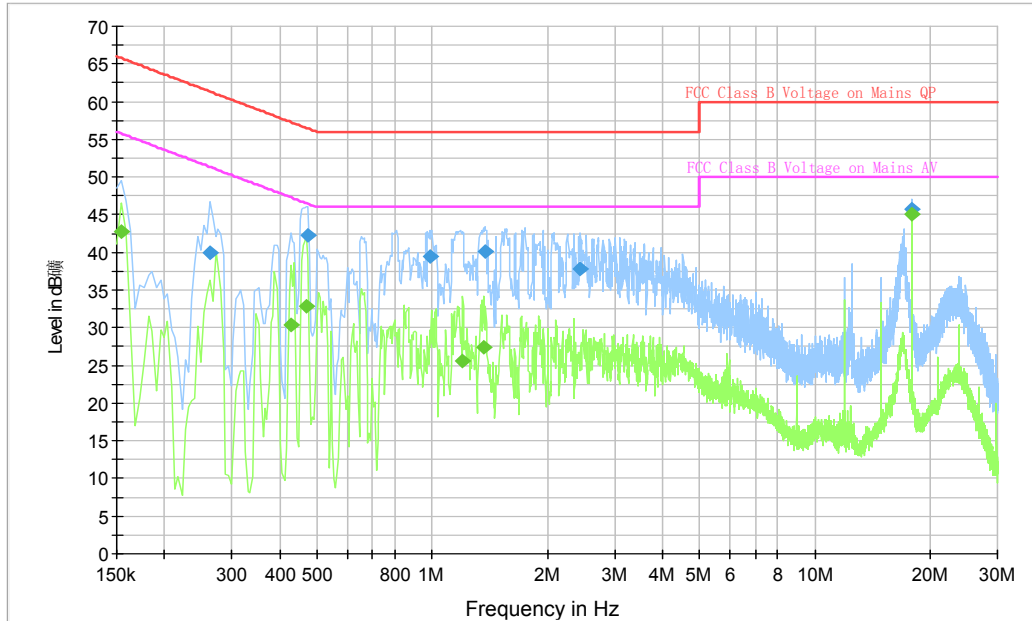


Figure A.14 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.262500	40.0	N	19.8	21.3	61.4
0.474000	42.3	L1	19.8	14.1	56.4
0.987000	39.5	N	19.7	16.5	56.0
1.374000	40.1	L1	19.6	15.9	56.0
2.445000	37.8	N	19.6	18.2	56.0
17.911500	45.7	N	19.9	14.3	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	42.7	L1	29.7	13.0	55.8
0.429000	30.4	L1	19.8	16.9	47.3
0.469500	32.9	L1	19.8	13.7	46.5
1.203000	25.6	N	19.7	20.4	46.0
1.365000	27.4	L1	19.6	18.6	46.0
17.911500	45.1	N	19.9	4.9	50.0

Charging & FM Mode, Set.11

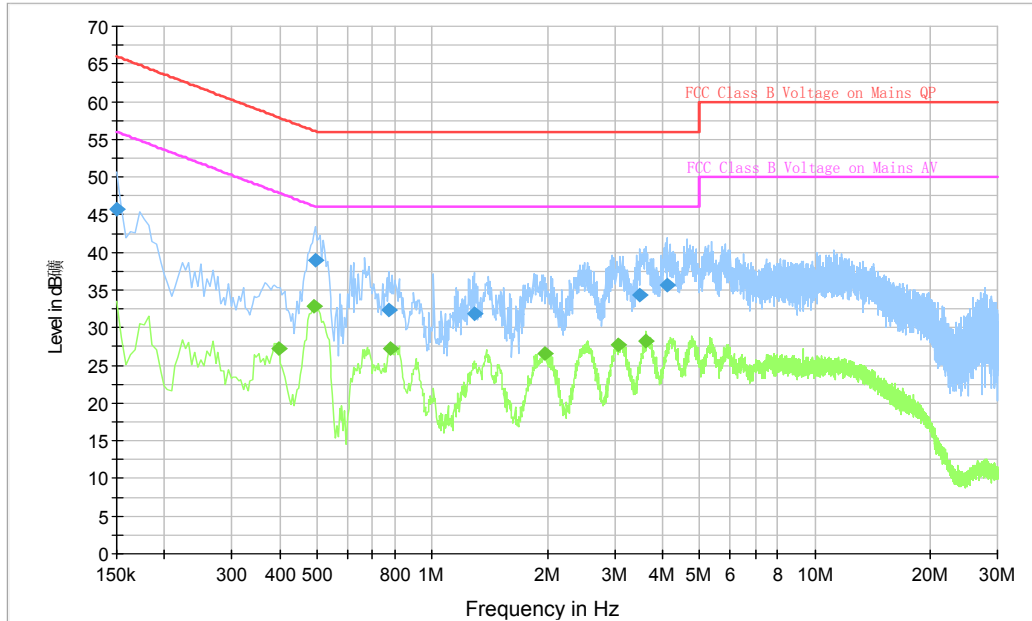


Figure A.15 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	45.7	L1	30.7	20.3	66.0
0.496500	39.0	L1	19.8	17.1	56.1
0.771000	32.4	L1	19.8	23.6	56.0
1.288500	31.9	L1	19.6	24.1	56.0
3.475500	34.4	L1	19.6	21.6	56.0
4.101000	35.7	L1	19.6	20.3	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.397500	27.3	L1	19.8	20.6	47.9
0.492000	32.9	L1	19.8	13.3	46.1
0.780000	27.3	L1	19.8	18.7	46.0
1.963500	26.6	L1	19.6	19.4	46.0
3.061500	27.7	L1	19.6	18.3	46.0
3.633000	28.2	L1	19.6	17.8	46.0

**ANNEX B: Persons involved in this testing**

Test Item	Tester
Conducted Continuous Emission	Shi Suolan
Radiated Continuous Emission	Yan Hanchen, Li Pengfei, Shi Suolan

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