TEST REPORT

No. I15Z40237-EMC01

for

TCL Communication Ltd.

HSUPA/HSDPA/UMTS Tri-band/GSM Quad-band mobile phone

Model Name: 4027A, 4028A

FCC ID: 2ACCJH015

with

Hardware Version: PIO

Software Version: v6D51

Issued Date: 2015-03-12

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:

FCC 2.948 Listed: No. 525429

CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT

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: cttl_terminals@catr.cn, website: www.chinattl.com

REPORT HISTORY

Report Number	Revision	Description	Issue Date
I15Z40237-EMC01	Rev.0	1st edition	2015-3-12

CONTENTS

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℃

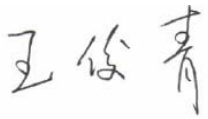
Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2015-02-14

Testing End Date: 2015-02-27

1.4. Signature

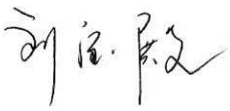


Wang Junqing

(Prepared this test report)

Qu Pengfei

(Reviewed this test report)



Liu Baodian

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	TCL Communication Ltd.
Address /Post:	5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area Shanghai, P.R. China.
City:	Shanghai
Postal Code:	201203
Country:	China
Contact Person:	Gong Zhizhou
Contact Email	zhizhou.gong@tcl.com
Telephone:	0086-21-51798260
Fax:	0086-21-61460602

2.2. Manufacturer Information

Company Name:	TCL Communication Ltd.
Address /Post:	5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park, Pudong Area Shanghai, P.R. China.
City:	Shanghai
Postal Code:	201203
Country:	China
Telephone:	0086-21-51798260
Fax:	0086-21-61460602

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

3.1. About EUT

Description	HSUPA/HSDPA/UMTS Tri-band/GSM Quad-band mobile phone
Model Name	4027A,4028A
FCC ID	2ACCJH015
Extreme vol. Limits	3.5VDC to 4.2VDC (nominal: 3.8VDC)

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Telecommunication Metrology Center of MIIT of People's Republic of China.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	014325000100557	PIO	v6D51

*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	/	14TCT-BA-1765
AE2	Battery	/	14TCT-BA-0048
AE3	Battery	/	14TCT-BA-1714
AE4	Battery	/	14TCT-BA-0050
AE5	Battery	/	14TCT-BA-0049
AE6	Battery	/	14TCT-BA-1962
AE7	Battery	/	/
AE8	Battery	/	/
AE9	Travel charger	/	14TCT-CH-2454
AE10	Travel charger	/	14TCT-CH-1434
AE11	Travel charger	/	14TCT-CH-2429
AE12	Travel charger	/	14TCT-CH-0430
AE13	Travel charger	/	14TCT-CH-2033
AE14	Travel charger	/	14TCT-CH-0354
AE15	USB cable	/	14TCT-DC-0609
AE16	USB cable	/	14TCT-DC-0596
AE17	USB cable	/	14TCT-DC-0722
AE18	USB cable	/	/
AE19	USB cable	/	/
AE20	USB cable	/	/
AE21	Battery	/	/

AE1

Model	CAB60B0000C1
Manufacturer	BYD
Capacitance	1400mAh
Nominal voltage	3.7V

AE2, AE3, AE4, AE5, AE6

Model	CAB60B0000CB
Manufacturer	OCEANSUN
Capacitance	1400mAh
Nominal voltage	3.7V

AE7

Model	CAB1400002C2
Manufacturer	SCUD
Capacitance	1400mAh
Nominal voltage	3.7V

AE8

Model	CAB60B0002C1
Manufacturer	BYD
Capacitance	1400mAh
Nominal voltage	3.7V

AE9

Model	CBA3007AG0C1
Manufacturer	BYD
Length of cable	/

AE10

Model	CBA3007AG0C3
Manufacturer	YINGJU
Length of cable	/

AE11

Model	CBA3007AG0C4
Manufacturer	AOHAI
Length of cable	/

AE12

Model	CBA3002AG0C3
Manufacturer	YINGJU
Length of cable	124cm

AE13

Model	CBA3002AG0C2
Manufacturer	tenpao
Length of cable	121cm

AE14

Model	CBA3002AG0C1
Manufacturer	BYD
Length of cable	121cm

AE15

Model	CDA3122002C1
Manufacturer	JUWEI
Length of cable	98cm

AE16

Model	CDA3122002C2
Manufacturer	Shenghua
Length of cable	98cm

AE17

Model	CDA3122002C8
Manufacturer	PUAN
Length of cable	98cm

AE18

Model	CDA3122005C1
Manufacturer	JUWEI
Length of cable	/

AE19

Model	CDA3122005C2
Manufacturer	Shenghua
Length of cable	/

AE20

Model	CDA3122005C8
Manufacturer	PUAN
Length of cable	/

AE21

Model	CAB1650001C1
Manufacturer	BYD
Capacitance	1650mAh
Nominal voltage	V

*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/AE2/AE7/AE21 +AE9 +AE15/AE16/AE17	Charger
Set.2	EUT1 +AE1/AE2/AE7/AE21 +AE10 +AE15/AE16/AE17	Charger
Set.3	EUT1 +AE1/AE2/AE7/AE21 +AE11 +AE15/AE16/AE17	Charger
Set.4	EUT1 +AE1/AE2/AE7/AE21 +AE12	Charger
Set.5	EUT1 +AE1/AE2/AE7/AE21 +AE13	Charger
Set.6	EUT1 +AE1/AE2/AE7/AE21 +AE14	Charger
Set.7	EUT1 +AE1/AE2/AE7/AE21 +AE15/AE16/AE17	USB

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	10-1-13 Edition
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low - Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2009

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	1/2/3/4	The test is performed in test location 1, 2, 3 or 4 which are described in section 1.1 of this report

Clause	List	Clause in FCC rules	Verdict	Location
1	Radiated Emission	15.109(a)	P	1
2	Conducted Emission	15.107(a)	P	1

7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESCI	100344	R&S	2016-03-02	1 year
2	Test Receiver	ESCI 7	100948	R&S	2015-07-16	1 year
3	Universal Radio Communication Tester	CMU200	109914	R&S	2015-04-13	1 year
4	Test Receiver	FSV	101047	R&S	2015-06-27	1 year
5	LISN	ENV216	101200	R&S	2015-07-07	1 year
6	EMI Antenna	VULB 9163	9163-234	Schwarzbeck	2016-09-15	3 years
7	EMI Antenna	3115	6914	ETS-Lindgren	2017-12-15	3 years
8	PC	OPTIPLEX 380	2X1YV2X	DELL	N/A	N/A
9	Monitor	E178FPc	CN-OWR979-64180 -7AJ-D2MS	DELL	N/A	N/A
10	Printer	P1606dn	VNC3L52122	HP	N/A	N/A
11	Keyboard	L100	CN0RH659658907 ATOI40	DELL	N/A	N/A
12	Mouse	M-UAE119	LZ935220ZRC	Lenovo	N/A	N/A

ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§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 - 2009, section 8.3.
The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3/10 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

A.1.2 EUT Operating Mode:

The MS is operating in the USB mode and charging mode. During the test MS is connected to a PC via a USB cable in the case of USB mode and is connected to a charger in the case of charging mode. The model of the PC is DELL OPTIPLEX 380, and the serial number of the PC is 2X1YV2X. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

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.

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:

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

Where

G_A: Antenna factor of receive antenna

G_{PL}: Path Loss

P_{Mea}: Measurement result on receiver.

Measurement uncertainty (worst case): U = 4.3 dB, k=2.

Measurement results for Set.1:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9875.688	35.3	-24.9	38.0	22.200	V
9384.063	35.2	-25.6	38.4	22.400	V
9998.313	35.2	-24.2	38.0	21.400	V
9858.813	35.2	-24.8	38.0	22.000	H
9378.438	35.2	-26.3	38.4	23.100	V
9972.438	35.1	-24.2	38.0	21.300	V

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9379.563	47.6	-26.3	38.4	35.500	V
9965.125	46.8	-24.2	38.0	33.000	V
9483.625	46.8	-25.5	38.4	33.900	V
9692.313	46.7	-24.5	38.0	33.200	V
9845.313	46.6	-24.8	38.0	33.400	H
9424.000	46.6	-25.6	38.4	33.800	V

Measurement results for Set.2:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9379.563	45.8	-26.3	38.4	33.700	H
9397.563	44.6	-25.6	38.4	31.800	V
9853.188	45.1	-24.8	38.0	31.900	V
9382.375	45.1	-25.6	38.4	32.300	H
9848.688	44.1	-24.8	38.0	30.900	V
9895.375	45.2	-24.9	38.0	32.100	V

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9414.438	47.3	-25.6	38.4	34.500	V
9636.625	47.2	-25.4	38.0	34.600	V
9889.750	47.2	-24.9	38.0	34.100	H
9827.875	47.1	-24.8	38.0	33.900	H
9790.750	47.1	-24.8	38.0	33.900	V
9108.438	47.0	-26.1	38.4	34.700	V

Measurement results for Set.3:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9852.625	35.4	-24.8	38.0	22.200	H
9383.500	35.2	-25.6	38.4	22.400	V
9870.063	35.2	-24.9	38.0	22.100	V
9871.188	35.1	-24.9	38.0	22.000	V
9380.125	35.1	-26.3	38.4	23.000	V
9839.688	35.1	-24.8	38.0	21.900	V

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9959.500	47.2	-24.2	38.0	33.400	V
9375.063	46.9	-26.3	38.4	34.800	V
9371.125	46.8	-26.3	38.4	34.700	V
9873.438	46.7	-24.9	38.0	33.600	H
9309.250	46.7	-26.3	38.4	34.600	V
9739.563	46.6	-24.5	38.0	33.100	V

Measurement results for Set.4:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9894.250	35.4	-24.9	38.0	22.300	V
9378.438	35.2	-26.3	38.4	23.100	V
9876.250	35.2	-24.9	38.0	22.100	V
9985.938	35.2	-24.2	38.0	21.400	H
9855.438	35.2	-24.8	38.0	22.000	V
9849.813	35.1	-24.8	38.0	21.900	V

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9851.500	47.2	-24.8	38.0	34.000	V
9679.375	47.2	-24.5	38.0	33.700	H
9886.375	46.9	-24.9	38.0	33.800	V
9998.875	46.9	-24.2	38.0	33.100	V
9180.438	46.7	-26.1	38.4	34.400	V
8934.063	46.7	-26.7	38.0	35.400	H

Measurement results for Set.5:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9845.313	35.3	-24.8	38.0	22.100	V
9381.813	35.2	-26.3	38.4	23.100	V
9870.625	35.2	-24.9	38.0	22.100	H
9850.375	35.1	-24.8	38.0	21.900	V
9844.750	35.1	-24.8	38.0	21.900	V
9843.063	35.1	-24.8	38.0	21.900	V

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9379.563	47.0	-26.3	38.4	34.900	V
9757.000	46.9	-24.5	38.0	33.400	V
8956.563	46.8	-26.7	38.0	35.500	V
9135.438	46.7	-26.1	38.4	34.400	H
9921.813	46.7	-24.9	38.0	33.600	V
9664.750	46.6	-25.4	38.0	34.000	V

Measurement results for Set.6:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9379.000	35.4	-26.3	38.4	23.300	V
9851.500	35.3	-24.8	38.0	22.100	V
9379.563	35.3	-26.3	38.4	23.200	V
9988.188	35.3	-24.2	38.0	21.500	H
9862.188	35.3	-24.9	38.0	22.200	V
9879.625	35.2	-24.9	38.0	22.100	V

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9870.625	47.6	-24.9	38.0	34.500	V
8883.438	47.2	-26.6	38.0	35.800	V
9685.563	46.8	-24.5	38.0	33.300	H
9984.813	46.8	-24.2	38.0	33.000	H
9782.313	46.8	-24.8	38.0	33.600	V
9142.188	46.8	-26.1	38.4	34.500	H

Measurement results for Set.7:

USB Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
9849.813	35.4	-24.8	38.0	22.200	V
9849.250	35.3	-24.8	38.0	22.100	H
9969.063	35.2	-24.2	38.0	21.400	V
9377.313	35.1	-26.3	38.4	23.000	H
9997.188	35.1	-24.2	38.0	21.300	V
9847.563	35.1	-24.8	38.0	21.900	V

USB Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBμV)	Polarity
1429.188	50.1	-40.4	24.1	66.400	V
1429.750	49.0	-40.4	24.1	65.300	V
1428.063	49.0	-40.4	24.1	65.300	H
1451.125	48.7	-40.2	24.1	64.800	H
1451.688	48.5	-40.2	24.1	64.600	V
1452.813	48.3	-40.2	24.1	64.400	V

Note: The measurement results of Set.1, Set.2, Set.3, Set.4, Set.5, Set.6 and Set.7 showed here are worst cases of the combinations of different batteries and different USB cables.

Charging Mode, Set.1

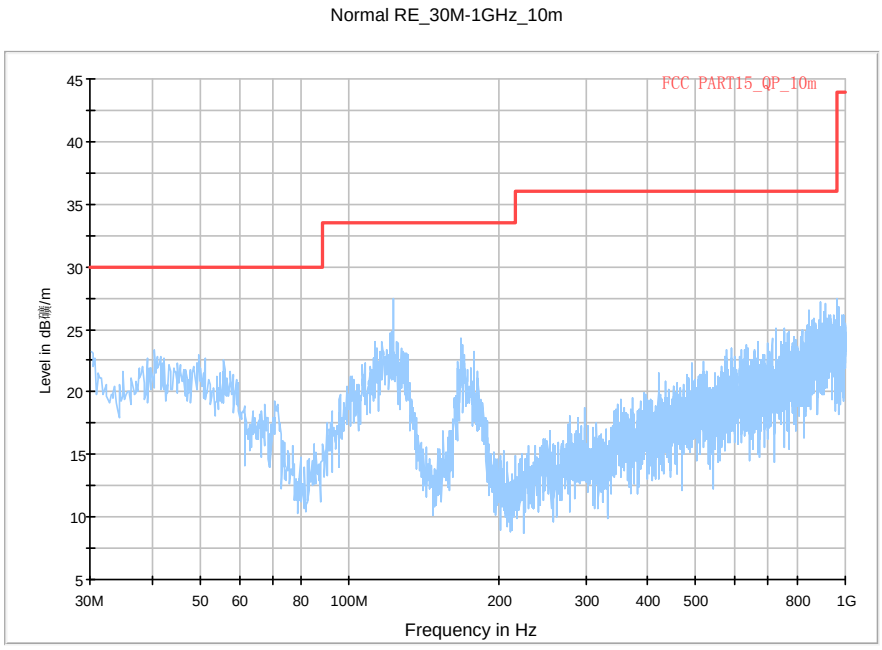


Fig.1 Radiated Emission from 30MHz to 1GHz

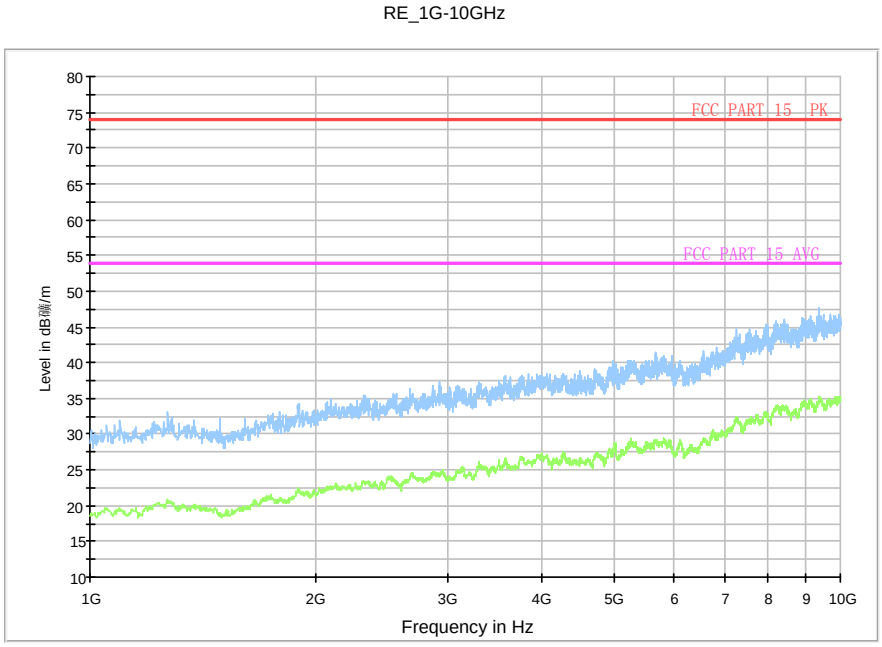


Fig.2 Radiated Emission from 1GHz to 10GHz

Charging Mode, Set.2

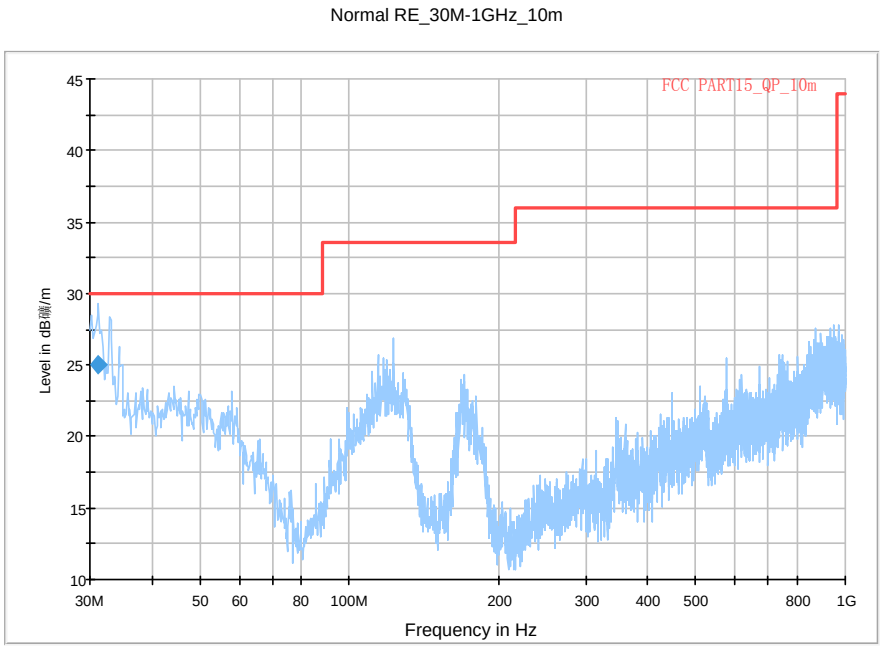


Fig.3 Radiated Emission from 30MHz to 1GHz

Final Result

Frequency MHz	QuasiPeak dBµV/m	Limit dBµV/m	Margin dB	Azimuth Deg	Polarization H/V
31.272500	25.0	30.0	5.0	-10.0	V

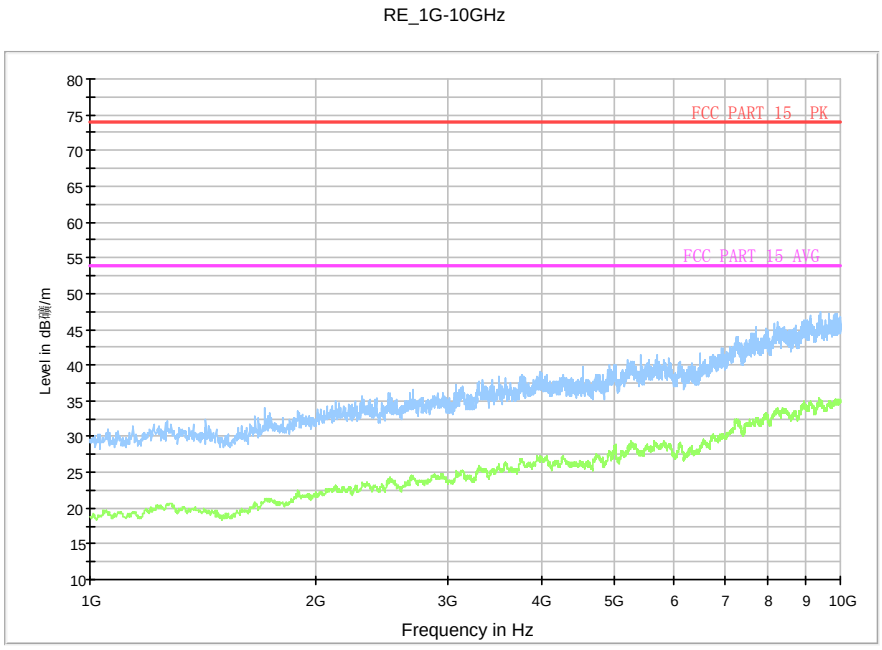


Fig.4 Radiated Emission from 1GHz to 10GHz

Charging Mode, Set.3

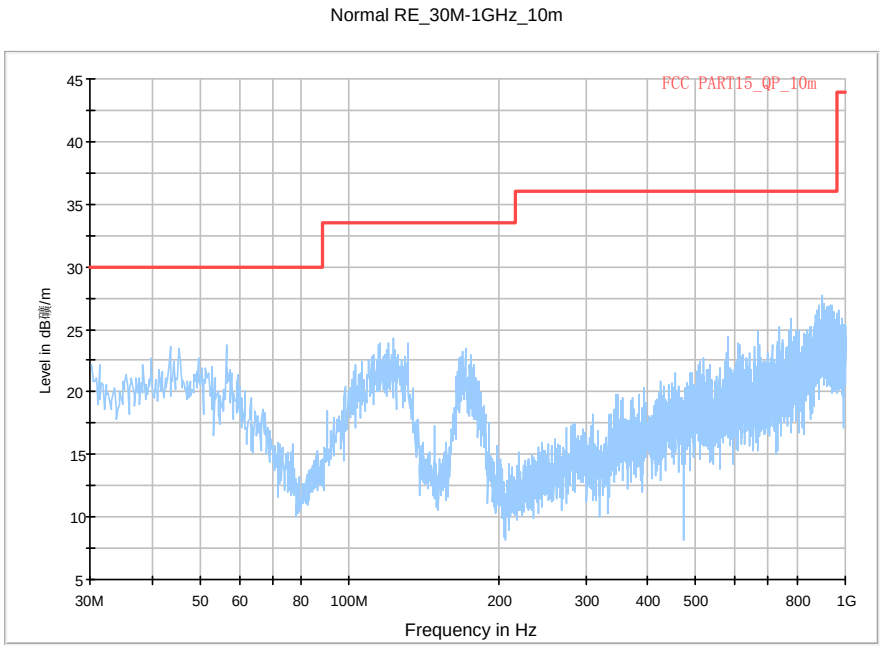


Fig.5 Radiated Emission from 30MHz to 1GHz

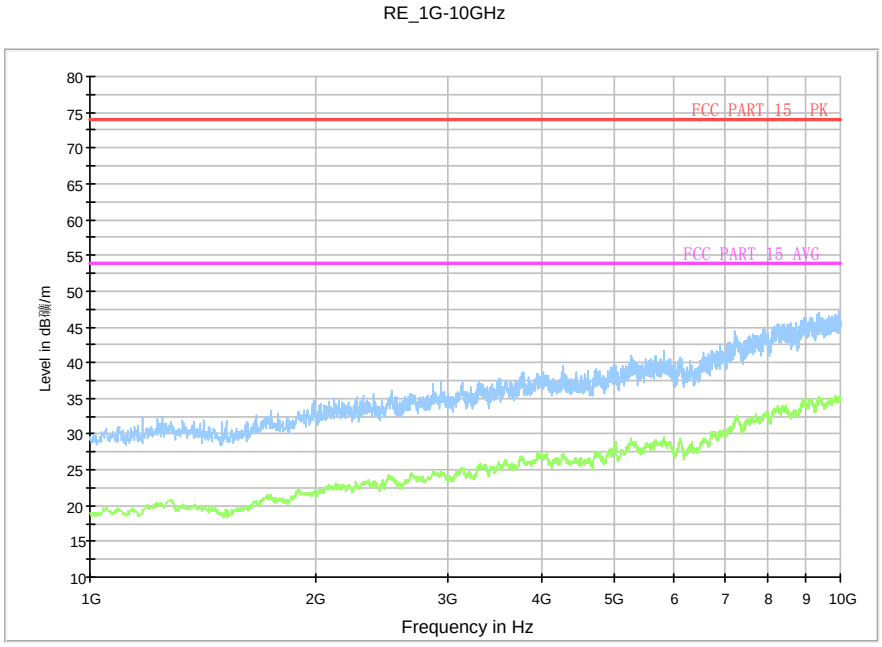


Fig.6 Radiated Emission from 1GHz to 10GHz

Charging Mode, Set.4

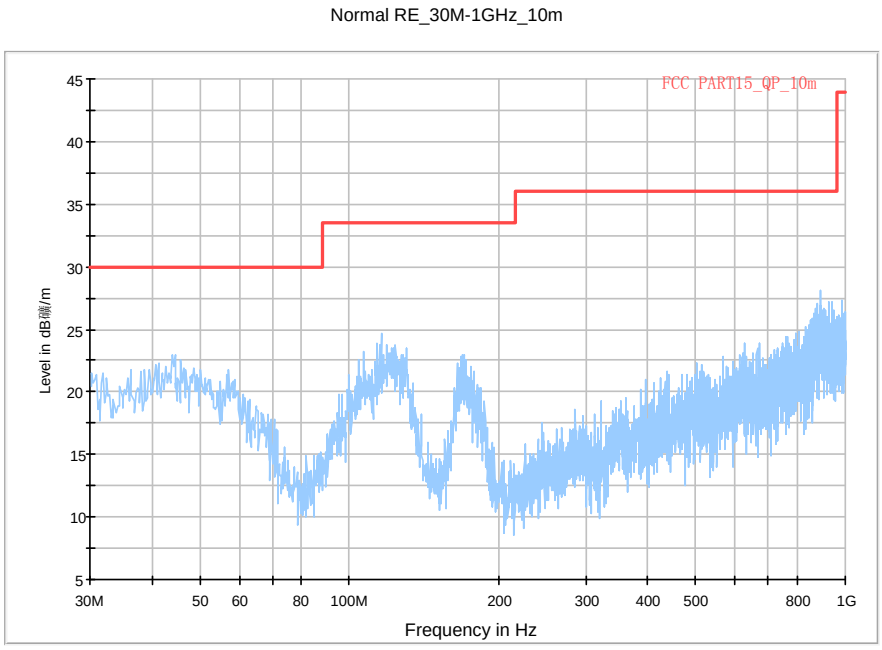


Fig.7 Radiated Emission from 30MHz to 1GHz

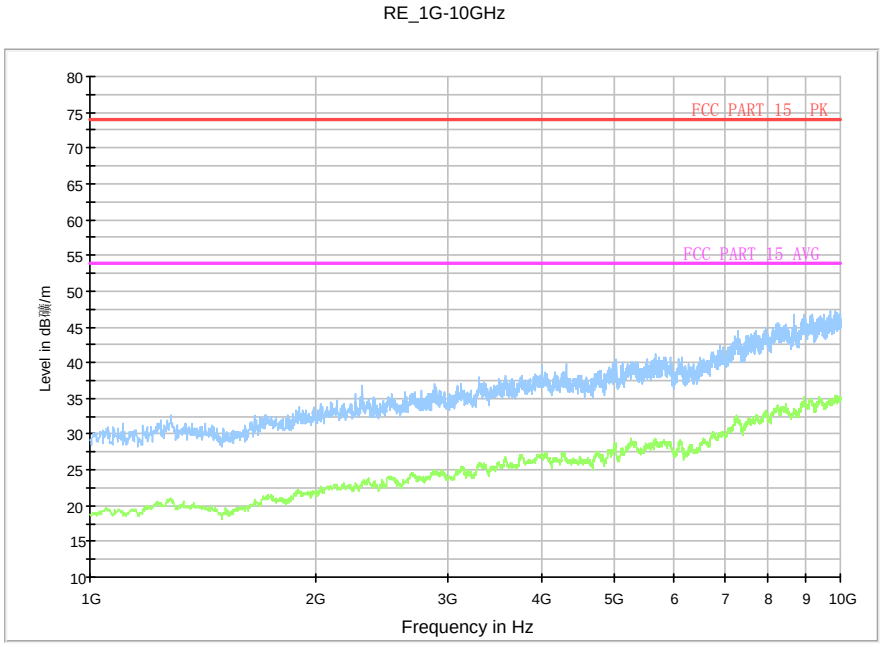


Fig.8 Radiated Emission from 1GHz to 10GHz

Charging Mode, Set.5

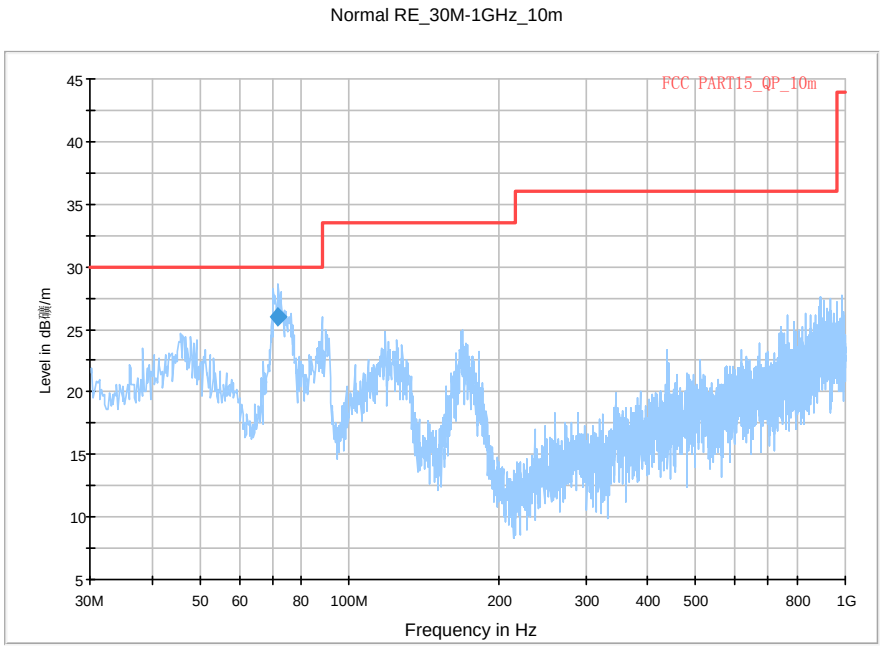


Fig.9 Radiated Emission from 30MHz to 1GHz

Final Result

Frequency MHz	QuasiPeak dBµV/m	Limit dBµV/m	Margin dB	Azimuth Deg	Polarization H/V
71.773750	26.0	30.0	4.0	-11.0	V

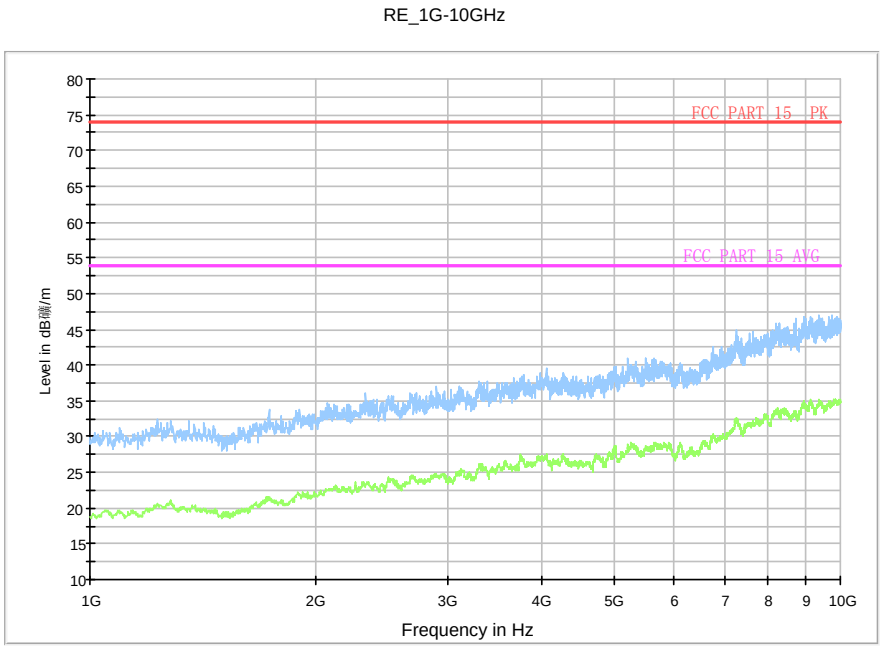


Fig.10 Radiated Emission from 1GHz to 10GHz

Charging Mode, Set.6

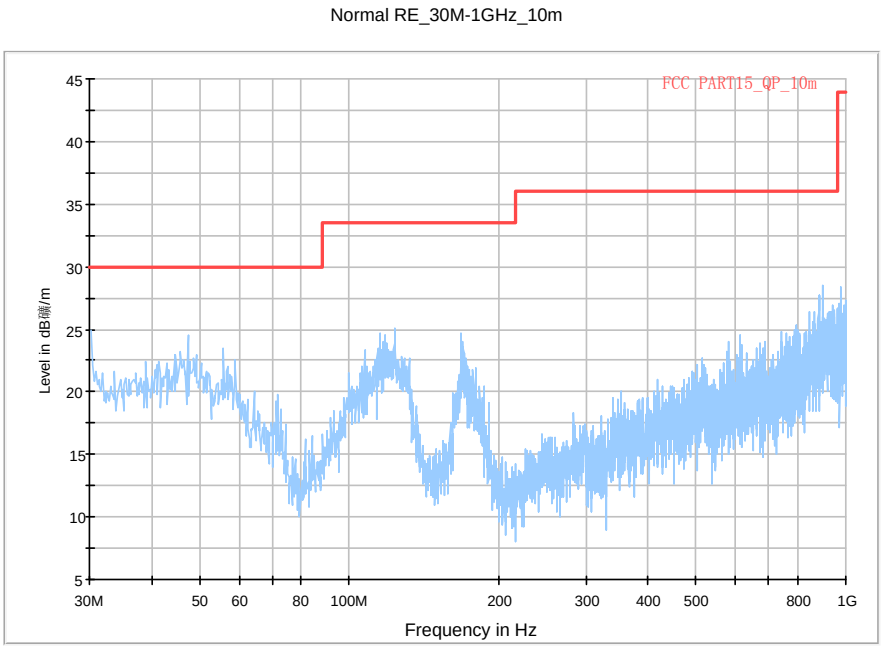


Fig.11 Radiated Emission from 30MHz to 1GHz

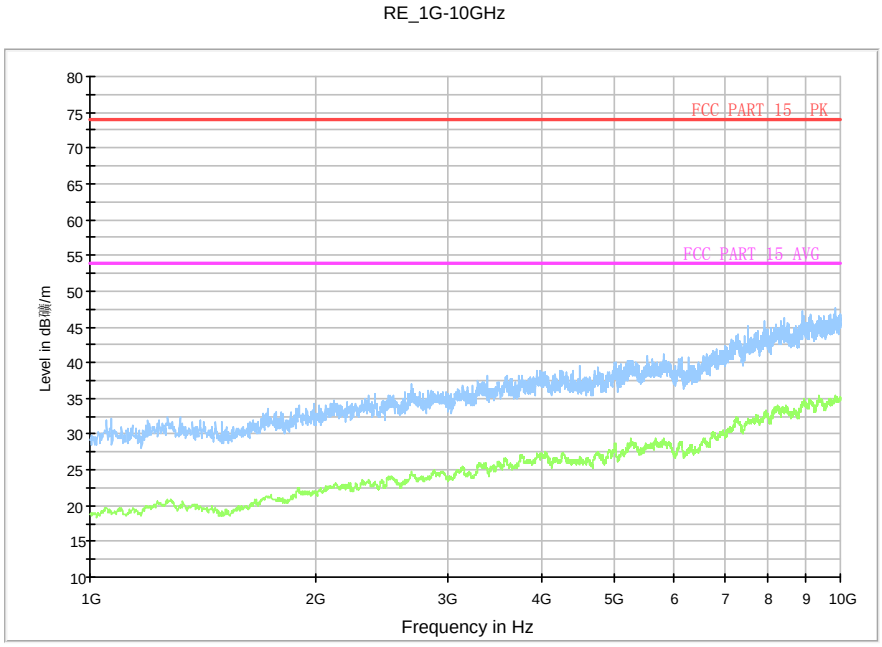


Fig.12 Radiated Emission from 1GHz to 10GHz

USB Mode, Set.7

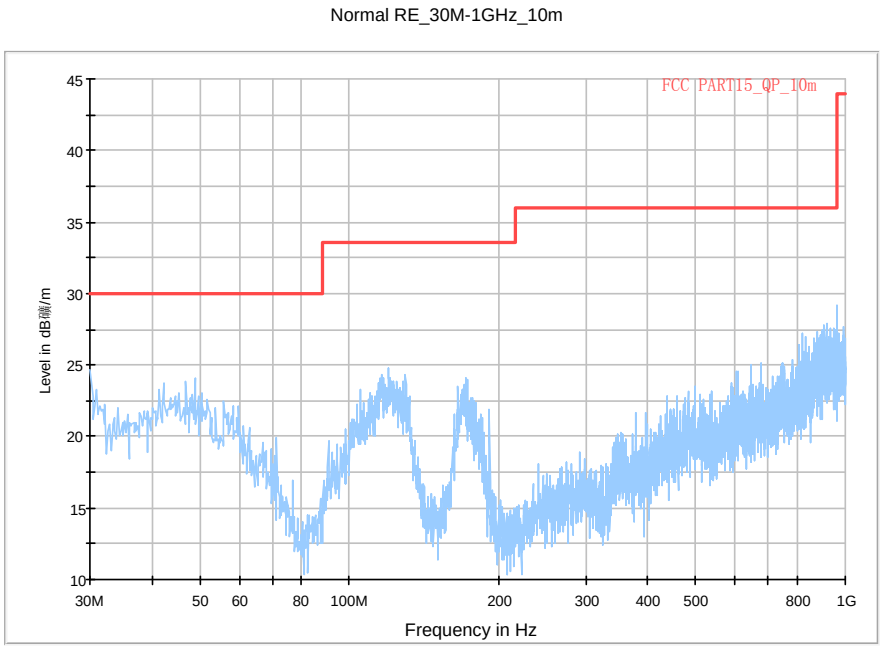


Fig.13 Radiated Emission from 30MHz to 1GHz

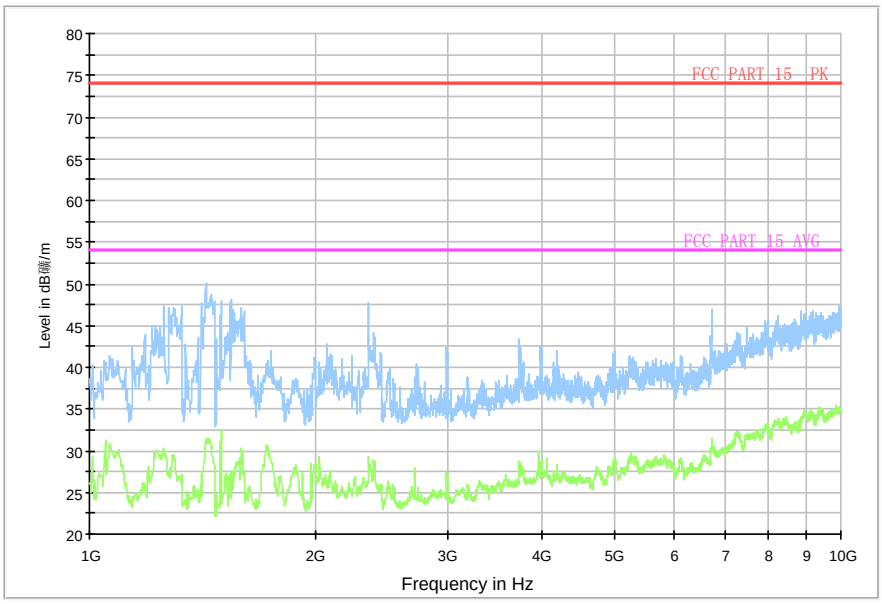


Fig.14 Radiated Emission from 1GHz to 10GHz

A.2 Conducted Emission (§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 - 2009, section 7.2.

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 OPTIPLEX 380, and the serial number of the PC is 2X1YV2X. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

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*= 2.9 dB, *k*=2.

Charging Mode, Set.1

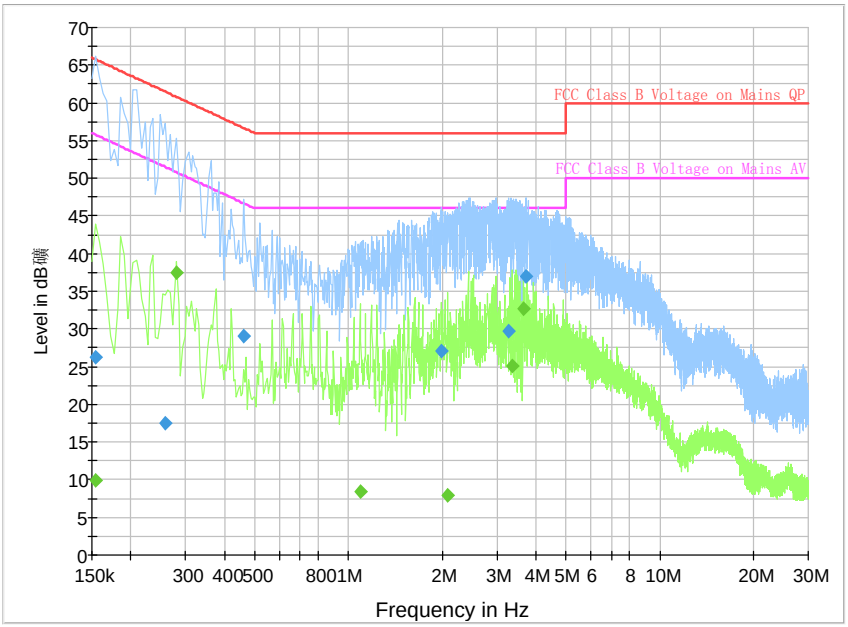


Fig.15 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	26.2	GND	L1	19.9	39.6	65.8
0.258000	17.5	GND	L1	19.8	44.0	61.5
0.460500	29.1	GND	L1	19.8	27.6	56.7
1.986000	27.1	GND	L1	19.6	28.9	56.0
3.282000	29.7	GND	L1	19.6	26.3	56.0
3.718500	37.0	GND	L1	19.7	19.0	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	9.9	GND	L1	19.9	45.8	55.8
0.280500	37.5	GND	N	19.7	13.3	50.8
1.090500	8.4	GND	N	19.7	37.6	46.0
2.080500	8.0	GND	N	19.6	38.0	46.0
3.367500	25.1	GND	N	19.7	20.9	46.0
3.642000	32.6	GND	N	19.7	13.4	46.0

Note: The measurement results showed here are worst cases of the combinations of different batteries and different USB cables.

Charging Mode, Set.2

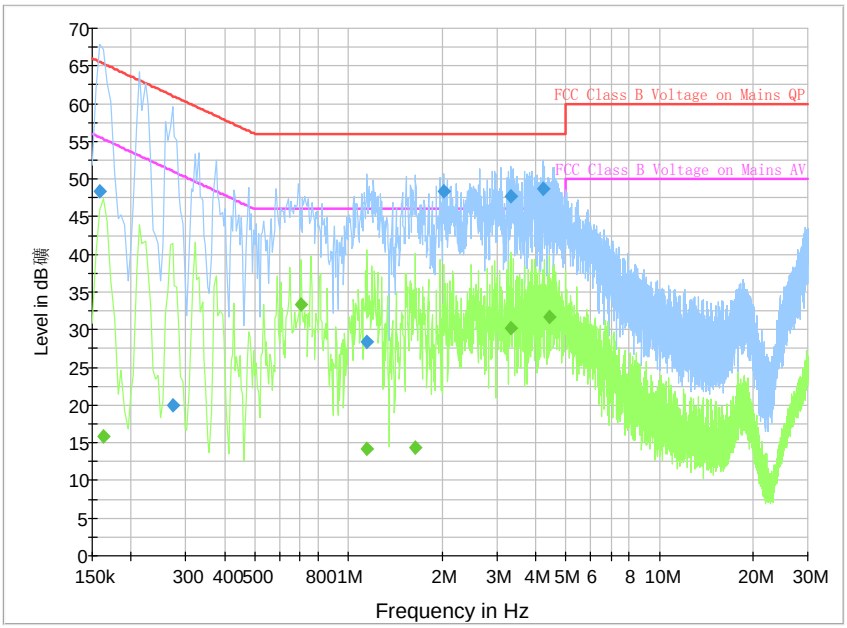


Fig.16 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.159000	48.4	GND	L1	19.7	17.1	65.5
0.271500	20.0	GND	L1	19.8	41.0	61.1
1.149000	28.5	GND	L1	19.6	27.5	56.0
2.026500	48.3	GND	L1	19.6	7.7	56.0
3.340500	47.6	GND	L1	19.7	8.4	56.0
4.213500	48.6	GND	L1	19.7	7.4	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.163500	15.9	GND	L1	19.7	39.4	55.3
0.703500	33.3	GND	N	19.8	12.7	46.0
1.149000	14.3	GND	L1	19.6	31.7	46.0
1.639500	14.4	GND	L1	19.7	31.6	46.0
3.340500	30.2	GND	L1	19.7	15.8	46.0
4.434000	31.7	GND	L1	19.7	14.3	46.0

Note: The measurement results showed here are worst cases of the combinations of different batteries and different USB cables.

Charging Mode, Set.3

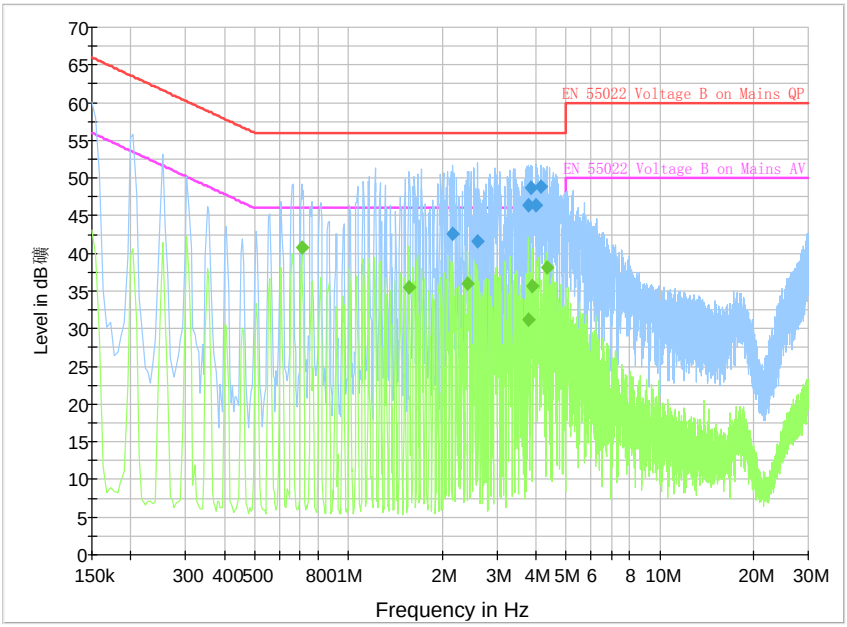


Fig.17 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.166000	42.6	GND	L1	19.6	13.4	56.0
2.593500	41.6	GND	L1	19.6	14.4	56.0
3.781500	46.4	GND	L1	19.7	9.6	56.0
3.844500	48.8	GND	L1	19.7	7.2	56.0
3.984000	46.4	GND	L1	19.7	9.6	56.0
4.150500	48.8	GND	L1	19.7	7.2	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.708000	40.8	GND	L1	19.8	5.2	46.0
1.563000	35.4	GND	L1	19.7	10.6	46.0
2.422500	36.1	GND	L1	19.6	9.9	46.0
3.781500	31.1	GND	L1	19.7	14.9	46.0
3.885000	35.6	GND	L1	19.7	10.4	46.0
4.344000	38.2	GND	L1	19.7	7.8	46.0

Note: The measurement results showed here are worst cases of the combinations of different batteries and different USB cables.

Charging Mode, Set.4

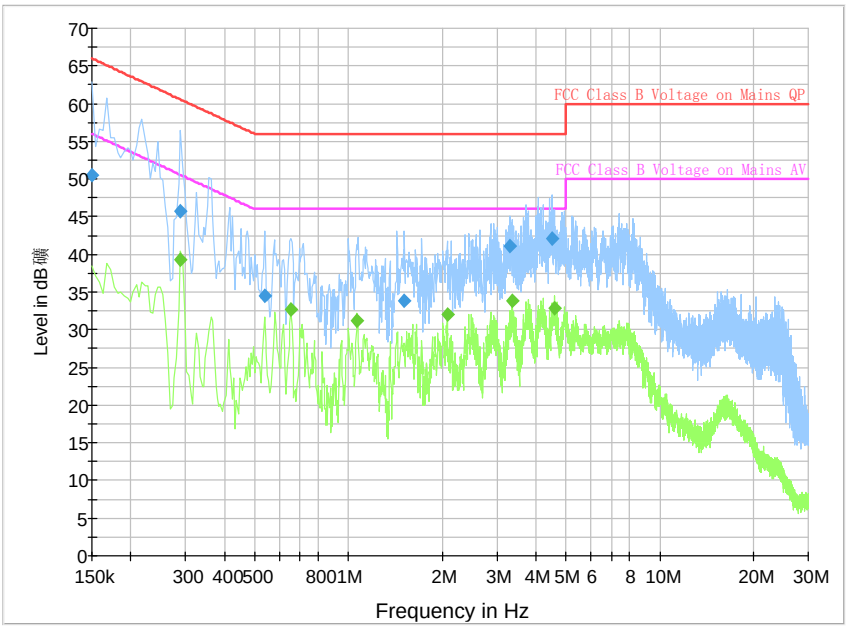


Fig.18 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	50.5	GND	L1	20.1	15.5	66.0
0.289500	45.7	GND	L1	19.8	14.8	60.5
0.537000	34.4	GND	L1	19.8	21.6	56.0
1.513500	33.9	GND	N	19.6	22.1	56.0
3.291000	41.1	GND	L1	19.6	14.9	56.0
4.506000	42.0	GND	L1	19.6	14.0	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.289500	39.2	GND	L1	19.8	11.3	50.5
0.654000	32.7	GND	L1	19.8	13.3	46.0
1.068000	31.2	GND	L1	19.7	14.8	46.0
2.076000	32.0	GND	L1	19.6	14.0	46.0
3.372000	33.9	GND	L1	19.7	12.1	46.0
4.578000	32.9	GND	L1	19.6	13.1	46.0

Note: The measurement results showed here are worst cases of the combinations of different batteries and different USB cables.

Charging Mode, Set.5

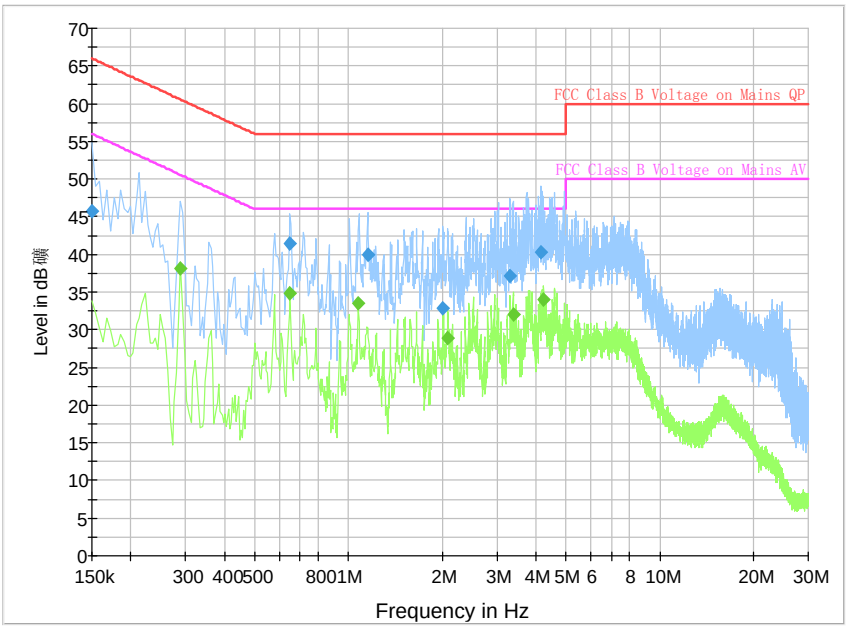


Fig.19 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	45.8	GND	N	20.1	20.2	66.0
0.649500	41.4	GND	L1	19.8	14.6	56.0
1.153500	39.9	GND	L1	19.6	16.1	56.0
2.013000	32.8	GND	N	19.6	23.2	56.0
3.300000	37.2	GND	L1	19.6	18.8	56.0
4.164000	40.3	GND	L1	19.7	15.7	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.289500	38.2	GND	L1	19.8	12.3	50.5
0.649500	34.9	GND	L1	19.8	11.1	46.0
1.077000	33.5	GND	L1	19.7	12.5	46.0
2.080500	28.9	GND	L1	19.6	17.1	46.0
3.376500	32.0	GND	L1	19.7	14.0	46.0
4.245000	34.0	GND	L1	19.6	12.0	46.0

Note: The measurement results showed here are worst cases of the combinations of different batteries and different USB cables.

Charging Mode, Set.6

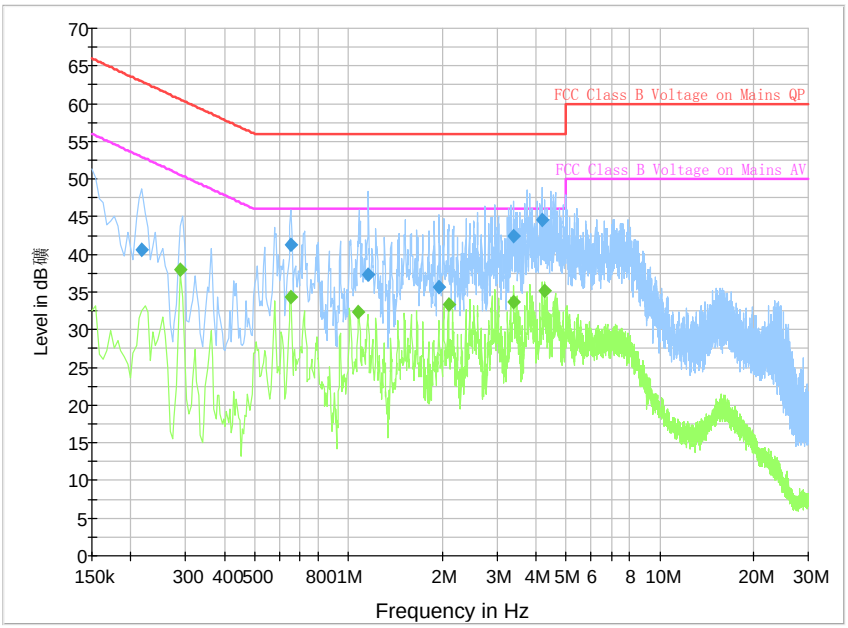


Fig.20 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.217500	40.6	GND	L1	19.8	22.3	62.9
0.654000	41.2	GND	L1	19.8	14.8	56.0
1.158000	37.3	GND	N	19.6	18.7	56.0
1.950000	35.6	GND	N	19.6	20.4	56.0
3.390000	42.4	GND	L1	19.7	13.6	56.0
4.186500	44.6	GND	L1	19.7	11.4	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.289500	37.9	GND	L1	19.8	12.6	50.5
0.654000	34.4	GND	L1	19.8	11.6	46.0
1.077000	32.4	GND	L1	19.7	13.6	46.0
2.094000	33.3	GND	L1	19.6	12.7	46.0
3.390000	33.7	GND	L1	19.7	12.3	46.0
4.258500	35.2	GND	L1	19.6	10.8	46.0

Note: The measurement results showed here are worst cases of the combinations of different batteries and different USB cables.

USB Mode, Set.7

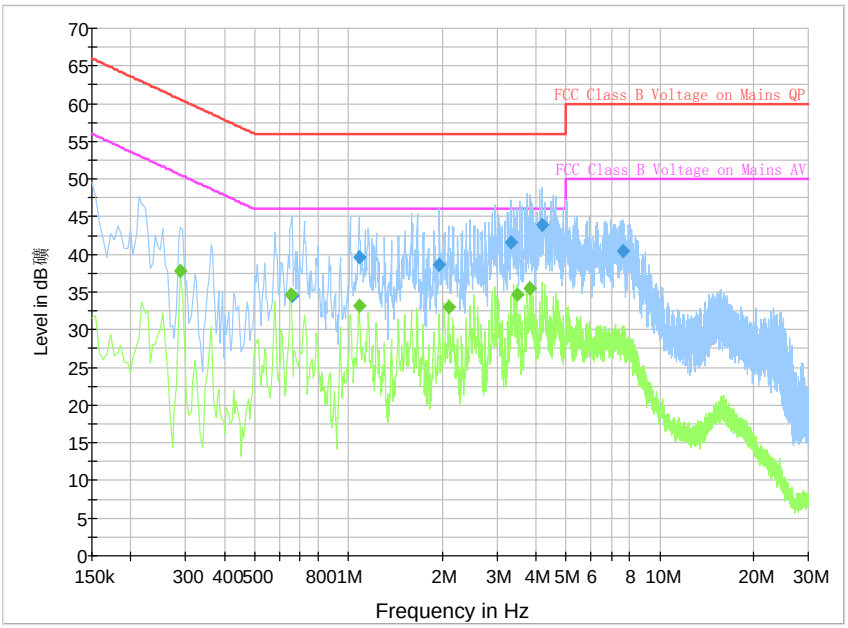


Fig.21 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.658500	34.6	GND	N	19.8	21.5	56.0
1.081500	39.6	GND	L1	19.7	16.4	56.0
1.959000	38.6	GND	N	19.6	17.4	56.0
3.318000	41.6	GND	L1	19.6	14.4	56.0
4.186500	44.0	GND	L1	19.7	12.0	56.0
7.584000	40.4	GND	L1	19.7	19.6	60.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.289500	37.9	GND	L1	19.8	12.7	50.5
0.654000	34.7	GND	L1	19.8	11.3	46.0
1.081500	33.2	GND	L1	19.7	12.8	46.0
2.094000	33.0	GND	L1	19.6	13.0	46.0
3.471000	34.7	GND	L1	19.6	11.3	46.0
3.831000	35.5	GND	L1	19.7	10.5	46.0

Note: The measurement results showed here are worst cases of the combinations of different batteries and different USB cables.

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