



# TEST REPORT

## No. I21Z62345-EMC01

For

**GSM/UMTS/LTE Mobile phone**

**Model Name: 4188R, 4188C**

**FCC ID:2ACCJH159**

with

**Hardware Version: 03**

**Software Version: LV3V**

**Issued Date: 2021-12-28**

**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: [cttl\\_terminals@caict.ac.cn](mailto:cttl_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>
I21Z62345-EMC01	Rev.0	1 <sup>st</sup> edition	2021-12-28

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

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## **1. Test Laboratory**

### **1.1. Introduction & Accreditation**

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#:24849). The detail accreditation scope can be found on NVLAP website.

### **1.2. Testing Location**

#### **CTTL(Huayuan North Road)**

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

### **1.3. Testing Environment**

Normal Temperature: 15-35°C

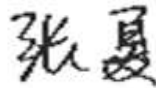
Relative Humidity: 20-75%

### **1.4. Project data**

Testing Start Date: 2021-12-07

Testing End Date: 2021-12-20

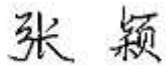
### **1.5. Signature**



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Zhang Xia

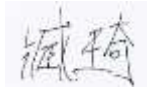
(Prepared this test report)



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Zhang Ying

(Reviewed this test report)



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Zang Qi

(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: Gong Zhizhou  
Email: [zhizhou.gong@tcl.com](mailto:zhizhou.gong@tcl.com)  
Telephone: 0086-755-36611722

### **2.2. Manufacturer Information**

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

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

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

Description	GSM/UMTS/LTE Mobile phone
Model Name	4188R, 4188C
FCC ID	2ACCJH159
Extreme vol. Limits	3.6VDC to 4.4VDC (nominal: 3.85VDC)

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL, Telecommunication Technology Labs, CAICT. According to the declaration from applicant, the Model 4188C was the same as 4188R. Only 4188R was tested in this report.

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

<b>EUT ID*</b>	<b>SN or IMEI</b>	<b>HW Version</b>	<b>SW Version</b>
UT17a	016113000203060	03	LV3V

\*EUT ID: is used to identify the test sample in the lab internally. The HW Version was provided by the applicant.

#### **3.3. Internal Identification of AE used during the test**

<b>AE ID*</b>	<b>Description</b>	<b>SN</b>	<b>Remarks</b>
AE1	Charger1	CBA0058AGTC7	CH001
AE2	Charger2	CBA0058AGTC5	CH027
AE3	Battery1	B2880006C1	BA017
AE4	Battery2	B2880012C7	BA020
AE5	Headset	CCB0049A12C1	HS001

##### AE1

Model	UC11US
Manufacturer	CHENYANG
Length of cable	1 meter

##### AE2

Model	UC11US
Manufacturer	PUAN
Length of cable	1 meter

##### AE3

Model	TLi028C1
Manufacturer	Shenzhen BYD Lithium Battery Company Limited
Length of cable	/

##### AE4

Model	TLi028C7
Manufacturer	Ningbo Veken Battery Company Limited
Length of cable	/

##### AE5

Model	CCB0049A12C1
Manufacturer	DALIN
Length of cable	1.5 meter

Note: the model, SN and manufacturer information of AE5 was provided by the client's Qs.



### **3.4. General Description**

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

### **3.5. EUT set-ups**

<b>EUT set-up No.</b>	<b>Combination of EUT and AE</b>	<b>Remarks</b>
Set.1	EUT1 + AE1+AE3	Charger C7+ Battery C1
Set.2	EUT1+ AE2+AE4+AE5	Charger C5+ Battery C7+Headset
Set.3	EUT1 + PC	Computer

## **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** (23 meters×17 meters×10 meters) did not exceed following limits along the EMC testing:

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

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

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



## 6. SUMMARY OF TEST RESULTS

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

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

## 7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURER	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESW44	103023	R&S	2022-10-28	1 year
2	LISN	ENV216	101200	R&S	2022-05-30	1 year
3	BiLog Antenna	VULB9163	9163-1223	Schwarzbeck	2022-03-22	1 year
4	EMI Antenna	3115	6914	ETS-Lindgren	2022-02-03	1 year
5	Universal Radio Communication Tester	CMW500	116588	R&S	2022-05-17	1 year
6	Test Receiver	ESCI	100344	R&S	2022-02-23	1 year

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

## **ANNEX A: MEASUREMENT RESULTS**

### **A.1 Radiated Emission**

#### **Reference**

FCC: CFR Part 15.109(a).

#### **A.1.1 Method of measurement**

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

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

#### **A.1.2 EUT Operating Mode**

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

The EUT was tested while operating in licensed band RX mode. All licensed band receivers that tune in the range of 30MHz-960MHz, as listed in the Section 3.4, are investigated. Only the worst case emissions are reported.

All equipment is placed on the test table top and arranged in a typical configuration in accordance with ANSI C63.4-2014 and manipulated to obtain worst case emissions.

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

#### **A.1.3 Measurement Limit**

Frequency range (MHz)	Field strength limit ( $\mu\text{V}/\text{m}$ )		
	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.

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

#### **A.1.4 Test Condition**

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

### A.1.5 Measurement Results

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

The measurement results are obtained as described below:

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

Where

$G_A$ : Antenna factor of receive antenna

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

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

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

### Measurement results

#### Charging, WCDMA 850MHz RX and camera 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)
17905.933	45.8	-29.3	46.0	29.172	54	8.2	V
17971.100	45.5	-29.1	46.7	27.901	54	8.5	H
17985.267	45.4	-29.1	46.7	27.798	54	8.6	H
17932.567	45.4	-29.4	46.7	28.139	54	8.6	H
17547.800	45.3	-29.5	44.4	30.434	54	8.7	V
17967.700	45.3	-29.1	46.7	27.701	54	8.7	H

##### 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)
17942.767	55.5	-28.9	46.7	37.783	74	18.5	V
17266.733	55.3	-29.7	43.4	41.690	74	18.7	V
17568.767	55.0	-29.8	45.2	39.546	74	19.0	V
17648.667	54.9	-29.6	45.2	39.253	74	19.1	V
17950.133	54.7	-28.9	46.7	36.983	74	19.3	V
17554.033	54.6	-29.5	44.4	39.734	74	19.4	V

### Charging and GSM 850 RX 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)
17986.967	45.9	-29.1	46.7	28.298	54	8.1	V
17986.400	45.8	-29.1	46.7	28.198	54	8.2	H
17996.033	45.8	-29.1	46.7	28.198	54	8.2	H
17922.367	45.8	-29.4	46.7	28.539	54	8.2	H
17373.267	45.8	-30.0	43.4	32.412	54	8.2	H
17913.867	45.8	-29.3	46.0	29.172	54	8.2	H

#### 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)
17988.1	55.5	-29.1	46.7	37.898	74	18.5	V
17924.6	55.5	-29.4	46.7	38.239	74	18.5	H
17562.0	54.9	-29.8	45.2	39.446	74	19.1	H
17567.6	54.9	-29.8	45.2	39.446	74	19.1	V
17986.4	54.7	-29.1	46.7	37.098	74	19.3	H
17921.2	54.7	-29.4	46.7	37.439	74	19.3	V

### Charging, MP3 and LTE Band 12 RX 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)
17956.933	46.3	-28.9	46.7	28.583	54	7.7	V
17958.633	45.9	-28.9	46.7	28.183	54	8.1	H
17891.200	45.9	-29.5	46.0	29.480	54	8.1	V
17942.200	45.8	-28.9	46.7	28.083	54	8.2	H
17358.533	45.6	-30.0	43.4	32.212	54	8.4	V
17952.967	45.6	-28.9	46.7	27.883	54	8.4	V

#### 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)
17993.767	55.1	-29.1	46.7	37.498	74	18.9	H
17189.667	54.9	-29.5	42.4	42.024	74	19.1	H
17546.100	54.8	-29.5	44.4	39.934	74	19.2	H
17769.933	54.6	-29.6	46.0	38.272	74	19.4	H
17915.567	54.5	-29.3	46.7	37.165	74	19.5	H
17997.733	54.4	-29.1	46.7	36.798	74	19.6	H

**USB mode**
**Average detector**

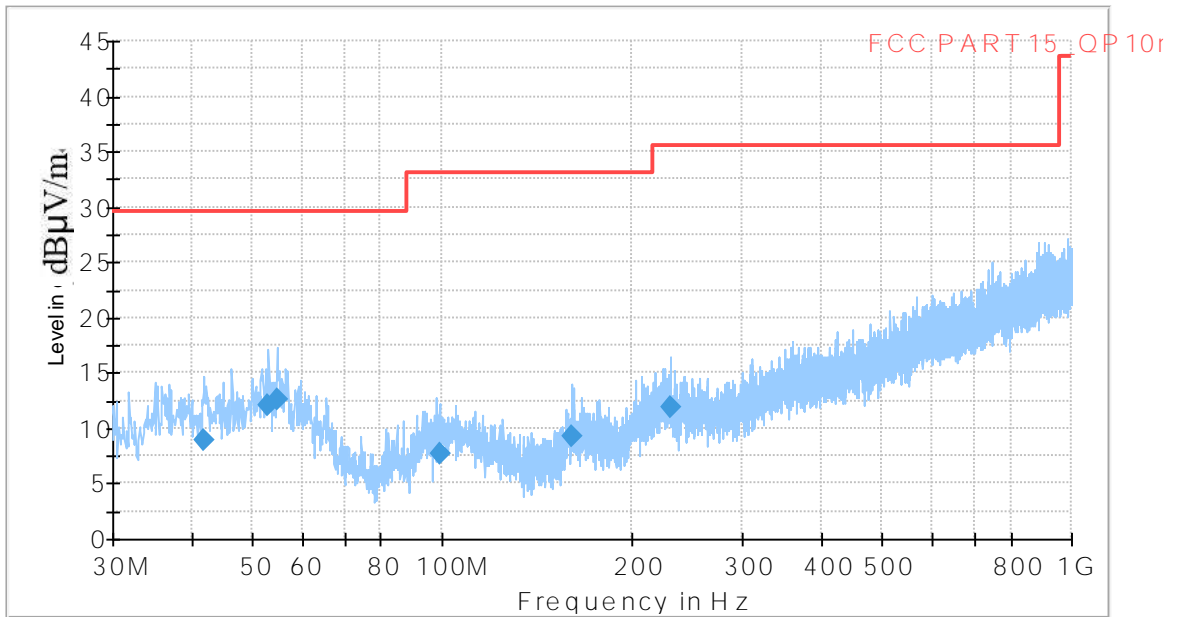
Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)
17914.433	46.7	-29.3	46.7	29.365	54	7.3	H
17567.067	46.5	-29.8	45.2	31.046	54	7.5	H
17947.867	46.5	-28.9	46.7	28.783	54	7.5	V
17340.400	46.4	-30.0	43.4	33.012	54	7.6	V
17862.867	46.2	-29.4	46.0	29.639	54	7.8	V
17172.100	46.1	-29.8	42.4	33.517	54	7.9	H

**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)
17567.067	55.7	-29.8	45.2	40.246	74	18.3	V
17862.867	55.7	-29.4	46.0	39.139	74	18.3	H
17657.733	55.6	-29.6	45.2	39.953	74	18.4	H
17929.167	55.5	-29.4	46.7	38.239	74	18.5	V
16597.500	55.4	-29.8	39.8	45.421	74	18.6	H
17991.500	55.4	-29.1	46.7	37.798	74	18.6	H

**Charging, WCDMA 850MHz RX and camera mode**

Full Spectrum



- Preview Result 1-PK+ [Preview Result 1.Result:1]
- \* Critical\_Freqs PK+ [Critical\_Freqs.Result:4]
- FCC PART 15\_QP 10m [.\]
- ◆ Final\_Result QPK [Final\_Result.Result:4]

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

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
41.834000	8.94	29.54	20.60	2000.0	120.000	275.0	V	120.0	-11.5
52.989000	12.09	29.54	17.45	2000.0	120.000	125.0	V	190.0	-11.3
54.638000	12.57	29.54	16.97	2000.0	120.000	101.0	V	279.0	-11.3
99.064000	7.67	33.06	25.39	2000.0	120.000	215.0	V	62.0	-12.5
160.465000	9.30	33.06	23.76	2000.0	120.000	200.0	V	120.0	-15.1
231.081000	11.99	35.56	23.57	2000.0	120.000	125.0	V	120.0	-10.8



Full Spectrum

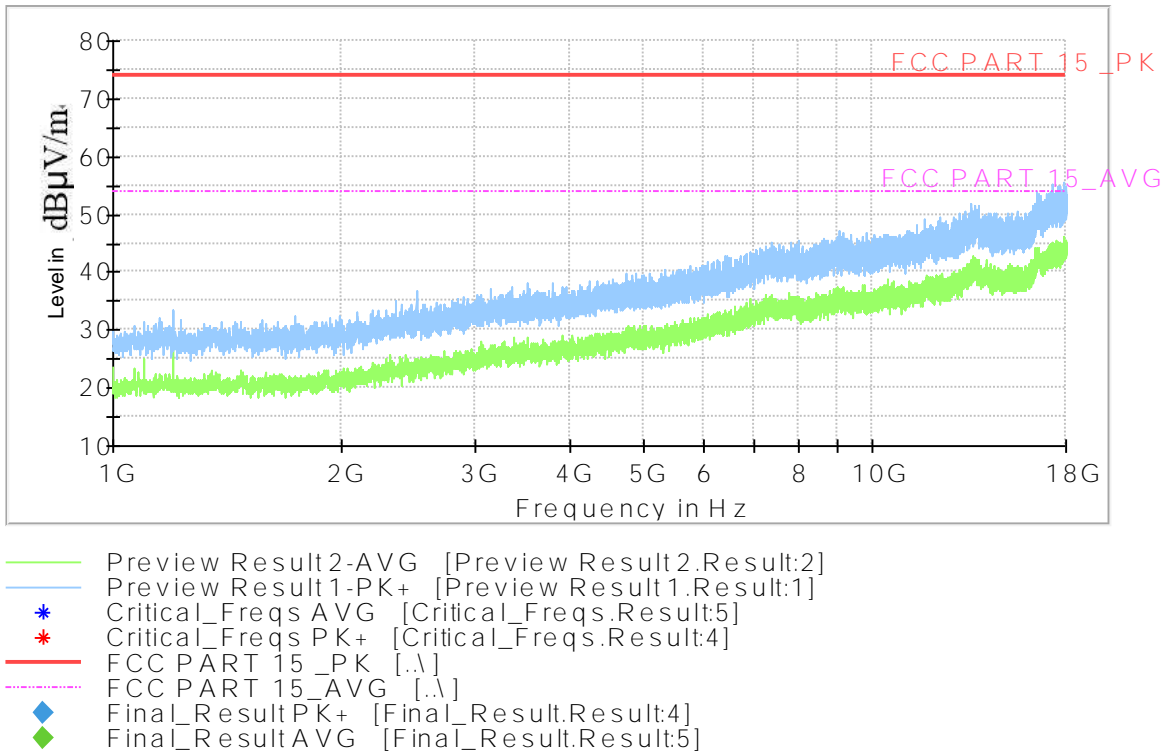
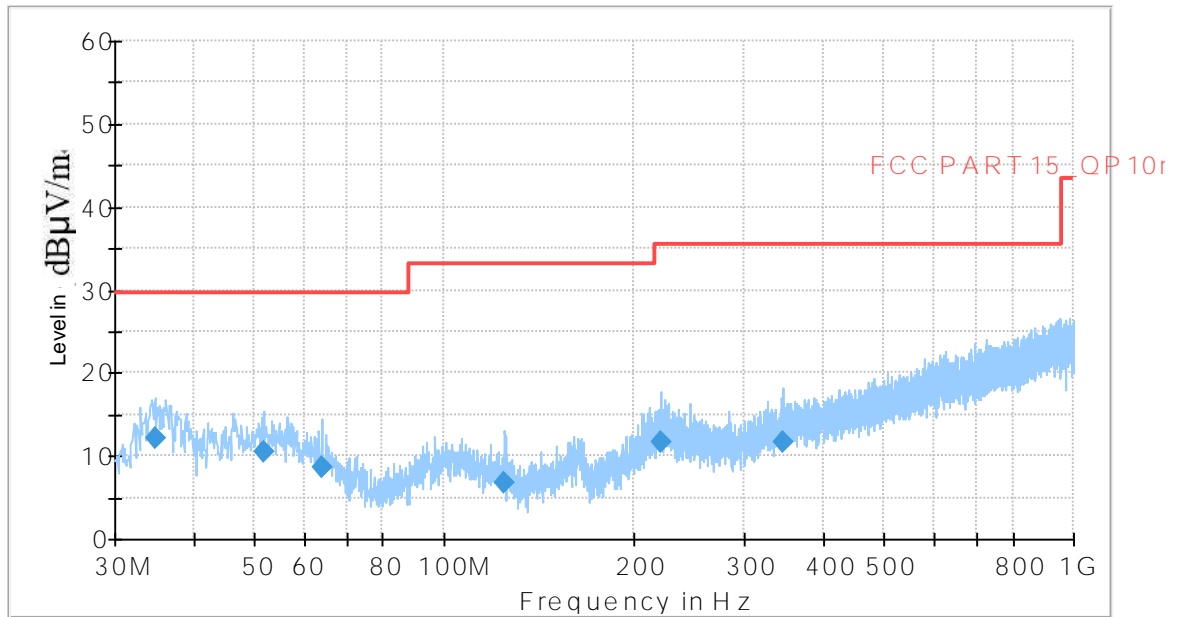


Figure A.2 Radiated Emission from 1GHz to 18GHz

**Charging and GSM 850 RX mode**

Full Spectrum

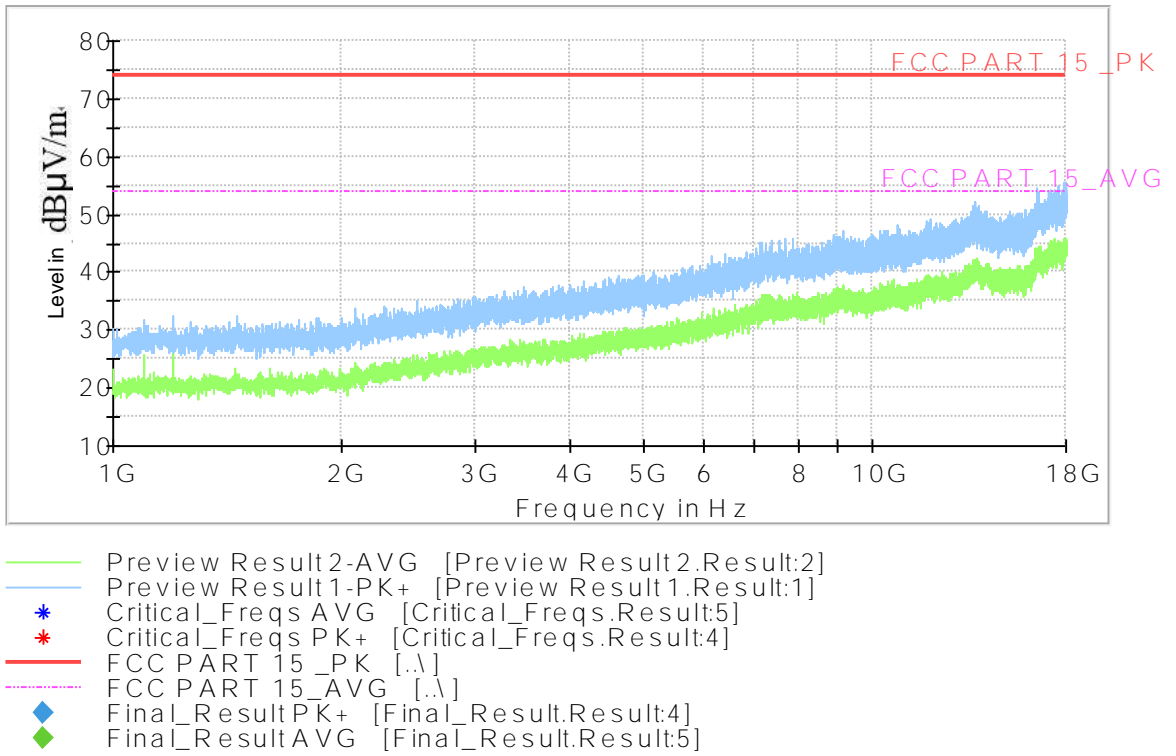


- Preview Result1-PK+ [Preview Result1.Result:1]
- \* Critical\_Freqs PK+ [Critical\_Freqs.Result:4]
- FCC PART 15\_QP 10m [.\]
- ◆ Final\_Result QPK [Final\_Result.Result:4]

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

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
34.753000	12.13	29.54	17.41	2000.0	120.000	276.0	V	60.0	-13.5
51.728000	10.62	29.54	18.92	2000.0	120.000	205.0	V	120.0	-11.1
63.950000	8.61	29.54	20.93	2000.0	120.000	107.0	V	210.0	-13.3
124.866000	6.85	33.06	26.21	2000.0	120.000	200.0	V	120.0	-14.9
221.672000	11.64	35.56	23.92	2000.0	120.000	180.0	V	210.0	-10.9
345.056000	11.72	35.56	23.84	2000.0	120.000	320.0	V	-30.0	-6.9

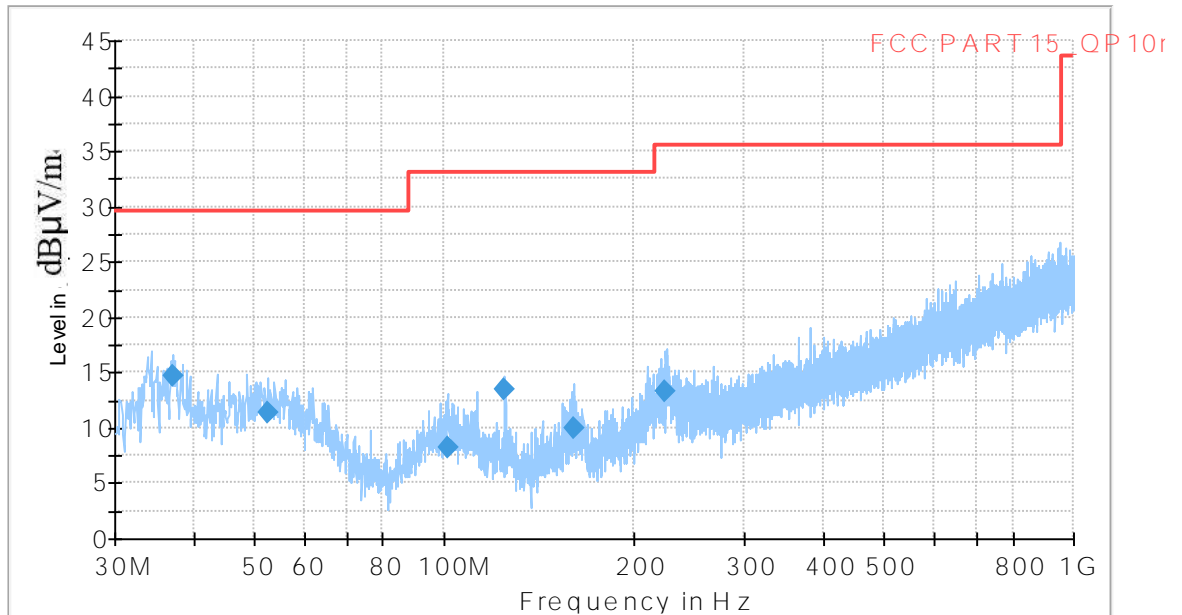
Full Spectrum



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

### Charging, MP3 and LTE Band 12 RX mode

Full Spectrum

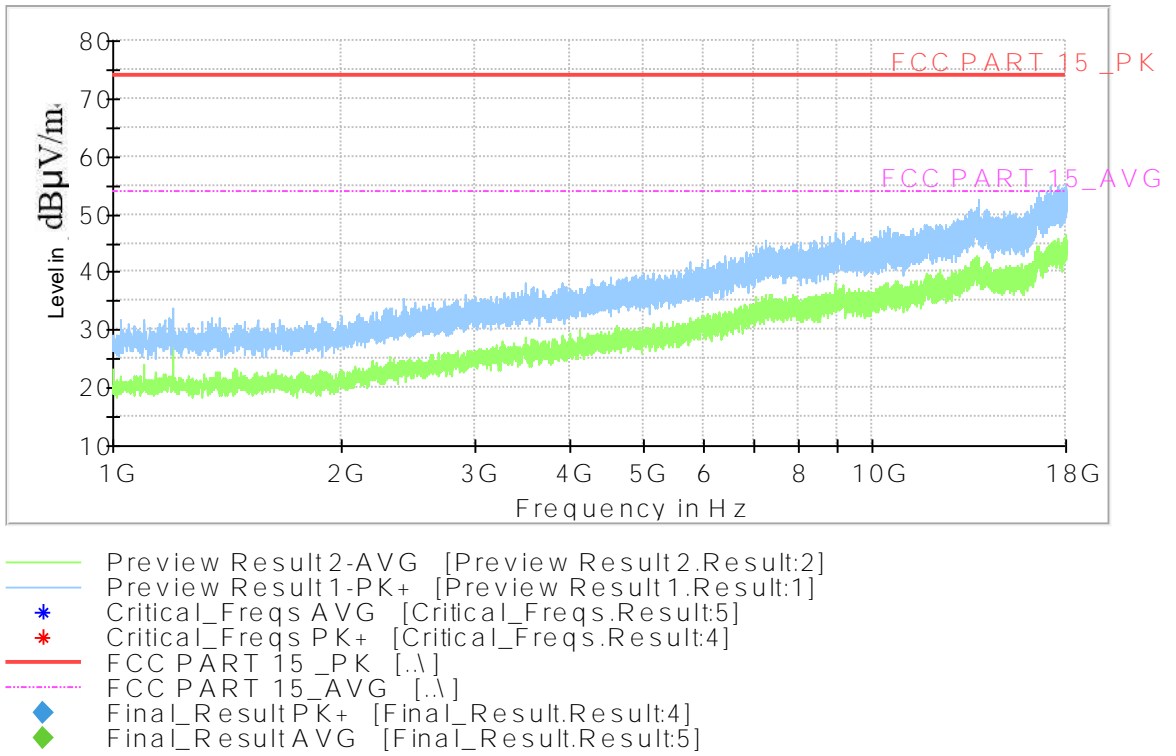


- Preview Result 1-PK+ [Preview Result 1.Result:1]
- \* Critical\_Freqs PK+ [Critical\_Freqs.Result:4]
- FCC PART 15\_QP 10r [..]
- ◆ Final\_Result QPK [Final\_Result.Result:4]

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

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
37.081000	14.64	29.54	14.90	2000.0	120.000	125.0	V	30.0	-12.7
52.504000	11.33	29.54	18.21	2000.0	120.000	107.0	V	-30.0	-11.2
101.101000	8.22	33.06	24.84	2000.0	120.000	276.0	V	-30.0	-12.5
124.963000	13.44	33.06	19.62	2000.0	120.000	321.0	V	80.0	-14.9
160.562000	9.99	33.06	23.07	2000.0	120.000	125.0	V	120.0	-15.1
225.067000	13.27	35.56	22.29	2000.0	120.000	125.0	V	151.0	-10.9

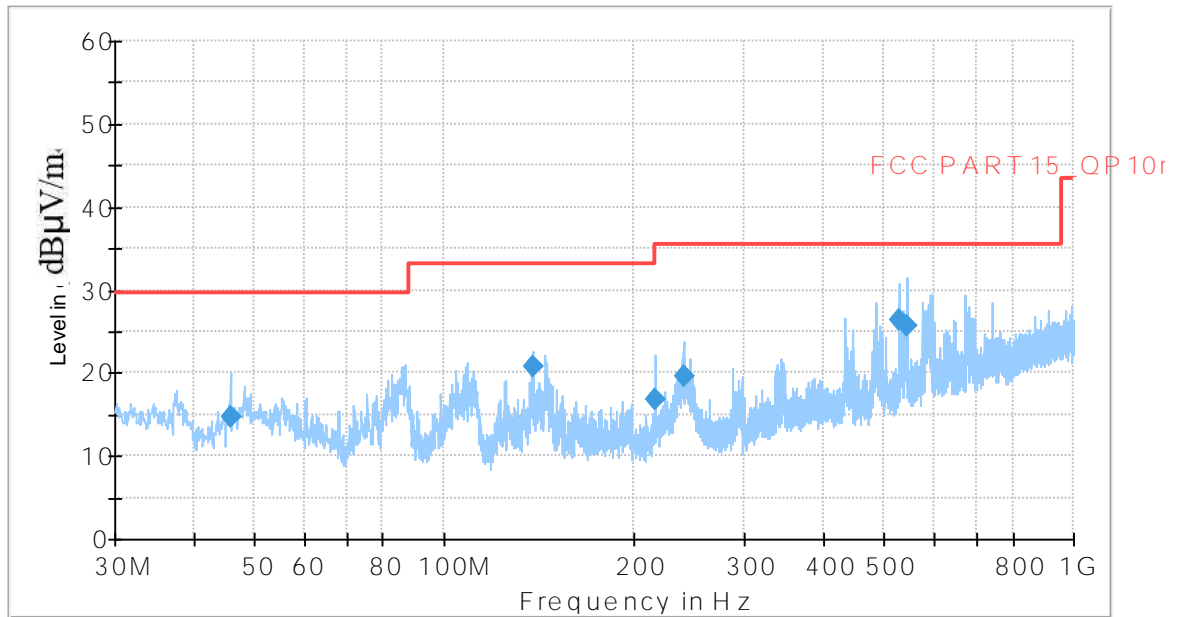
Full Spectrum



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

**USB mode**

## Full Spectrum



- Preview Result1-PK+ [Preview Result1.Result:1]
- \* Critical\_Freqs PK+ [Critical\_Freqs.Result:4]
- FCC PART 15\_QP 10m [..]
- ◆ Final\_Result QPK [Final\_Result.Result:4]

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

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
45.811000	14.80	29.54	14.74	2000.0	120.000	118.0	V	210.0	-11.4
138.155000	20.69	33.06	12.37	2000.0	120.000	275.0	V	151.0	-15.7
215.949000	16.80	33.06	16.26	2000.0	120.000	125.0	V	31.0	-11.3
240.005000	19.67	35.56	15.89	2000.0	120.000	100.0	V	140.0	-10.3
528.386000	26.40	35.56	9.16	2000.0	120.000	215.0	V	-10.0	-3.0
545.070000	25.74	35.56	9.82	2000.0	120.000	276.0	V	10.0	-2.6

Full Spectrum

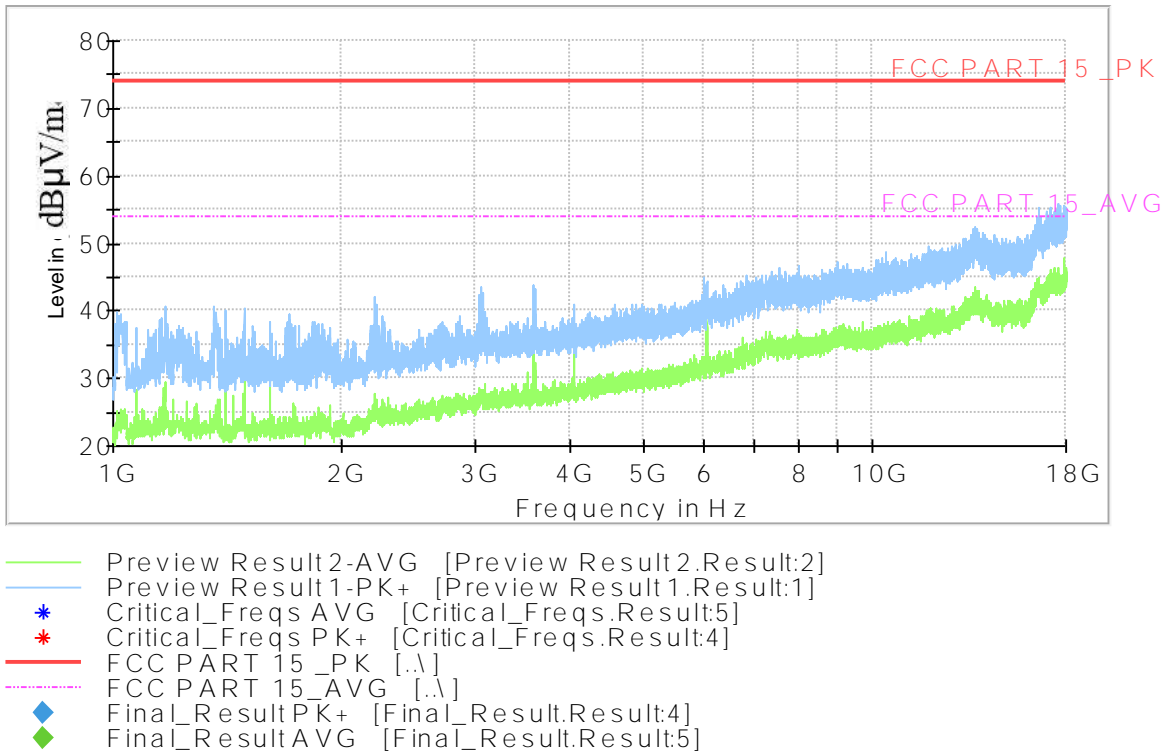


Figure A.12 Radiated Emission from 1GHz to 18GHz

## A.2 Conducted Emission

### Reference

FCC: CFR Part 15.107(a).

#### A.2.1 Method of measurement

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits. Tested in accordance with the procedures of ANSI C63.4 – 2014, section 7.3.

#### A.2.2 EUT Operating Mode

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

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

#### A.2.3 Measurement Limit

Frequency of emission (MHz)	Conducted limit (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

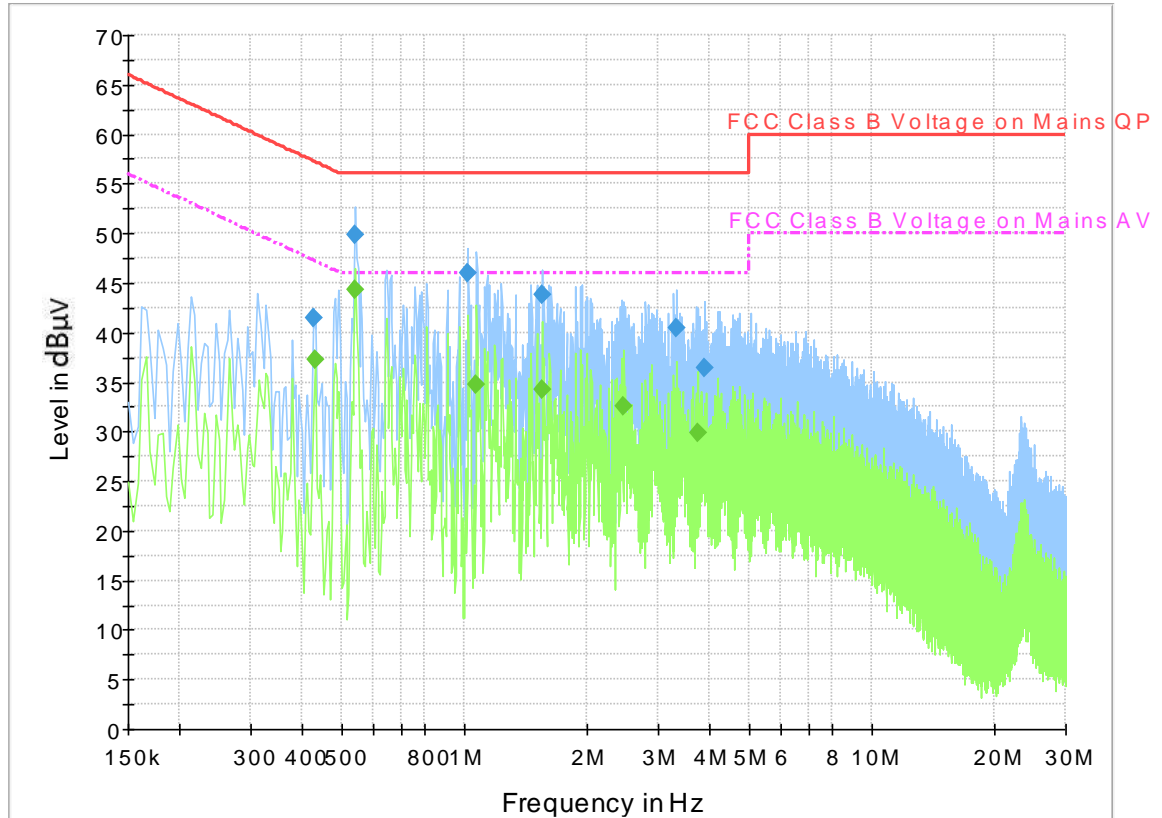
RBW/IF bandwidth	Sweep Time(s)
9kHz	1



### A.2.5 Measurement Results

Measurement uncertainty:  $U= 3.10$  dB,  $k=2$ .

Charging, WCDMA 850MHz RX and camera mode



**Figure A.15 Conducted Emission**

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

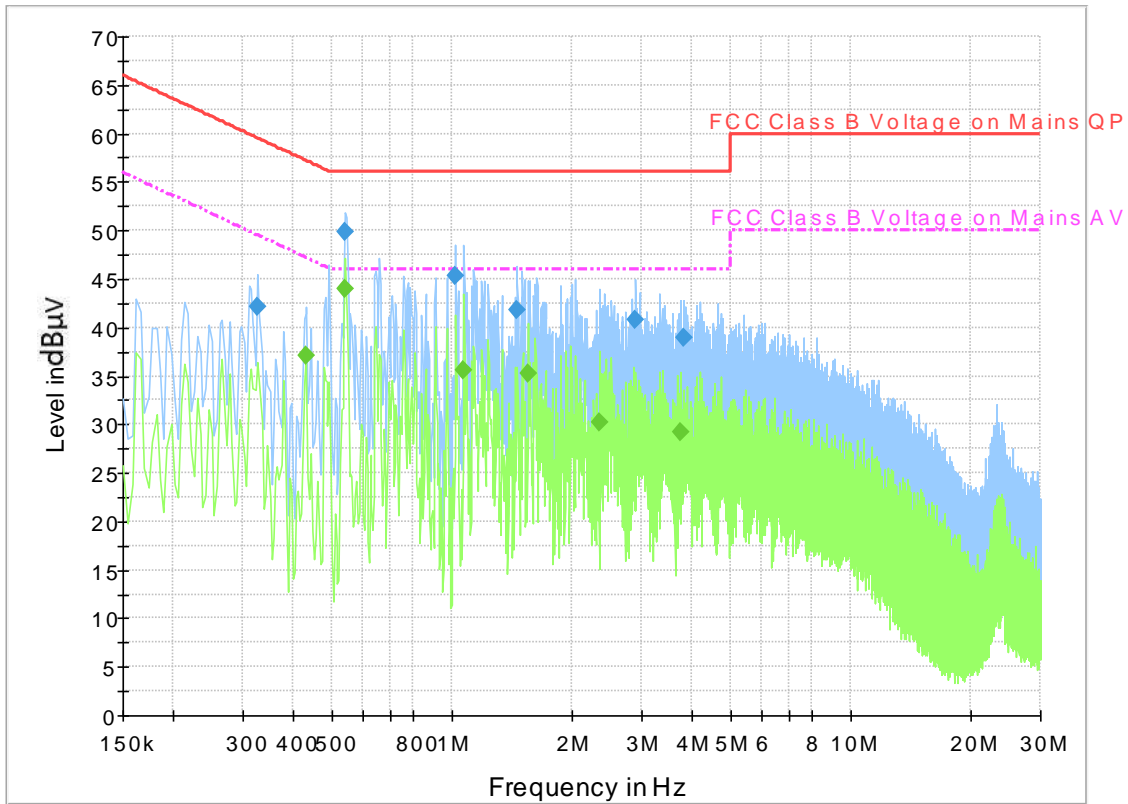
#### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.426000	41.5	GND	L1	19.9	15.9	57.3
0.542000	49.9	GND	L1	19.9	6.1	56.0
1.022000	46.0	GND	L1	19.6	10.0	56.0
1.558000	43.8	GND	L1	19.5	12.2	56.0
3.334000	40.5	GND	L1	19.5	15.5	56.0
3.910000	36.5	GND	L1	19.5	19.5	56.0

#### Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.430000	37.2	GND	L1	19.9	10.1	47.3
0.542000	44.4	GND	L1	19.9	1.6	46.0
1.074000	34.8	GND	L1	19.6	11.2	46.0
1.558000	34.3	GND	L1	19.5	11.7	46.0
2.474000	32.6	GND	L1	19.5	13.4	46.0
3.766000	29.9	GND	L1	19.5	16.1	46.0

### Charging and GSM 850 RX mode



**Figure A.16 Conducted Emission**

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

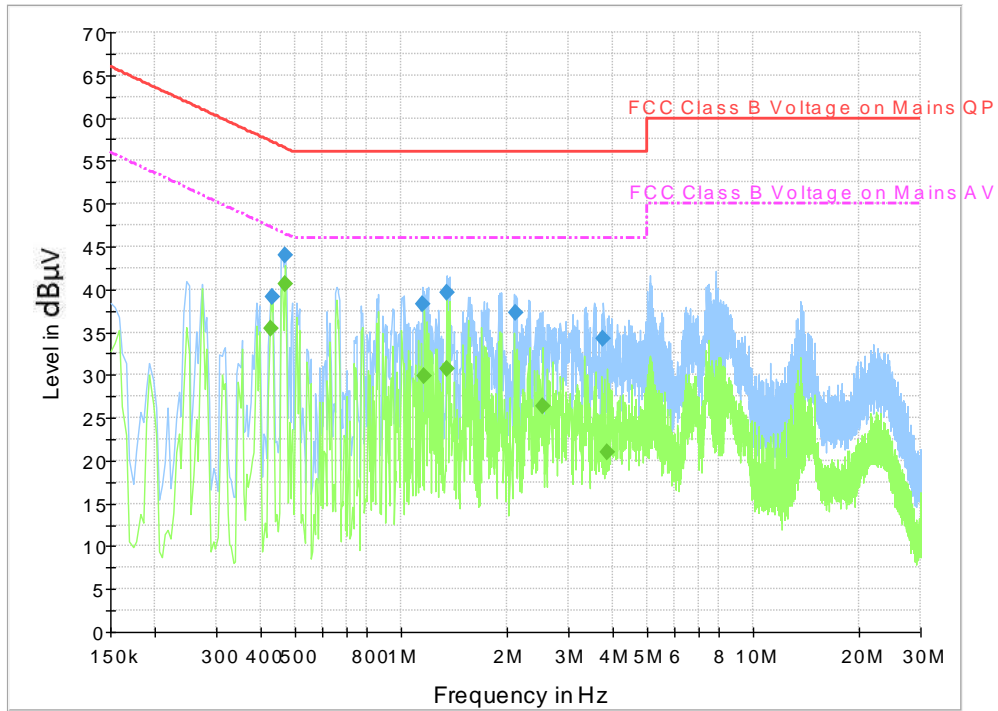
#### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.326000	42.1	GND	L1	19.9	17.4	59.6
0.542000	49.9	GND	L1	19.9	6.1	56.0
1.022000	45.3	GND	L1	19.6	10.7	56.0
1.458000	41.9	GND	L1	19.5	14.1	56.0
2.902000	40.7	GND	L1	19.5	15.3	56.0
3.814000	39.0	GND	L1	19.5	17.0	56.0

#### Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.430000	37.2	GND	L1	19.9	10.1	47.3
0.542000	44.0	GND	L1	19.9	2.0	46.0
1.074000	35.5	GND	L1	19.6	10.5	46.0
1.558000	35.3	GND	L1	19.5	10.7	46.0
2.362000	30.3	GND	L1	19.5	15.7	46.0
3.770000	29.3	GND	L1	19.5	16.7	46.0

### USB mode



**Figure A.17 Conducted Emission**

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

### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.430000	39.2	GND	L1	19.9	18.1	57.3
0.470000	43.9	GND	N	20.0	12.6	56.5
1.158000	38.3	GND	L1	19.6	17.7	56.0
1.350000	39.6	GND	L1	19.5	16.4	56.0
2.130000	37.3	GND	L1	19.5	18.7	56.0
3.770000	34.2	GND	N	19.7	21.8	56.0

### Final Result 2

Frequency (MHz)	CAverage (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.426000	35.4	GND	L1	19.9	11.9	47.3
0.470000	40.6	GND	N	20.0	5.9	46.5
1.170000	29.8	GND	L1	19.6	16.2	46.0
1.354000	30.7	GND	N	19.8	15.3	46.0
2.526000	26.3	GND	N	19.7	19.7	46.0
3.870000	21.0	GND	L1	19.5	25.0	46.0



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

Test Item	Tester
Radiated Emission	Li Pengfei, Yan Hanchen
Conducted Emission	Zhang Xia, Meng Qingbo

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