



# FCC 15B TEST REPORT

No. I19Z62263-EMC01

for

**Shenzhen Tinno Mobile Technology Corp.**

**Smart Phone**

**Model Name: Wiko U520AS**

**FCC ID: XD6U520AS**

with

**Hardware Version: V1.0**

**Software Version: U520ASV01.10.10**

**Issued Date: 2020-03-06**

**Note:**

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**Test Laboratory:**

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I19Z62263-EMC01	Rev.0	1 <sup>st</sup> edition	2020-03-06

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## 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

#### Location 4: CTTL(BDA)

Address: No.18A, Kangding Street, Beijing  
Economic-Technology Development Area, Beijing, P.  
R. China 100176

### 1.2. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

### 1.3. Project data

Testing Start Date: 2020-02-27

Testing End Date: 2020-03-06

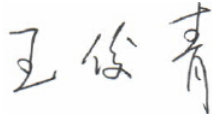
### 1.4. Signature



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Zhang Ying

(Prepared this test report)



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Wang Junqing

(Reviewed this test report)



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Liu Baodian

(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: Shenzhen Tinno Mobile Technology Corp.  
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Road, Nan Shan District,Shenzhen, P.R.China  
City: Shenzhen  
Postal Code: /  
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### **2.2. Manufacturer Information**

Company Name: Shenzhen Tinno Mobile Technology Corp.  
Address /Post: 4/F, H-3 Building,OCT Eastern Industrial Park. NO.1 XiangShan East  
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City: Shenzhen  
Postal Code: /  
Country: China  
Telephone: 0755-86095550  
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### **3. Equipment Under Test (EUT) and Ancillary Equipment (AE)**

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

Description	Smart Phone
Model Name	Wiko U520AS
FCC ID	XD6U520AS
Power Supply	3.8V DC by Battery

This device contains the receivers which tune and operate between 30MHz-960MHz in the following bands:

GSM850MHz, WCDMA850MHz, CDMA850(BC0), CDMA800(BC10), LTE bands 5/12/13/26.

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**

<b>EUT ID*</b>	<b>SN or IMEI</b>	<b>HW Version</b>	<b>SW Version</b>
EUT1	860055040007604	V1.0	U520ASV01.10.10

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

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

<b>AE ID*</b>	<b>Description</b>	<b>SN</b>	<b>Remarks</b>
AE1	Battery	/	/
AE2	Charger	/	/
AE3	USB Cable	/	/
AE4	USB Cable	/	/
AE5	USB Cable	/	No test
AE6	USB Cable	/	No test
AE7	USB Cable	/	No test
AE8	USB Cable	/	No test

AE1

Model	LT25H446077J
Manufacturer	Ningbo Veken Battery Co., Ltd. No.2, Area 0212, West Zone, Free Trade Zone, Ningbo, Zhejiang Province, China
Capacitance	2500 mAh
Nominal voltage	3.8V

AE2

Model	TN-050100U6
Manufacturer	Guangdong Beicom Electronics Co.,Ltd
Length of cable	/



AE3

Model 336189  
SN P103-BFT132-010  
Manufacturer /  
Length of cable /

AE4

Model T365-004  
SN P103-BL4130-000  
Manufacturer /  
Length of cable /

AE5

Model 336189  
SN P103-ASH130-000  
Manufacturer /  
Length of cable /

AE6

Model 336189  
SN P103-BFT131-010  
Manufacturer /  
Length of cable /

AE7

Model T365-004  
SN P103-BMX131-000  
Manufacturer /  
Length of cable /

AE8

Model T365-004  
SN P103-BL4132-000  
Manufacturer /  
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.3	EUT1 + AE1 + AE2	Charger
Set.4	EUT1 + AE1 + AE3/AE4 + headset	USB + FM

## 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

**Semi-anechoic chamber SAC-2** (10 meters×6.7meters×6.1meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 1 Ω
Normalised site attenuation (NSA)	< ±4 dB, 3 m distance, from 30 to 1000 MHz
Site voltage standing-wave ratio ( $S_{VSWR}$ )	Between 0 and 6 dB, from 1GHz to 18GHz
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)	A.1	P	1/4
2	Conducted Emission	15.107(a)	A.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	2020-03-14	1 year
2	LISN	ENV216	101200	Rohde & Schwarz	2020-04-27	1 year
3	EMI Antenna	VULB 9163	482	Schwarzbeck	2020-09-16	1 year
4	EMI Antenna	3117	00139065	ETS-Lindgren	2020-11-10	1 year
5	Test Receiver	ESU26	100376	Rohde & Schwarz	2020-10-30	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
10	EMI Antenna	VULB 9163	9163-1222	Schwarzbeck	2020-03-14	1 year
11	EMI Antenna	3115	00167250	ETS-Lindgren	2020-05-14	1 year
12	Test Receiver	ESU26	100235	Rohde & Schwarz	2021-03-05	1 year

### Location 4: CTTL(BDA)

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

### Location 1: CTTL(huayuan North Road)

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.

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 2.2, 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): 30MHz-1GHz: 5.16dB, 1GHz-18GHz: 5.44dB,  $k=2$ .

### Measurement results for Set.3:

#### Charging and GSM850MHz idle QP detector

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
40.573000	34.8	40.0	5.2	100.0	V	80.0
42.804000	32.9	40.0	7.1	100.0	V	76.0
57.451000	26.1	40.0	13.9	100.0	V	69.0
60.749000	25.6	40.0	14.4	100.0	V	55.0
85.969000	21.8	40.0	18.2	110.0	V	209.0
870.311000	30.1	46.0	15.9	110.0	V	4.0

#### Charging and GSM850MHz idle Average detector

Frequency (MHz)	Result(dB $\mu$ V/m)	$G_{\text{PL}}$ (dB)	$G_A$ (dB/m)	$P_{\text{Mea}}$ (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Polarity
17004.500	42.13	-26.7	41.7	27.09	54.0	H
17020.000	42.09	-26.6	41.7	27.10	54.0	V
17050.500	41.99	-26.4	41.6	27.11	54.0	V
17017.500	41.98	-26.6	41.7	27.10	54.0	V
17014.000	41.97	-26.6	41.7	26.65	54.0	V
17090.500	41.97	-26.1	41.6	26.97	54.0	V

#### Charging and GSM850MHz idle Peak detector

Frequency (MHz)	Result(dB $\mu$ V/m)	$G_{\text{PL}}$ (dB)	$G_A$ (dB/m)	$P_{\text{Mea}}$ (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Polarity
17913.000	54.2	-26.1	41.3	39.72	74.0	H
17590.000	54.2	-26.4	41.2	39.50	74.0	V
17003.000	54.0	-26.7	41.7	39.76	74.0	V
16965.000	54.0	-26.9	41.7	39.45	74.0	H
16995.500	54.0	-26.7	41.7	39.72	74.0	V
17016.000	53.9	-26.6	41.7	39.40	74.0	V

**Measurement results for Set.4:**
**USB & FM Mode /QP detector**

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
36.596000	24.7	40.0	15.3	125.0	V	125.0
58.227000	25.9	40.0	14.1	100.0	V	100.0
84.223000	28.3	40.0	11.7	110.0	V	110.0
216.531000	36.5	46.0	9.5	125.0	H	125.0
240.781000	34.3	46.0	11.7	125.0	H	125.0
519.559000	39.0	46.0	7.0	125.0	V	125.0

**USB & FM Mode & 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/m)	Limit (dB $\mu$ V/m)	Polarity
17049.500	42.25	-26.4	41.6	43.53	54.0	H
17012.500	42.13	-26.6	41.7	43.28	54.0	H
17047.000	41.95	-26.4	41.7	27.22	54.0	H
17024.500	41.95	-26.6	41.7	27.24	54.0	H
17974.500	41.95	-25.9	41.3	27.16	54.0	H
17027.000	41.93	-26.5	41.7	27.06	54.0	V

**USB & FM Mode & 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/m)	Limit (dB $\mu$ V/m)	Polarity
17526.500	54.7	-26.4	41.2	40.17	74.0	V
17643.000	54.6	-26.5	41.2	39.96	74.0	H
17043.500	54.3	-26.4	41.7	39.71	74.0	V
17048.500	54.2	-26.4	41.7	39.43	74.0	V
17728.000	54.0	-26.5	41.2	39.34	74.0	H
16918.500	54.0	-27.0	41.6	39.26	74.0	V

**Measurement results for Set.3:**

## Charging and WCDMA 850MHz idle QP detector

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
58.490000	20.79	30.00	9.21	277.0	V	300.0
63.278750	20.84	30.00	9.16	218.0	V	2.0
85.832500	17.93	30.00	12.07	125.0	V	274.0
145.610000	9.62	33.50	23.90	308.0	V	94.0
182.235000	12.80	33.50	20.72	114.0	V	86.0
444.802500	14.41	36.00	21.61	178.0	V	179.0

**Charging and WCDMA 850MHz idle 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/m)	Limit (dB $\mu$ V/m)	Polarity
17998.300	33.2	-25.5	43.4	15.302	54.00	H
17983.567	33.0	-25.5	43.4	15.102	54.00	H
17986.400	32.8	-25.5	43.4	14.902	54.00	V
17885.533	32.8	-25.7	43.4	15.142	54.00	H
17988.100	32.8	-25.5	43.4	14.902	54.00	H
17883.833	32.8	-25.7	43.4	15.142	54.00	H

**Charging and WCDMA 850MHz idle 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/m)	Limit (dB $\mu$ V/m)	Polarity
	44.1	-25.7	43.4	26.442	74.00	H
17742.167	44.0	-25.7	43.4	26.342	74.00	H
17900.833	44.0	-25.7	43.4	26.342	74.00	V
17806.200	44.0	-25.7	43.4	26.342	74.00	H
17972.233	43.9	-25.5	43.4	26.002	74.00	H
17956.933	43.9	-25.5	43.4	26.002	74.00	H

**Measurement results for Set.3:**

## Charging and CDMA 850MHz idle QP detector

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
58.490000	20.79	30.00	9.21	277.0	V	300.0
63.278750	20.84	30.00	9.16	218.0	V	2.0
85.832500	17.93	30.00	12.07	125.0	V	274.0
145.610000	9.62	33.50	23.90	308.0	V	94.0
182.235000	12.80	33.50	20.72	114.0	V	86.0
444.802500	14.41	36.00	21.61	178.0	V	179.0

**Charging and CDMA 850MHz idle 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/m)	Limit (dB $\mu$ V/m)	Polarity
17996.033	33.5	-25.5	43.4	15.602	54.00	H
17967.133	33.2	-25.5	43.4	15.302	54.00	H
17937.667	33.2	-25.5	43.4	15.302	54.00	V
17964.867	33.1	-25.5	43.4	15.202	54.00	H
17966.000	33.1	-25.5	43.4	15.202	54.00	H
17982.433	33.1	-25.5	43.4	15.202	54.00	H

**Charging and CDMA 850MHz idle 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/m)	Limit (dB $\mu$ V/m)	Polarity
17988.100	44.7	-25.5	43.4	26.802	74.00	H
17978.467	44.2	-25.5	43.4	26.302	74.00	H
17881.567	43.9	-25.7	43.4	26.242	74.00	V
17937.667	43.9	-25.5	43.4	26.002	74.00	H
17843.600	43.8	-25.7	43.4	26.142	74.00	H
17915.567	43.7	-25.5	43.4	25.802	74.00	H



**Measurement results for Set.3:**

## Charging and LTE band 12 idle QP detector

Frequency (MHz)	QuasiPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
56.305000	20.80	30.00	9.20	294.0	V	294.0
62.246250	21.48	30.00	8.52	100.0	V	-1.0
87.102500	17.72	30.00	12.28	125.0	V	-29.0
145.548750	12.36	33.50	21.16	125.0	V	101.0
173.986250	12.22	33.50	21.30	125.0	V	96.0
240.065000	10.21	36.00	25.81	178.0	V	16.0

**Charging and LTE band 12 idle 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/m)	Limit (dB $\mu$ V/m)	Polarity
17969.967	33.1	-25.5	43.4	15.202	54.00	H
17998.300	33.0	-25.5	43.4	15.102	54.00	H
17963.167	32.9	-25.5	43.4	15.002	54.00	V
17976.767	32.8	-25.5	43.4	14.902	54.00	H
17957.500	32.7	-25.5	43.4	14.802	54.00	H
17950.700	32.7	-25.5	43.4	14.802	54.00	H

**Charging and LTE band 12 idle Peak detector**

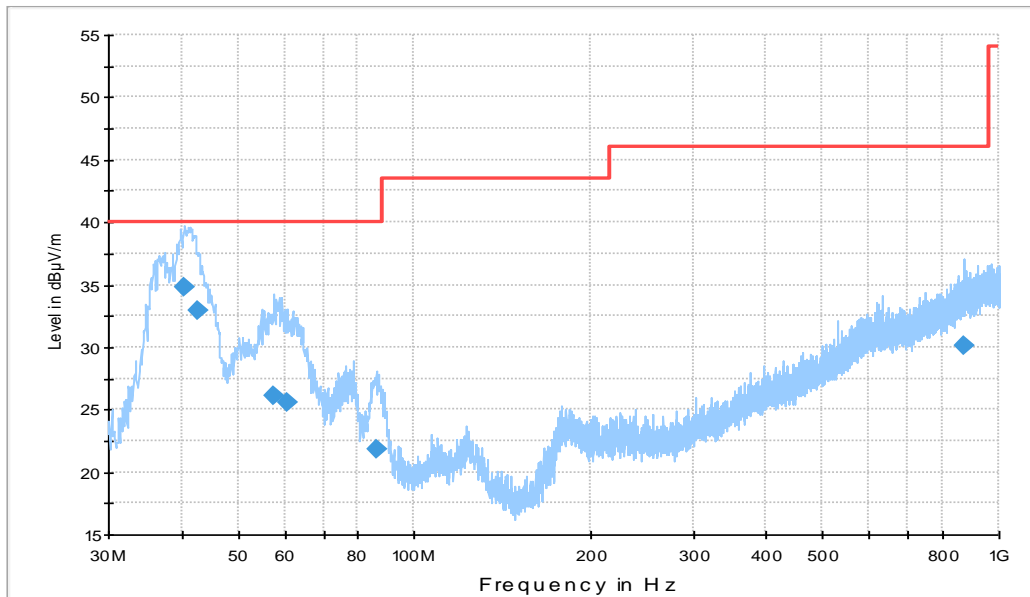
Frequency (MHz)	Result(dB $\mu$ V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Polarity
17925.200	44.3	-25.5	43.4	26.402	74.00	H
17986.967	44.2	-25.5	43.4	26.302	74.00	H
17856.633	43.9	-25.7	43.4	26.242	74.00	V
17924.067	43.8	-25.5	43.4	25.902	74.00	H
17955.233	43.7	-25.5	43.4	25.802	74.00	H
17788.067	43.6	-25.7	43.4	25.942	74.00	H

Sample calculation: Peak detector, 17925.200 MHz

$$\text{Result} = P_{\text{Mea}} (26.402\text{dB}\mu\text{V}) + G_A (43.4\text{dB/m}) + G_{\text{PL}}(-25.5 \text{ dB}) = 44.3\text{dB}\mu\text{V/m}$$

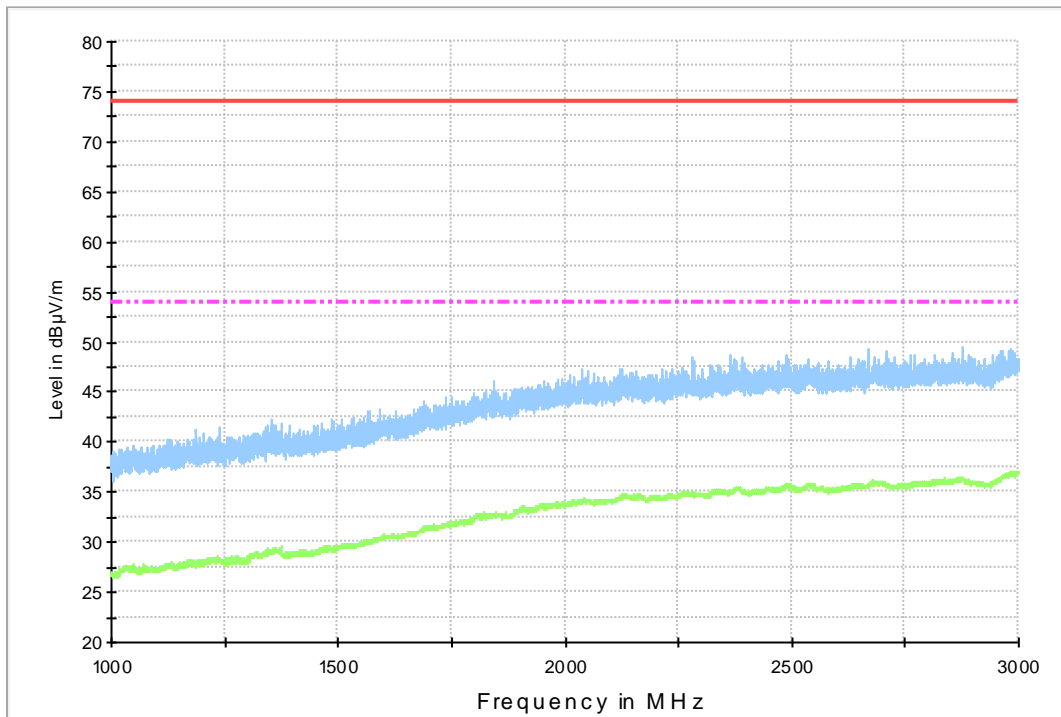
**Charging and GSM850MHz Mode, Set.3**

15B RE 30MHz-1GHz



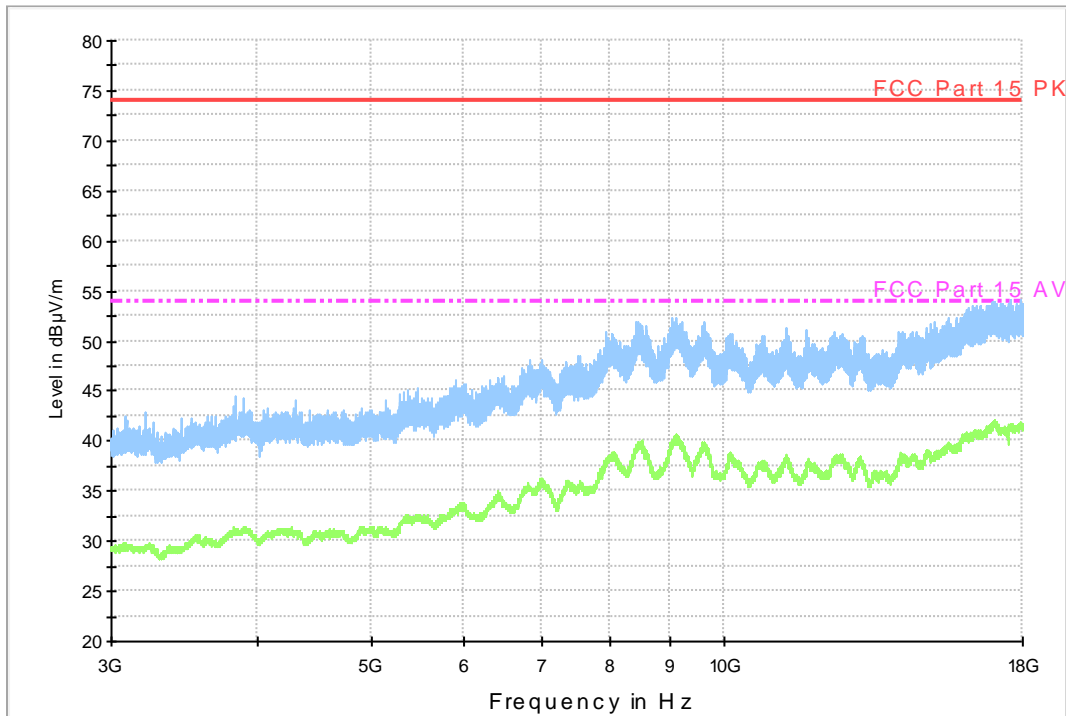
**Figure A.1 Radiated Emission from 30MHz to 1GHz distance=3m**

15B RE - 1GHz-3GHz



**Figure A.2 Radiated Emission from 1GHz to 3GHz**

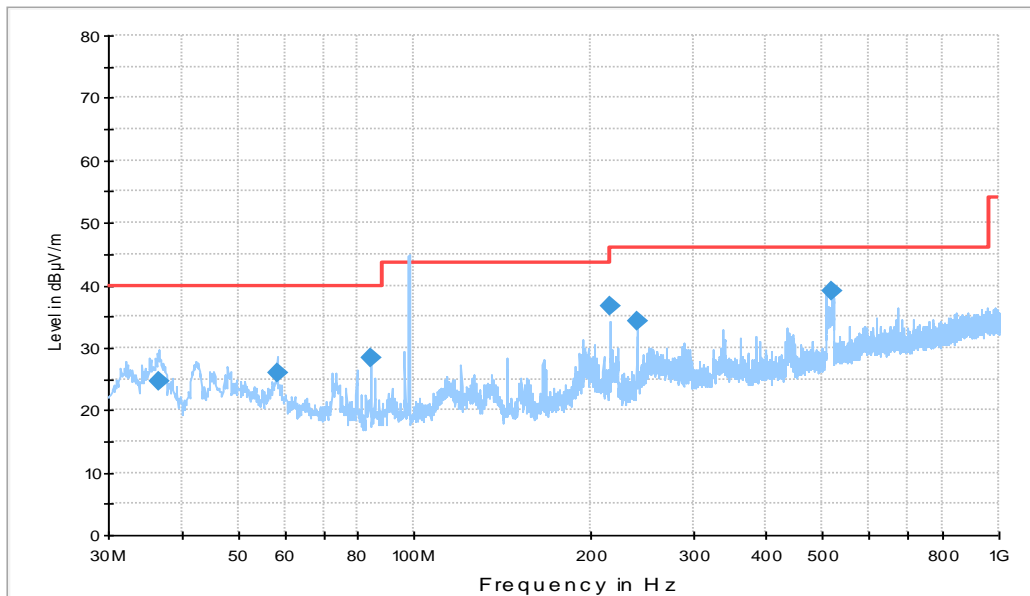
RE - 3GHz-18GHz



**Figure A.3 Radiated Emission from 3GHz to 18GHz**

**USB & FM Mode, Set.4**

15B RE 30MHz-1GHz



Note: the spike over the limit is coming from the FM traffic carrier.

**Figure A.5 Radiated Emission from 30MHz to 1GHz distance=3m**

## 15B RE - 1GHz-3GHz

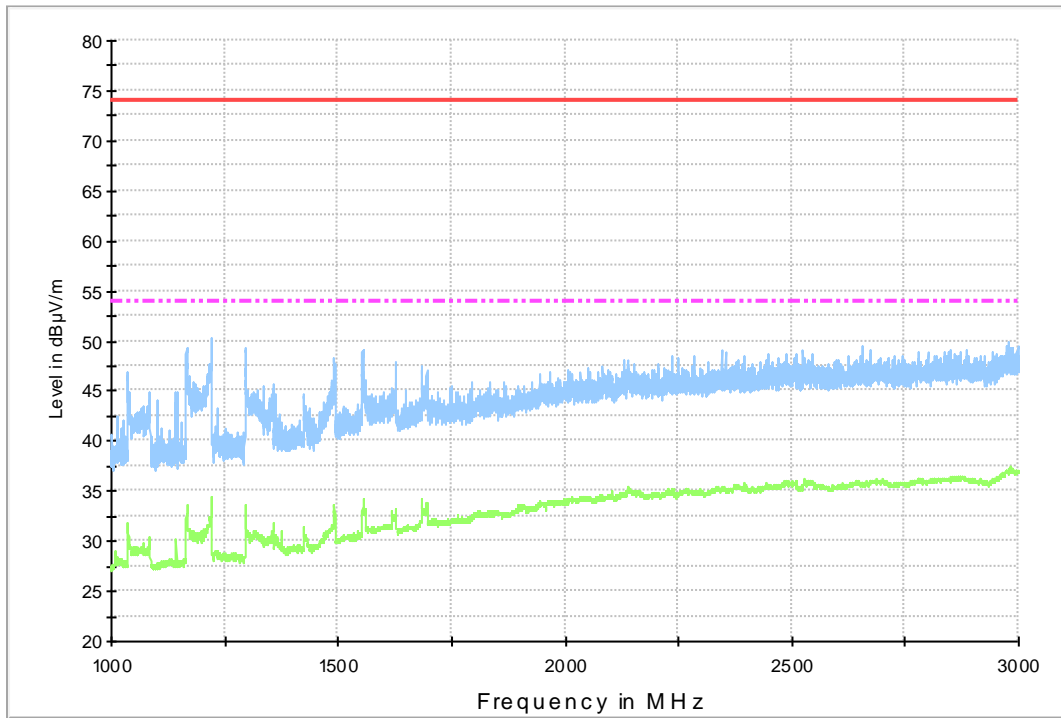


Figure A.4 Radiated Emission from 1GHz to 3GHz

## RE - 3GHz-18GHz

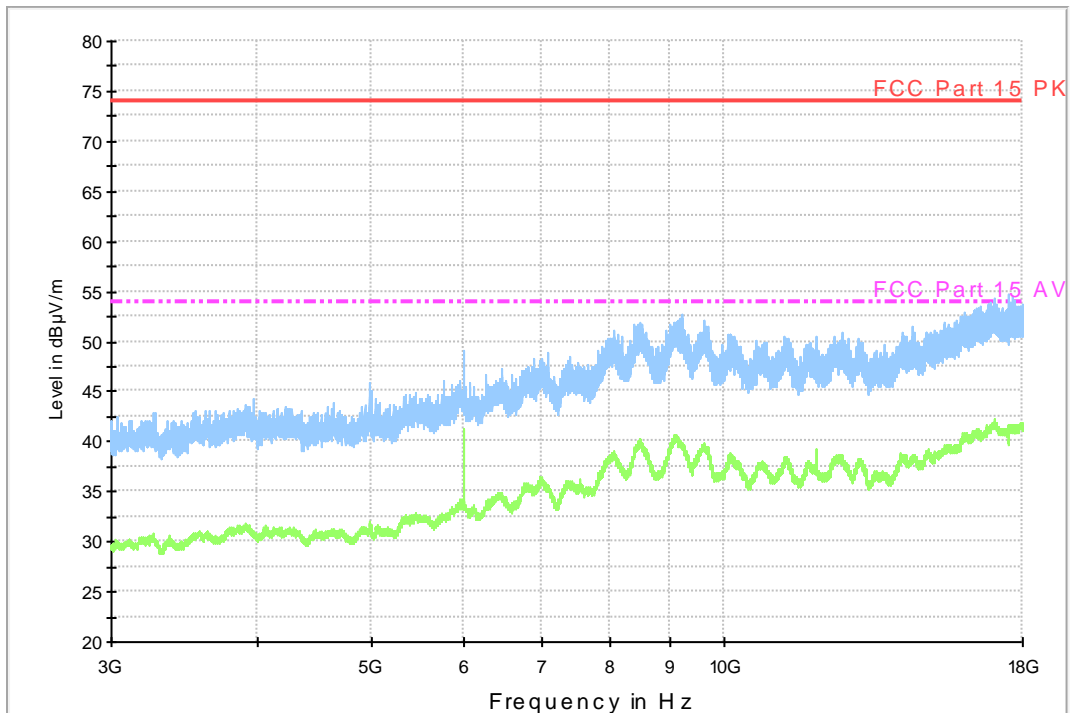


Figure A.4 Radiated Emission from 3GHz to 18GHz

Charging and WCDMA 850MHz Mode, Set.3

Full Spectrum

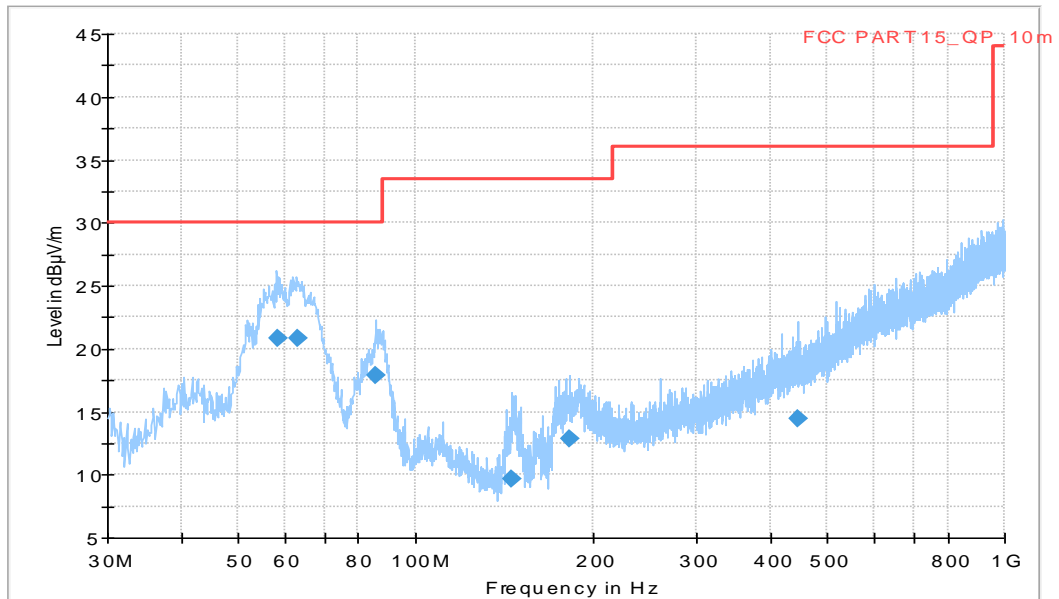


Figure A.1 Radiated Emission from 30MHz to 1GHz distance=10m

Full Spectrum

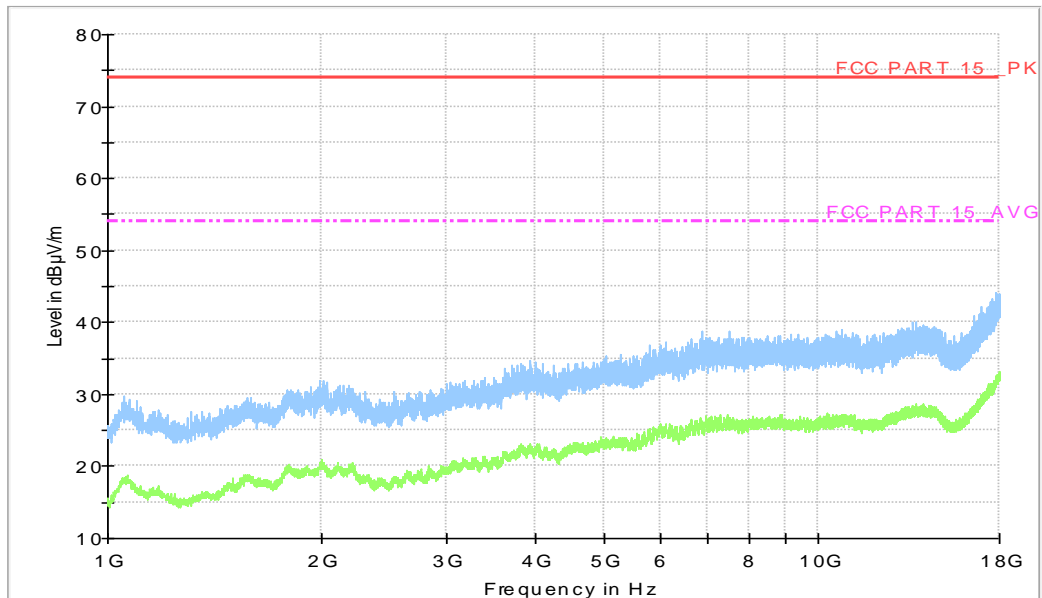
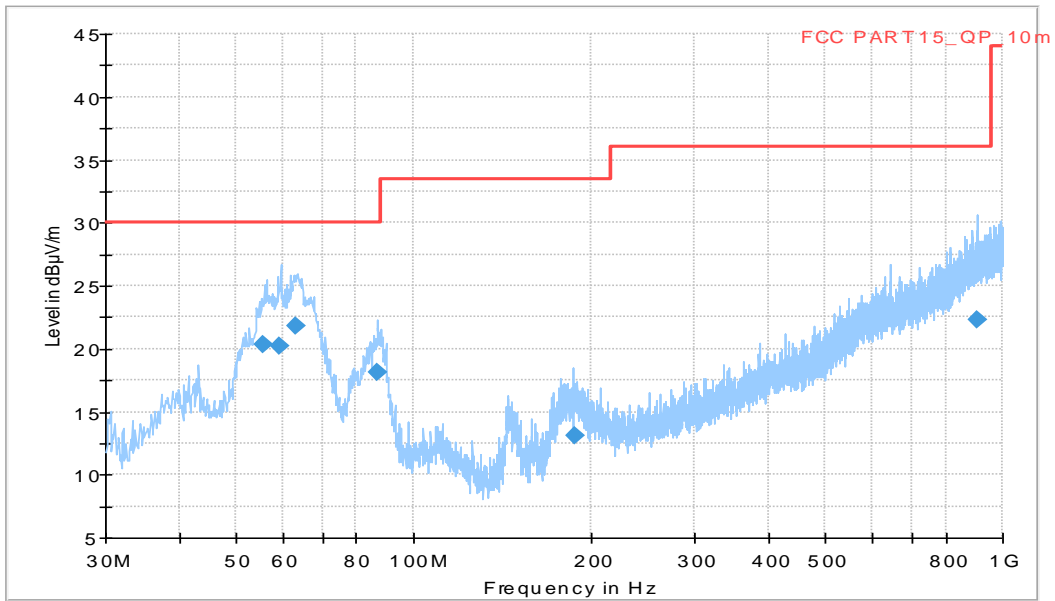


Figure A.2 Radiated Emission from 1GHz to 18GHz

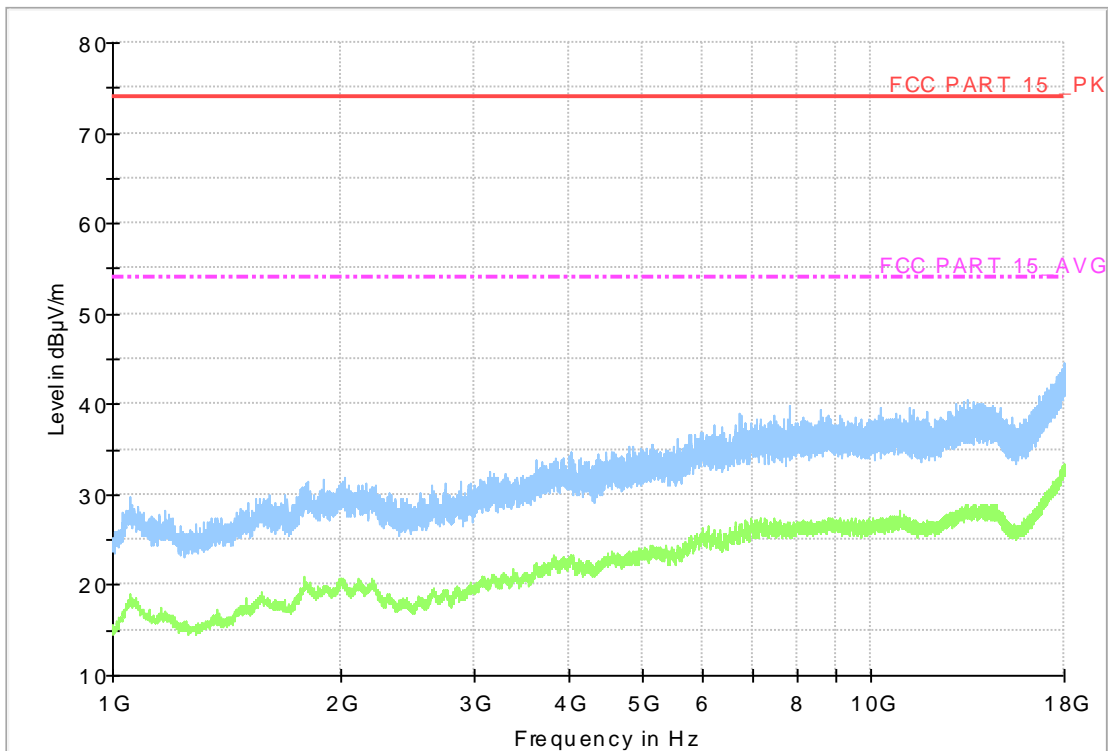
**Charging and CDMA 850MHz Mode, Set.3**

Full Spectrum



**Figure A.1 Radiated Emission from 30MHz to 1GHz distance=10m**

Full Spectrum



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

Charging and LTE band12 Mode, Set.3

Full Spectrum

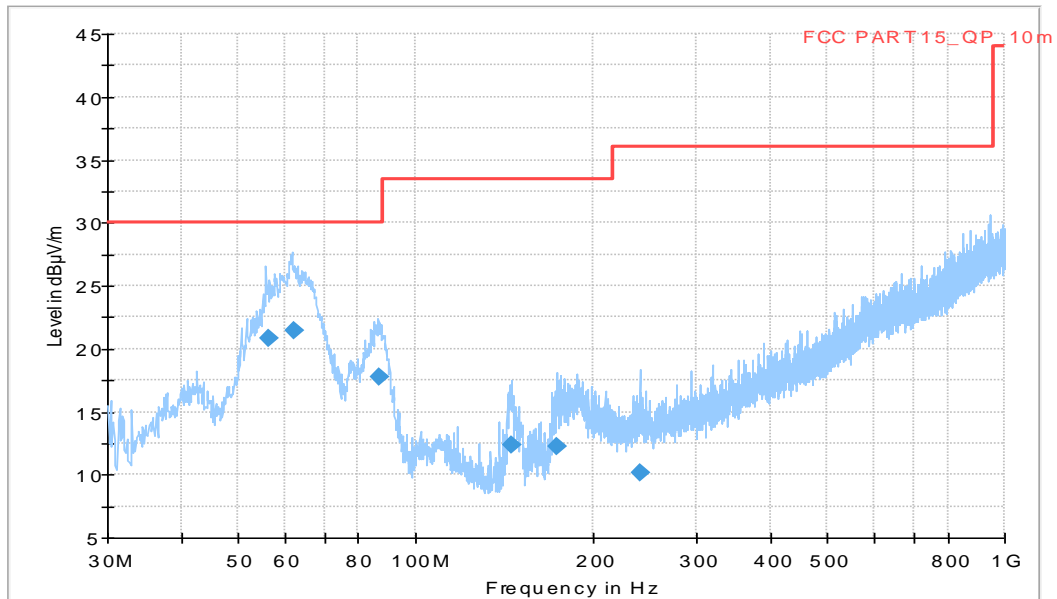


Figure A.1 Radiated Emission from 30MHz to 1GHz distance=10m

Full Spectrum

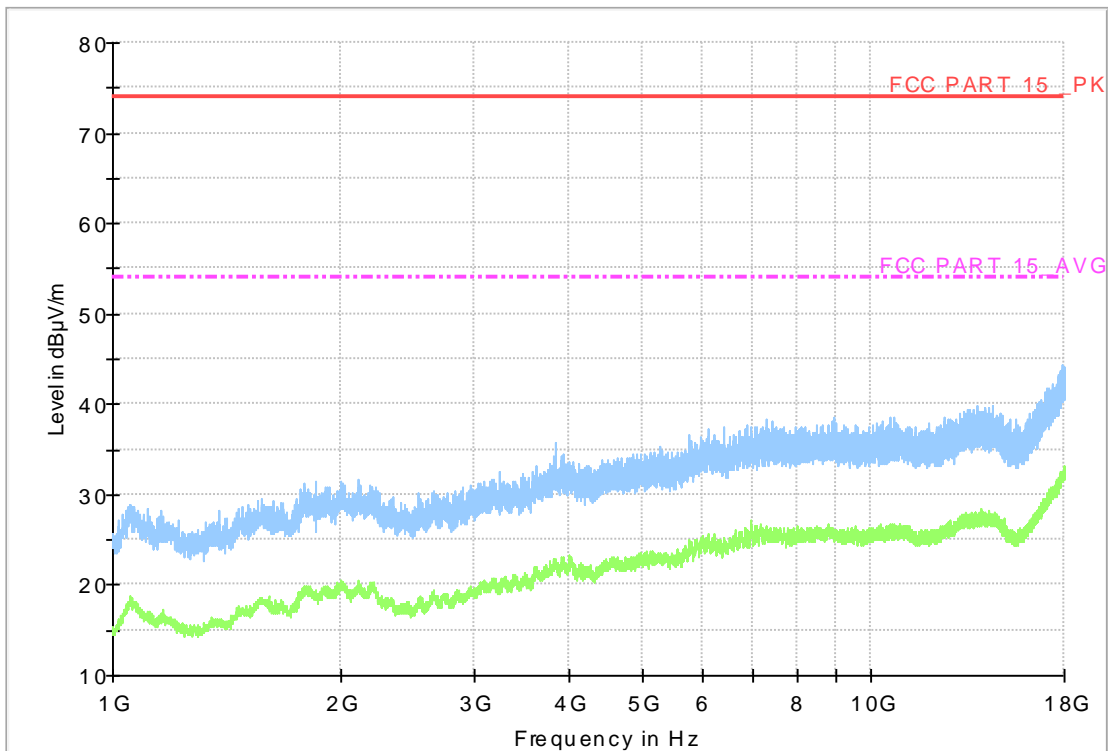


Figure A.2 Radiated Emission from 1GHz to 18GHz

## 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 GSM850MHz Mode, Set.3

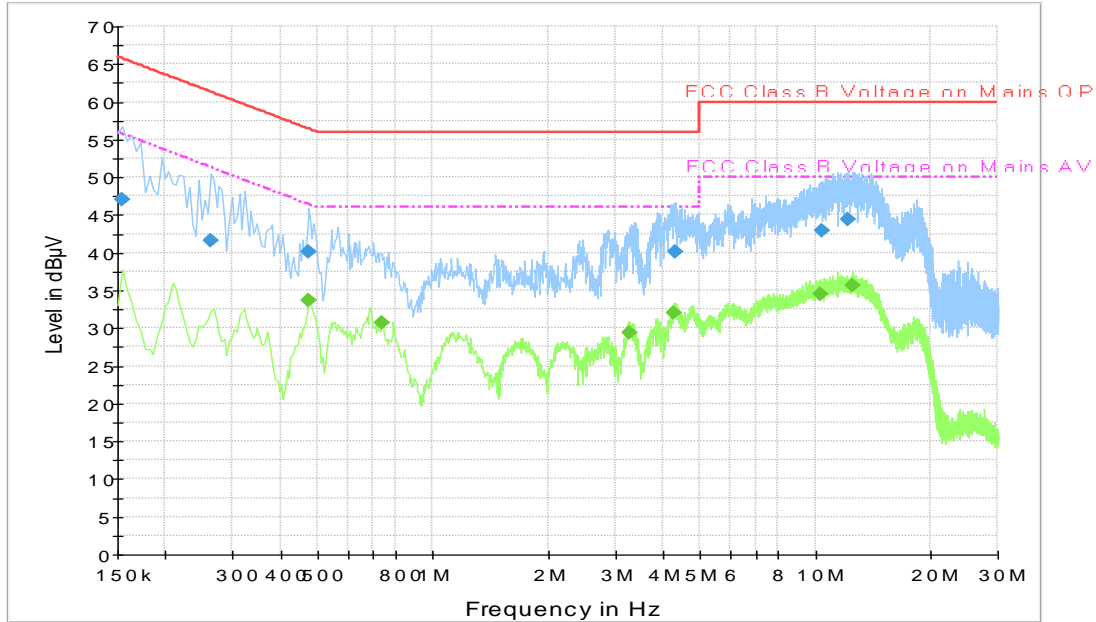


Figure A.11 Conducted Emission

#### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154500	47.1	L1	20.0	18.7	65.8
0.262500	41.7	L1	19.8	19.7	61.4
0.474000	40.1	N	19.9	16.3	56.4
4.294500	40.1	N	19.8	15.9	56.0
10.383000	43.0	L1	19.8	17.0	60.0
12.165000	44.3	L1	19.9	15.7	60.0

#### Final Result 2

Frequency (MHz)	CAverage (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.474000	33.7	N	19.9	12.7	46.4
0.739500	30.7	L1	19.9	15.4	46.0
3.268500	29.4	N	19.8	16.6	46.0
4.254000	32.0	N	19.8	14.0	46.0
10.360500	34.6	L1	19.8	15.4	50.0
12.498000	35.6	N	19.9	14.4	50.0

USB&FM Mode, Set.4

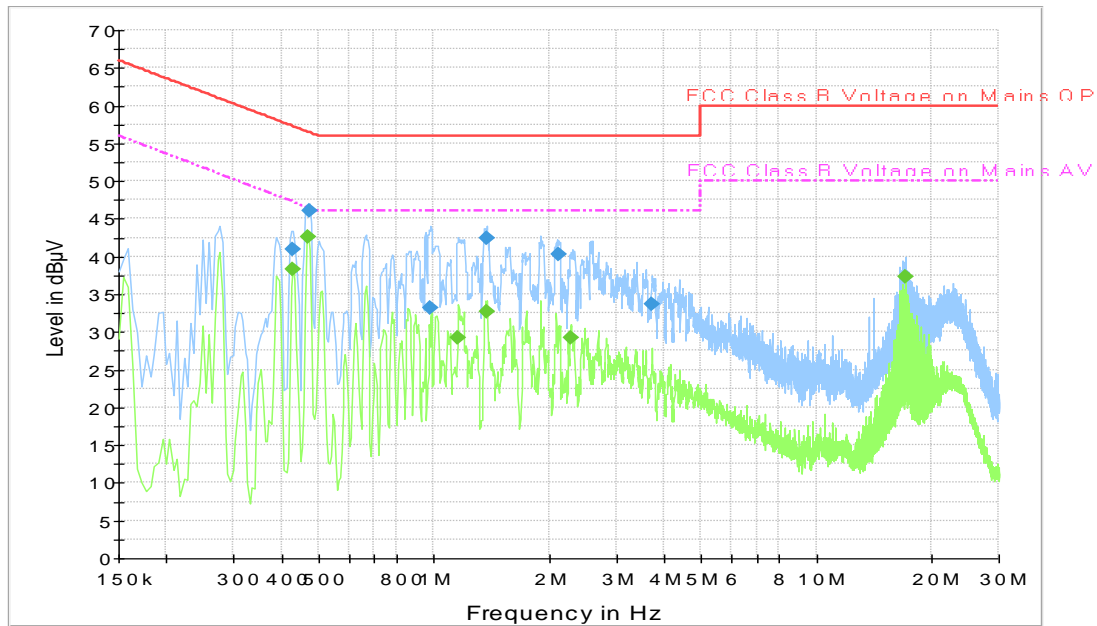


Figure A.13 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.429000	41.0	N	19.9	16.3	57.3
0.474000	46.1	N	19.9	10.4	56.4
0.982500	33.1	L1	19.8	22.9	56.0
1.378500	42.5	L1	19.8	13.5	56.0
2.125500	40.3	L1	19.8	15.7	56.0
3.727500	33.7	N	19.8	22.3	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.429000	38.3	N	19.9	8.9	47.3
0.469500	42.7	N	19.9	3.9	46.5
1.158000	29.2	L1	19.8	16.8	46.0
1.378500	32.7	N	19.8	13.3	46.0
2.283000	29.3	N	19.8	16.7	46.0
17.101500	37.3	N	20.0	12.7	50.0



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

Test Item	Tester
Conducted Continuous Emission	Wang Huan
Radiated Continuous Emission	Yangfei & Yan Hanchen

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