



TEST REPORT

No. I23Z60669-EMC01

for

Wingtech Group (Hong Kong) Limited

4G Mobile phone

Model Name: WTATTRW2

FCC ID: 2APXW-WTATTRW2

with

Hardware Version: V1.1

Software Version: WTATTRW2_0.01.05

Issued Date: 2023-06-07

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, website: www.caict.ac.cn



REPORT HISTORY

Report Number	Revision	Description	Issue Date
I23Z60669-EMC01	Rev.0	1st edition	2023-06-07

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

CONTENTS

1. TEST LABORATORY	4
1.1. INTRODUCTION & ACCREDITATION	4
1.2. TESTING LOCATION	4
1.3. TESTING ENVIRONMENT	4
1.4. PROJECT DATA	4
1.5. 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	6
3.5. TEST SUMMARY	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	31

1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2005 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 (CN0066). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

CTTL(BDA)

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

1.3. Testing Environment

Normal Temperature: 15-35° C
Relative Humidity: 20-75%

1.4. Project data

Testing Start Date: 2023-05-24
Testing End Date: 2023-05-29

1.5. Signature



Zhang Ying
(Prepared this test report)



An Hui
(Reviewed this test report)



Zhang Xia
(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: Wingtech Group (Hong Kong) Limited
Address /Post: Flat/RM 1903 19/F, Podium Plaza, 5 Hanoi Road, Tsim Sha Tsui, KL,
HK
Contact: sharui
Email: sharui@wingtech.com
Telephone: +86-21-53529900

2.2. Manufacturer Information

Company Name: Wingtech Group (Hong Kong) Limited
Address /Post: Flat/RM 1903 19/F, Podium Plaza, 5 Hanoi Road, Tsim Sha Tsui, KL,
HK
Contact: sharui
Email: sharui@wingtech.com
Telephone: +86-21-53529900

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

3.1. About EUT

Description	4G Mobile phone
Model Name	WTATTRW2
FCC ID	2APXW-WTATTRW2
Extreme vol. Limits	3.5VDC to 4.2VDC (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.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Note
UT78a	861996060018733	V1.1	WTATTRW2_0.01.05	/

*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*	Name	Model	Manufacturer
AE1	Battery	RA001	Hunan Gaoyuan Battery Co.,Ltd.
AE2	Charger	1-CHUSA122-148	YUTONG ELECTRONICS (HUIZHOU) CO LTD
AE3	USB cable	USB 2.0 Cable Assembly	/

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

Note: The USB cables are shielded.

3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.4	UT78a + AE1 + AE2-1 + AE3 + Headset	EUT + CHARGING US + Headset
Set.5	UT78a + AE1 + AE3 + Headset	EUT + USB + Headset

3.5. Test summary

EUT set-up No.	Test mode	Test result	
		Radiated Emission	Conducted Emission
Set.4	Charger+Real Camera+ RX WCDMA band 5	Pass	Pass
Set.4	Charger+Front Camera + RX LTE band 5	Pass	Pass
Set.4	Charger+MP4 + RX LTE band 12	Pass	Pass
Set.5	USB TO PC+ RX LTE band 14	Pass	Pass

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	2021
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 M
Ground system resistance	< 4
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

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

7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESCI 3	100766	R&S	2024-04-30	1 year
2	LISN	ENV216	101459	R&S	2024-04-29	1 Year
3	Test Receiver	ESU26	100376	Rohde & Schwarz	2023-09-22	1 year
4	BiLog Antenna	VULB9163	01177	Schwarzbeck	2023-08-03	1 Year
5	Dual-Ridge Waveguide Horn Antenna	3117	00119024	ETS-Lindgren	2023-06-07	1 year
6	PC	E500-1042	2140770010640 901850	Tsinghua Tongfang	N/A	N/A
7	Printer	1160	33740	HP	N/A	N/A
8	Keyboard	/	/	/	N/A	N/A
9	Mouse	/	/	/	N/A	N/A
10	Signal generator	SMF100A	101295	R&S	2024-02-28	1 year

Test Item	Test Software and Version	Software Vendor
Conducted Emission	EMC32 V8.52.0	R&S
Radiated 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 3/10 meters is tested. Tested in accordance with the procedures of ANSI C63.4 – 2014, section 8.3.

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

A.1.2 EUT Operating Mode

The MS is operating in the USB mode 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 EUT was tested while operating in licensed band Rx mode with Camera/MP3. All licensed band receivers that tune in the range of 30MHz-960MHz, as listed in section 3.4, are investigated. Only the worst case emissions are reported.

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

A.1.3 Measurement Limit

Frequency range (MHz)	Field strength limit ($\mu\text{V/m}$)		
	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_{PL} : Path Loss

P_{Mea} : Measurement result on receiver.

Measurement uncertainty:

Frequency range	Measurement uncertainty
30MHz-1GHz	5.73dB, k=2
1GHz-18GHz	5.58dB, k=2

Measurement results for Set.4, Charger + REAR Camera +WCDMA 850 idle:
Charging Mode/QP detector

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
31.940000	20.6	40.0	19.4	100.0	V	6.0
40.476000	24.2	40.0	15.8	113.0	V	45.0
46.199000	24.7	40.0	15.3	100.0	V	32.0
56.190000	22.9	40.0	17.2	100.0	V	270.0
97.318000	18.7	43.5	24.8	113.0	H	244.0
925.601000	32.7	46.0	13.3	100.0	H	-20.0

Charging Mode/Average detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
16922.000	37.73	-25.4	41.3	21.80	54.0	16.3	H
16931.000	37.72	-25.4	41.3	21.79	54.0	16.3	H
16929.500	37.70	-25.4	41.3	21.77	54.0	16.3	H
16929.000	37.68	-25.4	41.3	21.74	54.0	16.3	H
16920.500	37.65	-25.4	41.3	21.71	54.0	16.4	H
16922.500	37.64	-25.4	41.3	21.71	54.0	16.4	H

Charging Mode/Peak detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
16005.500	50.8	-27.0	40.3	37.47	74.0	23.2	H
16882.000	50.2	-25.5	41.4	34.37	74.0	23.8	H
16668.000	50.1	-26.0	41.2	34.96	74.0	23.9	V
16943.500	50.0	-25.3	41.3	34.05	74.0	24.0	H
16884.500	49.9	-25.5	41.4	34.02	74.0	24.1	V
16892.000	49.8	-25.5	41.4	33.92	74.0	24.2	H

Measurement results for Set.4, Charger + Front Camera + LTE band5 idle:
Charging Mode/QP detector

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
31.843000	17.2	40.0	22.8	113.0	V	45.0
35.626000	18.2	40.0	21.8	100.0	V	45.0
38.536000	21.0	40.0	19.0	125.0	V	57.0
39.797000	24.1	40.0	15.9	100.0	V	45.0
52.698000	21.1	40.0	18.9	100.0	V	57.0
909.693000	32.2	46.0	13.8	125.0	V	115.0

Charging Mode/Average detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
16926.500	37.87	-25.4	41.3	21.93	54.0	16.1	V
16932.500	37.80	-25.4	41.3	21.87	54.0	16.2	V
16927.000	37.80	-25.4	41.3	21.87	54.0	16.2	V
16934.500	37.74	-25.4	41.3	21.81	54.0	16.3	V
16925.500	37.71	-25.4	41.3	21.78	54.0	16.3	V
16923.500	37.70	-25.4	41.3	21.76	54.0	16.3	V

Charging Mode/Peak detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
16949.000	50.6	-25.3	41.3	34.69	74.0	23.4	V
16424.500	50.2	-26.6	40.8	36.06	74.0	23.8	H
16928.000	50.1	-25.4	41.3	34.21	74.0	23.9	V
17600.000	50.0	-24.5	40.6	33.90	74.0	24.0	V
16856.500	49.9	-25.6	41.4	34.14	74.0	24.1	V
17506.500	49.8	-24.7	40.8	33.73	74.0	24.2	H

Measurement results for Set.4, Charger + MP4 + LTE band 12 idle:
Charging Mode/QP detector

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
32.134000	19.1	40.0	20.9	125.0	V	38.0
39.603000	24.1	40.0	15.9	100.0	V	167.0
45.714000	24.9	40.0	15.1	100.0	V	45.0
47.848000	24.4	40.0	15.6	100.0	V	51.0
59.779000	22.1	40.0	17.9	125.0	V	270.0
925.989000	32.6	46.0	13.4	100.0	H	135.0

Charging Mode/Average detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
16928.500	38.02	-25.4	41.3	22.08	54.0	16.0	V
16931.500	37.90	-25.4	41.3	21.96	54.0	16.1	V
16935.500	37.87	-25.4	41.3	21.94	54.0	16.1	V
16933.500	37.86	-25.4	41.3	21.93	54.0	16.1	V
16925.000	37.85	-25.4	41.3	21.92	54.0	16.1	V
16924.000	37.84	-25.4	41.3	21.91	54.0	16.2	V

Charging Mode/Peak detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17477.500	50.3	-24.7	40.8	34.24	74.0	23.7	V
16676.500	50.2	-26.0	41.2	35.03	74.0	23.8	V
17213.500	50.1	-25.2	41.0	34.30	74.0	23.9	V
17134.500	50.1	-25.4	40.9	34.58	74.0	23.9	V
16923.000	50.1	-25.4	41.3	34.12	74.0	23.9	V
17013.000	50.0	-25.4	41.1	34.36	74.0	24.0	H

Measurement results for Set.5, USB + LTE B14 idle:
Charging Mode/QP detector

Frequency (MHz)	QuasiPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)
30.097000	30.5	40.0	9.5	100.0	V	244.0
35.529000	25.9	40.0	14.1	113.0	V	-26.0
45.132000	29.1	40.0	10.9	100.0	V	250.0
65.987000	25.0	40.0	15.0	100.0	V	135.0
270.269000	33.0	46.0	13.0	100.0	H	-26.0
614.425000	42.6	46.0	3.4	100.0	V	5.0

Charging Mode/Average detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
16926.000	37.98	-25.4	41.3	22.04	54.0	16.0	V
16929.000	37.95	-25.4	41.3	22.01	54.0	16.1	V
16927.000	37.94	-25.4	41.3	22.01	54.0	16.1	V
16930.000	37.94	-25.4	41.3	22.00	54.0	16.1	V
16929.500	37.93	-25.4	41.3	22.00	54.0	16.1	V
17245.500	37.92	-25.1	40.9	22.12	54.0	16.1	V

Charging Mode/Peak detector

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
17168.000	50.9	-25.3	41.0	35.24	74.0	23.1	V
15371.000	50.8	-27.7	39.9	38.64	74.0	23.2	V
16931.500	50.6	-25.4	41.3	34.62	74.0	23.4	V
16294.500	50.5	-26.2	40.4	36.24	74.0	23.5	V
17419.000	50.4	-24.8	40.8	34.42	74.0	23.6	H
16036.000	50.4	-27.0	40.4	36.95	74.0	23.6	V

Measurement results for Set.4, Charger + REAR Camera + WCDMA 850 idle:

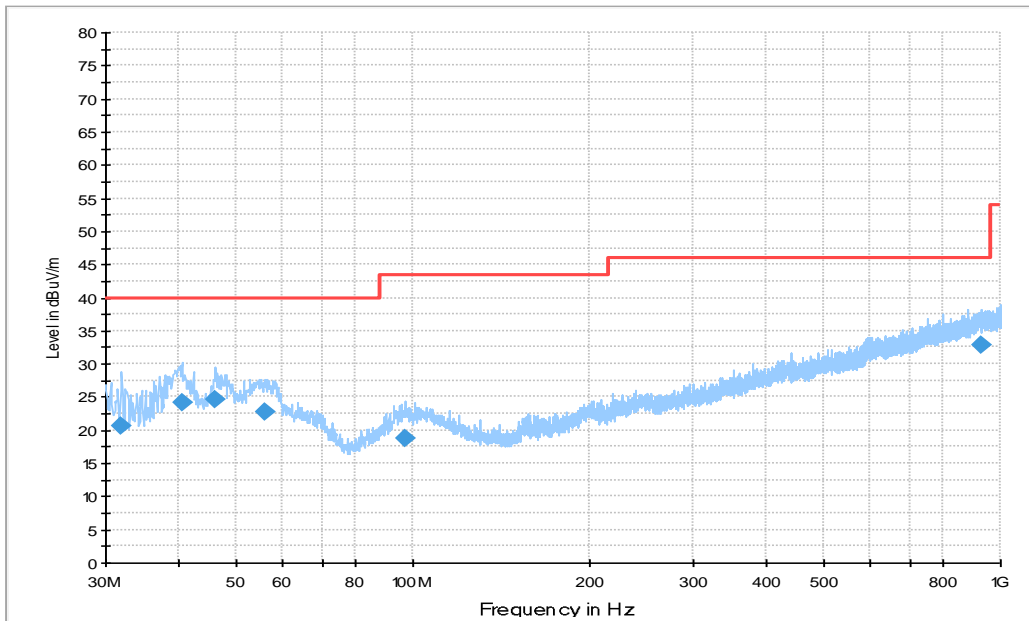


Fig A.1 Radiated Emission from 30MHz to 1GHz

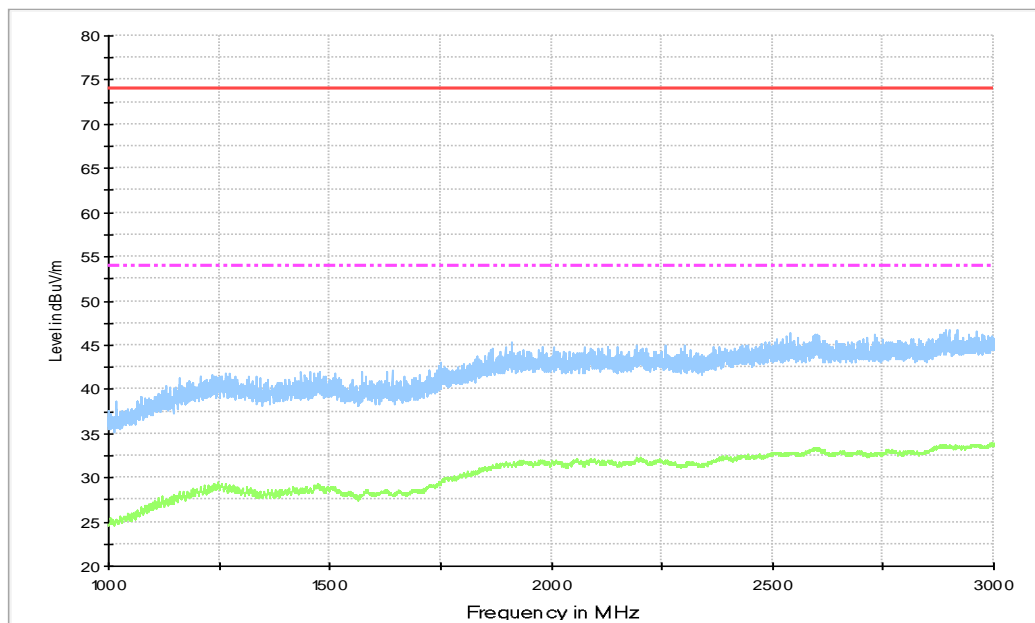


Fig A.2 Radiated Emission from 1GHz to 3GHz

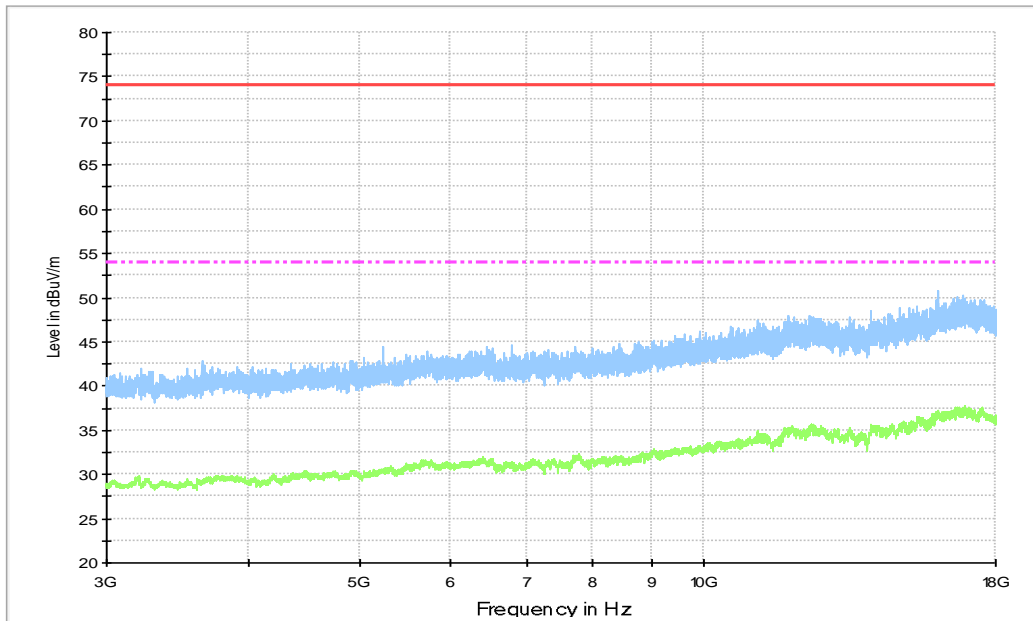


Fig A.3 Radiated Emission from 3GHz to 18GHz

Measurement results for Set.4, Charger + Front Camera + LTE band 5 idle:

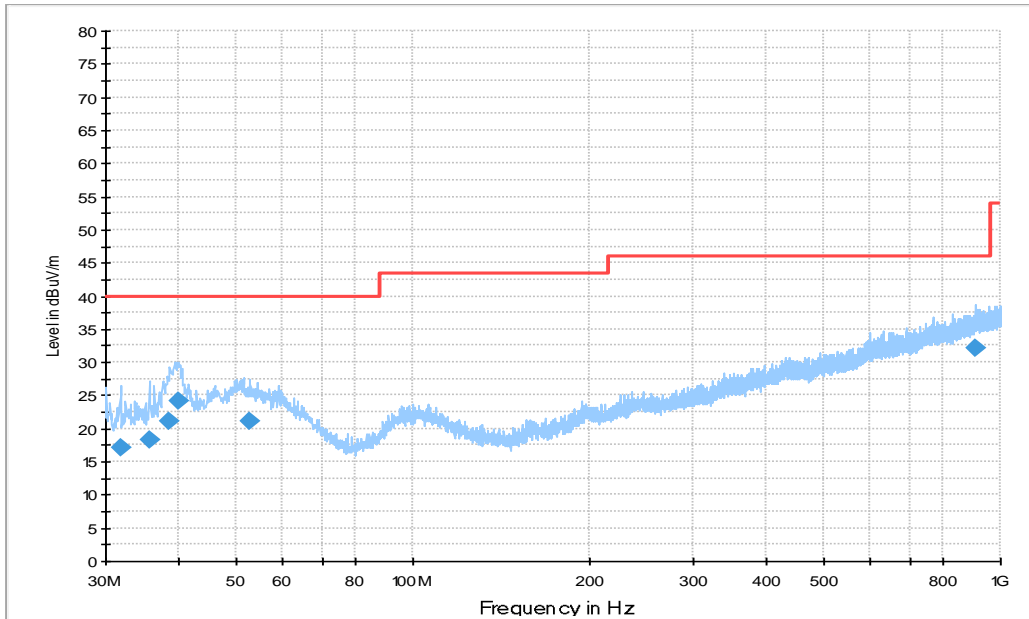


Fig A.4 Radiated Emission from 30MHz to 1GHz

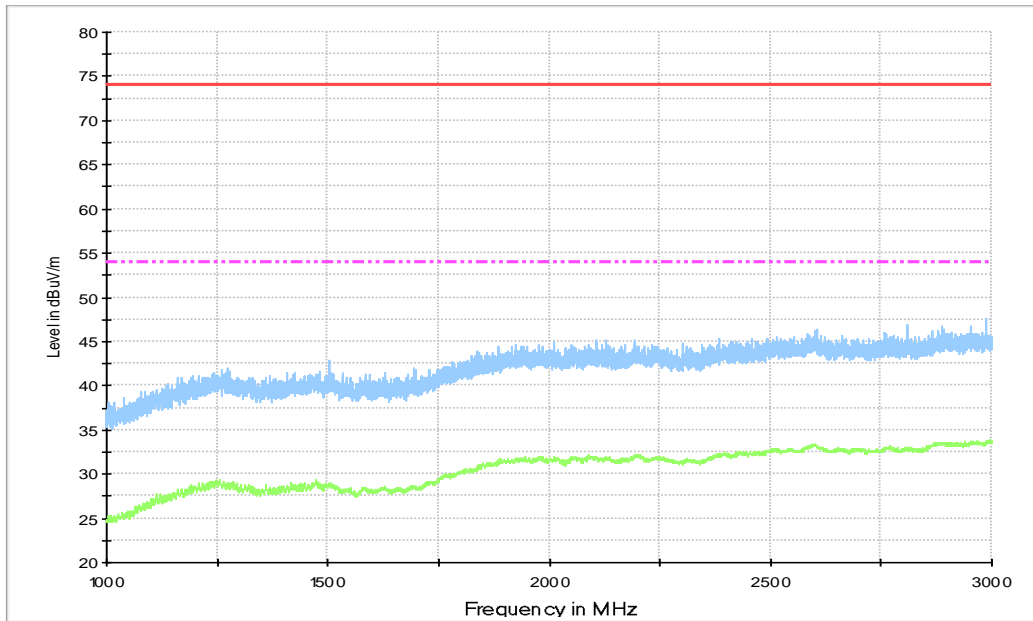


Fig A.5 Radiated Emission from 1GHz to 3GHz

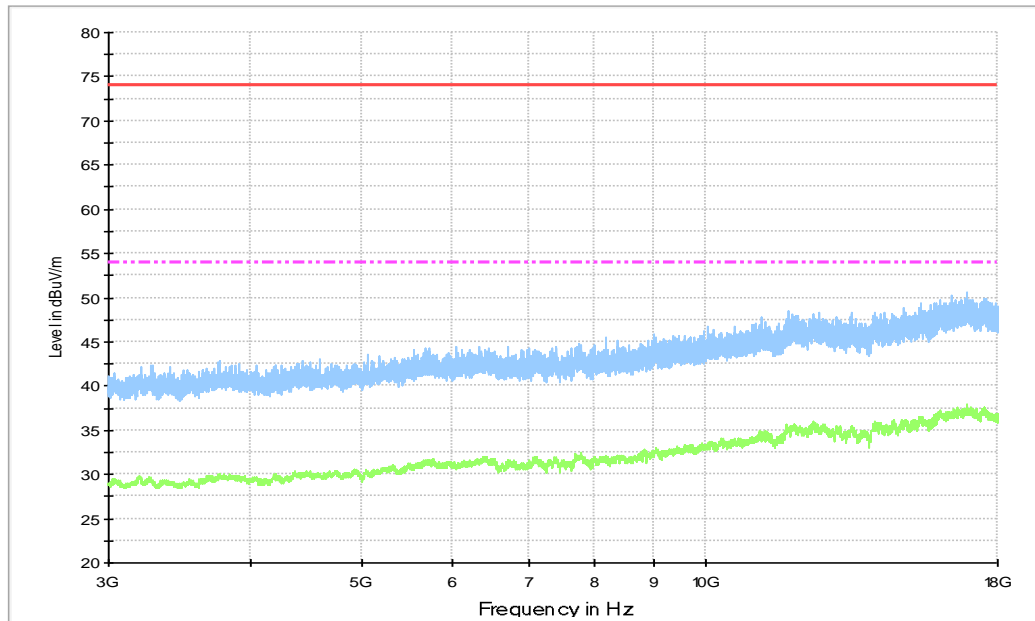


Fig A.6 Radiated Emission from 3GHz to 18GHz

Measurement results for Set.4, Charger + MP4 + LTE band 12 idle:

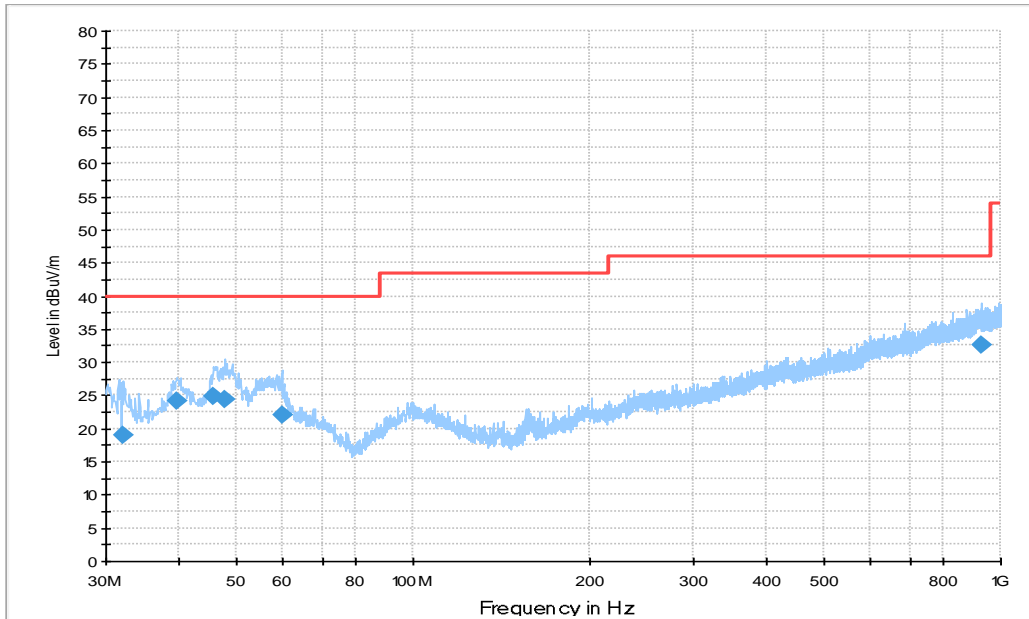


Fig A.7 Radiated Emission from 30MHz to 1GHz

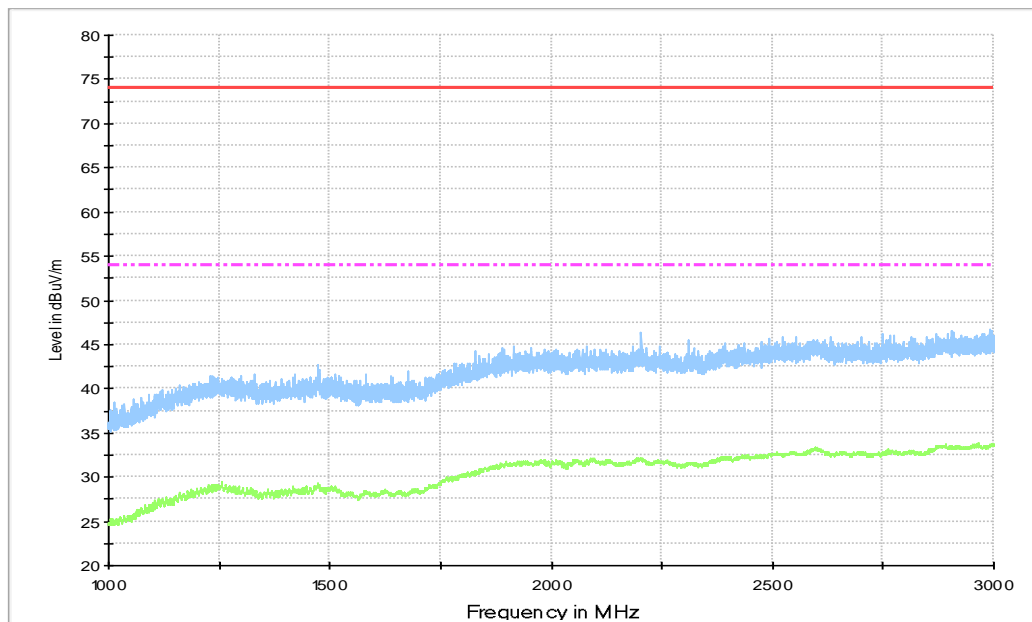


Fig A.8 Radiated Emission from 1GHz to 3GHz

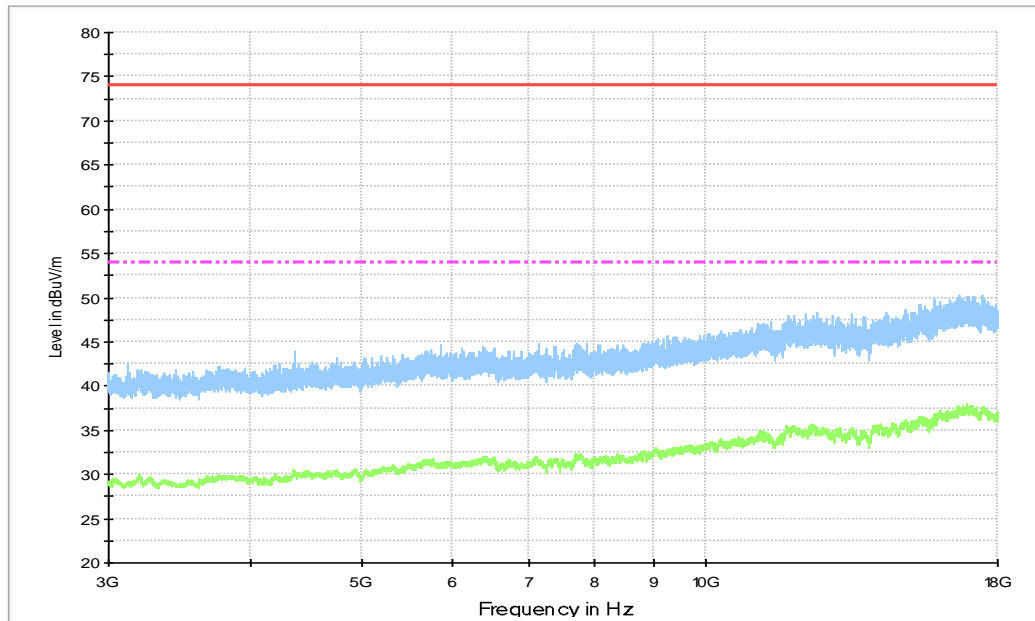


Fig A.9 Radiated Emission from 3GHz to 18GHz

Measurement results for Set.5, USB + LTE B14 idle:

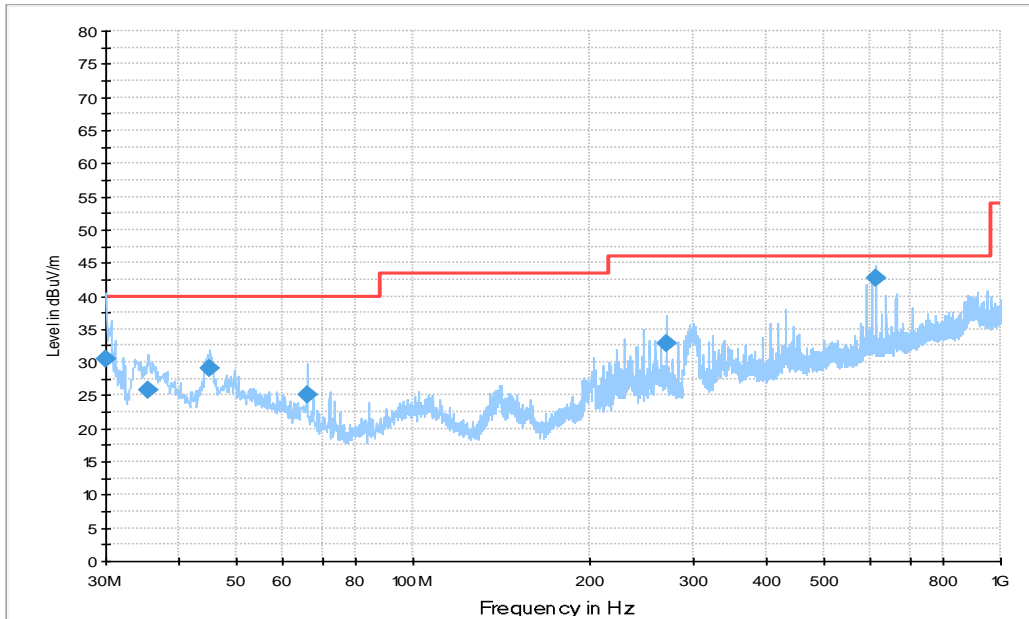


Fig A.10 Radiated Emission from 30MHz to 1GHz

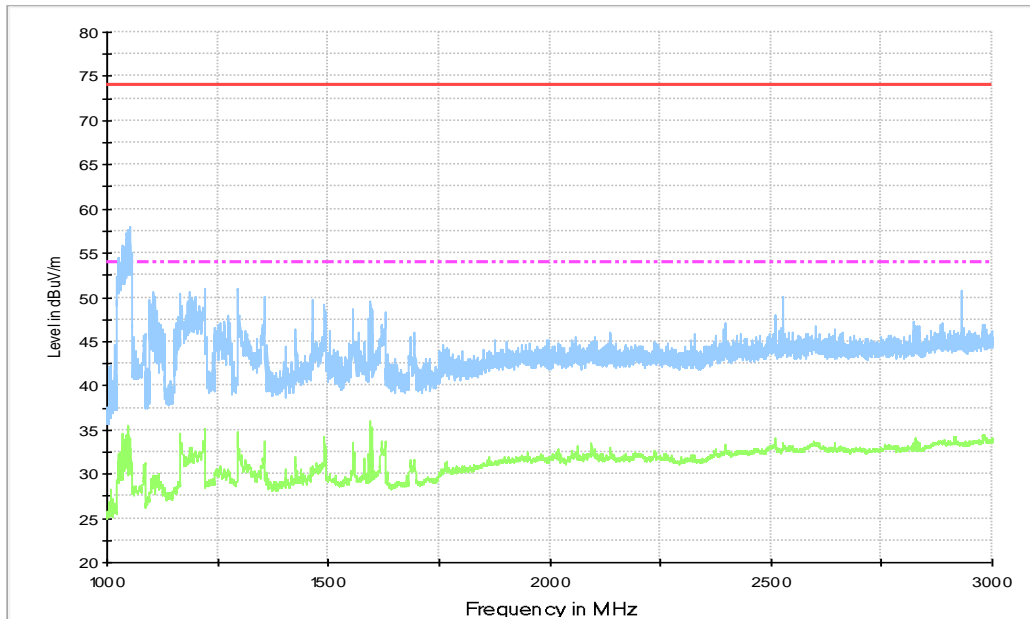


Fig A.11 Radiated Emission from 1GHz to 3GHz

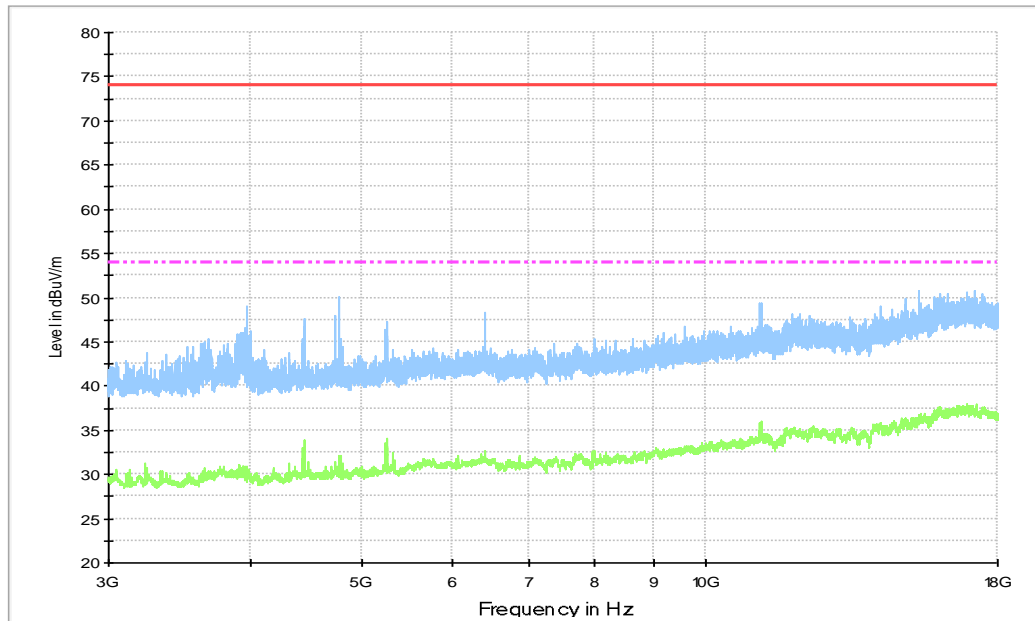


Fig A.12 Radiated Emission from 3GHz to 18GHz

A.2 Conducted Emission

Reference

FCC: CFR Part 15.107(a).

A.2.1 Method of measurement

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

A.2.2 EUT Operating Mode

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

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

A.2.3 Measurement Limit

Frequency of emission (MHz)	Conducted limit (dB μ 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, $k=2$.

Measurement results for Set.4, Charger + REAR Camera + WCDMA 850 idle:

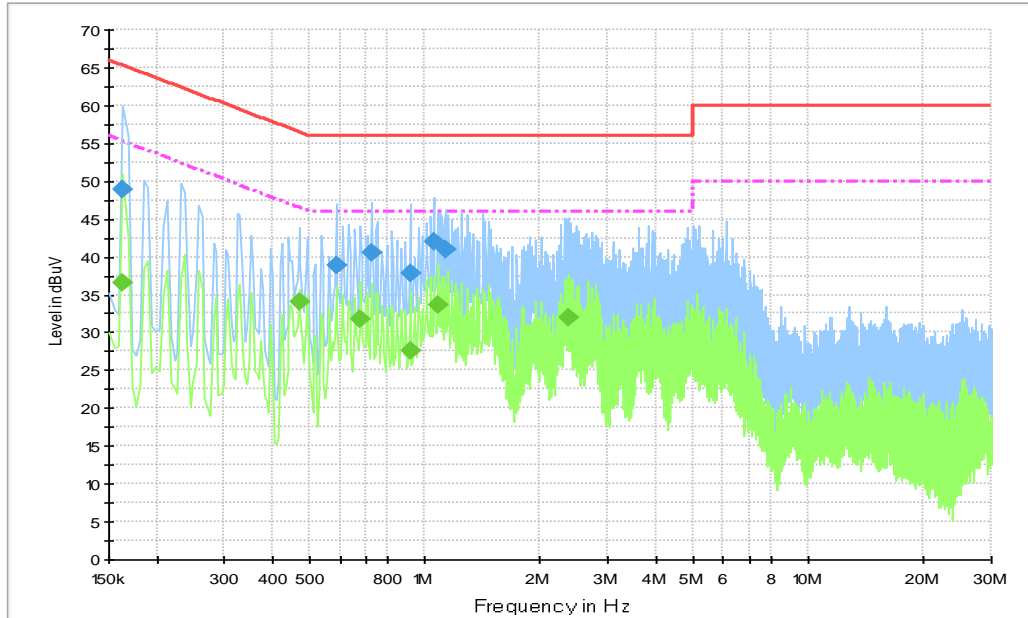


Fig A.13 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.163500	48.9	1000.0	9.000	On	L1	26.0	16.4	65.3
0.586500	39.0	1000.0	9.000	On	L1	19.7	17.0	56.0
0.726000	40.4	1000.0	9.000	On	L1	19.7	15.6	56.0
0.915000	37.9	1000.0	9.000	On	N	19.7	18.1	56.0
1.054500	42.0	1000.0	9.000	On	N	19.6	14.0	56.0
1.131000	40.9	1000.0	9.000	On	N	19.6	15.1	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.163500	36.6	1000.0	9.000	On	L1	26.0	18.7	55.3
0.469500	34.1	1000.0	9.000	On	L1	19.8	12.4	46.5
0.681000	31.8	1000.0	9.000	On	L1	19.7	14.2	46.0
0.915000	27.7	1000.0	9.000	On	L1	19.7	18.3	46.0
1.081500	33.7	1000.0	9.000	On	L1	19.6	12.3	46.0
2.368500	32.0	1000.0	9.000	On	L1	19.6	14.0	46.0

Measurement results for Set.4, Charger + Front camera+ LTE band 5 idle:

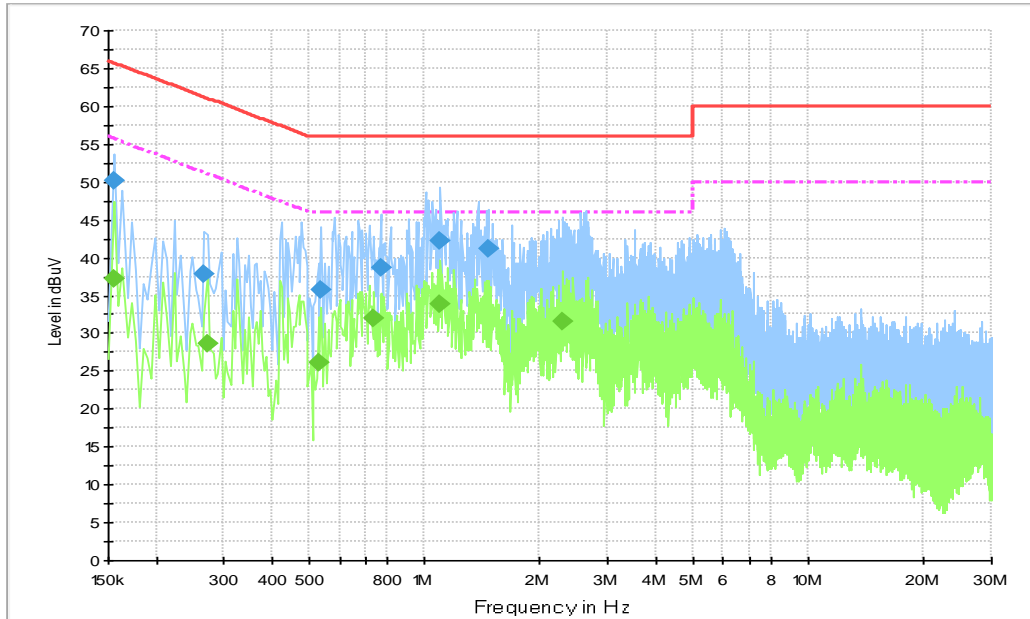


Fig A.14 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154500	50.2	1000.0	9.000	On	N	27.7	15.6	65.8
0.267000	37.8	1000.0	9.000	On	N	19.7	23.4	61.2
0.537000	35.8	1000.0	9.000	On	L1	19.8	20.2	56.0
0.771000	38.6	1000.0	9.000	On	N	19.7	17.4	56.0
1.099500	42.3	1000.0	9.000	On	L1	19.6	13.7	56.0
1.459500	41.2	1000.0	9.000	On	L1	19.6	14.8	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.154500	37.2	1000.0	9.000	On	L1	27.7	18.6	55.8
0.271500	28.6	1000.0	9.000	On	L1	19.7	22.5	51.1
0.528000	26.2	1000.0	9.000	On	N	19.8	19.8	46.0
0.739500	32.0	1000.0	9.000	On	L1	19.7	14.0	46.0
1.099500	33.9	1000.0	9.000	On	L1	19.6	12.1	46.0
2.283000	31.5	1000.0	9.000	On	L1	19.5	14.5	46.0

Measurement results for Set.4, Charger + MP4+ LTE band 12 idle:

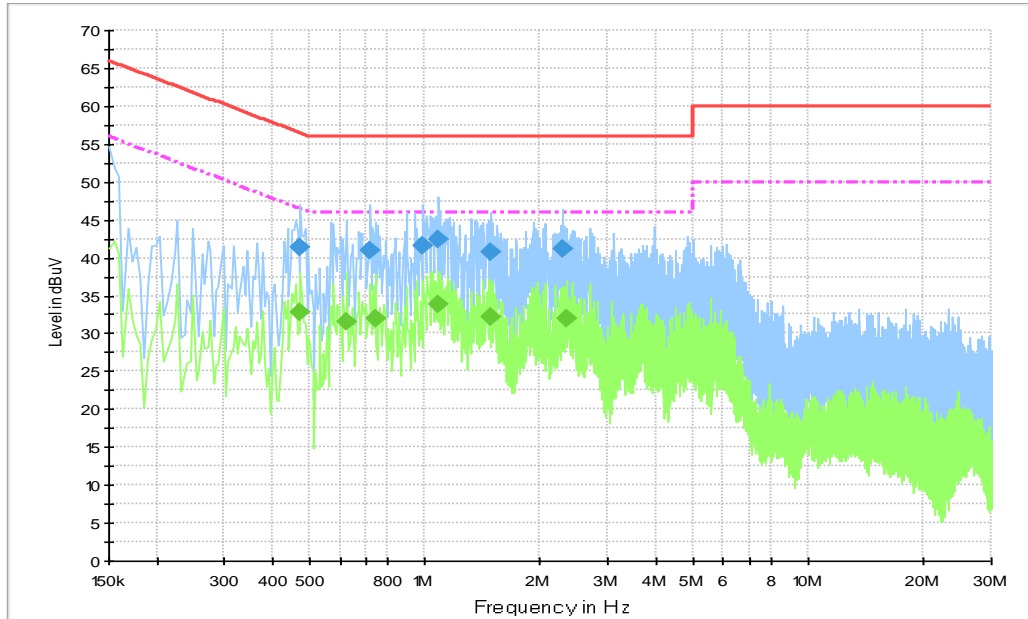


Fig A.15 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.474000	41.5	1000.0	9.000	On	L1	19.8	15.0	56.4
0.721500	41.0	1000.0	9.000	On	N	19.7	15.0	56.0
0.991500	41.6	1000.0	9.000	On	N	19.6	14.4	56.0
1.086000	42.3	1000.0	9.000	On	L1	19.6	13.7	56.0
1.491000	40.7	1000.0	9.000	On	L1	19.6	15.3	56.0
2.292000	41.2	1000.0	9.000	On	L1	19.5	14.8	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.474000	32.9	1000.0	9.000	On	L1	19.8	13.6	46.4
0.627000	31.5	1000.0	9.000	On	L1	19.7	14.5	46.0
0.744000	32.0	1000.0	9.000	On	L1	19.7	14.0	46.0
1.086000	33.8	1000.0	9.000	On	L1	19.6	12.2	46.0
1.491000	32.2	1000.0	9.000	On	L1	19.6	13.8	46.0
2.350500	32.1	1000.0	9.000	On	L1	19.6	13.9	46.0

Measurement results for Set.5, USB+ LTE band 14 idle:

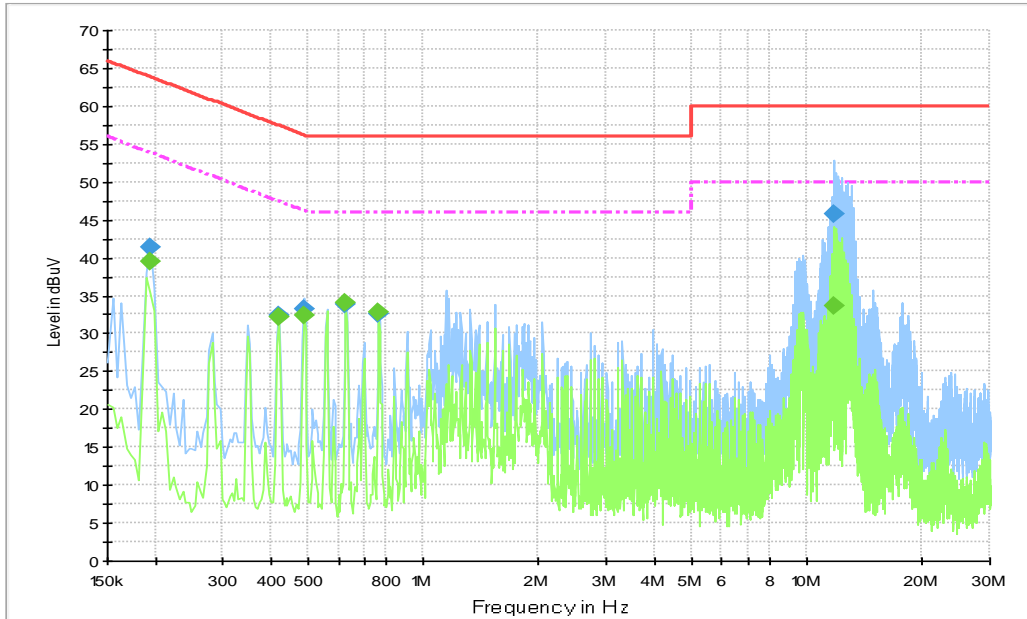


Fig A.16 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.195000	41.4	1000.0	9.000	On	N	20.5	22.4	63.8
0.420000	32.3	1000.0	9.000	On	L1	19.8	25.1	57.4
0.487500	33.3	1000.0	9.000	On	L1	19.8	22.9	56.2
0.627000	33.9	1000.0	9.000	On	L1	19.7	22.1	56.0
0.766500	32.5	1000.0	9.000	On	N	19.7	23.5	56.0
11.818500	45.7	1000.0	9.000	On	L1	19.8	14.3	60.0

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.195000	39.4	1000.0	9.000	On	N	20.5	14.4	53.8
0.420000	32.2	1000.0	9.000	On	N	19.8	15.2	47.4
0.487500	32.4	1000.0	9.000	On	L1	19.8	13.9	46.2
0.627000	34.1	1000.0	9.000	On	N	19.7	11.9	46.0
0.766500	32.7	1000.0	9.000	On	L1	19.7	13.3	46.0
11.818500	33.6	1000.0	9.000	On	L1	19.8	16.4	50.0

ANNEX B: PERSONS INVOLVED IN THIS TESTING

Test Item	Test operator
Conducted Emission	Yan Xiaorui
Radiated Emission	Sun Tianyuan

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