TEST REPORT

No. I21Z70495-EMC01

for

Samsung Electronics Co., Ltd.

Multi-band GSM/WCDMA/LTE Tablet with Bluetooth, WLAN

Model Name: SM-X205

FCC ID: ZCASMX205

with

Hardware Version: REV1.0

Software Version: X205.001

Issued Date: 2021-11-05

Note:

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Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21Z70495-EMC01	Rev.0	1st edition	2021-11-05

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

CONTENTS

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 (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: 2021-09-26

Testing End Date: 2021-11-01

1.5. Signature

Li Yan

(Prepared this test report)

Zhang Ying

(Reviewed this test report)

Zhang Xia

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Samsung Electronics Co., Ltd.
Address:	19 Chapin Rd.,Building D Pine Brook, NJ 07058
City:	/
Postal Code:	/
Country:	/
Contact:	Jenni Chun
Email:	j1.chun@samsung.com
Telephone:	+1-201-937-4203

2.2. Manufacturer Information

Company Name:	Samsung Electronics. Co., Ltd.
Address:	Samsung R5, Maetan dong 129, Samsung ro Youngtong gu, Suwon city 443 742, Korea
City:	/
Postal Code:	/
Country:	/
Contact:	조성훈(Sunghoon Cho)
Email:	ggobi.cho@samsung.com
Telephone:	+82-10-2722-4159

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

3.1. About EUT

Description	Multi-band GSM/WCDMA/LTE Tablet with Bluetooth, WLAN
Model Name	SM-X205
FCC ID	ZCASMX205

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*	IME/SNI	HW Version	SW Version	Date of receipt
UT12a	2170495UT12a	REV1.0	X205.001	2021.09.26

*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	Adapter1	/	/
AE2	Adapter2	/	/
AE3	Adapter3	/	/
AE4	Adapter4	/	/
AE5	Adapter5	/	/
AE6	Adapter6	/	/
AE7	Adapter7	/	/
AE8	Adapter8	/	/
AE9	Adapter9	/	/
AE10	Adapter10	/	/
AE11	Adapter11	/	/
AE12	USB Cable	/	/
AE13	Headset1	/	/
AE14	Headset2	/	/
AE15	Battery1	/	/
AE16	Battery2	/	/
AE17	Battery3	/	/

AE1

Model	EP-TA50EWE
Manufacturer	HAEM Co.,Ltd
Length of cable	/

AE2

Model	EP-TA50UWE
Manufacturer	HAEM Co.,Ltd

Length of cable	/
AE3	
Model	EP-TA50EWE
Manufacturer	RFTECH Co., Ltd.
Length of cable	/
AE4	
Model	EP-TA200EWE
Manufacturer	RFTECH Co., Ltd.
Length of cable	/
AE5	
Model	EP-TA50EWE
Manufacturer	Salcomp (Shenzhen) Co., Ltd.
Length of cable	/
AE6	
Model	EP-TA50UWE
Manufacturer	Salcomp (Shenzhen) Co., Ltd.
Length of cable	/
AE7	
Model	EP-TA50UWE
Manufacturer	DONGYANG E&P Inc.
Length of cable	/
AE8	
Model	EP-TA50BW
Manufacturer	Salcomp (Shenzhen) Co., Ltd.
Length of cable	/
AE9	
Model	EP-TA50JWE
Manufacturer	RFTech
Length of cable	/
AE10	
Model	EP-TA200JWE
Manufacturer	RFTech
Length of cable	/
AE11	
Model	EP-TA50JWE
Manufacturer	HAEM
Length of cable	/
AE12	
Model	EP-DR140AWE(GH39-01999A)
Manufacturer	Samsung Electronics Co., Ltd.
Length of cable	/ /
AE13	
Model	CH59-15054A
Manufacturer	DONGGUAN YOUNGBO ELECTRONICS CO.,LTD

Length of cable	/
AE14	
Model	CH59-15054A
Manufacturer	CRESYN HANOI Co., Ltd
Length of cable	/
AE15	
Type	Secondary Li-ion Battery
SN	HQ-6300NA
Manufacturer	Ningde Amperex Technology Limited
AE16	
Type	Secondary Li-ion Battery
SN	HQ-6300SD
Manufacturer	SCUD (Fujian) Electronics CO.,LTD
AE17	
Type	Secondary Li-ion Battery
SN	HQ-6300SA
Manufacturer	SCUD (Fujian) Electronics CO.,LTD

Note: The USB cables are shielded.

3.4. General Description

The device contains receivers which tune and operate between 30MHz-960MHz in the following bands: GSM850, WCDMA BAND 5, LTE BAND 5, LTE BAND 12, and LTE BAND 17.

Samples undergoing test were selected by the client.

The detail information about EUT please refers to manual and specifications provide by manufacturer.

3.5. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	UT12a + AE1 + AE12	Charger1+ R Camera
Set.2	UT12a + AE2 + AE12+ AE13	Charger2+ MP4+ Headset1
Set.3	UT12a + AE3 + AE12+ AE14	Charger3+ F camera+Headset2
Set.4	UT12a + AE4 + AE12+ AE13	Charger4+MP3+ Headset1+RX mode
Set.5	UT12a + AE5 + AE12+ AE14	Charger5+MP4+ Headset2+RX mode
Set.6	UT12a + AE6	Charger6+RX mode
Set.7	UT12a + AE7	Charger7+RX mode
Set.8	UT12a + AE8	Charger8+RX mode
Set.9	UT12a + AE9+ AE13	Charger9+R Camera +Headset1+RX mode
Set.10	UT12a + AE10+ AE14	Charger10+ MP4+ Headset2+RX mode
Set.11	UT12a + AE11	Charger11+ F camera +RX mode
Set.12	UT12a + AE12 + AE13	USB SD TO PC + Headset1+RX mode
Set.13	UT12a + AE12 + AE14	USB PC TO SD + Headset2+RX mode

Note: All the set-ups above were tested but only the worst test data of worst set-up showed in this report.

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	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-2 (10 meters×6.7meters×6.1meters) 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, 3m 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 6000 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
	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(BDA)**
2	Conducted Emission	15.107(a)	A.2	P	**CTTL(BDA)**

7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESU26	100376	R&S	2022-09-15	1 year
2	Test Receiver	ESCI	100766	R&S	2022-03-09	1 year
3	LISN	ENV216	101459	R&S	2022-03-09	1 year
4	BiLog Antenna	VULB9163	9163-482	Schwarzbeck	2021-11-04	1 year
5	EMI Antenna	3117	00119024	ETS-Lindgren	2022-04-11	1 year
6	Universal Radio Communication Tester	CMW500	167943	R&S	2022-04-05	1 year
7	Printer	P1606dn	VNC3L52122	HP	N/A	N/A
8	Keyboard	KU-1601	2048361	Lenovo	N/A	N/A
9	Mouse	EMS-537A	8021S3MC	Lenovo	N/A	N/A
10	PC	M4000e-17	M706RMW2	Lenovo	N/A	N/A

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 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 USB mode, charging mode, MP4, MP3, CAMERA, SD and License RX band 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 (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/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:

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): 30MHz-1GHz：5.40dB, 1GHz-18GHz：4.32dB, *k*=2.

Note: all the set-up lists in section 3.5 were tested and only the worst test data of worst set-up showed in this section.

Measurement results for Set.1:

Adapter1+ Rear Camera /Average detector

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17295.000	39.06	-20.1	40.9	18.23	54.0	14.9	V
17168.000	38.94	-20.3	41.0	18.23	54.0	15.1	V
17173.500	38.92	-20.3	41.0	18.19	54.0	15.1	V
17106.500	38.92	-20.6	41.1	18.40	54.0	15.1	V
17408.000	38.92	-20.0	40.8	18.16	54.0	15.1	V
17398.000	38.91	-20.0	40.8	18.09	54.0	15.1	V

Adapter1+ Rear Camera /Peak detector

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17041.000	51.82	-20.7	41.2	31.34	74.0	22.2	H
16487.000	51.62	-20.8	41.2	31.24	74.0	22.4	V
17296.000	51.51	-20.1	40.9	30.69	74.0	22.5	H
17084.500	51.09	-20.6	41.1	30.59	74.0	22.9	V
16940.500	51.08	-20.6	41.2	30.51	74.0	22.9	H
17407.000	51.07	-20.0	40.8	30.31	74.0	22.9	V

Measurement results for Set.2:

Adapter2+ MP4+ Headset1 /Average detector

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
16981.500	38.98	-20.7	41.2	18.48	54.0	15.0	V
17202.500	38.95	-20.2	41.0	18.13	54.0	15.1	V
17178.000	38.92	-20.3	41.0	18.17	54.0	15.1	V
16949.500	38.90	-20.6	41.2	18.35	54.0	15.1	V
16663.000	38.88	-20.7	41.2	18.34	54.0	15.1	V
17101.500	38.88	-20.6	41.1	18.38	54.0	15.1	V

Adapter2+ MP4+ Headset1 /Peak detector

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17735.500	51.69	-20.5	40.5	31.70	74.0	22.3	V
17204.500	51.40	-20.2	41.0	30.58	74.0	22.6	V
16926.500	51.13	-20.6	41.2	30.54	74.0	22.9	V
15924.000	51.10	-20.9	40.6	31.36	74.0	22.9	V
16510.000	51.06	-20.8	41.2	30.70	74.0	22.9	H
17165.000	51.04	-20.3	41.0	30.33	74.0	23.0	V

Measurement results for Set.4:

Adapter4+ Headset2+ MP3+RX GSM850 /Average detector

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17169.000	38.80	-20.3	41.0	18.08	54.0	15.2	V
17094.500	38.73	-20.6	41.1	18.23	54.0	15.3	V
16663.000	38.71	-20.7	41.2	18.17	54.0	15.3	V
17057.500	38.71	-20.7	41.1	18.22	54.0	15.3	V
17089.500	38.70	-20.6	41.1	18.20	54.0	15.3	V
17100.500	38.69	-20.6	41.1	18.18	54.0	15.3	V

Adapter4+ Headset2+ MP3+RX GSM850 /Peak detector

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17191.500	51.21	-20.2	41.0	30.42	74.0	22.8	H
17344.000	50.96	-20.0	40.9	30.13	74.0	23.0	H
16060.500	50.91	-21.4	40.8	31.51	74.0	23.1	V
17124.000	50.90	-20.5	41.1	30.32	74.0	23.1	V
17163.500	50.86	-20.3	41.0	30.16	74.0	23.1	V
16633.500	50.84	-20.8	41.2	30.45	74.0	23.2	V

Measurement results for Set.12:

USB (SD) mode+ Headset1+RX LTE B17 /Average detector

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17199.000	39.34	-20.2	41.0	18.52	54.0	14.7	V
17395.000	39.32	-20.0	40.8	18.50	54.0	14.7	V
16698.000	39.30	-20.5	41.2	18.57	54.0	14.7	V
17003.000	39.29	-20.7	41.2	18.83	54.0	14.7	V
17024.000	39.29	-20.7	41.2	18.82	54.0	14.7	V
17018.000	39.29	-20.7	41.2	18.82	54.0	14.7	V

USB (SD) mode+ Headset1+RX LTE B17 /Peak detector

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
17327.500	52.60	-20.0	40.9	31.78	74.0	21.4	H
17095.500	52.08	-20.6	41.1	31.58	74.0	21.9	H
16668.000	52.01	-20.6	41.2	31.44	74.0	22.0	H
17420.500	51.94	-20.1	40.8	31.28	74.0	22.1	V
17529.500	51.94	-20.5	40.7	31.75	74.0	22.1	V
17413.500	51.91	-20.1	40.8	31.20	74.0	22.1	H

Adapter1+ Rear Camera, Set.1

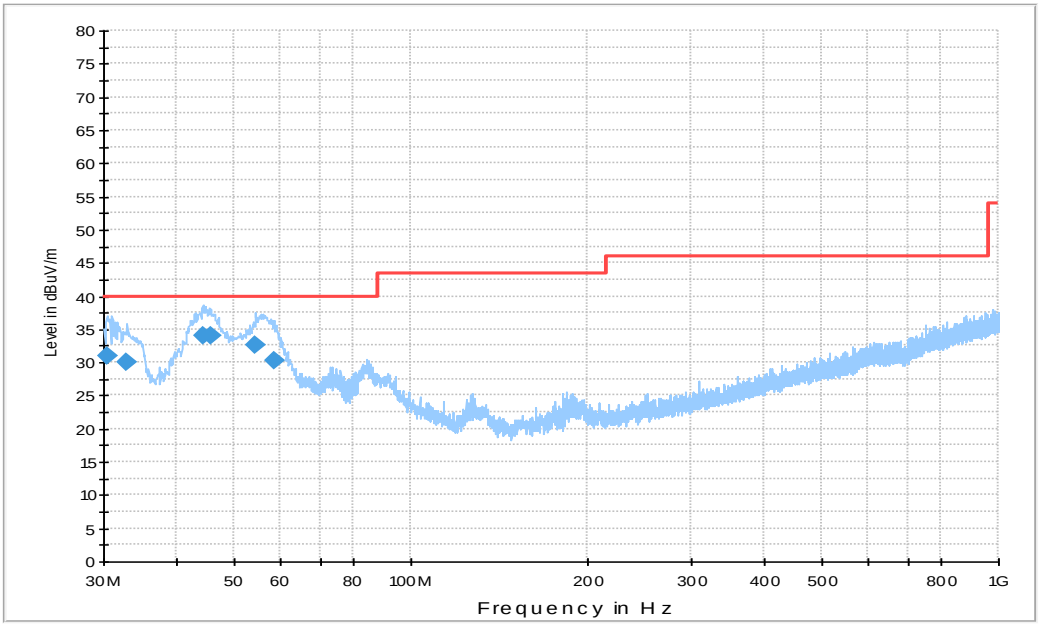

Figure A.1 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.388000	31.1	112.0	V	120.0	-2.7	8.9	40.0
32.910000	30.1	100.0	V	105.0	-2.0	9.9	40.0
44.259000	34.1	100.0	V	90.0	-0.3	5.9	40.0
45.617000	34.1	100.0	V	90.0	-0.3	5.9	40.0
54.444000	32.6	113.0	V	90.0	-0.4	7.4	40.0
58.421000	30.2	113.0	V	225.0	-0.6	9.9	40.0

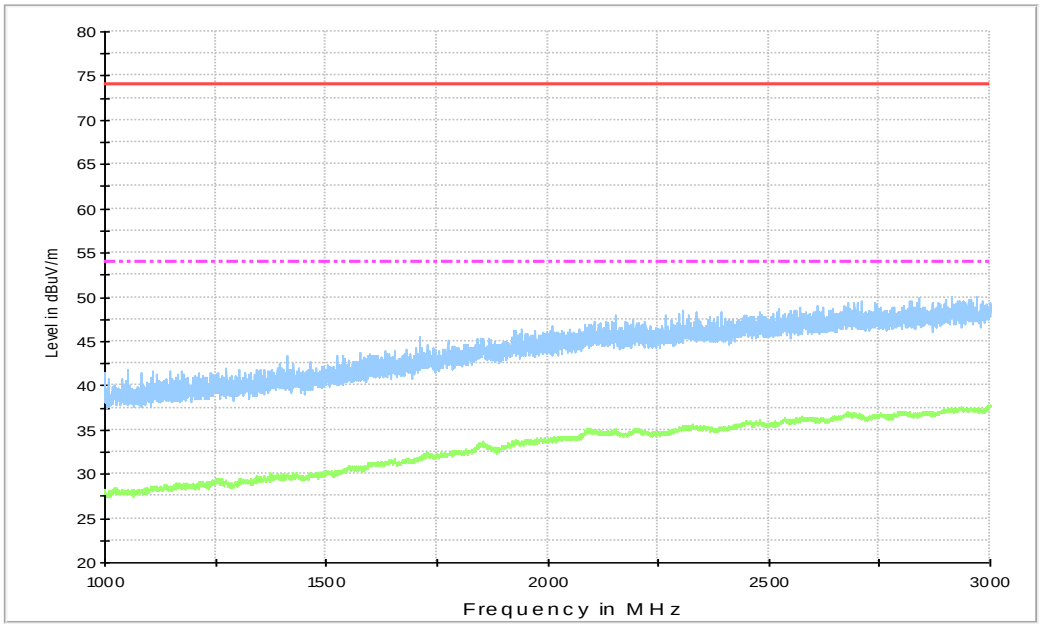

Figure A.2 Radiated Emission from 1GHz to 3GHz

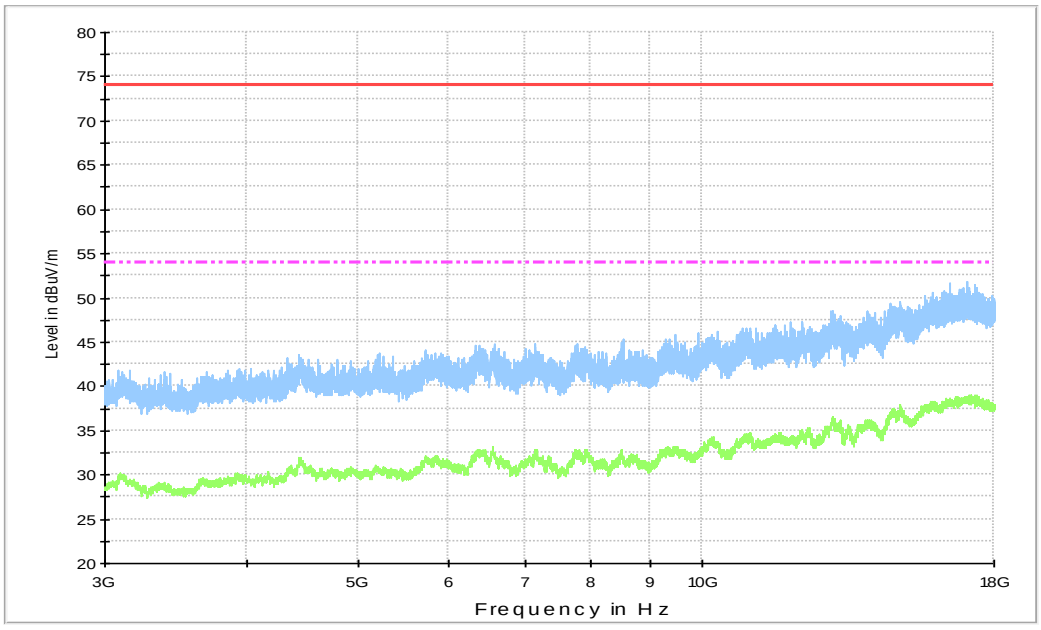

Figure A.3 Radiated Emission from 3GHz to 18GHz

Adapter2+ MP4+ Headset1, Set.2

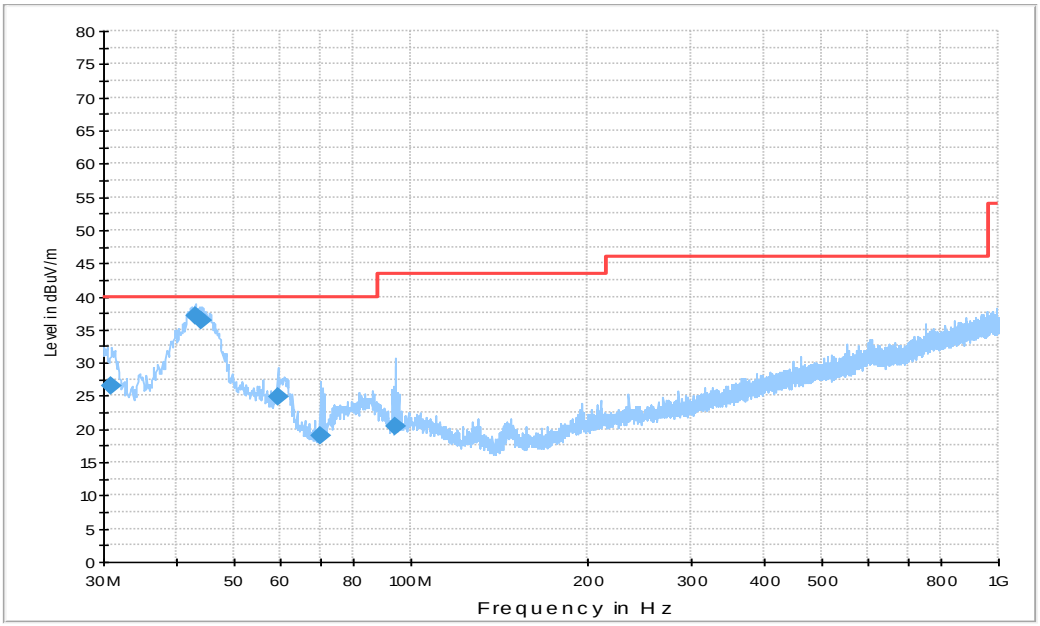

Figure A.4 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.970000	26.6	100.0	V	135.0	-2.5	13.4	40.0
42.998000	37.0	100.0	V	120.0	-0.3	3.0	40.0
44.162000	36.4	100.0	V	90.0	-0.3	3.6	40.0
59.294000	24.9	113.0	V	240.0	-0.7	15.1	40.0
70.255000	18.9	100.0	V	270.0	-4.6	21.1	40.0
94.214000	20.4	100.0	V	-31.0	-2.8	23.1	43.5

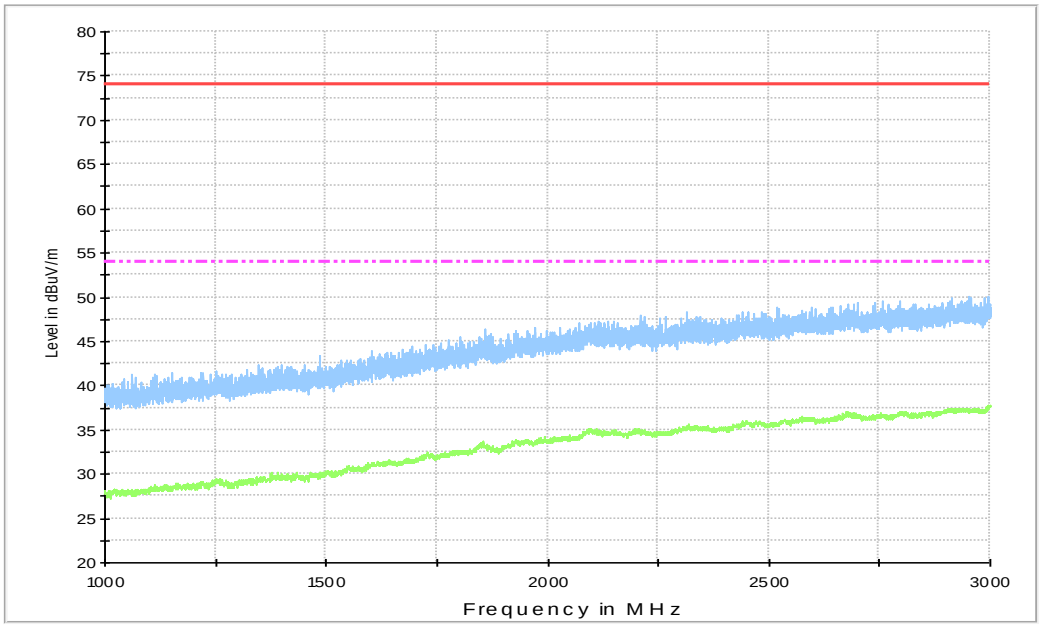

Figure A.5 Radiated Emission from 1GHz to 3GHz

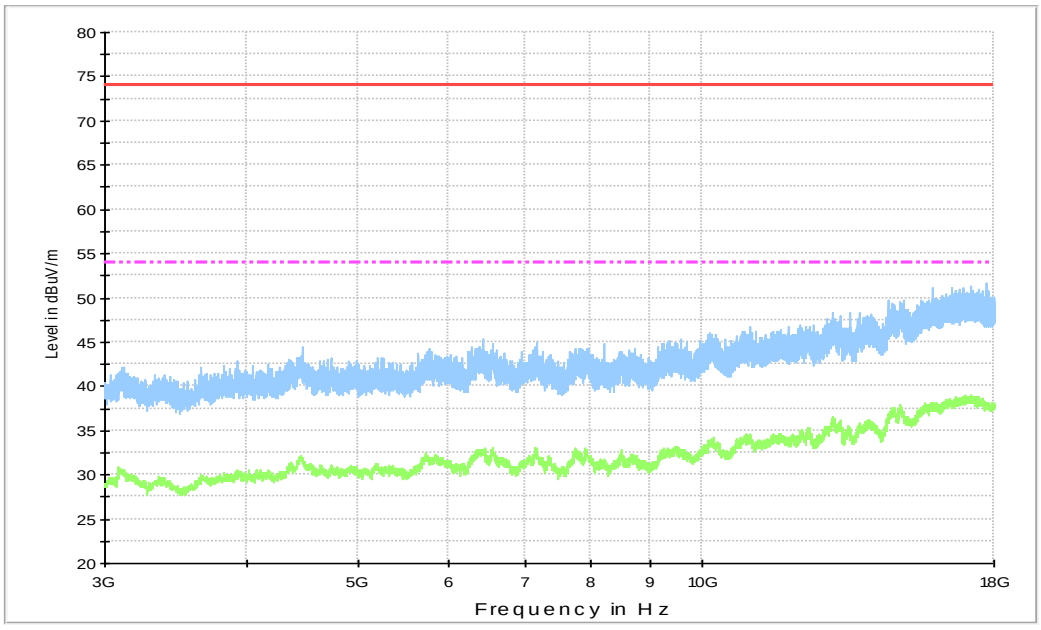

Figure A.6 Radiated Emission from 3GHz to 18GHz

Adapter4+ Headset2+ MP3+RX GSM850, Set.4

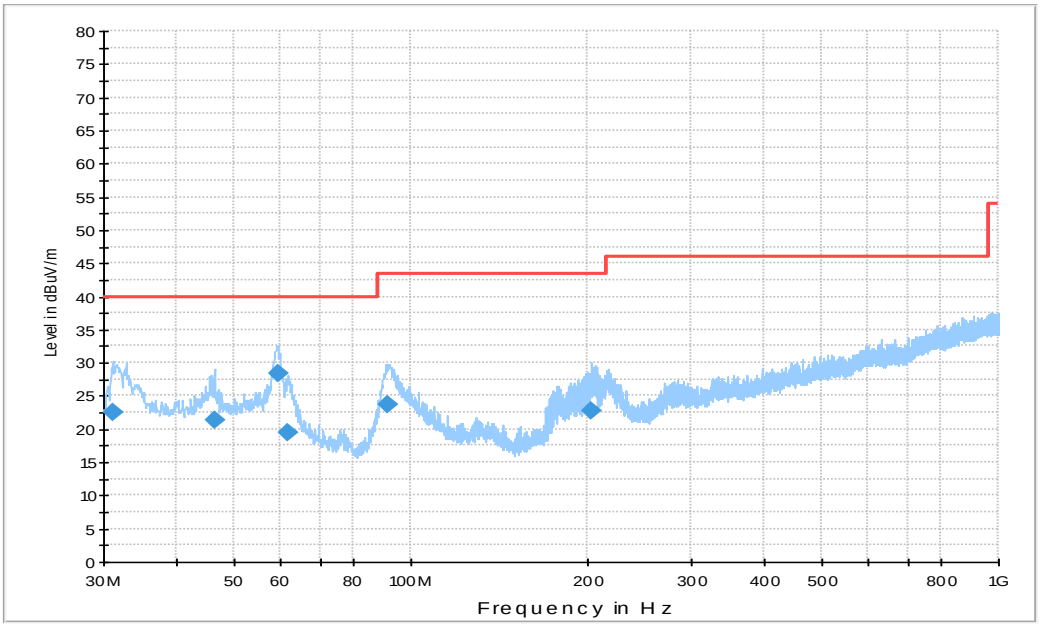

Figure A.7 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
31.164000	22.6	100.0	V	180.0	-2.5	17.4	40.0
46.296000	21.5	113.0	V	90.0	-0.3	18.5	40.0
59.391000	28.3	100.0	V	225.0	-0.7	11.7	40.0
62.010000	19.5	125.0	V	225.0	-1.5	20.5	40.0
91.498000	23.6	100.0	V	270.0	-3.4	19.9	43.5
202.85400	22.9	100.0	V	0.0	-1.8	20.6	43.5

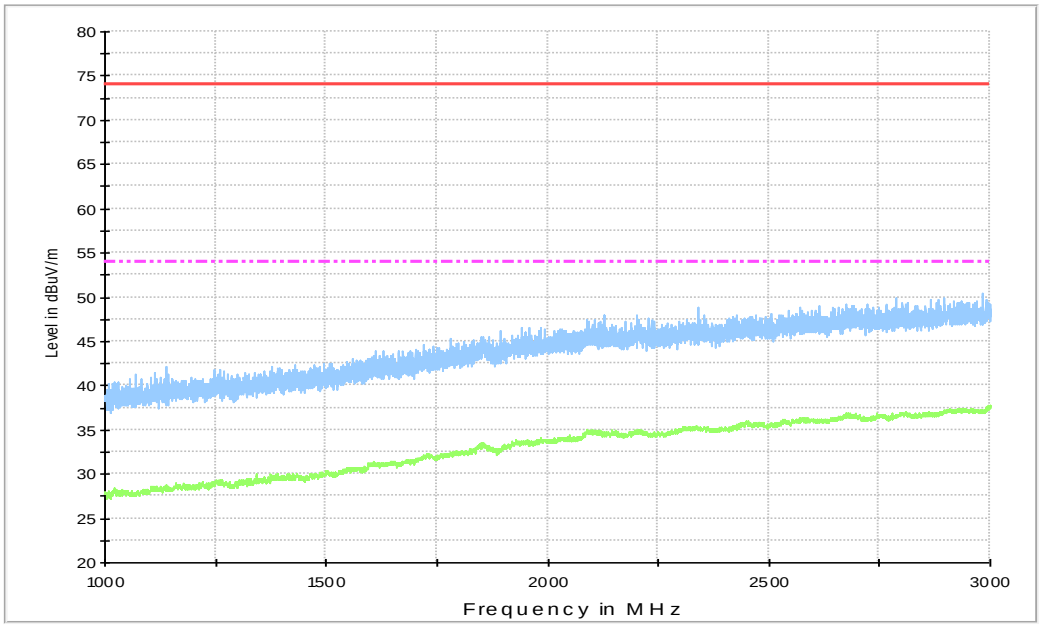

Figure A.8 Radiated Emission from 1GHz to 3GHz

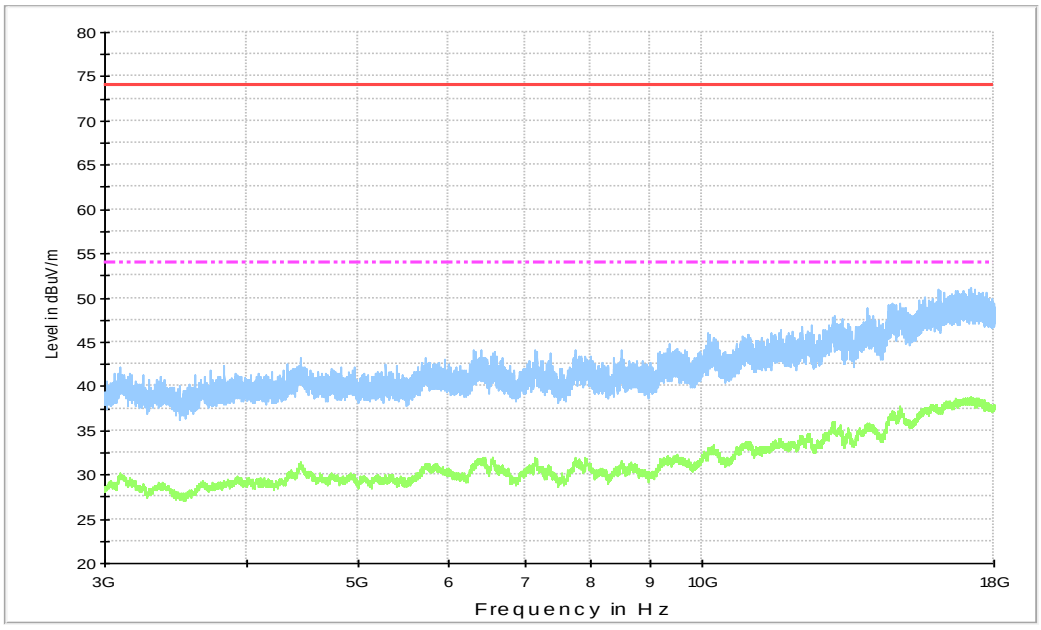

Figure A.9 Radiated Emission from 3GHz to 18GHz

USB (SD) mode+ Headset1+RX LTE B17, Set.12

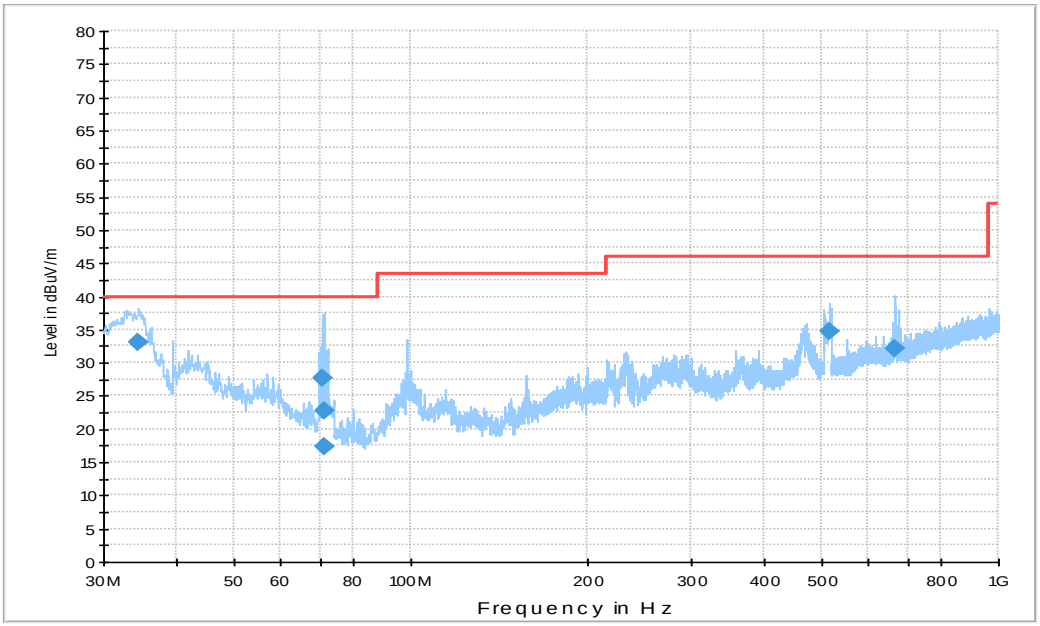

Figure A.10 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
34.462000	33.0	100.0	V	239.0	-1.7	7.0	40.0
70.546000	27.6	100.0	H	270.0	-4.6	12.4	40.0
71.031000	17.3	100.0	V	225.0	-4.7	22.7	40.0
71.322000	22.8	125.0	H	90.0	-4.8	17.2	40.0
517.52200	34.8	125.0	V	-31.0	6.6	11.2	46.0
664.96200	32.2	100.0	V	0.0	8.9	13.8	46.0

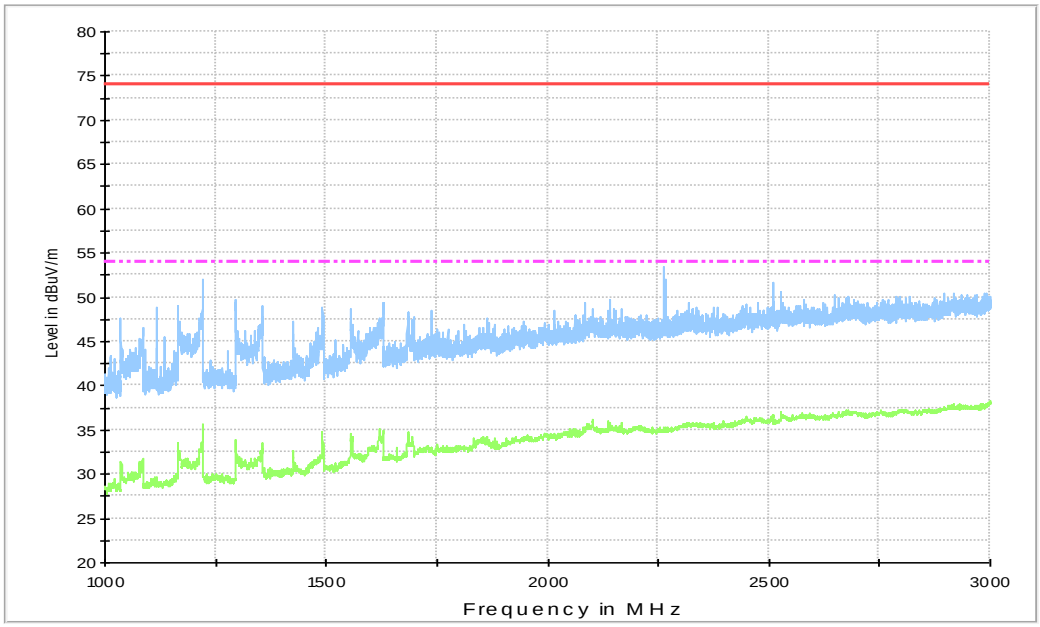

Figure A.11 Radiated Emission from 1GHz to 3GHz

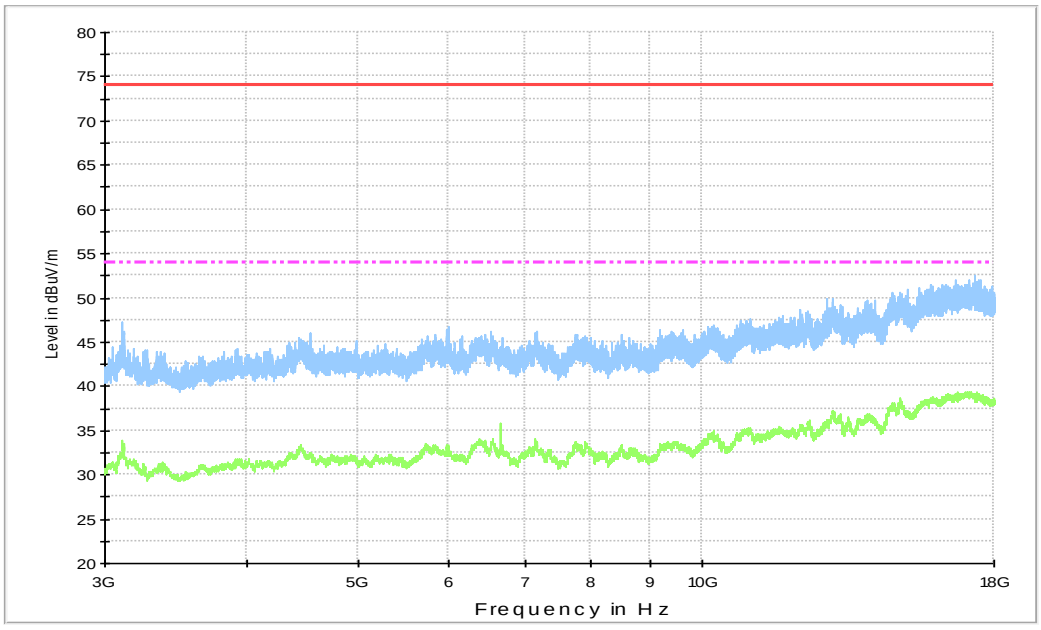

Figure A.12 Radiated Emission from 3GHz to 18GHz

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, charging mode, MP4, CAMERA and SD 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 (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*= 3.10 dB, *k*=2.

Note: all the set-up lists in section 3.5 were tested and only the worst test data of worst set-up showed in this section.

Set.3

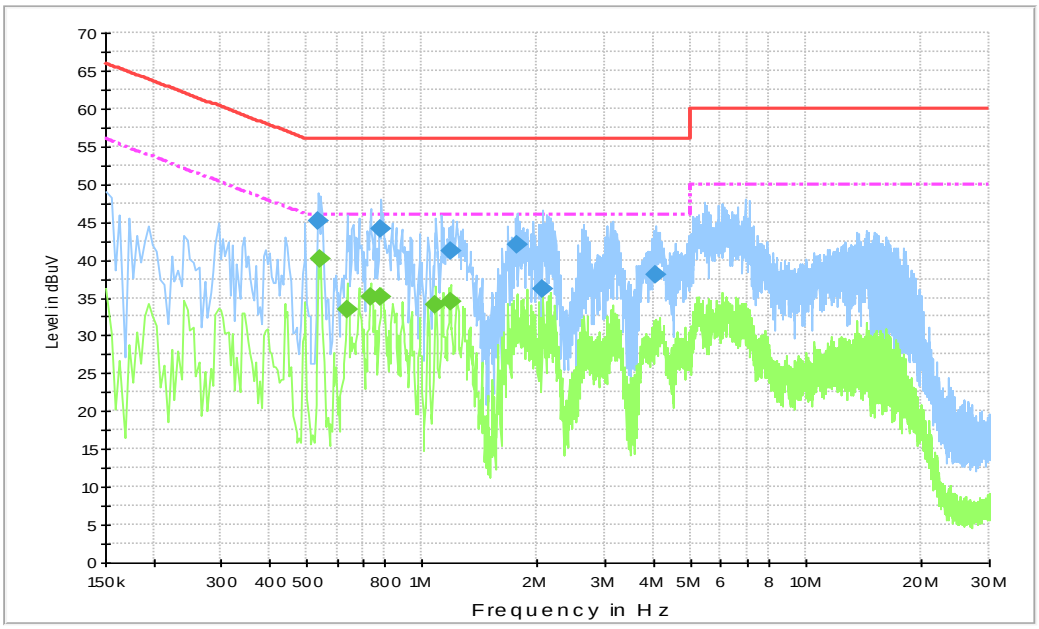

Figure A.13 Conducted Emission

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.537000	45.2	5000.0	9.000	On	L1	19.8	10.8	56.0
0.784500	44.0	5000.0	9.000	On	L1	19.8	12.0	56.0
1.185000	41.1	5000.0	9.000	On	N	19.7	14.9	56.0
1.774500	41.9	5000.0	9.000	On	L1	19.7	14.1	56.0
2.062500	36.1	5000.0	9.000	On	N	19.7	19.9	56.0
4.065000	37.9	5000.0	9.000	On	L1	19.6	18.1	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.546000	40.1	5000.0	9.000	On	L1	19.9	5.9	46.0
0.636000	33.4	5000.0	9.000	On	L1	19.8	12.6	46.0
0.735000	35.0	5000.0	9.000	On	L1	19.8	11.0	46.0
0.784500	35.2	5000.0	9.000	On	L1	19.8	10.8	46.0
1.086000	34.1	5000.0	9.000	On	L1	19.7	11.9	46.0
1.185000	34.4	5000.0	9.000	On	L1	19.7	11.6	46.0

Set.4

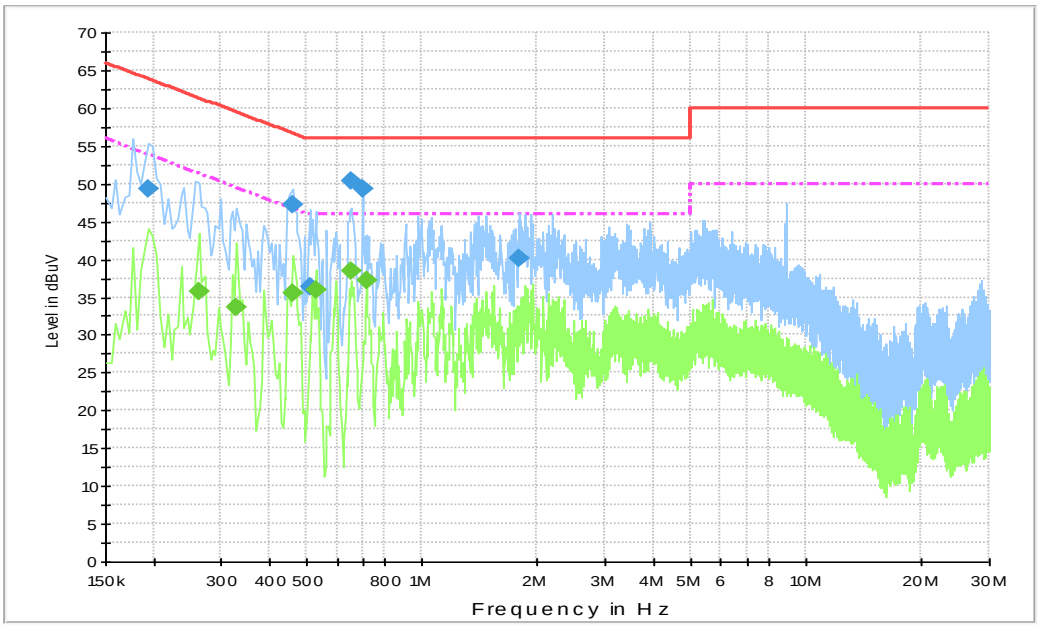

Figure A.14 Conducted Emission

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.195000	49.2	5000.0	9.000	On	L1	19.9	14.6	63.8
0.460500	47.2	5000.0	9.000	On	L1	19.9	9.5	56.7
0.510000	36.3	5000.0	9.000	On	L1	19.9	19.7	56.0
0.654000	50.3	5000.0	9.000	On	L1	19.8	5.7	56.0
0.699000	49.4	5000.0	9.000	On	L1	19.8	6.6	56.0
1.797000	40.2	5000.0	9.000	On	L1	19.7	15.8	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.262500	35.8	5000.0	9.000	On	L1	19.8	15.6	51.4
0.330000	33.5	5000.0	9.000	On	N	19.8	15.9	49.5
0.460500	35.6	5000.0	9.000	On	N	19.9	11.1	46.7
0.528000	35.9	5000.0	9.000	On	L1	19.8	10.1	46.0
0.654000	38.5	5000.0	9.000	On	L1	19.8	7.5	46.0
0.717000	37.3	5000.0	9.000	On	L1	19.8	8.7	46.0

USB (SD) mode, Set.12

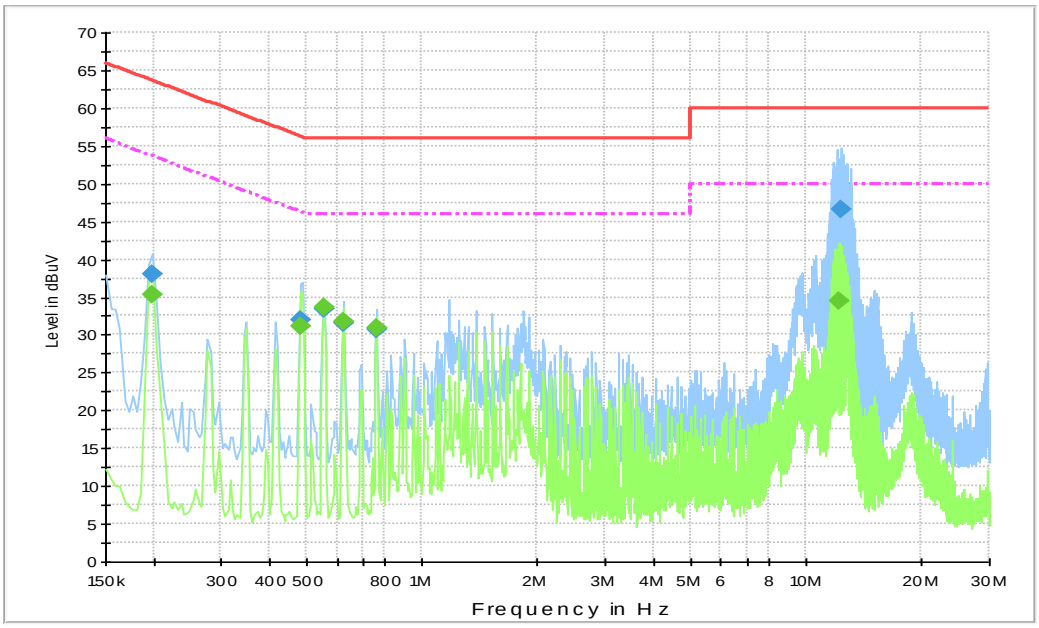

Figure A.15 Conducted Emission

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.199500	38.0	5000.0	9.000	On	L1	19.9	25.7	63.6
0.483000	31.9	5000.0	9.000	On	N	19.9	24.4	56.3
0.555000	33.5	5000.0	9.000	On	L1	19.9	22.5	56.0
0.622500	31.5	5000.0	9.000	On	L1	19.8	24.5	56.0
0.762000	30.7	5000.0	9.000	On	L1	19.8	25.3	56.0
12.345000	46.7	5000.0	9.000	On	L1	19.8	13.3	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.199500	35.4	5000.0	9.000	On	L1	19.9	18.2	53.6
0.483000	31.1	5000.0	9.000	On	N	19.9	15.2	46.3
0.555000	33.7	5000.0	9.000	On	L1	19.9	12.3	46.0
0.622500	31.7	5000.0	9.000	On	L1	19.8	14.3	46.0
0.762000	30.9	5000.0	9.000	On	L1	19.8	15.1	46.0
12.214500	34.4	5000.0	9.000	On	N	19.8	15.6	50.0

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ANNEX B: Persons involved in this testing

Test Item	Tester
Radiated Emission	Li Zongliang
Conducted Emission	Guo Qian

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