



# TEST REPORT

## No. I21Z70530-EMC04

for

**Samsung Electronics Co., Ltd.**

**Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN**

**Model Name: SM-A035G/DSN**

**FCC ID: ZCASMA035G**

with

**Hardware Version: REV1.0**

**Software Version: A035G.001**

**Issued Date: 2021-11-18**

**Note:**

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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:**

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I21Z70530-EMC04	Rev.0	1 <sup>st</sup> edition	2021-11-18

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 (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: 2021-10-13  
Testing End Date: 2021-11-15

### **1.5. Signature**



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Li Yan


(Prepared this test report)



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Zhang Ying

(Reviewed this test report)



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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 phone with Bluetooth, WLAN
Model Name	SM-A035G/DSN
FCC ID	ZCASMA035G

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**

<b>EUT ID*</b>	<b>IME/SNI</b>	<b>HW Version</b>	<b>SW Version</b>	<b>Date of receipt</b>
UT19a	2170530UT19a	REV1.0	A035G.001	2021.10.13

\*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	Adapter1	/	/
AE2	Adapter2	/	/
AE3	Adapter3	/	/
AE4	Adapter4	/	/
AE5	Adapter5	/	/
AE6	Adapter6	/	/
AE7	Adapter7	/	/
AE8	Adapter8	/	/
AE9	USB Cable	/	/
AE10	Headset1	/	/
AE11	Headset2	/	/
AE12	Battery1	/	/
AE13	Battery2	/	/

##### **AE1**

Model	EP-TA50JWS
Manufacturer	RFTECH Co., Ltd.
Length of cable	/

##### **AE2**

Model	EP-TA50JWS
Manufacturer	HAMEN
Length of cable	/

##### **AE3**

Model	EP-TA50EWE
Manufacturer	DY
Length of cable	/



AE4		
Model	EP-TA50EWE	
Manufacturer	HAMEN	
Length of cable	/	
AE5		
Model	EP-TA50EWE	
Manufacturer	Salcomp	
Length of cable	/	
AE6		
Model	EP-TA50UWE	
Manufacturer	DY	
Length of cable	/	
AE7		
Model	EP-TA50UWE	
Manufacturer	HAMEN	
Length of cable	/	
AE8		
Model	EP- TA50UWE	
Manufacturer	Salcomp	
Length of cable	/	
AE9		
Model	ECB-DU68WE	
Manufacturer	Samsung Electronics Co., Ltd.	
Length	/	/
AE10		
Model	EHS61ASFWE	
Manufacturer	CRESYN HANOI Co., Ltd	
Length	/	
AE11		
Model	EHS61ASFWE	
Manufacturer	DONGGUAN YOUNGBO ELECTRONICS CO.,LTD	
Length	/	
AE12		
TYPE	Secondary Li-ion Battery	
SN	HQ-50SD	
Manufacturer	SCUD (Fujian) Electronics CO.,LTD	
AE13		
TYPE	Secondary Li-ion Battery	
SN	HQ-50N	
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 and LTE BAND 5.

### 3.5. EUT set-ups

<b>EUT set-up No.</b>	<b>Combination of EUT and AE</b>	<b>Remarks</b>
Set.1	UT19a + AE1 + AE9 + AE10	Adapter1+ R Camera+ Headset1
Set.2	UT19a + AE2 + AE9	Adapter2+ MP4
Set.3	UT19a + AE3 + AE9 + AE11	Adapter3+ F camera+Headset2
Set.4	UT19a + AE4 + AE9	Adapter4+ MP4+ RX mode
Set.5	UT19a + AE5 + AE9	Adapter5+ MP3+ RX mode+ Headset1
Set.6	UT19a + AE6 + AE9	Adapter6+ RX mode+Headset2
Set.7	UT19a + AE7 + AE9 + AE10	Adapter7+ RX mode
Set.8	UT19a + AE8 + AE9 + AE11	Adapter8+ RX mode
Set.9	UT19a + AE9 + AE10	USB SD TO PC + Headset1+MP3
Set.10	UT19a + AE9 + AE11	USB PC TO SD + Headset2

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.

<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-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	9163-514	Schwarzbeck	2022-03-22	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 ( $\mu\text{V}/\text{m}$ )		
	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: 5.40dB, 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.3:

##### Adapter3+ Headset2+ Front Camera /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)
17286.000	39.34	-20.1	40.9	18.52	54.0	14.7	H
17075.500	39.28	-20.6	41.1	18.79	54.0	14.7	V
17394.500	39.27	-20.0	40.8	18.45	54.0	14.7	V
17017.000	39.23	-20.7	41.2	18.76	54.0	14.8	H
17177.000	39.23	-20.3	41.0	18.48	54.0	14.8	H
17134.500	39.23	-20.5	41.1	18.62	54.0	14.8	H

##### Adapter3+ Headset2+ Front Camera 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)
17084.500	52.5	-20.6	41.1	31.97	74.0	21.5	V
16903.000	52.2	-20.6	41.2	31.55	74.0	21.8	V
17610.500	51.7	-20.1	40.6	31.18	74.0	22.3	V
16895.000	51.6	-20.6	41.2	31.01	74.0	22.4	H
16664.500	51.6	-20.7	41.2	31.04	74.0	22.4	H
17811.000	51.5	-20.5	40.4	31.56	74.0	22.5	H

**Measurement results for Set.4:**
**Adapter4+ MP4+RX GSM850 /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)
17283.500	39.42	-20.1	40.9	18.60	54.0	14.6	H
17282.000	39.40	-20.1	40.9	18.58	54.0	14.6	V
17288.000	39.32	-20.1	40.9	18.49	54.0	14.7	H
17017.000	39.30	-20.7	41.2	18.83	54.0	14.7	H
17293.500	39.27	-20.1	40.9	18.44	54.0	14.7	H
17167.000	39.27	-20.3	41.0	18.55	54.0	14.7	V

**Adapter4+ MP4+RX GSM850 /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)
16437.000	53.1	-20.8	41.1	32.74	74.0	20.9	H
16984.000	51.9	-20.7	41.2	31.40	74.0	22.1	V
16821.500	51.8	-20.6	41.2	31.14	74.0	22.2	H
17225.000	51.6	-20.2	41.0	30.77	74.0	22.4	H
17480.000	51.6	-20.5	40.7	31.39	74.0	22.4	H
17295.500	51.6	-20.1	40.9	30.74	74.0	22.4	H

**Measurement results for Set.6:**
**Adapter6+ Headset2+ RX LTE B5 /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)
16815.000	39.48	-20.6	41.2	18.87	54.0	14.5	V
17285.500	39.45	-20.1	40.9	18.63	54.0	14.6	H
17022.000	39.43	-20.7	41.2	18.95	54.0	14.6	V
17286.000	39.38	-20.1	40.9	18.56	54.0	14.6	V
17095.000	39.34	-20.6	41.1	18.84	54.0	14.7	H
17396.000	39.29	-20.0	40.8	18.47	54.0	14.7	V

**Adapter6+ Headset2+ RX LTE B5 /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)
16385.000	52.1	-20.8	41.1	31.81	74.0	21.9	V
16760.500	52.1	-20.5	41.2	31.40	74.0	21.9	V
17280.000	51.6	-20.1	40.9	30.80	74.0	22.4	H
16815.000	51.6	-20.6	41.2	30.94	74.0	22.4	V
17177.500	51.5	-20.3	41.0	30.73	74.0	22.5	H
17252.000	51.5	-20.1	40.9	30.64	74.0	22.5	H



**Measurement results for Set.9:**
**USB (SD) mode+ Headset1+MP3 /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)
17265.000	39.34	-20.1	40.9	18.52	54.0	14.7	V
17007.000	39.31	-20.7	41.2	18.84	54.0	14.7	V
17128.500	39.29	-20.5	41.1	18.70	54.0	14.7	V
17203.000	39.28	-20.2	41.0	18.46	54.0	14.7	V
17291.500	39.27	-20.1	40.9	18.45	54.0	14.7	V
17292.000	39.25	-20.1	40.9	18.43	54.0	14.7	V

**USB (SD) mode + Headset1+MP3 /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)
16680.500	52.4	-20.6	41.2	31.78	74.0	21.6	H
16021.500	52.4	-21.4	40.7	32.98	74.0	21.6	V
16410.500	52.2	-20.8	41.1	31.90	74.0	21.8	H
16620.500	52.2	-20.9	41.2	31.85	74.0	21.8	V
17161.000	52.1	-20.3	41.0	31.44	74.0	21.9	H
17239.500	51.8	-20.1	41.0	31.03	74.0	22.2	V

### Adapter3+ Headset2+ Front Camera, Set.3

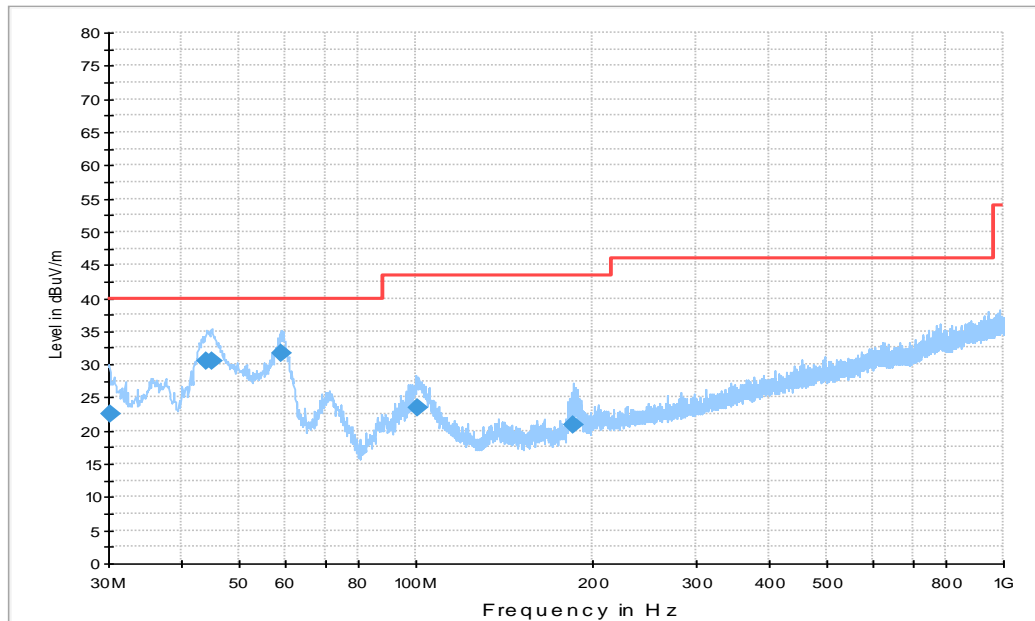
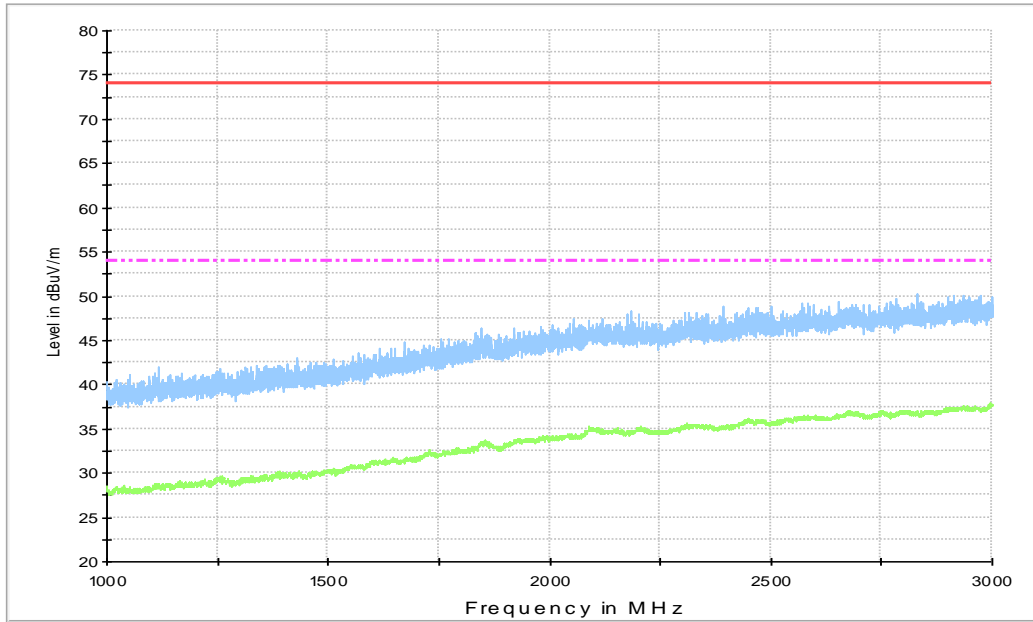


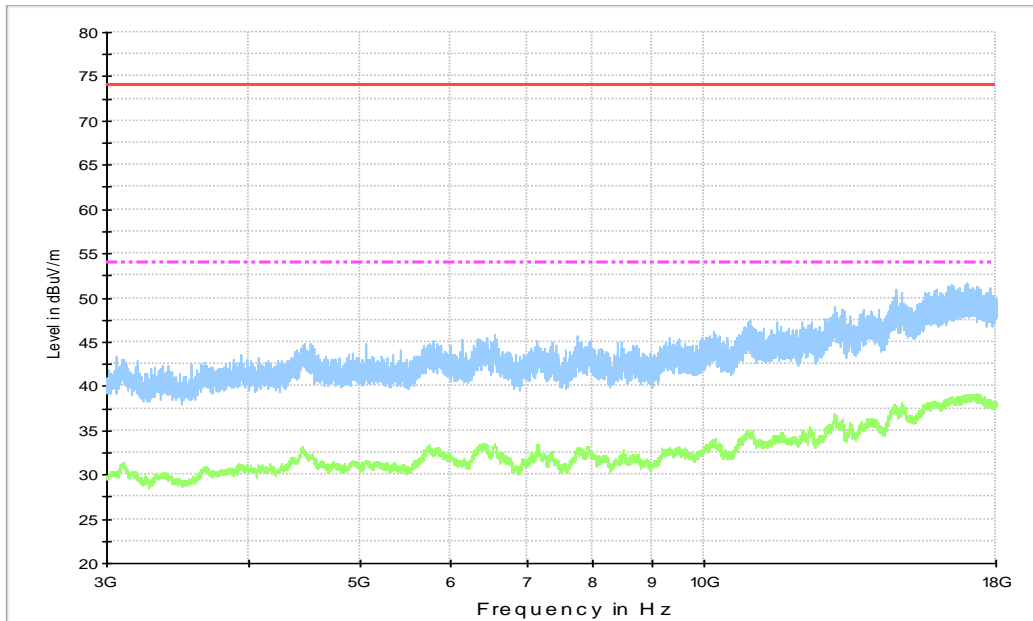
Figure A.1 Radiated Emission from 30MHz to 1GHz

### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
30.194000	22.4	100.0	V	45.0	-2.8	17.6	40.0
44.065000	30.5	100.0	V	90.0	-0.3	9.5	40.0
44.938000	30.6	100.0	V	75.0	-0.3	9.4	40.0
58.906000	31.6	113.0	V	225.0	-0.7	8.4	40.0
101.10100	23.5	100.0	V	210.0	-1.7	20.0	43.5
185.68500	20.8	100.0	V	0.0	-2.6	22.7	43.5

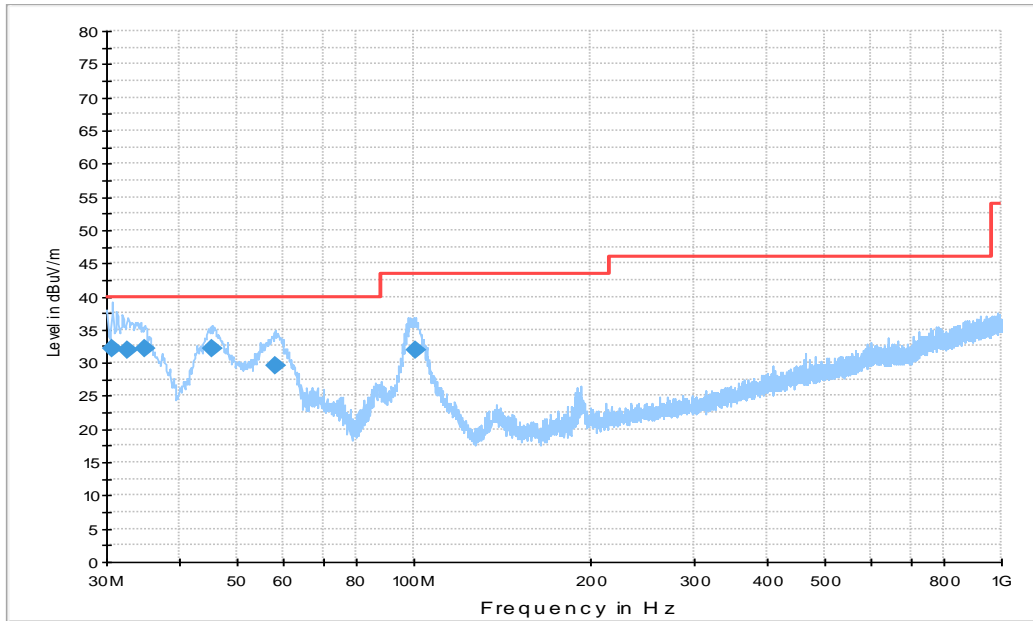


**Figure A.2 Radiated Emission from 1GHz to 3GHz**



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

**Adapter4+ MP4+RX GSM850, Set.4**



**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)
30.679000	32.2	100.0	V	180.0	-2.6	7.8	40.0
32.619000	32.0	100.0	V	180.0	-2.1	8.0	40.0
34.753000	32.1	100.0	V	315.0	-1.6	7.9	40.0
45.326000	32.1	100.0	V	75.0	-0.3	7.9	40.0
58.033000	29.5	100.0	V	225.0	-0.6	10.5	40.0
100.71300	31.8	100.0	V	225.0	-1.6	11.7	43.5

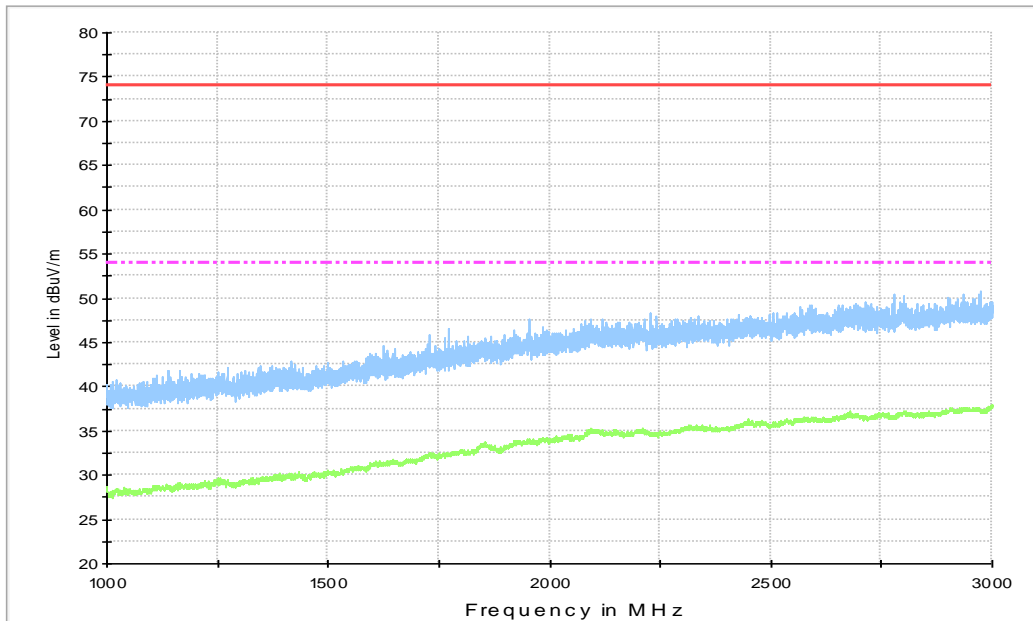


Figure A.5 Radiated Emission from 1GHz to 3GHz

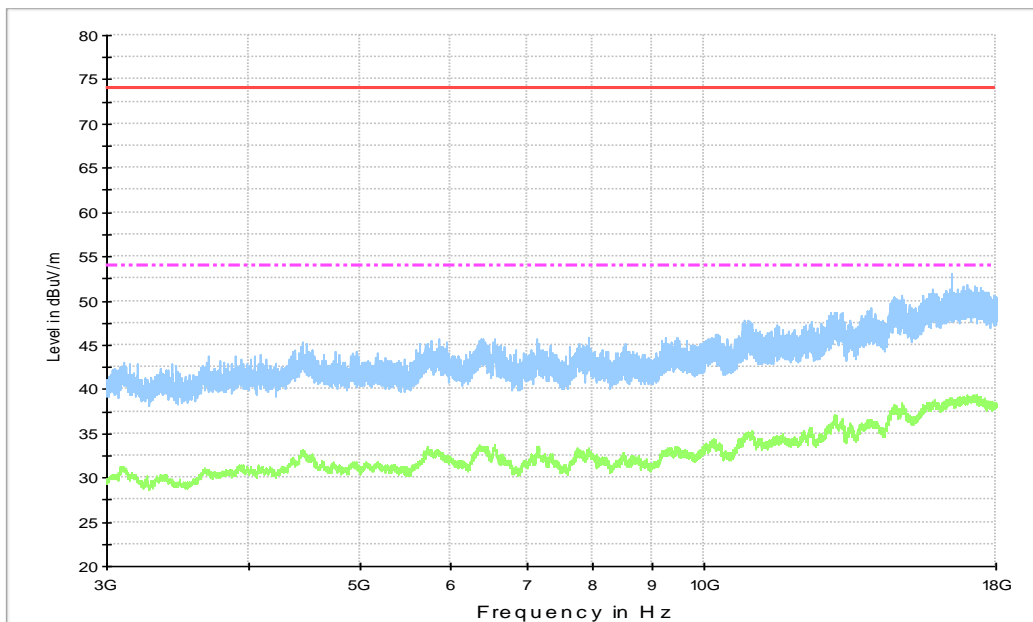


Figure A.6 Radiated Emission from 3GHz to 18GHz

### Adapter6+ Headset2+ RX LTE B5, Set.6

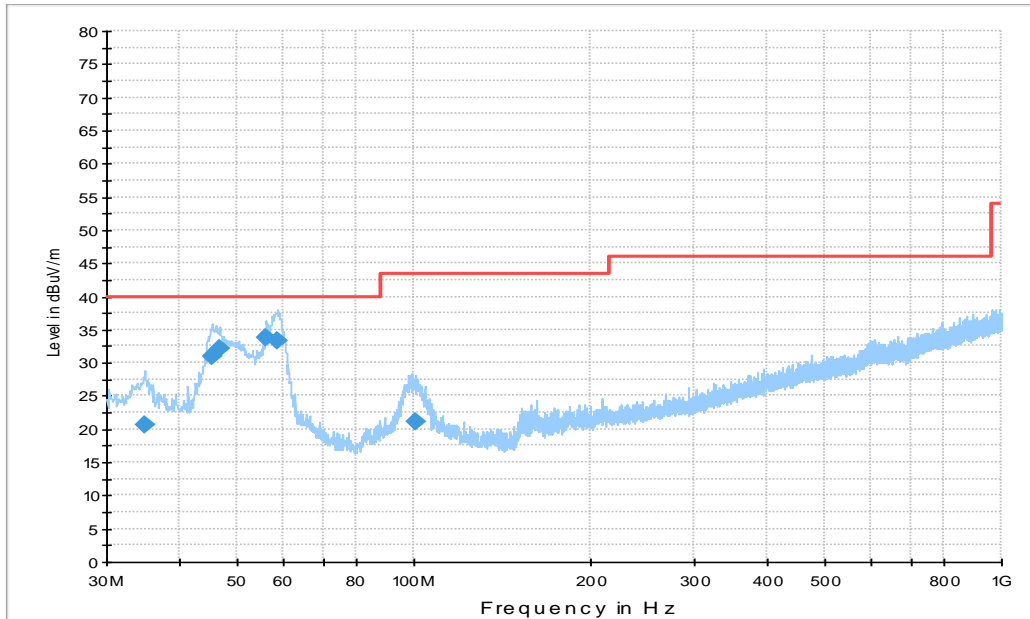
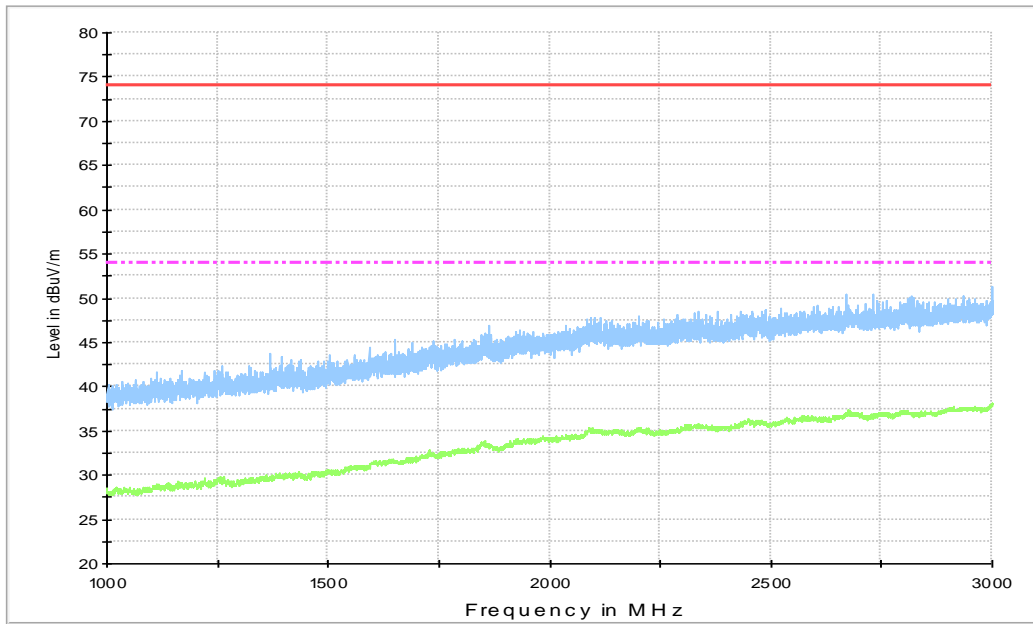


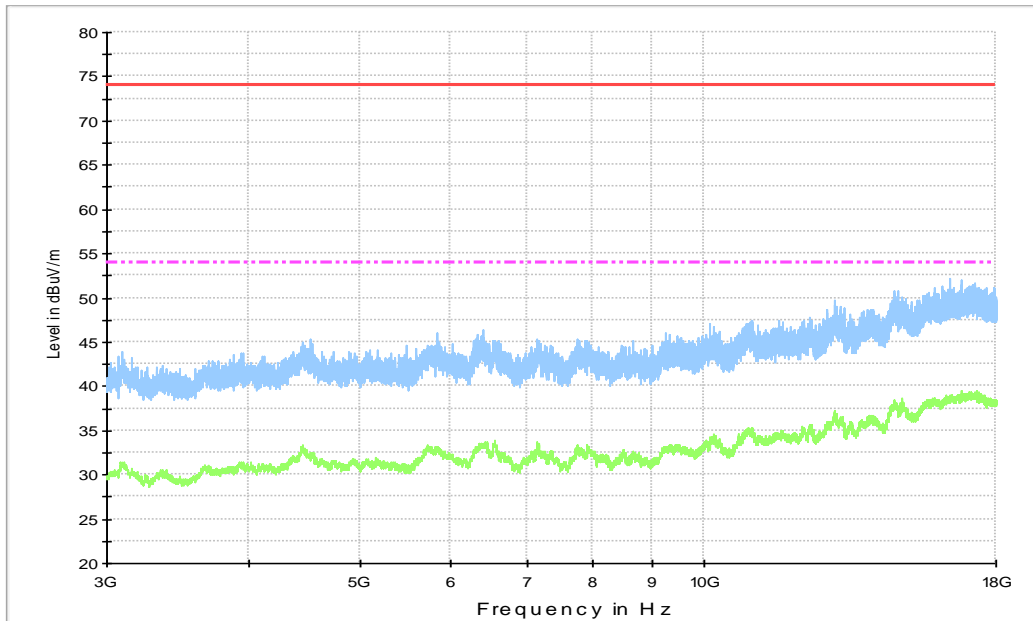
Figure A.7 Radiated Emission from 30MHz to 1GHz

### Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
34.850000	20.5	100.0	V	-16.0	-1.6	19.5	40.0
45.326000	30.9	113.0	V	270.0	-0.3	9.1	40.0
46.781000	32.0	100.0	V	225.0	-0.2	8.0	40.0
56.093000	33.7	100.0	V	255.0	-0.5	6.3	40.0
58.518000	33.3	100.0	V	180.0	-0.6	6.7	40.0
100.42200	21.0	100.0	V	195.0	-1.6	22.5	43.5

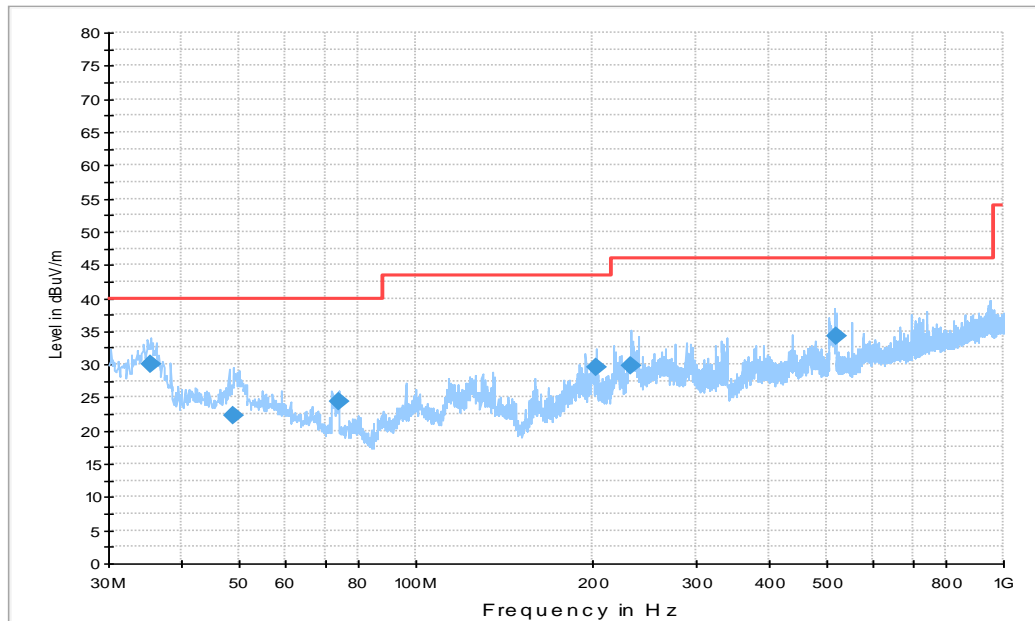


**Figure A.8 Radiated Emission from 1GHz to 3GHz**



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

**USB (SD) mode+ Headset2+MP3, Set.9**



**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)
35.432000	30.0	100.0	V	-31.0	-1.4	10.0	40.0
48.915000	22.3	100.0	V	315.0	-0.2	17.7	40.0
73.844000	24.3	100.0	V	270.0	-5.4	15.7	40.0
203.24200	29.6	100.0	H	60.0	-1.8	13.9	43.5
232.82700	29.8	100.0	H	90.0	-0.6	16.2	46.0
518.00700	34.3	100.0	V	0.0	6.6	11.7	46.0



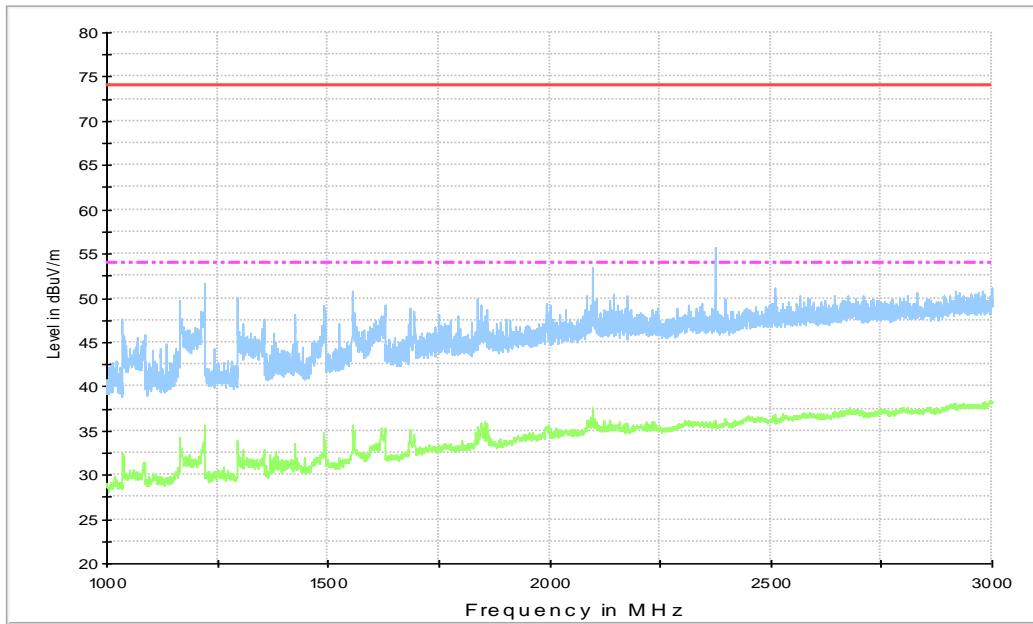


Figure A.11 Radiated Emission from 1GHz to 3GHz

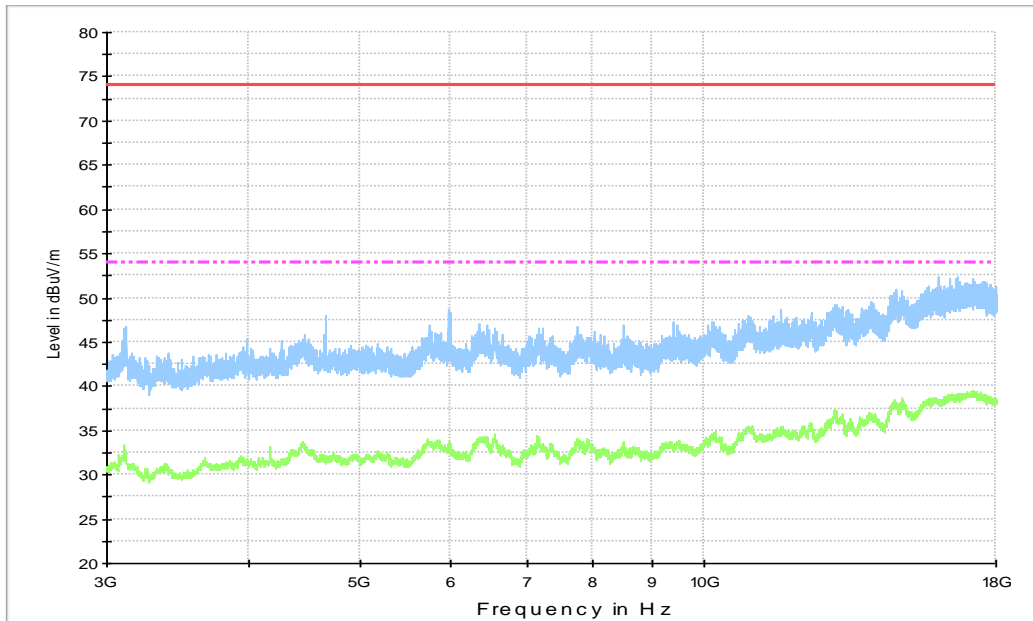


Figure A.12 Radiated Emission from 3GHz to 18GHz

## 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 (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

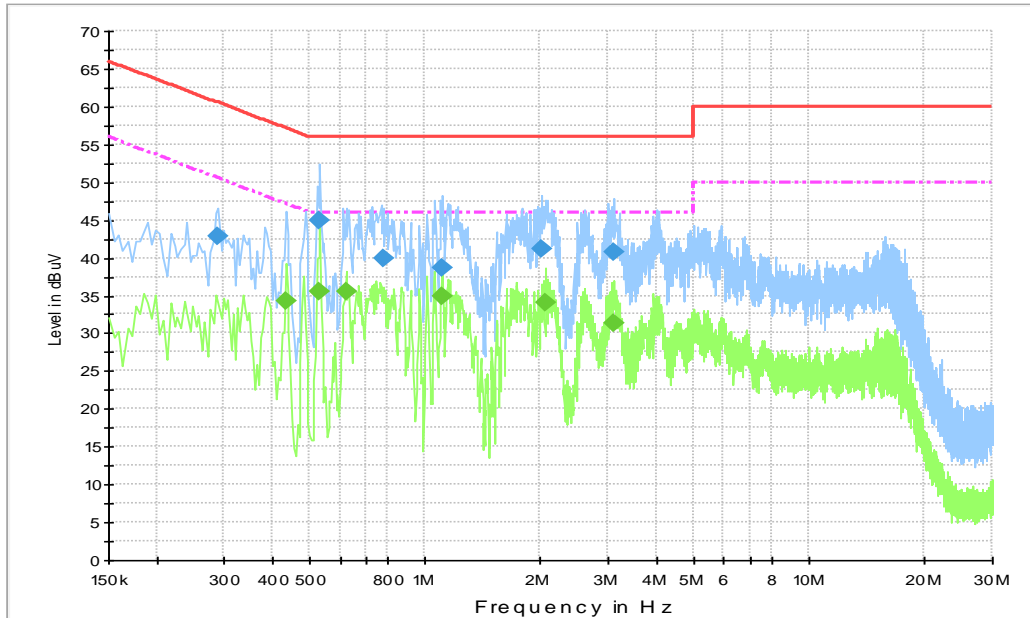
RBW/IF bandwidth	Sweep Time(s)
9kHz	1

### A.2.5 Measurement Results

Measurement uncertainty:  $U= 3.10 \text{ dB}$ ,  $k=2$ .

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.1



**Figure A.13 Conducted Emission**

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

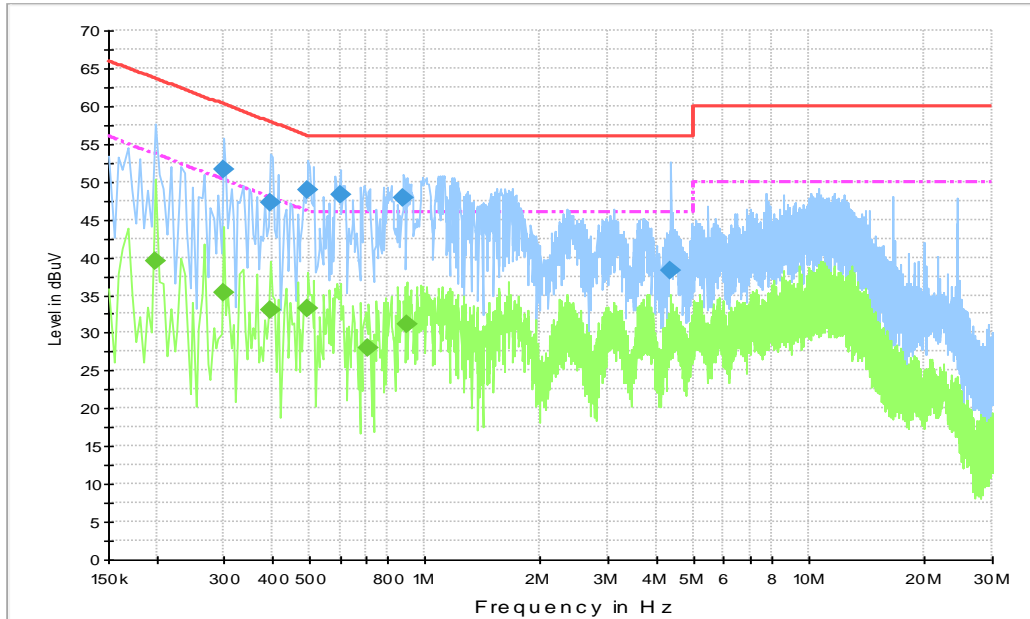
#### Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.289500	42.8	5000.0	9.000	On	L1	19.9	17.8	60.5
0.532500	44.9	5000.0	9.000	On	L1	19.8	11.1	56.0
0.780000	39.9	5000.0	9.000	On	N	19.8	16.1	56.0
1.113000	38.7	5000.0	9.000	On	L1	19.7	17.3	56.0
2.017500	41.2	5000.0	9.000	On	N	19.7	14.8	56.0
3.102000	40.7	5000.0	9.000	On	N	19.6	15.3	56.0

#### Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.433500	34.3	5000.0	9.000	On	N	19.9	12.9	47.2
0.532500	35.5	5000.0	9.000	On	L1	19.8	10.5	46.0
0.622500	35.5	5000.0	9.000	On	L1	19.8	10.5	46.0
1.104000	34.9	5000.0	9.000	On	L1	19.7	11.1	46.0
2.062500	34.0	5000.0	9.000	On	L1	19.7	12.0	46.0
3.102000	31.4	5000.0	9.000	On	N	19.6	14.6	46.0

Set.7



**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)
0.298500	51.6	5000.0	9.000	On	L1	19.9	8.7	60.3
0.397500	47.2	5000.0	9.000	On	N	19.9	10.7	57.9
0.496500	48.9	5000.0	9.000	On	L1	19.9	7.2	56.1
0.600000	48.3	5000.0	9.000	On	L1	19.8	7.7	56.0
0.879000	47.8	5000.0	9.000	On	L1	19.7	8.2	56.0
4.380000	38.3	5000.0	9.000	On	N	19.6	17.7	56.0

**Final Result 2**

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.199500	39.4	5000.0	9.000	On	N	19.9	14.2	53.6
0.298500	35.2	5000.0	9.000	On	N	19.9	15.1	50.3
0.397500	33.0	5000.0	9.000	On	N	19.9	14.9	47.9
0.496500	33.2	5000.0	9.000	On	N	19.9	12.9	46.1
0.712500	28.0	5000.0	9.000	On	N	19.8	18.0	46.0
0.897000	31.2	5000.0	9.000	On	L1	19.7	14.8	46.0

USB (SD) mode, Set.9

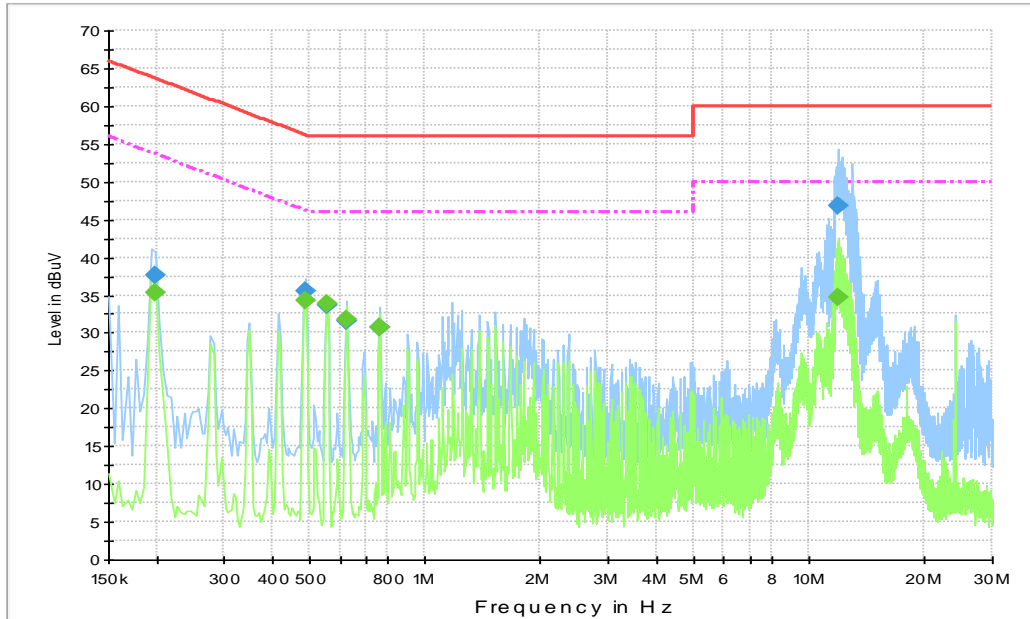


Figure A.15 Conducted Emission

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

Final Result 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.199500	37.7	5000.0	9.000	On	N	19.9	26.0	63.6
0.487500	35.4	5000.0	9.000	On	N	19.9	20.8	56.2
0.555000	33.6	5000.0	9.000	On	N	19.9	22.4	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	N	19.8	25.3	56.0
11.944500	46.8	5000.0	9.000	On	L1	19.8	13.2	60.0

Final Result 2

Frequency (MHz)	Average (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.199500	35.3	5000.0	9.000	On	L1	19.9	18.4	53.6
0.487500	34.2	5000.0	9.000	On	N	19.9	12.0	46.2
0.555000	33.8	5000.0	9.000	On	N	19.9	12.2	46.0
0.622500	31.7	5000.0	9.000	On	L1	19.8	14.3	46.0
0.762000	30.6	5000.0	9.000	On	N	19.8	15.4	46.0
11.895000	34.6	5000.0	9.000	On	N	19.8	15.4	50.0



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

Test Item	Tester
Radiated Emission	Li Zongliang
Conducted Emission	Guo Qian

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