



TEST REPORT

No. I21Z70475-EMC01

for

Samsung Electronics Co., Ltd.

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

Model Name: SM-A037U

FCC ID: ZCASMA037U

with

Hardware Version: REV1.0

Software Version: A037U.001

Issued Date: 2021-10-28

Note:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21Z70475-EMC01	Rev.0	1 st edition	2021-10-28

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

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1. Test Laboratory

1.1. Introduction & Accreditation

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

1.2. Testing Location

CTTL (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: 2021-10-15

Testing End Date: 2021-10-28

1.5. Signature



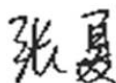
Li Yan

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Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

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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-A037U
FCC ID	ZCASMA037U

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
UT21a	2170475UT21a	REV1.0	A037U.001	2021.10.15
UT20a	2170475UT20a	REV1.0	A037U.001	2021.10.15

*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	/	Type C
AE2	Data Cable1	/	Type C
AE3	Data Cable2	/	Type C
AE4	Headset	/	/
AE5	Battery1	/	/
AE6	Battery2	/	/
AE7	Data Cable	/	USB
AE8	SD card	/	/
AE9	PC	/	Type-C

AE2

Model	EP-DN980BWE
Manufacturer	R.F.Tech Electronics(HuiZhou)Co.,Ltd.
Length	/

AE3

Model	EP-DN980BWE
Manufacturer	DONGGUAN KSD CO.,LTD
Length	/

AE4

Model	EHS61ASFWE
Manufacturer	Yuenchang
Length	/

AE5

Model	WT-S-W1
Manufacturer	SCUD (Fujian) Electronics Co.,Ltd.

AE6

Model	SCUD-WT-W1
Manufacturer	SCUD (Fujian) Electronics Co.,Ltd.

Note: AE1 is not AE for EUT, provided by applicant for relevant testing. AE7, AE8 and AE9 provided by lab for relevant testing.

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

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, LTE BAND 13, LTE BAND 14, LTE BAND 17, LTE BAND 26 and LTE BAND 71.

3.5. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	UT21a + AE1 + AE2	Adapter + Rear Camera+cable1
Set.2	UT21a + AE1 + AE3 + AE4	Adapter +MP4+cable2+headset
Set.3	UT21a + AE2/AE3 + AE4 + AE9	Data Type C to Type C +headset+ F Camera
Set.4	UT21a + AE2/AE3 + AE4 + UT20a	Phone to phone charge +RX mode
Set.5	UT21a + AE7 + AE4 + AE8	USB(SD) mode + Headset1+RX mode

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	CALIBRATI ON INTERVAL
1	Test Receiver	ESU26	100376	R&S	2022-09-15	1 year
2	Test Receiver	ESCI	100766	R&S	2022-03-16	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	2022-04-21	1 year
6	Universal Radio Communication Tester	CMW500	159408	R&S	2022-03-08	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, CAMERA, SD, OTG 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 ($\mu\text{V/m}$)		
	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 (worst case): 30MHz-1GHz: 5.40dB, 1GHz-18GHz: 4.32dB, $k=2$.

Measurement results for Set.1:

Adapter + Rear Camera+cable1 /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)
17040.000	39.19	-20.7	41.2	18.71	54.0	14.8	V
17175.500	39.19	-20.3	41.0	18.45	54.0	14.8	V
17160.000	39.16	-20.3	41.0	18.47	54.0	14.8	V
17251.500	39.15	-20.1	40.9	18.33	54.0	14.8	V
17286.500	39.14	-20.1	40.9	18.32	54.0	14.9	V
17289.500	39.13	-20.1	40.9	18.30	54.0	14.9	V

Adapter + Rear Camera+cable1 /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)
17160.000	52.2	-20.3	41.0	31.47	74.0	21.8	V
17170.500	51.8	-20.3	41.0	31.08	74.0	22.2	V
17258.000	51.7	-20.1	40.9	30.90	74.0	22.3	H
16525.500	51.6	-20.9	41.2	31.25	74.0	22.4	V
16618.500	51.6	-20.9	41.2	31.28	74.0	22.4	V
16359.000	51.5	-20.8	41.1	31.23	74.0	22.5	V

Measurement results for Set.2:

Adapter +MP4+cable2+headset /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)
17163.500	38.93	-20.3	41.0	18.23	54.0	15.1	V
17286.500	38.92	-20.1	40.9	18.10	54.0	15.1	V
17185.500	38.90	-20.2	41.0	18.13	54.0	15.1	V
17059.500	38.88	-20.7	41.1	18.40	54.0	15.1	V
17172.500	38.83	-20.3	41.0	18.10	54.0	15.2	V
17421.500	38.80	-20.1	40.8	18.15	54.0	15.2	V

Adapter +MP4+cable2+headset /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)
16890.500	51.61	-20.6	41.2	30.98	74.0	22.4	V
16349.500	51.48	-20.8	41.1	31.21	74.0	22.5	H
17141.000	51.36	-20.4	41.1	30.73	74.0	22.6	H
16396.500	51.36	-20.8	41.1	31.03	74.0	22.6	V
17145.500	51.36	-20.4	41.1	30.71	74.0	22.6	V
17174.000	51.19	-20.3	41.0	30.46	74.0	22.8	H

Measurement results for Set.3:

Data Type C to Type C + F 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)
17433.000	38.91	-20.2	40.8	18.34	54.0	15.1	V
17101.000	38.90	-20.6	41.1	18.40	54.0	15.1	V
17103.500	38.88	-20.6	41.1	18.36	54.0	15.1	H
17420.000	38.84	-20.1	40.8	18.18	54.0	15.2	V
17020.500	38.84	-20.7	41.2	18.37	54.0	15.2	V
17426.000	38.84	-20.2	40.8	18.22	54.0	15.2	V

Data Type C to Type C + F 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)
17127.500	51.8	-20.5	41.1	31.23	74.0	22.2	V
16599.500	51.7	-21.0	41.2	31.49	74.0	22.3	V
17549.000	51.6	-20.4	40.7	31.26	74.0	22.4	V
17031.000	51.4	-20.7	41.2	30.95	74.0	22.6	H
17392.000	51.3	-20.0	40.8	30.49	74.0	22.7	V
16680.000	51.3	-20.6	41.2	30.68	74.0	22.7	V

Measurement results for Set.4:
Phone to phone charge + RX mode GMS850/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)
17039.000	38.84	-20.7	41.2	18.36	54.0	15.2	V
17241.500	38.81	-20.1	41.0	17.99	54.0	15.2	V
17028.500	38.81	-20.7	41.2	18.33	54.0	15.2	V
17164.000	38.80	-20.3	41.0	18.10	54.0	15.2	V
17081.000	38.77	-20.6	41.1	18.28	54.0	15.2	V
17172.500	38.75	-20.3	41.0	18.03	54.0	15.2	V

Phone to phone charge + RX mode GMS850 /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)
16894.500	51.4	-20.6	41.2	30.77	74.0	22.6	V
16958.000	51.2	-20.7	41.2	30.71	74.0	22.8	V
17097.500	51.0	-20.6	41.1	30.55	74.0	23.0	H
16938.000	50.9	-20.6	41.2	30.34	74.0	23.1	V
17529.000	50.9	-20.5	40.7	30.69	74.0	23.1	V
17527.000	50.8	-20.5	40.7	30.65	74.0	23.2	V

Measurement results for Set.5

USB (SD) mode+ RX mode LTE B12 /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)
17202.500	39.24	-20.2	41.0	18.42	54.0	14.8	V
17171.500	39.21	-20.3	41.0	18.48	54.0	14.8	H
17291.000	39.21	-20.1	40.9	18.38	54.0	14.8	V
17074.500	39.20	-20.6	41.1	18.71	54.0	14.8	V
17424.500	39.14	-20.1	40.8	18.51	54.0	14.9	V
17206.000	39.12	-20.2	41.0	18.31	54.0	14.9	H

USB (SD) mode + RX mode LTE B12 /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)
15952.000	52.1	-21.0	40.6	32.50	74.0	21.9	V
17437.500	52.0	-20.2	40.8	31.43	74.0	22.0	H
16972.500	51.6	-20.7	41.2	31.11	74.0	22.4	H
16888.500	51.6	-20.6	41.2	30.93	74.0	22.4	V
17285.500	51.5	-20.1	40.9	30.64	74.0	22.5	V
17134.500	51.4	-20.5	41.1	30.83	74.0	22.6	H

Adapter + Rear Camera+cable1, Set.1

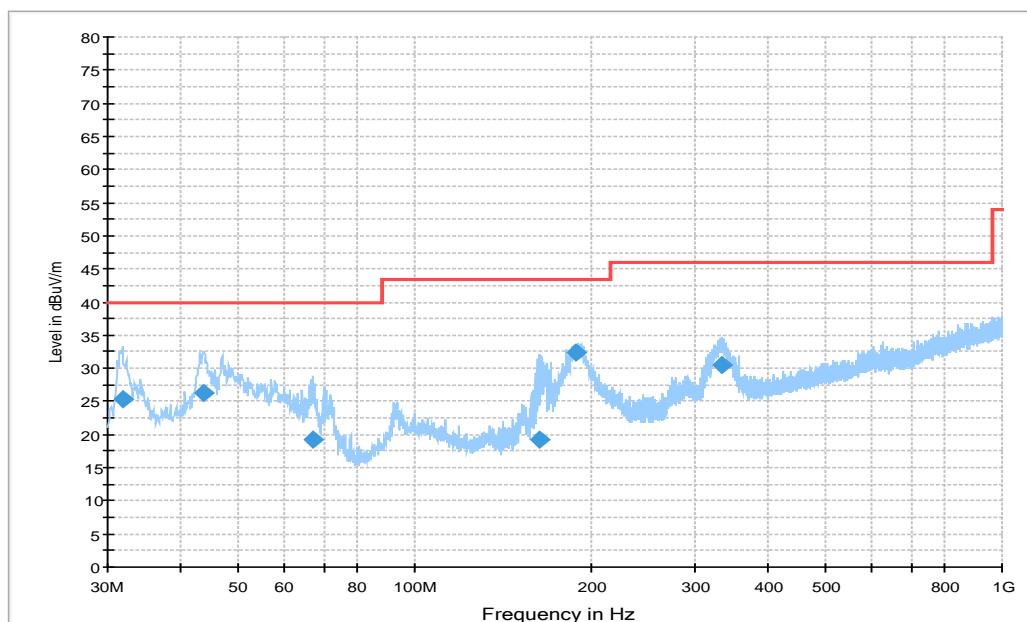


Figure A.1 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
31.746000	25.3	100.0	V	180.0	-2.3	14.7	40.0
43.677000	26.4	100.0	V	90.0	-0.3	13.6	40.0
67.248000	19.2	100.0	V	315.0	-3.5	20.8	40.0
162.89000	19.2	100.0	V	0.0	-4.6	24.3	43.5
187.81900	32.3	100.0	H	239.0	-2.3	11.2	43.5
334.48300	30.4	100.0	H	90.0	2.2	15.6	46.0

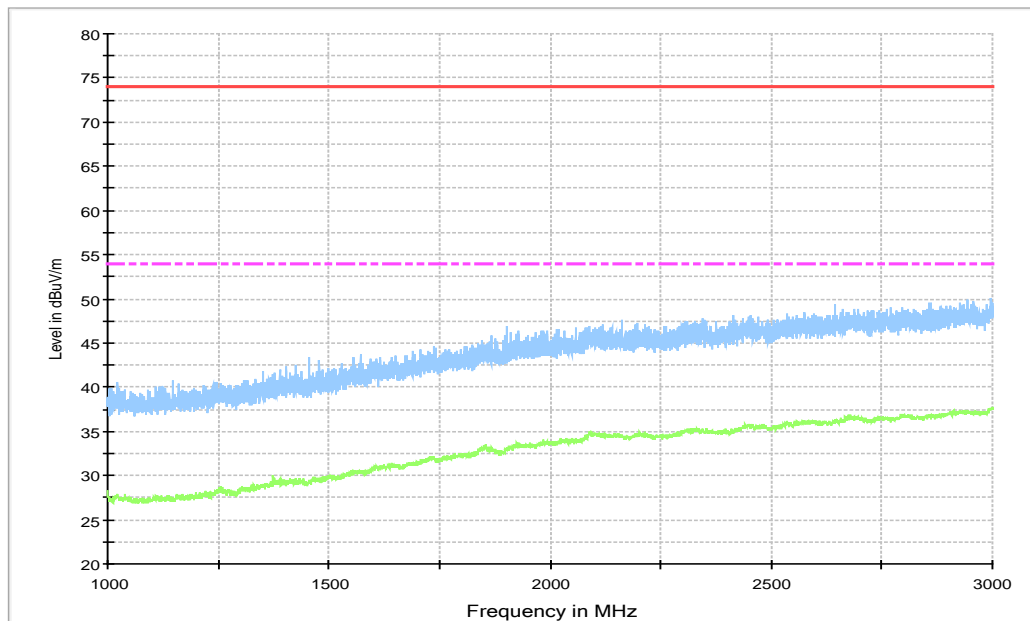


Figure A.2 Radiated Emission from 1GHz to 3GHz

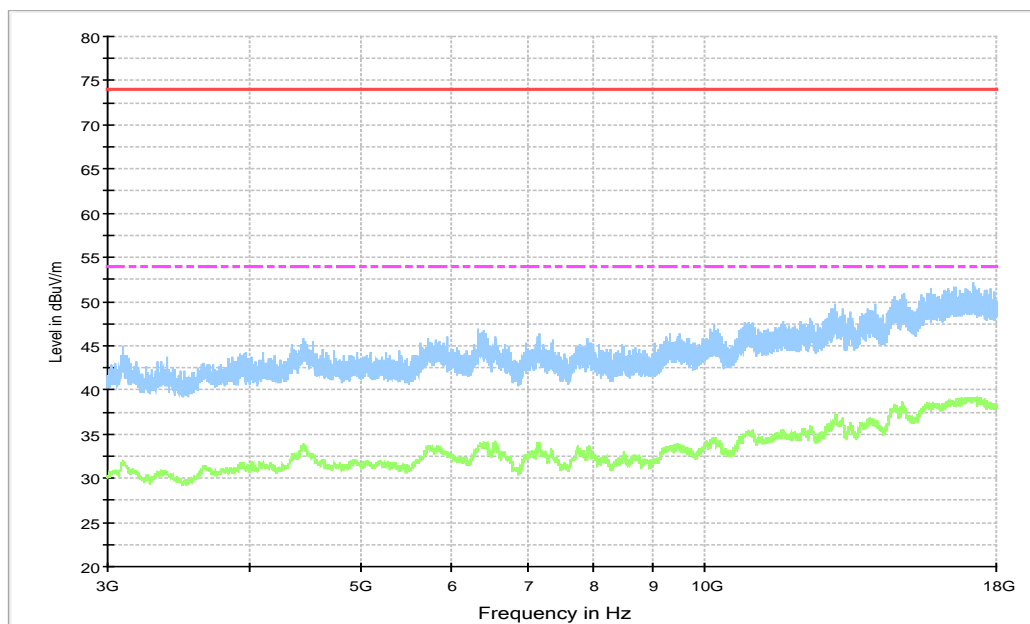


Figure A.3 Radiated Emission from 3GHz to 18GHz

Adapter +MP4+cable2+headset, Set.2

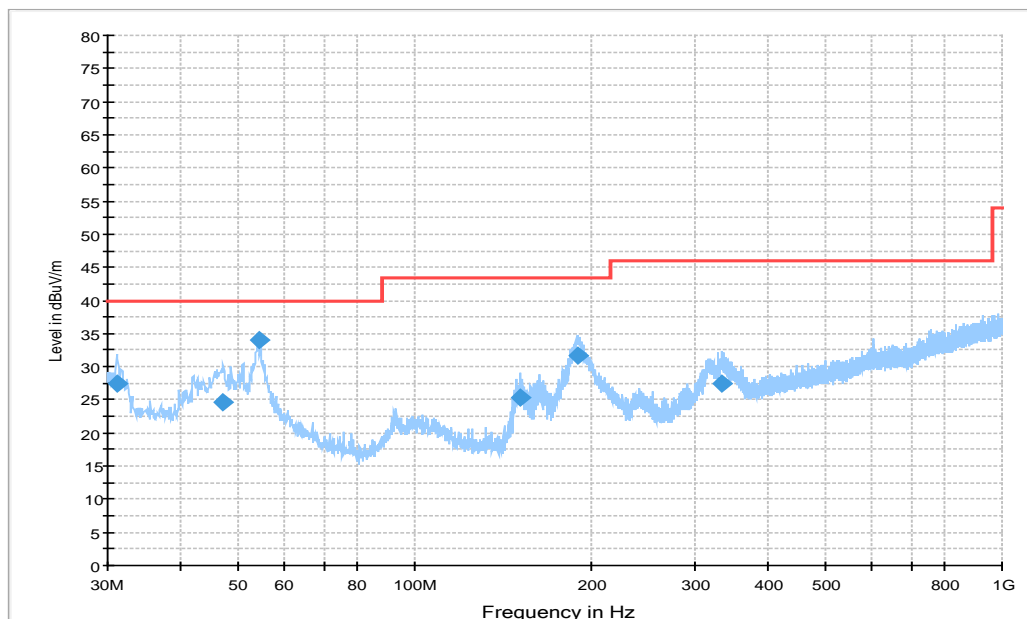


Figure A.4 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
31.067000	27.4	100.0	V	135.0	-2.5	12.6	40.0
47.266000	24.6	100.0	V	0.0	-0.2	15.4	40.0
54.347000	34.0	100.0	V	255.0	-0.4	6.0	40.0
151.25000	25.4	125.0	H	270.0	-5.3	18.1	43.5
188.98300	31.7	100.0	H	255.0	-2.1	11.8	43.5
333.80400	27.4	112.0	H	195.0	2.2	18.6	46.0

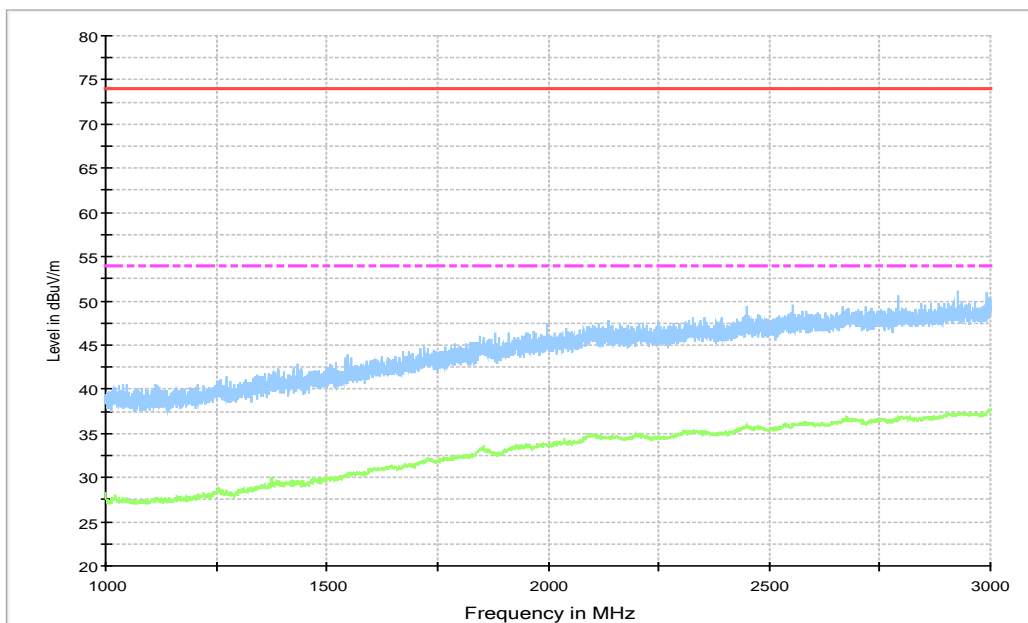


Figure A.5 Radiated Emission from 1GHz to 3GHz

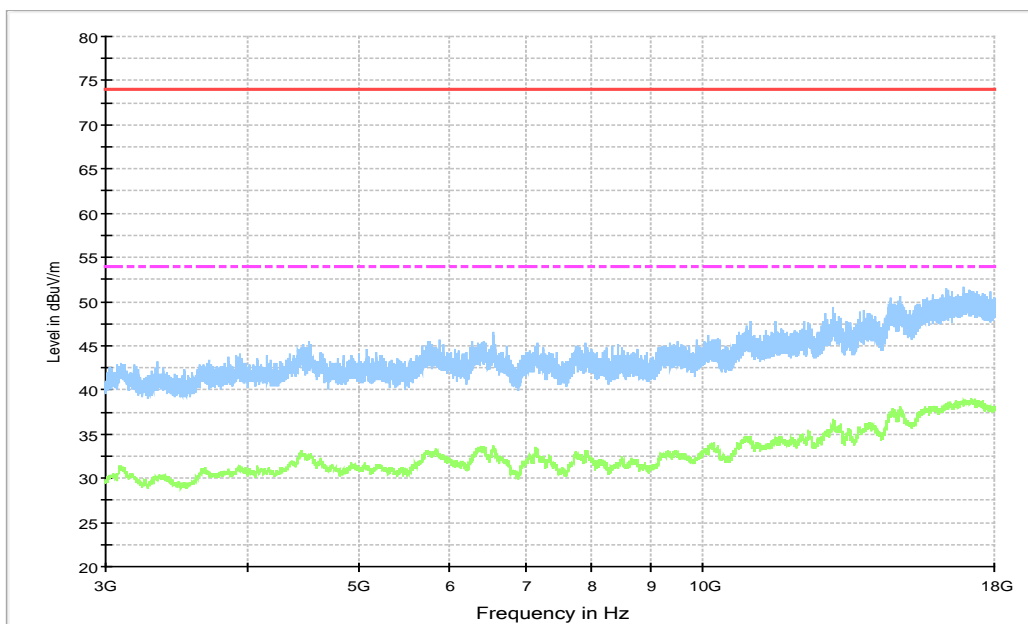


Figure A.6 Radiated Emission from 3GHz to 18GHz

Data Type C to Type C + F Camera, Set.3

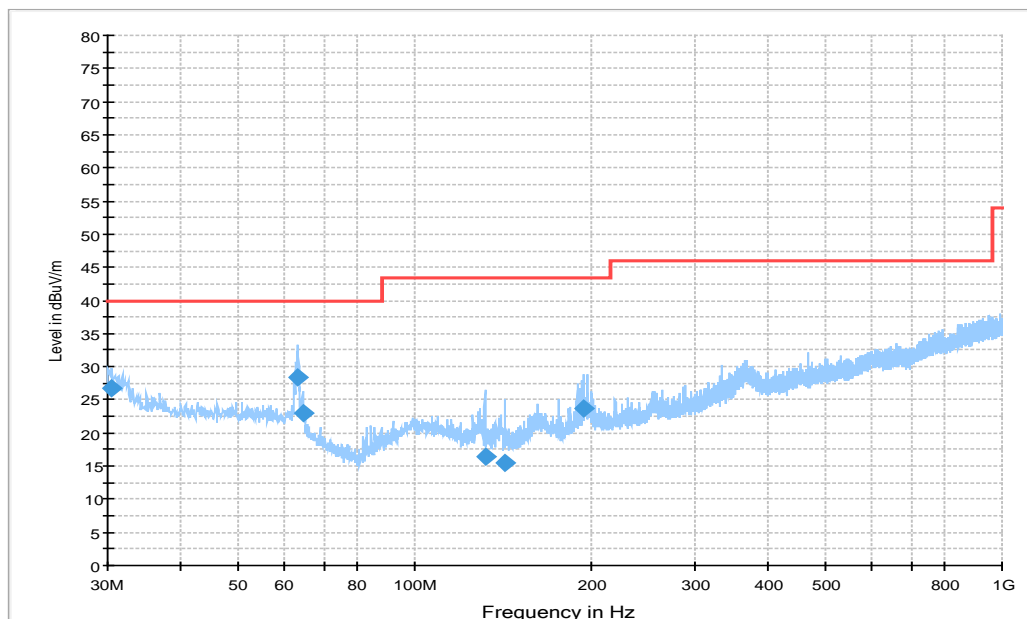


Figure A.7 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
30.485000	26.7	100.0	V	225.0	-2.7	13.3	40.0
63.077000	28.5	100.0	V	270.0	-1.9	11.5	40.0
64.435000	22.9	100.0	V	300.0	-2.5	17.1	40.0
131.65600	16.4	113.0	V	240.0	-5.1	27.1	43.5
142.61700	15.4	100.0	V	45.0	-5.4	28.1	43.5
194.41500	23.6	112.0	H	300.0	-1.9	19.9	43.5

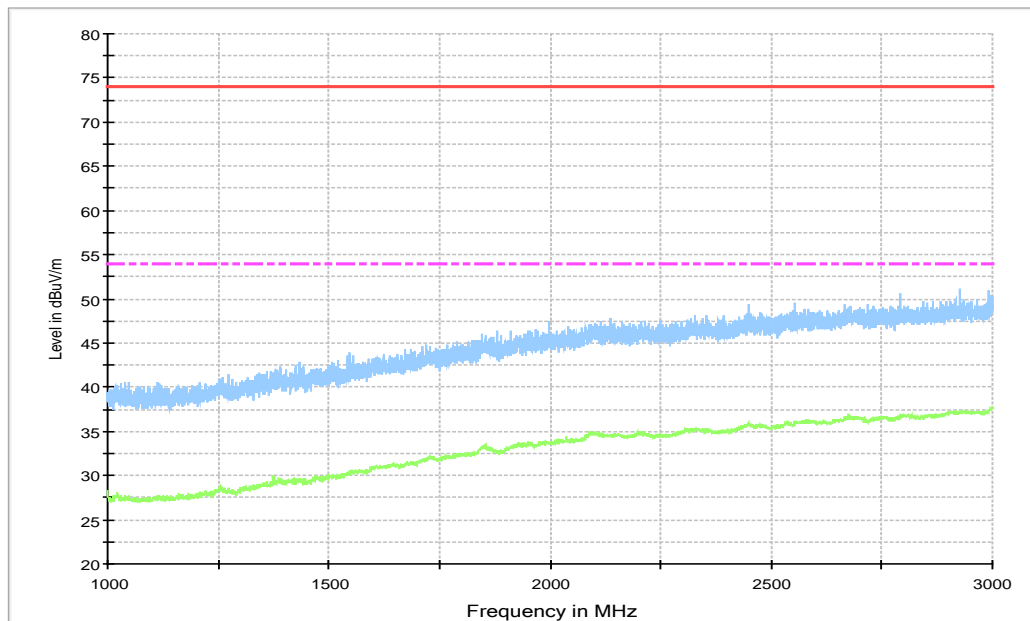


Figure A.8 Radiated Emission from 1GHz to 3GHz

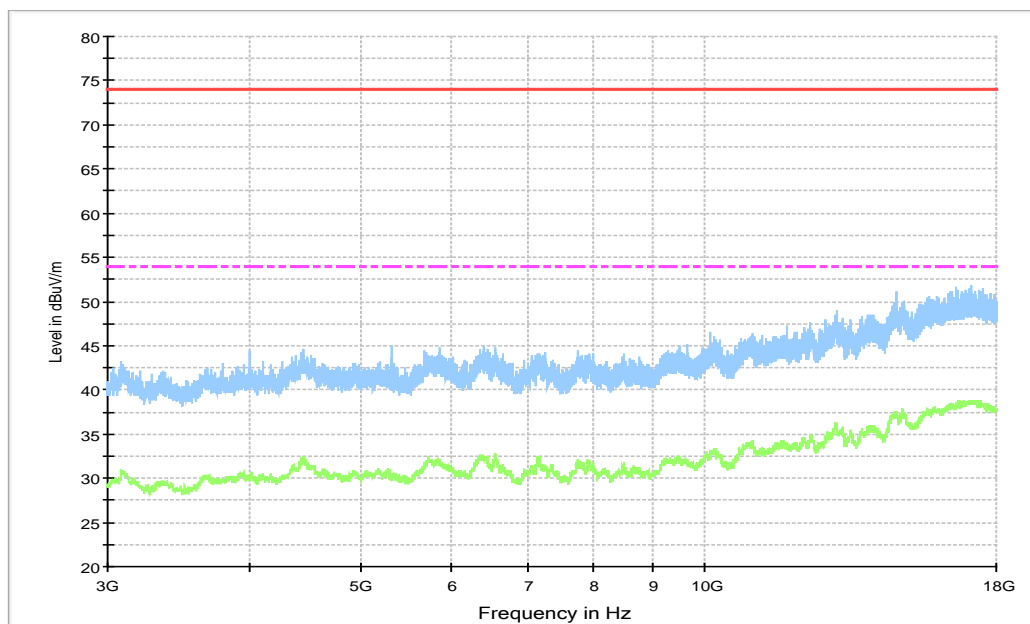


Figure A.9 Radiated Emission from 3GHz to 18GHz

Phone to phone charge + RX mode GMS850, Set.4

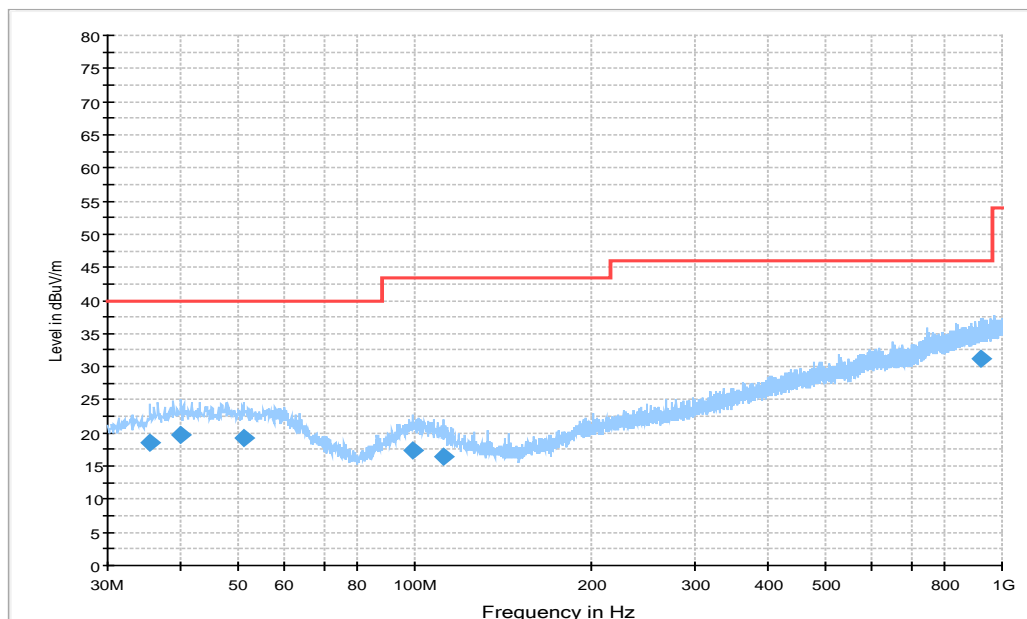


Figure A.10 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
35.432000	18.6	100.0	H	315.0	-1.4	21.4	40.0
39.991000	19.6	125.0	H	120.0	-0.4	20.4	40.0
51.243000	19.2	100.0	V	239.0	-0.2	20.8	40.0
99.355000	17.5	100.0	V	315.0	-1.7	26.0	43.5
111.77100	16.4	100.0	H	150.0	-2.6	27.1	43.5
917.93800	31.3	100.0	V	-15.0	12.2	14.7	46.0

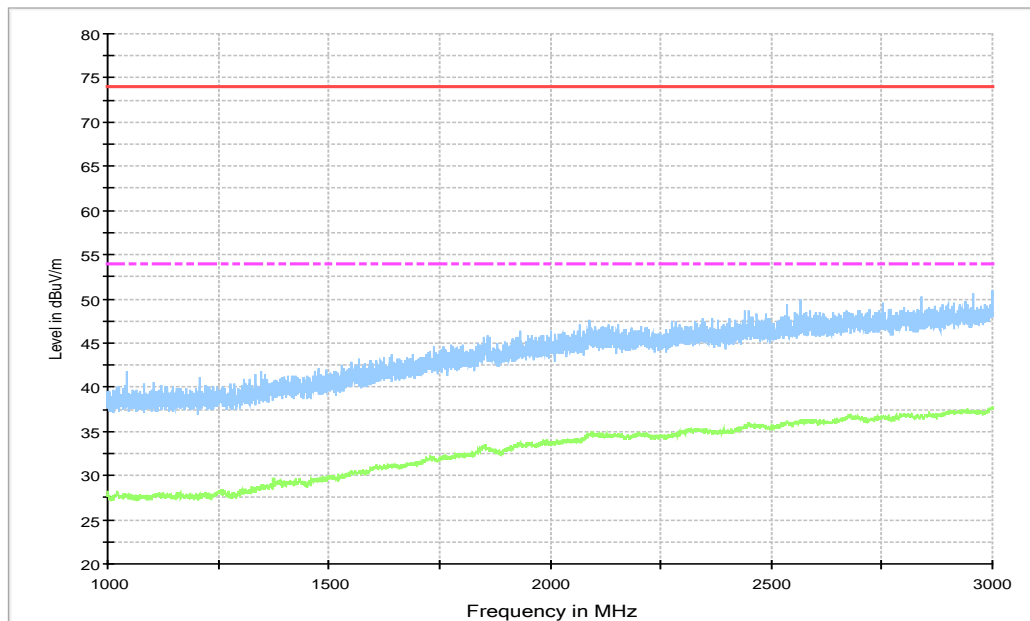


Figure A.11 Radiated Emission from 1GHz to 3GHz

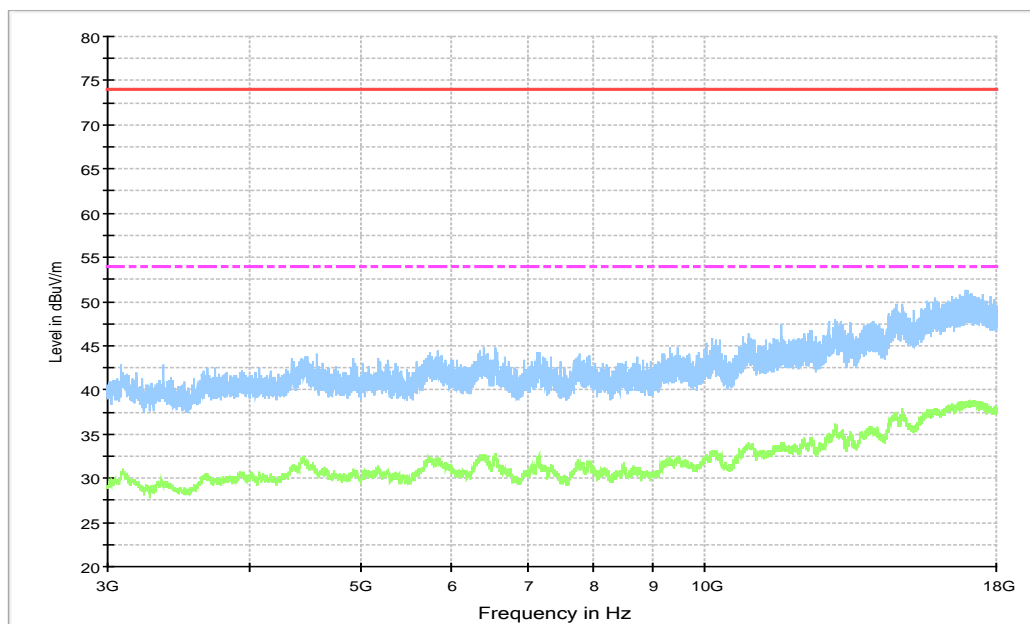


Figure A.12 Radiated Emission from 3GHz to 18GHz

USB (SD) mode+ RX mode LTE B12, Set.5

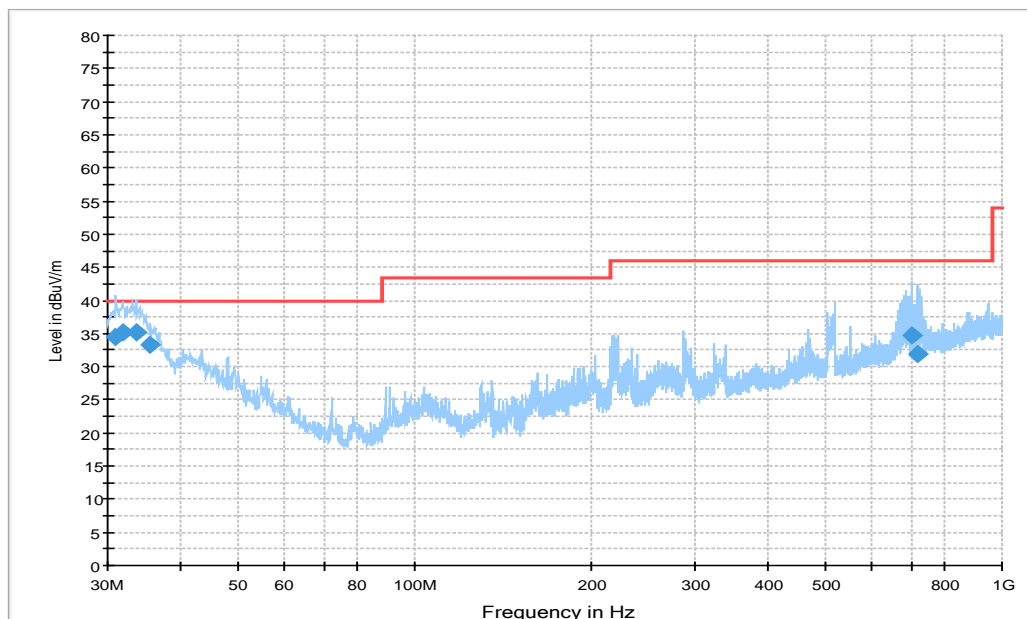


Figure A.13 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
30.970000	34.6	100.0	V	180.0	-2.5	5.4	40.0
31.746000	35.1	100.0	V	45.0	-2.3	4.9	40.0
33.589000	35.1	100.0	V	45.0	-1.9	4.9	40.0
35.529000	33.3	100.0	V	-31.0	-1.4	6.7	40.0
700.17300	34.8	100.0	V	0.0	9.0	11.2	46.0
717.24500	31.8	113.0	V	15.0	9.4	14.2	46.0

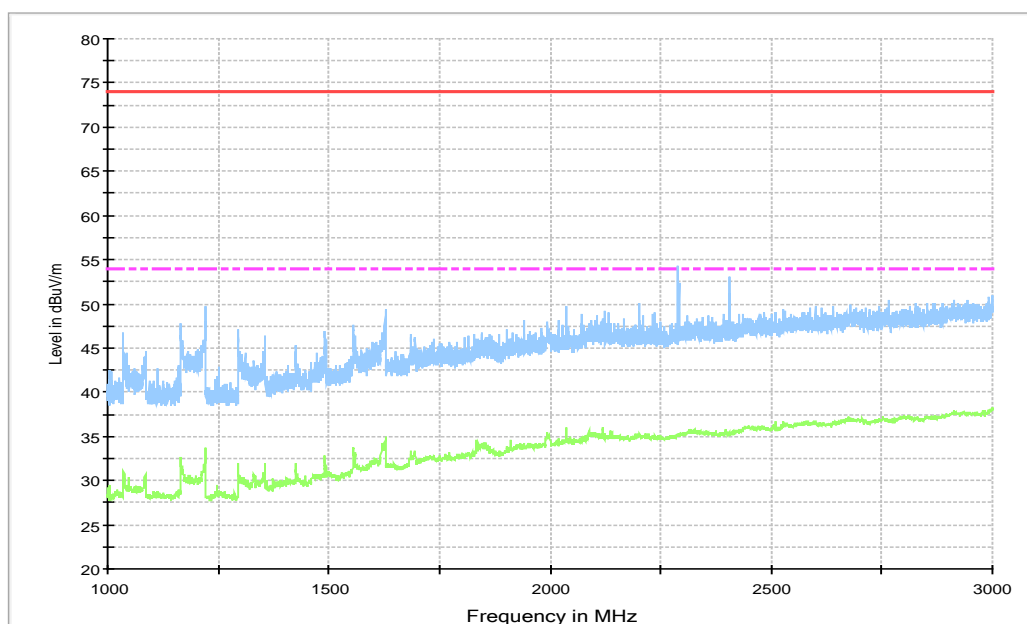


Figure A.14 Radiated Emission from 1GHz to 3GHz

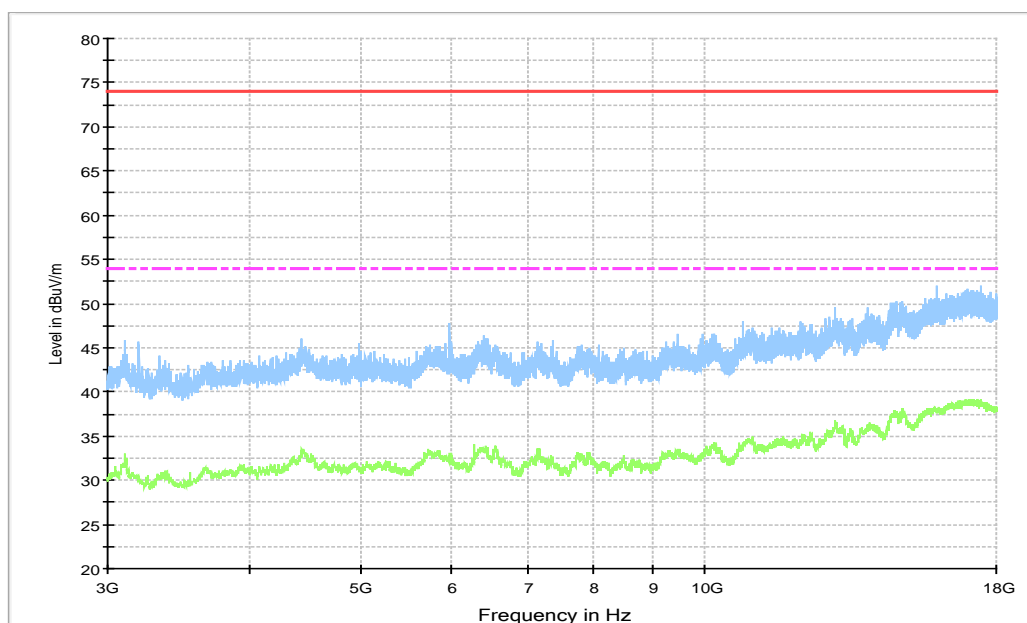


Figure A.15 Radiated Emission from 3GHz to 18GHz

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

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.

Adapter+ MP4, Set.2

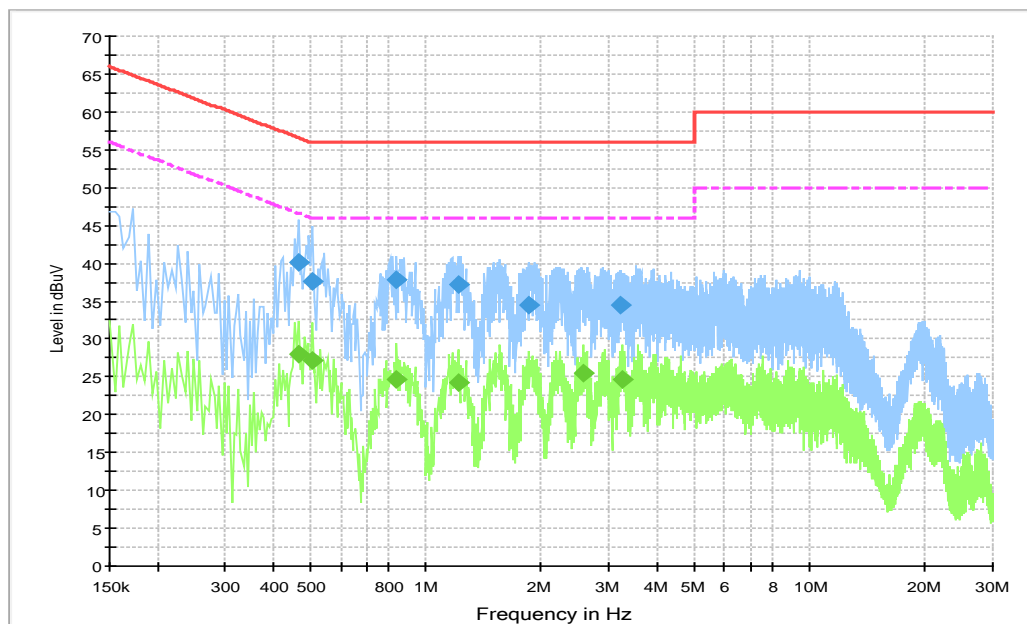


Figure A.16 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.465000	40.2	5000.0	9.000	On	N	19.9	16.4	56.6
0.505500	37.7	5000.0	9.000	On	N	19.9	18.3	56.0
0.838500	37.8	5000.0	9.000	On	L1	19.8	18.2	56.0
1.212000	37.3	5000.0	9.000	On	L1	19.7	18.7	56.0
1.864500	34.4	5000.0	9.000	On	N	19.7	21.6	56.0
3.219000	34.5	5000.0	9.000	On	L1	19.6	21.5	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.465000	28.0	5000.0	9.000	On	L1	19.9	18.6	46.6
0.505500	27.1	5000.0	9.000	On	N	19.9	18.9	46.0
0.838500	24.7	5000.0	9.000	On	L1	19.8	21.3	46.0
1.212000	24.2	5000.0	9.000	On	L1	19.7	21.8	46.0
2.566500	25.6	5000.0	9.000	On	N	19.6	20.4	46.0
3.250500	24.7	5000.0	9.000	On	L1	19.6	21.3	46.0

USB (SD) mode, Set.5

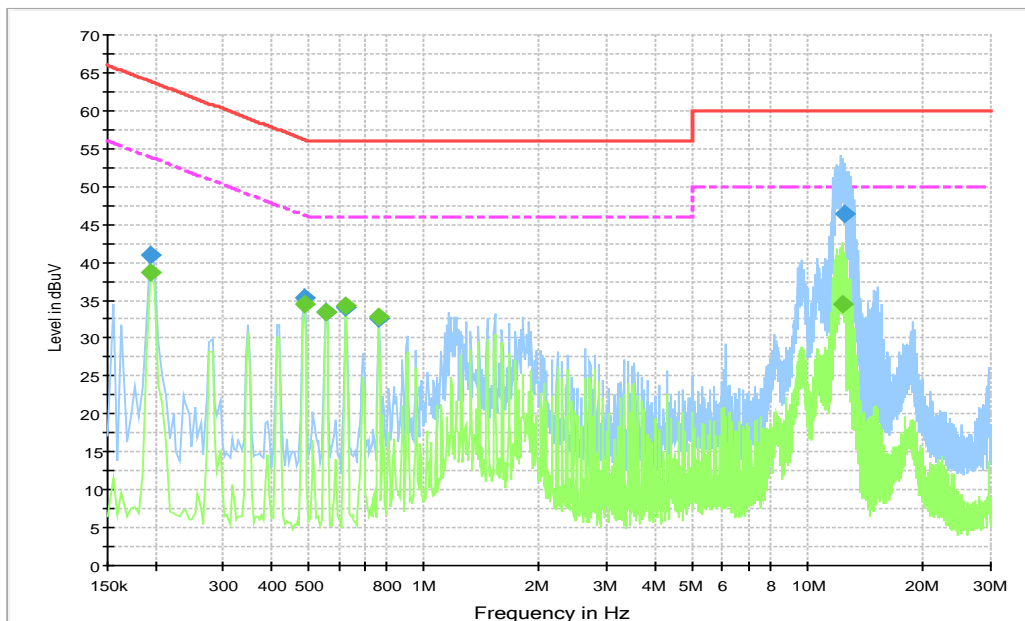


Figure A.17 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.195000	41.0	5000.0	9.000	On	L1	19.9	22.8	63.8
0.487500	35.2	5000.0	9.000	On	N	19.9	21.0	56.2
0.555000	33.4	5000.0	9.000	On	N	19.9	22.6	56.0
0.627000	34.1	5000.0	9.000	On	N	19.8	21.9	56.0
0.766500	32.6	5000.0	9.000	On	N	19.8	23.4	56.0
12.471000	46.3	5000.0	9.000	On	N	19.8	13.7	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.195000	38.8	5000.0	9.000	On	N	19.9	15.1	53.8
0.487500	34.4	5000.0	9.000	On	N	19.9	11.8	46.2
0.555000	33.5	5000.0	9.000	On	L1	19.9	12.5	46.0
0.627000	34.4	5000.0	9.000	On	L1	19.8	11.6	46.0
0.766500	32.7	5000.0	9.000	On	N	19.8	13.3	46.0
12.273000	34.4	5000.0	9.000	On	L1	19.8	15.6	50.0

ANNEX B: Persons involved in this testing

Test Item	Tester
Radiated Emission	Li Zongliang
Conducted Emission	Guo Qian

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