



TEST REPORT

No. I20Z60293-EMC01

for

TCL Communication Ltd.

HSUPA/HSDPA/UMTS Tri Bands / GSM Quad Bands / LTE 10 bands
mobile phone

Model Name: A406DL

FCC ID: 2ACCJN041

with

Hardware Version: 04

Software Version: YXAG

Issued Date: 2020-06-11

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: cttl_terminals@caict.ac.cn, website: www.caict.ac.cn

REPORT HISTORY

Report Number	Revision	Description	Issue Date
I20Z60293-EMC01	Rev.0	1 st edition	2020-06-11

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

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. GENERAL DESCRIPTION	6
3.5. EUT SET-UPS	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	32

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, P. R. China 100176

1.3. Testing Environment

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

1.4. Project data

Testing Start Date: 2020-04-17
Testing End Date: 2020-04-30

1.5. Signature



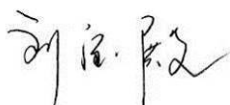
Li Yan

(Prepared this test report)



Zhang Ying

(Reviewed this test report)



Liu Baodian

Deputy Director of the laboratory
(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address /Post: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: 518052
Country: China
Telephone: 0086-755-36611722
Fax: /

2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address /Post: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science
Park, Shatin, NT, Hong Kong
City: Hong Kong
Postal Code: 518052
Country: China
Telephone: 0086-755-36611722
Fax: /

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

3.1. About EUT

Description	HSUPA/HSDPA/UMTS Tri Bands / GSM Quad Bands / LTE 10 bands mobile phone
Model Name	A406DL
FCC ID	2ACCJN041
Extreme vol. Limits	3.5VDC to 4.2VDC (nominal: 3.7VDC)

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
EUT3	015695000007021	04	YXAG

*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	Battery	/	/
AE2	Charger	/	/
AE1			
	Model	TLi013C1	
	Manufacturer	BYD	
	Capacitance	1350mAh	
	Nominal voltage	3.7V	
AE2			
	Model	PA-5V550mA-005	
	Manufacturer	PUAN	
	Length of cable	/	

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



3.5. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT3+ AE1 + AE2	Charger+MP3 Charger+Camera License RX mode
Set.2	EUT3+ AE1+USB cable+headset	USB mode +FM

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-1 (23 meters×17 meters×10 meters) 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	< 4Ω
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
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

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

Temperature	Min. = 15 °C, Max. = 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	2020-10-30	1 year
2	Test Receiver	Test Receiver	ESCI	100766	2021-03-11	1 year
3	Universal Radio Communication Tester	CMW500	127406	R&S	2021-02-18	1 year
4	Universal Radio Communication Tester	CMU200	111792	R&S	2021-01-05	1 year
5	LISN	ENV216	825562/028	R&S	2020-09-05	1 year
6	BiLog Antenna	VULB9163	9163-482	Schwarzbeck	2020-09-16	1 year
7	EMI Antenna	3117	00139065	ETS-Lindgren	2020-11-10	1 year
8	Signal Generator	SMF100A	101295	R&S	2020-11-06	1 year
9	Printer	P1606dn	VNC3L52122	HP	N/A	N/A
10	Keyboard	KU-1601	2048361	Lenovo	N/A	N/A
11	Mouse	EMS-537A	8021S3MC	Lenovo	N/A	N/A

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V9.01.00	R&S
Conducted Emission	EMC32 V8.52.0	R&S

ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission

Reference

FCC: CFR Part 15.109(a).

A.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator (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 and charging mode.

The EUT was tested while operating in licensed band RX mode. All licensed band receivers that tune in the range of 30MHz-960MHz, as listed in the Section 3.4, are investigated. Only the worst case emissions are reported.

The FM radio mode radiated testing was performed with the Low/Mid/High channel. Only the worst cases are reported.

The model of the PC is Lenovo M4000e-17, and the serial number of the PC is M706RMW2. 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.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:

Charger+MP3 /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)
18000.000	42.10	-25.9	41.3	26.68	54.0	11.9	V
17999.500	42.01	-25.9	41.3	26.59	54.0	12.0	H
17999.000	42.06	-25.9	41.3	26.64	54.0	11.9	H
17998.500	41.85	-25.9	41.3	26.43	54.0	12.2	V
17998.000	42.20	-25.9	41.3	26.78	54.0	11.8	V
17997.500	42.09	-25.9	41.3	26.66	54.0	11.9	V

Charger+MP3/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)
18000.000	53.0	-25.9	41.3	37.60	74.0	21.0	H
17999.500	52.4	-25.9	41.3	37.00	74.0	21.6	V
17999.000	52.4	-25.9	41.3	36.97	74.0	21.6	V
17998.500	51.8	-25.9	41.3	36.36	74.0	22.2	V
17998.000	52.9	-25.9	41.3	37.48	74.0	21.1	V
17997.500	52.9	-25.9	41.3	37.47	74.0	21.1	H

Measurement results for Set.1:
Charger+Camera (recording) /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)
18000.000	42.23	-25.9	41.3	26.82	54.0	11.8	H
17999.500	41.92	-25.9	41.3	26.51	54.0	12.1	H
17999.000	42.04	-25.9	41.3	26.62	54.0	12.0	H
17998.500	42.03	-25.9	41.3	26.61	54.0	12.0	V
17998.000	42.09	-25.9	41.3	26.67	54.0	11.9	V
17997.500	42.04	-25.9	41.3	26.62	54.0	12.0	V

Charger+Camera (recording) /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)
18000.000	52.4	-25.9	41.3	37.00	74.0	21.6	H
17999.500	51.6	-25.9	41.3	36.16	74.0	22.4	H
17999.000	52.4	-25.9	41.3	36.98	74.0	21.6	V
17998.500	53.4	-25.9	41.3	37.98	74.0	20.6	H
17998.000	52.5	-25.9	41.3	37.06	74.0	21.5	H
17997.500	54.2	-25.9	41.3	38.76	74.0	19.8	H

Measurement results for Set.2:
USB mode +FM /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)
17913.500	43.65	-26.1	41.3	28.49	54.0	10.3	H
17898.500	43.57	-26.2	41.3	28.48	54.0	10.4	V
17903.000	43.56	-26.2	41.3	28.44	54.0	10.4	H
17903.500	43.55	-26.2	41.3	28.43	54.0	10.4	V
17900.000	43.55	-26.2	41.3	28.44	54.0	10.5	V
17902.500	43.52	-26.2	41.3	28.41	54.0	10.5	V

USB mode +FM /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)
17872.500	56.6	-26.3	41.3	41.60	74.0	17.4	H
17625.000	56.4	-26.5	41.2	41.63	74.0	17.6	H
17584.000	56.2	-26.4	41.2	41.43	74.0	17.8	H
17914.500	56.1	-26.1	41.3	40.92	74.0	17.9	V
17895.500	56.0	-26.2	41.3	40.92	74.0	18.0	H
17111.500	55.9	-26.0	41.6	40.32	74.0	18.1	V

Charger+MP3, Set.1

15B RE 30MHz-1GHz

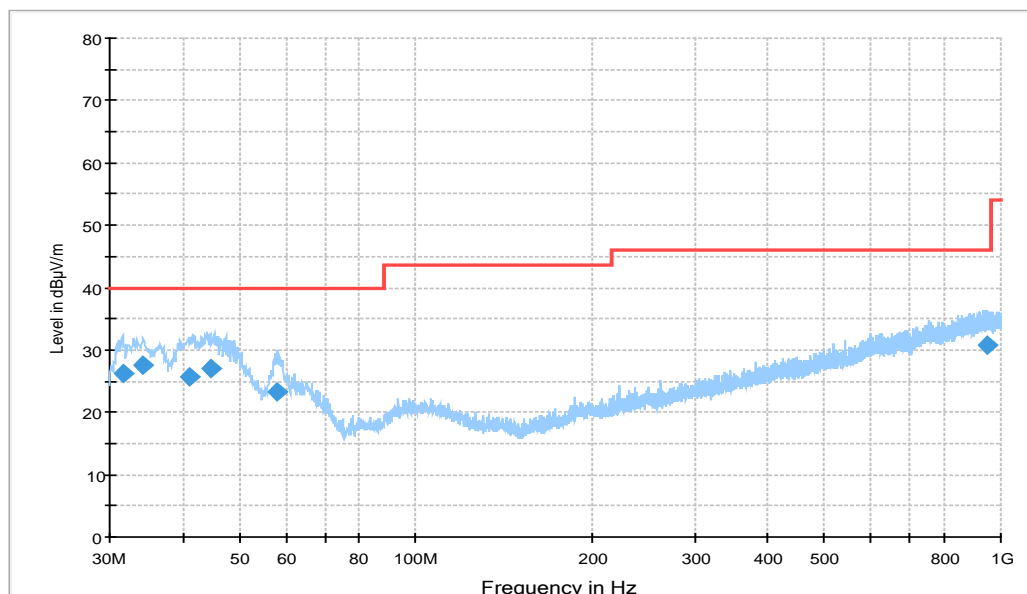


Figure A.1 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
31.552000	26.2	100.0	V	152.0	-3.3	13.8	40.0
34.268000	27.5	100.0	V	173.0	-2.4	12.5	40.0
41.058000	25.7	100.0	V	90.0	-0.5	14.3	40.0
44.550000	27.0	100.0	V	173.0	-0.2	13.0	40.0
58.033000	23.4	100.0	V	100.0	0.1	16.6	40.0
945.09800	30.8	100.0	H	166.0	11.8	15.2	46.0

15B RE - 1GHz-3GHz

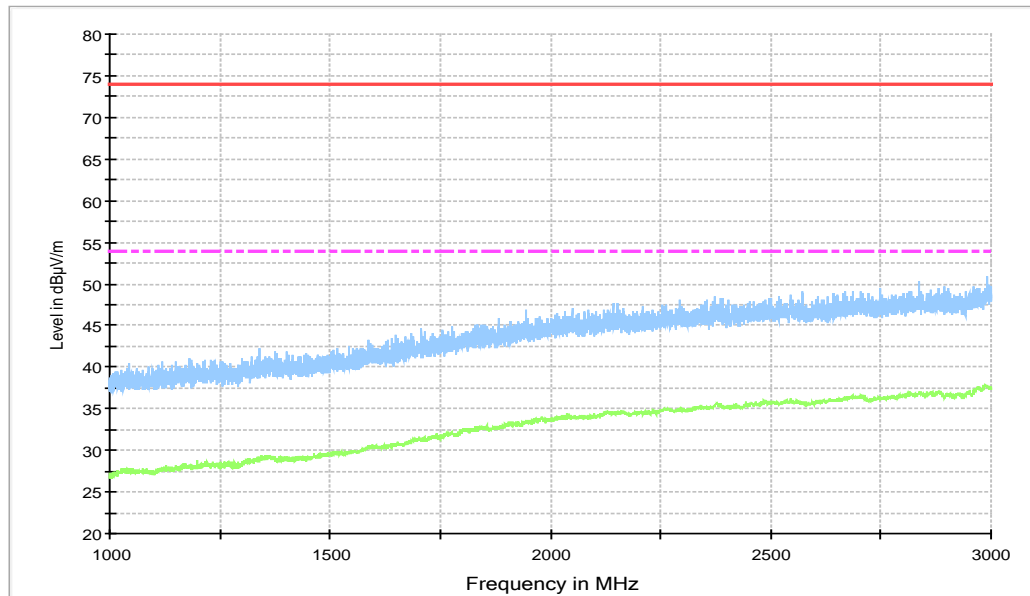


Figure A.2 Radiated Emission from 1GHz to 3GHz

15b RE - 3GHz-18GHz

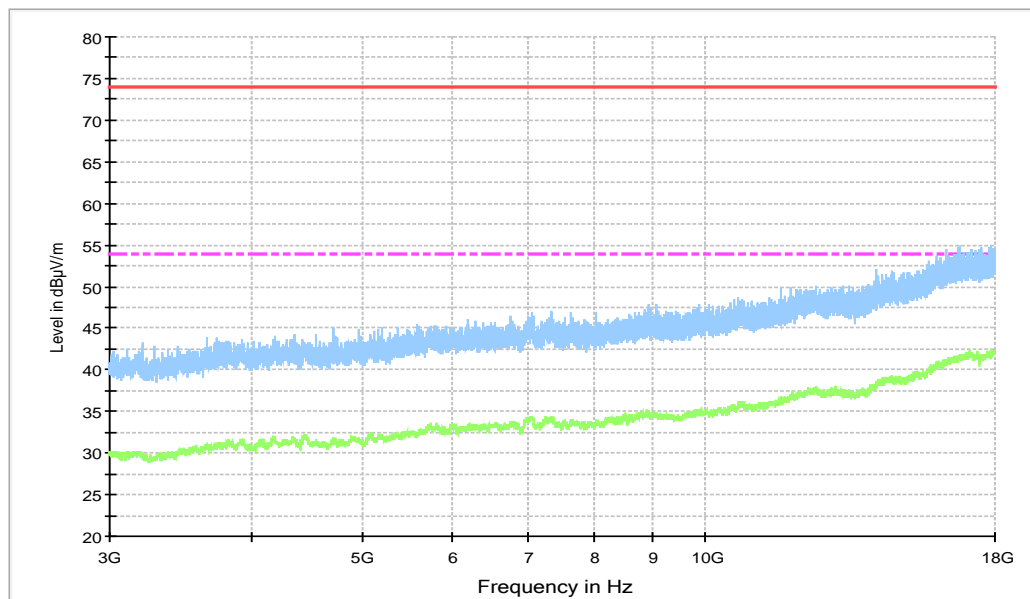


Figure A.3 Radiated Emission from 3GHz to 18GHz

Charger+Camera (rear recording), Set.1

15B RE 30MHz-1GHz

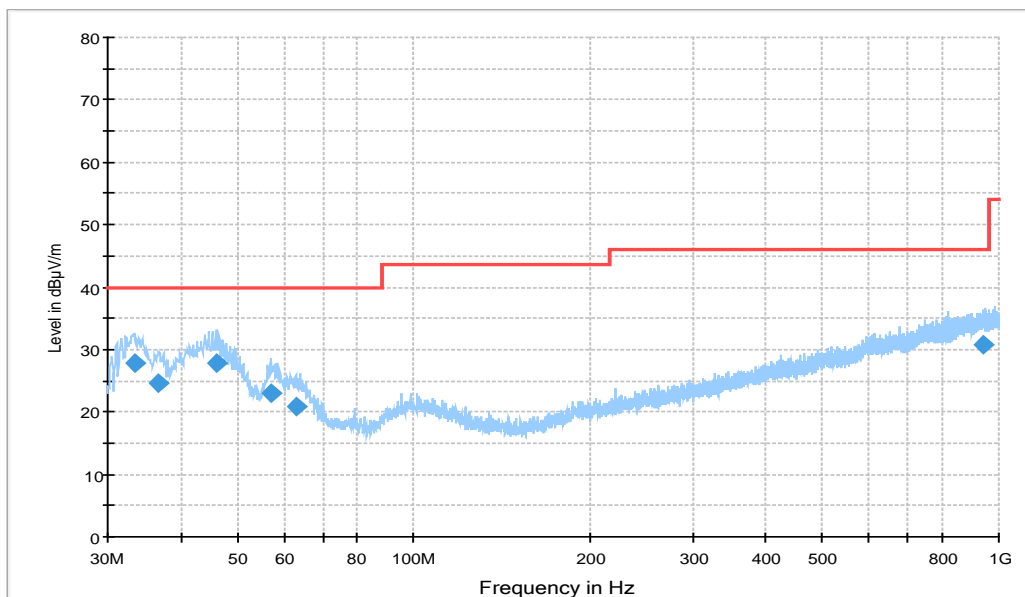


Figure A.4 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
33.395000	27.8	100.0	V	20.0	-2.8	12.2	40.0
36.693000	24.7	110.0	V	297.0	-1.7	15.3	40.0
45.908000	27.7	100.0	V	45.0	0.0	12.3	40.0
56.869000	23.1	100.0	V	120.0	0.0	16.9	40.0
62.883000	20.8	125.0	V	88.0	-1.8	19.2	40.0
939.66600	30.8	125.0	H	253.0	11.9	15.2	46.0

15B RE - 1GHz-3GHz

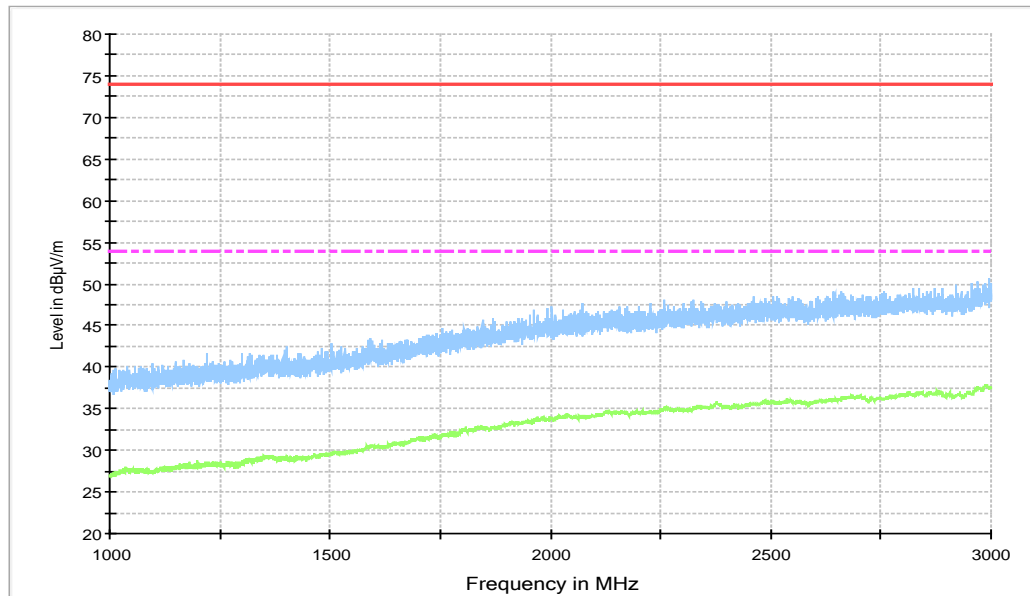


Figure A.5 Radiated Emission from 1GHz to 3GHz

15b RE - 3GHz-18GHz

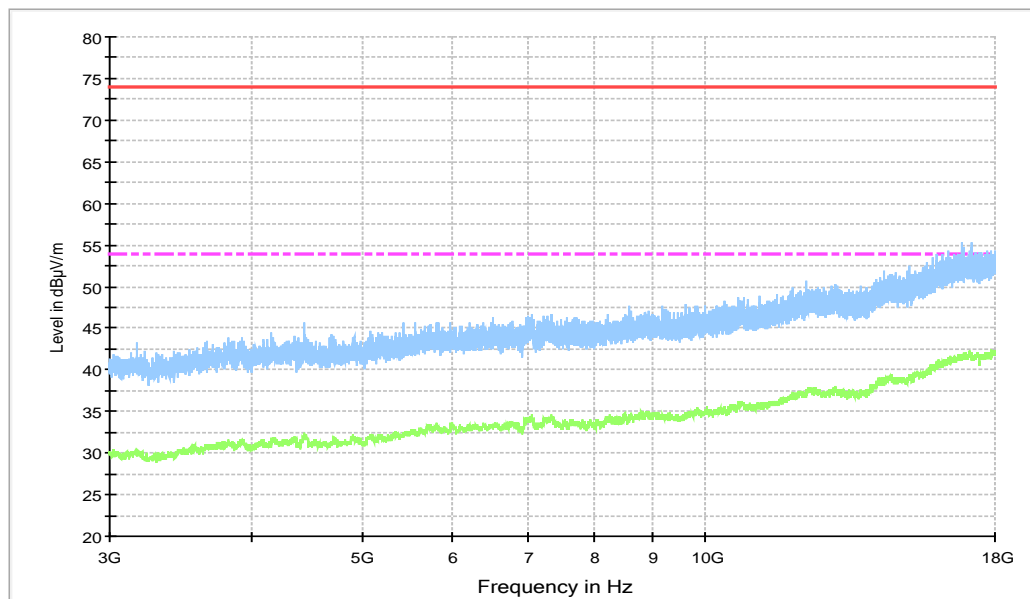


Figure A.6 Radiated Emission from 3GHz to 18GHz

USB mode +FM, Set.2

15B RE 30MHz-1GHz

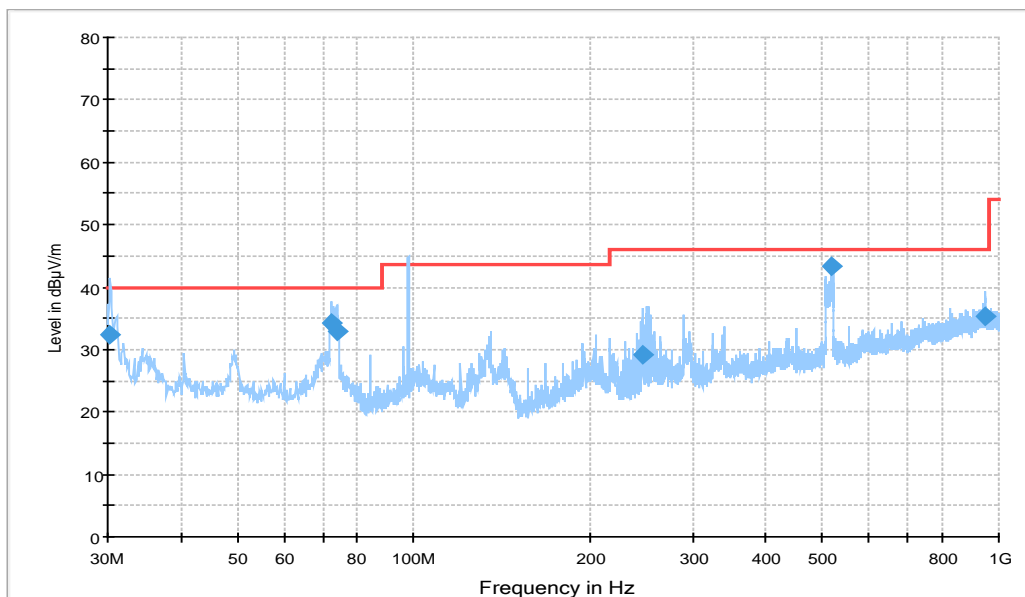


Figure A.7 Radiated Emission from 30MHz to 1GHz

Note1: the spike (519MHz) is occurred by Printer

Note2: the spike (98MHz) is coming from FM singal source .

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
30.291000	32.4	100.0	V	256.0	-3.2	7.6	40.0
72.292000	34.3	125.0	V	290.0	-5.4	5.7	40.0
74.135000	32.8	110.0	V	307.0	-6.0	7.2	40.0
245.63100	29.3	119.0	H	100.0	-0.4	16.7	46.0
519.46200	43.4	125.0	V	-7.0	6.3	2.6	46.0
949.65700	35.3	100.0	H	72.0	11.8	10.7	46.0

15B RE - 1GHz-3GHz

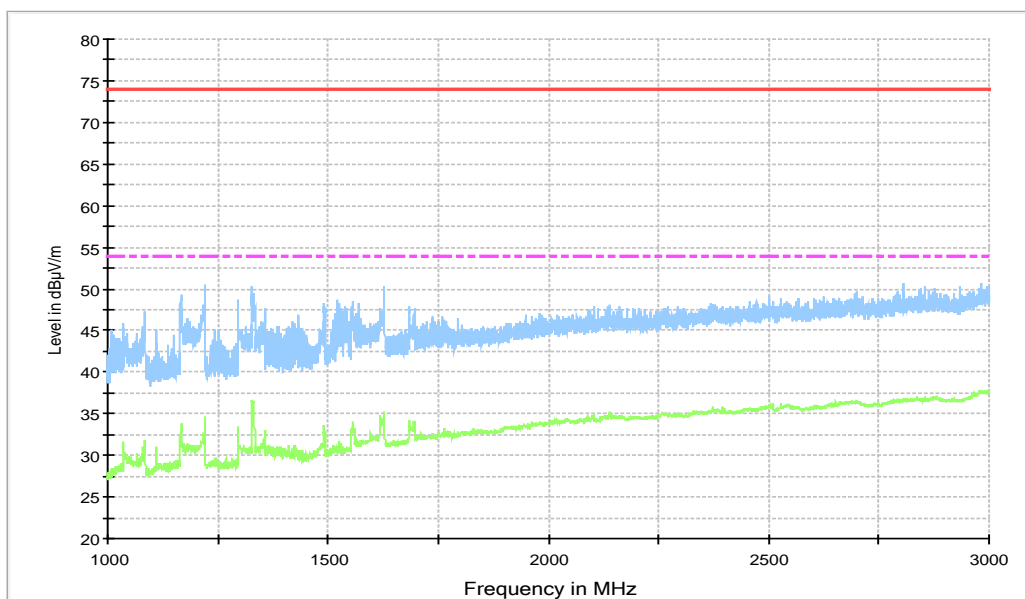


Figure A.8 Radiated Emission from 1GHz to 3GHz

15b RE - 3GHz-18GHz

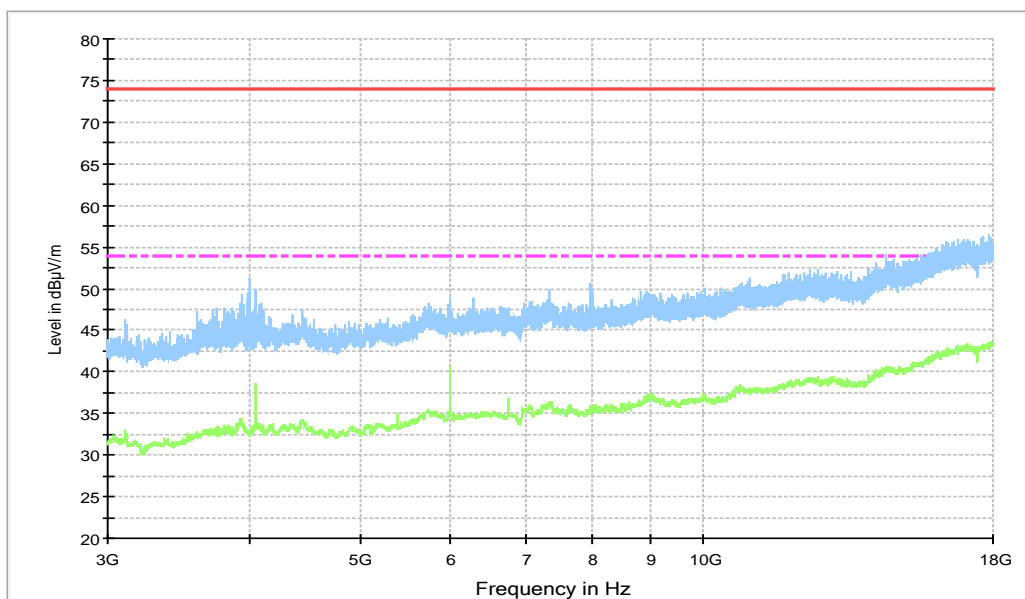


Figure A.9 Radiated Emission from 3GHz to 18GHz

License RX band mode, Set.1

GSM850MHz MID CHANNEL (881.6MHz)

15B RE 30MHz-1GHz

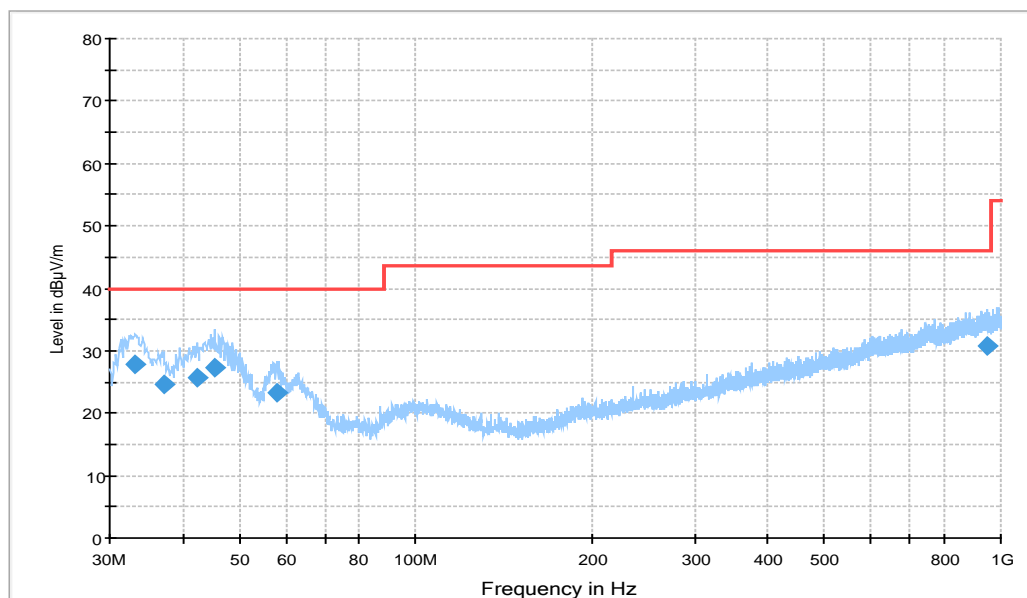


Figure A.10 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
33.201000	27.9	111.0	V	265.0	-2.8	12.1	40.0
37.081000	24.7	100.0	V	217.0	-1.5	15.3	40.0
42.319000	25.7	100.0	V	-21.0	-0.2	14.3	40.0
45.423000	27.4	100.0	V	31.0	-0.1	12.6	40.0
57.936000	23.3	100.0	V	52.0	0.1	16.7	40.0
950.91800	30.8	119.0	H	239.0	11.8	15.2	46.0

15B RE - 1GHz-3GHz

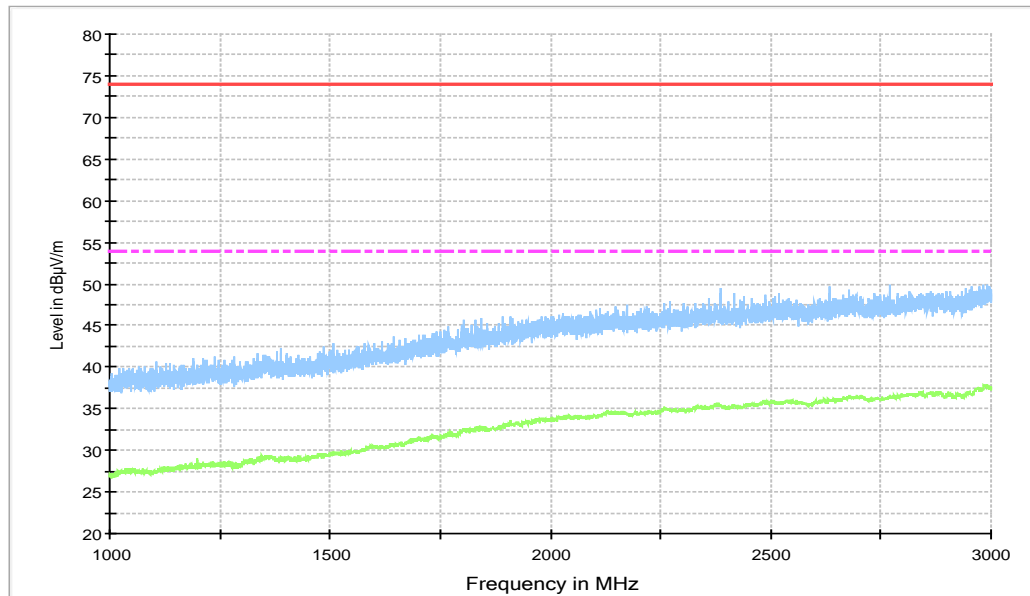


Figure A.11 Radiated Emission from 1GHz to 3GHz

15b RE - 3GHz-18GHz

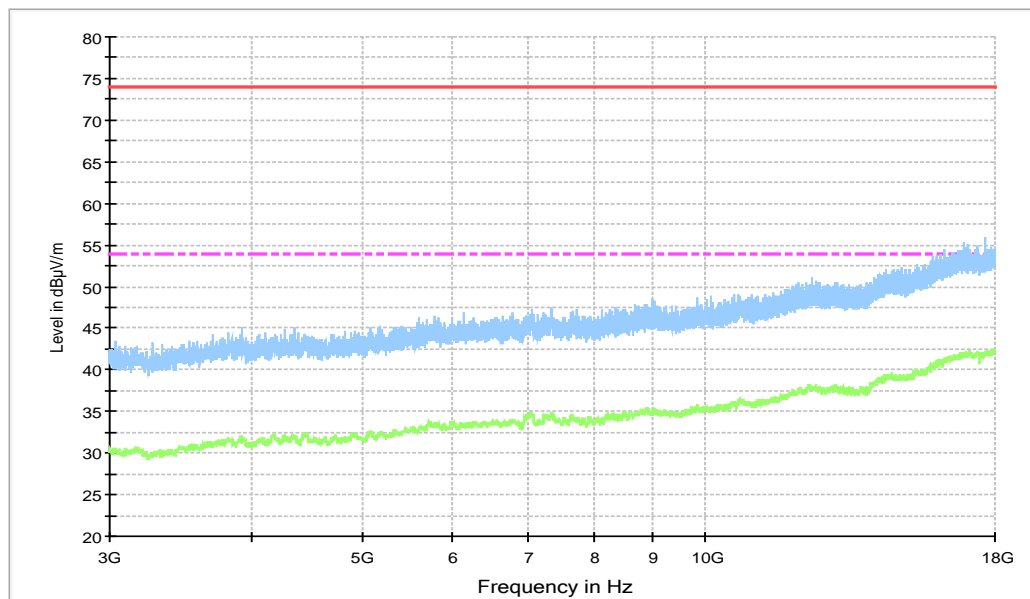


Figure A.12 Radiated Emission from 3GHz to 18GHz

WCDMA Band 5 MID CHANNEL (881.6MHz)

15B RE 30MHz-1GHz

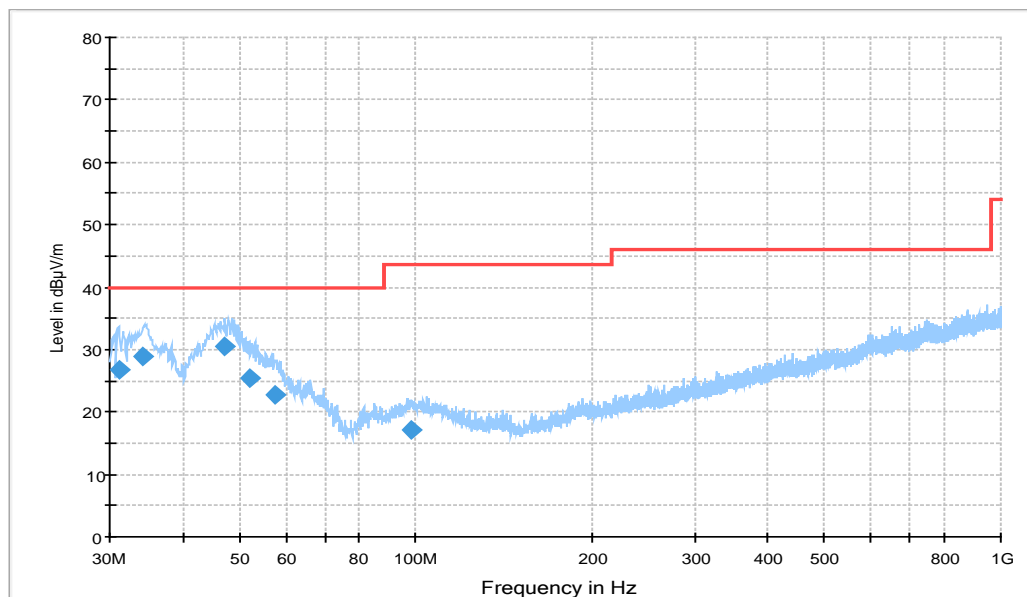


Figure A.13 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
31.164000	26.9	100.0	V	253.0	-3.3	13.1	40.0
34.268000	29.0	110.0	V	128.0	-2.4	11.0	40.0
47.072000	30.4	100.0	V	73.0	-0.1	9.6	40.0
51.922000	25.5	100.0	V	283.0	-0.9	14.5	40.0
57.451000	22.7	125.0	V	49.0	0.0	17.3	40.0
98.385000	17.2	110.0	V	219.0	-2.1	26.3	43.5

15B RE - 1GHz-3GHz

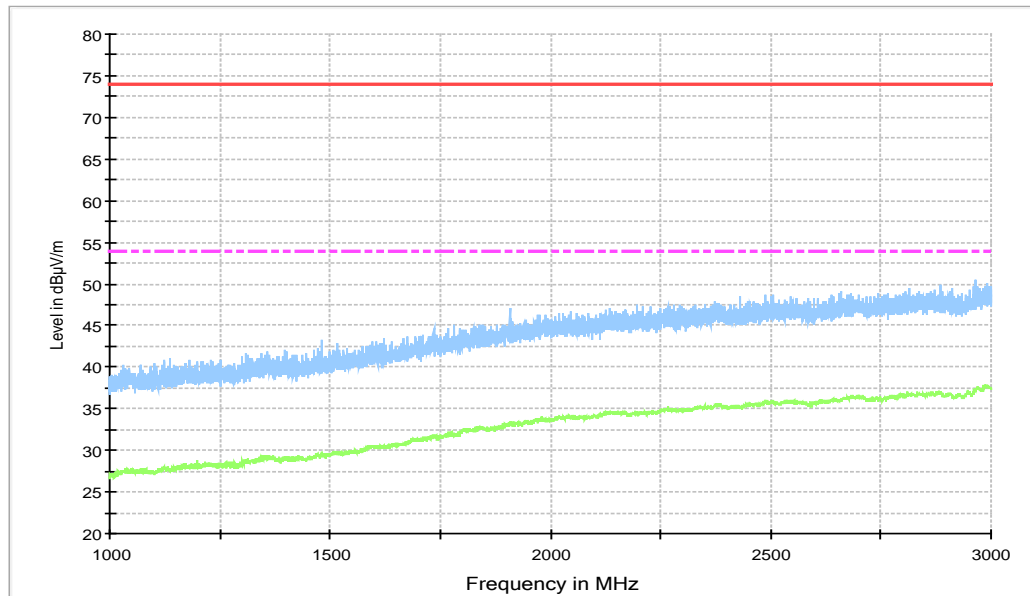


Figure A.14 Radiated Emission from 1GHz to 3GHz

15b RE - 3GHz-18GHz

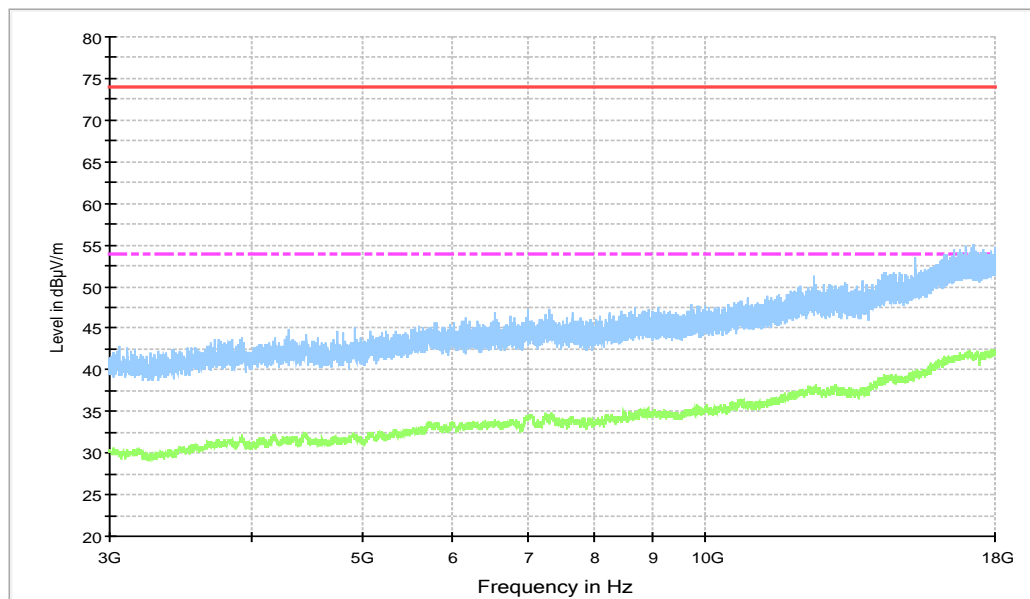


Figure A.15 Radiated Emission from 3GHz to 18GHz

LTE Band 12 MID CHANNEL (737.5MHz)

15B RE 30MHz-1GHz

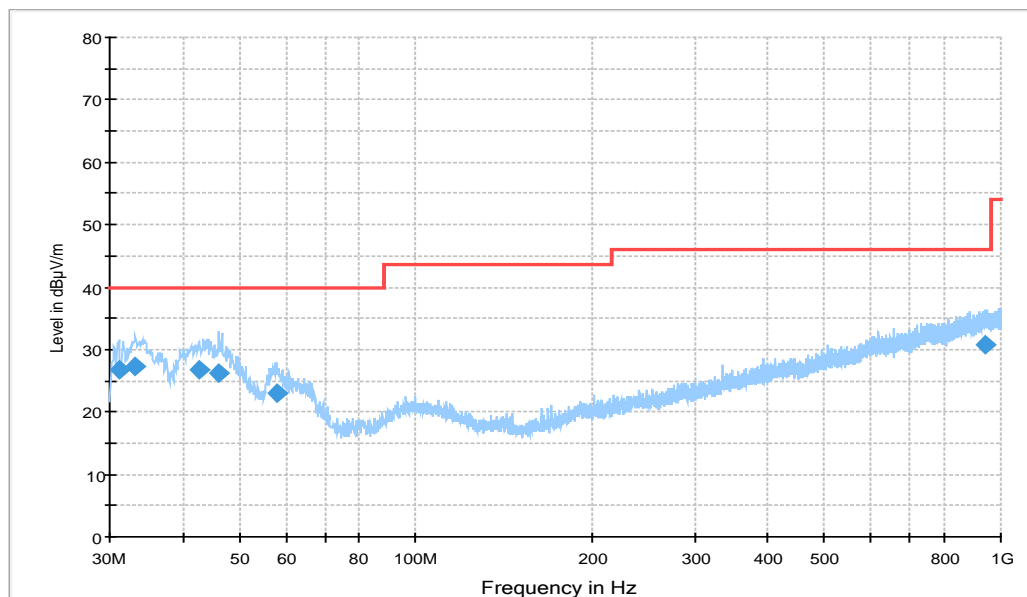


Figure A.16 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
31.164000	26.7	100.0	V	315.0	-3.3	13.3	40.0
33.201000	27.2	100.0	V	-1.0	-2.8	12.8	40.0
42.707000	26.7	125.0	V	52.0	-0.2	13.3	40.0
46.005000	26.1	110.0	V	-4.0	0.0	13.9	40.0
57.742000	22.9	119.0	V	3.0	0.1	17.1	40.0
939.86000	30.8	125.0	V	190.0	11.9	15.2	46.0

15B RE - 1GHz-3GHz

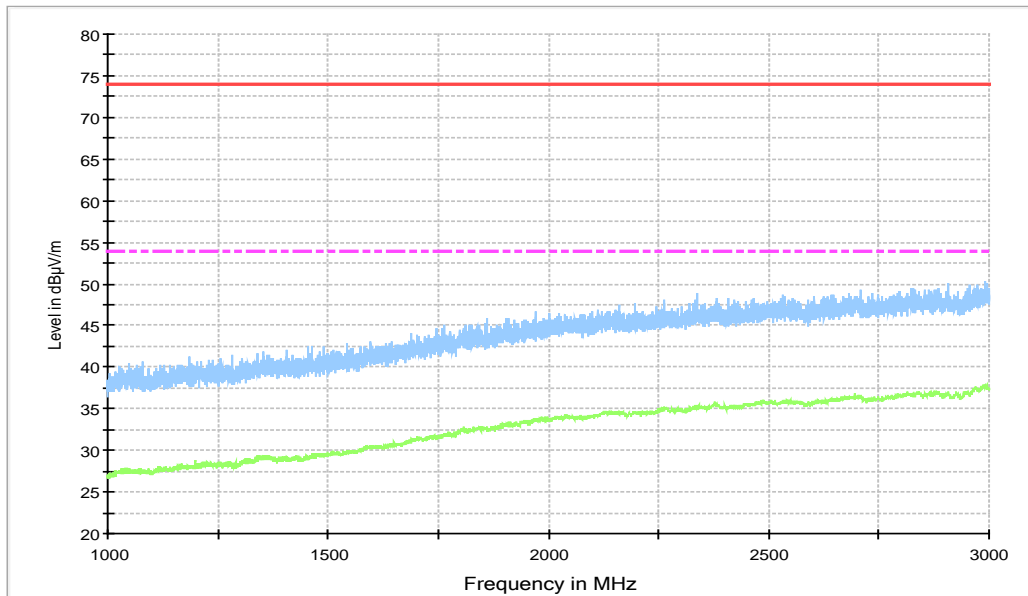


Figure A.17 Radiated Emission from 1GHz to 3GHz

15b RE - 3GHz-18GHz

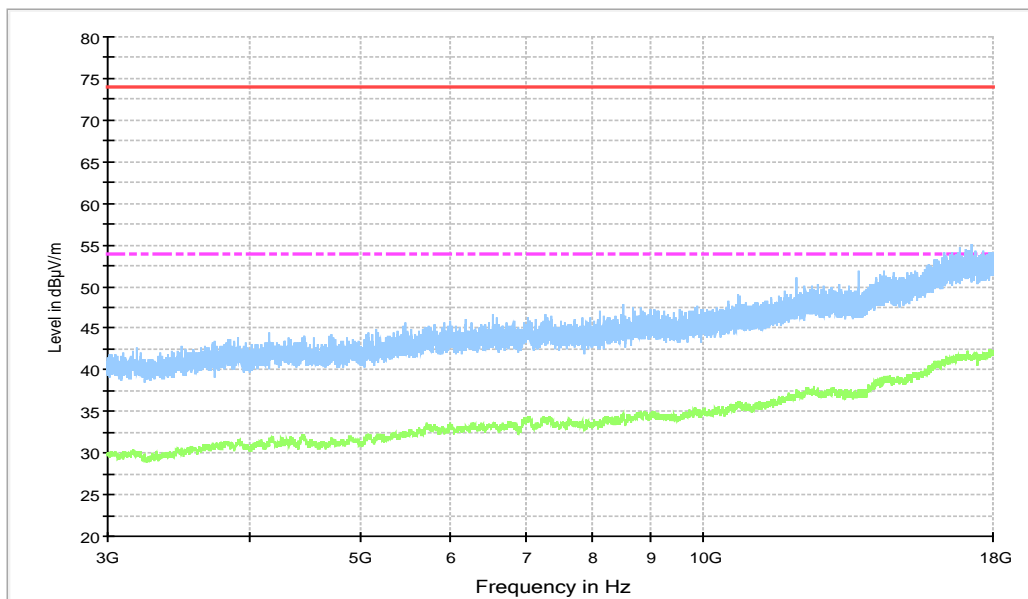


Figure A.18 Radiated Emission from 3GHz to 18GHz

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.

The model of the PC is Lenovo M4000e-17, and the serial number of the PC is M706RMW2. 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: $U = 3.10 \text{ dB}$, $k=2$.

Charger+MP3, Set.1

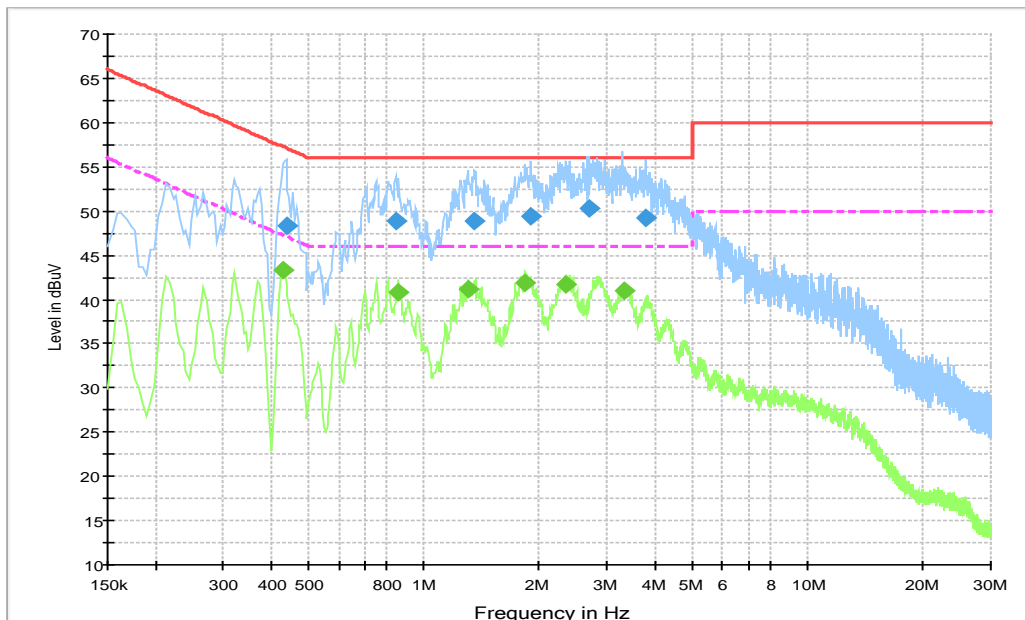


Figure A.19 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.438000	48.3	10000.0	9.000	L1	19.8	8.8	57.1
0.847500	48.8	10000.0	9.000	L1	19.7	7.2	56.0
1.356000	48.9	10000.0	9.000	L1	19.7	7.1	56.0
1.896000	49.5	10000.0	9.000	L1	19.7	6.5	56.0
2.692500	50.4	10000.0	9.000	L1	19.6	5.6	56.0
3.799500	49.2	10000.0	9.000	L1	19.6	6.8	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.429000	43.4	10000.0	9.000	L1	19.8	3.9	47.3
0.861000	40.8	10000.0	9.000	L1	19.7	5.2	46.0
1.302000	41.2	10000.0	9.000	L1	19.7	4.8	46.0
1.842000	41.9	10000.0	9.000	L1	19.7	4.1	46.0
2.341500	41.8	10000.0	9.000	L1	19.6	4.2	46.0
3.345000	41.0	10000.0	9.000	L1	19.6	5.0	46.0

Charger+Camera (recording), Set.1

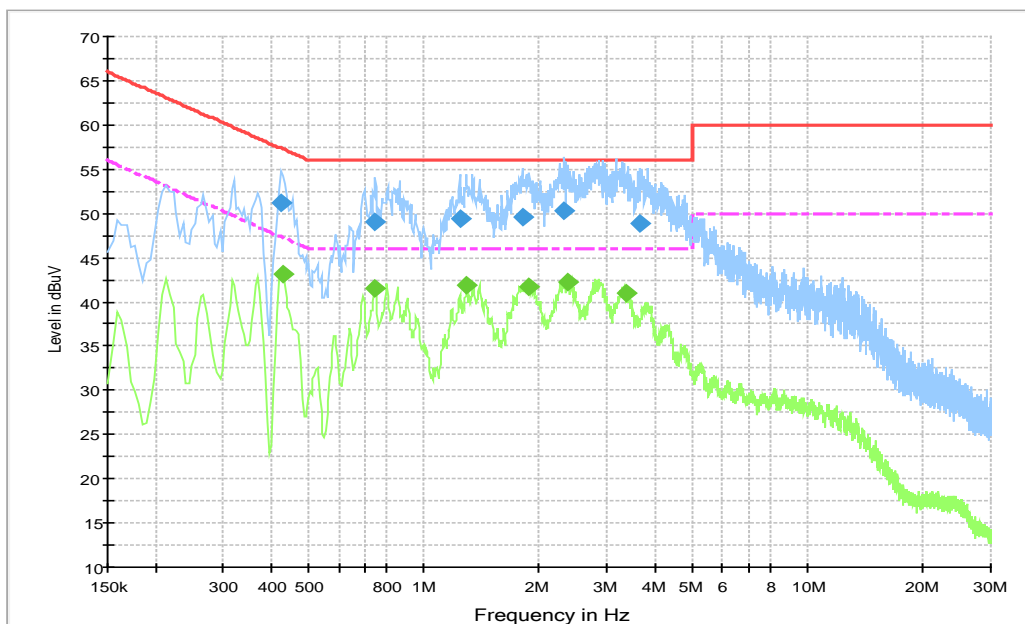


Figure A.20 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.424500	51.3	10000.0	9.000	L1	19.8	6.1	57.4
0.748500	49.0	10000.0	9.000	L1	19.7	7.0	56.0
1.239000	49.5	10000.0	9.000	L1	19.7	6.5	56.0
1.801500	49.6	10000.0	9.000	L1	19.7	6.4	56.0
2.328000	50.3	10000.0	9.000	L1	19.6	5.7	56.0
3.642000	48.9	10000.0	9.000	L1	19.6	7.1	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.429000	43.1	10000.0	9.000	L1	19.8	4.2	47.3
0.748500	41.5	10000.0	9.000	L1	19.7	4.5	46.0
1.288500	41.9	10000.0	9.000	L1	19.7	4.1	46.0
1.882500	41.8	10000.0	9.000	L1	19.7	4.2	46.0
2.364000	42.2	10000.0	9.000	L1	19.6	3.8	46.0
3.367500	41.0	10000.0	9.000	L1	19.6	5.0	46.0

USB mode +FM, Set.2

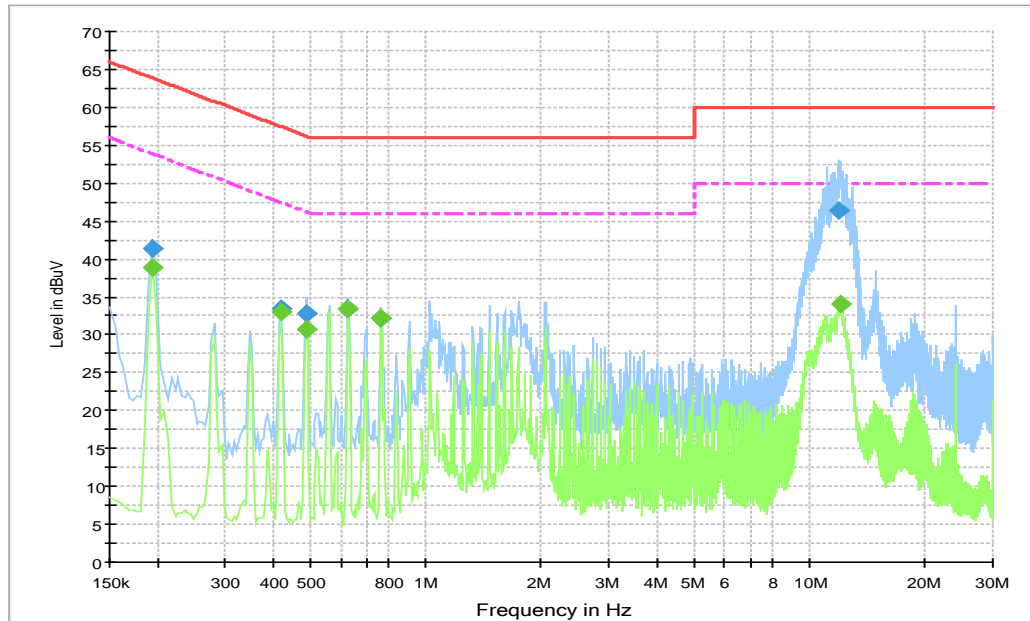


Figure A.21 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.195000	41.3	10000.0	9.000	L1	19.9	22.5	63.8
0.420000	33.4	10000.0	9.000	N	19.8	24.0	57.4
0.487500	32.7	10000.0	9.000	L1	19.8	23.5	56.2
0.627000	33.4	10000.0	9.000	L1	19.7	22.6	56.0
0.766500	32.3	10000.0	9.000	L1	19.7	23.7	56.0
11.962500	46.4	10000.0	9.000	L1	19.8	13.6	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.195000	38.9	10000.0	9.000	L1	19.9	14.9	53.8
0.420000	33.1	10000.0	9.000	N	19.8	14.4	47.4
0.487500	30.6	10000.0	9.000	L1	19.8	15.6	46.2
0.627000	33.5	10000.0	9.000	L1	19.7	12.5	46.0
0.766500	32.2	10000.0	9.000	L1	19.7	13.8	46.0
12.025500	34.1	10000.0	9.000	N	19.8	15.9	50.0

ANNEX B: Persons involved in this testing

Test Item	Tester
Radiated Emission	Zhao Wenhui,Li Zongliang
Conducted Emission	Guo Qian

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