



TEST REPORT

No. 24T04Z101045-007

for

TCL Communication Ltd.

Tablet PC

Model Name: 9491G

with

FCC ID: 2ACCJB221

Hardware Version: 05

Software Version: 1AS0

Issued Date: 2024-06-03

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

Test Laboratory:

CTTL-Telecommunication Technology Labs, CAICT

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

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: ctl_terminals@caict.ac.cn, website: www.caict.ac.cn



REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04Z101045-007	Rev.0	1 st edition	2024-06-03

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.....	7
3.5. EUT SET-UPS.....	8
4. REFERENCE DOCUMENTS	9
4.1. DOCUMENTS SUPPLIED BY APPLICANT	9
4.2. REFERENCE DOCUMENTS FOR TESTING	9
5. LABORATORY ENVIRONMENT	10
6. SUMMARY OF TEST RESULTS	11
7. TEST EQUIPMENTS UTILIZED	12
ANNEX A: MEASUREMENT RESULTS.....	13
ANNEX B: PERSONS INVOLVED IN THIS TESTING.....	37

1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA 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: 2024-05-13

Testing End Date: 2024-06-03

1.5. Signature



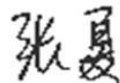
Li Yan

(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: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
City: /
Postal Code: /
Country: China
Contact Person: Ting Wang
Contact Email: ting.wang.hz@tcl.com
Telephone: +86 755 3661 1621
Fax: +86 755 3661 2000-81722

2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
City: /
Postal Code: /
Country: China
Contact Person: Ting Wang
Contact Email: ting.wang.hz@tcl.com
Telephone: +86 755 3661 1621
Fax: +86 755 3661 2000-81722

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

3.1. About EUT

Description	Tablet PC
Model name	9491G
FCC ID	2ACCJB221

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*	IMEI/SN	HW Version	SW Version
EUT1	B68P9HHUFIGY6LBE	05	1AS0
EUT2	IFW4GIDIHUIRVCEI	05	1AS0
EUT3	DAY9XCVODAQ8NRB6	05	1AS0

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

3.3. Internal Identification of AE used during the test

AE ID*	Name	Model	Manufacturer
AE1	Battery	TLp100A7	Dongguan Veken Battery CO., LTD.
AE2	Charger	QC16US	SHENZHEN BAIJUNDA ELECTRONICS CO., LTD.
AE3	Charger	QC16UK	SHENZHEN BAIJUNDA ELECTRONICS CO., LTD.
AE4	Charger	QC16EU	SHENZHEN BAIJUNDA ELECTRONICS CO., LTD.
AE5	Charger	QC16AU	SHENZHEN BAIJUNDA ELECTRONICS CO., LTD.
AE6	Date Cable	CDA0000205C1	Huizhou Juwei Electronics Co., Ltd.
AE7*	Headset	/	/
AE8*	PC	/	/
AE9*	MHD	/	/
AE10*	Date Cable	/	/

* The USB cables are shielded.

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

*AE7, AE8, AE9 and AE10 are not the AE for EUT, provided by the Lab for relevant tests.

3.4. General Description

Description	Tablet PC	
Model name	9491G	
Marketing name	/	
Brand name	TCL	
Cellular Bands	<input type="checkbox"/> GSM	/
	<input type="checkbox"/> CDMA	/
	<input type="checkbox"/> WCDMA	/
	<input type="checkbox"/> LTE	/
	<input type="checkbox"/> 5G NR SA	/
	<input type="checkbox"/> 5G NR NSA	/
Unlicensed Radio	<input checked="" type="checkbox"/> Wi-Fi 2.4GHz	802.11b/g/n(20MHz,40MHz)
	<input checked="" type="checkbox"/> Wi-Fi 5GHz	802.11a/n(20MHz,40MHz)/ac(20MHz,40MHz,80MHz)
	<input checked="" type="checkbox"/> Wi-Fi 5.8GHz	802.11a/n(20MHz,40MHz)/ac(20MHz,40MHz,80MHz)
	<input checked="" type="checkbox"/> Bluetooth	<input checked="" type="checkbox"/> EDR <input type="checkbox"/> BLE4 <input checked="" type="checkbox"/> BLE5
Other	<input checked="" type="checkbox"/> GNSS	<input checked="" type="checkbox"/> GPS <input type="checkbox"/> BDS <input type="checkbox"/> Gallileo <input type="checkbox"/> Glonass
	<input checked="" type="checkbox"/> FM <input checked="" type="checkbox"/> MP3 <input checked="" type="checkbox"/> MP4 <input checked="" type="checkbox"/> Camera <input checked="" type="checkbox"/> USB <input type="checkbox"/> NFC	
	<input checked="" type="checkbox"/> External memory	
Temperature	-0-40°C	
Normal Voltage	3.9V	
Extreme Low Voltage	3.45V	
Extreme High Voltage	4.45V	

Samples undergoing test were selected by the client.

Manual and specifications of the EUT were provided to fulfil the test.

For more EUT information please refers to the manufacturer's specifications or user's manual.

3.5. EUT set-ups

Set-up

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT + AE1 + AE2 +AE6	Charging
Set.2	EUT + AE1 + AE7	Headset
Set.3	EUT + AE1 + AE6 + EUT	EUT+EUT
Set.4	EUT + AE1 + AE9	EUT+HD
Set.5	EUT + AE1 + AE6 +AE8	Type C communication with PC
Set.6	EUT + AE1 + AE10 +AE8	USB communication with PC

Test mode

Mode No.	Operating mode	Remarks
mode.1	MP4 Play	RE, CE
mode.2	Front Camera	RE, CE
mode.3	Rear Camera	RE, CE
mode.4	OTG Phone to Phone	RE only
mode.5	OTG + Mobile HD+MP4	RE only
mode.6	USB DATA (TYPE C)	RE, CE
mode.7	USB DATA (USB)	RE, CE
mode.8	FM mode	FM(Low/Mid/High channel)

4. Reference Documents

4.1. Documents supplied by applicant

EUT parameters are supplied by the client or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC 47 CFR Part 15, Subpart B	Radio frequency devices - Unintentional Radiators	2023
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 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;
Electrical insulation	1MHz— 1000MHz, >90dB. > 2 MΩ
Ground system resistance	< 4 Ω
Temperature	Min. = 15 °C, Max. = 35 °C

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

Test Equipment

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURER	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESU26	100376	R&S	2024-06-29	1 year
2	Test Receiver	ESCI	100766	R&S	2025-04-18	1 year
3	LISN	ENV216	101459	R&S	2025-04-18	1 year
4	BiLog Antenna	VULB9163	302	Schwarzbeck	2024-08-28	1 year
5	EMI Antenna	3115	00119021	ETS-Lindgren	2024-06-24	1 year
6	Vector Signal Generator	SMBV100A	260613	R&S	2025-05-18	1 year
8	Printer	P1606dn	VNC3L52122	HP	N/A	N/A
9	Keyboard	KU-1601	2048361	Lenovo	N/A	N/A
10	Mouse	EMS-537A	8021S3MC	Lenovo	N/A	N/A
11	PC	M4000e-17	M706RMW2	Lenovo	N/A	N/A
12	PC	T14S	PC-1RP0TY	Lenovo	N/A	N/A

Test Software

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V8.53.0	R&S
Conducted Emission	EMC32 V8.53.0	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 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 and arranged in a typical configuration in accordance with ANSI C63.4-2014 and manipulated to obtain worst case emissions. 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.

For the test setup photographs please see the test setup photos document.

A.1.2 EUT Operating Mode

The EUT is operating in the USB mode, charging mode, MP3, MP4, CAMERA, OTG and FM mode. The FM radio mode radiated testing was performed with the Low/Mid/High channel. Only the worst cases 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.

A.1.4 Test Condition

Voltage (V)	Frequency (Hz)
120	60

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: 5.73dB, 1GHz-18GHz: 5.58dB, $k=2$.

Note: all the set-up and operating mode list in section 3.5 were tested, only the worst test data are showed in this section.

Set.1+Mode3, Rear Camera

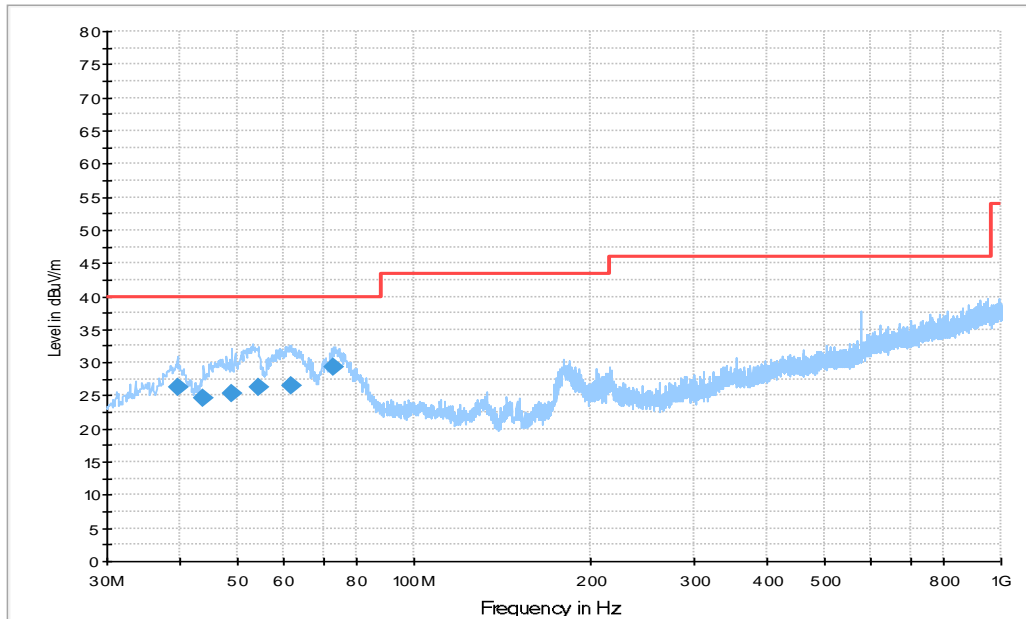


Figure A.1 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
39.506000	26.2	100.0	V	191.0	0.2	13.8	40.0
43.774000	24.7	113.0	V	250.0	0.5	15.3	40.0
48.915000	25.2	100.0	V	205.0	0.4	14.8	40.0
54.347000	26.4	125.0	V	243.0	-0.5	13.6	40.0
61.622000	26.6	113.0	V	250.0	-0.5	13.4	40.0
73.165000	29.4	100.0	V	108.0	-4.6	10.6	40.0

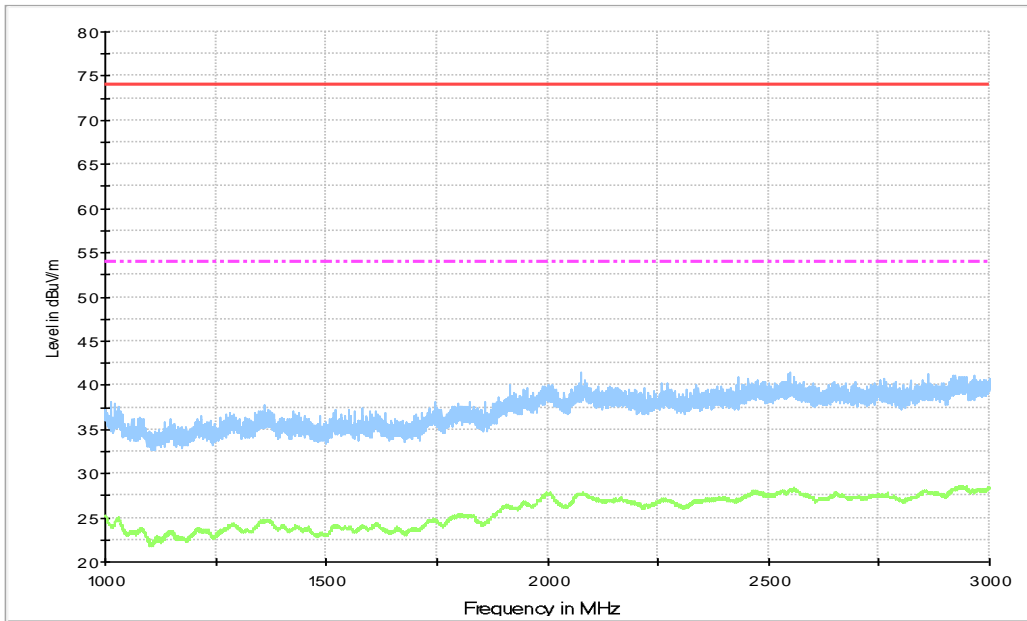


Figure A.2 Radiated Emission from 1GHz to 3GHz

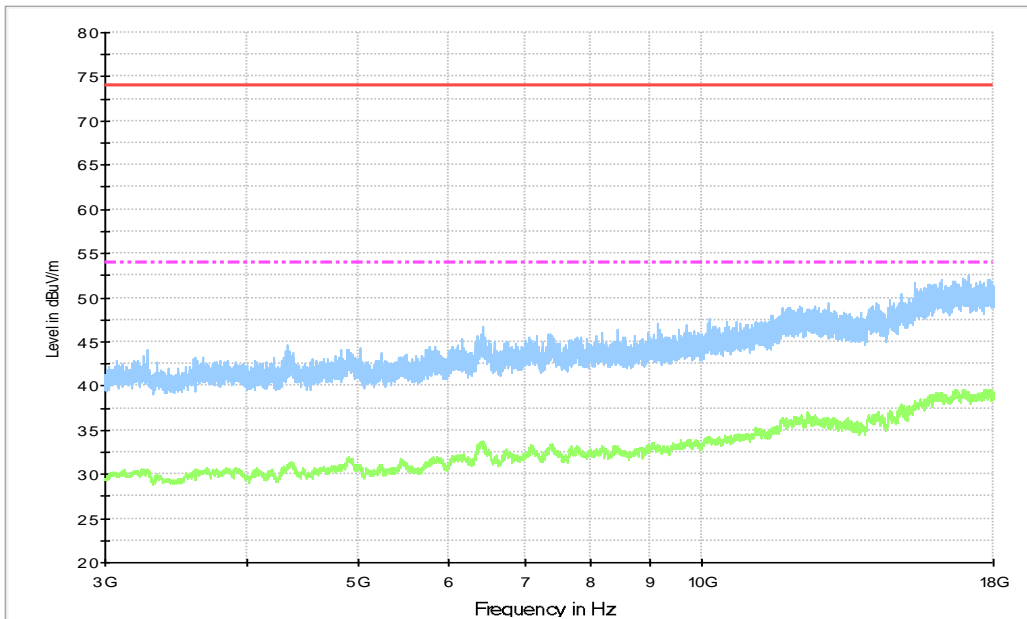


Figure A.3 Radiated Emission from 3GHz to 18GHz

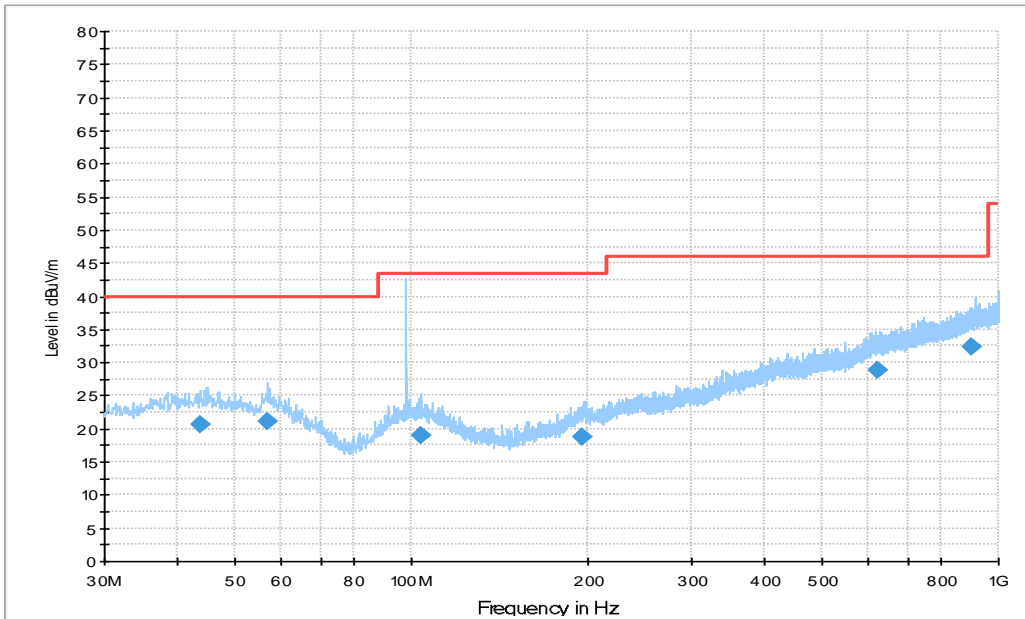
Average detector result

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)
17681.000	39.78	-23.0	40.5	22.27	54.0	14.2	V
16939.000	39.77	-23.1	40.5	22.32	54.0	14.2	H
17683.500	39.67	-23.5	40.5	22.62	54.0	14.3	H
17682.500	39.66	-23.5	40.5	22.62	54.0	14.3	H
17017.000	39.65	-24.3	41.1	22.84	54.0	14.3	V
17896.500	39.65	-24.2	41.1	22.77	54.0	14.3	H

Peak detector result

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)
16963.000	52.3	-24.9	41.3	35.94	74.0	21.7	V
17688.500	52.3	-24.3	40.9	35.71	74.0	21.7	V
17840.000	52.2	-23.8	40.6	35.51	74.0	21.8	H
17716.500	52.2	-24.6	41.4	35.44	74.0	21.8	V
17887.000	52.2	-24.2	41.1	35.26	74.0	21.8	V
17925.000	52.1	-25.1	40.9	36.28	74.0	21.9	V

Set.2+ Mode8, FM



Note: the single at 98MHz is coming from FM signal source.

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
43.677000	20.6	100.0	H	173.0	0.5	19.4	40.0
56.869000	21.0	125.0	H	269.0	1.2	19.0	40.0
103.91400	18.9	100.0	H	51.0	-0.5	24.6	43.5
194.90000	18.7	113.0	V	283.0	-0.3	24.8	43.5
620.53600	28.8	125.0	V	154.0	10.1	17.2	46.0
903.09700	32.4	125.0	V	199.0	13.4	13.6	46.0

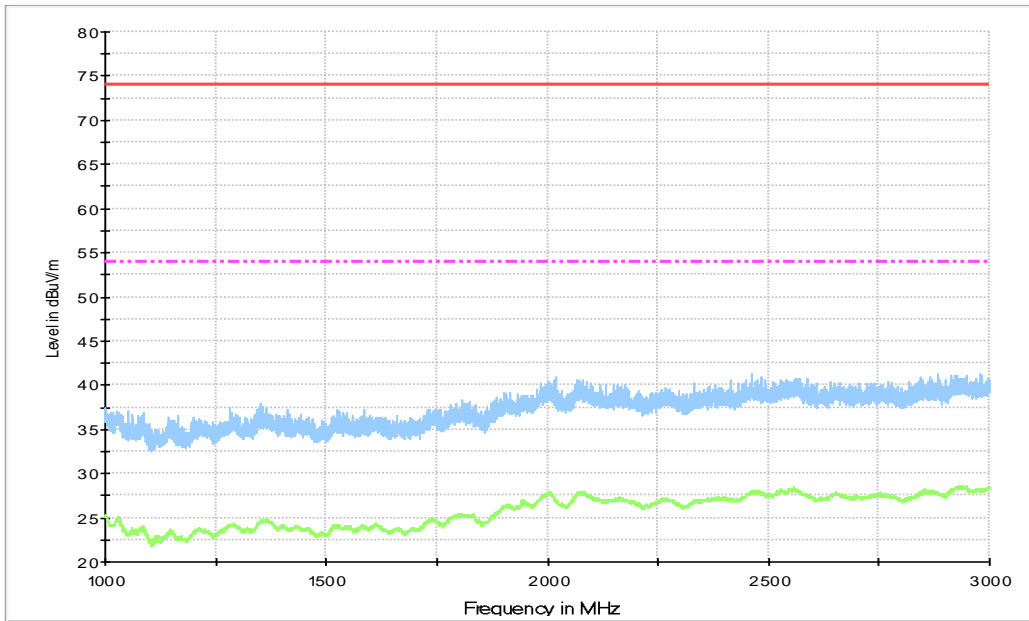


Figure A.5 Radiated Emission from 1GHz to 3GHz

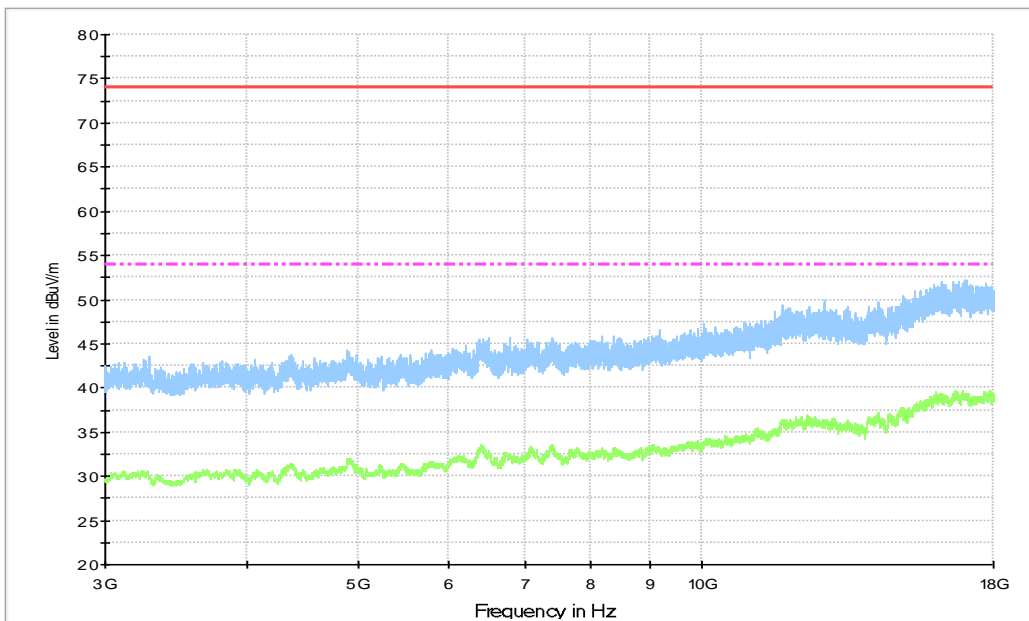


Figure A.6 Radiated Emission from 3GHz to 18GHz

Average detector result

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)
16640.000	39.65	-23.0	40.5	22.14	54.0	14.3	H
16946.000	39.64	-23.0	40.5	22.16	54.0	14.4	H
16639.000	39.63	-23.1	40.5	22.18	54.0	14.4	H
17830.000	39.62	-24.6	41.4	22.79	54.0	14.4	V
17891.000	39.60	-24.1	41.2	22.52	54.0	14.4	V
17885.000	39.60	-24.0	41.2	22.44	54.0	14.4	H

Peak detector result

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)
17020.500	52.3	-24.5	41.5	35.22	74.0	21.7	V
16988.000	52.1	-25.7	40.9	36.91	74.0	21.9	V
17032.500	52.1	-24.2	41.2	35.05	74.0	21.9	H
16577.000	52.0	-23.8	40.6	35.25	74.0	22.0	H
16795.000	52.0	-24.2	41.1	35.11	74.0	22.0	V
16208.000	51.9	-24.6	40.8	35.76	74.0	22.1	H

Set.3+Mode2+Mode4, OTG Phone to Phone+ Front Camera

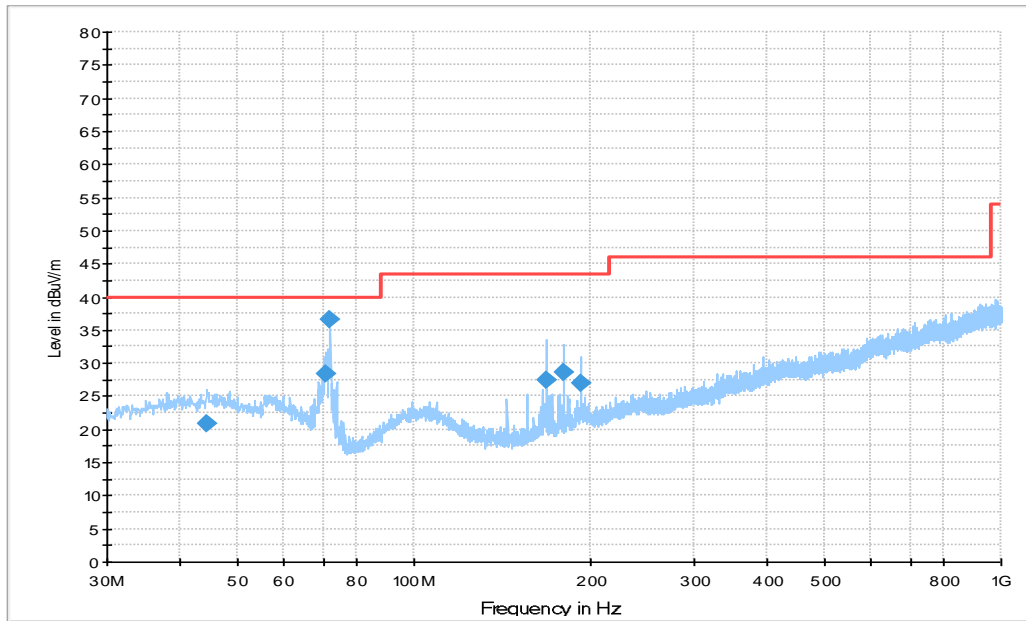


Figure A.7 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
44.356000	20.8	125.0	H	180.0	0.6	19.2	40.0
70.643000	28.5	100.0	H	315.0	-3.7	11.5	40.0
72.001000	36.7	125.0	H	287.0	-4.2	3.4	40.0
167.93400	27.5	125.0	H	135.0	-3.1	16.0	43.5
179.96200	28.5	100.0	H	135.0	-2.4	15.0	43.5
191.99000	26.9	100.0	H	135.0	-0.6	16.6	43.5

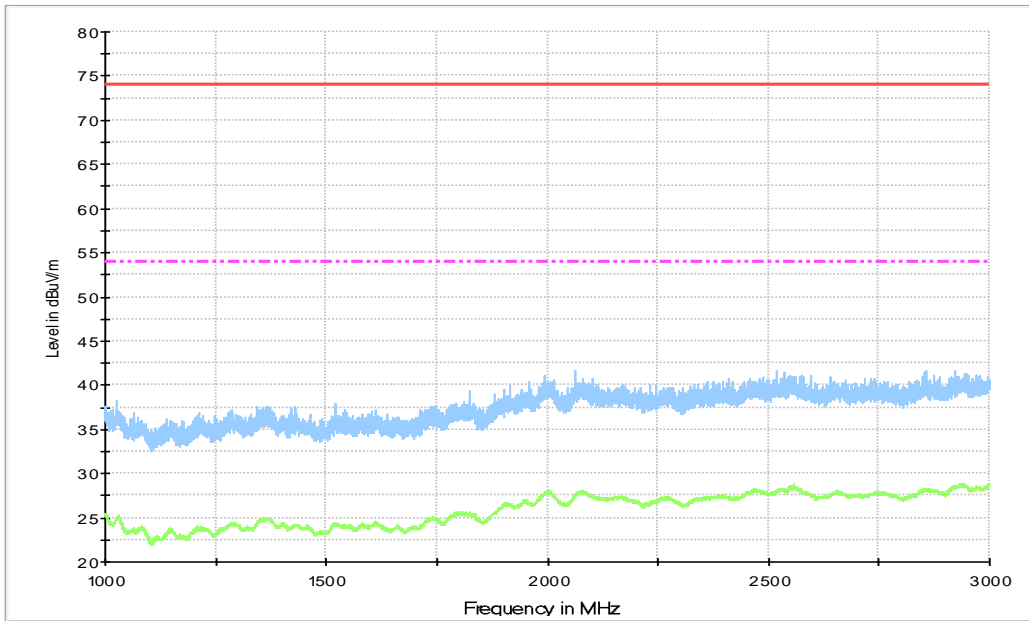


Figure A.8 Radiated Emission from 1GHz to 3GHz

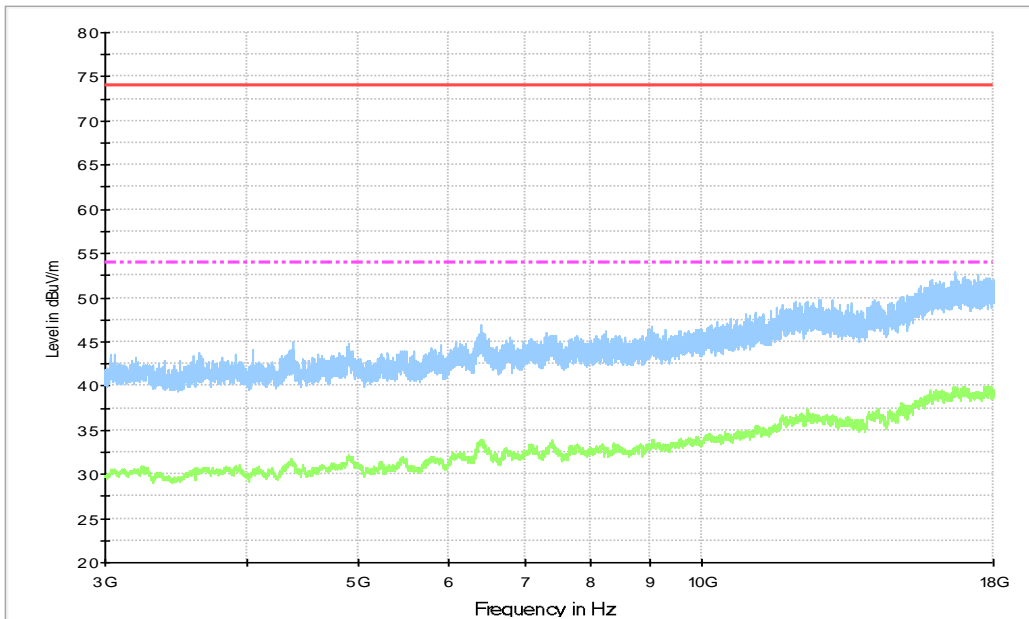


Figure A.9 Radiated Emission from 3GHz to 18GHz

Average detector result

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)
17826.000	40.00	-38.1	28.6	49.50	54.0	14.0	V
17892.000	39.93	-38.2	27.9	50.19	54.0	14.1	V
17017.000	39.91	-37.7	28.9	48.66	54.0	14.1	V
17890.500	39.91	-34.1	34.0	40.01	54.0	14.1	V
16941.500	39.89	-34.3	34.2	40.02	54.0	14.1	V
17693.000	39.87	-32.2	35.8	36.24	54.0	14.1	H

Peak detector result

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)
16641.500	53.0	-38.3	28.2	63.04	74.0	21.0	V
16637.000	52.5	-38.2	27.9	62.78	74.0	21.5	V
16685.000	52.5	-37.7	28.9	61.28	74.0	21.5	H
17435.000	52.5	-34.6	33.4	53.66	74.0	21.5	V
17003.500	52.3	-32.1	35.8	48.65	74.0	21.7	V
17010.500	52.3	-25.1	40.9	36.50	74.0	21.7	V

Set.4+Mode5+Mode1, OTG + MP4

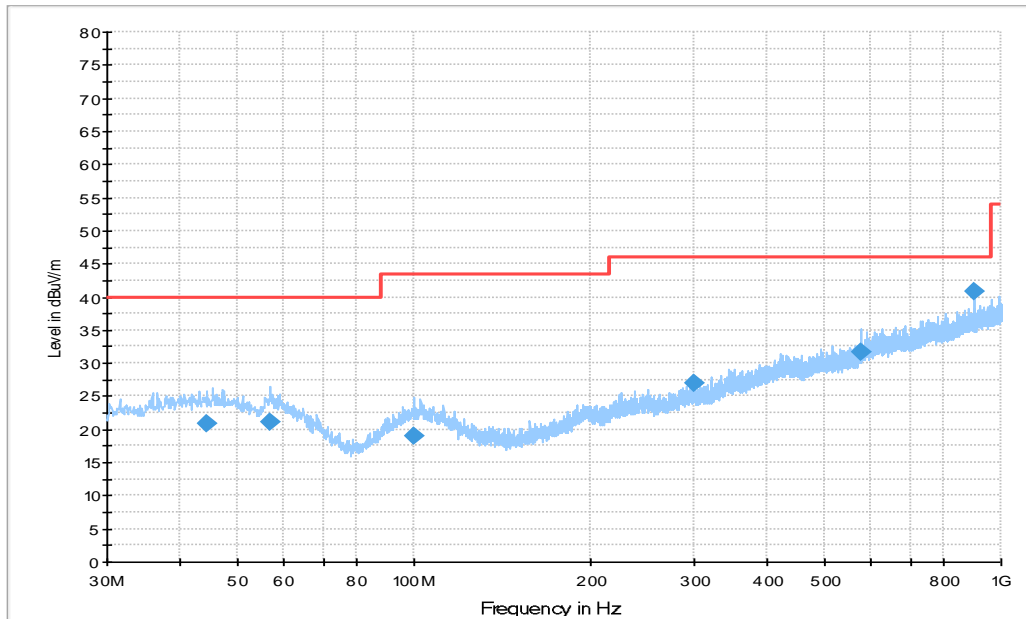


Figure A.10 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
44.453000	20.8	100.0	H	237.0	0.7	19.2	40.0
56.966000	21.0	100.0	V	45.0	1.2	19.0	40.0
100.03400	19.1	100.0	H	308.0	-0.6	24.4	43.5
300.04800	27.0	100.0	H	83.0	1.9	19.0	46.0
576.01300	31.7	100.0	V	6.0	8.6	14.3	46.0
900.09000	40.9	100.0	H	45.0	13.4	5.1	46.0

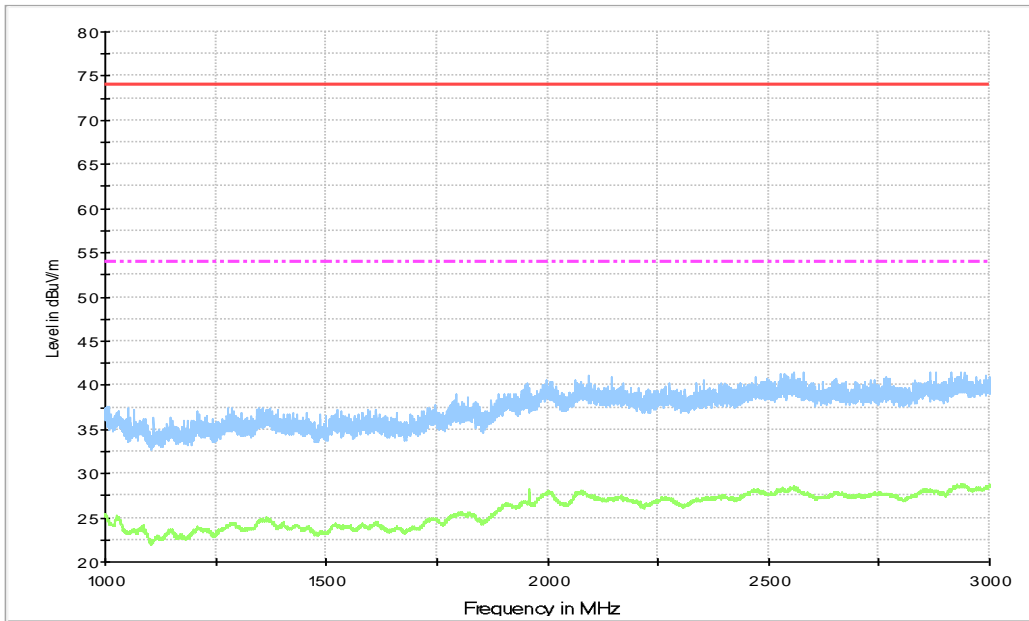


Figure A.11 Radiated Emission from 1GHz to 3GHz

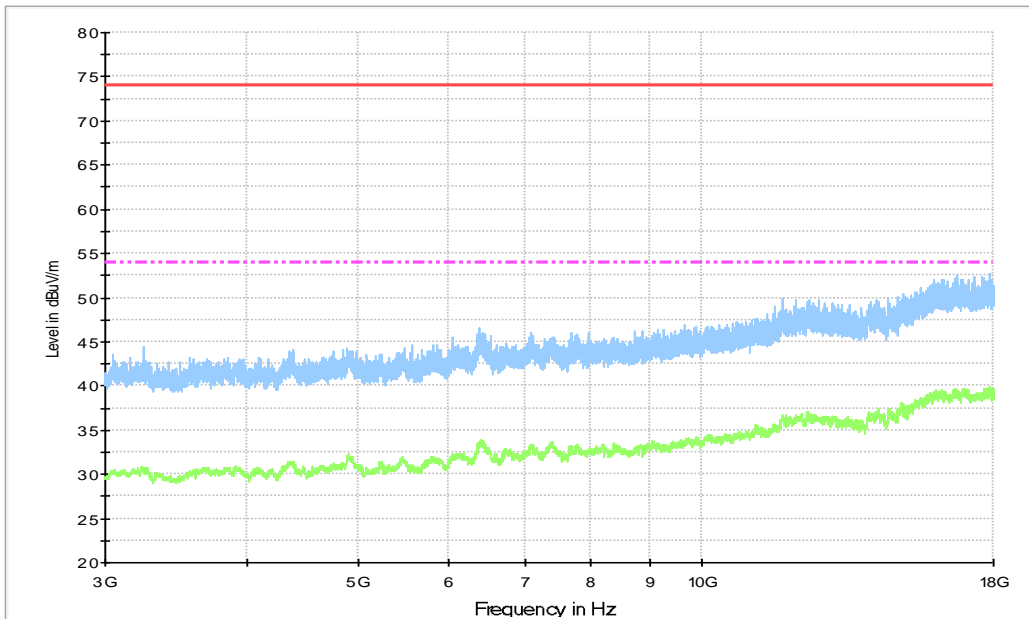


Figure A.12 Radiated Emission from 3GHz to 18GHz

Average detector result

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)
17834.500	39.86	-38.1	28.6	49.36	54.0	14.1	H
17827.500	39.85	-38.2	27.9	50.10	54.0	14.2	H
17830.500	39.83	-37.7	28.9	48.58	54.0	14.2	H
17894.000	39.82	-34.1	34.0	39.92	54.0	14.2	H
17828.500	39.82	-34.3	34.2	39.95	54.0	14.2	H
17888.500	39.80	-32.2	35.8	36.17	54.0	14.2	H

Peak detector result

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)
17016.000	50.1	-38.3	28.2	60.18	74.0	23.9	V
17823.500	50.4	-38.2	27.9	60.70	74.0	23.6	H
17686.000	49.8	-37.7	28.9	58.54	74.0	24.2	H
17829.000	50.5	-34.6	33.4	51.73	74.0	23.5	H
16639.000	50.1	-32.1	35.8	46.49	74.0	23.9	V
17684.000	49.6	-25.1	40.9	33.86	74.0	24.4	H

Set.5+Mode6, USB

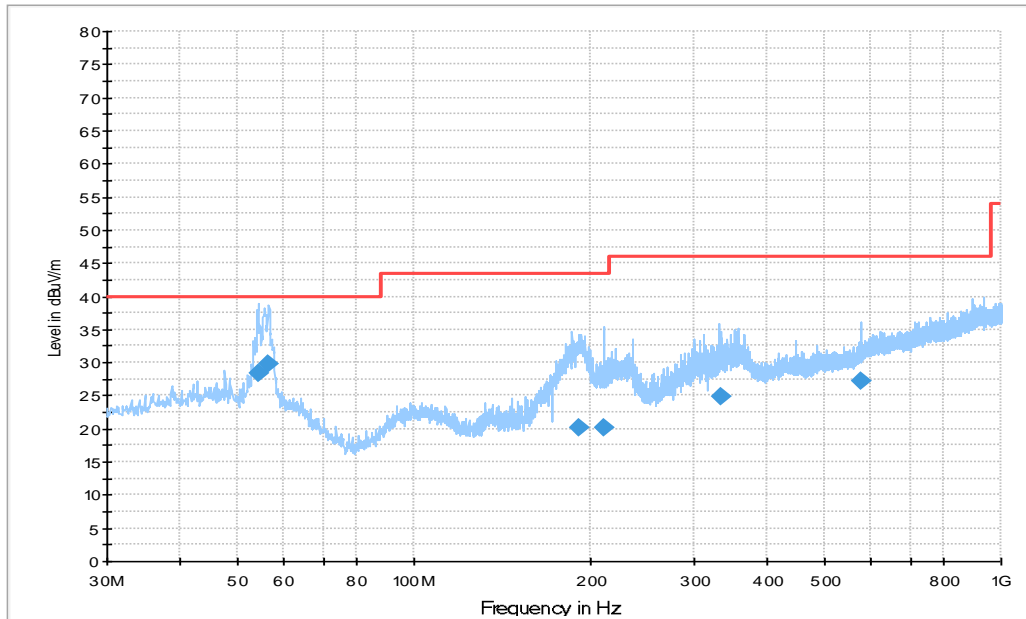


Figure A.13 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
54.347000	28.5	100.0	V	257.0	-0.5	11.5	40.0
56.578000	29.7	125.0	V	109.0	1.1	10.3	40.0
190.826000	20.1	100.0	H	288.0	-0.8	23.4	43.5
210.032000	20.2	100.0	H	76.0	-0.9	23.3	43.5
333.319000	24.8	100.0	H	90.0	3.4	21.2	46.0
576.013000	27.3	113.0	H	135.0	8.6	18.7	46.0

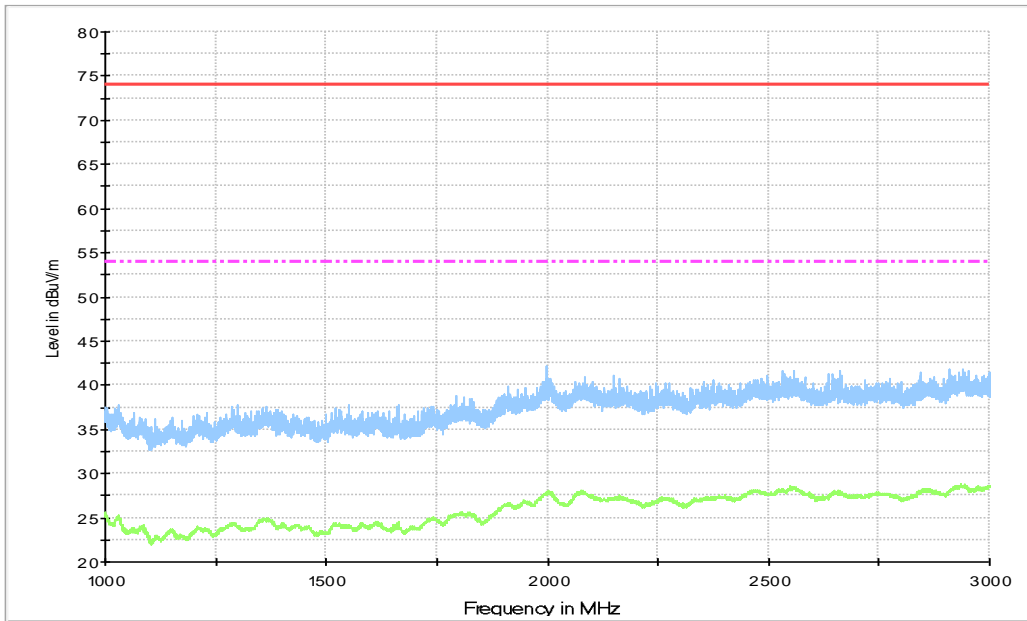


Figure A.14 Radiated Emission from 1GHz to 3GHz

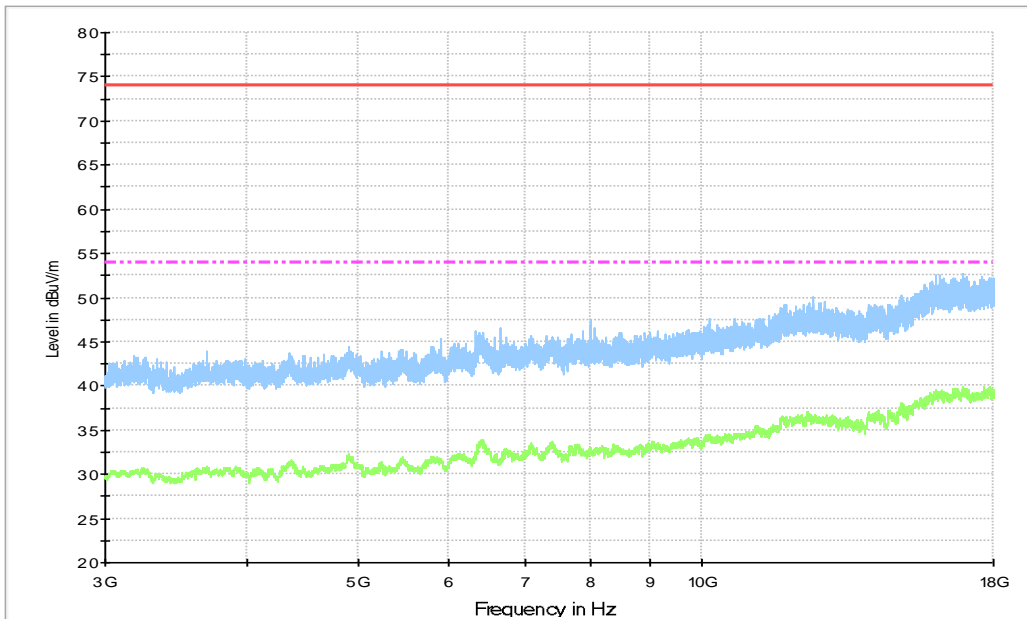


Figure A.15 Radiated Emission from 3GHz to 18GHz

Average detector result

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)
17686.000	39.93	-38.1	28.6	49.43	54.0	14.1	V
17829.000	39.90	-38.2	27.9	50.16	54.0	14.1	V
17890.000	39.86	-37.7	28.9	48.61	54.0	14.1	V
16949.000	39.81	-34.1	34.0	39.91	54.0	14.2	V
16929.500	39.80	-34.3	34.2	39.94	54.0	14.2	V
17830.000	39.80	-32.2	35.8	36.17	54.0	14.2	V

Peak detector result

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)
16944.500	52.7	-38.3	28.2	62.73	74.0	21.3	V
16162.500	52.6	-38.2	27.9	62.89	74.0	21.4	V
16026.000	52.6	-37.7	28.9	61.38	74.0	21.4	H
17063.000	52.4	-34.6	33.4	53.60	74.0	21.6	V
17619.000	52.4	-32.1	35.8	48.71	74.0	21.6	H
17990.500	52.3	-25.1	40.9	36.50	74.0	21.7	H

Set.6+Mode7, USB

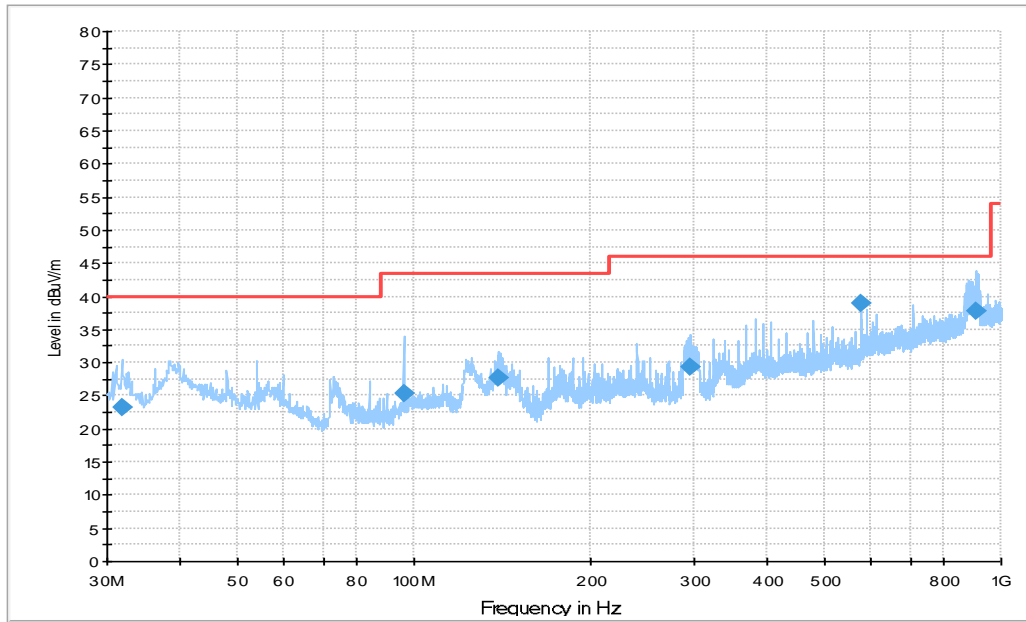


Figure A.16 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBuV/m)
31.746000	23.3	113.0	V	0.0	-1.3	16.7	40.0
95.960000	25.4	125.0	H	282.0	-1.3	18.1	43.5
139.12500	27.6	100.0	V	179.0	-4.4	15.9	43.5
296.26500	29.4	113.0	H	179.0	1.9	16.6	46.0
576.01300	38.9	113.0	H	276.0	8.6	7.1	46.0
904.94000	37.8	100.0	V	0.0	13.4	8.2	46.0

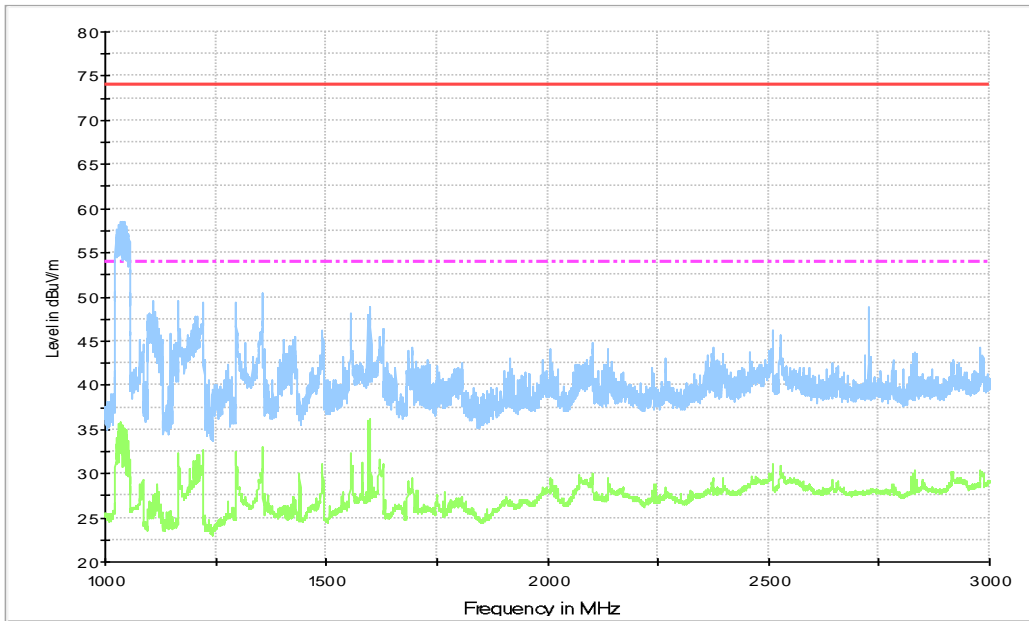


Figure A.17 Radiated Emission from 1GHz to 3GHz

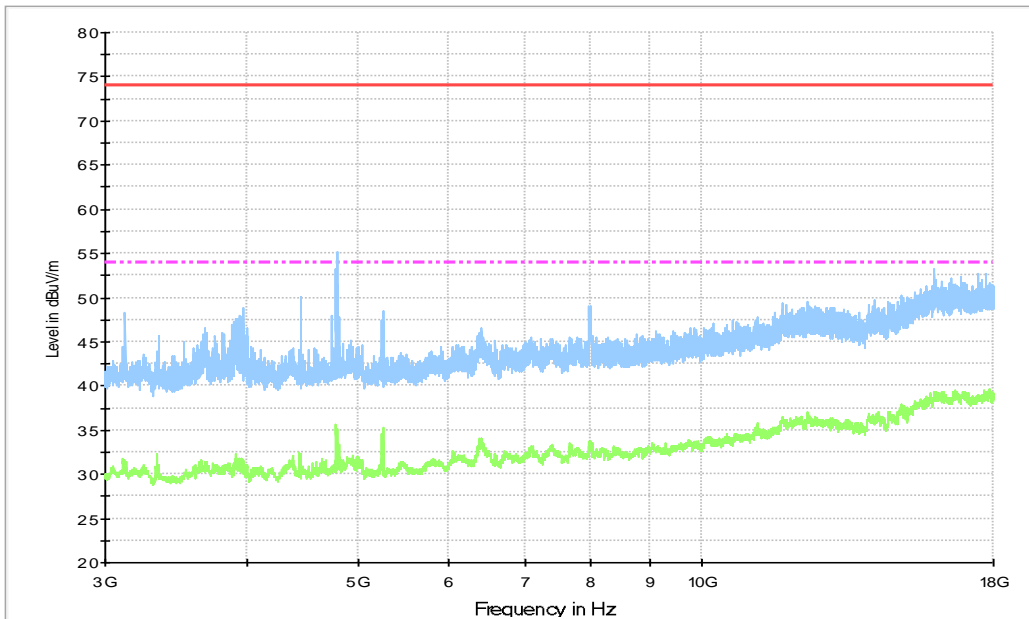


Figure A.18 Radiated Emission from 3GHz to 18GHz

Average detector result

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)
1036.000	35.82	-38.1	28.6	45.32	54.0	18.2	V
1220.600	32.56	-38.2	27.9	42.81	54.0	21.4	V
1599.000	36.21	-37.7	28.9	44.96	54.0	17.8	V
4781.000	35.74	-34.1	34.0	35.84	54.0	18.3	V
5242.000	34.60	-34.3	34.2	34.73	54.0	19.4	V
6398.500	34.15	-32.2	35.8	30.51	54.0	19.9	V

Peak detector result

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)
1032.800	58.6	-38.3	28.2	68.62	74.0	15.5	V
1356.400	50.4	-38.2	27.9	60.64	74.0	23.6	V
1599.800	48.9	-37.7	28.9	57.67	74.0	25.1	V
4454.500	50.1	-34.6	33.4	51.26	74.0	23.9	V
4783.500	55.2	-32.1	35.8	51.58	74.0	18.8	V
7969.500	49.0	-25.1	40.9	33.26	74.0	25.0	V

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.

For the test setup photographs please see the test setup photos document.

A.2.2 EUT Operating Mode

The EUT is operating in the USB mode, charging mode, MP3, MP4, CAMERA mode.

The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

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

A.2.3 Measurement Limit

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency		

A.2.4 Test Condition in charging mode

Voltage (V)	Frequency (Hz)
120	60

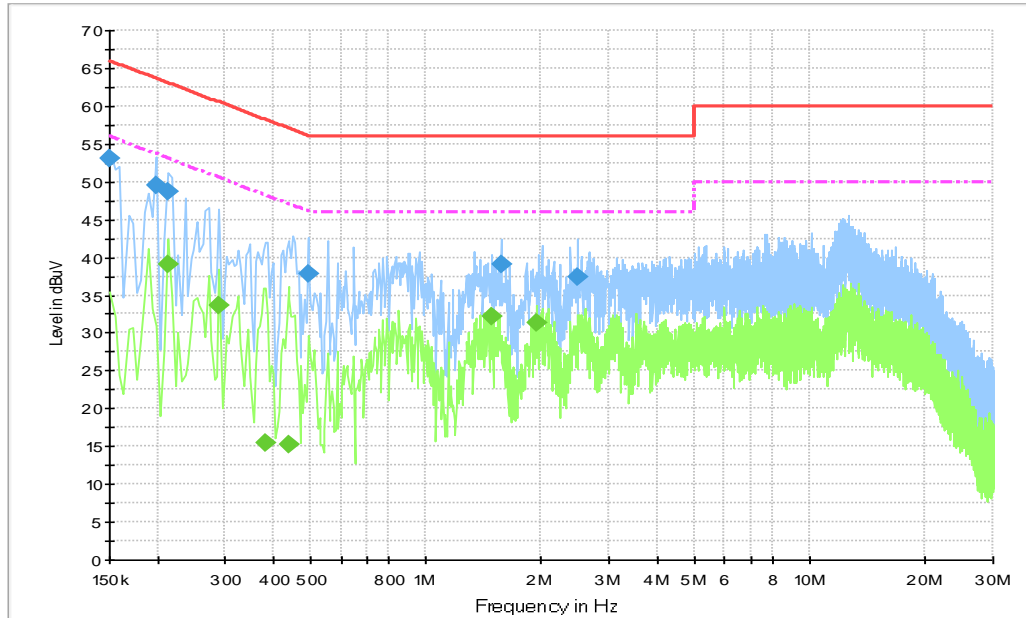
RBW/IF bandwidth	Sweep Time(s)
9kHz	1

A.2.5 Measurement Results

Measurement uncertainty: $U= 3.10$ dB, $k=2$.

Note: all the set-up and operating mode list in section 3.5 were tested, only the worst test data are showed in this section.

Set.1+Mode2



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

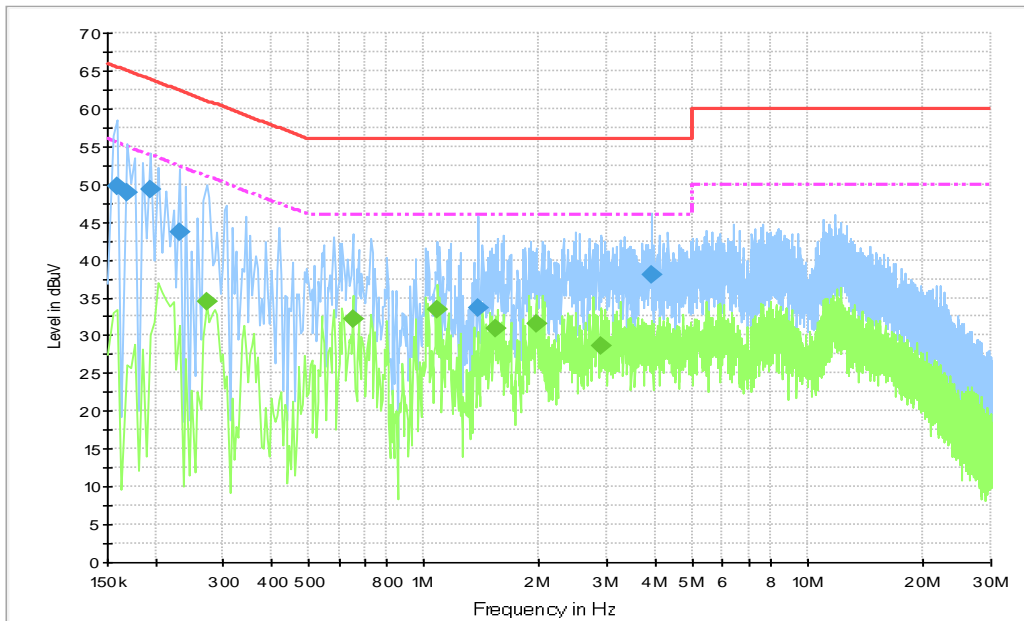
Figure A.19 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	53.0	2000.0	9.000	N	20.3	13.0	66.0
0.199500	49.4	2000.0	9.000	N	20.0	14.2	63.6
0.213000	48.6	2000.0	9.000	N	20.0	14.4	63.1
0.492000	37.8	2000.0	9.000	L1	20.1	18.4	56.1
1.567500	39.2	2000.0	9.000	L1	19.9	16.8	56.0
2.490000	37.4	2000.0	9.000	L1	19.9	18.6	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.213000	39.0	2000.0	9.000	L1	20.0	14.1	53.1
0.289500	33.7	2000.0	9.000	L1	20.1	16.8	50.5
0.384000	15.4	2000.0	9.000	L1	20.0	32.8	48.2
0.438000	15.3	2000.0	9.000	N	20.2	31.8	47.1
1.486500	32.2	2000.0	9.000	L1	19.9	13.8	46.0
1.945500	31.3	2000.0	9.000	L1	19.8	14.7	46.0

Set.1+Mode3


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

Figure A.20 Conducted Emission

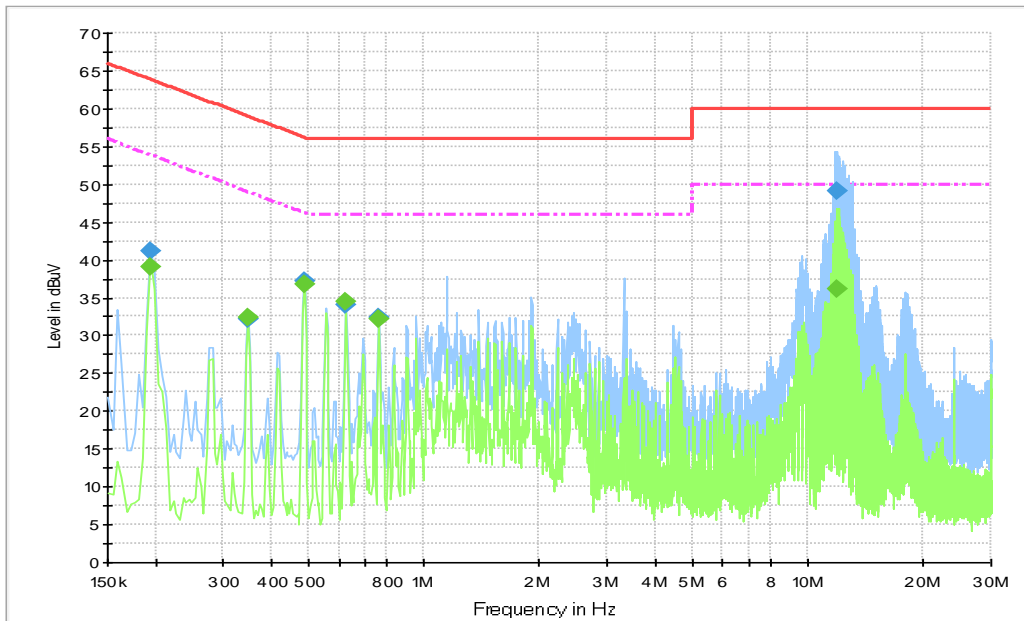
Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.159000	49.7	2000.0	9.000	L1	20.1	15.8	65.5
0.168000	48.9	2000.0	9.000	L1	20.1	16.1	65.1
0.195000	49.3	2000.0	9.000	N	20.1	14.5	63.8
0.231000	43.7	2000.0	9.000	L1	20.0	18.7	62.4
1.387500	33.6	2000.0	9.000	L1	19.9	22.4	56.0
3.907500	38.1	2000.0	9.000	L1	19.9	17.9	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.271500	34.4	2000.0	9.000	L1	20.0	16.7	51.1
0.654000	32.1	2000.0	9.000	L1	20.0	13.9	46.0
1.086000	33.4	2000.0	9.000	L1	19.9	12.6	46.0
1.531500	30.9	2000.0	9.000	L1	19.9	15.1	46.0
1.959000	31.6	2000.0	9.000	L1	19.8	14.4	46.0
2.881500	28.7	2000.0	9.000	L1	19.9	17.3	46.0

Set.6+Mode7+Mode1



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

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	41.1	2000.0	9.000	N	20.1	22.7	63.8
0.348000	32.2	2000.0	9.000	N	20.1	26.8	59.0
0.487500	37.3	2000.0	9.000	N	20.2	19.0	56.2
0.627000	34.1	2000.0	9.000	L1	20.0	21.9	56.0
0.766500	32.4	2000.0	9.000	N	20.1	23.6	56.0
11.917500	49.2	2000.0	9.000	N	20.2	10.8	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.195000	39.0	2000.0	9.000	N	20.1	14.8	53.8
0.348000	32.4	2000.0	9.000	N	20.1	16.6	49.0
0.487500	36.8	2000.0	9.000	N	20.2	9.4	46.2
0.627000	34.4	2000.0	9.000	N	20.1	11.6	46.0
0.766500	32.2	2000.0	9.000	N	20.1	13.8	46.0
11.917500	36.2	2000.0	9.000	L1	20.0	13.8	50.0



ANNEX B: Persons involved in this testing

Test Item	Tester
Radiated Emission	Sun Tianyuan
Conducted Emission	Yan Xaorui

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