

TEST REPORT No. I16Z40886-EMC01

for

TCL Communication Ltd

LTE / UMTS / GSM mobile phone

Model Name: VFD501

FCC ID: 2ACCJH050

with

Hardware Version: PIO

Software Version: v8F27

Issued Date: 2016-05-05

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.

Test Laboratory:

FCC 2.948 Listed: No.525429

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I16Z40886-EMC01	Rev.0	1 st edition	2016-05-05



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1. Test Laboratory

1.1. Testing Location

Location 1: CTTL(huayuan North Road)

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

100191

1.2. <u>Testing Environment</u>

Normal Temperature: $15-35^{\circ}$ C Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2016-04-08
Testing End Date: 2016-04-13

1.4. Signature

Zhang Hui

(Prepared this test report)

屈鹏飞

Qu Pengfei

(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

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Pudong Area Shanghai, P.R. China. 201203

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Postal Code: 201203
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2.2. Manufacturer Information

Company Name: TCL Communication Ltd

Address /Post: 5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park,

Pudong Area Shanghai, P.R. China. 201203

City: Shanghai
Postal Code: 201203
Country: P. R. China

Telephone: 0086-21-31363544 Fax: 0086-21-61460602



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

3.1. About EUT

Description LTE / UMTS / GSM mobile phone

Model Name VFD501 FCC ID 2ACCJN009

Extreme vol. Limits 3.5VDC to 4.2VDC (nominal: 3.8VDC)

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT.

3.2. Internal Identification of EUT used during the test

 EUT ID*
 SN or IMEI
 HW Version
 SW Version

 EUT4
 357911070006579
 PIO
 v8F27

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN	Remarks
AE41	battery		/
AE42	battery		14TCT-BA-1847
AE50	USB cable	/	16TCT-DC-0227
AE51	USB cable	1	16TCT-DC-0246
AE59	Travel charger	/	16TCT-CH-0488
AE60	Travel charger	1	15TCT-CH-0866
AE61	Travel charger	1	16TCT-CH-0477
AE62	Travel charger	/	15TCT-CH-0707
AE63	Travel charger	/	without any test
AE64	Travel charger	/	without any test

AE41

Model CAB2000047C1

Manufacturer BYD
Capacitance 2000 mAh
Nominal voltage 3.8V

AE42

Model CAB2000013C2

Manufacturer SCUD
Capacitance 2000 mAh
Nominal voltage 3.8V

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



AE59

Model CBA0066AA4C1

Manufacturer BYD Length of cable /

AE60

Model CBA3068AB1C1

Manufacturer BYD Length of cable /

AE61

Model CBA3068AA1C4

Manufacturer Aohai
Length of cable /

AE62

Model CBA0066AA1C5

Manufacturer Puan Length of cable /

AE63

Model CBA0066AB4C1

Manufacturer BYD Length of cable /

AE64

Model CBA0077AA1C1

Manufacturer BYD Length of cable /

AE50

Model CDA6050000C1

Manufacturer Juwei Length of cable cm

AE51

Model CDA6050000C8

Manufacturer PUAN Length of cable cm

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

Note: The USB cables are shielded.



3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.14	EUT4 + AE2 + AE51 + AE60	Charging mode
Set.15	EUT4 + AE2 + AE51 + AE59	Charging mode
Set.16	EUT4 + AE2 + AE51 + AE62	Charging mode
Set.17	EUT4 + AE2 + AE51 + AE61	Charging mode
Set.18	EUT4 + AE2 + AE51	USB mode

Note: The LTE / UMTS / GSM mobile phone VFD501 manufactured by TCL Communication Ltd. is a variant model based on VFD500 for conformance test. According to the declaration of changes, all results are inherited from the initial model. The report number of initial model is I16Z40666-EMC03.

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	10-1-15
		Edition
ANSI C63.4	Methods of Measurement of Radio-Noise	2014
	Emissions from Low - Voltage Electrical and	
	Electronic Equipment in the Range of 9 kHz to 40	
	GHz	



5. LABORATORY ENVIRONMENT

Semi-anechoic chamber SAC-1 (23 meters \times 17meters \times 10meters) did not exceed following limits along the EMC testing:

o o		
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, 10 m distance	
Site voltage standing-wave ratio (S _{VSWR})	Between 0 and 6 dB, from 1GHz to 6GHz	
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 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:		
	Р	Pass
Verdict Column	NA	Not applicable
	F	Fail
Location Column	A/B/C/D	The test is performed in test location A, B, C or D
Location Column	A/B/C/D	which are described in section 1.1 of this report

Items	Test Name	Clause in FCC rules	Clause in IC rules	Section in this report	Verdict	Test Location
1	Radiated Emission	15.109(a)	Section 5	B.1	Р	А
2	Conducted Emission	15.107(a)	Section 5	B.2	Р	Α



7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTUR E	CAL DUE DATE	CALIBRATI ON INTERVAL
1	Test Receiver	ESU26	100235	R&S	2017-03-02	1 year
2	Universal Radio Communication Tester	CMW500	143008	R&S	2016-12-09	1 year
3	LISN	ENV216	101200	R&S	2016-07-07	1 year
4	EMI Antenna	VULB 9163	9163-301	Schwarzbeck	2017-12-16	3 years
5	EMI Antenna	3115	6914	ETS-Lindgren	2016-12-15	3 years
6	Test Receiver	ESCI7	100948	R&S	2016-07-07	1 year
7	PC	OPTIPLEX 380	2X1YV2X	DELL	N/A	N/A
8	Printer	P1606dn	VNC3L52122	HP	N/A	N/A
9	Keyboard	L100	CN0RH6596589 07ATOI40	DELL	N/A	N/A
10	Mouse	M-UAE119	LZ935220ZRC	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 10 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 3/10 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. During the test MS is connected to a PC via a USB cable in the case of USB mode and is connected to a charger in the case of charging mode. The model of the PC is DELL OPTIPLEX 380, and the serial number of the PC is 2X1YV2X. 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	Field strength limit (µV/m)			
(MHz)	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/1MHz	15	Peak, Average



A.1.5 Measurement Results

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss". It includes the antenna factor of receive antenna and the path loss.

The measurement results are obtained as described below:

Result = P_{Mea} + A_{Rpl} = P_{Mea} + G_A + G_{PL}

Where

G_A: Antenna factor of receive antenna

G_{PL}: Path Loss

P_{Mea}: Measurement result on receiver.

Measurement uncertainty (worst case): U = 4.3 dB, k=2.

Measurement results for Set.14:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dBµV)	Polarity
17984.700	50.7	-17.7	45.6	22.800	Н
17990.650	50.7	-17.7	45.6	22.800	Н
17915.000	50.7	-17.7	45.6	22.800	V
17998.300	50.6	-17.7	45.6	22.700	Н
17946.450	50.6	-17.7	45.6	22.700	Н
17871.650	50.6	-18.5	45.6	23.500	Н

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dBµV)	Polarity
17976.200	61.2	-17.7	45.6	33.300	Н
17519.750	61.0	-19.2	45.6	34.600	Н
17887.800	61.0	-18.5	45.6	33.900	V
17858.900	60.9	-18.5	45.6	33.800	Н
17831.700	60.8	-18.5	45.6	33.700	V
17905.650	60.7	-18.5	45.6	33.600	V



Measurement results for Set.15:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dBµV)	Polarity
17955.800	50.7	-17.7	45.6	22.800	Н
17989.800	50.7	-17.7	45.6	22.800	Н
17834.250	50.6	-18.5	45.6	23.500	V
17976.200	50.4	-17.7	45.6	22.500	Н
17894.600	50.3	-18.5	45.6	23.200	Н
17926.900	50.3	-17.7	45.6	22.400	Н

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dBµV)	Polarity	
17958.350	61.0	-17.7	45.6	33.100	Н	
17953.250	60.9	-17.7	45.6	33.000	V	
17836.800	60.8	-18.5	45.6	33.700	Н	
17994.050	60.7	-17.7	45.6	32.800	V	
17868.250	60.7	-18.5	45.6	33.600	Н	
17984.700	60.7	-17.7	45.6	32.800	V	

Measurement results for Set.16:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dBµV)	Polarity
17961.750	51.0	-17.7	45.6	23.100	Н
17881.850	50.7	-18.5	45.6	23.600	Н
17897.150	50.7	-18.5	45.6	23.600	V
17962.600	50.6	-17.7	45.6	22.700	Н
17825.750	50.6	-18.5	45.6	23.500	Н
17983.850	50.5	-17.7	45.6	22.600	Н

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dBµV)	Polarity
17924.350	61.1	-17.7	45.6	33.200	Н
17992.350	60.9	-17.7	45.6	33.000	Н
17952.400	60.8	-17.7	45.6	32.900	V
17978.750	60.8	-17.7	45.6	32.900	V
17919.250	60.8	-17.7	45.6	32.900	V
17989.800	60.8	-17.7	45.6	32.900	V



Measurement results for Set.17:

Charging Mode/Average detector

Frequency(MHz)	Result(dBμV/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dBµV)	Polarity
17859.750	50.9	-18.5	45.6	23.800	Н
17923.500	50.9	-17.7	45.6	23.000	Н
17906.500	50.8	-18.5	45.6	23.700	V
17916.700	50.7	-17.7	45.6	22.800	Н
17830.000	50.7	-18.5	45.6	23.600	Н
17888.650	50.6	-18.5	45.6	23.500	Н

Charging Mode/Peak detector

Frequency(MHz)	Result(dBμV/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dBµV)	Polarity
17857.200	61.2	-18.5	45.6	34.100	Н
17994.050	61.0	-17.7	45.6	33.100	Н
17616.650	60.9	-18.9	45.6	34.200	V
17989.800	60.8	-17.7	45.6	32.900	Н
17921.800	60.8	-17.7	45.6	32.900	Н
17782.400	60.7	-18.5	45.6	33.600	Н

Measurement results for Set.18:

USB Mode/Average detector

Frequency(MHz)	Result(dBµV/m)	G _{PL} (dB)	G _A (dB/m)	P _{mea} (dBµV)	Polarity
17953.250	51.5	-17.7	45.6	23.600	Н
17967.700	50.9	-17.7	45.6	23.000	Н
17961.750	50.8	-17.7	45.6	22.900	V
17946.450	50.7	-17.7	45.6	22.800	Н
17940.500	50.6	-17.7	45.6	22.700	Н
17873.350	50.6	-18.5	45.6	23.500	Н

USB Mode/ Peak detector

Frequency(MHz)	Result(dBµV/m)	G _{PL} (dB)	G _A (dB/m)	P _{mea} (dBµV)	Polarity
17972.800	61.9	-17.7	45.6	34.000	Н
17847.000	61.5	-18.5	45.6	34.400	V
17970.250	61.2	-17.7	45.6	33.300	V
17921.800	61.1	-17.7	45.6	33.200	Н
17781.550	61.1	-18.5	45.6	34.000	Н
17852.100	61.0	-18.5	45.6	33.900	Н

Note: The measurement results of Set.1,Set.2, Set.3, Set.4 and Set.5 showed here are worst cases of the combinations of different batteries and USB cables.



Normal RE_30M-1GHz_10m

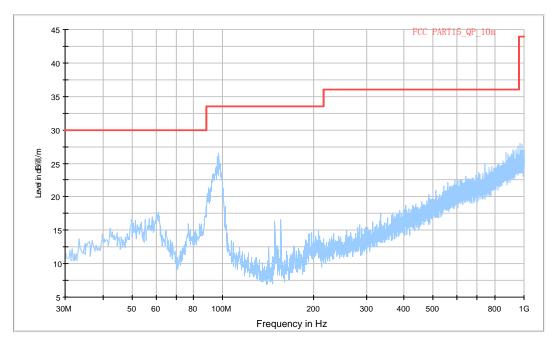


Figure A.1 Radiated Emission from 30MHz to 1GHz



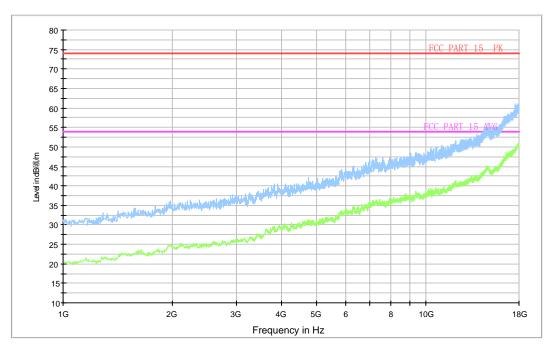


Figure A.2 Radiated Emission from 1GHz to 18GHz



Normal RE_30M-1GHz_10m

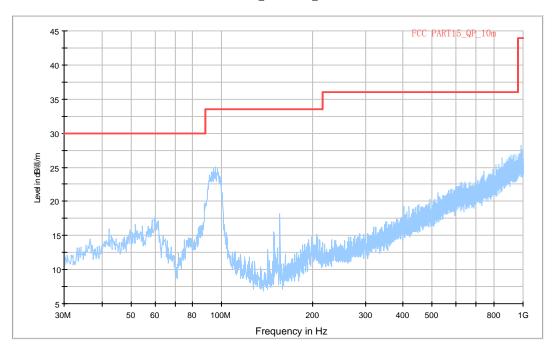


Figure A.3 Radiated Emission from 30MHz to 1GHz

Normal RE_1G-18GHz

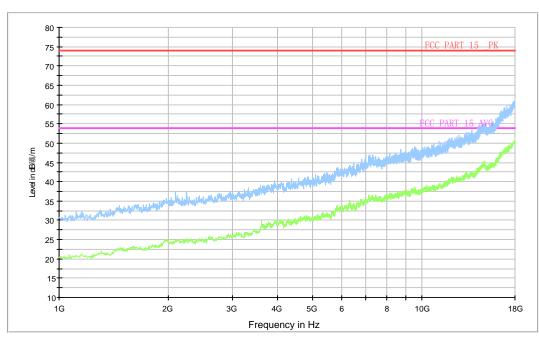


Figure A.4 Radiated Emission from 1GHz to 18GHz



Normal RE_30M-1GHz_10m

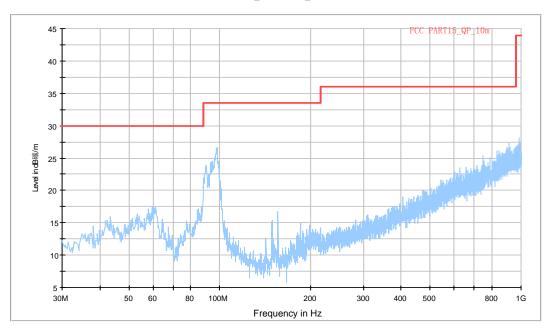


Figure A.5 Radiated Emission from 30MHz to 1GHz

Normal RE_1G-18GHz

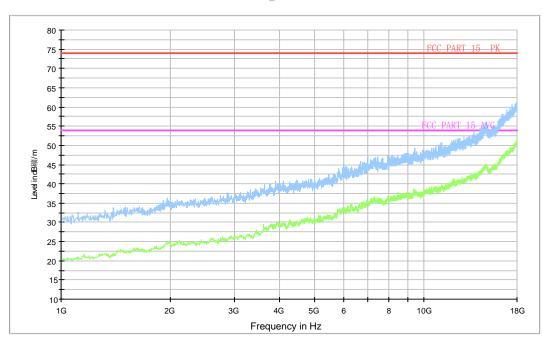
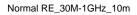


Figure A.6 Radiated Emission from 1GHz to 18GHz





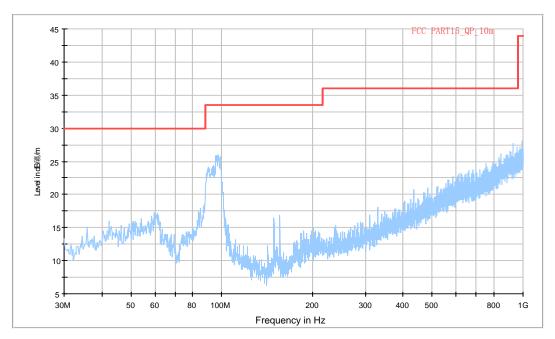


Figure A.7 Radiated Emission from 30MHz to 1GHz



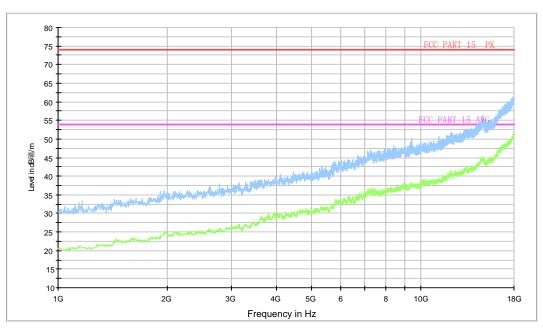


Figure A.8 Radiated Emission from 1GHz to 18GHz



USB Mode, Set.18



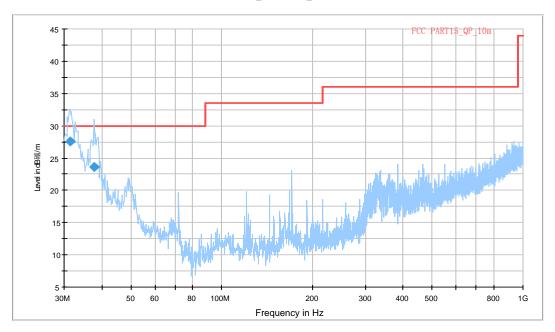


Figure A.9 Radiated Emission from 30MHz to 1GHz

Final Result 1

Frequency	QuasiPeak	Height	Polarization	Azimuth	Corr.	Margin	Limit
(MHz)	(dBµV/m)	(cm)		(deg)	(dB)	(dB)	(dBµV/m)
31.358000	27.6	325.0	V	151.0	-13.9	2.4	30.0
37.820000	23.6	299.0	V	163.0	-12.5	6.4	30.0

Normal RE_1G-18GHz

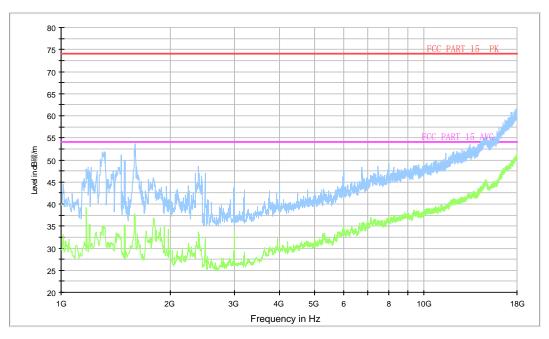


Figure A.10 Radiated Emission from 1GHz to 18GHz



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. During the test MS is connected to a PC via a USB cable in the case of USB mode and is connected to a charger in the case of charging mode. The model of the PC is DELL OPTIPLEX 380, and the serial number of the PC is 2X1YV2X. 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*= 2.9 dB, *k*=2.

Charging Mode, Set.14

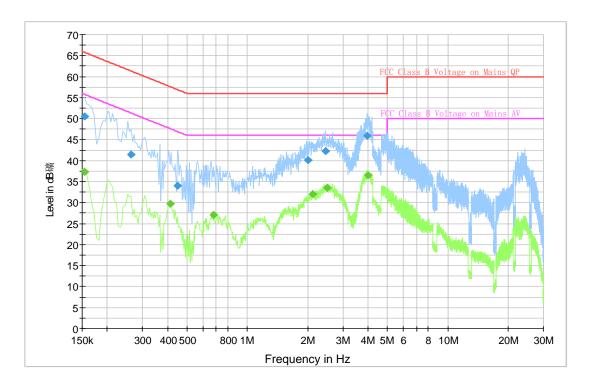


Figure A.11 Conducted Emission

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.154500	50.5	2000.0	9.000	On	N	20.0	15.3	65.8
0.262500	41.4	2000.0	9.000	On	N	19.8	19.9	61.4
0.447000	34.1	2000.0	9.000	On	N	19.9	22.9	56.9
2.013000	40.1	2000.0	9.000	On	L1	19.7	15.9	56.0
2.454000	42.2	2000.0	9.000	On	L1	19.1	13.8	56.0
3.975000	45.9	2000.0	9.000	On	L1	19.5	10.1	56.0

Final Result 2

Frequency	CAverage	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.154500	37.3	2000.0	9.000	On	N	20.0	18.4	55.8
0.411000	29.7	2000.0	9.000	On	N	19.9	17.9	47.6
0.676500	27.0	2000.0	9.000	On	N	19.8	19.0	46.0
2.121000	32.0	2000.0	9.000	On	L1	19.6	14.0	46.0
2.494500	33.6	2000.0	9.000	On	L1	19.0	12.4	46.0
4.020000	36.6	2000.0	9.000	On	L1	19.5	9.4	46.0



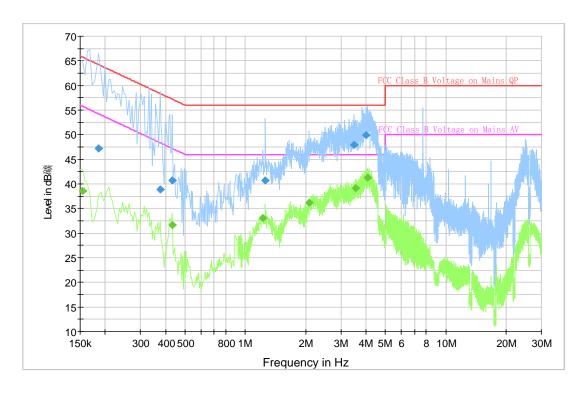


Figure A.12 Conducted Emission

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.186000	47.2	2000.0	9.000	On	L1	19.8	17.0	64.2
0.375000	38.9	2000.0	9.000	On	L1	19.9	19.5	58.4
0.433500	40.7	2000.0	9.000	On	L1	19.9	16.5	57.2
1.261500	40.8	2000.0	9.000	On	L1	19.7	15.2	56.0
3.498000	47.9	2000.0	9.000	On	L1	19.5	8.1	56.0
3.988500	49.9	2000.0	9.000	On	L1	19.5	6.1	56.0

Final Result 2

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Frequency	CAverage	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.154500	38.6	2000.0	9.000	On	L1	20.0	17.2	55.8
0.433500	31.7	2000.0	9.000	On	L1	19.9	15.5	47.2
1.225500	33.1	2000.0	9.000	On	L1	19.7	12.9	46.0
2.080500	36.1	2000.0	9.000	On	L1	19.7	9.9	46.0
3.556500	39.1	2000.0	9.000	On	L1	19.5	6.9	46.0
4.069500	41.3	2000.0	9.000	On	L1	19.6	4.7	46.0



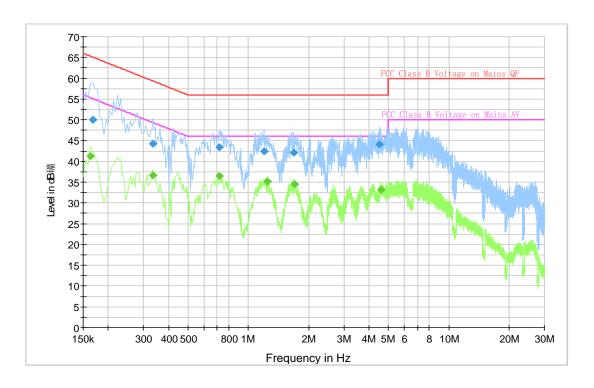


Figure A.13 Conducted Emission

Final Result 1

Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.168000	50.0	2000.0	9.000	On	L1	19.8	15.1	65.1
0.334500	44.2	2000.0	9.000	On	L1	19.9	15.1	59.3
0.717000	43.4	2000.0	9.000	On	L1	19.8	12.6	56.0
1.198500	42.4	2000.0	9.000	On	L1	19.7	13.6	56.0
1.680000	42.1	2000.0	9.000	On	L1	19.7	13.9	56.0
4.506000	44.1	2000.0	9.000	On	L1	19.6	11.9	56.0

Final Result 2

Frequency	CAverage	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.163500	41.3	2000.0	9.000	On	L1	19.8	14.0	55.3
0.334500	36.6	2000.0	9.000	On	L1	19.9	12.7	49.3
0.717000	36.5	2000.0	9.000	On	L1	19.8	9.5	46.0
1.243500	35.2	2000.0	9.000	On	L1	19.7	10.8	46.0
1.707000	34.5	2000.0	9.000	On	L1	19.7	11.5	46.0
4.614000	33.1	2000.0	9.000	On	L1	19.6	12.9	46.0



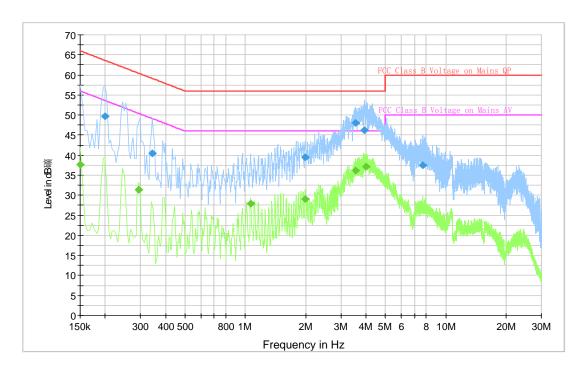


Figure A.14 Conducted Emission

Final Result 1

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Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.199500	49.7	2000.0	9.000	On	L1	19.8	13.9	63.6
0.343500	40.5	2000.0	9.000	On	L1	19.9	18.6	59.1
1.981500	39.5	2000.0	9.000	On	L1	19.7	16.5	56.0
3.565500	48.0	2000.0	9.000	On	L1	19.5	8.0	56.0
3.934500	46.3	2000.0	9.000	On	L1	19.5	9.7	56.0
7.660500	37.4	2000.0	9.000	On	L1	19.6	22.6	60.0

Final Result 2

Frequency	CAverage	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.150000	37.7	2000.0	9.000	On	L1	20.2	18.3	56.0
0.294000	31.4	2000.0	9.000	On	L1	19.8	19.0	50.4
1.063500	28.0	2000.0	9.000	On	L1	19.7	18.0	46.0
1.990500	29.1	2000.0	9.000	On	L1	19.7	16.9	46.0
3.543000	36.1	2000.0	9.000	On	L1	19.5	9.9	46.0
3.984000	37.1	2000.0	9.000	On	L1	19.5	8.9	46.0



USB Mode, Set.18

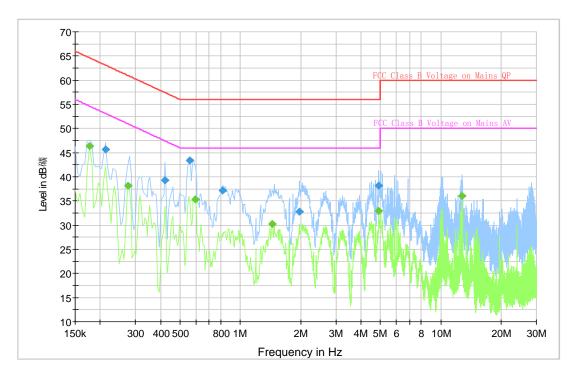


Figure A.15 Conducted Emission

Final Result 1

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Frequency	QuasiPeak	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.213000	45.6	2000.0	9.000	On	N	19.8	17.5	63.1
0.420000	39.2	2000.0	9.000	On	L1	19.9	18.2	57.4
0.559500	43.4	2000.0	9.000	On	L1	19.9	12.6	56.0
0.816000	37.2	2000.0	9.000	On	N	19.8	18.8	56.0
1.972500	32.8	2000.0	9.000	On	N	19.7	23.2	56.0
4.915500	38.1	2000.0	9.000	On	L1	19.6	17.9	56.0

Final Result 2

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Frequency	CAverage	Meas.	Bandwidth	Filter	Line	Corr.	Margin	Limit
(MHz)	(dBµV)	Time(ms)	(kHz)			(dB)	(dB)	(dBµV)
0.177000	46.4	2000.0	9.000	On	N	19.8	8.2	54.6
0.276000	38.1	2000.0	9.000	On	N	19.8	12.8	50.9
0.595500	35.3	2000.0	9.000	On	L1	19.8	10.7	46.0
1.441500	30.3	2000.0	9.000	On	N	19.7	15.7	46.0
4.915500	32.9	2000.0	9.000	On	N	19.6	13.1	46.0
12.750000	36.1	2000.0	9.000	On	N	19.8	13.9	50.0

Note: The measurement results showed here are worst cases of the combinations of different batteries and USB cables.

END OF REPORT