



TEST REPORT

No. I14Z48852-EMC01

for

TCL Communication Ltd

HSUPA/HSDPA/UMTS Dual band/GSM Quad band mobile phone

Model Name: 4003A

FCC ID: 2ACCJH004

with

Hardware Version: PIO

Software Version: v5B4

Issued Date: 2014-12-25

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

CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT

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

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I14Z48852-EMC01	Rev.0	1st edition	2014-12-25

CONTENTS

1. TEST LABORATORY.....	4
1.1. TESTING LOCATION	4
1.2. TESTING ENVIRONMENT	4
1.3. PROJECT DATA.....	4
1.4. 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. EUT SET-UPS	8
4. REFERENCE DOCUMENTS	9
4.1. 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

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. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.3. Project data

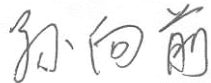
Testing Start Date: 2014-12-11

Testing End Date: 2014-12-18

1.4. Signature



Qu Pengfei
(Prepared this test report)



Sun Xiangqian
(Reviewed this test report)



Lu Bingsong
Director of the laboratory
(Approved this test report)



2. Client Information

2.1. Applicant 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.
City: Shanghai
Postal Code: 201203
Country: China
Contact Person: Gong Zhizhou
Contact Email: zhizhou.gong@tcl.com
Telephone: 0086-21-61460890
Fax: 0086-21-61460602

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.
City: Shanghai
Postal Code: 201203
Country: China
Telephone: 0086-21-61460890
Fax: 0086-21-61460602

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

3.1. About EUT

Description	HSUPA/HSDPA/UMTS Dual band/GSM Quad band mobile phone
Model Name	4003A
FCC ID	2ACCJH004
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 Telecommunication Metrology Center of MIIT of People's Republic of China.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	014264000001814	PIO	v5B4

*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	/	14TCT-BA-1941
AE2	Battery	/	/
AE3	Battery	/	14TCT-BA-0092
AE4	Battery	/	14TCT-BA-0231
AE5	Battery	/	14TCT-BA-0123
AE6	Battery	/	14TCT-BA-0097
AE7	Battery	/	14TCT-BA-0113
AE8	Travel charger	/	14TCT-CH-1231
AE9	Travel charger	/	14TCT-CH-1459
AE10	Travel charger	/	14TCT-CH-2119
AE11	Travel charger	/	14TCT-CH-2208
AE12	Travel charger	/	14TCT-CH-2186
AE13	USB cable	/	14TCT-DC-0619
AE14	USB cable	/	14TCT-DC-0316
AE15	USB cable	/	14TCT-DC-0714
AE16	USB cable	/	/
AE17	USB cable	/	/
AE18	USB cable	/	/

AE1

Model	CAB31P0000CB
Manufacturer	OCEANSUN
Capacitance	1300mAh
Nominal voltage	3.7V



AE2

Model	CAB1300015C2
Manufacturer	SCUD
Capacitance	1300mAh
Nominal voltage	3.7V

AE3, AE4, AE5, AE6, AE7

Model	CAB31P0000C1
Manufacturer	BYD
Capacitance	1300mAh
Nominal voltage	3.7V

AE8

Model	CBA3002AG0C3
Manufacturer	Yingju
Length of cable	122cm

AE9

Model	CBA3002AG0C2
Manufacturer	Tenpao
Length of cable	117cm

AE10

Model	CBA3002AG0C1
Manufacturer	BYD
Length of cable	117cm

AE11

Model	CBA3008AG0C2
Manufacturer	Tenpao
Length of cable	/

AE12

Model	CBA3008AG0C3
Manufacturer	Yingju
Length of cable	/

AE13

Model	CDA3122002C1
Manufacturer	Juwei
Length of cable	101cm

AE14

Model	CDA3122002C2
Manufacturer	Shenghua
Length of cable	101cm

AE15

Model	CDA3122002C8
Manufacturer	PUAN
Length of cable	99.5cm

AE16

Model	CDA3122005C1
Manufacturer	Juwei
Length of cable	/

AE17

Model	CDA3122005C2
Manufacturer	Shenghua
Length of cable	/

AE18

Model	CDA3122005C8
Manufacturer	PUAN
Length of cable	/

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

3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT1+ AE1/AE2/AE3 + AE8	Charger
Set.2	EUT1+ AE1/AE2/AE3 + AE9	Charger
Set.3	EUT1+ AE1/AE2/AE3 + AE10	Charger
Set.4	EUT1+ AE1/AE2/AE3 + AE11 +AE13/AE14/AE15	Charger
Set.5	EUT1+ AE1/AE2/AE3 + AE12 +AE13/AE14/AE15	Charger
Set.6	EUT1+ AE1/AE2/AE3 + AE13/AE14/AE15	USB

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	10-1-13 Edition
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low - Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2009

5. LABORATORY ENVIRONMENT

Semi-anechoic chamber SAC-1 (23 meters×17meters×10meters) 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, 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:		
Verdict Column	P	Pass
	NA	Not applicable
	F	Fail
Location Column	1/2/3/4	The test is performed in test location 1, 2, 3 or 4 which are described in section 1.1 of this report

Clause	List	Clause in FCC rules	Verdict	Location
1	Radiated Emission	15.109(a)	P	1
2	Conducted Emission	15.107(a)	P	1

7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATION INTERVAL
1	Test Receiver	ESCI	100344	R&S	2015-03-03	1 year
2	Test Receiver	ESCI 7	100948	R&S	2015-07-16	1 year
3	Universal Radio Communication Tester	CMU200	109914	R&S	2015-04-13	1 year
4	Test Receiver	FSV	101047	R&S	2015-06-27	1 year
5	LISN	ESH2-Z5	829991/012	R&S	2015-04-14	1 year
6	EMI Antenna	VULB 9163	9163-234	Schwarzbeck	2016-09-16	3 years
7	EMI Antenna	3115	9906-5827	ETS-Lindgren	2016-11-19	3 years
8	PC	OPTIPLEX 380	2X1YV2X	DELL	N/A	N/A
9	Monitor	E178FPc	CN-OWR979-64180-7AJ-D2MS	DELL	N/A	N/A
10	Printer	P1606dn	VNC3L52122	HP	N/A	N/A
11	Keyboard	L100	CN0RH659658907 ATOI40	DELL	N/A	N/A
12	Mouse	M-UAE119	LZ935220ZRC	Lenovo	N/A	N/A

ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§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 - 2009, 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.

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/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:

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

Where

G_A : Antenna factor of receive antenna

G_{PL} : Path Loss

P_{Mea} : Measurement result on receiver.

Measurement uncertainty (worst case): $U = 4.3 \text{ dB}$, $k=2$.

Measurement results for Set.1:**Charging Mode/Average detector**

Frequency(MHz)	Result(dB μ V/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea} (dB μ V)	Polarity
5267.188	30.6	-34.5	34.6	30.500	V
5262.500	30.5	-34.5	34.6	30.400	H
5259.063	30.5	-34.5	34.6	30.400	V
5261.250	30.4	-34.5	34.6	30.300	H
5261.563	30.4	-34.5	34.6	30.300	H
5266.563	30.4	-34.5	34.6	30.300	H

Charging Mode/Peak detector

Frequency(MHz)	Result(dB μ V/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea} (dB μ V)	Polarity
5275.313	44.1	-34.4	34.6	43.900	H
5266.563	42.6	-34.5	34.6	42.500	H
5255.625	42.4	-34.5	34.6	42.300	V
5248.750	42.1	-34.5	34.6	42.000	H
5830.938	42.1	-33.8	35.1	40.800	V
5268.750	42.1	-34.4	34.6	41.900	V

Measurement results for Set.2:
Charging Mode/Average detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
5264.063	30.6	-34.5	34.6	30.500	V
5262.188	30.4	-34.5	34.6	30.300	V
5263.438	30.4	-34.5	34.6	30.300	V
5257.500	30.4	-34.5	34.6	30.300	V
5267.813	30.4	-34.5	34.6	30.300	H
5254.688	30.4	-34.5	34.6	30.300	H

Charging Mode/Peak detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
5822.188	42.3	-33.8	35.1	41.000	H
5017.813	42.2	-34.6	34.6	42.200	H
5270.000	42.1	-34.4	34.6	41.900	V
5920.625	42.1	-34.1	35.1	41.100	V
5697.188	42.0	-34.2	35.1	41.100	H
5284.375	42.0	-34.4	34.6	41.800	H

Measurement results for Set.3:
Charging Mode/Average detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
5267.188	30.6	-34.5	34.6	30.500	H
5261.563	30.6	-34.5	34.6	30.500	V
5257.188	30.4	-34.5	34.6	30.300	V
5264.375	30.4	-34.5	34.6	30.300	V
5267.500	30.3	-34.5	34.6	30.200	H
5259.375	30.3	-34.5	34.6	30.200	H

Charging Mode/Peak detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
5298.438	42.8	-34.4	34.6	42.600	V
5254.375	42.5	-34.5	34.6	42.400	H
5814.063	42.5	-33.8	35.1	41.200	V
5683.125	42.4	-34.2	35.1	41.500	H
5266.875	42.3	-34.5	34.6	42.200	H
5813.125	42.3	-33.8	35.1	41.000	H

Measurement results for Set.4:
Charging Mode/Average detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
5263.750	30.6	-34.5	34.6	30.500	H
5259.688	30.6	-34.5	34.6	30.500	H
5257.813	30.5	-34.5	34.6	30.400	V
5255.625	30.4	-34.5	34.6	30.300	V
5265.625	30.4	-34.5	34.6	30.300	H
5265.938	30.4	-34.5	34.6	30.300	H

Charging Mode/Peak detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
5261.250	42.5	-34.5	34.6	42.400	H
5260.313	42.4	-34.5	34.6	42.300	H
5259.063	42.4	-34.5	34.6	42.300	V
5850.625	42.3	-33.8	35.1	41.000	V
5261.875	42.2	-34.5	34.6	42.100	V
5301.875	42.2	-34.4	34.6	42.000	H

Measurement results for Set.5:
Charging Mode/Average detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
5263.750	30.5	-34.5	34.6	30.400	H
5266.563	30.5	-34.5	34.6	30.400	H
5262.188	30.4	-34.5	34.6	30.300	V
5258.750	30.4	-34.5	34.6	30.300	H
5261.875	30.4	-34.5	34.6	30.300	V
5264.688	30.3	-34.5	34.6	30.200	H

Charging Mode/Peak detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
5274.375	42.4	-34.4	34.6	42.200	V
5268.438	42.2	-34.4	34.6	42.000	V
5803.750	42.2	-33.8	35.1	40.900	V
5260.313	42.2	-34.5	34.6	42.100	H
5129.063	42.1	-35.1	34.6	42.600	H
5306.250	42.1	-34.4	34.6	41.900	V

Measurement results for Set.6:**USB Mode/Average detector**

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
1051.250	32.4	-41.7	24.1	50.000	V
1254.688	32.0	-41.1	24.1	49.000	H
1255.000	32.0	-41.1	24.1	49.000	V
1051.563	31.6	-41.7	24.1	49.200	H
1255.313	31.6	-41.1	24.1	48.600	V
1875.000	31.6	-35.6	25.3	41.900	V

USB Mode/Peak detector

Frequency(MHz)	Result(dB μ V/m)	G _{PL} (dB)	G _A (dB/m)	P _{Mea} (dB μ V)	Polarity
1325.313	48.7	-40.8	24.1	65.400	H
1324.688	48.6	-40.8	24.1	65.300	H
1648.438	47.9	-39.5	25.3	62.100	V
1325.625	47.7	-40.8	24.1	64.400	H
1498.438	47.1	-40.3	24.1	63.300	H
1498.750	47.0	-40.3	24.1	63.200	H

Note: The measurement results of Set.1, Set.2 and Set.3 showed here are worst cases of the combinations of different batteries. The measurement results of Set.4, Set.5 and Set.6 showed here are worst cases of the combinations of different batteries and USB cables.

Charging Mode, Set.1

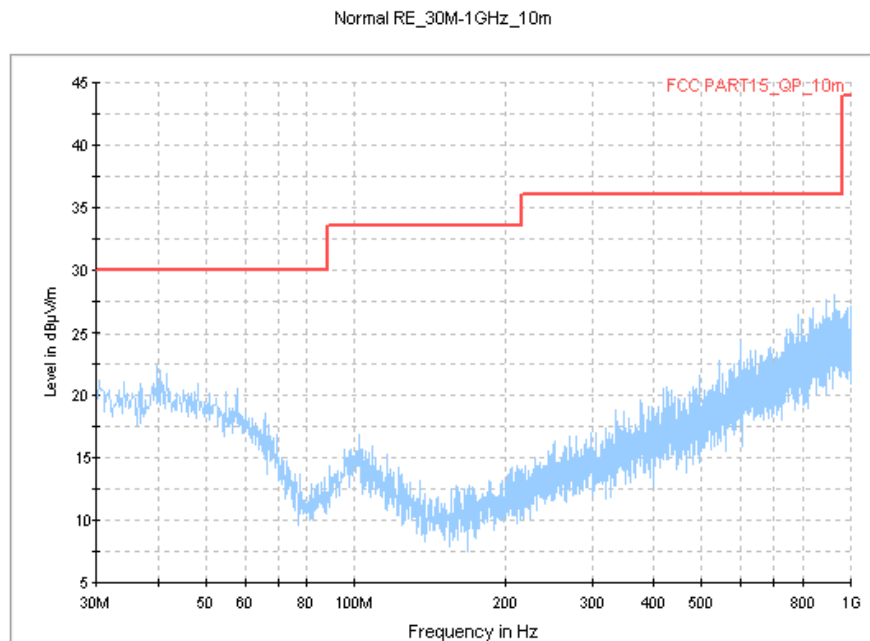


Fig.1 Radiated Emission from 30MHz to 1GHz

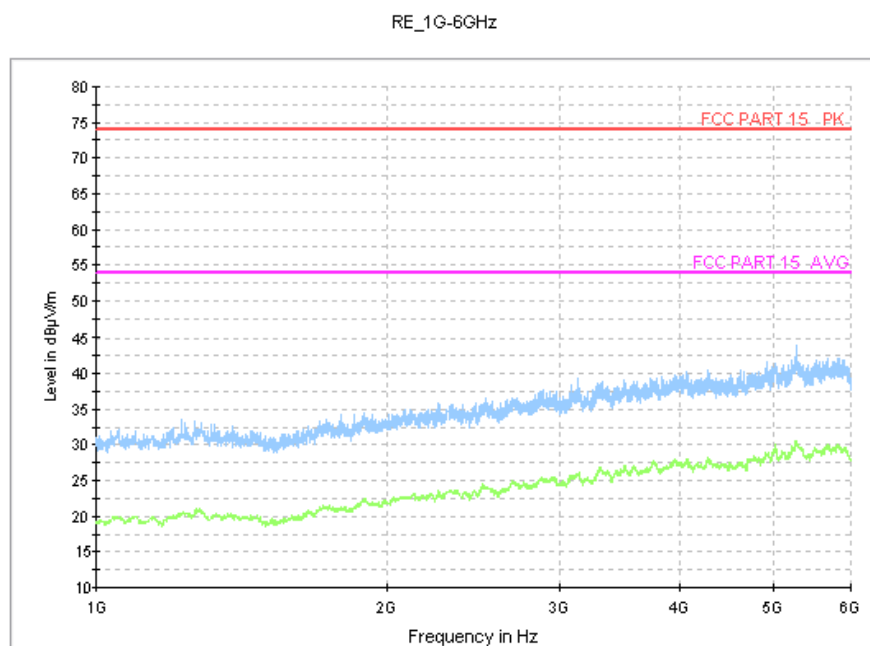
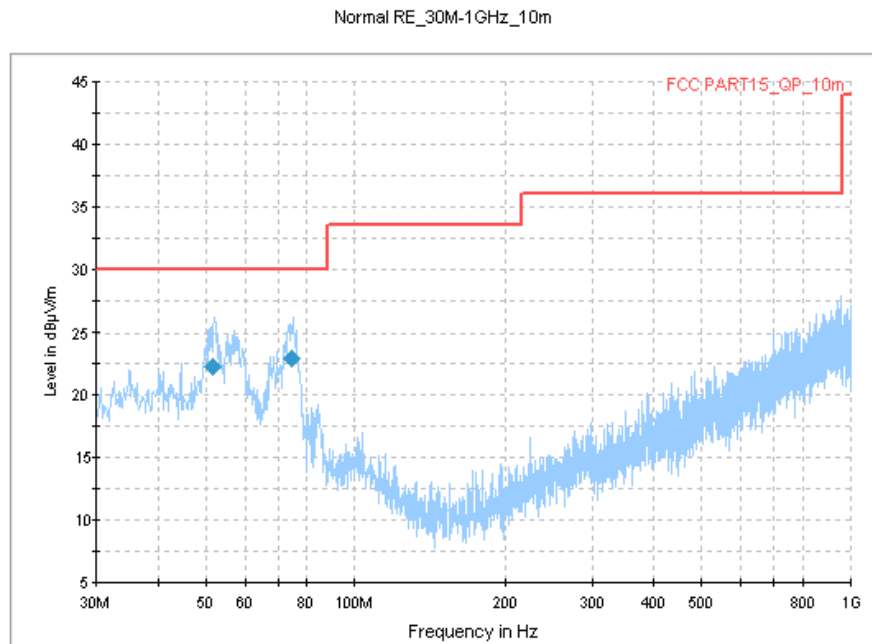
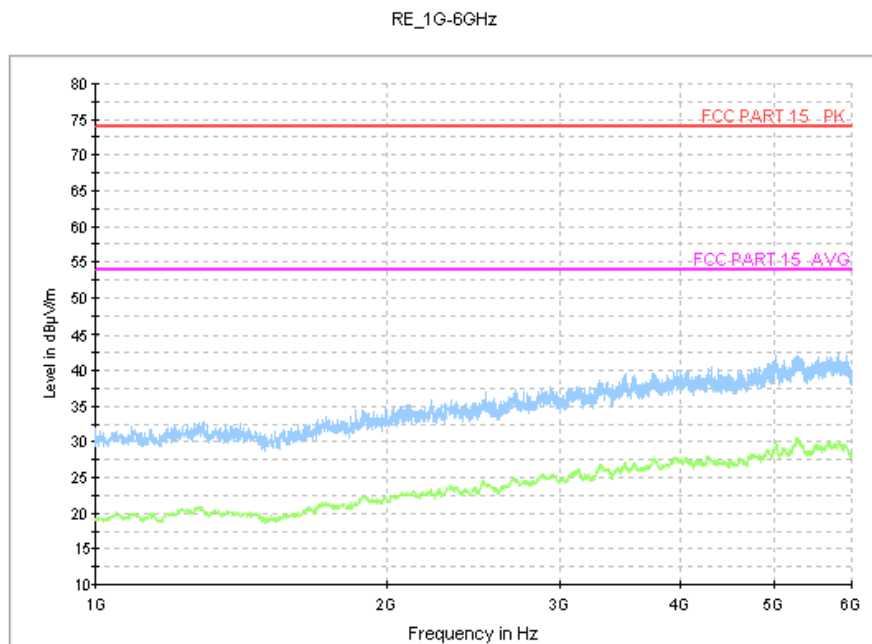


Fig.2 Radiated Emission from 1GHz to 6GHz

Charging Mode, Set.2


Fig.3 Radiated Emission from 30MHz to 1GHz
Final Result

Frequency MHz	QuasiPeak dBµV/m	Limit dBµV/m	Margin dB	Azimuth Deg	Polarization H/V
51.827500	22.3	30.0	7.7	60.0	V
74.383750	23.0	30.0	7.0	0.0	V


Fig.4 Radiated Emission from 1GHz to 6GHz

Charging Mode, Set.3

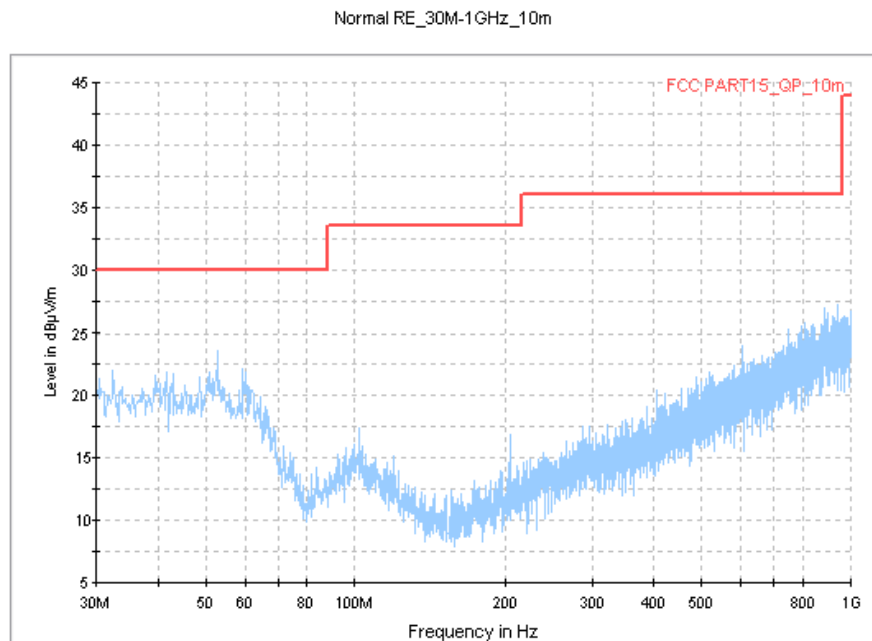


Fig.5 Radiated Emission from 30MHz to 1GHz

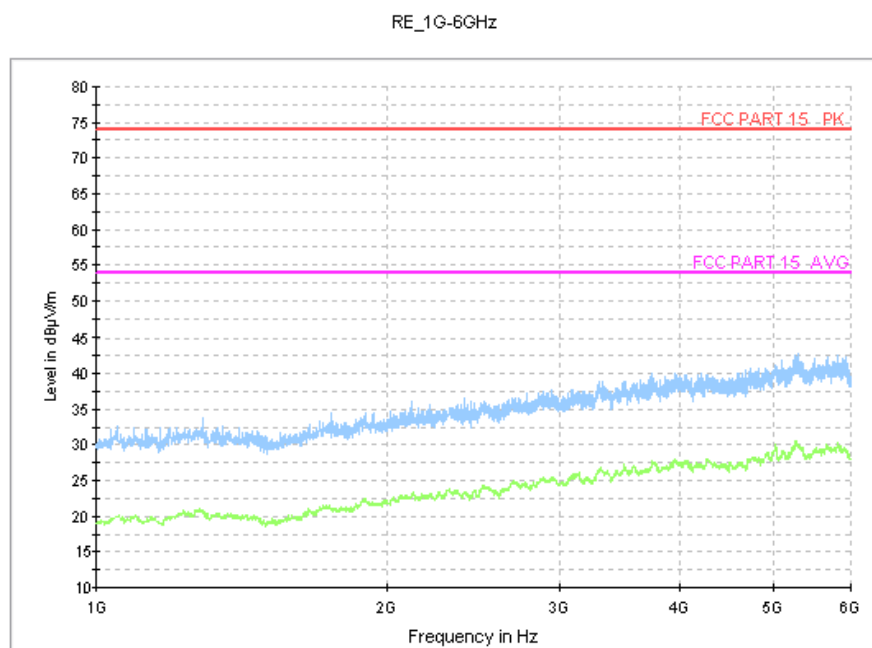


Fig.6 Radiated Emission from 1GHz to 6GHz

Charging Mode, Set.4

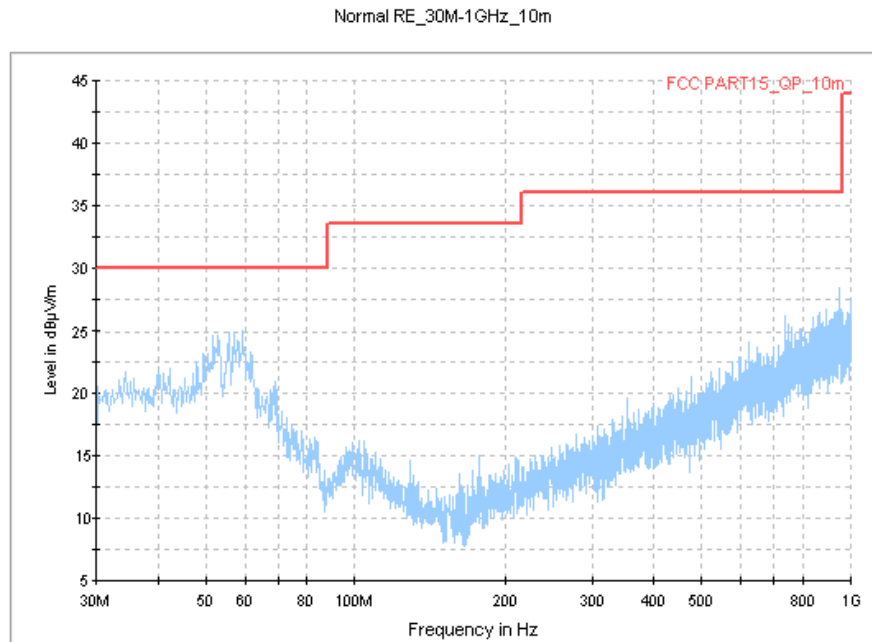


Fig.7 Radiated Emission from 30MHz to 1GHz

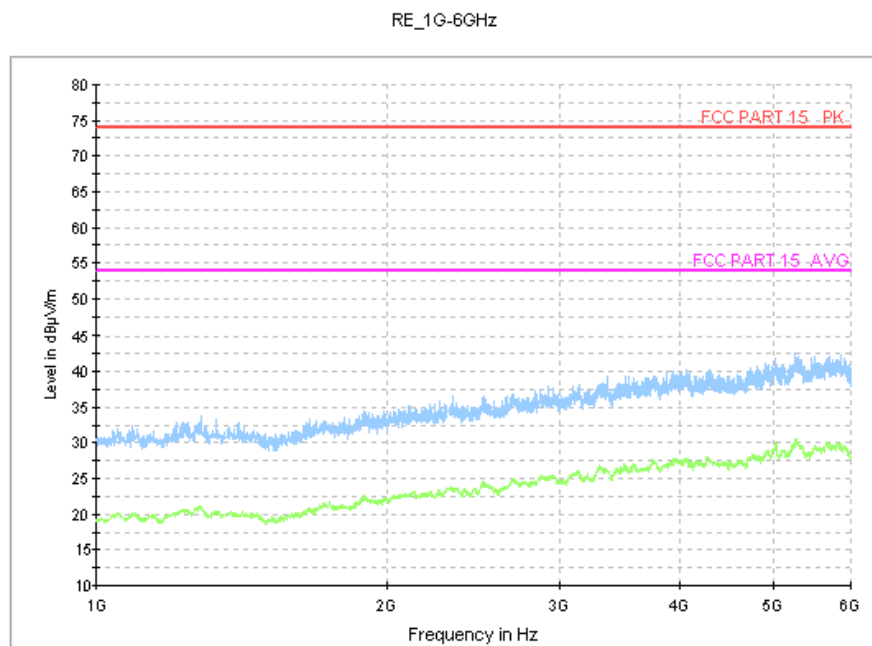
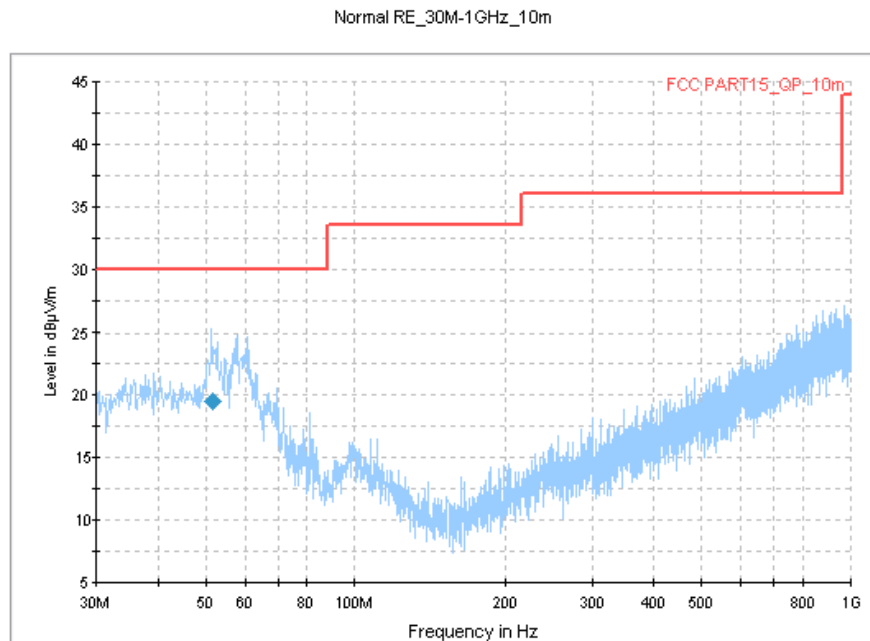
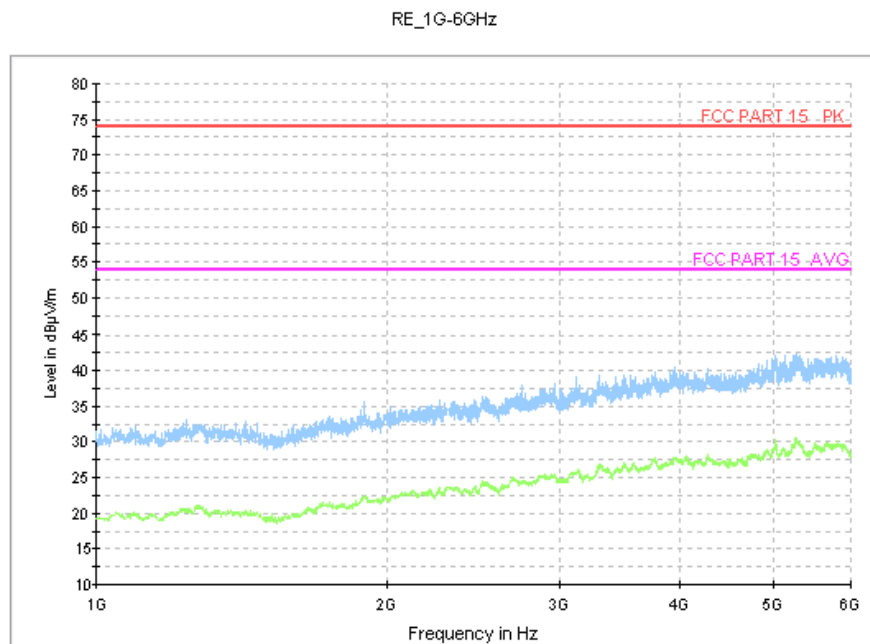


Fig.8 Radiated Emission from 1GHz to 6GHz

Charging Mode, Set.5


Fig.9 Radiated Emission from 30MHz to 1GHz
Final Result

Frequency MHz	QuasiPeak dBµV/m	Limit dBµV/m	Margin dB	Azimuth Deg	Polarization H/V
51.581250	19.6	30.0	10.4	150.0	V


Fig.10 Radiated Emission from 1GHz to 6GHz

Charging Mode, Set.6

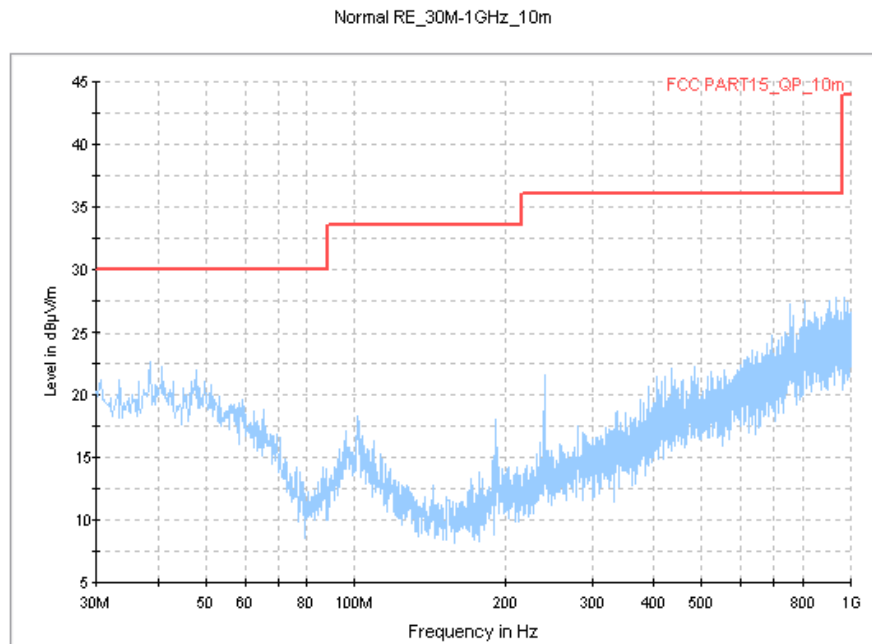


Fig.11 Radiated Emission from 30MHz to 1GHz

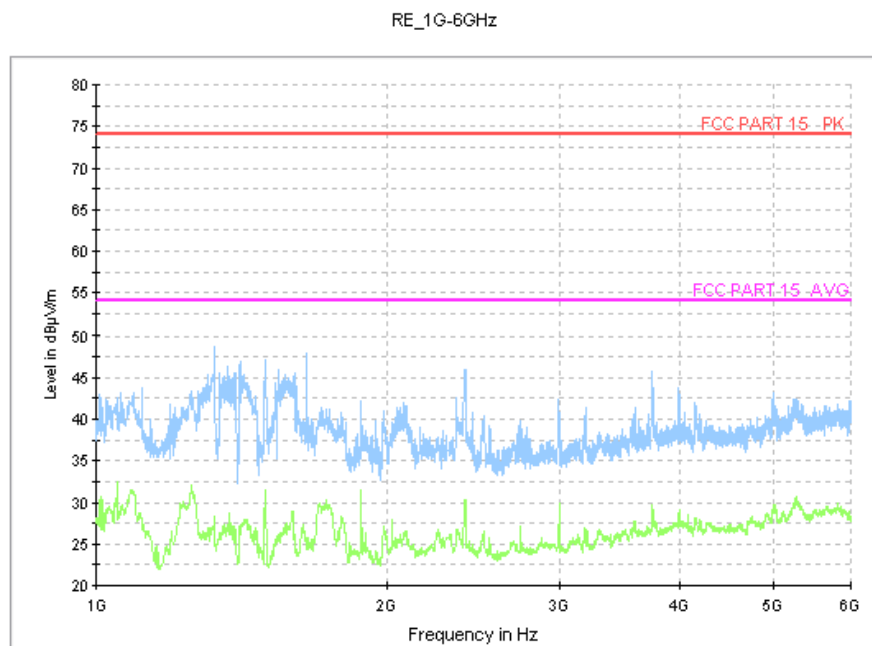


Fig.12 Radiated Emission from 1GHz to 6GHz

A.2 Conducted Emission (§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 - 2009, section 7.2.

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.

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: $U = 2.9 \text{ dB}$, $k=2$.

Charging Mode, Set.1

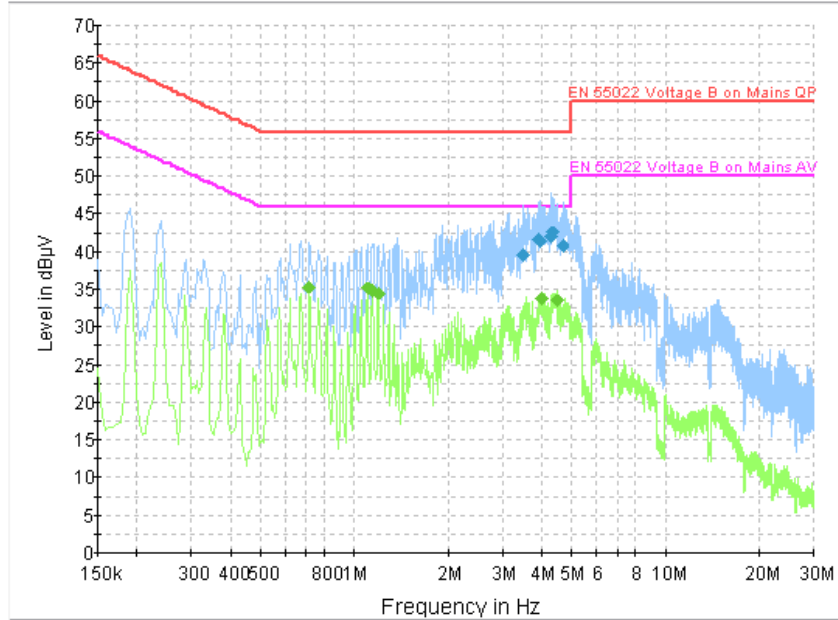


Fig.13 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
3.489000	39.7	GND	L1	19.6	16.3	56.0
3.898500	41.7	GND	L1	19.7	14.3	56.0
3.961500	41.4	GND	L1	19.7	14.6	56.0
4.308000	42.1	GND	L1	19.6	13.9	56.0
4.348500	42.5	GND	L1	19.7	13.5	56.0
4.695000	40.8	GND	L1	19.7	15.2	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.717000	35.3	GND	L1	19.9	10.7	46.0
1.099500	35.2	GND	L1	19.8	10.8	46.0
1.144500	34.9	GND	L1	19.7	11.1	46.0
1.194000	34.4	GND	L1	19.7	11.6	46.0
4.020000	33.8	GND	L1	19.6	12.2	46.0
4.492500	33.5	GND	L1	19.7	12.5	46.0

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

Charging Mode, Set.2

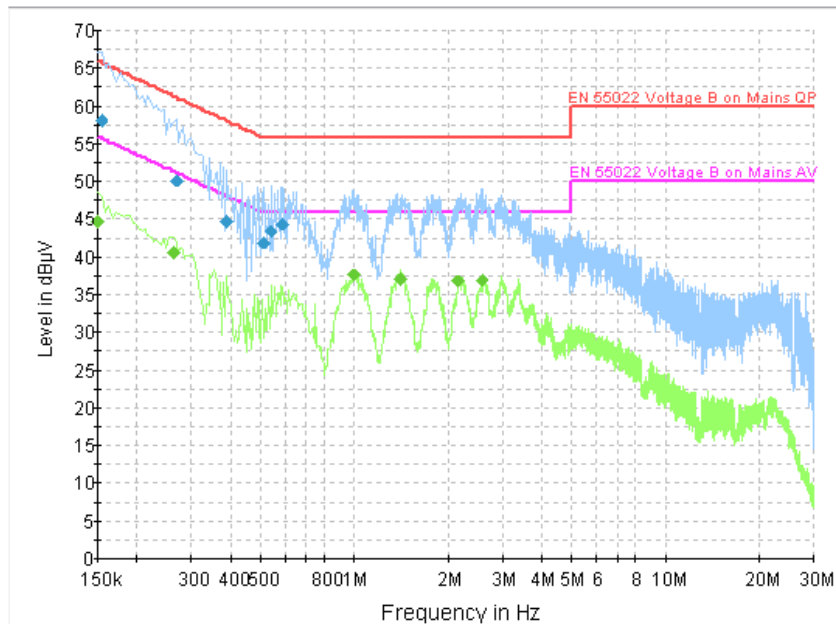


Fig.14 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154500	58.2	GND	L1	19.7	7.6	65.8
0.267000	50.2	GND	L1	19.8	11.0	61.2
0.388500	44.7	GND	N	20.0	13.4	58.1
0.510000	42.0	GND	N	20.0	14.0	56.0
0.537000	43.5	GND	N	20.0	12.5	56.0
0.586500	44.4	GND	N	20.0	11.6	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	44.7	GND	L1	19.7	11.3	56.0
0.262500	40.7	GND	L1	19.8	10.7	51.4
1.000500	37.6	GND	L1	19.7	8.4	46.0
1.405500	37.2	GND	L1	19.7	8.8	46.0
2.166000	36.8	GND	L1	19.7	9.2	46.0
2.584500	37.0	GND	L1	19.7	9.0	46.0

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

Charging Mode, Set.3

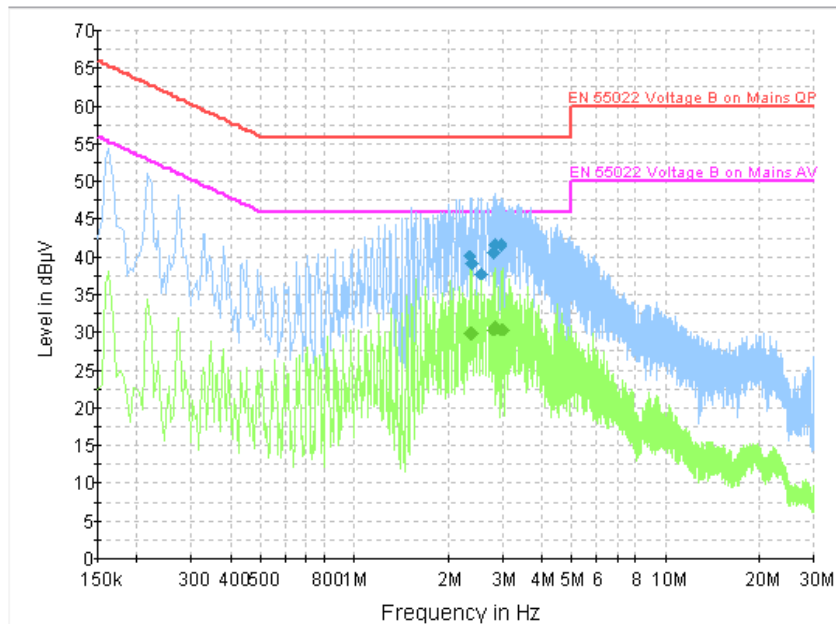


Fig.15 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
2.337000	40.1	GND	L1	19.7	15.9	56.0
2.391000	39.2	GND	L1	19.7	16.8	56.0
2.553000	37.9	GND	L1	19.7	18.1	56.0
2.787000	40.6	GND	L1	19.7	15.4	56.0
2.841000	41.5	GND	L1	19.7	14.5	56.0
2.949000	41.6	GND	L1	19.7	14.4	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
2.337000	30.0	GND	L1	19.7	16.0	46.0
2.391000	29.8	GND	L1	19.7	16.2	46.0
2.787000	30.4	GND	L1	19.7	15.6	46.0
2.841000	30.8	GND	L1	19.7	15.2	46.0
2.949000	30.3	GND	L1	19.7	15.7	46.0
3.003000	30.3	GND	L1	19.7	15.7	46.0

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

Charging Mode, Set.4

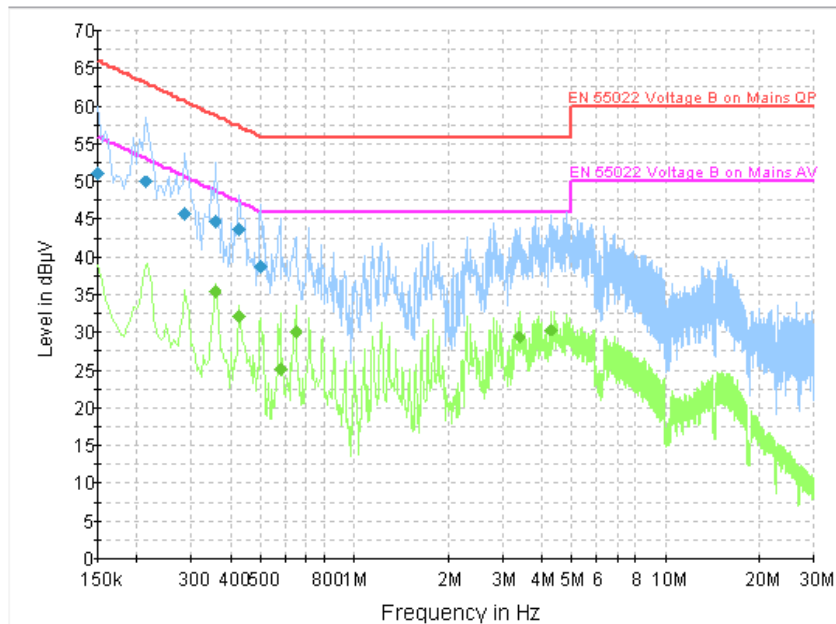


Fig.16 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.150000	51.2	GND	L1	19.7	14.8	66.0
0.213000	50.0	GND	L1	19.8	13.1	63.1
0.285000	45.8	GND	L1	19.9	14.9	60.7
0.357000	44.8	GND	N	19.9	14.0	58.8
0.424500	43.7	GND	N	20.0	13.6	57.4
0.501000	38.9	GND	L1	20.0	17.1	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.357000	35.4	GND	L1	19.9	13.4	48.8
0.424500	32.1	GND	N	20.0	15.2	47.4
0.577500	25.0	GND	L1	20.0	21.0	46.0
0.645000	30.0	GND	L1	19.9	16.0	46.0
3.376500	29.4	GND	L1	19.7	16.6	46.0
4.308000	30.3	GND	L1	19.6	15.7	46.0

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

Charging Mode, Set.5

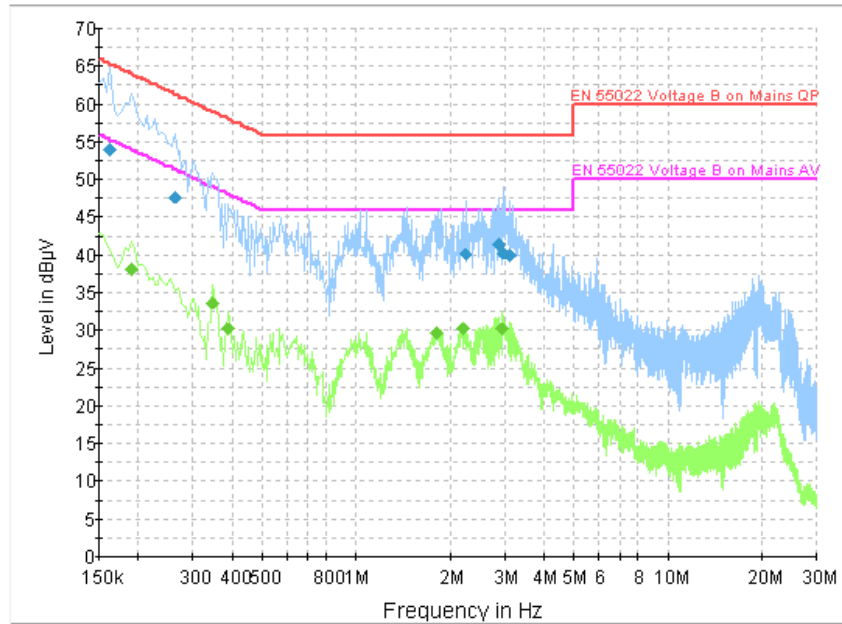


Fig.17 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.163500	53.9	GND	L1	19.9	11.4	65.3
0.262500	47.7	GND	L1	19.8	13.6	61.4
2.251500	40.1	GND	N	19.7	15.9	56.0
2.886000	41.4	GND	L1	19.7	14.6	56.0
2.989500	40.2	GND	N	19.7	15.8	56.0
3.120000	40.0	GND	L1	19.7	16.0	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.190500	38.2	GND	L1	19.8	15.8	54.0
0.348000	33.7	GND	N	19.9	15.3	49.0
0.388500	30.2	GND	L1	19.9	17.9	48.1
1.815000	29.7	GND	N	19.7	16.3	46.0
2.202000	30.2	GND	N	19.7	15.8	46.0
2.917500	30.1	GND	L1	19.7	15.9	46.0

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

USB Mode, Set.6

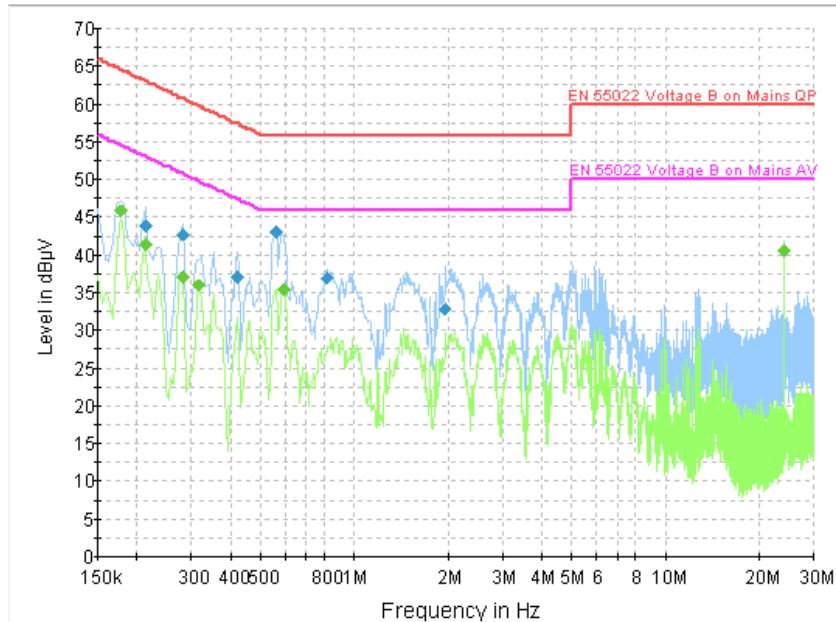


Fig.18 Conducted Emission

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.213000	44.0	GND	N	19.9	19.1	63.1
0.280500	42.8	GND	N	19.8	18.0	60.8
0.420000	37.2	GND	N	20.0	20.3	57.4
0.559500	43.1	GND	N	20.0	12.9	56.0
0.811500	36.9	GND	N	19.9	19.1	56.0
1.959000	32.8	GND	L1	19.7	23.2	56.0

Final Result 2

Frequency (MHz)	CAverage (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.177000	45.9	GND	N	19.9	8.7	54.6
0.213000	41.4	GND	N	19.9	11.7	53.1
0.280500	37.1	GND	N	19.8	13.7	50.8
0.316500	36.0	GND	N	19.9	13.8	49.8
0.595500	35.5	GND	L1	20.0	10.5	46.0
23.986500	40.6	GND	N	19.9	9.4	50.0

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

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