



# TEST REPORT

No.I16N00562-EMC

for

**Huawei Technologies Co., Ltd.**

**Smart Phone**

**Model Name: HUAWEI MLA-L11, MLA-L11, HUAWEI MLA-L01,**

**MLA-L01**

**FCC ID: QISMLA-LX1**

with

**Hardware Version: HL1MLAL01M**

**Software Version: MLA-L11C900B055**

**Issued Date: 2016-06-12**

**Test Laboratory:**

*FCC 2.948 Listed: No.342690*

**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:**

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I16N00562-EMC	Rev.0	1st edition	2016-06-12



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## 1. Test Laboratory

### 1.1. Testing Location

Address: TCL International E city No. 1001 Zhongshanyuan Road, Nanshan District, Shenzhen, Guangdong, China  
Postal Code: 518048  
Telephone: +86(755)33322000  
Fax: +86(755)33322001

### 1.2. Testing Environment

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

### 1.3. Project data

Testing Start Date: 2016-05-27  
Testing End Date: 2016-06-06

### 1.4. Signature

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Liang Yong

(Prepared this test report)

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Zhang Yunzhan

(Reviewed this test report)

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Cao Junfei

Director of the laboratory  
(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: Huawei Technologies Co., Ltd.  
Address: Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

### **2.2. Manufacturer Information**

Company Name: Huawei Technologies Co., Ltd.  
Address: Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

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

#### **3.1. About EUT**

Description	Smart Phone
Model Name	HUAWEI MLA-L11, MLA-L11, HUAWEI MLA-L01, MLA-L01
FCC ID	QISMLA-LX1
TX Band	GSM850/1900,LTE Band 7/38
RX Band	GSM850/1900, LTE Band 7/38

The Equipment Under Test (EUT)are a model of Smart Phone with integrated antenna.

The EUT supports GPRS service and EGPRS service.It has MP3,camera,USB memory, FM radio, GPS receiver ,Bluetooth and WLAN functions.

Remark: The above EUT's information is declared by manufacturer. Please refer to the specifications or user's manual for more detailed information.

Note: The mobile phone MLA-L01 and MLA-L11 are LTE/UMTS mobile phone with Bluetooth.

MLA-L01 delete one SIM by software. Other parts of the mobile phone are the same, including the appearance, the antenna, Chipset, Bluetooth mode, Wifi mode, Adapter, Battery, Mainboard and so on. it does not affect the electromagnetic compatibility. According to the declaration of changes, MLA-L01 no test needs to been performed. all results are cited from the model MLA-L11.

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>SN or IMEI</b>
EUT	861347030005105

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

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>	<b>SN</b>
AE1	Battery	/
AE2	Travel charger	/
AE3	USB cable	/
<b>AE1</b>		
Model	HB386483ECW+	
Manufacturer	Huawei Technologies Co., Ltd.	
Capacitance	3270mAh	
Nominal voltage	3.82V	
<b>AE2-1</b>		
Model	HW-050200U01	
Manufacturer	SHENZHEN HUNTKEY ELECTRIC CO., LTD	
SN	H786K3G3J00890	
<b>AE2-2</b>		
Model	HW-050200U01	
Manufacturer	Huizhou BYD Electronic Co., Ltd.	



SN	B78683G4102042
AE2-3	
Model	HW-050200U01
Manufacturer	dongguan phltek electronics co., ltd
SN	P78608G1X00983
AE2-4	
Model	HW-050200B01
Manufacturer	SHENZHEN HUNTKEY ELECTRIC CO., LTD
SN	/
AE2-5	
Model	HW-050200B01
Manufacturer	Huizhou BYD Electronic Co., Ltd.
SN	/
AE2-6	
Model	HW-050200B01
Manufacturer	dongguan phltek electronics co., ltd
SN	/
AE2-7	
Model	HW-050200A01
Manufacturer	SHENZHEN HUNTKEY ELECTRIC CO., LTD
SN	/
AE2-8	
Model	HW-050200A01
Manufacturer	Huizhou BYD Electronic Co., Ltd.
SN	/
AE2-9	
Model	HW-050200A01
Manufacturer	dongguan phltek electronics co., ltd
SN	/
AE2-10	
Model	HW-050200E01
Manufacturer	SHENZHEN HUNTKEY ELECTRIC CO., LTD
SN	/
AE2-11	
Model	HW-050200E01
Manufacturer	Huizhou BYD Electronic Co., Ltd.
SN	/
AE2-12	
Model	HW-050200E01
Manufacturer	dongguan phltek electronics co., ltd
SN	/
AE3-1	
Model	130-26988
Manufacturer	HONGLIN TECHNOLOGY CO.,LTD



Length of cable	93cm
AE3-2	
Model	CUDU01B-HC212-EH
Manufacturer	FOXCONN INTERCONNECT TECHNOLOGY LIMITED.
Length of cable	93cm
AE3-3	
Model	L99UC001-CS-H
Manufacturer	LUXSHAREICT
Length of cable	93cm

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



### 3.4. EUT set-ups

<b>EUT set-up No.</b>	<b>Combination of EUT and AE</b>	<b>Remarks</b>
Set.1	EUT+ AE1 + AE2-1+ AE3-1	Charging mode
Set.2	EUT+ AE1 + AE2-2+ AE3-2	Charging mode
Set.3	EUT+ AE1 + AE2-3+ AE3-3	Charging mode
Set.4	EUT+ AE1 + AE3-1	USB mode
Set.5	EUT+ AE1 + AE3-2	USB mode
Set.6	EUT+ AE1 + AE3-3	USB mode

#### 4. Reference Documents

##### 4.1. Reference Documents for testing

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

<b>Reference</b>	<b>Title</b>	<b>Version</b>
FCC Part 15, Subpart B	Radio frequency devices	10-1-2015 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	2014

## 5. LABORATORY ENVIRONMENT

**Semi-anechoic chamber** did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-18000MHz,>90dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3 m distance, from 30 to 1000 MHz

**Shield room** did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-10000MHz,>90dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω

**Fully-anechoic chamber** did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-18000MHz,>90dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω
Voltage Standing Wave Ratio (VSWR)	≤ 6 dB, from 1 to 18 GHz, 3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 MHz



## 6. SUMMARY OF TEST RESULTS

Abbreviations used in this clause:	
P	Pass
NA	Not applicable
F	Fail

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Radiated Emission	15.109(a)	A.1	P
2	Conducted Emission	15.107(a)	A.2	P



## 7. Test Facilities Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CALDUE DATE	CAL PERIOD
1.	Test Receiver	ESCI	100701	R&S	2016.08.10	1 year
2.	Spectrum Analyzer	FSP 40	100378	R&S	2016.12.18	1 year
3.	BiLog Antenna	VULB9163	9163 329	Schwarzbeck	2017.01.20	3 years
4.	LISN	ESH2-Z5	100196	R&S	2017.01.12	1 year
5.	Horn Antenna	3117	00066585	ETS-Lindgren	2019.03.05	3 years
6.	Universal Radio Communication Tester	E5515C	GB44051324	Agilent	2017.05.18	1 year
7.	PC	M4099t	SA08850737	Lenovo	/	/
8.	Monitor	L1710d	0M04340B10 01010	Lenovo	/	/
9.	Printer	P1008	VNF6C12491	HP	/	/
10.	Keyboard	KB-0225	0723779	Lenovo	/	/
11.	Mouse	MO28UOL	44B39412	Lenovo	/	/

## **ANNEX A: MEASUREMENT RESULTS**

### **A.1 Radiated Emission (§15.109(a))**

#### **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 a distance of 3 meters 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:**

**Charging mode:** The EUT is working in Idle mode, synchronized with the Universal Radio Communication Tester, charging by the power adaptor.

**USB mode:** The EUT is connected to a PC via a USB cable. With software, a specific data file is copied from PC to EUT, and when it's finished, the EUT will delete it automatically. This action is repeating till the test ended. The model of the PC is Lenovo Thinkcentre M4099t, and the serial number of the PC is SA08850737.

#### **A.1.3 Measurement Limit**

Limit from CFR Part 15.109(a)

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 original limit is defined at 10m test distance. This limit is calculated according to CISPR requirements.

#### **A.1.4 Test Condition**

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz (IF bandwidth)	5
Above 1000	1MHz/3MHz	15

### 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

$G_{\text{PL}}$ : Path Loss

$P_{\text{Mea}}$ : Measurement result on receiver.

Note: the result contains vertical part and Horizontal part

**RE Measurement uncertainty:** 30M-1GHz: 5.08dB (k=2);  
1GHz-18GHz: 4.56 dB (k=2)

**EUT model name: MLA-L11**

#### Set.1 Charging mode / Peak detector

Frequency(MHz)	Result(dBuV/m)	Polarity	$A_{Rpl}$ (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14166.500000	56.4	H	11.2	17.6	74.0
15179.500000	57.3	V	12.2	16.7	74.0
15659.500000	59.0	H	12.6	15.0	74.0
16263.500000	59.2	V	13.2	14.8	74.0
16747.000000	60.8	H	13.9	13.2	74.0
17372.000000	59.6	H	14.0	14.4	74.0

#### Set.1 Charging mode / Average detector

Frequency(MHz)	Result(dBuV/m)	Polarity	$A_{Rpl}$ (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14541.000000	44.7	V	11.9	9.3	54.0
15182.000000	45.7	H	12.2	8.3	54.0
15760.000000	47.3	V	12.8	6.7	54.0
16227.500000	48.0	V	13.1	6.0	54.0
16784.500000	48.5	V	13.9	5.5	54.0
17344.500000	48.1	V	14.0	5.9	54.0

**Set.2 Charging mode / Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dBμV/m)
14551.000000	56.8	V	11.9	17.2	74.0
15093.500000	57.8	V	12.1	16.2	74.0
15690.000000	58.8	H	12.7	15.2	74.0
16270.500000	59.3	V	13.2	14.7	74.0
16699.500000	60.3	H	13.8	13.7	74.0
17309.500000	59.2	H	13.9	14.8	74.0

**Set.2 Charging mode / Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dBμV/m)
14543.500000	44.6	H	11.9	9.4	54.0
15167.000000	45.6	H	12.1	8.4	54.0
15665.500000	47.0	V	12.6	7.0	54.0
16222.500000	47.3	H	13.1	6.7	54.0
16738.000000	48.0	H	13.8	6.0	54.0
17289.000000	47.5	H	13.9	6.5	54.0

**Set.3 Charging mode / Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dBμV/m)
14524.000000	57.8	V	11.8	16.2	74.0
15172.500000	57.2	V	12.1	16.8	74.0
15743.000000	58.5	V	12.8	15.5	74.0
16187.500000	58.4	V	13.1	15.6	74.0
16751.000000	59.3	H	13.9	14.7	74.0
17899.500000	59.3	H	13.8	14.7	74.0

**Set.3 Charging mode / Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dBμV/m)
14543.500000	44.7	H	11.9	9.3	54.0
15178.500000	45.4	V	12.2	8.6	54.0
15745.000000	46.7	H	12.8	7.3	54.0
16211.500000	47.3	V	13.1	6.7	54.0
16743.000000	47.5	V	13.9	6.5	54.0
17278.500000	47.2	V	13.9	6.8	54.0

**Set.4 USB mode / Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dBμV/m)
14530.500000	55.7	H	11.8	18.3	74.0
15149.000000	56.6	H	12.1	17.4	74.0
15759.000000	57.3	H	12.8	16.7	74.0
16185.500000	57.6	V	13.1	16.4	74.0
16759.500000	57.9	H	13.9	16.1	74.0
17403.500000	57.1	H	14.0	16.9	74.0

**Set.4 USB mode / Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dBμV/m)
14525.000000	44.1	V	11.8	9.9	54.0
15126.000000	44.7	V	12.1	9.3	54.0
15746.500000	45.7	V	12.8	8.3	54.0
16196.000000	45.5	H	13.1	8.5	54.0
16828.500000	46.1	H	13.9	7.9	54.0
17366.500000	45.5	H	14.0	8.5	54.0

**Set.5 USB mode / Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dBμV/m)
14524.000000	56.1	V	11.8	17.9	74.0
15079.500000	56.2	H	12.1	17.8	74.0
15844.000000	57.4	V	12.9	16.6	74.0
16263.500000	57.0	V	13.2	17.0	74.0
16719.000000	57.6	V	13.8	16.4	74.0
17395.000000	57.2	V	14.0	16.8	74.0

**Set.5 USB mode / Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dBμV/m)
14529.500000	44.1	V	11.8	9.9	54.0
15121.000000	44.7	V	12.1	9.3	54.0
15763.000000	46.0	H	12.8	8.0	54.0
16329.500000	45.5	H	13.4	8.5	54.0
16816.000000	46.2	H	13.9	7.8	54.0
17410.000000	45.6	V	14.0	8.4	54.0

**Set.6 USB mode / Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14138.000000	55.8	V	11.2	18.2	74.0
15137.500000	56.6	H	12.1	17.4	74.0
15754.000000	57.7	H	12.8	16.3	74.0
16331.500000	57.8	H	13.4	16.2	74.0
16851.500000	58.3	H	13.9	15.7	74.0
17383.500000	57.3	H	14.0	16.7	74.0

**Set.6 USB mode / Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14523.500000	44.2	H	11.8	9.8	54.0
15140.000000	44.7	V	12.1	9.3	54.0
15778.500000	45.9	H	12.8	8.1	54.0
16214.000000	45.7	H	13.1	8.3	54.0
16826.000000	46.1	H	13.9	7.9	54.0
17425.500000	45.8	H	14.0	8.2	54.0

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

Charging mode: Set 1

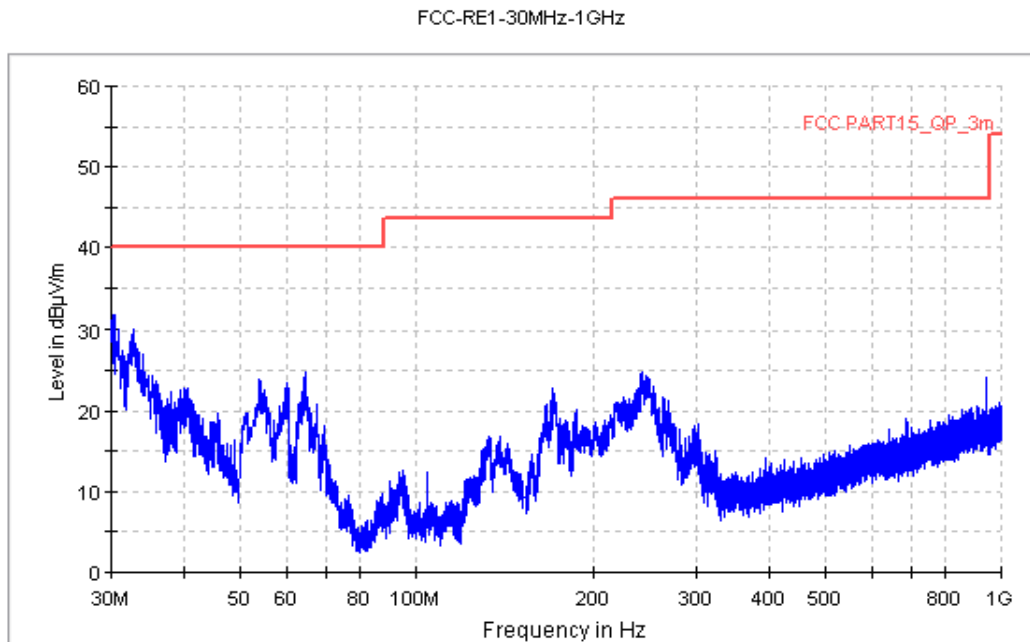


Figure A.1 Radiated Emission from 30MHz to 1GHz

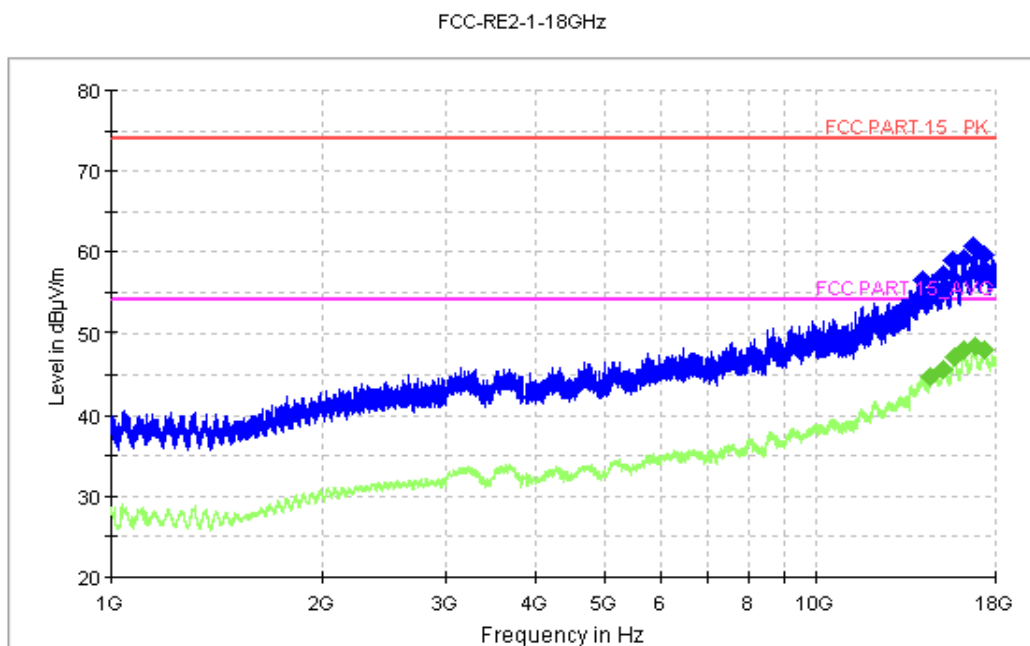


Figure A.2 Radiated Emission from 1GHz to 18GHz

Charging mode: Set 2

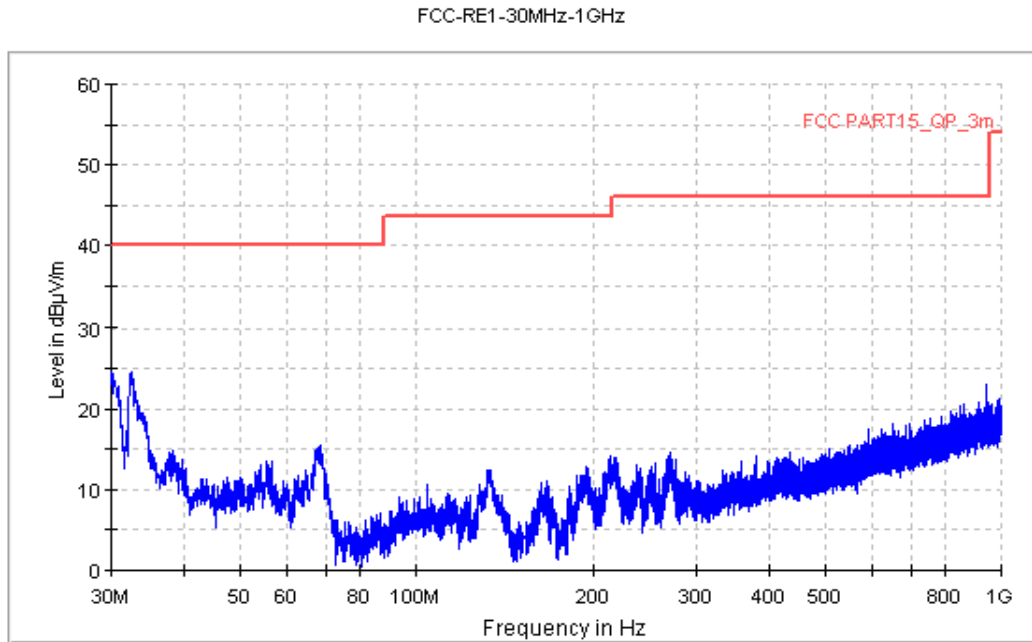


Figure A.3 Radiated Emission from 30MHz to 1GHz

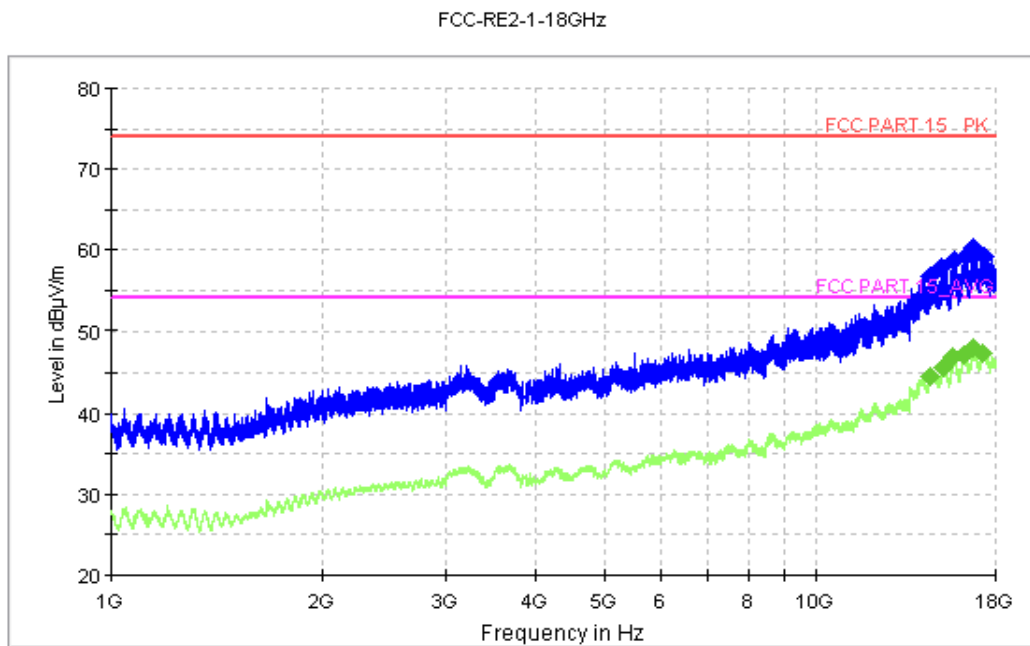


Figure A.4 Radiated Emission from 1GHz to 18GHz

Charging mode: Set 3

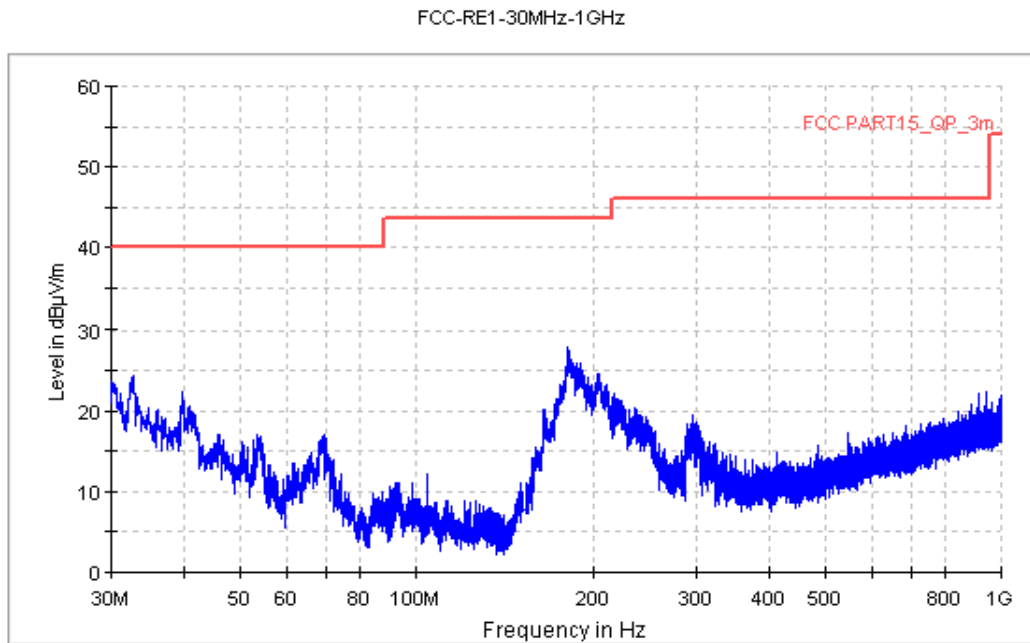


Figure A.5 Radiated Emission from 30MHz to 1GHz

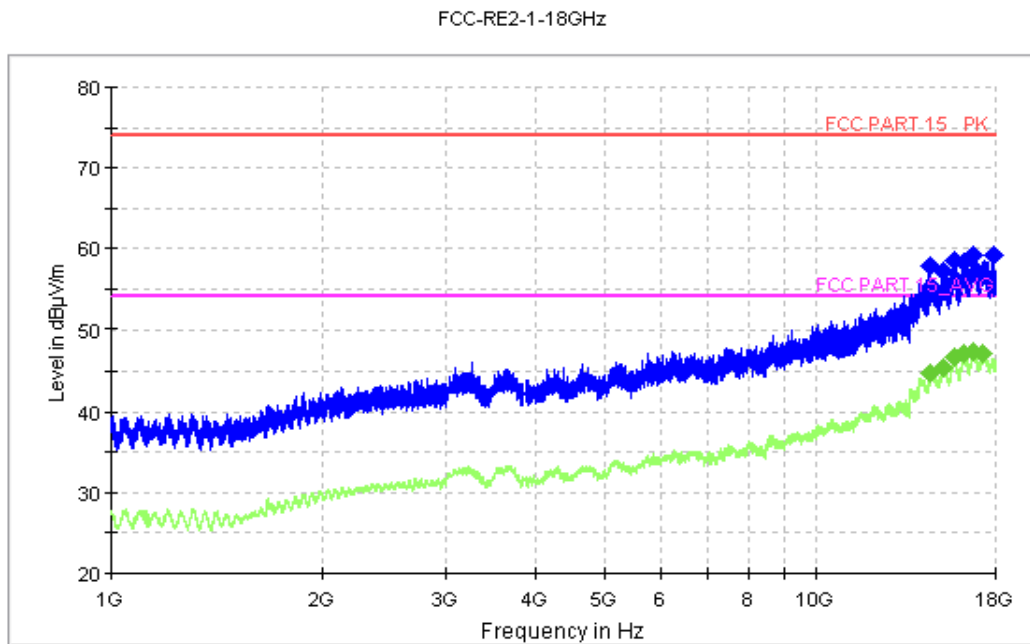


Figure A.6 Radiated Emission from 1GHz to 18GHz

Charging mode: Set 4

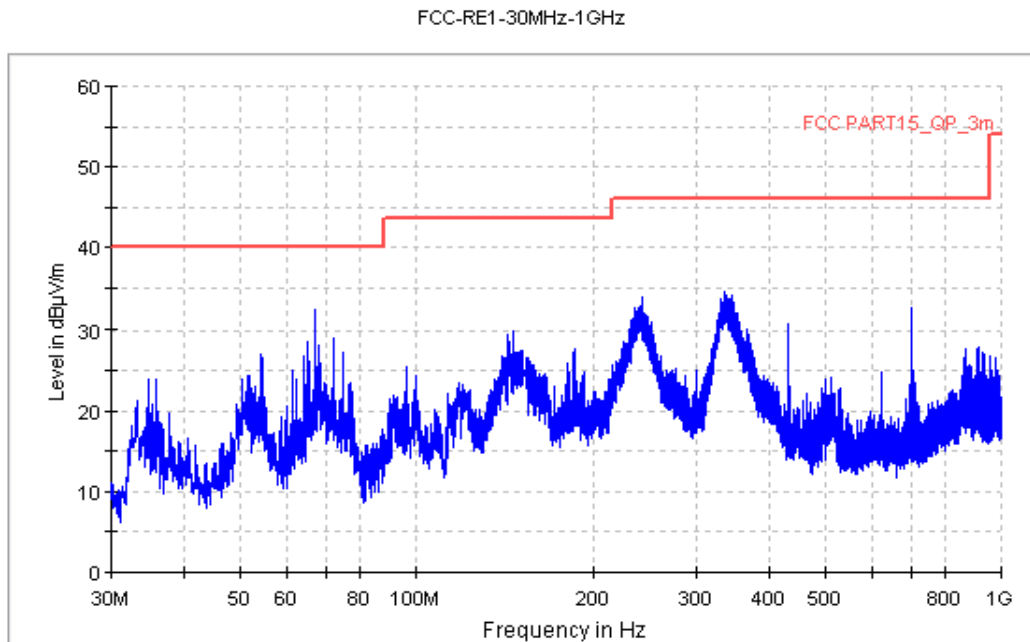


Figure A.7 Radiated Emission from 30MHz to 1GHz

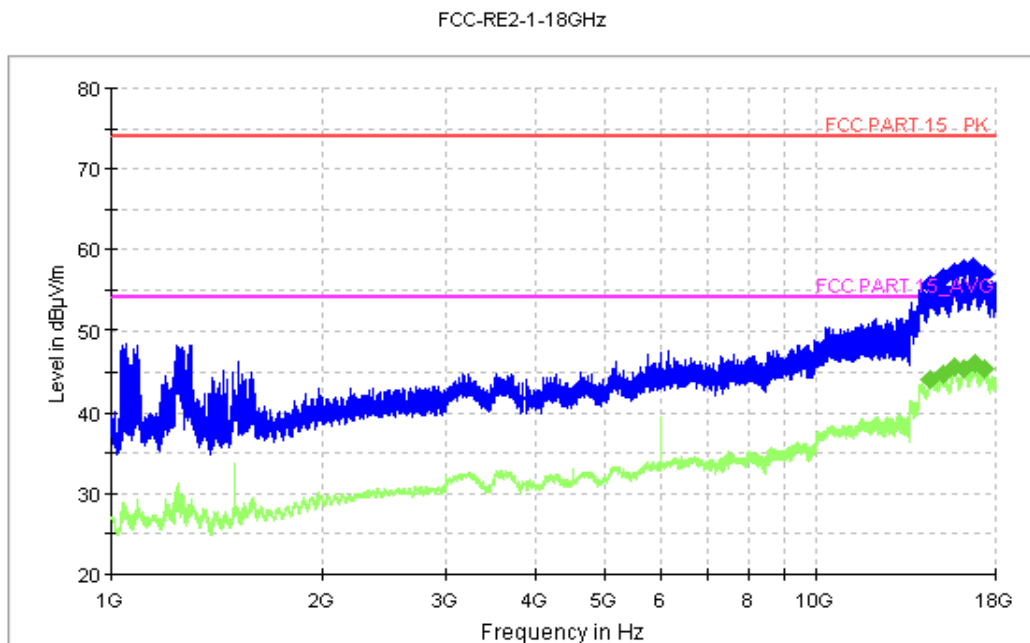


Figure A.8 Radiated Emission from 1GHz to 18GHz

Charging mode: Set 5

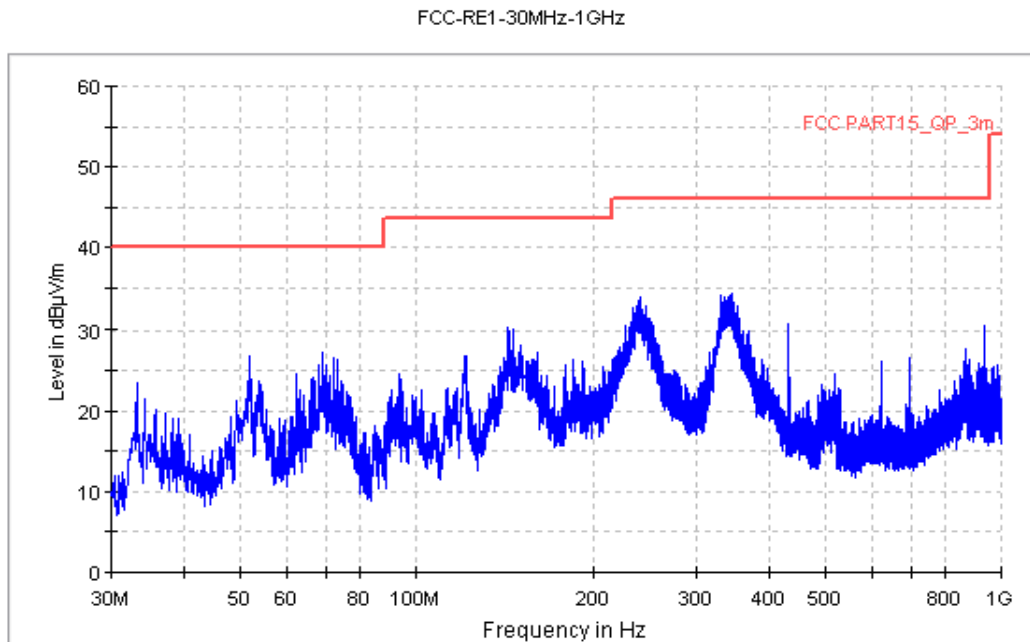


Figure A.9 Radiated Emission from 30MHz to 1GHz

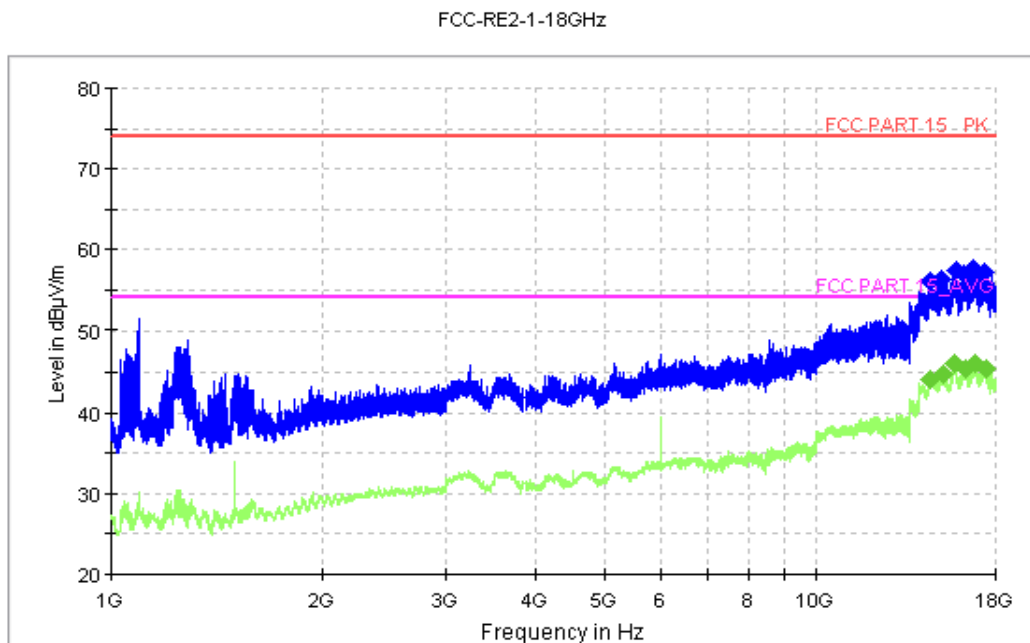


Figure A.10 Radiated Emission from 1GHz to 18GHz

Charging mode: Set 6

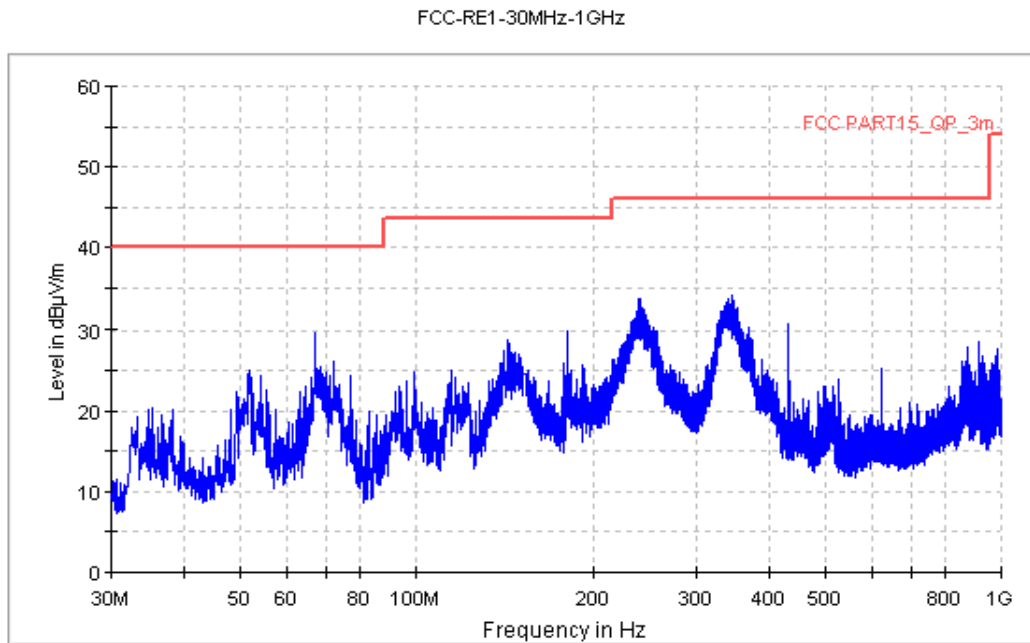


Figure A.11 Radiated Emission from 30MHz to 1GHz

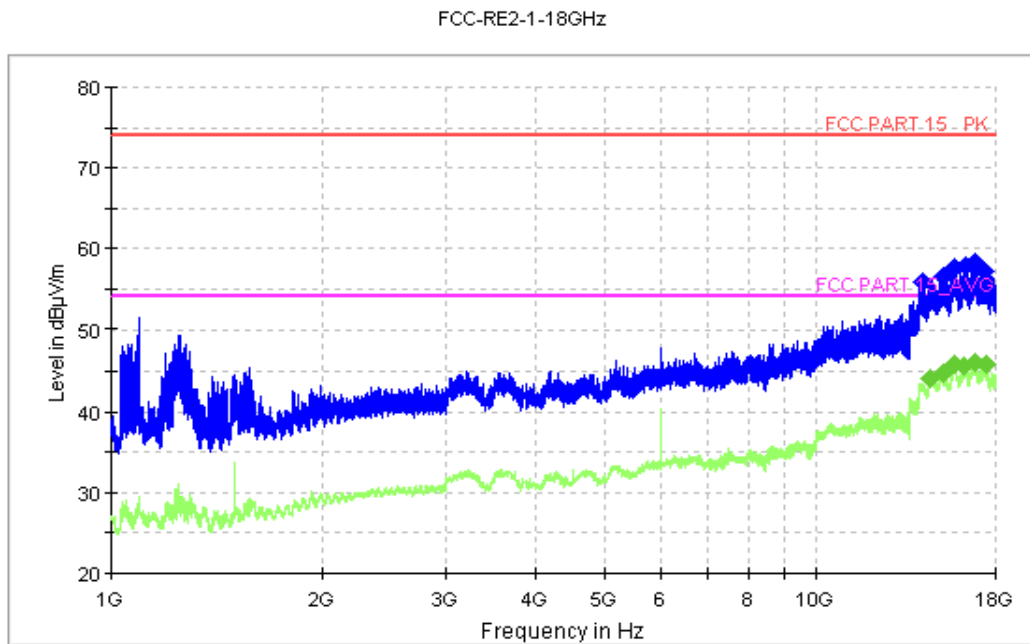


Figure A.12 Radiated Emission from 1GHz to 18GHz

## A.2 Conducted Emission (§15.107(a))

### 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:

**Charging mode:** The EUT is working in Idle mode, synchronized with the Universal Radio Communication Tester, charging by the power adaptor.

**USB mode:** The EUT is connected to a PC via a USB cable. With software, a specific data file is copied from PC to EUT, and when it's finished, the EUT will delete it automatically. This action is repeating till the test ended. The model of the PC is Lenovo Thinkcentre M4099t, and the serial number of the PC is SA08850737.

### A.2.3 Measurement Limit

Frequency of emission (MHz)	Conducted limit (dB $\mu$ 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

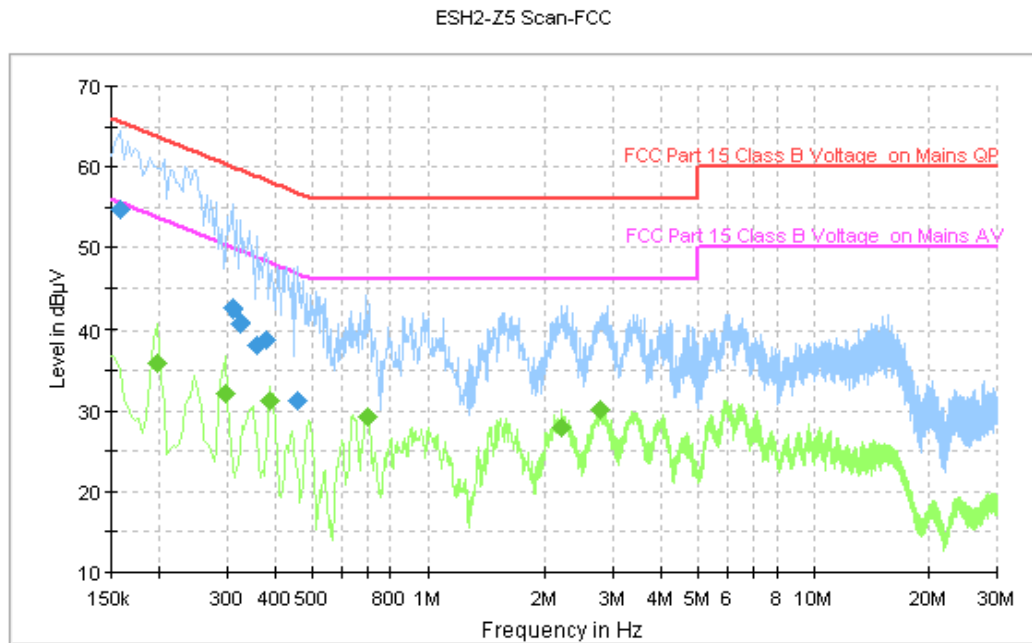
Voltage (V)	Frequency (Hz)
120	60

RBW	Sweep Time(s)
9kHz	1

**CE Measurement uncertainty:** 2.7 dB (k=2)

**EUT model name:** MLA-L11

**A.2.5 Measurement Results**  
**Charging mode:Set.1**



**Figure A.13 Conducted Emission**

**Final Measurement Detector 1**

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.158000	54.8	GND	N	10.1	10.8	65.6
0.310000	42.4	GND	N	10.1	17.5	60.0
0.326000	40.8	GND	N	10.0	18.8	59.6
0.358000	38.1	GND	N	10.1	20.7	58.8
0.378000	38.7	GND	N	10.0	19.6	58.3
0.458000	31.1	GND	N	10.1	25.6	56.7

**Final Measurement Detector 2**

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.198000	36.0	GND	L1	10.0	17.7	53.7
0.298000	32.2	GND	L1	10.0	18.1	50.3
0.390000	31.2	GND	L1	10.0	16.9	48.1
0.698000	29.3	GND	L1	10.0	16.7	46.0
2.214000	27.9	GND	L1	10.1	18.1	46.0
2.786000	30.0	GND	L1	10.1	16.0	46.0

Charging mode:Set.2

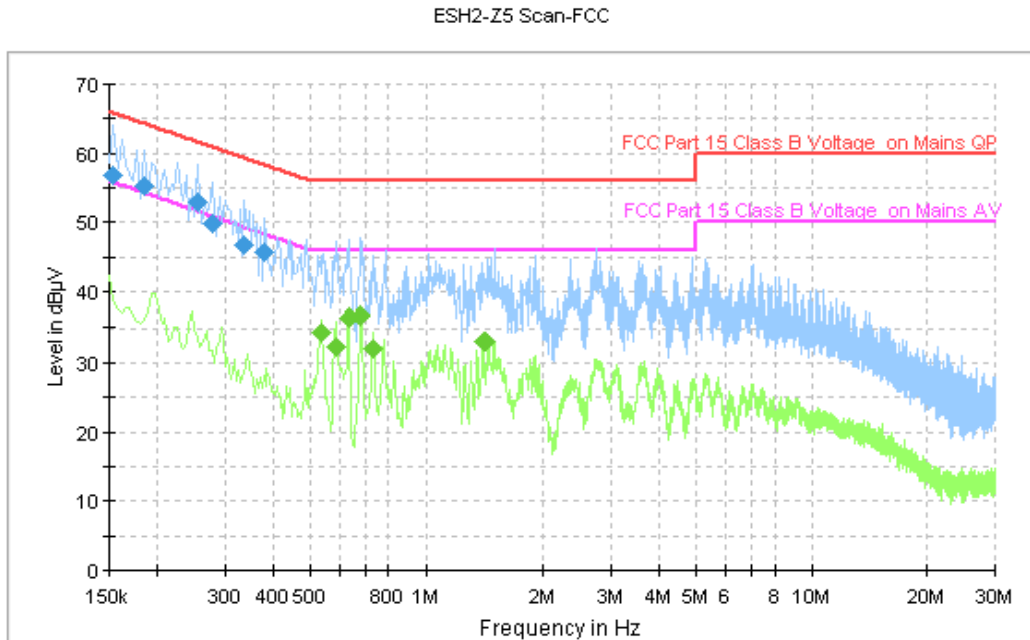


Figure A.14 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.154000	56.9	GND	N	10.0	8.9	65.8
0.186000	55.4	GND	N	10.1	8.8	64.2
0.254000	52.9	GND	N	10.1	8.7	61.6
0.278000	49.9	GND	N	10.1	11.0	60.9
0.338000	46.8	GND	N	10.0	12.4	59.3
0.378000	45.8	GND	N	10.0	12.5	58.3

Final Measurement Detector 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.534000	34.3	GND	L1	10.1	11.7	46.0
0.586000	32.4	GND	L1	10.1	13.6	46.0
0.630000	36.5	GND	L1	10.0	9.5	46.0
0.678000	36.6	GND	L1	10.0	9.4	46.0
0.726000	32.1	GND	L1	10.0	13.9	46.0
1.410000	33.1	GND	L1	10.1	12.9	46.0

Charging mode:Set.3

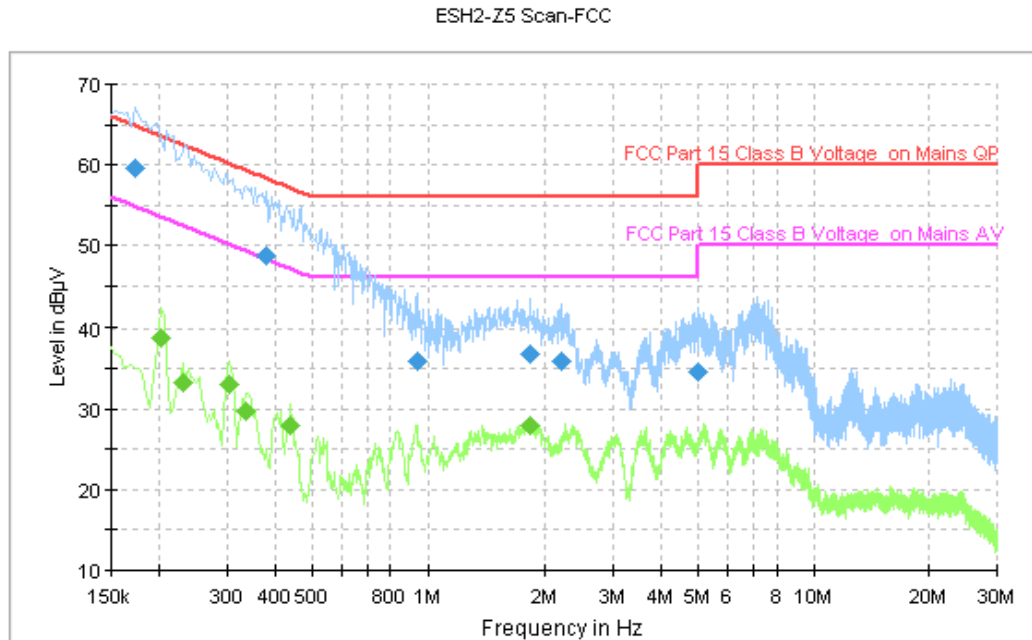


Figure A.15 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.174000	59.6	GND	N	10.1	5.2	64.8
0.378000	48.8	GND	N	10.0	9.5	58.3
0.938000	35.9	GND	N	10.1	20.1	56.0
1.826000	36.9	GND	L1	10.1	19.1	56.0
2.202000	35.9	GND	L1	10.1	20.1	56.0
4.986000	34.6	GND	N	10.2	21.4	56.0

Final Measurement Detector 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.202000	38.7	GND	L1	10.0	14.8	53.5
0.230000	33.2	GND	L1	10.0	19.3	52.4
0.306000	33.0	GND	L1	10.0	17.1	50.1
0.338000	29.7	GND	L1	10.0	19.5	49.3
0.438000	28.0	GND	L1	10.0	19.1	47.1
1.826000	27.8	GND	L1	10.1	18.2	46.0

USB mode:Set.4

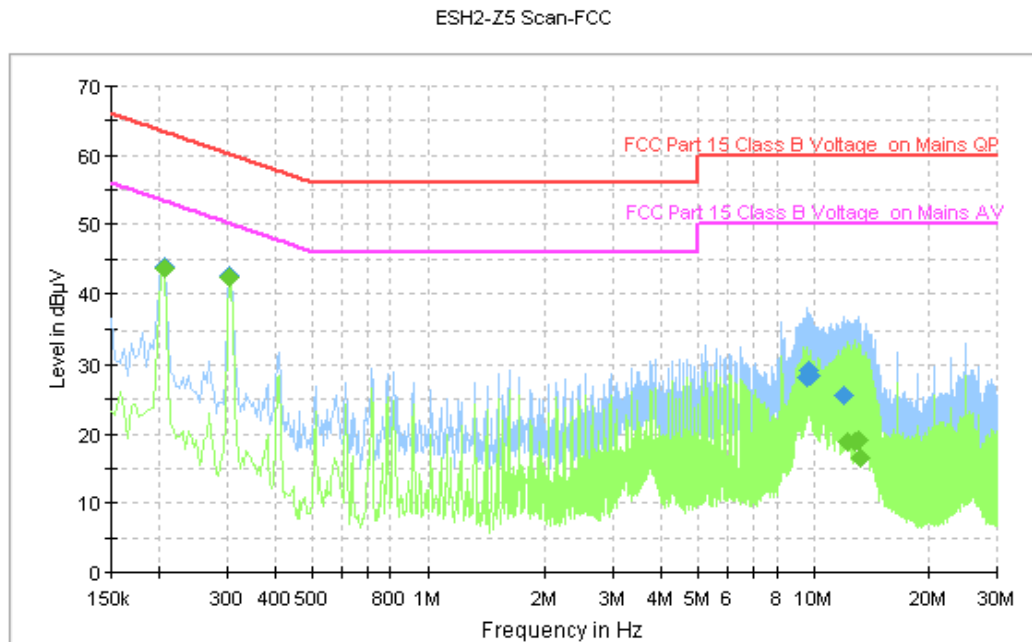


Figure A.16 Conducted Emission

**Final Measurement Detector 1**

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.206000	43.9	GND	N	10.1	19.5	63.4
0.306000	42.5	GND	N	10.1	17.6	60.1
9.590000	28.0	GND	N	10.4	32.0	60.0
9.694000	29.3	GND	N	10.4	30.7	60.0
9.794000	28.5	GND	N	10.3	31.5	60.0
12.030000	25.5	GND	L1	10.4	34.5	60.0

**Final Measurement Detector 2**

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.206000	43.6	GND	N	10.1	9.7	53.4
0.306000	42.3	GND	L1	10.0	7.8	50.1
12.234000	18.9	GND	L1	10.4	31.1	50.0
12.846000	18.7	GND	L1	10.4	31.3	50.0
13.050000	19.1	GND	L1	10.4	30.9	50.0
13.254000	16.5	GND	L1	10.4	33.5	50.0

USB mode:Set.5

ESH2-Z5 Scan-FCC

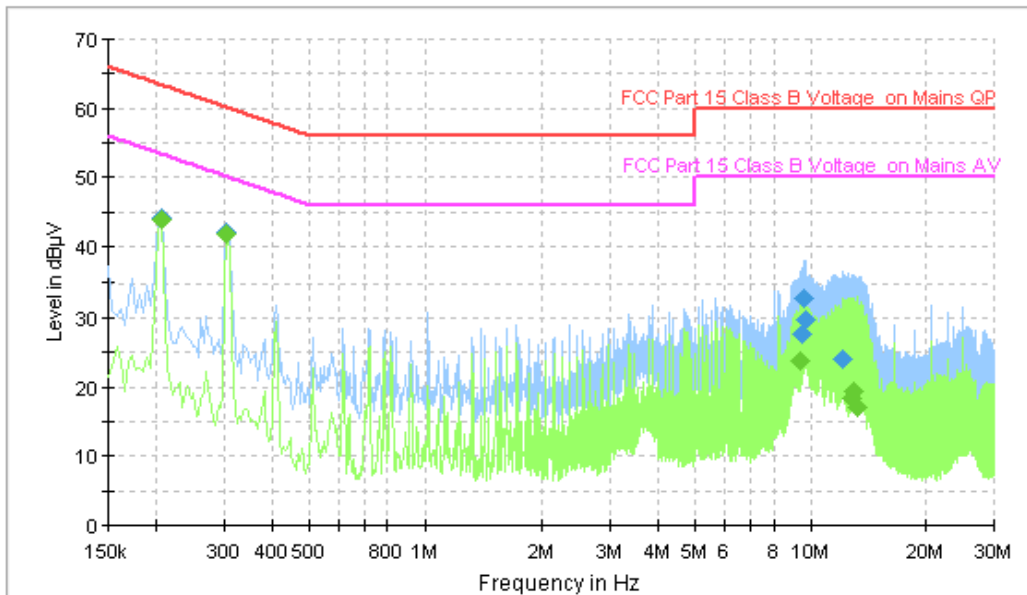


Figure A.17 Conducted Emission

**Final Measurement Detector 1**

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.206000	44.2	GND	N	10.1	19.2	63.4
0.306000	42.0	GND	L1	10.0	18.0	60.1
9.510000	27.8	GND	N	10.3	32.2	60.0
9.618000	32.8	GND	N	10.4	27.2	60.0
9.718000	29.7	GND	N	10.4	30.3	60.0
12.062000	23.9	GND	L1	10.4	36.1	60.0

**Final Measurement Detector 2**

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.206000	44.0	GND	N	10.1	9.3	53.4
0.306000	41.9	GND	L1	10.0	8.1	50.1
9.410000	23.8	GND	N	10.3	26.2	50.0
12.778000	18.5	GND	L1	10.4	31.5	50.0
12.982000	19.3	GND	L1	10.4	30.7	50.0
13.186000	17.1	GND	L1	10.4	32.9	50.0

USB mode:Set.6

ESH2-Z5 Scan-FCC

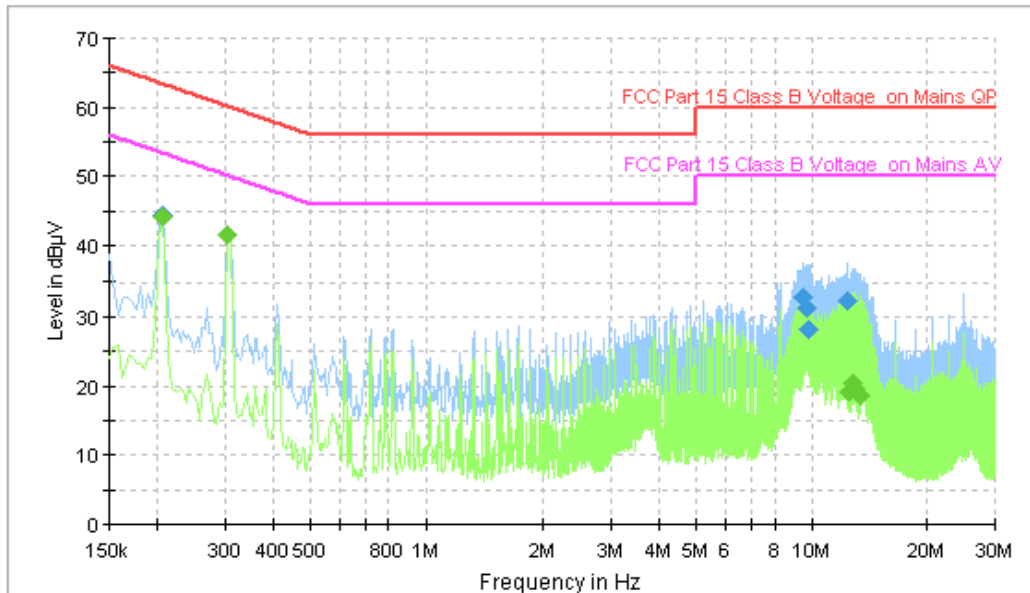


Figure A.18 Conducted Emission

**Final Measurement Detector 1**

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.206000	44.4	GND	N	10.1	19.0	63.4
0.306000	41.5	GND	L1	10.0	18.5	60.1
9.534000	32.8	GND	N	10.3	27.2	60.0
9.738000	31.2	GND	N	10.3	28.8	60.0
9.838000	28.2	GND	N	10.3	31.8	60.0
12.402000	32.2	GND	L1	10.4	27.8	60.0

**Final Measurement Detector 2**

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.206000	44.3	GND	N	10.1	9.1	53.4
0.306000	41.5	GND	L1	10.0	8.6	50.1
12.502000	19.1	GND	L1	10.4	30.9	50.0
12.810000	20.5	GND	L1	10.4	29.5	50.0
13.014000	19.7	GND	L1	10.4	30.3	50.0
13.322000	18.5	GND	L1	10.4	31.5	50.0

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