



# TEST REPORT

No.I16N00086-EMC

for

**Huawei Technologies Co., Ltd.**

**LTE CPE**

**Model Name: B315s-22**

**FCC ID: QISB315s-22**

with

**Hardware Version: WL1B310I**

**Software Version: 21.313.05.00.00**

**Issued Date: 2016-02-03**

**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:**

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

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

Tel:+86(0)10-62304633, Fax:+86(0)10-62304633Email:ctl@chinattl.com, website:[www.chinattl.com](http://www.chinattl.com)



## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I16N00086-EMC	Rev.0	1st edition	2016-02-03



## **CONTENTS**

<b>1. TEST LABORATORY .....</b>	<b>4</b>
<b>1.1. TESTING LOCATION .....</b>	<b>4</b>
<b>1.2. TESTING ENVIRONMENT .....</b>	<b>4</b>
<b>1.3. PROJECT DATA .....</b>	<b>4</b>
<b>1.4. SIGNATURE.....</b>	<b>4</b>
<b>2. CLIENT INFORMATION.....</b>	<b>5</b>
<b>2.1. APPLICANT INFORMATION .....</b>	<b>5</b>
<b>2.2. MANUFACTURER INFORMATION .....</b>	<b>5</b>
<b>3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE) .....</b>	<b>6</b>
<b>3.1. ABOUT EUT .....</b>	<b>6</b>
<b>3.2. INTERNAL IDENTIFICATION OF EUT .....</b>	<b>6</b>
<b>3.3. INTERNAL IDENTIFICATION OF AE .....</b>	<b>6</b>
<b>3.4. EUT SET-UPS .....</b>	<b>7</b>
<b>4. REFERENCE DOCUMENTS.....</b>	<b>8</b>
<b>4.1. REFERENCE DOCUMENTS FOR TESTING .....</b>	<b>8</b>
<b>5. LABORATORY ENVIRONMENT.....</b>	<b>9</b>
<b>6. SUMMARY OF TEST RESULTS .....</b>	<b>10</b>
<b>7. TEST FACILITIES UTILIZED .....</b>	<b>11</b>
<b>ANNEX A: MEASUREMENT RESULTS.....</b>	<b>12</b>

## 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)33322000

### 1.2. Testing Environment

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

### 1.3. Project data

Testing Start Date: 2016-01-26  
Testing End Date: 2016-02-03

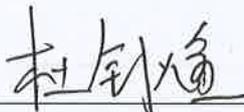
### 1.4. Signature



---

Liang Yong

(Prepared this test report)



---

Du Zhaoxuan

(Reviewed this test report)



---

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	LTE CPE
Model Name	B315s-22
FCC ID	QISB315s-22
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 LTE CPE.

The EUT supports GPRS service and EGPRS service. It has 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.

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

<b>EUT ID*</b>	<b>SN or IMEI</b>
EUT1	866169022205468

\*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	Antenna	/
AE2	Travel charger	/

AE1

Model	SL10653V
Manufacturer	GUANGDONG SHENGLU TELECOMMUNICATION TECH.CO.,LTD

AE2-1

Model	HW-120100E6W
Manufacturer	SHENZHEN HUNTKEY ELECTRIC CO., LTD
Length of cable	151cm
SN	H1681YFA905880

AE2-2

Model	HW-120100E6W
Manufacturer	Shenzhen OCT Xinqiao Technology Co.,Ltd
Length of cable	150cm
SN	HWXQAAE81520384

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



### 3.4. EUT set-ups

#### Test mode

Mode 1	EUT with charger
Mode 2	EUT with PC

<b>EUT set-up No.</b>	<b>Combination of EUT and AE</b>	<b>Remarks</b>
Set.1	EUT1+ AE2-1	Mode 1
Set.2	EUT1+ AE2-2	Mode 1
Set.3	EUT1+ PC	Mode 2
Set.4	EUT1+ AE1 + AE2-1	Mode 1
Set.5	EUT1+ AE1 + AE2-2	Mode 1
Set.6	EUT1+ AE1 + PC	Mode 2

#### 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-1000MHz,>90dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3 m distance, from 30 to 1000 MHz
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. = 30 °C
Relative humidity	Min. =35 %, Max. = 60 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-1000MHz,>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-1000MHz,>90dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω
Voltage Standing Wave Ratio (VSWR)	≤ 6 dB, from 1 to 6 GHz, 3 m distance



## 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.	Test Receiver	ESCI	100702	R&S	2016.05.30	1 year
3.	Spectrum Analyzer	FSP 40	100378	R&S	2016.12.18	1 year
4.	BiLog Antenna	VULB9163	9163 329	Schwarzbeck	2017.01.20	3 years
5.	LISN	ESH2-Z5	100196	R&S	2017.01.12	1 year
6.	Horn Antenna	3117	00066577	ETS-Lindgren	2016.04.01	3 years
7.	Universal Radio Communication Tester	E5515C	GB44051324	Agilent	2016.05.19	1 year
8.	PC	M4099t	SA08850737	Lenovo	/	/
9.	Monitor	L1710d	0M04340B10 01010	Lenovo	/	/
10.	Printer	P1008	VNF6C12491	HP	/	/
11.	Keyboard	KB-0225	0723779	Lenovo	/	/
12.	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 (mode 1 and mode 2) 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:**

The MS is operating in the mode 1 and mode 2. During the test MS is connected to a PC via a Ethernet cable in the case of mode 2 and is connected to a charger in the case of mode 1. The model of the PC is Lenovo Thinkcentre M4099t, and the serial number of the PC is SA08850737. PC ping the MS continually.

#### **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)

#### Set.1 Peak detector

Frequency(MHz)	Result(dBuV/m)	Polarity	$A_{Rpl}$ (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14165.000000	59.0	H	13.3	15.0	74.0
15155.000000	59.0	H	14.3	15.0	74.0
15729.000000	60.7	V	14.6	13.3	74.0
16248.000000	61.2	H	15.1	12.8	74.0
16783.000000	61.7	H	15.7	12.3	74.0
17419.500000	60.7	H	16.5	13.3	74.0

#### Set.1 Average detector

Frequency(MHz)	Result(dBuV/m)	Polarity	$A_{Rpl}$ (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14533.500000	46.9	H	13.6	7.1	54.0
15150.500000	47.8	H	14.3	6.2	54.0
15777.500000	48.9	H	14.7	5.1	54.0
16198.000000	48.9	H	15.1	5.1	54.0
16840.000000	49.2	H	16.1	4.8	54.0
17409.000000	49.2	H	16.5	4.8	54.0

**Set.2 Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14075.500000	58.9	H	13.1	15.1	74.0
15082.000000	59.1	V	14.0	14.9	74.0
15754.000000	60.6	H	14.6	13.4	74.0
16218.500000	60.0	H	15.1	14.0	74.0
16835.500000	61.2	V	16.0	12.8	74.0
17383.500000	60.2	H	16.3	13.8	74.0

**Set.2 Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14532.000000	46.9	V	13.6	7.1	54.0
15142.000000	47.5	V	14.3	6.5	54.0
15742.500000	48.6	V	14.6	5.4	54.0
16317.000000	48.6	H	15.5	5.4	54.0
16835.000000	49.0	H	16.0	5.0	54.0
17401.000000	48.9	V	16.4	5.1	54.0

**Set.3 Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14099.000000	58.7	V	13.2	15.3	74.0
14781.000000	59.7	V	13.9	14.3	74.0
15790.500000	61.6	V	14.7	12.4	74.0
16254.000000	62.4	V	15.1	11.6	74.0
16826.500000	63.2	V	16.0	10.8	74.0
17342.500000	62.1	V	16.1	11.9	74.0

**Set.3 Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14550.500000	47.3	H	13.7	6.7	54.0
15168.500000	48.2	H	14.3	5.8	54.0
15685.500000	49.5	V	14.5	4.5	54.0
16214.500000	50.1	V	15.1	3.9	54.0
16790.500000	50.5	V	15.8	3.5	54.0
17384.000000	50.4	V	16.3	3.6	54.0

**Set.4 Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14070.000000	58.7	V	13.1	15.3	74.0
15091.000000	59.2	H	14.0	14.8	74.0
15652.500000	60.2	V	14.5	13.8	74.0
16373.000000	60.5	H	15.8	13.5	74.0
16824.500000	60.9	V	16.0	13.1	74.0
17413.500000	60.8	H	16.5	13.2	74.0

**Set.4 Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14548.000000	46.8	H	13.6	7.2	54.0
15176.500000	47.7	H	14.3	6.3	54.0
15770.500000	48.7	V	14.6	5.3	54.0
16335.000000	48.7	V	15.5	5.3	54.0
16842.000000	49.3	H	16.1	4.7	54.0
17413.500000	48.9	H	16.5	5.1	54.0

**Set.5 Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14528.000000	58.4	V	13.6	15.6	74.0
15085.000000	58.9	H	14.0	15.1	74.0
15777.500000	60.2	H	14.7	13.8	74.0
15849.000000	60.9	V	15.0	13.1	74.0
16853.000000	60.4	V	16.1	13.6	74.0
17455.000000	59.9	V	16.4	14.1	74.0

**Set.5 Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14535.000000	46.7	V	13.6	7.3	54.0
15166.000000	47.5	H	14.3	6.5	54.0
15670.500000	48.4	V	14.5	5.6	54.0
16330.000000	48.6	V	15.5	5.4	54.0
16830.000000	48.6	V	16.0	5.4	54.0
17424.500000	48.6	V	16.5	5.4	54.0

**Set.6 Peak detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14520.000000	58.7	H	13.6	15.3	74.0
15179.000000	60.0	H	14.3	14.0	74.0
15753.500000	60.8	H	14.6	13.2	74.0
16213.500000	61.2	V	15.1	12.8	74.0
16807.000000	61.4	V	15.9	12.6	74.0
17978.000000	61.6	H	16.9	12.4	74.0

**Set.6 Average detector**

Frequency(MHz)	Result(dBuV/m)	Polarity	A <sub>Rpl</sub> (dB)	Margin(dB)	Limit (dB $\mu$ V/m)
14540.500000	47.0	H	13.6	7.0	54.0
15174.500000	47.9	H	14.3	6.1	54.0
15734.500000	48.9	V	14.6	5.1	54.0
16206.000000	49.2	V	15.1	4.8	54.0
16834.500000	49.8	V	16.0	4.2	54.0
17329.500000	49.6	V	16.0	4.4	54.0

Set 1

FCC-RE1-30MHz-1GHz

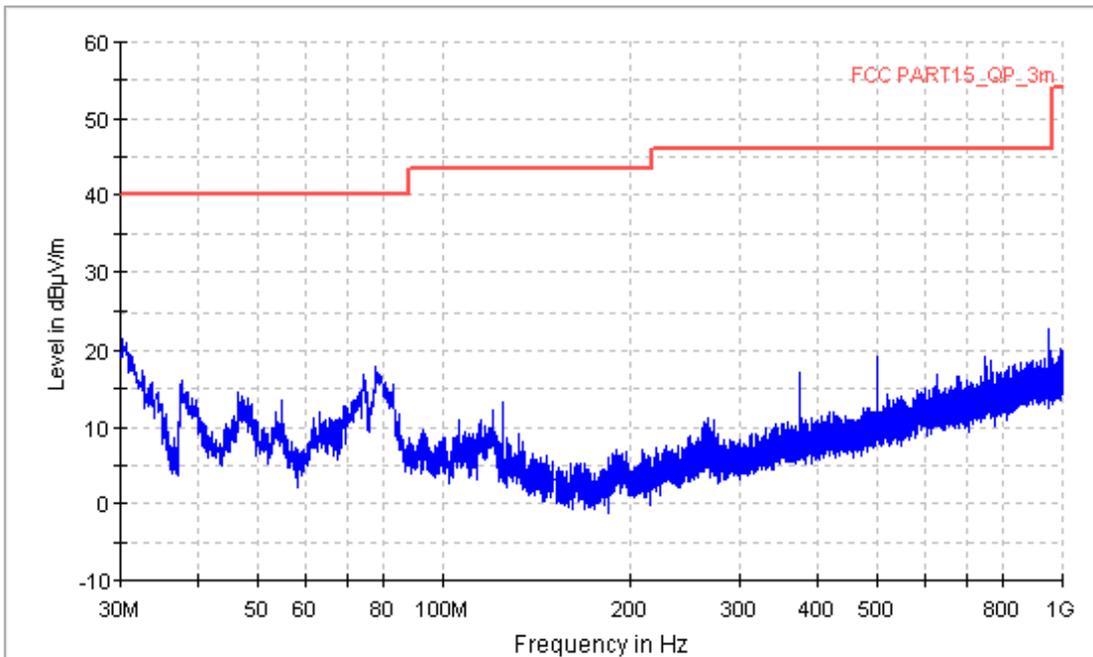


Figure A.1 Radiated Emission from 30MHz to 1GHz

FCC-RE2-1-18GHz

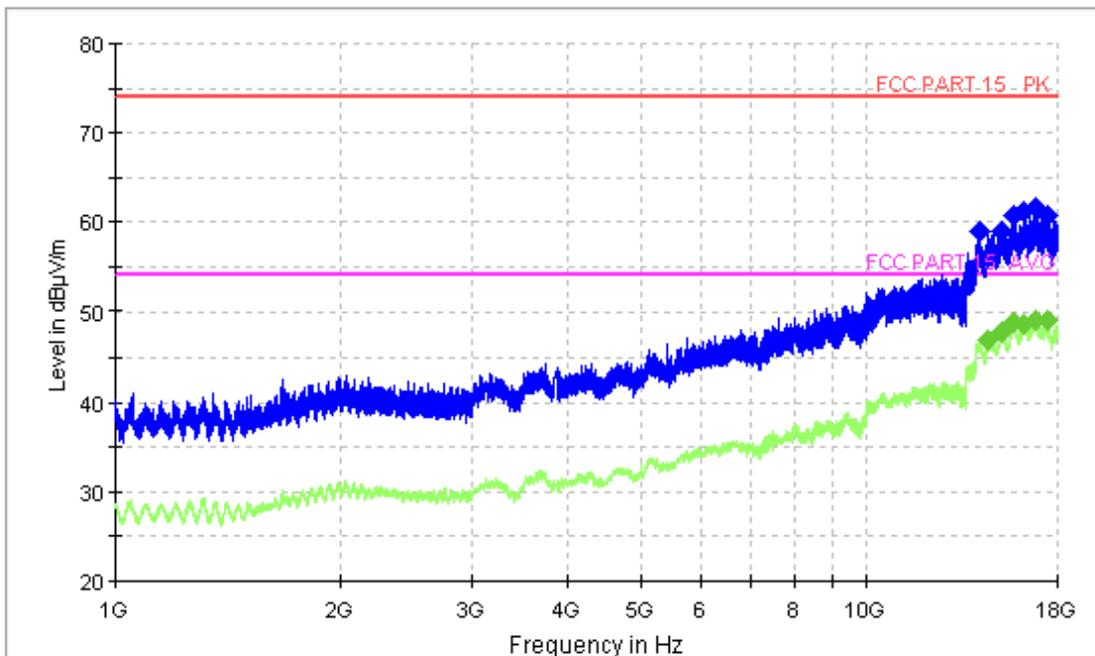


Figure A.2 Radiated Emission from 1GHz to 18GHz

Set 2

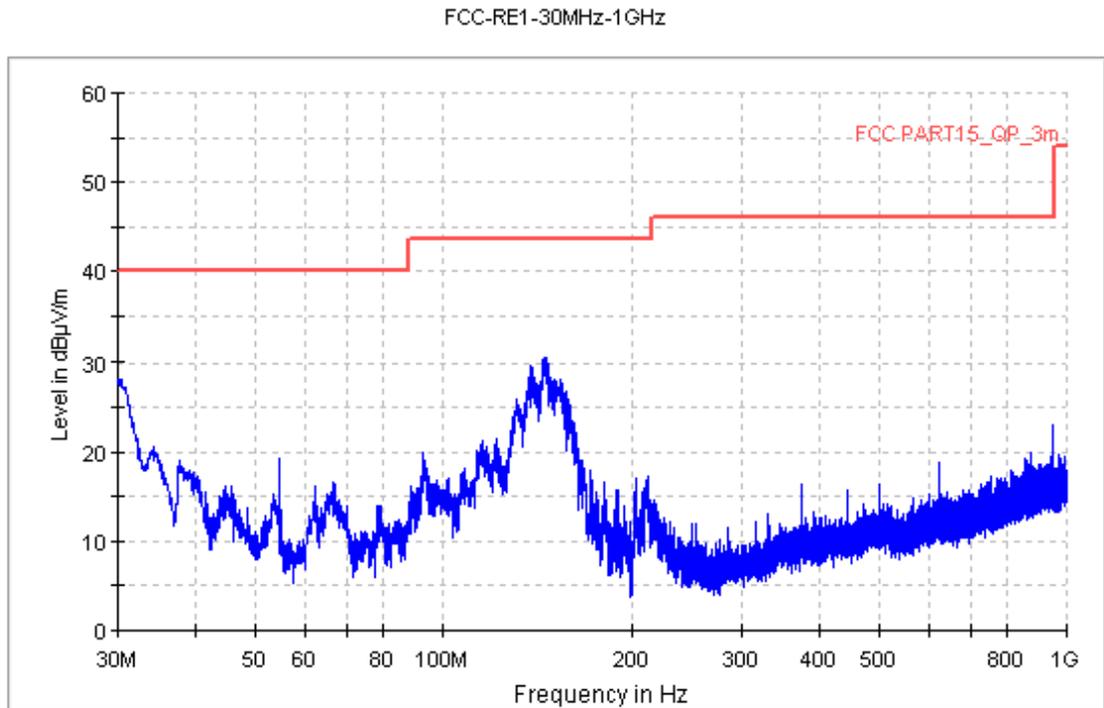


Figure A.3 Radiated Emission from 30MHz to 1GHz

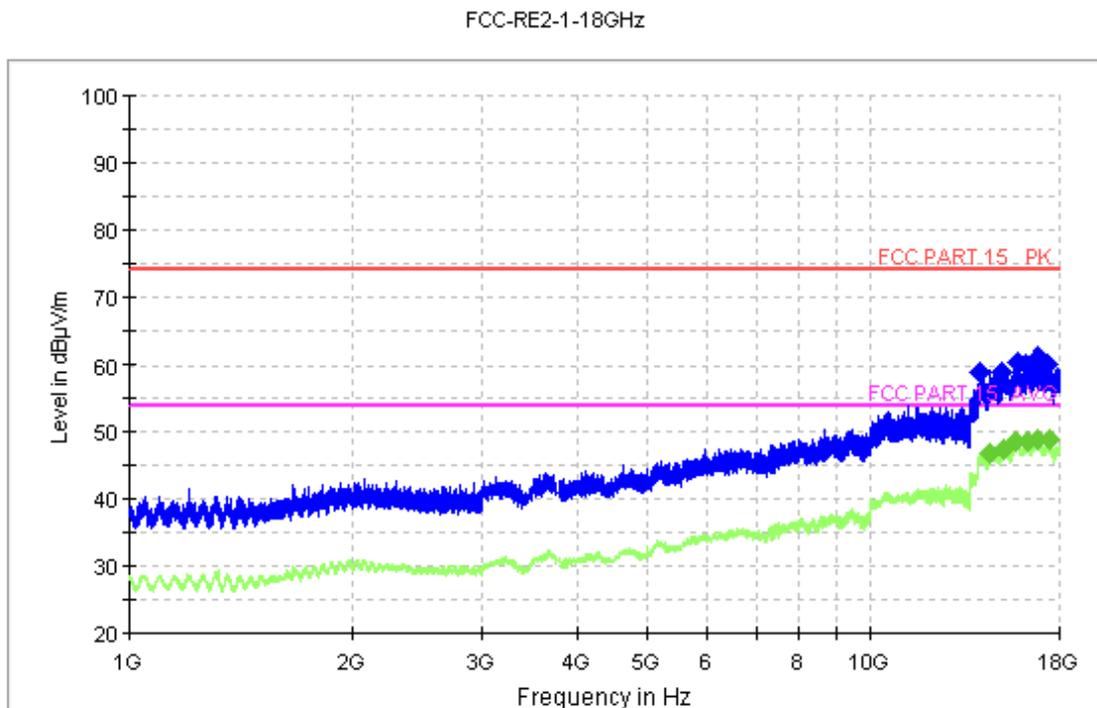


Figure A.4 Radiated Emission from 1GHz to 18GHz

Set 3

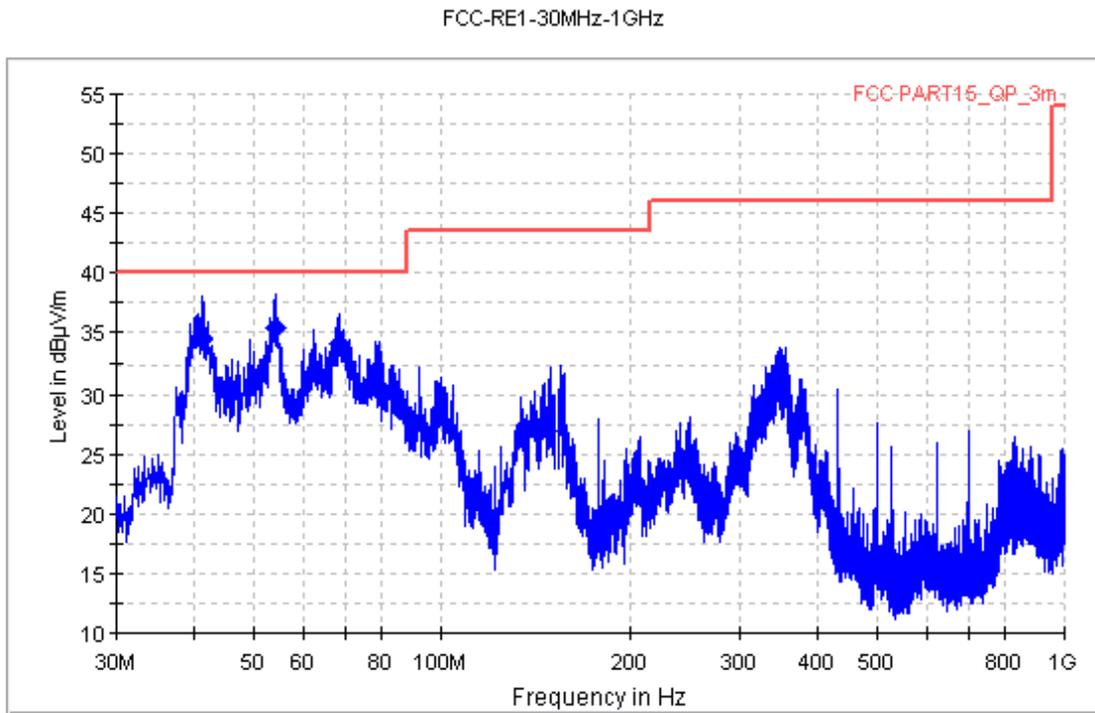


Figure A.5 Radiated Emission from 30MHz to 1GHz

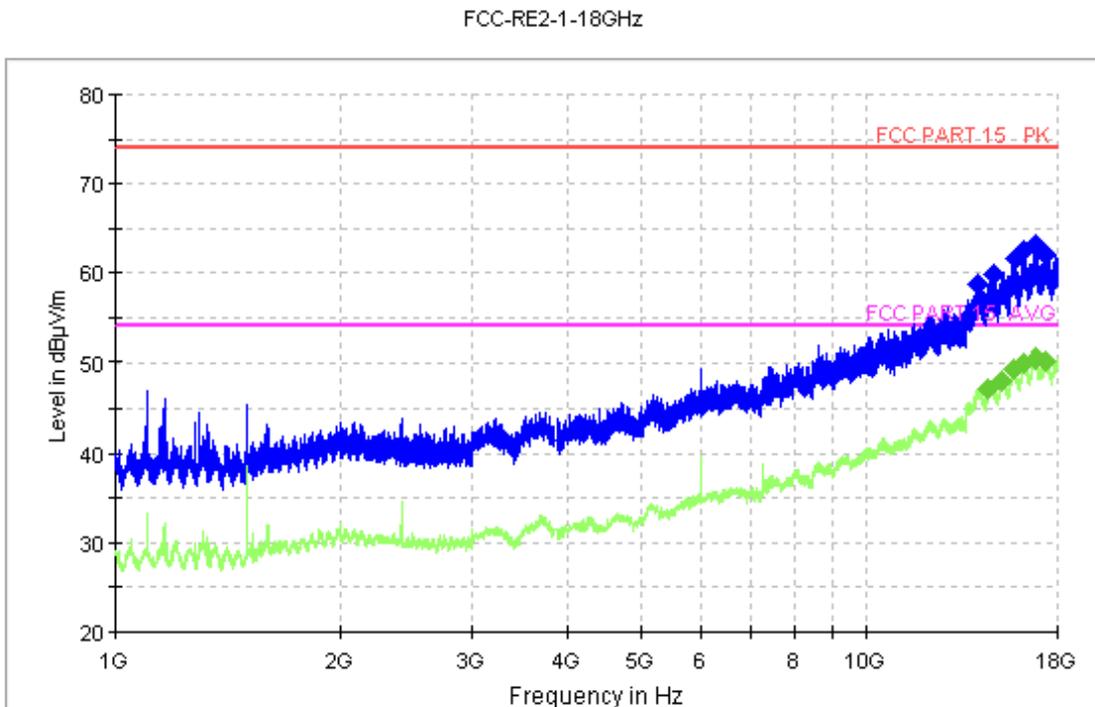


Figure A.6 Radiated Emission from 1GHz to 18GHz

Set 4

FCC-RE1-30MHz-1GHz

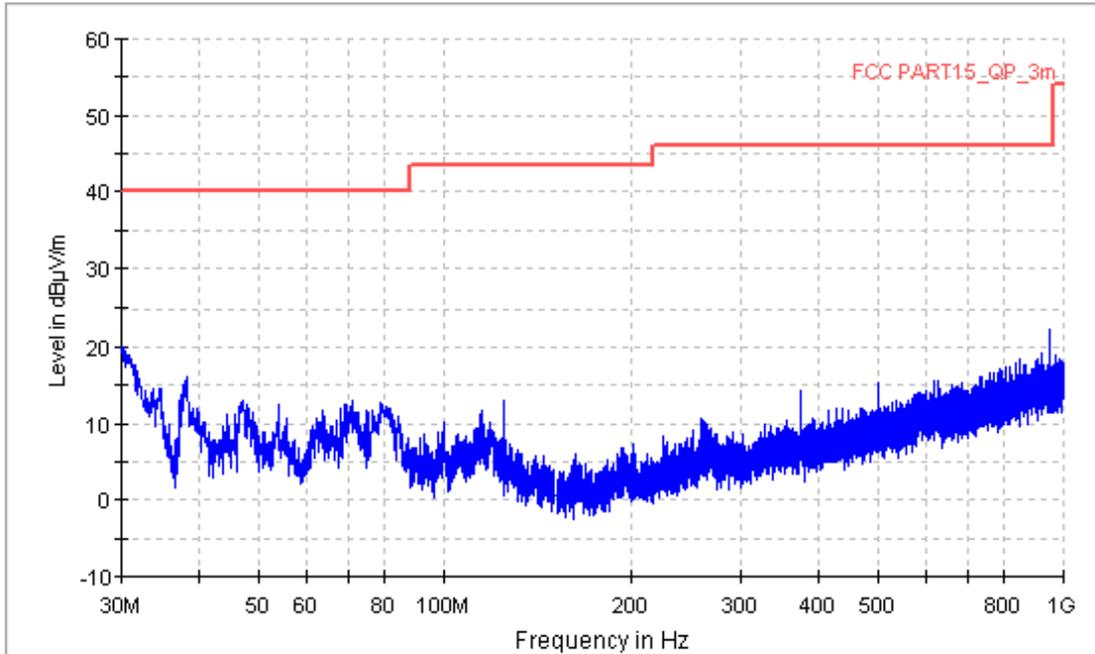


Figure A.7 Radiated Emission from 30MHz to 1GHz

FCC-RE2-1-18GHz

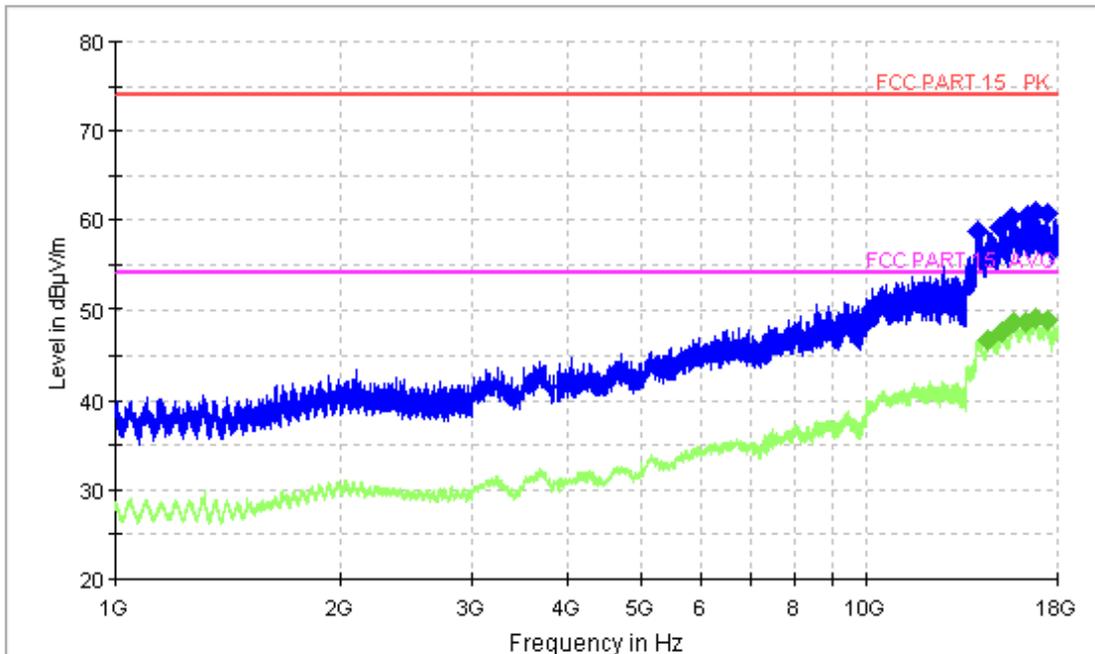


Figure A.8 Radiated Emission from 1GHz to 18GHz

Set 5

FCC-RE1-30MHz-1GHz

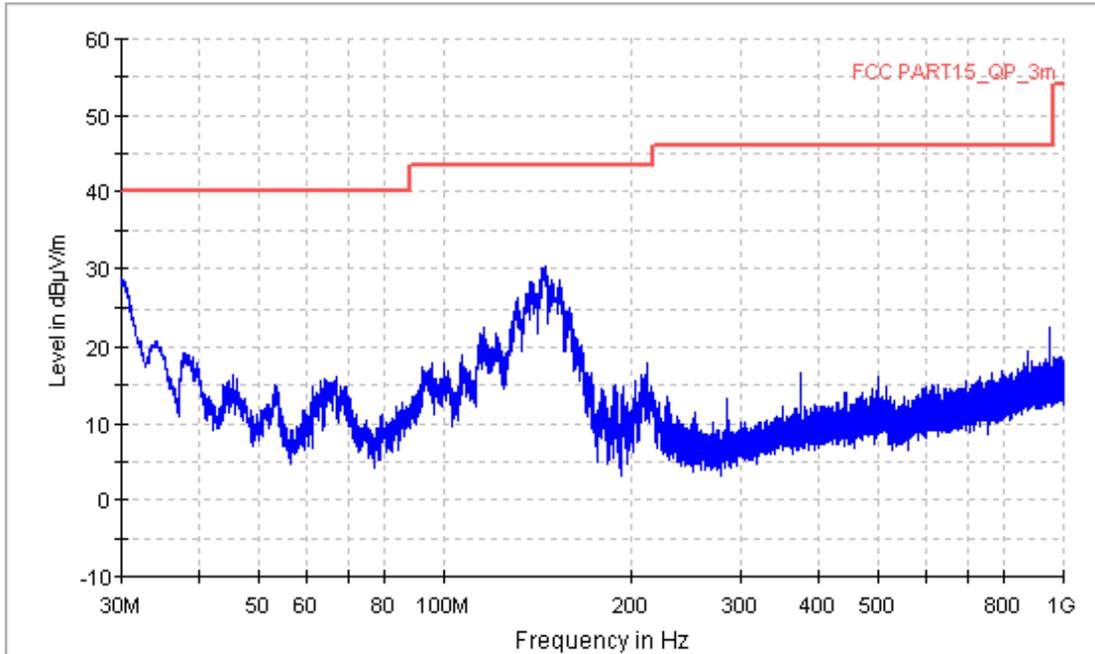


Figure A.9 Radiated Emission from 30MHz to 1GHz

FCC-RE2-1-18GHz

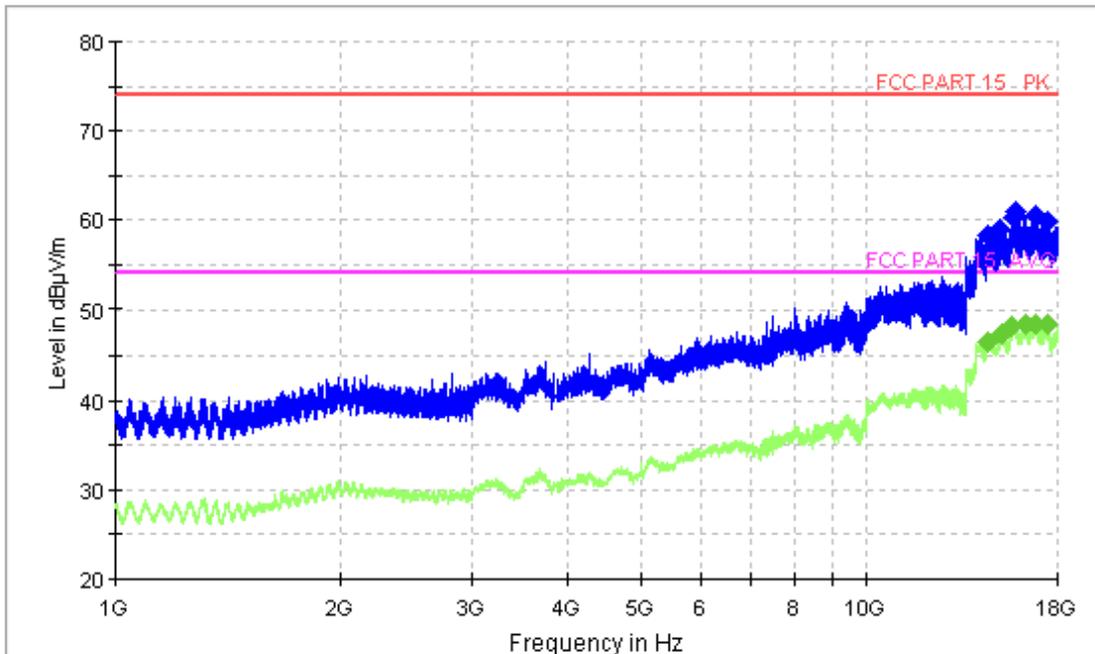


Figure A.10 Radiated Emission from 1GHz to 18GHz

Set 6

FCC-RE1-30MHz-1GHz

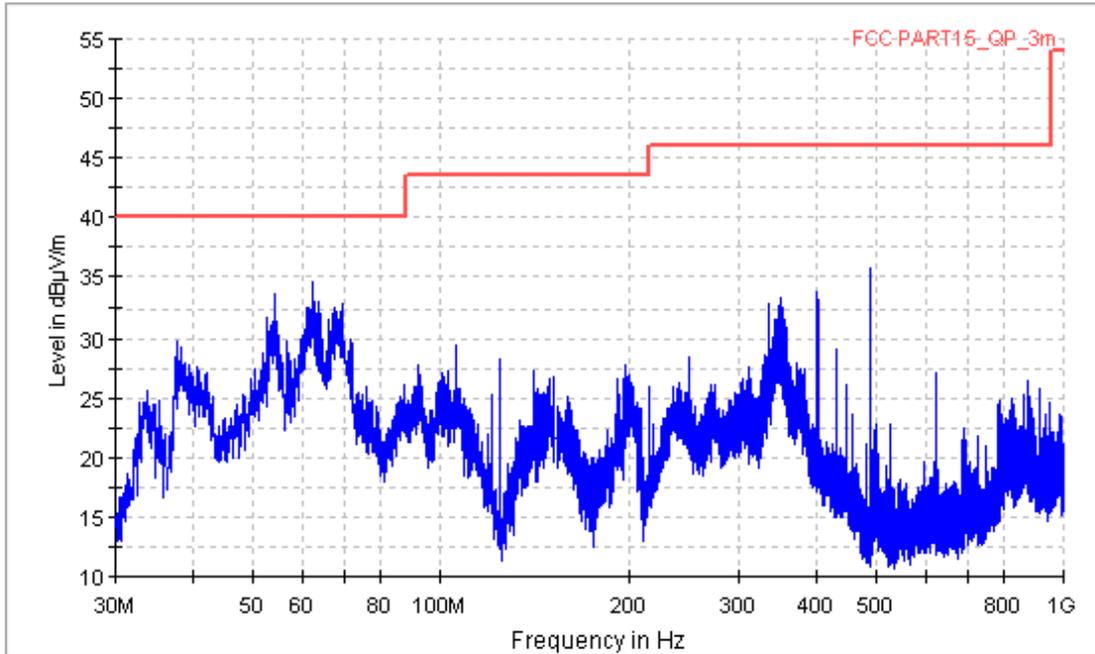


Figure A.11 Radiated Emission from 30MHz to 1GHz

FCC-RE2-1-18GHz

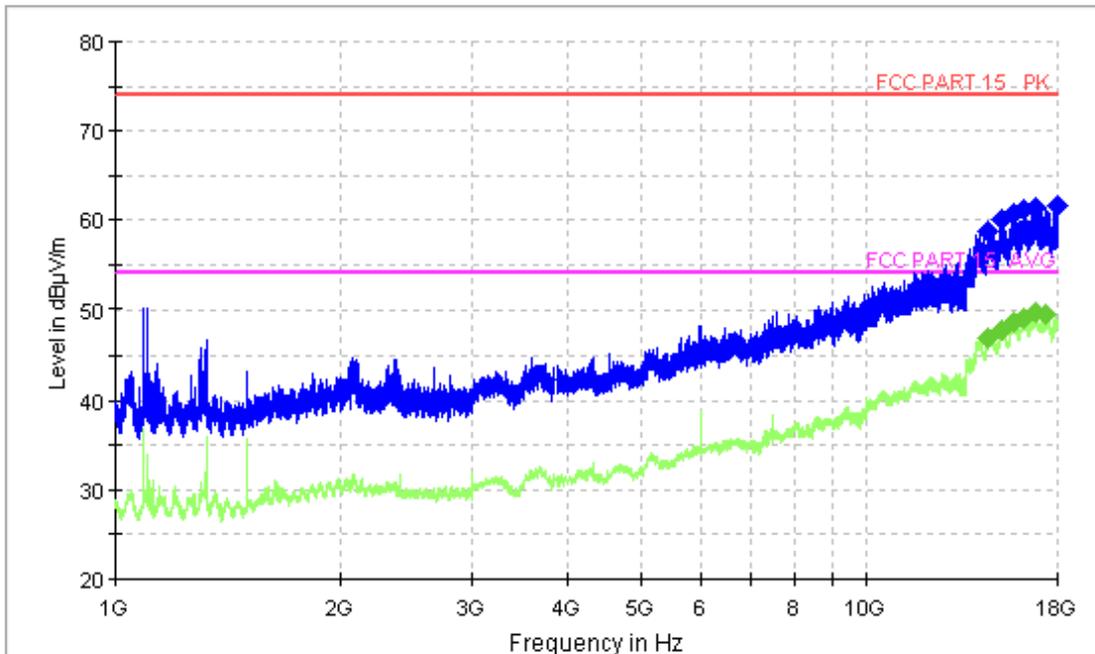


Figure A.12 Radiated Emission from 1GHz to 18GHz

## 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:

The MS is operating in the mode 1 and mode 2. During the test MS is connected to a PC via a Ethernet cable in the case of mode 2 and is connected to a charger in the case of mode 1. The model of the PC is Lenovo Thinkcentre M4099t, and the serial number of the PC is SA08850737. PC ping the MS continually.

### 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

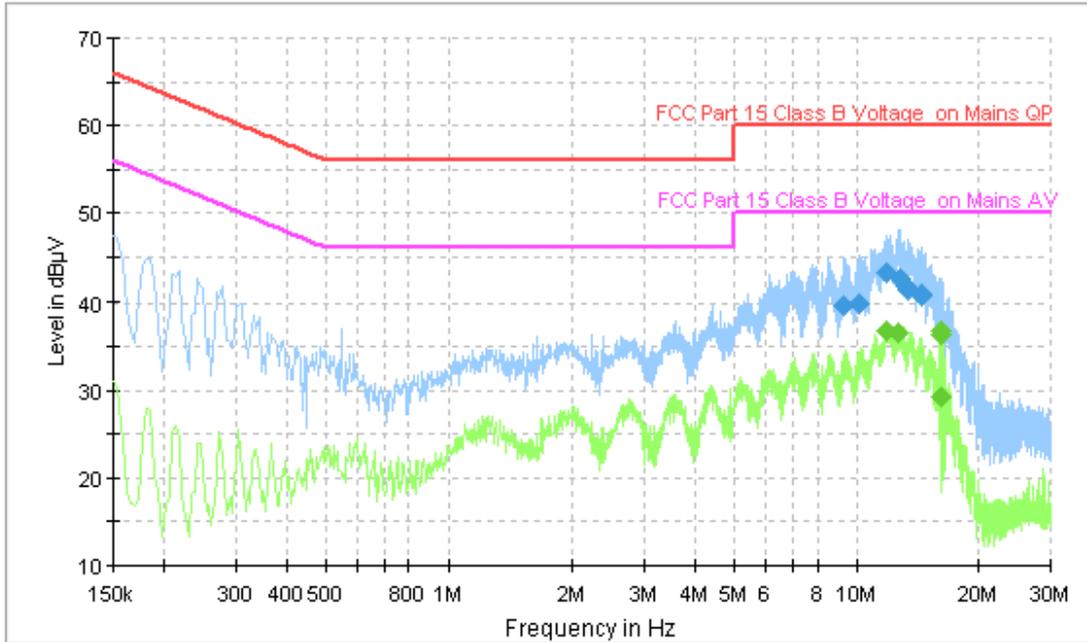
Voltage (V)	Frequency (Hz)
120	60

RBW	Sweep Time(s)
9kHz	1

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

**A.2.5 Measurement Results**  
**Set.1**

ESH2-Z5 Scan-FCC



**Figure A.13 Conducted Emission**

**Final Measurement Detector 1**

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
9.314000	39.6	GND	L1	10.3	20.4	60.0
10.130000	39.9	GND	L1	10.3	20.1	60.0
11.858000	43.2	GND	L1	10.4	16.8	60.0
12.822000	42.6	GND	L1	10.4	17.4	60.0
13.334000	41.4	GND	L1	10.4	18.6	60.0
14.434000	40.8	GND	L1	10.5	19.2	60.0

**Final Measurement Detector 2**

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
11.898000	36.8	GND	L1	10.4	13.2	50.0
12.706000	36.6	GND	L1	10.4	13.4	50.0
16.074000	29.2	GND	L1	10.4	20.8	50.0
16.098000	36.4	GND	N	10.5	13.6	50.0
16.130000	36.7	GND	N	10.5	13.3	50.0
16.222000	36.4	GND	N	10.5	13.6	50.0

Set.2

ESH2-Z5 Scan-FCC

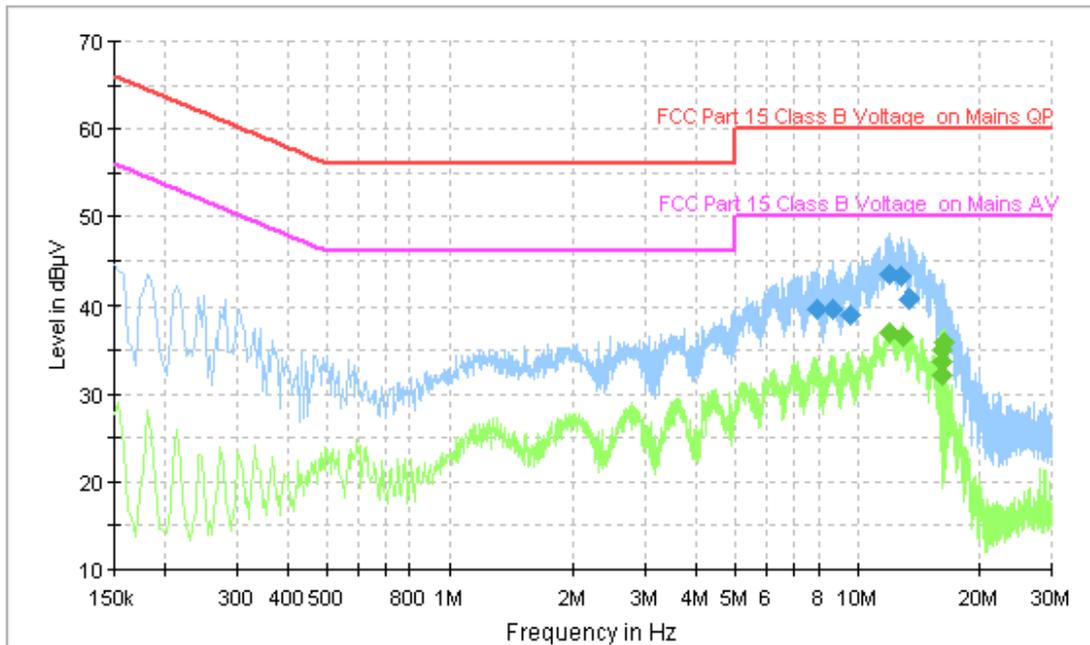


Figure A.14 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
7.926000	39.8	GND	L1	10.3	20.2	60.0
8.722000	39.8	GND	L1	10.3	20.2	60.0
9.638000	38.9	GND	L1	10.3	21.1	60.0
12.010000	43.3	GND	L1	10.4	16.7	60.0
12.866000	43.1	GND	L1	10.4	16.9	60.0
13.334000	40.7	GND	L1	10.4	19.3	60.0

Final Measurement Detector 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
12.010000	37.0	GND	L1	10.4	13.0	50.0
12.890000	36.6	GND	L1	10.4	13.4	50.0
16.066000	35.0	GND	N	10.5	15.0	50.0
16.130000	32.3	GND	L1	10.4	17.8	50.0
16.190000	33.8	GND	N	10.5	16.2	50.0
16.250000	35.8	GND	N	10.5	14.2	50.0

Set.3

ESH2-Z5 Scan-FCC

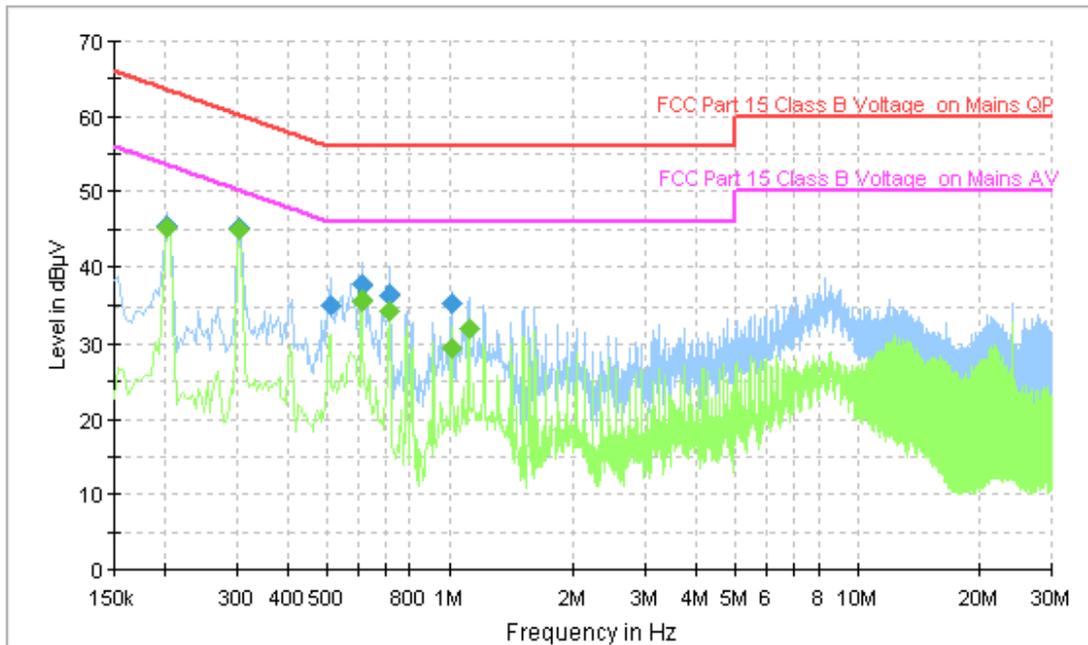


Figure A.15 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.202000	45.5	GND	N	10.1	18.0	63.5
0.306000	45.2	GND	N	10.1	14.8	60.1
0.510000	35.2	GND	N	10.1	20.8	56.0
0.610000	37.8	GND	N	10.0	18.2	56.0
0.710000	36.4	GND	N	10.0	19.6	56.0
1.018000	35.3	GND	N	10.0	20.7	56.0

Final Measurement Detector 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.202000	45.1	GND	N	10.1	8.4	53.5
0.306000	44.8	GND	N	10.1	5.2	50.1
0.610000	35.7	GND	N	10.0	10.3	46.0
0.710000	34.3	GND	N	10.0	11.7	46.0
1.014000	29.4	GND	L1	10.0	16.6	46.0
1.118000	32.1	GND	N	10.1	13.9	46.0

Set.4

ESH2-Z5 Scan-FCC

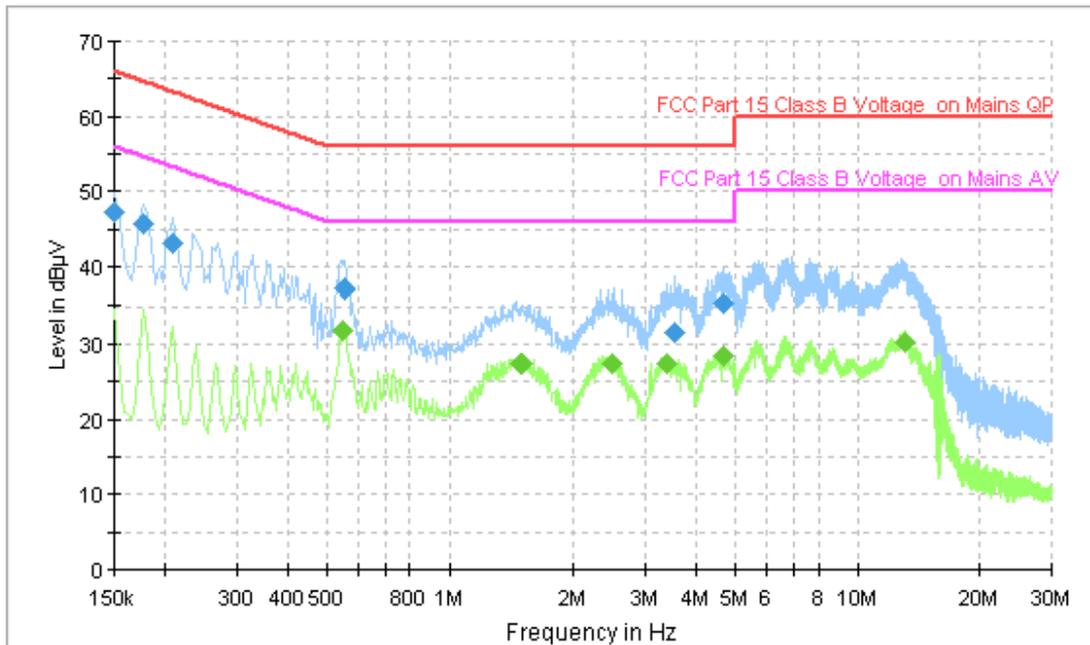


Figure A.16 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	47.2	GND	N	10.1	18.8	66.0
0.178000	45.7	GND	N	10.1	18.9	64.6
0.210000	43.1	GND	N	10.1	20.1	63.2
0.554000	37.1	GND	N	10.1	18.9	56.0
3.566000	31.5	GND	N	10.2	24.5	56.0
4.686000	35.3	GND	L1	10.2	20.7	56.0

Final Measurement Detector 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.546000	31.9	GND	N	10.1	14.1	46.0
1.490000	27.5	GND	N	10.1	18.5	46.0
2.502000	27.3	GND	N	10.2	18.7	46.0
3.394000	27.4	GND	N	10.2	18.6	46.0
4.686000	28.4	GND	L1	10.2	17.6	46.0
13.118000	30.2	GND	N	10.5	19.8	50.0

Set.5

ESH2-Z5 Scan-FCC

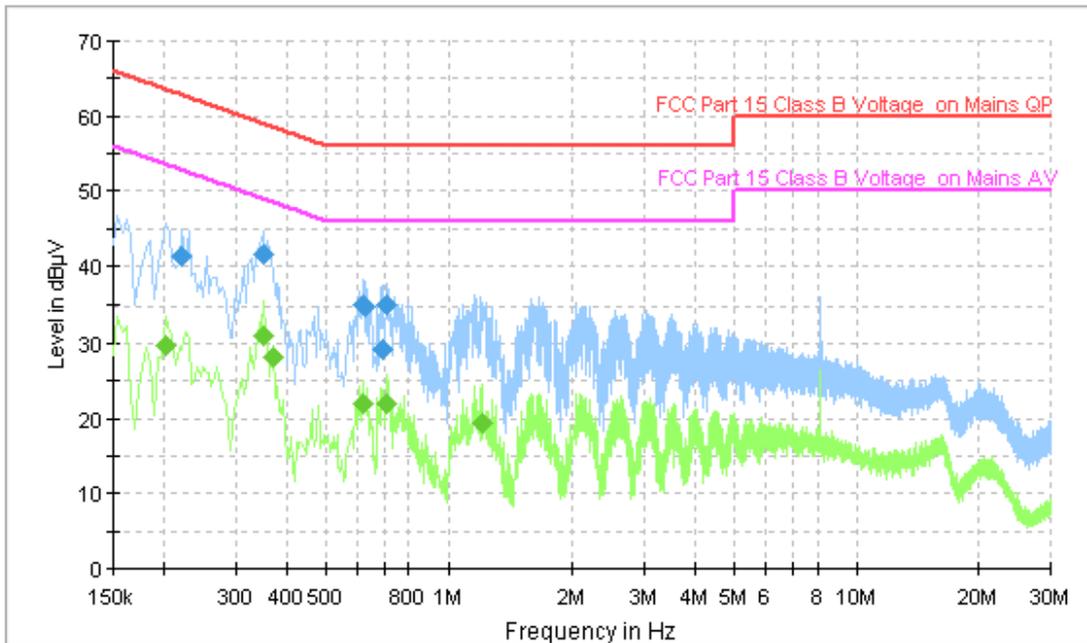


Figure A.17 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.222000	41.4	GND	L1	10.0	21.3	62.7
0.350000	41.7	GND	L1	10.0	17.3	59.0
0.618000	35.1	GND	L1	10.0	20.9	56.0
0.626000	35.0	GND	L1	10.0	21.0	56.0
0.694000	29.1	GND	N	10.0	26.9	56.0
0.702000	35.1	GND	L1	10.0	20.9	56.0

Final Measurement Detector 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.202000	29.7	GND	L1	10.0	23.8	53.5
0.350000	31.0	GND	L1	10.0	18.0	49.0
0.370000	28.1	GND	L1	10.0	20.4	48.5
0.618000	22.0	GND	L1	10.0	24.0	46.0
0.702000	21.9	GND	L1	10.0	24.1	46.0
1.210000	19.5	GND	L1	10.1	26.5	46.0

Set.6

ESH2-Z5 Scan-FCC

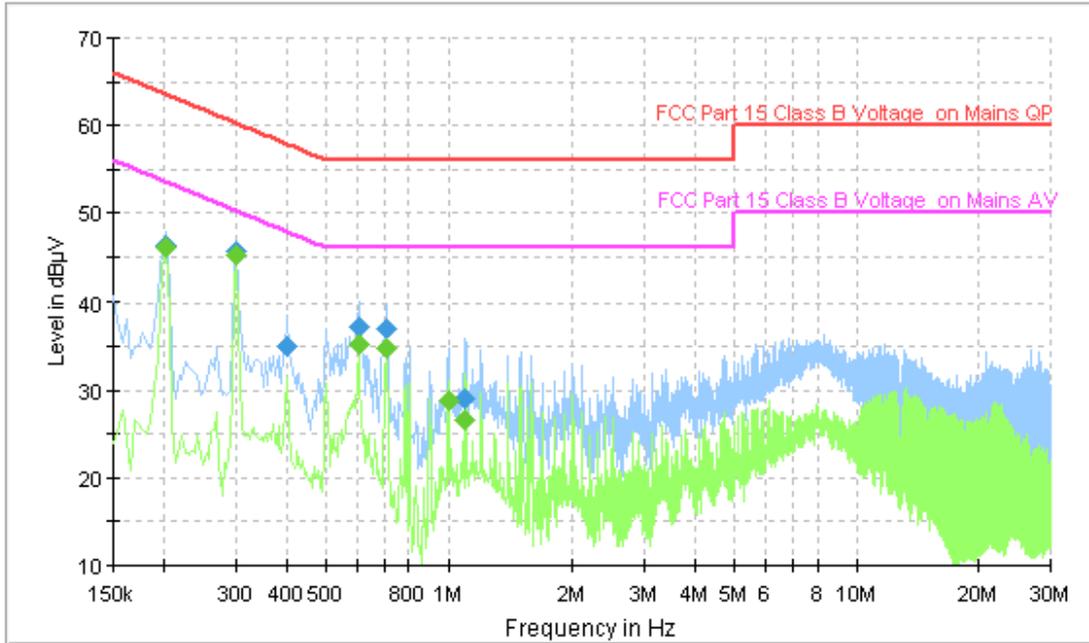


Figure A.18 Conducted Emission

Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.202000	46.4	GND	N	10.1	17.2	63.5
0.302000	45.5	GND	N	10.1	14.6	60.2
0.402000	34.9	GND	N	10.1	22.9	57.8
0.602000	37.3	GND	N	10.1	18.7	56.0
0.702000	37.0	GND	N	10.0	19.0	56.0
1.102000	29.1	GND	N	10.1	26.9	56.0

Final Measurement Detector 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.202000	46.1	GND	N	10.1	7.5	53.5
0.302000	45.2	GND	N	10.1	4.9	50.2
0.602000	35.1	GND	N	10.1	10.9	46.0
0.702000	34.7	GND	N	10.0	11.3	46.0
1.002000	28.8	GND	L1	10.1	17.2	46.0
1.102000	26.5	GND	N	10.1	19.5	46.0

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