TEST REPORT

No.I20N00104-EMC

for

TCL Communication Ltd.

Wifi Router

Model Name：WR1O

With

Hardware Version: V2.0

Software Version: WRIO_ZZ_01.00_01

FCC ID:2ACCJB119

Issued Date:2020-03-12

Designation Number: CN1210

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 SAICT.

Test Laboratory:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I20N00104-EMC	Rev.0	1st edition	2020-03-12

Note: the latest revision of the test report supersedes all previous versions.

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1. Summary of Test Report

1.1. Test Items

Description	Wifi Router
Model Name	WR1O
Applicant's name	TCL Communication Ltd.
Manufacturer's Name	TCL Communication Ltd.

1.2. Test Standards

FCC Part 15, Subpart B 10-1-2019 Edition; ANSI C63.4 2014.

1.3. Test Result

Total test 2 items, pass 2 items. Please refer to "6.2 Test Results".

1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, China

1.5. Project data

Testing Start Date: 2020-01-03 Testing End Date: 2020-02-29

1.6. Signature

Liang Yong
(Prepared this test report)

Zhang Yunzhuan
(Reviewed this test report)

Cao Junfei
(Approved this test report)

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2. ClientInformation

2.1. Applicant Information

Company Name:	TCL Communication Ltd.
Address:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact:	Gong Zhizhou
E-mail	zhizhou.gong@tcl.com
Tel:	0086-755-36611722

2.2. Manufacturer Information

Company Name:	TCL Communication Ltd.
Address:	5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact:	Gong Zhizhou
E-mail	zhizhou.gong@tcl.com
Tel:	0086-755-36611722

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3. Equipment UnderTest (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Wifi Router
Model Name	WR1O
FCC ID	2ACCJB119
Functions	2.4G Wi-Fi，5G Wi-Fi
Condition of EUT as received	No obvious damage in appearance

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Receive Date
UT01aa	191187820100040340	V2.0	WRIO_ZZ_01.00_01	2020-01-03

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

3.3. Internal Identification of AE

AE ID*	Description	AE ID*
AE1	Charger	Aa01a,Aa06a
AE2-1		
Model	S012CDU1200100	
Manufacturer	Tenpao	
AE2-2		
Model	BN073-A09009U	
Manufacturer	HEWEISHUN	

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

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3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	UT01aa+AE2-1+PC	
Set.2	UT01aa+AE2-2+PC	

3.5. General Description

The Equipment Under Test (EUT) is a model of Wifi Router with internal antenna.
Manual and specifications of the EUT were provided to fulfill the test.
Samples (EUT+AE) undergoing test were selected by the Client. relevant information is provided by the Client.

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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	10-1-2019 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

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5. LABORATORY ENVIRONMENT

Semi-anechoic chamber did not exceed following limits along the EMC testing:
9.10m×6.10m×5.60m (L×W×H)

Temperature	Min. = 15 ℃, Max. = 35℃
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-18000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω
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 ℃, Max. = 30 ℃
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-10000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω

Fully-anechoic chamber did not exceed following limits along the EMC testing:
9.10m×6.10m×5.60m (L×W×H)

Temperature	Min. = 15 ℃, Max. = 35℃
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-18000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω
Voltage Standing Wave Ratio（VSWR）	≤ 6 dB, from 1 to 18GHz，3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

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6. SUMMARY OF TEST RESULTS

6.1. Testing Environment

Normal Temperature: 15~35℃

Relative Humidity: 20~75%

Atmospheric pressure 86~106kPa

6.2. Summary of Measurement 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)	B.2	P

6.3. Statement

6.3.1 Statements of conformity

This report takes measured values as criterion of test conclusion. The test conclusion meets the limit requirements.

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7. Measurement uncertainty

Test item	Frequency ranges	Measurement uncertaint
Radiated Emission	30MHz-1GHz	4.90dB(k=2)
	1GHz-18GHz	4.60dB(k=2)
	18GHz-40GHz	4.10dB(k=2)
Conducted Emission	150kHz-30MHz	3.00dB(k=2)

8. Test Facilities Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CALDUE DATE	CAL PERIOD
1.	Test Receiver	ESR7	101676	R&S	2020.11.27	1 year
2.	Test Receiver	ESCI	100701	R&S	2020.08.10	1 year
3.	Spectrum Analyzer	FSV40	101192	R&S	2021.01.14	1 year
4.	BiLog Antenna	3142E	00224831	ETS-Lindgren	2021.05.17	3 years
5.	LISN	ENV216	102067	R&S	2020.07.17	1 year
6.	Horn Antenna	3117	00066577	ETS-Lindgren	2022.04.02	3 years
7.	Horn Antenna	QSH-SL-18-26 -S-20	17013	Q-par	2023.01.06	3 years
8.	Horn Antenna	QSH-SL-8-26-40-K-20	17014	Q-par	2023.01.06	3 years
9.	Chamber	FACT3-2.0	1285	ETS-Lindgren	2021.07.19	2 years
10.	Software	EMC32	V10.01.00	R&S	/	/
11.	PC	ThinkPad T480	PF-13LW0C	Lenovo	/	/
12.	Printer	P1008	VNF6C12491	HP	/	/
13.	Mouse	MOEUUOA	44NY517	Lenovo	/	/

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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 (Data transfer mode of EUT and charging mode of EUT) 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 works well and is in charging state.

Data Transfer Mode: The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C. The CMD.exe is used to let the PC keep on ping EUT's IP address, pinging EUT's IP address was until test finished.

A.1.3 Measurement Limit

Limit from CFR Part 15.109(a)

Frequency range (MHz)	Field strength limit (μV/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.

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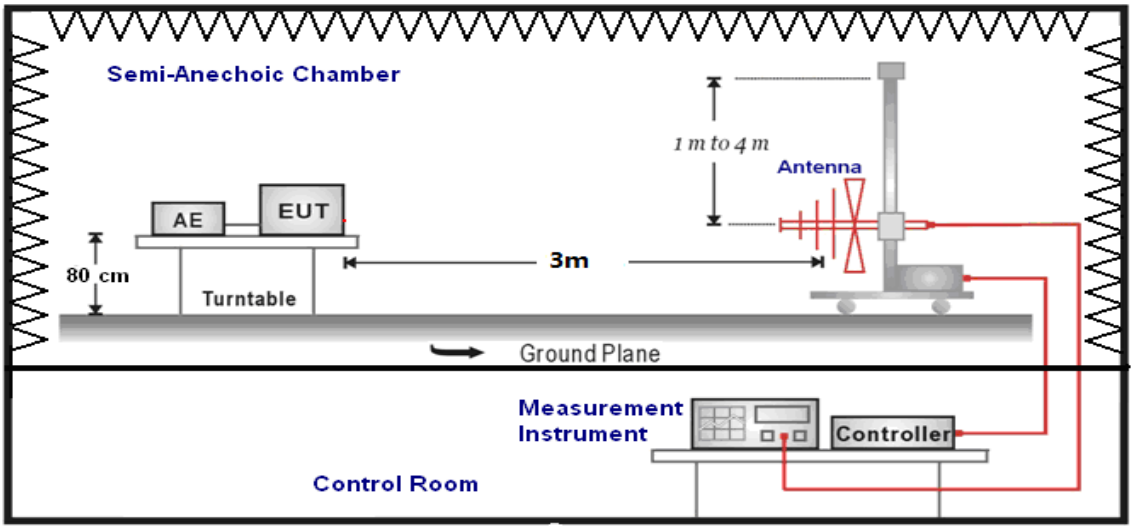
A.1.4 Test Condition

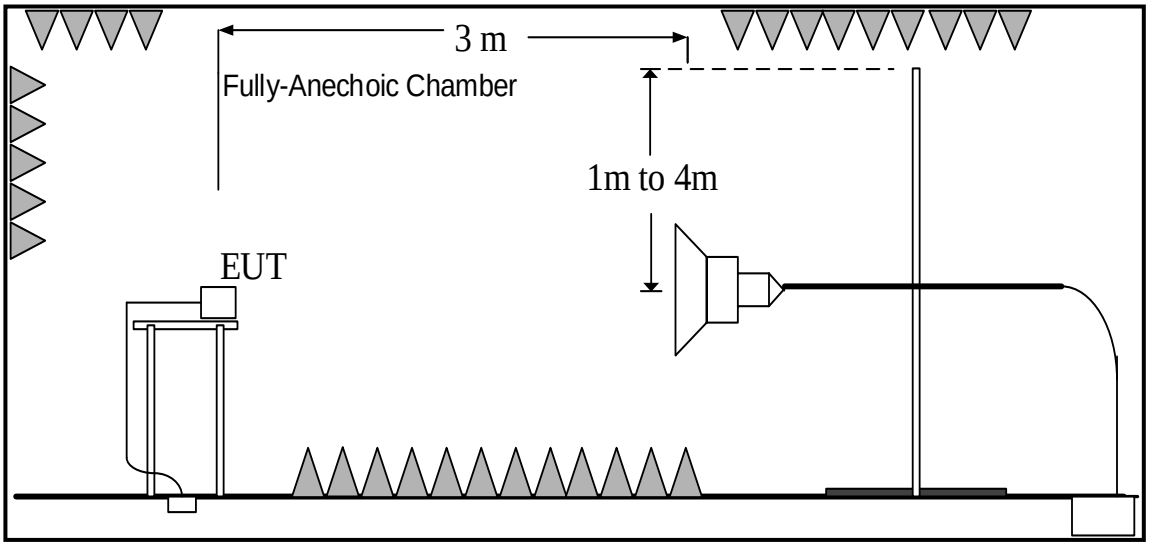
Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz (IF bandwidth)	5
Above 1000	1MHz/3MHz	15

A.1.5 Test set-up:

30MHz-1GHz



1GHz-26GHz



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A.1.6 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}:PathLoss

P_{Mea}: Measurement result on receiver.

Result:Quasi-Peak(dBμV/m) /Average(dBμV/m)/Peak(dBμV/m)

Note: the result contains vertical part and Horizontal part

Charging Mode

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) Set.1	Conclusion
30-88	40	See Figure A.1	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) Set.1	Conclusion
1000 to 3000	54	74	See Figure A.2	P
3000 to 18000			See Figure A.3	P
18000 to 26500			See Figure A.4	P
26500 to 30000			See Figure A.5	P

Charging Mode

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) Set.2	Conclusion
30-88	40	See Figure A.6	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) Set.2	Conclusion
1000 to 3000	54	74	See Figure A.7	P
3000 to 18000			See Figure A.8	P
18000 to 26500			See Figure A.9	P
26500 to 30000			See Figure A.10	P

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Data Transfer Mode

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
		Set.1	
30-88	40	See Figure A.11	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
			Set.1	
1000 to 3000	54	74	See Figure A.12	P
3000 to 18000			See Figure A.13	P
18000 to 26500			See Figure A.14	P
26500 to 30000			See Figure A.15	P

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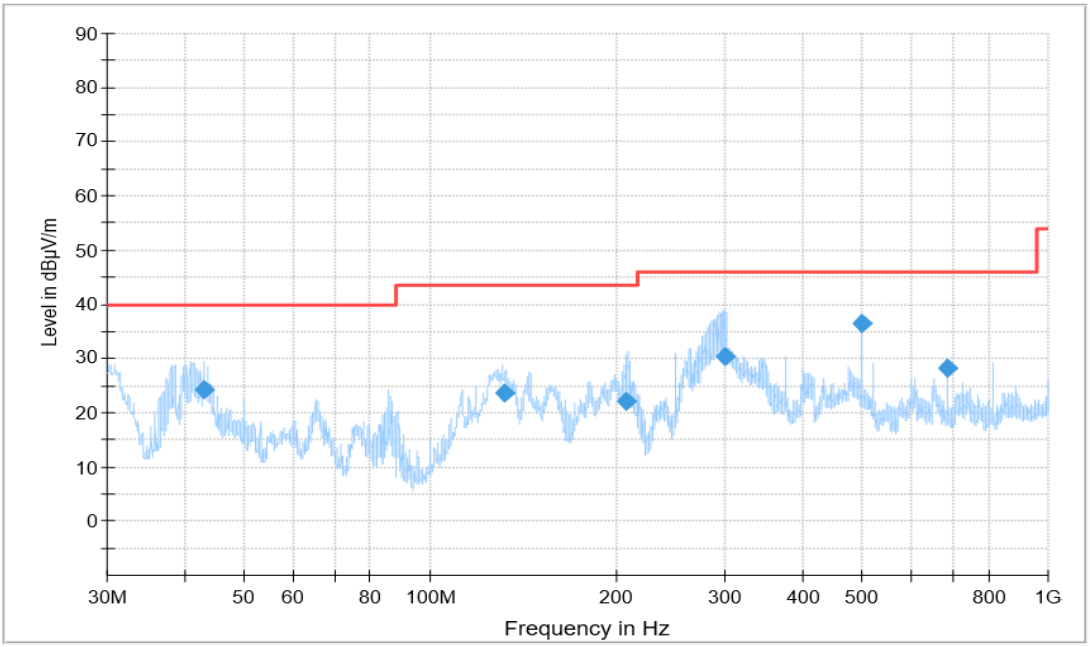

Figure A.1 Radiated Emission (Set.1,Charging Mode , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
43.127222	24.24	40	15.76	V	-31.6	55.84
132.115	23.59	43.5	19.91	V	-32.3	55.89
207.260556	22.06	43.5	21.44	V	-33	55.06
299.492222	30.45	46	15.55	H	-29.4	59.85
499.998889	36.4	46	9.6	H	-23.4	59.8
687.518333	28.14	46	17.86	V	-19.9	48.04

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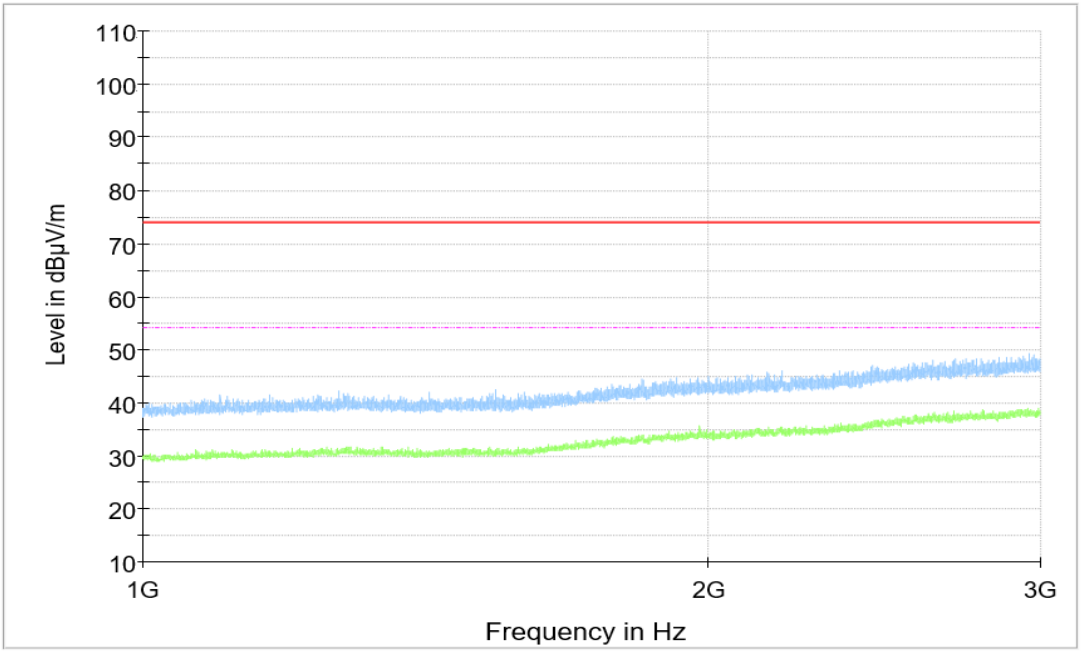

Figure A.2 Radiated Emission (Set.1,Charging Mode , 1GHz to 3GHz)

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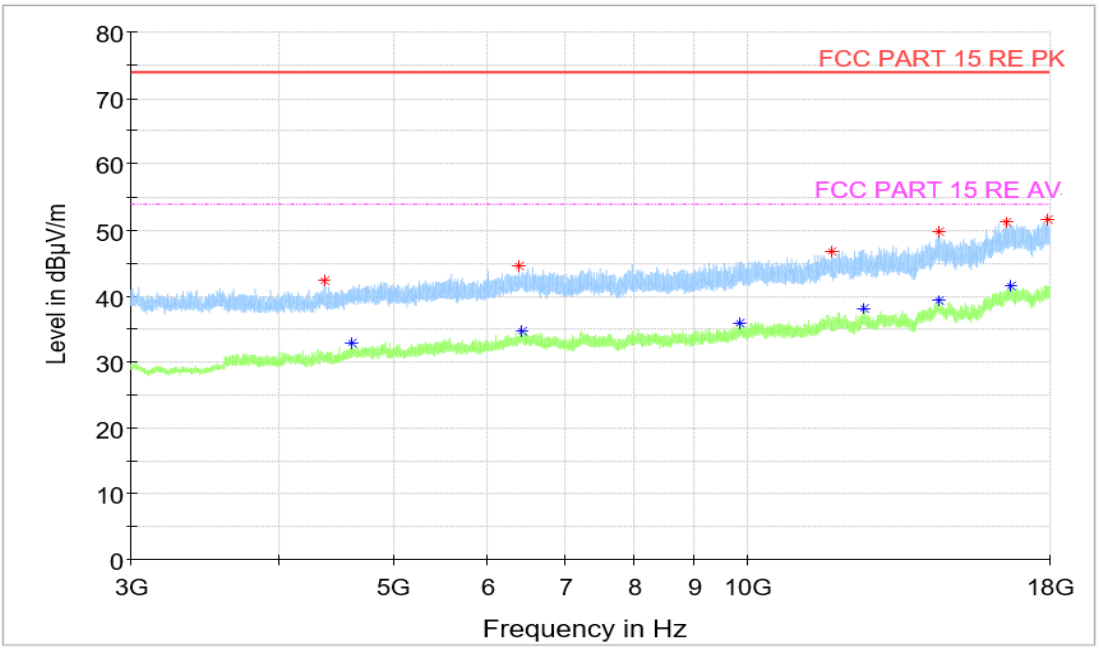

Figure A.3 Radiated Emission (Set.1,Charging Mode , 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
4378.5	42.24	74	31.76	H	-2.2	44.44
6392	44.61	74	29.39	H	2	42.61
11781	46.74	74	27.26	H	6.8	39.94
14501.5	49.77	74	24.23	V	11.5	38.27
16570	51.17	74	22.83	V	14.8	36.37
17924.5	51.64	74	22.36	H	16.2	35.44

Final_Result_AV

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
4611.5	32.93	54	21.07	H	-1.6	34.53
6428.5	34.74	54	19.26	H	2	32.74
9825	35.83	54	18.17	H	4.4	31.43
12545	38.05	54	15.95	H	8.1	29.95
14510.5	39.25	54	14.75	V	11.5	27.75
16685.5	41.51	54	12.49	H	14.9	26.61

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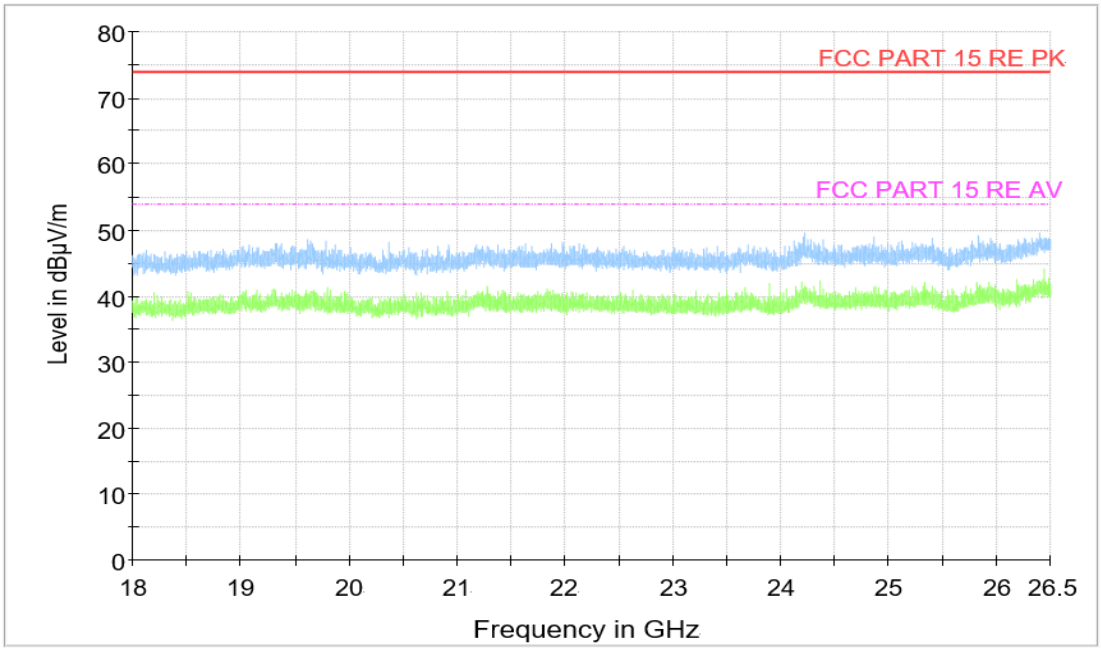

Figure A.4 Radiated Emission (Set.1,Charging Mode , 18GHz to 26.5GHz)

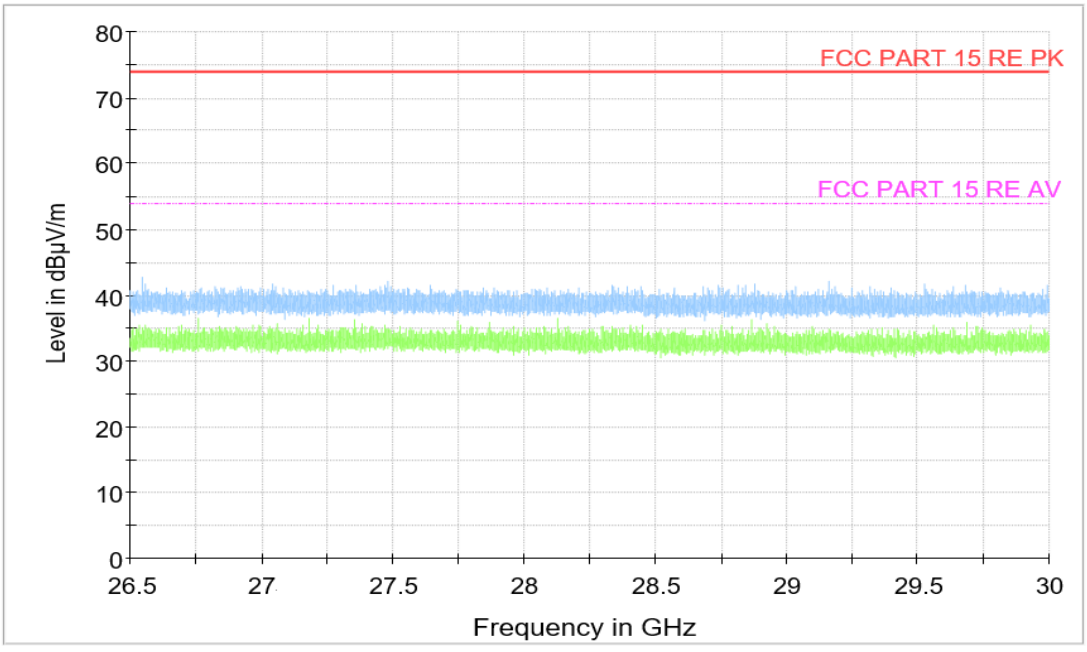

Figure A.5 Radiated Emission (Set.1,Charging Mode , 26.5GHz to 30GHz)

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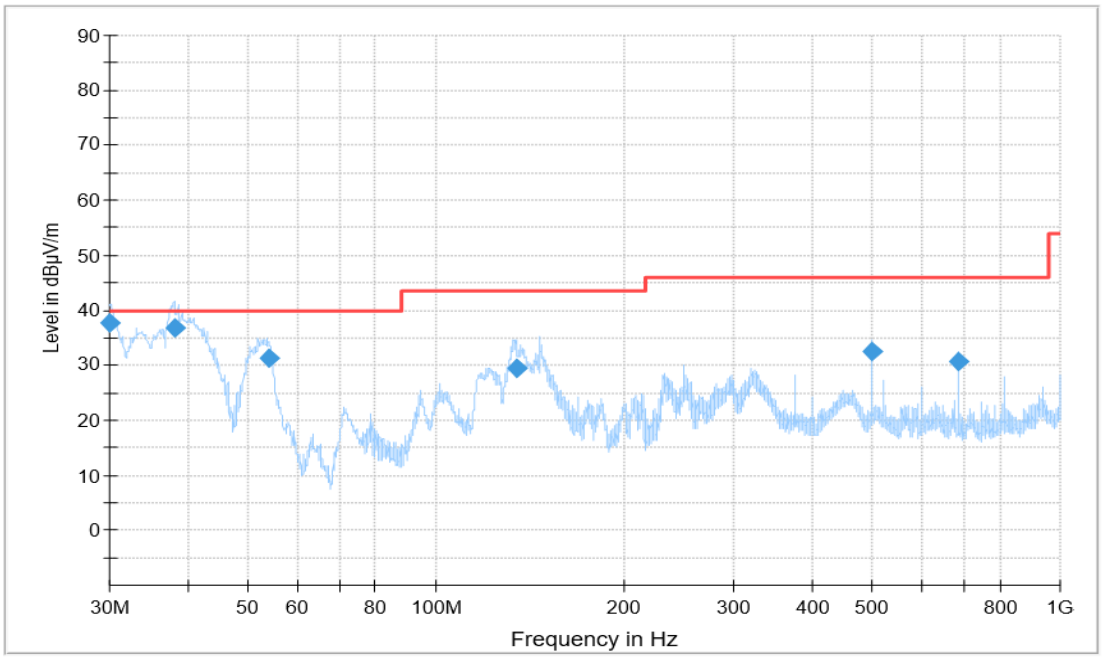

Figure A.6 Radiated Emission (Set.1,Charging Mode , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
30.08	37.64	40	2.36	V	-24.2	61.84
38.183333	36.7	40	3.3	V	-28.6	65.3
54.122222	31.36	40	8.64	V	-38.3	69.66
134.873889	29.55	43.5	13.95	V	-32.8	62.35
499.998889	32.65	46	13.35	V	-23.4	56.05
687.518333	30.63	46	15.37	V	-19.9	50.53

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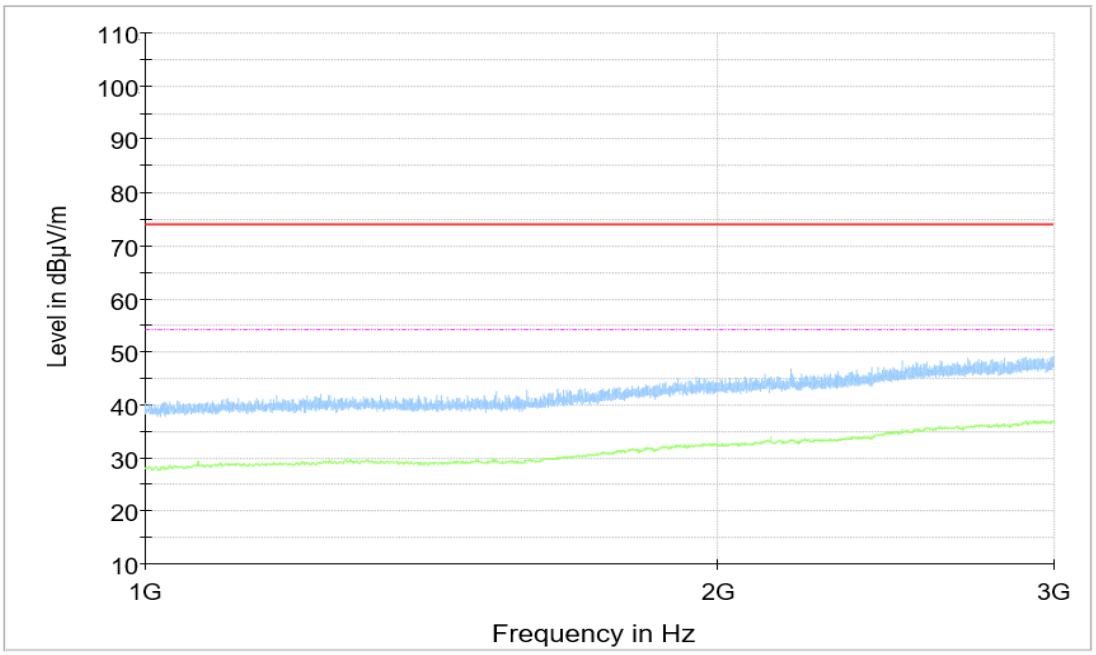

Figure A.7 Radiated Emission (Set.1,Charging Mode , 1GHz to 3GHz)

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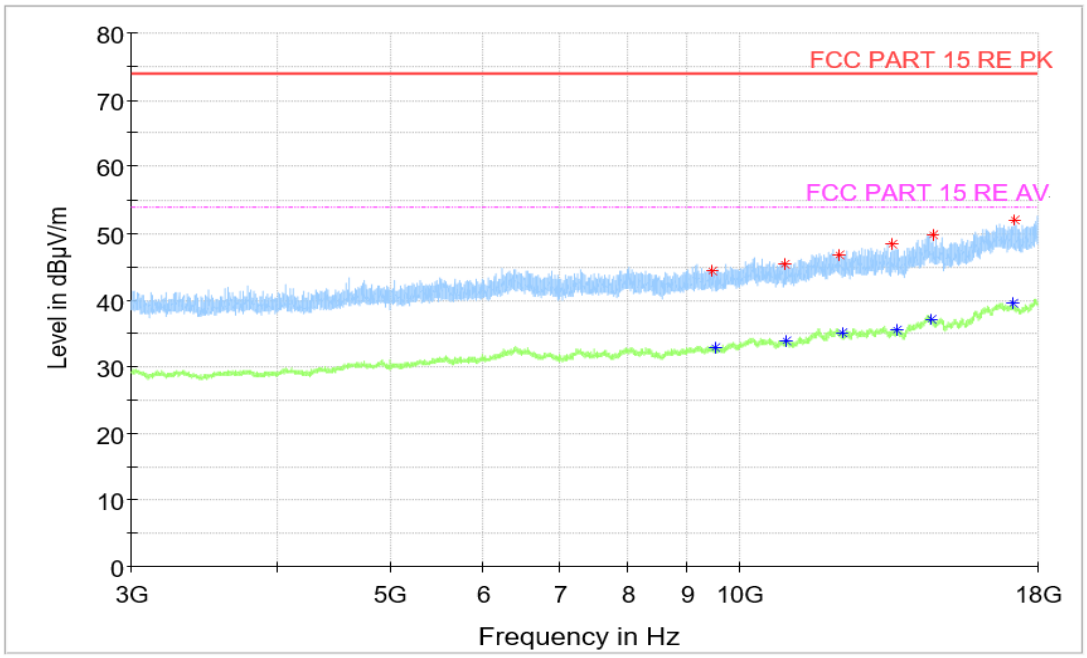

Figure A.8 Radiated Emission (Set.1,Charging Mode , 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9463.5	44.34	74	29.66	V	3.5	40.84
10922.5	45.33	74	28.67	H	5.2	40.13
12167	46.77	74	27.23	V	7.2	39.57
13518.5	48.31	74	25.69	H	8.8	39.51
14624	49.76	74	24.24	H	11.2	38.56
17210	51.98	74	22.02	H	14.8	37.18

Final_Result_AV

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9509	32.88	54	21.12	H	3.4	29.48
10968.5	33.83	54	20.17	H	5.2	28.63
12250	34.97	54	19.03	V	7	27.97
13624	35.42	54	18.58	H	8.4	27.02
14615.5	37.08	54	16.92	H	11.2	25.88
17155.5	39.51	54	14.49	V	15	24.51

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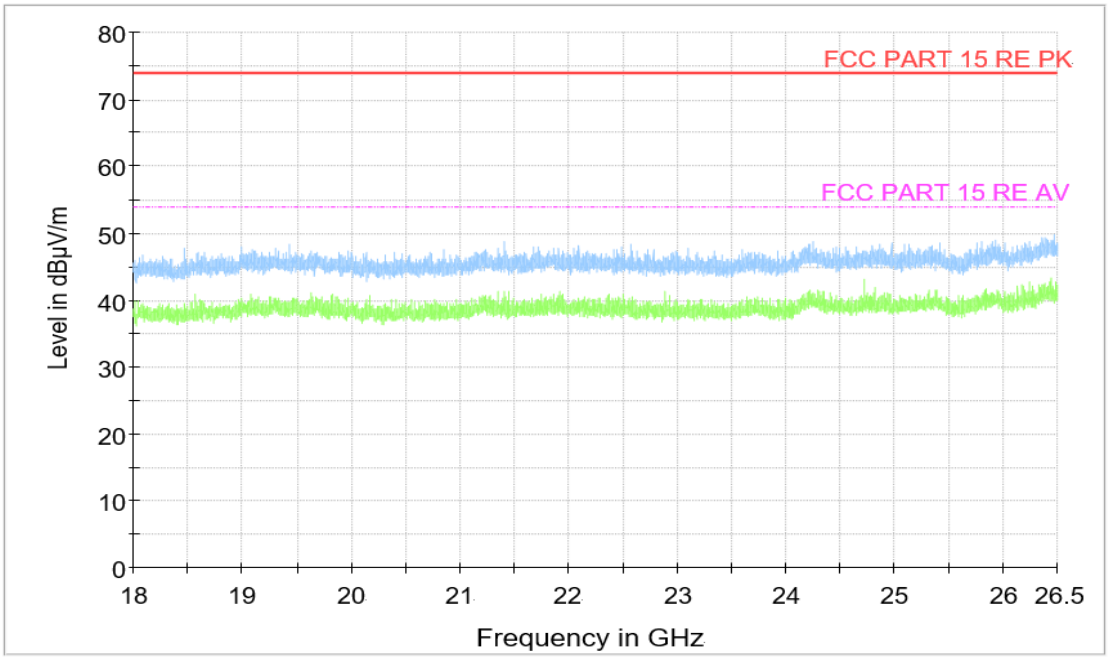

Figure A.9 Radiated Emission (Set.1,Charging Mode , 18GHz to 26.5GHz)

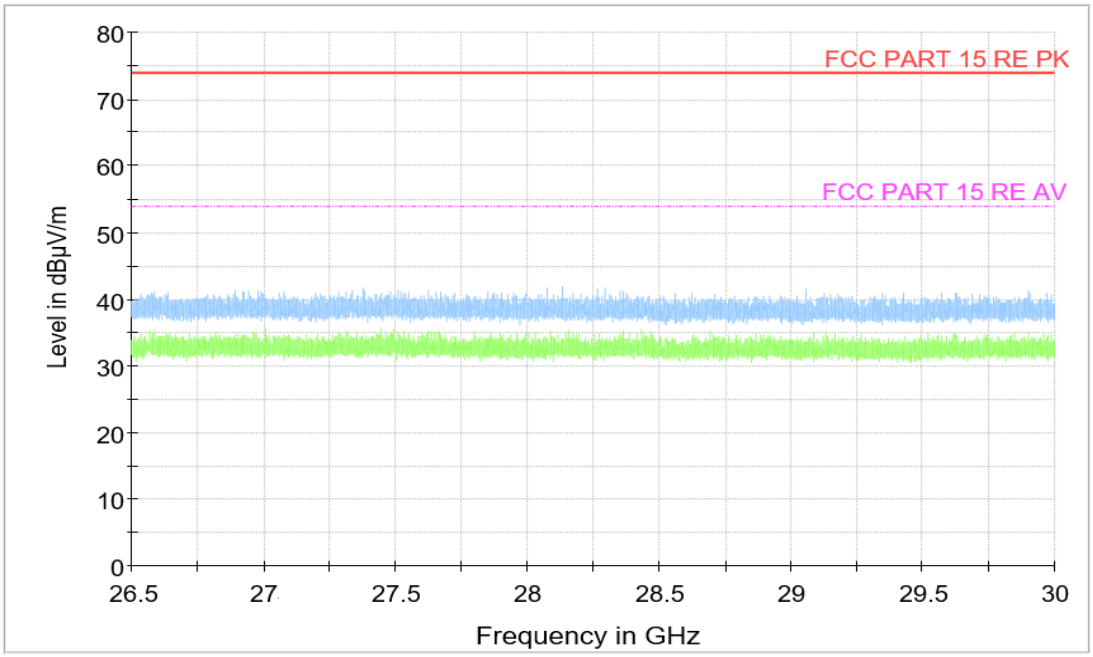

Figure A.10 Radiated Emission (Set.1,Charging Mode , 26.5GHz to 30GHz)

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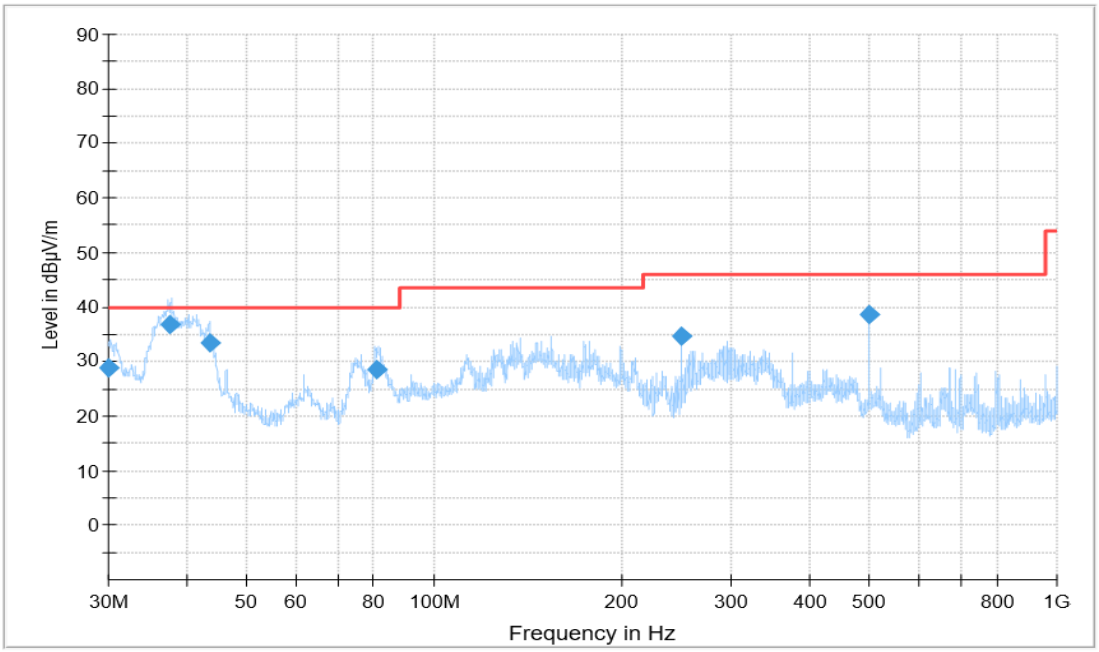

Figure A.11 Radiated Emission (Set.1,Data Transfer Mode , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
30.08	28.95	40	11.05	V	-24.2	53.15
37.607778	36.87	40	3.13	V	-28.1	64.97
43.612222	33.37	40	6.63	V	-31.8	65.17
80.646111	28.44	40	11.56	V	-33.5	61.94
250.008333	34.6	46	11.4	H	-31	65.6
499.998889	38.72	46	7.28	H	-23.4	62.12

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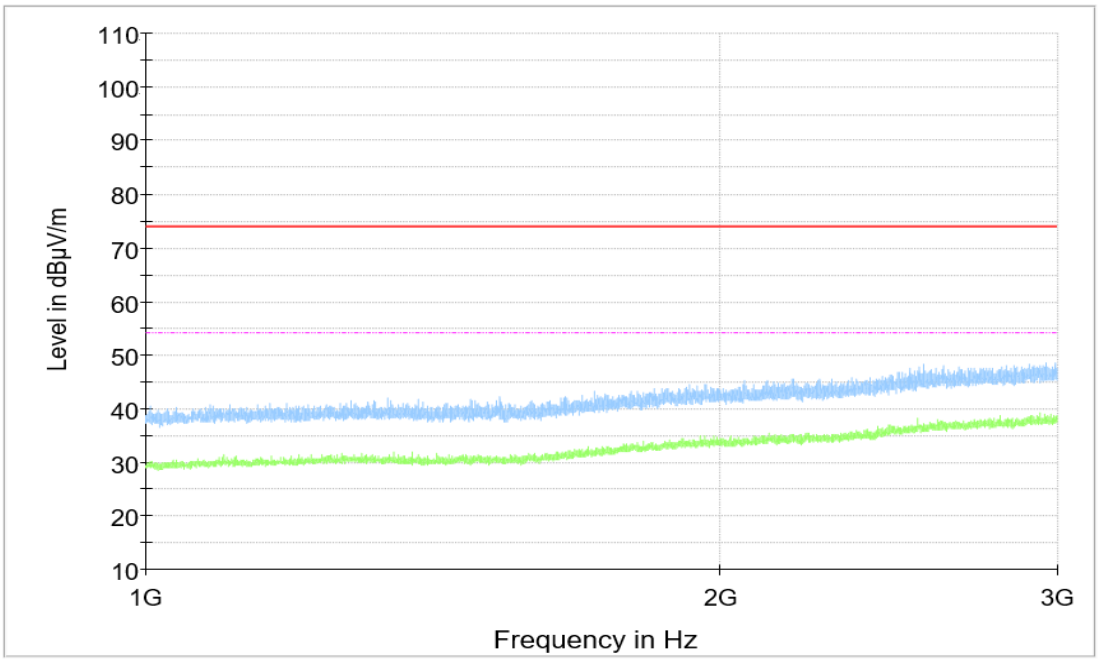

Figure A.12 Radiated Emission (Set.1,Data Transfer Mode , 1GHz to 3GHz)

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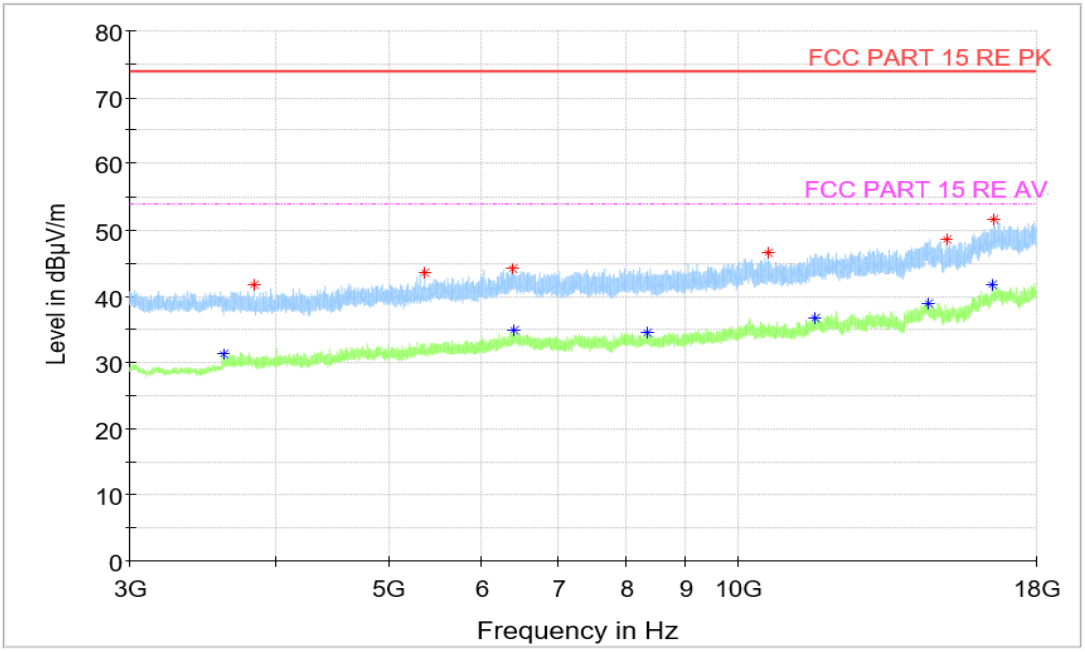

Figure A.13 Radiated Emission (Set.1,Data Transfer Mode , 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
3835	41.63	74	32.37	V	-3.1	44.73
5376.5	43.5	74	30.5	H	-0.2	43.7
6399	44.21	74	29.79	V	2	42.21
10612	46.53	74	27.47	H	4.9	41.63
15070	48.56	74	25.44	H	11.1	37.46
16534.5	51.66	74	22.34	H	14.8	36.86

Final_Result_AV

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
3613.5	31.21	54	22.79	V	-2.9	34.11
6421	34.85	54	19.15	H	2	32.85
8353	34.53	54	19.47	V	3.1	31.43
11646.5	36.77	54	17.23	V	6.9	29.87
14550.5	38.85	54	15.15	V	11.4	27.45
16515.5	41.7	54	12.3	H	14.8	26.9

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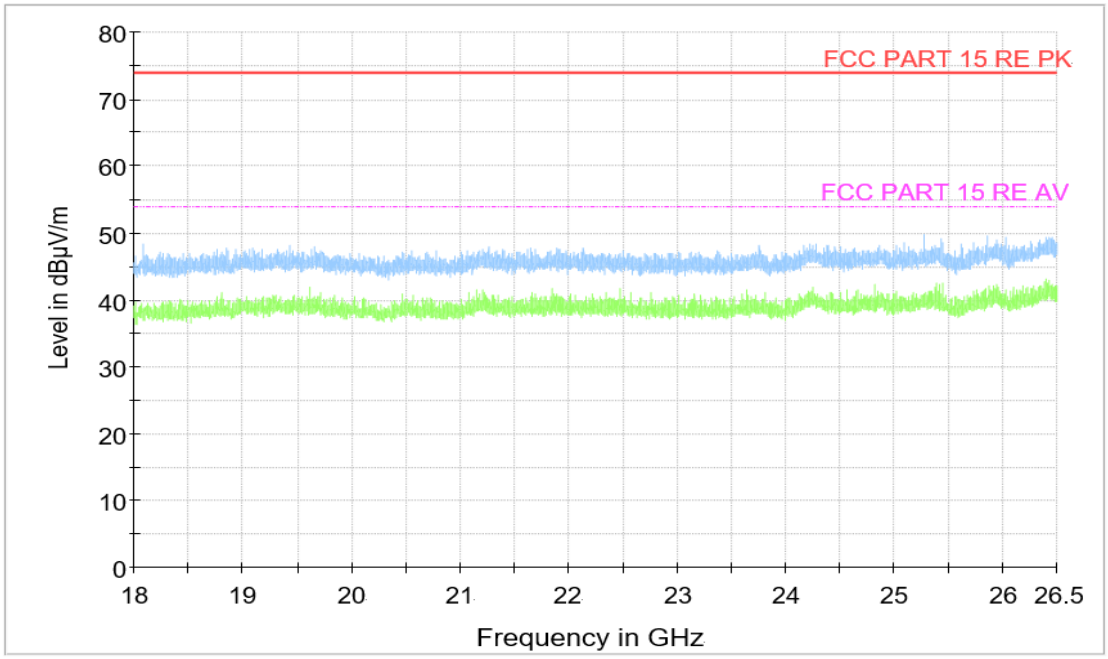

Figure A.14 Radiated Emission (Set.1,Data Transfer Mode , 18GHz to 26.5GHz)

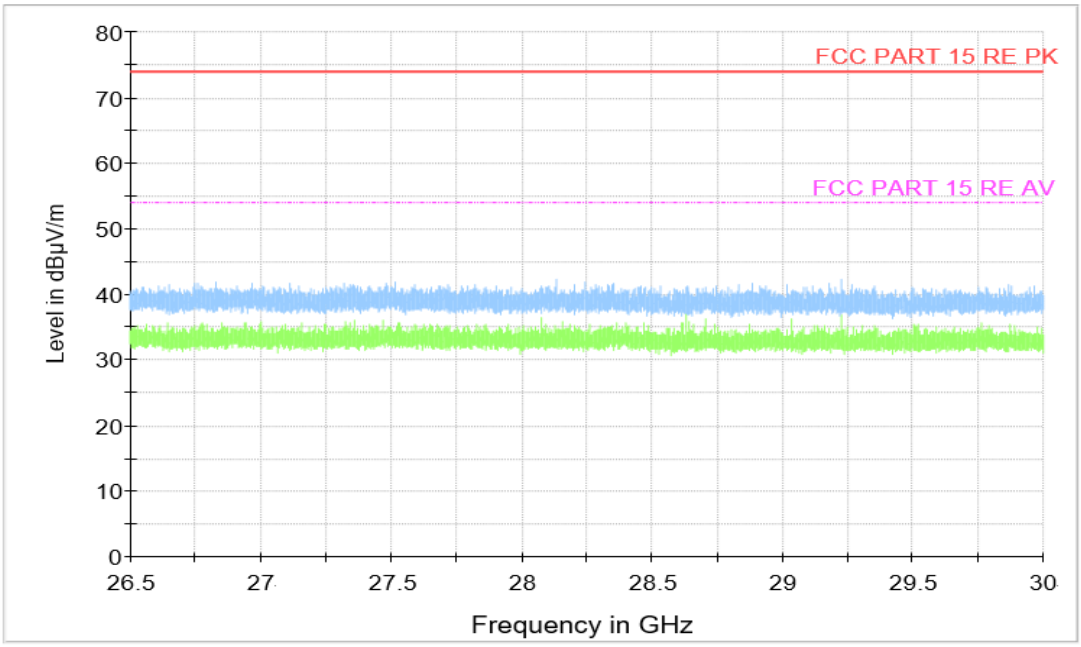

Figure A.15 Radiated Emission (Set.1,Data Transfer Mode , 26.5GHz to 30GHz)

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B.2 Conducted Emission (§15.107(a))

Reference

FCC: CFR Part 15.107(a)

B.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 150kHz to 30MHz shall not exceed the limits. Tested in accordance with the procedures of ANSI C63.4 -2014, section 7.3.

B.2.2 EUT Operating Mode:

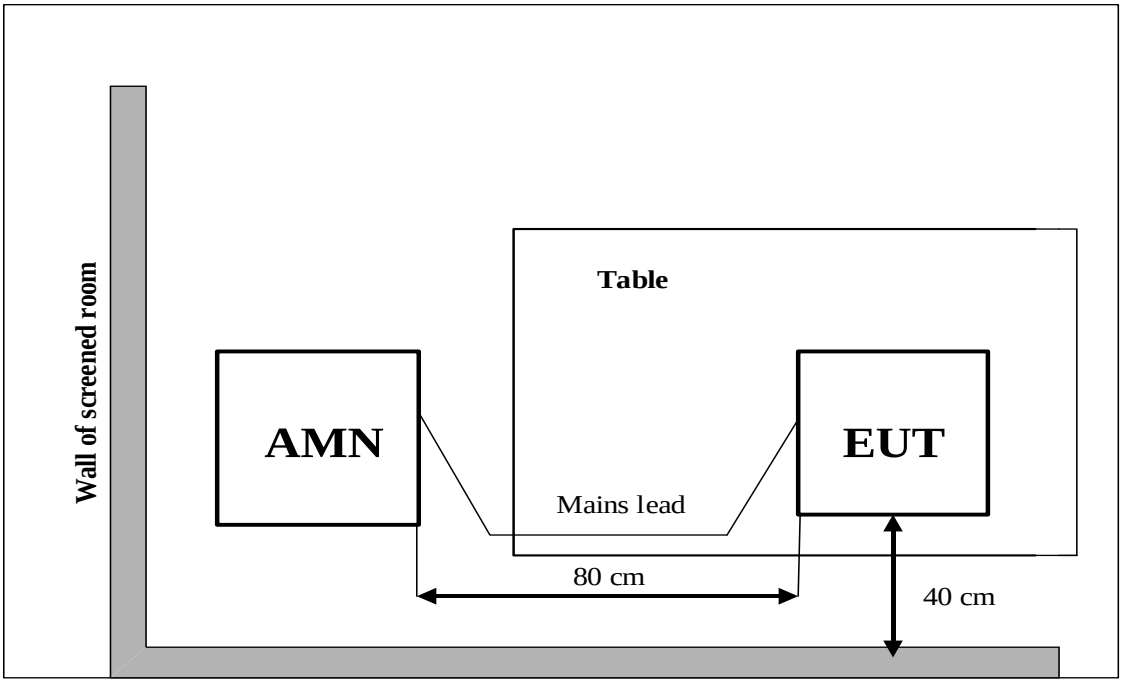
Charging Mode: At the beginning of measurement, the EUT works well and is in charging state.

Data Transfer Mode: The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C. The CMD.exe is used to let the PC keep on ping EUT's IP address, pinging EUT's IP address was until test finished.

B.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		

B.2.4Test set-up:



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B.2.5 Test Condition in charging mode

Voltage（V）	Frequency（Hz）
120	60
240	60

RBW	Sweep Time(s)
9kHz	1

B.2.6 Measurement Results

QuasiPeak(dBμV) /Average(dBμV) =PMea+Corr

Where

Corr: PathLoss + Voltage Division Factor

PMea: Measurement result on receiver.

Charging Mode

AC Input Port/ Voltage: 120V/50Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) Set.1	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure B.1	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Charging Mode

AC Input Port/ Voltage: 120V/50Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) Set.2	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure B.2	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Data Transfer Mode

AC Input Port/ Voltage: 120V/50Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) Set.1	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure B.3	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

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Charging Mode

AC Input Port/ Voltage: 240V/50Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) Set.1	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure B.4	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Charging Mode

AC Input Port/ Voltage: 240V/50Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) Set.2	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure B.5	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Data Transfer Mode

AC Input Port/ Voltage: 240V/50Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) Set.1	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure B.6	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

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AC Input Port/ Voltage: 120V/50Hz

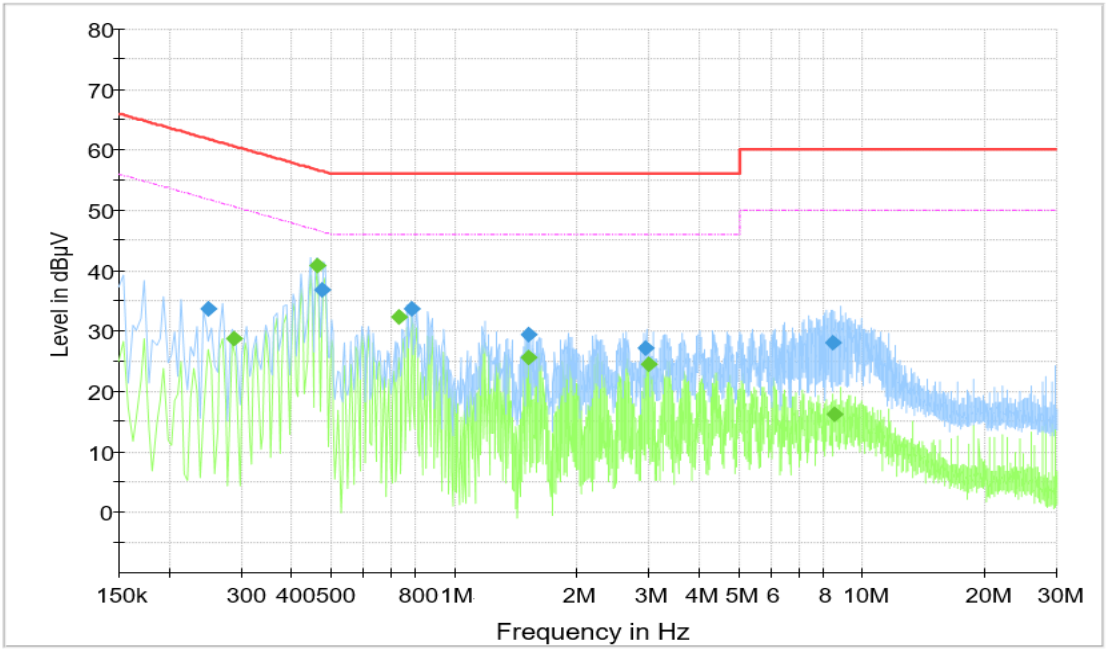

Figure B.1 Conducted Emission(Set.1, Charging Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.248	33.61	61.82	28.21	L1	9.6	24.01
0.472	36.69	56.48	19.79	L1	9.6	27.09
0.788	33.66	56	22.34	L1	9.6	24.06
1.516	29.37	56	26.63	L1	9.7	19.67
2.936	27.22	56	28.78	N	9.7	17.52
8.448	28	60	32	N	9.7	18.3

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.288	28.81	50.58	21.78	L1	9.6	19.21
0.46	40.8	46.69	5.89	L1	9.6	31.2
0.732	32.41	46	13.59	L1	9.6	22.81
1.52	25.53	46	20.47	L1	9.7	15.83
2.98	24.41	46	21.59	L1	9.7	14.71
8.504	16.25	50	33.75	N	9.7	6.55

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AC Input Port/ Voltage: 120V/50Hz

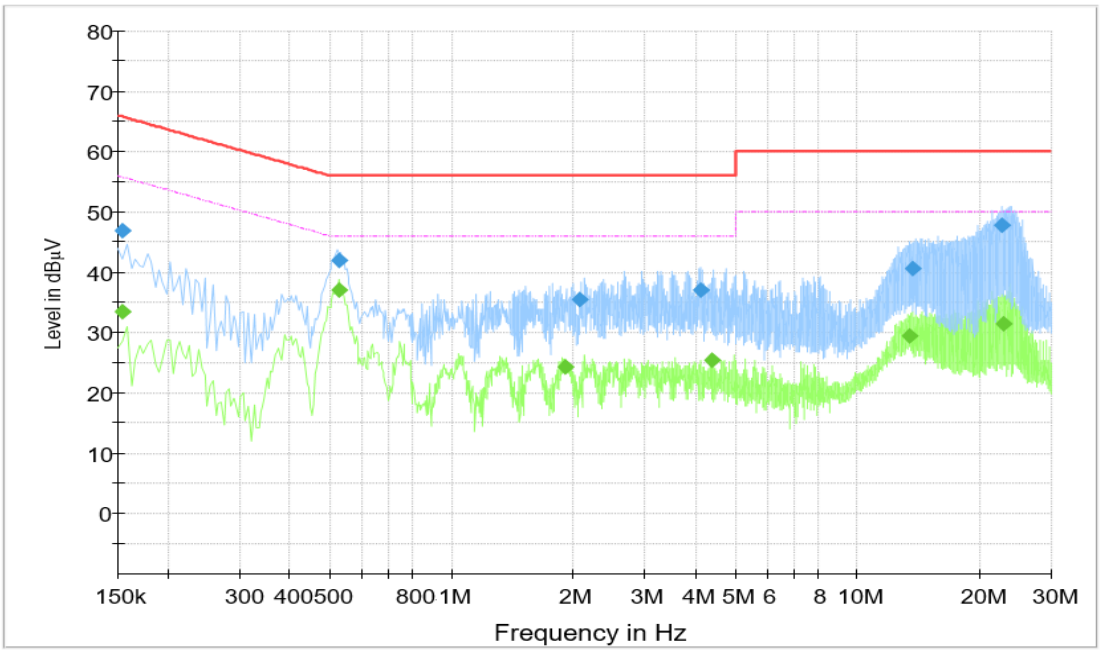

Figure B.2 Conducted Emission(Set.2, Charging Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154	46.85	65.78	18.93	N	9.6	37.25
0.528	42	56	14	N	9.6	32.4
2.068	35.53	56	20.47	L1	9.7	25.83
4.1	36.95	56	19.05	L1	9.7	27.25
13.72	40.53	60	19.47	L1	9.8	30.73
22.616	47.78	60	12.22	L1	9.7	38.08

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154	33.45	55.78	22.33	N	9.6	23.85
0.528	37.03	46	8.97	N	9.6	27.43
1.896	24.25	46	21.75	N	9.7	14.55
4.356	25.3	46	20.7	L1	9.7	15.6
13.396	29.39	50	20.61	L1	9.8	19.59
22.836	31.34	50	18.66	L1	9.7	21.64

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AC Input Port/ Voltage: 120V/50Hz

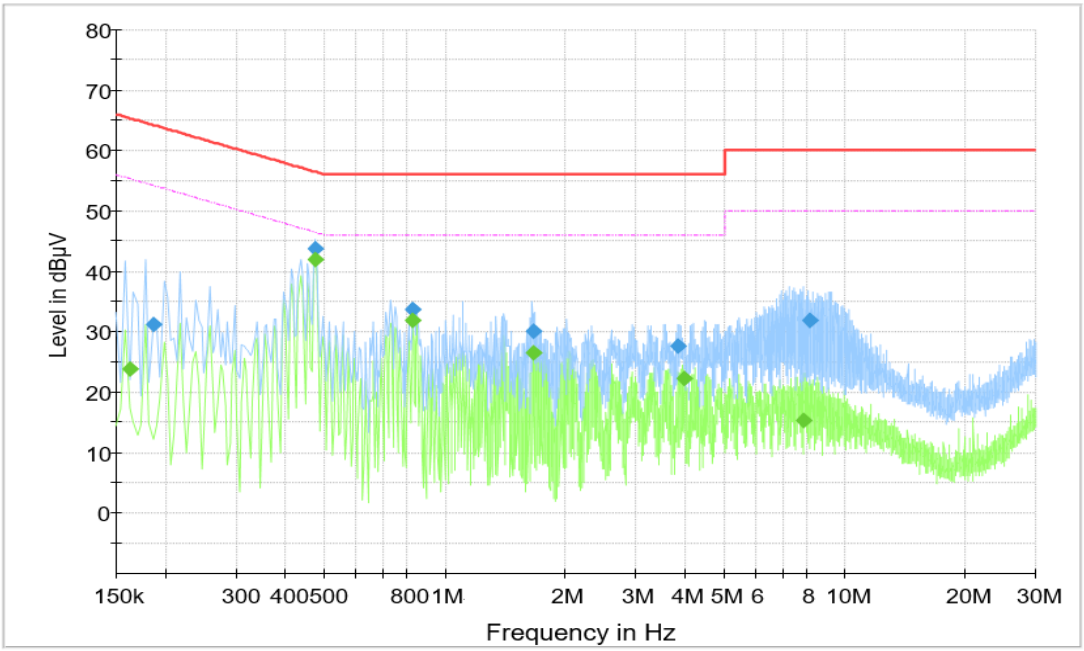

Figure B.3 Conducted Emission(Set.1, Data Transfer Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.186	31.27	64.21	32.95	L1	9.6	21.67
0.472	43.83	56.48	12.65	L1	9.6	34.23
0.828	33.69	56	22.31	L1	9.6	24.09
1.656	30.05	56	25.95	N	9.7	20.35
3.828	27.53	56	28.47	N	9.7	17.83
8.136	31.8	60	28.2	N	9.7	22.1

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.162	23.81	55.36	31.55	L1	9.6	14.21
0.472	41.96	46.48	4.52	L1	9.6	32.36
0.828	31.8	46	14.2	L1	9.6	22.2
1.66	26.41	46	19.59	L1	9.7	16.71
3.956	22.24	46	23.76	L1	9.7	12.54
7.872	15.41	50	34.59	N	9.7	5.71

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AC Input Port/ Voltage: 240V/50Hz

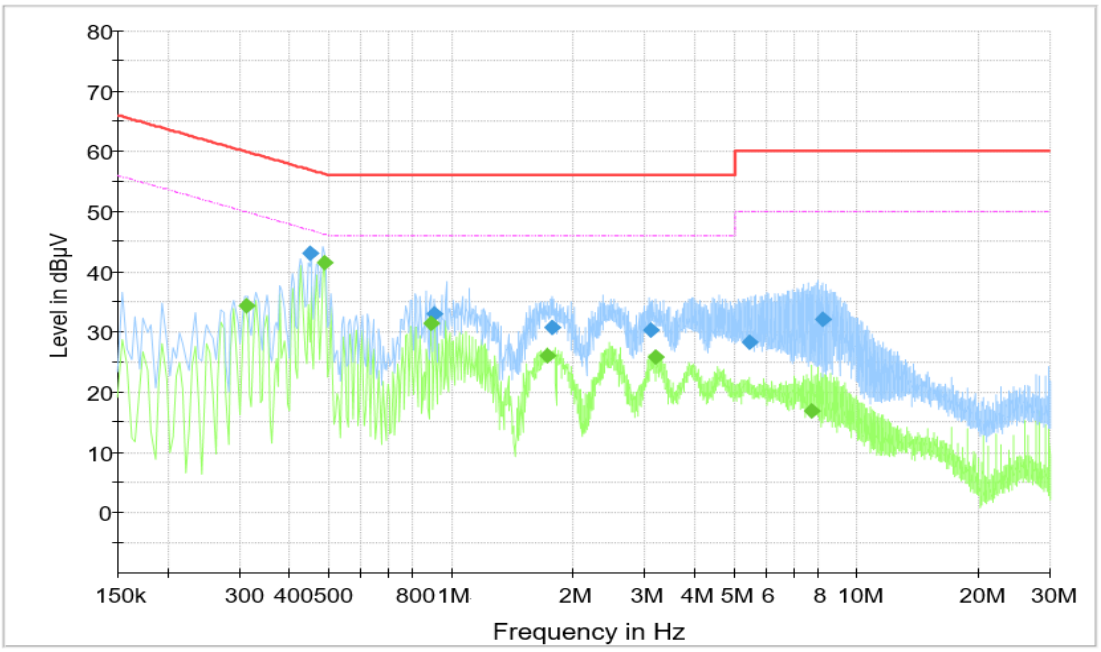

Figure B.4 Conducted Emission(Set.1, Charging Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.448	43.06	56.91	13.85	L1	9.6	33.46
0.908	33.06	56	22.94	N	9.7	23.36
1.768	30.84	56	25.16	N	9.7	21.14
3.092	30.21	56	25.79	N	9.7	20.51
5.412	28.3	60	31.7	N	9.7	18.6
8.204	32.08	60	27.92	N	9.7	22.38

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.312	34.3	49.92	15.62	L1	9.6	24.7
0.484	41.42	46.27	4.85	L1	9.6	31.82
0.892	31.36	46	14.64	L1	9.7	21.66
1.728	26.02	46	19.98	L1	9.7	16.32
3.192	25.77	46	20.23	L1	9.7	16.07
7.744	16.83	50	33.17	N	9.7	7.13

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AC Input Port/ Voltage: 240V/50Hz

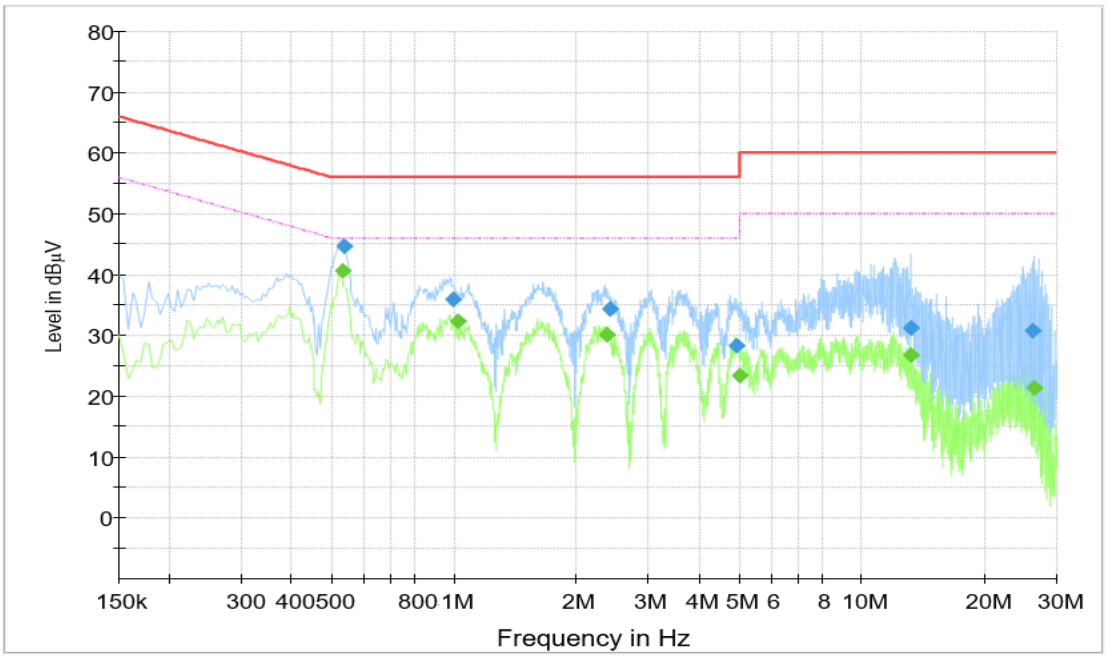

Figure B.5 Conducted Emission(Set.2, Charging Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.536	44.61	56	11.39	N	9.6	35.01
0.992	35.89	56	20.11	N	9.7	26.19
2.4	34.25	56	21.75	N	9.7	24.55
4.932	28.26	56	27.74	N	9.7	18.56
13.192	31.21	60	28.79	N	9.8	21.41
26.296	30.72	60	29.28	L1	9.7	21.02

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.532	40.62	46	5.38	N	9.6	31.02
1.024	32.22	46	13.78	N	9.7	22.52
2.372	30.15	46	15.85	N	9.7	20.45
4.996	23.41	46	22.59	N	9.7	13.71
13.2	26.76	50	23.24	N	9.8	16.96
26.352	21.23	50	28.77	L1	9.7	11.53

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AC Input Port/ Voltage: 240V/50Hz

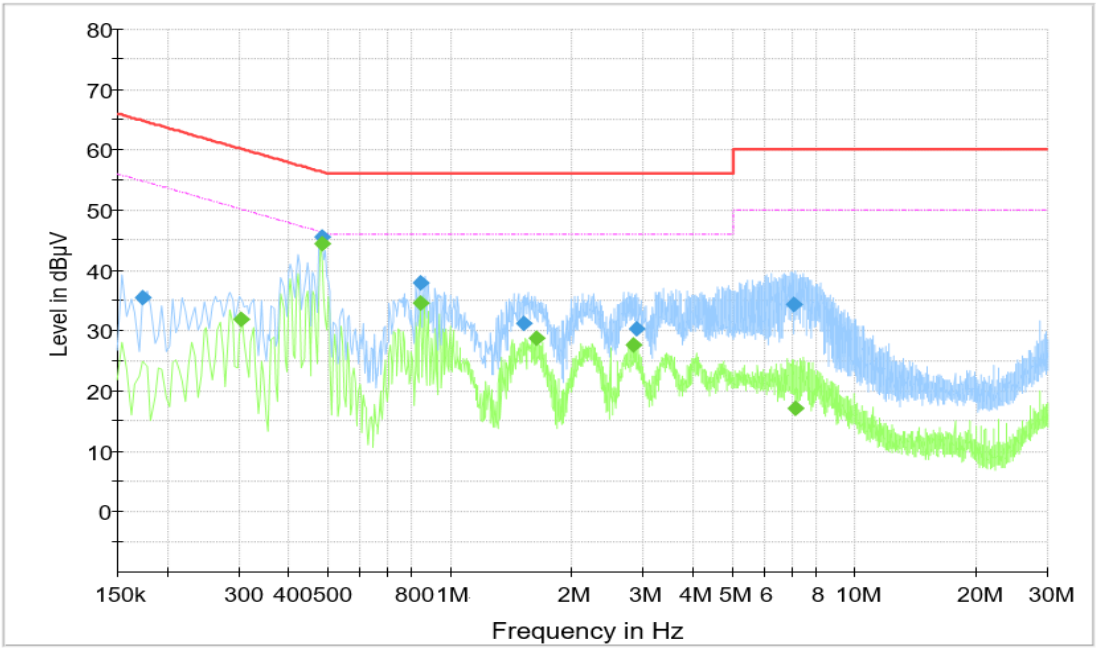

Figure B.6 Conducted Emission(Set.1, Data Transfer Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.174	35.45	64.77	29.32	L1	9.6	25.85
0.48	45.63	56.34	10.71	L1	9.6	36.03
0.84	37.89	56	18.11	L1	9.6	28.29
1.516	31.12	56	24.88	N	9.7	21.42
2.884	30.26	56	25.74	N	9.7	20.56
7.072	34.37	60	25.63	N	9.7	24.67

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.304	31.91	50.13	18.22	L1	9.6	22.31
0.48	44.41	46.34	1.93	L1	9.6	34.81
0.844	34.64	46	11.36	L1	9.7	24.94
1.628	28.63	46	17.37	L1	9.7	18.93
2.828	27.52	46	18.49	L1	9.7	17.82
7.124	17.2	50	32.8	N	9.7	7.5

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

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