TEST REPORT

No.I22N00887-EMC

for

Shenzhen Tinno Mobile Technology Corp.

Smart Phone

Model Name：U668AA/U668AC

With

Hardware Version: V1.0

Software Version: U668AAV01.11.10/U668ACV01.03.10

FCC ID: XD6U668AA

Issued Date: 2022-06-07

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.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I22N00887-EMC	Rev.0	1st edition	2022-06-07

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

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1. SUMMARY OF TEST REPORT

1.1. Test Items

Description	Smart Phone
Model Name	U668AA/U668AC
Applicant's name	Shenzhen Tinno Mobile Technology Corp.
Manufacturer's Name	Shenzhen Tinno Mobile Technology Corp.

1.2. Test Standards

FCC Part 15, Subpart B (10-1-2020 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: 2022-05-17 Testing End Date: 2022-05-31

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. CLIENT INFORMATION

2.1. Applicant Information

Company Name:	Shenzhen Tinno Mobile Technology Corp.
Address:	27-001, South Side of Tianlong Mobile Headquarters Building, Tongfa South Road, Xili Community, Xili Street, Nanshan District, Shen zhen ,PRC
Contact	xiaoping.li
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2.2. Manufacturer Information

Company Name:	Shenzhen Tinno Mobile Technology Corp.
Address:	27-001, South Side of Tianlong Mobile Headquarters Building, Tongfa South Road, Xili Community, Xili Street, Nanshan District, Shen zhen ,PRC
Contact	xiaoping.li
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3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)

3.1. About EUT

Description	Smart Phone
Model Name	U668AA/U668AC
FCC ID	XD6U668AA
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
UT07aa	866415060014316	V1.0	U668AAV01.11.10	2022-05-11

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

3.3. Internal Identification of AE

AE ID*	Description
AE1	Battery
AE2	Charger
AE3	USB Cable

AE1

Model	386786
Manufacturer	Guangdong Fenghua New Energy Co., Ltd.
Capacity	3900mAh
Nominal Voltage	3.85V
Model	386786

AE2

Model	TN-050200U3
Manufacturer	Dong Guan City GangQi Electronic Co., Ltd.

AE3-1

Model	336275
Manufacturer	SUNTOPS ELECTRONICS CO.,LTD

AE3-2

Model	T365-011B-1
Manufacturer	Shenzhen Yihuaxing Electronics Co. Ltd.

*AE ID and AE Label: is used to identify the test sample in the lab internally.
*AE Label: To distinguish the type and number of AE
AE: ancillary equipment

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3.4. EUT Set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT+AE1+AE2-1+AE3-1	
Set.2	EUT+AE1+AE2-1+AE3-2	
Set.3	EUT+AE1+AE3-1+PC	
Set.4	EUT+AE1+AE3-2+PC	

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3.5. General Description

The Equipment Under Test (EUT) is a model of Smart Phone.
It supports WCDMA Bands 2/4/5/, LTE Bands 2/4/5/12/14/29/30/66.
It has Camera, USB memory, Bluetooth and Wi-Fi functions.
It consists of normal options: Battery, Charger and USB Cable.
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.
The Smart Phone U668AC Applicant by Shenzhen Tinno Mobile Technology Corp. is a variant model based on U668AA Applicant by Shenzhen Tinno Mobile Technology Corp. for conformance test.
According to the declaration of differences by manufactured. The table below shows the difference:

Model name	U668AC	U668AA
SoftWare	U668ACV01.03.10	U668AAV01.11.10
Other changes detailed	UI difference	

This report is based on the model U668AA for the primary test. According to the declaration of differences by manufacturer, model U668AA and model U668AC share basic test results.

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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	(10-1-2020 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. = 35 ℃
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/IC rules	Section in this report	Verdict
1	Radiated Emission	15.109(a)/ Section 6.2	A.1	P
2	Conducted Emission	15.107(a)/ Section 6.1	A.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 uncertainty
Radiated Emission	30MHz-1GHz	4.86dB(*k*=2)
	1GHz-18GHz	4.82dB(*k*=2)
Conducted Emission	150kHz-30MHz	2.62dB(*k*=2)

8. MEASURING APPARATUS UTILIZED

No.	Name	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1.	Test Receiver	ESR7	101676	R&S	2022.11.24	1 year
2.	Test Receiver	ESCI	100702	R&S	2023.01.12	1 year
3.	Spectrum Analyzer	FSV40	101192	R&S	2023.01.12	1 year
4.	BiLog Antenna	3142E	0224831	ETS-Lindgren	2024.05.27	3 years
5.	Horn Antenna	3117	00066585	ETS-Lindgren	2025.03.15	3 years
6.	LISN	ENV216	102067	R&S	2022.07.15	1 year
7.	Chamber	FACT3-2.0	1285	ETS-Lindgren	2023.05.29	2 years
8.	Software	EMC32	V10.50.40	R&S	/	/
9.	Universal Radio Communication Tester	CMW500	152499	R&S	2022.07.15	1 year

9. TEST ACCESSORY UTILIZED

No.	Name	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1.	PC	ThinkPad T480	PF-13LW0C	Lenovo	/	/
2.	Printer	P1008	VNF6C12491	HP	/	/
3.	Mouse	MOEUUOA	44NY517	Lenovo	/	/

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ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§15.109(a))

Reference

FCC: Part 15.109(a)

A.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator at a distance of 3 meters or 1 meter 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. Below 18GHz the measurement antenna was placed at a distance of 3 meters from the EUT. Above 18GHz the measurement antenna was placed at a distance of 1 meters from the EUT. (According to Part 15.31(f)(1), 1m limit is calculated by extrapolation factor of 20 dB/decade) 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:

Camera: At the beginning of measurement, the battery is completely discharged. The battery and charger are installed so that the EUT works well and keeping on taking photos.

Video Player: The EUT is connected to a charger for charging and keeping on playing mp3.

Data Transfer: The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C. The EUT is connected to a PC for transmitting data. The software is used to let the PC keep on copying data to EUT or TF Card, reading and erasing the data after copy action was finished.

WCDMA receiver: The EUT is connected to a charger for charging. The EUT is synchronized to System Simulator (SS), and able to respond to paging messages and incoming call. An established call has been released.

LTE receiver: The EUT is connected to a charger for charging. The EUT is synchronized to System Simulator (SS), and able to respond to paging messages and incoming call. An established call has been released.

This device contains the receivers which tune and operate between 30MHz-960MHz in the following bands:

WCDMA Band5, LTE Band 5/12/14/29.

The EUT was tested while operating in licensed band receiver mode. All licensed band receivers that tune in the range of 30MHz-960MHz, as listed in Section 3.1, are investigated. Only the worst case emissions are reported.

All equipment is placed on the test table top and arranged in a typical configuration in accordance with ANSI C63.4-2014 and manipulated to obtain worst case emissions.

A.1.3 Measurement Limit

Limit from Part 15.109(a)

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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

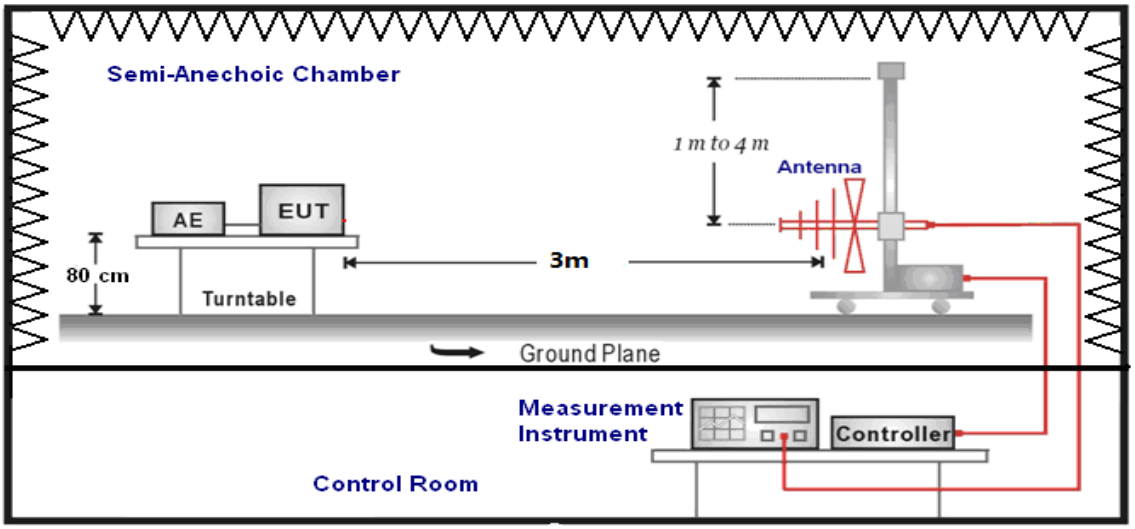
*Note: The original limit is defined at 10m test distance. This limit is calculated according to CISPR requirements.

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



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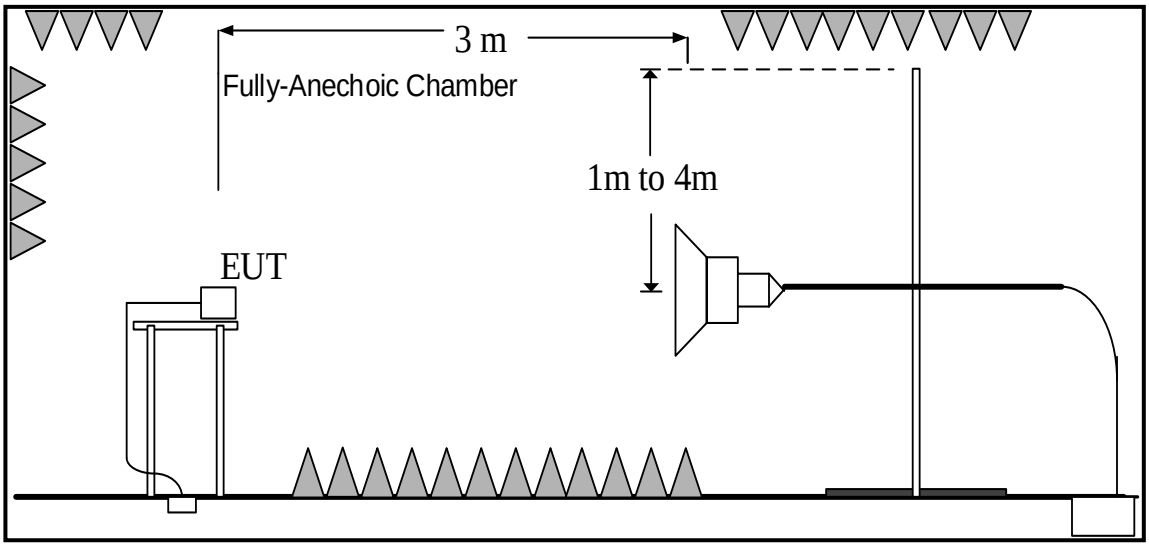
1GHz-40GHz



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

Camera

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.1.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.2.	P
18000 to 26500	54.00	74.00	See Figure A.1.3.	P

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Video Player:

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.4.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.5.	P
18000 to 26500	54.00	74.00	See Figure A.1.6.	P

WCDMA receiver Band 5

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.7.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.8.	P
18000 to 26500	54.00	74.00	See Figure A.1.9.	P

LTE receiver Band 5

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.10.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.11.	P
18000 to 26500	54.00	74.00	See Figure A.1.12.	P

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LTE receiver Band 12

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.13.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.14.	P
18000 to 26500	54.00	74.00	See Figure A.1.15.	P

LTE receiver Band 14

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.16.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.17.	P
18000 to 26500	54.00	74.00	See Figure A.1.18.	P

Camera

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.2	Conclusion
30-88	40.00	See Figure A.1.19.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.2	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.20.	P
18000 to 26500	54.00	74.00	See Figure A.1.21.	P

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Data Transfer: PC TO EUT

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.3	Conclusion
30-88	40.00	See Figure A.1.22.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.3	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.23.	P
18000 to 26500	54.00	74.00	See Figure A.1.24.	P

Data Transfer: EUT TO PC

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.3	Conclusion
30-88	40.00	See Figure A.1.25.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.3	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.26.	P
18000 to 26500	54.00	74.00	See Figure A.1.27.	P

Data Transfer: PC TO TF Card

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.3	Conclusion
30-88	40.00	See Figure A.1.28.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.3	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.29.	P
18000 to 26500	54.00	74.00	See Figure A.1.30.	P

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Data Transfer: TF Card TO PC

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.3	Conclusion
30-88	40.00	See Figure A.1.31.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.3	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.32.	P
18000 to 26500	54.00	74.00	See Figure A.1.33.	P

Data Transfer: TF Card TO PC

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.4	Conclusion
30-88	40.00	See Figure A.1.34.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT07aa/Set.4	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.35.	P
18000 to 26500	54.00	74.00	See Figure A.1.36.	P

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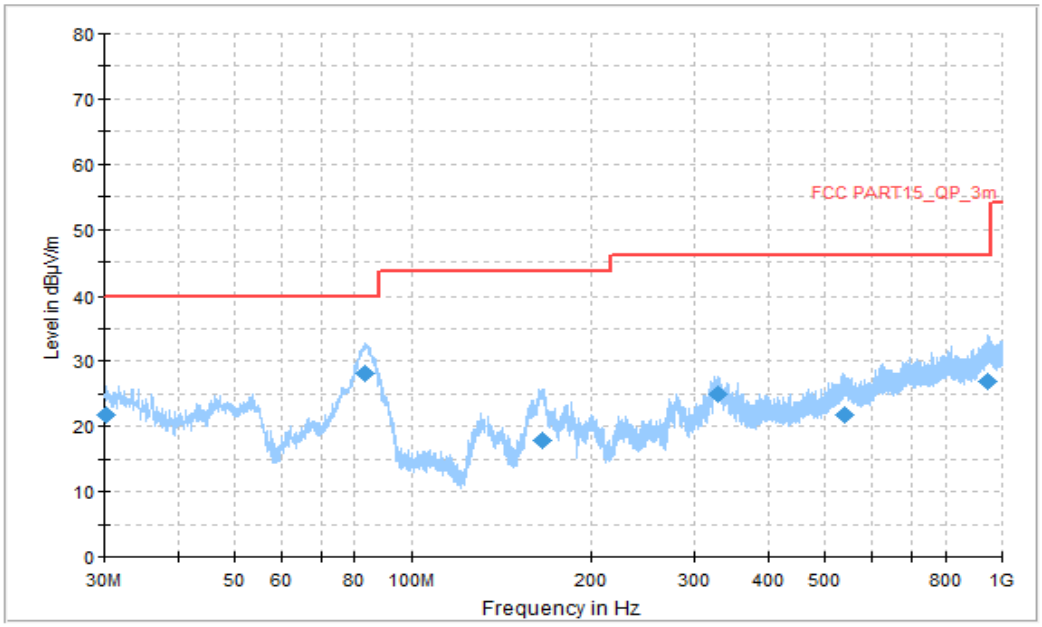

Figure A.1.1. Radiated Emission (Camera, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.215556	21.79	40.00	18.21	H	-13	34.79
83.026667	28.22	40.00	11.78	V	-22	50.22
165.153333	17.81	43.52	25.71	V	-18	35.81
329.352778	24.87	46.02	21.15	H	-13	37.87
538.872778	21.89	46.02	24.13	H	-4	25.89
944.763889	26.94	46.02	19.08	V	1	25.94

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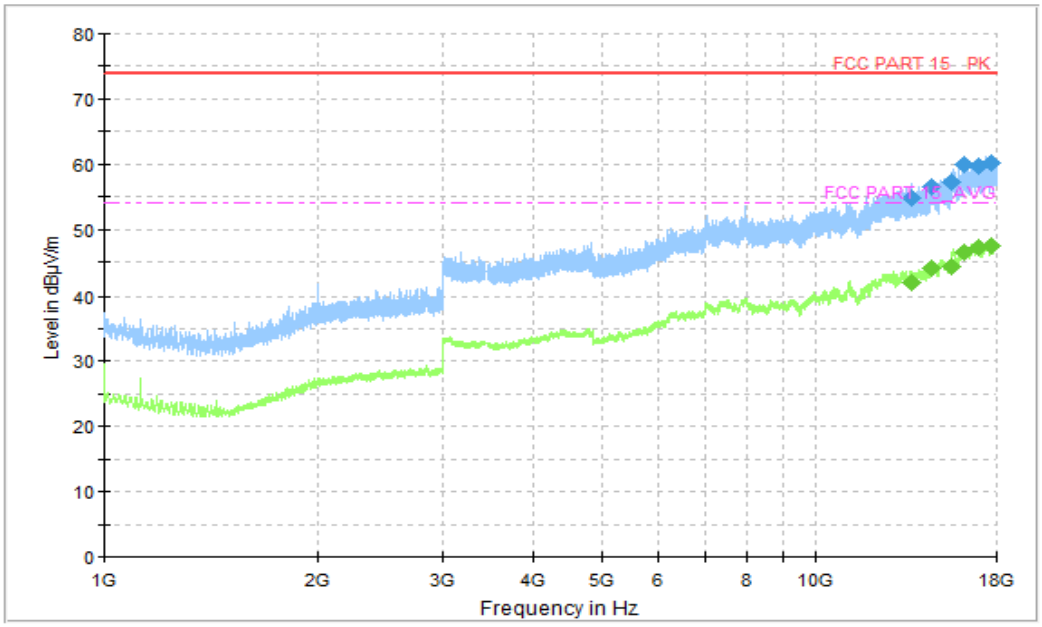

Figure A.1.2. Radiated Emission (Camera, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13650.500000	54.72	74.00	19.28	V	18	36.72
14545.750000	56.46	74.00	17.54	H	19	37.46
15545.500000	57.24	74.00	16.76	H	20	37.24
16150.000000	59.88	74.00	14.12	H	22	37.88
17020.250000	59.68	74.00	14.32	V	23	36.68
17667.250000	60.13	74.00	13.87	V	24	36.13

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13650.500000	41.95	54.00	12.05	V	18	23.95
14545.750000	44.11	54.00	9.89	H	19	25.11
15545.500000	44.28	54.00	9.72	H	20	24.28
16150.000000	46.48	54.00	7.52	H	22	24.48
17020.250000	47.12	54.00	6.88	H	23	24.12
17667.250000	47.52	54.00	6.48	H	24	23.52

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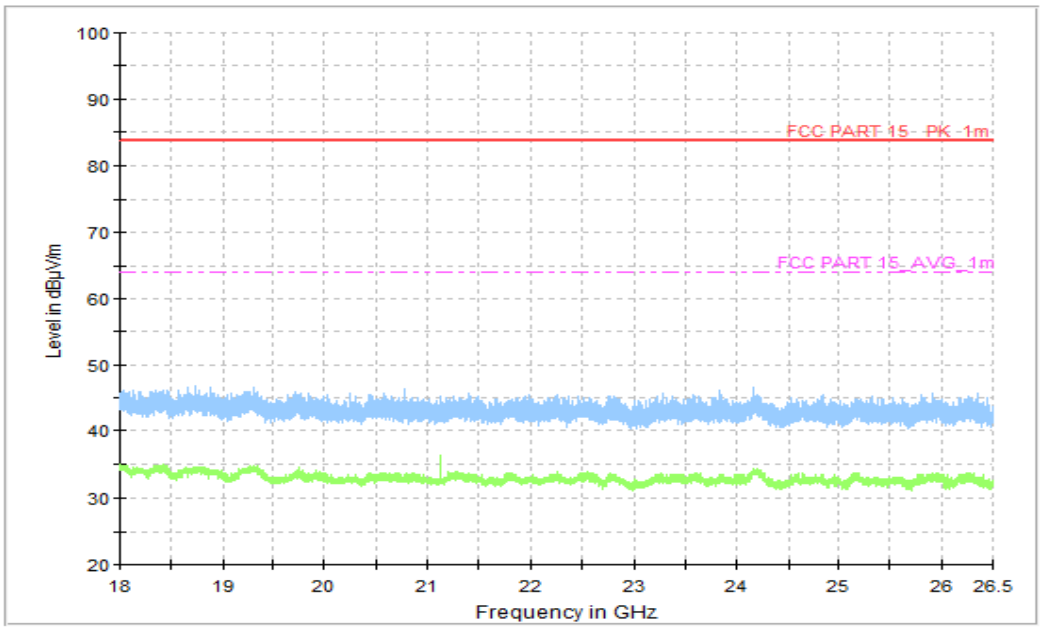

Figure A.1.3. Radiated Emission (Camera, 18GHz to 26.5GHz)

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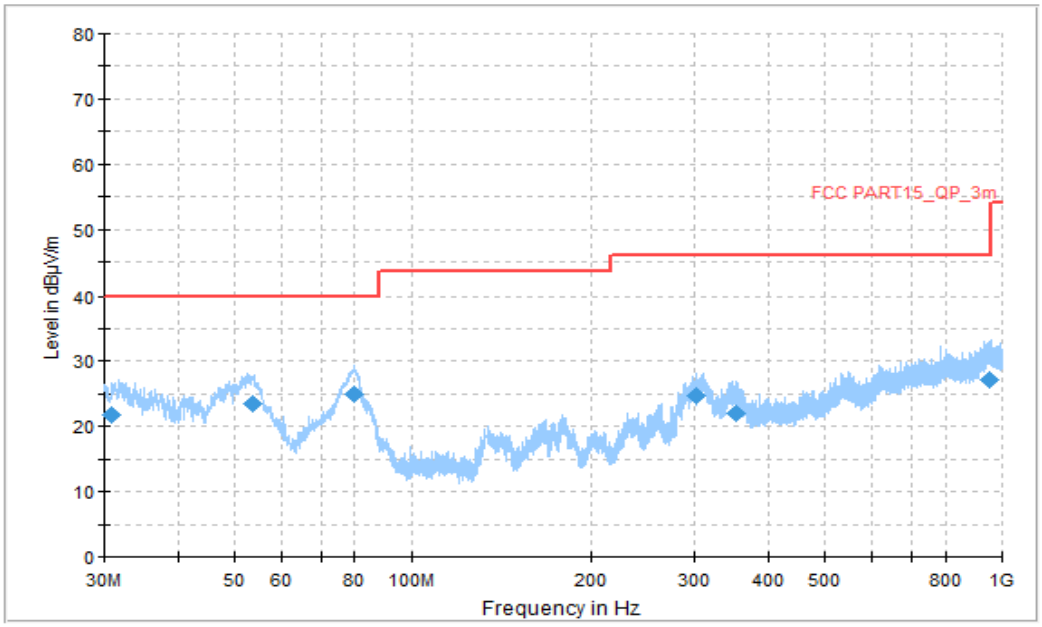

Figure A.1.4. Radiated Emission (Video Player, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.862222	21.81	40.00	18.19	V	-13	34.81
53.657222	23.60	40.00	16.40	V	-22	45.6
79.685556	25.04	40.00	14.96	V	-22	47.04
301.761667	24.68	46.02	21.34	H	-14	38.68
353.495000	21.99	46.02	24.03	H	-11	32.99
952.523889	27.18	46.02	18.84	H	1	26.18

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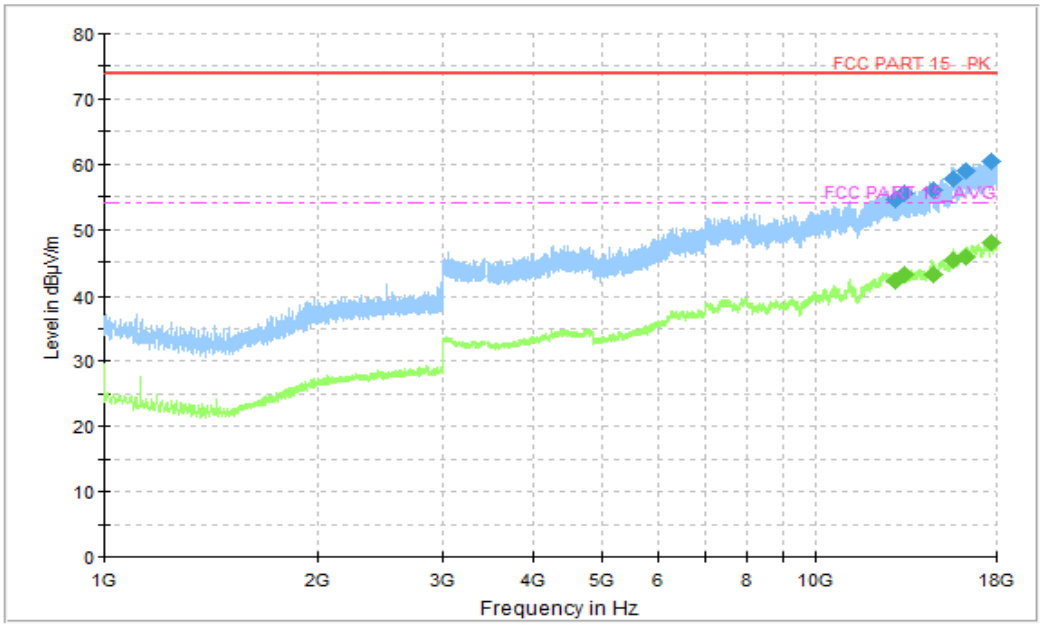

Figure A.1.5. Radiated Emission (Video Player, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12943.000000	54.54	74.00	19.46	V	18	36.54
13316.000000	55.47	74.00	18.53	H	18	37.47
14623.000000	56.04	74.00	17.96	H	19	37.04
15593.000000	57.85	74.00	16.15	H	20	37.85
16283.750000	59.08	74.00	14.92	V	22	37.08
17705.000000	60.49	74.00	13.51	V	24	36.49

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12943.000000	41.96	54.00	12.04	V	18	23.96
13316.000000	42.94	54.00	11.06	H	18	24.94
14623.000000	42.97	54.00	11.03	H	19	23.97
15593.000000	45.29	54.00	8.71	H	20	25.29
16283.750000	45.79	54.00	8.21	H	22	23.79
17705.000000	47.88	54.00	6.12	H	24	23.88

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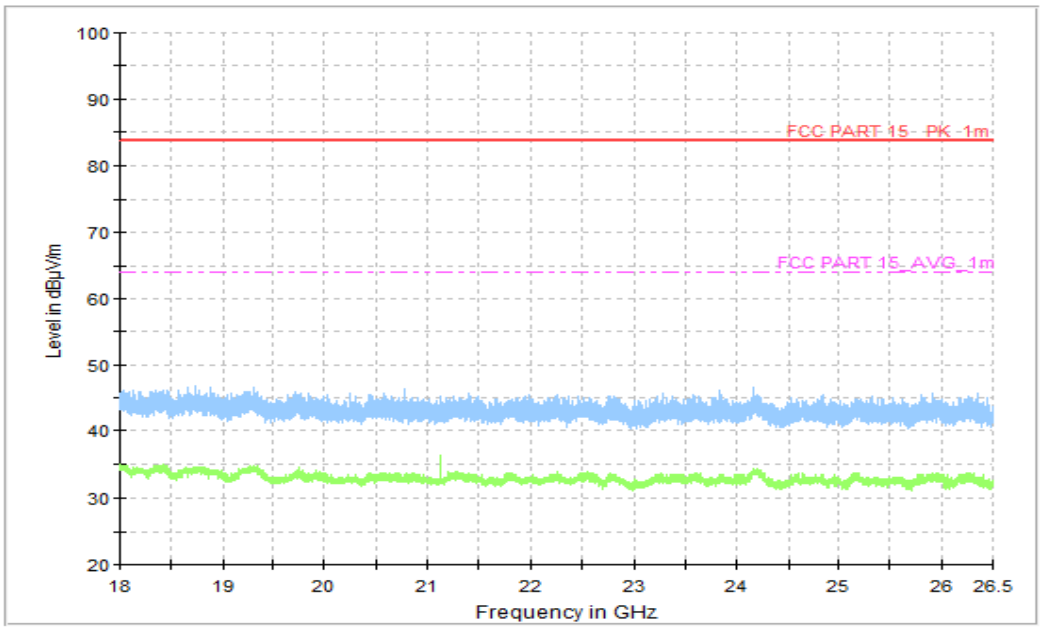

Figure A.1.6. Radiated Emission (Video Player, 18GHz to 26.5GHz)

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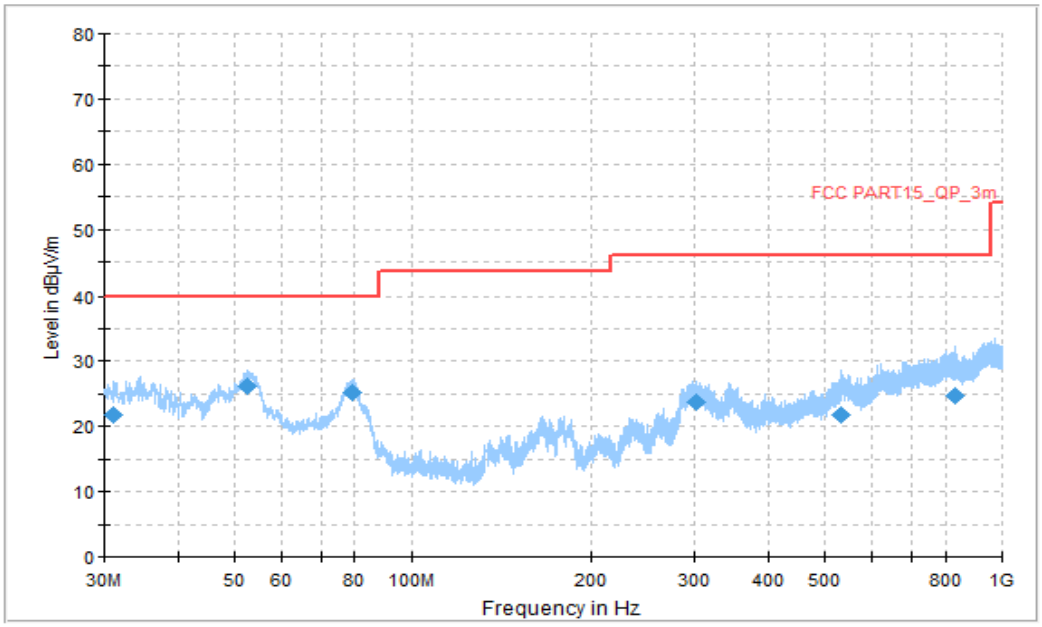

Figure A.1.7. Radiated Emission (WCDMA receiver Band 5, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
31.131667	21.69	40.00	18.31	V	-13	34.69
52.579444	26.14	40.00	13.86	V	-22	48.14
79.308333	25.14	40.00	14.86	V	-22	47.14
301.977222	23.71	46.02	22.31	H	-14	37.71
533.483889	21.89	46.02	24.13	V	-4	25.89
830.842778	24.71	46.02	21.31	H	-1	25.71

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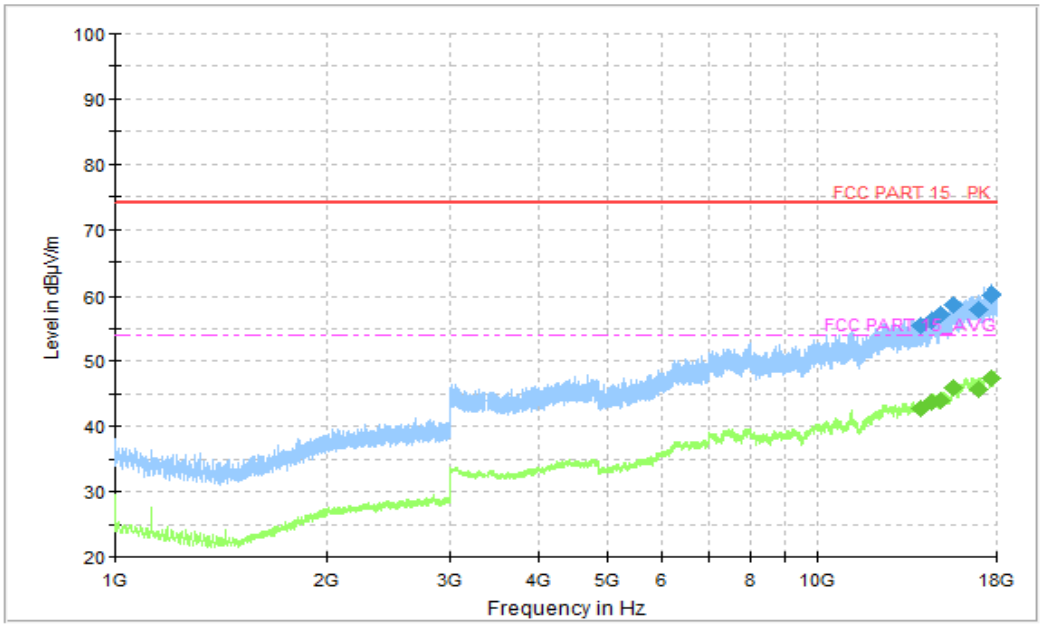

Figure A.1.8. Radiated Emission (WCDMA receiver Band 5, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
14030.000000	55.52	74.00	18.48	V	18	37.52
14572.250000	56.21	74.00	17.79	H	19	37.21
14950.500000	57.16	74.00	16.84	V	19	38.16
15634.500000	58.60	74.00	15.40	H	21	37.60
16911.000000	57.91	74.00	16.09	V	23	34.91
17666.000000	60.22	74.00	13.78	H	24	36.22

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
14030.000000	42.67	54.00	11.33	V	18	24.67
14572.250000	43.63	54.00	10.37	H	19	24.63
14950.500000	43.92	54.00	10.08	V	19	24.92
15634.500000	45.94	54.00	8.06	H	21	24.94
16911.000000	45.69	54.00	8.31	V	23	22.69
17666.000000	47.49	54.00	6.51	H	24	23.49

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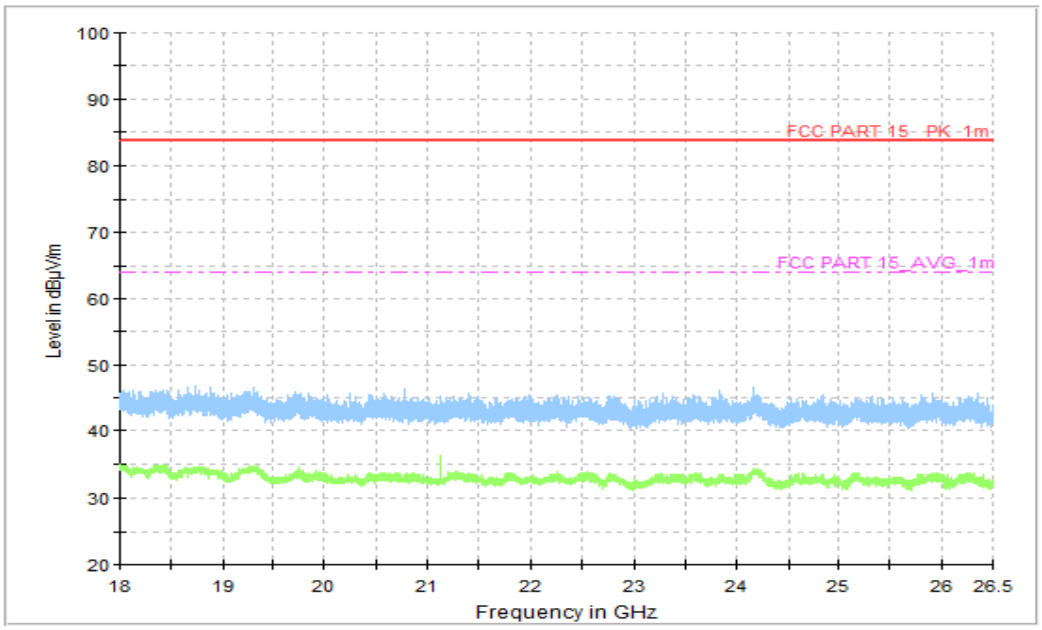

Figure A.1.9. Radiated Emission (WCDMA receiver Band 5, 18GHz to 26.5GHz)

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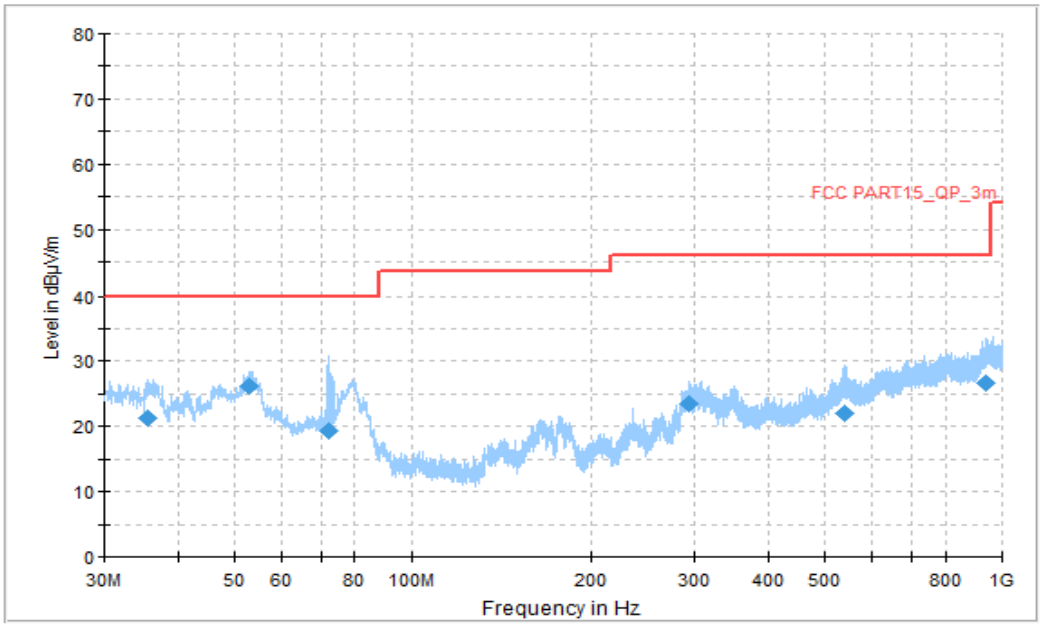

Figure A.1.10. Radiated Emission (LTE receiver Band 5, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
35.442778	21.18	40.00	18.82	V	-16	37.18
53.010556	26.24	40.00	13.76	V	-22	48.24
72.248889	19.36	40.00	20.64	V	-21	40.36
294.055556	23.59	46.02	22.43	H	-14	37.59
540.974444	21.95	46.02	24.07	V	-4	25.95
939.321111	26.70	46.02	19.32	V	1	25.70

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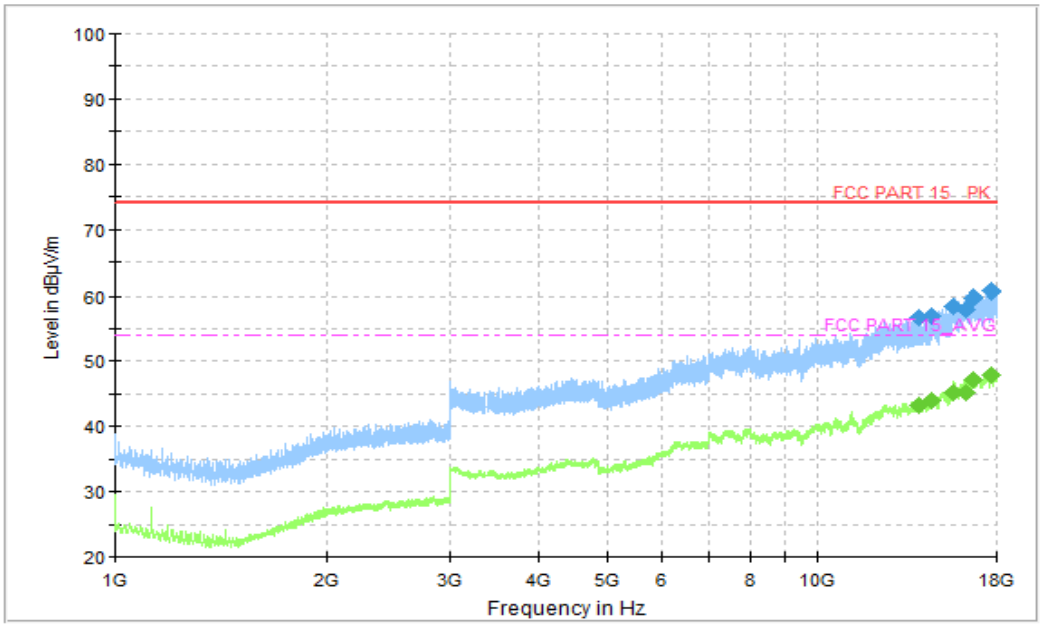

Figure A.1.11. Radiated Emission (LTE receiver Band 5, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13918.250000	56.68	74.00	17.32	H	18	38.68
14547.500000	56.86	74.00	17.14	V	19	37.86
15567.250000	58.44	74.00	15.56	H	20	38.44
16300.500000	57.88	74.00	16.12	H	21	36.88
16627.250000	59.72	74.00	14.28	V	23	36.72
17705.250000	60.62	74.00	13.38	H	24	36.62

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13918.250000	43.31	54.00	10.69	H	18	25.31
14547.500000	43.99	54.00	10.01	V	19	24.99
15567.250000	45.21	54.00	8.79	H	20	25.21
16300.500000	45.26	54.00	8.74	H	21	24.26
16627.250000	47.05	54.00	6.95	V	23	24.05
17705.250000	47.88	54.00	6.12	H	24	23.88

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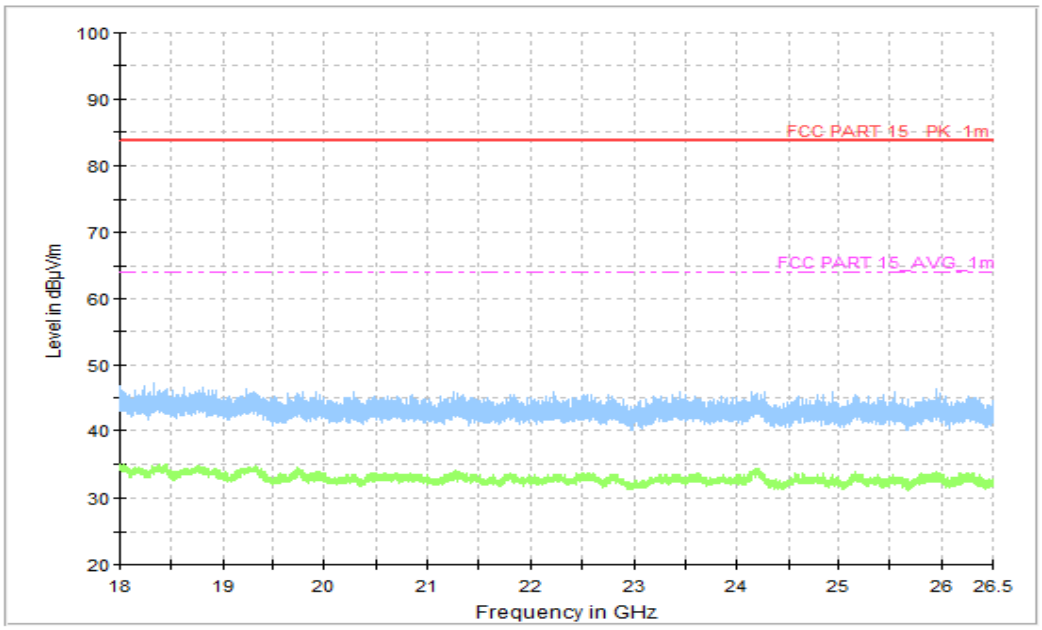

Figure A.1.12. Radiated Emission (LTE receiver Band 5, 18GHz to 26.5GHz)

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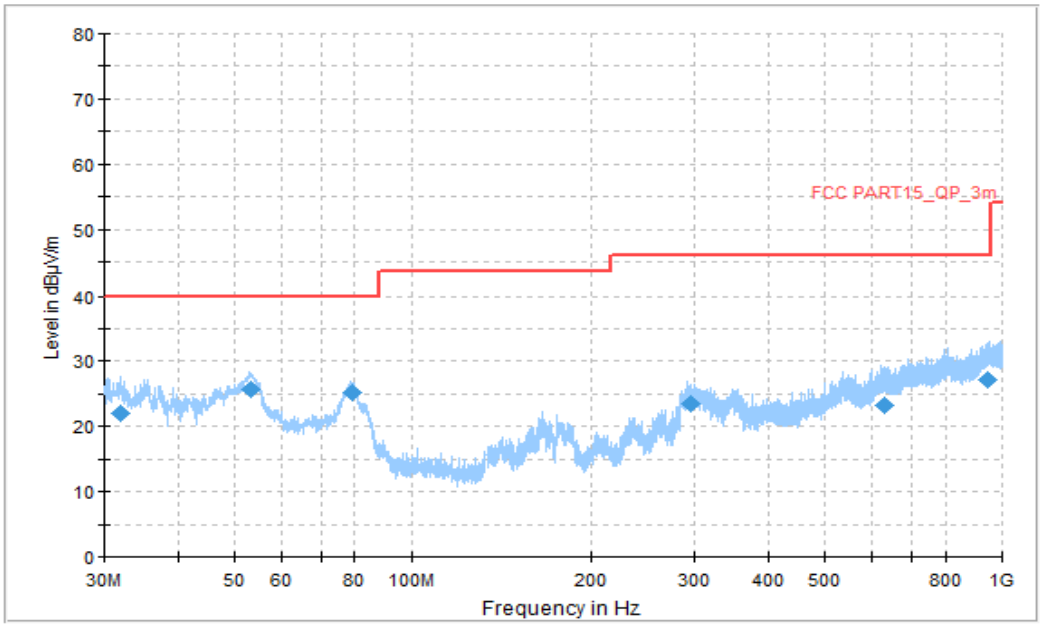

Figure A.1.13. Radiated Emission (LTE receiver Band 12, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
31.993889	22.03	40.00	17.97	V	-14	36.03
53.333889	25.81	40.00	14.19	V	-22	47.81
79.092778	25.20	40.00	14.80	V	-22	47.20
295.241111	23.43	46.02	22.59	H	-14	37.43
628.813333	23.32	46.02	22.70	H	-3	26.32
945.087222	27.06	46.02	18.96	H	1	26.06

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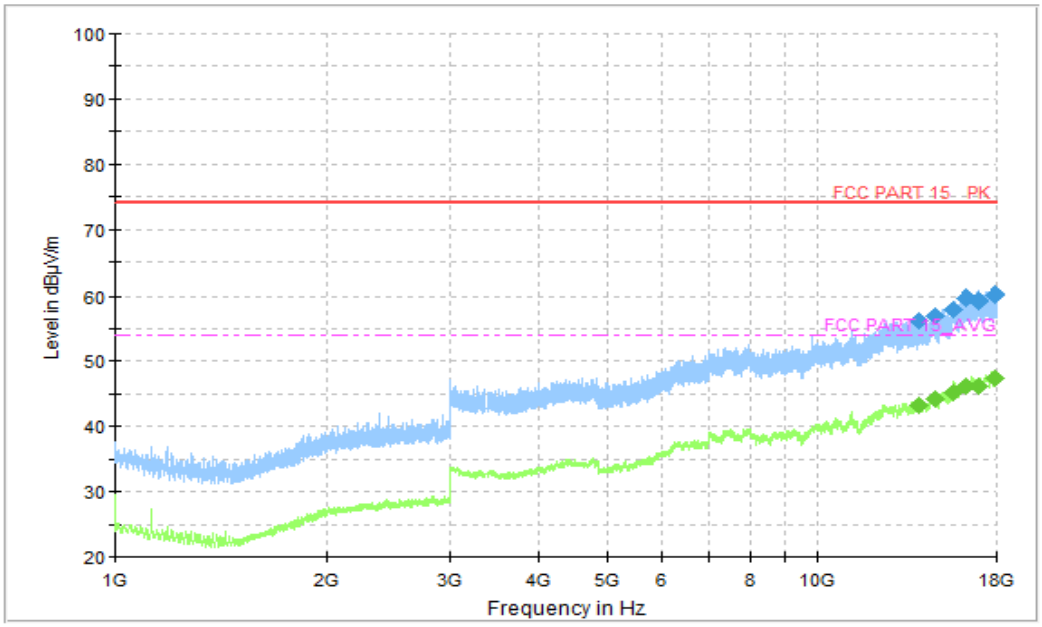

Figure A.1.14. Radiated Emission (LTE receiver Band 12, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13957.250000	56.20	74.00	17.80	V	18	38.20
14690.750000	57.03	74.00	16.97	H	19	38.03
15569.000000	57.99	74.00	16.01	H	20	37.99
16254.750000	59.74	74.00	14.26	H	22	37.74
16926.750000	59.24	74.00	14.76	H	23	36.24
17910.250000	60.24	74.00	13.76	V	25	35.24

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13957.250000	43.30	54.00	10.70	V	18	25.30
14690.750000	44.25	54.00	9.75	H	19	25.25
15569.000000	45.24	54.00	8.76	H	20	25.24
16254.750000	46.18	54.00	7.82	H	22	24.18
16926.750000	46.11	54.00	7.89	H	23	23.11
17910.250000	47.47	54.00	6.53	V	25	22.47

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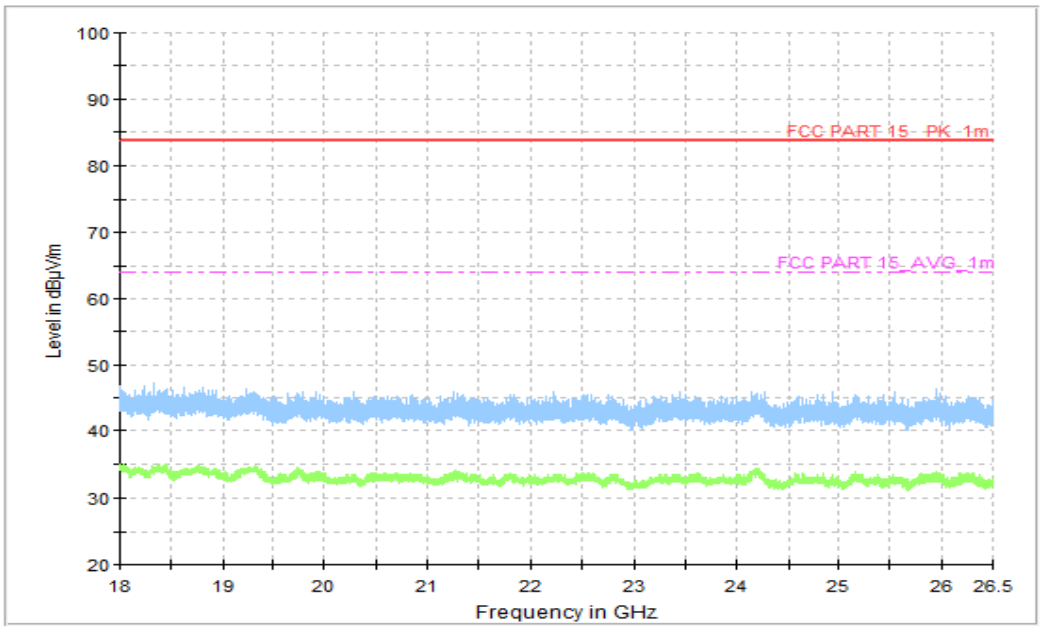

Figure A.1.15. Radiated Emission (LTE receiver Band 12, 18GHz to 26.5GHz)

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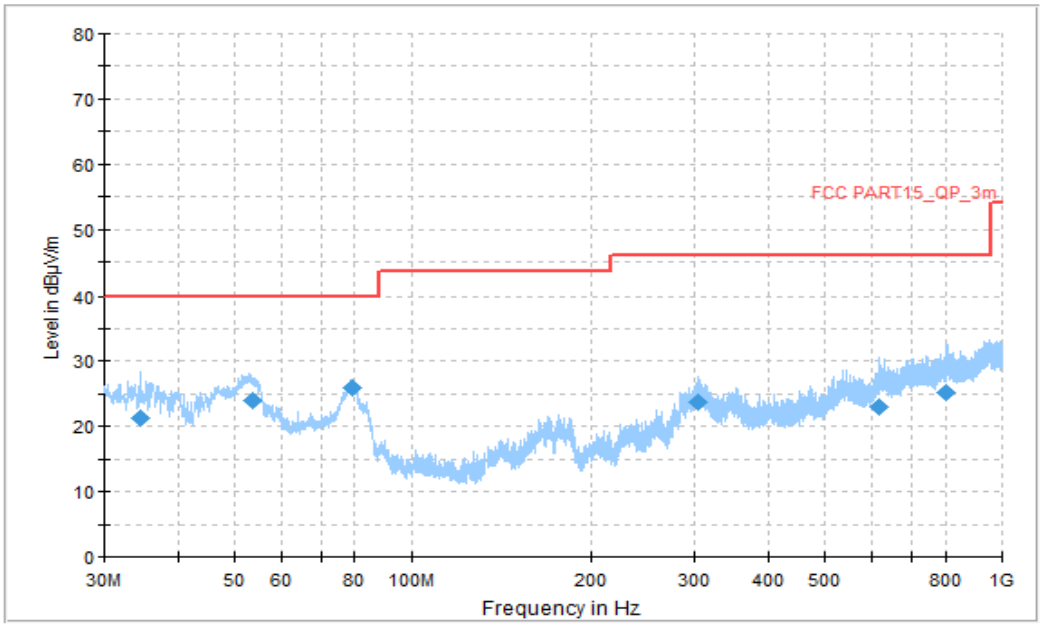

Figure A.1.16. Radiated Emission (LTE receiver Band 14, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
34.472778	21.39	40.00	18.61	V	-15	36.39
53.657222	24.08	40.00	15.92	V	-22	46.08
78.931111	25.89	40.00	14.11	V	-22	47.89
304.617778	23.72	46.02	22.30	H	-14	37.72
619.382778	23.01	46.02	23.01	V	-3	26.01
804.706667	25.29	46.02	20.73	H	-1	26.29

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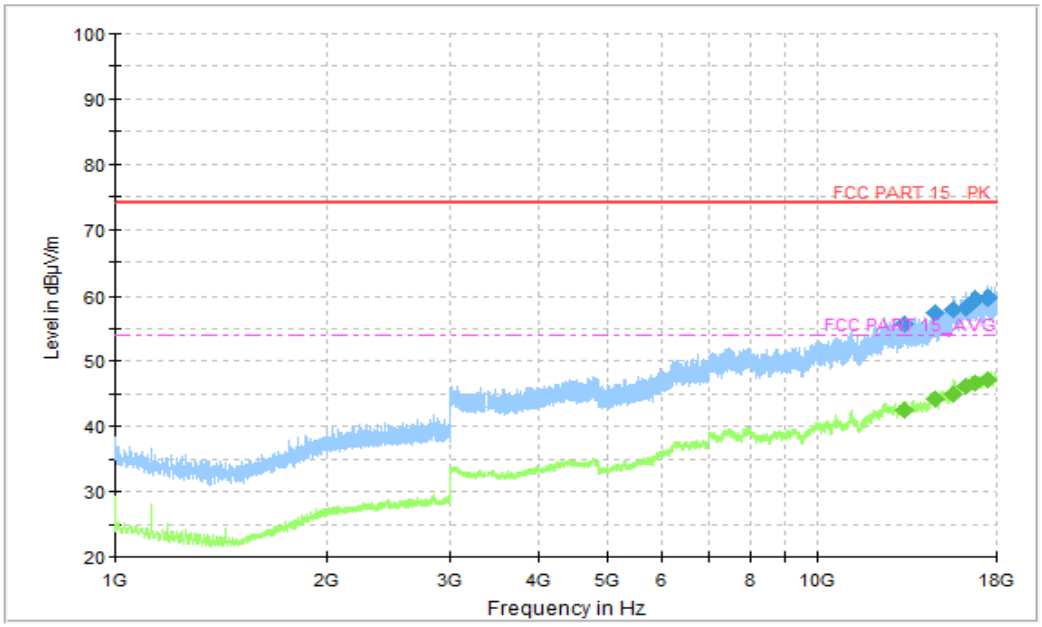

Figure A.1.17. Radiated Emission (LTE receiver Band 14, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13311.750000	55.65	74.00	18.35	H	18	37.65
14694.500000	57.34	74.00	16.66	H	19	38.34
15561.750000	57.90	74.00	16.10	H	20	37.90
16247.000000	58.22	74.00	15.78	H	22	36.22
16742.000000	59.39	74.00	14.61	V	22	37.39
17465.750000	59.60	74.00	14.40	H	24	35.60

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13311.750000	42.55	54.00	11.45	H	18	24.55
14694.500000	44.34	54.00	9.66	H	19	25.34
15561.750000	44.86	54.00	9.14	H	20	24.86
16247.000000	46.12	54.00	7.88	H	22	24.12
16742.000000	46.69	54.00	7.31	V	22	24.69
17465.750000	47.07	54.00	6.93	H	24	23.07

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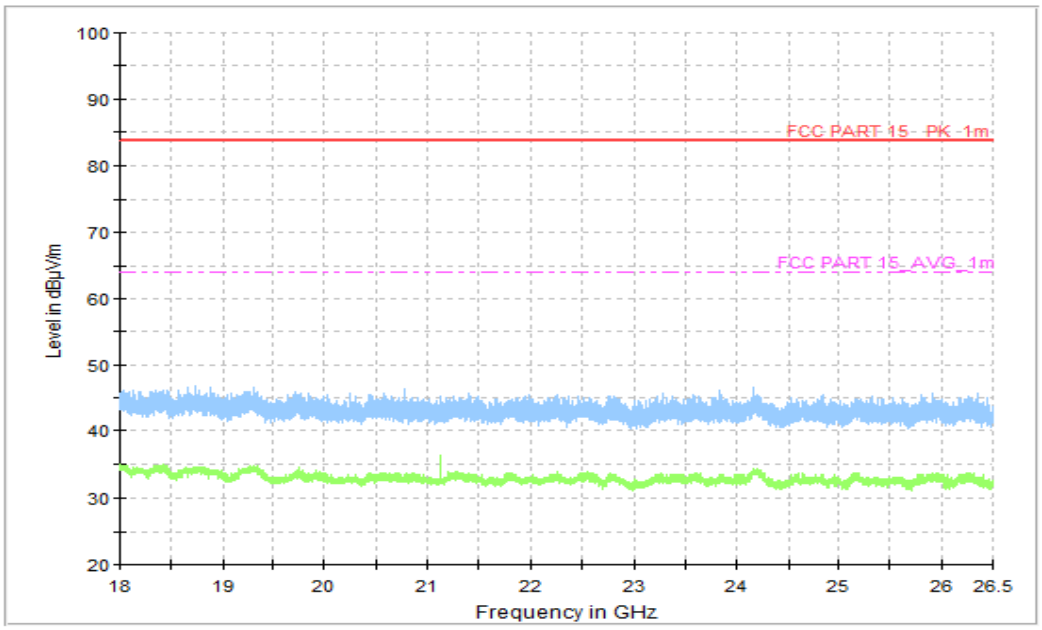

Figure A.1.18. Radiated Emission (LTE receiver Band 14, 18GHz to 26.5GHz)

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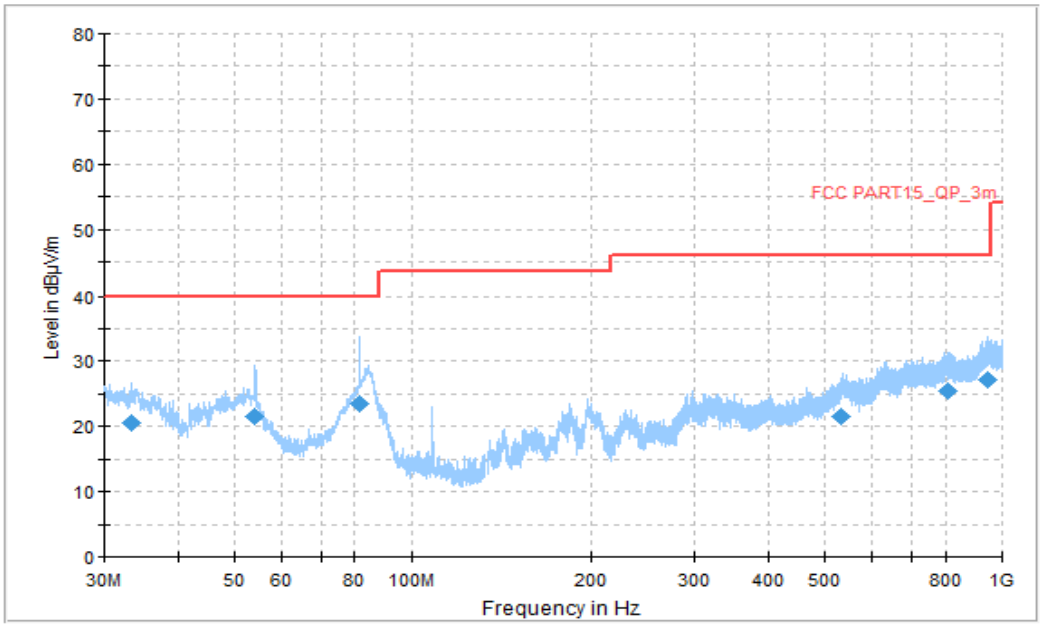

Figure A.1.19. Radiated Emission (Camera, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.287222	20.61	40.00	19.39	V	-15	35.61
54.196111	21.47	40.00	18.53	V	-22	43.47
81.356111	23.57	40.00	16.43	V	-22	45.57
532.082778	21.61	46.02	24.41	V	-5	26.61
806.377222	25.37	46.02	20.65	V	-1	26.37
946.703889	27.11	46.02	18.91	V	1	26.11

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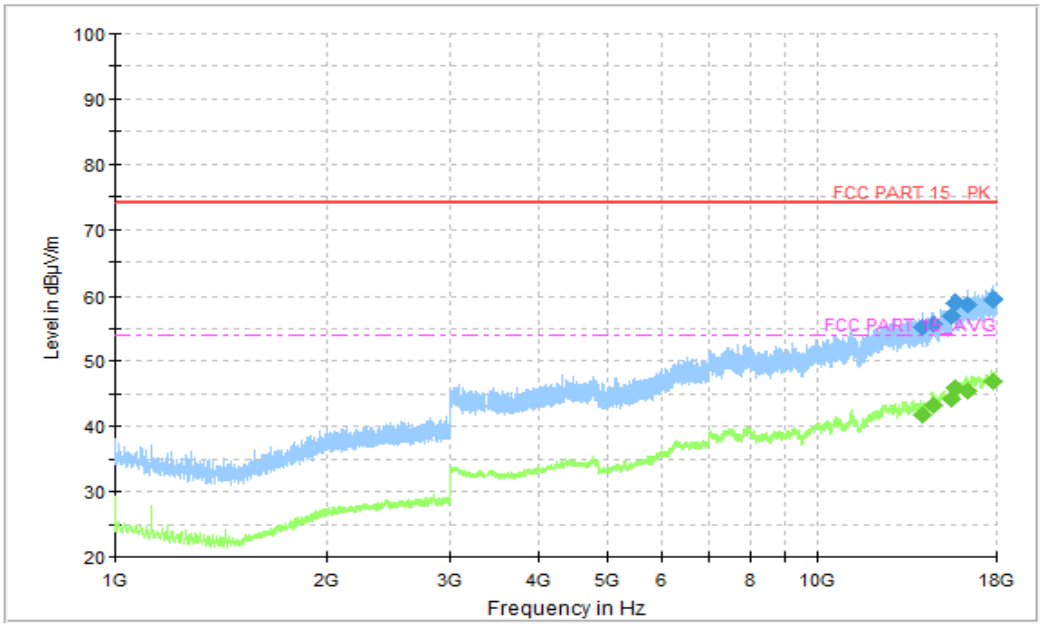

Figure A.1.20. Radiated Emission (Camera, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
14138.750000	55.34	74.00	18.66	H	18	37.34
14608.000000	55.83	74.00	18.17	H	19	36.83
15544.500000	57.03	74.00	16.97	V	20	37.03
15653.250000	58.94	74.00	15.06	V	21	37.94
16376.750000	58.59	74.00	15.41	H	22	36.59
17819.000000	59.40	74.00	14.60	H	24	35.40

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
14138.750000	41.89	54.00	12.11	H	18	23.89
14608.000000	43.23	54.00	10.77	H	19	24.23
15544.500000	44.22	54.00	9.78	V	20	24.22
15653.250000	45.83	54.00	8.17	V	21	24.83
16376.750000	45.42	54.00	8.58	H	22	23.42
17819.000000	46.92	54.00	7.08	H	24	22.92

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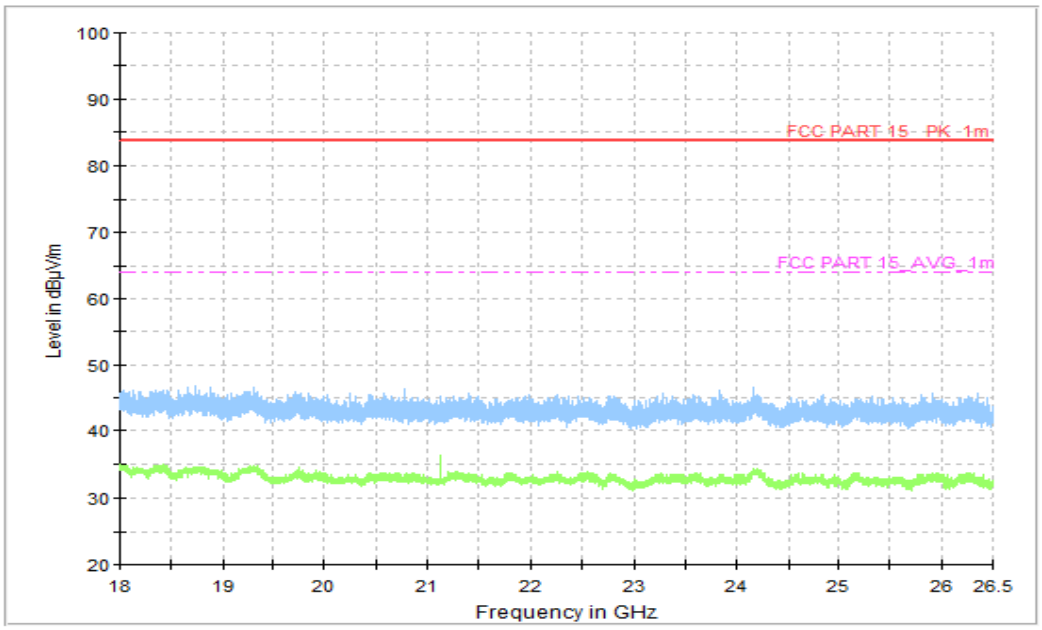

Figure A.1.21. Radiated Emission (Camera, 18GHz to 26.5GHz)

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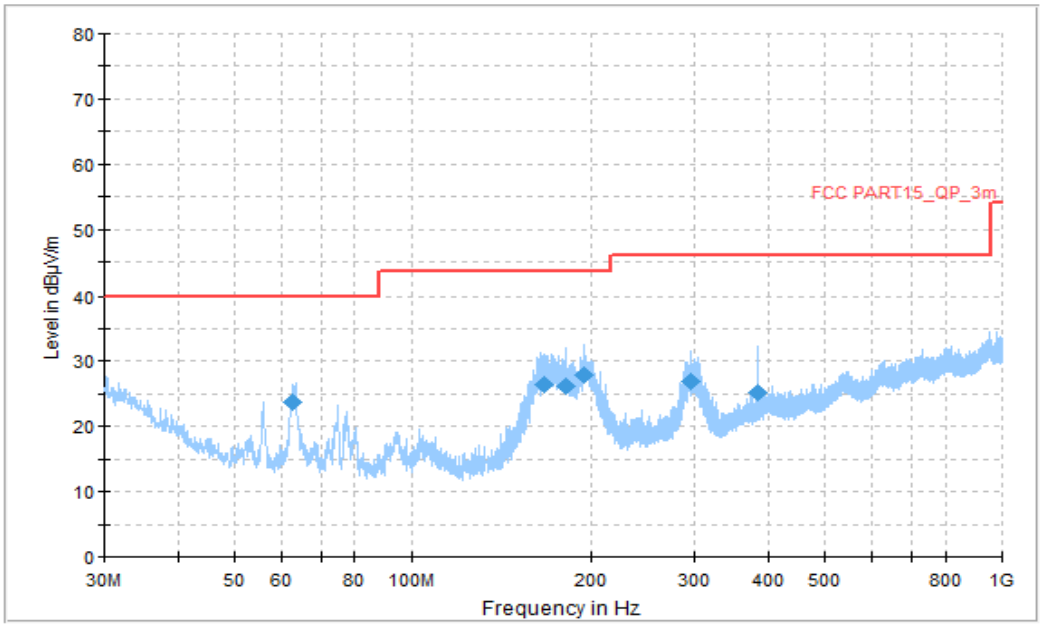

Figure A.1.22. Radiated Emission (Data Transfer: PC TO EUT, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
62.602778	23.81	40.00	16.19	V	-22	45.81
166.446667	26.52	43.52	17.00	H	-18	44.52
181.427778	26.14	43.52	17.38	H	-18	44.14
194.900000	27.95	43.52	15.57	H	-18	45.95
295.941667	27.02	46.02	19.00	H	-14	41.02
383.996111	25.14	46.02	20.88	H	-10	35.14

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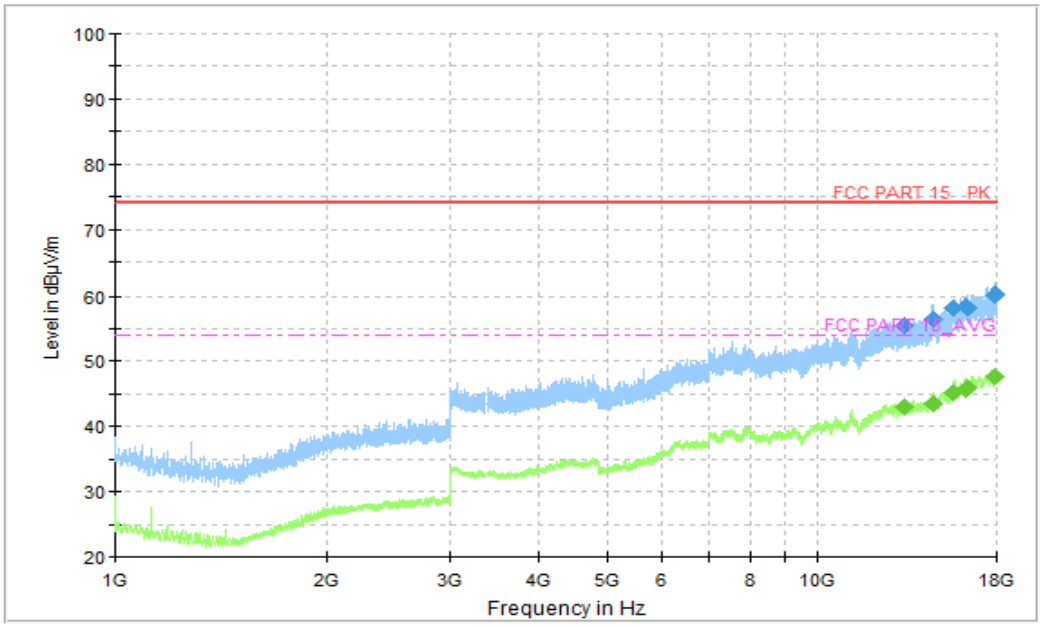

Figure A.1.23. Radiated Emission (Data Transfer: PC TO EUT, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13279.750000	55.44	74.00	18.56	H	18	37.44
14574.750000	56.46	74.00	17.54	H	19	37.46
15570.000000	58.26	74.00	15.74	V	20	38.26
16285.000000	58.37	74.00	15.63	V	22	36.37
16404.500000	58.18	74.00	15.82	V	22	36.18
17888.750000	60.24	74.00	13.76	V	25	35.24

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13279.750000	42.97	54.00	11.03	H	18	24.97
14574.750000	43.57	54.00	10.43	H	19	24.57
15570.000000	45.16	54.00	8.84	V	20	25.16
16285.000000	45.81	54.00	8.19	V	22	23.81
16404.500000	45.89	54.00	8.11	V	22	23.89
17888.750000	47.75	54.00	6.25	V	25	22.75

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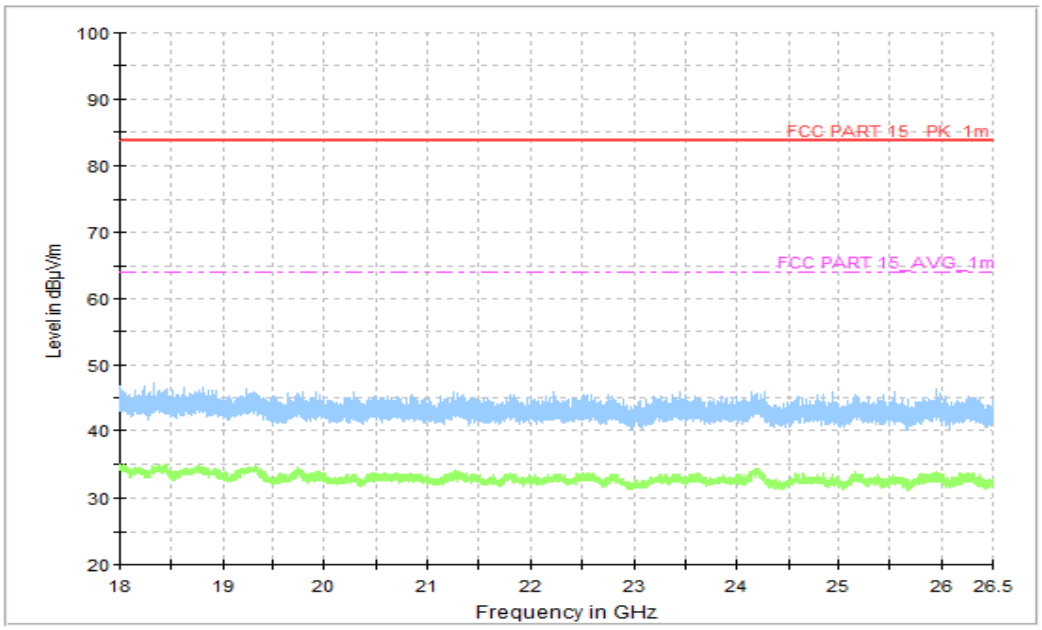

Figure A.1.24. Radiated Emission (Data Transfer: PC TO EUT, 18GHz to 26.5GHz)

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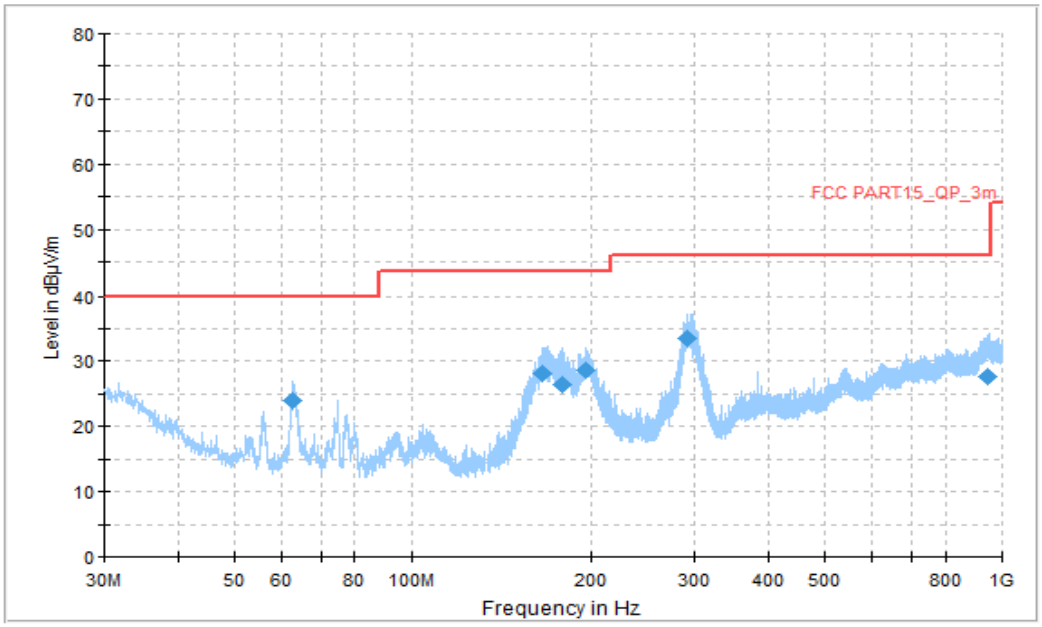

Figure A.1.25. Radiated Emission (Data Transfer: EUT TO PC, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
62.872222	23.88	40.00	16.12	V	-21	44.88
165.315000	28.04	43.52	15.48	H	-18	46.04
178.948889	26.34	43.52	17.18	H	-18	44.34
196.031667	28.64	43.52	14.88	H	-18	46.64
292.546667	33.44	46.02	12.58	H	-14	47.44
943.524444	27.76	46.02	18.26	V	1	26.76

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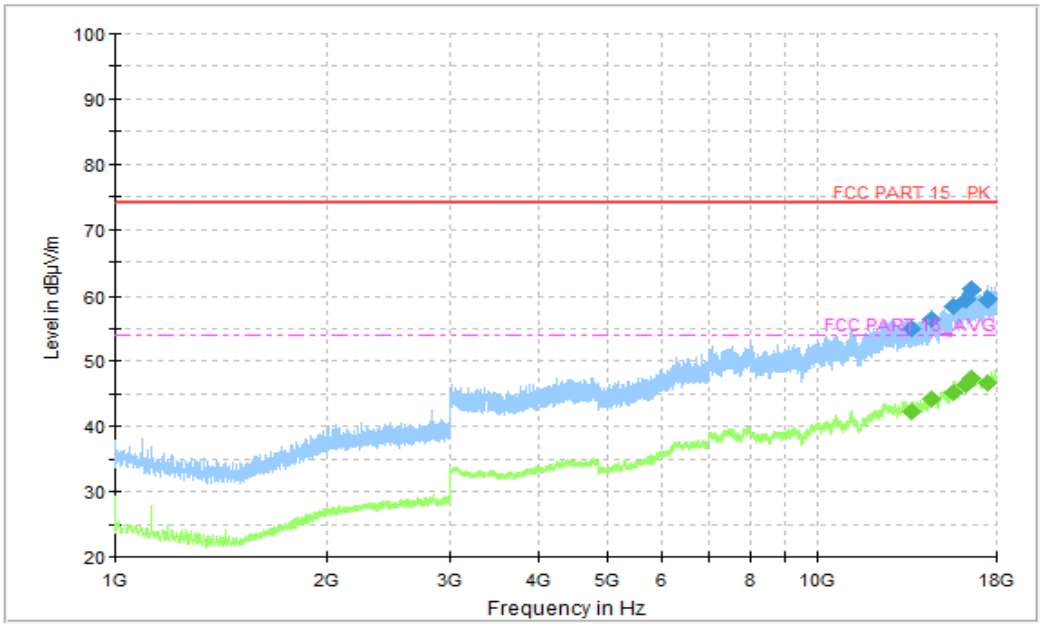

Figure A.1.26. Radiated Emission (Data Transfer: EUT TO PC, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13601.500000	54.92	74.00	19.08	H	18	36.92
14552.500000	56.54	74.00	17.46	V	19	37.54
15574.000000	58.43	74.00	15.57	H	20	38.43
16262.250000	59.27	74.00	14.73	V	22	37.27
16600.500000	60.85	74.00	13.15	H	23	37.85
17443.500000	59.36	74.00	14.64	H	24	35.36

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13601.500000	42.20	54.00	11.80	H	18	24.20
14552.500000	44.16	54.00	9.84	V	19	25.16
15574.000000	45.16	54.00	8.84	H	20	25.16
16262.250000	46.30	54.00	7.70	V	22	24.30
16600.500000	47.32	54.00	6.68	H	23	24.32
17443.500000	46.61	54.00	7.39	H	24	22.61

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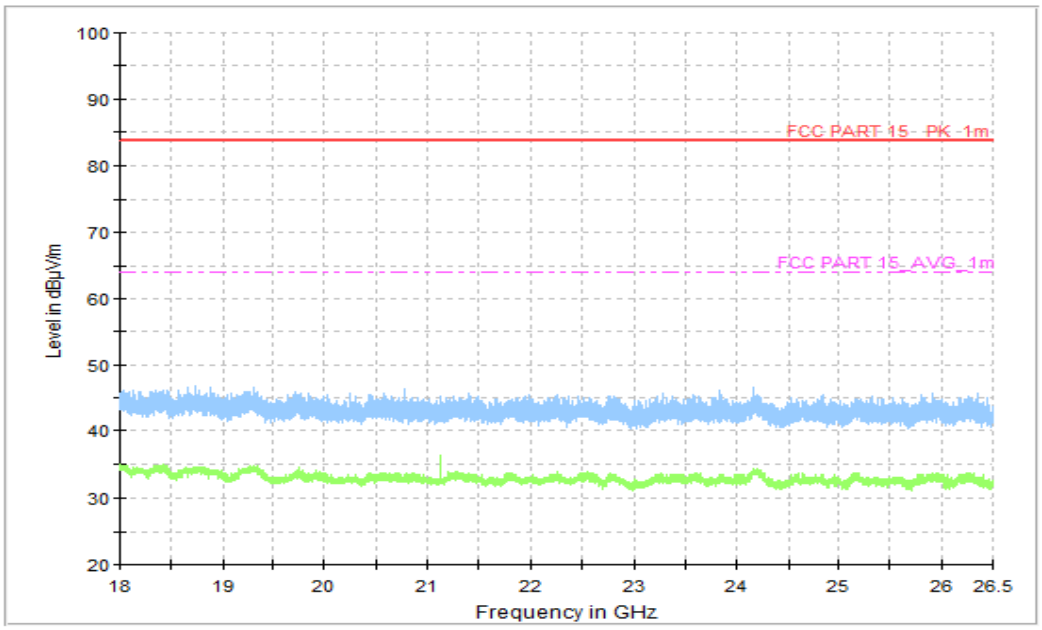

Figure A.1.27. Radiated Emission (Data Transfer: EUT TO PC, 18GHz to 26.5GHz)

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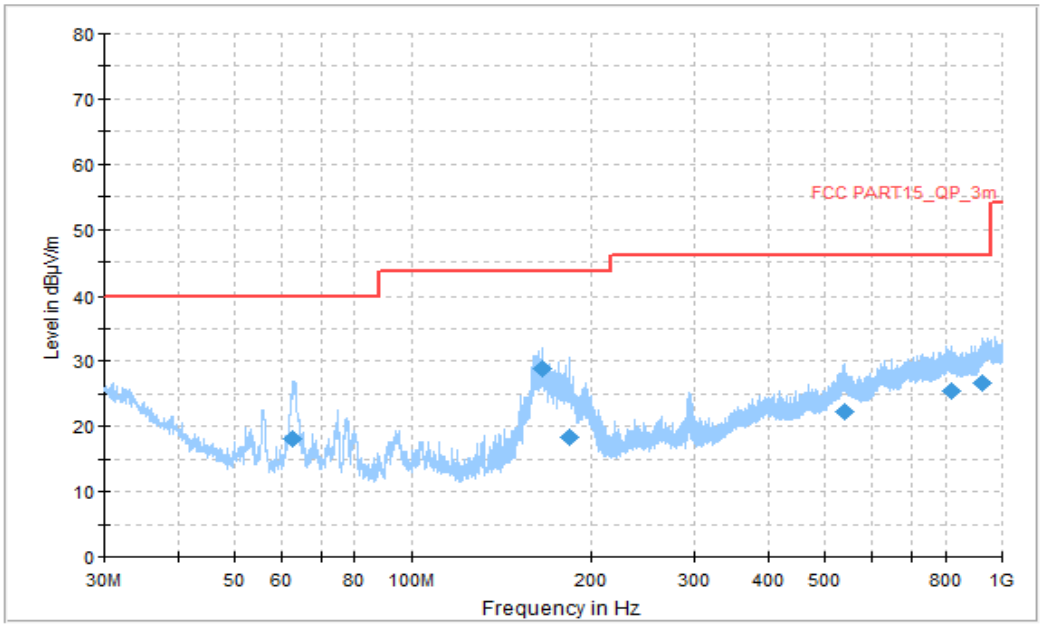

Figure A.1.28. Radiated Emission (Data Transfer: PC TO TF Card, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
62.710556	18.19	40.00	21.81	V	-21	39.19
165.638333	28.85	43.52	14.67	V	-18	46.85
183.691111	18.30	43.52	25.22	V	-18	36.30
540.812778	22.29	46.02	23.73	V	-4	26.29
817.693889	25.45	46.02	20.57	H	-1	26.45
924.609444	26.76	46.02	19.26	V	1	25.76

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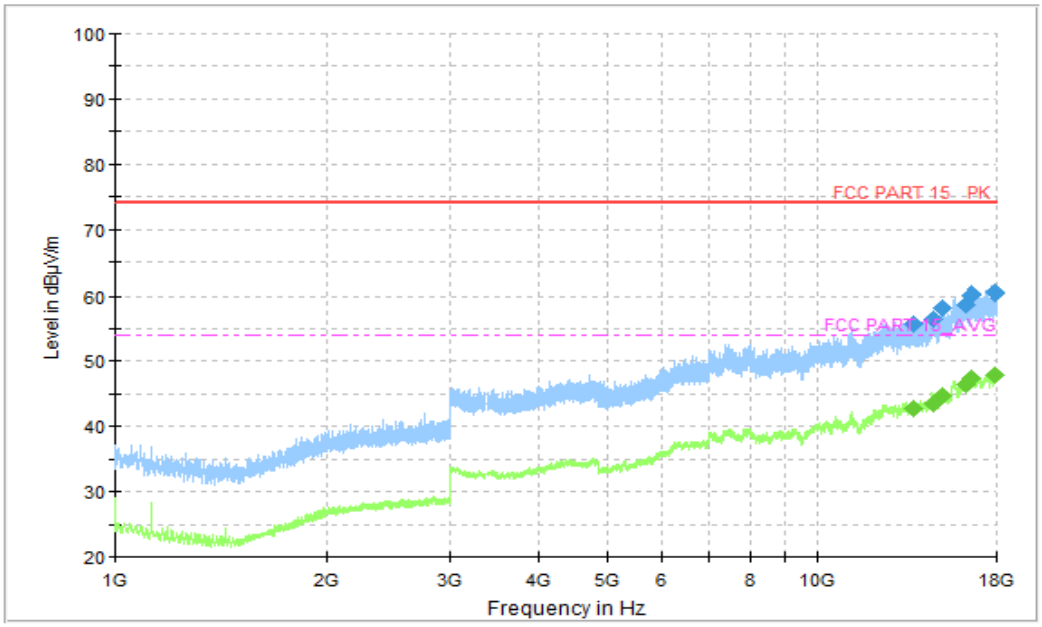

Figure A.1.29. Radiated Emission (Data Transfer: PC TO TF Card, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13656.250000	55.76	74.00	18.24	H	18	37.76
14594.500000	56.36	74.00	17.64	V	19	37.36
15049.000000	58.06	74.00	15.94	V	19	39.06
16260.000000	58.73	74.00	15.27	V	22	36.73
16593.000000	60.24	74.00	13.76	V	23	37.24
17898.000000	60.36	74.00	13.64	V	25	35.36

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13656.250000	42.65	54.00	11.35	H	18	24.65
14594.500000	43.57	54.00	10.43	V	19	24.57
15049.000000	44.73	54.00	9.27	V	19	25.73
16260.000000	46.33	54.00	7.67	V	22	24.33
16593.000000	47.43	54.00	6.57	V	23	24.43
17898.000000	47.78	54.00	6.22	V	25	22.78

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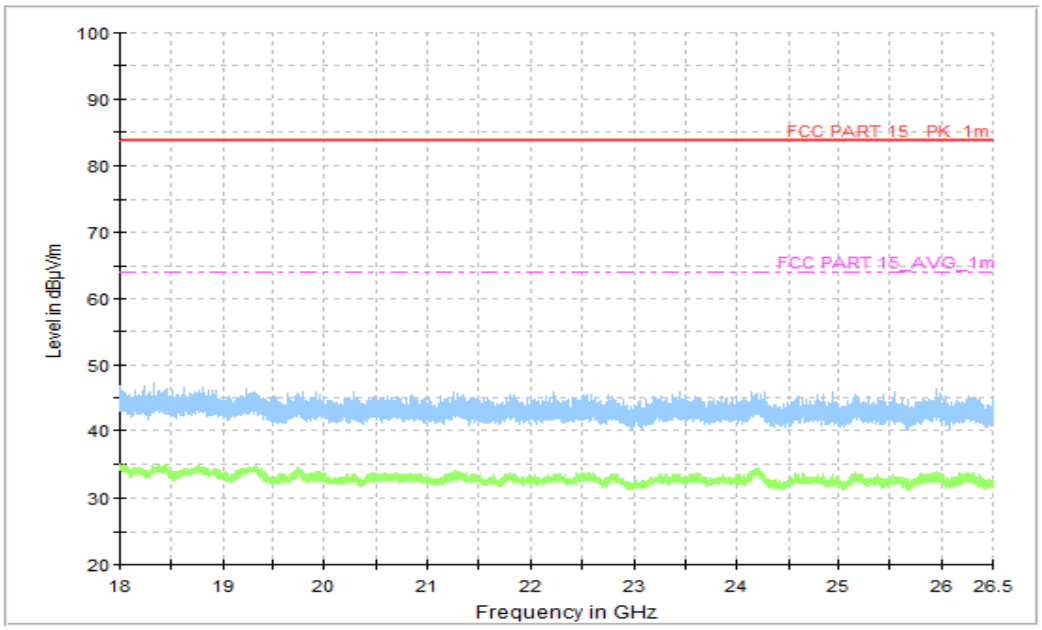

Figure A.1.30. Radiated Emission (Data Transfer: PC TO TF Card, 18GHz to 26.5GHz)

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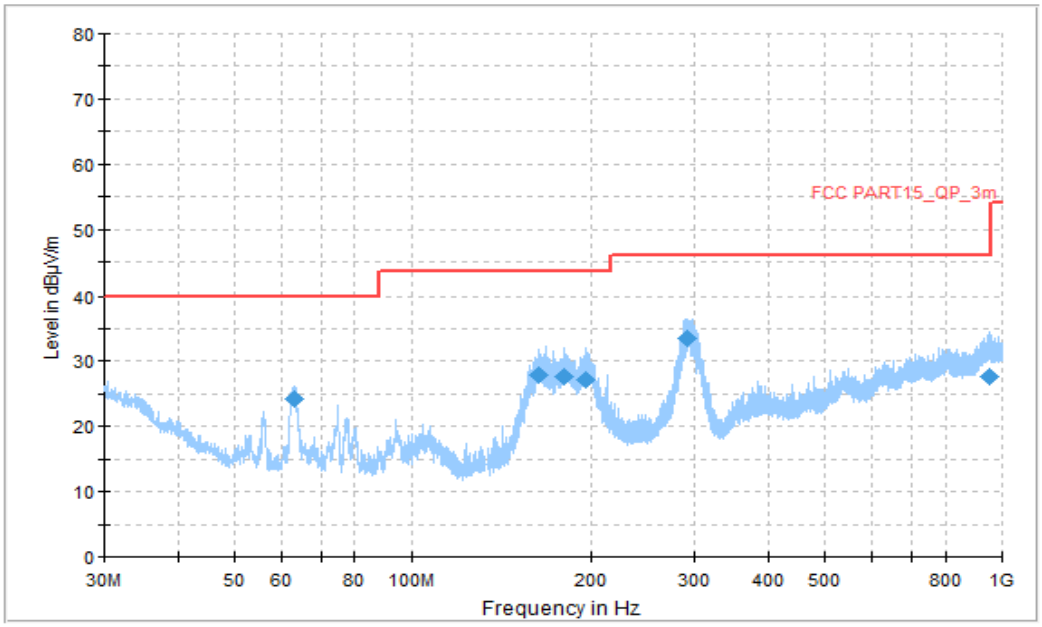

Figure A.1.31. Radiated Emission (Data Transfer: TF Card TO PC, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
63.087778	24.24	40.00	15.76	H	-21	45.24
162.566667	27.77	43.52	15.75	H	-18	45.77
180.080556	27.57	43.52	15.95	H	-18	45.57
195.708333	27.23	43.52	16.29	H	-18	45.23
291.415000	33.56	46.02	12.46	H	-14	47.56
948.590000	27.70	46.02	18.32	V	1	26.70

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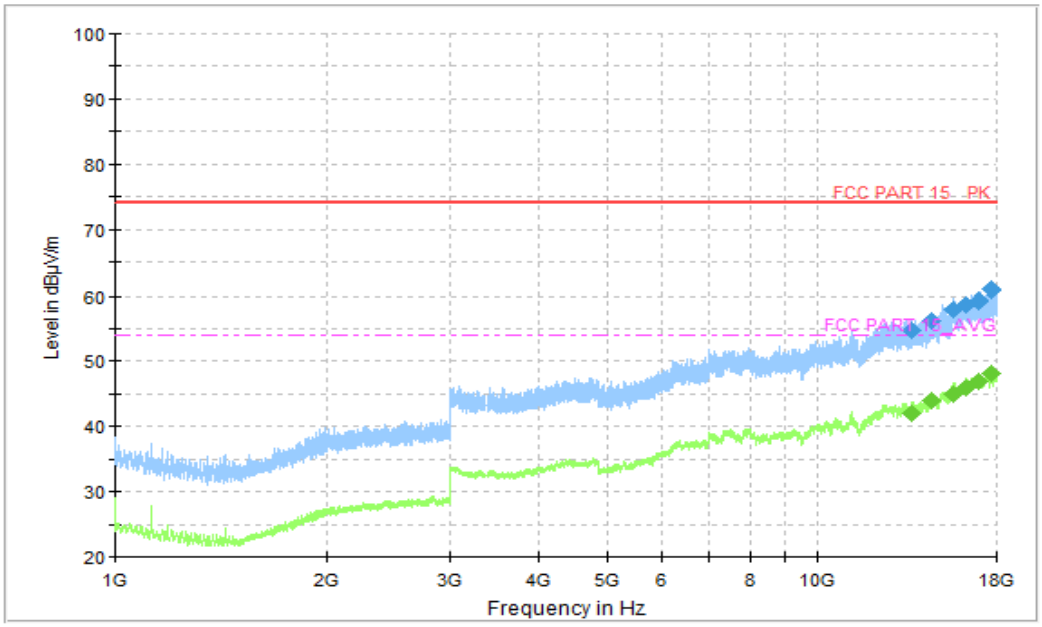

Figure A.1.32. Radiated Emission (Data Transfer: TF Card TO PC, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13607.000000	54.65	74.00	19.35	H	18	36.65
14540.750000	56.33	74.00	17.67	H	19	37.33
15560.000000	57.83	74.00	16.17	V	20	37.83
16246.000000	58.63	74.00	15.37	V	22	36.63
16966.500000	59.09	74.00	14.91	H	23	36.09
17700.000000	60.87	74.00	13.13	H	24	36.87

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13607.000000	41.96	54.00	12.04	H	18	23.96
14540.750000	44.03	54.00	9.97	H	19	25.03
15560.000000	45.05	54.00	8.95	V	20	25.05
16246.000000	46.00	54.00	8.00	V	22	24.00
16966.500000	46.86	54.00	7.14	H	23	23.86
17700.000000	48.03	54.00	5.97	H	24	24.03

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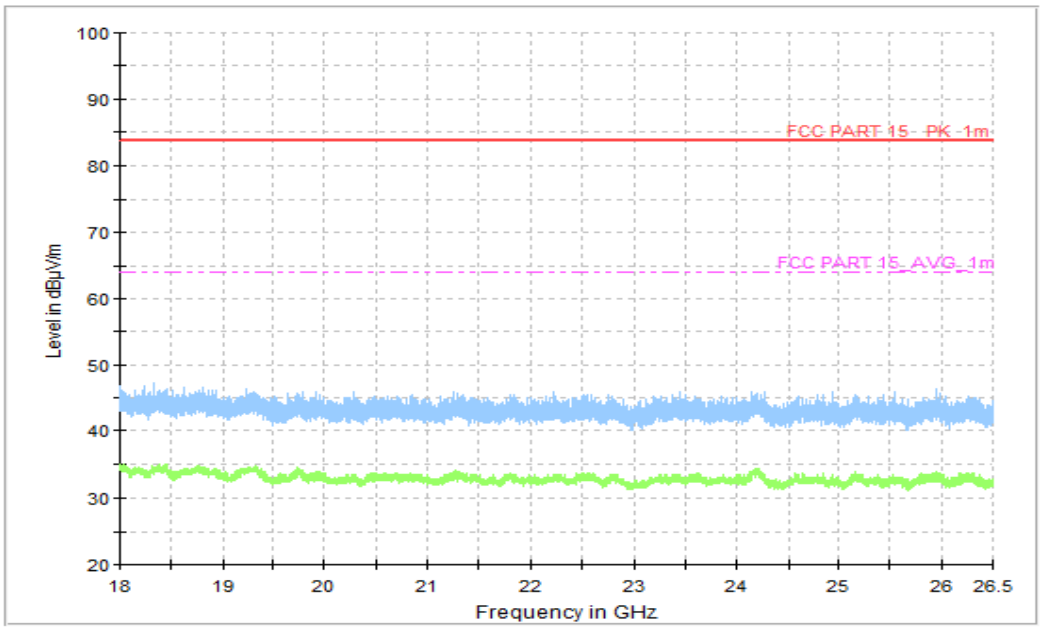

Figure A.1.33. Radiated Emission (Data Transfer: TF Card TO PC, 18GHz to 26.5GHz)

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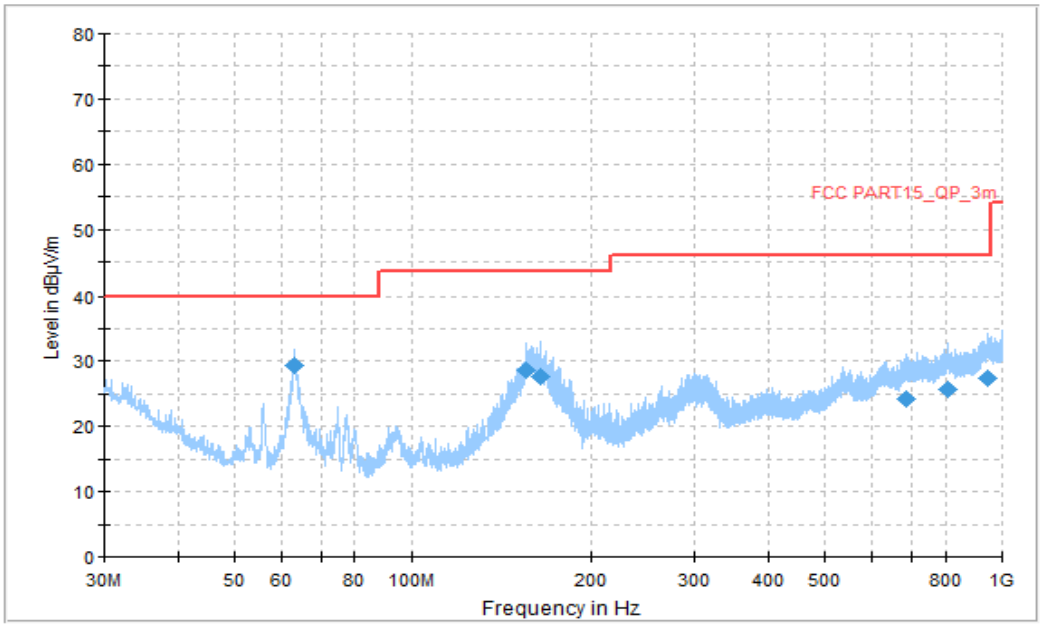

Figure A.1.34. Radiated Emission (Data Transfer: TF Card TO PC, 30MHz to 1GHz)

Final_Results

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
63.087778	29.28	40.00	10.72	H	-21	50.28
155.291667	28.57	43.52	14.95	H	-17	45.57
163.967778	27.57	43.52	15.95	H	-18	45.57
689.222778	24.22	46.02	21.80	V	-2	26.22
809.718333	25.81	46.02	20.21	V	-1	26.81
945.087222	27.41	46.02	18.61	H	1	26.41

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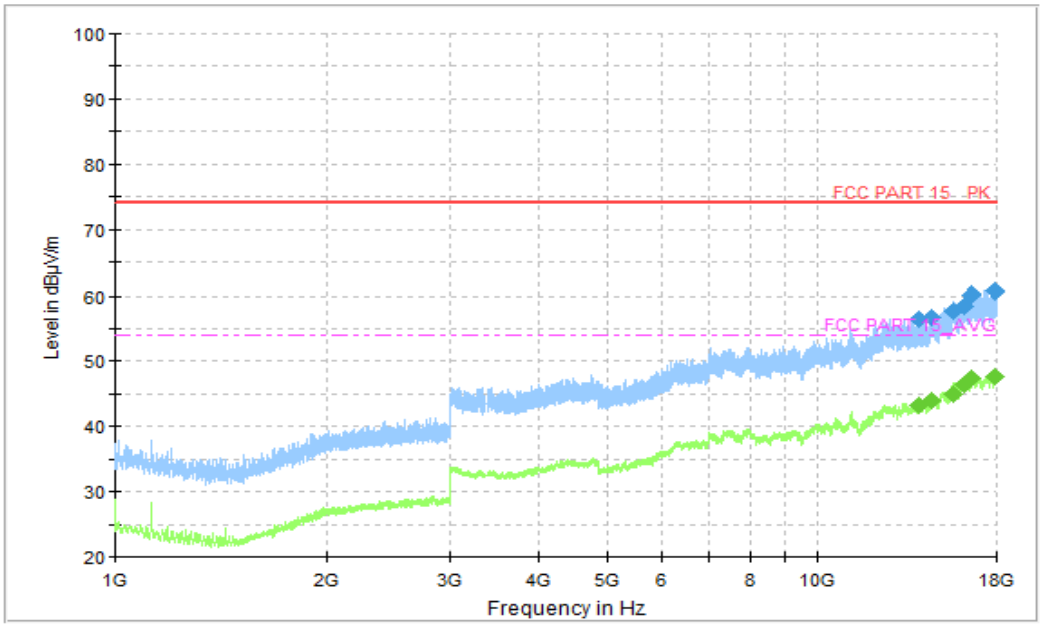

Figure A.1.35. Radiated Emission (Data Transfer: TF Card TO PC, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13947.500000	56.54	74.00	17.46	V	18	38.54
14560.000000	56.79	74.00	17.21	H	19	37.79
15566.250000	57.78	74.00	16.22	H	20	37.78
16135.750000	58.48	74.00	15.52	H	22	36.48
16592.250000	60.03	74.00	13.97	H	23	37.03
17882.500000	60.62	74.00	13.38	V	25	35.62

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13947.500000	43.28	54.00	10.72	V	1.3	41.98
14560.000000	44.05	54.00	9.95	H	5.4	38.65
15566.250000	45.01	54.00	8.99	H	6.7	38.31
16135.750000	46.36	54.00	7.64	H	9.8	36.56
16592.250000	47.28	54.00	6.72	H	12.2	35.08
17882.500000	47.63	54.00	6.37	V	17.1	30.53

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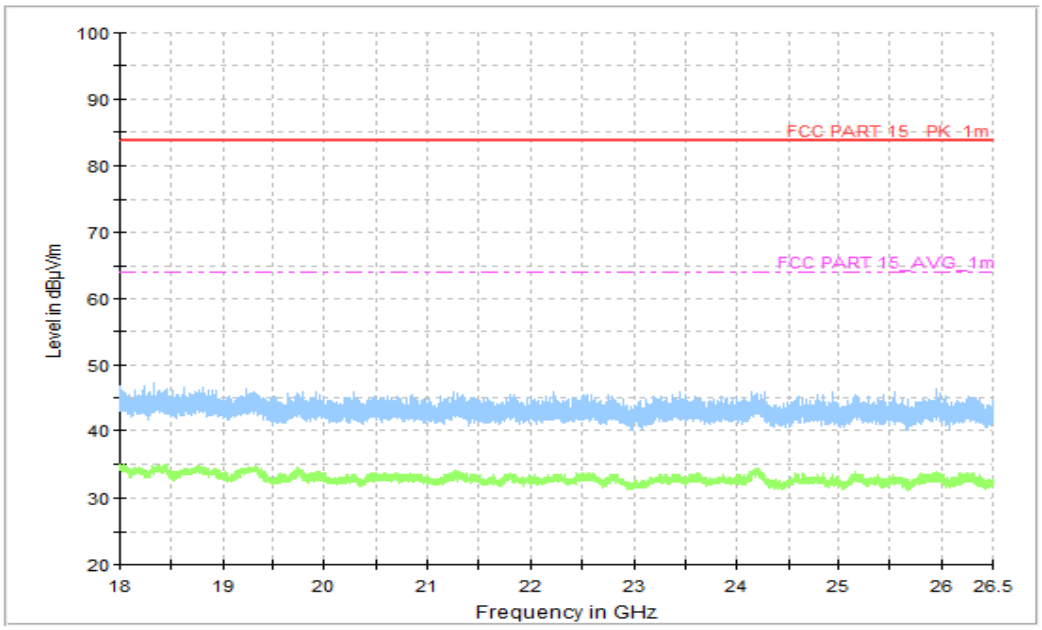

Figure A.1.36. Radiated Emission (Data Transfer: TF Card TO PC, 18GHz to 26.5GHz)

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A.2 Conducted Emission (§15.107(a))

Reference

FCC: 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 150kHz to 30MHz 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:

Camera: At the beginning of measurement, the battery is completely discharged. The battery and charger are installed so that the EUT works well and keeping on taking photos.

Video Player: The EUT is connected to a charger for charging and keeping on playing mp3.

Fingerprint recognition: EUT enables the fingerprint recognition function.

Data Transfer: The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C. The EUT is connected to a PC for transmitting data. The software is used to let the PC keep on copying data to EUT or TF Card, 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		

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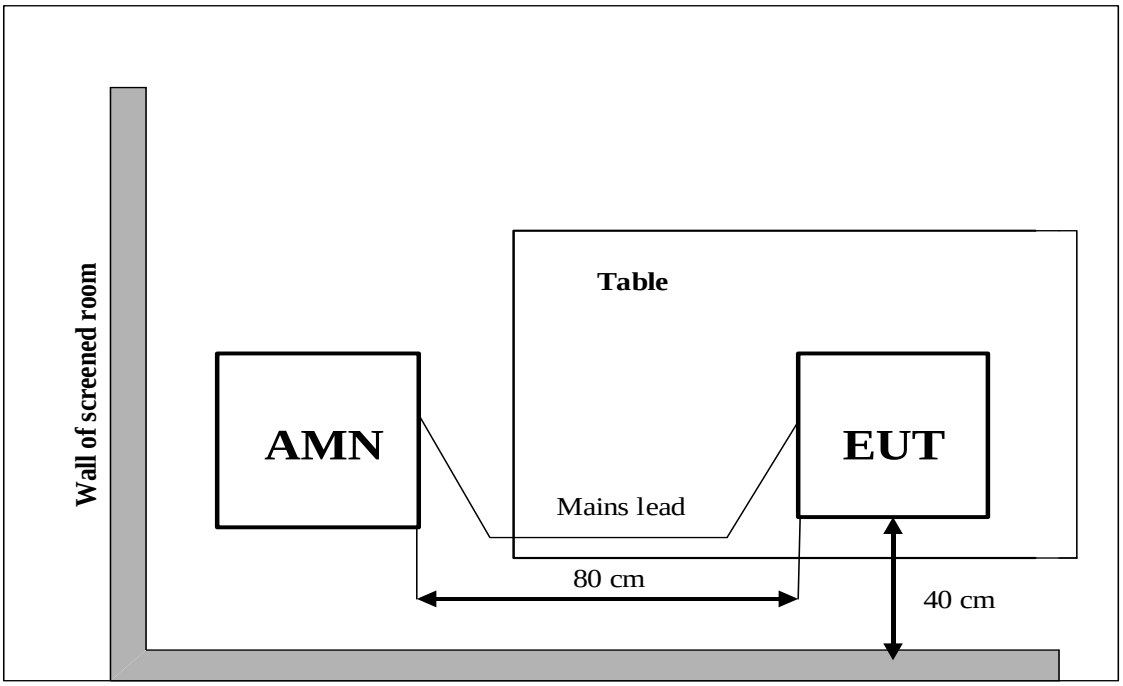
A.2.4Test set-up:



A.2.5 Test Condition in charging mode

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

RBW	Sweep Time(s)
9kHz	1

A.2.6 Measurement Results

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

Where

Corr: PathLoss + Voltage Division Factor

PMea: Measurement result on receiver.

Camera

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT07aa/Set.1	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.1.	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.				

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Video Player

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT07aa/Set.1	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.2.	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.				

Video Player

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT07aa/Set.2	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.3.	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.				

Data Transfer

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT03aa/Set.3	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.4.	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.				

Data Transfer

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT07aa/Set.4	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.5.	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.				

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Camera

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT07aa/Set.1	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.6.	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.				

Video Player

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT07aa/Set.1	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.7.	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.				

Video Player

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT07aa/Set.2	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.8.	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

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT07aa/Set.3	Conclusion
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.9.	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

AC Input Port/ Voltage: 240V/60Hz

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Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT07aa/Set.4	
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.10.	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/60Hz

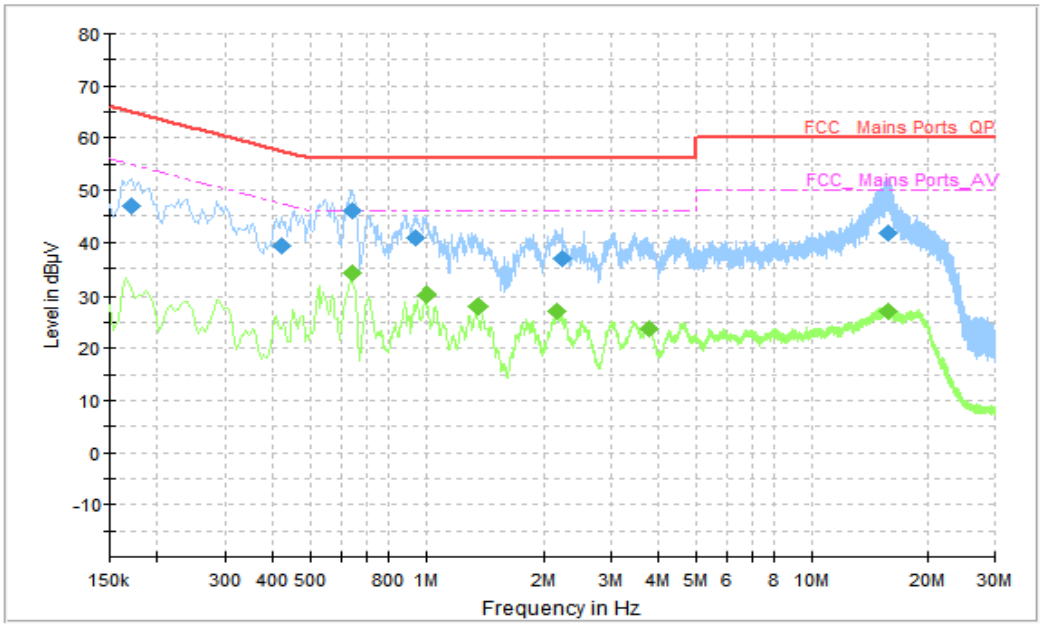

Figure A.2.1. Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.170000	47.06	64.96	17.90	N	10	37.06
0.422000	39.29	57.41	18.12	N	10	29.29
0.646000	46.11	56.00	9.89	L1	10	36.11
0.942000	40.73	56.00	15.27	L1	10	30.73
2.238000	36.89	56.00	19.11	L1	10	26.89
15.818000	41.86	60.00	18.14	N	11	30.86

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.642000	34.18	46.00	11.82	L1	10	24.18
0.998000	30.15	46.00	15.85	L1	10	20.15
1.354000	28.04	46.00	17.96	L1	10	18.04
2.174000	27.15	46.00	18.85	L1	10	17.15
3.774000	23.64	46.00	22.36	L1	10	13.64
15.818000	27.17	50.00	22.83	N	11	16.17

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AC Input Port/ Voltage: 120V/60Hz

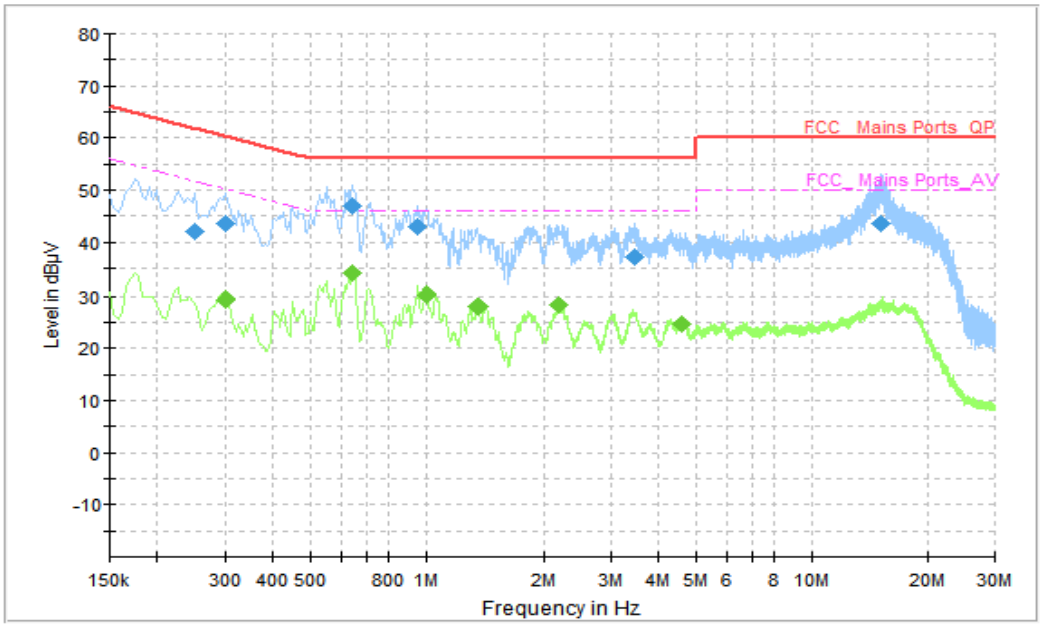

Figure A.2.2. Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.250000	42.02	61.76	19.74	L1	10	32.02
0.302000	43.52	60.19	16.67	L1	10	33.52
0.642000	46.90	56.00	9.10	L1	10	36.90
0.954000	43.13	56.00	12.87	L1	10	33.13
3.474000	37.27	56.00	18.73	L1	10	27.27
15.142000	43.66	60.00	16.34	N	10	33.66

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.302000	29.21	50.19	20.98	L1	10	19.21
0.642000	34.19	46.00	11.81	N	10	24.19
1.006000	30.06	46.00	15.94	L1	10	20.06
1.362000	27.87	46.00	18.13	L1	10	17.87
2.190000	28.21	46.00	17.79	L1	10	18.21
4.590000	24.68	46.00	21.32	L1	10	14.68

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AC Input Port/ Voltage: 120V/60Hz

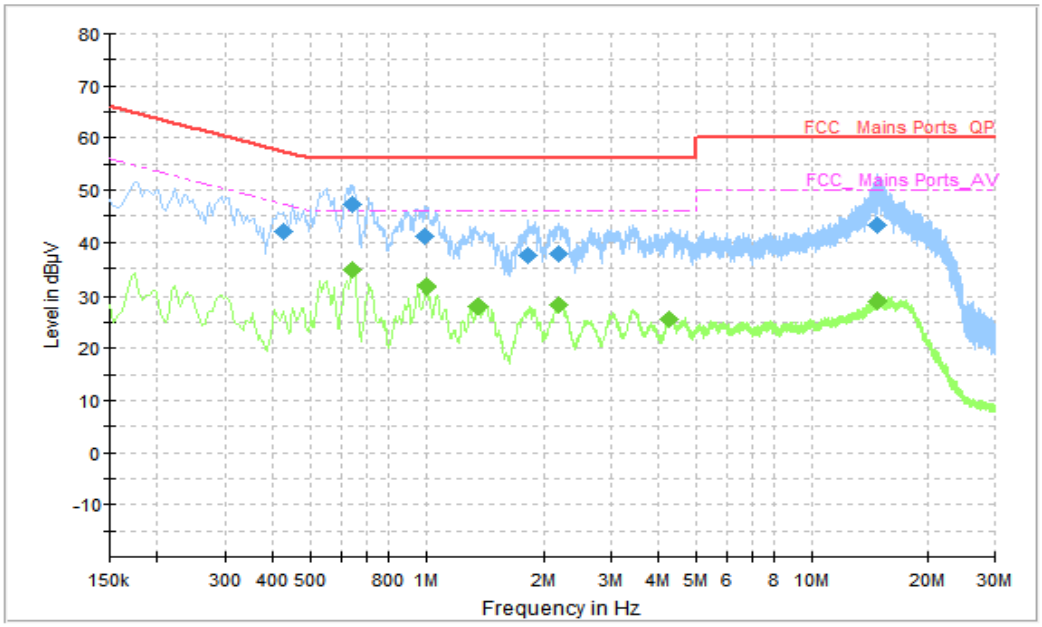

Figure A.2.3. Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.426000	42.01	57.33	15.32	L1	10	32.01
0.646000	47.27	56.00	8.73	L1	10	37.27
0.994000	41.28	56.00	14.72	N	10	31.28
1.818000	37.55	56.00	18.45	N	10	27.55
2.182000	37.90	56.00	18.10	L1	10	27.9
14.846000	43.30	60.00	16.70	N	11	32.30

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.646000	34.73	46.00	11.27	N	10	24.73
1.002000	31.65	46.00	14.35	N	10	21.65
1.354000	28.05	46.00	17.95	L1	10	18.05
2.194000	28.27	46.00	17.73	L1	10	18.27
4.258000	25.62	46.00	20.38	L1	10	15.62
14.802000	28.88	50.00	21.12	N	11	17.88

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AC Input Port/ Voltage: 120V/60Hz

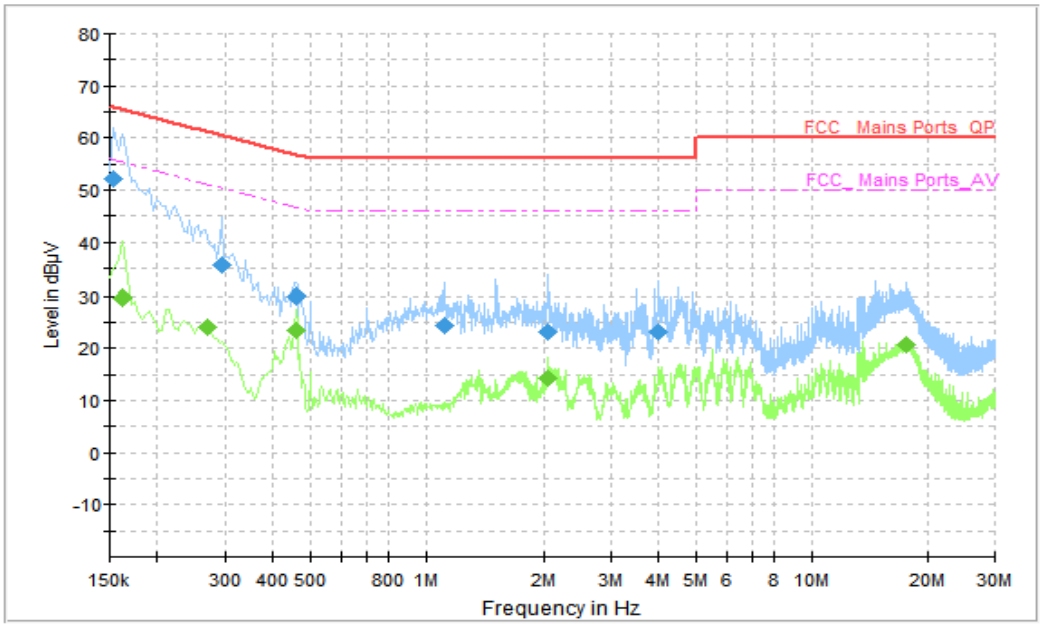

Figure A.2.4. Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154000	52.32	65.78	13.46	L1	10	42.32
0.294000	35.67	60.41	24.74	N	10	25.67
0.458000	29.90	56.73	26.83	L1	10	19.90
1.114000	24.20	56.00	31.80	N	10	14.20
2.062000	23.09	56.00	32.91	L1	10	13.09
3.986000	23.20	56.00	32.80	L1	10	13.20

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.162000	29.43	55.36	25.93	L1	10	19.43
0.270000	24.13	51.12	26.98	L1	10	14.13
0.458000	23.55	46.73	23.18	L1	10	13.55
2.062000	14.25	46.00	31.75	L1	10	4.25
17.602000	20.52	50.00	29.48	L1	10	10.52
17.690000	20.56	50.00	29.44	L1	10	10.56

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AC Input Port/ Voltage: 120V/60Hz

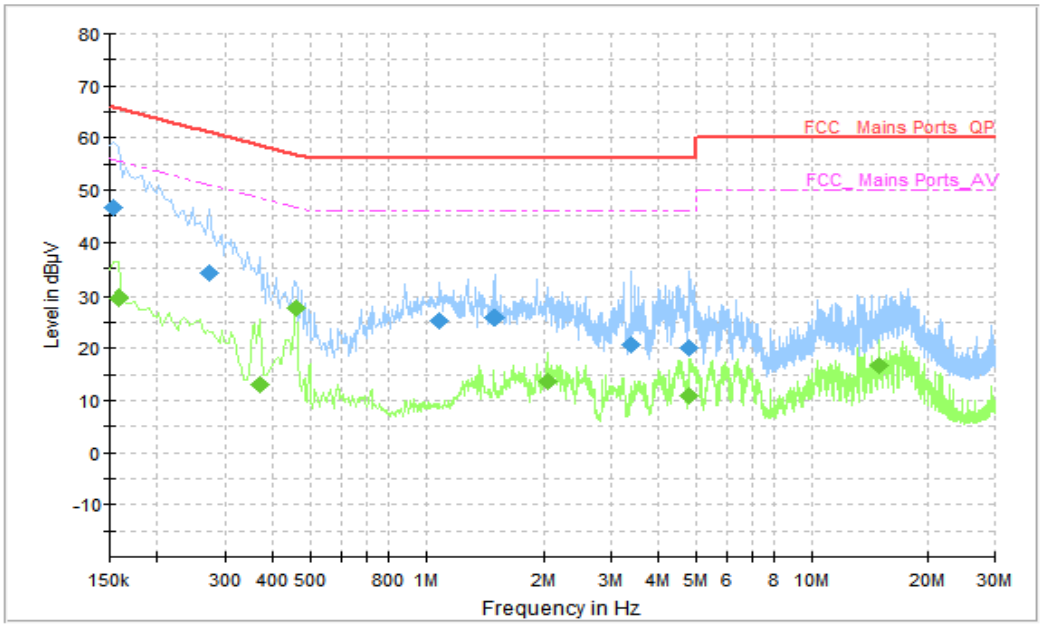

Figure A.2.5. Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154000	46.68	65.78	19.10	L1	10	36.68
0.274000	34.07	61.00	26.92	N	10	24.07
1.086000	25.32	56.00	30.68	N	10	15.32
1.498000	25.74	56.00	30.26	N	10	15.74
3.374000	20.69	56.00	35.31	N	10	10.69
4.802000	20.07	56.00	35.93	L1	10	10.07

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.158000	29.40	55.57	26.17	L1	10	19.40
0.370000	13.02	48.50	35.48	N	10	3.02
0.458000	27.57	46.73	19.16	N	10	17.57
2.046000	13.71	46.00	32.29	N	10	3.71
4.798000	10.80	46.00	35.20	L1	10	0.8
15.050000	16.84	50.00	33.16	N	10	6.84

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AC Input Port/ Voltage: 240V/60Hz

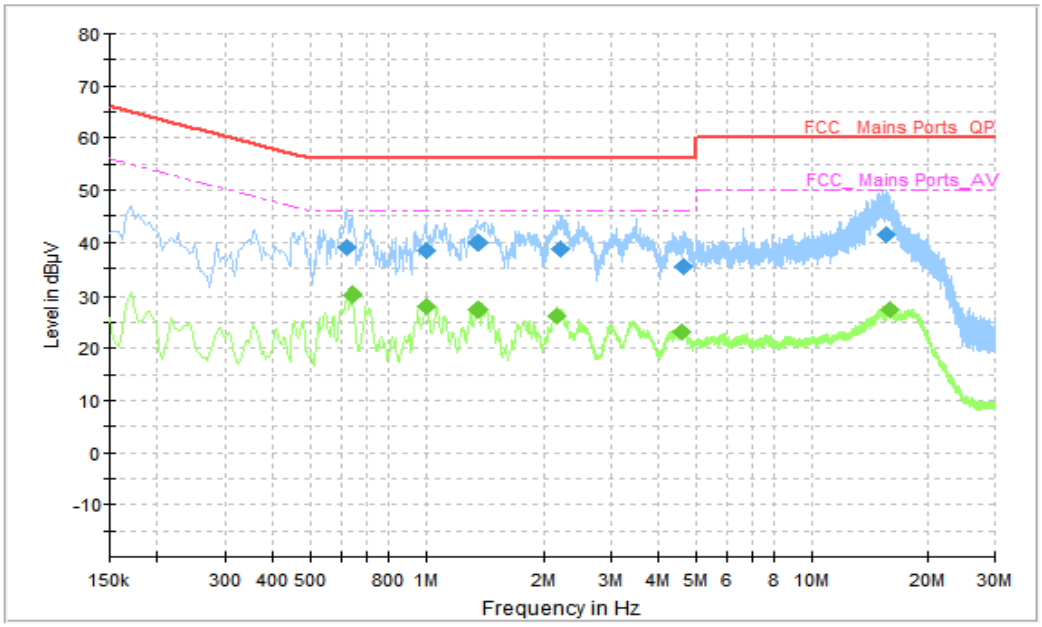

Figure A.2.6. Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.622000	39.15	56.00	16.85	L1	10	29.15
1.002000	38.27	56.00	17.73	N	10	28.27
1.354000	39.94	56.00	16.06	L1	10	29.94
2.222000	38.64	56.00	17.36	L1	10	28.64
4.626000	35.49	56.00	20.51	L1	10	25.49
15.634000	41.46	60.00	18.54	N	11	30.46

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.642000	30.17	46.00	15.83	N	10	20.17
1.002000	28.02	46.00	17.98	L1	10	18.02
1.358000	27.55	46.00	18.45	L1	10	17.55
2.170000	26.23	46.00	19.77	L1	10	16.23
4.594000	23.22	46.00	22.78	L1	10	13.22
15.986000	27.32	50.00	22.68	N	11	16.32

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AC Input Port/ Voltage: 240V/60Hz

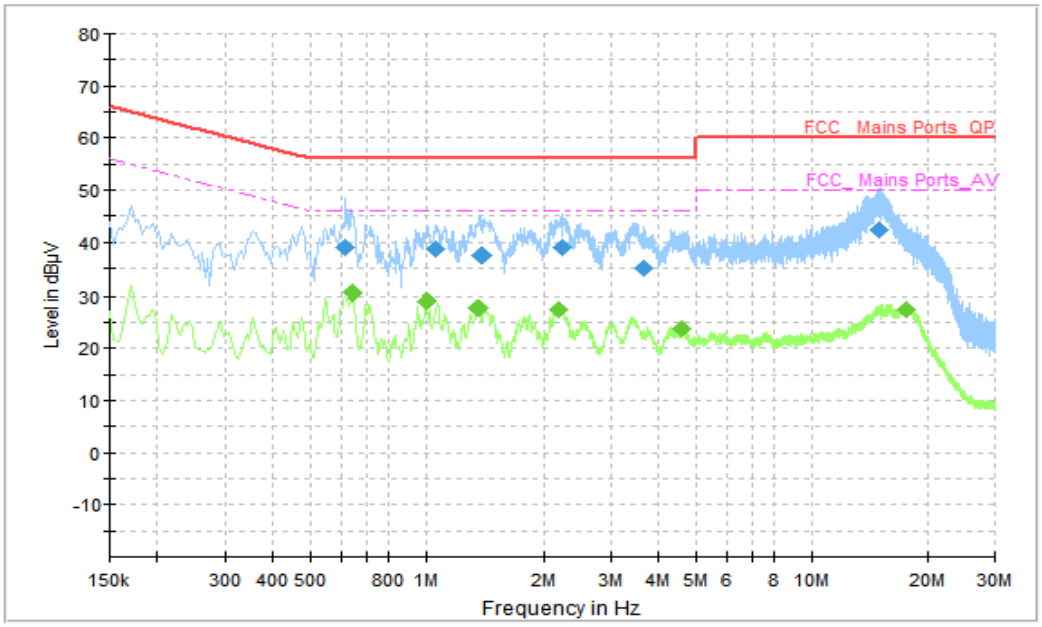

Figure A.2.7. Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.618000	38.93	56.00	17.07	N	10	28.93
1.062000	38.60	56.00	17.40	L1	10	28.6
1.386000	37.60	56.00	18.40	L1	10	27.60
2.238000	39.10	56.00	16.90	N	10	29.10
3.662000	35.11	56.00	20.89	L1	10	25.11
15.006000	42.34	60.00	17.66	N	11	31.34

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.646000	30.36	46.00	15.64	N	10	20.36
0.998000	28.83	46.00	17.17	L1	10	18.83
1.354000	27.71	46.00	18.29	L1	10	17.71
2.202000	27.55	46.00	18.45	L1	10	17.55
4.610000	23.63	46.00	22.37	L1	10	13.63
17.634000	27.50	50.00	22.50	N	11	16.50

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AC Input Port/ Voltage: 120V/60Hz

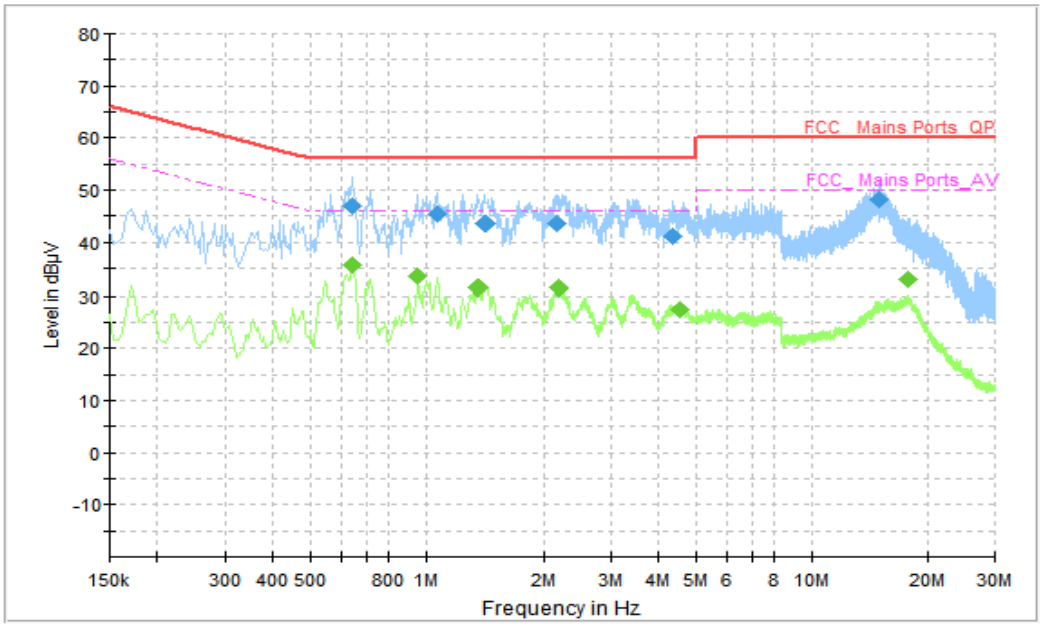

Figure A.2.8. Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.642000	46.94	56.00	9.06	L1	10	36.94
1.070000	45.58	56.00	10.42	L1	10	35.58
1.418000	43.76	56.00	12.24	L1	10	33.76
2.178000	43.53	56.00	12.47	L1	10	33.53
4.366000	41.30	56.00	14.70	L1	10	31.3
15.042000	48.19	60.00	11.81	N	10	38.19

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.646000	35.60	46.00	10.40	L1	10	25.60
0.950000	33.50	46.00	12.50	L1	10	23.5
1.354000	31.45	46.00	14.55	L1	10	21.45
2.198000	31.49	46.00	14.51	L1	10	21.49
4.538000	27.47	46.00	18.53	L1	10	17.47
17.814000	33.01	50.00	16.99	N	10	23.01

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AC Input Port/ Voltage: 240V/60Hz

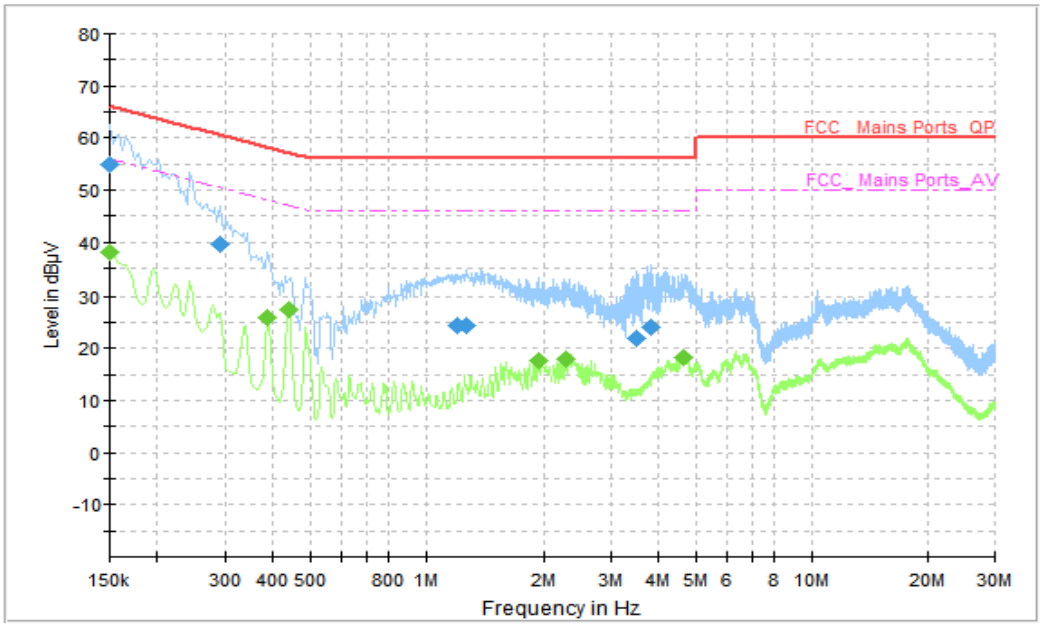

Figure A.2.9. Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.150000	54.85	66.00	11.15	L1	10	44.85
0.290000	39.70	60.52	20.82	N	10	29.7
1.210000	24.36	56.00	31.64	N	10	14.36
1.274000	24.49	56.00	31.51	L1	10	14.49
3.486000	21.91	56.00	34.09	N	10	11.91
3.822000	24.13	56.00	31.87	N	10	14.13

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.150000	37.97	56.00	18.03	L1	10	27.97
0.386000	25.91	48.15	22.24	L1	10	15.91
0.438000	27.45	47.10	19.65	N	10	17.45
1.938000	17.63	46.00	28.37	N	10	7.63
2.278000	17.90	46.00	28.10	L1	9	8.9
4.646000	18.31	46.00	27.69	L1	10	8.31

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AC Input Port/ Voltage: 240V/60Hz

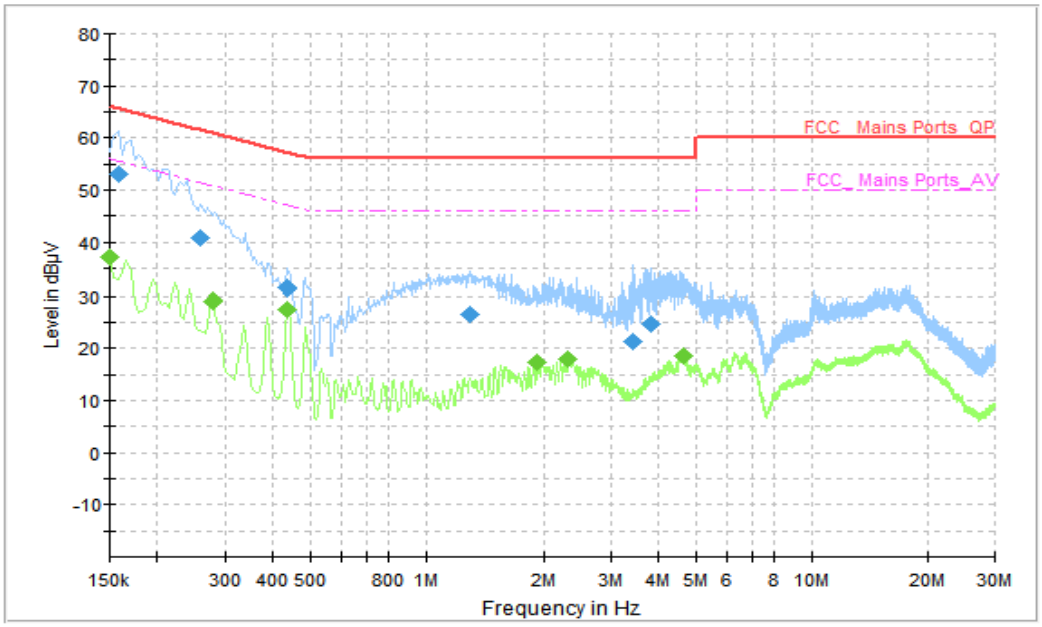

Figure A.2.10. Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.158000	52.97	65.57	12.60	L1	10	42.97
0.258000	40.86	61.50	20.64	N	10	30.86
0.434000	31.48	57.18	25.69	L1	10	21.48
1.306000	26.44	56.00	29.56	N	10	16.44
3.418000	21.43	56.00	34.57	L1	10	11.43
3.810000	24.55	56.00	31.45	L1	10	14.55

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.150000	37.14	56.00	18.86	N	10	27.14
0.278000	28.97	50.88	21.90	L1	10	18.97
0.434000	27.53	47.18	19.65	L1	10	17.53
1.934000	17.24	46.00	28.76	L1	10	7.24
2.322000	18.05	46.00	27.95	L1	9	9.05
4.634000	18.43	46.00	27.57	L1	10	8.43

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

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