TEST REPORT

No.I20N01974-EMC

for

Spectralink Corporation

Mobile Phone

Model Name：VC9240

With

Hardware Version: DVT1

Software Version: V138

FCC ID: IYG9240

IC number: 2128B-9240

Issued Date: 2020-09-03

Designation Number: CN1210

ISED Assigned Code: 23289

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:

SAICT, Shenzhen Academy of Information and Communications Technology

Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518026.

Tel:+86(0)755-33322000, Fax:+86(0)755-33322001

Email: yewu@caict.ac.cn. www.saict.ac.cn

REPORT HISTORY

Report Number	Revision	Description	Issue Date
I20N01974-EMC	Rev.0	1st edition	**2020-09-03**

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	Mobile Phone
Model Name	VC9240
Applicant's name	Spectralink Corporation
Manufacturer's Name	Spectralink Corporation

1.2. Test Standards

FCC Part 15, Subpart B 10-1-2019 Edition; ANSI C63.4 2014; ICES-003 Issue 6.

1.3. Test Result

Total test 2 items, pass 2 items. Please refer to "6.2 Summary of Measurement Results"

1.4. Testing Location

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

1.5. Project data

Testing Start Date: 2020-07-20 Testing End Date: 2020-08-20

1.6. Signature

Ma Shoujian
(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:	Spectralink Corporation
Address:	2560 55th Street, Boulder CO 80301, USA
Contact:	Paul Hampton
E-mail	Paul.Hampton@spectralink.com
Tel:	+1 303-441-7593

2.2. Manufacturer Information

Company Name:	Spectralink Corporation
Address:	2560 55th Street, Boulder CO 80301, USA
Contact:	Paul Hampton
E-mail	Paul.Hampton@spectralink.com
Tel:	+1 303-441-7593

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

3.1. About EUT

Description	Mobile Phone
Model Name	VC9240
FCC ID	IYG9240
IC number	2128B-9240
Antenna Type	Internal Antenna
Condition of EUT as received	No obvious damage in appearance

This device does not contain the receivers which tune and operate between 30MHz-960MHz.

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
UT02aa	velc02bdcjd005n	DVT1	V138	2020-07-22

*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	Cable

AE1

Model	BLI9200100
Manufacturer	Ningbo Veken Battery Co., Ltd.
Capacity	3040mAh
Nominal Voltage	3.85v

AE2-1

Model	IN-CA-310Q
Manufacturer	INNO VISION INTERNATIONAL HOLDINGS LTD.

AE3-1

Model	XG-US008
Manufacturer	Xunguang Electronics Co.,Ltd.

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

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AE2: There is just one internal circuit of charger, and the plug of the charger can be replaced to meet worldwide country's requirement.

3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE
Set.1	UT02aa +AE1+AE2-1+AE3-1
Set.2	UT02aa +AE1+AE3-1+PC

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3.5. General Description

The Equipment Under Test (EUT) is a model of Mobile Phone with internal antenna.
It has Camera, Video Player, USB Data Transfer, Bluetooth, NFC,and Wi-Fi functions.
It consists of normal options: Battery, Charger and Data 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.
Mobile Phone VC9240 manufactured by Spectralink Corporation is a variant model based on VC9235 for conformance test. According to client's description, the table below shows the difference between model VC9240 and VC9235:

Changes	VC9240	VC9235
Software	doesn't has driver code of scanner	has driver code of scanner
Hardware	Orion WIFI without Scanner	Orion WIFI with Scanner
	The Antennas of Wi-Fi,Bluetooth and NFC has changed	
Mechanical modifications	Whole size of EUT: 133.2x65.98x13.20	Whole size of EUT: 133.2x65.98x19.30
	No scanner lens	with scanner lens
	The rear cover and antenna frame has changed	

According to the declaration of differences by the manufacturer, the following tests need to be performed.

NO.	Tests	Set	Mode
1	Radiated Emission	Set.2	Data Transfer
		Set.1	Camera/Video Player
2	Conducted Emission	Set.2	Data Transfer
		Set.1	Camera/Video Player

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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
ICES-003	Information Technology Equipment(ITE)-Limits and methods of measurement	Issue 6

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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 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	2021.08.09	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	2021.07.16	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	/	/
14.	Filter	HPF_3G18G-SMA	/	SKET	/	/
15.	Filter	HPF_6.3G21G-SMA	/	SKET	/	/

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ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§15.109(a))

Reference

FCC: CFR Part 15.109(a)

IC: ICES-003 section 6.2

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:

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 MS or TF Card, reading and erasing the data after copy action was finished.

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 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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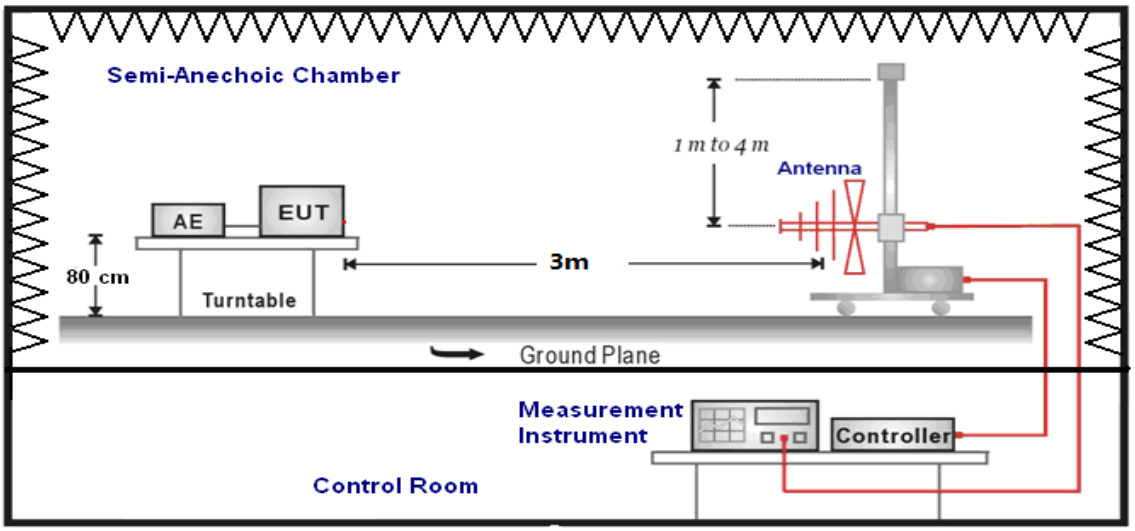
A.1.4 Test Condition

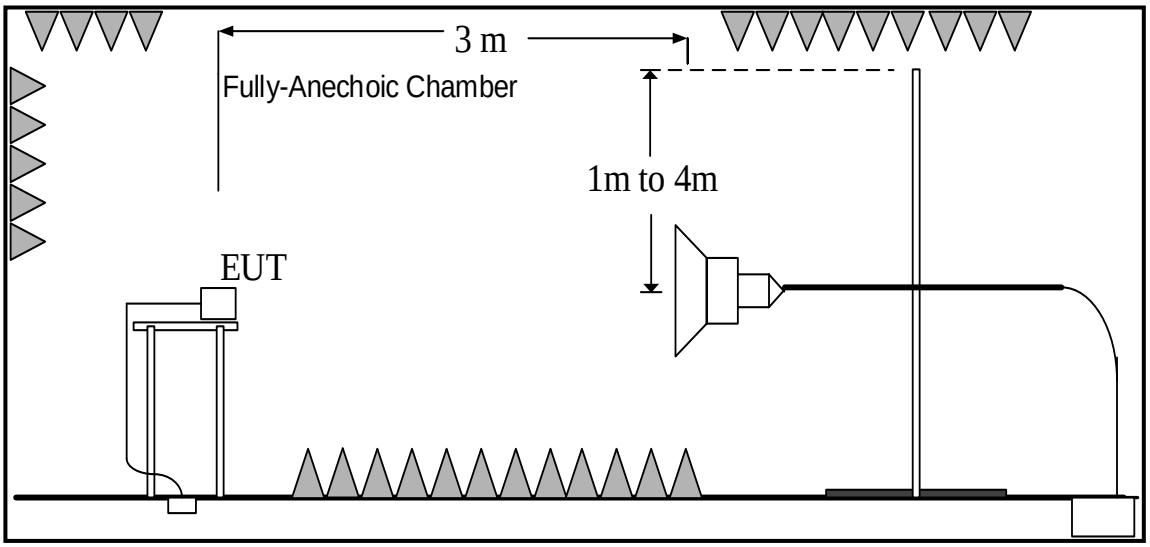
Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz (IF bandwidth)	5
Above 1000	1MHz/3MHz	15

A.1.5 Test set-up:

30MHz-1GHz



1GHz-40GHz



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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

Camera

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
		Set.1	
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)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.2	P
18000 to 26500			See Figure A.3	
26500 to 40000			See Figure A.4	

Video Player

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
		Set.1	
30-88	40	See Figure A.5	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 18000	54	74	See Figure A.6	P
18000 to 26500			See Figure A.7	
26500 to 40000			See Figure A.8	

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Data Transfer : EUT to PC

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
		Set.2	
30-88	40	See Figure A.9	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.2	
1000 to 18000	54	74	See Figure A.10	P
18000 to 26500			See Figure A.11	
26500 to 40000			See Figure A.12	

Data Transfer : PC to EUT

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
		Set.2	
30-88	40	See Figure A.13	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.2	
1000 to 18000	54	74	See Figure A.14	P
18000 to 26500			See Figure A.15	
26500 to 40000			See Figure A.16	

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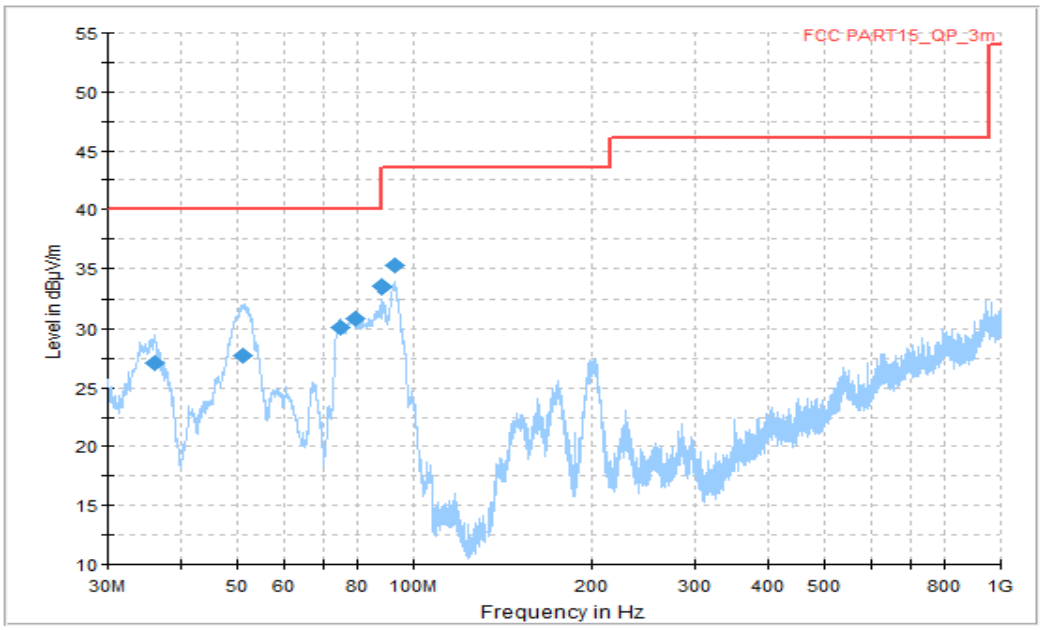

Figure A.1 Radiated Emission (Set.1,Camera , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
36.001875	27.10	40.00	12.90	V	-16	43.10
51.097500	27.76	40.00	12.24	V	-22	49.76
74.741250	30.14	40.00	9.86	V	-22	52.14
79.409375	30.89	40.00	9.11	V	-22	52.89
88.200000	33.52	43.52	10.00	V	-21	54.52
92.807500	35.30	43.52	8.22	V	-21	56.30

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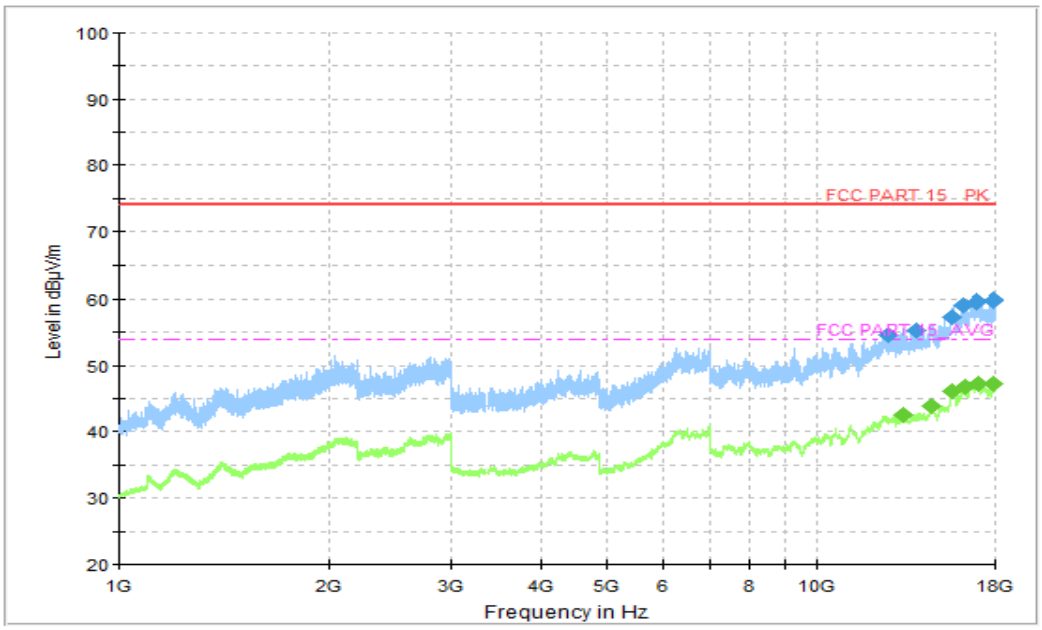

Figure A.2 Radiated Emission (Set.1, Camera , 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12670.000000	54.69	74.00	19.31	V	17	37.69
13868.250000	55.37	74.00	18.63	V	17	38.37
15569.500000	57.34	74.00	16.66	V	20	37.34
16161.500000	59.08	74.00	14.92	H	21	38.08
16959.250000	59.49	74.00	14.51	V	23	36.49
17896.500000	59.82	74.00	14.18	H	24	35.82

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13258.250000	42.58	54.00	11.42	V	17	25.58
14560.000000	44.02	54.00	9.98	V	18	26.02
15569.500000	46.04	54.00	7.96	V	20	26.04
16279.000000	46.76	54.00	7.24	V	21	25.76
17001.250000	47.17	54.00	6.83	H	23	24.17
17896.000000	47.26	54.00	6.74	V	24	23.26

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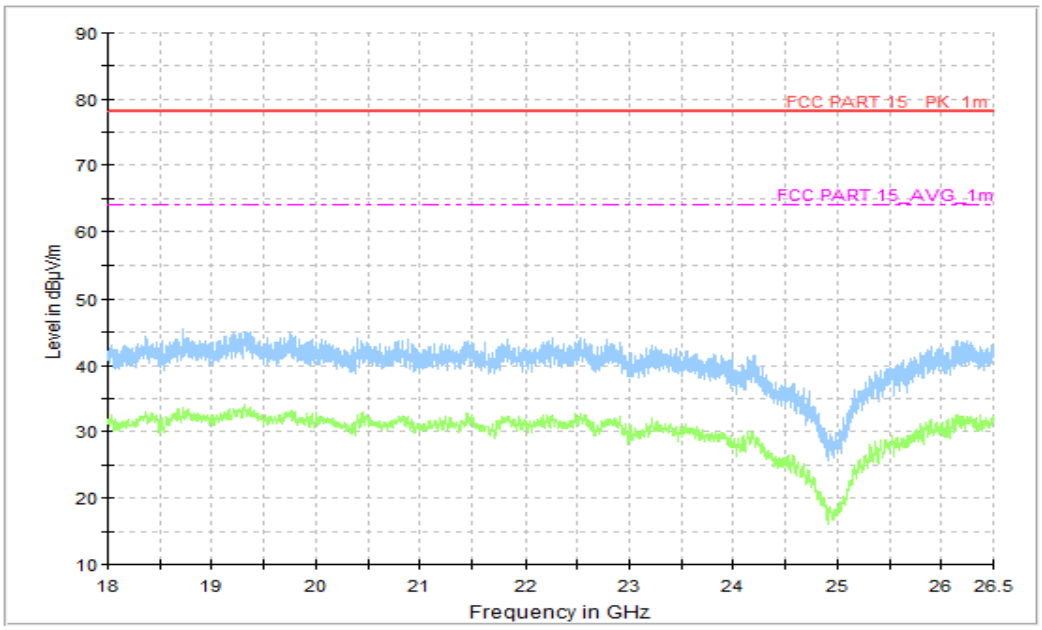

Figure A.3 Radiated Emission (Set.1, Camera , 18GHz to 26.5GHz)

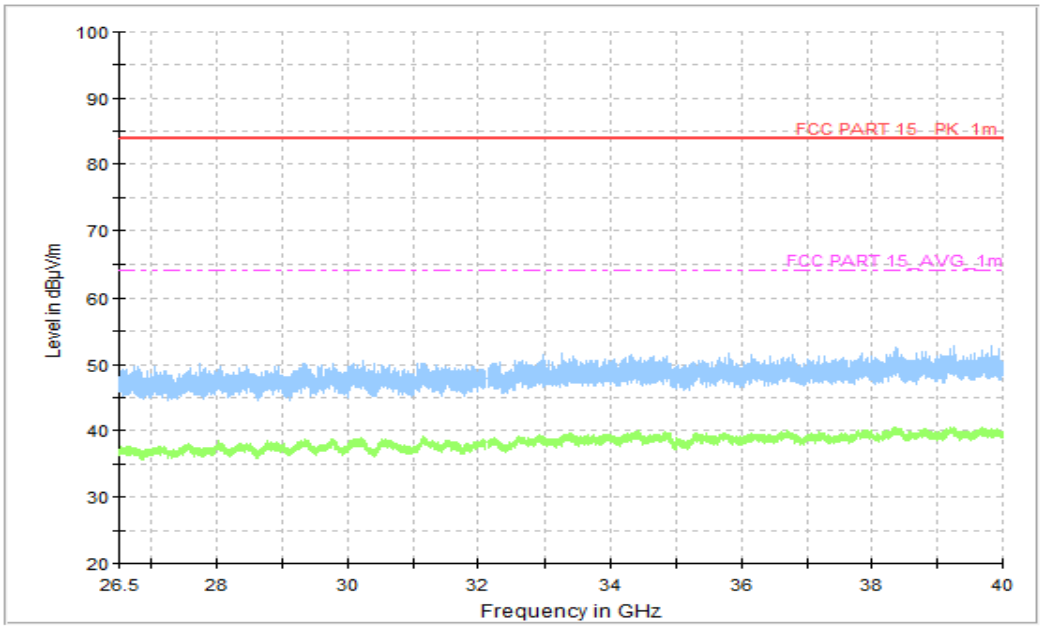

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Figure A.4 Radiated Emission (Set.1, Camera , 26.5GHz to 40GHz)

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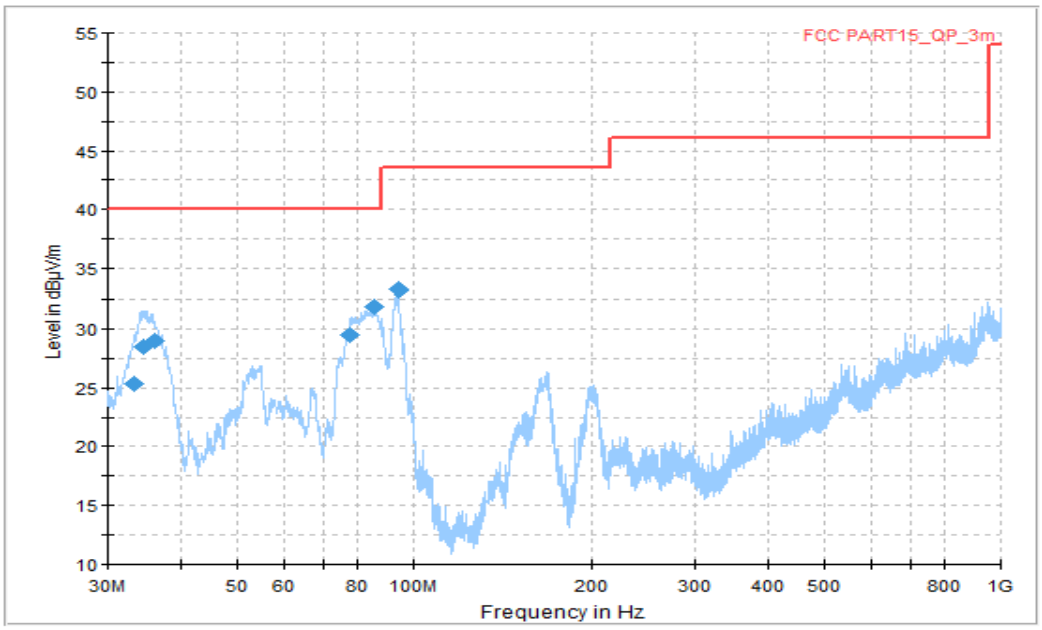

Figure A.5 Radiated Emission (Set.1,Video Player , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.213125	25.31	40.00	14.69	V	-15	40.31
34.486250	28.50	40.00	11.50	V	-15	43.50
36.001875	28.98	40.00	11.02	V	-16	44.98
78.015000	29.48	40.00	10.52	V	-22	51.48
85.653750	31.90	40.00	8.10	V	-22	53.90
94.080625	33.30	43.52	10.22	V	-21	54.30

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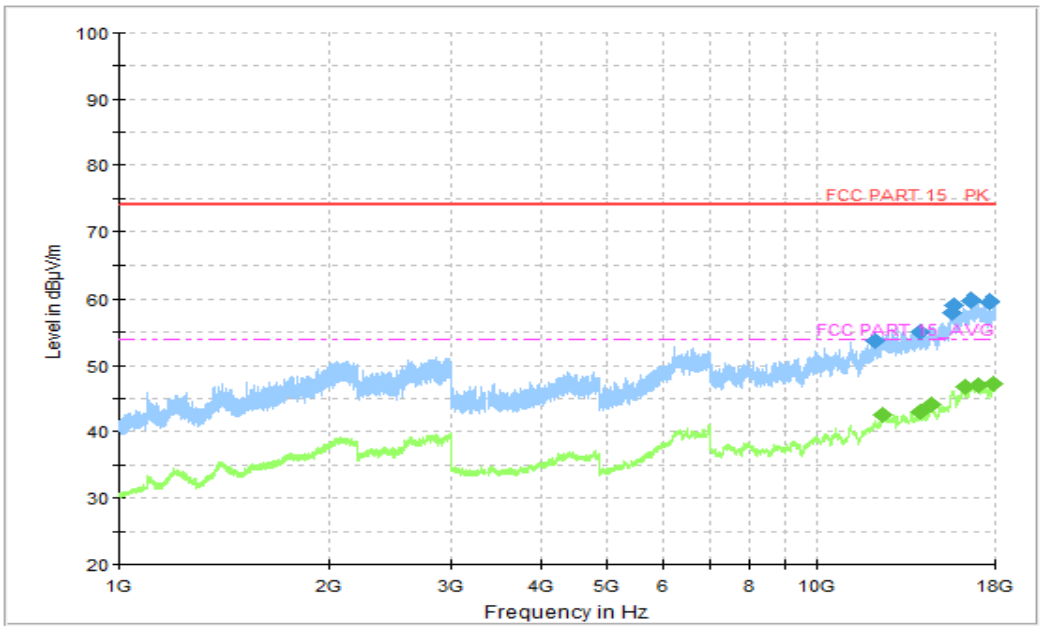

Figure A.6 Radiated Emission (Set.1, Video Player , 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12133.000000	53.77	74.00	20.23	V	16	37.77
14020.250000	55.17	74.00	18.83	V	17	38.17
15576.000000	58.01	74.00	15.99	H	20	38.01
15689.500000	59.05	74.00	14.95	H	20	39.05
16619.750000	59.79	74.00	14.21	H	22	37.79
17689.000000	59.62	74.00	14.38	H	23	36.62

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12430.000000	42.46	54.00	11.54	V	17	25.46
14018.500000	43.00	54.00	11.00	V	17	26.00
14565.500000	44.05	54.00	9.95	H	18	26.05
16279.500000	46.81	54.00	7.19	H	21	25.81
17002.750000	47.08	54.00	6.92	V	23	24.08
17895.250000	47.16	54.00	6.84	V	24	23.16

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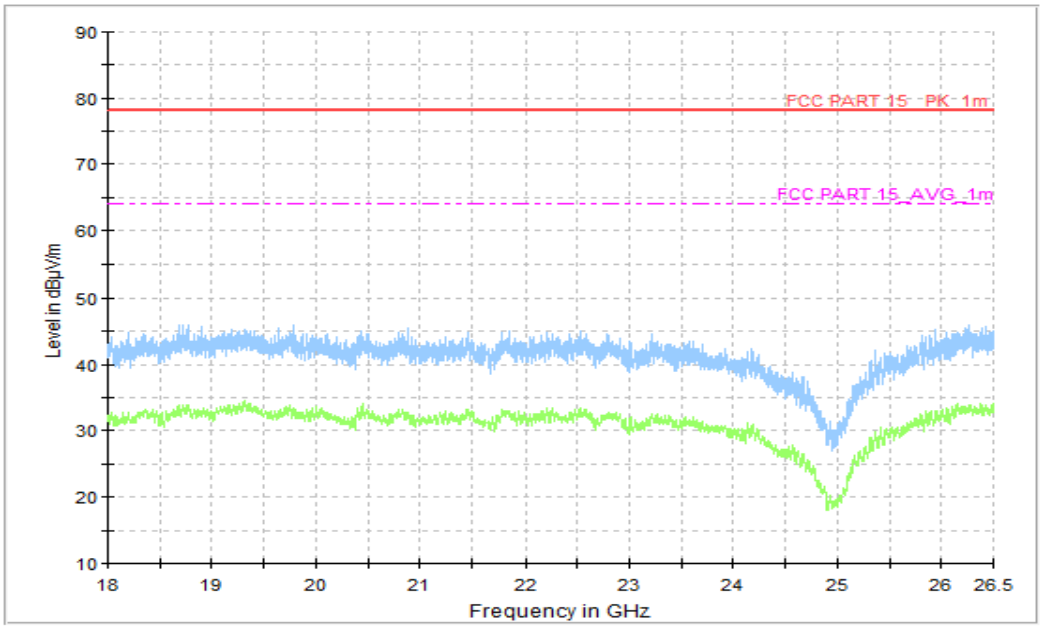

Figure A.7 Radiated Emission (Set.1, Video Player , 18GHz to 26.5GHz)

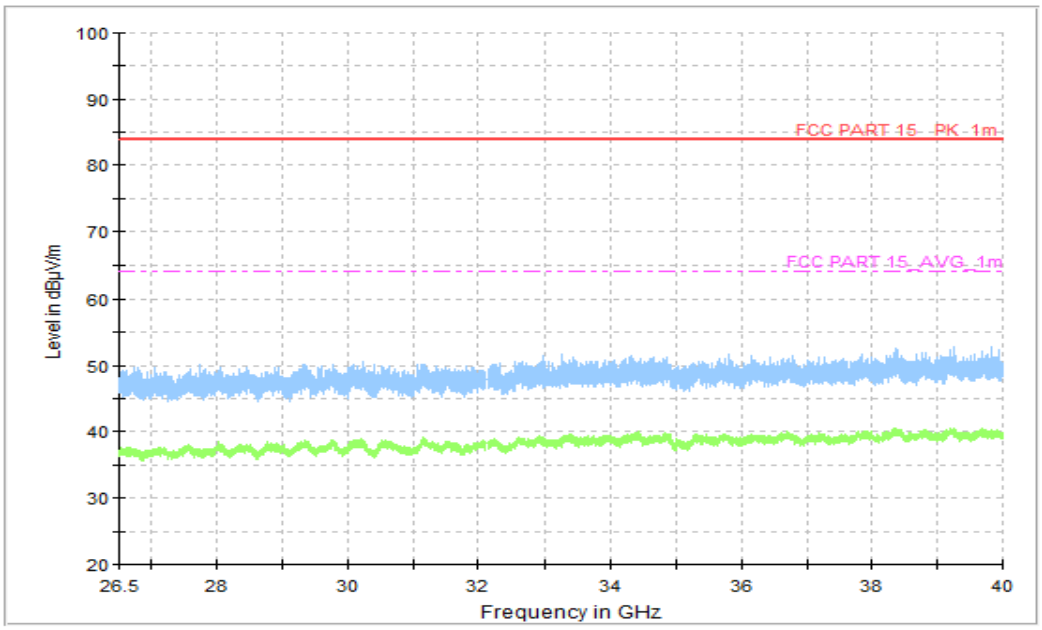

Figure A.8 Radiated Emission (Set.1, Video Player , 26.5GHz to 40GHz)

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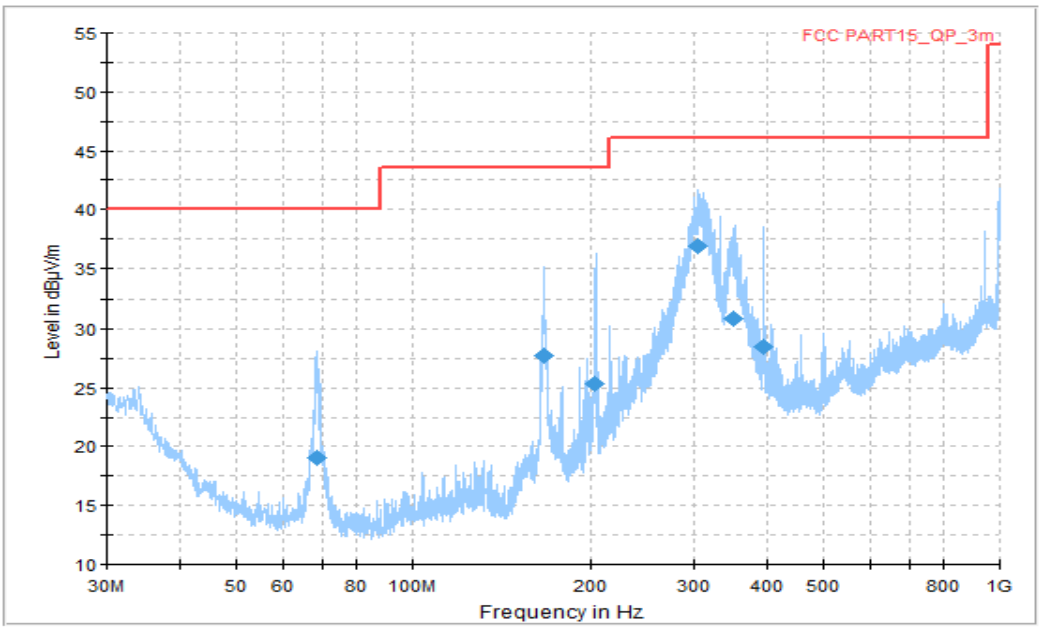

Figure A.9 Radiated Emission (Set.2, Data Transfer : EUT to PC, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
68.800000	19.05	40.00	20.95	V	-22	41.05
166.527500	27.67	43.52	15.85	H	-18	45.67
203.387500	25.30	43.52	18.22	H	-17	42.30
305.419375	36.84	46.02	9.18	H	-14	50.84
349.918125	30.89	46.02	15.13	H	-11	41.89
394.053125	28.50	46.02	17.52	V	-9	37.50

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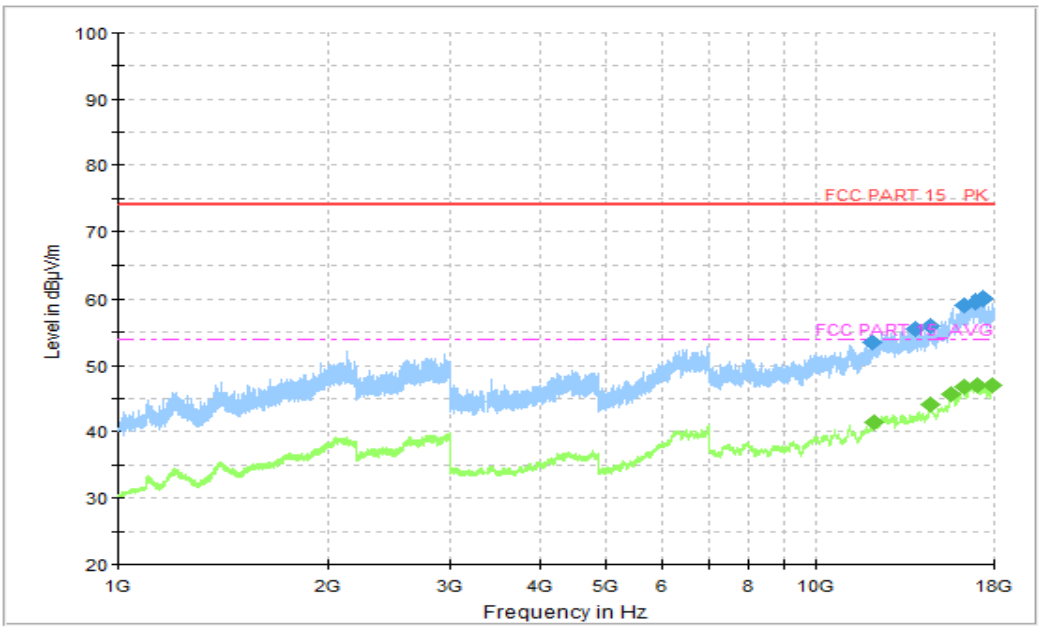

Figure A.10 Radiated Emission (Set.2, Data Transfer : EUT to PC, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12023.500000	53.56	74.00	20.44	V	16	37.56
13893.750000	55.59	74.00	18.41	V	17	38.59
14612.500000	55.98	74.00	18.02	V	18	37.98
16262.000000	59.03	74.00	14.97	H	21	38.03
16865.250000	59.61	74.00	14.39	H	22	37.61
17326.250000	59.96	74.00	14.04	V	22	37.96

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12082.750000	41.50	54.00	12.50	V	16	25.50
14572.000000	44.19	54.00	9.81	V	18	26.19
15570.000000	45.76	54.00	8.24	V	20	25.76
16282.750000	46.75	54.00	7.25	H	21	25.75
17017.250000	47.05	54.00	6.95	V	23	24.05
17895.000000	47.09	54.00	6.91	V	24	23.09

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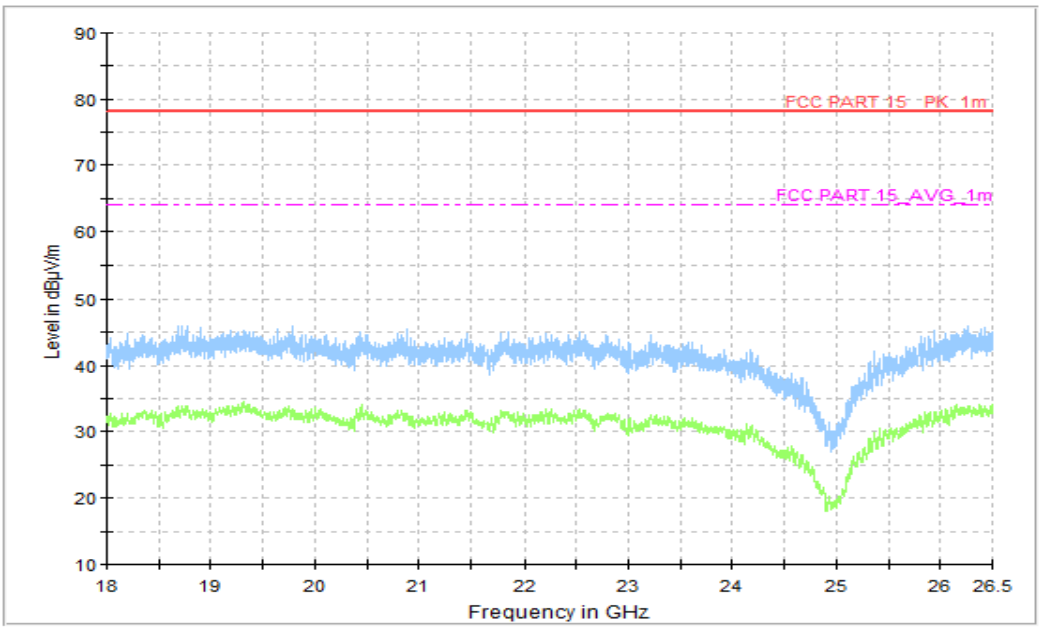

Figure A.11 Radiated Emission (Set.2, Data Transfer : EUT to PC, 18GHz to 26.5GHz)

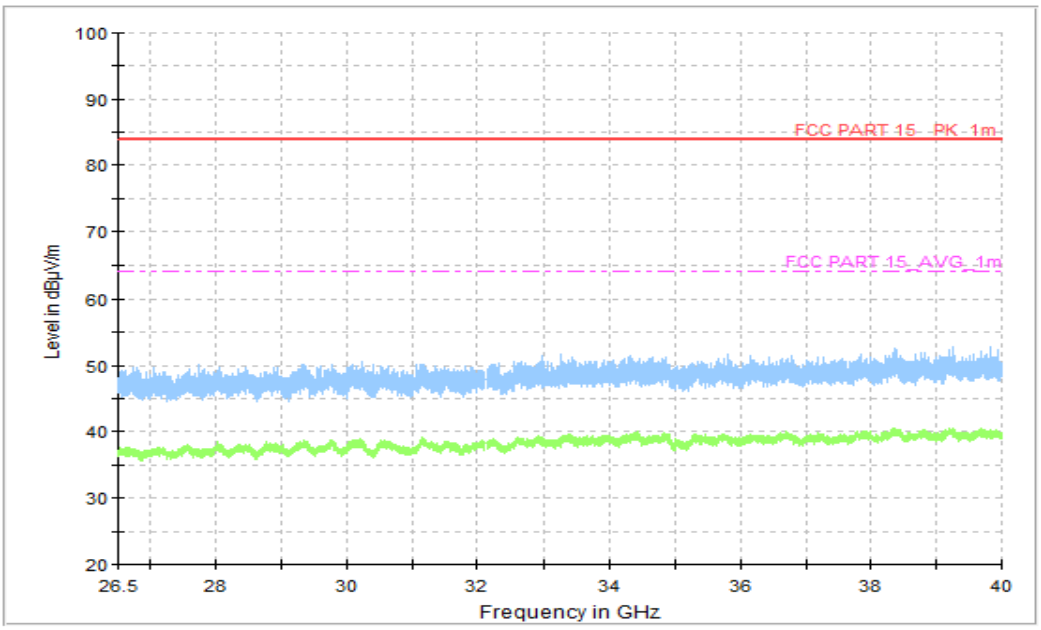

Figure A.12 Radiated Emission (Set.2, Data Transfer : EUT to PC, 26.5GHz to 40GHz)

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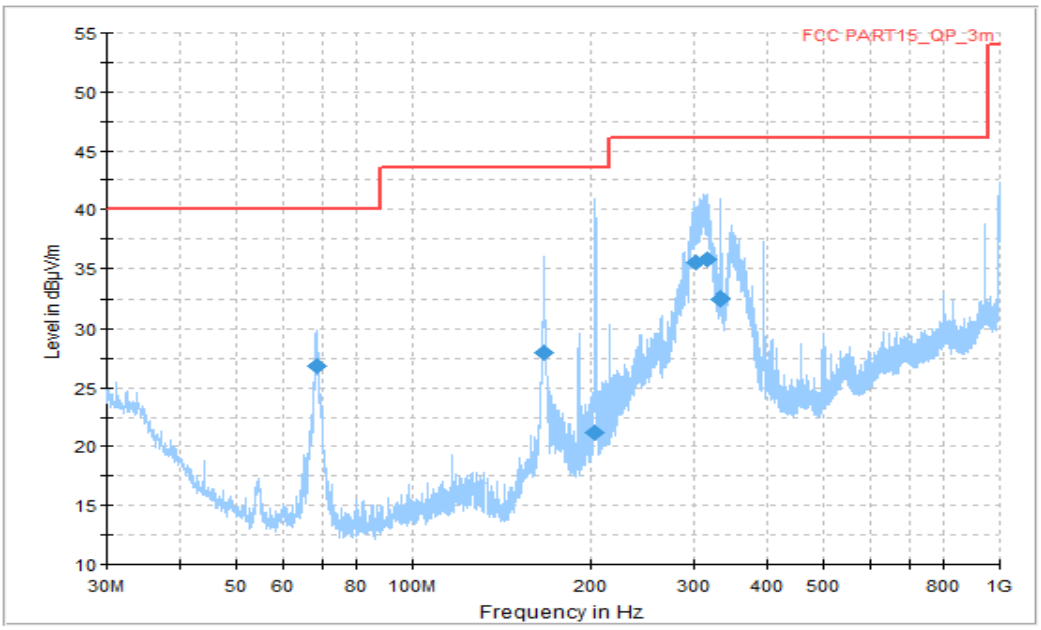

Figure A.13 Radiated Emission (Set.2, Data Transfer : PC to EUT, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
68.436250	26.80	40.00	13.20	H	-22	48.80
166.527500	27.92	43.52	15.60	H	-18	45.92
203.387500	21.14	43.52	22.38	H	-17	38.14
301.781875	35.49	46.02	10.53	H	-14	49.49
315.483125	35.79	46.02	10.23	H	-13	48.79
333.246250	32.55	46.02	13.47	H	-12	44.55

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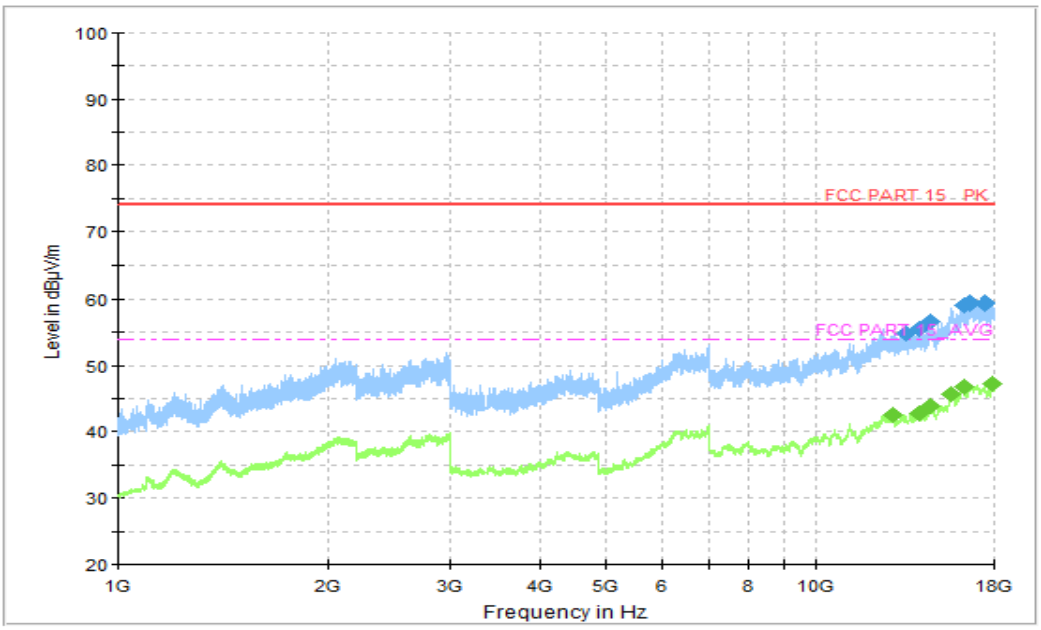

Figure A.14 Radiated Emission (Set.2, Data Transfer : PC to EUT, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13427.250000	54.91	74.00	19.09	V	17	37.91
14013.000000	55.52	74.00	18.48	V	17	38.52
14575.000000	56.61	74.00	17.39	V	18	38.61
16258.000000	59.07	74.00	14.93	V	21	38.07
16559.000000	59.32	74.00	14.68	H	22	37.32
17439.250000	59.37	74.00	14.63	H	22	37.37

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
12901.250000	42.67	54.00	11.33	V	17	25.67
14019.000000	42.90	54.00	11.10	H	17	25.90
14560.750000	43.98	54.00	10.02	V	18	25.98
15562.750000	45.77	54.00	8.23	V	19	26.77
16280.750000	46.77	54.00	7.23	V	21	25.77
17892.000000	47.20	54.00	6.80	H	24	23.20

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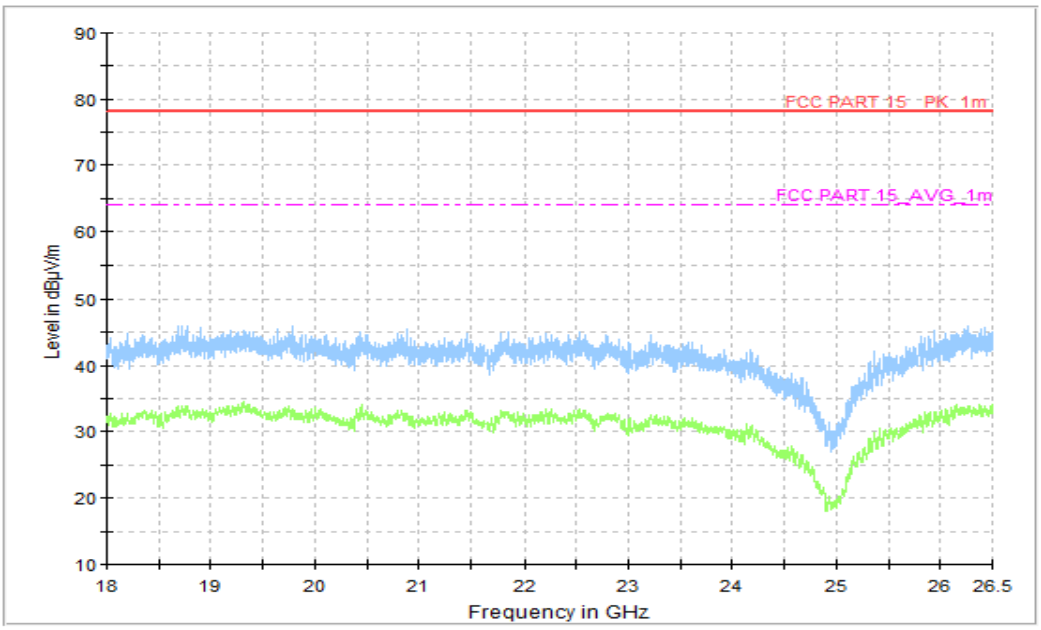

Figure A.15 Radiated Emission (Set.2, Data Transfer : PC to EUT, 18GHz to 26.5GHz)

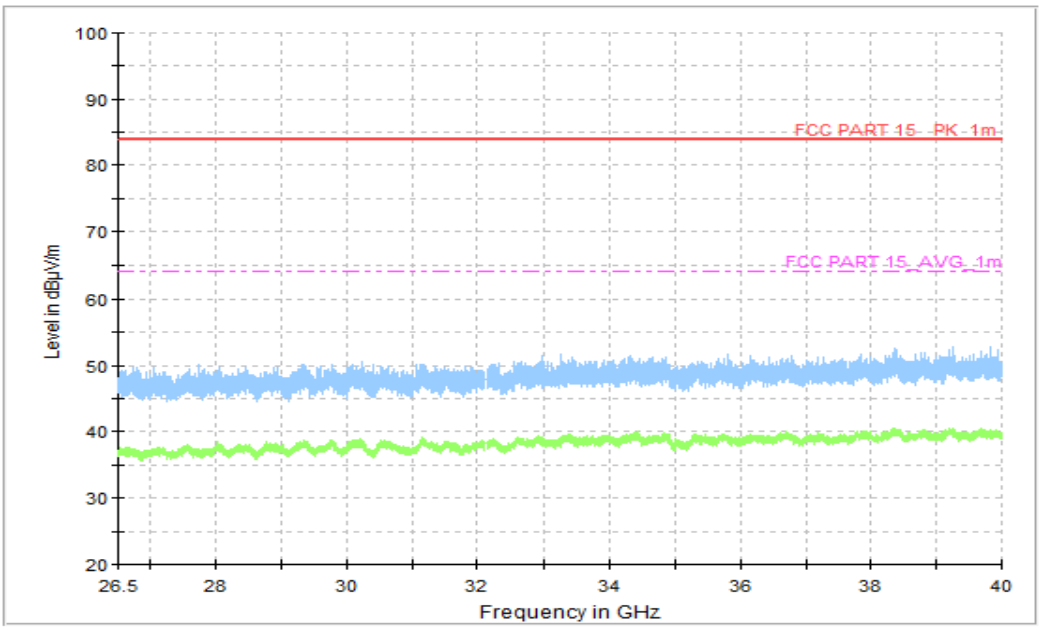

Figure A.16 Radiated Emission (Set.2, Data Transfer : PC to EUT, 26.5GHz to 40GHz)

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A.2 Conducted Emission (§15.107(a))

Reference

FCC: CFR Part 15.107(a)

IC: ICES-003 section 6.1.

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.

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 MS 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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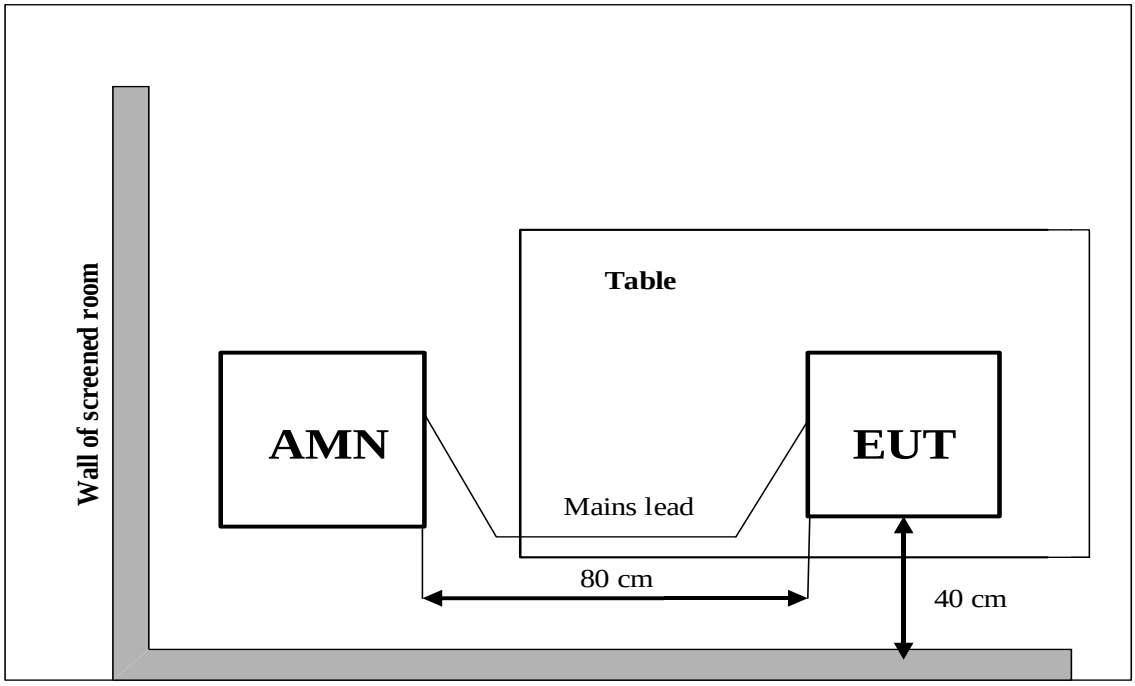
A.2.4Test set-up:



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)	Conclusion
			Set.1	
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.				

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Video Player

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			Set.1	
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

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			Set.2	
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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Camera

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			Set.1	
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.				

Video Player

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			Set.1	
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

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			Set.2	
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/60Hz

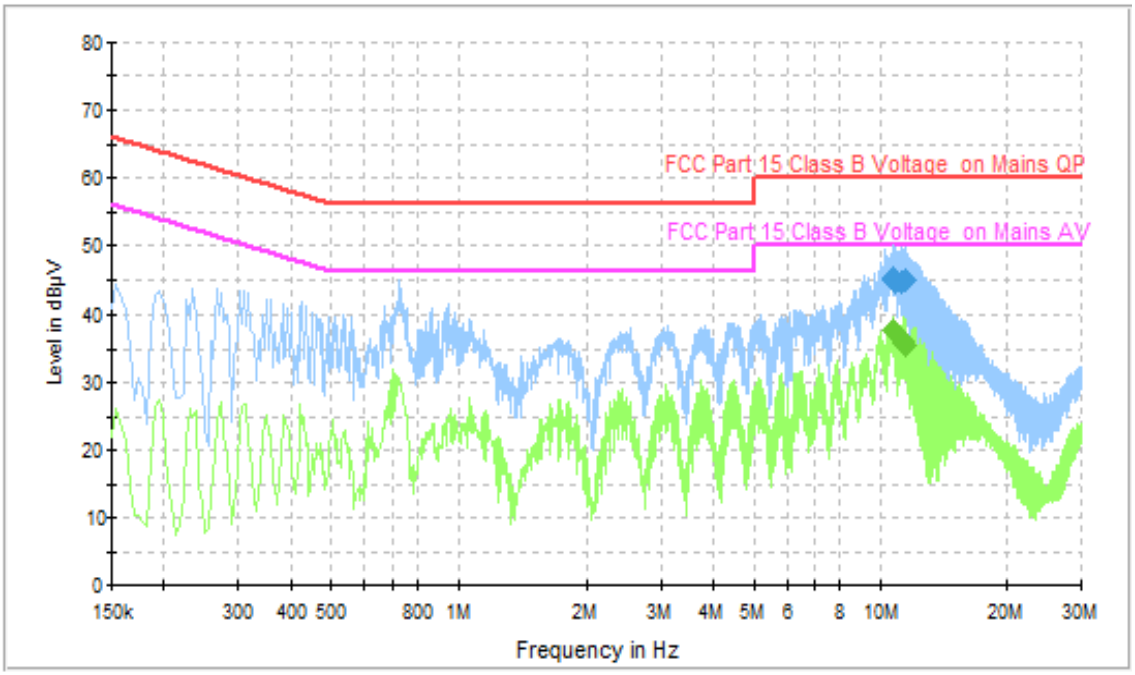

Figure B.1 Conducted Emission(Set.1, Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.658000	45.0	60.0	15.0	N	9.8	35.20
10.734000	45.3	60.0	14.7	N	9.8	35.50
10.802000	45.0	60.0	15.0	N	9.9	35.10
10.886000	44.5	60.0	15.5	N	9.9	34.60
11.226000	44.5	60.0	15.5	N	9.9	34.60
11.438000	44.8	60.0	15.2	N	9.9	34.90

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.658000	37.6	50.0	12.4	N	9.8	27.80
11.270000	35.9	50.0	14.1	N	9.9	26.00
11.278000	36.1	50.0	13.9	N	9.9	26.20
11.370000	36.2	50.0	13.8	N	9.9	26.30
11.446000	35.6	50.0	14.4	N	9.9	25.70
11.454000	35.6	50.0	14.4	N	9.9	25.70

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AC Input Port/ Voltage: 120V/60Hz

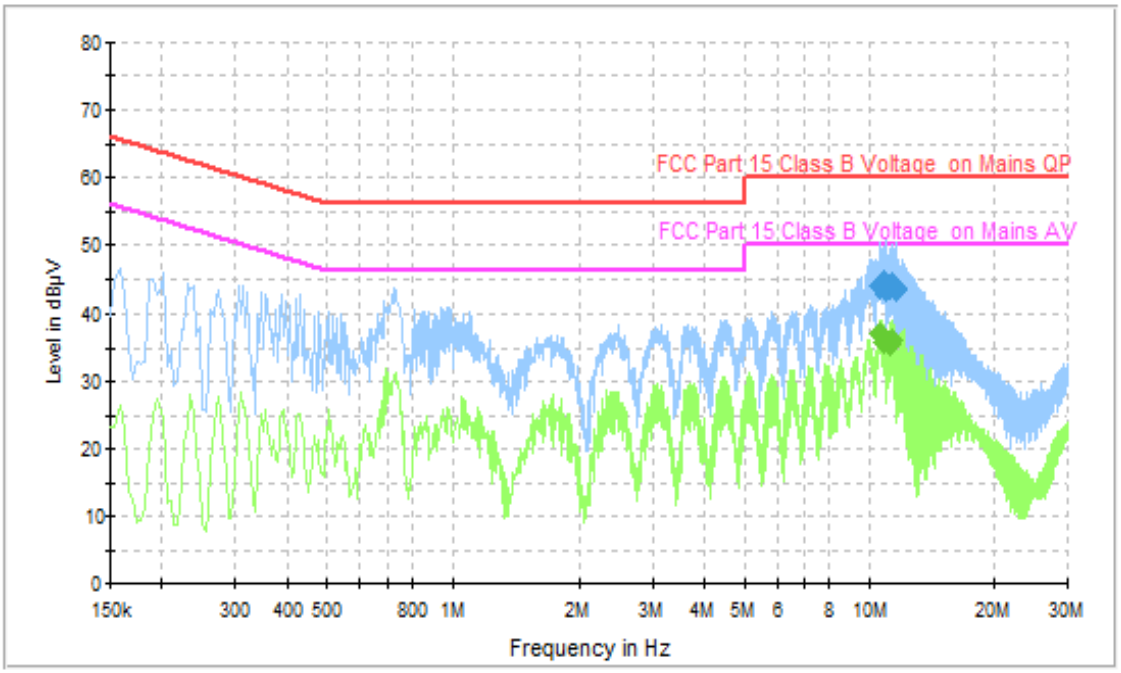

Figure B.2 Conducted Emission(Set.1, Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.590000	44.0	60.0	16.0	N	9.8	34.20
10.794000	44.5	60.0	15.5	N	9.9	34.60
10.918000	43.5	60.0	16.5	N	9.9	33.60
11.214000	43.9	60.0	16.1	N	9.9	34.00
11.354000	44.3	60.0	15.7	N	9.9	34.40
11.538000	43.6	60.0	16.4	N	9.9	33.70

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.618000	37.1	50.0	12.9	N	9.8	27.30
10.742000	36.7	50.0	13.3	N	9.8	26.90
10.818000	35.7	50.0	14.3	N	9.9	25.80
11.262000	35.5	50.0	14.5	N	9.9	25.60
11.338000	36.0	50.0	14.0	N	9.9	26.10
11.354000	36.1	50.0	13.9	N	9.9	26.20

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AC Input Port/ Voltage: 120V/60Hz

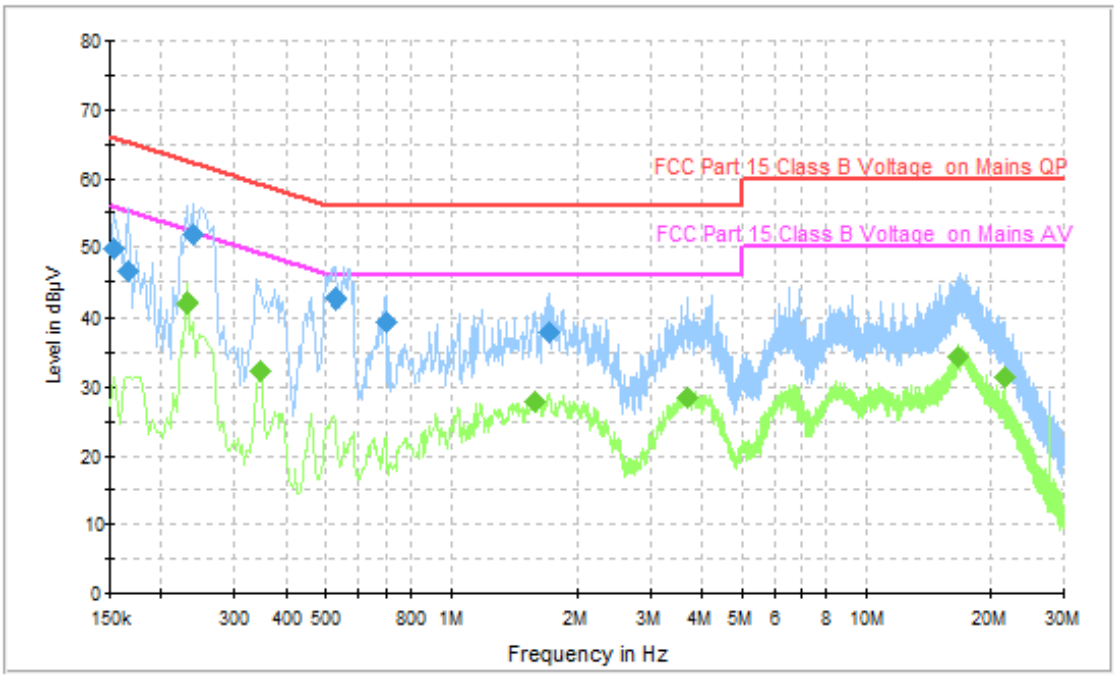

Figure B.3 Conducted Emission(Set.2, Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154000	49.9	65.8	15.9	N	9.6	40.30
0.166000	46.5	65.2	18.7	N	9.6	36.90
0.238000	51.9	62.2	10.3	N	9.6	42.30
0.530000	42.8	56.0	13.2	N	9.7	33.10
0.698000	39.4	56.0	16.6	N	9.6	29.80
1.714000	37.8	56.0	18.2	N	9.6	28.20

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.230000	42.1	52.4	10.4	N	9.6	32.50
0.346000	32.4	49.1	16.6	N	9.6	22.80
1.574000	28.0	46.0	18.0	N	9.6	18.40
3.706000	28.4	46.0	17.6	N	9.6	18.80
16.694000	34.2	50.0	15.8	N	9.8	24.40
21.502000	31.3	50.0	18.7	N	9.9	21.40

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AC Input Port/ Voltage: 240V/60Hz

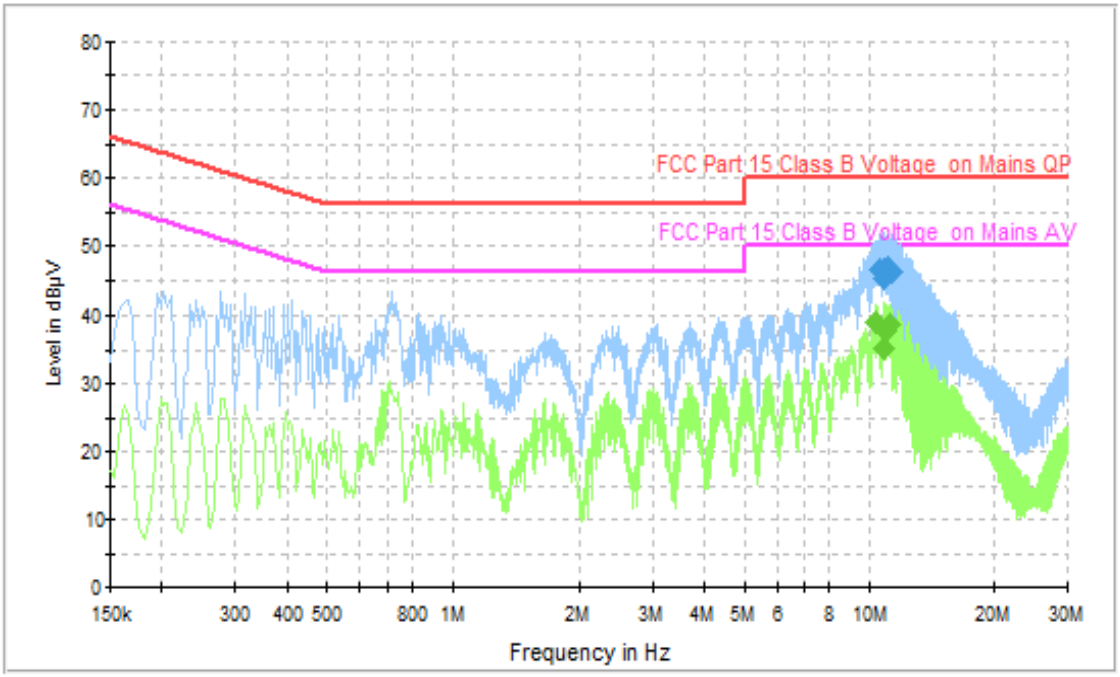

Figure B.4 Conducted Emission(Set.1, Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.570000	46.6	60.0	13.4	N	9.8	36.80
10.694000	46.0	60.0	14.0	N	9.8	36.20
10.782000	45.1	60.0	14.9	N	9.9	35.20
10.854000	46.4	60.0	13.6	N	9.9	36.50
11.122000	46.7	60.0	13.3	N	9.9	36.80
11.342000	46.1	60.0	13.9	N	9.9	36.20

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.386000	39.0	50.0	11.0	N	9.8	29.20
10.830000	35.0	50.0	15.0	N	9.9	25.10
11.006000	37.6	50.0	12.4	N	9.8	27.80
11.090000	38.5	50.0	11.5	N	9.9	28.60
11.166000	38.8	50.0	11.2	N	9.9	28.90
11.190000	38.6	50.0	11.4	N	9.9	28.70

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AC Input Port/ Voltage: 240V/60Hz

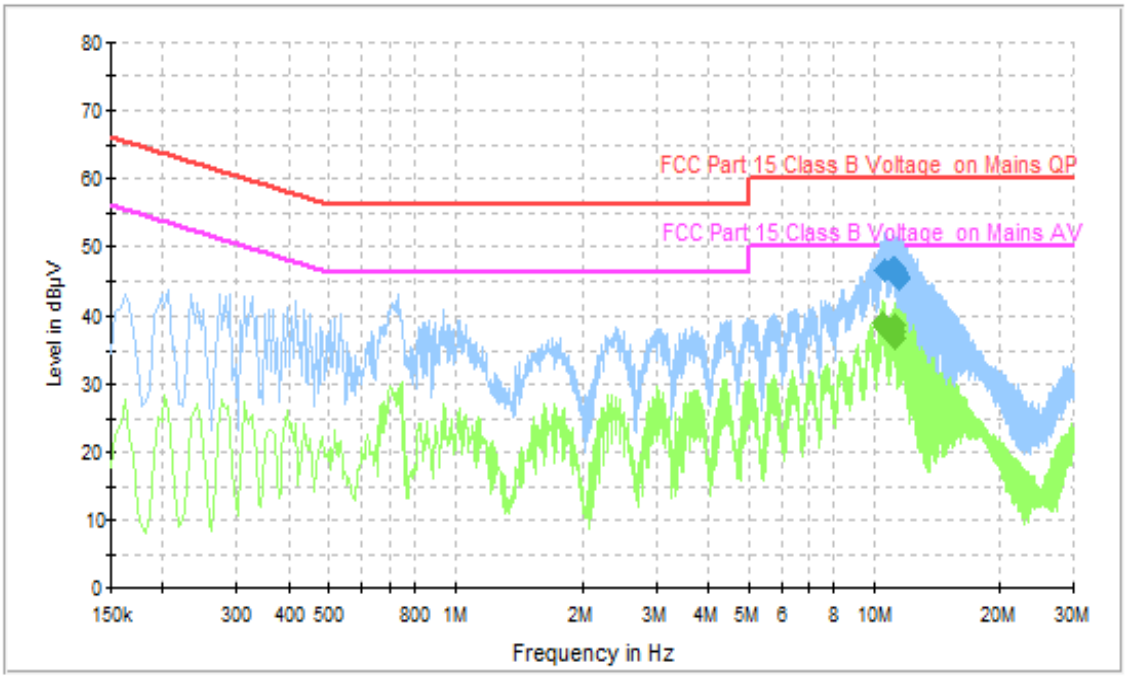

Figure B.5 Conducted Emission(Set.1, Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.594000	46.4	60.0	13.6	N	9.8	36.60
11.098000	46.8	60.0	13.2	N	9.9	36.90
11.182000	46.8	60.0	13.2	N	9.9	36.90
11.314000	46.0	60.0	14.0	N	9.9	36.10
11.398000	45.2	60.0	14.8	N	9.9	35.30
11.470000	45.6	60.0	14.4	N	9.9	35.70

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.462000	39.1	50.0	10.9	N	9.8	29.30
10.562000	38.5	50.0	11.5	N	9.8	28.70
11.174000	38.7	50.0	11.3	N	9.9	28.80
11.198000	38.6	50.0	11.4	N	9.9	28.70
11.250000	36.6	50.0	13.4	N	9.9	26.70
11.258000	37.7	50.0	12.3	N	9.9	27.80

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AC Input Port/ Voltage: 240V/60Hz

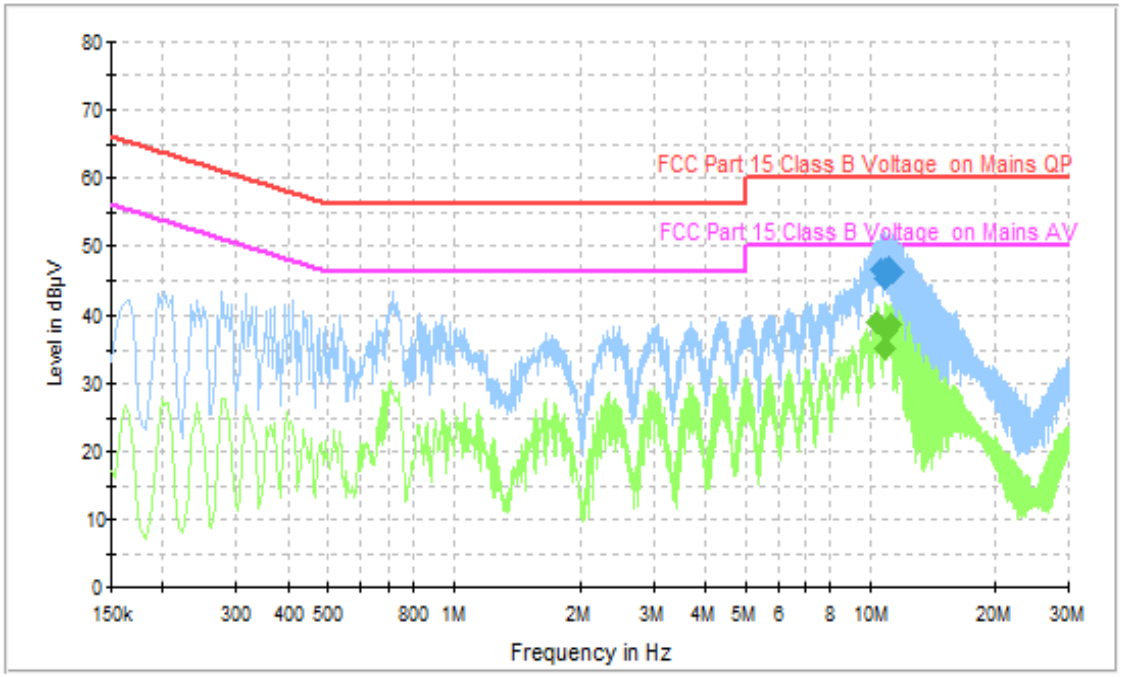

Figure B.6 Conducted Emission(Set.2, Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.570000	46.6	60.0	13.4	N	9.8	36.80
10.694000	46.0	60.0	14.0	N	9.8	36.20
10.782000	45.1	60.0	14.9	N	9.9	35.20
10.854000	46.4	60.0	13.6	N	9.9	36.50
11.122000	46.7	60.0	13.3	N	9.9	36.80
11.342000	46.1	60.0	13.9	N	9.9	36.20

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
10.386000	39.0	50.0	11.0	N	9.8	29.20
10.830000	35.0	50.0	15.0	N	9.9	25.10
11.006000	37.6	50.0	12.4	N	9.8	27.80
11.090000	38.5	50.0	11.5	N	9.9	28.60
11.166000	38.8	50.0	11.2	N	9.9	28.90
11.190000	38.6	50.0	11.4	N	9.9	28.70

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

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