TEST REPORT

No. B20N00042-EMC

for

i.safe MOBILE GmbH

LTE SMARTPHONE

Model Name: M33A01

With

Hardware Version: V1.00

Software Version: LA6925(IS330)_IS330_EEA_1.0.0.0.0_1_20200103

_MultiDownload_202001101536_user

FCC ID: 2AACZ-M33A01

IC number: 11122A-M33A01

Issued Date: 2020-02-26

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.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
B20N00042-EMC	Rev.0	1st edition	2020-02-26

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	LTE SMARTPHONE
Model Name	M33A01
Applicant's name	i.safe MOBILE GmbH
Manufacturer's Name	i.safe MOBILE GmbH

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 Test Results"

1.4. Testing Location

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

1.5. Project data

Testing Start Date: 2020-02-06 Testing End Date: 2020-02-16

1.6. Signature

Liang Yong
(Prepared this test report)

Zhang Yunzhuan
(Reviewed this test report)

Cao Junfei
(Approved this test report)

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2. ClientInformation

2.1. Applicant Information

Company Name:	i.safe MOBILE GmbH
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E-mail	dirk.amann@isafe-mobile.com
Tel:	+491703719004
	/

2.2. Manufacturer Information

Company Name:	i.safe MOBILE GmbH
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E-mail	dirk.amann@isafe-mobile.com
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	/

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

3.1. About EUT

Description	LTE SMARTPHONE
Model Name	M33A01
Marketing Name	IS330.1
Antenna Type	Internal Antenna
FCC ID	2AACZ-M33A01
IC number	11122A-M33A01
Bands	GSM 850/1900,WCDMA Band 2/4/5, LTE Band B2/4/5/7/12/13/14/17/25/26/30/38/40/41/66 LTE CA_5B/CA_41C
Functions	2.4G Wi-Fi , 5G Wi-Fi , Bluetooth ,NFC,GNSS
Condition of EUT as received	No obvious damage in appearance

Note: Photographs of EUT are shown in ANNEX A of this test report. Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Receive Date
UT01aa	351740110010341	V1.00	LA6925(IS330)_IS330_EEA_1.0.0.0.0_1_20200103_MultiDownload_202001101536_user	2020-01-08
UT02aa	351740110019145	V1.00	LA6925(IS330)_IS330_EEA_1.0.0.0.0_1_20200103_MultiDownload_202001101536_user	2020-01-08

*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	POWER SUPPLY
AE3	DATA CABLE
AE4	air duct earphone

AE1

Model	MBP33A01
Manufacturer	Shenzhen 3Sun Electronics Co.,Ltd.
Capacity	4050mAh

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Nominal Voltage 3.7V

AE2

Model ICP12-050-2000B

Manufacturer SHENZHEN SHI YINGYUAN POWER SUPPLY TECHNOLOGY CO., LTD.

AE3

Model PROTECTOR 2.0

Manufacturer Winpower Technology Co., LTD

AE4

Model AC-4035-M6

Manufacturer SHENZHEN CXD SCIENCE & TECHNOLOGY CO., LTD.

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

3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	UT01aa+AE1+AE2+AE3+AE4	/
Set.2	UT01aa +AE1+AE3+AE4+PC	Data Transfer Mode
Set.3	UT02aa +AE1+AE3+AE4+PC	Data Transfer Mode

3.5. General Description

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

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4. Reference Documents

4.1. Reference Documents for testing

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

Reference	Title	Version
FCC Part 15, Subpart B	Radio frequency devices	10-1-2019 Edition
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2014
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. = 30 ℃
Relative humidity	Min. =20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-10000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω

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

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

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6. SUMMARY OF TEST RESULTS

6.1. Testing Environment

Normal Temperature: 15~35℃
Relative Humidity: 20~75%
Atmospheric pressure 86~106kPa

6.2. Test 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	B.2	P

6.3. Statement

6.3.1 Statements of conformity

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

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7. Measurement uncertainty

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

8. Test Facilities Utilized

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

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ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§15.109(a))

Reference

FCC: CFR Part 15.109(a)

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:

Charging Mode: At the beginning of measurement, the battery is completely discharged.The battery and charger are installed so that the EUT works well and is in charging state. The EUT is synchronized to System Simulator (SS), and able to respond to paging messages and incoming call. An established call has been released.

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

Camera Mode: The EUT is connected to a charger for charging and keeping on taking photos.

Data Transfer Mode: 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.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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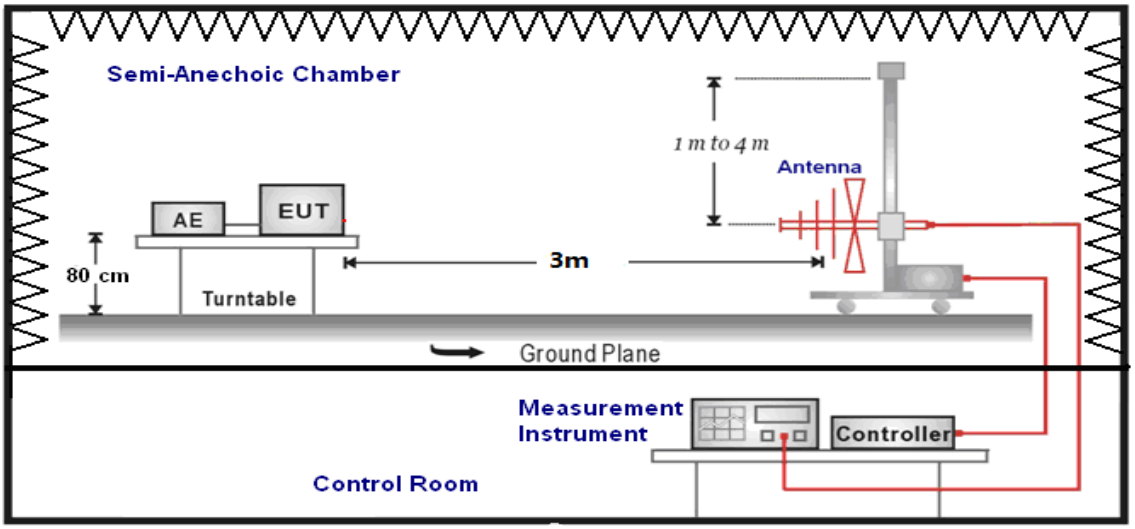
A.1.4 Test Condition

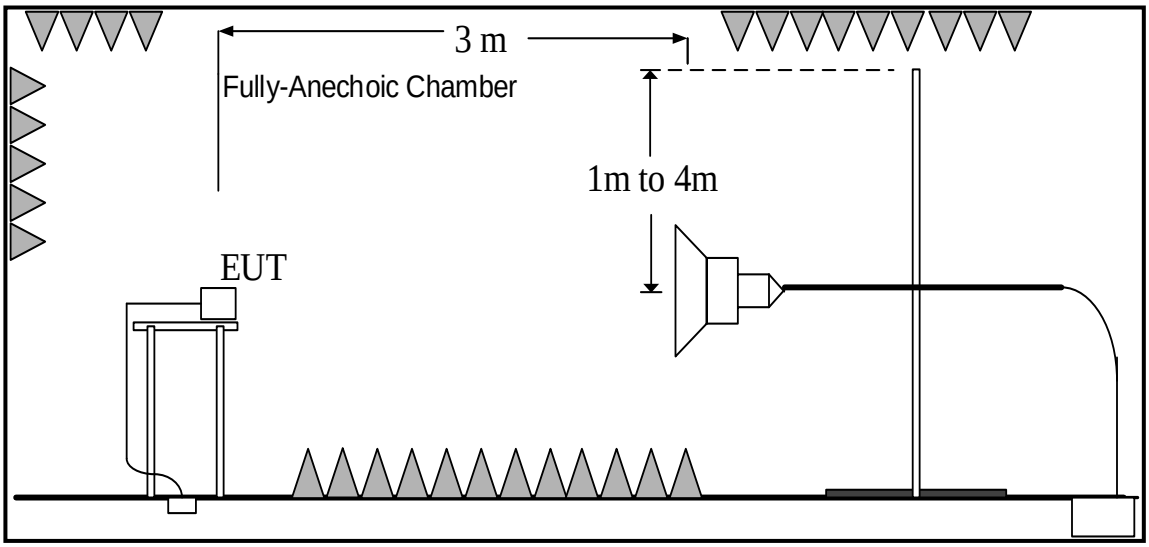
Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz (IF bandwidth)	5
Above 1000	1MHz/3MHz	15

A.1.5 Test set-up:

30MHz-1GHz



1GHz-30GHz



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

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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

Video Play Mode

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

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

Camera Mode

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) Set.1	Conclusion
30-88	40	See Figure A.6	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) Set.1	Conclusion
1000 to 3000	54	74	See Figure A.7	P
3000 to 18000			See Figure A.8	P
18000 to 26500			See Figure A.9	P
26500 to 30000			See Figure A.10	P

Charging Mode

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

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

Data Transfer Mode (PC to EUT)

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) Set.3	Conclusion
30-88	40	See Figure A.16	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) Set.2	Conclusion
1000 to 3000	54	74	See Figure A.17	P
3000 to 18000			See Figure A.18	P
18000 to 26500			See Figure A.19	P
26500 to 30000			See Figure A.20	P

Data Transfer Mode (EUT to PC)

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) Set.3	Conclusion
30-88	40	See Figure A.21	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) Set.2	Conclusion
1000 to 3000	54	74	See Figure A.22	P
3000 to 18000			See Figure A.23	P
18000 to 26500			See Figure A.24	P
26500 to 30000			See Figure A.25	P

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Data Transfer Mode (PC to TF Card)

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
		Set.3	
30-88	40	See Figure A.26	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 3000	54	74	See Figure A.27	P
3000 to 18000			See Figure A.28	P
18000 to 26500			See Figure A.29	P
26500 to 30000			See Figure A.30	P

Data Transfer Mode (TF Card to PC)

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
		Set.3	
30-88	40	See Figure A.31	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 3000	54	74	See Figure A.32	P
3000 to 18000			See Figure A.33	P
18000 to 26500			See Figure A.34	P
26500 to 30000			See Figure A.35	P

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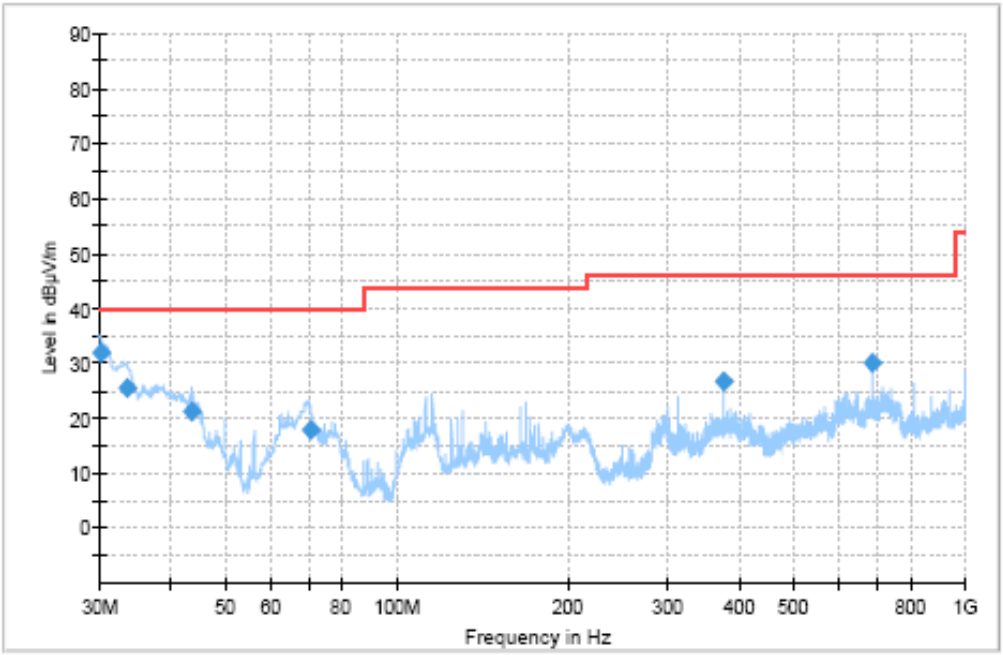

Figure A.1 Radiated Emission (Set.1, Video Play Mode, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.12	31.93	40	8.07	V	-24.3	56.23
33.533333	25.54	40	14.46	V	-26.3	51.84
43.761667	21.28	40	18.72	V	-31.9	53.18
70.584444	17.71	40	22.29	V	-34	51.71
375.016667	26.82	46	19.18	H	-26.8	53.62
687.532222	30.18	46	15.82	V	-19.9	50.08

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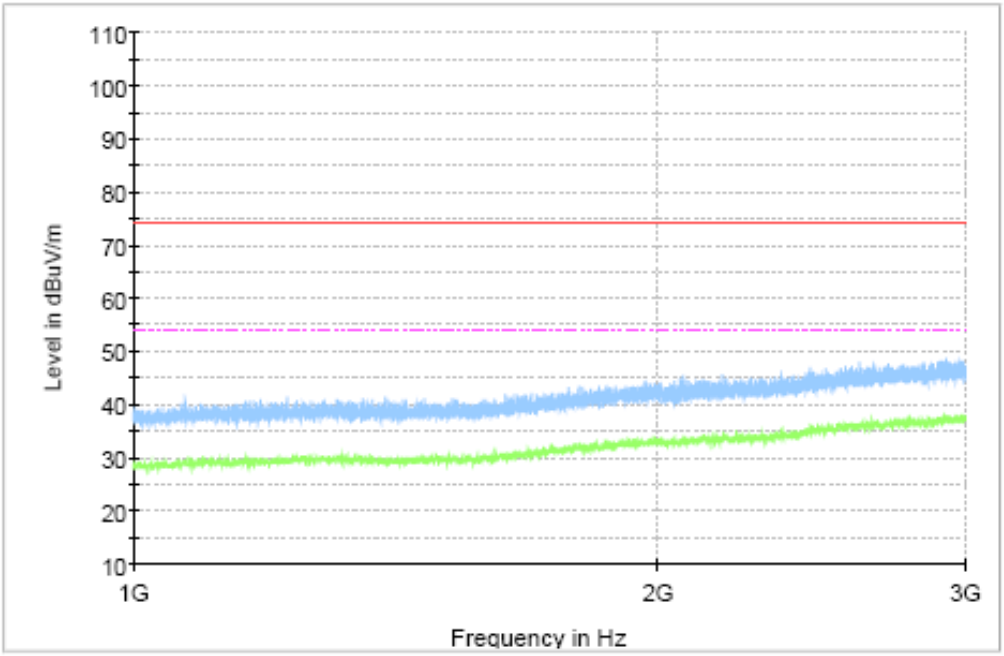

Figure A.2 Radiated Emission (Set.1, Video Play Mode , 1GHz to 3GHz)

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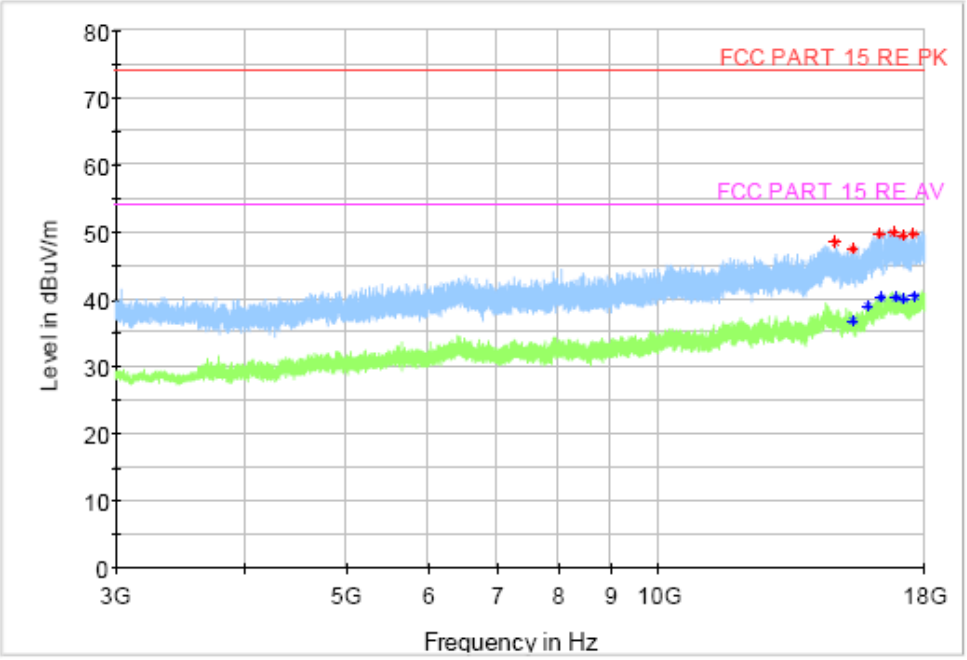

Figure A.3 Radiated Emission (Set.1, Video Play Mode, 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
14773.5	48.58	74	25.42	H	10.7	37.88
15369.5	47.56	74	26.44	H	11.6	35.96
16309	49.72	74	24.28	H	14.3	35.42
16797.5	50.04	74	23.96	H	14.6	35.44
17180.5	49.65	74	24.35	V	14.8	34.85
17594.5	49.7	74	24.3	V	15.5	34.2

Final_Result_AV

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
15342	36.84	54	17.16	H	11.6	25.24
15869.5	39.11	54	14.89	V	13	26.11
16344	40.22	54	13.78	H	14.3	25.92
16884.5	40.37	54	13.63	V	15	25.37
17221	40.12	54	13.88	H	14.8	25.32
17647.5	40.52	54	13.48	V	15.5	25.02

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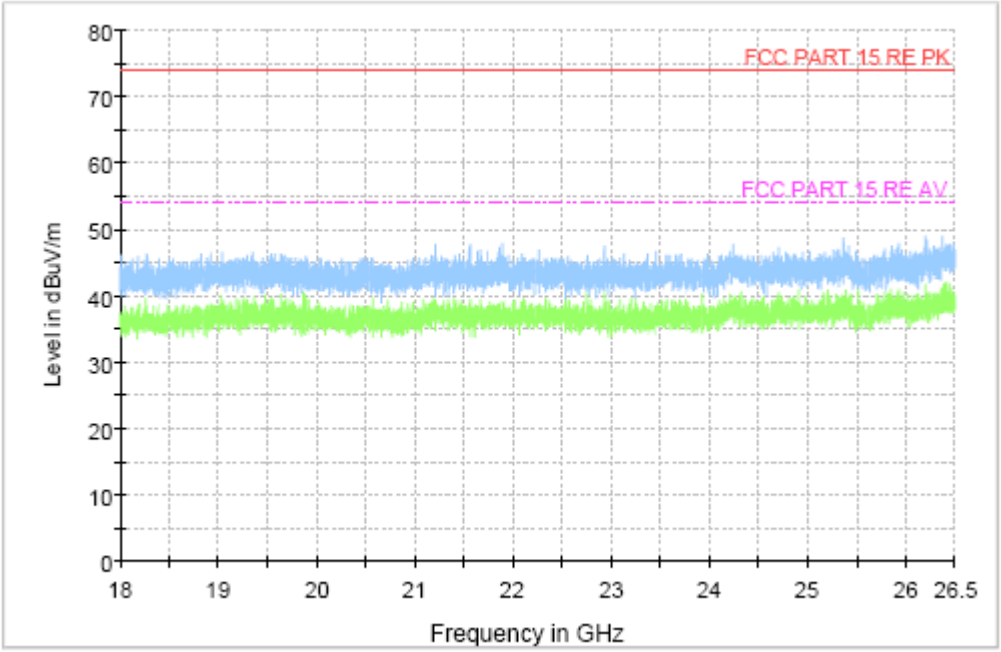

Figure A.4 Radiated Emission (Set.1, Video Play Mode, 18GHz to 26.5GHz)

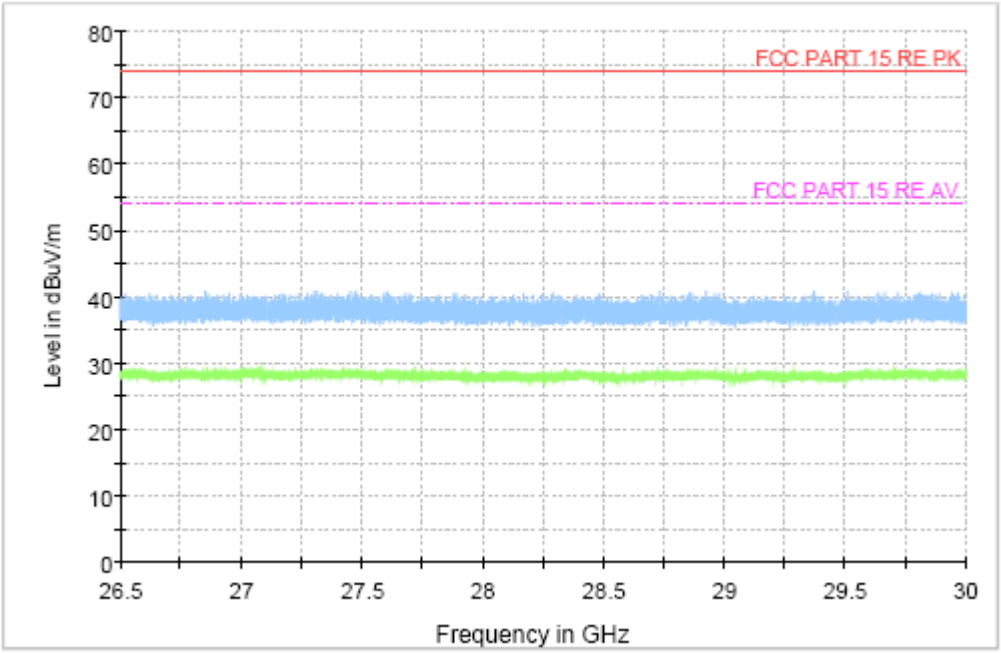

Figure A.5 Radiated Emission (Set.1, Video Play Mode, 26.5GHz to 30GHz)

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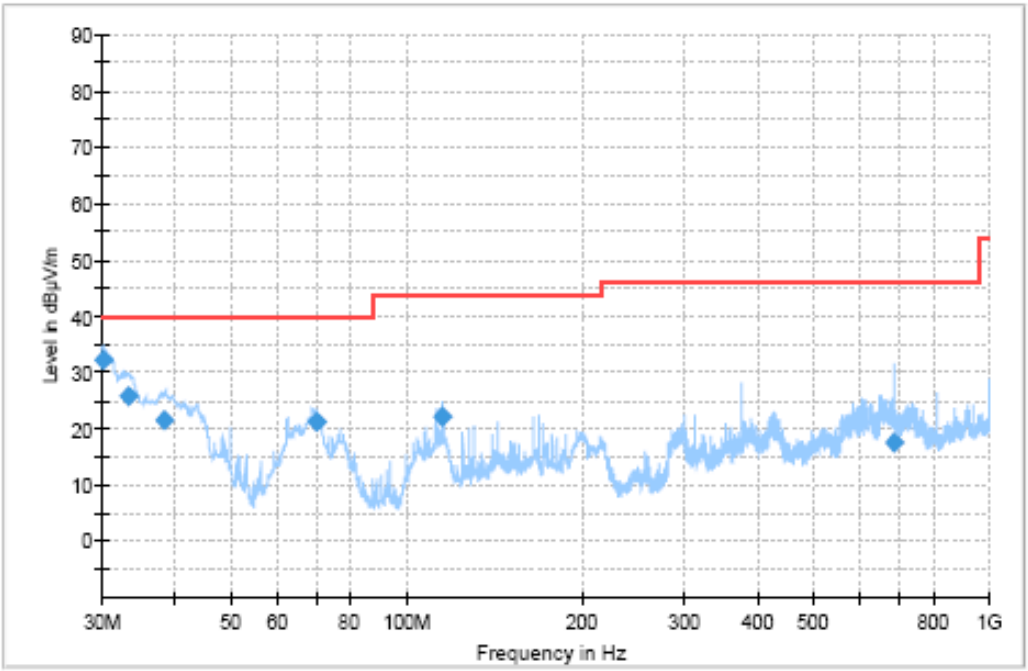

Figure A.6 Radiated Emission (Set.1,Camera Mode , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.16	32.3	40	7.7	V	-24.3	56.6
33.331667	25.71	40	14.29	V	-26.1	51.81
38.482222	21.49	40	18.51	V	-28.8	50.29
70.045556	21.1	40	18.9	V	-34.1	55.2
115.635556	22.19	43.5	21.31	V	-31.6	53.79
687.532222	17.66	46	28.34	V	-19.9	37.56

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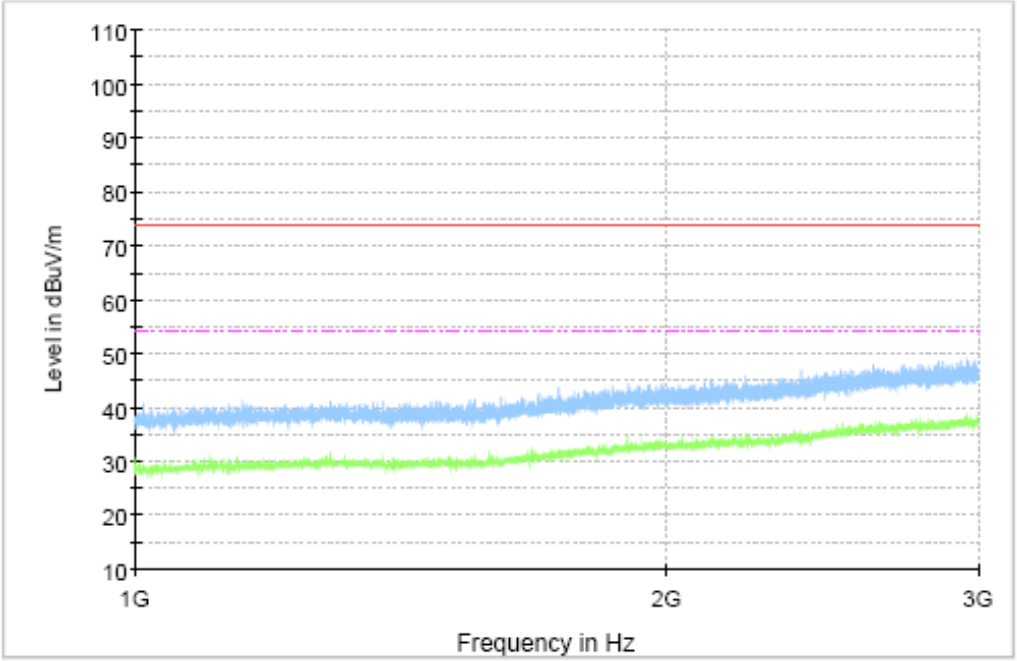

Figure A.7 Radiated Emission (Set.1,Camera Mode , 1GHz to 3GHz)

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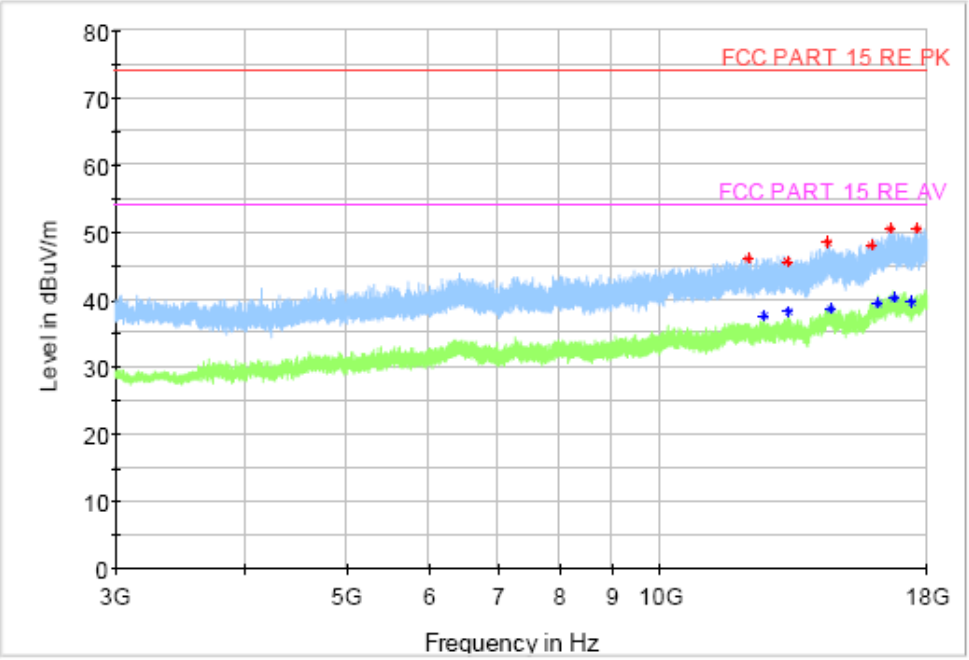

Figure A.8 Radiated Emission (Set.1, Camera Mode , 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
12125.5	46.14	74	27.86	V	7.3	38.84
13246	45.81	74	28.19	H	8.7	37.11
14463.5	48.58	74	25.42	V	11.2	37.38
15906	48.15	74	25.85	V	13.2	34.95
16619	50.55	74	23.45	H	14.9	35.65
17607	50.55	74	23.45	V	15.5	35.05

Final_Result_AV

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
12556	37.66	54	16.34	H	7.9	29.76
13266	38.23	54	15.77	H	8.7	29.53
14538.5	38.66	54	15.34	V	11.4	27.26
16143	39.4	54	14.6	V	14.2	25.2
16766	40.37	54	13.63	H	14.8	25.57
17435	39.71	54	14.29	H	14.6	25.11

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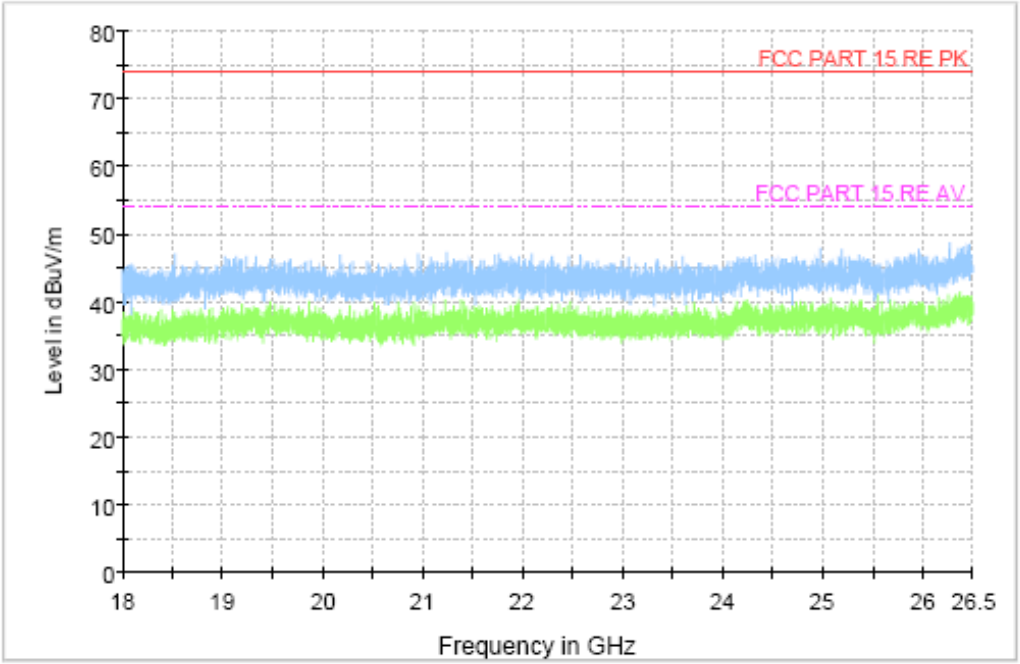

Figure A.9 Radiated Emission (Set.1,Camera Mode , 18GHz to 26.5GHz)

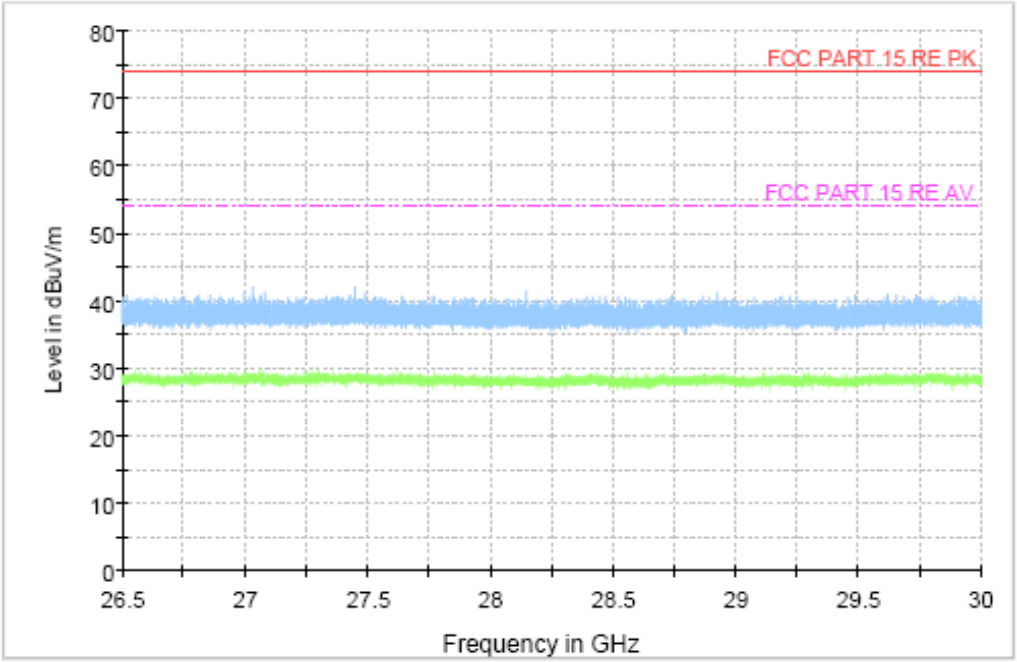

Figure A.10 Radiated Emission (Set.1,Camera Mode , 26.5GHz to 30GHz)

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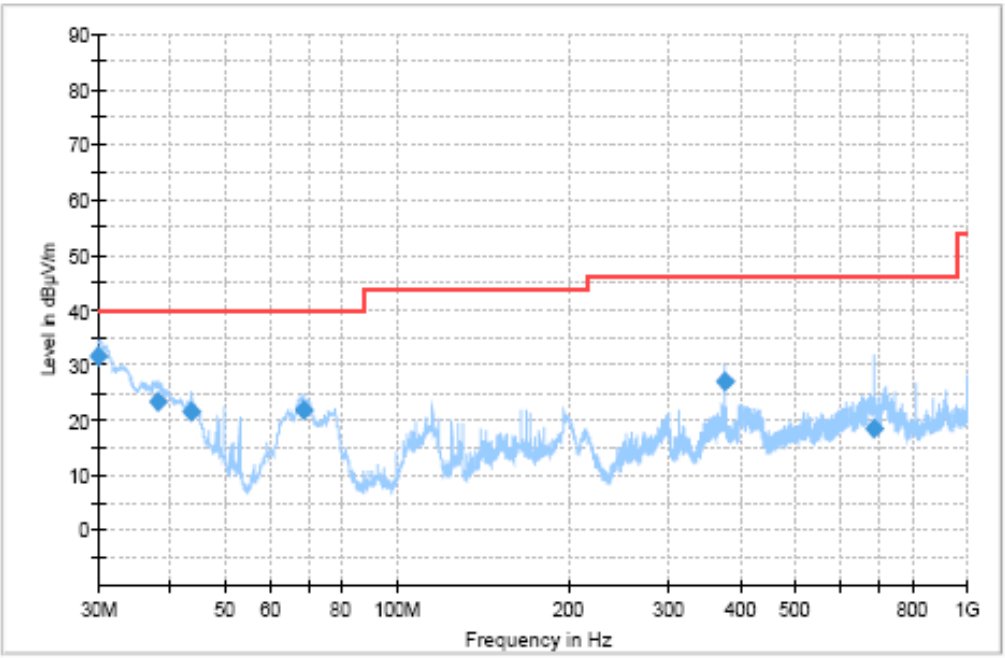

Figure A.11 Radiated Emission (Set.1,Charging Mode , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30	31.57	40	8.43	V	-24.1	55.67
38.063333	23.37	40	16.63	V	-28.5	51.87
43.735556	21.55	40	18.45	V	-31.9	53.45
68.712222	21.87	40	18.13	V	-34.6	56.47
375.016667	26.94	46	19.06	H	-26.8	53.74
687.518333	18.35	46	27.65	V	-19.9	38.25

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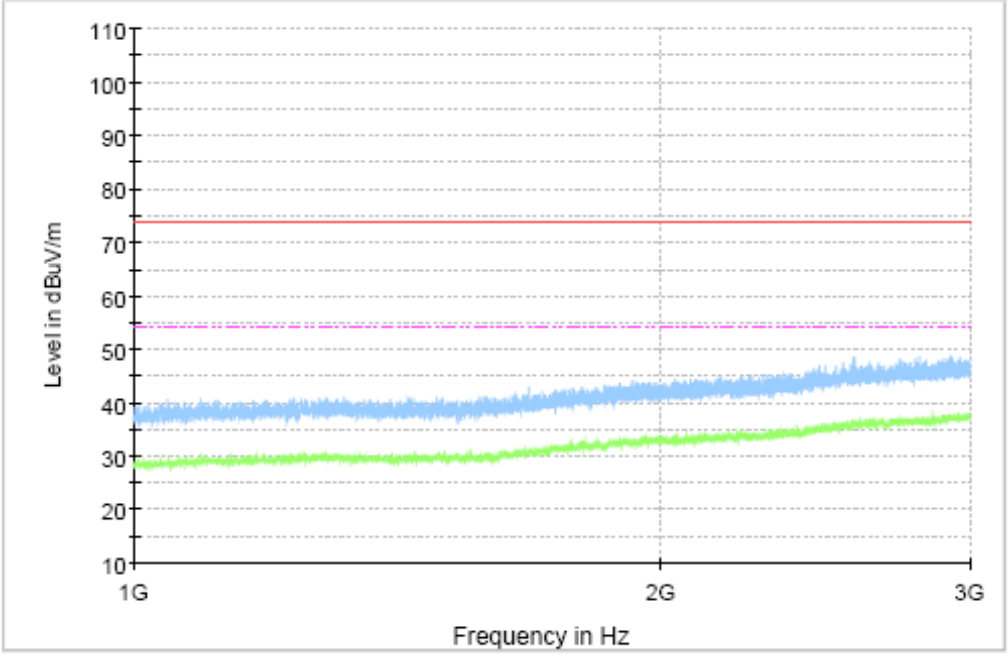

Figure A.12 Radiated Emission (Set.1,Charging Mode , 1GHz to 3GHz)

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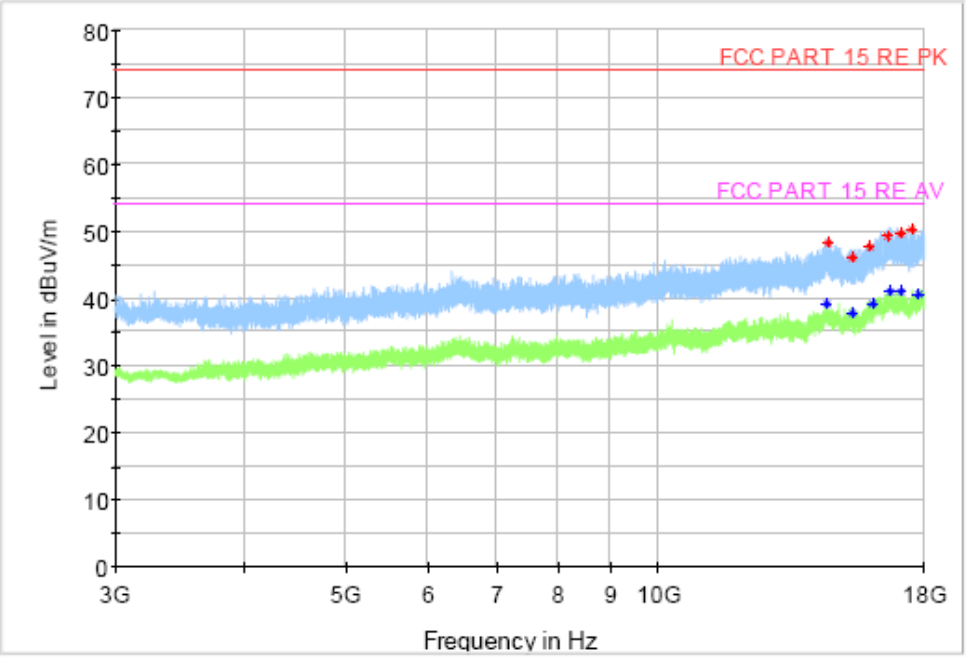

Figure A.13 Radiated Emission (Set.1,Charging Mode , 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
14544.5	48.41	74	25.59	H	11.4	37.01
15368	46.17	74	27.83	H	11.6	34.57
15979	47.76	74	26.24	V	13.4	34.36
16608.5	49.33	74	24.67	H	14.8	34.53
17097	49.82	74	24.18	V	15.1	34.72
17539	50.36	74	23.64	H	15	35.36

Final_Result_AV

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
14498	39.31	54	14.69	H	11.4	27.91
15349.5	37.89	54	16.11	H	11.7	26.19
16061	39.38	54	14.62	H	13.8	25.58
16678.5	41.06	54	12.94	H	14.9	26.16
17129.5	41.12	54	12.88	V	15	26.12
17760.5	40.78	54	13.22	H	16.2	24.58

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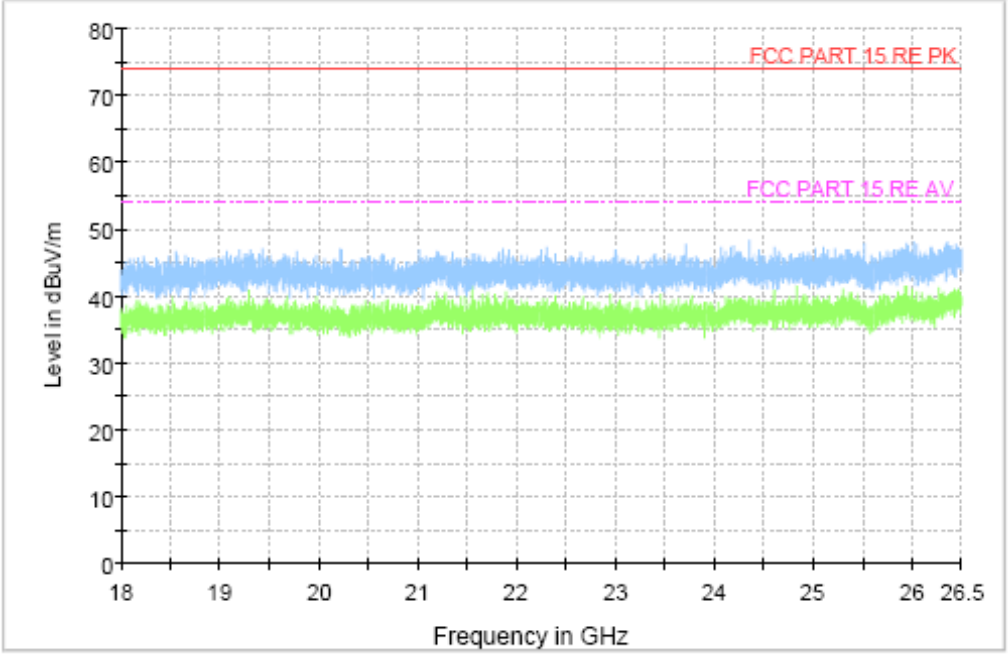

Figure A.14 Radiated Emission (Set.1,Charging Mode , 18GHz to 26.5GHz)

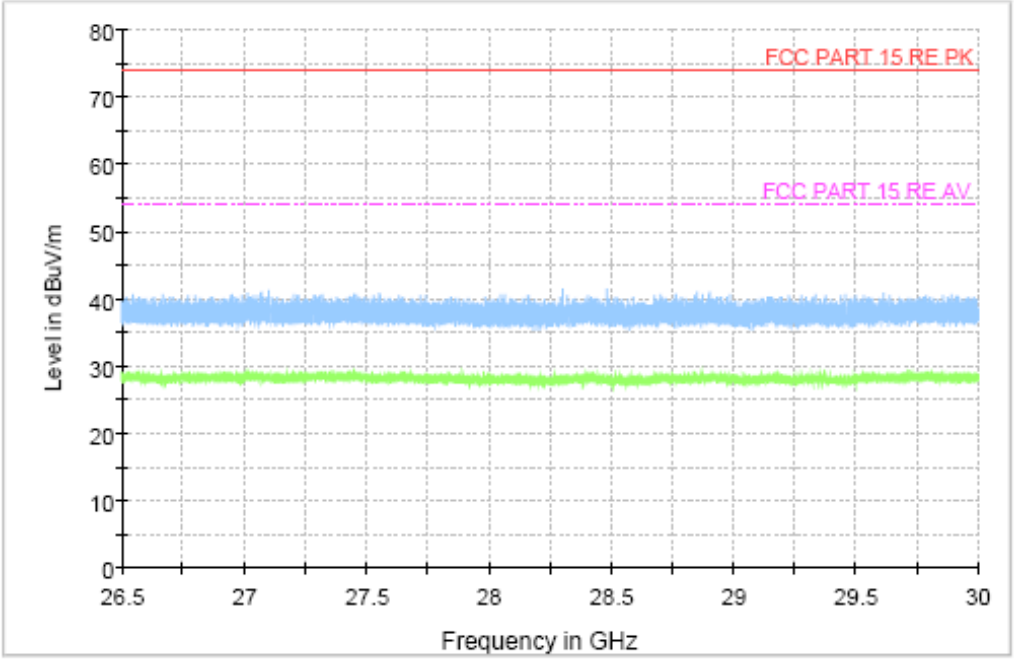

Figure A.15 Radiated Emission (Set.1,Charging Mode , 26.5GHz to 30GHz)

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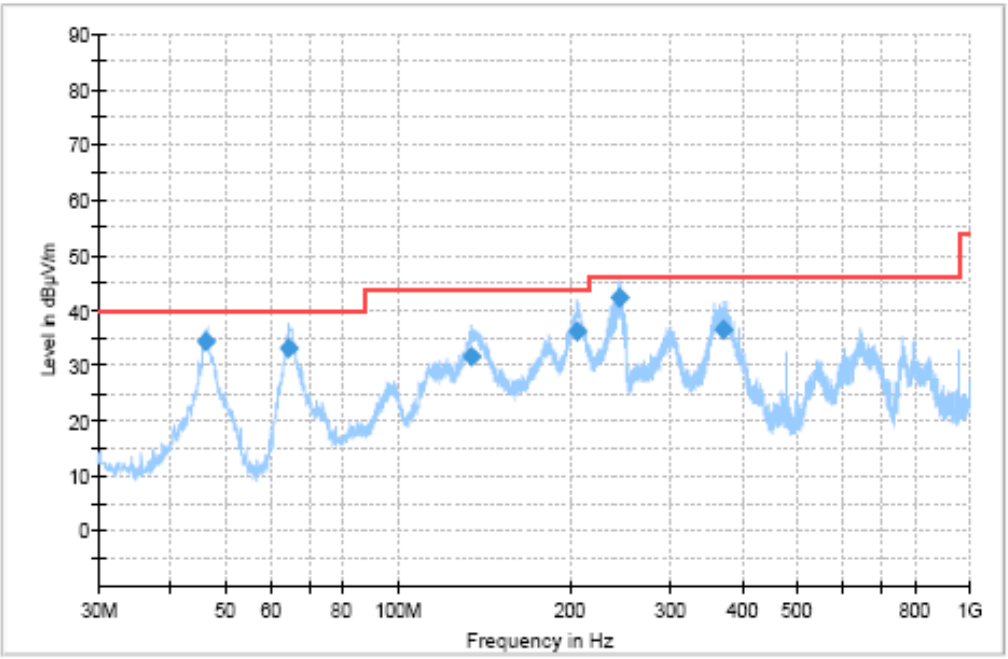

Figure A.16 Radiated Emission (Set.3,Data Transfer Mode Mode/PC to EUT, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
46.362222	34.38	40	5.62	V	-33.8	68.18
64.642778	33.04	40	6.96	V	-35.6	68.64
134.392222	31.55	43.5	11.95	V	-32.7	64.25
206.358333	36.24	43.5	7.26	H	-33	69.24
244.659444	42.23	46	3.77	V	-31.2	73.43
370.531667	36.62	46	9.38	H	-26.9	63.52

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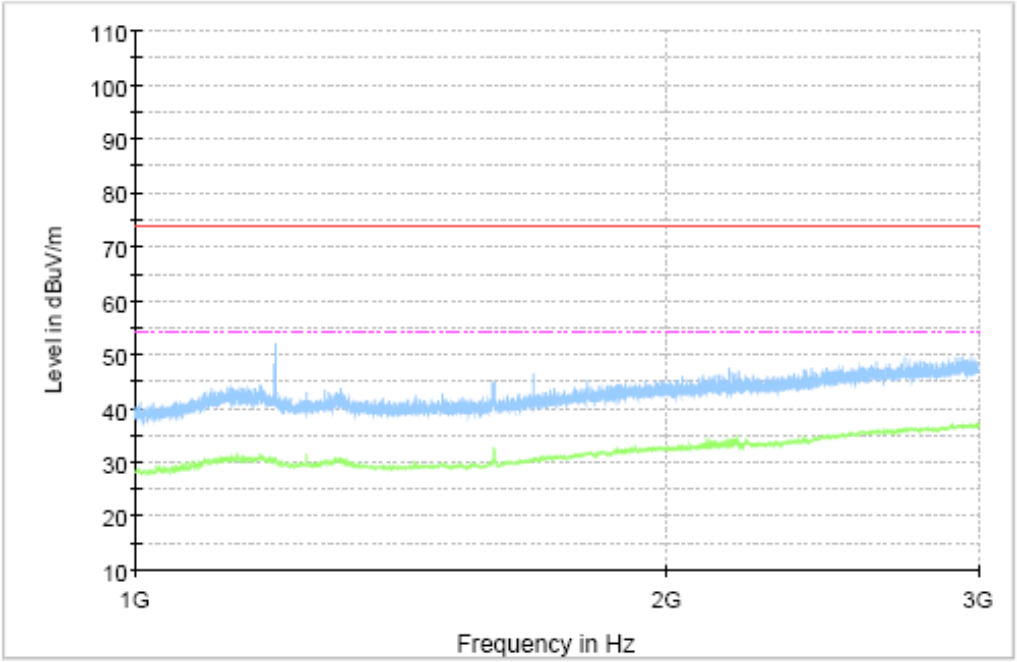

Figure A.17 Radiated Emission (Set.2, Data Transfer Mode Mode/PC to EUT, 1GHz to 3GHz)

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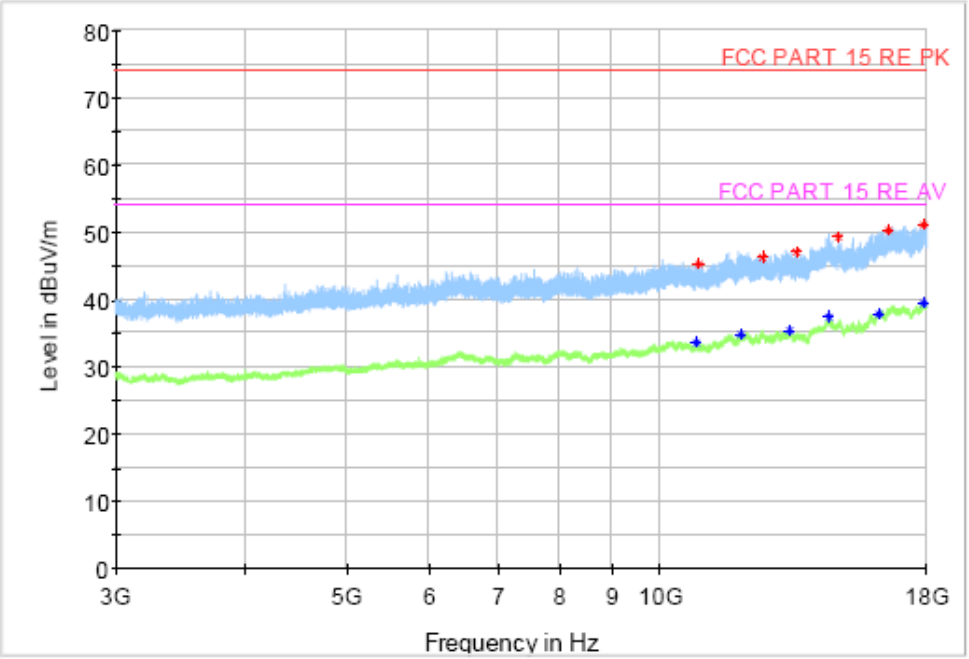

Figure A.18 Radiated Emission (Set.2, Data Transfer Mode Mode/PC to EUT, 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
10884.5	45.4	74	28.6	V	5.2	40.2
12540	46.37	74	27.63	V	8	38.37
13490	47.07	74	26.93	V	8.7	38.37
14819.5	49.39	74	24.61	H	10.7	38.69
16556.5	50.42	74	23.58	V	14.7	35.72
17877.5	51.23	74	22.77	V	16.3	34.93

Final_Result_AV

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
10830	33.58	54	20.42	V	5.3	28.28
11933	34.91	54	19.1	H	7	27.91
13305	35.41	54	18.59	H	9	26.41
14496	37.39	54	16.61	V	11.4	25.99
16194.5	37.83	54	16.17	H	14.4	23.43
17871.5	39.53	54	14.47	V	16.2	23.33

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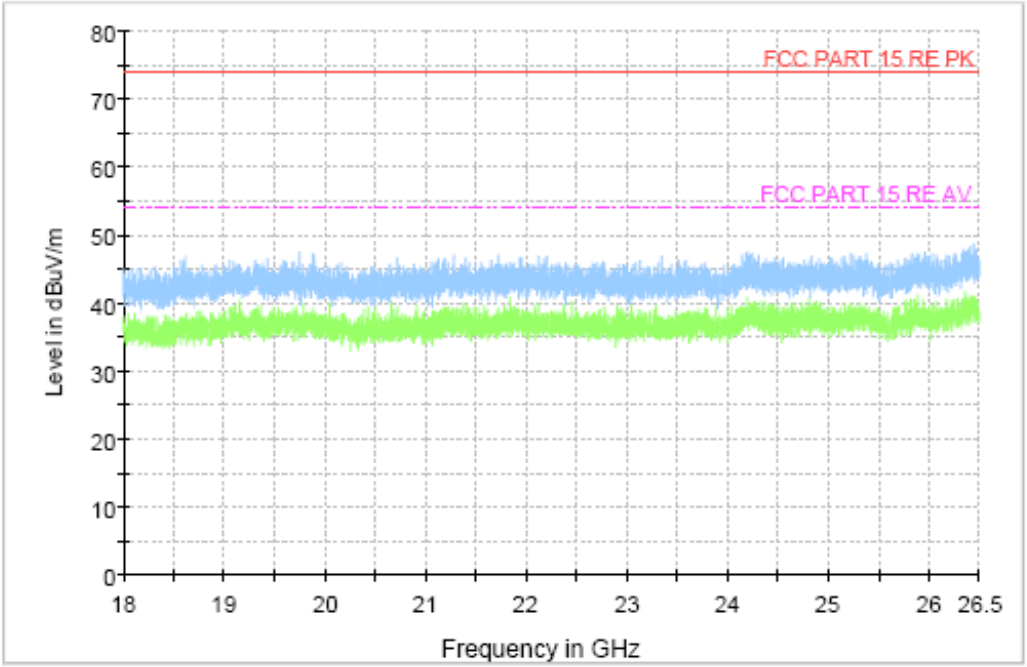

Figure A.19 Radiated Emission (Set.2, Data Transfer Mode Mode/PC to EUT, 26.5GHz to 30GHz)

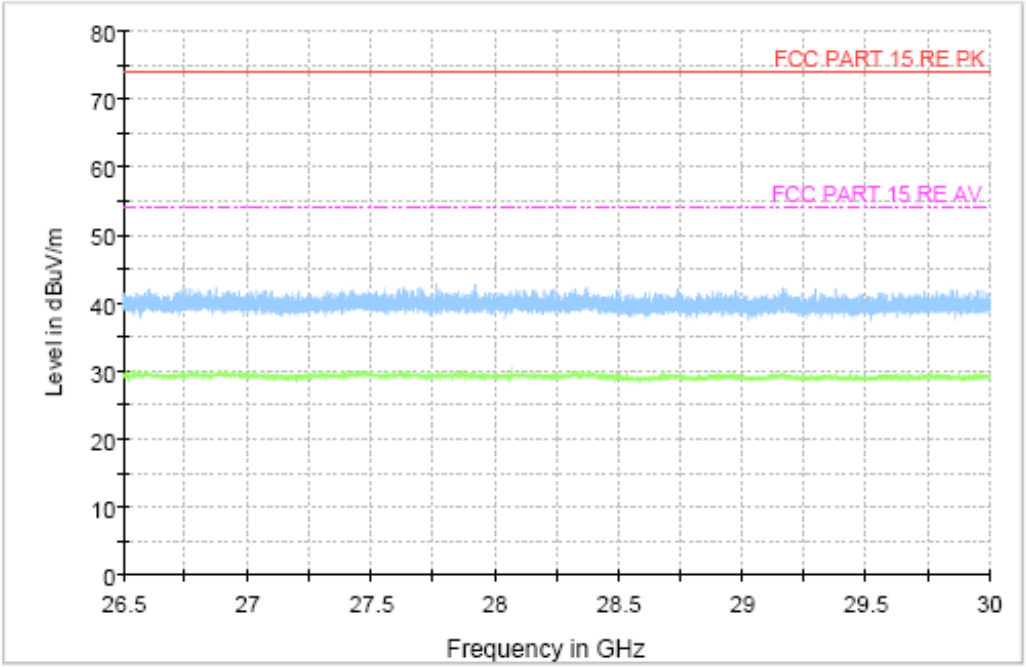

Figure A.20 Radiated Emission (Set.2, Data Transfer Mode Mode/PC to EUT, 26.5GHz to 30GHz)

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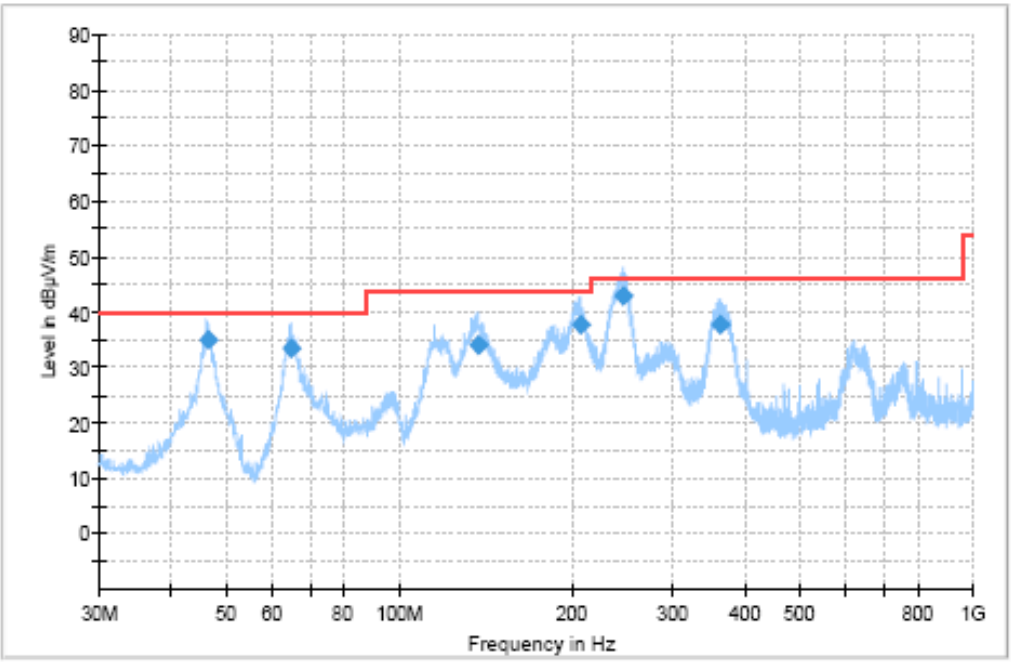

Figure A.21 Radiated Emission (Set.3, Data Transfer Mode Mode/EUT to PC, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
46.588333	34.81	40	5.19	V	-34	68.81
65.112222	33.42	40	6.58	V	-35.4	68.82
137.368333	33.91	43.5	9.59	V	-32.9	66.81
206.975556	37.6	43.5	5.9	H	-33	70.6
245.671111	42.87	46	3.13	H	-31.2	74.07
362.485	37.56	46	8.44	H	-27.4	64.96

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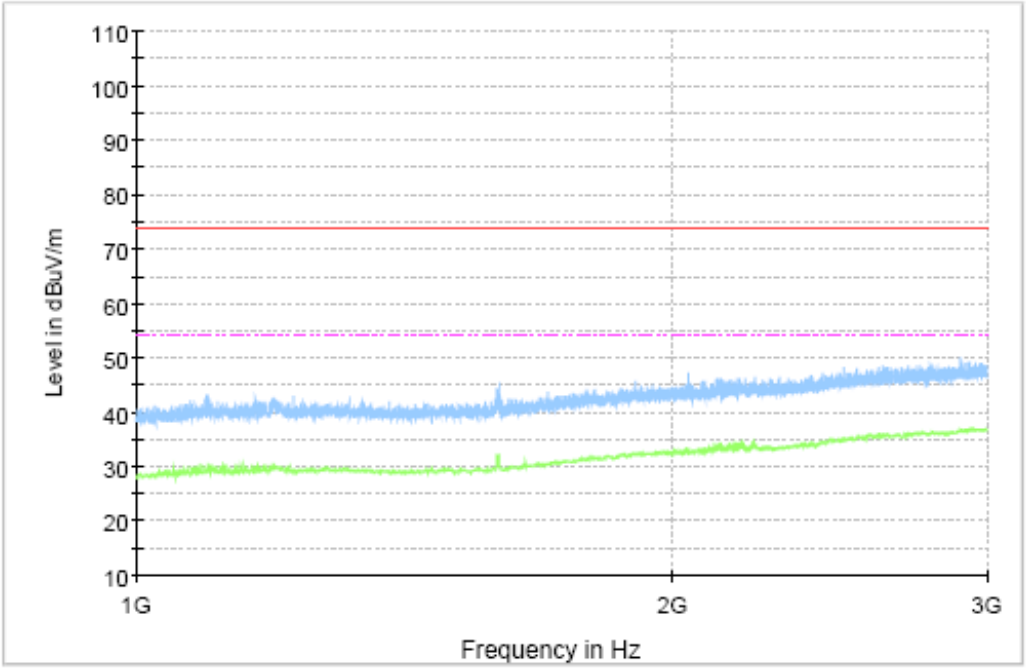

Figure A.22 Radiated Emission (Set.2, Data Transfer Mode Mode/EUT to PC, 1GHz to 3GHz)

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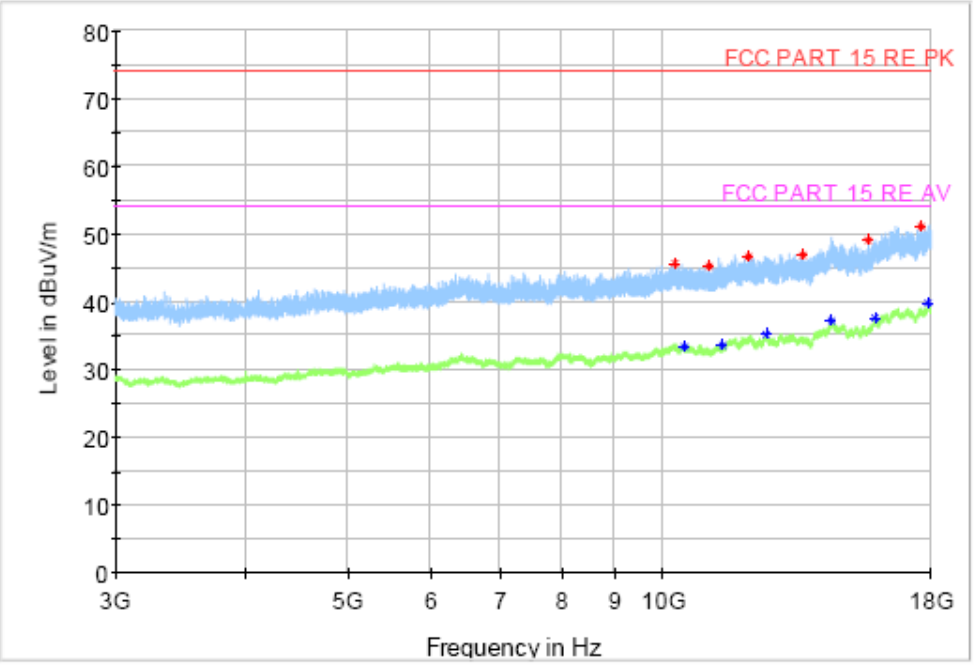

Figure A.23 Radiated Emission (Set.2, Data Transfer Mode Mode/EUT to PC, 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
10266.5	45.81	74	28.19	H	5.1	40.71
11043	45.28	74	28.72	V	5	40.28
12046.5	46.78	74	27.22	H	7.2	39.58
13580	47.05	74	26.95	H	8.6	38.45
15701	49.11	74	24.89	H	12.3	36.81
17652.5	51.22	74	22.78	H	15.5	35.72

Final_Result_AV

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
10471	33.45	54	20.55	H	5	28.45
11386.5	33.7	54	20.3	H	5.6	28.1
12521	35.17	54	18.83	V	8	27.17
14459	37.2	54	16.8	H	11.2	26
15900	37.58	54	16.42	V	13.2	24.38
17909	39.84	54	14.16	H	16.3	23.54

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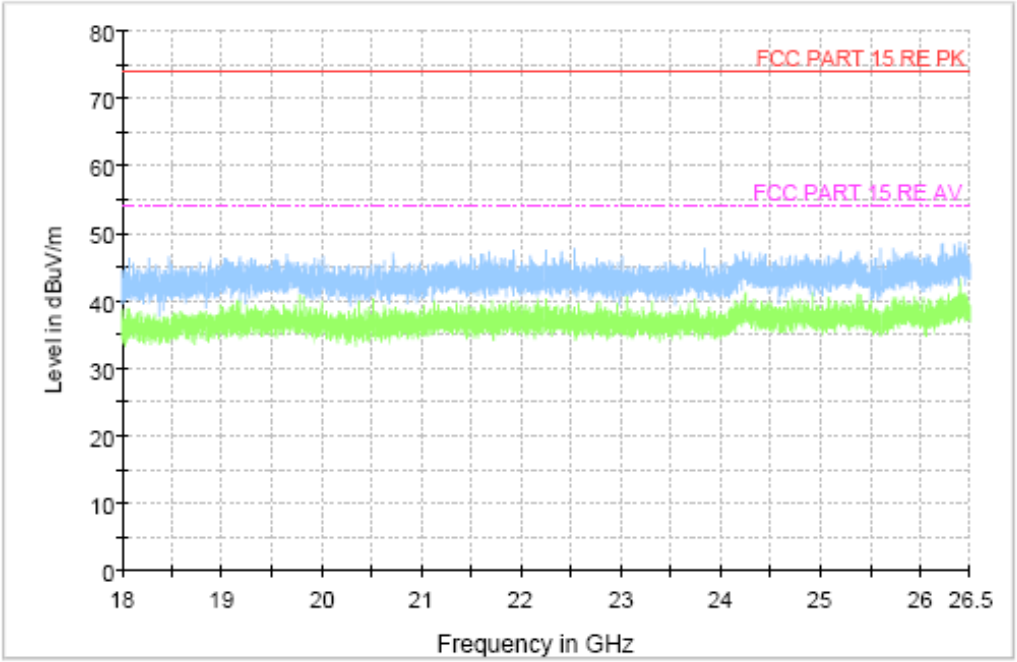

Figure A.24 Radiated Emission (Set.2, Data Transfer Mode Mode/EUT to PC, 18GHz to 26.5GHz)

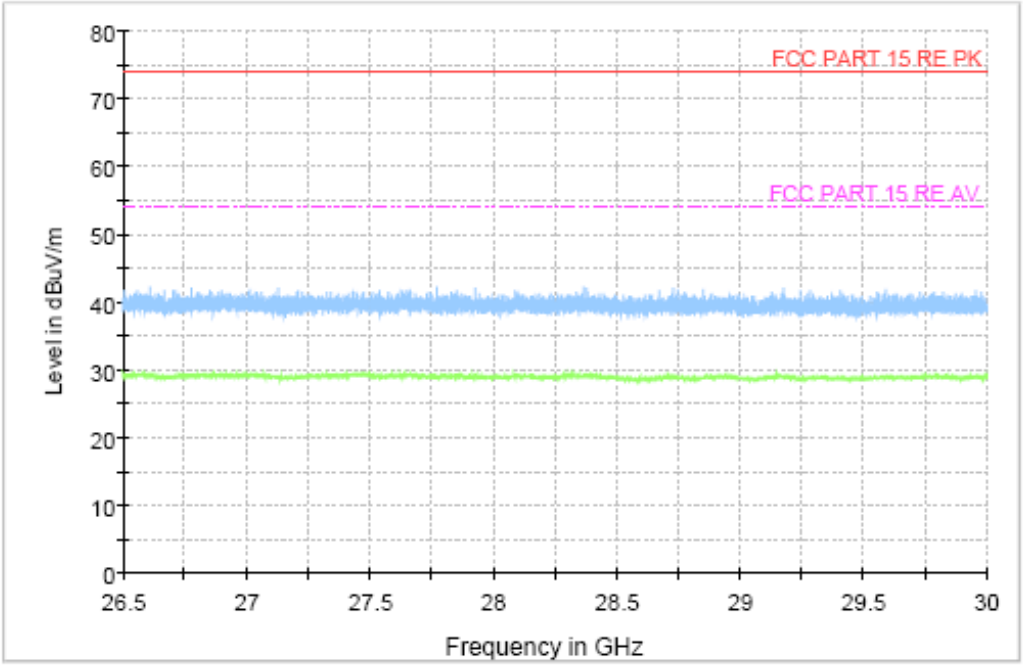

Figure A.25 Radiated Emission (Set.2, Data Transfer Mode Mode/EUT to PC, 26.5GHz to 30GHz)

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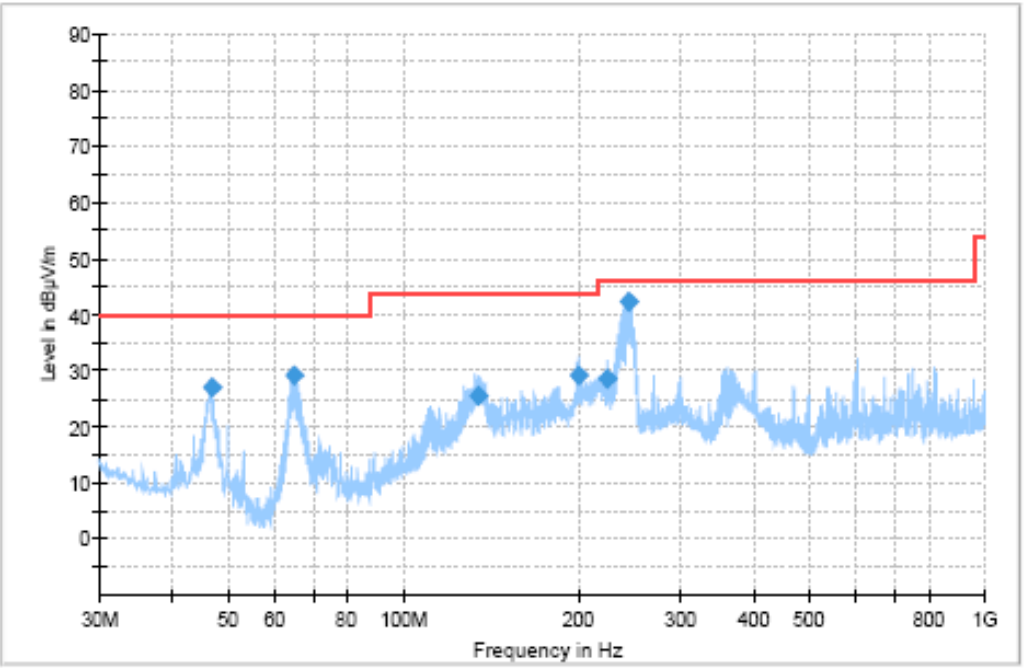

Figure A.26 Radiated Emission (Set.3, Data Transfer Mode Mode/PC to TF Card, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
46.833333	27.13	40	12.87	V	-34.3	61.43
64.993889	29.17	40	10.83	V	-35.4	64.57
134.726111	25.43	43.5	18.07	V	-32.7	58.13
199.61	29.01	43.5	14.49	H	-33.1	62.11
224.1	28.43	46	17.57	H	-32.4	60.83
243.473889	42.37	46	3.63	V	-31.3	73.67

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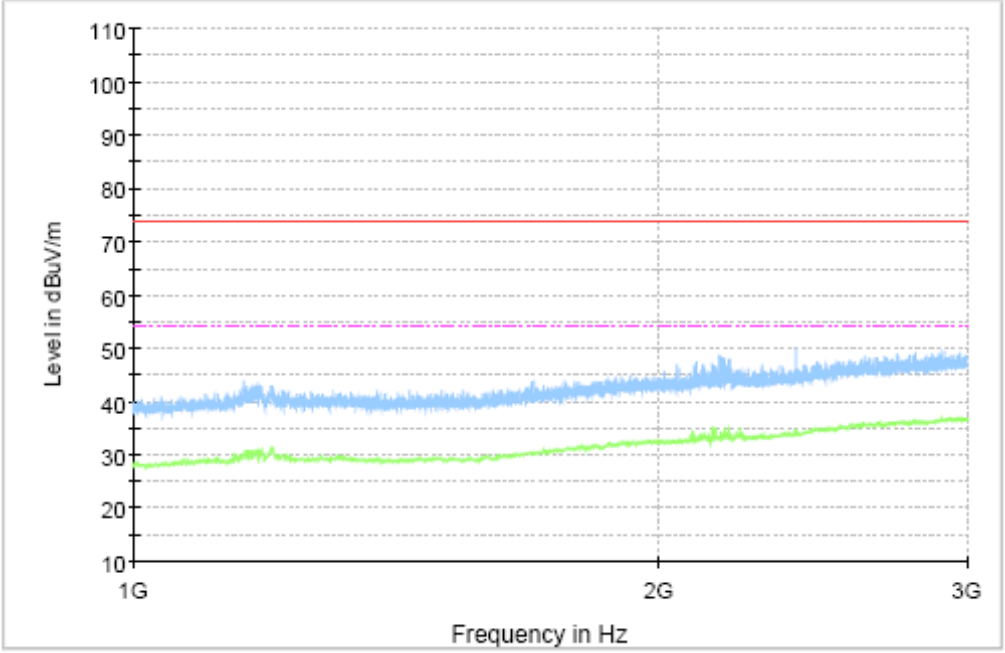

Figure A.27 Radiated Emission (Set.2, Data Transfer Mode Mode/PC to TF Card, 1GHz to 3GHz)

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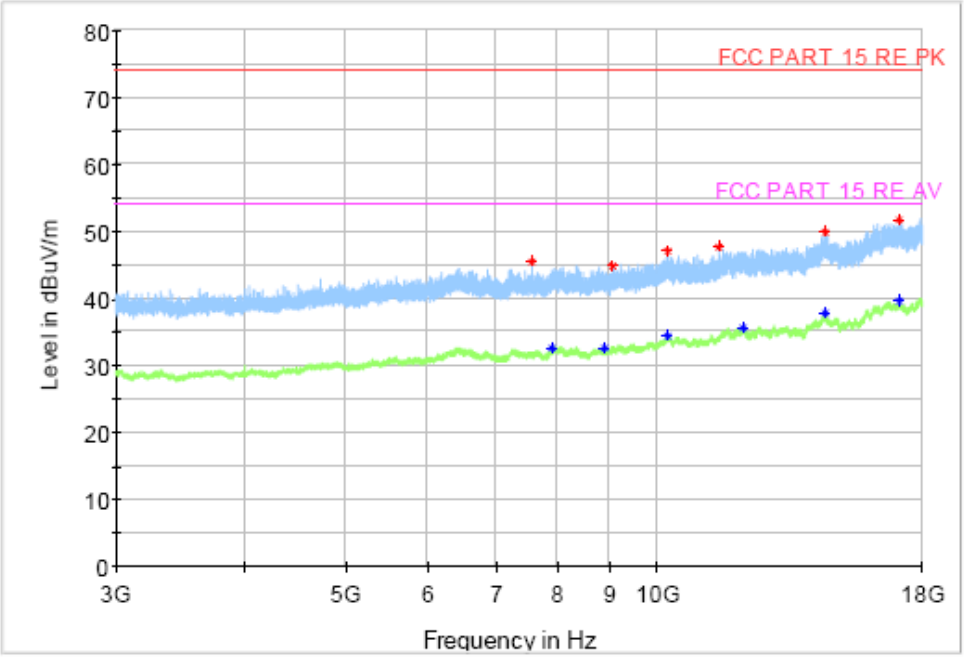

Figure A.28 Radiated Emission (Set.2, Data Transfer Mode Mode/PC to TF Card, 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
7551.5	45.49	74	28.51	V	2	43.49
9039.5	44.95	74	29.05	H	3.6	41.35
10227	47.13	74	26.87	H	5.1	42.03
11469.5	47.72	74	26.28	V	5.8	41.92
14498	50	74	24	V	11.4	38.6
17099	51.86	74	22.14	V	15.1	36.76

Final_Result_AV

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
7900	32.62	54	21.38	H	2.7	29.92
8898.5	32.62	54	21.38	H	3.2	29.42
10225.5	34.47	54	19.53	H	5.1	29.37
12080.5	35.71	54	18.29	V	7.4	28.31
14493	37.79	54	16.21	V	11.4	26.39
17111.5	39.67	54	14.33	H	15	24.67

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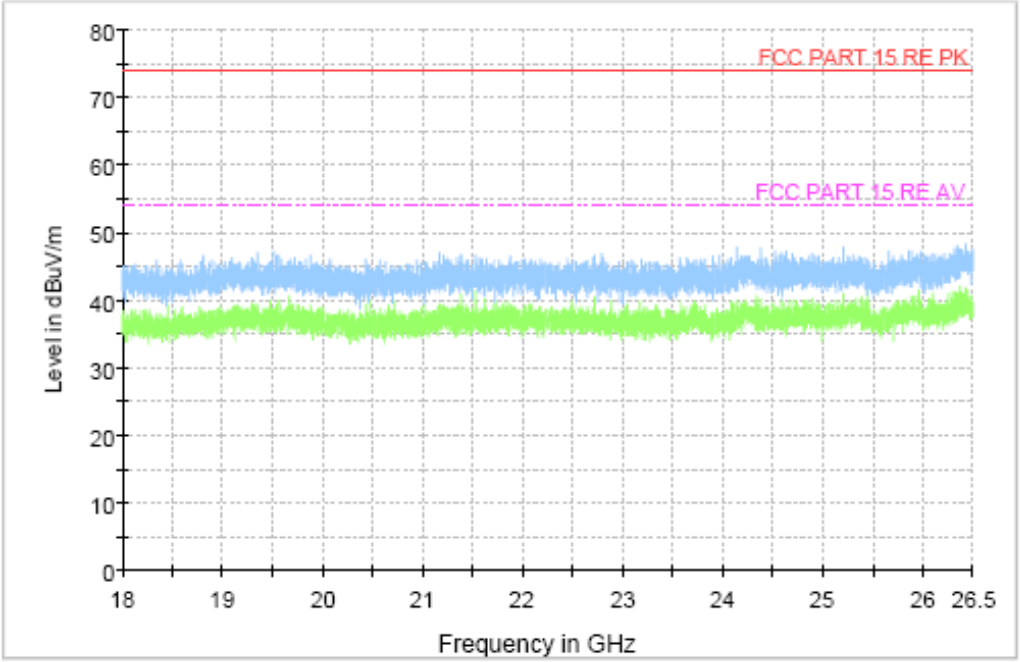

Figure A.29 Radiated Emission (Set.2, Data Transfer Mode Mode/PC to TF Card, 18GHz to 26.5GHz)

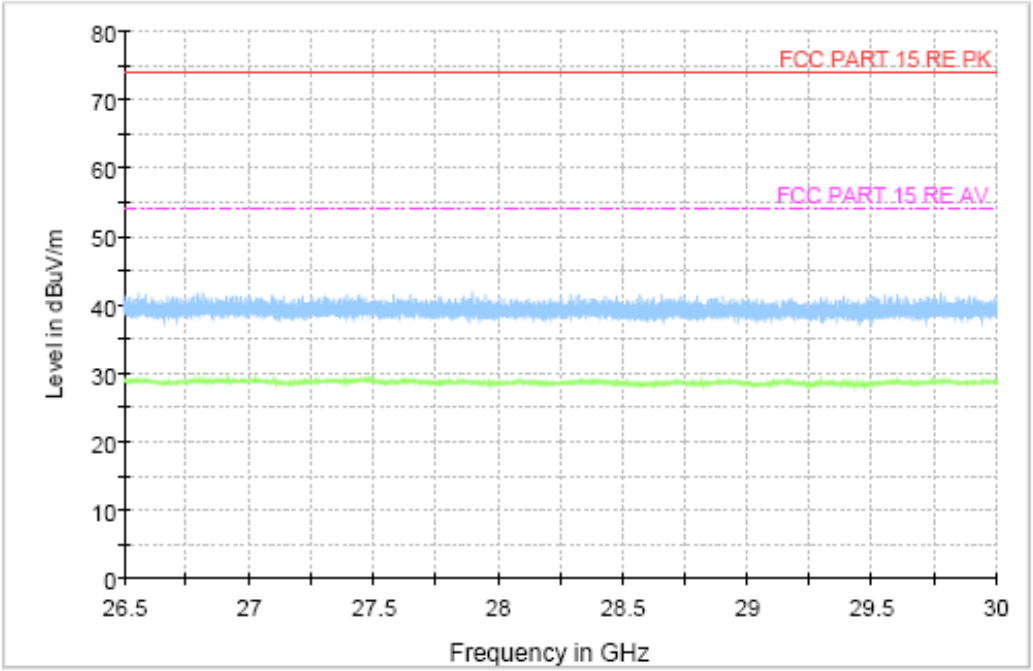

Figure A.30 Radiated Emission (Set.2, Data Transfer Mode Mode/PC to TF Card, 26.5GHz to 30GHz)

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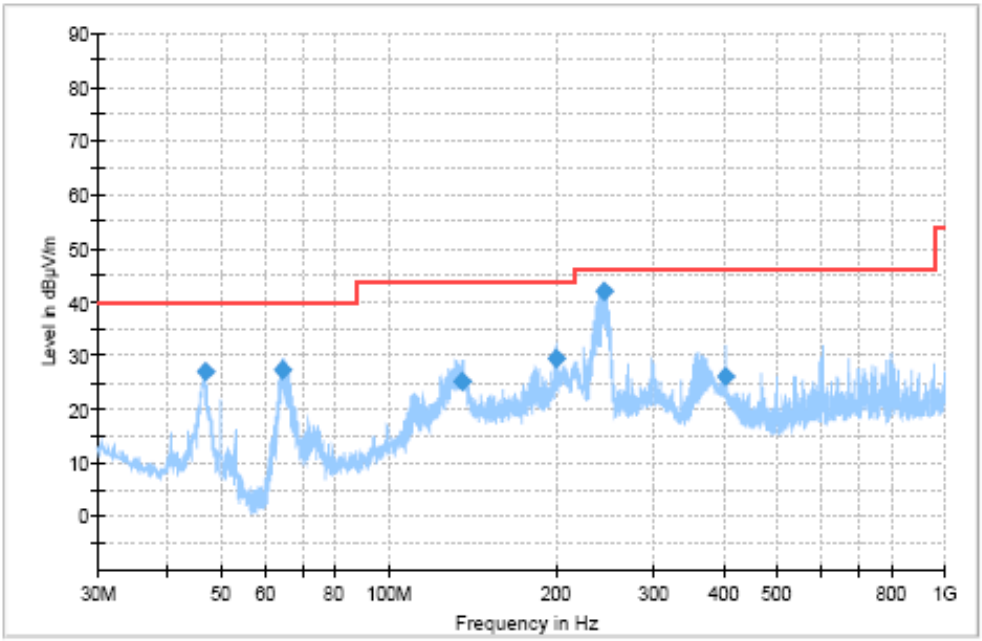

Figure A.31 Radiated Emission (Set.3, Data Transfer Mode Mode/TF Card to PC, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
46.833333	26.96	40	13.04	V	-34.3	61.26
64.673889	27.26	40	12.74	V	-35.6	62.86
135.372778	25.17	43.5	18.33	V	-32.8	57.97
199.688333	29.31	43.5	14.19	H	-33.1	62.41
243.473889	42.12	46	3.88	V	-31.3	73.42
404.346111	25.98	46	20.02	V	-26.2	52.18

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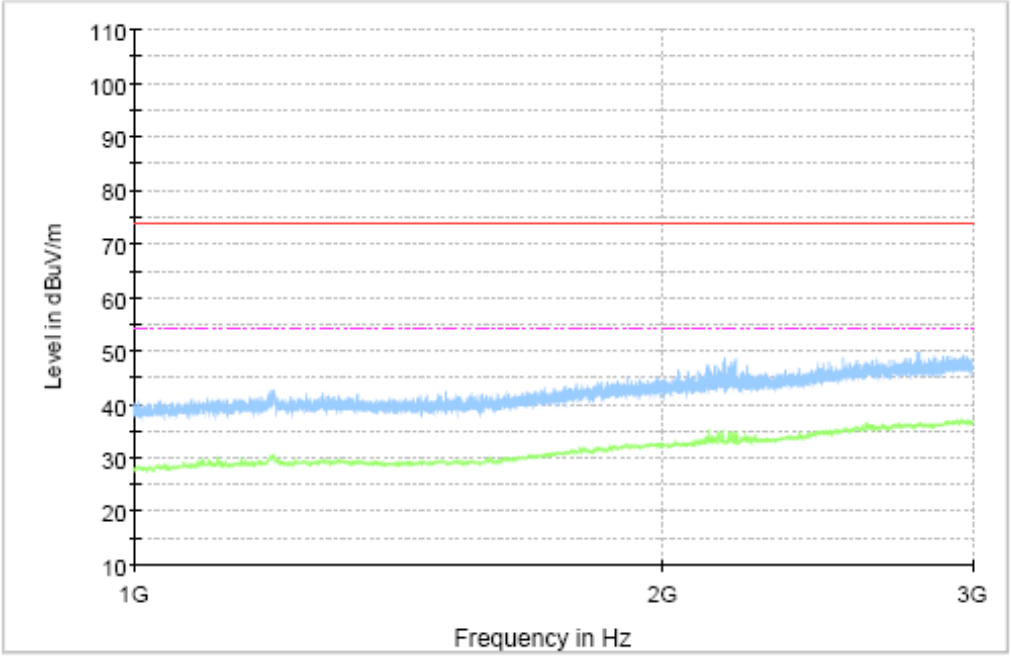

Figure A.32 Radiated Emission (Set.2, Data Transfer Mode Mode/TF Card to PC, 1GHz to 3GHz)

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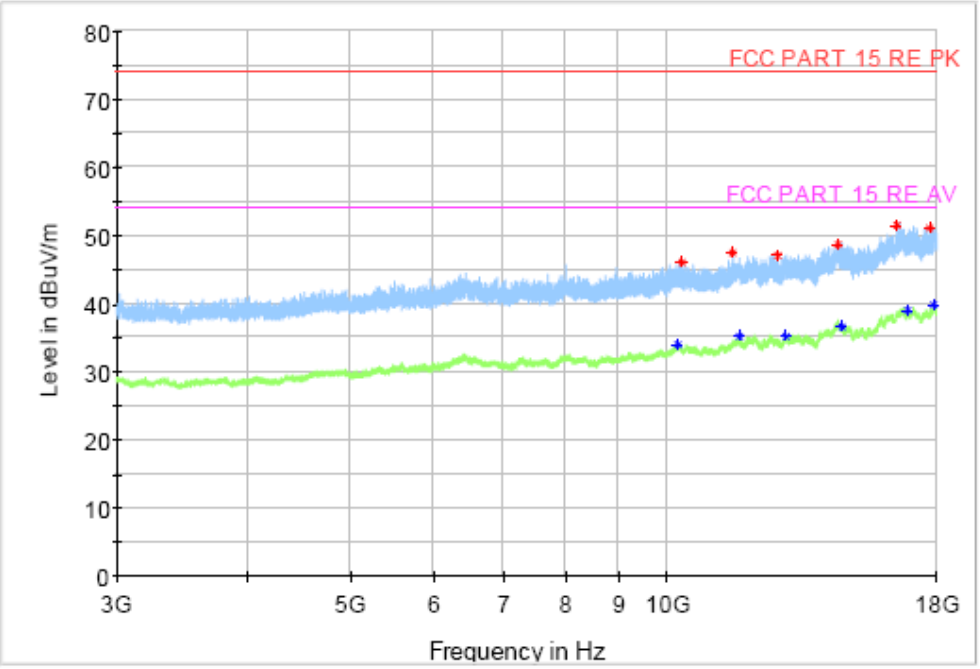

Figure A.33 Radiated Emission (Set.2, Data Transfer Mode Mode/TF Card to PC, 3GHz to 18GHz)

Final_Result_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
10311	46.17	74	27.83	H	5	41.17
11544	47.5	74	26.5	V	6.4	41.1
12732	47.21	74	26.79	V	7.7	39.51
14514	48.73	74	25.27	V	11.5	37.23
16511	51.49	74	22.51	H	14.8	36.69
17736	51.2	74	22.8	V	16	35.2

Final_Result_AV

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBμV)
10235	34.12	54	19.88	H	5.2	28.92
11689.5	35.26	54	18.74	V	7.1	28.16
12938	35.36	54	18.64	H	8.6	26.76
14632	36.71	54	17.29	V	11.3	25.41
16909	39.03	54	14.97	H	15.1	23.93
17903	39.84	54	14.16	H	16.3	23.54

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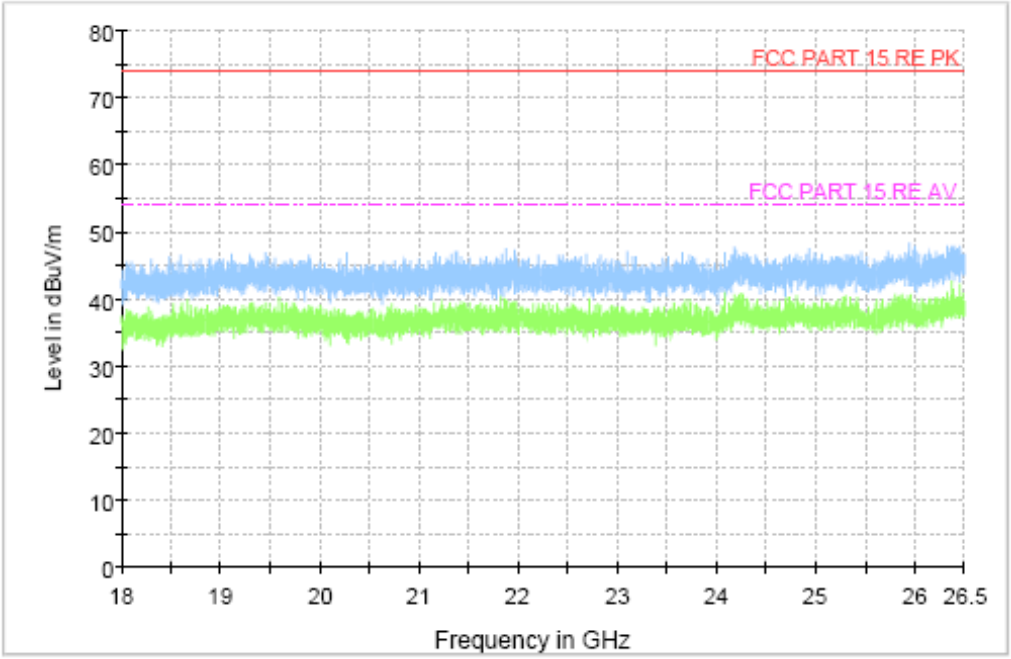

Figure A.34 Radiated Emission (Set.2, Data Transfer Mode Mode/TF Card to PC, 18GHz to 26.5GHz)

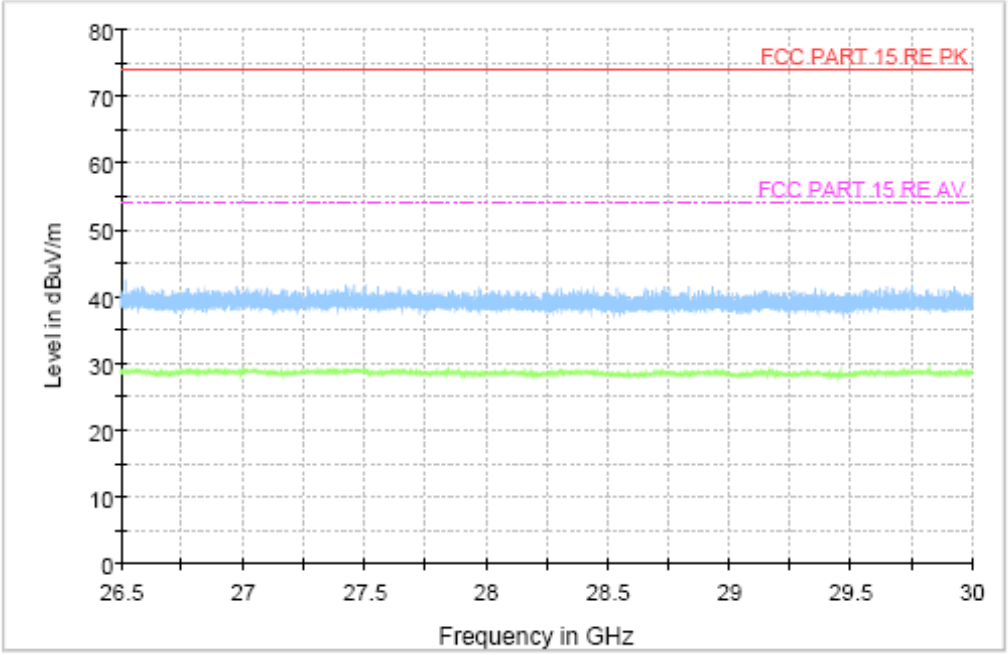

Figure A.35 Radiated Emission (Set.2, Data Transfer Mode Mode/TF Card to PC, 26.5GHz to 30GHz)

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B.2 Conducted Emission (§15.107(a))

Reference

FCC: CFR Part 15.107(a)

IC: ICES-003 section 6.1.

B.2.1 Method of measurement

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150kHz to 30MHz shall not exceed the limits. Tested in accordance with the procedures of ANSI C63.4 -2014, section 7.3.

B.2.2 EUT Operating Mode:

Charging Mode: At the beginning of measurement, the battery is completely discharged.The battery and charger are installed so that the EUT works well and is in charging state.

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

Camera Mode: The EUT is The EUT is connected to a PC for charging and keeping on taking photos.

Data Transfer Mode: The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C. 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.

B.2.3 Measurement Limit

Frequency of emission (MHz)	Conducted limit (dBµV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50
*Decreases with the logarithm of the frequency		

B.2.4Test set-up:

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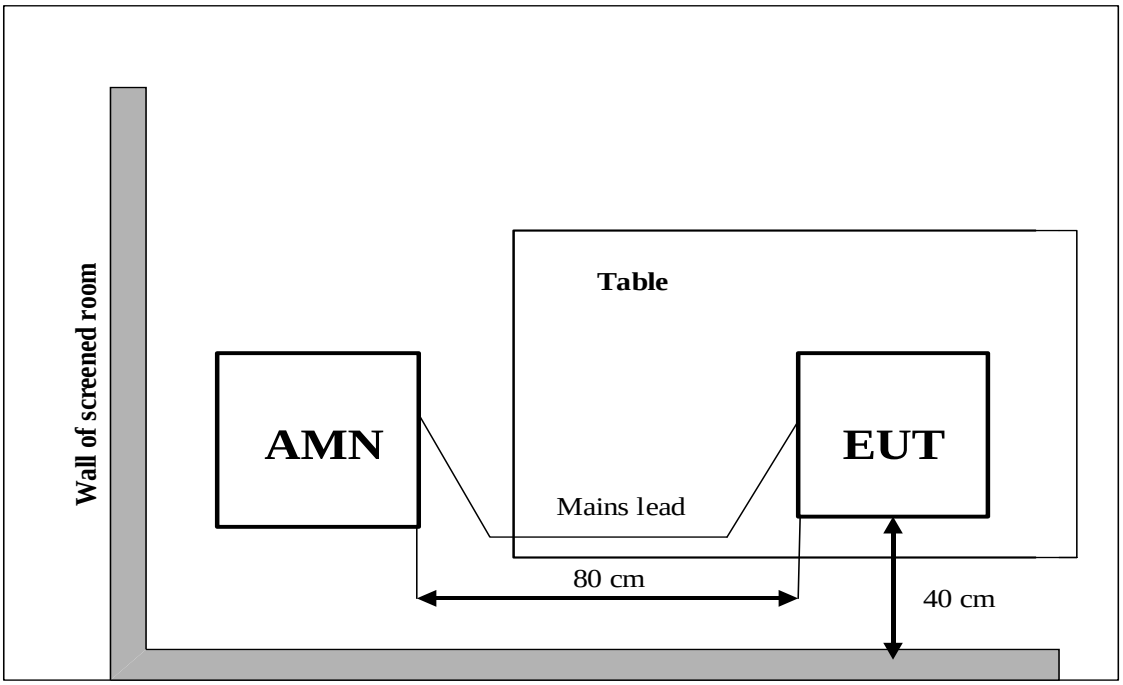

B.2.5 Test Condition in charging mode

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

RBW	Sweep Time(s)
9kHz	1

B.2.6 Measurement Results

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

Where

Corr: PathLoss + Voltage Division Factor

PMea: Measurement result on receiver.

Video Playing Mode

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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Camera Mode

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.				

Charging Mode

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.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 Mode (PC to EUT)

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.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 Mode (EUT to PC)

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.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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Data Transfer Mode (PC to TF Card)

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.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.				

Data Transfer Mode (TF Card to PC)

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.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 Playing Mode

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.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.				

Camera Mode

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.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.				

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Charging Mode

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.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.				

Data Transfer Mode (PC to EUT)

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.11	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Data Transfer Mode (EUT to PC)

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.12	P
0.5 to 5	56	46		
5 to 30	60	50		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Data Transfer Mode (PC to TF Card)

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.13	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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Data Transfer Mode (TF Card to PC)

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.14	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

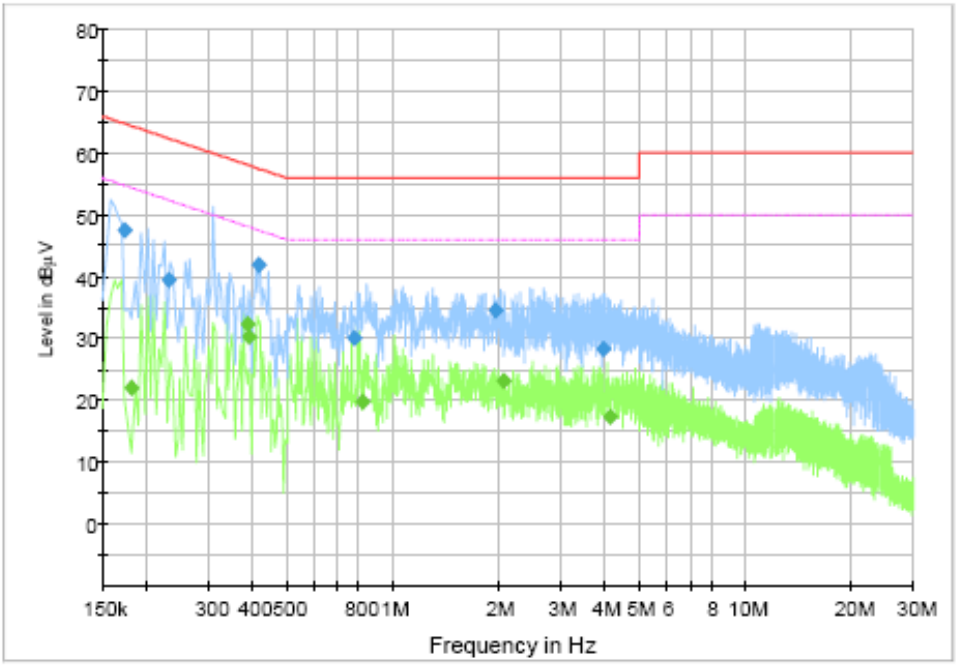

Figure B.1 Conducted Emission(Set.1, Video Playing Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.174	47.44	64.77	17.33	N	9.6	37.84
0.232	39.56	62.38	22.82	L1	9.6	29.96
0.416	41.89	57.53	15.64	N	9.7	32.19
0.78	30	56	26	N	9.6	20.4
1.956	34.45	56	21.55	N	9.7	24.75
3.964	28.31	56	27.69	N	9.7	18.61

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.182	22.02	54.39	32.37	L1	9.6	12.42
0.388	32.42	48.11	15.69	L1	9.6	22.82
0.392	30.35	48.02	17.68	L1	9.7	20.65
0.82	19.69	46	26.31	N	9.6	10.09
2.056	23.23	46	22.77	N	9.7	13.53
4.152	17.35	46	28.65	N	9.7	7.65

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AC Input Port/ Voltage: 120V/60Hz

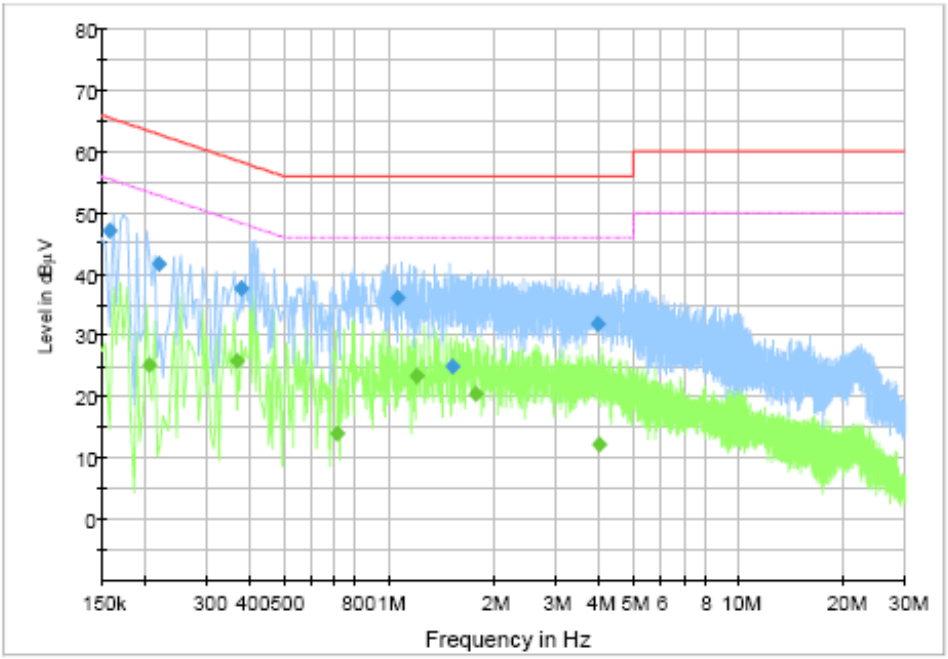

Figure B.2 Conducted Emission(Set.1, Camera Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.158	47	65.57	18.57	N	9.6	37.4
0.22	41.68	62.82	21.14	N	9.6	32.08
0.376	37.67	58.37	20.7	N	9.6	28.07
1.06	36.09	56	19.91	N	9.7	26.39
1.52	24.92	56	31.08	N	9.7	15.22
3.968	31.8	56	24.2	N	9.7	22.1

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.206	25.22	53.37	28.15	L1	9.6	15.62
0.368	25.77	48.55	22.78	N	9.6	16.17
0.708	13.96	46	32.04	N	9.6	4.36
1.2	23.34	46	22.66	N	9.7	13.64
1.768	20.35	46	25.65	N	9.7	10.65
4.012	12.21	46	33.79	N	9.7	2.51

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AC Input Port/ Voltage: 120V/60Hz

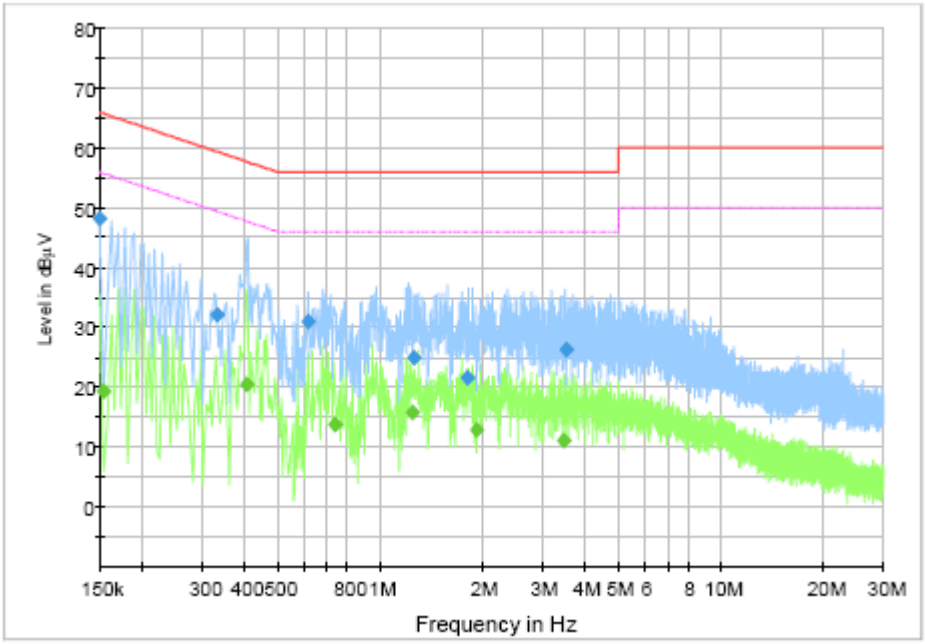

Figure B.3 Conducted Emission(Set.1, Charging Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.15	48.17	66	17.83	N	9.6	38.57
0.332	32.17	59.4	27.23	N	9.6	22.57
0.616	31.04	56	24.96	N	9.6	21.44
1.256	25.03	56	30.97	N	9.7	15.33
1.808	21.52	56	34.48	N	9.7	11.82
3.512	26.34	56	29.66	N	9.7	16.64

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154	19.39	55.78	36.39	N	9.6	9.79
0.404	20.36	47.77	27.41	N	9.7	10.66
0.736	13.78	46	32.22	N	9.6	4.18
1.24	15.66	46	30.34	N	9.7	5.96
1.924	12.92	46	33.08	N	9.7	3.22
3.46	11.04	46	34.96	N	9.7	1.34

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AC Input Port/ Voltage: 120V/60Hz

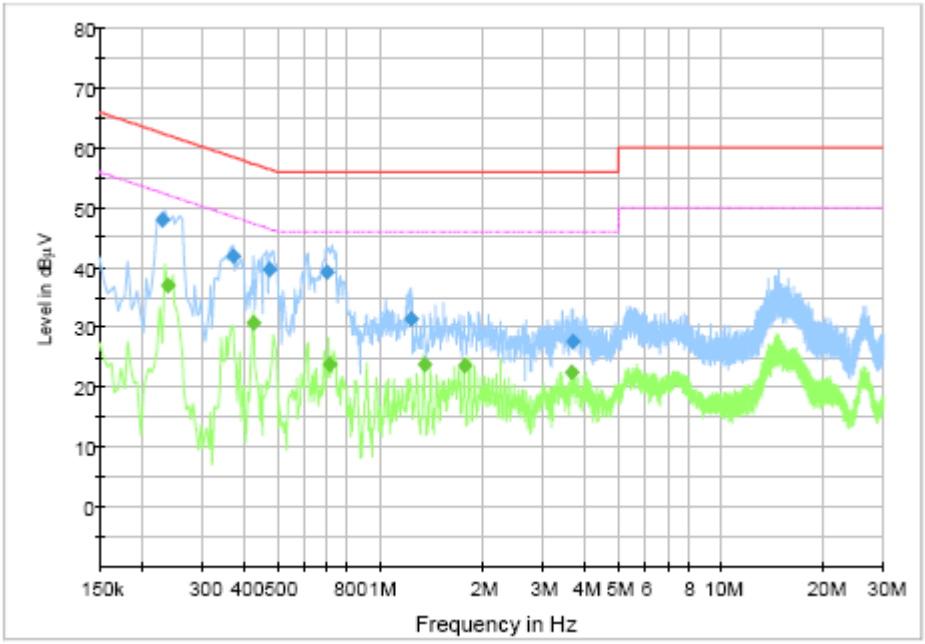

Figure B.4 Conducted Emission(Set.2, Data Transfer Mode/PC to EUT)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.23	47.88	62.45	14.57	L1	9.6	38.28
0.372	41.92	58.46	16.53	L1	9.6	32.32
0.472	39.77	56.48	16.71	L1	9.6	30.17
0.7	39.23	56	16.77	L1	9.6	29.63
1.228	31.51	56	24.49	N	9.7	21.81
3.668	27.56	56	28.44	L1	9.7	17.86

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.238	37.1	52.17	15.07	L1	9.6	27.5
0.424	30.83	47.37	16.54	L1	9.6	21.23
0.708	23.71	46	22.29	L1	9.6	14.11
1.344	23.81	46	22.19	N	9.7	14.11
1.772	23.49	46	22.51	N	9.7	13.79
3.66	22.44	46	23.56	L1	9.7	12.74

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AC Input Port/ Voltage: 120V/60Hz

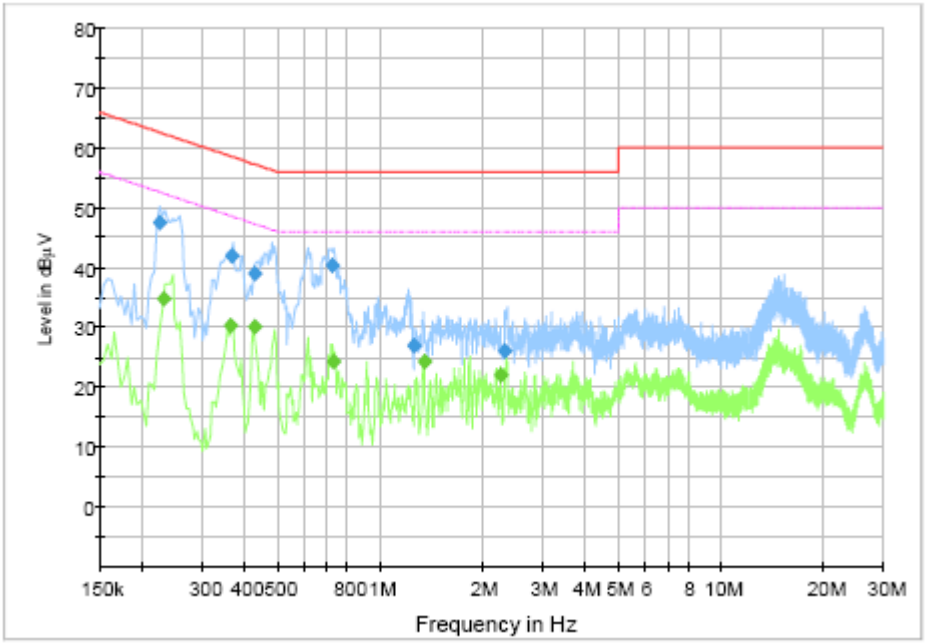

Figure B.5 Conducted Emission(Set.2, Data Transfer Mode/EUT to PC)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.226	47.63	62.6	14.97	L1	9.6	38.03
0.368	42.04	58.55	16.5	L1	9.6	32.44
0.428	38.99	57.29	18.31	L1	9.6	29.39
0.724	40.4	56	15.6	L1	9.6	30.8
1.252	26.86	56	29.14	N	9.7	17.16
2.324	26.11	56	29.89	N	9.7	16.41

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.232	34.68	52.38	17.7	L1	9.6	25.08
0.364	30.26	48.64	18.38	L1	9.6	20.66
0.428	30.15	47.29	17.14	L1	9.6	20.55
0.732	24.14	46	21.86	N	9.6	14.54
1.344	24.2	46	21.8	N	9.7	14.5
2.26	21.92	46	24.08	N	9.7	12.22

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AC Input Port/ Voltage: 120V/60Hz

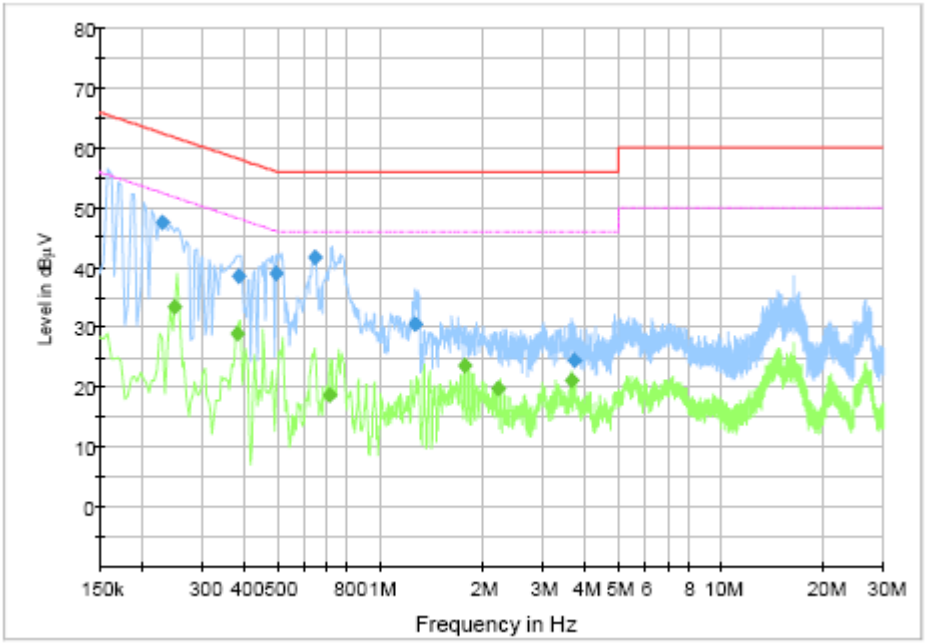

Figure B.6 Conducted Emission(Set.2, Data Transfer Mode/PC to TF Card)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.23	47.49	62.45	14.96	L1	9.6	37.89
0.384	38.58	58.19	19.61	N	9.6	28.98
0.496	39.03	56.07	17.03	N	9.6	29.43
0.644	41.8	56	14.2	L1	9.6	32.2
1.264	30.54	56	25.46	L1	9.7	20.84
3.724	24.43	56	31.57	L1	9.7	14.73

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.248	33.43	51.82	18.39	N	9.6	23.83
0.38	28.93	48.28	19.35	N	9.6	19.33
0.708	18.67	46	27.33	N	9.6	9.07
1.776	23.49	46	22.51	N	9.7	13.79
2.212	19.69	46	26.31	N	9.7	9.99
3.652	21.22	46	24.78	L1	9.7	11.52

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AC Input Port/ Voltage: 120V/60Hz

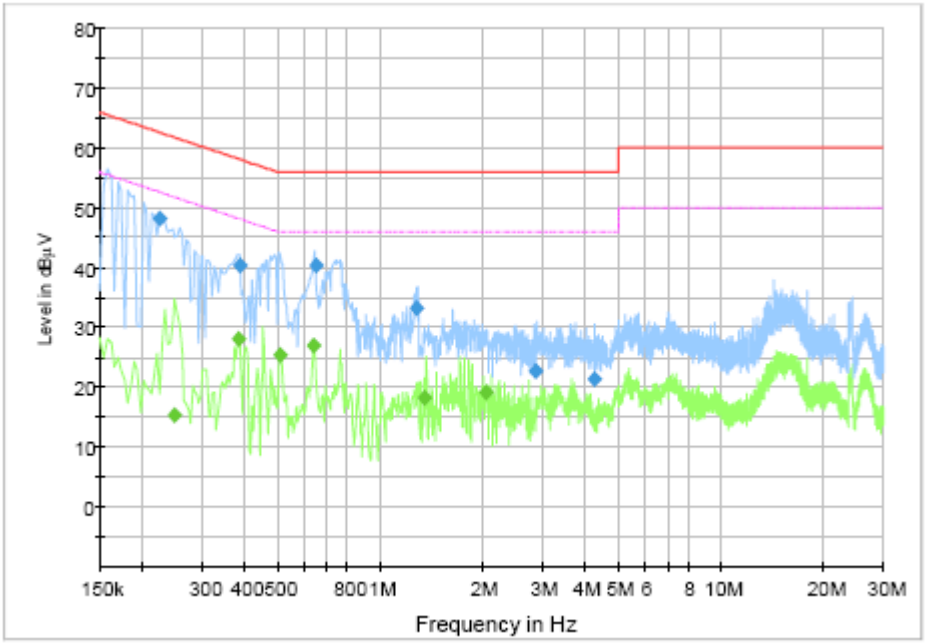

Figure B.7 Conducted Emission(Set.2, Data Transfer Mode/TF Card to PC)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.226	48.14	62.6	14.45	L1	9.6	38.54
0.388	40.38	58.11	17.73	N	9.6	30.78
0.648	40.33	56	15.67	N	9.6	30.73
1.284	33.17	56	22.83	L1	9.7	23.47
2.856	22.62	56	33.38	L1	9.7	12.92
4.264	21.45	56	34.55	L1	9.7	11.75

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.248	15.26	51.82	36.56	N	9.6	5.66
0.384	27.96	48.19	20.23	N	9.6	18.36
0.508	25.48	46	20.52	N	9.6	15.88
0.64	26.96	46	19.04	N	9.6	17.36
1.344	18.17	46	27.83	N	9.7	8.47
2.04	19.09	46	26.91	N	9.7	9.39

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AC Input Port/ Voltage: 240V/60Hz

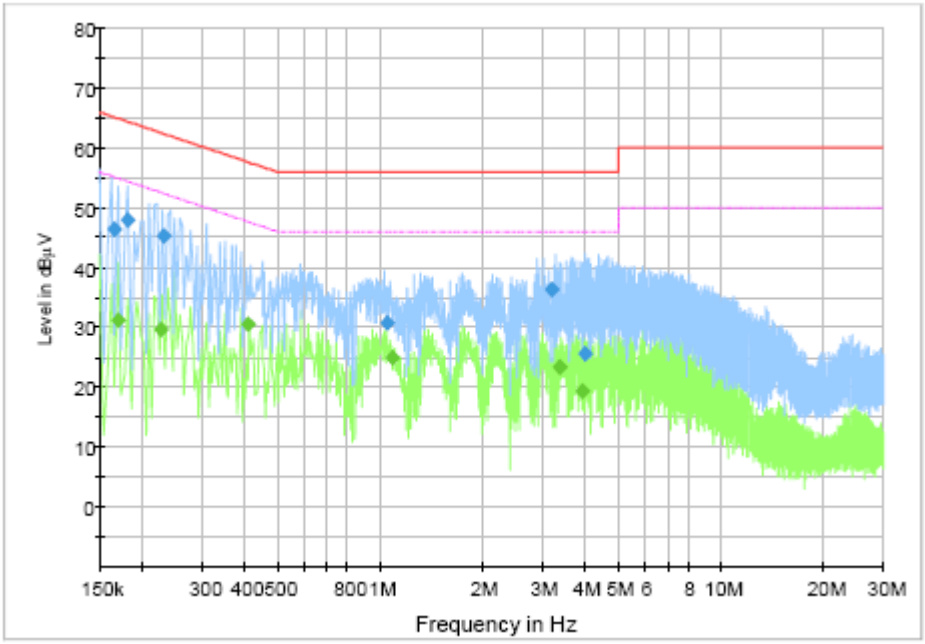

Figure B.8 Conducted Emission(Set.1, Video Playing Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.166	46.38	65.16	18.78	N	9.6	36.78
0.182	48	64.39	16.4	N	9.6	38.4
0.232	45.19	62.38	17.19	N	9.6	35.59
1.052	30.82	56	25.18	N	9.7	21.12
3.18	36.43	56	19.57	N	9.7	26.73
3.988	25.65	56	30.35	N	9.7	15.95

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.17	31.17	54.96	23.79	L1	9.6	21.57
0.228	29.7	52.52	22.82	L1	9.6	20.1
0.408	30.52	47.69	17.17	L1	9.7	20.82
1.088	24.94	46	21.06	L1	9.7	15.24
3.352	23.42	46	22.58	N	9.7	13.72
3.916	19.44	46	26.56	N	9.7	9.74

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AC Input Port/ Voltage: 240V/60Hz

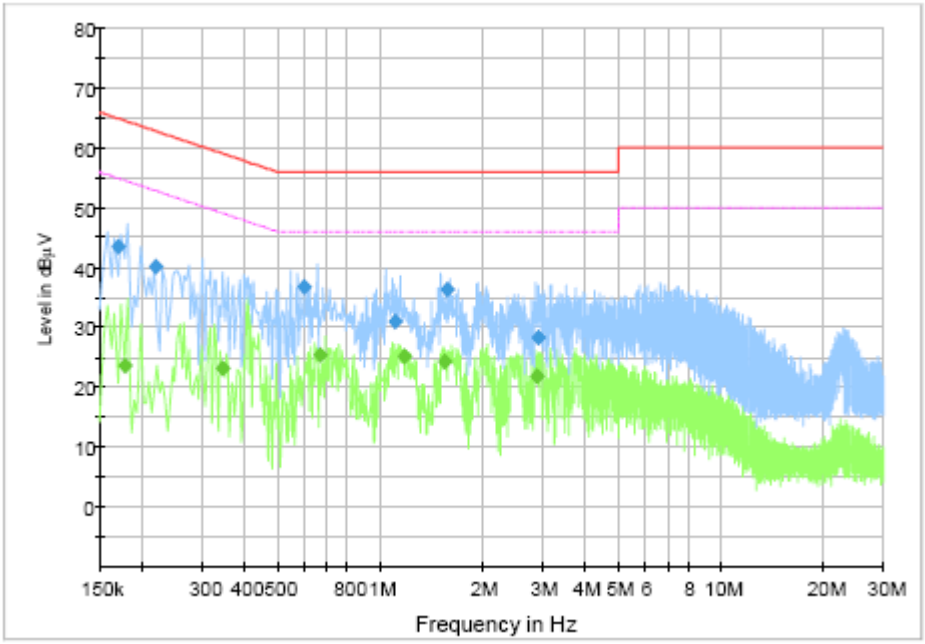

Figure B.9 Conducted Emission(Set.1, Camera Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.17	43.44	64.96	21.52	N	9.6	33.84
0.22	40.13	62.82	22.69	N	9.6	30.53
0.596	36.79	56	19.21	N	9.6	27.19
1.108	30.96	56	25.04	N	9.7	21.26
1.572	36.37	56	19.63	N	9.7	26.67
2.912	28.26	56	27.74	N	9.7	18.56

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.178	23.52	54.58	31.06	N	9.6	13.92
0.344	23.06	49.11	26.05	L1	9.6	13.46
0.668	25.46	46	20.54	L1	9.6	15.86
1.176	25.06	46	20.94	L1	9.7	15.36
1.54	24.17	46	21.83	L1	9.7	14.47
2.892	21.69	46	24.31	L1	9.7	11.99

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AC Input Port/ Voltage: 240V/60Hz

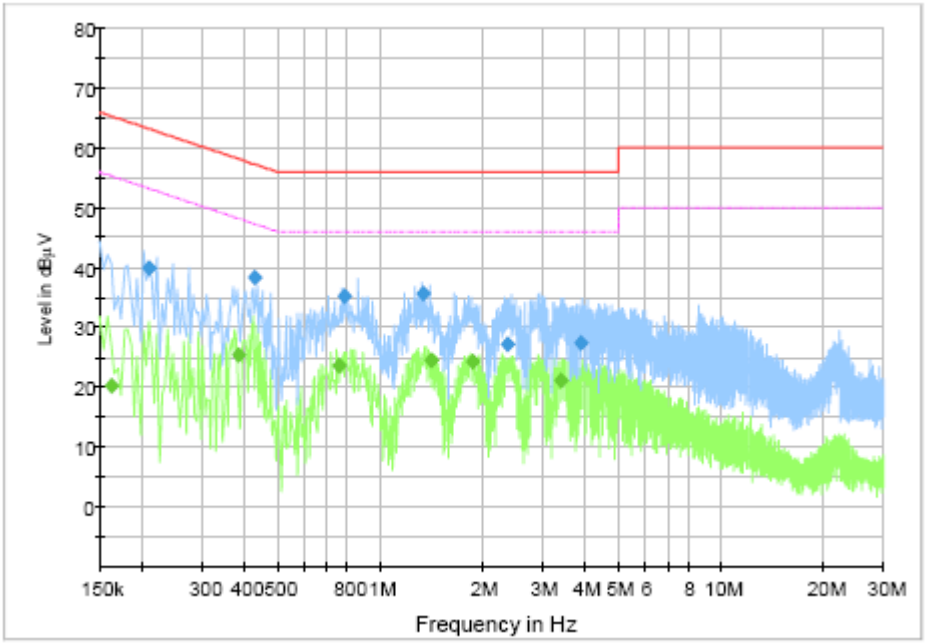

Figure B.10 Conducted Emission(Set.1, Charging Mode)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.21	39.83	63.21	23.38	L1	9.6	30.23
0.428	38.4	57.29	18.89	L1	9.6	28.8
0.784	35.12	56	20.88	N	9.6	25.52
1.34	35.62	56	20.38	N	9.7	25.92
2.36	27.07	56	28.93	N	9.7	17.37
3.876	27.47	56	28.53	L1	9.7	17.77

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.162	20.2	55.36	35.16	L1	9.6	10.6
0.384	25.44	48.19	22.75	L1	9.6	15.84
0.76	23.51	46	22.49	L1	9.6	13.91
1.416	24.58	46	21.42	L1	9.7	14.88
1.864	24.32	46	21.68	L1	9.7	14.62
3.384	21.04	46	24.96	L1	9.7	11.34

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AC Input Port/ Voltage: 240V/60Hz

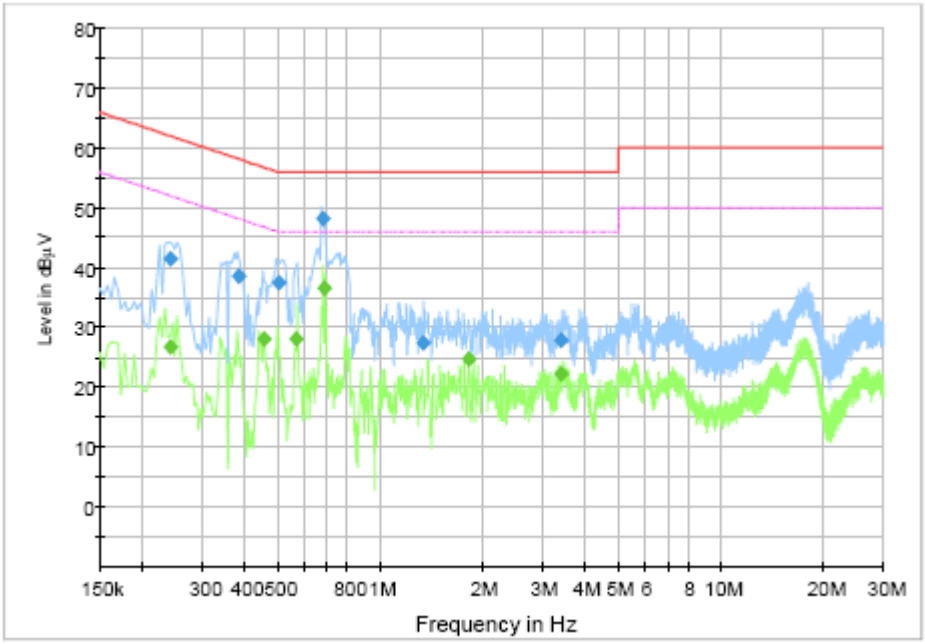

Figure B.11 Conducted Emission(Set.2, Data Transfer Mode/PC to EUT)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.242	41.5	62.03	20.53	L1	9.6	31.9
0.384	38.58	58.19	19.61	L1	9.6	28.98
0.504	37.54	56	18.46	L1	9.6	27.94
0.676	48.25	56	7.75	L1	9.6	38.65
1.332	27.33	56	28.67	N	9.7	17.63
3.404	27.89	56	28.11	L1	9.7	18.19

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.242	26.82	52.03	25.21	N	9.6	17.22
0.456	28.03	46.77	18.73	L1	9.6	18.43
0.568	28.15	46	17.85	L1	9.6	18.55
0.688	36.58	46	9.42	L1	9.6	26.98
1.82	24.6	46	21.4	N	9.7	14.9
3.396	22.22	46	23.78	L1	9.7	12.52

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AC Input Port/ Voltage: 240V/60Hz

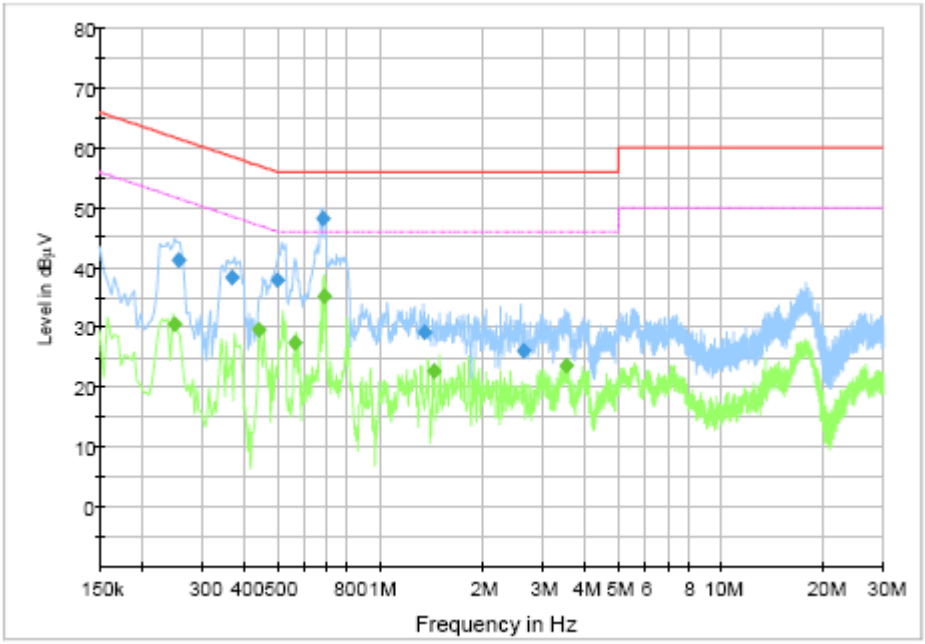

Figure B.12 Conducted Emission(Set.2, Data Transfer Mode/EUT to PC)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.256	41.17	61.56	20.39	L1	9.6	31.57
0.368	38.43	58.55	20.12	L1	9.6	28.83
0.5	37.86	56	18.14	L1	9.6	28.26
0.676	48.15	56	7.85	L1	9.6	38.55
1.344	29.16	56	26.84	N	9.7	19.46
2.636	26.13	56	29.87	L1	9.7	16.43

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.248	30.47	51.82	21.36	L1	9.6	20.87
0.44	29.65	47.06	17.41	L1	9.6	20.05
0.564	27.44	46	18.56	L1	9.6	17.84
0.684	35.26	46	10.74	N	9.6	25.66
1.436	22.67	46	23.33	N	9.7	12.97
3.528	23.59	46	22.41	L1	9.7	13.89

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AC Input Port/ Voltage: 240V/60Hz

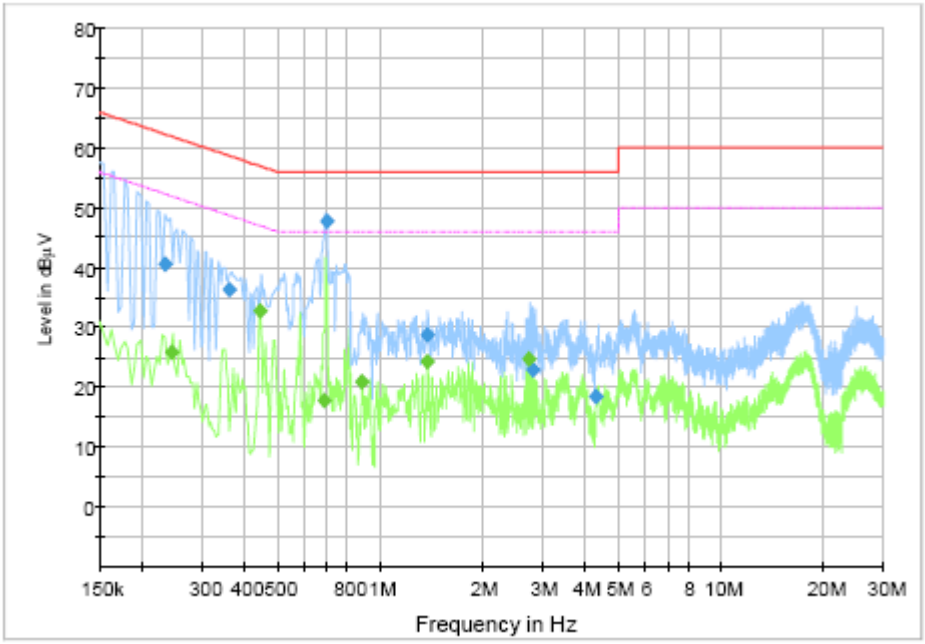

Figure B.13 Conducted Emission(Set.2, Data Transfer Mode/PC to TF Card)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.234	40.58	62.31	21.73	L1	9.6	30.98
0.36	36.4	58.73	22.33	L1	9.6	26.8
0.696	47.83	56	8.17	N	9.6	38.23
1.38	28.64	56	27.36	N	9.7	18.94
2.804	22.95	56	33.05	L1	9.7	13.25
4.3	18.47	56	37.53	L1	9.7	8.77

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.244	25.9	51.96	26.06	N	9.6	16.3
0.444	32.72	46.99	14.27	L1	9.6	23.12
0.688	17.74	46	28.26	N	9.6	8.14
0.884	20.85	46	25.15	N	9.7	11.15
1.372	24.25	46	21.75	N	9.7	14.55
2.744	24.64	46	21.36	L1	9.7	14.94

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AC Input Port/ Voltage: 240V/60Hz

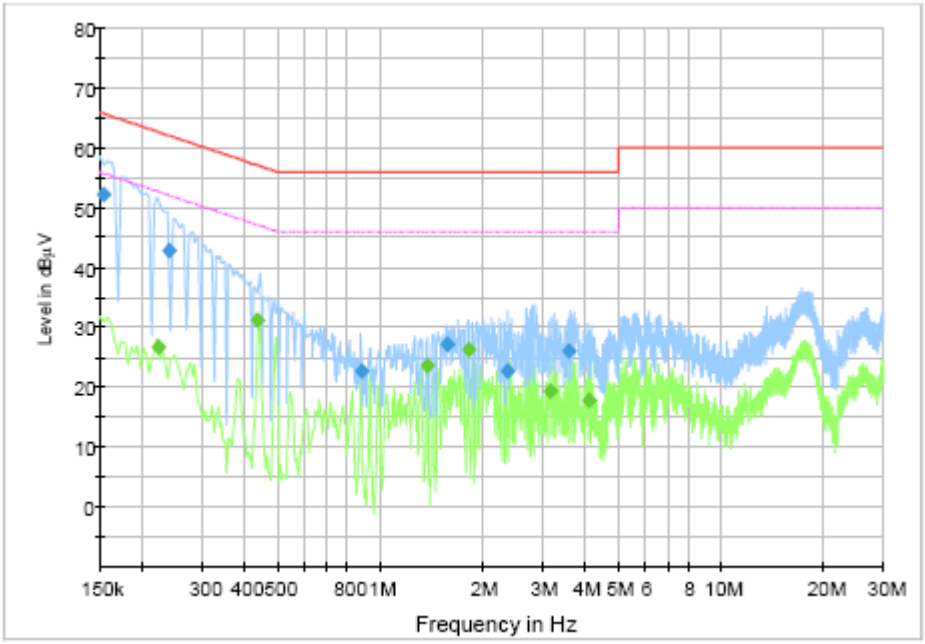

Figure B.14 Conducted Emission(Set.2, Data Transfer Mode/TF Card to PC)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154	52.3	65.78	13.49	L1	9.6	42.7
0.24	42.89	62.1	19.21	N	9.6	33.29
0.88	22.74	56	33.26	N	9.7	13.04
1.576	27.05	56	28.95	N	9.7	17.35
2.364	22.73	56	33.27	L1	9.7	13.03
3.6	26.03	56	29.97	L1	9.7	16.33

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.224	26.67	52.67	26	L1	9.6	17.07
0.436	31.12	47.14	16.02	L1	9.6	21.52
1.376	23.47	46	22.53	N	9.7	13.77
1.812	26.31	46	19.69	N	9.7	16.61
3.148	19.23	46	26.77	L1	9.7	9.53
4.1	17.79	46	28.21	L1	9.7	8.09

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

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