



TESTREPORT

No.I21N00677-EMC

TCL Communication Ltd.

Tablet PC

Model Name: 9032

With

Hardware Version: PIO

Software Version:v1E63

FCC ID: 2ACCJB154

Issued Date: 2021-04-12

Designation Number: CN1210

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

Test Laboratory:

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 518000.

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

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



No.I21N00677-EMC

REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21N00677-EMC	Rev.0	1st edition	2021-04-12

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

CONTENTS

1. SUMMARY OF TEST REPORT	4
1.1. TEST ITEMS	4
1.2. TEST STANDARDS.....	4
1.3. TEST RESULT	4
1.4. TESTING LOCATION	4
1.5. PROJECT DATA.....	4
1.6. SIGNATURE.....	4
2. CLIENT INFORMATION	5
2.1. APPLICANT INFORMATION	5
2.2. MANUFACTURER INFORMATION	5
3. EQUIPMENT UNDERTEST (EUT) AND ANCILLARY EQUIPMENT (AE)	6
3.1. ABOUT EUT	6
3.2. INTERNAL IDENTIFICATION OF EUT	6
3.3. INTERNAL IDENTIFICATION OF AE	6
3.4. EUT SET-UPS.....	8
3.5. GENERAL DESCRIPTION	9
4. REFERENCE DOCUMENTS.....	10
4.1. REFERENCE DOCUMENTS FOR TESTING	10
5. LABORATORY ENVIRONMENT.....	11
6. SUMMARY OF TEST RESULTS.....	12
6.1. TESTING ENVIRONMENT	12
6.2. SUMMARY OF MEASUREMENT RESULTS.....	12
6.3. STATEMENT	12
7. MEASUREMENT UNCERTAINTY	13
8. TEST FACILITIES UTILIZED	13
9. TEST ACCESSORY UTILIZED	13
ANNEX A: MEASUREMENT RESULTS	14
A.1 RADIATED EMISSION (§15.109(A))	14
A.2 CONDUCTED EMISSION (§15.107(A)).....	49

1. Summary of Test Report

1.1. Test Items

Description	Tablet PC
Model Name	9032
Applicant's name	TCL Communication Ltd.
Manufacturer's Name	TCL Communication Ltd.

1.2. Test Standards

FCC Part 15, Subpart B10-1-2019 Edition; ANSI C63.4 2014

1.3. Test Result

Pass

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

1.4. Testing Location

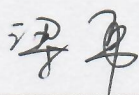
Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China

1.5. Project data

Testing Start Date: 2021-03-05

Testing End Date: 2021-04-02

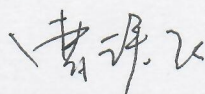
1.6. Signature



Liang yong
(Prepared this test report)



Zhang Yunzhuan
(Reviewed this test report)



Cao Junfei
(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact: Gong Zhizhou
Email: zhizhou.gong@tcl.com
Tel. 0086-755-36611722
Fax 0086-755-36612000-81722

2.2. Manufacturer Information

Company Name: TCL Communication Ltd.
Address: 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong
Contact: Gong Zhizhou
Email: zhizhou.gong@tcl.com
Tel. 0086-755-36611722
Fax 0086-755-36612000-81722

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

3.1. About EUT

Description	Tablet PC
Model Name	9032
FCC ID	2ACCJB154
Antenna Type	Internal Antenna
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
UT04aa	6409ACCE7B78287	PIO	v1E63	2021-03-02
UT5aa	6409ACCE7B78288	PIO	v1E63	2021-03-02

*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
AE4	Headset
AE1	
Model	TLp040M7
SN	CAC4000018C7
Manufacturer	VEKEN
Capacity	4000mAh
Nominal Voltage	3.85V
AE2-1	
Model	UC11US/ CBA0058AGAC5
Manufacturer	PUAN
AE2-2	
Model	UC11US/ CBA0058AGAC7
Manufacturer	Chenyang
AE3-1	
Model	CDA0000123C1
Manufacturer	JUWEI
AE3-2	



No.I21N00677-EMC

Model	CDA0000123C2
Manufacturer	SHENGHUA
AE4	
Model	/
Manufacturer	/

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

AE: ancillary equipment

AE4: just for testing

3.4. EUT set-ups

EUT set-up No.

Set.1
Set.2
Set.3
Set.4
Set.5

Combination of EUT and AE

EUT+AE1+AE2-1+AE3-1
EUT+AE1+AE2-2+AE3-2
EUT+AE1+AE3-1+PC
EUT+AE1+AE3-2+PC
EUT+AE1+AE2-1+AE3-1+AE4



3.5. General Description

The Equipment Under Test (EUT) is a model of Tablet PC with Bluetooth, WLAN with internal antenna.

It has Camera, Video Player, FM Receiver, USB Data Transfer, Bluetooth and Wi-Fi functions.

It consists of normal options: Battery, Charger and USB Cable and Headset

Samples (EUT+AE) undergoing test were selected by the Client. Relevant information is provided by the Client.

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

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 °C, Max. = 35°C
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 °C, Max. = 35 °C
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 °C, Max. = 35°C
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

6. SUMMARY OF TEST RESULTS

6.1. Testing Environment

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

6.2. Summary of Measurement Results

Abbreviations used in this clause:	
P	Pass
NA	Not applicable
F	Fail

Items	Test Name	Clause in FCC rules	Section in this report	Verdict
1	Radiated Emission	15.109(a)	A.1	P
2	Conducted Emission	15.107(a)	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.

7. Measurement uncertainty

Test item	Frequency ranges	Measurement uncertainty
Radiated Emission	30MHz-1GHz	4.84dB(k=2)
	1GHz-18GHz	4.68dB(k=2)
	18GHz-40GHz	3.76dB(k=2)
Conducted Emission	150kHz-30MHz	3.00dB(k=2)

8. Test Facilities Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CAL.DUE DATE	CAL. PERIOD
1.	Test Receiver	ESR7	101676	R&S	2021.11.25	1 year
2.	Test Receiver	ESCI	100701	R&S	2021.08.09	1 year
3.	Spectrum Analyzer	FSV40	101192	R&S	2022.01.13	1 year
4.	BiLog Antenna	3142E	0224831	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.	Universal Radio Communication Tester	CMU200	114545	R&S	2022.01.13	1 year
10.	Universal Radio Communication Tester	CMW500	152499	R&S	2021.07.16	1 year
11.	Signal Generator	SMB100A	179725	R&S	2021.11.25	1 year
12.	Chamber	FACT3-2.0	1285	ETS-Lindgren	2021.07.19	2 years
13.	Software	EMC32	V10.50.40	R&S	/	/

Note: CAL.: Calibration

9. Test Accessory Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CAL.DUE DATE	CAL. PERIOD
1.	PC	ThinkPad T480	PF-13LW0C	Lenovo	/	/
2.	Printer	V1.0008	VNF6C12491	HP	/	/
3.	Mouse	MOEUUOA	44NY517	Lenovo	/	/

Note: CAL.: Calibration

ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§15.109(a))

Reference

FCC: CFR Part 15.109(a)

A.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator (Data transfer mode of EUT and charging mode of EUT) at a distance of 3 meters is tested. Tested in accordance with the procedures of ANSI C63.4 -2014, section 8.3.

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

A.1.2 EUT Operating Mode:

FM receiver: The EUT is connected to a charger for charging and open FM function. The EUT is synchronized to a FM signal generator. The EUT is keeping on demodulating the FM signal and outputting the audio signal through the headset.

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)

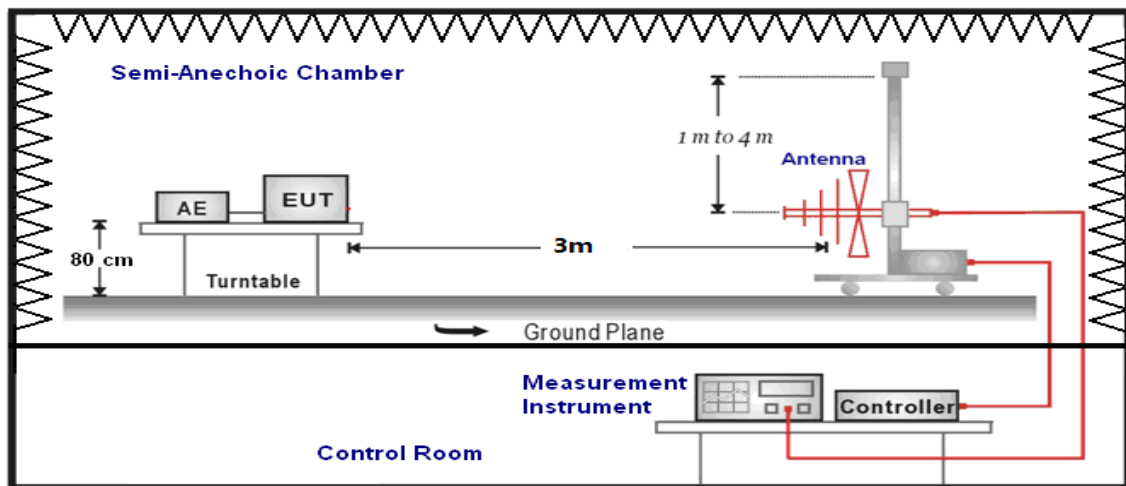
Frequency range (MHz)	Field strength limit ($\mu\text{V/m}$)		
	Quasi-peak	Average	Peak
30-88	100		
88-216	150		
216-960	200		
960-1000	500		
>1000		500	5000

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

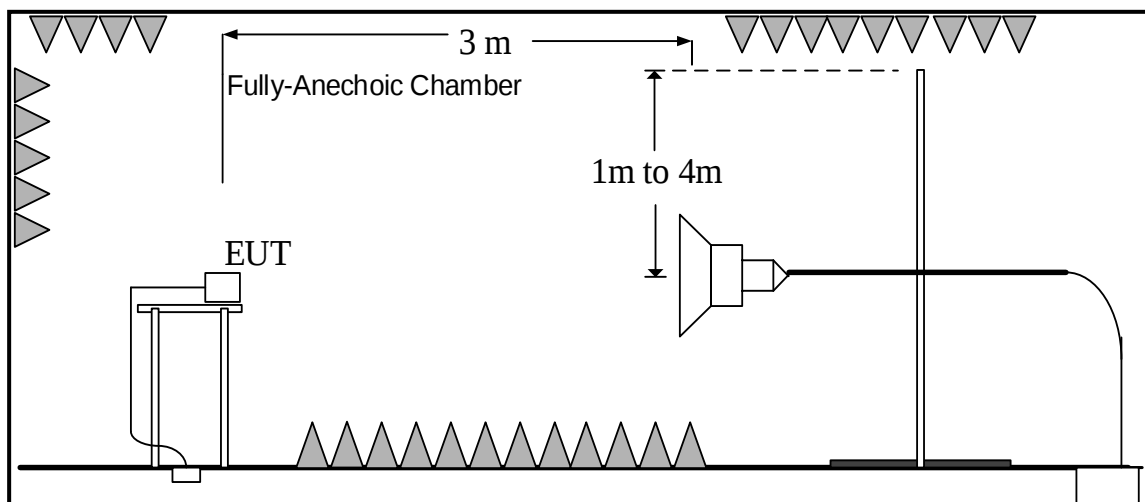
A.1.4 Test Condition

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



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:

$$\text{Result} = P_{\text{Mea}} + A_{Rpl} = P_{\text{Mea}} + G_A + G_{PL}$$

Where

G_A : Antenna factor of receive antenna

G_{PL} : Path Loss

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

FM receiver

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.5	
30-88	40.00	See Fugure A.1.1.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.5	
1000 to 18000	54	74	See Fugure A.1.2.	P
18000 to 26500			See Fugure A.1.3.	P
26500 to 30000			See Fugure A.1.4.	P

Video Player

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.1	
30-88	40.00	See Fugure A.1.5.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.1	
1000 to 18000	54	74	See Fugure A.1.6.	P
18000 to 26500			See Fugure A.1.7.	P
26500 to 30000			See Fugure A.1.8.	P

Camera

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.1	
30-88	40.00	See Fugure A.1.9.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.1	
1000 to 18000	54	74	See Fugure A.1.10.	P
18000 to 26500			See Fugure A.1.11.	P
26500 to 30000			See Fugure A.1.12.	P

Camera

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.2	
30-88	40.00	See Fugure A.1.13.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.2	
1000 to 18000	54	74	See Fugure A.1.14.	P
18000 to 26500			See Fugure A.1.15.	P
26500 to 30000			See Fugure A.1.16.	P

Data Transfer: EUT to PC

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.3	
30-88	40.00	See Fugure A.1.17.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.18.	P
18000 to 26500			See Fugure A.1.19.	P
26500 to 30000			See Fugure A.1.20.	P

Data Transfer: PC to EUT

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.3	
30-88	40.00	See Fugure A.1.21.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.22.	P
18000 to 26500			See Fugure A.1.23.	P
26500 to 30000			See Fugure A.1.24.	P

Data Transfer: PC to TF Card

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.3	
30-88	40.00	See Fugure A.1.25.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.26.	P
18000 to 26500			See Fugure A.1.27.	P
26500 to 30000			See Fugure A.1.28.	P

Data Transfer: TF Card to PC

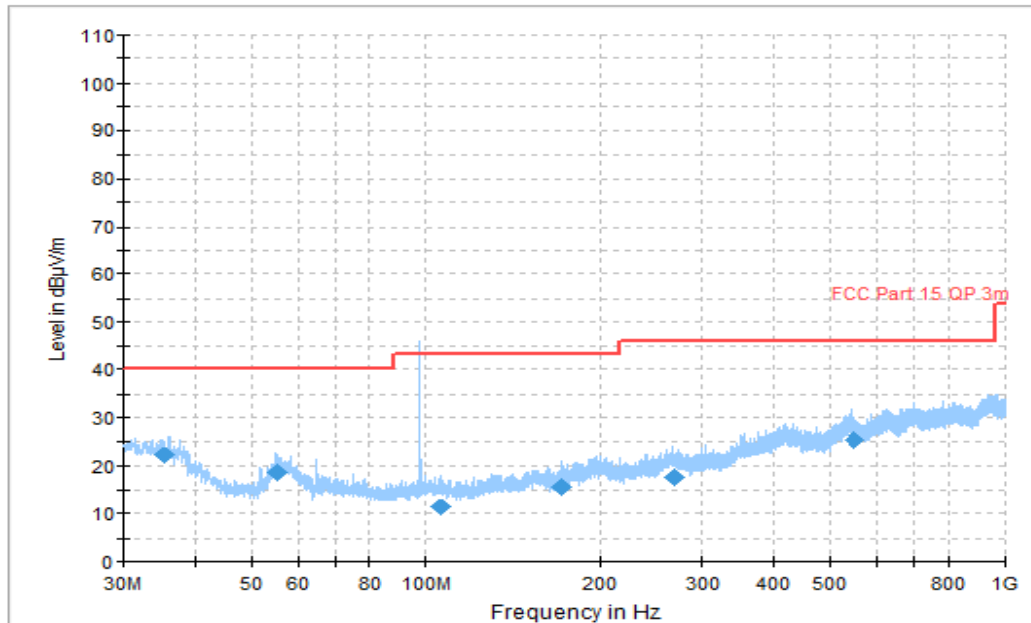
Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.3	
30-88	40.00	See Fugure A.1.29.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.30.	P
18000 to 26500			See Fugure A.1.31.	P
26500 to 30000			See Fugure A.1.32.	P

Data Transfer: PC to EUT

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT04aa/Set.4	
30-88	40.00	See Fugure A.1.33.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dB μ V/m)	Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
			UT04aa/Set.4	
1000 to 18000	54	74	See Fugure A.1.34.	P
18000 to 26500			See Fugure A.1.35.	P
26500 to 30000			See Fugure A.1.36.	P



Note: the spike over the limit is coming from the traffic carrier.

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

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBμV)
35.411667	22.12	40.00	17.88	V	-9.1	31.22
55.178333	18.62	40.00	21.38	V	-16.1	34.72
106.372222	11.55	43.50	31.95	H	-13.7	25.25
171.883889	15.72	43.50	27.78	V	-12.7	28.42
267.668889	17.75	46.00	28.25	H	-8.0	25.75
547.878889	25.44	46.00	20.56	H	-0.2	25.64

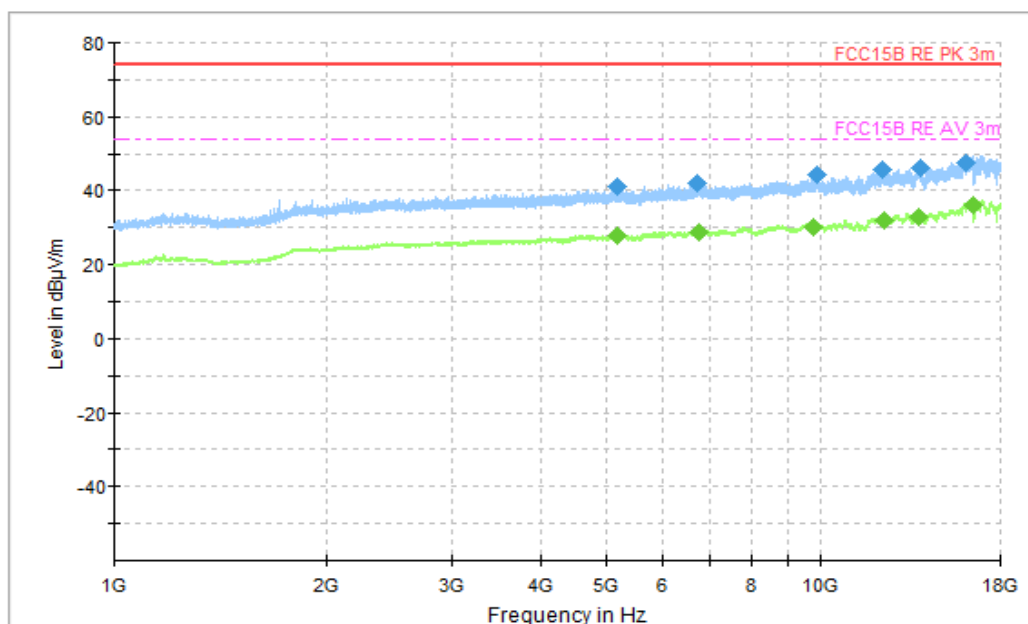


Figure A.1.2. Radiated Emission (FM receiver,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
5178.000000	40.90	74.00	33.10	H	1.2	39.70
6703.500000	41.86	74.00	32.14	V	3.5	38.36
9901.500000	44.37	74.00	29.63	H	6.4	37.97
12270.000000	45.54	74.00	28.46	H	8.3	37.24
13846.000000	46.06	74.00	27.94	H	9.0	37.06
16090.000000	47.67	74.00	26.33	H	13.6	34.07

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
5175.500000	27.68	54.00	26.32	V	1.2	26.48
6759.000000	28.95	54.00	25.05	H	3.5	25.45
9806.500000	30.21	54.00	23.79	V	6.4	23.81
12325.500000	31.75	54.00	22.25	H	8.4	23.35
13825.000000	32.89	54.00	21.11	H	9.0	23.89
16461.000000	36.01	54.00	17.99	H	14.7	21.31

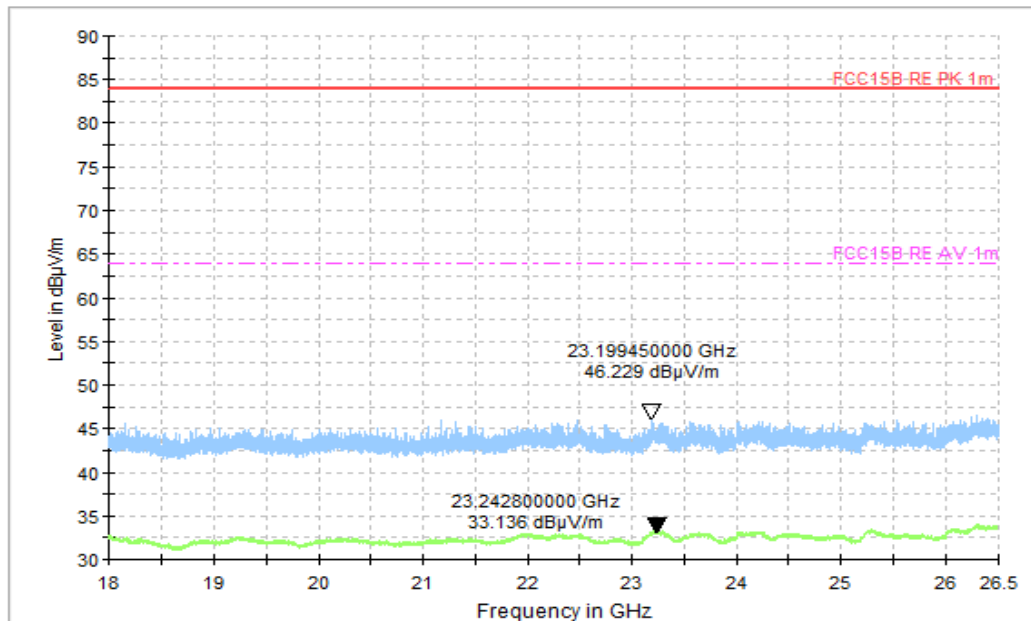


Figure A.1.3. Radiated Emission (FM receiver ,18GHz to 26.5GHz)

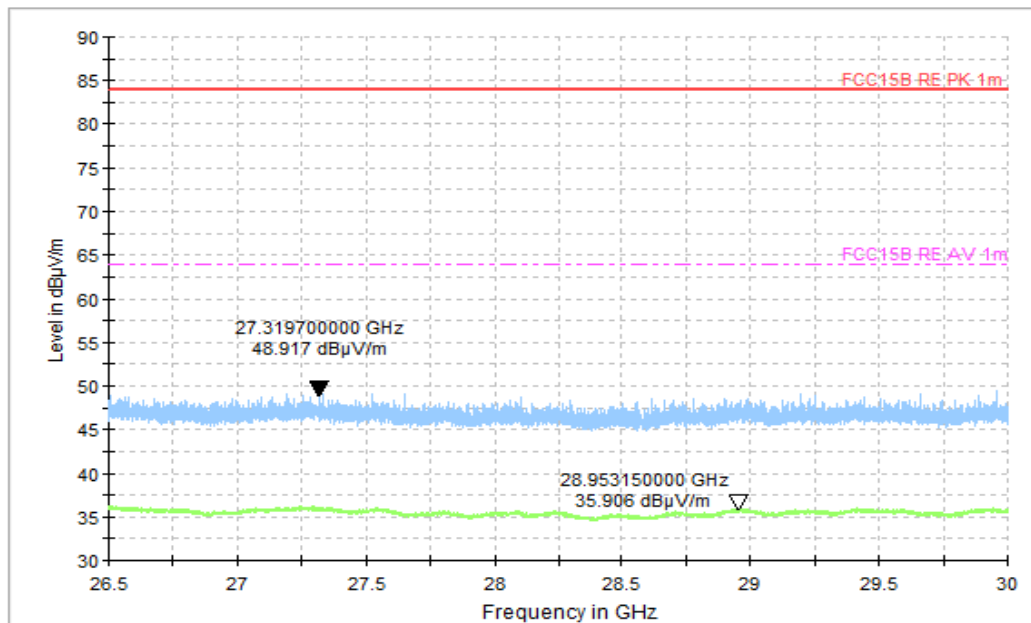


Figure A.1.4. Radiated Emission (FM receiver, 26.5GHz to 30GHz)

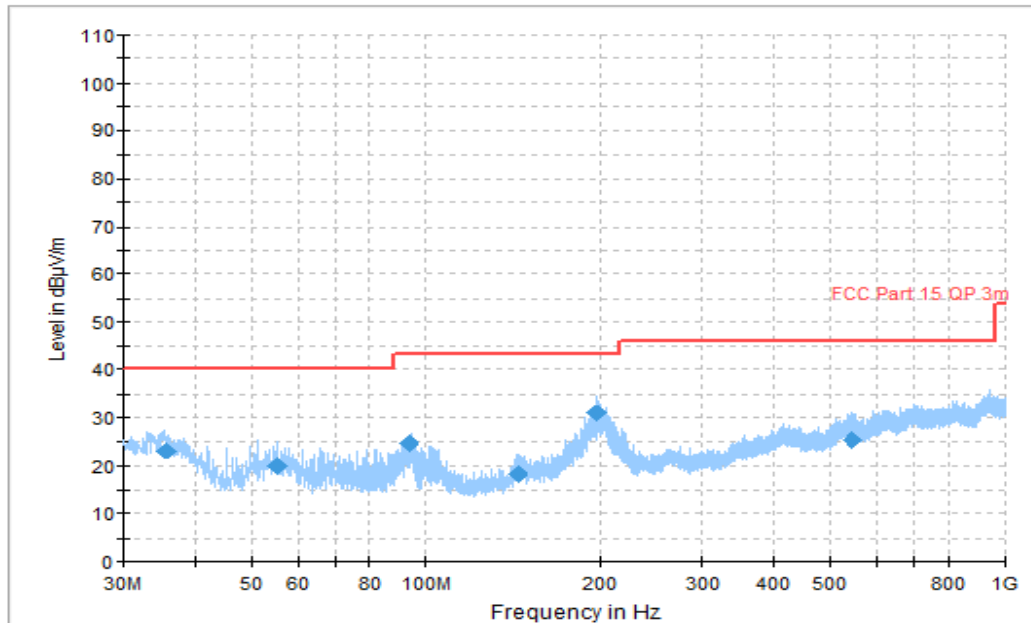


Figure A.1.5. Radiated Emission (Video Player, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBμV)
35.551111	23.11	40.00	16.89	V	-9.3	32.41
55.357778	19.84	40.00	20.16	V	-16.1	35.94
93.355556	24.76	43.50	18.74	V	-14.7	39.46
143.980000	18.38	43.50	25.12	V	-13.5	31.88
197.468889	31.01	43.50	12.49	H	-12.2	43.21
543.853889	25.48	46.00	20.52	V	-0.1	25.58

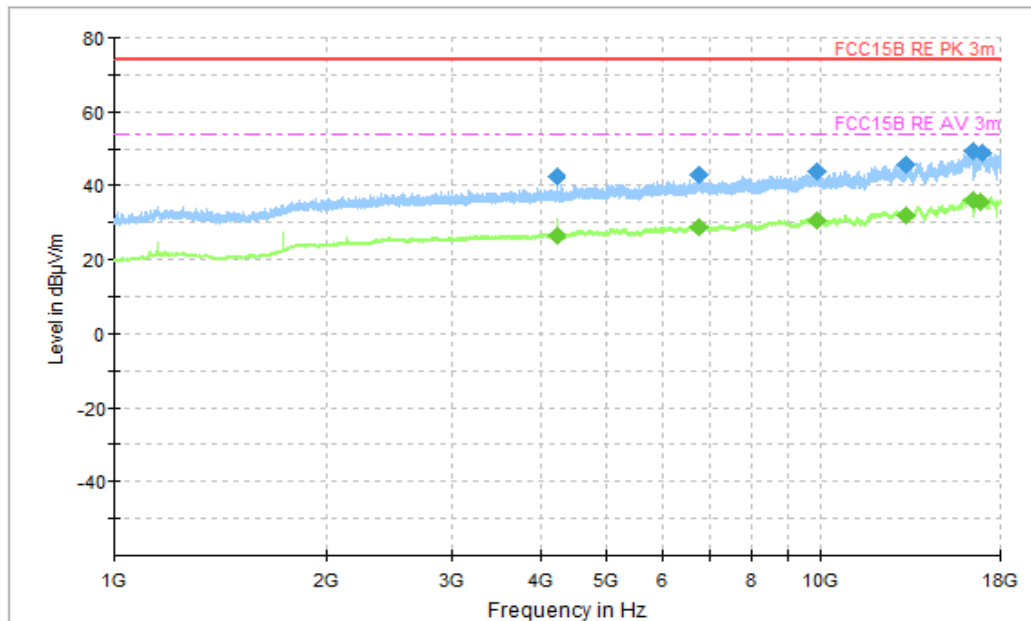


Figure A.1.6. Radiated Emission (Video Player,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
4223.000000	42.67	74.00	31.33	H	-1.1	43.77
6764.500000	43.06	74.00	30.94	V	3.5	39.56
9903.500000	44.05	74.00	29.95	H	6.4	37.65
13256.500000	45.64	74.00	28.36	V	8.2	37.44
16448.000000	49.56	74.00	24.44	H	14.7	34.86
16997.500000	48.81	74.00	25.19	H	14.8	34.01

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
4224.500000	26.55	54.00	27.45	H	-1.1	27.65
6755.500000	28.87	54.00	25.13	V	3.5	25.37
9919.000000	30.67	54.00	23.33	V	6.3	24.37
13266.500000	31.77	54.00	22.23	H	8.2	23.57
16448.500000	35.94	54.00	18.06	H	14.7	21.24
16916.500000	35.65	54.00	18.35	H	14.8	20.85

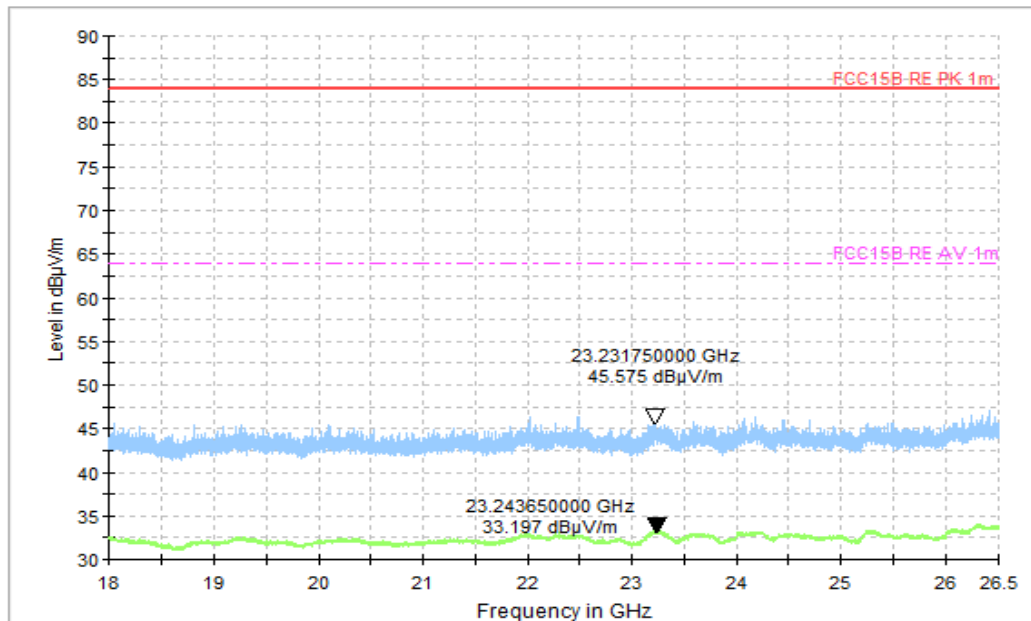


Figure A.1.7. Radiated Emission (Video Player,18GHz to 26.5GHz)

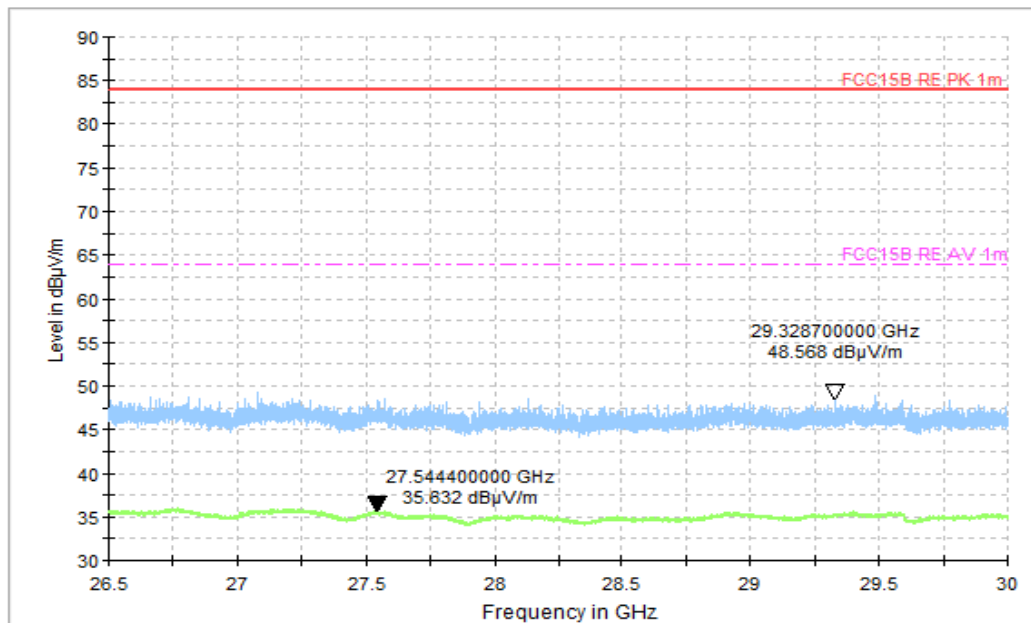


Figure A.1.8. Radiated Emission (Video Player, 26.5GHz to 30GHz)

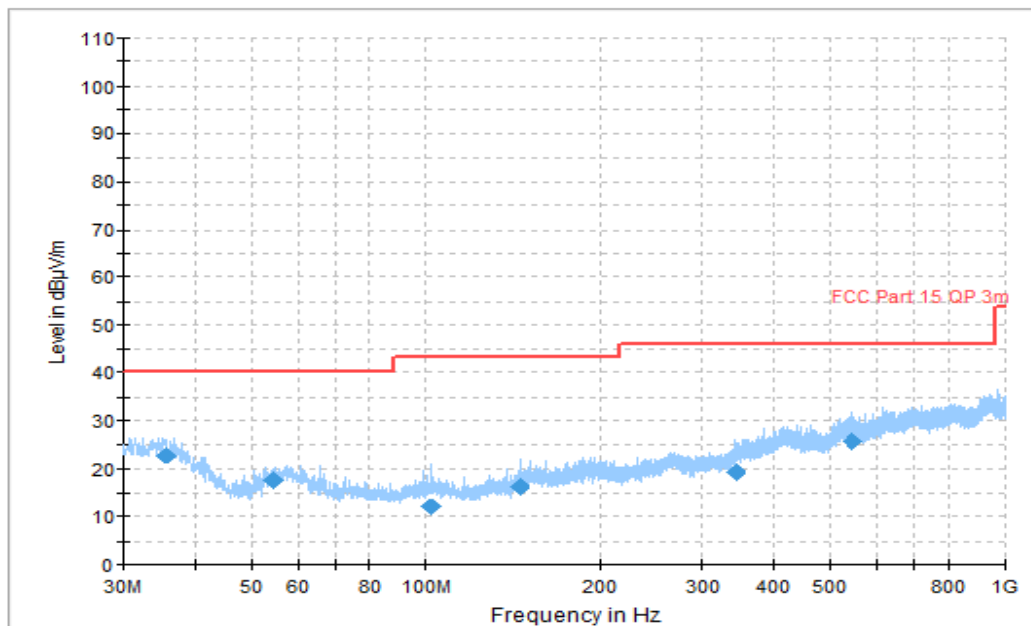


Figure A.1.9. Radiated Emission (Camera, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
35.616667	22.86	40.00	17.14	V	-9.3	32.16
54.764444	17.71	40.00	22.29	V	-16.1	33.81
101.982778	11.95	43.50	31.55	V	-13.7	25.65
145.377222	16.31	43.50	27.19	V	-13.4	29.71
342.131111	19.24	46.00	26.76	V	-6.6	25.84
544.866111	25.73	46.00	20.27	V	-0.1	25.83

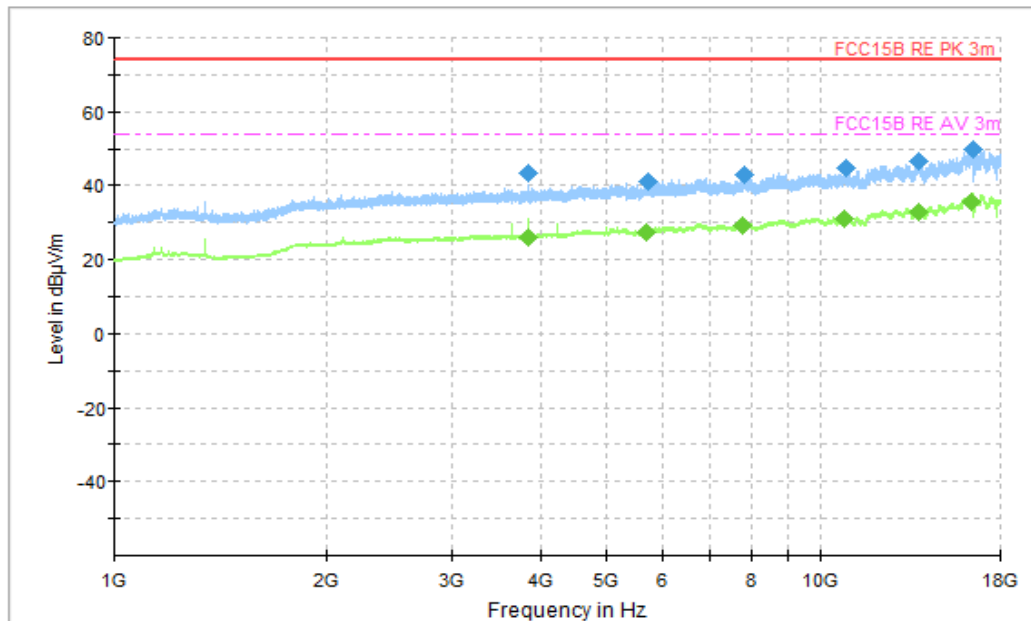


Figure A.1.10. Radiated Emission (Camera, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
3840.000000	43.39	74.00	30.61	V	-2.0	45.39
5722.000000	41.29	74.00	32.71	H	2.1	39.19
7814.500000	42.80	74.00	31.20	H	4.1	38.70
10891.500000	44.98	74.00	29.02	V	7.0	37.98
13771.000000	46.75	74.00	27.25	V	9.0	37.75
16452.500000	49.59	74.00	24.41	V	14.7	34.89

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
3839.500000	26.17	54.00	27.83	V	-2.0	28.17
5678.500000	27.54	54.00	26.46	H	1.9	25.64
7797.000000	29.07	54.00	24.93	V	4.1	24.97
10857.000000	31.24	54.00	22.76	H	7.1	24.14
13824.000000	32.91	54.00	21.09	H	9.0	23.91
16363.000000	35.64	54.00	18.36	V	14.5	21.14

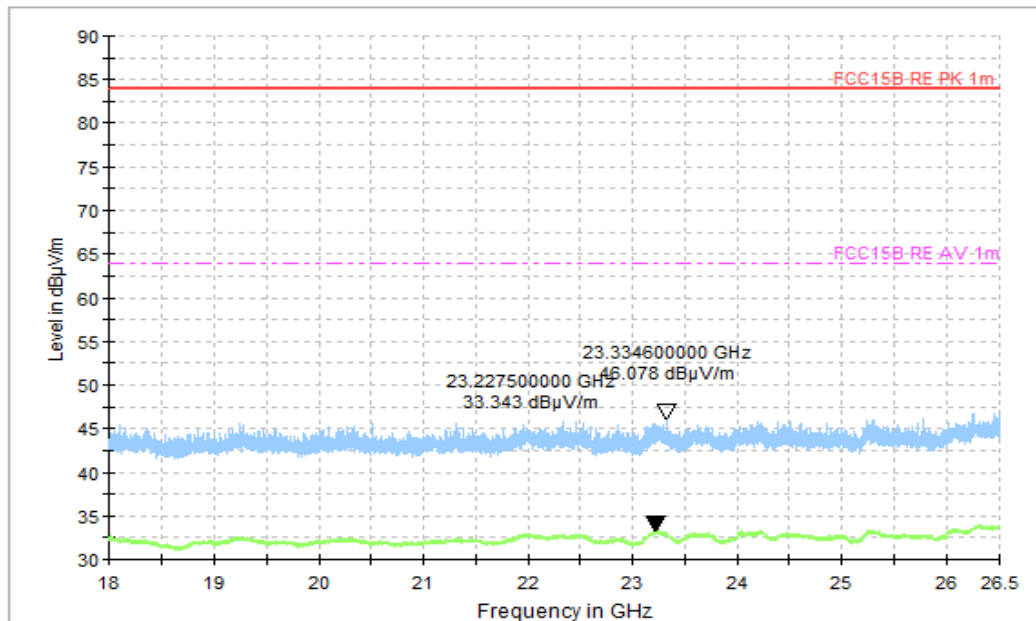


Figure A.1.11. Radiated Emission (Camera, 18GHz to 26.5GHz)

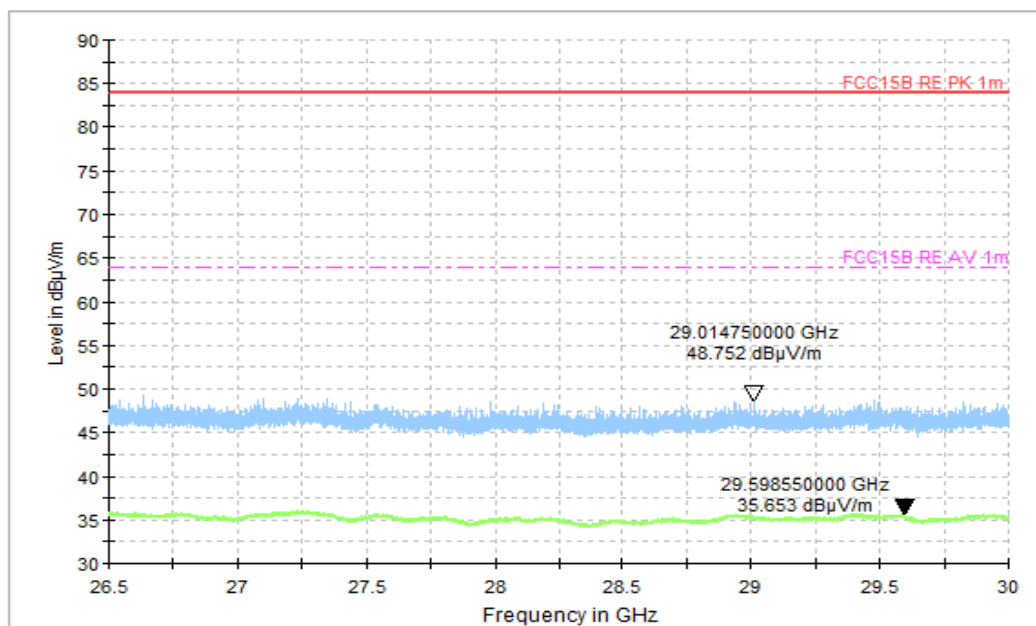


Figure A.1.12. Radiated Emission (Camera, 26.5GHz to 30GHz)

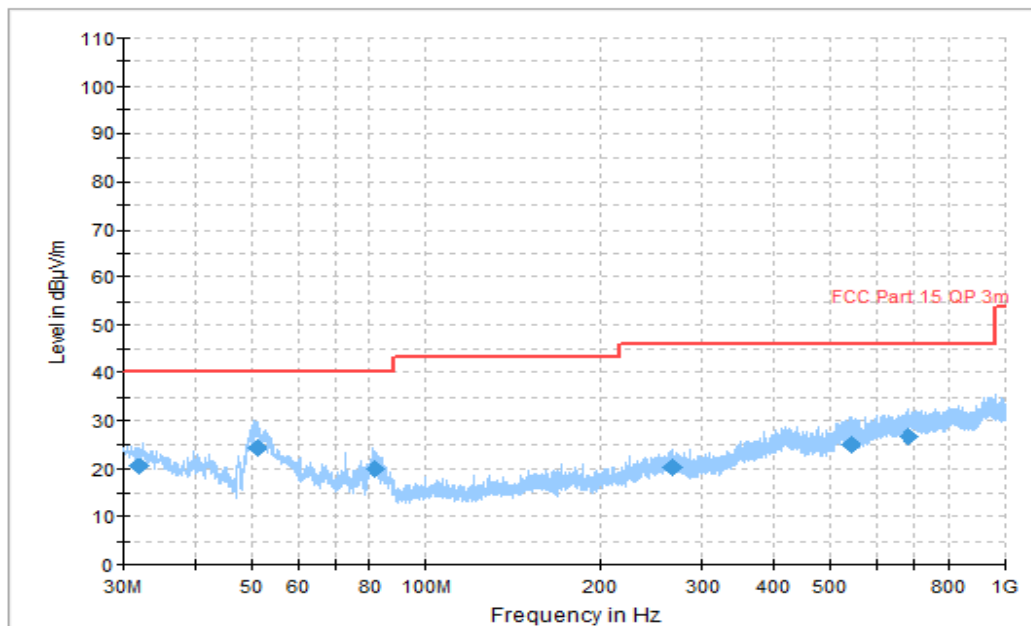


Figure A.1.13. Radiated Emission (Camera, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBμV)
31.747222	20.45	40.00	19.55	H	-6.8	27.25
50.832222	24.59	40.00	15.41	V	-15.2	39.79
81.956111	19.83	40.00	20.17	V	-15.1	34.93
267.160000	20.28	46.00	25.72	H	-8.0	28.28
540.392778	25.12	46.00	20.88	V	-0.3	25.42
684.330000	26.79	46.00	19.21	V	0.7	26.09

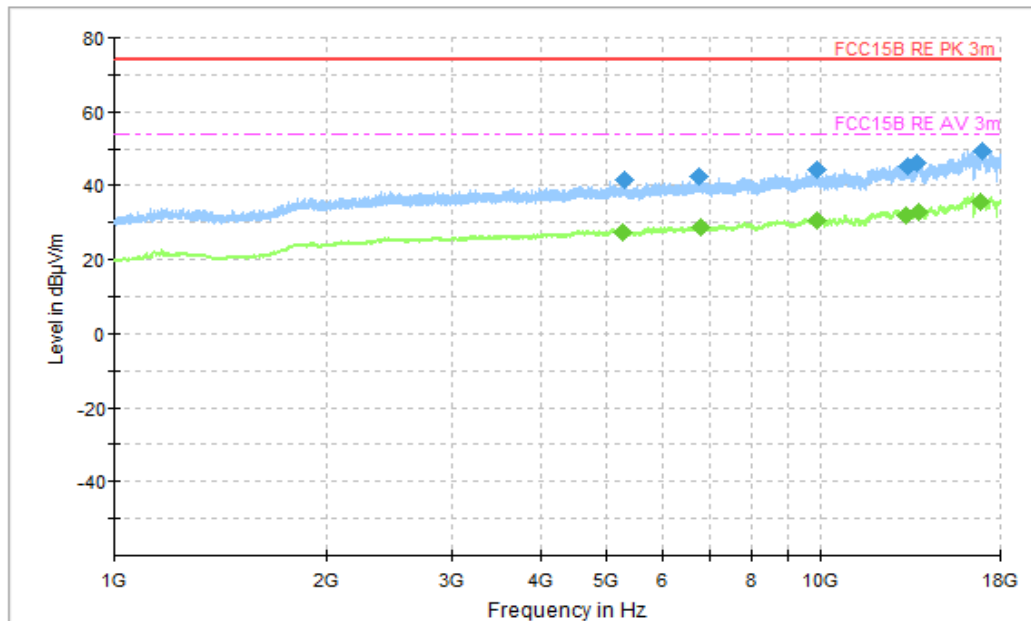


Figure A.1.14. Radiated Emission (Camera,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
5281.000000	41.40	74.00	32.60	V	1.6	39.80
6753.000000	42.63	74.00	31.37	H	3.5	39.13
9902.000000	44.25	74.00	29.75	H	6.4	37.85
13295.000000	45.22	74.00	28.78	H	8.3	36.92
13739.000000	46.11	74.00	27.89	V	8.9	37.21
16925.000000	49.42	74.00	24.58	H	14.8	34.62

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
5271.000000	27.50	54.00	26.50	V	1.5	26.00
6771.000000	28.77	54.00	25.23	H	3.5	25.27
9909.500000	30.66	54.00	23.34	H	6.4	24.26
13265.500000	31.88	54.00	22.12	V	8.2	23.68
13834.000000	32.78	54.00	21.22	H	9.0	23.78
16913.000000	35.50	54.00	18.50	H	14.8	20.70

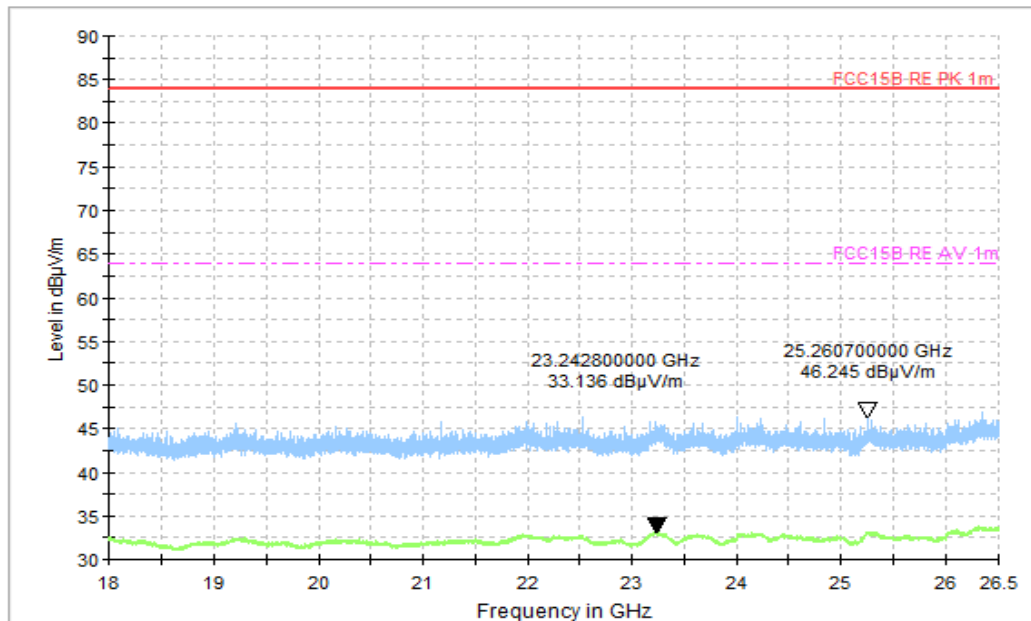


Figure A.1.15. Radiated Emission (Camera,18GHz to 26.5GHz)

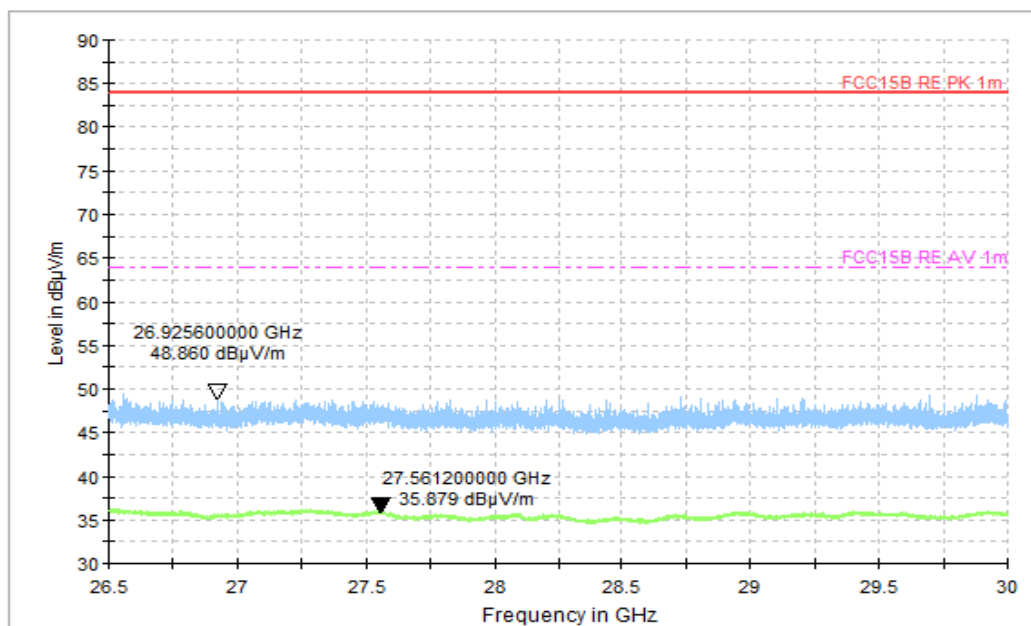


Figure A.1.16. Radiated Emission (Camera,26.5GHz to 30GHz)

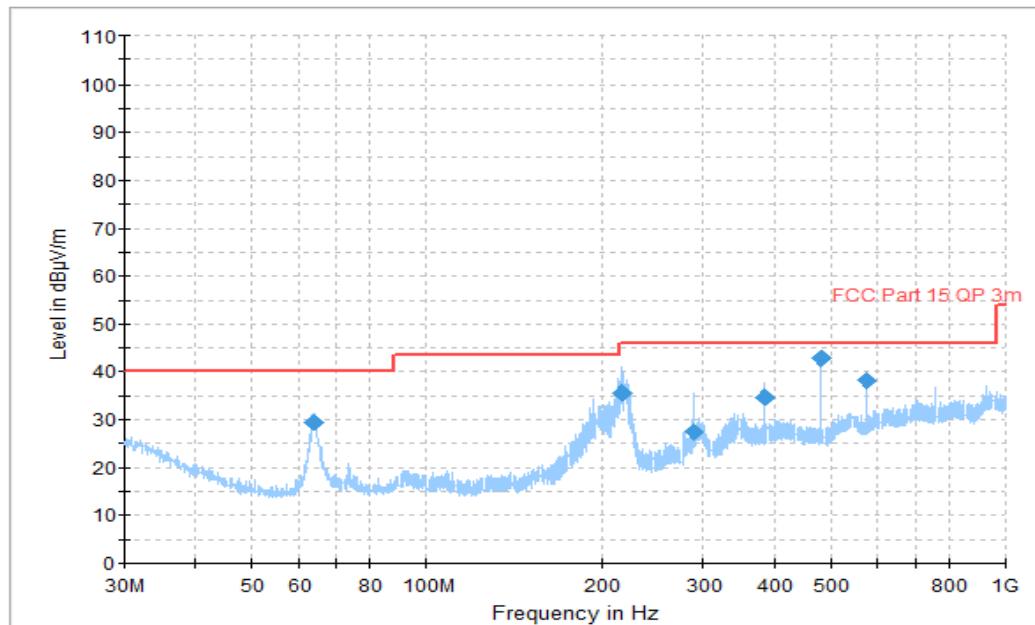


Figure A.1.17. Radiated Emission (Data Transfer: EUT to PC,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBμV)
63.626667	29.50	40.00	10.50	H	-15.2	44.70
217.856667	35.54	46.00	10.46	H	-11.2	46.74
288.073889	27.55	46.00	18.45	V	-9.2	36.75
383.942222	34.64	46.00	11.36	V	-4.8	39.44
480.082222	42.73	46.00	3.27	H	-3.6	46.33
576.002222	38.15	46.00	7.85	H	-1.8	39.95

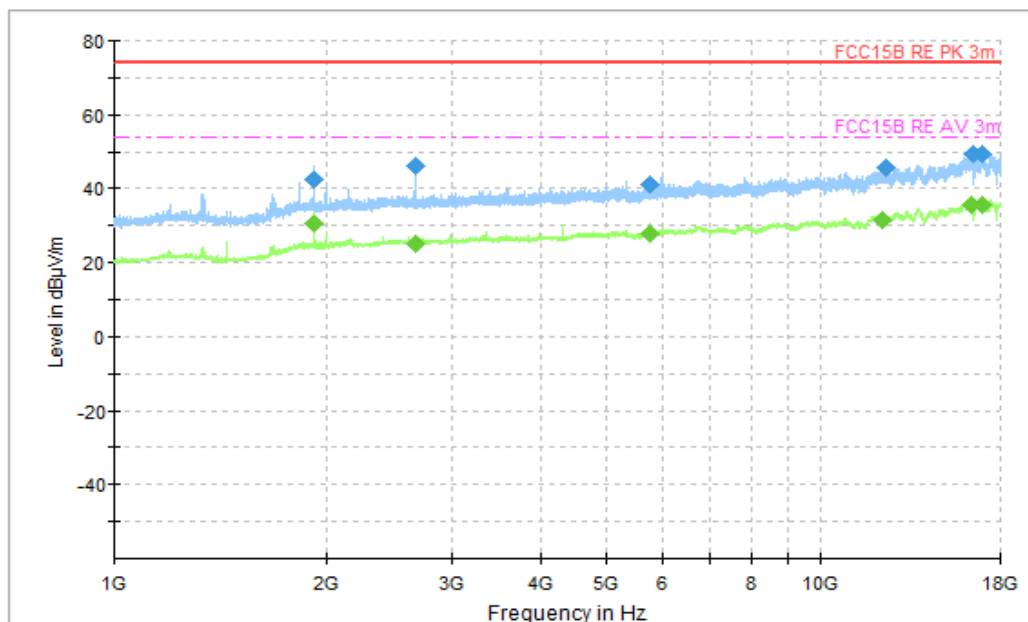


Figure A.1.18. Radiated Emission (Data Transfer: EUT to PC,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1919.500000	42.66	74.00	31.34	H	-6.2	48.86
2666.500000	46.13	74.00	27.87	V	-4.1	50.23
5746.000000	41.09	74.00	32.91	V	2.1	38.99
12371.000000	45.62	74.00	28.38	H	8.5	37.12
16461.000000	49.36	74.00	24.64	V	14.7	34.66
16941.000000	49.17	74.00	24.83	H	14.8	34.37

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1920.000000	30.37	54.00	23.63	H	-6.2	36.57
2661.500000	24.92	54.00	29.08	V	-4.1	29.02
5760.000000	27.64	54.00	26.36	V	2.2	25.44
12238.500000	31.51	54.00	22.49	H	8.3	23.21
16422.000000	35.46	54.00	18.54	V	14.6	20.86
16917.000000	35.55	54.00	18.45	V	14.8	20.75

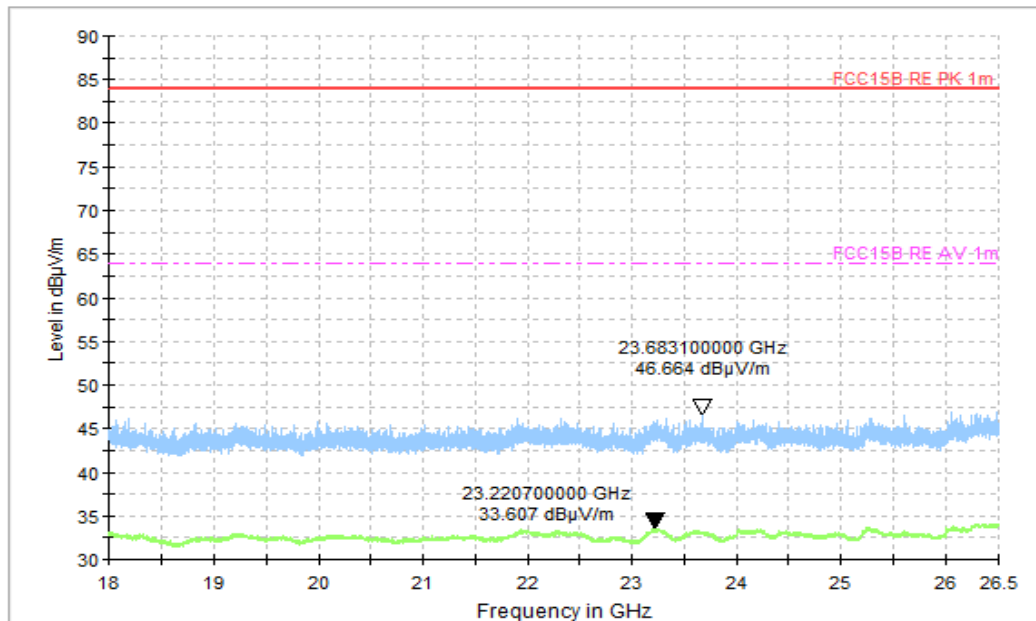


Figure A.1.19. Radiated Emission (Data Transfer: EUT to PC,18GHz to 26.5GHz)

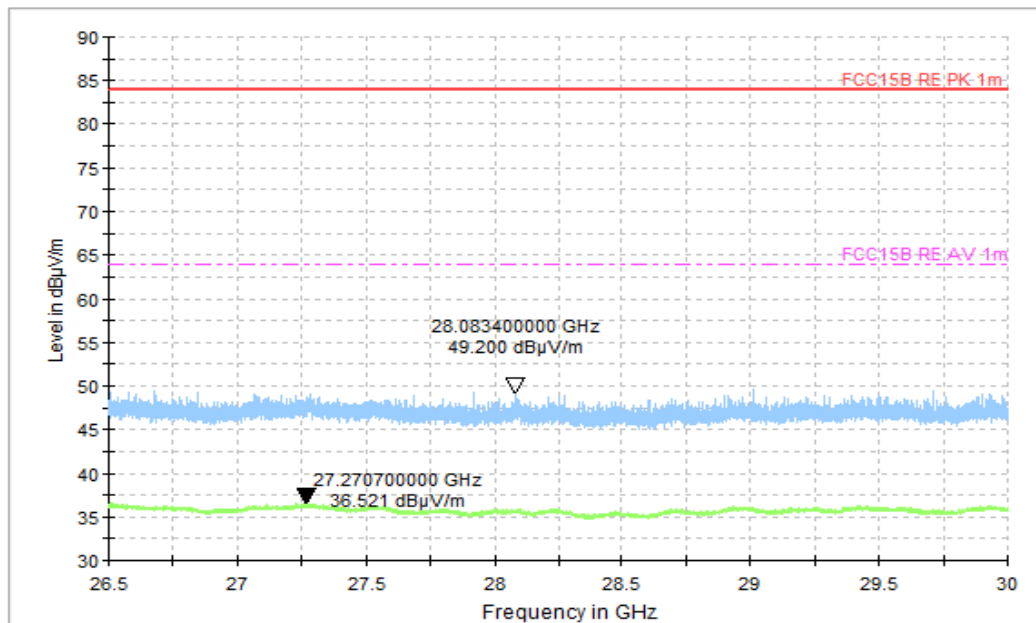


Figure A.1.20. Radiated Emission (Data Transfer: EUT to PC, 26.5GHz to 30GHz)

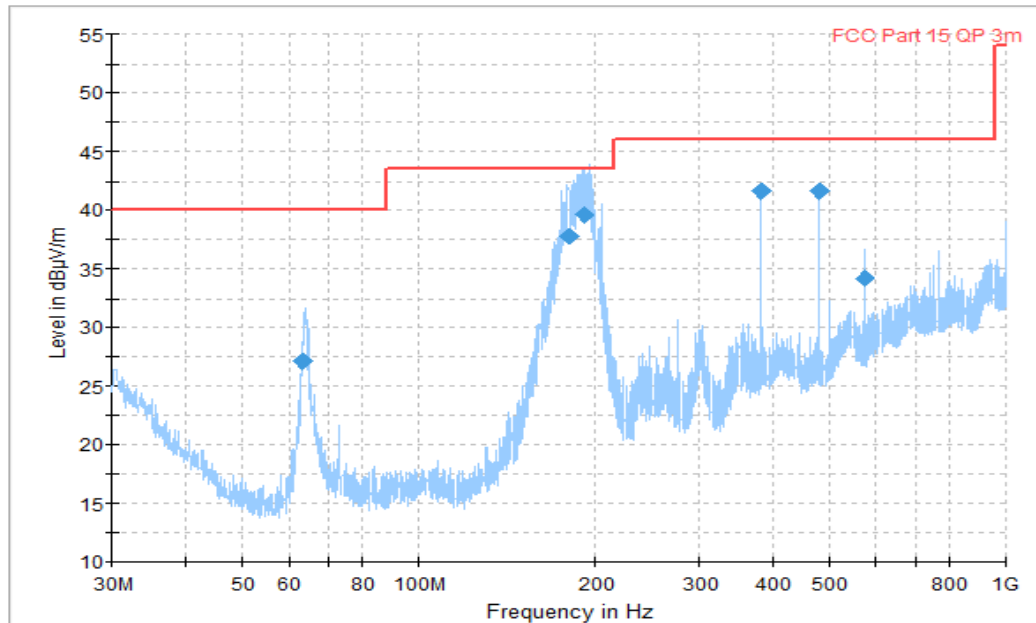


Figure A.1.21. Radiated Emission (Data Transfer: PC to EUT,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBμV)
63.403889	27.15	40.00	12.85	V	-15.3	42.45
180.063333	37.72	43.50	5.78	H	-11.9	49.62
191.996667	39.63	43.50	3.87	H	-12.6	52.23
383.996111	41.66	46.00	4.34	H	-4.8	46.46
480.002222	41.66	46.00	4.34	V	-3.6	45.26
576.002222	34.21	46.00	11.79	V	-1.8	45.26

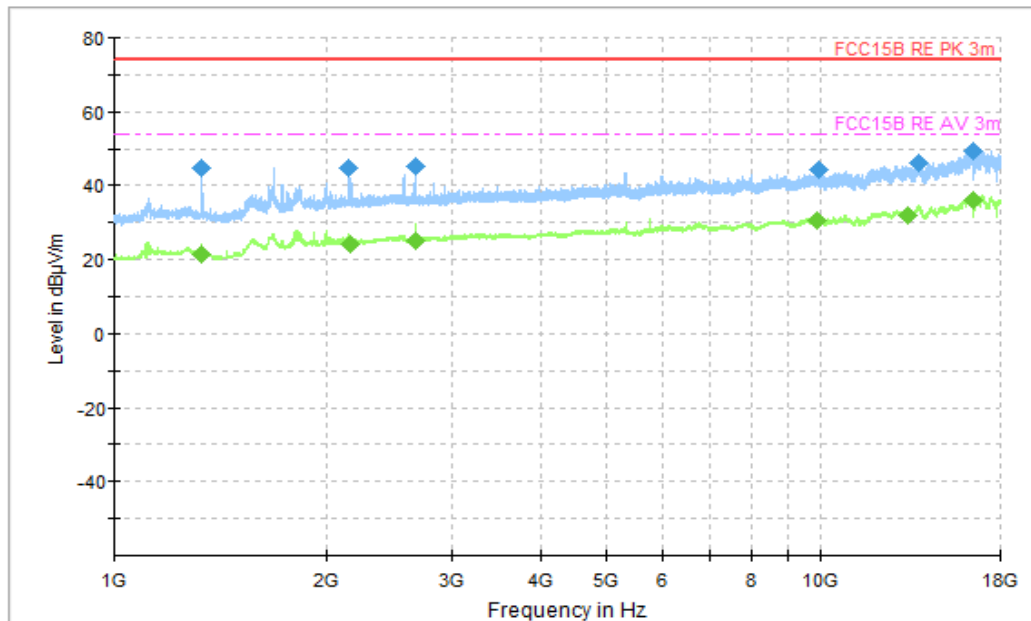


Figure A.1.22. Radiated Emission (Data Transfer: PC to EUT, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1327.500000	44.82	74.00	29.18	V	-9.7	54.52
2148.000000	44.69	74.00	29.31	V	-5.8	50.49
2664.000000	45.29	74.00	28.71	V	-4.1	49.39
9951.000000	44.14	74.00	29.86	H	6.3	37.84
13819.500000	46.20	74.00	27.80	V	9.0	37.2
16426.500000	49.34	74.00	24.66	H	14.6	34.74

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1330.500000	21.38	54.00	32.62	V	-9.7	31.08
2158.000000	24.19	54.00	29.81	V	-5.7	29.89
2664.000000	25.10	54.00	28.90	V	-4.1	29.20
9899.500000	30.79	54.00	23.21	V	6.4	24.39
13277.000000	31.79	54.00	22.21	H	8.3	23.49
16444.500000	35.91	54.00	18.09	H	14.7	21.21

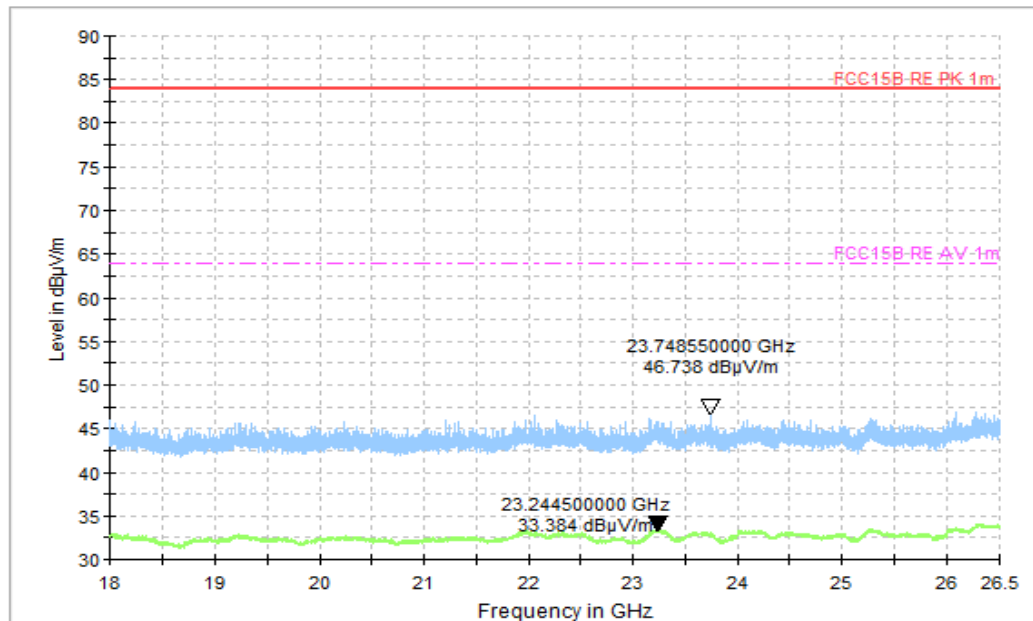


Figure A.1.23. Radiated Emission (Data Transfer: PC to EUT,18GHz to 26.5GHz)

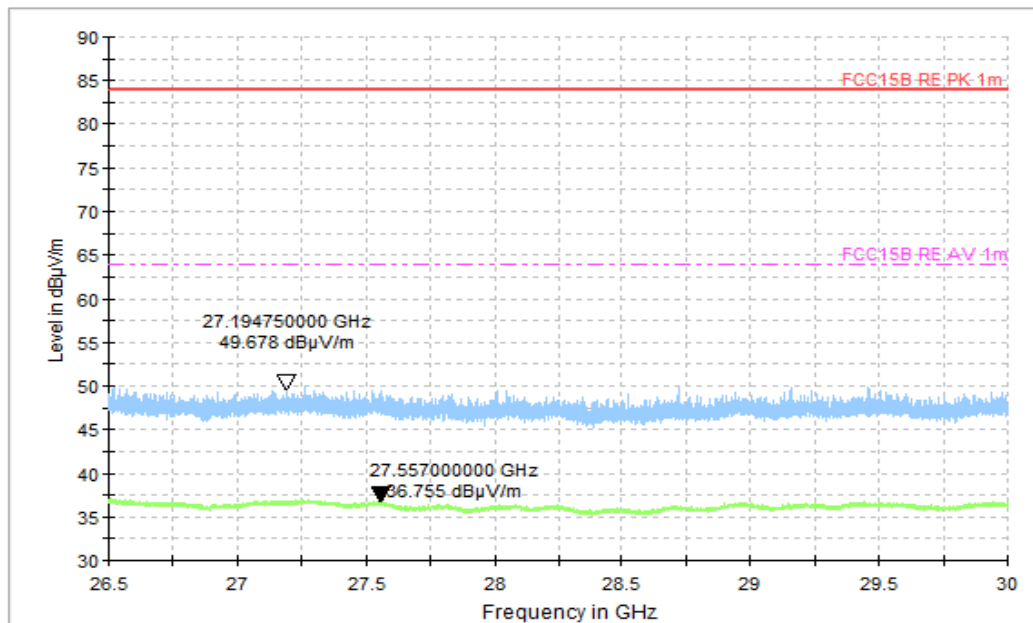


Figure A.1.24. Radiated Emission (Data Transfer: PC to EUT,26.5GHz to 30GHz)

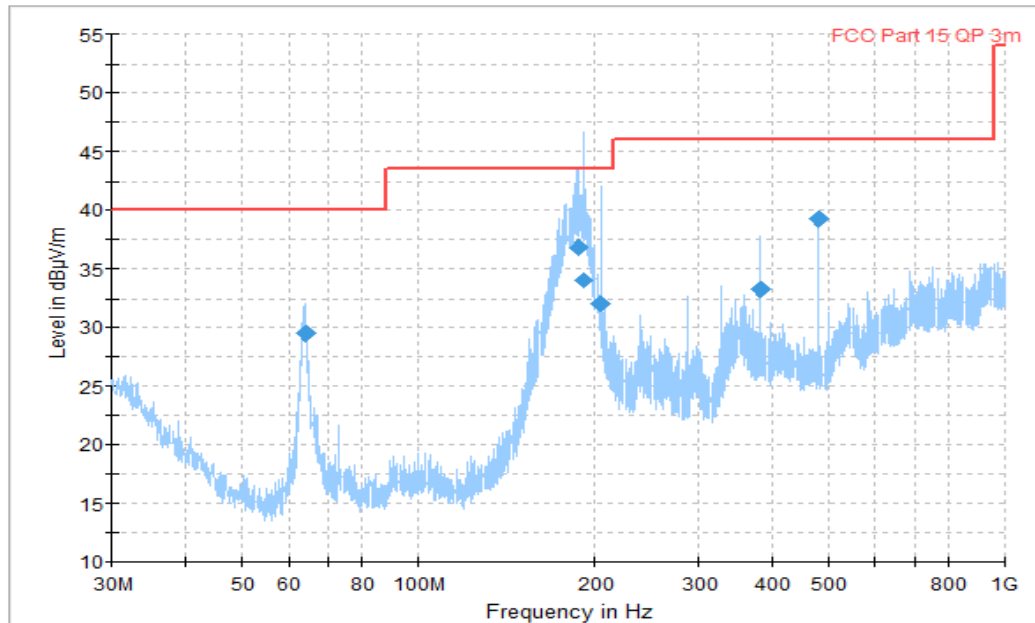


Figure A.1.25. Radiated Emission (Data Transfer: PC to TF Card,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBμV)
64.087778	29.43	40.00	10.57	H	-15.2	44.63
187.571667	36.79	43.50	6.71	H	-12.3	49.09
191.996111	34.01	43.50	9.49	H	-12.6	46.61
203.983333	32.05	43.50	11.45	H	-11.4	43.45
383.996111	33.29	46.00	12.71	V	-4.8	38.09
480.002222	39.18	46.00	6.82	H	-3.6	42.78

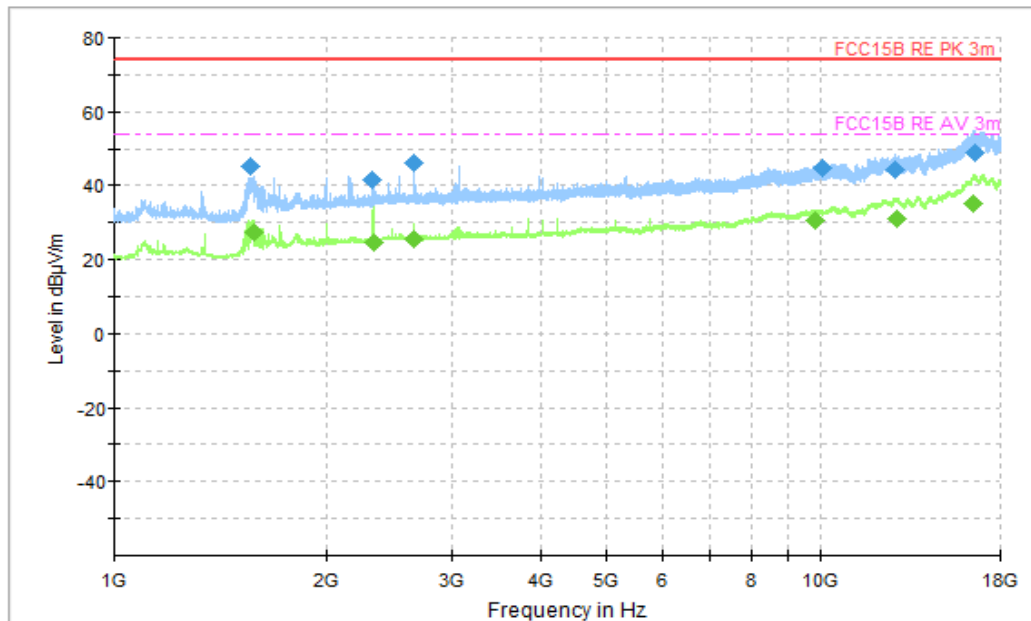


Figure A.1.26. Radiated Emission (Data Transfer: PC to TF Card,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1562.000000	45.34	74.00	28.66	H	-10.0	55.34
2321.500000	41.63	74.00	32.37	H	-5.1	46.73
2658.500000	45.93	74.00	28.07	V	-4.1	50.03
10067.500000	44.69	74.00	29.31	H	6.2	38.49
12755.000000	44.42	74.00	29.58	H	8.8	35.62
16592.500000	48.85	74.00	25.15	H	14.8	34.05

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1573.000000	27.44	54.00	26.56	H	-9.9	37.34
2322.000000	24.51	54.00	29.49	H	-5.1	29.61
2658.500000	25.58	54.00	28.42	V	-4.1	29.68
9873.000000	30.68	54.00	23.32	H	6.4	24.28
12840.500000	31.25	54.00	22.75	H	8.8	22.45
16475.500000	35.29	54.00	18.71	H	14.7	20.59

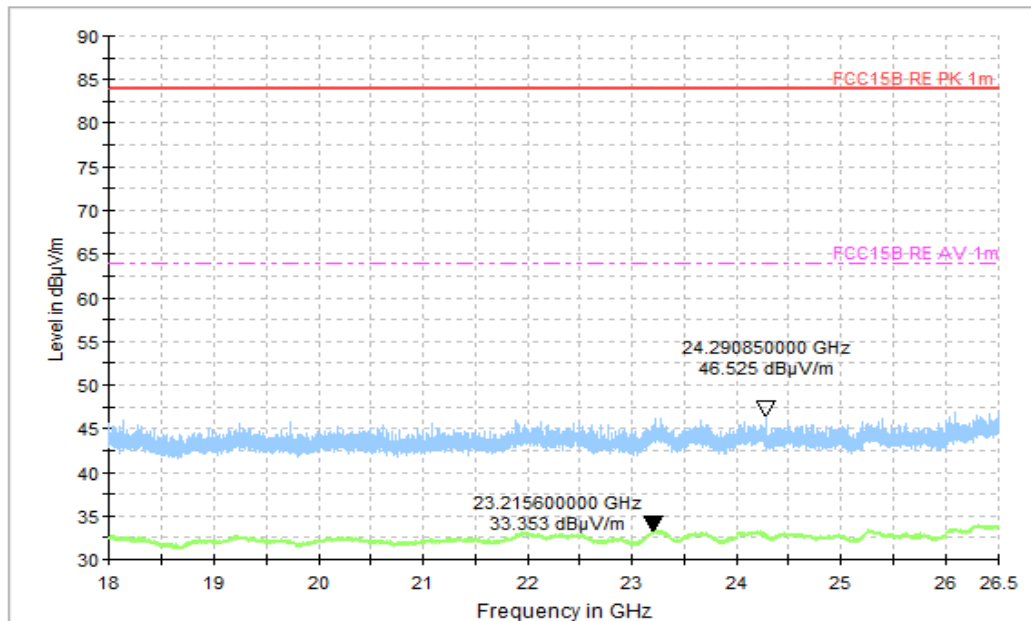


Figure A.1.27. Radiated Emission (Data Transfer: PC to TF Card,18GHz to 26.5GHz)

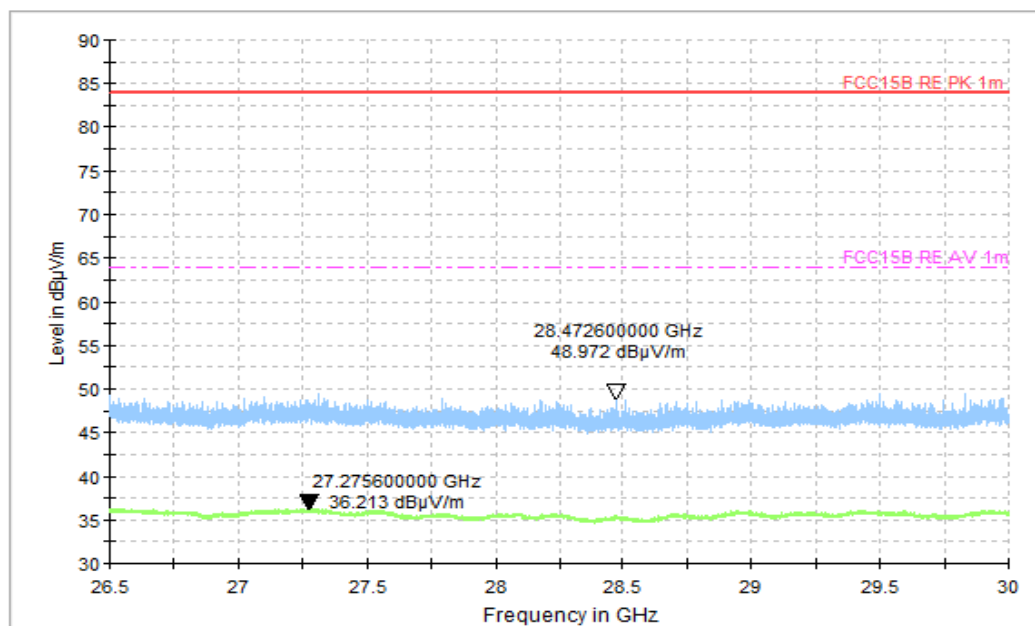


Figure A.1.28. Radiated Emission (Data Transfer: PC to TF Card, 26.5GHz to 30GHz)

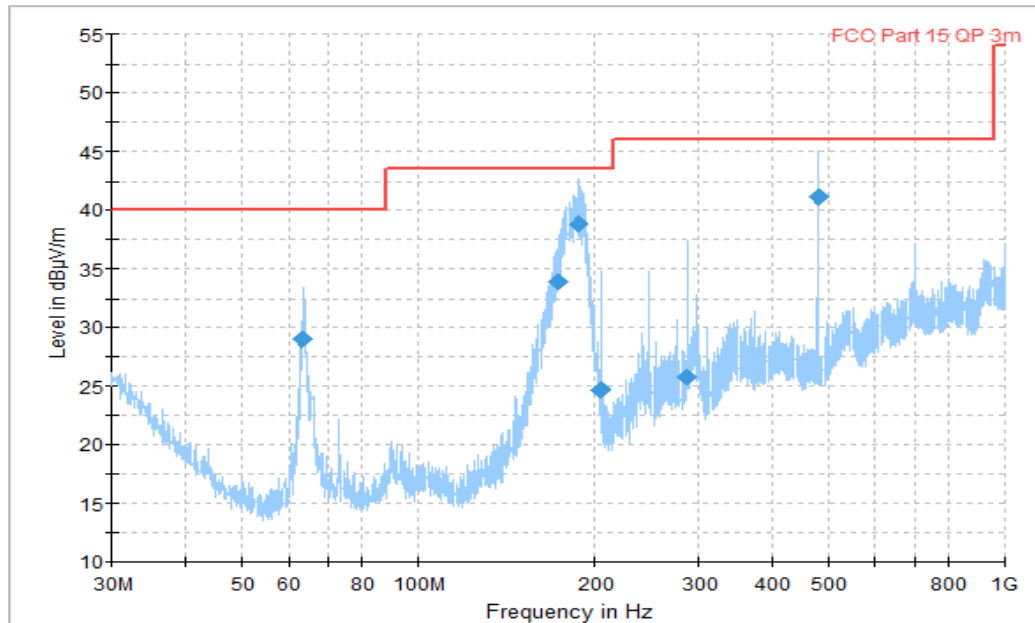


Figure A.1.29. Radiated Emission (Data Transfer: TF Card to PC,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBμV)
63.416667	28.94	40.00	11.06	V	-15.3	44.24
172.763333	33.95	43.50	9.55	H	-12.5	46.45
186.522778	38.82	43.50	4.68	H	-12.3	51.12
203.977222	24.64	43.50	18.86	H	-11.4	36.04
288.008333	25.78	46.00	20.22	V	-9.2	34.98
480.002222	41.08	46.00	4.92	H	-3.6	44.68

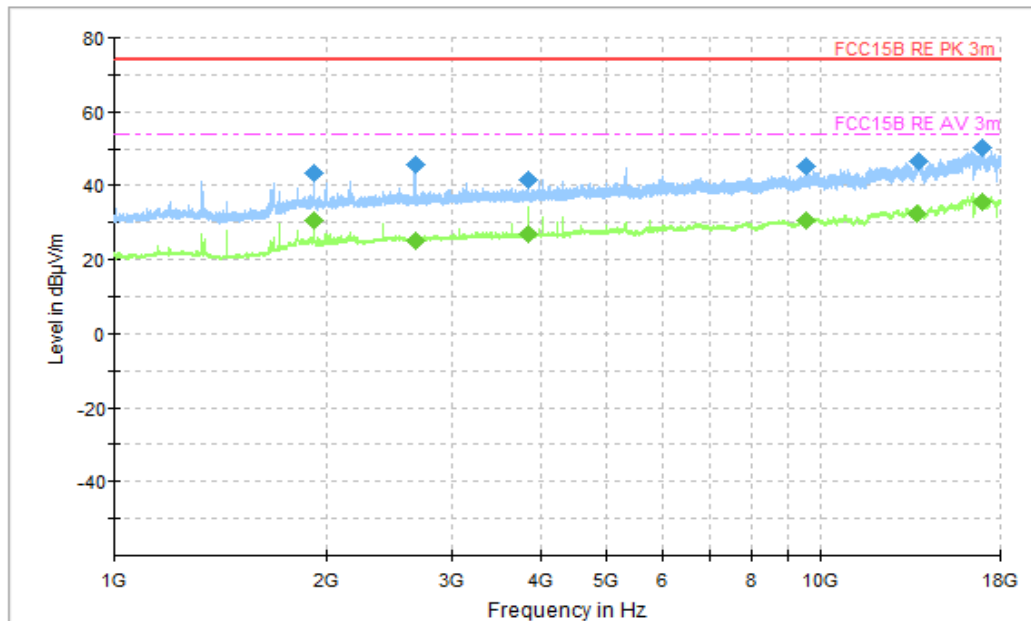


Figure A.1.30. Radiated Emission (Data Transfer: TF Card to PC,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1919.500000	43.35	74.00	30.65	V	-6.2	49.55
2665.000000	45.53	74.00	28.47	V	-4.1	49.63
3840.500000	41.41	74.00	32.59	H	-2.0	43.41
9569.000000	45.00	74.00	29.00	H	6.6	38.40
13802.000000	46.52	74.00	27.48	H	9.0	37.52
16925.500000	50.13	74.00	23.87	V	14.8	35.33

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1920.000000	30.46	54.00	23.54	V	-6.2	36.66
2665.500000	25.26	54.00	28.74	V	-4.1	29.36
3840.000000	26.92	54.00	27.08	H	-2.0	28.92
9588.000000	30.54	54.00	23.46	H	6.6	23.94
13749.000000	32.46	54.00	21.54	H	8.9	23.56
16925.500000	35.80	54.00	18.20	V	14.8	21.00

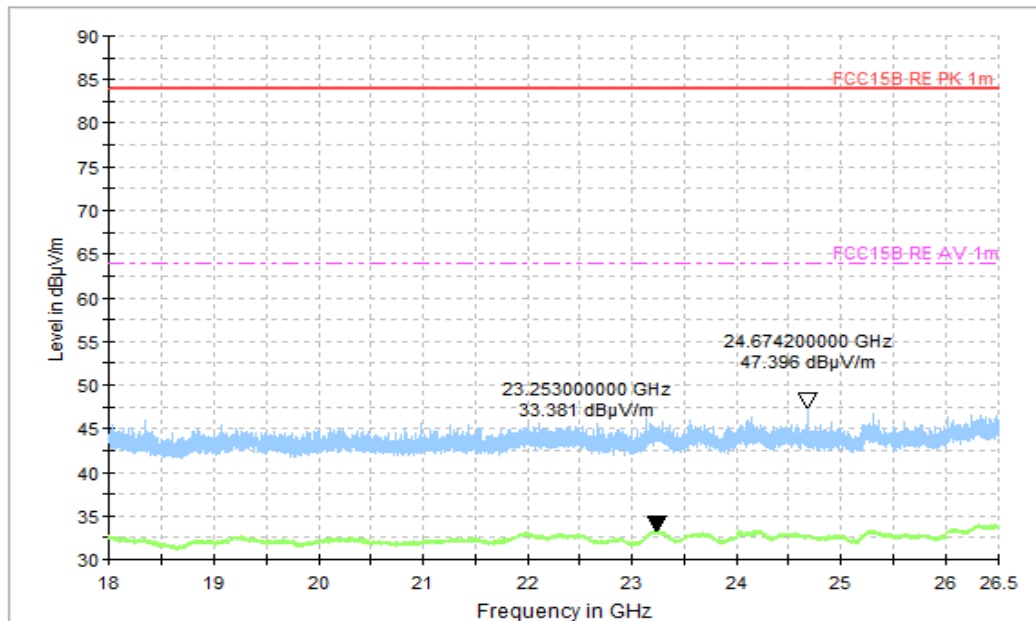


Figure A.1.31. Radiated Emission (Data Transfer: TF Card to PC,18GHz to 26.5GHz)

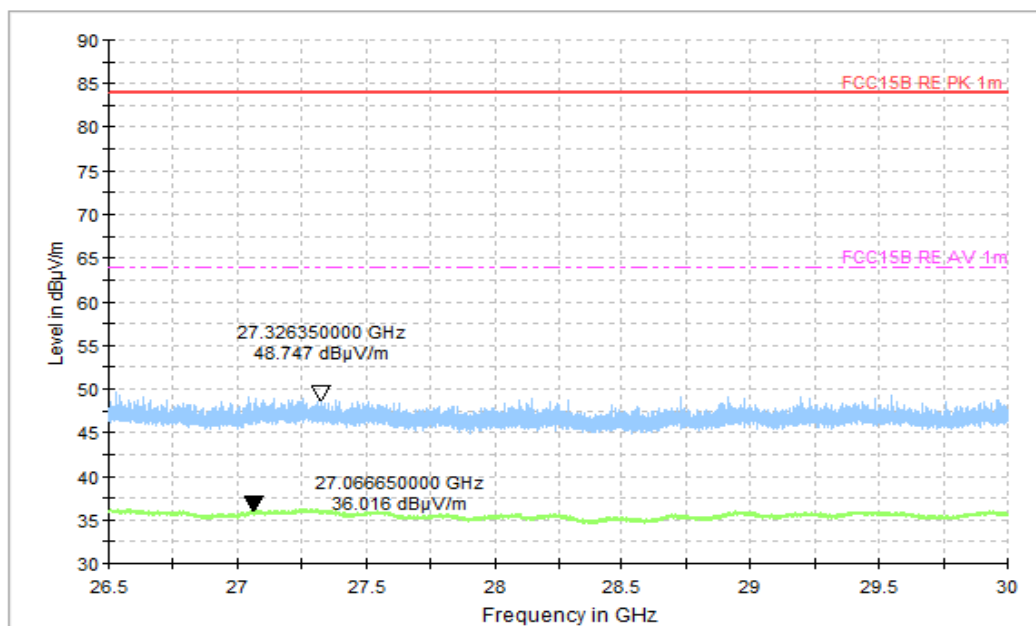


Figure A.1.32. Radiated Emission (Data Transfer: TF Card to PC, 26.5GHz to 30GHz)

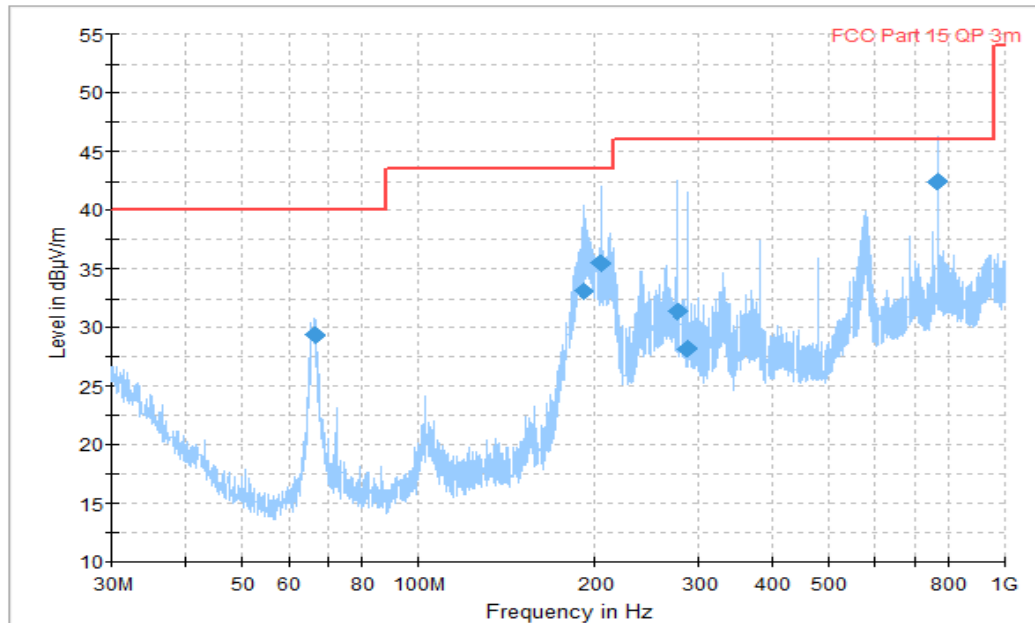


Figure A.1.33. Radiated Emission (Data Transfer: PC to EUT,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBμV)
66.381111	29.42	40.00	10.58	H	-14.9	44.32
191.983889	33.07	43.50	10.43	H	-12.6	45.67
204.018889	35.56	43.50	7.94	H	-11.4	46.96
275.985000	31.33	46.00	14.67	H	-9.0	40.33
288.002222	28.15	46.00	17.85	H	-9.2	37.35
767.978333	42.46	46.00	3.54	V	0.7	41.76

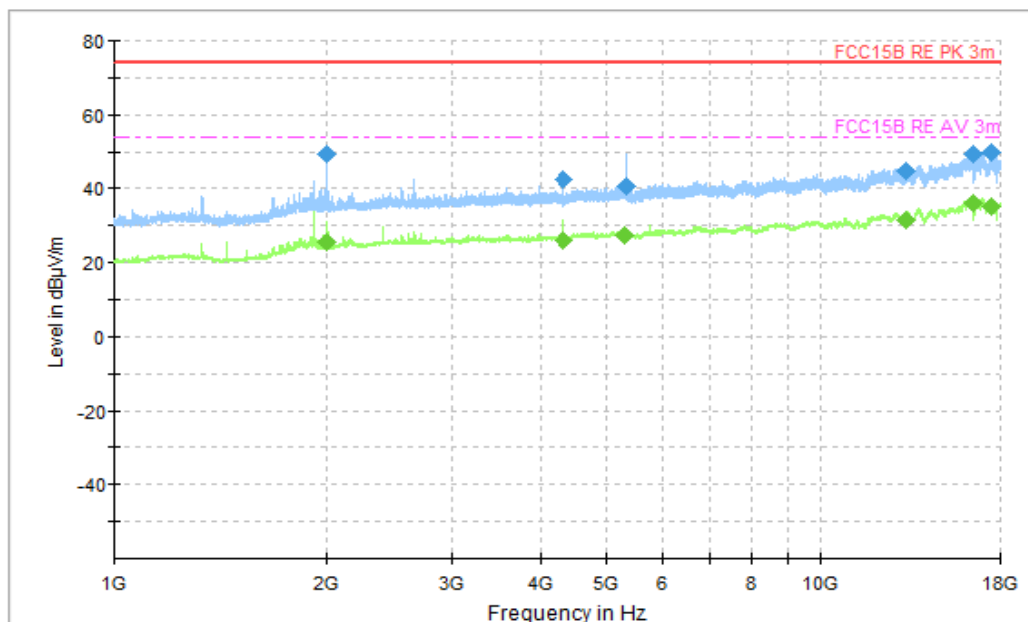


Figure A.1.34. Radiated Emission (Data Transfer: PC to EUT,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1997.500000	49.39	74.00	24.61	V	-5.9	55.29
4319.000000	42.65	74.00	31.35	H	-0.9	43.55
5324.500000	40.85	74.00	33.15	V	1.6	39.25
13220.500000	44.99	74.00	29.01	V	8.1	36.89
16452.500000	49.38	74.00	24.62	H	14.7	34.68
17449.500000	49.87	74.00	24.13	V	14.1	35.77

Final_Results_AVG

Frequency(MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBμV)
1997.500000	25.44	54.00	28.56	V	-5.9	31.34
4319.000000	25.98	54.00	28.02	H	-0.9	26.88
5307.000000	27.44	54.00	26.56	V	1.6	25.84
13270.000000	31.66	54.00	22.34	V	8.2	23.46
16443.500000	35.85	54.00	18.15	V	14.7	21.15
17428.500000	35.02	54.00	18.98	V	14.1	20.92

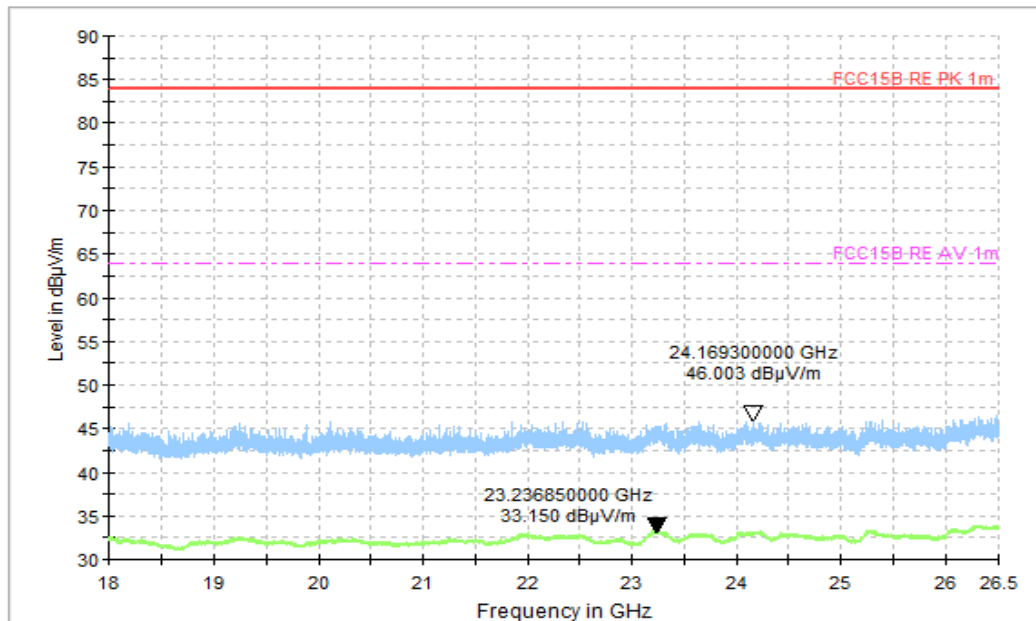


Figure A.1.35. Radiated Emission (Data Transfer: PC to EUT,18GHz to 26.5GHz)

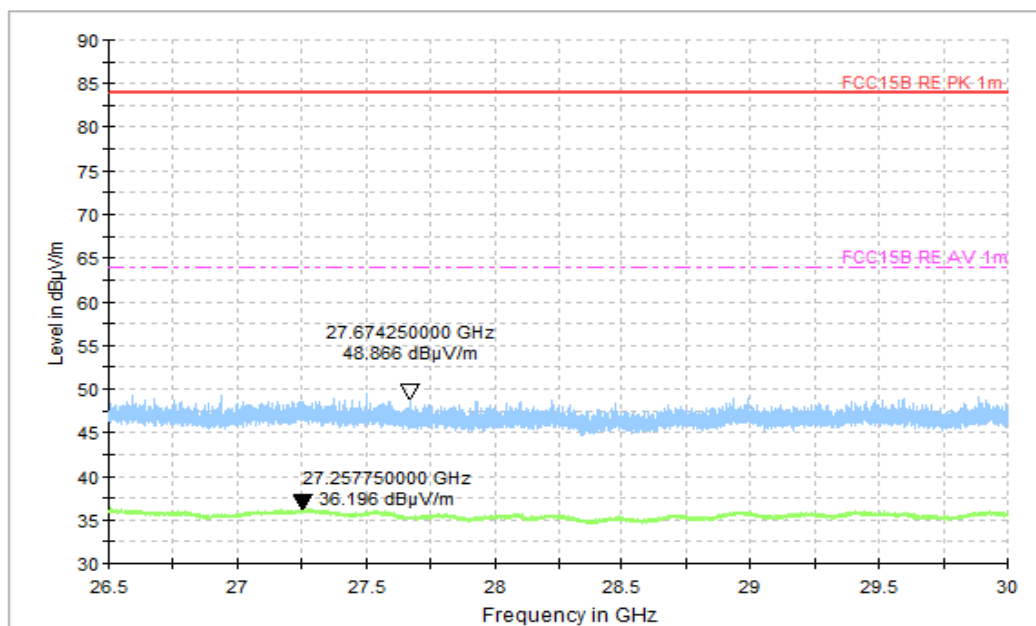


Figure A.1.36. Radiated Emission (Data Transfer: PC to EUT, 26.5GHz to 30GHz)

A.2 Conducted Emission (§15.107(a))**Reference**

FCC: CFR Part 15.107(a)

A.2.1 Method of measurement

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 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:

FM receiver: The EUT is connected to a charger for charging and open FM function. The EUT is synchronized to a FM signal generator. The EUT is keeping on demodulating the FM signal and outputting the audio signal through the headset.

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.

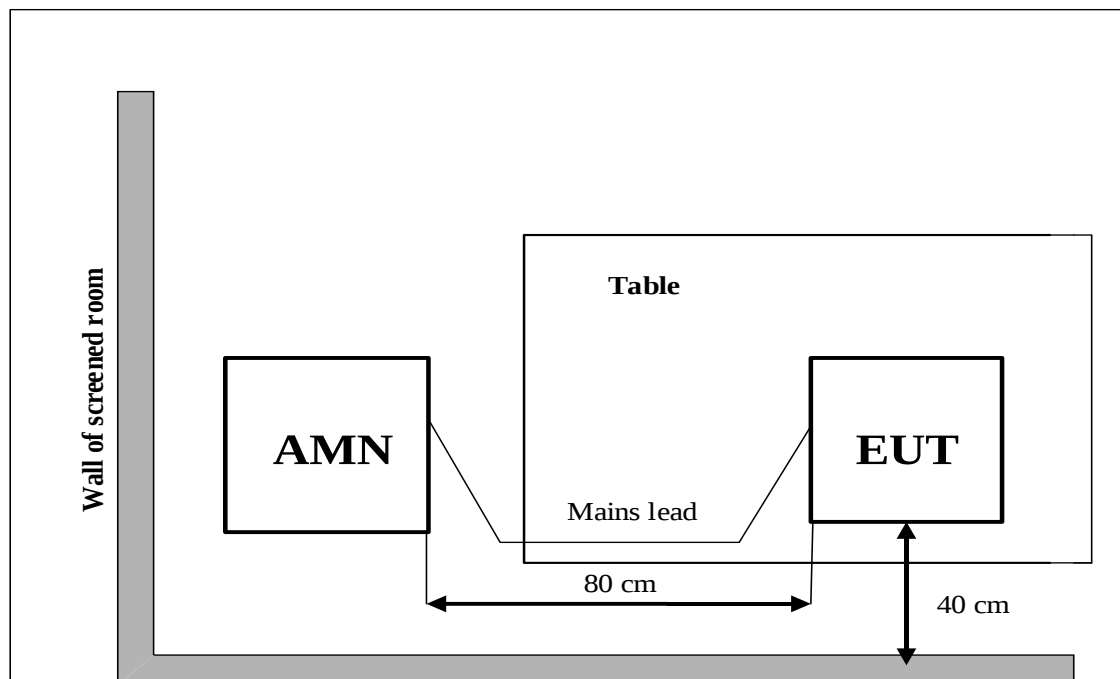
Video Player: The EUT is connected to a charger for charging and keeping on playing mp3.

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		

A.2.4 Test 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
			UT05aa/Set.1	
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.				

Video Player

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.1	
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.				

Camera

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.2	
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.				

FM receiver

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.5	
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)	Conclusion
			UT05aa/Set.3	
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.				

Data Transfer

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.4	
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.				

Camera

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.1	
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)	Conclusion
			UT05aa/Set.1	
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.				

Camera

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.2	
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.				

FM receiver

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.5	
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.				

Data Transfer

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.3	
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.11	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

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT05aa/Set.4	
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.12	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.				

AC Input Port/ Voltage: 120V/60Hz

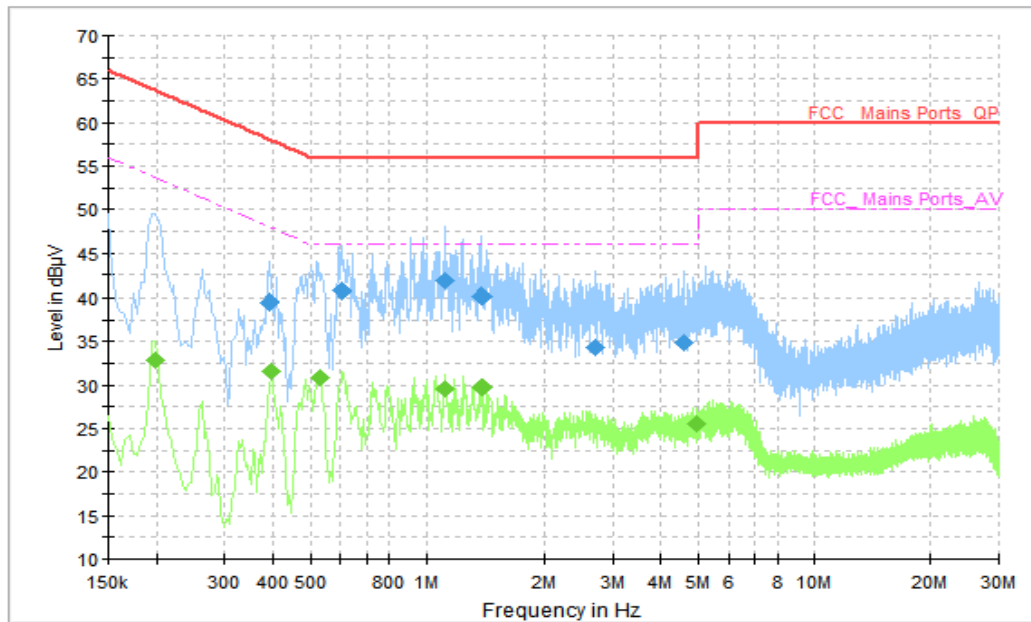


Figure A.2.1 Conducted Emission (Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.390000	39.50	58.06	18.56	N	10	29.50
0.606000	40.80	56.00	15.20	N	10	30.80
1.114000	41.82	56.00	14.18	N	10	31.82
1.382000	40.16	56.00	15.84	N	10	30.16
2.702000	34.25	56.00	21.75	N	10	24.25
4.586000	34.83	56.00	21.17	N	10	24.83

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.198000	32.91	53.69	20.78	N	10	22.91
0.398000	31.52	47.90	16.38	N	10	21.52
0.530000	30.92	46.00	15.08	N	10	20.92
1.118000	29.54	46.00	16.46	N	10	19.54
1.382000	29.77	46.00	16.23	N	10	19.77
4.970000	25.50	46.00	20.50	N	10	15.50

AC Input Port/ Voltage: 120V/60Hz

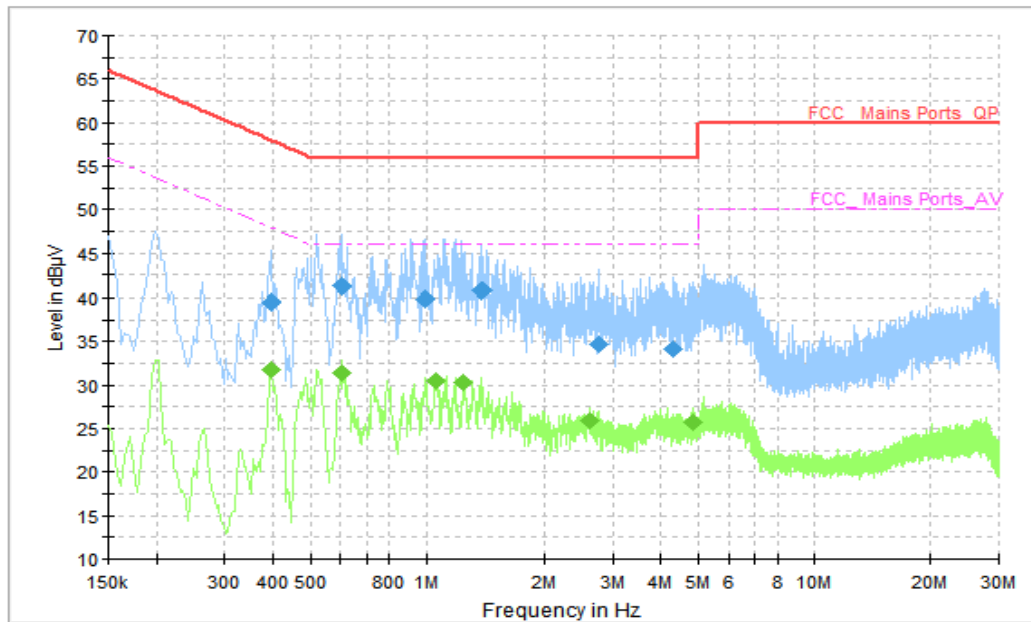


Figure A.2.2 Conducted Emission (Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.398000	39.48	57.90	18.41	N	10	29.48
0.602000	41.29	56.00	14.71	N	10	31.29
0.986000	39.79	56.00	16.21	N	10	29.79
1.378000	40.69	56.00	15.31	N	10	30.69
2.758000	34.78	56.00	21.22	N	10	24.78
4.302000	34.23	56.00	21.77	N	10	24.23

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.398000	31.85	47.90	16.04	N	10	21.85
0.602000	31.43	46.00	14.57	N	10	21.43
1.062000	30.51	46.00	15.49	N	10	20.51
1.250000	30.39	46.00	15.61	N	10	20.39
2.618000	25.93	46.00	20.07	N	10	15.93
4.850000	25.77	46.00	20.23	N	10	15.77

AC Input Port/ Voltage: 120V/60Hz

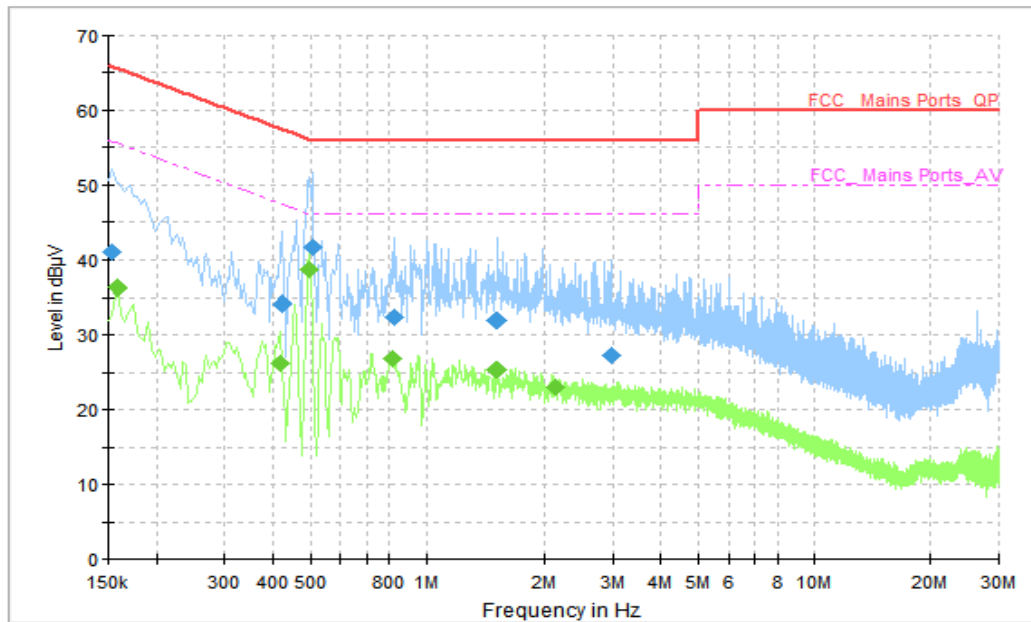


Figure A.2.3 Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.154000	41.05	65.78	24.73	N	10	31.05
0.422000	34.09	57.41	23.32	L1	10	24.09
0.506000	41.59	56.00	14.41	L1	10	31.59
0.826000	32.48	56.00	23.52	L1	10	22.48
1.514000	32.06	56.00	23.94	L1	10	22.06
2.986000	27.32	56.00	28.68	L1	10	17.32

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.158000	36.23	55.57	19.34	N	10	26.23
0.418000	26.24	47.49	21.25	N	10	16.24
0.498000	38.64	46.03	7.40	N	10	28.64
0.814000	26.92	46.00	19.08	N	10	16.92
1.502000	25.46	46.00	20.54	N	10	15.46
2.142000	22.96	46.00	23.04	N	10	12.96

AC Input Port/ Voltage: 120V/60Hz

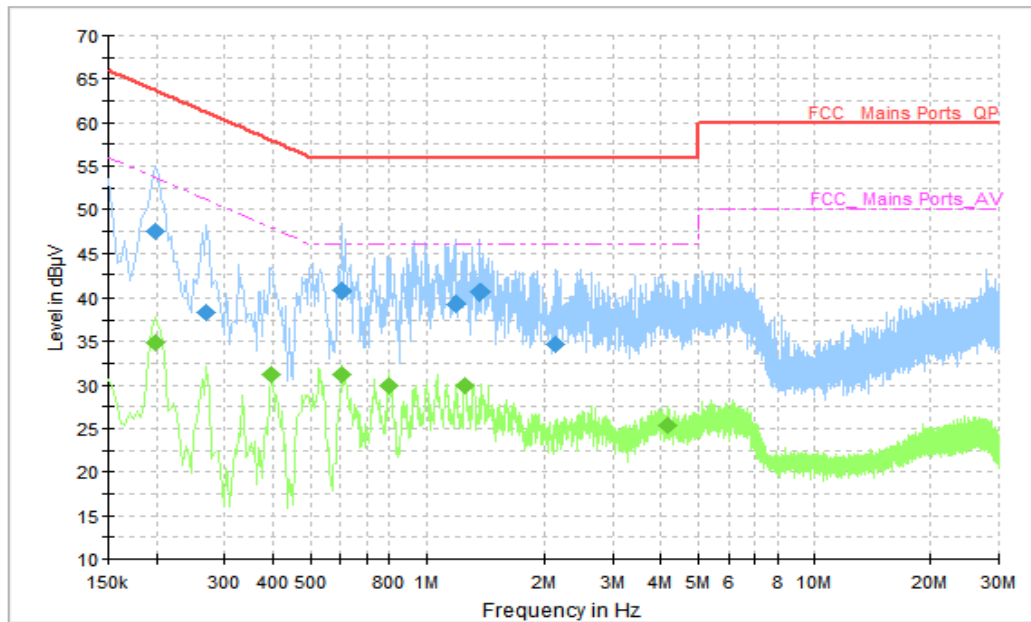


Figure A.2.4 Conducted Emission (FM receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.198000	47.56	63.69	16.14	N	10	37.56
0.270000	38.32	61.12	22.80	N	10	28.32
0.606000	40.73	56.00	15.27	N	10	30.73
1.190000	39.35	56.00	16.65	N	10	29.35
1.374000	40.50	56.00	15.50	N	10	30.5
2.130000	34.69	56.00	21.31	N	10	24.69

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.198000	34.90	53.69	18.79	N	10	24.90
0.398000	31.19	47.90	16.70	N	10	21.19
0.606000	31.18	46.00	14.82	N	10	21.18
0.798000	29.98	46.00	16.02	N	10	19.98
1.258000	29.97	46.00	16.03	N	10	19.97
4.150000	25.44	46.00	20.56	N	10	15.44

AC Input Port/ Voltage: 120V/60Hz

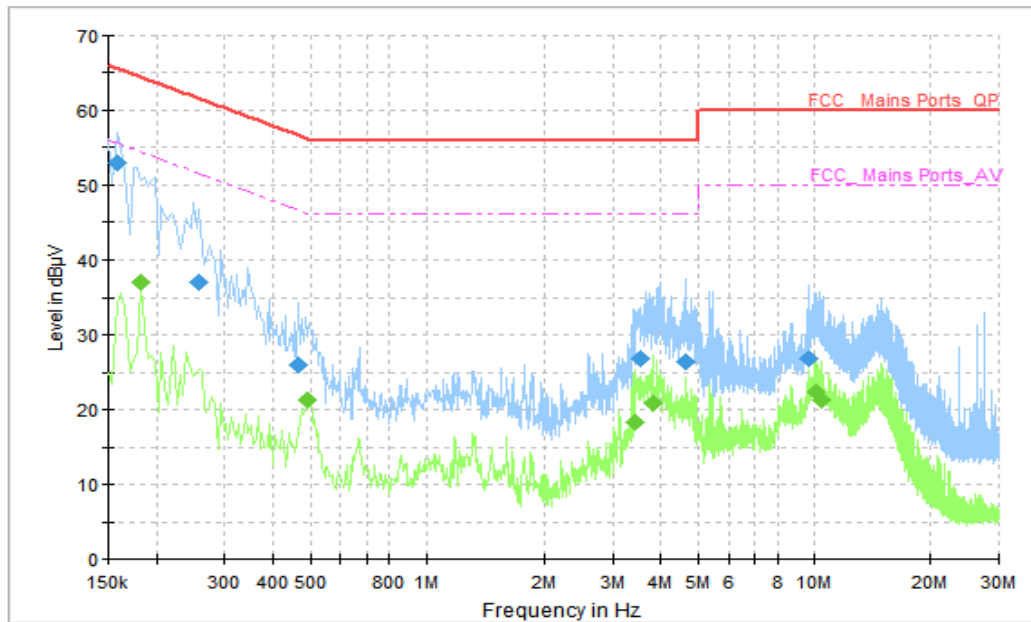


Figure A.2.5 Conducted Emission (Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.158000	53.00	65.57	12.57	L1	10	43.00
0.258000	37.02	61.50	24.47	L1	10	27.02
0.466000	26.10	56.59	30.48	L1	10	16.10
3.526000	26.96	56.00	29.04	L1	10	16.96
4.614000	26.41	56.00	29.59	L1	10	16.41
9.634000	26.97	60.00	33.03	L1	10	16.97

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.182000	36.99	54.39	17.41	N	10	26.99
0.494000	21.31	46.10	24.79	N	10	11.31
3.426000	18.30	46.00	27.70	L1	10	8.30
3.810000	20.82	46.00	25.18	L1	10	10.82
10.074000	22.42	50.00	27.58	L1	10	12.42
10.426000	21.40	50.00	28.60	L1	10	11.40

AC Input Port/ Voltage: 120V/60Hz

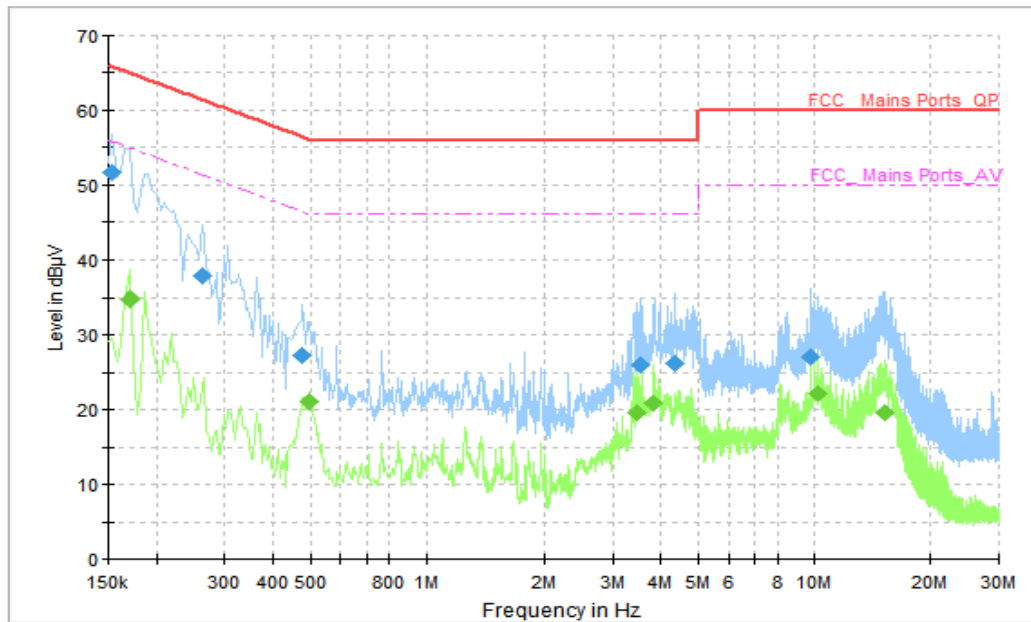


Figure A.2.6 Conducted Emission (Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.154000	51.59	65.78	14.19	N	10	41.59
0.262000	37.87	61.37	23.50	L1	10	27.87
0.478000	27.30	56.37	29.08	N	10	17.30
3.526000	26.04	56.00	29.96	N	10	16.04
4.362000	26.30	56.00	29.70	N	10	16.3
9.734000	27.15	60.00	32.85	L1	10	17.15

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.170000	34.76	54.96	20.20	L1	10	24.76
0.498000	21.06	46.03	24.97	N	10	11.06
3.474000	19.54	46.00	26.46	L1	10	9.54
3.818000	21.00	46.00	25.00	L1	10	11.00
10.150000	22.10	50.00	27.90	L1	10	12.1
15.158000	19.66	50.00	30.34	L1	10	9.66

AC Input Port/ Voltage: 240V/60Hz

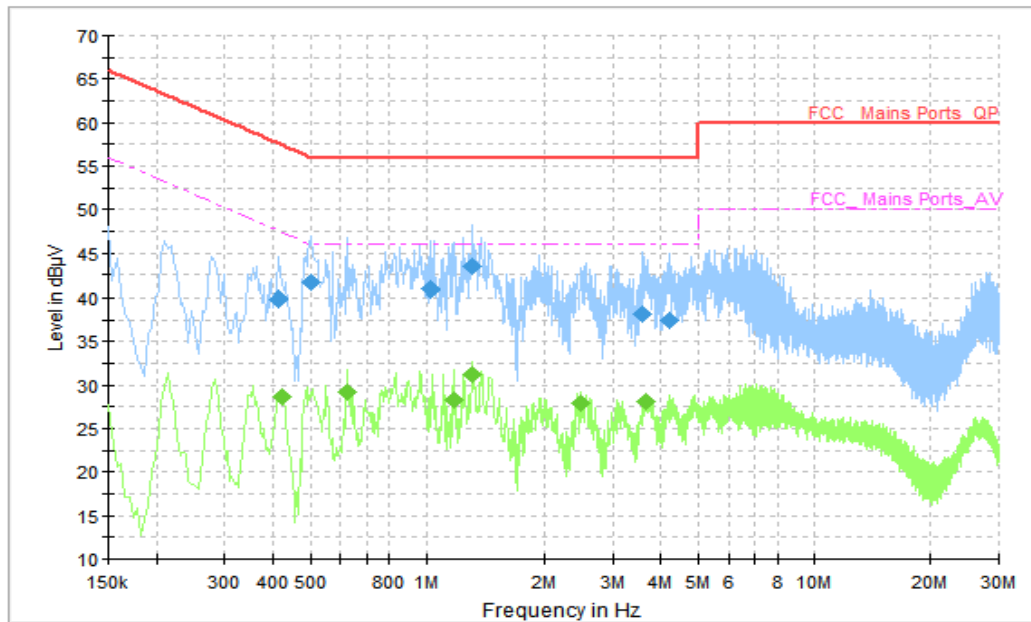


Figure A.2.7 Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.414000	39.73	57.57	17.84	N	10	29.73
0.502000	41.62	56.00	14.38	N	10	31.62
1.026000	41.00	56.00	15.00	N	10	31.00
1.310000	43.41	56.00	12.59	N	10	33.41
3.598000	38.14	56.00	17.86	N	10	28.14
4.230000	37.47	56.00	18.53	N	10	27.47

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.422000	28.58	47.41	18.83	N	10	18.58
0.626000	29.29	46.00	16.71	N	10	19.29
1.178000	28.33	46.00	17.67	N	10	18.33
1.318000	31.17	46.00	14.83	N	10	21.17
2.494000	28.00	46.00	18.00	N	10	18
3.670000	28.07	46.00	17.93	N	10	18.07

AC Input Port/ Voltage: 240V/60Hz

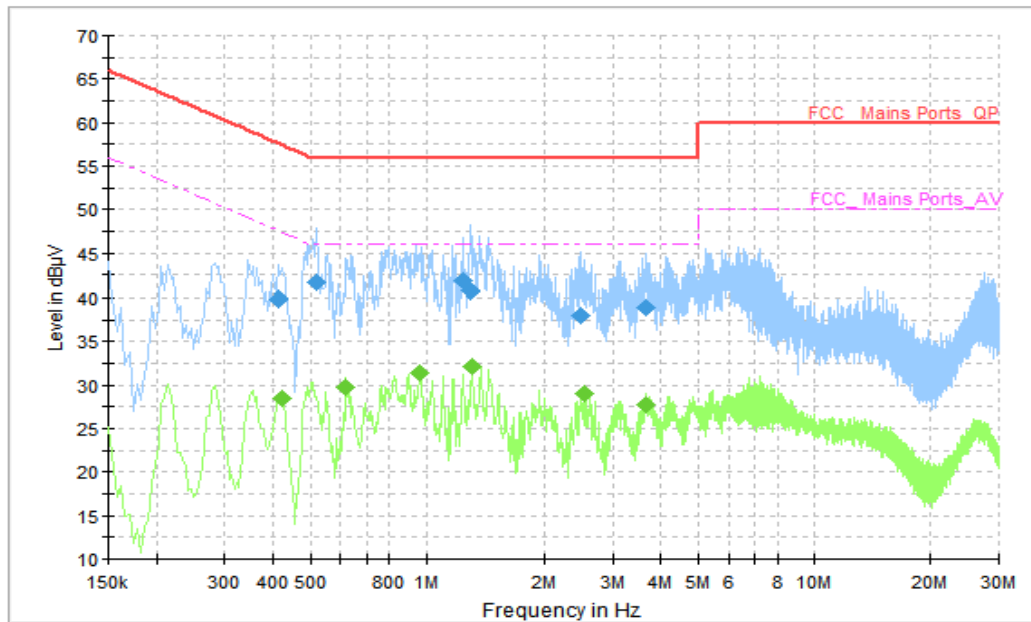


Figure A.2.8 Conducted Emission (Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.414000	39.77	57.57	17.80	N	10	29.77
0.518000	41.66	56.00	14.34	N	10	31.66
1.238000	41.86	56.00	14.14	N	10	31.86
1.294000	40.67	56.00	15.33	N	10	30.67
2.494000	38.01	56.00	17.99	N	10	28.01
3.646000	38.93	56.00	17.07	N	10	28.93

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.422000	28.46	47.41	18.95	L1	10	18.46
0.618000	29.79	46.00	16.21	N	10	19.79
0.958000	31.41	46.00	14.59	N	10	21.41
1.310000	32.05	46.00	13.95	N	10	22.05
2.546000	29.02	46.00	16.98	N	10	19.02
3.662000	27.81	46.00	18.19	N	10	17.81

AC Input Port/ Voltage: 240V/60Hz

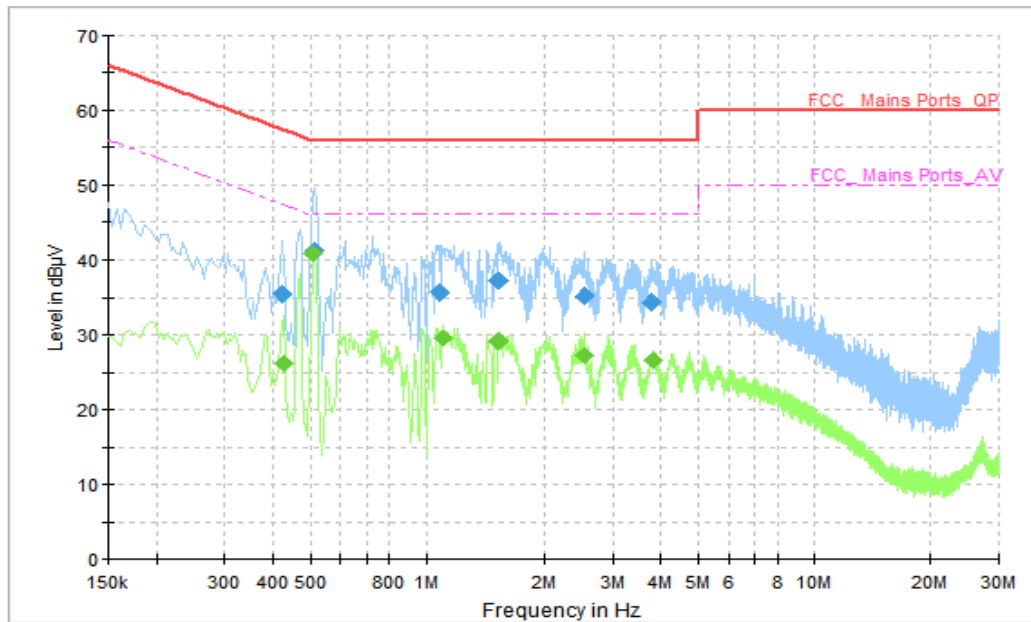


Figure A.2.9 Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.422000	35.45	57.41	21.96	L1	10	25.45
0.514000	41.23	56.00	14.77	L1	10	31.23
1.082000	35.59	56.00	20.41	N	10	25.59
1.526000	37.21	56.00	18.79	N	10	27.21
2.530000	35.12	56.00	20.88	N	10	25.12
3.774000	34.45	56.00	21.55	N	10	24.45

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.426000	26.24	47.33	21.09	N	10	16.24
0.510000	40.67	46.00	5.33	N	10	30.67
1.110000	29.70	46.00	16.30	N	10	19.70
1.526000	29.20	46.00	16.80	N	10	19.20
2.538000	27.29	46.00	18.71	N	10	17.29
3.830000	26.70	46.00	19.30	N	10	16.70

AC Input Port/ Voltage: 240V/60Hz

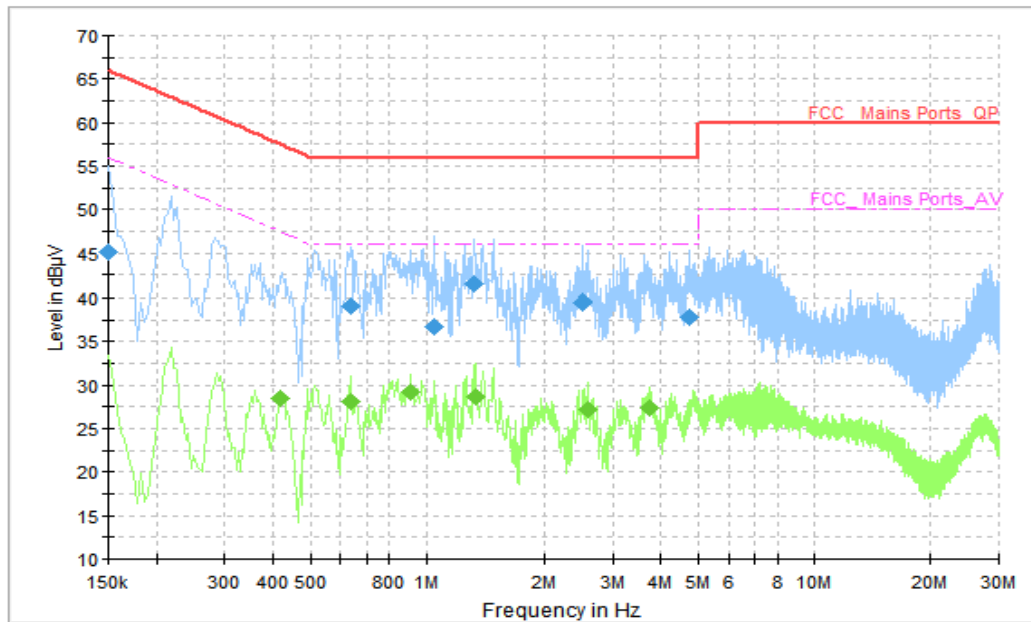


Figure A.2.10 Conducted Emission (FM receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.150000	45.08	66.00	20.92	N	10	35.08
0.634000	39.02	56.00	16.98	N	10	29.02
1.050000	36.72	56.00	19.28	L1	10	26.72
1.326000	41.53	56.00	14.47	N	10	31.53
2.502000	39.48	56.00	16.52	N	10	29.48
4.754000	37.89	56.00	18.11	N	10	27.89

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.418000	28.55	47.49	18.94	N	10	18.55
0.634000	28.17	46.00	17.83	N	10	18.17
0.910000	29.27	46.00	16.73	N	10	19.27
1.334000	28.72	46.00	17.28	N	10	18.72
2.586000	27.13	46.00	18.87	N	10	17.13
3.722000	27.43	46.00	18.57	N	10	17.43

AC Input Port/ Voltage: 240V/60Hz

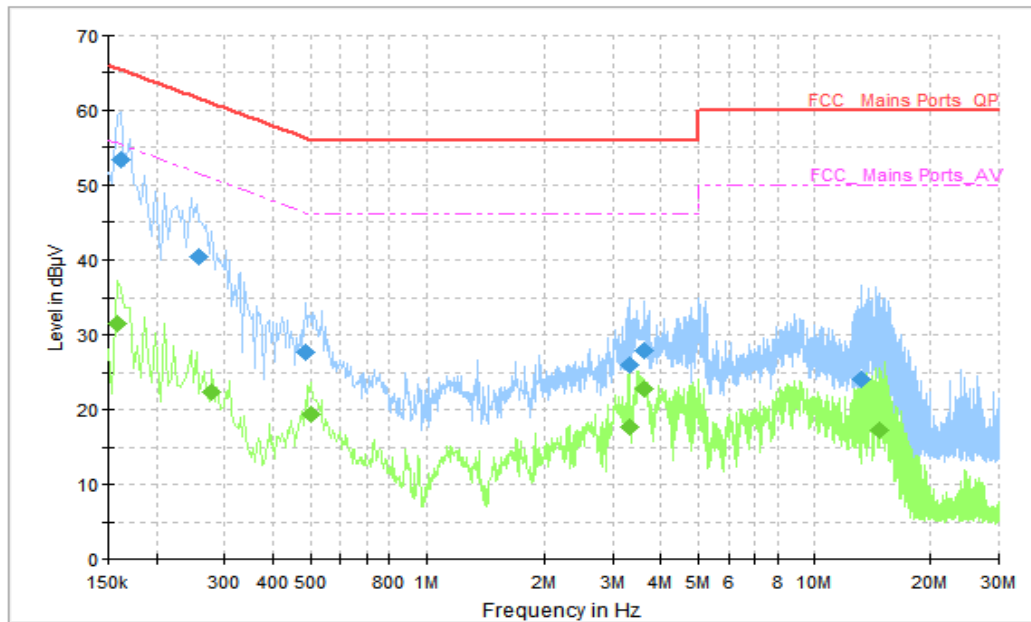


Figure A.2.11 Conducted Emission (Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.162000	53.43	65.36	11.93	L1	10	43.43
0.258000	40.39	61.50	21.11	N	10	30.39
0.486000	27.80	56.24	28.44	N	10	17.80
3.306000	25.95	56.00	30.05	L1	10	15.95
3.618000	28.05	56.00	27.95	N	10	18.05
13.226000	24.17	60.00	35.83	L1	10	14.17

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.158000	31.59	55.57	23.98	L1	10	21.59
0.278000	22.37	50.88	28.51	N	10	12.37
0.502000	19.52	46.00	26.48	N	10	9.52
3.302000	17.73	46.00	28.27	L1	10	7.73
3.618000	22.84	46.00	23.16	N	10	12.84
14.758000	17.34	50.00	32.66	N	10	7.34

AC Input Port/ Voltage: 240V/60Hz

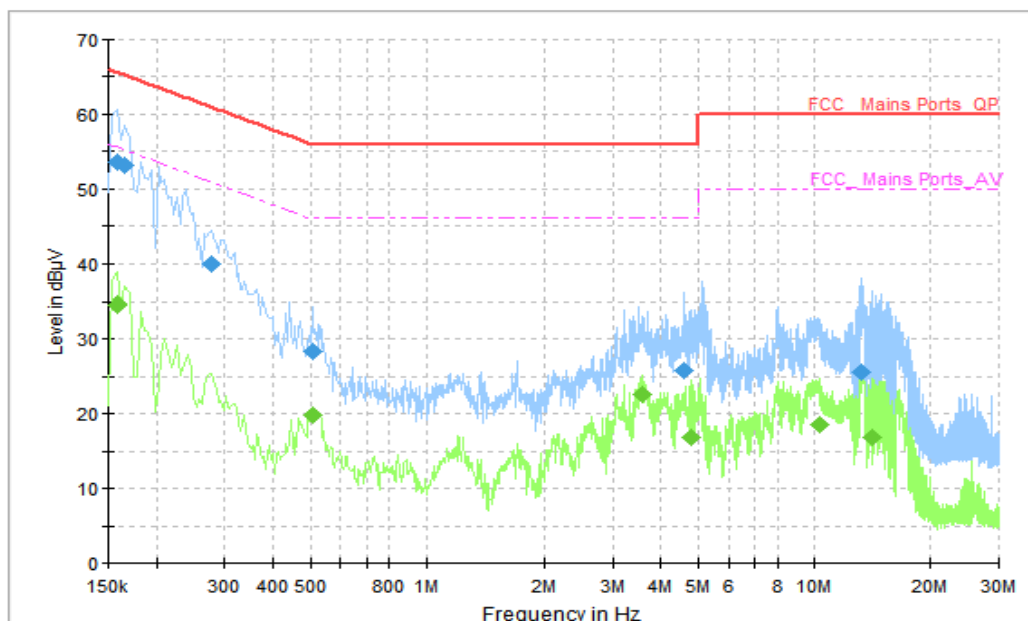


Figure A.2.12 Conducted Emission (Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.158000	53.58	65.57	11.99	N	10	43.58
0.166000	53.15	65.16	12.01	N	10	43.15
0.278000	39.91	60.88	20.96	N	10	29.91
0.506000	28.45	56.00	27.55	L1	10	18.45
4.598000	25.92	56.00	30.08	N	10	15.92
13.226000	25.58	60.00	34.42	L1	10	15.58

Final_Result_AVG

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)	PMea (dBμV)
0.158000	34.60	55.57	20.96	N	10	24.60
0.506000	19.80	46.00	26.20	L1	10	9.80
3.570000	22.69	46.00	23.31	N	10	12.69
4.802000	16.82	46.00	29.18	L1	10	6.82
10.258000	18.57	50.00	31.43	L1	10	8.57
14.046000	16.79	50.00	33.21	L1	10	6.79

END OF REPORT