



TESTREPORT

No.I21N00886-EMC

HMD Global Oy

Smart Phone

Model Name: TA-1357

With

Hardware Version:V01A

Software Version:00WW_0_010

FCC ID:2AJOTTA-1357

Issued Date: 2021-05-31

Designation Number: CN1210

Note:

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

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21N00886-EMC	Rev.0	1st edition	2021-05-31

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



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1. Summary of Test Report

1.1. Test Items

Description	Smart Phone
Model Name	TA-1357
Applicant's name	HMD Global Oy
Manufacturer's Name	HMD Global Oy

1.2. Test Standards

FCC Part 15, Subpart B 10-1-2019 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: 2021-04-12

Testing End Date: 2021-05-27

1.6. Signature

MaShoujian

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(Reviewed this test report)

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(Approved this test report)



2. ClientInformation

2.1. Applicant Information

Company Name: HMD Global Oy
Address: Bertel Jungin aukio 902600 Espoo, Finland
Contact: Rosario Casillo
Email: Rosario.Casillo@hmdglobal.com

2.2. Manufacturer Information

Company Name: HMD Global Oy
Address: Bertel Jungin aukio 902600 Espoo, Finland
Contact: Rosario Casillo
Email: Rosario.Casillo@hmdglobal.com



3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Smart Phone
Model Name	TA-1357
FCC ID	2AJOTTA-1357
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

Model	EUT ID*	SN or IMEI	HW Version	SW Version	Receive Date
TA-1357 (2G RAM+32G ROM)	UT05aa	350872080003880	V01A	00WW_0_010	2021-04-12
TA-1357 (2G RAM+32G ROM)	UT08aa	350872080004367	V01A	00WW_0_010	2021-04-12
TA-1357 (2G RAM+64G ROM)	UT10aa	350872080006644	V01A	00WW_0_010	2021-04-28
TA-1357 (3G RAM+64G ROM)	UT13aa	350872080009069	V01A	00WW_0_010	2021-04-28

*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 Adapter
AE3	USB Cable
AE4	Headset

AE1

Model	SE681
Manufacturer	Shenzhen Aerospac Electronic CO.,Ltd.
Capacity	5850 mAh
Nominal Voltage	3.85v

AE2-1

Model	A8-050200U-US3
Manufacturer	Dongguan Aohai Technology Co., Ltd



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AE2-2

Model AD-010U
Manufacturer Shenzhen Baijunda Electronic Co.,Ltd

AE3-1

Model MO40B2000100
Manufacturer FKY-QY Electronic Technology Co. Ltd

AE4-1

Model JWEP1199-M01H
Manufacturer JUWEI ELECTRONICS CO.,LTD

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

AE: ancillary equipment



3.4. EUT set-ups

EUT set-up No.

- Set.1
- Set.2
- Set.3

Combination of EUT and AE

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



3.5. General Description

The Equipment Under Test (EUT) is a model of Smart Phone with internal antenna.

It supports GSM 850/900/1800/1900MHz, WCDMA Bands 1/2/4/5/8, and LTE Bands 1/2/3/4/5/7/8/12/13/17/28/66.

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

It consists of normal options: Battery, Power Adapter, USB Cable and Headset.

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

Smart Phone with Integrated antenna TA-1357 comes in 3 specifications of memory: 2G RAM+32G ROM, 2G RAM+64G ROM and 3G RAM+64G ROM.

This report is based on the model TA-1357(2G RAM+32G ROM) for the primary test. The model TA-1357(2G RAM+64G ROM) and the model TA-1357(3G RAM+64G ROM) are records of model TA-1352(2G RAM+32G ROM).

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

NO.	Test item	specifications of memory	EUT ID	Operating mode
1	Conducted Emission	2G+32G	UT08aa	FM receiver/Camera/Video Player/Data Transfer
2	Radiated Emission	2G+32G	UT05aa	GSM receiver/WCDMA receiver/LTE receiver/Camera/Video Player/ Data Transfer/FM Receiver
		2G+64G	UT10aa	LTE receiver/FM Receiver/Data Transfer
		3G +64G	UT13aa	LTE receiver/FM Receiver/Data Transfer

Other results of The model TA-1357(2G RAM+64G ROM) and the model TA-1357(3G RAM+64G ROM) are cited from the initial model TA-1357(2G RAM+32G ROM).

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°C
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	4.66dB(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	2021.12.25	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	VULB 9163	9163-330	Schwarzbeck	2024.03.22	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	CALDUE DATE	CAL PERIOD
1.	PC	ThinkPad T480	PF-13LW0C	Lenovo	/	/
2.	Printer	P1008	VNF6C12491	HP	/	/
3.	Mouse	MOEUJUA	44NY517	Lenovo	/	/



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.

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

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

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

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

GSM850MHz, WCDMA Band 5, LTE Band 5, LTE Band 12, LTE Band 13, LTE Band 17.

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

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

A.1.3 Measurement Limit

Limit from CFR Part 15.109(a)

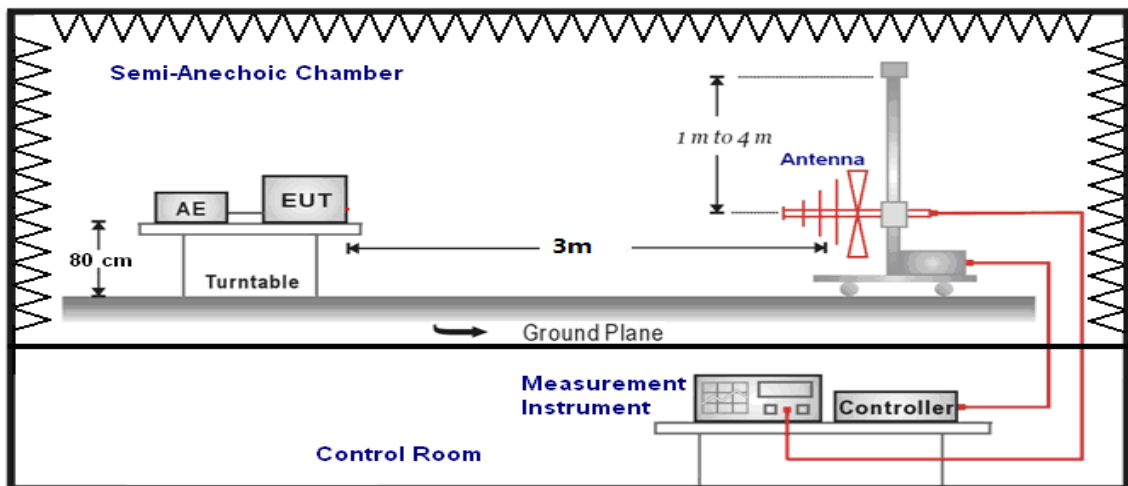
Frequency range (MHz)	Field strength limit ($\mu\text{V/m}$)		
	Quasi-peak	Average	Peak
30-88	100		
88-216	150		
216-960	200		
960-1000	500		
>1000		500	5000

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

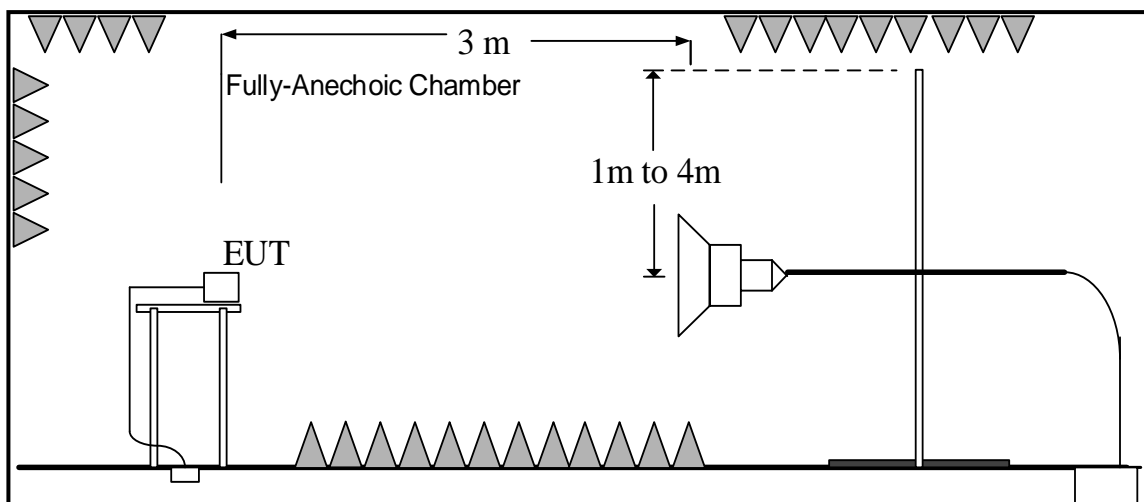
A.1.4 Test Condition

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-18GHz



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 (dB μ V/m) / Average (dB μ V/m) / Peak (dB μ V/m)

Note: the result contains vertical part and Horizontal part

GSM Receiver 850MHz

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT05aa/Set.1	Conclusion
30-88	40.00	See Figure 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
			UT05aa/Set.1	
1000 to 18000	54	74	See Figure A.1.2.	P

WCDMA Receiver Band 5

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT05aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.3.	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
			UT05aa/Set.1	
1000 to 18000	54	74	See Figure A.1.4.	P

LTE Receiver Band 5

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT05aa/Set.1	Conclusion
30-88	40.00	See Figure 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
			UT05aa/Set.1	
1000 to 18000	54	74	See Figure A.1.6.	P

LTE Receiver Band 12

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT05aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.7.	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
			UT05aa/Set.1	
1000 to 18000	54	74	See Figure A.1.8.	P

LTE Receiver Band 13

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT05aa/Set.1	Conclusion
30-88	40.00	See Figure 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
			UT05aa/Set.1	
1000 to 18000	54	74	See Figure A.1.10.	P

LTE Receiver Band 17

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT05aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.11.	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
			UT05aa/Set.1	
1000 to 18000	54	74	See Figure A.1.12.	P

LTE Receiver Band 13

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT05aa/Set.2	Conclusion
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
			UT10aa/Set.2	
1000 to 18000	54	74	See Fugure A.1.14.	P

LTE Receiver Band 13

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT05aa/Set.2	Conclusion
30-88	40.00	See Fugure A.1.15.	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
			UT10aa/Set.2	
1000 to 18000	54	74	See Fugure A.1.16.	P

LTE Receiver Band 13

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT13aa/Set.2	Conclusion
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
			UT13aa/Set.2	
1000 to 18000	54	74	See Fugure A.1.18.	P

FM receiver

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT05aa/Set.1	
30-88	40.00	See Fugure A.1.19.	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
			UT05aa/Set.1	
1000 to 18000	54	74	See Fugure A.1.20.	P

Video Player

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT05aa/Set.1	
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
			UT05aa/Set.1	
1000 to 18000	54	74	See Fugure A.1.22.	P

Camera

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT05aa/Set.1	
30-88	40.00	See Fugure A.1.23.	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
			UT05aa/Set.1	
1000 to 18000	54	74	See Fugure A.1.24.	P

FM receiver

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT05aa/Set.2	
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
			UT05aa/Set.2	
1000 to 18000	54	74	See Fugure A.1.26.	P

FM receiver

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT10aa/Set.2	
30-88	40.00	See Fugure A.1.27.	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
			UT10aa/Set.2	
1000 to 18000	54	74	See Fugure A.1.28.	P

FM receiver

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT13aa/Set.2	
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
			UT13aa/Set.2	
1000 to 18000	54	74	See Fugure A.1.30.	P

Data Transfer : EUT to PC

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT05aa/Set.3	
30-88	40.00	See Fugure A.1.31.	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
			UT05aa/Set.3	
1000 to 18000	54	74	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
		UT05aa/Set.3	
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
			UT05aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.34.	P

Data Transfer : PC to TF Card

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT05aa/Set.3	
30-88	40.00	See Fugure A.1.35.	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
			UT05aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.36.	P

Data Transfer : TF Card to PC

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT05aa/Set.3	
30-88	40.00	See Fugure A.1.37.	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
			UT05aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.38.	P

Data Transfer : EUT to PC

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT10aa/Set.3	
30-88	40.00	See Fugure A.1.39.	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
			UT10aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.40.	P

Data Transfer : EUT to PC

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT13aa/Set.3	
30-88	40.00	See Fugure A.1.41.	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
			UT13aa/Set.3	
1000 to 18000	54	74	See Fugure A.1.42.	P

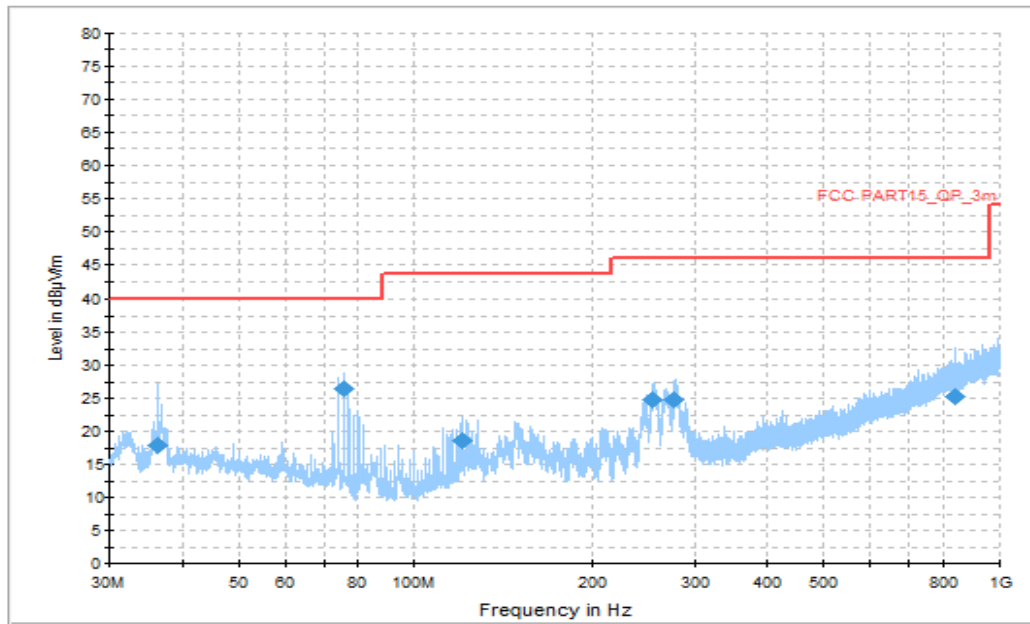


Figure A.1.1. Radiated Emission (GSM Receiver 850MHz, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P _{Mea} (dBµV)
36.256500	17.8	40.0	22.2	V	-22.8	40.60
75.638500	26.5	40.0	13.5	V	-25.9	52.4
121.034500	18.5	43.5	25.0	V	-24.1	42.6
254.555000	24.8	46.0	21.2	H	-23.7	48.5
276.719500	24.9	46.0	21.2	H	-22.4	47.3
840.920000	25.2	46.0	20.8	V	-10.5	35.7

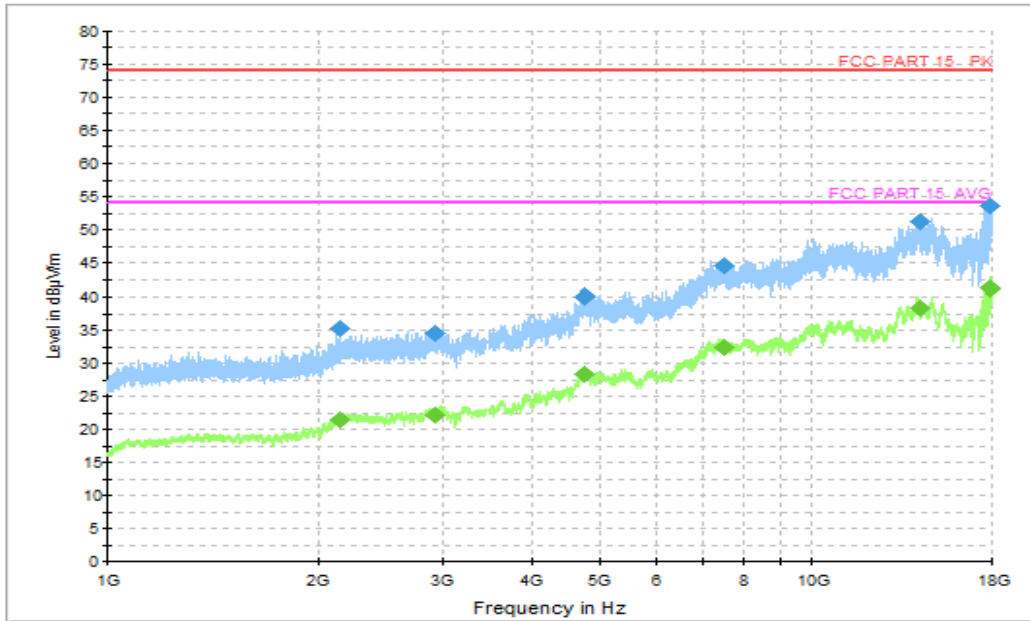


Figure A.1.2. Radiated Emission (GSM Receiver 850MHz,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2144.600000	35.2	74.0	38.8	H	-16.5	51.7
2933.600000	34.5	74.0	39.5	H	-14.5	49
4748.000000	40.1	74.0	33.9	H	-7.0	47.1
7503.200000	44.6	74.0	29.4	H	-1.1	45.7
14186.000000	51.2	74.0	22.8	H	7.1	44.1
17914.800000	53.5	74.0	20.5	V	12.5	41

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2144.600000	21.5	54.0	32.5	H	-16.5	38
2933.600000	22.0	54.0	32.0	H	-14.5	36.5
4748.000000	28.2	54.0	25.8	H	-7.0	35.2
7503.200000	32.4	54.0	21.6	H	-1.1	33.5
14186.000000	38.3	54.0	15.7	H	7.1	31.2
17914.800000	41.2	54.0	12.8	V	12.5	28.7

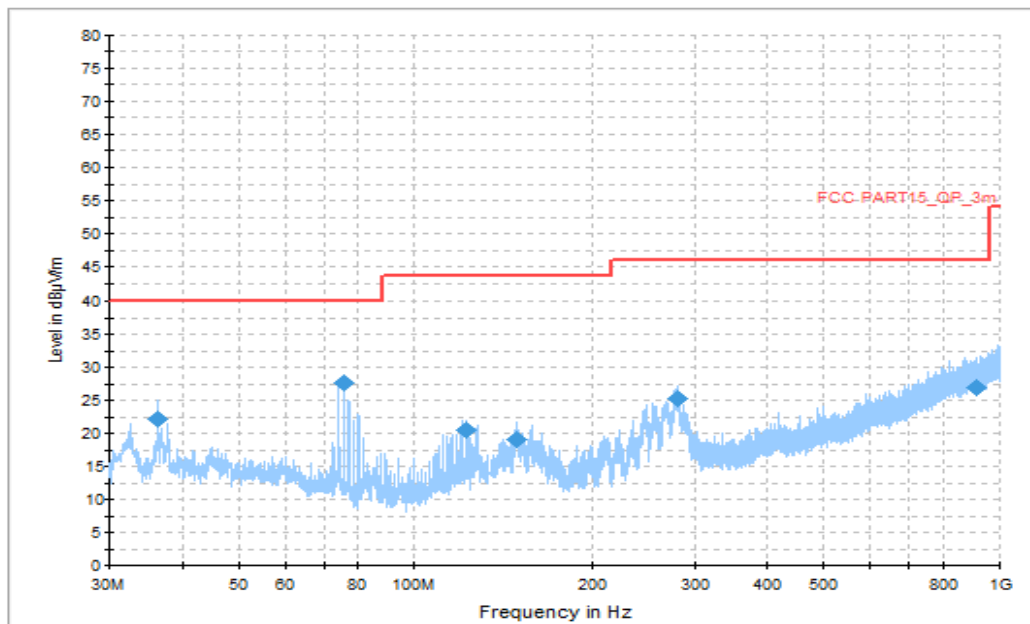


Figure A.1.3. Radiated Emission (WCDMA Receiver Band 5, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
36.353500	22.2	40.0	17.8	V	-22.8	45.00
75.687000	27.5	40.0	12.5	V	-25.9	53.4
122.635000	20.5	43.5	23.0	V	-24.0	44.5
149.067500	18.9	43.5	24.6	H	-22.8	41.7
280.308500	25.3	46.0	20.8	H	-22.1	47.4
912.021000	26.8	46.0	19.2	V	-9.3	36.1

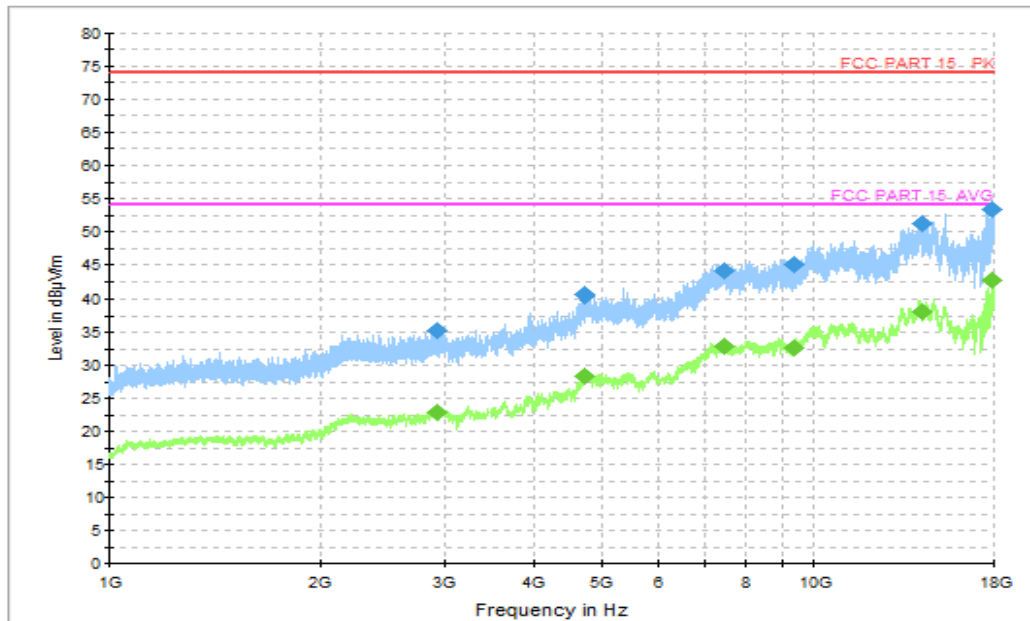


Figure A.1.4. Radiated Emission (WCDMA Receiver Band 5z,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2924.000000	35.2	74.0	38.8	V	-14.6	49.80
4710.400000	40.5	74.0	33.5	H	-7.3	47.8
7426.400000	44.1	74.0	29.9	V	-0.7	44.8
9372.800000	45.0	74.0	29.0	H	-1.0	46
14241.500000	51.1	74.0	22.9	V	7.1	44
17924.400000	53.3	74.0	20.7	V	12.5	40.80

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2924.000000	22.9	54.0	31.1	V	-14.6	37.50
4710.400000	28.2	54.0	25.8	H	-7.3	35.5
7426.400000	32.9	54.0	21.1	V	-0.7	33.6
9327.200000	32.7	54.0	21.3	H	-1.1	33.8
14241.500000	38.1	54.0	15.9	V	7.1	31
17924.400000	42.6	54.0	11.4	V	12.5	30.1

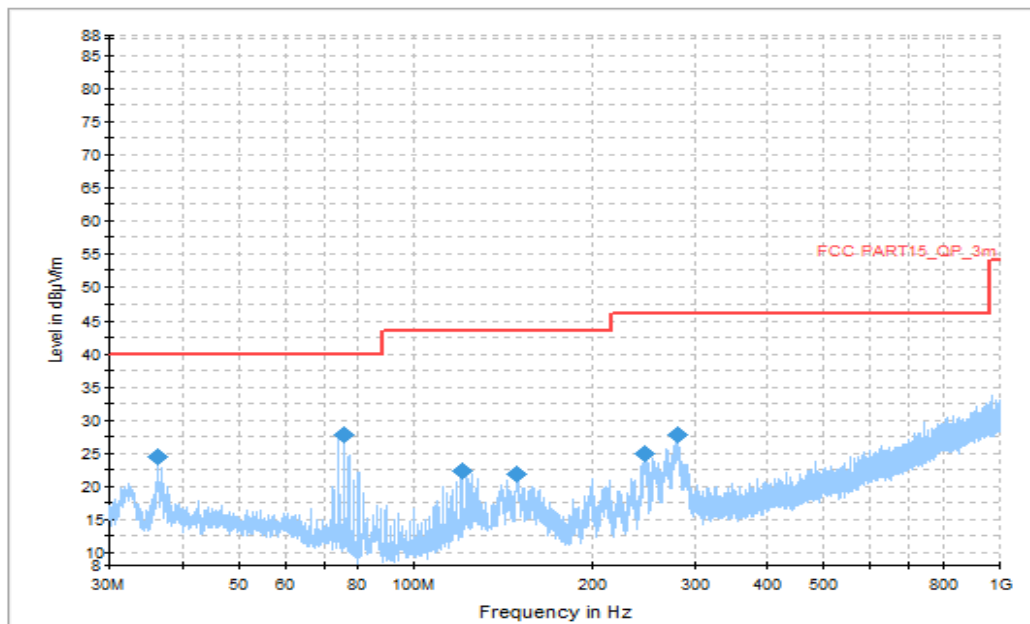


Figure A.1.5. Radiated Emission (LTE Receiver Band 5, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
36.305000	24.4	40.0	15.6	V	-22.8	47.20
75.638500	27.7	40.0	12.3	V	-25.9	53.60
121.131500	22.3	43.5	21.2	H	-24.1	46.4
148.679500	21.8	43.5	21.7	V	-22.8	44.60
245.388500	24.8	46.0	21.2	H	-23.6	48.4
279.581000	27.7	46.0	18.3	H	-22.1	49.80

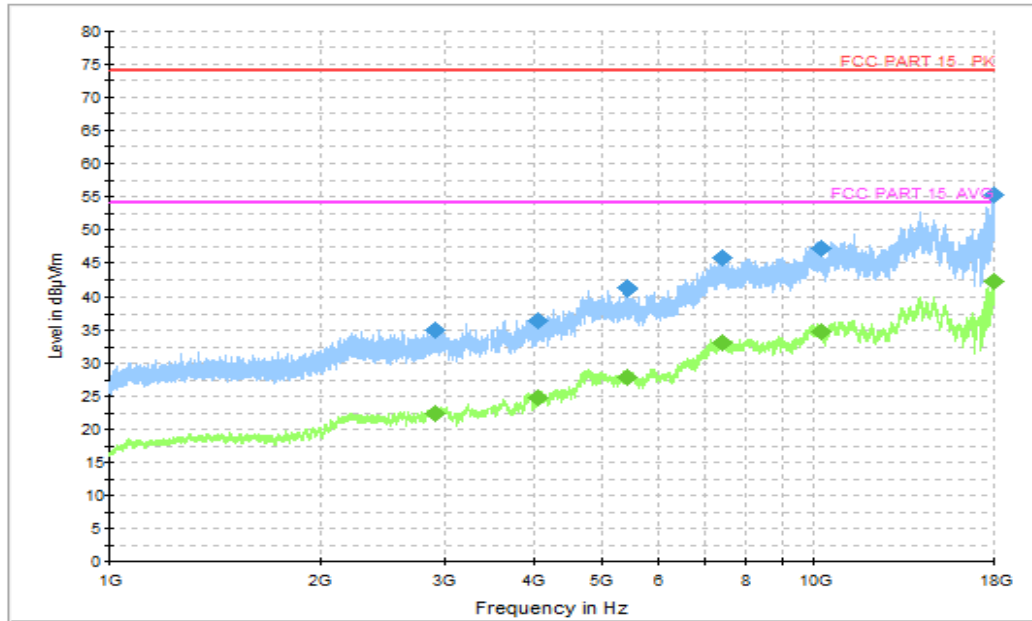


Figure A.1.6. Radiated Emission (LTE Receiver Band 5,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2899.800000	35.0	74.0	39.0	V	-14.7	49.70
4036.800000	36.5	74.0	37.5	H	-11.2	47.70
5403.200000	41.3	74.0	32.7	H	-6.6	47.9
7382.400000	45.8	74.0	28.2	H	-0.5	46.30
10196.000000	47.1	74.0	26.9	V	0.9	46.2
17977.200000	55.2	74.0	18.8	V	12.8	42.40

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2899.800000	22.4	54.0	31.6	V	-14.7	37.10
4036.800000	24.7	54.0	29.3	H	-11.2	35.90
5403.200000	27.8	54.0	26.2	H	-6.6	34.4
7382.400000	33.1	54.0	20.9	H	-0.5	33.60
10196.000000	34.8	54.0	19.2	V	0.9	33.9
17977.200000	42.2	54.0	11.8	V	12.8	29.40

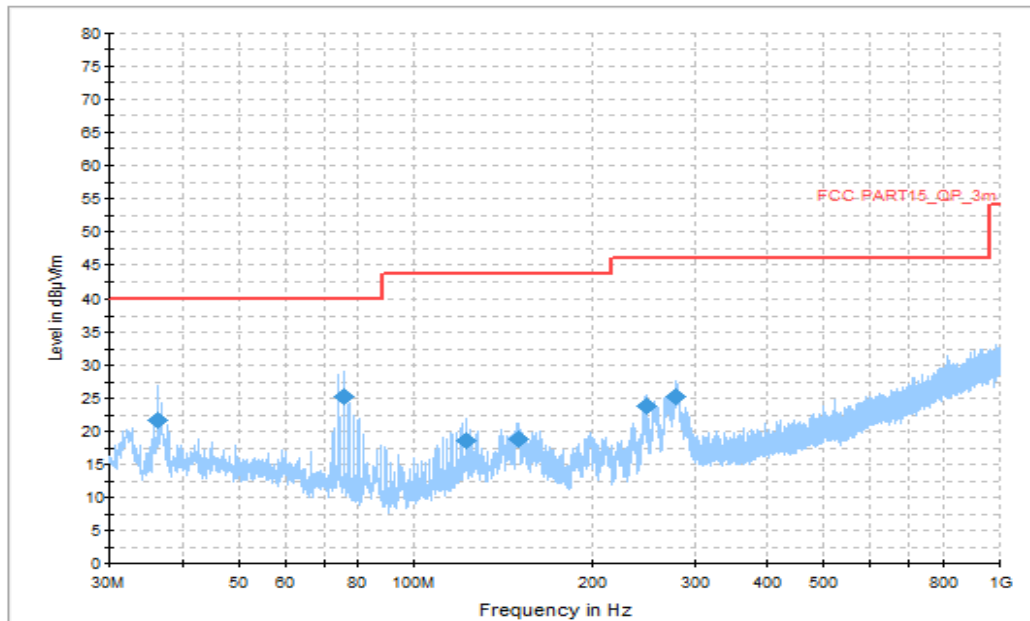


Figure A.1.7. Radiated Emission (LTE Receiver Band 12, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
36.305000	21.7	40.0	18.3	V	-22.8	44.50
75.687000	25.2	40.0	14.8	V	-25.9	51.10
122.635000	18.6	43.5	24.9	H	-24.0	42.6
149.795000	18.9	43.5	24.7	V	-22.8	41.70
247.619500	23.7	46.0	22.3	H	-23.7	47.4
278.756500	25.3	46.0	20.7	H	-22.2	47.50

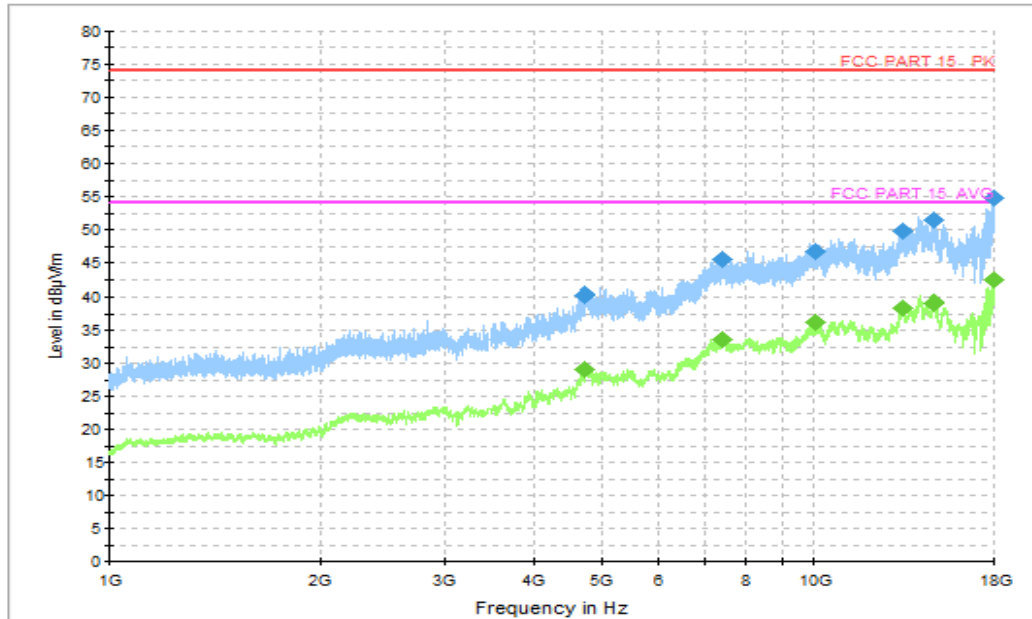


Figure A.1.8. Radiated Emission (LTE Receiver Band 12,,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
4716.800000	40.1	74.0	33.9	V	-7.2	47.30
7410.400000	45.5	74.0	28.5	V	-0.6	46.10
10012.800000	46.7	74.0	27.3	V	1.8	44.9
13320.000000	49.8	74.0	24.2	V	4.9	44.90
14760.000000	51.3	74.0	22.7	V	6.7	44.6
17977.200000	54.8	74.0	19.2	V	12.8	42.00

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
4716.800000	29.0	54.0	25.0	V	-7.0	36.00
7410.400000	33.5	54.0	20.5	V	-0.5	34.00
10012.800000	36.1	54.0	17.9	V	2.1	34
13320.000000	38.3	54.0	15.7	V	4.9	33.40
14760.000000	39.2	54.0	14.8	V	6.4	32.8
17977.200000	42.5	54.0	11.5	V	12.8	29.70

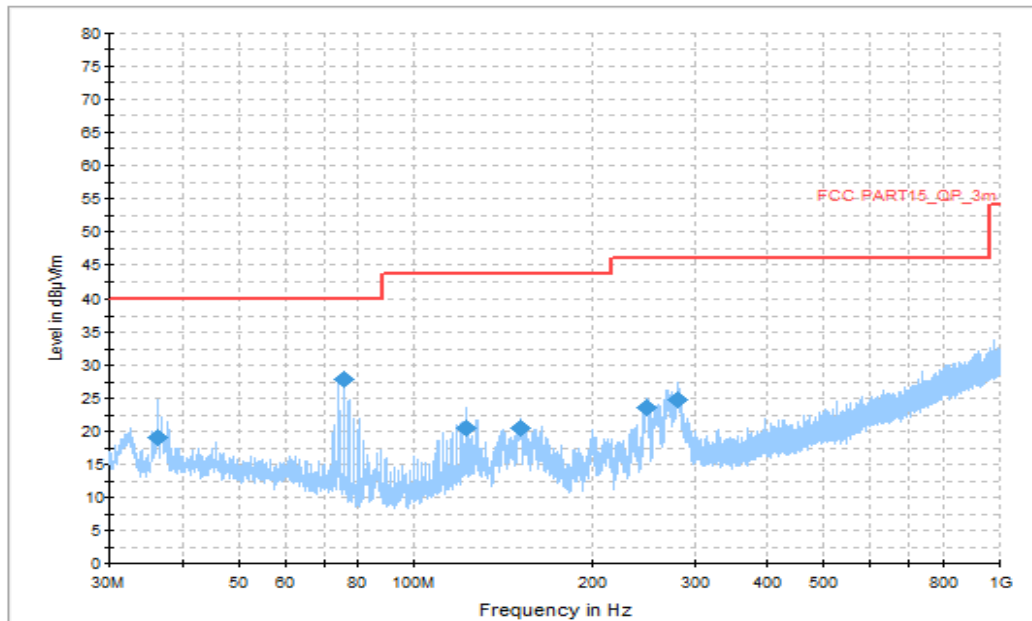


Figure A.1.9. Radiated Emission (LTE Receiver Band 13, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
36.256500	19.2	40.0	20.8	V	-22.8	42.00
75.735500	27.9	40.0	12.1	H	-25.9	53.80
122.683500	20.4	43.5	23.1	V	-24.0	44.4
150.716500	20.6	43.5	22.9	H	-22.8	43.40
248.250000	23.6	46.0	22.4	H	-23.7	47.3
281.133000	24.8	46.0	21.2	H	-22.1	46.90

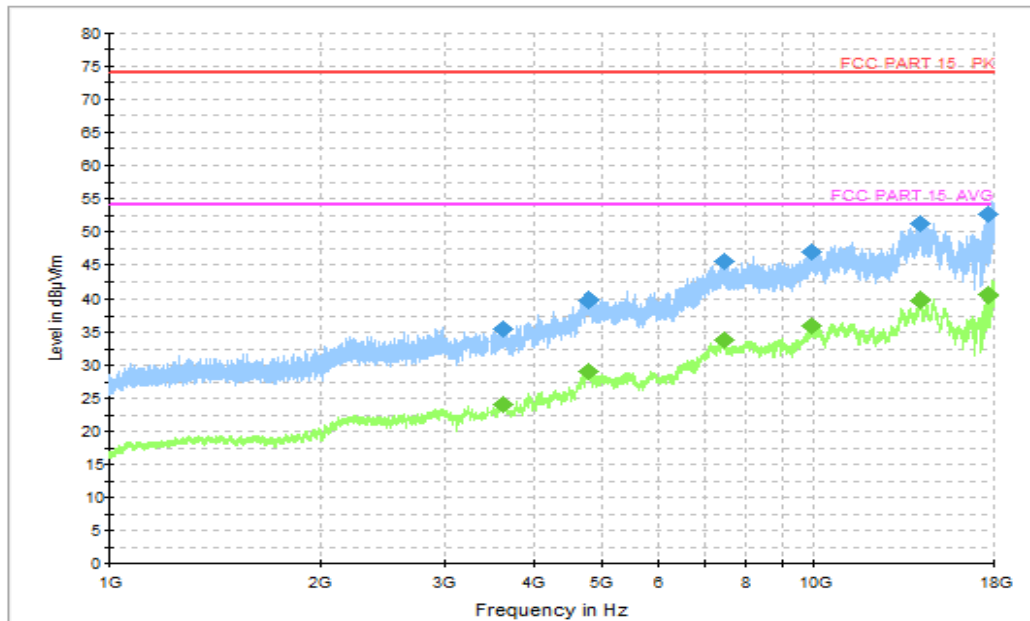


Figure A.1.10. Radiated Emission (LTE Receiver Band 13,,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
3596.800000	35.6	74.0	38.4	H	-12.9	48.50
4766.400000	39.8	74.0	34.2	H	-6.9	46.70
7424.800000	45.5	74.0	28.5	H	-0.6	46.1
9904.000000	46.8	74.0	27.2	H	1.8	45.00
14102.500000	51.2	74.0	22.8	V	6.5	44.7
17690.400000	52.7	74.0	21.3	V	11.3	41.40

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
3596.800000	24.1	54.0	29.9	H	-12.9	37.00
4766.400000	29.1	54.0	24.9	H	-6.9	36.00
7424.800000	33.8	54.0	20.2	H	-0.7	34.5
9904.000000	35.8	54.0	18.2	H	1.9	33.90
14102.500000	39.8	54.0	14.2	V	6.5	33.3
17690.400000	40.6	54.0	13.4	V	11.3	29.30

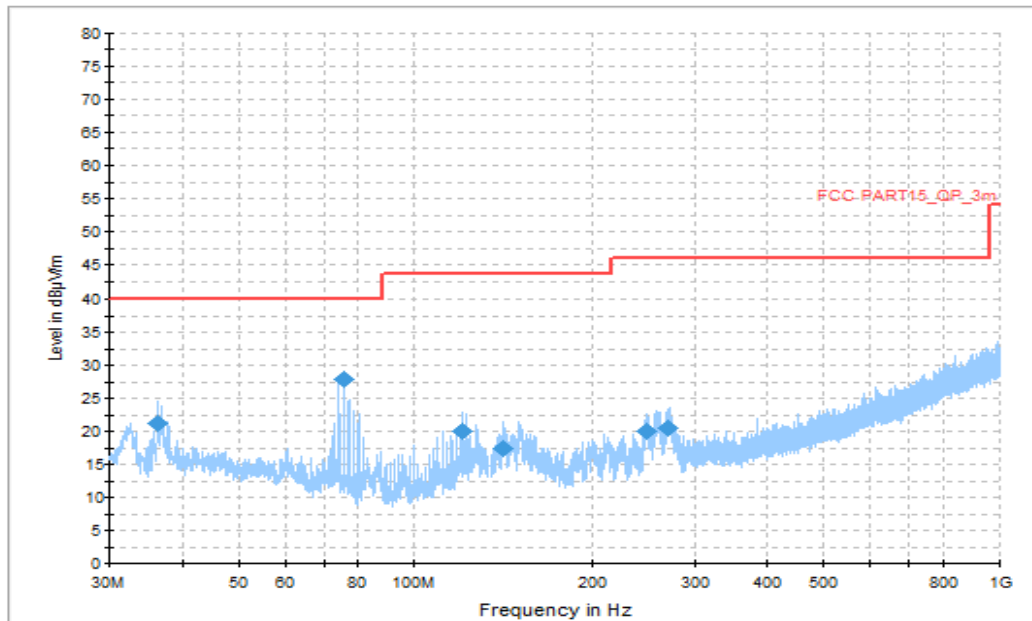


Figure A.1.11. Radiated Emission (LTE Receiver Band 17, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
36.353500	21.2	40.0	18.8	V	-22.8	44.00
75.735500	27.8	40.0	12.2	H	-25.9	53.70
121.180000	19.9	43.5	23.6	V	-24.1	44
140.774000	17.4	43.5	26.1	H	-22.8	40.20
248.201500	20.1	46.0	25.9	H	-23.7	43.8
270.996500	20.5	46.0	25.5	V	-22.9	43.40

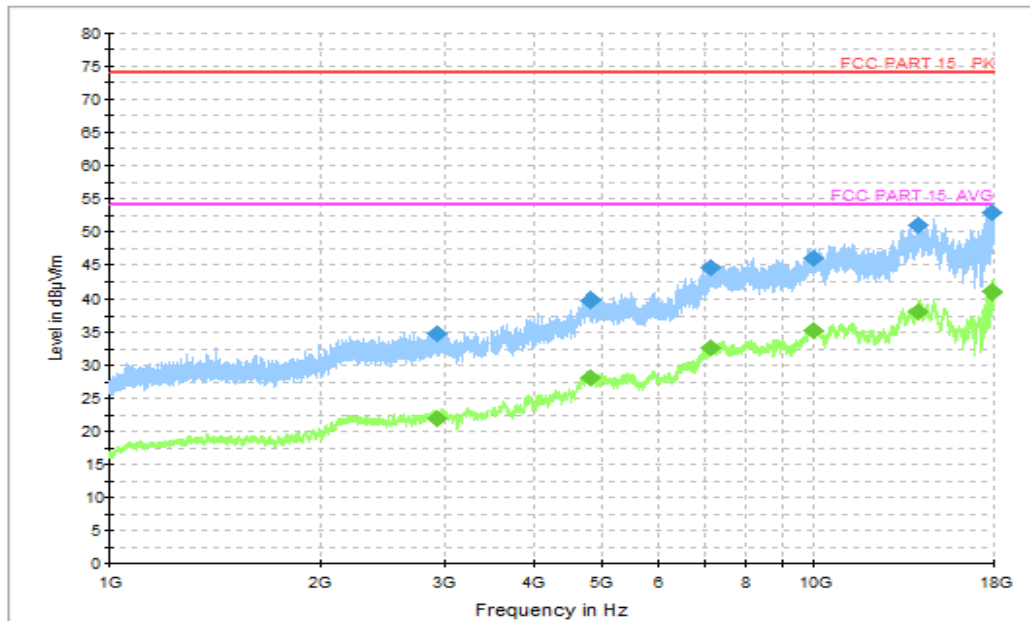


Figure A.1.12. Radiated Emission (LTE Receiver Band 17,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2933.000000	34.7	74.0	39.3	H	-14.5	49.20
4798.400000	39.7	74.0	34.3	V	-6.9	46.60
7124.800000	44.4	74.0	29.6	H	-0.8	45.2
9959.200000	46.0	74.0	28.0	V	2.1	43.90
14038.500000	50.9	74.0	23.1	V	6.0	44.9
17861.200000	53.0	74.0	21.0	H	12.2	40.80

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2933.000000	22.0	54.0	32.0	H	-14.5	36.50
4798.400000	28.2	54.0	25.8	V	-6.9	35.10
7124.800000	32.7	54.0	21.3	H	-0.8	33.5
9959.200000	35.1	54.0	18.9	V	2.1	33.00
14038.500000	38.2	54.0	15.8	V	6.0	32.2
17861.200000	40.9	54.0	13.1	H	12.2	28.70

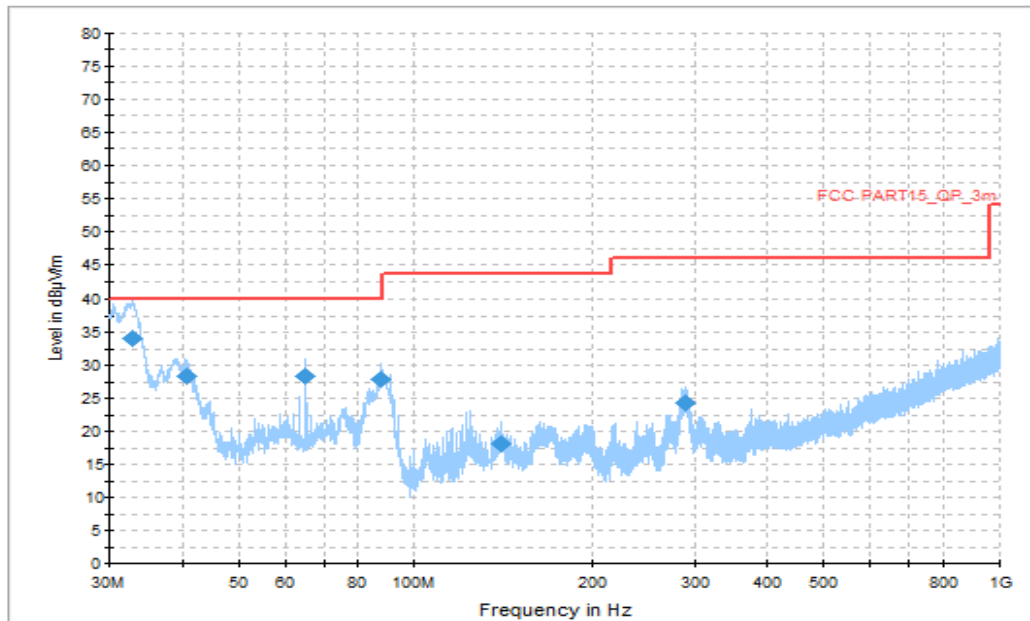


Figure A.1.13. Radiated Emission (LTE Receiver Band 13, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
33.007000	34.0	40.0	6.0	V	-23.4	57.40
40.767000	28.3	40.0	11.7	V	-21.9	50.20
65.162500	28.4	40.0	11.6	V	-23.9	52.3
87.909000	27.8	40.0	12.2	V	-26.8	54.60
140.095000	18.0	43.5	25.5	H	-22.8	40.8
288.214000	24.4	46.0	21.7	H	-22.3	46.70

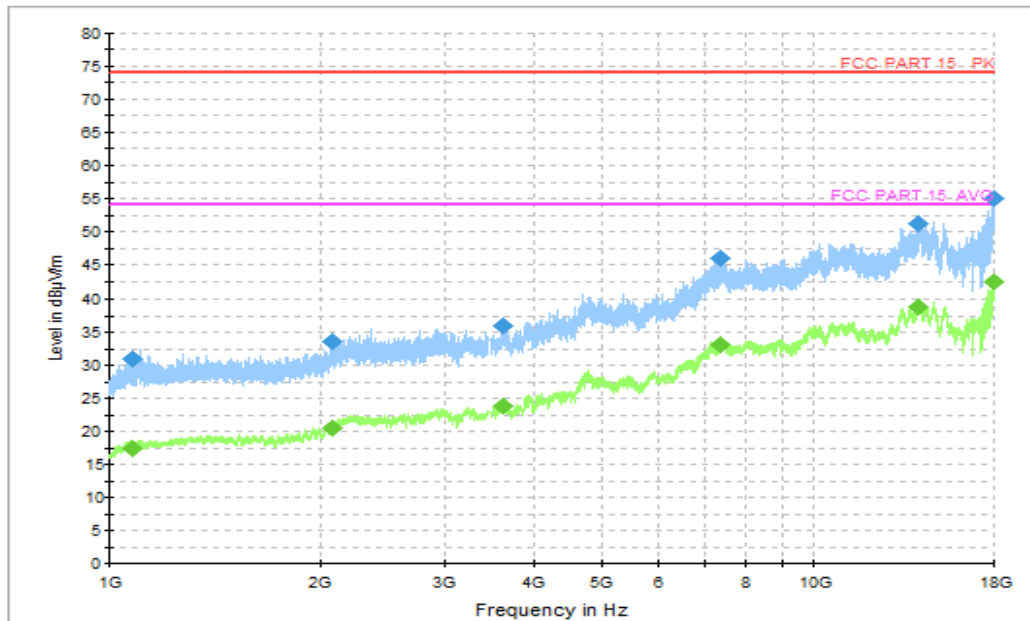


Figure A.1.14. Radiated Emission (LTE Receiver Band 13,,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1079.800000	31.0	74.0	43.0	V	-20.8	51.80
2071.000000	33.6	74.0	40.4	H	-17.3	50.90
3610.400000	35.8	74.0	38.2	H	-12.7	48.5
7351.200000	45.8	74.0	28.2	H	-0.7	46.50
14078.500000	51.2	74.0	22.8	H	6.3	44.9
17973.200000	55.0	74.0	19.0	V	12.8	42.20

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1079.800000	17.3	54.0	36.7	V	-20.8	38.10
2071.000000	20.5	54.0	33.5	H	-17.3	37.80
3610.400000	23.9	54.0	30.1	H	-12.7	36.6
7351.200000	33.0	54.0	21.0	H	-0.7	33.70
14078.500000	38.8	54.0	15.2	H	6.3	32.5
17973.200000	42.4	54.0	11.6	V	12.8	29.60

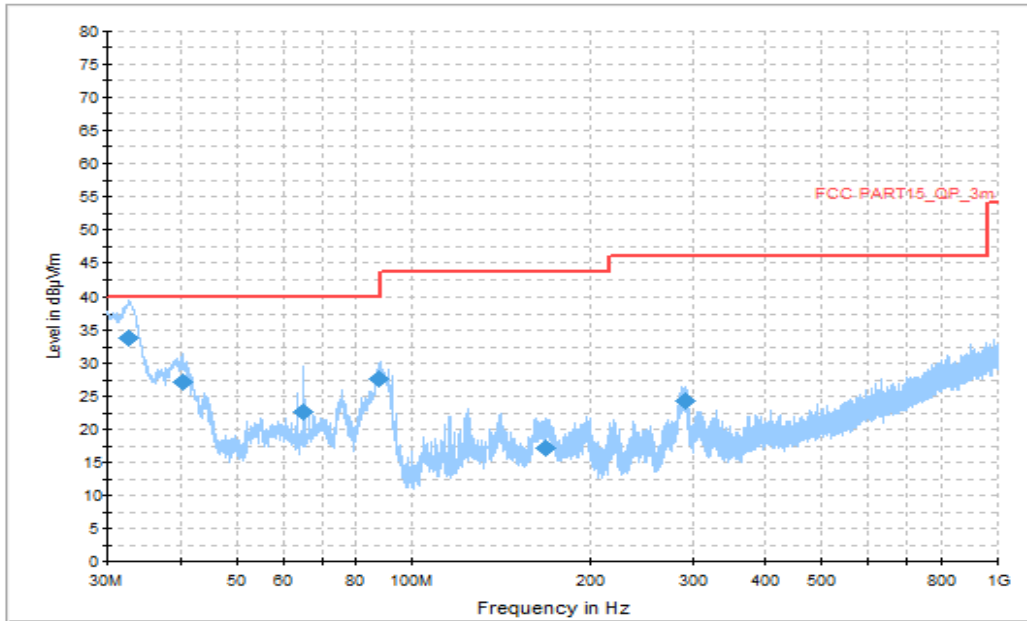


Figure A.1.15. Radiated Emission (LTE Receiver Band 13, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
32.619000	33.8	40.0	6.2	V	-23.4	57.20
40.379000	27.2	40.0	12.8	V	-21.8	49.00
65.162500	22.6	40.0	17.4	V	-23.9	46.5
87.715000	27.5	40.0	12.5	V	-26.8	54.30
168.273500	17.2	43.5	26.3	V	-23.7	40.9
290.978500	24.3	46.0	21.7	H	-22.3	46.60

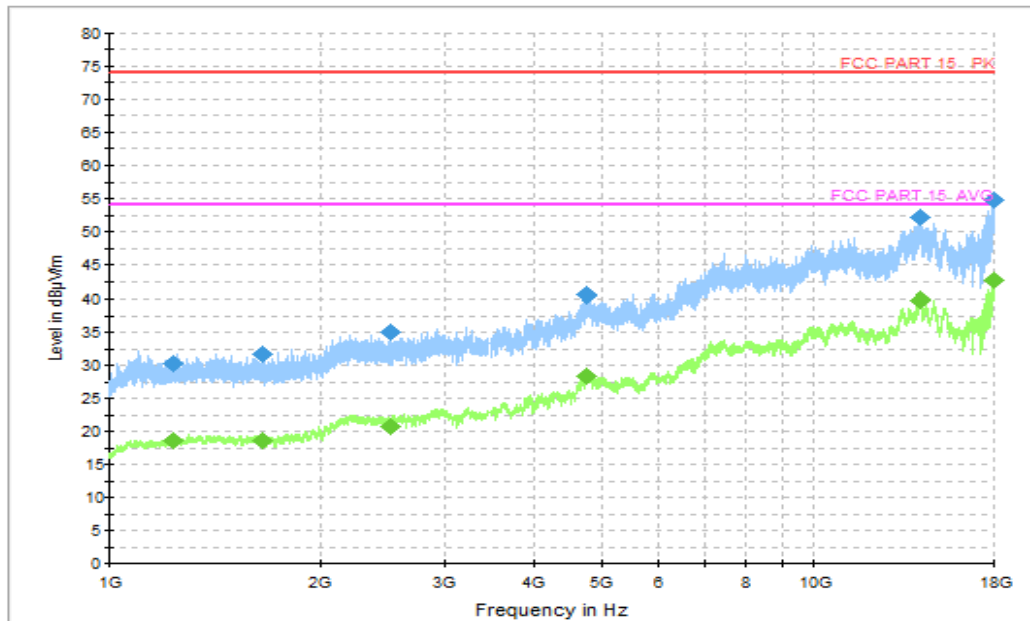


Figure A.1.16. Radiated Emission (LTE Receiver Band 13,,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1229.600000	30.3	74.0	43.7	V	-20.5	50.80
1653.400000	31.6	74.0	42.4	V	-19.8	51.40
2511.000000	34.9	74.0	39.1	V	-15.7	50.6
4749.600000	40.5	74.0	33.5	V	-7.0	47.50
14132.000000	52.2	74.0	21.8	H	6.7	45.5
17984.800000	54.8	74.0	19.2	V	12.8	42.00

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1229.600000	18.5	54.0	35.5	V	-20.5	39.00
1653.400000	18.6	54.0	35.4	V	-19.8	38.40
2511.000000	20.8	54.0	33.2	V	-15.7	36.5
4749.600000	28.2	54.0	25.8	V	-7.0	35.20
14132.000000	39.7	54.0	14.3	H	6.7	33
17984.800000	42.7	54.0	11.3	V	12.8	29.90

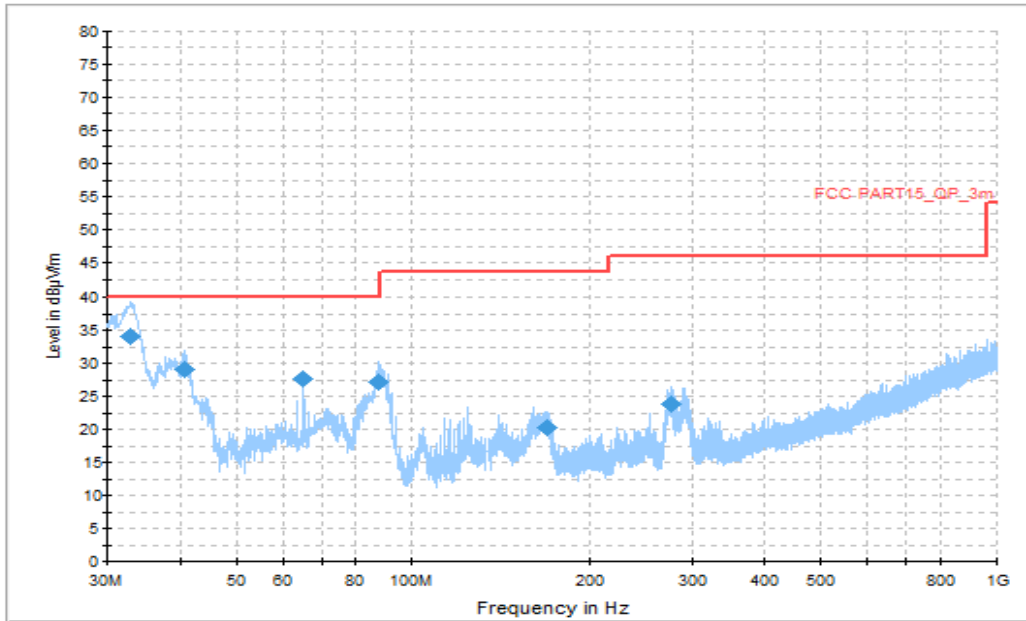


Figure A.1.17. Radiated Emission (LTE Receiver Band 13, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
33.007000	34.0	40.0	6.0	V	-23.4	57.40
40.621500	29.0	40.0	11.0	V	-21.8	50.80
65.162500	27.7	40.0	12.3	V	-23.9	51.6
87.860500	27.1	40.0	12.9	V	-26.8	53.90
169.340500	20.3	43.5	23.2	V	-23.8	44.1
275.458500	23.9	46.0	22.1	H	-22.5	46.40

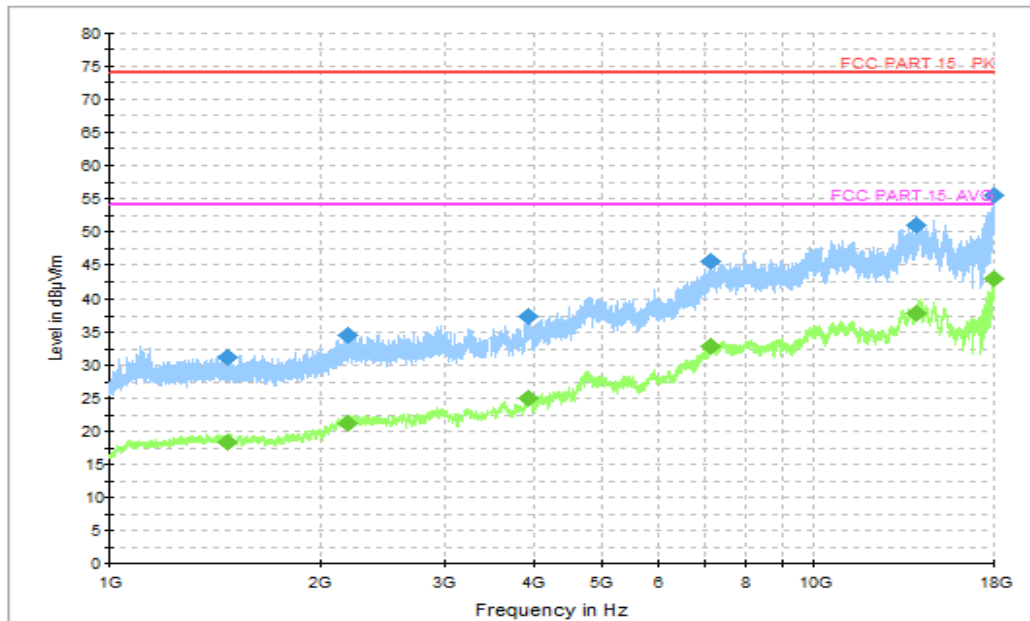


Figure A.1.18. Radiated Emission (LTE Receiver Band 13,,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1477.200000	31.3	74.0	42.7	V	-20.0	51.30
2186.600000	34.5	74.0	39.5	V	-16.1	50.60
3925.600000	37.3	74.0	36.7	V	-10.7	48
7120.000000	45.4	74.0	28.6	H	-0.8	46.20
13999.500000	50.9	74.0	23.1	H	5.7	45.2
17988.800000	55.4	74.0	18.6	V	12.9	42.50

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1477.200000	18.4	54.0	35.6	V	-20.0	38.40
2186.600000	21.2	54.0	32.8	V	-16.1	37.30
3925.600000	24.9	54.0	29.1	V	-10.7	35.6
7120.000000	32.9	54.0	21.1	H	-0.8	33.70
13999.500000	38.0	54.0	16.0	H	5.7	32.3
17988.800000	42.8	54.0	11.2	V	12.9	29.90

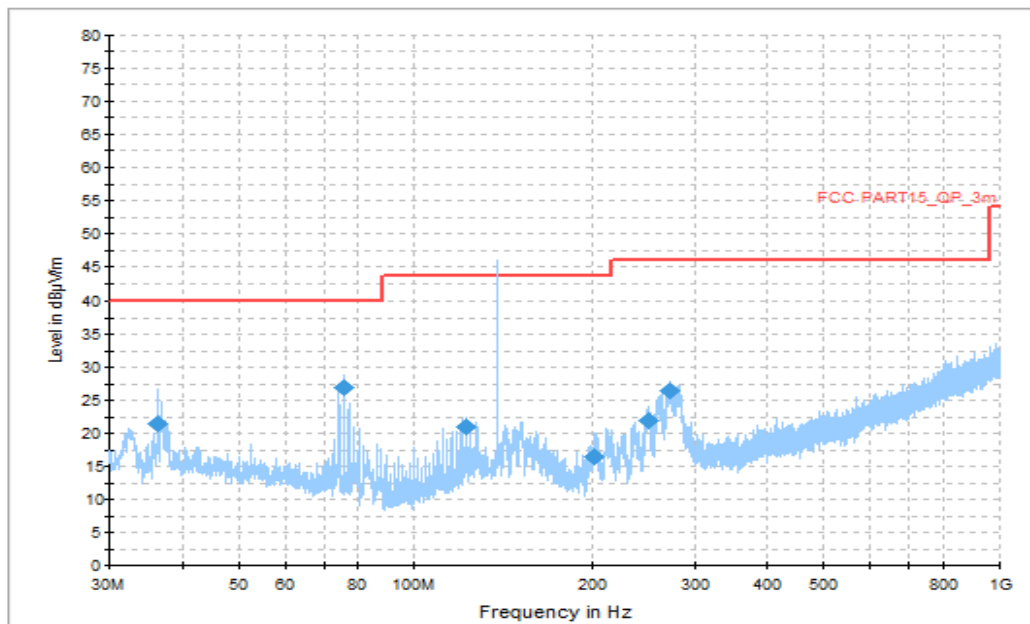


Figure A.1.19. Radiated Emission (FM receiver, 30MHz to 1GHz)

Note: the spike close to the limit is coming from the traffic carrier.

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
36.353500	21.5	40.0	18.5	V	-22.8	44.30
75.735500	26.9	40.0	13.1	V	-25.9	52.8
122.732000	21.0	43.5	22.5	V	-24.0	45.00
202.126500	16.5	43.5	27.1	H	-25.6	42.10
249.899000	21.9	46.0	24.1	H	-23.7	45.6
272.839500	26.4	46.0	19.6	H	-22.7	49.10

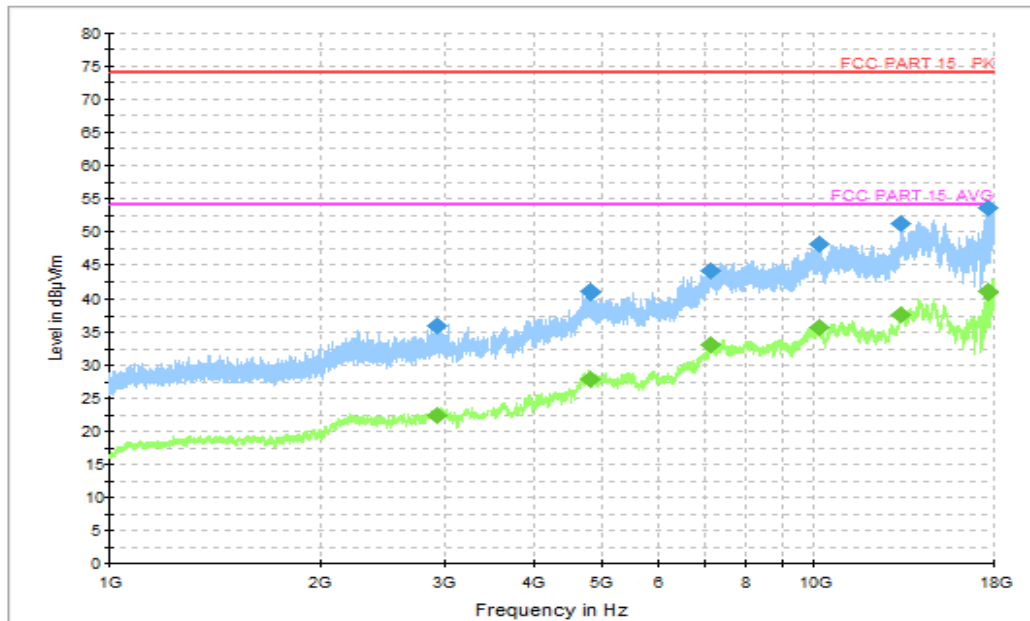


Figure A.1.20. Radiated Emission (FM receiver,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2921.000000	36.0	74.0	38.0	V	-14.6	50.60
4800.800000	40.9	74.0	33.1	H	-6.9	47.8
7124.000000	44.0	74.0	30.0	V	-0.8	44.80
10144.000000	48.1	74.0	25.9	H	1.1	47.00
13254.000000	51.2	74.0	22.8	V	4.6	46.6
17692.400000	53.5	74.0	20.5	V	11.3	42.20

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2921.000000	22.4	54.0	31.6	V	-14.6	37.00
4800.800000	27.9	54.0	26.1	H	-6.9	34.8
7124.000000	33.1	54.0	20.9	V	-0.8	33.90
10144.000000	35.7	54.0	18.3	H	1.1	34.60
13254.000000	37.7	54.0	16.3	V	4.6	33.1
17692.400000	40.9	54.0	13.1	V	11.3	29.60

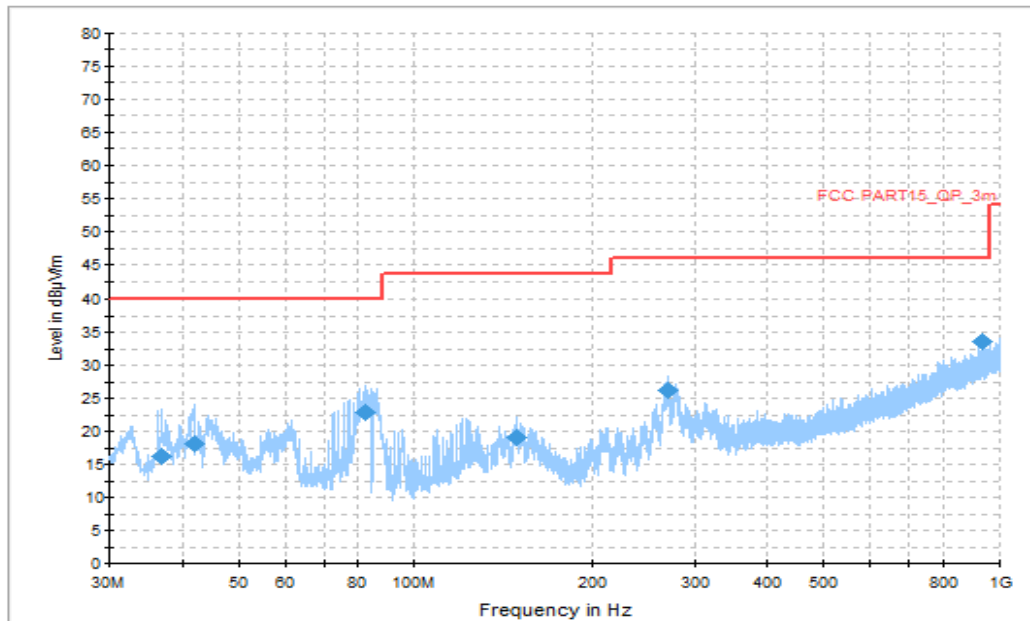


Figure A.1.21. Radiated Emission (Video Player, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
36.838500	16.2	40.0	23.8	V	-22.6	38.80
41.882500	18.2	40.0	21.8	H	-21.9	40.1
82.331500	23.0	40.0	17.0	V	-26.8	49.80
148.776500	19.1	43.5	24.5	V	-22.8	41.90
269.202000	26.1	46.0	19.9	H	-23.0	49.1
932.973000	33.6	46.0	12.4	H	-9.1	42.70

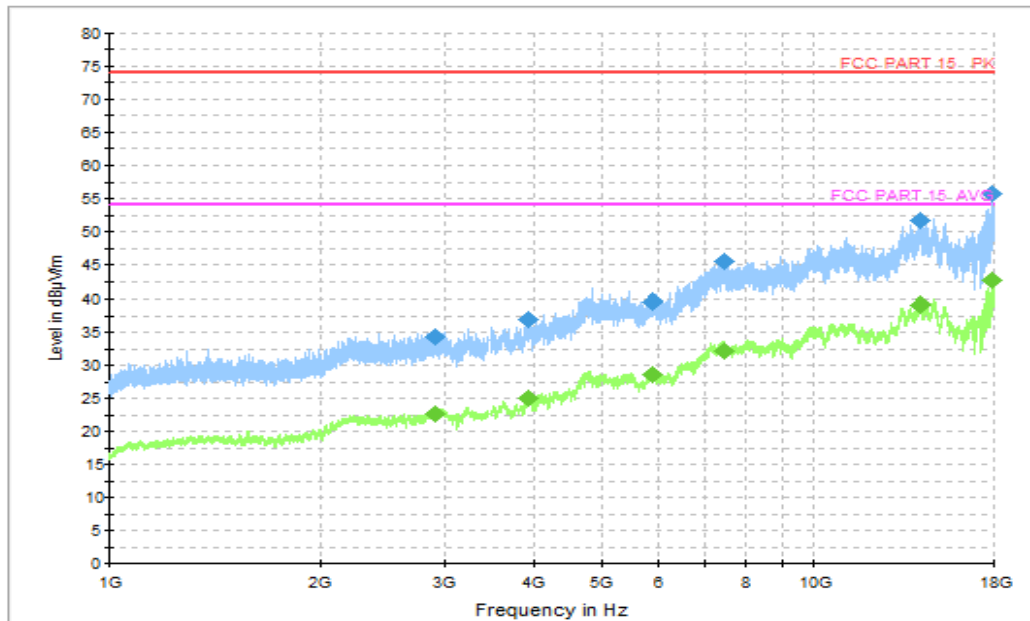


Figure A.1.22. Radiated Emission (Video Player,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2913.200000	34.3	74.0	39.7	V	-14.6	48.90
3917.600000	36.8	74.0	37.2	H	-10.7	47.5
5892.800000	39.6	74.0	34.4	H	-5.9	45.50
7466.400000	45.5	74.0	28.5	H	-0.9	46.40
14107.000000	51.6	74.0	22.4	H	6.5	45.1
17926.800000	55.8	74.0	18.2	V	12.5	43.30

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2913.200000	22.7	54.0	31.3	V	-14.6	37.30
3917.600000	25.0	54.0	29.0	H	-10.7	35.7
5892.800000	28.5	54.0	25.5	H	-5.9	34.40
7466.400000	32.1	54.0	21.9	H	-0.9	33.00
14107.000000	39.0	54.0	15.0	H	6.5	32.5
17926.800000	42.7	54.0	11.3	V	12.5	30.20

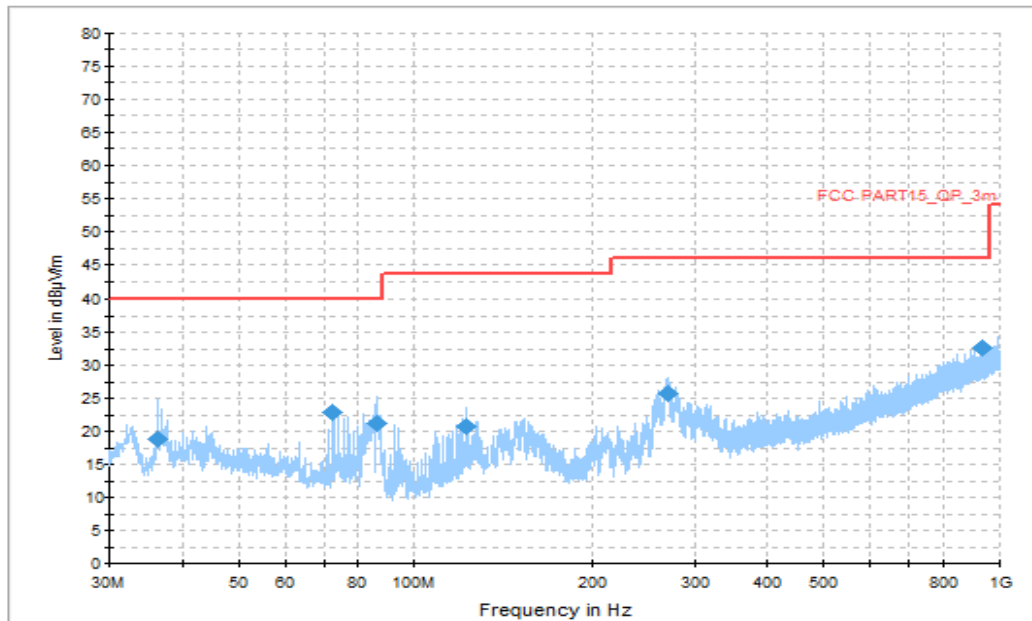


Figure A.1.23. Radiated Emission (Camera, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
36.305000	18.8	40.0	21.2	V	-22.8	41.60
72.631500	22.8	40.0	17.2	V	-25.2	48
86.211500	21.1	40.0	18.9	V	-26.8	47.90
122.586500	20.6	43.5	22.9	H	-24.0	44.60
269.881000	25.7	46.0	20.3	H	-23.0	48.7
933.021500	32.7	46.0	13.4	H	-9.1	41.80

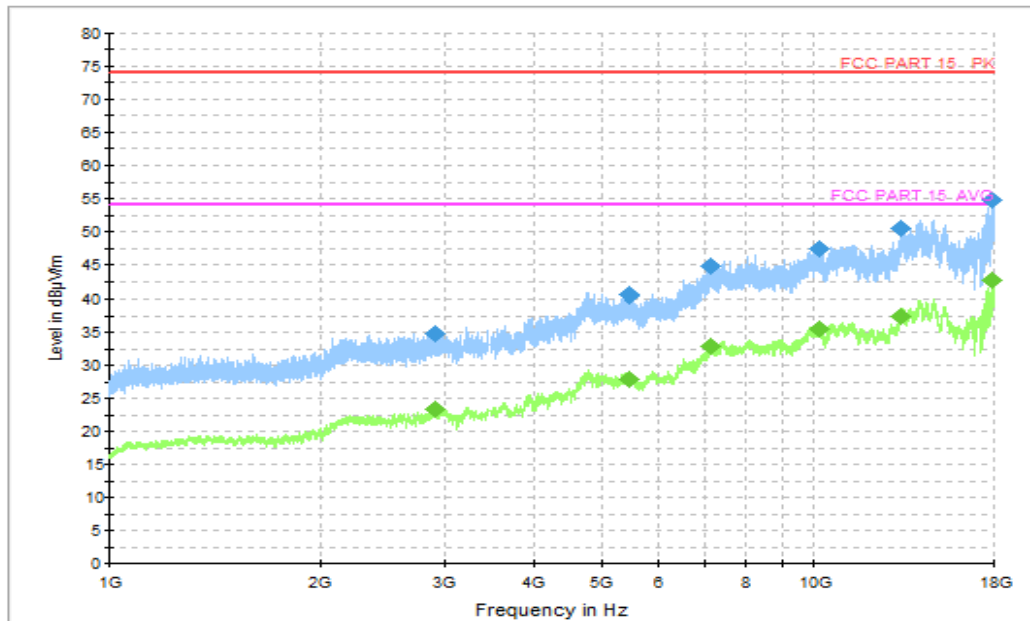


Figure A.1.24. Radiated Emission (Camera,18GHz to 30GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2914.400000	34.8	74.0	39.2	V	-14.6	49.40
5468.800000	40.6	74.0	33.4	H	-6.7	47.3
7127.200000	44.8	74.0	29.2	V	-0.8	45.60
10183.200000	47.3	74.0	26.7	H	1.0	46.30
13280.500000	50.4	74.0	23.6	H	4.8	45.6
17924.800000	54.7	74.0	19.3	H	12.5	42.20

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2914.400000	23.2	54.0	30.8	V	-14.6	37.80
5468.800000	28.0	54.0	26.0	H	-6.7	34.7
7127.200000	32.9	54.0	21.1	V	-0.8	33.70
10183.200000	35.4	54.0	18.6	H	1.0	34.40
13280.500000	37.4	54.0	16.6	H	4.8	32.6
17924.800000	42.7	54.0	11.3	H	12.5	30.20

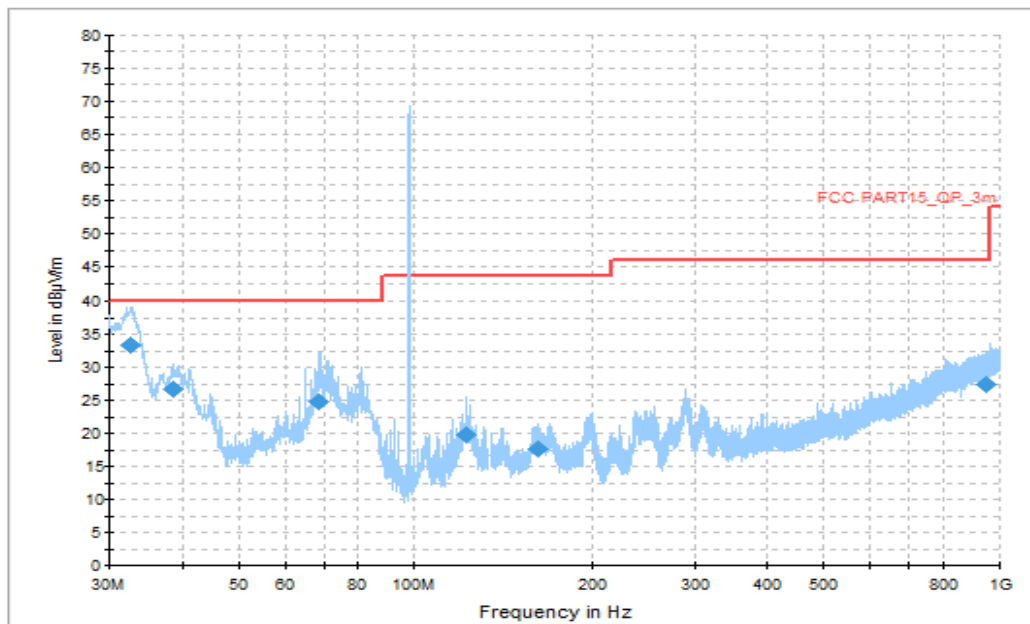


Figure A.1.25. Radiated Emission (FM receiver, 30MHz to 1GHz)

Note: the spike close to the limit is coming from the traffic carrier.

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
32.619000	33.4	40.0	6.6	H	-23.4	56.80
38.487500	26.7	40.0	13.3	V	-22.2	48.9
68.800000	24.7	40.0	15.3	V	-24.5	49.20
122.683500	19.7	43.5	23.8	V	-24.0	43.70
161.726000	17.7	43.5	25.8	V	-23.0	40.7
948.347500	27.3	46.0	18.7	V	-8.8	36.10

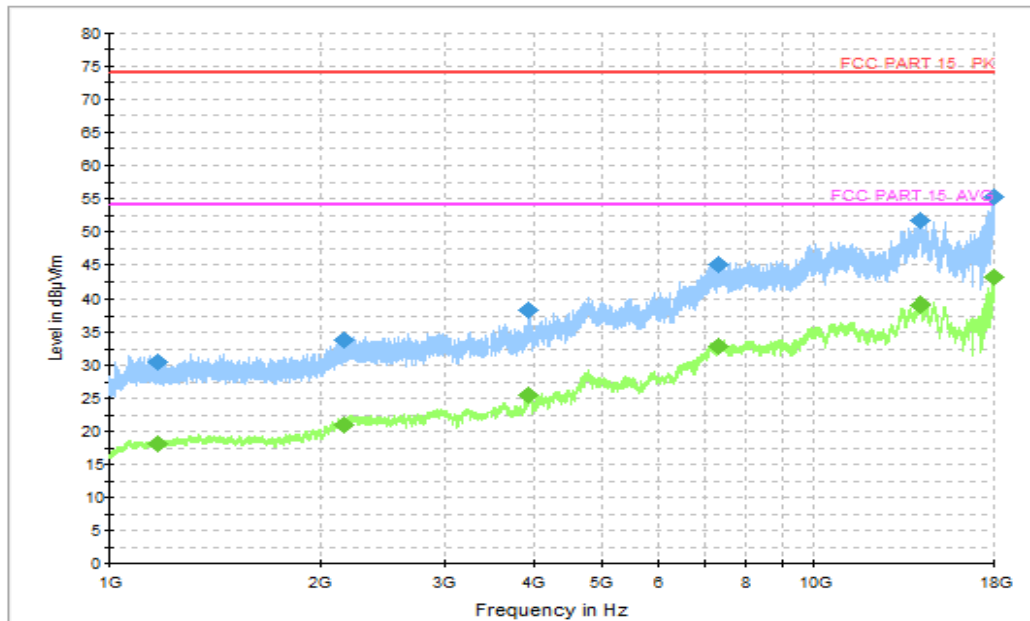


Figure A.1.26. Radiated Emission (FM receiver,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1173.800000	30.4	74.0	43.6	V	-20.8	51.20
2154.600000	33.9	74.0	40.1	H	-16.4	50.3
3916.000000	38.3	74.0	35.7	V	-10.8	49.10
7301.600000	45.0	74.0	29.0	V	-1.1	46.10
14103.500000	51.6	74.0	22.4	V	6.5	45.1
17984.400000	55.2	74.0	18.8	V	12.8	42.40

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1173.800000	18.1	54.0	35.9	V	-20.8	38.90
2154.600000	21.0	54.0	33.0	H	-16.4	37.4
3916.000000	25.4	54.0	28.6	V	-10.8	36.20
7301.600000	32.9	54.0	21.1	V	-1.1	34.00
14103.500000	39.0	54.0	15.0	V	6.5	32.5
17984.400000	43.1	54.0	10.9	V	12.8	30.30

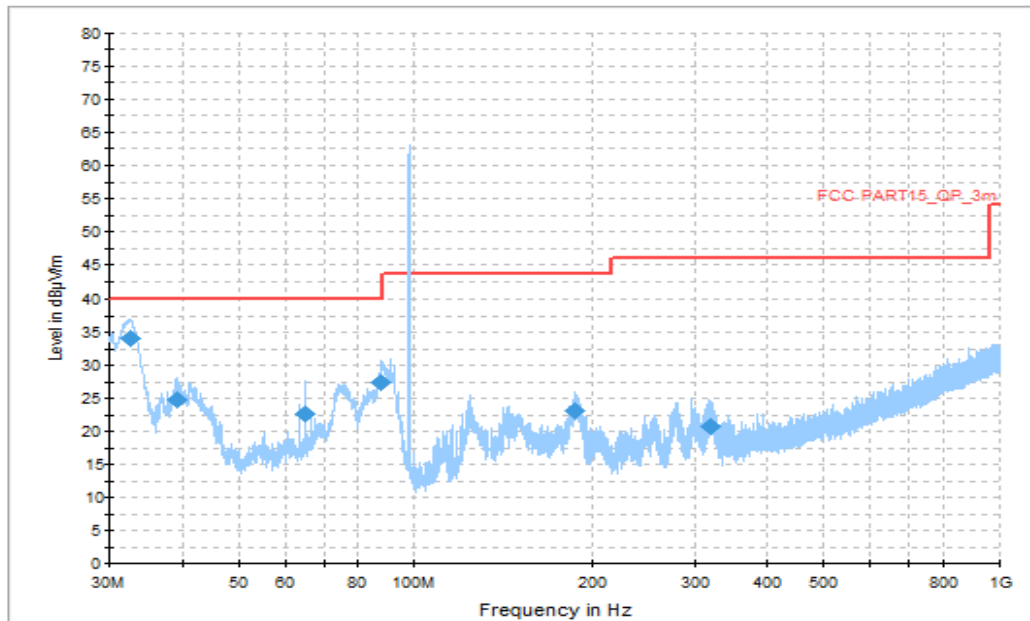


Figure A.1.27. Radiated Emission (FM receiver, 30MHz to 1GHz)

Note: the spike close to the limit is coming from the traffic carrier.

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
32.619000	33.9	40.0	6.1	V	-23.4	57.30
39.360500	24.7	40.0	15.3	V	-22.0	46.7
65.065500	22.7	40.0	17.3	H	-23.9	46.60
87.763500	27.3	40.0	12.7	V	-26.8	54.10
186.752000	23.0	43.5	20.5	H	-25.2	48.2
319.836000	20.7	46.0	25.4	H	-21.9	42.60

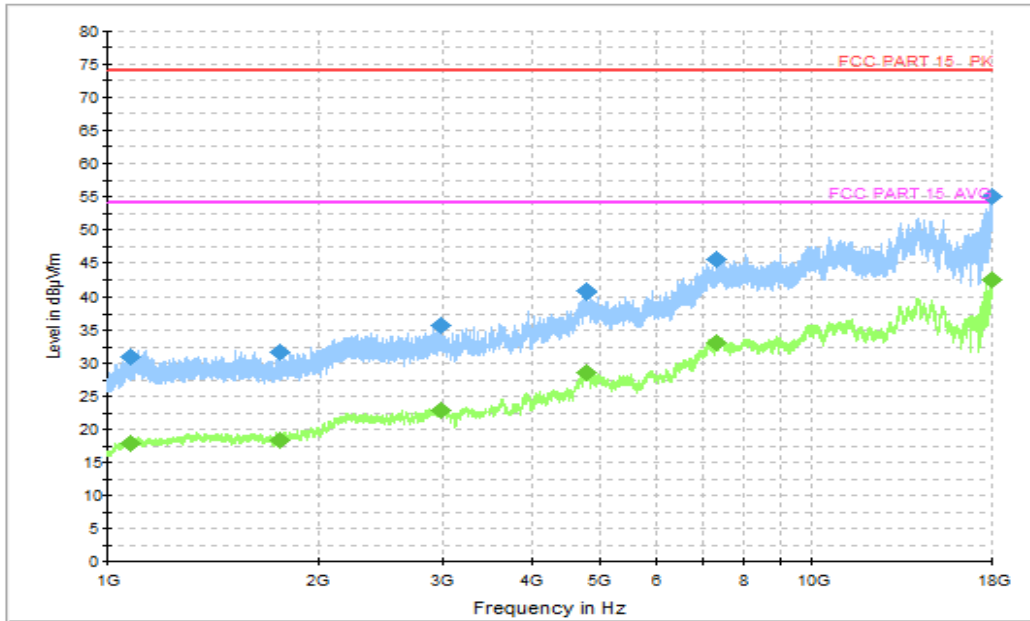


Figure A.1.28. Radiated Emission (FM receiver,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1080.400000	30.9	74.0	43.1	V	-20.8	51.70
1761.800000	31.6	74.0	42.4	V	-19.6	51.2
2982.200000	35.8	74.0	38.2	H	-14.3	50.10
4775.200000	40.6	74.0	33.4	H	-6.8	47.40
7293.600000	45.4	74.0	28.6	V	-1.1	46.5
17959.600000	55.1	74.0	18.9	V	12.7	42.40

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1080.400000	17.9	54.0	36.1	V	-20.8	38.70
1761.800000	18.3	54.0	35.7	V	-19.6	37.9
2982.200000	22.8	54.0	31.2	H	-14.3	37.10
4775.200000	28.7	54.0	25.3	H	-6.8	35.50
7293.600000	33.0	54.0	21.0	V	-1.1	34.1
17959.600000	42.5	54.0	11.5	V	12.7	29.80

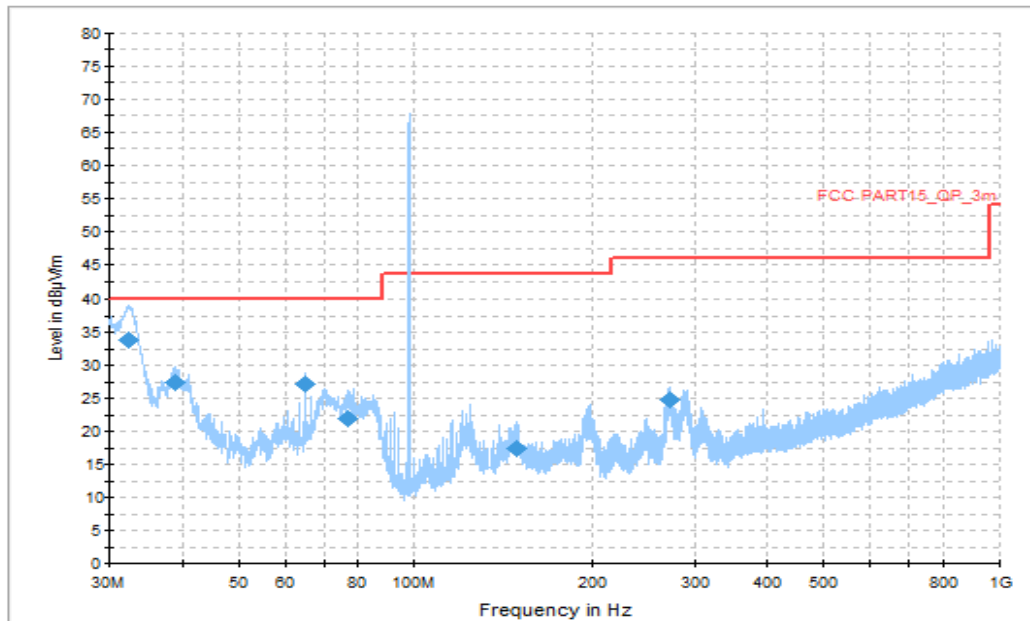


Figure A.1.29. Radiated Emission (FM receiver, 30MHz to 1GHz)

Note: the spike close to the limit is coming from the traffic carrier.

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
32.279500	33.7	40.0	6.3	V	-23.5	57.20
38.778500	27.4	40.0	12.6	V	-22.1	49.5
65.114000	27.1	40.0	12.9	V	-23.9	51.00
77.190500	21.8	40.0	18.2	H	-26.2	48.00
148.194500	17.4	43.5	26.1	V	-22.8	40.2
271.384500	24.7	46.0	21.3	H	-22.8	47.50

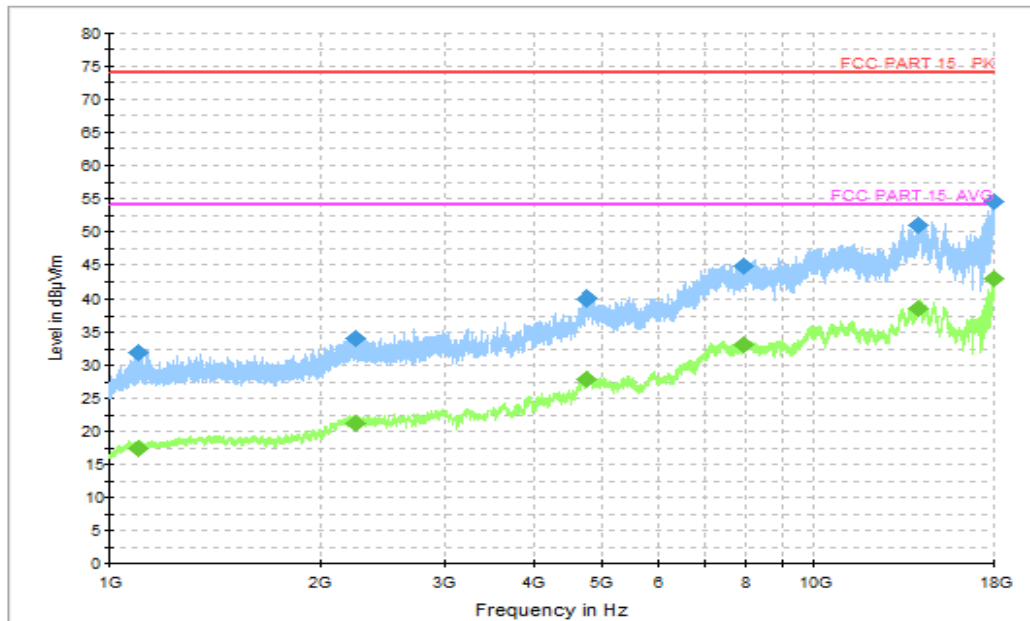


Figure A.1.30. Radiated Emission (FM receiver,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1098.200000	31.9	74.0	42.1	V	-20.8	52.70
2244.600000	33.9	74.0	40.1	V	-16.1	50
4753.600000	40.1	74.0	33.9	V	-7.0	47.10
7932.800000	44.8	74.0	29.2	H	-1.1	45.90
14079.000000	51.0	74.0	23.0	V	6.3	44.7
17986.400000	54.6	74.0	19.4	V	12.8	41.80

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1098.200000	17.4	54.0	36.6	V	-20.8	38.20
2244.600000	21.3	54.0	32.7	V	-16.1	37.4
4753.600000	27.9	54.0	26.1	V	-7.0	34.90
7932.800000	33.1	54.0	20.9	H	-1.1	34.20
14079.000000	38.6	54.0	15.4	V	6.3	32.3
17986.400000	42.8	54.0	11.2	V	12.8	30.00

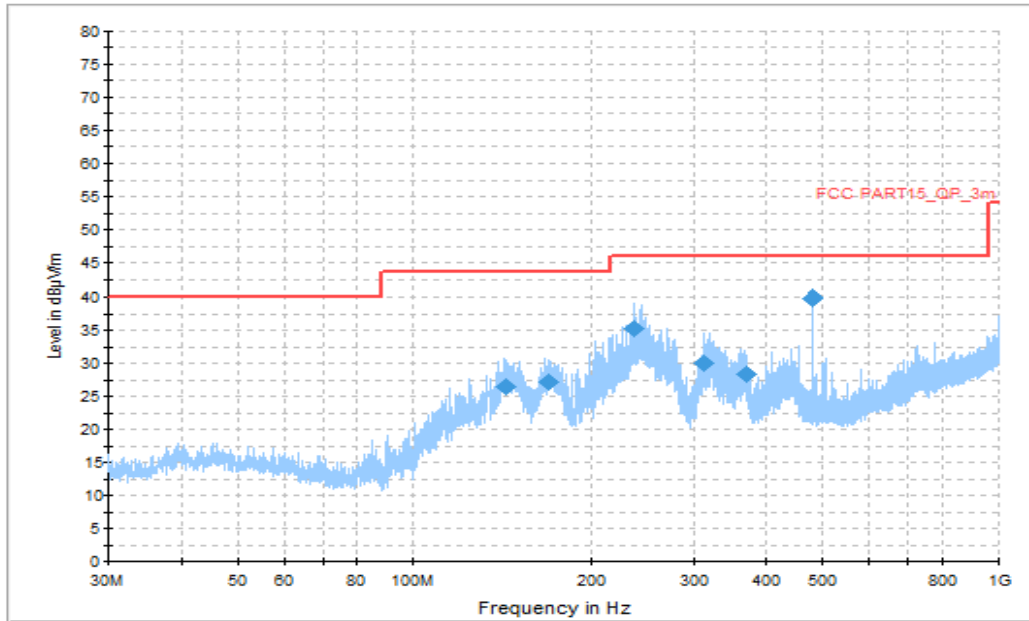


Figure A.1.31. Radiated Emission (Data Transfer : EUT to PC,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
143.393000	26.4	43.5	17.2	V	-22.8	49.20
169.098000	27.2	43.5	16.3	V	-23.8	51
237.531500	35.3	46.0	10.8	H	-23.7	59.00
311.785000	30.1	46.0	16.0	H	-22.2	52.30
370.033500	28.3	46.0	17.7	H	-20.1	48.4
479.983000	39.8	46.0	6.2	H	-17.4	57.20

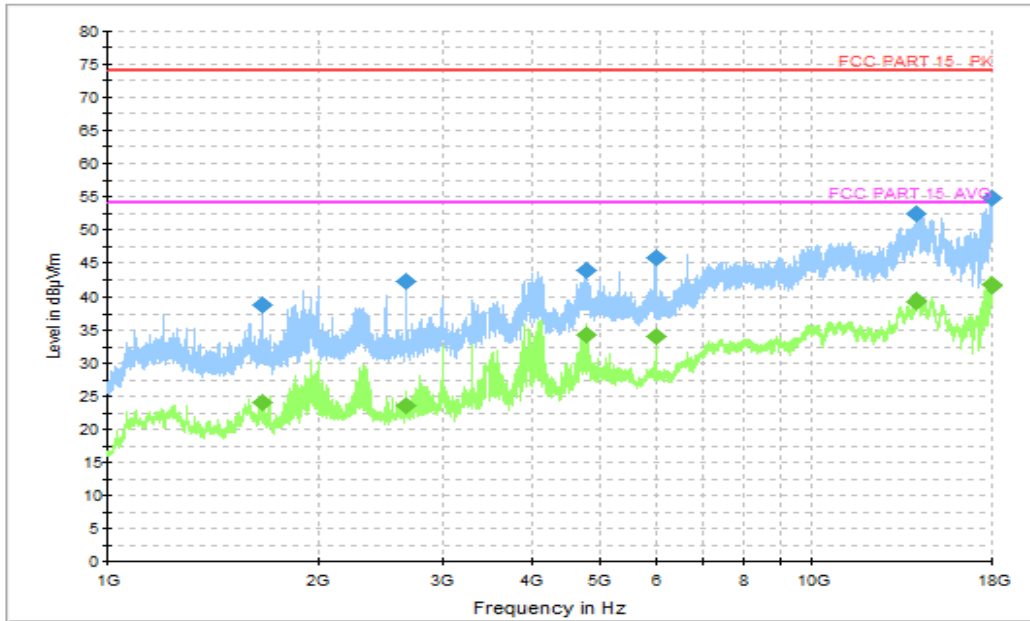


Figure A.1.32. Radiated Emission (Data Transfer : EUT to PC,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1663.000000	38.8	74.0	35.2	V	-19.8	58.60
2654.600000	42.2	74.0	31.8	H	-15.4	57.6
4776.800000	43.7	74.0	30.3	V	-6.8	50.50
6000.000000	45.6	74.0	28.4	V	-5.9	51.50
14083.000000	52.4	74.0	21.6	V	6.3	46.1
17977.200000	54.7	74.0	19.3	H	12.8	41.90

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1663.000000	24.1	54.0	29.9	V	-19.8	43.90
2654.600000	23.6	54.0	30.4	H	-15.4	39
4776.800000	34.2	54.0	19.8	V	-6.8	41.00
6000.000000	34.0	54.0	20.0	V	-5.9	39.90
14083.000000	39.3	54.0	14.7	V	6.3	33
17977.200000	41.7	54.0	12.3	H	12.8	28.90

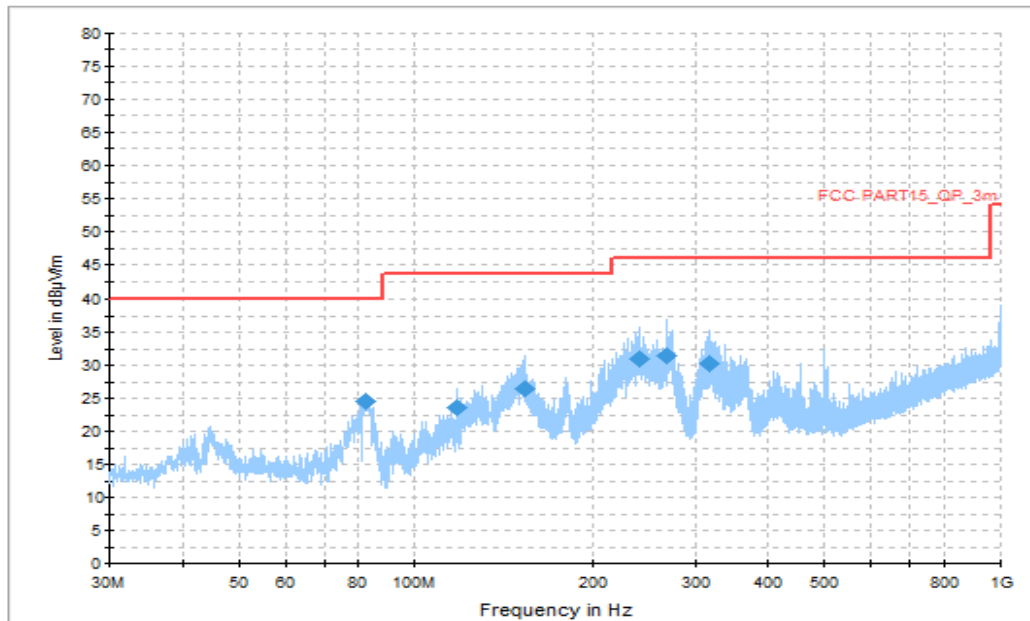


Figure A.1.33. Radiated Emission (Data Transfer : PC to EUT,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
82.671000	24.4	40.0	15.6	H	-26.8	51.20
118.221500	23.5	43.5	20.0	V	-24.3	47.8
152.753500	26.4	43.5	17.1	H	-22.8	49.20
240.781000	30.9	46.0	15.2	H	-23.6	54.50
268.571500	31.5	46.0	14.6	H	-23.1	54.6
317.847500	30.3	46.0	15.7	H	-22.0	54.6

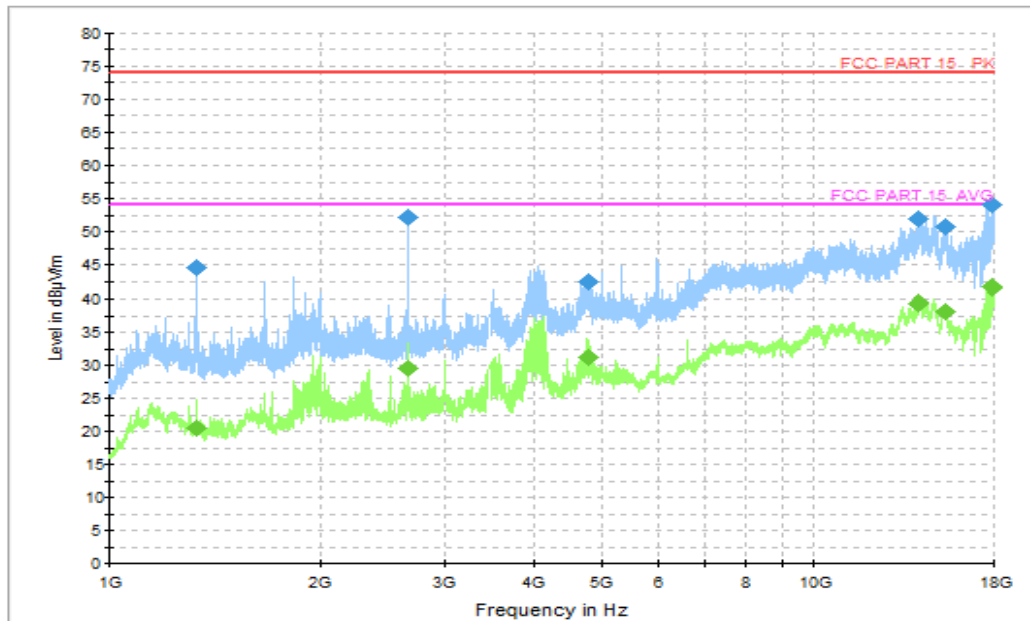


Figure A.1.34. Radiated Emission (Data Transfer : PC to EUT: EUT to PC,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1331.400000	44.6	74.0	29.4	V	-19.9	64.50
2663.200000	52.2	74.0	21.8	V	-15.4	67.6
4778.400000	42.4	74.0	31.6	V	-6.8	49.20
14086.500000	52.0	74.0	22.0	H	6.4	45.60
15360.000000	50.8	74.0	23.2	H	6.0	44.8
17941.200000	54.2	74.0	19.8	H	12.6	41.60

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1331.400000	20.6	54.0	33.4	V	-19.9	40.50
2663.200000	29.6	54.0	24.4	V	-15.4	45
4778.400000	31.1	54.0	22.9	V	-6.8	37.90
14086.500000	39.3	54.0	14.7	H	6.4	32.90
15360.000000	38.1	54.0	15.9	H	6.0	32.1
17941.200000	41.7	54.0	12.3	H	12.6	29.10

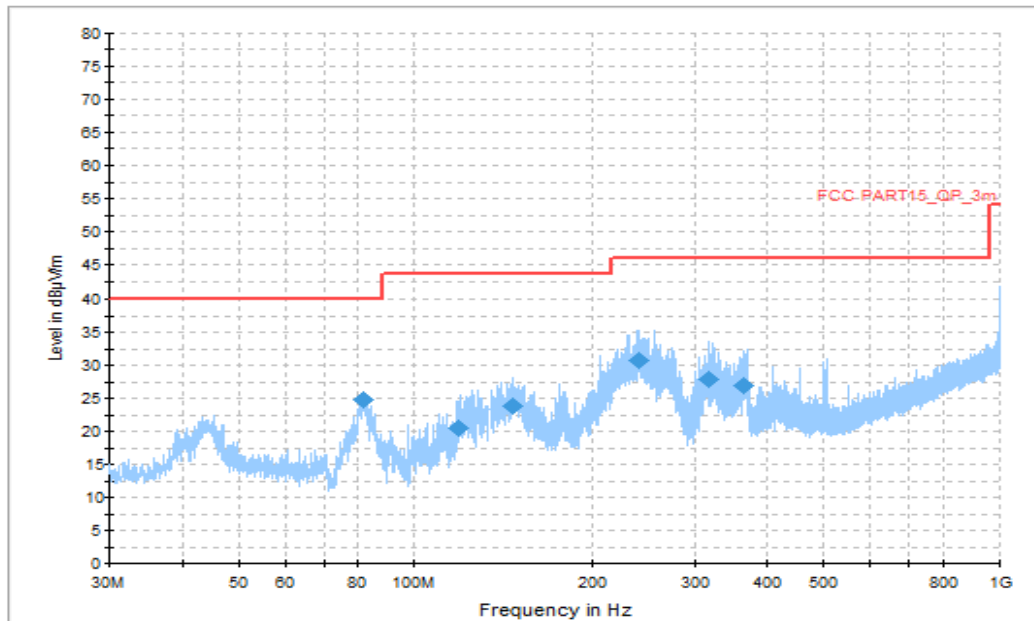


Figure A.1.35. Radiated Emission (Data Transfer : PC to TF Card,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
81.507000	24.7	40.0	15.3	H	-26.8	51.50
119.046000	20.5	43.5	23.1	V	-24.2	44.7
146.157500	23.7	43.5	19.8	V	-22.8	46.50
240.441500	30.7	46.0	15.3	H	-23.6	54.30
316.247000	27.8	46.0	18.2	H	-22.0	49.8
365.232000	26.8	46.0	19.2	H	-20.3	47.10

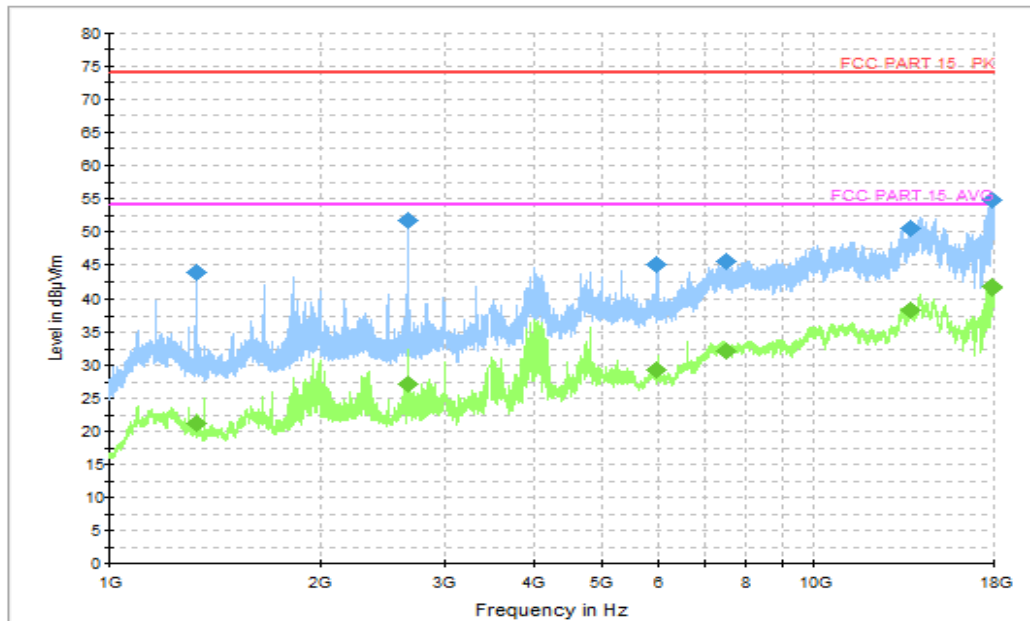


Figure A.1.36. Radiated Emission (Data Transfer : PC to TF Card,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1330.200000	43.7	74.0	30.3	V	-19.9	63.60
2658.600000	51.6	74.0	22.4	V	-15.4	67
5972.000000	44.9	74.0	29.1	V	-5.7	50.60
7487.200000	45.4	74.0	28.6	V	-1.0	46.40
13673.500000	50.6	74.0	23.4	H	5.0	45.6
17868.800000	54.7	74.0	19.3	H	12.2	42.50

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1330.200000	21.2	54.0	32.8	V	-19.9	41.10
2658.600000	27.1	54.0	26.9	V	-15.4	42.5
5972.000000	29.3	54.0	24.7	V	-5.7	35.00
7487.200000	32.2	54.0	21.8	V	-1.0	33.20
13673.500000	38.2	54.0	15.8	H	5.0	33.2
17868.800000	41.8	54.0	12.2	H	12.2	29.60

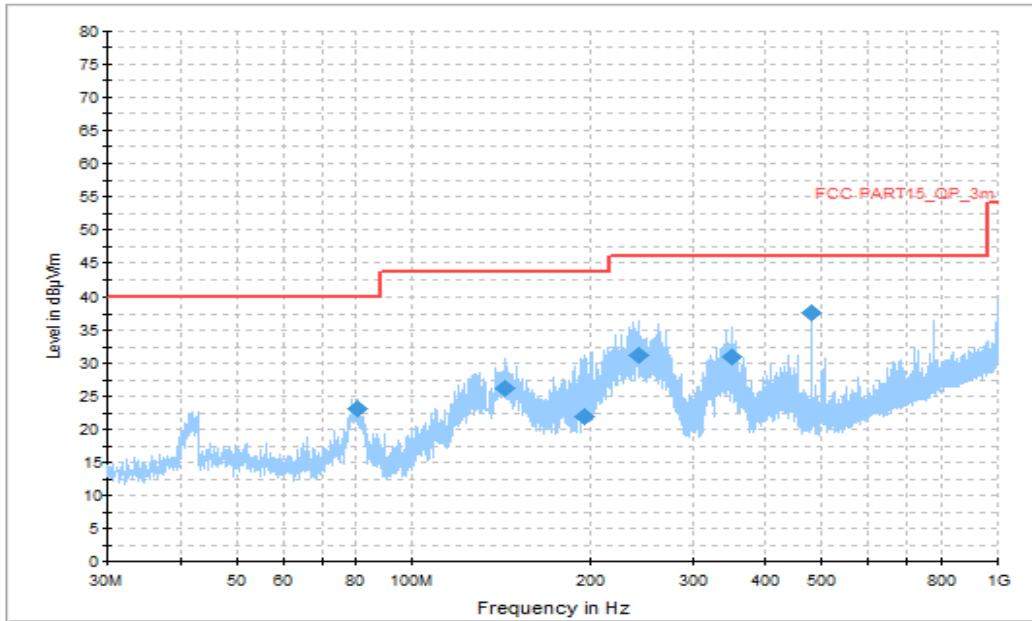


Figure A.1.37. Radiated Emission (Data Transfer : TF Card to PC,30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
80.391500	23.2	40.0	16.8	H	-26.8	50.00
142.617000	26.2	43.5	17.3	V	-22.8	49
195.482000	21.8	43.5	21.7	H	-25.5	47.30
243.254500	31.1	46.0	14.9	H	-23.6	54.70
349.906000	31.0	46.0	15.0	H	-20.9	51.9
479.983000	37.7	46.0	8.3	H	-17.4	55.10

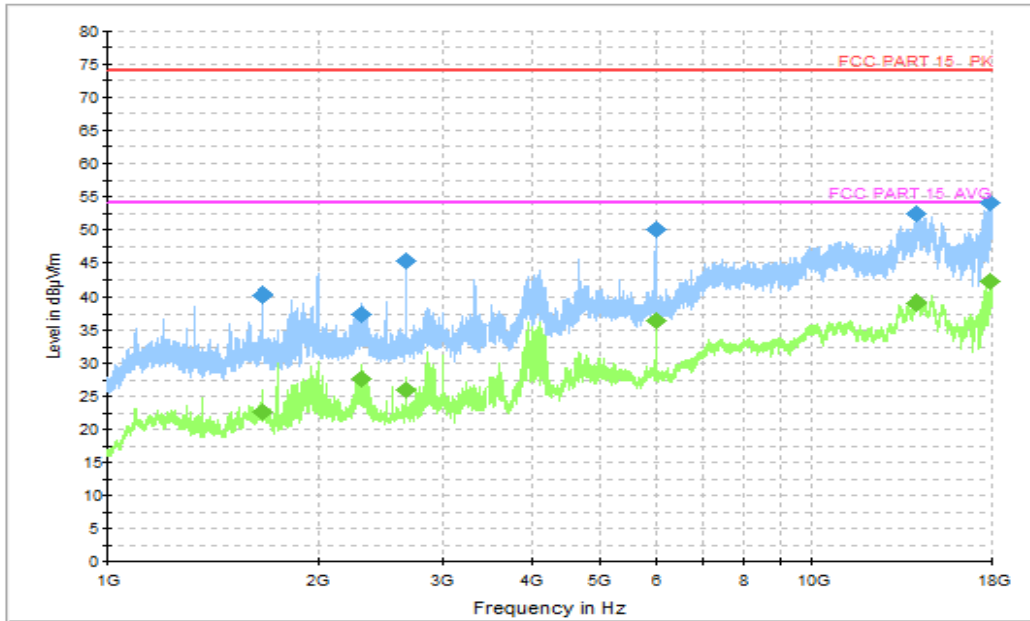


Figure A.1.38. Radiated Emission (Data Transfer : TF Card to PC,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1661.800000	40.2	74.0	33.8	V	-19.8	60.00
2293.400000	37.5	74.0	36.5	V	-16.1	53.6
2654.800000	45.2	74.0	28.8	V	-15.4	60.60
6000.000000	50.1	74.0	23.9	V	-5.9	56.00
14061.000000	52.3	74.0	21.7	H	6.2	46.1
17921.600000	54.0	74.0	20.0	V	12.5	41.50

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1661.800000	22.7	54.0	31.3	V	-19.8	42.50
2293.400000	27.7	54.0	26.3	V	-16.1	43.8
2654.800000	26.0	54.0	28.0	V	-15.4	41.40
6000.000000	36.5	54.0	17.5	V	-5.9	42.40
14061.000000	39.1	54.0	14.9	H	6.2	32.9
17921.600000	42.1	54.0	11.9	V	12.5	29.60

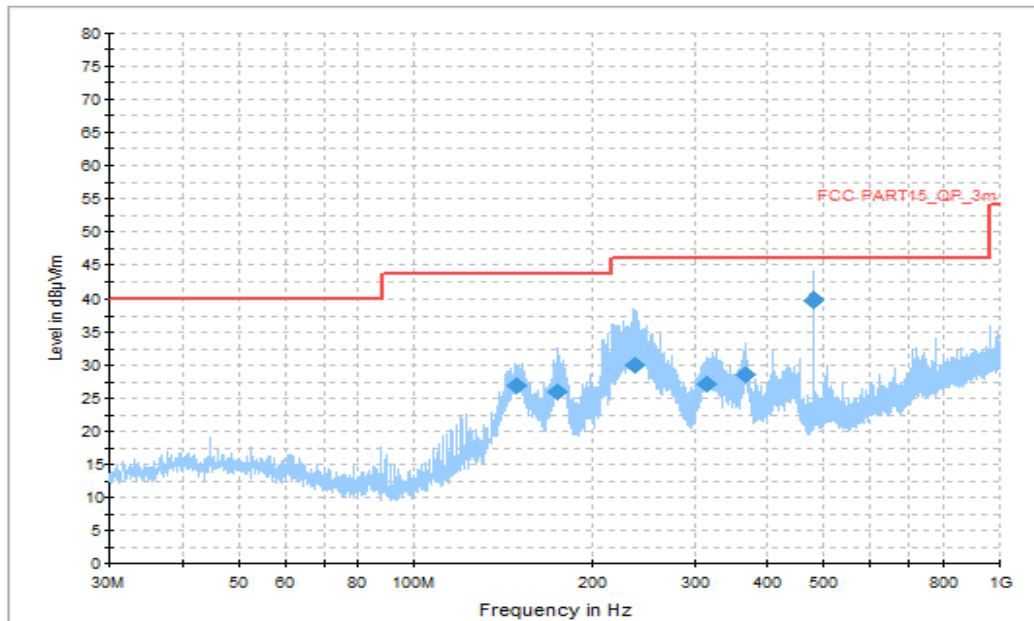


Figure A.1.39. Radiated Emission (Data Transfer : EUT TO PC,30MHz to 1GHz)

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
149.164500	27.0	43.5	16.5	H	-22.8	49.80
173.899500	26.1	43.5	17.4	H	-24.3	50.40
236.755500	30.1	46.0	15.9	V	-23.8	53.90
314.307000	27.1	46.0	18.9	H	-22.1	49.20
367.754000	28.6	46.0	17.4	V	-20.2	48.8
479.983000	39.7	46.0	6.4	H	-17.4	57.10

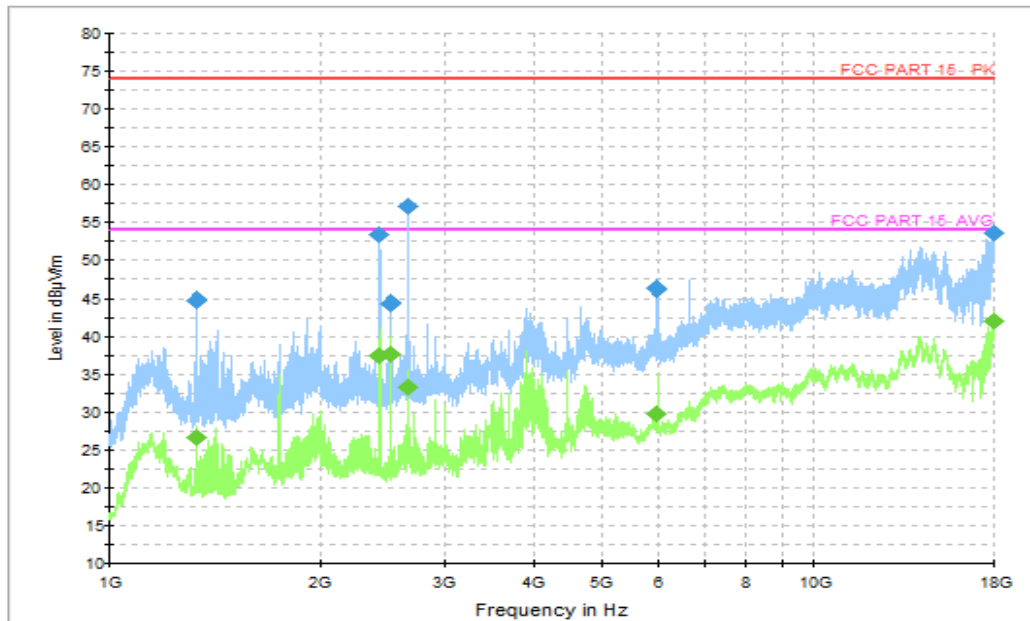


Figure A.1.40. Radiated Emission (Data Transfer : EUT TO PC,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1332.600000	44.9	74.0	29.1	V	-19.9	64.80
2424.800000	53.3	74.0	20.7	H	-15.9	69.20
2519.000000	44.4	74.0	29.6	H	-15.7	60.10
2655.200000	57.0	74.0	17.0	V	-15.4	72.40
5973.600000	46.3	74.0	27.7	V	-5.7	52
17956.400000	53.6	74.0	20.4	H	12.7	40.90

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1332.600000	26.7	54.0	27.3	V	-19.9	46.60
2424.800000	37.4	54.0	16.6	H	-15.9	53.30
2519.000000	37.7	54.0	16.3	H	-15.7	53.40
2655.200000	33.3	54.0	20.7	V	-15.4	48.70
5973.600000	29.7	54.0	24.3	V	-5.7	35.4
17956.400000	42.0	54.0	12.0	H	12.7	29.30

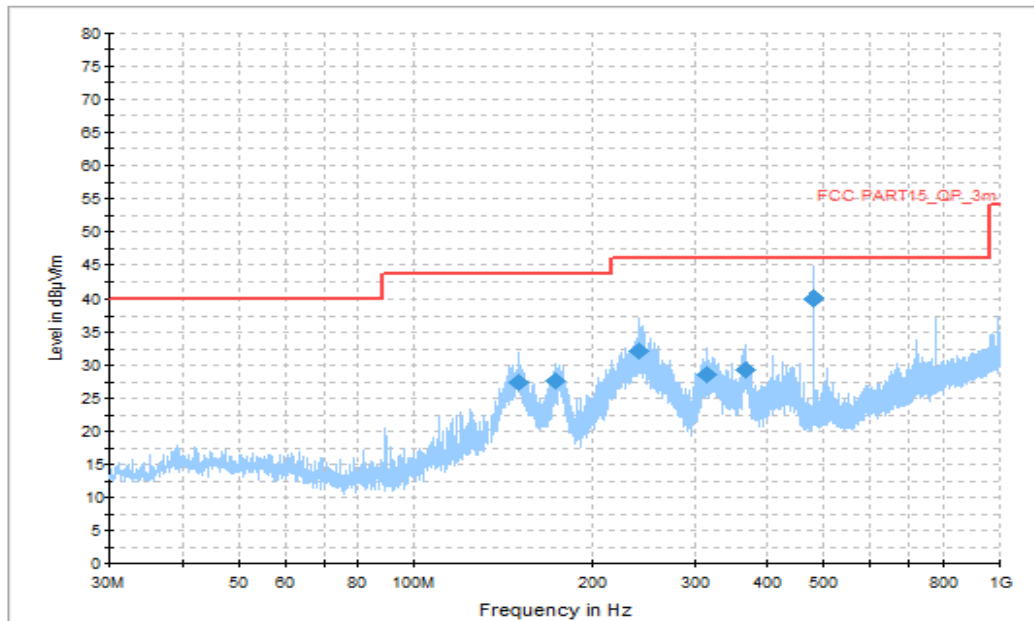


Figure A.1.41. Radiated Emission (Data Transfer : EUT TO PC,30MHz to 1GHz)

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
150.280000	27.3	43.5	16.2	H	-22.8	50.10
173.317500	27.6	43.5	15.9	H	-24.2	51.80
240.975000	32.1	46.0	13.9	H	-23.6	55.70
314.016000	28.7	46.0	17.3	H	-22.1	50.80
367.026500	29.4	46.0	16.6	H	-20.2	49.6
479.983000	40.0	46.0	6.0	H	-17.4	57.40

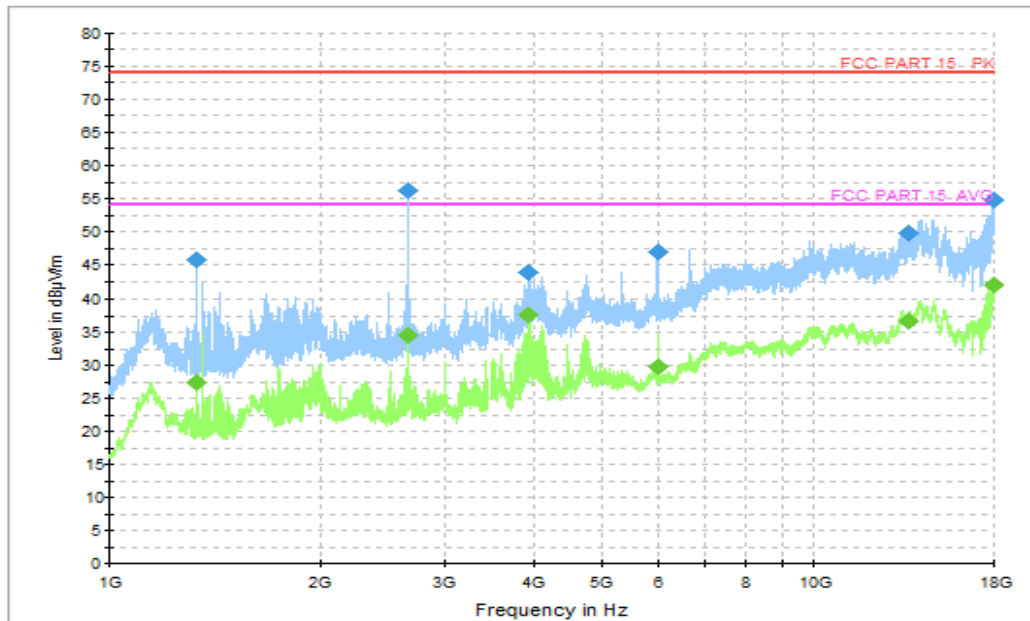


Figure A.1.42. Radiated Emission (Data Transfer : EUT TO PC,1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1332.800000	45.7	74.0	28.3	V	-19.9	65.60
2662.400000	56.2	74.0	17.8	V	-15.4	71.60
3914.400000	43.8	74.0	30.2	V	-10.8	54.60
5980.800000	46.8	74.0	27.2	V	-5.8	52.60
13606.500000	49.7	74.0	24.3	V	5.1	44.6
17962.800000	54.9	74.0	19.1	V	12.7	42.20

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
1332.800000	27.4	54.0	26.6	V	-19.9	47.30
2662.400000	34.6	54.0	19.4	V	-15.4	50.00
3914.400000	37.7	54.0	16.3	V	-10.8	48.50
5980.800000	29.8	54.0	24.2	V	-5.8	35.60
13606.500000	36.7	54.0	17.3	V	5.1	31.6
17962.800000	41.9	54.0	12.1	V	12.7	29.20



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.

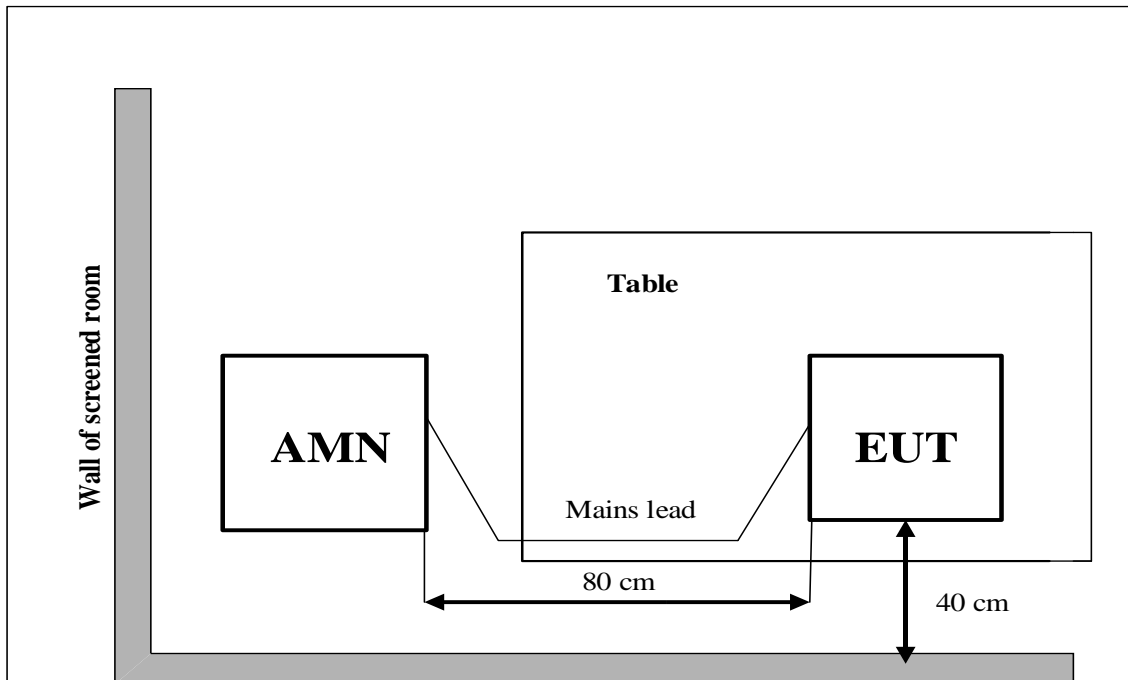
Data Transfer: The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C. The EUT is connected to a PC for transmitting data. The software is used to let the PC keep on copying data to MS or TF Card, reading and erasing the data after copy action was finished.

A.2.3 Measurement Limit

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	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

$$\text{QuasiPeak(dB}\mu\text{V) /Average(dB}\mu\text{V) =PMea+Corr}$$

Where

Corr: PathLoss + Voltage Division Factor

PMea: Measurement result on receiver.

Camera

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/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 (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/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.

FM receiver

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/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 (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/Set.1	
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 (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/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.

Camera

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/Set.1	
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.6	P
0.5 to 5	56	46		
5 to 30	60	50		

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Video Player

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/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.

FM receiver

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/Set.2	
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.

FM receiver

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/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.



Data Transfer

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT08aa/Set.3	
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.

AC Input Port/ Voltage: 120V/60Hz

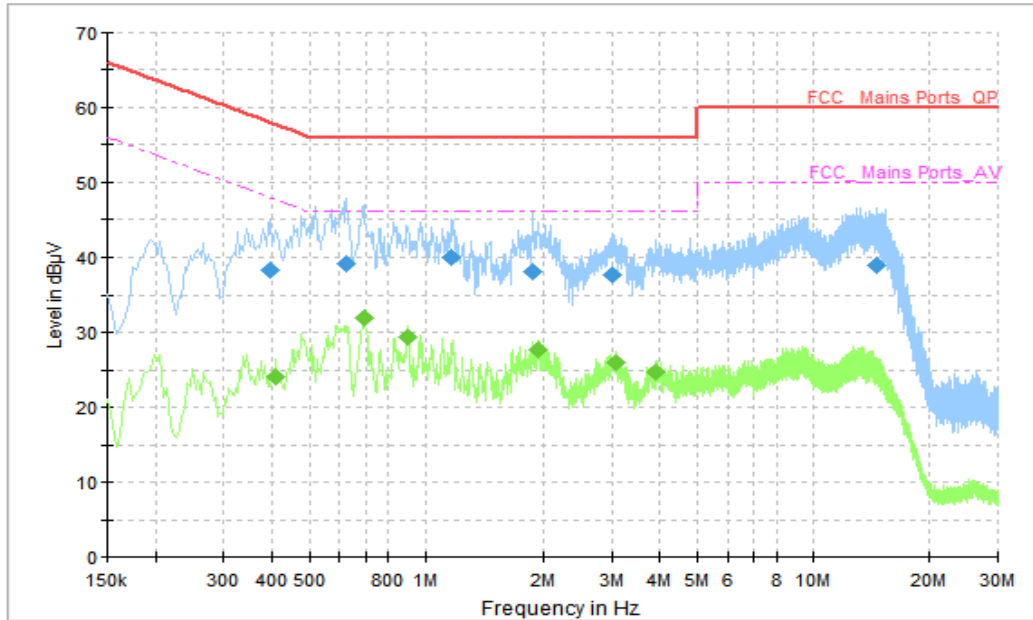


Figure A.2.1 Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.398000	38.28	57.90	19.61	N	10	28.28
0.622000	39.01	56.00	16.99	L1	10	29.01
1.170000	39.91	56.00	16.09	L1	10	29.91
1.882000	38.03	56.00	17.97	L1	10	28.03
3.006000	37.60	56.00	18.40	L1	10	27.6
14.574000	38.75	60.00	21.25	L1	10	28.75

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.410000	24.02	47.65	23.63	N	10	14.02
0.694000	31.93	46.00	14.07	L1	10	21.93
0.898000	29.51	46.00	16.49	L1	10	19.51
1.930000	27.76	46.00	18.24	L1	10	17.76
3.074000	25.96	46.00	20.04	L1	10	15.96
3.910000	24.77	46.00	21.23	L1	10	14.77

AC Input Port/ Voltage: 120V/60Hz

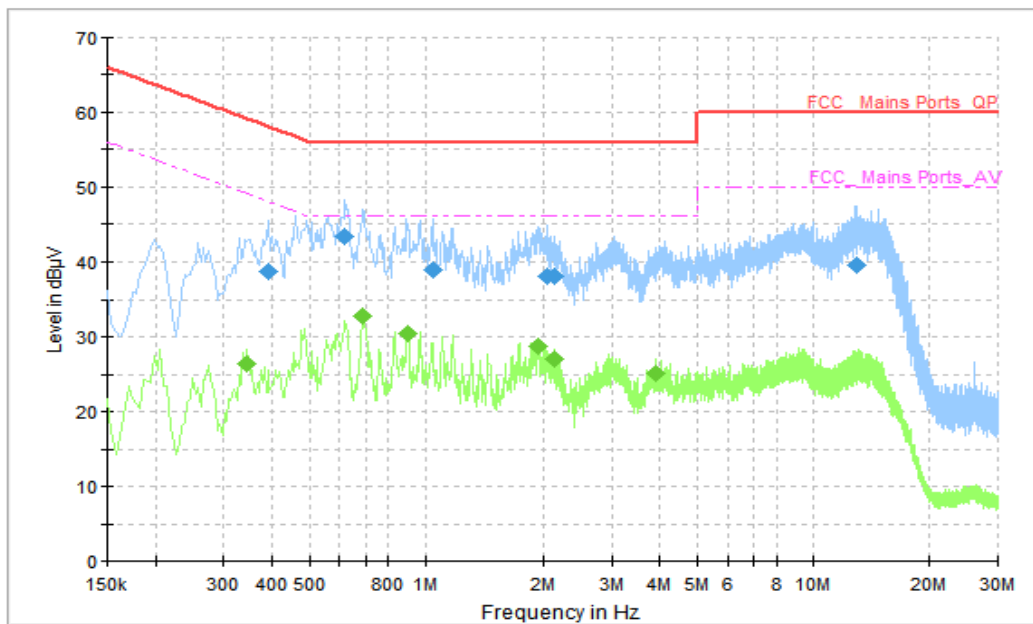


Figure A.2.2 Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.390000	38.54	58.06	19.53	N	10	28.54
0.618000	43.33	56.00	12.67	N	10	33.33
1.042000	38.77	56.00	17.23	L1	10	28.77
2.042000	38.00	56.00	18.00	L1	10	28.00
2.138000	37.92	56.00	18.08	L1	10	27.92
12.878000	39.49	60.00	20.51	L1	10	29.49

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.346000	26.57	49.06	22.49	N	10	16.57
0.690000	32.78	46.00	13.22	L1	10	22.78
0.898000	30.54	46.00	15.46	L1	10	20.54
1.934000	28.80	46.00	17.20	L1	10	18.80
2.142000	27.02	46.00	18.98	L1	10	17.02
3.910000	25.27	46.00	20.73	L1	10	15.27

AC Input Port/ Voltage: 120V/60Hz

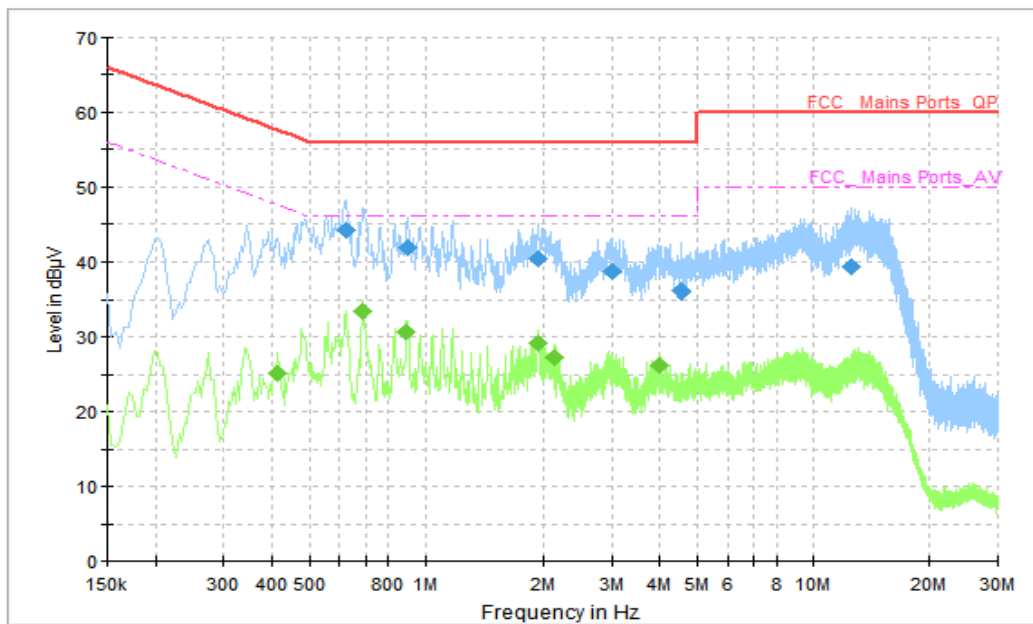


Figure A.2.3 Conducted Emission(FM receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.622000	44.26	56.00	11.74	N	10	34.26
0.898000	41.82	56.00	14.18	L1	10	31.82
1.930000	40.37	56.00	15.64	L1	10	30.37
3.002000	38.61	56.00	17.39	L1	10	28.61
4.522000	35.99	56.00	20.02	L1	10	25.99
12.566000	39.17	60.00	20.83	L1	10	29.17

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.414000	25.23	47.57	22.34	N	10	15.23
0.690000	33.54	46.00	12.46	L1	10	23.54
0.894000	30.80	46.00	15.20	L1	10	20.80
1.934000	29.32	46.00	16.68	L1	10	19.32
2.142000	27.31	46.00	18.69	L1	10	17.31
3.970000	26.24	46.00	19.76	L1	10	16.24

AC Input Port/ Voltage: 120V/60Hz

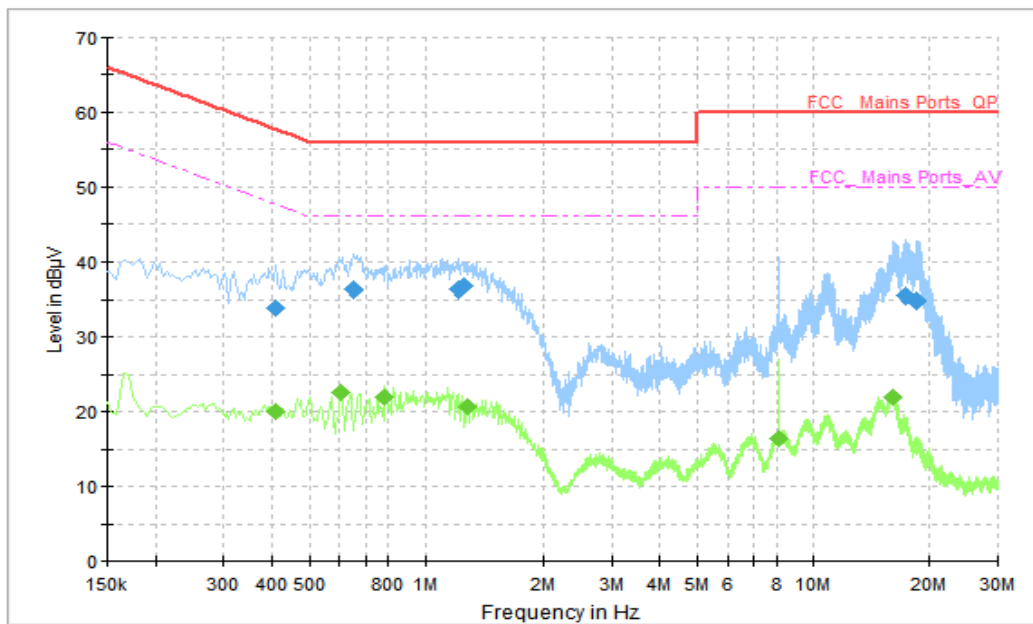


Figure A.2.4 Conducted Emission(FM receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.410000	33.94	57.65	23.71	N	10	23.94
0.650000	36.27	56.00	19.73	L1	10	26.27
1.214000	36.33	56.00	19.67	N	10	26.33
1.258000	36.77	56.00	19.23	N	10	26.77
17.346000	35.48	60.00	24.52	L1	10	25.48
18.498000	34.73	60.00	25.27	L1	10	24.73

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.410000	20.09	47.65	27.56	N	10	10.09
0.606000	22.66	46.00	23.34	N	10	12.66
0.786000	21.97	46.00	24.03	N	10	11.97
1.282000	20.78	46.00	25.22	N	10	10.78
8.110000	16.49	50.00	33.51	L1	10	6.49
16.030000	21.97	50.00	28.03	L1	10	11.97

AC Input Port/ Voltage: 120V/60Hz

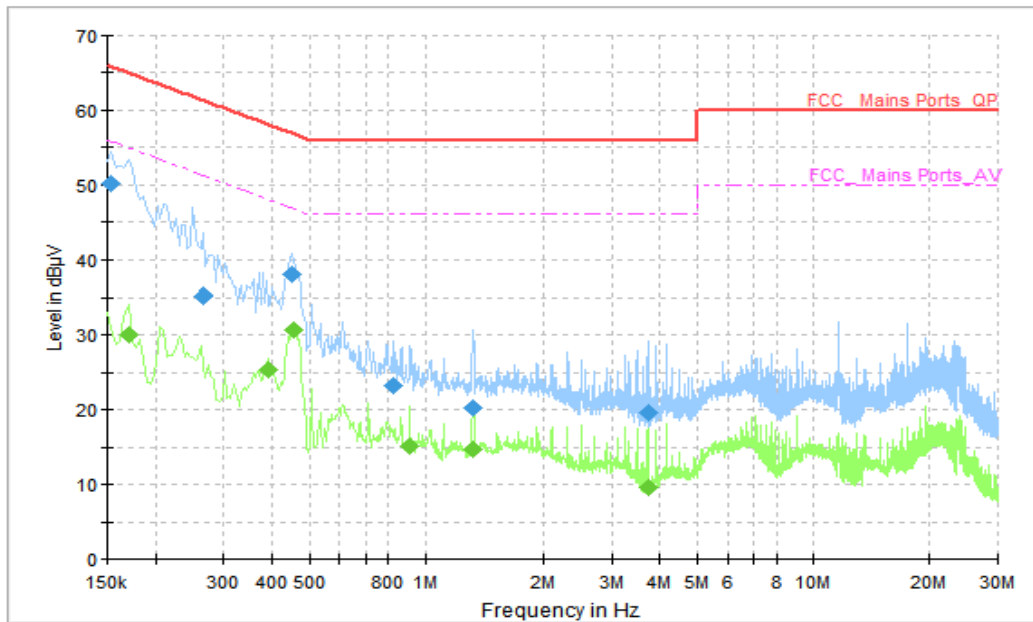


Figure A.2.5 Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.154000	50.11	65.78	15.67	N	10	40.11
0.266000	35.25	61.24	25.99	N	10	25.25
0.450000	37.92	56.88	18.95	N	10	27.92
0.822000	23.16	56.00	32.84	N	10	13.16
1.326000	20.19	56.00	35.81	N	10	10.19
3.746000	19.69	56.00	36.31	N	10	9.69

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.170000	30.01	54.96	24.95	L1	10	20.01
0.390000	25.34	48.06	22.72	N	10	15.34
0.458000	30.72	46.73	16.01	N	10	20.72
0.910000	15.23	46.00	30.77	N	10	5.23
1.326000	14.80	46.00	31.20	N	10	4.8
3.742000	9.51	46.00	36.49	N	10	-0.49

AC Input Port/ Voltage: 240V/60Hz

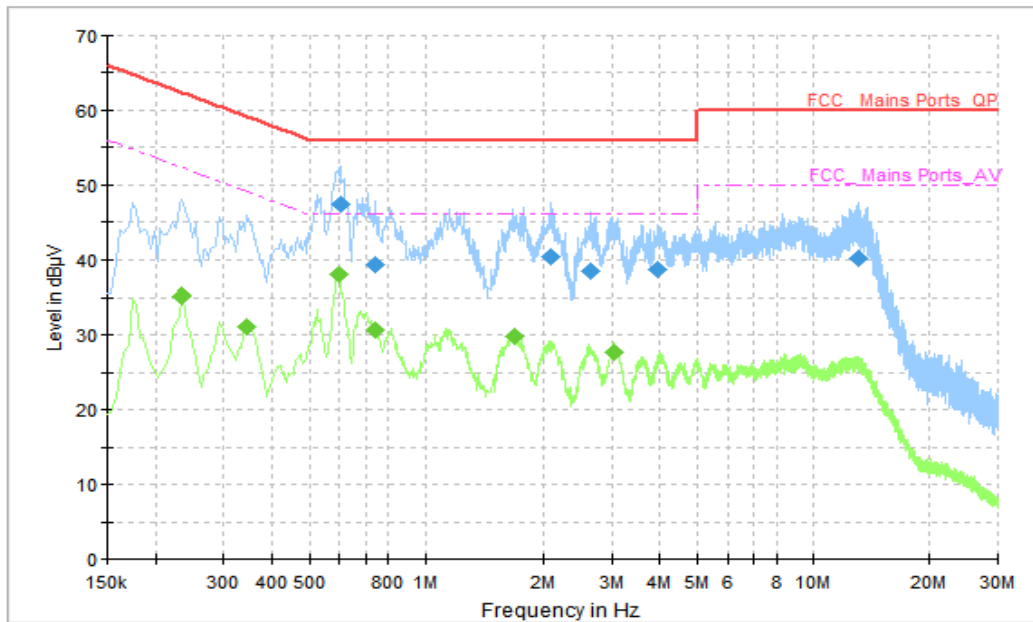


Figure A.2.6 Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.602000	47.34	56.00	8.66	N	10	37.34
0.742000	39.17	56.00	16.83	L1	10	29.17
2.078000	40.30	56.00	15.70	L1	10	30.30
2.642000	38.46	56.00	17.54	L1	10	28.46
3.946000	38.55	56.00	17.45	L1	10	28.55
13.034000	40.02	60.00	19.98	L1	10	30.02

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.234000	35.22	52.31	17.09	N	10	25.22
0.346000	31.10	49.06	17.96	N	10	21.10
0.594000	37.93	46.00	8.07	N	10	27.93
0.738000	30.65	46.00	15.35	N	10	20.65
1.674000	29.80	46.00	16.20	N	10	19.8
3.058000	27.67	46.00	18.33	N	10	17.67

AC Input Port/ Voltage: 240V/60Hz

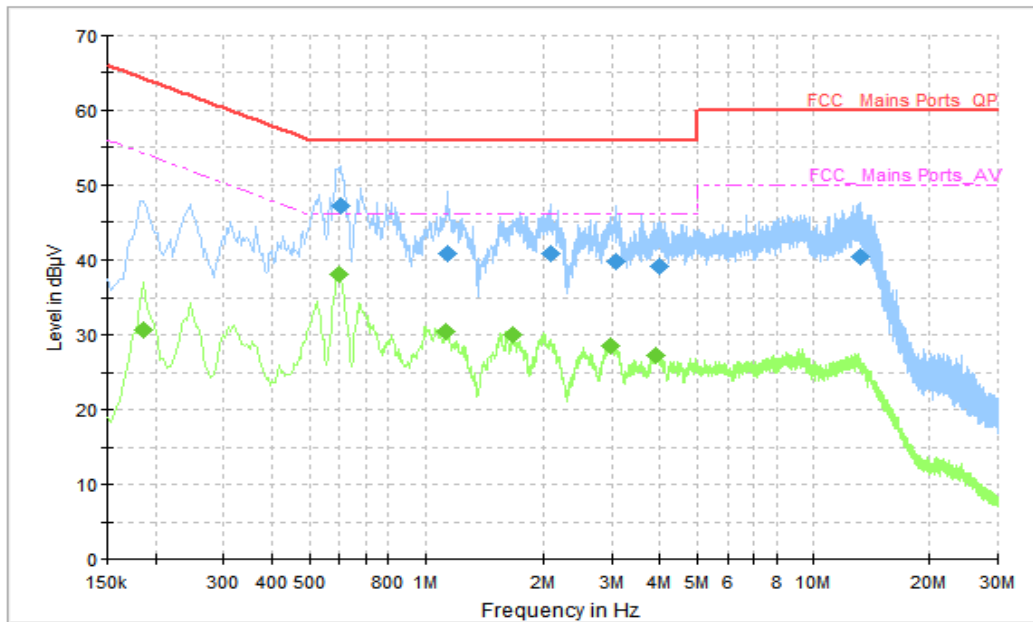


Figure A.2.7 Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.606000	47.12	56.00	8.88	N	10	37.12
1.138000	40.74	56.00	15.26	L1	10	30.74
2.094000	40.67	56.00	15.33	L1	10	30.67
3.078000	39.79	56.00	16.21	L1	10	29.79
3.990000	39.03	56.00	16.97	L1	10	29.03
13.158000	40.23	60.00	19.77	L1	10	30.23

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.186000	30.76	54.21	23.45	N	10	20.76
0.594000	38.08	46.00	7.92	N	10	28.08
1.126000	30.45	46.00	15.55	N	10	20.45
1.662000	30.13	46.00	15.87	N	10	20.13
2.966000	28.68	46.00	17.32	N	10	18.68
3.894000	27.24	46.00	18.76	N	10	17.24

AC Input Port/ Voltage: 240V/60Hz

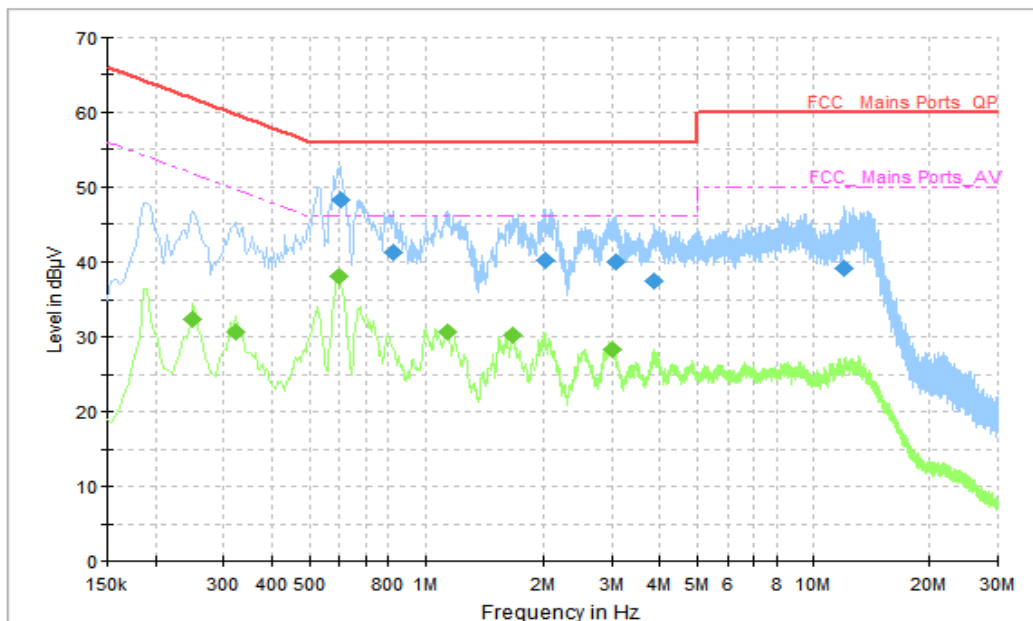


Figure A.2.8 Conducted Emission(FM receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.602000	48.19	56.00	7.81	N	10	38.19
0.822000	41.10	56.00	14.90	L1	10	31.10
2.018000	40.04	56.00	15.96	L1	10	30.04
3.070000	39.92	56.00	16.08	L1	10	29.92
3.850000	37.40	56.00	18.60	L1	10	27.4
12.050000	39.11	60.00	20.89	L1	10	29.11

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.250000	32.48	51.76	19.28	N	10	22.48
0.322000	30.82	49.66	18.83	N	10	20.82
0.594000	37.98	46.00	8.02	N	10	27.98
1.142000	30.72	46.00	15.28	N	10	20.72
1.666000	30.20	46.00	15.80	N	10	20.2
3.002000	28.45	46.00	17.55	N	10	18.45

AC Input Port/ Voltage: 240V/60Hz

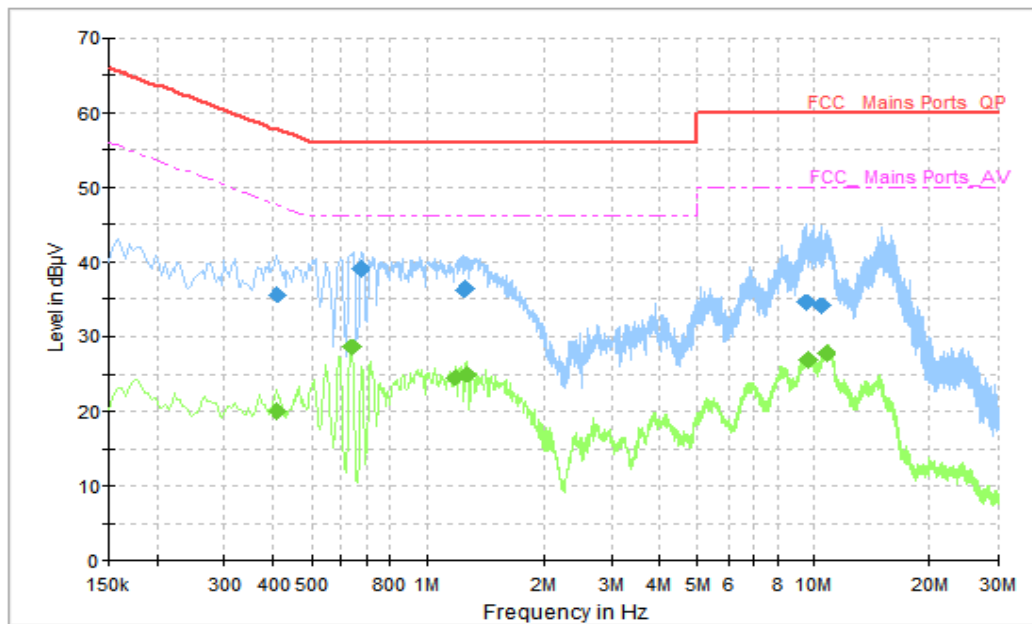


Figure A.2.9 Conducted Emission(FM receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.410000	35.57	57.65	22.07	N	10	25.57
0.674000	38.98	56.00	17.02	L1	10	28.98
1.238000	36.32	56.00	19.68	N	10	26.32
1.258000	36.51	56.00	19.49	N	10	26.51
9.522000	34.56	60.00	25.44	L1	10	24.56
10.430000	34.21	60.00	25.79	L1	10	24.21

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.410000	20.09	47.65	27.56	N	10	10.09
0.634000	28.58	46.00	17.42	N	10	18.58
1.178000	24.52	46.00	21.48	N	10	14.52
1.274000	24.97	46.00	21.03	N	10	14.97
9.662000	26.92	50.00	23.08	N	10	16.92
10.746000	27.66	50.00	22.34	N	10	17.66

AC Input Port/ Voltage: 240V/60Hz

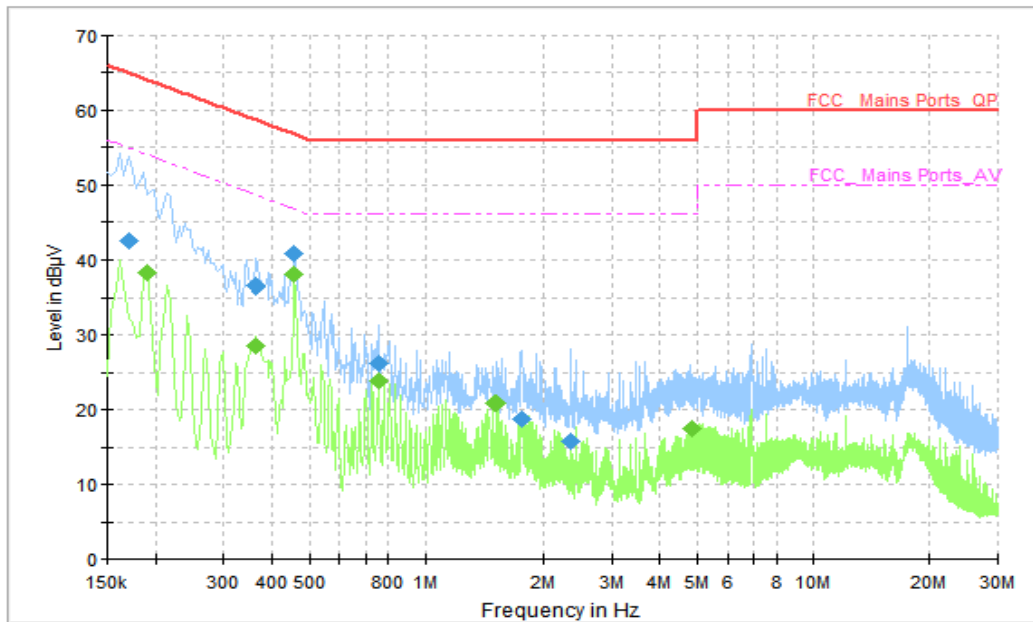


Figure A.2.10 Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.170000	42.45	64.96	22.51	N	10	32.45
0.362000	36.50	58.68	22.18	N	10	26.50
0.458000	40.81	56.73	15.92	N	10	30.81
0.754000	26.19	56.00	29.81	N	10	16.19
1.758000	18.82	56.00	37.18	N	10	8.82
2.350000	15.69	56.00	40.31	N	10	5.69

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.190000	38.23	54.04	15.81	L1	10	28.23
0.362000	28.66	48.68	20.02	N	10	18.66
0.458000	37.98	46.73	8.75	N	10	27.98
0.754000	23.90	46.00	22.10	N	10	13.90
1.506000	20.86	46.00	25.14	N	10	10.86
4.830000	17.42	46.00	28.58	N	10	7.42

END OF REPORT