



TEST REPORT

No.I20N03261-EMC

for

HMD Global Oy

Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN

Model Name: TA-1347

With

Hardware Version: 99652_1_11

Software Version: 000T_0_080

FCC ID: 2AJOTTA-1347

Issued Date: 2021-01-26

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
I20N03261-EMC	Rev.0	1st edition	2021-01-26

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



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1. Summary of Test Report

1.1. Test Items

Description	Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN
Model Name	TA-1347
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: 2021-01-03

Testing End Date: 2021-01-24

1.6. Signature

Ma Shoujian
(Prepared this test report)

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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 UnderTest (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN
Model Name	TA-1347
FCC ID	2AJOTTA-1347
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
UT19aa	359358480001725	99652_1_11	000T_0_080	2021-01-03
UT16aa	359358480002236	99652_1_11	000T_0_080	2021-01-03

*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	WT340
Manufacturer	Guangdong Fenghua New Energy Co.,Ltd
Capacity	4900mAh
Nominal Voltage	3.85V

AE2-1

Model	PA-US5V2A-036
Manufacturer	Yutong Electronics(Huizhou) Co., Ltd

AE2-2

Model	CH-21U
Manufacturer	Shenzhen Tianyin Electronics Co., Ltd

AE3-1

Model	CB-36A
Manufacturer	ShenZhen BRL Technology Co., Ltd



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AE3-2

Model	CB-36A
Manufacturer	Huizhou Washin Electronics co.,LTD

AE4-1

Model	HS-34
Manufacturer	New Leader Industry 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
Set.4

Combination of EUT and AE

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



3.5. General Description

The Equipment Under Test (EUT) is a model of Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN 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, 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°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	4.84dB(k=2)
	1GHz-18GHz	4.68dB(k=2)
Conducted Emission	150kHz-30MHz	3.00dB(k=2)

8. Test Facilities Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CALDUE DATE	CAL PERIOD
1.	Test Receiver	ESR7	101676	R&S	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	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.	Universal Radio Communication Tester	CMU200	114545	R&S	2022.01.13	1 year
8.	Universal Radio Communication Tester	CMW500	152499	R&S	2021.07.16	1 year
9.	Signal Generator	SMB100A	179725	R&S	2021.11.25	1 year
10.	Chamber	FACT3-2.0	1285	ETS-Lindgren	2021.07.19	2 years
11.	Software	EMC32	V10.01.00	R&S	/	/

9. Test Accessory Utilized

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

GNSS:The EUT is connected to a charger for charging. A vector signal generator is used to provide the simulated GNSS signal, and the frequency is set to 1575.42 MHz. Before the test starts, the integrated GNSS application in EUT is started up and locked to the simulated GNSS signal.

Meanwhile, the EUT is synchronized to System Simulator (SS), and able to respond to paging messages and incoming call. An established call has been released.

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)

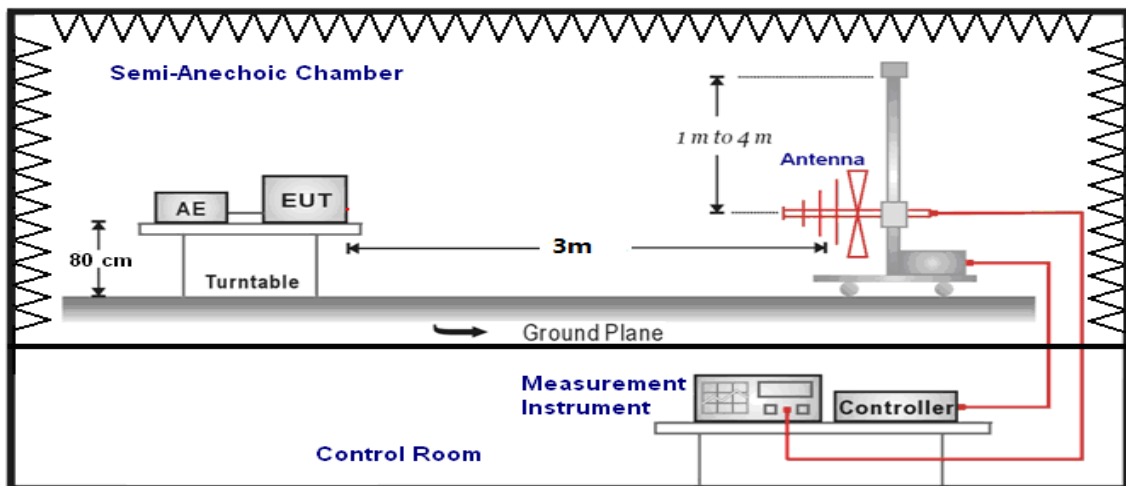
Frequency range (MHz)	Field strength limit (µV/m)		
	Quasi-peak	Average	Peak
30-88	100		
88-216	150		
216-960	200		
960-1000	500		
>1000		500	5000

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

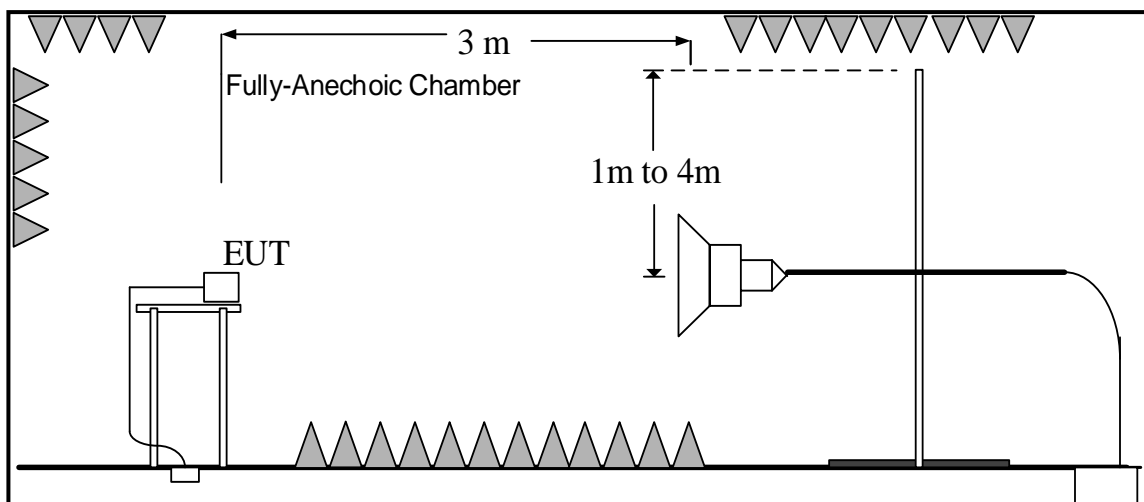
A.1.4 Test Condition

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

**A.1.5 Test set-up:
30MHz-1GHz**



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) UT19aa/Set.1	Conclusion
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
			UT19aa/Set.1	
1000 to 3000	54	74	See Fugure A.1.2.	P
3000to 18000	54	74	See Fugure A.1.3.	P

WCDMA Receiver Band 5

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT19aa/Set.1	Conclusion
30-88	40.00	See Fugure A.1.4.	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
			UT19aa/Set.1	
1000 to 3000	54	74	See Fugure A.1.5.	P
3000to 18000	54	74	See Fugure A.1.6.	P



LTE Receiver Band 5

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT19aa/Set.1	Conclusion
30-88	40.00	See Fugure 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) UT19aa/Set.1	Conclusion
			1000 to 3000	
3000to 18000	54	74	See Fugure A.1.9.	P

LTE Receiver Band 12

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT19aa/Set.1	Conclusion
30-88	40.00	See Fugure A.1.10.	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) UT19aa/Set.1	Conclusion
			1000 to 3000	
3000to 18000	54	74	See Fugure A.1.12.	P

LTE Receiver Band 13

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT19aa/Set.1	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) UT19aa/Set.1	Conclusion
			1000 to 3000	
3000to 18000	54	74	See Fugure A.1.15.	P

LTE Receiver Band 17

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT19aa/Set.1	Conclusion
30-88	40.00	See Fugure A.1.16.	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) UT19aa/Set.1	Conclusion
			1000 to 3000	
3000to 18000	54	74	See Fugure A.1.18.	P

GSM Receiver 850MHz

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m) UT19aa/Set.2	Conclusion
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
			UT19aa/Set.2	
1000 to 3000	54	74	See Fugure A.1.20.	P
3000to 18000	54	74	See Fugure A.1.21.	P

FM receiver

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.1	
30-88	40.00	See Fugure A.1.22.	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
			UT19aa/Set.1	
1000 to 3000	54	74	See Fugure A.1.23.	P
3000to 18000	54	74	See Fugure A.1.24.	P

Video Player

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.1	
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
			UT19aa/Set.1	
1000 to 3000	54	74	See Fugure A.1.26.	P
3000to 18000	54	74	See Fugure A.1.27.	P

Camera

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.1	
30-88	40.00	See Fugure A.1.28.	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
			UT19aa/Set.1	
1000 to 3000	54	74	See Fugure A.1.29.	P
3000to 18000	54	74	See Fugure A.1.30.	P

GPS

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.1	
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
			UT19aa/Set.1	
1000 to 3000	54	74	See Fugure A.1.32.	P
3000to 18000	54	74	See Fugure A.1.33.	P

GLONASS

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.1	
30-88	40.00	See Fugure A.1.34.	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
			UT19aa/Set.1	
1000 to 3000	54	74	See Fugure A.1.35.	P
3000to 18000	54	74	See Fugure A.1.36.	P

FM receiver

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.2	
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
			UT19aa/Set.2	
1000 to 3000	54	74	See Fugure A.1.38.	P
3000to 18000	54	74	See Fugure A.1.39.	P

Data Transfer : EUT to PC

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.3	
30-88	40.00	See Fugure A.1.40.	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
			UT19aa/Set.3	
1000 to 3000	54	74	See Fugure A.1.41.	P
3000to 18000	54	74	See Fugure A.1.42.	P

Data Transfer : PC to EUT

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.3	
30-88	40.00	See Fugure A.1.43.	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
			UT19aa/Set.3	
1000 to 3000	54	74	See Fugure A.1.44.	P
3000to 18000	54	74	See Fugure A.1.45.	P

Data Transfer : PC to TF Card

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.3	
30-88	40.00	See Fugure A.1.46.	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
			UT19aa/Set.3	
1000 to 3000	54	74	See Fugure A.1.47.	P
3000to 18000	54	74	See Fugure A.1.48.	P

Data Transfer : TF Card to PC

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.3	
30-88	40.00	See Fugure A.1.49.	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
			UT19aa/Set.3	
1000 to 3000	54	74	See Fugure A.1.50.	P
3000to 18000	54	74	See Fugure A.1.51.	P

Data Transfer : PC to EUT

Frequency range (MHz)	Quasi-Peak Limit (dB μ V/m)	Result (dB μ V/m)	Conclusion
		UT19aa/Set.4	
30-88	40.00	See Fugure A.1.52.	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
			UT19aa/Set.4	
1000 to 3000	54	74	See Fugure A.1.53.	P
3000to 18000	54	74	See Fugure A.1.54.	P

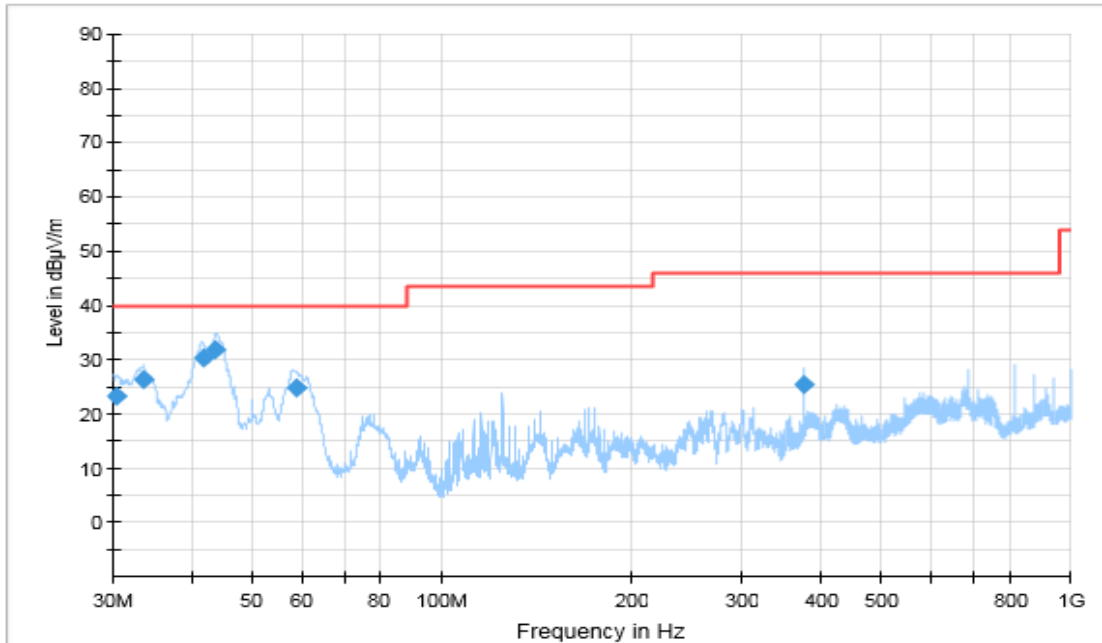


Figure A.1.1. Radiated Emission (GSM Receiver 850MHz, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P _{Mea} (dBµV)
30.454444	23.22	40.00	16.78	V	-24.6	47.82
33.550556	26.44	40.00	13.56	V	-26.1	52.54
41.727778	30.37	40.00	9.63	V	-30.2	60.57
43.761667	31.85	40.00	8.15	V	-31.8	63.65
58.692222	24.79	40.00	15.21	V	-37.3	62.09
375.030556	25.48	46.00	20.52	V	-26.7	52.18

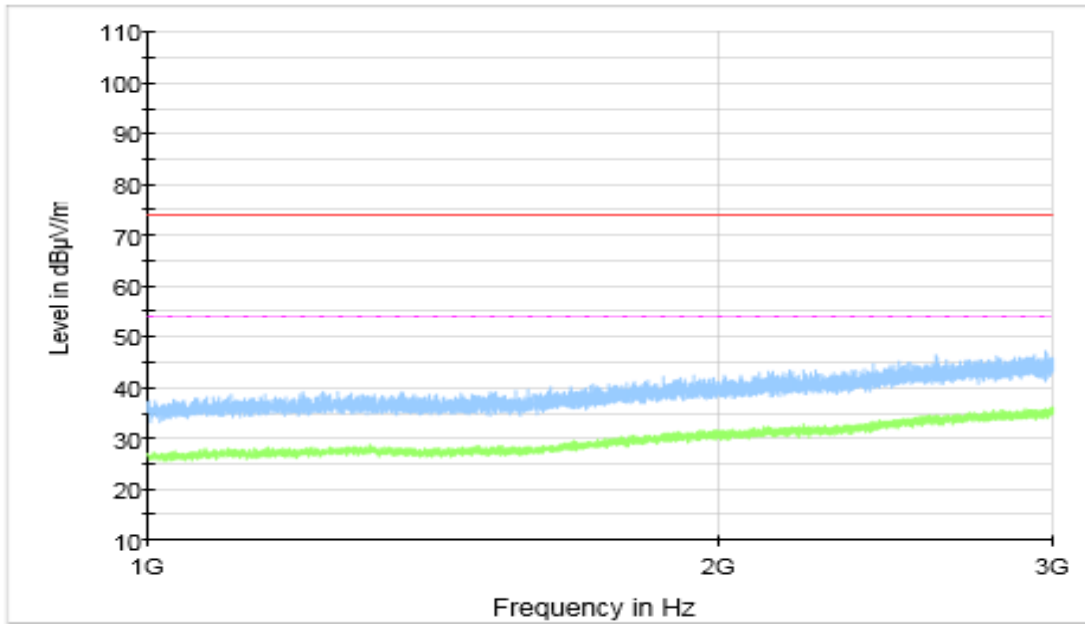


Figure A.1.2. Radiated Emission (GSM Receiver 850MHz, 1GHz to 3GHz)

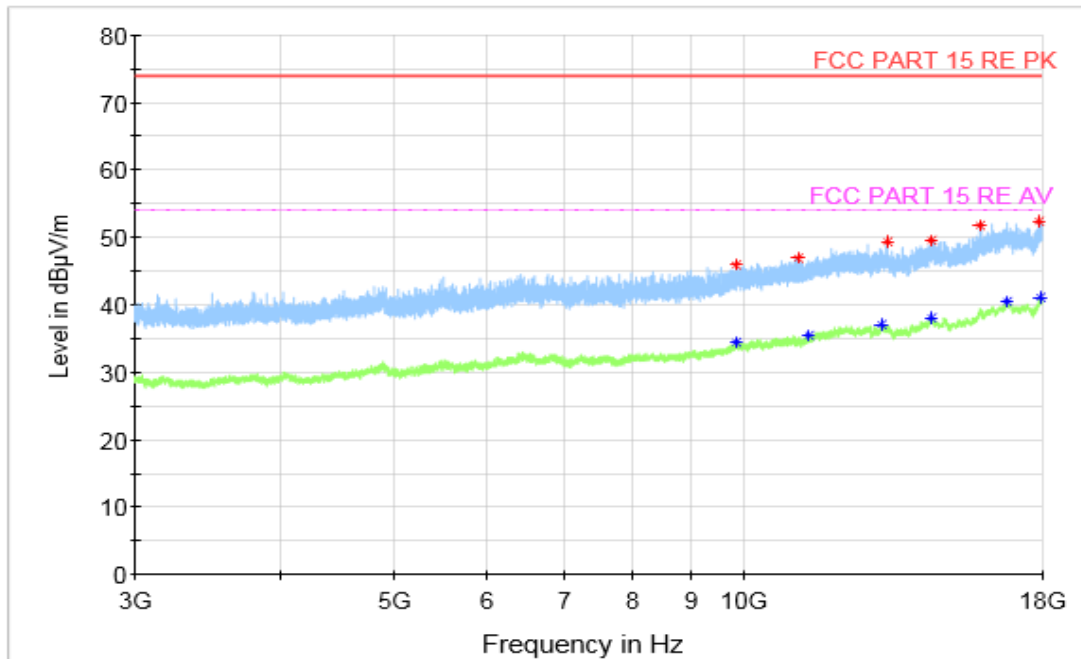


Figure A.1.3. Radiated Emission (GSM Receiver 850MHz, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBµV)
9849.000000	45.99	74.00	28.01	H	5.3	40.69
11121.000000	46.93	74.00	27.07	H	5.9	41.03
13275.000000	49.32	74.00	24.68	V	9.7	39.62
14468.500000	49.65	74.00	24.35	V	11.7	37.95
15910.000000	51.83	74.00	22.17	V	13.9	37.93
17910.000000	52.30	74.00	21.70	H	17.4	34.9

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P _{Mea} (dBµV)
9851.500000	34.43	54.00	19.57	V	5.4	29.03
11363.000000	35.46	54.00	18.54	H	6.6	28.86
13098.000000	37.06	54.00	16.94	V	9.8	27.26
14460.000000	38.08	54.00	15.92	H	11.8	26.28
16814.000000	40.40	54.00	13.60	V	16.0	24.4
17938.500000	41.13	54.00	12.87	H	17.1	24.03

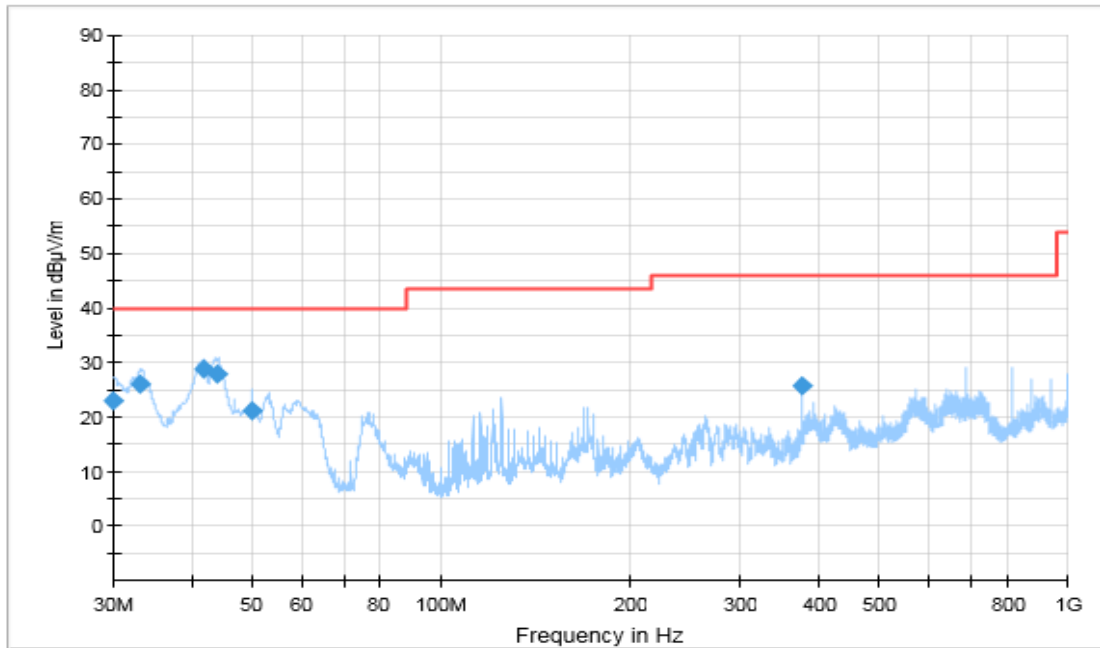


Figure A.1.4. Radiated Emission (WCDMA Receiver Band 5, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.000000	23.07	40.00	16.93	V	-24.1	47.17
33.173333	26.06	40.00	13.94	V	-25.9	51.96
41.781667	28.73	40.00	11.27	V	-30.2	58.93
43.912778	27.88	40.00	12.12	V	-31.9	59.78
49.998889	21.13	40.00	18.87	V	-36.5	57.63
375.016667	25.86	46.00	20.14	V	-26.7	52.56

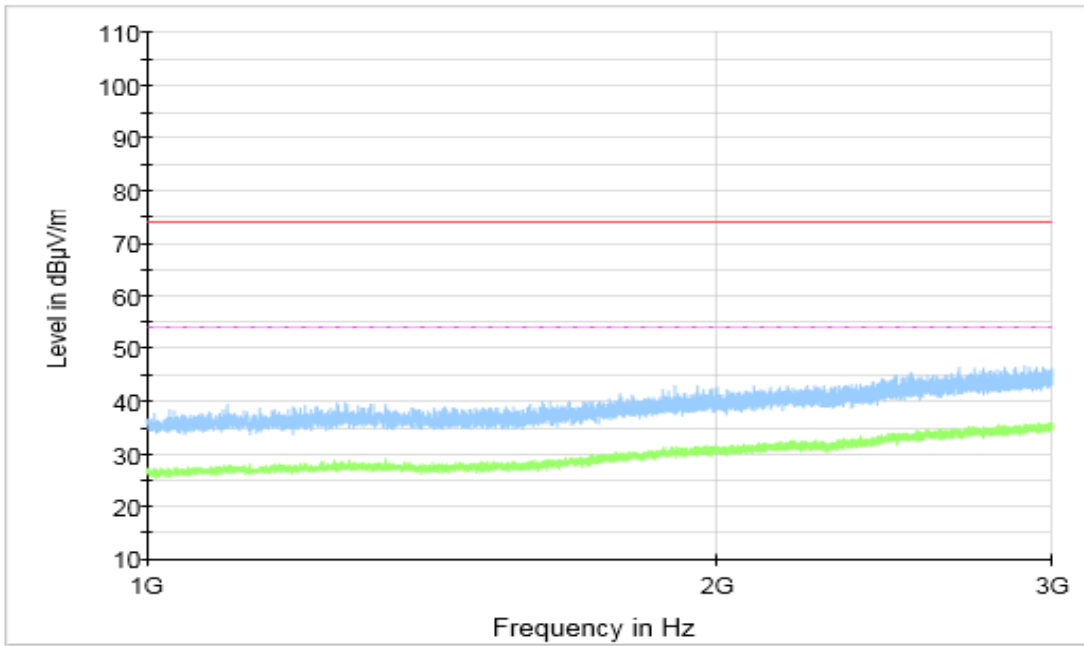


Figure A.1.5. Radiated Emission (WCDMA Receiver Band 5z, 1GHz to 3GHz)

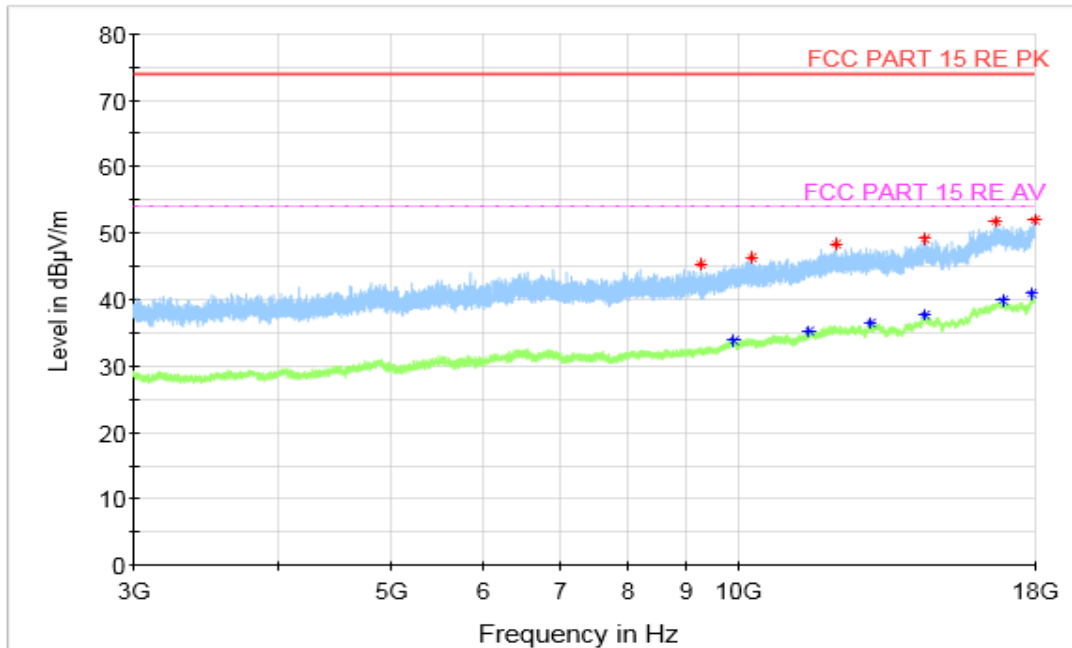


Figure A.1.6. Radiated Emission (WCDMA Receiver Band 5, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9273.000000	45.33	74.00	28.67	H	3.9	41.43
10247.000000	46.34	74.00	27.66	H	5.4	40.94
12111.500000	48.40	74.00	25.60	V	8.0	40.4
14467.500000	49.16	74.00	24.84	V	11.7	37.46
16635.500000	51.70	74.00	22.30	V	15.4	36.3
17977.500000	51.89	74.00	22.11	V	16.9	34.99

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9889.000000	33.91	54.00	20.09	H	5.3	28.61
11486.500000	35.17	54.00	18.83	V	6.9	28.27
12973.000000	36.44	54.00	17.56	H	9.3	27.14
14472.500000	37.60	54.00	16.40	V	11.6	26
16928.500000	39.98	54.00	14.02	H	15.9	24.08
17913.000000	40.87	54.00	13.13	H	17.3	23.57

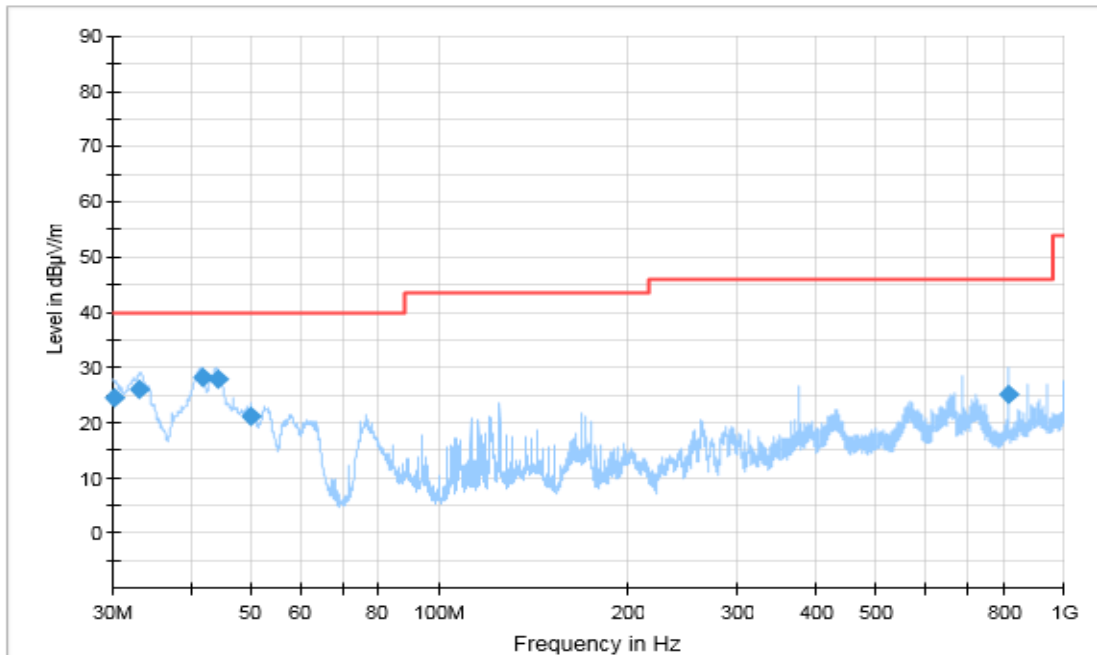


Figure A.1.7. Radiated Emission (LTE Receiver Band 5, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.185000	24.41	40.00	15.59	V	-24.3	48.71
33.171667	26.20	40.00	13.80	V	-25.9	52.10
41.821667	28.27	40.00	11.73	V	-30.2	58.47
44.192778	27.83	40.00	12.17	V	-32.0	59.83
49.998889	21.30	40.00	18.70	V	-36.5	57.8
812.540556	25.24	46.00	20.76	V	-18.5	43.74

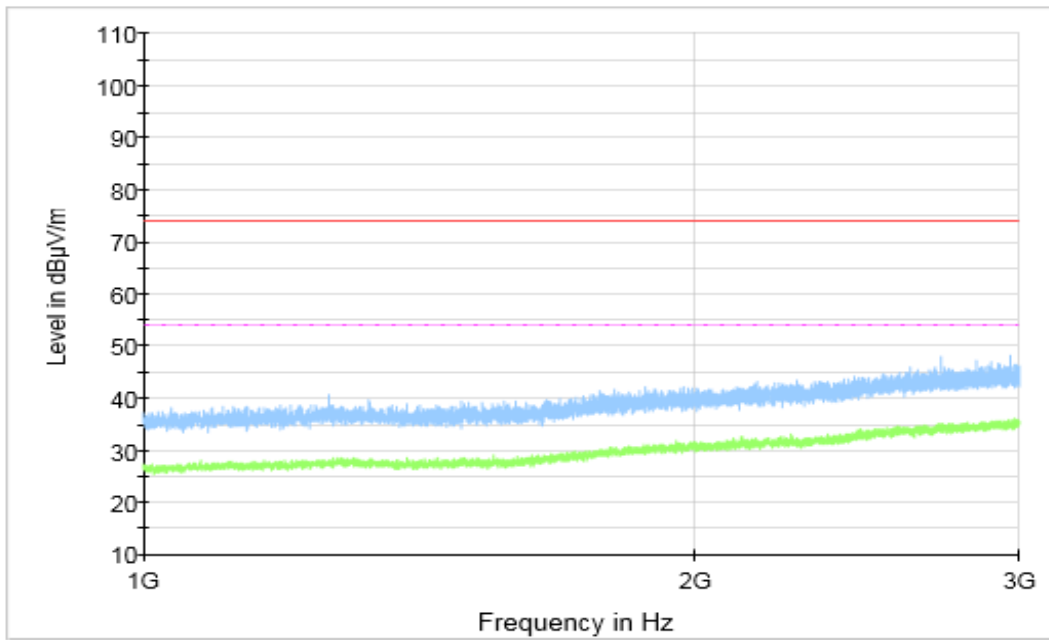


Figure A.1.8. Radiated Emission (LTE Receiver Band 5, 1GHz to 3GHz)

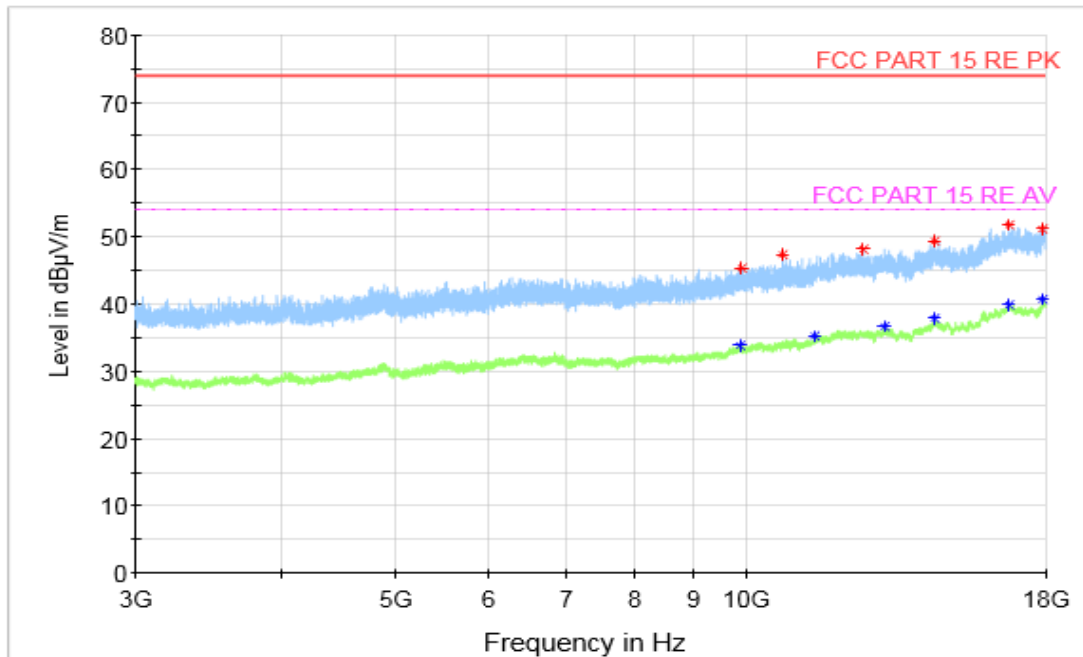


Figure A.1.9. Radiated Emission (LTE Receiver Band 5 , 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9897.000000	45.40	74.00	28.60	H	5.3	40.10
10728.000000	47.38	74.00	26.62	H	6.3	41.08
12583.000000	48.15	74.00	25.85	H	8.6	39.55
14464.500000	49.28	74.00	24.72	H	11.7	37.58
16759.000000	51.70	74.00	22.30	H	15.6	36.1
17876.500000	51.10	74.00	22.90	H	17.0	34.10

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9871.500000	33.91	54.00	20.09	V	5.2	28.71
11433.500000	35.33	54.00	18.67	H	6.8	28.53
13097.500000	36.67	54.00	17.33	H	9.8	26.87
14461.500000	37.83	54.00	16.17	V	11.8	26.03
16771.500000	39.82	54.00	14.18	H	15.6	24.22
17906.000000	40.64	54.00	13.36	H	17.2	23.44

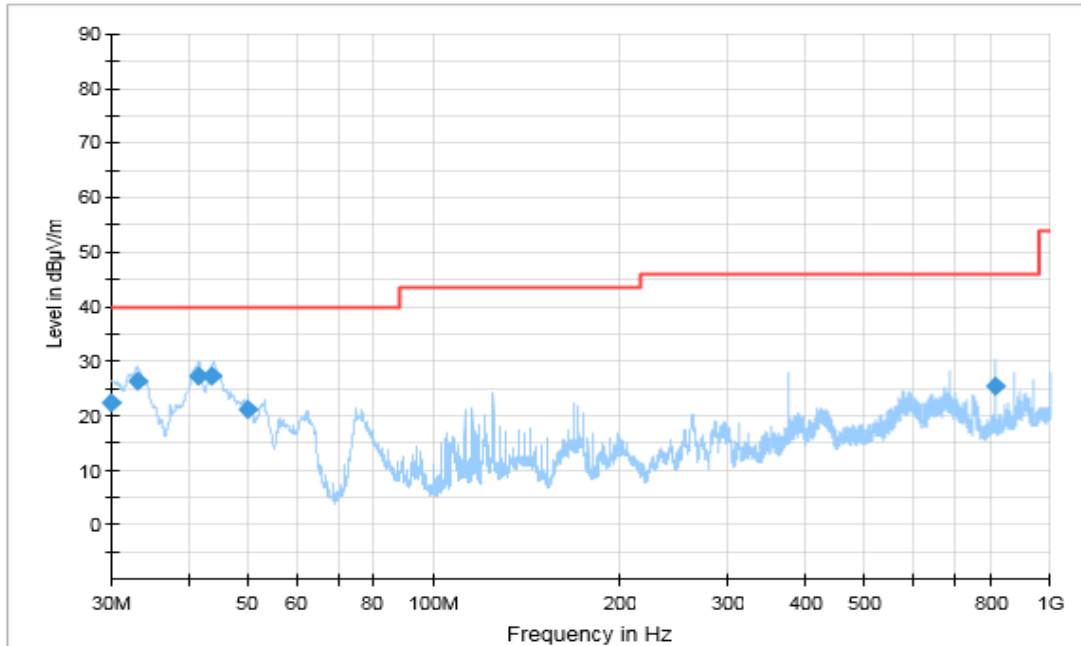


Figure A.1.10. Radiated Emission (LTE Receiver Band 12, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.000000	22.56	40.00	17.44	V	-24.1	46.66
33.041111	26.33	40.00	13.67	V	-25.8	52.13
41.700000	27.28	40.00	12.72	V	-30.1	57.38
43.765000	27.27	40.00	12.73	V	-31.8	59.07
49.998889	21.11	40.00	18.89	V	-36.5	57.61
812.540556	25.55	46.00	20.45	V	-18.5	44.05

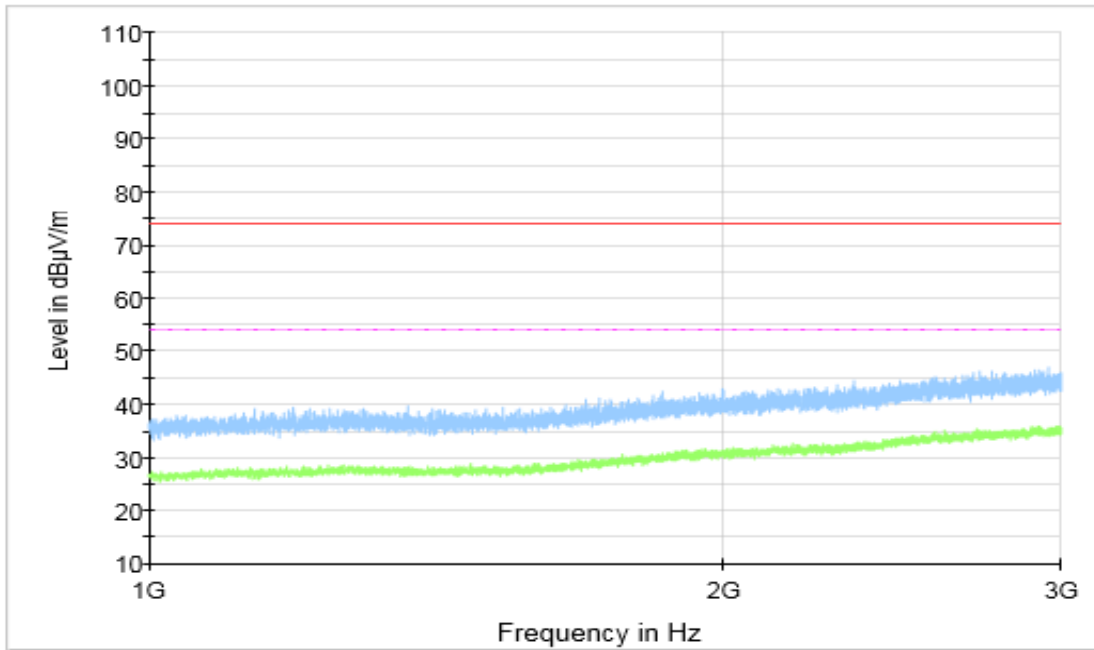


Figure A.1.11. Radiated Emission (LTE Receiver Band 12,, 1GHz to 3GHz)

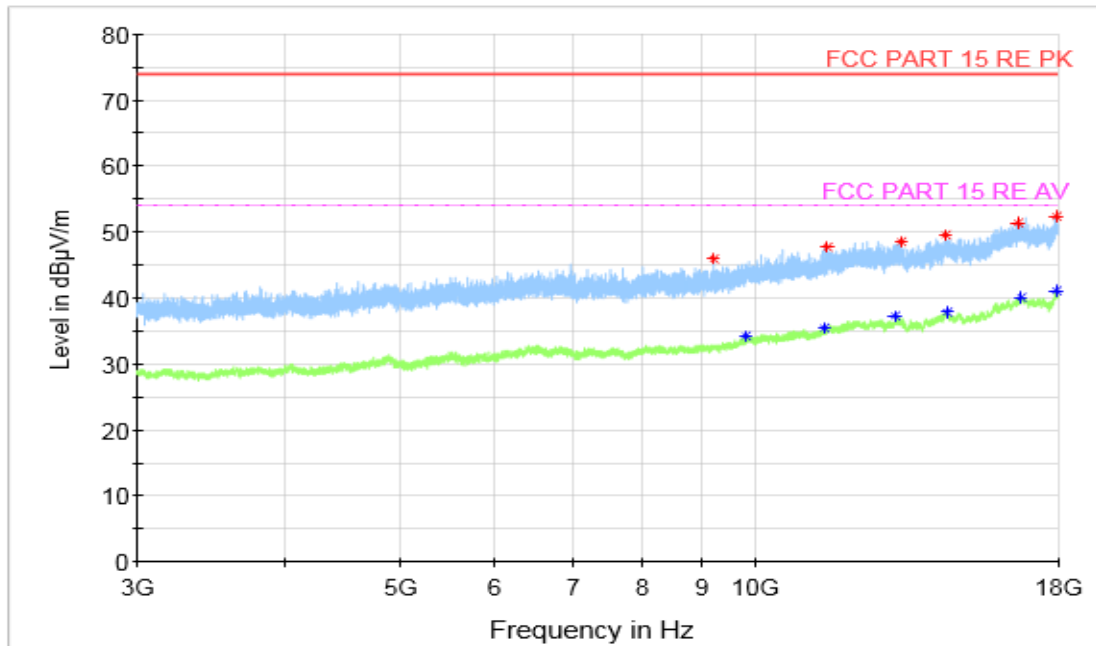


Figure A.1.12. Radiated Emission (LTE Receiver Band 12 , 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9220.500000	45.87	74.00	28.13	H	3.8	42.07
11494.500000	47.68	74.00	26.32	V	6.9	40.78
13247.000000	48.61	74.00	25.39	H	9.7	38.91
14484.000000	49.54	74.00	24.46	V	11.7	37.84
16677.500000	51.40	74.00	22.60	H	15.2	36.2
17947.000000	52.35	74.00	21.65	H	17.3	35.05

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9818.000000	34.26	54.00	19.74	V	5.0	29.26
11433.000000	35.41	54.00	18.59	V	6.8	28.61
13096.000000	37.18	54.00	16.82	V	9.7	27.48
14493.000000	37.96	54.00	16.04	V	11.7	26.26
16748.500000	40.11	54.00	13.89	H	15.6	24.51
17939.000000	41.15	54.00	12.85	V	17.1	24.05

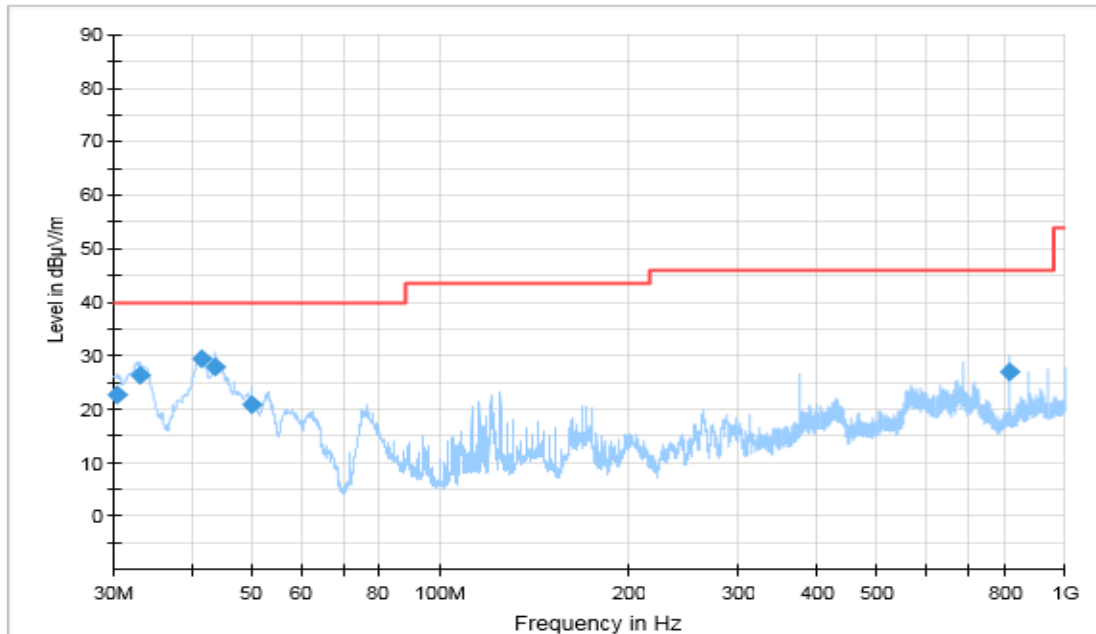


Figure A.1.13. Radiated Emission (LTE Receiver Band 13, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.385000	22.87	40.00	17.13	V	-24.5	47.37
33.143889	26.33	40.00	13.67	V	-25.9	52.23
41.496667	29.45	40.00	10.55	V	-30.0	59.45
43.721667	27.91	40.00	12.09	V	-31.8	59.71
49.998889	21.04	40.00	18.96	V	-36.5	57.54
812.540556	26.88	46.00	19.12	V	-18.5	45.38

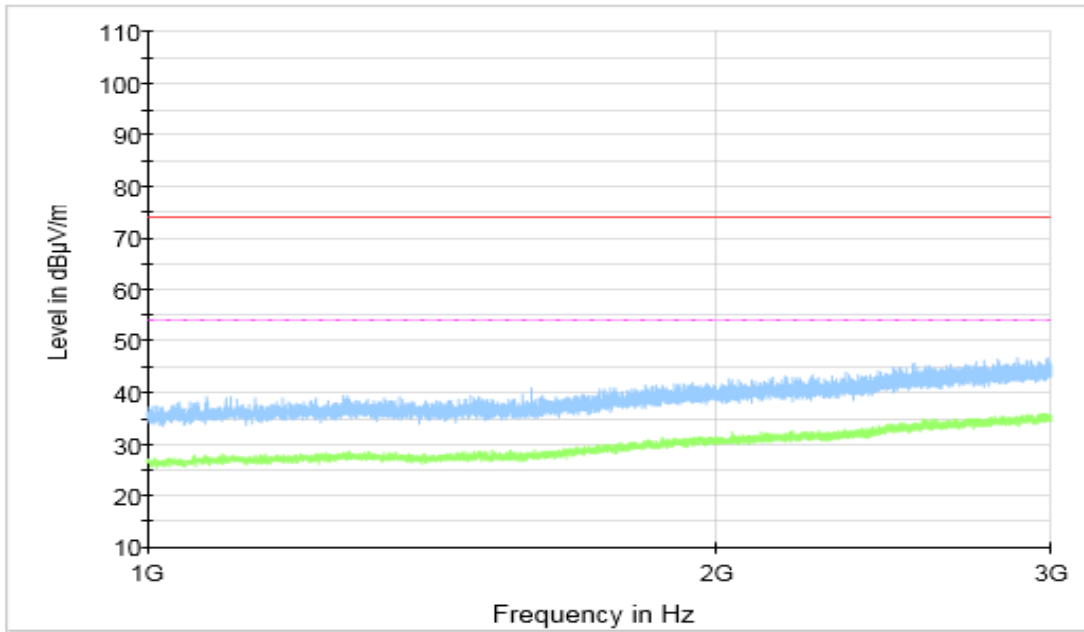


Figure A.1.14. Radiated Emission (LTE Receiver Band 13,, 1GHz to 3GHz)

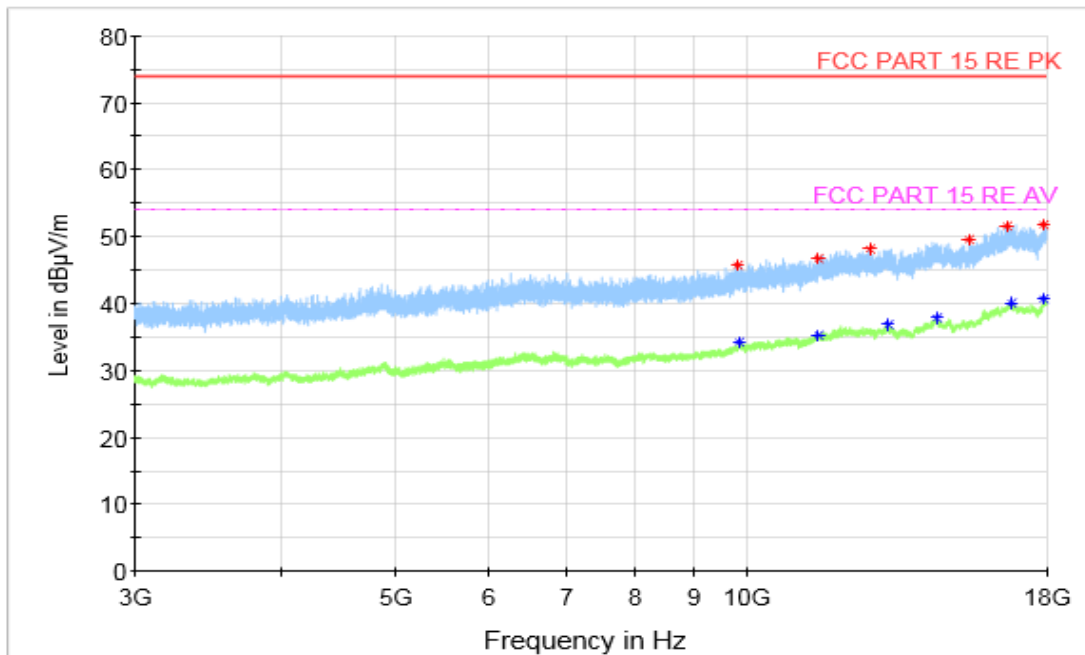


Figure A.1.15. Radiated Emission (LTE Receiver Band 13 , 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9798.500000	45.83	74.00	28.17	H	4.9	40.93
11489.000000	46.84	74.00	27.16	H	7.0	39.84
12728.500000	48.16	74.00	25.84	H	8.9	39.26
15474.000000	49.60	74.00	24.40	V	12.7	36.90
16637.000000	51.68	74.00	22.32	H	15.3	36.38
17907.500000	51.77	74.00	22.23	V	17.3	34.47

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9848.000000	34.23	54.00	19.77	H	5.3	28.93
11483.500000	35.19	54.00	18.81	V	6.8	28.39
13192.500000	36.90	54.00	17.10	H	9.7	27.2
14504.000000	37.84	54.00	16.16	V	11.7	26.14
16785.500000	40.05	54.00	13.95	H	15.8	24.25
17908.500000	40.76	54.00	13.24	H	17.4	23.36

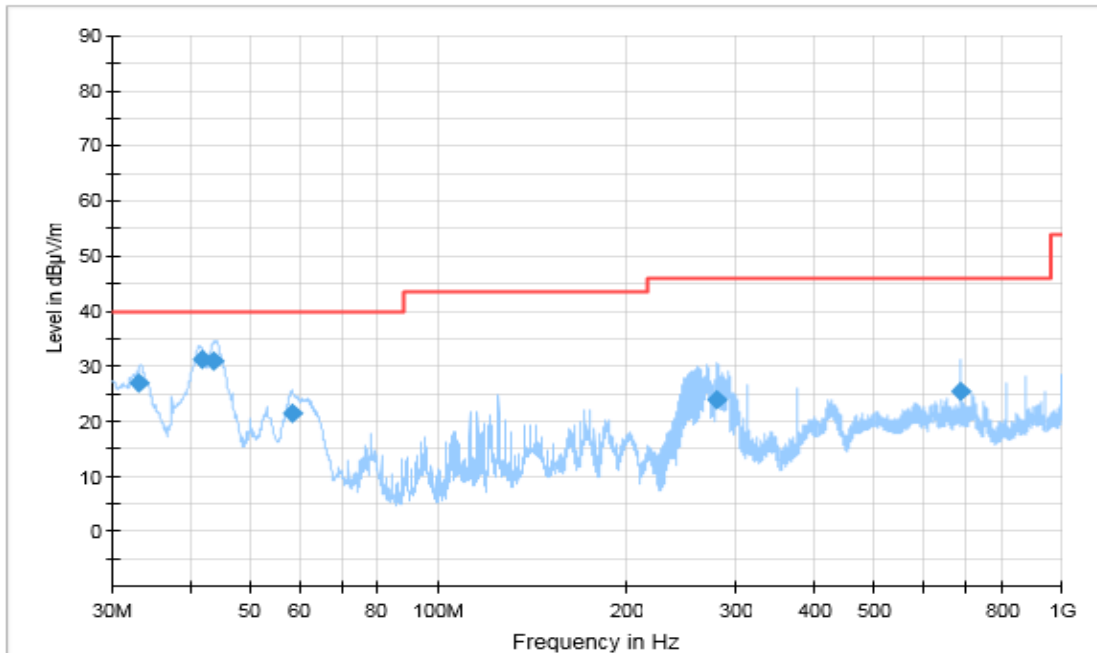


Figure A.1.16. Radiated Emission (LTE Receiver Band 17, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
33.135000	27.04	40.00	12.96	V	-25.9	52.94
41.820000	31.26	40.00	8.74	V	-30.2	61.46
43.775556	30.98	40.00	9.02	V	-31.8	62.78
58.283889	21.62	40.00	18.38	V	-37.4	59.02
280.278333	23.88	46.00	22.12	H	-30.1	53.98
687.518333	25.41	46.00	20.59	V	-19.7	45.11

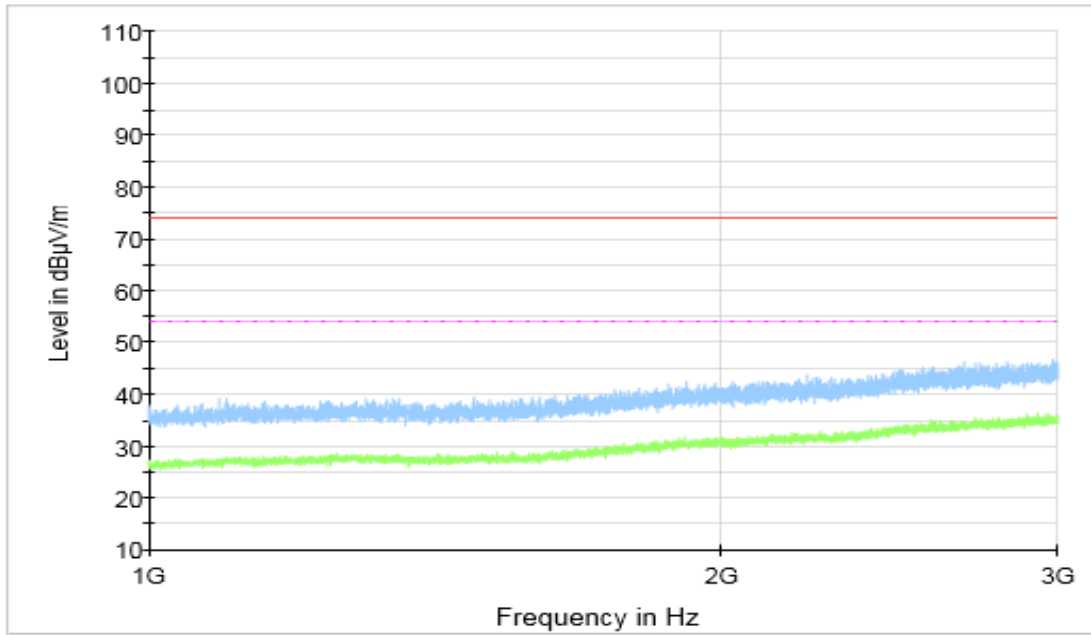


Figure A.1.17. Radiated Emission (LTE Receiver Band 17, 1GHz to 3GHz)

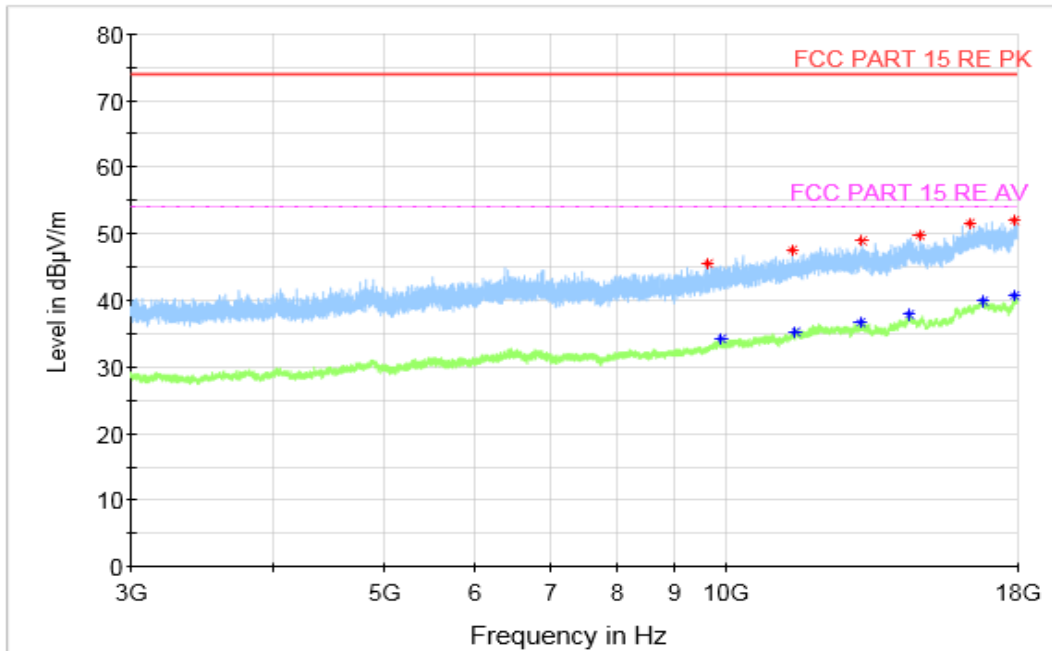


Figure A.1.18. Radiated Emission (LTE Receiver Band 17 , 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9621.000000	45.52	74.00	28.48	V	4.3	41.22
11408.000000	47.60	74.00	26.40	H	6.6	41.00
13151.500000	48.91	74.00	25.09	V	9.7	39.21
14762.500000	49.83	74.00	24.17	H	11.1	38.73
16348.500000	51.53	74.00	22.47	H	15.0	36.53
17904.500000	52.08	74.00	21.92	H	17.1	34.98

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9884.000000	34.19	54.00	19.81	H	5.4	28.79
11487.000000	35.19	54.00	18.81	H	6.9	28.29
13125.500000	36.62	54.00	17.38	H	9.8	26.82
14460.000000	37.94	54.00	16.06	V	11.8	26.14
16780.500000	39.80	54.00	14.20	H	15.9	23.9
17904.000000	40.74	54.00	13.26	H	17.1	23.64

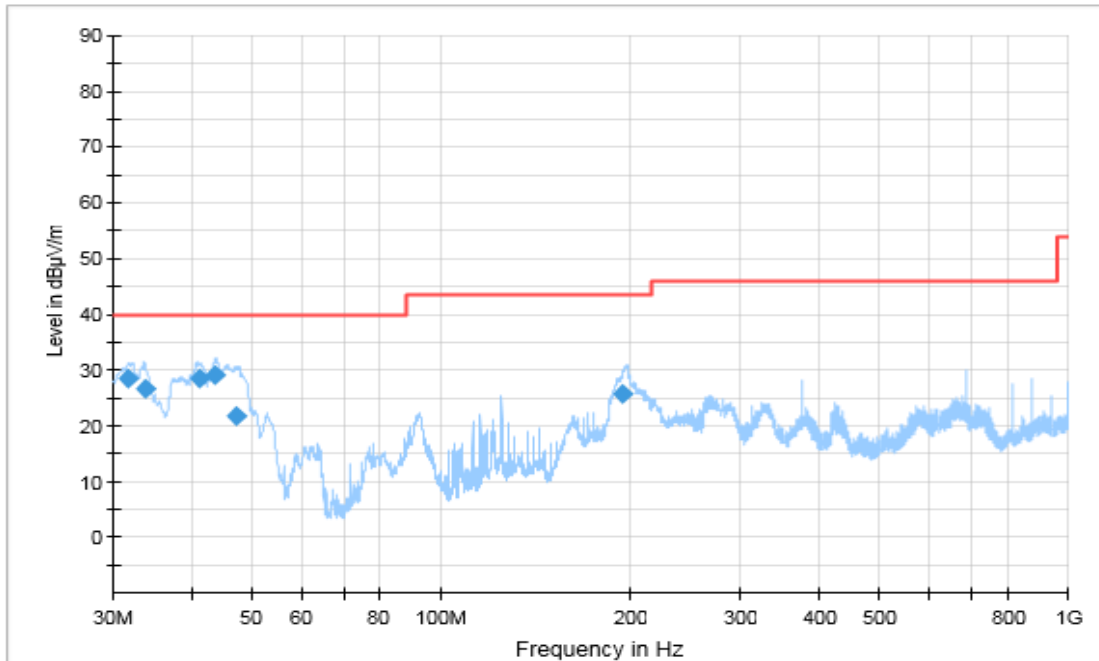


Figure A.1.19. Radiated Emission (GSM Receiver 850MHz, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
31.784444	28.43	40.00	11.57	V	-25.6	54.03
33.795556	26.62	40.00	13.38	V	-26.3	52.92
41.145556	28.46	40.00	11.54	V	-29.8	58.26
43.777222	29.18	40.00	10.82	V	-31.8	60.98
47.052222	21.74	40.00	18.26	V	-34.5	56.24
194.761667	25.88	43.50	17.62	V	-33.3	59.18

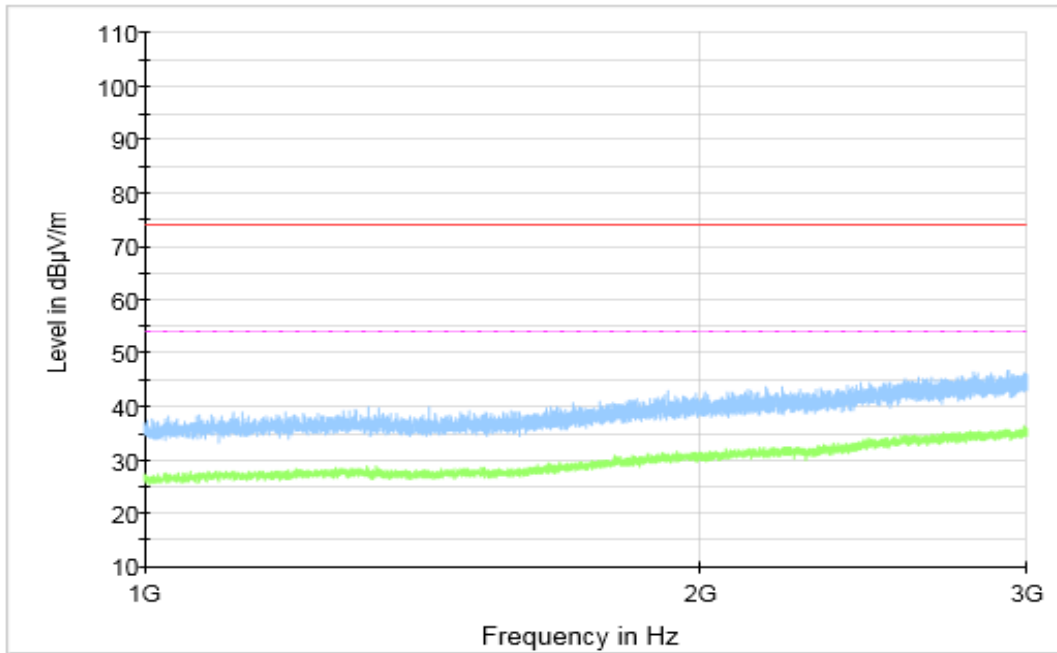


Figure A.1.20. Radiated Emission (GSM Receiver 850MHz, 1GHz to 3GHz)

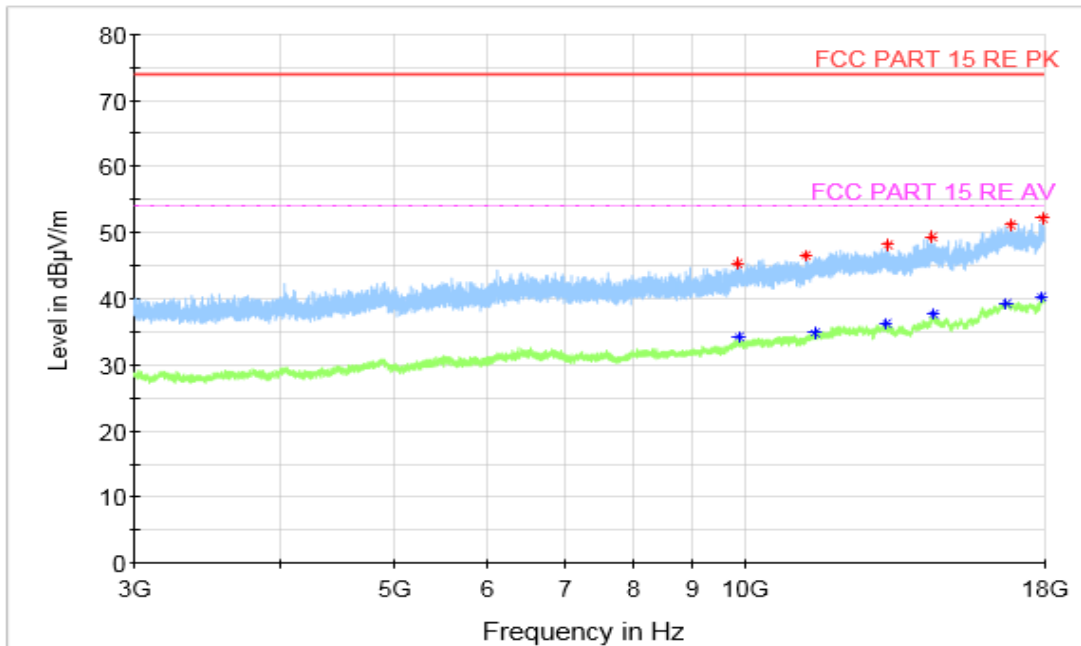


Figure A.1.21. Radiated Emission (GSM Receiver 850MHz , 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9829.500000	45.41	74.00	28.59	H	5.0	40.41
11270.500000	46.56	74.00	27.44	H	6.0	40.56
13215.500000	48.24	74.00	25.76	H	9.9	38.34
14441.000000	49.32	74.00	24.68	H	11.5	37.82
16847.500000	51.24	74.00	22.76	V	15.9	35.34
17946.500000	52.20	74.00	21.80	H	17.3	34.90

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9880.500000	34.28	54.00	19.72	H	5.4	28.88
11467.500000	34.85	54.00	19.15	V	6.7	28.15
13190.500000	36.21	54.00	17.79	V	9.8	26.41
14454.000000	37.59	54.00	16.41	V	11.6	25.99
16695.000000	39.29	54.00	14.71	H	15.4	23.89
17910.500000	40.34	54.00	13.67	H	17.4	22.94

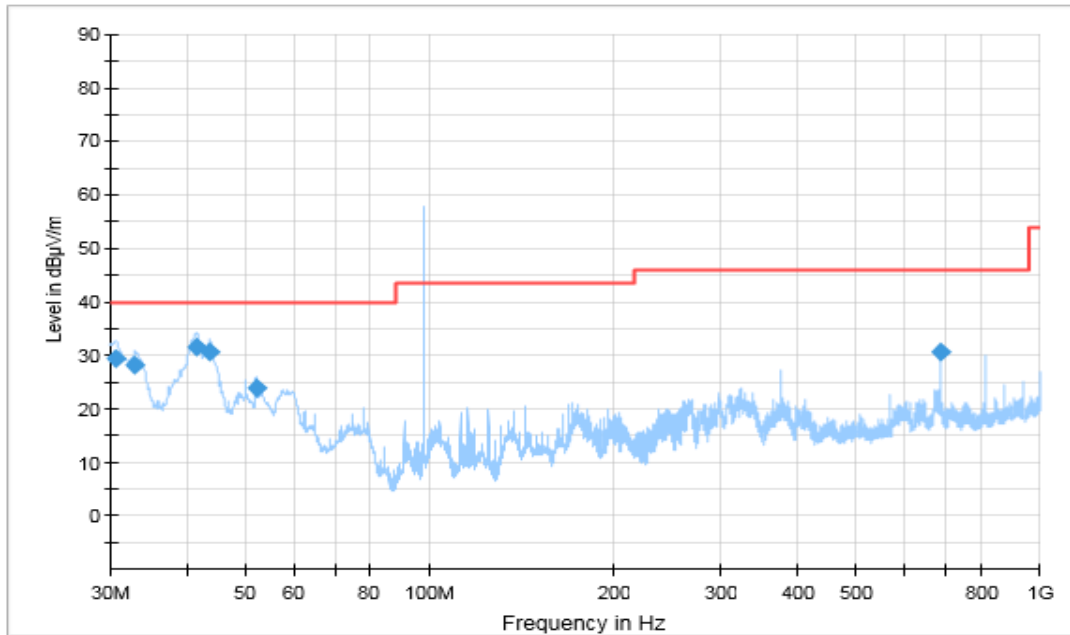


Figure A.1.22. Radiated Emission (FM receiver, 30MHz to 1GHz)

Note: the spike over 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)
30.545000	29.60	40.00	10.40	V	-24.7	54.30
32.973333	28.21	40.00	11.79	V	-25.8	54.01
41.538333	31.49	40.00	8.51	V	-30.0	61.49
43.613889	30.82	40.00	9.18	V	-31.7	62.52
52.006667	24.08	40.00	15.92	V	-37.8	61.88
687.518333	30.54	46.00	15.46	V	-19.7	50.24

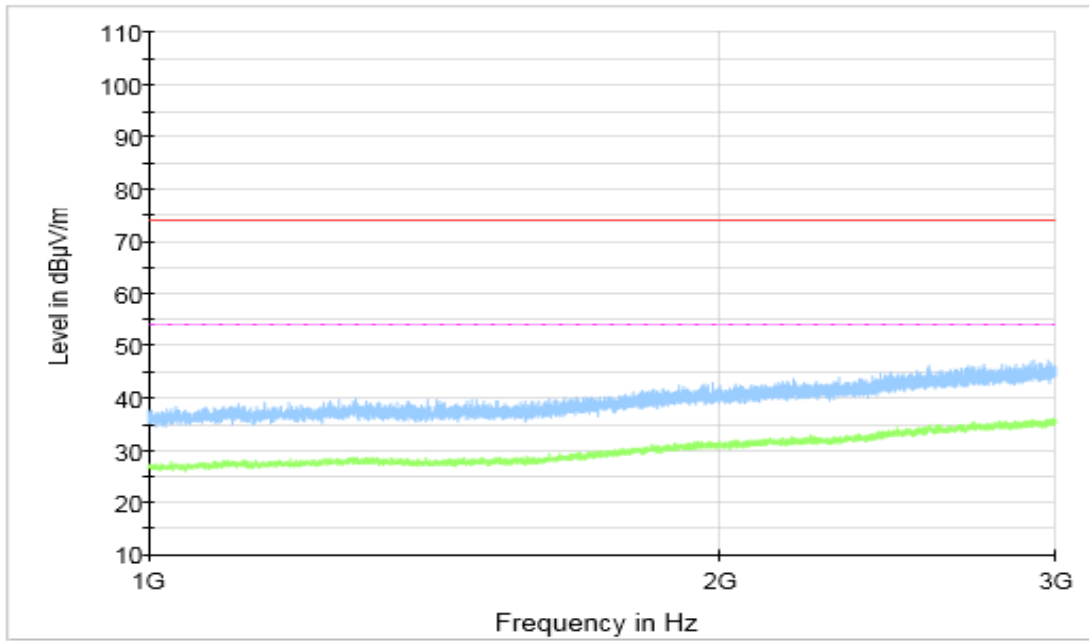


Figure A.1.23. Radiated Emission (FM receiver, 1GHz to 3GHz)

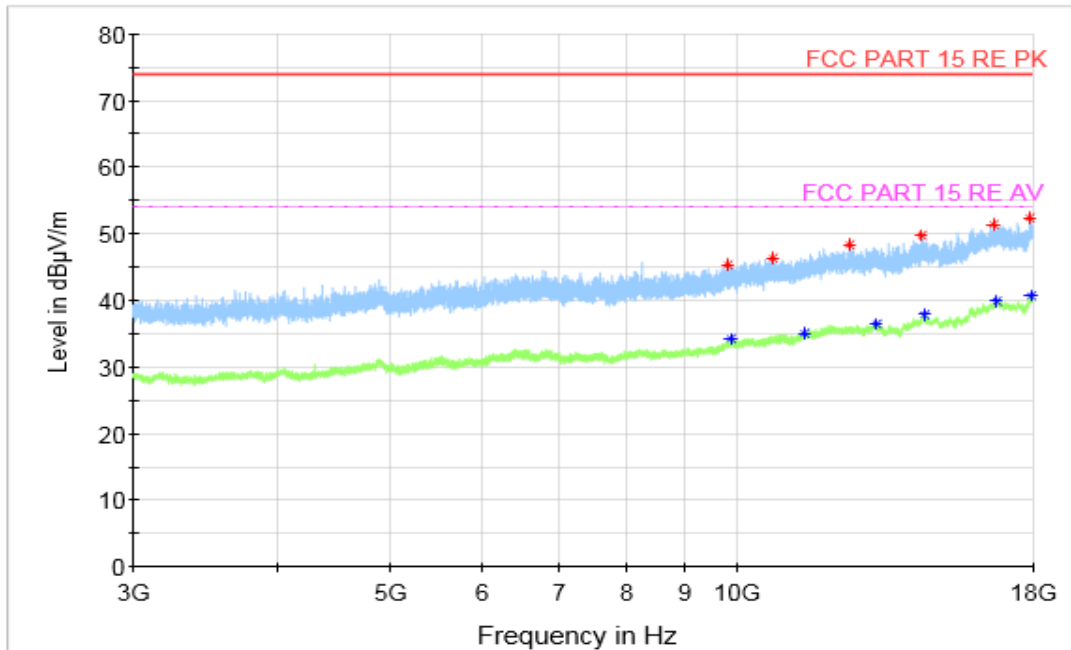


Figure A.1.24. Radiated Emission (FM receiver , 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9814.000000	45.35	74.00	28.65	V	4.9	40.45
10737.000000	46.31	74.00	27.69	V	6.3	40.01
12482.500000	48.44	74.00	25.56	V	8.9	39.54
14431.500000	49.72	74.00	24.28	H	11.5	38.22
16661.000000	51.35	74.00	22.65	V	15.3	36.05
17901.000000	52.39	74.00	21.61	V	16.9	35.49

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9880.500000	34.22	54.00	19.78	V	5.4	28.82
11421.000000	35.06	54.00	18.94	H	6.6	28.46
13189.500000	36.55	54.00	17.45	H	9.8	26.75
14502.000000	37.93	54.00	16.07	V	11.7	26.23
16747.500000	39.84	54.00	14.16	H	15.6	24.24
17945.000000	40.78	54.00	13.22	V	17.3	23.48

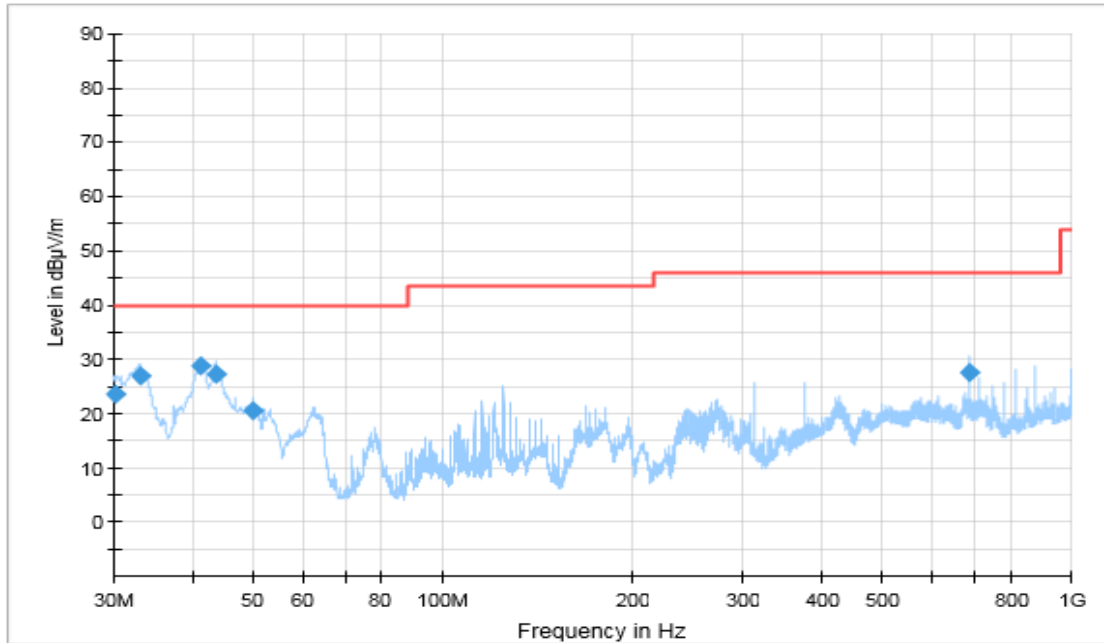


Figure A.1.25. Radiated Emission (Video Player , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.305000	23.66	40.00	16.34	V	-24.5	48.16
33.023889	26.86	40.00	13.14	V	-25.8	52.66
41.308889	28.89	40.00	11.11	V	-29.9	58.79
43.735556	27.24	40.00	12.76	V	-31.8	59.04
49.998889	20.64	40.00	19.36	V	-36.5	57.14
687.518333	27.51	46.00	18.49	V	-19.7	47.21

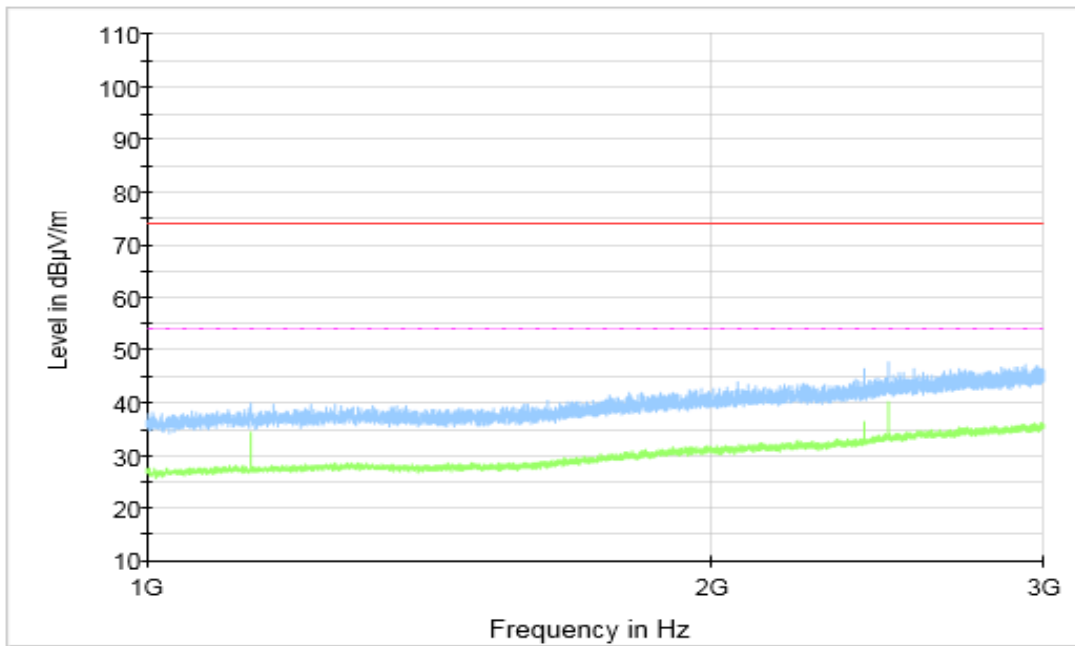


Figure A.1.26. Radiated Emission (Video Player, 1GHz to 3GHz)

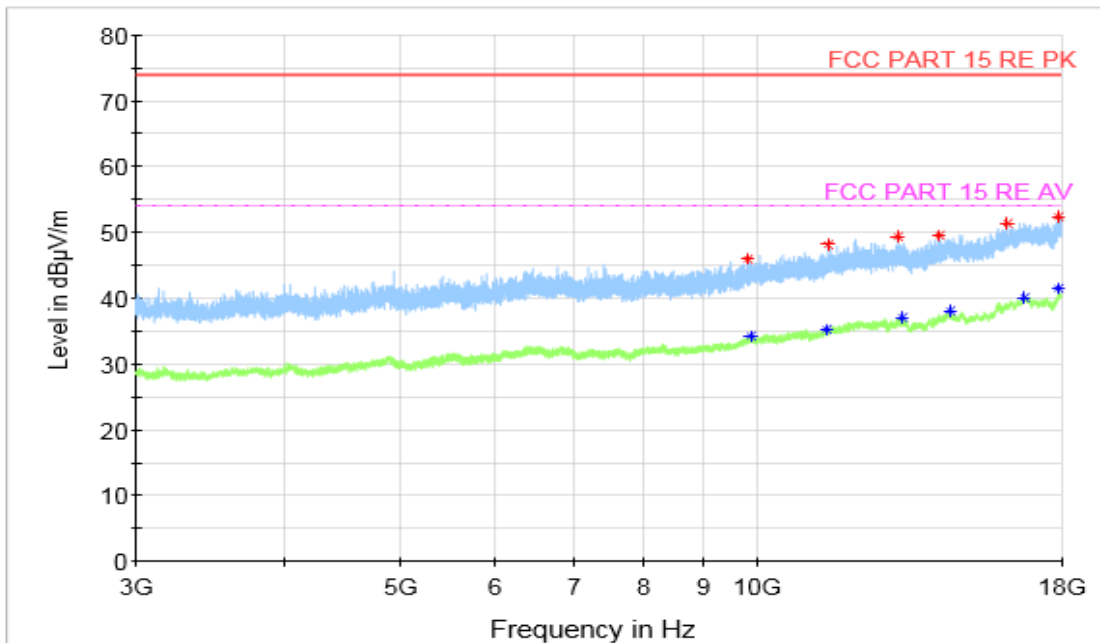


Figure A.1.27. Radiated Emission (Video Player , 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9821.500000	45.98	74.00	28.02	V	5.1	40.88
11450.500000	48.08	74.00	25.92	H	6.8	41.28
13127.000000	49.31	74.00	24.69	V	9.8	39.51
14223.500000	49.56	74.00	24.44	H	11.6	37.96
16206.500000	51.38	74.00	22.62	H	14.9	36.48
17908.500000	52.46	74.00	21.54	V	17.4	35.06

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9880.000000	34.29	54.00	19.71	V	5.4	28.89
11437.000000	35.36	54.00	18.64	H	6.7	28.66
13219.500000	37.01	54.00	16.99	H	9.8	27.21
14509.000000	38.08	54.00	15.92	H	11.7	26.38
16750.000000	40.03	54.00	13.97	V	15.6	24.43
17905.500000	41.45	54.00	12.55	H	17.2	24.25

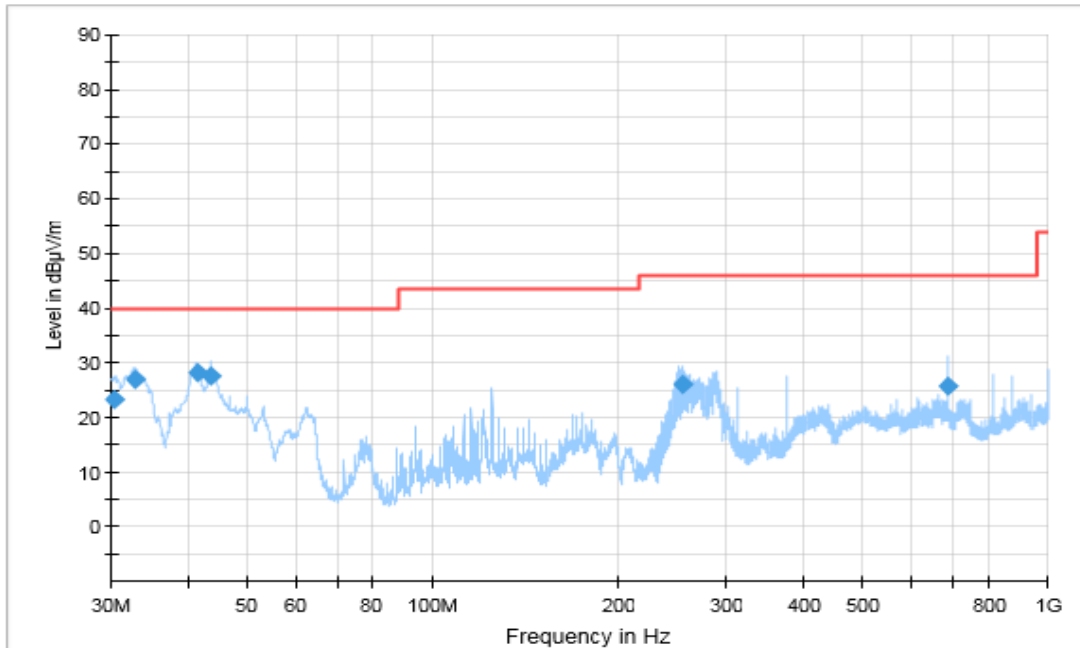


Figure A.1.28. Radiated Emission (Camera , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.461667	23.23	40.00	16.77	V	-24.6	47.83
32.994444	27.08	40.00	12.92	V	-25.8	52.88
41.470556	28.34	40.00	11.66	V	-30.0	58.34
43.761667	27.70	40.00	12.30	V	-31.8	59.50
255.100000	26.15	46.00	19.85	H	-30.8	56.95
687.518333	25.81	46.00	20.19	V	-19.7	45.51

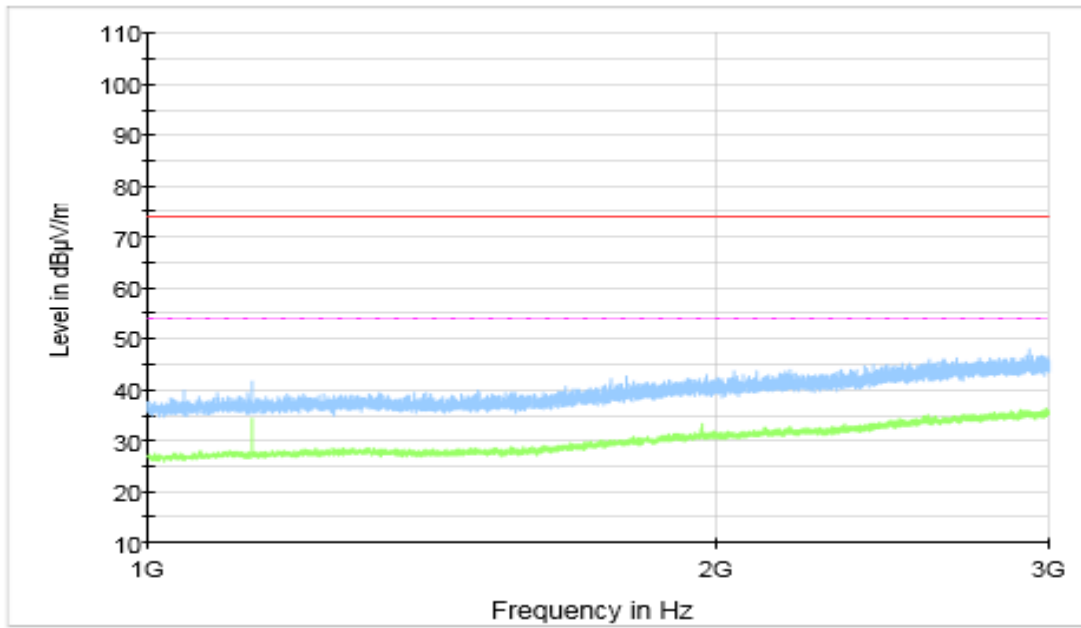


Figure A.1.29. Radiated Emission (Camera ,3GHz to 18GHz)

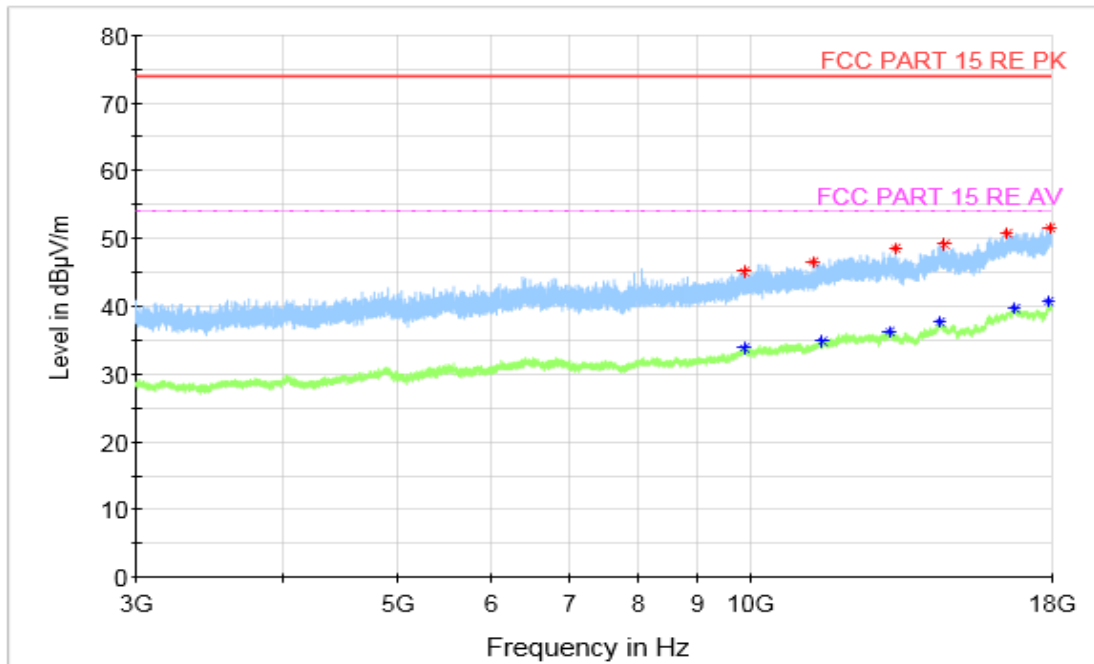


Figure A.1.30. Radiated Emission (Camera ,3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9869.000000	45.08	74.00	28.92	H	5.2	39.88
11290.500000	46.59	74.00	27.41	V	6.1	40.49
13272.500000	48.51	74.00	25.49	H	9.7	38.81
14591.000000	49.22	74.00	24.78	H	11.7	37.52
16518.000000	50.77	74.00	23.23	V	15.3	35.47
17950.000000	51.51	74.00	22.49	V	17.2	34.31

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9876.000000	33.78	54.00	20.22	V	5.3	28.48
11475.500000	34.86	54.00	19.14	H	6.7	28.16
13124.500000	36.27	54.00	17.73	H	9.8	26.47
14452.000000	37.60	54.00	16.40	H	11.6	26.00
16778.000000	39.60	54.00	14.40	H	15.8	23.8
17909.000000	40.61	54.00	13.39	H	17.4	23.21

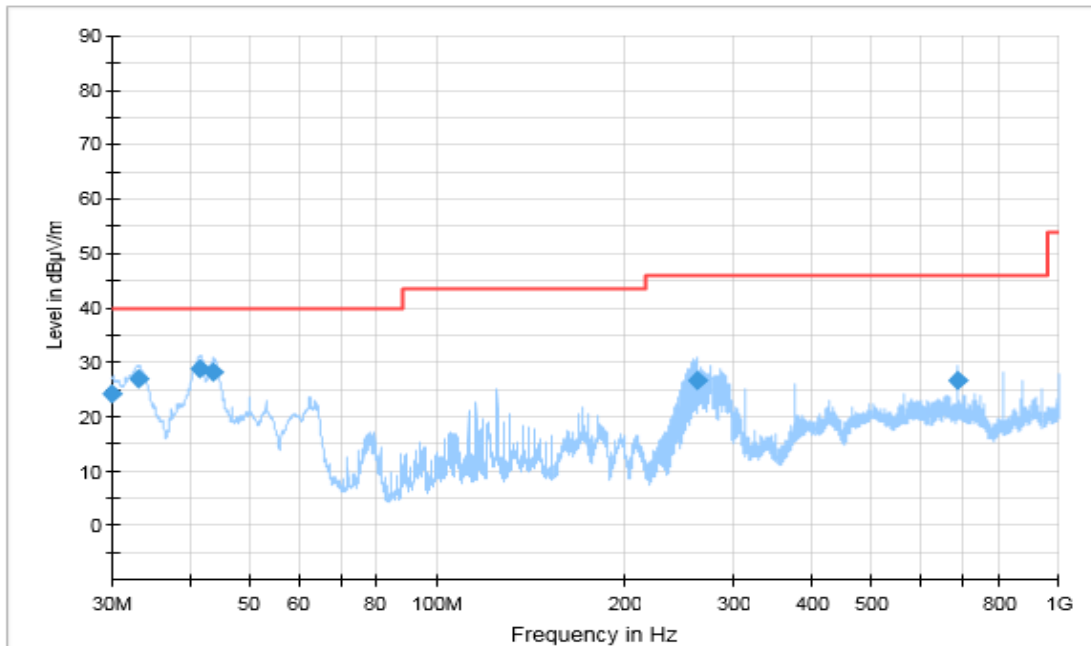


Figure A.1.31. Radiated Emission (GPS, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.000000	24.30	40.00	15.70	V	-24.1	48.40
33.011667	27.13	40.00	12.87	V	-25.8	52.93
41.508889	28.91	40.00	11.09	V	-30.0	58.91
43.735556	28.29	40.00	11.71	V	-31.8	60.09
262.375000	26.78	46.00	19.22	H	-30.7	57.48
687.532222	26.75	46.00	19.25	V	-19.7	46.45

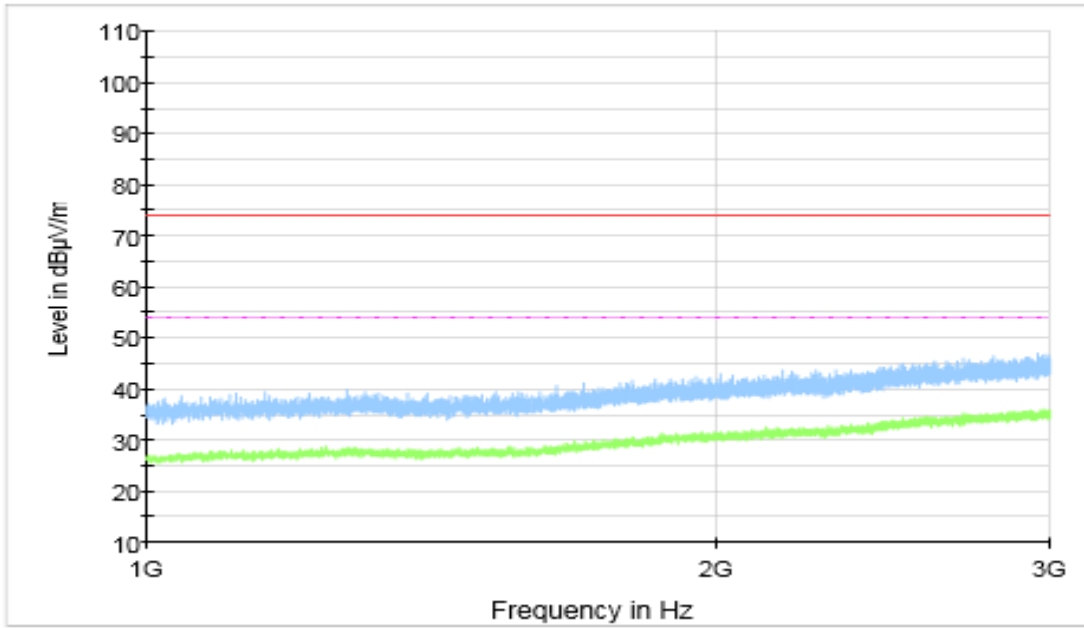


Figure A.1.32. Radiated Emission (GPS,1GHz to 3GHz)

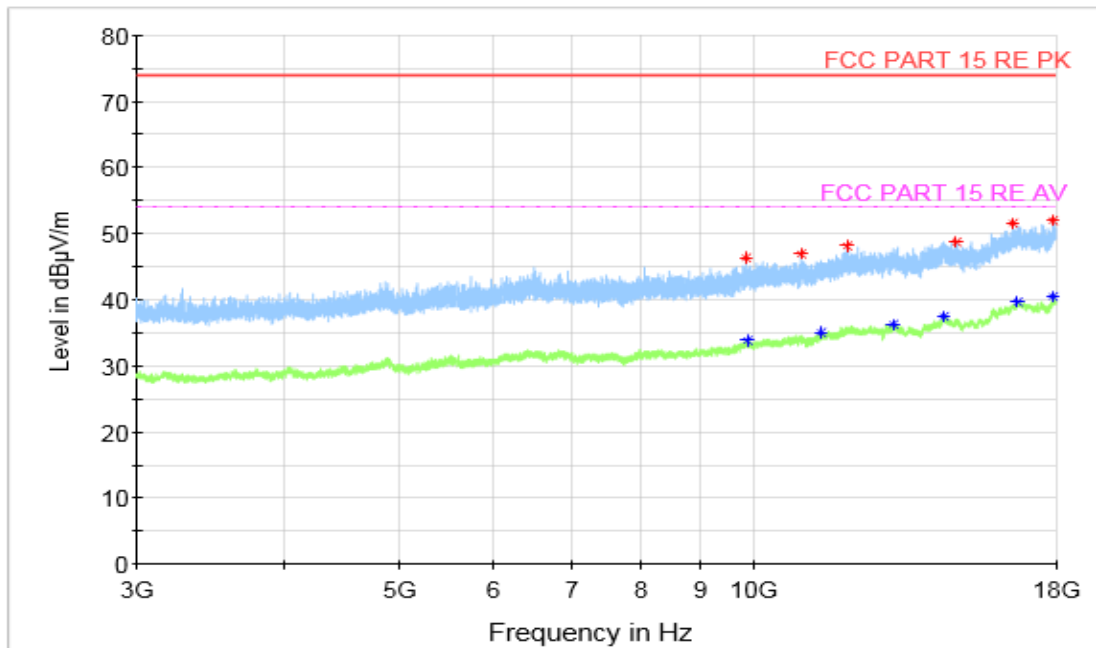


Figure A.1.33. Radiated Emission (GPS, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9846.000000	46.25	74.00	27.75	V	5.2	41.05
10949.000000	46.99	74.00	27.01	V	6.4	40.59
11973.500000	48.20	74.00	25.80	H	8.1	40.10
14829.500000	48.77	74.00	25.23	H	11.4	37.37
16554.500000	51.53	74.00	22.47	V	15.3	36.23
17889.000000	52.06	74.00	21.94	H	16.4	35.66

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9880.500000	33.87	54.00	20.13	V	5.4	28.47
11388.500000	35.03	54.00	18.97	H	6.6	28.43
13095.000000	36.29	54.00	17.71	H	9.7	26.59
14459.500000	37.50	54.00	16.50	V	11.8	25.70
16714.000000	39.67	54.00	14.33	H	15.4	24.27
17915.000000	40.43	54.00	13.57	H	17.2	23.23

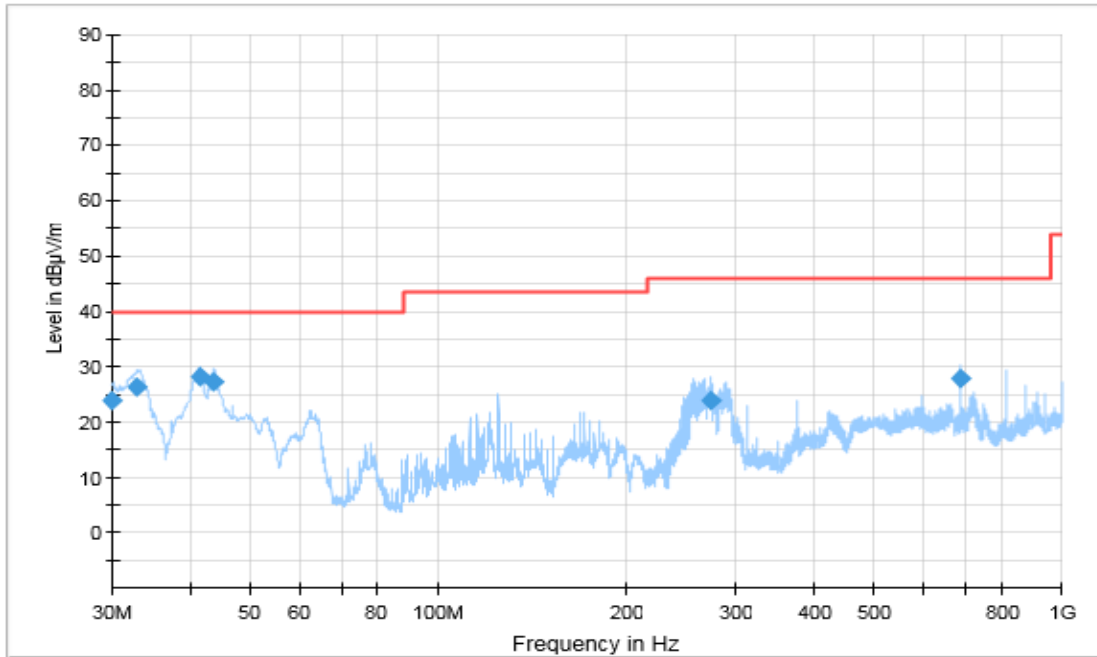


Figure A.1.34. Radiated Emission (GLONASS, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.000000	23.91	40.00	16.09	V	-24.1	48.01
32.956111	26.42	40.00	13.58	V	-25.8	52.22
41.604444	28.25	40.00	11.75	V	-30.1	58.35
43.747778	27.31	40.00	12.69	V	-31.8	59.11
273.180556	24.08	46.00	21.92	H	-30.5	54.58
687.518333	28.05	46.00	17.95	V	-19.7	47.75

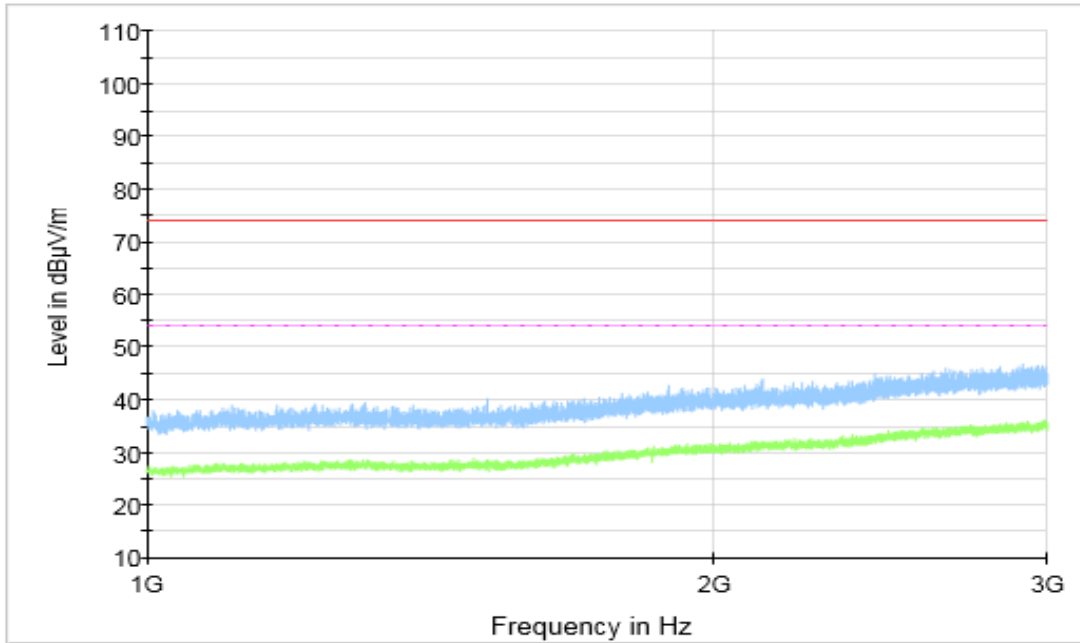


Figure A.1.35. Radiated Emission (GLONASS,1GHz to 3GHz)

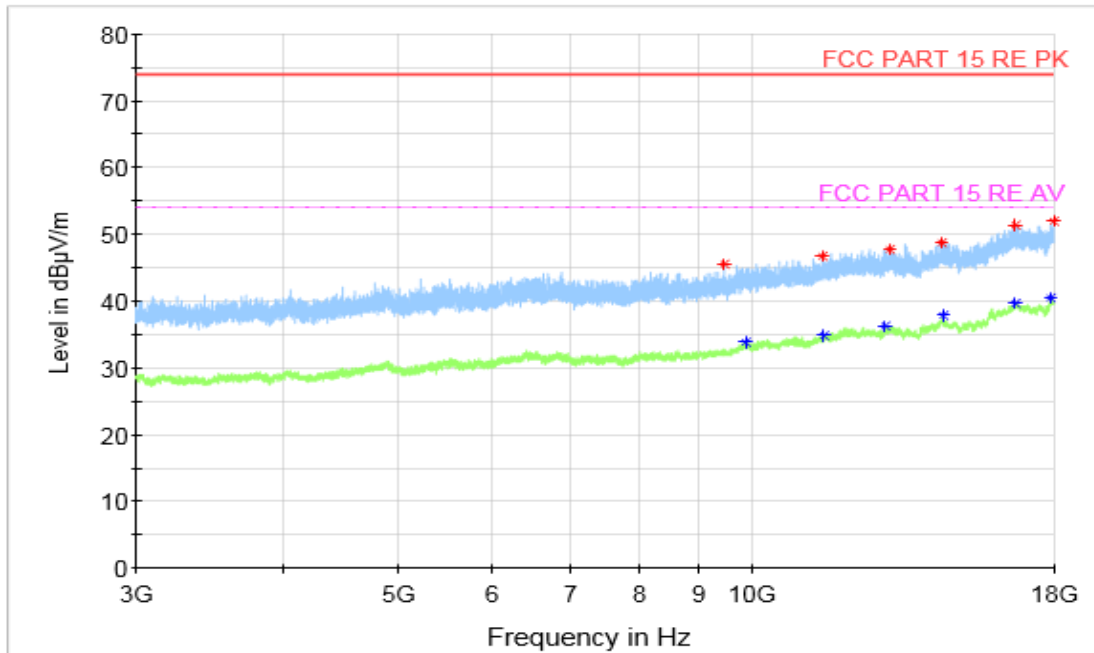


Figure A.1.36. Radiated Emission (GLONASS, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9451.500000	45.59	74.00	28.41	V	3.9	41.69
11451.500000	46.66	74.00	27.34	H	6.8	39.86
13073.000000	47.80	74.00	26.20	H	9.6	38.20
14471.000000	48.85	74.00	25.15	H	11.6	37.25
16724.000000	51.31	74.00	22.69	H	15.4	35.91
17999.000000	51.97	74.00	22.03	V	16.9	35.07

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9878.000000	33.90	54.00	20.10	H	5.3	28.60
11490.000000	34.79	54.00	19.21	V	7.0	27.79
12937.500000	36.27	54.00	17.73	H	9.3	26.97
14495.500000	37.97	54.00	16.03	V	11.7	26.27
16719.000000	39.66	54.00	14.34	H	15.4	24.26
17907.500000	40.51	54.00	13.49	H	17.3	23.21

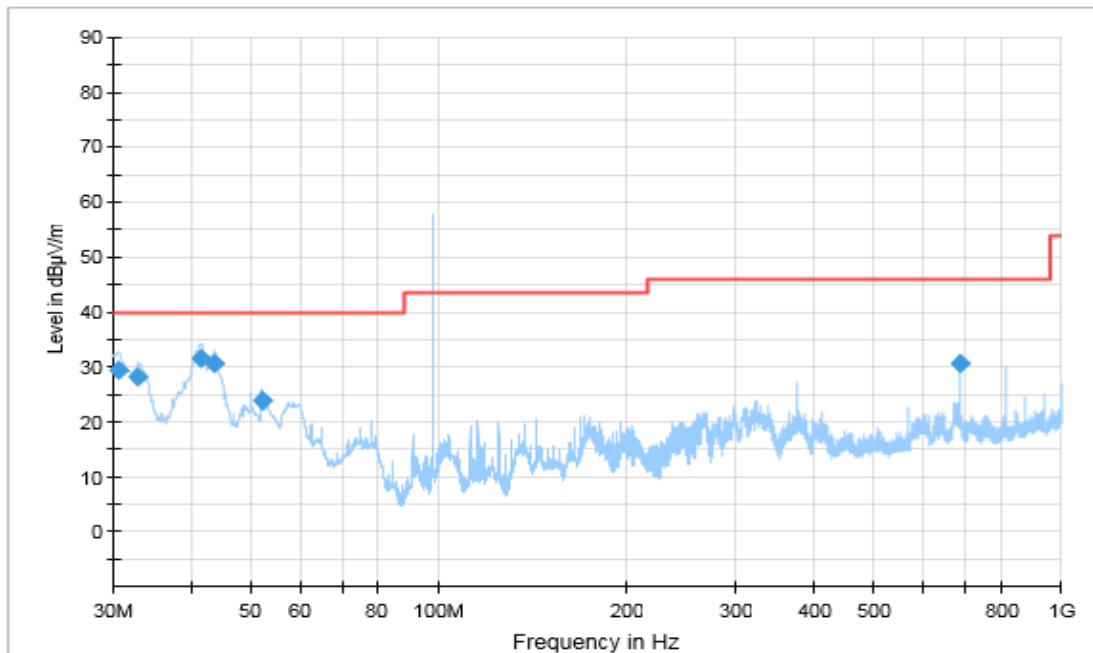


Figure A.1.37. Radiated Emission (FM receiver, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.545000	29.60	40.00	10.40	V	-24.7	54.30
32.973333	28.21	40.00	11.79	V	-25.8	54.01
41.538333	31.49	40.00	8.51	V	-30.0	61.49
43.613889	30.82	40.00	9.18	V	-31.7	62.52
52.006667	24.08	40.00	15.92	V	-37.8	61.88
687.518333	30.54	46.00	15.46	V	-19.7	50.24

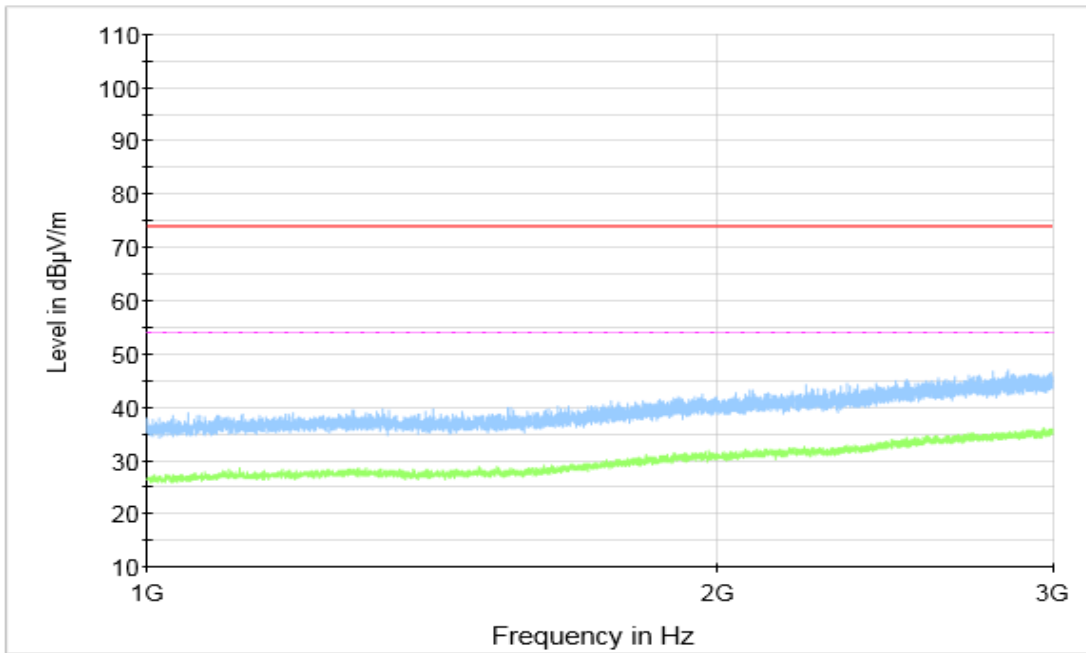


Figure A.1.38. Radiated Emission (FM receiver,1GHz to 3GHz)

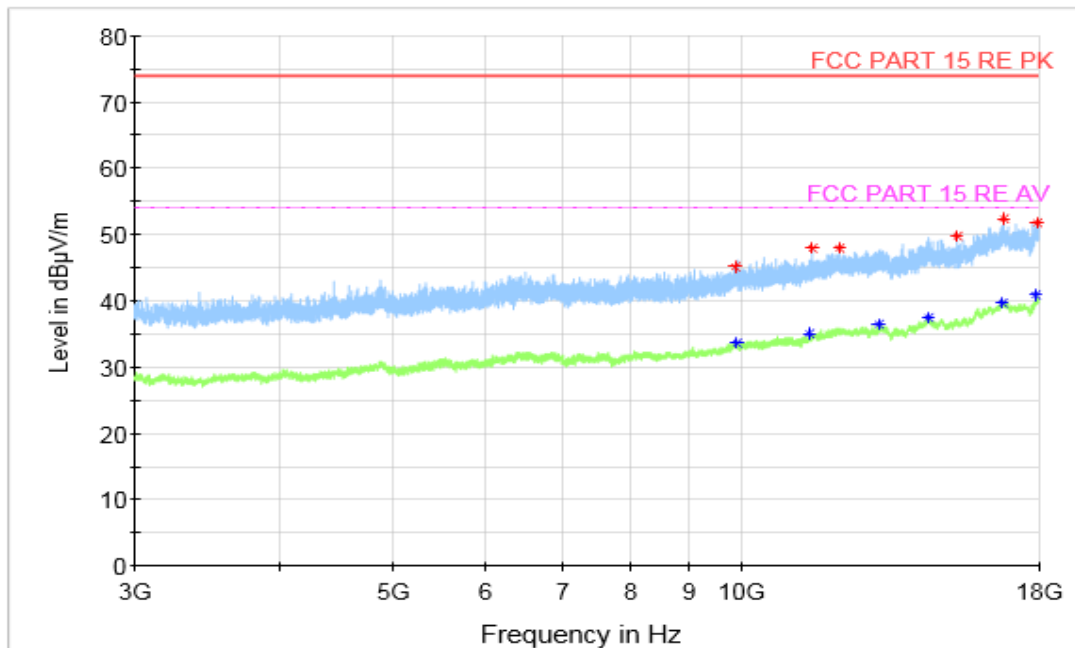


Figure A.1.39. Radiated Emission (FM receiver, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9880.000000	45.08	74.00	28.92	H	5.4	39.68
11488.500000	47.93	74.00	26.07	V	6.9	41.03
12135.000000	47.91	74.00	26.09	V	8.3	39.61
15322.500000	49.86	74.00	24.14	V	12.1	37.76
16796.000000	52.40	74.00	21.60	V	15.7	36.7
17958.000000	51.81	74.00	22.19	H	16.9	34.91

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9905.000000	33.75	54.00	20.25	H	5.4	28.35
11437.000000	35.05	54.00	18.95	V	6.7	28.35
13126.500000	36.46	54.00	17.54	H	9.8	26.66
14461.000000	37.51	54.00	16.49	V	11.8	25.71
16755.000000	39.78	54.00	14.22	H	15.6	24.18
17917.500000	40.85	54.00	13.15	V	17.1	23.75

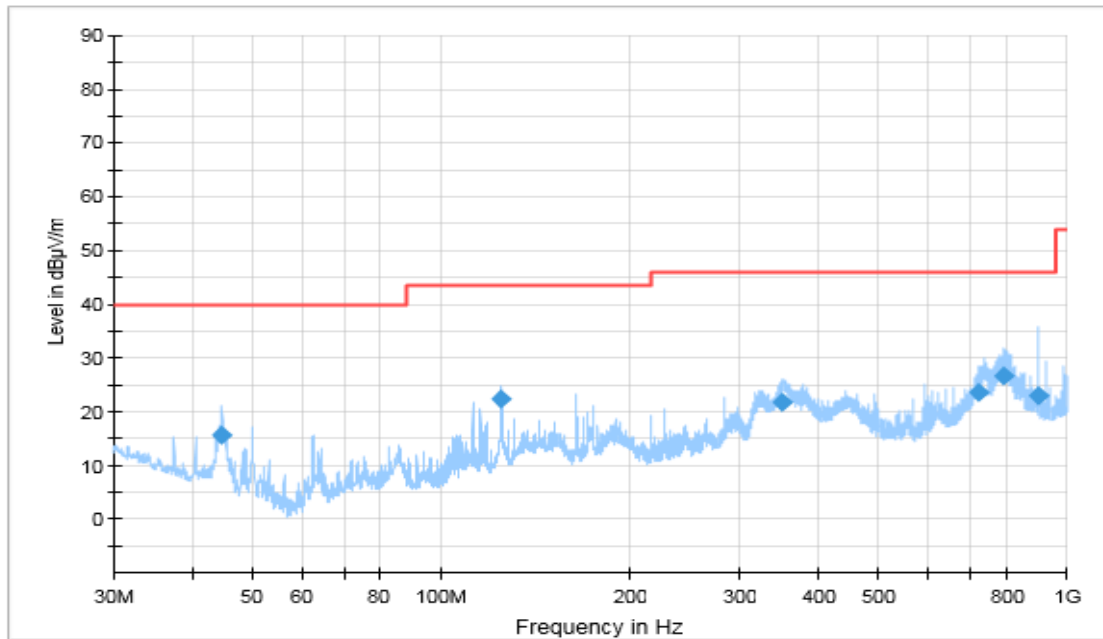


Figure A.1.40. Radiated Emission (Data Transfer : EUT to PC, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
44.705556	15.74	40.00	24.26	V	-32.3	48.04
125.012222	22.45	43.50	21.05	V	-31.6	54.05
349.753333	21.69	46.00	24.31	H	-27.9	49.59
723.462222	23.65	46.00	22.35	H	-19.0	42.65
790.726111	26.83	46.00	19.17	H	-19.5	46.33
899.962222	22.98	46.00	23.02	H	-17.5	40.48

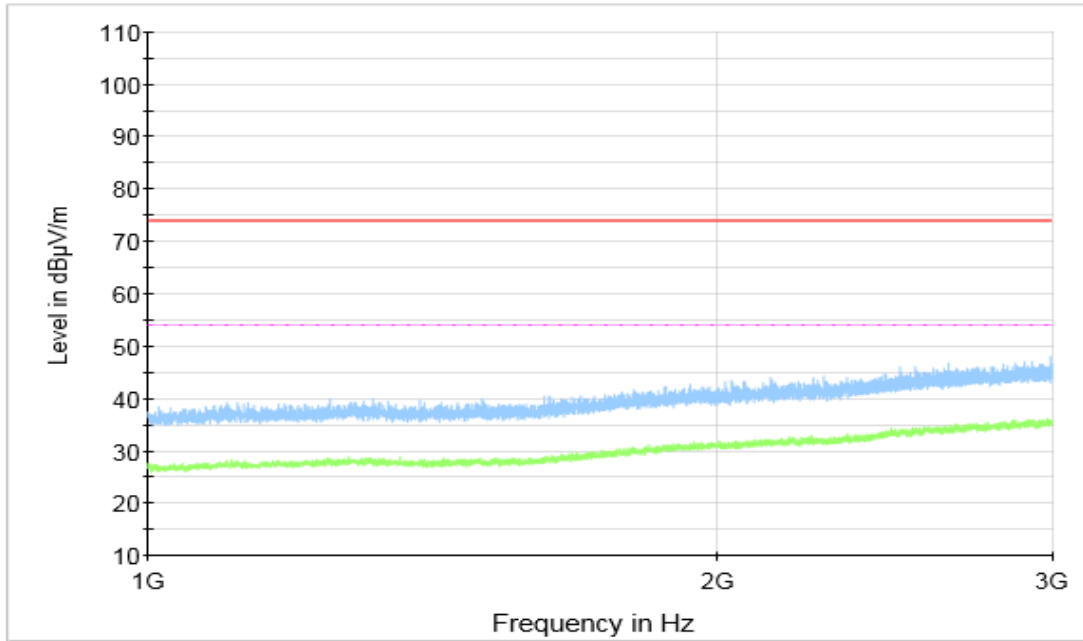


Figure A.1.41. Radiated Emission (Data Transfer : EUT to PC,1GHz to 3GHz)

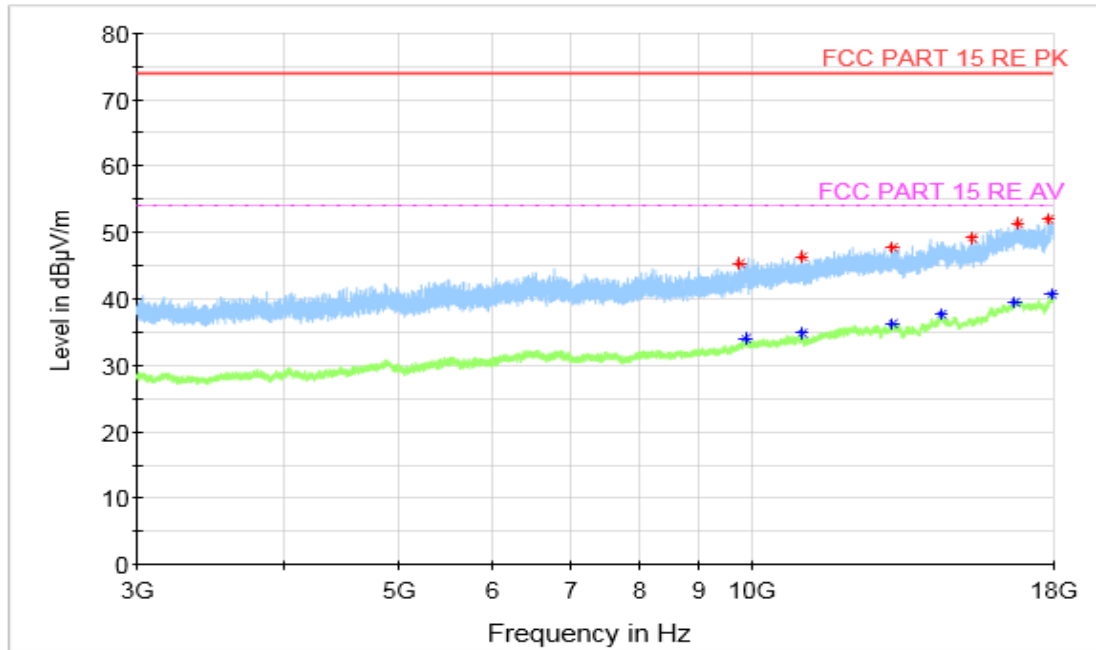


Figure A.1.42. Radiated Emission (Data Transfer : EUT to PC, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9740.000000	45.33	74.00	28.67	V	4.8	40.53
11011.000000	46.28	74.00	27.72	H	6.4	39.88
13141.500000	47.78	74.00	26.22	V	9.6	38.18
15358.000000	49.16	74.00	24.84	H	12.2	36.96
16780.500000	51.31	74.00	22.69	H	15.9	35.41
17818.000000	51.99	74.00	22.01	V	16.6	35.39

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9869.500000	34.08	54.00	19.92	H	5.2	28.88
11007.000000	34.86	54.00	19.14	H	6.6	28.26
13156.000000	36.30	54.00	17.70	H	9.7	26.60
14457.000000	37.70	54.00	16.30	V	11.7	26.00
16726.500000	39.54	54.00	14.46	V	15.4	24.14
17947.000000	40.71	54.00	13.29	V	17.3	23.41

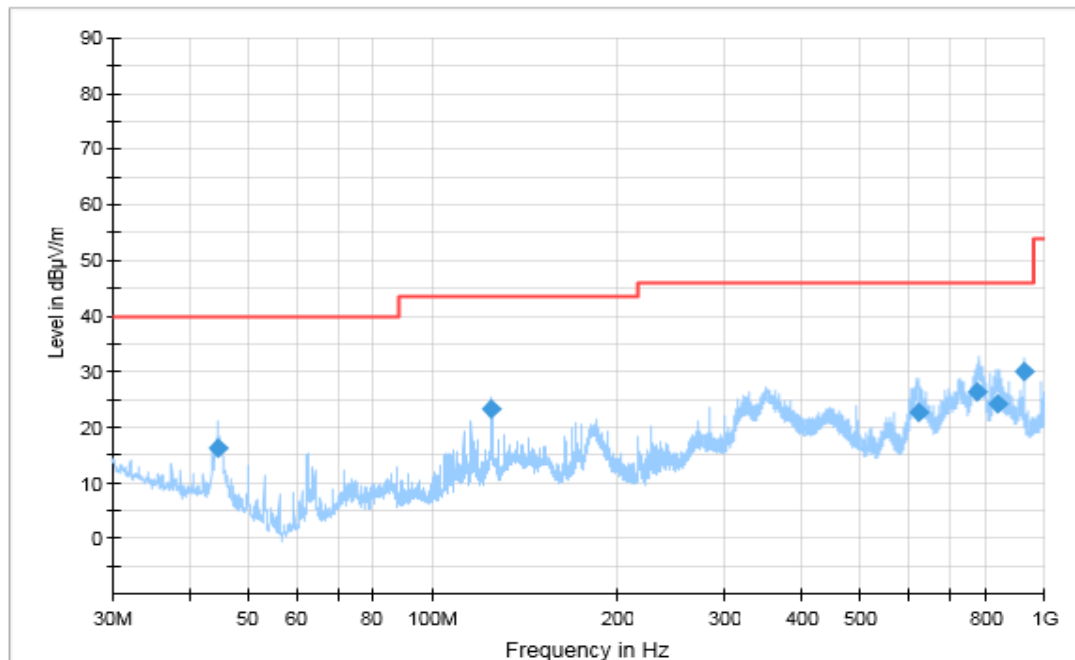


Figure A.1.43. Radiated Emission (Data Transfer : PC to EUT, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
44.717778	16.26	40.00	23.74	V	-32.3	48.56
125.012222	23.21	43.50	20.29	V	-31.6	54.81
622.191111	22.63	46.00	23.37	V	-21.2	43.83
777.568333	26.50	46.00	19.50	H	-19.5	46.00
839.106111	24.34	46.00	21.66	H	-18.1	42.44
922.986667	29.94	46.00	16.06	H	-16.8	42.44

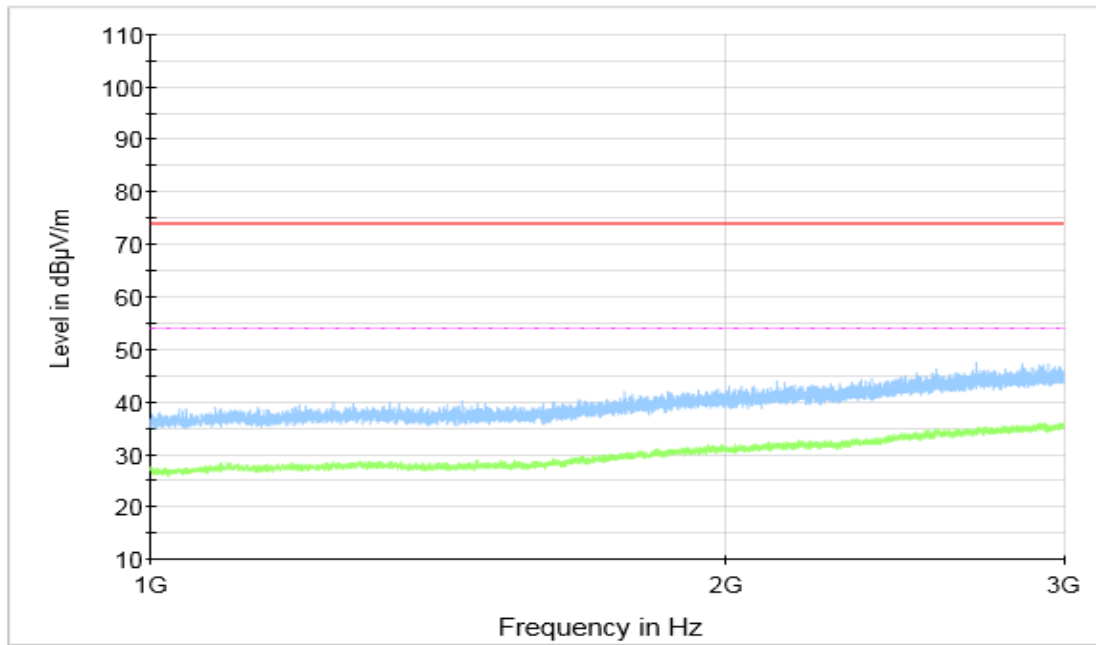


Figure A.1.44. Radiated Emission (Data Transfer : PC to EUT: EUT to PC,1GHz to 3GHz)

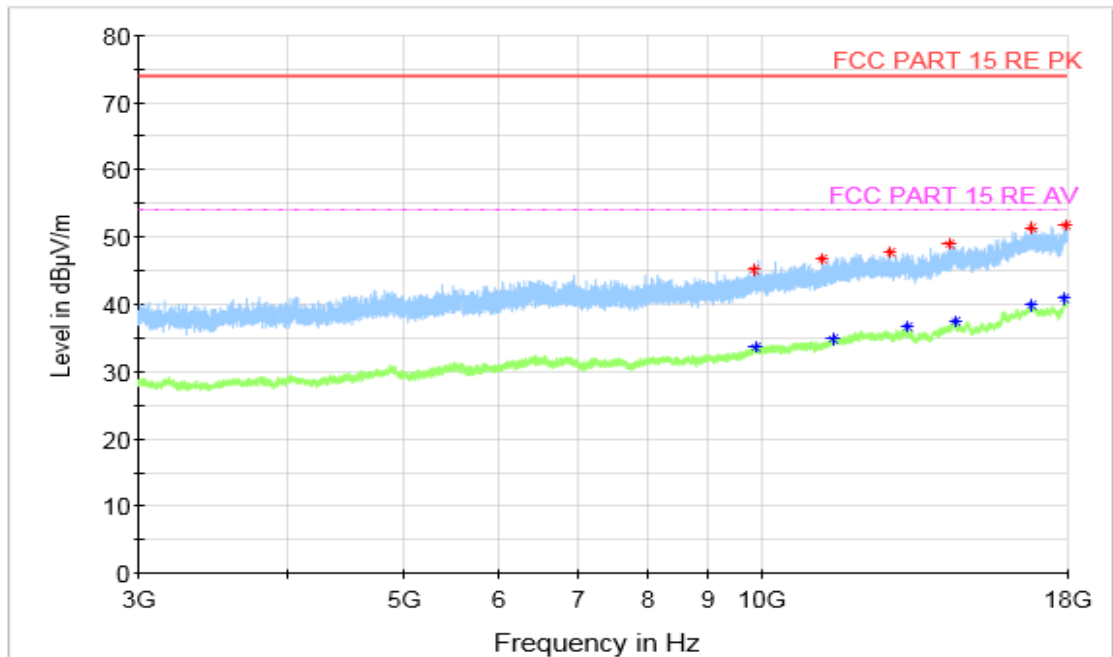


Figure A.1.45. Radiated Emission (Data Transfer : PC to EUT, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9826.500000	45.09	74.00	28.91	V	5.1	39.99
11219.500000	46.72	74.00	27.28	H	6.2	40.52
12803.000000	47.84	74.00	26.16	V	9.0	38.84
14358.500000	48.88	74.00	25.12	H	11.2	37.68
16817.000000	51.48	74.00	22.52	V	16.0	35.48
17973.000000	51.84	74.00	22.16	H	16.9	34.94

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9879.000000	33.73	54.00	20.27	H	5.3	28.43
11470.000000	34.85	54.00	19.15	V	6.7	28.15
13215.000000	36.71	54.00	17.29	H	9.9	26.81
14498.000000	37.56	54.00	16.44	V	11.7	25.86
16813.000000	39.94	54.00	14.06	V	15.9	24.04
17909.000000	40.91	54.00	13.09	H	17.4	23.51

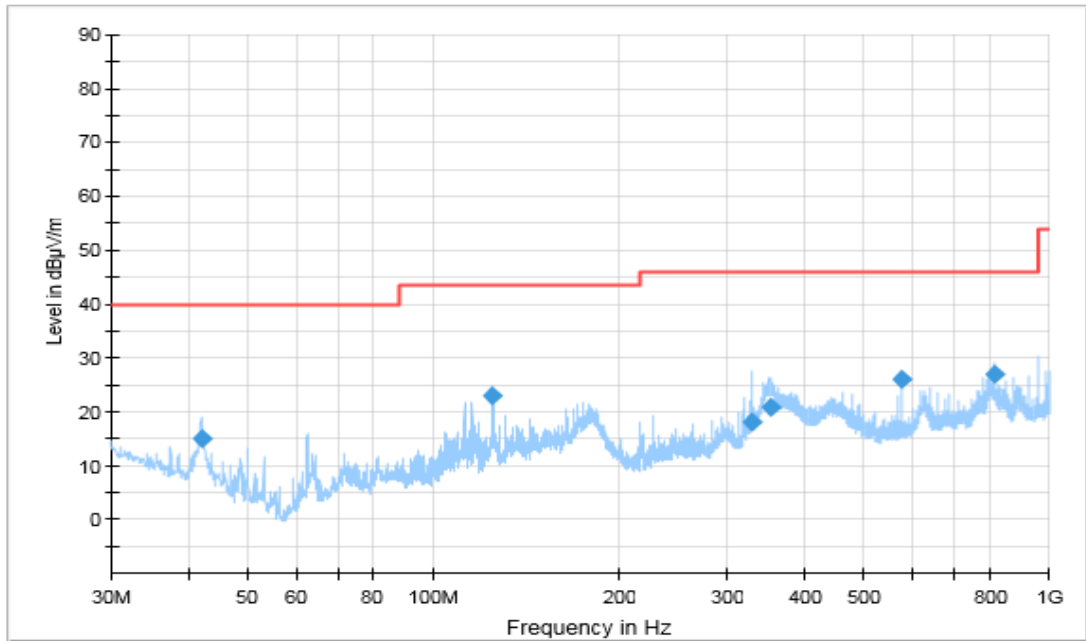


Figure A.1.46. Radiated Emission (Data Transfer : PC to TF Card, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
42.037222	14.92	40.00	25.08	V	-30.4	45.32
125.012222	23.04	43.50	20.46	V	-31.6	54.64
329.506667	18.03	46.00	27.97	H	-28.3	46.33
353.351667	20.85	46.00	25.15	H	-27.7	48.55
575.982222	26.05	46.00	19.95	V	-22.0	48.05
812.540556	27.03	46.00	18.97	V	-18.5	45.53

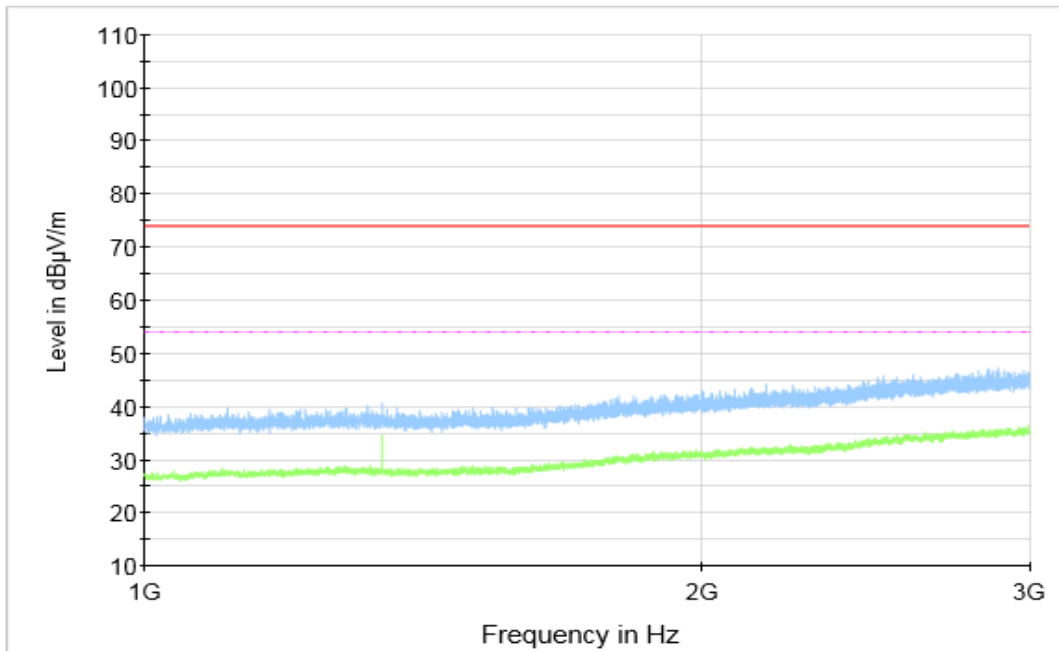


Figure A.1.47. Radiated Emission (Data Transfer : PC to TF Card,1GHz to 3GHz)

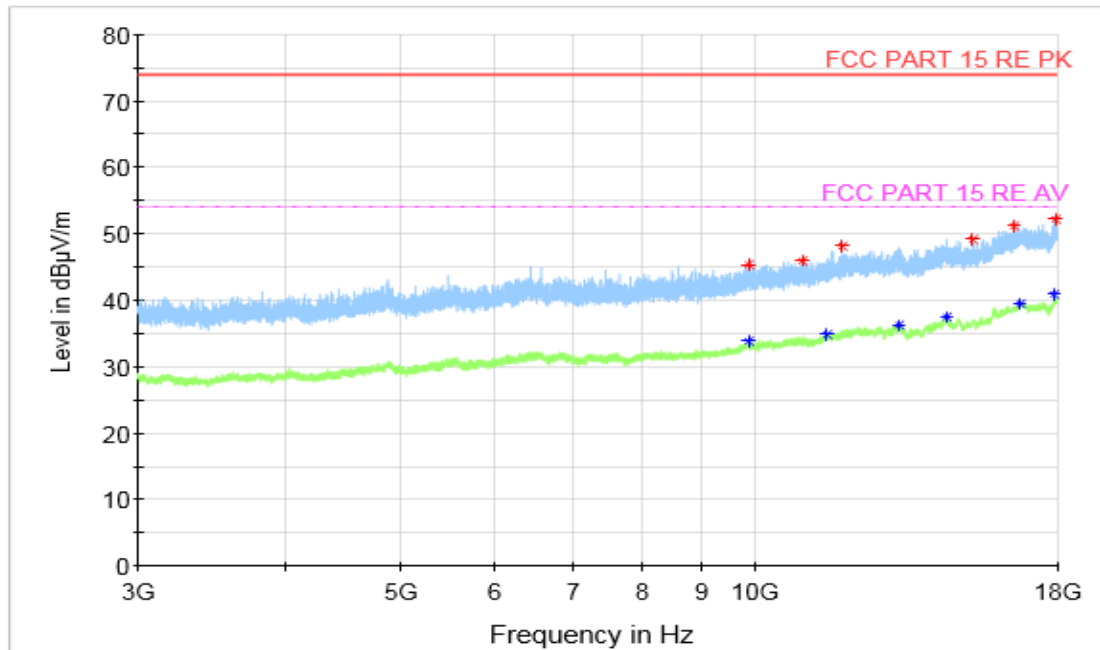


Figure A.1.48. Radiated Emission (Data Transfer : PC to TF Card, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9864.500000	45.39	74.00	28.61	V	5.2	40.19
10957.000000	45.85	74.00	28.15	V	6.2	39.65
11852.000000	48.26	74.00	25.74	V	8.1	40.16
15273.000000	49.18	74.00	24.82	V	11.9	37.28
16564.000000	51.16	74.00	22.84	V	15.2	35.96
17933.500000	52.26	74.00	21.74	V	16.9	35.36

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9866.500000	33.77	54.00	20.23	V	5.2	28.57
11490.500000	34.76	54.00	19.24	V	7.0	27.76
13214.500000	36.37	54.00	17.63	H	9.9	26.47
14494.500000	37.47	54.00	16.53	V	11.7	25.77
16777.500000	39.57	54.00	14.43	H	15.8	23.77
17911.000000	40.83	54.00	13.17	V	17.3	23.53

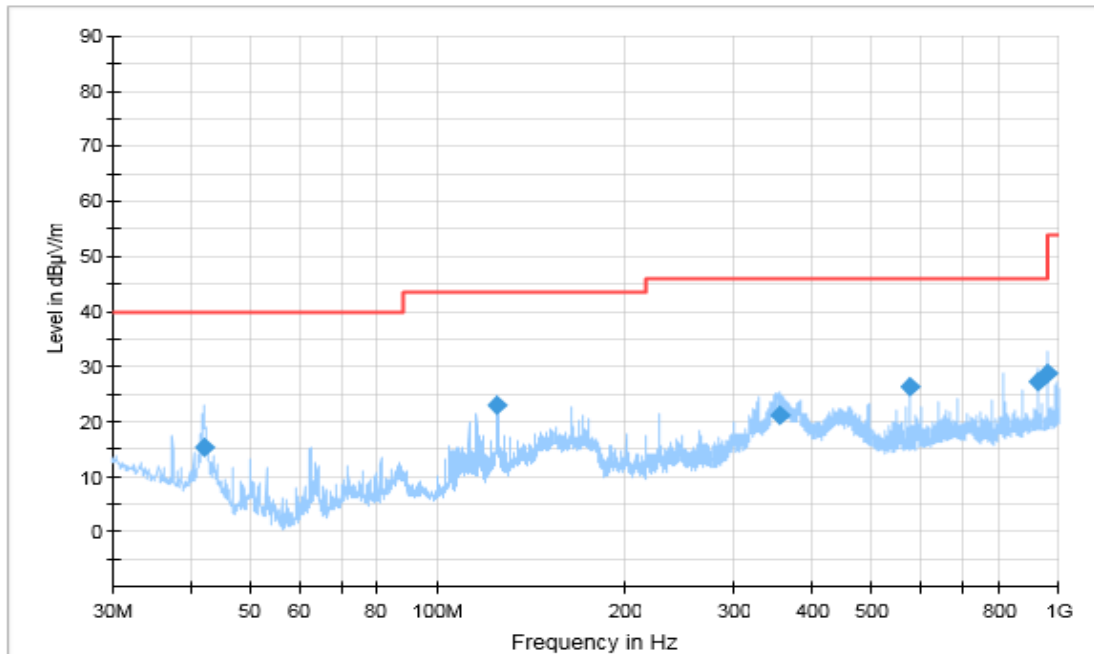


Figure A.1.49. Radiated Emission (Data Transfer : TF Card to PC, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
42.209444	15.35	40.00	24.65	V	-30.6	45.95
125.000000	23.14	43.50	20.36	V	-31.6	54.74
356.273889	21.15	46.00	24.85	H	-27.6	48.75
575.982222	26.32	46.00	19.68	V	-22.0	48.32
923.012778	27.27	46.00	18.73	H	-16.8	44.07
960.008333	28.70	54.00	25.30	H	-16.3	45.00

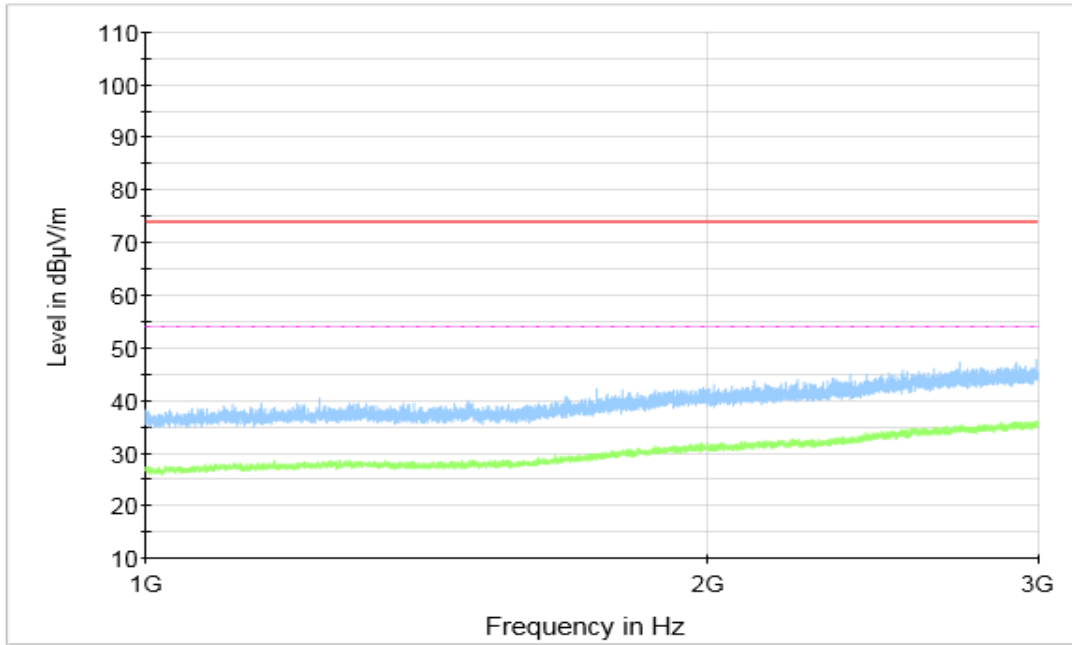


Figure A.1.50. Radiated Emission (Data Transfer : TF Card to PC,1GHz to 3GHz)

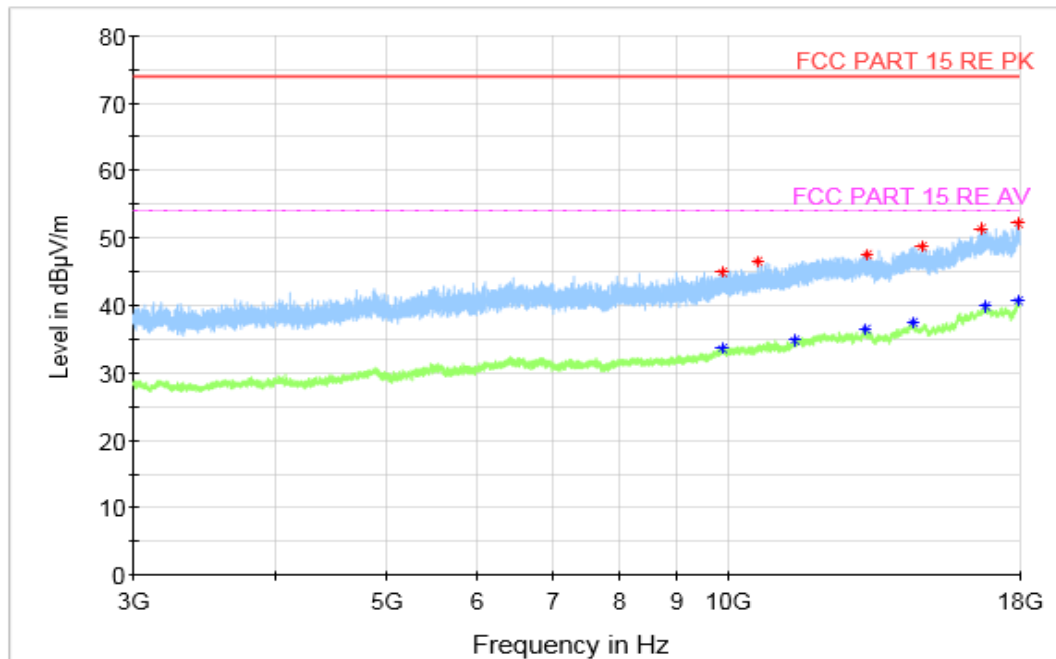


Figure A.1.51. Radiated Emission (Data Transfer : TF Card to PC, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9866.000000	44.99	74.00	29.01	H	5.2	39.79
10605.000000	46.48	74.00	27.52	V	5.7	40.78
13211.500000	47.61	74.00	26.39	H	9.7	37.91
14795.000000	48.81	74.00	25.19	H	11.1	37.71
16666.000000	51.39	74.00	22.61	H	15.4	35.99
17947.000000	52.11	74.00	21.89	V	17.3	34.81

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9869.000000	33.66	54.00	20.34	H	5.2	28.46
11433.000000	34.92	54.00	19.08	V	6.8	28.12
13190.000000	36.56	54.00	17.44	V	9.8	26.76
14497.500000	37.45	54.00	16.55	V	11.7	25.75
16816.500000	39.91	54.00	14.09	H	16.0	23.91
17949.500000	40.74	54.00	13.26	H	17.2	23.54

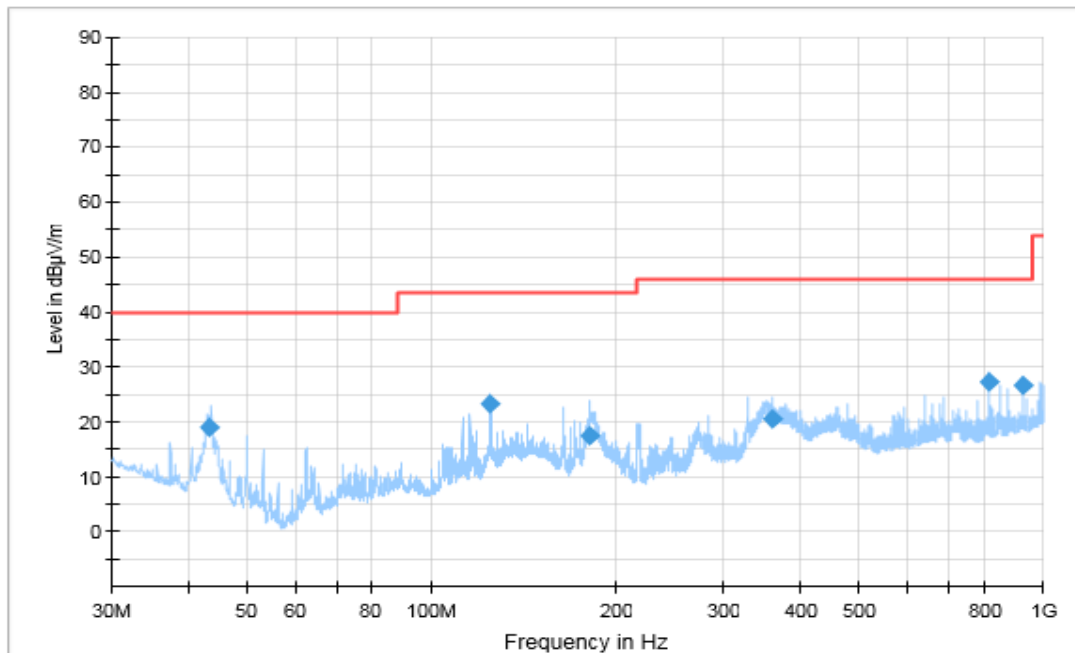


Figure A.1.52. Radiated Emission (Data Transfer :PC to EUT, 30MHz to 1GHz)

Final Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
43.481667	19.16	40.00	20.84	V	-31.6	50.76
125.012222	23.21	43.50	20.29	V	-31.6	54.81
181.837222	17.39	43.50	26.11	H	-33.6	50.99
359.540000	20.58	46.00	25.42	H	-27.5	48.08
812.540556	27.41	46.00	18.59	V	-18.5	45.91
922.986667	26.73	46.00	19.27	H	-16.8	43.53

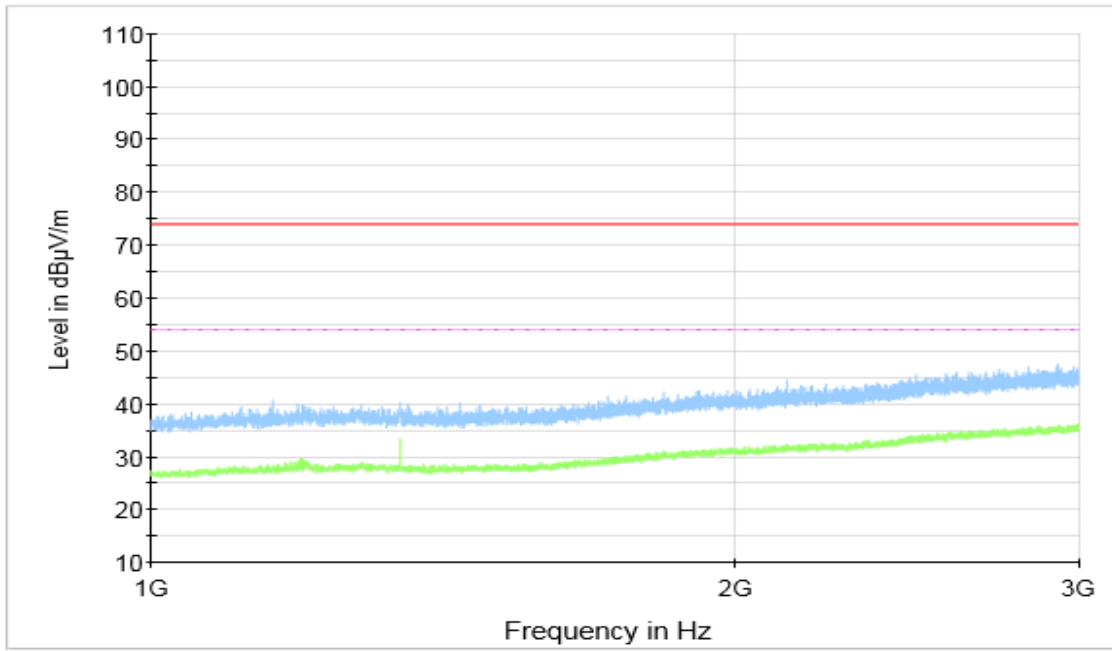


Figure A.1.53. Radiated Emission (Data Transfer : PC to EUT,1GHz to 3GHz)

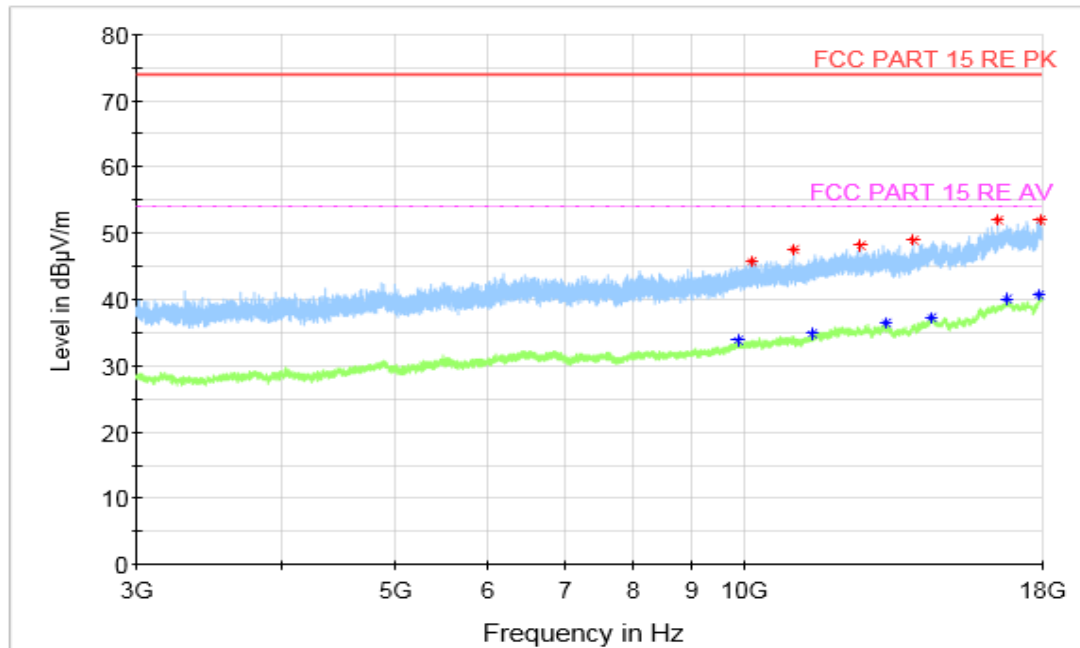


Figure A.1.54. Radiated Emission (Data Transfer : PC to EUT, 3GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
10131.000000	45.68	74.00	28.32	V	5.7	39.98
11009.500000	47.54	74.00	26.46	V	6.5	41.04
12574.000000	48.16	74.00	25.84	V	8.6	39.56
13946.500000	49.04	74.00	24.96	H	10.2	38.84
16512.500000	52.08	74.00	21.92	V	15.3	36.78
17957.000000	51.97	74.00	22.03	V	17.0	34.97

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
9862.000000	33.82	54.00	20.18	V	5.2	28.62
11429.500000	34.80	54.00	19.20	H	6.7	28.10
13243.500000	36.42	54.00	17.58	H	9.8	26.62
14486.000000	37.37	54.00	16.63	V	11.7	25.67
16816.500000	40.01	54.00	13.99	H	16.0	24.01
17910.500000	40.69	54.00	13.31	H	17.4	23.29



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.

Bluetooth:The EUT is connected to a charger for charging. The EUT is connected to a PC for transmitting data by Bluetooth function. The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C.

Wi-Fi:The EUT is connected to a charger for charging. The EUT is Working as Wi-Fi terminal and connected with System Simulator (SS). After the EUT has been allocated an IP address, establish a communication link between the EUT and System Simulator (SS).

GNSS:The EUT is connected to a charger for charging. A vector signal generator is used to provide the simulated GNSS signal, and the frequency is set to 1575.42 MHz. Before the test starts, the integrated GNSS application in EUT is started up and locked to the simulated GNSS signal.

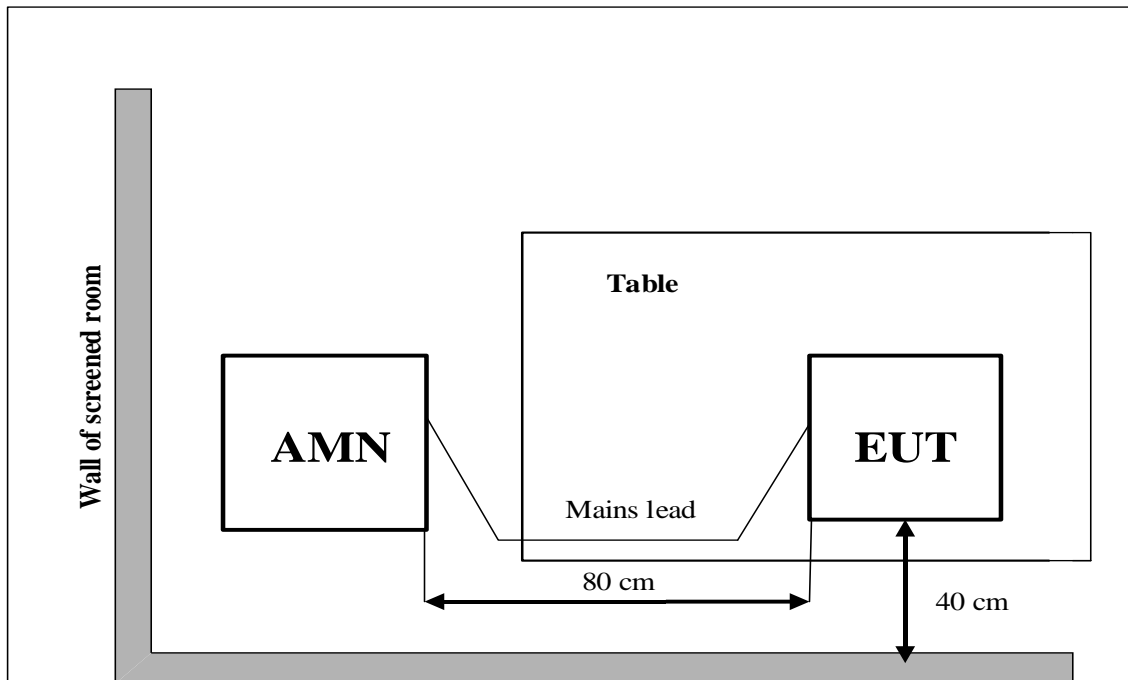
Meanwhile, the EUT is synchronized to System Simulator (SS), and able to respond to paging messages and incoming call. An established call has been released.

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

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

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
			UT16aa/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
			UT16aa/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.

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
			UT16aa/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
			UT16aa/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.

GPS

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
			UT16aa/Set.1	
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.



GLONASS

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
			UT16aa/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.

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
			UT16aa/Set.3	
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.

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
			UT16aa/Set.4	
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 (dB μ V)	Average Limit (dB μ V)	Result (dB μ V)	Conclusion
			UT16aa/Set.1	
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.

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
			UT16aa/Set.1	
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.

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
			UT16aa/Set.2	
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.

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
			UT16aa/Set.1	
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.

GPS

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
			UT16aa/Set.1	
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.13	P
0.5 to 5	56	46		
5 to 30	60	50		

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

GLONASS

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
			UT16aa/Set.1	
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.14	P
0.5 to 5	56	46		
5 to 30	60	50		

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

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
			UT16aa/Set.3	
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.15	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
			UT16aa/Set.4	
0.15 to 0.5	66 to 56	56 to 46	See Figure A.2.16	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

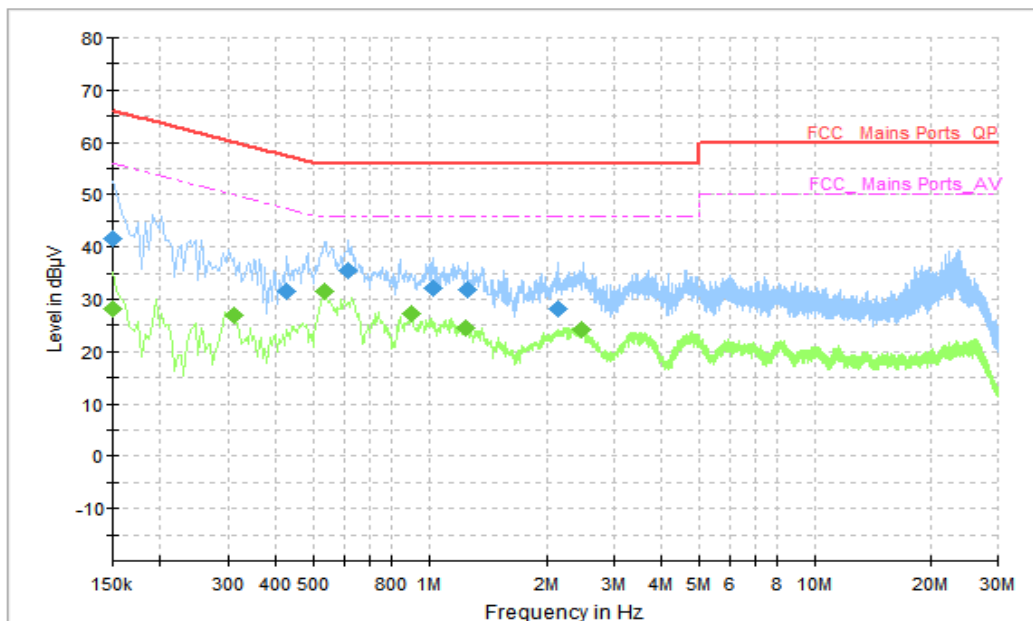


Figure A.2.1 Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.150000	41.44	66.00	24.56	N	10	31.44
0.426000	31.52	57.33	25.81	L1	10	21.52
0.618000	35.52	56.00	20.48	L1	10	25.52
1.026000	32.19	56.00	23.81	L1	10	22.19
1.258000	31.70	56.00	24.30	L1	10	21.7
2.142000	28.30	56.00	27.70	N	10	18.30

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.150000	28.30	56.00	27.70	N	10	18.30
0.310000	26.91	49.97	23.06	L1	10	16.91
0.534000	31.49	46.00	14.52	L1	10	21.49
0.898000	27.19	46.00	18.81	L1	10	17.19
1.250000	24.64	46.00	21.36	L1	10	14.64
2.482000	24.06	46.00	21.94	L1	10	14.06

AC Input Port/ Voltage: 120V/60Hz

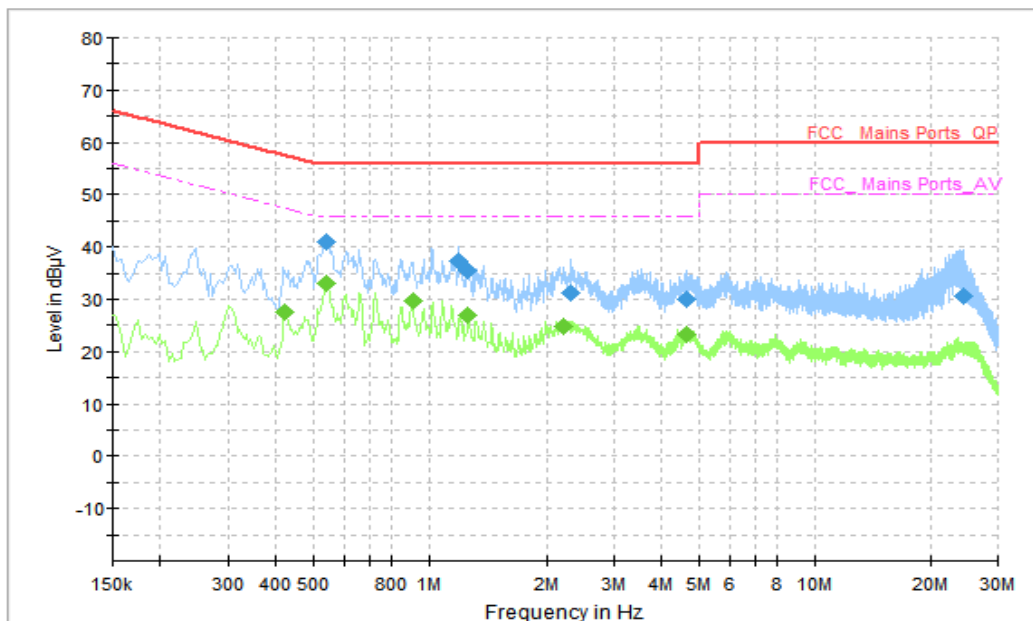


Figure A.2.2 Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.542000	41.02	56.00	14.98	L1	10	31.02
1.198000	37.22	56.00	18.78	L1	10	27.22
1.262000	35.42	56.00	20.58	L1	10	25.42
2.326000	31.08	56.00	24.92	L1	10	21.08
4.622000	30.00	56.00	26.00	L1	10	20
24.462000	30.60	60.00	29.40	N	10	20.60

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.422000	27.71	47.41	19.70	L1	10	17.71
0.542000	33.16	46.00	12.84	L1	10	23.16
0.906000	29.59	46.00	16.41	L1	10	19.59
1.262000	26.86	46.00	19.14	L1	10	16.86
2.222000	24.79	46.00	21.21	L1	10	14.79
4.654000	23.37	46.00	22.63	L1	10	13.37

AC Input Port/ Voltage: 120V/60Hz

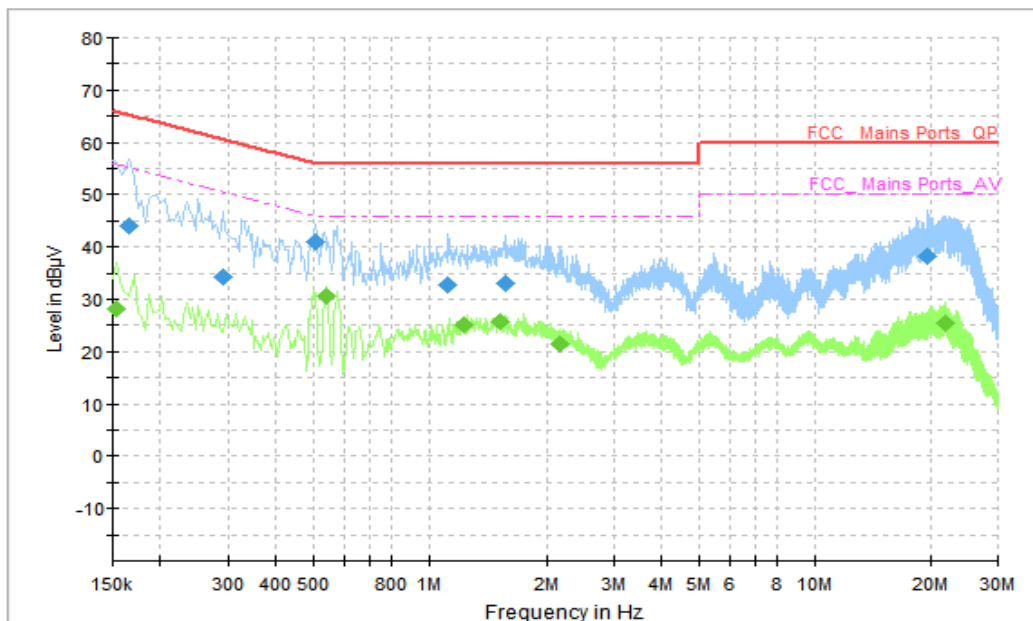


Figure A.2.3 Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.166000	44.17	65.16	20.99	N	10	34.17
0.290000	34.29	60.52	26.24	N	10	24.29
0.506000	40.88	56.00	15.12	L1	10	30.88
1.122000	32.86	56.00	23.14	L1	10	22.86
1.566000	33.11	56.00	22.89	L1	10	23.11
19.718000	38.23	60.00	21.77	L1	10	28.23

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.154000	28.30	55.78	27.48	N	10	18.30
0.542000	30.54	46.00	15.46	N	10	20.54
1.238000	25.02	46.00	20.98	N	10	15.02
1.510000	25.59	46.00	20.41	N	10	15.59
2.178000	21.51	46.00	24.49	L1	10	11.51
21.922000	25.28	50.00	24.72	L1	10	15.28

AC Input Port/ Voltage: 120V/60Hz

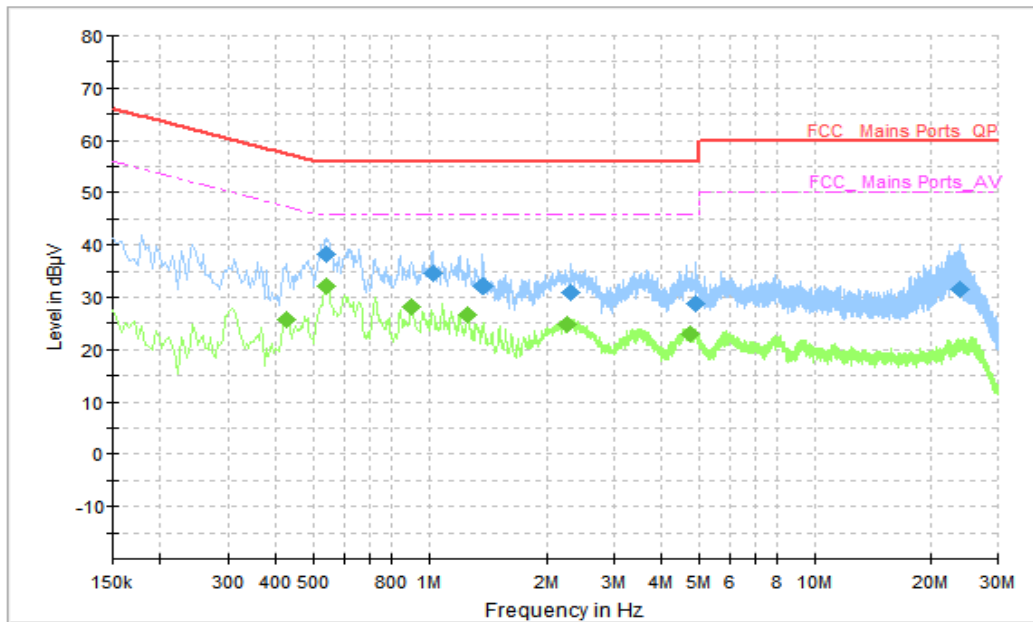


Figure A.2.4 Conducted Emission(FM receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.538000	38.15	56.00	17.85	L1	10	28.15
1.022000	34.50	56.00	21.50	L1	10	24.50
1.378000	32.19	56.00	23.81	L1	10	22.19
2.310000	30.81	56.00	25.19	L1	10	20.81
4.902000	28.69	56.00	27.31	L1	10	18.69
23.970000	31.47	60.00	28.53	N	10	21.47

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.426000	25.78	47.33	21.55	L1	10	15.78
0.542000	32.01	46.00	13.99	L1	10	22.01
0.902000	28.11	46.00	17.89	L1	10	18.11
1.266000	26.75	46.00	19.25	L1	10	16.75
2.254000	24.78	46.00	21.22	L1	10	14.78
4.750000	23.13	46.00	22.87	L1	10	13.13

AC Input Port/ Voltage: 120V/60Hz

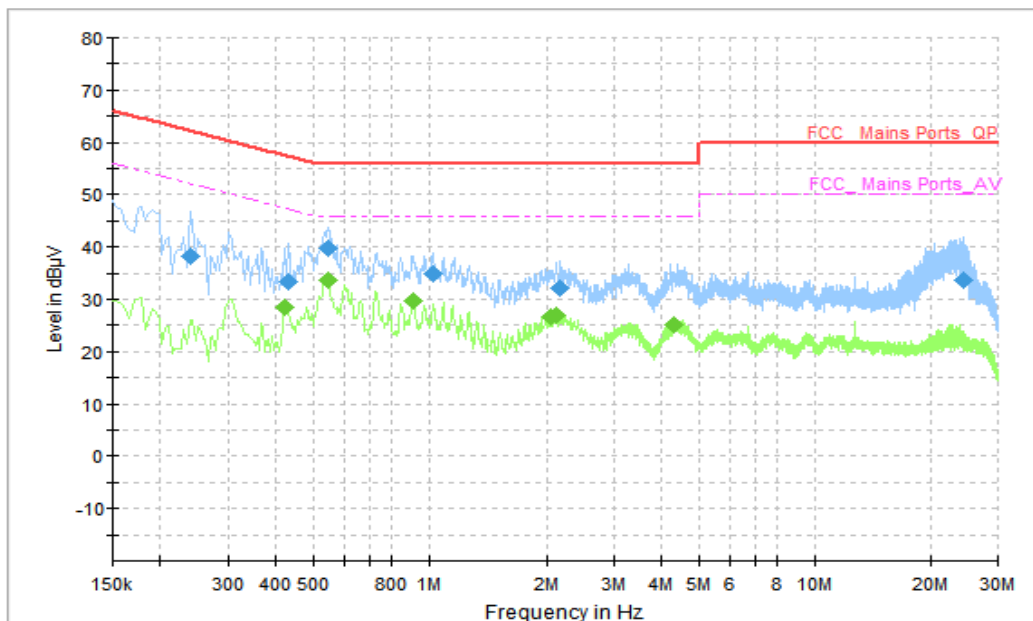


Figure A.2.5 Conducted Emission(GPS)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.538000	38.86	56.00	17.14	L1	10	28.86
0.842000	34.38	56.00	21.62	L1	10	24.38
1.270000	32.56	56.00	23.44	L1	10	22.56
2.154000	30.82	56.00	25.18	L1	10	20.82
4.770000	29.92	56.00	26.08	L1	10	19.92
23.830000	31.89	60.00	28.11	N	10	21.89

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.422000	27.64	47.41	19.77	L1	10	17.64
0.538000	32.52	46.00	13.48	L1	10	22.52
0.902000	29.12	46.00	16.88	L1	10	19.12
1.270000	26.78	46.00	19.22	L1	10	16.78
2.294000	25.42	46.00	20.58	L1	10	15.42
3.622000	23.11	46.00	22.89	L1	10	13.11

AC Input Port/ Voltage: 120V/60Hz

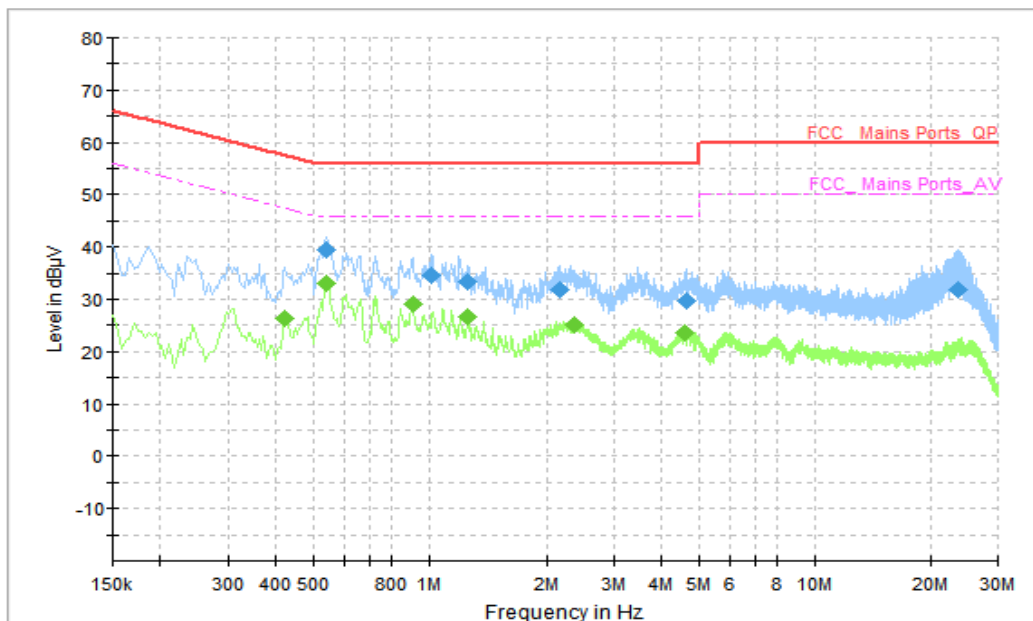


Figure A.2.6 Conducted Emission(GLONASS)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.542000	39.30	56.00	16.70	N	10	29.30
1.018000	34.43	56.00	21.57	L1	10	24.43
1.262000	33.41	56.00	22.59	L1	10	23.41
2.166000	31.75	56.00	24.25	L1	10	21.75
4.626000	29.78	56.00	26.22	L1	10	19.78
23.506000	31.97	60.00	28.03	N	10	21.97

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.422000	26.20	47.41	21.21	L1	10	16.20
0.542000	33.12	46.00	12.88	L1	10	23.12
0.906000	29.12	46.00	16.88	L1	10	19.12
1.266000	26.77	46.00	19.23	L1	10	16.77
2.354000	25.23	46.00	20.77	L1	10	15.23
4.586000	23.53	46.00	22.47	L1	10	13.53

AC Input Port/ Voltage: 120V/60Hz

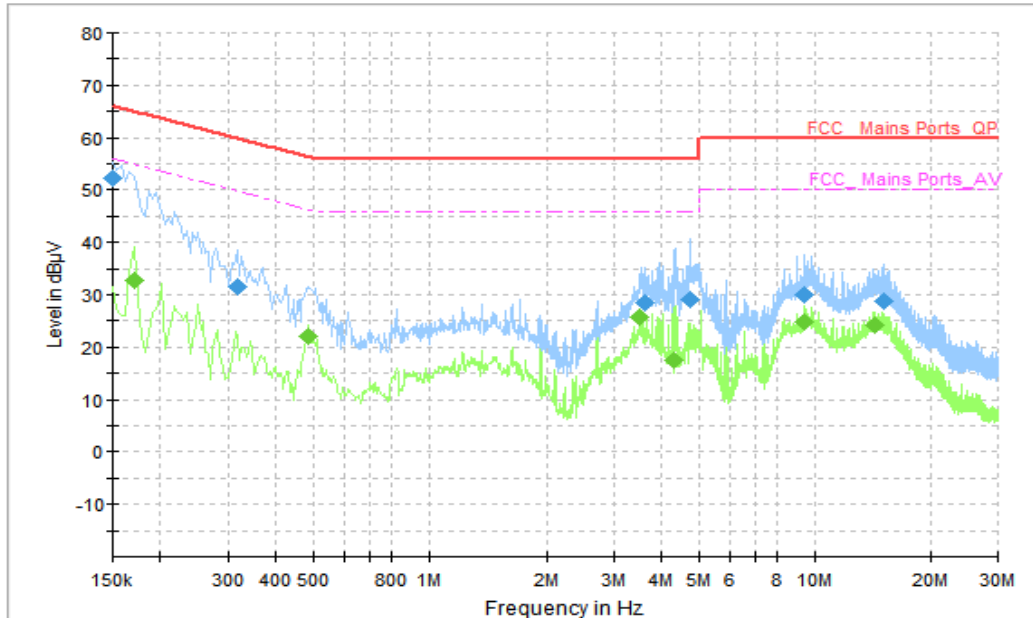


Figure A.2.7 Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.150000	52.20	66.00	13.80	L1	10	42.20
0.318000	31.40	59.76	28.36	L1	10	21.40
3.594000	28.49	56.00	27.51	L1	10	18.49
4.726000	29.00	56.00	27.00	L1	10	19.00
9.418000	30.10	60.00	29.90	N	10	20.1
15.066000	28.76	60.00	31.24	L1	10	18.76

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.170000	32.71	54.96	22.25	L1	10	22.71
0.482000	22.21	46.31	24.09	N	10	12.21
3.486000	25.66	46.00	20.34	L1	10	15.66
4.314000	17.55	46.00	28.45	L1	10	7.55
9.430000	24.81	50.00	25.19	L1	10	14.81
14.262000	24.13	50.00	25.87	N	10	14.13

AC Input Port/ Voltage: 120V/60Hz



Figure A.2.8 Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.154000	49.47	65.78	16.32	L1	10	39.47
0.262000	36.07	61.37	25.30	L1	10	26.07
0.490000	29.98	56.17	26.19	N	10	19.98
3.482000	31.43	56.00	24.57	L1	10	21.43
4.114000	27.95	56.00	28.05	N	10	17.95
9.626000	32.47	60.00	27.53	L1	10	22.47

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.158000	30.42	55.57	25.15	L1	10	20.42
0.506000	20.43	46.00	25.57	N	10	10.43
3.482000	26.91	46.00	19.09	L1	10	16.91
4.258000	29.64	46.00	16.36	N	10	19.64
9.630000	23.95	50.00	26.05	L1	10	13.95
13.758000	21.89	50.00	28.11	N	10	11.89

AC Input Port/ Voltage: 240V/60Hz

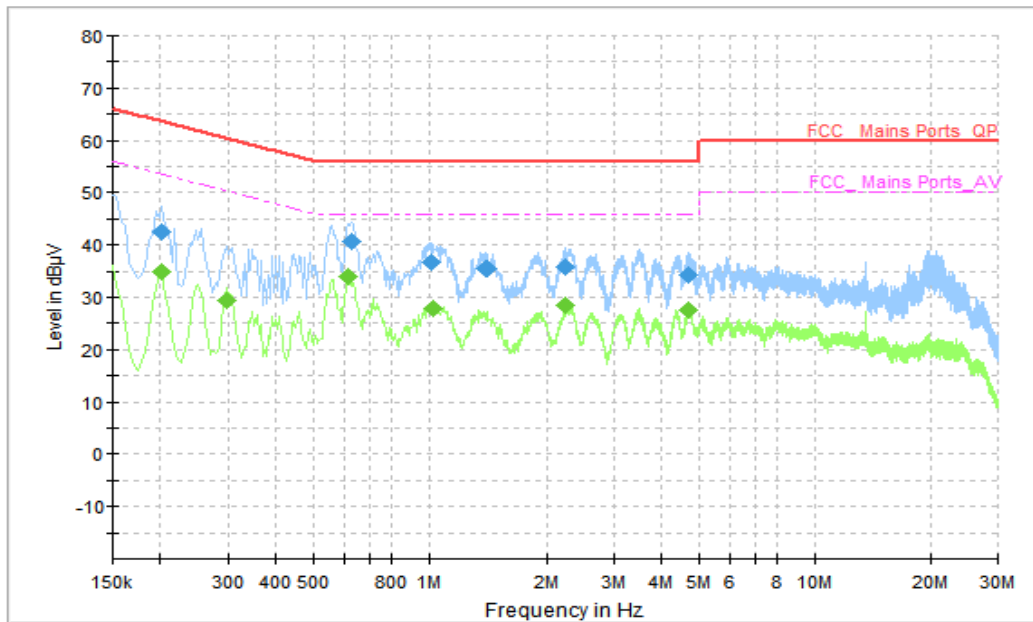


Figure A.2.9 Conducted Emission(Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.202000	42.49	63.53	21.04	N	10	32.49
0.630000	40.63	56.00	15.37	N	10	30.63
1.010000	36.80	56.00	19.20	N	10	26.80
1.406000	35.34	56.00	20.66	N	10	25.34
2.230000	35.85	56.00	20.15	N	10	25.85
4.686000	34.35	56.00	21.65	N	10	24.35

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.202000	34.97	53.53	18.56	N	10	24.97
0.298000	29.28	50.30	21.02	N	10	19.28
0.614000	33.82	46.00	12.18	N	10	23.82
1.022000	27.87	46.00	18.13	N	10	17.87
2.250000	28.34	46.00	17.66	N	10	18.34
4.690000	27.46	46.00	18.54	N	10	17.46

AC Input Port/ Voltage: 240V/60Hz

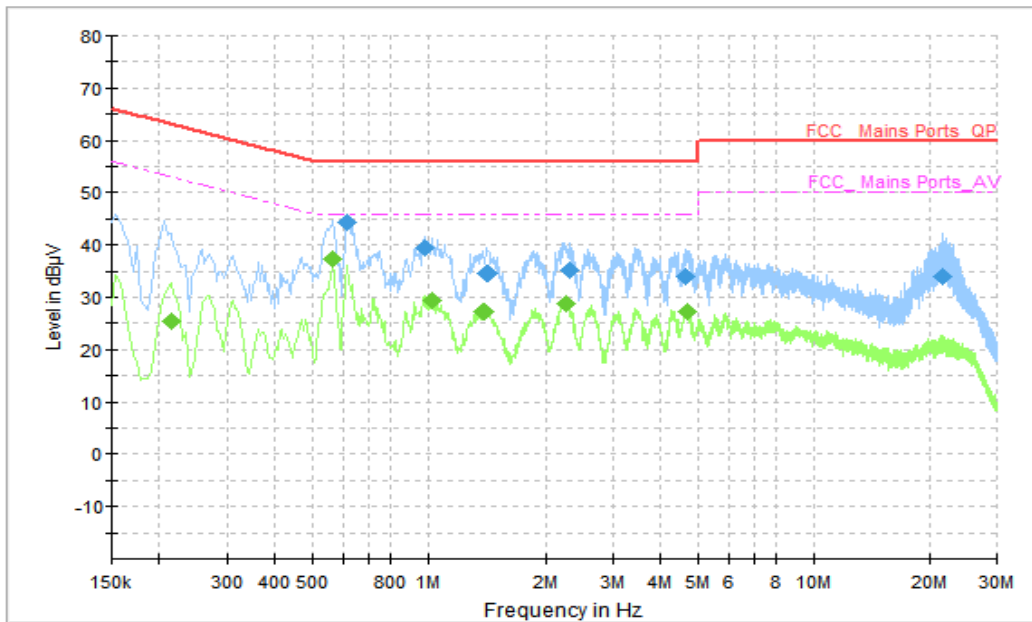


Figure A.2.10 Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.618000	44.37	56.00	11.63	N	10	34.37
0.978000	39.31	56.00	16.69	N	10	29.31
1.418000	34.63	56.00	21.37	N	10	24.63
2.306000	35.21	56.00	20.79	N	10	25.21
4.614000	33.88	56.00	22.12	N	10	23.88
21.634000	33.99	60.00	26.01	L1	10	23.99

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.214000	25.36	53.05	27.69	N	10	15.36
0.566000	37.27	46.00	8.73	N	10	27.27
1.030000	29.25	46.00	16.75	N	10	19.25
1.382000	27.28	46.00	18.72	N	10	17.28
2.254000	28.91	46.00	17.09	N	10	18.91
4.666000	27.40	46.00	18.60	N	10	17.40

AC Input Port/ Voltage: 240V/60Hz

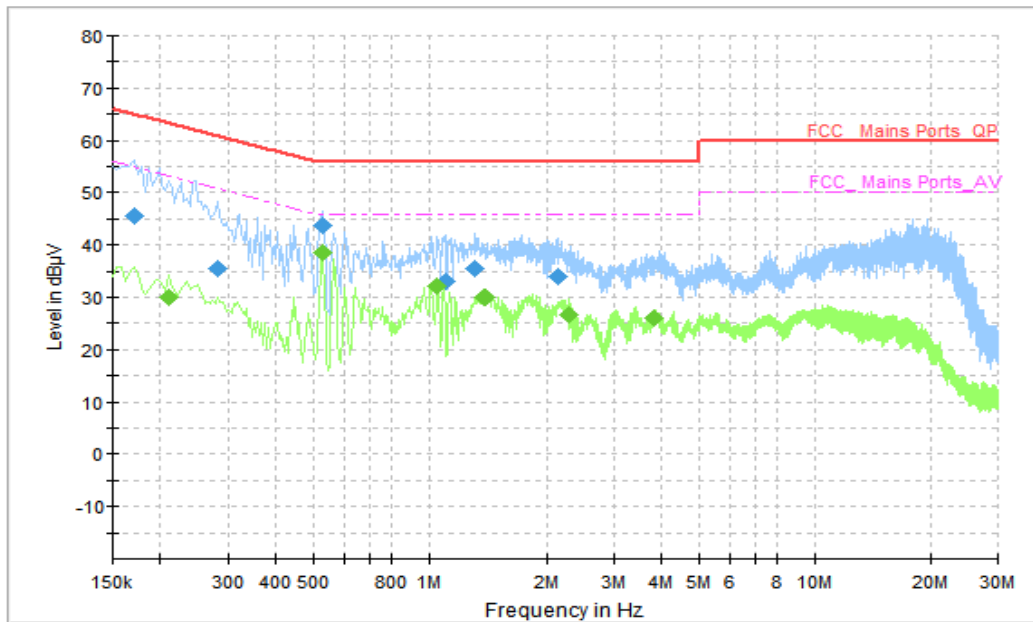


Figure A.2.11 Conducted Emission(Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.170000	45.41	64.96	19.55	N	10	35.41
0.282000	35.41	60.76	25.35	N	10	25.41
0.526000	43.81	56.00	12.19	L1	10	33.81
1.102000	33.00	56.00	23.00	N	10	23.00
1.322000	35.49	56.00	20.51	N	10	25.49
2.150000	33.85	56.00	22.15	L1	10	23.85

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.210000	29.91	53.21	23.29	N	10	19.91
0.526000	38.39	46.00	7.61	N	10	28.39
1.050000	32.06	46.00	13.94	N	10	22.06
1.394000	30.12	46.00	15.88	N	10	20.12
2.286000	26.67	46.00	19.33	N	10	16.67
3.822000	26.18	46.00	19.82	N	10	16.18

AC Input Port/ Voltage: 240V/60Hz

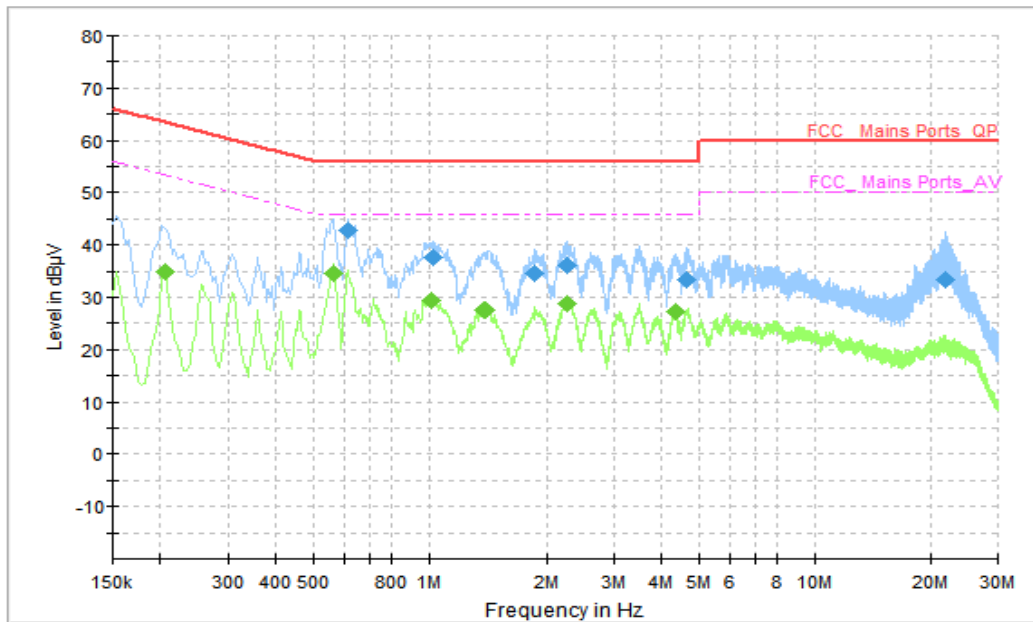


Figure A.2.12 Conducted Emission(FM receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.618000	42.69	56.00	13.31	N	10	32.69
1.026000	37.77	56.00	18.23	N	10	27.77
1.866000	34.52	56.00	21.48	N	10	24.52
2.254000	36.24	56.00	19.76	N	10	26.24
4.634000	33.48	56.00	22.52	N	10	23.48
21.942000	33.26	60.00	26.74	L1	10	23.26

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.206000	34.89	53.37	18.47	N	10	24.89
0.562000	34.43	46.00	11.57	N	10	24.43
1.018000	29.45	46.00	16.55	N	10	19.45
1.382000	27.61	46.00	18.39	N	10	17.61
2.254000	28.74	46.00	17.26	N	10	18.74
4.342000	27.11	46.00	18.89	N	10	17.11

AC Input Port/ Voltage: 240V/60Hz

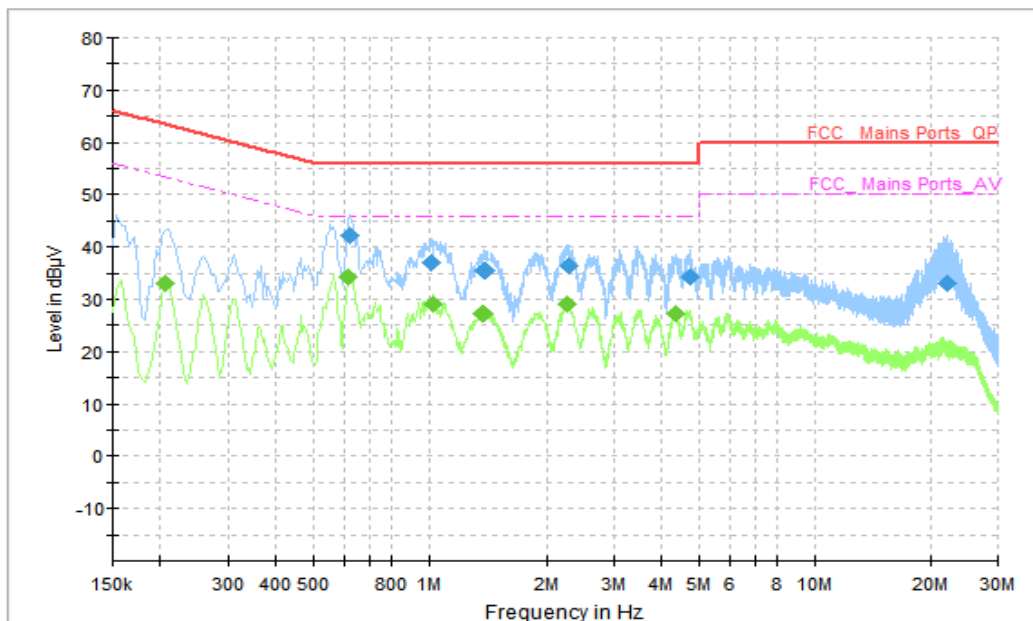


Figure A.2.13 Conducted Emission(GPS)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.622000	42.31	56.00	13.69	N	10	32.31
1.018000	36.97	56.00	19.03	N	10	26.97
1.386000	35.43	56.00	20.57	N	10	25.43
2.282000	36.26	56.00	19.74	N	10	26.26
4.734000	34.40	56.00	21.60	N	10	24.4
22.078000	33.09	60.00	26.91	L1	10	23.09

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.206000	32.93	53.37	20.43	N	10	22.93
0.618000	34.14	46.00	11.86	N	10	24.14
1.030000	29.23	46.00	16.77	N	10	19.23
1.378000	27.34	46.00	18.66	N	10	17.34
2.270000	28.95	46.00	17.05	N	10	18.95
4.322000	27.12	46.00	18.88	N	10	17.12

AC Input Port/ Voltage: 240V/60Hz

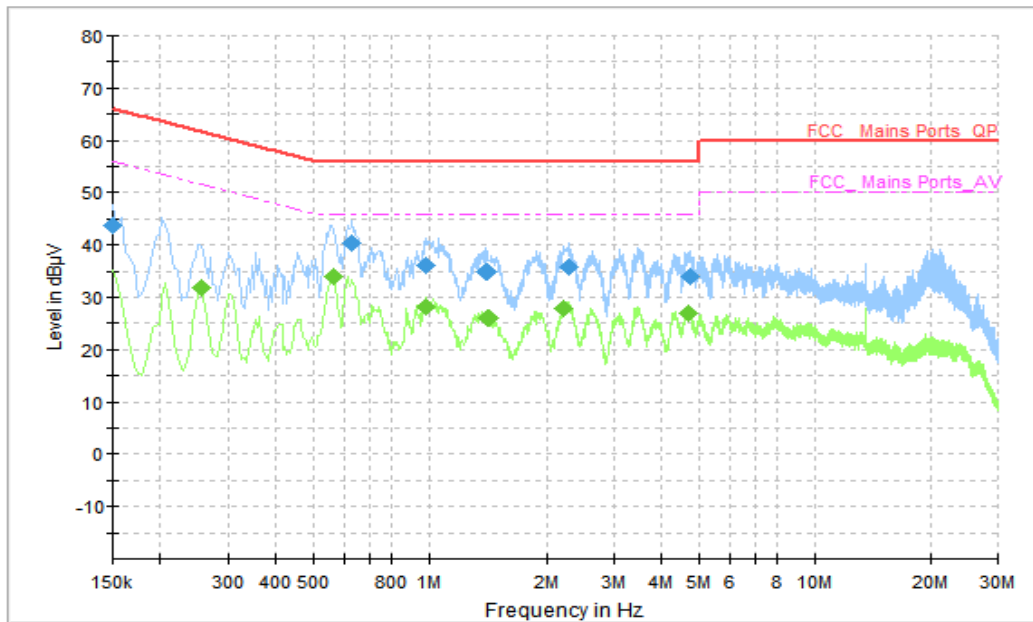


Figure A.2.14 Conducted Emission(GLONASS)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.150000	43.65	66.00	22.35	N	10	33.65
0.630000	40.36	56.00	15.64	N	10	30.36
0.978000	36.18	56.00	19.82	N	10	26.18
1.406000	34.82	56.00	21.18	N	10	24.82
2.278000	35.79	56.00	20.21	N	10	25.79
4.738000	34.04	56.00	21.96	N	10	24.04

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.254000	31.94	51.63	19.69	N	10	21.94
0.566000	33.99	46.00	12.01	N	10	23.99
0.982000	28.30	46.00	17.70	N	10	18.30
1.414000	26.18	46.00	19.82	N	10	16.18
2.218000	27.84	46.00	18.16	N	10	17.84
4.666000	26.97	46.00	19.03	N	10	16.97

AC Input Port/ Voltage: 240V/60Hz

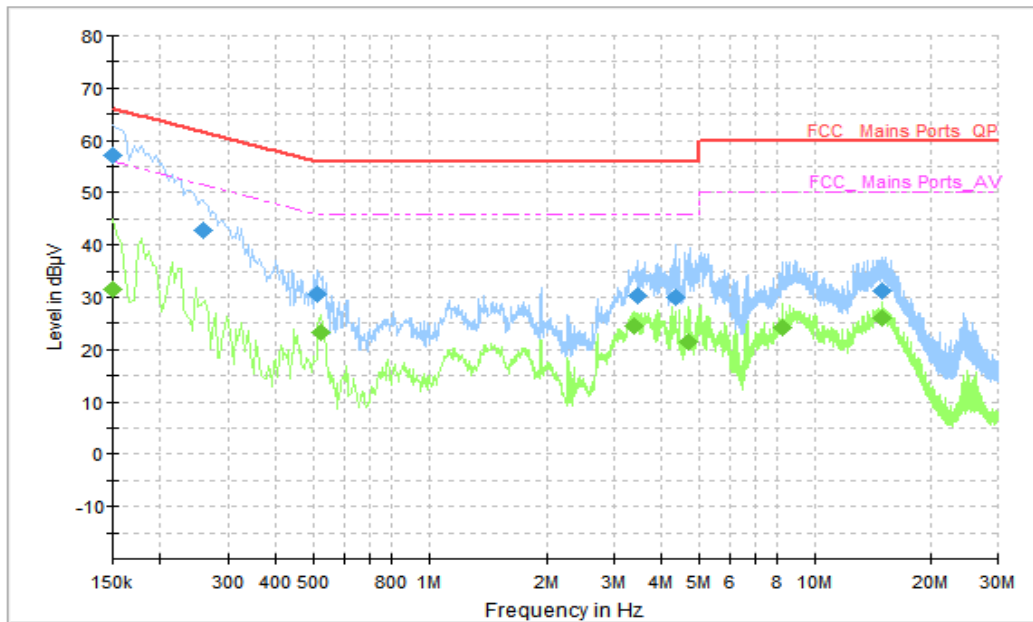


Figure A.2.15 Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.150000	57.00	66.00	9.00	N	10	47.00
0.258000	42.76	61.50	18.74	N	10	32.76
0.514000	30.53	56.00	25.47	N	10	20.53
3.442000	30.33	56.00	25.67	N	10	20.33
4.322000	30.04	56.00	25.96	L1	10	20.04
14.934000	31.18	60.00	28.82	N	10	21.18

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.150000	31.54	56.00	24.46	N	10	21.54
0.522000	23.23	46.00	22.77	N	10	13.23
3.366000	24.49	46.00	21.51	N	10	14.49
4.710000	21.60	46.00	24.40	L1	10	11.60
8.230000	24.31	50.00	25.69	L1	10	14.31
14.930000	25.97	50.00	24.03	N	10	15.97

AC Input Port/ Voltage: 240V/60Hz

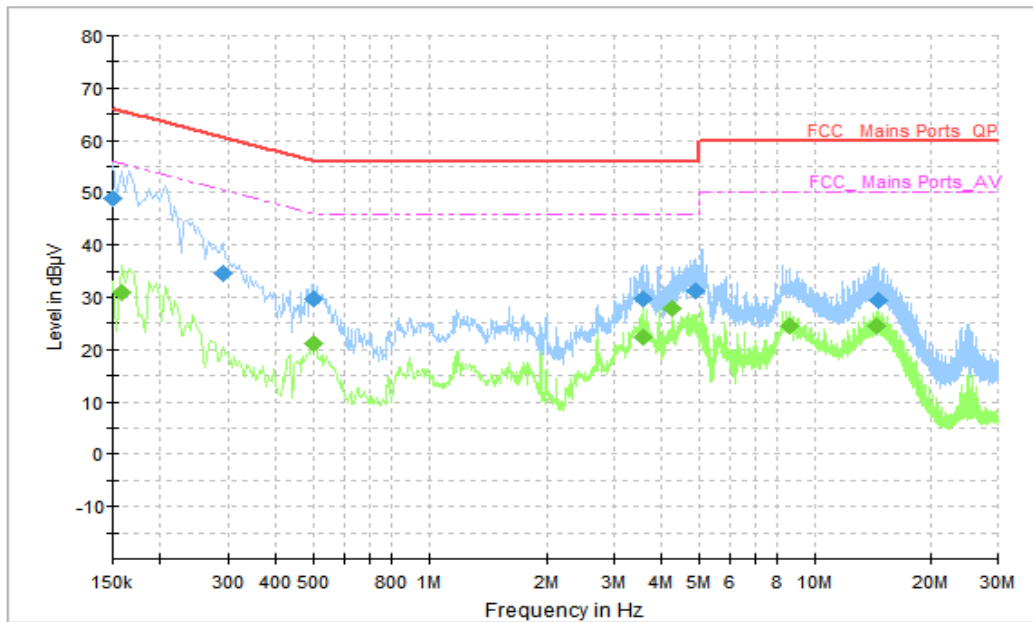


Figure A.2.16 Conducted Emission(Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.150000	48.80	66.00	17.20	L1	10	38.80
0.290000	34.69	60.52	25.84	N	10	24.69
0.502000	29.67	56.00	26.33	N	10	19.67
3.566000	29.58	56.00	26.42	L1	10	19.58
4.886000	31.17	56.00	24.83	L1	10	21.17
14.642000	29.41	60.00	30.59	N	10	19.41

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	PMea (dBµV)
0.158000	30.93	55.57	24.64	L1	10	20.93
0.502000	21.22	46.00	24.78	N	10	11.22
3.566000	22.31	46.00	23.69	L1	10	12.31
4.258000	27.73	46.00	18.27	L1	10	17.73
8.634000	24.38	50.00	25.62	L1	10	14.38
14.478000	24.41	50.00	25.59	N	10	14.41

END OF REPORT