TEST REPORT

No.24T04N001218-007-EMC

for

HMD Global Oy

Mobile Phone

Model Name: TA-1686

With

Hardware Version: FF638-MB-V0.2

Software Version: 0.2420.17.00

FCC ID: 2AJOTTA-1686

Issued Date:2024-07-19

Designation Number: CN1210

Note:

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

Test Laboratory:

SAICT, Shenzhen Academy of Information and Communications Technology

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
24T04N001218-007-EMC	Rev.0	1st edition	2024-07-19

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

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1. SUMMARY OF TEST REPORT

1.1. Test Items

Description	Mobile Phone
Model Name	TA-1686
Applicant's name	HMD Global Oy
Manufacturer's Name	HMD Global Oy

1.2. Test Standards

FCC Part 15, Subpart B (10-1-2023 Edition); ANSI C63.4-2014.

1.3. Test Result

Total test 2 items, pass 2 items. Please refer to "6.2 Test Results".

1.4. Testing Location

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

1.5. Project data

Testing Start Date: 2024-06-04 Testing End Date: 2024-07-09

1.6. Signature

Huang Kaiyang
(Prepared this test report)

Huang Yuqing
(Reviewed this test report)

Cao Junfei
(Approved this test report)

2. CLIENT INFORMATION

2.1. Applicant Information

Company Name:	HMD Global Oy
Address:	Bertel Jungin aukio 9,02600 Espoo,Finland
Contact:	reza.serafat
E-mail	reza.serafat@hmdglobal.com
Tel:	+491735287964

2.2. Manufacturer Information

Company Name:	HMD Global Oy
Address:	Bertel Jungin aukio 9,02600 Espoo,Finland
Contact:	reza.serafat
E-mail	reza.serafat@hmdglobal.com
Tel:	+491735287964

3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)

3.1. About EUT

Description	Mobile Phone
Model Name	TA-1686
FCC ID	2AJOTTA-1686
Condition of EUT as received	No obvious damage in appearance

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Receive Date
UT04aa	352178850001510	FF638-MB-V0.2	0.2420.17.00	2024-06-04
UT06aa	352178850001858	FF638-MB-V0.2	0.2420.17.00	2024-06-04
UT21aa	352178850003094	FF638-MB-V0.2	0.2420.17.00	2024-06-04

*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

AE1-1

Model	BA-L4M
Manufacturer	SHENZHEN UTILITY ENERGY CO.,LTD.
Capacity	1450mAh
Nominal Voltage	3.8V

AE1-2

Model	BA-L4M
Manufacturer	Guangdong Fenghua New Energy Co.,Ltd.
Capacity	1450mAh
Nominal Voltage	3.8V

AE2-1

Model	AC-18E
Manufacturer	Shenzhen Baijunda Electronic Co.,Ltd.
Specification	Europe Standard Charger

AE2-2

Model	AC-18U
Manufacturer	Shenzhen Baijunda Electronic Co.,Ltd.
Specification	American Standard Charger

AE2-3

Model	AC-18A
Manufacturer	Shenzhen Baijunda Electronic Co.,Ltd.
Specification	Australian Standard Charger

AE2-4

Model	AC-18X
Manufacturer	Shenzhen Baijunda Electronic Co.,Ltd.
Specification	British Standard Charger

AE2-5

Model	AC-18T
Manufacturer	Shenzhen Baijunda Electronic Co.,Ltd.
Specification	Thai Standard Charger

AE2-6

Model	AC-18E
Manufacturer	Dayu Hongfa Electronics Co., Ltd
Specification	Europe Standard Charger

AE2-7

Model	AC-18X
Manufacturer	Dayu Hongfa Electronics Co., Ltd
Specification	British Standard Charger

AE3-1

Model	AC-1A
Manufacturer	saibao (jiangxi) industrial co., LTD

AE3-2

Model	AC-1A
Manufacturer	HUIZHOU JUWEI ELECTRONICS CO.,LTD

AE4

Model	JWEP1273-W27H
Manufacturer	HUIZHOU JUWEI ELECTRONICS CO.,LTD

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

AE: ancillary equipment.

AE2：Charger Equality Declaration

Material Name	AE ID	Remarks	Manufacturer
AC-18E	AE2-1	Except pins and appearance, the other parts are the same.	Shenzhen Baijunda Electronic Co.,Ltd.
AC-18U	AE2-2		
AC-18A	AE2-3		
AC-18X	AE2-4		
AC-18T	AE2-5		
AC-18E	AE2-6	Except pins and appearance, the other parts are the same.	Dayu Hongfa Electronics Co., Ltd
AC-18X	AE2-7		

3.4. EUT Set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT+AE1-1+AE2-2+AE4	
Set.2	EUT+AE1-1+AE2-6+AE4	
Set.3	EUT+AE1-1+AE3-1+AE4+PC	

3.5. General Description

The Equipment Under Test (EUT) is a model of Mobile Phone with internal antenna.
Frequency Bands GSM850/900/1800/1900MHz, WCDMA Bands 1/2/4/5/8, LTE Bands 1/2/3/4/5/7/8/12/13/17/28/40/66.
It has MP3, Camera, FM receiver, USB memory and Bluetooth functions.
It consists of normal options: Battery, Charger, Headset and USB Cable.
Manual and specifications of the EUT were provided to fulfill the test.
Samples (EUT+AE) undergoing test were selected by the Client. Relevant information is provided by the client.

This report also serves as a record of TA-1686(secondary supply), the tables below show all the differences between TA-1686(initial supply) and TA-1686(secondary supply).

Key material	TA-1686(secondary supply)		TA-1686(initial supply)	
	Specification	Supplier	Specification	Supplier
LCD 2.4	LCD：2.4 inch, IPS, brightness value: 350~400 cd/㎡ IC:ST7789P3 glass: GVO24QVQ-N81-3QP0	Zhongxian	LCD：2.4 inch, IPS, brightness value: 350~400 cd/㎡ IC:ST7789P3 glass: GVO24QVQ-N81-3QP0	Yiou
Camera 2M	camera, FF, 200W, 3P IC: GC2145 YUV, lens: DL2164B35	Union Image	camera, FF, 200W, 3P IC: GC2145 YUV, lens: DL2164B35	Chengxiangtong
Battery	Capacity: 1450mAh	FengHua	Capacity: 1450mAh	UTILITY
Charger	Input 100-240v,Output 5v550mA,Wire Length1m ,	HGD	Input 100-240v,Output 5v550mA,Wire Length1m ,	Baijunda

	micro5pin/6.0 exposed, Core Micro LP3667 Solution_x005f_x000b_EU:AC-18E UK:AC-18X US:AC-18U IN:AC-18N3 AU:AC-18A;AC-18T with TYPE C		micro5pin/6.0 exposed, Core Micro LP3667 Solution_x005f_x000b_EU:AC-18E UK:AC-18X US:AC-18U IN:AC-18N3 AU:AC-18A;AC-18T with TYPE C	
SPK	speaker,1511 ,1W、two-in-one speaker	Senner Science	speaker,1511 ,1W、two-in-one speaker	GREAT SOUND
vibrator	direct 0827 with line, 12000 rpm, 3V	Jin Xin	direct 0827 with line, 12000 rpm, 3V	Zhongying
KEY FPC	key mat FPC with steely sheet	United Deli	key mat FPC with steely sheet	Bositeng
camera Lens	glass, black	Xianghui	glass, black	Ruijintai
inject Lens	PC + PMMA, CNC	Ling Hui	PC + PMMA, CNC	Taituoer
cable	Type-C, AC-1A	JUWEI	Type-C, AC-1A	Saibao
RF Switch	(P)(T)IC,bandwidth：0.4 GHz to 2.7 GHz,Vdd=2.8V,QFN-14,2.0x2.0x(0.55±0.05)mm,CR24108GM,Cenre	Xinruiwei	IC,0.1-3GHz SP8T Diversity Switch,3.3V VDD,QFN-14L,2.0x2.0x(0.55±0.05)mm,AW13418QNR,AWINIC	AWINIC
ANT Switch	(P)(T)IC,0.4-3.8GHz SP4T Antenna Tuning Switch,QFN(10pin),1.5x1.1x0.37mm,CR2114GLA,Cenre	Xinruiwei	(F)IC,0.4-3.8GHz SP4T Antenna Tuning Switch,VRF=45V,QFN-10,1.5x1.0x0.4mm,MXD8545A,Maxscend	AWINIC
FM LNA	(P)(T)IC,FM Low-Noise-Amplifier in Alliance with Internal Antenna,DFN-6L,1.5x1.0x(0.55±0.05)mm,SW6115,Siliconwave	Siliconwave	(T)IC,FM Low-Noise-Amplifier in Alliance with Internal Antenna,DFN-6L,1.5x1.0x(0.55±0.05)mm,AW5037DNR,AWINIC	AWINIC
Charging	(F)Resistors,0.068ohm,±1%,1/2W,TCR≤±	ROYALOHM	(F)metal alloy Resistor,0.068 ohm,±1%,1/2W,TCR≤±	YAGEO

resistance	75PPM/℃,0805,TL05W2F680MT5E,ROYALOHM		75PPM/℃,0805,T=0.55±0.15mm,PE0805FRM470R068L,YAGEO	
Coulombmeter resistance	(P)(T)Metal Foil Chip Resistor,0.01 ohm,±1%,1/2W,TCR≤±50PPM/℃,0805,MS05W2F100MT5E,ROYALOHM	ROYALOHM	(T)Metal Foil Chip Fixed Resistor,0.01 ohm,±1%,1/2W,TCR≤±50PPM/℃,0805,MFG05HR010FT,Fenghua	Fenghua
varistor	(N)Varistor(10pF18V0402),SDV1005H180C100NPTF,SUNLORD	SUNLORD	(N)Varistor,5.5V,0402,SDV1005E5R5C400NPTF,Sunlord	SUNLORD
MIC	(P)(T)MIC(SMT),ECM(Top-ported), attached dust film,-42±3dB,Φ4.0xT1.3(±0.1)mm,FJM4013BSCRT2	SANICO	(P)(T)MIC(SMT),Omnidirectional Electret Condenser MIC(Top-ported), black air filter, -42±1.5dB(V/Pa),Φ4.0xT1.3(±0.2)mm,SMD4013S-2A422-C10NR390,Ningbo Xinfengtai	Xinfengtai
BT Filter	(P) (T) Band Pass Filter, Band Pass Filter For 2400-2500 MHZ, 1.6 x0.8 x0.22 mm, SPFI182G4BPF3B12AB, ANUKI	ANUKI	Filter,BPF,2450MHz,1.6×0.8×0.6mm,MBPF18M2450-N86,MICROGATE	MICROGATE
Charging MOS	(P)(T) MOS FET,N-Channel Enhancement Mode MOSFET with PNP Transistor,DFN3020-8L,3.0x2.0x0.75mm,ML5812,Millersemi	Millersemi	MOS FET,N-Channel Enhancement Mode MOSFET with PNP Transistor,DFN3x2,3.0x2.0x0.8mm,SSC8P22AN3,AF	Afsemi
VCHGEOS	(P)(T)Power Transient Voltage Suppressor,Uni-direction,12V,5600W,SOD-123FL,JEU12D1FT,JIEJIE MICRO	JIEJIE MICRO	(P)(T)TVS,Power Transient Voltage Suppressor,Uni-direction,12V,5600W,SOD-123FL,PESDU1271D1F,PN-Silicon	PN-Silicon
VBATEOS	(P)(T)Power TVS,Uni-direction,4.5V,DFN2020-3L,2x2x(0.6±0.05)mm,PESDU4501P4-3M,PN-Silicon	PN-Silicon	(T)Transient Voltage Suppressor,Bi-directional,4.5V,400pF,DFN2020-3L,WS4.5P4N3-B,CYG WAYON	WAYON
TVS	(P)(T)TVS(Transient Voltage	PN-Silicon	(P)(T)TVS,Bi-directional,,Bi-directional,5V,15pF,DFN1006-2L	SSC

	Suppressor),Bi-directional,5V,15pF,DFN1006-2,1.0×0.6x0.5mm,PESDU0521P1T,PN-Silicon		,1.0x0.6x0.5(±0.05)mm,SSCE5V022N1,SSC	
TVS	(T)TVS (Transient Voltage Suppressor),Unidirectional,5V,0.5pF,DFN1006-2L,1.0x0.6mm,WE05DUCF,WAYON	WAYON	(T)ESD Protector,TVS,Unidirectional,5V,0.5pF,DFN1006-2L,1.0x0.6x0.6mmH,SSCE5V031N1,SSC	SSC
26M	(T)Crystal，26MHz，±10ppm，9pF，±10ppm@(-20~+70℃),3225, 3.2x2.5x0.7mmH,3S26000266，FAILONG	FAILONG	Crystal,26MHz,±10ppm,9pF,3225,3.2x2.5x0.6mm,2.3.3.260000908,MDH	MDH
PCB	PCB board,FF638-MB-V0.2,6-layer 1 HDI,KeXiang	KeXiang	PCB board,FF638-MB-V0.2,6-layer 1 HDI,HongGao	HongGao
Camera connector	(T)FPC CONNECTOR,front lock 21PIN,0.3PITCH,bottom contact,FPC thickness 0.2mm,black,7.8x3.2x1.0mmH,OK-F302-21115,Yaqi	Yaqi	FPC CONNECTOR (T), before the lock pin 21, 0.3 PITCH, contact, FPC thickness of 0.2 mm, all black, 7.8 x3.25 x1.0 mmH, CFPC0310B - 21 rl - TAG, Biying	Biying
Keypad connector	(P) (T),FPC CONNECTOR 15 pin, lock before 0.3 PITCH, contact, FPC thickness of 0.2 mm, all black, 6.0 x3.25 x1.0 mmH, CFPC0310B - 15 rl - TAG, Biying	Biying	(T)FPC CONNECTOR, front lock 21PIN,0.3PITCH, bottom contact,FPC thickness 0.2mm, black,7.8x3.2x1.0mmH,OK-F302-21115,Yaqi	Yaqi
RF base	(T) RF Switchable Receptacle, Generation III, four leg, shell plating silver, diameter 0.5, the diameter of 1.35, 2.1 x2.0 x0.9 mmH, 818011998, ECT	ECT	(P)(T)RF Switchable Receptacle, III Generation, four welding pin, silver plated shell, inner diameter 0.5, outer diameter 1.35,2.1x2.0x0.9mmH,RF3S-1B090FR0,Hongrida	Hongrida
Battery connector	P)(T)Battery Connector, shrapnel on board,2DIP+4SMT,3PIN,3.0 PITCH, improved shrapnel forward force,8.4x3.9x3.5mmH,B13-	Hongrida	(P) (T) 'Connector, plate shell type, 2 dip + 4 SMT, 3 pin, PITCH, 3.0 8.4 x3.9 x3.5 mmH, A - WKBT03 - B30001-04, Weikang	Weikang

	AB03F350,Hongrida			
Headphone socket	(S)Audio Jack(Φ3.5mm), sinking plate 1.2mmH, headless bevel,5Pin(6DIP),12.5x6.35x3.6mmH,PH10-4B05F35A, Hongrida	Hongrida	(P)(T)Audio Jack(Φ3.5mm), sinking plate 1.2mmH, headless bevel,5Pin(6DIP),12.6x6.35x3.6mmH,JAK35-061T3612-A01, Juda	Juda
SIM card holder	(T) NANO SIM Card Connector, ordinary bridge, with block, tin welding Angle, all SMT, 7 PIN, PIN with detection, 12.35 x9.8 x1.4 mmH, S126 b07f13a 0, Hongrida	Hongrida	(T)NANO SIM Card Connector, ordinary bridge, with stop, tin Angle internal welding, full SMT,7PIN, with detection PIN,12.35x9.8x1.35mmH,A-WKSM07-B25412-22,Weikang	Weikang
TF card holder	(P) (T) T - card Connector (T - FLASH gets stuck), short body, dangling, with the PIN, 9 PIN, PITCH, 1.1 11.4 x5.2 x2.45 mmH, T09 - BB09F250 Hongrida	Hongrida	(P) (T) T - card Connector (T - FLASH gets stuck), short body, dangling, with the PIN, 9 PIN, PITCH, 1.1, 11.4 x5.2 x2.45 mmH, A - WKTF09 - B11012-19, Weikang	Weikang
BB shield cover	(P) (T) Shielding Case (BB), irregular, local copper plating paint, material thickness 0.2 mm, 34 x28. 25 x1. 4 MMH, FF638, Chuangyagao	Chuangyagao	(P) (T) Shielding Case (BB), irregular, local copper plating paint, material thickness 0.2 mm, 34 x28. 25 x1. 4 MMH, FF638, ShenYouWei	ShenYouWei
RF shield cover	(P) (T) Shielding Case (RF), irregular, New York, cupronickel material thickness 0.2 mm, 31.2 x22.35 x1.4 mmH, FF638, Chuangyagao	Chuangyagao	(P) (T) Shielding Case (RF), irregular, New York, cupronickel material thickness 0.2 mm, 31.2 x22.35 x1.4 mmH, FF638, ShenYouWeiShenYouWei	ShenYouWei
Main antenna shrapnel	(S) Antenna spring (SMT), stainless steel plated, pad width 0.9, contact width 0.45, working range 1.0/1.75, best 1.4,3.4x0.9x1.8mmH,P-JS-IT-18,Zhonghangxinda	Zhonghangxinda	(P) (T) antenna shrapnel (SMT), stainless steel, gold plated contact area, 2.4 x0.8 bonding pad, contact width of 0.5, scope of work 1.25/1.75, 3.4 x0.9 x1.8 mmH, KSN - A18000101R - 0100, Huile	Huile
Diversity /BT antenna	(P) (T) antenna shrapnel (SMT), welding plate 1.0, wide contact 0.56, wide working range 1.15 1.25	Tonglingtongfeng	(T) antenna shrapnel (SMT), phosphor copper, solder width of 1.0, contact width of 0.4, working range 1.0 1.4 mm, 1.2	Zhonghangxinda

shrapnel	mm, 1.2 mm, best 1.9 x1.0 x1.75 mmH, AT17-110001-02, Tonglingtongfeng		mm, best 2.0 x1.0 x1.8 mmH, C - 1 sp18000441, Zhonghangxinda	

According to the declaration of differences by manufacturer, in addition the following tests need to be performed：

NO.	Test item	EUT ID	Operating mode
1	Conducted Emission	UT21aa	Video Player, FM receier
2	Radiated Emission	UT21aa	LTE receiver, FM receiver

Other results are cited from the initial model TA-1686(initial supply).

The report number for initial model is 24T04N001218-007-EMC.

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	(10-1-2023 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

Anechoic chamber (FACT3-2.0) did not exceed following limits along the EMC testing:
9.10m×6.10m×5.60m (L×W×H)

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	< ±4 dB, 3 m distance, from 30 to 1000 MHz
Voltage Standing Wave Ratio （VSWR）	≤ 6 dB, from 1 to 18 GHz，3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

Shield room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. =20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-18000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω

6. SUMMARY OF TEST RESULTS

6.1. Testing Environment

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

6.2. Summary of Measurement Results

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

Items	Test Name	Clause in FCC/IC rules	Section in this report	Verdict
1	Radiated Emission	15.109(a)/ Section 6.2	A.1	P
2	Conducted Emission	15.107(a)/ Section 6.1	A.2	P

6.3. Statement

6.3.1 Statements of conformity

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

7. MEASUREMENT UNCERTAINTY

Test item	Frequency ranges	Measurement uncertainty
Radiated Emission	30MHz-1GHz	4.80dB(*k*=2)
	1GHz-18GHz	4.62dB(*k*=2)
	18GHz-40GHz	2.36dB(*k*=2)
Conducted Emission	150kHz-30MHz	2.68dB(*k*=2)

8. MEASURING APPARATUS UTILIZED

No.	Name	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1.	Test Receiver	ESR7	101676	R&S	2024.11.22	1 year
2.	Test Receiver	ESCI	100702	R&S	2025.01.10	1 year
3.	Spectrum Analyzer	FSV40	101192	R&S	2025.01.10	1 year
4.	Hybrid antenna	VULB 9163	9163-330	Schwarzbeck	2027.04.21	3 years
5.	LISN	ENV216	102067	R&S	2024.10.07	1 year
6.	Horn Antenna	3117	00066577	ETS-Lindgren	2025.04.17	3 years
7.	Anechoic Chamber	FACT3-2.0	1285	ETS-Lindgren	2025.05.28	2 years
8.	Universal Radio Communication Tester	CMU200	114545	R&S	2025.01.10	1 year
9.	Universal Radio Communication Tester	CMW500	152499	R&S	2024.07.13	1 year
10.	Horn Antenna	QSH-SL-18-26-S-20	17013	Q-par	2026.02.01	3 years
11.	Horn Antenna	QSH-SL-8-26-40-K-20	17014	Q-par	2026.01.30	3 years

9. MEASURING ACCESSORY UTILIZED

No.	Name	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1.	PC	ThinkPad T480	PF-13LW0C	Lenovo	/	/
2.	Printer	P1008	VNF6C12491	HP	/	/
3.	Mouse	MOEUUOA	44NY517	Lenovo	/	/

10. MEASURING SOFTWARE

No.	Name	Manufacturer	Version
1	EMC32	Rohde & Schwarz	V10.50.40

ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§15.109(a))

Reference

FCC: Part 15.109(a)

IC: ICES-003 section 6.2

A.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator at a distance of 3 meters or 1 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. Below 18GHz the measurement antenna was placed at a distance of 3 meters from the EUT. Above 18GHz the measurement antenna was placed at a distance of 1 meters from the EUT. (According to Part 15.31(f)(1), 1m limit is calculated by extrapolation factor of 20 dB/decade) . During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

A.1.2 EUT Operating Mode:

Camera: At the beginning of measurement, the battery is completely discharged. The battery and charger are installed so that the EUT works well and keeping on taking photos.

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

Data Transfer: The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C. The EUT is connected to a PC for transmitting data. The software is used to let the PC keep on copying data to EUT 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.

FM receiver: The EUT is connected to a charger for charging. 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.

GSM receiver: The EUT is connected to a charger for charging. The EUT is synchronized to System Simulator (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 System Simulator (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 System Simulator (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 Band5, WCDMA Band5, LTE Band 5, LTE Band 12, LTE Band 13.
The EUT was tested while operating in licensed band receiver mode. All licensed band receivers that tune in the range of 30MHz-960MHz, as listed in Section 3.1, 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. For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

A.1.3 Measurement Limit

Limit from 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

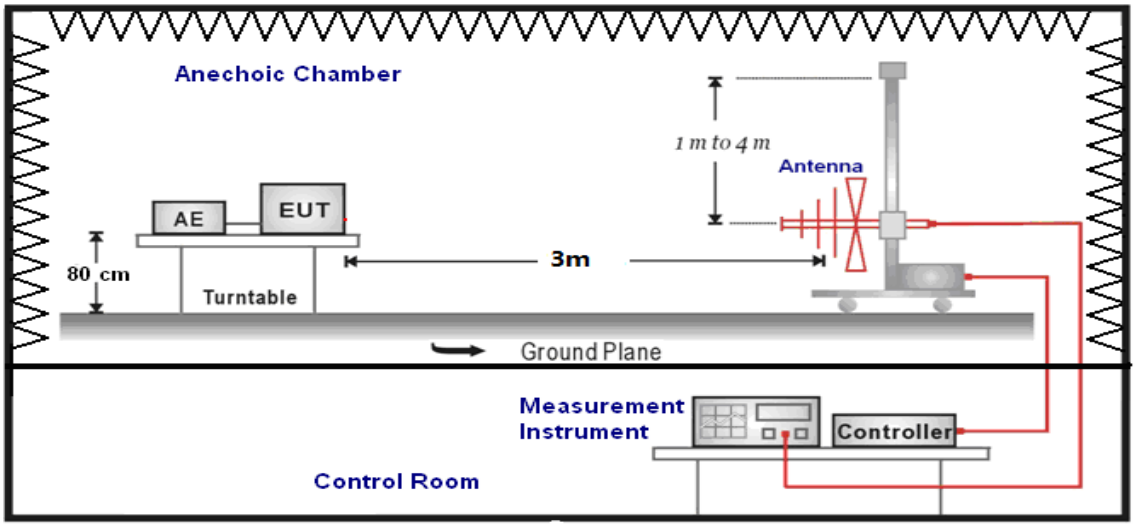
*Note: The original limit is defined at 10m test distance. This limit is calculated according to CISPR requirements.

A.1.4 Test Condition

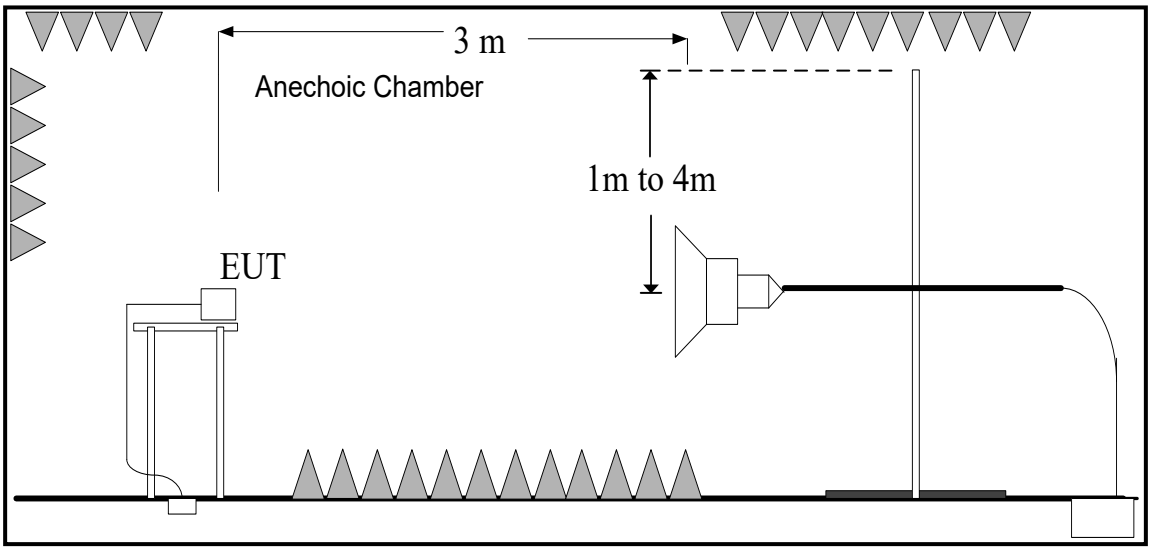
Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz (IF bandwidth)	5
Above 1000	1MHz/3MHz	15

A.1.5 Test set-up:

30MHz-1GHz



1GHz-40GHz



A.1.6 Measurement Results

A "reference path loss" is established and the A_{Rpl} is the attenuation of “reference path loss”. It includes the antenna factor of receive antenna and the path loss.

The measurement results are obtained as described below:

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

Where

G_A: Antenna factor of receive antenna

G_{PL}:PathLoss

P_{Mea}: Measurement result on receiver.

Result:Quasi-Peak(dBμV/m) /Average(dBμV/m)/Peak(dBμV/m)

Note: the result contains vertical part and Horizontal part

GSM receiver 850MHz

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.1.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.2.	P
18000 to 26500	63.54	83.54	See Figure A.1.3.	

GSM receiver 1900MHz

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.4.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.5.	P
18000 to 26500	63.54	83.54	See Figure A.1.6.	

Camera

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.7.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.8.	P
18000 to 26500	63.54	83.54	See Figure A.1.9.	

FM Receiver

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.10.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.11.	P
18000 to 26500	63.54	83.54	See Figure A.1.12.	

Video Player

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.13.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.14.	P
18000 to 26500	63.54	83.54	See Figure A.1.15.	

WCDMA receiver Band 2

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.16.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.17.	P
18000 to 26500	63.54	83.54	See Figure A.1.18.	

WCDMA receiver Band 4

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.19.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.20.	P
18000 to 26500	63.54	83.54	See Figure A.1.21.	

WCDMA receiver Band 5

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.22.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.23.	P
18000 to 26500	63.54	83.54	See Figure A.1.24.	

LTE receiver Band 2

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.25.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.26.	P
18000 to 26500	63.54	83.54	See Figure A.1.27.	

LTE receiver Band 4

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.28.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.29.	P
18000 to 26500	63.54	83.54	See Figure A.1.30.	

LTE receiver Band 5

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.31.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.32.	P
18000 to 26500	63.54	83.54	See Figure A.1.33.	

LTE receiver Band 7

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.34.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.35.	P
18000 to 26500	63.54	83.54	See Figure A.1.36.	

LTE receiver Band 12

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.37.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.38.	P
18000 to 26500	63.54	83.54	See Figure A.1.39.	

LTE receiver Band 13

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.40.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.41.	P
18000 to 26500	63.54	83.54	See Figure A.1.42.	

LTE receiver Band 17

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.43.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.44.	P
18000 to 26500	63.54	83.54	See Figure A.1.45.	

LTE receiver Band 66

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.46.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.47.	P
18000 to 26500	63.54	83.54	See Figure A.1.48.	

Data Transfer: PC TO TF

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.3	Conclusion
30-88	40.00	See Figure A.1.49.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.3	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.50.	P
18000 to 26500	63.54	83.54	See Figure A.1.51.	

Data Transfer: TF TO PC

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.3	Conclusion
30-88	40.00	See Figure A.1.52.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.3	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.53.	P
18000 to 26500	63.54	83.54	See Figure A.1.54.	

LTE receiver Band 7

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.2	Conclusion
30-88	40.00	See Figure A.1.55.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT04aa/Set.2	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.56.	P
18000 to 26500	63.54	83.54	See Figure A.1.57.	

LTE receiver Band 7

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT21aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.58.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT21aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.59.	P
18000 to 26500	63.54	83.54	See Figure A.1.60.	

FM Receiver

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT21aa/Set.1	Conclusion
30-88	40.00	See Figure A.1.61.	P
88-216	43.52		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT21aa/Set.1	Conclusion
1000 to 18000	54.00	74.00	See Figure A.1.62.	P
18000 to 26500	63.54	83.54	See Figure A.1.63.	

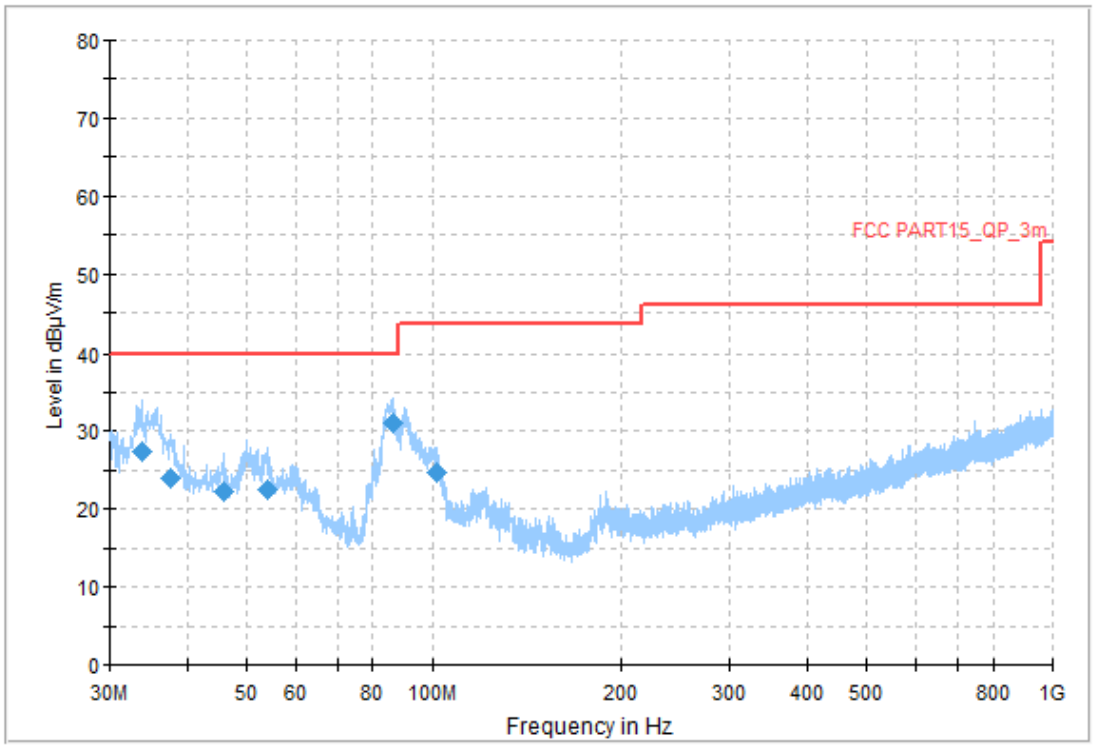


Figure A.1.1. Radiated Emission (GSM receiver 850MHz, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.826111	27.51	40.00	12.49	V	-15	42.51
37.652222	24.03	40.00	15.97	V	-14	38.03
45.789444	22.29	40.00	17.71	V	-13	35.29
54.142222	22.48	40.00	17.52	V	-14	36.48
86.098333	31.03	40.00	8.97	V	-18	49.03
101.564444	24.67	43.52	18.85	V	-15	39.67

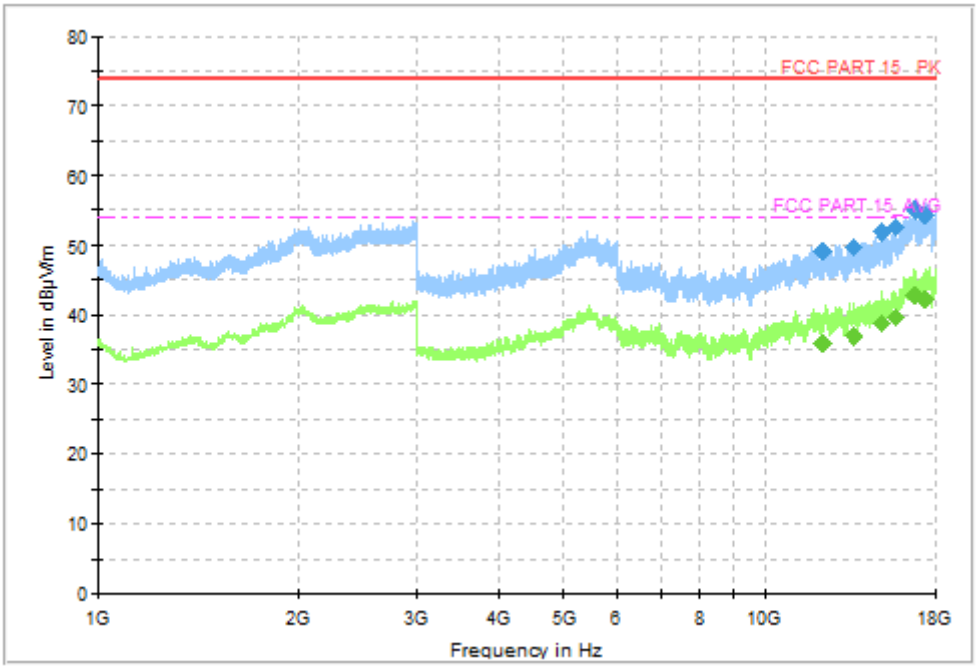


Figure A.1.2. Radiated Emission (GSM receiver 850MHz, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12217.714286	49.08	74.00	24.92	H	12.2	36.88
13580.571429	49.60	74.00	24.40	H	13.0	36.6
14973.000000	51.75	74.00	22.25	V	14.7	37.05
15736.285714	52.60	74.00	21.40	H	14.3	38.30
16726.714286	55.15	74.00	18.85	V	18.9	36.25
17383.285714	54.24	74.00	19.76	V	19.8	34.44

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12217.714286	35.90	54.00	18.10	H	12.2	23.70
13580.571429	36.93	54.00	17.07	H	13.0	23.93
14973.000000	38.94	54.00	15.06	V	14.7	24.24
15736.285714	39.62	54.00	14.38	H	14.3	25.32
16726.714286	42.88	54.00	11.12	V	18.9	23.98
17383.285714	42.32	54.00	11.68	V	19.8	22.52

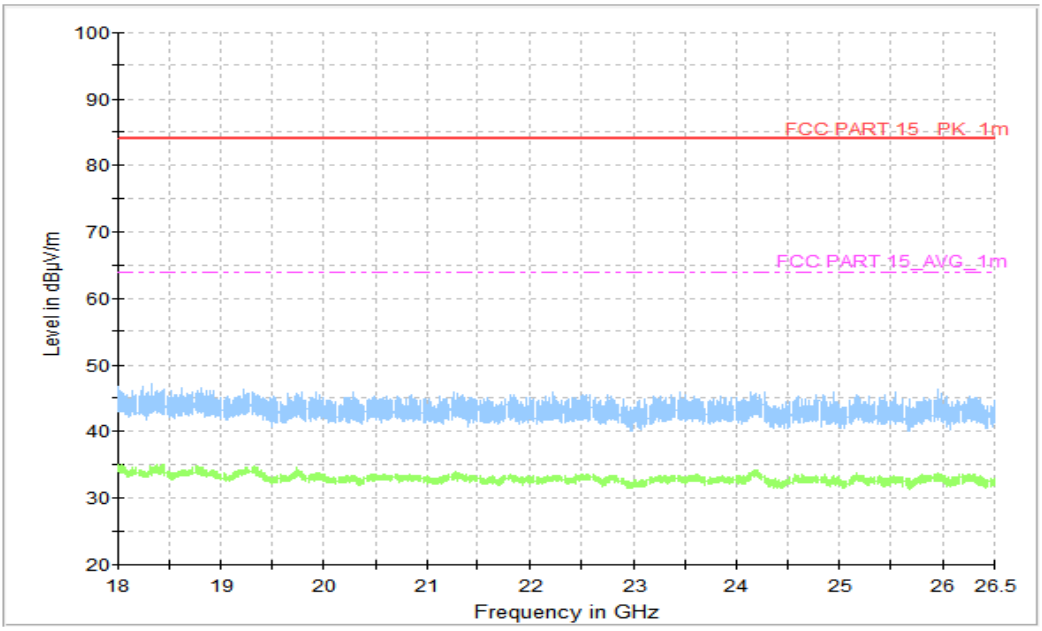


Figure A.1.3. Radiated Emission (GSM receiver 850MHz, 18GHz to 26.5GHz)

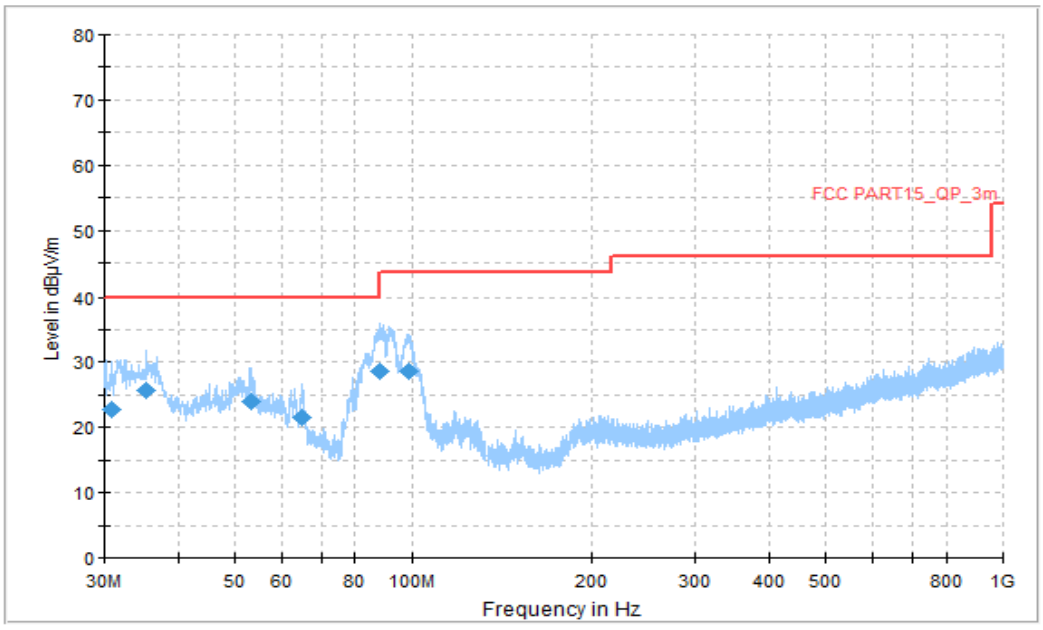


Figure A.1.4. Radiated Emission (GSM receiver 1900MHz, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.808333	22.77	40.00	17.23	V	243.0	-220.23
35.388889	25.76	40.00	14.24	V	63.0	-37.24
53.226111	24.06	40.00	15.94	V	177.0	-152.94
64.812222	21.62	40.00	18.38	V	109.0	-87.38
87.984444	28.52	40.00	11.48	V	217.0	-188.48
98.492778	28.56	43.52	14.96	V	217.0	-188.44

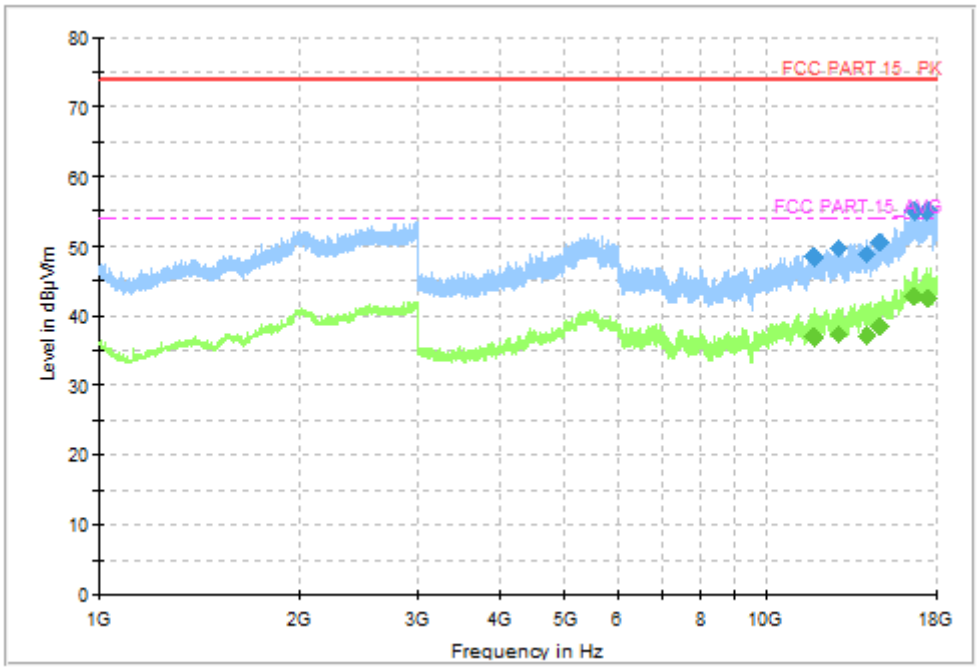


Figure A.1.5. Radiated Emission (GSM receiver 1900MHz, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11765.142857	48.56	74.00	25.44	H	12.4	36.16
12889.285714	49.74	74.00	24.26	V	12.7	37.04
14148.428572	48.98	74.00	25.02	H	13.2	35.78
14851.714286	50.70	74.00	23.30	V	14.7	36.00
16719.857143	54.98	74.00	19.02	V	18.9	36.08
17434.285714	55.02	74.00	18.98	V	20.0	35.02

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11765.142857	37.01	54.00	16.99	H	12.4	24.61
12889.285714	37.40	54.00	16.60	V	12.7	24.7
14148.428572	37.16	54.00	16.84	H	13.2	23.96
14851.714286	38.47	54.00	15.53	V	14.7	23.77
16719.857143	42.73	54.00	11.27	V	18.9	23.83
17434.285714	42.66	54.00	11.34	V	20.0	22.66

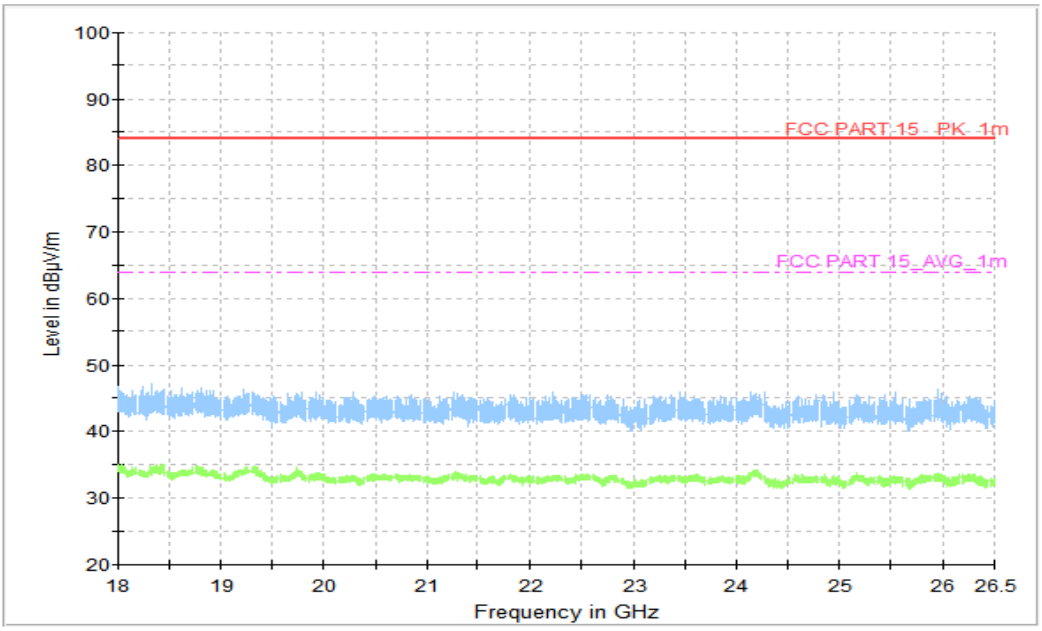


Figure A.1.6. Radiated Emission (GSM receiver 1900MHz, 18GHz to 26.5GHz)

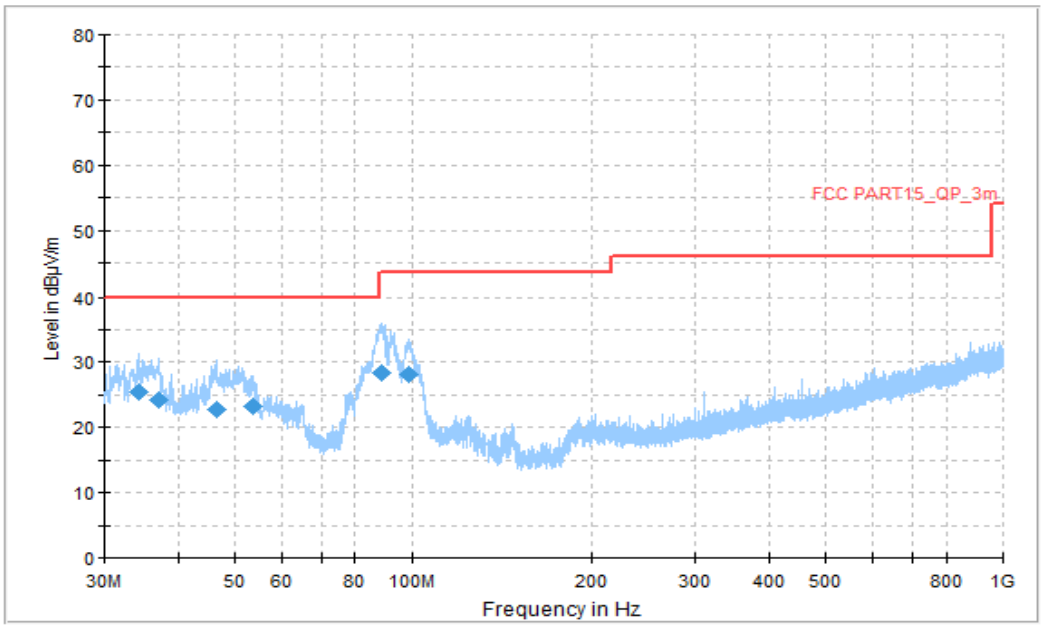


Figure A.1.7. Radiated Emission (Camera, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
34.257222	25.54	40.00	14.46	V	-15	40.54
37.059444	24.23	40.00	15.77	V	-14	38.23
46.543889	22.66	40.00	17.34	V	-13	35.66
53.711111	23.19	40.00	16.81	V	-14	37.19
88.631111	28.35	43.52	15.17	V	-17	45.35
98.600556	28.09	43.52	15.43	V	-15	43.09

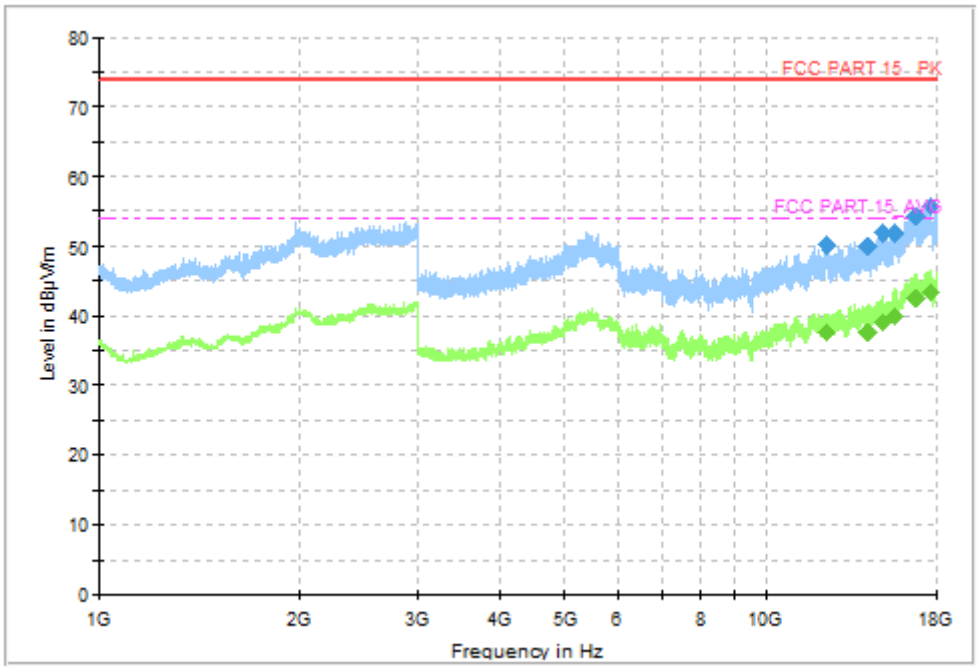


Figure A.1.8. Radiated Emission (Camera, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12338.142857	50.20	74.00	23.80	H	12.8	37.40
14194.714286	49.89	74.00	24.11	V	13.3	36.59
14991.857143	51.79	74.00	22.21	V	14.5	37.29
15659.142857	51.97	74.00	22.03	V	14.1	37.87
16760.571429	54.28	74.00	19.72	V	18.7	35.58
17672.571429	55.78	74.00	18.22	V	20.6	35.18

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12338.142857	37.68	54.00	16.32	H	12.8	24.88
14194.714286	37.57	54.00	16.43	V	13.3	24.27
14991.857143	39.26	54.00	14.74	V	14.5	24.76
15659.142857	39.86	54.00	14.14	V	14.1	25.76
16760.571429	42.53	54.00	11.47	V	18.7	23.83
17672.571429	43.19	54.00	10.81	V	20.6	22.59

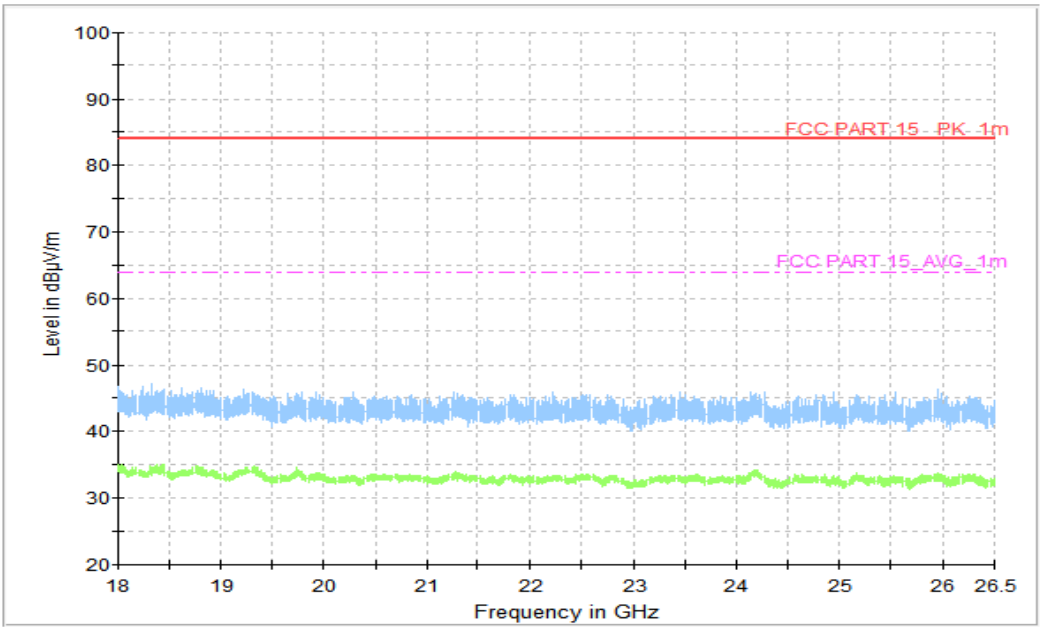


Figure A.1.9. Radiated Emission (Camera, 18GHz to 26.5GHz)

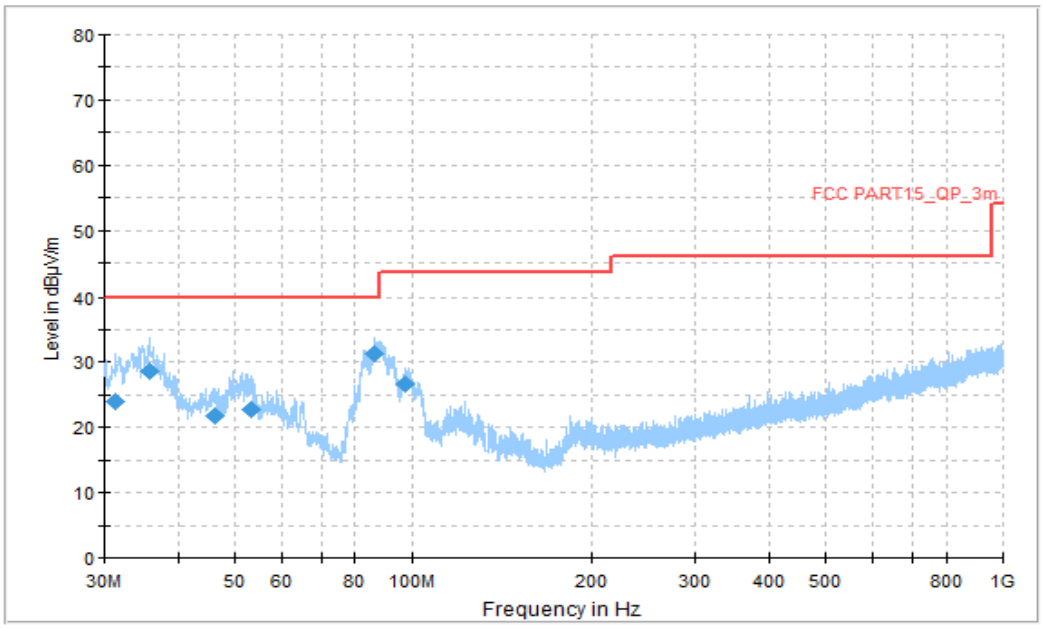


Figure A.1.10. Radiated Emission (FM Receiver, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
31.293333	23.95	40.00	16.05	V	-15	38.95
35.766111	28.63	40.00	11.37	V	-14	42.63
46.274444	21.87	40.00	18.13	V	-13	34.87
53.280000	22.81	40.00	17.19	V	-14	36.81
86.206111	31.31	40.00	8.69	V	-18	49.31
96.983889	26.71	43.52	16.81	V	-15	41.71

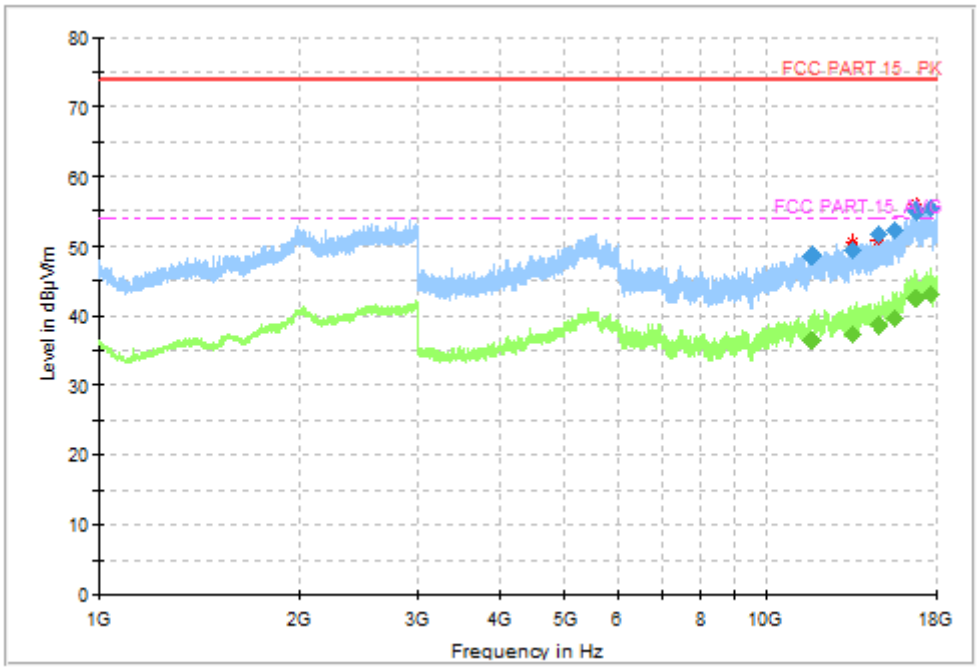


Figure A.1.11. Radiated Emission (FM Receiver, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11690.142857	48.78	74.00	25.22	V	11.7	37.08
13530.857143	49.31	74.00	24.69	H	13.0	36.31
14766.857143	51.59	74.00	22.41	H	14.2	37.39
15615.857143	52.42	74.00	21.58	V	13.9	38.52
16757.571429	55.11	74.00	18.89	V	18.7	36.41
17695.714286	55.58	74.00	18.42	H	20.6	34.98

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11690.142857	36.40	54.00	17.61	V	11.7	24.70
13530.857143	37.42	54.00	16.58	H	13.0	24.42
14766.857143	38.68	54.00	15.32	H	14.2	24.48
15615.857143	39.64	54.00	14.36	V	13.9	25.74
16757.571429	42.63	54.00	11.37	V	18.7	23.93
17695.714286	43.12	54.00	10.88	H	20.6	22.52

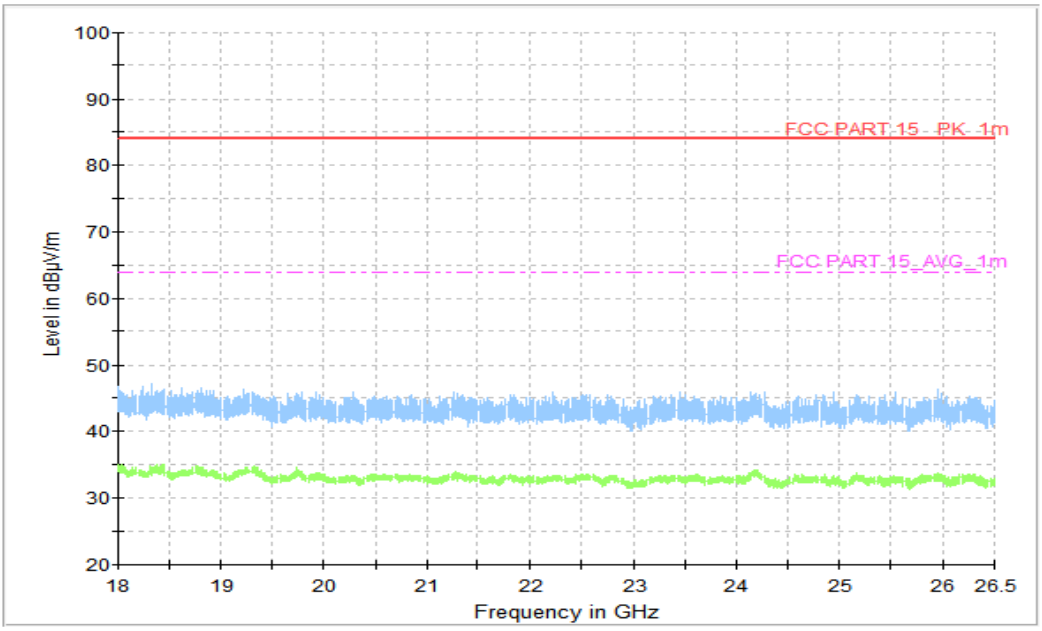


Figure A.1.12. Radiated Emission (FM Receiver, 18GHz to 26.5GHz)

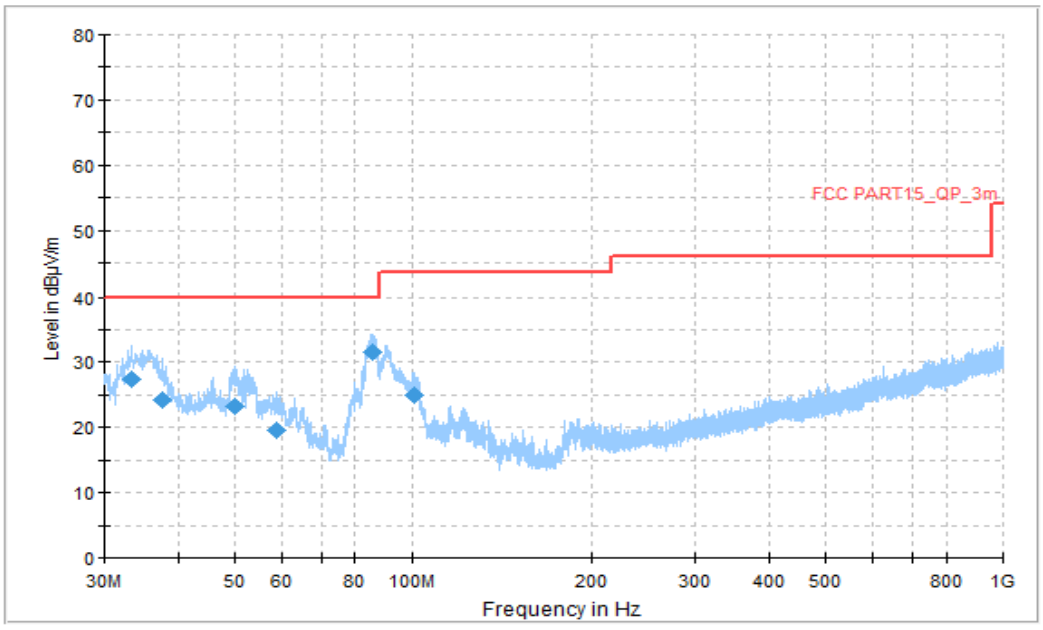


Figure A.1.13. Radiated Emission (Video Player, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.287222	27.52	40.00	12.48	V	-15	42.52
37.760000	24.26	40.00	15.74	V	-14	38.26
49.992778	23.19	40.00	16.81	V	-13	36.19
58.884444	19.60	40.00	20.40	V	-13	32.60
85.451667	31.47	40.00	8.53	V	-18	49.47
100.863889	24.91	43.52	18.61	V	-15	39.91

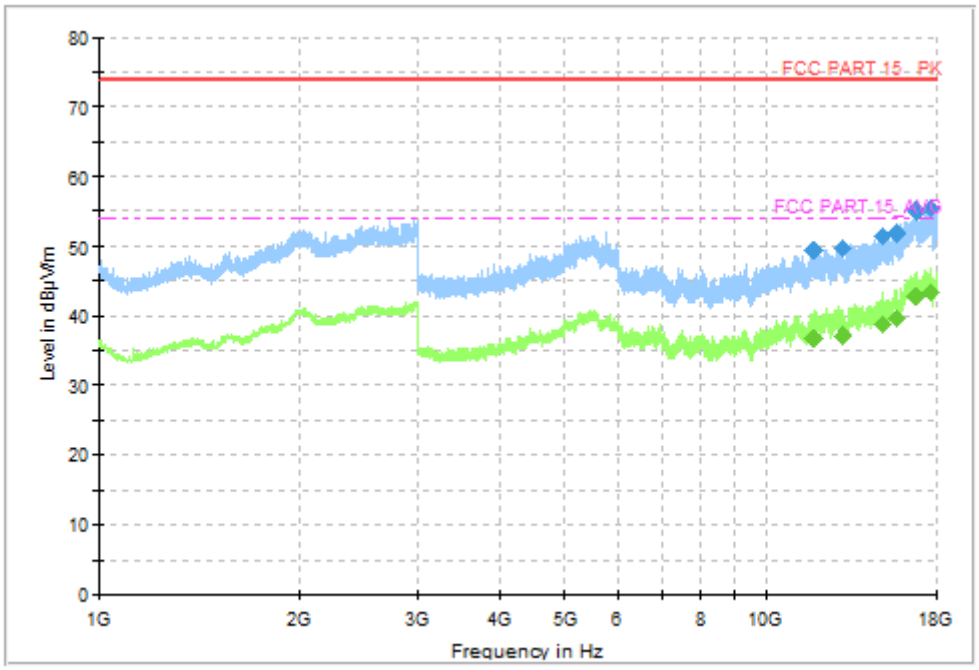


Figure A.1.14. Radiated Emission (Video Player, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11815.714286	49.43	74.00	24.57	V	12.2	37.23
13026.000000	49.62	74.00	24.38	V	12.9	36.72
15014.571429	51.39	74.00	22.61	V	14.3	37.09
15711.000000	51.89	74.00	22.11	H	14.3	37.59
16741.285714	55.16	74.00	18.84	V	18.8	36.36
17698.285714	55.51	74.00	18.49	H	20.6	34.91

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11815.714286	36.74	54.00	17.26	V	12.2	24.54
13026.000000	37.12	54.00	16.88	V	12.9	24.22
15014.571429	38.99	54.00	15.01	V	14.3	24.69
15711.000000	39.66	54.00	14.34	H	14.3	25.36
16741.285714	42.86	54.00	11.14	V	18.8	24.06
17698.285714	43.26	54.00	10.74	H	20.6	22.66

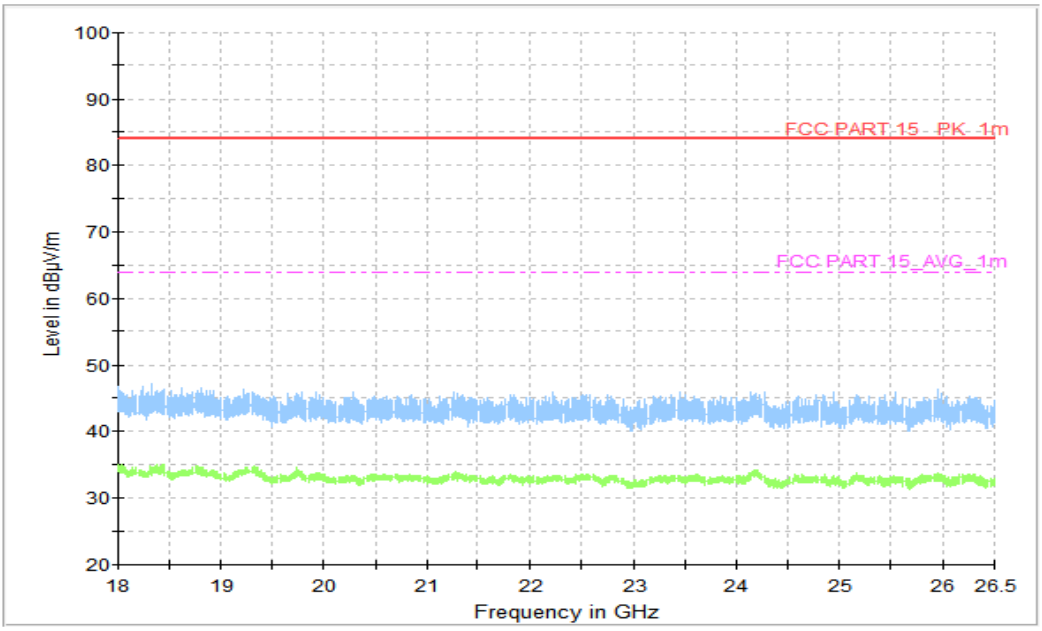


Figure A.1.15. Radiated Emission (Video Player, 18GHz to 26.5GHz)

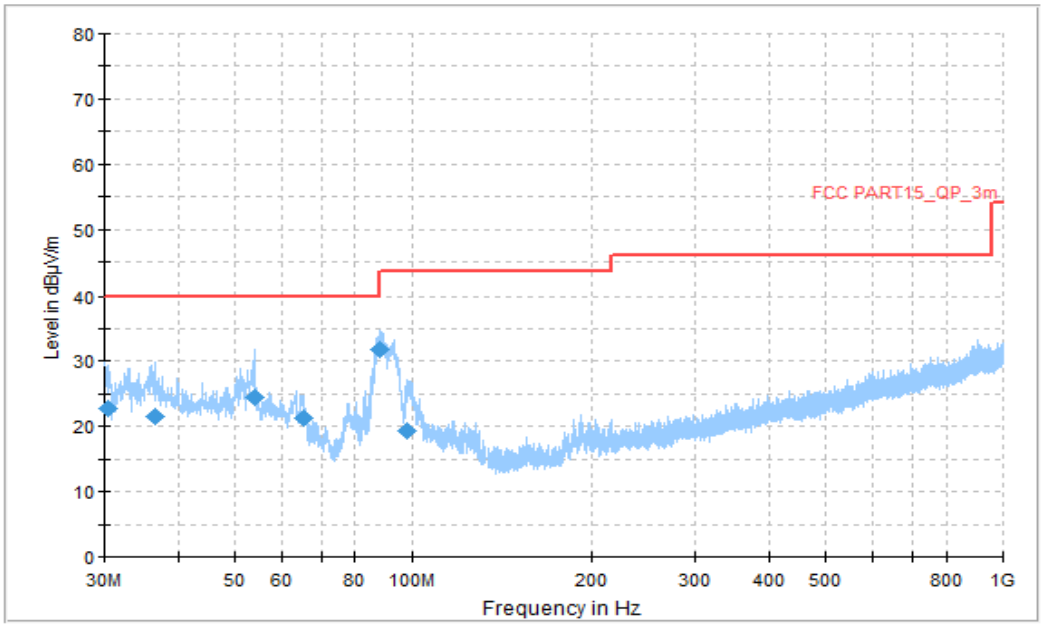


Figure A.1.16. Radiated Emission (WCDMA receiver Band 2, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
30.377222	22.84	40.00	17.16	V	-15	37.84
36.466667	21.42	40.00	18.58	V	-14	35.42
53.872778	24.35	40.00	15.65	V	-14	38.35
65.243333	21.27	40.00	18.73	V	-15	36.27
88.361667	31.83	43.52	11.69	V	-17	48.83
98.007778	19.42	43.52	24.10	V	-15	34.42

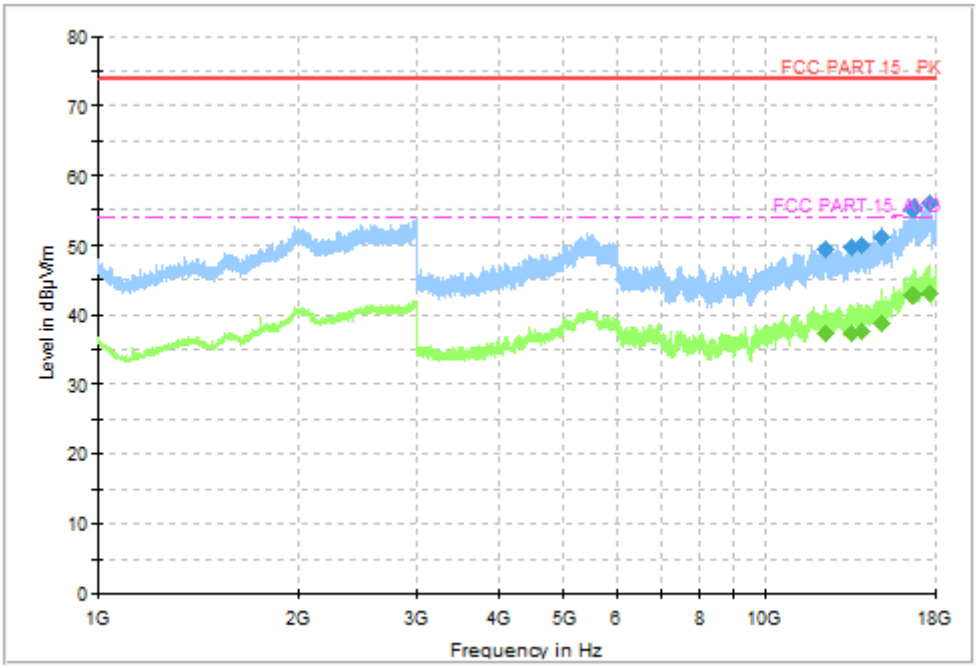


Figure A.1.17. Radiated Emission (WCDMA receiver Band 2, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12363.857143	49.34	74.00	24.66	H	12.8	36.54
13519.714286	49.66	74.00	24.34	H	12.9	36.76
13950.857143	49.96	74.00	24.04	H	13.0	36.96
14976.857143	51.24	74.00	22.76	H	14.6	36.64
16706.142857	55.32	74.00	18.68	V	19.0	36.32
17712.857143	56.06	74.00	17.94	H	20.5	35.56

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12363.857143	37.31	54.00	16.69	H	12.8	24.51
13519.714286	37.45	54.00	16.55	H	12.9	24.55
13950.857143	37.75	54.00	16.25	H	13.0	24.75
14976.857143	38.83	54.00	15.17	H	14.6	24.23
16706.142857	42.88	54.00	11.12	V	19.0	23.88
17712.857143	43.06	54.00	10.94	H	20.5	22.56

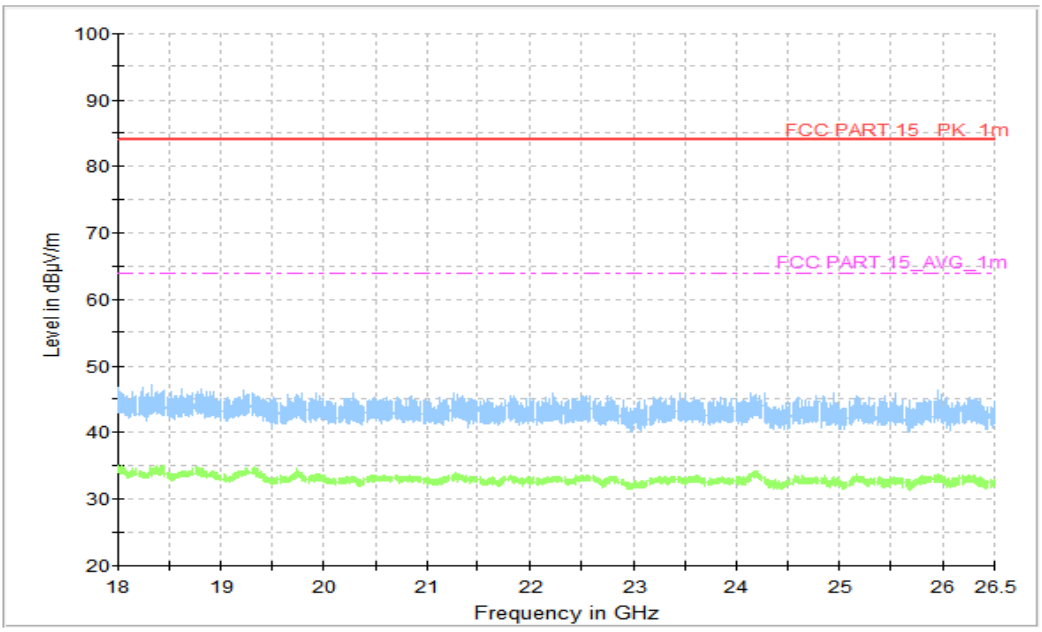


Figure A.1.18. Radiated Emission (WCDMA receiver Band 2, 18GHz to 26.5GHz)

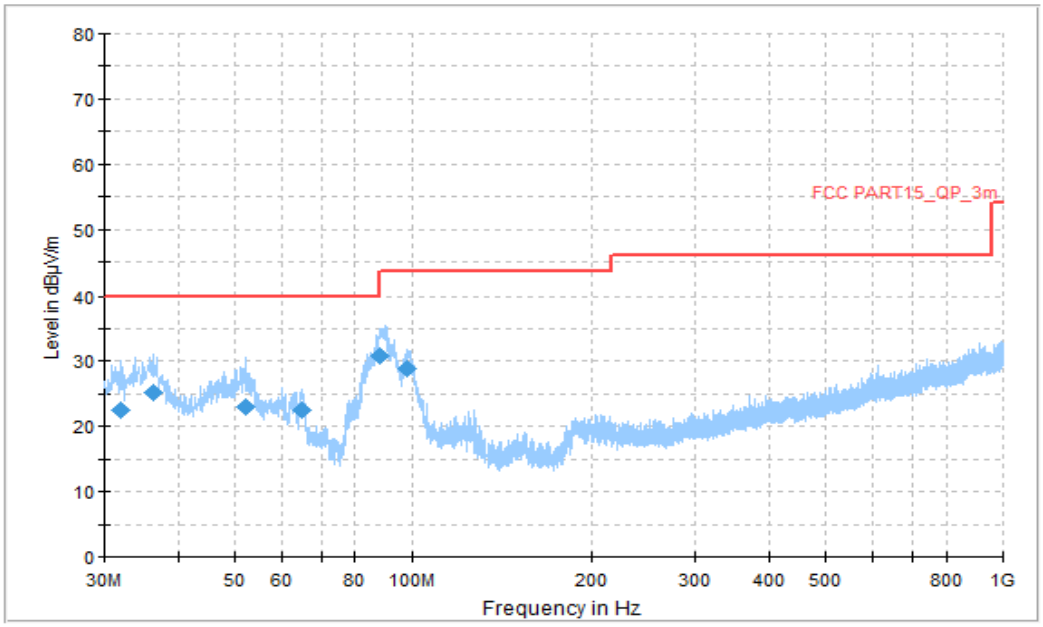


Figure A.1.19. Radiated Emission (WCDMA receiver Band 4, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
31.940000	22.39	40.00	17.61	V	-15	37.39
36.305000	25.12	40.00	14.88	V	-14	39.12
52.256111	23.10	40.00	16.90	V	-14	37.10
64.920000	22.48	40.00	17.52	V	-15	37.48
87.822778	30.76	40.00	9.24	V	-17	47.76
98.061667	28.85	43.52	14.67	V	-15	43.85

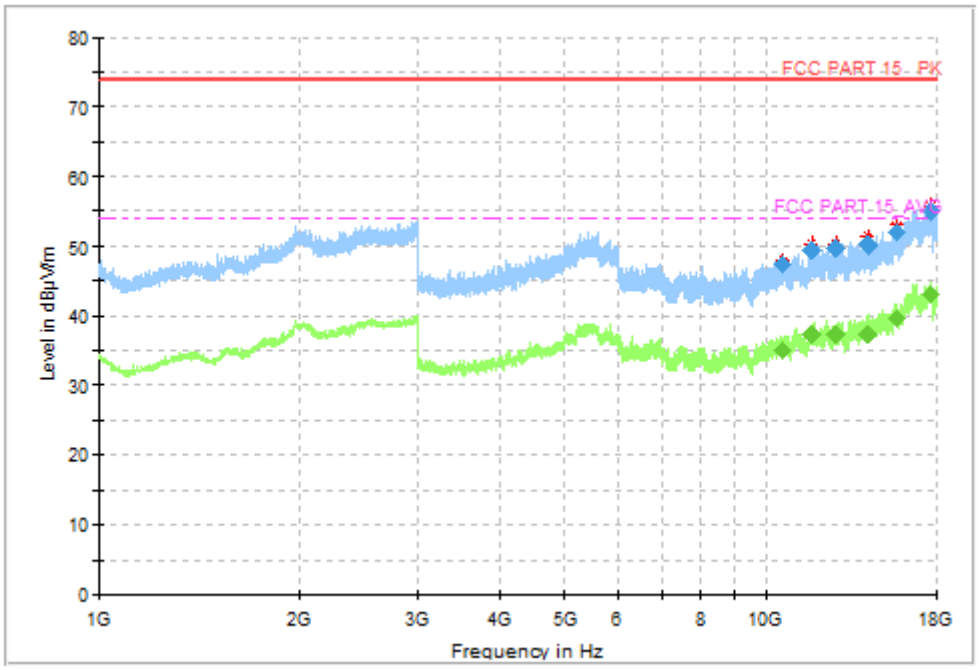


Figure A.1.20. Radiated Emission (WCDMA receiver Band 4, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
10596.000000	47.39	74.00	26.61	V	9.7	37.69
11753.142857	49.48	74.00	24.52	H	12.3	37.18
12745.714286	49.63	74.00	24.37	H	12.9	36.73
14199.000000	50.03	74.00	23.97	H	13.3	36.73
15732.428571	52.21	74.00	21.79	H	14.3	37.91
17713.285714	55.00	74.00	19.00	V	20.5	34.50

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
10596.000000	34.96	54.00	19.04	V	9.7	25.26
11753.142857	37.35	54.00	16.65	H	12.3	25.05
12745.714286	37.51	54.00	16.49	H	12.9	24.61
14199.000000	37.51	54.00	16.49	H	13.3	24.21
15732.428571	39.68	54.00	14.32	H	14.3	25.38
17713.285714	43.12	54.00	10.88	V	20.5	22.62

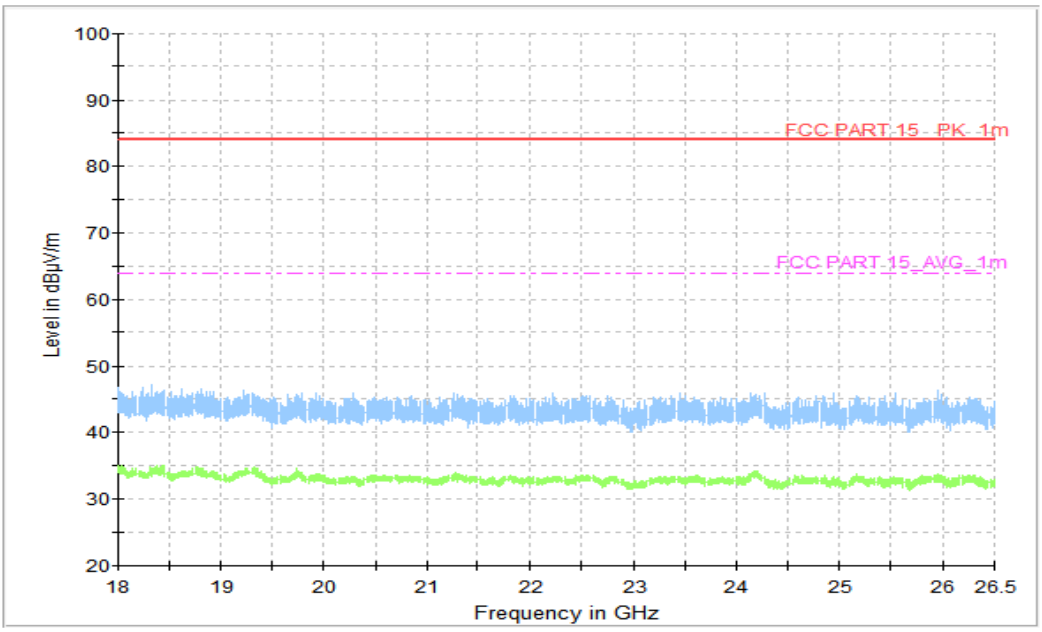


Figure A.1.21. Radiated Emission (WCDMA receiver Band 4, 18GHz to 26.5GHz)

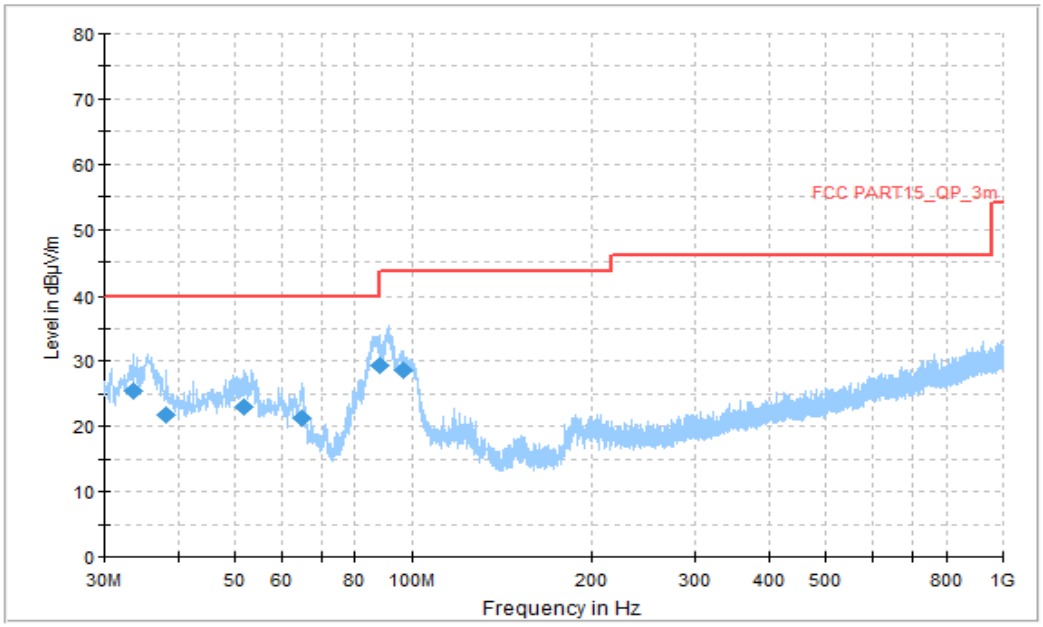


Figure A.1.22. Radiated Emission (WCDMA receiver Band 5, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.664444	25.37	40.00	14.63	V	-15	40.37
38.137222	21.73	40.00	18.27	V	-14	35.73
51.771111	22.97	40.00	17.03	V	-14	36.97
64.973889	21.28	40.00	18.72	V	-15	36.28
87.876667	29.36	40.00	10.64	V	-17	46.36
96.445000	28.60	43.52	14.92	V	-15	43.60

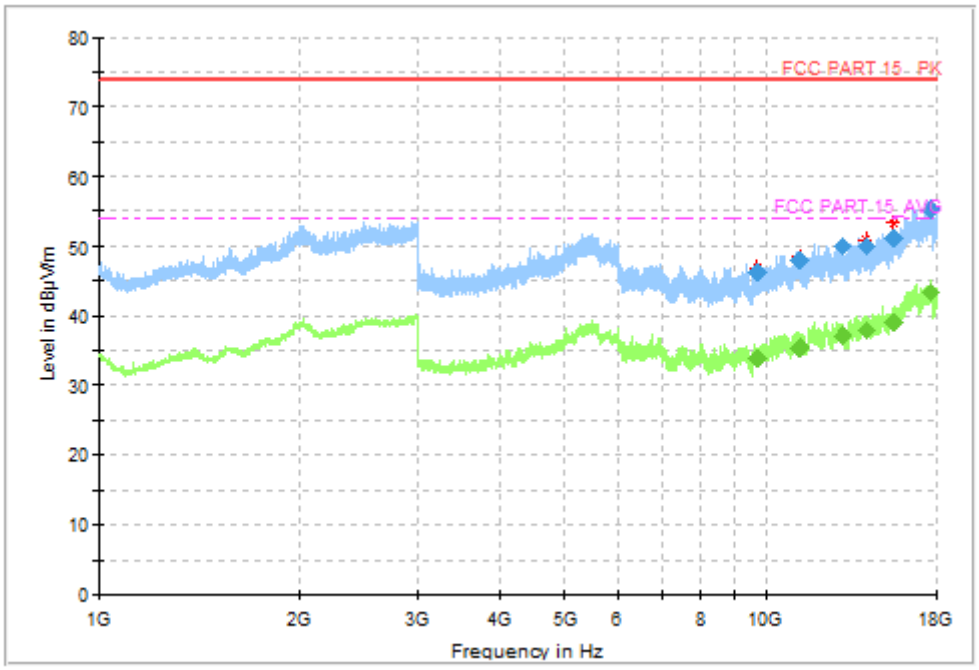


Figure A.1.23. Radiated Emission (WCDMA receiver Band 5, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9719.142857	46.20	74.00	27.80	V	8.6	37.60
11238.428572	47.87	74.00	26.13	V	10.2	37.67
13002.000000	49.84	74.00	24.16	H	13.0	36.84
14187.428572	49.81	74.00	24.19	H	13.3	36.51
15567.857143	51.22	74.00	22.78	V	13.7	37.52
17694.857143	55.36	74.00	18.64	H	20.6	34.76

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9719.142857	34.11	54.00	19.89	V	8.6	25.51
11238.428572	35.44	54.00	18.56	V	10.2	25.24
13002.000000	37.14	54.00	16.86	H	13.0	24.14
14187.428572	37.95	54.00	16.05	H	13.3	24.65
15567.857143	39.20	54.00	14.80	V	13.7	25.5
17694.857143	43.23	54.00	10.77	H	20.6	22.63

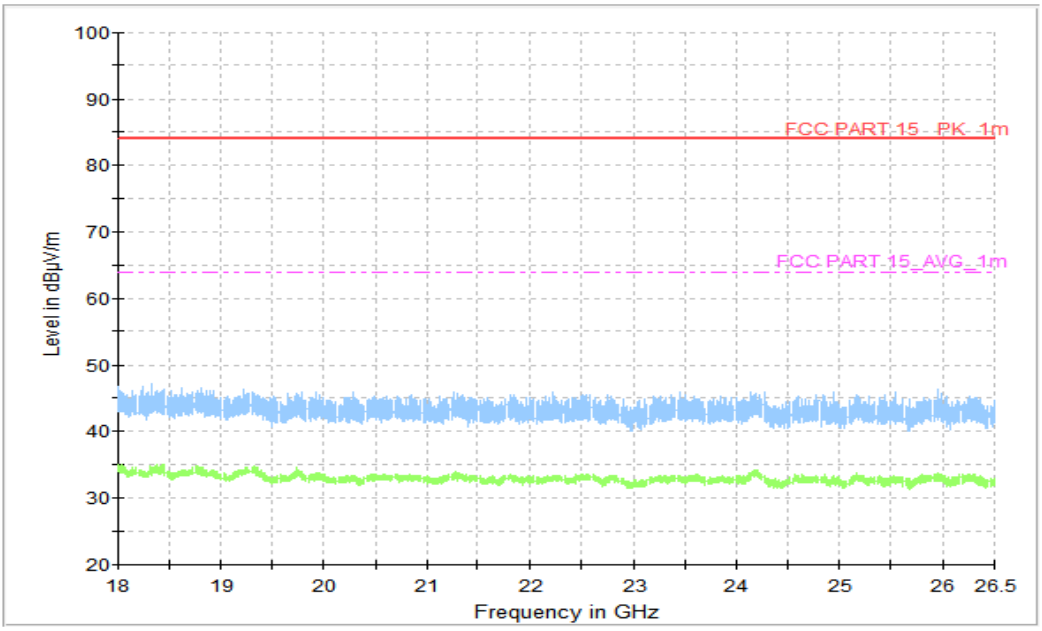


Figure A.1.24. Radiated Emission (WCDMA receiver Band 5, 18GHz to 26.5GHz)

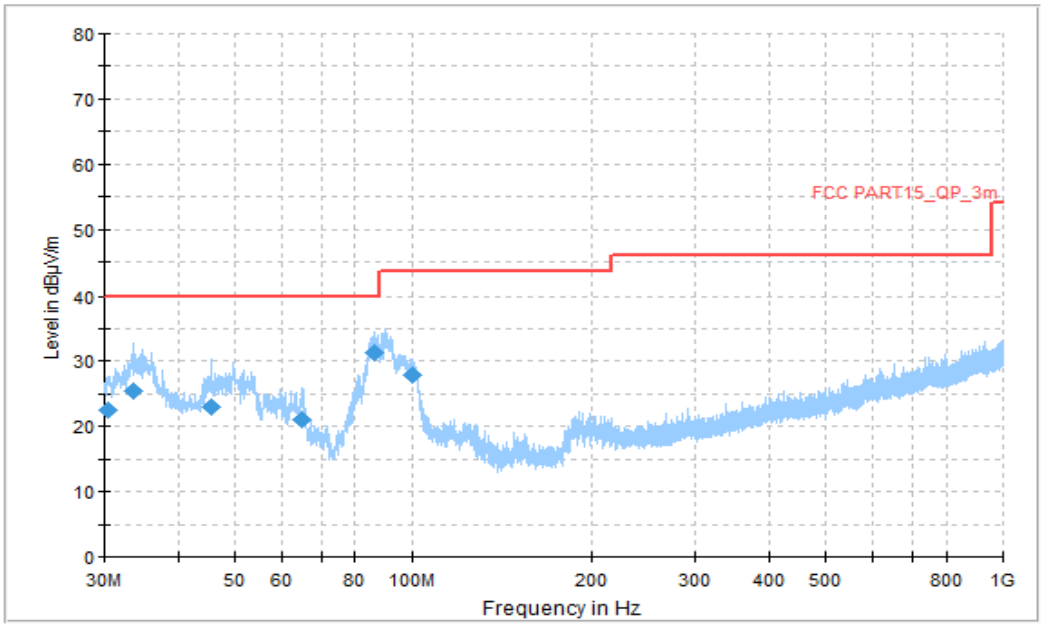


Figure A.1.25. Radiated Emission (LTE receiver Band 2, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.377222	22.60	40.00	17.40	V	-15	37.60
33.610556	25.40	40.00	14.60	V	-15	40.4
45.627778	22.90	40.00	17.10	V	-13	35.90
64.973889	21.04	40.00	18.96	V	-15	36.04
86.044444	31.30	40.00	8.70	V	-18	49.3
100.271111	27.79	43.52	15.73	V	-15	42.79

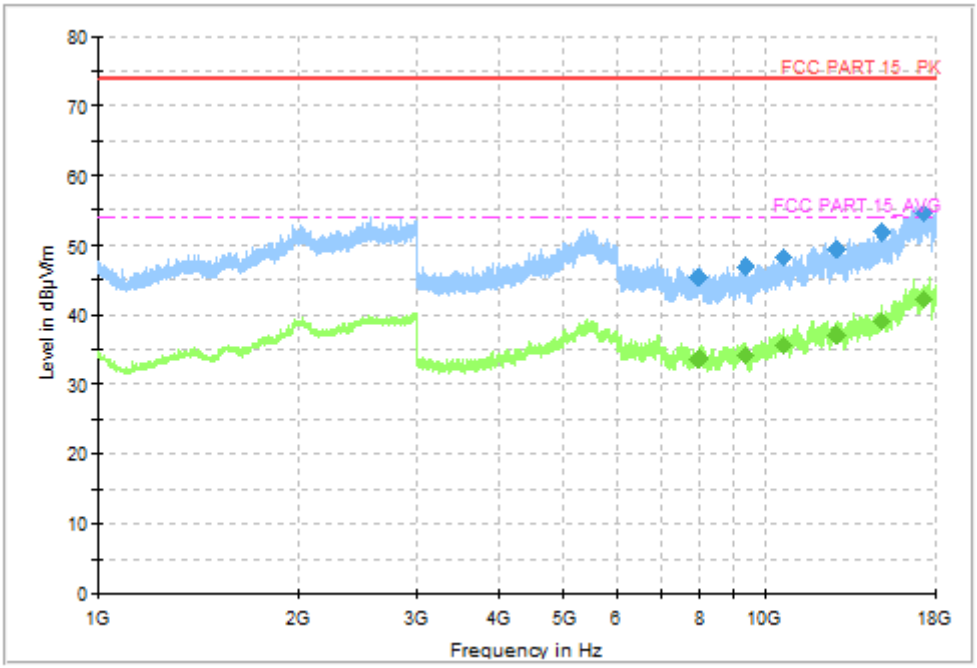


Figure A.1.26. Radiated Emission (LTE receiver Band 2, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
7945.714286	45.59	74.00	28.41	V	7.0	38.59
9353.571429	46.86	74.00	27.14	H	8.3	38.56
10697.571429	48.14	74.00	25.86	V	9.8	38.34
12771.428572	49.32	74.00	24.68	H	12.9	36.42
15005.142857	51.75	74.00	22.25	H	14.4	37.35
17301.857143	54.54	74.00	19.46	V	19.3	35.24

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
7945.714286	33.71	54.00	20.29	V	7.0	26.71
9353.571429	34.36	54.00	19.64	H	8.3	26.06
10697.571429	35.78	54.00	18.22	V	9.8	25.98
12771.428572	37.11	54.00	16.89	H	12.9	24.21
15005.142857	39.18	54.00	14.82	H	14.4	24.78
17301.857143	42.31	54.00	11.69	V	19.3	23.01

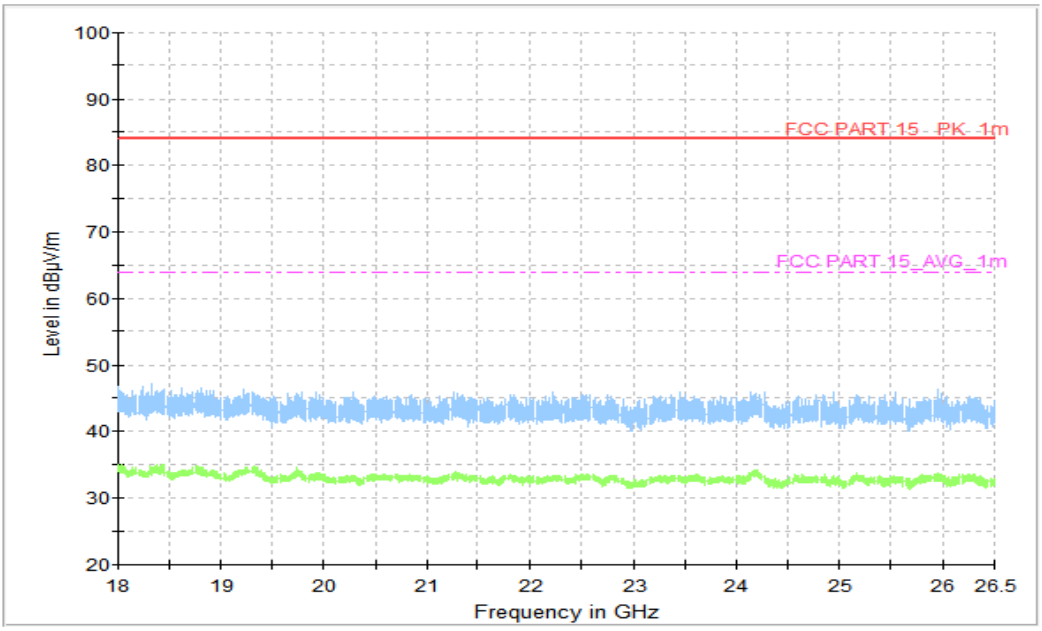


Figure A.1.27. Radiated Emission (LTE receiver Band 2, 18GHz to 26.5GHz)

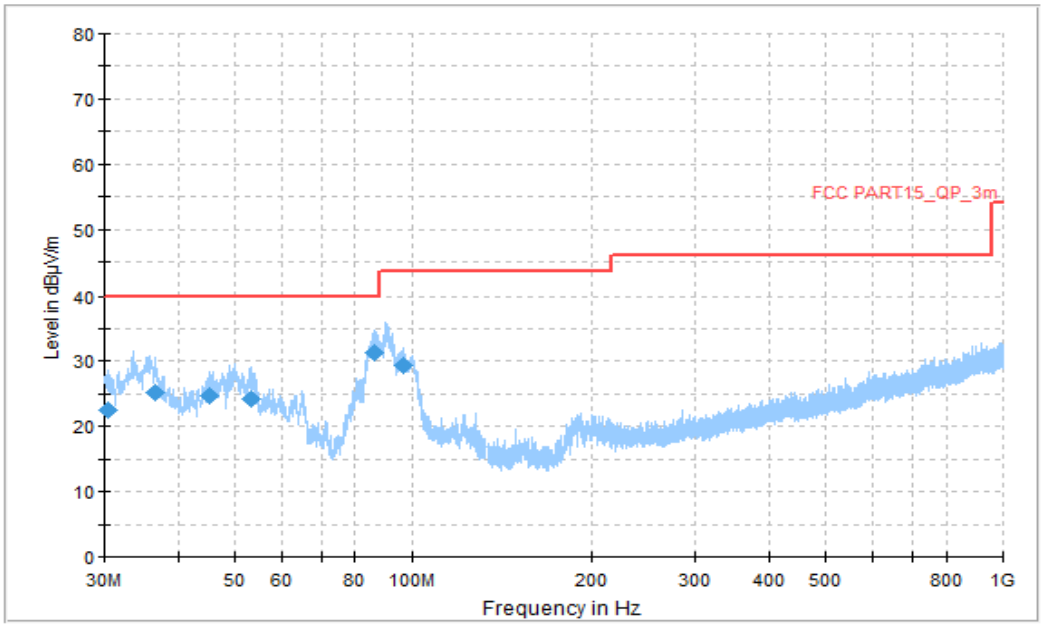


Figure A.1.28. Radiated Emission (LTE receiver Band 4, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.431111	22.45	40.00	17.55	V	-15	37.45
36.520556	25.15	40.00	14.85	V	-14	39.15
45.250556	24.59	40.00	15.41	V	-13	37.59
53.118333	24.18	40.00	15.82	V	-14	38.18
85.936667	31.28	40.00	8.72	V	-18	49.28
96.445000	29.34	43.52	14.18	V	-15	44.34

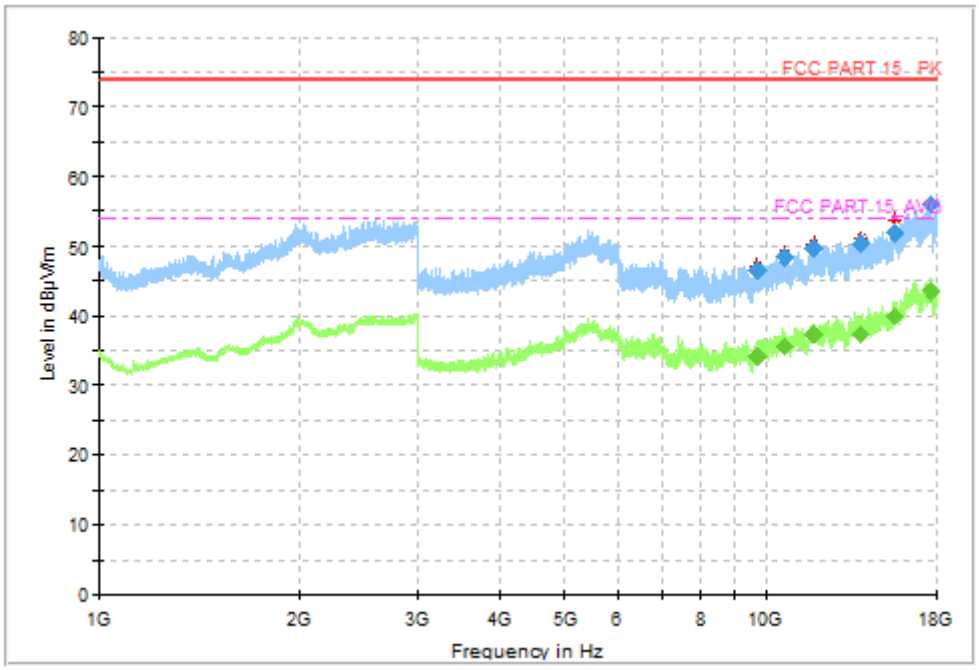


Figure A.1.29. Radiated Emission (LTE receiver Band 4, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9698.571429	46.43	74.00	27.57	V	8.7	37.73
10655.142857	48.44	74.00	25.56	V	9.9	38.54
11794.714286	49.75	74.00	24.25	H	12.3	37.45
13874.142857	50.36	74.00	23.64	H	13.1	37.26
15640.714286	51.84	74.00	22.16	V	14.0	37.84
17704.285714	56.12	74.00	17.88	H	20.6	35.52

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9698.571429	34.20	54.00	19.80	V	8.7	25.50
10655.142857	35.80	54.00	18.20	V	9.9	25.9
11794.714286	37.50	54.00	16.50	H	12.3	25.20
13874.142857	37.32	54.00	16.68	H	13.1	24.22
15640.714286	39.84	54.00	14.16	V	14.0	25.84
17704.285714	43.50	54.00	10.50	H	20.6	22.90

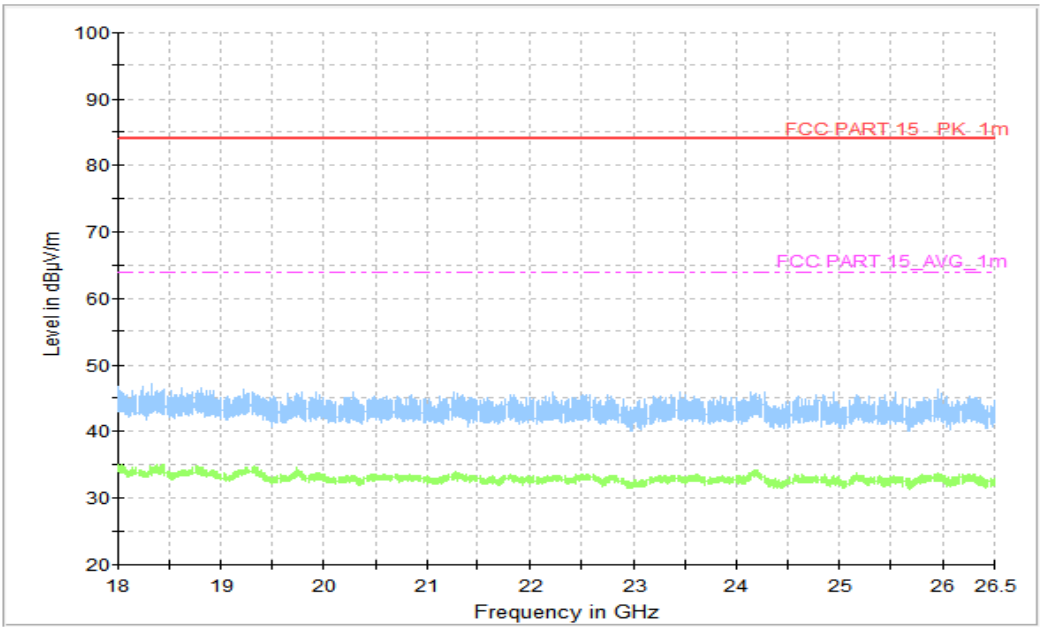


Figure A.1.30. Radiated Emission (LTE receiver Band 4, 18GHz to 26.5GHz)

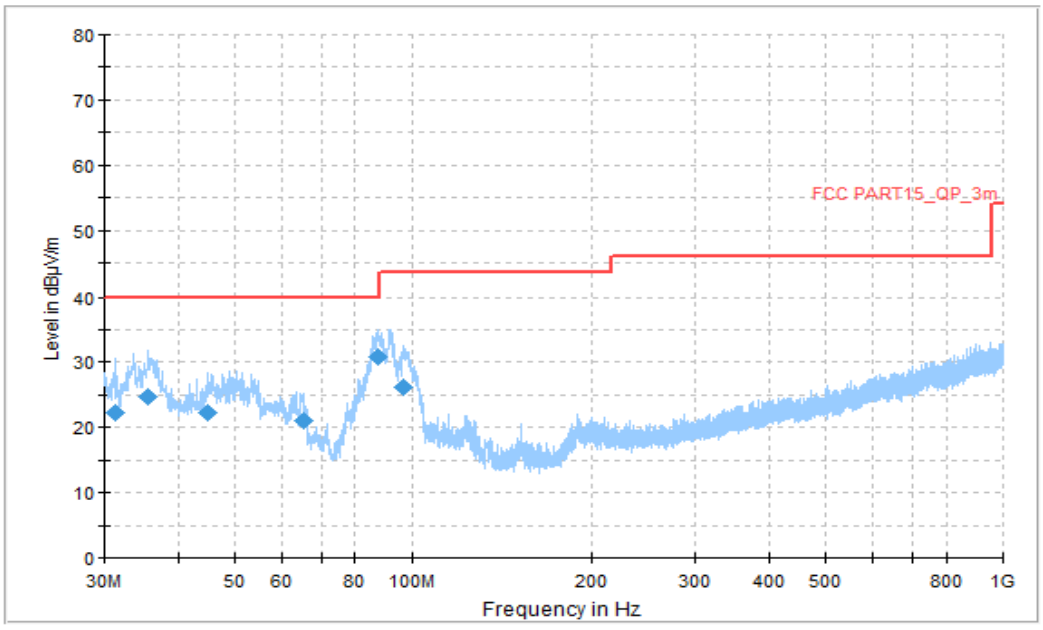


Figure A.1.31. Radiated Emission (LTE receiver Band 5, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
31.401111	22.19	40.00	17.81	V	-15	37.19
35.496667	24.81	40.00	15.19	V	-14	38.81
44.981111	22.37	40.00	17.63	V	-13	35.37
65.351111	20.95	40.00	19.05	V	-15	35.95
87.607222	30.79	40.00	9.21	V	-17	47.79
96.876111	26.07	43.52	17.45	V	-15	41.07

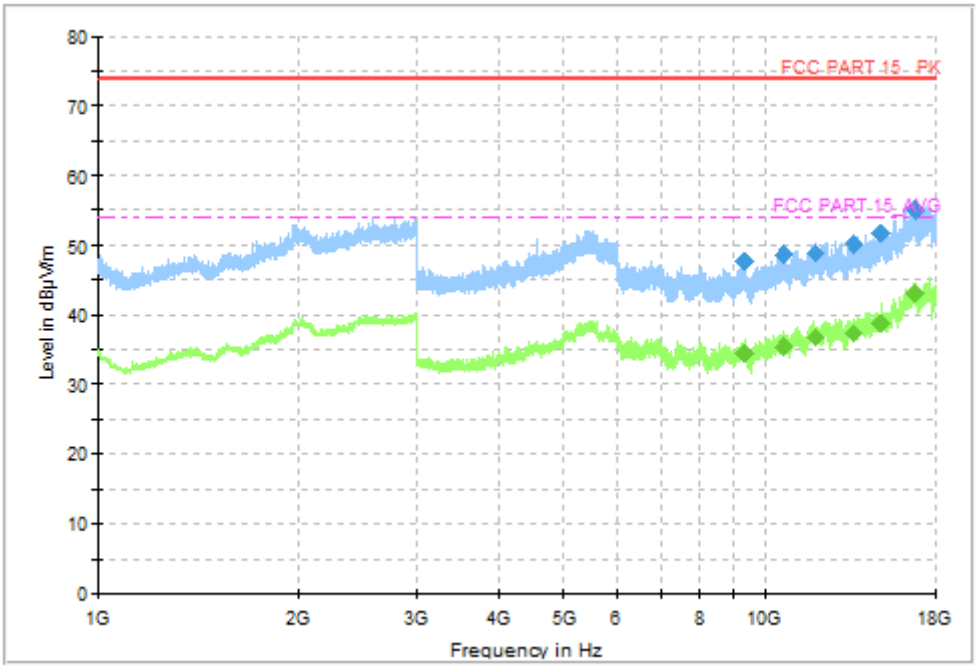


Figure A.1.32. Radiated Emission (LTE receiver Band 5, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9327.428572	47.61	74.00	26.39	V	8.2	39.41
10678.285714	48.73	74.00	25.27	H	9.9	38.83
11936.142857	48.86	74.00	25.14	V	11.8	37.06
13558.285714	50.20	74.00	23.80	V	13.0	37.20
14956.285714	51.62	74.00	22.38	H	14.8	36.82
16729.285714	55.02	74.00	18.98	H	18.9	36.12

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9327.428572	34.49	54.00	19.51	V	8.2	26.29
10678.285714	35.56	54.00	18.44	H	9.9	25.66
11936.142857	36.77	54.00	17.23	V	11.8	24.97
13558.285714	37.54	54.00	16.46	V	13.0	24.54
14956.285714	39.01	54.00	14.99	H	14.8	24.21
16729.285714	42.99	54.00	11.01	H	18.9	24.09

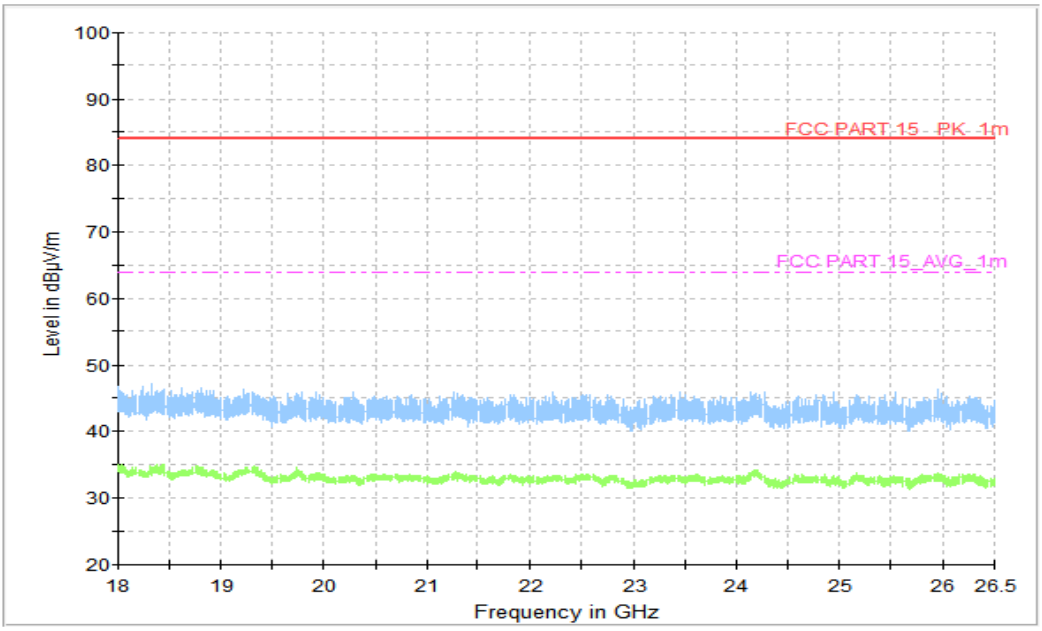


Figure A.1.33. Radiated Emission (LTE receiver Band 5, 18GHz to 26.5GHz)

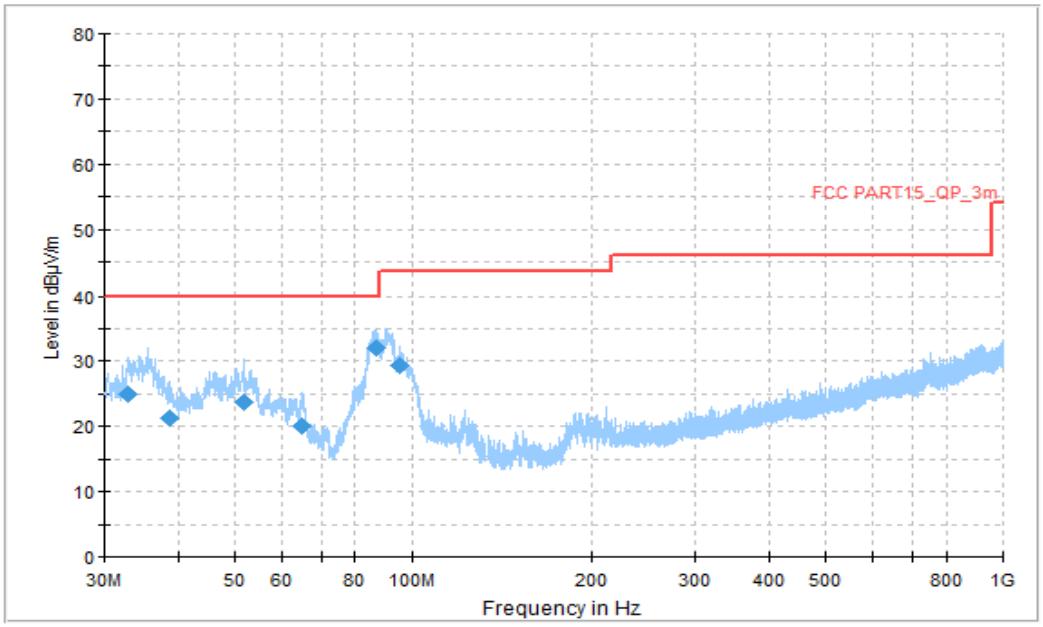


Figure A.1.34. Radiated Emission (LTE receiver Band 7, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
32.856111	25.04	40.00	14.96	V	-15	40.04
38.730000	21.30	40.00	18.70	V	-14	35.3
51.771111	23.70	40.00	16.30	V	-14	37.70
65.027778	20.14	40.00	19.86	V	-15	35.14
86.529444	32.00	40.00	8.00	V	-18	50
95.259444	29.30	43.52	14.22	V	-15	44.30

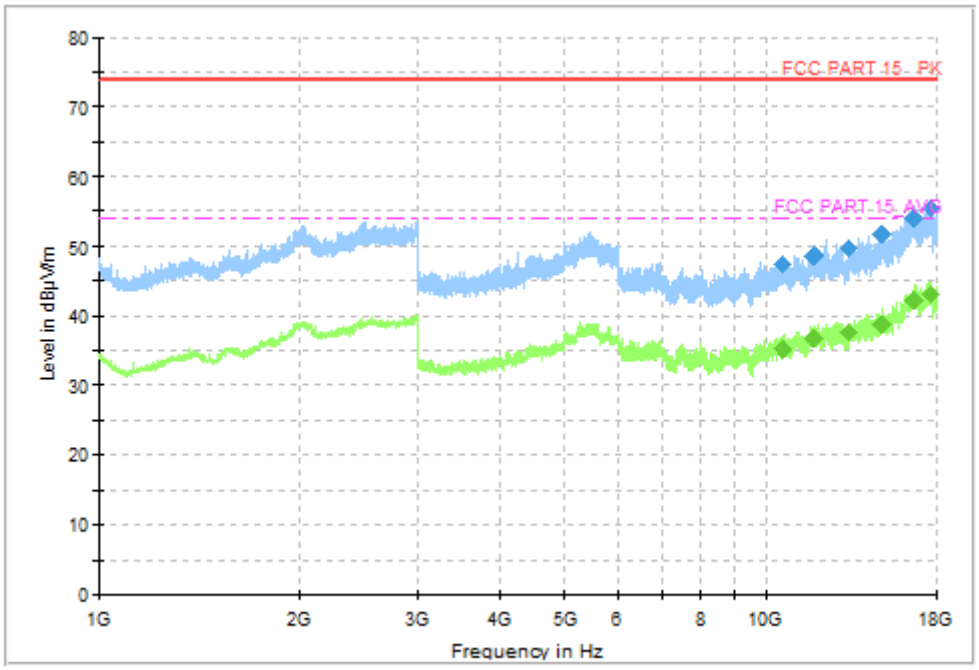


Figure A.1.35. Radiated Emission (LTE receiver Band 7, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
10607.571429	47.46	74.00	26.54	V	9.7	37.76
11787.857143	48.72	74.00	25.28	V	12.4	36.32
13336.714286	49.77	74.00	24.23	H	12.6	37.17
14933.571429	51.67	74.00	22.33	V	15.0	36.67
16678.714286	54.15	74.00	19.85	V	19.0	35.15
17684.571429	55.58	74.00	18.42	H	20.6	34.98

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
10607.571429	35.27	54.00	18.73	V	9.7	25.57
11787.857143	36.63	54.00	17.37	V	12.4	24.23
13336.714286	37.59	54.00	16.41	H	12.6	24.99
14933.571429	38.94	54.00	15.06	V	15.0	23.94
16678.714286	42.21	54.00	11.79	V	19.0	23.21
17684.571429	43.17	54.00	10.83	H	20.6	22.57

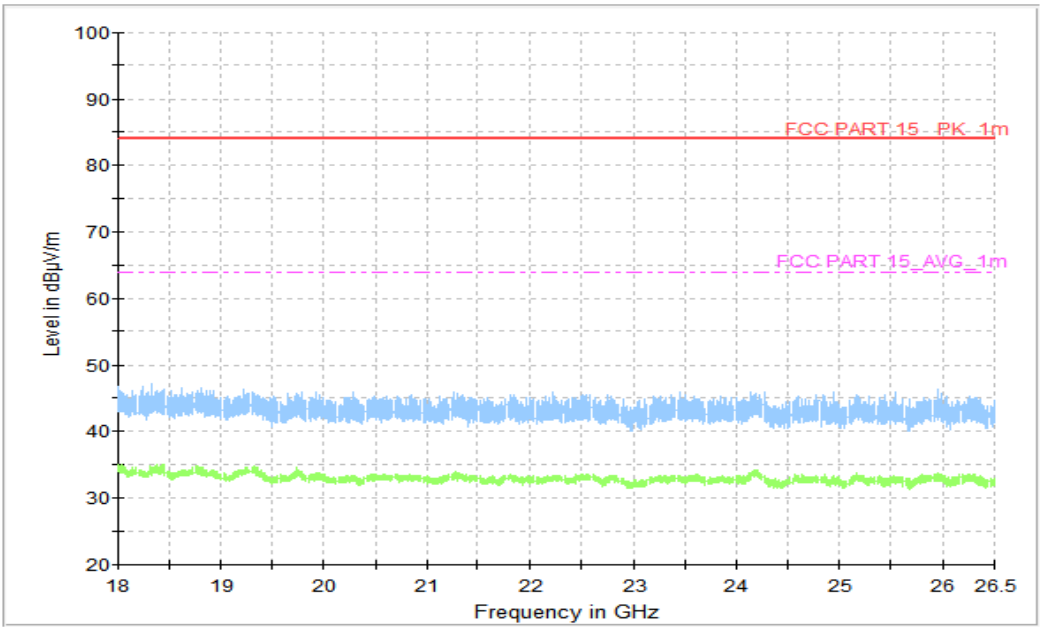


Figure A.1.36. Radiated Emission (LTE receiver Band 7, 18GHz to 26.5GHz)

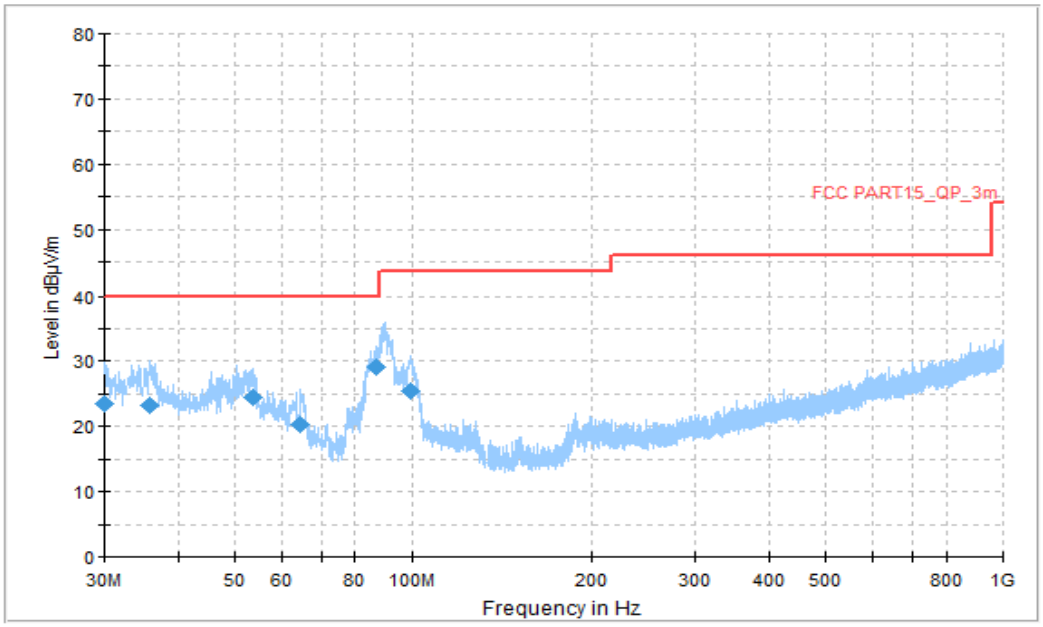


Figure A.1.37. Radiated Emission (LTE receiver Band 12, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.053889	23.45	40.00	16.55	V	-16	39.45
35.873889	23.29	40.00	16.71	V	-14	37.29
53.495556	24.45	40.00	15.55	V	-14	38.45
64.596667	20.28	40.00	19.72	V	-15	35.28
86.637222	29.09	40.00	10.91	V	-18	47.09
99.031667	25.33	43.52	18.19	V	-15	40.33

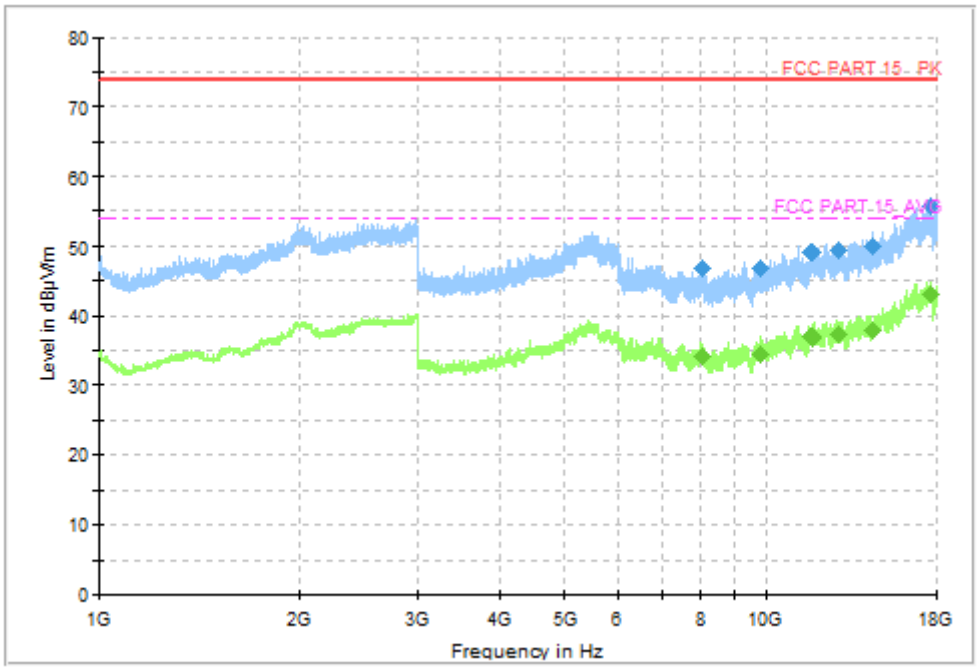


Figure A.1.38. Radiated Emission (LTE receiver Band 12, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
8049.000000	46.74	74.00	27.26	V	7.6	39.14
9854.571429	46.67	74.00	27.33	V	8.9	37.77
11716.285714	49.21	74.00	24.79	V	11.9	37.31
12882.000000	49.46	74.00	24.54	V	12.6	36.86
14524.714286	50.00	74.00	24.00	V	13.3	36.7
17695.285714	55.73	74.00	18.27	H	20.6	35.13

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
8049.000000	34.34	54.00	19.66	V	7.6	26.74
9854.571429	34.55	54.00	19.45	V	8.9	25.65
11716.285714	37.02	54.00	16.98	V	11.9	25.12
12882.000000	37.48	54.00	16.52	V	12.6	24.88
14524.714286	37.82	54.00	16.18	V	13.3	24.52
17695.285714	43.15	54.00	10.85	H	20.6	22.55

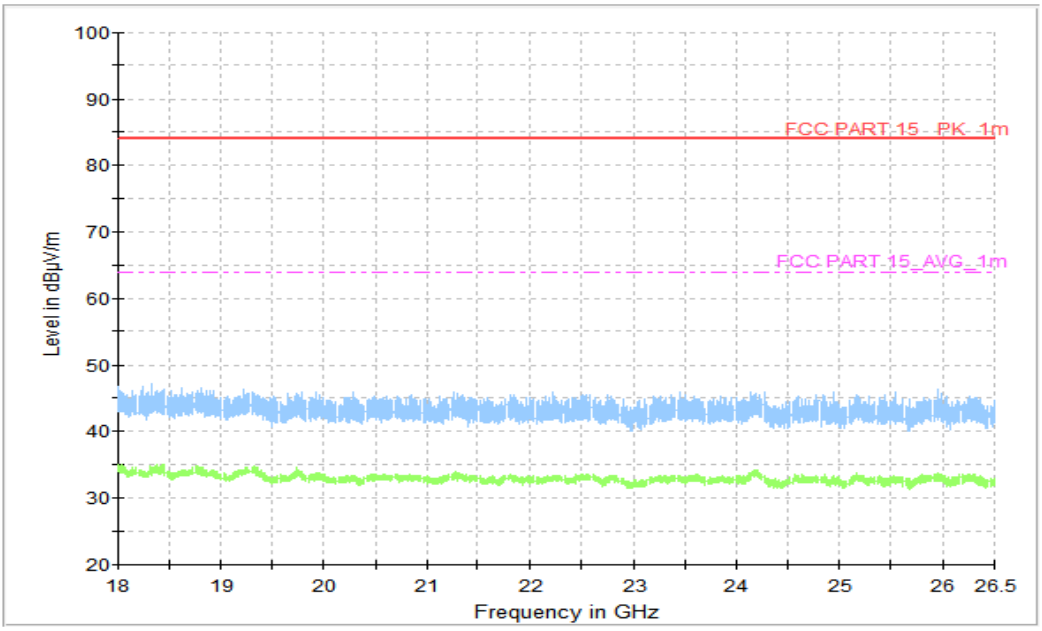


Figure A.1.39. Radiated Emission (LTE receiver Band 12, 18GHz to 26.5GHz)

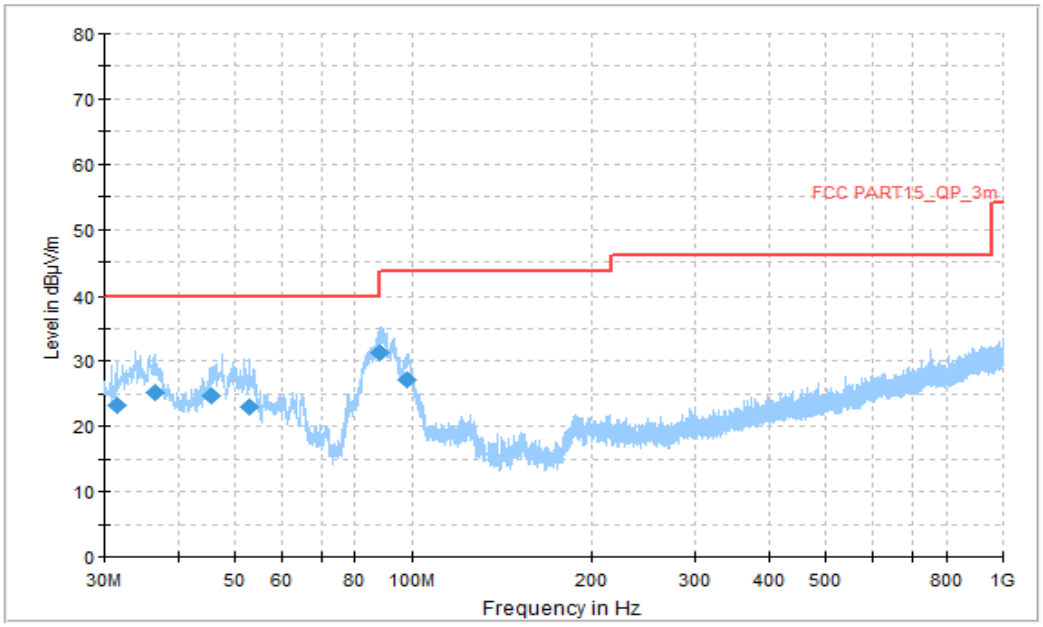


Figure A.1.40. Radiated Emission (LTE receiver Band 13, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
31.508889	23.25	40.00	16.75	V	-15	38.25
36.520556	25.23	40.00	14.77	V	-14	39.23
45.573889	24.76	40.00	15.24	V	-13	37.76
52.741111	23.09	40.00	16.91	V	-14	37.09
87.822778	31.21	40.00	8.79	V	-17	48.21
98.223333	27.19	43.52	16.33	V	-15	42.19

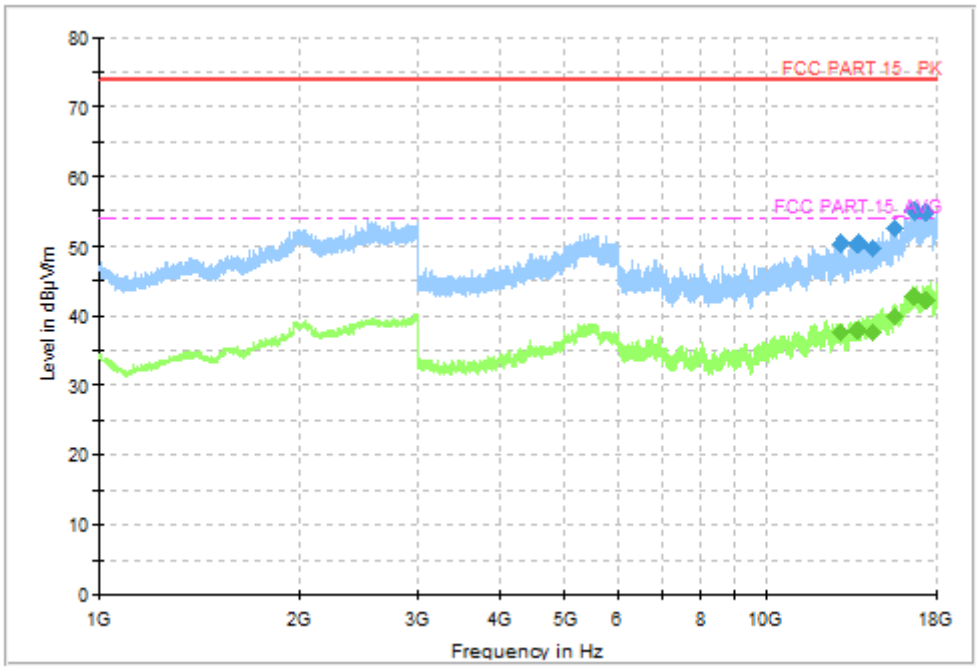


Figure A.1.41. Radiated Emission (LTE receiver Band 13, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12924.428572	50.32	74.00	23.68	V	12.8	37.52
13739.142857	50.32	74.00	23.68	H	13.2	37.12
14493.428572	49.56	74.00	24.44	H	13.3	36.26
15666.428571	52.54	74.00	21.46	V	14.1	38.44
16722.000000	54.94	74.00	19.06	H	18.9	36.04
17418.857143	54.89	74.00	19.11	H	19.9	34.99

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12924.428572	37.68	54.00	16.32	V	12.8	24.88
13739.142857	37.91	54.00	16.09	H	13.2	24.71
14493.428572	37.79	54.00	16.21	H	13.3	24.49
15666.428571	39.84	54.00	14.16	V	14.1	25.74
16722.000000	42.86	54.00	11.14	H	18.9	23.96
17418.857143	42.35	54.00	11.65	H	19.9	22.45

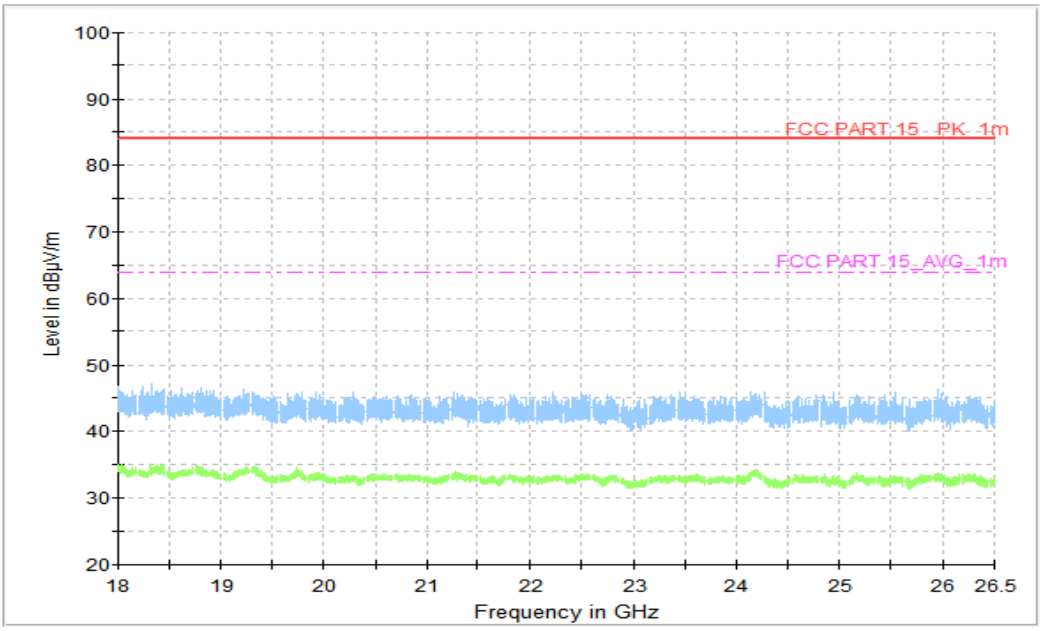


Figure A.1.42. Radiated Emission (LTE receiver Band 13, 18GHz to 26.5GHz)

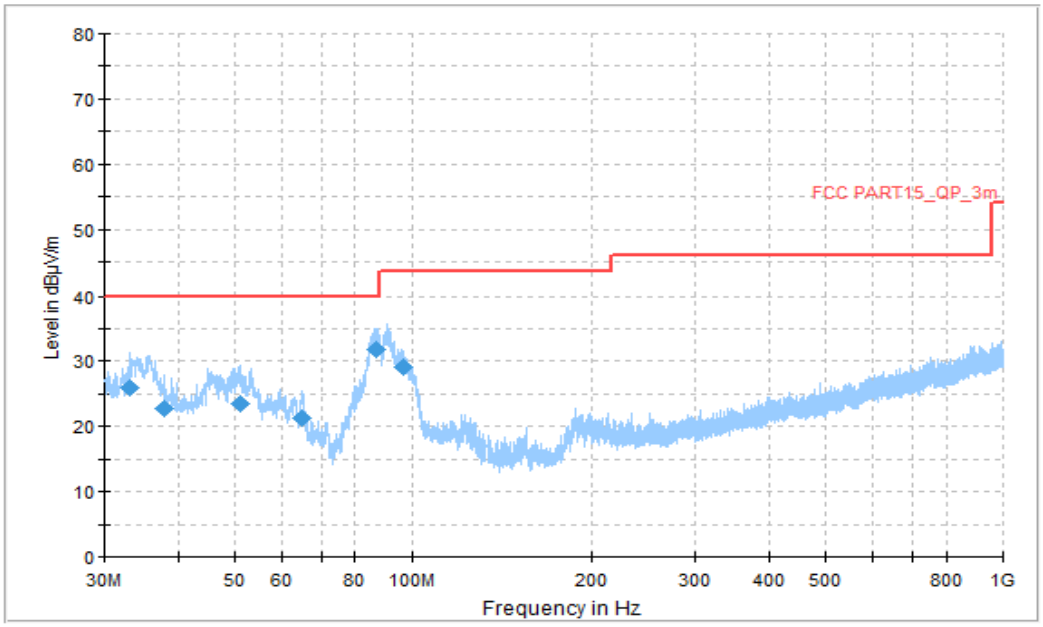


Figure A.1.43. Radiated Emission (LTE receiver Band 17, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.179444	25.96	40.00	14.04	V	-15	40.96
37.813889	22.73	40.00	17.27	V	-14	36.73
50.908889	23.60	40.00	16.40	V	-13	36.60
64.920000	21.33	40.00	18.67	V	-15	36.33
86.852778	31.69	40.00	8.31	V	-18	49.69
96.391111	29.01	43.52	14.51	V	-15	44.01

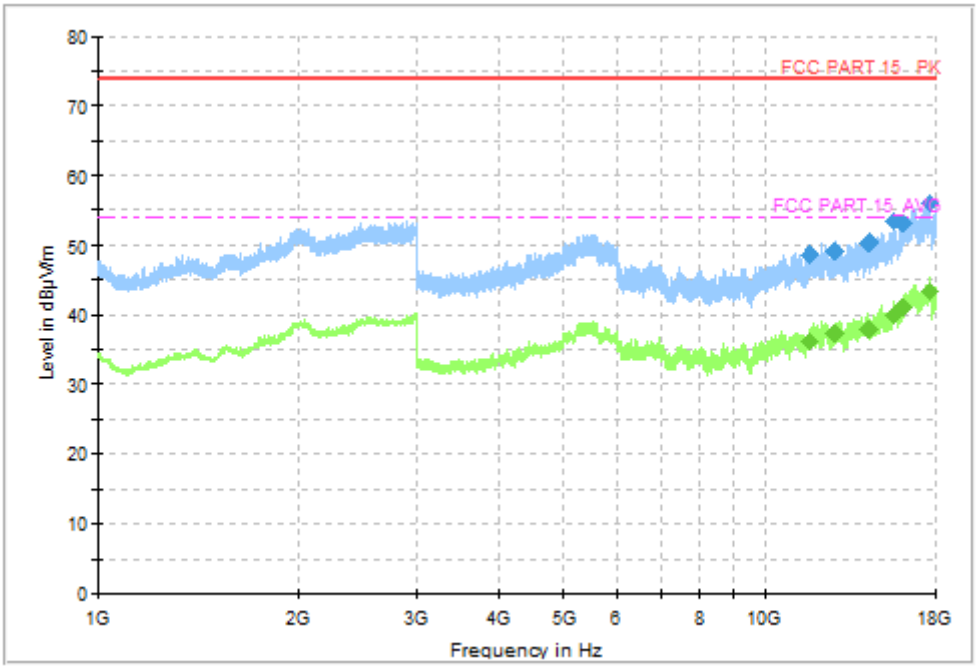


Figure A.1.44. Radiated Emission (LTE receiver Band 17, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11657.571429	48.67	74.00	25.33	H	11.3	37.37
12745.714286	49.27	74.00	24.73	V	12.9	36.37
14350.714286	50.33	74.00	23.67	H	13.6	36.73
15630.000000	53.43	74.00	20.57	V	13.9	39.53
16138.714286	53.16	74.00	20.84	H	16.8	36.36
17677.714286	55.96	74.00	18.04	H	20.6	35.36

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11657.571429	36.33	54.00	17.67	H	11.3	25.03
12745.714286	37.46	54.00	16.54	V	12.9	24.56
14350.714286	37.90	54.00	16.10	H	13.6	24.30
15630.000000	39.79	54.00	14.21	V	13.9	25.89
16138.714286	41.05	54.00	12.95	H	16.8	24.25
17677.714286	43.20	54.00	10.80	H	20.6	22.60

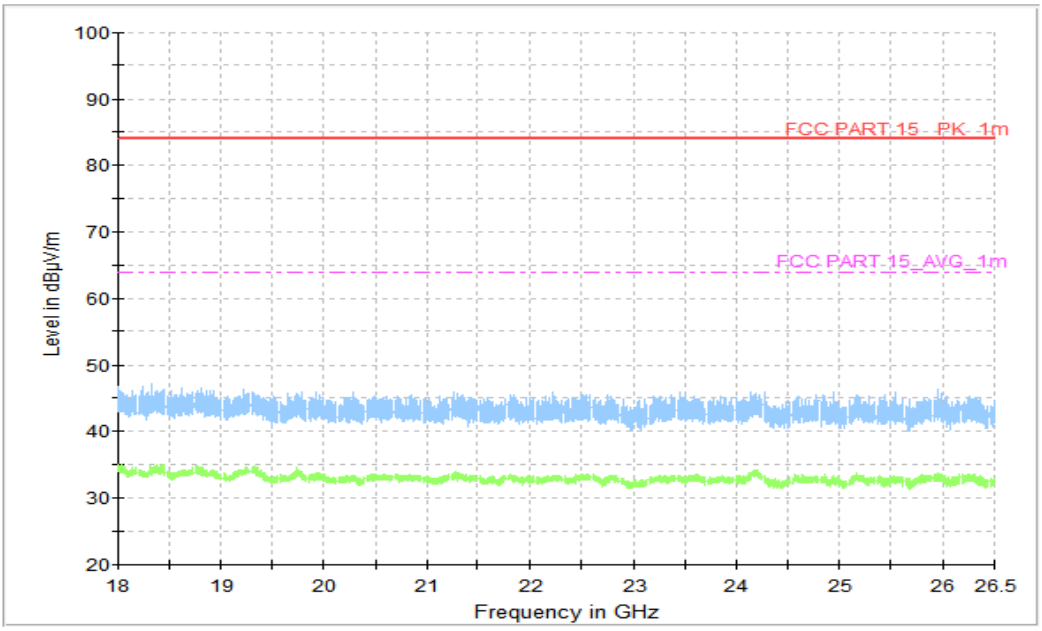


Figure A.1.45. Radiated Emission (LTE receiver Band 17, 18GHz to 26.5GHz)

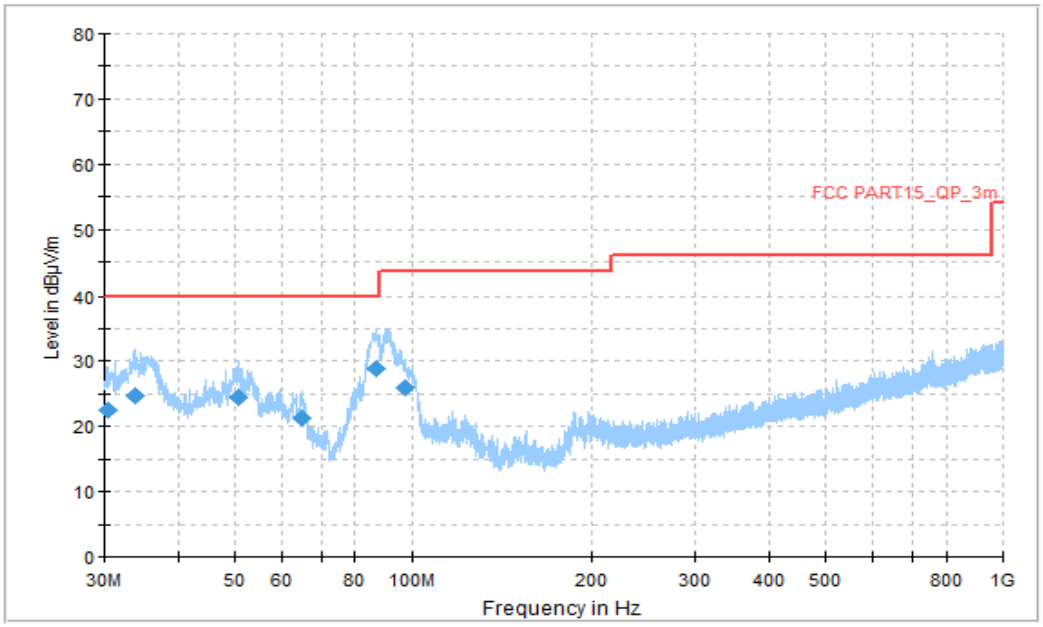


Figure A.1.46. Radiated Emission (LTE receiver Band 66, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.485000	22.49	40.00	17.51	V	-15	37.49
33.826111	24.76	40.00	15.24	V	-15	39.76
50.639444	24.39	40.00	15.61	V	-13	37.39
65.081667	21.25	40.00	18.75	V	-15	36.25
86.798889	28.96	40.00	11.04	V	-18	46.96
97.199444	25.95	43.52	17.57	V	-15	40.95

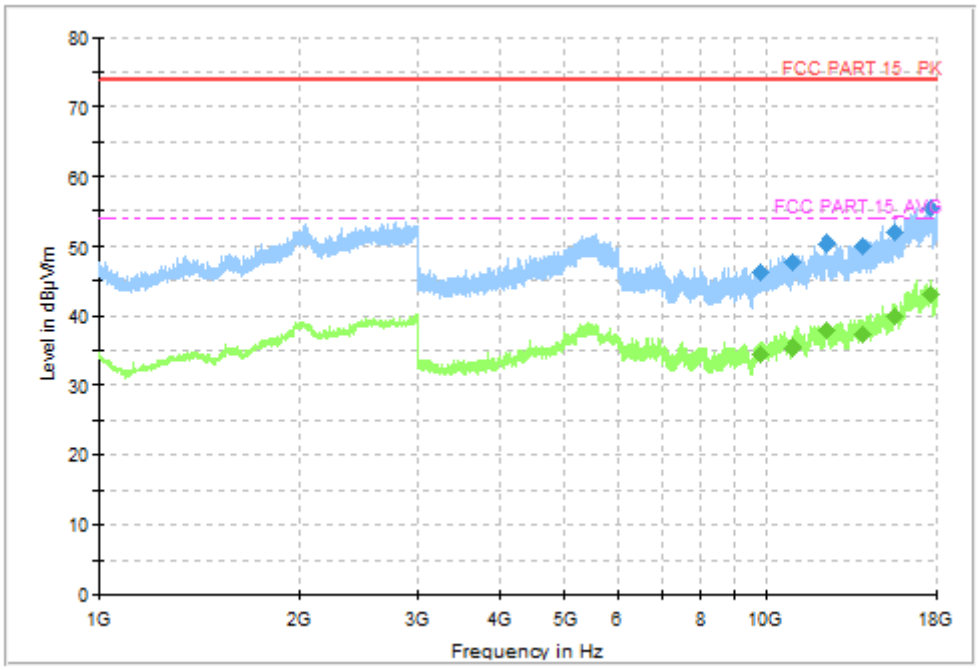


Figure A.1.47. Radiated Emission (LTE receiver Band 66, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9853.285714	46.27	74.00	27.73	H	8.9	37.37
11019.857143	47.66	74.00	26.34	V	10.7	36.96
12344.142857	50.50	74.00	23.50	H	12.8	37.70
13983.428572	49.91	74.00	24.09	V	13.0	36.91
15663.428571	52.04	74.00	21.96	H	14.1	37.94
17692.714286	55.50	74.00	18.50	H	20.6	34.90

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
9853.285714	34.49	54.00	19.51	H	8.9	25.59
11019.857143	35.42	54.00	18.58	V	10.7	24.72
12344.142857	37.85	54.00	16.15	H	12.8	25.05
13983.428572	37.48	54.00	16.52	V	13.0	24.48
15663.428571	40.00	54.00	14.00	H	14.1	25.9
17692.714286	43.14	54.00	10.86	H	20.6	22.54

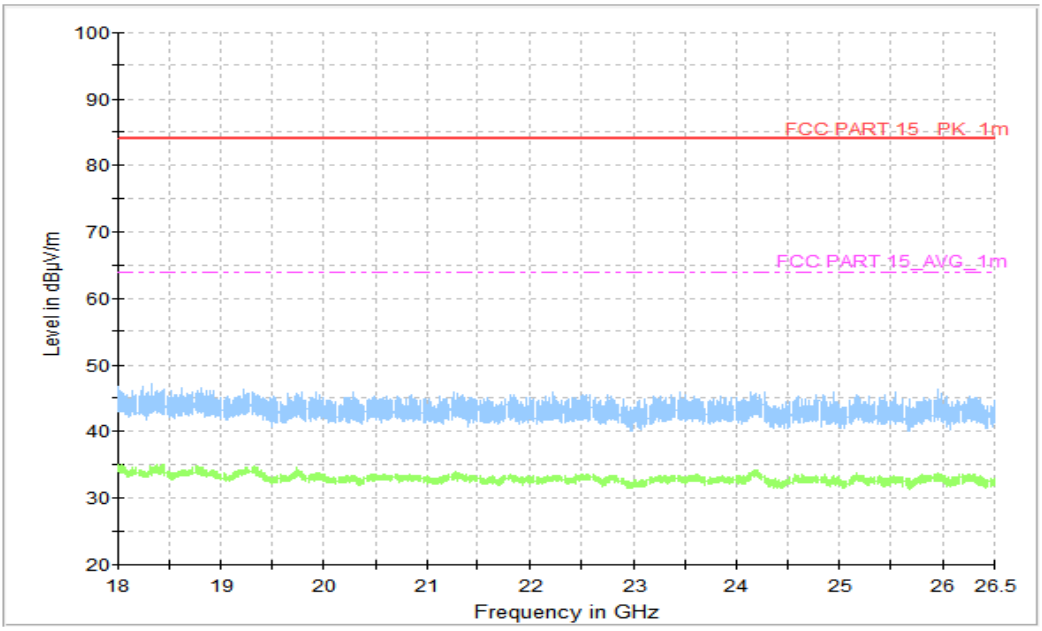


Figure A.1.48. Radiated Emission (LTE receiver Band 66, 18GHz to 26.5GHz)

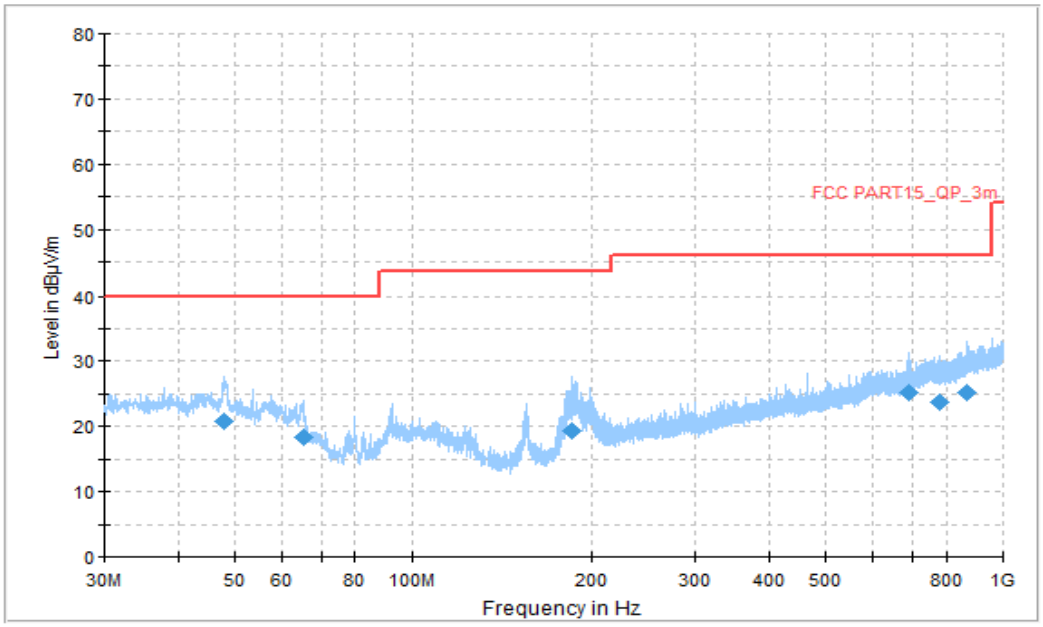


Figure A.1.49. Radiated Emission (Data Transfer: PC TO TF, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
47.891111	20.89	40.00	19.11	V	-13	33.89
65.351111	18.29	40.00	21.71	V	-15	33.29
185.469444	19.33	43.52	24.19	V	-16	35.33
692.456111	25.13	46.02	20.89	H	-4	29.13
778.624444	23.76	46.02	22.26	H	-2	25.76
865.655000	25.23	46.02	20.79	H	-1	26.23

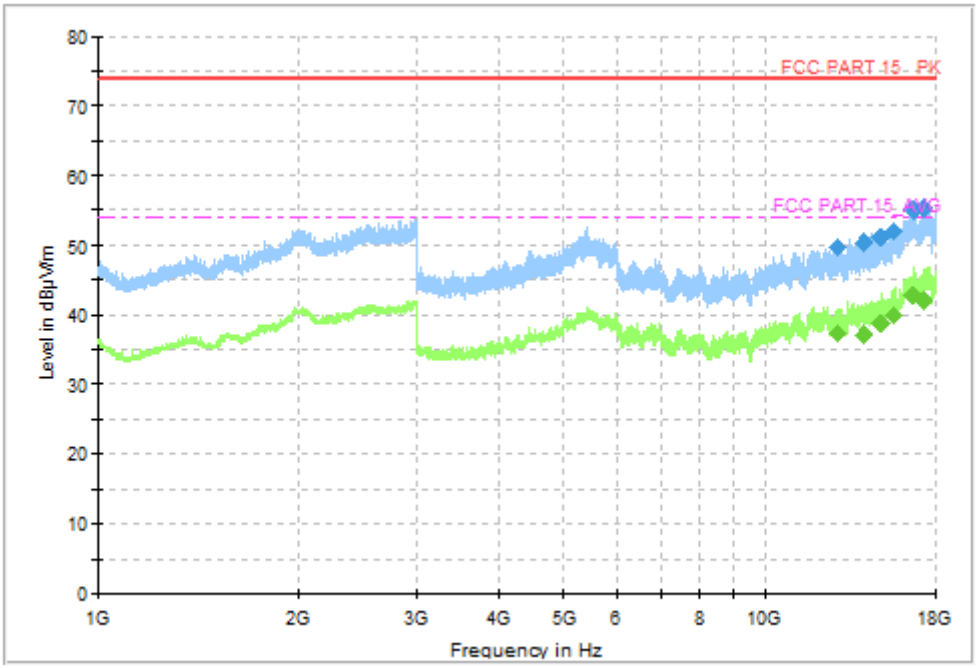


Figure A.1.50. Radiated Emission (Data Transfer: PC TO TF, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12867.857143	49.58	74.00	24.42	H	12.5	37.08
14063.142857	50.31	74.00	23.69	H	13.1	37.21
14958.000000	51.07	74.00	22.93	H	14.8	36.27
15614.571429	52.12	74.00	21.88	H	13.9	38.22
16718.142857	55.05	74.00	18.95	V	18.9	36.15
17264.571429	55.41	74.00	18.59	V	19.1	36.31

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
12867.857143	37.48	54.00	16.52	H	12.5	24.98
14063.142857	37.20	54.00	16.80	H	13.1	24.1
14958.000000	38.98	54.00	15.02	H	14.8	24.18
15614.571429	39.84	54.00	14.16	H	13.9	25.94
16718.142857	42.85	54.00	11.15	V	18.9	23.95
17264.571429	42.13	54.00	11.87	V	19.1	23.03

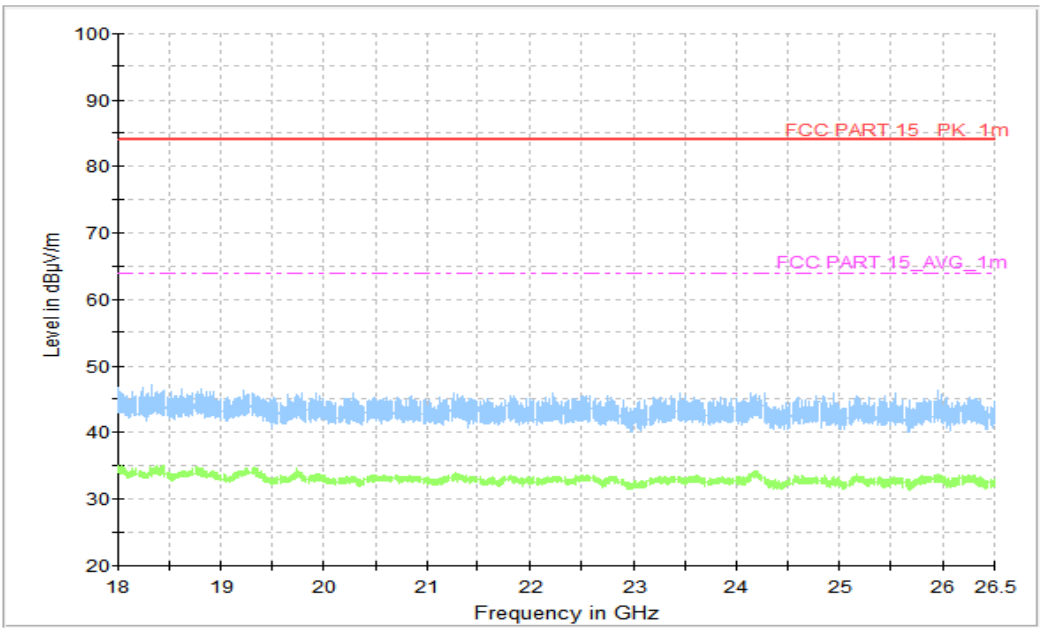


Figure A.1.51. Radiated Emission (Data Transfer: PC TO TF, 18GHz to 26.5GHz)

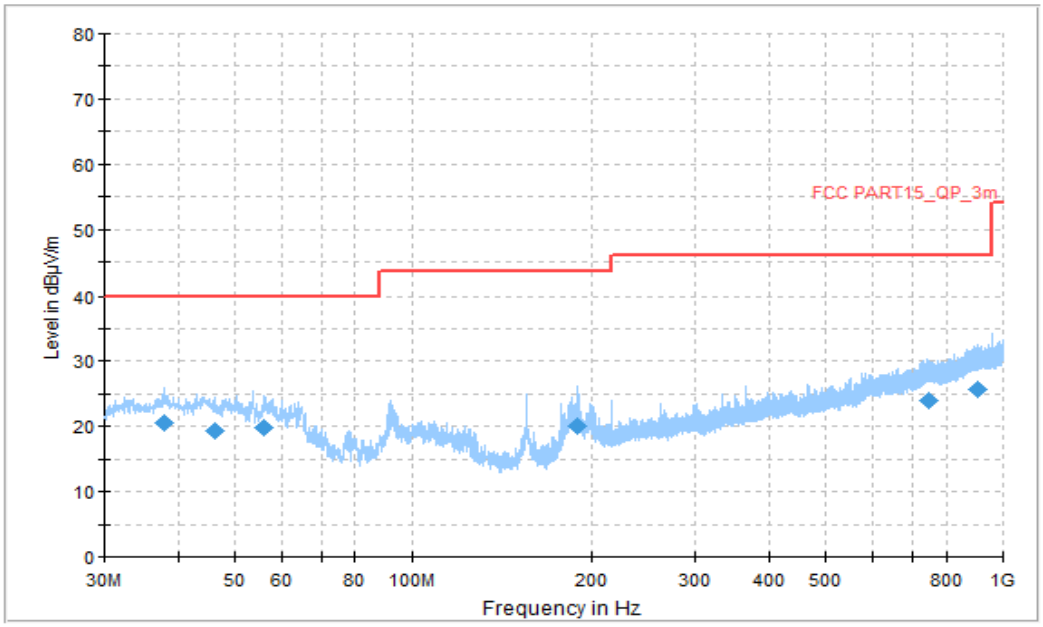


Figure A.1.52. Radiated Emission (Data Transfer: TF TO PC, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
37.813889	20.46	40.00	19.54	V	-14	34.46
46.274444	19.40	40.00	20.60	H	-13	32.4
56.136111	19.70	40.00	20.30	V	-13	32.70
189.457222	20.17	43.52	23.35	V	-15	35.17
749.039444	24.02	46.02	22.00	H	-2	26.02
904.185556	25.68	46.02	20.34	V	0	25.68

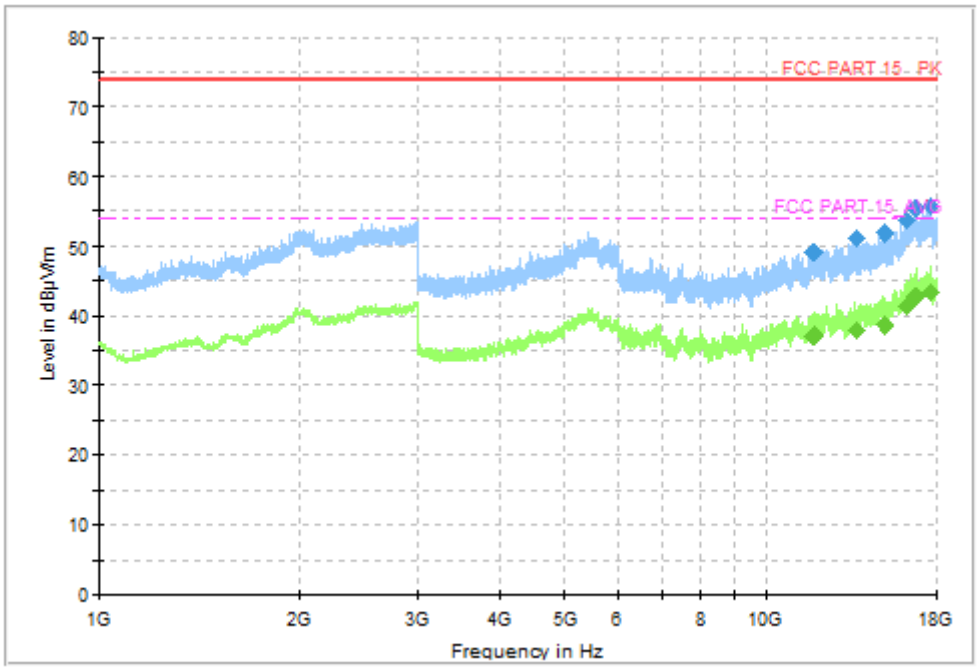


Figure A.1.53. Radiated Emission (Data Transfer: TF TO PC, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11793.857143	49.28	74.00	24.72	V	12.3	36.98
13693.285714	51.10	74.00	22.90	V	13.2	37.9
15127.285714	51.95	74.00	22.05	V	13.5	38.45
16262.142857	53.80	74.00	20.20	H	16.8	37.00
16734.000000	55.47	74.00	18.53	H	18.8	36.67
17687.571429	55.81	74.00	18.19	H	20.6	35.21

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11793.857143	37.10	54.00	16.90	V	12.3	24.80
13693.285714	37.96	54.00	16.04	V	13.2	24.76
15127.285714	38.57	54.00	15.43	V	13.5	25.07
16262.142857	41.32	54.00	12.68	H	16.8	24.52
16734.000000	42.79	54.00	11.21	H	18.8	23.99
17687.571429	43.30	54.00	10.70	H	20.6	22.70

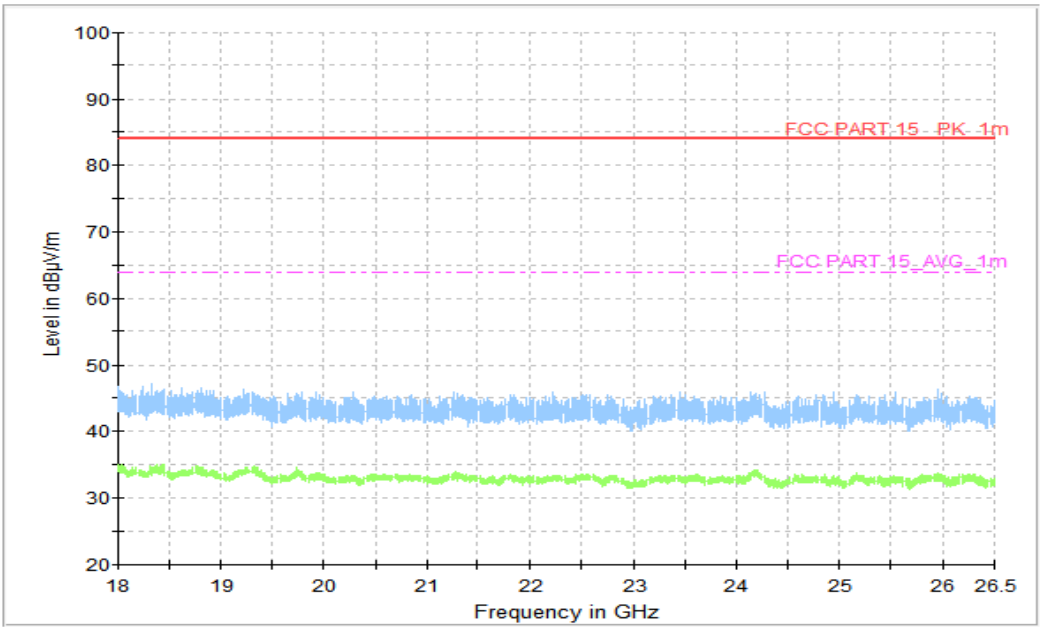


Figure A.1.54. Radiated Emission (Data Transfer: TF TO PC, 18GHz to 26.5GHz)

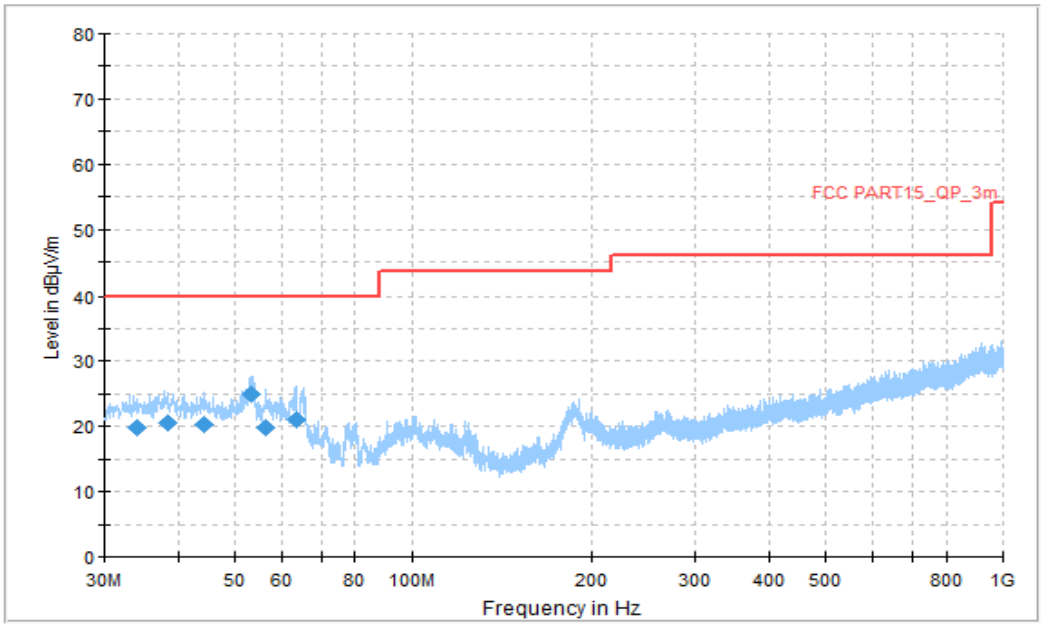


Figure A.1.55. Radiated Emission (LTE receiver Band 7, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.987778	19.85	40.00	20.16	H	-15	34.85
38.514444	20.51	40.00	19.49	V	-14	34.51
44.172778	20.21	40.00	19.79	V	-13	33.21
53.387778	25.07	40.00	14.93	V	-14	39.07
56.405556	19.92	40.00	20.08	V	-13	32.92
63.572778	21.06	40.00	18.94	V	-15	36.06

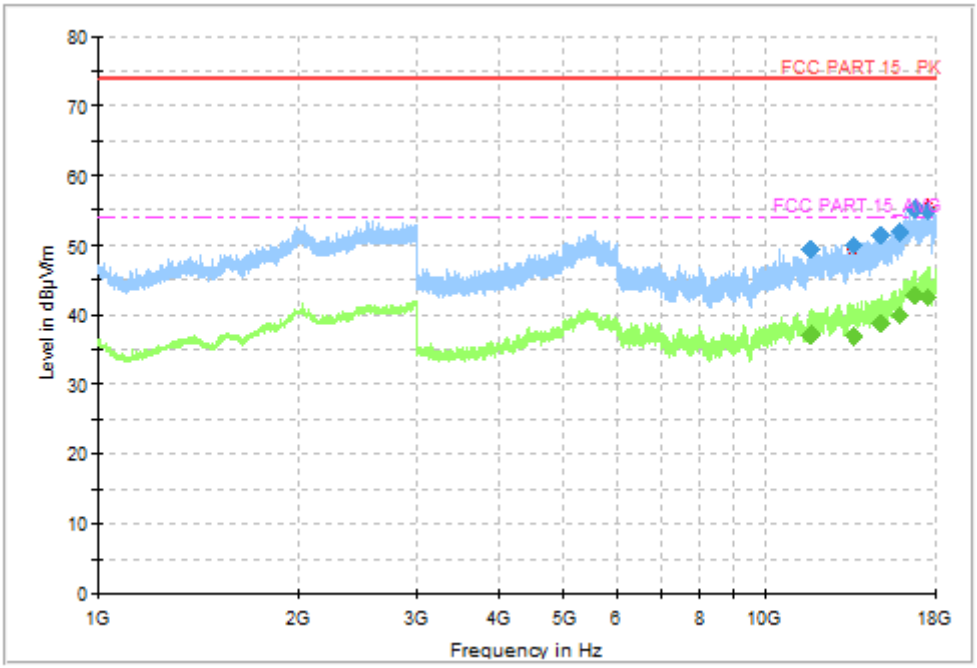


Figure A.1.56. Radiated Emission (LTE receiver Band 7, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11726.142857	49.35	74.00	24.65	V	12.0	37.35
13587.428572	49.87	74.00	24.13	V	13.0	36.87
14949.857143	51.40	74.00	22.60	V	14.9	36.50
15918.000000	51.90	74.00	22.10	V	15.1	36.80
16731.428571	55.34	74.00	18.66	V	18.8	36.54
17531.142857	54.83	74.00	19.17	H	20.3	34.53

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
11726.142857	37.22	54.00	16.78	V	12.0	25.22
13587.428572	36.96	54.00	17.05	V	13.0	23.96
14949.857143	39.01	54.00	14.99	V	14.9	24.11
15918.000000	39.85	54.00	14.15	V	15.1	24.75
16731.428571	42.89	54.00	11.11	V	18.8	24.09
17531.142857	42.66	54.00	11.34	H	20.3	22.36

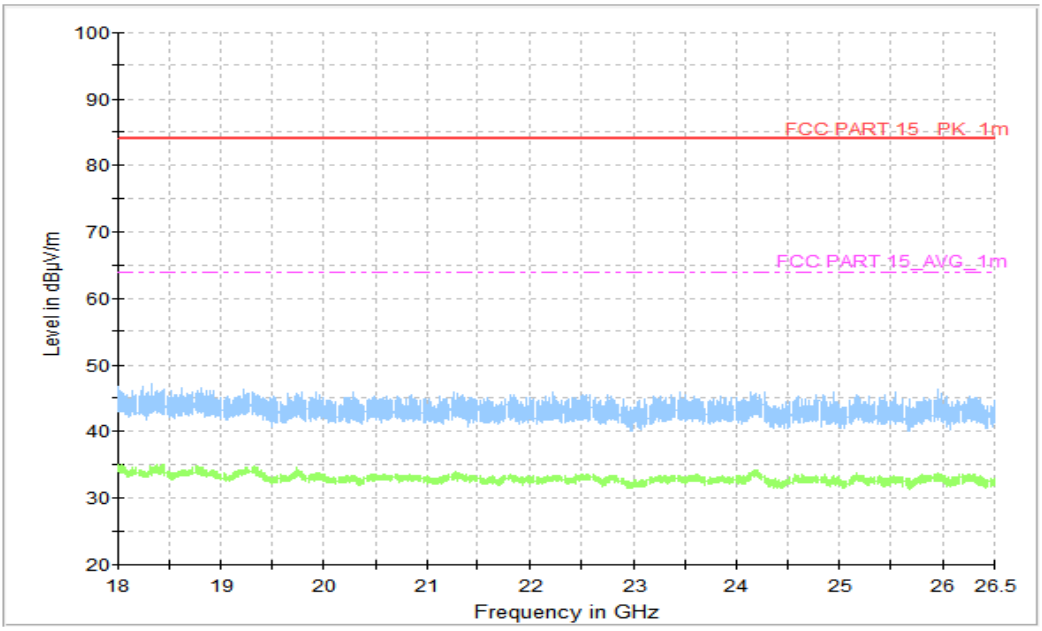


Figure A.1.57. Radiated Emission (LTE receiver Band 7, 18GHz to 26.5GHz)

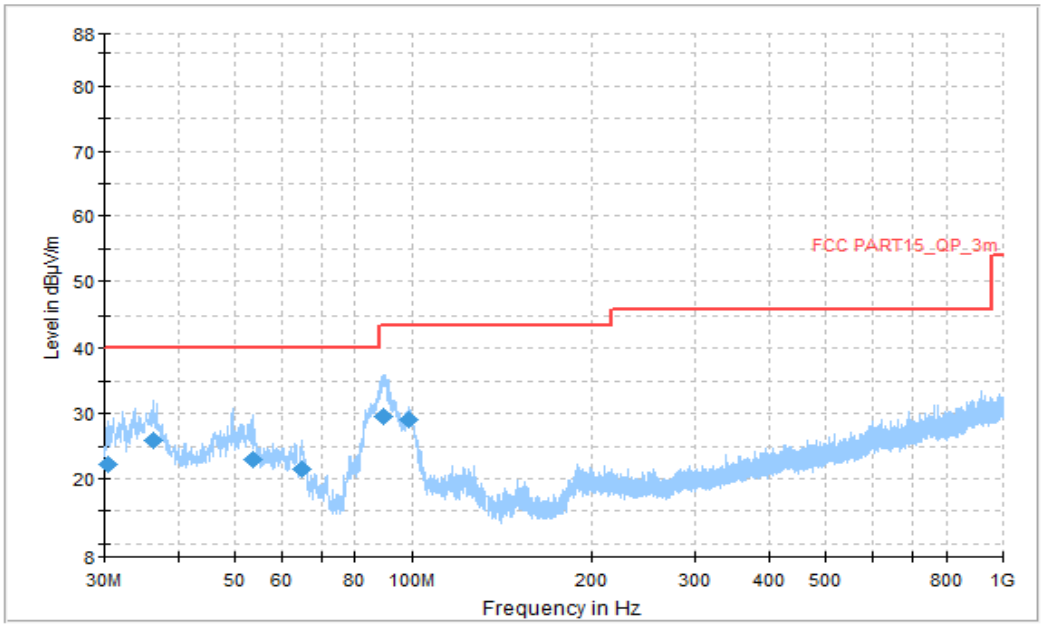


Figure A.1.58. Radiated Emission (LTE receiver Band 7, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
30.485000	22.29	40.00	17.71	V	-15	37.29
36.358889	25.92	40.00	14.08	V	-14	39.92
53.711111	22.97	40.00	17.03	V	-14	36.97
64.704444	21.40	40.00	18.60	V	-15	36.40
89.277778	29.60	43.52	13.92	V	-17	46.6
98.277222	29.11	43.52	14.41	V	-15	44.11

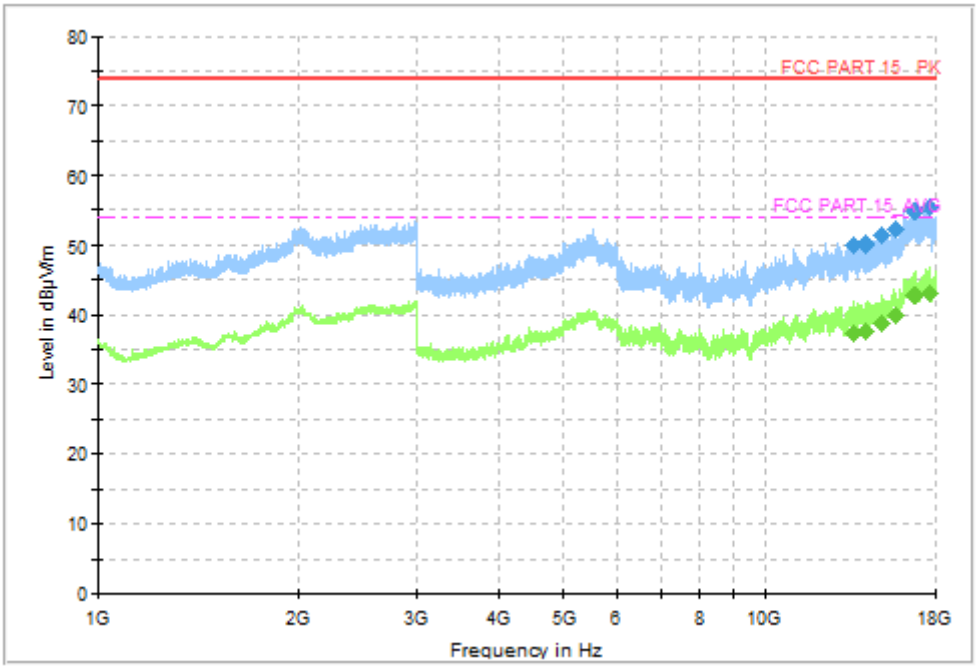


Figure A.1.59. Radiated Emission (LTE receiver Band 7, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13552.285714	50.00	74.00	24.00	V	13.0	37.00
14175.857143	50.08	74.00	23.92	H	13.3	36.78
14975.142857	51.26	74.00	22.74	V	14.7	36.56
15698.142857	52.39	74.00	21.61	H	14.2	38.19
16729.714286	54.87	74.00	19.13	H	18.9	35.97
17663.142857	55.46	74.00	18.54	H	20.5	34.96

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13552.285714	37.34	54.00	16.66	V	13.0	24.34
14175.857143	37.60	54.00	16.40	H	13.3	24.3
14975.142857	38.95	54.00	15.05	V	14.7	24.25
15698.142857	39.91	54.00	14.09	H	14.2	25.71
16729.714286	42.80	54.00	11.20	H	18.9	23.9
17663.142857	43.13	54.00	10.87	H	20.5	22.63

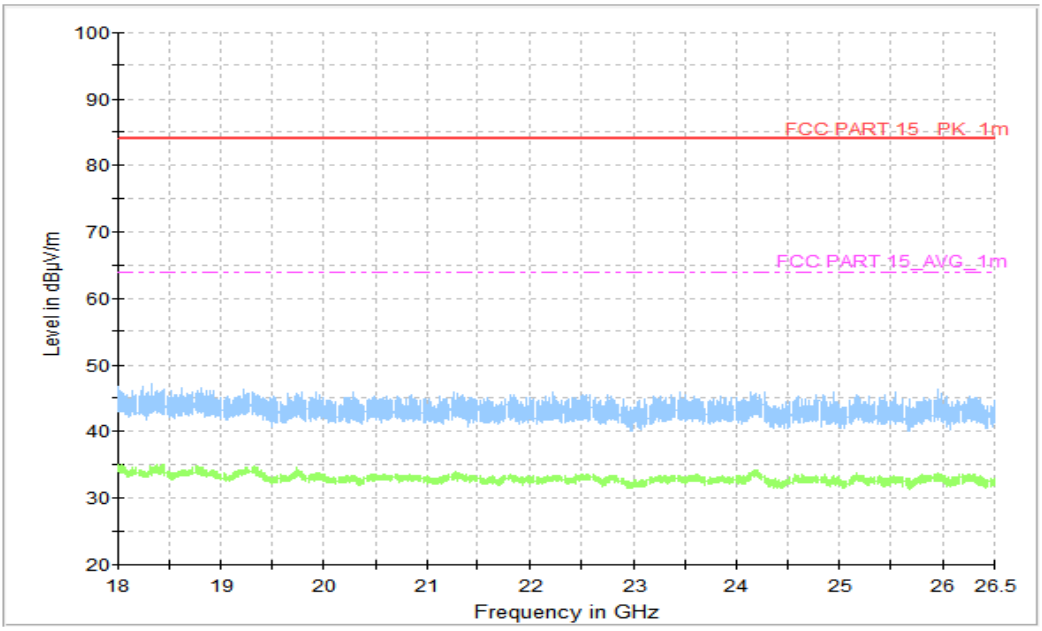


Figure A.1.60. Radiated Emission (LTE receiver Band 7, 18GHz to 26.5GHz)

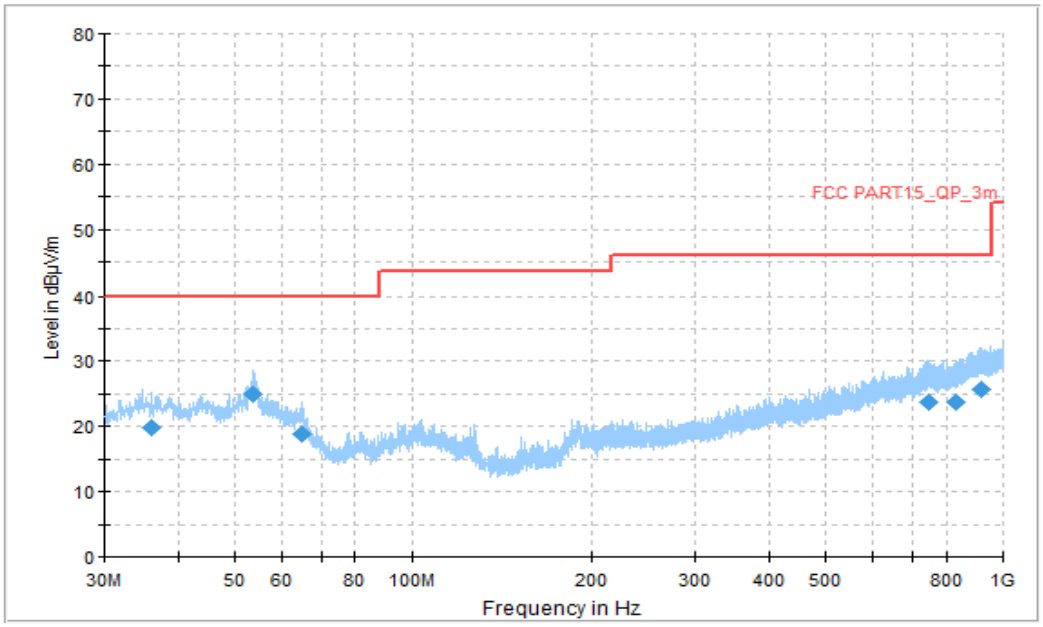


Figure A.1.61. Radiated Emission (FM Receiver, 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
36.089444	19.87	40.00	20.13	V	-14.2	34.07
53.603333	25.03	40.00	14.97	V	-14.2	39.23
65.027778	18.74	40.00	21.26	V	-15.4	34.14
748.285000	23.68	46.02	22.34	V	-2.1	25.78
829.010556	23.74	46.02	22.28	V	-1.7	25.44
918.951111	25.79	46.02	20.23	H	0.4	25.39

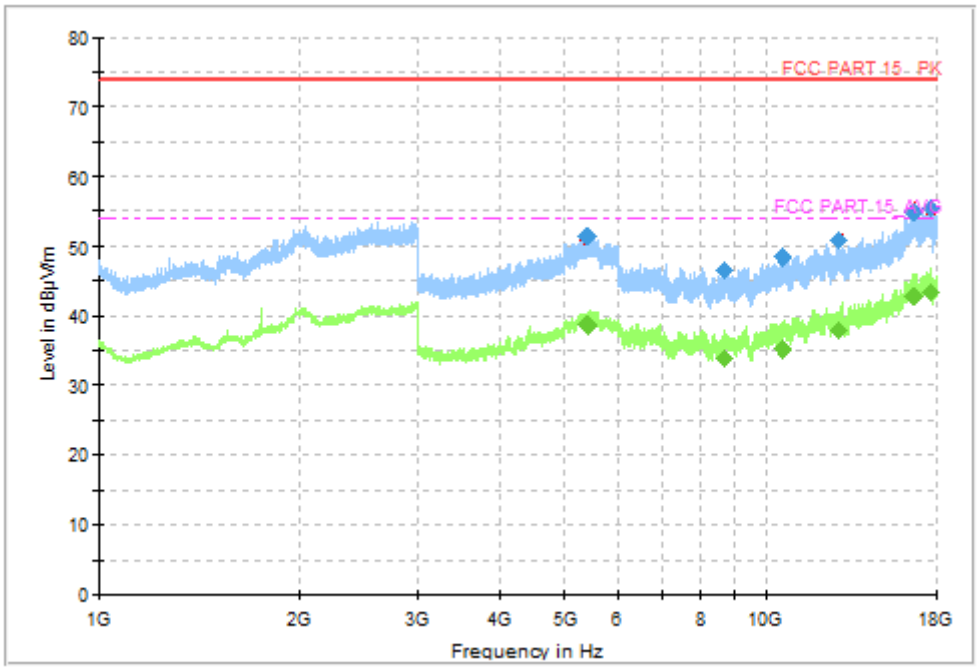


Figure A.1.62. Radiated Emission (FM Receiver, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
5409.900000	51.49	74.00	22.51	H	7.3	44.19
8662.714286	46.36	74.00	27.64	V	7.3	39.06
10600.714286	48.55	74.00	25.45	H	9.7	38.85
12900.000000	50.82	74.00	23.18	V	12.7	38.12
16725.000000	54.83	74.00	19.17	H	18.9	35.93
17688.000000	55.61	74.00	18.39	V	20.6	35.01

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
5409.900000	38.58	54.00	15.43	H	7.3	31.28
8662.714286	34.02	54.00	19.98	V	7.3	26.72
10600.714286	35.26	54.00	18.74	H	9.7	25.56
12900.000000	37.83	54.00	16.17	V	12.7	25.13
16725.000000	42.77	54.00	11.23	H	18.9	23.87
17688.000000	43.24	54.00	10.76	V	20.6	22.64

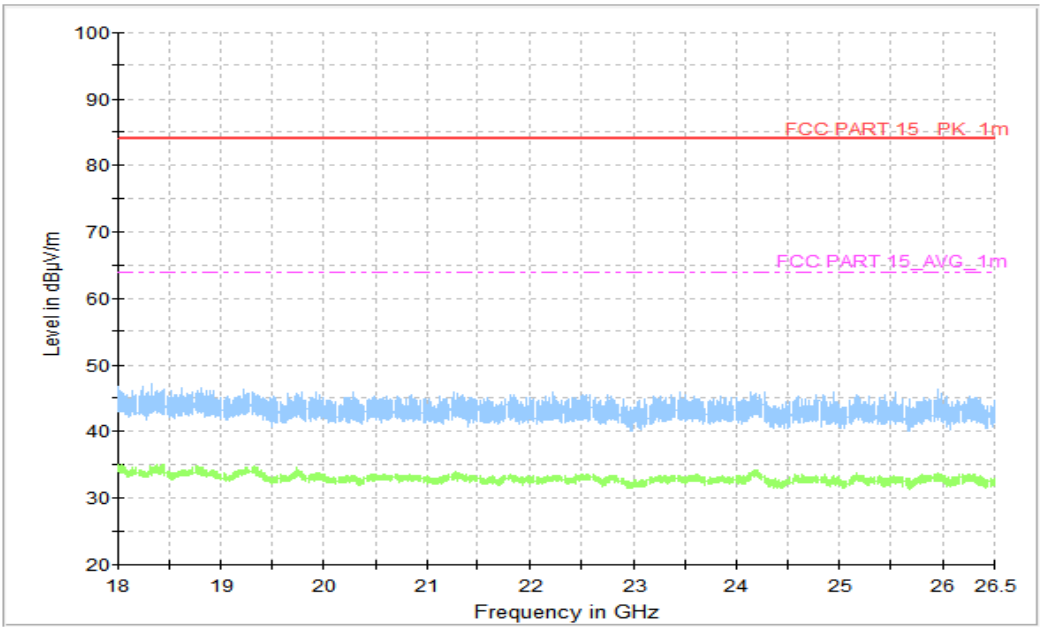


Figure A.1.63. Radiated Emission (FM Receiver, 18GHz to 26.5GHz)

A.2 Conducted Emission (§15.107(a))

Reference

FCC: Part 15.107(a)

IC: ICES-003 section 6.1.

A.2.1 Method of measurement

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

A.2.2 EUT Operating Mode:

Camera: At the beginning of measurement, the battery is completely discharged. The battery and charger are installed so that the EUT works well and keeping on taking photos.

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

Data Transfer: The model of the PC is Lenovo ThinkPad T480, and the serial number of the PC is PF-13LW0C. The EUT is connected to a PC for transmitting data. The software is used to let the PC keep on copying data to EUT 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.

FM receiver: The EUT is connected to a charger for charging. 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.

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

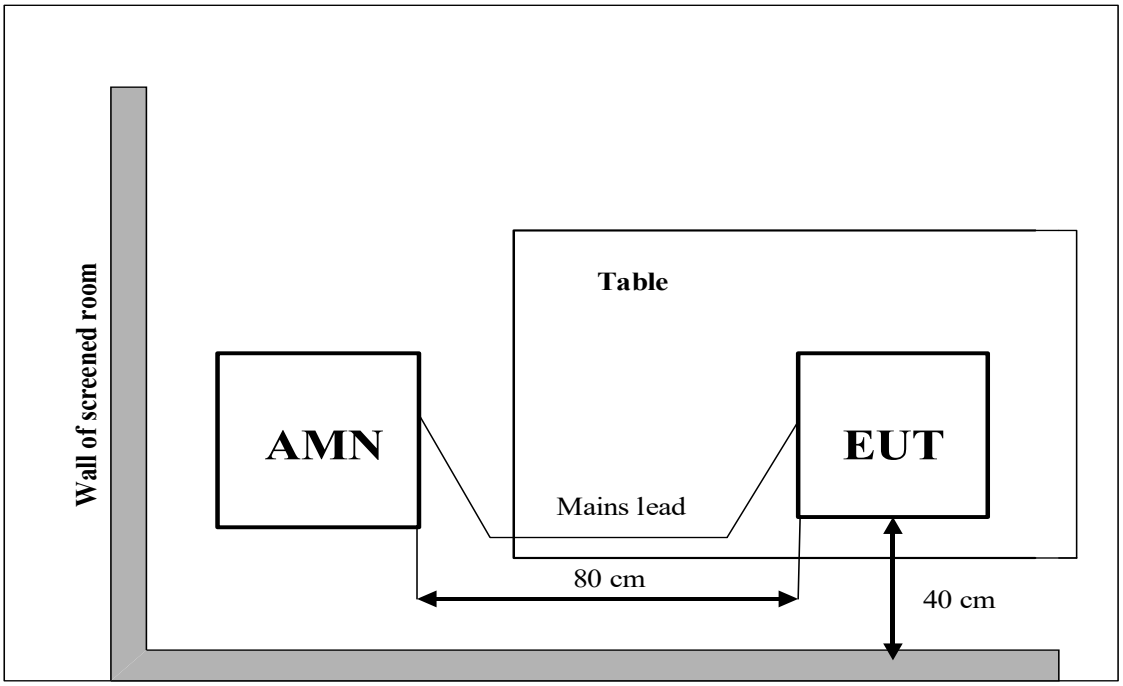
WCDMA receiver: The EUT is connected to a charger for charging. The EUT is synchronized to System Simulator (SS), and able to respond to paging messages and incoming call. An established call has been released.

LTE receiver: The EUT is connected to a charger for charging. The EUT is synchronized to 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

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

Where

Corr: PathLoss + Voltage Division Factor

PMea: Measurement result on receiver.

Camera

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa/Set.1	Conclusion
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.				

Camera

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa/Set.1	Conclusion
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 (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa/Set.1	Conclusion
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: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa/Set.1	Conclusion
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.				

Video Player

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa/Set.1	Conclusion
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.				

Video Player

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa/Set.1	Conclusion
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 (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa/Set.3	Conclusion
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: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa /Set.3	Conclusion
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.				

Video Player

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa/Set.2	Conclusion
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 (dBμV)	Average Limit (dBμV)	Result (dBμV) UT06aa /Set.2	Conclusion
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: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT21aa/Set.1	Conclusion
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.				

Video Player

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV) UT21aa /Set.1	Conclusion
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.				

FM Receiver

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT21aa/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.				

FM Receiver

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average Limit (dBμV)	Result (dBμV)	Conclusion
			UT21aa/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.				

AC Input Port/ Voltage: 120V/60Hz

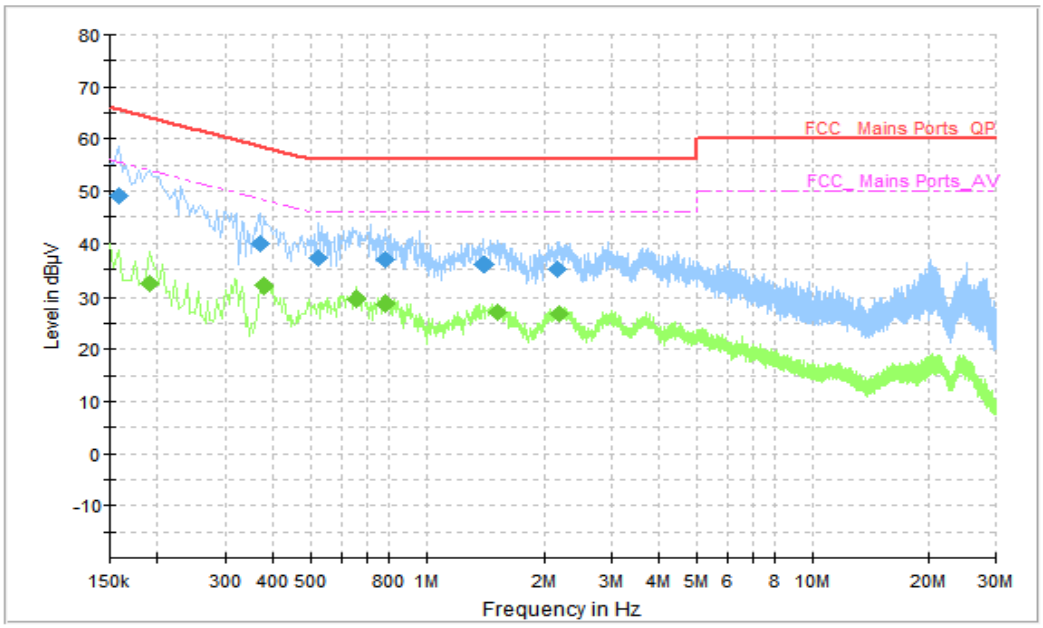


Figure A.2.1. Conducted Emission (Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.158000	49.04	65.57	16.53	L1	10	39.04
0.370000	39.95	58.50	18.55	N	10	29.95
0.522000	37.32	56.00	18.68	N	10	27.32
0.782000	36.99	56.00	19.01	N	10	26.99
1.398000	35.83	56.00	20.17	N	10	25.83
2.170000	35.03	56.00	20.97	N	10	25.03

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.190000	32.26	54.04	21.78	N	9	23.26
0.378000	32.10	48.32	16.23	N	10	22.1
0.654000	29.59	46.00	16.41	N	10	19.59
0.778000	28.60	46.00	17.40	N	10	18.60
1.510000	27.06	46.00	18.94	N	10	17.06
2.182000	26.76	46.00	19.24	N	10	16.76

AC Input Port/ Voltage: 240V/60Hz

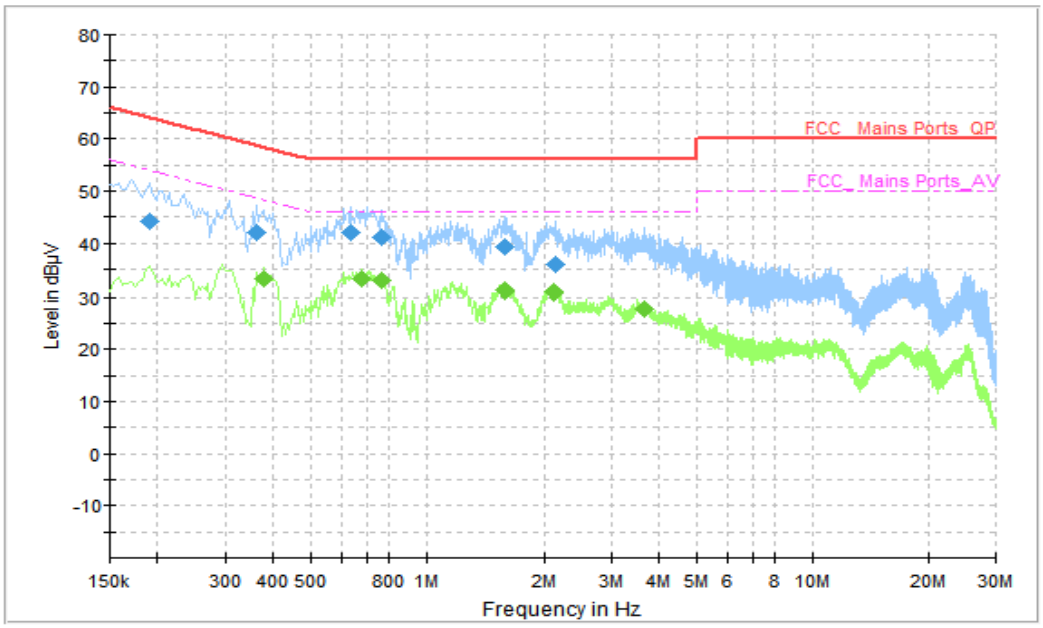


Figure A.2.2. Conducted Emission (Camera)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.190000	44.09	64.04	19.94	N	9	35.09
0.362000	42.06	58.68	16.62	N	10	32.06
0.634000	42.11	56.00	13.89	N	10	32.11
0.766000	41.24	56.00	14.76	N	10	31.24
1.582000	39.35	56.00	16.65	N	10	29.35
2.142000	35.99	56.00	20.01	L1	10	25.99

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.378000	33.29	48.32	15.03	N	10	23.29
0.682000	33.17	46.00	12.83	N	10	23.17
0.766000	32.85	46.00	13.15	N	10	22.85
1.582000	31.12	46.00	14.88	N	10	21.12
2.130000	30.84	46.00	15.16	N	10	20.84
3.638000	27.80	46.00	18.20	N	10	17.80

AC Input Port/ Voltage: 120V/60Hz

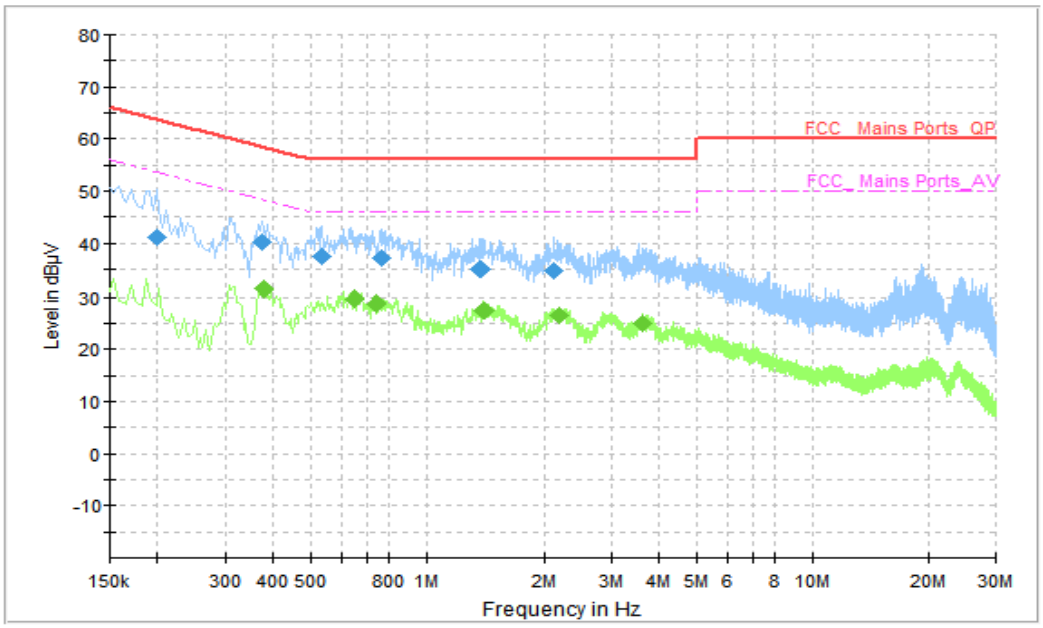


Figure A.2.3. Conducted Emission (FM Receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.198000	41.08	63.69	22.61	N	9	32.08
0.374000	40.37	58.41	18.04	N	10	30.37
0.534000	37.36	56.00	18.64	N	10	27.36
0.766000	37.25	56.00	18.75	N	10	27.25
1.378000	35.09	56.00	20.91	N	10	25.09
2.122000	34.75	56.00	21.25	N	10	24.75

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.378000	31.48	48.32	16.84	N	10	21.48
0.650000	29.63	46.00	16.37	N	10	19.63
0.742000	28.70	46.00	17.30	N	10	18.70
1.398000	27.47	46.00	18.53	N	10	17.47
2.194000	26.37	46.00	19.63	N	10	16.37
3.610000	24.93	46.00	21.07	N	10	14.93

AC Input Port/ Voltage: 240V/60Hz

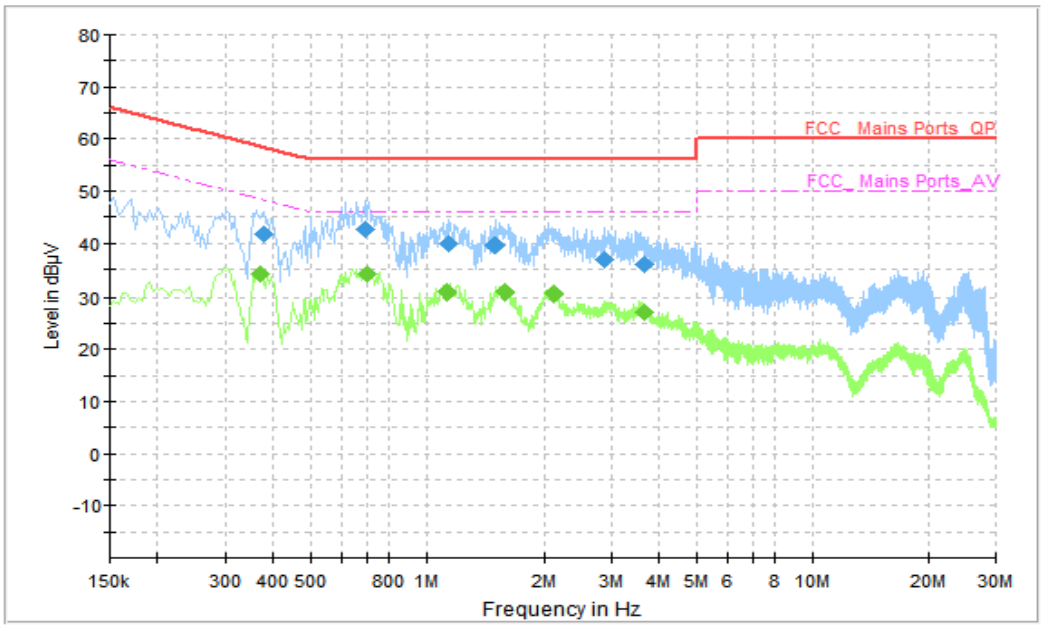


Figure A.2.4. Conducted Emission (FM Receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.378000	41.68	58.32	16.64	N	10	31.68
0.694000	42.66	56.00	13.34	N	10	32.66
1.146000	39.89	56.00	16.11	N	10	29.89
1.502000	39.75	56.00	16.25	N	10	29.75
2.878000	36.73	56.00	19.27	N	10	26.73
3.642000	36.05	56.00	19.95	N	10	26.05

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.370000	34.27	48.50	14.23	N	10	24.27
0.702000	34.20	46.00	11.80	N	10	24.2
1.134000	30.69	46.00	15.31	N	10	20.69
1.586000	30.63	46.00	15.37	N	10	20.63
2.122000	30.56	46.00	15.44	N	10	20.56
3.658000	27.23	46.00	18.77	N	10	17.23

AC Input Port/ Voltage: 120V/60Hz

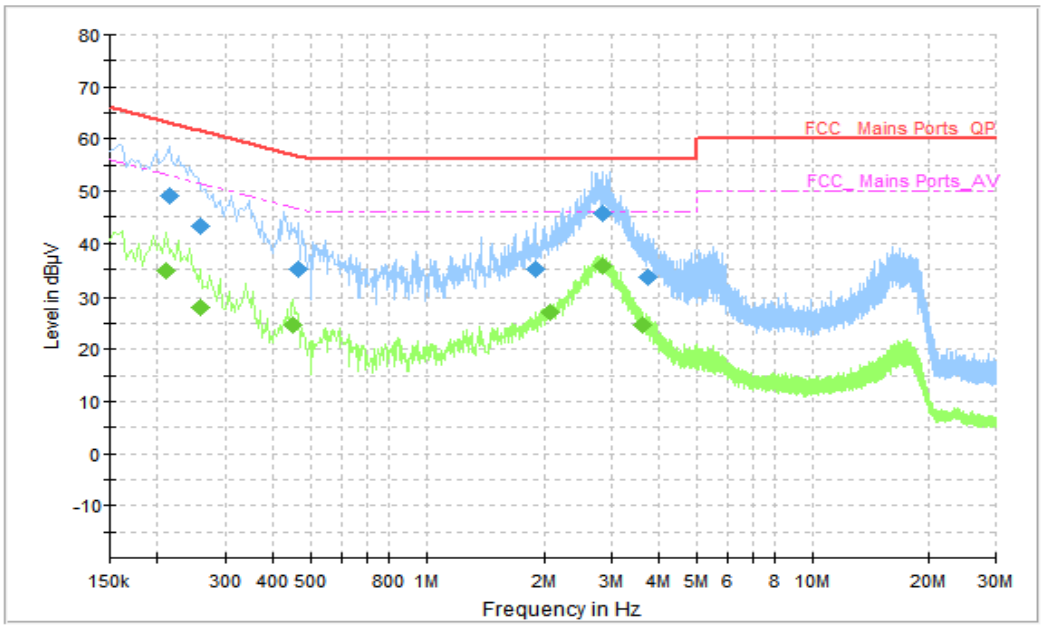


Figure A.2.5. Conducted Emission (Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.214000	49.14	63.05	13.91	N	10	39.14
0.258000	43.19	61.50	18.31	N	10	33.19
0.462000	35.05	56.66	21.61	N	10	25.05
1.894000	35.12	56.00	20.88	N	10	25.12
2.846000	45.83	56.00	10.17	N	10	35.83
3.718000	33.64	56.00	22.36	N	10	23.64

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.210000	34.61	53.21	18.59	N	10	24.61
0.258000	28.11	51.50	23.38	N	10	18.11
0.450000	24.61	46.88	22.27	N	10	14.61
2.074000	27.11	46.00	18.89	N	10	17.11
2.834000	35.72	46.00	10.28	N	10	25.72
3.630000	24.62	46.00	21.38	N	10	14.62

AC Input Port/ Voltage: 240V/60Hz

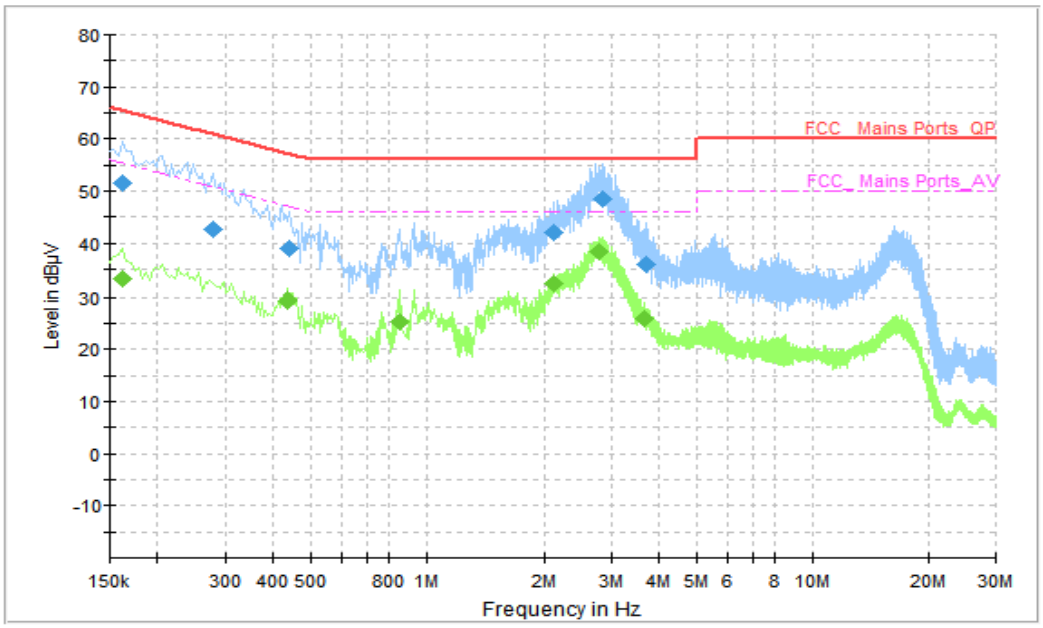


Figure A.2.6. Conducted Emission (Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.162000	51.50	65.36	13.86	L1	10	41.50
0.278000	42.76	60.88	18.11	N	10	32.76
0.438000	39.01	57.10	18.09	N	10	29.01
2.114000	42.13	56.00	13.87	N	10	32.13
2.838000	48.46	56.00	7.54	N	10	38.46
3.690000	35.93	56.00	20.07	N	10	25.93

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.162000	33.30	55.36	22.06	L1	10	23.30
0.434000	29.33	47.18	17.84	N	10	19.33
0.850000	25.24	46.00	20.76	N	10	15.24
2.114000	32.20	46.00	13.80	N	10	22.20
2.770000	38.47	46.00	7.53	N	10	28.47
3.638000	26.02	46.00	19.98	N	10	16.02

AC Input Port/ Voltage: 120V/60Hz

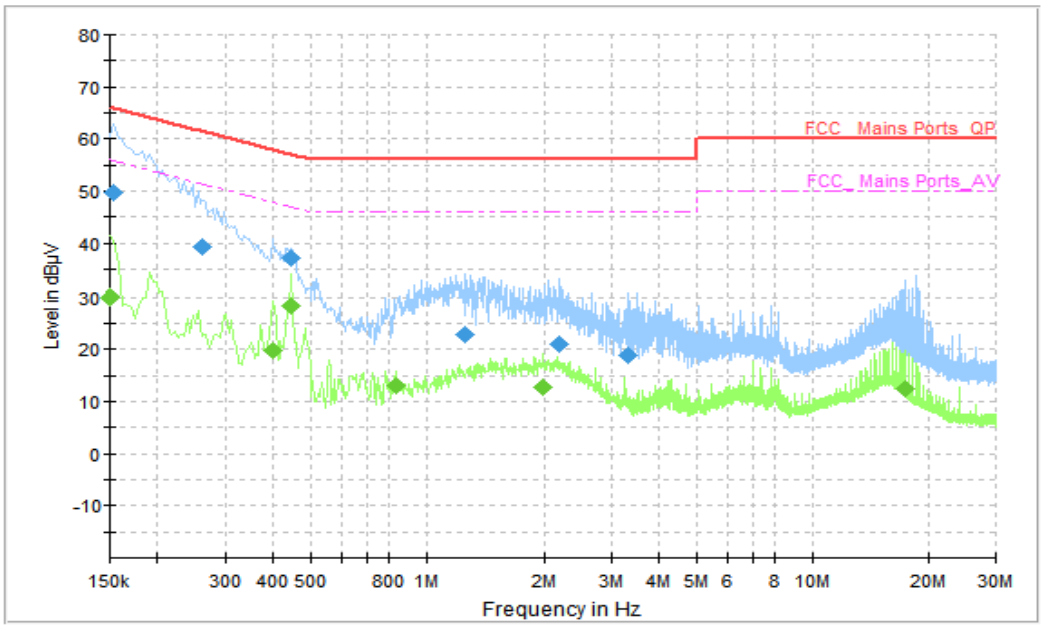


Figure A.2.7. Conducted Emission (Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154000	49.60	65.78	16.18	L1	10	39.60
0.262000	39.26	61.37	22.11	L1	10	29.26
0.442000	37.11	57.02	19.92	L1	10	27.11
1.262000	22.71	56.00	33.29	L1	10	12.71
2.190000	20.83	56.00	35.17	L1	10	10.83
3.326000	18.75	56.00	37.25	L1	10	8.75

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.150000	29.85	56.00	26.15	L1	10	19.85
0.398000	19.69	47.90	28.21	L1	10	9.69
0.446000	28.26	46.95	18.69	L1	10	18.26
0.830000	13.09	46.00	32.91	L1	10	3.09
1.986000	12.77	46.00	33.23	L1	10	2.77
17.374000	12.54	50.00	37.46	L1	10	2.54

AC Input Port/ Voltage: 240V/60Hz

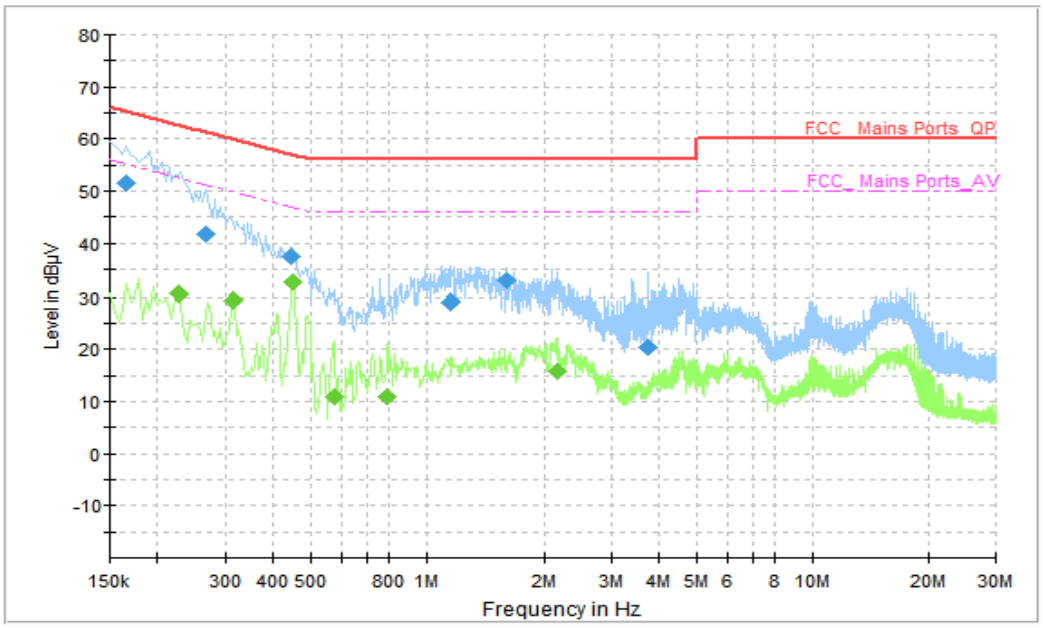


Figure A.2.8. Conducted Emission (Data Transfer)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.166000	51.45	65.16	13.71	L1	10	41.45
0.266000	41.74	61.24	19.50	N	10	31.74
0.446000	37.57	56.95	19.38	L1	10	27.57
1.150000	29.01	56.00	26.99	L1	10	19.01
1.598000	32.81	56.00	23.19	L1	10	22.81
3.718000	20.32	56.00	35.68	L1	10	10.32

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.226000	30.49	52.60	22.11	L1	10	20.49
0.314000	29.25	49.86	20.61	L1	10	19.25
0.450000	32.74	46.88	14.13	L1	10	22.74
0.574000	10.86	46.00	35.14	L1	10	0.86
0.794000	10.94	46.00	35.06	L1	10	0.94
2.158000	15.71	46.00	30.29	L1	10	5.71

AC Input Port/ Voltage: 120V/60Hz

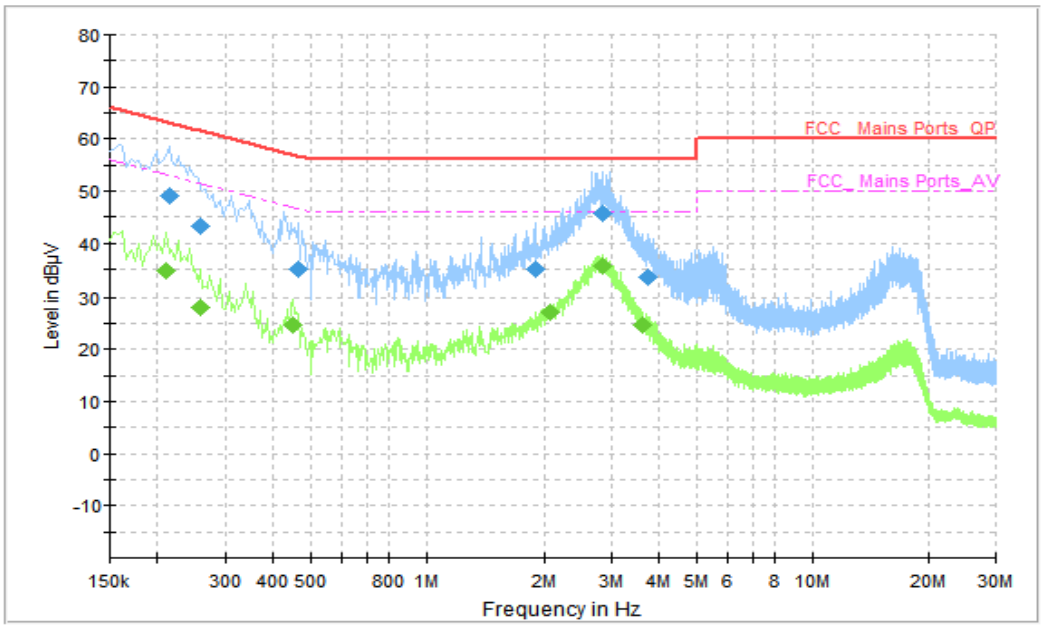


Figure A.2.9. Conducted Emission (Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.214000	49.14	63.05	13.91	N	10	39.14
0.258000	43.19	61.50	18.31	N	10	33.19
0.462000	35.05	56.66	21.61	N	10	25.05
1.894000	35.12	56.00	20.88	N	10	25.12
2.846000	45.83	56.00	10.17	N	10	35.83
3.718000	33.64	56.00	22.36	N	10	23.64

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.210000	34.61	53.21	18.59	N	10	24.61
0.258000	28.11	51.50	23.38	N	10	18.11
0.450000	24.61	46.88	22.27	N	10	14.61
2.074000	27.11	46.00	18.89	N	10	17.11
2.834000	35.72	46.00	10.28	N	10	25.72
3.630000	24.62	46.00	21.38	N	10	14.62

AC Input Port/ Voltage: 240V/60Hz

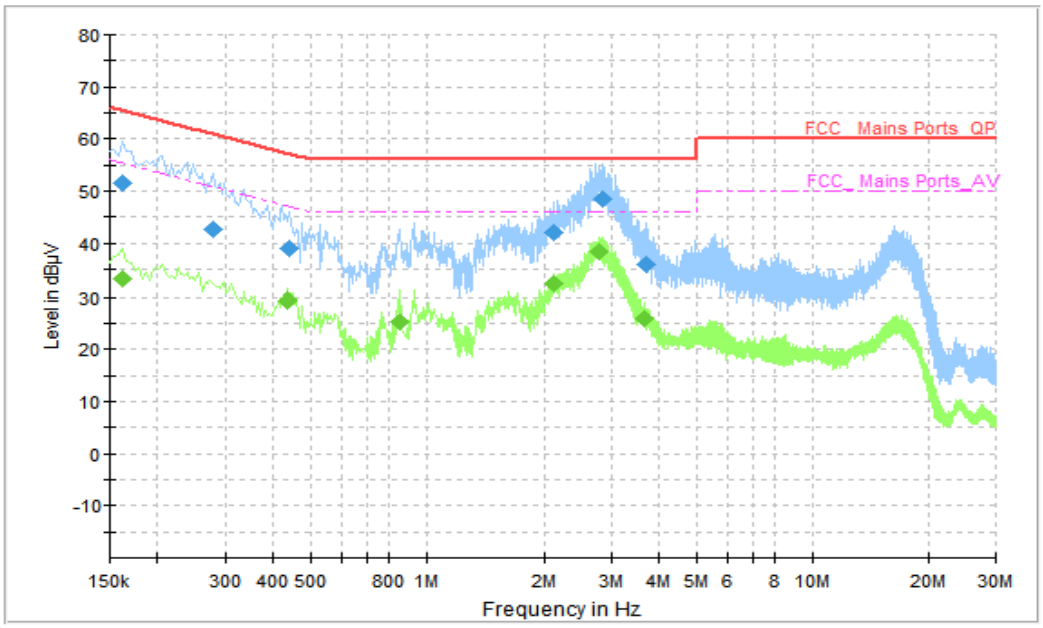


Figure A.2.10. Conducted Emission (Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.162000	51.50	65.36	13.86	L1	10	41.50
0.278000	42.76	60.88	18.11	N	10	32.76
0.438000	39.01	57.10	18.09	N	10	29.01
2.114000	42.13	56.00	13.87	N	10	32.13
2.838000	48.46	56.00	7.54	N	10	38.46
3.690000	35.93	56.00	20.07	N	10	25.93

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.162000	33.30	55.36	22.06	L1	10	23.30
0.434000	29.33	47.18	17.84	N	10	19.33
0.850000	25.24	46.00	20.76	N	10	15.24
2.114000	32.20	46.00	13.80	N	10	22.20
2.770000	38.47	46.00	7.53	N	10	28.47
3.638000	26.02	46.00	19.98	N	10	16.02

AC Input Port/ Voltage: 120V/60Hz

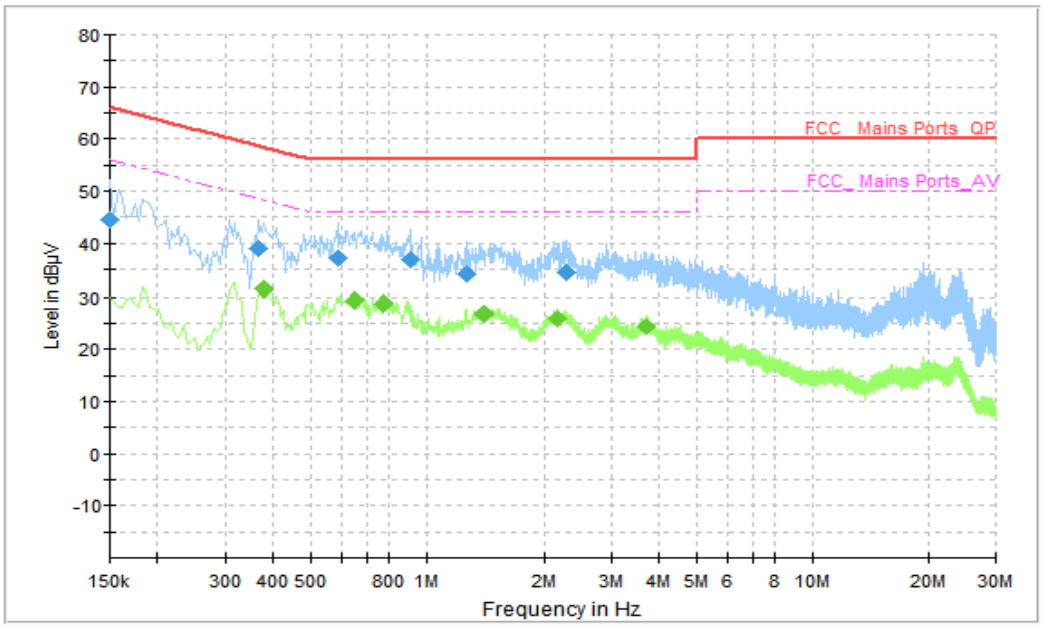


Figure A.2.11. Conducted Emission (Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.150000	44.45	66.00	21.55	L1	10	34.45
0.366000	39.07	58.59	19.53	N	10	29.07
0.586000	37.33	56.00	18.67	N	10	27.33
0.906000	36.83	56.00	19.17	N	10	26.83
1.270000	34.18	56.00	21.82	N	10	24.18
2.290000	34.41	56.00	21.59	N	10	24.41

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.378000	31.43	48.32	16.89	N	10	21.43
0.650000	29.21	46.00	16.79	N	10	19.21
0.774000	28.49	46.00	17.51	N	10	18.49
1.402000	26.84	46.00	19.16	N	10	16.84
2.178000	26.00	46.00	20.00	N	10	16
3.678000	24.32	46.00	21.68	N	10	14.32

AC Input Port/ Voltage: 240V/60Hz

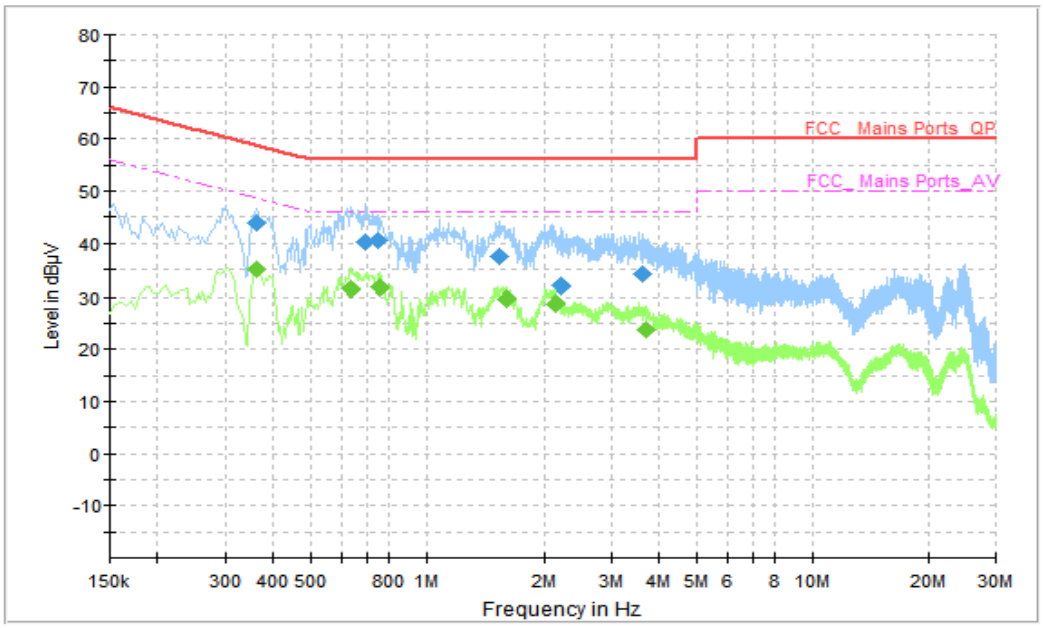


Figure A.2.12. Conducted Emission (Video Player)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.362000	43.90	58.68	14.78	N	10	33.90
0.690000	40.15	56.00	15.85	N	10	30.15
0.750000	40.67	56.00	15.33	N	10	30.67
1.530000	37.53	56.00	18.47	N	10	27.53
2.222000	31.88	56.00	24.12	L1	10	21.88
3.610000	34.14	56.00	21.86	N	10	24.14

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.362000	35.02	48.68	13.66	N	10	25.02
0.634000	31.51	46.00	14.49	N	10	21.51
0.758000	31.57	46.00	14.43	N	10	21.57
1.602000	29.48	46.00	16.52	N	10	19.48
2.134000	28.74	46.00	17.26	N	10	18.74
3.706000	23.75	46.00	22.25	N	10	13.75

AC Input Port/ Voltage: 120V/60Hz

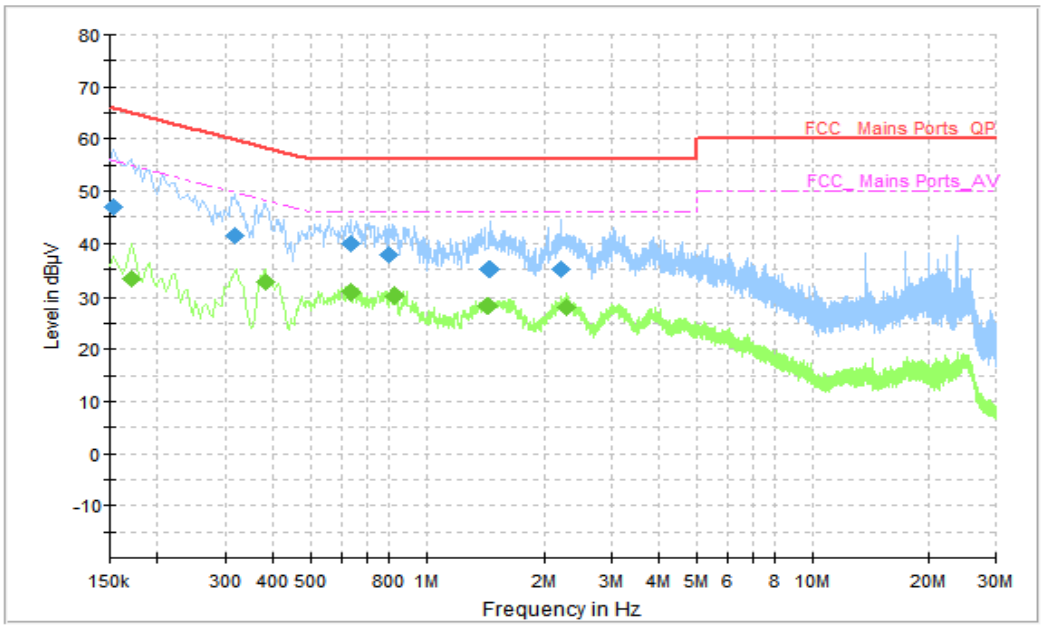


Figure A.2.13. Conducted Emission (FM Receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.154000	47.01	65.78	18.77	L1	10	37.01
0.318000	41.33	59.76	18.42	L1	10	31.33
0.634000	39.89	56.00	16.11	N	10	29.89
0.802000	37.89	56.00	18.11	N	10	27.89
1.454000	35.12	56.00	20.88	L1	10	25.12
2.214000	35.06	56.00	20.94	L1	10	25.06

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.170000	33.34	54.96	21.62	L1	10	23.34
0.382000	32.47	48.24	15.77	N	10	22.47
0.634000	30.82	46.00	15.18	N	10	20.82
0.826000	30.03	46.00	15.97	N	10	20.03
1.442000	28.24	46.00	17.76	N	10	18.24
2.286000	28.16	46.00	17.84	N	10	18.16

AC Input Port/ Voltage: 240V/60Hz

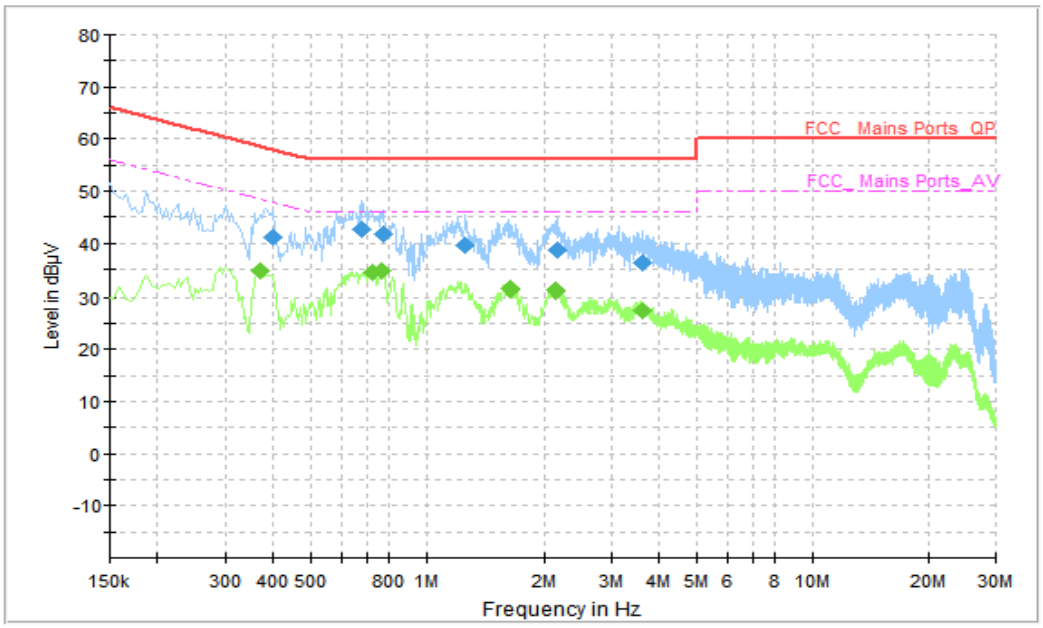


Figure A.2.14. Conducted Emission (FM Receiver)

Final_Result_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.398000	41.09	57.90	16.81	N	10	31.09
0.678000	42.57	56.00	13.43	N	10	32.57
0.770000	41.92	56.00	14.08	N	10	31.92
1.262000	39.74	56.00	16.26	N	10	29.74
2.174000	38.85	56.00	17.15	N	10	28.85
3.626000	36.21	56.00	19.79	N	10	26.21

Final_Result_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P_{Mea} (dBµV)
0.370000	34.78	48.50	13.73	N	10	24.78
0.726000	34.37	46.00	11.63	N	10	24.37
0.762000	34.83	46.00	11.17	N	10	24.83
1.630000	31.25	46.00	14.75	N	10	21.25
2.146000	31.21	46.00	14.79	N	10	21.21
3.622000	27.47	46.00	18.53	N	10	17.47

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