



# TEST REPORT

No.I20N01075-EMC

for

**TCL Communication Ltd.**

**LTE/UMTS/GSM mobile phone**

**Model Name: 5002R**

With

**Hardware Version: 03**

**Software Version: GZ2LUDL0**

**FCC ID: 2ACCJH124**

**Issued Date: 2020-06-20**

**Designation Number: CN1210**

**Note:**

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

**Test Laboratory:**

**SAICT, Shenzhen Academy of Information and Communications Technology**

Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen,  
Guangdong, P. R. China 518026.

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

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



## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
I20N01075-EMC	Rev.0	1st edition	2020-06-20

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



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## 1. Summary of Test Report

### 1.1. Test Items

Description	LTE/UMTS/GSM mobile phone
Model Name	5002R
Applicant's name	TCL Communication Ltd.
Manufacturer's Name	TCL Communication Ltd.

### 1.2. Test Standards

FCC Part 15, Subpart B 10-1-2019 Edition; ANSI C63.4 2014

### 1.3. Test Result

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

### 1.4. Testing Location

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

### 1.5. Project data

Testing Start Date: 2020-04-27

Testing End Date: 2020-06-03

### 1.6. Signature

Liang Yong

(Prepared this test report)

Zhang Yunzhan

(Reviewed this test report)

Cao Junfei

(Approved this test report)



## **2. ClientInformation**

### **2.1. Applicant Information**

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

### **2.2. Manufacturer Information**

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

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

#### **3.1. About EUT**

Description	LTE/UMTS/GSM mobile phone
Model Name	5002R
FCC ID	2ACCJH124
Antenna Type	Internal Antenna
Condition of EUT as received	No obvious damage in appearance

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

GSM850MHz, WCDMA Band 5, LTE Band 5,LTE Band 12, LTE Band 14.

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

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>SN or IMEI</b>	<b>HW Version</b>	<b>SW Version</b>	<b>Receive Date</b>
UT07aa	015733000003967	03	GZ2LUDL0	2020-05-25
UT08aa	015733000003959	03	GZ2LUDL0	2020-05-25

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

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>
AE1	Battery
AE2	Charger
AE3	Cable
AE4	Headset

AE1

Model	CAB2880001C1
Manufacturer	BYD
Capacitance	2880mAh
Nominal Voltage	3.85V

AE2-1

Model	CBA0058AGHC5
Manufacturer	PUAN

AE3-1

Model	CDA312200CC2
Manufacturer	shenghua



AE4

Model /

Manufacturer /

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

AE: ancillary equipment

Note: AE4 is just for testing

### 3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	UT07aa +AE1+AE2-1+AE3-1	
Set.2	UT07aa +AE1+AE2-1+AE3-1+AE4	
Set.3	UT07aa +AE1+AE3-1+PC	Data Transfer Mode;

### 3.5. General Description

The Equipment Under Test (EUT) is a model of LTE/UMTS/GSM mobile phone with internal antenna.

It supports GSM 850/1900MHz, WCDMA Bands 2/4/5/, and LTE Bands 2/4/5/12/14/30/66.

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

It consists of normal options: Battery, Charger and Data 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.

## 4. Reference Documents

### 4.1. Reference Documents for testing

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

<b>Reference</b>	<b>Title</b>	<b>Version</b>
FCC Part 15, Subpart B	Radio frequency devices	10-1-2019 Edition
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2014



## 5. LABORATORY ENVIRONMENT

**Semi-anechoic chamber** did not exceed following limits along the EMC testing:

9.10m×6.10m×5.60m (L×W×H)

Temperature	Min. = 15 °C, Max. = 35°C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-18000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω
Normalised site attenuation (NSA)	<±4 dB, 3 m distance, from 30 to 1000 MHz

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

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. =20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz,>60dB; 1MHz-10000MHz,>90dB
Electrical insulation	>2MΩ
Ground system resistance	<4Ω

**Fully-anechoic chamber** did not exceed following limits along the EMC testing:

9.10m×6.10m×5.60m (L×W×H)

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

## 6. SUMMARY OF TEST RESULTS

### 6.1. Testing Environment

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

### 6.2. Summary of Measurement Results

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

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

### 6.3. Statement

#### 6.3.1 Statements of conformity

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

## 7. Measurement uncertainty

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

## 8. Test Facilities Utilized

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

## **ANNEX A: MEASUREMENT RESULTS**

### **A.1 Radiated Emission (§15.109(a))**

#### **Reference**

FCC: CFR Part 15.109(a)

#### **A.1.1 Method of measurement**

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

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

#### **A.1.2 EUT Operating Mode:**

**FM Mode:** The EUT is connected to a charger for charging and open FM function.

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

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

The EUT was tested while operating in licensed band Rx 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.

#### **A.1.3 Measurement Limit**

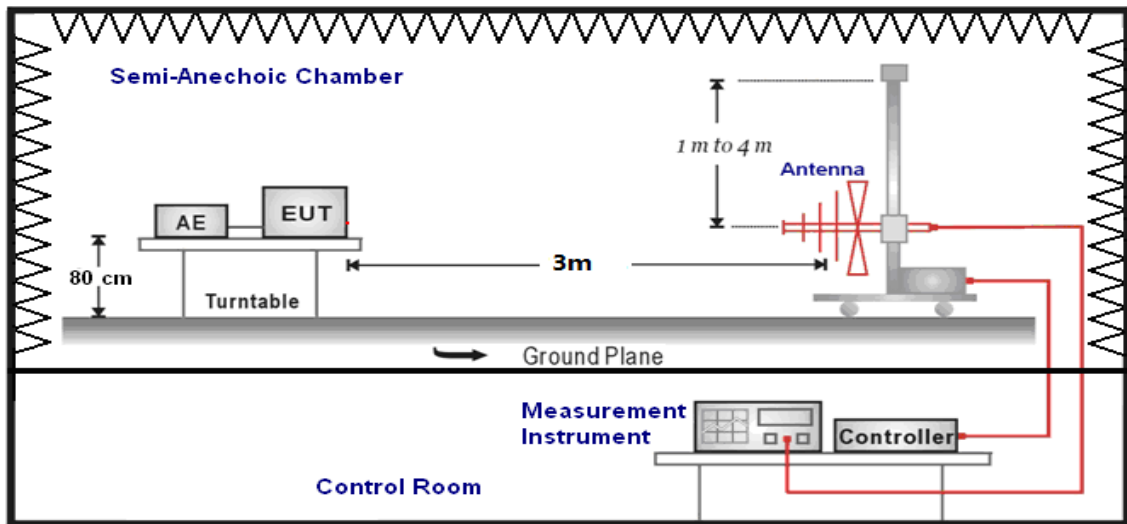
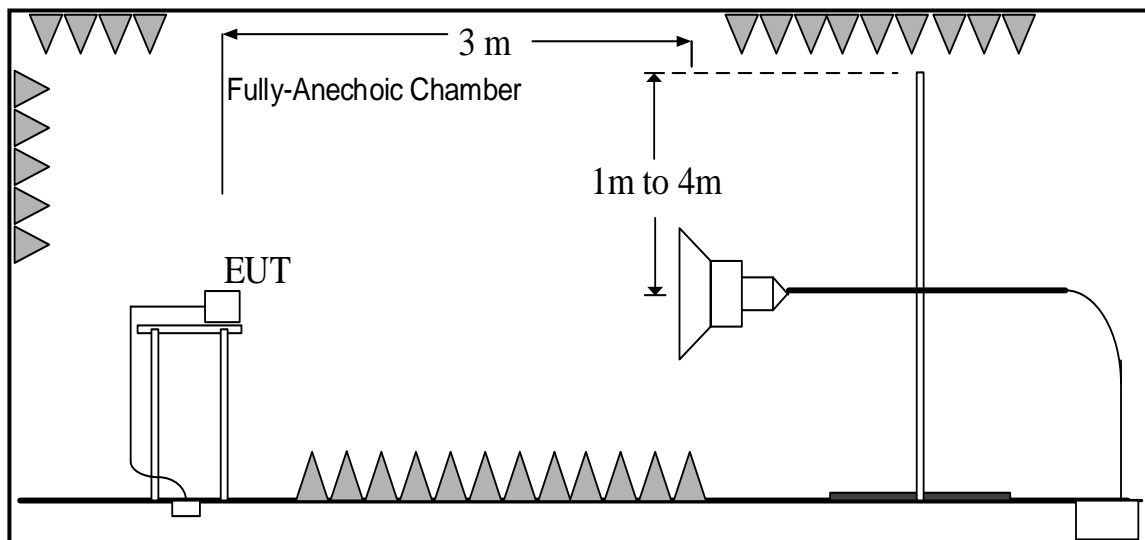
Limit from CFR Part 15.109(a)

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

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

**A.1.4 Test Condition**

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

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

**1GHz-18GHz**


### A.1.6 Measurement Results

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

The measurement results are obtained as described below:

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

Where

$G_A$ : Antenna factor of receive antenna

$G_{PL}$ : Path Loss

$P_{\text{Mea}}$ : Measurement result on receiver.

Result: Quasi-Peak (dB $\mu$ V/m) / Average (dB $\mu$ V/m) / Peak (dB $\mu$ V/m)

Note: the result contains vertical part and Horizontal part

#### Charging and GSM850MHz idle

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

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.2	P

#### Charging and WCDMA Band 5 idle

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m) Set.1	Conclusion
30-88	40	See Figure A.3	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.4	P

## Charging and LTE Band 5 idle

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m) Set.1	Conclusion
30-88	40	See Figure A.5	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.6	P

## Charging and LTE Band 12 idle

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m) Set.1	Conclusion
30-88	40	See Figure A.7	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.8	P

## Charging and LTE Band 14 idle

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m) Set.1	Conclusion
30-88	40	See Figure A.9	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.10	P

## Camera Mode

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

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.12	P

## FM Mode

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
		Set.2	
30-88	40	See Figure A.13	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.14	P

## Video Player Mode

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
		Set.1	
30-88	40	See Figure A.15	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.16	P



## Data Transfer Mode: EUT to PC

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
		Set.3	
30-88	40	See Figure A.17	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.18	P

## Data Transfer Mode: PC to EUT

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
		Set.3	
30-88	40	See Figure A.19	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.20	P

## Data Transfer Mode: PC to TF Card

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

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.22	P



Data Transfer Mode: TF Card to PC

Frequency range (MHz)	Quasi-Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
		Set.3	
30-88	40	See Figure A.23	P
88-216	44		
216-960	46		
960-1000	54		

Frequency range (MHz)	Average Limit (dB $\mu$ V/m)	Peak Limit (dB $\mu$ V/m)	Result (dB $\mu$ V/m)	Conclusion
			Set.1	
1000 to 18000	54	74	See Figure A.24	P

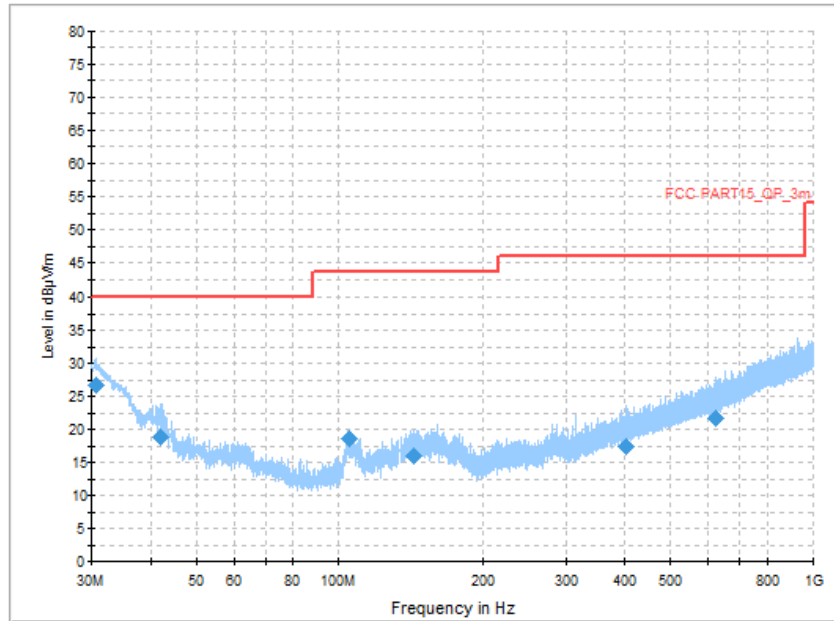


Figure A.1 Radiated Emission (Set.1, Charging and GSM850MHz idle, 30MHz to 1GHz)

Final\_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
30.727500	26.7	40.0	13.3	V	-20.5	47.20
42.125000	18.8	40.0	21.20	V	-18.5	37.3
104.932500	18.6	43.5	24.9	H	-21.4	40
142.665500	15.9	43.5	27.60	V	-18.4	34.3
401.558500	17.4	46.0	28.6	H	-14.0	31.4
624.319000	21.7	46.0	24.30	H	-9.1	30.8

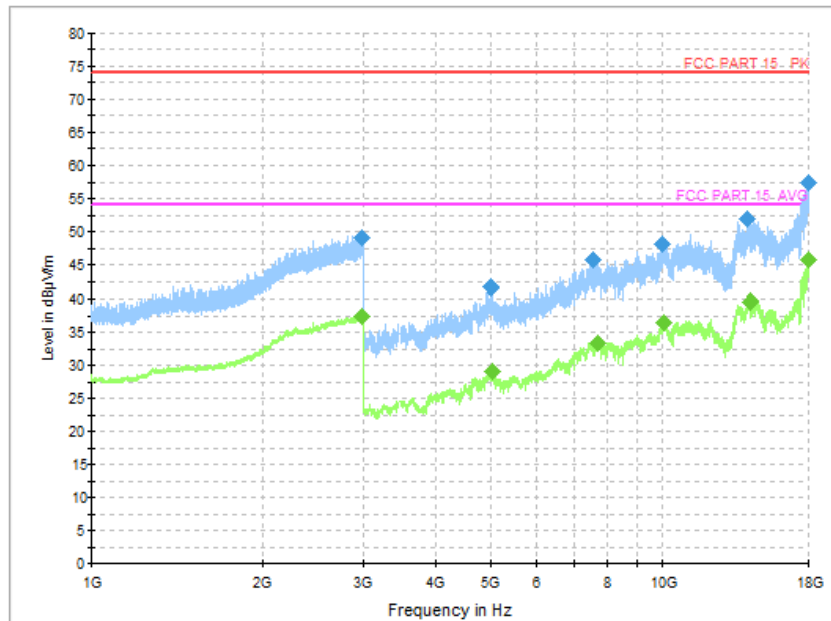


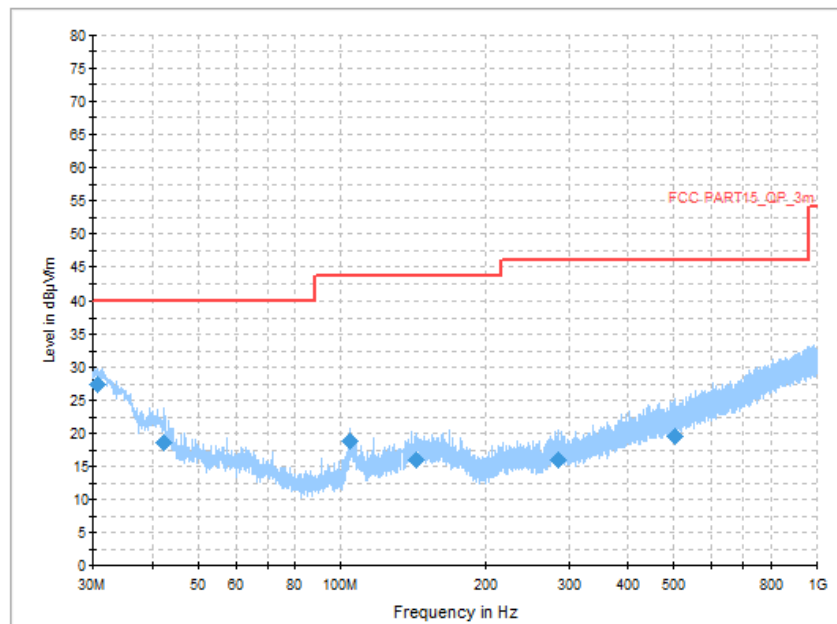
Figure A.2 Radiated Emission (Set.1, Charging and GSM850MHz idle, 1GHz to 18GHz)

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2978.200000	49.0	74	25.00	V	11.0	38.00
4990.400000	41.7	74	32.30	H	-6.9	48.6
7517.600000	45.6	74	28.4	V	-0.8	46.4
9970.400000	48.1	74	25.90	H	2.3	45.8
14088.000000	52.0	74	22.00	H	6.8	45.2
17956.400000	57.5	74	16.50	V	15.0	42.5

**Final\_Results\_AVG**

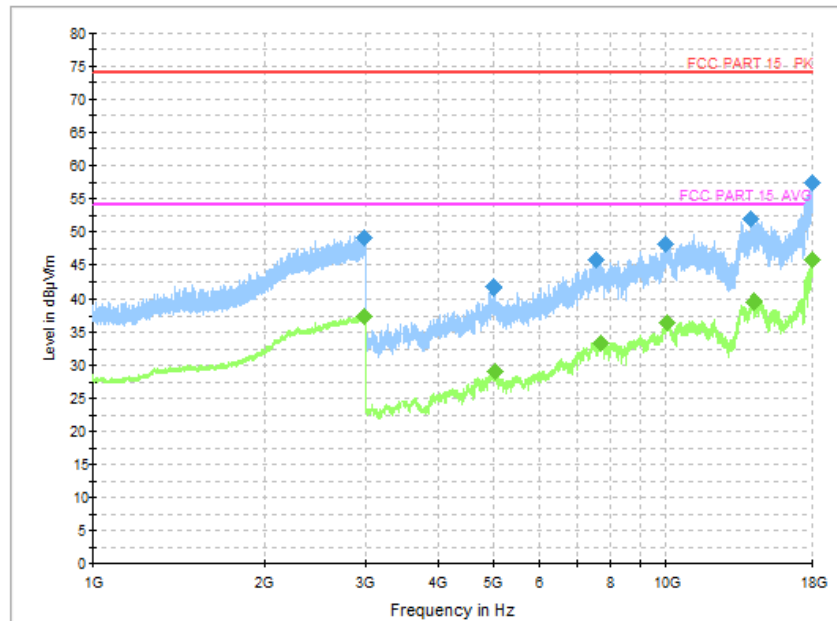
Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2988.800000	37.5	54	16.5	H	10.9	26.6
5017.600000	29.0	54	25.00	V	-7.1	36.1
7683.200000	33.4	54	20.6	V	-0.4	33.8
10019.200000	36.5	54	17.50	H	2.2	34.3
14188.000000	39.6	54	14.40	V	7.1	32.5
17960.400000	45.8	54	8.20	H	15.1	30.7



**Figure A.3 Radiated Emission (Set.1, Charging and WCDMA Band 5 idle, 30MHz to 1GHz)**

**Final\_Result**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
30.727500	27.3	40.0	12.7	V	-20.5	47.80
42.319000	18.6	40.0	21.40	V	-18.5	37.1
104.496000	18.9	43.5	24.6	H	-21.5	40.4
143.538500	16.1	43.5	27.40	V	-18.4	34.5
284.528000	15.9	46.0	30.1	H	-17.4	33.3
502.778000	19.5	46.0	26.50	V	-11.3	30.8



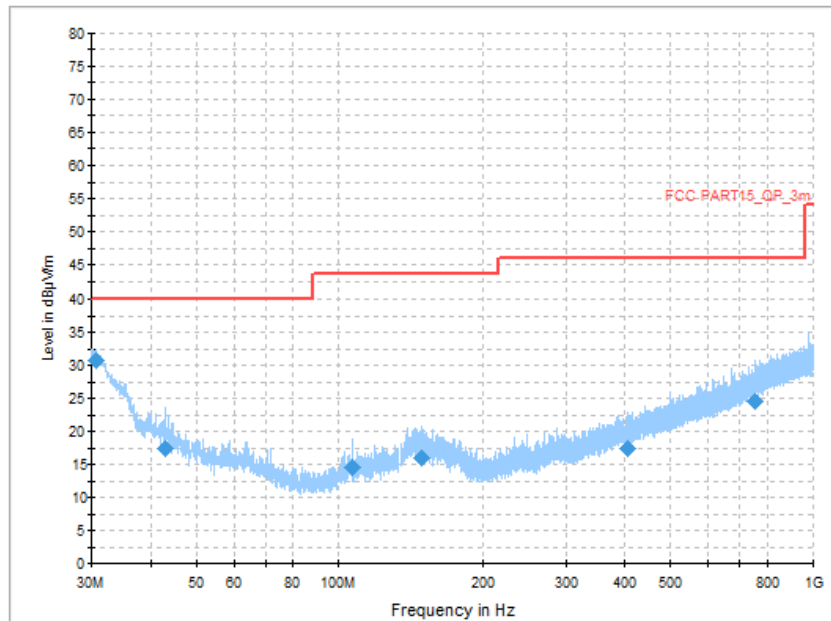
**Figure A.4 Radiated Emission (Set.1, Charging and WCDMA Band 5 idle, 1GHz to 18GHz)**

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2976.000000	48.9	74	25.1	H	11.0	37.90
4948.000000	39.7	74	34.30	H	-7.0	46.7
7410.400000	44.8	74	29.2	V	-0.5	45.3
10968.000000	48.2	74	25.80	V	2.7	45.5
14353.500000	51.0	74	23	V	7.1	43.9
17958.800000	56.8	74	17.20	V	15.0	41.8

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2956.400000	36.8	54	17.2	V	10.8	26
4943.200000	28.7	54	25.30	V	-7.0	35.70
7404.800000	33.3	54	20.70	V	-0.5	33.80
11014.000000	36.7	54	17.30	V	2.8	33.9
14345.000000	38.9	54	15.1	V	7.1	31.8
17962.000000	45.4	54	8.60	V	15.1	30.3



**Figure A.5 Radiated Emission (Set.1, Charging and LTE Band 5 idle, 30MHz to 1GHz)**  
**Final\_Result**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
30.630500	30.8	40.0	9.2	V	-20.5	51.30
42.901000	17.3	40.0	22.70	V	-18.5	35.80
106.824000	14.5	43.5	29	H	-21.2	35.7
148.437000	15.9	43.5	27.60	V	-18.4	34.30
404.856500	17.4	46.0	28.6	H	-13.9	31.3
752.116500	24.5	46.0	21.50	H	-6.4	30.90

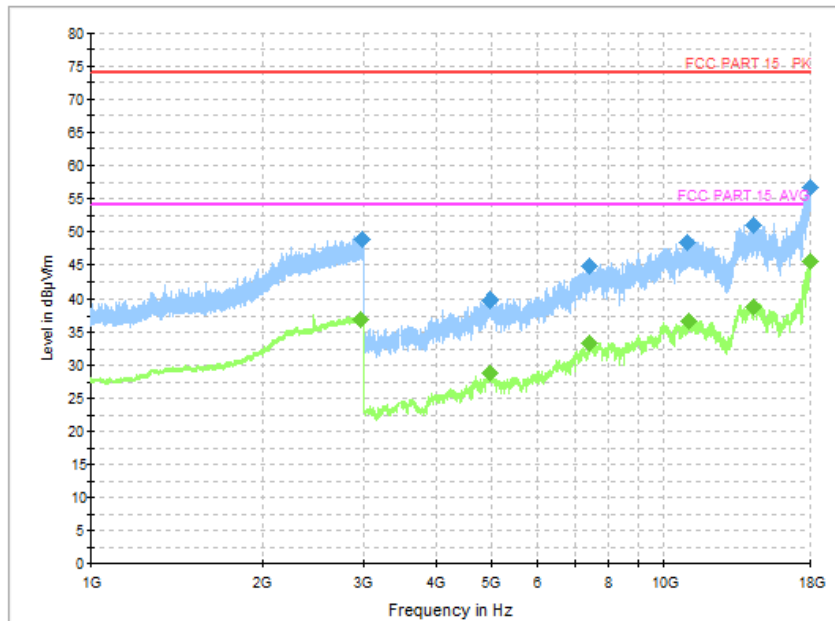


Figure A.6 Radiated Emission (Set.1, Charging and LTE Band 5 idle , 1GHz to 18GHz)

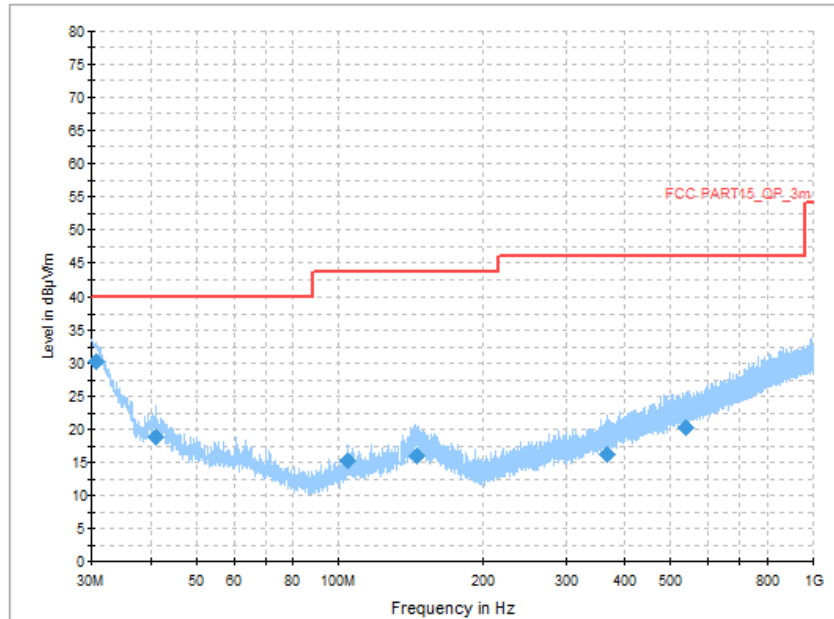
**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2976.600000	49.2	74	24.8	V	11.0	38.20
4916.000000	41.0	74	33.00	V	-7.2	48.20
7413.600000	45.0	74	29	V	-0.5	45.5
10025.600000	48.1	74	25.90	H	2.2	45.90
14242.000000	52.4	74	21.6	V	7.2	45.2
17852.800000	58.2	74	15.80	V	13.9	44.30

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2997.000000	37.4	54	16.6	V	11.0	26.40
4897.600000	28.3	54	25.70	H	-7.3	35.60
7430.400000	33.1	54	20.9	H	-0.5	33.6
9961.600000	36.1	54	17.90	H	2.3	33.80
14549.500000	39.6	54	14.4	V	7.0	32.6
17960.400000	45.4	54	8.60	V	15.1	30.30

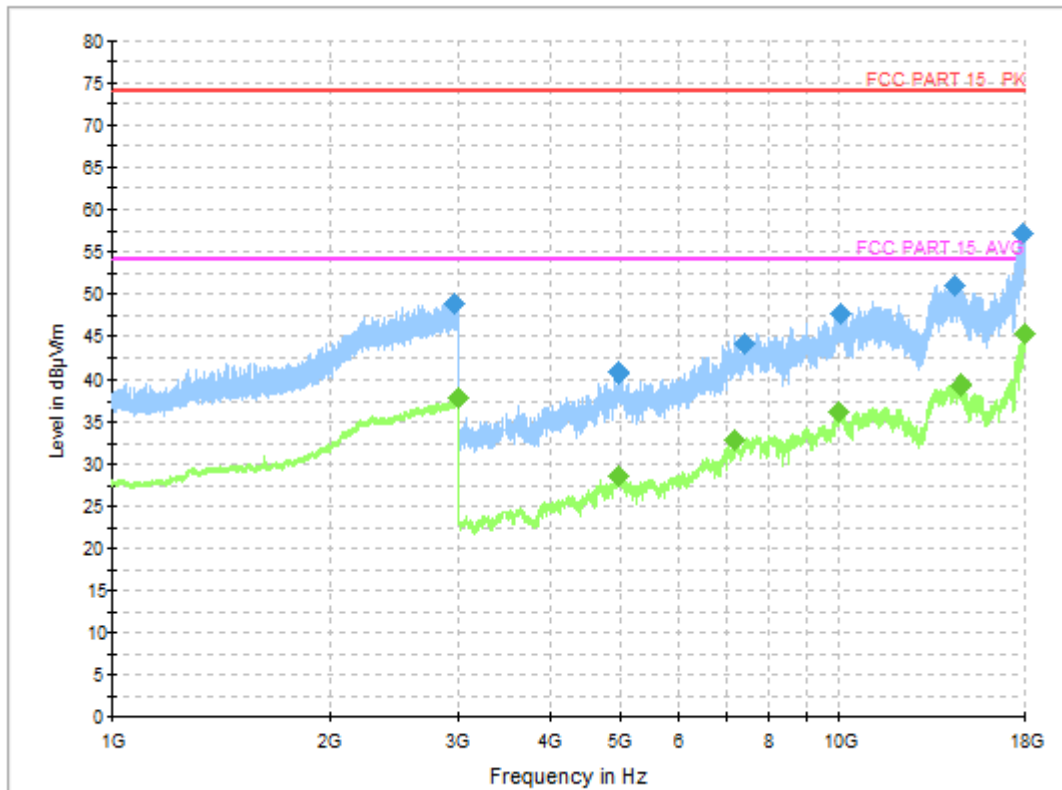




**Figure A.7 Radiated Emission (Set.1, Charging and LTE Band 12 idle, 30MHz to 1GHz)**

**Final\_Result**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
30.727500	30.3	40.0	9.7	V	-20.5	50.80
41.058000	18.9	40.0	21.10	V	-18.5	37.40
104.787000	15.2	43.5	28.3	H	-21.4	36.6
145.721000	16.0	43.5	27.50	V	-18.4	34.40
367.948000	16.2	46.0	29.8	V	-15.3	31.5
538.910500	20.2	46.0	25.80	H	-10.7	30.90



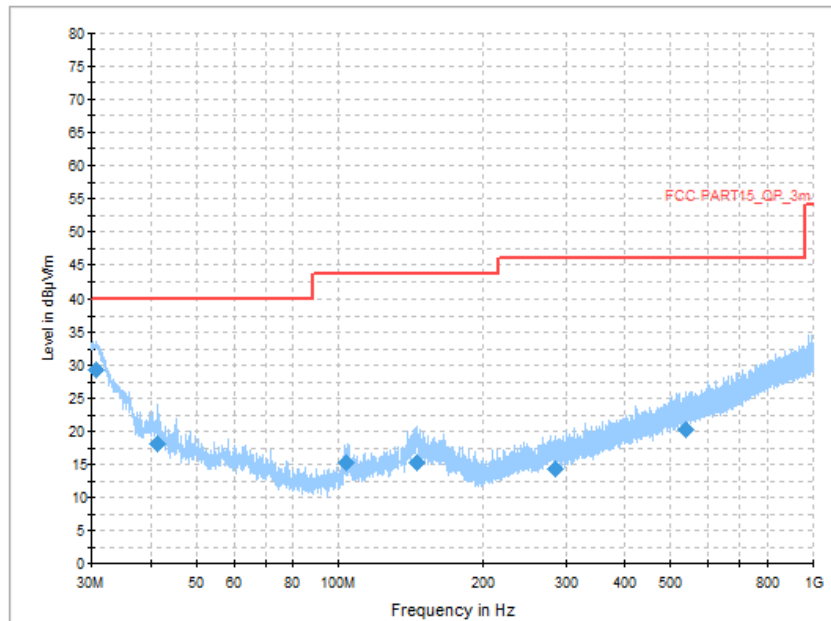
**Figure A.8 Radiated Emission (Set.1, Charging and LTE Band 12 idle , 1GHz to 18GHz)**

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2964.400000	48.9	74	25.1	H	10.9	38.00
4960.000000	40.7	74	33.3	H	-6.9	47.6
7389.600000	44.1	74	29.9	H	-0.4	44.5
10011.200000	47.5	74	26.5	H	2.2	45.3
14411.000000	51.1	74	22.9	H	7.0	44.1
17865.200000	57.2	74	16.80	V	14.0	43.20

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2999.400000	37.9	54	16.10	H	11.0	26.9
4944.800000	28.5	54	25.50	H	-7.0	35.50
7160.000000	32.8	54	21.20	V	-1.2	34.00
9964.000000	36.1	54	17.90	H	2.3	33.8
14660.000000	39.2	54	14.80	V	6.9	32.3
17958.800000	45.3	54	8.70	H	15.0	30.3



**Figure A.9 Radiated Emission (Set.1, Charging and LTE Band 14 idle, 30MHz to 1GHz)**

**Final\_Result**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
30.630500	29.3	40.0	10.70	V	-20.5	49.80
41.349000	18.0	40.0	22.00	V	-18.5	36.5
103.477500	15.2	43.5	28.30	H	-21.6	36.80
144.702500	15.2	43.5	28.3	V	-18.4	33.6
285.110000	14.2	46.0	31.8	V	-17.4	31.6
538.377000	20.1	46.0	25.90	V	-10.7	30.80

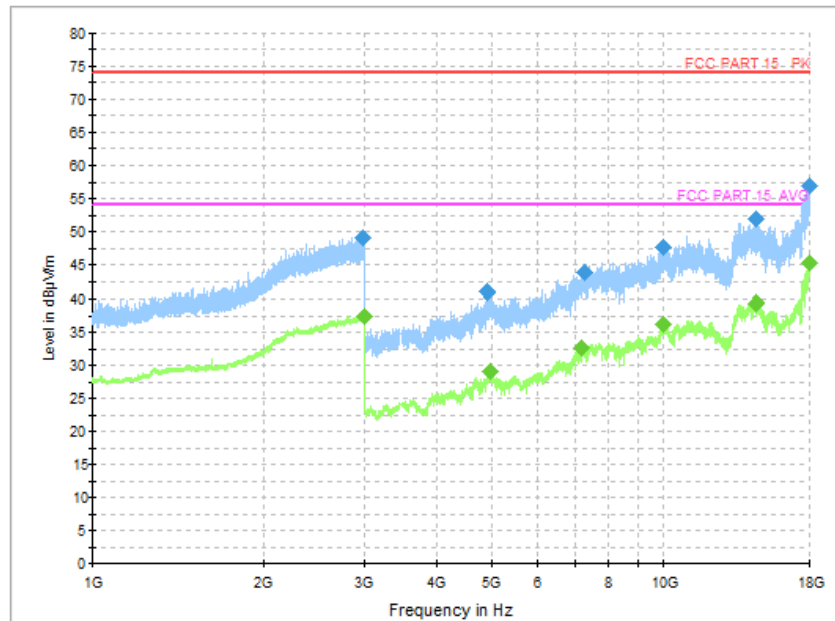


Figure A.10 Radiated Emission (Set.1, Charging and LTE Band 14 idle,, 1GHz to 18GHz)

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2981.000000	49.0	74	25.00	H	10.9	38.10
4902.400000	41.0	74	33	H	-7.3	48.3
7235.200000	43.8	74	30.20	H	-0.9	44.70
9967.200000	47.5	74	26.5	H	2.3	45.2
14495.500000	51.8	74	22.2	V	7.0	44.8
17963.200000	57.0	74	17.00	V	15.1	41.90

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2997.000000	37.5	54	16.50	H	11.0	26.50
4946.400000	29.0	54	25	V	-7.0	36
7155.200000	32.6	54	21.40	V	-1.3	33.90
9971.200000	36.2	54	17.8	H	2.3	33.9
14538.500000	39.2	54	14.8	V	7.0	32.2
17958.000000	45.4	54	8.60	V	15.0	30.40

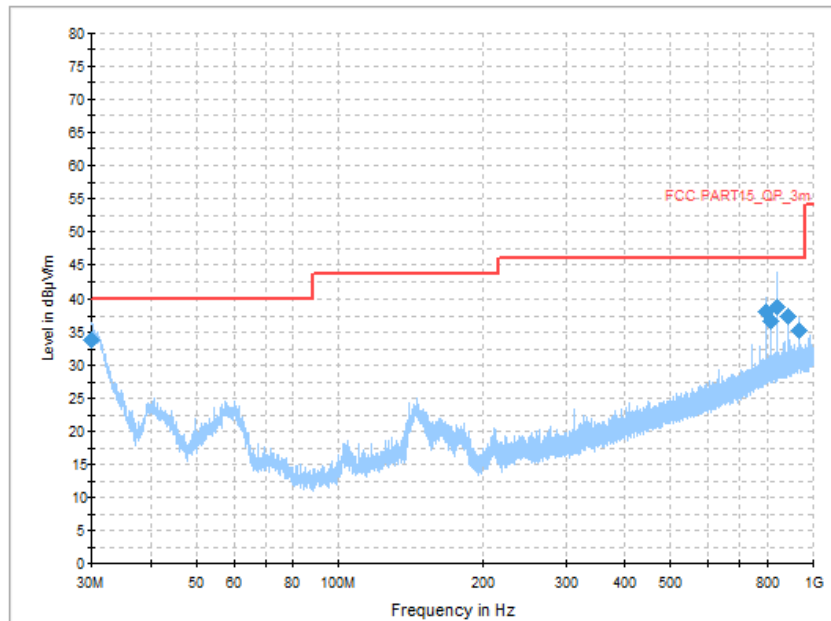


Figure A.11 Radiated Emission (Set.1, Camera Mode, 30MHz to 1GHz)

Final\_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
30.048500	33.8	40.0	6.20	V	-20.6	54.40
792.032000	38.2	46.0	7.8	H	-5.6	43.8
815.991000	36.6	46.0	9.40	H	-5.2	41.80
840.047000	38.9	46.0	7.10	H	-4.9	43.80
888.013500	37.3	46.0	8.7	H	-4.4	41.7
936.028500	35.2	46.0	10.80	H	-3.9	39.10

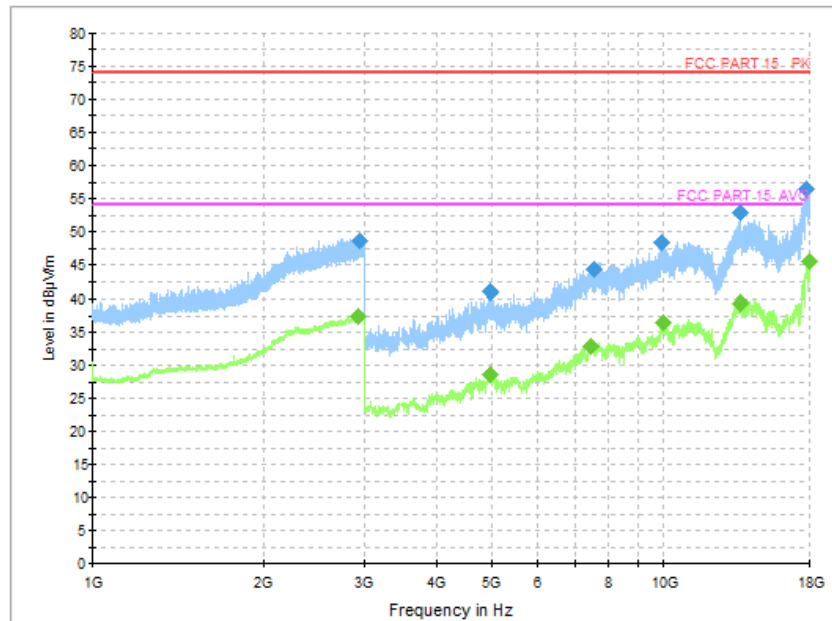


Figure A.12 Radiated Emission (Set.1, Camera Mode , 1GHz to 18GHz)

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2947.600000	48.7	74	25.30	H	10.7	38.00
4956.800000	41.0	74	33	V	-6.9	47.9
7560.000000	44.3	74	29.70	V	-0.8	45.10
9924.800000	48.3	74	25.70	H	2.2	46.10
13590.000000	52.8	74	21.2	V	6.9	45.9
17818.400000	56.5	74	17.50	V	13.5	43.00

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2932.400000	37.4	54	16.60	H	10.8	26.60
4946.400000	28.6	54	25.4	V	-7.0	35.6
7467.200000	33.0	54	21.00	V	-0.7	33.70
9952.800000	36.3	54	17.70	V	2.4	33.90
13577.000000	39.2	54	14.8	V	6.9	32.3
17999.200000	45.4	54	8.60	V	15.5	29.90

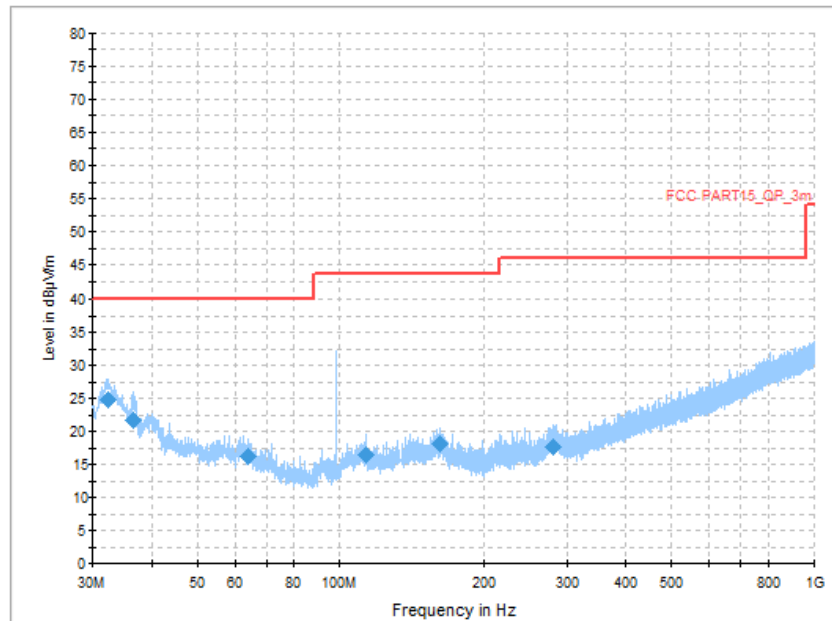


Figure A.13 Radiated Emission (Set.2,FM Mode, 30MHz to 1GHz)

Final\_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
32.376500	24.8	40.0	15.20	V	-20.3	45.10
36.693000	21.6	40.0	18.40	V	-19.4	41
64.241000	16.3	40.0	23.70	V	-20.0	36.30
113.274500	16.3	43.5	27.20	V	-20.5	36.80
161.338000	18.1	43.5	25.4	V	-18.4	36.5
280.454000	17.6	46.0	28.40	H	-17.3	34.90

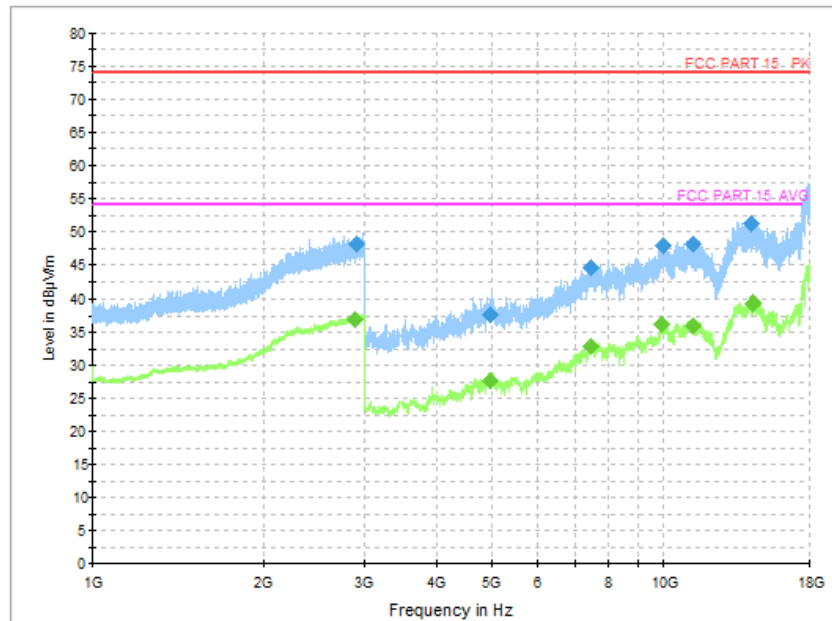


Figure A.14 Radiated Emission (Set.2, FM Mode , 1GHz to 18GHz)

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2903.200000	48.1	74	25.90	V	10.5	37.60
4958.400000	37.5	74	36.50	V	-6.9	44.4
7435.200000	44.6	74	29.40	V	-0.6	45.20
9951.200000	47.7	74	26.30	V	2.4	45.30
11232.000000	48.2	74	25.8	V	3.1	45.1
14192.500000	51.1	74	22.90	H	7.1	44.00

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2886.800000	37.0	54	17.00	V	10.6	26.40
4962.400000	27.6	54	26.40	H	-6.9	34.5
7435.200000	32.8	54	21.20	V	-0.6	33.40
9916.000000	36.1	54	17.90	V	2.1	34.00
11265.000000	36.0	54	18	H	3.1	32.9
14286.500000	39.2	54	14.80	V	7.1	32.10



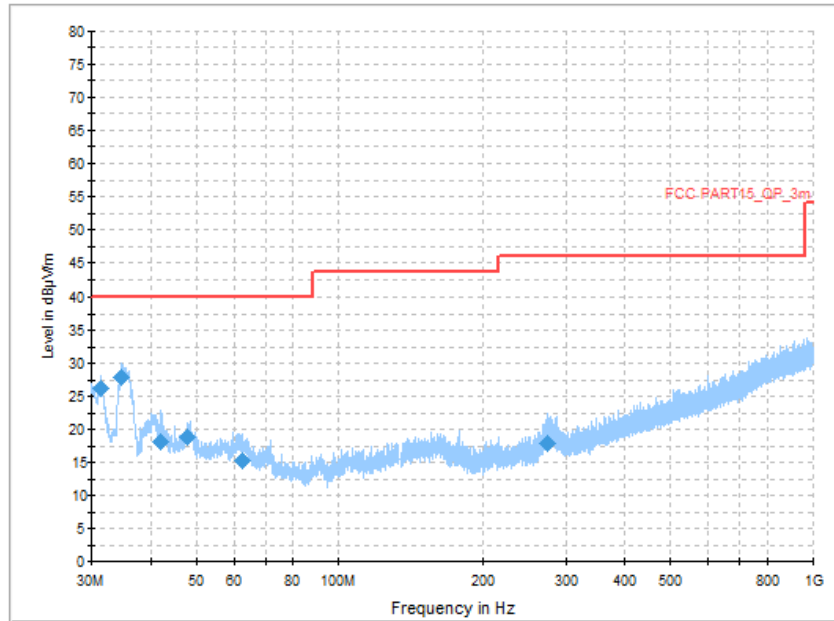
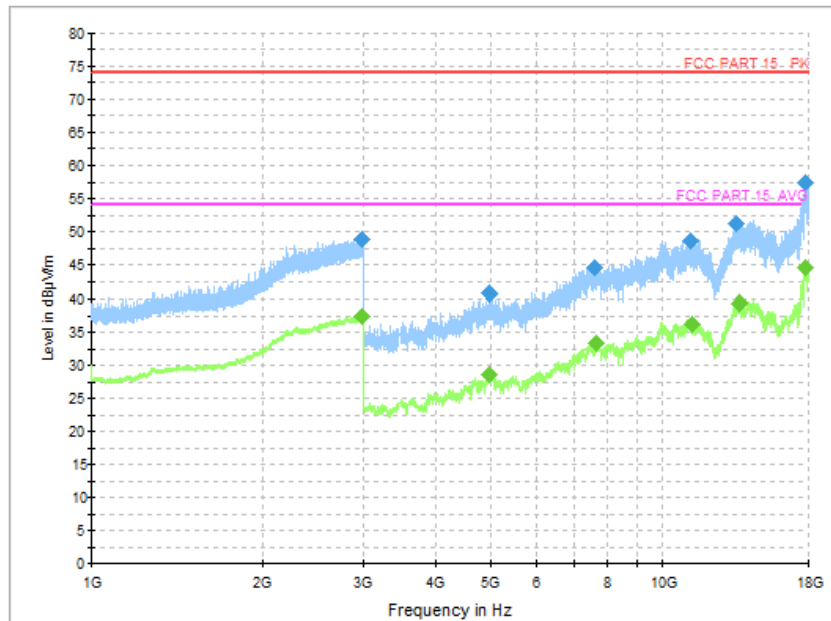


Figure A.15 Radiated Emission (Set.1,Video Player Mode, 30MHz to 1GHz)

Final\_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
31.455000	26.2	40.0	13.80	V	-20.4	46.60
34.753000	27.8	40.0	12.20	V	-19.9	47.7
42.076500	18.2	40.0	21.80	V	-18.5	36.70
47.848000	18.8	40.0	21.20	V	-18.7	37.50
62.446500	15.3	40.0	24.7	V	-19.7	35
274.925000	18.0	46.0	28.00	H	-17.7	35.70


**Figure A.16 Radiated Emission (Set.1, Video Player Mode, 1GHz to 18GHz)**
**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2976.200000	48.9	74	25.10	H	11.0	37.90
4947.200000	40.8	74	33.20	V	-7.0	47.8
7603.200000	44.6	74	29.40	V	-0.7	45.30
11158.000000	48.5	74	25.50	V	3.0	45.50
13443.500000	51.2	74	22.8	H	7.0	44.2
17818.400000	57.4	74	16.60	H	13.5	43.90

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2976.600000	37.4	54	16.60	V	11.0	26.40
4942.400000	28.6	54	25.40	H	-7.0	35.6
7654.400000	33.3	54	20.70	V	-0.5	33.80
11279.000000	36.2	54	17.80	H	3.1	33.10
13573.500000	39.2	54	14.8	H	6.9	32.3
17814.400000	44.6	54	9.40	H	13.4	31.20

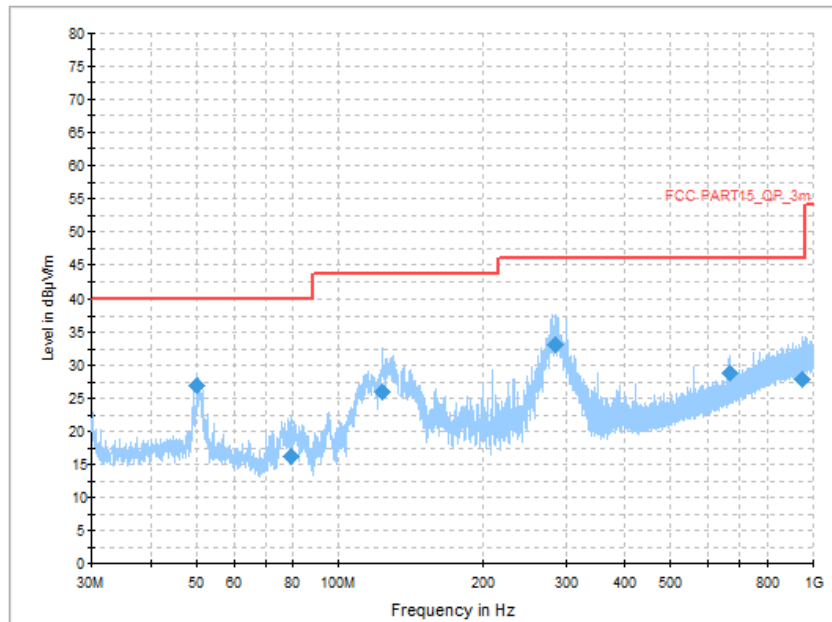


Figure A.17 Radiated Emission (Set.3, Data Transfer Mode: EUT to PC, 30MHz to 1GHz)

**Final\_Result**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
50.030500	27.0	40.0	13.00	V	-18.7	45.70
79.615500	16.2	40.0	23.80	V	-22.7	38.9
123.896000	26.0	43.5	17.50	V	-19.6	45.60
284.528000	33.1	46.0	12.90	H	-17.4	50.50
666.465500	28.9	46.0	17.1	H	-8.3	37.2
948.590000	27.9	46.0	18.10	H	-3.9	31.80

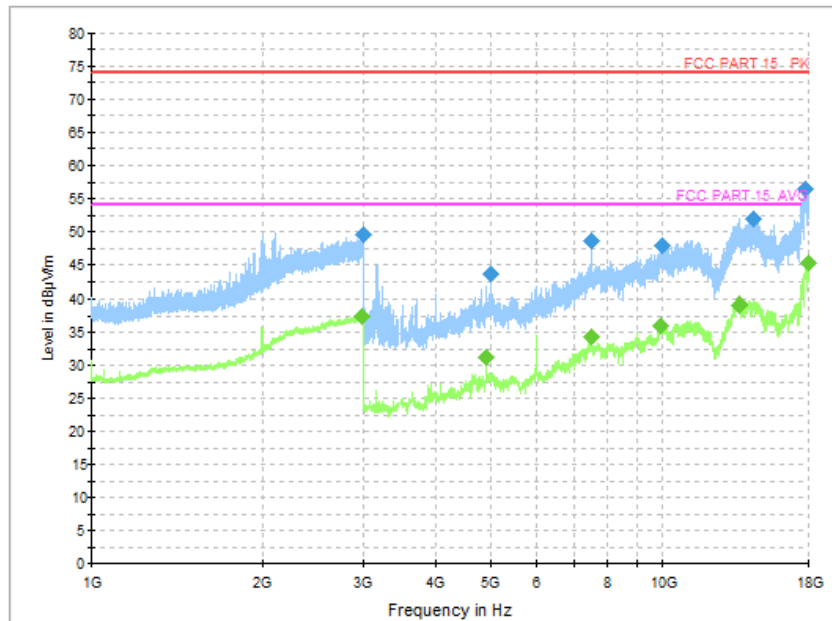


Figure A.18 Radiated Emission (Set.3, Data Transfer Mode: EUT to PC, 1GHz to 18GHz)

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2992.600000	49.6	74	24.40	H	10.9	38.70
4982.400000	43.6	74	30.40	V	-6.9	50.5
7483.200000	48.6	74	25.40	H	-0.7	49.30
9966.400000	47.8	74	26.20	V	2.3	45.50
14386.500000	51.9	74	22.1	V	7.1	44.8
17791.600000	56.4	74	17.60	H	13.2	43.20

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2987.000000	37.3	54	16.70	V	10.9	26.40
4884.800000	31.1	54	22.90	H	-7.4	38.5
7483.200000	34.3	54	19.70	H	-0.7	35.00
9910.400000	36.0	54	18.00	H	2.0	34.00
13574.000000	39.2	54	14.8	V	6.9	32.3
17999.200000	45.3	54	8.70	V	15.5	29.80

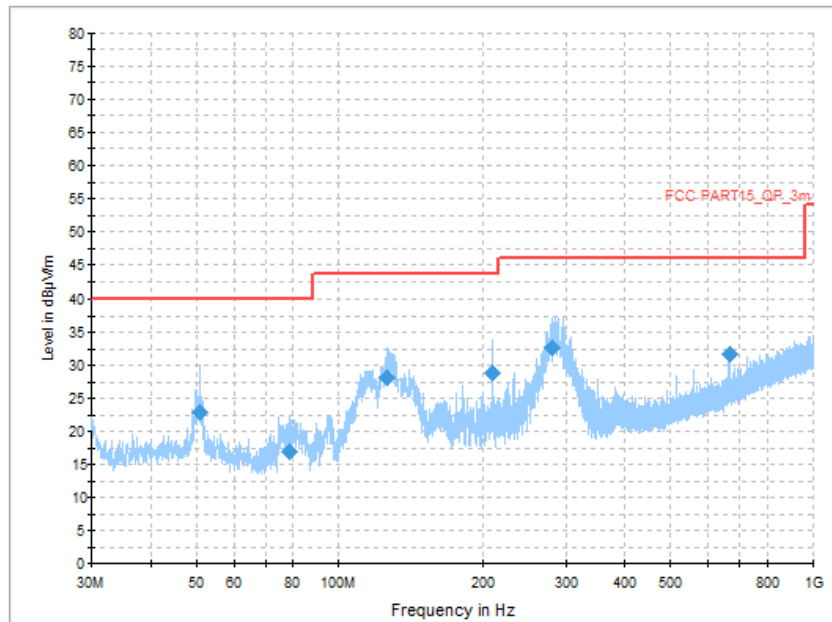


Figure A.19 Radiated Emission (Set.3, Data Transfer Mode: PC to EUT, 30MHz to 1GHz)

**Final\_Result**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	PMea (dBµV)
50.855000	23.0	40.0	17.00	V	-18.8	41.80
78.791000	17.0	40.0	23.00	V	-22.5	39.5
127.000000	28.2	43.5	15.30	V	-19.3	47.50
209.935000	28.8	43.5	14.70	H	-20.7	49.50
279.920500	32.6	46.0	13.4	H	-17.3	49.9
666.465500	31.6	46.0	13.4	H	-8.3	49.9

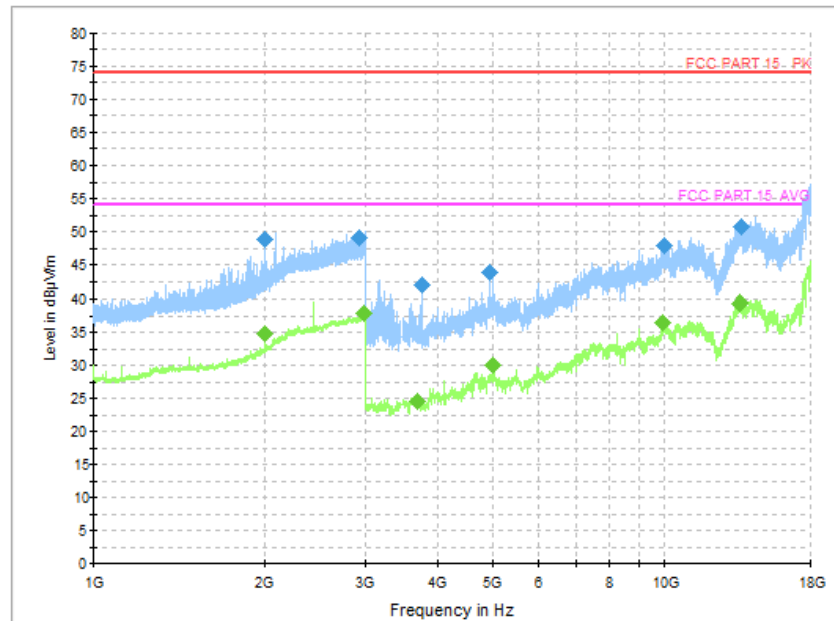


Figure A.20 Radiated Emission (Set.3, Data Transfer Mode: PC to EUT, 1GHz to 18GHz)

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
1995.200000	48.9	74	25.10	V	6.6	42.30
2928.800000	49.1	74	24.90	H	10.8	38.3
3737.600000	41.8	74	32.20	V	-12.4	54.20
4927.200000	43.7	74	30.30	H	-7.1	50.80
9964.000000	47.9	74	26.1	H	2.3	45.6
13625.500000	50.7	74	23.30	V	6.9	43.80

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
1994.600000	34.8	54	19.20	V	6.6	28.20
2974.800000	37.8	54	16.20	H	11.0	26.8
3668.800000	24.6	54	29.40	V	-12.1	36.70
4979.200000	30.0	54	24.00	V	-6.9	36.90
9925.600000	36.5	54	17.5	V	2.2	34.3
13523.500000	39.4	54	14.60	H	6.9	32.50

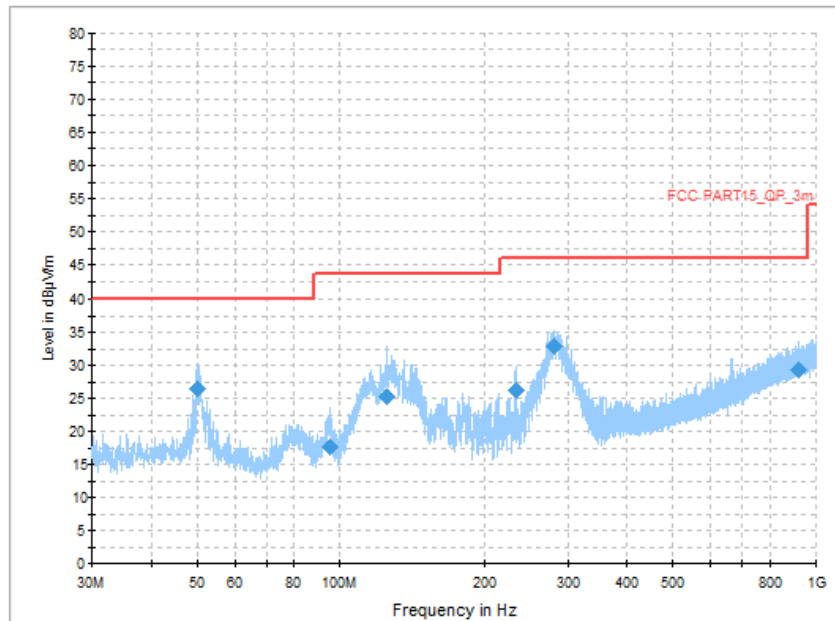


Figure A.21 Radiated Emission (Set.3, Data Transfer Mode: PC to TF Card, 30MHz to 1GHz)

**Final\_Result**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
50.079000	26.4	40.0	13.60	V	-18.7	45.10
95.281000	17.7	43.5	25.80	V	-22.3	40
125.593500	25.3	43.5	18.20	V	-19.4	44.70
233.215000	26.1	46.0	19.90	H	-19.3	45.40
279.969000	32.9	46.0	13.1	H	-17.3	50.2
917.792500	29.3	46.0	16.70	H	-4.1	33.40

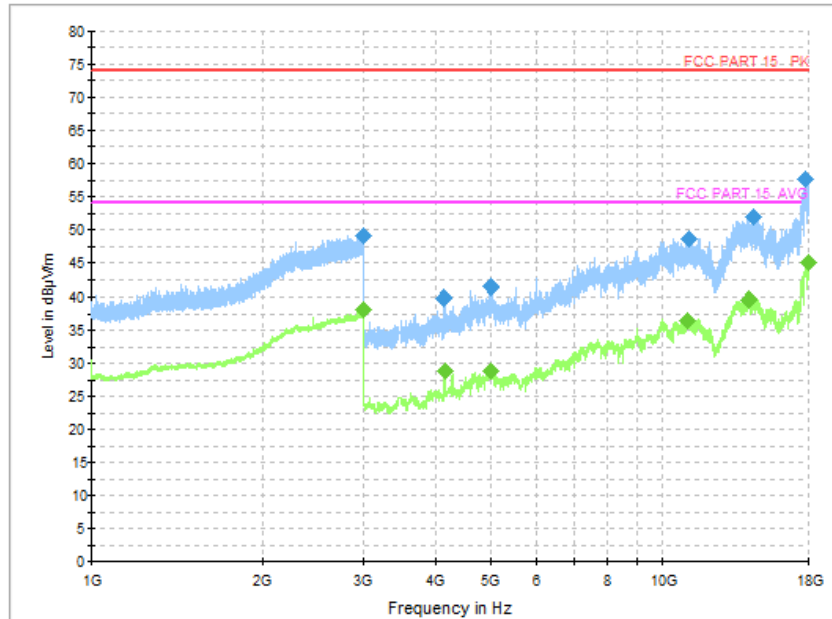


Figure A.22 Radiated Emission (Set.3, Data Transfer Mode: PC to TF Card, 1GHz to 18GHz)

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	PMea (dBµV)
2998.200000	48.9	74	25.10	V	11.0	37.90
4135.200000	39.8	74	34.20	V	-10.4	50.2
4984.800000	41.5	74	32.50	V	-6.9	48.40
11102.000000	48.5	74	25.50	H	2.9	45.60
14399.500000	52.0	74	22	V	7.1	44.9
17822.400000	57.5	74	16.50	H	13.5	44.00

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2999.800000	38.0	54	16.00	H	11.0	27.00
4136.800000	28.8	54	25.20	V	-10.4	39.2
4982.400000	28.7	54	25.30	V	-6.9	35.60
11056.000000	36.5	54	17.50	V	2.8	33.70
14139.000000	39.6	54	14.4	H	7.0	32.6
17987.200000	44.9	54	9.10	H	15.4	29.50



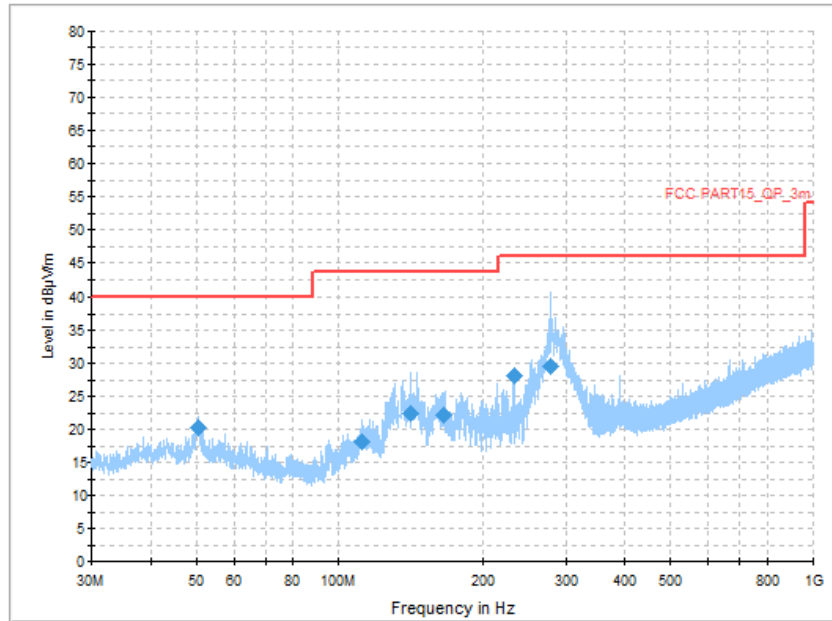


Figure A.23 Radiated Emission (Set.3, Data Transfer Mode: TF Card to PC, 30MHz to 1GHz)

**Final\_Result**

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
50.321500	20.3	40.0	19.70	H	-18.7	39.00
112.110500	18.0	43.5	25.50	H	-20.7	38.7
140.628500	22.4	43.5	21.10	H	-18.4	40.80
165.751500	22.1	43.5	21.40	V	-18.8	40.90
233.215000	28.2	46.0	17.8	H	-19.3	47.5
278.223000	29.6	46.0	16.40	H	-17.4	47.00

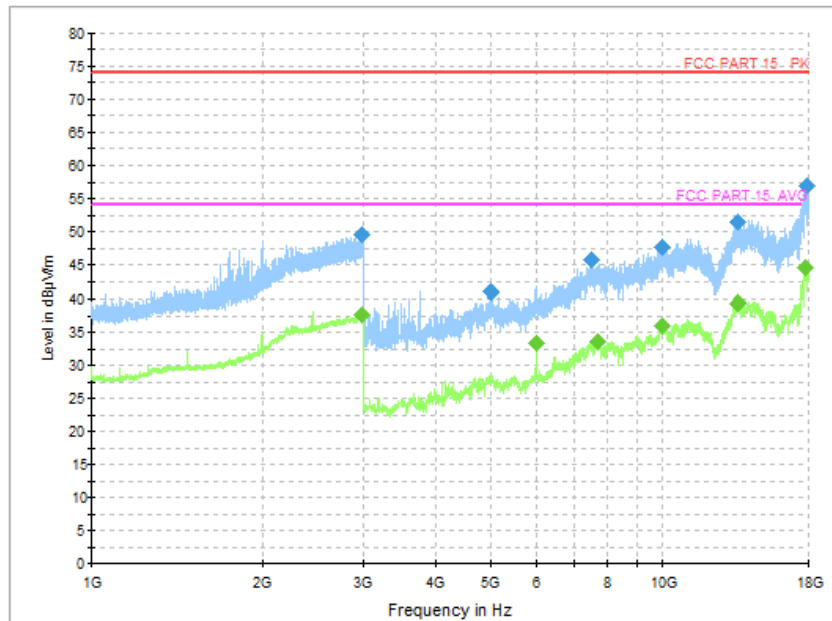


Figure A.24 Radiated Emission (Set.3, Data Transfer Mode: TF Card to PC, 1GHz to 18GHz)

**Final\_Results\_PK**

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2981.000000	49.5	74	24.50	V	10.9	38.60
4999.200000	40.8	74	33.20	V	-7.0	47.8
7484.000000	45.8	74	28.20	V	-0.7	46.50
9984.000000	47.6	74	26.40	V	2.3	45.30
13496.500000	51.5	74	22.5	V	7.0	44.5
17836.800000	56.8	74	17.20	H	13.7	43.10

**Final\_Results\_AVG**

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P <sub>Mea</sub> (dBµV)
2986.800000	37.6	54	16.40	H	10.9	26.70
6000.000000	33.3	54	20.70	H	-5.6	38.90
7688.000000	33.6	54	20.40	V	-0.3	33.90
9972.000000	36.0	54	18.00	V	2.3	33.70
13525.500000	39.4	54	14.6	H	6.9	32.5
17814.400000	44.4	54	9.60	V	13.4	31.00

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

FCC: CFR Part 15.107(a)

**B.2.1 Method of measurement**

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

**B.2.2 EUT Operating Mode:**

**FM Mode:** The EUT is connected to a charger for charging and open FM function.

**Camera Mode:** 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.

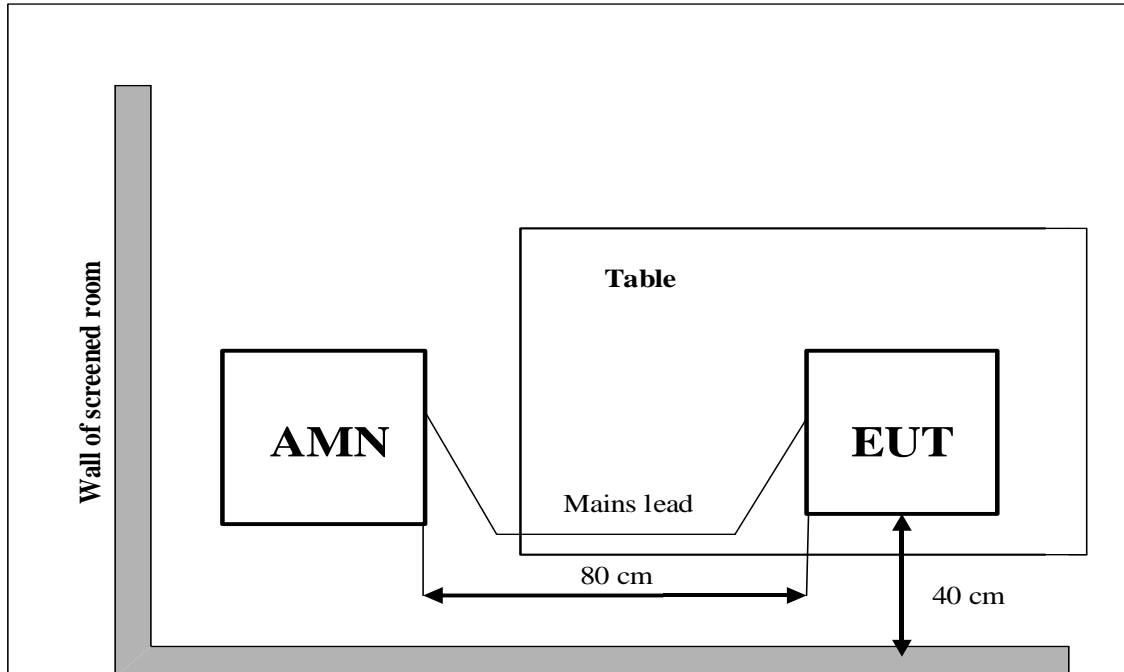
**Video Player Mode:** The EUT is connected to a charger for charging and keeping on playing mp3.

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

**B.2.3 Measurement Limit**

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

\*Decreases with the logarithm of the frequency

**B.2.4 Test set-up:**

**B.2.5 Test Condition in charging mode**

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

RBW	Sweep Time(s)
9kHz	1

**B.2.6 Measurement Results**

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

Where

Corr: PathLoss + Voltage Division Factor

PMea: Measurement result on receiver.

Camera Mode

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)	Conclusion
			Set.1	
0.15 to 0.5	66 to 56	56 to 46	See Figure B.1	P
0.5 to 5	56	46		
5 to 30	60	50		

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

**Video Player Mode**

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)	Conclusion
			Set.1	
0.15 to 0.5	66 to 56	56 to 46	See Figure B.2	P
0.5 to 5	56	46		
5 to 30	60	50		

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

**FM Mode**

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)	Conclusion
			Set.2	
0.15 to 0.5	66 to 56	56 to 46	See Figure B.3	P
0.5 to 5	56	46		
5 to 30	60	50		

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

**Data Transfer Mode**

AC Input Port/ Voltage: 120V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)	Conclusion
			Set.3	
0.15 to 0.5	66 to 56	56 to 46	See Figure B.4	P
0.5 to 5	56	46		
5 to 30	60	50		

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

**Camera Mode**

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)	Conclusion
			Set.1	
0.15 to 0.5	66 to 56	56 to 46	See Figure B.5	P
0.5 to 5	56	46		
5 to 30	60	50		

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

**Video Player Mode**

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)	Conclusion
			Set.1	
0.15 to 0.5	66 to 56	56 to 46	See Figure B.6	P
0.5 to 5	56	46		
5 to 30	60	50		

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

**FM Mode**

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)	Conclusion
			Set.2	
0.15 to 0.5	66 to 56	56 to 46	See Figure B.7	P
0.5 to 5	56	46		
5 to 30	60	50		

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

**Data Transfer Mode**

AC Input Port/ Voltage: 240V/60Hz

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)	Conclusion
			Set.3	
0.15 to 0.5	66 to 56	56 to 46	See Figure B.8	P
0.5 to 5	56	46		
5 to 30	60	50		

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

AC Input Port/ Voltage: 120V/60Hz

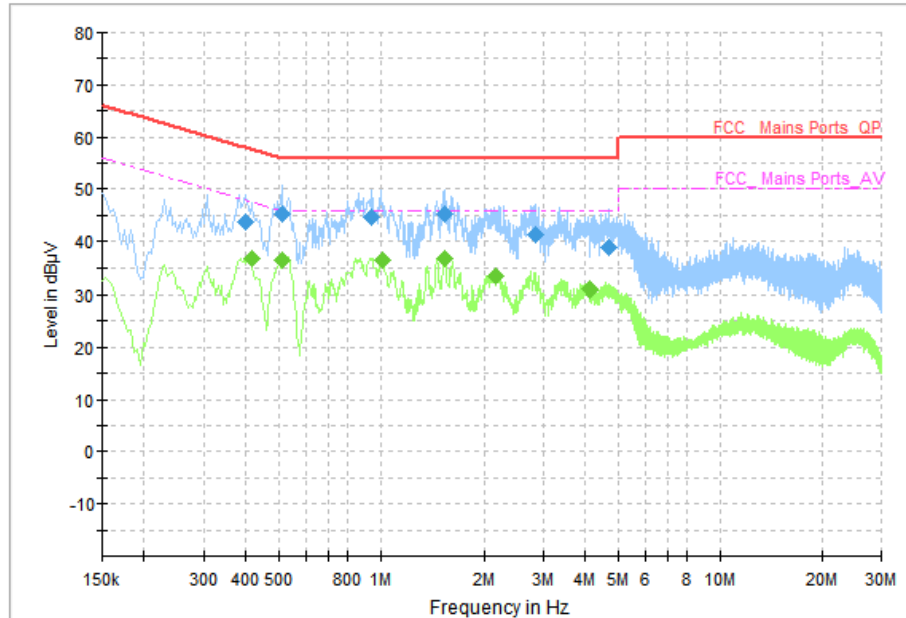


Figure B.1 Conducted Emission(Set.1, Camera Mode)

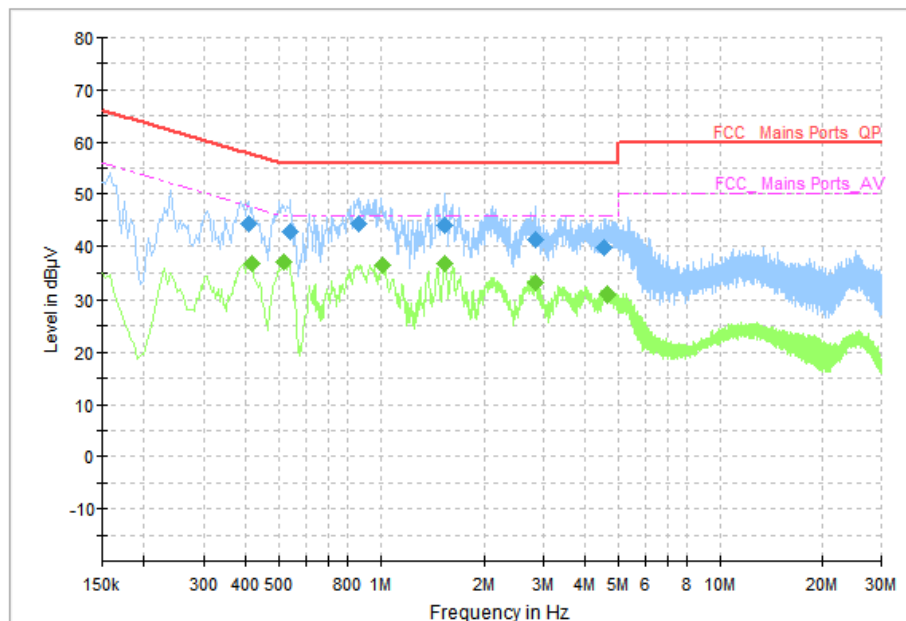
Final\_Result\_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.398000	43.82	57.90	14.07	N	9.6	34.22
0.510000	45.13	56.00	10.87	N	9.7	35.43
0.942000	44.49	56.00	11.51	N	9.7	34.79
1.530000	45.22	56.00	10.78	N	9.7	35.52
2.834000	41.34	56.00	14.66	N	9.7	31.64
4.694000	38.87	56.00	17.13	N	9.7	29.17

Final\_Result\_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.414000	36.71	47.57	10.86	N	9.7	27.01
0.510000	36.51	46.00	9.49	N	9.7	26.81
1.010000	36.40	46.00	9.60	N	9.7	26.70
1.534000	36.78	46.00	9.22	N	9.7	27.08
2.178000	33.40	46.00	12.60	N	9.7	23.7
4.134000	30.86	46.00	15.14	N	9.7	21.16

AC Input Port/ Voltage: 120V/60Hz


**Figure B.2 Conducted Emission(Set.1, Video Player Mode)**
**Final\_Result\_QPK**

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.406000	44.33	57.73	13.40	N	9.7	34.63
0.542000	42.86	56.00	13.14	N	9.7	33.16
0.866000	44.27	56.00	11.73	N	9.7	34.57
1.538000	44.05	56.00	11.95	N	9.7	34.35
2.838000	41.42	56.00	14.58	N	9.7	31.72
4.522000	39.63	56.00	16.37	N	9.7	29.93

**Final\_Result\_AVG**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.414000	36.60	47.57	10.96	N	9.7	26.90
0.518000	36.95	46.00	9.05	N	9.7	27.25
1.010000	36.45	46.00	9.55	N	9.7	26.75
1.534000	36.80	46.00	9.20	N	9.7	27.10
2.838000	33.14	46.00	12.86	N	9.7	23.44
4.622000	30.96	46.00	15.04	N	9.7	21.26



AC Input Port/ Voltage: 120V/60Hz

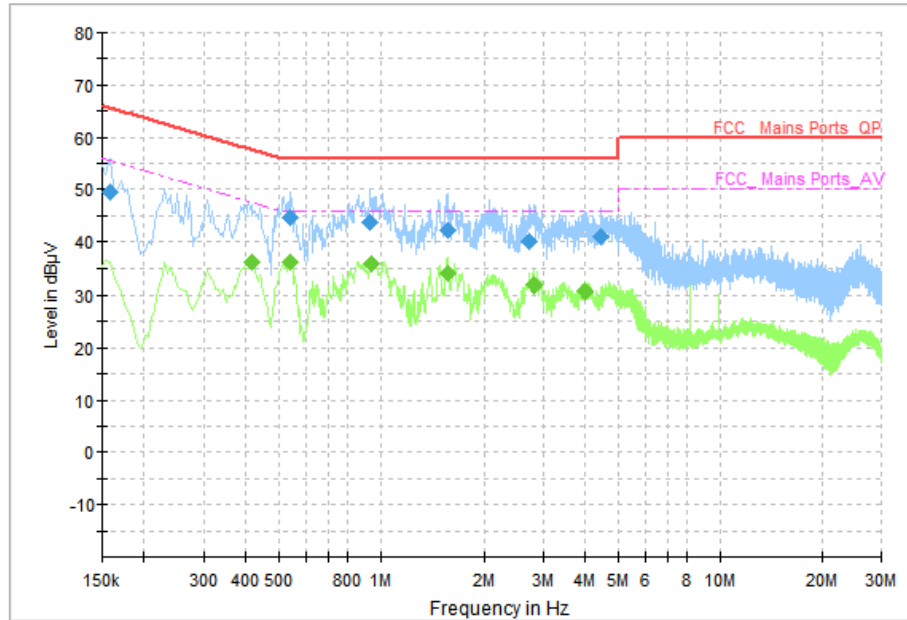


Figure B.3 Conducted Emission(Set.2, FM Mode)

Final\_Result\_QPK

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.158000	49.64	65.57	15.93	N	9.6	40.04
0.542000	44.52	56.00	11.48	N	9.7	34.82
0.934000	43.74	56.00	12.26	N	9.7	34.04
1.558000	42.10	56.00	13.90	N	9.7	32.40
2.722000	40.18	56.00	15.82	N	9.7	30.48
4.434000	32.87	56.00	23.13	L1	9.8	23.07

Final\_Result\_AVG

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.414000	35.99	47.57	11.58	N	9.7	26.29
0.542000	36.13	46.00	9.87	N	9.7	26.43
0.942000	35.84	46.00	10.16	N	9.7	26.14
1.558000	33.89	46.00	12.11	N	9.7	24.19
2.806000	31.78	46.00	14.22	N	9.7	22.08
3.994000	30.74	46.00	15.26	N	9.7	21.04

AC Input Port/ Voltage: 120V/60Hz

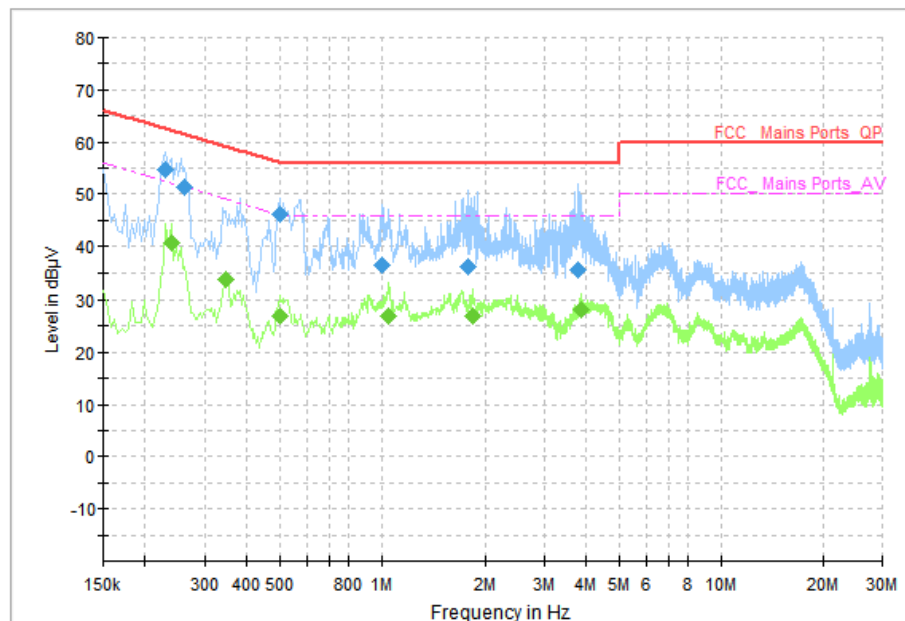


Figure B.4 Conducted Emission(Set.5, Data Transfer Mode)

**Final\_Result\_QPK**

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.230000	54.84	62.45	7.61	L1	9.7	45.14
0.262000	51.33	61.37	10.04	N	9.6	41.73
0.498000	46.18	56.03	9.85	N	9.7	36.48
0.998000	36.48	56.00	19.52	N	9.7	26.78
1.790000	36.24	56.00	19.76	N	9.7	26.54
3.786000	35.36	56.00	20.64	N	9.7	25.66

**Final\_Result\_AVG**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.238000	40.76	52.17	11.41	L1	9.7	31.06
0.346000	33.58	49.06	15.48	L1	9.7	23.88
0.498000	26.81	46.03	19.22	N	9.7	17.11
1.050000	26.94	46.00	19.06	N	9.7	17.24
1.846000	27.09	46.00	18.91	N	9.7	17.39
3.874000	28.28	46.00	17.72	L1	9.7	18.58

AC Input Port/ Voltage: 240V/60Hz

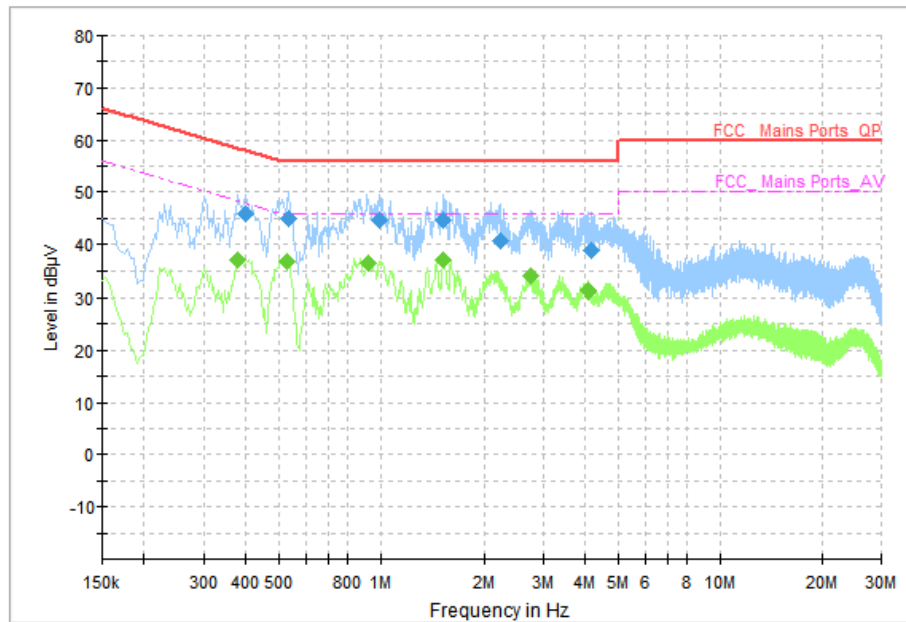


Figure B.5 Conducted Emission(Set.1, Camera Mode)

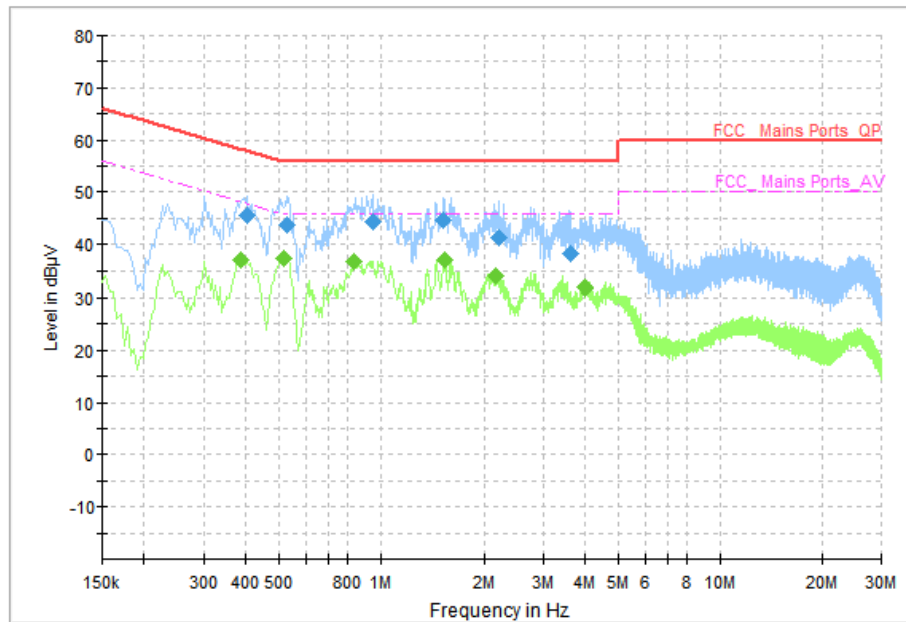
**Final\_Result\_QPK**

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.398000	45.94	57.90	11.96	N	9.7	36.24
0.534000	44.84	56.00	11.16	N	9.7	35.14
0.990000	44.78	56.00	11.22	N	9.7	35.08
1.518000	44.64	56.00	11.36	N	9.7	34.94
2.246000	40.53	56.00	15.47	N	9.8	30.73
4.142000	38.97	56.00	17.03	N	10.2	28.77

**Final\_Result\_AVG**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.378000	37.15	48.32	11.18	N	9.7	27.45
0.526000	36.68	46.00	9.32	N	9.7	26.98
0.918000	36.53	46.00	9.47	N	9.7	26.83
1.518000	36.91	46.00	9.09	N	9.7	27.21
2.750000	33.96	46.00	12.04	N	9.7	24.26
4.074000	31.29	46.00	14.71	N	9.7	21.59

AC Input Port/ Voltage: 240V/60Hz

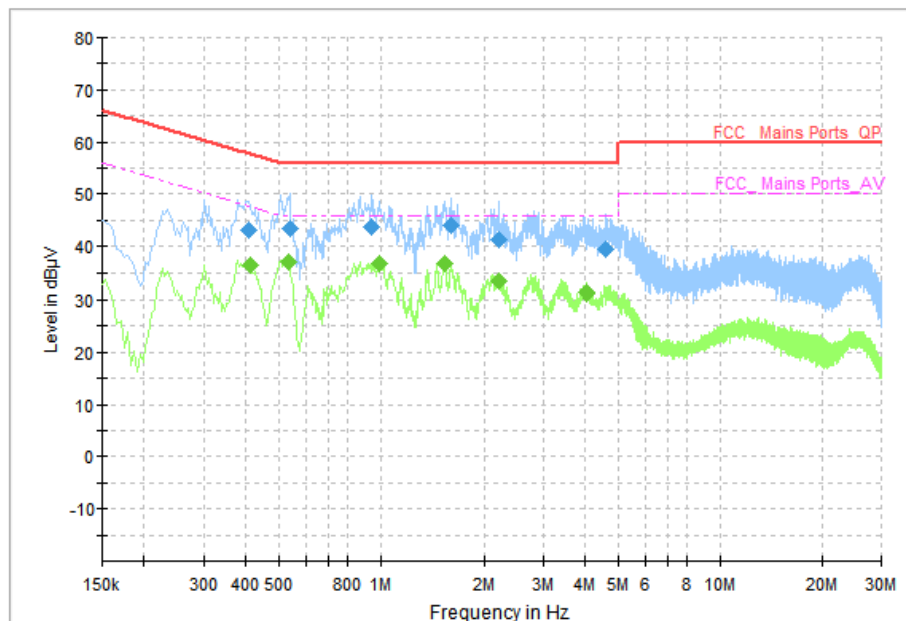

**Figure B.6 Conducted Emission(Set.1, Video Player Mode)**
**Final\_Result\_QPK**

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.402000	45.54	57.81	12.27	N	9.6	35.94
0.526000	43.76	56.00	12.24	N	9.7	34.06
0.946000	44.32	56.00	11.68	N	9.7	34.62
1.518000	44.68	56.00	11.32	N	9.7	34.98
2.214000	41.39	56.00	14.61	N	9.7	31.69
3.606000	38.37	56.00	17.63	N	9.7	28.67

**Final\_Result\_AVG**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.386000	37.00	48.15	11.15	N	9.6	27.40
0.518000	37.44	46.00	8.56	N	9.7	27.74
0.838000	36.83	46.00	9.17	N	9.7	27.13
1.526000	37.16	46.00	8.84	N	9.7	27.46
2.178000	33.90	46.00	12.10	N	9.7	24.2
3.994000	31.69	46.00	14.31	N	9.7	21.99

AC Input Port/ Voltage: 240V/60Hz

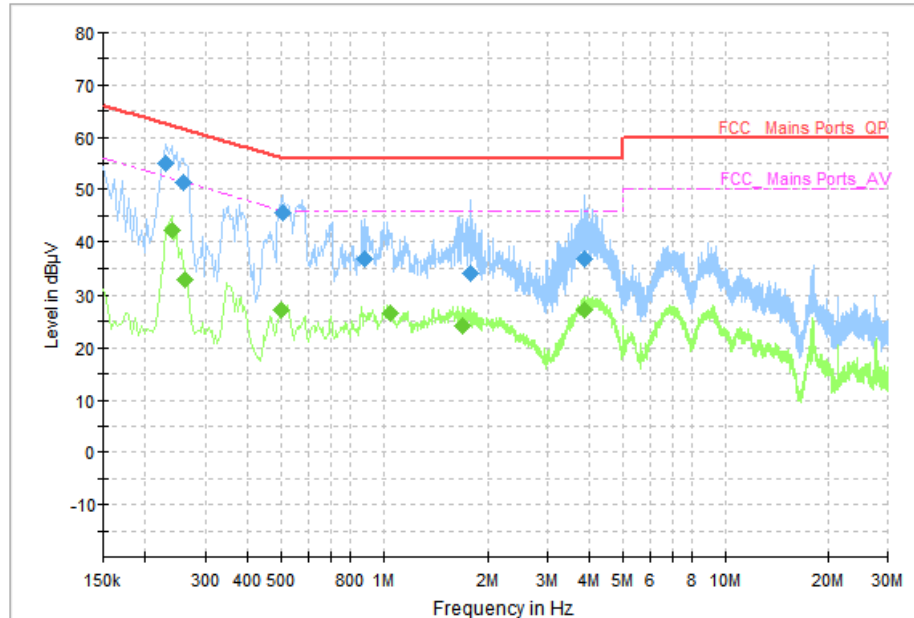

**Figure B.7 Conducted Emission(Set.2, FM Mode)**
**Final\_Result\_QPK**

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.406000	43.24	57.73	14.49	N	9.7	33.54
0.538000	43.49	56.00	12.51	N	9.7	33.79
0.938000	43.74	56.00	12.26	N	9.7	34.04
1.598000	43.97	56.00	12.03	N	9.7	34.27
2.210000	41.38	56.00	14.62	N	9.7	31.68
4.586000	39.57	56.00	16.43	N	9.7	29.87

**Final\_Result\_AVG**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.410000	36.44	47.65	11.21	N	9.7	26.74
0.534000	37.14	46.00	8.86	N	9.7	27.44
0.994000	36.60	46.00	9.40	N	9.7	26.90
1.530000	36.69	46.00	9.31	N	9.7	26.99
2.210000	33.34	46.00	12.66	N	9.7	23.64
4.018000	31.37	46.00	14.63	N	9.7	21.67

AC Input Port/ Voltage: 240V/60Hz


**Figure B.8 Conducted Emission(Set.3, Data Transfer Mode)**
**Final\_Result\_QPK**

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.230000	54.92	62.45	7.53	L1	9.6	45.32
0.258000	51.49	61.50	10.01	N	9.6	41.89
0.506000	45.65	56.00	10.35	N	9.7	35.95
0.882000	36.67	56.00	19.33	N	9.7	26.97
1.774000	34.03	56.00	21.97	L1	9.7	24.33
3.838000	36.67	56.00	19.33	L1	9.7	26.97

**Final\_Result\_AVG**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)	P <sub>Mea</sub> (dBµV)
0.238000	42.21	52.17	9.95	L1	9.7	32.51
0.262000	32.89	51.37	18.48	L1	9.7	23.19
0.498000	27.13	46.03	18.90	L1	9.7	17.43
1.046000	26.72	46.00	19.28	L1	9.7	17.02
1.698000	24.33	46.00	21.67	L1	9.7	14.63
3.838000	27.11	46.00	18.89	L1	9.7	17.41

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