TEST REPORT

No.I21N00755-EMC

for

TCL Communication Ltd.

Tablet

Model Name：9317X

With

Hardware Version: PIO

Software Version: AP1

FCC ID: 2ACCJB150

Issued Date: 2021-03-18

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:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21N00755-EMC	Rev.0	1st edition	2021-03-18

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

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CONTENTS

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1. Summary of Test Report

1.1. Test Items

Description	Tablet
Model Name	9317X
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

Pass

Total test 1 items, pass 1 items. Please refer to "6.2 Summary of Measurement Results"

1.4. Testing Location

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

1.5. Project data

Testing Start Date: 2021-03-12 Testing End Date: 2021-03-17

1.6. Signature

Ma Shoujian
(Prepared this test report)

Zhang Yunzhuan
(Reviewed this test report)

Cao Junfei
(Approved this test report)

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2. Client Information

2.1. Applicant Information

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

2.2. Manufacturer Information

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

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

3.1. About EUT

Description	Tablet
Model Name	9317X
FCC ID	2ACCJB150
Antenna Type	Internal Antenna
Condition of EUT as received	No obvious damage in appearance

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

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version	Receive Date
UT01aa	DC9BD6460885	PIO	AP1	2021-03-12
UT05aa	DC9BD6460887	PIO	AP1	2021-03-12

*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

AE1-1

Model	TLp025F7
SN	CAC2580038C7
Manufacturer	Veken
Capacity	2580mAh
Nominal Voltage	3.8V

AE1-2

Model	TLp025FA
SN	CAC2580046CA
Manufacturer	Tianmao
Capacity	2580mAh
Nominal Voltage	3.8V

AE2-1

Model	UC11EU/ CBA0058AAAC7
Manufacturer	CHENYANG

AE2-2

Model	UC11US/CBA0058AGAC7

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Manufacturer	CHENYANG
AE2-3	
Model	UC11UK/CBA0058ABAC7
Manufacturer	CHENYANG
AE2-4	
Model	UC11EU/ CBA0058AAAC5
Manufacturer	PUAN
AE2-5	
Model	UC11US/CBA0058AGAC5
Manufacturer	PUAN
AE2-6	
Model	UC11UK/CBA0058ABAC5
Manufacturer	PUAN
AE3-1	
Model	CDA3122005C1
Manufacturer	JUWEI
AE3-2	
Model	CDA3122005C8
Manufacturer	PUAN

*AE ID and AE Label: is used to identify the test sample in the lab internally.
*AE Label: To distinguish the type and number of AE
AE: ancillary equipment
AE2: The circuit boards of model UC11EU/ CBA0058AAAC7 (AE2-1) and UC11UK/CBA0058ABAC7 (AE2-3) are the same. The circuit boards of model UC11EU/ CBA0058AAAC5 (AE2-4) and UC11UK/CBA0058ABAC5（AE2-6）are the same.

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3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE
Set.1	EUT+AE1-1+AE2-1+AE3-1
Set.2	EUT+AE1-2+AE2-2+AE3-2
Set.3	EUT+AE1-2+AE2-4+AE3-1
Set.4	EUT+AE1-2+AE2-5+AE3-2

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3.5. General Description

The Equipment Under Test (EUT) is a model of Tablet with internal antenna.
It has Camera, Video Player, USB Data Transfer, Bluetooth, and Wi-Fi functions.
It consists of normal options: Battery, Charger and USB Cable.
Samples (EUT+AE) undergoing test were selected by the Client. Relevant information is provided by the Client.
The Tablet 9317X Applicant by TCL Communication Ltd., is a variant model based on 9317G Applicant by TCL Communication Ltd., for conformance test. According to the declaration of differences by manufactured. The table below shows the difference:

Changes	Details
p/l sensor	9317X reduce a p/l sensor
Software Version	Model name change: 9317G change to 9317X

According to the declaration of differences by manufacturer, the following tests need to be performed at the worst mode from the report of the initial model:

No	Test Item	EUT set-up No	Test Mode
1	Radiated Emission	Set.1, Set.2,Set.3, Set.4	Video Player

Other results are cited from the initial report.
The report number for initial model is I21N00294-EMC.

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4. Reference Documents

4.1. Reference Documents for testing

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

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

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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 ℃, Max. = 35℃
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

Fully-anechoic chamber 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,>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

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6. SUMMARY OF TEST RESULTS

6.1. Testing Environment

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

6.2. Summary of Measurement Results

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

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

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.

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7. Measurement uncertainty

Test item	Frequency ranges	Measurement uncertainty
Radiated Emission	30MHz-1GHz	4.84dB(*k*=2)
	1GHz-18GHz	4.68dB(*k*=2)

8. Test Facilities Utilized

NO.	NAME	TYPE	SERIES NUMBER	PRODUCER	CALDUE DATE	CAL PERIOD
1.	Test Receiver	ESR7	101676	R&S	2021.11.25	1 year
2.	Spectrum Analyzer	FSV40	101192	R&S	2022.01.13	1 year
3.	BiLog Antenna	3142E	0224831	ETS-Lindgren	2021.05.17	3 years
4.	Horn Antenna	3117	00066577	ETS-Lindgren	2022.04.02	3 years
5.	Chamber	FACT3-2.0	1285	ETS-Lindgren	2021.07.19	2 years
6.	Software	EMC32	V10.50.40	R&S	/	/

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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:

Video Player: The EUT is connected to a charger for charging and keeping on playing mp3. Meanwhile, the EUT is synchronized to System Simulator (SS), and able to respond to paging messages and incoming call. An established call has been released.

This device does not contain the receivers which tune and operate between 30MHz-960MHz.

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

A.1.3 Measurement Limit

Limit from CFR Part 15.109(a)

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

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

A.1.4 Test Condition

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

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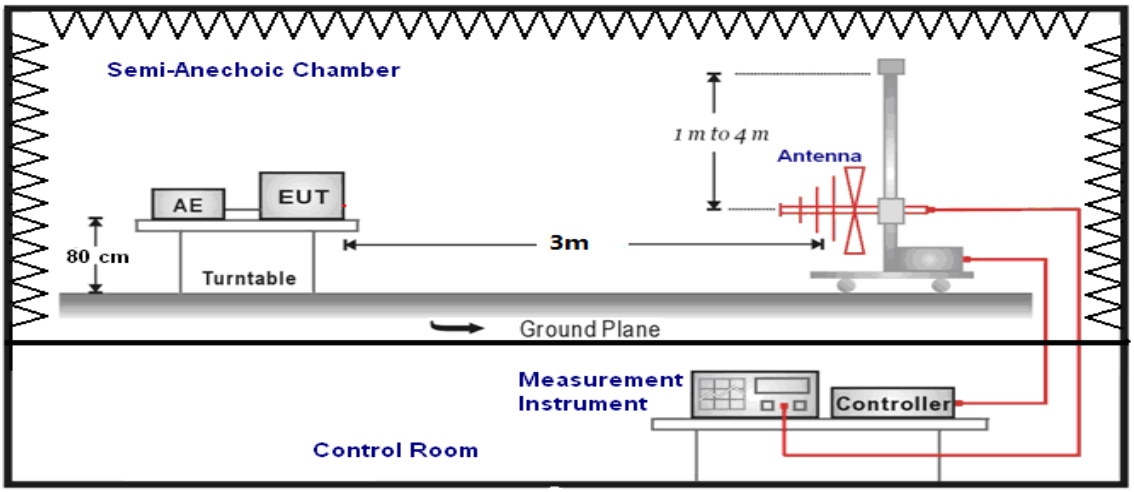
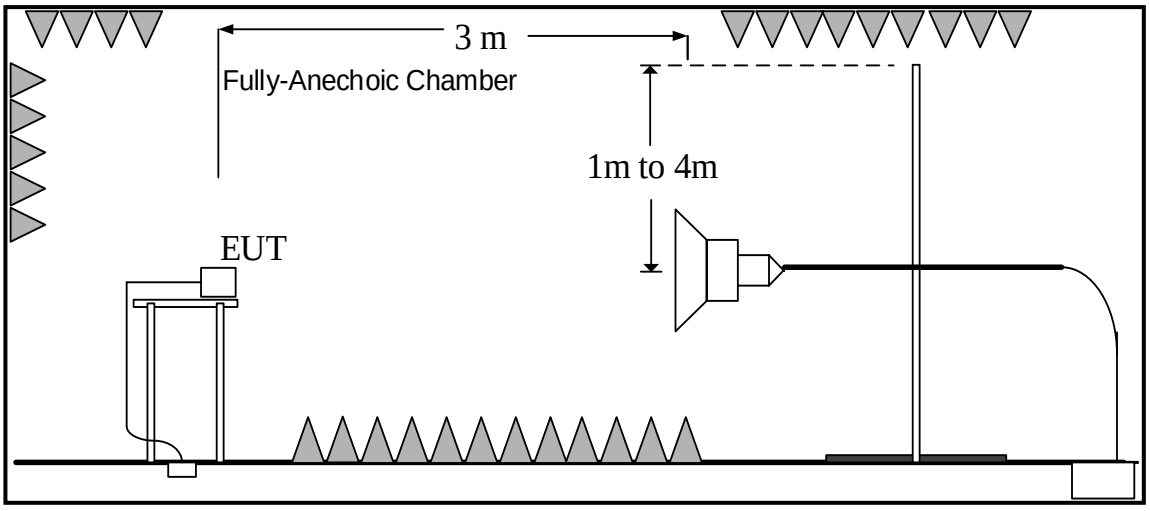
A.1.5 Test set-up:

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:

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

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

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Video Player

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT01aa/Set.1	Conclusion
30-88	40.00	See Fugure A.1.1.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT01aa/Set.1	Conclusion
1000 to 18000	54	74	See Fugure A.1.2.	P

Video Player

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT05aa/Set.2	Conclusion
30-88	40.00	See Fugure A.1.3.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT05aa/Set.2	Conclusion
1000 to 18000	54	74	See Fugure A.1.4.	P

Video Player

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m) UT05aa/Set.3	Conclusion
30-88	40.00	See Fugure A.1.5.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m) UT05aa/Set.3	Conclusion
1000 to 18000	54	74	See Fugure A.1.6.	P

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Video Player

Frequency range (MHz)	Quasi-Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
		UT05aa/Set.4	
30-88	40.00	See Fugure A.1.7.	P
88-216	43.50		
216-960	46.02		
960-1000	54.00		

Frequency range (MHz)	Average Limit (dBμV/m)	Peak Limit (dBμV/m)	Result (dBμV/m)	Conclusion
			UT05aa/Set.4	
1000 to 18000	54	74	See Fugure A.1.8.	P

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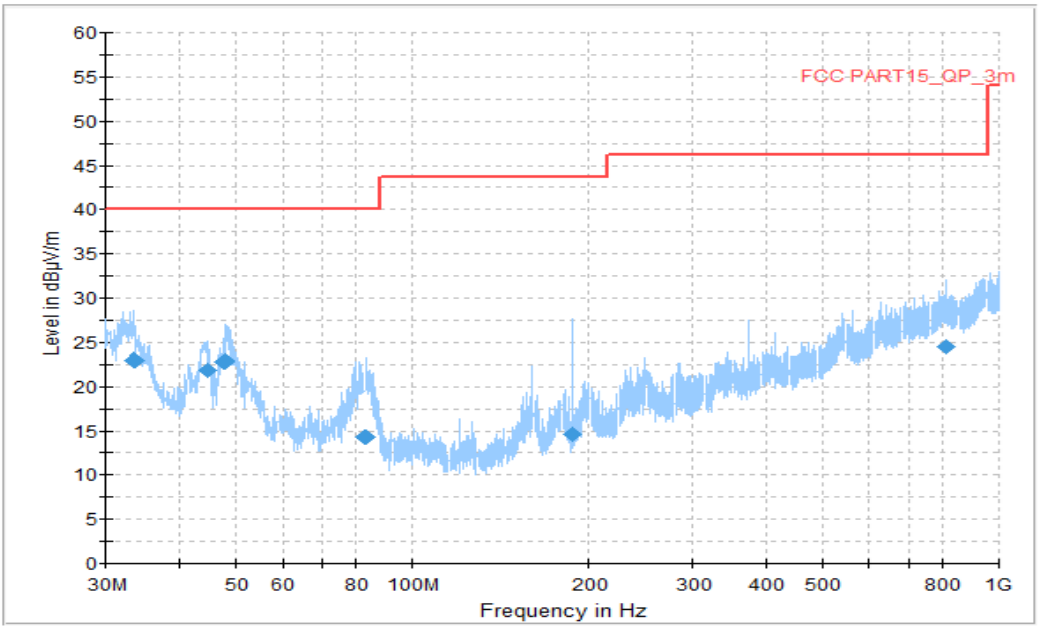

Fugure A.1.1. Radiated Emission (Video Player , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.448889	23.03	40.00	16.97	V	-15	38.03
44.657778	21.78	40.00	18.22	V	-21	42.78
47.729444	22.85	40.00	17.15	V	-21	43.85
83.242222	14.21	40.00	25.79	V	-22	36.21
187.678889	14.63	43.52	28.89	H	-18	32.63
813.005556	24.55	46.02	21.47	H	-1	25.55

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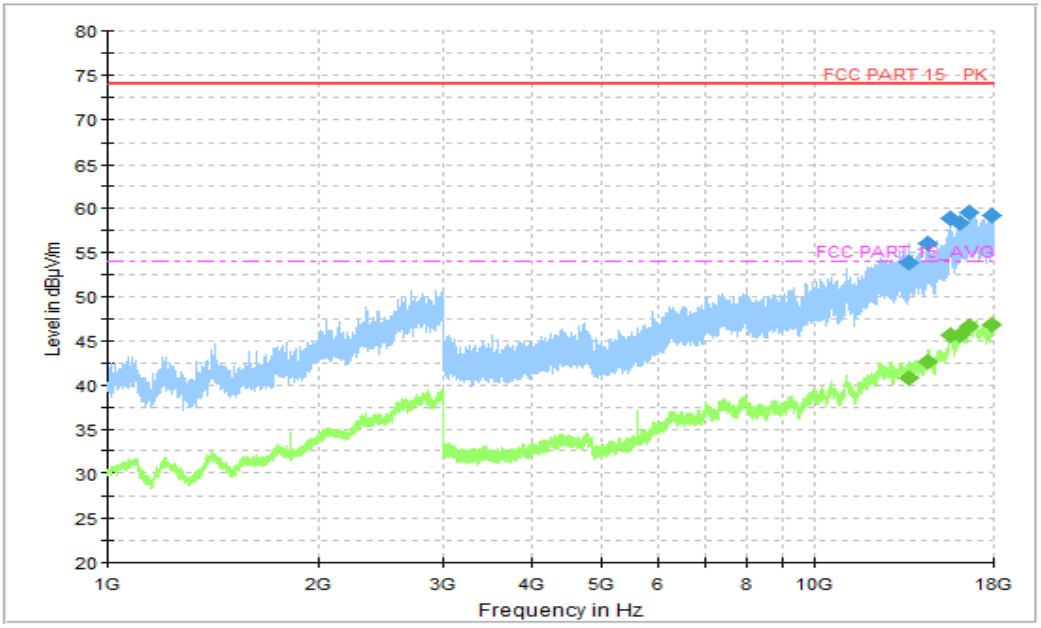

Fugure A.1.2. Radiated Emission (Video Player , 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13667.750000	53.80	74.00	20.20	V	18	35.80
14571.250000	55.97	74.00	18.03	V	18	37.97
15665.000000	58.90	74.00	15.10	V	20	38.9
16145.000000	58.44	74.00	15.56	V	21	37.44
16602.000000	59.53	74.00	14.47	V	23	36.53
17889.750000	59.20	74.00	14.80	V	23	36.20

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13667.750000	40.74	54.00	13.26	V	18	22.74
14571.250000	42.70	54.00	11.30	V	18	24.70
15665.000000	45.67	54.00	8.33	V	20	25.67
16145.000000	45.71	54.00	8.29	V	21	24.71
16602.000000	46.59	54.00	7.41	V	23	23.59
17889.750000	46.76	54.00	7.24	V	23	23.76

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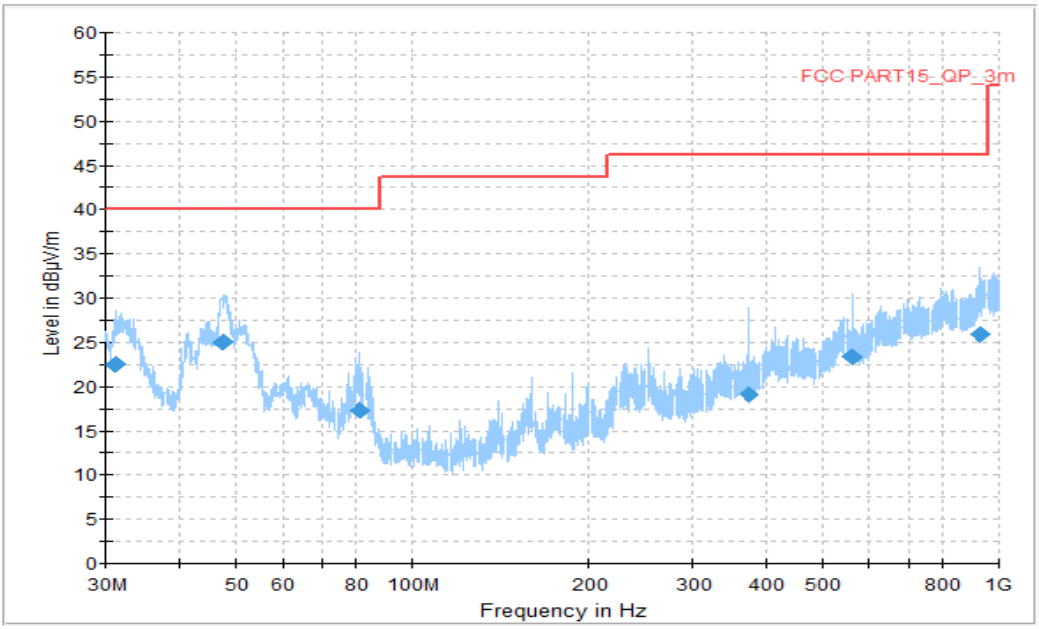

Fugure A.1.3. Radiated Emission (Video Player , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
31.185556	22.40	40.00	17.60	V	-14	36.40
47.460000	24.90	40.00	15.10	V	-21	45.90
80.978889	17.25	40.00	22.75	V	-22	39.25
375.373889	19.18	46.02	26.84	H	-10	29.18
563.068889	23.30	46.02	22.72	V	-5	28.3
926.441667	25.85	46.02	20.17	V	1	24.85

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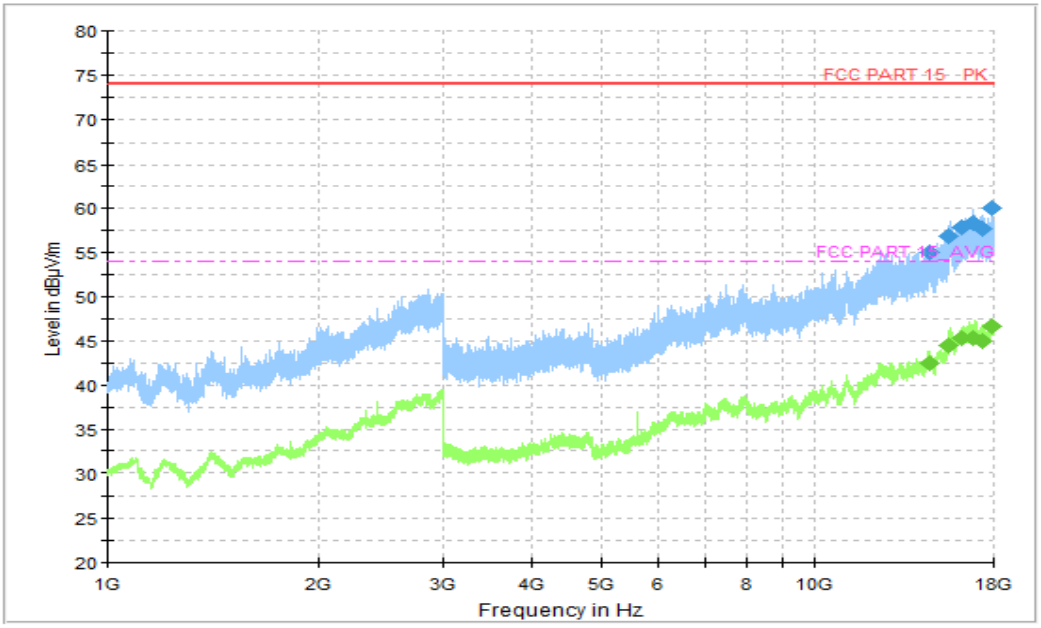

Fugure A.1.4. Radiated Emission (Video Player, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
14590.000000	54.98	74.00	19.02	V	18	36.98
15553.250000	56.83	74.00	17.17	V	19	37.83
16225.250000	57.94	74.00	16.06	V	21	36.94
16878.000000	58.40	74.00	15.60	V	22	36.40
17352.750000	57.63	74.00	16.37	V	22	35.63
17883.500000	59.99	74.00	14.01	V	24	35.99

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
14590.000000	42.41	54.00	11.59	V	18	24.41
15553.250000	44.39	54.00	9.61	V	19	25.39
16225.250000	45.27	54.00	8.73	V	21	24.27
16878.000000	45.31	54.00	8.69	V	22	23.31
17352.750000	45.02	54.00	8.98	V	22	23.02
17883.500000	46.73	54.00	7.27	V	24	22.73

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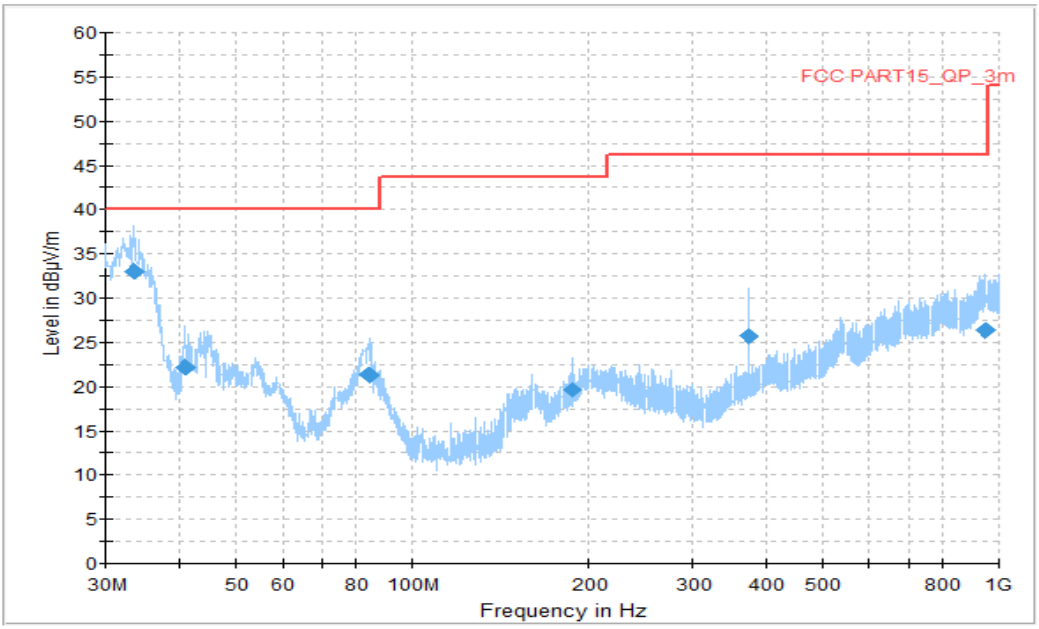

Fugure A.1.5. Radiated Emission (Video Player , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
33.556667	32.97	40.00	7.03	V	-15	47.97
40.993333	22.13	40.00	17.87	V	-19	41.13
84.050556	21.25	40.00	18.75	V	-22	43.25
187.678889	19.69	43.52	23.83	V	-18	37.69
375.373889	25.68	46.02	20.34	H	-10	35.68
946.380556	26.28	46.02	19.74	V	1	25.28

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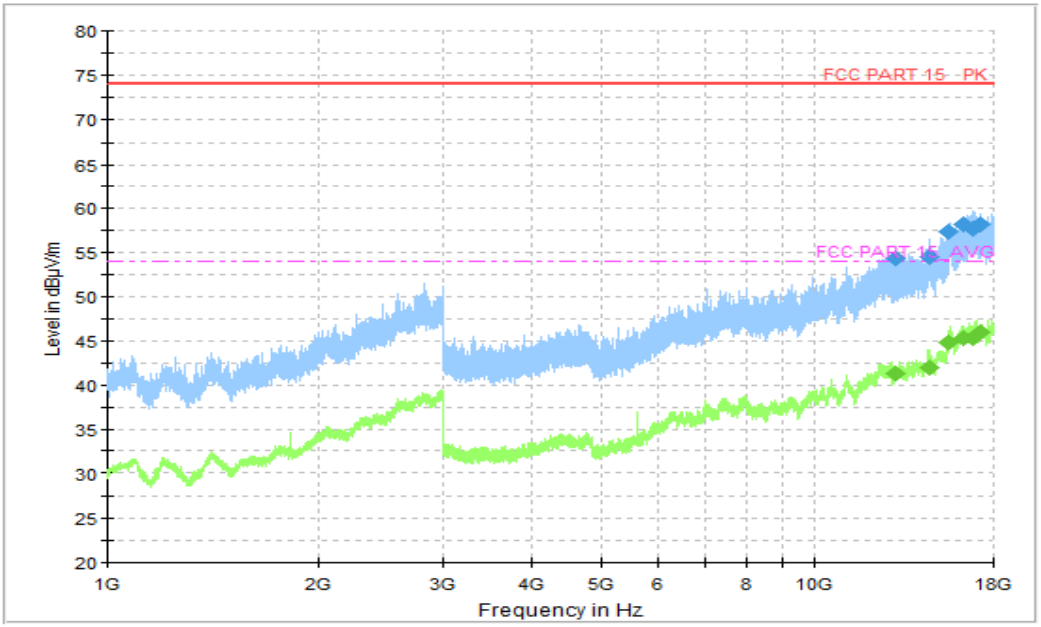

Fugure A.1.6. Radiated Emission (Video Player, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13067.250000	54.34	74.00	19.66	V	17	37.34
14610.750000	54.58	74.00	19.42	V	18	36.58
15574.500000	57.44	74.00	16.56	V	20	37.44
16278.000000	58.13	74.00	15.87	V	21	37.13
16839.000000	57.70	74.00	16.30	V	22	35.7
17203.250000	58.20	74.00	15.80	V	21	37.20

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
13067.250000	41.25	54.00	12.75	V	17	24.25
14610.750000	42.03	54.00	11.97	V	18	24.03
15574.500000	44.73	54.00	9.27	V	20	24.73
16278.000000	45.36	54.00	8.64	V	21	24.36
16839.000000	45.33	54.00	8.67	V	22	23.33
17203.250000	46.02	54.00	7.98	V	21	25.02

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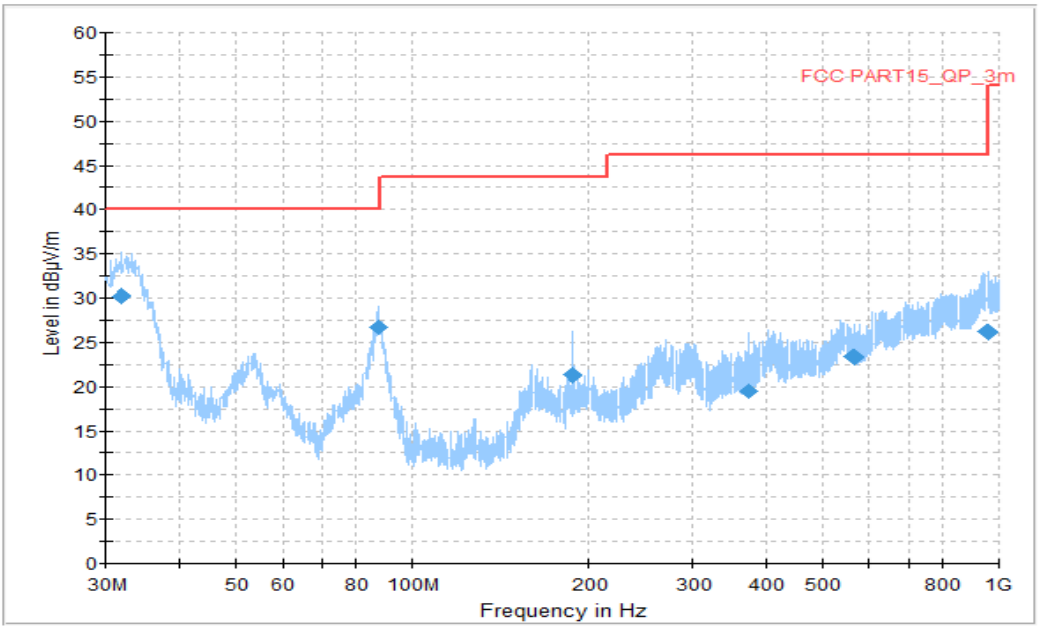

Fugure A.1.7. Radiated Emission (Video Player , 30MHz to 1GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	ARpl (dB/m)	P_{Mea} (dBµV)
31.832222	30.23	40.00	9.77	V	-14	44.23
87.661111	26.64	40.00	13.36	V	-22	48.64
187.678889	21.36	43.52	22.16	H	-18	39.36
375.373889	19.49	46.02	26.53	H	-10	29.49
567.433889	23.22	46.02	22.80	V	-5	28.22
958.721111	26.09	46.02	19.93	H	1	25.09

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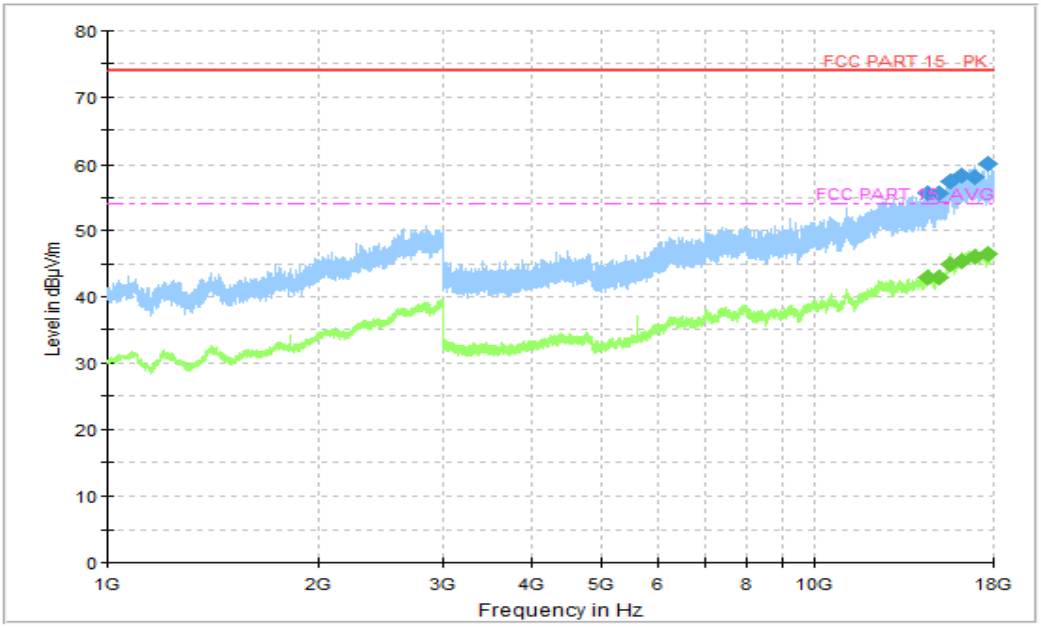

Fugure A.1.8. Radiated Emission (Video Player, 1GHz to 18GHz)

Final_Results_PK

Frequency(MHz)	Peak (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
14560.000000	55.61	74.00	18.39	V	18	37.61
15035.000000	55.61	74.00	18.40	V	18	37.61
15612.000000	57.44	74.00	16.56	V	20	37.44
16253.250000	58.25	74.00	15.75	V	21	37.25
16957.250000	58.08	74.00	15.92	V	23	35.08
17677.750000	60.16	74.00	13.84	V	23	37.16

Final_Results_AVG

Frequency(MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin(dB)	Polarity	ARpl (dB/m)	P_{Mea} (dBµV)
14560.000000	42.84	54.00	11.16	V	18	24.84
15035.000000	42.86	54.00	11.14	V	18	24.86
15612.000000	45.02	54.00	8.98	V	20	25.02
16253.250000	45.45	54.00	8.55	V	21	24.45
16957.250000	45.93	54.00	8.07	V	23	22.93
17677.750000	46.51	54.00	7.49	V	23	23.51

END **OF REPORT**

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