FCC PART 15C
TEST REPORT
No. B19N02463-RLAN

for

HUAWEI Technologies Co., Ltd.

HUAWEI MediaPad T3

Model Name: KOB-W09

With

Hardware Version: REACHW-V1.0

Software Version: KOB-W09C331B002-log

FCC: QISKOB-W09

Issued Date: 2019-11-08

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:

Shenzhen Academy of Information and Communications Technology

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
B19N02463-RLAN	Rev.0	1st edition	2019-11-08

Note: The HUAWEI MediaPad T3 KOB-W09 have some hardware changes:
(1)The dimension for PCBA is the same, but there are little changes in the driver of LCD backlight ,this time we changed the led backlight IC model ,accordingly ,add some power ic for this change
(2)Used the new style for Conductive foam and used the new design of LCD FPC.
According to the declaration of differences by manufacturer, the Transmitter Spurious Emission - Radiated tests need to be performed at the worst cases from the report of the initial model.
Other results are cited from the report of the initial model, The report number for initial model is B18N00835-RLAN.

CONTENTS

1. Test Laboratory

1.1. Testing Location

Location: Shenzhen Academy of Information and Communications Technology
Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong Province ,China
Postal Code: 518026
Telephone: +86(0)755-33322000
Fax: +86(0)755-33322001

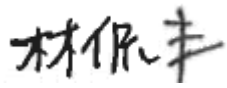
1.2. Testing Environment

Normal Temperature: 15-35℃
Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2019-11-01
Testing End Date: 2019-11-08

1.4. Signature



Lin Kanfeng
(Prepared this test report)

Tang Weisheng
(Reviewed this test report)

Zhang Bojun
(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Huawei Technologies Co., Ltd
Address:	Administration Building，Huawei Base, Bantian, Longgang District, Shenzhen
City:	Shenzhen
Postal Code:	518129
Country:	China
Telephone:	15602311354
Fax:	/

2.2. Manufacturer Information

Company Name:	Huawei Technologies Co., Ltd
Address:	Administration Building, Huawei Base, Bantian, Longgang District, Shenzhen
City:	Shenzhen
Postal Code:	518129
Country:	China
Telephone:	15602311354
Fax:	/

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

3.1. About EUT

Description	HUAWEI MediaPad T3
Model Name	KOB-W09
Market Name	HUAWEI MediaPad T3
RLAN Frequency Range	ISM Band: 5150MHz~5250MHz 5250MHz~5350MHz 5470MHz~5725MHz
Antenna Type	Integrated
FCC ID	QISKOB-W09
Condition of EUT as received	No abnormality in appearance

Note: Components list, please refer to documents of the manufacturer

3.2. Internal Identification of EUT

EUT ID*	IMEI	HW Version	SW Version	Receive Date
UT01aa	FH4T19402000008	REACHW-V1.0	KOB-W09C331B002-log	2019-11-01

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

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	Charger	/
AE2	Charger	/
AE3	Charger	/

AE1

Model	HW-050100U01
Manufacturer	SHENZHEN HUNTKEY ELECTRONIC CO.,LTD.

AE2

Model	HW-050100U01
Manufacturer	HUIZHOU BYD ELECTRONIC CO., LTD.

AE3

Model	HW-050100U01
Manufacturer	DONGGUAN PHITEK ELECTRONICS CO.,LTD.

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

3.4. General Description

The Equipment under Test (EUT) is a model of Tablet with integrated antenna and inbuilt battery.
It consists of normal options: travel charger, USB cable.
Manual and specifications of the EUT were provided to fulfil the test.
Samples undergoing test were selected by the client.

4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

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

Reference	Title	Version
FCC Part15	FCC CFR 47, Part 15, Subpart C FCC CFR 47, Part 15, Subpart E	Oct,2018
ANSI C63.10	American National Standard for Testing Unlicensed Wireless Devices	Jun,2013

5. Test Results

5.1. Summary of Test Results

No	Test cases	Sub-clause of IC	Verdict
1	Band Edges Compliance	15.407	**P**
2	Radiated Spurious Emission	15.407	**P**

See **ANNEX A** for details.

5.2. Terms used in the result table

Terms used in Verdict column

P	Pass
NA	Not Available
F	Fail

Abbreviations

AC	Alternating Current
AFH	Adaptive Frequency Hopping
BW	Band Width
E.I.R.P.	equivalent isotropic radiated power
ISM	Industrial, Scientific and Medical
R&TTE	Radio and Telecommunications Terminal Equipment
RF	Radio Frequency
Tx	Transmitter

5.3. Laboratory Environment

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

Temperature	Min. = 15 ˚C, Max. = 30 ˚C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩΩ
Ground system resistance	< 4ΩΩ
Normalised site attenuation (NSA)	< ±4dB, 3m/10m distance, from 30 to 1000 MHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 MHz

Shielded room did not exceed following limits along the EMC testing

Temperature	Min. = 15 ˚C, Max. = 30 ˚C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩΩ
Ground system resistance	< 4ΩΩ

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

Temperature	Min. = 15 ˚C, Max. = 30 ˚C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩΩ
Ground system resistance	< 4ΩΩ
Voltage Standing Wave Ratio (VSWR)	≤6dB, from 1 to 18 GHz,3m distance

6. Test Facilities Utilized

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
2	Test Receiver	ESR7	R&S	101676	2019-11-28	1 year
3	Spectrum Analyzer	FSV40	R&S	101192	2020-05-19	1 year
4	Loop Antenna	HLA6120	TESEQ	35779	2022-04-25	3 years
5	BiLog Antenna	3142E	ETS	224831	2021-05-17	3 years
6	Horn Antenna	3117	ETS-lindgren	0066577	2022-04-02	3 years
7	Horn Antenna	QSH-SL-18-26-S-20	Q-par	17013	2020-01-15	3 years
8	Horn Antenna	QWH-SL-18-40-K-20	Q-par	17014	2020-01-11	3 years
9	Fully Anechoic Chamber	FACT3-2.0	ETS-Lindgren	1285	2021-07-19	2 years

Anechoic chamber

Fully anechoic chamber by ETS-Lindgren

ANNEX A: MEASUREMENT RESULTS

A.1 Band Edges Compliance

Measurement Limit:

Standard	Limit (dBm/MHz)	
FCC 47 CFR Part 15.209	PK	74
	AV	54

The measurement is made according to KDB 789033

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11n HT40	5190(CH38)	Fig.1	P

Conclusion: PASS

Test graphs as below:

Note:

The measurement results include the horizontal polarization and vertical polarization measurements.

NOTE: The test cases are selected as the worst cases for every conditions

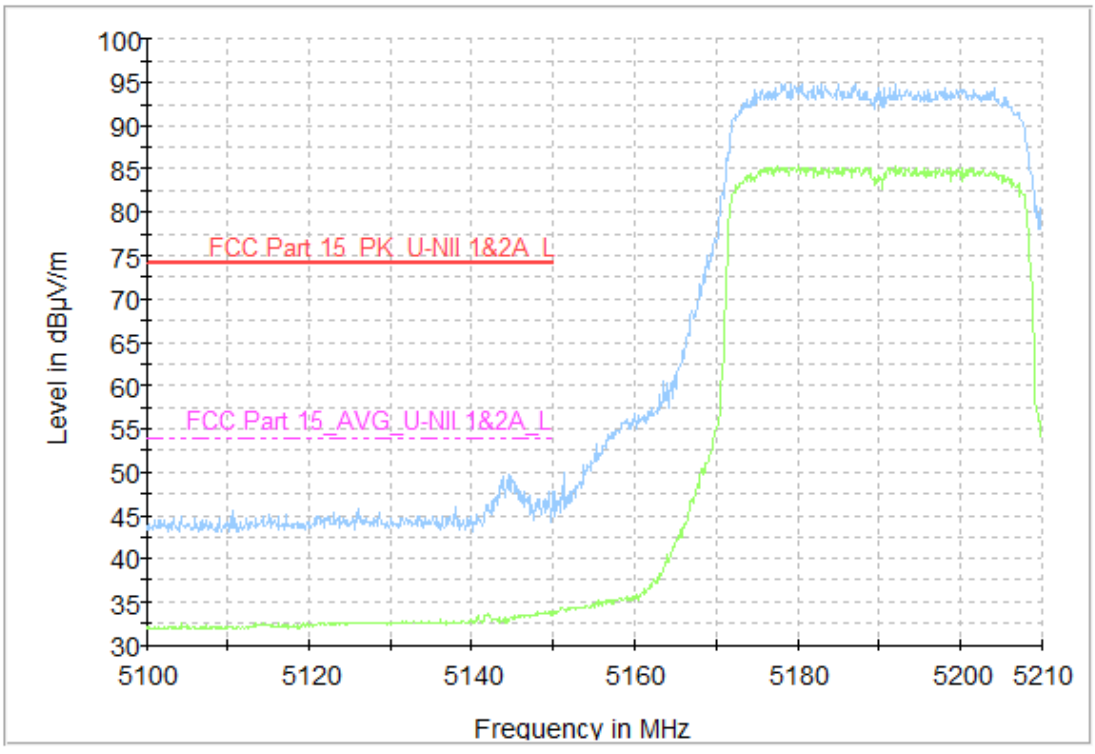


Fig. 1 Band Edges (802.11n-HT40, CH38 5190MHz）

A.2 Transmitter Spurious Emission

Measurement Limit:

Standard	Limit(dBm/MHz)
FCC 47 CFR Part 15.407	<27

The measurement is made according to KDB 789033.

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength(dBμV/m)	Measurement distance(meters)
30-88	40.0	3
88-216	43.5	3
216-960	46	3
Above 960	54	3

Note: For frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m.

Measurement Results:

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n HT40	5190MHz(CH38)	30 MHz ~1 GHz	Fig.2	P
		1 GHz ~18 GHz	Fig.3	P
		18 GHz ~26.5 GHz	Fig.4	P
		26.5 GHz ~40 GHz	Fig.5	P

Conclusion: PASS

Test graphs as below:

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss. P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result = P_{Mea} + A_{Rpl} = P_{Mea} + Cable Loss + Antenna Factor

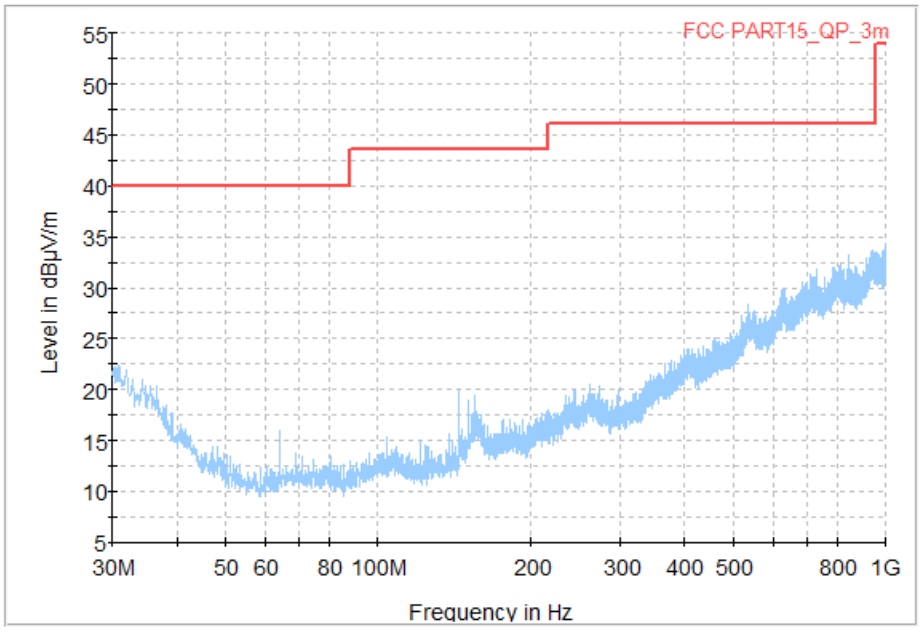


Fig.2 Radiated Spurious Emission (802.11n HT40,CH38, 30MHz-1 GHz)

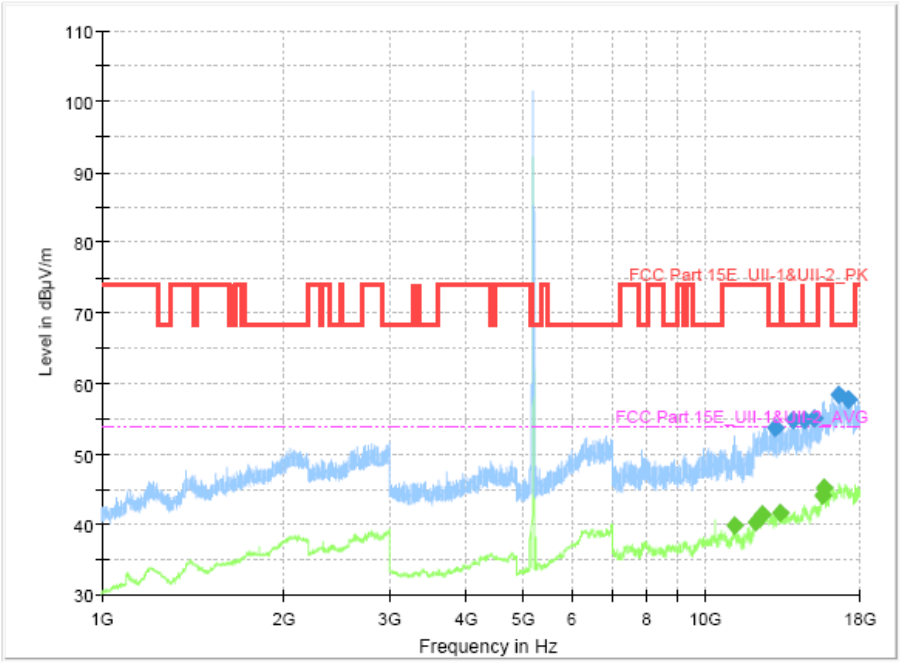


Fig.3 Radiated Spurious Emission (802.11n HT40,CH38, 1 GHz-18 GHz)

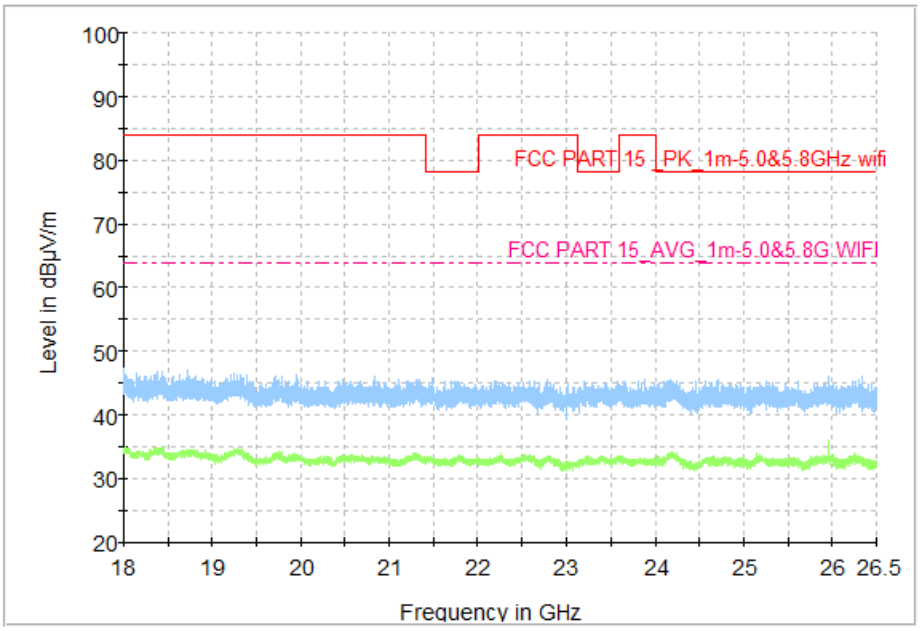


Fig.4 Radiated Spurious Emission (802.11n HT40,CH38, 18 GHz-26.5 GHz)

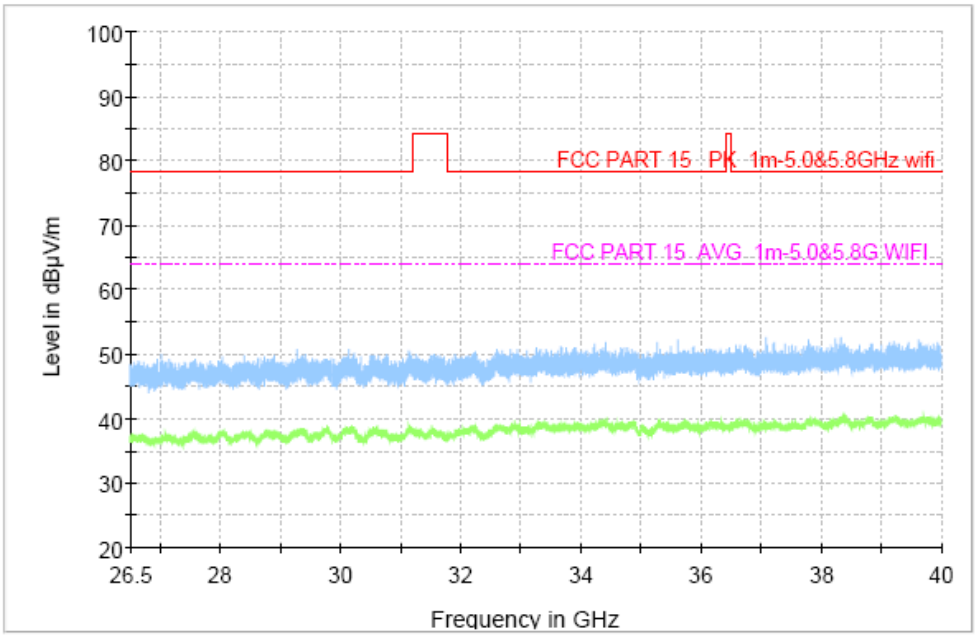


Fig.5 Radiated Spurious Emission (802.11n HT40,CH38, 26.5 GHz-40 GHz)

Worst case Result

802.11n HT40,CH46

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Corr. (dB)	Pol
13000.000000	53.66	68.20	14.54	H	17.5
13951.000000	54.72	68.20	13.48	H	17.2
14586.000000	54.88	68.20	13.32	V	17.9
15113.500000	55.07	68.20	13.13	H	18.3
16615.000000	58.29	68.20	9.91	V	22.2
17194.000000	57.73	68.20	10.47	H	21.5

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Corr. (dB)	Pol
11165.816327	39.74	54.00	14.26	V	14.8
12065.500000	40.33	54.00	13.67	H	16.1
12430.500000	41.41	54.00	12.59	V	16.8
13255.000000	41.62	54.00	12.38	V	17.3
15577.500000	44.11	54.00	9.89	V	19.7
15671.500000	45.24	54.00	8.76	V	20.1

Note:

A "reference path loss" is established and the ARpl is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss. PMea is the field strength recorded from the instrument. The measurement results are obtained as described below: Result = PMea + ARpl = PMea + Cable Loss + Antenna Factor

A.3 Radiated Spurious Emissions < 30MHz

Measurement Limit (15.209, 9kHz-30MHz):

Frequency (MHz)	Field strength (μ V/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

The measurement is made according to KDB 789033.

Note: The measurement distance during the test is 3m. The limit used in plots recalculated based on the extrapolation factor of 40 dB/decade.

Measurement Result(Worst case): Mode	Frequency Range	Test Results	Conclusion
801.11n HT40 5190MHz(CH38)	9 kHz ~30 MHz	Fig.6	P

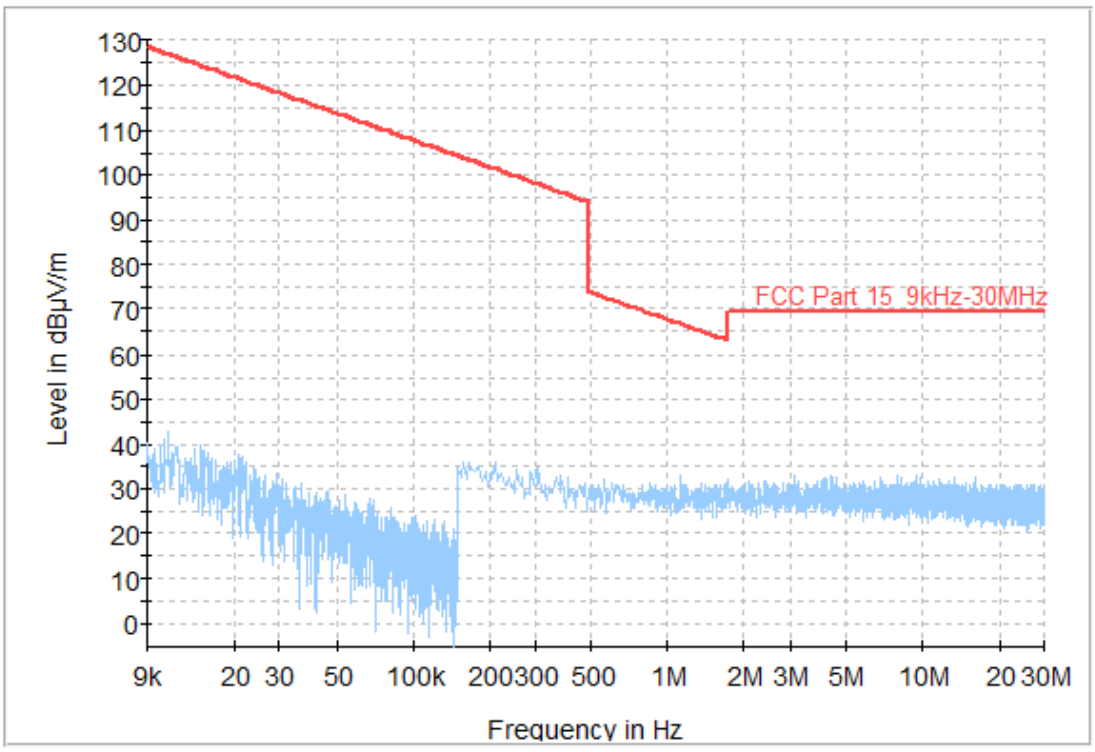


Fig.6 Radiated Spurious Emission (802.11n HT40,CH38, 9 kHz ~30 MHz)

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

ANNEX C: Persons involved in this testing

Test Name	Tester
Transmitter Spurious Emission	Lin Kanfeng, Tang Weisheng

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