FCC PART 15
TEST REPORT
No. I19Z60364-IOT11

for

TCL Communication Ltd.

Tablet PC

9027G

with

FCC ID: 2ACCJBT15

Hardware Version: 03

Software Version: E7B

Issued Date: 2019-04-18

TESTING
NVLAP LAB CODE 600118-0

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 CTTL.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

Test Laboratory:

CTTL, Telecommunication Technology Labs, CAICT

No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191.

Tel:+86(0)10-62304633-2512, Fax:+86(0)10-62304633-2504

Email: cttl_terminals@caict.ac.cn, website: www.caict.ac.cn

REPORT HISTORY

Report Number	Revision	Description	Issue Date
I19Z60364-IOT11	Rev.0	1st edition	2019-03-25
I19Z60364-IOT11	Rev.1	Update Test Conditions and test equipments utilized in page 11-12	2019-04-18

CONTENTS

1. TEST LATORATORY

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2005 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (CN0066). The detail accreditation scope can be found on NVLAP website.

1.2. TestingLocation

Conducted testing Location: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China100191

Radiated testing Location: CTTL(BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology Development Area, Beijing, P. R. China 100176

Radiated testing Location: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China100191

1.3. TestingEnvironment

Normal Temperature: 15-35℃

Extreme Temperature: -20/+55℃

Relative Humidity: 20-75%

1.4. Project data

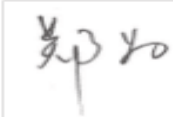
Testing Start Date: 2018-05-30

Testing End Date: 2018-08-06

1.5. Signature

Jiang Xue

(Prepared this test report)



Zheng Wei

(Reviewed this test report)

Gao Hong

(Approved this test report)

2. CLIENT INFORMATION

2.1. Applicant Information

Company Name:	TCL Communication Ltd.
Address:	7/F, Block F4, TCL Communication Technology Building, TCL International E City, Zhong Shan Yuan Road, Nanshan District, Shenzhen, Guangdong, P.R. China 518052
City:	Shenzhen
Postal Code:	518052
Country:	China
Telephone:	0086-755-36611722
Fax:	/

2.2. Manufacturer Information

Company Name:	TCL Communication Ltd.
Address:	7/F, Block F4, TCL Communication Technology Building, TCL International E City, Zhong Shan Yuan Road, Nanshan District, Shenzhen, Guangdong, P.R. China 518052
City:	Shenzhen
Postal Code:	518052
Country:	China
Telephone:	0086-755-36611722
Fax:	/

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

3.1. About EUT

Description	Tablet PC
Model name	9027G
FCC ID	2ACCJBT15
IC ID	/
WLAN Frequency Range	ISM Bands: -5150MHz~5350MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Voltage	3.9V DC by Battery

Note: Photographs of EUT are shown in ANNEX C of this test report. Components list, please refer to documents of the manufacturer.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	/	03	E7B
EUT2	/	03	E7B

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

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN	Remarks
AE1	Battery	/	inbuilt
AE2	Charger	/	18TCT-CH-0515
AE3	Charger	/	18TCT-CH-0531
AE4	USB Cable	/	18TCT-DC-0209

AE1

Model	TLp040J1
Manufacturer	BYD
Capacitance	4000mAh
Nominal voltage	3.85V

AE2

Model	CBA0059AGAC5
Manufacturer	PUAN
Length of cable	/

AE3

Model	CBA0059AGAC7
Manufacturer	chenyang

Length of cable /

AE4

Model CDA0000024C8

Manufacturer PUAN

Length of cable /

*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 PC with integrated antenna and inbuilt battery.
It has Bluetooth (EDR)function.
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.

3.5. Interpretation of the Test Environment

For the test methods, the test environment uncertainty figures correspond to an expansion factor k=2.

Measurement Uncertainty

Parameter	Uncertainty
temperature	0.48°C
humidity	2 %
DC voltages	0.003V

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.

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2016
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12

5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	**BR**
Power Spectral Density	15.407	/	**BR**
Occupied 26dB Bandwidth	15.403	/	**BR**
Band edge compliance	15.209	/	**BR**
Transmitter spurious emissions radiated	15.407	/	**BR**
Spurious emissions radiated < 30 MHz	15.407	/	**BR**
Spurious emissions conducted < 30 MHz	15.407	/	**BR**
Frequency Stability	15.407	/	**BR**
Transmit Power Control	15.407	/	**NA**

Please refer to **ANNEX A** for detail.

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NP	Not Perform, The test was not performed by CTTL
NA	Not Applicable, The test was not applicable
BR	Re-use test data from basic model report.

6.2. Statements

CTTL has evaluated the test cases requested by the client/manufacturer as listed in section 6.1 of this report for the EUT specified in section 3 according to the standards or reference documents listed in section 4.1.

This report only deals with the WLAN function among the features described in section 3.

6.3. Test Conditions

The Equipment Under Test (EUT) model 9027G (FCC ID: 2ACCJBT15) is a variant product of 9027W (FCC ID: 2ACCJBT13), according to the declaration of changes provided by the applicant and FCC KDB publication 484596 D01, spot check measurements were performed on this device, all the test results are derived from test report No. I18Z61163-IOT04. Please refer Annex A for detail .

For detail differences between two models please refer the Declaration of Changes document.

For this report, all the test cases are tested under normal temperature and normal voltage, and also under norm humidity, the specific condition is shown as follows:

Temperature	26℃
Voltage	3.9V
Humidity	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2019-05-17
2	Test Receiver	ESCI 3	100344	Rohde & Schwarz	1 year	2019-02--28
3	LISN	ENY216	101200	Rohde & Schwarz	1 year	2019-04-15
4	Shielding Room	S81	/	ETS-Lindgren	/	/
5	Attenuator	10dB/2w	/	Rosenberger	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESU26	100235	Rohde & Schwarz	1 year	2019-03-01
2	BiLog Antenna	VULB9163	302	Schwarzbeck	3 years	2019-03-27
3	EMI Antenna	3115	00167250	ETS-Lindgren	3 Years	2020-05-21
4	Dual-Ridge Waveguide Horn Antenna	3116	2661	ETS-Lindgren	3 years	2020-07-27

8. Measurement Uncertainty

8.1. Transmitter Output Power

Measurement Uncertainty: 0.387dB,k=1.96

8.2. Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

8.3. Occupied Channel Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4. Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

8.5. Spurious Emissions

Conducted (k=1.96)

Frequency Range	Uncertainty(dB)
30MHz ≤ f ≤ 2GHz	1.22
2GHz ≤ f ≤3.6GHz	1.22
3.6GHz ≤ f ≤8GHz	1.22
8GHz ≤ f ≤12.75GHz	1.51
12.75GHz ≤ f ≤26GHz	1.51
26GHz ≤ f ≤40GHz	1.59

Radiated (k=2)

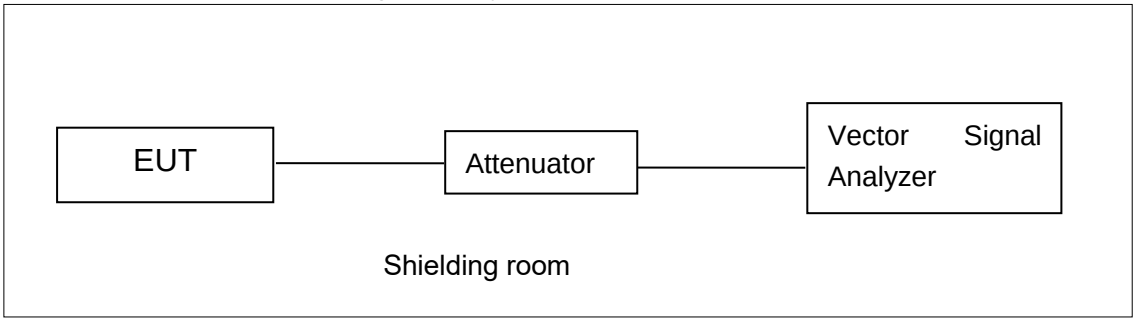
Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
30MHz ≤ f ≤ 1GHz	5.40
1GHz ≤ f ≤18GHz	4.32
18GHz ≤ f ≤40GHz	5.26

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

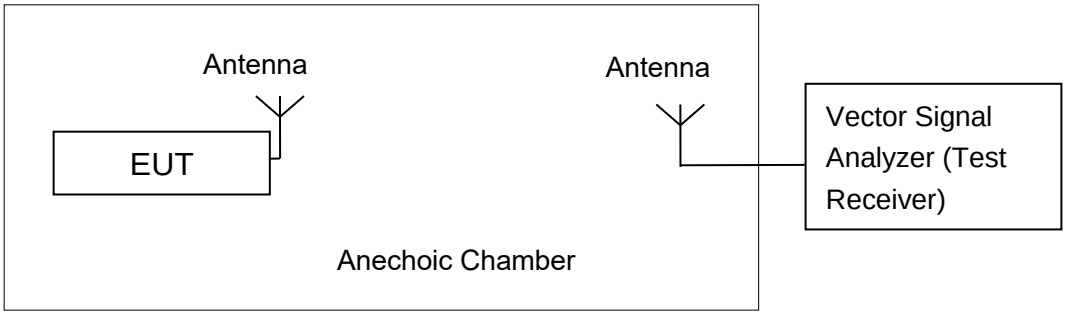
A.1.1. Conducted Measurements

1). Connect the EUT to the test system correctly.
2). Set the EUT to the required work mode.
3). Set the EUT to the required channel.
4). Set the spectrum analyzer to start measurement.
5). Record the values. Vector Signal Analyzer



A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,
Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;
Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 10Hz;



The measurement is made according to KDB 789033
The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

A.2. Maximum output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	24dBm
	5250MHz~5350MHz	24dBm or 11+10logB

Limit use the less value, and B is the 26dB bandwidth.

The measurementmethod SA-1 is made according to KDB 789033

Measurement Results:

802.11a mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz	17.27	/	/	/	/	/	/	/
	5200MHz	16.78	/	/	/	/	/	/	/
	5240MHz	17.45	/	/	/	/	/	/	/
	5260MHz	18.15	/	/	/	/	/	/	/
	5280MHz	18.38	18.33	16.96	16.57	16.02	16.01	14.08	13.19
	5320MHz	17.56	/	/	/	/	/	/	/

The data rate 6Mbps is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT20 mode

Mode	Channel	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz	16.41	15.66	15.76	14.76	14.83	13.07	12.05	11.98
	5200MHz	16.43	/	/	/	/	/	/	/
	5240MHz	16.67	/	/	/	/	/	/	/
	5260MHz	16.62	/	/	/	/	/	/	/
	5280MHz	16.63	/	/	/	/	/	/	/
	5320MHz	16.71	/	/	/	/	/	/	/

The data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT40 mode

Mode	Channel	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz	16.74	15.95	16.12	15.02	14.92	13.11	11.34	11.83
	5230MHz	16.66	/	/	/	/	/	/	/
	5270MHz	17.12	/	/	/	/	/	/	/
	5310MHz	16.19	/	/	/	/	/	/	/

The data rate MCS0 is selected as worse condition, and the following cases are performed with this condition.

A.3. Peak Power Spectral Density (conducted)

Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11
	5250MHz~5350MHz	11

The output power measurement method SA-1 is made according to KDB 789033

Measurement Results:

Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	6.97	P
	5200 MHz	6.90	P
	5240 MHz	7.02	P
	5260 MHz	7.68	P
	5280 MHz	7.32	P
	5320 MHz	7.15	P
802.11n HT20	5180 MHz	7.04	P
	5200 MHz	6.78	P
	5240 MHz	6.73	P
	5260 MHz	7.30	P
	5280 MHz	7.38	P
	5320 MHz	7.05	P
802.11n HT40	5190 MHz	3.71	P
	5230 MHz	3.99	P
	5270 MHz	4.16	P
	5310 MHz	3.91	P

Conclusion: PASS

A.4. Occupied 26dB Bandwidth(conducted)

Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.403 (i)	/

The measurement is made according to KDB 789033

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz

Measurement Result:

Mode	Channel	Occupied 26dB Bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.1	33.25	P
	5200 MHz	Fig.2	30.45	P
	5240 MHz	Fig.3	31.45	P
	5260 MHz	Fig.4	32.90	P
	5280 MHz	Fig.5	30.45	P
	5320 MHz	Fig.6	34.45	P
802.11n HT20	5180 MHz	Fig.7	34.65	P
	5200 MHz	Fig.8	35.50	P
	5240 MHz	Fig.9	36.50	P
	5260 MHz	Fig.10	36.80	P
	5280 MHz	Fig.11	33.95	P
	5320 MHz	Fig.12	35.55	P
802.11n HT40	5190 MHz	Fig.13	72.48	P
	5230 MHz	Fig.14	72.48	P
	5270 MHz	Fig.15	72.48	P
	5310 MHz	Fig.16	72.48	P

Conclusion: PASS

Test graphs as below:

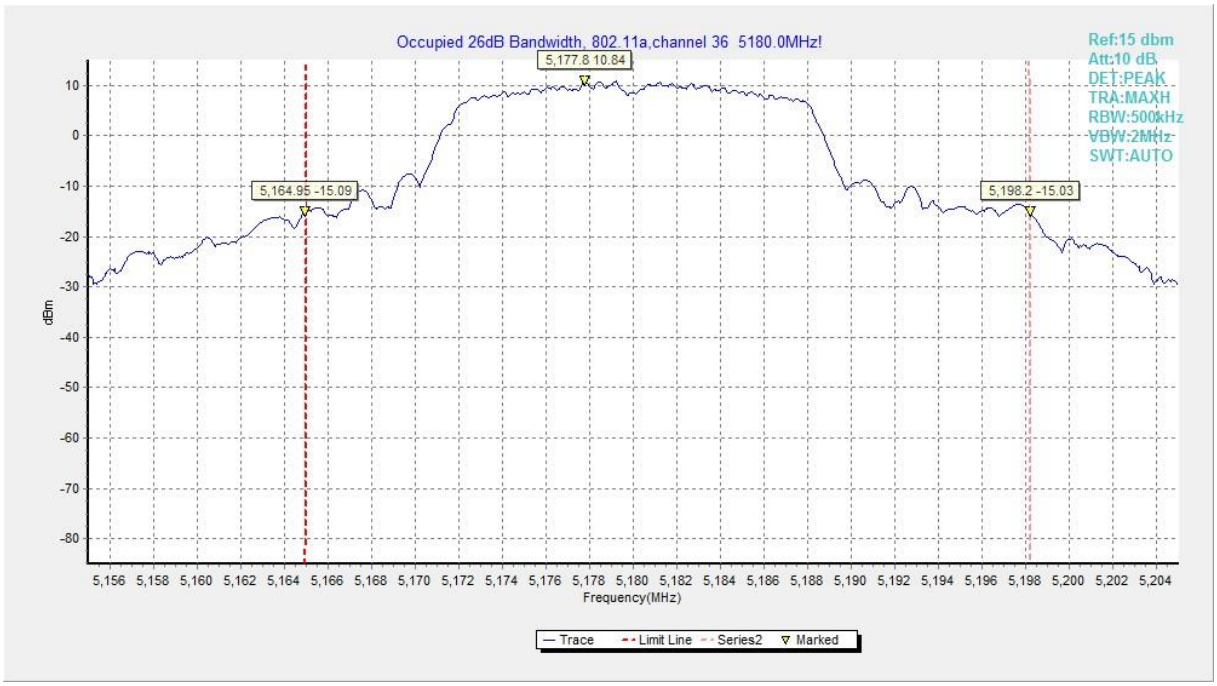


Fig. 1 Occupied 26dB Bandwidth (802.11a, 5180MHz)

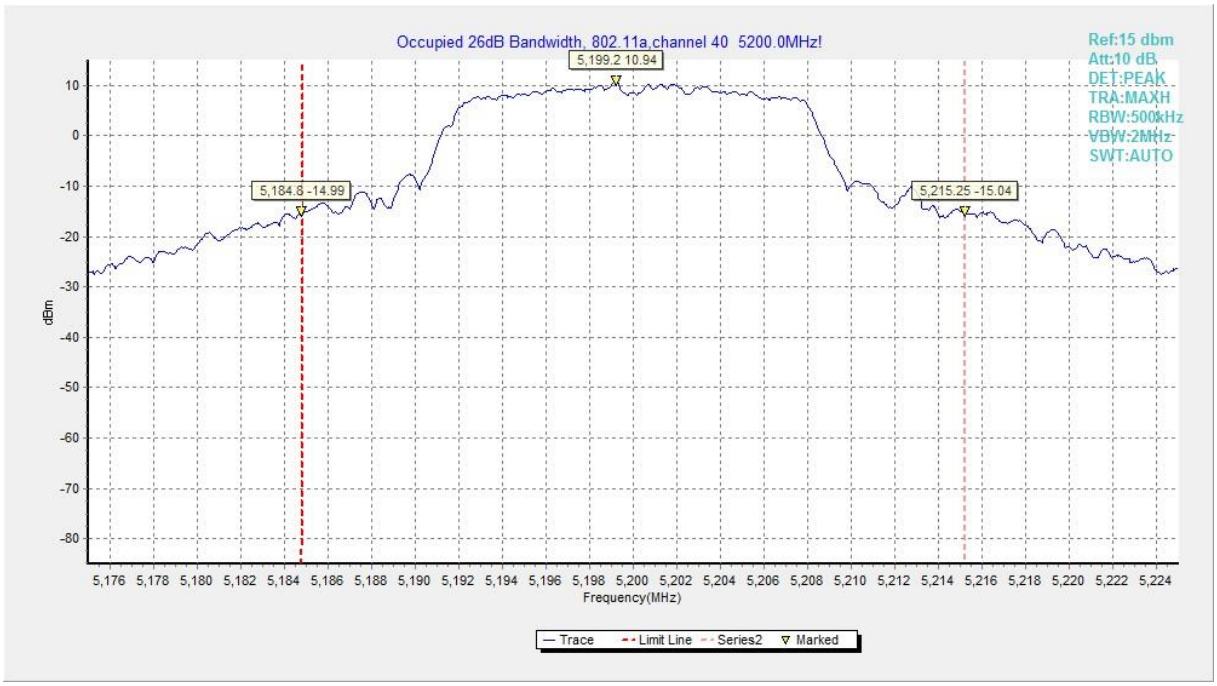


Fig. 2 Occupied 26dB Bandwidth (802.11a, 5200MHz)

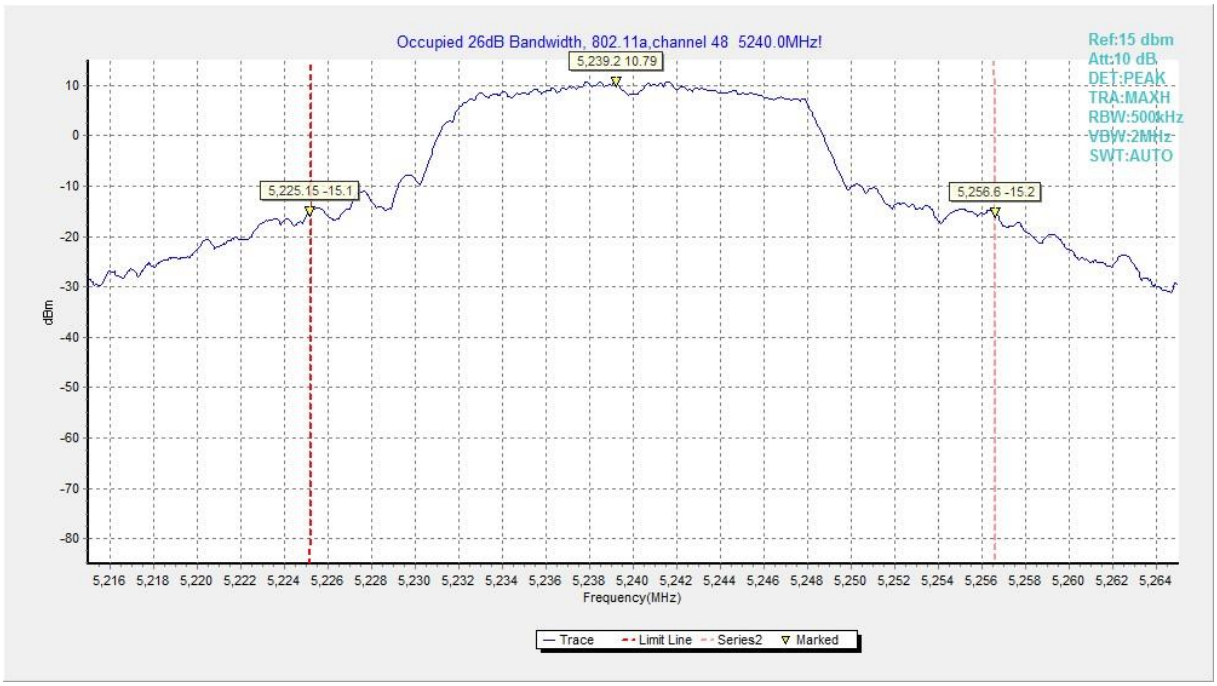


Fig. 3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

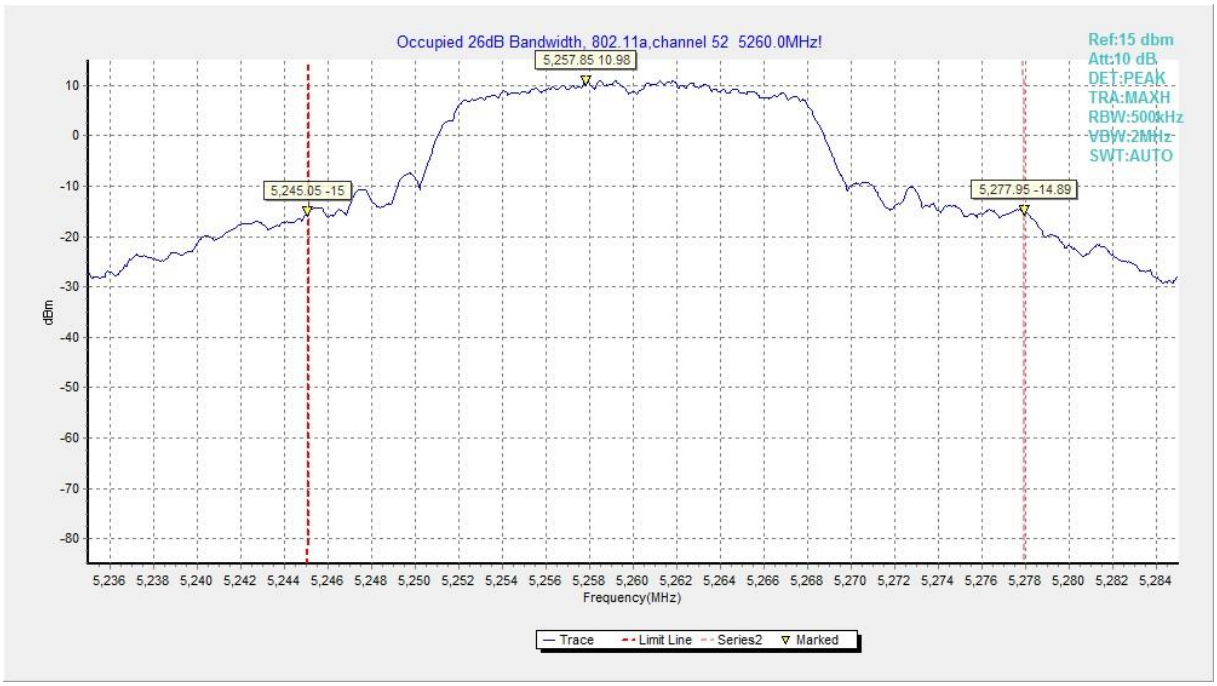


Fig. 4 Occupied 26dB Bandwidth (802.11a, 5260MHz)

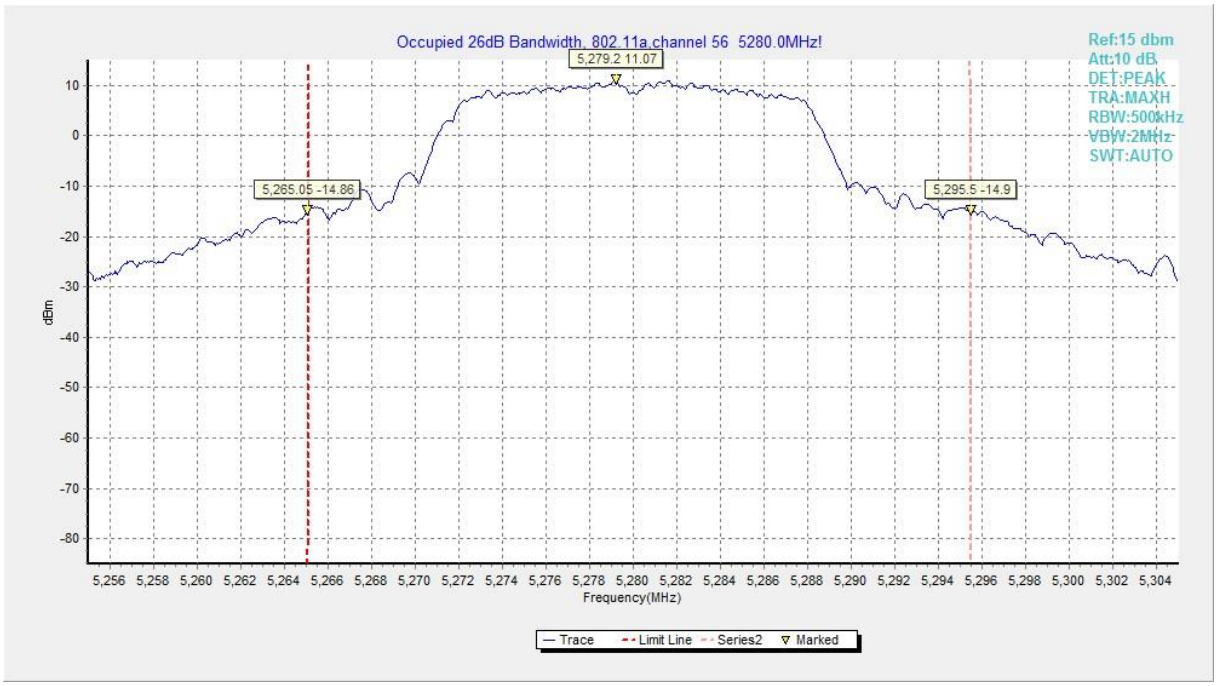


Fig. 5 Occupied 26dB Bandwidth (802.11a, 5280MHz)

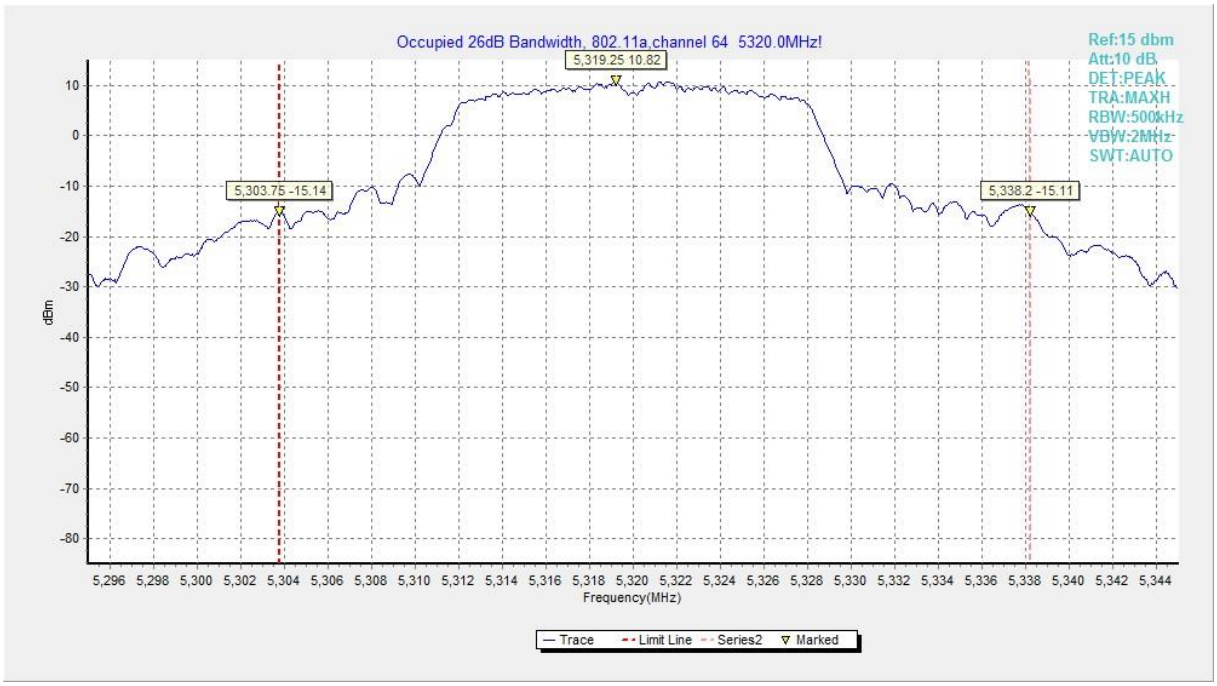


Fig. 6 Occupied 26dB Bandwidth (802.11a, 5320MHz)

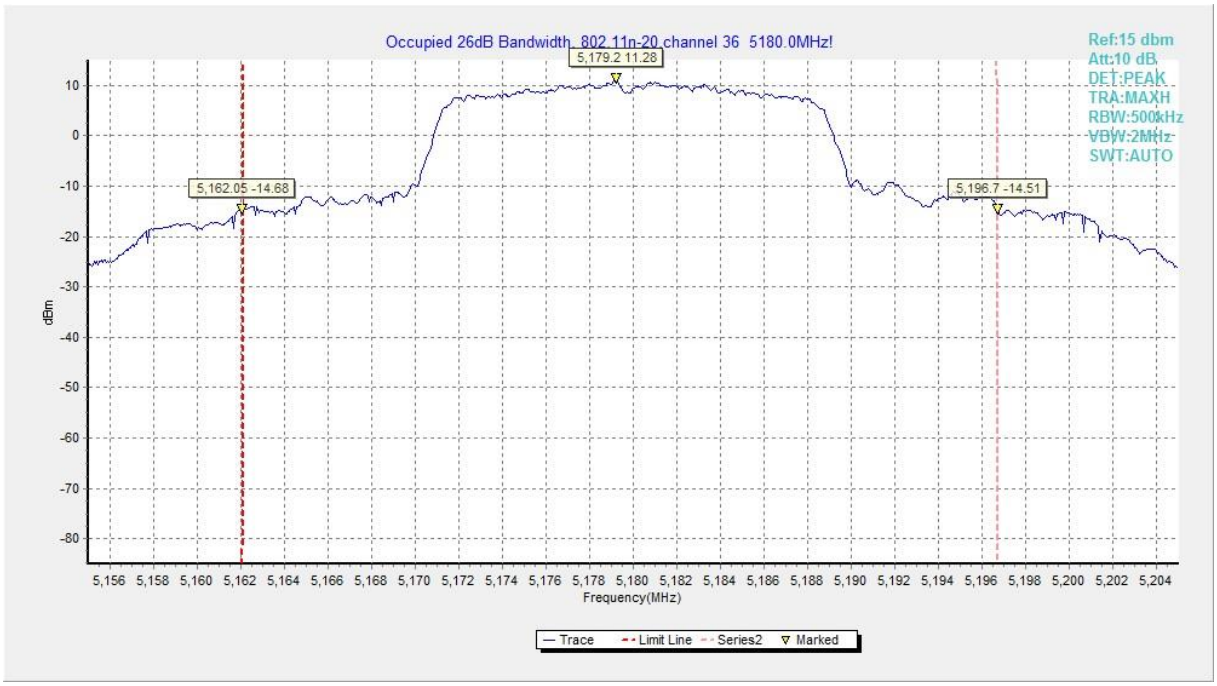


Fig. 7 Occupied 26dB Bandwidth (802.11n-HT20, 5180MHz)

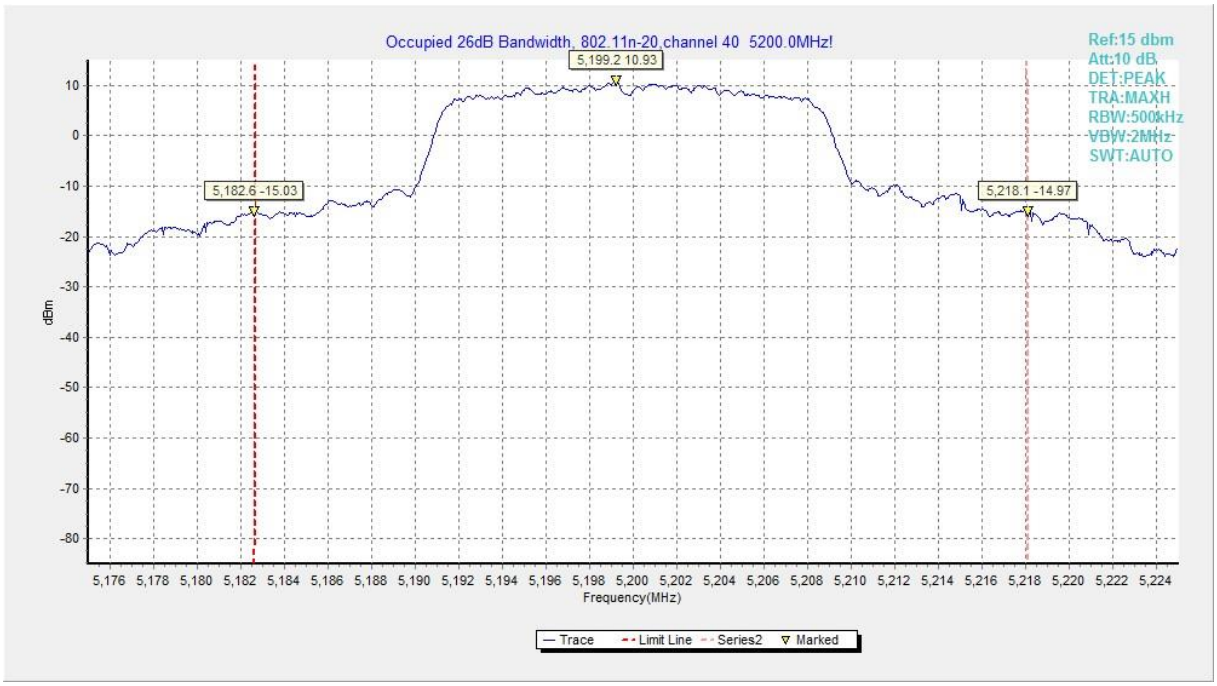


Fig. 8 Occupied 26dB Bandwidth (802.11n-HT20, 5200MHz)

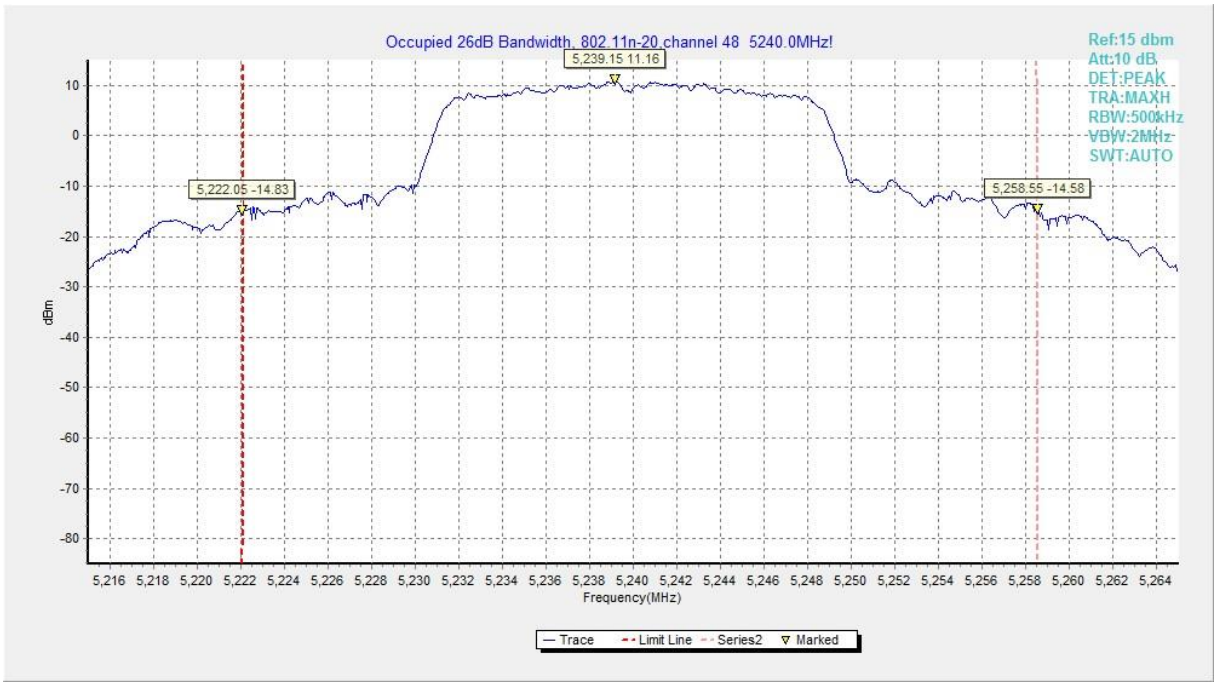


Fig. 9 Occupied 26dB Bandwidth (802.11n-HT20, 5240MHz)

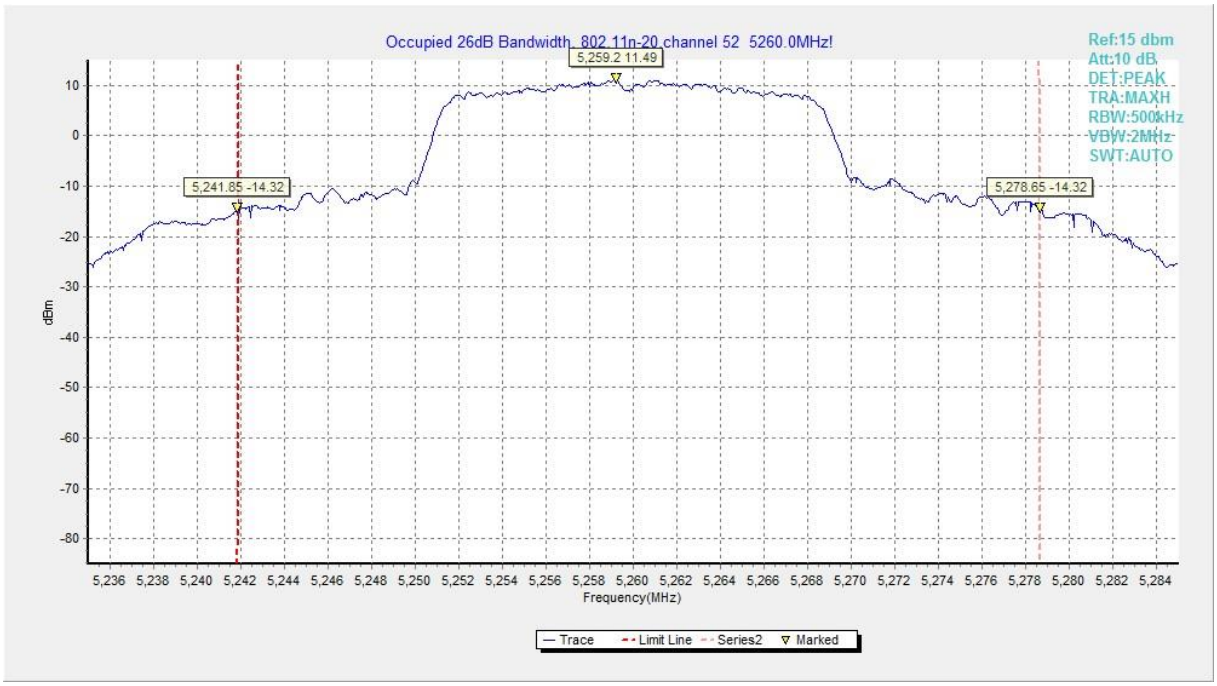


Fig. 10 Occupied 26dB Bandwidth (802.11n-HT20, 5260MHz)

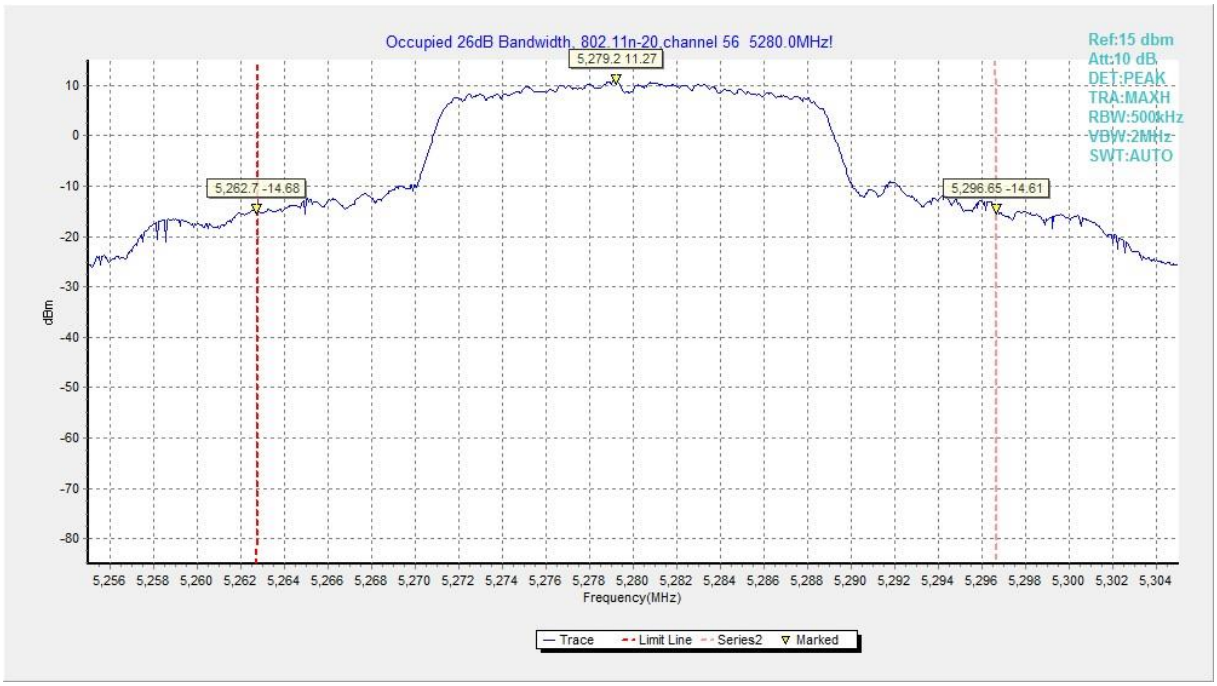


Fig. 11 Occupied 26dB Bandwidth (802.11n-HT20, 5280MHz)

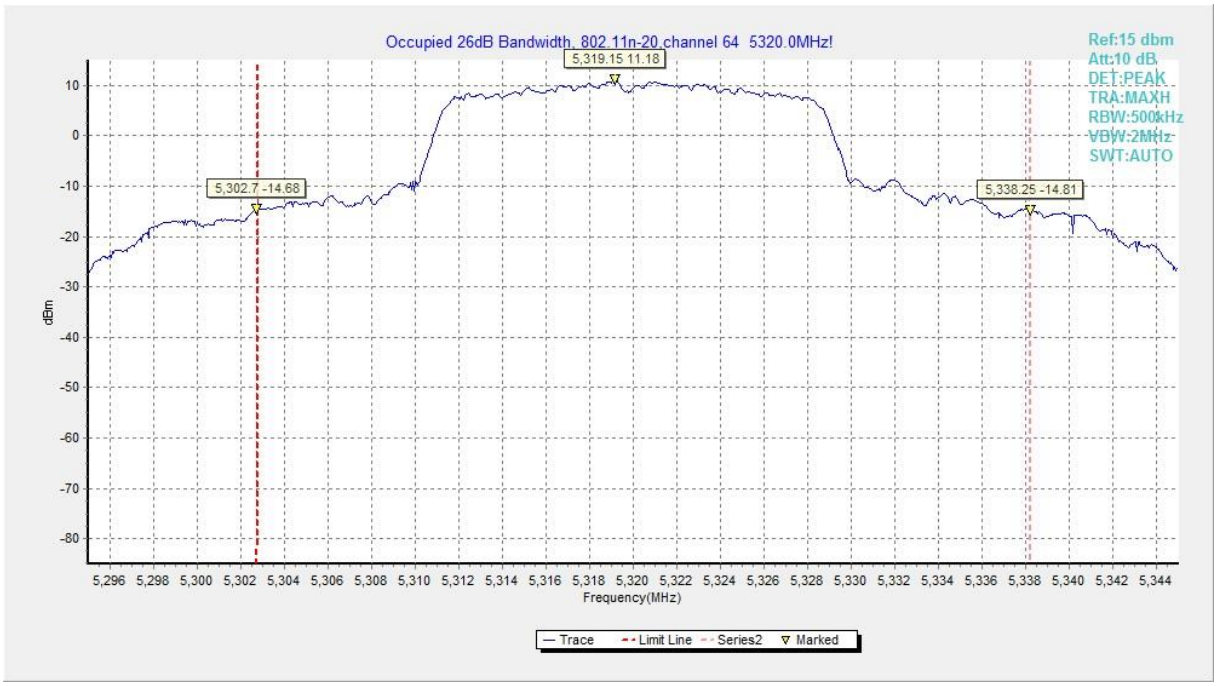


Fig. 12 Occupied 26dB Bandwidth (802.11n-HT20, 5320MHz)

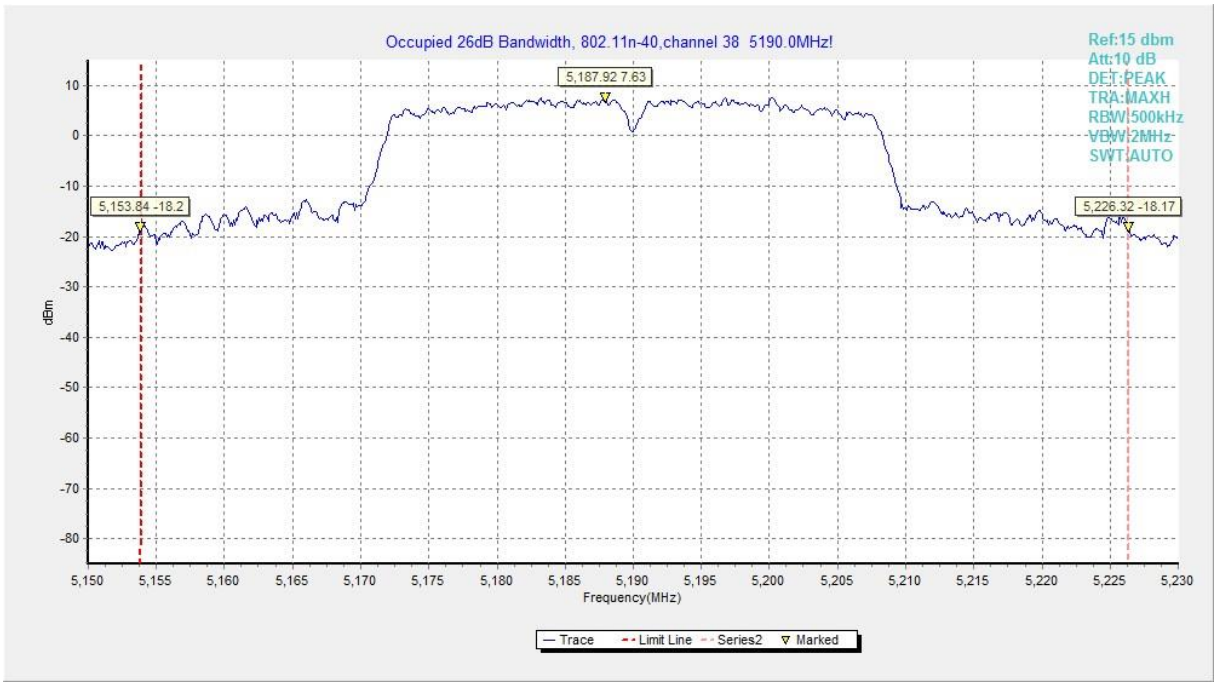


Fig. 13 Occupied 26dB Bandwidth (802.11n-HT40, 5190MHz)

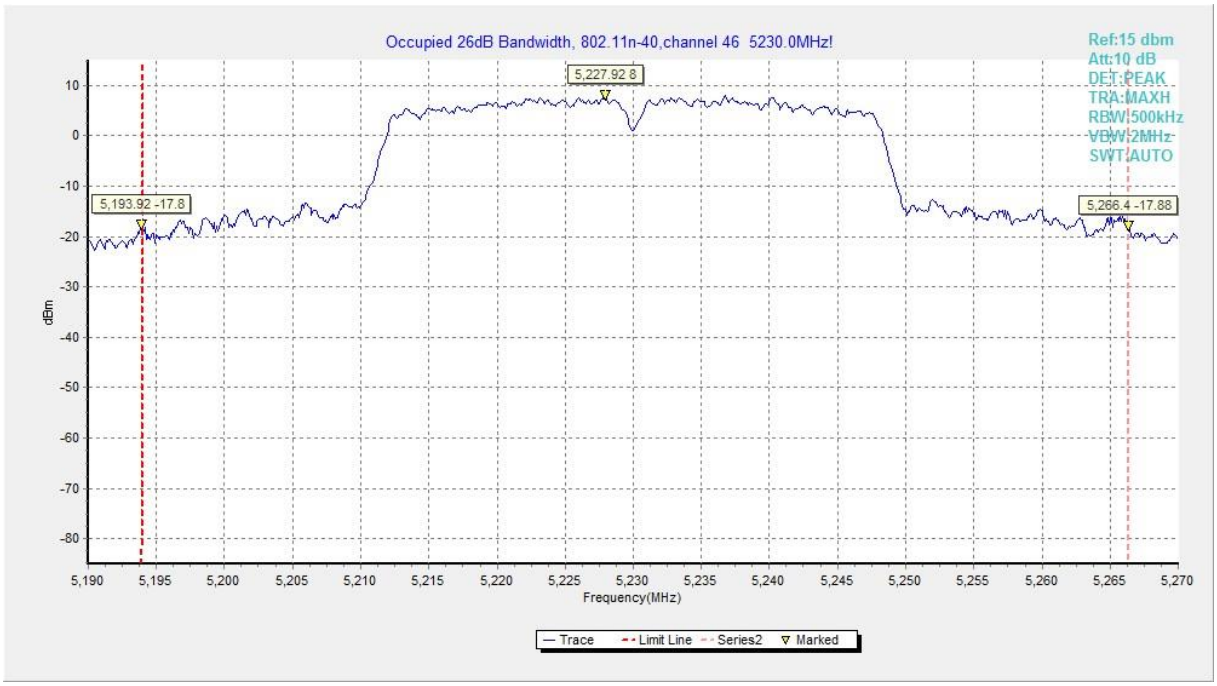


Fig. 14 Occupied 26dB Bandwidth (802.11n-HT40, 5230MHz)

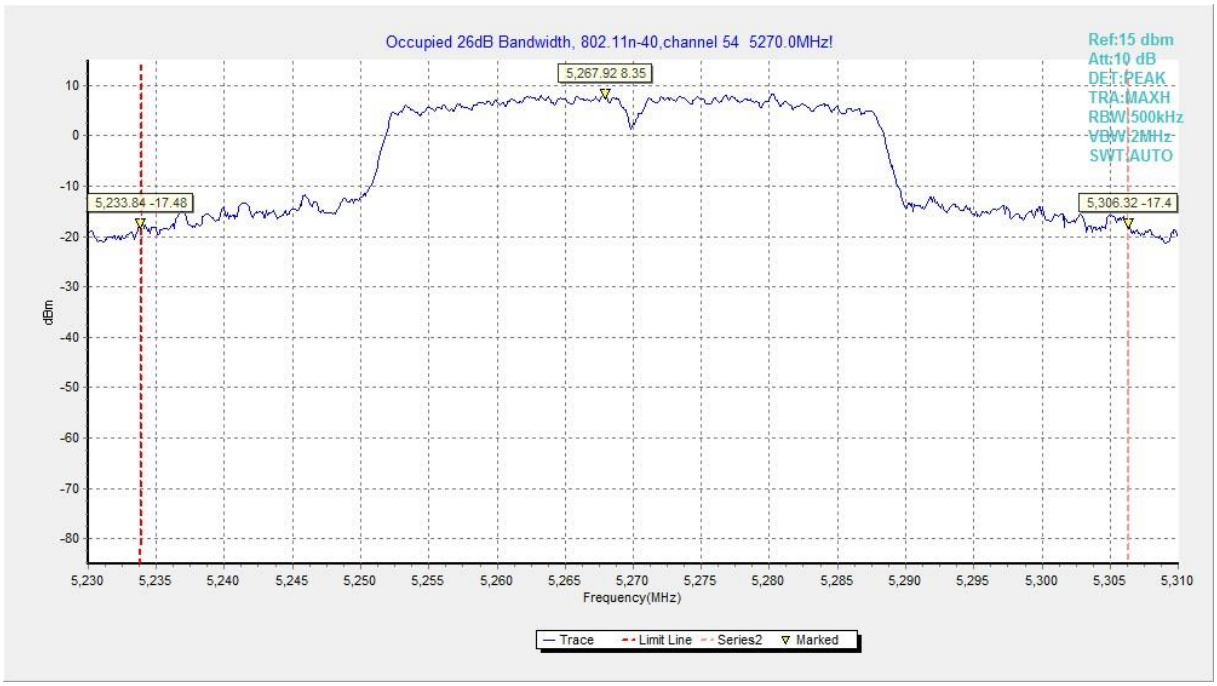


Fig. 15 Occupied 26dB Bandwidth (802.11n-HT40, 5270MHz)

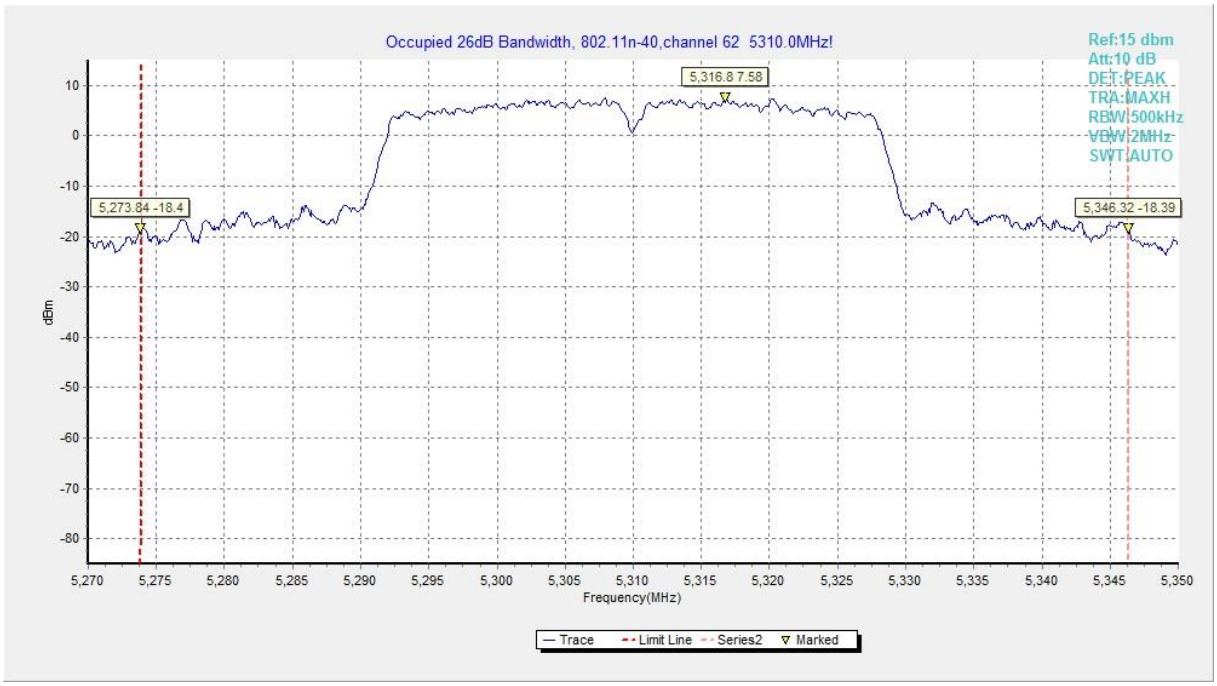


Fig. 16 Occupied 26dB Bandwidth (802.11n-HT40, 5310MHz)

A.5. Band Edges Compliance

A5.1 Band Edges - Radiated

Measurement Limit:

Standard	Limit (dB μ V/m)	
FCC 47 CFR Part 15.209	Peak	74
	Average	54

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)).

Measurement Uncertainty:

Measurement Uncertainty	0.75dB

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.17	P
	5320 MHz	Fig.18	P
802.11n HT20	5180 MHz	Fig.19	P
	5320 MHz	Fig.20	P
802.11n HT40	5190 MHz	Fig.21	P
	5310 MHz	Fig.22	P

Conclusion: PASS

Test graphs as below:

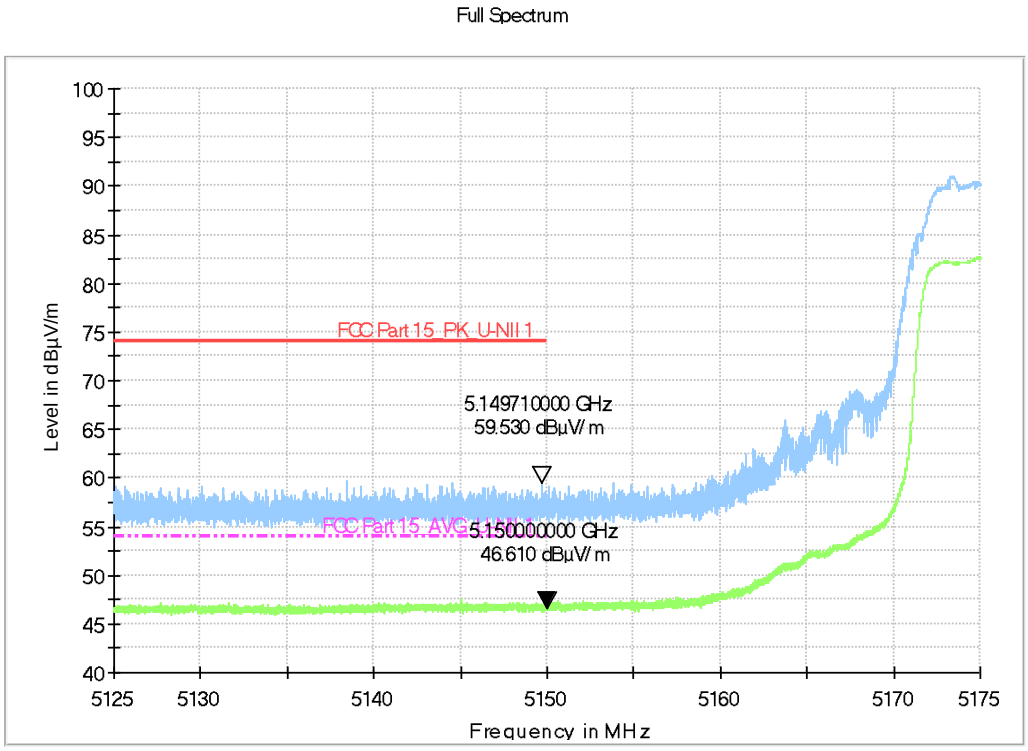


Fig. 17 Band Edges (802.11a, 5180MHz)

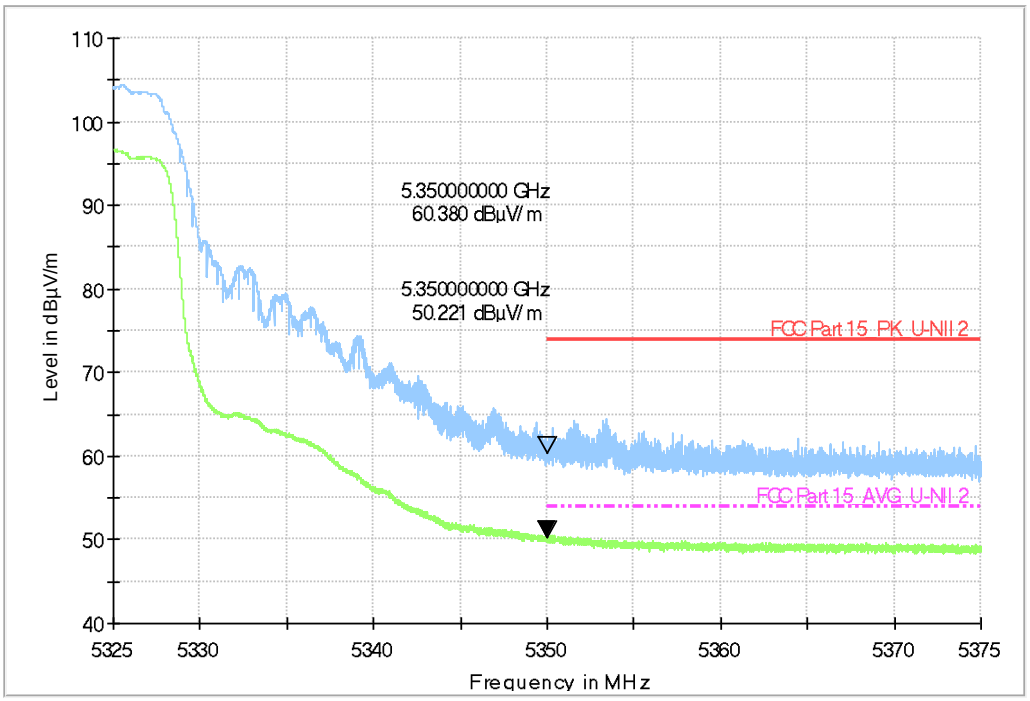


Fig. 18 Band Edges (802.11a, 5320MHz)

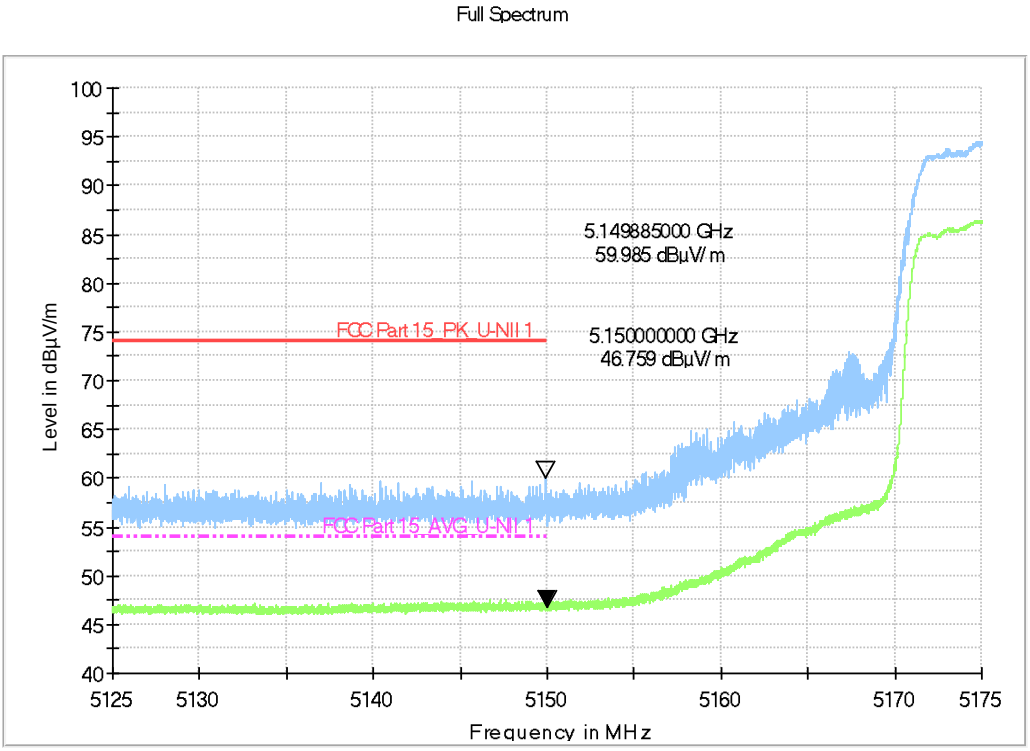


Fig. 19 Band Edges (802.11n-HT20, 5180MHz)

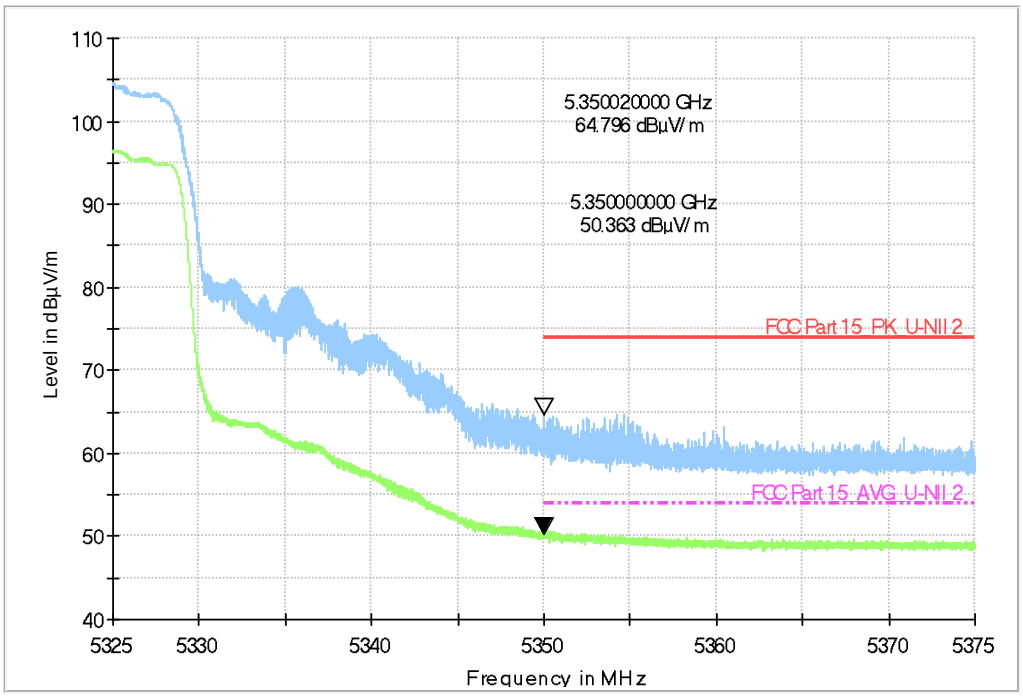


Fig. 20 Band Edges (802.11n-HT20, 5320MHz)

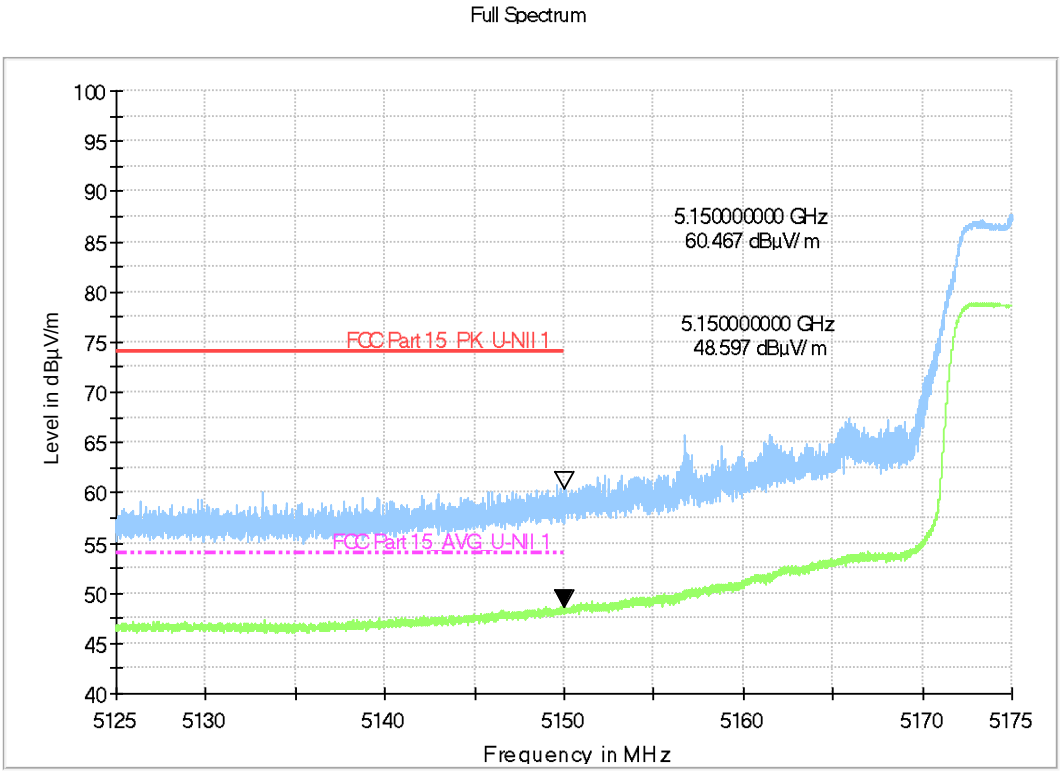


Fig. 21 Band Edges (802.11n-HT40, 5190MHz)

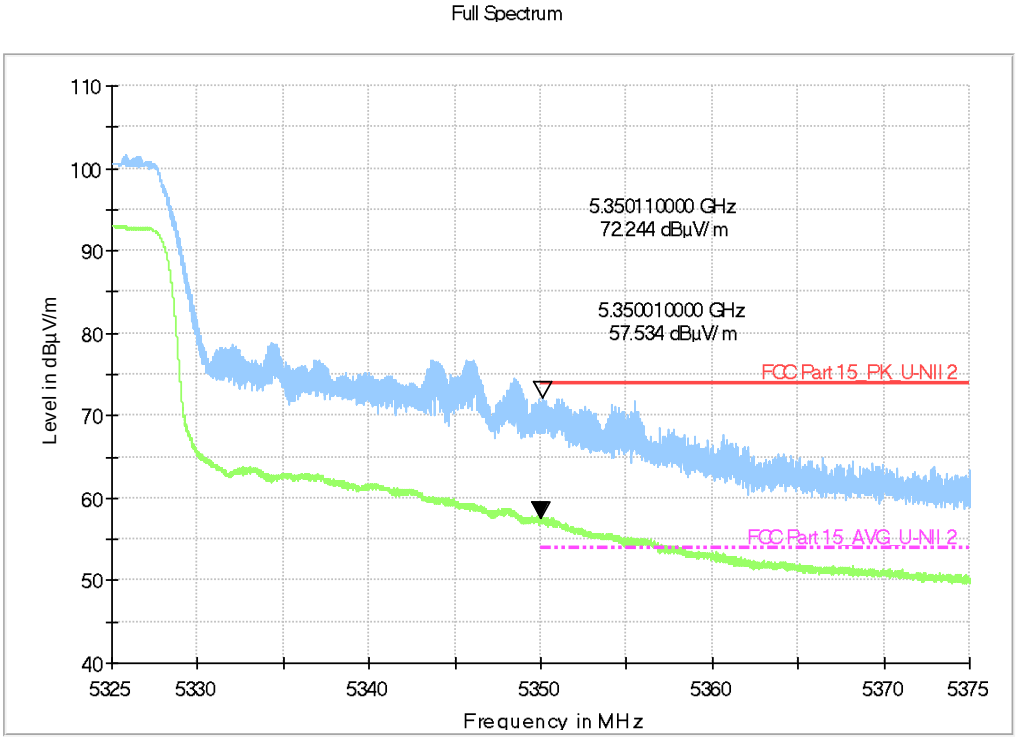


Fig. 22 Band Edges (802.11n-HT40, 5310MHz)

A.6. Transmitter Spurious Emission

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.407	-27 dBm/MHz

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(m)
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	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 uncertainty:

Expanded measurement uncertainty for this test item is U =3.9dB, k=2.

Measurement Results:

802.11a mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	36(5180MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	40(5200MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	48(5240MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	52(5260MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	56(5280MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P

		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	64(5320MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n - HT20	36(5180MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	40(5200MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	48(5240MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	52(5260MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	56(5280MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	64(5320MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n HT40	38(5190MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	46(5230MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
	54(5270MHz)	30 MHz ~1 GHz	---	P
		1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P
		18 GHz ~ 26.5 GHz	---	P
		26.5 GHz ~ 40 GHz	---	P
	62(5310MHz)	1 GHz ~ 3 GHz	---	P
		3 GHz ~ 7 GHz	---	P
		7 GHz ~ 18 GHz	---	P

Conclusion: PASS

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

AVERAGE Results:

802.11a

Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5150.000	46.6	-36.6	33.4	49.836	H
17994.500	40.9	-25.5	43.4	23.002	H
17989.000	40.8	-25.5	43.4	22.902	V
18000.000	40.8	-26.5	46.4	20.905	H
17996.700	40.8	-25.5	43.4	22.902	H
17992.300	40.8	-25.5	43.4	22.902	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17998.900	40.9	-25.5	43.4	23.002	H
17989.000	40.9	-25.5	43.4	23.002	H
17983.500	40.8	-25.5	43.4	22.902	V
17996.700	40.8	-25.5	43.4	22.902	H
17994.500	40.7	-25.5	43.4	22.802	H
17997.800	40.7	-25.5	43.4	22.802	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17993.400	41.0	-25.5	43.4	23.102	H
17989.000	40.9	-25.5	43.4	23.002	H
17994.500	40.8	-25.5	43.4	22.902	V
17980.200	40.8	-25.5	43.4	22.902	H
17997.800	40.8	-25.5	43.4	22.902	H
18000.000	40.7	-26.5	46.4	20.805	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17997.800	41.0	-25.5	43.4	23.102	H
17993.400	41.0	-25.5	43.4	23.102	H
17998.900	40.9	-25.5	43.4	23.002	V
17994.500	40.9	-25.5	43.4	23.002	H
17996.700	40.7	-25.5	43.4	22.802	H
17984.600	40.7	-25.5	43.4	22.802	H

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17993.400	41.2	-25.5	43.4	23.302	H
17997.800	41.0	-25.5	43.4	23.102	H
17998.900	40.8	-25.5	43.4	22.902	V
17990.100	40.8	-25.5	43.4	22.902	H
17963.700	40.8	-25.5	43.4	22.902	H
18000.000	40.8	-26.5	46.4	20.905	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5350.000	50.2	-36.6	33.4	53.394	H
17996.700	41.1	-25.5	43.4	23.202	H
17927.400	41.0	-25.5	43.4	23.102	V
17993.400	40.9	-25.5	43.4	23.002	H
17995.600	40.8	-25.5	43.4	22.902	H
17978.000	40.7	-25.5	43.4	22.802	H

802.11n-HT20

Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5150.000	46.8	-36.6	33.4	50.036	H
17994.500	40.9	-25.5	43.4	23.002	H
17989.000	40.8	-25.5	43.4	22.902	V
18000.000	40.8	-26.5	46.4	20.905	H
17996.700	40.8	-25.5	43.4	22.902	H
17992.300	40.8	-25.5	43.4	22.902	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17996.700	41.0	-25.5	43.4	23.102	H
17998.900	40.9	-25.5	43.4	23.002	H
17995.600	40.9	-25.5	43.4	23.002	V
17989.000	40.8	-25.5	43.4	22.902	H
18000.000	40.8	-26.5	46.4	20.905	H
17984.600	40.7	-25.5	43.4	22.802	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17998.900	41.0	-25.5	43.4	23.102	H
17993.400	40.8	-25.5	43.4	22.902	H
17990.100	40.8	-25.5	43.4	22.902	V
18000.000	40.7	-26.5	46.4	20.805	H
17986.800	40.7	-25.5	43.4	22.802	H
17997.800	40.7	-25.5	43.4	22.802	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17992.300	41.2	-25.5	43.4	23.302	H
18000.000	41.0	-26.5	46.4	21.105	H
17997.800	40.9	-25.5	43.4	23.002	V
17994.500	40.8	-25.5	43.4	22.902	H
17990.100	40.8	-25.5	43.4	22.902	H
17996.700	40.8	-25.5	43.4	22.902	H

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17995.600	40.8	-25.5	43.4	22.902	H
17997.800	40.8	-25.5	43.4	22.902	H
17991.200	40.7	-25.5	43.4	22.802	V
17998.900	40.7	-25.5	43.4	22.802	H
17996.700	40.7	-25.5	43.4	22.802	H
17964.800	40.7	-25.5	43.4	22.802	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5350.000	50.4	-36.6	33.4	53.594	H
17993.400	41.1	-25.5	43.4	23.202	H
17995.600	41.0	-25.5	43.4	23.102	V
17997.800	41.0	-25.5	43.4	23.102	H
17996.700	40.9	-25.5	43.4	23.002	H
17998.900	40.9	-25.5	43.4	23.002	H

802.11n-HT40

Channel 38

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5150.000	48.6	-36.6	33.4	51.836	H
17995.600	41.0	-25.5	43.4	23.102	H
17993.400	40.9	-25.5	43.4	23.002	V
18000.000	40.9	-26.5	46.4	21.005	H
17991.200	40.9	-25.5	43.4	23.002	H
17989.000	40.8	-25.5	43.4	22.902	H

Channel 46

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17992.300	40.9	-25.5	43.4	23.002	H
17993.400	40.8	-25.5	43.4	22.902	H
17994.500	40.8	-25.5	43.4	22.902	V
17996.700	40.8	-25.5	43.4	22.902	H
17997.800	40.6	-25.5	43.4	22.702	H
17990.100	40.6	-25.5	43.4	22.702	H

Channel 54

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17998.900	41.1	-25.5	43.4	23.202	H
17997.800	40.9	-25.5	43.4	23.002	H
17990.100	40.8	-25.5	43.4	22.902	V
17995.600	40.8	-25.5	43.4	22.902	H
17981.300	40.8	-25.5	43.4	22.902	H
17994.500	40.8	-25.5	43.4	22.902	H

Channel 62

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5350.010	57.5	-36.6	33.4	60.694	H
17995.600	40.8	-25.5	43.4	22.902	H
17985.700	40.7	-25.5	43.4	22.802	V
17990.100	40.7	-25.5	43.4	22.802	H
17989.000	40.7	-25.5	43.4	22.802	H
17930.700	40.6	-25.5	43.4	22.702	H

PEAK Results:

802.11a

Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5149.710	59.5	-36.6	33.4	62.736	H
17795.400	52.0	-25.7	43.4	34.342	H
17899.900	52.0	-25.7	43.4	34.342	V
17808.600	51.9	-25.7	43.4	34.242	H
17993.400	51.8	-25.5	43.4	33.902	H
17971.400	51.8	-25.5	43.4	33.902	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17994.500	52.5	-25.5	43.4	34.602	H
17883.400	52.3	-25.7	43.4	34.642	H
17940.600	52.1	-25.5	43.4	34.202	V
17992.300	51.9	-25.5	43.4	34.002	H
17872.400	51.7	-25.7	43.4	34.042	H
17982.400	51.5	-25.5	43.4	33.602	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17968.100	52.2	-25.5	43.4	34.302	H
17828.400	52.1	-25.7	43.4	34.442	H
17901.000	52.0	-25.7	43.4	34.342	V
15723.000	51.9	-27.4	38.4	40.862	H
15715.300	51.9	-27.4	38.4	40.862	H
17915.300	51.8	-25.5	43.4	33.902	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17975.800	52.5	-25.5	43.4	34.602	H
15776.900	52.0	-27.2	38.4	40.828	H
15775.800	51.9	-27.2	38.4	40.728	V
17997.800	51.8	-25.5	43.4	33.902	H
17987.900	51.8	-25.5	43.4	33.902	H
17989.000	51.8	-25.5	43.4	33.902	H

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17906.500	52.4	-25.7	43.4	34.742	H
17732.700	52.1	-26.9	43.4	35.552	H
15840.700	51.9	-27.2	38.4	40.728	V
17996.700	51.9	-25.5	43.4	34.002	H
17992.300	51.8	-25.5	43.4	33.902	H
17987.900	51.8	-25.5	43.4	33.902	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5350.000	60.4	-36.6	33.4	63.594	H
17990.100	53.1	-25.5	43.4	35.202	H
15957.300	52.1	-27.0	38.4	40.674	V
17983.500	52.0	-25.5	43.4	34.102	H
17973.600	51.8	-25.5	43.4	33.902	H
17986.800	51.7	-25.5	43.4	33.802	H

802.11n-HT20

Channel 36

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5149.885	60.0	-36.6	33.4	63.236	H
17795.400	52.0	-25.7	43.4	34.342	H
17899.900	52.0	-25.7	43.4	34.342	V
17808.600	51.9	-25.7	43.4	34.242	H
17993.400	51.8	-25.5	43.4	33.902	H
17971.400	51.8	-25.5	43.4	33.902	H

Channel 40

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17917.500	52.8	-25.5	43.4	34.902	H
17831.700	52.4	-25.7	43.4	34.742	H
17895.500	52.1	-25.7	43.4	34.442	V
17810.800	52.0	-25.7	43.4	34.342	H
17897.700	52.0	-25.7	43.4	34.342	H
17965.900	51.9	-25.5	43.4	34.002	H

Channel 48

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17998.900	52.0	-25.5	43.4	34.102	H
17920.800	52.0	-25.5	43.4	34.102	H
17982.400	51.5	-25.5	43.4	33.602	V
18000.000	51.5	-26.5	46.4	31.605	H
17811.900	51.3	-25.7	43.4	33.642	H
17993.400	51.3	-25.5	43.4	33.402	H

Channel 52

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
15775.800	54.5	-27.2	38.4	43.328	H
15786.800	53.6	-27.2	38.4	42.428	H
15783.500	53.2	-27.2	38.4	42.028	V
15784.600	52.9	-27.2	38.4	41.728	H
15779.100	52.4	-27.2	38.4	41.228	H
17814.100	52.4	-25.7	43.4	34.742	H

Channel 56

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
15841.800	54.0	-27.2	38.4	42.828	H
15848.400	53.5	-27.2	38.4	42.328	H
17995.600	52.9	-25.5	43.4	35.002	V
15838.500	52.9	-27.2	38.4	41.728	H
15829.700	52.9	-27.2	38.4	41.728	H
15847.300	52.8	-27.2	38.4	41.628	H

Channel 64

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5350.020	64.8	-36.6	33.4	67.994	H
15968.300	53.8	-27.0	38.4	42.374	H
15967.200	52.6	-27.0	38.4	41.174	V
17972.500	52.5	-25.5	43.4	34.602	H
17908.700	52.5	-25.7	43.4	34.842	H
15957.300	52.2	-27.0	38.4	40.774	H

802.11n-HT40

Channel 38

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5150.000	60.5	-36.6	33.4	63.736	H
17882.300	52.2	-25.7	43.4	34.542	H
17980.200	51.9	-25.5	43.4	34.002	V
17924.100	51.8	-25.5	43.4	33.902	H
17984.600	51.7	-25.5	43.4	33.802	H
17974.700	51.6	-25.5	43.4	33.702	H

Channel 46

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17916.400	51.9	-25.5	43.4	34.002	H
17895.500	51.7	-25.7	43.4	34.042	H
17994.500	51.7	-25.5	43.4	33.802	V
17996.700	51.5	-25.5	43.4	33.602	H
17924.100	51.3	-25.5	43.4	33.402	H
17937.300	51.3	-25.5	43.4	33.402	H

Channel 54

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
17990.100	52.3	-25.5	43.4	34.402	H
17896.600	51.9	-25.7	43.4	34.242	H
17996.700	51.8	-25.5	43.4	33.902	V
17925.200	51.8	-25.5	43.4	33.902	H
17984.600	51.8	-25.5	43.4	33.902	H
17910.900	51.8	-25.7	43.4	34.142	H

Channel 62

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Antenna Pol. (H/V)
5350.110	72.2	-36.6	33.4	75.394	H
17899.900	52.5	-25.7	43.4	34.842	H
17917.500	52.3	-25.5	43.4	34.402	V
17981.300	51.7	-25.5	43.4	33.802	H
17919.700	51.6	-25.5	43.4	33.702	H
17905.400	51.6	-25.7	43.4	33.942	H

A.7. AC Powerline Conducted Emission (150kHz- 30MHz)

Test Condition:

Voltage（V）	Frequency（Hz）
110	60

Measurement uncertainty:

Expanded measurement uncertainty for this test item is U =3.08dB, k=2.

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	66 to 56	Fig. 23	Fig. 25	P
0.5 to 5	56			
5 to 30	60			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	56 to 46	Fig.24	Fig. 25	P
0.5 to 5	46			
5 to 30	50			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Conclusion: PASS

Test graphs as below:

Traffic :Set.10

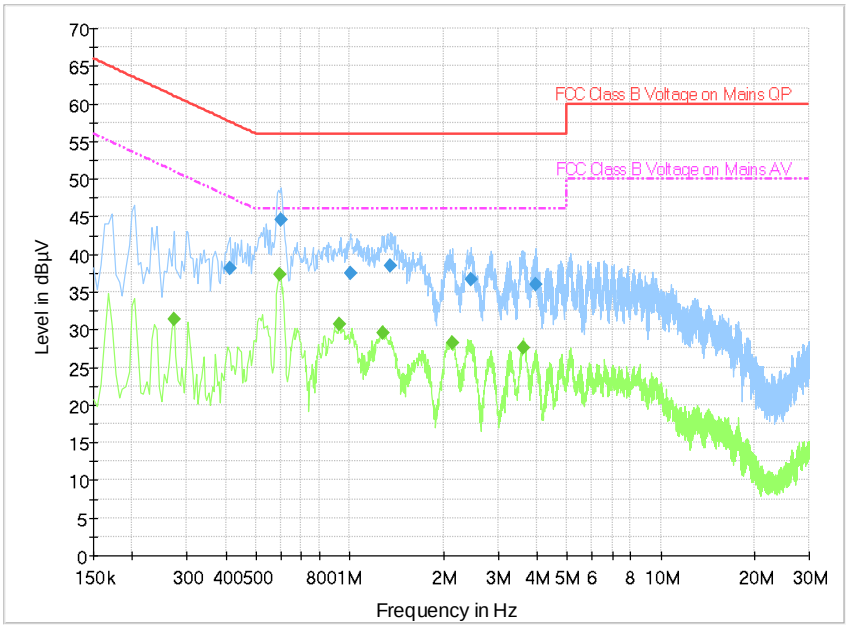


Fig. 23 Conducted Emission(802.11a, Ch40, TX)

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.411000	38.1	2000.0	9.000	On	L1	19.9	19.6	57.6	
0.600000	44.5	2000.0	9.000	On	L1	19.8	11.5	56.0	
1.005000	37.5	2000.0	9.000	On	N	19.7	18.5	56.0	
1.347000	38.4	2000.0	9.000	On	N	19.6	17.6	56.0	
2.463000	36.6	2000.0	9.000	On	L1	19.7	19.4	56.0	
3.952500	35.9	2000.0	9.000	On	L1	19.6	20.1	56.0	

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.271500	31.4	2000.0	9.000	On	L1	19.8	19.7	51.1	
0.595500	37.3	2000.0	9.000	On	L1	19.8	8.7	46.0	
0.924000	30.8	2000.0	9.000	On	L1	19.7	15.2	46.0	
1.284000	29.5	2000.0	9.000	On	L1	19.6	16.5	46.0	
2.143500	28.2	2000.0	9.000	On	L1	19.7	17.8	46.0	
3.606000	27.5	2000.0	9.000	On	L1	19.6	18.5	46.0	

Traffic :Set.11

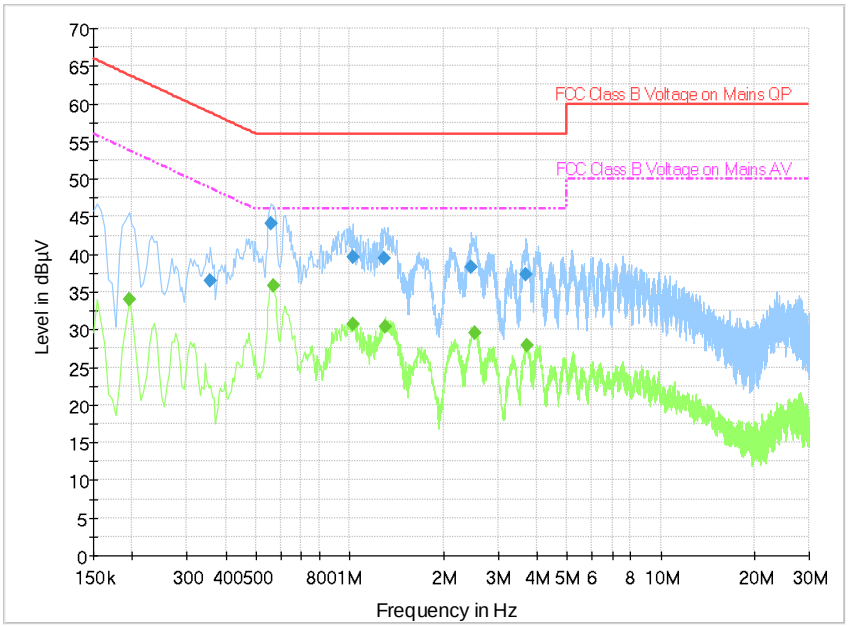


Fig. 24 Conducted Emission(802.11a, Ch40, TX)

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.357000	36.5	2000.0	9.000	On	N	19.9	22.3	58.8	
0.559500	44.0	2000.0	9.000	On	L1	19.9	12.0	56.0	
1.023000	39.7	2000.0	9.000	On	L1	19.6	16.3	56.0	
1.293000	39.4	2000.0	9.000	On	L1	19.6	16.6	56.0	
2.463000	38.2	2000.0	9.000	On	L1	19.7	17.8	56.0	
3.691500	37.4	2000.0	9.000	On	L1	19.6	18.6	56.0	

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.195000	34.1	2000.0	9.000	On	N	19.8	19.8	53.8	
0.568500	35.8	2000.0	9.000	On	N	19.9	10.2	46.0	
1.023000	30.8	2000.0	9.000	On	L1	19.6	15.2	46.0	
1.297500	30.3	2000.0	9.000	On	L1	19.6	15.7	46.0	
2.535000	29.5	2000.0	9.000	On	L1	19.7	16.5	46.0	
3.718500	27.8	2000.0	9.000	On	L1	19.6	18.2	46.0	

Idle :Set.10

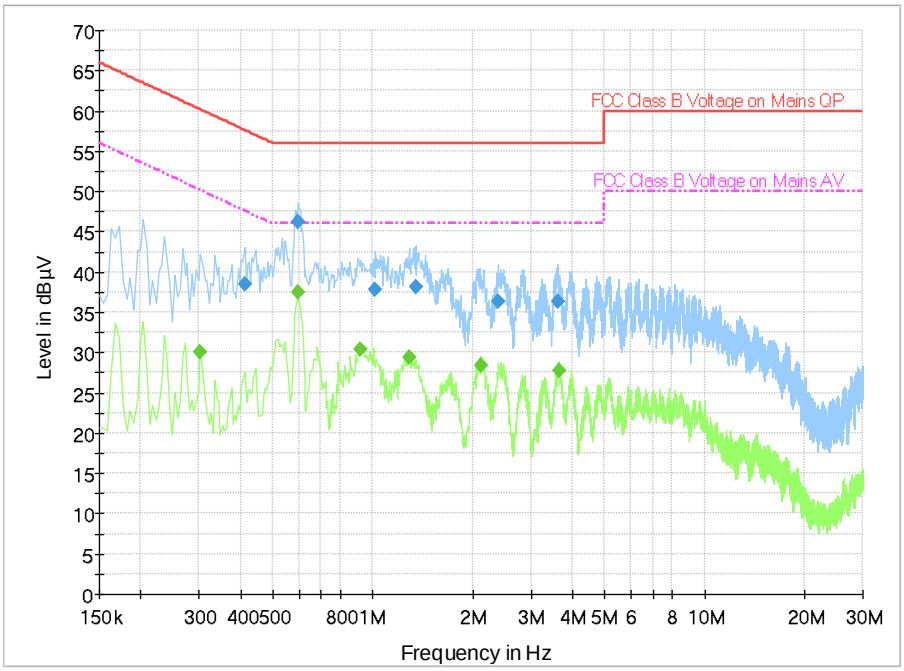


Fig. 25 Conducted Emission(802.11a, IDLE)

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.411000	38.4	2000.0	9.000	On	L1	19.9	19.2	57.6	
0.595500	46.3	2000.0	9.000	On	L1	19.8	9.7	56.0	
1.018500	37.8	2000.0	9.000	On	N	19.7	18.2	56.0	
1.351500	38.1	2000.0	9.000	On	N	19.6	17.9	56.0	
2.395500	36.3	2000.0	9.000	On	L1	19.7	19.7	56.0	
3.610500	36.4	2000.0	9.000	On	L1	19.6	19.6	56.0	

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.303000	30.1	2000.0	9.000	On	L1	19.8	20.1	50.2	
0.595500	37.4	2000.0	9.000	On	L1	19.8	8.6	46.0	
0.919500	30.4	2000.0	9.000	On	L1	19.7	15.6	46.0	
1.288500	29.4	2000.0	9.000	On	L1	19.6	16.6	46.0	
2.125500	28.4	2000.0	9.000	On	L1	19.7	17.6	46.0	
3.642000	27.8	2000.0	9.000	On	L1	19.6	18.2	46.0	

A.8. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.

b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.

d) Step a) through step c) might require iteration to adjust within the specified range.

e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% ofthe total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz

Measurement Result:

Mode	Channel	99% Occupied bandwidth (MHz)		conclusion
802.11a	5180 MHz	**Fig. 26**	18.04	P
	5200 MHz	**Fig. 27**	18.00	P
	5240 MHz	**Fig. 28**	17.36	P
802.11n HT20	5180 MHz	**Fig. 29**	18.52	P
	5200 MHz	**Fig. 30**	18.68	P
	5240 MHz	**Fig. 31**	18.68	P
802.11n HT40	5190 MHz	**Fig. 32**	36.80	P
	5230 MHz	**Fig. 33**	36.80	P

Conclusion: PASS

Test graphs as below:

Fig. 26 99% Occupied bandwidth (802.11a, 5180MHz)

Fig. 27 99% Occupied bandwidth (802.11a, 5200MHz)

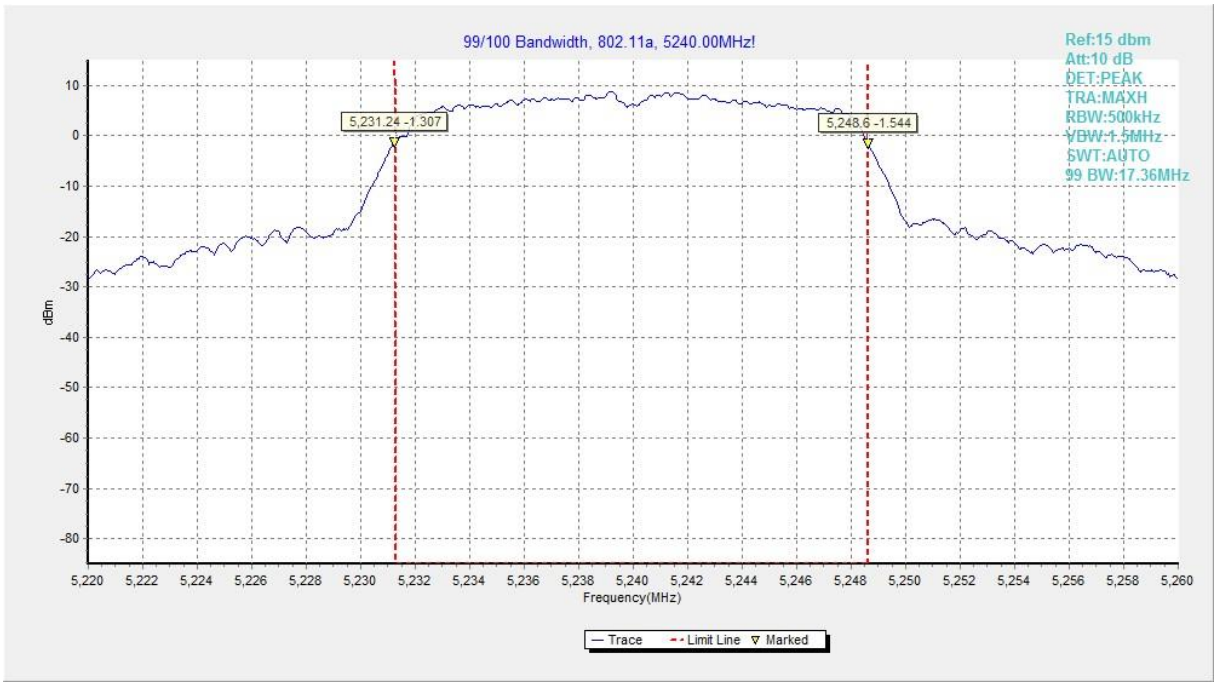


Fig. 28 99% Occupied bandwidth (802.11a, 5240MHz)

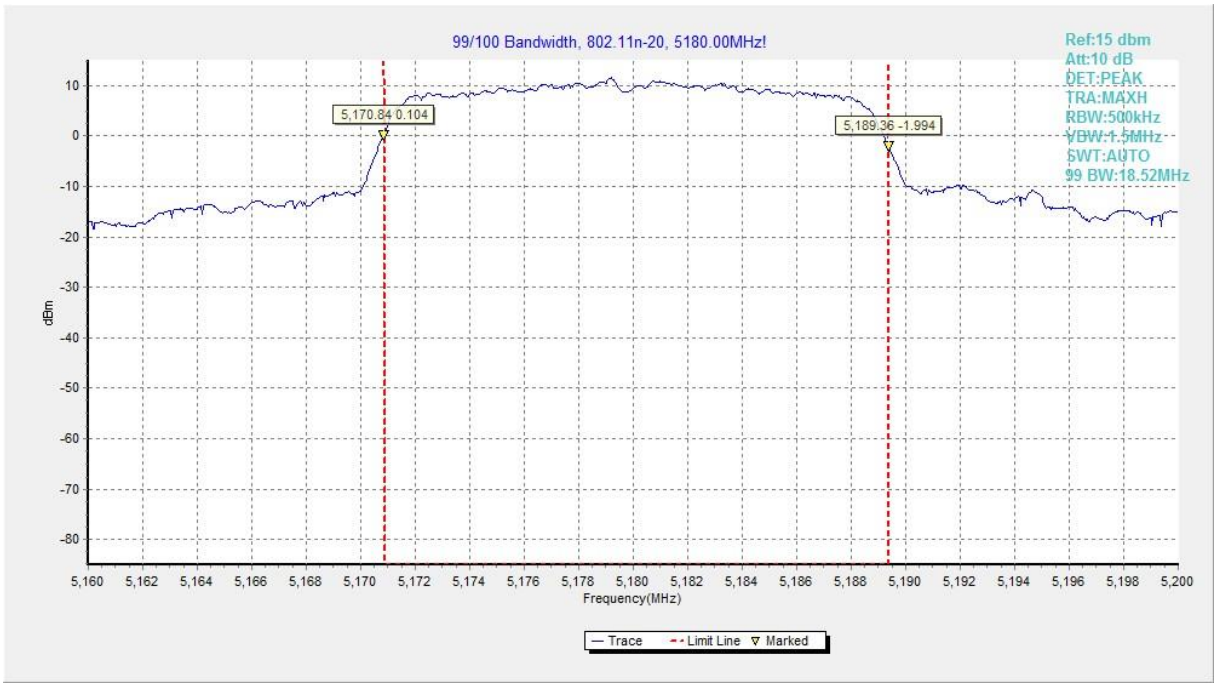


Fig. 29 99% Occupied bandwidth (802.11n-HT20, 5180MHz)

Fig. 30 99% Occupied bandwidth (802.11n-HT20, 5200MHz)

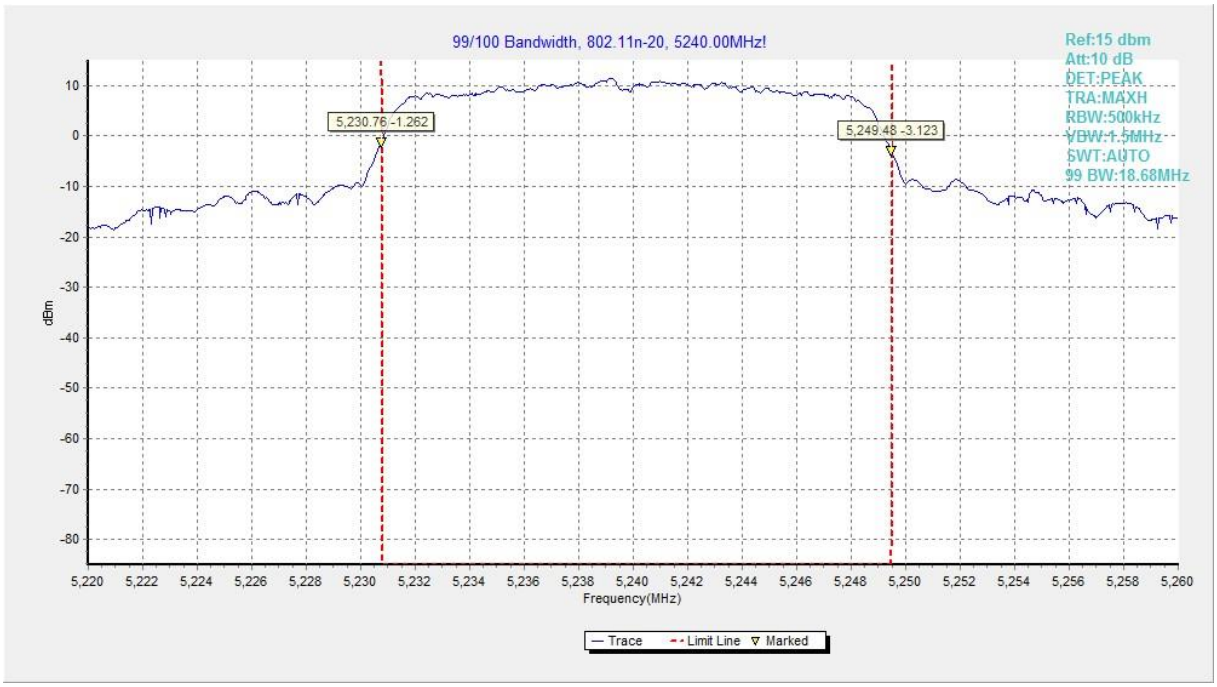


Fig. 31 99% Occupied bandwidth (802.11n-HT20, 5240MHz)

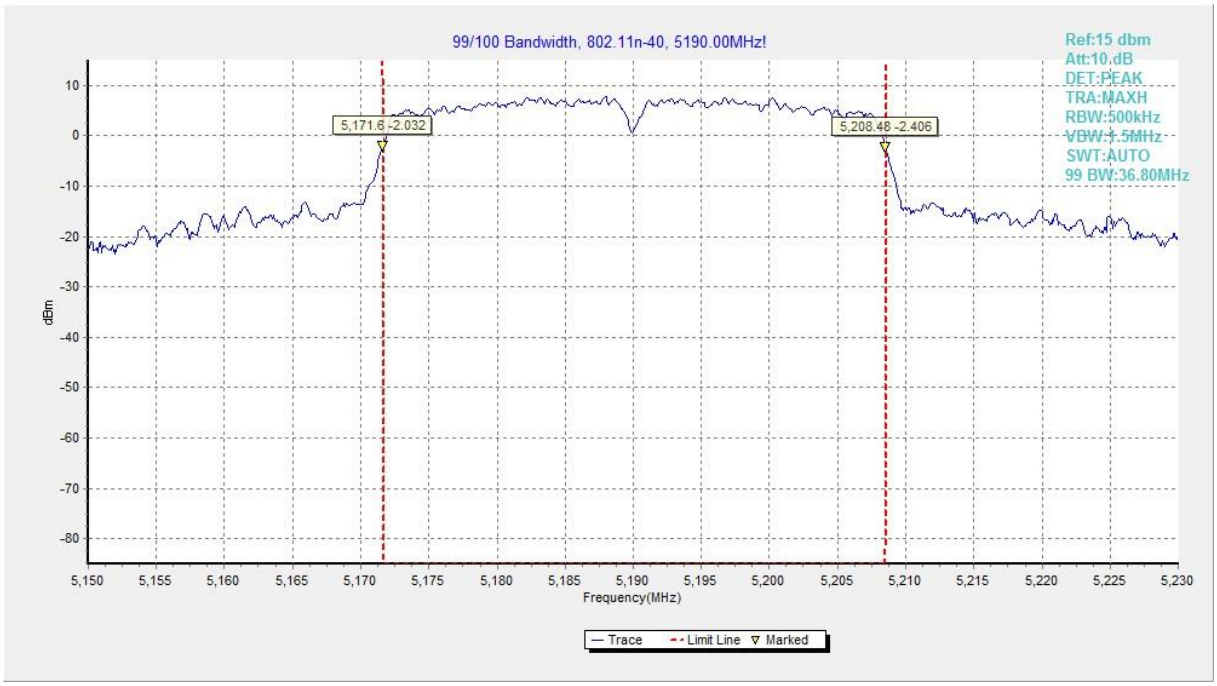


Fig. 32 99% Occupied bandwidth (802.11n-HT40, 5190MHz)

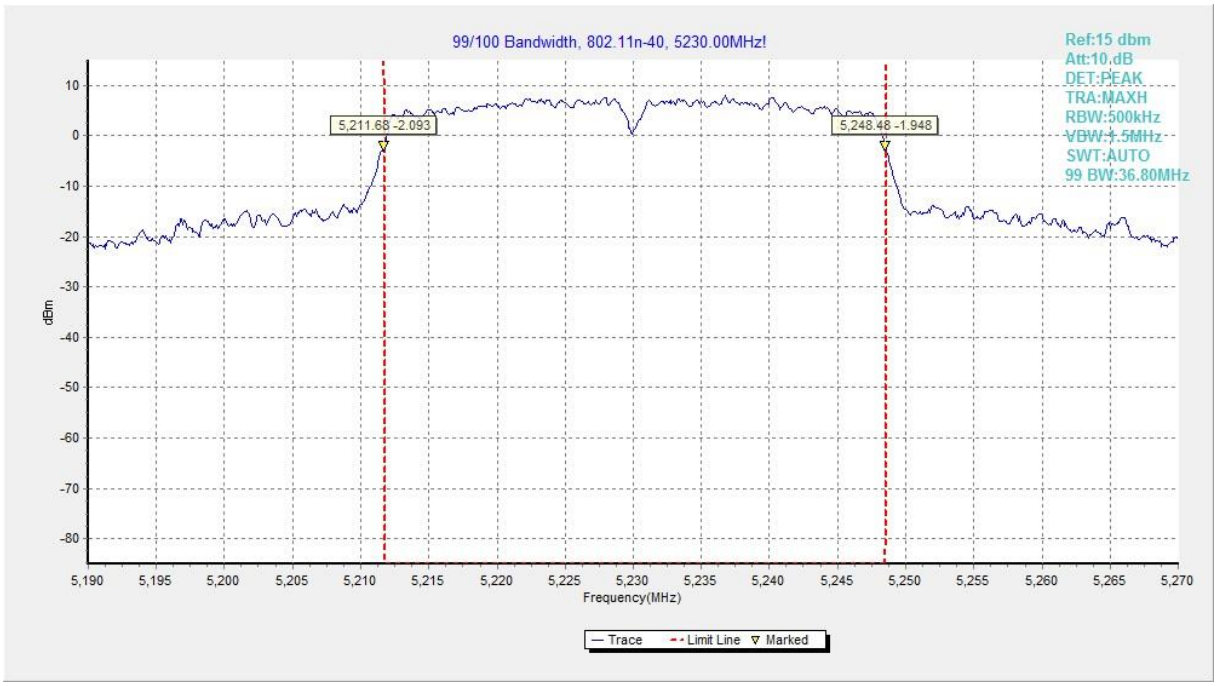


Fig. 33 99% Occupied bandwidth (802.11n-HT40, 5230MHz)

A.9. Frequency Stability

Manufacturers ensured the EUT meet the requirement of frequency stability, such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

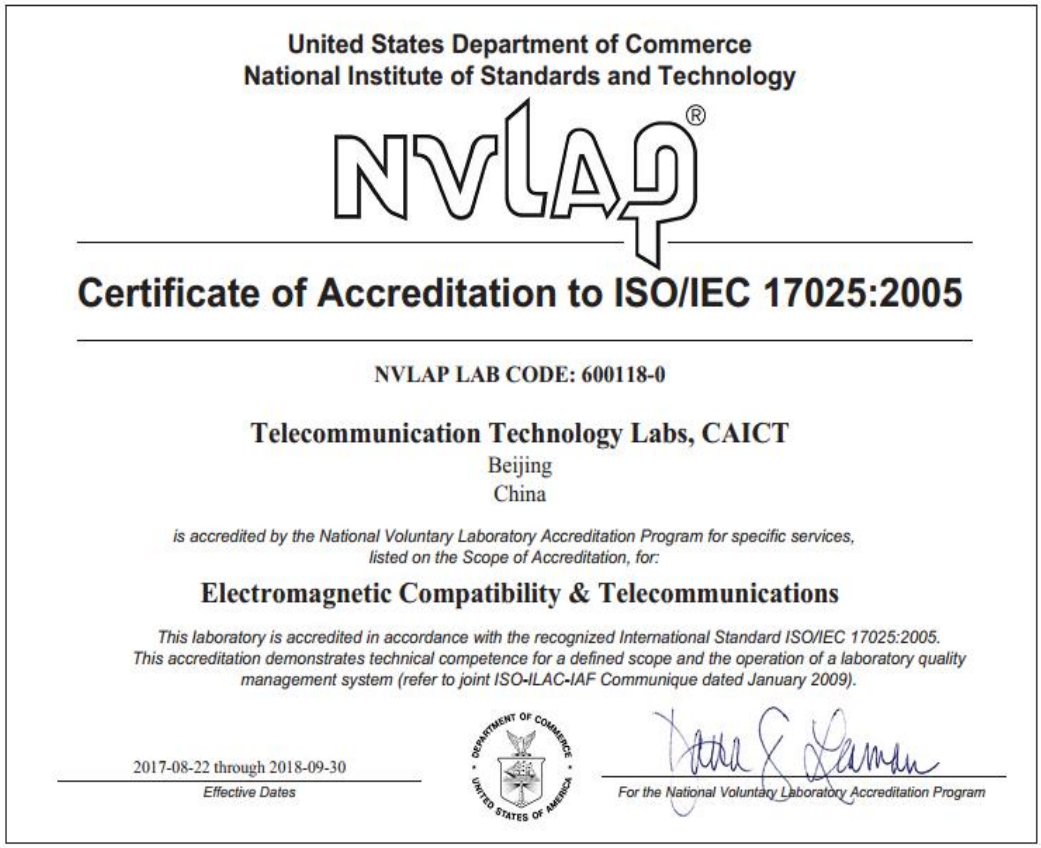
Measurement Result:

Mode	Channel	Test Condition		Result(MHz)
802.11a	5180MHz	Tnom	Vnom	0.01
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	
802.11n-HT20	5260MHz	Tnom	Vnom	0.01
		Tmax	Vnom	
		Tmin	Vnom	
		Vmax	Tnom	
		Vmin	Tnom	

A.10. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500 mW).

ANNEX B: Accreditation Certificate



United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2017-08-22 through 2018-09-30
Effective Dates

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA

For the National Voluntary Laboratory Accreditation Program

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