TEST REPORT

No. I22N02642-WLAN 5GHz

TCL Communication Ltd.

Mobile Phone

Model Name: T507J

with

Hardware Version: 05

Software Version: vVK54

FCC ID: 2ACCJB186

Issued Date: 2023-01-12

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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CONTENTS

1. SUMMARY OF TEST REPORT 3
1.1. TEST ITEMS 3
1.2. TEST STANDARDS 3
1.3. TEST RESULT 3
1.4. TESTING LOCATION 3
1.5. PROJECT DATA 3
1.6. SIGNATURE 3
2. CLIENT INFORMATION 4
2.1. APPLICANT INFORMATION 4
2.2. MANUFACTURER INFORMATION 4
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE) 5
3.1. ABOUT EUT 5
3.2. INTERNAL IDENTIFICATION OF EUT 5
3.3. INTERNAL IDENTIFICATION OF AE 5
3.4. GENERAL DESCRIPTION 6
4. REFERENCE DOCUMENTS 7
4.1. DOCUMENTS SUPPLIED BY APPLICANT 7
4.2. REFERENCE DOCUMENTS FOR TESTING 7
5. TEST RESULTS 8
5.1. TESTING ENVIRONMENT 8
5.2. TEST RESULTS 8
5.3. STATEMENTS 8
6. TEST EQUIPMENTS UTILIZED 9
7. LABORATORY ENVIRONMENT 10
8. MEASUREMENT UNCERTAINTY 11
ANNEX A: MEASUREMENT RESULTS 12
A.1. MEASUREMENT METHOD 12
A.2. MAXIMUM OUTPUT POWER 13
A.3. PEAK POWER SPECTRAL DENSITY 16
A.4. OCCUPIED 26DB BANDWIDTH 17
A.5. OCCUPIED 6DB BANDWIDTH 27
A.6. 99% OCCUPIED BANDWIDTH 31
A.7. BAND EDGES COMPLIANCE 44
A.8. TRANSMITTER SPURIOUS EMISSION 53
A.9. RADIATED SPURIOUS EMISSIONS < 30MHZ 75
A.10. AC POWER LINE CONDUCTED EMISSION 76
A.11. POWER CONTROL 79

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1. Summary of Test Report

1.1. Test Items

Description	Mobile Phone
Model Name	T507J
Applicant's name	TCL Communication Ltd.
Manufacturer's Name	TCL Communication Ltd.

1.2. Test Standards

FCC Part15-2019; ANSI C63.10-2013

1.3. Test Result

Pass

Please refer to 5.2 Test 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:	2022-08-09
Testing End Date:	2022-09-05

1.6. Signature

Lin Kanfeng

(Prepared this test report)

An Ran

(Reviewed this test report)

Zhang Bojun

(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 Person	Annie Jiang
E-Mail	nianxiang.jiang@tcl.com
Telephone:	+86 755 3661 1621
Fax:	+86 755 3661 2000-81722

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 Person	Annie Jiang
E-Mail	nianxiang.jiang@tcl.com
Telephone:	+86 755 3661 1621
Fax:	+86 755 3661 2000-81722

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

3.1. About EUT

Description	Mobile Phone
Model Name	T507J
RLAN Frequency Range	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz -5725MHz~5850MHz
RLAN Protocol	IEEE 802.11a,802.11n-HT20/40,802.11ac-VHT20/40/80
Type of modulation	OFDM
Antenna Type	Integrated
Antenna Gain	-2.1 dBi.
Power Supply	3.85V DC by Battery
FCC ID	2ACCJB186
Condition of EUT as received	No abnormality in appearance

3.2. Internal Identification of EUT

EUT ID*	IMEI	HW Version	SW Version	Receive Date
UT01aa	350634890001540	05	vVK54	2022-08-09
UT18aa	353380540006466	05	vVK54	2022-08-16

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

*UT01aa is used for Conduction test; UT18aa is used for Radiation test and AC Power line Conducted Emission test.

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	Battery	/
AE2	Battery	/
AE3	Charger	/
AE4	Charger	/

AE1

Model	TLp048A8
Manufacturer	Dongguan Ganfeng Electronics co., LTD
Capacity	5000mAh
Nominal Voltage	3.85V

AE2

Model	TLp048A7
Manufacturer	VEKEN
Capacity	5000mAh
Nominal Voltage	3.85V

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AE3

Model	UT-681A-5200ZCY
Manufacturer	Shenzhen Baijunda Electronic Co., Ltd

AE4

Model	UC13US
Manufacturer	Puan

*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 Mobile Phone with integrated antenna and battery. It consists of normal options: Lithium Battery and Charger. Manual and specifications of the EUT were provided to fulfil the test. Samples undergoing test were selected by the client.

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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	2019
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013
KDB789033	GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII) DEVICES PART 15, SUBPART E	V02r01

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5. Test Results

5.1. Testing Environment

Normal Temperature: 15~35°C

Relative Humidity: 20~75%

5.2. Test Results

No.	Test cases	Sub-clause of Part15E	Verdict
1	Maximum Output Power	15.407	**P**
2	Power Spectral Density	15.407	**P**
3	Occupied 26dB Bandwidth	15.403	**P**
4	Occupied 6dB Bandwidth	15.407	**P**
5	99% Occupied Bandwidth	15.403	**P**
6	Band edge compliance	15.209	**P**
7	Transmitter Spurious Emissions	15.407, 15.205	**P**
8	AC Power line Conducted	15.107, 15.207	**P**
9	Transmit Power Control	15.407	**NA**

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

5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacturer as listed in section 5.2 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2.

Disclaimer:

A. After confirmation with the customer, the sample information provided by the customer may affect the validity of the measurement results in this report, and the impact and consequences arising therefrom shall be borne by the customer.

B. The samples in this report are provided by the customer, and the test results are only applicable to the samples received.

According to the customer's description, T507J (I22N02642) is a variant product of T506A (I22N01585). All results were from the initial model.

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6. Test Equipments Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due Date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2022-12-29	1 year
2	Power Sensor	U2021XA	MY55430013	Keysight	2022-12-29	1 year
3	Data Acquisiton	U2531A	TW55443507	Keysight	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	LISN	ENV216	102067	R&S	2023-07-14	1 year
2	Test Receiver	ESCI	100702	R&S	2023-01-12	1 year
3	Loop Antenna	HLA6120	35779	TESEQ	2025-04-24	3 year
4	BiLog Antenna	3142E	0224831	ETS-Lindgren	2024-05-27	3 year
5	Horn Antenna	3117	00066577	ETS-Lindgren	2025-04-01	3 year
6	Test Receiver	ESR7	101676	R&S	2022-11-24	1 year
7	Spectrum Analyzer	FSV40	101192	R&S	2023-01-12	1 year
8	Chamber	FACT3-2.0	1285	ETS-Lindgren	2023-05-29	2 year
9	Antenna	QSH-SL-1 8-26-S-20	17013	Q-par	2023-01-06	3 year
10	Antenna	QSH-SL-1 8-40-K-SG	15979	Q-par	2023-01-06	3 year

Test software

No.	Equipment	Manufacturer	Version
1	TechMgr Software	CAICT	2.1.1
2	EMC32	Rohde & Schwarz	10.50.40

EUT is engineering software provided by the customer to control the transmitting signal.
The EUT was programmed to be in continuously transmitting mode.

Anechoic chamber

Fully anechoic chamber by ETS-Lindgren

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7. Laboratory Environment

Semi-anechoic chamber

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

Shielded room

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

Fully-anechoic chamber

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

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8. Measurement Uncertainty

Test Name	Uncertainty (*k=2*)	
1. RF Output Power - Conducted	1.36dB	
2. Power Spectral Density - Conducted	1.36dBm/MHz	
3. Occupied channel bandwidth - Conducted	4.56kHz	
4. Transmitter Spurious Emission - Radiated	9kHz≤f<30MHz	1.79dB
	30MHz≤f<1GHz	4.86dB
	1GHz≤f<18GHz	4.50dB
	18GHz≤f≤40GHz	2.90dB
5. AC Power line Conducted Emission	150kHz≤f≤30MHz	2.62dB

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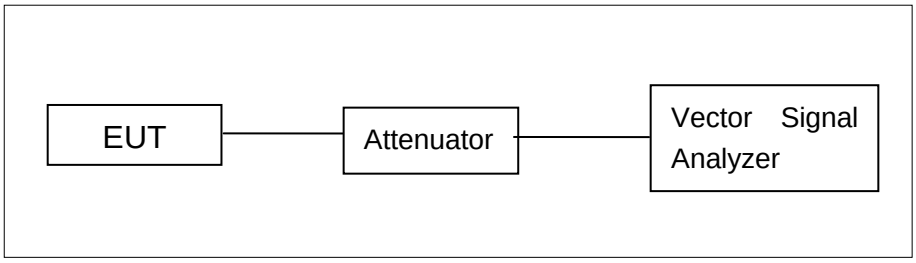
ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

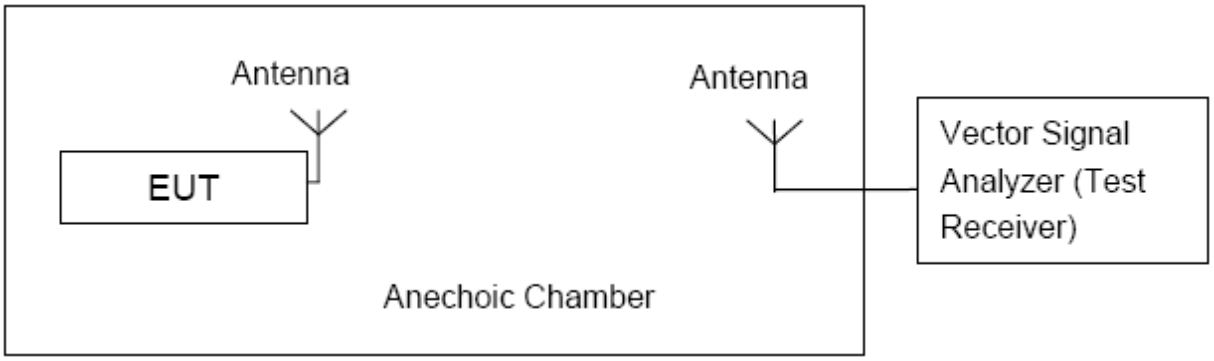
Conducted Measurements

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.



Radiated Emission Measurements

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



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.

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A.2. Maximum Output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407	5150MHz~5250MHz	24
	5250MHz~5350MHz	24 or 11+10logB
	5470MHz~5725MHz	24 or 11+10logB
	5725MHz~5850MHz	30

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

Measurement of method: See ANSI C63.10-2013-Clause 12.3.3.2

Method PM-G is a measurement using a gated RF average power meter.

Measurements may be performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Because the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

Measurement Results:

802.11a mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz(Ch36)	14.38	14.33	14.30	14.26	14.25	14.22	14.18	14.15
	5200MHz(Ch40)	14.30	/	/	/	/	/	/	/
	5240MHz(Ch48)	14.42	/	/	/	/	/	/	/
	5260MHz(Ch52)	14.49	/	/	/	/	/	/	/
	5280MHz(Ch56)	14.38	/	/	/	/	/	/	/
	5320MHz(Ch64)	14.43	/	/	/	/	/	/	/
	5500MHz(Ch100)	14.55	/	/	/	/	/	/	/
	5580MHz(Ch116)	14.73	/	/	/	/	/	/	/
	5700MHz(Ch140)	14.68	/	/	/	/	/	/	/
	5745MHz(Ch149)	14.67	/	/	/	/	/	/	/
	5785MHz(Ch157)	14.69	/	/	/	/	/	/	/
	5825MHz(Ch165)	14.72	/	/	/	/	/	/	/

802.11n-HT20 mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Index)							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz(Ch36)	13.96	13.93	13.88	13.87	13.85	13.81	13.77	13.74
	5200MHz(Ch40)	13.89	/	/	/	/	/	/	/

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	5240MHz(Ch48)	13.98	/	/	/	/	/	/	/
	5260MHz(Ch52)	13.88	/	/	/	/	/	/	/
	5280MHz(Ch56)	13.97	/	/	/	/	/	/	/
	5320MHz(Ch64)	13.90	/	/	/	/	/	/	/
	5500MHz(Ch100)	14.12	/	/	/	/	/	/	/
	5580MHz(Ch116)	14.25	/	/	/	/	/	/	/
	5700MHz(Ch140)	14.27	/	/	/	/	/	/	/
	5745MHz(Ch149)	14.27	/	/	/	/	/	/	/
	5785MHz(Ch157)	14.32	/	/	/	/	/	/	/
	5825MHz(Ch165)	14.26	/	/	/	/	/	/	/

802.11ac-VHT20 mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Index)							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11ac (VHT20)	5180MHz(Ch36)	13.93	13.88	13.85	13.82	13.78	13.77	13.73	13.69
	5200MHz(Ch40)	13.87	/	/	/	/	/	/	/
	5240MHz(Ch48)	13.98	/	/	/	/	/	/	/
	5260MHz(Ch52)	14.05	/	/	/	/	/	/	/
	5280MHz(Ch56)	13.94	/	/	/	/	/	/	/
	5320MHz(Ch64)	13.96	/	/	/	/	/	/	/
	5500MHz(Ch100)	14.10	/	/	/	/	/	/	/
	5580MHz(Ch116)	14.26	/	/	/	/	/	/	/
	5700MHz(Ch140)	14.15	/	/	/	/	/	/	/
	5745MHz(Ch149)	14.28	/	/	/	/	/	/	/
	5785MHz(Ch157)	14.30	/	/	/	/	/	/	/
	5825MHz(Ch165)	14.31	/	/	/	/	/	/	/

802.11n-HT40 mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Index)							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz(Ch38)	13.63	13.61	13.58	13.55	13.50	13.49	13.44	13.41
	5230MHz(Ch46)	13.71	/	/	/	/	/	/	/
	5270MHz(Ch54)	13.70	/	/	/	/	/	/	/
	5310MHz(Ch62)	13.82	/	/	/	/	/	/	/
	5510MHz(Ch102)	13.88	/	/	/	/	/	/	/
	5670MHz(Ch134)	13.95	/	/	/	/	/	/	/
	5755MHz(Ch151)	13.98	/	/	/	/	/	/	/
	5795MHz(Ch159)	14.06	/	/	/	/	/	/	/

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802.11ac-VHT40 mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Index)							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11ac (VHT40)	5190MHz(Ch38)	13.56	13.33	13.49	13.45	13.42	13.41	13.36	13.33
	5230MHz(Ch46)	13.62	/	/	/	/	/	/	/
	5270MHz(Ch54)	13.64	/	/	/	/	/	/	/
	5310MHz(Ch62)	13.67	/	/	/	/	/	/	/
	5510MHz(Ch102)	13.78	/	/	/	/	/	/	/
	5670MHz(Ch134)	13.87	/	/	/	/	/	/	/
	5755MHz(Ch151)	13.92	/	/	/	/	/	/	/
	5795MHz(Ch159)	13.97	/	/	/	/	/	/	/

802.11ac-VHT80 mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Index)							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11ac (VHT80)	5210MHz(Ch42)	13.78	13.74	13.72	13.67	13.63	13.62	13.58	13.55
	5290MHz(Ch58)	13.91	/	/	/	/	/	/	/
	5610MHz(Ch122)	13.90	/	/	/	/	/	/	/
	5775MHz(Ch155)	13.99	/	/	/	/	/	/	/

Conclusion: PASS

Note: The data rate 6Mbps (11a mode), MCS0 (11n mode) and MCS0 (11ac mode) are selected as the worst case. 802.11a, 802.11n-HT40 and 802.11ac-VHT80 modes are selected as the worst case. The following cases and test graphs are performed with this condition. The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

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A.3. Peak Power Spectral Density

Measurement Limit:

Standard	Frequency (MHz)	Limit
FCC CRF Part 15.407	5150MHz~5250MHz	11dBm/MHz
	5250MHz~5350MHz	11dBm/MHz
	5470MHz~5725MHz	11dBm/MHz
	5725MHz~5850MHz	30dBm/500KHz

The PPSD measurement method SA-1 is made according to KDB 789033.

Measurement Results:

U–NII Band	Mode	Channel	Frequency (MHz)	Test Results (dBm/MHz)
5.2GHz Band (UNII-1)	802.11a	CH 36	5180	3.41
		CH 40	5200	3.13
		CH 48	5240	2.76
	802.11n-HT40	CH 38	5190	-0.45
		CH 46	5230	-1.32
	802.11ac-VHT80	CH 42	5210	-3.53
5.3GHz Band (UNII-2A)	802.11a	CH 52	5260	2.85
		CH 56	5280	2.85
		CH 64	5320	3.03
	802.11n-HT40	CH 54	5270	-0.81
		CH 62	5310	-1.13
	802.11ac-VHT80	CH 58	5290	-4.24
5.5GHz Band (UNII-2C)	802.11a	CH 100	5500	2.80
		CH 116	5580	2.16
		CH 140	5700	2.31
	802.11n-HT40	CH 102	5510	-0.98
		CH 134	5670	-1.06
	802.11ac-VHT80	CH 122	5610	-3.37
5.8GHz Band (UNII-3)	802.11a	CH 149	5745	0.47
		CH 157	5785	0.22
		CH 165	5825	0.34
	802.11n-HT40	CH 151	5755	-3.58
		CH 159	5795	-3.70
	802.11ac-VHT80	CH 155	5775	-6.85

Conclusion: PASS

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A.4. Occupied 26dB Bandwidth

Measurement Limit:

Standard	Limit (MHz)
FCC 47 CFR Part 15.403	/

The measurement is made according to KDB 789033.

Measurement Result:

Mode	Channel	Occupied 26dB Bandwidth (MHz)		Conclusion
802.11a	5180MHz (Ch36)	Fig.1	20.55	**P**
	5200MHz (Ch40)	Fig.2	20.60	**P**
	5240MHz (Ch48)	Fig.3	20.45	**P**
	5260MHz (Ch52)	Fig.4	20.50	**P**
	5280MHz (Ch56)	Fig.5	20.70	**P**
	5320MHz (Ch64)	Fig.6	20.50	**P**
	5500MHz (Ch100)	Fig.7	20.65	**P**
	5580MHz (Ch116)	Fig.8	21.70	**P**
	5700MHz (Ch140)	Fig.9	23.55	**P**
802.11n-HT40	5190MHz (Ch38)	Fig.10	40.96	**P**
	5230MHz (Ch46)	Fig.11	40.88	**P**
	5270MHz (Ch54)	Fig.12	40.80	**P**
	5310MHz (Ch62)	Fig.13	40.72	**P**
	5510MHz (Ch102)	Fig.14	41.12	**P**
	5670MHz (Ch134)	Fig.15	41.12	**P**
802.11ac-VHT80	5210MHz (Ch42)	Fig.16	81.44	**P**
	5290MHz (Ch58)	Fig.17	81.28	**P**
	5610MHz (Ch122)	Fig.18	80.96	**P**

Conclusion: PASS

Test graphs as below:

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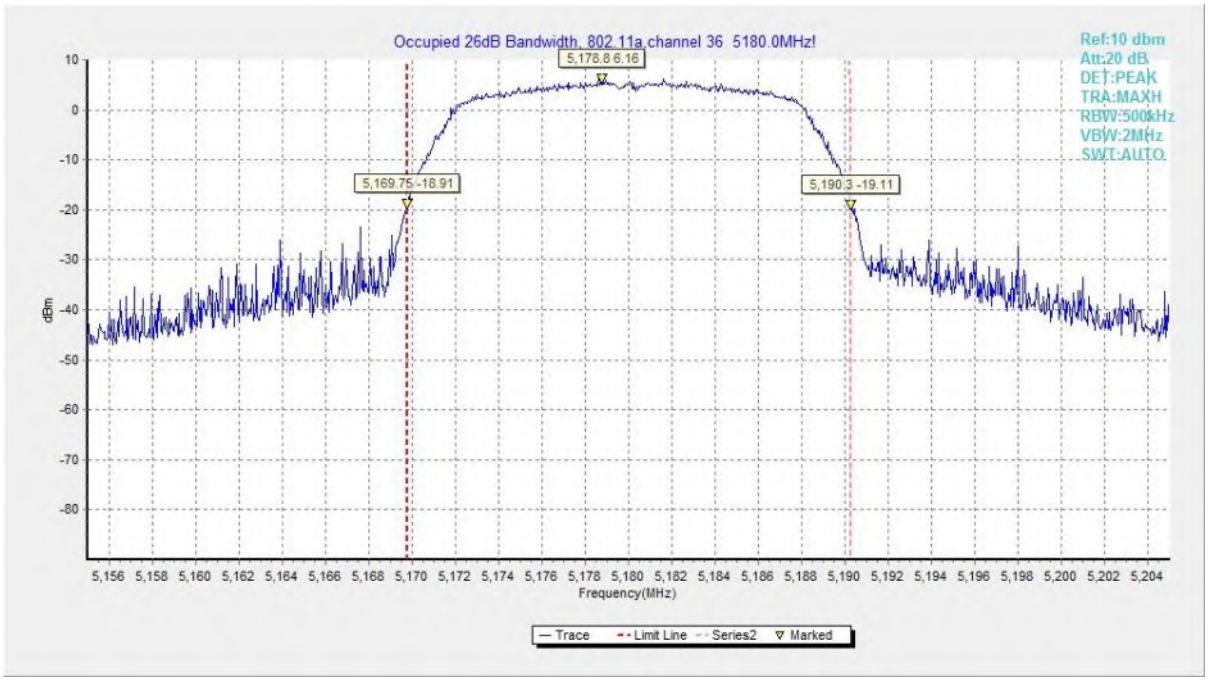

Fig. 1 Occupied 26dB Bandwidth (802.11a, 5180MHz)

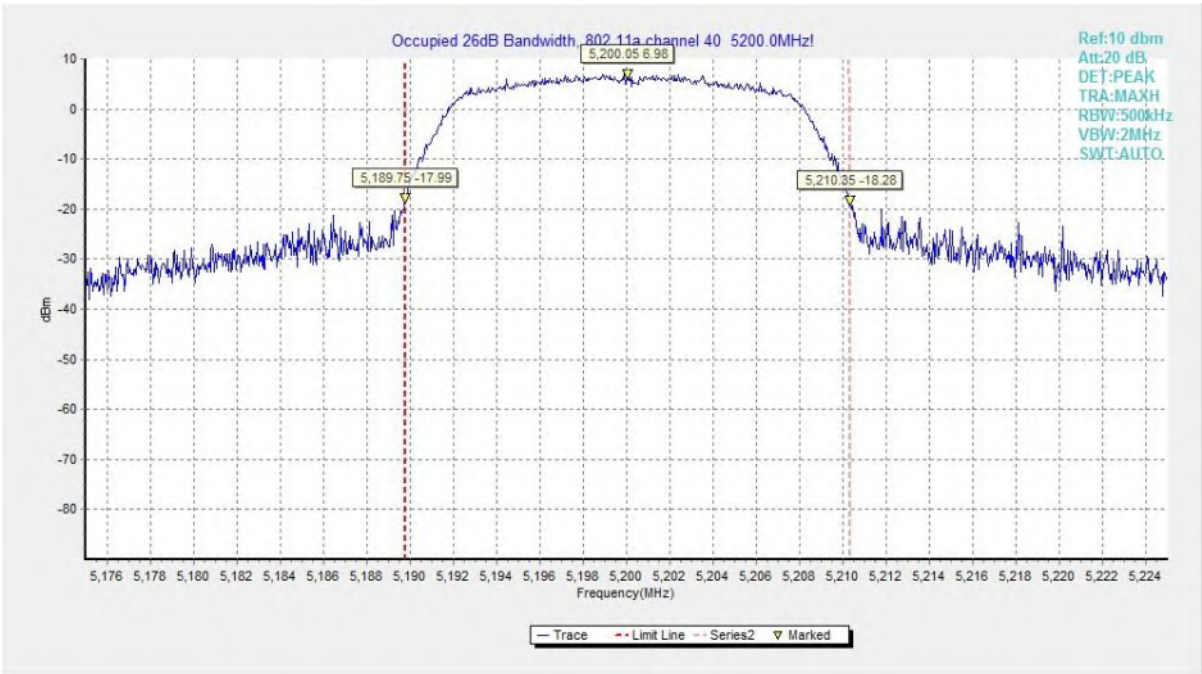

Fig. 2 Occupied 26dB Bandwidth (802.11a, 5200MHz)

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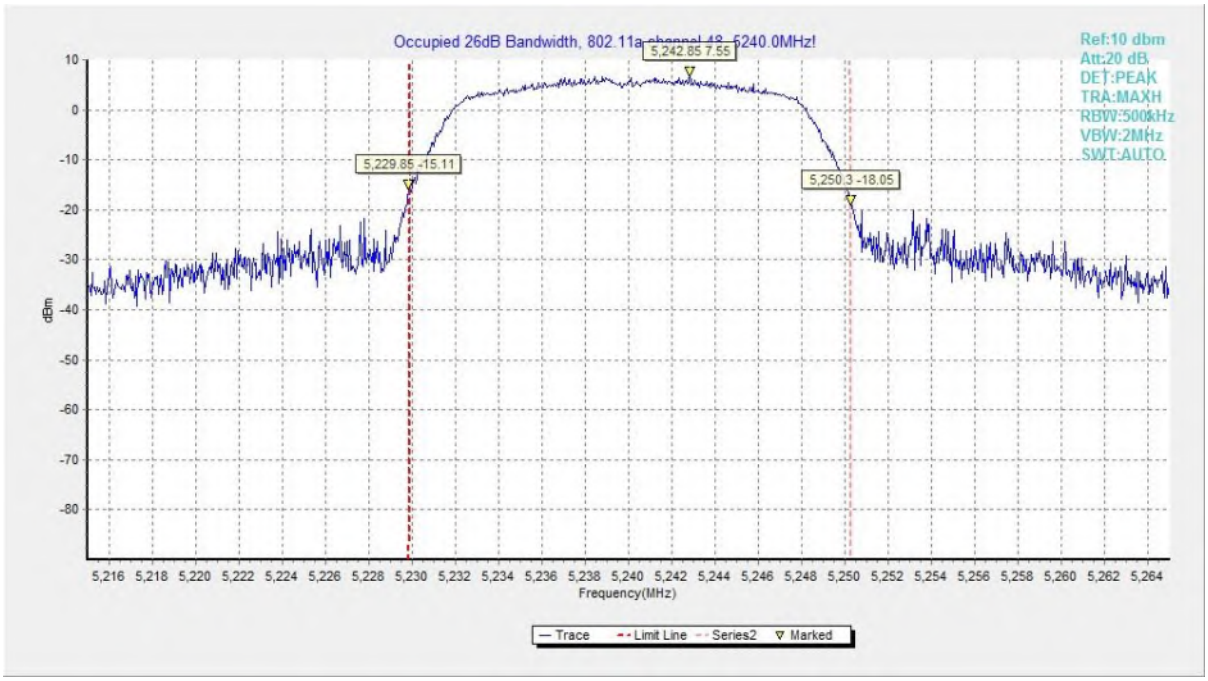

Fig. 3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

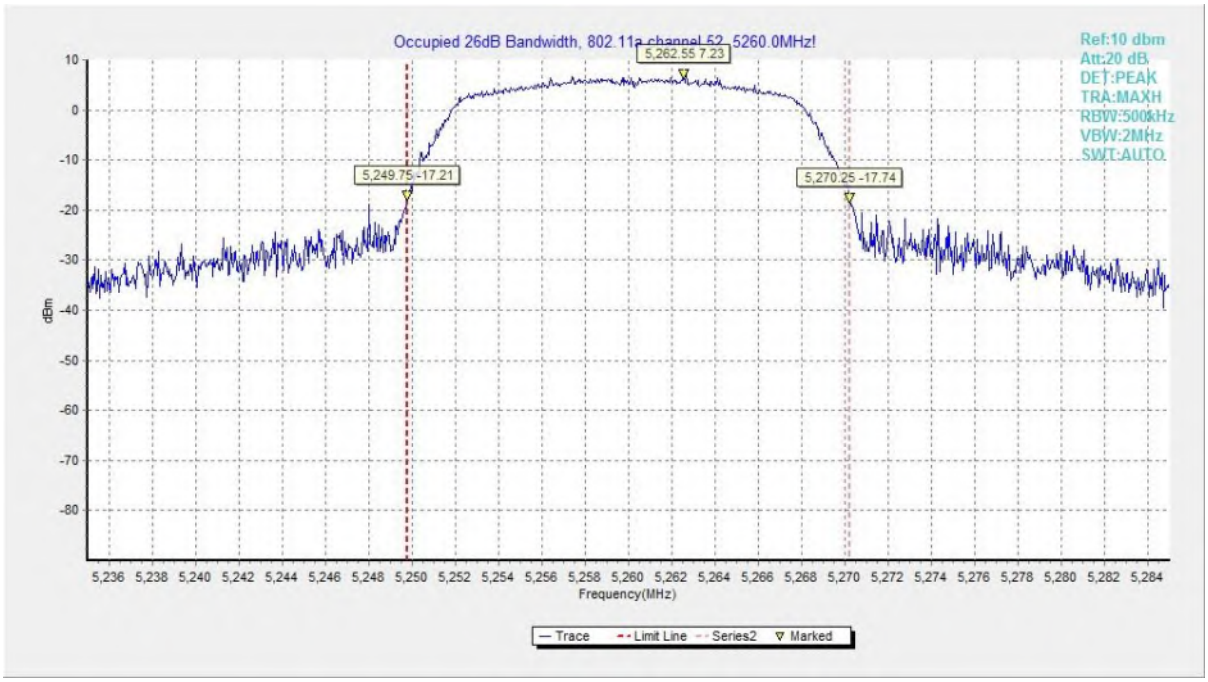

Fig. 4 Occupied 26dB Bandwidth (802.11a, 5260MHz)

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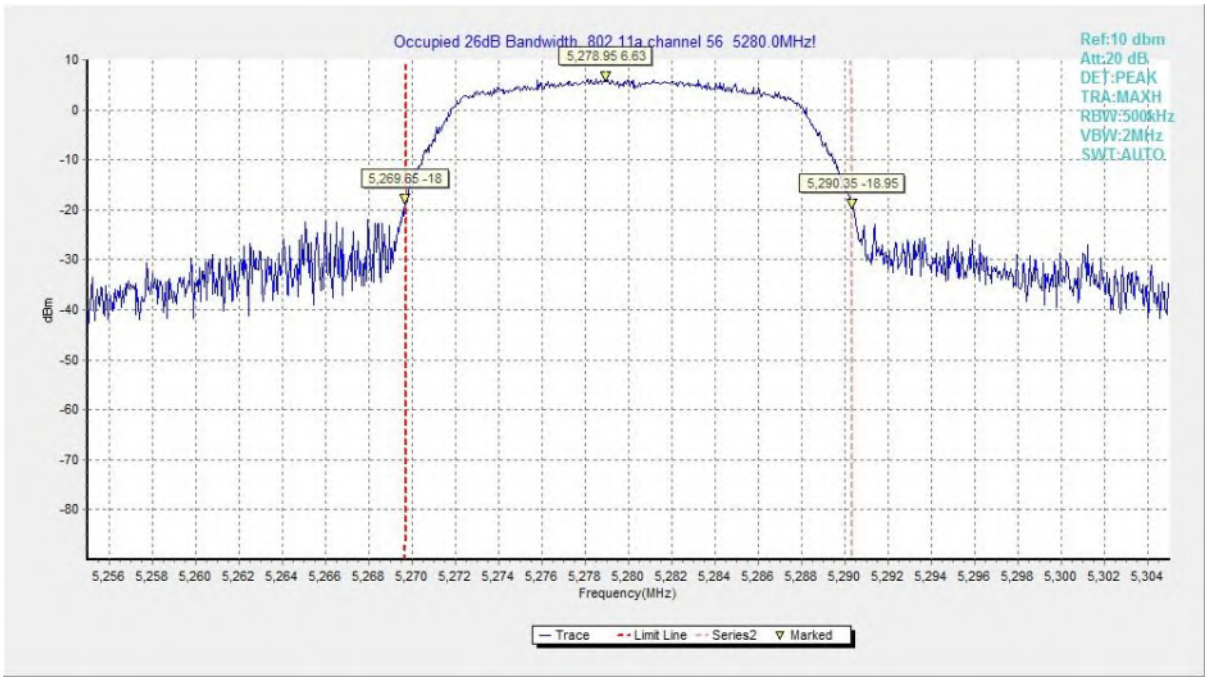

Fig. 5 Occupied 26dB Bandwidth (802.11a, 5280MHz)

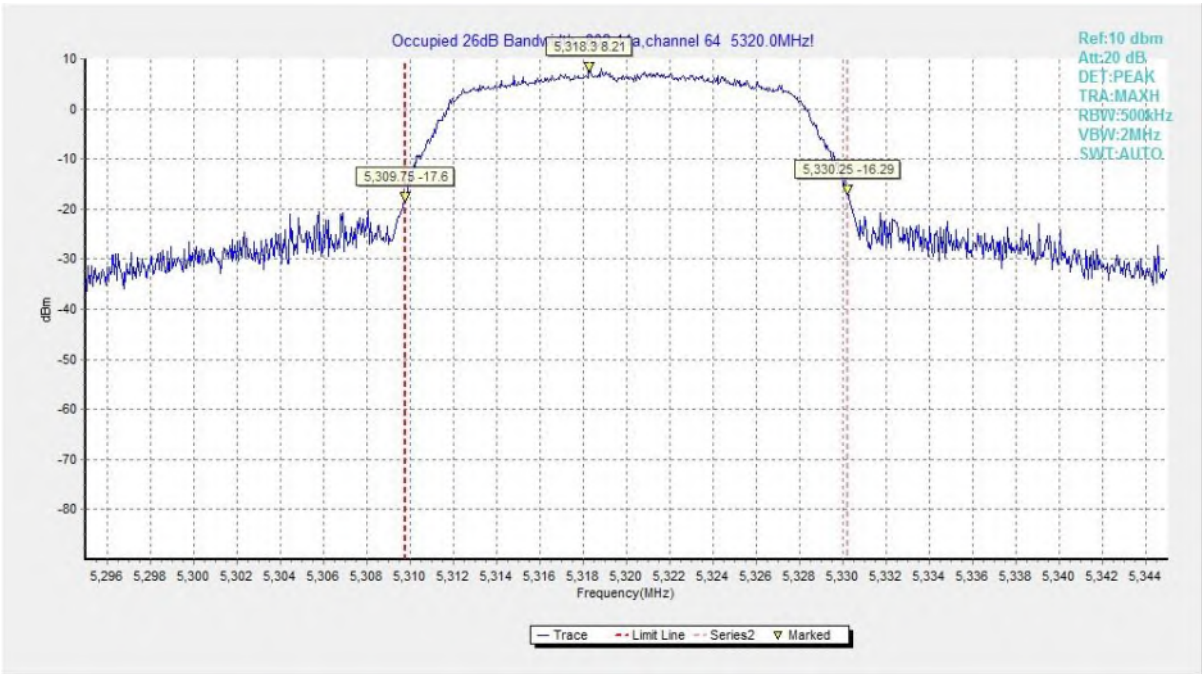

Fig. 6 Occupied 26dB Bandwidth (802.11a, 5320MHz)

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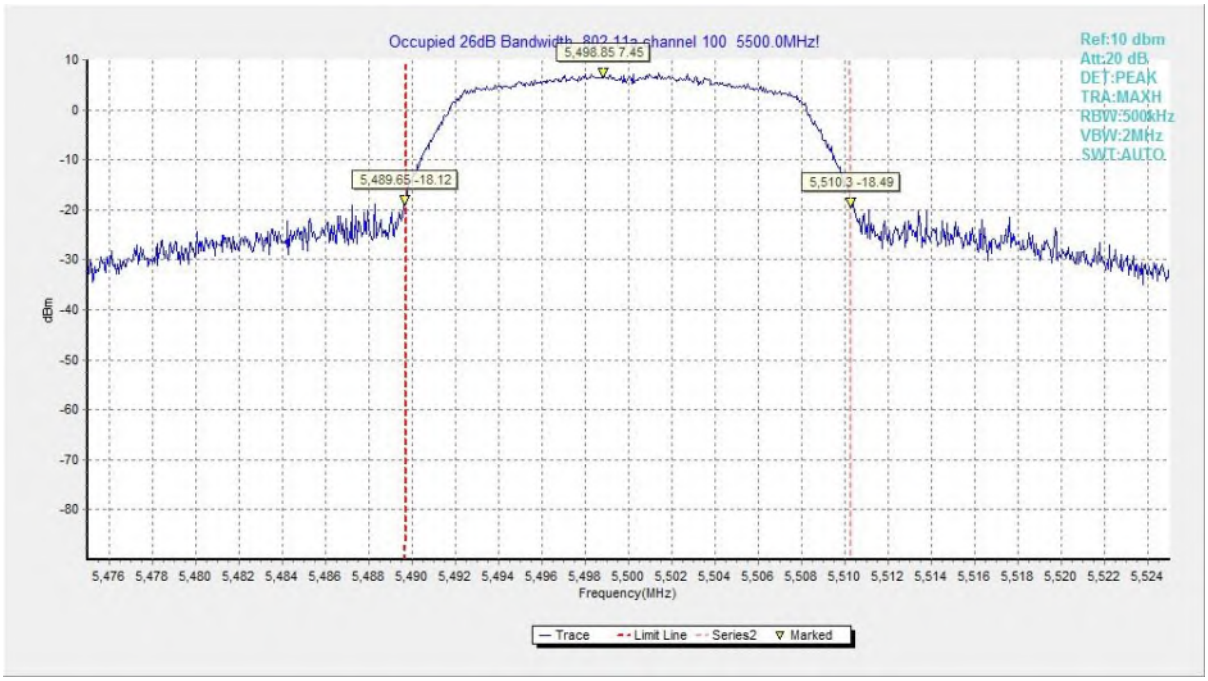

Fig. 7 Occupied 26dB Bandwidth (802.11a, 5500MHz)

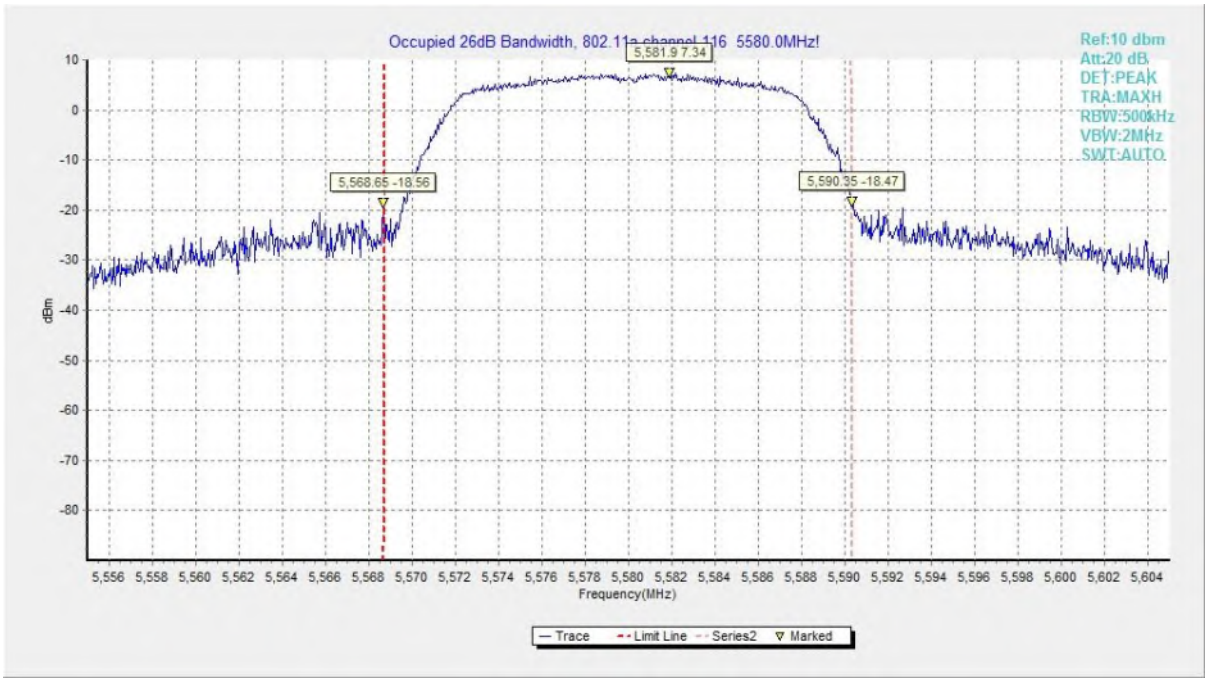

Fig. 8 Occupied 26dB Bandwidth (802.11a, 5580MHz)

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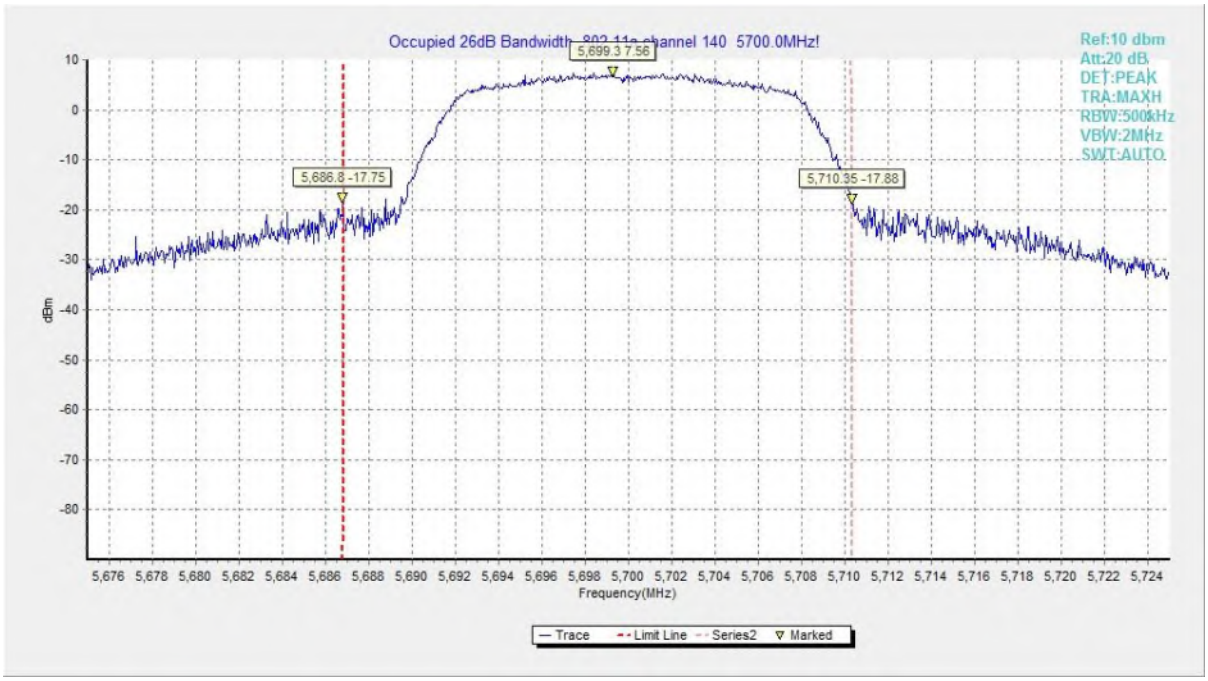

Fig. 9 Occupied 26dB Bandwidth (802.11a, 5700MHz)

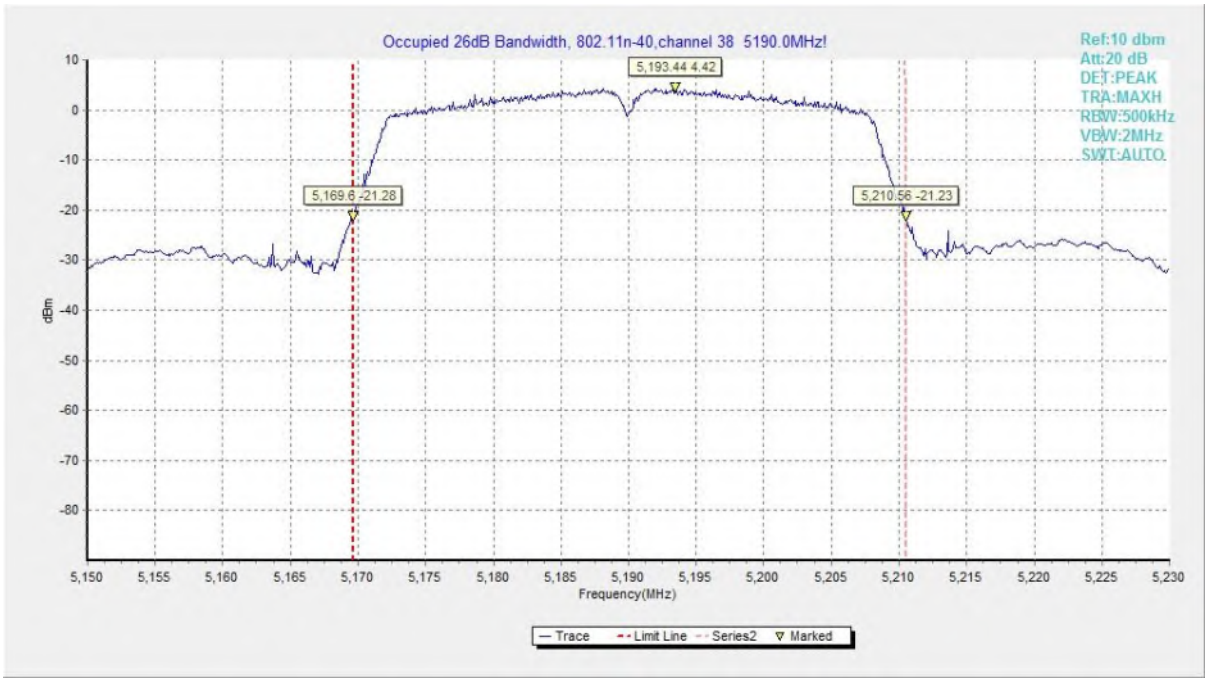

Fig. 10 Occupied 26dB Bandwidth (802.11n-HT40, 5190MHz)

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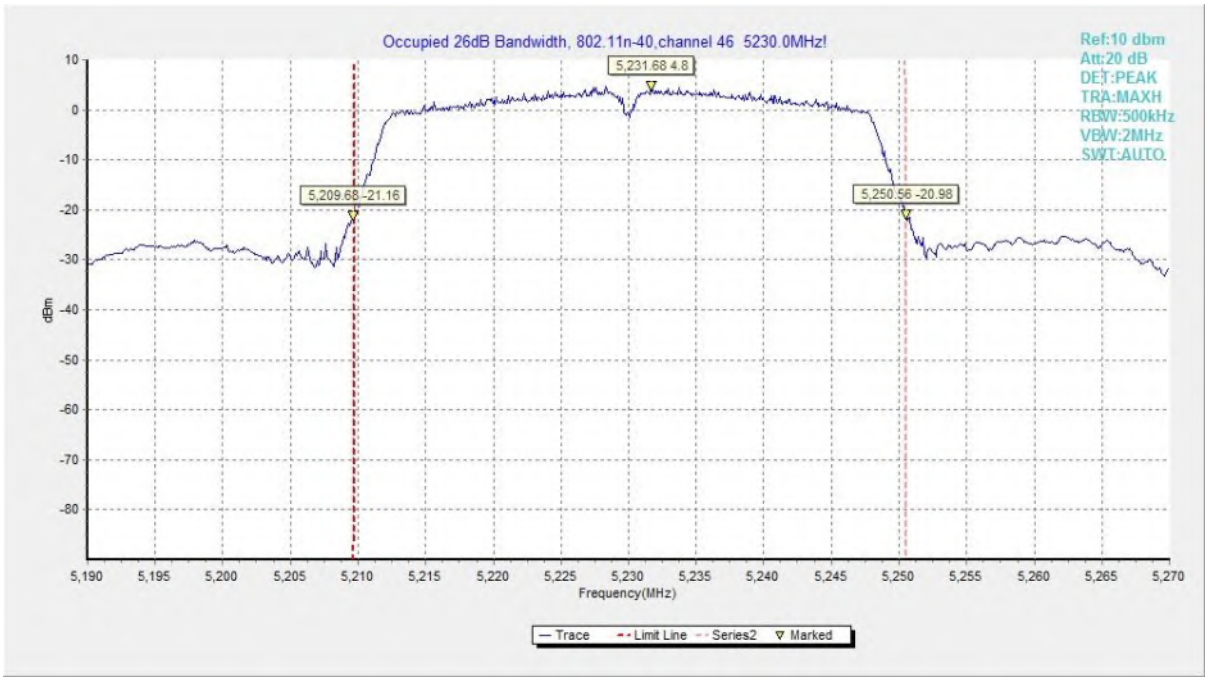

Fig. 11 Occupied 26dB Bandwidth (802.11n-HT40, 5230MHz)

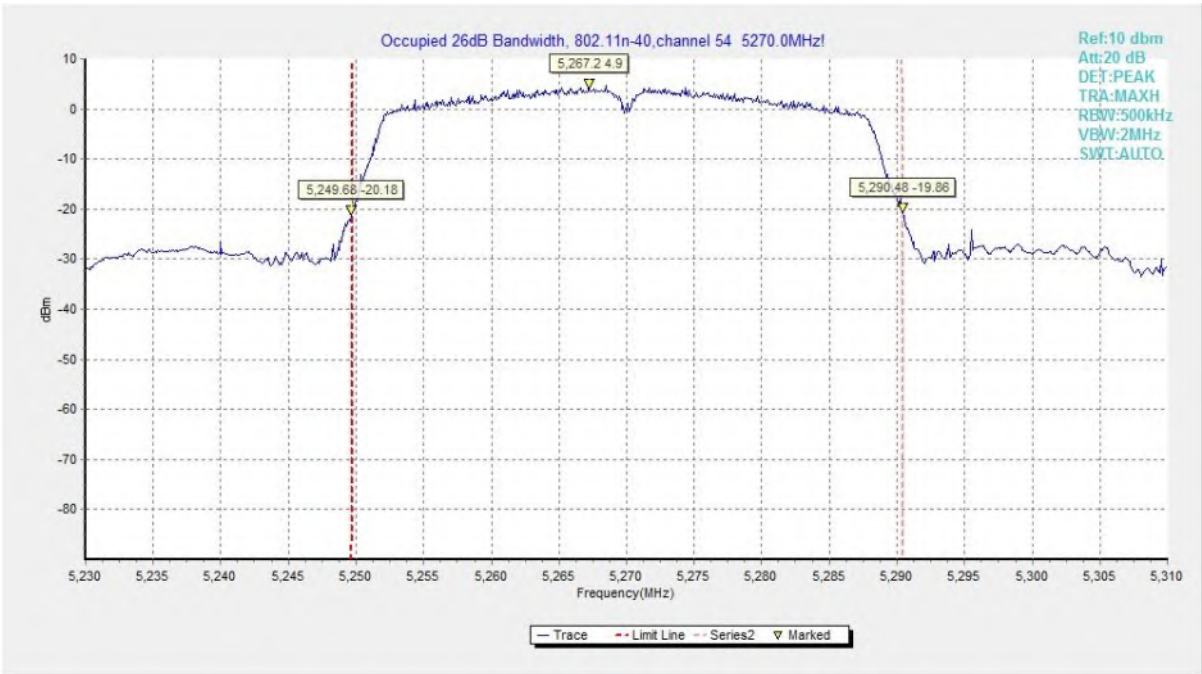

Fig. 12 Occupied 26dB Bandwidth (802.11n-HT40, 5270MHz)

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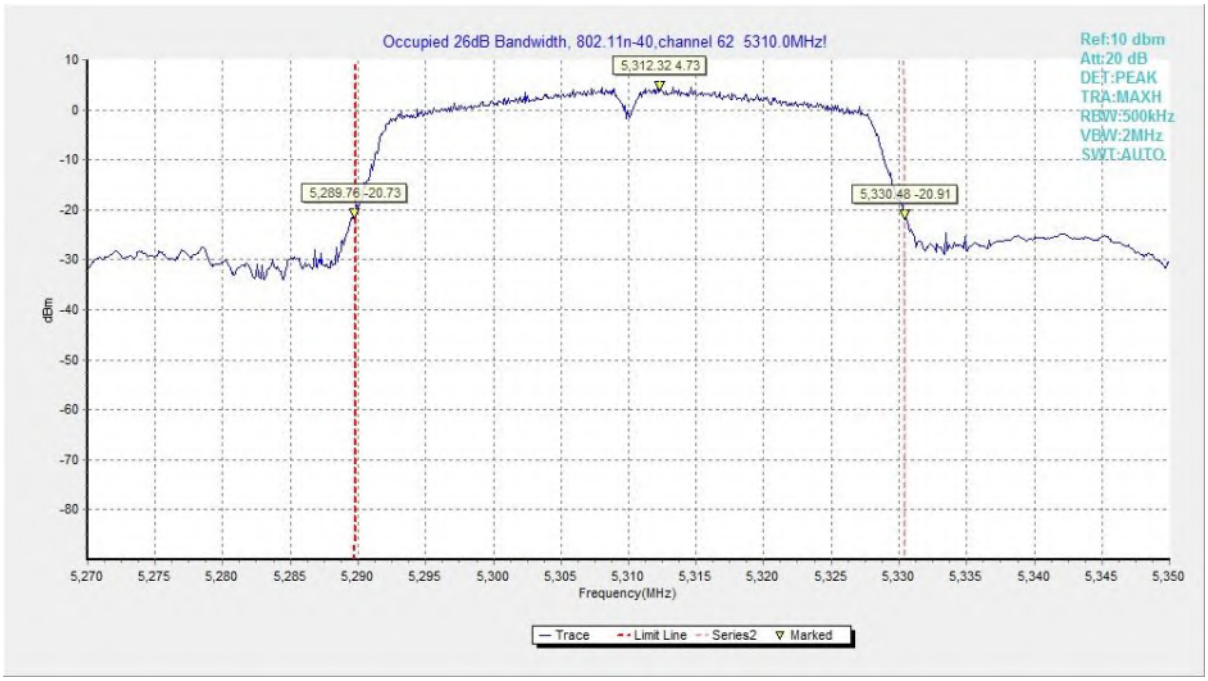

Fig. 13 Occupied 26dB Bandwidth (802.11n-HT40, 5310MHz)

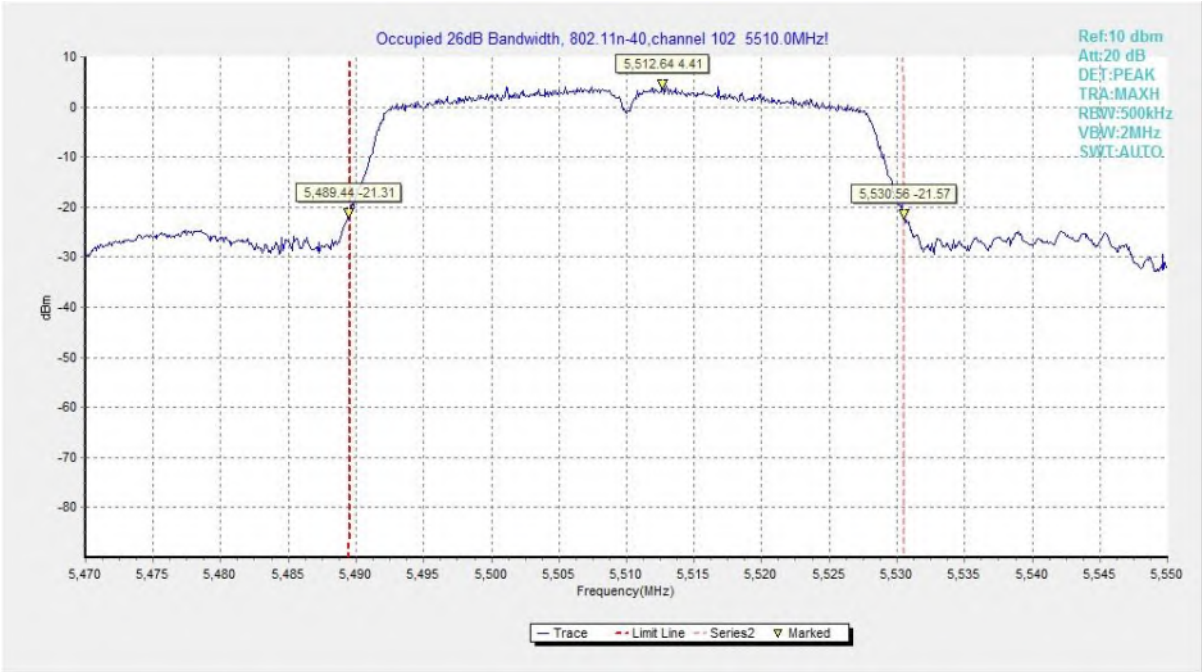

Fig. 14 Occupied 26dB Bandwidth (802.11n-HT40, 5510MHz)

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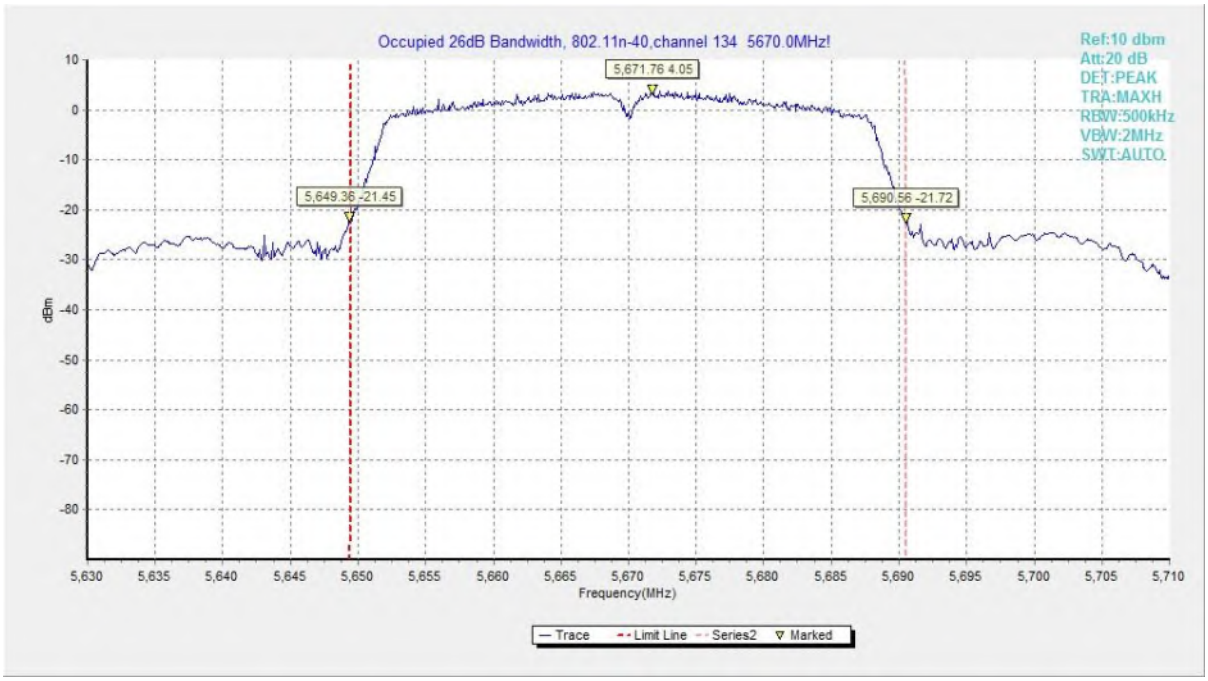

Fig. 15 Occupied 26dB Bandwidth (802.11n-HT40, 5670MHz)

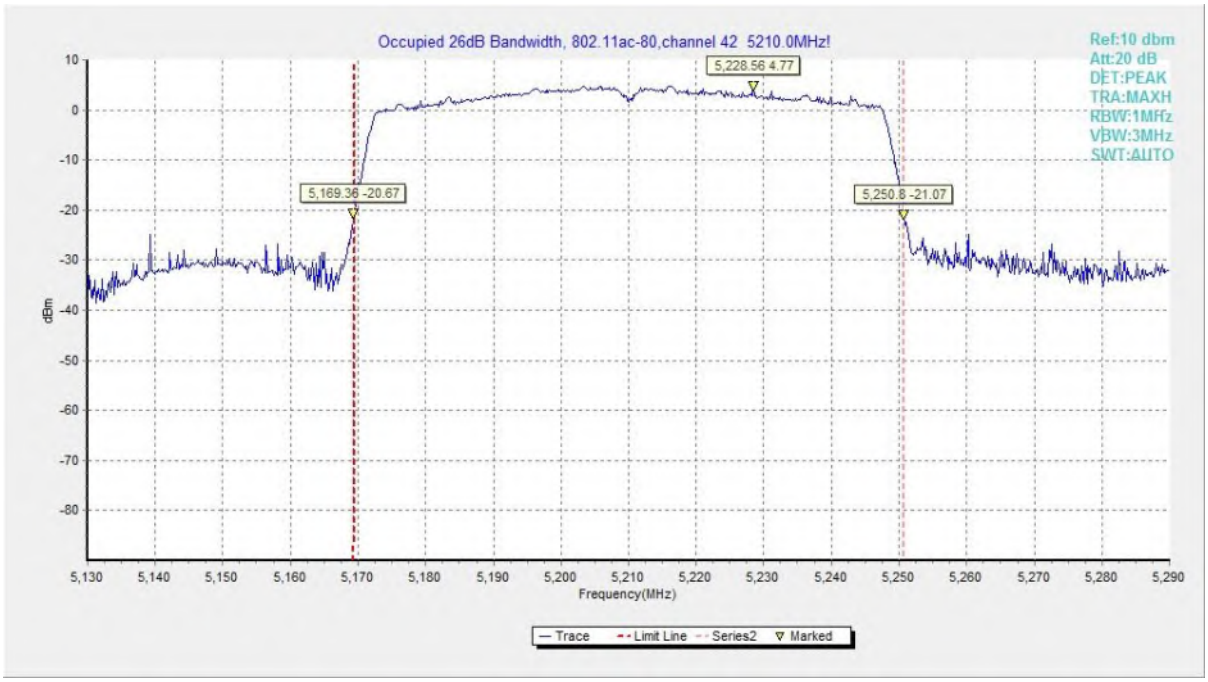

Fig. 16 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5210MHz)

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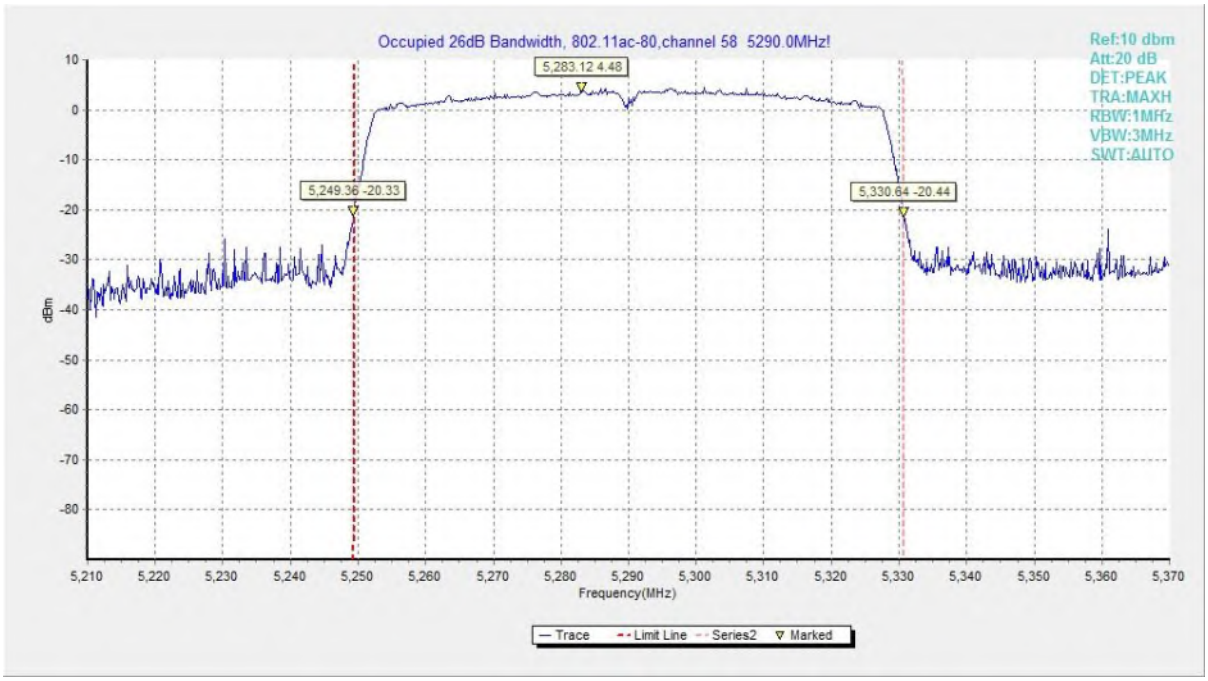

Fig. 17 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5290MHz)

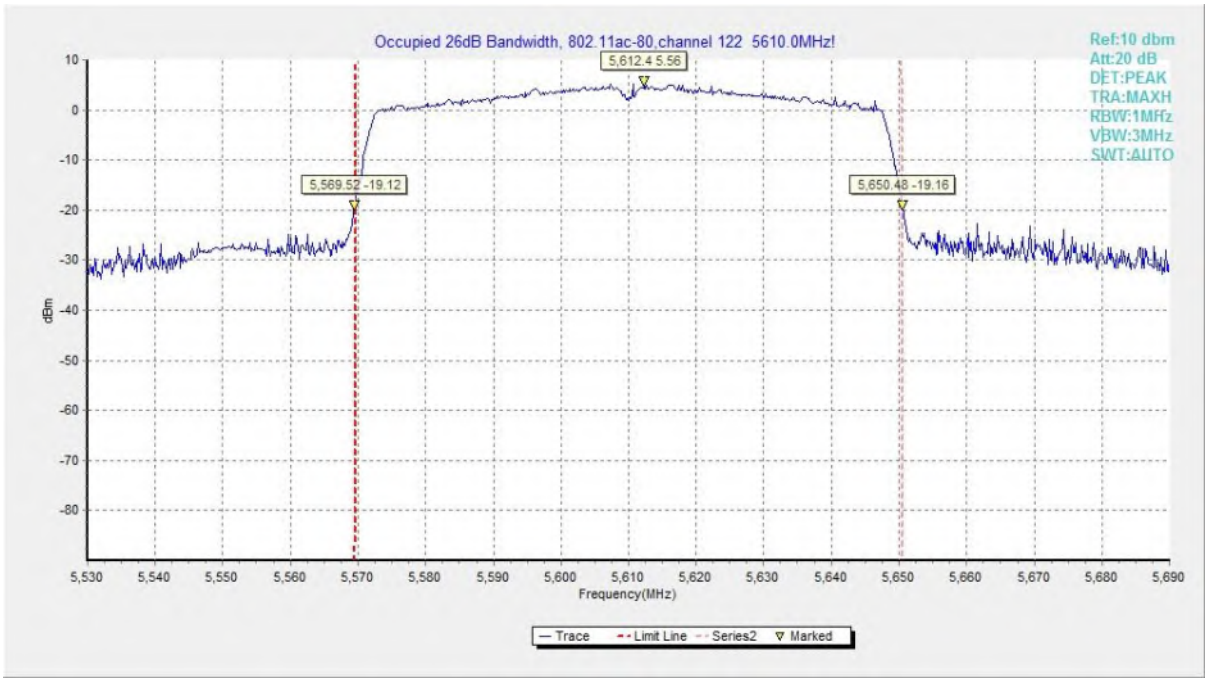

Fig. 18 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5610MHz)

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A.5. Occupied 6dB Bandwidth

Measurement Limit:

Standard	Limit (MHz)
FCC 47 CFR Part 15.407	⩾0.5

The measurement is made according to KDB 789033.

Measurement Result:

Mode	Channel	Occupied 6dB Bandwidth (MHz)		Conclusion
802.11a	5745MHz (Ch149)	Fig.19	15.30	**P**
	5785MHz (Ch157)	Fig.20	15.10	**P**
	5825MHz (Ch165)	Fig.21	15.10	**P**
802.11n-HT40	5755MHz (Ch151)	Fig.22	35.20	**P**
	5795MHz (Ch159)	Fig.23	35.20	**P**
802.11ac-VHT80	5775MHz (Ch155)	Fig.24	75.20	**P**

Conclusion: PASS

Test graphs as below:

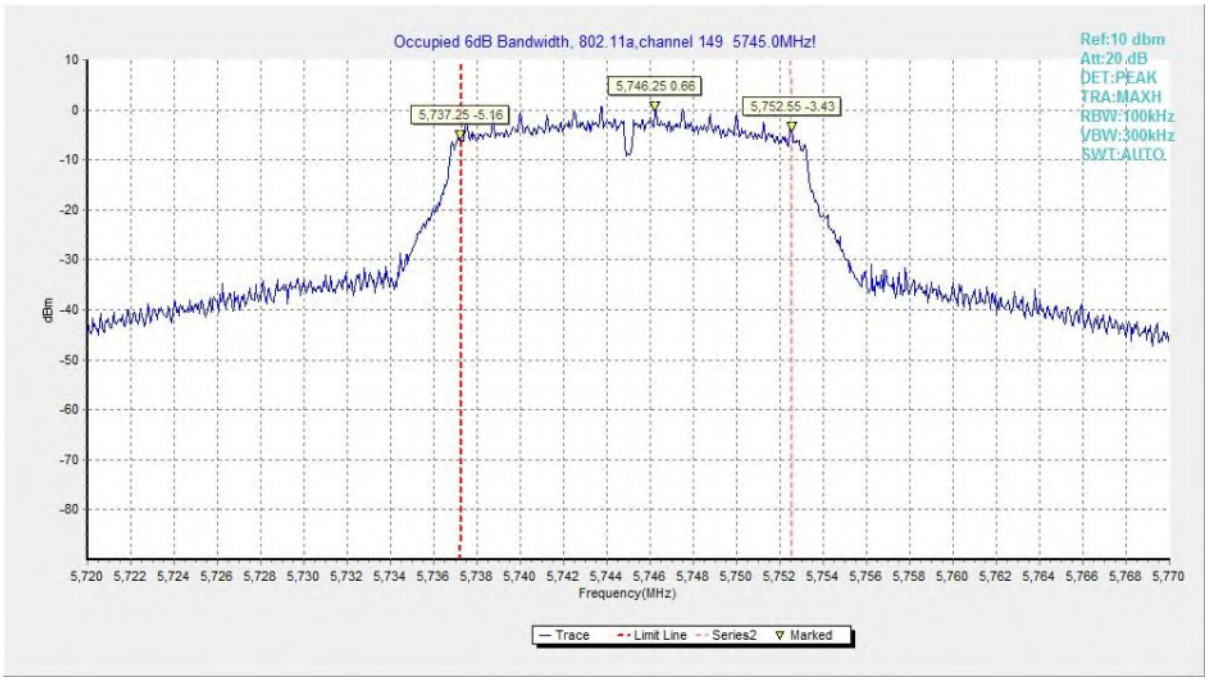

Fig. 19 Occupied 6dB Bandwidth (802.11a, 5745MHz)

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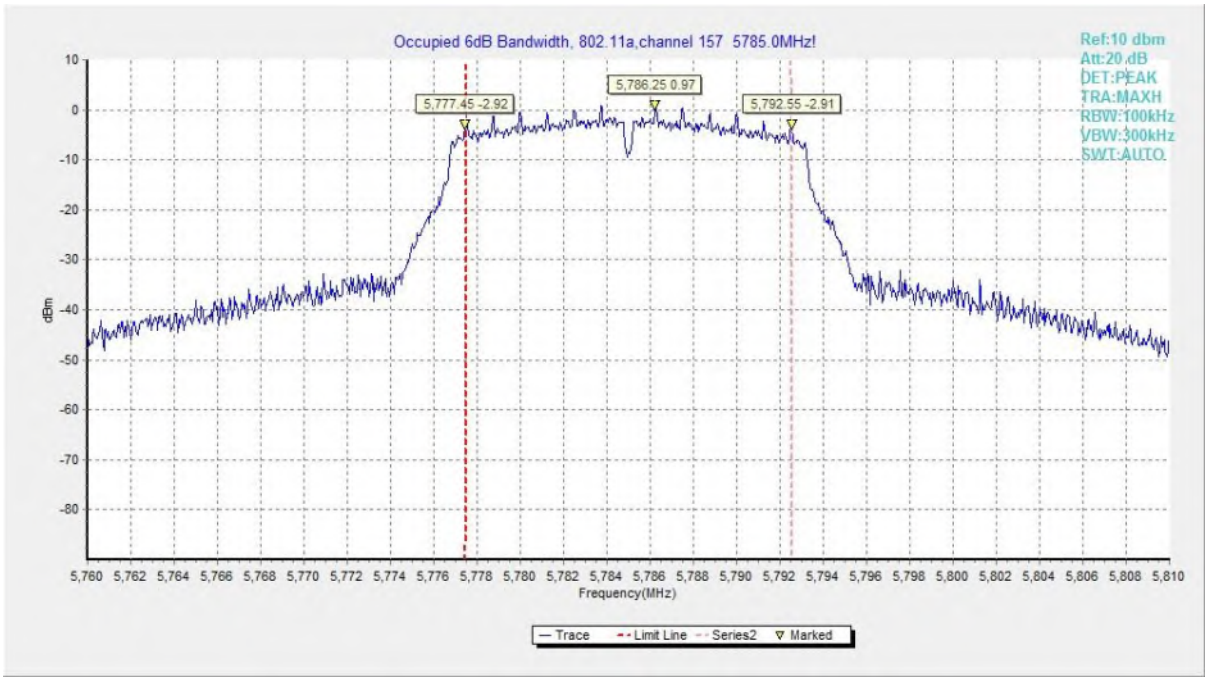

Fig. 20 Occupied 6dB Bandwidth (802.11a, 5785MHz)

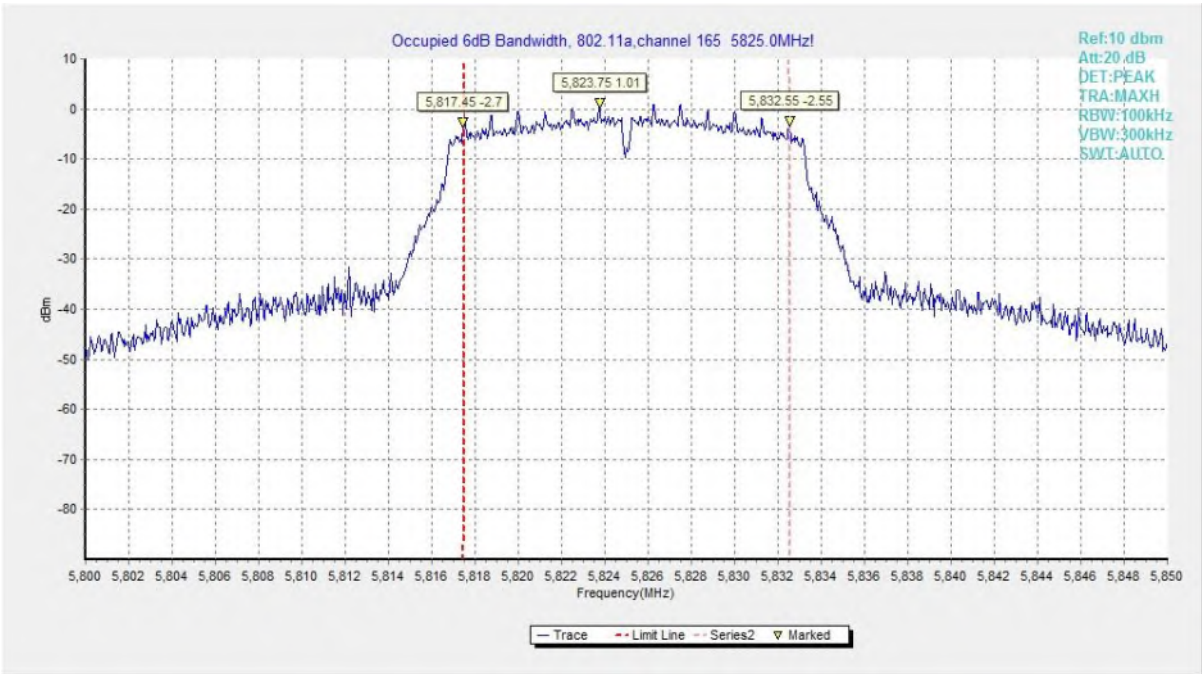

Fig. 21 Occupied 6dB Bandwidth (802.11a, 5825MHz)

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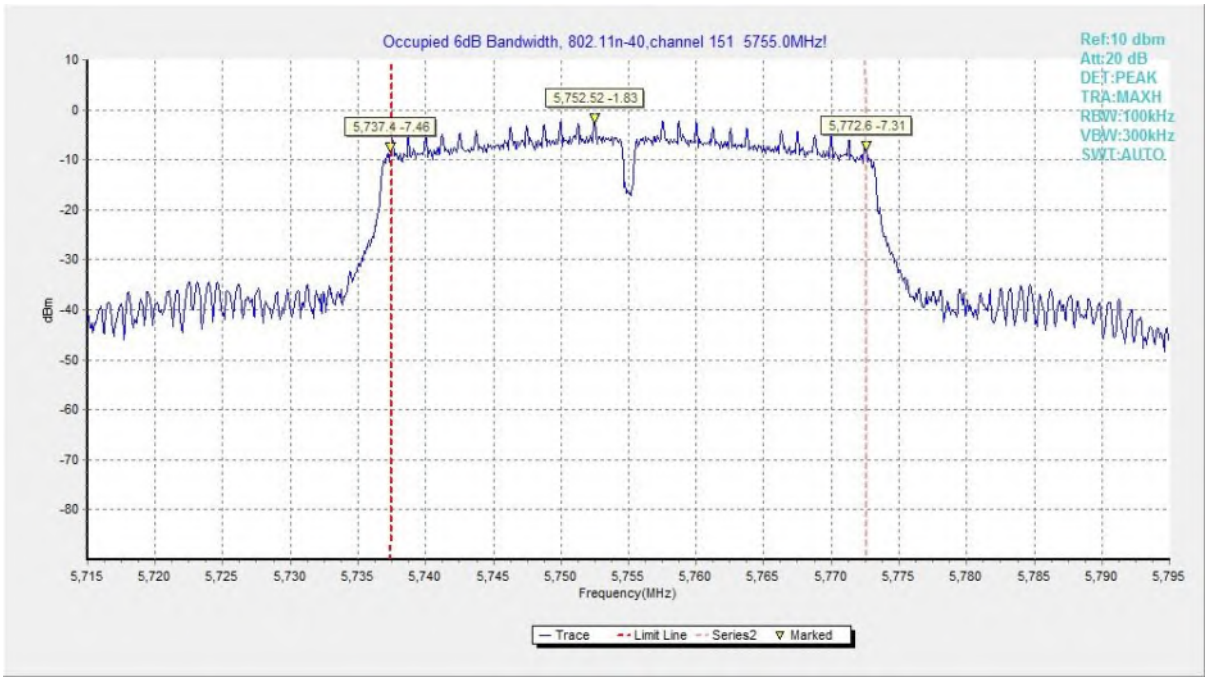

Fig. 22 Occupied 6dB Bandwidth (802.11n-HT40, 5755MHz)

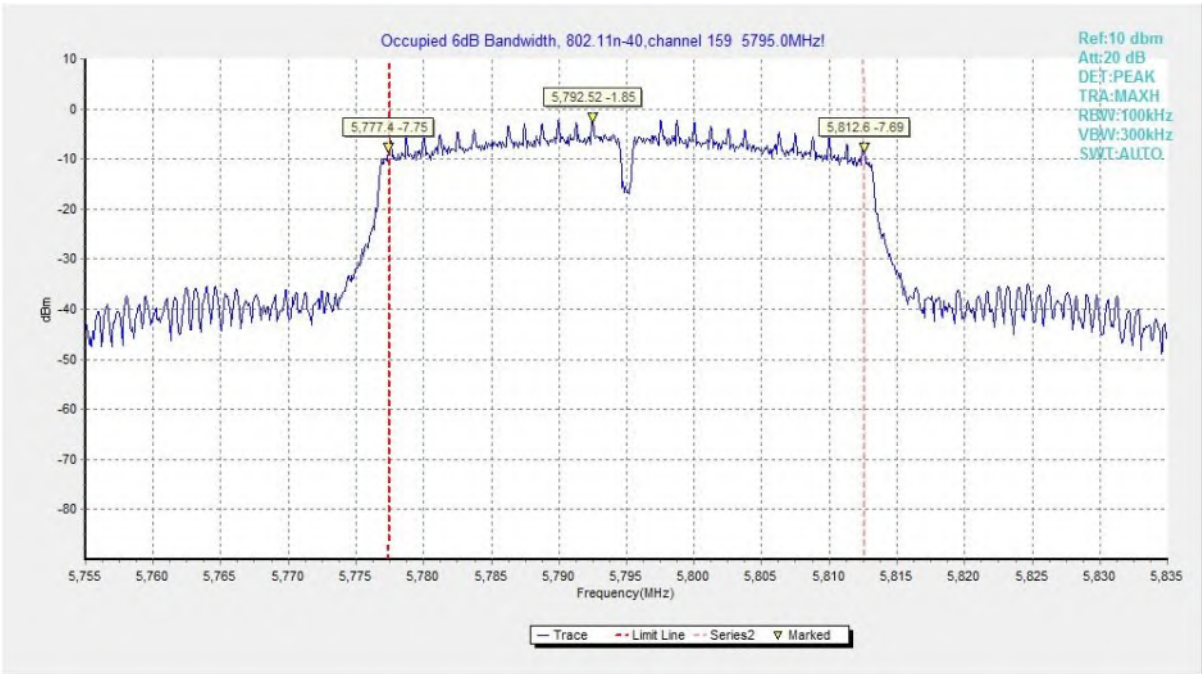

Fig. 23 Occupied 6dB Bandwidth (802.11n-HT40, 5795MHz)

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Fig. 24 Occupied 6dB Bandwidth (802.11ac-VHT80, 5775MHz)

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A.6. 99% Occupied Bandwidth

Measurement Limit:

Standard	Limit (MHz)
FCC 47 CFR Part 15.403	/

The measurement is made according to KDB 789033.

Measurement Result:

Mode	Channel	99% Occupied Bandwidth (MHz)		Conclusion
802.11a	5180MHz (Ch36)	Fig.25	17.32	**P**
	5200MHz (Ch40)	Fig.26	17.40	**P**
	5240MHz (Ch48)	Fig.27	17.36	**P**
	5260MHz (Ch52)	Fig.28	17.40	**P**
	5280MHz (Ch56)	Fig.29	17.32	**P**
	5320MHz (Ch64)	Fig.30	17.36	**P**
	5500MHz (Ch100)	Fig.31	17.40	**P**
	5580MHz (Ch116)	Fig.32	17.48	**P**
	5700MHz (Ch140)	Fig.33	17.44	**P**
	5745MHz (Ch149)	Fig.34	17.48	**P**
	5785MHz (Ch157)	Fig.35	17.40	**P**
	5825MHz (Ch165)	Fig.36	17.40	**P**
802.11n-HT40	5190MHz (Ch38)	Fig.37	36.24	**P**
	5230MHz (Ch46)	Fig.38	36.32	**P**
	5270MHz (Ch54)	Fig.39	36.24	**P**
	5310MHz (Ch62)	Fig.40	36.16	**P**
	5510MHz (Ch102)	Fig.41	36.40	**P**
	5670MHz (Ch134)	Fig.42	36.32	**P**
	5755MHz (Ch151)	Fig.43	36.40	**P**
	5795MHz (Ch159)	Fig.44	36.32	**P**
802.11ac-VHT80	5210MHz (Ch42)	Fig.45	75.20	**P**
	5290MHz (Ch58)	Fig.46	75.36	**P**
	5610MHz (Ch122)	Fig.47	75.20	**P**
	5775MHz (Ch155)	Fig.48	75.36	**P**

Conclusion: PASS

Test graphs as below:

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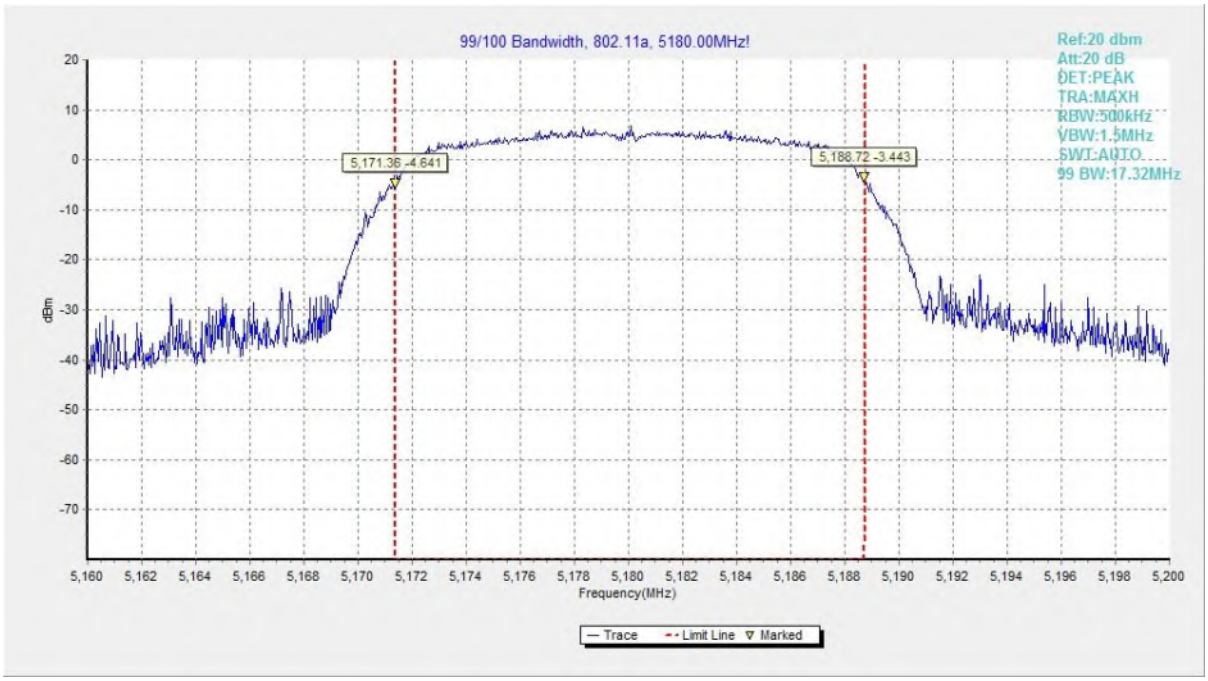

Fig. 25 99% Occupied Bandwidth (802.11a, 5180MHz)

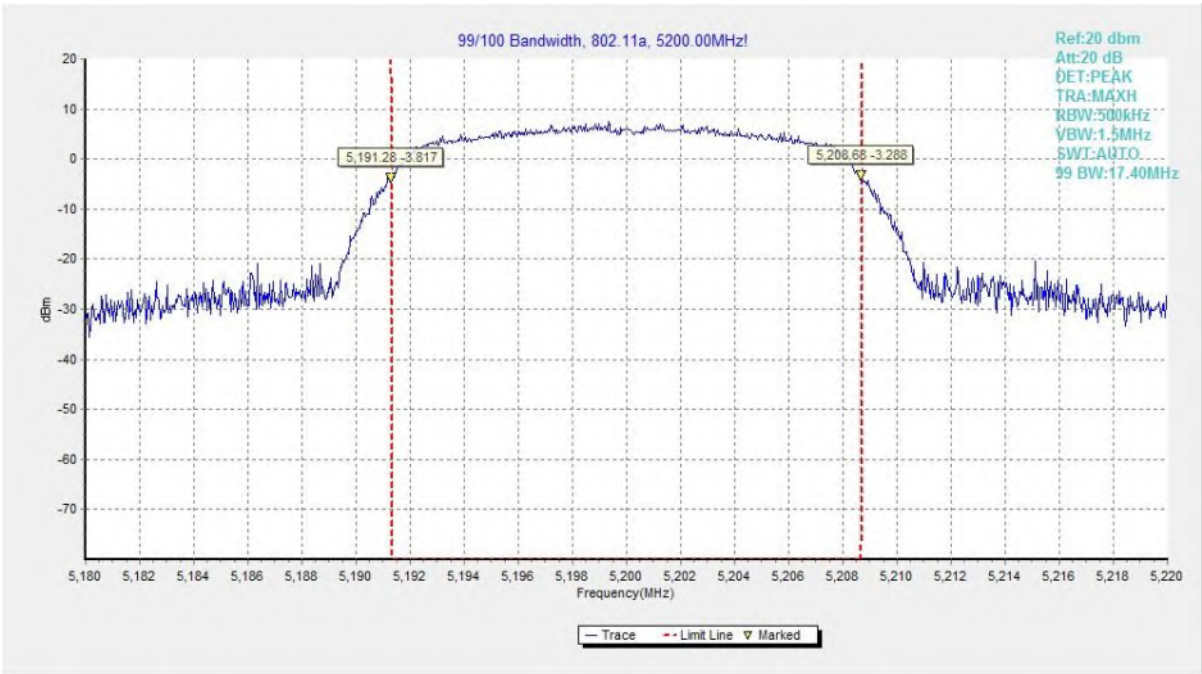

Fig. 26 99% Occupied Bandwidth (802.11a, 5200MHz)

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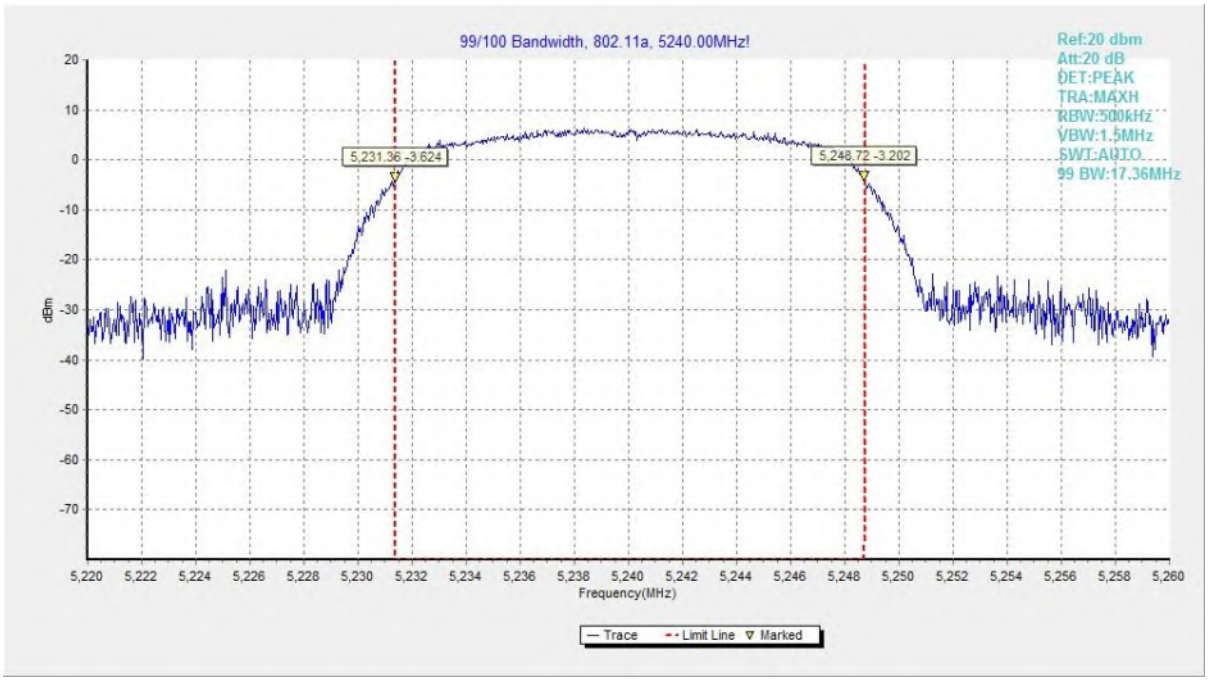

Fig. 27 99% Occupied Bandwidth (802.11a, 5240MHz)

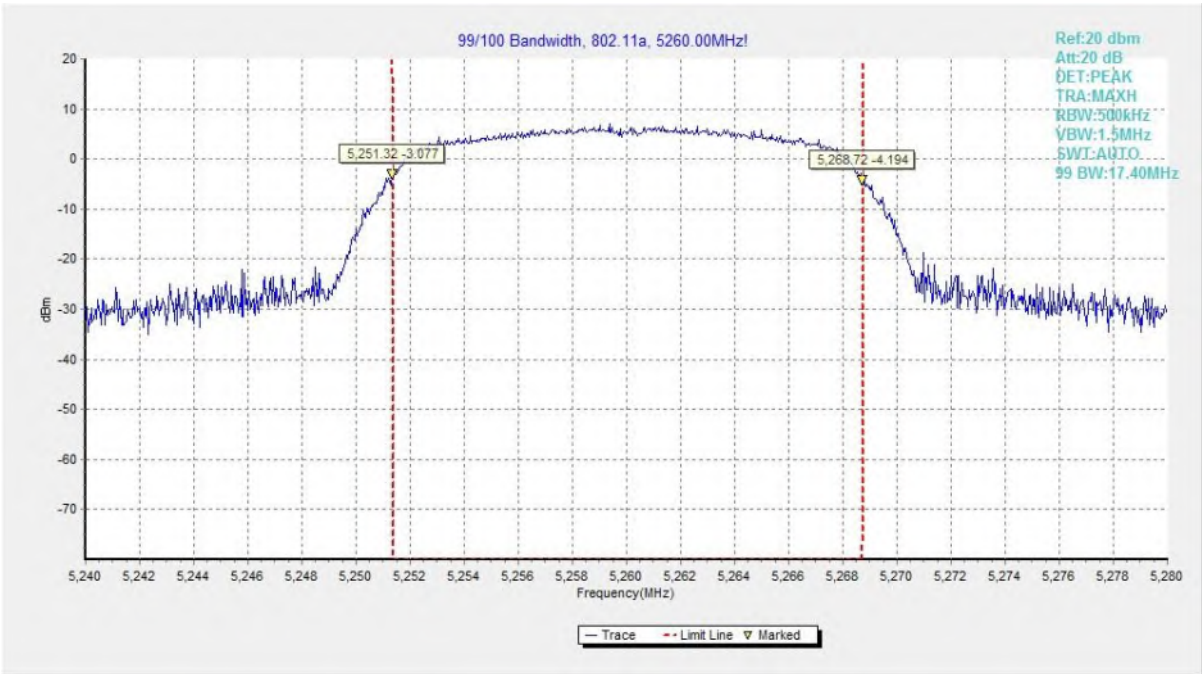

Fig. 28 99% Occupied Bandwidth (802.11a, 5260MHz)

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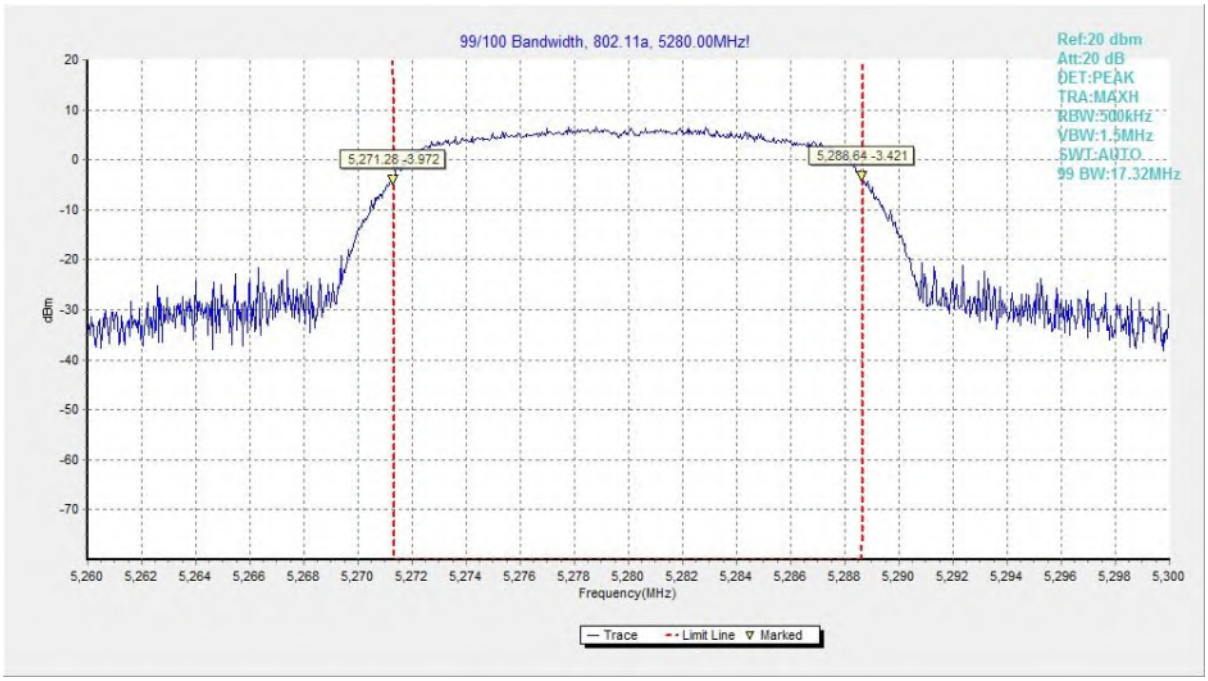

Fig. 29 99% Occupied Bandwidth (802.11a, 5280MHz)

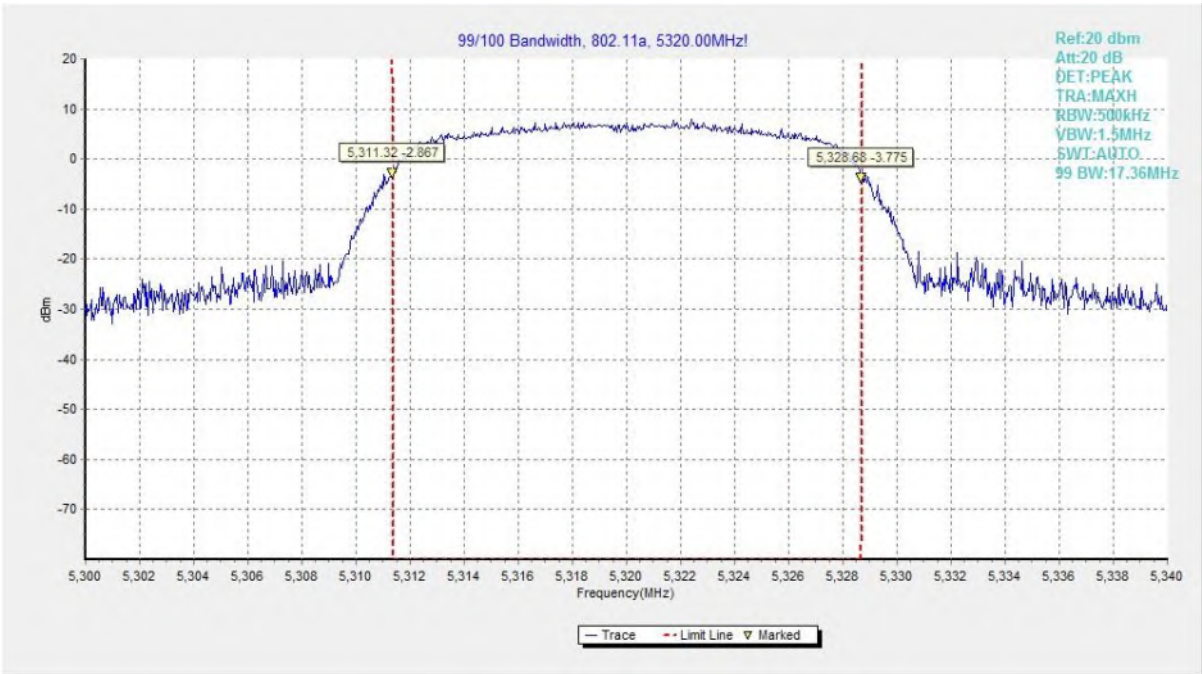

Fig. 30 99% Occupied Bandwidth (802.11a, 5320MHz)

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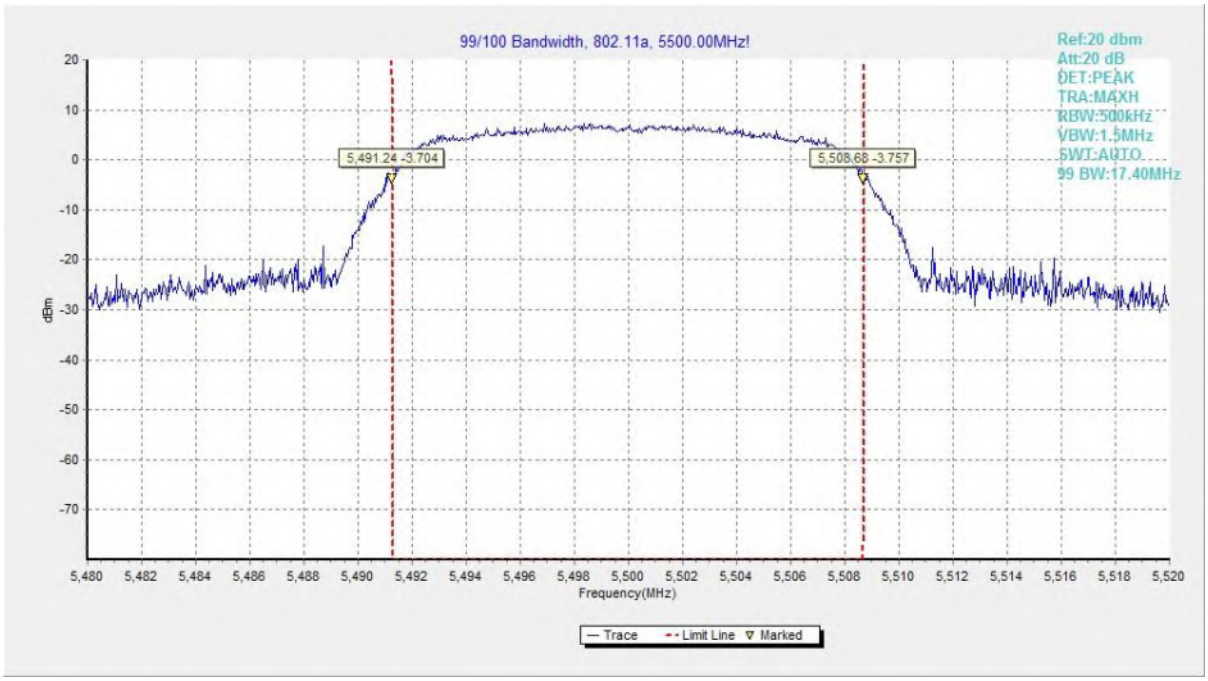

Fig. 31 99% Occupied Bandwidth (802.11a, 5500MHz)

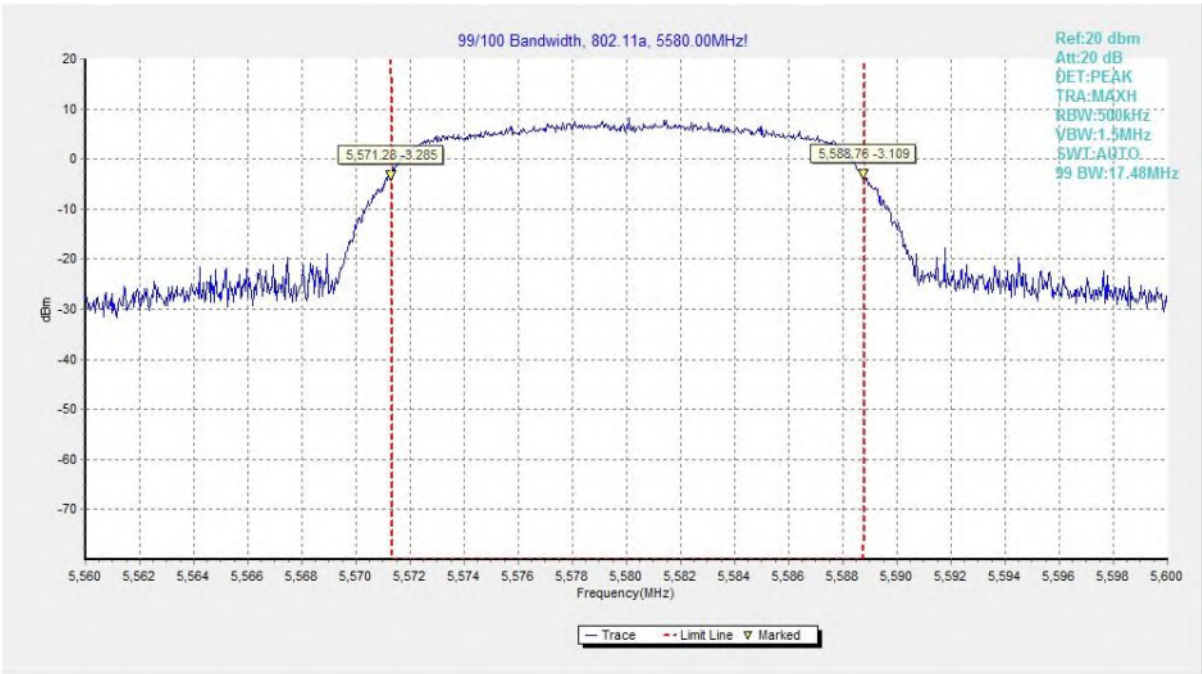

Fig. 32 99% Occupied Bandwidth (802.11a, 5580MHz)

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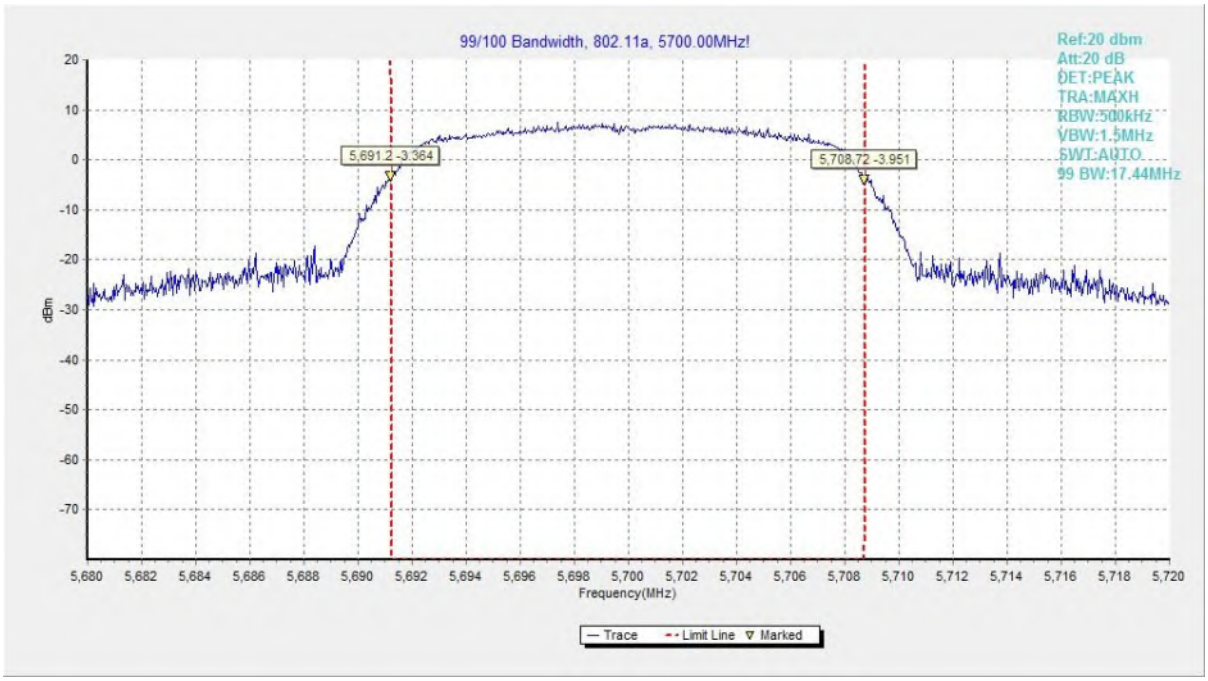

Fig. 33 99% Occupied Bandwidth (802.11a, 5700MHz)

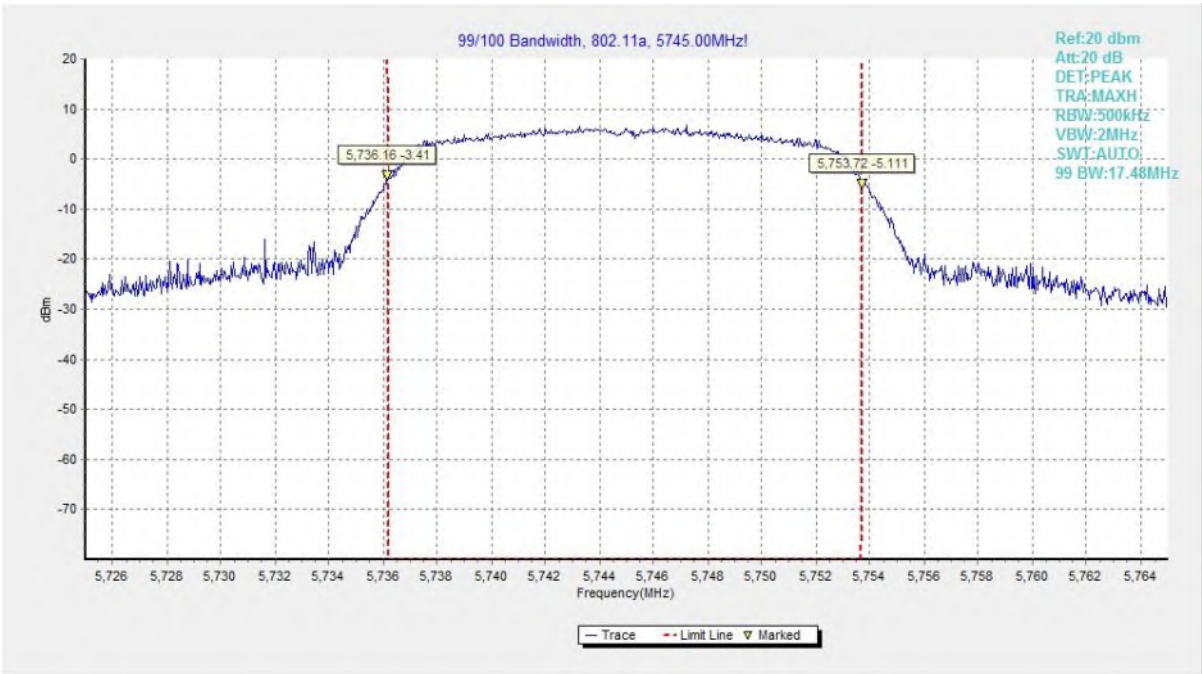

Fig. 34 99% Occupied Bandwidth (802.11a, 5745MHz)

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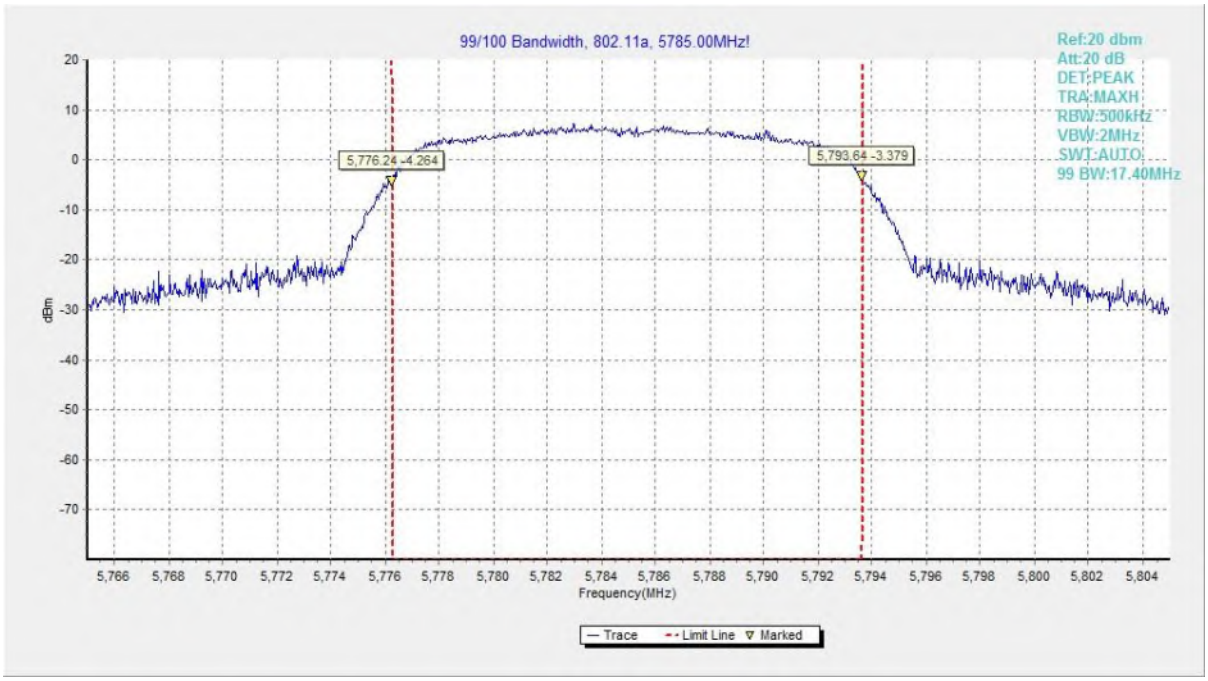

Fig. 35 99% Occupied Bandwidth (802.11a, 5785MHz)

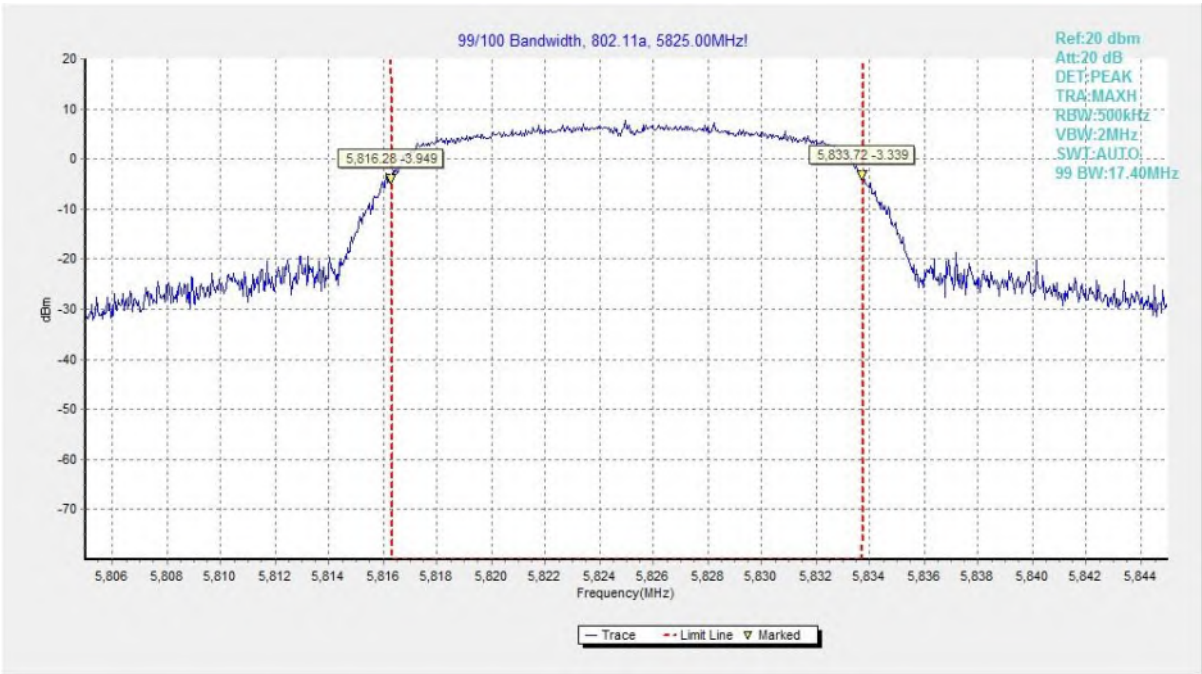

Fig. 36 99% Occupied Bandwidth (802.11a, 5825MHz)

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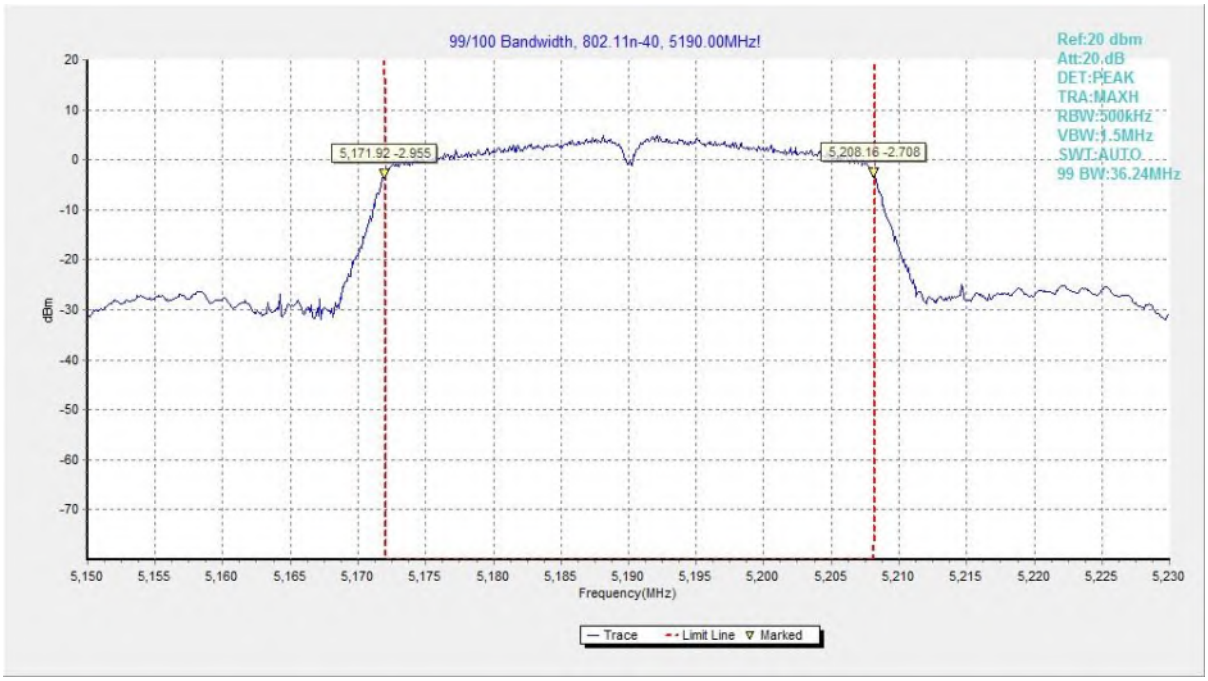

Fig. 37 99% Occupied Bandwidth (802.11n-HT40, 5190MHz)

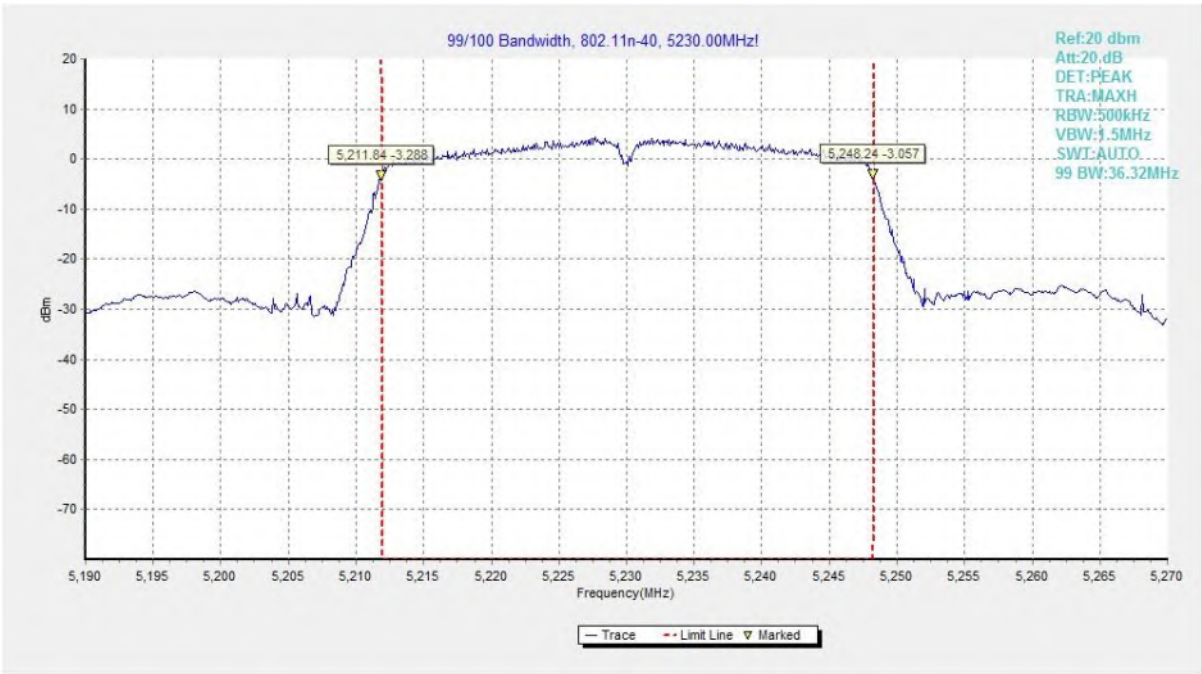

Fig. 38 99% Occupied Bandwidth (802.11n-HT40, 5230MHz)

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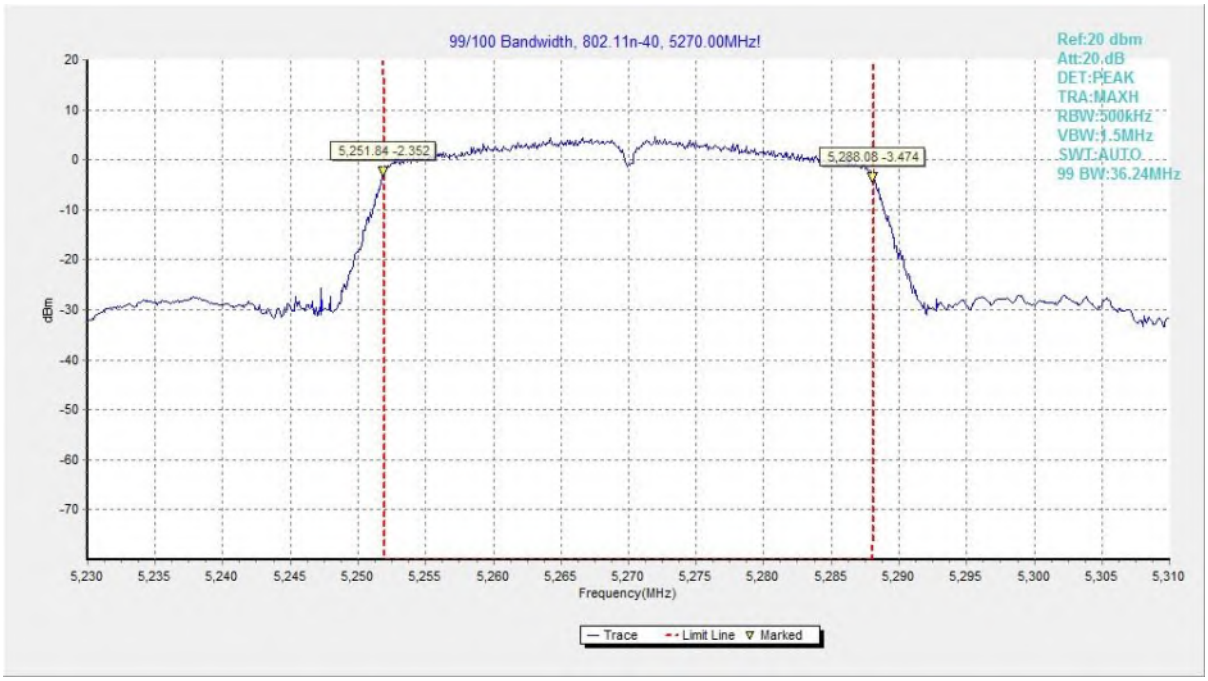

Fig. 39 99% Occupied Bandwidth (802.11n-HT40, 5270MHz)

Fig. 40 99% Occupied Bandwidth (802.11n-HT40, 5310MHz)

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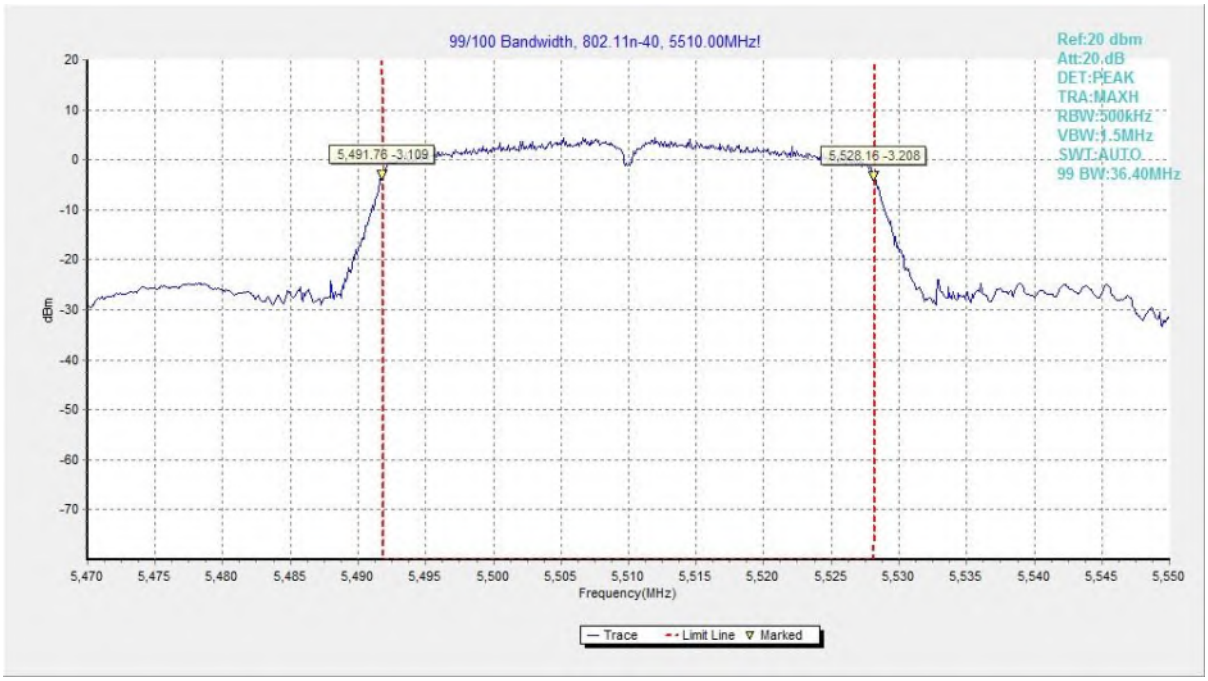

Fig. 41 99% Occupied Bandwidth (802.11n-HT40, 5510MHz)

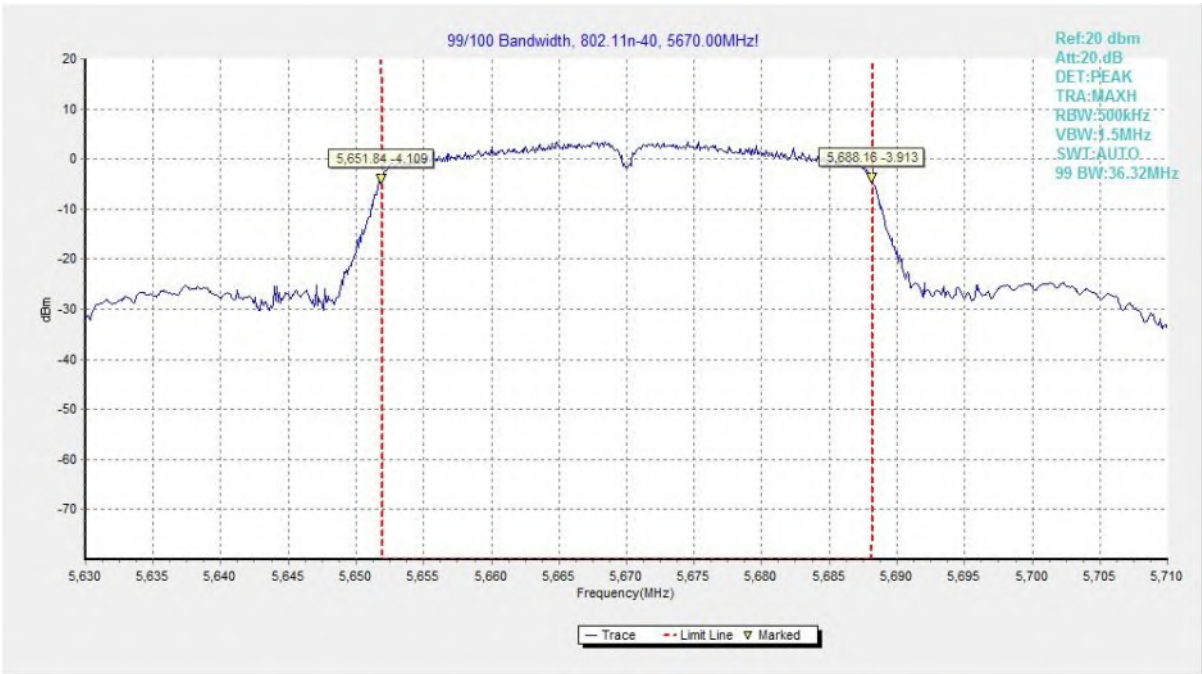

Fig. 42 99% Occupied Bandwidth (802.11n-HT40, 5670MHz)

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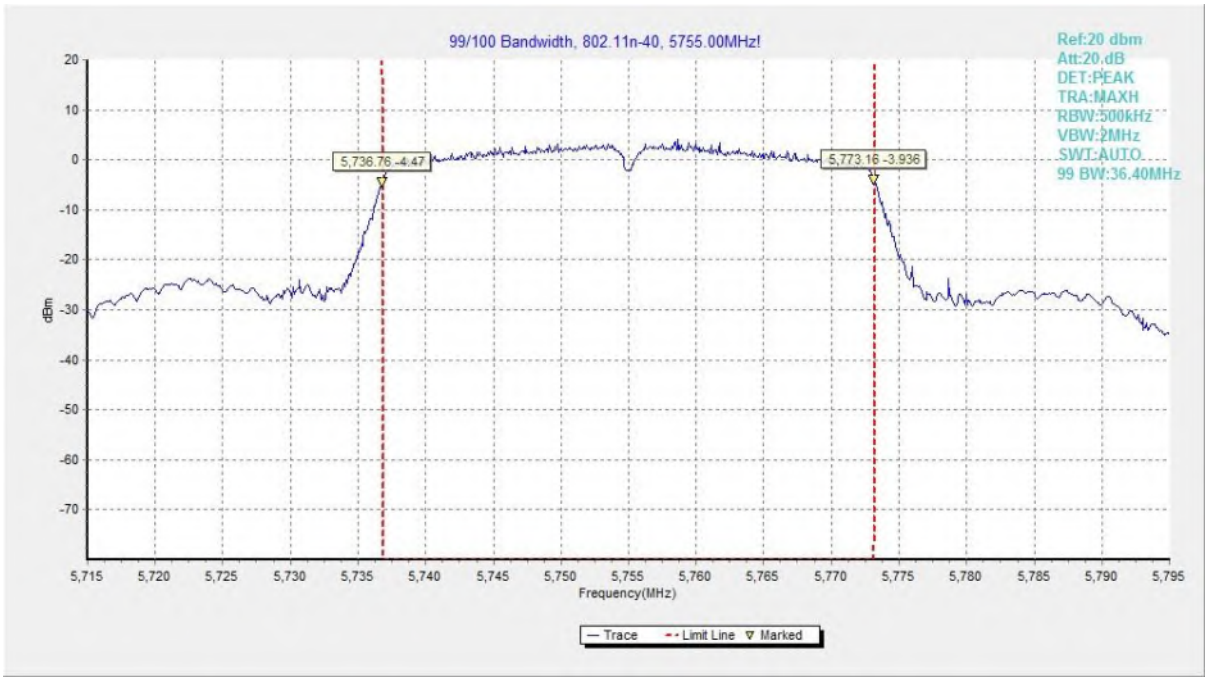

Fig. 43 99% Occupied Bandwidth (802.11n-HT40, 5755MHz)

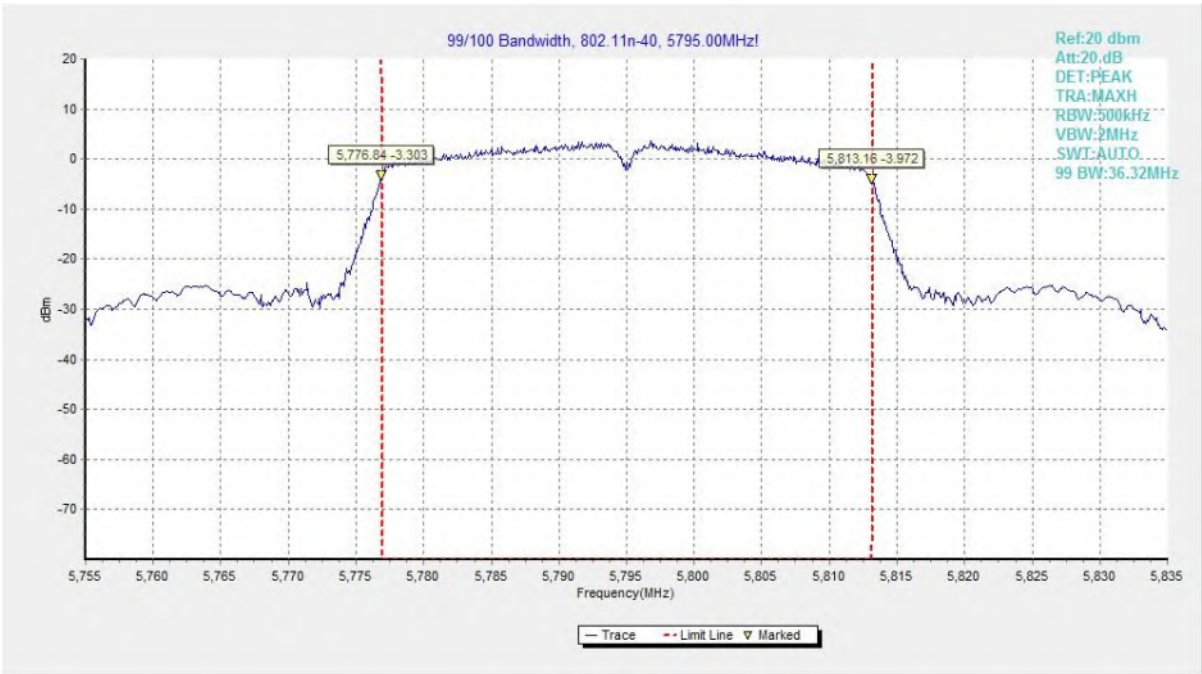

Fig. 44 99% Occupied Bandwidth (802.11n-HT40, 5795MHz)

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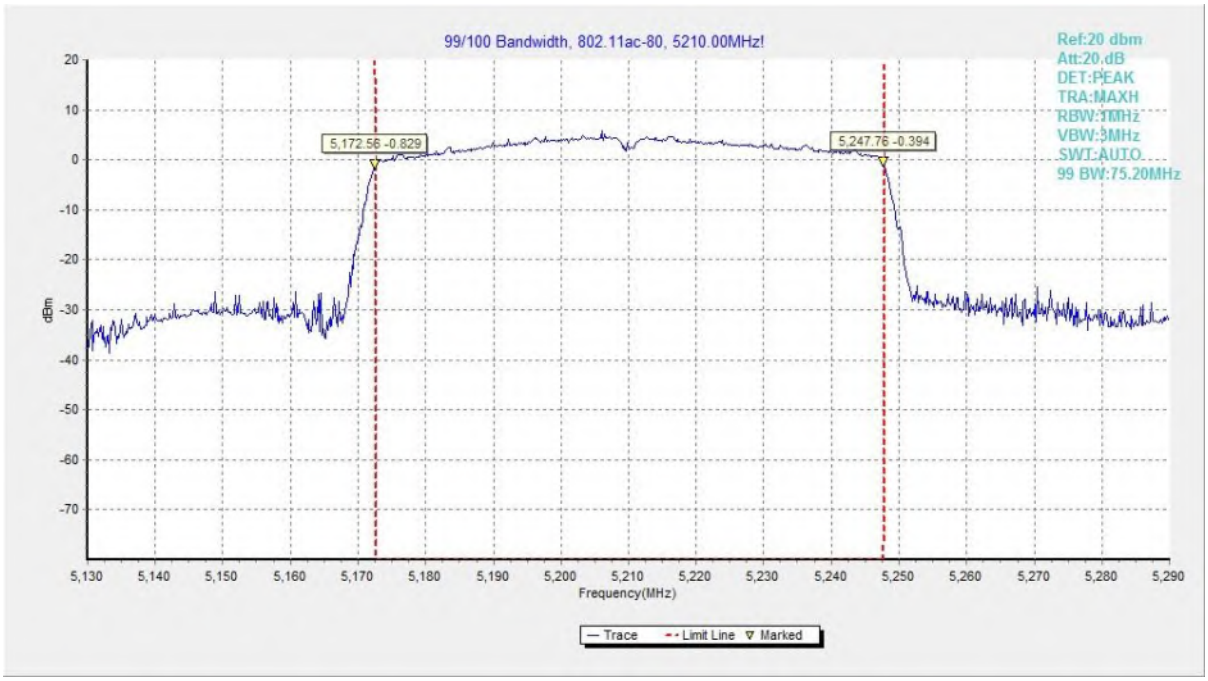

Fig. 45 99% Occupied Bandwidth (802. 11ac-VHT80, 5210MHz)

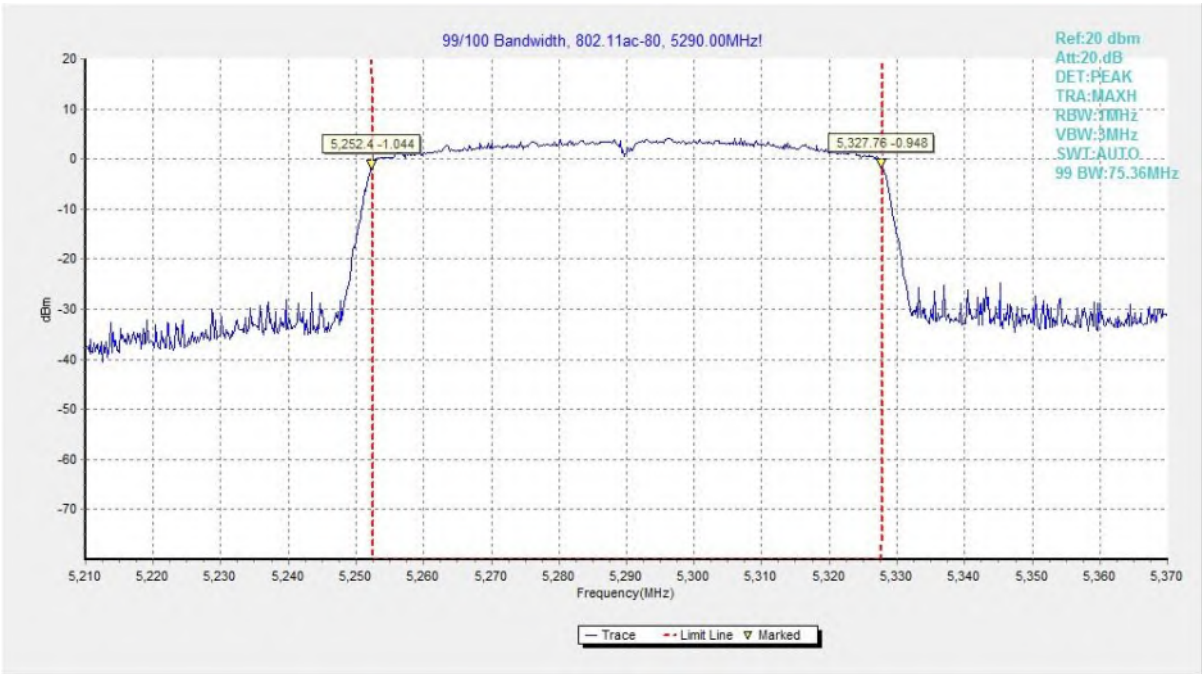

Fig. 46 99% Occupied Bandwidth (802. 11ac-VHT80, 5290MHz)

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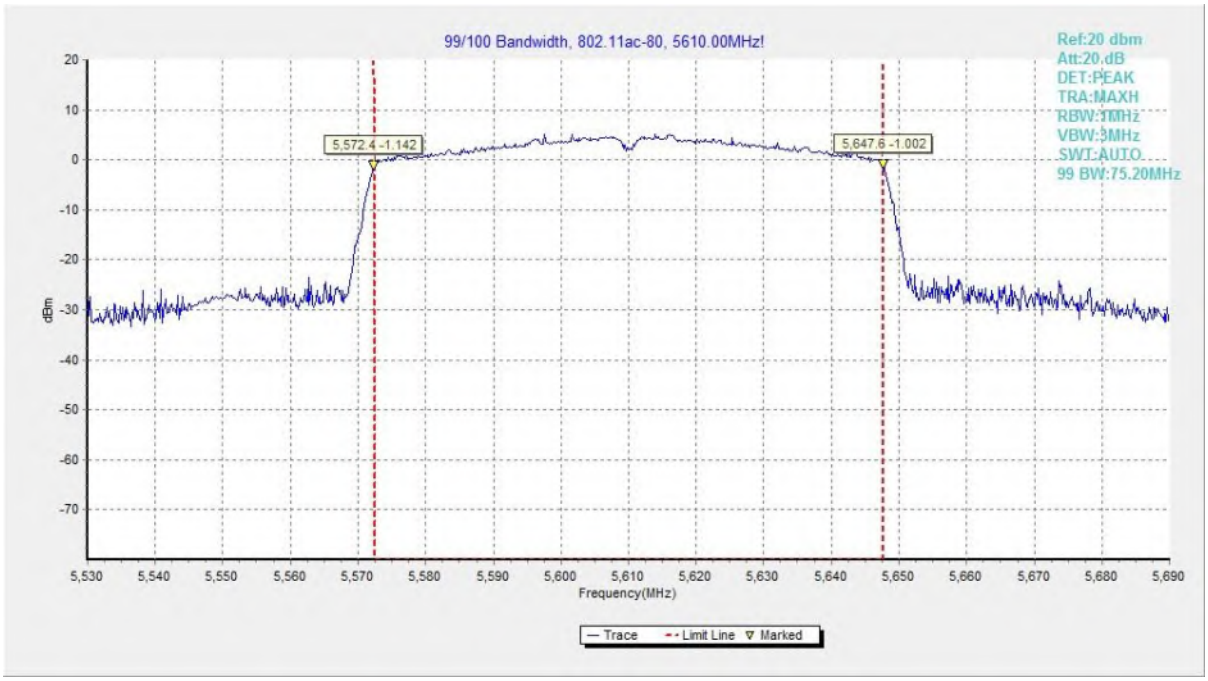

Fig. 47 99% Occupied Bandwidth (802. 11ac-VHT80, 5610MHz)

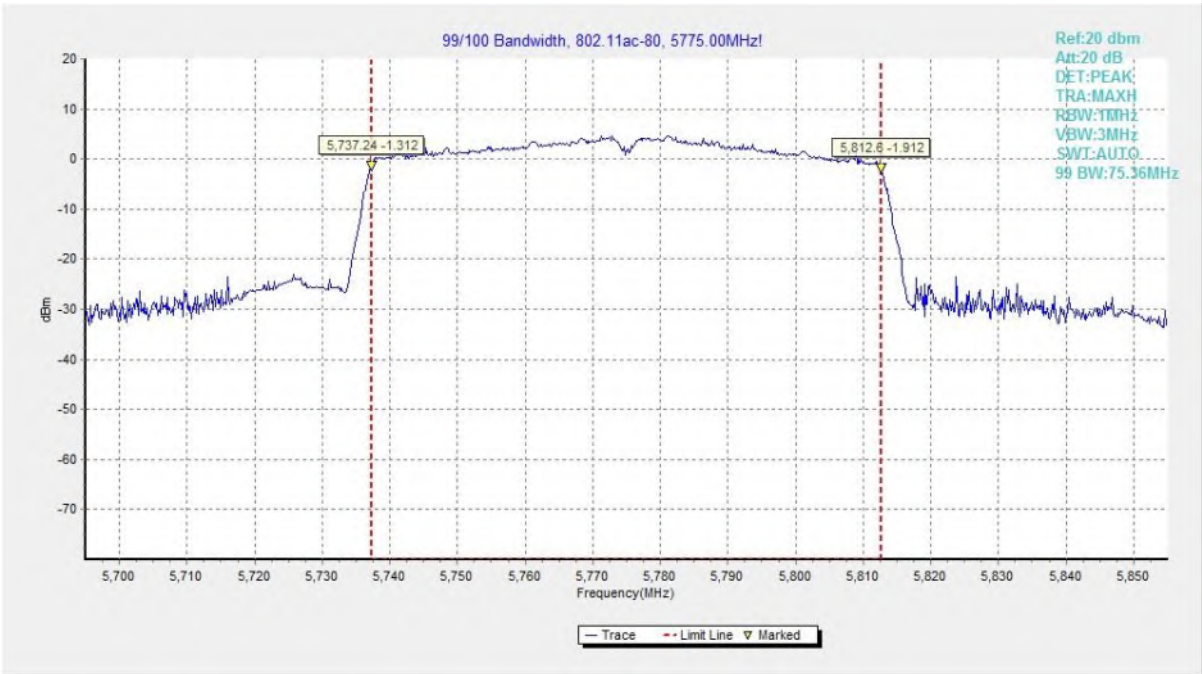

Fig. 48 99% Occupied Bandwidth (802. 11ac-VHT80, 5775MHz)

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A.7. Band Edges Compliance

Measurement Limit:

Standard	Limit (dBuV/m)	
FCC 47 CFR Part 15.209	Peak	74
	Average	54

The measurement is made according to KDB 789033.

Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5180MHz (CH36)	Fig.49	**P**
	5320MHz (CH64)	Fig.50	**P**
	5500MHz (CH100)	Fig.51	**P**
	5700MHz (CH140)	Fig.52	**P**
	5745MHz (CH149)	Fig.53	**P**
	5825MHz (CH165)	Fig.54	**P**
802.11n-HT40	5190MHz (CH38)	Fig.55	**P**
	5310MHz (CH62)	Fig.56	**P**
	5510MHz (CH102)	Fig.57	**P**
	5670MHz (CH134)	Fig.58	**P**
	5755MHz (CH151)	Fig.59	**P**
	5795MHz (CH159)	Fig.60	**P**
802.11ac-VHT80	5210MHz (CH42)	Fig.61	**P**
	5290MHz (CH58)	Fig.62	**P**
	5610MHz (Ch122)	Fig.63	**P**
	5775MHz (CH155)	Fig.64	**P**

Conclusion: PASS

Test graphs as below:

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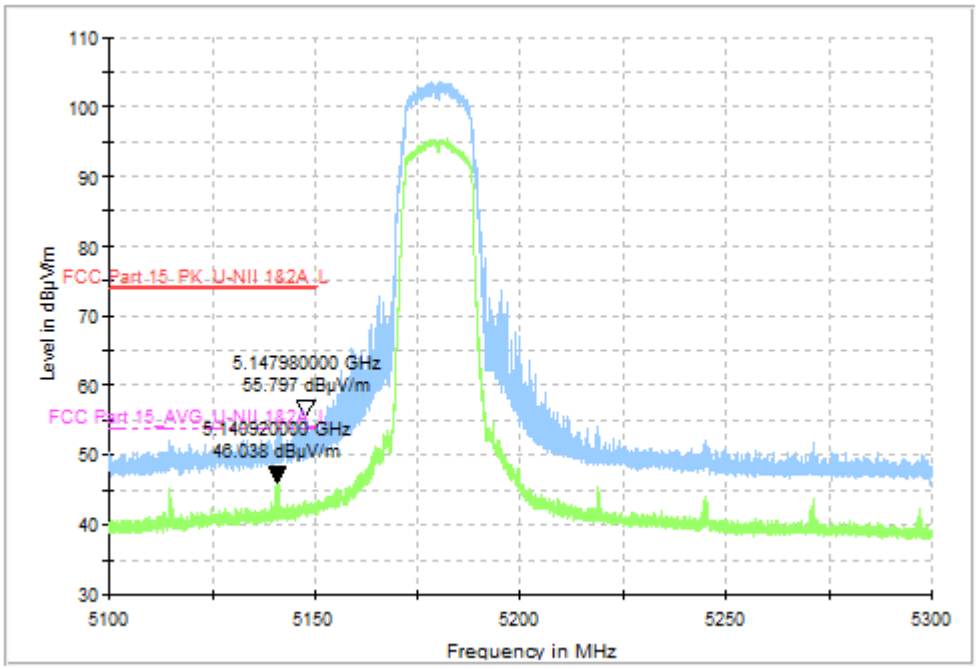

Fig. 49 Band Edges (802.11a, CH36 5180MHz)

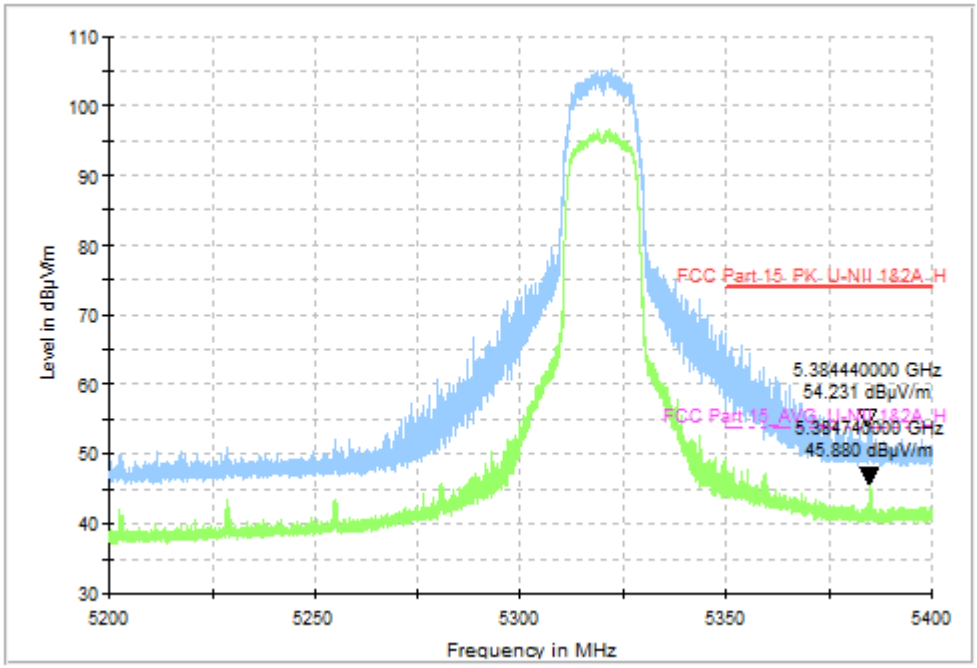

Fig. 50 Band Edges (802.11a, CH64 5320MHz)

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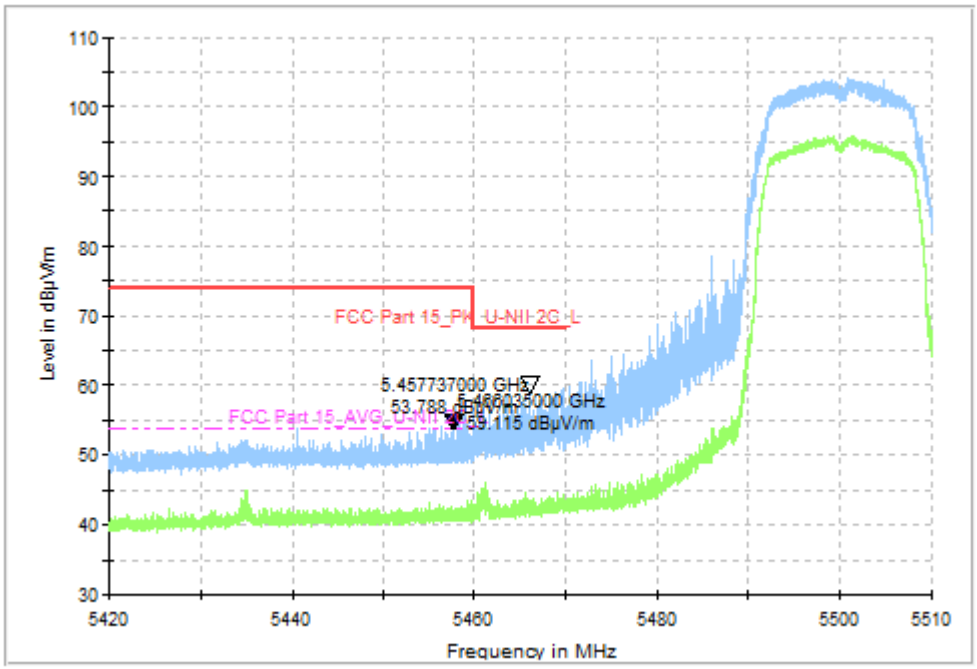

Fig. 51 Band Edges (802.11a, CH100 5500MHz)

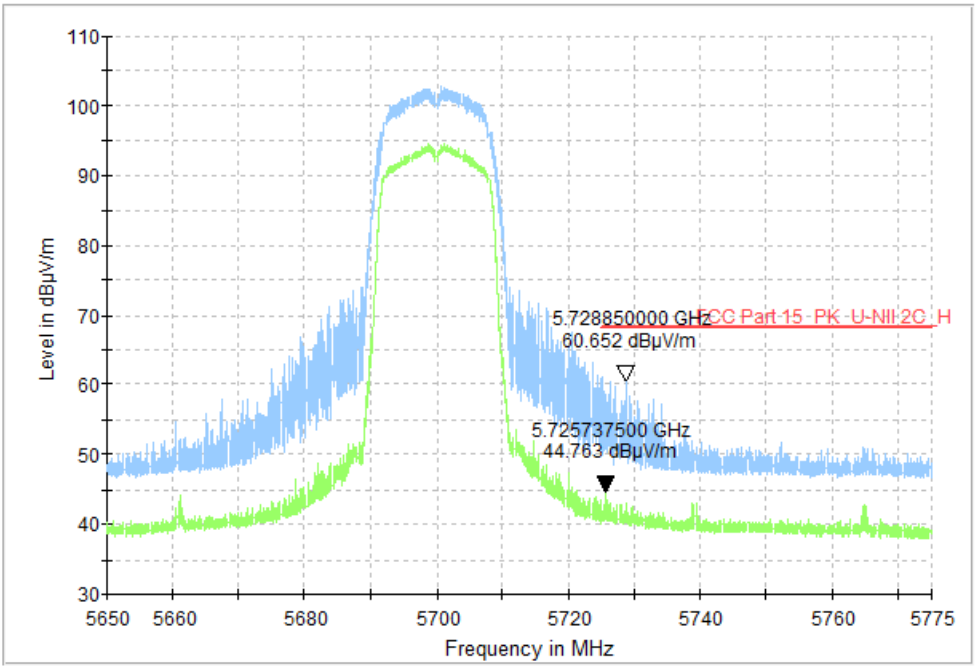

Fig. 52 Band Edges (802.11a, CH140 5700MHz)

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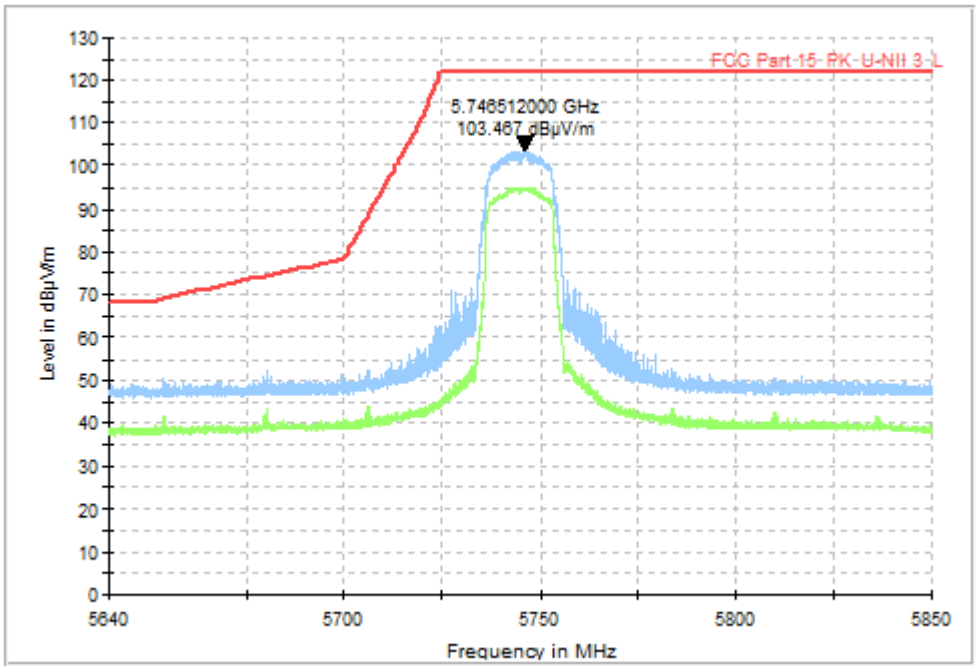

Fig. 53 Band Edges (802.11a, CH149 5745MHz)

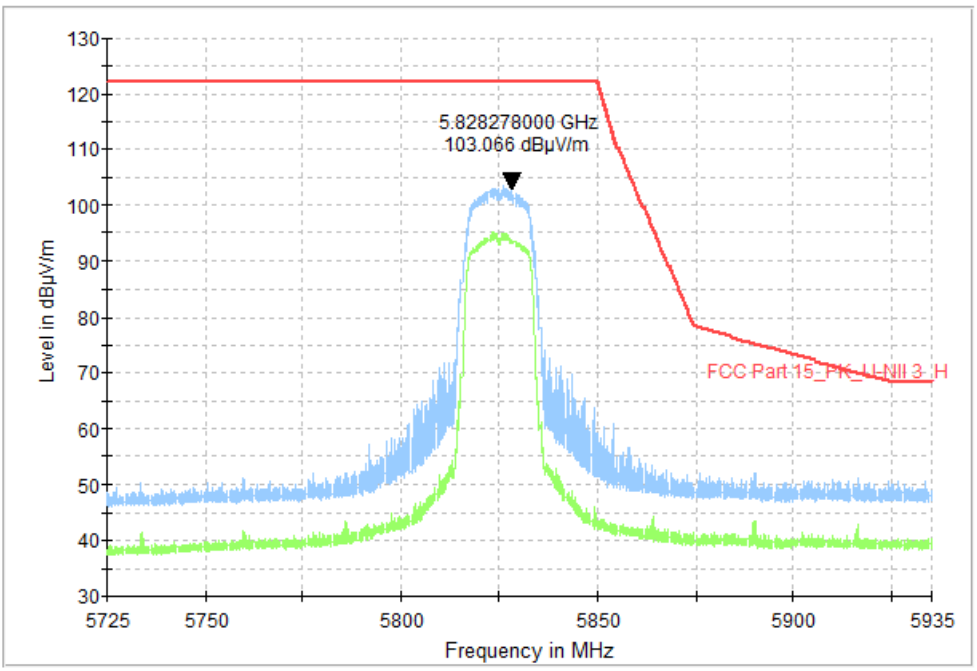

Fig. 54 Band Edges (802.11a, CH165 5825MHz)

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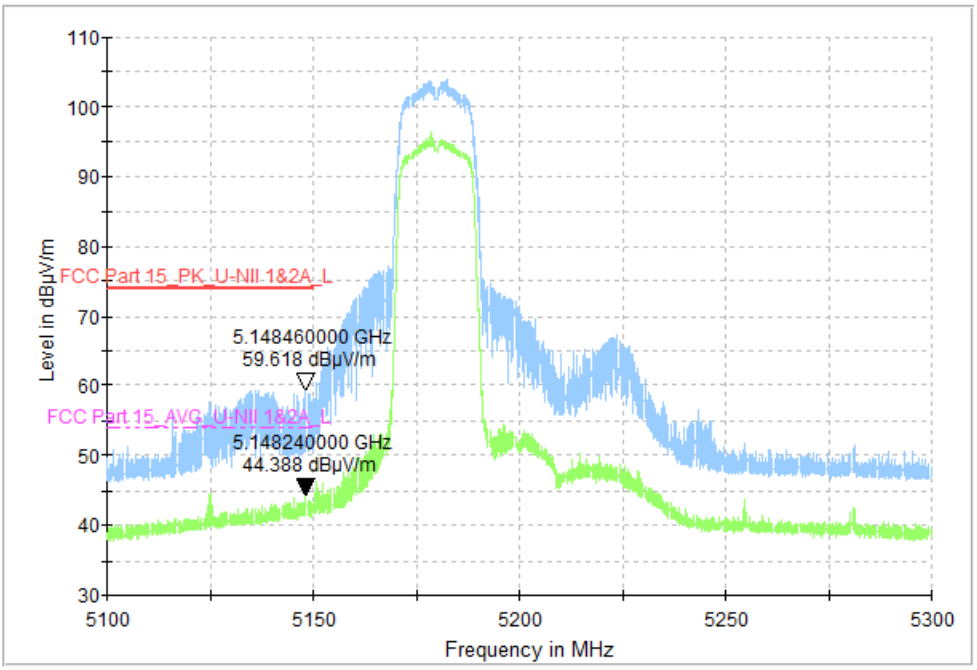

Fig. 55 Band Edges (802.11n-HT40, CH38 5190MHz)

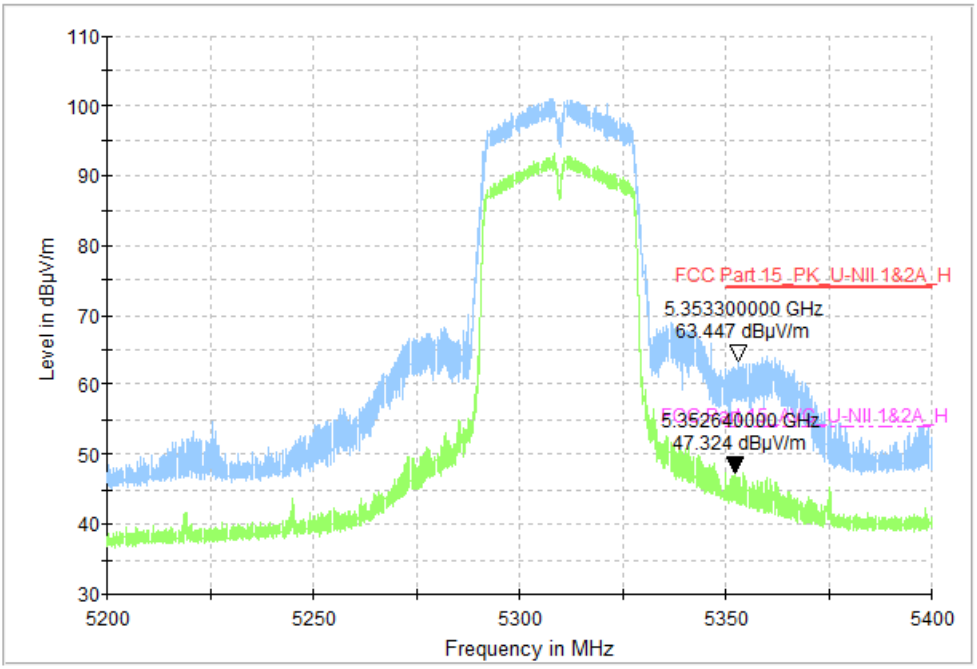

Fig. 56 Band Edges (802.11n-HT40, CH62 5310MHz)

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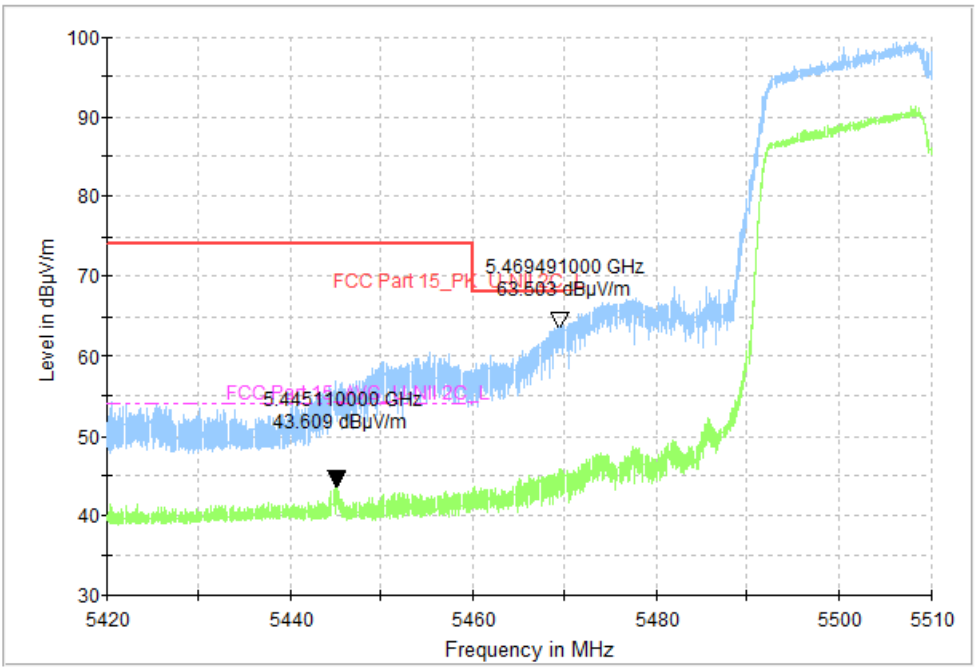

Fig. 57 Band Edges (802.11n-HT40, CH102 5510MHz)

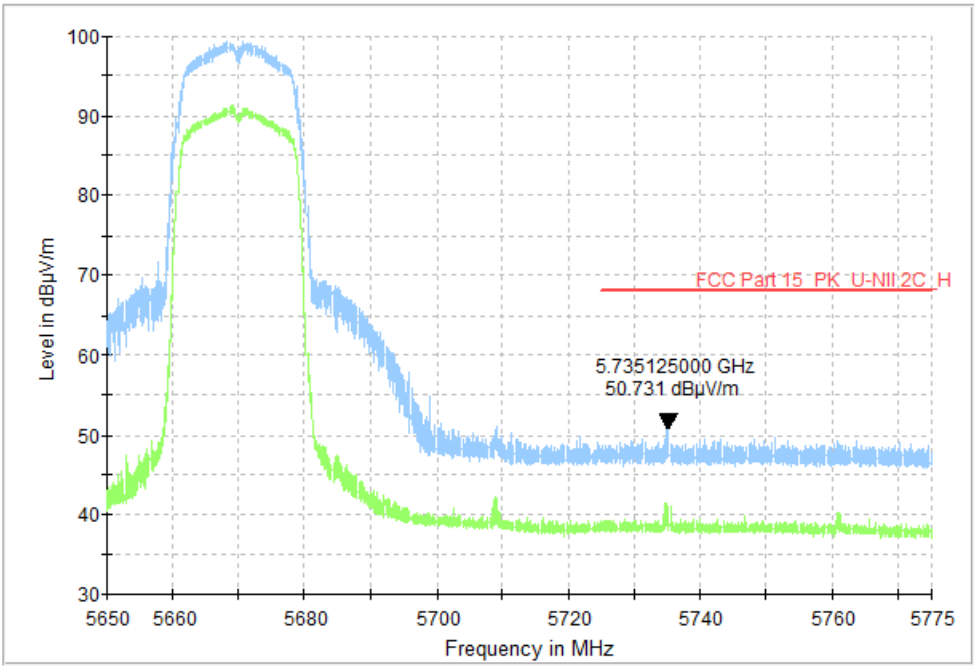

Fig. 58 Band Edges (802.11n-HT40, CH134 5670MHz)

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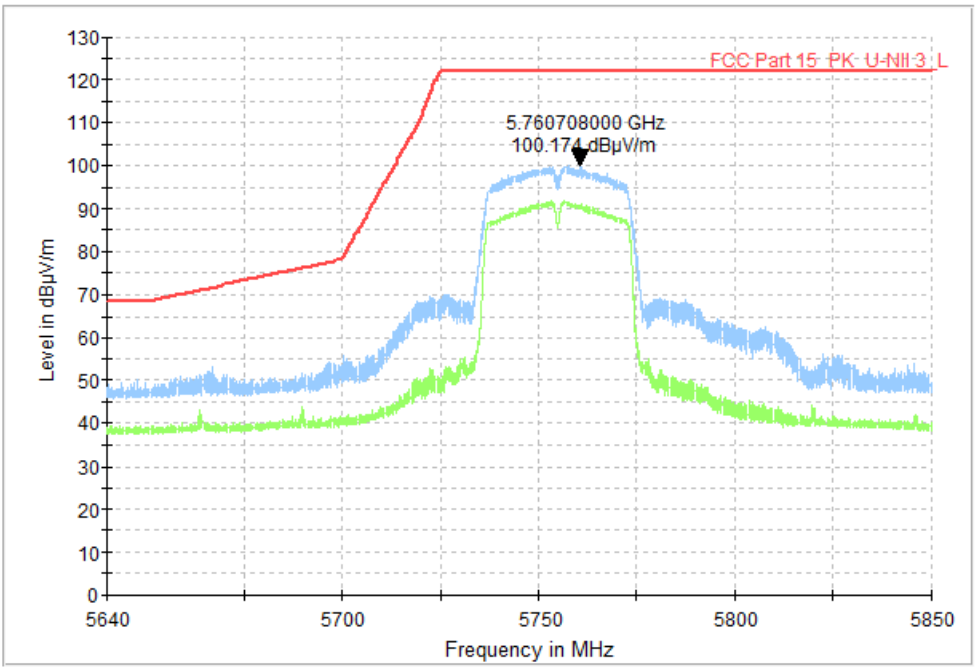

Fig. 59 Band Edges (802.11n-HT40, CH151 5755MHz)

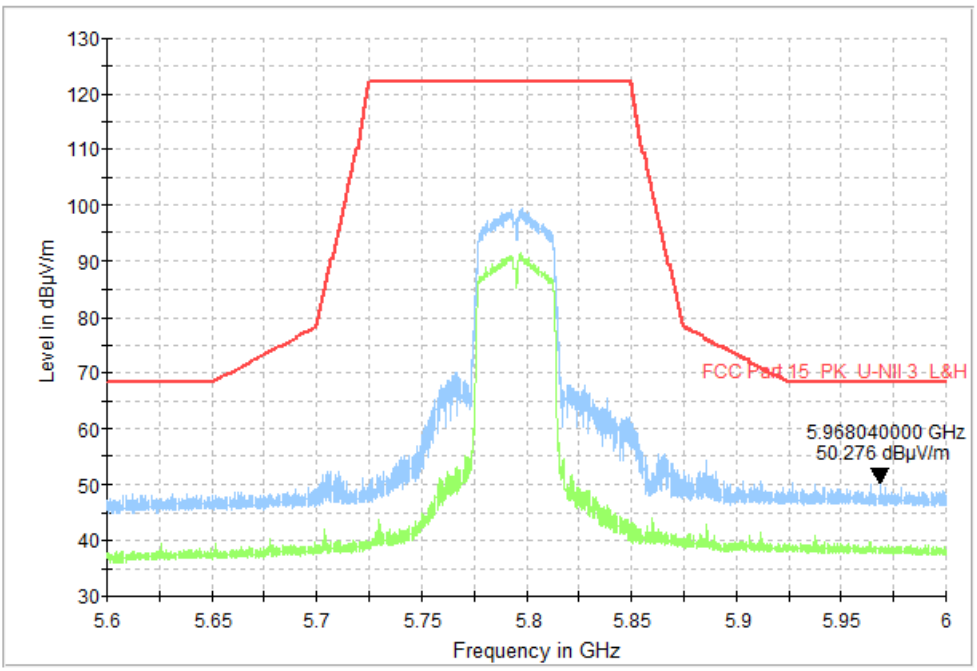

Fig. 60 Band Edges (802.11n-HT40, CH159 5795MHz)

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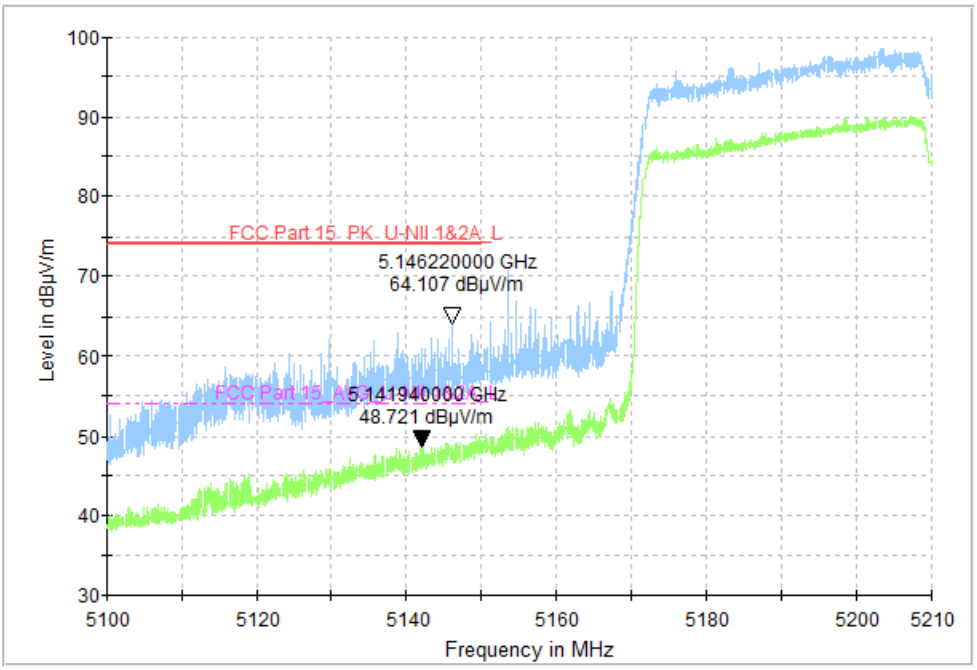

Fig. 61 Band Edges (802.11ac-VHT80, CH42 5210MHz)

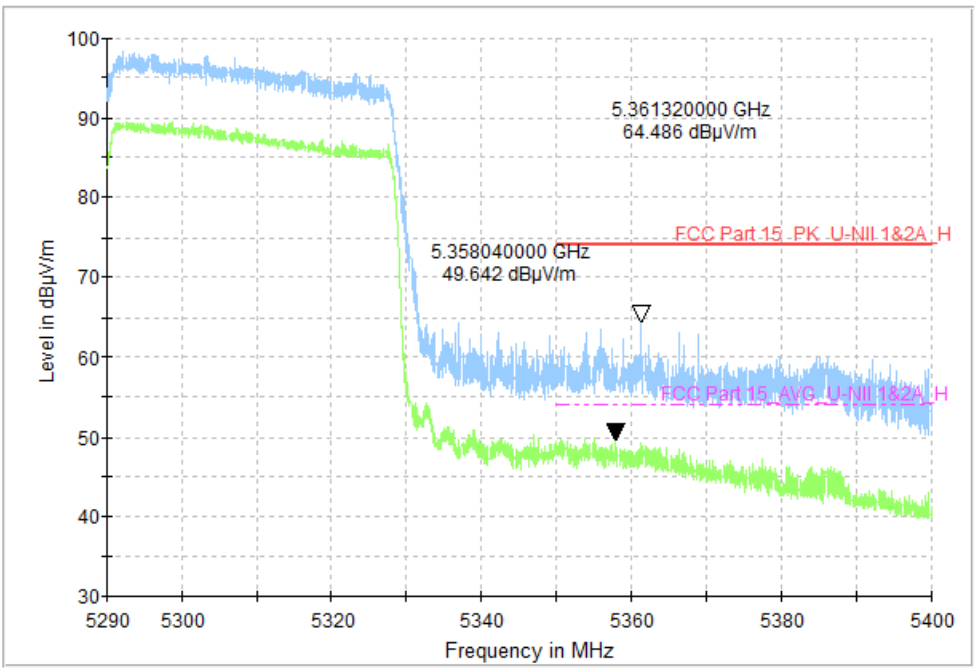

Fig. 62 Band Edges (802.11ac-VHT80, CH58 5290MHz)

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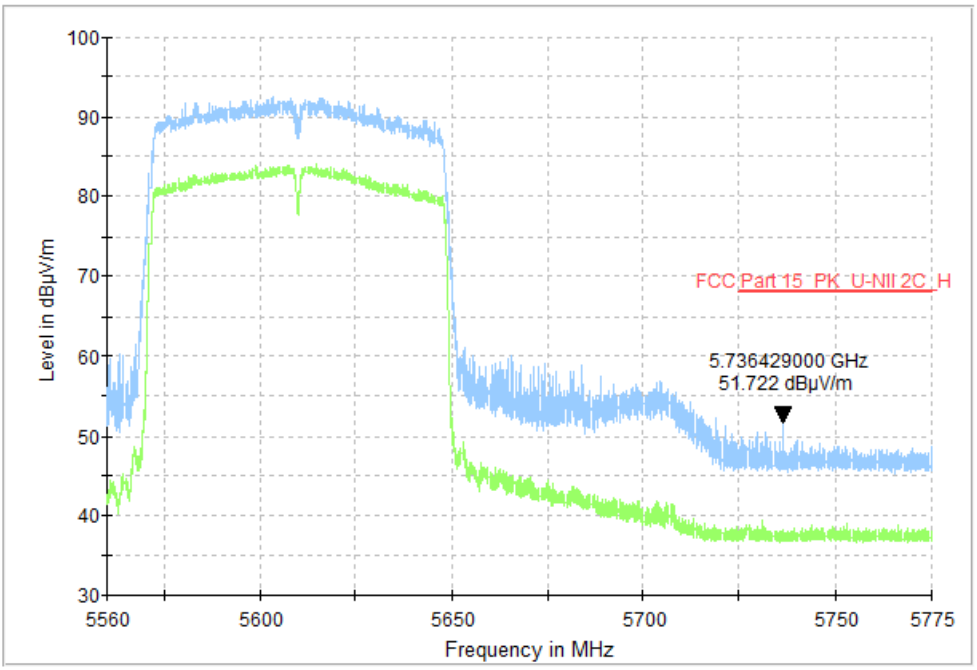

Fig. 63 Band Edges (802.11ac-VHT80, CH122 5610MHz)

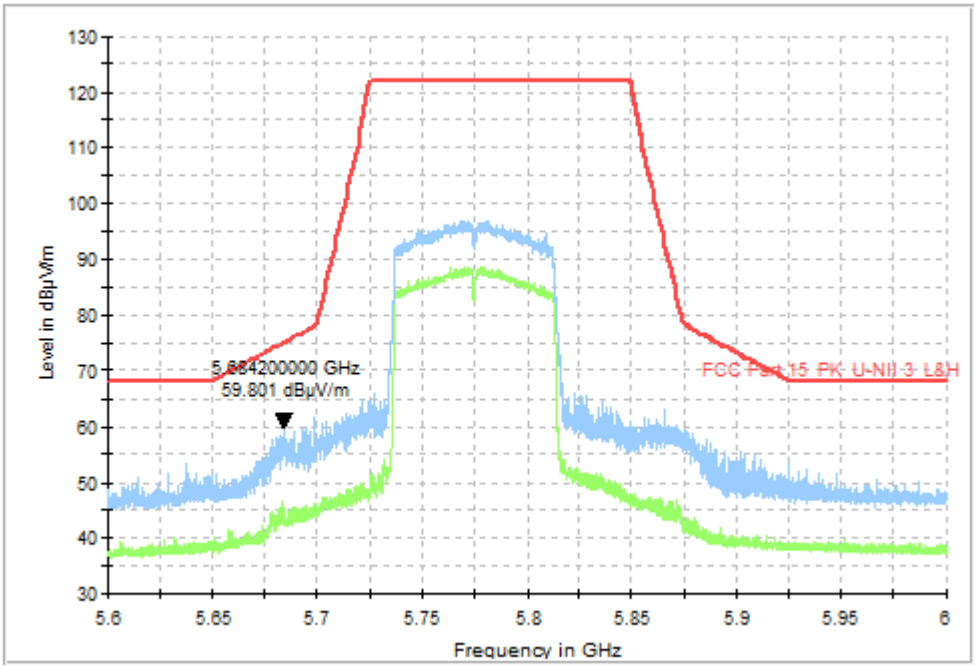

Fig. 64 Band Edges (802.11ac-VHT80, CH155 5775MHz)

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A.8. Transmitter Spurious Emission

Measurement Limit:

Standard	Limit (dBm/MHz)
FCC 47 CFR Part 15.407, 15.205	< -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 (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 Result:

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	5180MHz (Ch36)	1 GHz ~ 18 GHz	Fig.65	**P**
	5200MHz (Ch40)	1 GHz ~ 18 GHz	Fig.66	**P**
	5240MHz (Ch48)	1 GHz ~ 18 GHz	Fig.67	**P**
	5260MHz (Ch52)	1 GHz ~ 18 GHz	Fig.68	**P**
	5280MHz (Ch56)	1 GHz ~ 18 GHz	Fig.69	**P**
	5320MHz (Ch64)	1 GHz ~ 18 GHz	Fig.70	**P**
	5500MHz (Ch100)	1 GHz ~ 18 GHz	Fig.71	**P**
	5580MHz (Ch116)	1 GHz ~ 18 GHz	Fig.72	**P**
	5700MHz (Ch140)	1 GHz ~ 18 GHz	Fig.73	**P**
	5745MHz (Ch149)	1 GHz ~ 18 GHz	Fig.74	**P**
	5785MHz (Ch157)	1 GHz ~ 18 GHz	Fig.75	**P**
	5825MHz (Ch165)	1 GHz ~ 18 GHz	Fig.76	**P**
802.11n-HT40	5190MHz (Ch38)	1 GHz ~ 18 GHz	Fig.77	**P**
	5230MHz (Ch46)	1 GHz ~ 18 GHz	Fig.78	**P**
	5270MHz (Ch54)	1 GHz ~ 18 GHz	Fig.79	**P**
	5310MHz (Ch62)	1 GHz ~ 18 GHz	Fig.80	**P**
	5510MHz (Ch102)	1 GHz ~ 18 GHz	Fig.81	**P**
	5670MHz (Ch134)	1 GHz ~ 18 GHz	Fig.82	**P**
	5755MHz (Ch151)	1 GHz ~ 18 GHz	Fig.83	**P**
	5795MHz (Ch159)	1 GHz ~ 18 GHz	Fig.84	**P**

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802.11ac-VHT80	5210MHz (Ch42)	1 GHz ~ 18 GHz	Fig.85	**P**
	5290MHz (Ch58)	1 GHz ~ 18 GHz	Fig.86	**P**
	5610MHz (Ch122)	1 GHz ~ 18 GHz	Fig.87	**P**
	5775MHz (Ch155)	1 GHz ~ 18 GHz	Fig.88	**P**
All channels		30MHz ~ 1GHz	Fig.89	**P**
		18GHz ~ 26.5GHz	Fig.90	**P**
		26.5GHz ~ 40GHz	Fig.91	**P**

Conclusion: PASS

Test graphs as below:

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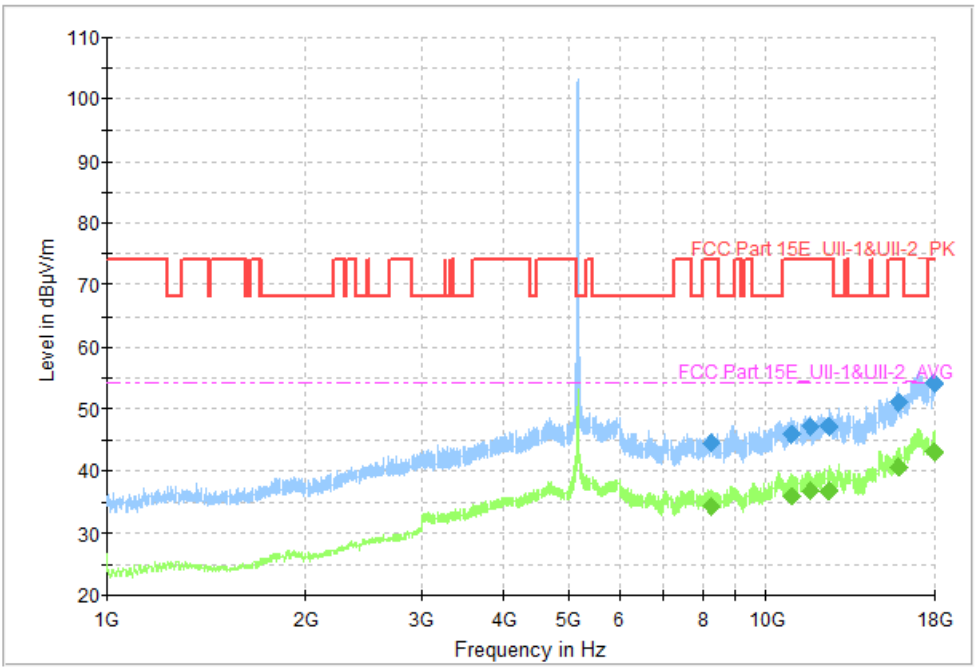

Fig. 65 Transmitter Spurious Emission (802.11a, CH36 5180MHz)

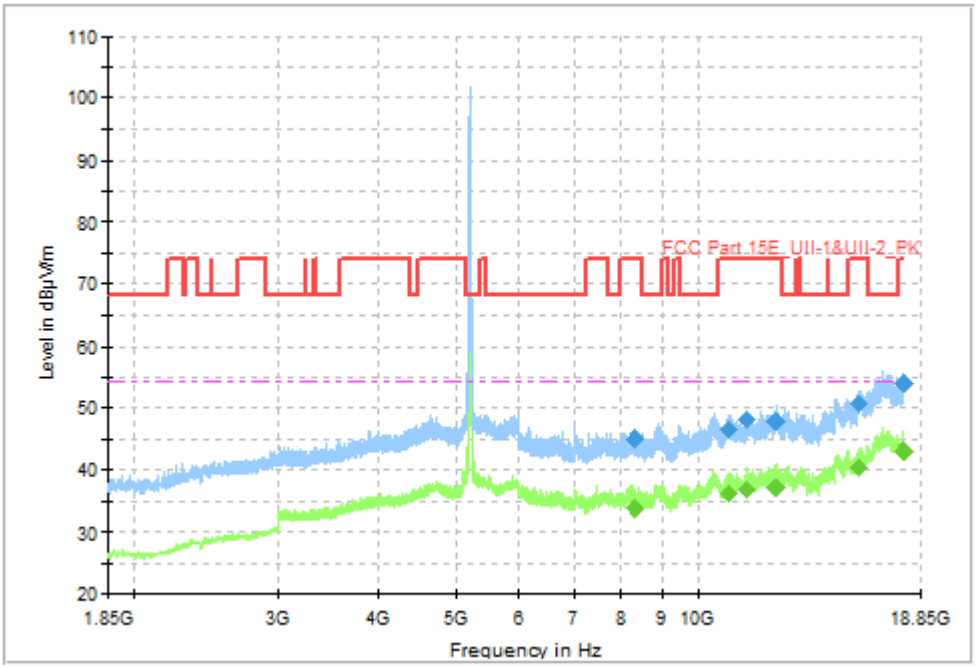

Fig. 66 Transmitter Spurious Emission (802.11a, CH40 5200MHz)

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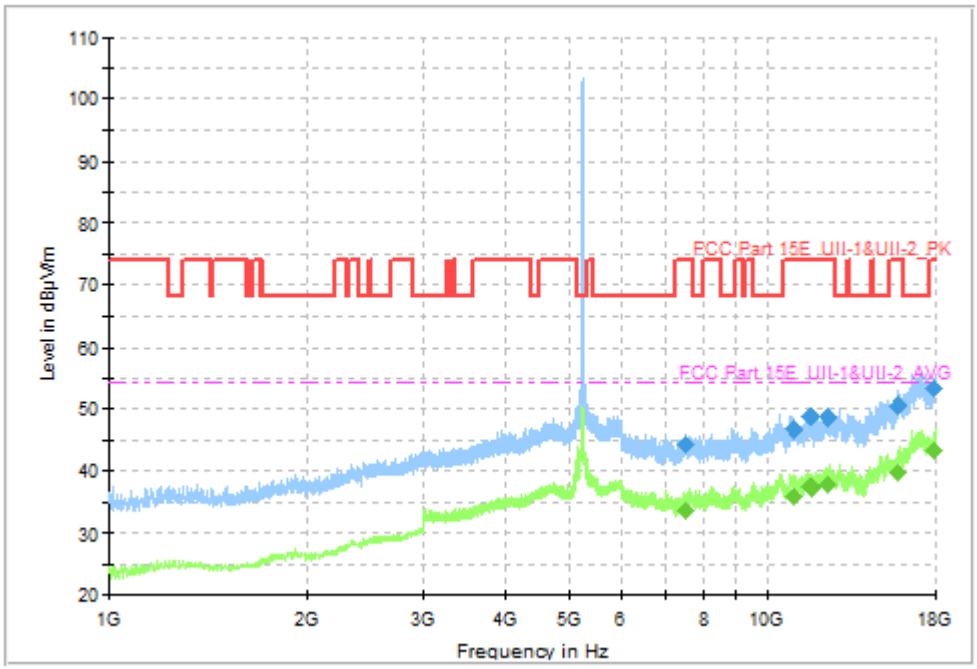

Fig. 67 Transmitter Spurious Emission (802.11a, CH48 5240MHz)

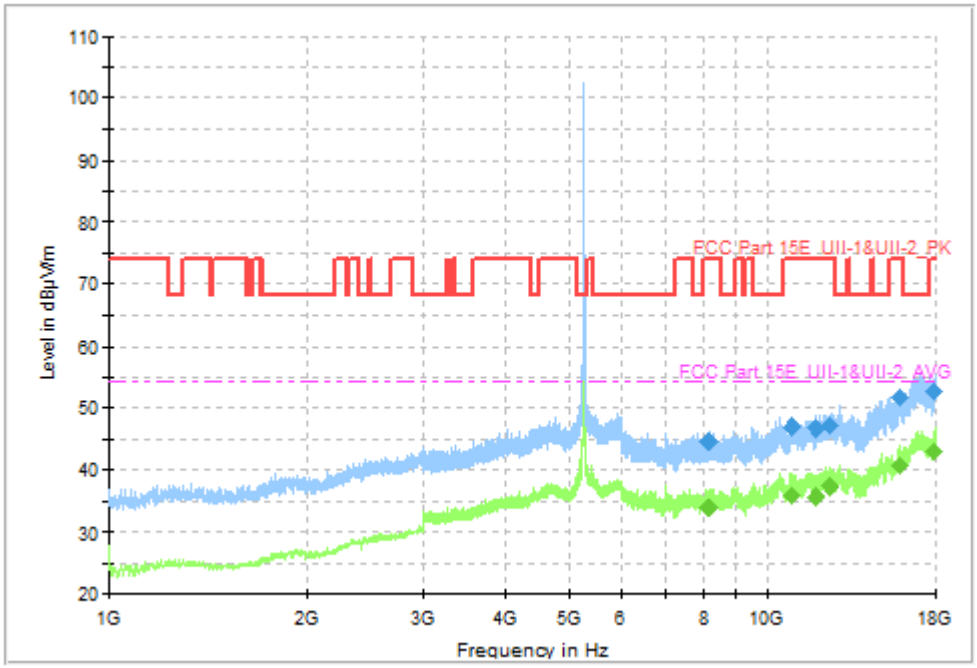

Fig. 68 Transmitter Spurious Emission (802.11a, CH52 5260MHz)

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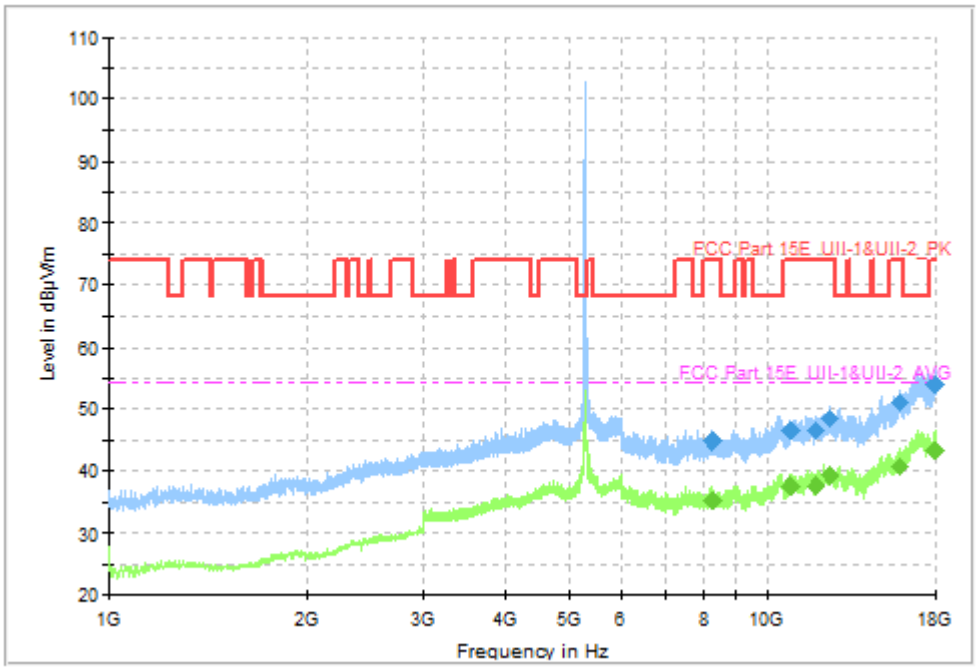

Fig. 69 Transmitter Spurious Emission (802.11a, CH56 5280MHz)

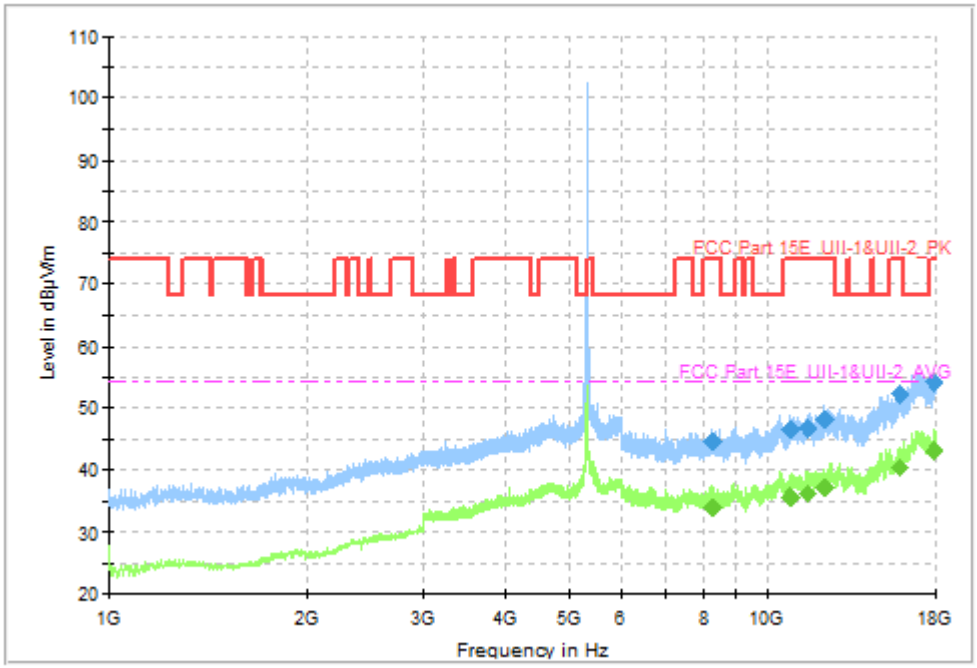

Fig. 70 Transmitter Spurious Emission (802.11a, CH64 5320MHz)

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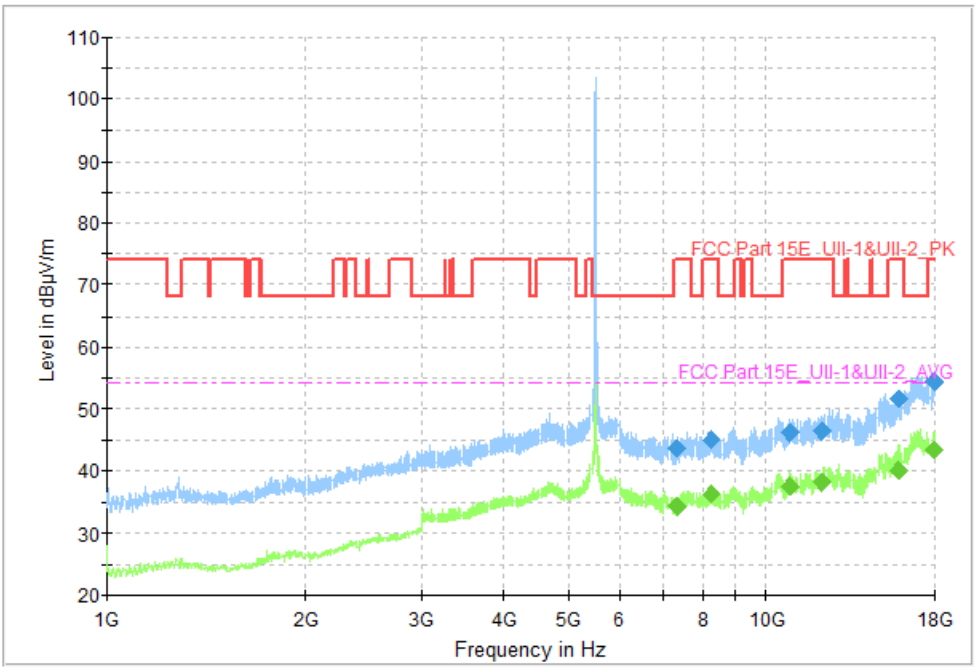

Fig. 71 Transmitter Spurious Emission (802.11a, CH100 5500MHz)

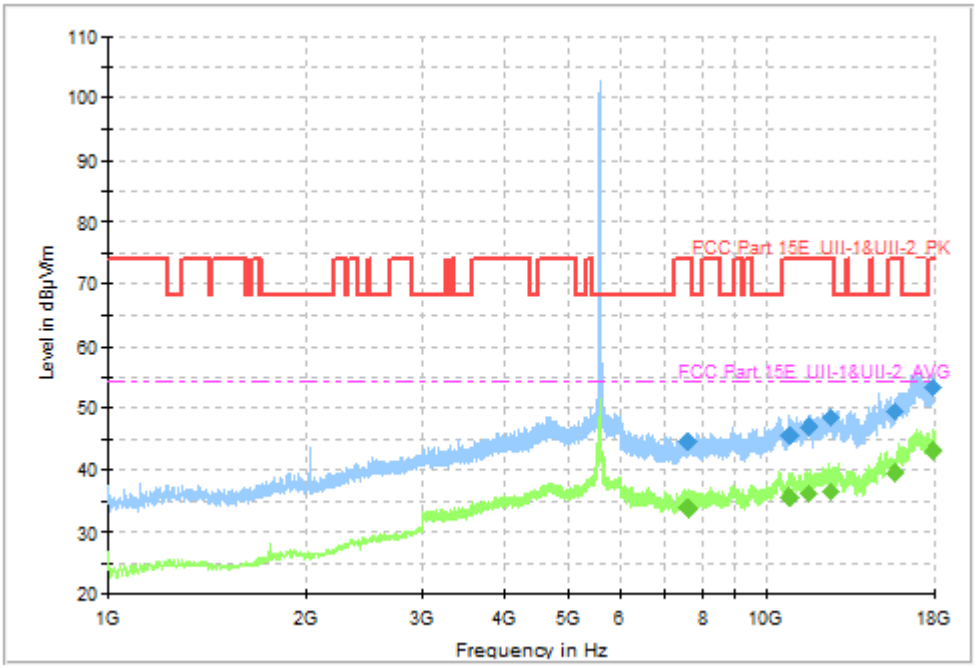

Fig. 72 Transmitter Spurious Emission (802.11a, CH116 5580MHz)

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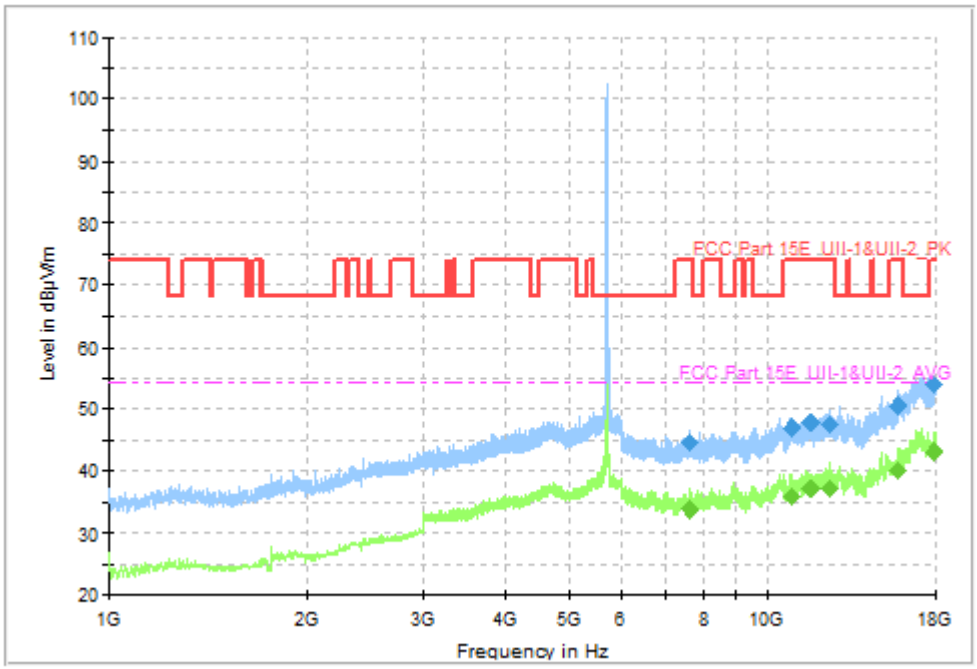

Fig. 73 Transmitter Spurious Emission (802.11a, CH140 5700MHz)

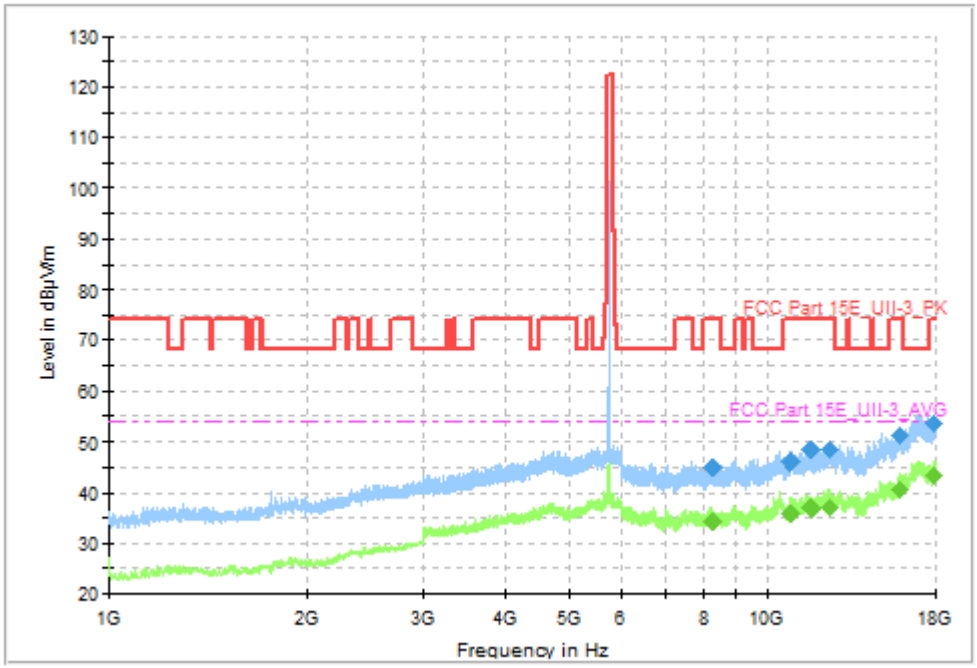

Fig. 74 Transmitter Spurious Emission (802. 11a, CH149 5745MHz)

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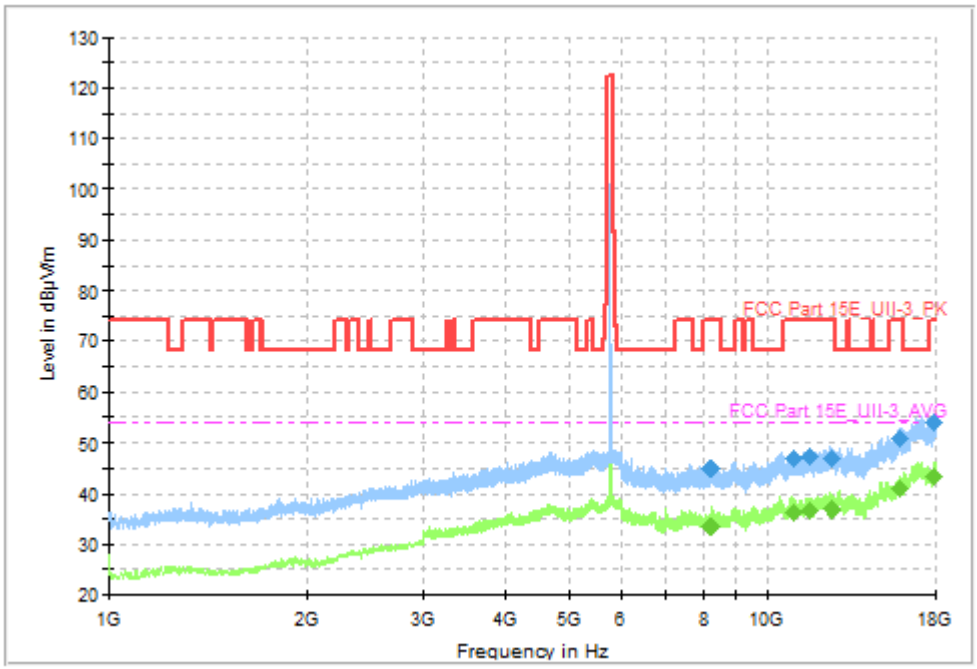

Fig. 75 Transmitter Spurious Emission (802. 11a, CH157 5785MHz)

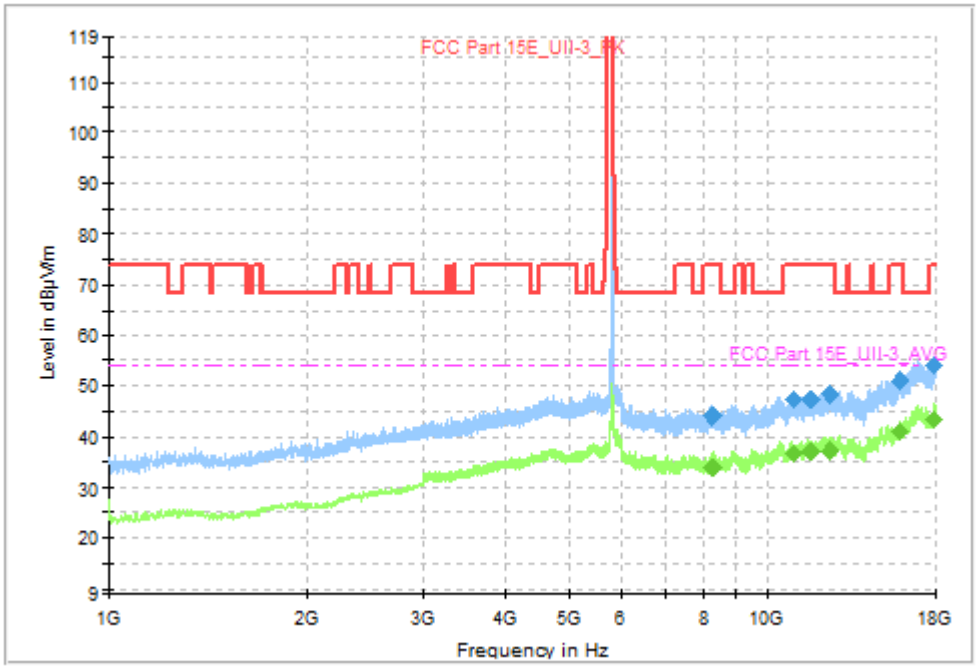

Fig. 76 Transmitter Spurious Emission (802. 11a, CH165 5825MHz)

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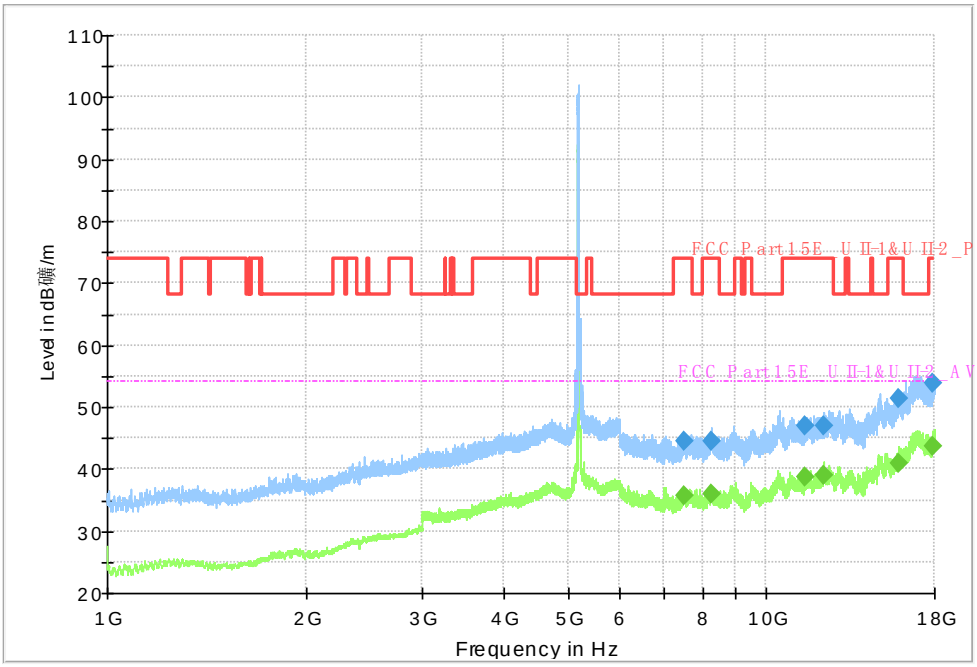

Fig. 77 Transmitter Spurious Emission (802.11n-HT40, CH38 5190MHz)

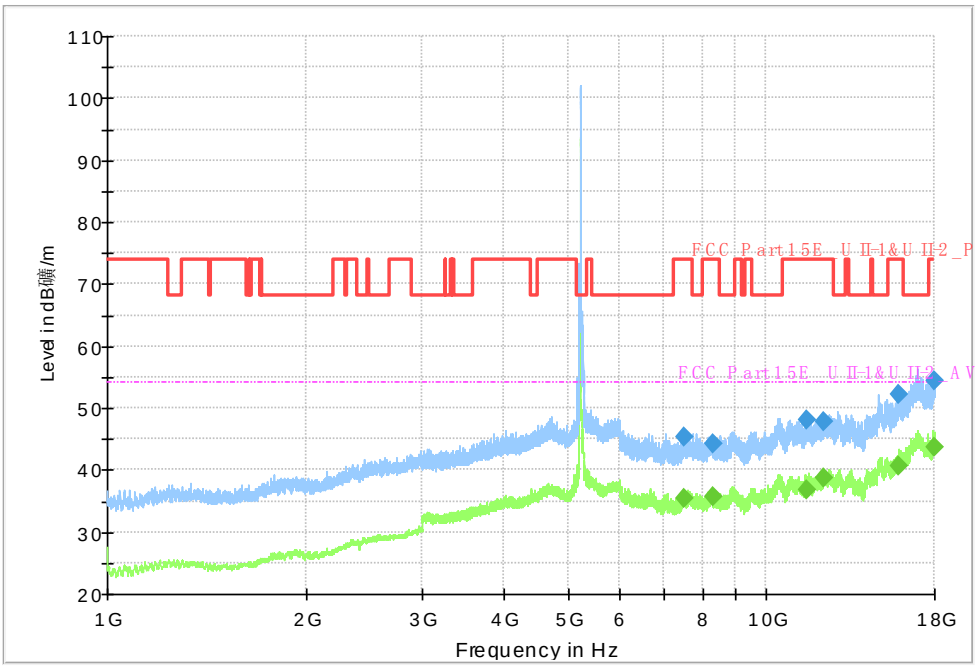

Fig. 78 Transmitter Spurious Emission (802.11n-HT40, CH46 5230MHz)

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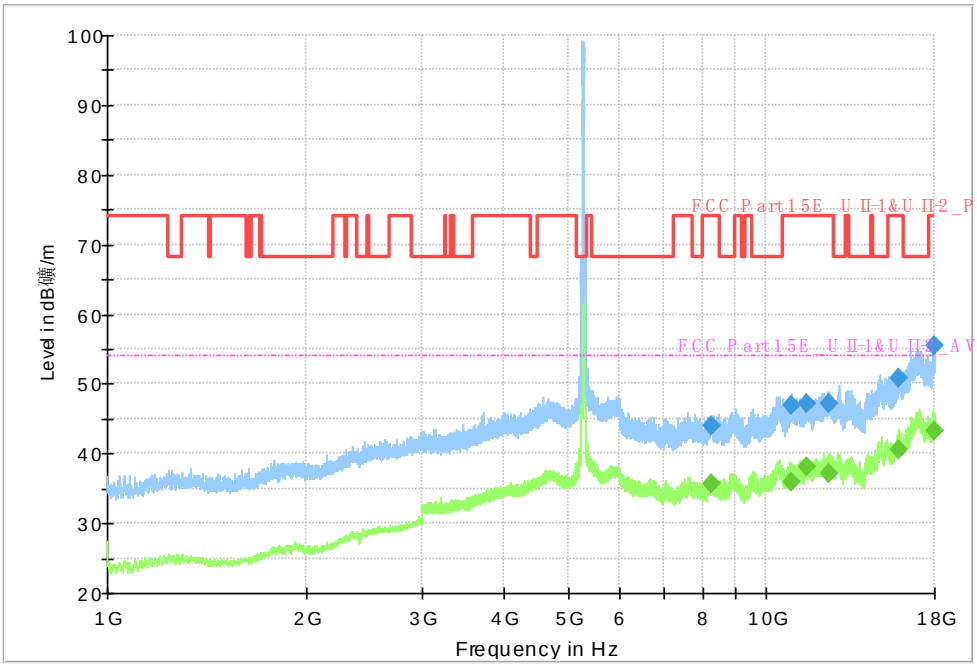

Fig. 79 Transmitter Spurious Emission (802.11n-HT40, CH54 5270MHz)

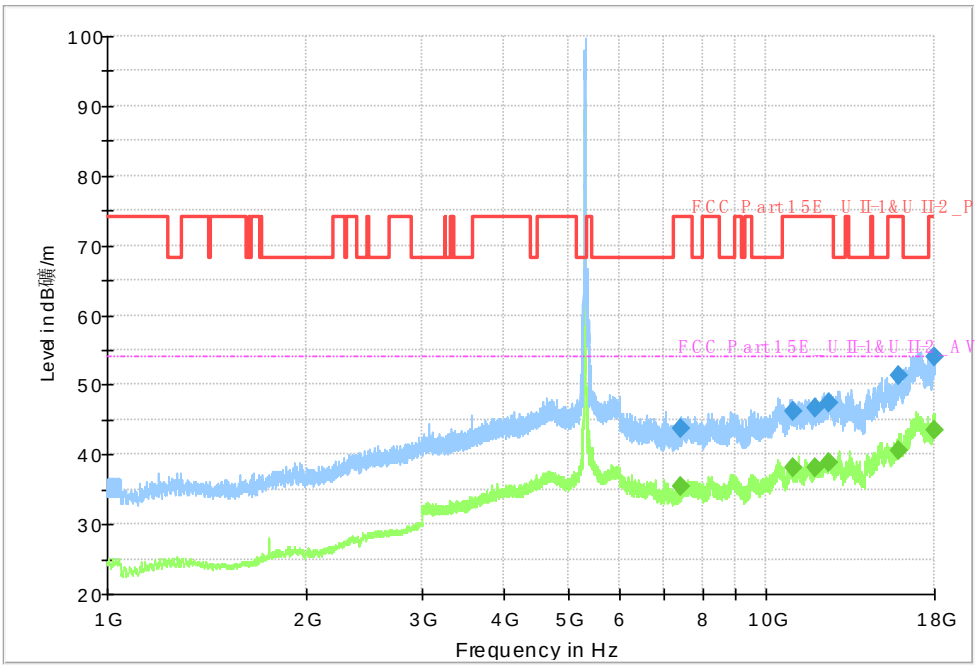

Fig. 80 Transmitter Spurious Emission (802.11n-HT40, CH62 5310MHz)

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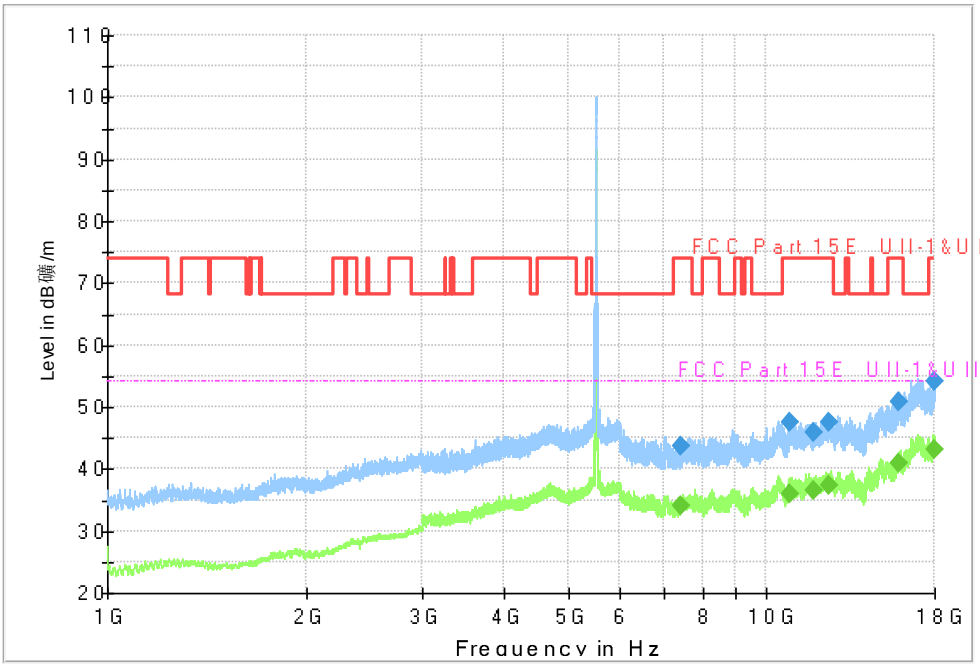

Fig. 81 Transmitter Spurious Emission (802.11n-HT40, CH102 5510MHz)

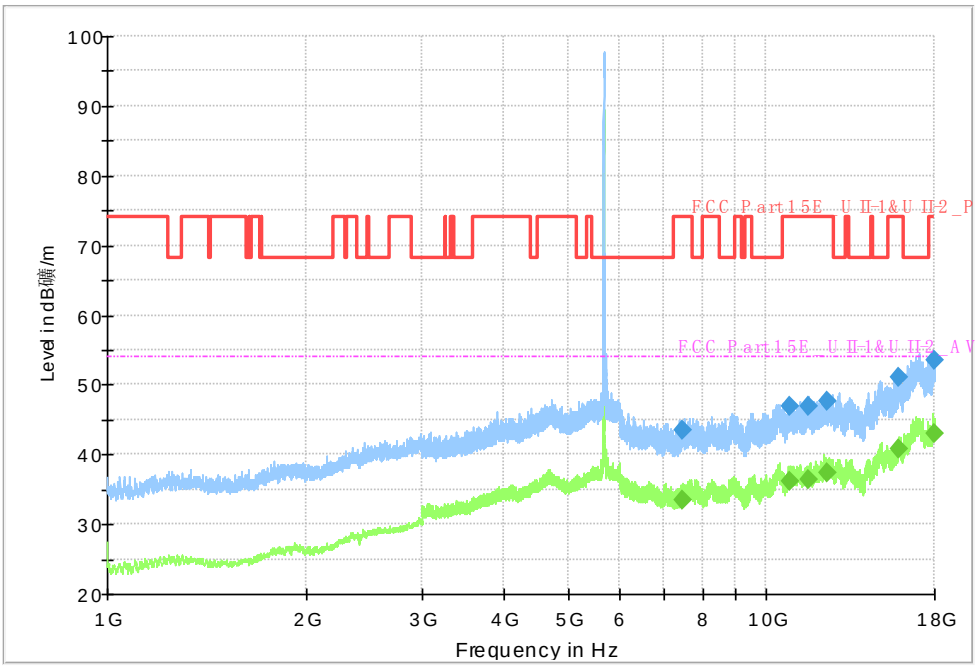

Fig. 82 Transmitter Spurious Emission (802.11n-HT40, CH134 5670MHz)

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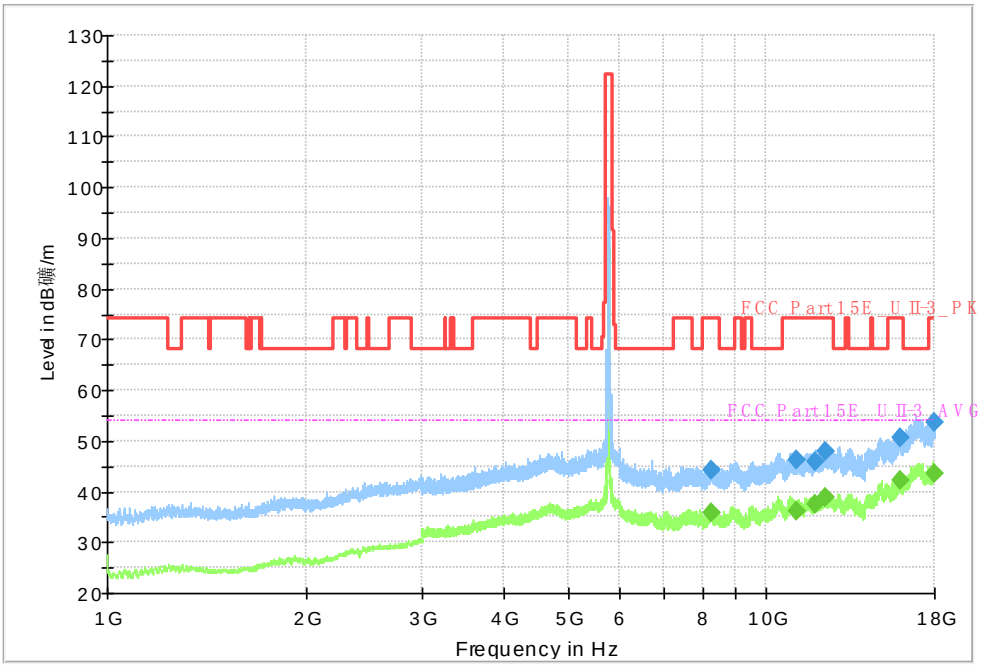

Fig. 83 Transmitter Spurious Emission (802. 11ac-VHT40, CH151 5755MHz)

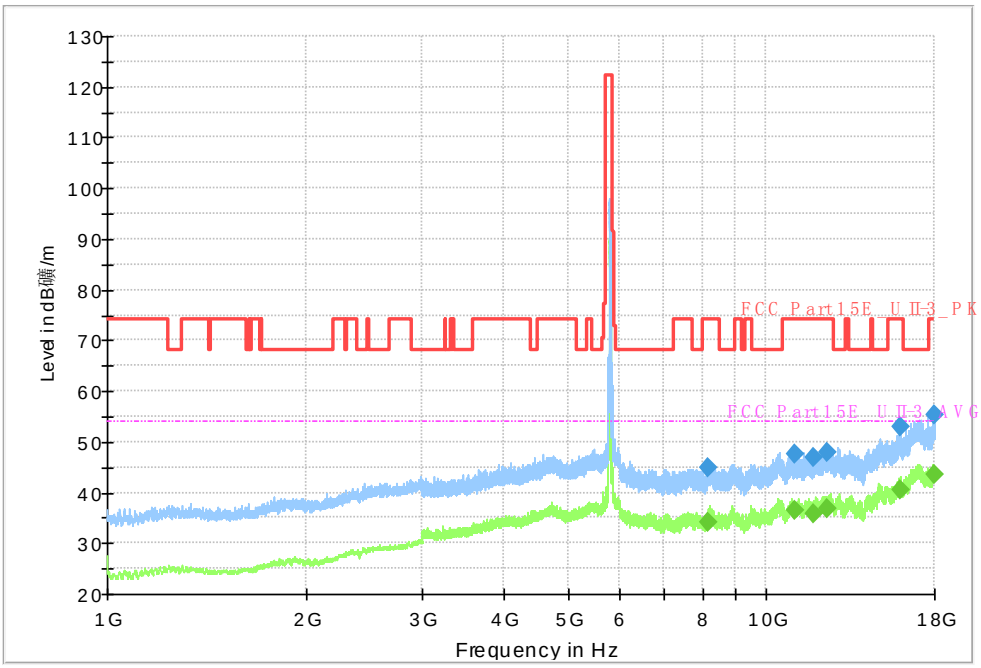

Fig. 84 Transmitter Spurious Emission (802. 11ac-VHT40, CH159 5795MHz)

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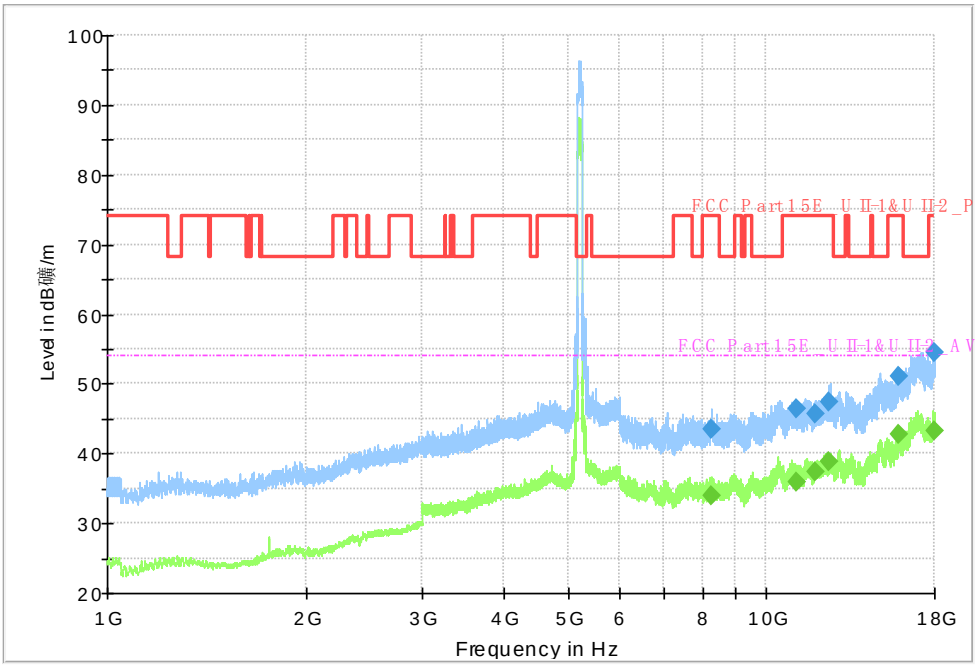

Fig. 85 Transmitter Spurious Emission (802. 11ac-VHT80, CH42 5210MHz)

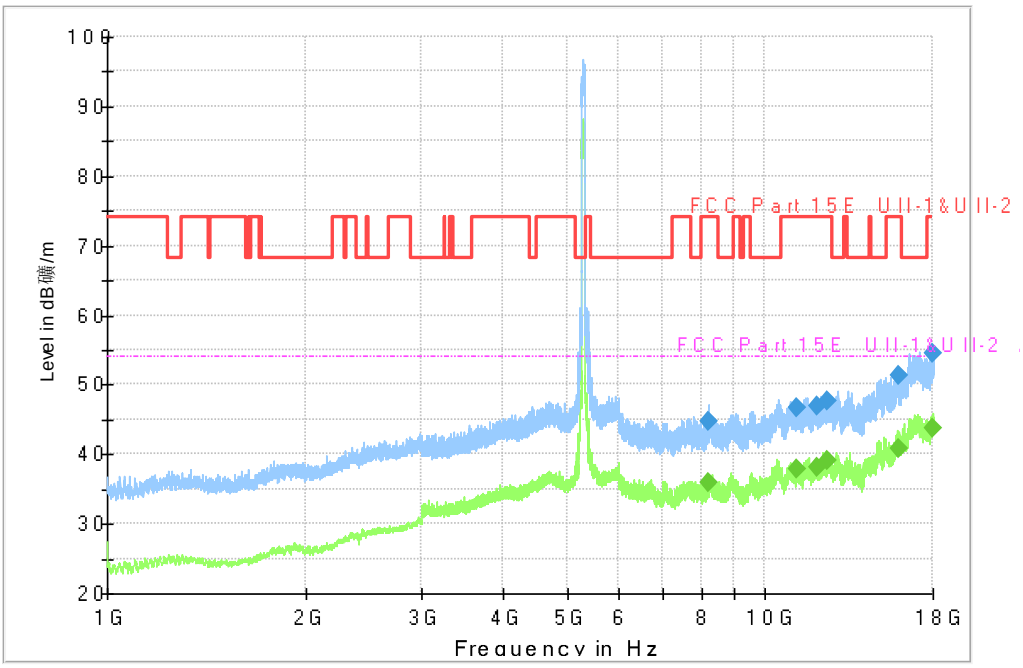

Fig. 86 Transmitter Spurious Emission (802. 11ac-VHT80, CH58 5290MHz)

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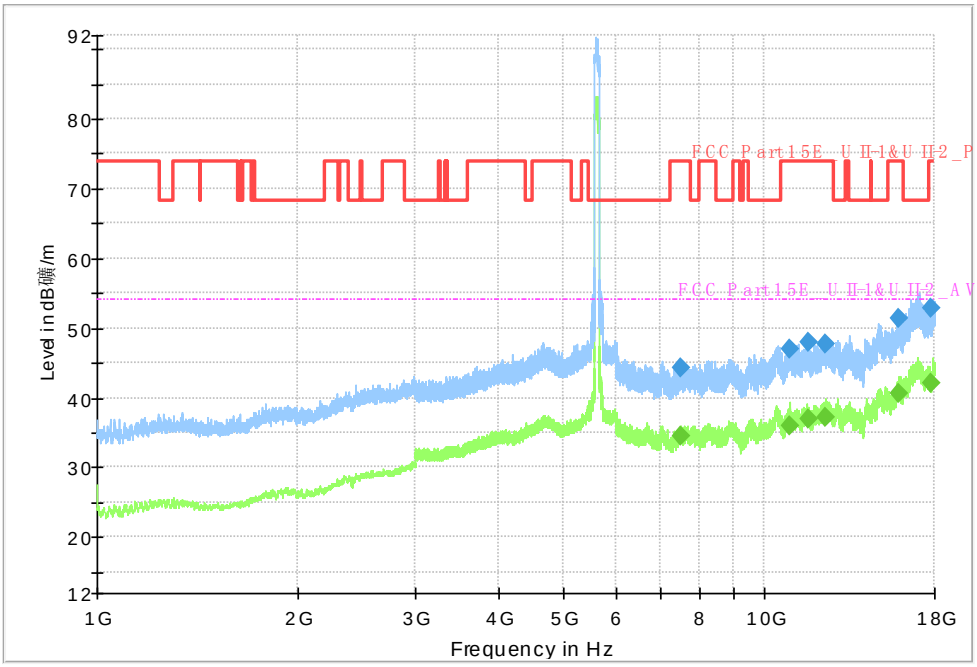

Fig. 87 Transmitter Spurious Emission (802. 11ac-VHT80, CH122 5610MHz)

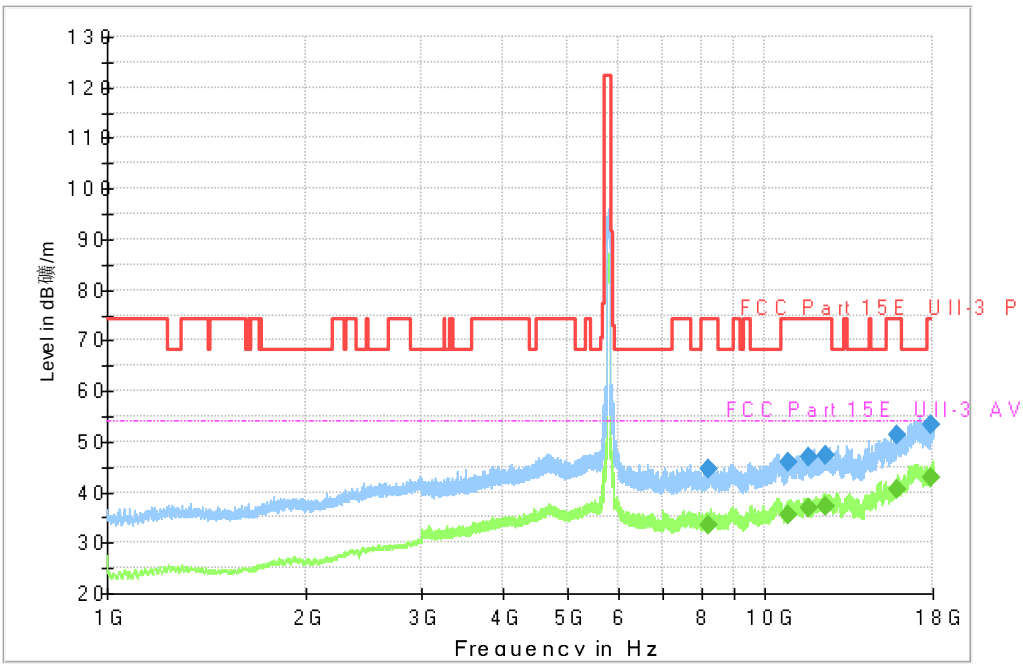

Fig. 88 Transmitter Spurious Emission (802. 11ac-VHT80, CH155 5775MHz)

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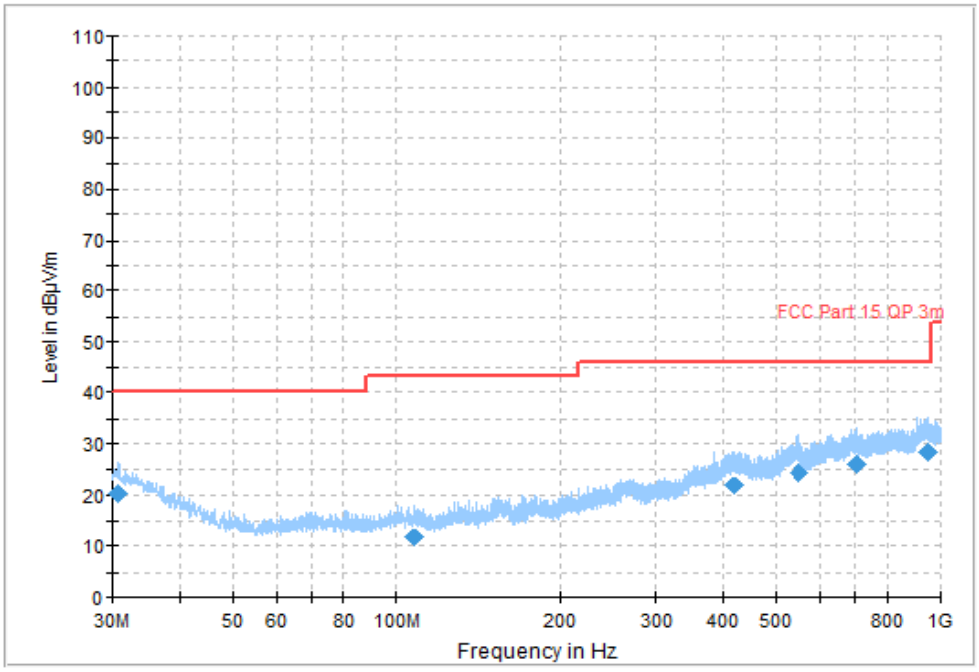

Fig. 89 Transmitter Spurious Emission (All channel, 30MHz~1GHz)

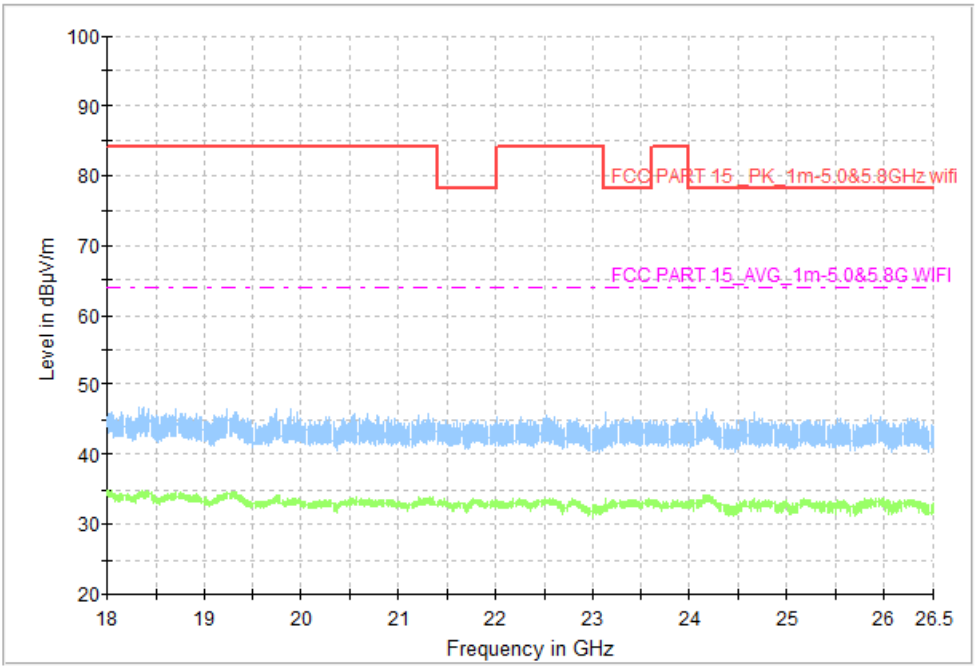

Fig. 90 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz)

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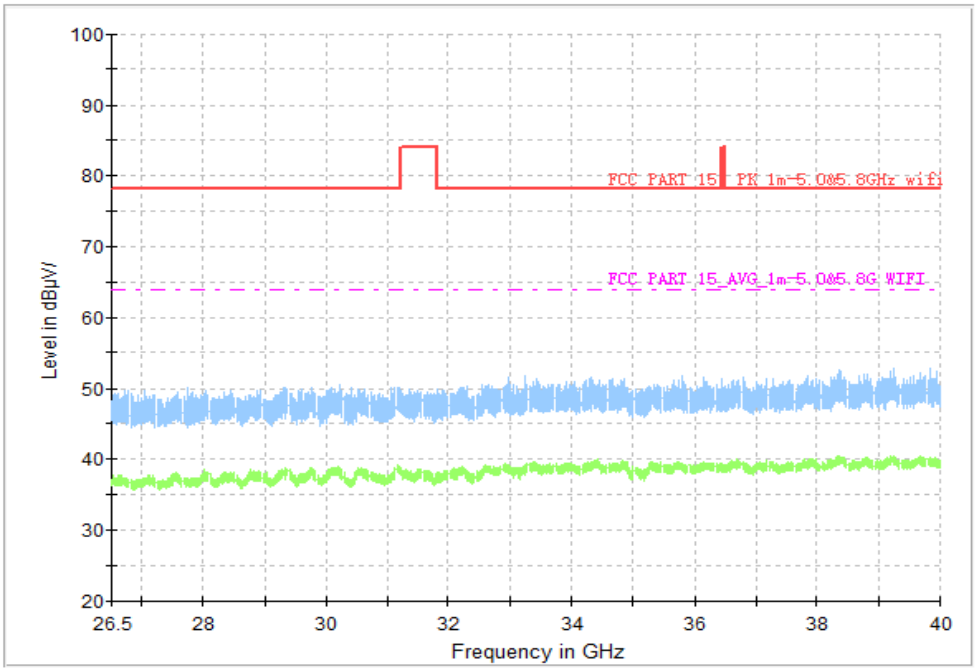

Fig. 91 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz)

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Worst Case Result

802.11a CH48

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7662.923077	46.12	74.00	27.88	V	5.7
8264.769231	46.37	74.00	27.63	V	5.9
10916.769231	47.01	74.00	26.99	V	9.4
12414.461539	48.87	74.00	25.13	V	11.4
15879.692308	51.15	74.00	22.85	H	14.0
17973.230769	53.18	74.00	20.82	V	19.1

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7662.923077	34.27	54.00	19.73	V	5.7
8264.769231	34.49	54.00	19.51	V	5.9
10916.769231	36.36	54.00	17.64	V	9.4
12414.461539	37.59	54.00	16.41	V	11.4
15879.692308	41.23	54.00	12.77	H	14.0
17973.230769	43.17	54.00	10.83	V	19.1

802.11a CH52

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7615.384616	44.26	74.00	29.74	V	5.7
8241.230769	45.66	74.00	28.34	V	5.9
11224.153846	46.82	74.00	27.18	V	9.7
12473.538462	48.09	74.00	25.91	H	11.3
15947.538462	51.80	74.00	22.20	V	14.1
17910.923077	53.93	74.00	20.07	V	18.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7615.384616	34.47	54.00	19.53	V	5.7
8241.230769	34.60	54.00	19.40	V	5.9
11224.153846	36.66	54.00	17.34	V	9.7
12473.538462	37.64	54.00	16.36	H	11.3
15947.538462	40.76	54.00	13.24	V	14.1
17910.923077	43.53	54.00	10.47	V	18.9

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802.11a CH116

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7630.615385	43.86	74.00	30.14	V	5.7
8230.153846	45.50	74.00	28.50	H	5.9
10998.461539	50.60	74.00	23.40	H	9.7
12456.923077	47.51	74.00	26.49	V	11.4
15961.846154	50.67	74.00	23.33	V	14.1
17994.923077	53.23	74.00	20.77	V	19.2

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7630.615385	34.24	54.00	19.76	V	5.7
8230.153846	34.17	54.00	19.83	H	5.9
10998.461539	39.58	54.00	14.42	H	9.7
12456.923077	37.95	54.00	16.05	V	11.4
15961.846154	40.47	54.00	13.53	V	14.1
17994.923077	42.93	54.00	11.07	V	19.2

802.11a CH165

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7543.846154	43.86	74.00	30.14	V	5.6
8236.615385	44.94	74.00	29.06	H	5.9
10908.923077	46.86	74.00	27.14	H	9.4
12346.615385	48.05	74.00	25.95	H	11.2
15864.461539	51.94	74.00	22.06	H	14.0
17920.153846	53.76	74.00	20.24	V	18.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7543.846154	33.62	54.00	20.38	V	5.6
8236.615385	34.41	54.00	19.59	H	5.9
10908.923077	36.40	54.00	17.60	H	9.4
12346.615385	37.32	54.00	16.68	H	11.2
15864.461539	40.80	54.00	13.20	H	14.0
17920.153846	43.70	54.00	10.30	V	18.9

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802.11n-HT40 CH46

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7449.692308	43.31	74.00	30.69	V	5.7
8277.692308	44.55	74.00	29.45	H	6.0
11056.153846	46.93	74.00	27.07	H	9.7
11484.461539	47.69	74.00	26.31	H	10.1
12219.230769	47.37	74.00	26.63	H	10.9
15917.076923	50.48	74.00	23.52	V	14.1

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7449.692308	34.19	54.00	18.81	V	5.7
8277.692308	35.11	54.00	18.89	H	6.0
11056.153846	36.86	54.00	17.14	H	9.7
11484.461539	38.29	54.00	15.71	H	10.1
12219.230769	39.00	54.00	16.00	H	10.9
15917.076923	41.36	54.00	12.64	V	14.1

802.11n-HT40 CH62

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7613.538462	43.90	74.00	30.10	V	5.7
10824.923077	45.84	74.00	28.16	H	9.2
11864.307692	46.39	74.00	27.61	H	10.1
12172.153846	46.89	74.00	27.11	H	10.7
12449.076923	48.32	74.00	25.68	H	11.4
15894.923077	51.50	74.00	22.50	H	14.0

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7613.538462	35.62	54.00	18.38	V	5.7
10824.923077	37.34	54.00	16.66	H	9.2
11864.307692	37.44	54.00	16.56	H	10.1
12172.153846	38.84	54.00	15.16	H	10.7
12449.076923	39.04	54.00	14.96	H	11.4
15894.923077	40.34	54.00	13.66	H	14.0

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802.11n-HT40 CH134

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8259.692308	45.15	74.00	28.85	H	5.9
10896.000000	46.59	74.00	27.41	V	9.4
11659.846154	47.10	74.00	26.90	H	9.9
12287.538462	46.62	74.00	27.38	H	11.0
15891.692308	49.84	74.00	24.16	H	14.0
17981.076923	54.44	74.00	19.56	H	19.1

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8259.692308	33.77	54.00	20.23	H	5.9
10896.000000	35.89	54.00	18.11	V	9.4
11659.846154	36.37	54.00	17.63	H	9.9
12287.538462	36.78	54.00	17.22	H	11.0
15891.692308	39.96	54.00	14.04	H	14.0
17981.076923	43.41	54.00	10.59	H	19.1

802.11n-HT40 CH159

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8222.307692	44.39	74.00	29.61	H	5.9
11066.307692	47.04	74.00	26.96	V	9.7
11635.846154	48.11	74.00	25.89	H	9.9
12468.000000	47.32	74.00	26.68	H	11.3
15858.000000	51.61	74.00	22.39	V	14.0
17916.000000	54.23	74.00	19.77	V	18.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8222.307692	33.69	54.00	20.31	H	5.9
11066.307692	35.96	54.00	18.04	V	9.7
11635.846154	36.56	54.00	17.44	H	9.9
12468.000000	36.91	54.00	17.09	H	11.3
15858.000000	40.28	54.00	13.72	V	14.0
17916.000000	43.41	54.00	10.59	V	18.9

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802.11ac-VHT80 CH42

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7440.461539	43.95	74.00	30.05	V	5.7
8239.384616	44.94	74.00	29.06	V	5.9
10918.153846	45.97	74.00	28.03	V	9.4
12331.384615	46.98	74.00	27.02	V	11.1
15821.538462	49.82	74.00	24.18	V	14.0
17923.384615	53.80	74.00	20.20	H	18.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
7440.461539	35.11	54.00	18.89	V	5.7
8239.384616	35.77	54.00	18.23	V	5.9
10918.153846	37.65	54.00	16.35	V	9.4
12331.384615	37.97	54.00	16.03	V	11.1
15821.538462	39.62	54.00	14.38	V	14.0
17923.384615	43.21	54.00	10.79	H	18.9

802.11ac-VHT80 CH58

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8220.461539	44.67	74.00	29.33	H	5.9
10882.615385	45.64	74.00	28.36	V	9.3
11536.153846	46.46	74.00	27.54	V	10.1
12461.076923	48.28	74.00	25.72	V	11.4
15888.923077	51.38	74.00	22.62	V	14.0
17913.230769	54.01	74.00	19.99	V	18.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8220.461539	35.67	54.00	18.33	H	5.9
10882.615385	37.43	54.00	16.57	V	9.3
11536.153846	37.86	54.00	16.14	V	10.1
12461.076923	37.92	54.00	16.08	V	11.4
15888.923077	40.46	54.00	13.54	V	14.0
17913.230769	43.25	54.00	10.75	V	18.9

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802.11ac-VHT80 CH122

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8305.846154	44.54	74.00	29.46	H	6.0
10874.769231	45.99	74.00	28.01	H	9.3
11611.846154	46.69	74.00	27.31	V	9.9
12299.076923	47.27	74.00	26.73	V	11.0
15871.384615	52.38	74.00	21.62	V	14.0
17953.384615	54.09	74.00	19.91	V	19.0

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8305.846154	33.50	54.00	20.50	H	6.0
10874.769231	35.64	54.00	18.36	H	9.3
11611.846154	36.27	54.00	17.73	V	9.9
12299.076923	36.95	54.00	17.05	V	11.0
15871.384615	40.49	54.00	13.51	V	14.0
17953.384615	43.37	54.00	10.63	V	19.0

802.11ac-VHT80 CH155

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8178.461539	44.45	74.00	29.55	V	6.0
10751.538462	46.12	74.00	27.88	V	9.0
11413.384615	45.44	74.00	28.56	V	10.0
12210.923077	47.21	74.00	26.79	H	10.8
15872.769231	52.22	74.00	21.78	H	14.0
17928.923077	54.96	74.00	19.04	H	18.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
8178.461539	33.62	54.00	20.38	V	6.0
10751.538462	35.23	54.00	18.77	V	9.0
11413.384615	35.47	54.00	18.53	V	10.0
12210.923077	36.56	54.00	17.44	H	10.8
15872.769231	40.75	54.00	13.25	H	14.0
17928.923077	43.31	54.00	10.69	H	18.9

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

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A.9. Radiated Spurious Emissions < 30MHz

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

Frequency (MHz)	Field strength (μV/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:

Channel	Frequency Range	Test Results	Conclusion
All Channel	9kHz ~ 30MHz	Fig.92	**P**

Conclusion: PASS

Test graphs as below:

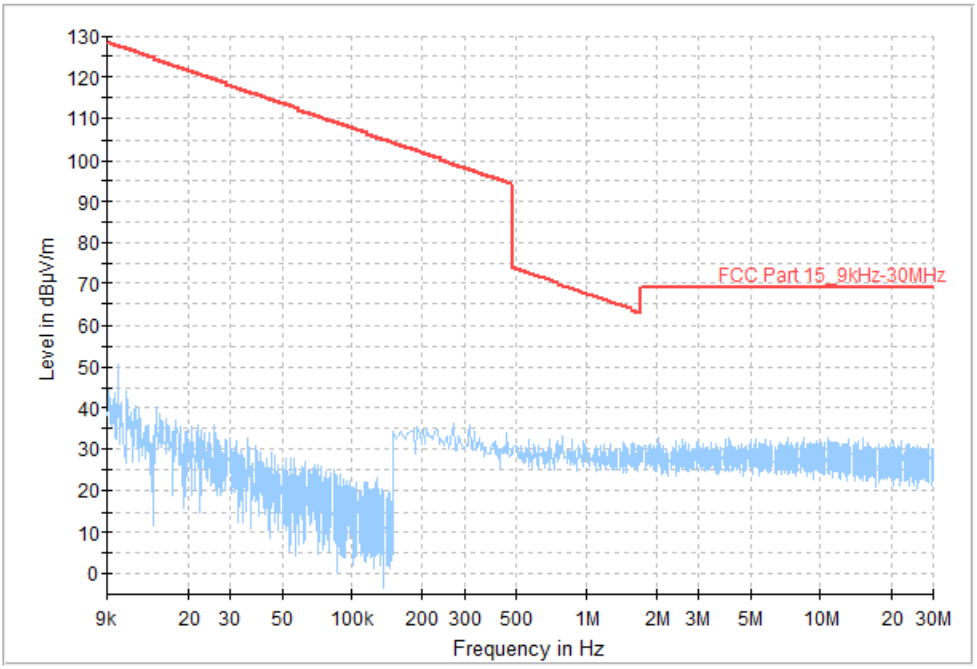

Fig. 92 Radiated Spurious Emission (All Channel, 9kHz ~ 30MHz)

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A.10. AC Power Line Conducted Emission

Test Condition:

Voltage(V)	Frequency(Hz)
120	60

Measurement Result and limit:

RLAN (Quasi-peak Limit) - AE3

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		Traffic	Idle	
0.15 to 0.5	66 to 56	Fig.93	Fig.94	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.				

RLAN (Average Limit) - AE3

Frequency range (MHz)	Average-peak Limit (dBμV)	Result (dBμV)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.93	Fig.94	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.				

Note: The measurement results include the L1 and N measurements.

Conclusion: PASS

Test graphs as below:

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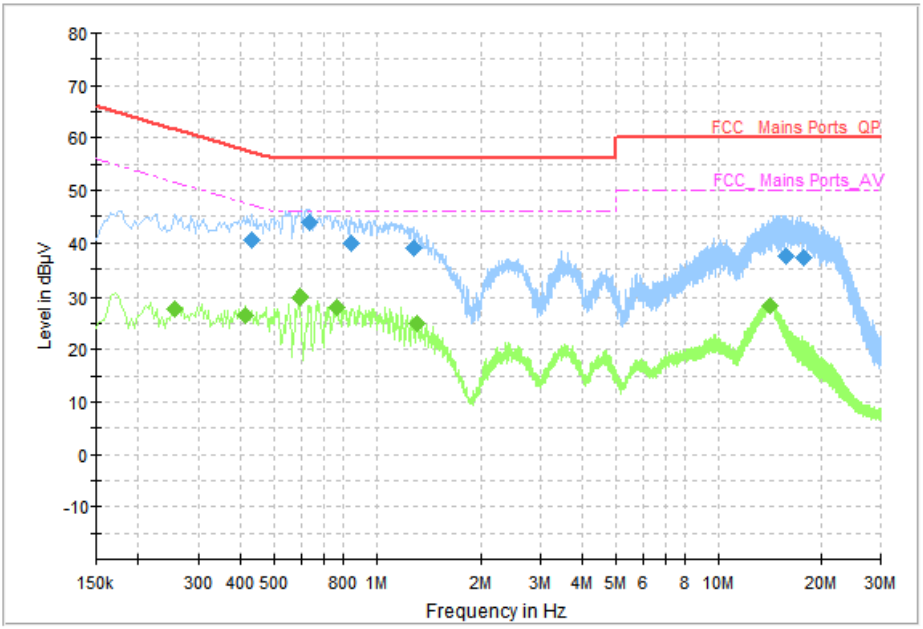

Fig. 93 AC Power line Conducted Emission (Traffic)

Measurement Result: Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.430000	40.67	57.25	16.58	L1	ON	10
0.634000	43.95	56.00	12.05	L1	ON	10
0.846000	40.00	56.00	16.00	L1	ON	10
1.282000	38.97	56.00	17.03	L1	ON	10
15.850000	37.49	60.00	22.51	N	ON	11
17.874000	37.30	60.00	22.70	N	ON	10

Measurement Result: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.254000	27.66	51.63	23.96	N	ON	10
0.410000	26.47	47.65	21.18	N	ON	10
0.594000	29.93	46.00	16.07	N	ON	10
0.762000	28.02	46.00	17.98	N	ON	10
1.318000	24.98	46.00	21.02	L1	ON	10
14.174000	28.22	50.00	21.78	N	ON	11

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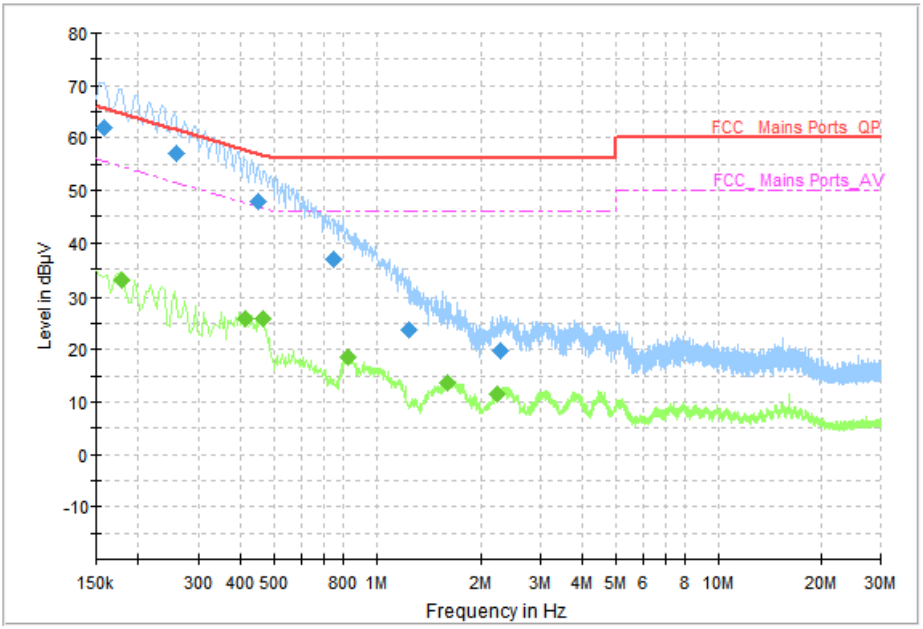

Fig. 94 AC Power line Conducted Emission (Idle)

Measurement Result: Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	45.79	66.00	20.21	N	ON	10
0.430000	40.55	57.25	16.70	L1	ON	10
0.634000	43.93	56.00	12.07	L1	ON	10
0.862000	40.08	56.00	15.92	L1	ON	10
1.266000	39.11	56.00	16.89	L1	ON	10
16.306000	37.68	60.00	22.32	N	ON	11

Measurement Result: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.250000	27.25	51.76	24.51	N	ON	10
0.410000	26.50	47.65	21.15	N	ON	10
0.594000	29.95	46.00	16.05	N	ON	10
0.762000	28.11	46.00	17.89	N	ON	10
1.274000	25.18	46.00	20.82	L1	ON	10
13.994000	28.03	50.00	21.97	N	ON	11

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A.11. Power control

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

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

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