TEST REPORT

No. I20N00718-RLAN

Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd

smartphone

Model Name: CP3706AS

with

Hardware Version: P1

Software Version: 3706AS.SPRINT.191220.2D

FCC ID: R38YLCP3706AS

Issued Date: 2020-04-14

Note:

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

Test Laboratory:

SAICT, Shenzhen Academy of Information and Communications Technology

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

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

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

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1. Summary of Test Report

1.1. Test Items

Description	smartphone
Model Name	CP3706AS
Applicant's name	Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd
Manufacturer's Name	Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd

1.2. Test Standards

FCC Part15-2018; ANSI C63.10-2013; KDB789033-V02r01

1.3. Test Result

Pass

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:	2019-11-25
Testing End Date:	2020-04-13

1.6. Signature

Lin Zechuang

(Prepared this test report)

Tang Weisheng

(Reviewed this test report)

Zhang Bojun

(Approved this test report)

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2. Client Information

2.1. Applicant Information

Company Name:	Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd
Address:	Building B, Boton Science Park, Chaguang Road, Xili Town, Nanshan District, Shenzhen
Contact Person	Emily zhang
E-Mail	zhangxuzhu@yulong.com
Telephone:	15089742056
Fax:	/

2.2. Manufacturer Information

Company Name:	Yulong Computer Telecommunication Scientific (Shenzhen) Co., Ltd
Address:	Building B, Boton Science Park, Chaguang Road, Xili Town, Nanshan District, Shenzhen
Contact Person	Emily zhang
E-Mail	zhangxuzhu@yulong.com
Telephone:	15089742056
Fax:	/

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

3.1. About EUT

Description	smartphone
Model Name	CP3706AS
Brand Name	coolpad
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	1.33dBi
Power Supply	3.85V DC by Battery
FCC ID	R38YLCP3706AS
Condition of EUT as received	No abnormality in appearance

Note1: According to the customer's description, the EUT is a variant of the CP3706AS. It just changed the model of charger, battery and USB cable. The part of AC Power line Conducted Emission have been rested, other test items results were from the initial model. The initial model report number is I20N02705-RLAN.

Note2: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

3.2. Internal Identification of EUT

EUT ID*	IMEI	HW Version	SW Version	Receive Date
EUT1	990015570002451	P1	3706AS.SPRINT.191220.2D	2019-11-25
EUT2	990015570014472	P1	3706AS.SPRINT.191220.2D	2020-11-25

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

3.3. Internal Identification of AE

AE ID*	Description	AE ID*
AE1	Charger	Aa01a
AE2	Battery	/
AE3	Type C Cable	Ca01a

AE1

Model	619043
Manufacturer	Kosun
Length of DC line	/cm

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AE2

Model	1.1.0LS0025001
Manufacturer	Lishen
Capacitance	3980mAh
Nominal Voltage	3.85V

AE3

Model	SYL-A147A
Manufacturer	Saibao

*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 smartphone with integrated antenna and battery.
It consists of normal options: Lithium Battery, Charger and USB Cable.
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	2018
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
0	Maximum Output Power	15.407(a)	**P**
1	Power Spectral Density	15.407(a)	**P**
2	Occupied 26dB Bandwidth	15.407(a)	**/**
3	Occupied 6dB Bandwidth	15.407(e)	**P**
4	99% Occupied Bandwidth	15.407	**/**
5	Band edge compliance	15.407	**P**
6	Radiated Spurious Emissions	15.407	**P**
7	AC Power line Conducted	15.207	**P**
8	Frequency Stability	15.407	**P**
9	Transmit Power Control	15.407	**NA**

See **ANNEX A** for details.

Note: According to the definition of the application description, the device will automatically discontinue transmission in case of either absence of information to transmit or operational failure.

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

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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	2021-01-01	1 year
2	Power Sensor	U2021XA	MY55430013	Agilent	2021-01-15	1 year
3	Test Receiver	ESCI	100702	Rohde & Schwarz	2021-01-14	1 year
4	LISN	ENV216	102067	Rohde & Schwarz	2020-07-17	1 year

Radiated test system

NO.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Loop Antenna	HLA6120	35779	TESEQ	2022-04-25	3 years
2	BiLog Antenna	3142E	00224831	ETS-Lindgren	2021-05-17	3 years
3	Horn Antenna	3117	00066577	ETS-Lindgren	2022-04-02	3 years
4	Test Receiver	ESR7	101676	Rohde & Schwarz	2020-11-27	1 year
5	Spectrum Analyser	FSV40	101192	Rohde & Schwarz	2021-01-14	1 year
6	Chamber	FACT3-2.0	1285	ETS-Lindgren	2021-07-19	3 years
7	Antenna	QSH-SL-18-26-S-20	17013	Q-par	2023-01-06	3 years
8	Antenna	QSH-SL-26-40-K-20	17014	Q-par	2023-01-06	3 years

Test software

No.	Equipment	Manufacturer	Version
1	TechMgr Software	CAICT	2.1.1
2	EMC32	Rohde & Schwarz	10.01.00
3	EMC32	Rohde & Schwarz	10.01.00

EUT is Qualcomm engineering software provided by the customer to control the transmitting signal.

Anechoic chamber

Fully anechoic chamber by ETS-Lindgren

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7. Laboratory Environment

Semi-anechoic chambe

Temperature	Min. = 15 ˚C, Max. = 35 ˚C
Relative humidity	Min. = 15 %, 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-1000MHz>90 dB
Electrical insulation	> 2MΩ
Ground system resistance	< 4 Ω

Fully-anechoic chamber

Temperature	Min. = 15 ˚C, Max. = 35 ˚C
Relative humidity	Min. = 15 %, 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	1.32dB	
2.Power Spectral Density - Conducted	2.32dB	
3.Occupied channel bandwidth - Conducted	±66Hz	
4 Transmitter Spurious Emission - Conducted	30MHz≤f≤1GHz	1.41dB
	1GHz≤f≤7GHz	1.92dB
	7GHz≤f≤13GHz	2.31dB
	13GHz≤f≤26GHz	2.61dB
5. Transmitter Spurious Emission - Radiated	9kHz≤f≤30MHz	1.70dB
	30MHz≤f≤1GHz	4.90dB
	1GHz≤f≤18GHz	4.60dB
	18GHz≤f≤40GHz	4.10dB
6. AC Power line Conducted Emission	150kHz≤f≤30MHz	3.00dB

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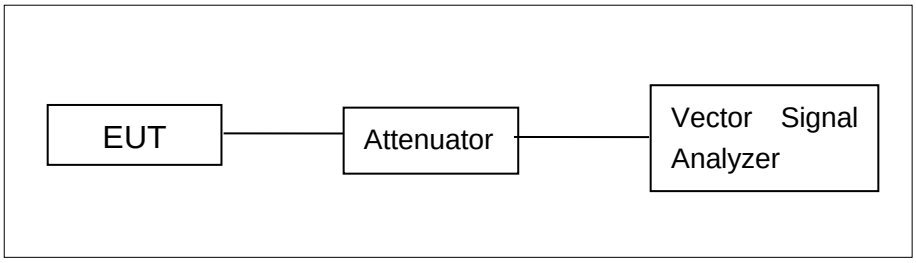
ANNEX A: Detailed Test Results

A.1. Measurement Method

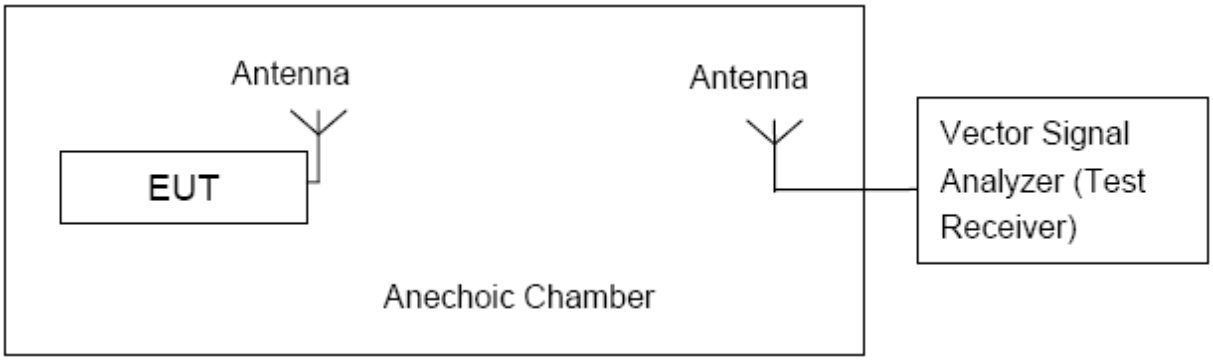
Conducted Measurements

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(a)	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:

U–NII Band	Mode	Channel	Frequency (MHz)	Average power (dBm)	Conclusion
5.2GHz Band (UNII-1)	802.11a	CH 36	5180	13.15	**P**
		CH 40	5200	13.22	**P**
		CH 48	5240	13.38	**P**
	802.11n-HT20	CH 36	5180	12.66	**P**
		CH 40	5200	12.75	**P**
		CH 48	5240	12.81	**P**
	802.11n-HT40	CH 38	5190	11.32	**P**
		CH 46	5230	11.60	**P**
	802.11ac-VHT20	CH 36	5180	12.72	**P**
		CH 40	5200	12.87	**P**
		CH 48	5240	12.91	**P**
	802.11ac-VHT40	CH 38	5190	11.30	**P**
		CH 46	5230	11.53	**P**
	802.11ac-VHT80	CH 42	5210	10.98	**P**

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U–NII Band	Mode	Channel	Frequency (MHz)	Average power (dBm)	Conclusion
5.3GHz Band (UNII-2A)	802.11a	CH 52	5260	13.49	**P**
		CH 56	5280	13.62	**P**
		CH 64	5320	13.75	**P**
	802.11n-HT20	CH 52	5260	12.86	**P**
		CH 56	5280	13.12	**P**
		CH 64	5320	13.61	**P**
	802.11n-HT40	CH 54	5270	11.55	**P**
		CH 62	5310	11.90	**P**
	802.11ac-VHT20	CH 52	5260	13.03	**P**
		CH 56	5280	13.25	**P**
		CH 64	5320	13.68	**P**
	802.11ac-VHT40	CH 54	5270	11.63	**P**
		CH 62	5310	11.95	**P**
	802.11ac-VHT80	CH 58	5290	11.36	**P**

U–NII Band	Mode	Channel	Frequency (MHz)	Average power (dBm)	Conclusion
5.5GHz Band (UNII-2C)	802.11a	CH 100	5500	14.74	**P**
		CH 116	5580	14.17	**P**
		CH 140	5700	14.92	**P**
	802.11n-HT20	CH 100	5500	14.49	**P**
		CH 116	5580	14.06	**P**
		CH 140	5700	14.64	**P**
	802.11n-HT40	CH 102	5510	13.21	**P**
		CH 110	5550	12.85	**P**
		CH 134	5670	13.36	**P**
	802.11ac-VHT20	CH 100	5500	14.67	**P**
		CH 116	5580	14.06	**P**
		CH 140	5700	14.48	**P**
	802.11ac-VHT40	CH 102	5510	13.13	**P**
		CH 110	5550	12.89	**P**
		CH 134	5670	13.32	**P**
	802.11ac-VHT80	CH 106	5530	12.38	**P**
		CH 122	5610	12.13	**P**

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U–NII Band	Mode	Channel	Frequency (MHz)	Average power (dBm)	Conclusion
5.8GHz Band (UNII-3)	802.11a	CH 149	5745	12.91	**P**
		CH 157	5785	13.25	**P**
		CH 165	5825	13.34	**P**
	802.11n-HT20	CH 149	5745	12.83	**P**
		CH 157	5785	13.10	**P**
		CH 165	5825	13.18	**P**
	802.11n-HT40	CH 151	5755	11.33	**P**
		CH 159	5795	11.58	**P**
	802.11ac-VHT20	CH 149	5745	12.81	**P**
		CH 157	5785	13.19	**P**
		CH 165	5825	13.23	**P**
	802.11ac-VHT40	CH 151	5755	11.27	**P**
		CH 159	5795	11.56	**P**
	802.11ac-VHT80	CH 155	5775	10.96	**P**

Note:

Worst-case data rates as provided by the client were: 6Mbps (802.11a), MCS0 (802.11n), MCS0 (802.11ac). 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 (conducted)

Measurement Limit:

Standard	Frequency (MHz)	Limit
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11dBm/MHz(FCC)
		10dBm/MHz EIRP(IC)
	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:

Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180MHz(Ch36)	7.29	**P**
	5200MHz(Ch40)	7.38	**P**
	5240MHz(Ch48)	7.29	**P**
	5260MHz(Ch52)	7.67	**P**
	5280MHz(Ch56)	7.96	**P**
	5320MHz(Ch64)	8.62	**P**
	5500MHz(Ch100)	9.81	**P**
	5580MHz(Ch116)	9.71	**P**
	5700MHz(Ch140)	8.91	**P**

Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11n-HT20	5180MHz(Ch36)	7.27	**P**
	5200MHz(Ch40)	7.20	**P**
	5240MHz(Ch48)	7.12	**P**
	5260MHz(Ch52)	7.38	**P**
	5280MHz(Ch56)	7.02	**P**
	5320MHz(Ch64)	7.68	**P**
	5500MHz(Ch100)	9.57	**P**
	5580MHz(Ch116)	9.40	**P**
	5700MHz(Ch140)	8.54	**P**

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Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11n-HT40	5190MHz(Ch38)	4.24	**P**
	5230MHz(Ch46)	4.36	**P**
	5270MHz(Ch54)	4.42	**P**
	5310MHz(Ch62)	4.59	**P**
	5510MHz(Ch102)	6.87	**P**
	5550MHz(Ch110)	5.15	**P**
	5670MHz(Ch134)	6.38	**P**

Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11ac-VHT80	5210MHz(Ch42)	0.10	**P**
	5290MHz(Ch58)	0.06	**P**
	5530MHz(Ch106)	2.30	**P**
	5610MHz(Ch122)	1.04	**P**

5.8GHz Band (UNII-3)

U–NII Band	Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/500kHz)	Conclusion
5.8GHz Band (UNII-3)	802.11a	CH 149	5745	5.57	**P**
		CH 157	5785	6.98	**P**
		CH 165	5825	5.18	**P**
	802.11n-HT20	CH 149	5745	5.22	**P**
		CH 157	5785	6.78	**P**
		CH 165	5825	5.05	**P**
	802.11n-HT40	CH 151	5755	0.89	**P**
		CH 159	5795	2.11	**P**
	802.11ac-VHT80	CH 155	5775	-1.60	**P**

Conclusion: PASS

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A.4. Occupied 26dB Bandwidth(conducted)

Measurement Limit:

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

The measurement is made according to KDB 789033

Measurement Result:

Mode	Channel	Occupied 26dB Bandwidth(MHz)		Conclusion
802.11a	5180MHz(Ch36)	Fig.1	23.90	/
	5200MHz(Ch40)	Fig.2	23.40	/
	5240MHz(Ch48)	Fig.3	23.90	/
	5260MHz(Ch52)	Fig.4	23.90	/
	5280MHz(Ch56)	Fig.5	23.85	/
	5320MHz(Ch64)	Fig.6	23.15	/
	5500MHz(Ch100)	Fig.7	23.75	/
	5580MHz(Ch116)	Fig.8	22.90	/
	5700MHz(Ch140)	Fig.9	23.85	/
802.11n-HT20	5180MHz(Ch36)	Fig.10	24.75	/
	5200MHz(Ch40)	Fig.11	25.15	/
	5240MHz(Ch48)	Fig.12	25.25	/
	5260MHz(Ch52)	Fig.13	25.10	/
	5280MHz(Ch56)	Fig.14	25.30	/
	5320MHz(Ch64)	Fig.15	25.10	/
	5500MHz(Ch100)	Fig.16	25.35	/
	5580MHz(Ch116)	Fig.17	25.05	/
	5700MHz(Ch140)	Fig.18	24.85	/
802.11n-HT40	5190MHz(Ch38)	Fig.19	41.44	/
	5230MHz(Ch46)	Fig.20	41.92	/
	5270MHz(Ch54)	Fig.21	41.44	/
	5310MHz(Ch62)	Fig.22	42.00	/
	5510MHz(Ch102)	Fig.23	41.68	/
	5550MHz(Ch110)	Fig.24	42.24	/
	5670MHz(Ch134)	Fig.25	41.52	/
802.11 ac-VHT80	5210MHz(Ch42)	Fig.26	84.00	/
	5290MHz(Ch58)	Fig.27	84.32	/
	5530MHz(Ch106)	Fig.28	83.36	/
	5610MHz(Ch122)	Fig.29	84.48	/

Conclusion: PASS

Test graphs as below:

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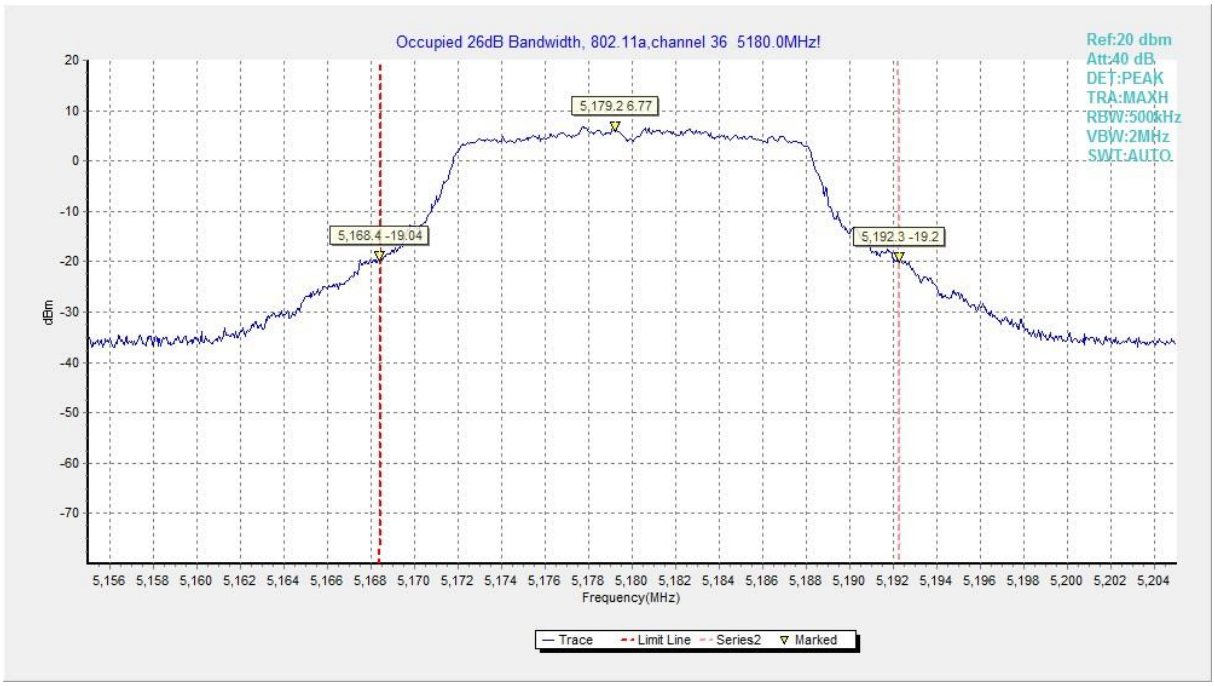

Fig. 1 Occupied 26dB Bandwidth (802.11a, 5180MHz)

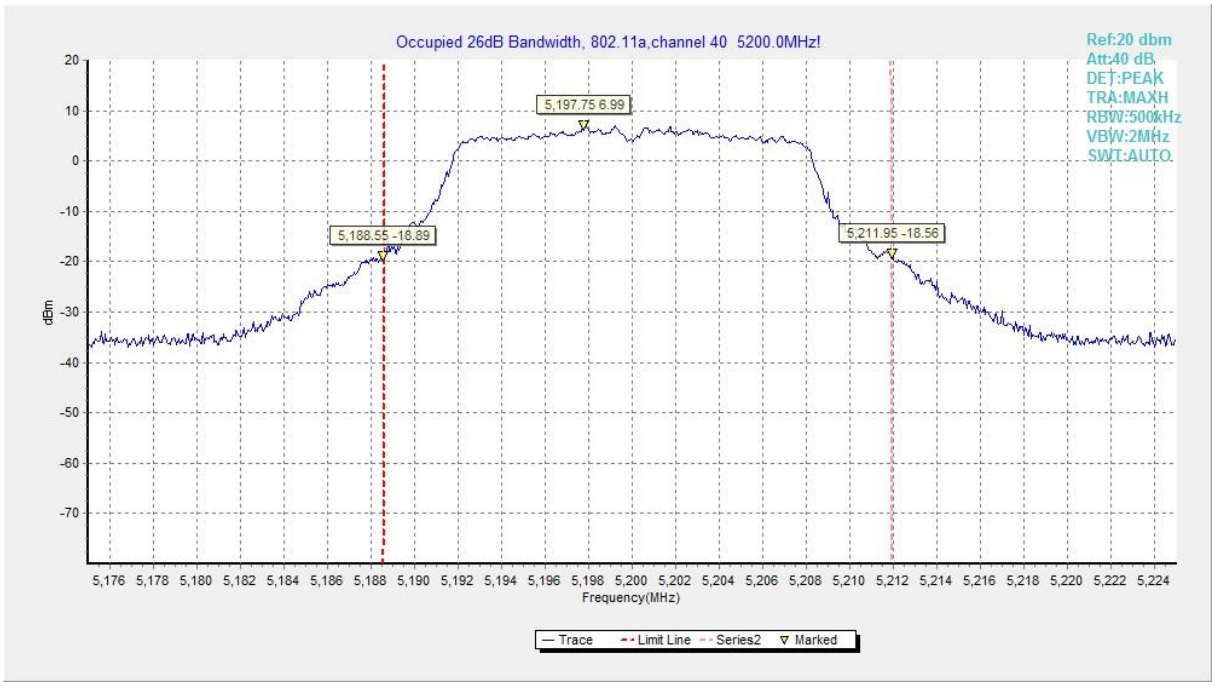

Fig. 2 Occupied 26dB Bandwidth (802.11a, 5200MHz)

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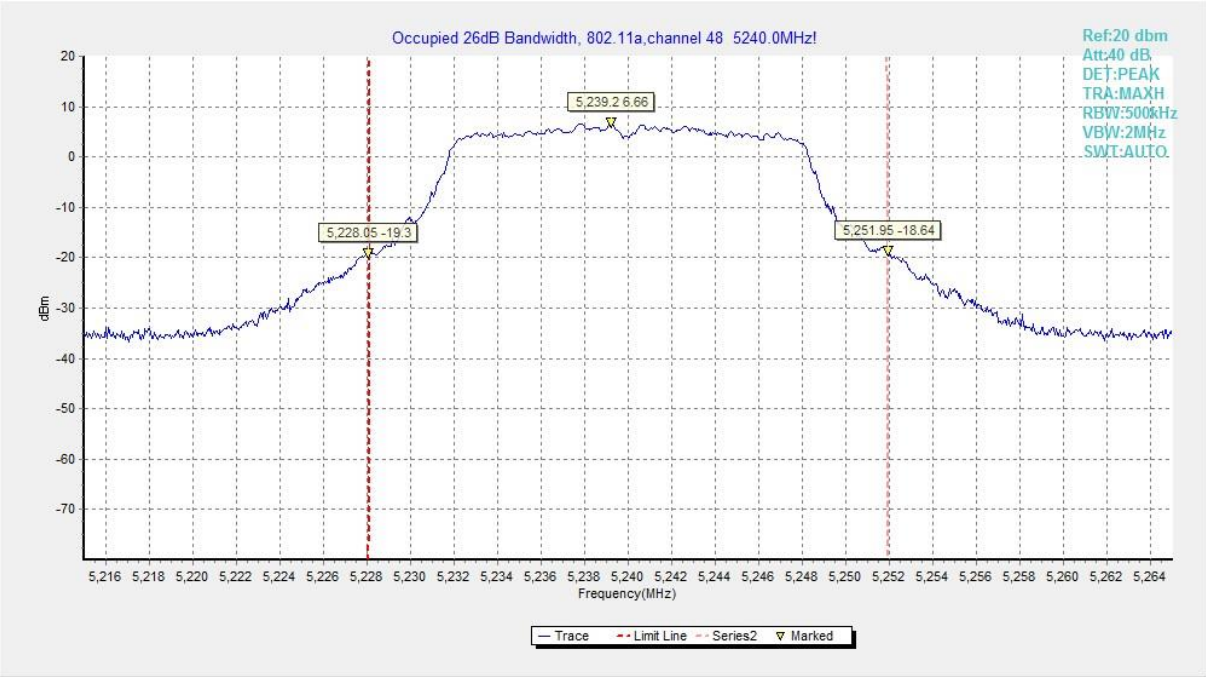

Fig. 3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

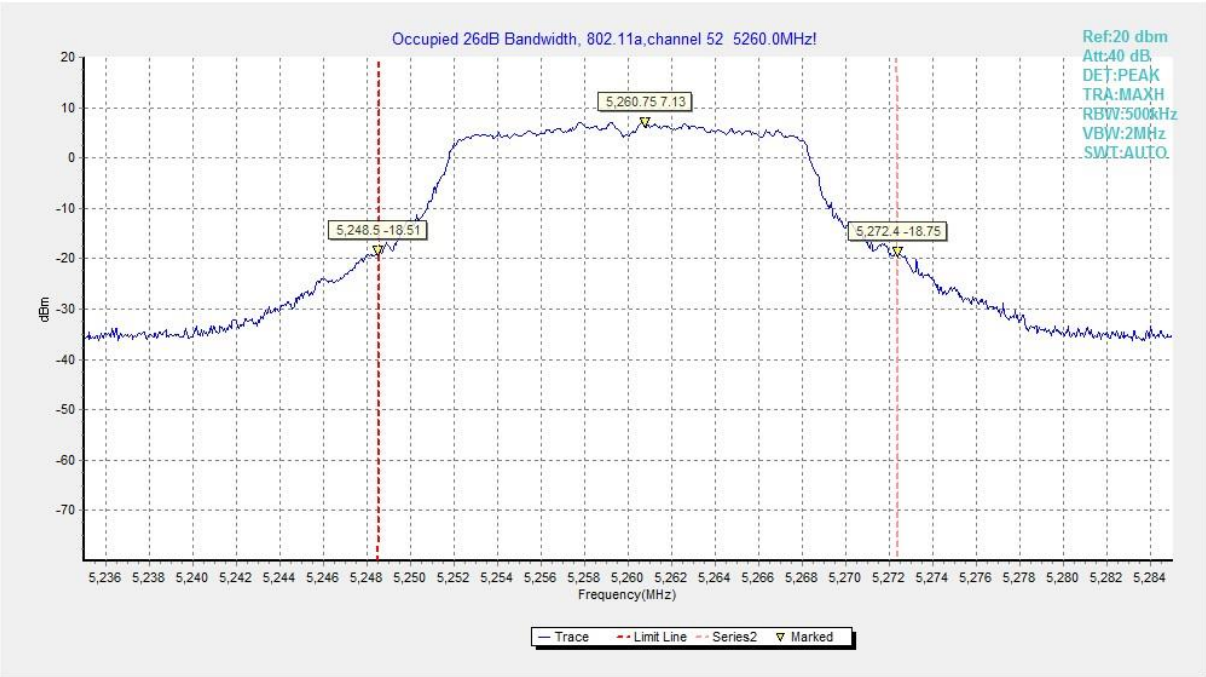

Fig. 4 Occupied 26dB Bandwidth (802.11a, 5260MHz)

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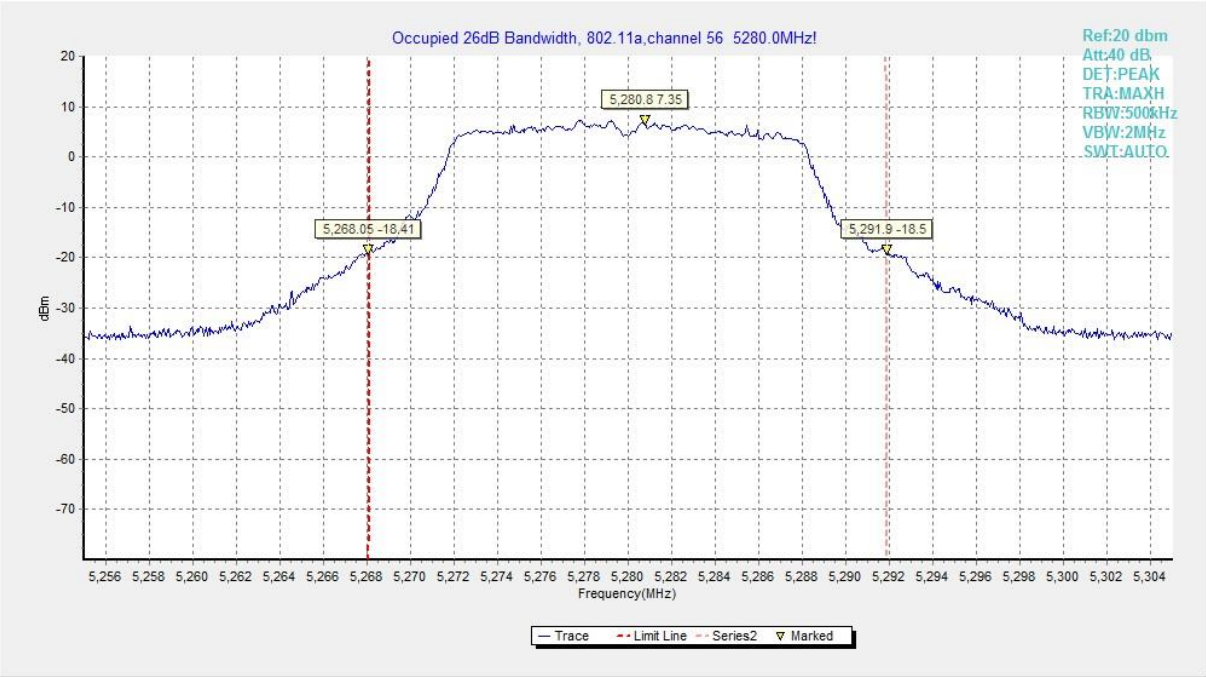

Fig. 5 Occupied 26dB Bandwidth (802.11a, 5280MHz)

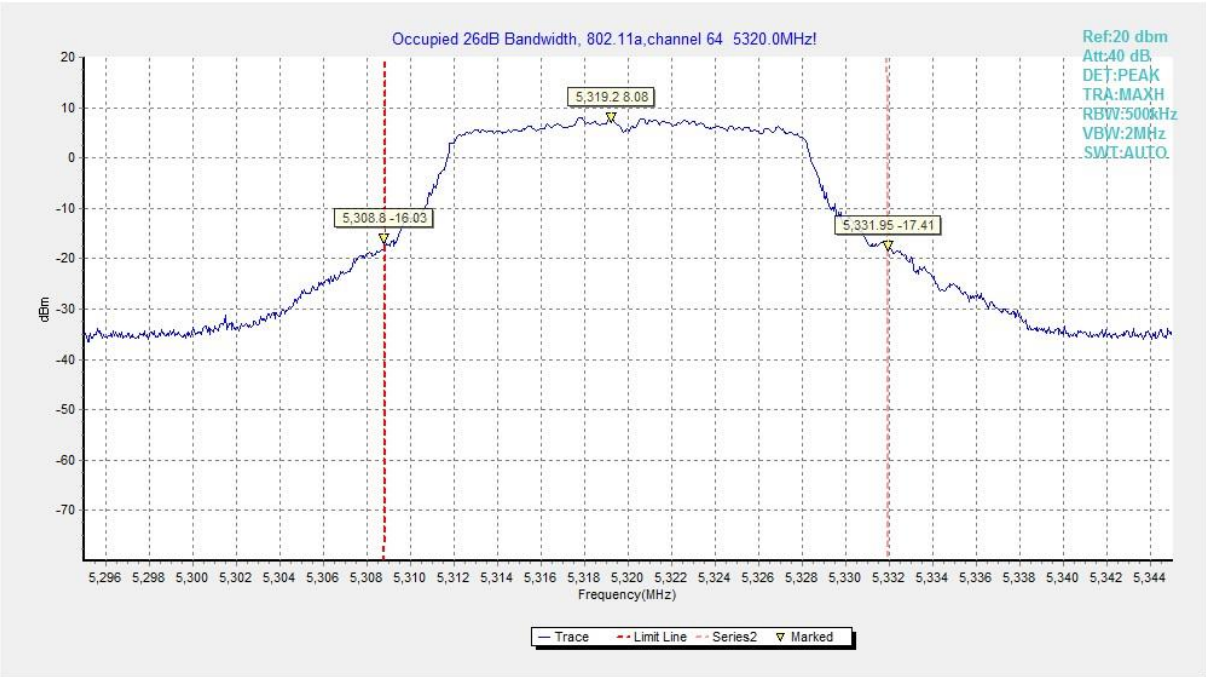

Fig. 6 Occupied 26dB Bandwidth (802.11a, 5320MHz)

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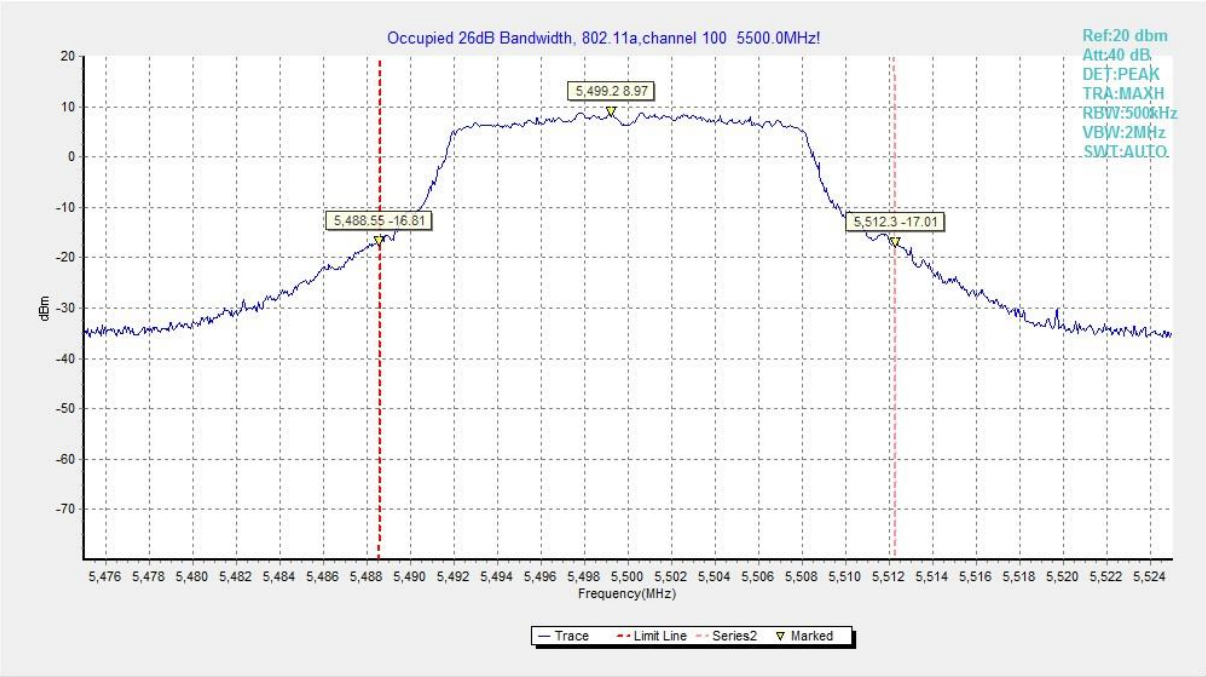

Fig. 7 Occupied 26dB Bandwidth (802. 11a, 5500MHz)

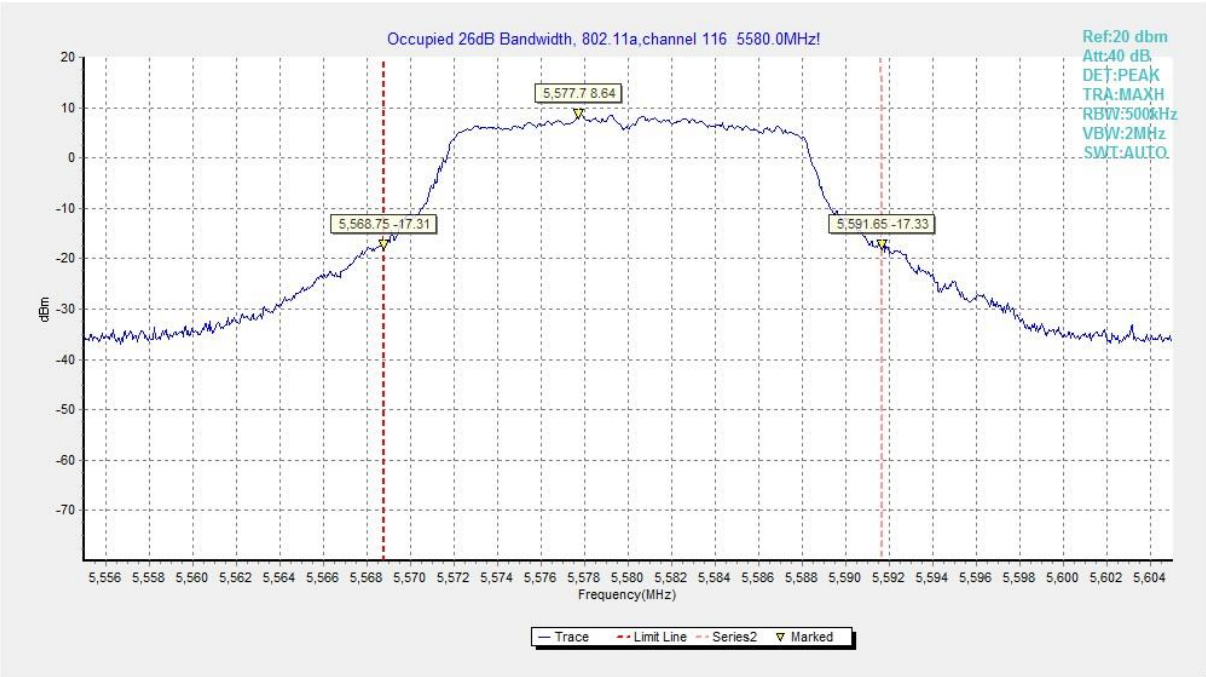

Fig. 8 Occupied 26dB Bandwidth (802. 11a, 5600MHz)

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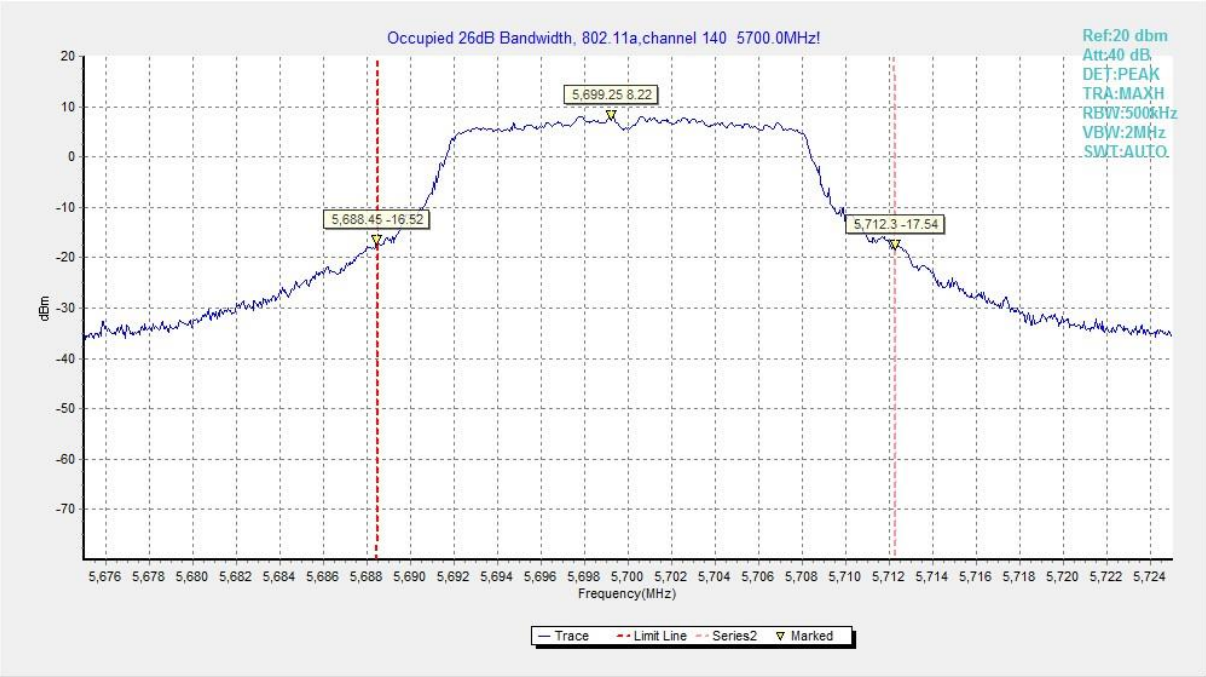

Fig. 9 Occupied 26dB Bandwidth (802. 11a, 5700MHz)

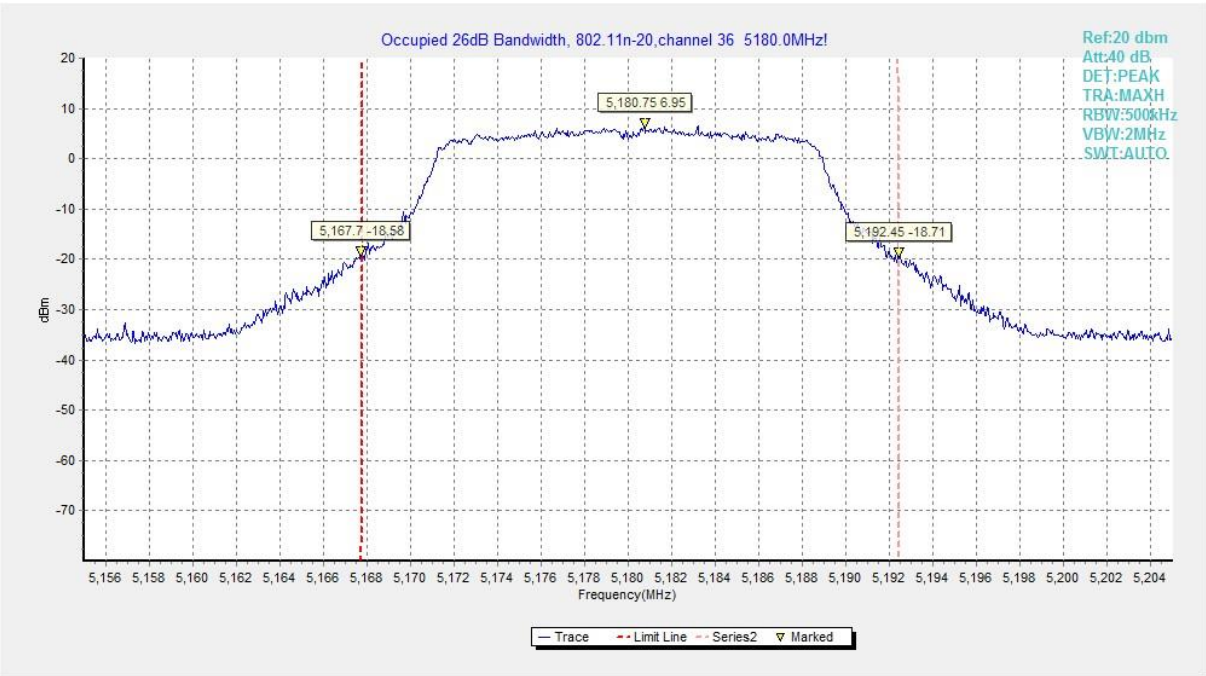

Fig. 10 Occupied 26dB Bandwidth (802.11n-HT20, 5180MHz)

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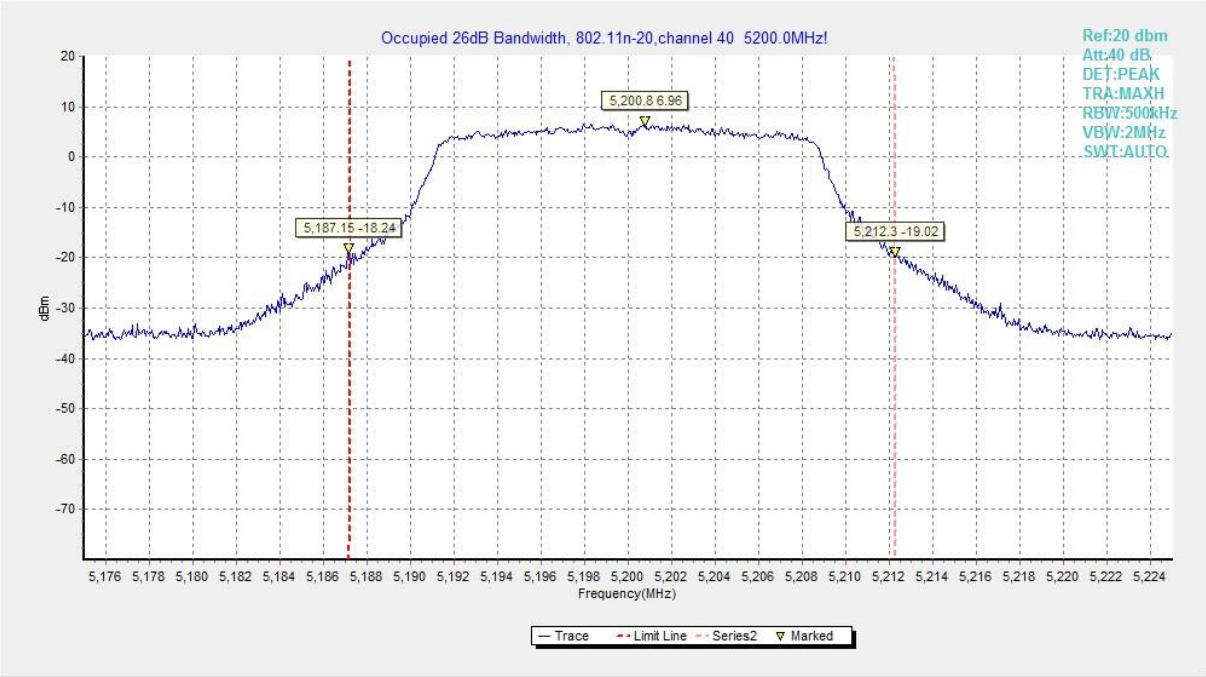

Fig. 11 Occupied 26dB Bandwidth (802.11n-HT20, 5200MHz)

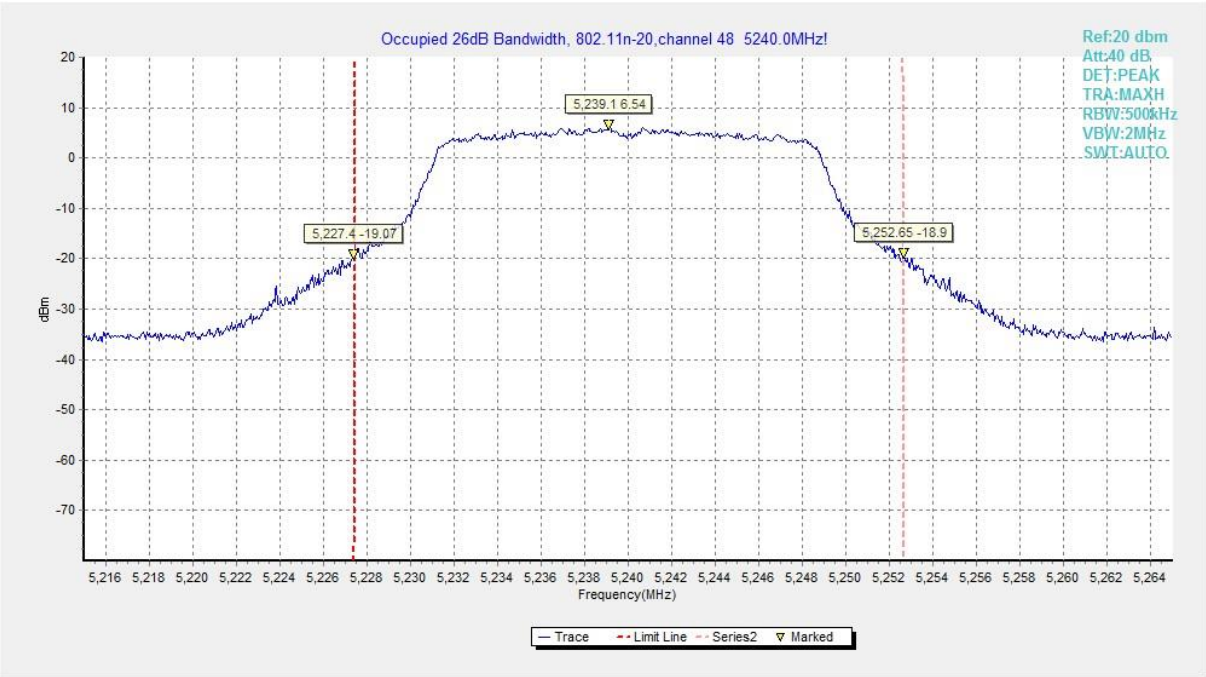

Fig. 12 Occupied 26dB Bandwidth (802.11n-HT20, 5240MHz)

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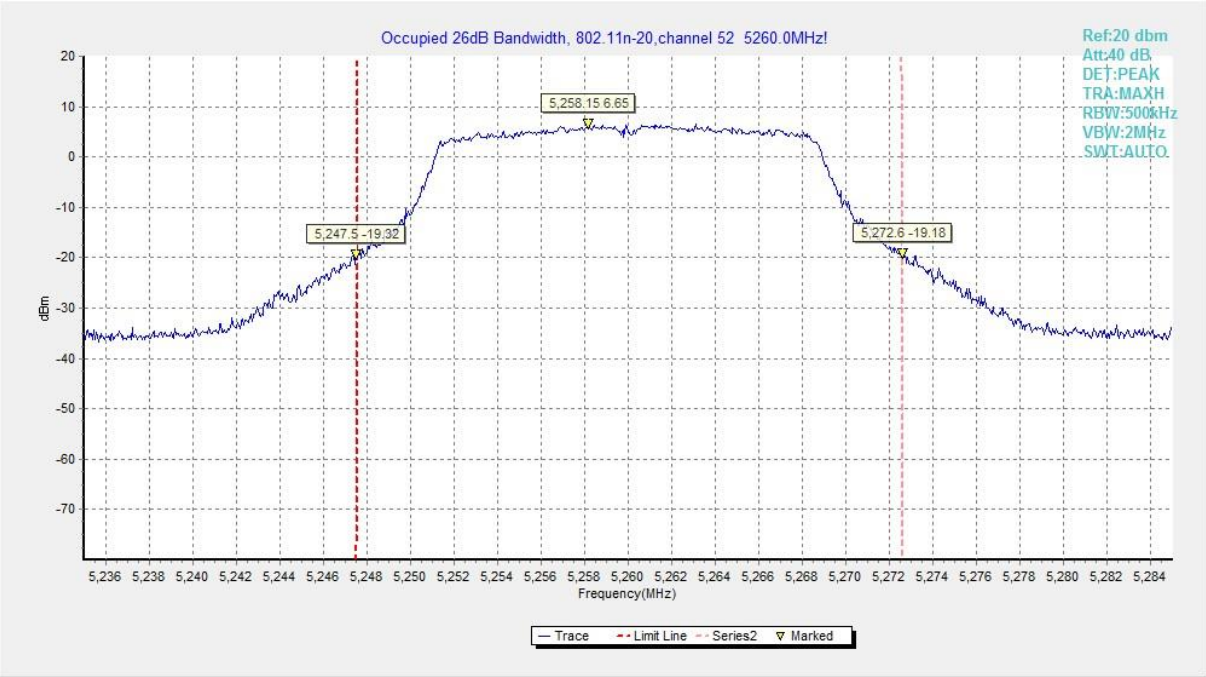

Fig. 13 Occupied 26dB Bandwidth (802.11n-HT20, 5260MHz)

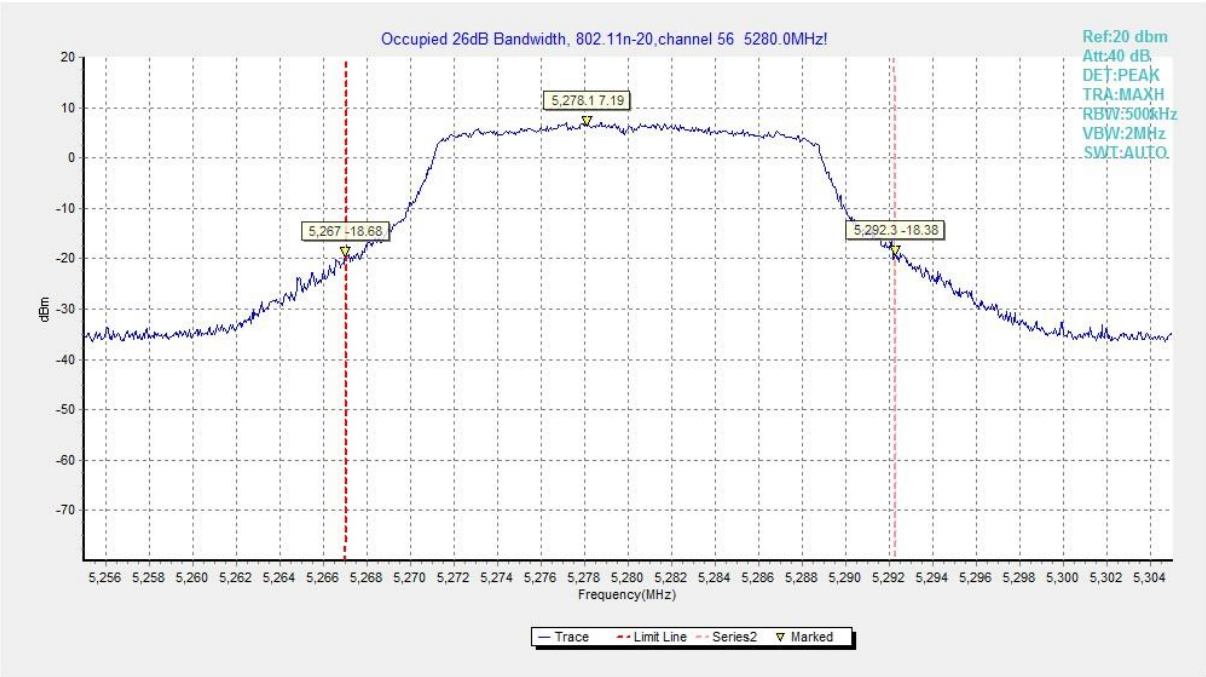

Fig. 14 Occupied 26dB Bandwidth (802.11n-HT20, 5280MHz)

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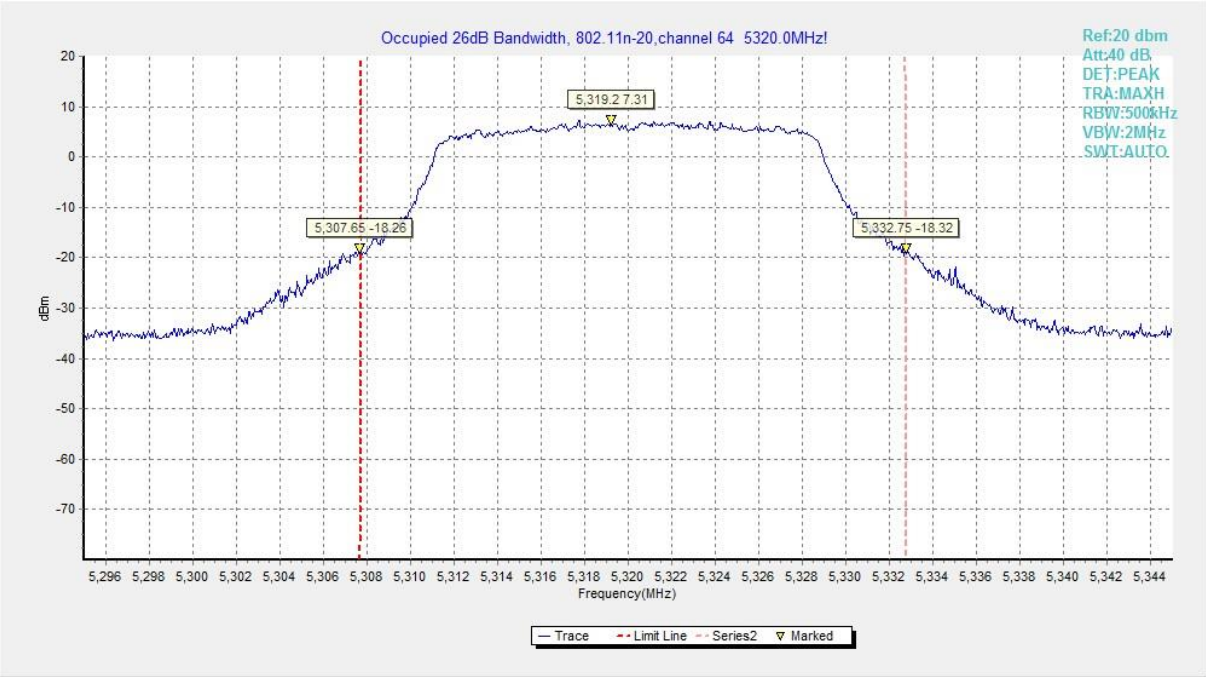

Fig. 15 Occupied 26dB Bandwidth (802.11n-HT20, 5320MHz)

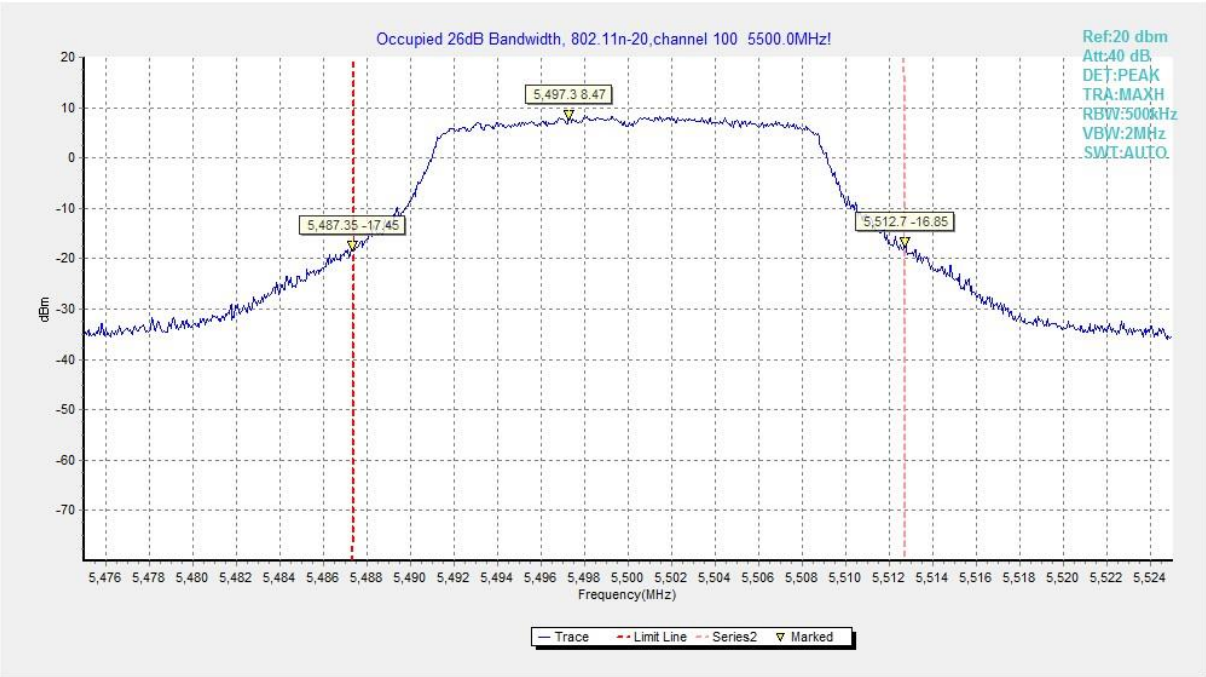

Fig. 16 Occupied 26dB Bandwidth (802.11n-HT20, 5500MHz)

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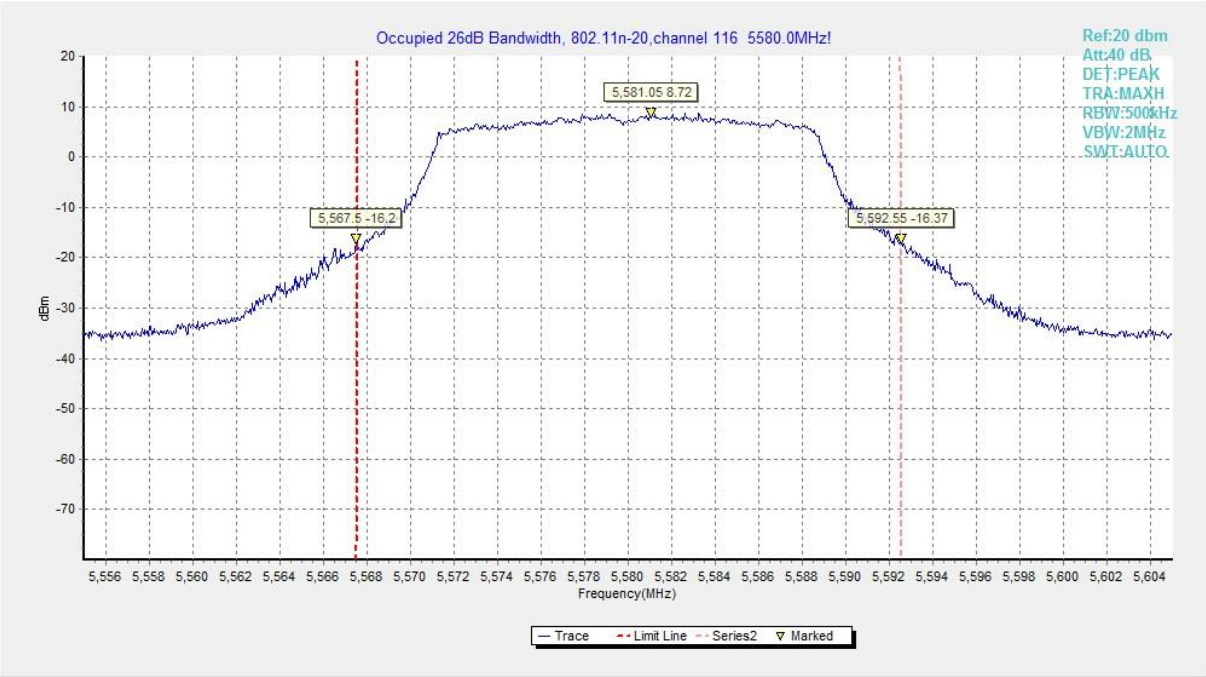

Fig. 17 Occupied 26dB Bandwidth (802.11n-HT20, 5600MHz)

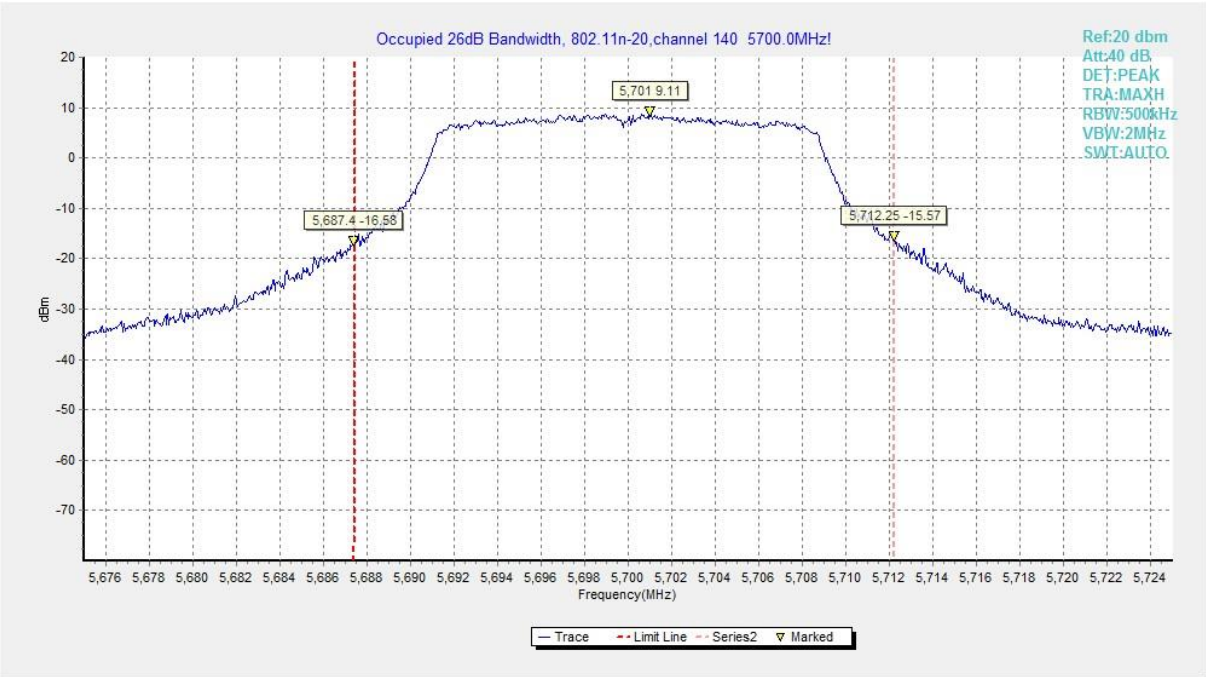

Fig. 18 Occupied 26dB Bandwidth (802.11n-HT20, 5700MHz)

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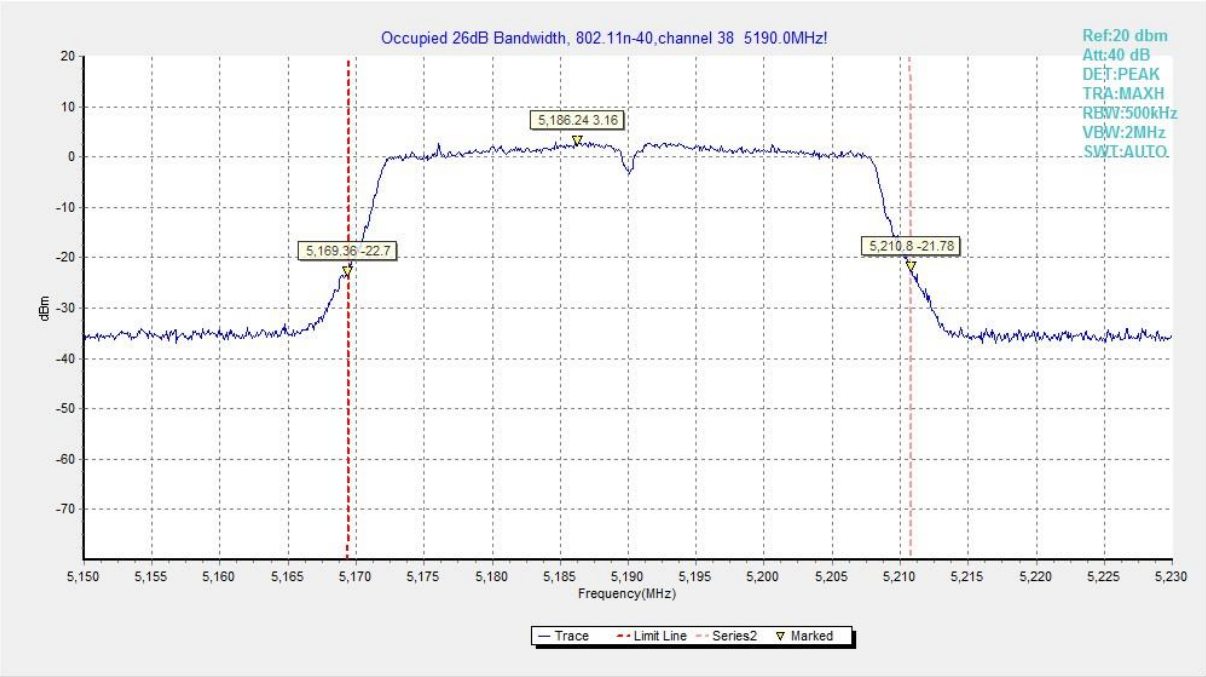

Fig. 19 Occupied 26dB Bandwidth (802.11n-HT40, 5190MHz)

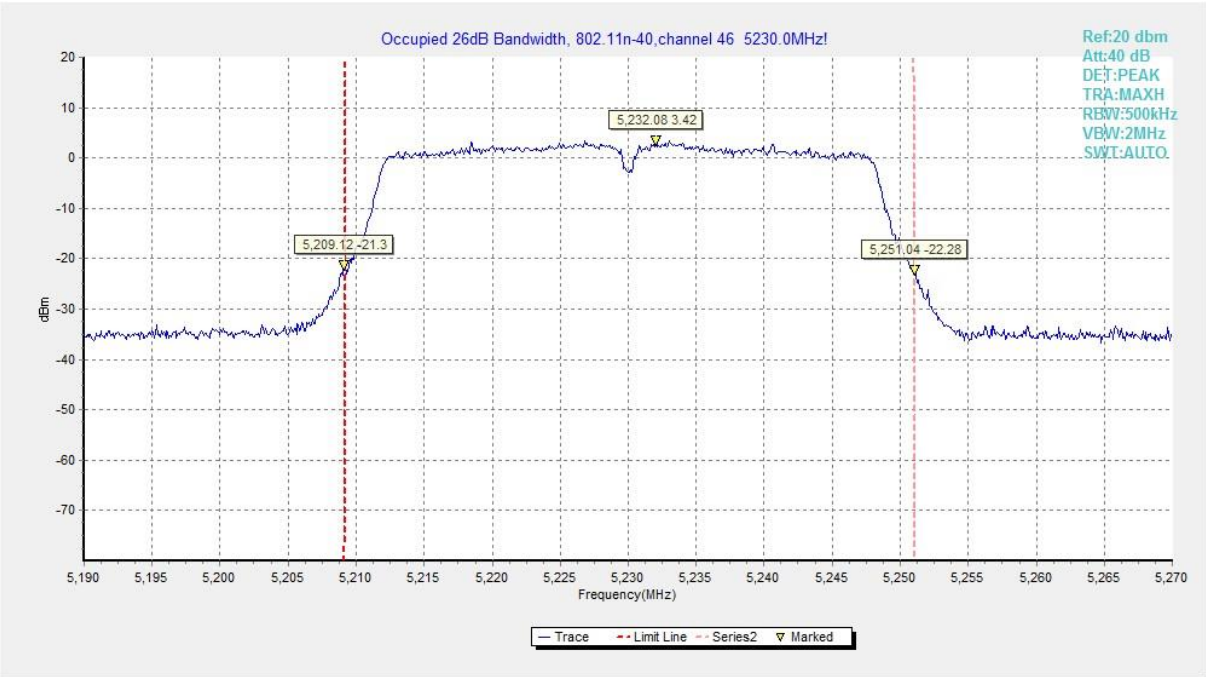

Fig. 20 Occupied 26dB Bandwidth (802.11n-HT40, 5230MHz)

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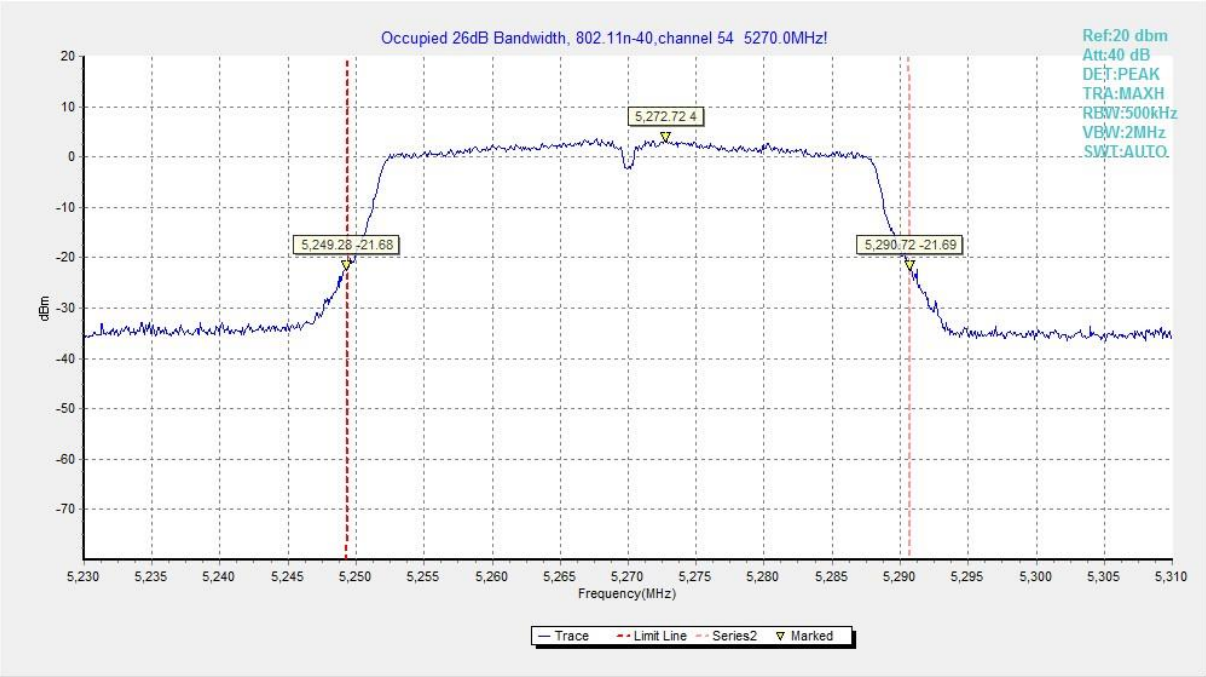

Fig. 21 Occupied 26dB Bandwidth (802.11n-HT40, 5270MHz)

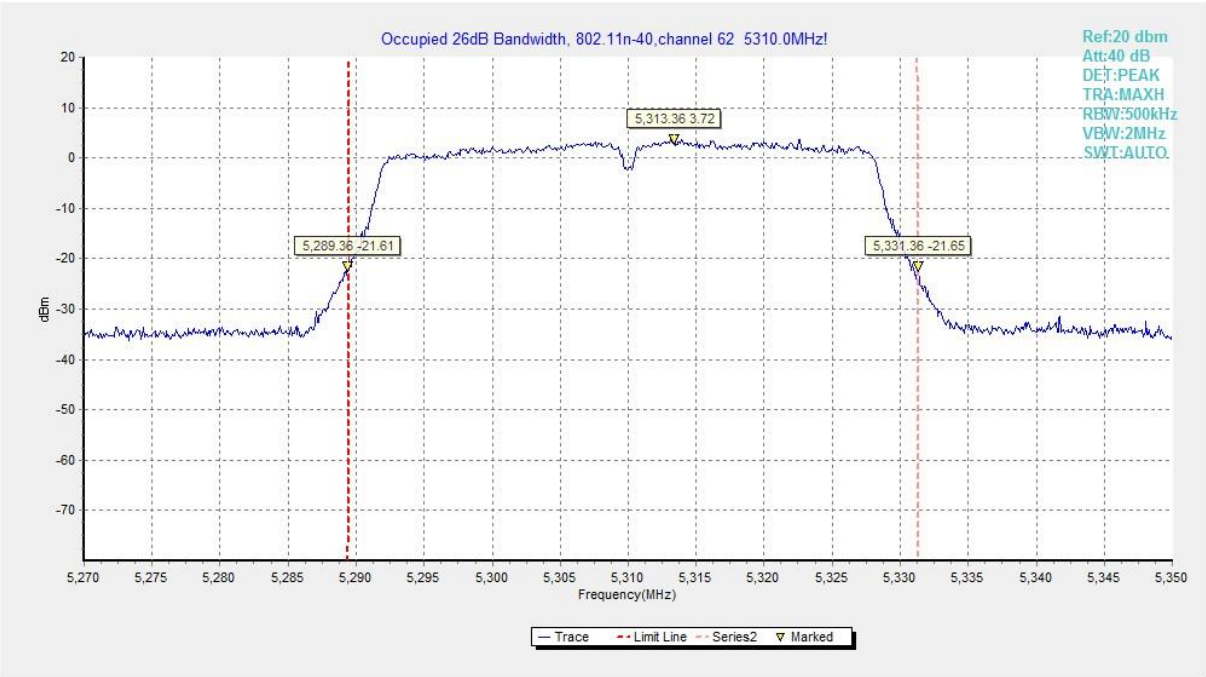

Fig. 22 Occupied 26dB Bandwidth (802.11n-HT40, 5310MHz)

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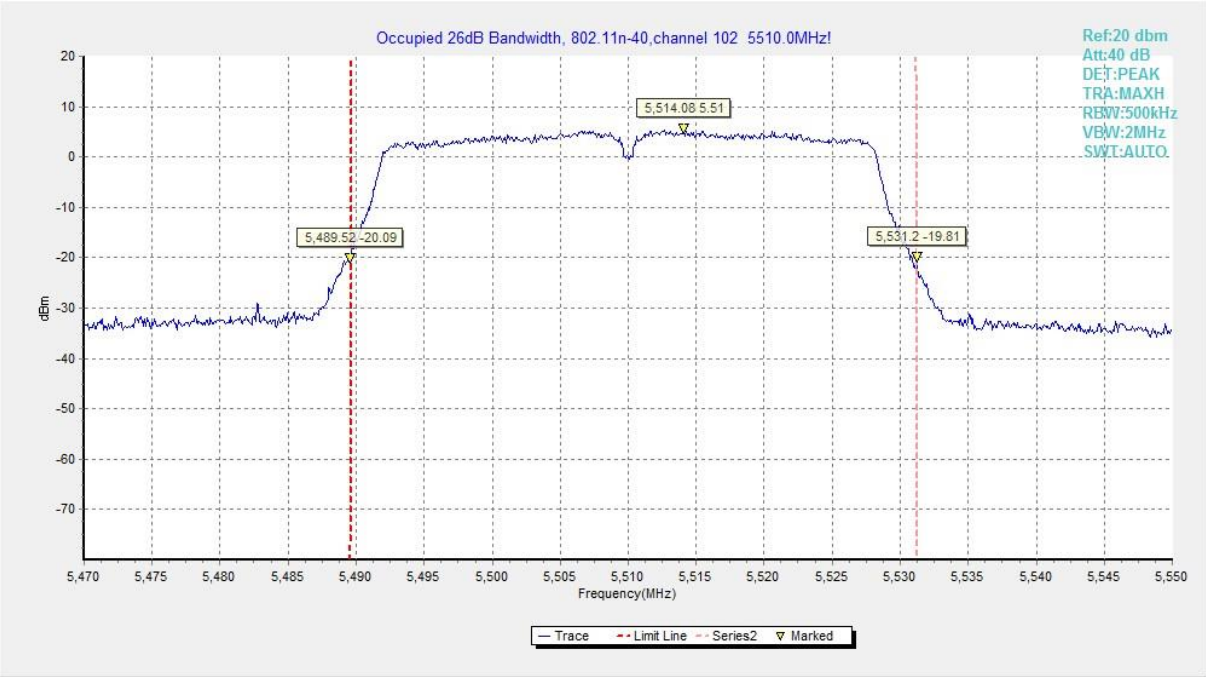

Fig. 23 Occupied 26dB Bandwidth (802. 11n-HT40, 5510MHz)

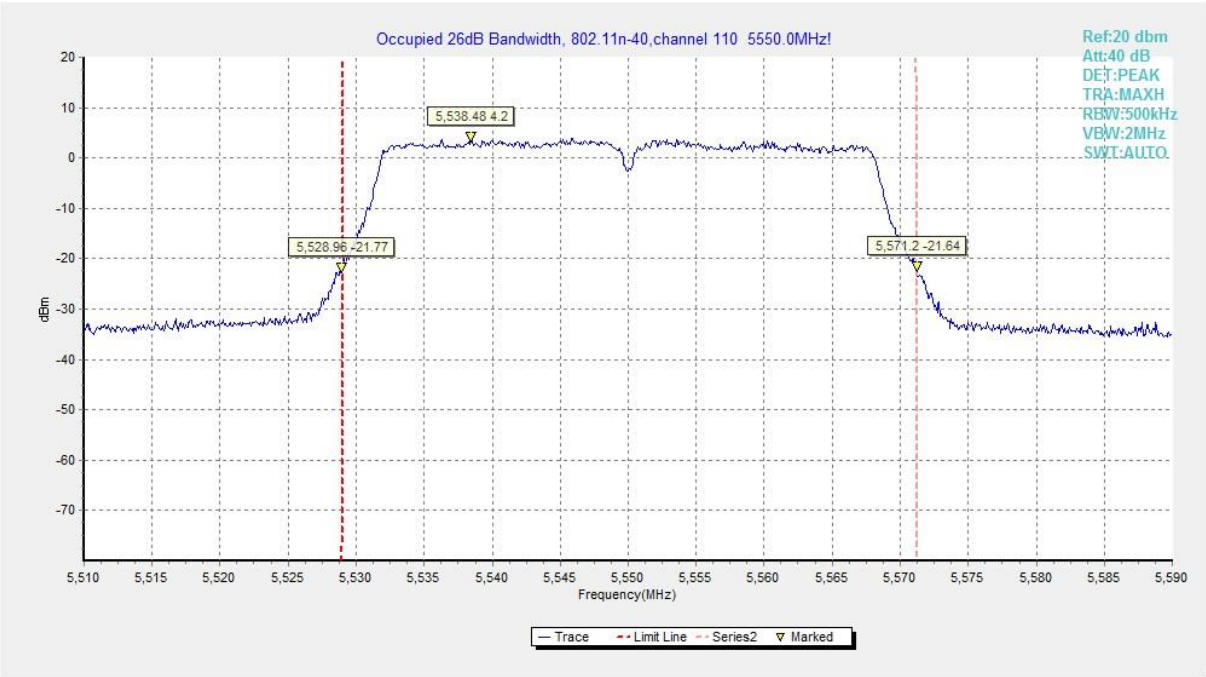

Fig. 24 Occupied 26dB Bandwidth (802. 11n-HT40, 5590MHz)

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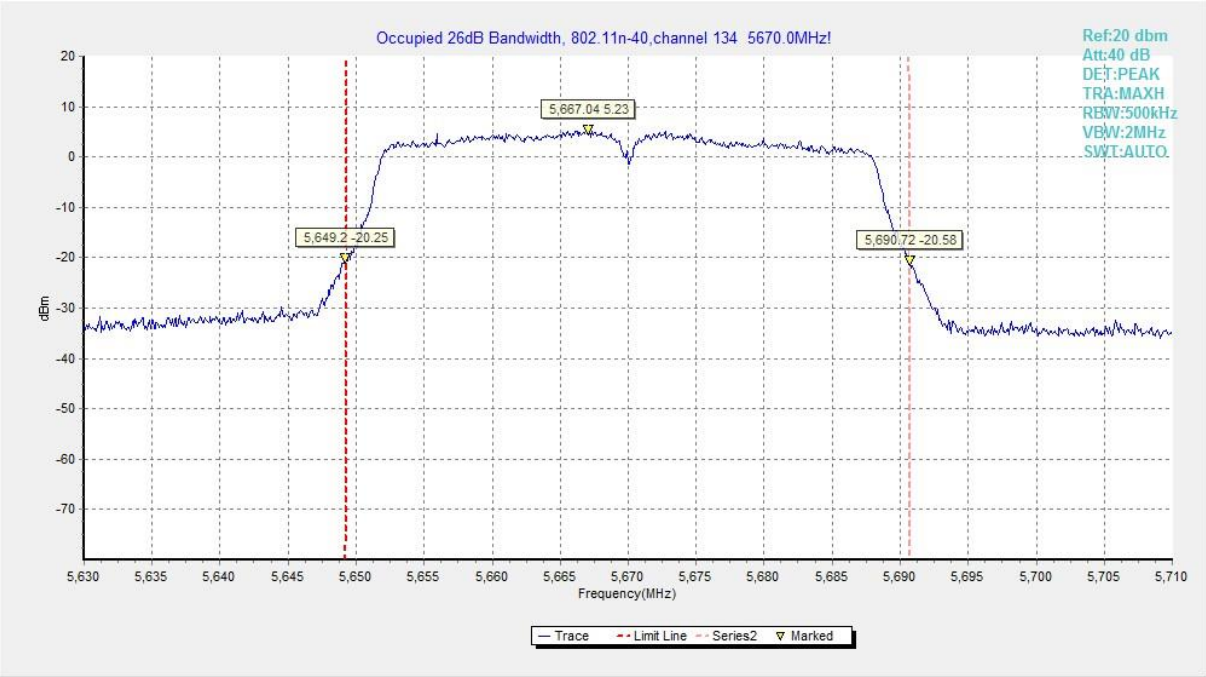

Fig. 25 Occupied 26dB Bandwidth (802. 11n-HT40, 5670MHz)

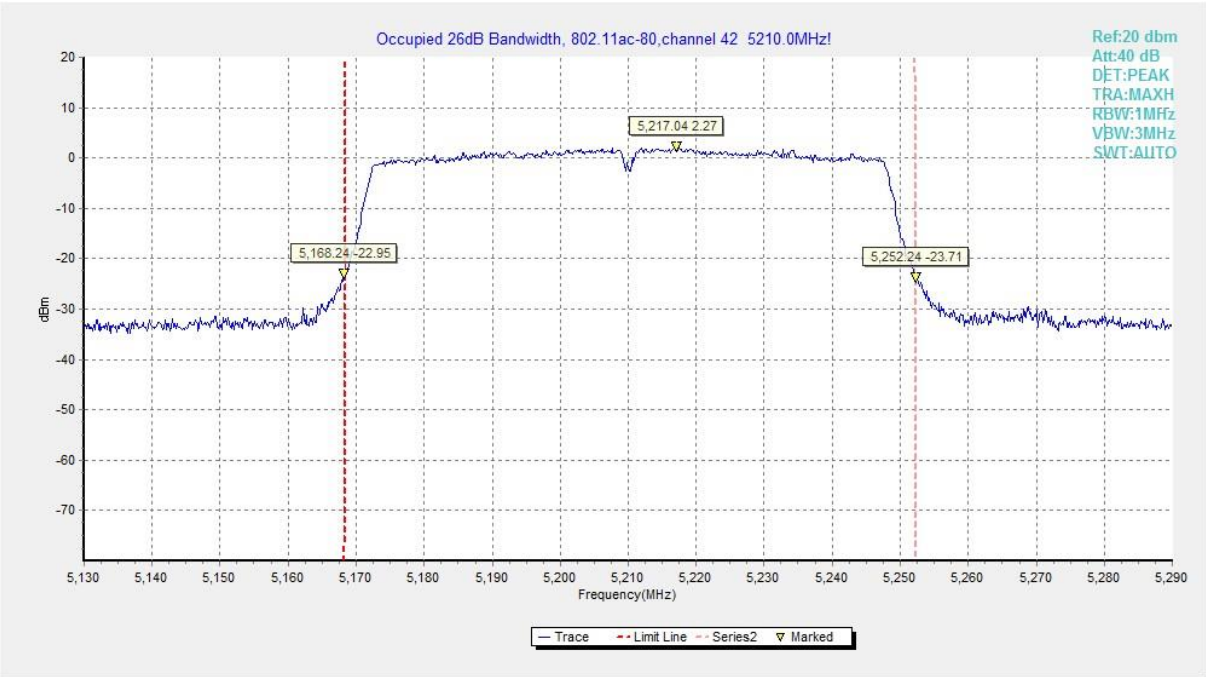

Fig. 26 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5210MHz)

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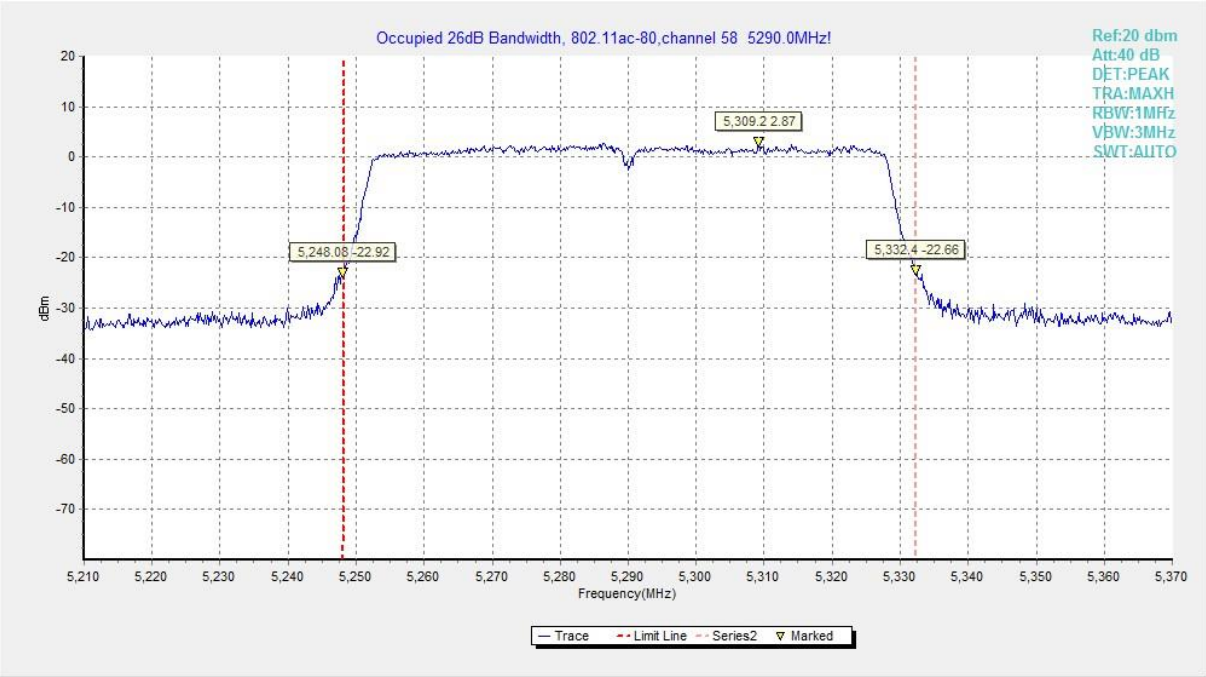

Fig. 27 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5290MHz)

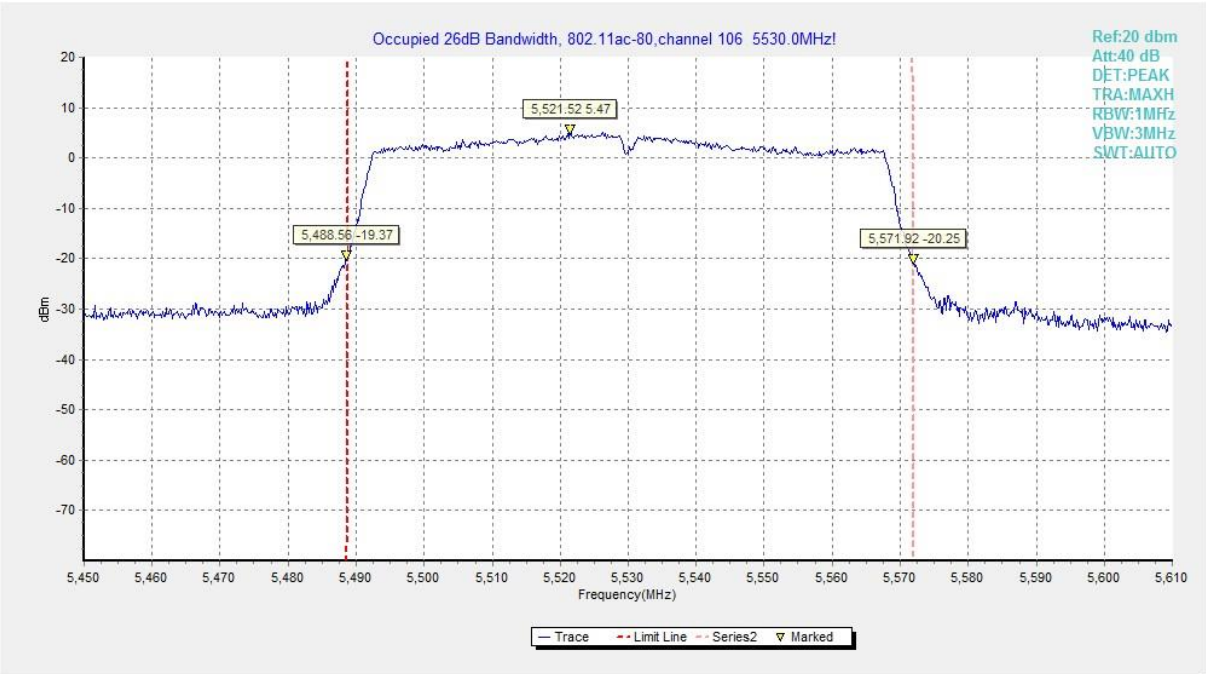

Fig. 28 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5530MHz)

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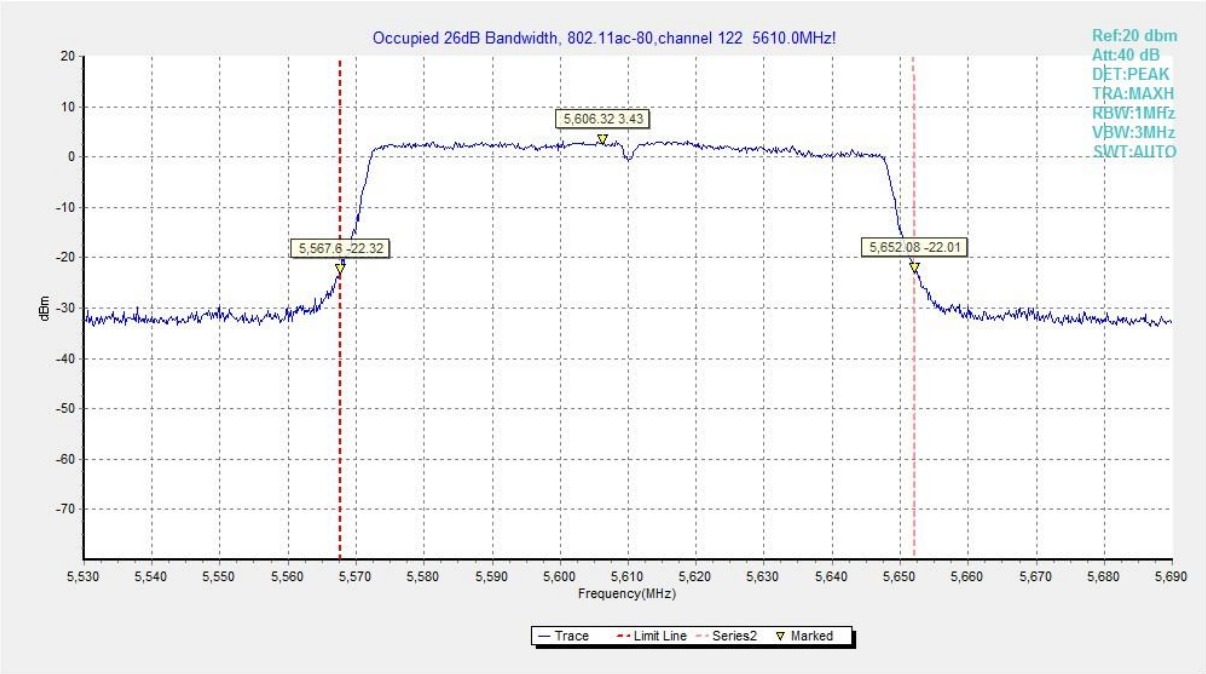

Fig. 29 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5610MHz)

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A.5. Occupied 6dB Bandwidth(conducted)

Measurement Limit:

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

The measurement is made according to KDB 789033

Measurement Result:

Mode	Channel	Occupied 6dB Bandwidth(MHz)		Conclusion
802.11a	5745MHz(Ch149)	Fig.30	15.35	**P**
	5785MHz(Ch157)	Fig.31	15.10	**P**
	5825MHz(Ch165)	Fig.32	15.40	**P**
802.11n-HT20	5745MHz(Ch149)	Fig.33	15.70	**P**
	5785MHz(Ch157)	Fig.34	15.65	**P**
	5825MHz(Ch165)	Fig.35	15.45	**P**
802.11n-HT40	5755MHz(Ch151)	Fig.36	36.32	**P**
	5795MHz(Ch159)	Fig.37	35.12	**P**
802.11ac-VHT80	5775MHz(Ch155)	Fig.38	75.20	**P**

Conclusion: PASS

Test graphs as below:

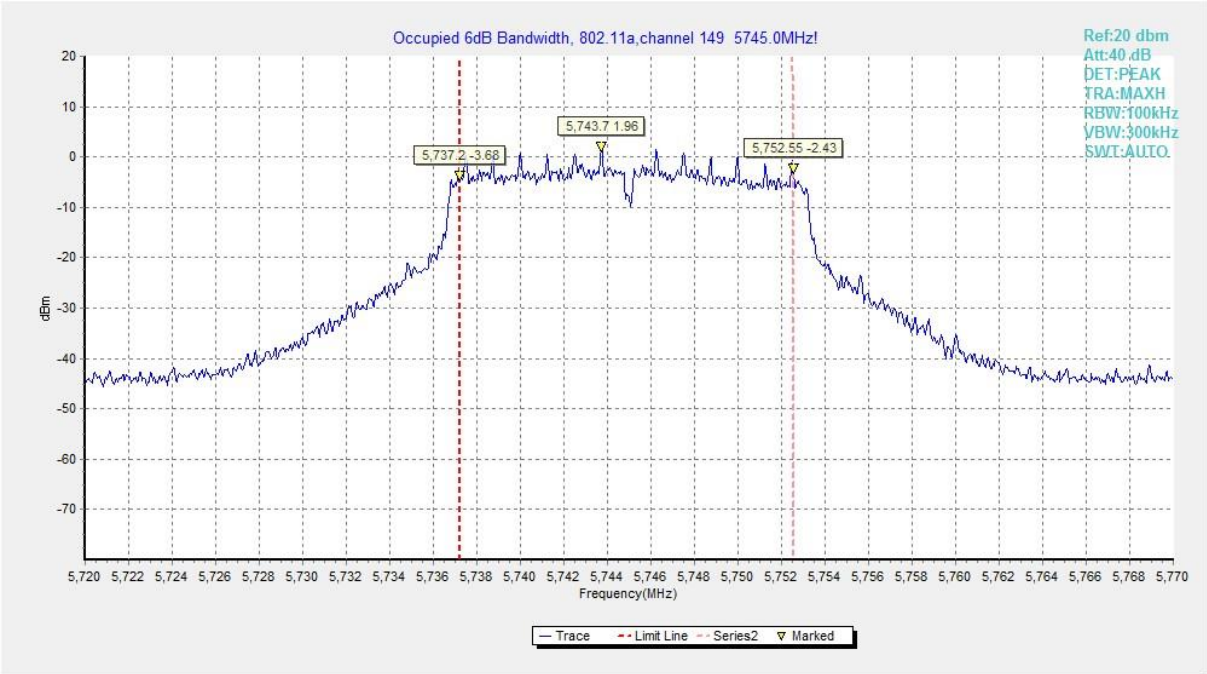

Fig. 30 Occupied 6dB Bandwidth (802.11a, 5745MHz)

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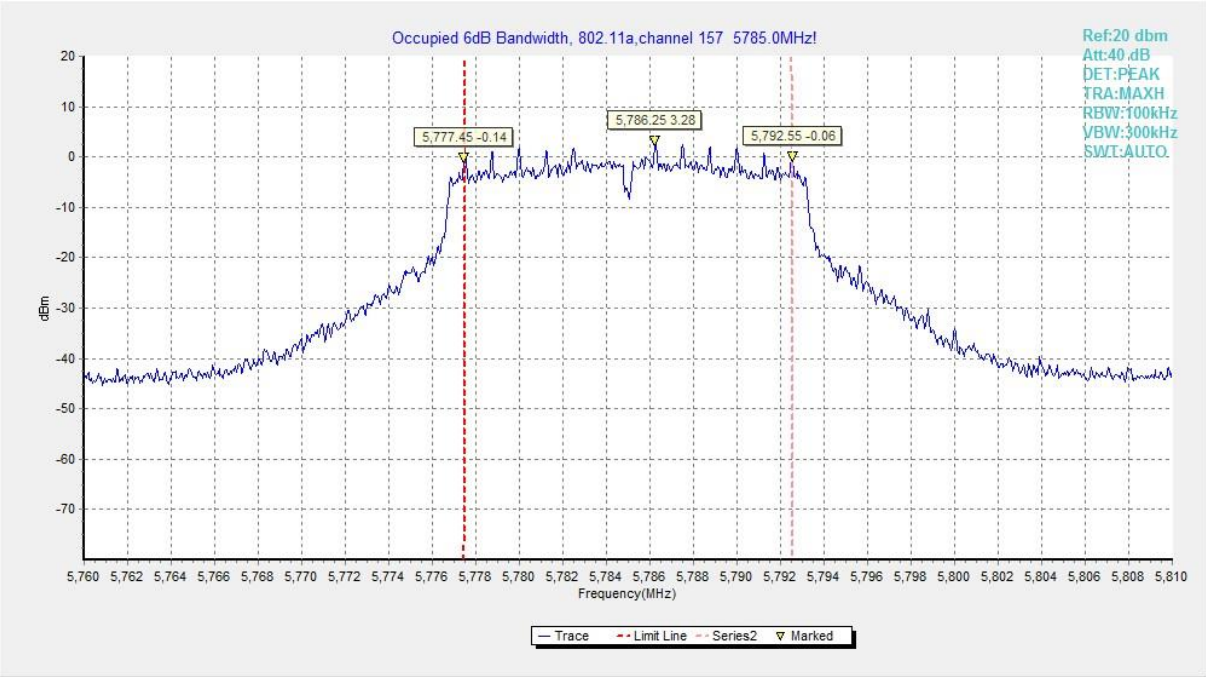

Fig. 31 Occupied 6dB Bandwidth (802.11a, 5785MHz)

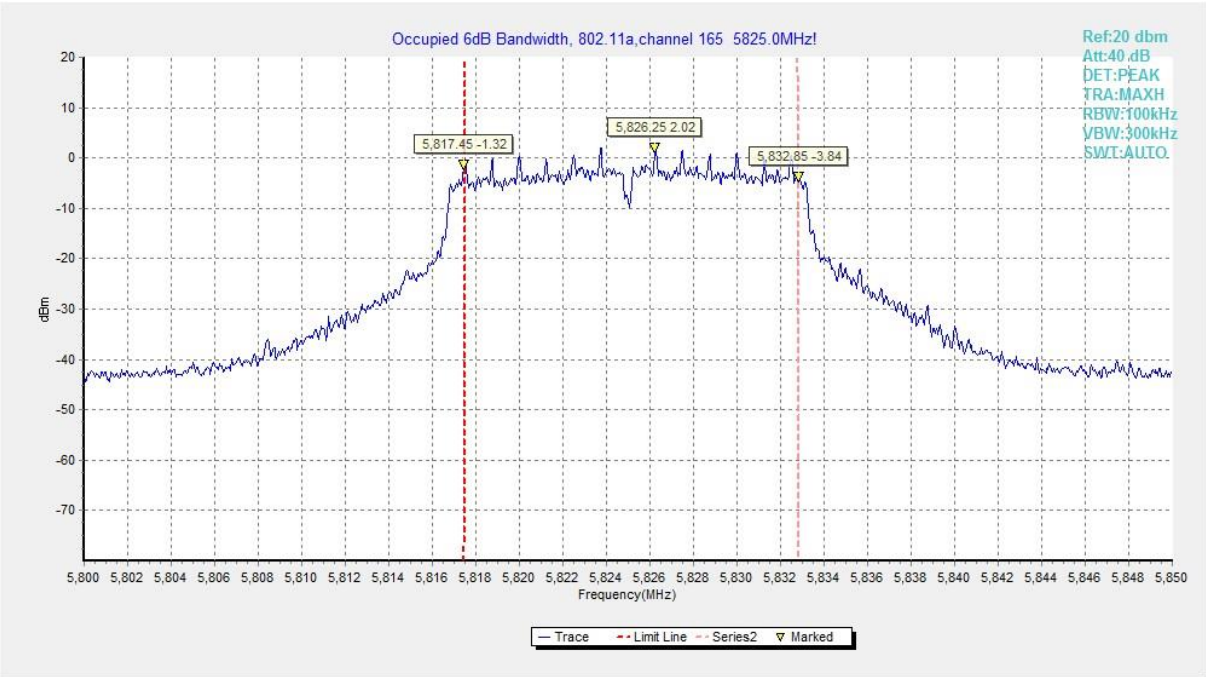

Fig. 32 Occupied 6dB Bandwidth (802.11a, 5825MHz)

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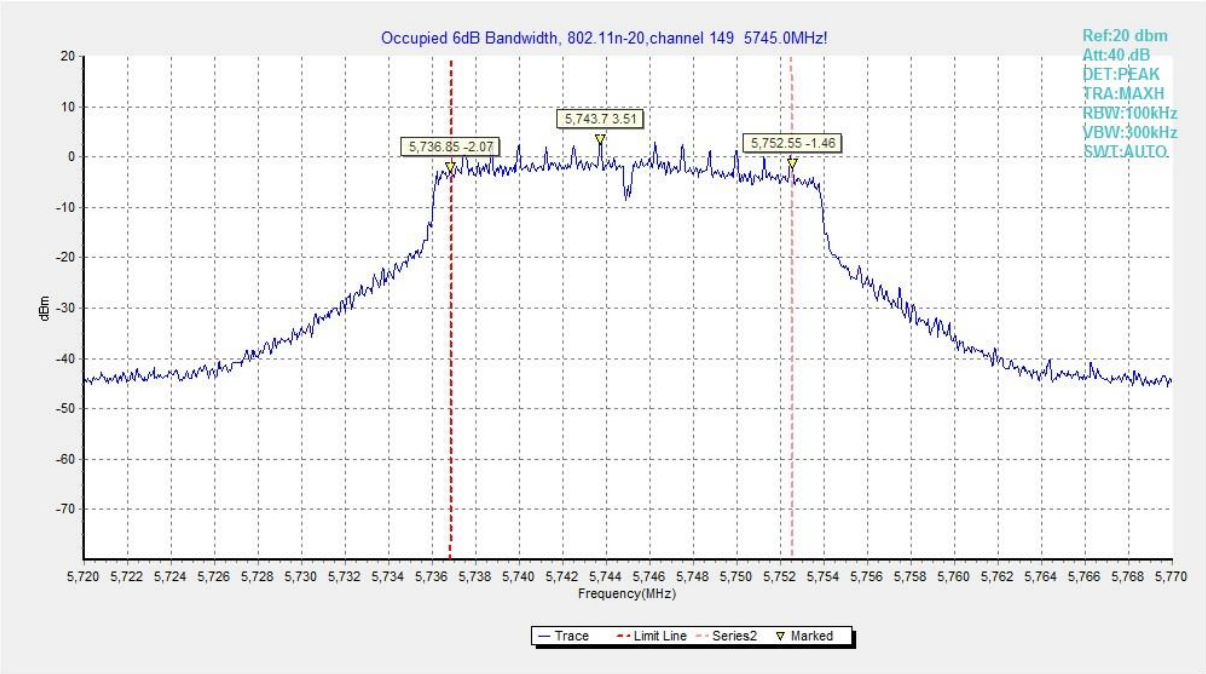

Fig. 33 Occupied 6dB Bandwidth (802.11n-HT20, 5745MHz)

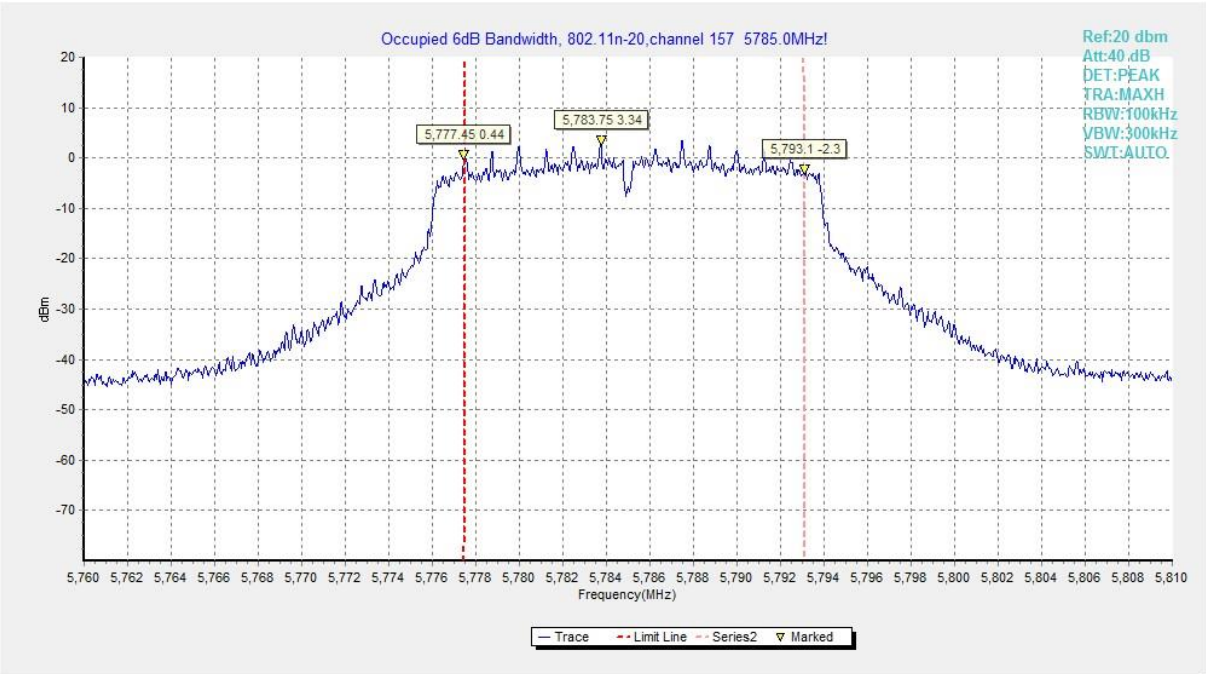

Fig. 34 Occupied 6dB Bandwidth (802.11n-HT20, 5785MHz)

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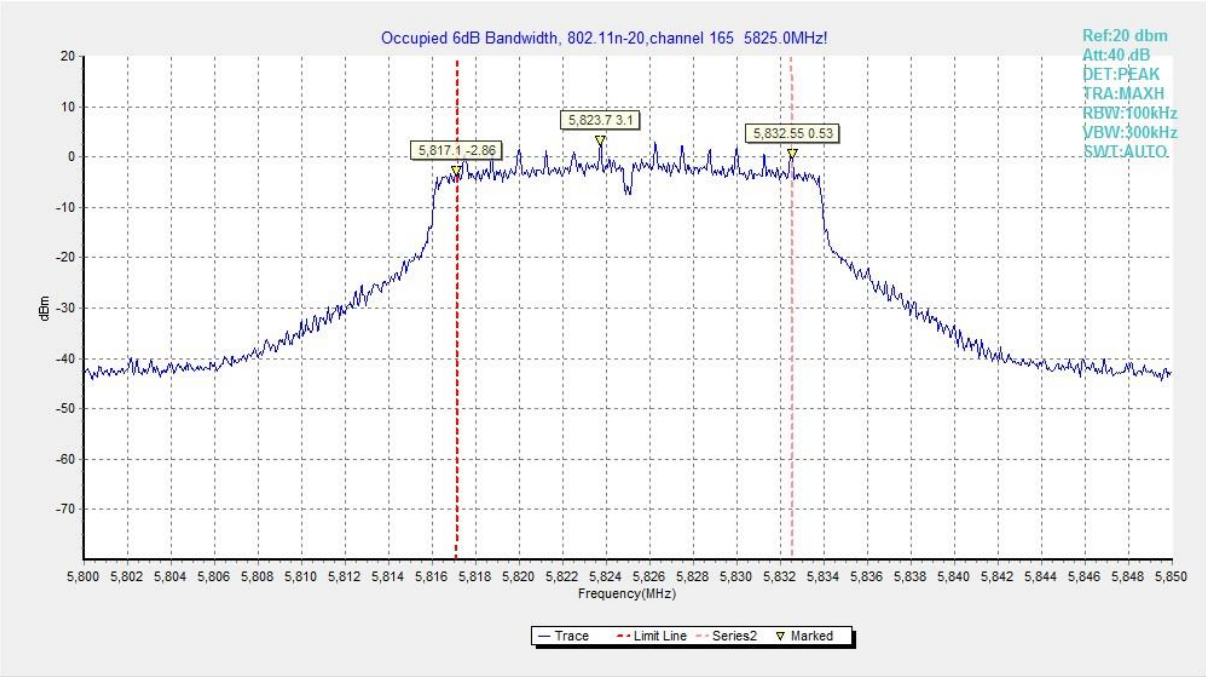

Fig. 35 Occupied 6dB Bandwidth (802.11n-HT20, 5825MHz)

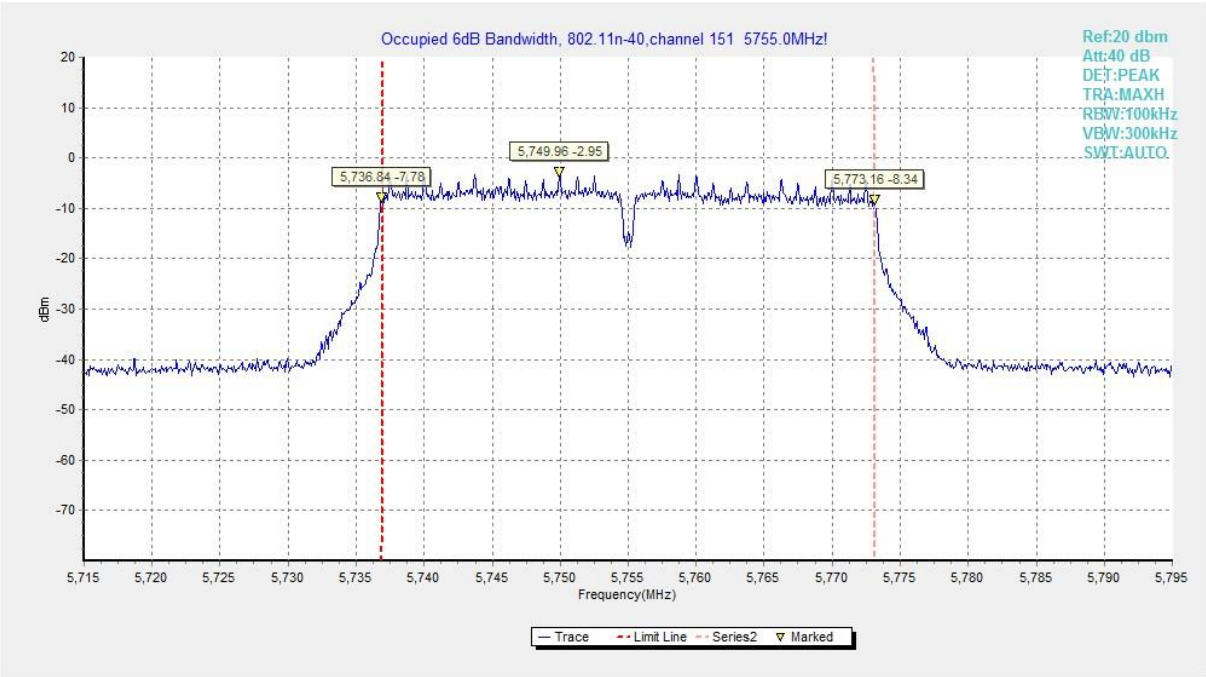

Fig. 36 Occupied 6dB Bandwidth (802.11n-HT40, 5755MHz)

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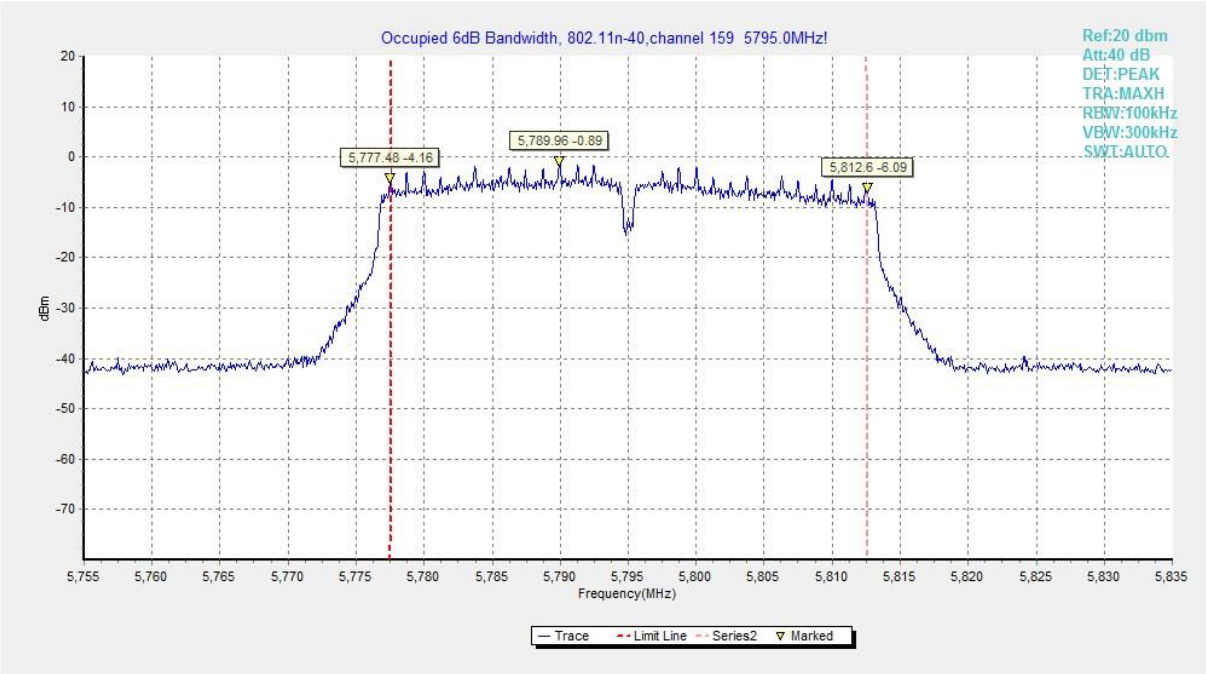

Fig. 37 Occupied 6dB Bandwidth (802.11n-HT40, 5795MHz)

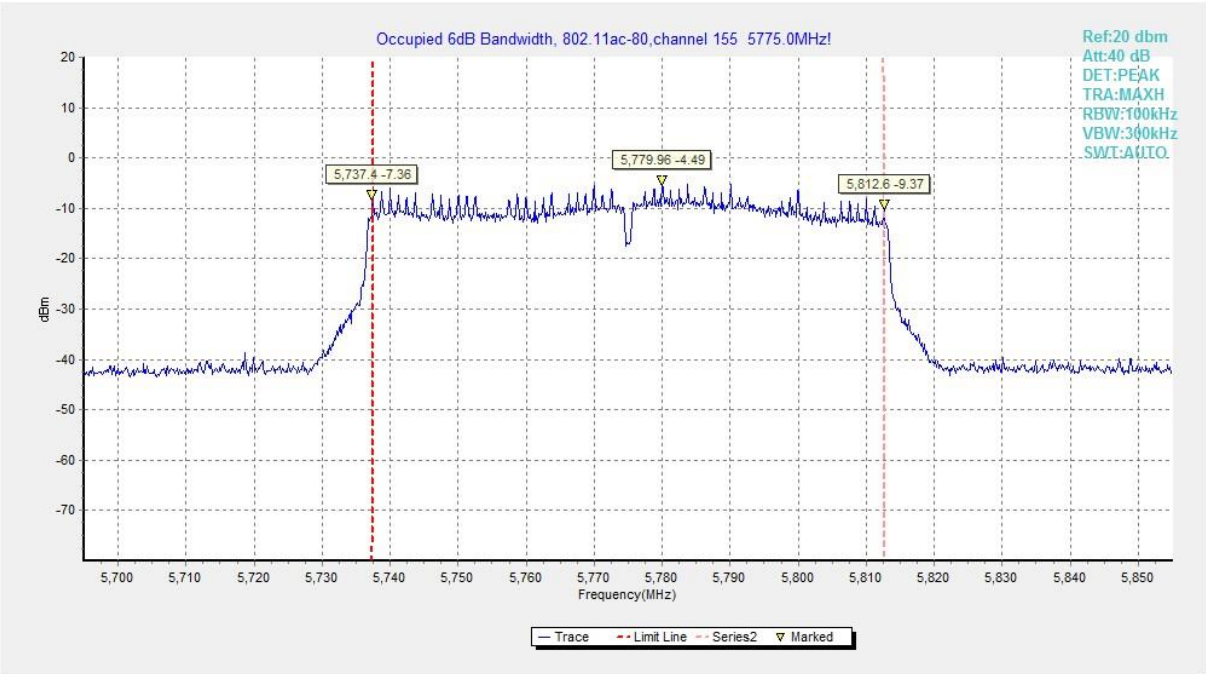

Fig. 38 Occupied 6dB Bandwidth (802.11ac-VHT80, 5775MHz)

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A.6. 99% Occupied Bandwidth(conducted)

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.39	17.10	/
	5200MHz(Ch40)	Fig.40	17.18	/
	5240MHz(Ch48)	Fig.41	17.18	/
	5260MHz(Ch52)	Fig.42	17.14	/
	5280MHz(Ch56)	Fig.43	17.14	/
	5320MHz(Ch64)	Fig.44	17.10	/
	5500MHz(Ch100)	Fig.45	17.14	/
	5580MHz(Ch116)	Fig.46	17.06	/
	5700MHz(Ch140)	Fig.47	17.18	/
802.11n-HT20	5180MHz(Ch36)	Fig.48	18.38	/
	5200MHz(Ch40)	Fig.49	18.34	/
	5240MHz(Ch48)	Fig.50	18.34	/
	5260MHz(Ch52)	Fig.51	18.34	/
	5280MHz(Ch56)	Fig.52	18.30	/
	5320MHz(Ch64)	Fig.53	18.38	/
	5500MHz(Ch100)	Fig.54	18.42	/
	5580MHz(Ch116)	Fig.55	18.34	/
	5700MHz(Ch140)	Fig.56	18.38	/
802.11n-HT40	5190MHz(Ch38)	Fig.57	36.36	/
	5230MHz(Ch46)	Fig.58	36.36	/
	5270MHz(Ch54)	Fig.59	36.20	/
	5310MHz(Ch62)	Fig.60	36.28	/
	5510MHz(Ch102)	Fig.61	36.36	/
	5550MHz(Ch110)	Fig.62	36.44	/
	5670MHz(Ch134)	Fig.63	36.20	/
802.11 ac-VHT80	5210MHz(Ch42)	Fig.64	75.76	/
	5290MHz(Ch58)	Fig.65	75.76	/
	5530MHz(Ch106)	Fig.66	75.60	/
	5610MHz(Ch122)	Fig.67	75.92	/

Conclusion: PASS

Test graphs as below:

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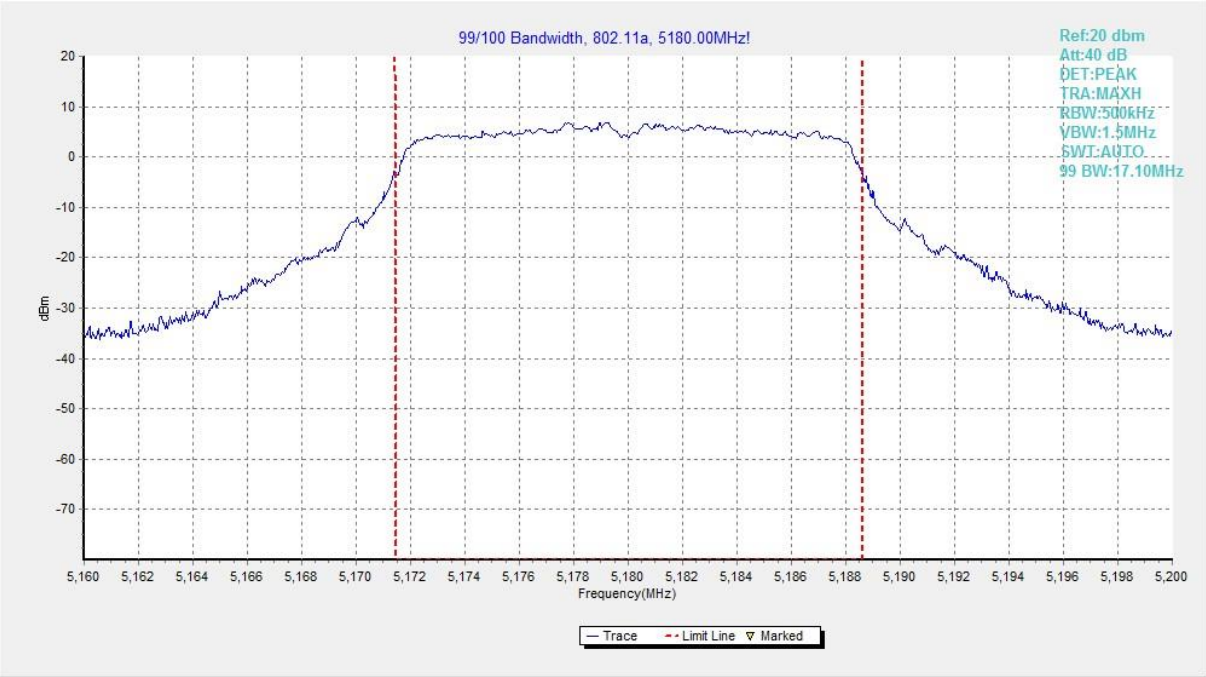

Fig. 39 99% Occupied Bandwidth (802.11a, 5180MHz)

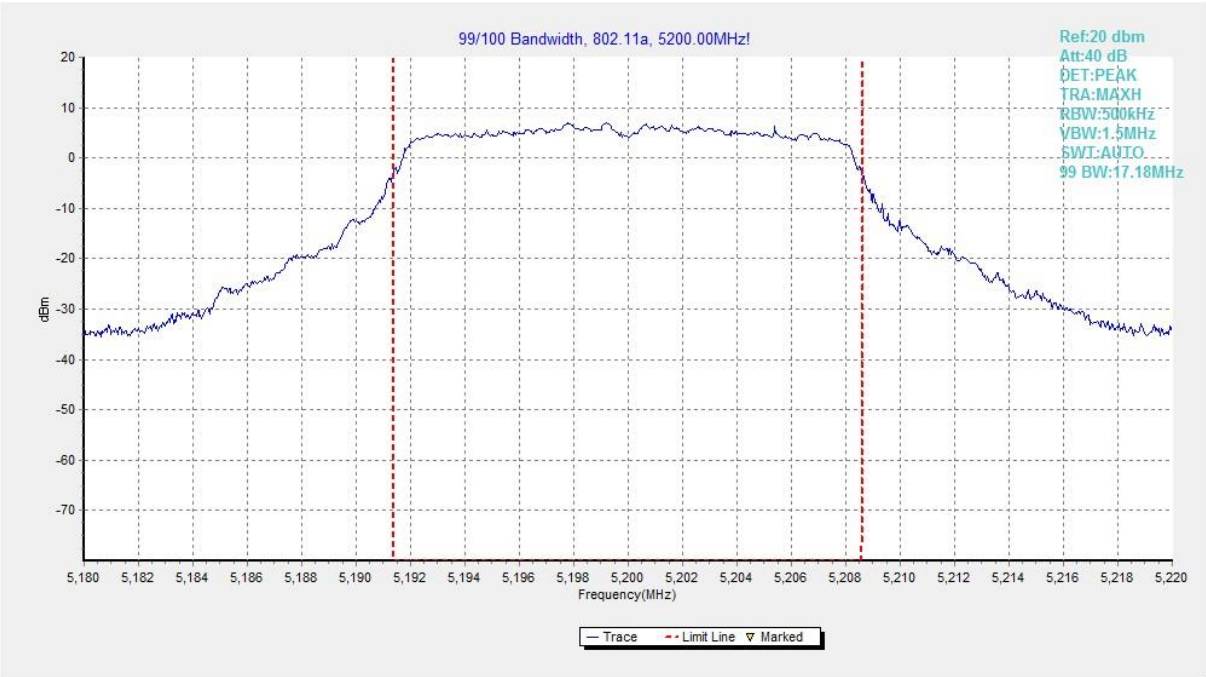

Fig. 40 99% Occupied Bandwidth (802.11a, 5200MHz)

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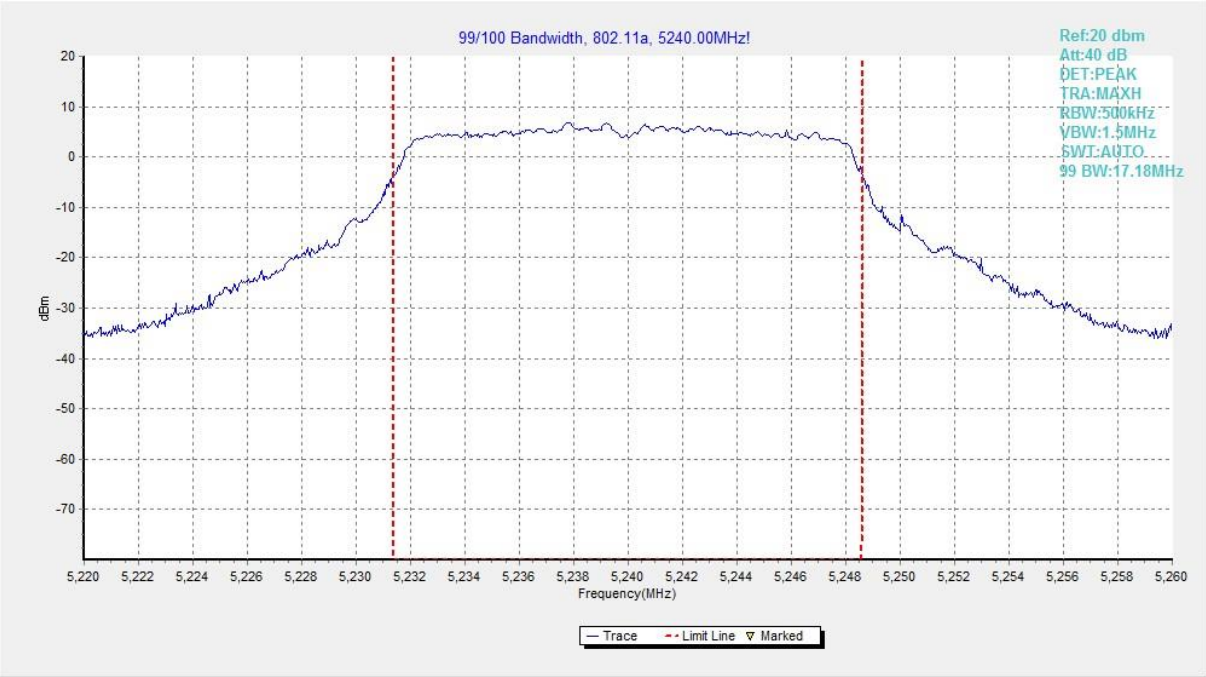

Fig. 41 99% Occupied Bandwidth (802.11a, 5240MHz)

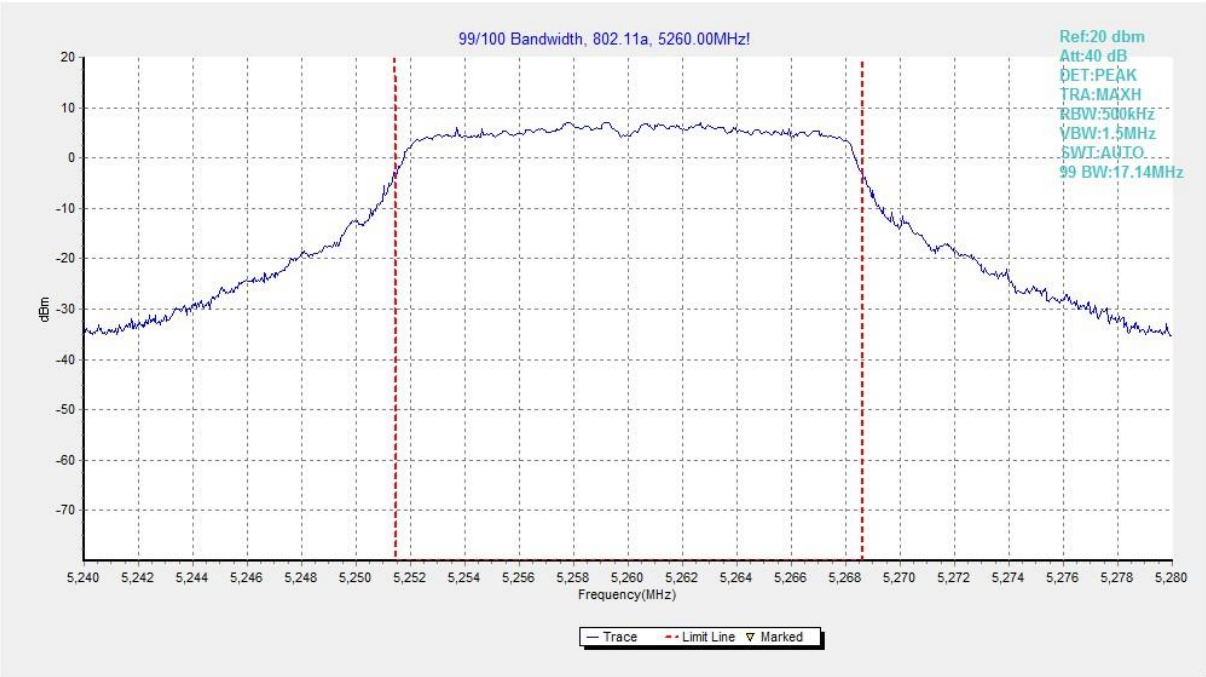

Fig. 42 99% Occupied Bandwidth (802.11a, 5260MHz)

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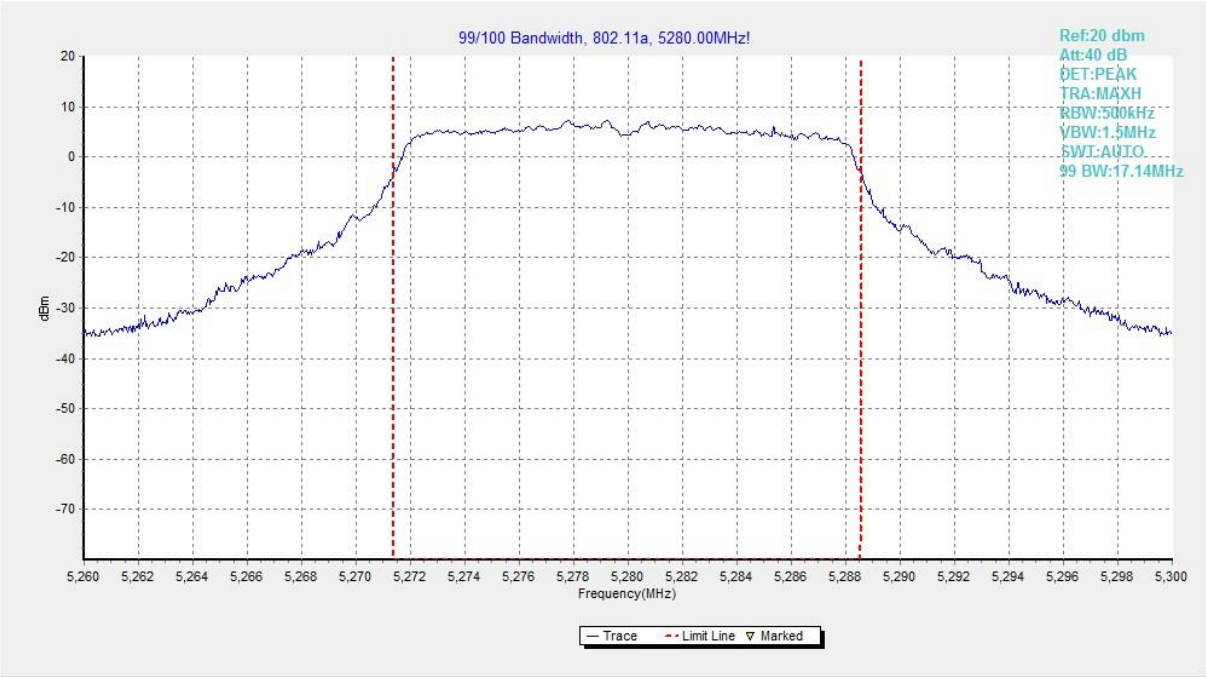

Fig. 43 99% Occupied Bandwidth (802.11a, 5280MHz)

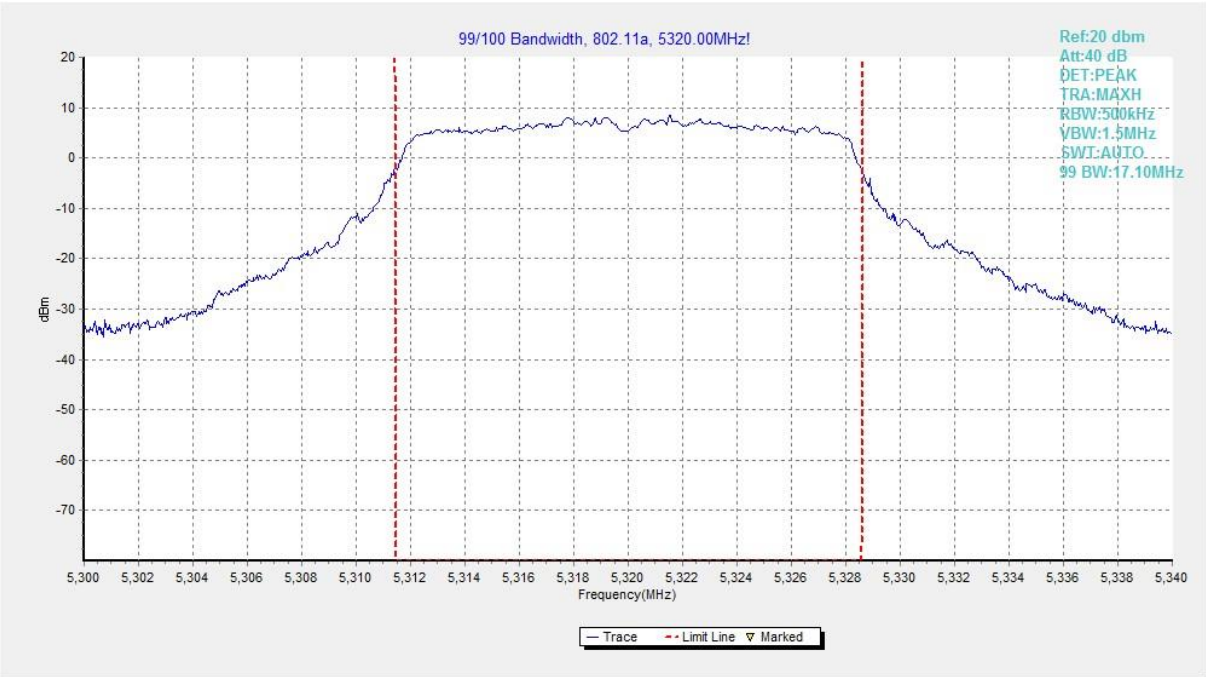

Fig. 44 99% Occupied Bandwidth (802.11a, 5320MHz)

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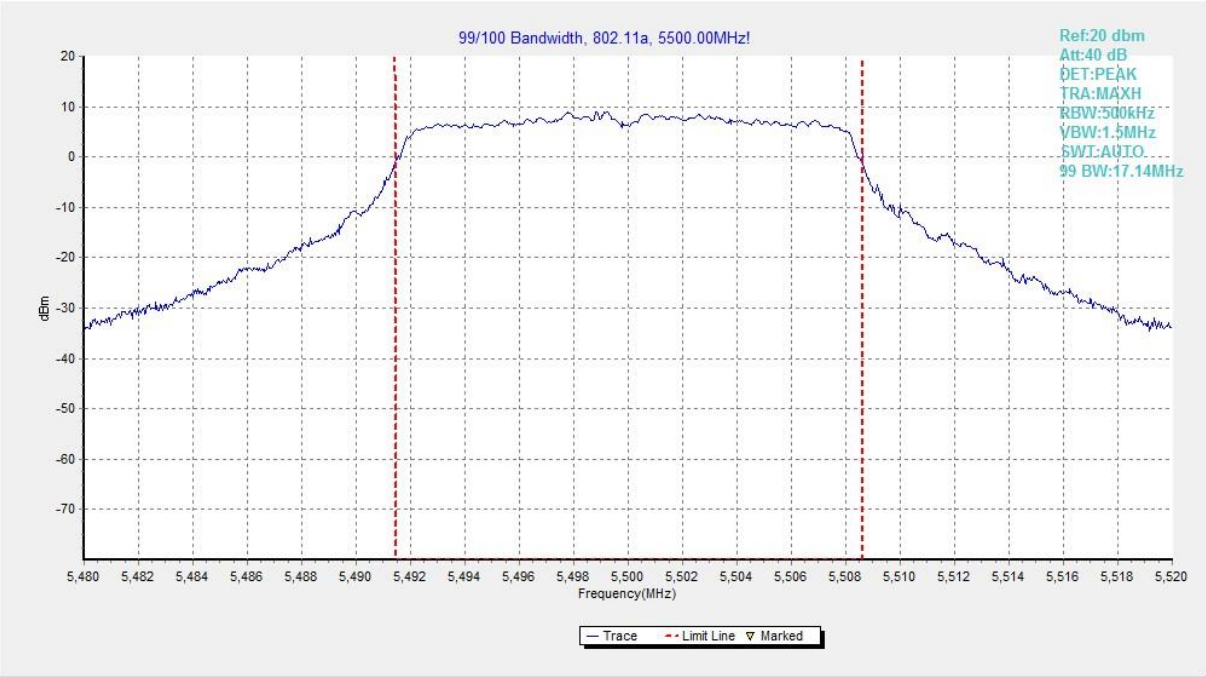

Fig. 45 99% Occupied Bandwidth (802. 11a, 5500MHz)

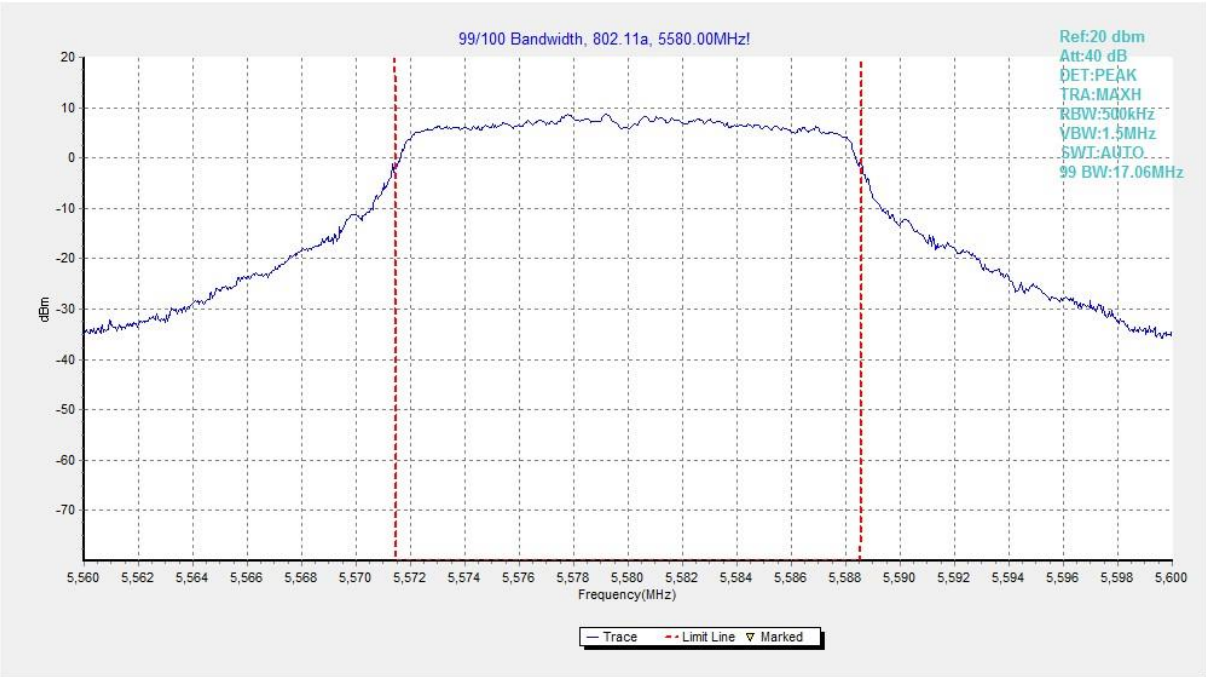

Fig. 46 99% Occupied Bandwidth (802. 11a, 5580MHz)

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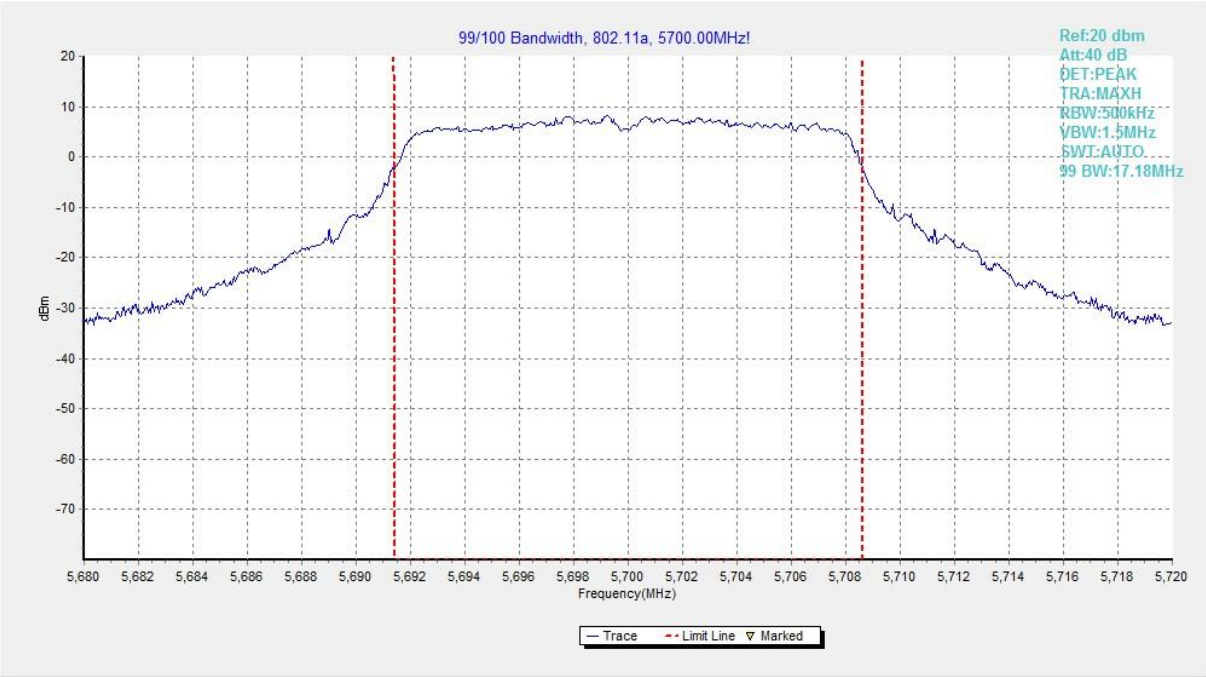

Fig. 47 99% Occupied Bandwidth (802. 11a, 5700MHz)

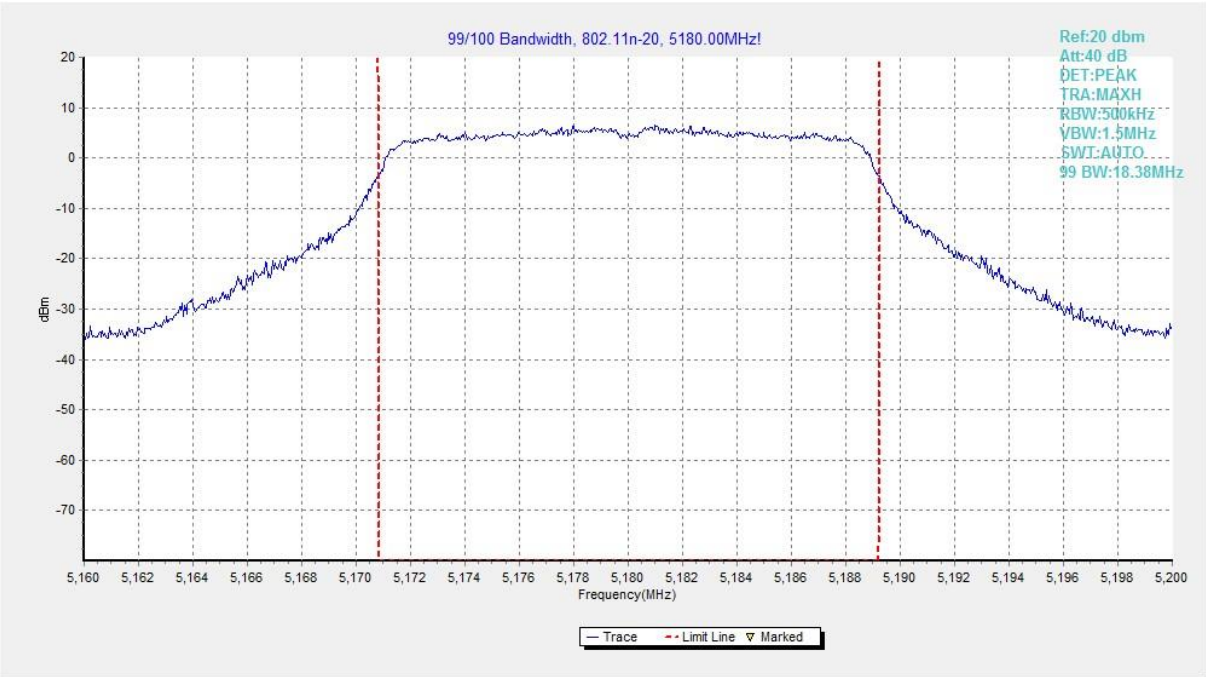

Fig. 48 99% Occupied Bandwidth (802.11n-HT20, 5180MHz)

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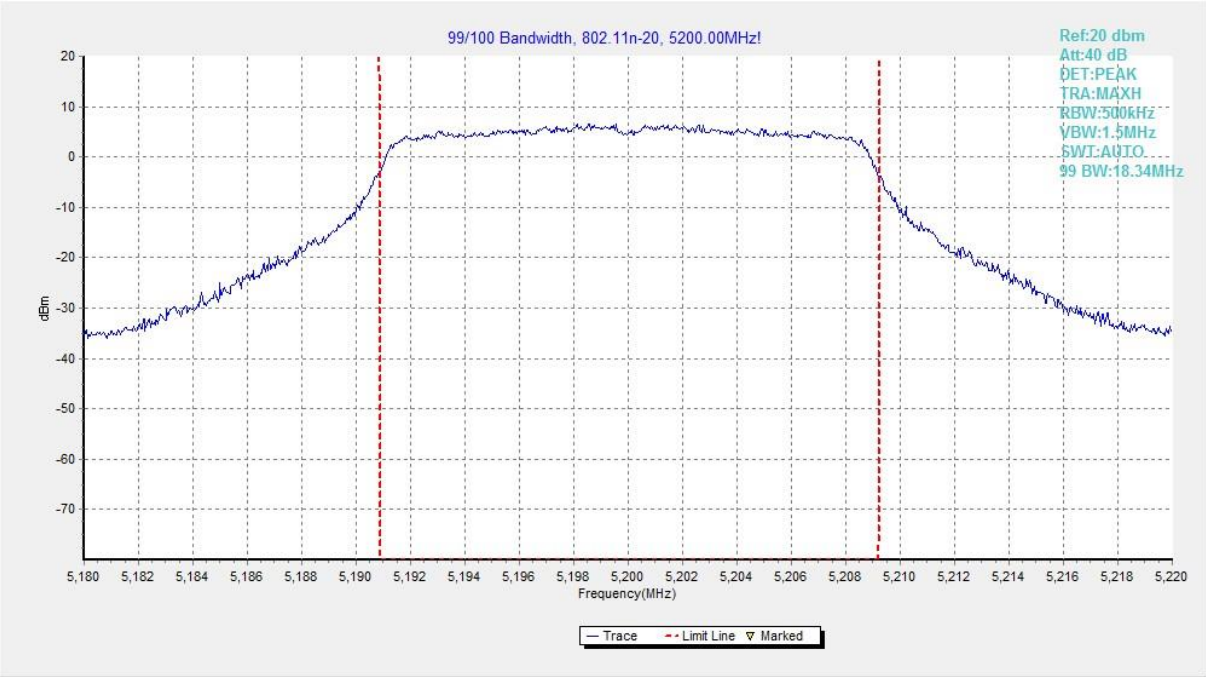

Fig. 49 99% Occupied Bandwidth (802.11n-HT20, 5200MHz)

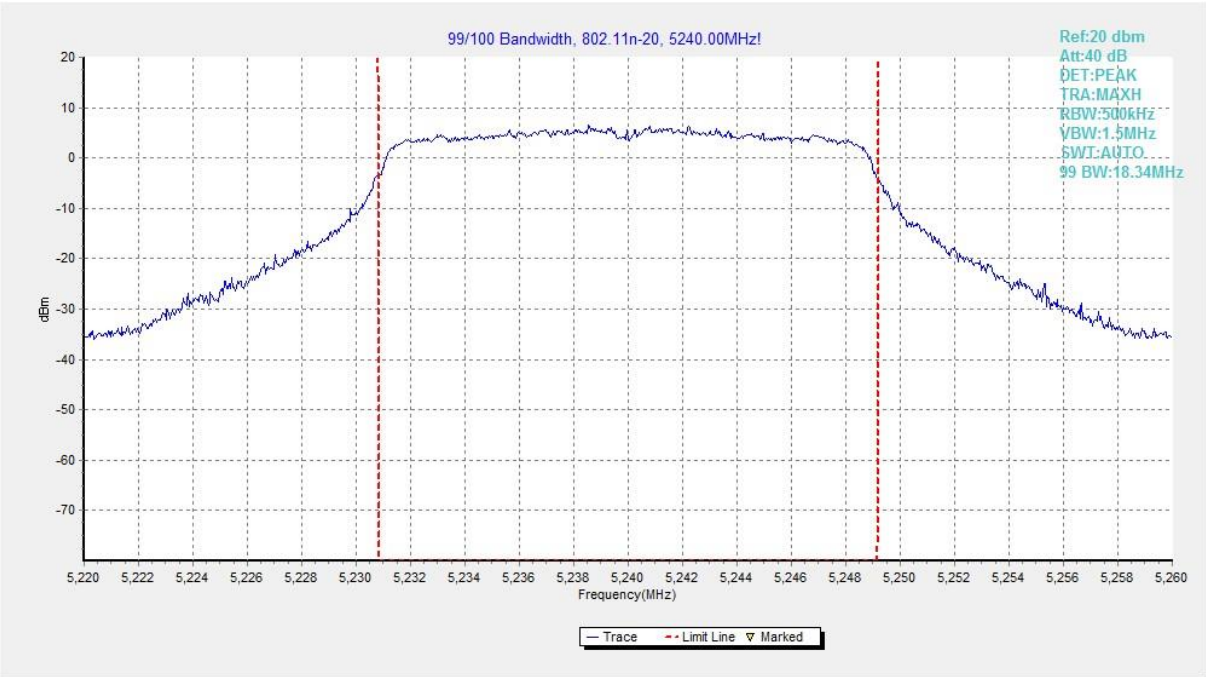

Fig. 50 99% Occupied Bandwidth (802.11n-HT20, 5240MHz)

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