FCC PART 15
TEST REPORT
No.I21Z60790-IOT05

for

Honor Device Co., Ltd.

Smart Phone

NTH-NX9

With

FCC ID:2AYGCNTH-NX9

Hardware Version: HN2NTHM

Software Version: 4.2.0.107（C900E107R1P2）

Issued Date: 2021-08-20

Note:

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I21Z60790-IOT05	Rev.0	1st edition	2021-08-20
I21Z60790-IOT05	Rev.1	Change P.5.Testing Location 1	2021-09-09

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1. TEST LATORATORY

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2017 accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP) with lab code 600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (ISED#: 24849). The detail accreditation scope can be found on NVLAP website.

1.2. TestingLocation

Location 1:CTTL(Huayuan North Road)

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

Radiated testing Location: CTTL(BDA)

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

1.3. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

1.4. Project date

Testing Start Date: 2021-05-10

Testing End Date: 2021-08-20

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1.5. Signature

XieXiuzhen

(Prepared this test report)

Zheng Wei

(Reviewed this test report)

Hu Xiaoyu

(Approved this test report)

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2. CLIENT INFORMATION

2.1 Applicant Information

Company Name:	Honor Device Co., Ltd.
Address:	Shum Yip Sky Park, No. 8089, Hongli West Road, Shenzhen, Guangdong, China
City:	Shenzhen
Postal Code:	/
Country:	China
Telephone:	0755-61886688
Fax:	/

2.2 Manufacturer Information

Company Name:	Honor Device Co., Ltd.
Address:	Shum Yip Sky Park, No. 8089, Hongli West Road, Shenzhen, Guangdong, China
City:	Shenzhen
Postal Code:	/
Country:	China
Telephone:	0755-61886688
Fax:	/

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

3.1. About EUT

Description	Smart Phone
Model name	NTH-NX9
FCC ID	2AYGCNTH-NX9
WLAN Frequency Band	ISM Bands: -5150MHz~5250MHz -5250MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM
Antenna	Integral Antenna
Nominalvoltages	3.87V
Maximumvoltages	4.45V
Minimumvoltages	3.6V

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	861997050026090/ 861997050029193	HN2NTHM	4.2.0.107（C900E107R1P2）
EUT2	861997050038418/ 861997050042501	HN2NTHM	4.2.0.107（C900E107R1P2）
EUT3	861997050038426	HN2NTHM	4.2.0.107（C900E107R1P2）
EUT4	AXPM011428000074	HN2NTHM	4.2.0.107（C900E107R1P2）

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

3.3. Internal Identification of AE used during the test

AE ID*	Description	SN	Note
AE1	Battery	/	EUT1
AE9	Battery	/	EUT2
AE2	Charger	/	NEW
AE3	Charger	/	OLD
AE4	USB Cable	/	LUXSHARE
AE5	USB Cable	/	Mingji
AE6	Headset	/	Foster
AE7	Headset	/	Lianchuang
AE8	Headset	/	Quancheng

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AE1

Model	HB476489EFW
Manufacturer	Sunwoda
Capacitance	4200mAh
Nominal voltage	3.87V

AE9

Model	HB476489EFW
Manufacturer	SCUD
Capacitance	4200mAh
Nominal voltage	3.87V

AE2

Model	HW-110600X00
Manufacturer	Honor Device Co., Ltd
OUTPUT	5V DC 2A OR 10V DC 4A OR 11V DC 6A MAX
SN	YF91YEM3500036
Note	NEW

AE3

Model	HW-110600X00
Manufacturer	Honor Device Co., Ltd
OUTPUT	5V DC 2A OR 10V DC 4A OR 11V DC 6A MAX
SN	YF91LBLBL00158
Note	OLD

AE4

Model	L99UC139-CS-H
Manufacturer	LUXSHARE
Length	/

AE5

Model	213-01011-0
Manufacturer	Mingji
Length	/

AE6

Model	640958
Manufacturer	Foster
Length	/

AE7

Model	MEND1632B729012

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Manufacturer	Lianchuang
Length	/

AE8

Model	1331-3301-6001-TC-347
Manufacturer	Quancheng
Length	/

*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 Smart Phonewith integrated antennaand inbuilt battery.
It has Bluetooth (EDR)function.
It consists of normal options: travel charger, USB cable.
Manual and specifications of the EUT were provided to fulfil the test.
Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

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

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

4. REFERENCE DOCUMENTS

4.1. Documents supplied by applicant

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

4.2. Reference Documents for testing

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

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2019
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
UNII: KDB 789033 D02	General U-NII Test Procedures New Rules v02r01	2017-12
KDB 558074 D01	Federal Communications Commission Office of	2019

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5. LABORATORY ENVIRONMENT

Conducted RF performance testing is performed in shielding room.

EMC performance testing is performed in Semi-anechoic chamber.

6. SUMMARY OF TEST RESULTS

6.1. Summary of Test Results

SUMMARY OF MEASUREMENT RESULTS	Sub-clause of Part15E	Sub-clause of IC	Verdict
Maximum Output Power	15.407	/	**P**
Peak Power Spectral Density	15.407	/	**P**
Occupied 26dB Bandwidth	15.403	/	**P**
Band edge compliance (Radiated)	15.209	/	**P**
Transmitter spurious emissions (Radiated)	15.407	/	**P**
AC Powerline Conducted Emission (150kHz- 30MHz)	15.407	/	**P**
Frequency Stability	15.407	/	**P**
99% Occupied bandwidth	/	/	**P**
Transmit Power Control	15.407	/	**NA**

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

Terms used in Verdict column

P	Pass, The EUT complies with the essential requirements in the standard.
NM	Not measured, The test was not measured by CTTL
NA	Not Applicable, The test was not applicable
F	Fail, The EUT does not comply with the essential requirements in the standard

6.2. Statements

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

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

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6.3. Test Conditions

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

Temperature	26℃
Voltage	3.87V
Humidity	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	1 year	2022-05-24
2	Vector Signal Analyzer	FSW67	104051	Rohde & Schwarz	1 year	2021-12-08
3	LISN	ENV216	101459	Rohde & Schwarz	1 year	2022-03-22
4	Test Receiver	ESCI	100766	Rohde & Schwarz	1 year	2022-03-09
5	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Antenna	3117	139065	ETS	1 year	2021-09-22
2	Antenna	VULB 9163	9163-482	SCHWARZBECK	1 year	2021-11-04
3	Test Receiver	ESU26	100376	R&S	1 year	2021-09-04
4	Test Receiver	FSV40	101047	R&S	1 year	2022-06-02
5	Universal Radio Communication Tester	CMW500	159408	R&S	1 year	2022-03-08
6	Test Receiver	FSV30	101525	R&S	1 year	2022-02-20
7	Antenna	LB-7180-NF	J203001300005	A-INFO	1 year	2022-02-28
8	Antenna	HFH2-Z2	829324	R&S	1 year	2021-12-10
9	Antenna	LB-180400-25-C-KF	2110084000006	A-INFO	1 year	2022-02-28
10	Anechoic Chamber	FACT-3	Ct000332-1074	ETS	1 year	2022-01-21

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8. Measurement Uncertainty

8.1 Transmitter Output Power

Measurement Uncertainty: 0.387dB,k=1.96

8.2 Peak Power Spectral Density

Measurement Uncertainty: 0.705dB,k=1.96

8.3 Occupied Channel Bandwidth

Measurement Uncertainty: 60.80Hz,k=1.96

8.4 Band Edges Compliance

Measurement Uncertainty : 0.62dB,k=1.96

8.5 Spurious Emissions

Conducted (k=1.96)

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

Radiated (k=2)

Frequency Range	Uncertainty(dB)
9kHz-30MHz	/
30MHz ≤ f ≤ 1GHz	5.84
1GHz ≤ f ≤18GHz	5.82
18GHz ≤ f ≤40GHz	3.78

8.6. AC Power-line Conducted Emission

Measurement Uncertainty : 3.10,k=2

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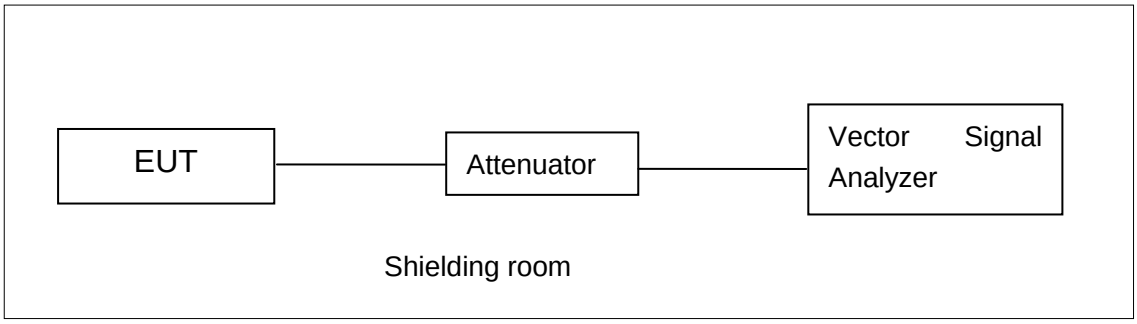
ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

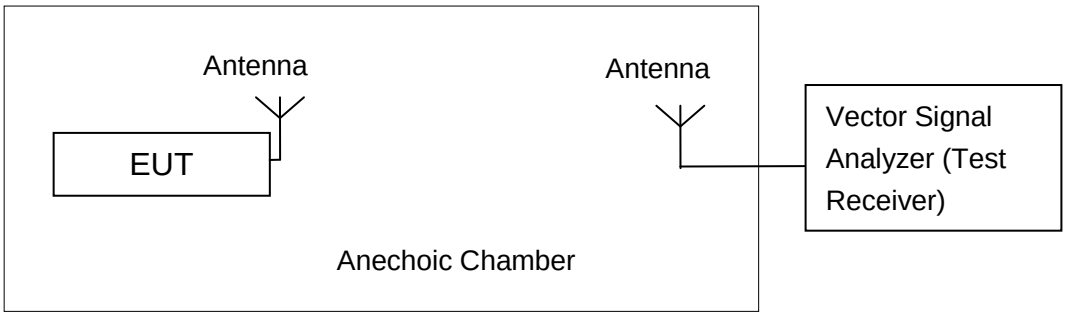
A.1.1. Conducted Measurements

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



A.1.2. Radiated Emission Measurements

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



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

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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	24dBm
	5250MHz~5350MHz	24dBm or 11+10logB
	5470MHz~5725MHz	24dBm or 11+10logB

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

The measurementmethod SA-2 is made according to KDB 789033

Measurement Results:

SISO-core0

802.11a mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11a	6Mbps	15.13	15.01	14.91	14.90	15.48	14.58	14.05	13.40	13.38	12.67

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

802.11n-HT20 mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11n(HT20)	MCS0	15.23	15.13	14.48	14.56	15.19	14.27	13.71	13.06	13.71	13.46

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT20 mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11ac(VHT20)	MCS0	15.29	15.19	14.51	14.69	15.16	14.30	13.65	13.04	13.71	13.50

The data rateMCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT40 mode

Mode	Rate	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11n(HT40)	MCS0	16.24	15.70	15.84	15.59	14.42	14.34	15.26	14.82

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

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802.11ac-HT40 mode

Mode	Rate	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ac(VHT40)	MCS0	16.23	15.74	15.89	15.57	14.43	14.32	15.26	14.84

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT80 mode

Mode	Rate	Test Result (dBm)				
		Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ac(VHT80)	MCS0	14.30	14.29	12.67	13.19	12.93

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT160 mode

Mode	Data Rate (Mbps)	Test Result (dBm)	
		Frequency (MHz)	
		5250	5570
802.11ac-VHT160	MCS0	14.38	12.29

802.11ax-HE20 mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11ax(HE20)	MCS0	15.53	15.42	14.78	14.91	15.47	14.57	13.93	13.33	13.92	13.71

The data rateMCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE40 mode

Mode	Rate	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ax(HE40)	MCS0	15.97	15.39	15.56	15.29	14.13	14.03	14.99	14.50

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE80 mode

Mode	Rate	Test Result (dBm)				
		Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ax(HE80)	MCS0	15.30	15.17	13.74	14.09	14.02

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The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HT160 mode

Mode	Data Rate (Mbps)	Test Result (dBm) Frequency (MHz)	
		5250	5570
802.11ax-HE160	MCS0	14.97	13.00

802.11ax-HE20 mode

Mode	Data Rate (Mbps)	Test Result (dBm) Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11ax-HE20 (RU26-left)	MCS0	8.27	7.91	7.53	7.22	7.97	7.25	6.70	6.27	6.12	5.84
802.11ax-HE20 (RU26-right)	MCS0	7.95	8.14	7.28	7.83	8.21	7.44	6.17	6.23	6.28	6.02
802.11ax-HE20 (RU52-left)	MCS0	10.52	10.22	9.77	9.59	10.21	9.39	9.46	8.77	8.17	7.81
802.11ax-HE20 (RU52-right)	MCS0	10.29	10.50	9.43	10.18	10.48	9.56	8.65	8.50	8.35	7.93
802.11ax-HE20 (RU106-left)	MCS0	13.61	13.42	12.86	12.70	13.36	12.42	12.01	11.16	11.24	11.01
802.11ax-HE20 (RU106-right)	MCS0	13.51	13.60	12.63	13.18	13.56	12.61	11.71	11.29	11.38	11.13
802.11ax-HE20 (RU242)	MCS0	13.44	13.47	12.65	12.87	13.38	12.36	11.80	11.17	11.25	11.02

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE40 mode

Mode	Data Rate (Mbps)	Test Result (dBm) Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ax-HE40 (RU26-left)	MCS0	8.19	7.67	7.02	7.73	6.51	5.74	6.31	5.94
802.11ax-HE40 (RU26-right)	MCS0	8.20	7.21	8.25	7.76	5.97	6.24	6.91	6.39
802.11ax-HE40 (RU52-left)	MCS0	11.11	10.47	9.82	10.39	9.21	8.51	9.06	8.28
802.11ax-HE40 (RU52-right)	MCS0	11.12	10.04	11.05	10.44	8.62	8.88	9.61	8.67
802.11ax-HE40	MCS0	14.13	13.57	13.00	13.51	12.46	11.98	12.38	11.60

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(RU106-left)									
802.11ax-HE40 (RU106-right)	MCS0	14.14	13.12	14.04	13.45	11.90	12.33	12.86	11.95
802.11ax-HE40 (RU242-left)	MCS0	13.80	13.32	13.09	13.23	12.15	11.94	12.27	11.38
802.11ax-HE40 (RU242-right)	MCS0	13.91	13.03	13.81	13.18	11.79	12.15	12.61	11.73
802.11ax-HE40 (RU484)	MCS0	13.86	13.14	13.44	13.21	11.95	12.00	12.38	11.50

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE80 mode

Mode	Data Rate (Mbps)	Test Result (dBm)				
		Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ax-HE80 (RU26-left)	MCS0	8.05	7.00	6.75	6.20	5.82
802.11ax-HE80 (RU26-right)	MCS0	7.66	8.29	6.51	7.35	6.75
802.11ax-HE80 (RU52-left)	MCS0	10.63	9.45	9.46	8.66	8.04
802.11ax-HE80 (RU52-right)	MCS0	10.27	10.60	9.32	9.90	9.02
802.11ax-HE80 (RU106-left)	MCS0	13.56	12.63	12.39	11.66	11.12
802.11ax-HE80 (RU106-right)	MCS0	13.23	13.64	12.33	12.94	12.06
802.11ax-HE80 (RU242-left)	MCS0	13.43	12.81	12.20	11.74	11.12
802.11ax-HE80 (RU242-right)	MCS0	13.29	13.51	12.28	12.81	11.98
802.11ax-HE80 (RU484-left)	MCS0	13.32	13.05	11.84	11.81	11.11
802.11ax-HE80 (RU484-right)	MCS0	13.49	13.31	12.18	12.56	11.60
802.11ax-HE80 (RU996)	MCS0	13.19	13.09	11.81	12.05	11.29

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

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802.11ax-HE160 mode

Mode	Data Rate (Mbps)	Test Result (dBm)	
		Frequency (MHz)	
		5250	5570
802.11ax-HE160 (RU26-left)	MCS0	8.54	6.79
802.11ax-HE160 (RU26-right)	MCS0	8.99	6.80
802.11ax-HE160 (RU52-left)	MCS0	11.09	9.41
802.11ax-HE160 (RU52-right)	MCS0	11.60	9.58
802.11ax-HE160 (RU106-left)	MCS0	14.13	12.32
802.11ax-HE160 (RU106-right)	MCS0	14.59	12.54
802.11ax-HE160 (RU242-left)	MCS0	14.02	12.15
802.11ax-HE160 (RU242-right)	MCS0	14.37	12.52
802.11ax-HE160 (RU484-left)	MCS0	13.85	11.74
802.11ax-HE160 (RU484-right)	MCS0	14.26	12.37
802.11ax-HE160 (RU996-left)	MCS0	13.61	11.53
802.11ax-HE160 (RU996-right)	MCS0	14.06	12.00
802.11ax-HE160 (RUfull)	MCS0	14.01	11.97

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

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802.11a mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11a	6Mbps	13.73	13.81	14.19	13.91	14.10	14.52	13.79	14.77	16.47	15.43

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

802.11n-HT20 mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11n(HT20)	MCS0	13.89	13.92	13.87	13.60	13.78	14.18	13.44	14.35	16.13	16.22

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT20 mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11ac(VHT20)	MCS0	13.78	13.87	13.82	13.50	13.68	14.11	13.34	14.28	16.02	16.15

The data rateMCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT40 mode

Mode	Rate	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11n(HT40)	MCS0	14.88	14.67	14.50	14.93	14.44	14.51	16.50	16.92

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT40 mode

Mode	Rate	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ac(VHT40)	MCS0	14.74	14.52	14.41	14.84	14.25	14.41	16.40	16.82

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

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802.11ac-HT80 mode

Mode	Rate	Test Result (dBm)				
		Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ac(VHT80)	MCS0	12.81	12.83	12.84	14.04	14.92

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT160 mode

Mode	Data Rate (Mbps)	Test Result (dBm)	
		Frequency (MHz)	
		5250	5570
802.11acVHT160	MCS0	12.48	12.59

802.11ax-HE20 mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11ax(HE20)	MCS0	14.14	14.22	14.08	13.86	14.02	14.41	13.71	14.67	16.31	16.46

The data rateMCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE40 mode

Mode	Rate	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ax(HE40)	MCS0	14.62	14.35	14.21	14.63	14.20	14.28	16.24	16.58

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE80 mode

Mode	Rate	Test Result (dBm)				
		Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ax(HE80)	MCS0	13.88	13.86	13.66	15.01	15.87

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT160 mode

Mode	Data Rate (Mbps)	Test Result (dBm)	
		Frequency (MHz)	
		5250	5570

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802.11ax-HE160	MCS0	12.94	13.26

802.11ax-HE20 mode

Mode	Data Rate (Mbps)	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11ax-HE20 (RU26-left)	MCS0	6.52	6.63	6.18	6.16	6.24	6.62	6.79	7.38	7.63	7.86
802.11ax-HE20 (RU26-right)	MCS0	6.72	6.54	6.59	6.44	6.69	6.69	6.71	7.84	7.73	8.02
802.11ax-HE20 (RU52-left)	MCS0	8.95	9.06	8.75	8.61	8.70	9.00	8.65	9.24	10.67	10.62
802.11ax-HE20 (RU52-right)	MCS0	9.15	9.03	9.02	8.83	9.14	9.07	8.58	9.65	10.70	10.76
802.11ax-HE20 (RU106-left)	MCS0	12.02	12.10	11.90	11.66	11.82	12.21	11.78	12.63	13.76	13.87
802.11ax-HE20 (RU106-right)	MCS0	12.18	12.04	12.19	11.83	12.14	12.26	11.75	12.90	13.79	13.91
802.11ax-HE20 (RU242)	MCS0	12.00	12.02	12.04	11.67	11.90	12.17	11.66	12.64	13.66	13.77

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE40 mode

Mode	Data Rate (Mbps)	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ax-HE40 (RU26-left)	MCS0	6.26	5.88	5.84	6.04	6.70	6.61	7.85	7.45
802.11ax-HE40 (RU26-right)	MCS0	6.51	6.57	6.64	6.45	6.69	6.80	8.08	7.70
802.11ax-HE40 (RU52-left)	MCS0	9.05	8.63	8.54	9.01	8.73	8.82	9.97	10.76
802.11ax-HE40 (RU52-right)	MCS0	9.25	9.26	9.36	9.38	8.84	9.04	10.25	10.98
802.11ax-HE40 (RU106-left)	MCS0	12.37	12.06	11.88	12.39	12.28	12.19	13.72	14.28
802.11ax-HE40 (RU106-right)	MCS0	12.60	12.63	12.55	12.65	12.32	12.50	13.85	14.34
802.11ax-HE40 (RU242-left)	MCS0	12.26	11.92	11.81	12.30	12.05	12.06	13.55	14.09
802.11ax-HE40 (RU242-right)	MCS0	12.47	12.36	12.23	12.48	12.15	12.19	13.66	14.16

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802.11ax-HE40 (RU484)	MCS0	12.33	12.06	12.00	12.36	12.01	12.05	13.48	14.03

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE80 mode

Mode	Data Rate (Mbps)	Test Result (dBm)				
		Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ax-HE80 (RU26-left)	MCS0	5.89	5.27	6.83	7.31	7.31
802.11ax-HE80 (RU26-right)	MCS0	6.80	6.67	6.87	8.49	7.80
802.11ax-HE80 (RU52-left)	MCS0	8.54	8.17	8.73	9.31	10.52
802.11ax-HE80 (RU52-right)	MCS0.	9.46	9.56	8.95	10.50	10.96
802.11ax-HE80 (RU106-left)	MCS0	11.86	11.34	12.05	12.79	13.80
802.11ax-HE80 (RU106-right)	MCS0	12.61	12.67	12.29	13.83	14.08
802.11ax-HE80 (RU242-left)	MCS0	11.86	11.37	11.95	12.81	13.69
802.11ax-HE80 (RU242-right)	MCS0	12.39	12.58	12.09	13.71	13.96
802.11ax-HE80 (RU484-left)	MCS0	11.83	11.48	11.86	12.80	13.78
802.11ax-HE80 (RU484-right)	MCS0	12.44	12.39	12.09	13.48	13.76
802.11ax-HE80 (RU996)	MCS0	11.85	11.87	11.76	12.98	13.49

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE160 mode

Mode	Data Rate (Mbps)	Test Result (dBm)	
		Frequency (MHz)	
		5250	5570
802.11ax-HE160 (RU26-left)	MCS0	5.44	7.02
802.11ax-HE160 (RU26-right)	MCS0	7.22	7.64

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802.11ax-HE160 (RU52-left)	MCS0	8.15	8.97
802.11ax-HE160 (RU52-right)	MCS0	10.07	9.72
802.11ax-HE160 (RU106-left)	MCS0	11.36	12.16
802.11ax-HE160 (RU106-right)	MCS0	13.16	12.92
802.11ax-HE160 (RU242-left)	MCS0	11.41	12.07
802.11ax-HE160 (RU242-right)	MCS0	13.10	12.95
802.11ax-HE160 (RU484-left)	MCS0	11.35	11.89
802.11ax-HE160 (RU484-right)	MCS0	12.89	12.73
802.11ax-HE160 (RU996-left)	MCS0	11.24	11.66
802.11ax-HE160 (RU996-right)	MCS0	12.44	12.45
802.11ax-HE160 (RUfull)	MCS0	12.11	12.23

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

Note: The maximum power points for each mode of modulation are as follows:

The largest point of 802.11a/n20/n40/ac/20/ac40/ac80/ax20/ax40/ax80 is core1; 802.11ac160/ax160 is core0.

The largest point of 11ax20-RU26-left/right; 11ax40-RU26/52-left/right; 11ax80-RU26/52-left; 11ax160-RU26/52/106-left/rightare core0; The largest point of 11ax20-RU52/106-left/right; 11ax40-RU106-left/right; 11ax80-RU26/52-right; 11ax80-RU106-left/right are core1.

MIMO

802.11a mode

Mode	**Rate**	**Test Result (dBm)**									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11a	6Mbps	17.29	17.26	17.32	17.22	17.62	17.25	16.57	17.22	17.84	17.04

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

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802.11n-HT20 mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11n(HT20)	MCS0	17.42	17.37	16.91	16.87	17.27	16.97	16.22	17.13	17.75	17.74

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT20 mode

Mode	Rate	Test Result (dBm)									
		Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11acV(HT20)	MCS0	17.40	17.25	16.81	16.94	17.28	16.70	16.23	16.55	17.76	17.74

The data rateMCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11n-HT40 mode

Mode	Rate	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11n(HT40)	MCS0	18.29	17.75	17.80	17.90	17.35	17.37	18.59	18.52

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT40 mode

Mode	Rate	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ac(VHT40)	MCS0	18.29	17.95	17.82	18.08	17.60	17.59	17.82	18.60

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT80 mode

Mode	Rate	Test Result (dBm)				
		Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ac(VHT80)	MCS0	16.40	16.25	15.48	16.50	16.83

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

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802.11ac-HT160 mode

Mode	Data Rate (Mbps)	Test Result (dBm) Frequency (MHz)	
		5250	5570
802.11ac-VHT160	MCS0	16.25	15.41

802.11ax-HE20 mode

Mode	Rate	Test Result (dBm) Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11ax(HE20)	MCS0	17.66	17.47	17.04	17.16	17.53	17.19	16.41	16.89	17.96	17.95

The data rateMCS0 is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE40 mode

Mode	Rate	Test Result (dBm) Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ax(HE40)	MCS0	17.90	17.44	17.60	17.53	16.83	16.91	18.41	18.30

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE80 mode

Mode	Rate	Test Result (dBm) Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ax(HE80)	MCS0	17.33	17.28	16.59	17.61	17.82

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ac-HT160 mode

Mode	Data Rate (Mbps)	Test Result (dBm) Frequency (MHz)	
		5250	5570
802.11ax-HE160	MCS0	16.94	15.97

802.11ax-HE20 mode

Mode	Data Rate (Mbps)	Test Result (dBm) Frequency (MHz)									
		5180	5200	5240	5260	5280	5320	5500	5580	5700	5720
802.11ax-HE20 (RU26-left)	MCS0	10.51	10.37	9.96	9.74	10.21	10.00	9.74	9.84	10.04	10.08

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802.11ax-HE20 (RU26-right)	MCS0	10.43	10.44	9.87	10.19	10.45	9.94	9.11	9.74	9.50	9.55
802.11ax-HE20 (RU52-left)	MCS0	12.71	12.60	12.19	12.04	12.52	12.22	12.02	11.94	12.75	12.66
802.11ax-HE20 (RU52-right)	MCS0	12.64	12.69	12.15	12.42	12.65	12.15	11.34	11.84	12.33	12.22
802.11ax-HE20 (RU106-left)	MCS0	15.62	15.59	15.17	14.99	15.44	15.12	14.73	14.84	15.55	15.59
802.11ax-HE20 (RU106-right)	MCS0	15.58	15.64	15.17	15.32	15.69	15.21	14.52	15.00	15.55	15.59
802.11ax-HE20 (RU242)	MCS0	15.54	15.54	15.11	15.12	15.53	15.12	14.55	14.84	15.43	15.44

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

802.11ax-HE40 mode

Mode	Data Rate (Mbps)	Test Result (dBm)							
		Frequency (MHz)							
		5190	5230	5270	5310	5510	5550	5670	5710
802.11ax-HE40 (RU26-left)	MCS0	10.36	9.91	9.51	10.17	9.69	9.28	10.34	10.02
802.11ax-HE40 (RU26-right)	MCS0	10.36	9.84	10.45	10.06	8.93	9.15	10.03	9.57
802.11ax-HE40 (RU52-left)	MCS0	13.03	12.52	12.14	12.74	12.21	11.81	12.78	12.87
802.11ax-HE40 (RU52-right)	MCS0	13.09	12.41	13.01	12.65	11.56	11.71	12.63	12.44
802.11ax-HE40 (RU106-left)	MCS0	16.09	15.60	15.26	15.78	15.19	14.98	15.91	15.83
802.11ax-HE40 (RU106-right)	MCS0	16.15	15.63	16.11	15.88	14.98	15.26	16.27	16.05
802.11ax-HE40 (RU242-left)	MCS0	15.90	15.45	15.28	15.63	14.96	14.86	15.80	15.72
802.11ax-HE40 (RU242-right)	MCS0	15.97	15.46	15.86	15.67	14.82	14.99	15.98	15.83
802.11ax-HE40 (RU484)	MCS0	15.88	15.39	15.53	15.62	14.83	14.87	15.80	15.71

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

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802.11ax-HE80 mode

Mode	Data Rate (Mbps)	Test Result (dBm)				
		Frequency (MHz)				
		5210	5290	5530	5610	5690
802.11ax-HE80 (RU26-left)	MCS0	10.12	9.29	9.89	9.91	9.79
802.11ax-HE80 (RU26-right)	MCS0	9.86	10.17	9.17	10.45	9.79
802.11ax-HE80 (RU52-left)	MCS0	12.72	11.87	12.42	12.24	12.73
802.11ax-HE80 (RU52-right)	MCS0	12.44	12.79	11.94	12.92	12.99
802.11ax-HE80 (RU106-left)	MCS0	15.56	14.81	15.10	15.15	15.49
802.11ax-HE80 (RU106-right)	MCS0	15.65	15.93	15.13	16.28	16.09
802.11ax-HE80 (RU242-left)	MCS0	15.48	14.98	14.92	15.16	15.43
802.11ax-HE80 (RU242-right)	MCS0	15.58	15.84	15.00	16.12	15.92
802.11ax-HE80 (RU484-left)	MCS0	15.40	15.14	14.69	15.19	15.34
802.11ax-HE80 (RU484-right)	MCS0	15.99	15.10	15.57	15.54	15.65
802.11ax-HE80 (RU996)	MCS0	15.31	15.31	14.58	15.37	15.36

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

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802.11ax-HE160 mode

Mode	Data Rate (Mbps)	Test Result (dBm)	
		Frequency (MHz)	
		5250	5570
802.11ax-HE160 (RU26-left)	MCS0	9.98	9.86
802.11ax-HE160 (RU26-right)	MCS0	10.96	10.00
802.11ax-HE160 (RU52-left)	MCS0	12.61	12.19
802.11ax-HE160 (RU52-right)	MCS0	13.79	12.70
802.11ax-HE160 (RU106-left)	MCS0	15.79	15.17
802.11ax-HE160 (RU106-right)	MCS0	16.68	15.60
802.11ax-HE160 (RU242-left)	MCS0	15.75	15.05
802.11ax-HE160 (RU242-right)	MCS0	15.72	14.77
802.11ax-HE160 (RU484-left)	MCS0	15.64	14.77
802.11ax-HE160 (RU484-right)	MCS0	15.78	15.46
802.11ax-HE160 (RU996-left)	MCS0	15.43	14.53
802.11ax-HE160 (RU996-right)	MCS0	15.81	15.40
802.11ax-HE160 (RUfull)	MCS0	15.98	15.01

The data rate MCS0is selected as worse condition, and the following cases are performed with this condition.

The duty cycle of all mode are greater than or equal to 98%.

Conclusion: Pass

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A.3. Peak Power Spectral Density (conducted)

Measurement Limit:

Standard	Frequency (MHz)	Limit (dBm/MHz)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	11
	5250MHz~5350MHz	11
	5470MHz~5725MHz	11

The output power measurement method Section F is made according to KDB 789033

Measurement Results:

SISO-core1

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	6.05	P
	5200 MHz	6.22	P
	5240 MHz	6.64	P
	5260 MHz	6.28	P
	5280 MHz	6.53	P
	5320 MHz	5.86	P
	5500 MHz	5.43	P
	5580 MHz	7.06	P
	5700 MHz	8.43	P
	5720 MHz	7.54	P
802.11n HT20	5180 MHz	5.87	P
	5200 MHz	6.11	P
	5240 MHz	6.08	P
	5260 MHz	5.68	P
	5280 MHz	5.03	P
	5320 MHz	5.22	P
	5500 MHz	4.79	P
	5580 MHz	6.41	P
	5700 MHz	8.01	P
	5720 MHz	8.12	P
802.11n HT40	5190 MHz	4.14	P
	5230 MHz	4.04	P
	5270 MHz	2.96	P
	5310 MHz	3.40	P
	5510 MHz	3.16	P
	5550 MHz	3.24	P
	5670 MHz	5.47	P
	5710 MHz	5.66	P

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802.11ac VHT80	5210MHz	1.12	P
	5290MHz	0.98	P
	5530MHz	1.04	P
	5610MHz	2.19	P
	5690MHz	3.12	P
802.11ax HE20	5180 MHz	4.41	P
	5200 MHz	4.54	P
	5240 MHz	4.58	P
	5260 MHz	3.90	P
	5280 MHz	3.96	P
	5320 MHz	3.89	P
	5500 MHz	4.06	P
	5580 MHz	4.71	P
	5700 MHz	5.30	P
	5720 MHz	5.95	P
802.11ax HE40	5190 MHz	2.46	P
	5230 MHz	2.29	P
	5270 MHz	1.64	P
	5310 MHz	1.71	P
	5510 MHz	2.03	P
	5550 MHz	2.01	P
	5670 MHz	2.96	P
	5710 MHz	3.02	P
802.11ax HE80	5210MHz	-0.64	P
	5290MHz	-1.05	P
	5530MHz	-0.64	P
	5610MHz	0.12	P
	5690MHz	0.55	P

SISO-core0

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11ac-VHT160	5250 MHz	-2.19	P
	5570 MHz	-2.26	P
802.11ax-HE160	5250 MHz	-2.59	P
	5570 MHz	-4.70	P

SISO-core0

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11ax-HE20-RU26-left	5180 MHz	7.94	P

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	5200 MHz	7.83	P
	5240 MHz	7.43	P
	5260 MHz	7.04	P
	5280 MHz	7.57	P
	5320 MHz	6.72	P
	5500 MHz	6.15	P
	5580 MHz	5.77	P
	5700 MHz	5.48	P
	5720 MHz	4.98	P
802.11ax-HE20-RU26-right	5180 MHz	7.83	P
	5200 MHz	8.16	P
	5240 MHz	7.14	P
	5260 MHz	7.66	P
	5280 MHz	7.81	P
	5320 MHz	6.84	P
	5500 MHz	5.84	P
	5580 MHz	5.96	P
	5700 MHz	5.59	P
	5720 MHz	5.21	P
802.11ax-HE40-RU26-left	5190 MHz	8.21	P
	5230 MHz	7.82	P
	5270 MHz	7.12	P
	5310 MHz	7.41	P
	5510 MHz	6.16	P
	5550 MHz	5.73	P
	5670 MHz	6.19	P
	5710 MHz	5.38	P
802.11ax-HE40-RU26-right	5190 MHz	8.45	P
	5230 MHz	7.35	P
	5270 MHz	8.07	P
	5310 MHz	7.32	P
	5510 MHz	5.66	P
	5550 MHz	6.11	P
	5670 MHz	6.74	P
	5710 MHz	5.79	P
802.11ax-HE40-RU52-left	5190 MHz	7.93	P
	5230 MHz	7.58	P
	5270 MHz	6.88	P
	5310 MHz	7.25	P
	5510 MHz	6.34	P
	5550 MHz	5.85	P
	5670 MHz	6.09	P

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	5710 MHz	5.28	P
802.11ax-HE40-RU52-right	5190 MHz	8.22	P
	5230 MHz	7.10	P
	5270 MHz	7.85	P
	5310 MHz	7.13	P
	5510 MHz	6.08	P
	5550 MHz	6.19	P
	5670 MHz	6.63	P
	5710 MHz	5.63	P
802.11ax-HE80-RU26-left	5210MHz	7.36	P
	5290MHz	6.39	P
	5530MHz	6.16	P
	5610MHz	5.75	P
	5690MHz	4.88	P
802.11ax-HE80-RU52-left	5210MHz	7.03	P
	5290MHz	6.17	P
	5530MHz	5.85	P
	5610MHz	5.50	P
	5690MHz	4.65	P
802.11ax-HE160-RU26-left	5250 MHz	7.94	P
	5570 MHz	6.19	P
802.11ax-HE160-RU26-right	5250 MHz	8.31	P
	5570 MHz	6.47	P
802.11ax-HE160-RU52-left	5250 MHz	7.64	P
	5570 MHz	5.95	P
802.11ax-HE160-RU52-right	5250 MHz	7.93	P
	5570 MHz	6.28	P
802.11ax-HE160-RU106-left	5250 MHz	7.56	P
	5570 MHz	5.77	P
802.11ax-HE160-RU106-right	5250 MHz	7.85	P
	5570 MHz	6.13	P

SISO-core1

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11ax-HE20-RU52-left	5180 MHz	5.50	P
	5200 MHz	5.80	P
	5240 MHz	5.69	P
	5260 MHz	5.35	P
	5280 MHz	5.45	P
	5320 MHz	5.82	P

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	5500 MHz	5.41	P
	5580 MHz	6.30	P
	5700 MHz	7.25	P
	5720 MHz	7.34	P
802.11ax-HE20-RU52-right	5180 MHz	5.84	P
	5200 MHz	5.81	P
	5240 MHz	5.99	P
	5260 MHz	5.60	P
	5280 MHz	5.79	P
	5320 MHz	5.83	P
	5500 MHz	5.41	P
	5580 MHz	6.61	P
	5700 MHz	7.23	P
	5720 MHz	7.41	P
802.11ax-HE20-RU106-left	5180 MHz	5.75	P
	5200 MHz	6.11	P
	5240 MHz	6.05	P
	5260 MHz	5.61	P
	5280 MHz	5.72	P
	5320 MHz	6.07	P
	5500 MHz	5.67	P
	5580 MHz	6.78	P
	5700 MHz	7.29	P
	5720 MHz	7.35	P
802.11ax-HE20-RU10-6-right	5180 MHz	6.29	P
	5200 MHz	6.21	P
	5240 MHz	6.45	P
	5260 MHz	5.96	P
	5280 MHz	6.24	P
	5320 MHz	6.15	P
	5500 MHz	5.70	P
	5580 MHz	6.96	P
	5700 MHz	7.13	P
	5720 MHz	7.28	P
802.11ax-HE40-RU106-left	5190 MHz	6.27	P
	5230 MHz	6.27	P
	5270 MHz	5.92	P
	5310 MHz	6.24	P
	5510 MHz	6.16	P
	5550 MHz	6.38	P
	5670 MHz	7.65	P
	5710 MHz	7.78	P

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802.11ax-HE40-RU106-right	5190 MHz	6.67	P
	5230 MHz	6.80	P
	5270 MHz	6.51	P
	5310 MHz	6.48	P
	5510 MHz	6.36	P
	5550 MHz	6.50	P
	5670 MHz	7.52	P
	5710 MHz	7.73	P
802.11ax-HE80-RU26-right	5210MHz	6.35	P
	5290MHz	6.41	P
	5530MHz	6.87	P
	5610MHz	6.06	P
	5690MHz	7.86	P
802.11ax-HE80-RU52-right	5210MHz	6.39	P
	5290MHz	6.17	P
	5530MHz	6.05	P
	5610MHz	7.36	P
	5690MHz	7.37	P
802.11ax-HE80-RU106-left	5210MHz	5.52	P
	5290MHz	5.07	P
	5530MHz	5.68	P
	5610MHz	6.72	P
	5690MHz	7.28	P
802.11ax-HE80-RU106-right	5210MHz	6.44	P
	5290MHz	6.26	P
	5530MHz	6.11	P
	5610MHz	7.45	P
	5690MHz	7.26	P

MIMO

Mode	Frequency	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	9.86	P
	5200 MHz	9.98	P
	5240 MHz	10.05	P
	5260 MHz	9.95	P
	5280 MHz	10.20	P
	5320 MHz	9.85	P
	5500 MHz	9.37	P
	5580 MHz	10.01	P

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	5700 MHz	10.24	P
	5720 MHz	9.98	P
802.11ac VHT20	5180 MHz	9.59	P
	5200 MHz	9.60	P
	5240 MHz	9.40	P
	5260 MHz	9.21	P
	5280 MHz	9.48	P
	5320 MHz	9.17	P
	5500 MHz	8.64	P
	5580 MHz	9.05	P
	5700 MHz	9.66	P
	5720 MHz	9.52	P
802.11ac VHT40	5190 MHz	7.78	P
	5230 MHz	7.55	P
	5270 MHz	7.46	P
	5310 MHz	7.47	P
	5510 MHz	6.82	P
	5550 MHz	6.96	P
	5670 MHz	7.96	P
	5710 MHz	7.71	P
802.11ac VHT80	5210MHz	3.67	P
	5290MHz	3.51	P
	5530MHz	2.78	P
	5610MHz	3.47	P
	5690MHz	3.98	P
802.11ax HE20	5180 MHz	9.65	P
	5200 MHz	9.72	P
	5240 MHz	9.40	P
	5260 MHz	9.28	P
	5280 MHz	9.59	P
	5320 MHz	9.17	P
	5500 MHz	8.55	P
	5580 MHz	9.09	P
	5700 MHz	9.34	P
	5720 MHz	9.28	P
802.11ax HE40	5190 MHz	7.55	P
	5230 MHz	7.15	P
	5270 MHz	7.07	P
	5310 MHz	7.06	P
	5510 MHz	6.39	P
	5550 MHz	6.45	P
	5670 MHz	7.51	P

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	5710 MHz	7.46	P
802.11ax HE80	5210MHz	4.46	P
	5290MHz	4.44	P
	5530MHz	3.67	P
	5610MHz	4.47	P
	5690MHz	4.64	P
802.11ac-VHT160	5250 MHz	0.34	P
	5570 MHz	-0.55	P
802.11ax-HE160	5250 MHz	0.91	P
	5570 MHz	0.16	P
802.11ax-HE20-RU26-left	5180 MHz	9.84	P
	5200 MHz	9.94	P
	5240 MHz	9.60	P
	5260 MHz	9.38	P
	5280 MHz	9.74	P
	5320 MHz	9.44	P
	5500 MHz	8.92	P
	5580 MHz	9.33	P
	5700 MHz	9.75	P
	5720 MHz	9.58	P
802.11ax-HE20-RU26-right	5180 MHz	9.99	P
	5200 MHz	10.09	P
	5240 MHz	9.49	P
	5260 MHz	9.74	P
	5280 MHz	9.82	P
	5320 MHz	9.14	P
	5500 MHz	8.29	P
	5580 MHz	9.09	P
	5700 MHz	9.26	P
	5720 MHz	8.68	P
802.11ax-HE20-RU52-left	5180 MHz	9.28	P
	5200 MHz	9.38	P
	5240 MHz	9.16	P
	5260 MHz	8.86	P
	5280 MHz	9.20	P
	5320 MHz	8.94	P
	5500 MHz	8.67	P
	5580 MHz	9.00	P
	5700 MHz	9.54	P
	5720 MHz	9.35	P
802.11ax-HE20-RU52-right	5180 MHz	9.45	P
	5200 MHz	9.56	P

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	5240 MHz	9.10	P
	5260 MHz	9.19	P
	5280 MHz	9.36	P
	5320 MHz	8.75	P
	5500 MHz	8.06	P
	5580 MHz	8.68	P
	5700 MHz	8.85	P
	5720 MHz	8.80	P
802.11ax-HE20-RU106-left	5180 MHz	9.49	P
	5200 MHz	9.60	P
	5240 MHz	9.40	P
	5260 MHz	9.09	P
	5280 MHz	9.37	P
	5320 MHz	9.03	P
	5500 MHz	8.67	P
	5580 MHz	9.11	P
	5700 MHz	9.52	P
	5720 MHz	9.42	P
802.11ax-HE20-RU106-right	5180 MHz	9.51	P
	5200 MHz	9.65	P
	5240 MHz	9.32	P
	5260 MHz	9.27	P
	5280 MHz	9.52	P
	5320 MHz	8.98	P
	5500 MHz	8.49	P
	5580 MHz	9.04	P
	5700 MHz	9.33	P
	5720 MHz	9.23	P
802.11ax-HE40-RU26-left	5190 MHz	9.87	P
	5230 MHz	9.65	P
	5270 MHz	9.21	P
	5310 MHz	9.64	P
	5510 MHz	8.99	P
	5550 MHz	8.82	P
	5670 MHz	9.67	P
	5710 MHz	9.75	P
802.11ax-HE40- RU26-right	5190 MHz	10.20	P
	5230 MHz	9.51	P
	5270 MHz	9.90	P
	5310 MHz	9.45	P
	5510 MHz	8.39	P
	5550 MHz	8.63	P

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	5670 MHz	9.35	P
	5710 MHz	9.15	P
802.11ax-HE40-RU52-left	5190 MHz	9.78	P
	5230 MHz	9.62	P
	5270 MHz	9.15	P
	5310 MHz	9.54	P
	5510 MHz	9.12	P
	5550 MHz	8.96	P
	5670 MHz	9.76	P
	5710 MHz	9.91	P
802.11ax-HE40- RU52-right	5190 MHz	10.05	P
	5230 MHz	9.44	P
	5270 MHz	9.69	P
	5310 MHz	9.16	P
	5510 MHz	8.45	P
	5550 MHz	8.65	P
	5670 MHz	9.40	P
	5710 MHz	9.47	P
802.11ax-HE40-RU106-left	5190 MHz	9.91	P
	5230 MHz	9.75	P
	5270 MHz	9.24	P
	5310 MHz	9.57	P
	5510 MHz	9.05	P
	5550 MHz	9.06	P
	5670 MHz	10.00	P
	5710 MHz	9.94	P
802.11ax-HE40-RU106-right	5190 MHz	10.18	P
	5230 MHz	9.75	P
	5270 MHz	9.99	P
	5310 MHz	9.55	P
	5510 MHz	8.94	P
	5550 MHz	9.26	P
	5670 MHz	10.18	P
	5710 MHz	10.08	P
802.11ax-HE80-RU26-left	5210MHz	9.19	P
	5290MHz	8.62	P
	5530MHz	8.35	P
	5610MHz	8.66	P
	5690MHz	8.82	P
802.11ax-HE80-RU26-right	5210MHz	9.98	P
	5290MHz	10.10	P
	5530MHz	9.27	P

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	5610MHz	10.18	P
	5690MHz	10.00	P
802.11ax-HE80-RU52-left	5210MHz	9.43	P
	5290MHz	8.80	P
	5530MHz	8.64	P
	5610MHz	8.91	P
	5690MHz	9.01	P
802.11ax-HE80-RU52-right	5210MHz	9.66	P
	5290MHz	9.74	P
	5530MHz	9.09	P
	5610MHz	10.08	P
	5690MHz	9.77	P
802.11ax-HE80-RU106-left	5210MHz	9.41	P
	5290MHz	8.78	P
	5530MHz	8.98	P
	5610MHz	9.35	P
	5690MHz	9.47	P
802.11ax-HE80-RU106-right	5210MHz	9.73	P
	5290MHz	9.67	P
	5530MHz	9.08	P
	5610MHz	9.99	P
	5690MHz	9.72	P
802.11ax-HE160-RU26-left	5250 MHz	9.82	P
	5570 MHz	9.36	P
802.11ax-HE160-RU26-right	5250 MHz	10.28	P
	5570 MHz	9.46	P
802.11ax-HE160-RU52-left	5250 MHz	9.48	P
	5570 MHz	9.06	P
802.11ax-HE160-RU52-right	5250 MHz	10.08	P
	5570 MHz	9.38	P
802.11ax-HE160-RU106-left	5250 MHz	9.69	P
	5570 MHz	9.06	P
802.11ax-HE160-RU106-right	5250 MHz	10.26	P
	5570 MHz	9.54	P

Conclusion: PASS

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A.4. Occupied 26dB Bandwidth(conducted)

Measurement Limit:

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

The measurement is made according to KDB 789033

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz

Measurement Result:

SISO-core1

Mode	Frequency	Occupied 26dB Bandwidth (MHz)		conclusion
802.11a	5180 MHz	Fig.1	20.05	P
	5200 MHz	Fig.2	19.75	P
	5240 MHz	Fig.3	19.75	P
	5260 MHz	Fig.4	19.90	P
	5280 MHz	Fig.5	20.00	P
	5320 MHz	Fig.6	19.85	P
	5500 MHz	Fig.7	20.00	P
	5580 MHz	Fig.8	19.95	P
	5700 MHz	Fig.9	20.05	P
	5720MHz	Fig.10	20.05	P
802.11n HT20	5180 MHz	Fig.11	21.00	P
	5200 MHz	Fig.12	21.15	P
	5240 MHz	Fig.13	21.20	P
	5260 MHz	Fig.14	20.80	P
	5280 MHz	Fig.15	21.05	P
	5320 MHz	Fig.16	21.00	P
	5500 MHz	Fig.17	21.25	P
	5580 MHz	Fig.18	21.55	P
	5700 MHz	Fig.19	23.60	P
	5720MHz	Fig.20	21.35	P
802.11n HT40	5190 MHz	Fig.21	40.24	P
	5230 MHz	Fig.22	40.08	P
	5270 MHz	Fig.23	40.16	P
	5310 MHz	Fig.24	39.92	P
	5510 MHz	Fig.25	40.16	P
	5550 MHz	Fig.26	40.48	P

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	5670 MHz	Fig.27	49.92	P
	5710 MHz	Fig.28	58.00	P
802.11ac VHT80	5210MHz	Fig.29	81.92	P
	5290MHz	Fig.30	81.76	P
	5530MHz	Fig.31	81.76	P
	5610MHz	Fig.32	81.60	P
	5690MHz	Fig.33	82.24	P
802.11ax HE20-RU242	5180 MHz	Fig.34	27.55	P
	5200 MHz	Fig.35	27.20	P
	5240 MHz	Fig.36	27.55	P
	5260 MHz	Fig.37	23.40	P
	5280 MHz	Fig.38	24.75	P
	5320 MHz	Fig.39	25.45	P
	5500 MHz	Fig.40	33.60	P
	5580 MHz	Fig.41	39.80	P
	5700 MHz	Fig.42	27.57	P
	5720MHz	Fig.43	29.82	P
802.11ax HE40-RU484	5190 MHz	Fig.44	44.44	P
	5230 MHz	Fig.45	44.91	P
	5270 MHz	Fig.46	44.76	P
	5310 MHz	Fig.47	44.76	P
	5510 MHz	Fig.48	51.15	P
	5550 MHz	Fig.49	55.38	P
	5670 MHz	Fig.50	45.23	P
	5710 MHz	Fig.51	43.00	P
802.11ax HE80-RU996	5210MHz	Fig.52	99.20	P
	5290MHz	Fig.53	92.64	P
	5530MHz	Fig.54	109.49	P
	5610MHz	Fig.55	114.77	P
	5690MHz	Fig.56	116.20	P

SISO-core0

Mode	Frequency	Occupied 26dB Bandwidth (MHz)		conclusion
802.11ac-VHT160	5250MHz	Fig.57	163.20	P
	5570MHz	Fig.58	163.52	P
802.11ax-HE160-RUfull	5250MHz	Fig.59	237.20	P
	5570MHz	Fig.60	184.46	P

MIMO-core1

Mode	Frequency	Occupied 26dB Bandwidth (MHz)	conclusion

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802.11a	5180 MHz	Fig.61	19.50	P
	5200 MHz	Fig.62	19.45	P
	5240 MHz	Fig.63	19.35	P
	5260 MHz	Fig.64	19.45	P
	5280 MHz	Fig.65	19.25	P
	5320 MHz	Fig.66	19.35	P
	5500 MHz	Fig.67	19.40	P
	5580 MHz	Fig.68	19.40	P
	5700 MHz	Fig.69	21.55	P
	5720MHz	Fig.70	20.15	P
802.11ac VHT20	5180 MHz	Fig.71	20.95	P
	5200 MHz	Fig.72	22.50	P
	5240 MHz	Fig.73	21.05	P
	5260 MHz	Fig.74	21.15	P
	5280 MHz	Fig.75	21.35	P
	5320 MHz	Fig.76	21.00	P
	5500 MHz	Fig.77	21.25	P
	5580 MHz	Fig.78	21.20	P
	5700 MHz	Fig.79	24.70	P
	5720MHz	Fig.80	24.70	P
802.11ac VHT40	5190 MHz	Fig.81	39.68	P
	5230 MHz	Fig.82	40.00	P
	5270 MHz	Fig.83	40.00	P
	5310 MHz	Fig.84	40.00	P
	5510 MHz	Fig.85	40.00	P
	5550 MHz	Fig.86	40.08	P
	5670 MHz	Fig.87	51.52	P
	5710 MHz	Fig.88	52.40	P
802.11ac VHT80	5210MHz	Fig.89	81.28	P
	5290MHz	Fig.90	81.60	P
	5530MHz	Fig.91	81.28	P
	5610MHz	Fig.92	81.44	P
	5690MHz	Fig.93	81.28	P
802.11ax HE20-RU242	5180 MHz	Fig.94	24.25	P
	5200 MHz	Fig.95	28.60	P
	5240 MHz	Fig.96	27.00	P
	5260 MHz	Fig.97	28.80	P
	5280 MHz	Fig.98	28.80	P
	5320 MHz	Fig.99	29.85	P
	5500 MHz	Fig.100	43.50	P
	5580 MHz	Fig.101	35.95	P
	5700 MHz	Fig.102	28.55	P

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	5720MHz	Fig.103	27.77	P
802.11ax HE40-RU484	5190 MHz	Fig.104	61.84	P
	5230 MHz	Fig.105	59.68	P
	5270 MHz	Fig.106	60.24	P
	5310 MHz	Fig.107	60.08	P
	5510 MHz	Fig.108	51.31	P
	5550 MHz	Fig.109	55.38	P
	5670 MHz	Fig.110	44.67	P
	5710 MHz	Fig.111	45.23	P
802.11ax HE80-RU996	5210MHz	Fig.112	92.64	P
	5290MHz	Fig.113	110.88	P
	5530MHz	Fig.114	113.44	P
	5610MHz	Fig.115	105.49	P
	5690MHz	Fig.116	116.96	P

MIMO-core0

Mode	Frequency	Occupied 26dB Bandwidth (MHz)		conclusion
802.11ac-VHT160	5250MHz	Fig.117	162.88	P
	5570MHz	Fig.118	163.84	P
802.11ax-HE160-RUfull	5250MHz	Fig.119	244.88	P
	5570MHz	Fig.120	195.00	P

Conclusion: PASS

Test graphs as below:

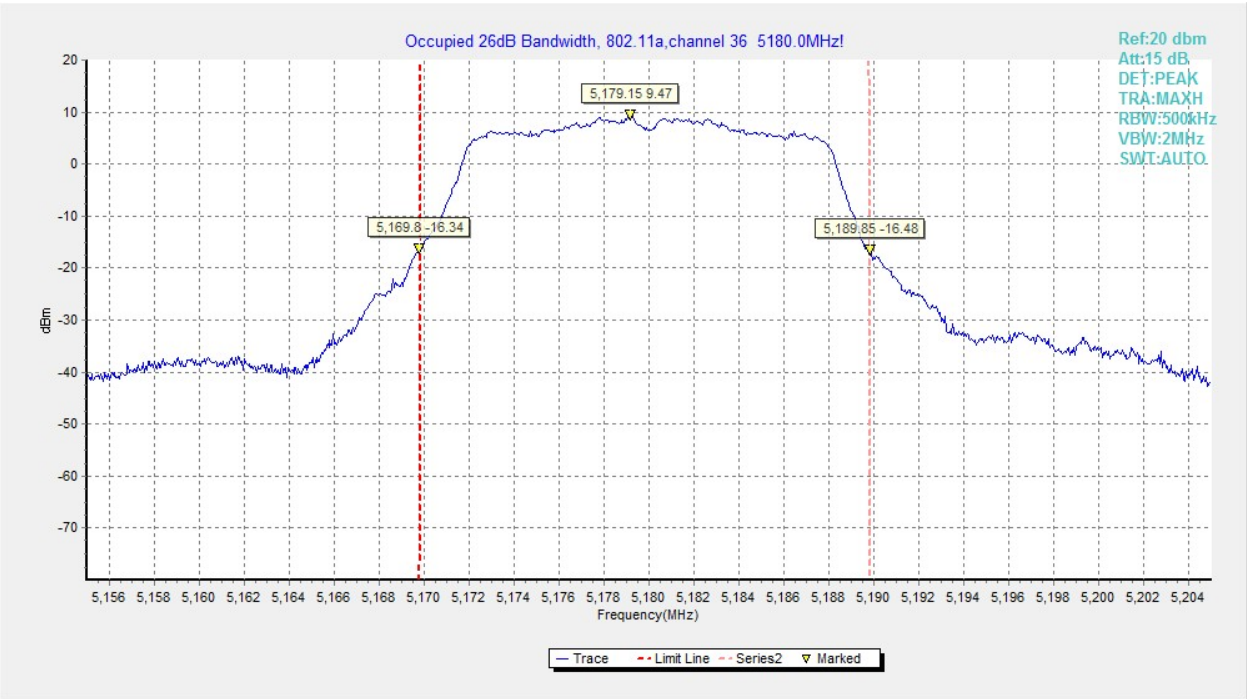

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Fig.1 Occupied 26dB Bandwidth (802.11a, 5180MHz)

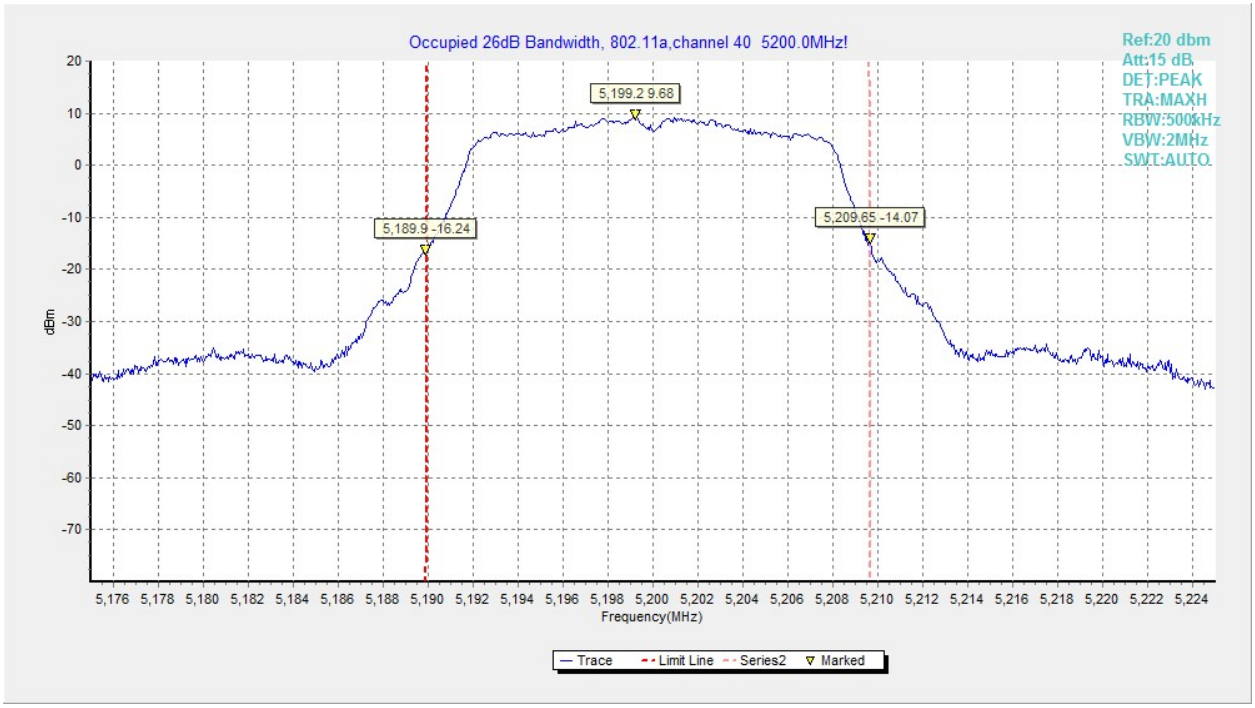

Fig.2 Occupied 26dB Bandwidth (802.11a, 5200MHz)

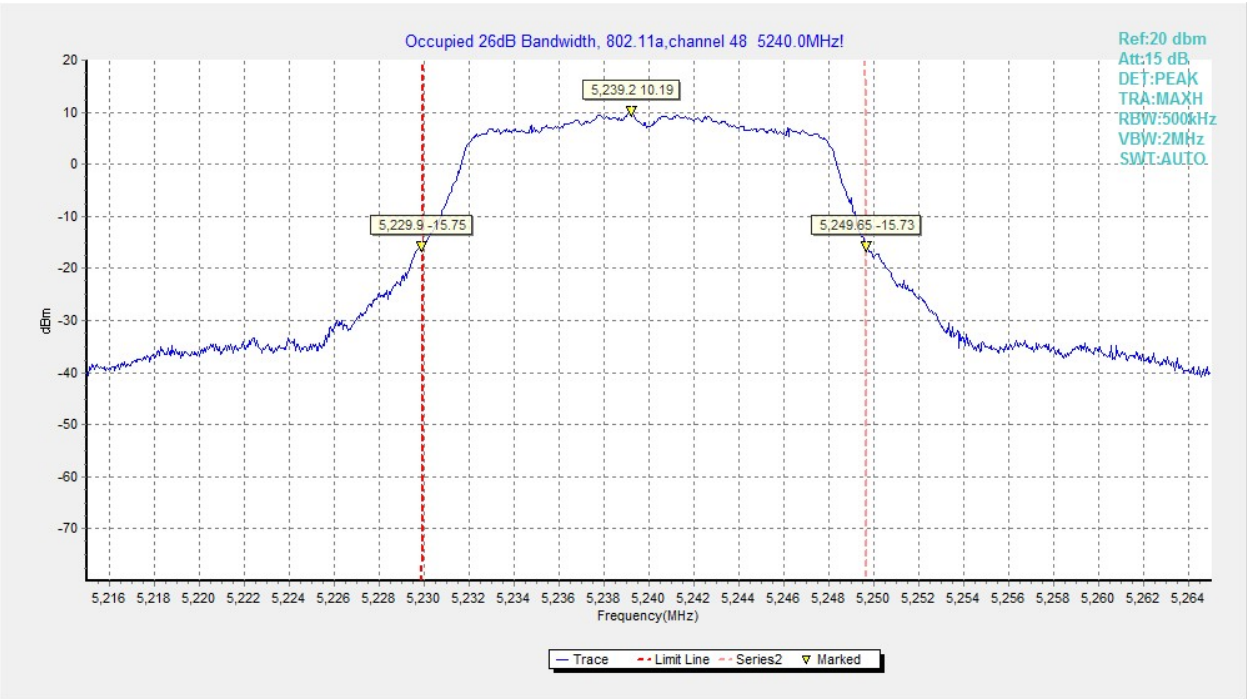

Fig.3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

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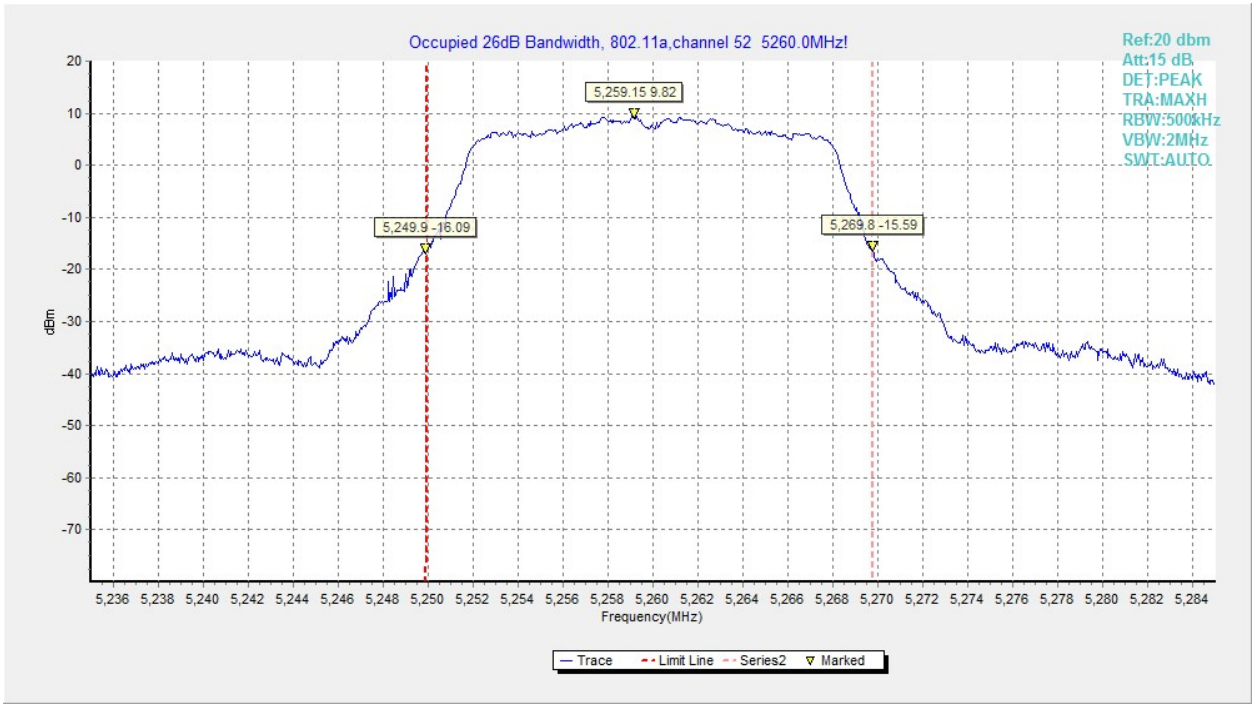

Fig.4 Occupied 26dB Bandwidth (802.11a, 5260MHz)

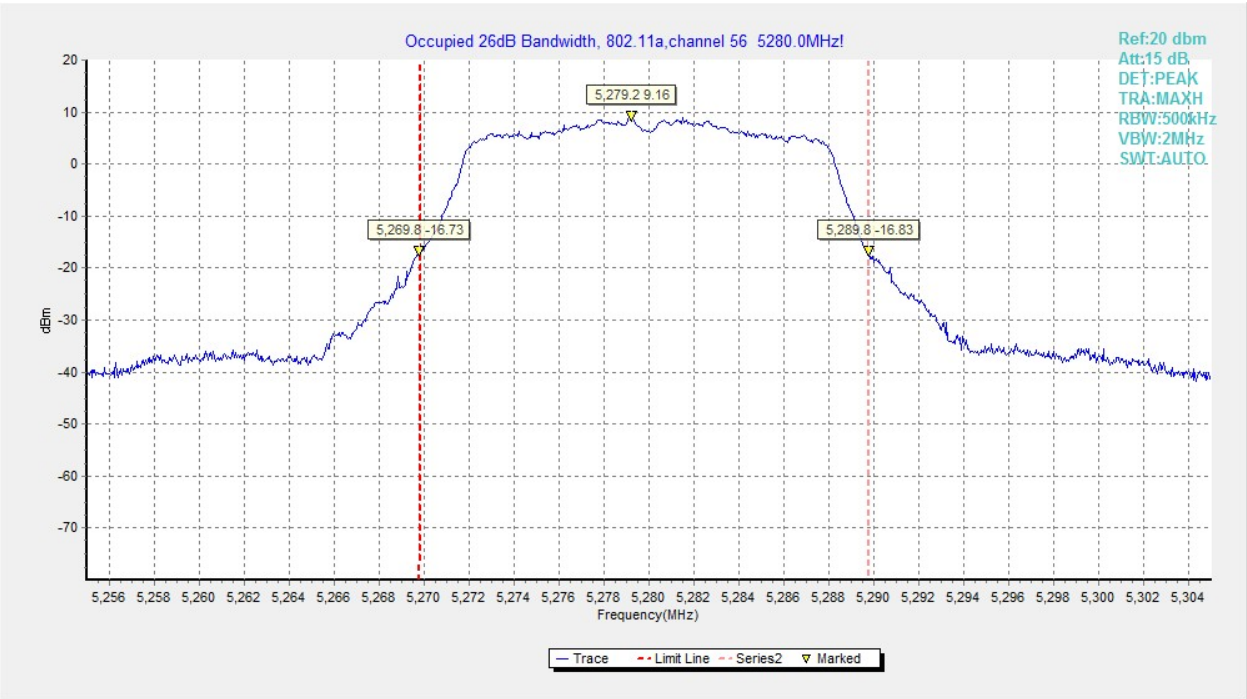

Fig.5 Occupied 26dB Bandwidth (802.11a, 5280MHz)

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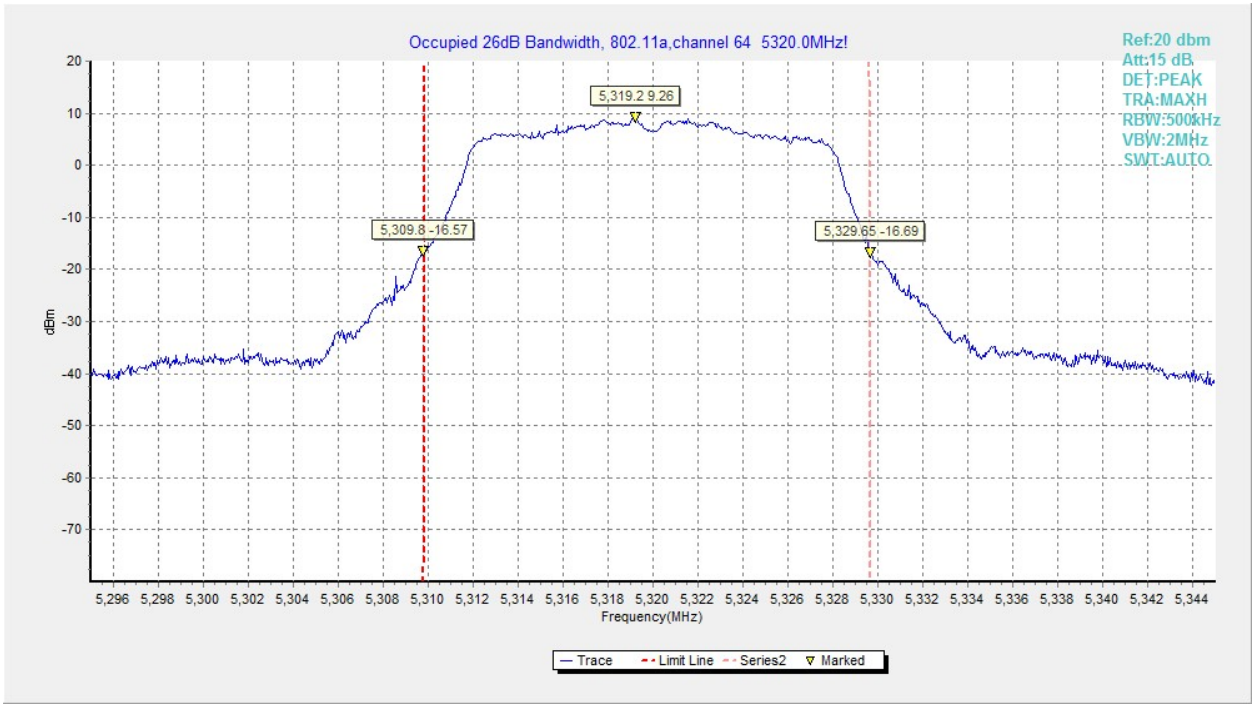

Fig.6 Occupied 26dB Bandwidth (802.11a, 5320MHz)

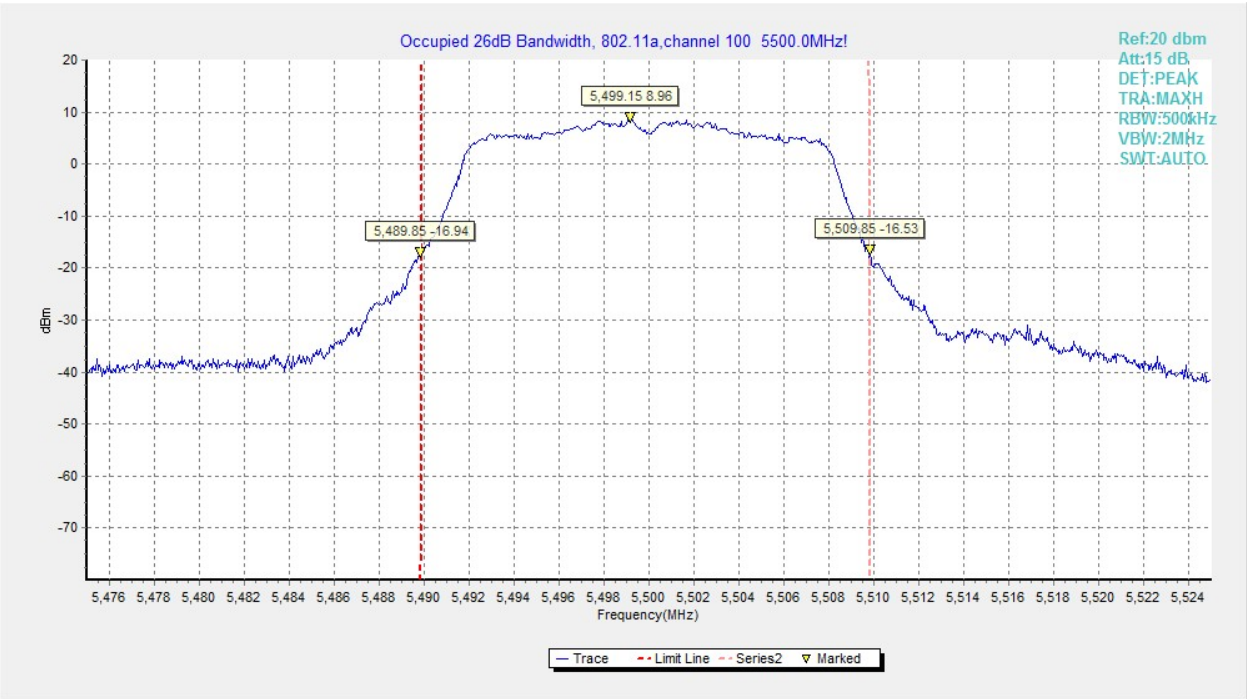

Fig.7 Occupied 26dB Bandwidth (802.11a, 5500MHz)

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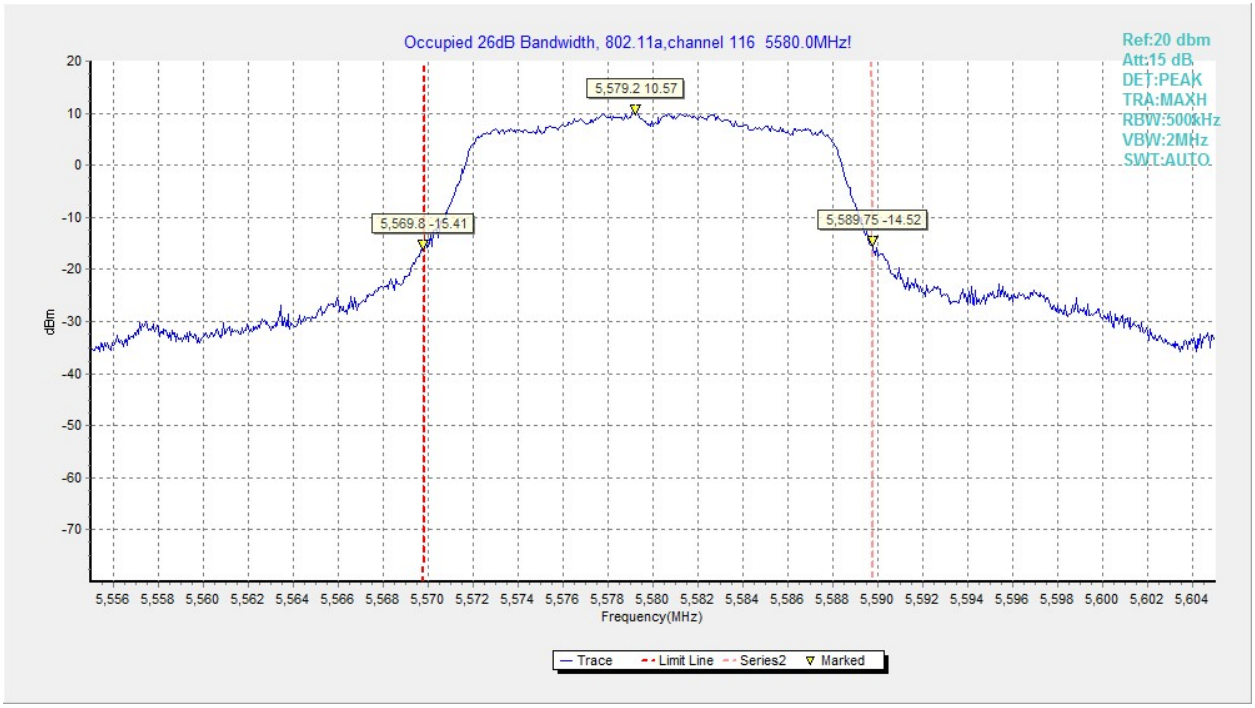

Fig.8 Occupied 26dB Bandwidth (802.11a, 5580MHz)

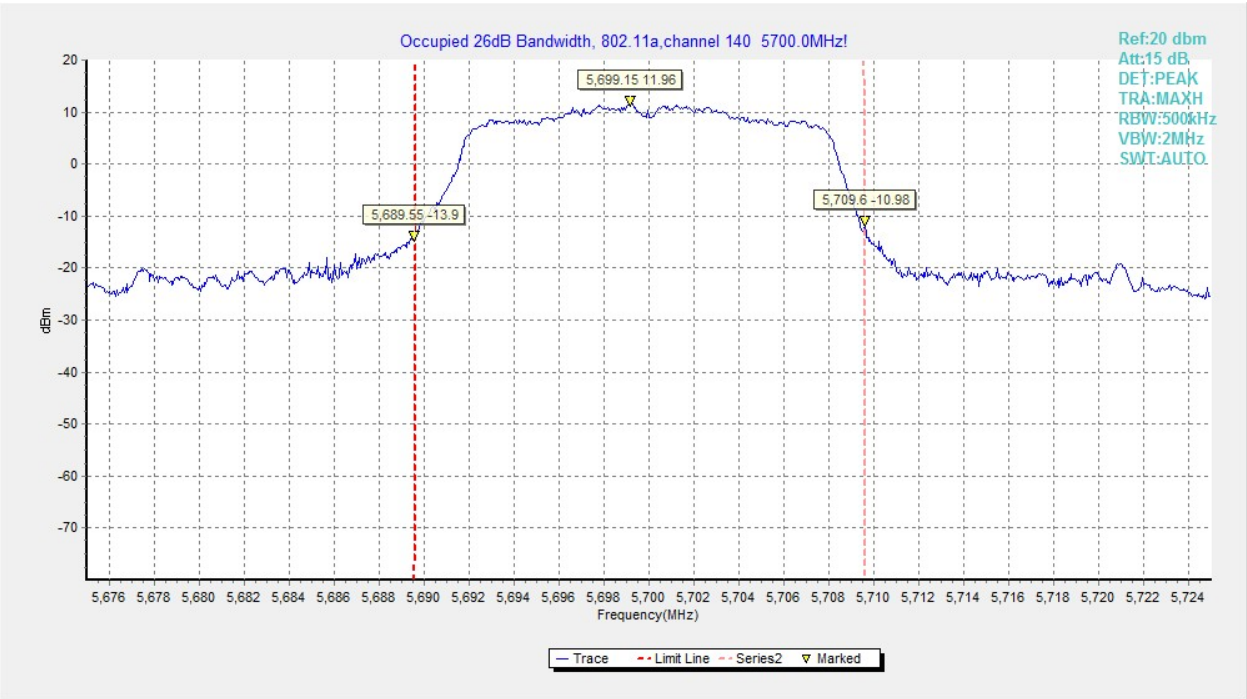

Fig.9 Occupied 26dB Bandwidth (802.11a, 5700MHz)

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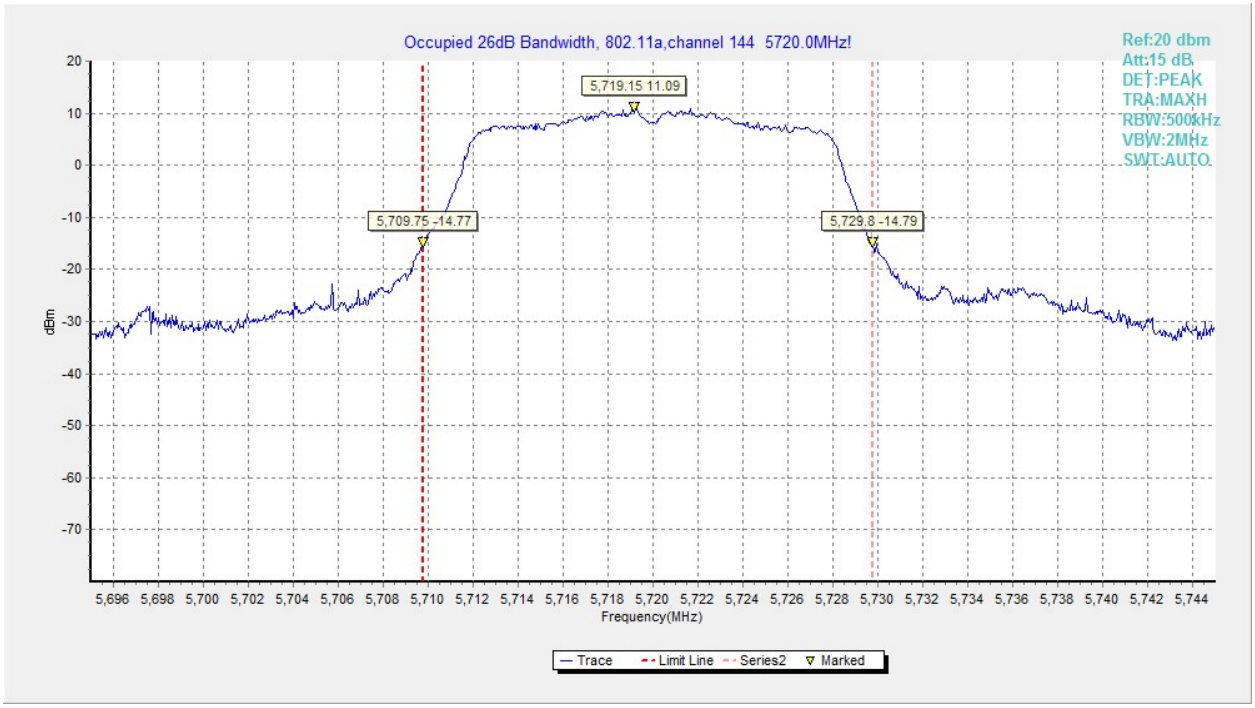

Fig.10 Occupied 26dB Bandwidth (802.11a, 5720MHz)

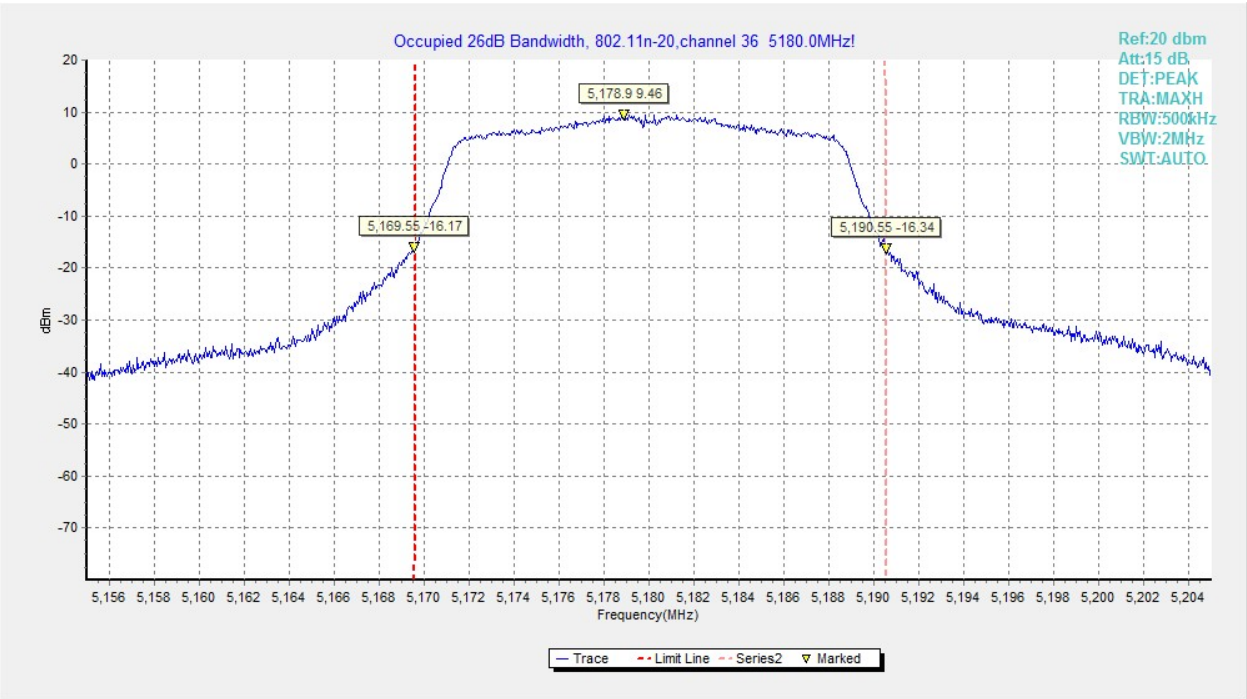

Fig.11 Occupied 26dB Bandwidth (802.11n-HT20, 5180MHz)

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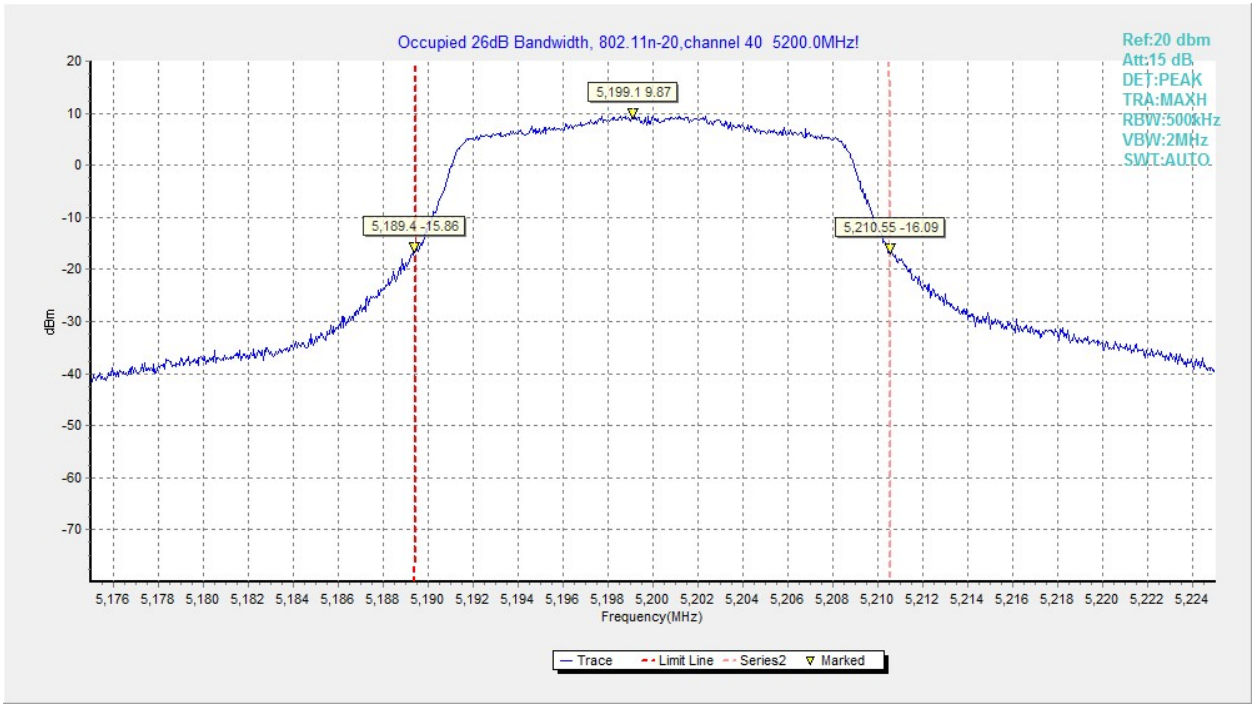

Fig.12 Occupied 26dB Bandwidth (802.11n-HT20, 5200MHz)

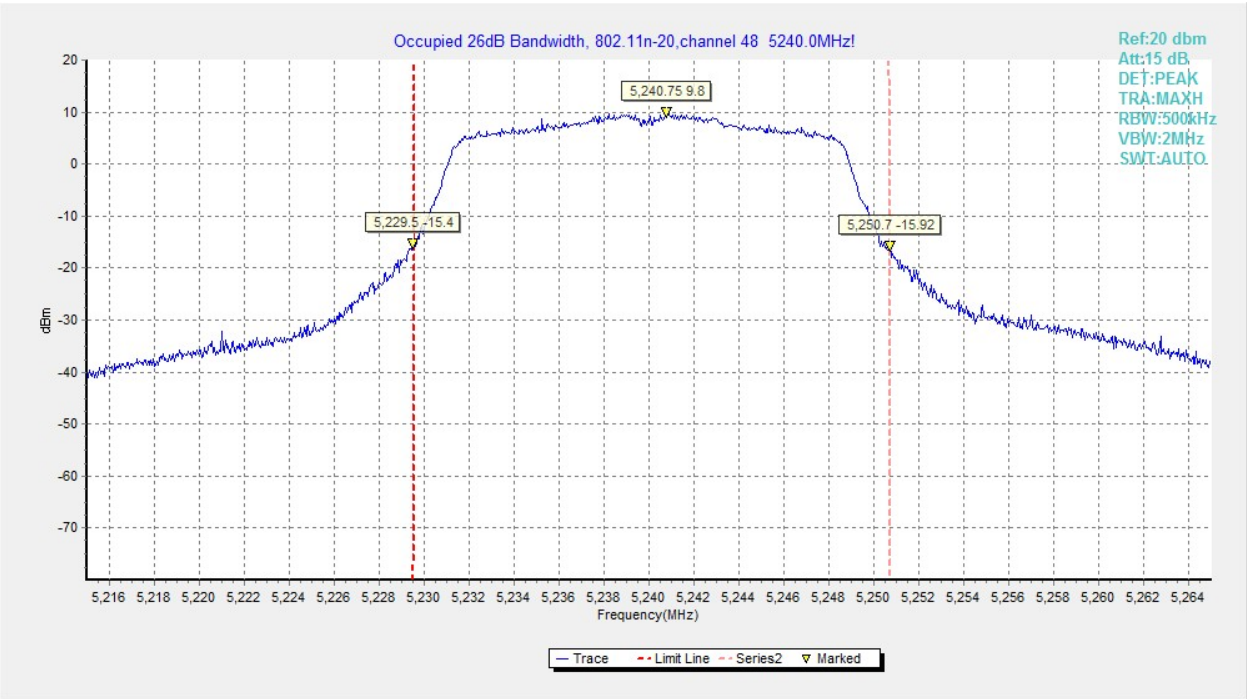

Fig.13 Occupied 26dB Bandwidth (802.11n-HT20, 5240MHz)

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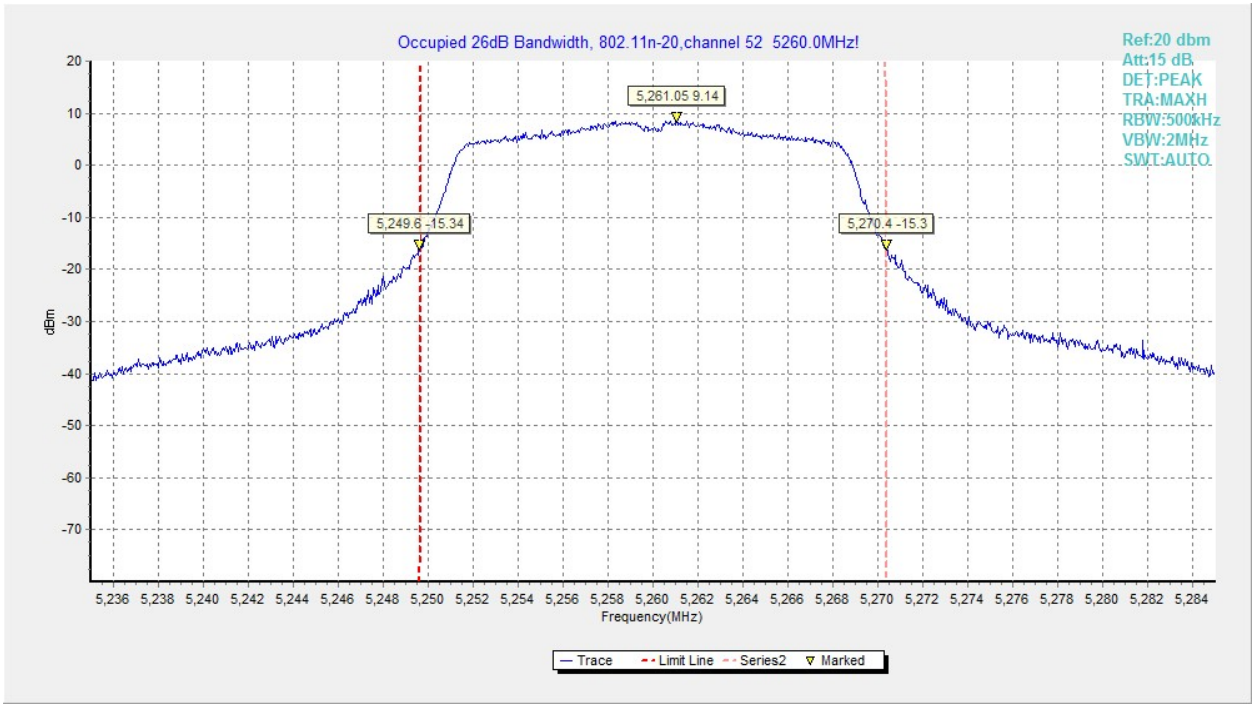

Fig.14 Occupied 26dB Bandwidth (802.11n-HT20, 5260MHz)

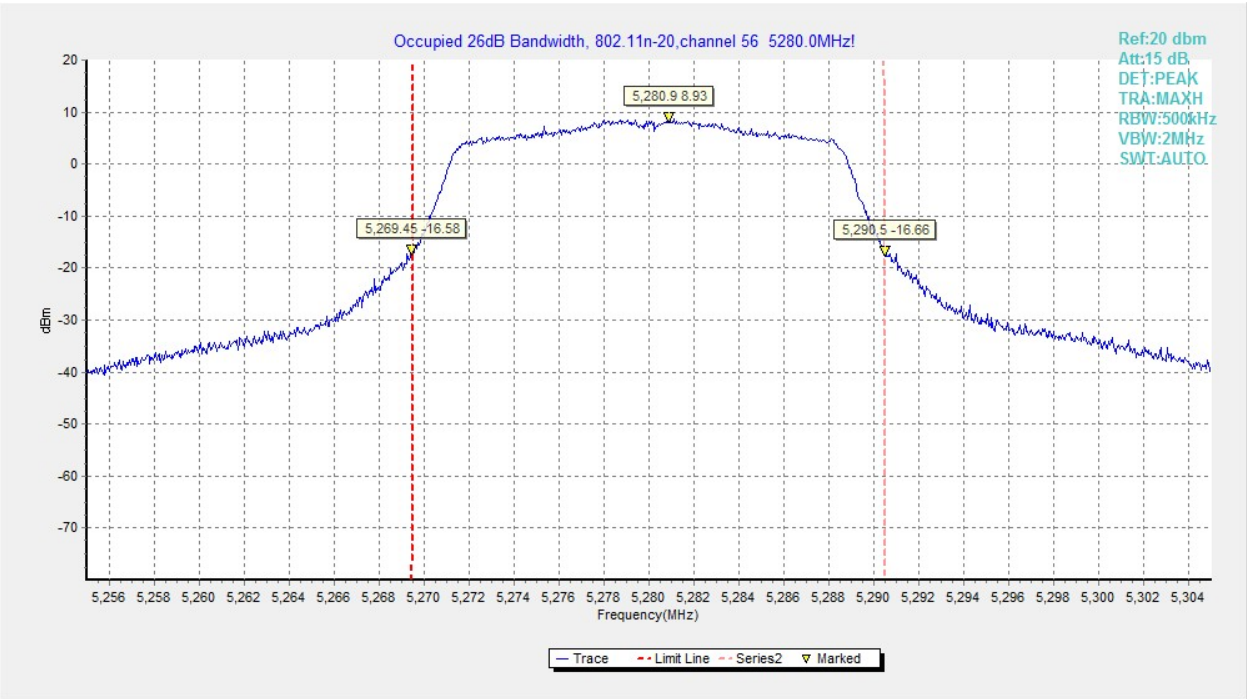

Fig.15 Occupied 26dB Bandwidth (802.11n-HT20, 5280MHz)

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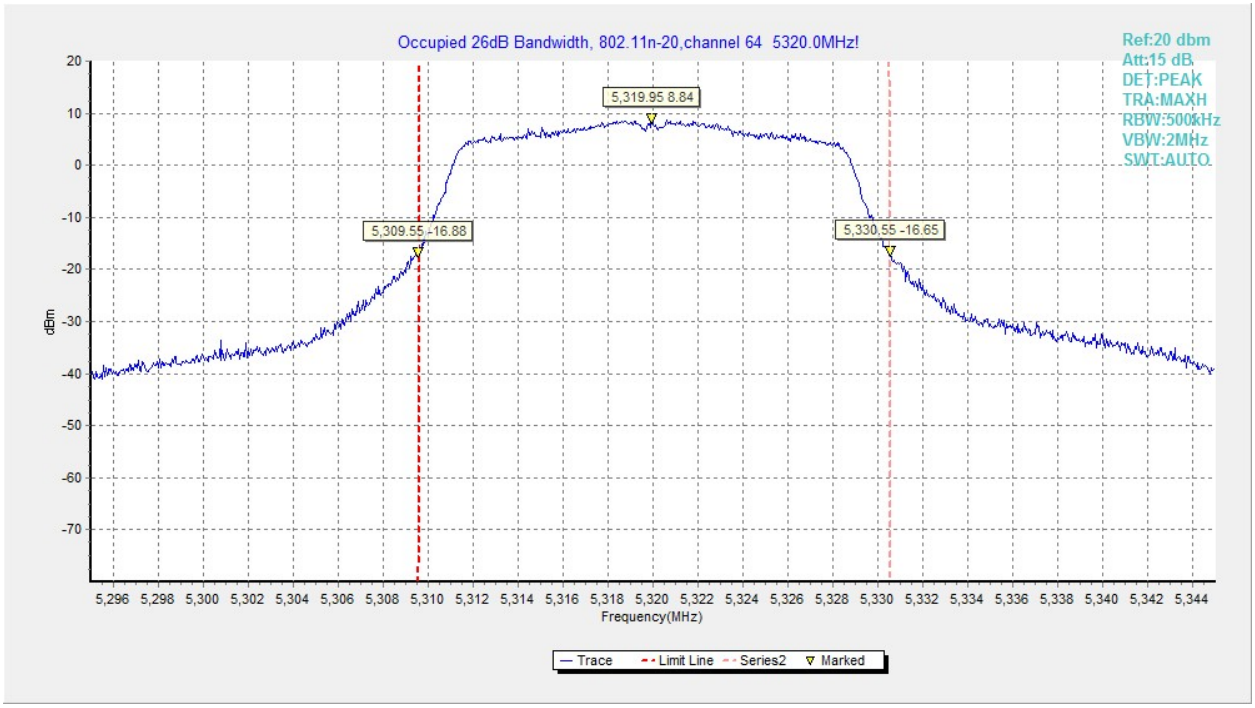

Fig.16 Occupied 26dB Bandwidth (802.11n-HT20, 5320MHz)

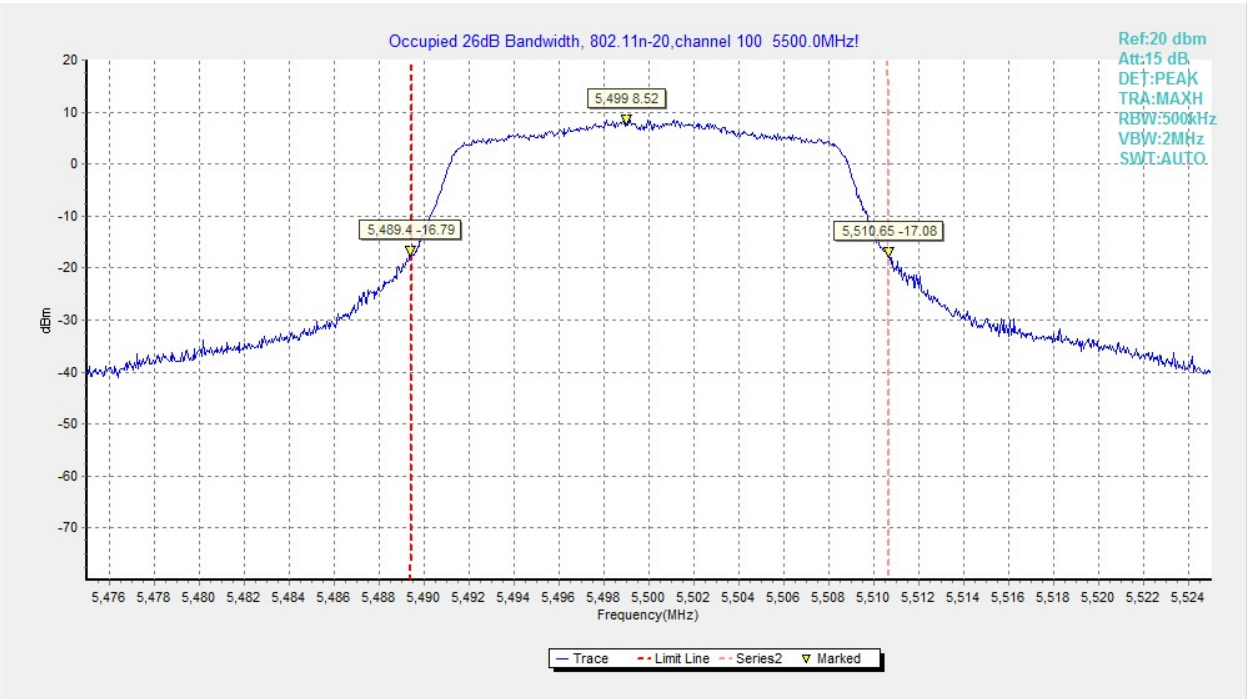

Fig.17 Occupied 26dB Bandwidth (802. 11n-HT20, 5500MHz)

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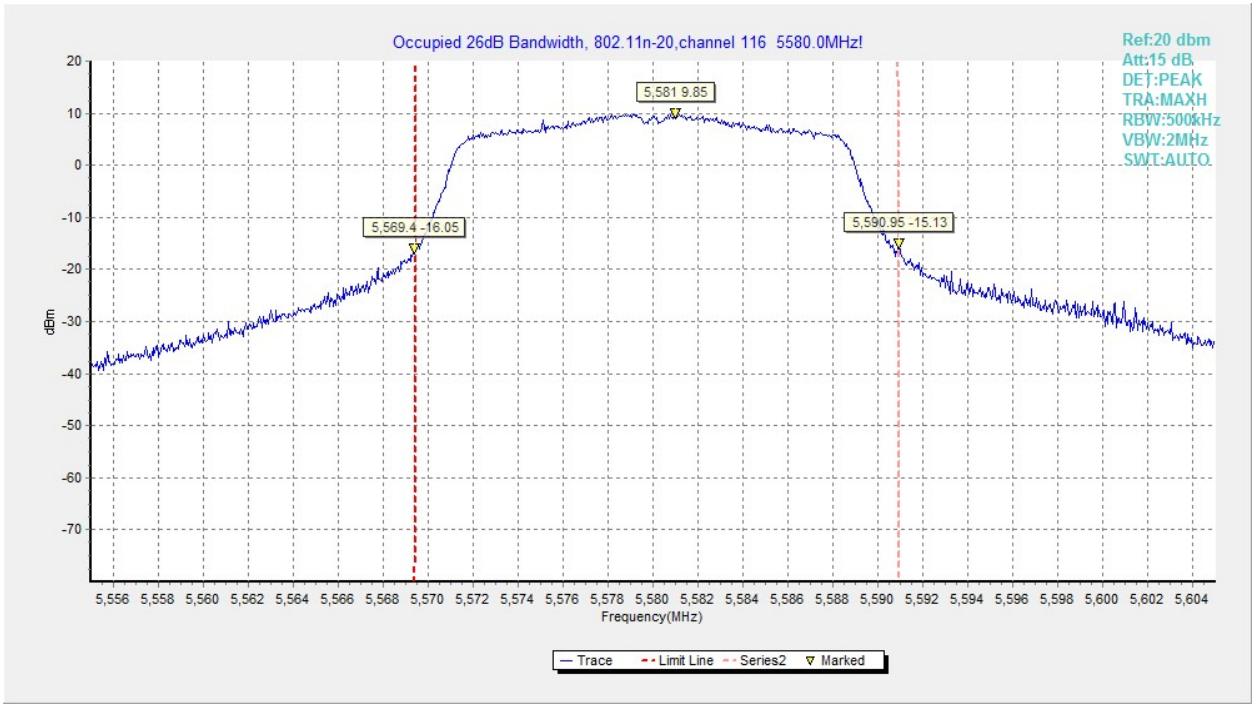

Fig.18 Occupied 26dB Bandwidth (802. 11n-HT20, 5580MHz)

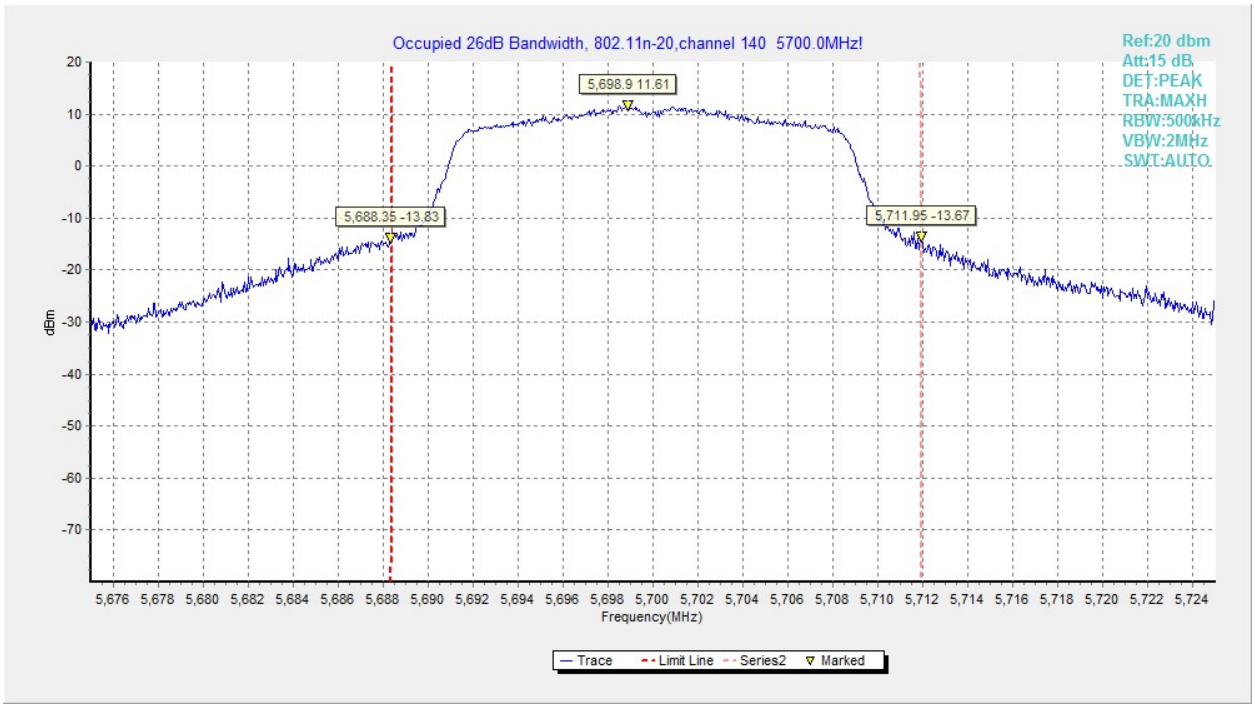

Fig.19 Occupied 26dB Bandwidth (802. 11n-HT20, 5700MHz)

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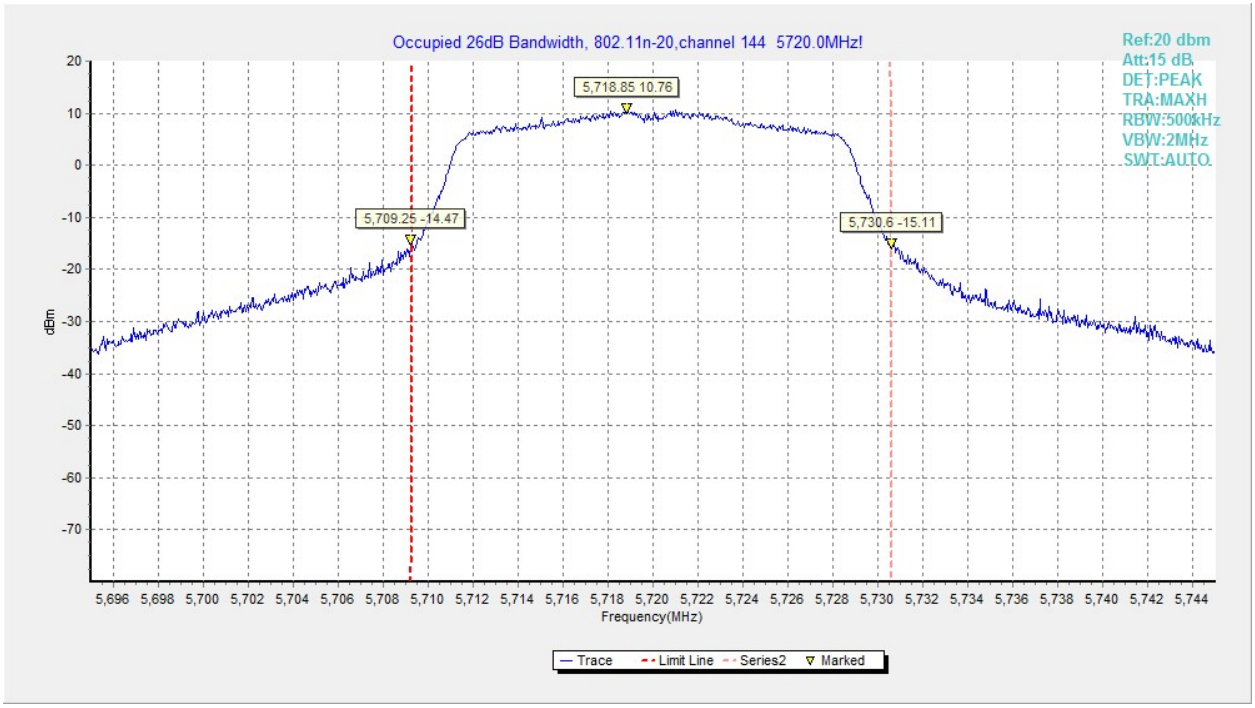

Fig.20 Occupied 26dB Bandwidth (802. 11n-HT20, 5720MHz)

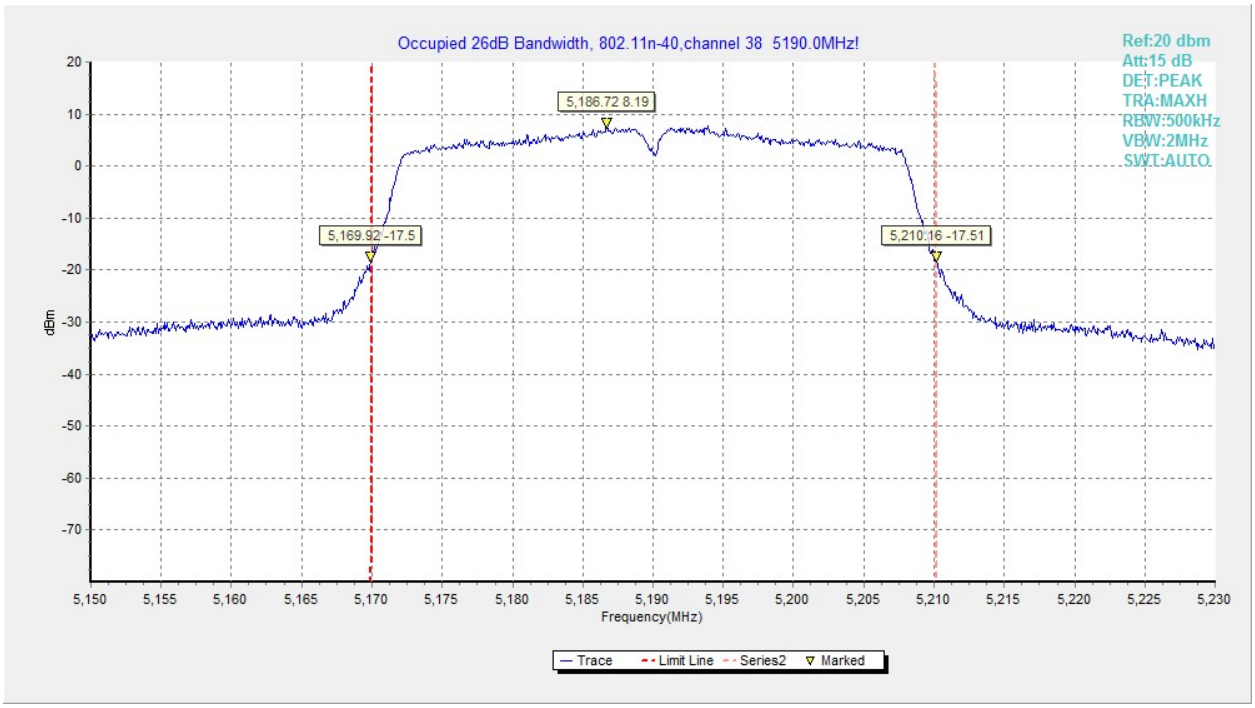

Fig.21 Occupied 26dB Bandwidth (802.11n-HT40, 5190MHz)

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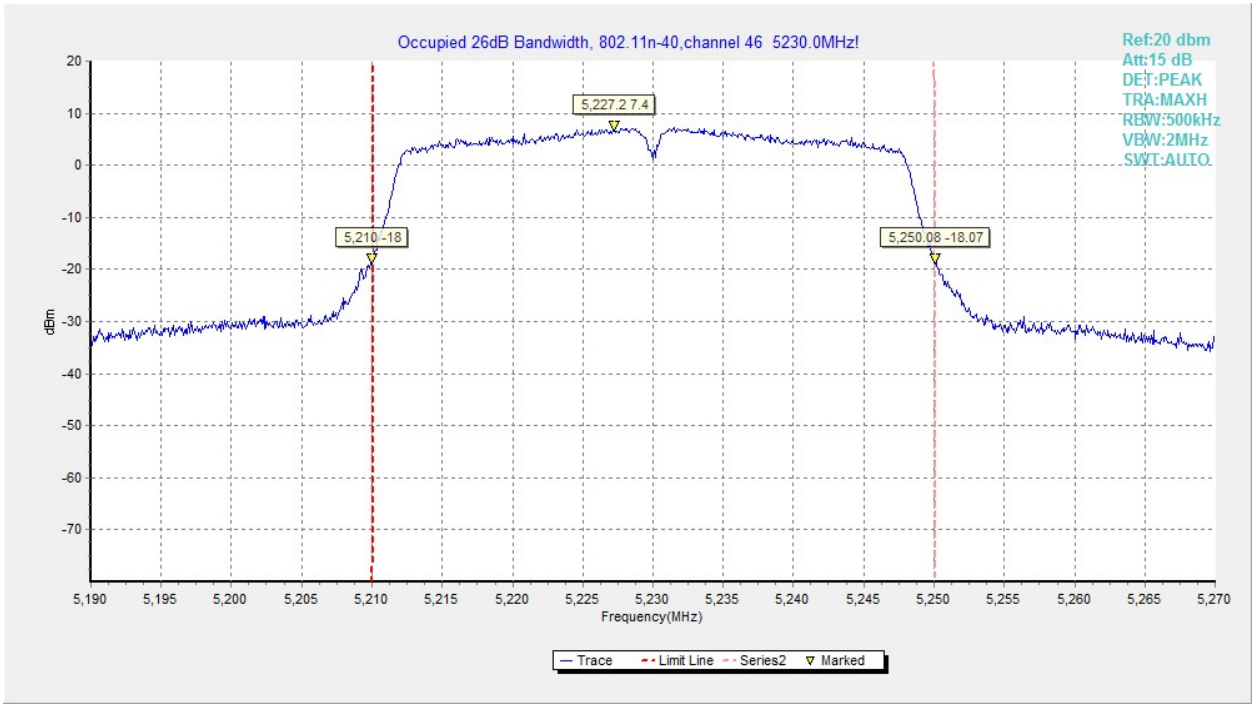

Fig.22 Occupied 26dB Bandwidth (802.11n-HT40, 5230MHz)

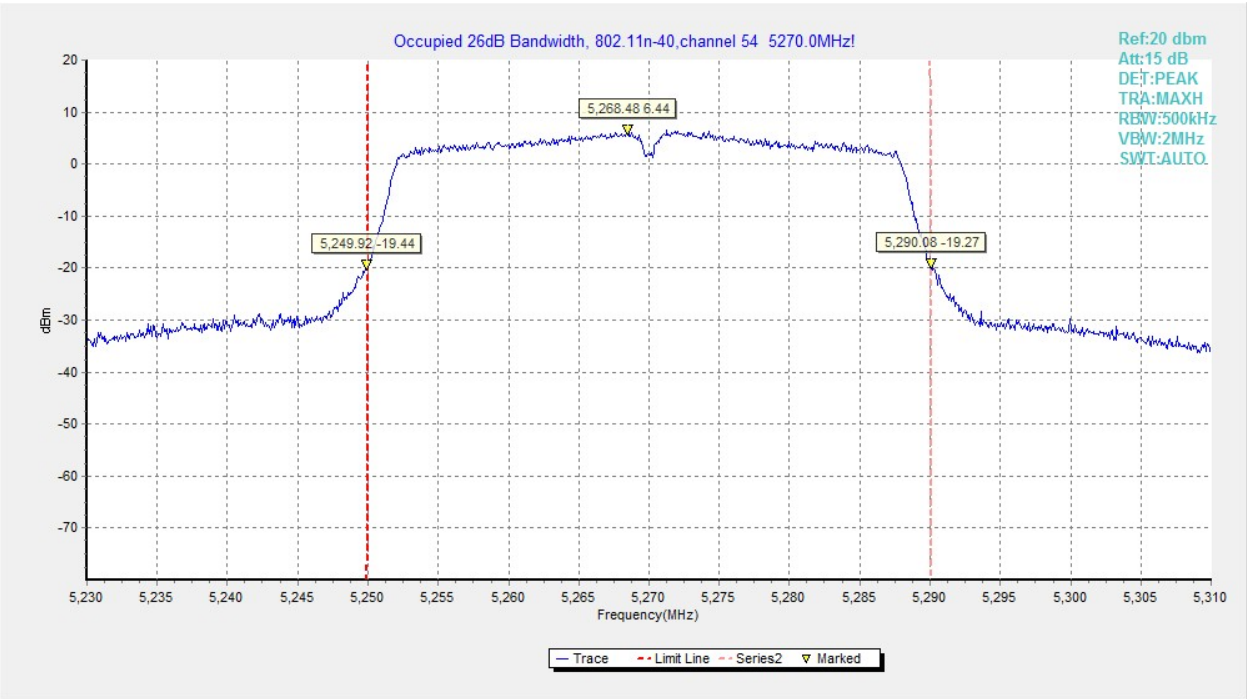

Fig.23 Occupied 26dB Bandwidth (802.11n-HT40, 5270MHz)

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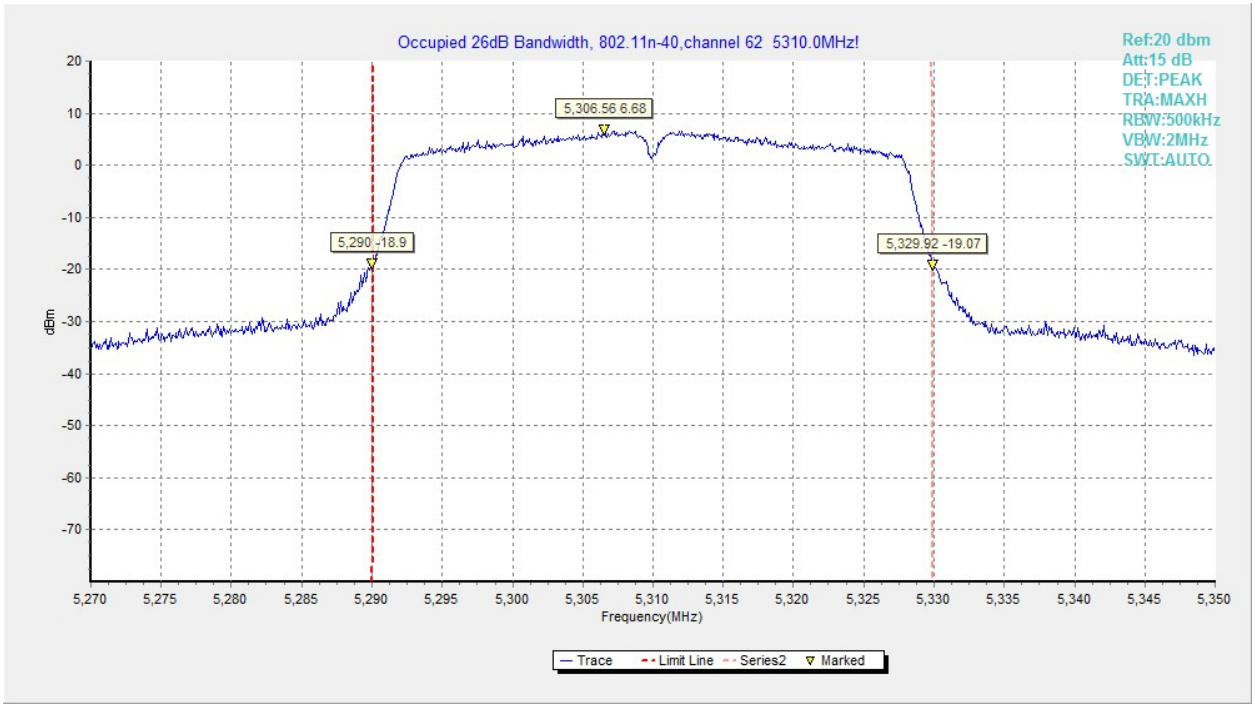

Fig.24 Occupied 26dB Bandwidth (802.11n-HT40, 5310MHz)

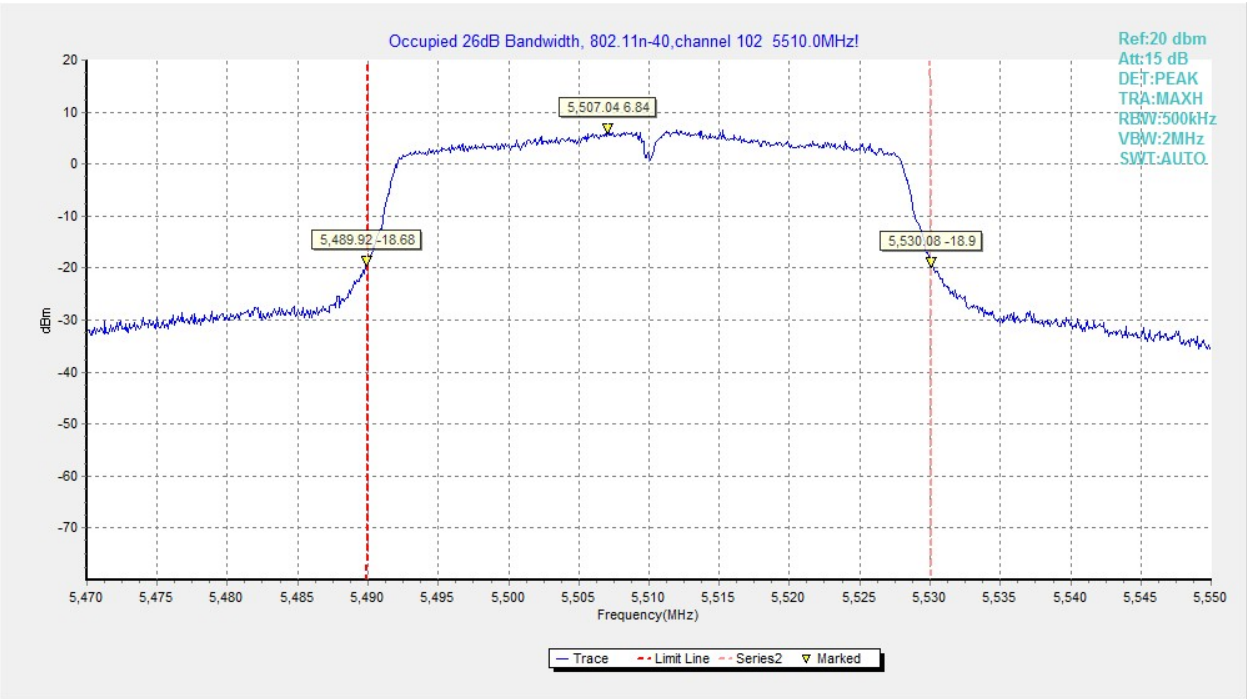

Fig.25 Occupied 26dB Bandwidth (802. 11n-HT40, 5510MHz)

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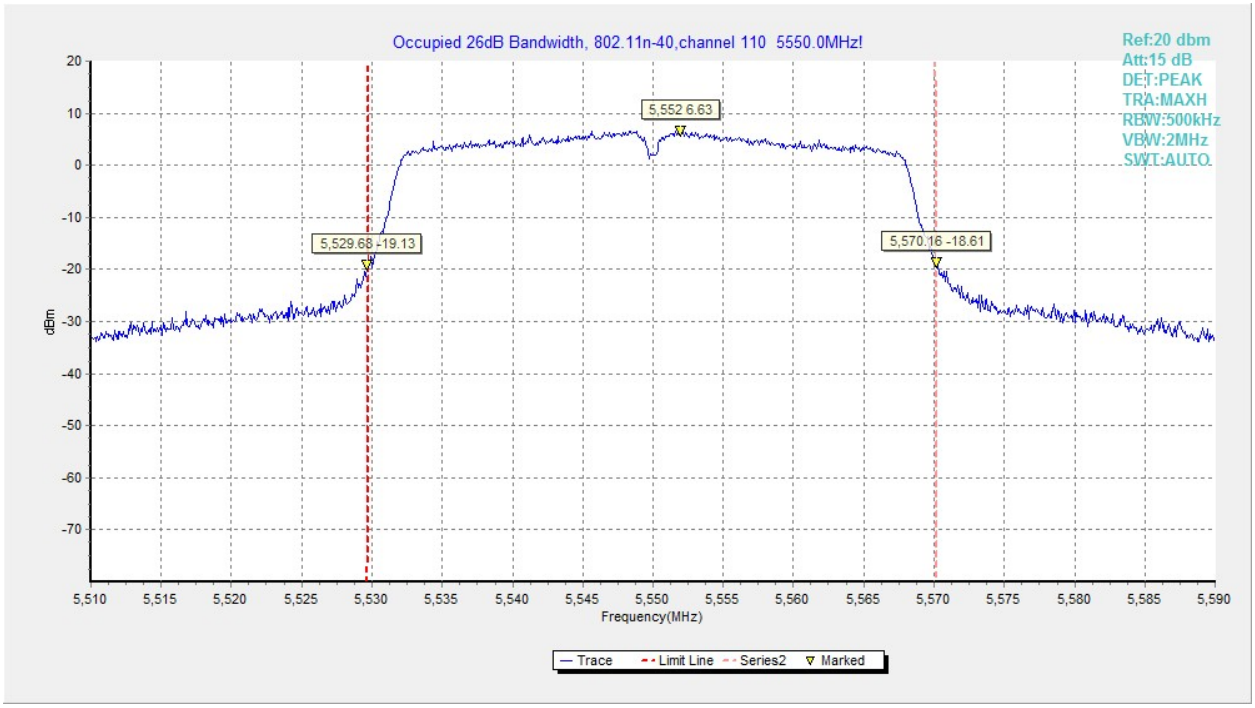

Fig.26 Occupied 26dB Bandwidth (802. 11n-HT40, 5590MHz)

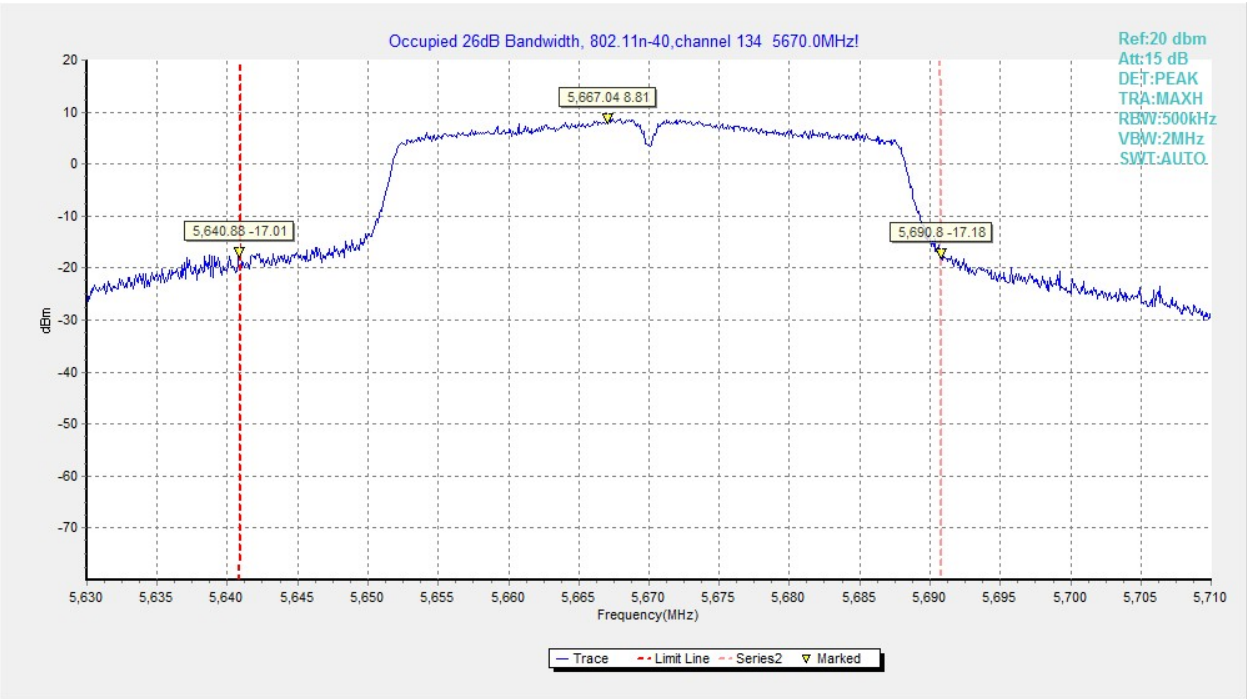

Fig.27 Occupied 26dB Bandwidth (802. 11n-HT40, 5670MHz)

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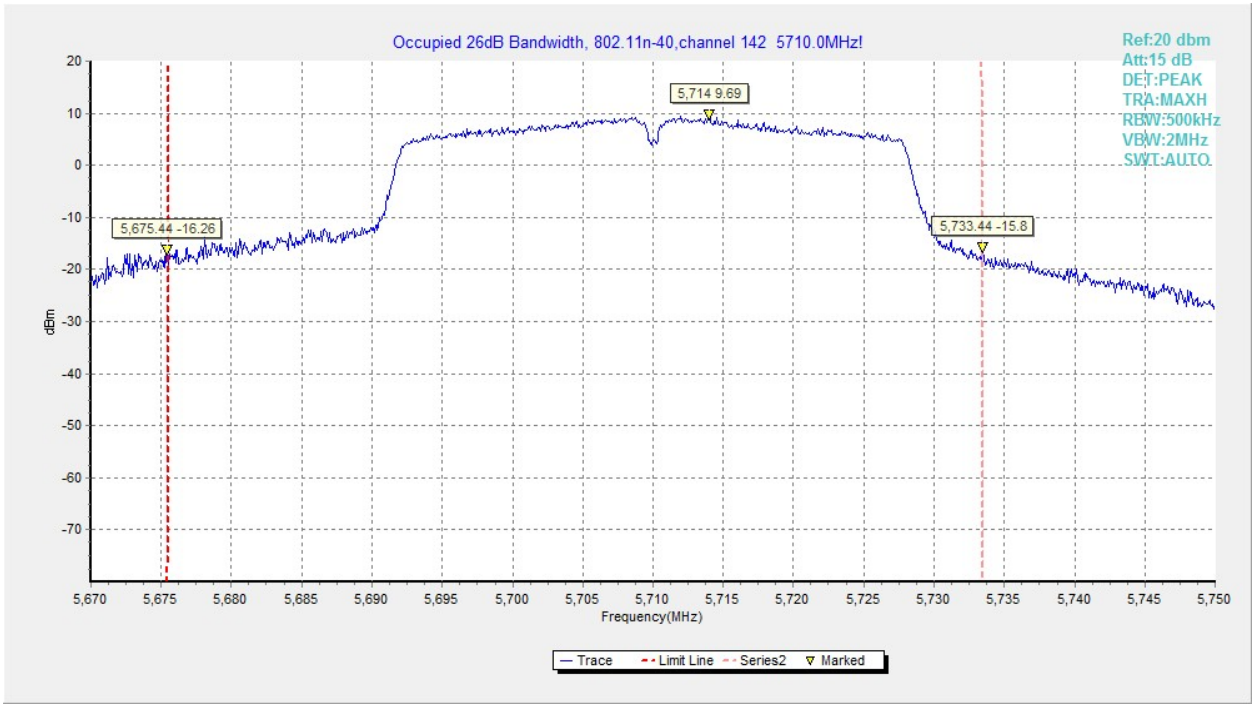

Fig.28 Occupied 26dB Bandwidth (802. 11n-HT40, 5710MHz)

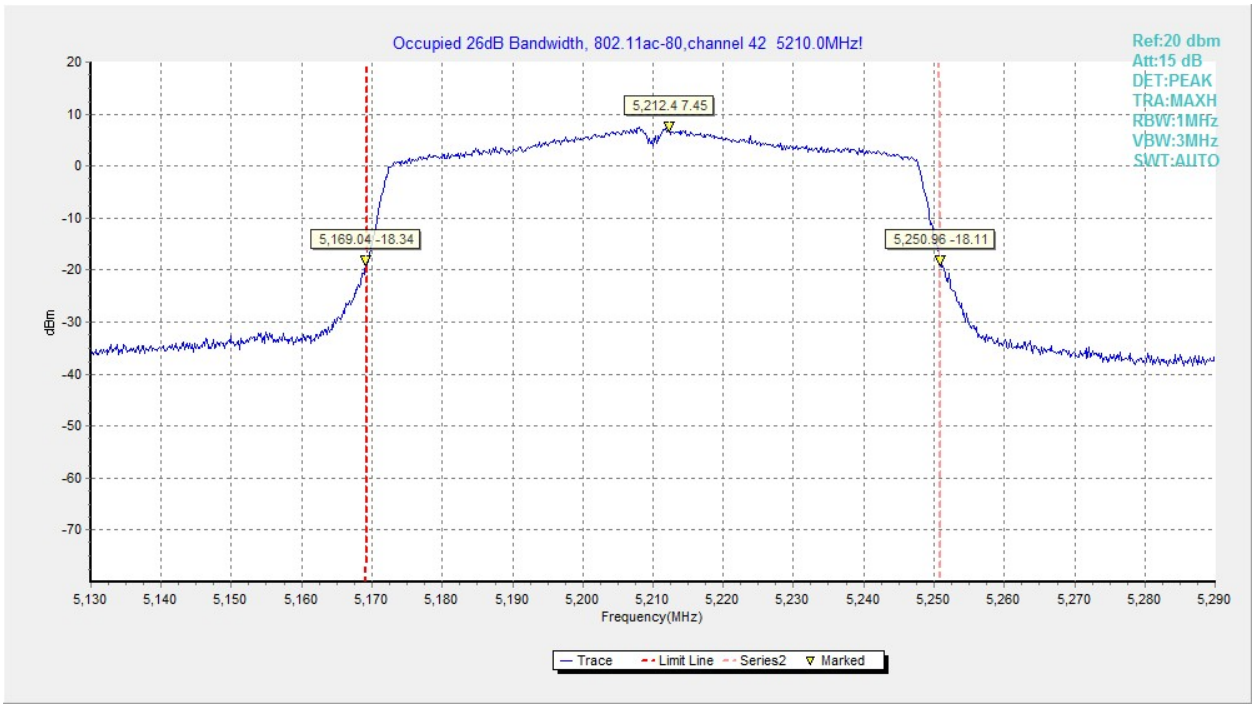

Fig.29 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5210MHz)

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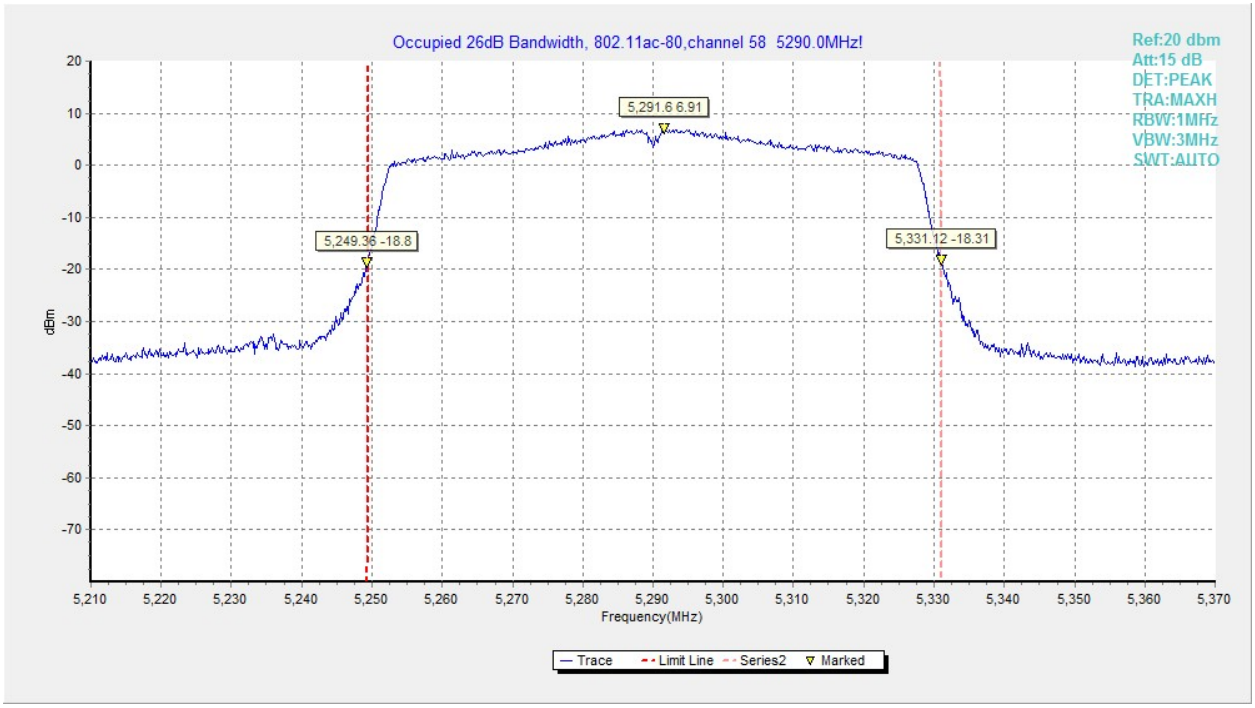

Fig.30 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5290MHz)

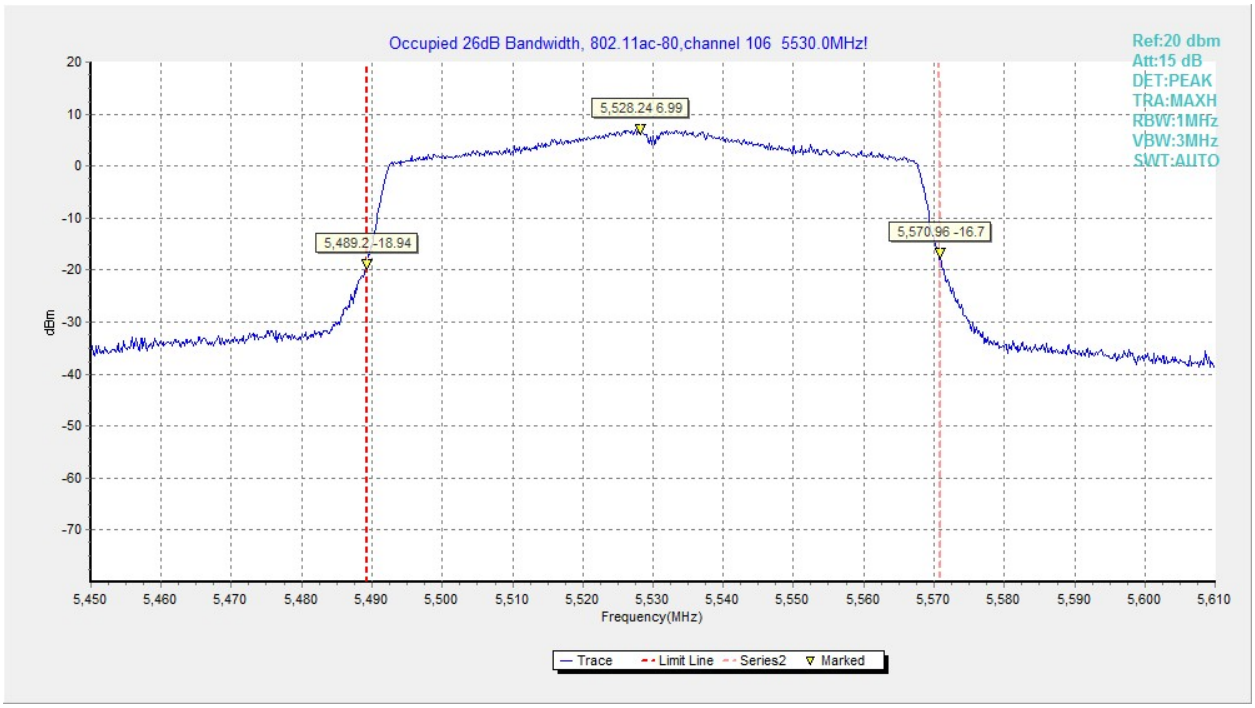

Fig.31 Occupied 26dB Bandwidth (802. 11ac-VHT80, 5530MHz)

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