



FCC PART 15 TEST REPORT

No. I18Z60538-IOT05

for

TCL Communication Ltd.

GSM Quad-band/HSPA-UMTS Six-band/LTE 19 band mobile phone

With

BBB100-5

FCC ID: 2ACCJN027

Hardware Version:05

Software Version: AAW880

Issued Date: 2018-04-18



Note:

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REPORT HISTORY

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1. TEST LATORATORY

1.1. Testing Location

Location 1:CTTL(huayuan North Road)

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

1.2. Testing Environment

Normal Temperature: 15-35°C

Extreme Temperature: -10/+55°C

Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2016-12-28

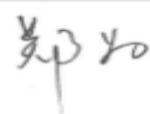
Testing End Date: 2017-03-30

1.4. Signature



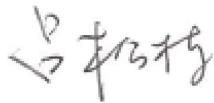
Jiang Xue

(Prepared this test report)



Zheng Wei

(Reviewed this test report)



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2. CLIENT INFORMATION

2.1. Applicant Information

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Postal Code: 518052
Country: China
Telephone: 0086-755-36611722
Fax: 0086-75536612000-81722

2.2. Manufacturer Information

Company Name: TCL Communication Ltd
Address: 7/F, Block F4, TCL International E City, Zhong Shan Yuan Road, Nanshan District, Shenzhen, Guangdong, P.R. China 518052
City: Shenzhen
Postal Code: 518052
Country: China
Telephone: 0086-755-36611722
Fax: 0086-75536612000-81722

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

3.1. About EUT

Description	GSM Quad-band/HSPA-UMTS Six-band/LTE 19 band mobile phone
Model name	BBB100-5
FCC ID	2ACCJN027
IC ID	/
WLAN Frequency Range	ISM Bands: -5150MHz~5350MHz -5470MHz~5725MHz
Type of modulation	OFDM
Antenna Type	Integral Antenna
Antenna Gain	0.44dBi
Voltage	3.8V DC by Battery

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

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	/	05	AAW880
EUT2	/	05	AAW880

*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	Type	SN
AE1	battery	/	/
AE2	battery	/	/
AE3	Travel charger	/	16TCT-CH-1886
AE4	Travel charger	/	16TCT-CH-1872
AE5	Travel charger	/	16TCT-CH-0005
AE6	USB Cable	/	/
AE7	USB Cable	/	/
AE10	Travel charger	/	/
AE11	Travel charger	/	/



AE1

Model BAT-63108-003
SN /
Manufacturer ATL
Capacitance 3440 mAh
Nominal voltage 3.85V

AE2

Model TLp034E1
SN /
Manufacturer BYD
Capacitance 3440 mAh
Nominal voltage 3.85V

AE3

Name CBA0060AGHC1
Model QC10US
Manufacturer BYD
Length of cable /

AE4

Name CBA0060ACHC1
Model QC10AU
Manufacturer BYD
Length of cable /

AE5

Name CBA0060AJHC1
Model QC10IN
Manufacturer BYD
Length of cable /

AE6

Model CDA0000105CF
Manufacturer LUXSHARE
Length of cable /

AE7

Model CDA0000108C2
Manufacturer SHENGHUA
Length of cable /

AE10

Name CBA0060AAHC1
Model QC10EU
Manufacturer BYD
Length of cable /

AE11

Name CBA0060ABHC1
Model QC10UK

Manufacturer BYD

Length of cable /

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

3.4. General Description

The Equipment under Test (EUT) is a model of GSM Quad-band/HSPA-UMTS Six-band/LTE 19 band mobile phone with integrated antenna and inbuilt battery.

It has Bluetooth (EDR) function.

It consists of normal options: travel charger, USB cable and Phone.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

3.5. Interpretation of the Test Environment

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

Measurement Uncertainty

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

4. REFERENCE DOCUMENTS

4.1. Documents supplied by applicant

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

4.2. Reference Documents for testing

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

FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2016
ANSI C63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
UNII: KDB 789033	Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E	2014-06

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
Power Spectral Density	15.407	/	P
Occupied 26dB Bandwidth	15.403	/	P
Band edge compliance	15.407	/	P
Transmitter spurious emissions radiated	15.407	/	P
Spurious emissions radiated < 30 MHz	15.407	/	P
Spurious emissions conducted < 30 MHz	15.407	/	P
Frequency Stability	15.407	/	NA
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.

This model is a variant product which model name is BBB100-1; all the test results have been derived from test report of BBB100-1.

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	T nom	26°C
Voltage	V nom	3.8V (By battery)
Humidity	H nom	44%

7. TEST EQUIPMENTS UTILIZED

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration date	Calibration Due date
1	Vector Signal Analyzer	FSQ40	200089	Rohde & Schwarz	2016-06-07	2017-06-06
2	Test Receiver	ESCI	100948	Rohde & Schwarz	2016-07-06	2017-07-05
3	LISN	ENV216	101200	Rohde & Schwarz	2016-07-11	2017-07-10
4	Shielding Room	S81	/	ETS-Lindgren	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration date	Calibration Due date
1	Test Receiver	ESU26	100235	Rohde & Schwarz	2016-03-03	2017-03-02
2	Loop antenna	HFH2-Z2	829324/007	Rohde & Schwarz	2014-12-17	2017-12-16
3	BiLog Antenna	VULB9163	301	Schwarzbeck	2014-12-17	2017-12-16
4	Dual-Ridge Waveguide Horn Antenna	3115	6914	EMCO	2014-12-16	2017-12-15
5	Dual-Ridge Waveguide Horn Antenna	3116	2661	ETS-Lindgren	2014-06-18	2017-06-17
6	Vector Signal Analyzer	FSV40	101047	Rohde & Schwarz	2016-06-29	2017-06-28
7	Semi-anechoic chamber	/	CT000332-1074	Frankonia German	/	/

Test Item	Test Software and Version	Software Vendor
Radiated Continuous Emission	EMC32 V8.40.0	R&S
Conducted Continuous Emission	EMC32 V8.52.0	R&S

8. Measurement Uncertainty

8.1. Transmitter Output Power

Measurement Uncertainty: 0.339dB, k=1.96

8.2. Peak Power Spectral Density

Measurement Uncertainty: 0.705dBm/MHz, k=1.96

8.3. Occupied Channel Bandwidth

Measurement Uncertainty: 60.80Hz, k=1.96

8.4. Band Edges Compliance

Measurement Uncertainty : 0.62dBm, k=1.96

8.5. Spurious Emissions

Conducted (k=1.96)

Frequency Range	Uncertainty(dBm)
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)

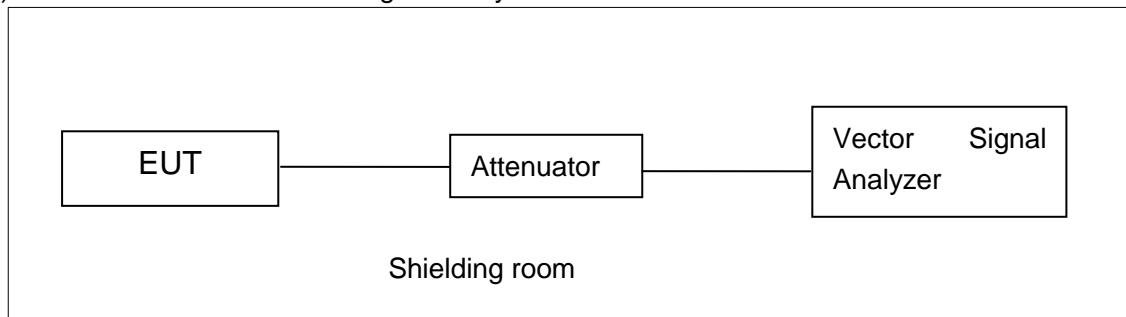
Frequency Range	Uncertainty(dBm)
9kHz-30MHz	3.94
30MHz ≤ f ≤ 1GHz	4.86
1GHz ≤ f ≤ 18GHz	5.26
18GHz ≤ f ≤ 40GHz	5.28

ANNEX A: MEASUREMENT RESULTS

A.1. Measurement Method

A.1.1. Conducted Measurements

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

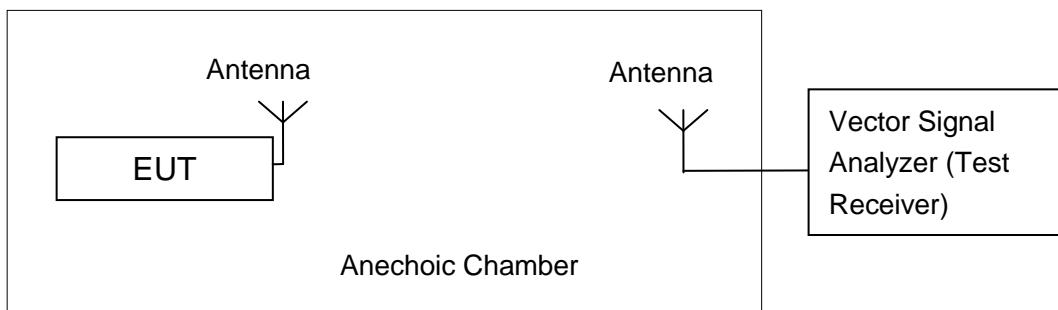


A.1.2. Radiated Emission Measurements

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 10Hz;



The measurement is made according to KDB 789033

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

A.2. Maximum output Power

Measurement Limit and Method:

Standard	Frequency (MHz)	Limit (dBm)
FCC CRF Part 15.407(a)	5150MHz~5250MHz	24dBm
	5250MHz~5350MHz	24dBm or $11+10\log B$
	5470MHz~5725MHz	24dBm or $11+10\log B$

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

Method of Measurement: See ANSI C63.10-2013-clause 12.3.2.2.

- a) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
- b) Set RBW = 1 MHz.
- c) Set VBW ≥ 3 MHz.
- d) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- e) Sweep time = auto.
- f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- g) If transmit duty cycle < 98%, use a video trigger with the trigger level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no OFF intervals) or at duty cycle $\geq 98\%$, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to “free run.”
- h) Trace average at least 100 traces in power averaging (rms) mode.
- i) Compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument’s band power measurement function, with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.

Measurement Results:

802.11a mode

Mode	Channel	Test Result (dBm)							
		Data Rate (Mbps)							
		6	9	12	18	24	36	48	54
802.11a	5180MHz (Ch36)	18.55	18.39	18.10	18.04	18.01	18.00	17.49	17.48
	5200MHz (Ch40)	18.34	/	/	/	/	/	/	/
	5240MHz(Ch48)	18.68	/	/	/	/	/	/	/
	5260MHz(Ch52)	18.64	/	/	/	/	/	/	/
	5280MHz(Ch56)	18.55	/	/	/	/	/	/	/
	5320MHz(Ch64)	18.96	/	/	/	/	/	/	/
	5500MHz(Ch100)	18.36	/	/	/	/	/	/	/
	5580MHz(Ch116)	18.40	/	/	/	/	/	/	/
	5700MHz(Ch140)	17.03	/	/	/	/	/	/	/

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

802.11n-HT20 mode

Mode	Channel	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT20)	5180MHz (Ch36)	18.56	18.54	18.52	17.60	17.55	17.52	16.53	16.44
	5200MHz (Ch40)	18.47	/	/	/	/	/	/	/
	5240MHz(Ch48)	18.67	/	/	/	/	/	/	/
	5260MHz(Ch52)	18.66	/	/	/	/	/	/	/
	5280MHz(Ch56)	18.65	/	/	/	/	/	/	/
	5320MHz(Ch64)	18.94	/	/	/	/	/	/	/
	5500MHz(Ch100)	18.44	/	/	/	/	/	/	/
	5580MHz(Ch116)	18.45	/	/	/	/	/	/	/
	5700MHz(Ch140)	17.08	/	/	/	/	/	/	/

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

802.11ac-HT20 mode

Mode	Channel	Test Result (dBm)								
		Data Rate								
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
802.11a c (HT20)	5180MHz (Ch36)	18.52	18.46	18.47	17.54	17.53	17.49	16.34	16.31	15.09
	5200MHz (Ch40)	18.40	/	/	/	/	/	/	/	/
	5240MHz(Ch48)	18.58	/	/	/	/	/	/	/	/
	5260MHz(Ch52)	18.64	/	/	/	/	/	/	/	/
	5280MHz(Ch56)	18.62	/	/	/	/	/	/	/	/
	5320MHz(Ch64)	18.95	/	/	/	/	/	/	/	/
	5500MHz(Ch100)	18.41	/	/	/	/	/	/	/	/
	5580MHz(Ch116)	18.51	/	/	/	/	/	/	/	/
	5700MHz(Ch140)	17.10	/	/	/	/	/	/	/	/

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

802.11n-HT40 mode

Mode	Channel	Test Result (dBm)							
		Data Rate							
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
802.11n (HT40)	5190MHz (Ch38)	19.16	19.04	19.02	18.19	18.06	18.04	17.01	16.97
	5230MHz(Ch46)	19.15	/	/	/	/	/	/	/
	5270MHz(Ch54)	19.39	/	/	/	/	/	/	/
	5310MHz(Ch62)	19.71	/	/	/	/	/	/	/
	5510MHz(Ch102)	19.30	/	/	/	/	/	/	/
	5550MHz(Ch110)	19.35	/	/	/	/	/	/	/
	5670MHz(Ch134)	18.12	/	/	/	/	/	/	/

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

802.11ac-HT40 mode

Mode	Channel	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac(HT40)	5190MHz (Ch38)	19.07	19.01	18.99	18.89	18.11	18.05	17.12	16.99	14.81	12.61
	5230MHz(Ch46)	19.25	/	/	/	/	/	/	/	/	/
	5270MHz(Ch54)	19.37	/	/	/	/	/	/	/	/	/
	5310MHz(Ch62)	19.64	/	/	/	/	/	/	/	/	/
	5510MHz(Ch102)	19.35	/	/	/	/	/	/	/	/	/
	5550MHz(Ch110)	19.38	/	/	/	/	/	/	/	/	/
	5670MHz(Ch134)	18.10	/	/	/	/	/	/	/	/	/

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

802.11ac-HT80 mode

Mode	Channel	Test Result (dBm)									
		Data Rate									
		MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
802.11ac(HT80)	5210MHz (Ch42)	18.52	18.47	18.36	17.45	17.30	17.26	16.31	16.29	16.21	15.15
	5290MHz (Ch58)	18.79	/	/	/	/	/	/	/	/	/
	5530MHz (Ch106)	18.60	/	/	/	/	/	/	/	/	/
	5610MHz (Ch122)	18.34	/	/	/	/	/	/	/	/	/

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

A.3. Peak Power Spectral Density (conducted)

Measurement Limit:

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

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

- a) Create an average power spectrum for the EUT operating mode being tested by following the instructions in 12.3.2 for measuring maximum conducted output power using a spectrum analyzer or EMI receiver; that is, select the appropriate test method (SA-1, SA-2, SA-3, or their respective alternatives) and apply it up to, but not including, the step labeled, "Compute power...." (This procedure is required even if the maximum conducted output power measurement was performed using the power meter method PM.)
- b) Use the peak search function on the instrument to find the peak of the spectrum.
- c) Make the following adjustments to the peak value of the spectrum.
- d) The result is the PPSD.
- e) The procedure in item a) through item c) requires the use of 1 MHz resolution bandwidth to satisfy the 1 MHz measurement bandwidth specified by some regulatory authorities. This requirement also permits use of resolution bandwidths less than 1 MHz "provided that the measured power is integrated to show the total power over the measurement bandwidth" (i.e., 1 MHz).

Measurement Results:

Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180 MHz	1.70	P
	5200 MHz	1.90	P
	5240 MHz	3.91	P
	5260 MHz	4.28	P
	5280 MHz	5.27	P
	5320 MHz	6.16	P
	5500 MHz	4.89	P
	5580 MHz	4.41	P
	5700 MHz	5.46	P
802.11n HT20	5180 MHz	1.45	P
	5200 MHz	1.43	P
	5240 MHz	3.59	P
	5260 MHz	4.00	P
	5280 MHz	4.99	P
	5320 MHz	5.96	P
	5500 MHz	4.65	P
	5580 MHz	4.34	P
	5700 MHz	5.03	P

802.11ac HT20	5180 MHz	1.36	P
	5200 MHz	1.58	P
	5240 MHz	3.69	P
	5260 MHz	4.00	P
	5280 MHz	5.14	P
	5320 MHz	5.91	P
	5500 MHz	4.66	P
	5580 MHz	4.36	P
	5700 MHz	4.76	P
802.11n HT40	5190 MHz	-1.26	P
	5230 MHz	0.37	P
	5270 MHz	1.83	P
	5310 MHz	2.78	P
	5510 MHz	1.35	P
	5550 MHz	0.92	P
	5670 MHz	1.34	P
802.11ac HT40	5190 MHz	-1.43	P
	5230 MHz	0.36	P
	5270 MHz	1.79	P
	5310 MHz	2.79	P
	5510 MHz	1.31	P
	5550 MHz	0.82	P
	5670 MHz	1.56	P
802.11ac HT80	5210MHz	-3.02	P
	5290MHz	0.09	P
	5530MHz	-0.39	P
	5610MHz	-0.81	P

Conclusion: PASS

A.4. 26dBc Bandwidth (conducted)

Measurement Limit:

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

Method of Measurement: See ANSI C63.10-2013-clause 12.4.1.

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz
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Measurement Result:

Mode	Channel	Occupied 26dB Bandwidth (MHz)	Conclusion
802.11a	5180 MHz	Fig.1	32.90
	5200 MHz	Fig.2	33.75
	5240 MHz	Fig.3	32.80
	5260 MHz	Fig.4	37.75
	5280 MHz	Fig.5	39.95
	5320 MHz	Fig.6	37.05
	5500 MHz	Fig.7	41.04
	5580 MHz	Fig.8	32.30
	5700 MHz	Fig.9	23.85
802.11n HT20	5180 MHz	Fig.10	31.00
	5200 MHz	Fig.11	35.75
	5240 MHz	Fig.12	37.15
	5260 MHz	Fig.13	42.00
	5280 MHz	Fig.14	40.30
	5320 MHz	Fig.15	39.10
	5500 MHz	Fig.16	43.75
	5580 MHz	Fig.17	30.05
	5700 MHz	Fig.18	25.25
802.11ac HT20	5180 MHz	Fig.19	30.30
	5200 MHz	Fig.20	31.10
	5240 MHz	Fig.21	30.95
	5260 MHz	Fig.22	33.40
	5280 MHz	Fig.23	33.55
	5320 MHz	Fig.24	32.95
	5500 MHz	Fig.25	42.35
	5580 MHz	Fig.26	30.55
	5700 MHz	Fig.27	24.00
802.11n HT40	5190 MHz	Fig.28	62.96
	5230 MHz	Fig.29	51.76
	5270 MHz	Fig.30	70.32
	5310 MHz	Fig.31	60.16

	5510 MHz	Fig.32	77.44	P
	5550 MHz	Fig.33	69.60	P
	5670 MHz	Fig.34	45.92	P
802.11ac HT40	5190 MHz	Fig.35	45.92	P
	5230 MHz	Fig.36	49.44	P
	5270 MHz	Fig.37	60.72	P
	5310 MHz	Fig.38	49.84	P
	5510 MHz	Fig.39	69.92	P
	5550 MHz	Fig.40	57.52	P
	5670 MHz	Fig.41	45.68	P
802.11ac HT80	5210MHz	Fig.42	93.28	P
	5290MHz	Fig.43	89.60	P
	5530MHz	Fig.44	112.16	P
	5610MHz	Fig.45	86.24	P

Conclusion: PASS

Test graphs as below:

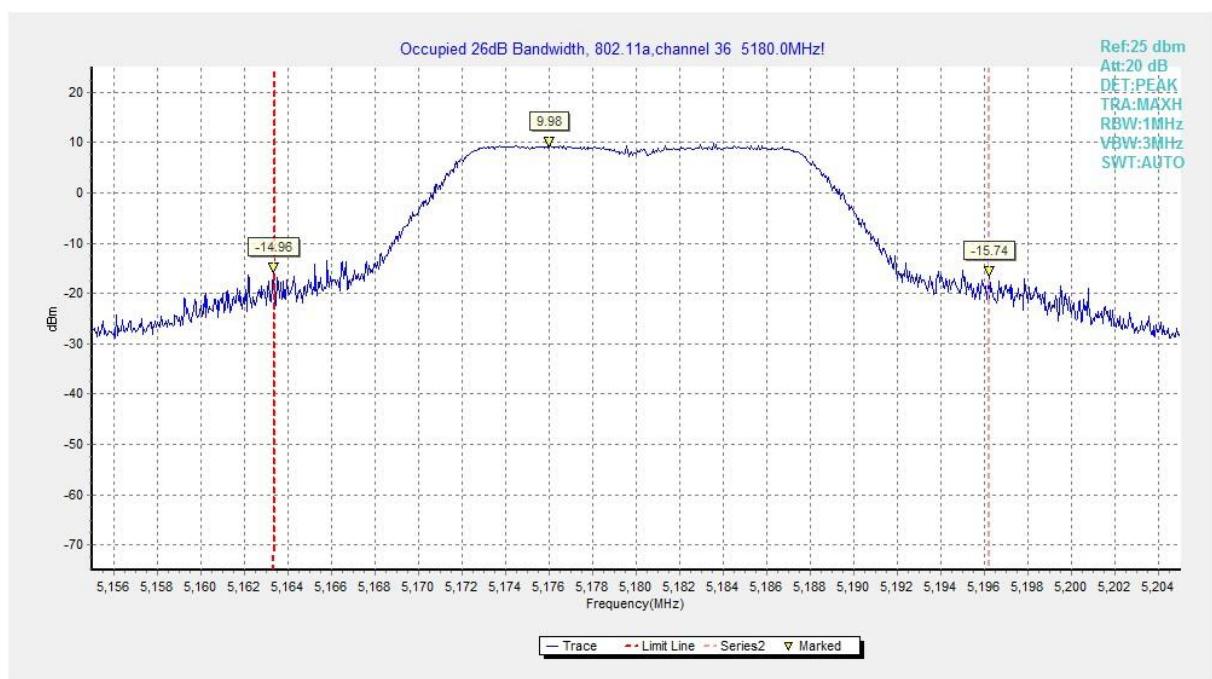


Fig. 1 Occupied 26dB Bandwidth (802.11a, 5180MHz)



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

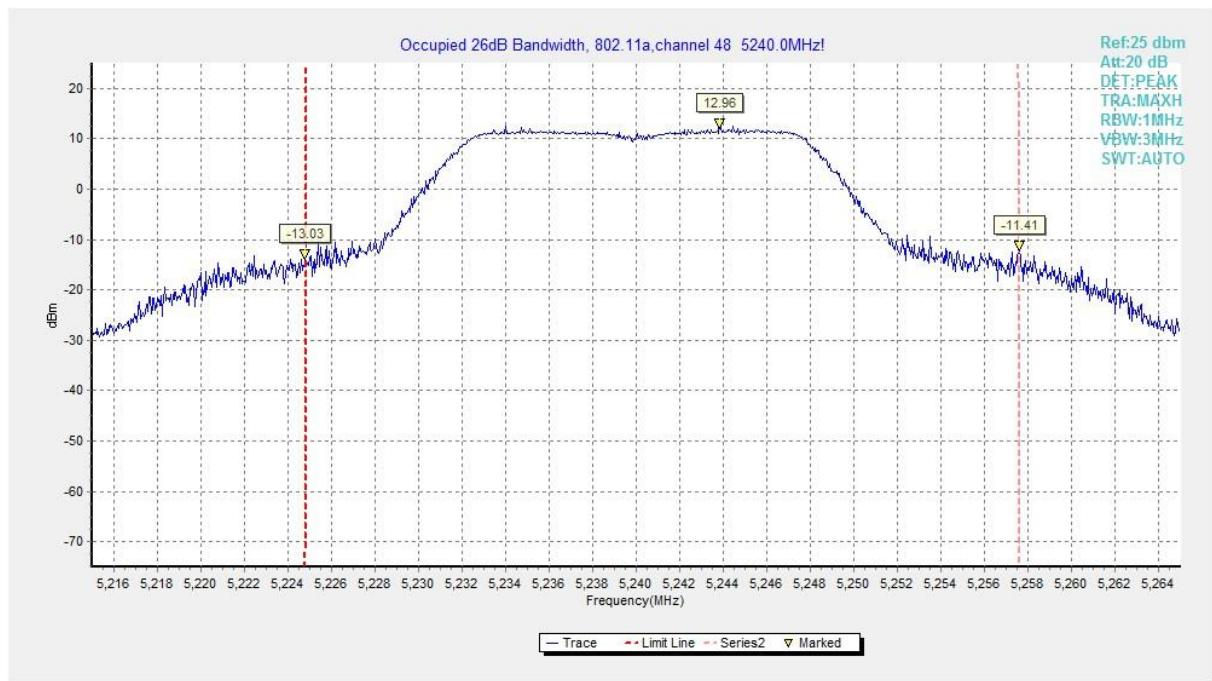


Fig. 3 Occupied 26dB Bandwidth (802.11a, 5240MHz)

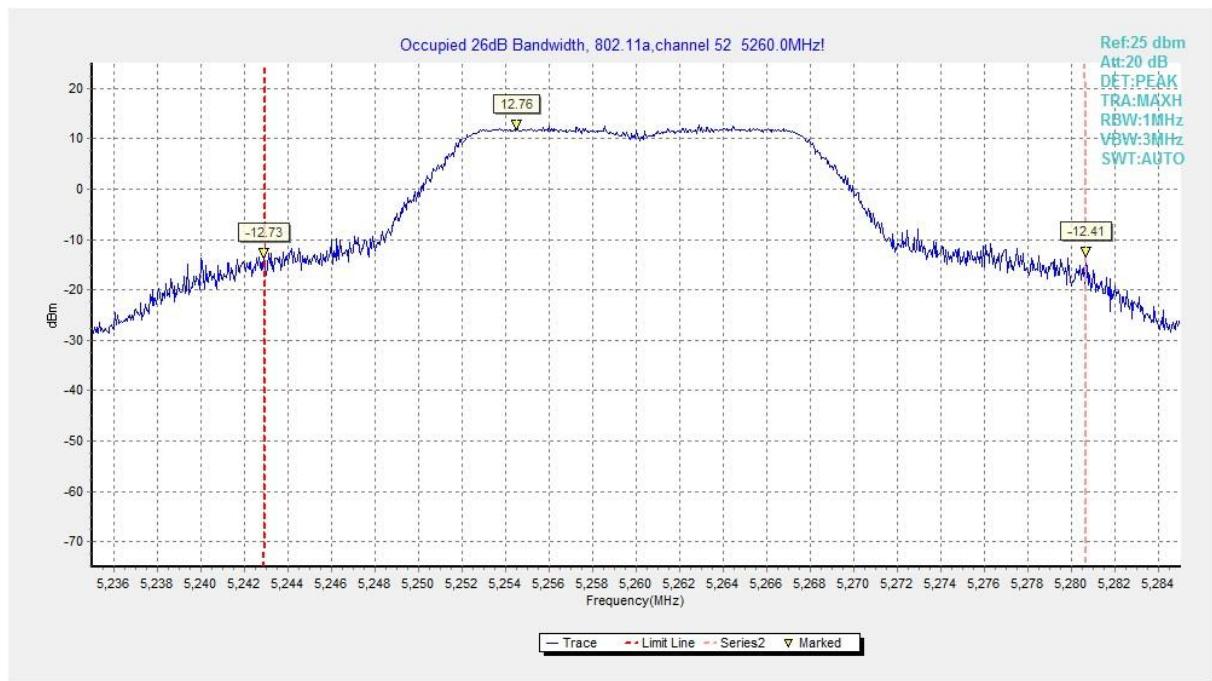


Fig. 4 Occupied 26dB Bandwidth (802.11a, 5260MHz)

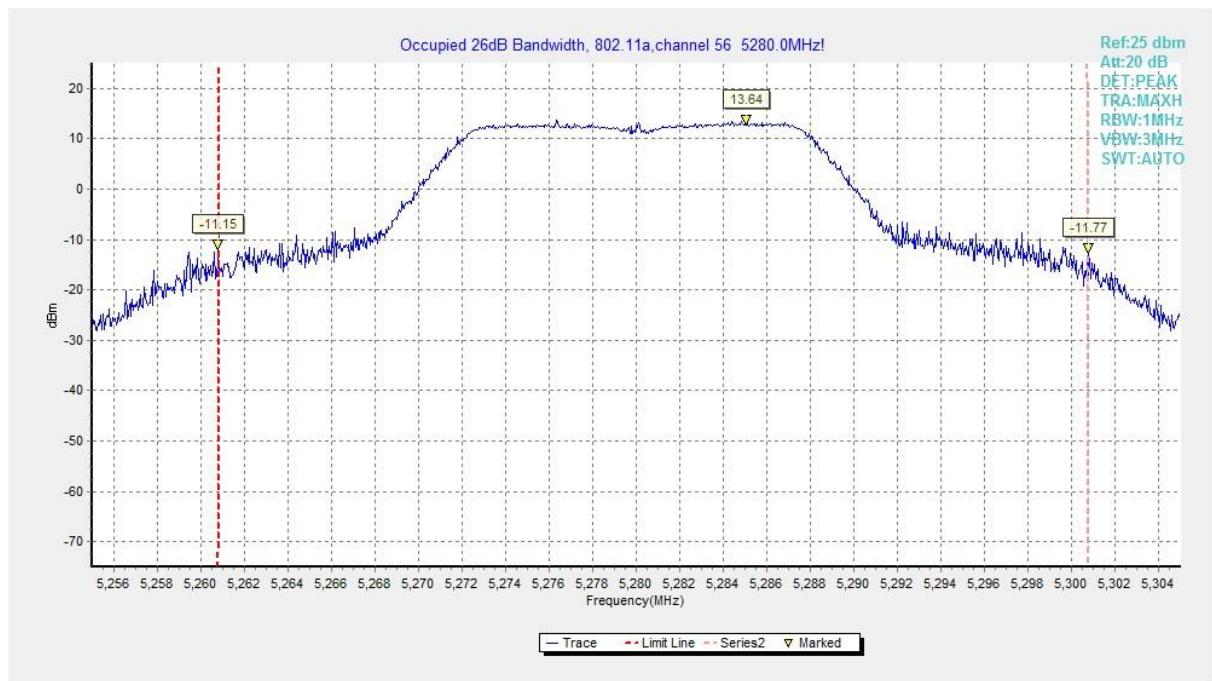


Fig. 5 Occupied 26dB Bandwidth (802.11a, 5280MHz)

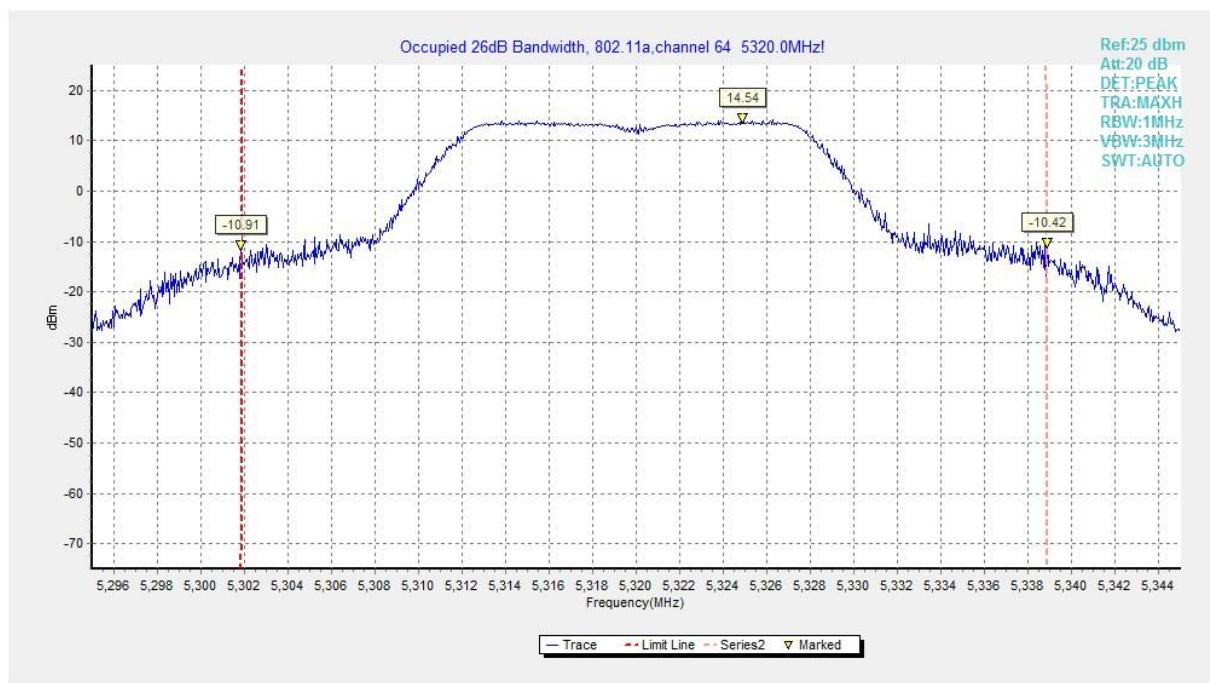


Fig. 6 Occupied 26dB Bandwidth (802.11a, 5320MHz)

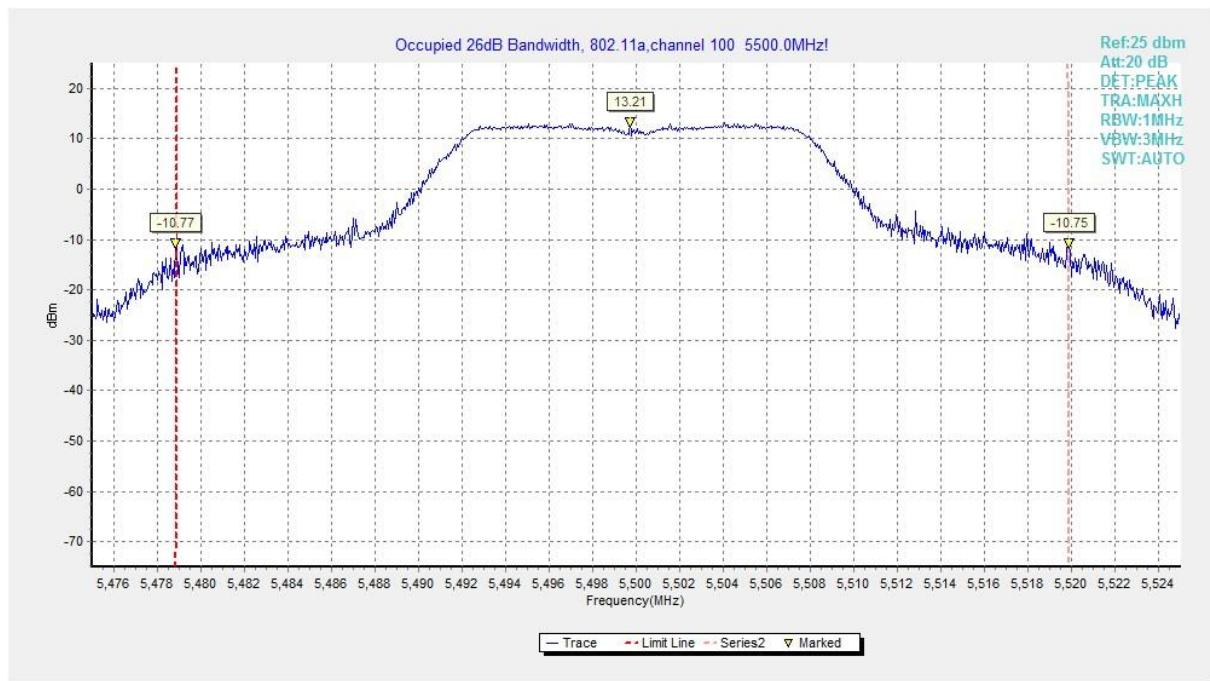


Fig. 7 Occupied 26dB Bandwidth (802.11a, 5500MHz)

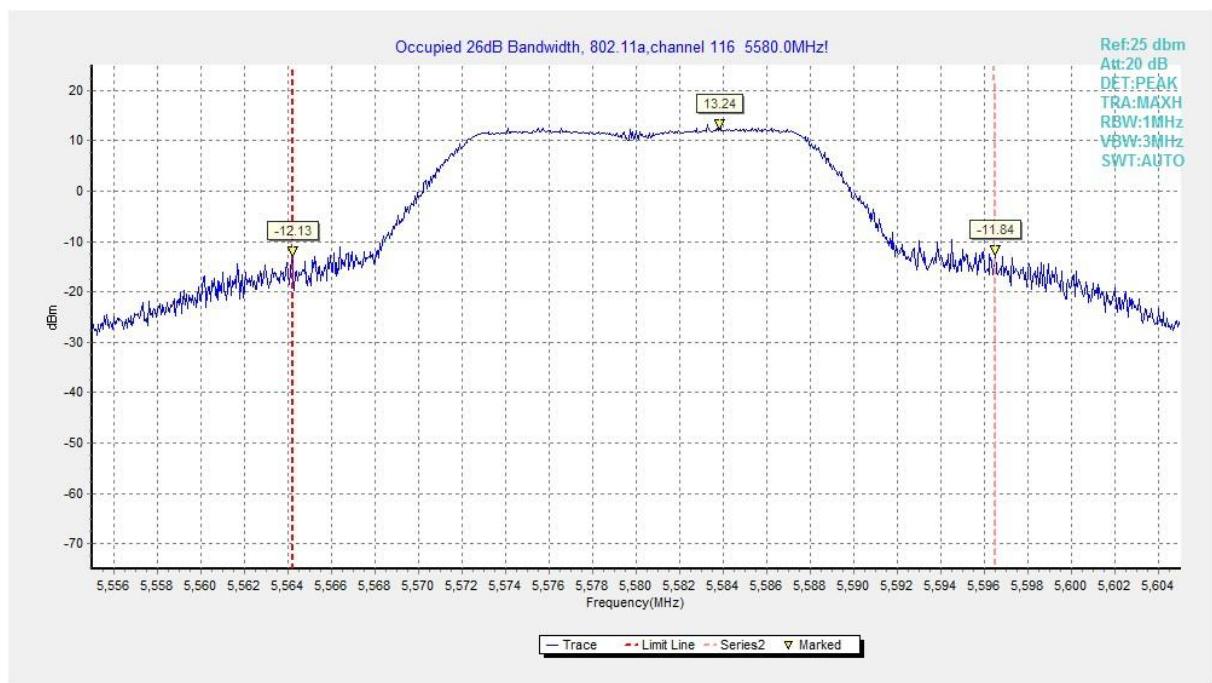


Fig. 8 Occupied 26dB Bandwidth (802.11a, 5580MHz)

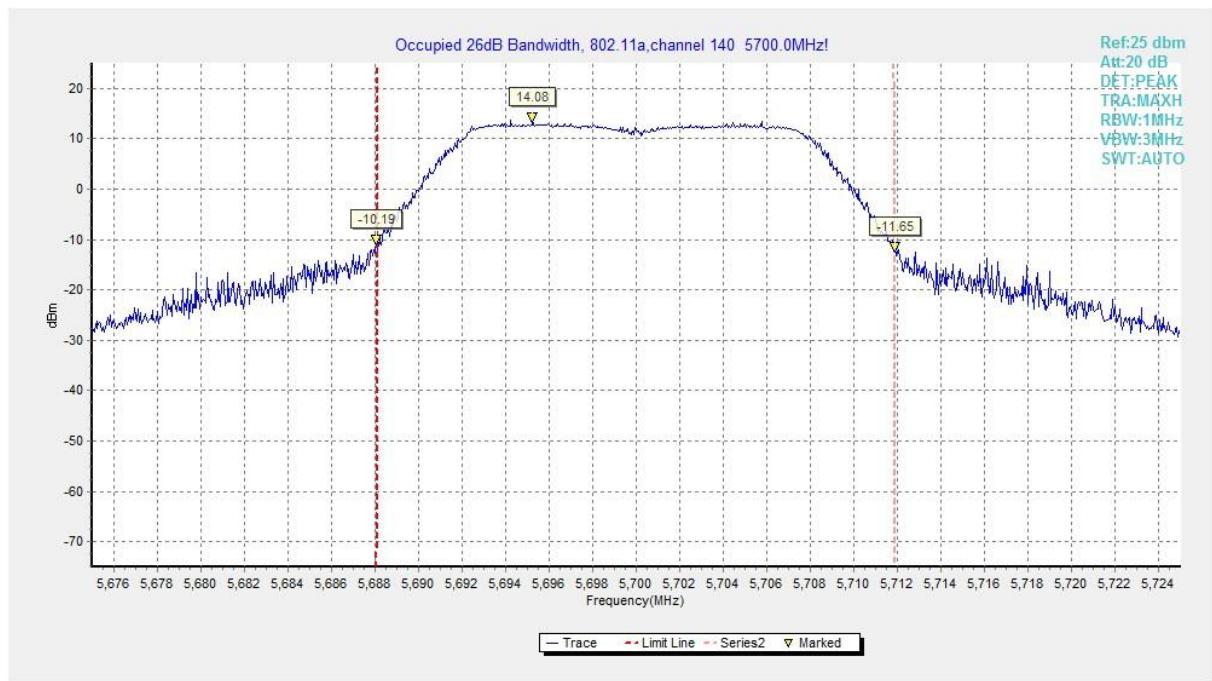


Fig. 9 Occupied 26dB Bandwidth (802.11a, 5700MHz)

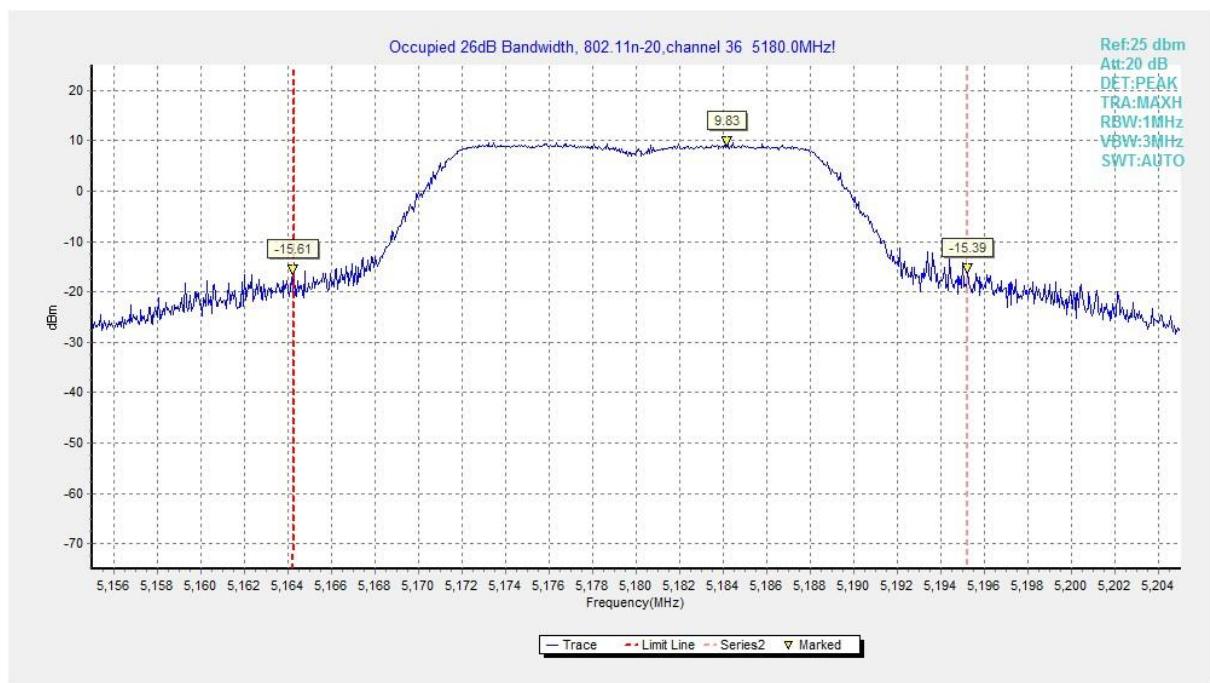


Fig. 10 Occupied 26dB Bandwidth (802.11n-HT20, 5180MHz)

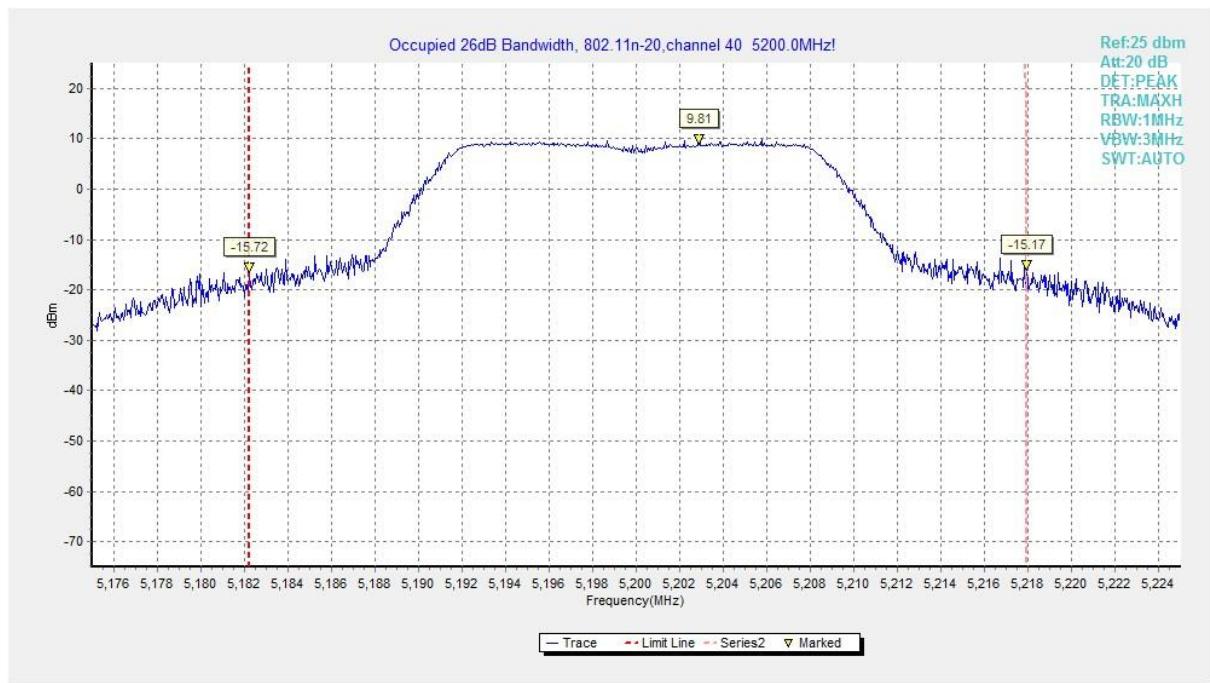


Fig. 11 Occupied 26dB Bandwidth (802.11n-HT20, 5200MHz)



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

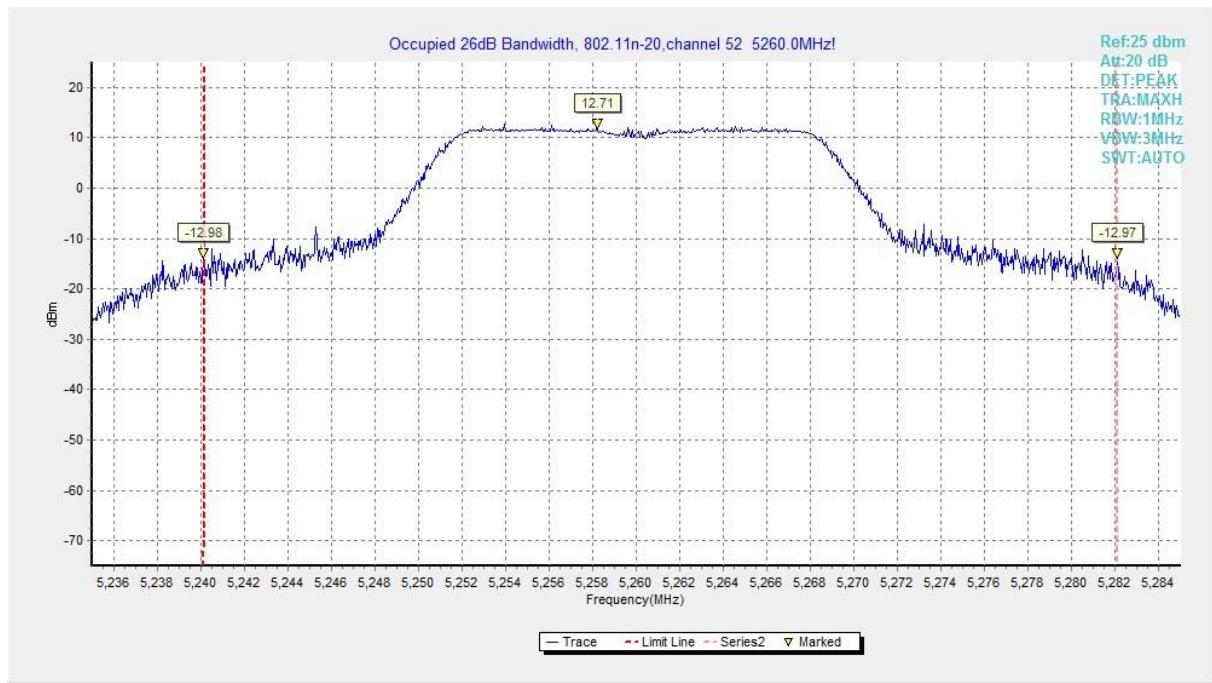


Fig. 13 Occupied 26dB Bandwidth (802.11n-HT20, 5260MHz)

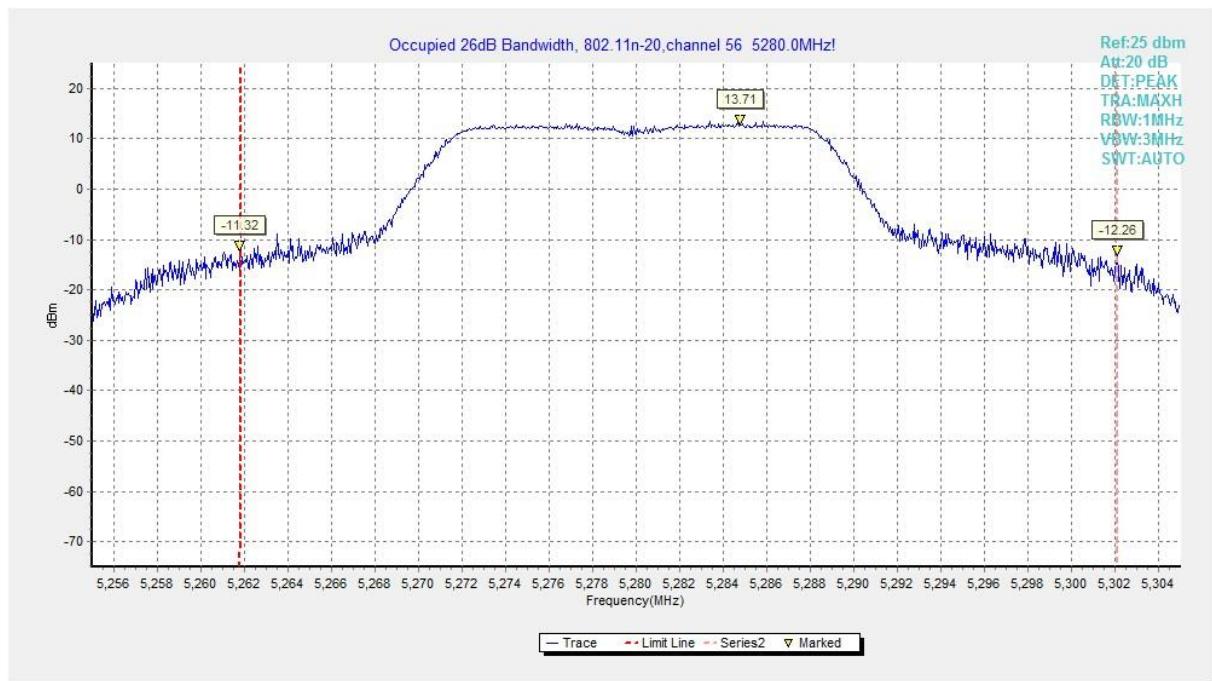


Fig. 14 Occupied 26dB Bandwidth (802.11n-HT20, 5280MHz)

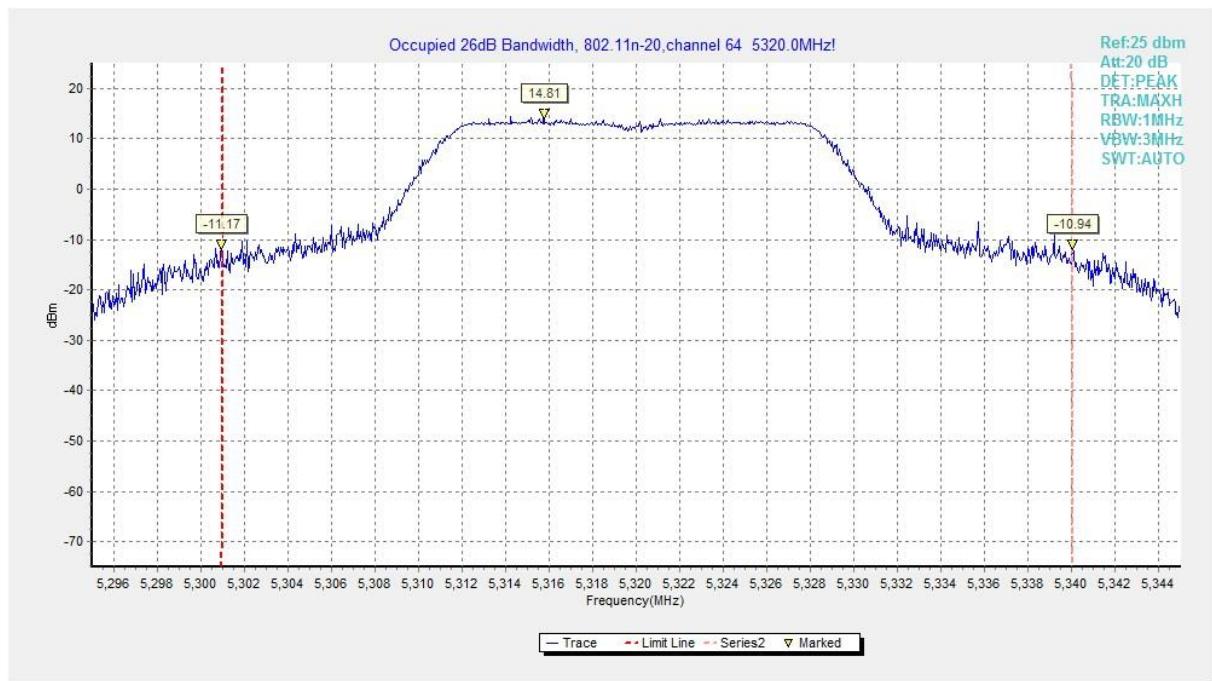


Fig. 15 Occupied 26dB Bandwidth (802.11n-HT20, 5320MHz)

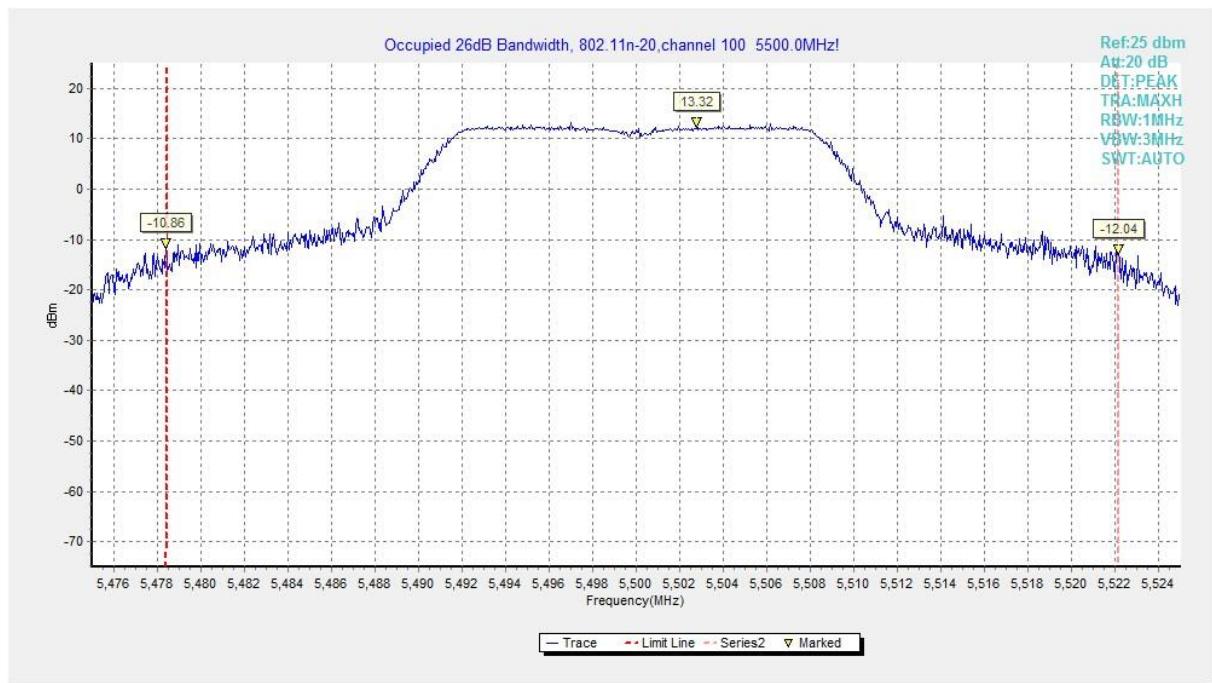


Fig. 16 Occupied 26dB Bandwidth (802. 11n-HT20, 5500MHz)

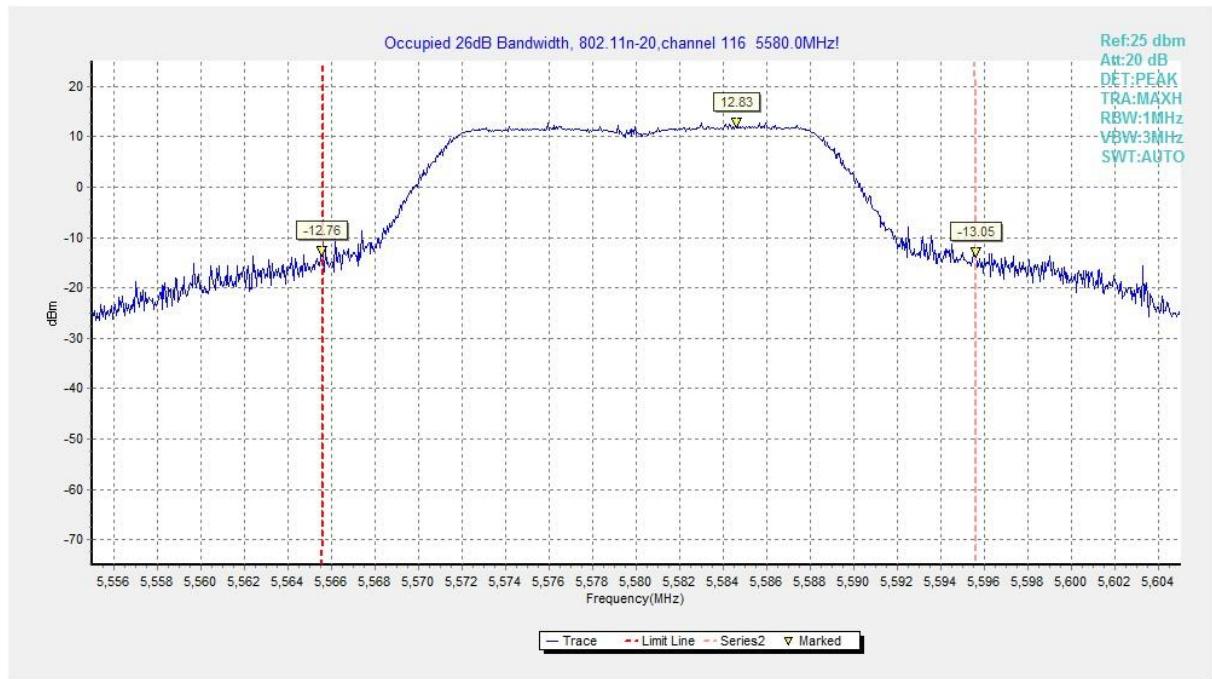


Fig. 17 Occupied 26dB Bandwidth (802. 11n-HT20, 5580MHz)

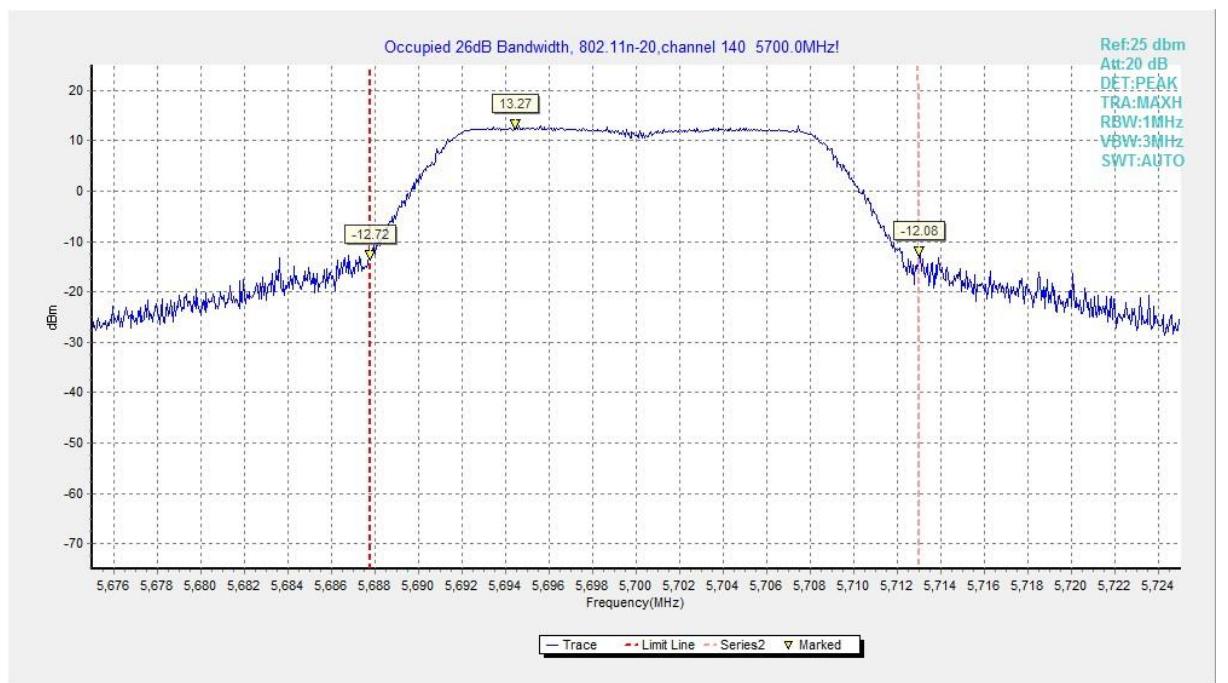


Fig. 18 Occupied 26dB Bandwidth (802.11n-HT20, 5700MHz)

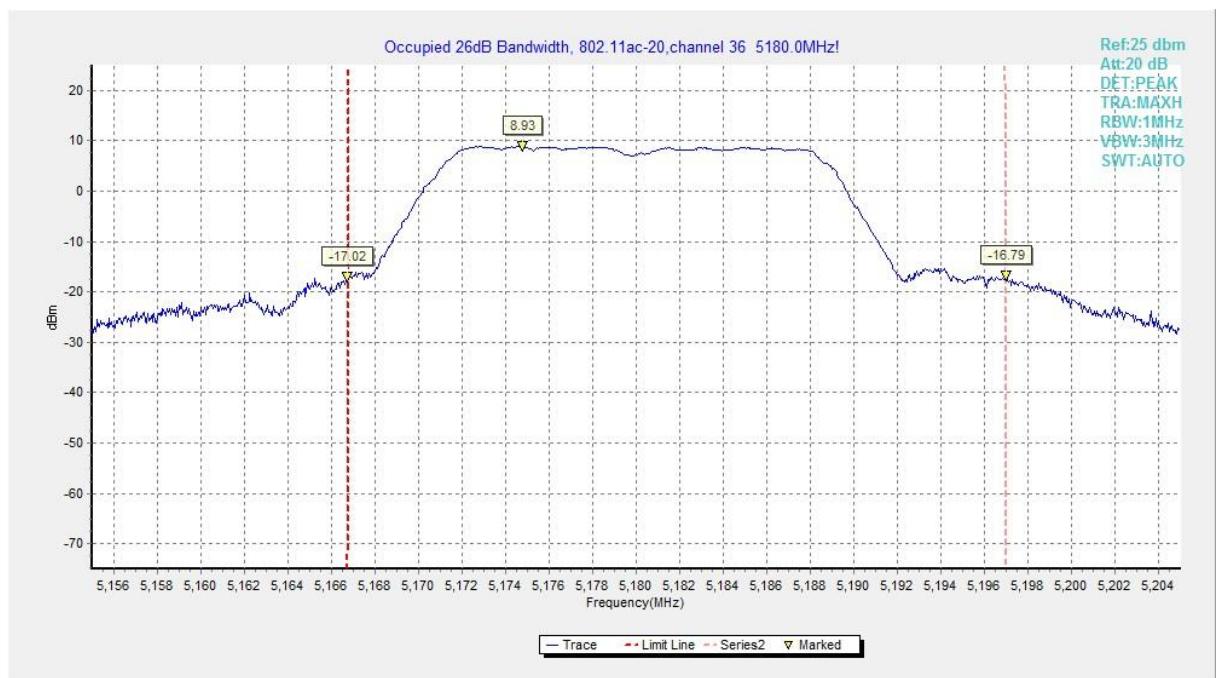


Fig. 19 Occupied 26dB Bandwidth (802.11ac-HT20, 5180MHz)



Fig. 20 Occupied 26dB Bandwidth (802.11ac-HT20, 5200MHz)

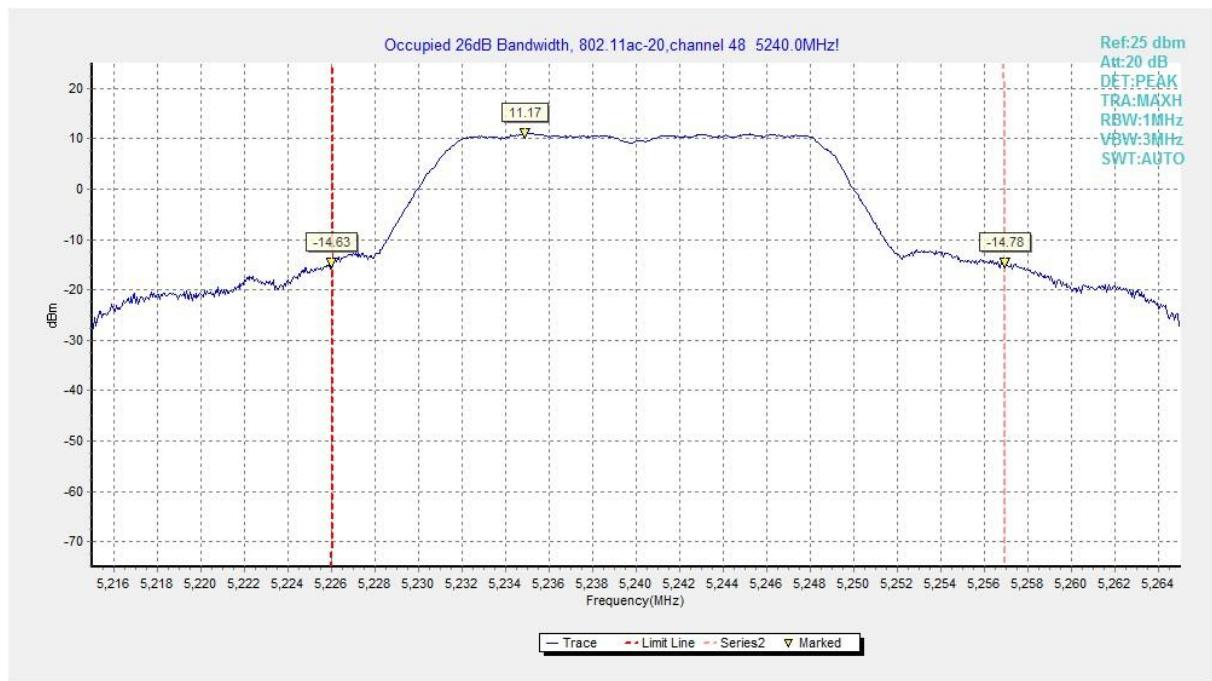


Fig. 21 Occupied 26dB Bandwidth (802.11ac-HT20, 5240MHz)



Fig. 22 Occupied 26dB Bandwidth (802.11ac-HT20, 5260MHz)



Fig. 23 Occupied 26dB Bandwidth (802.11ac-HT20, 5280MHz)



Fig. 24 Occupied 26dB Bandwidth (802.11ac-HT20, 5320MHz)



Fig. 25 Occupied 26dB Bandwidth (802.11ac-HT20, 5500MHz)

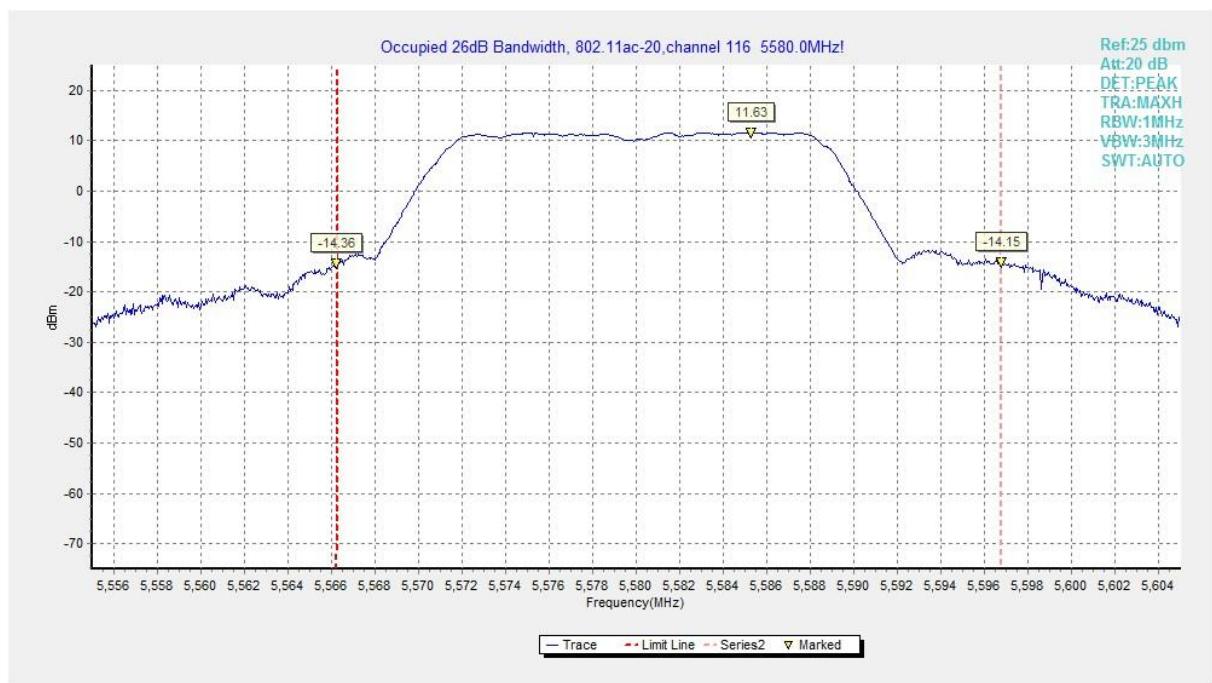


Fig. 26 Occupied 26dB Bandwidth (802.11ac-HT20, 5580MHz)



Fig. 27 Occupied 26dB Bandwidth (802.11ac-HT20, 5700MHz)



Fig. 28 Occupied 26dB Bandwidth (802.11n-HT40, 5190MHz)



Fig. 29 Occupied 26dB Bandwidth (802.11n-HT40, 5230MHz)

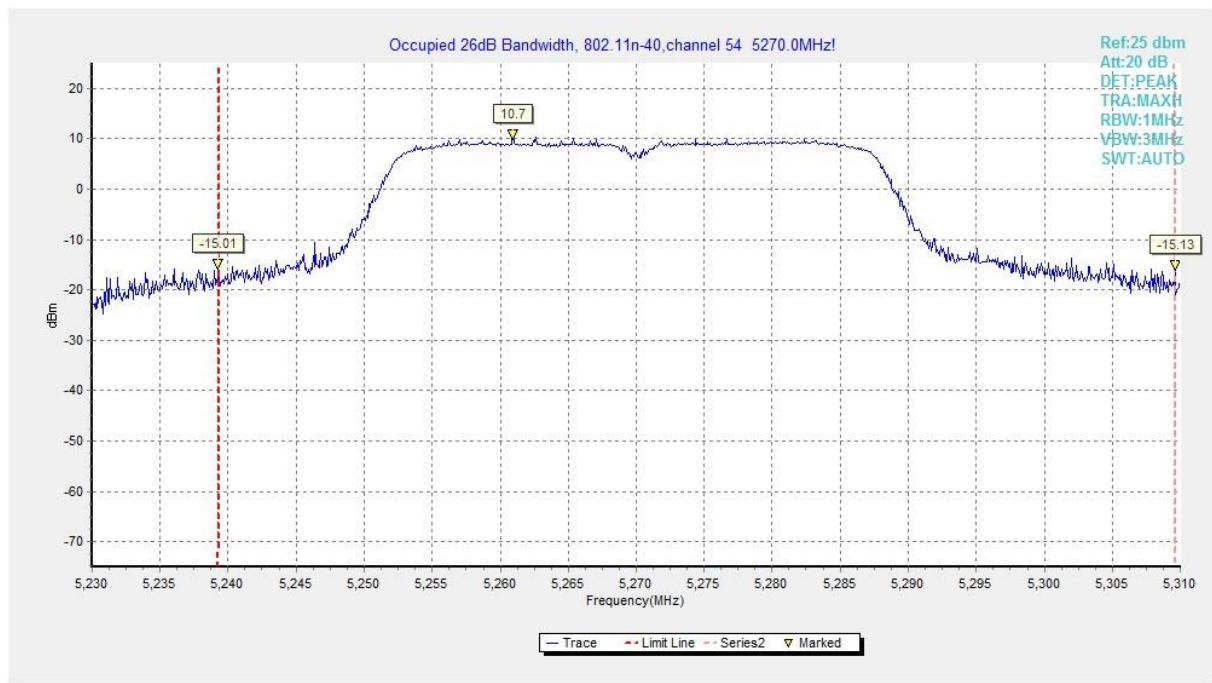


Fig. 30 Occupied 26dB Bandwidth (802.11n-HT40, 5270MHz)

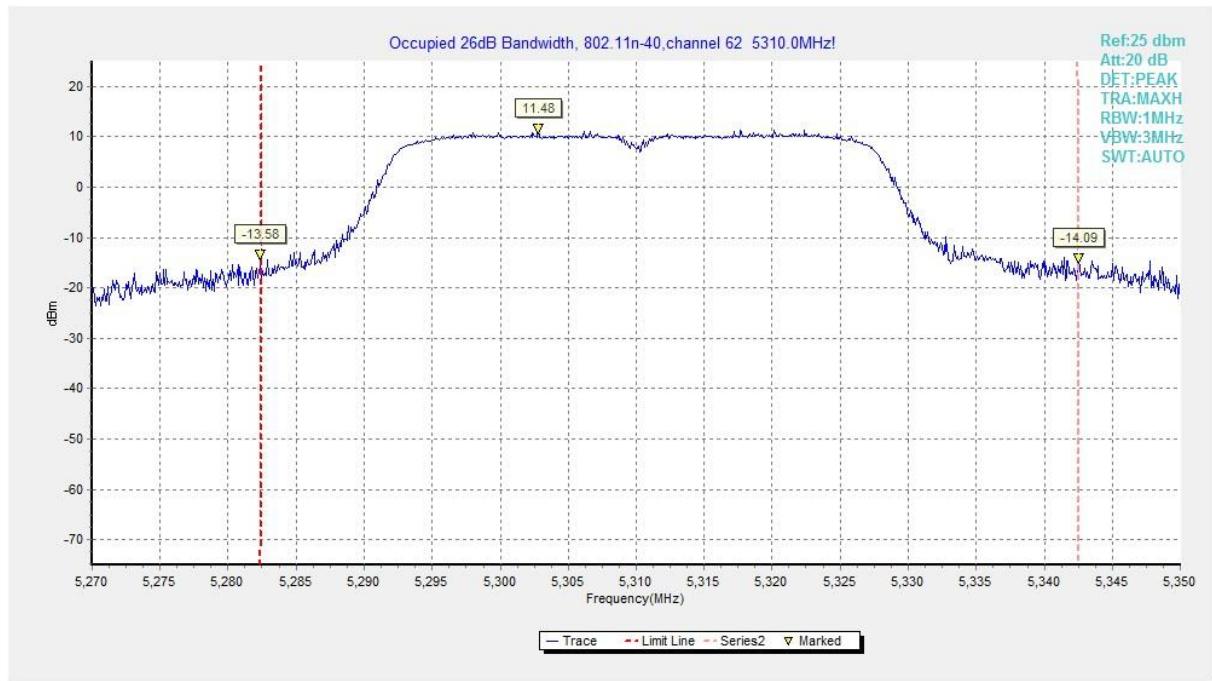


Fig. 31 Occupied 26dB Bandwidth (802.11n-HT40, 5310MHz)

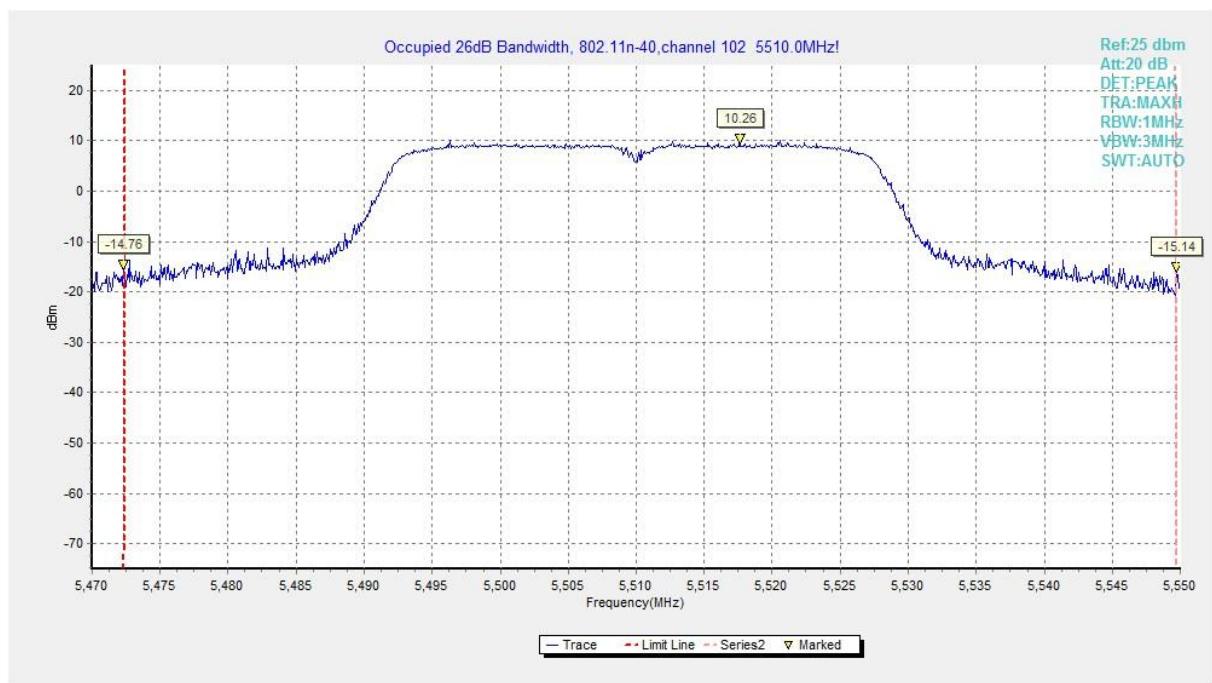


Fig. 32 Occupied 26dB Bandwidth (802. 11n-HT40, 5510MHz)

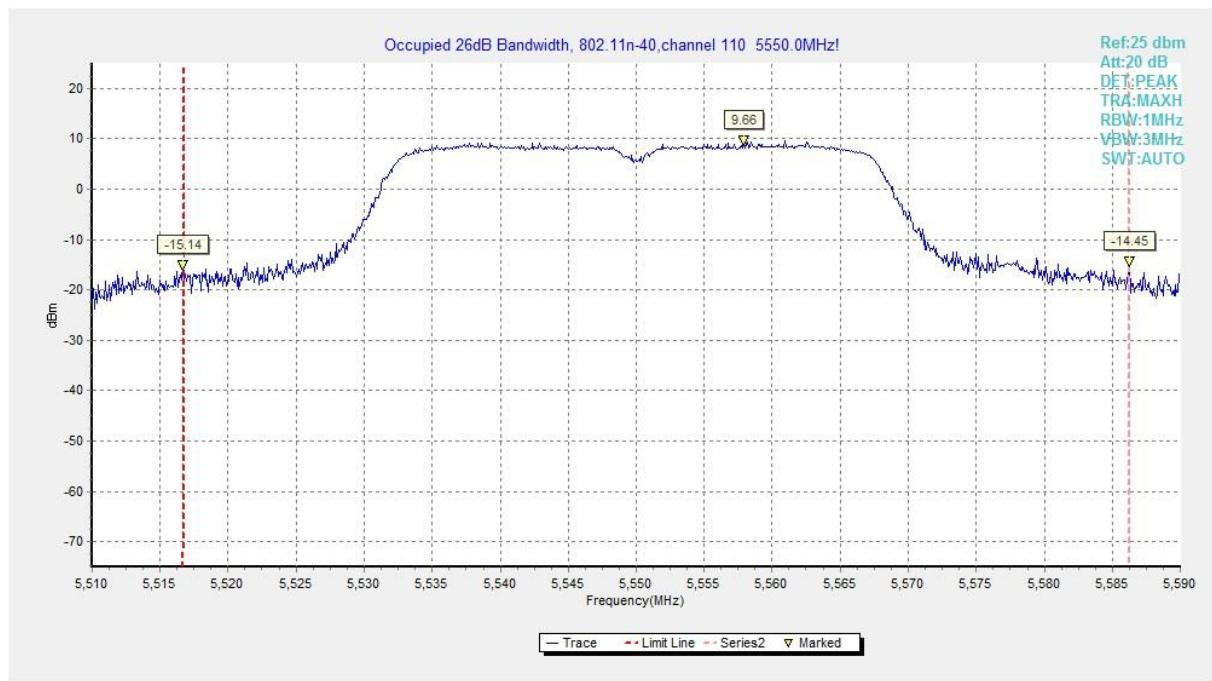


Fig. 33 Occupied 26dB Bandwidth (802. 11n-HT40, 5550MHz)

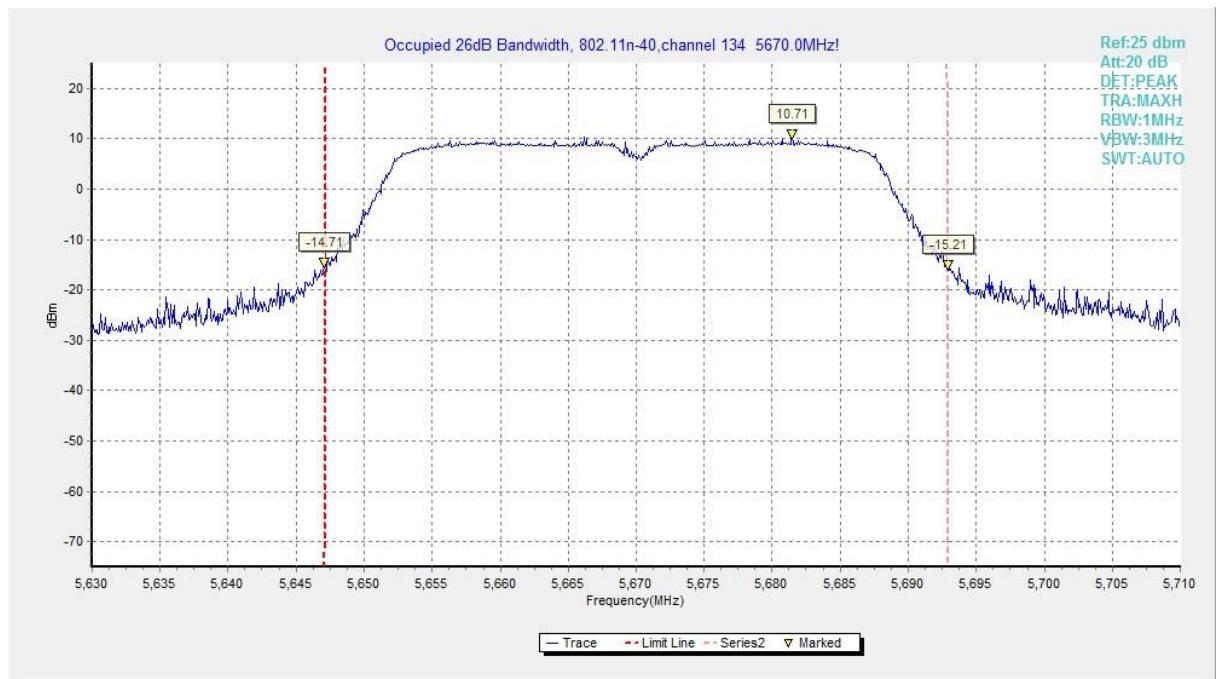


Fig. 34 Occupied 26dB Bandwidth (802.11n-HT40, 5670MHz)



Fig. 35 Occupied 26dB Bandwidth (802.11ac-HT40, 5190MHz)



Fig. 36 Occupied 26dB Bandwidth (802.11ac-HT40, 5230MHz)



Fig. 37 Occupied 26dB Bandwidth (802.11ac-HT40, 5270MHz)



Fig. 38 Occupied 26dB Bandwidth (802.11ac-HT40, 5310MHz)

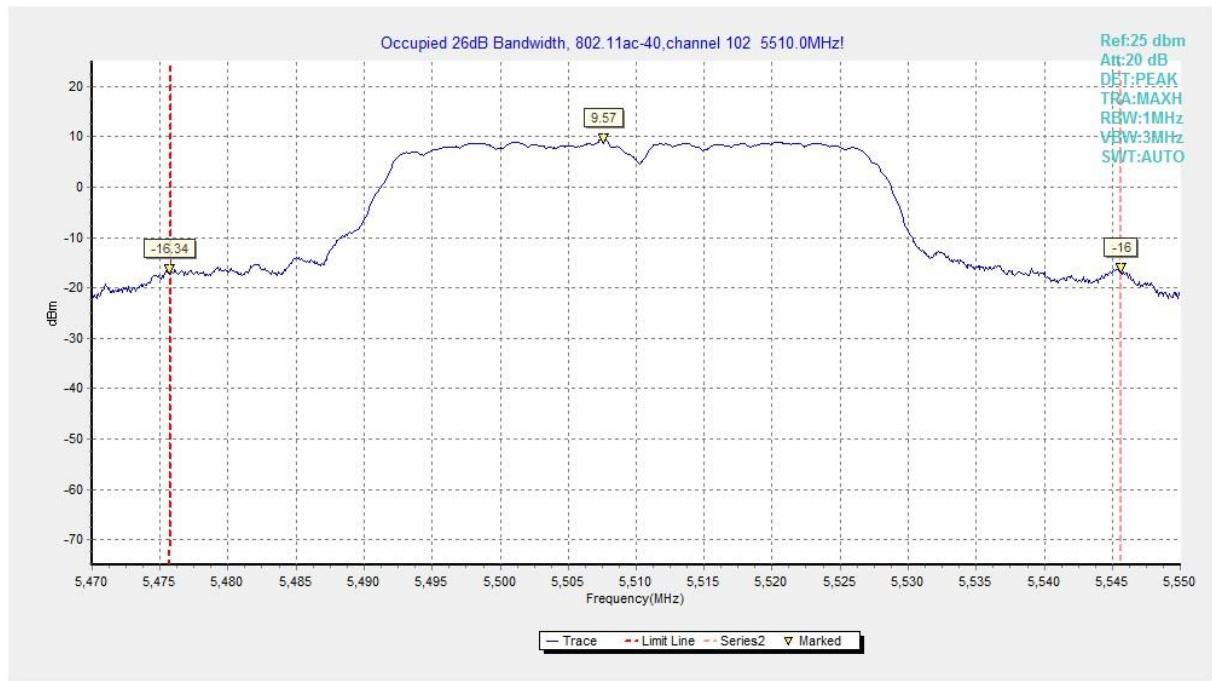


Fig. 39 Occupied 26dB Bandwidth (802.11ac-HT40, 5510MHz)



Fig. 40 Occupied 26dB Bandwidth (802. 11ac-HT40, 5550MHz)



Fig. 41 Occupied 26dB Bandwidth (802. 11ac-HT40, 5670MHz)

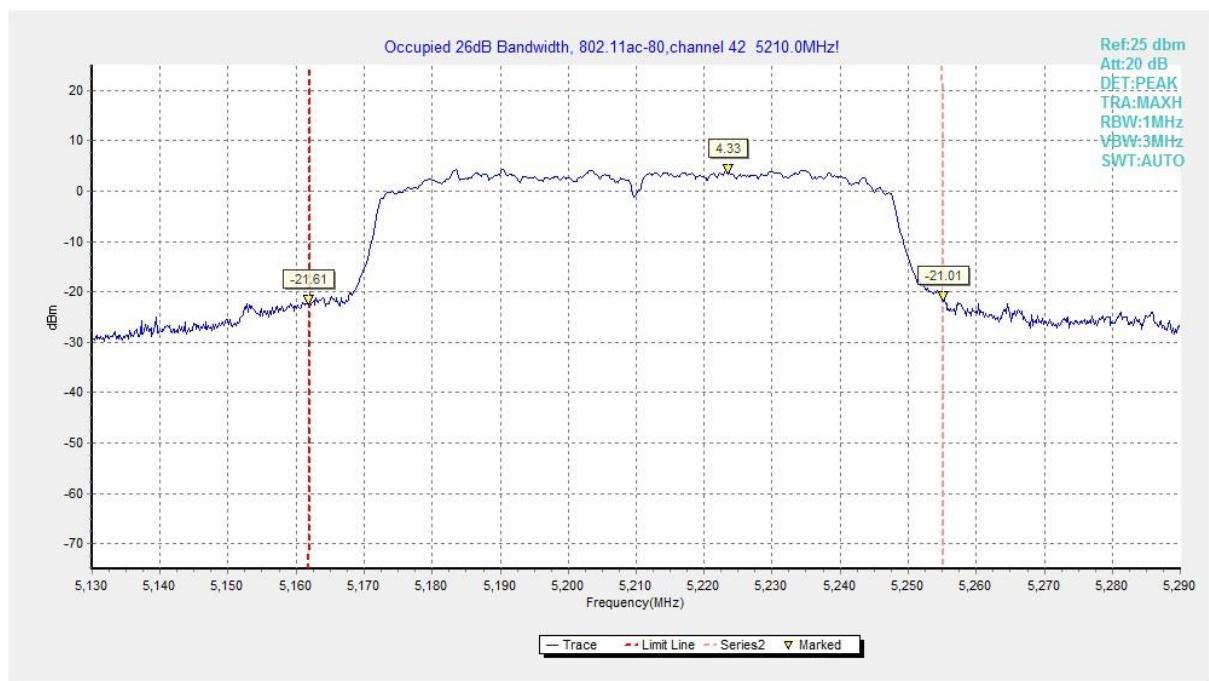


Fig. 42 Occupied 26dB Bandwidth (802. 11ac-HT80, 5210MHz)

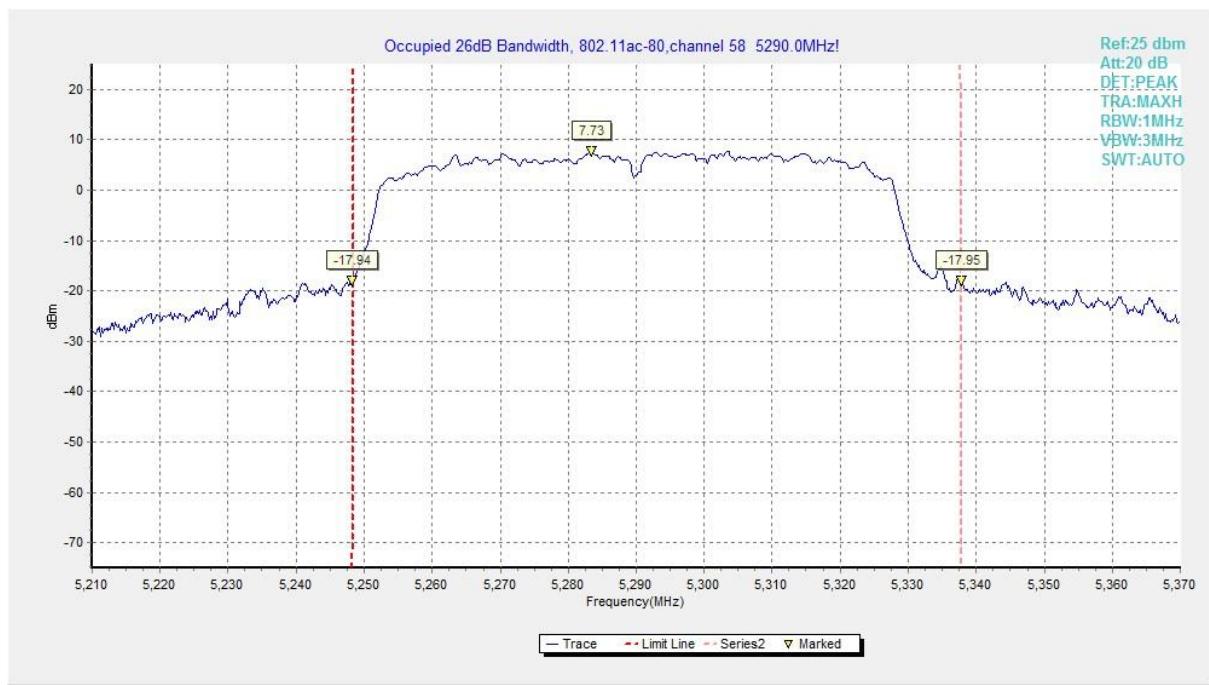


Fig. 43 Occupied 26dB Bandwidth (802. 11ac-HT80, 5290MHz)

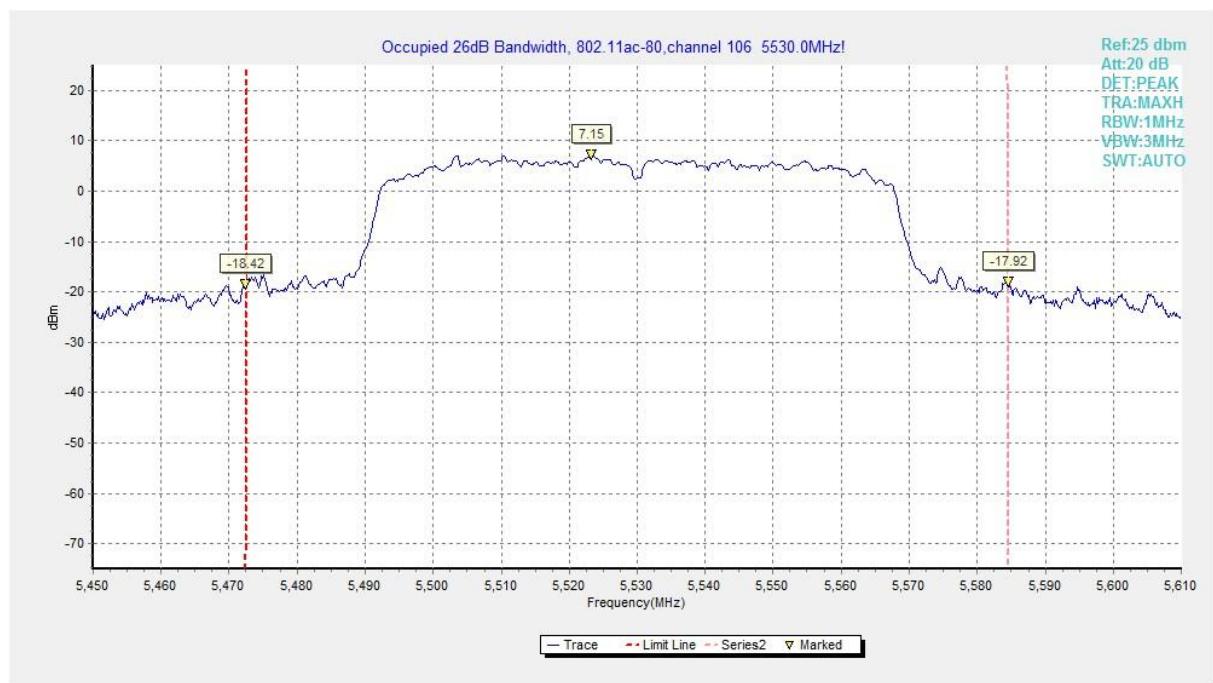


Fig. 44 Occupied 26dB Bandwidth (802. 11ac-HT80, 5530MHz)

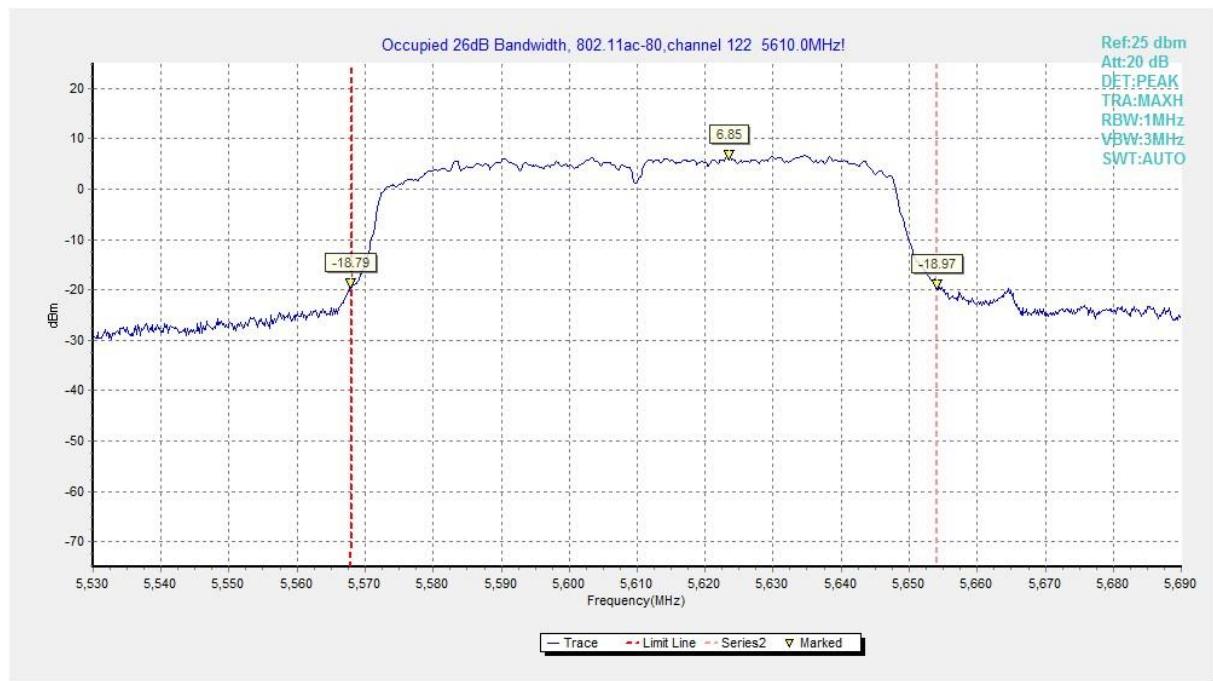


Fig. 45 Occupied 26dB Bandwidth (802. 11ac-HT80, 5610MHz)

A.5. Band Edges Compliancy

A5.1 Band Edges - Radiated

Measurement Limit:

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

The measurement is made according to KDB 789033

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

Measurement Uncertainty:

Measurement Uncertainty	5.26dB
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Measurement Result:

Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz	Fig.46	P
	5320 MHz	Fig.47	P
	5500 MHz	Fig.48	P
	5700 MHz	Fig.49	P
802.11n HT20	5180 MHz	Fig.50	P
	5320 MHz	Fig.51	P
	5500 MHz	Fig.52	P
	5700 MHz	Fig.53	P
802.11n HT40	5190 MHz	Fig.54	P
	5310 MHz	Fig.55	P
	5510 MHz	Fig.56	P
	5670 MHz	Fig.57	P
802.11ac HT80	5210MHz	Fig.58	P
	5290MHz	Fig.59	P
	5530MHz	Fig.60	P

Conclusion: PASS

Test graphs as below:

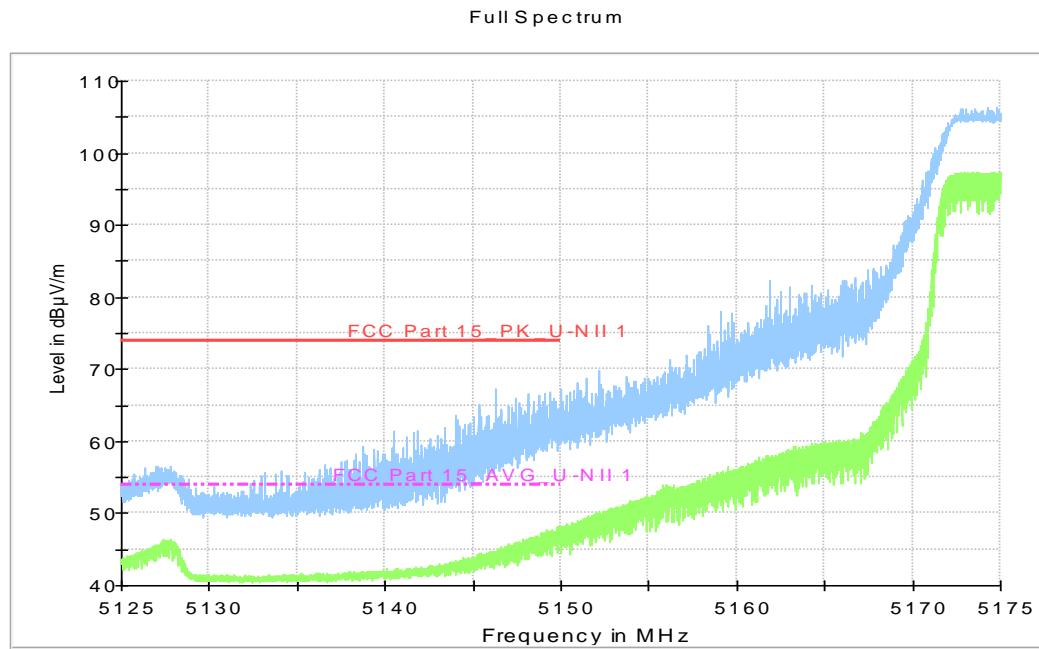


Fig. 46 Band Edges (802.11a, 5180MHz)

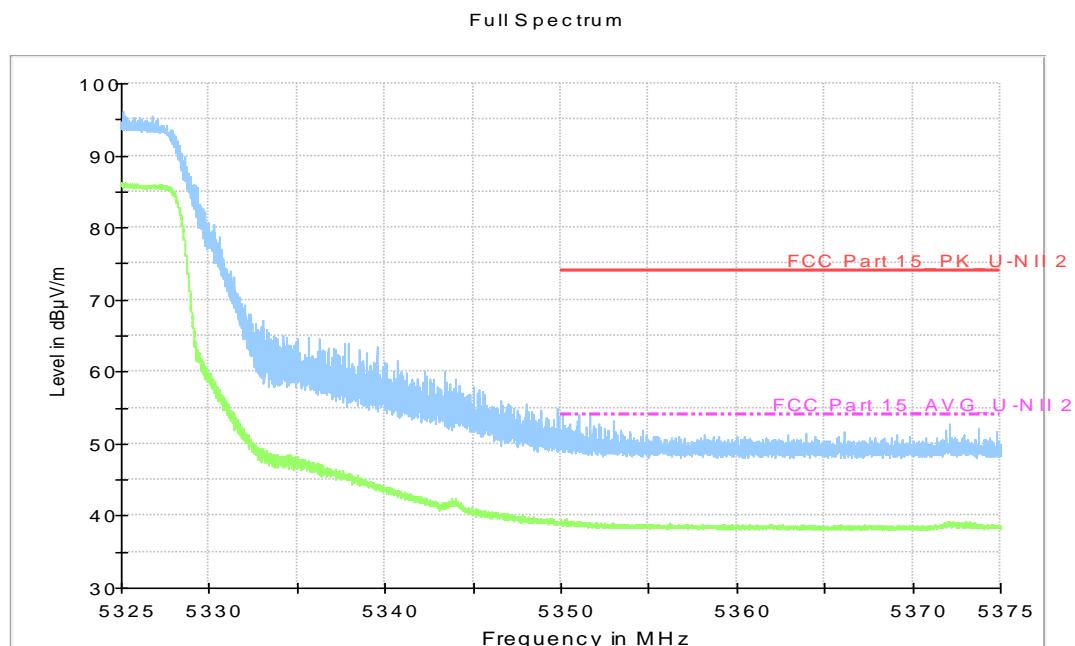


Fig. 47 Band Edges (802.11a, 5320MHz)

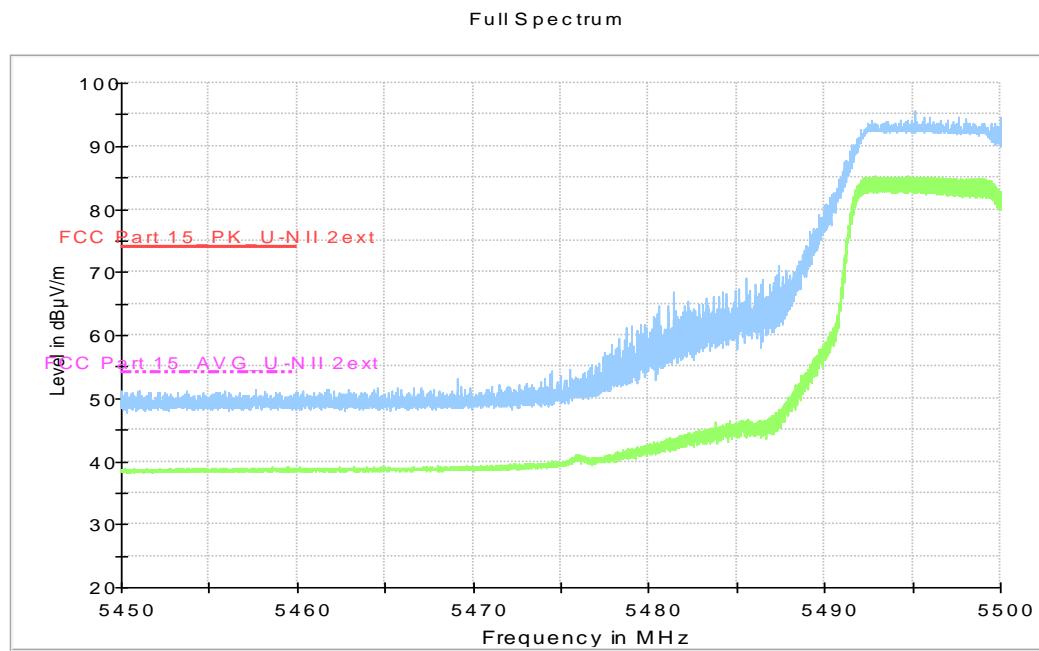


Fig. 48 Band Edges (802.11a, 5500MHz)

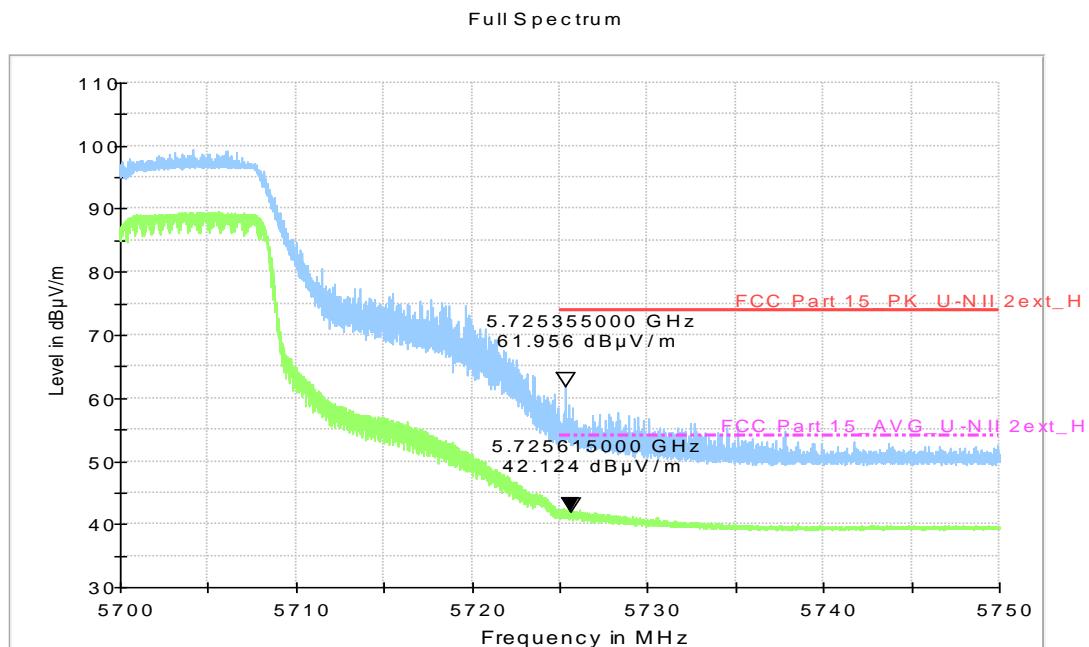


Fig. 49 Band Edges (802.11a, 5700MHz)

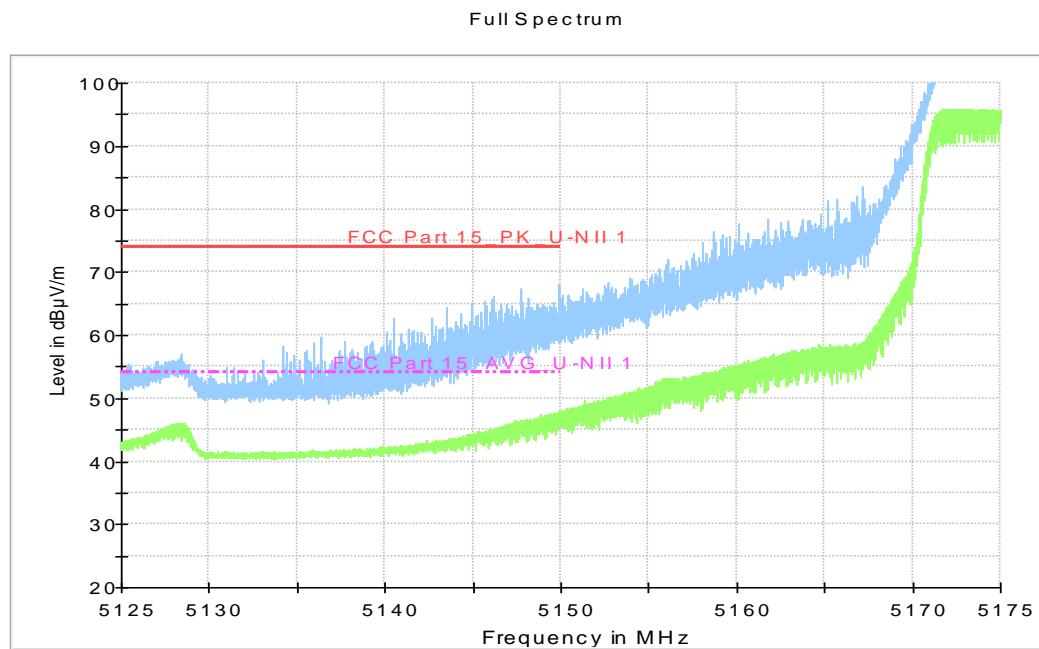


Fig. 50 Band Edges (802.11n-HT20, 5180MHz)

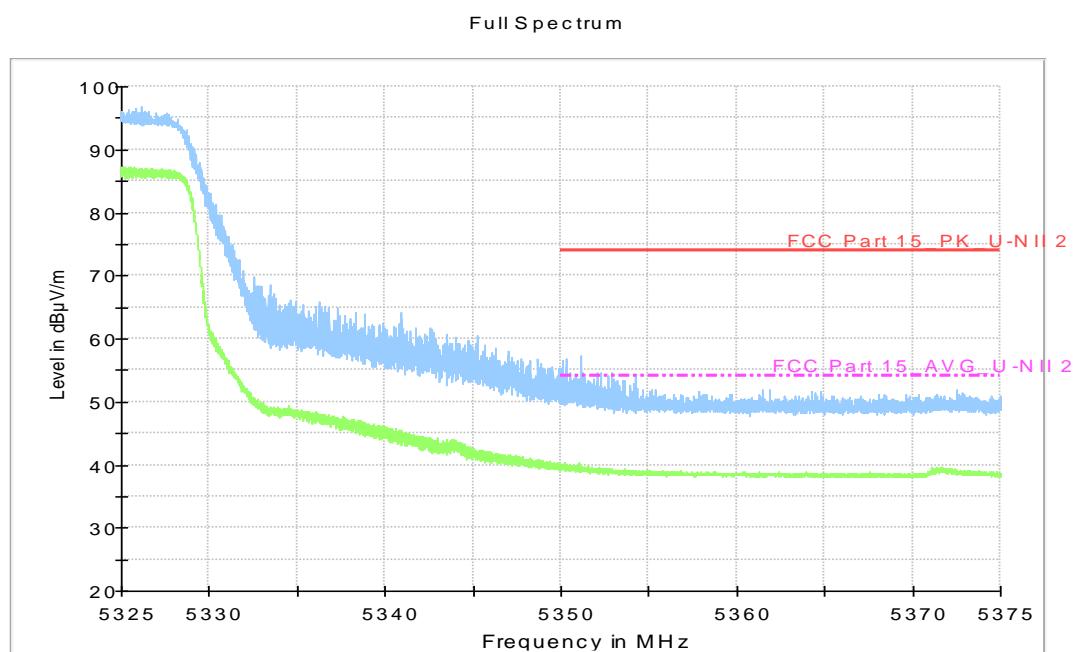


Fig. 51 Band Edges (802.11n-HT20, 5320MHz)