

FCC PART 15E TEST REPORT FOR CERTIFICATION
On Behalf of

Hui Zhou Gaoshengda Technology Co.,LTD

WIFI+BT Module

Model Number: WXT26M2601B

FCC ID: 2AC23-WXT26

Prepared for:	Hui Zhou Gaoshengda Technology Co.,LTD
	NO.75 Zhongkai Development Area, Huizhou, Guangdong, China
Prepared By:	EST Technology Co., Ltd.
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Report Number:	ESTE-R2012155
Date of Test:	Nov. 27~Dec. 17, 2020
Date of Report:	Dec. 23, 2020

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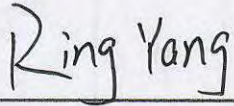
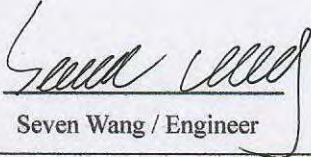
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EST Technology Co., Ltd.

Applicant:	Hui Zhou Gaoshengda Technology Co.,LTD		
Address:	NO.75 Zhongkai Development Area, Huizhou, Guangdong, China		
Manufacturer:	Hui Zhou Gaoshengda Technology Co.,LTD		
Address:	NO.75 Zhongkai Development Area, Huizhou, Guangdong, China		
E.U.T:	WIFI+BT Module		
Model Number:	WXT26M2601B		
Power Supply:	DC 3.3V		
Trade Name:	GSD	Serial No.:	-----
Date of Receipt:	Nov. 27, 2020	Date of Test:	Nov. 27~Dec. 17, 2020
Test Specification:	FCC Part 15 Subpart E 15.407 ANSI C63.10:2013 FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01 FCC KDB 662911 D01 Multiple Transmitter Output v02r01		
Test Result:	The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart E requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd. Date: Nov. 23, 2020		
Prepared by:	Reviewed by:	Approved by:	
 Ring Yang / Assistant	 Seven Wang / Engineer	 Iceman Hu / Manager	
Other Aspects:			
None.			
Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested			
This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.			

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

FCC ID	:	2AC23-WXT26
Product Name	:	WIFI+BT Module
Model Number	:	WXT26M2601B
Software Version	:	1.0
Hardware Version	:	1.0
Operation frequency	:	U-NII-1: 5150 MHz~5250 MHz U-NII-3: 5725 MHz~5850 MHz
Number of channel	:	U-NII-1: IEEE 802.11a / n HT20 / ac VHT20 / ax HE20: 4 Channels IEEE 802.11n HT40 / ac VHT40 / ax HE40: 2 Channels; IEEE 802.11ac VHT80 / ax HE80: 1 Channel. U-NII-3: IEEE 802.11a / n HT20 / ac VHT20 / ax HE20: 5 Channels; IEEE 802.11n HT40 / ac VHT40 / ax HE40: 2 Channels; IEEE 802.11ac VHT80 / ax HE80: 1 Channel.
Modulation	:	OFDM(QPSK, BPSK, 16-QAM, 64-QAM,256-QAM) OFDMA(QPSK, BPSK, 16-QAM, 64-QAM,256-QAM,1024-QAM)
Transmit Data Rate	:	IEEE 802.11a: 54, 48, 36, 24, 18, 12, 9, 6Mbps; IEEE 802.11n: up to 300Mbps; IEEE 802.11ac: up to 866Mbps; IEEE 802.11ax: up to 1200Mbps;
Channels Spacing	:	IEEE 802.11a: 20MHz; IEEE 802.11n HT20: 20MHz; IEEE 802.11n HT40: 40MHz; IEEE 802.11ac VHT20: 20MHz; IEEE 802.11ac VHT40: 40MHz; IEEE 802.11ac VHT80: 80MHz; IEEE 802.11ax HE20: 20MHz; IEEE 802.11ax HE40: 40MHz; IEEE 802.11ax HE80: 80MHz

Transmit Power	:	U-NII-1 IEEE 802.11a: 17.15dBm IEEE 802.11n HT20: 20.12dBm IEEE 802.11n HT40: 23.37dBm IEEE 802.11ac VHT20: 20.34dBm IEEE 802.11ac VHT40: 23.31dBm IEEE 802.11ac VHT80: 23.92dBm IEEE 802.11ax HE20: 23.01dBm IEEE 802.11ax HE40: 22.71dBm IEEE 802.11ax HE80: 22.68dBm U-NII-3 IEEE 802.11a: 17.78dBm IEEE 802.11n HT20:20.64dBm IEEE 802.11n HT40: 23.55dBm IEEE 802.11ac VHT20: 21.00dBm IEEE 802.11ac VHT40: 23.42dBm IEEE 802.11ac VHT80: 24.13dBm IEEE 802.11ax HE20: 25.98dBm IEEE 802.11ax HE40: 25.62dBm IEEE 802.11ax HE80: 24.13dBm
Sample Type	:	Prototype production

Note:

For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

1.2. The antenna information for EUT

Ant No.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	PIFA	N/A	3
2	N/A	N/A	PIFA	N/A	3

Remark:

- (1) The EUT can work as CDD mode in IEEE 802.11n and IEEE 802.11ac, and can operate with one spatial stream.

According to KDB 662911 F 2) f) (i):

$$\text{Directional gain} = 3\text{dBi} + 10 \times \log(2/1)\text{dB} = 6.01\text{dBi} > 6\text{dBi}$$

So, the output power limit and power spectral density should be reduced.

For output Power:

$$\text{U-NII-1 Limit is } 24\text{dBm} - (6.01\text{dBi} - 6\text{dBi}) = 23.99\text{dBm}$$

$$\text{U-NII-3 Limit is } 30\text{dBm} - (6.01\text{dBi} - 6\text{dBi}) = 29.99\text{dBm}$$

For power spectral density:

$$\text{U-NII-1 Limit is } 11\text{dBm/MHz} - (6.01\text{dBi} - 6\text{dBi}) = 10.99\text{dBm/MHz}$$

$$\text{U-NII-3 Limit is } 30\text{dBm}/500\text{KHz} - (6.01\text{dBi} - 6\text{dBi}) = 29.99\text{dBm}/500\text{KHz}$$

- (2) After pre-test all antenna configurations, the worst case configuration as list below.

TX Mode \ ANT No.	SISO Configuration	MIMO Configuration
IEEE 802.11a	Ant 1 and Ant 2	/
IEEE 802.11n HT20	/	ANT1+ANT2
IEEE 802.11n HT40	/	ANT1+ANT2
IEEE 802.11ac VHT20	/	ANT1+ANT2
IEEE 802.11ac VHT40	/	ANT1+ANT2
IEEE 802.11ac VHT80	/	ANT1+ANT2
IEEE 802.11ax HE20	/	ANT1+ANT2
IEEE 802.11ax HE40	/	ANT1+ANT2
IEEE 802.11ax HE80	/	ANT1+ANT2

2. SUMMARY OF TEST

2.1. Summary of test result

Report Section	Description of Test Item	FCC Standard Section	Results
3	6dB Bandwidth & 26dB Bandwidth & 99% Occupied Bandwidth	15.407(a) 15.407(e)	PASS
4	Maximum Conducted Output Power	15.407(a)	PASS
5	Peak Power Spectral Density	15.407(a)	PASS
6	Unwanted Emissions and Band Edge	15.205 15.209 15.407(b)	PASS
7	Frequency Stability	15.407(g)	PASS
8	AC Power Line Conducted Emissions	15.207 15.407(b)(6)	PASS
9	Antenna Requirement	15.203	PASS

Note:

(1) "N/A" denotes test is not applicable in this test report

2.2. Test Facilities

EMC Lab

: Certificated by CNAS, CHINA
Registration No.: L5288
This Certificate is valid until: November 12, 2023

Certificated by FCC, USA
Designation Number: CN1215
This Certificate is valid until: January 31, 2022

Certificated by A2LA, USA
Registration No.: 4366.01
This Certificate is valid until: January 31, 2022

Certificated by Industry Canada
CAB identifier No.: CN0035
This Certificate is valid until: January 31, 2022

Certificated by VCCI, Japan
Registration No.: C-14103; T-20073; R-13663;
R-20103; G-20097
Date of registration: Apr. 20, 2020
This Certificate is valid until: Apr. 19, 2023

Certificated by TUV Rheinland, Germany
Registration No.: UA 50413872 0001
Date of registration: July 31, 2018

Certificated by Intertek
Registration No.: 2011-RTL-L2-64
Date of registration: November 08, 2018

Name of Firm : EST Technology Co., Ltd.

Site Location : Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China

2.3. Measurement uncertainty for EST Technology Co., Ltd.

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.54dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.62
Uncertainty for Radiation Emission test (1GHz to 18GHz)	4.86
Uncertainty for spurious emissions test (18GHz to 40GHz)	4.67
Uncertainty for radio frequency	7×10^{-8}
Uncertainty for conducted RF Power	0.20dB
Uncertainty for Power density test	0.26dB
Temperature	$\pm 0.6^{\circ}\text{C}$
Humidity	$\pm 4.0\%$
Volatage DC	$\pm 1.0\%$
Volatage (AC, <10KHz)	$\pm 1.5\%$

Note:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

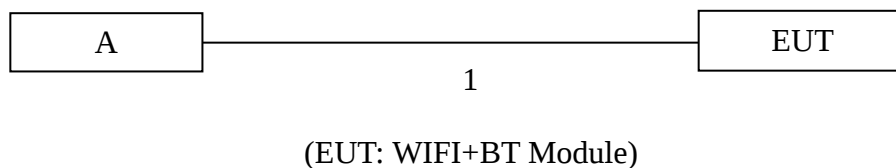
2.4. Assistant equipment used for test

Item	Equipment	Brand	Model Name/Type No.	FCC ID	Series No.
A	PC	LENOVO	E485	-	-

Item	Shielded Type	Ferrite Core	Length	Note
1	NO	NO	0.3m	DC Cable

2.5. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 (or 1.5) meter high above ground.



2.6. Test Mode

Pre-scan has been combined all possible modulations and data rates to determine the worst case test mode, the worst case test mode was selected for the final test as listed below.

Test Item	Test Mode	Channel	Modulation	Data rate
6dB Bandwidth	IEEE 802.11a	149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	149/157/165	OFDM	MCS0
	IEEE 802.11ax HE20	149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	151/159	OFDM	MCS0
	IEEE 802.11ax HE40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	151/159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
	IEEE 802.11ax HE80	155	OFDM	MCS0
26dB Bandwidth	IEEE 802.11a	36/40/48	OFDM	6Mbps
	IEEE 802.11n HT20	36/40/48	OFDM	MCS0
	IEEE 802.11ax HE20	36/40/48	OFDM	MCS0
	IEEE 802.11n HT40	38/46	OFDM	MCS0
	IEEE 802.11ax HE40	38/46	OFDM	MCS0
	IEEE 802.11ac VHT20	36/40/48	OFDM	MCS0
	IEEE 802.11ac VHT40	38/46	OFDM	MCS0
	IEEE 802.11ac VHT80	42	OFDM	MCS0
	IEEE 802.11ax HE80	42	OFDM	MCS0

Test Item	Test Mode	Channel	Modulation	Data rate
99% Occupied Bandwidth	IEEE 802.11a	36/40/48/149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11ax HE20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	38/46/151/159	OFDM	MCS0
	IEEE 802.11ax HE40	38/46/151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	38/46/151/ 159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
	IEEE 802.11ax HE80	155	OFDM	MCS0
Maximum Conducted Output Power	IEEE 802.11a	36/40/48/149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11ax HE20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	38/46/151/159	OFDM	MCS0
	IEEE 802.11ax HE40	38/46/151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	38/46/151/ 159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
	IEEE 802.11ax HE80	155	OFDM	MCS0

Peak Power Spectral Density	IEEE 802.11a	36/40/48/149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11ax HE20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	38/46/151/159	OFDM	MCS0
	IEEE 802.11ax HE40	38/46/151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	38/46/151/ 159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
	IEEE 802.11ax HE80	155	OFDM	MCS0
Unwanted Emissions and Band Edge(Above 1GHz)	IEEE 802.11a	36/40/48/149/157/165	OFDM	6Mbps
	IEEE 802.11n HT20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11ax HE20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11n HT40	38/46/151/159	OFDM	MCS0
	IEEE 802.11ax HE40	38/46/151/159	OFDM	MCS0
	IEEE 802.11ac VHT20	36/40/48/149/157/165	OFDM	MCS0
	IEEE 802.11ac VHT40	38/46/151/ 159	OFDM	MCS0
	IEEE 802.11ac VHT80	155	OFDM	MCS0
	IEEE 802.11ax HE80	155	OFDM	MCS0
Unwanted Emissions Below 1GHz	IEEE 802.11a	36	OFDM	6Mbps
Frequency Stability	Unmodulation	36/149	N/A	N/A
AC Power Line Conducted Emissions	IEEE 802.11a	36	OFDM	6Mbps

Note:

1. In radiated measurement, the EUT had been pre-scan on the positioned of each 3 axis(X,Y,Z), the worst case was found when positioned on **X-plane**.

2.7. Channel List

Band	Mode	Channel	Frequency (MHz)
U-NII-1	IEEE 802.11a & n HT20 & ac VHT20& IEEE 802.11ax HE20	36	5180
		40	5200
		48	5240
	IEEE 802.11n HT40 & ac VHT40& IEEE 802.11ax HE40	38	5190
		46	5230
	IEEE 802.11ac VHT80& IEEE 802.11ax HE80	42	5210
U-NII-3	IEEE 802.11a & n HT20 & ac VHT20& IEEE 802.11ax HE20	149	5745
		157	5785
		165	5825
	IEEE 802.11n HT40 & ac VHT40& IEEE 802.11ax HE40	151	5755
		159	5795
	IEEE 802.11ac VHT80& IEEE 802.11ax HE80	155	5775

2.8. Power Setting of Test Software

Software Name	MT7961xx QA 0.0.2.28		
U-NII-1			
Frequency(MHz)	5180	5200	5240
IEEE 802.11a Setting	10	10	10
IEEE 802.11n HT20 Setting	10	10	10
IEEE 802.11ac VHT20 Setting	10	10	10
IEEE 802.11ax HE20 Setting	7	7	7
Frequency(MHz)	5190	5230	
IEEE 802.11n HT40 Setting	10	10	
IEEE 802.11ac VHT40 Setting	10	10	
IEEE 802.11ax HE40 Setting	7	7	
Frequency(MHz)	5210		
IEEE 802.11ac VHT80 Setting	10		
IEEE 802.11ax HE80 Setting	7		
U-NII-3			
Frequency(MHz)	5745	5785	5825
IEEE 802.11a Setting	10	10	10
IEEE 802.11n HT20 Setting	10	10	10
IEEE 802.11ac VHT20 Setting	10	10	10
IEEE 802.11ax HE20 Setting	10	10	10
Frequency(MHz)	5755	5795	
IEEE 802.11n HT40 Setting	10	10	
IEEE 802.11ac VHT40 Setting	10	10	
IEEE 802.11ax HE40 Setting	10	10	
Frequency(MHz)	5775		
IEEE 802.11ac VHT80 Setting	10		
IEEE 802.11ax HE80 Setting	10		

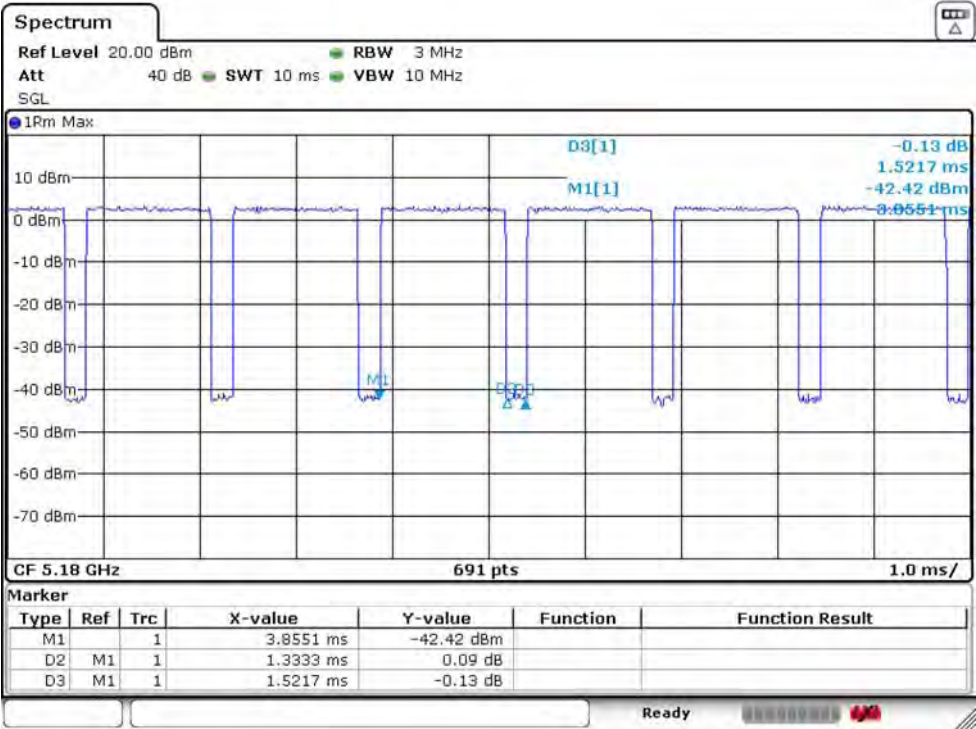
2.9. Duty Cycle of Test Signal

Temperature	22.5℃	Relative Humidity		47%	Test Voltage		DC 3.3V
Mode	Frequency (MHz)	On time (ms)	Total Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T (Hz)	VBW Setting (dB)
IEEE 802.11a	5180	1.33330	1.52170	87.62	0.57	750	750
IEEE 802.11n HT20	5180	1.32250	1.53990	85.88	0.66	756	756
IEEE 802.11ac VHT20	5180	0.71010	0.91300	77.78	1.09	1408	1408
IEEE 802.11n HT40	5190	0.35507	0.55435	64.05	1.93	2816	2816
IEEE 802.11ac VHT40	5190	0.36232	0.55797	64.94	1.88	2760	2760
IEEE 802.11ac VHT80	5210	0.19565	0.39493	49.54	3.05	5111	5111
IEEE 802.11ax HE20	5180	0.31884	0.50000	63.77	1.95	3136	3136
IEEE 802.11ax HE40	5190	0.30797	0.50362	61.15	2.14	3247	3247
IEEE 802.11ax HE80	5210	0.29348	0.51087	57.45	2.41	3407	3407

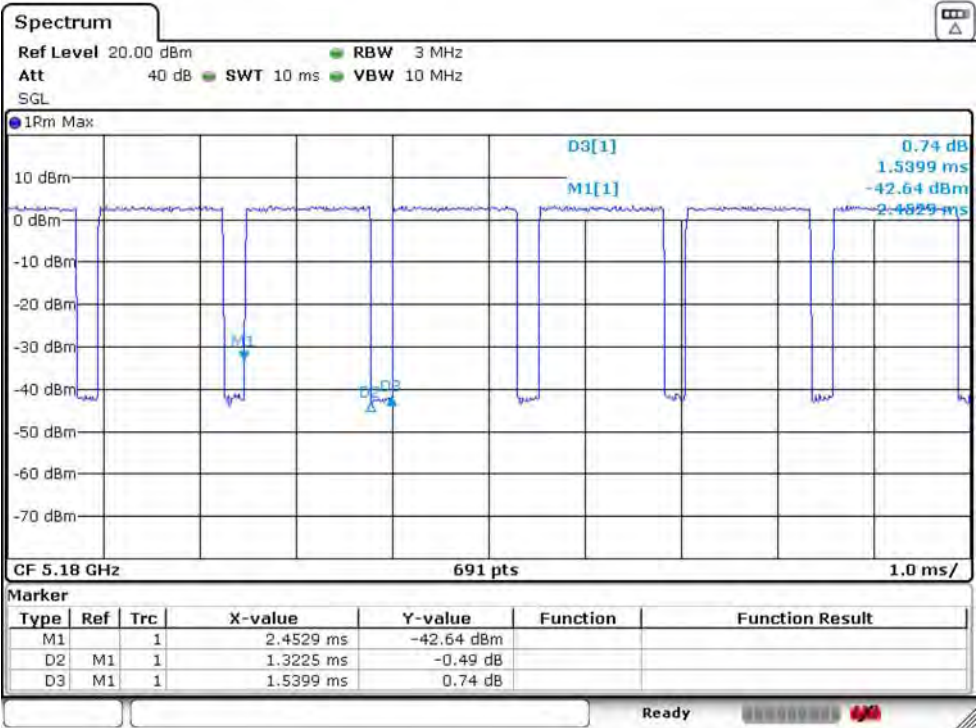
Note:

1. Duty Cycle=On Time/Total Time×100%.
2. Duty Factor=10×Log(1/Duty Cycle).
3. If duty cycle <98 %, the conducted average output power and average power spectral density should be add duty factor.
4. If duty cycle ≥98 %,the EUT is consider to be transmitting continuously,the conducted average output power and average power spectral density no need to add duty factor.
5. The on-time time is transmission duration(T).
6. The VBW Setting is use for RMS measurement in unwanted emissions and band edge(Above 1GHz) test.

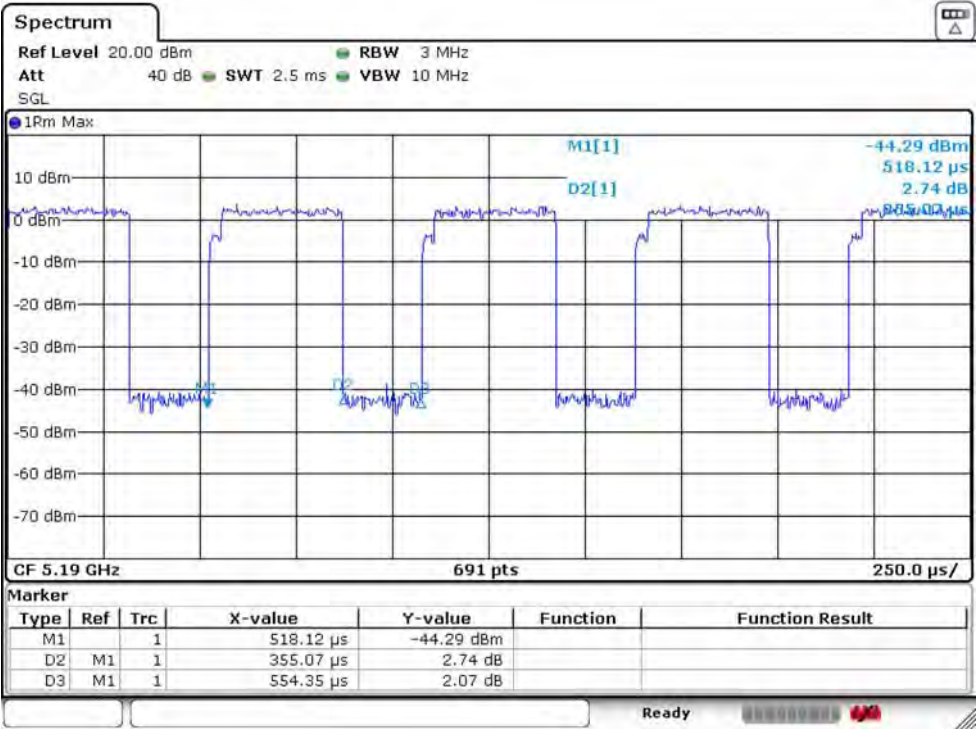
IEEE 802.11a 5180MHz



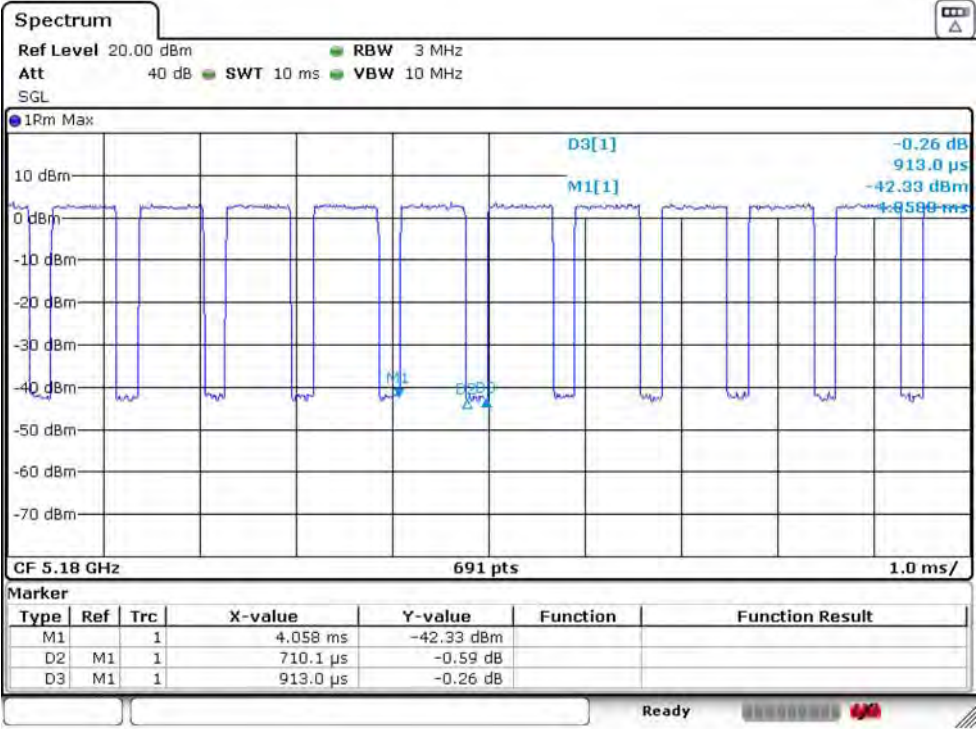
IEEE 802.11n HT20 5180MHz



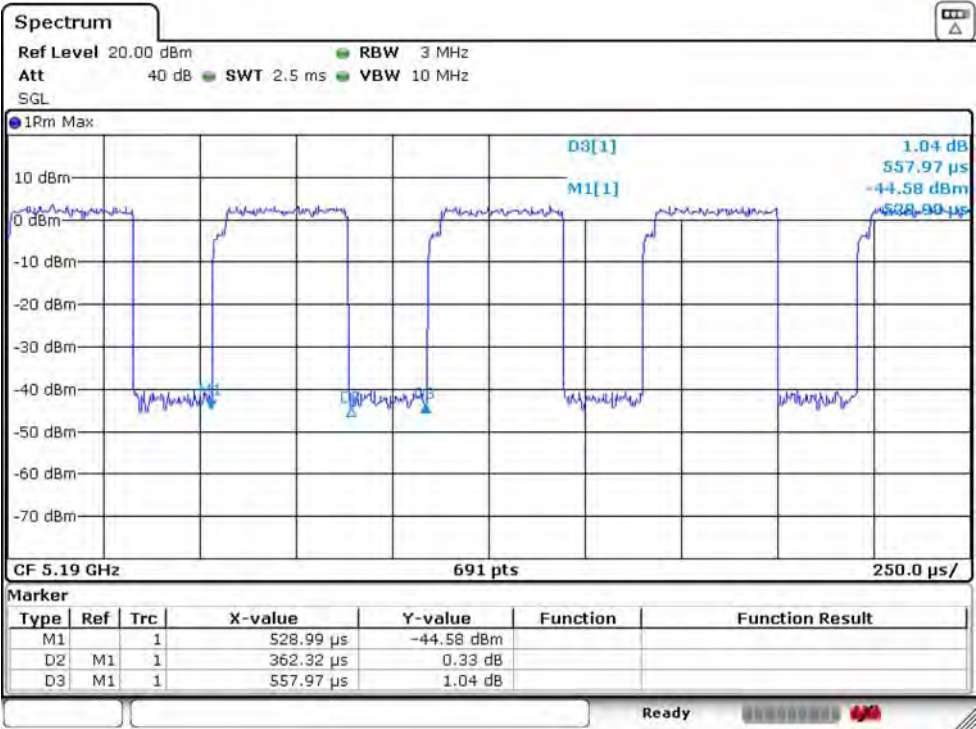
IEEE 802.11n HT40 5190MHz



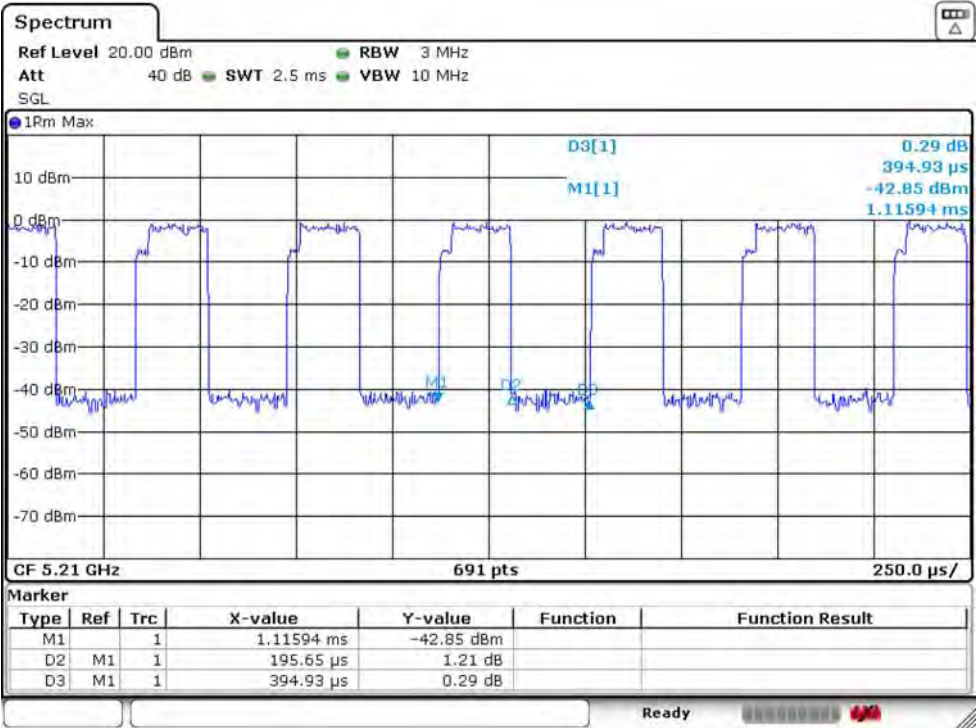
IEEE 802.11ac VHT20 5180MHz



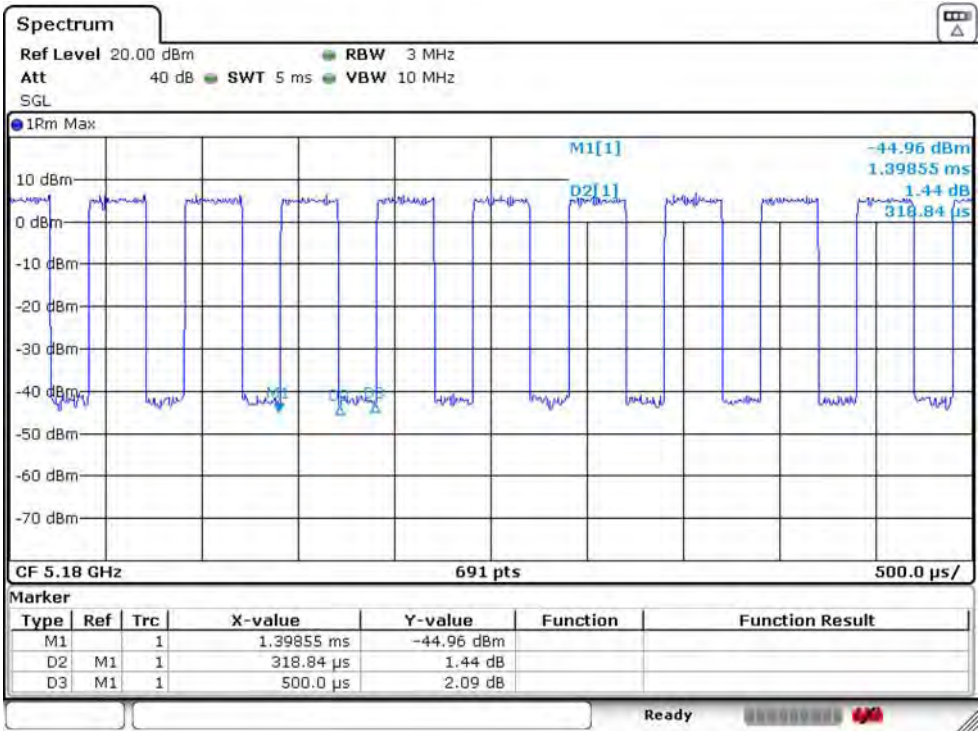
IEEE 802.11ac VHT40 5190MHz



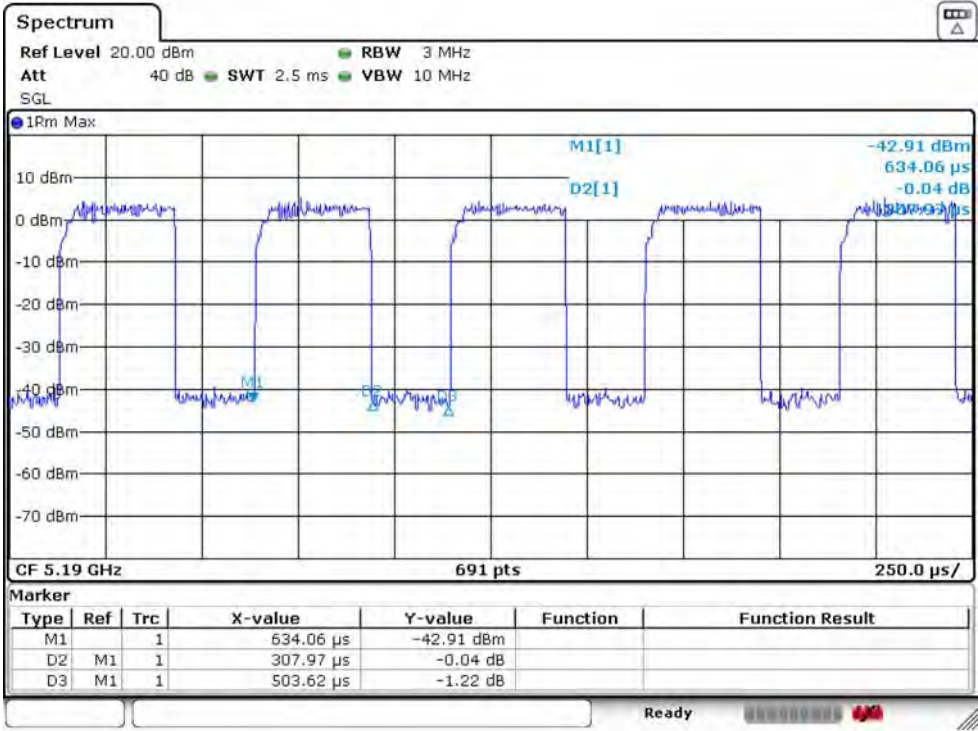
IEEE 802.11ac VHT80 5210MHz



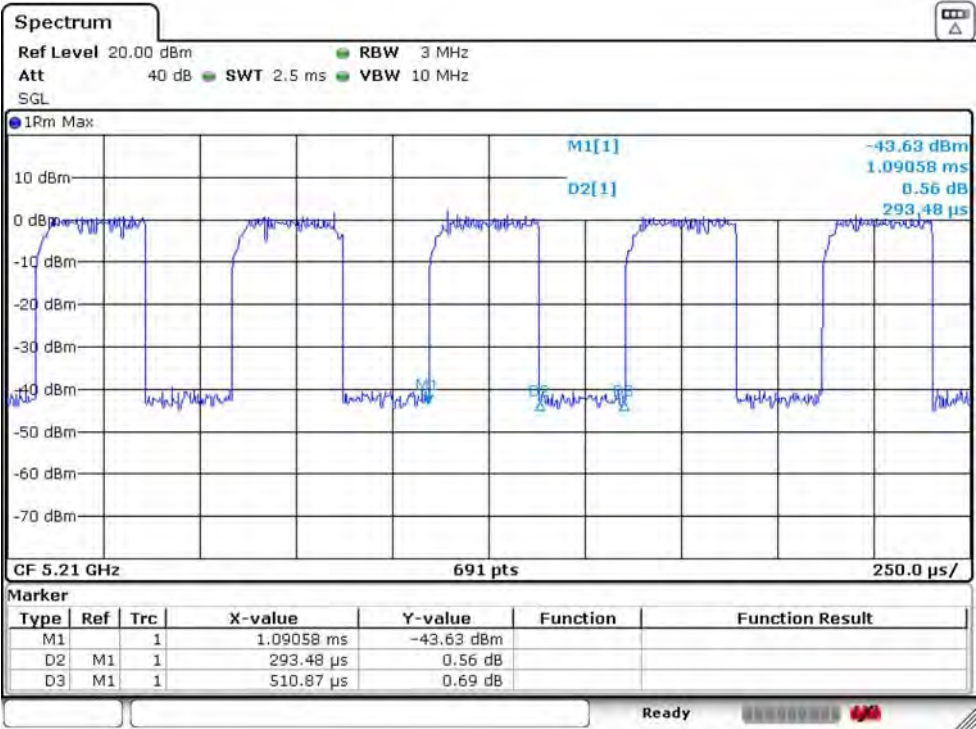
IEEE 802.11ax HE20 5180MHz



IEEE 802.11ax HE40 5190MHz



IEEE 802.11ax HE80 5210MHz



2.10. Test Equipment List

For AC power conducted emissions test						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	EST-E001	LISAI	June 13,20	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	EST-E002	LISAI	June 13,20	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	EST-E078	LISAI	June 13,20	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

For radiated emissions test(9KHz-30MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 13,20	1 Year
Active Loop Antenna	SCHWARZB ECK	FMZB 1519B	EST-E054	LISAI	June 13,20	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
9kHz-30MHz Cable	N/A	EST-001	N/A	N/A	N/A	N/A

For radiated emissions test(30MHz-1000MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	EST-E047	LISAI	June 13,20	1 Year
Bilog Antenna	Teseq	CBL 6111D	EST-E034	LISAI	June 13,20	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
30-1000MHz Cable	N/A	EST-002	N/A	N/A	N/A	N/A

For radiated emissions test(Above 1000MHz)						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Horn Antenna	SCHWARZB ECK	BBHA 9120 D	EST-E031	LISAI	June 13,20	1 Year
Signal Amplifier	SCHWARZB ECK	BBV9718	EST-E032	LISAI	June 13,20	1 Year
Spectrum Analyzer	Rohde & Schwarz	FSV40	EST-E069	LISAI	June 13,20	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A
Above 1GHz Cable	N/A	EST-003	N/A	N/A	N/A	N/A

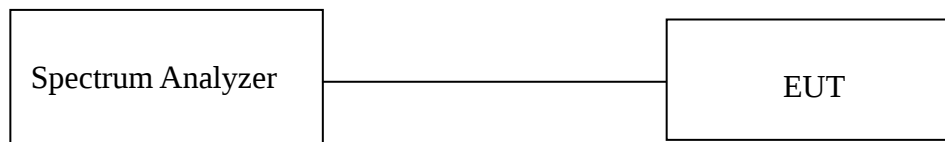
For connect EUT antenna terminal test						
Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
TS 8997	Rohde & Schwarz	/	/	/	/	/
Open Switch and Control Unit	Rohde & Schwarz	OSP-B157WB	EST-E036	LISAI	June 13,20	1 Year
Signal and Spectrum Analyzer	Rohde & Schwarz	FSV	EST-E037	LISAI	June 13,20	1 Year
Signal Generator	Rohde & Schwarz	SMB100A	EST-E038	LISAI	June 13,20	1 Year
Vector Signal Generator	Rohde & Schwarz	SMBV100A	EST-E039	LISAI	June 13,20	1 Year
Test Software	Rohde & Schwarz	WMS32	V10.50.00	N/A	N/A	N/A
Temperature controller	Terchy	MHQ	EST-E101	LISAI	June 13,20	1 Year

3. 6dB BANDWIDTH & 26dB BANDWIDTH & 99% OCCUPIED BANDWIDTH

3.1. Limit

Band	Frequency (MHz)	Test Item	Limit
U-NII-1	5150-5250	26dB Bandwidth&99% Occupied Bandwidth	N/A
U-NII-2A	5250-5350	26dB Bandwidth&99% Occupied Bandwidth	N/A
U-NII-2C	5470-5725	26dB Bandwidth&99% Occupied Bandwidth	N/A
U-NII-3	5725-5850	6dB Bandwidth&99% Occupied Bandwidth	6dB Bandwidth $\geq$ 500KHz

3.2. Test Setup



3.3. Spectrum Analyzer Setting

6dB Bandwidth	
Spectrum Parameters	Setting
RBW	100KHz
VBW	300KHz
Span	40MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

26dB Bandwidth	
Spectrum Parameters	Setting
RBW	approximately 1% of the emission bandwidth
VBW	>RBW
Span	40MHz(20MHz Bandwidth mode) 60MHz(40MHz Bandwidth mode) 120MHz(80MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

99% Occupied Bandwidth	
Spectrum Parameters	Setting
RBW	1% to 5% of the OBW
VBW	approximately three times the RBW
Span	between 1.5 times and 5.0 times the OBW
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

3.4. Test Procedure

For 26dB Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 3.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the instrument. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

For 6dB Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 3.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

For 99% Occupied Bandwidth Measurement :

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 3.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, use the 99% power bandwidth function to measure bandwidth.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

3.5. Test Result

Temperature	22.5℃	Relative Humidity			47%	Test Voltage	DC 3.3V	
26dB Bandwidth&99% Occupied Bandwidth								
AND	Test Mode	Fre (MHz)	26dB Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		Calculate Power Limit (W)	Calculate Power Limit (dBm)
			Ant 1	Ant 2	Ant 1	Ant 2		
U-NII-1	IEEE 802.11a	5180	25.297	25.355	16.961	17.540		
		5200	24.834	24.370	17.019	17.424		
		5240	24.718	25.065	17.134	17.540		
	IEEE 802.11n HT20	5180	24.891	25.876	18.234	18.698		
		5200	24.370	26.107	18.119	18.582		
		5240	24.660	26.223	18.119	18.640		
	IEEE 802.11ac VHT20	5180	24.891	26.165	18.234	18.524		
		5200	24.660	26.223	18.061	18.408		
		5240	24.718	25.876	18.061	18.408		
	IEEE 802.11n HT40	5190	39.942	40.463	36.122	36.382		
		5230	40.116	40.724	36.122	36.208		
	IEEE 802.11ac VHT40	5190	39.942	40.637	36.122	36.295		
		5230	39.942	40.637	36.122	36.208		
	IEEE 802.11ac VHT80	5210	79.880	80.060	75.022	75.022		
	IEEE 802.11ax HE20	5180	23.039	22.750	19.276	19.219		
		5200	24.891	23.907	19.334	18.987		
		5240	24.428	23.329	19.045	19.103		
	IEEE 802.11ax HE40	5190	39.682	39.768	37.598	37.598		
		5230	39.768	39.682	37.598	37.685		
	IEEE 802.11ax HE80	5210	80.580	80.410	76.758	76.758		

Temperature	22.5℃	Relative Humidity			47%	Test Voltage		DC 3.3V
6dB Bandwidth&99% Occupied Bandwidth								
BAND	Test Mode	Fre (MHz)	6dB Bandwidth (MHz)		99% Occupied Bandwidth (MHz)		6dB BW Min Limit (MHz)	Result
			Ant 1	Ant 2	Ant 1	Ant 2		
U-NII-3	IEEE 802.11a	5745	16.340	16.290	17.192	17.887	0.5	PASS
		5785	16.324	16.326	16.961	17.482	0.5	PASS
		5825	16.326	16.272	17.250	17.713	0.5	PASS
	IEEE 802.11n HT20	5745	17.580	17.276	18.234	18.871	0.5	PASS
		5785	17.590	17.494	18.003	18.755	0.5	PASS
		5825	17.578	17.524	18.177	18.524	0.5	PASS
	IEEE 802.11ac VHT20	5745	17.566	17.250	18.061	18.466	0.5	PASS
		5785	17.566	17.308	18.003	18.234	0.5	PASS
		5825	17.576	17.290	18.234	18.292	0.5	PASS
	IEEE 802.11n HT40	5755	35.037	35.064	36.122	36.208	0.5	PASS
		5795	35.046	35.046	36.122	36.295	0.5	PASS
	IEEE 802.11ac VHT40	5755	35.031	35.058	36.122	36.208	0.5	PASS
		5795	35.037	35.067	36.035	36.295	0.5	PASS
	IEEE 802.11ac VHT80	5775	73.836	75.078	74.848	75.195	0.5	PASS
	IEEE 802.11ax HE20	5745	19.034	18.668	19.161	19.276	0.5	PASS
		5785	19.044	18.860	19.161	19.161	0.5	PASS
		5825	19.064	18.882	19.161	19.334	0.5	PASS
	IEEE 802.11ax HE40	5755	35.067	35.082	37.511	37.511	0.5	PASS
		5795	35.082	35.100	37.511	37.511	0.5	PASS
	IEEE 802.11ax HE80	5775	75.258	75.156	76.585	76.758	0.5	PASS

Note :

For Band U-NII-2A and U-NII-2C,the maximum conducted output power limit is 250mw or $11+10 \times \log B$, which is lesser,where B is the 26dB Bandwidth in MHz.So in this section,the maximum conducted output power limit can calculate with 26dB Bandwidth.

3.6. Test Result

U-NII-1 IEEE 802.11a 5180MHz_Ant 1

26dB Bandwidth

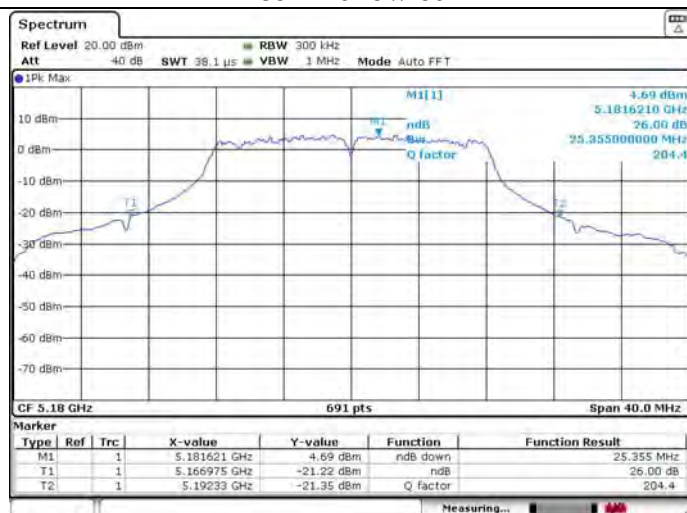


99% Occupied Bandwidth



U-NII-1 IEEE 802.11a 5180MHz_Ant 2

26dB Bandwidth

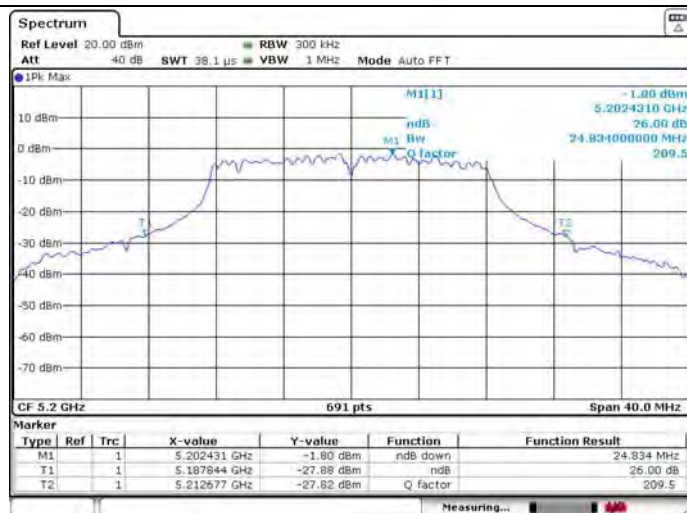


99% Occupied Bandwidth



U-NII-1 IEEE 802.11a 5200MHz_Ant 1

26dB Bandwidth

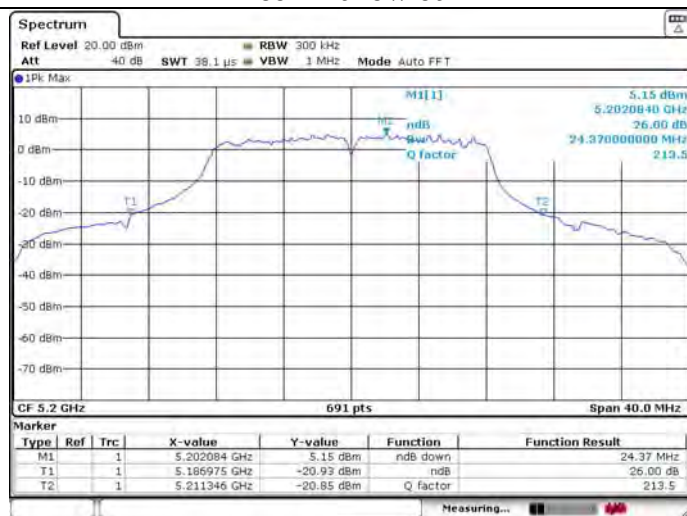


99% Occupied Bandwidth



U-NII-1 IEEE 802.11a 5200MHz_Ant 2

26dB Bandwidth

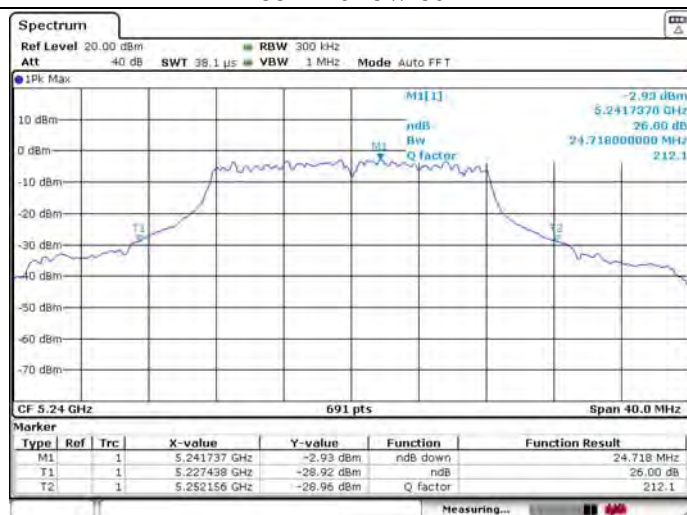


99% Occupied Bandwidth



U-NII-1 IEEE 802.11a 5240MHz_Ant 1

26dB Bandwidth

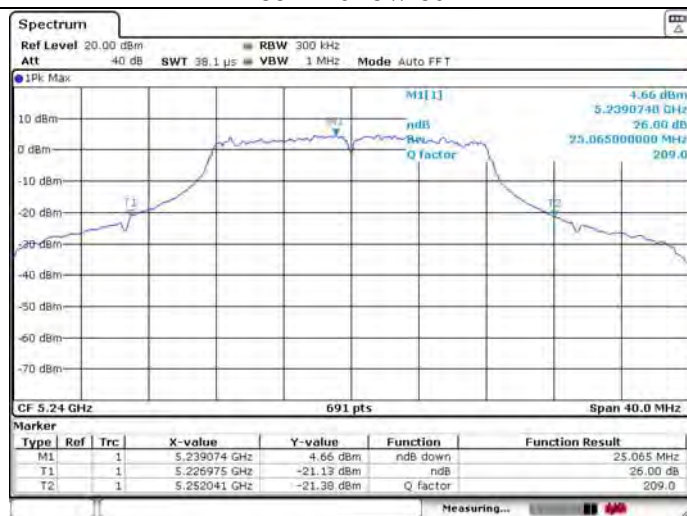


99% Occupied Bandwidth



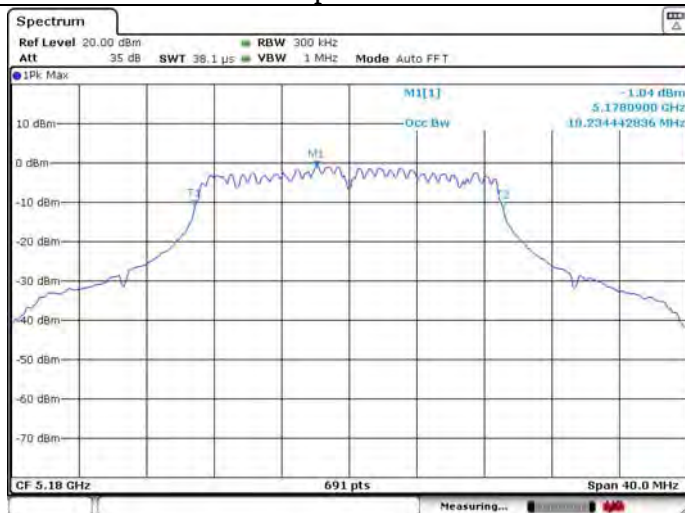
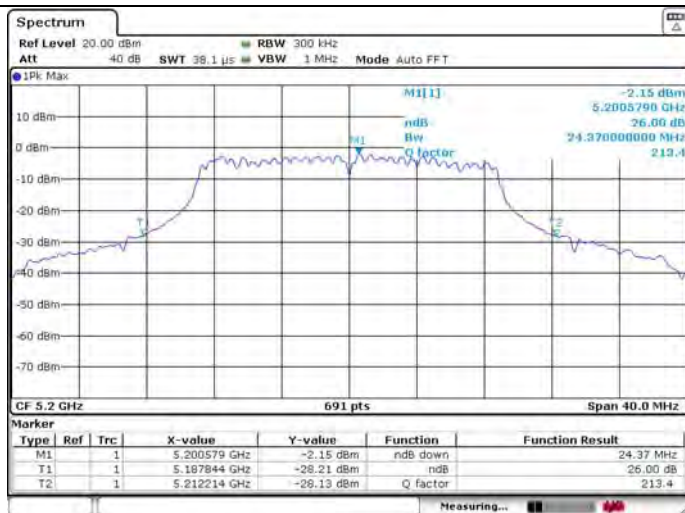
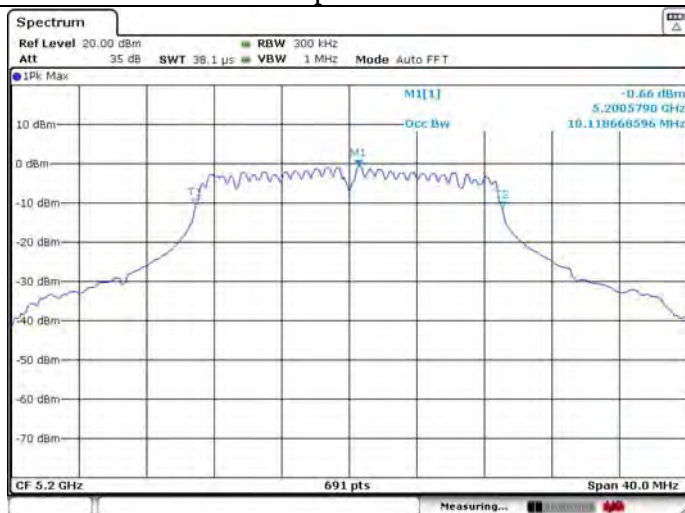
U-NII-1 IEEE 802.11a 5240MHz_Ant 2

26dB Bandwidth



99% Occupied Bandwidth



U-NII-1 IEEE 802.11n HT20 5180MHz_Ant 1**26dB Bandwidth****99% Occupied Bandwidth****U-NII-1 IEEE 802.11n HT20 5180MHz_Ant 2****26dB Bandwidth****99% Occupied Bandwidth****U-NII-1 IEEE 802.11n HT20 5200MHz_Ant 1****26dB Bandwidth****99% Occupied Bandwidth**

U-NII-1 IEEE 802.11n HT20 5200MHz_Ant 2

26dB Bandwidth



99% Occupied Bandwidth



U-NII-1 IEEE 802.11n HT20 5240MHz_Ant 1

26dB Bandwidth

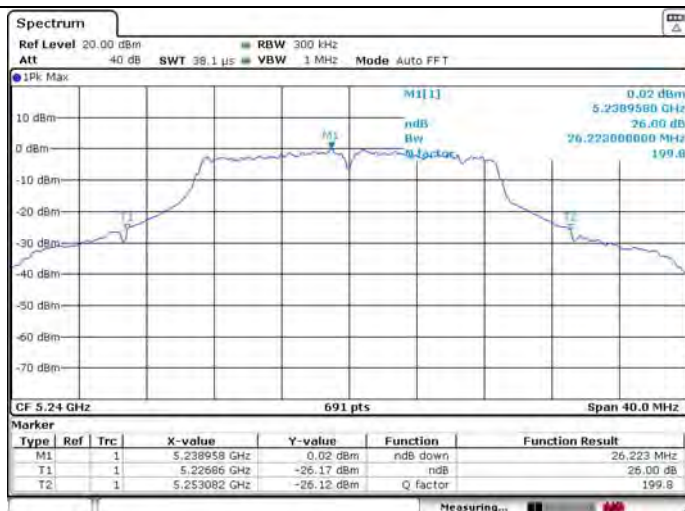


99% Occupied Bandwidth



U-NII-1 IEEE 802.11n HT20 5240MHz_Ant 2

26dB Bandwidth

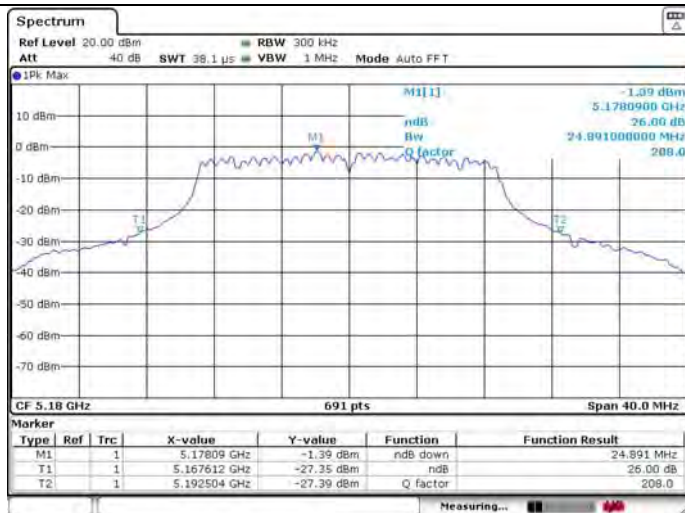


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ac VHT20 5180MHz_Ant 1

26dB Bandwidth

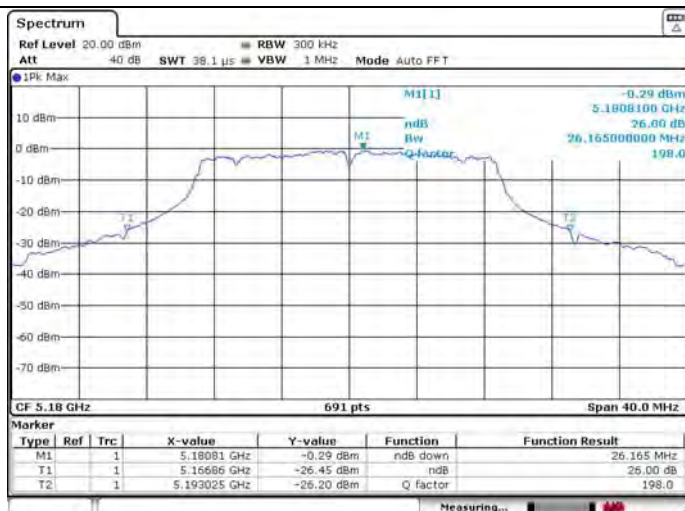


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ac VHT20 5180MHz_Ant 2

26dB Bandwidth

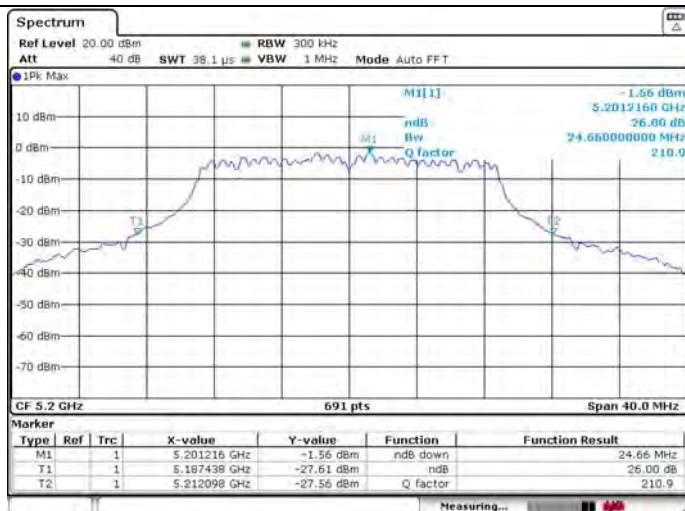


99% Occupied Bandwidth

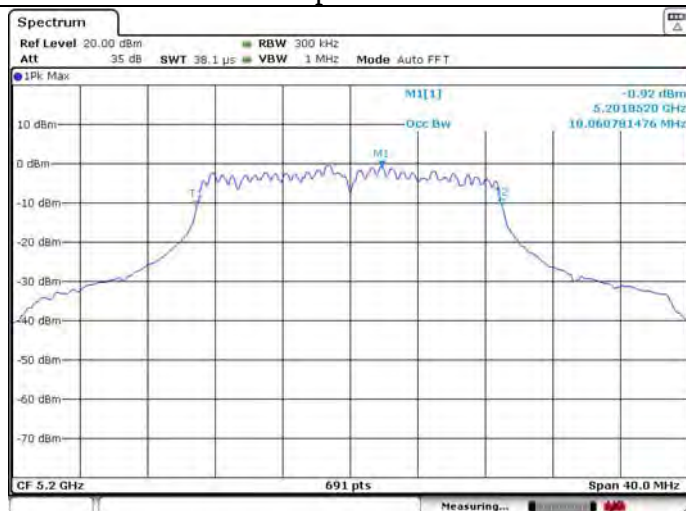


U-NII-1 IEEE 802.11ac VHT20 5200MHz_Ant 1

26dB Bandwidth



99% Occupied Bandwidth



U-NII-1 IEEE 802.11ac VHT20 5200MHz_Ant 2

26dB Bandwidth

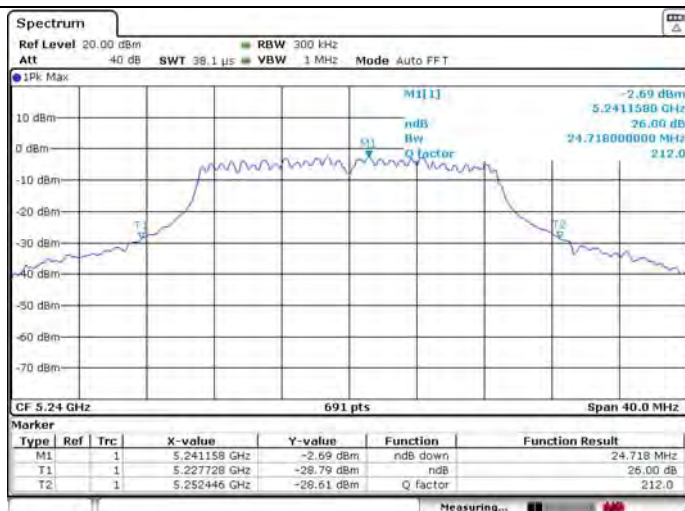


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ac VHT20 5240MHz_Ant 1

26dB Bandwidth

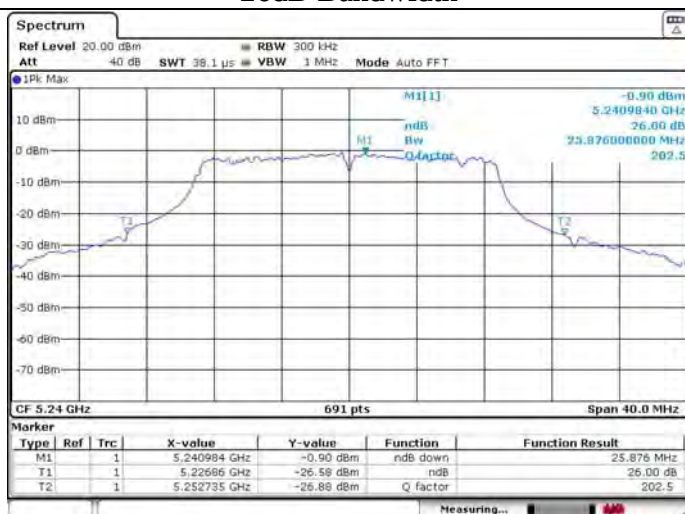


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ac VHT20 5240MHz_Ant 2

26dB Bandwidth

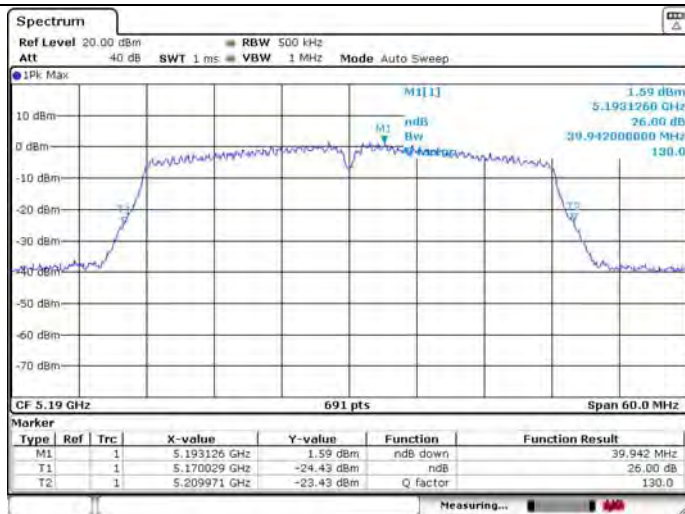


99% Occupied Bandwidth



U-NII-1 IEEE 802.11n HT40 5190MHz_Ant 1

26dB Bandwidth

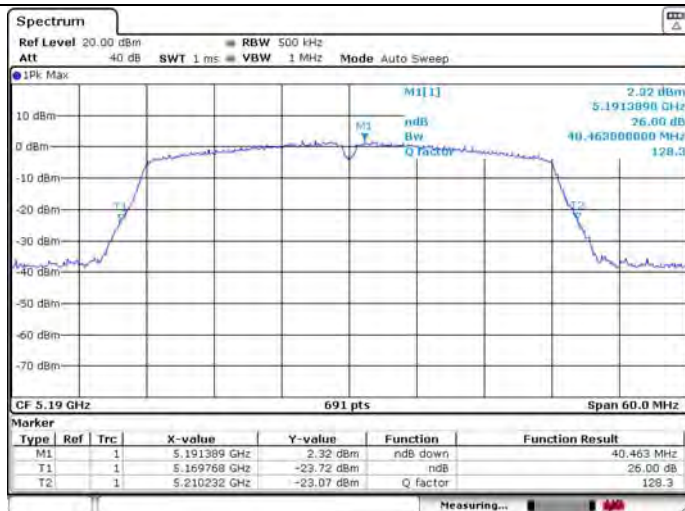


99% Occupied Bandwidth



U-NII-1 IEEE 802.11n HT40 5190MHz_Ant 2

26dB Bandwidth

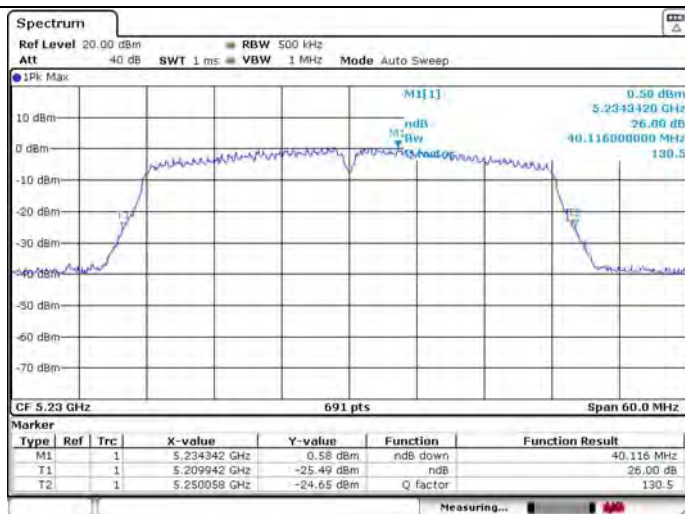


99% Occupied Bandwidth



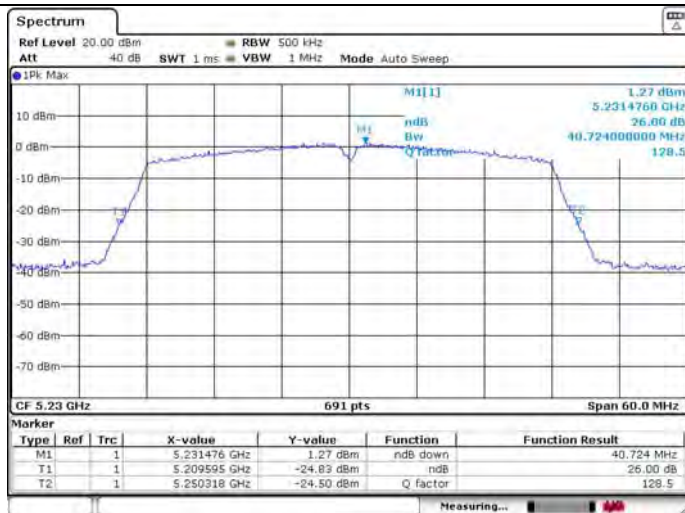
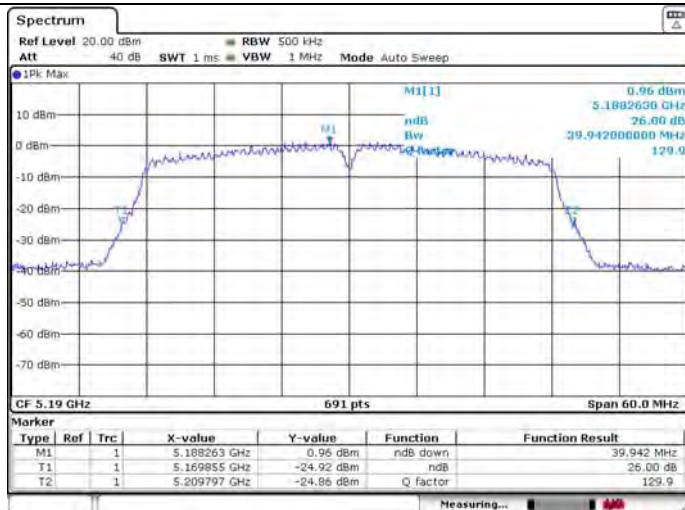
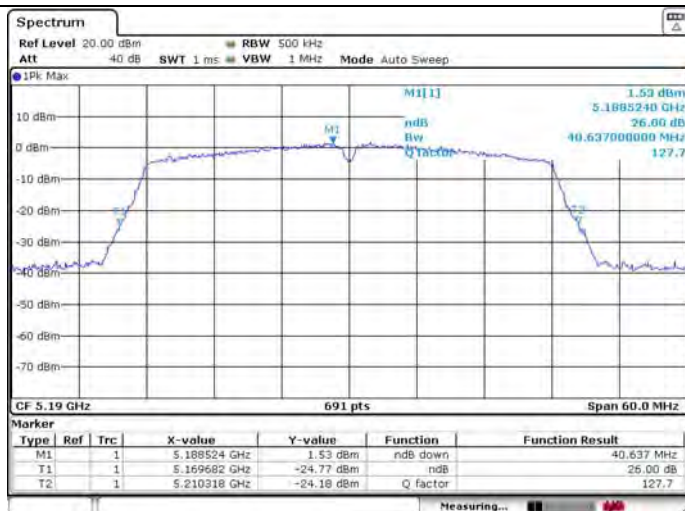
U-NII-1 IEEE 802.11n HT40 5230MHz_Ant 1

26dB Bandwidth



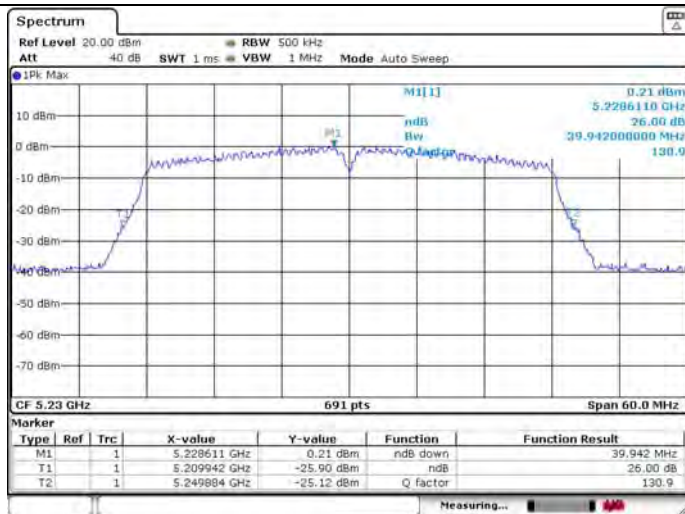
99% Occupied Bandwidth



U-NII-1 IEEE 802.11n HT40 5230MHz_Ant 2**26dB Bandwidth****99% Occupied Bandwidth****U-NII-1 IEEE 802.11ac VHT40 5190MHz_Ant 1****26dB Bandwidth****99% Occupied Bandwidth****U-NII-1 IEEE 802.11ac VHT40 5190MHz_Ant 2****26dB Bandwidth****99% Occupied Bandwidth**

U-NII-1 IEEE 802.11ac VHT40 5230MHz_Ant 1

26dB Bandwidth



99% Occupied Bandwidth



U-NII-1 IEEE 802.11ac VHT40 5230MHz_Ant 2

26dB Bandwidth

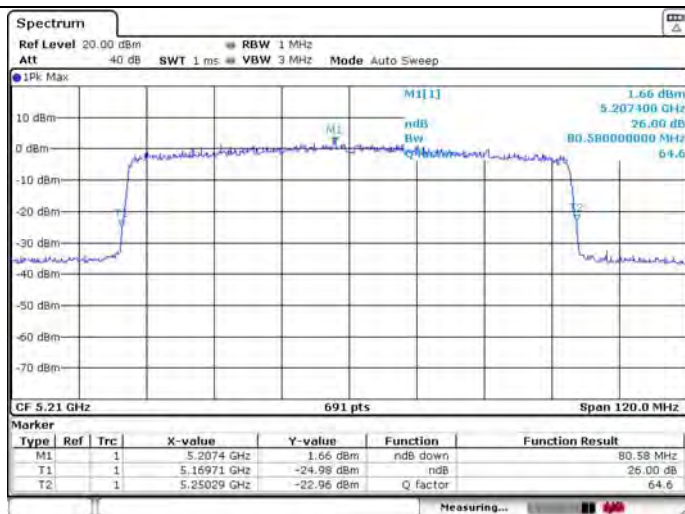


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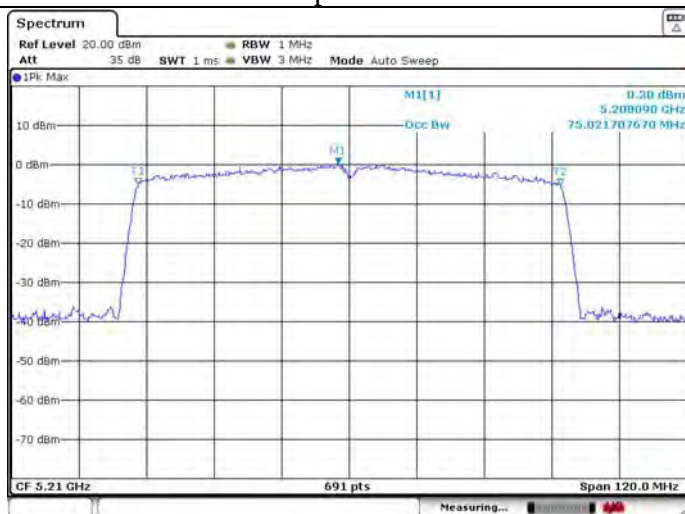


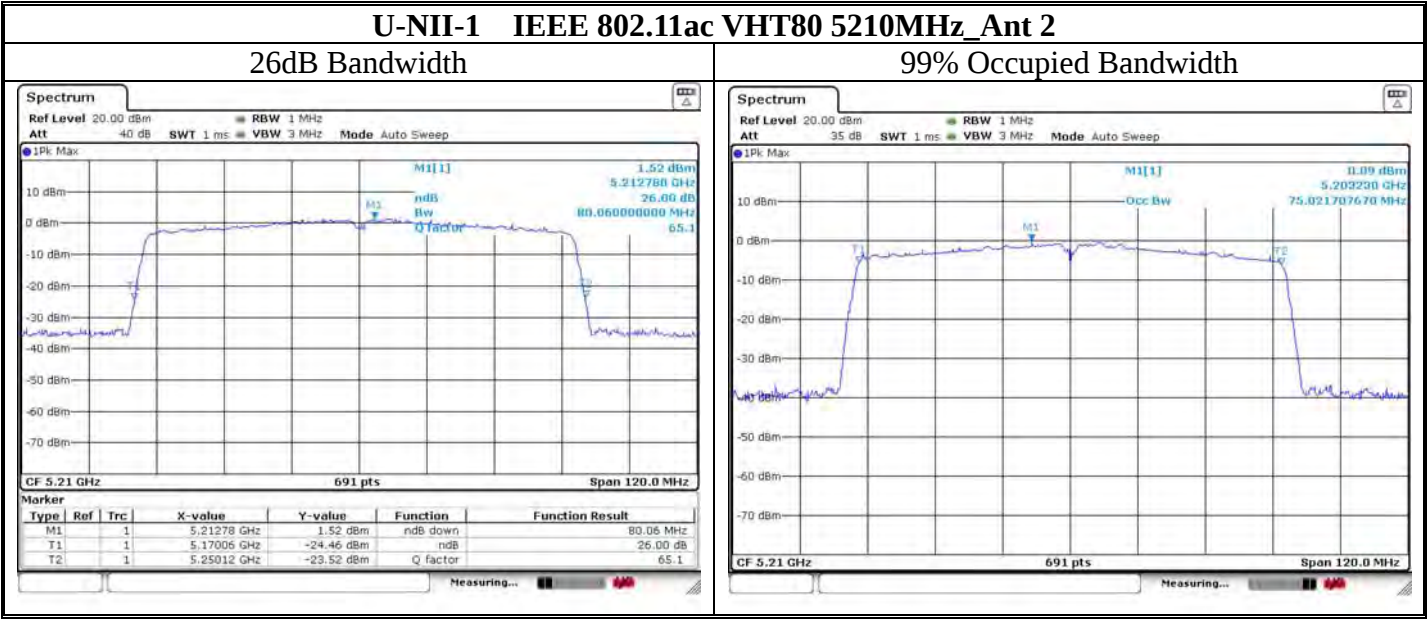
U-NII-1 IEEE 802.11ac VHT80 5210MHz_Ant 1

26dB Bandwidth



99% Occupied Bandwidth





U-NII-1 IEEE 802.11ax HE20 5180MHz_Ant 1

26dB Bandwidth

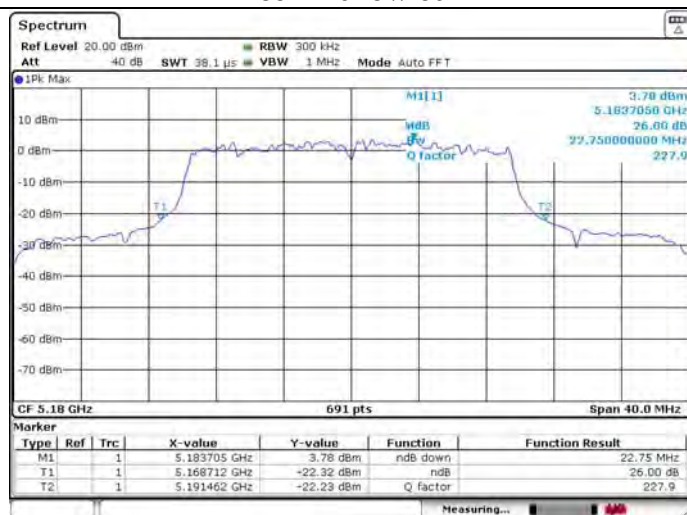


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ax HE20 5180MHz_Ant 2

26dB Bandwidth

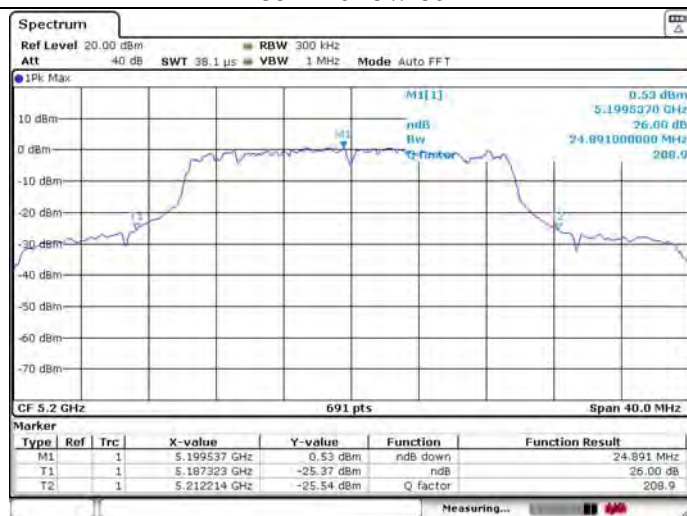


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ax HE20 5200MHz_Ant 1

26dB Bandwidth

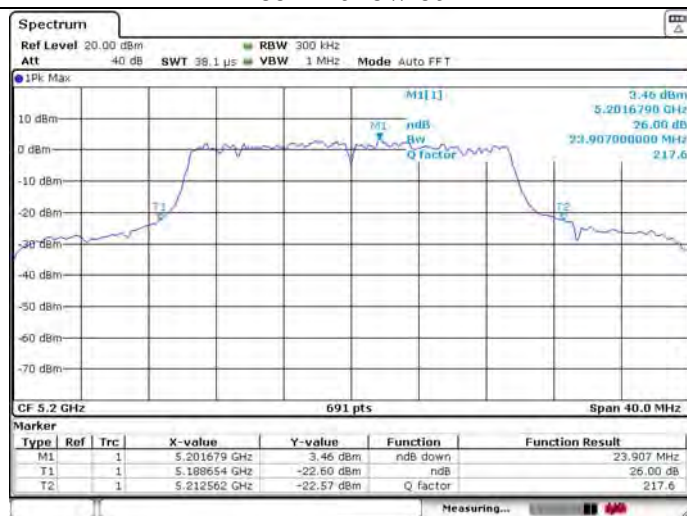


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ax HE20 5200MHz_Ant 2

26dB Bandwidth

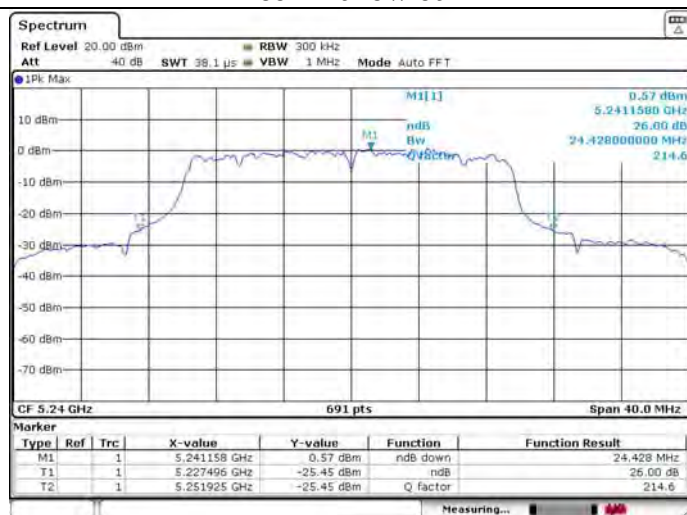


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ax HE20 5240MHz_Ant 1

26dB Bandwidth



99% Occupied Bandwidth



U-NII-1 IEEE 802.11ax HE20 5240MHz_Ant 2

26dB Bandwidth

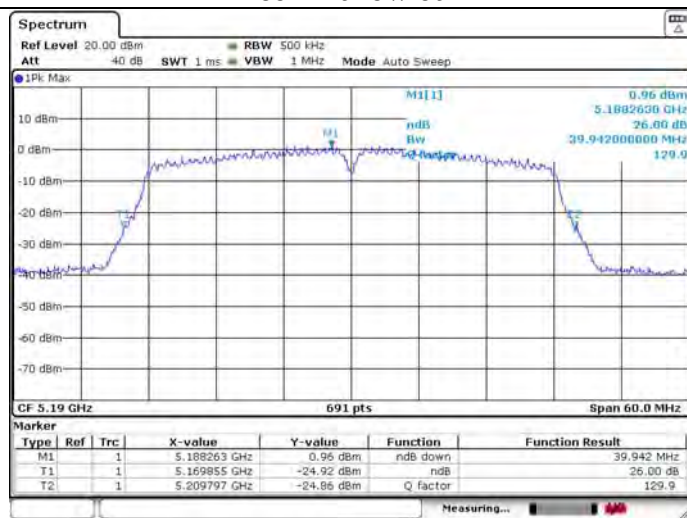


99% Occupied Bandwidth

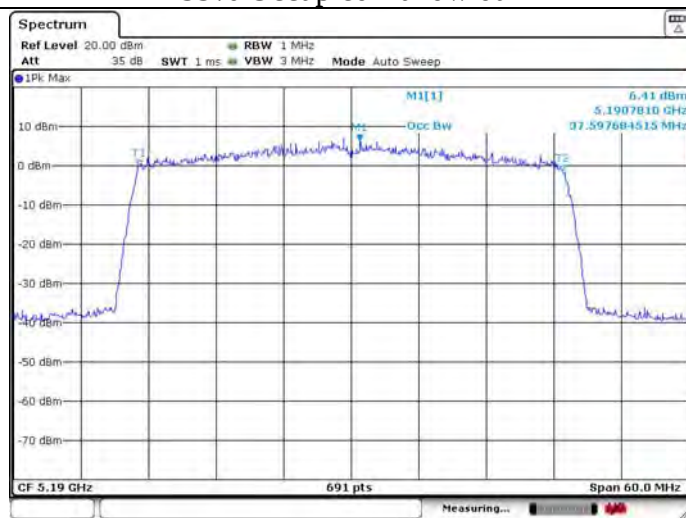


U-NII-1 IEEE 802.11ax HE40 5190MHz_Ant 1

26dB Bandwidth

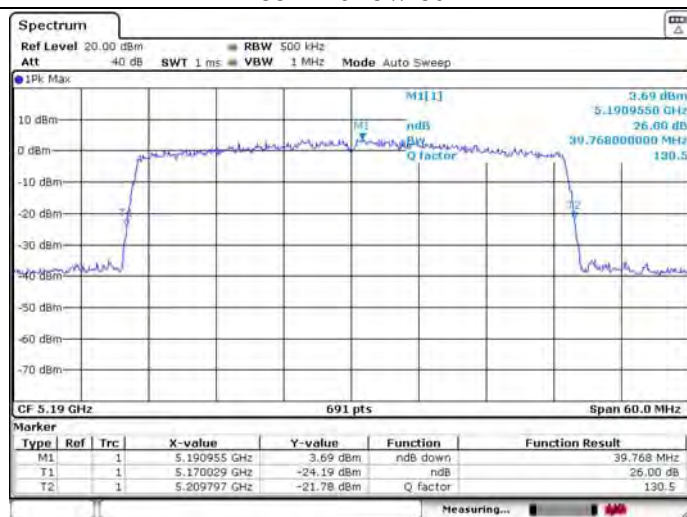


99% Occupied Bandwidth



U-NII-1 IEEE 802.11ax HE40 5190MHz_Ant 2

26dB Bandwidth

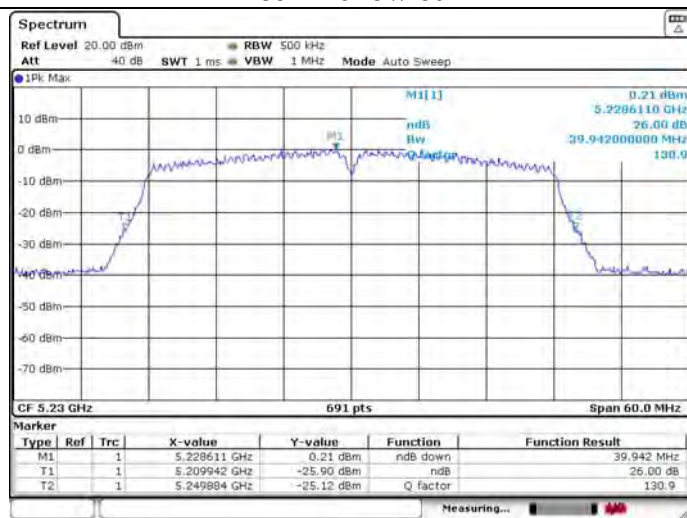


99% Occupied Bandwidth

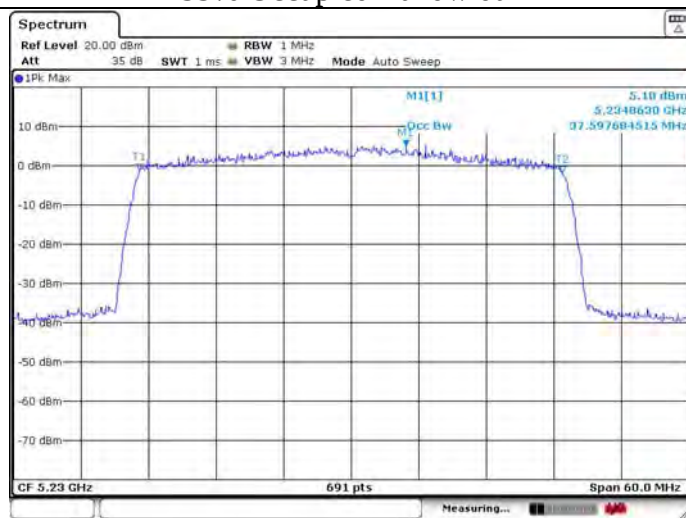


U-NII-1 IEEE 802.11ax HE40 5230MHz_Ant 1

26dB Bandwidth

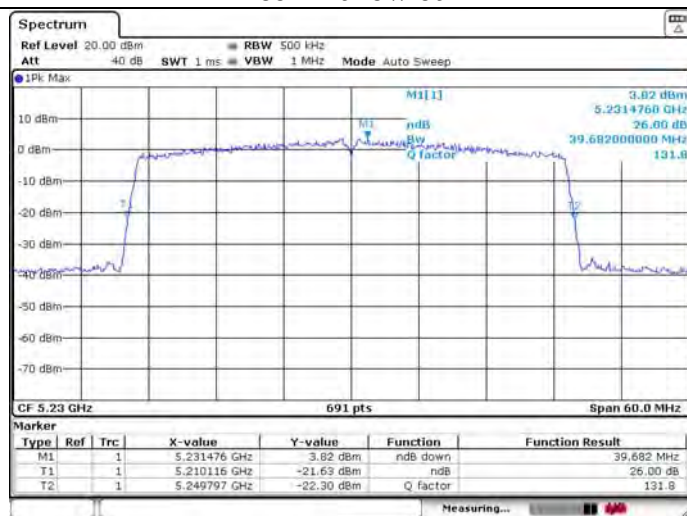


99% Occupied Bandwidth

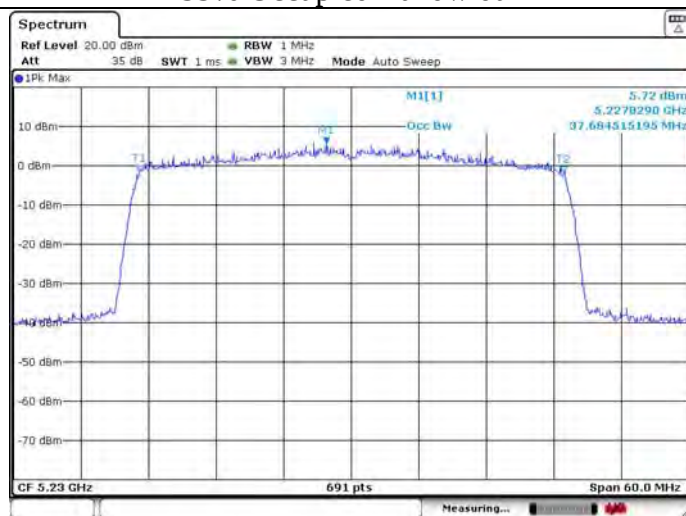


U-NII-1 IEEE 802.11ax HE40 5230MHz_Ant 2

26dB Bandwidth

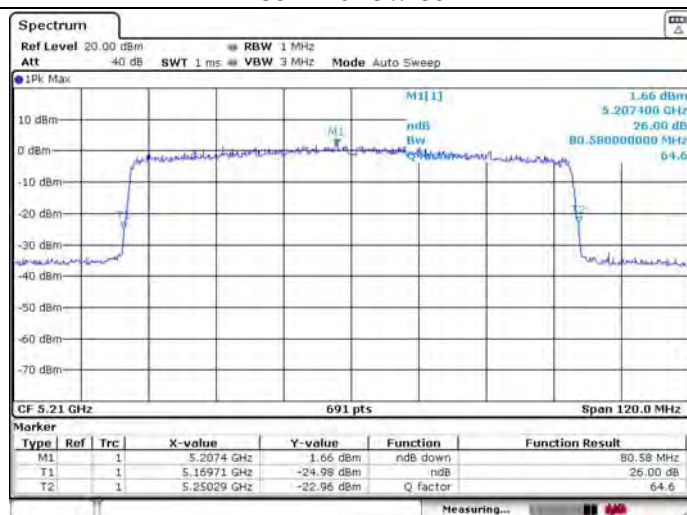


99% Occupied Bandwidth

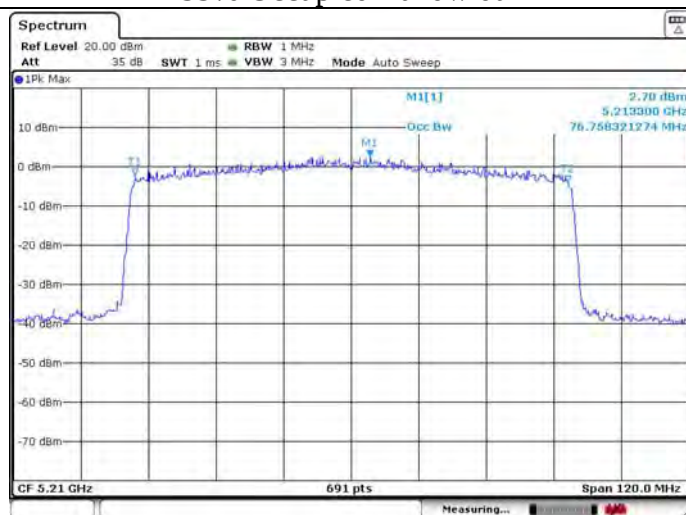


U-NII-1 IEEE 802.11ax HE80 5210MHz_Ant 1

26dB Bandwidth

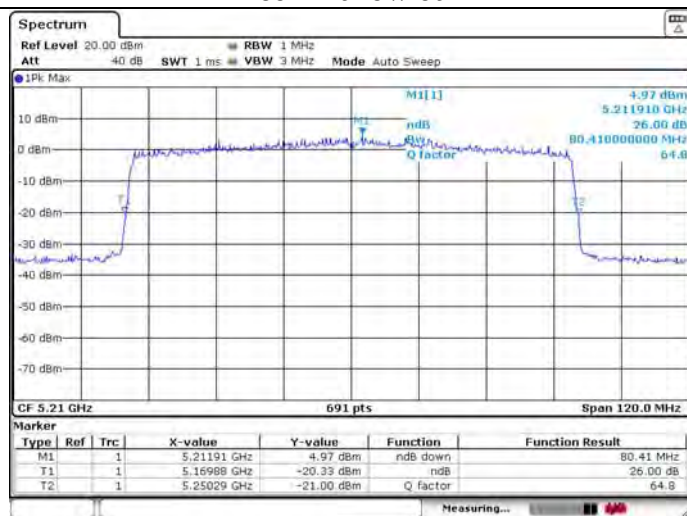


99% Occupied Bandwidth

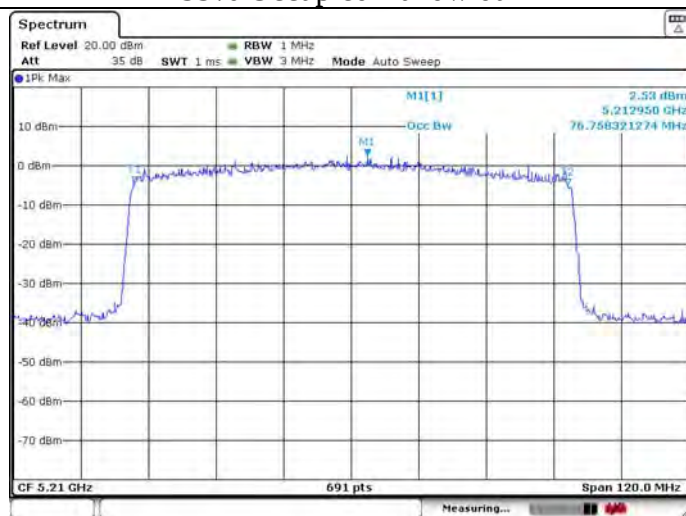


U-NII-1 IEEE 802.11ax HE80 5210MHz_Ant 2

26dB Bandwidth

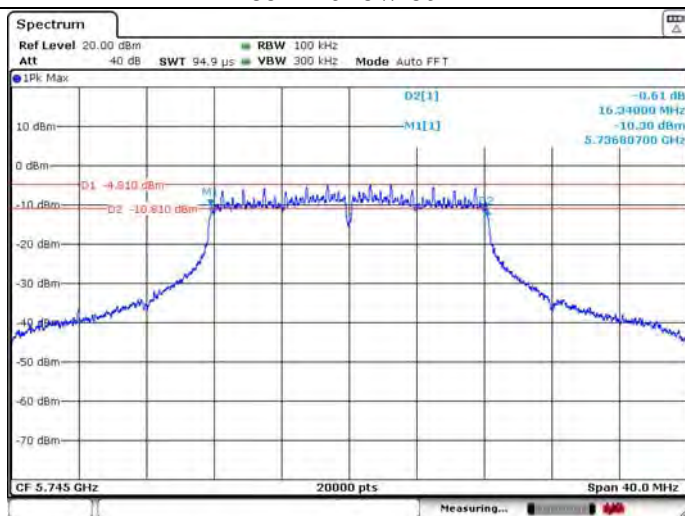


99% Occupied Bandwidth

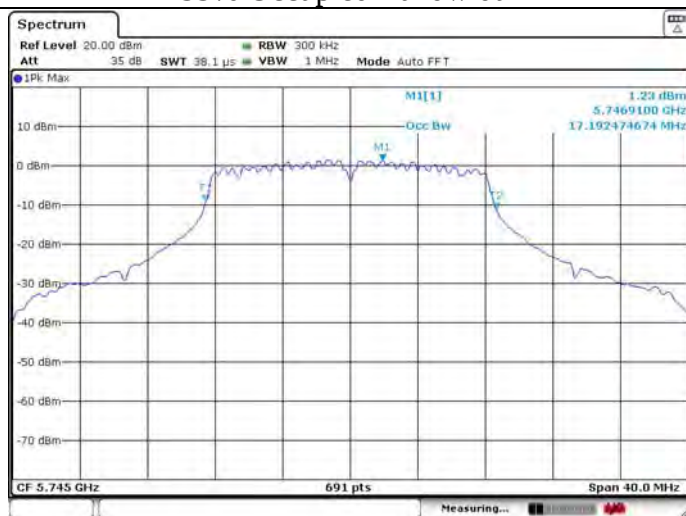


U-NII-3 IEEE 802.11a 5745MHz_Ant 1

6dB Bandwidth

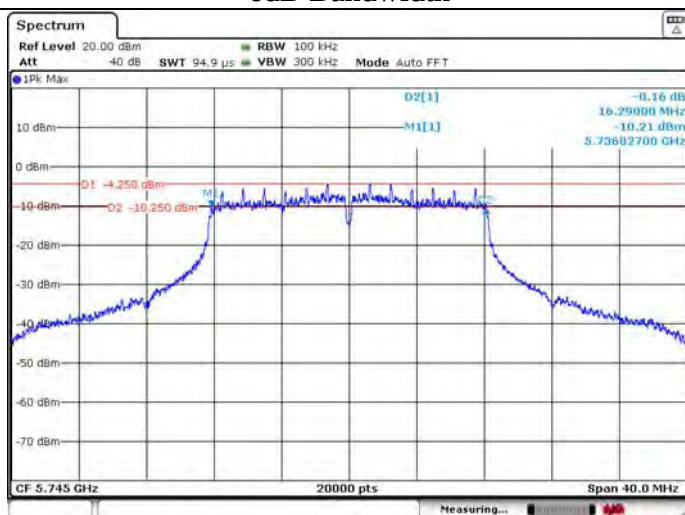


99% Occupied Bandwidth



U-NII-3 IEEE 802.11a 5745MHz_Ant 2

6dB Bandwidth

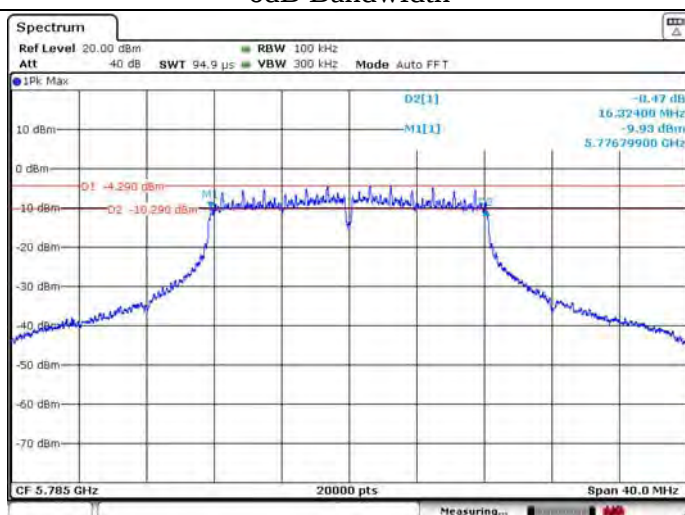


99% Occupied Bandwidth



U-NII-3 IEEE 802.11a 5785MHz_Ant 1

6dB Bandwidth

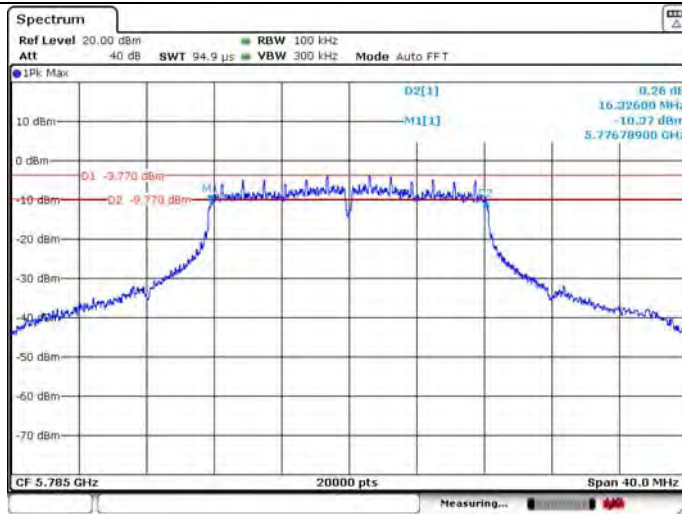


99% Occupied Bandwidth



U-NII-3 IEEE 802.11a 5785MHz_Ant 2

6dB Bandwidth

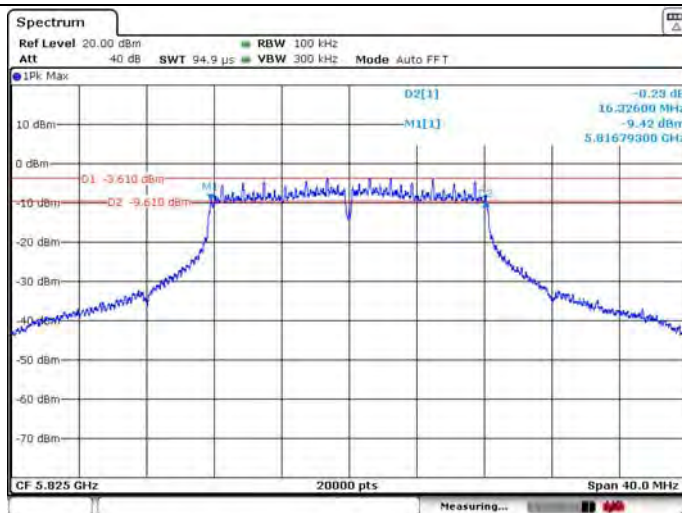


99% Occupied Bandwidth



U-NII-3 IEEE 802.11a 5825MHz_Ant 1

6dB Bandwidth

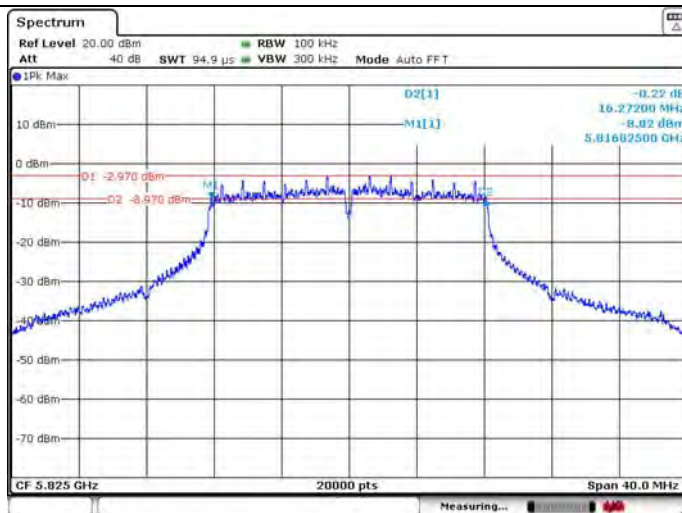


99% Occupied Bandwidth



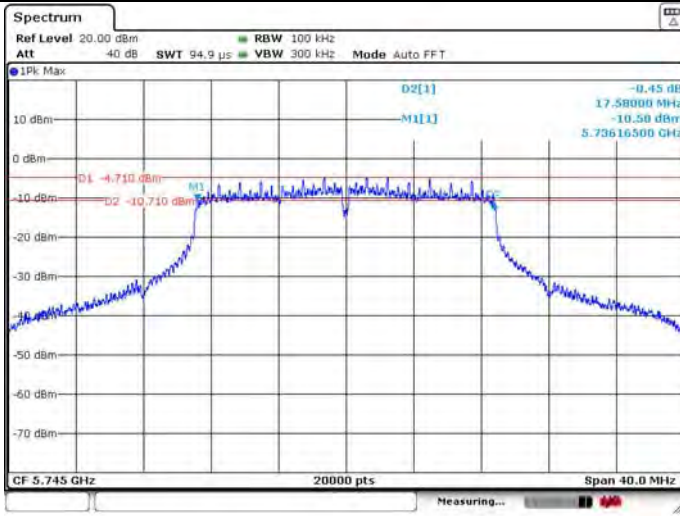
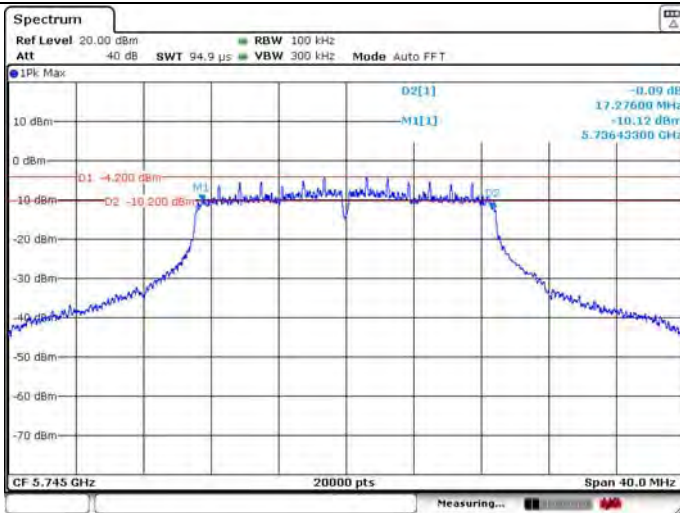
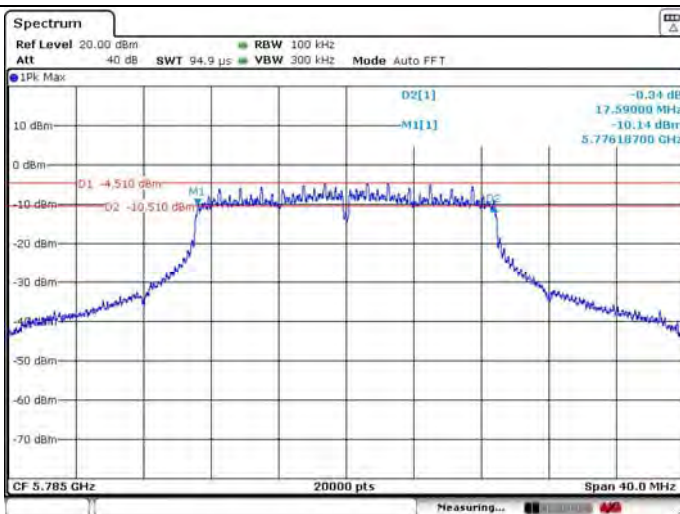
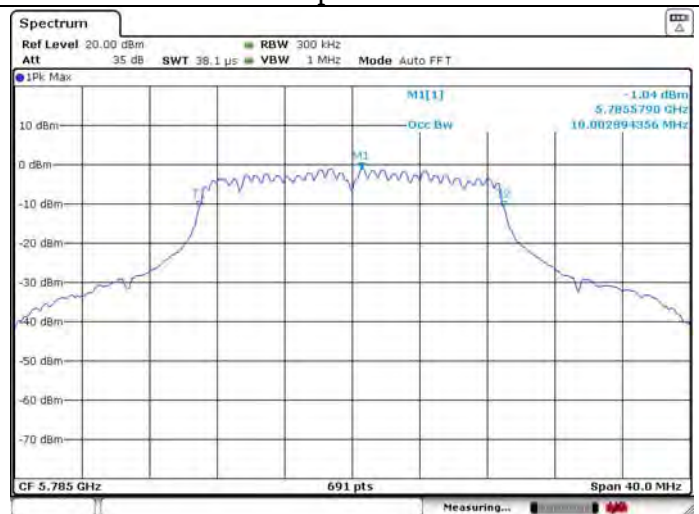
U-NII-3 IEEE 802.11a 5825MHz_Ant 2

6dB Bandwidth



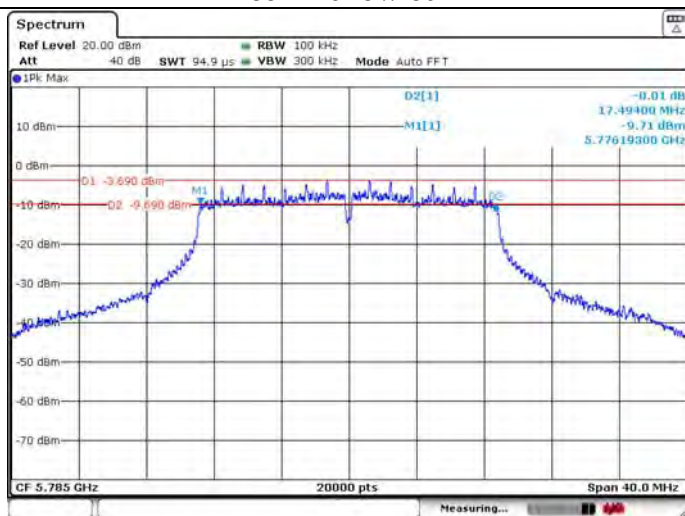
99% Occupied Bandwidth



U-NII-3 IEEE 802.11n HT20 5745MHz_Ant 1**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11n HT20 5745MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11n HT20 5785MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11n HT20 5785MHz_Ant 2

6dB Bandwidth

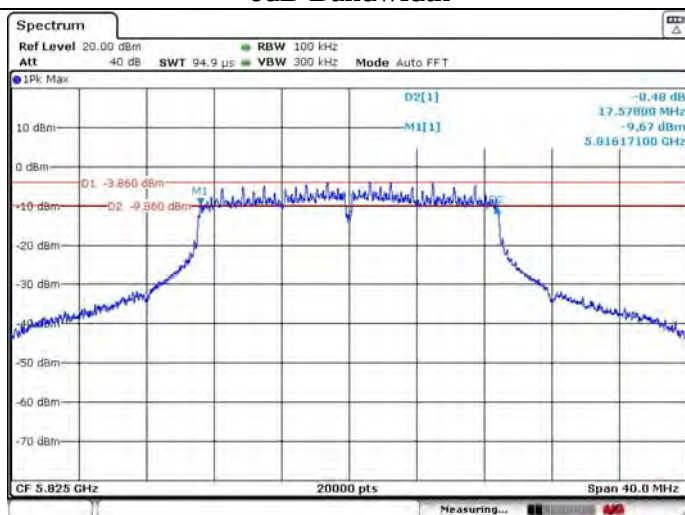


99% Occupied Bandwidth



U-NII-3 IEEE 802.11n HT20 5825MHz_Ant 1

6dB Bandwidth

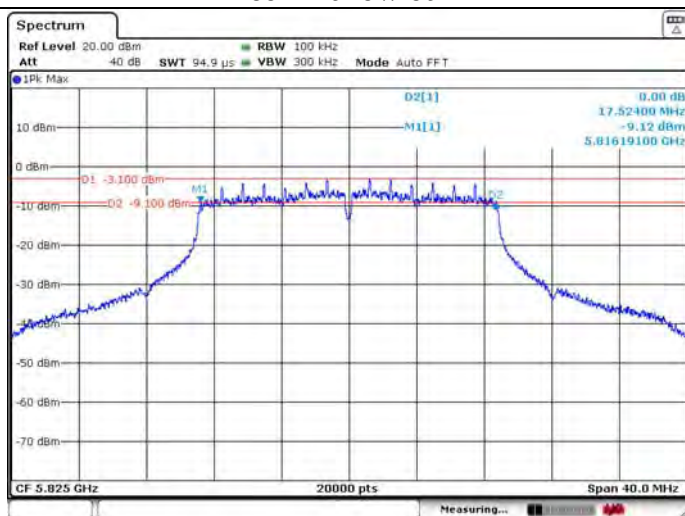


99% Occupied Bandwidth



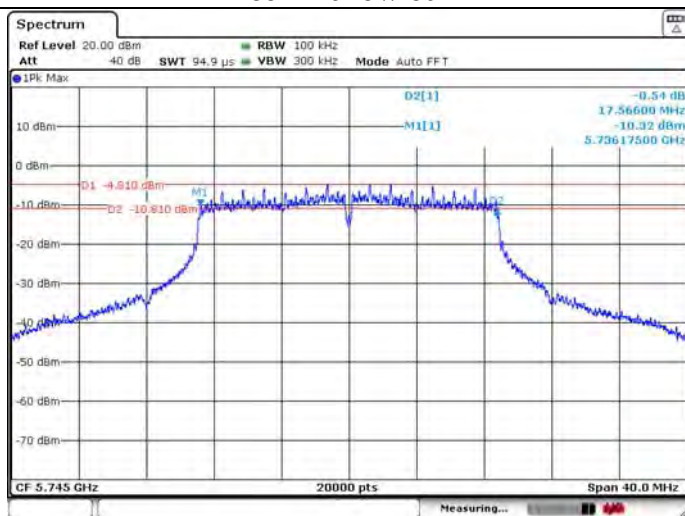
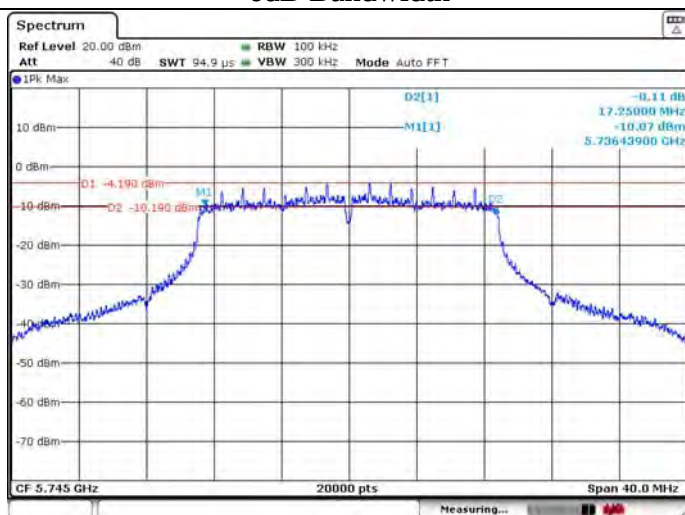
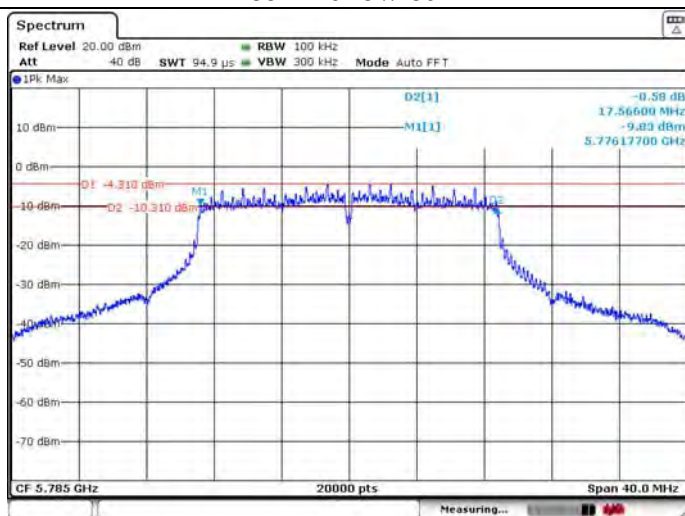
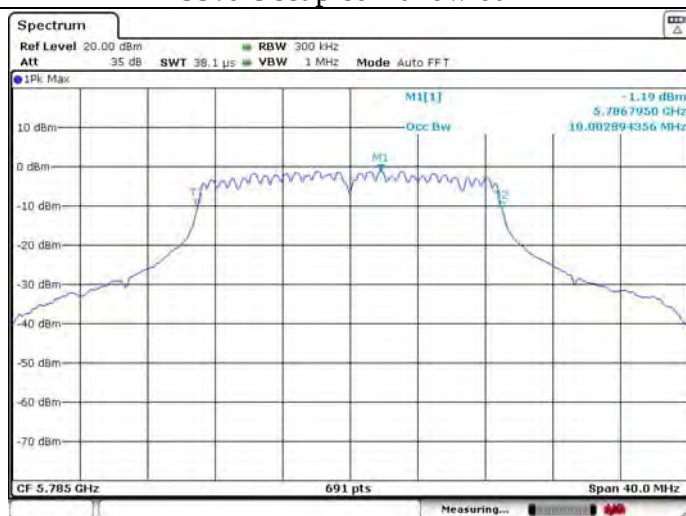
U-NII-3 IEEE 802.11n HT20 5825MHz_Ant 2

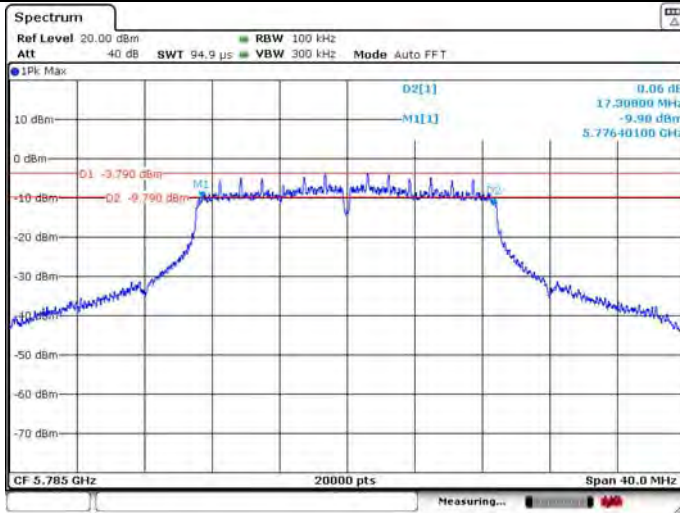
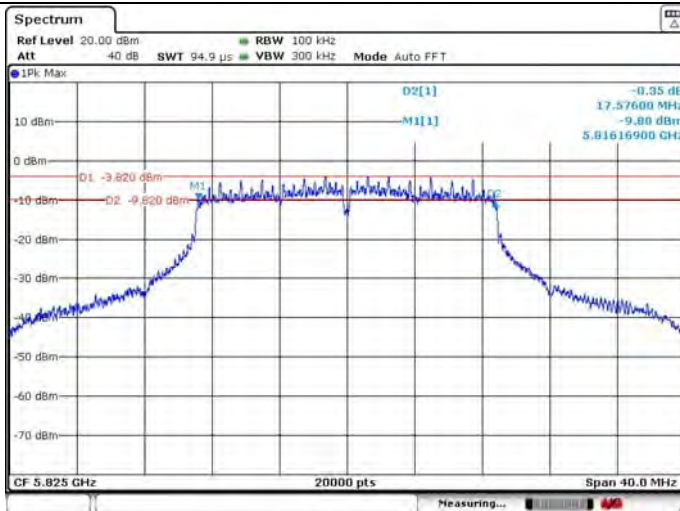
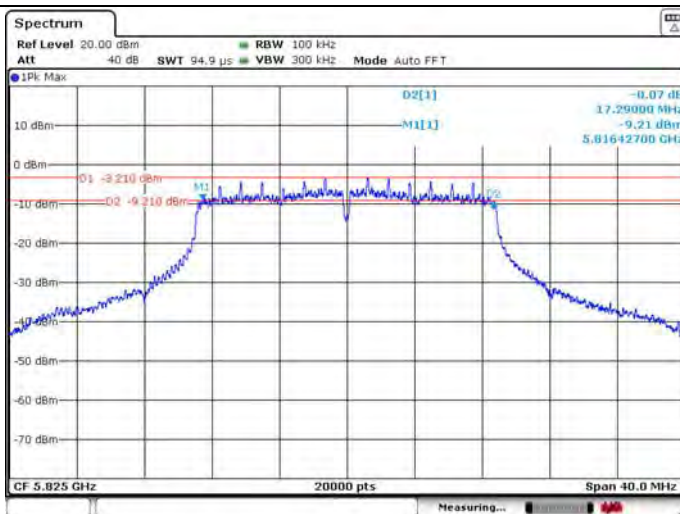
6dB Bandwidth

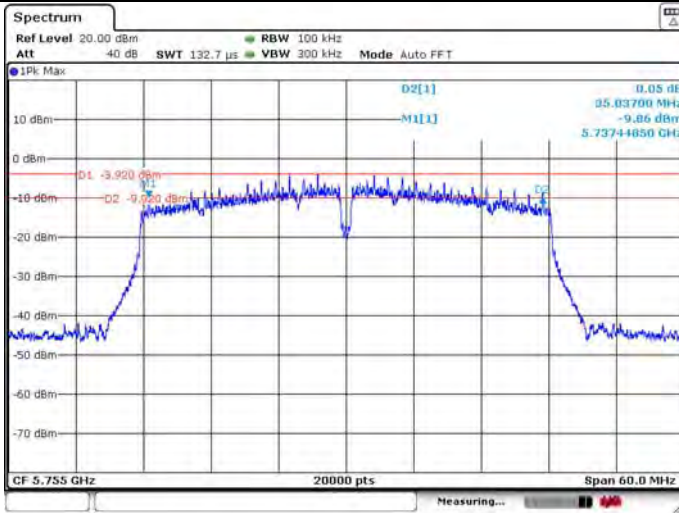
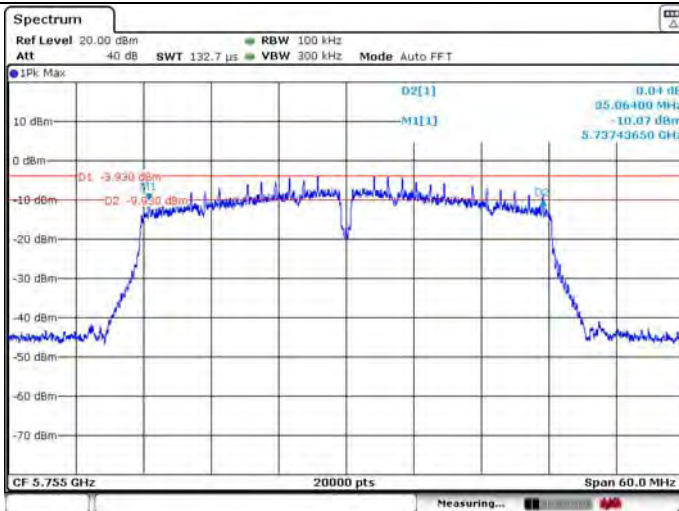
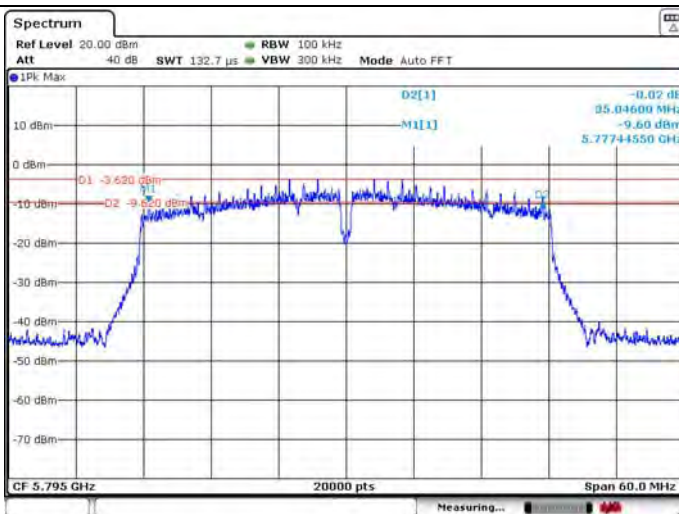


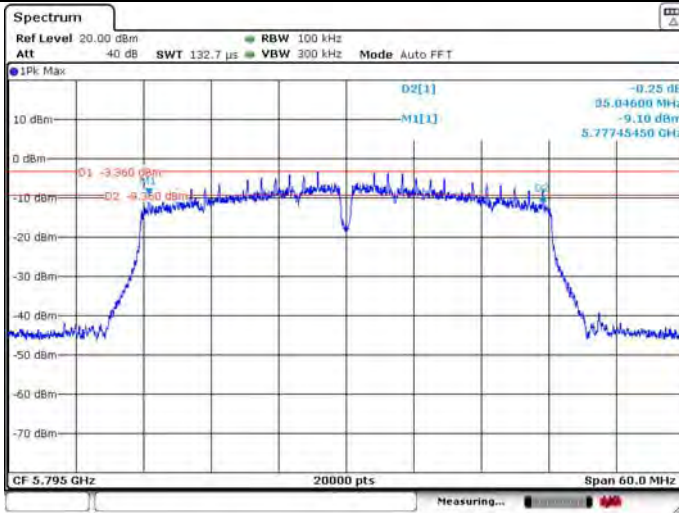
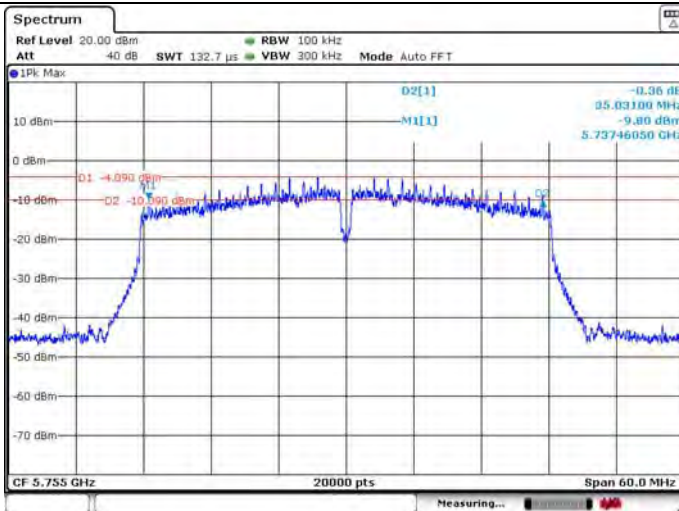
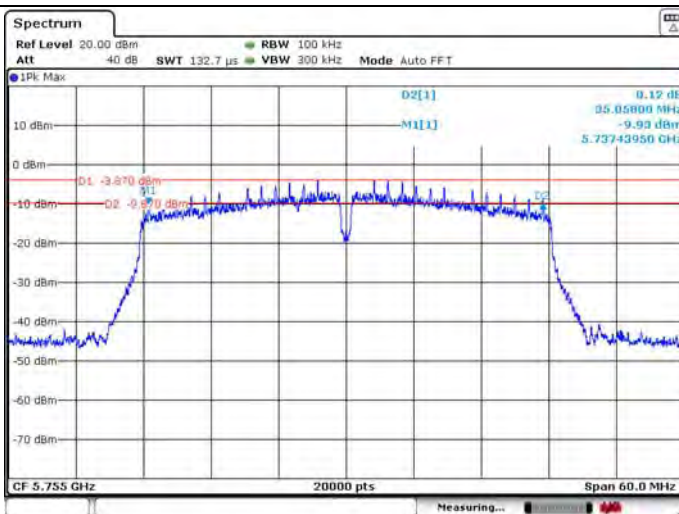
99% Occupied Bandwidth

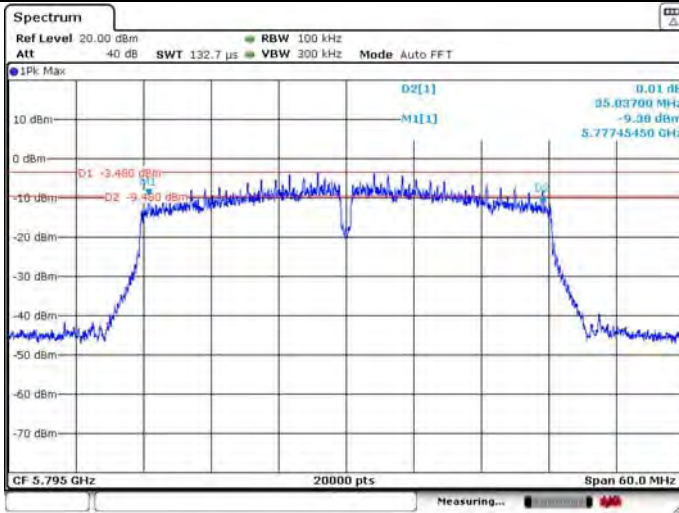
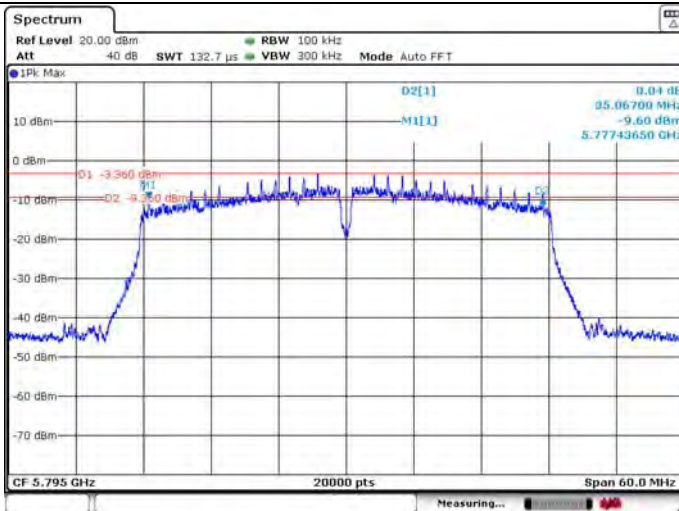
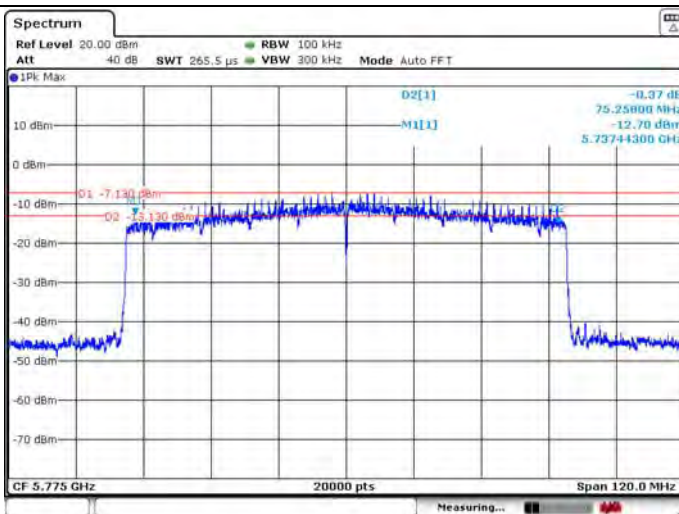
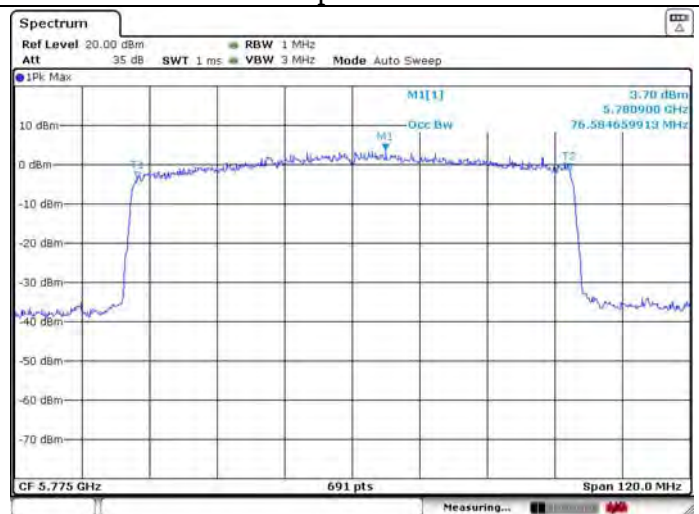


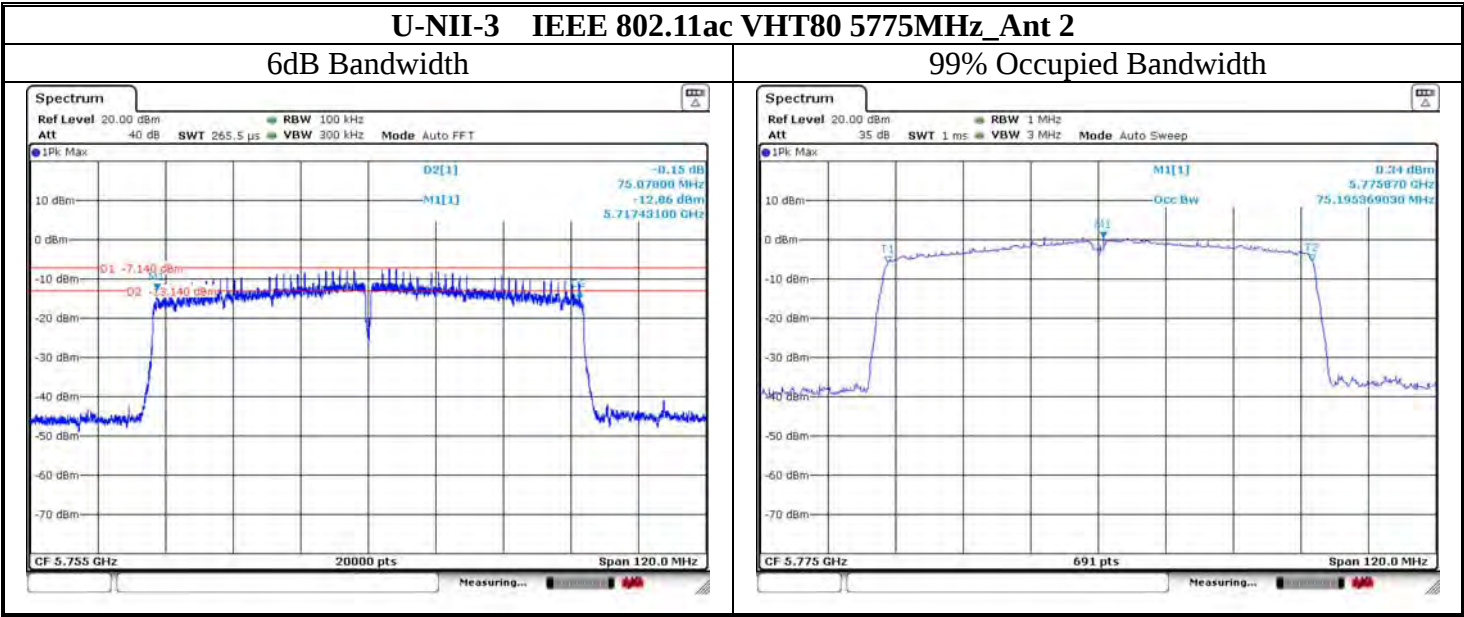
U-NII-3 IEEE 802.11ac VHT20 5745MHz_Ant 1**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT20 5745MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT20 5785MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth**

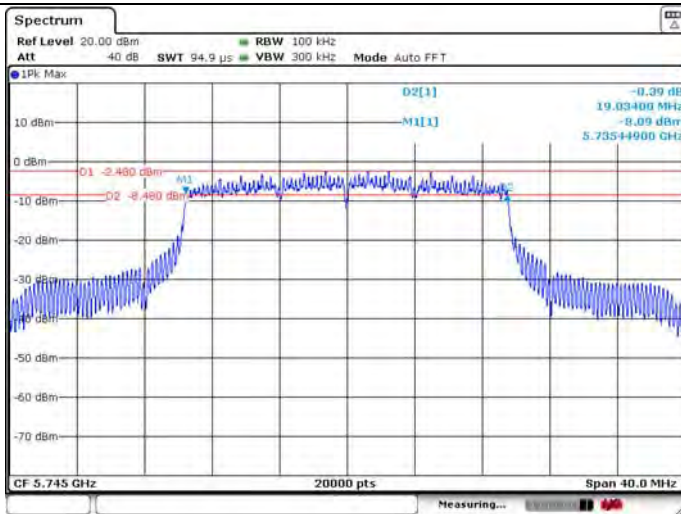
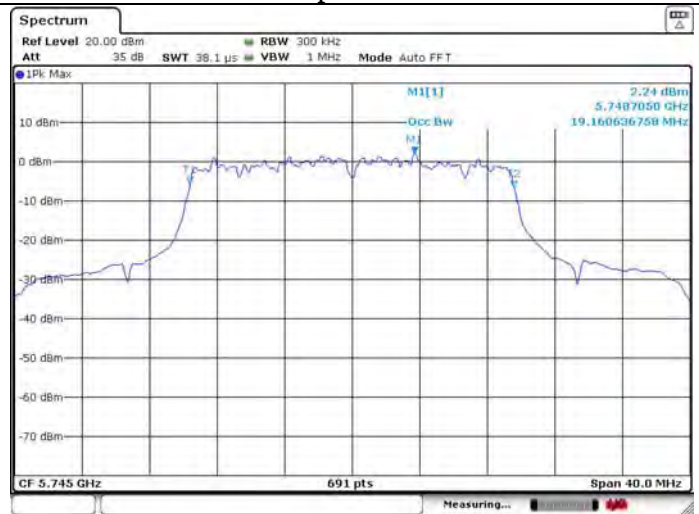
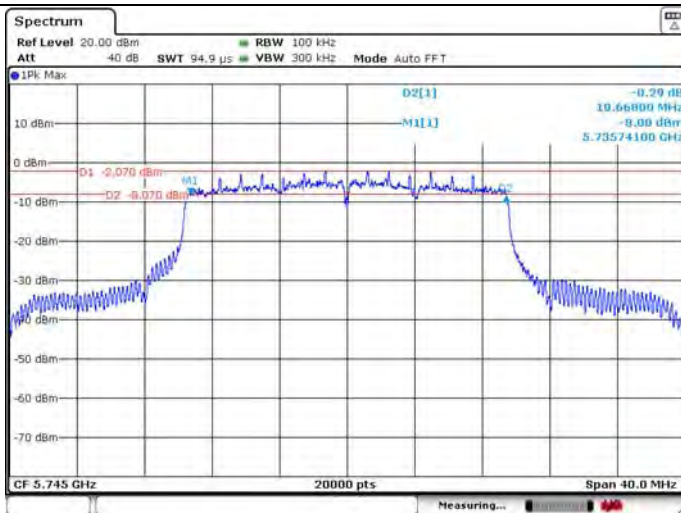
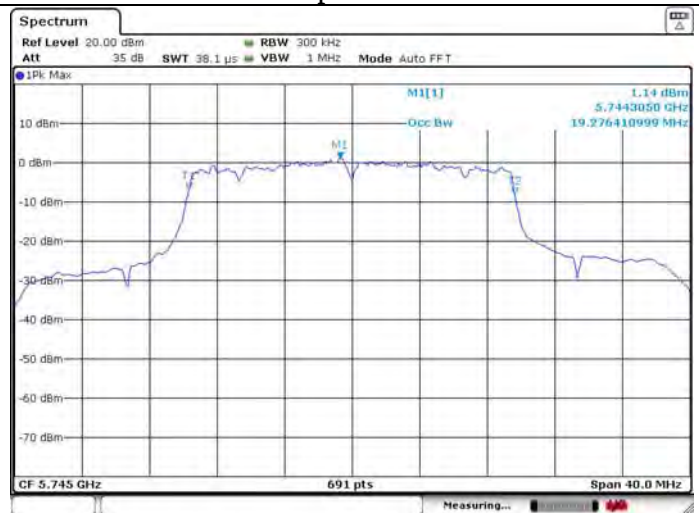
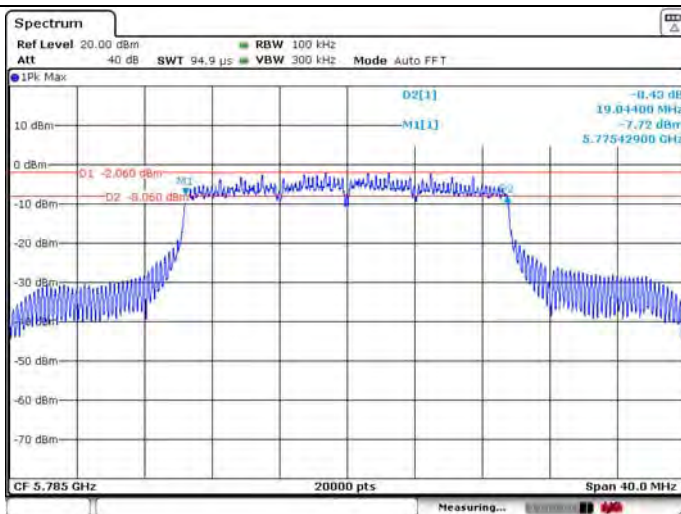
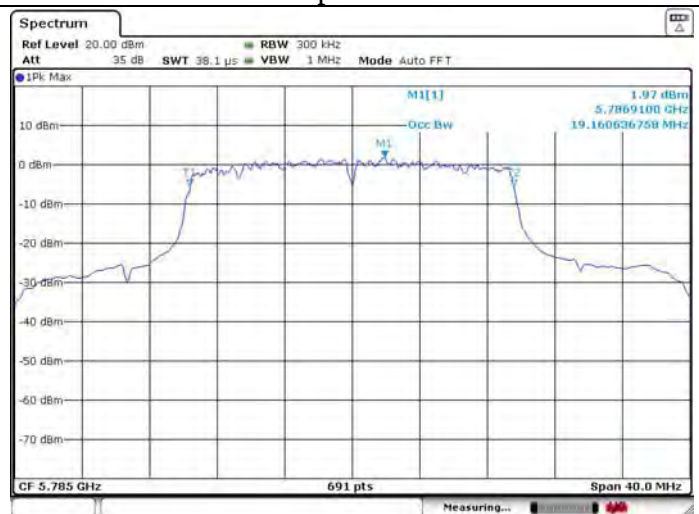
U-NII-3 IEEE 802.11ac VHT20 5785MHz_Ant 2**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT20 5825MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT20 5825MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11n HT40 5755MHz_Ant 1**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11n HT40 5755MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11n HT40 5795MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11n HT40 5795MHz_Ant 2**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT40 5755MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT40 5755MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth**

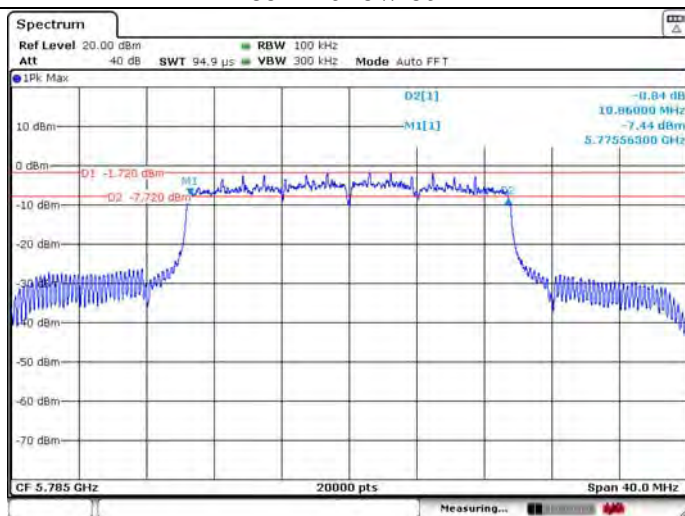
U-NII-3 IEEE 802.11ac VHT40 5795MHz_Ant 1**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT40 5795MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ac VHT80 5775MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth**



U-NII-3 IEEE 802.11ax HE20 5745MHz_Ant 1**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ax HE20 5745MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ax HE20 5785MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11ax HE20 5785MHz_Ant 2

6dB Bandwidth

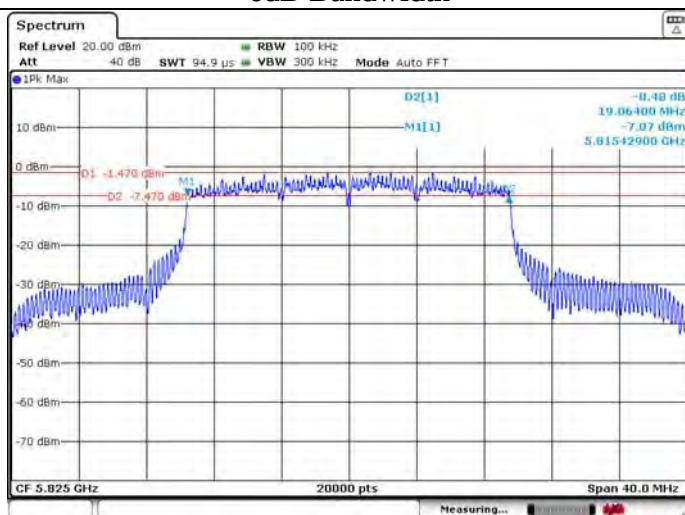


99% Occupied Bandwidth

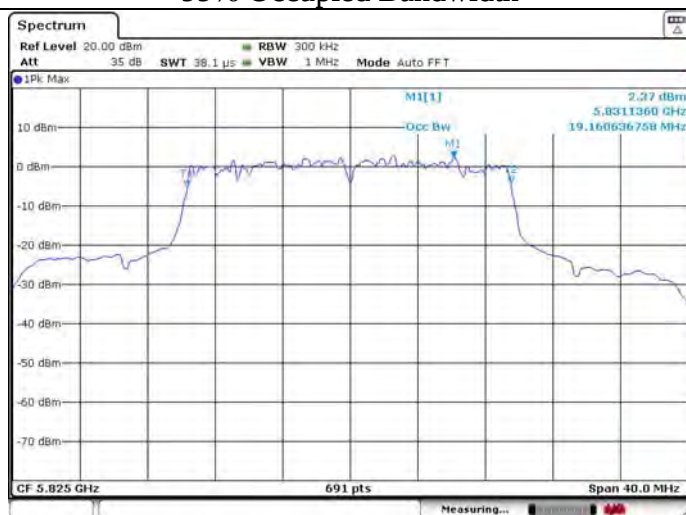


U-NII-3 IEEE 802.11ax HE20 5825MHz_Ant 1

6dB Bandwidth

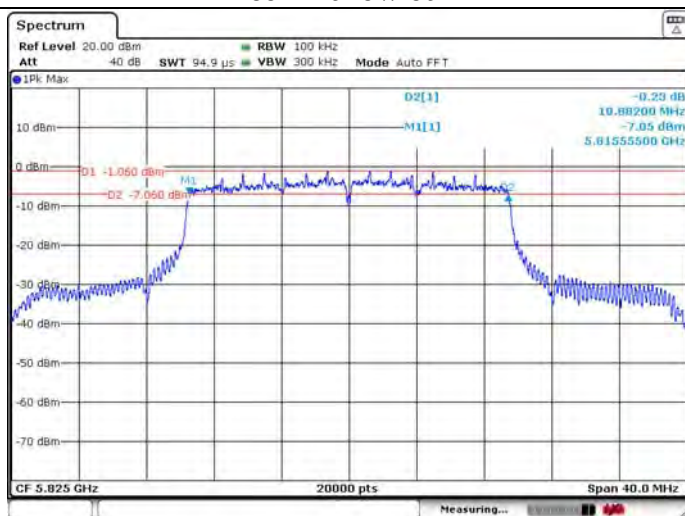


99% Occupied Bandwidth



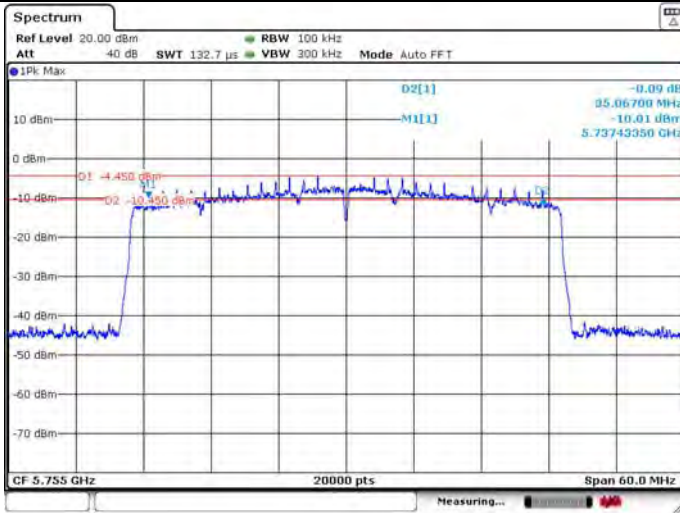
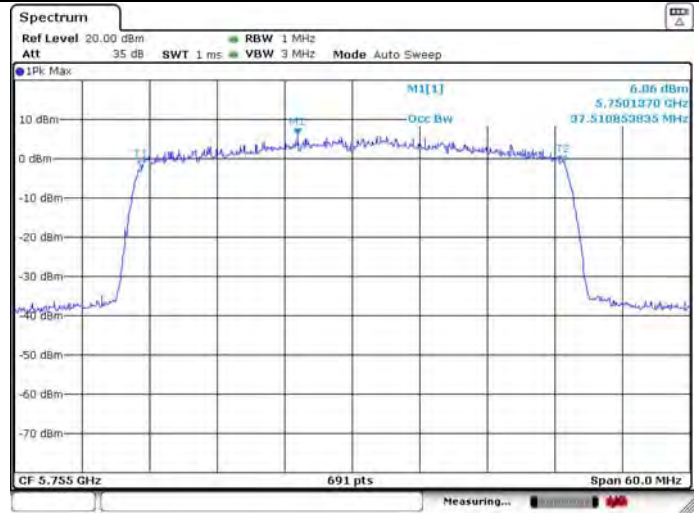
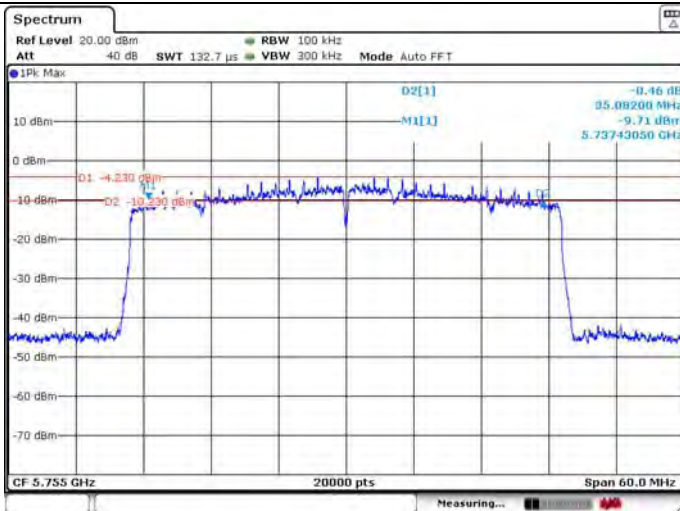
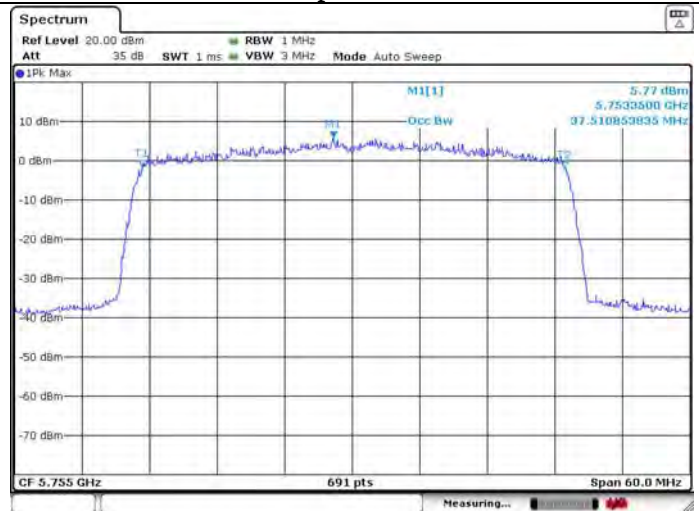
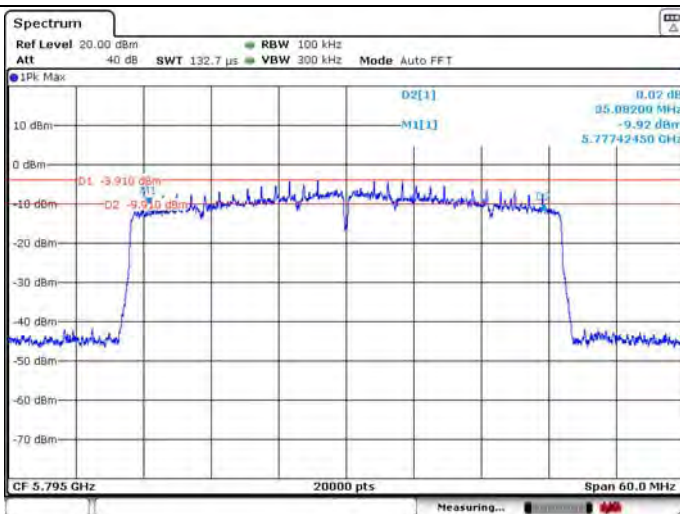
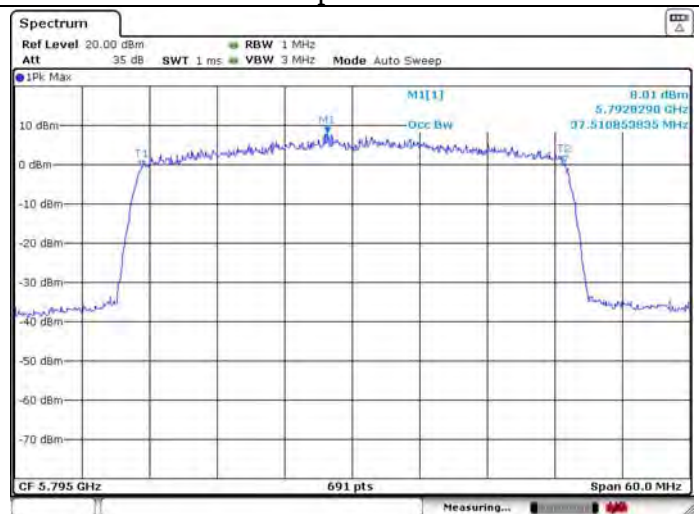
U-NII-3 IEEE 802.11ax HE20 5825MHz_Ant 2

6dB Bandwidth



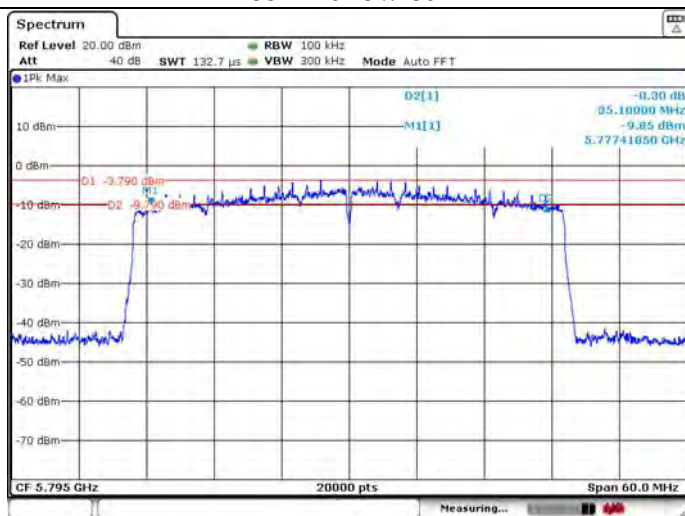
99% Occupied Bandwidth



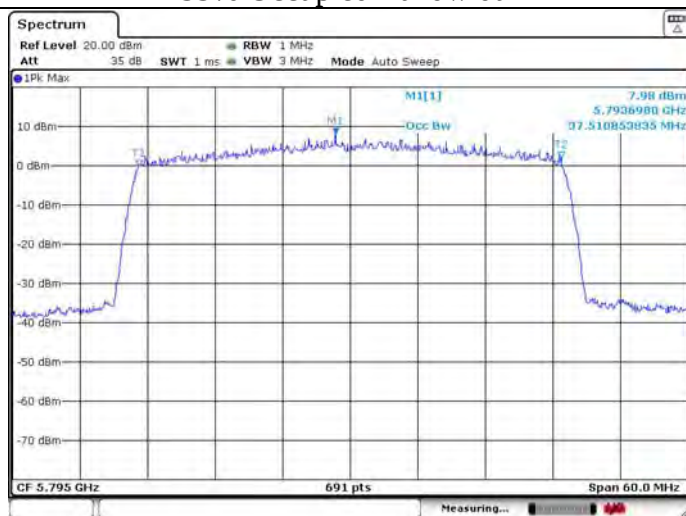
U-NII-3 IEEE 802.11ax HE40 5755MHz_Ant 1**6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ax HE40 5755MHz_Ant 2****6dB Bandwidth****99% Occupied Bandwidth****U-NII-3 IEEE 802.11ax HE40 5795MHz_Ant 1****6dB Bandwidth****99% Occupied Bandwidth**

U-NII-3 IEEE 802.11ax HE40 5795MHz_Ant 2

6dB Bandwidth

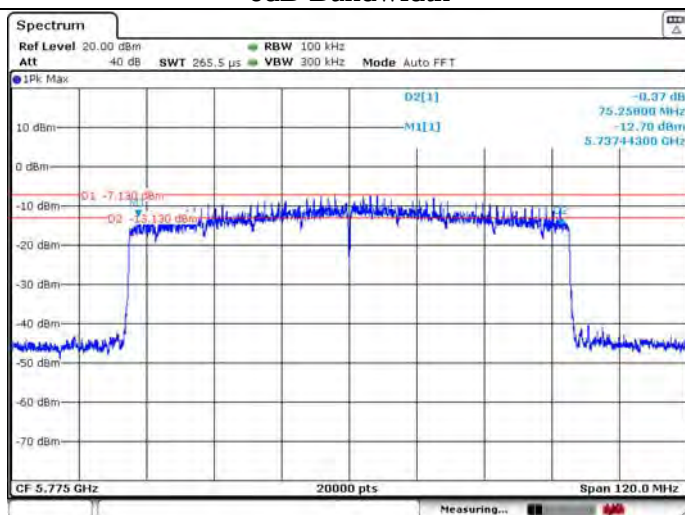


99% Occupied Bandwidth

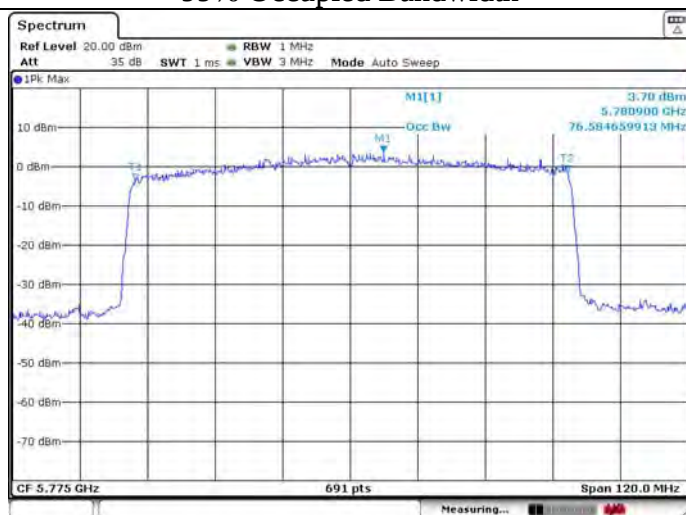


U-NII-3 IEEE 802.11ax HE80 5775MHz_Ant 1

6dB Bandwidth

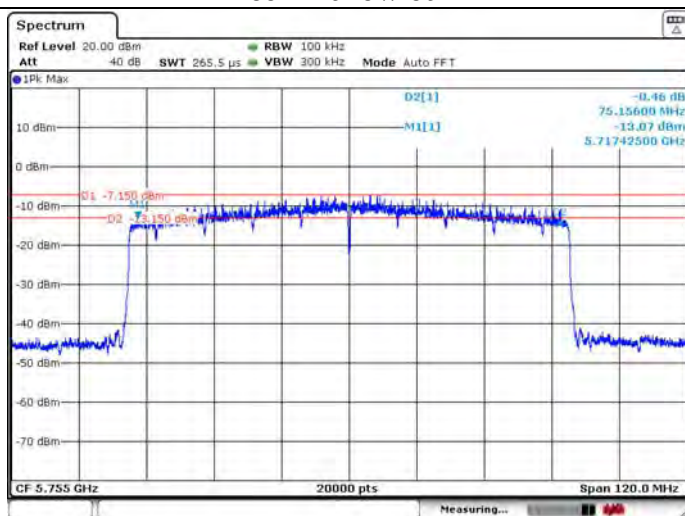


99% Occupied Bandwidth

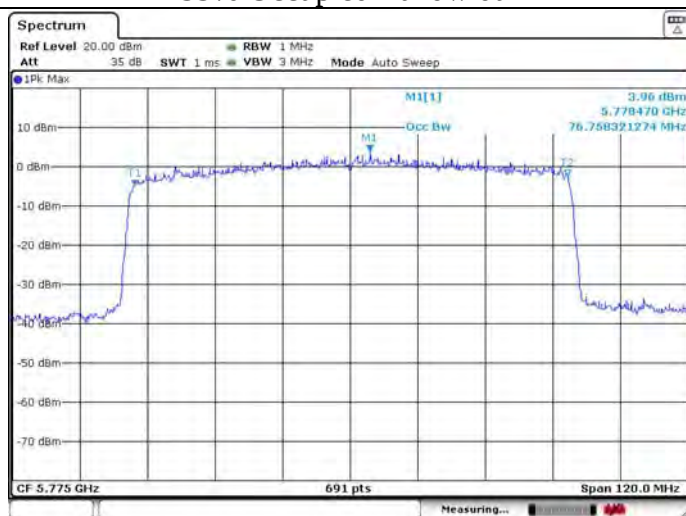


U-NII-3 IEEE 802.11ax HE80 5775MHz_Ant 2

6dB Bandwidth



99% Occupied Bandwidth



4. MAXIMUM CONDUCTED OUTPUT POWER

4.1. Limit

Band	EUT Type	Limit
U-NII-1	Outdoor Access Point	1W(30dBm) (Max. e.i.r.p $\leq$ 125mW at any elevation angle above 30 degrees as measured from the horizon)
	Indoor Access Point	1W(30dBm)
	Fixed point-to-point Access Point	1W(30dBm)
	Mobile and Portable Client Device	250mW(23.98dBm)
U-NII-2A	All Device	250mW(23.98dBm) or 11dBm+10 log B, Which is lesser. (B is 26dB Bandwidth in MHz)
U-NII-2C	All Device	250mW(23.98dBm) or 11dBm+10 log B, Which is lesser. (B is 26dB Bandwidth in MHz)
U-NII-3	All Device	1W(30dBm)

Note:

For the Band U-NII-2A and U-NII-2C, the maximum conducted output power limit calculate result refer to section 3.5.

4.2. Test Setup

Spectrum Parameters	Setting
RBW	1MHz
VBW	3MHz
Span	40MHz(20MHz Bandwidth mode)/80MHz(40MHz Bandwidth mode)
Sweep Time	Auto
Detector	Peak
Trace Mode	Max Hold

4.3. Test Procedure

- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 4.3.
- Set the EUT transmit continuously with maximum output power.
- Use the channel power function to measure maximum peak output power, allow trace to stabilize, save test pictures.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

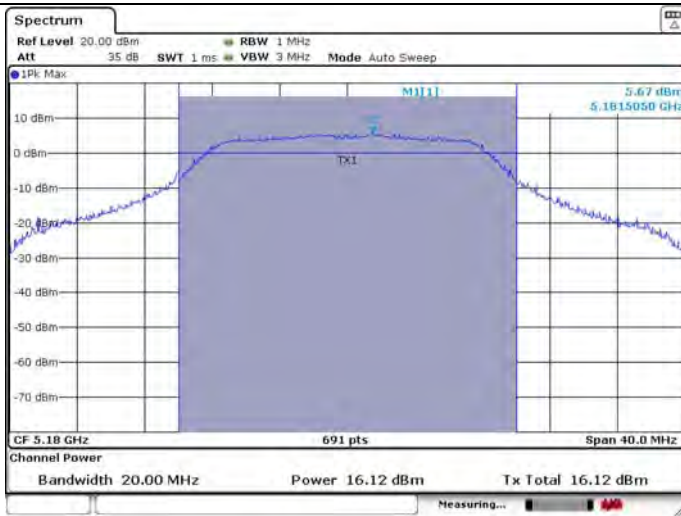
4.4. Test Result

Temperature	22.5℃	Relative Humidity			47%	Test Voltage	DC 3.3V	
BAND	Test Mode	Fre (MHz)	Conducted AVG Output Power (dBm)		Total Conducted Output Power (W)	Total Conducted Output Power (dBm)	Limit (dBm)	Result
			Ant 1	Ant 2				
U-NII-1	IEEE 802.11a	5180	16.12	17.15			24.00	PASS
		5200	16.24	16.81			24.00	PASS
		5240	15.81	16.85			24.00	PASS
	IEEE 802.11n HT20	5180	16.28	16.61	0.10279	20.12	23.99	PASS
		5200	15.90	16.48	0.09707	19.87	23.99	PASS
		5240	15.81	16.47	0.09602	19.82	23.99	PASS
	IEEE 802.11ac VHT20	5180	16.07	16.40	0.10814	20.34	23.99	PASS
		5200	16.04	16.38	0.10753	20.32	23.99	PASS
		5240	15.63	16.38	0.10287	20.12	23.99	PASS
	IEEE 802.11n HT40	5190	18.14	18.70	0.21747	23.37	23.99	PASS
		5230	17.94	18.63	0.21104	23.24	23.99	PASS
	IEEE 802.11ac VHT40	5190	18.04	18.77	0.21408	23.31	23.99	PASS
		5230	17.38	18.15	0.18482	22.67	23.99	PASS
	IEEE 802.11ac VHT80	5210	17.41	18.26	0.24640	23.92	23.99	PASS
	IEEE 802.11ax HE20	5180	18.17	17.91	0.19981	23.01	23.99	PASS
		5200	17.64	18.03	0.19071	22.80	23.99	PASS
		5240	17.69	17.93	0.18949	22.78	23.99	PASS
	IEEE 802.11ax HE40	5190	17.22	17.88	0.18659	22.71	23.99	PASS
		5230	17.23	17.55	0.17944	22.54	23.99	PASS
	IEEE 802.11ax HE80	5210	17.13	17.39	0.18533	22.68	23.99	PASS

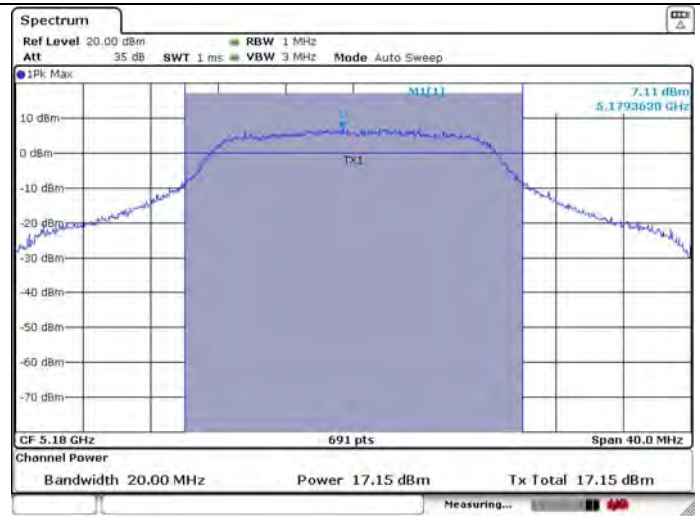
BAND	Test Mode	Fre (MHz)	Conducted AVG Output Power (dBm)		Total Conducted Output Power (W)	Total Conducted Output Power (dBm)	Limit (dBm)	Result
			Ant 1	Ant 2				
U-NII-3	IEEE 802.11a	5745	15.53	16.71			24.00	PASS
		5785	16.13	17.03			24.00	PASS
		5825	16.74	17.78			24.00	PASS
	IEEE 802.11n HT20	5745	15.51	16.22	0.09017	19.55	29.99	PASS
		5785	15.99	16.62	0.09972	19.99	29.99	PASS
		5825	16.67	17.24	0.11576	20.64	29.99	PASS
	IEEE 802.11ac VHT20	5745	15.38	16.15	0.09736	19.88	29.99	PASS
		5785	15.98	16.53	0.10878	20.37	29.99	PASS
		5825	16.64	17.15	0.12602	21.00	29.99	PASS
	IEEE 802.11n HT40	5755	17.57	18.47	0.19899	22.99	29.99	PASS
		5795	18.16	19.00	0.22622	23.55	29.99	PASS
	IEEE 802.11ac VHT40	5755	17.57	18.46	0.19603	22.92	29.99	PASS
		5795	18.11	18.93	0.22003	23.42	29.99	PASS
	IEEE 802.11ac VHT80	5775	17.69	18.41	0.25856	24.13	29.99	PASS
	IEEE 802.11ax HE20	5745	19.67	20.27	0.31222	24.94	29.99	PASS
		5785	20.20	20.73	0.34973	25.44	29.99	PASS
		5825	21.01	21.02	0.39621	25.98	29.99	PASS
	IEEE 802.11ax HE40	5755	19.46	20.10	0.31175	24.94	29.99	PASS
		5795	20.25	20.68	0.36447	25.62	29.99	PASS
	IEEE 802.11ax HE80	5775	19.95	20.68	0.37566	25.75	29.99	PASS

U-NII-1 IEEE 802.11a 5180MHz

ANT 1

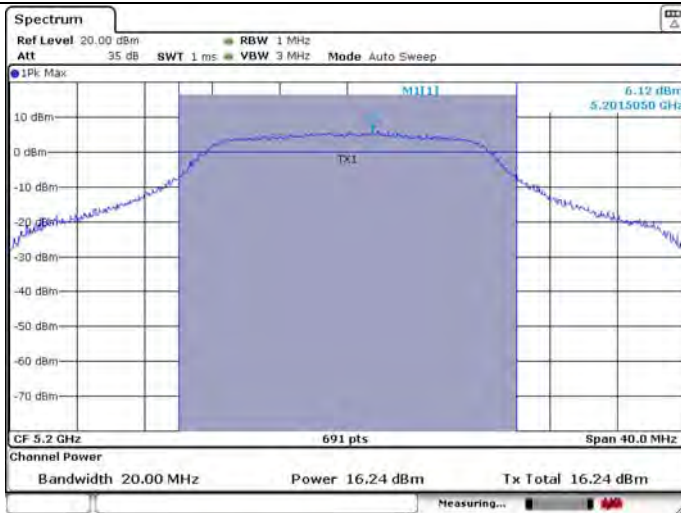


ANT 2

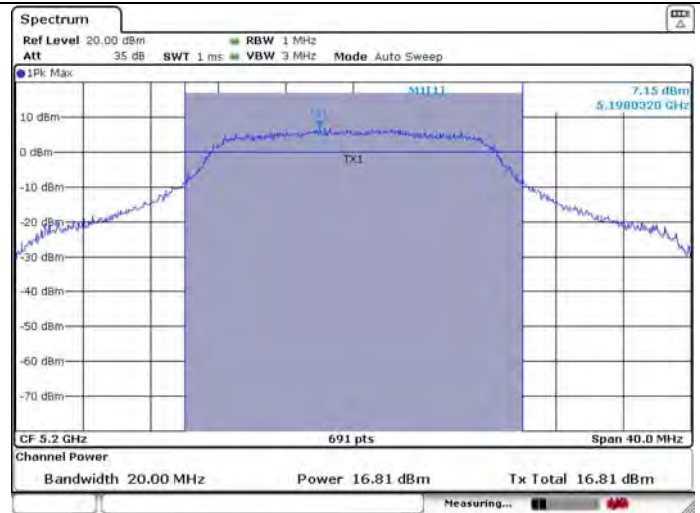


U-NII-1 IEEE 802.11a 5200MHz

ANT 1

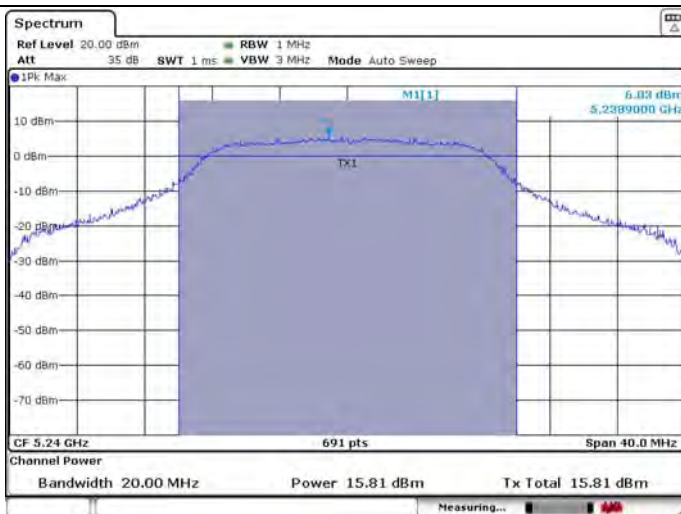


ANT 2

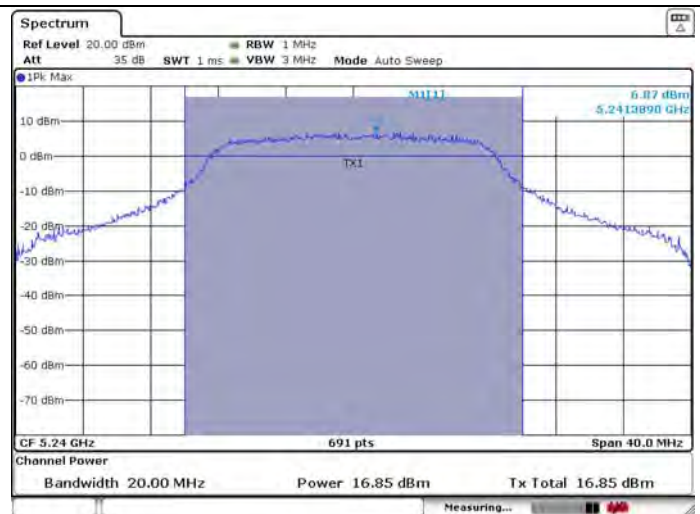


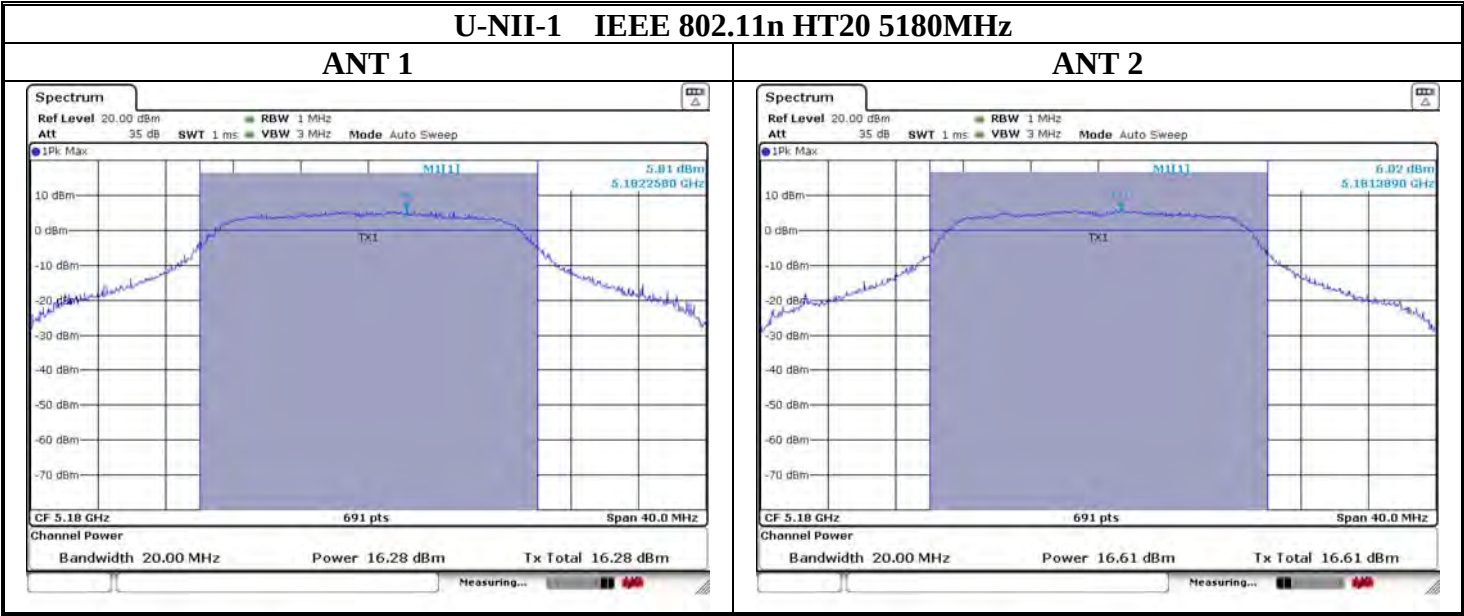
U-NII-1 IEEE 802.11a 5240MHz

ANT 1



ANT 2

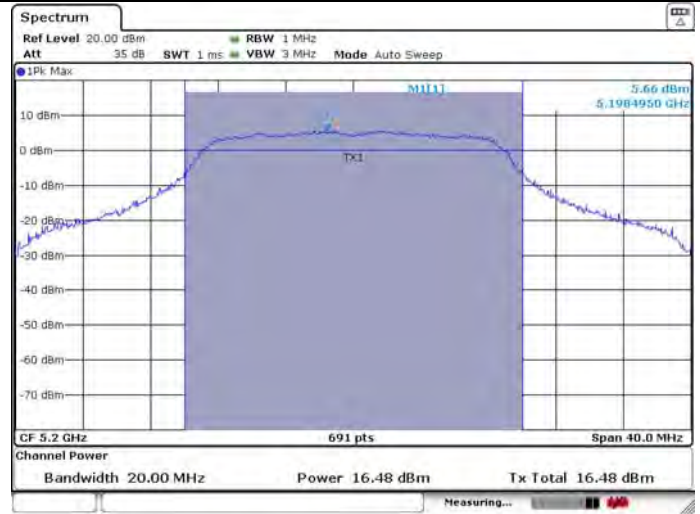
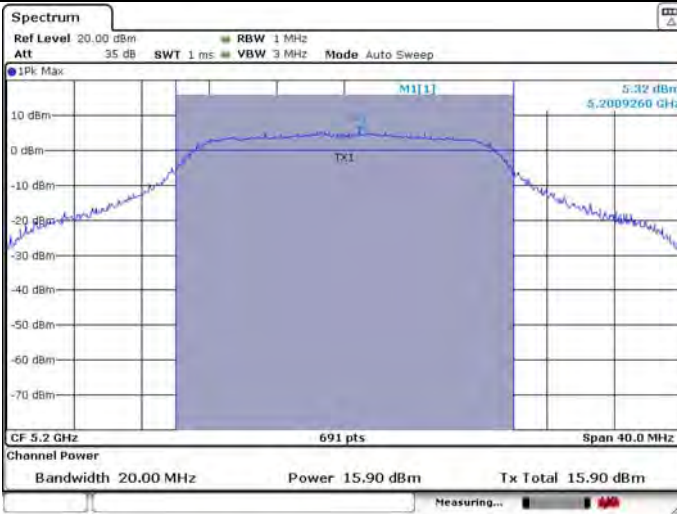




U-NII-1 IEEE 802.11n HT20 5200MHz

ANT 1

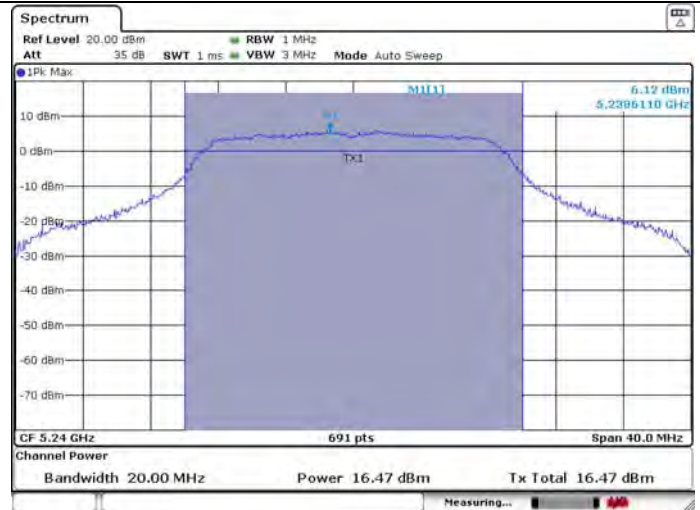
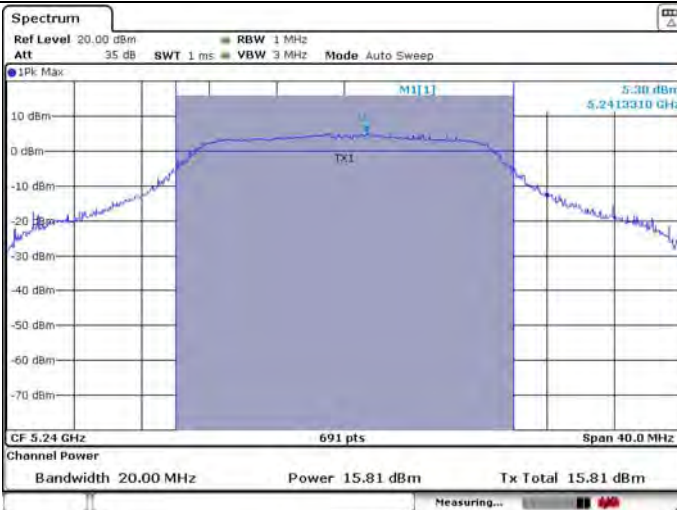
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U-NII-1 IEEE 802.11n HT20 5240MHz

ANT 1

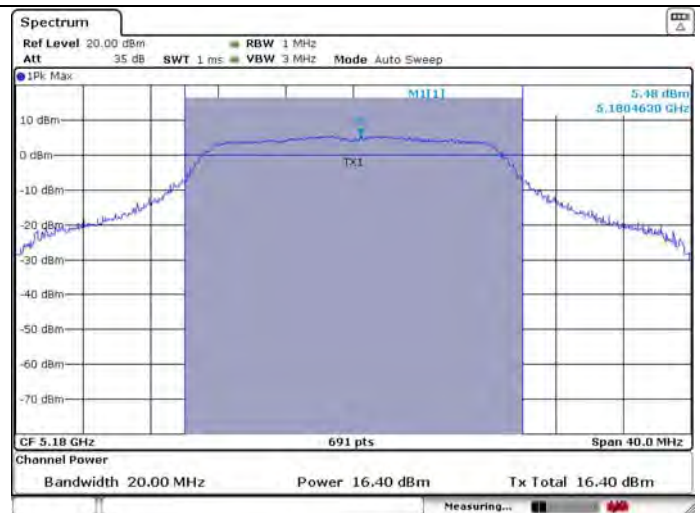
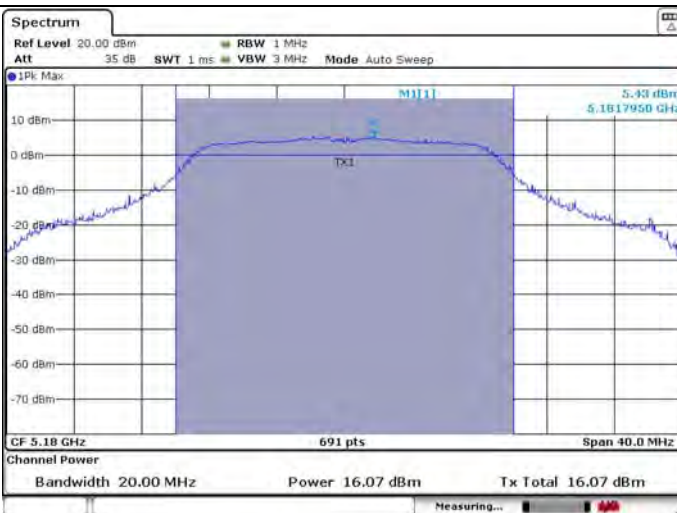
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U-NII-1 IEEE 802.11ac VHT20 5180MHz

ANT 1

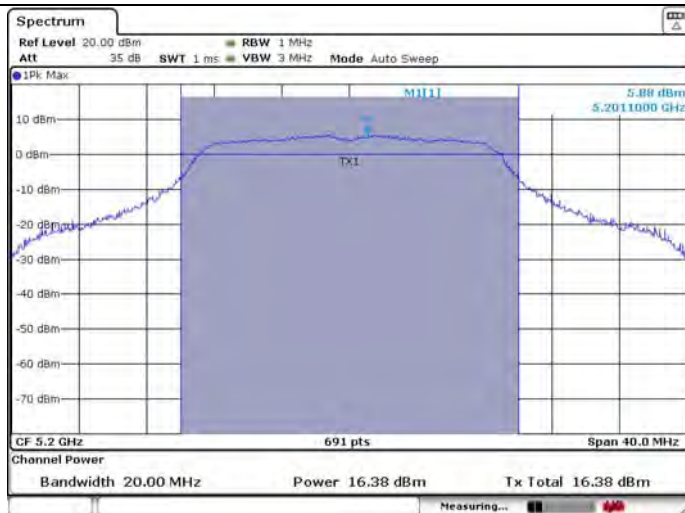
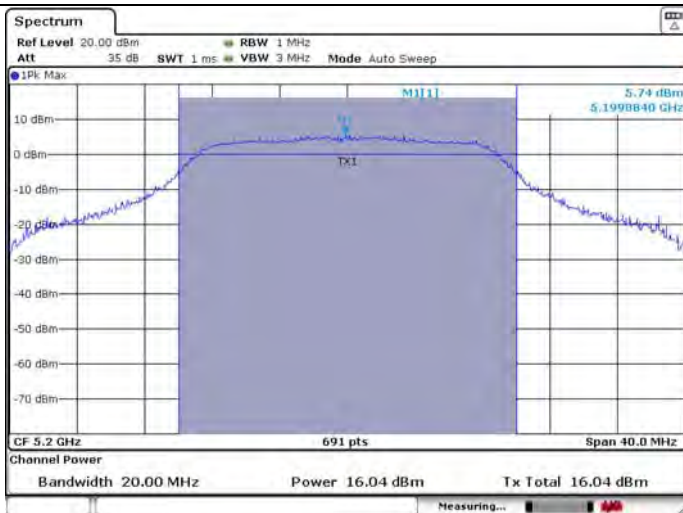
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U-NII-1 IEEE 802.11ac VHT20 5200MHz

ANT 1

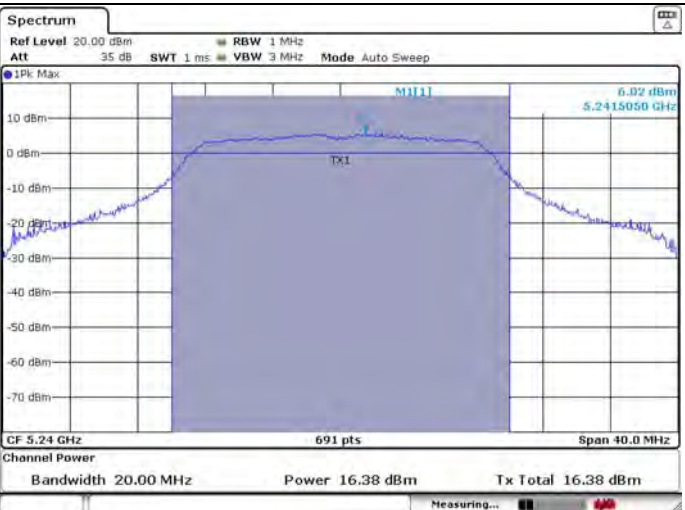
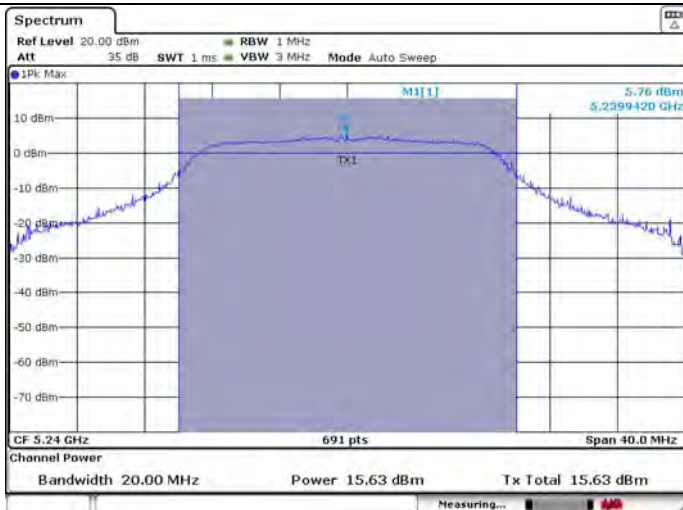
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U-NII-1 IEEE 802.11ac VHT20 5240MHz

ANT 1

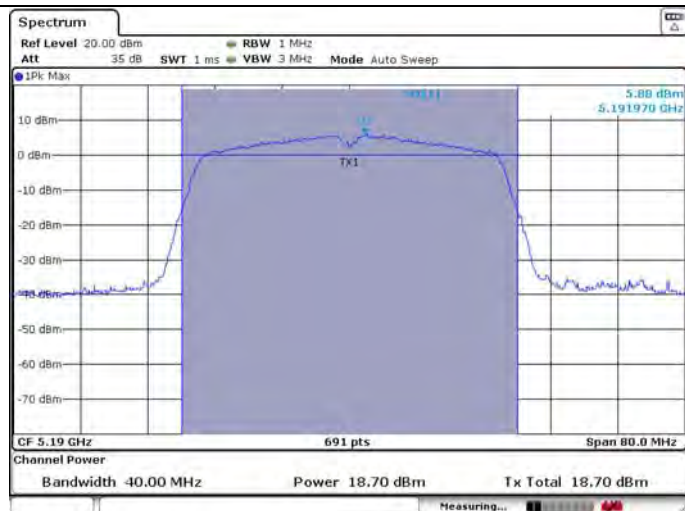
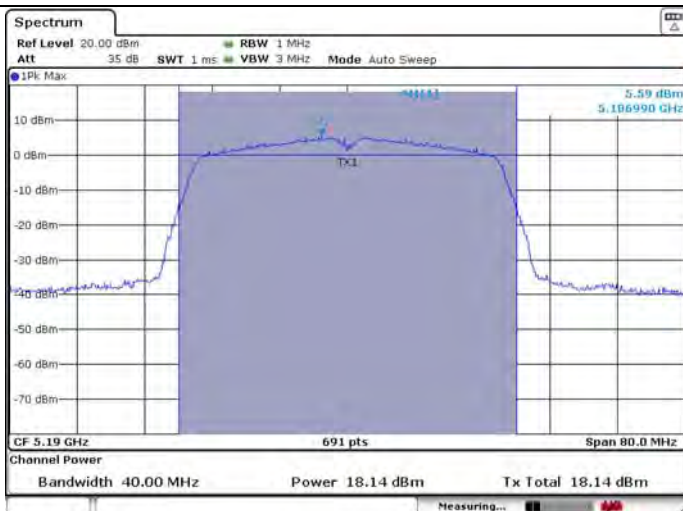
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U-NII-1 IEEE 802.11n HT40 5190MHz

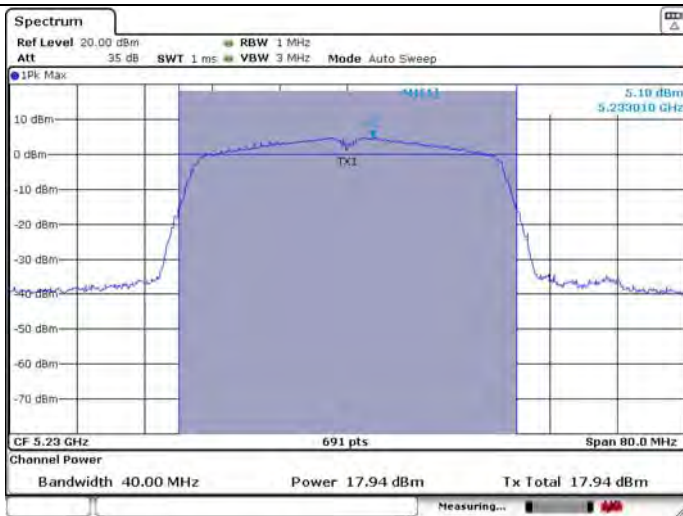
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ANT 2

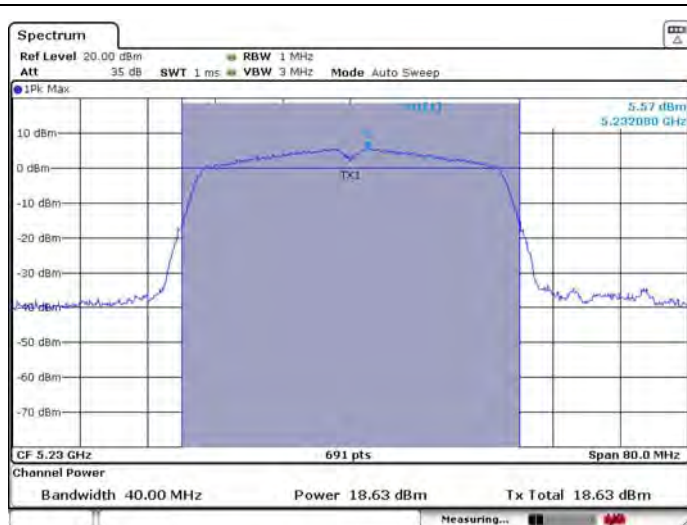


U-NII-1 IEEE 802.11n HT40 5230MHz

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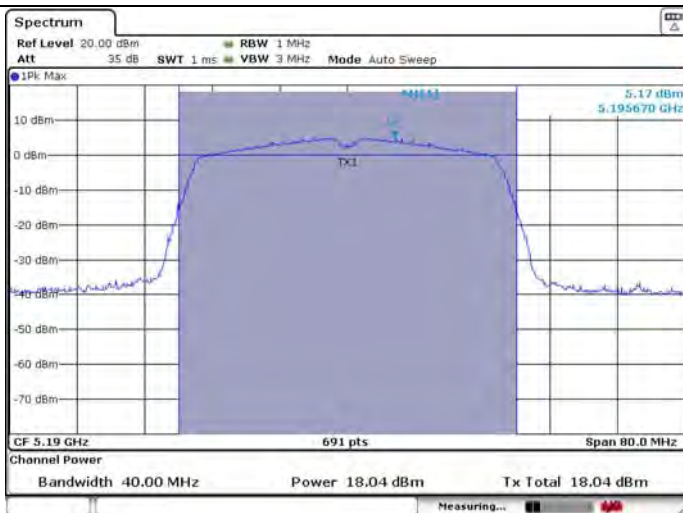


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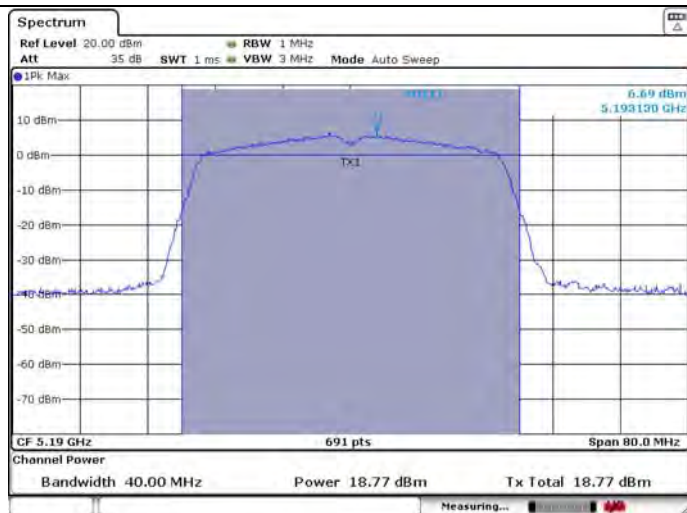


U-NII-1 IEEE 802.11ac VHT40 5190MHz

ANT 1

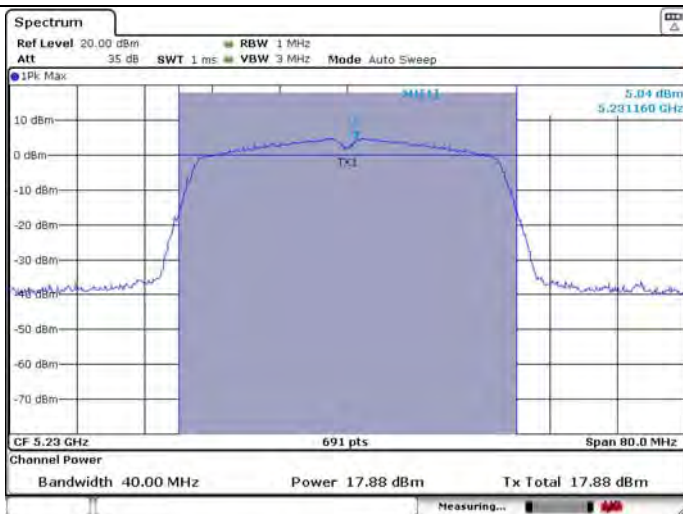


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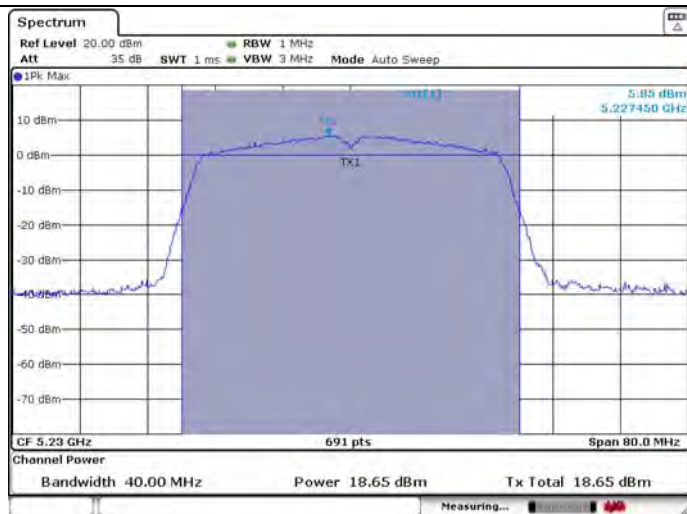


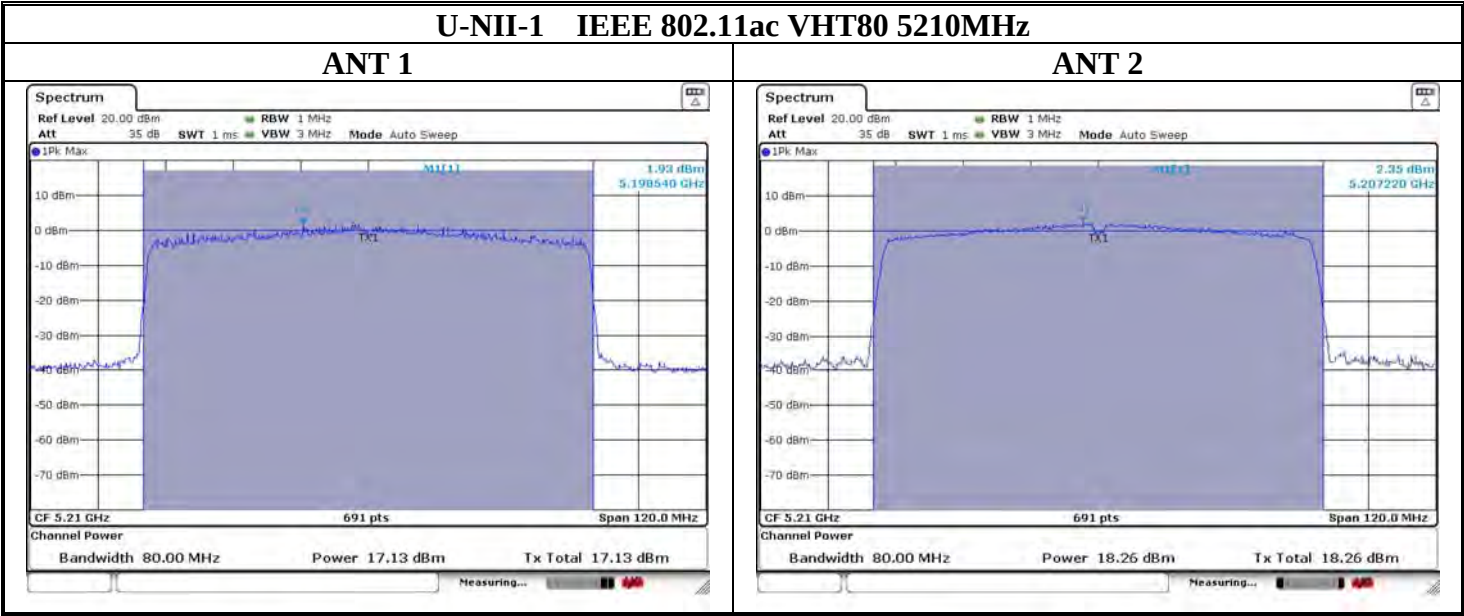
U-NII-1 IEEE 802.11ac VHT40 5230MHz

ANT 1



ANT 2

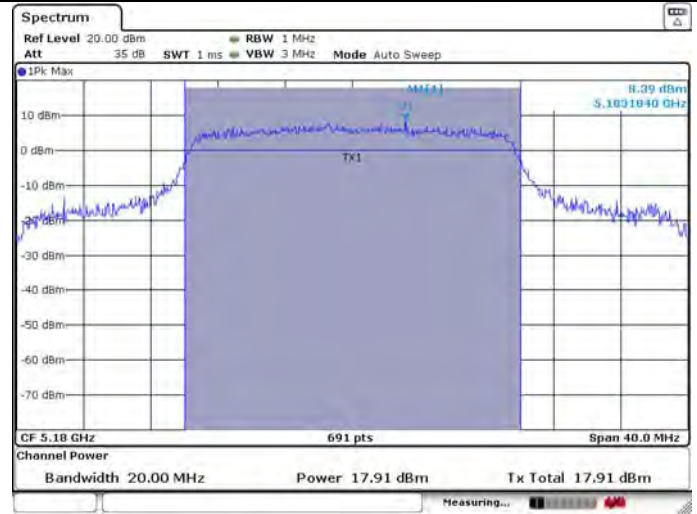
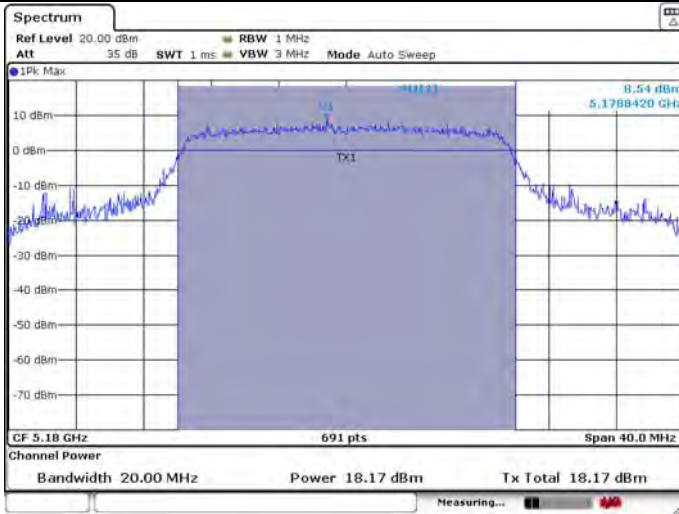




U-NII-1 IEEE 802.11ax HE20 5180MHz

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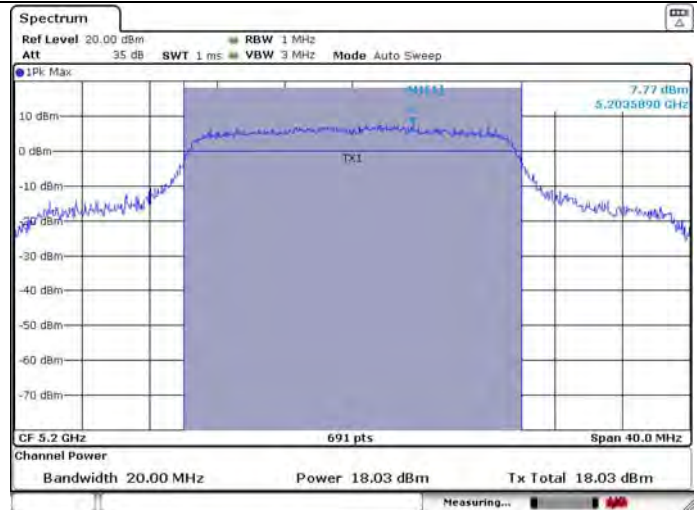
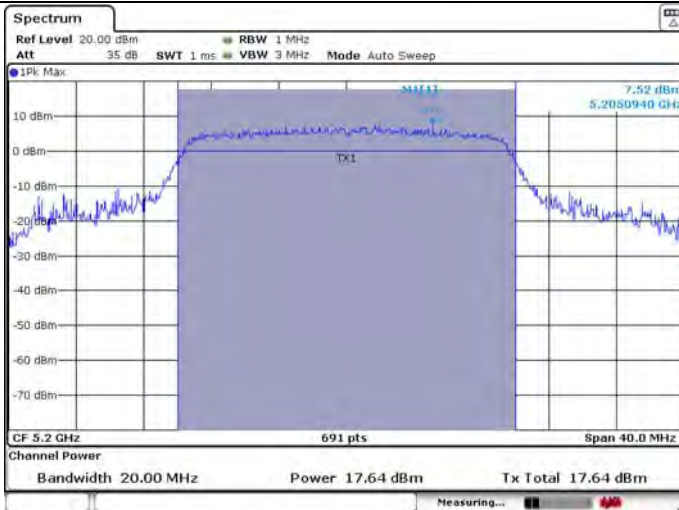
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U-NII-1 IEEE 802.11ax HE20 5200MHz

ANT 1

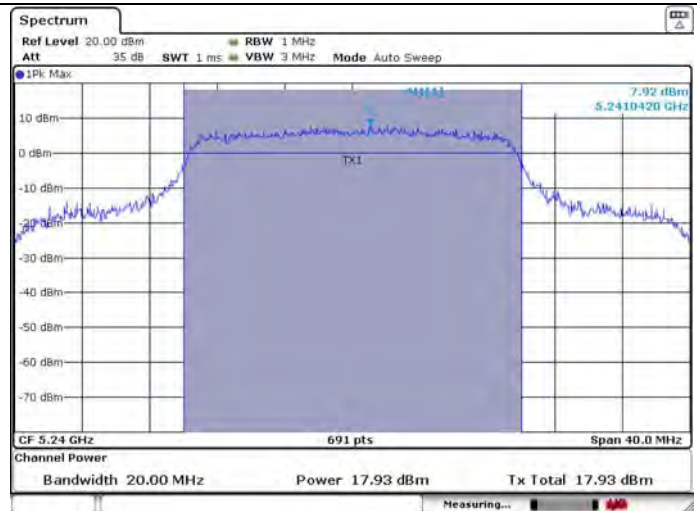
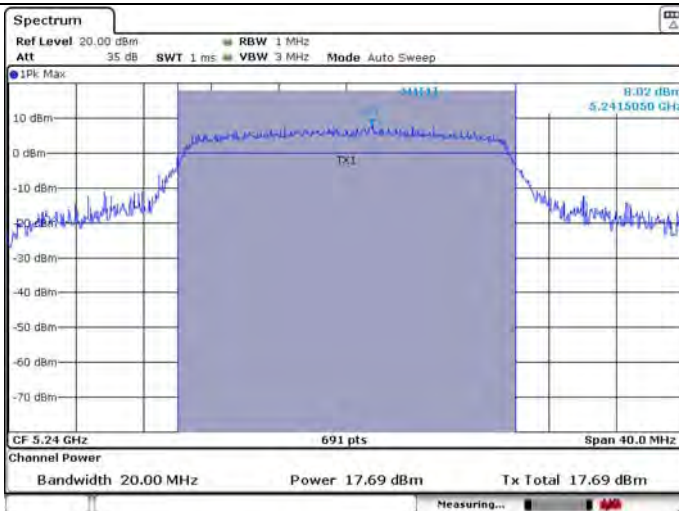
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U-NII-1 IEEE 802.11ax HE20 5240MHz

ANT 1

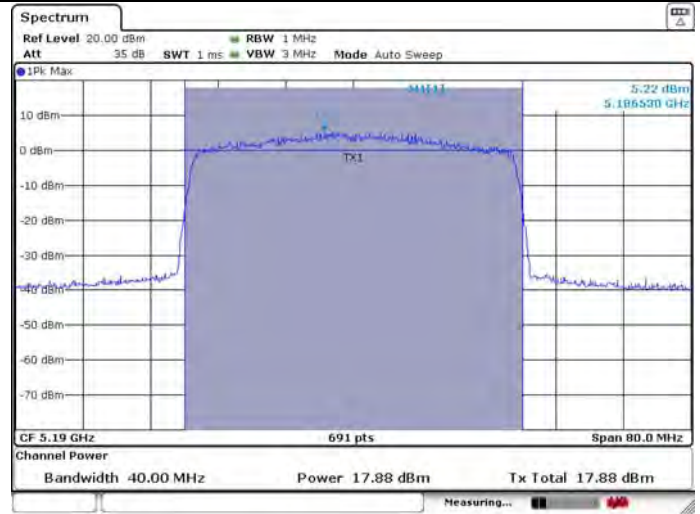
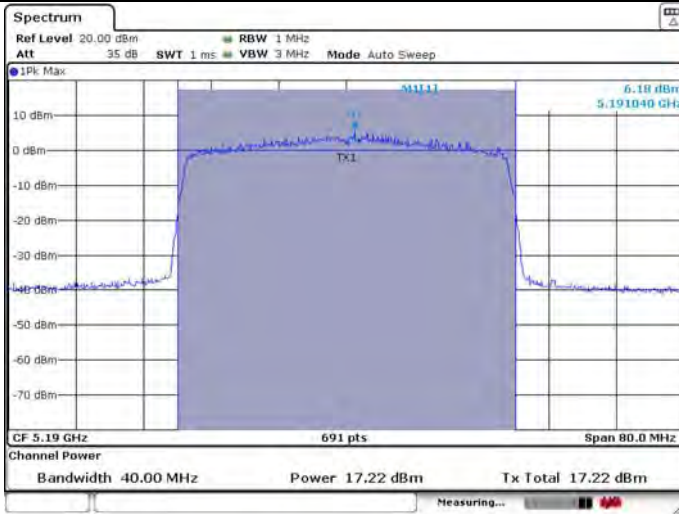
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U-NII-1 IEEE 802.11ax HE40 5190MHz

ANT 1

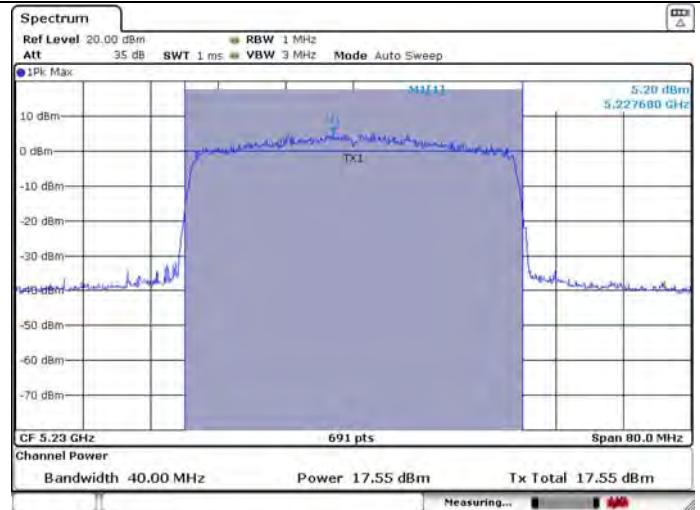
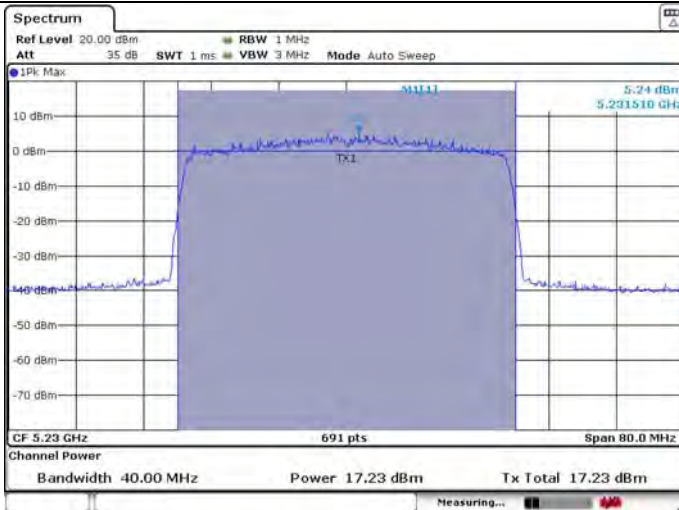
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U-NII-1 IEEE 802.11ax HE40 5230MHz

ANT 1

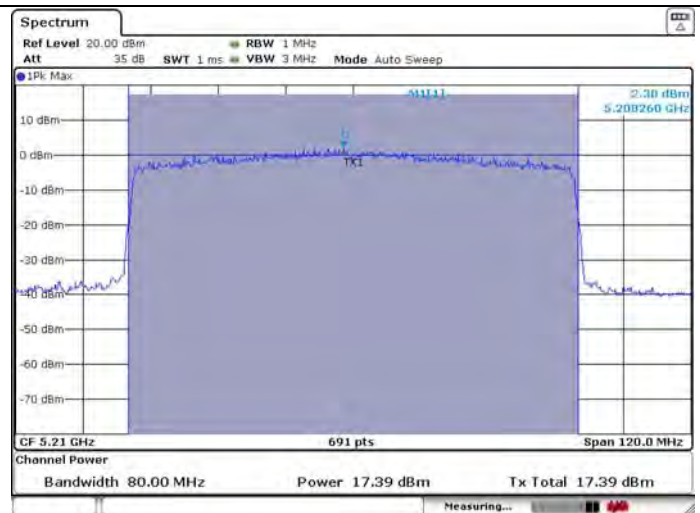
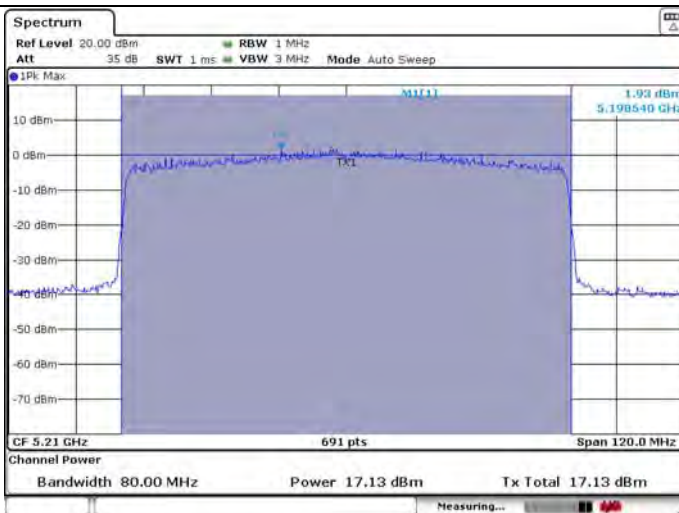
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U-NII-1 IEEE 802.11ax HE80 5210MHz

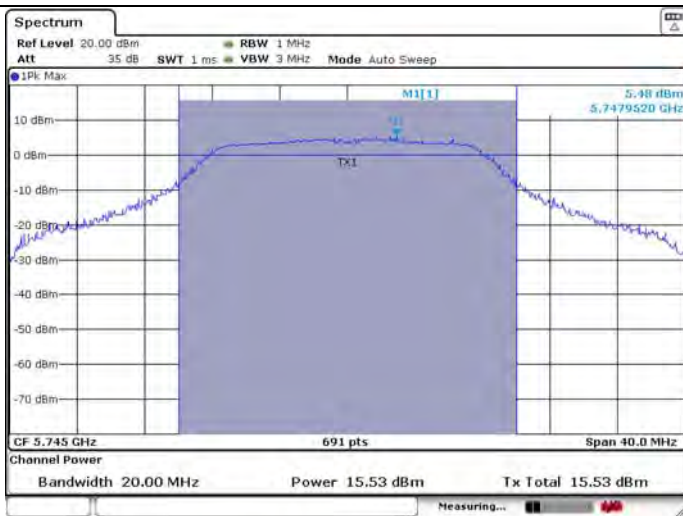
ANT 1

ANT 2

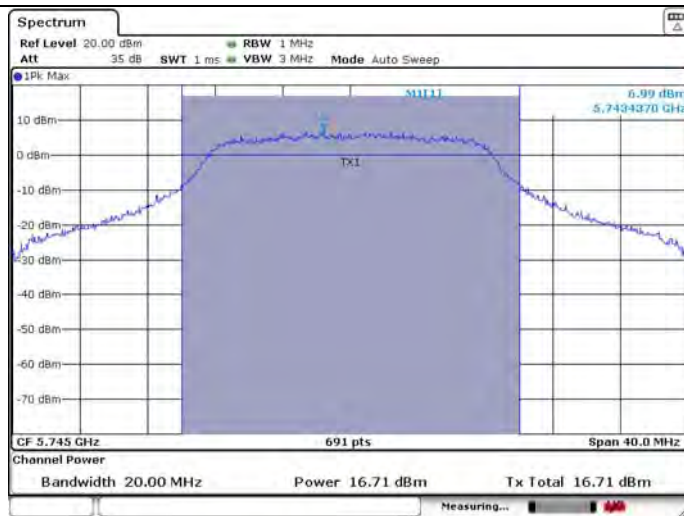


U-NII-3 IEEE 802.11a 5745MHz

ANT 1

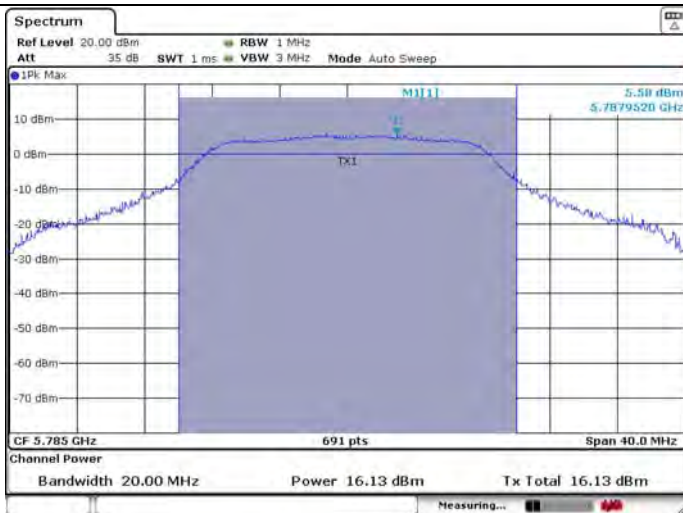


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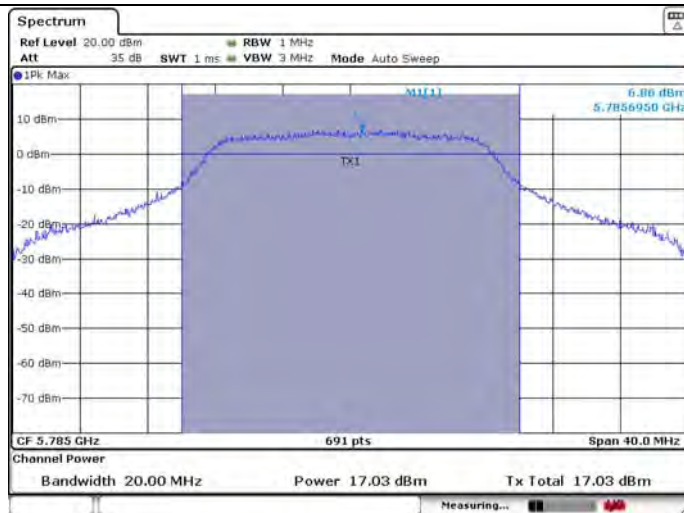


U-NII-3 IEEE 802.11a 5785MHz

ANT 1

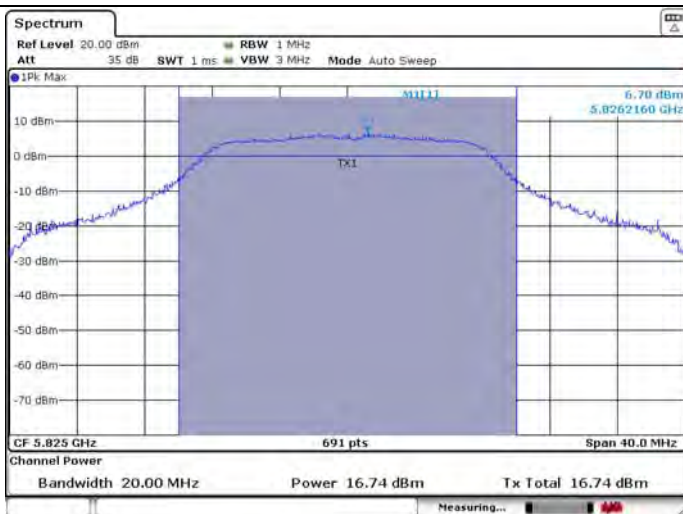


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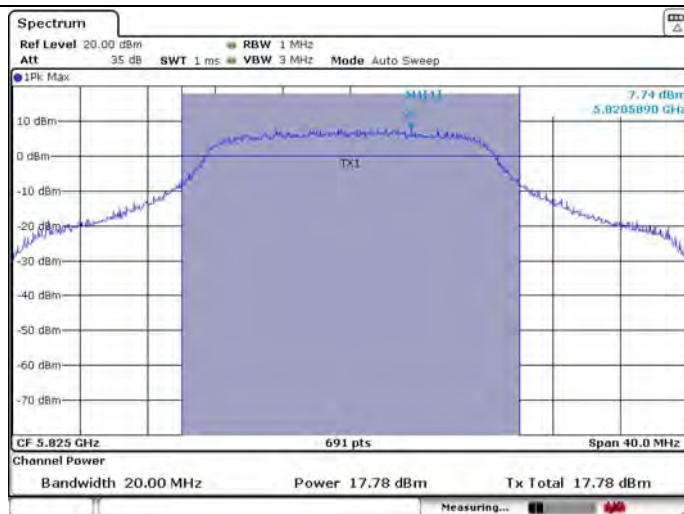


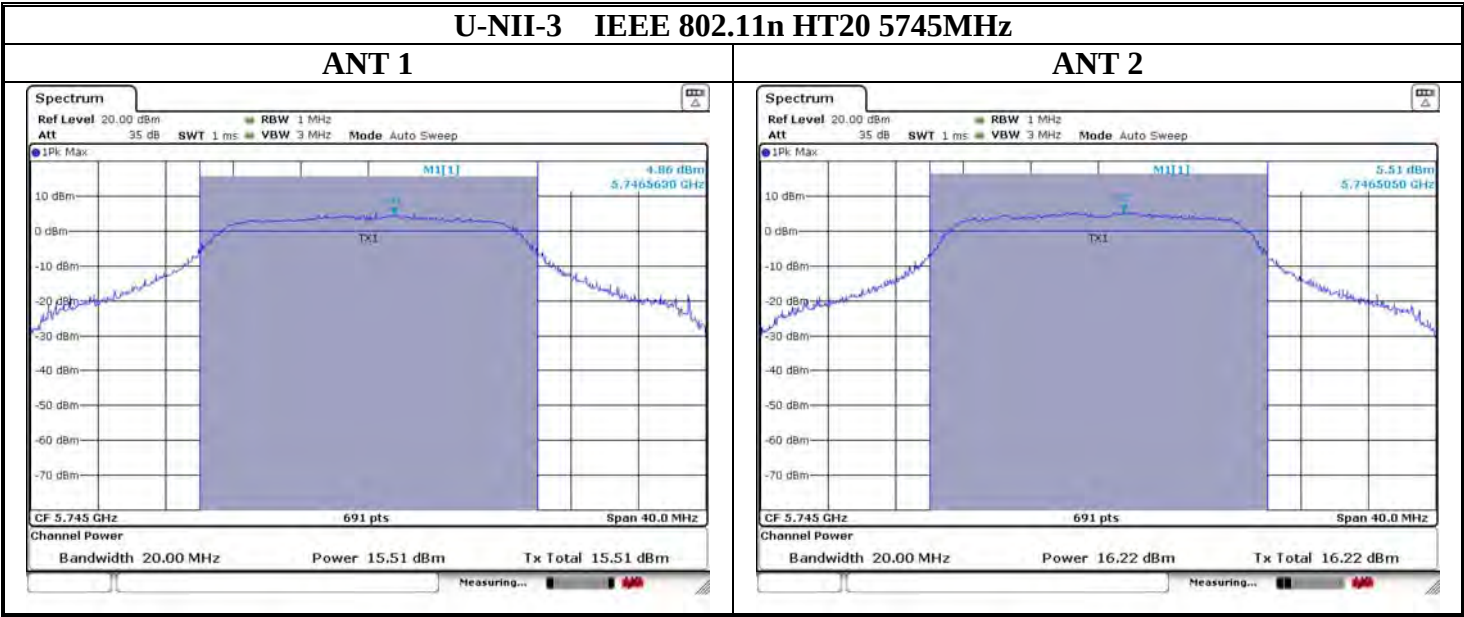
U-NII-3 IEEE 802.11a 5825MHz

ANT 1



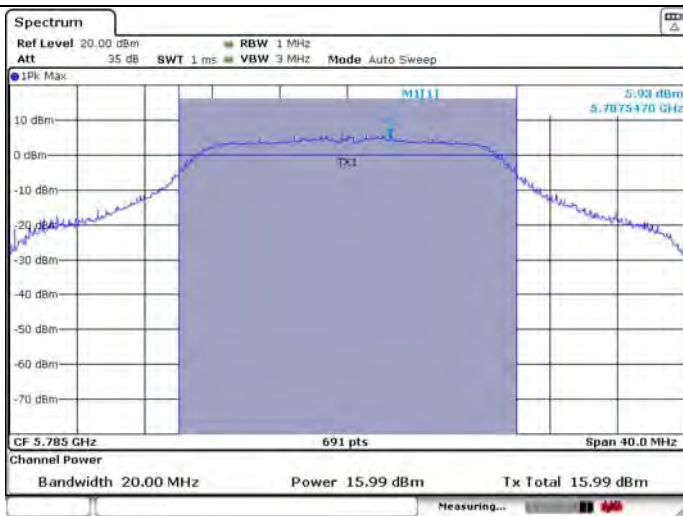
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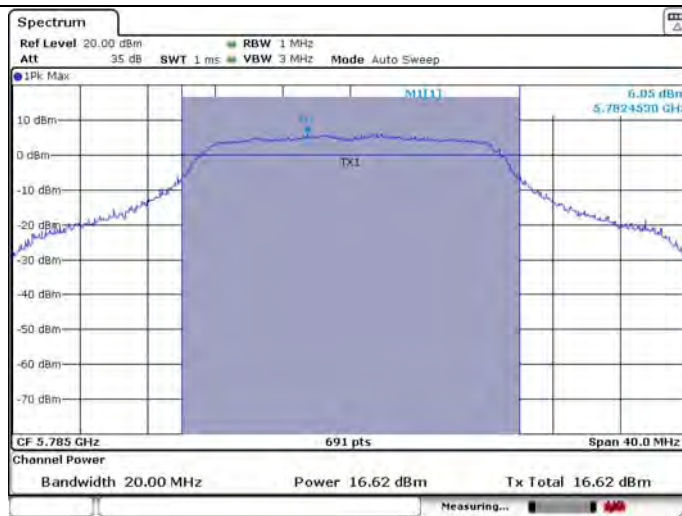


U-NII-3 IEEE 802.11n HT20 5785MHz

ANT 1

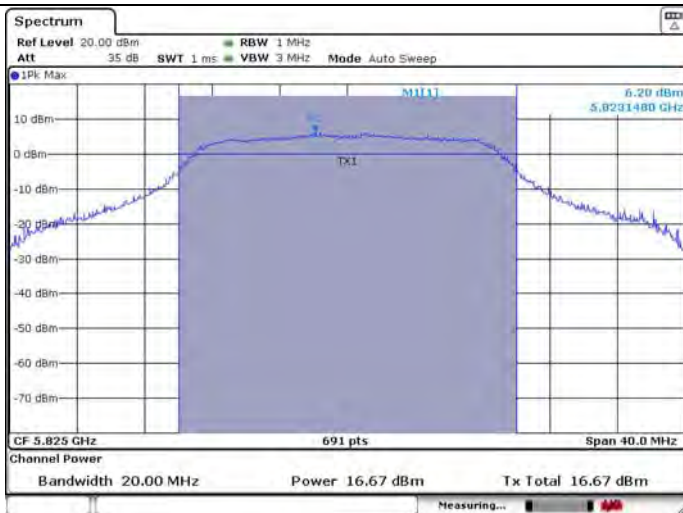


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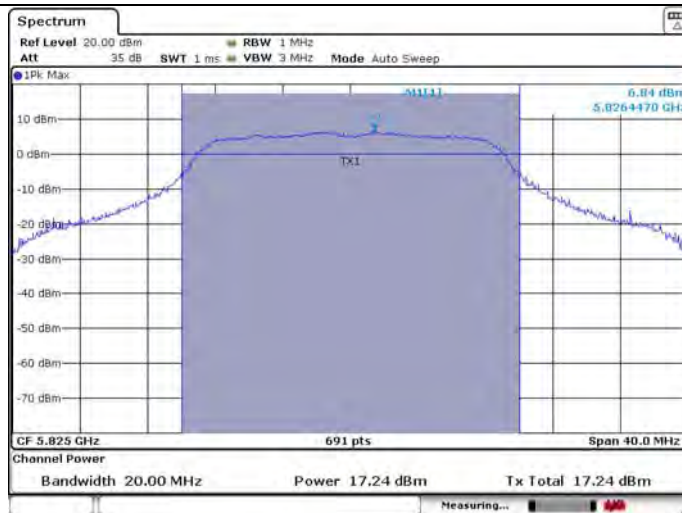


U-NII-3 IEEE 802.11n HT20 5825MHz

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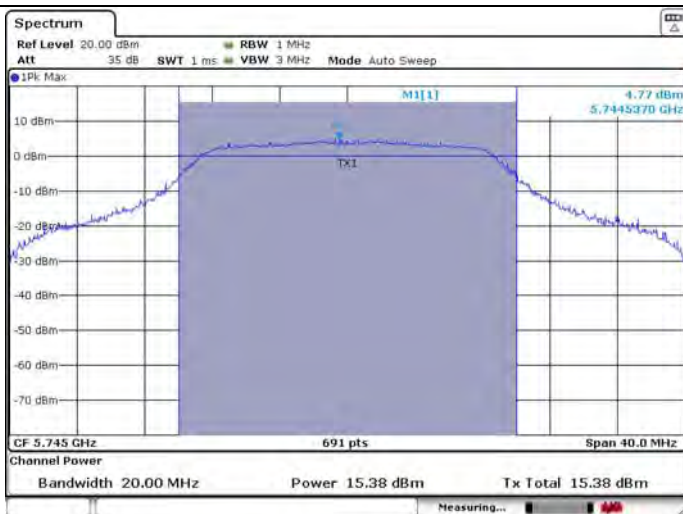


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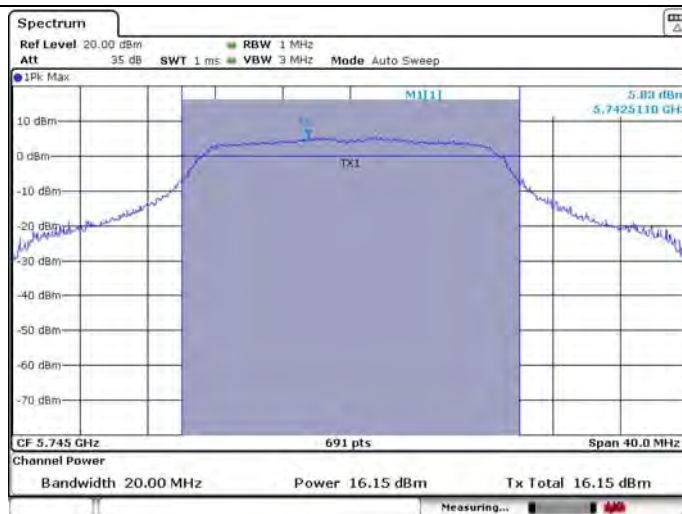


U-NII-3 IEEE 802.11ac VHT20 5745MHz

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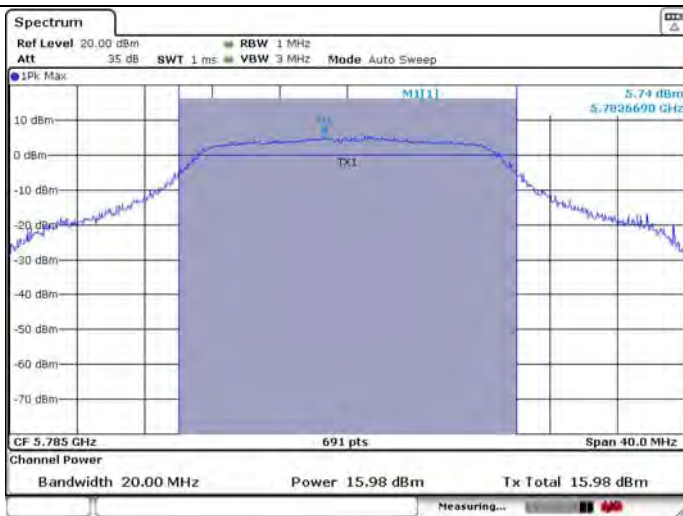


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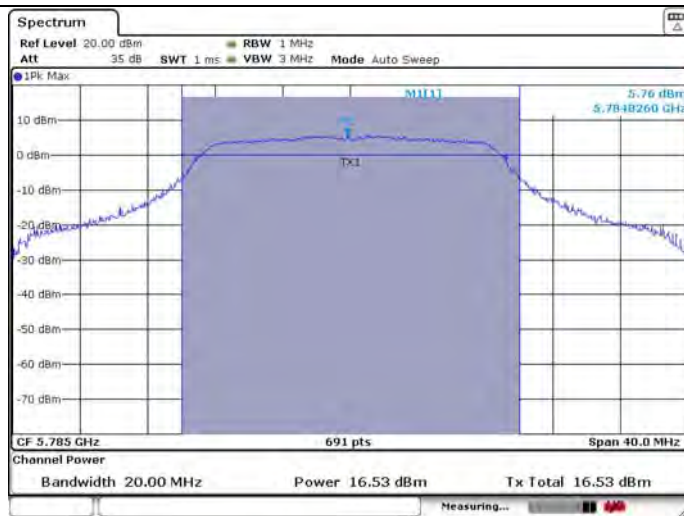


U-NII-3 IEEE 802.11ac VHT20 5785MHz

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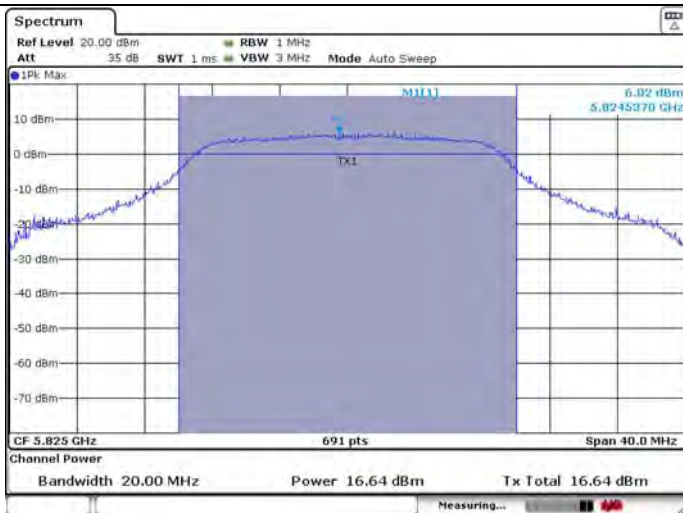


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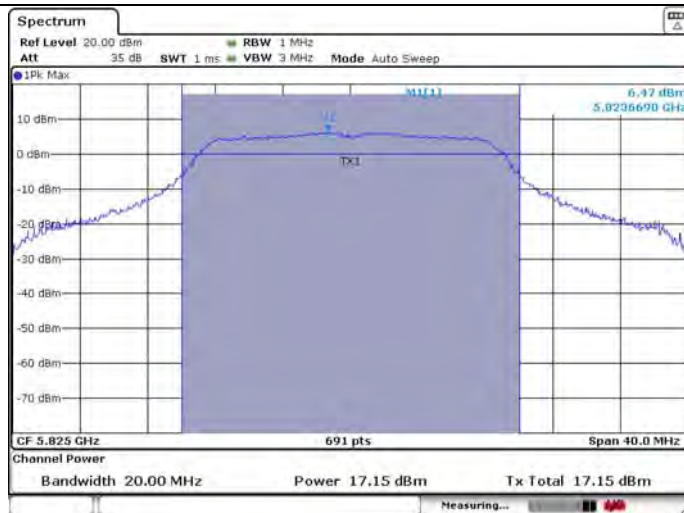


U-NII-3 IEEE 802.11ac VHT20 5825MHz

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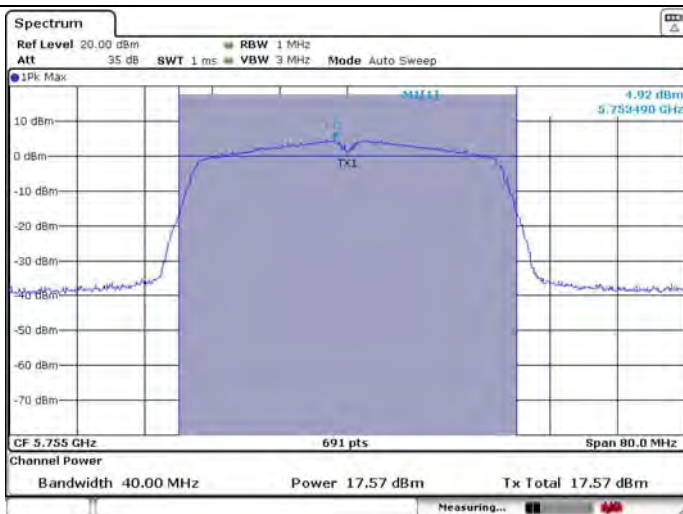


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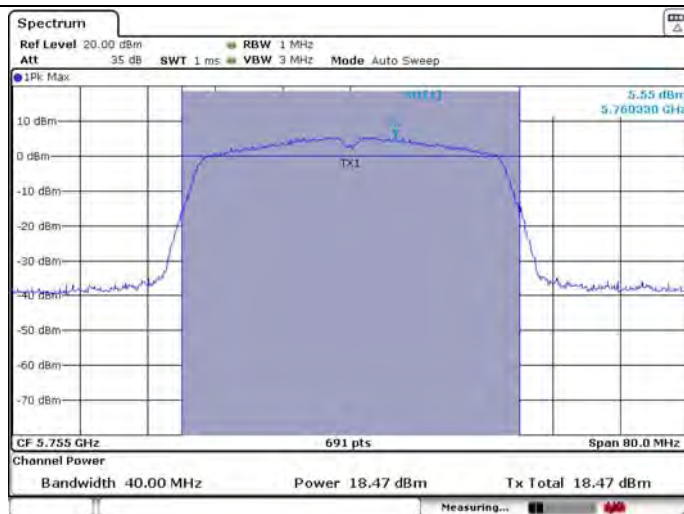


U-NII-3 IEEE 802.11n HT40 5755MHz

ANT 1

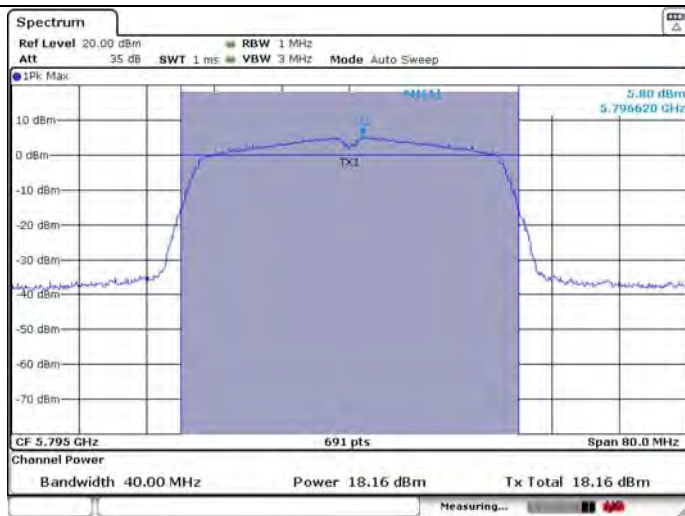


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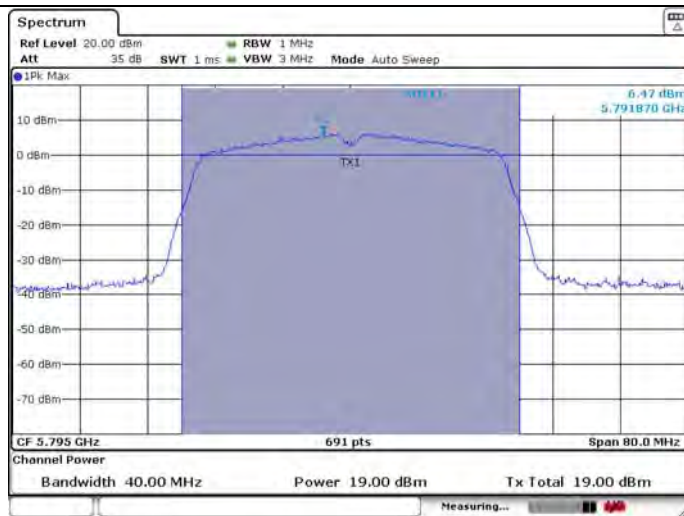


U-NII-3 IEEE 802.11n HT40 5795MHz

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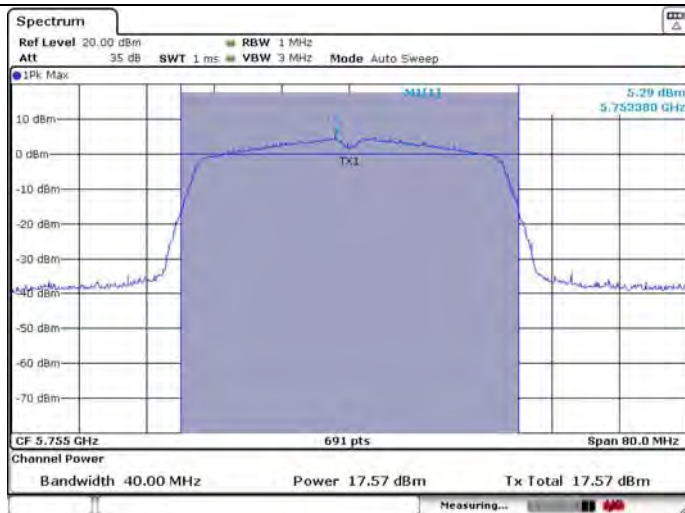


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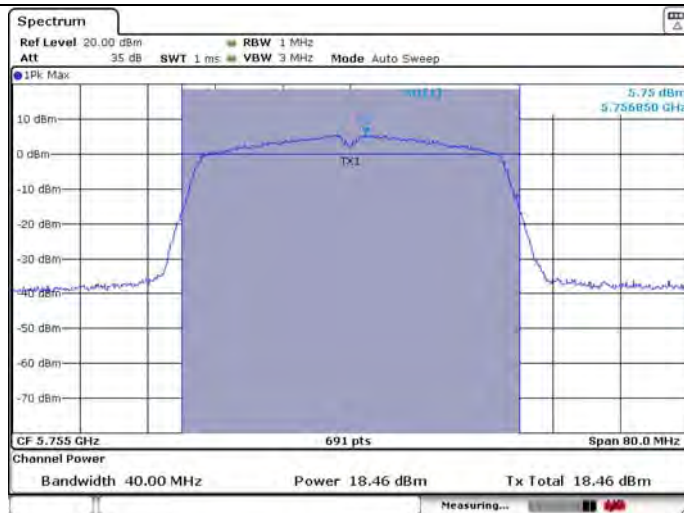


U-NII-3 IEEE 802.11ac VHT40 5755MHz

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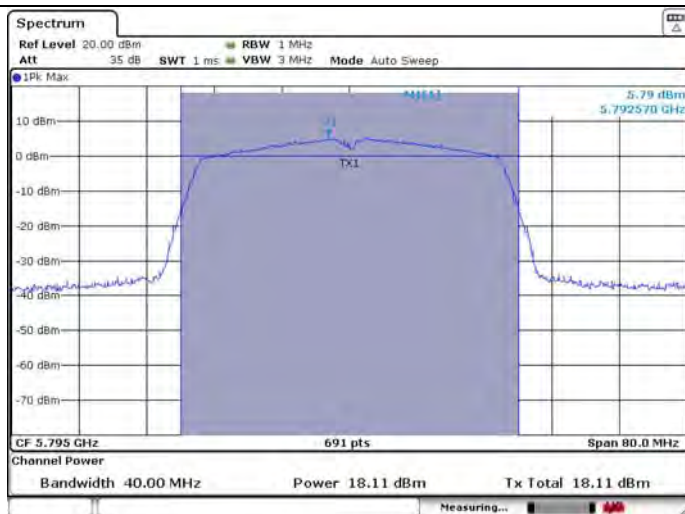


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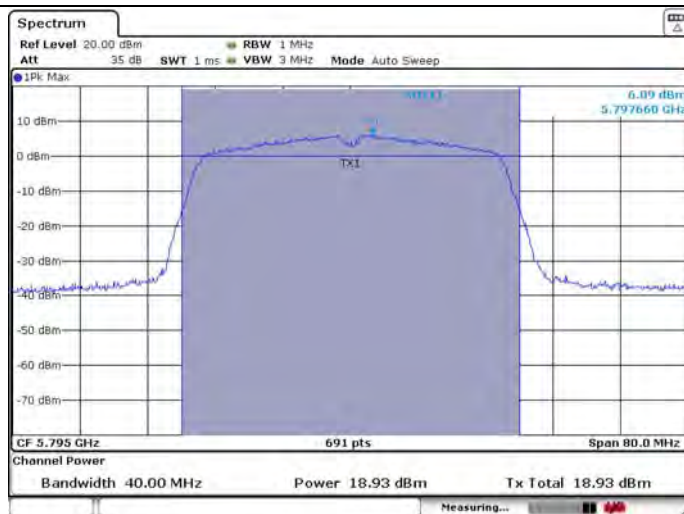


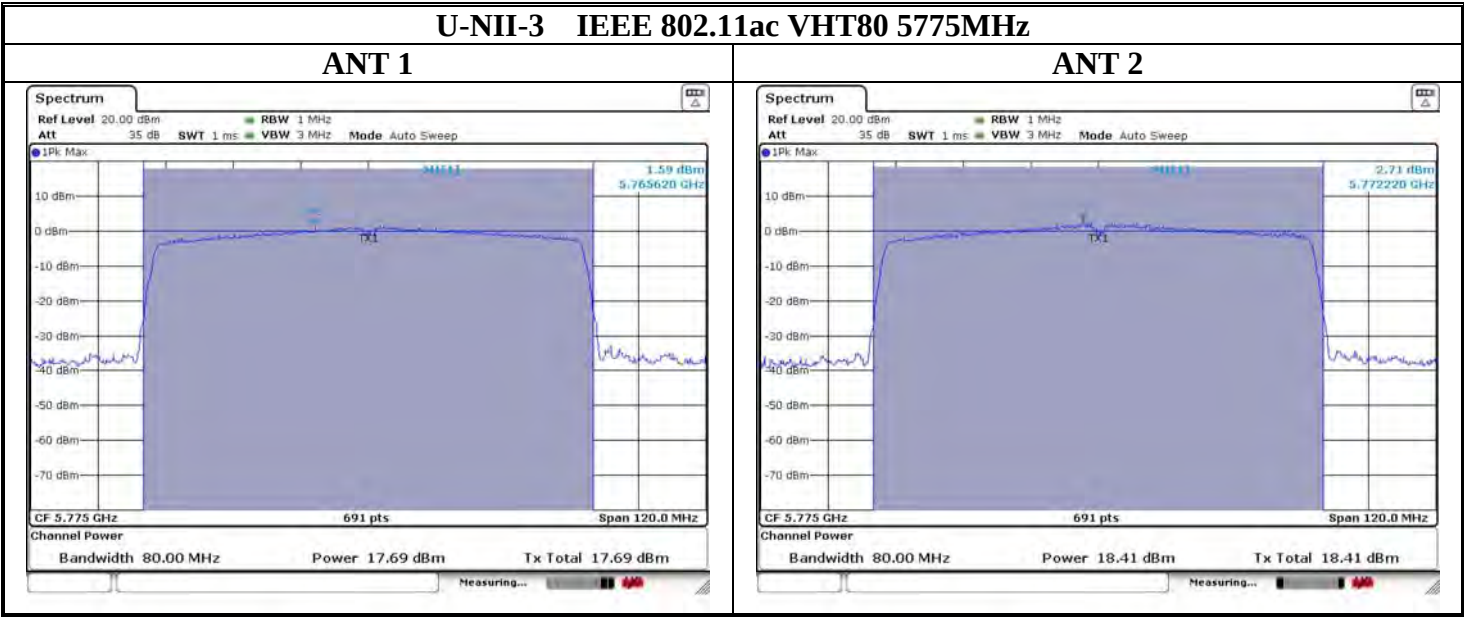
U-NII-3 IEEE 802.11ac VHT40 5795MHz

ANT 1



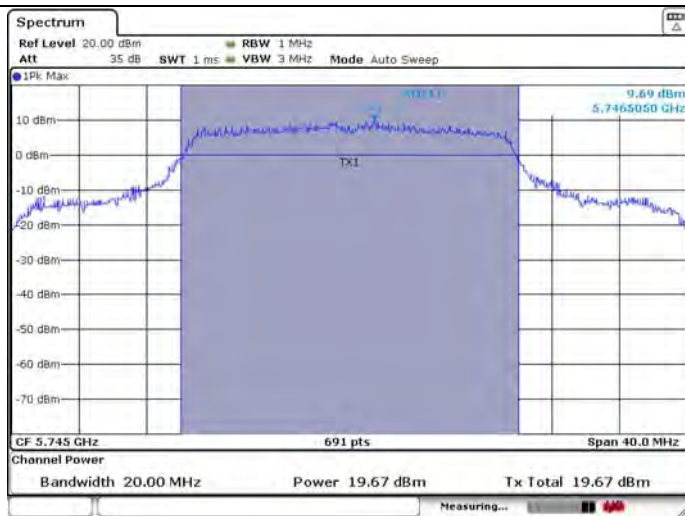
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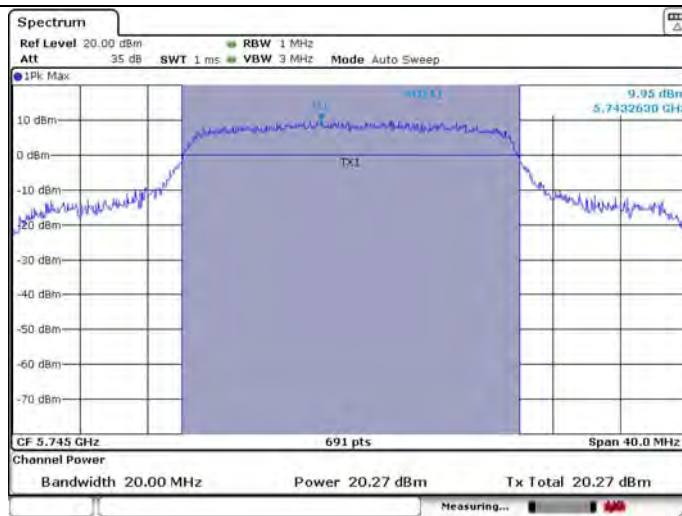


U-NII-3 IEEE 802.11ax HE20 5745MHz

ANT 1

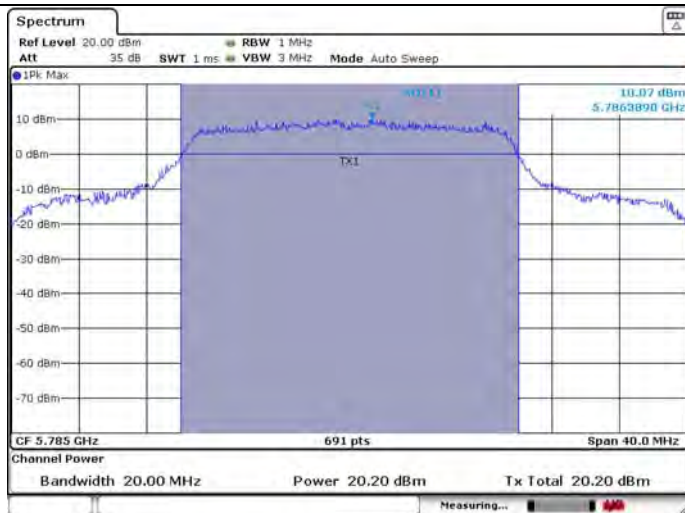


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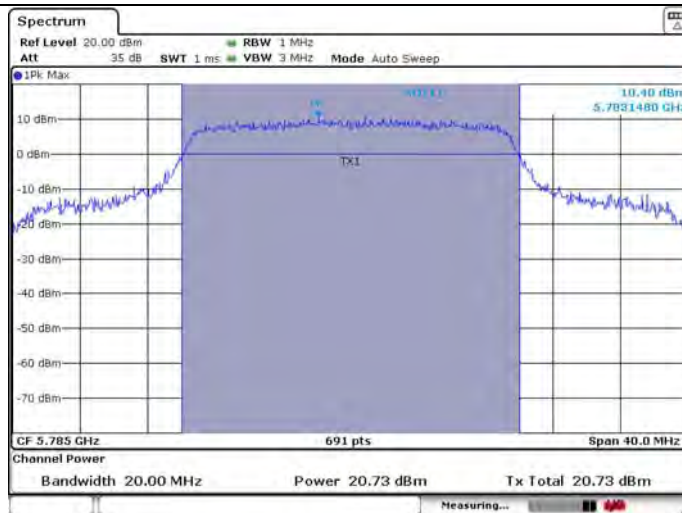


U-NII-3 IEEE 802.11ax HE20 5785MHz

ANT 1

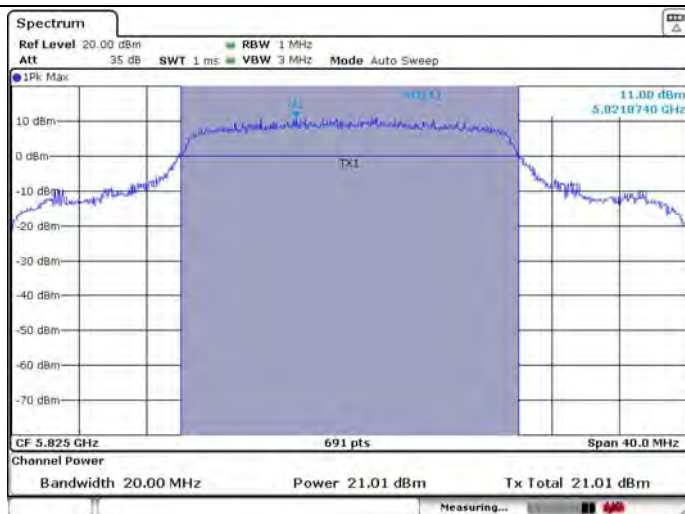


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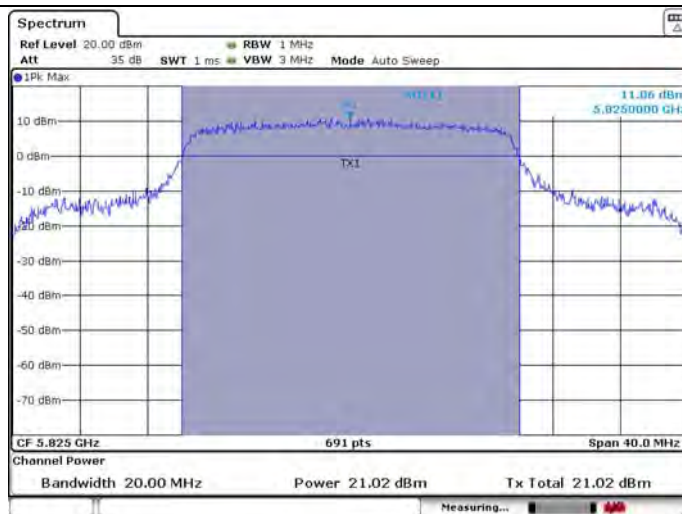


U-NII-3 IEEE 802.11ax HE20 5825MHz

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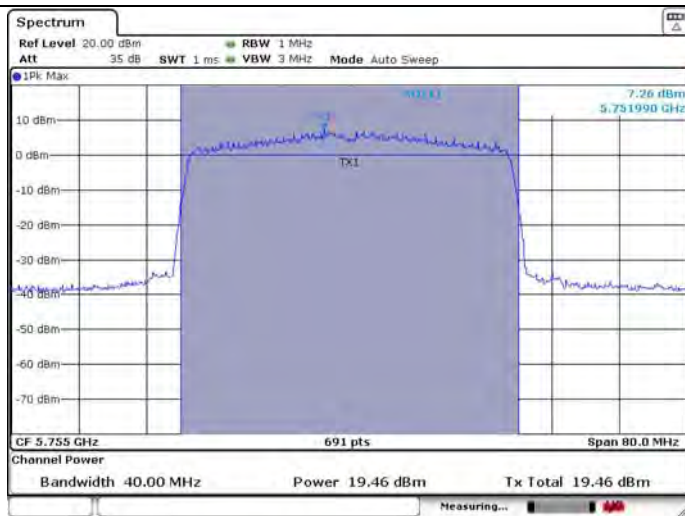


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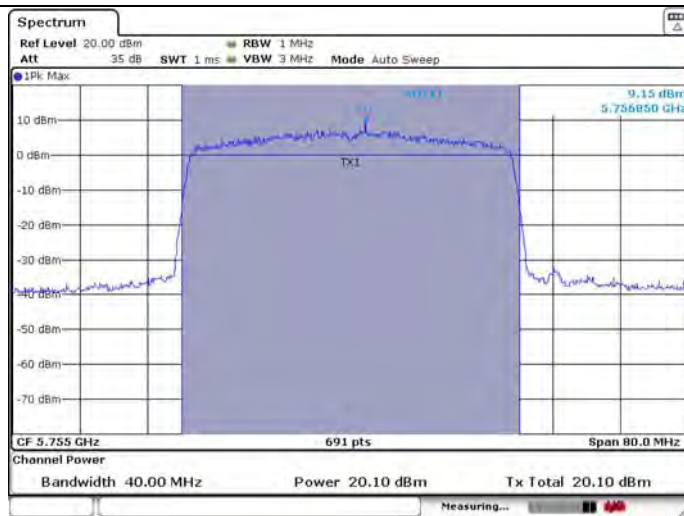


U-NII-3 IEEE 802.11ax HE40 5755MHz

ANT 1

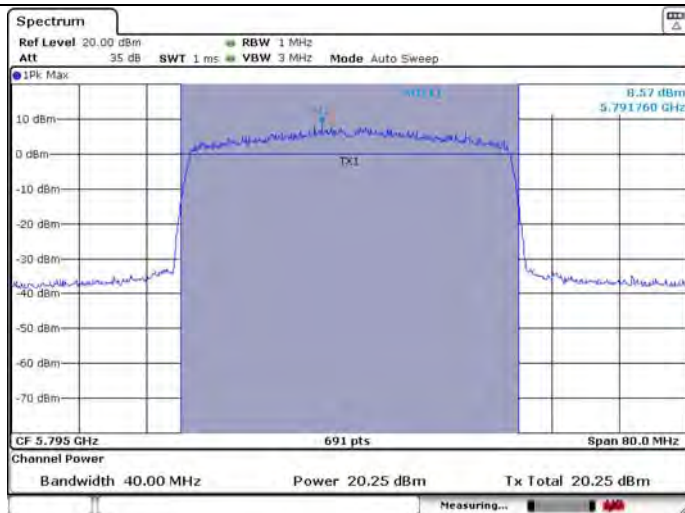


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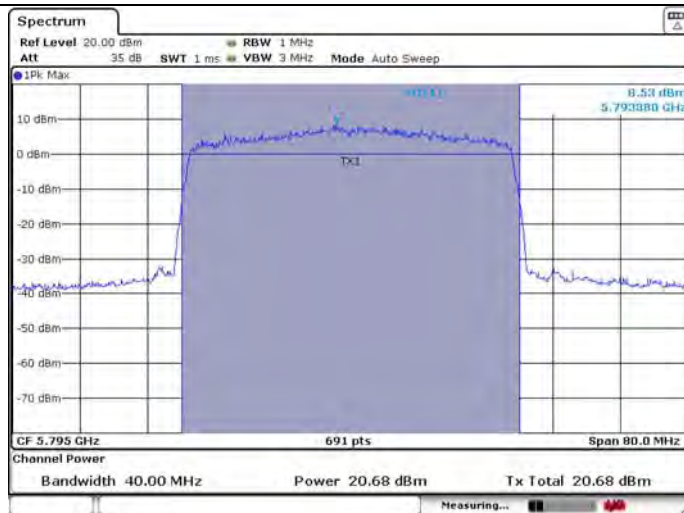


U-NII-3 IEEE 802.11ax HE40 5795MHz

ANT 1

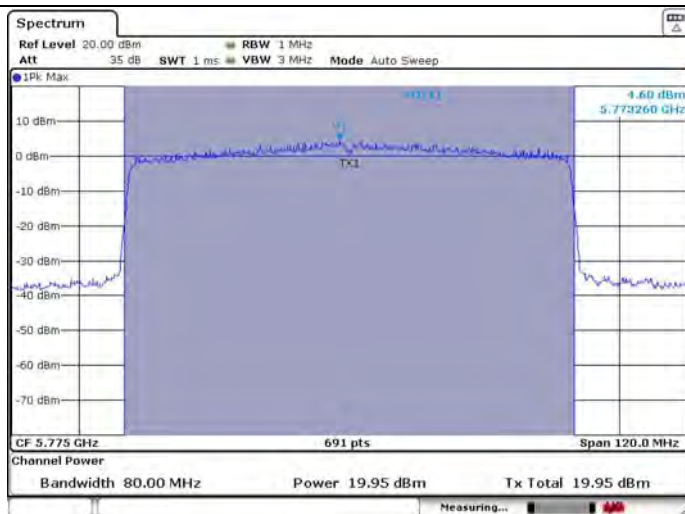


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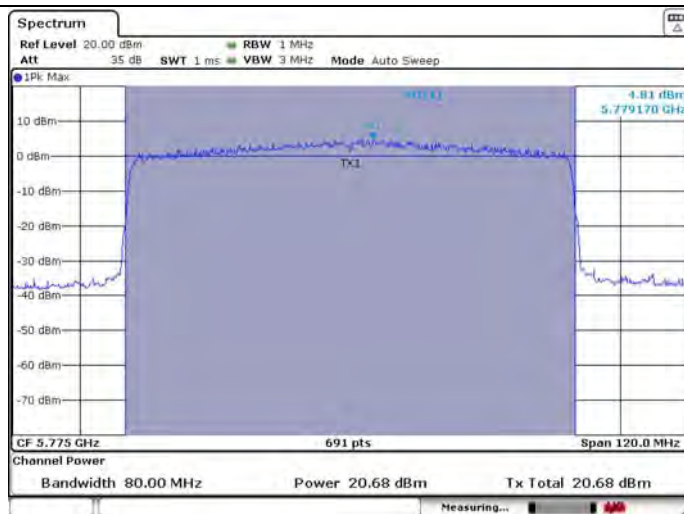


U-NII-3 IEEE 802.11ax HE80 5775MHz

ANT 1



ANT 2

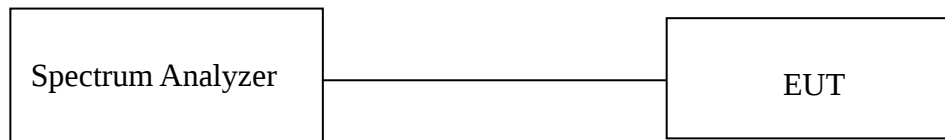


5. PEAK POWER SPECTRAL DENSITY

5.1. Limit

Band	EUT Type	Limit
U-NII-1	Outdoor Access Point	17dBm/MHz
	Indoor Access Point	17dBm/MHz
	Fixed point-to-point Access Point	17dBm/MHz
	Mobile and Portable Client Device	11dBm/MHz
U-NII-2A	All Device	11dBm/MHz
U-NII-2C	All Device	11dBm/MHz
U-NII-3	All Device	30dBm/500KHz

5.2. Test Setup



5.3. Spectrum Analyzer Setting

Spectrum Parameters	Setting
RBW	1MHz(For U-NII-1&U-NII-2A&U-NII-2C) 500KHz(For U-NII-3)
VBW	3MHz(For U-NII-1&U-NII-2A&U-NII-2C) 2MHz(For U-NII-3)
Span	encompass the entire 26 dB EBW or 99% OBW of the signal
Sweep Time	Auto
Number of Sweep Point	$\geq 2 \times \text{SPAN/RBW}$
Detector	RMS(power averaging)
Trace Average	≥ 100 traces

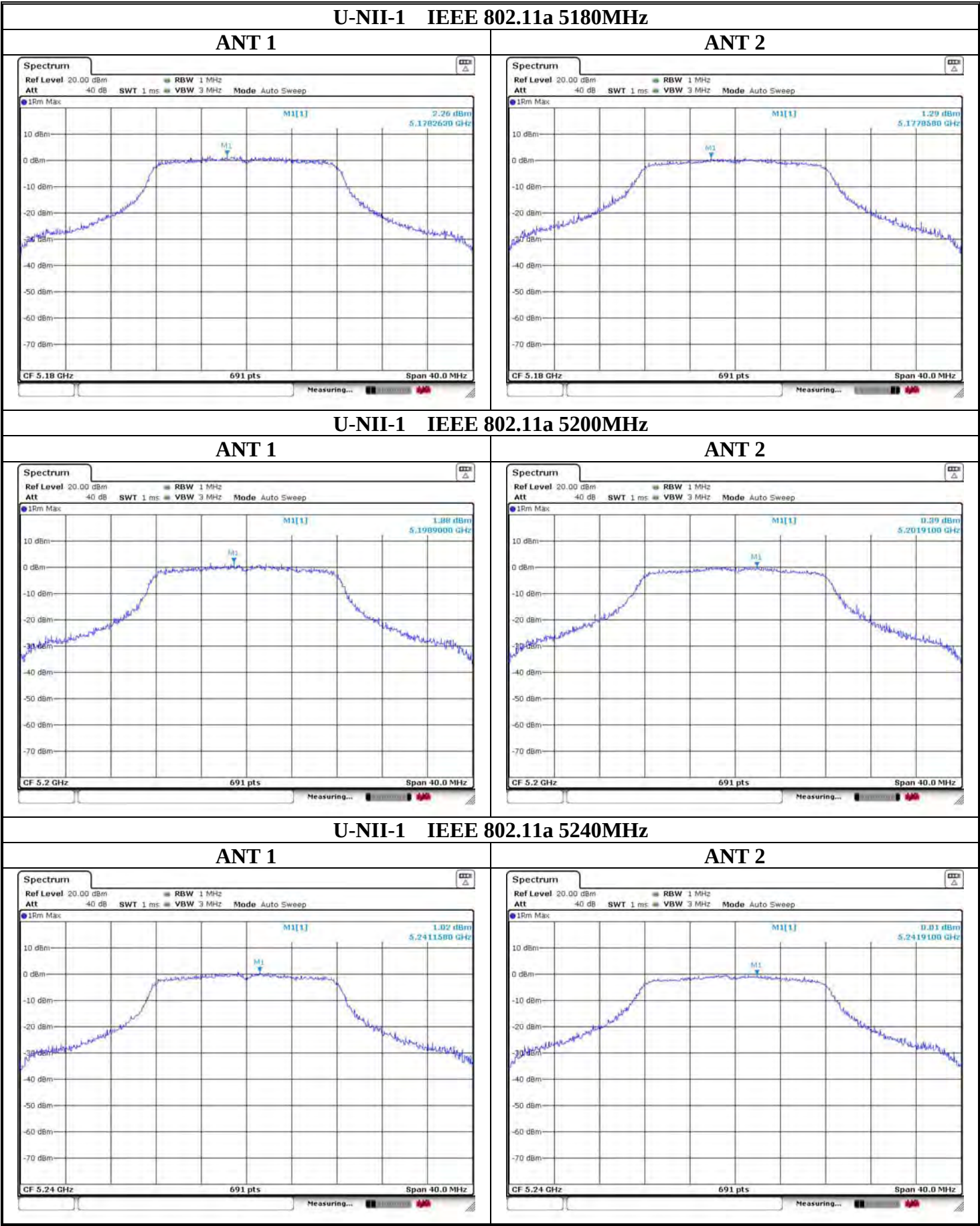
5.4. Test Procedure

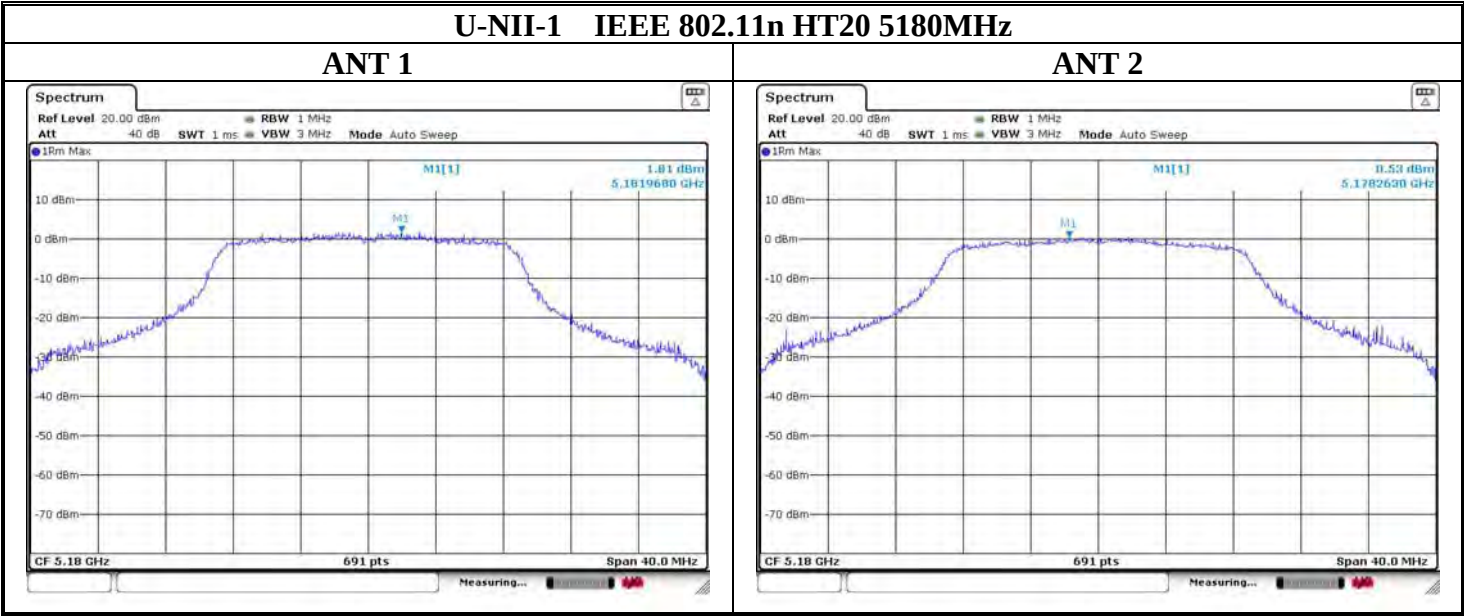
- Connect EUT antenna terminal to the spectrum analyzer with RF cable.
- Spectrum analyzer setting parameters in accordance with section 5.3.
- Set the EUT transmit continuously with maximum output power.
- Allow trace to stabilize, use the marker-to-peak function to set the marker to the average of the emission.
- If the duty cycle of test signal $< 98\%$, the result = max measured value + $10 \times \log(1/\text{duty cycle})$;
If the duty cycle of test signal $\geq 98\%$, the result = max measured value.
- Repeat above procedures until all modes and channels were measured.
- Record the results in the test report.

5.5. Test Result

Temperature		22.5℃	Relative Humidity		47%	Test Voltage	DC 3.3V	
BAND	Test Mode	Fre (MHz)	Power Density (dBm/MHz)		Duty Factor (dB)	Total Power Density (dBm/MHz)	Limit (dBm/MHz)	Result
			Ant 1	Ant 2				
U-NII-1	IEEE 802.11a	5180	2.26	1.29	0.57		11.00	PASS
		5200	1.88	0.39	0.57		11.00	PASS
		5240	1.02	0.01	0.57		11.00	PASS
	IEEE 802.11n HT20	5180	1.81	0.53	0.66	4.89	10.99	PASS
		5200	1.48	0.19	0.66	4.55	10.99	PASS
		5240	1.79	0.01	0.66	4.66	10.99	PASS
	IEEE 802.11ac VHT20	5180	2.69	0.82	1.09	5.96	10.99	PASS
		5200	1.52	-0.13	1.09	4.87	10.99	PASS
		5240	0.95	0.09	1.09	4.64	10.99	PASS
	IEEE 802.11n HT40	5190	1.60	0.04	1.93	5.83	10.99	PASS
		5230	1.09	-0.35	1.93	5.37	10.99	PASS
	IEEE 802.11ac VHT40	5190	2.02	0.95	1.88	6.40	10.99	PASS
		5230	1.56	0.11	1.88	5.78	10.99	PASS
	IEEE 802.11ac VHT80	5210	-1.74	-3.79	3.05	3.42	10.99	PASS
	IEEE 802.11ax HE20	5180	5.39	5.88	1.95	10.61	10.99	PASS
		5200	5.52	5.86	1.95	10.66	10.99	PASS
		5240	4.38	4.95	1.95	9.64	10.99	PASS
	IEEE 802.11ax HE40	5190	3.69	2.74	2.14	8.39	10.99	PASS
		5230	2.17	2.04	2.14	7.25	10.99	PASS
	IEEE 802.11ax HE80	5210	-0.49	-0.02	2.41	5.17	10.99	PASS

BAND	Test Mode	Fre (MHz)	Power Density (dBm/500KHz)		Duty Factor (dB)	Total Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Result
			Ant 1	Ant 2				
U-NII-3	IEEE 802.11a	5745	-0.68	1.37	0.57		29.99	PASS
		5785	0.01	2.83	0.57		29.99	PASS
		5825	0.88	0.39	0.57		29.99	PASS
	IEEE 802.11n HT20	5745	-0.57	-1.65	0.66	2.59	29.99	PASS
		5785	0.25	-0.91	0.66	3.38	29.99	PASS
		5825	1.84	-0.02	0.66	4.68	29.99	PASS
	IEEE 802.11ac VHT20	5745	-0.64	-1.64	1.09	2.99	29.99	PASS
		5785	0.12	0.05	1.09	4.19	29.99	PASS
		5825	1.04	0.15	1.09	4.72	29.99	PASS
	IEEE 802.11n HT40	5755	0.25	-1.41	1.93	4.44	29.99	PASS
		5795	1.18	-0.62	1.93	5.32	29.99	PASS
	IEEE 802.11ac VHT40	5755	-0.34	-1.46	1.88	4.02	29.99	PASS
		5795	1.11	-0.11	1.88	5.43	29.99	PASS
	IEEE 802.11ac VHT80	5775	-3.38	-4.55	3.05	2.13	29.99	PASS
	IEEE 802.11ax HE20	5745	2.93	3.07	1.95	7.96	29.99	PASS
		5785	3.90	4.50	1.95	9.17	29.99	PASS
		5825	5.34	5.01	1.95	10.14	29.99	PASS
	IEEE 802.11ax HE40	5755	0.24	1.05	2.14	5.81	29.99	PASS
		5795	1.82	1.73	2.14	6.92	29.99	PASS
	IEEE 802.11ax HE80	5775	-1.66	-1.41	2.41	3.88	29.99	PASS

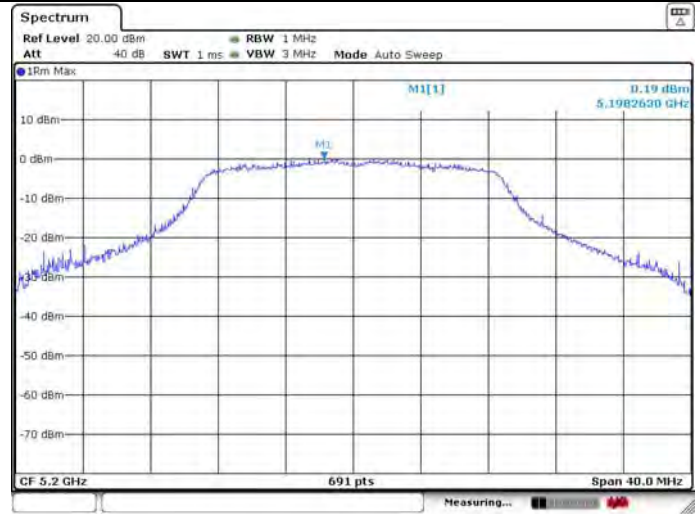
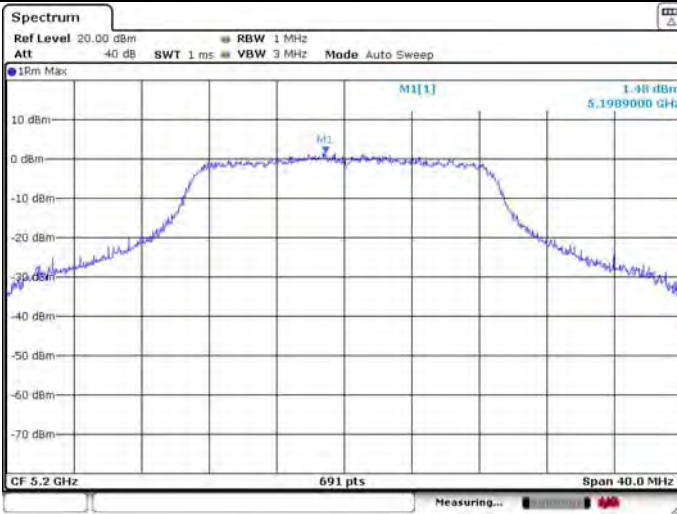




U-NII-1 IEEE 802.11n HT20 5200MHz

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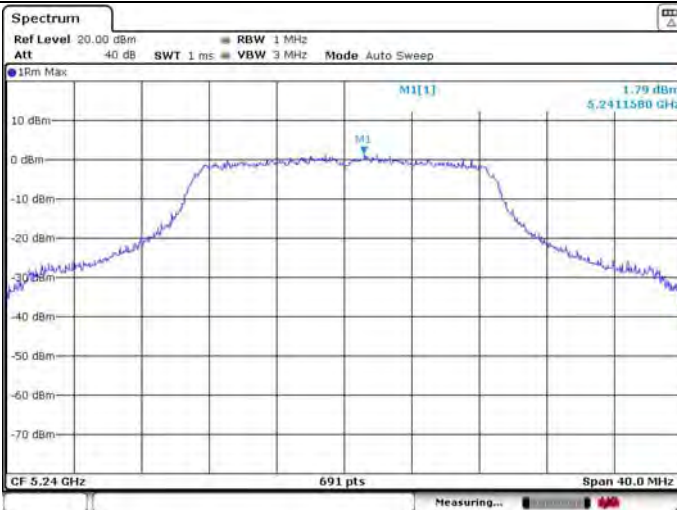
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U-NII-1 IEEE 802.11n HT20 5240MHz

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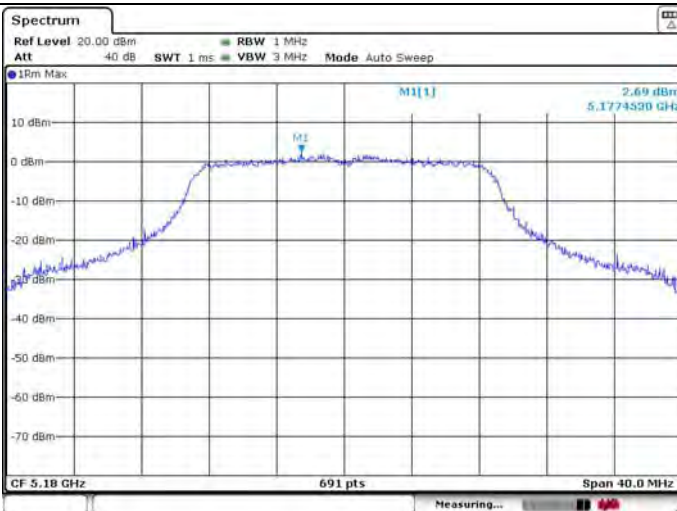
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U-NII-1 IEEE 802.11ac VHT20 5180MHz

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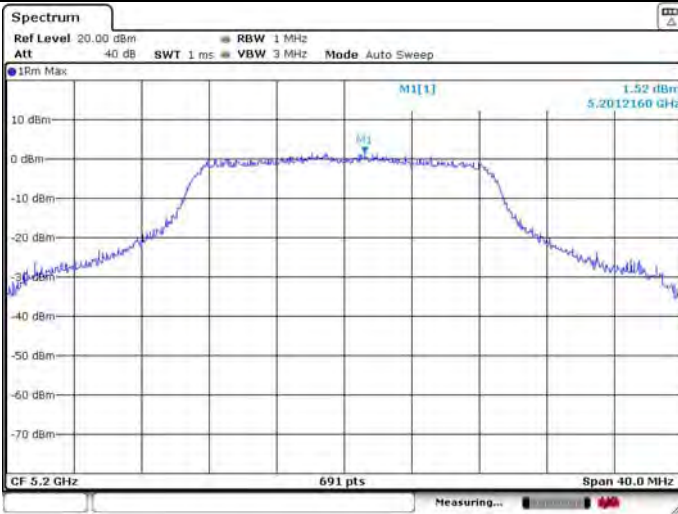
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U-NII-1 IEEE 802.11ac VHT20 5200MHz

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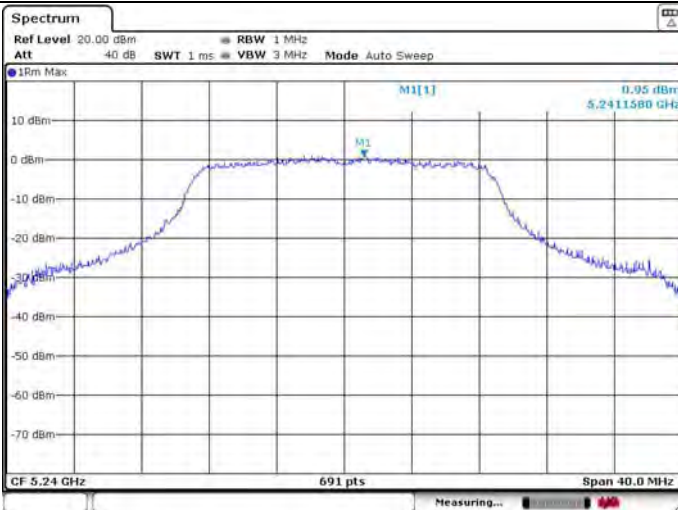
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U-NII-1 IEEE 802.11ac VHT20 5240MHz

ANT 1

ANT 2



U-NII-1 IEEE 802.11n HT40 5190MHz

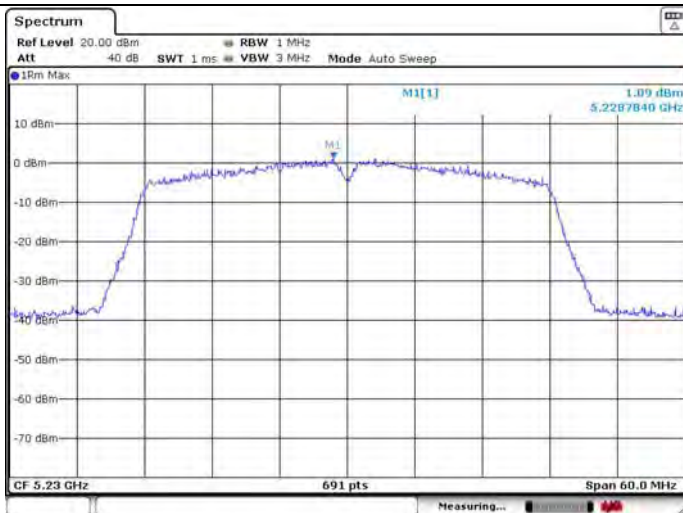
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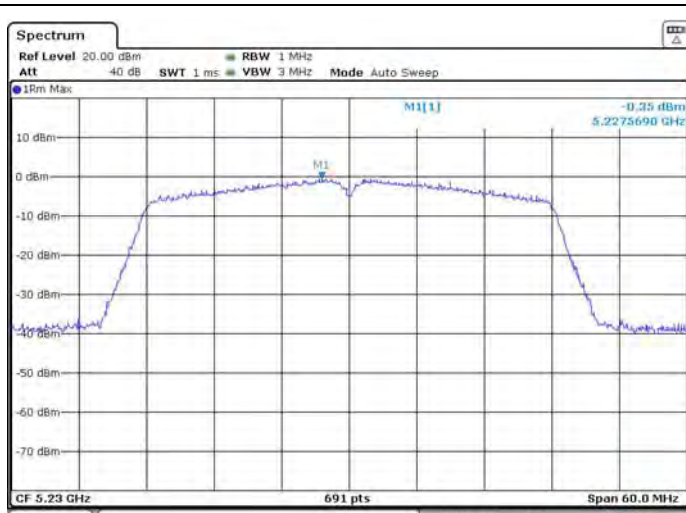


U-NII-1 IEEE 802.11n HT40 5230MHz

ANT 1



ANT 2



U-NII-1 IEEE 802.11ac VHT40 5190MHz

ANT 1



ANT 2



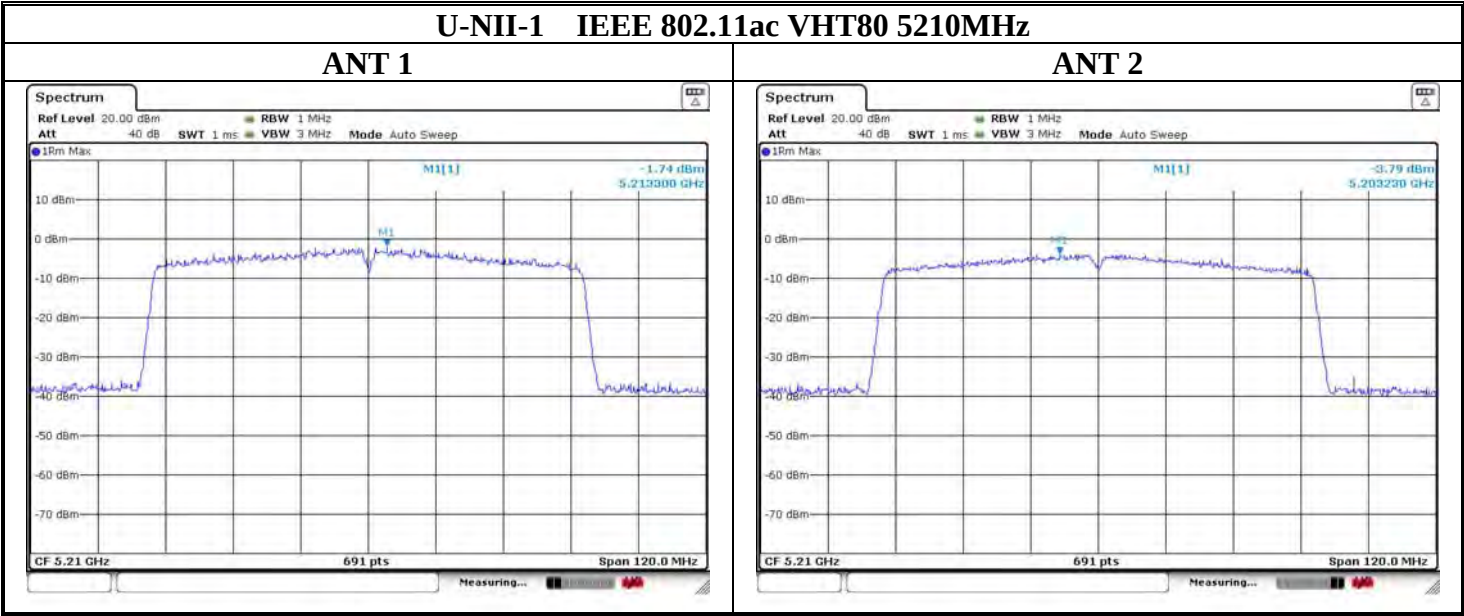
U-NII-1 IEEE 802.11ac VHT40 5230MHz

ANT 1



ANT 2

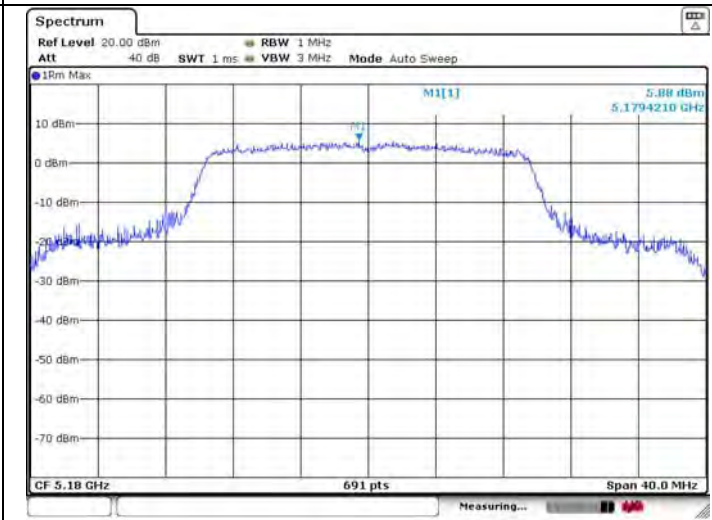
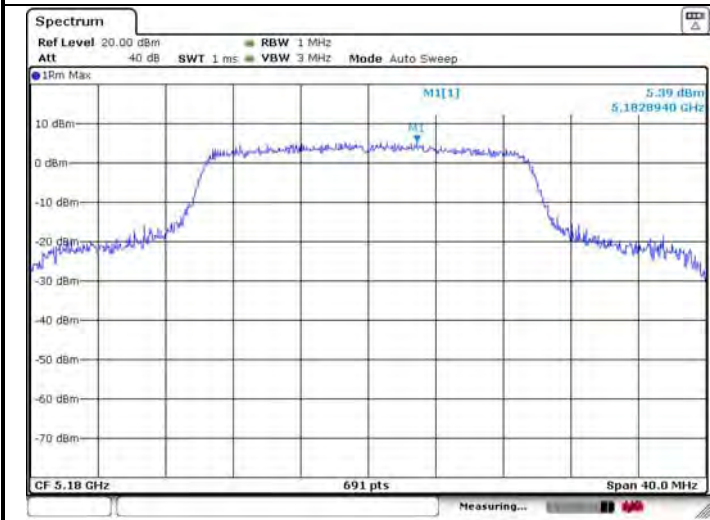




U-NII-1 IEEE 802.11ax HE20 5180MHz

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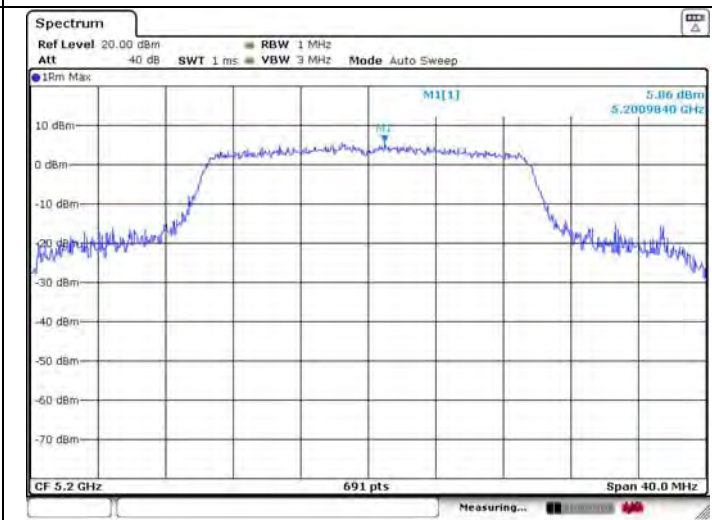
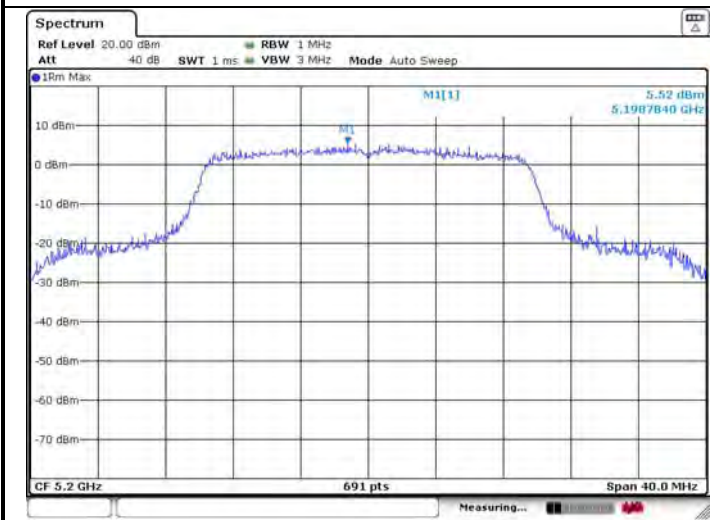
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U-NII-1 IEEE 802.11ax HE20 5200MHz

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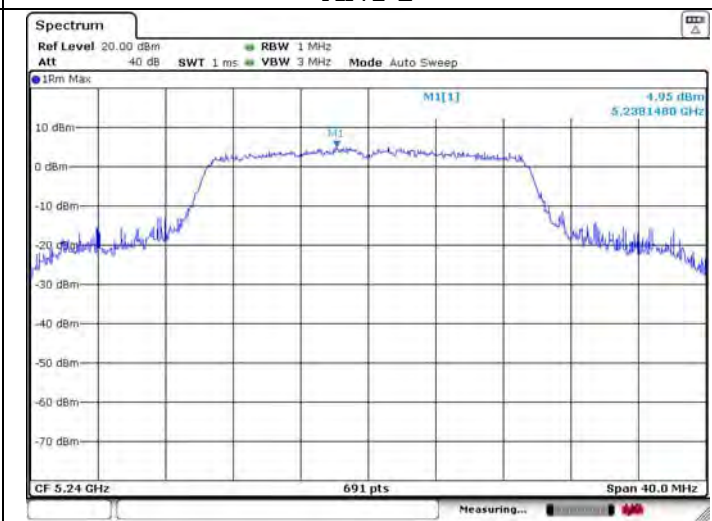
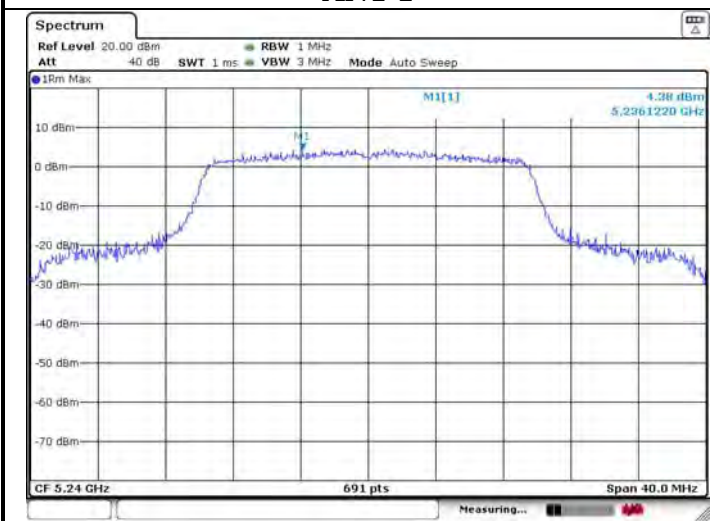
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U-NII-1 IEEE 802.11ax HE20 5240MHz

ANT 1

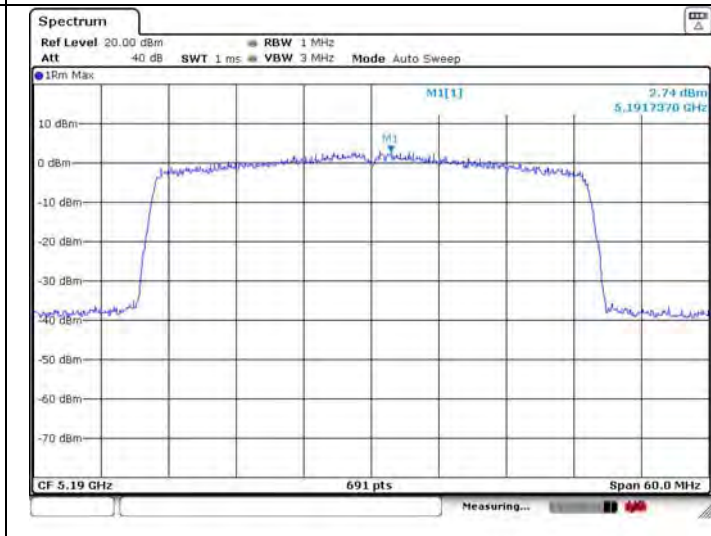
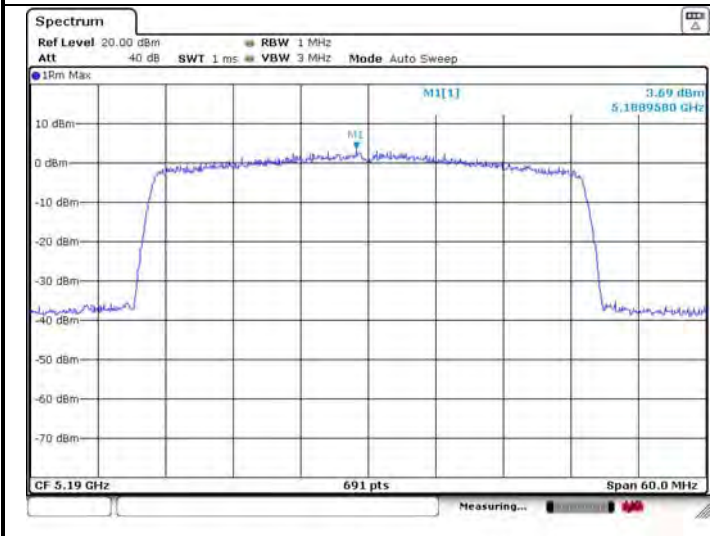
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U-NII-1 IEEE 802.11ax HE40 5190MHz

ANT 1

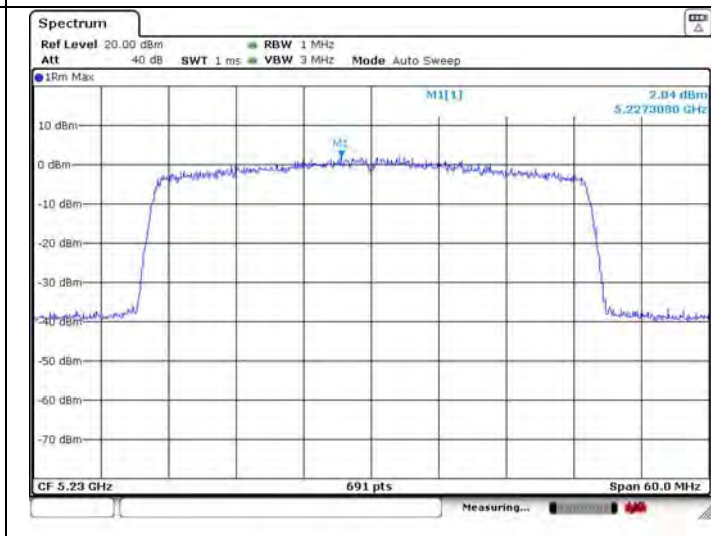
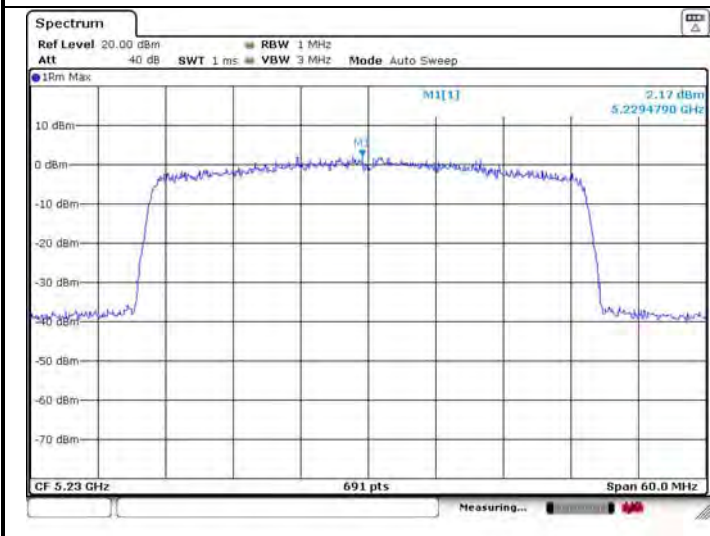
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U-NII-1 IEEE 802.11ax HE40 5230MHz

ANT 1

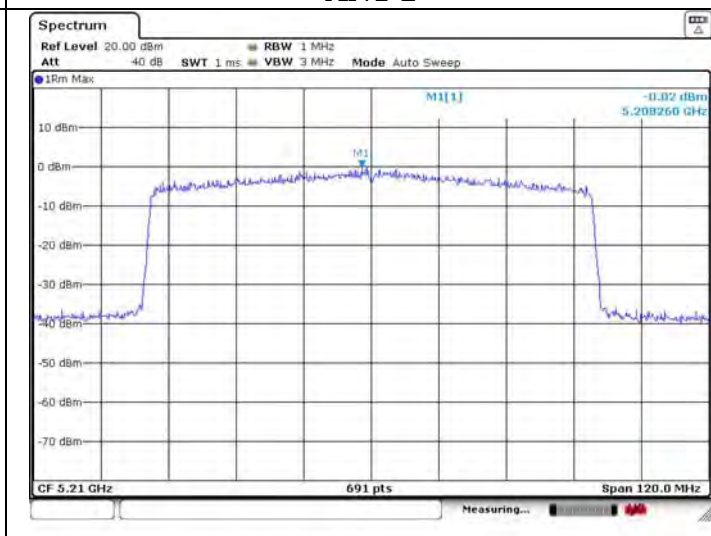
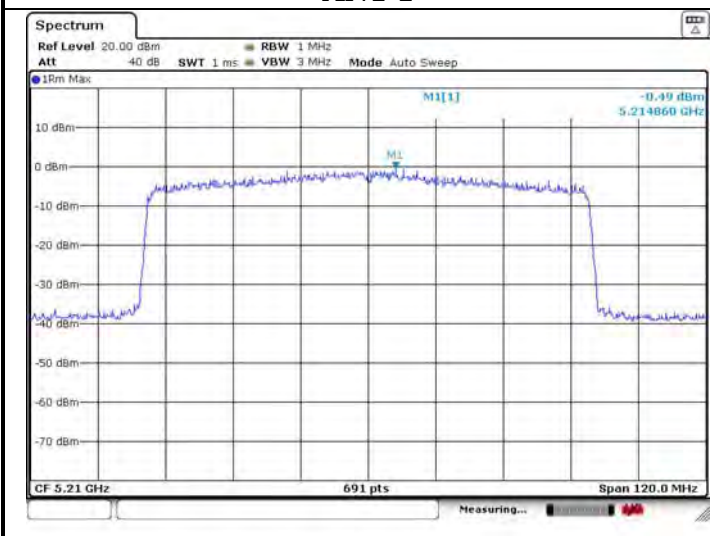
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U-NII-1 IEEE 802.11ax HE80 5210MHz

ANT 1

ANT 2

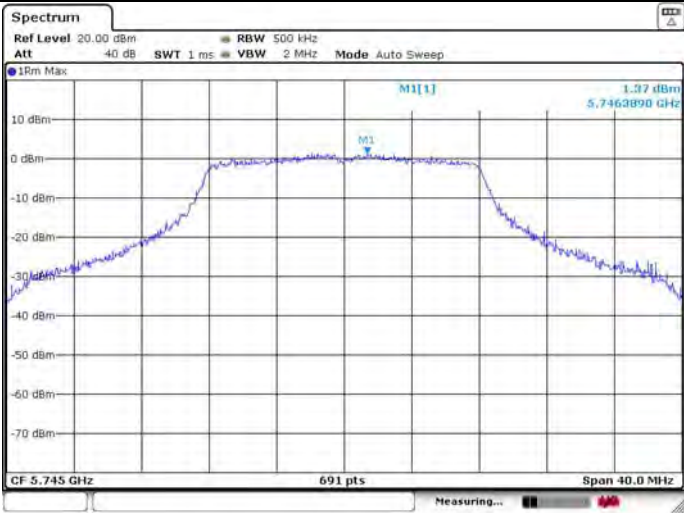


U-NII-3 IEEE 802.11a 5745MHz

ANT 1



ANT 2

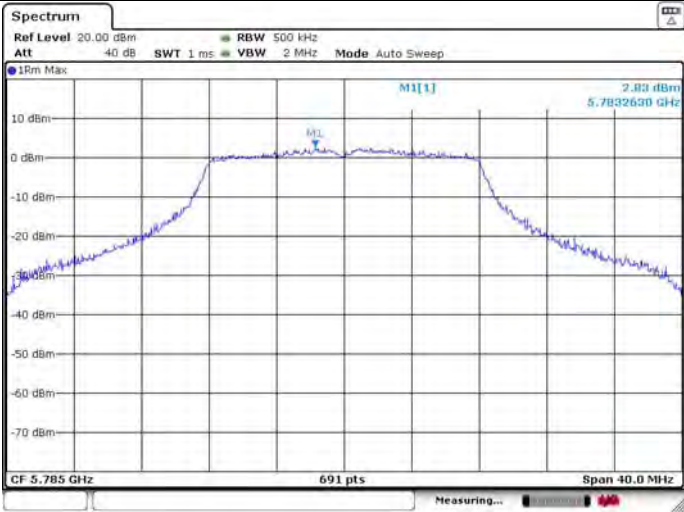


U-NII-3 IEEE 802.11a 5785MHz

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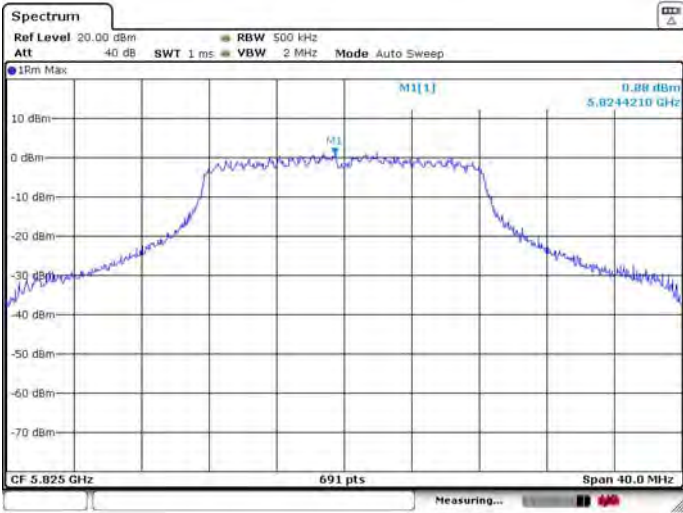


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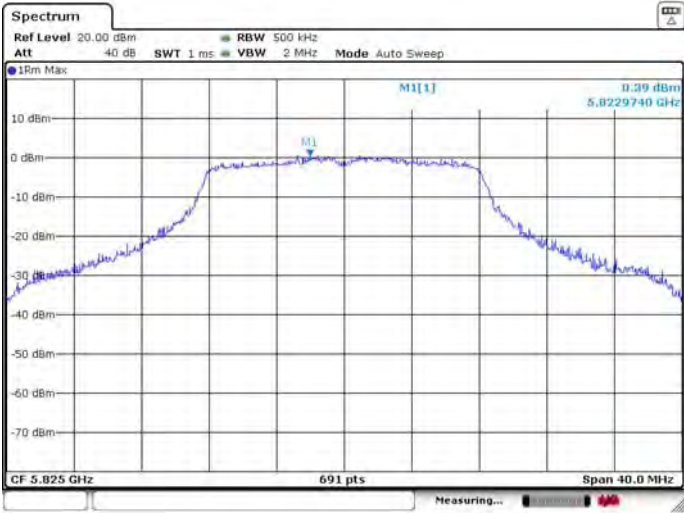


U-NII-3 IEEE 802.11a 5825MHz

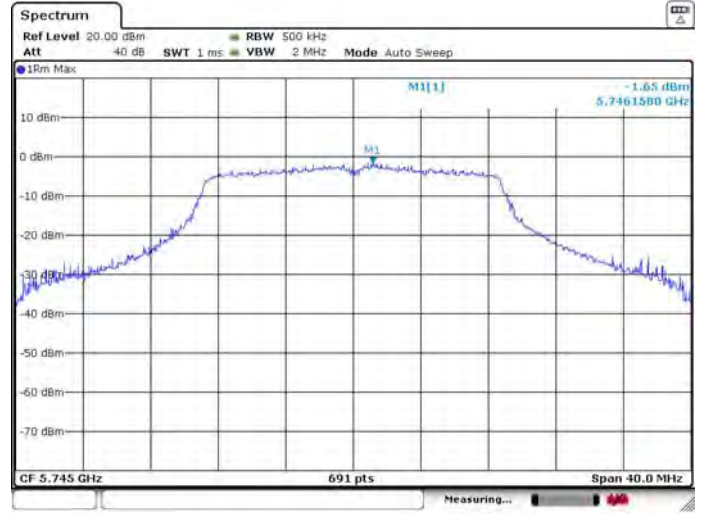
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ANT 2



ANT 2



U-NII-3 IEEE 802.11n HT20 5785MHz

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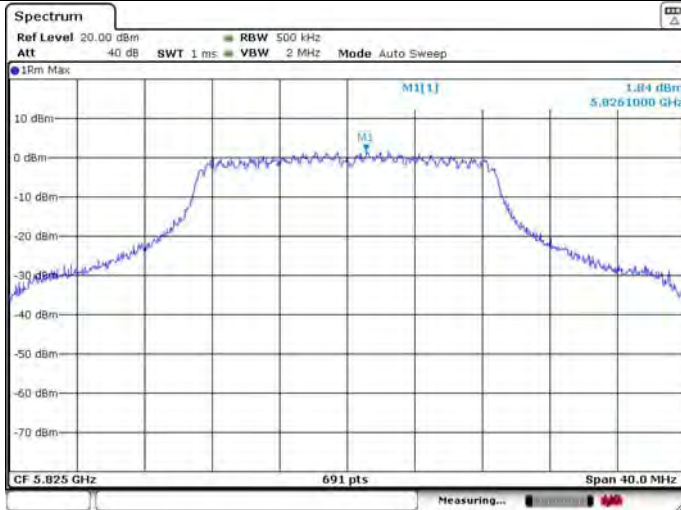


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U-NII-3 IEEE 802.11n HT20 5825MHz

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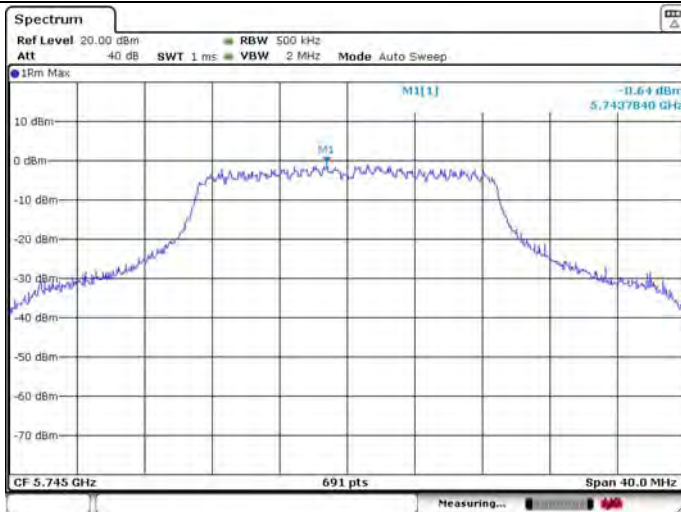


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U-NII-3 IEEE 802.11ac VHT20 5745MHz

ANT 1



ANT 2



U-NII-3 IEEE 802.11ac VHT20 5785MHz

ANT 1

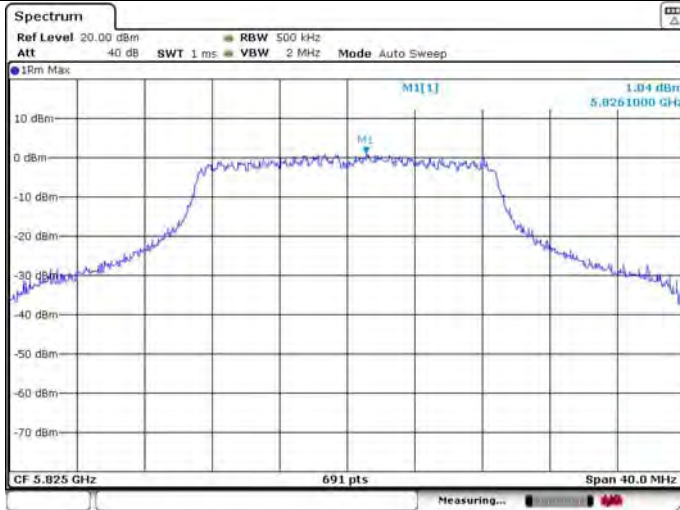


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U-NII-3 IEEE 802.11ac VHT20 5825MHz

ANT 1



ANT 2

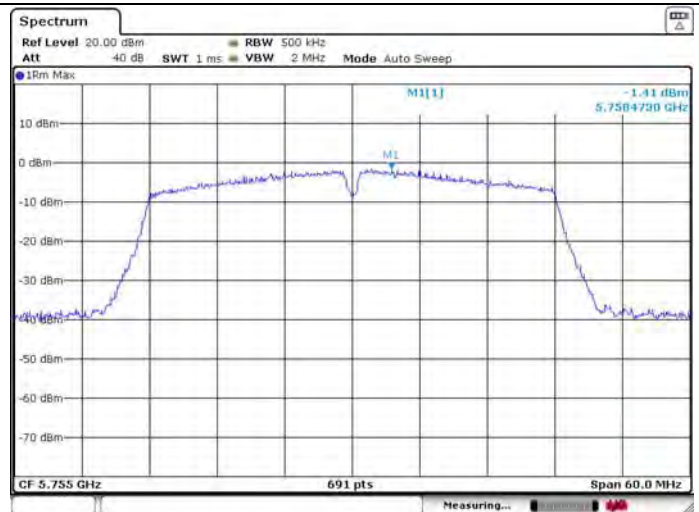


U-NII-3 IEEE 802.11n HT40 5755MHz

ANT 1



ANT 2



U-NII-3 IEEE 802.11n HT40 5795MHz

ANT 1

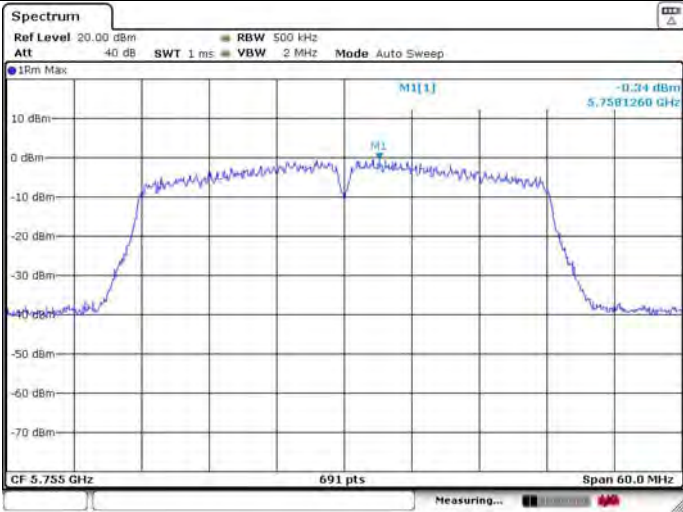


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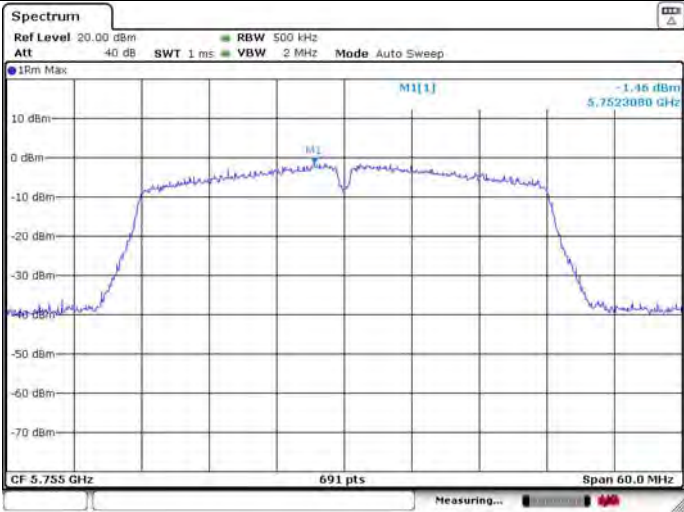


U-NII-3 IEEE 802.11ac VHT40 5755MHz

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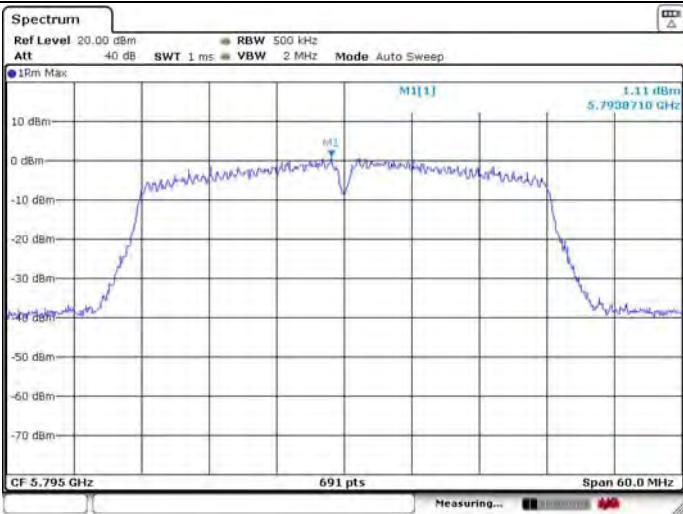


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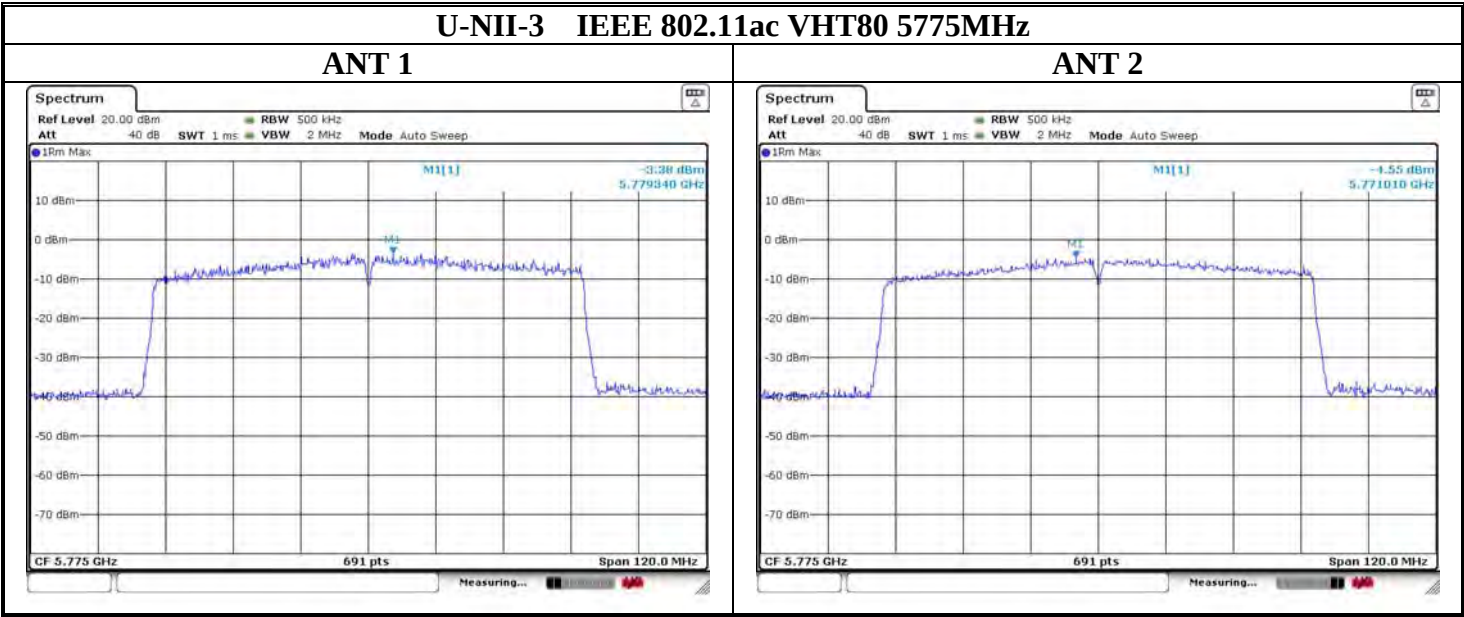
U-NII-3 IEEE 802.11ac VHT40 5795MHz

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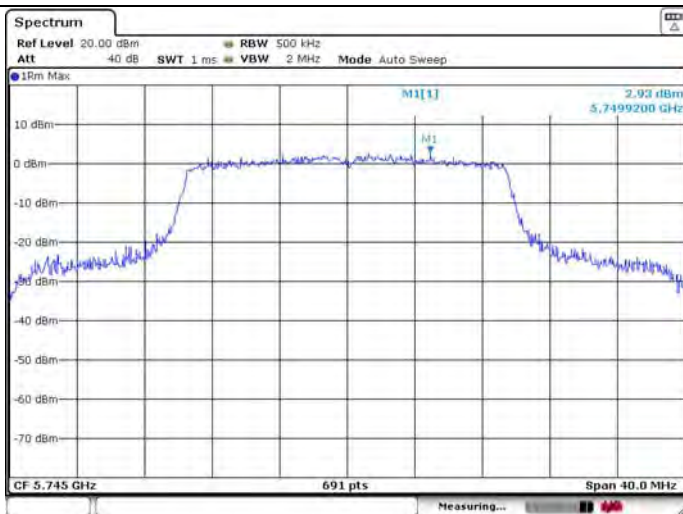
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U-NII-3 IEEE 802.11ax HE20 5745MHz

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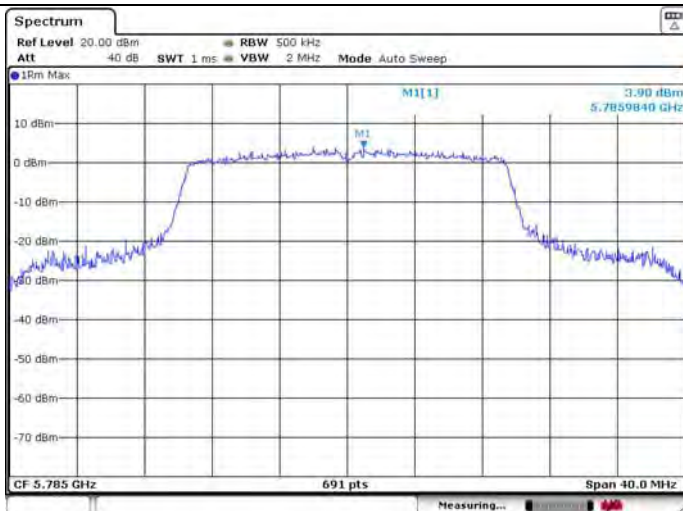


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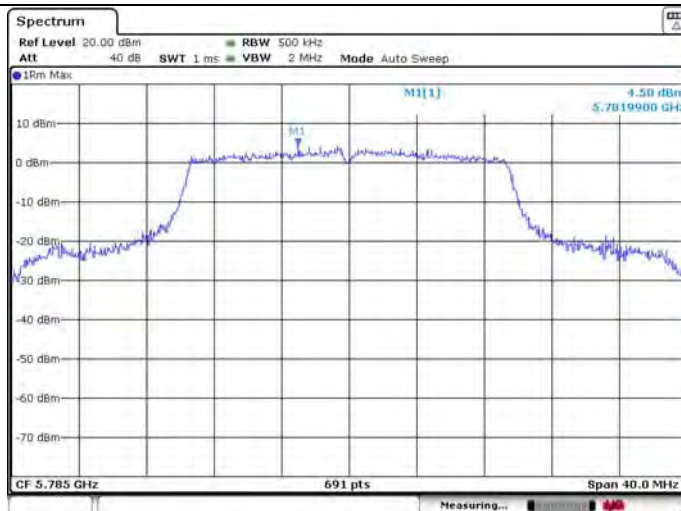


U-NII-3 IEEE 802.11ax HE20 5785MHz

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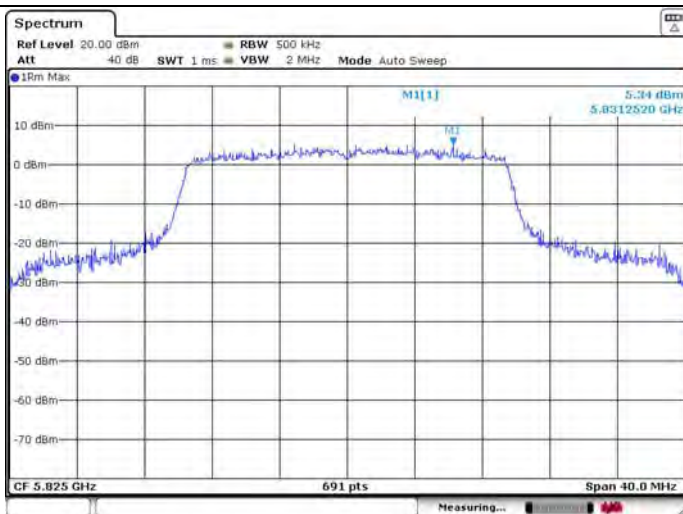


ANT 2



U-NII-3 IEEE 802.11ax HE20 5825MHz

ANT 1



ANT 2

