TEST REPORT

CTK Co., Ltd.
(Ho-dong), 113, Yejik-ro, Cheoin-gu,
Yongin-si, Gyeonggi-do, Korea
Tel: +82-31-339-9970
Fax: +82-31-624-9501

Report No.: CTK-2021-00840

1. Client

◦ Name : KAONMEDIA Co., Ltd.

◦ Address : KAONMEDIA Building, 884-3 Seongnam-daero, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea

◦ Date of Receipt : 2021-01-07

2. Manufacturer

◦ Name : KAONMEDIA Co., Ltd.

◦ Address : KAONMEDIA Building, 884-3, Seongnam-daero, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea

3. Use of Report : For FCC Conformance

4. Test Sample / Model: IP Set-top-box(OTT STB) / KSTB2100

5. Date of Test : 2021-02-09 to 2021-03-25

6. Test Standard(method) used : FCC 47 CFR part 15 subpart E 15.407

7. Testing Environment: Temp.: (23 ± 1) ℃, Humidity: (49 ± 3) % R.H

8. Test Results : Compliance

The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This Test Report cannot be reproduced, except in full.

Affirmation	Tested by Ji-Hye, Kim: (Signature)	Technical Manager Won-Jae, Hwang: (Signature)

2021-03-26

Republic of KOREA **CTK Co., Ltd.**

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REPORT REVISION HISTORY

Date	Revision	Page No
2021-03-26	Issued (CTK-2021-00840)	all

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1. General Product Description

1.1 Client Information

Company	KAONMEDIA Co., Ltd.
Contact Point	KAONMEDIA Building, 884-3 Seongnam-daero, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea
Contact Person	Name : Minseok Choi E-mail : minseok.choi@kaonmedia.com Tel : +82-31-724-8683 Fax : -

1.2 Product Information

FCC ID	WQTKSTB2100
Product Description	IP Set-top-box(OTT STB)
Model name	KSTB2100
Variant Model name	-
Operating Frequency	UNII 1 : 5 180 MHz – 5 240 MHz (20 MHz_BW) 5 190 MHz – 5 230 MHz (40 MHz_BW) 5 210 MHz (80 MHz_BW) UNII 2A : 5 260 MHz – 5 320 MHz (20 MHz_BW) 5 270 MHz – 5 310 MHz (40 MHz_BW) 5 290 MHz (80 MHz_BW) UNII 2C : 5 500 MHz – 5 720 MHz (20 MHz_BW) 5 510 MHz – 5 710 MHz (40 MHz_BW) 5 530 MHz – 5 690 MHz (80 MHz_BW) UNII 3 : 5 745 MHz – 5 825 MHz (20 MHz_BW) 5 755 MHz – 5 795 MHz (40 MHz_BW) 5 775 MHz (80 MHz)
RF Output Power	802.11a : 25.86 dBm (385.36 mW) 802.11n_HT20 : 25.55 dBm (359.30 mW) 802.11n_HT40 : 25.66 dBm (368.51 mW) 802.11ac_VHT20 : 25.51 dBm (355.75 mW) 802.11ac_VHT40 : 25.19 dBm (330.57 mW) 802.11ac_VHT80 : 23.31 dBm (214.05 mW)
Antenna Specification	Antenna type : PCB Antenna Peak Gain : 1.9 dBi (ANT1), 2.0 dBi (ANT2), 1.9 dBi (ANT3), 1.9 dBi (ANT4)
Type of Modulation	OFDM
Data Rate	802.11a : 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps 802.11n : up to 600 Mbps 802.11ac : up to 1.7 Gbps
Power Source	DC 12 V (Adapter)
Hardware Rev	Rev0.3
Software Rev	0.1.5

1.3 Peripheral Devices

Device	Manufacturer	Model No.	Serial No.
Note Computer	HP	15-bs563TU	CND7253R6N
AC/DC Adapter	HP	HSTNN-CA40	-
Switching Mode Power Adaptor	CHENAHOU FRECOM ELECTRONICS CO., LTD.	F18L16-120150SPAU	-

1.4 Model Differences

Not applicable

2. Facility and Accreditations

2.1 Test Facility

The measurement facility is located at (Ho-dong), 113, Yejik-ro, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea.

2.2 Laboratory Accreditations and Listings

Country	Agency	Registration Number
USA	FCC	805871
CANADA	ISED	8737A-2
KOREA	NRRA	KR0025

2.3 Calibration Details of Equipment Used for Measurement

Test equipment and test accessories are calibrated on regular basis. The maximum time between calibrations is one year or what is recommended by the manufacturer, whichever is less. All test equipment calibrations are traceable to the Korea Research Institute of Standards and Science (KRISS), therefore, all test data recorded in this report is traceable to KRISS.

3. Test Specifications

3.1 Standards

FCC Part Section(s)	Requirement(s)	Limit	Status (Note 1)	Test Condition
15.407(e)	6 dB Bandwidth	> 500 kHz	C	Conducted
15.407(a)	26 dB Bandwidth and 99% Bandwidth	NA	C	
15.407(a)(1)	Conducted Output Power	< 250 mW (5 150 – 5 250 MHz) < 250 mW (5 250 – 5 350 MHz, 5 470 – 5 725 MHz) < 1 W (5 725 – 5 850 MHz)	C	
15.407(a)(1)	Power Spectral Density	< 11 dBm/MHz (5 150 – 5 250 MHz) < 11 dBm/MHz (5 250 – 5 350 MHz, 5 470 – 5 725 MHz) < 30 dBm/500 KHz (5 725 – 5 850 MHz)	C	
15.407(g)	Frequency Stability	NA	C	
15.407 (b)	Undesirable emission	< -27 dBm/MHz EIRP (5 150 – 5 250 MHz, 5250 – 5350 MHz, 5470 – 5725 MHz) < -17 dBm/MHz EIRP (5715 – 5725 MHz, 5 850 – 5 860 MHz) < -27 dBm/MHz EIRP outside (5 715 – 5 850 MHz)	C	Radiated
15.205, 15.407 (b)(5),(6)	Radiated Spurious Emission	15.209(a)	C	
15.207	AC Conducted Emissions	15.207(a)	C	Line Conducted
Note 1: C=Complies NC=Not Complies NT=Not Tested NA=Not Applicable				
Note 2: The data in this test report are traceable to the national or international standards.				
Note 3: The sample was tested according to the following specification: FCC Part 15.407, ANSI C63.10-2013				
Note 4: The tests were performed according to the method of measurements prescribed in KDB No.789033.				

3.2 Mode of operation during the test

The EUT is operated in a manner representative of the typical of the equipments.
During at testing, system components were manipulated within the confines of typical usage to maximize each emission.
For WLAN function, the engineering test program was provided and enabled to make EUT continuous transmit.
All modulation modes were tests. The results are only attached worst cases.

Test Frequency

- 802.11a, 802.11n_HT20, 802.11ac_VHT20

	Lowest channel	Middle channel	Highest channel
UNII 1	5 180 MHz	5 200 MHz	5 240 MHz
UNII 2A	5 260 MHz	5 300 MHz	5 320 MHz
UNII 2C	5 500 MHz	5 600 MHz	5 720 MHz
UNII 3	5 745 MHz	5 785 MHz	5 825 MHz

- 802.11n_HT40, 802.11ac_VHT40

	Lowest channel	Middle channel	Highest channel
UNII 1	5 190 MHz	-	5 230 MHz
UNII 2A	5 270 MHz	-	5 310 MHz
UNII 2C	5 510 MHz	5 590 MHz	5 710 MHz
UNII 3	5 755 MHz	-	5 795 MHz

- 802.11ac_VHT80

	Lowest channel	Middle channel	Highest channel
UNII 1	5 210 MHz	-	-
UNII 2A	5 290 MHz	-	-
UNII 2C	5 530 MHz	-	5 690 MHz
UNII 3	5 775 MHz	-	-

Test mode

Test mode	Modulation	Data rate	Duty Cycle	Duty Cycle Factor
802.11a	OFDM	6 Mbps	95.2 %	0.21 dB
802.11n_HT20	OFDM	MCS 0	95.3 %	0.21 dB
802.11n_HT40	OFDM	MCS 0	90.9 %	0.42 dB
802.11ac_VHT20	OFDM	MNSS 0	98.7 %	0.00 dB
802.11ac_VHT40	OFDM	MNSS 0	97.4 %	0.11 dB
802.11ac_VHT80	OFDM	MNSS 0	94.5 %	0.25 dB

3.3 Device Modifications

The following modifications were necessary for compliance:

Not applicable

3.4 Maximum Measurement Uncertainty

The value of the measurement uncertainty for the measurement of each parameter.
Coverage factor k = 2, Confidence levels of 95 %

Description	Uncertainty
Conducted RF Output Power	± 1.5 dB
Power Spectral Density	± 1.5 dB
Occupied Bandwidth	± 0.1 MHz
Unwanted Emission(conducted)	± 3.0 dB
Radiated Emissions (f ≤ 1 GHz)	± 4.0 dB
Radiated Emissions (f > 1 GHz)	± 5.0 dB

3.5 Test Software

Conducted Test	Ics Pro Ver. 6.0.3
Radiated Test	TOYO EMI software EP5RE Ver. 6.0.1.0
Line Conducted Test	ESCI7, ESCI3 : EMC32 Ver. 8.50.0 ESR7 : EMC32 Ver. 8.53.0

4. Technical Characteristic Test

4.1 6dB Bandwidth

Test Procedures

KDB 789033 – Section C.2
ANSI C63.10-2013 - Section 6.9.2

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.

Test Settings :

Center frequency = the highest, middle and the lowest channels

a) RBW = 100 kHz

b) VBW ≥ 3 x RBW

c) Detector = peak

d) Trace mode = Max hold

e) Sweep = auto couple

f) Allow trace to fully stabilize

g) 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.

Minimum Standard:

6 dB Bandwidth > 500 kHz

Test Data:

ANT1

	6 dB Bandwidth (MHz)		
Mode / Frequency	802.11a	802.11n_HT20	802.11ac_VHT20
5 745 MHz	16.42	17.57	17.61
5 785 MHz	16.35	17.63	17.62
5 825 MHz	16.36	17.57	17.60
Measurement uncertainty	± 0.1 MHz		

	6 dB Bandwidth (MHz)	
Mode / Frequency	802.11n_HT40	802.11ac_VHT40
5 755 MHz	36.37	36.41
5 795 MHz	36.41	36.40
Measurement uncertainty	± 0.1 MHz	

	6 dB Bandwidth (MHz)
Mode / Frequency	802.11ac_VHT80
5 775 MHz	76.39
Measurement uncertainty	± 0.1 MHz

ANT2

	6 dB Bandwidth (MHz)		
Mode / Frequency	802.11a	802.11n_HT20	802.11ac_VHT20
5 745 MHz	16.41	17.66	17.65
5 785 MHz	16.44	17.66	17.64
5 825 MHz	16.41	17.66	17.63
Measurement uncertainty	± 0.1 MHz		

	6 dB Bandwidth (MHz)	
Mode / Frequency	802.11n_HT40	802.11ac_VHT40
5 755 MHz	36.43	36.41
5 795 MHz	36.40	36.42
Measurement uncertainty	± 0.1 MHz	

	6 dB Bandwidth (MHz)
Mode / Frequency	802.11ac_VHT80
5 775 MHz	76.45
Measurement uncertainty	± 0.1 MHz

ANT3

	6 dB Bandwidth (MHz)		
Mode / Frequency	802.11a	802.11n_HT20	802.11ac_VHT20
5 745 MHz	16.35	17.61	17.64
5 785 MHz	16.34	17.60	17.62
5 825 MHz	16.37	17.63	17.60
Measurement uncertainty	± 0.1 MHz		

	6 dB Bandwidth (MHz)	
Mode / Frequency	802.11n_HT40	802.11ac_VHT40
5 755 MHz	36.39	36.43
5 795 MHz	36.39	36.39
Measurement uncertainty	± 0.1 MHz	

	6 dB Bandwidth (MHz)
Mode / Frequency	802.11ac_VHT80
5 775 MHz	76.38
Measurement uncertainty	± 0.1 MHz

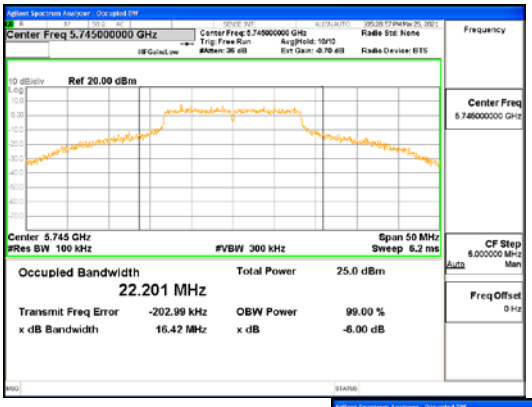
ANT4

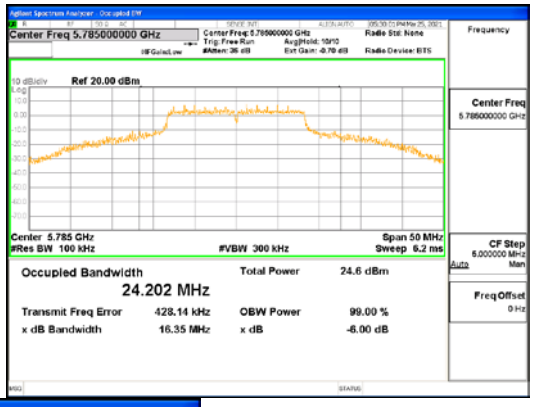
	6 dB Bandwidth (MHz)		
Mode / Frequency	802.11a	802.11n_HT20	802.11ac_VHT20
5 745 MHz	16.39	17.59	17.61
5 785 MHz	16.37	17.60	17.63
5 825 MHz	16.40	17.65	17.60
Measurement uncertainty	± 0.1 MHz		

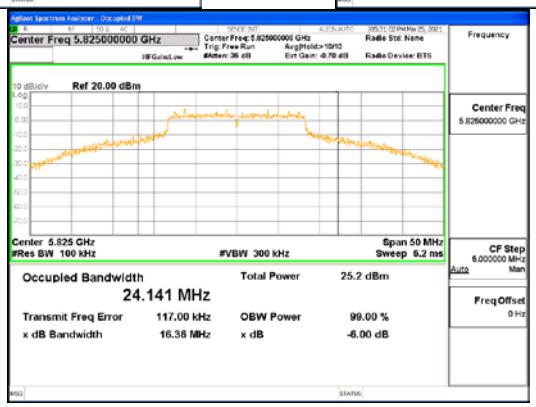
	6 dB Bandwidth (MHz)	
Mode / Frequency	802.11n_HT40	802.11ac_VHT40
5 755 MHz	36.43	36.40
5 795 MHz	36.41	36.38
Measurement uncertainty	± 0.1 MHz	

	6 dB Bandwidth (MHz)
Mode / Frequency	802.11ac_VHT80
5 775 MHz	76.02
Measurement uncertainty	± 0.1 MHz

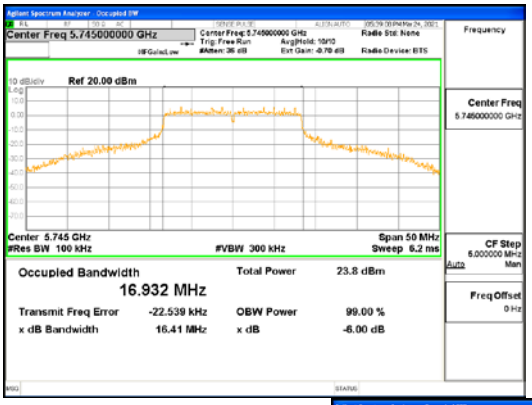
See next pages for actual measured spectrum plots.

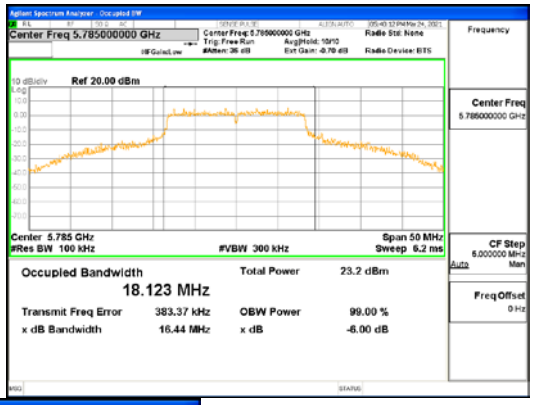


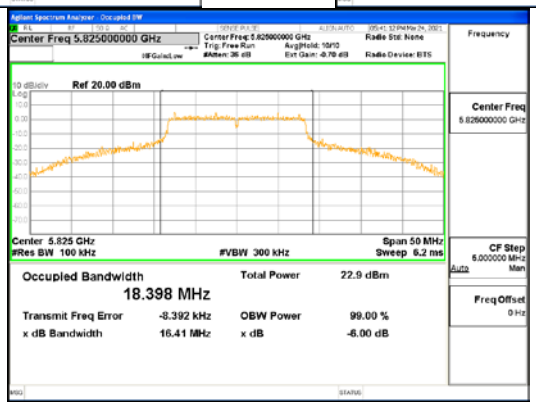




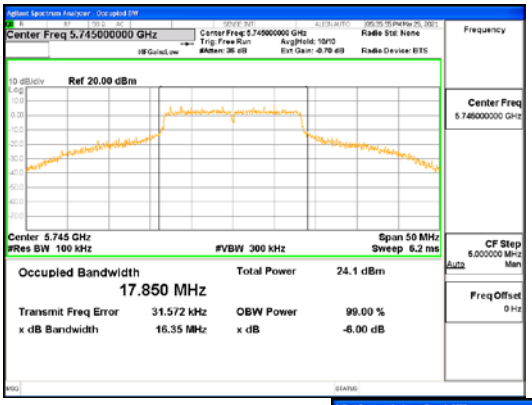
ANT1_802.11a

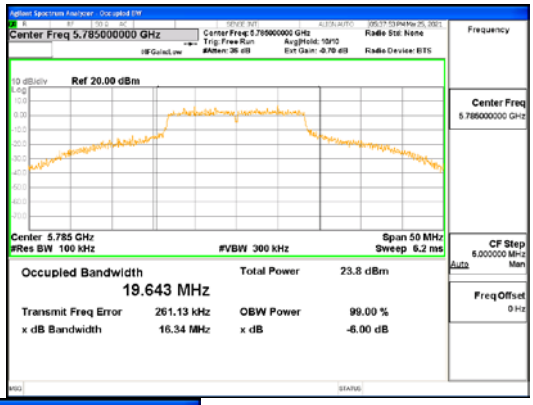


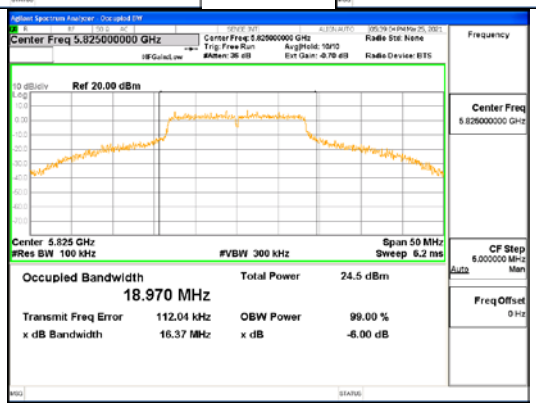




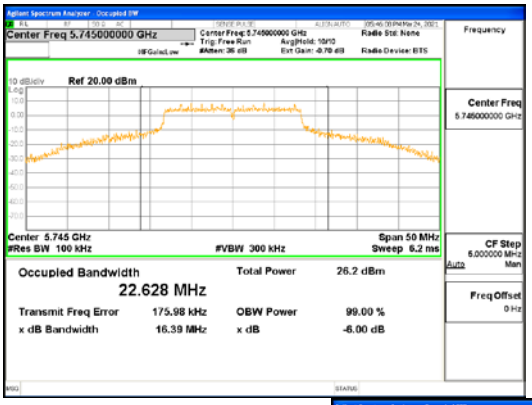
ANT2_802.11a

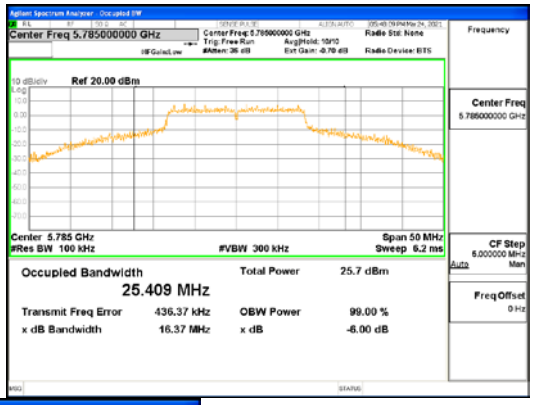


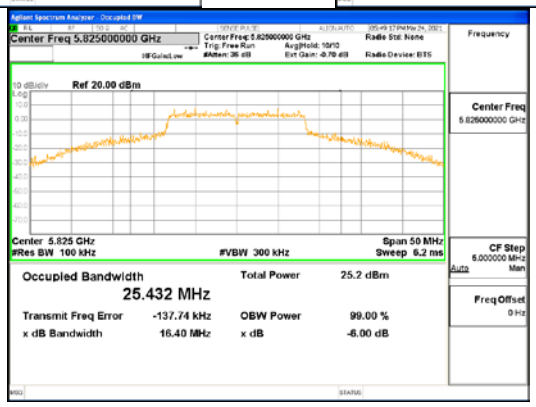




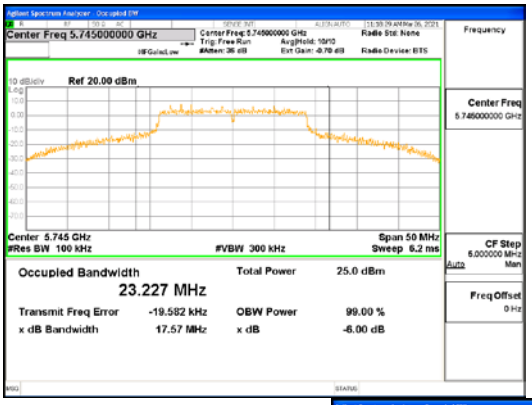
ANT3_802.11a

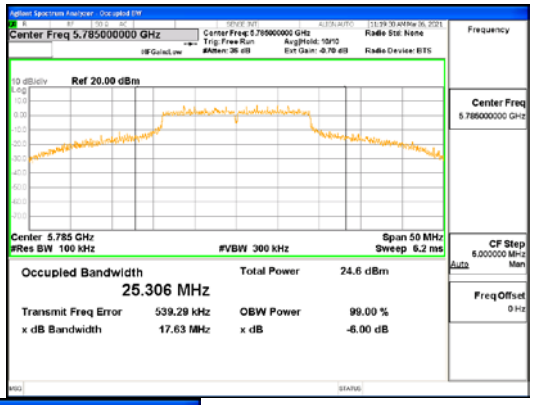


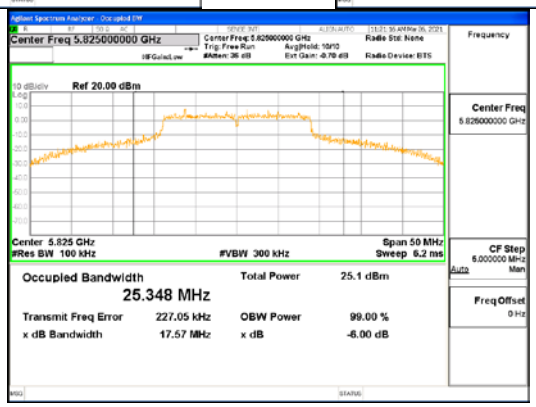




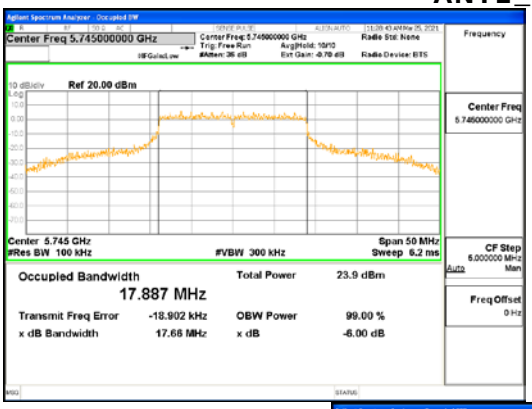
ANT4_802.11a

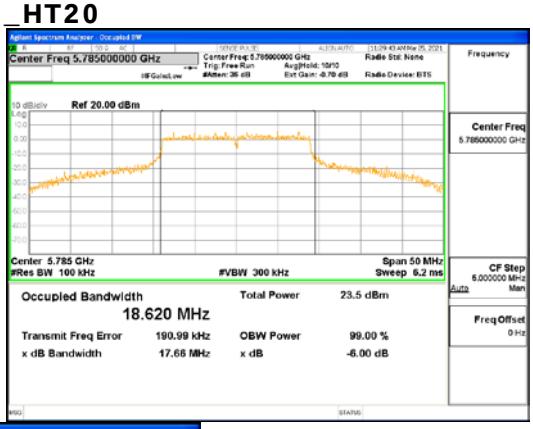


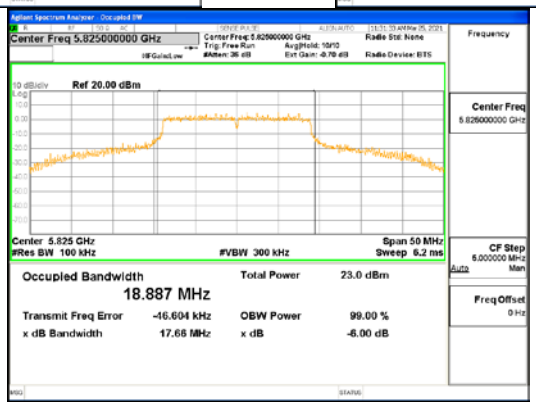




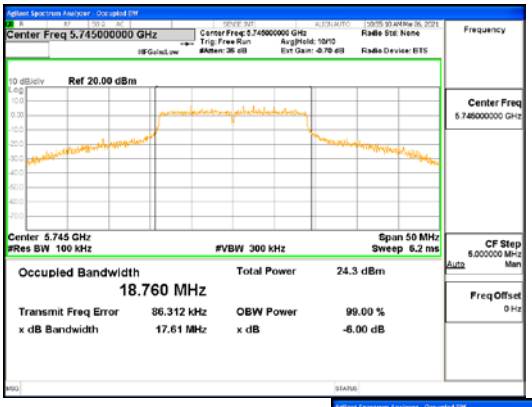
ANT1_802.11n_HT20

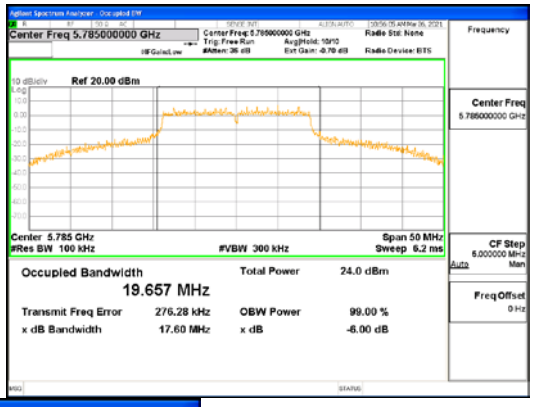


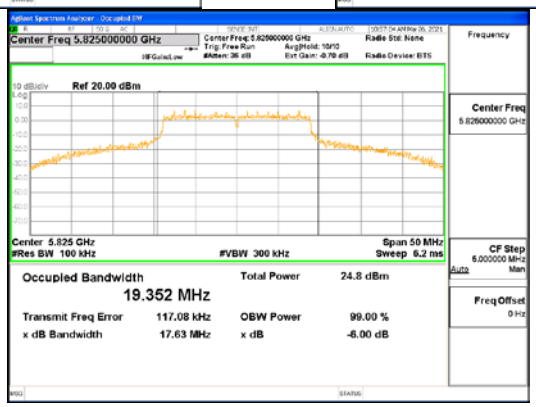




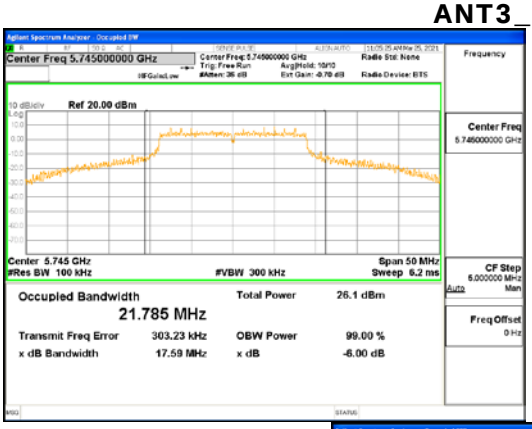
ANT2_802.11n_HT20

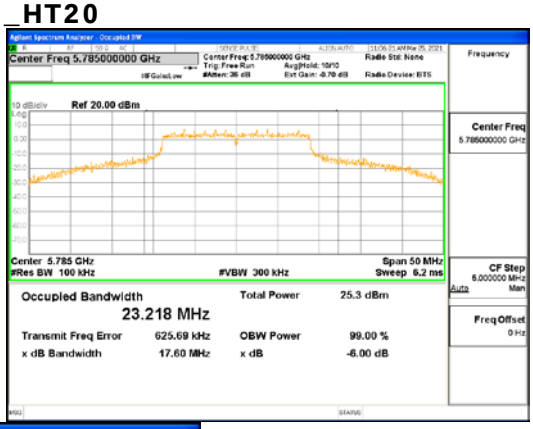


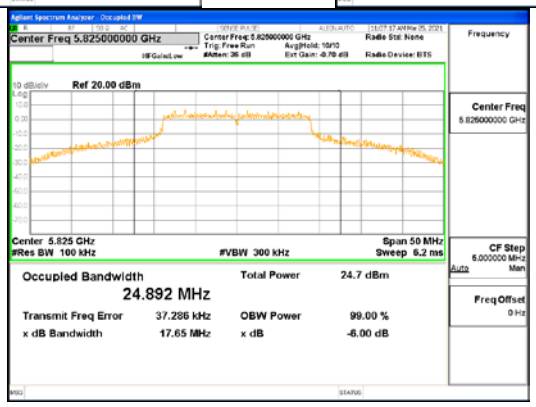




ANT3_802.11n_HT20







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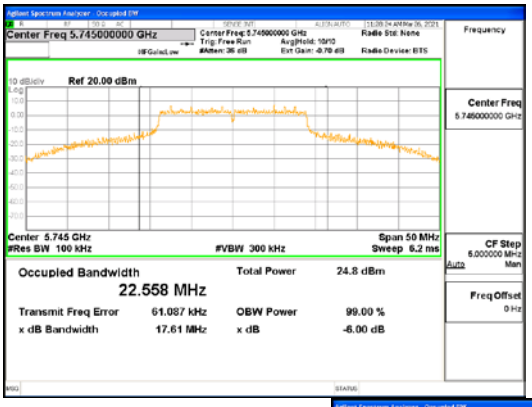

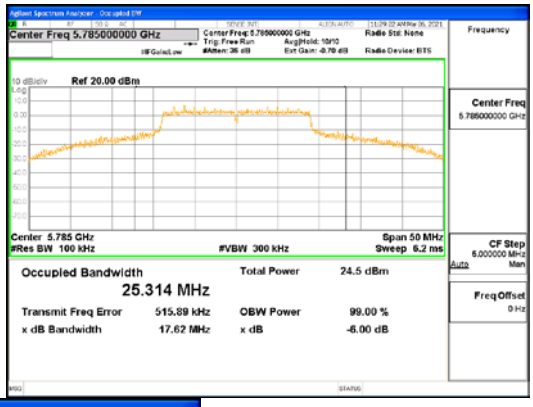

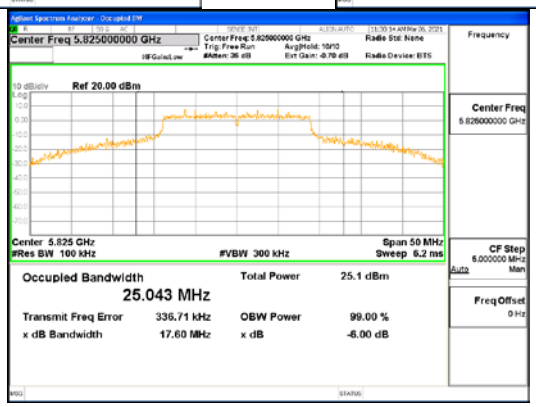

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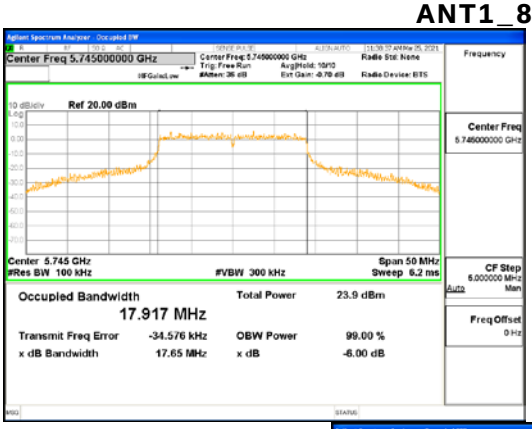
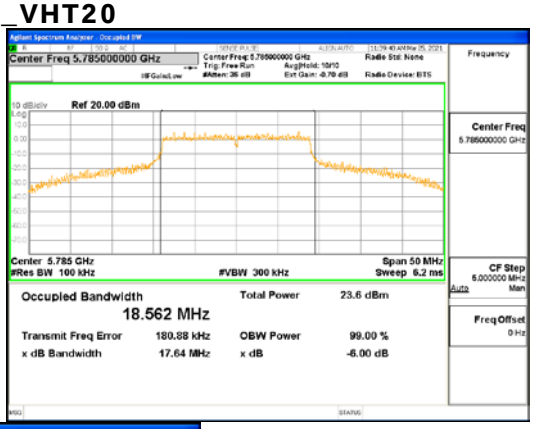
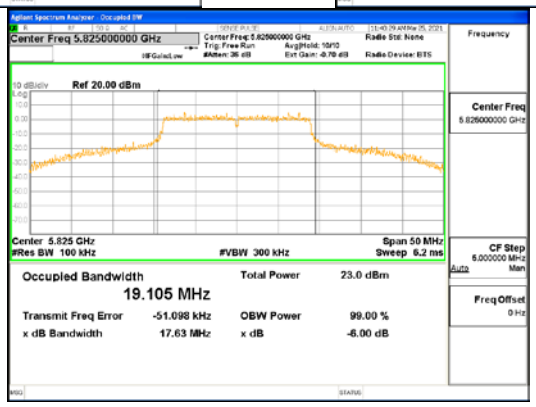
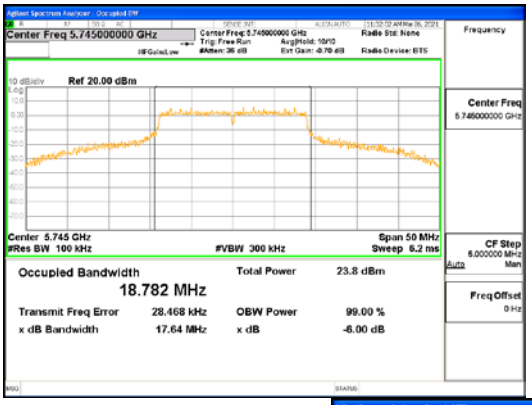
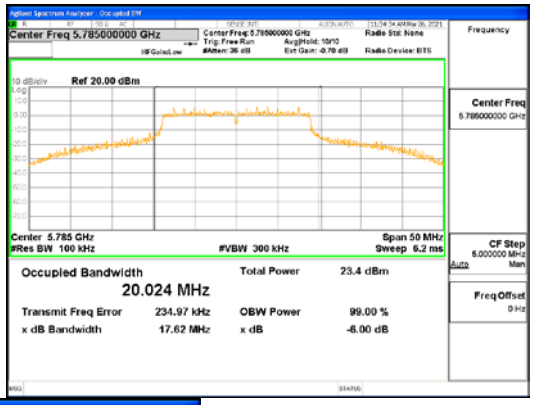


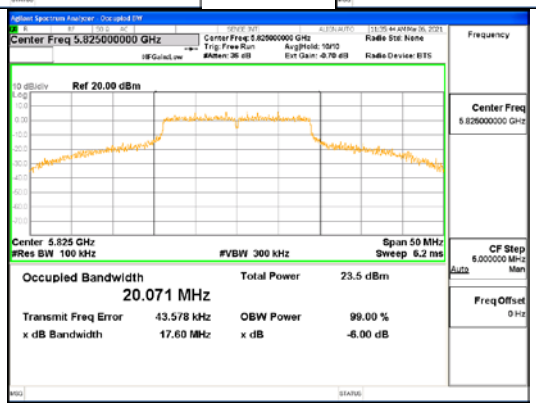




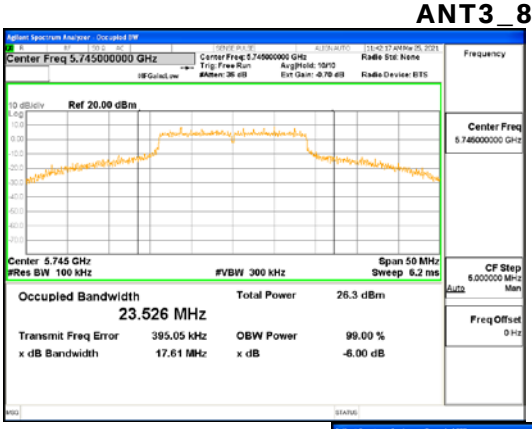
ANT2_802.11ac_VHT20

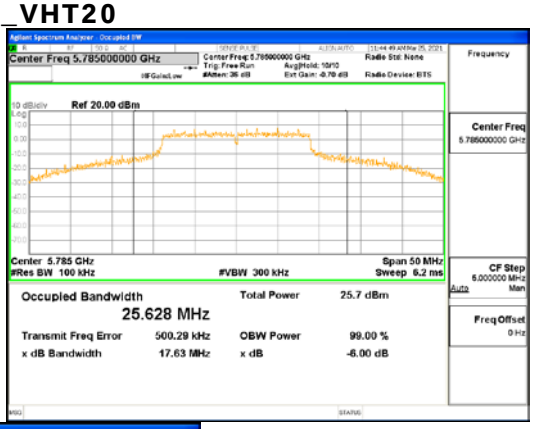


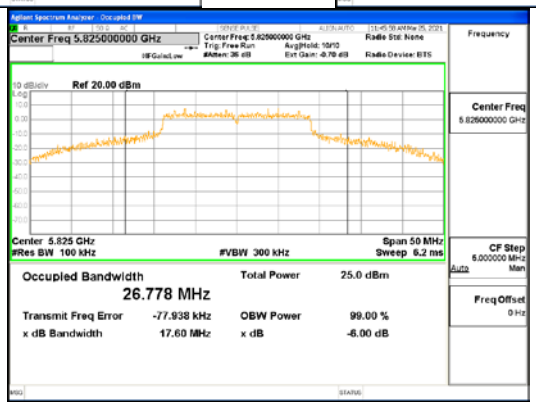




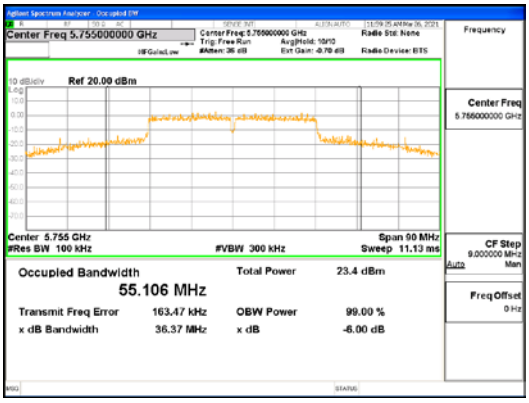
ANT3_802.11ac_VHT20

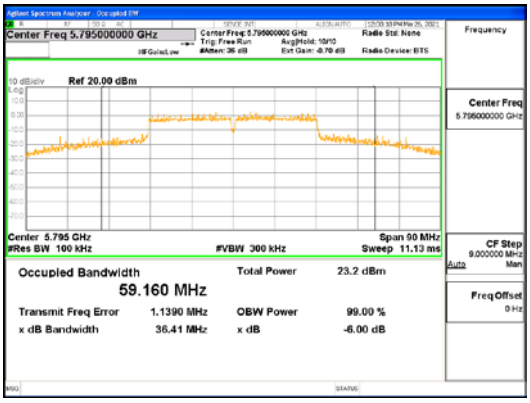




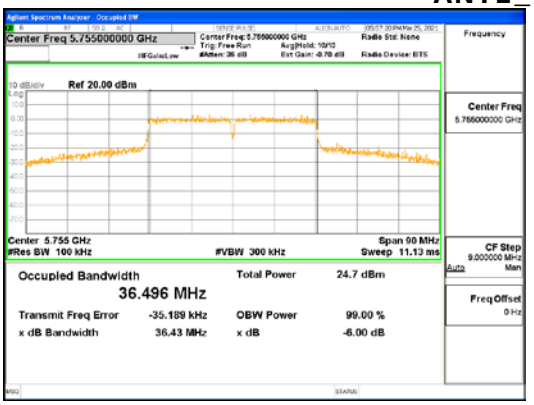


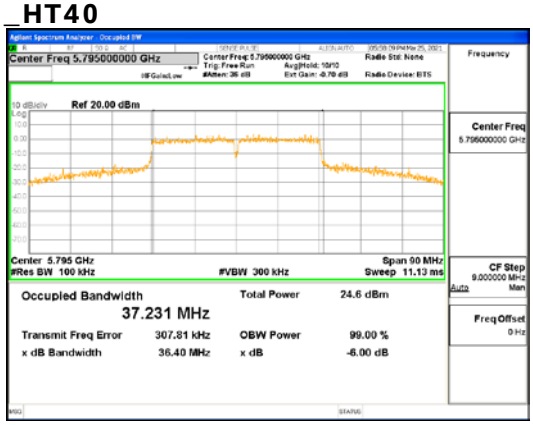
ANT4_802.11ac_VHT20





ANT1_802.11n_HT40





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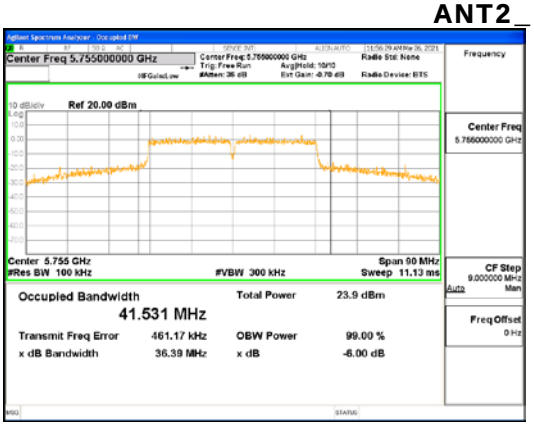
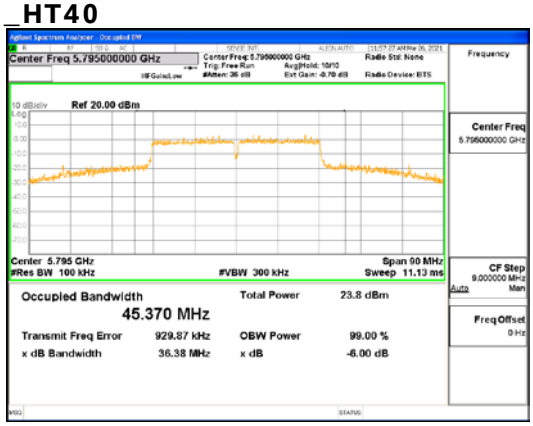
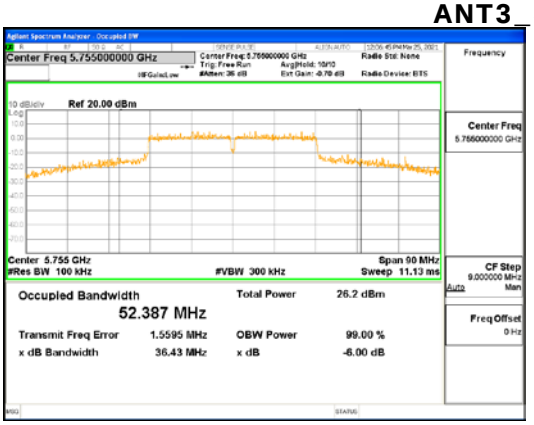
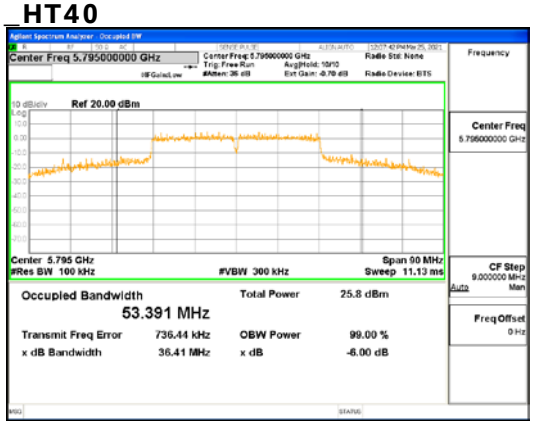


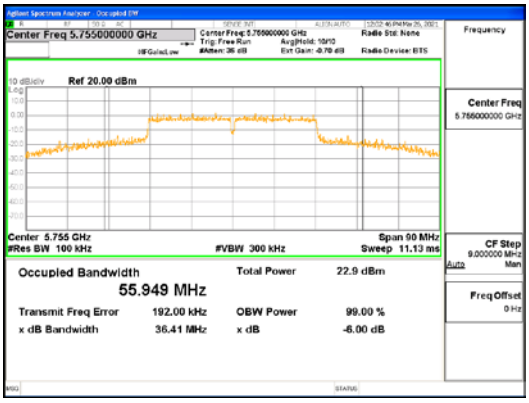


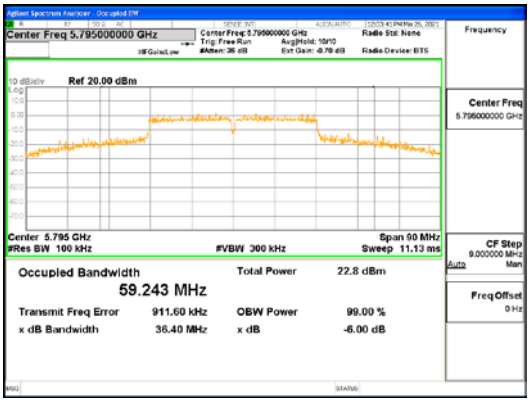
ANT3_802.11n_HT40



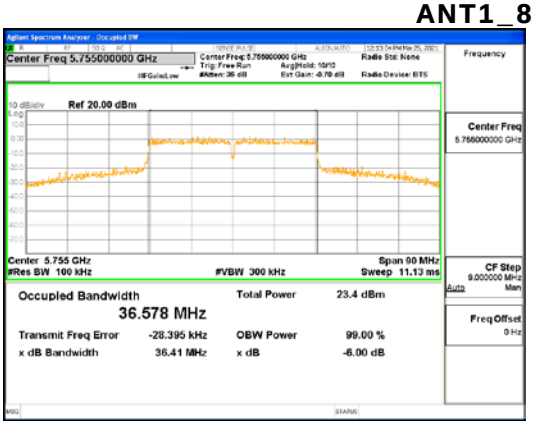


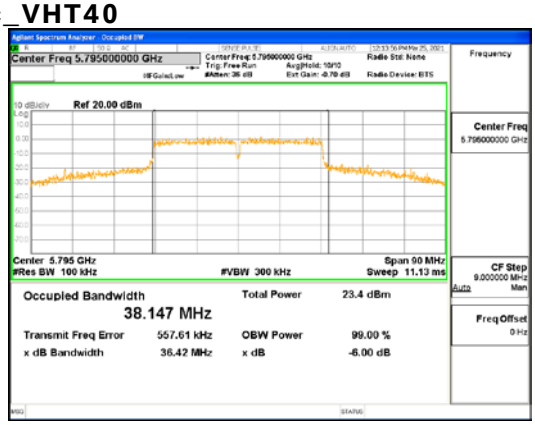
ANT4_802.11n_HT40



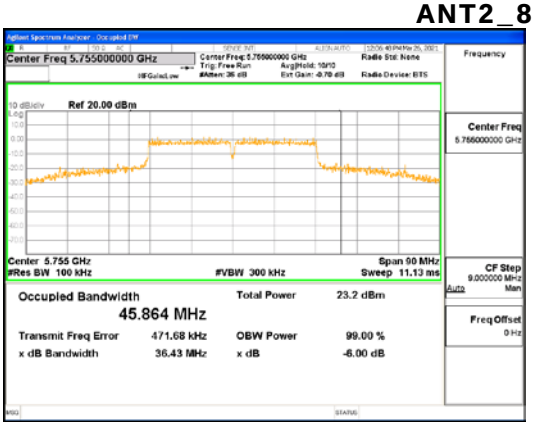


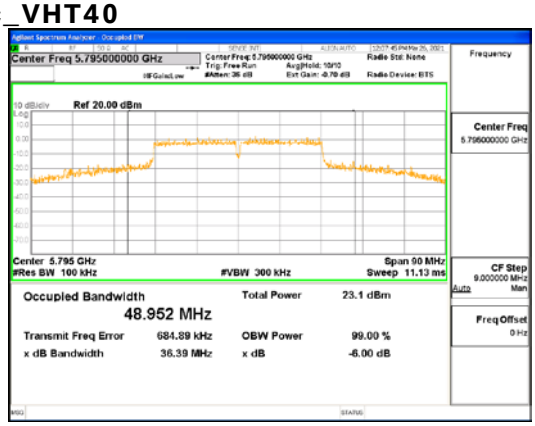
ANT1_802.11ac_VHT40



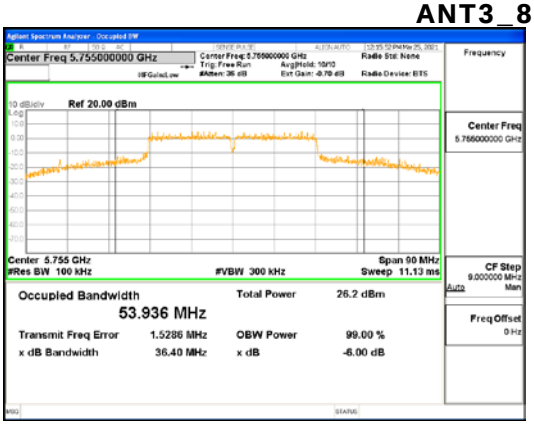


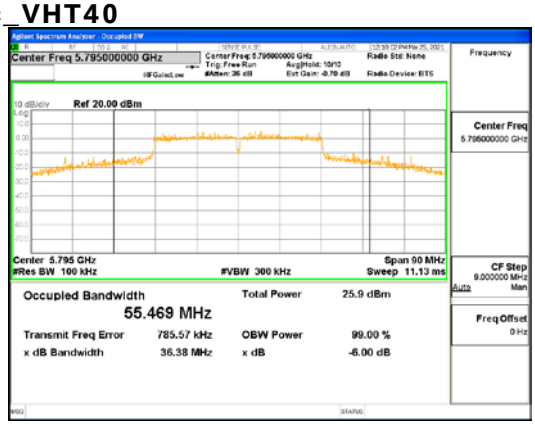
ANT2_802.11ac_VHT40



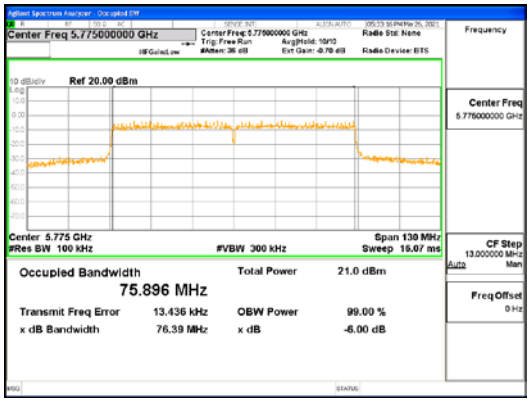


ANT3_802.11ac_VHT40

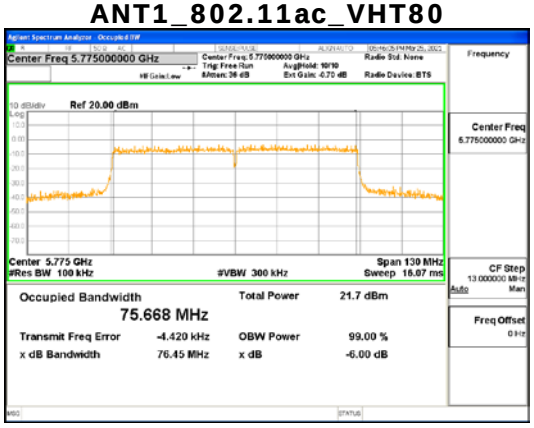




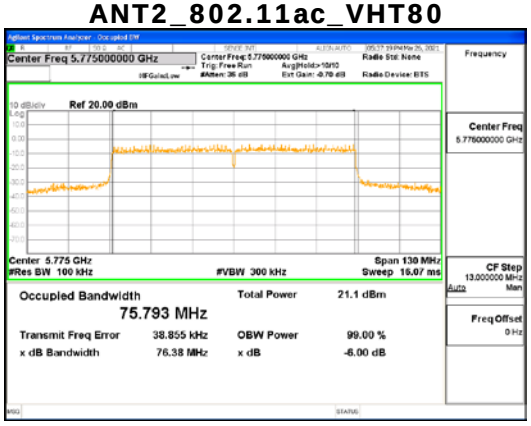
ANT4_802.11ac_VHT40



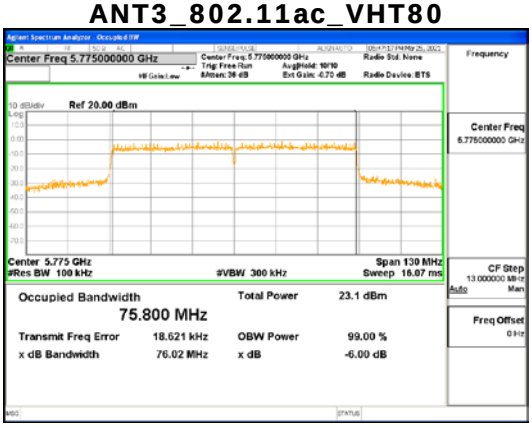
ANT1_802.11ac_VHT80



ANT2_802.11ac_VHT80



ANT3_802.11ac_VHT80



ANT4_802.11ac_VHT80

4.2 26 dB Bandwidth and 99% Bandwidth

Test Procedures

KDB 789033 – Section C.1
ANSI C63.10-2013 - Section 6.9.2

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 26 dB relative to the maximum level measured in the fundamental emission.

Test Procedures

KDB 789033 – Section C.1
ANSI C63.10-2013 - Section 6.9.3

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.
Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

Test Settings :

Center frequency = the highest, middle and the lowest channels

a) RBW = approximately 1 % of the emission bandwidth

b) VBW ≥ RBW

c) Detector = peak

d) Trace mode = Max hold

e) Measure the maximum width of the emission that is 26 dB down from the maximum of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

Minimum Standard:

NA

Test Data:

ANT1

	26 dB Bandwidth and 99% Bandwidth (MHz)					
Mode	802.11a		802.11n_HT20		802.11ac_VHT20	
Frequency	26 dB	99%	26 dB	99%	26 dB	99%
5 180 MHz	21.04	16.68	21.43	17.82	21.39	17.83
5 200 MHz	20.90	16.64	21.54	17.83	21.34	17.85
5 240 MHz	21.10	16.66	21.43	17.83	21.58	17.84
5 260 MHz	20.98	16.65	21.30	17.81	21.61	17.83
5 300 MHz	21.16	16.67	21.39	17.83	21.41	17.84
5 320 MHz	21.11	16.66	21.43	17.84	21.40	17.84
5 500 MHz	21.01	16.65	21.29	17.81	21.30	17.83
5 600 MHz	21.01	16.64	21.51	17.87	21.38	17.83
5 720 MHz	21.14	16.67	21.55	17.84	21.61	17.85
5 745 MHz	42.02	25.20	45.81	25.76	47.51	25.63
5 785 MHz	43.15	27.20	47.41	28.38	46.43	28.35
5 825 MHz	43.09	26.68	44.68	27.82	46.73	27.79
Measurement uncertainty	± 0.1 MHz					

	26 dB Bandwidth and 99% Bandwidth (MHz)			
Mode	802.11n_HT40		802.11ac_VHT40	
Frequency	26 dB	99 %	26 dB	99 %
5 190 MHz	39.98	36.29	39.99	36.32
5 230 MHz	40.06	36.32	39.92	36.29
5 270 MHz	39.90	36.28	39.87	36.28
5 310 MHz	39.97	36.33	39.90	36.29
5 510 MHz	39.95	36.31	39.93	36.33
5 590 MHz	39.80	36.31	40.18	36.28
5 710 MHz	40.02	36.29	39.77	36.29
5 755 MHz	90.00	58.09	89.89	59.33
5 795 MHz	90.00	61.25	90.00	61.54
Measurement uncertainty	± 0.1 MHz			

	26 dB Bandwidth and 99% Bandwidth (MHz)	
Mode	802.11ac_VHT80	
Frequency	26 dB	99 %
5 210 MHz	81.14	75.87
5 290 MHz	81.60	75.70
5 530 MHz	81.56	75.81
5 690 MHz	81.01	75.76
5 775 MHz	129.00	76.13
Measurement uncertainty	± 0.1 MHz	

ANT2

	26 dB Bandwidth and 99% Bandwidth (MHz)					
Mode	802.11a		802.11n_HT20		802.11ac_VHT20	
Frequency	26 dB	99%	26 dB	99%	26 dB	99%
5 180 MHz	21.09	16.68	21.36	17.79	21.33	17.81
5 200 MHz	20.95	16.67	21.43	17.79	21.18	17.80
5 240 MHz	20.94	16.64	21.24	17.78	21.26	17.80
5 260 MHz	21.19	16.66	21.49	17.79	21.30	17.79
5 300 MHz	21.10	16.66	21.25	17.78	21.31	17.78
5 320 MHz	21.04	16.66	21.23	17.79	21.28	17.77
5 500 MHz	21.18	16.66	21.35	17.78	21.25	17.76
5 600 MHz	21.18	16.65	21.20	17.77	21.34	17.78
5 720 MHz	21.13	16.67	21.33	17.78	21.15	17.78
5 745 MHz	35.91	19.01	36.99	19.12	35.39	18.95
5 785 MHz	37.79	20.58	38.01	19.98	42.37	20.28
5 825 MHz	38.64	20.99	41.03	21.49	40.31	21.01
Measurement uncertainty	± 0.1 MHz					

	26 dB Bandwidth and 99% Bandwidth (MHz)			
Mode	802.11n_HT40		802.11ac_VHT40	
Frequency	26 dB	99 %	26 dB	99 %
5 190 MHz	39.52	36.27	39.46	36.26
5 230 MHz	39.60	36.29	39.42	36.27
5 270 MHz	39.37	36.23	39.51	36.26
5 310 MHz	39.50	36.28	39.47	36.27
5 510 MHz	39.46	36.26	39.45	36.24
5 590 MHz	39.41	36.24	39.27	36.24
5 710 MHz	39.49	36.27	39.55	36.28
5 755 MHz	77.48	37.15	75.34	37.91
5 795 MHz	80.27	39.29	79.50	40.65
Measurement uncertainty	± 0.1 MHz			

	26 dB Bandwidth and 99% Bandwidth (MHz)	
Mode	802.11ac_VHT80	
Frequency	26 dB	99 %
5 210 MHz	80.75	75.82
5 290 MHz	80.43	75.82
5 530 MHz	80.54	75.77
5 690 MHz	80.78	75.80
5 775 MHz	81.97	75.80
Measurement uncertainty	± 0.1 MHz	

ANT3

	26 dB Bandwidth and 99% Bandwidth (MHz)					
Mode	802.11a		802.11n_HT20		802.11ac_VHT20	
Frequency	26 dB	99%	26 dB	99%	26 dB	99%
5 180 MHz	20.84	16.63	21.16	17.79	21.30	17.79
5 200 MHz	21.03	16.62	21.23	17.81	21.25	17.80
5 240 MHz	21.00	16.64	21.17	17.79	21.27	17.79
5 260 MHz	21.07	16.64	21.18	17.77	21.36	17.78
5 300 MHz	20.93	16.61	21.14	17.78	21.26	17.79
5 320 MHz	21.00	16.63	21.26	17.77	21.29	17.80
5 500 MHz	21.00	16.61	21.33	17.75	21.39	17.78
5 600 MHz	21.06	16.62	21.31	17.82	21.46	17.78
5 720 MHz	20.91	16.62	21.30	17.79	21.29	17.78
5 745 MHz	37.90	20.23	43.47	20.31	41.06	20.40
5 785 MHz	41.11	21.95	44.26	22.55	44.93	22.52
5 825 MHz	38.06	21.06	42.48	22.16	43.17	22.43
Measurement uncertainty	± 0.1 MHz					

	26 dB Bandwidth and 99% Bandwidth (MHz)			
Mode	802.11n_HT40		802.11ac_VHT40	
Frequency	26 dB	99 %	26 dB	99 %
5 190 MHz	39.55	36.26	39.51	36.26
5 230 MHz	39.64	36.34	39.53	36.27
5 270 MHz	39.37	36.26	39.52	36.23
5 310 MHz	39.41	36.26	39.64	36.26
5 510 MHz	39.66	36.24	39.47	36.26
5 590 MHz	39.54	36.25	39.57	36.27
5 710 MHz	39.69	36.23	39.45	36.27
5 755 MHz	84.85	44.96	89.69	48.53
5 795 MHz	89.26	46.99	87.98	50.90
Measurement uncertainty	± 0.1 MHz			

	26 dB Bandwidth and 99% Bandwidth (MHz)	
Mode	802.11ac_VHT80	
Frequency	26 dB	99 %
5 210 MHz	80.79	75.81
5 290 MHz	80.85	75.71
5 530 MHz	80.93	75.74
5 690 MHz	80.45	75.67
5 775 MHz	110.7	75.88
Measurement uncertainty	± 0.1 MHz	

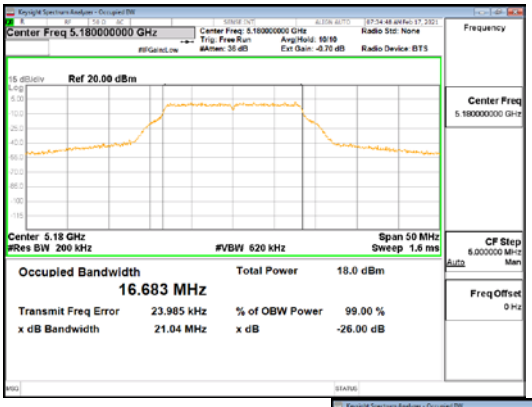
ANT4

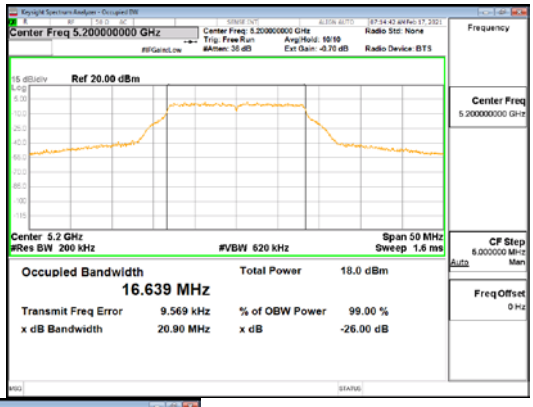
	26 dB Bandwidth and 99% Bandwidth (MHz)					
Mode	802.11a		802.11n_HT20		802.11ac_VHT20	
Frequency	26 dB	99%	26 dB	99%	26 dB	99%
5 180 MHz	20.90	16.60	21.38	17.77	21.16	17.77
5 200 MHz	20.94	16.61	21.26	17.78	21.17	17.77
5 240 MHz	20.95	16.64	21.30	17.78	21.37	17.80
5 260 MHz	20.78	16.61	21.22	17.78	21.23	17.77
5 300 MHz	21.07	16.64	21.21	17.78	21.27	17.80
5 320 MHz	20.95	16.62	21.32	17.77	21.20	17.82
5 500 MHz	21.03	16.63	21.38	17.78	21.27	17.79
5 600 MHz	20.99	16.65	21.33	17.79	21.46	17.79
5 720 MHz	20.85	16.63	21.41	17.80	21.28	17.78
5 745 MHz	42.06	25.59	44.09	24.05	44.33	25.60
5 785 MHz	43.07	26.94	44.60	26.62	45.53	27.74
5 825 MHz	42.56	27.21	46.50	26.93	45.72	28.52
Measurement uncertainty	± 0.1 MHz					

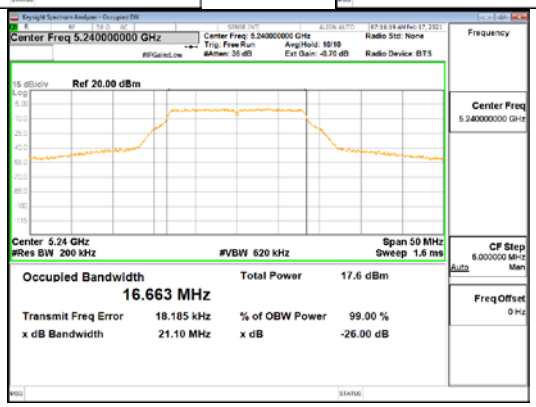
	26 dB Bandwidth and 99% Bandwidth (MHz)			
Mode	802.11n_HT40		802.11ac_VHT40	
Frequency	26 dB	99 %	26 dB	99 %
5 190 MHz	39.55	36.26	39.40	36.25
5 230 MHz	39.50	36.28	39.65	36.28
5 270 MHz	39.58	36.27	39.53	36.27
5 310 MHz	39.51	36.26	39.53	36.29
5 510 MHz	39.49	36.26	39.44	36.26
5 590 MHz	39.65	36.27	39.54	36.23
5 710 MHz	39.68	36.28	39.51	36.25
5 755 MHz	89.17	53.92	89.59	56.69
5 795 MHz	88.73	55.76	89.55	57.25
Measurement uncertainty	± 0.1 MHz			

	26 dB Bandwidth and 99% Bandwidth (MHz)	
Mode	802.11ac_VHT80	
Frequency	26 dB	99 %
5 210 MHz	81.05	75.82
5 290 MHz	80.54	75.75
5 530 MHz	80.92	75.74
5 690 MHz	80.21	75.76
5 775 MHz	118.80	75.97
Measurement uncertainty	± 0.1 MHz	

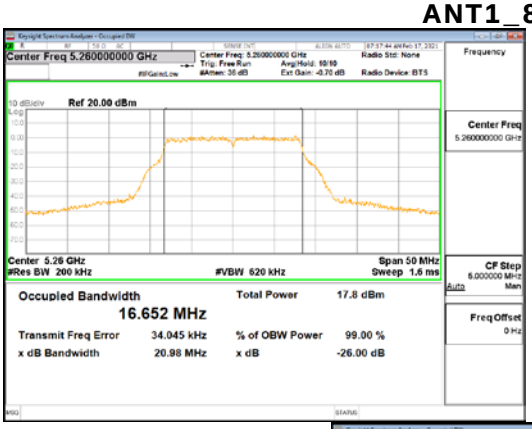
See next pages for actual measured spectrum plots.

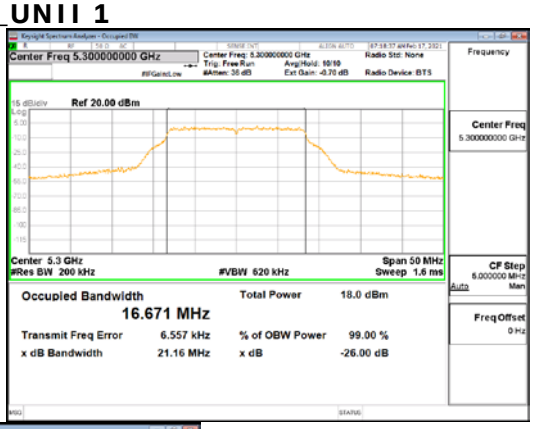


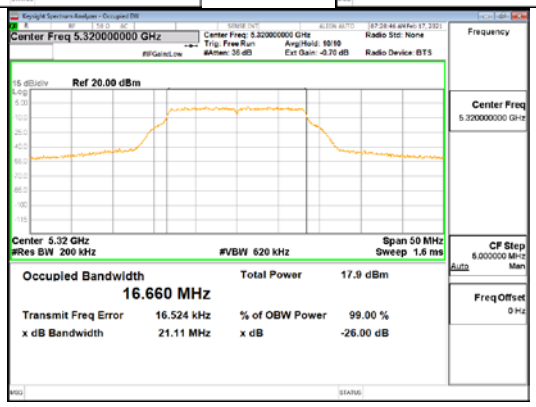




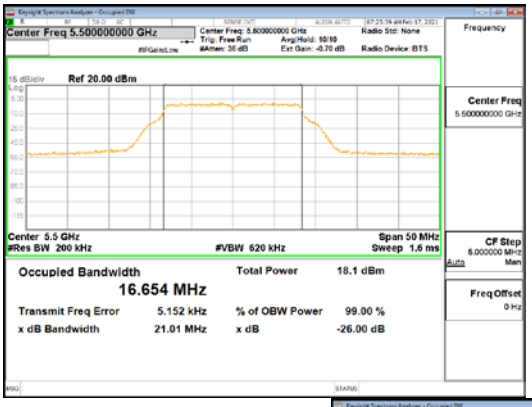
ANT1_802.11a_UNII 1

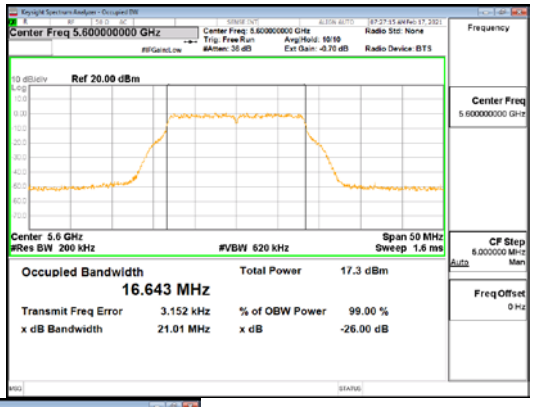


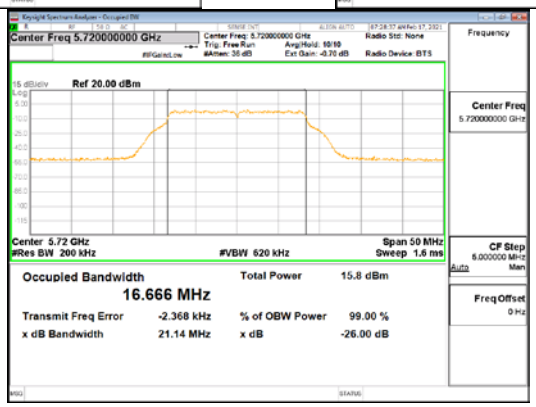




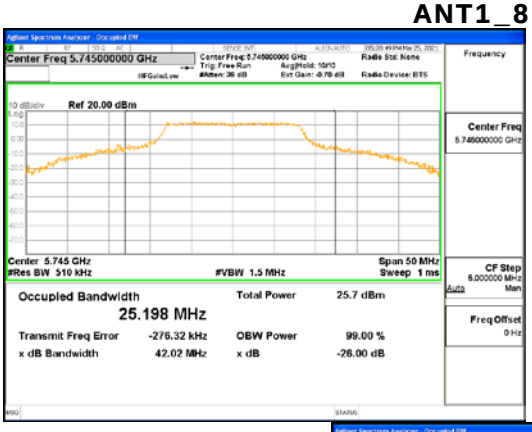
ANT1_802.11a_UNII 2A

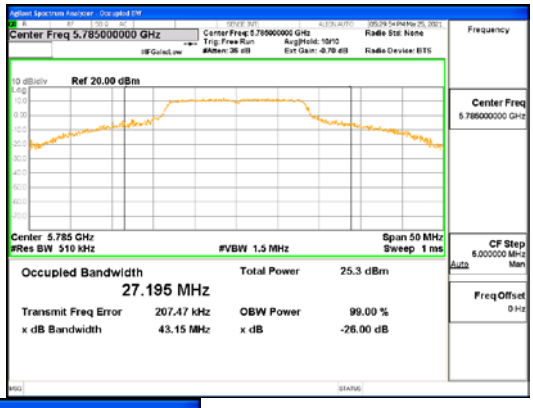


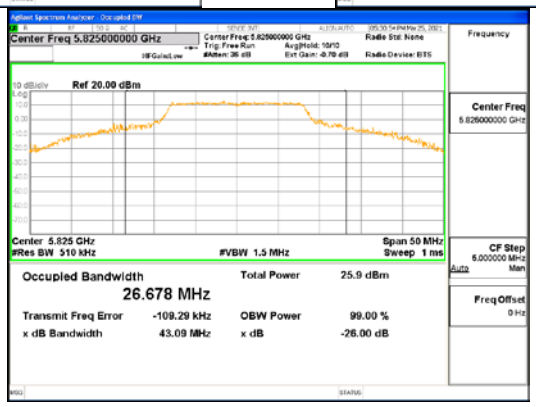




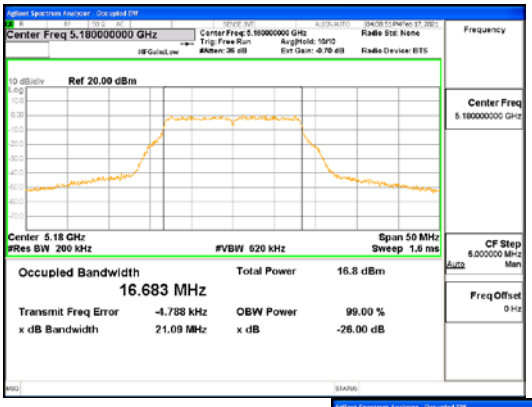
ANT1_802.11a_UNII 2C

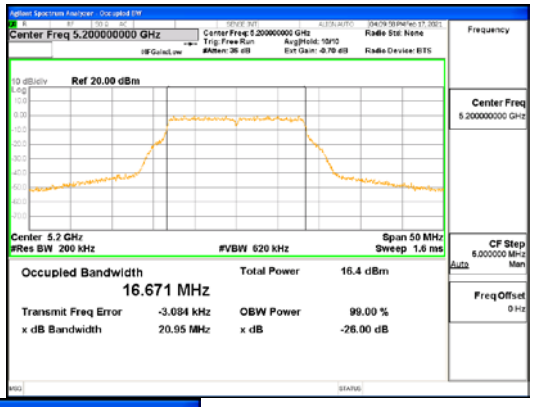


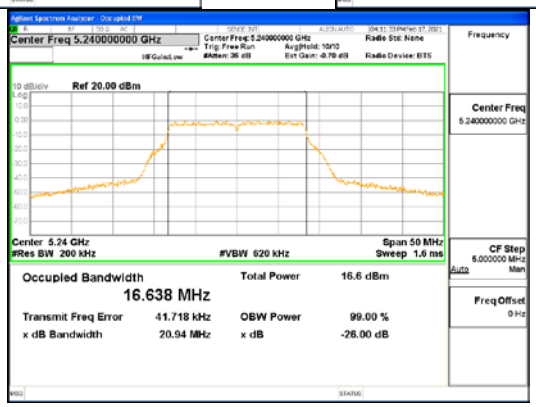




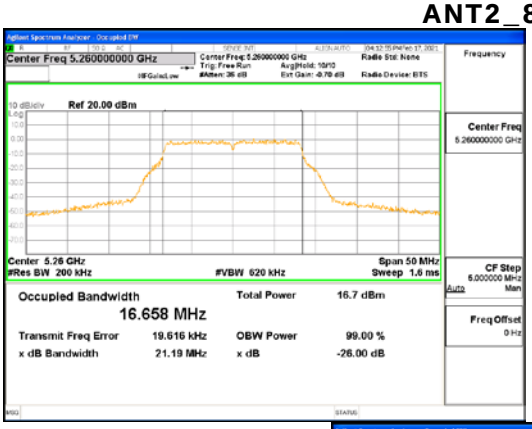
ANT1_802.11a_UNII 3

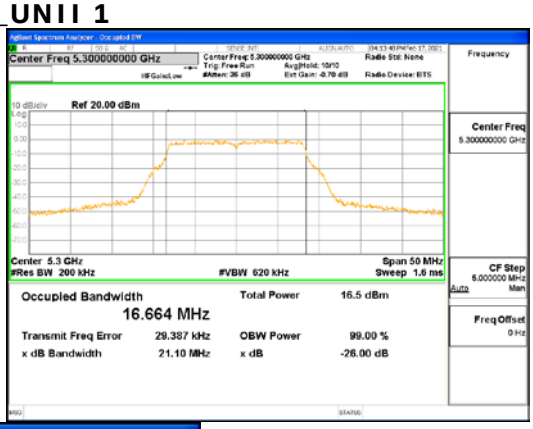


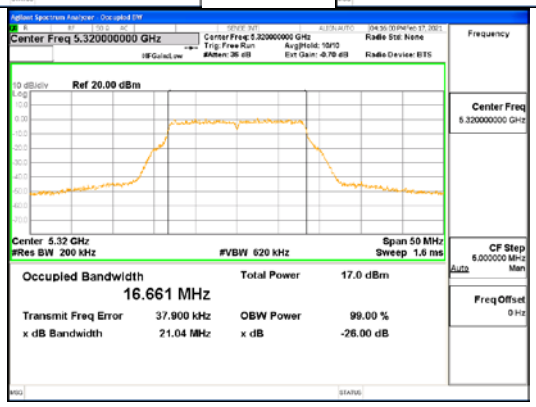




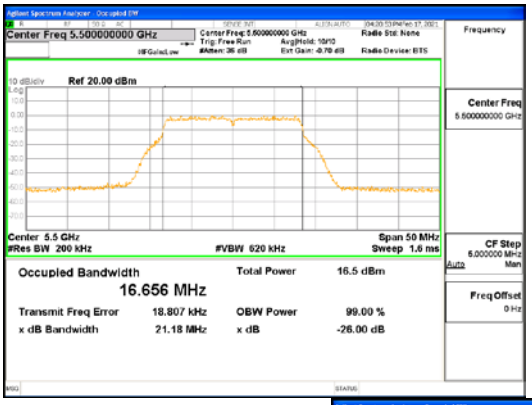
ANT2_802.11a_UNII 1

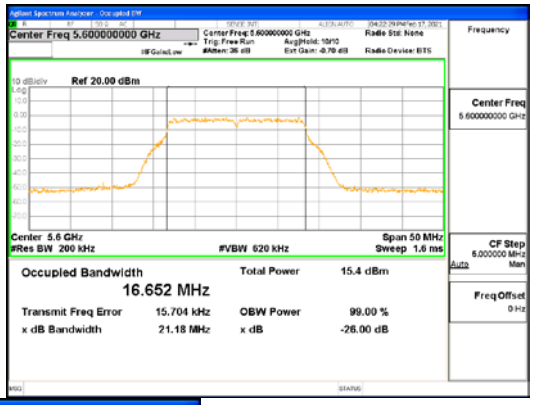


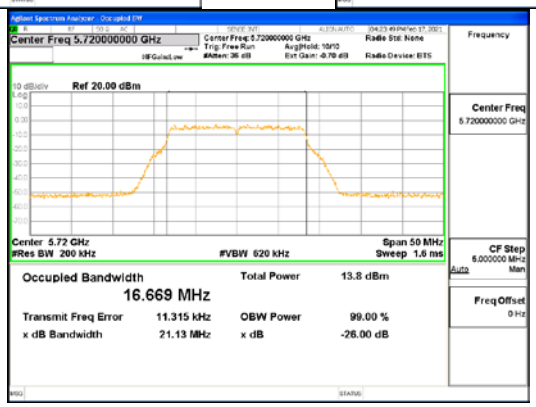




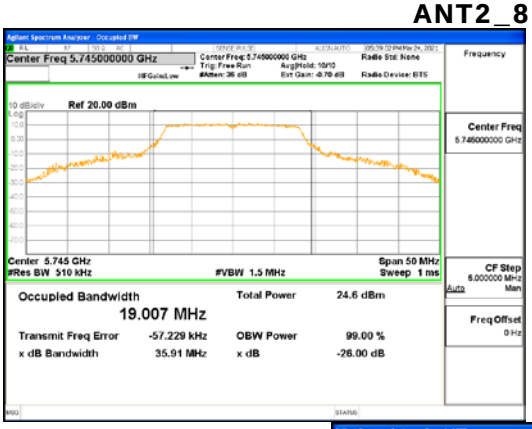
ANT2_802.11a_UNII 2A

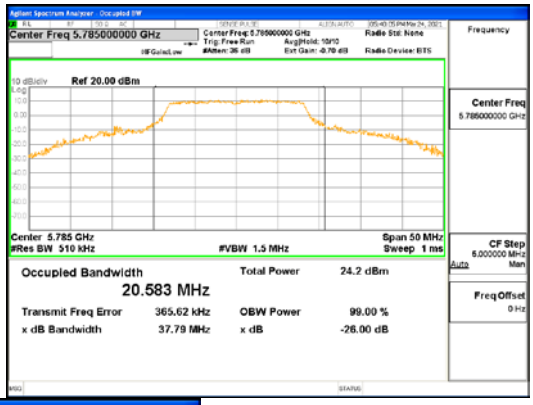


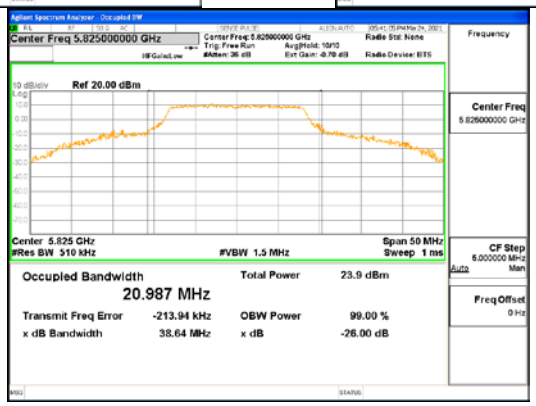




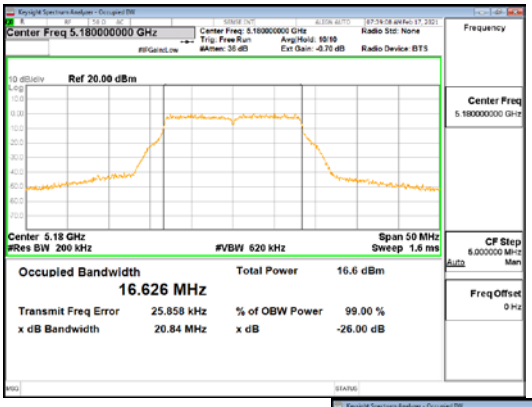
ANT2_802.11a_UNII 2C

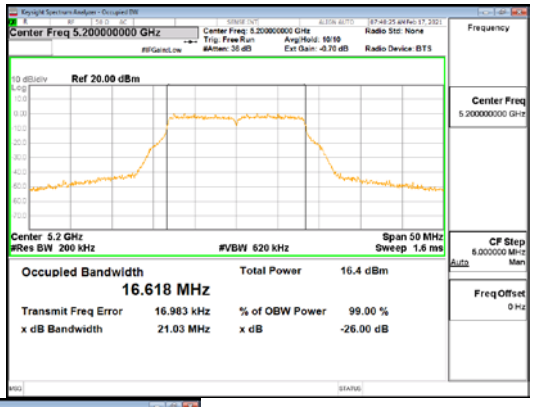


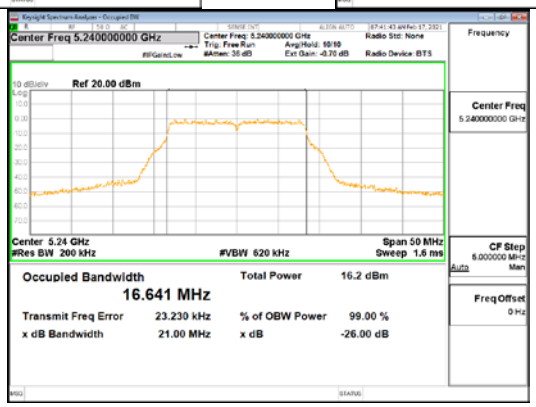




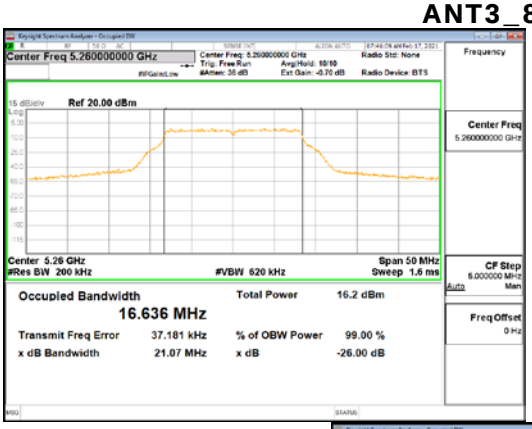
ANT2_802.11a_UNII 3

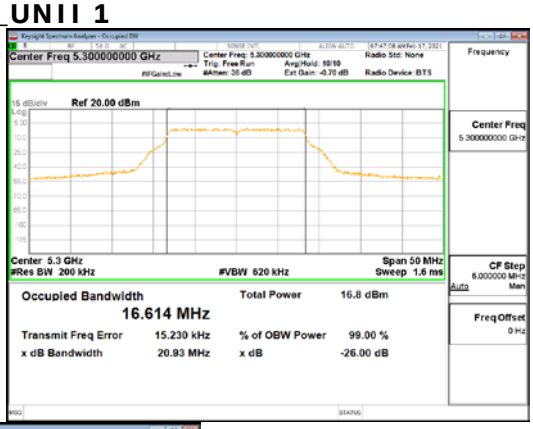


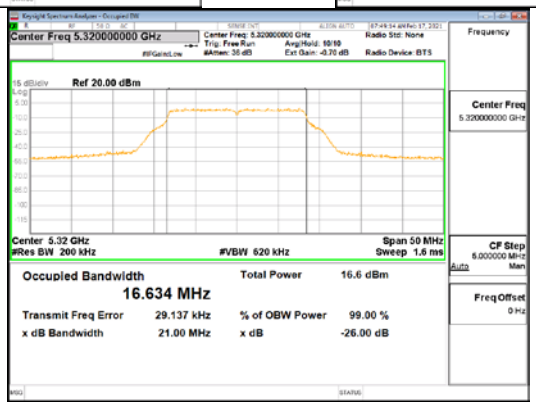




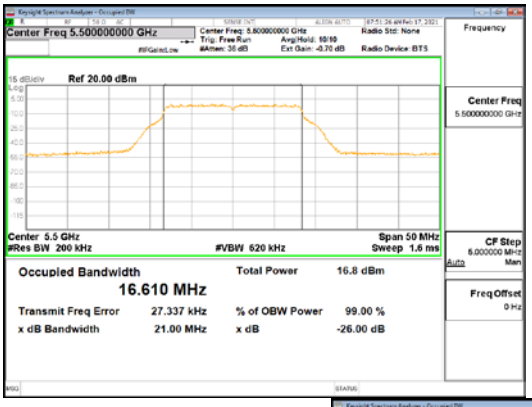
ANT3_802.11a_UNII 1

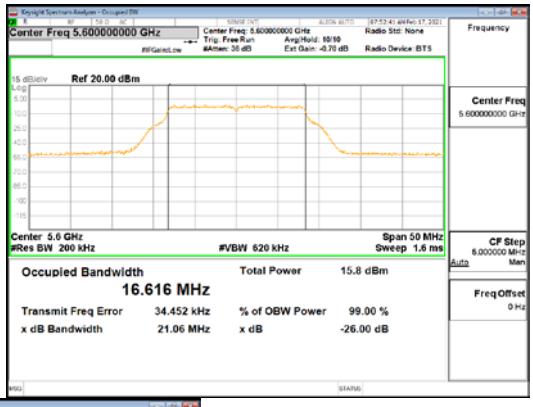


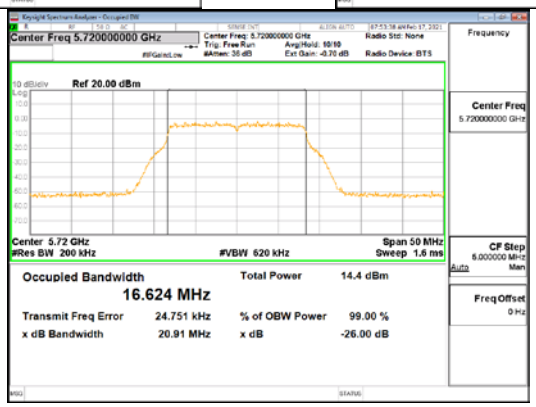




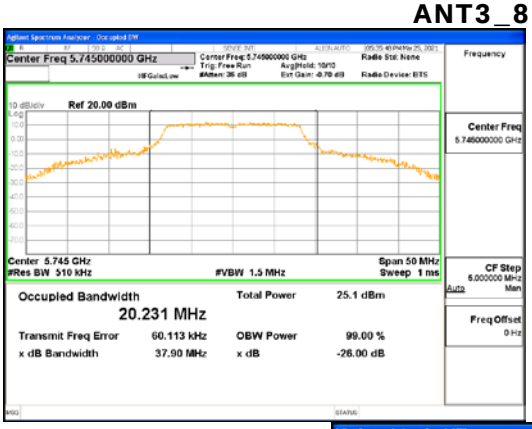
ANT3_802.11a_UNII 2A

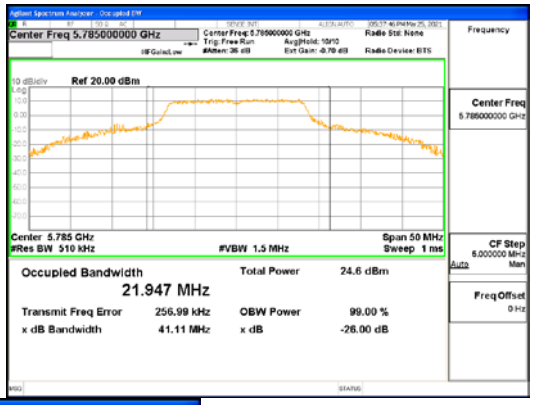


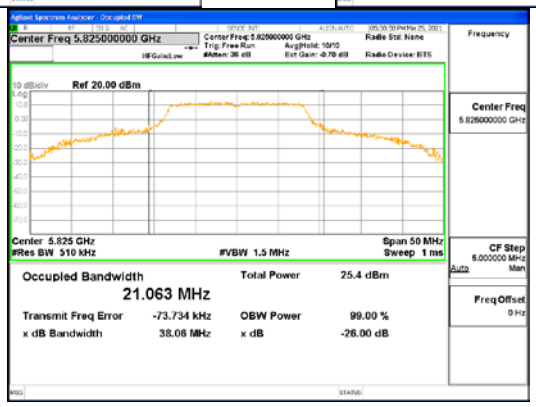




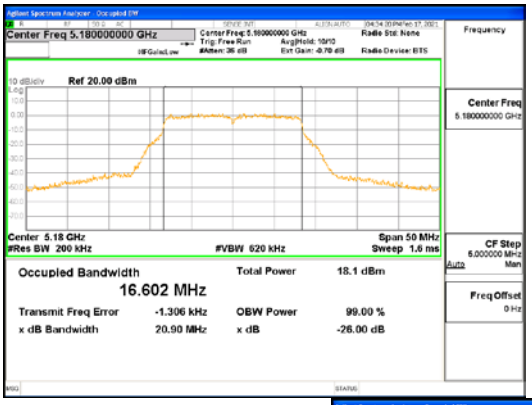
ANT3_802.11a_UNII 2C

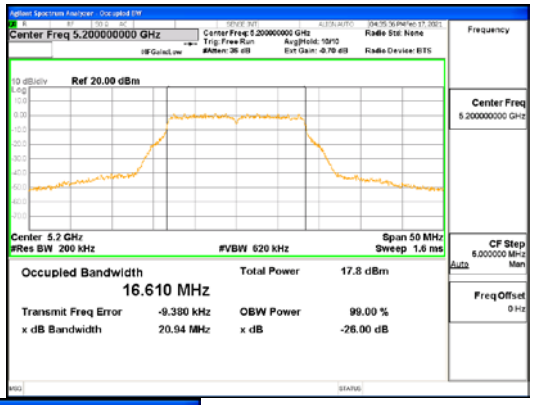


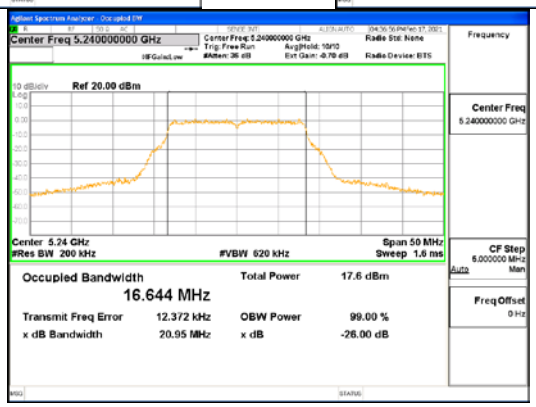




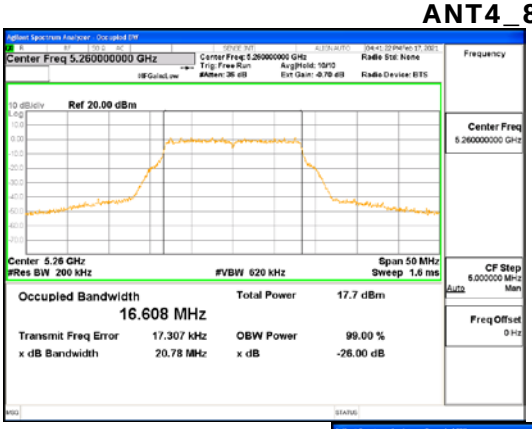
ANT3_802.11a_UNII 3

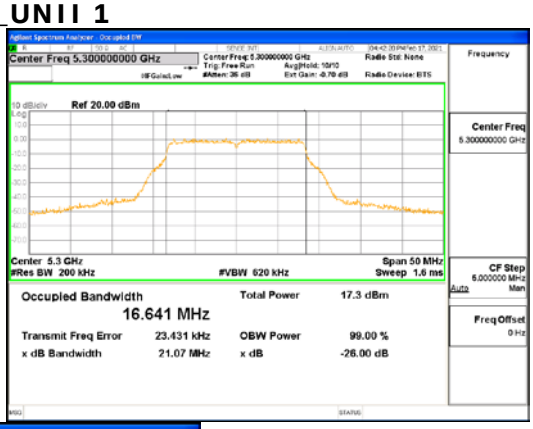


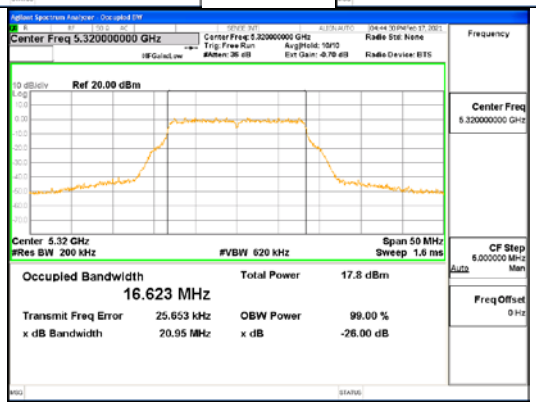




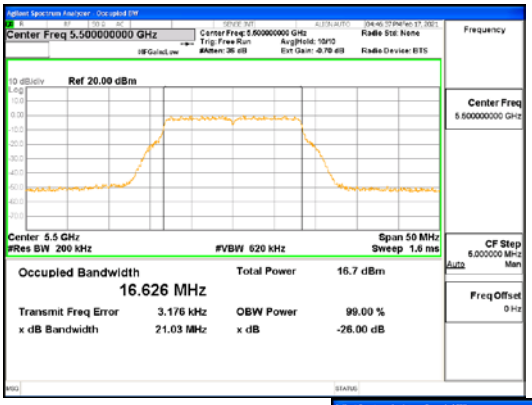
ANT4_802.11a_UNII 1

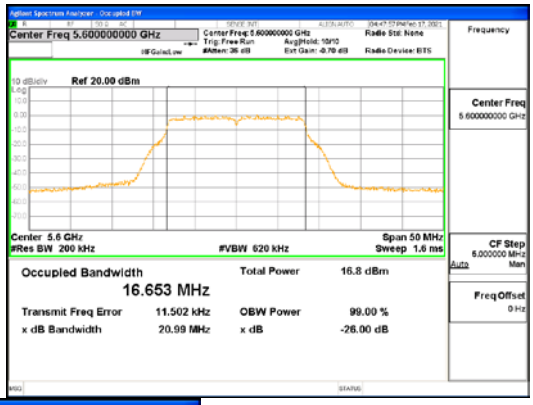


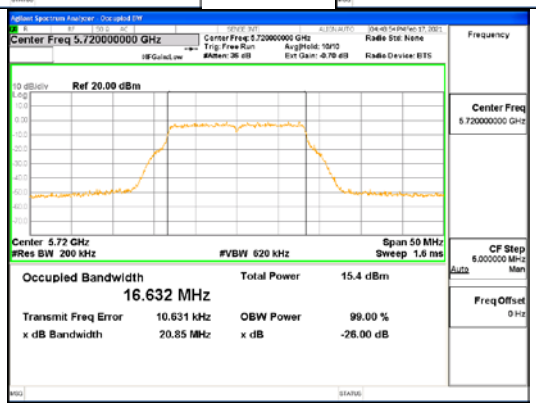




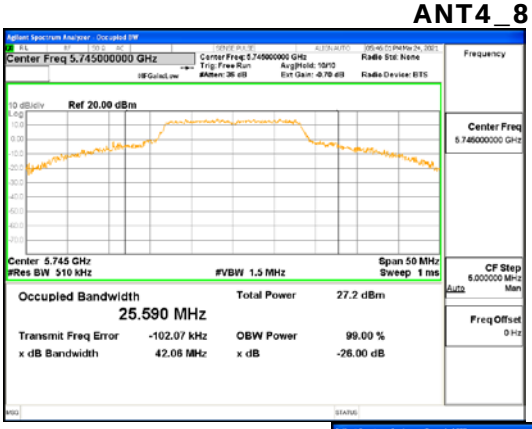
ANT4_802.11a_UNII 2A

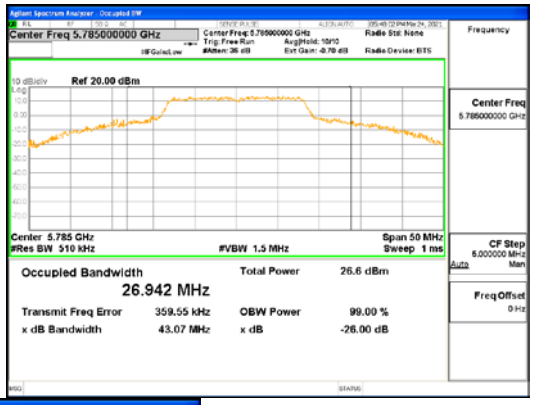


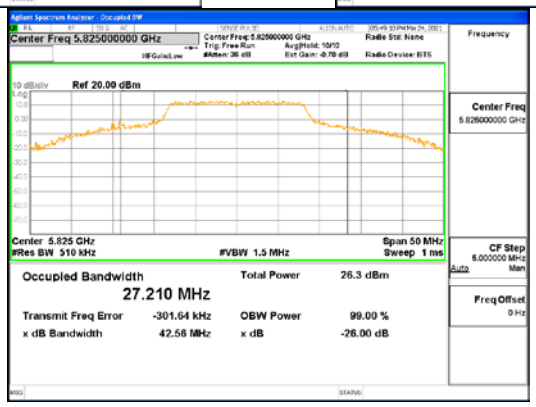




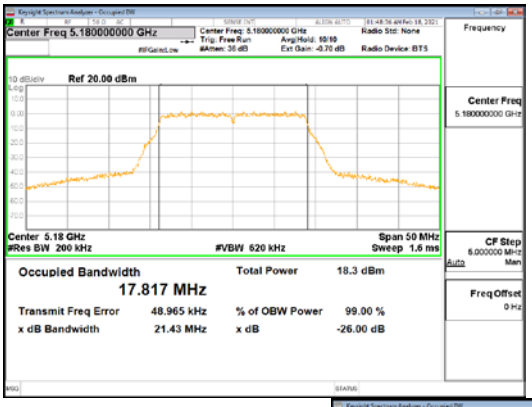
ANT4_802.11a_UNII 2C

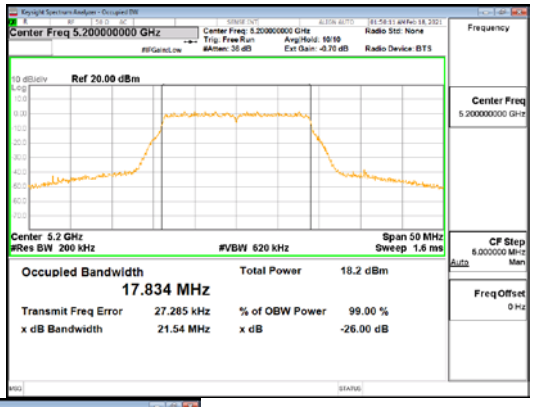


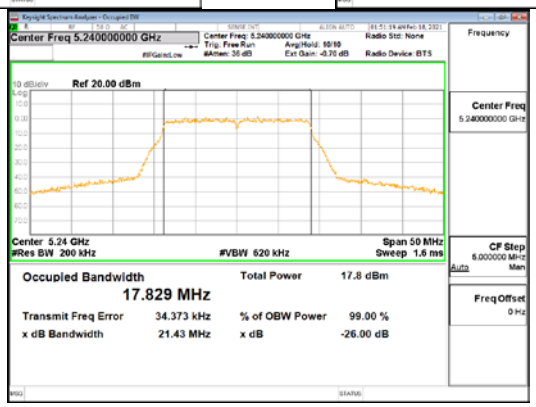




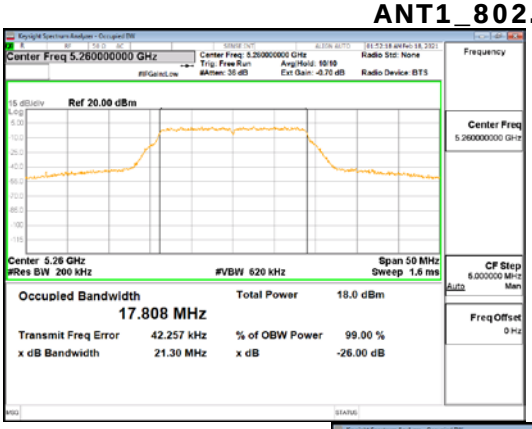
ANT4_802.11a_UNII 3

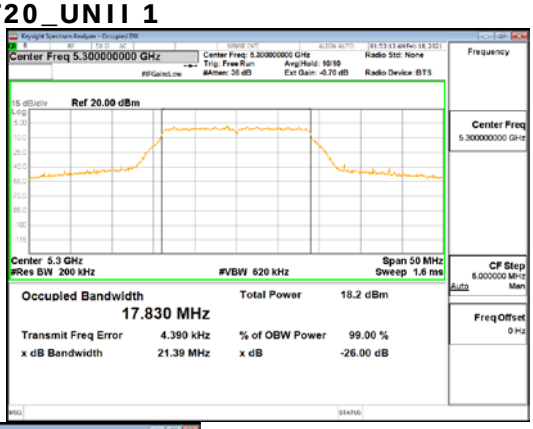


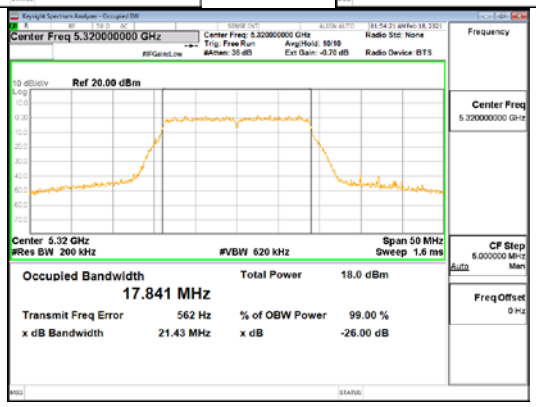




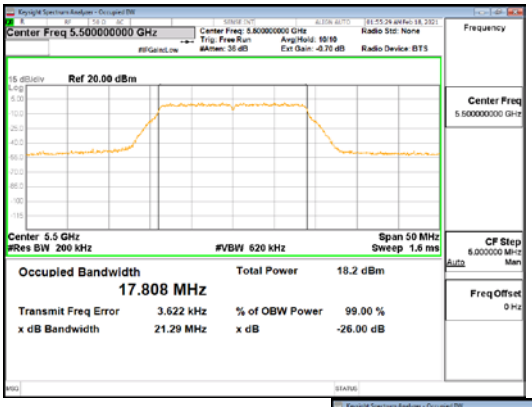
ANT1_802.11n_HT20_UNII 1

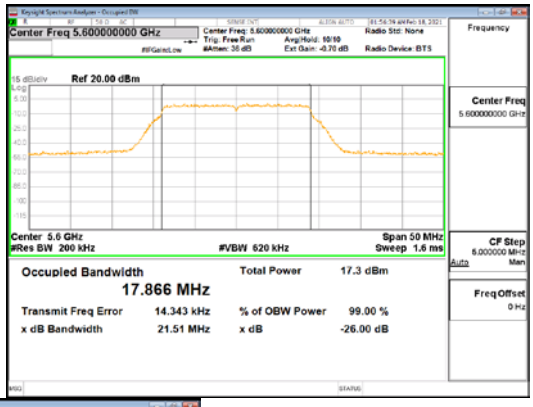


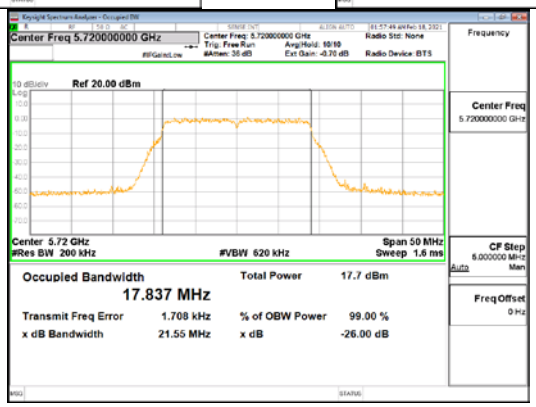




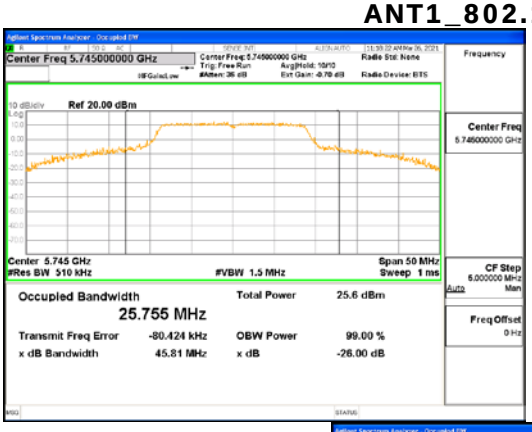
ANT1_802.11n_HT20_UNII 2A

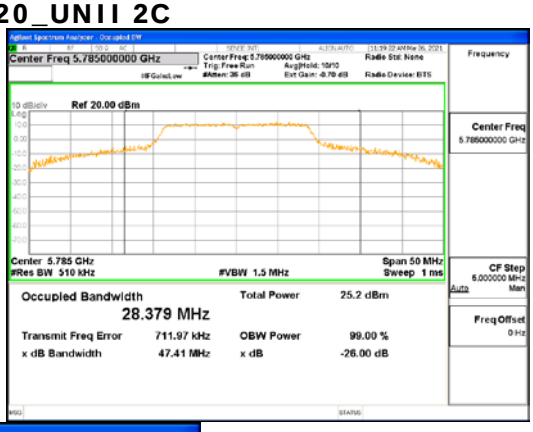


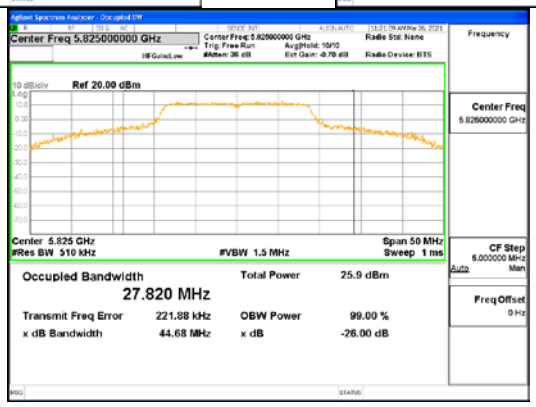




ANT1_802.11n_HT20_UNII 2C







ANT1_802.11n_HT20_UNII 3