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-2023-00952

1. Applicant

◦ Name : Samsung Electronics Co Ltd

◦ Address : 19 Chapin Rd, Building D. Pine Brook, New Jersey, United States

◦ Date of Receipt : 2023-03-20

2. Manufacturer

◦ Name : Samsung Electronics Co., Ltd.

◦ Address : 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea

3. Factory

◦ Name #1: CHEMTRONICS CO.,LTD.

◦ Address #1: 35, Buk-ri, Namsa-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea

◦ Name #2: Chengdu Xuguang Technology Co., Ltd.

◦ Address #2: No.86 2nd Section, Park Road, Longquanyi District, Chengdu City, Sichuan Province, P.R.China

◦ Name #3: CHEMTROVINA COMPANY LIMITED

◦ Address #3: Nhon Trach 2 - Loc Khang IZ, Hiep Phuoc Town, Nhon Trach District, Dong Nai Province, Vietnam

4. Use of Report : For FCC Conformance

5. Test Sample / Model: Wi-Fi/BT Transceiver / WCC940M

6. Date of Test : 2023-03-21 to 2023-05-09

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

8. Testing Environment: Temp.: (23 ± 1) ℃, Humidity: (28 ± 3) % R.H.

9. Test Results : Compliance

10. Location of Test : ☒ Permanent Testing Lab ☐ On Site Testing
(Address : (Unhak-Dong) 5, Dongbu-ro 221beon-gil, Cheoin-gu, Yong-in-si, Gyeonggi-do, Korea)

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

Remark. This report is not related to KOLAS accreditation and relevant regulation.

2023-05-10

CTK Co., Ltd.

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 REVISION HISTORY

Date	Revision	Page No
2023-05-10	Issued (CTK-2023-00952)	all

CONTENTS

1. General Product Description

1.1 Applicant Information

Company	Samsung Electronics Co., Ltd.
Contact Point	129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16677, Republic of Korea
Contact Person	Name : Minhyung Cho E-mail : mh719.cho@samsung.com Tel : +82-31-277-2688 Fax : -

1.2 Product Information

FCC ID	A3LWCC940M	
Product Description	Wi-Fi/BT Transceiver	
Model name	WCC940M	
Variant Model name	-	
Device Type	Indoor Client	
Operating Frequency	UNII 5	20 MHz_BW : 5 955 MHz – 6 415 MHz 40 MHz_BW : 5 965 MHz – 6 405 MHz 80 MHz_BW : 5 985 MHz – 6 385 MHz
	UNII 6	20 MHz_BW : 6 435 MHz – 6 515 MHz 40 MHz_BW : 6 445 MHz – 6 485 MHz 80 MHz_BW : 6 465 MHz
	UNII 7	20 MHz_BW : 6 535 MHz – 6 855 MHz 40 MHz_BW : 6 525 MHz – 6 845 MHz 80 MHz_BW : 6 545 MHz – 6 865 MHz
	UNII 8	20 MHz_BW : 6 875 MHz – 7 115 MHz 40 MHz_BW : 6 885 MHz – 7 085 MHz 80 MHz_BW : 6 945 MHz – 7 025 MHz
RF Output Power	802.11a : 8.98 dBm/7.91 mW (EIRP) 802.11ax_HE20 : 7.65 dBm/5.82 mW (EIRP) 802.11ax_HE40 : 9.58 dBm/9.08 mW (EIRP) 802.11ax_HE80 : 13.86 dBm/24.32 mW (EIRP)	
Antenna Specification	Antenna type : Chip Antenna Peak Gain : 1.27 dBi (ANT0), -0.04 dBi (ANT1)	
Antenna Configurations	802.11a : SISO(ANT0, ANT1) 802.11ax : SISO(ANT0, ANT1), MIMO(ANT0+ANT1)	
Type of Modulation	802.11a : OFDM 802.11ax : OFDMA	
Data Rate	802.11a : 54 / 48 / 36 / 24 / 18 / 12 / 9 / 6 Mbps 802.11ax : up to 1 200 Mbps	
Power Source	DC 5 V	
Hardware Rev	V1.0	
Software Rev	FC 3	

- RF Power setting in Test SW

Mode		Frequency Band	Power Setting Value
802.11a		UNII 5	8.0
		UNII 6	9.0
		UNII 7	7.0
		UNII 8	5.0
802.11ax _HE20	26T	UNII 5	-6.0
		UNII 6	-5.5
		UNII 7	-6.0
		UNII 8	-6.0 (Only 7 115 MHz : -8.0)
	52T	UNII 5	-4.5
		UNII 6	-4.0
		UNII 7	-4.5
		UNII 8	-5.0
	106T	UNII 5	-2.0
		UNII 6	-1.0
		UNII 7	-1.5
		UNII 8	-1.5
	242T	UNII 5	1.0
		UNII 6	2.0
		UNII 7	1.5
		UNII 8	1.0
802.11ax _HE40	26T	UNII 5	-6.0
		UNII 6	-5.5
		UNII 7	-6.0
		UNII 8	-5.5
	52T	UNII 5	-4.5
		UNII 6	-4.0
		UNII 7	-4.5
		UNII 8	-4.5
	106T	UNII 5	-2.0
		UNII 6	-1.0
		UNII 7	-1.5
		UNII 8	-1.5
	242T	UNII 5	1.5
		UNII 6	2.0
		UNII 7	2.0
		UNII 8	1.5
	484T	UNII 5	4.0
		UNII 6	5.0
		UNII 7	5.0
		UNII 8	4.0
802.11ax _HE80	26T	UNII 5	-6.0
		UNII 6	-5.5
		UNII 7	-6.0

		UNII 8	-5.5
	52T	UNII 5	-4.5
		UNII 6	-4.0
		UNII 7	-4.5
		UNII 8	-4.5
	106T	UNII 5	-2.0
		UNII 6	-1.0
		UNII 7	-1.5
		UNII 8	-1.5
	242T	UNII 5	1.5
		UNII 6	2.0
		UNII 7	2.0
		UNII 8	1.5
	484T	UNII 5	5.0
		UNII 6	6.0
		UNII 7	6.0
		UNII 8	5.0
	996T	UNII 5	8.0
		UNII 6	9.0
		UNII 7	9.0
		UNII 8	7.0

1.3 Peripheral Devices

Device	Manufacturer	Model No.	Serial No.
Note Computer	HP	15-bs563TU	CND7253R6N
AC/DC Adapter	HP	HSTNN-LA40	-
Note Computer	Samsung Electronics Co., Ltd.	NT-RC530-WS55	HPFG91EC300116B
AC/DC Adapter	Samsung Electronics Co., Ltd.	PA-1600-66	-
Note Computer	Samsung Electronics Co., Ltd.	NT751BBC	4LMA9FGNC00112B
AC/DC Adapter	Samsung Electronics Co., Ltd.	GST40A12	-
AXE5400 Tri-Band Wi-Fi 6E Router	TP-Link Corporation Limited	Archer AXE75	22221J6000455
AC/DC Adapter	Dong Guan City Gang Qi Electronic Co., Ltd	GQ48-120300-AK	-

1.4 Model Differences

Not applicable

2. Accreditations

2.1 Laboratory Accreditations and Listings

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

2.2 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(a)(10)	26 dB Bandwidth and 99% Bandwidth	<= 320 MHz	C	Conducted
15.407(a)(8)	Conducted Output Power	< 24 dBm EIRP	C	
15.407(a)(8)	Power Spectral Density	< -1 dBm/MHz EIRP	C	
15.407(b)(7)	In-Band Emissions	a. Suppressed by 20 dB at 1MHz outside of the channel edge b. Suppressed by 28 dB at one channel bandwidth from the channel center. c. Suppressed by 40 dB at one-and one-half times the channel bandwidth from the channel center.	C	
15.407(g)	Frequency Stability	NA	C	
15.407(d)(6)	Contention Based Protocol	Detect co-channel energe with 90% or greater certainty	C	
15.407 (b)(6)	Undesirable emission	< -27 dBm/MHz EIRP	C	Radiated
15.205, 15.407 (b)(9),(10)	Radiated Spurious Emission	15.209(a)	C	
15.407 (b)(9)	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.987594, 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.

The Output power and Power Spectral Density for the 802.11 ax mode were investigated between all different tones, and we found that the highest tone had the highest output power and lowest tone had the highest PSD readings. Therefore, full testing was performed on both the highest and lowest tones.

Test Frequency & Bandwidth

- 802.11a

	Lowest channel	Middle channel	Highest channel
UNII 5	5 975 MHz	6 215 MHz	6 375 MHz
UNII 6	6 455 MHz	-	-
UNII 7	6 535 MHz	6 695 MHz	6 855 MHz
UNII 8	6 935 MHz	7 105 MHz	7 095 MHz

- 802.11ax_HE20

	Lowest channel	Middle channel	Highest1 channel	Highest2 channel
UNII 5	5 955 MHz	6 175 MHz	6 415 MHz	-
UNII 6	6 435 MHz	6 475 MHz	6 515 MHz	-
UNII 7	6 535 MHz	6 695 MHz	6 855 MHz	-
UNII 8	6 875 MHz	6 995 MHz	7 095 MHz	7 115 MHz

- 802.11ax_HE40

	Lowest channel	Middle channel	Highest channel
UNII 5	5 965 MHz	6 165 MHz	6 405 MHz
UNII 6	6 445 MHz	-	6 485 MHz
UNII 7	6 525 MHz	6 685 MHz	6 845 MHz
UNII 8	6 885 MHz	7 005 MHz	7 085 MHz

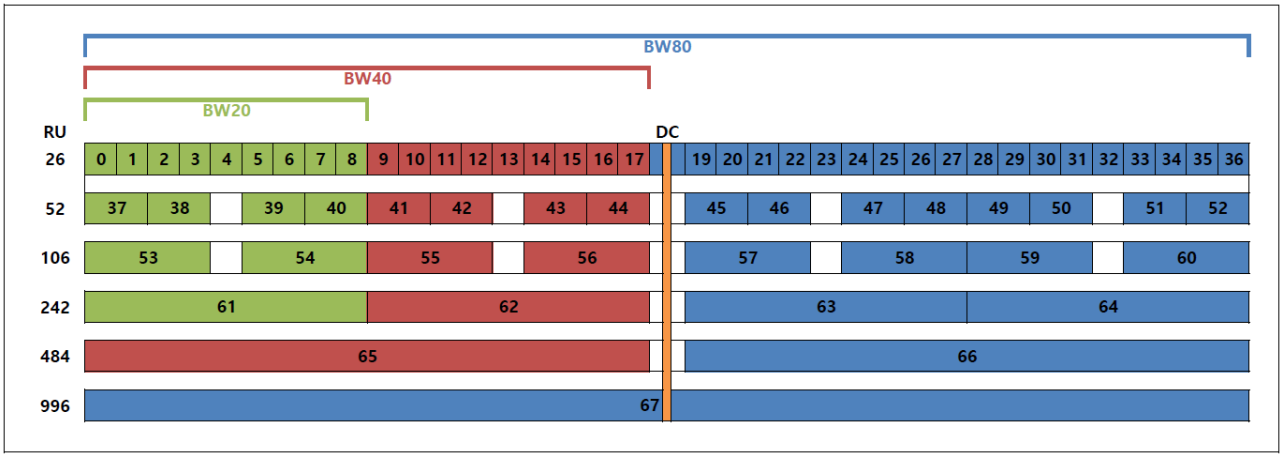
- 802.11ax_HE80

	Lowest channel	Middle channel	Highest channel
UNII 5	5 985 MHz	6 145 MHz	6 385 MHz
UNII 6	6 465 MHz	-	-
UNII 7	6 545 MHz	6 705 MHz	6 865 MHz
UNII 8	6 945 MHz	-	7 025 MHz

Test mode & Worst case

Test mode	Modulation	Data rate	Duty Cycle	Duty Cycle Factor
802.11a	OFDM	6 Mbps	97.1 %	0.13 dB
802.11ax_HE20_26T	OFDMA	MCS 0	95.2 %	0.21 dB
802.11ax_HE20_52T			95.0 %	0.22 dB
802.11ax_HE20_106T			94.8 %	0.23 dB
802.11ax_HE20_242T			93.9 %	0.27 dB
802.11ax_HE40_26T			95.3 %	0.21 dB
802.11ax_HE40_52T			95.1 %	0.22 dB
802.11ax_HE40_106T			94.8 %	0.23 dB
802.11ax_HE40_242T			94.2 %	0.26 dB
802.11ax HE40 484T			94.0 %	0.27 dB
802.11ax HE80 26T			95.3 %	0.21 dB
802.11ax HE80 52T			95.1 %	0.22 dB
802.11ax HE80 106T			94.8 %	0.23 dB
802.11ax HE80 242T			93.9 %	0.27 dB
802.11ax HE80 484T			93.8 %	0.28 dB
802.11ax HE80 996T			93.6 %	0.29 dB

802.11ax RU Locations



Test RU Index for Tones

Mode	Tones	RU Index	
802.11ax_HE20	26T	Low	0
		Mid	4
		High	8
	52T	Low	37
		Mid	39
		High	40
	106T	Low	53
		Mid	-
		High	54
	242T / SU	61 / NA	61 / NA
802.11ax_HE40	26T	Low	0
		Mid	9
		High	17
	52T	Low	37
		Mid	41
		High	44
	106T	Low	53
		Mid	55
		High	56
	242T	Low	61
		Mid	-
		High	62
	484T / SU	65 / NA	65 / NA
802.11ax_HE80	26T	Low	0
		Mid	18
		High	36
	52T	Low	37
		Mid	45
		High	52
	106T	Low	53
		Mid	57
		High	60
	242T	Low	61
		Mid	63
		High	64
	484T	Low	65
		Mid	-
		High	66
	996T / SU	67 / NA	67 / NA

Full RU(Resource Unit) mode and SU(Single Unit) mode have no difference in physical waveform. This Report has been reported the Full RU(Resource Unit) mode with worst output power.

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 (C.L.: Approx. 95 %, k = 2)
Power Spectral Density	1.5 dB (C.L.: Approx. 95 %, k = 2)
Occupied Bandwidth	0.1 MHz (C.L.: Approx. 95 %, k = 2)
Unwanted Emission(conducted)	3.0 dB (C.L.: Approx. 95 %, k = 2)
Radiated Emissions (f ≤ 1 GHz)	3.88 dB (C.L.: Approx. 95 %, k = 2)
Radiated Emissions (f > 1 GHz)	4.50 dB (C.L.: Approx. 95 %, k = 2)
Line Conducted Emission	1.94 dB (C.L.: Approx. 95 %, k = 2)

3.5 Test Software

Conducted Test	Ics Pro Ver. 6.0.3
Radiated Test	EP5RE Ver. 6.0.1.0, ES10 Ver. 10.001
Line Conducted Test	EMC32 Ver. 10.50.00

4. Technical Characteristic Test

4.1 26 dB Bandwidth and 99% Bandwidth

Test Procedures

KDB 987594 – Section C
KDB 789033 – Section C.1
ANSI C63.10-2013 - Section 12.4.1

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 987594 – Section D
KDB 789033 – Section D
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:

<= 320 MHz

Test Data

ANT0

	26 dB Bandwidth and 99 % Bandwidth (MHz)	
Mode	802.11a	
Frequency	26 dB	99 %
5 975 MHz	24.33	16.73
6 215 MHz	23.38	16.77
6 375 MHz	24.23	16.79
6 455 MHz	23.67	16.77
6 535 MHz	23.87	16.78
6 695 MHz	24.52	16.75
6 855 MHz	24.11	16.75
6 935 MHz	23.39	16.81
7 105 MHz	23.13	16.76
7 095 MHz	23.67	16.77
Measurement uncertainty	± 0.1 MHz	

	26 dB Bandwidth and 99 % Bandwidth (MHz)					
Mode	802.11ax_HE20_26T					
RU Index	Low		Mid		High	
Frequency	26 dB	99 %	26 dB	99 %	26 dB	99 %
5 955 MHz	20.59	18.58	18.26	17.06	20.59	18.45
6 175 MHz	20.62	18.66	18.19	16.98	20.46	18.54
6 415 MHz	20.59	18.54	18.16	17.02	20.18	18.48
6 435 MHz	20.61	18.71	18.25	17.06	20.60	18.55
6 475 MHz	20.37	18.49	18.18	17.04	20.50	18.48
6 515 MHz	20.72	18.63	18.25	17.04	20.25	18.43
6 535 MHz	20.76	18.70	18.18	17.06	20.13	18.50
6 695 MHz	20.76	18.64	18.26	17.04	20.33	18.59
6 855 MHz	20.44	18.67	18.10	17.03	20.28	18.46
6 875 MHz	20.90	18.59	18.26	17.07	20.28	18.55
6 995 MHz	21.17	18.75	18.18	17.05	20.13	18.47
7 095 MHz	20.75	18.60	18.24	17.07	20.58	18.57
7 115 MHz	20.96	18.60	18.09	16.99	20.57	18.55
Measurement uncertainty	± 0.1 MHz					

	26 dB Bandwidth and 99 % Bandwidth (MHz)	
Mode	802.11ax_HE20_242T	
Frequency	26 dB	99 %
5 955 MHz	23.08	19.01
6 175 MHz	23.09	18.99
6 415 MHz	22.77	18.98
6 435 MHz	24.14	19.00
6 475 MHz	29.03	18.99
6 515 MHz	26.11	18.96
6 535 MHz	23.38	19.00
6 695 MHz	23.05	18.99
6 855 MHz	22.36	19.02
6 875 MHz	22.98	19.03
6 995 MHz	26.69	19.01
7 095 MHz	25.79	19.01
7 115 MHz	23.56	19.02
Measurement uncertainty	± 0.1 MHz	

	26 dB Bandwidth and 99 % Bandwidth (MHz)					
Mode	802.11ax_HE40_26T					
RU Index	Low		Mid		High	
Frequency	26 dB	99 %	26 dB	99 %	26 dB	99 %
5 965 MHz	19.12	17.92	22.19	20.11	19.36	17.91
6 165 MHz	19.11	17.87	21.93	20.25	19.28	17.94
6 405 MHz	19.20	17.87	21.56	20.12	19.25	18.01
6 445 MHz	19.17	17.84	22.17	20.18	19.17	17.89
6 485 MHz	19.06	17.90	22.17	20.38	19.22	17.91
6 525 MHz	19.13	17.91	22.28	20.17	19.39	17.95
6 685 MHz	19.29	17.90	22.02	20.19	19.36	17.95
6 845 MHz	19.33	17.90	22.48	20.42	19.35	17.97
6 885 MHz	19.21	17.92	22.50	20.03	19.24	17.94
7 005 MHz	19.27	17.89	22.53	20.52	19.36	18.01
7 085 MHz	19.31	17.83	21.99	20.17	19.31	17.95
Measurement uncertainty	± 0.1 MHz					

	26 dB Bandwidth and 99 % Bandwidth (MHz)	
Mode	802.11ax_HE40_484T	
Frequency	26 dB	99 %
5 965 MHz	39.40	37.44
6 165 MHz	39.46	37.47
6 405 MHz	39.42	37.48
6 445 MHz	39.39	37.53
6 485 MHz	39.45	37.49
6 525 MHz	39.40	37.53
6 685 MHz	39.40	37.54
6 845 MHz	39.39	37.50
6 885 MHz	39.49	37.39
7 005 MHz	39.31	37.39
7 085 MHz	39.42	37.42
Measurement uncertainty	± 0.1 MHz	

	26 dB Bandwidth and 99 % Bandwidth (MHz)					
Mode	802.11ax_HE80_26T					
RU Index	Low		Mid		High	
Frequency	26 dB	99 %	26 dB	99 %	26 dB	99 %
5 985 MHz	20.36	18.57	23.51	21.01	20.60	18.52
6 145 MHz	20.10	18.61	24.11	20.88	20.30	18.94
6 385 MHz	20.16	18.35	23.91	20.91	20.31	18.77
6 465 MHz	20.04	18.55	22.49	21.02	20.37	18.69
6 545 MHz	19.95	18.48	22.67	20.53	20.27	18.86
6 705 MHz	20.58	18.64	21.46	20.15	20.48	18.77
6 865 MHz	20.29	18.47	22.03	20.63	19.98	18.73
6 945 MHz	20.66	18.58	23.49	20.69	20.67	18.91
7 025 MHz	20.34	18.42	23.26	21.50	20.95	18.84
Measurement uncertainty	± 0.1 MHz					

	26 dB Bandwidth and 99 % Bandwidth (MHz)	
Mode	802.11ax_HE80_996T	
Frequency	26 dB	99 %
5 985 MHz	79.93	76.79
6 145 MHz	80.09	76.42
6 385 MHz	79.94	76.79
6 465 MHz	80.15	76.89
6 545 MHz	79.89	76.83
6 705 MHz	79.98	76.79
6 865 MHz	79.92	76.65
6 945 MHz	80.17	76.83
7 025 MHz	80.15	76.94
Measurement uncertainty	± 0.1 MHz	

ANT1

	26 dB Bandwidth and 99 % Bandwidth (MHz)	
Mode	802.11a	
Frequency	26 dB	99 %
5 975 MHz	23.53	16.78
6 215 MHz	23.71	16.76
6 375 MHz	23.61	16.78
6 455 MHz	23.98	16.73
6 535 MHz	23.17	16.73
6 695 MHz	23.00	16.77
6 855 MHz	23.11	16.71
6 935 MHz	23.90	16.74
7 105 MHz	23.42	16.74
7 095 MHz	24.58	16.79
Measurement uncertainty	± 0.1 MHz	

	26 dB Bandwidth and 99 % Bandwidth (MHz)					
Mode	802.11ax_HE20_26T					
RU Index	Low		Mid		High	
Frequency	26 dB	99 %	26 dB	99 %	26 dB	99 %
5 955 MHz	19.77	18.37	18.11	17.07	20.07	18.36
6 175 MHz	20.07	18.42	18.09	17.11	20.08	18.47
6 415 MHz	20.15	18.48	18.07	17.07	20.65	18.54
6 435 MHz	20.29	18.42	18.12	17.07	20.13	18.54
6 475 MHz	20.67	18.55	18.07	17.13	20.18	18.48
6 515 MHz	20.39	18.52	18.08	16.98	19.91	18.43
6 535 MHz	20.07	18.46	18.13	17.07	20.48	18.54
6 695 MHz	19.99	18.4	18.15	17.01	20.09	18.42
6 855 MHz	20.18	18.47	18.02	17.03	20.42	18.46
6 875 MHz	19.86	18.48	18.06	17.03	20.45	18.56
6 995 MHz	20.16	18.54	18.10	17.06	20.24	18.56
7 095 MHz	20.13	18.43	18.07	17.07	20.12	18.50
7 115 MHz	20.32	18.46	18.06	16.96	20.76	18.48
Measurement uncertainty	± 0.1 MHz					

	26 dB Bandwidth and 99 % Bandwidth (MHz)	
Mode	802.11ax_HE20_242T	
Frequency	26 dB	99 %
5 955 MHz	22.63	18.99
6 175 MHz	22.28	18.99
6 415 MHz	23.63	19.01
6 435 MHz	22.99	19.00
6 475 MHz	22.54	18.98
6 515 MHz	22.35	18.96
6 535 MHz	22.61	19.00
6 695 MHz	22.49	19.00
6 855 MHz	22.04	18.99
6 875 MHz	22.64	18.99
6 995 MHz	21.86	18.97
7 095 MHz	23.32	18.99
7 115 MHz	22.99	18.98
Measurement uncertainty	± 0.1 MHz	

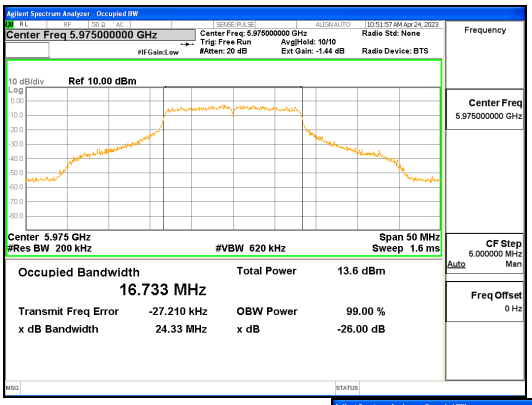
	26 dB Bandwidth and 99 % Bandwidth (MHz)					
Mode	802.11ax_HE40_26T					
RU Index	Low		Mid		High	
Frequency	26 dB	99 %	26 dB	99 %	26 dB	99 %
5 965 MHz	19.03	17.77	22.00	19.76	19.00	17.79
6 165 MHz	19.12	17.84	21.52	19.69	18.97	17.81
6 405 MHz	19.06	17.79	21.79	19.94	19.04	17.85
6 445 MHz	19.18	17.90	21.75	19.93	19.12	17.85
6 485 MHz	19.25	17.85	22.26	19.95	19.05	17.75
6 525 MHz	19.05	17.83	21.66	19.92	19.08	17.84
6 685 MHz	19.20	17.80	21.95	20.00	19.09	17.77
6 845 MHz	19.26	17.90	21.82	19.70	18.99	17.83
6 885 MHz	19.18	17.90	22.02	19.68	19.15	17.73
7 005 MHz	19.36	17.90	22.15	19.75	19.04	17.79
7 085 MHz	19.21	17.83	22.56	19.85	19.02	17.80
Measurement uncertainty	± 0.1 MHz					

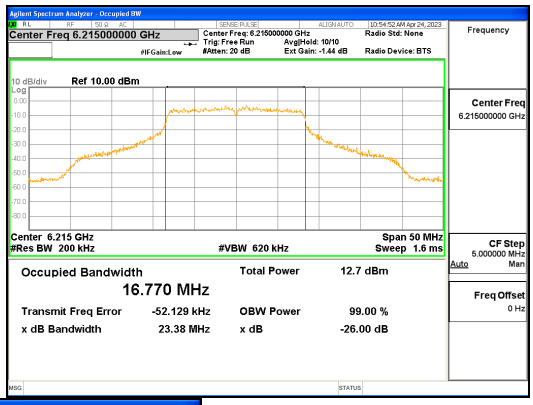
	26 dB Bandwidth and 99 % Bandwidth (MHz)	
Mode	802.11ax_HE40_484T	
Frequency	26 dB	99 %
5 965 MHz	39.40	37.46
6 165 MHz	39.47	37.52
6 405 MHz	39.44	37.50
6 445 MHz	39.29	37.49
6 485 MHz	39.42	37.50
6 525 MHz	39.42	37.50
6 685 MHz	39.37	37.41
6 845 MHz	39.42	37.42
6 885 MHz	39.39	37.43
7 005 MHz	39.46	37.42
7 085 MHz	39.45	37.54
Measurement uncertainty	± 0.1 MHz	

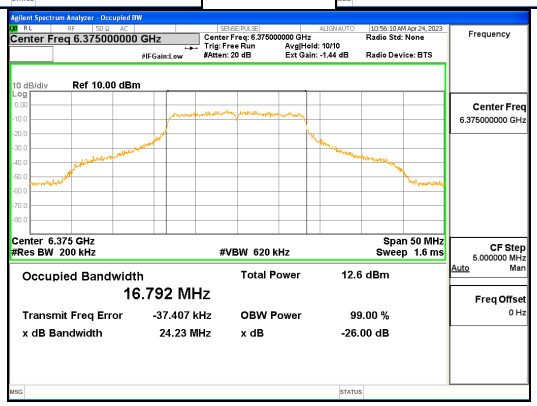
	26 dB Bandwidth and 99 % Bandwidth (MHz)					
Mode	802.11ax_HE80_26T					
RU Index	Low		Mid		High	
Frequency	26 dB	99 %	26 dB	99 %	26 dB	99 %
5 985 MHz	19.91	18.36	23.21	19.91	19.50	18.22
6 145 MHz	19.87	18.37	22.62	20.06	19.82	18.28
6 385 MHz	20.40	18.35	21.77	19.92	19.53	18.23
6 465 MHz	19.77	18.39	22.19	19.94	19.57	18.28
6 545 MHz	20.07	18.37	22.06	20.09	19.86	18.34
6 705 MHz	20.42	18.44	22.73	20.26	19.67	18.22
6 865 MHz	19.65	18.33	22.29	20.61	19.78	18.37
6 945 MHz	20.03	18.32	22.31	20.33	19.61	18.34
7 025 MHz	20.31	18.31	22.44	20.20	19.52	18.38
Measurement uncertainty	± 0.1 MHz					

	26 dB Bandwidth and 99 % Bandwidth (MHz)	
Mode	802.11ax_HE80_996T	
Frequency	26 dB	99 %
5 985 MHz	79.98	76.80
6 145 MHz	79.89	76.70
6 385 MHz	79.87	76.85
6 465 MHz	79.93	76.83
6 545 MHz	79.86	76.83
6 705 MHz	79.84	76.68
6 865 MHz	79.97	76.82
6 945 MHz	80.04	76.74
7 025 MHz	79.77	76.88
Measurement uncertainty	± 0.1 MHz	

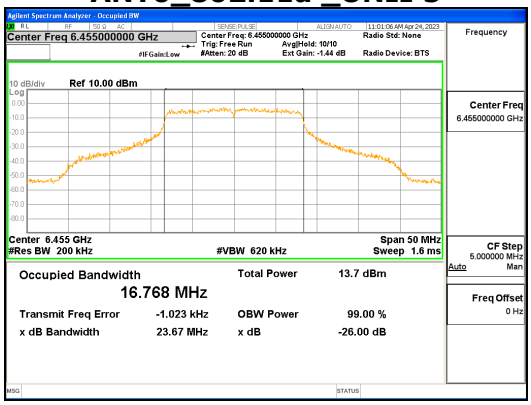
See next pages for actual measured spectrum plots.



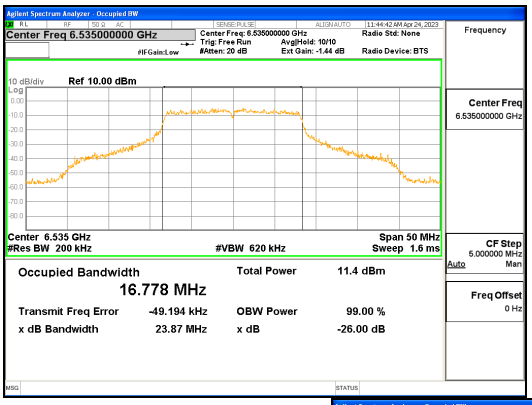


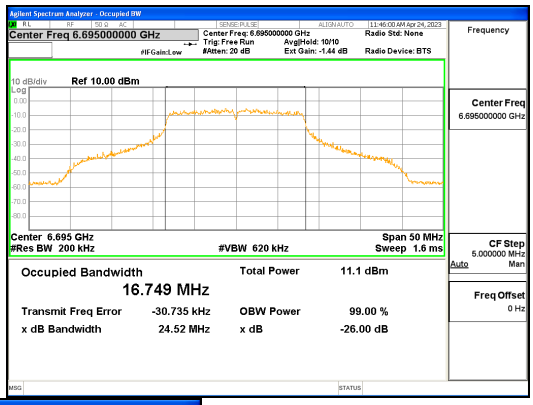


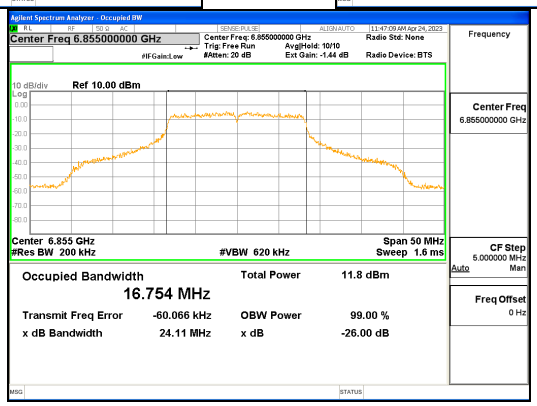
ANT0_802.11a _UNII 5



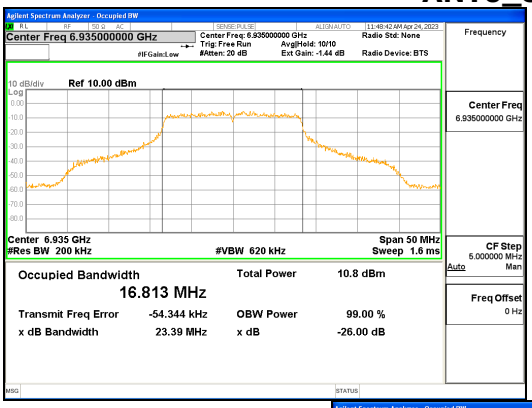
ANT0_802.11a_UNII 6

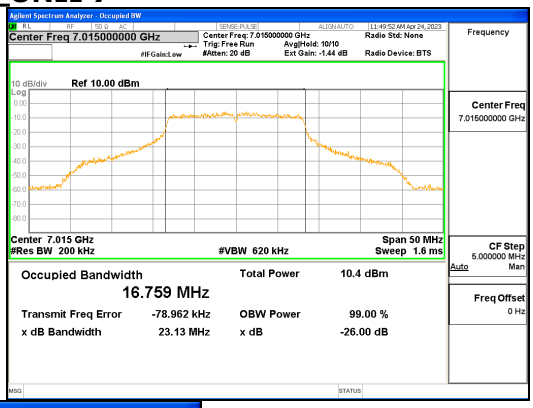


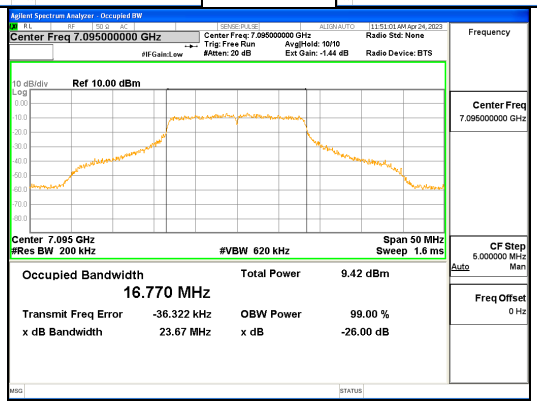




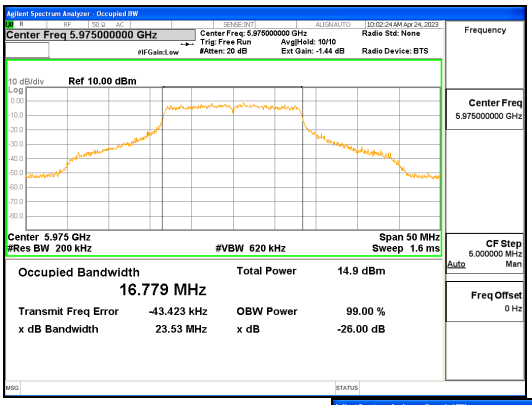
ANT0_802.11a_UNII 7

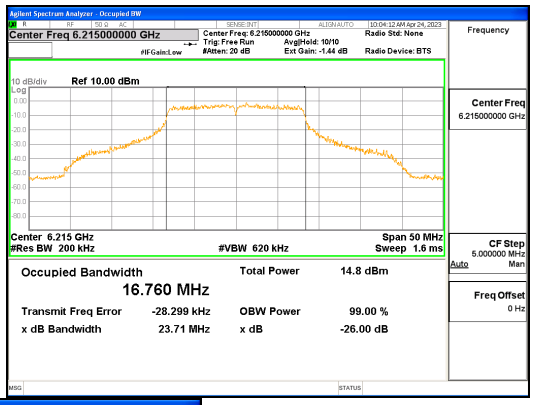


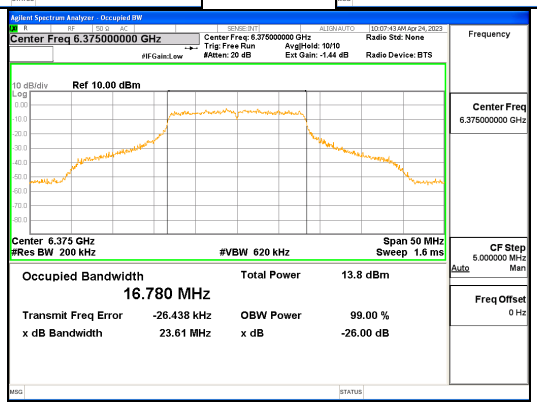




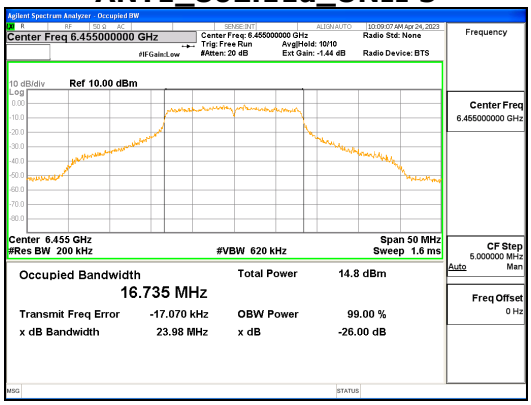
ANT0_802.11a_UNII 8



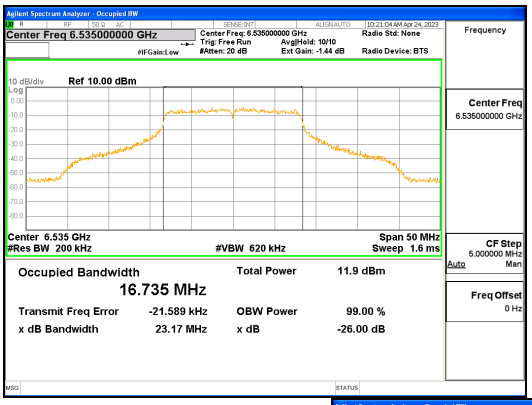


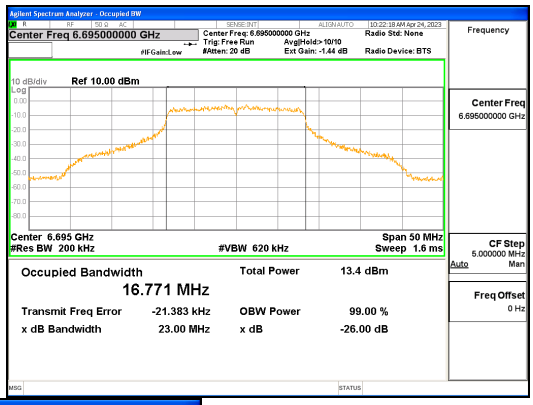


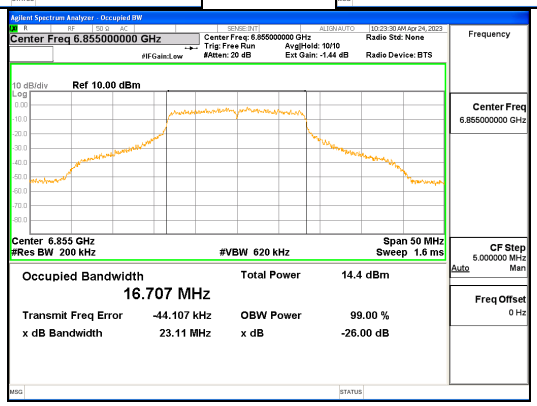
ANT1_802.11a_UNII 5



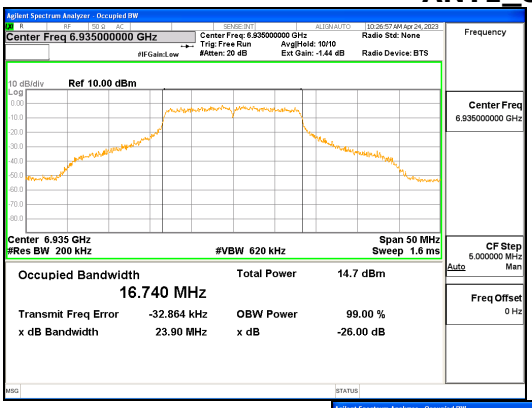
ANT1_802.11a_UNII 6

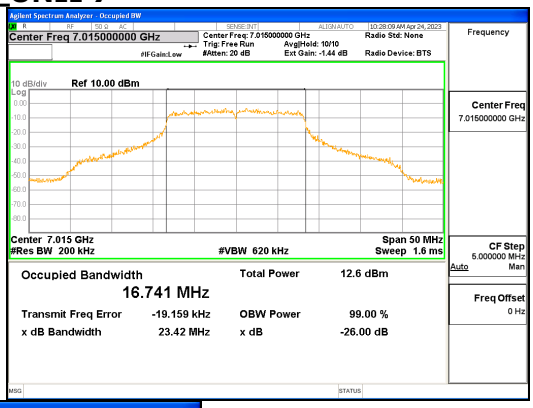


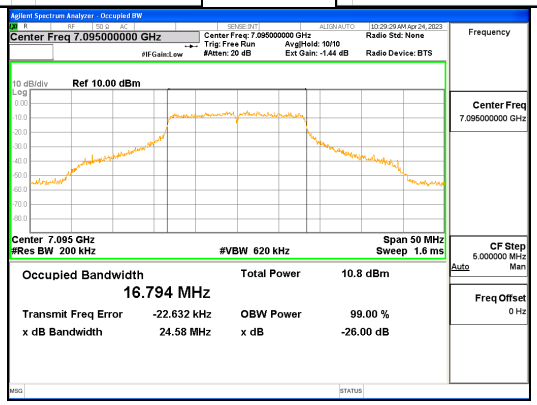




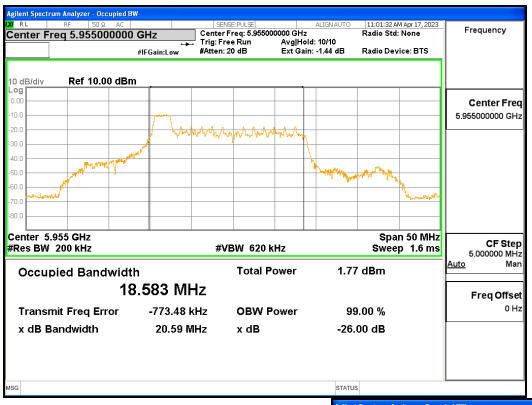
ANT1_802.11a_UNII 7

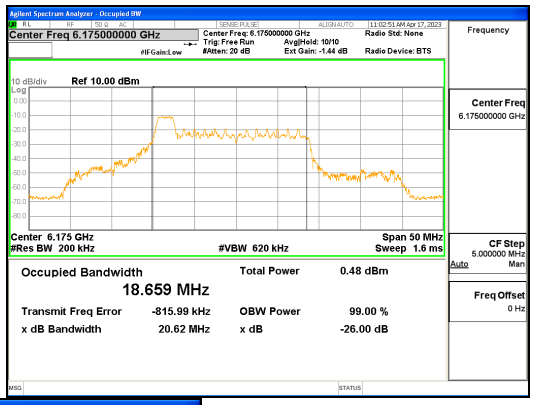


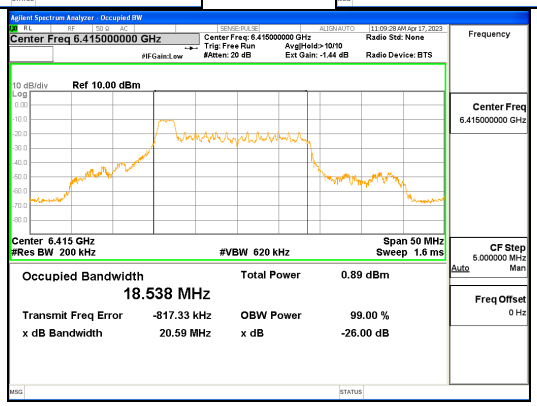




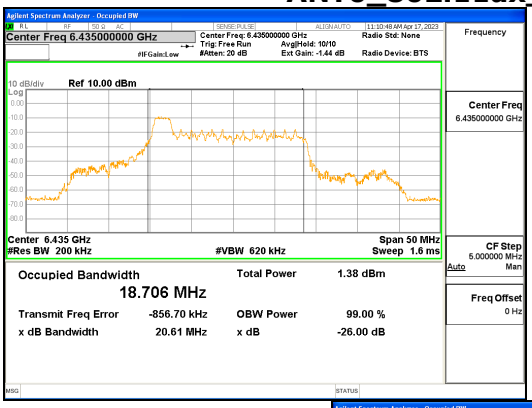
ANT1_802.11a_UNII 8

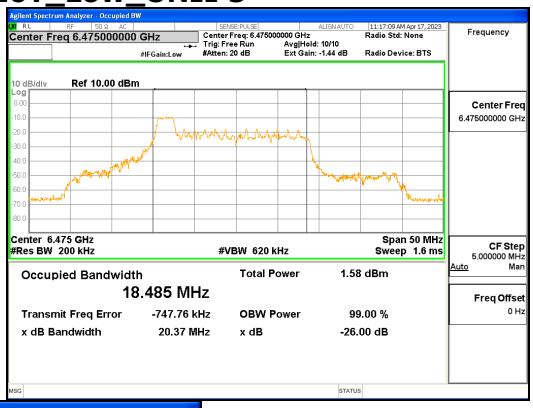


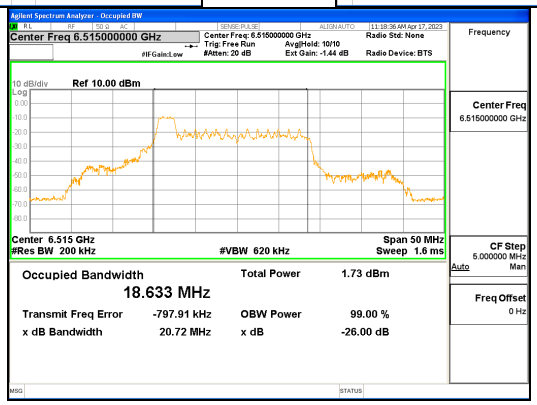




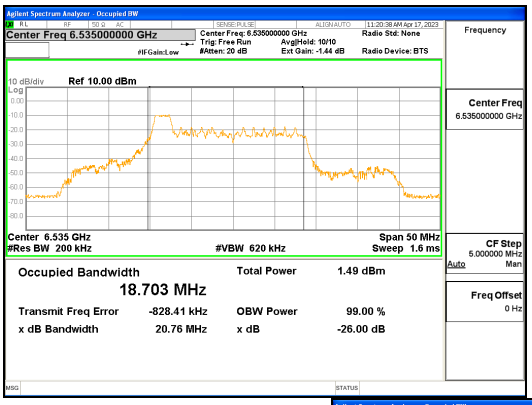
ANT0_802.11ax_HE20_26T_Low_UNII 5

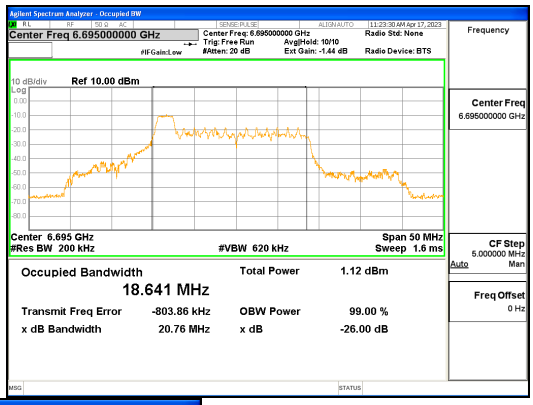


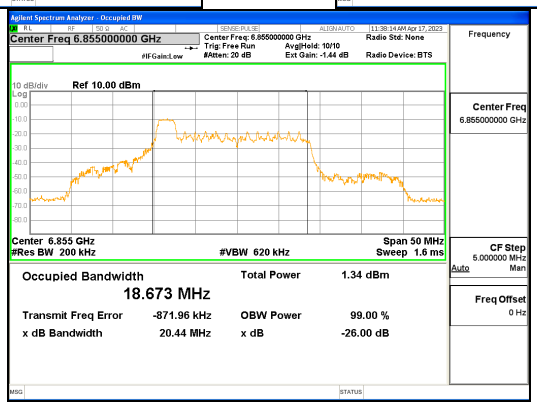




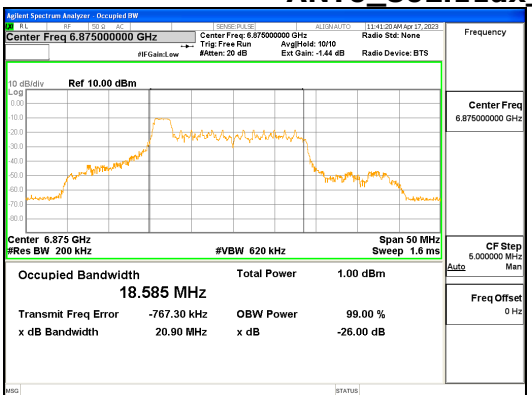
ANT0_802.11ax_HE20_26T_Low_UNII 6

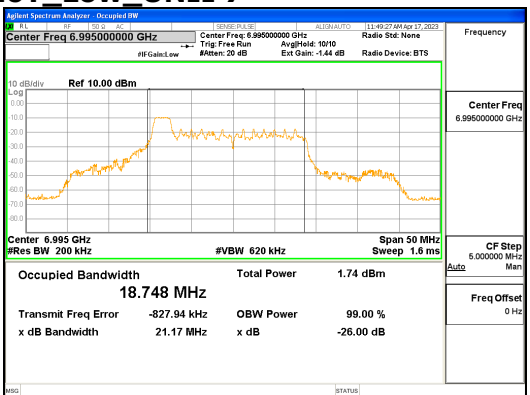


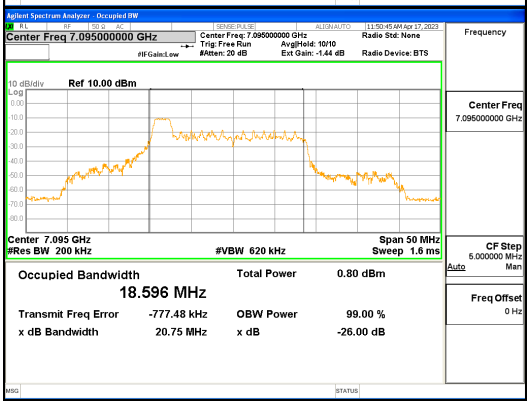


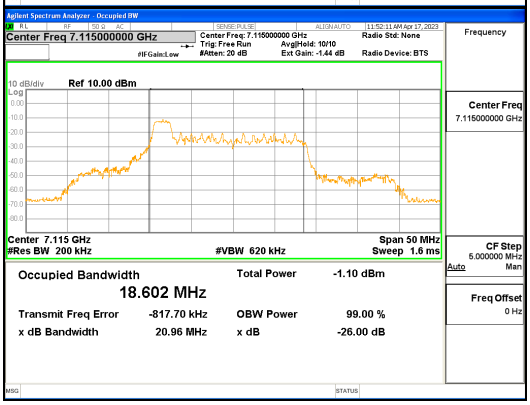


ANT0_802.11ax_HE20_26T_Low_UNII 7

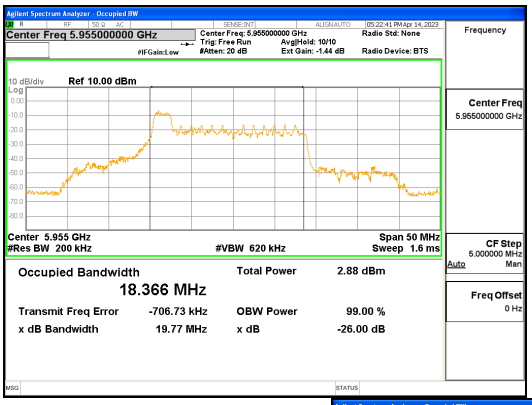


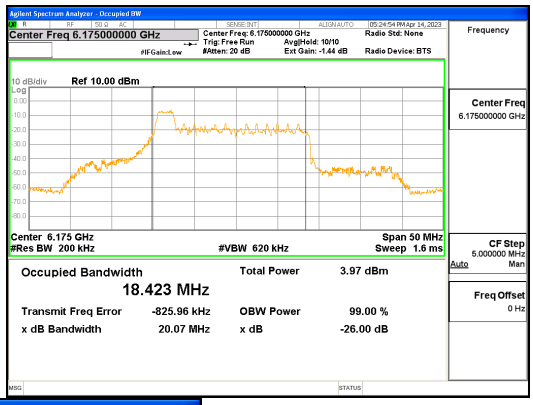


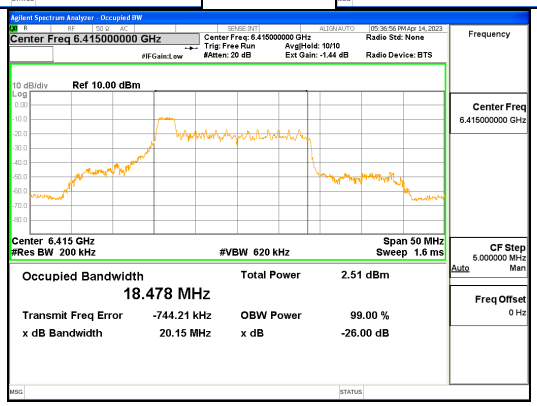




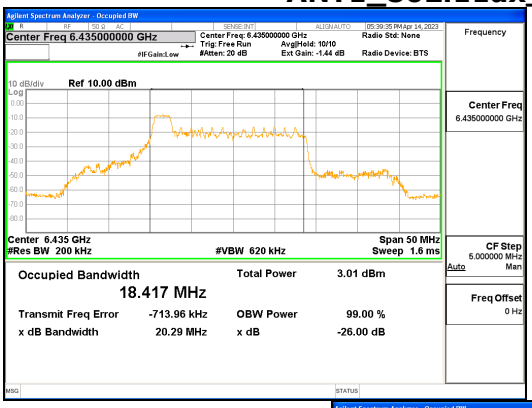
ANT0_802.11ax_HE20_26T_Low_UNII 8

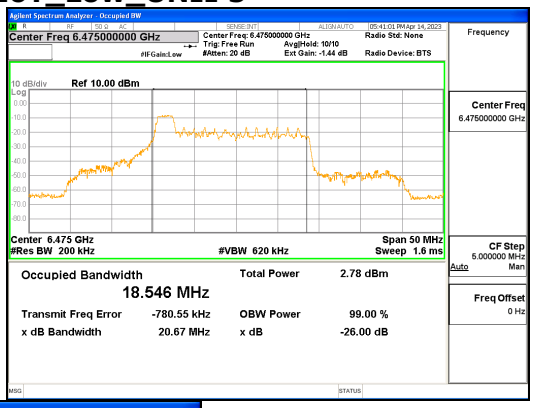


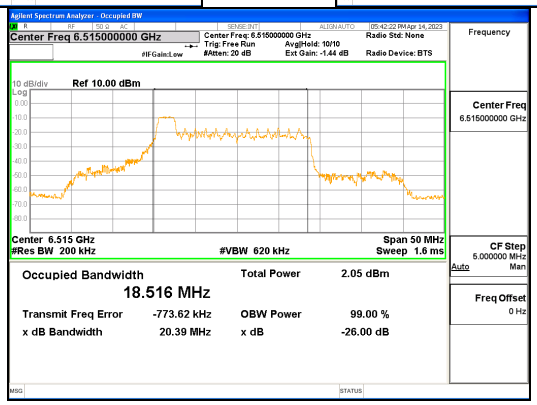




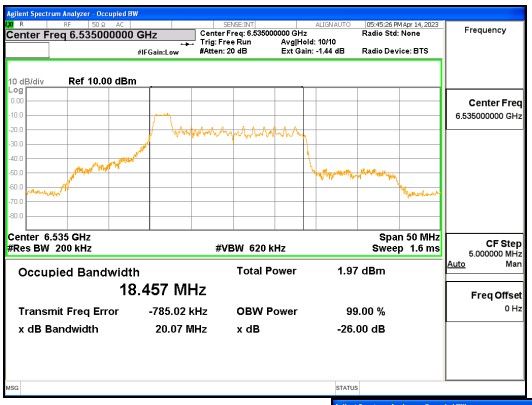
ANT1_802.11ax_HE20_26T_Low_UNII 5

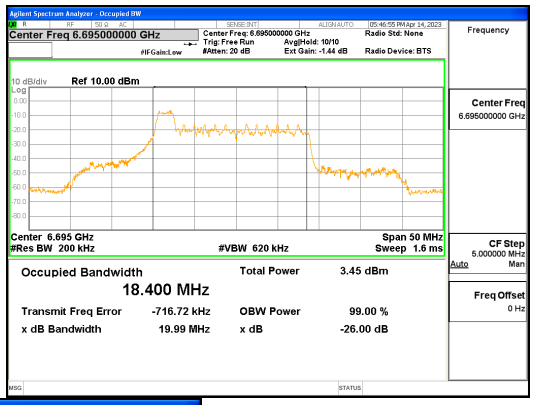


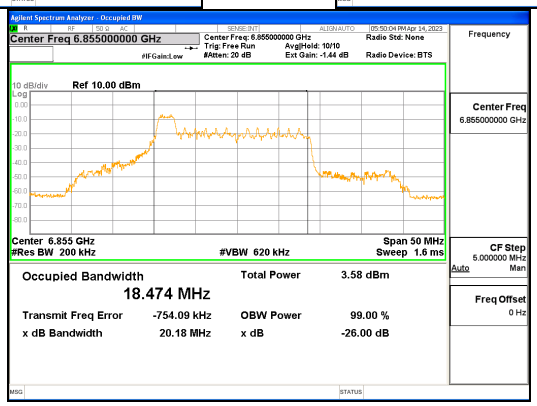




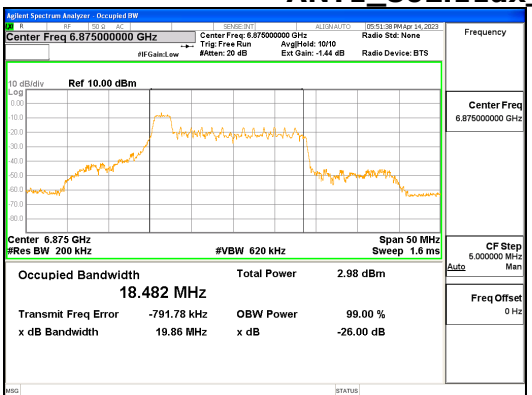
ANT1_802.11ax_HE20_26T_Low_UNII 6

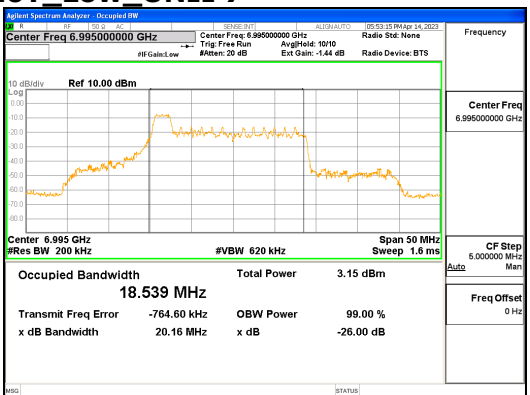


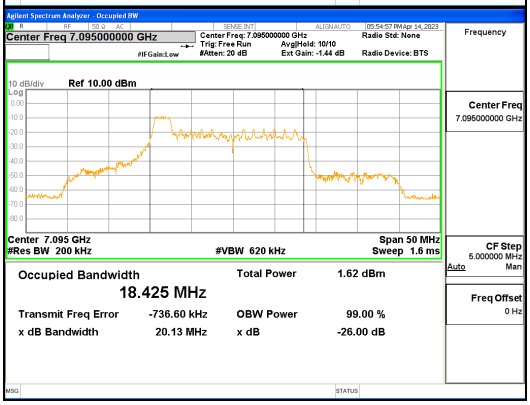


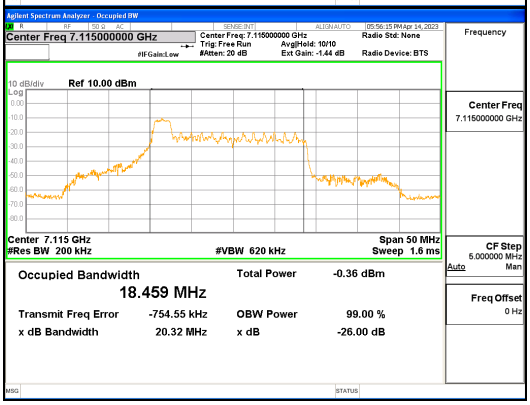


ANT1_802.11ax_HE20_26T_Low_UNII 7

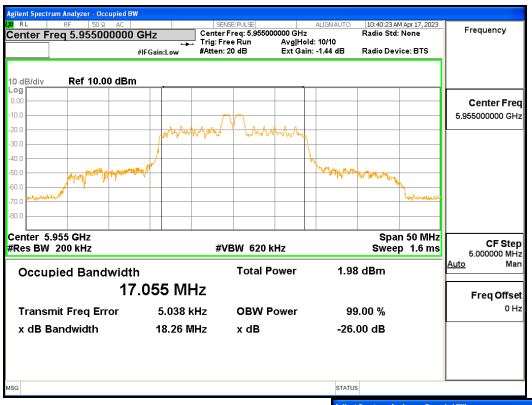


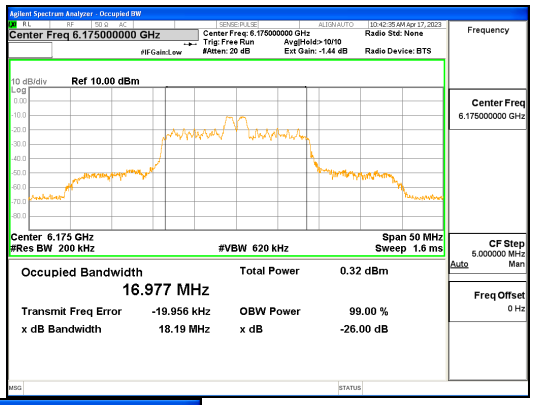


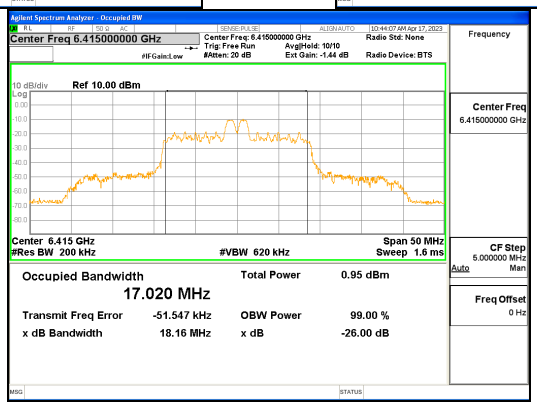




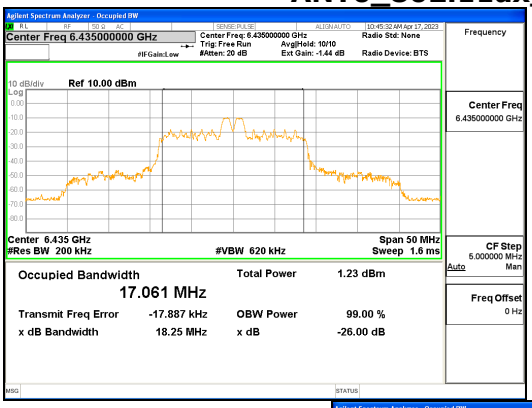
ANT1_802.11ax_HE20_26T_Low_UNII 8

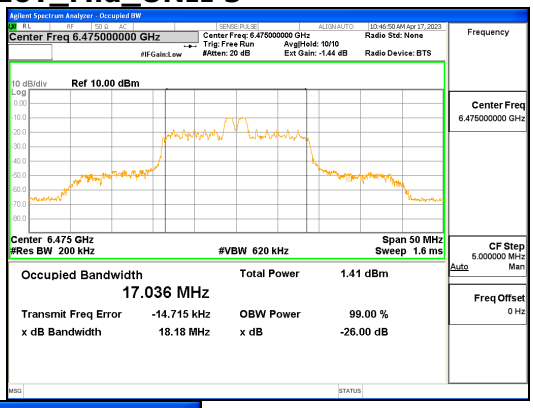


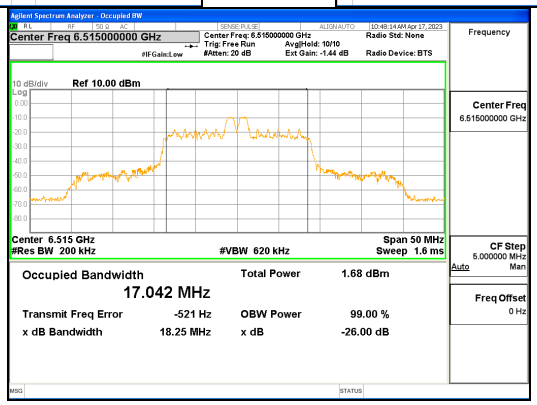




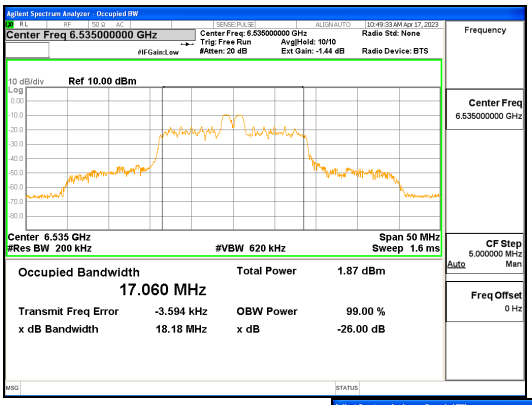
ANT0_802.11ax_HE20_26T_Mid_UNII 5

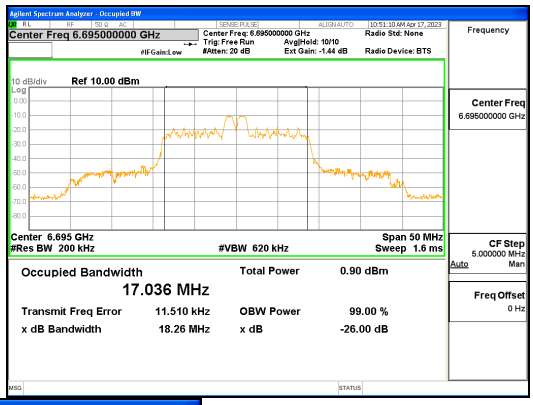


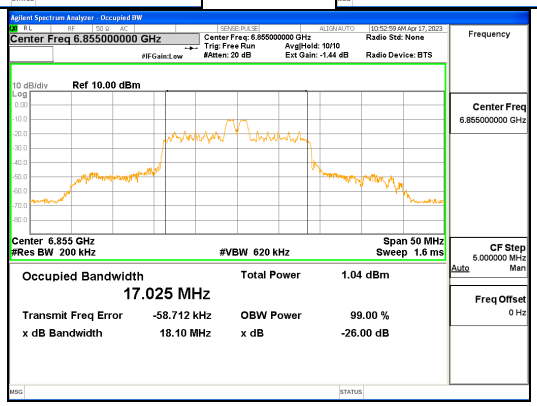




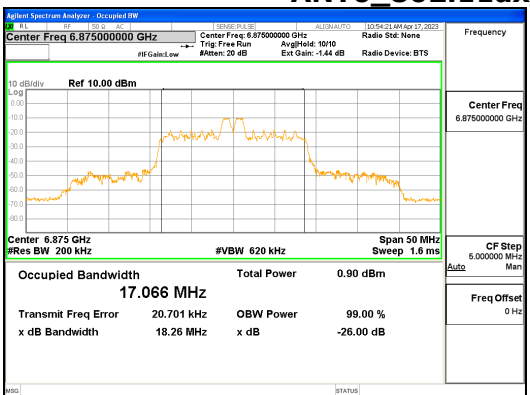
ANT0_802.11ax_HE20_26T_Mid_UNII 6

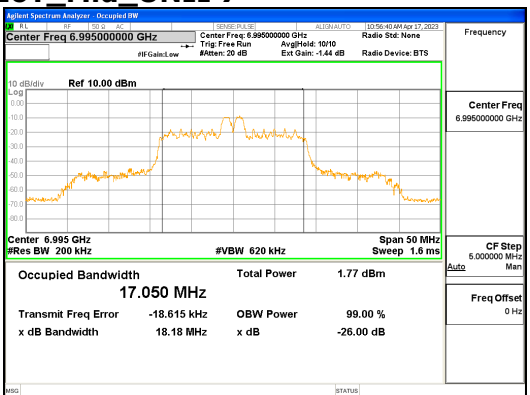


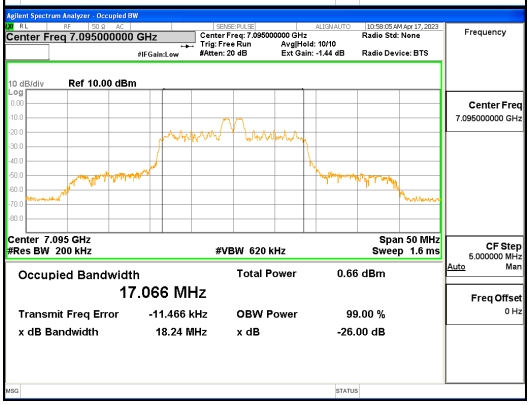


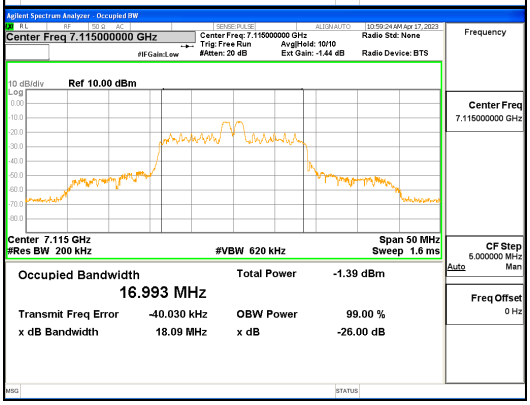


ANT0_802.11ax_HE20_26T_Mid_UNII 7

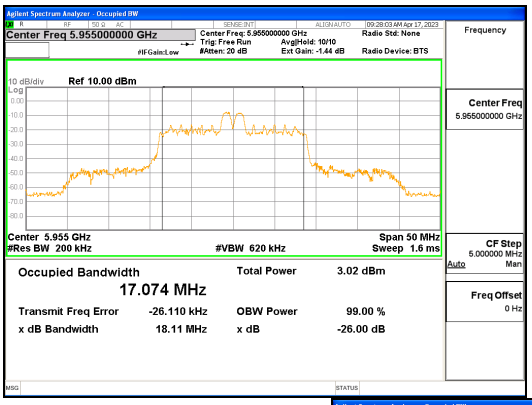


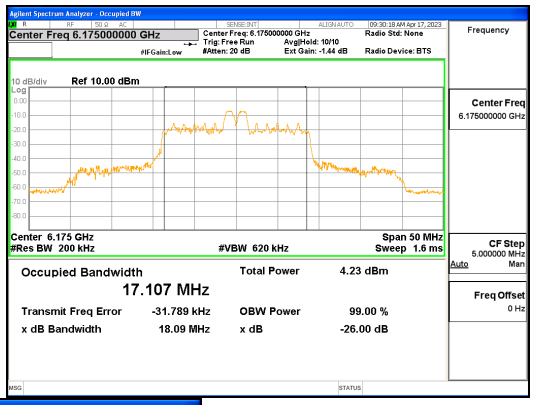




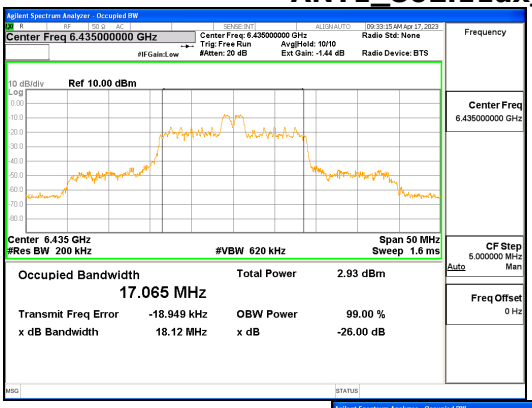


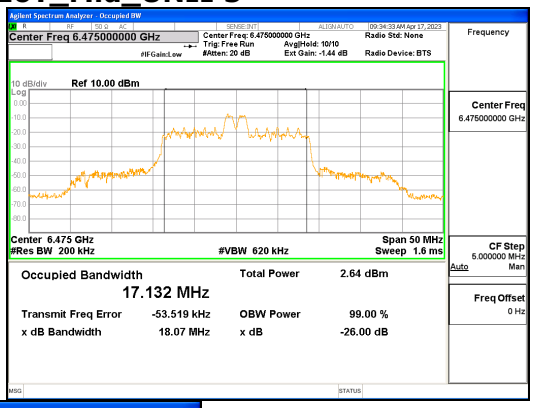
ANT0_802.11ax_HE20_26T_Mid_UNII 8

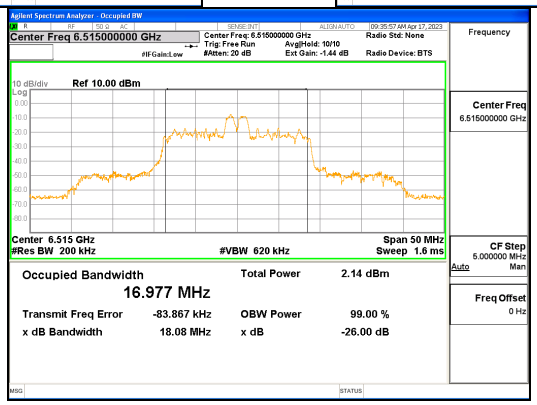




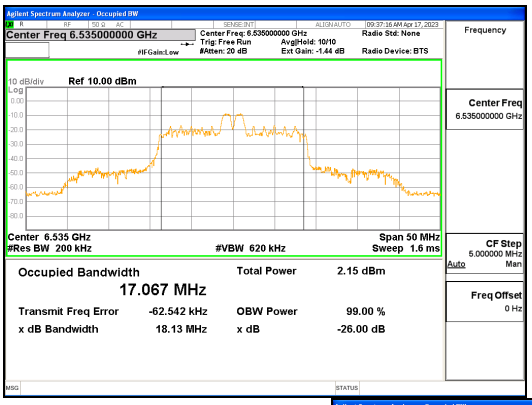
ANT1_802.11ax_HE20_26T_Mid_UNII 5

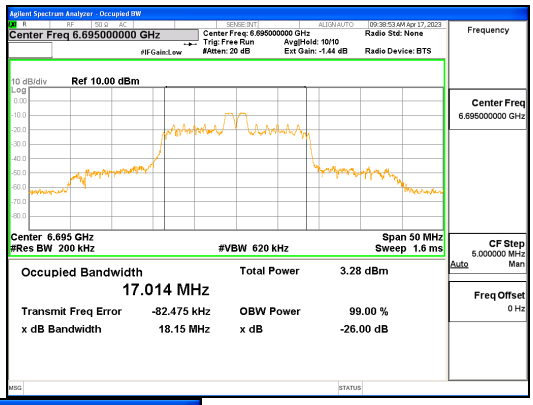


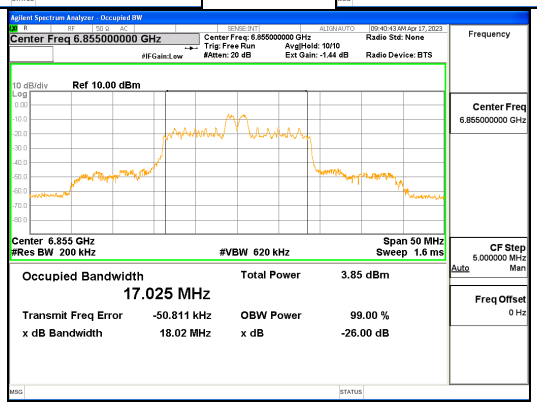




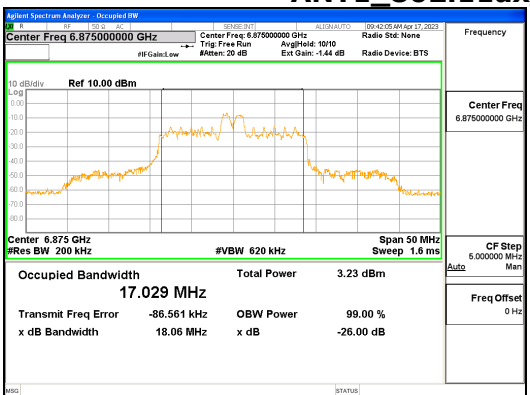
ANT1_802.11ax_HE20_26T_Mid_UNII 6

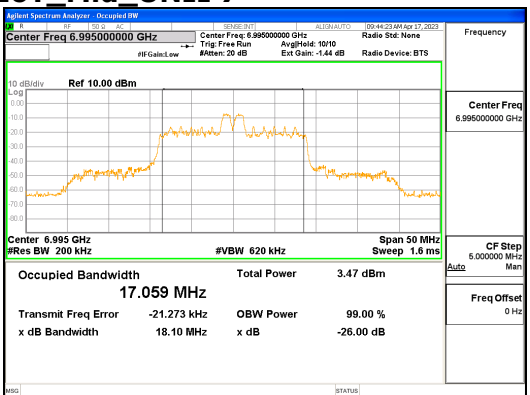


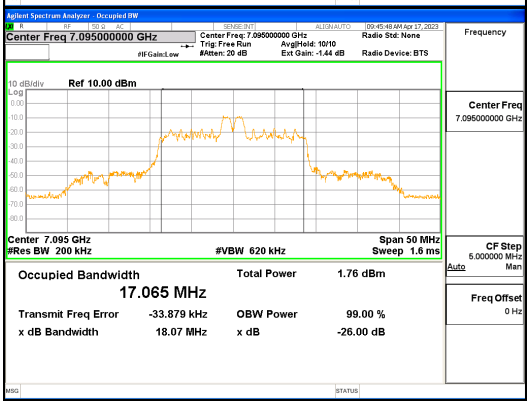


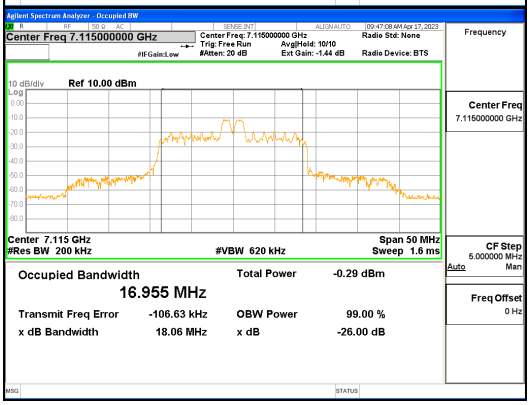


ANT1_802.11ax_HE20_26T_Mid_UNII 7

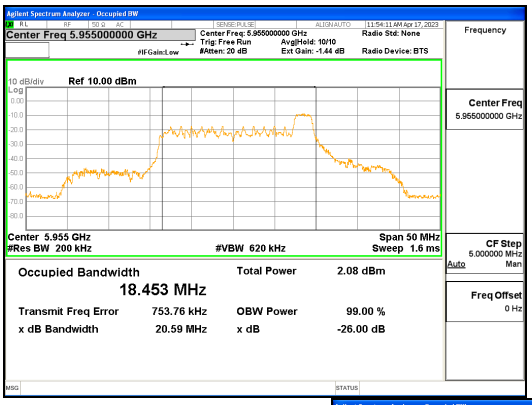


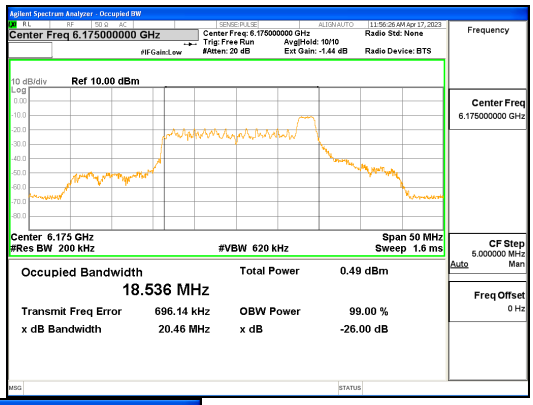


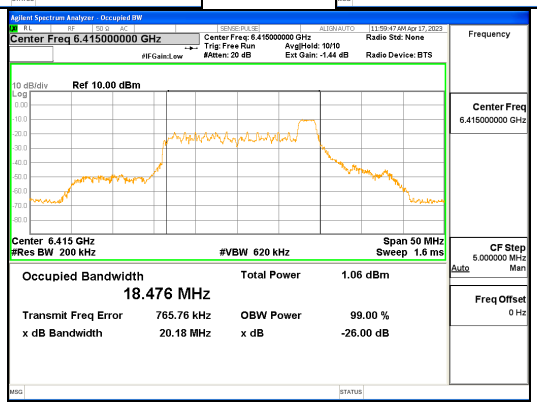




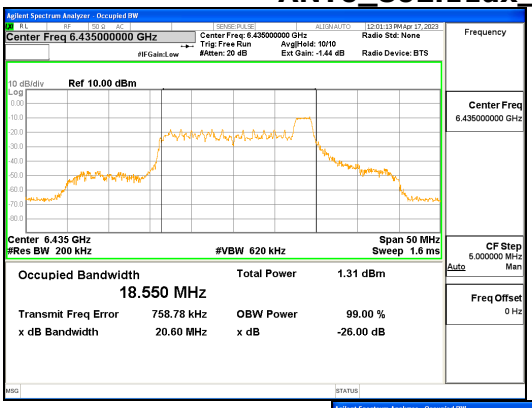
ANT1_802.11ax_HE20_26T_Mid_UNII 8

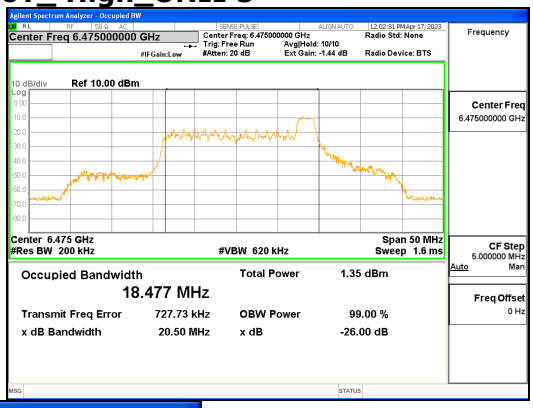


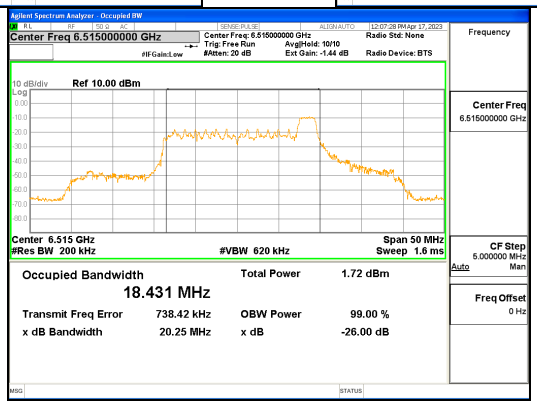




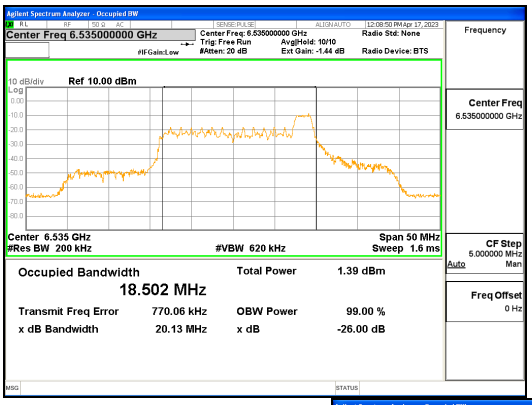
ANT0_802.11ax_HE20_26T_ High_UNII 5

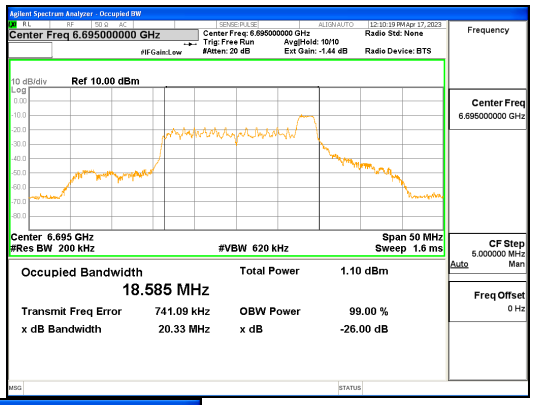


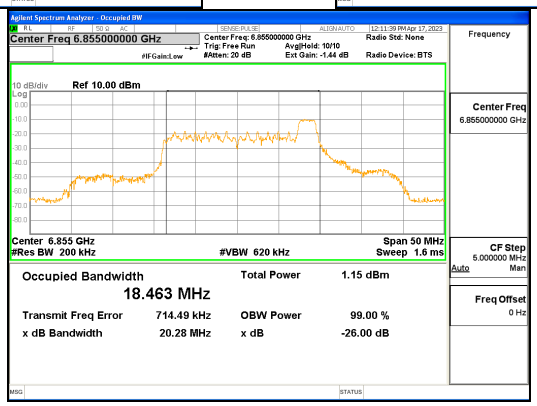




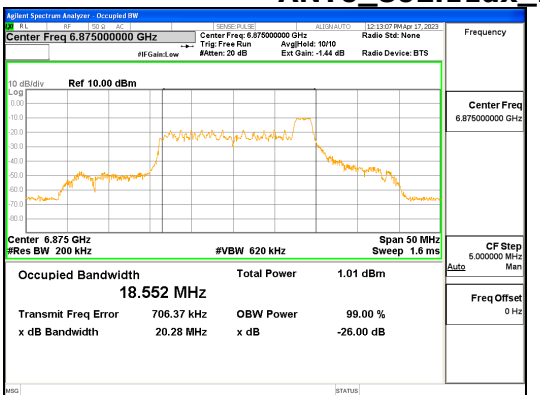
ANT0_802.11ax_HE20_26T_ High_UNII 6

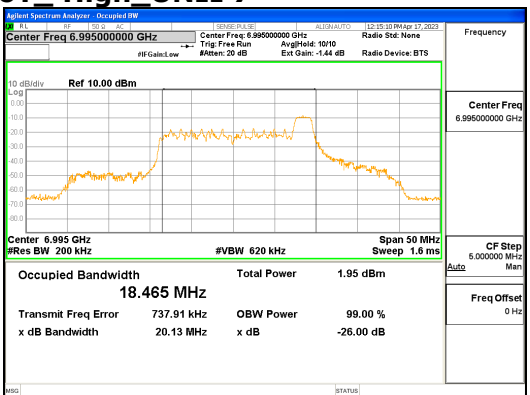


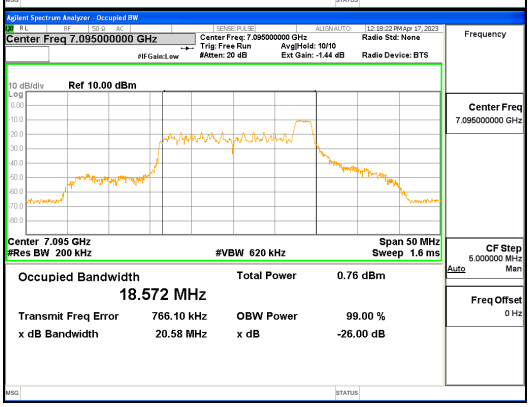


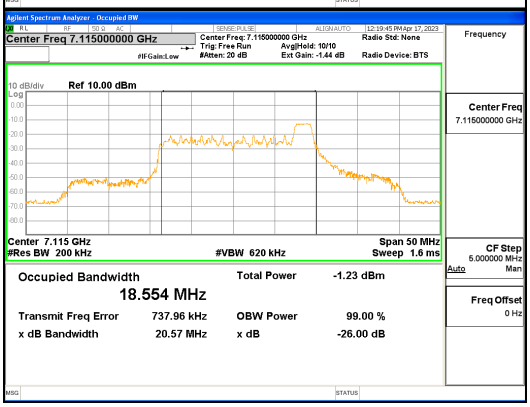


ANT0_802.11ax_HE20_26T_ High_UNII 7

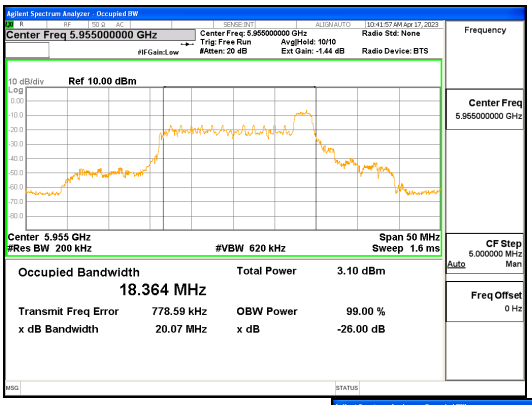


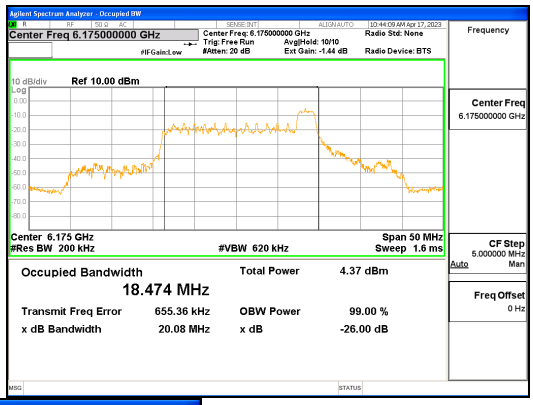


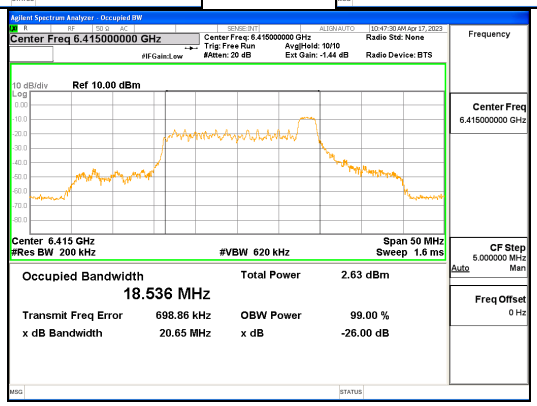




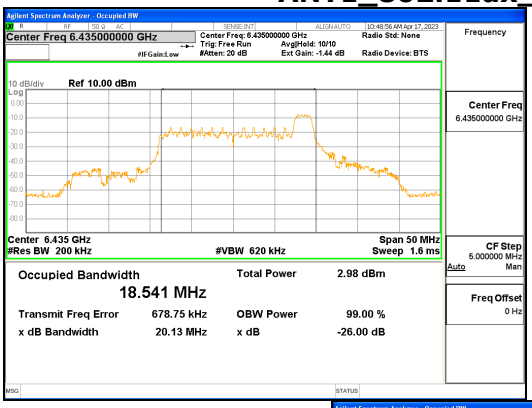
ANT0_802.11ax_HE20_26T_ High_UNII 8

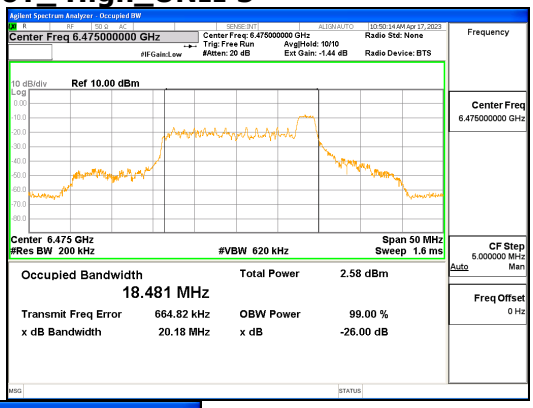


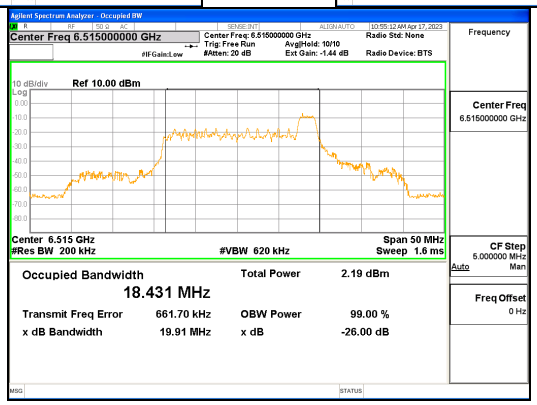




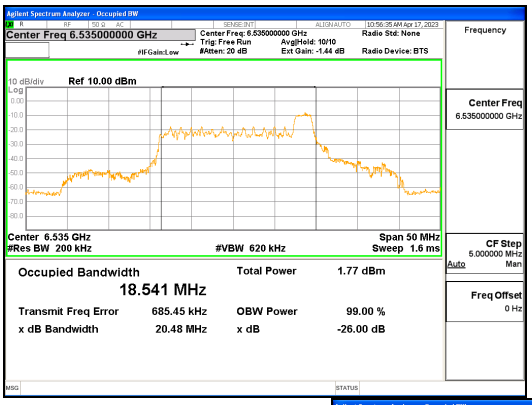
ANT1_802.11ax_HE20_26T_ High_UNII 5

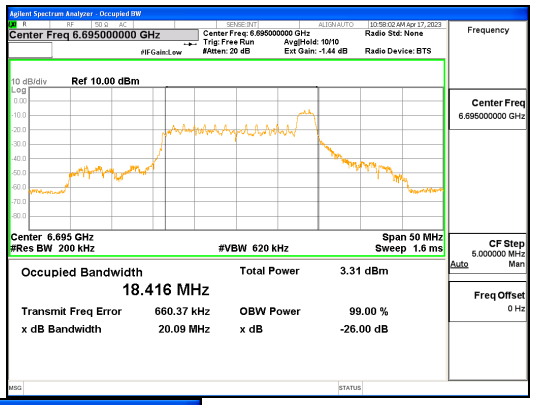


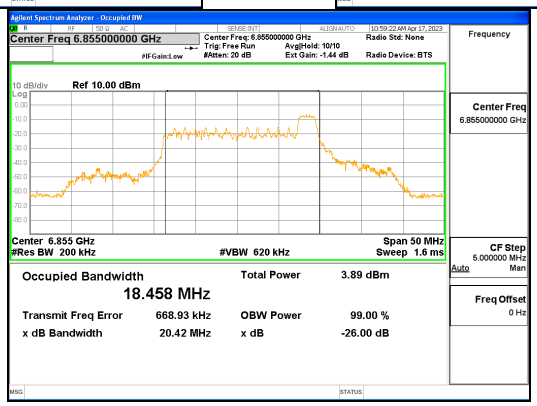




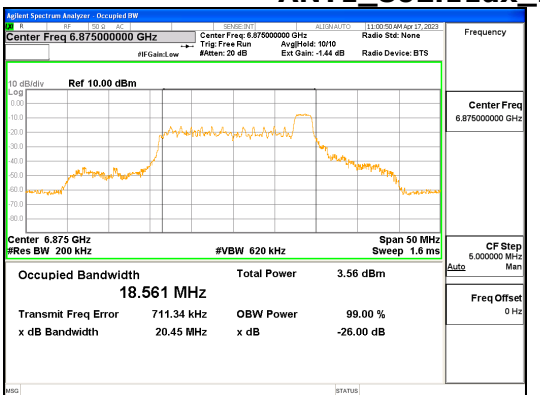
ANT1_802.11ax_HE20_26T_ High_UNII 6

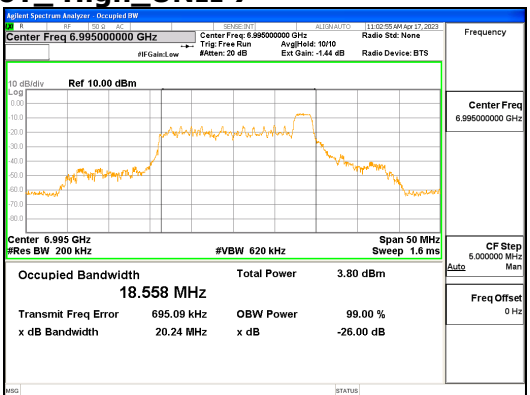


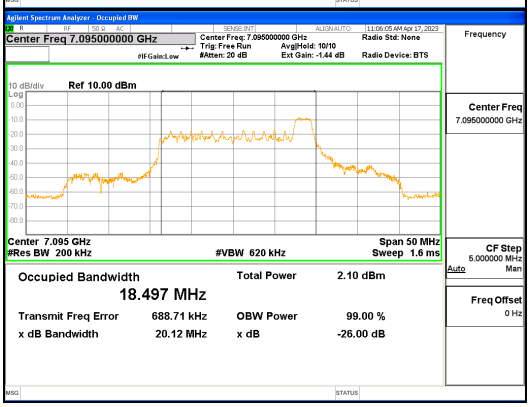


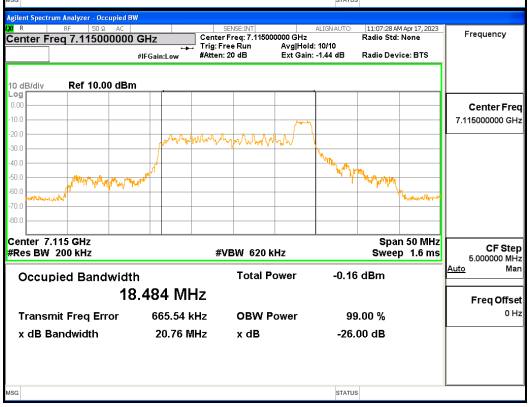


ANT1_802.11ax_HE20_26T_ High_UNII 7

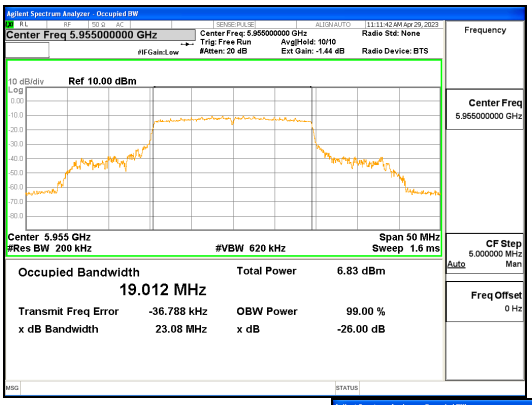


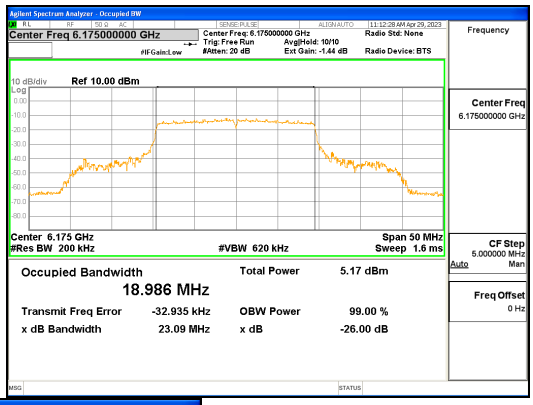


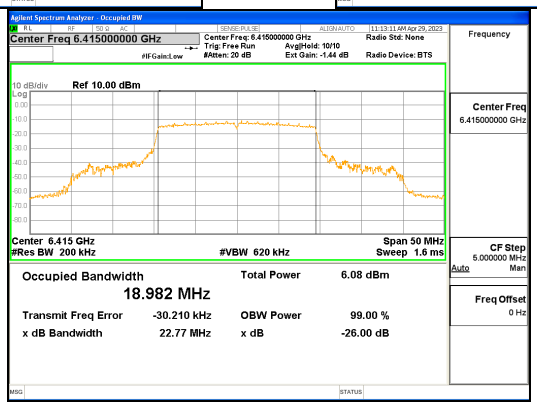




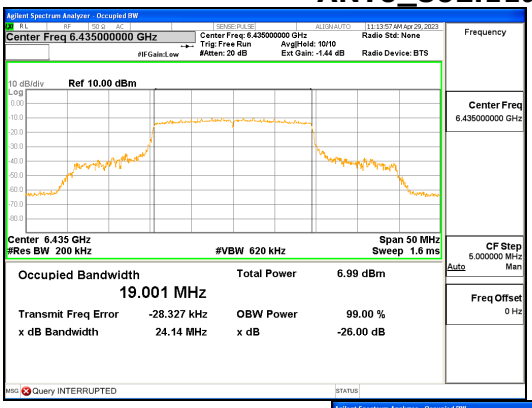
ANT1_802.11ax_HE20_26T_High_UNII 8

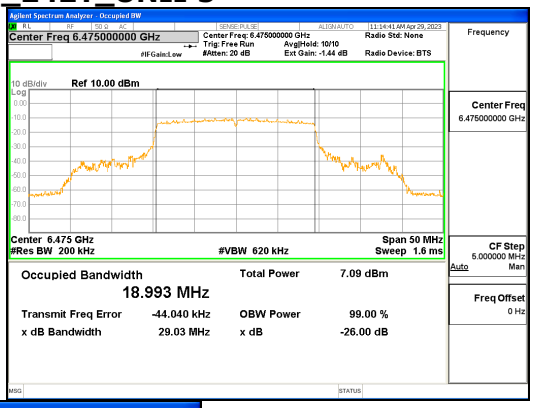


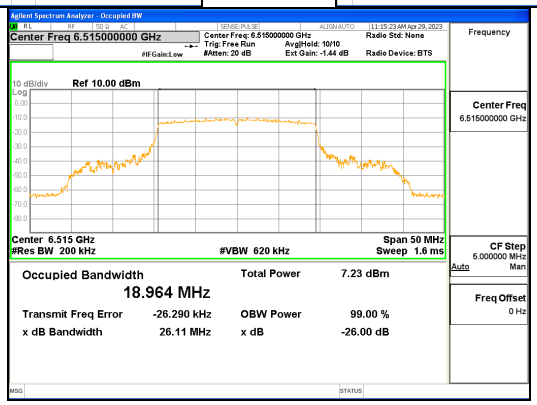




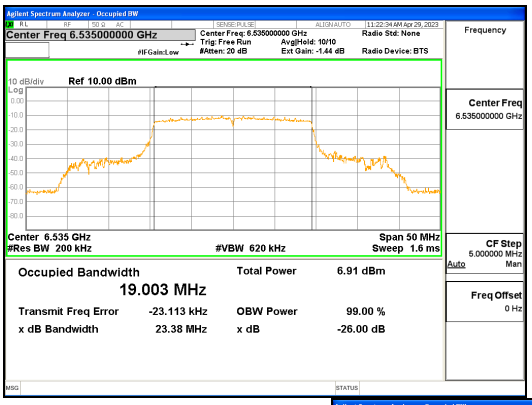
ANT0_802.11ax_HE20_242T_UNII 5

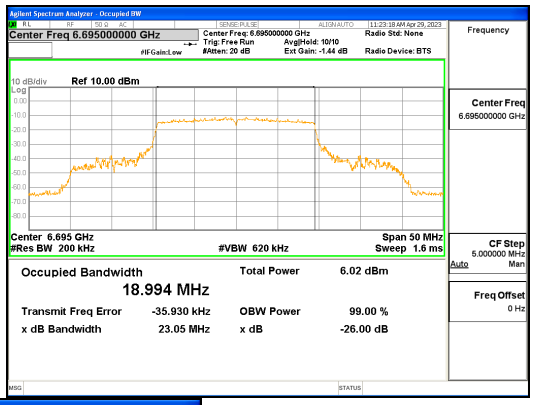


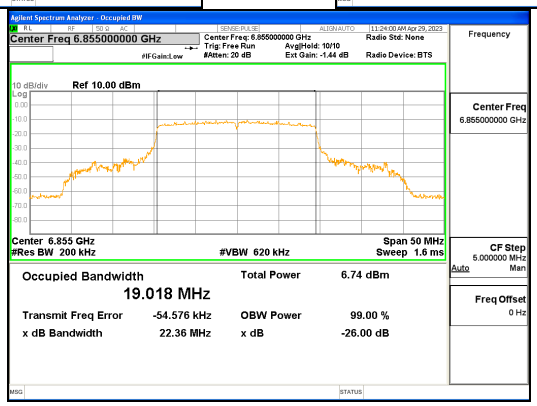




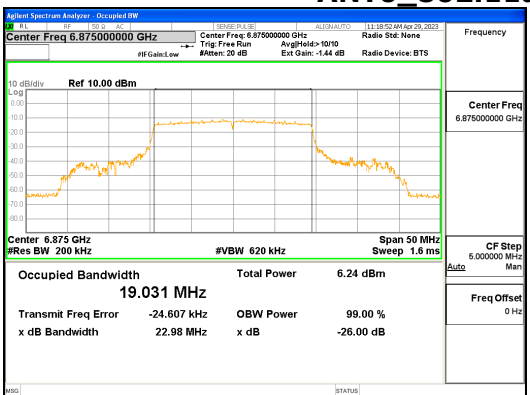
ANT0_802.11ax_HE20_242T_UNII 6

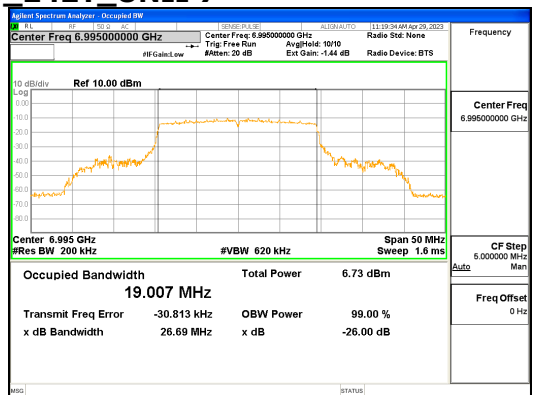


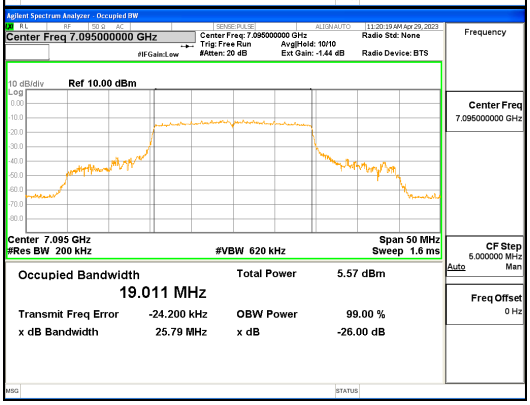


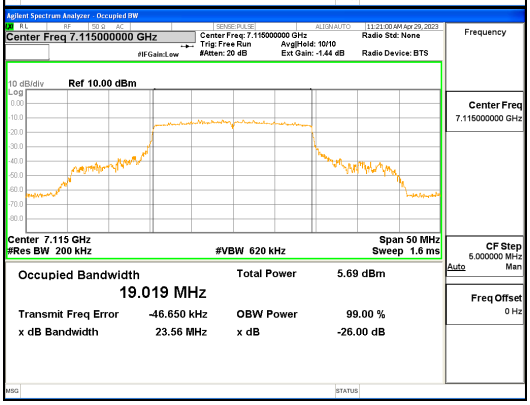


ANT0_802.11ax_HE20_242T_UNII 7

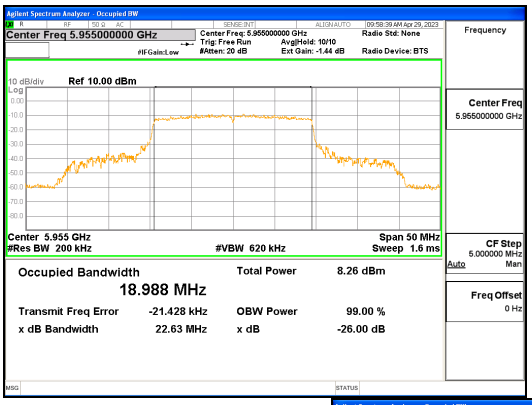


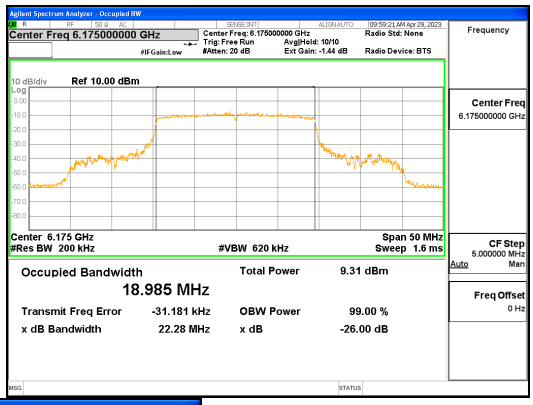


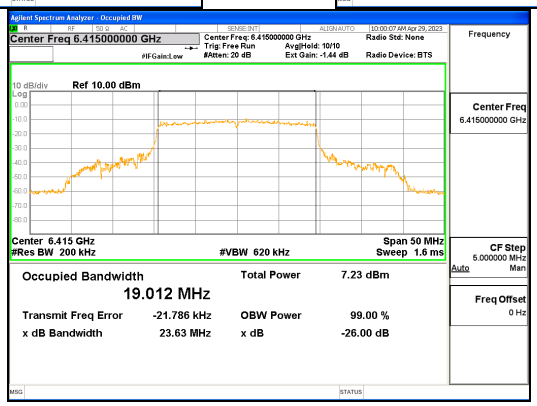




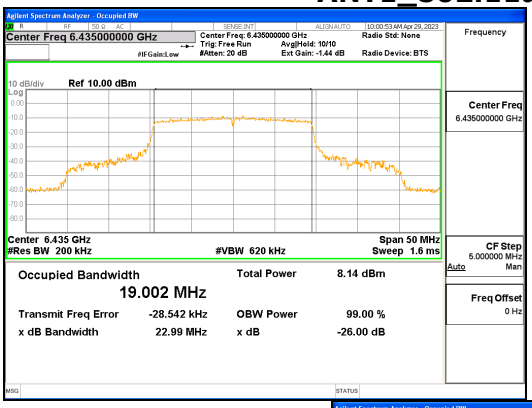
ANT0_802.11ax_HE20_242T_UNII 8

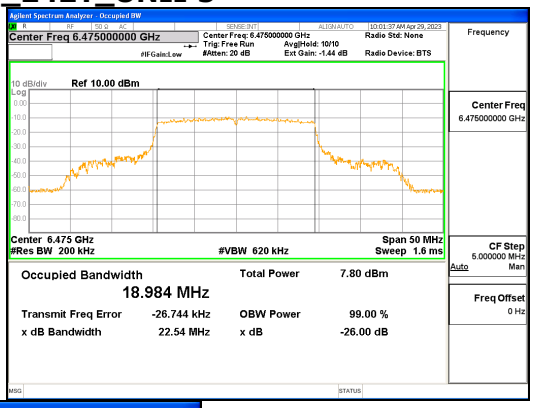


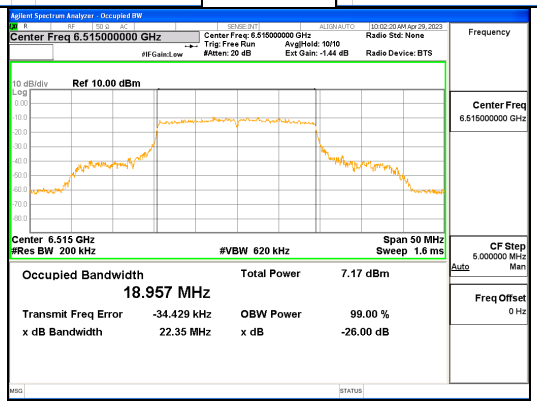




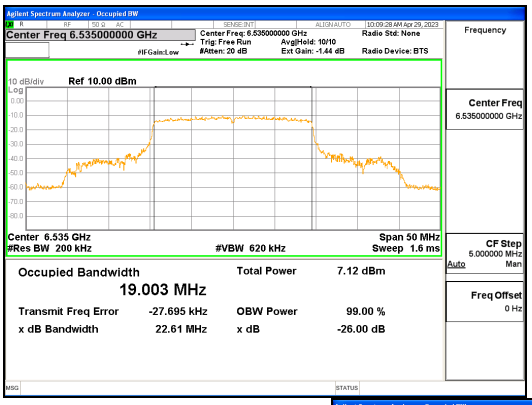
ANT1_802.11ax_HE20_242T_UNII 5

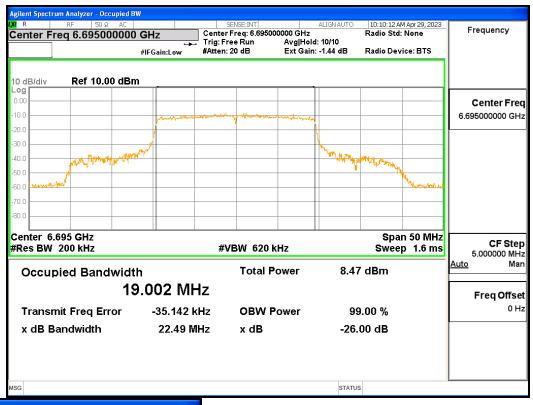


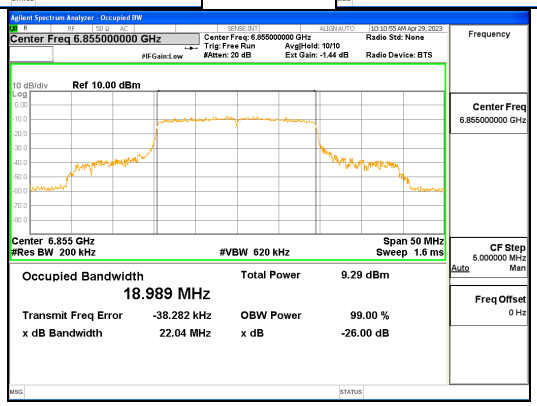




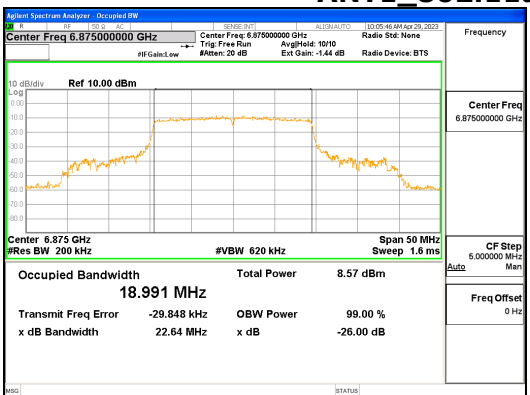
ANT1_802.11ax_HE20_242T_UNII 6

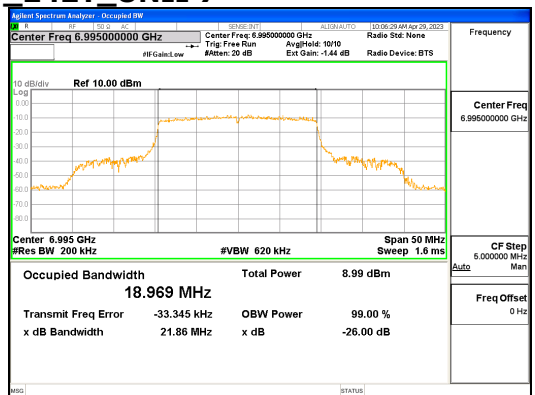


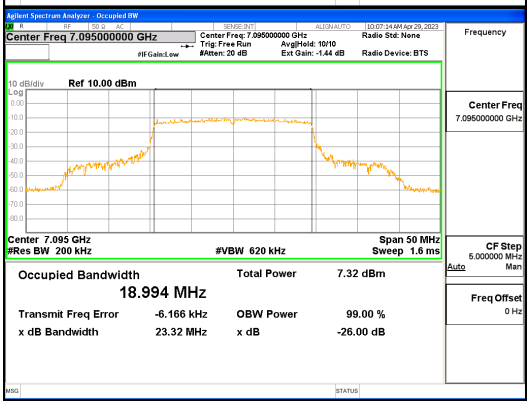


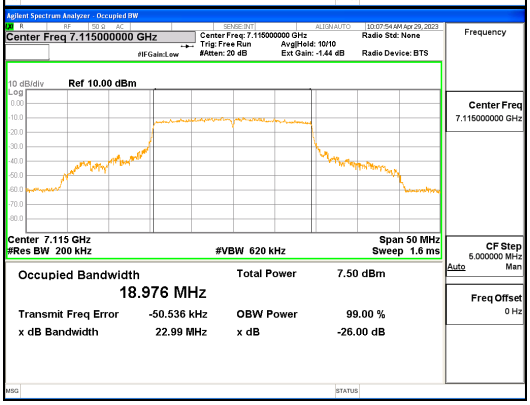


ANT1_802.11ax_HE20_242T_UNII 7

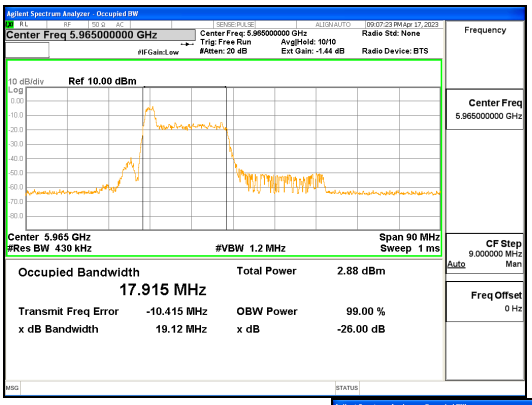


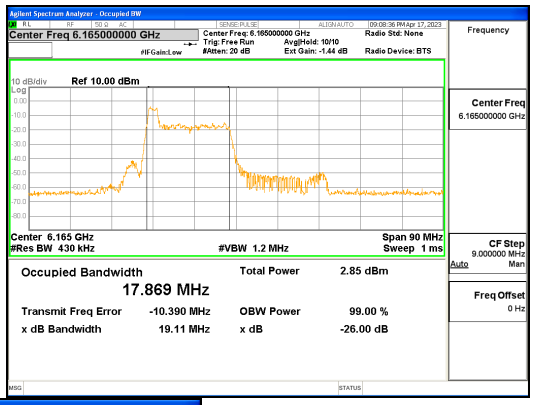


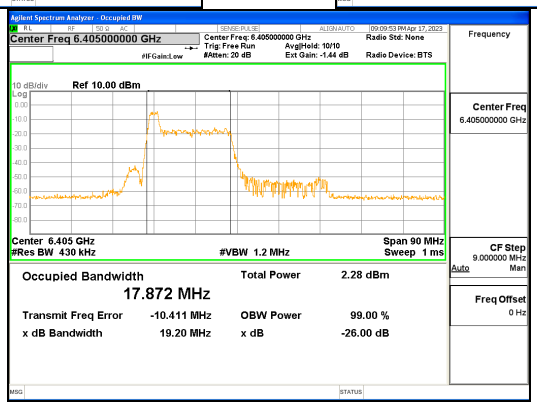




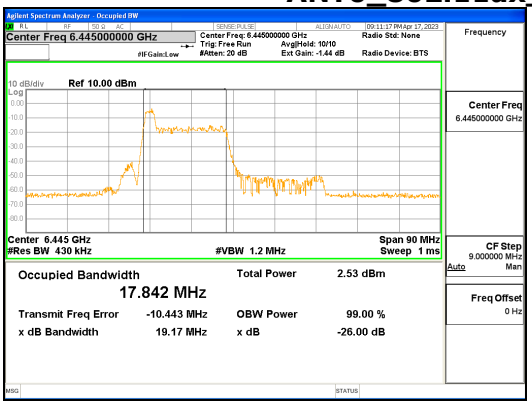
ANT1_802.11ax_HE20_242T_UNII 8

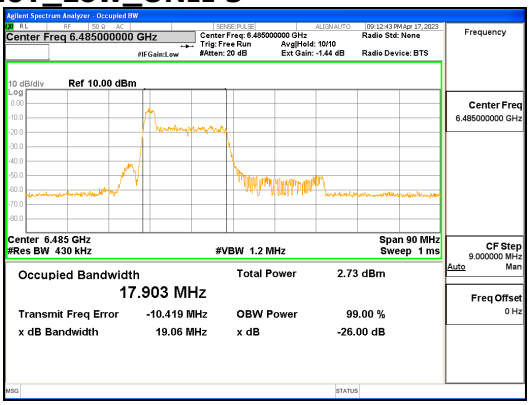




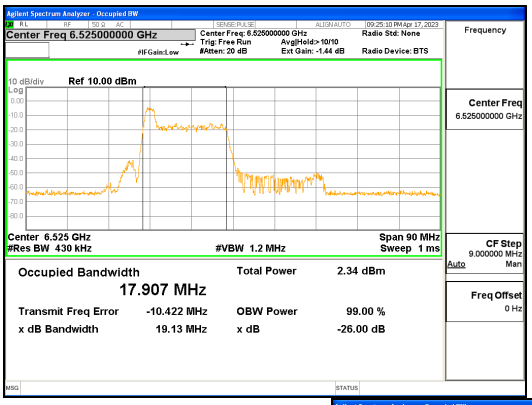


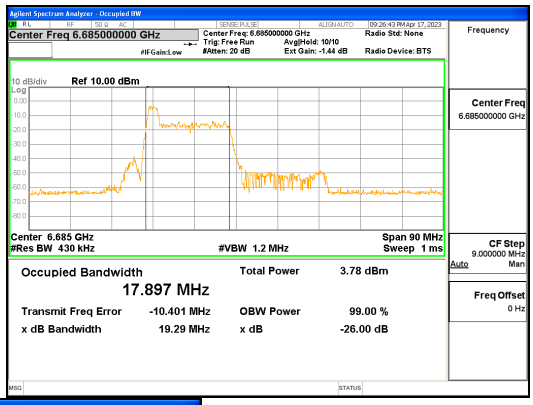
ANT0_802.11ax_HE40_26T_Low_UNII 5

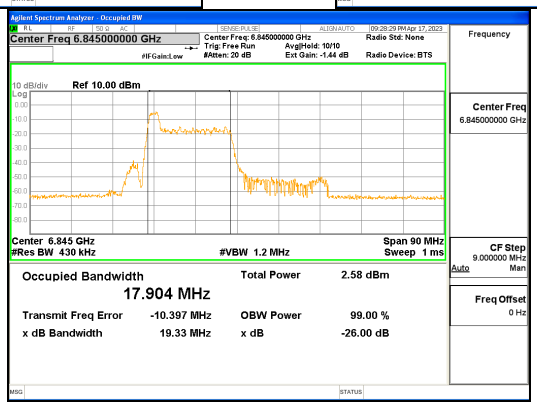




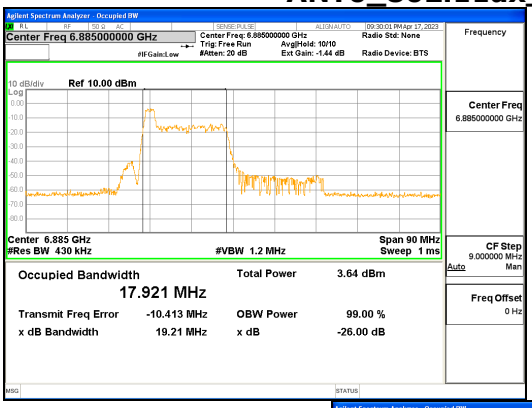
ANT0_802.11ax_HE40_26T_Low_UNII 6

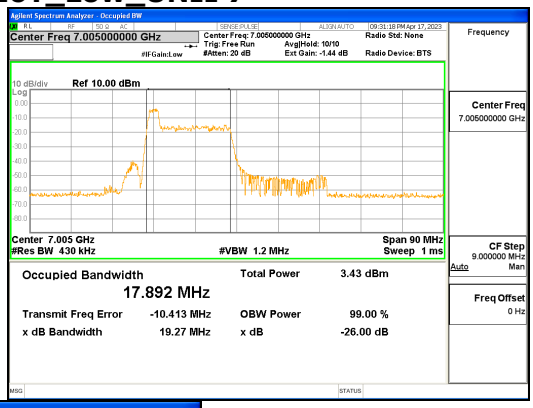


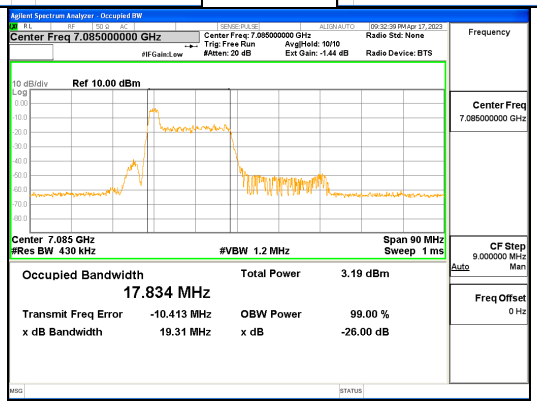




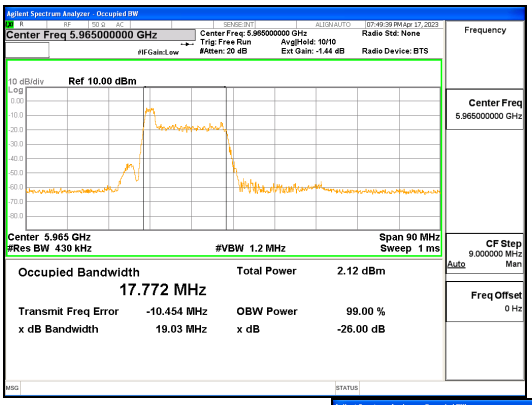
ANT0_802.11ax_HE40_26T_Low_UNII 7

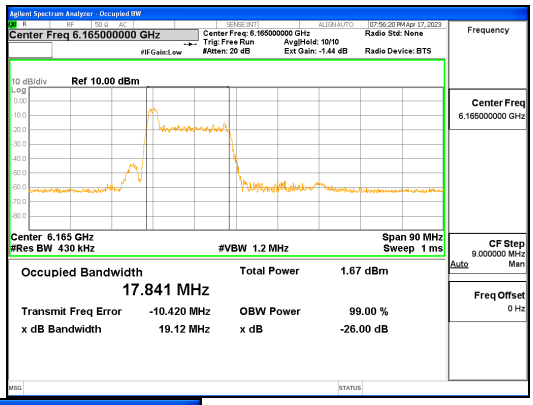


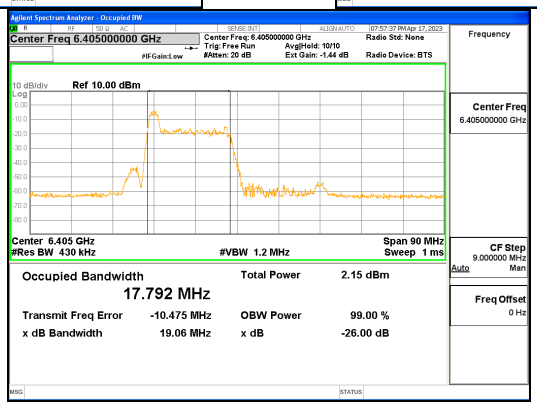




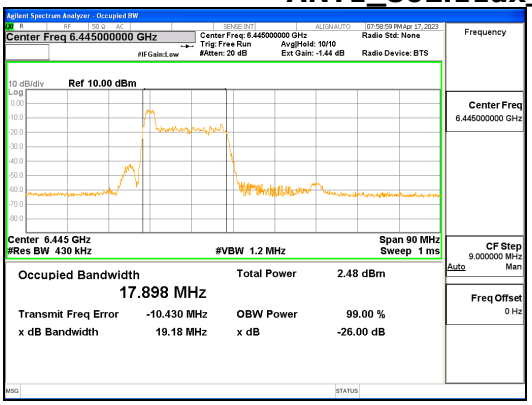
ANT0_802.11ax_HE40_26T_Low_UNII 8

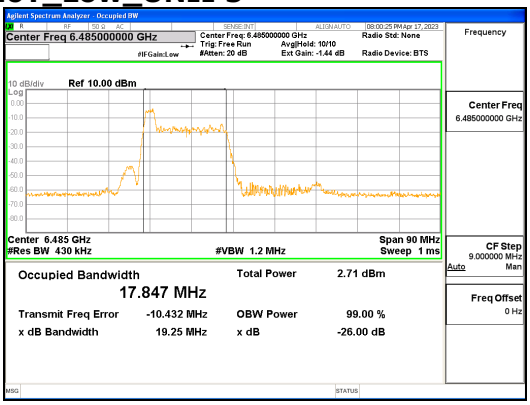




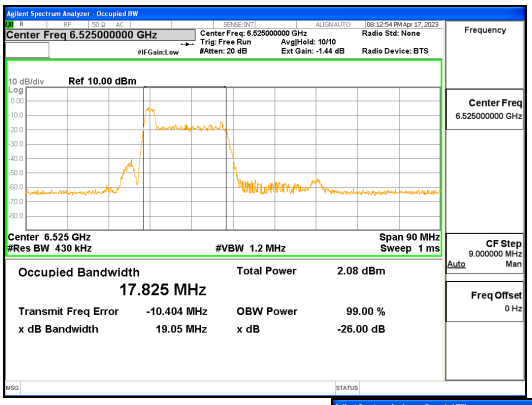


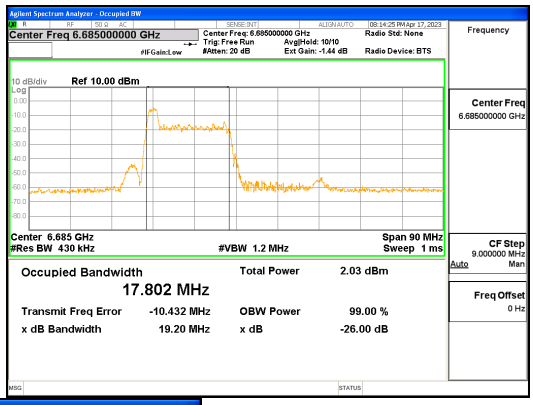
ANT1_802.11ax_HE40_26T_Low_UNII 5

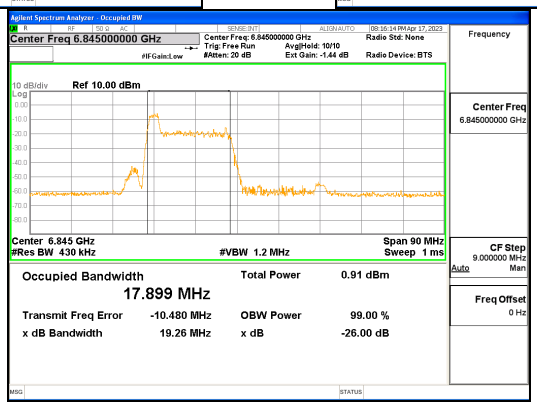




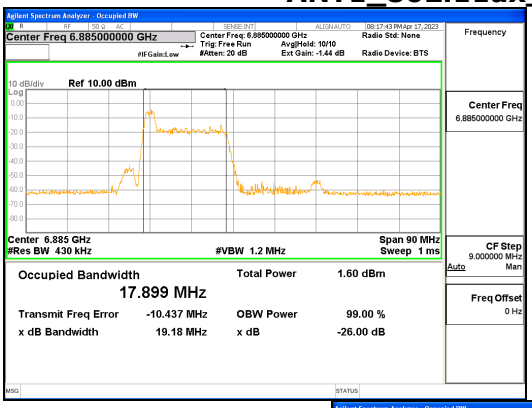
ANT1_802.11ax_HE40_26T_Low_UNII 6

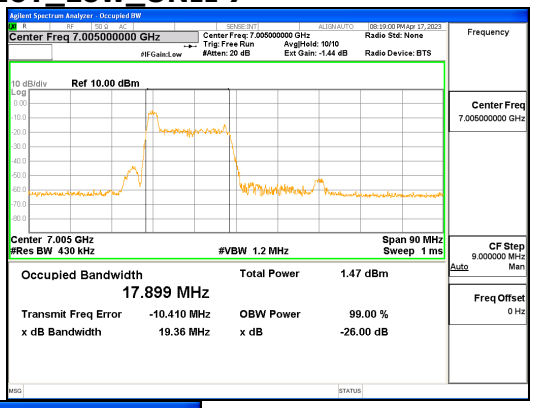


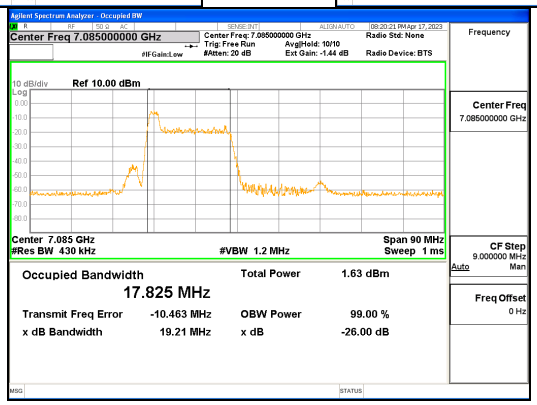




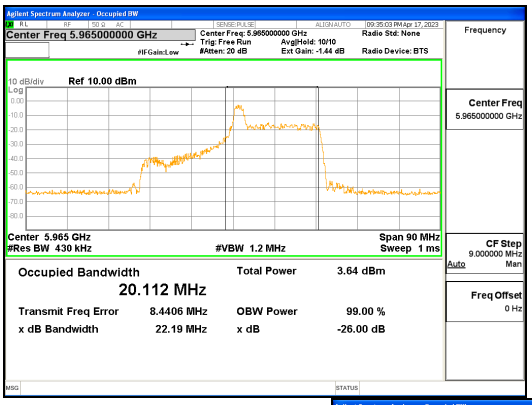
ANT1_802.11ax_HE40_26T_Low_UNII 7

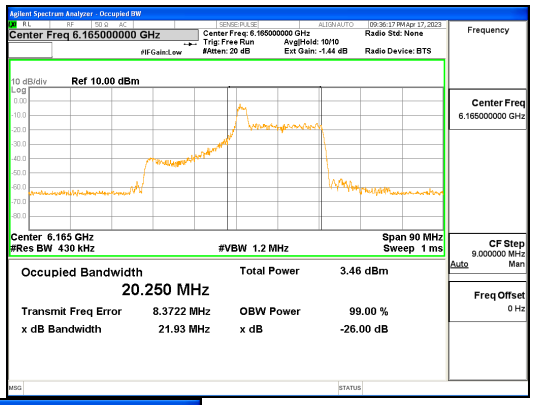


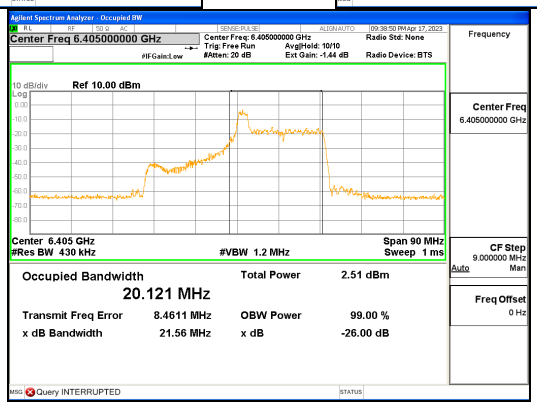




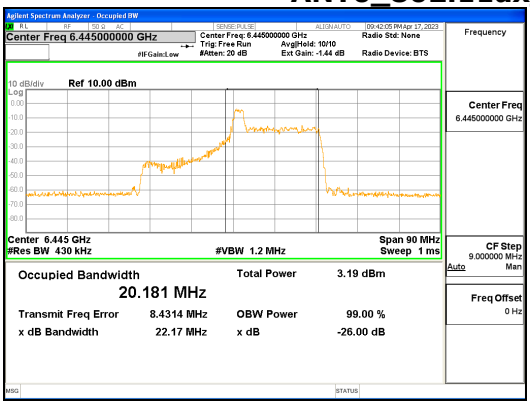
ANT1_802.11ax_HE40_26T_Low_UNII 8

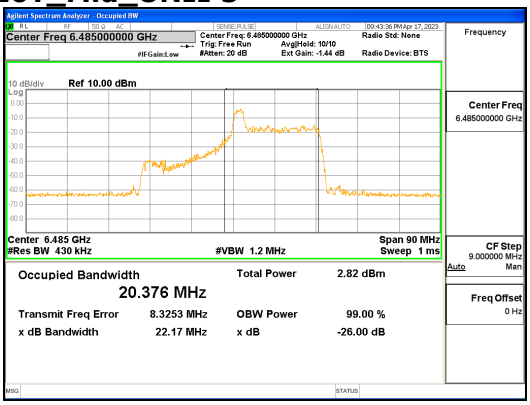






ANT0_802.11ax_HE40_26T_Mid_UNII 5





ANT0_802.11ax_HE40_26T_Mid_UNII 6