RADIO TEST REPORT
FCC 47 CFR PART 15 SUBPART E

Test Standard	**FCC Part 15.407**
Product name	**ASTROS Station**
Brand Name	**ASTROS**
Model No.	**AS-201, AWIP-201, WPS-201, AS-101, AWIP-101, WPS-101**
Test Result	**Pass**
Statements of Conformity	**Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.**

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.
The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:

Kevin Tsai
Deputy Manager

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。
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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	April 22, 2021	Initial Issue	ALL	Doris Chu
01	May4, 2021	See the following Note Rev. (01)	P.7, P.13, P.50, P.74-75, P.76	Doris Chu
02	May 11, 2021	See the following Note Rev. (02)	P.4, P.17	Doris Chu

Rev. (01)
1.Revised notes 2 in section 1.3.
2.Added AC conducted emission test mode in section 3.2.
3.Added test plots in section 4.3.4.
4.Revised Polarize in page 74, 75 and 76.

Rev. (02)
1.Revised Model Discrepancy.
2.Revised Line to Neutral.

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Table of contents

1. GENERAL INFORMATION 4
1.1 EUT INFORMATION 4
1.2 EUT CHANNEL INFORMATION 6
1.3 ANTENNA INFORMATION 7
1.4 MEASUREMENT UNCERTAINTY 7
1.5 FACILITIES AND TEST LOCATION 8
1.6 INSTRUMENT CALIBRATION 8
1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT 10
1.8 TEST METHODOLOGY AND APPLIED STANDARDS 10
2. TEST SUMMARY 11
3. DESCRIPTION OF TEST MODES 12
3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION 12
3.2 THE WORST MODE OF MEASUREMENT 13
3.3 EUT DUTY CYCLE 14
4. TEST RESULT 15
4.1 AC POWER LINE CONDUCTED EMISSION 15
4.2 26DB BANDWIDTH, 6DB BANDWIDTH AND OCCUPIED BANDWIDTH(99%) 18
4.3 OUTPUT POWER MEASUREMENT 46
4.4 POWER SPECTRAL DENSITY 51
4.5 RADIATION BANDEDGE AND SPURIOUS EMISSION 67
APPENDIX-A TEST PHOTO A-1
APPENDIX 1 - PHOTOGRAPHS OF EUT

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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	Astrogate Inc. 11F-6, No. 120, Qiaohe Rd., Zhonghe Dist., New Taipei City 235, Taiwan
Manufacturer	Astrogate Inc. 11F-6, No. 120, Qiaohe Rd., Zhonghe Dist., New Taipei City 235, Taiwan
Equipment	ASTROS Station
Model No.	AS-201, AWIP-201, WPS-201, AS-101, AWIP-101, WPS-101
Model Discrepancy	

Model	**color**	**spec**
AS-101	Black	Simultaneous sources x2
AWIP-101		
WPS-101		
AS-201	Silver	Simultaneous sources x4
AWIP-201		
WPS-201		
All the above models are identical except for the designation of trade names and model numbers.		

Trade Name	ASTROS
Received Date	January 6, 2021
Date of Test	February 3 ~ May 4, 2021

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Power Operation	1. Power from Power Adapter. Brand: ENG Electric Co., LTD., Model: 6A-242WP12 I/P: 100-240V, 50-60 Hz, 0.8A O/P: 12V, 2.0A, 24W 2. Power from Battery. (DC 3V) Brand: Hitachi Maxell Energy, Ltd., Model: CR2032
HW Version	DVT
SW Version	FW94
EUT Serial #	AS201WWXXXXXXXXX

Remark:

1. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.
2. Disclaimer: The variant model numbers / trademarks are assessed as identical in hardware and software to each other, hence all variants are fully covered by the test results in this test report without further verification test.

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1.2 EUT CHANNEL INFORMATION

<table>
<tr><td>Frequency Range</td><td>
<table>
<tr><td colspan="2">UNII-1</td></tr>
<tr><td>IEEE 802.11a</td><td>5180 ~ 5240 MHz</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5180 ~ 5240 MHz</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5190 ~ 5230 MHz</td></tr>
<tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5210 MHz</td></tr>
<tr><td colspan="2">UNII-3</td></tr>
<tr><td>IEEE 802.11a</td><td>5745 ~ 5825 MHz</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5745 ~ 5825 MHz</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5755 ~ 5795 MHz</td></tr>
<tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5775 MHz</td></tr>
</table>
</td></tr>
<tr><td>Modulation Type</td><td>1. IEEE 802.11a mode: OFDM
2. IEEE 802.11n HT 20 MHz mode: OFDM
3. IEEE 802.11n HT 40 MHz mode: OFDM
4. IEEE 802.11ac VHT 80 MHz mode: OFDM</td></tr>
</table>

Remark:
Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested		
Frequency range in which device operates	**Number of frequencies**	**Location in frequency range of operation**
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

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1.3 ANTENNA INFORMATION

Antenna Specification	☐ PIFA ☐ PCB ☒ Dipole ☐ Coils
Antenna Gain	Dipole Antenna / Chain 0: Gain: 2 dBi Chain 1: Gain: 2 dBi Power Directional Gain: 5.01 dBi
Antenna connector	N/A

Notes:
1. Power Directional Gain = 10*log { [10^(Ant1/20) + 10^(Ant2/20) + … + 10^(Ant N /20)]^2 / N ANT} dBi
2. Two dipole detachable Antennas used which uses a unique coupling to the EUT meeting rule 15.203.

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

Remark:
1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

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1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. (R.O.C.)

Test site	Test Engineer	Remark
AC Conduction Room	Jerry Chang	-
Radiation	Jerry Chang, Ray Li	-
RF Conducted	Lance Chen	-

Remark: The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

1.6 INSTRUMENT CALIBRATION

RF Conducted Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Coaxial Cable	Woken	WC12	CC003	06/29/2020	06/28/2021
Coaxial Cable	Woken	WC12	CC001	06/29/2020	06/28/2021
EXA Signal Analyzer	KEYSIGHT	N9010B	MY55460167	09/07/2020	09/06/2021
Power Meter	Anritsu	ML2487A	6K00003260	05/21/2020	05/20/2021
Power Seneor	Anritsu	MA2490A	032910	05/21/2020	05/20/2021
Software	N/A				

3M 966 Chamber Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Bilog Antenna	Sunol Sciences	JB3	A030105	07/24/2020	07/23/2021
Coaxial Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/25/2020	02/24/2021
Coaxial Cable	EMCI	EMC105	190914+327109/4	09/19/2020	09/18/2021
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/06/2021	01/05/2022
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	09/30/2020	09/29/2021
High Pass Filters	MICRO TRONICS	HPM13195	003	02/25/2020	02/24/2021
Horn Antenna	ETS LINDGREN	3116	00026370	12/11/2020	12/10/2021
Loop Ant	COM-POWER	AL-130	121051	03/27/2020	03/26/2021
Pre-Amplifier	EMEC	EM330	060609	02/25/2020	02/24/2021
Pre-Amplifier	HP	8449B	3008A00965	02/25/2020	02/24/2021
Pre-Amplifier	MITEQ	AMF-6F-18004000-37-8P	985646	09/02/2020	09/01/2021
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	07/24/2020	07/23/2021
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 6.11-20180413				

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For test date: March 3, 2021

3M 966 Chamber Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Bilog Antenna	Sunol Sciences	JB3	A030105	07/24/2020	07/23/2021
Coaxial Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/24/2021	02/23/2022
Coaxial Cable	EMCI	EMC105	190914+327109/4	09/19/2020	09/18/2021
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/06/2021	01/05/2022
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	09/30/2020	09/29/2021
High Pass Filters	MICRO TRONICS	HPM13195	003	02/08/2021	02/07/2022
Horn Antenna	ETS LINDGREN	3116	00026370	12/11/2020	12/10/2021
Loop Ant	COM-POWER	AL-130	121051	03/27/2020	03/26/2021
Pre-Amplifier	EMEC	EM330	060609	02/24/2021	02/23/2022
Pre-Amplifier	HP	8449B	3008A00965	12/25/2020	12/24/2021
Pre-Amplifier	MITEQ	AMF-6F-18004000-37-8P	985646	09/02/2020	09/01/2021
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	07/24/2020	07/23/2021
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 6.11-20180413				

AC line Conduction Test Room					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
CABLE	EMCI	CFD300-NL	CERF	06/29/2020	06/28/2021
EMI Test Receiver	R&S	ESCI	100064	07/17/2020	07/16/2021
LISN	SCHAFFNER	NNB 41	03/10013	02/02/2021	02/01/2022
Software	EZ-EMC(CCS-3A1-CE)				

Remark:
1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.

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1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

Support Equipment					
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**
	N/A				

Support Equipment					
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**
1	NB(J)	TOSHIBA	PT345T-00L002	N/A	DoC

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02, KDB 905462 D02.

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2. TEST SUMMARY

FCC Standard Sec.	Chapter	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207	4.1	AC Conducted Emission	Pass
15.403(i)	4.2	26dB Bandwidth	Pass
15.407(e)	4.2	6dB Bandwidth	Pass
2.1049	4.2	Occupied Bandwidth (99%)	Pass
15.407(a)	4.3	Output Power Measurement	Pass
15.407(a)	4.4	Power Spectral Density	Pass
15.407(b)	4.5	Radiation Band Edge	Pass
15.407(b)	4.5	Radiation Spurious Emission	Pass

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3. DESCRIPTION OF TEST MODES

3.1 THE EUT CHANNEL NUMBER OF OPERATING CONDITION

<table>
<tr><td>Operation mode</td><td>1. IEEE 802.11a mode: 6Mbps
2. IEEE 802.11n HT 20 MHz mode: MCS8
3. IEEE 802.11n HT 40 MHz mode: MCS8
4. IEEE 802.11ac VHT 80 MHz mode: MCS8</td></tr>
<tr><td>Operating Frequency</td><td>
<table>
<tr><th></th><th>Mode</th><th>Frequency Range (MHz)</th></tr>
<tr><td rowspan="4">U-NII-1</td><td>IEEE 802.11a</td><td>5180, 5220, 5240</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5180, 5220, 5240</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5190, 5230</td></tr>
<tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5210</td></tr>
<tr><td rowspan="4">U-NII-3</td><td>IEEE 802.11a</td><td>5745, 5785, 5825</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5745, 5785, 5825</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5755, 5795</td></tr>
<tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5775</td></tr>
</table>
</td></tr>
</table>

Remark:
1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.

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3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conducted Emission	
Test Condition	AC Power line conducted emission for line and neutral
Power supply Mode	Mode 1: EUT power by Adapter (AS-201) Mode 2: EUT power by Adapter (AS-101)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by Adapter(AS-201) Mode 2: EUT power by Adapter(AS-101)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☐ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☒ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Adapter(AS-201) Mode 2: EUT power by Adapter(AS-101)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:
1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Z-Plane) were recorded in this report

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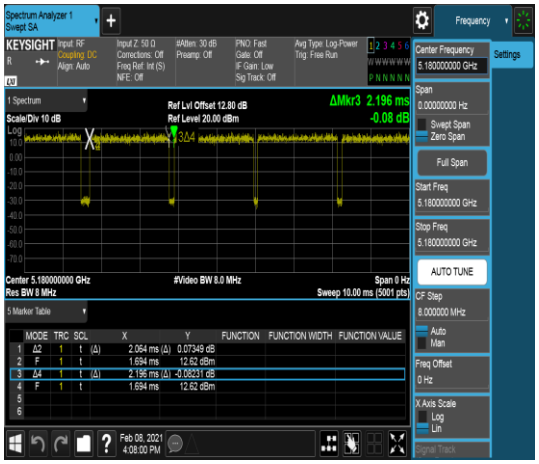
3.3 EUT DUTY CYCLE

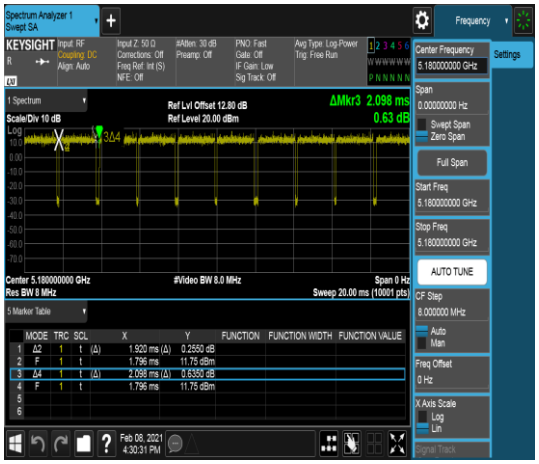
Temperature:	22.9℃	**Humidity:**	52.5% RH
Tested by:	Lance Chen	**Test date:**	February 8, 2021

Duty Cycle				
Configuration	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	94.00	0.27	0.48	1.00
802.11n HT20	92.00	0.36	0.52	1.00
802.11n HT40	91.00	0.41	1.06	2.00
802.11ac VHT80	66.00	1.80	2.16	3.00

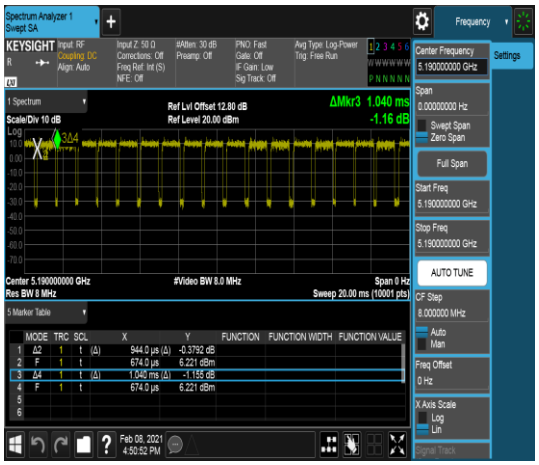
802.11a



802.11n HT20



802.11n HT40



802.11ac VHT80

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4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a),

Frequency Range (MHz)	Limits(dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

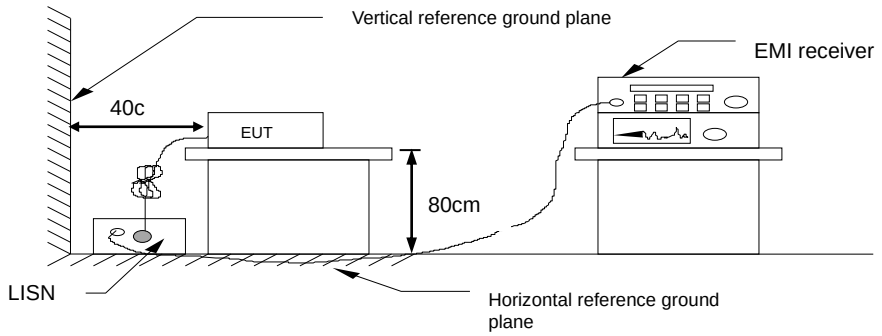
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

4.1.3 Test Setup



4.1.4 Test Result

Pass.

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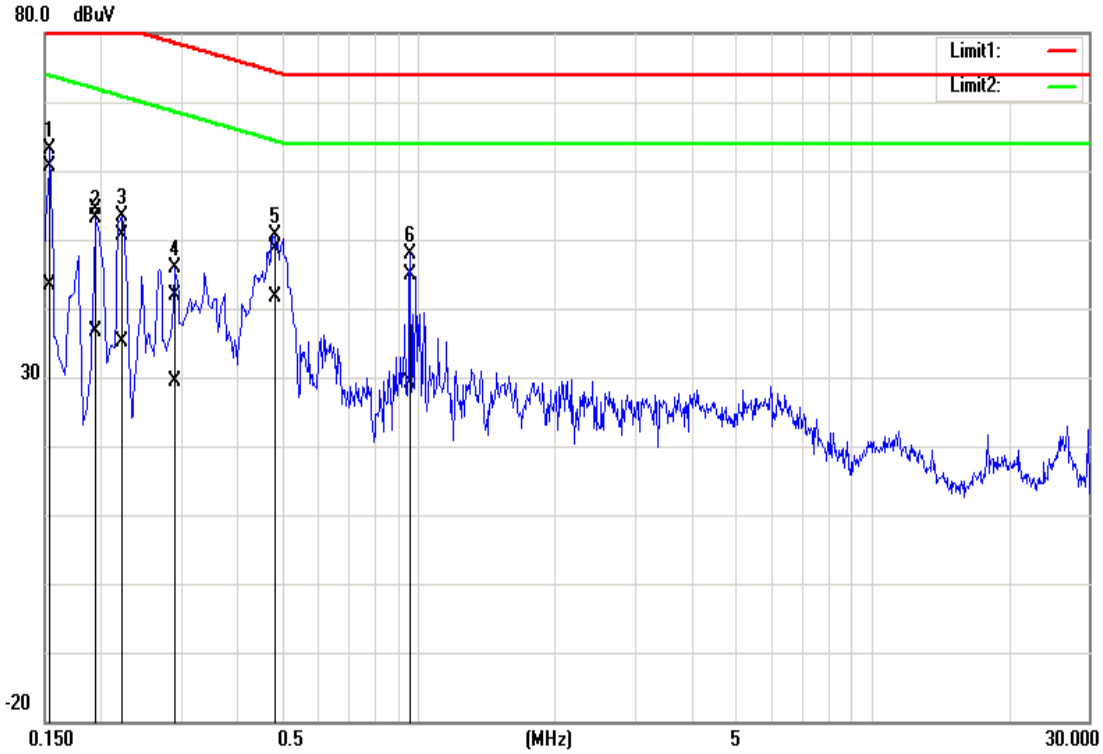
Test Data

Test Mode:	Mode 1	Temp/Hum	20.1(℃)/ 57%RH
Phase:	Line	Test Date	February 12, 2021
Test Voltage:	120Vac, 60Hz	Test Engineer	Jerry Chang



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1540	50.50	33.29	10.21	60.71	43.50	83.78	73.78	-23.07	-30.28	Pass
0.1940	44.13	26.34	10.21	54.34	36.55	81.86	71.86	-27.52	-35.31	Pass
0.2220	40.53	24.88	10.21	50.74	35.09	80.74	70.74	-30.00	-35.65	Pass
0.2900	31.60	19.13	10.21	41.81	29.34	78.52	68.52	-36.71	-39.18	Pass
0.4820	38.50	31.34	10.22	48.72	41.56	74.30	64.30	-25.58	-22.74	Pass
0.9620	34.56	18.92	10.24	44.80	29.16	74.00	64.00	-29.20	-34.84	Pass

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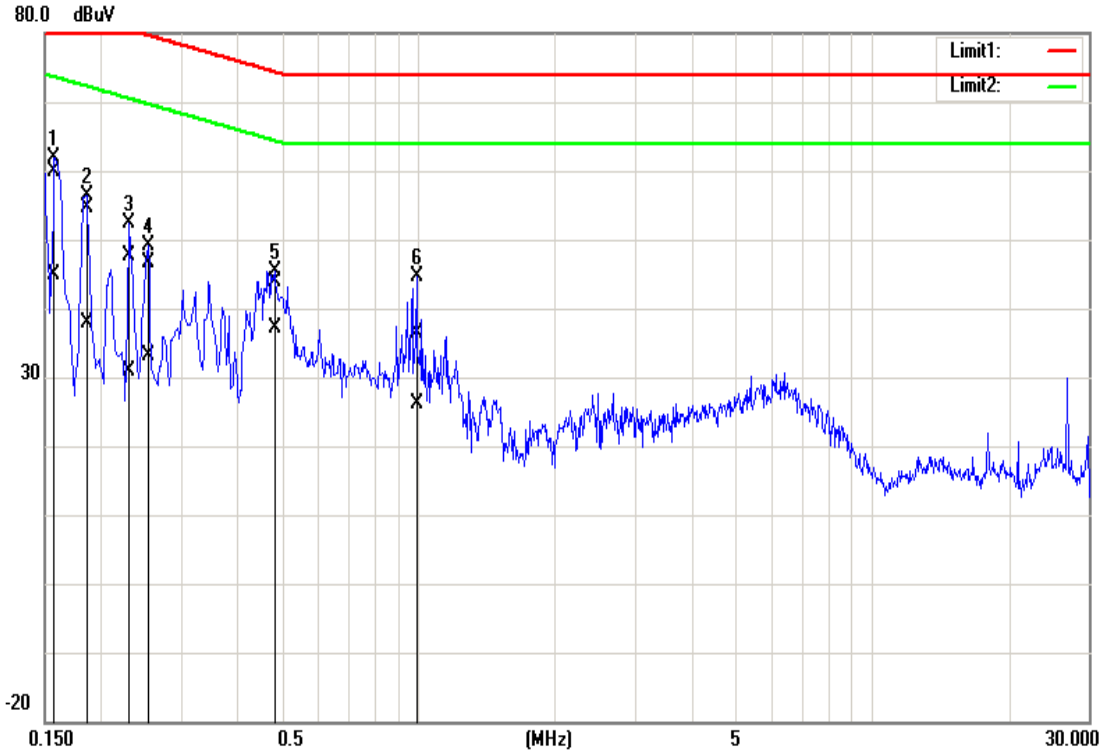
Test Mode:	Mode 1	Temp/Hum	20.1(℃)/ 57%RH
Phase:	Neutral	Test Date	February 12, 2021
Test Voltage:	120Vac, 60Hz	Test Engineer	Jerry Chang



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1580	49.77	34.59	10.18	59.95	44.77	83.57	73.57	-23.62	-28.80	Pass
0.1860	44.38	27.71	10.19	54.57	37.90	82.21	72.21	-27.64	-34.31	Pass
0.2300	37.54	20.80	10.19	47.73	30.99	80.45	70.45	-32.72	-39.46	Pass
0.2540	36.44	23.02	10.19	46.63	33.21	79.63	69.63	-33.00	-36.42	Pass
0.4820	33.70	26.98	10.19	43.89	37.17	74.30	64.30	-30.41	-27.13	Pass
0.9940	26.26	15.98	10.21	36.47	26.19	74.00	64.00	-37.53	-37.81	Pass

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4.2 26dB BANDWIDTH, 6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

4.2.1 Test Limit

26 dB Bandwidth ：For reporting purposes only.

6 dB Bandwidth ：Least 500kHz.

Occupied Bandwidth(99%) ： For reporting purposes only.

4.2.2 Test Procedure

26dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

2. Set RBW: approximately 1% of the emission bandwidth.

3. Set the VBW>RBW.

4. Detoctor = Peak.

5. Trace mode = max hold.

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

6dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

2. Set RBW = 100 kHz.

3. Set the video bandwidth (VBW) ≥ 3 x RBW.

4. Detoctor = Peak.

5. Trace mode = max hold.

6. Sweep = auto couple.

7. Allow the trace to stabilize.

8. 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.

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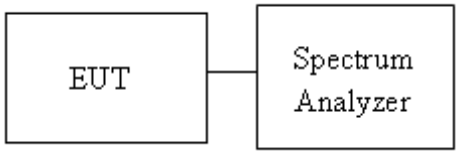
99%

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5% of the OBW.
5. Set VBW ≧ 3 xRBW

4.2.3 Test Setup



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4.2.4 Test Result

Temperature:	22.9℃	**Humidity:**	52.5% RH
Tested by:	Lance Chen	**Test date:**	February 8, 2021

UNII-1 5150-5250 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	16.355	16.352	18.27	18.36
Mid	5220	16.551	16.451	28.87	24.73
High	5240	16.610	16.499	28.89	24.38
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	17.558	17.563	19.42	19.55
Mid	5220	17.717	17.626	29.12	25.17
High	5240	17.559	17.544	19.49	19.57
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5190	35.992	36.027	40.33	40.26
High	5230	36.055	36.059	40.67	40.33
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Mid	5210	74.604	74.610	80.76	79.88

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UNII-3					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5745	16.368	16.372	16.36	16.35
Mid	5785	16.365	16.351	16.35	16.34
High	5825	16.376	16.353	16.42	16.34
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5745	17.555	17.551	17.58	17.57
Mid	5785	17.544	17.540	17.58	17.55
High	5825	17.557	17.543	17.56	17.57
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5755	36.065	36.033	33.85	33.72
High	5795	36.035	36.015	35.16	33.14
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Mid	5775	74.774	74.616	75.15	75.02

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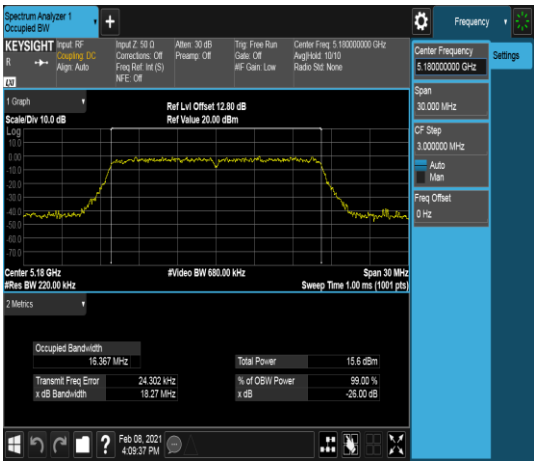
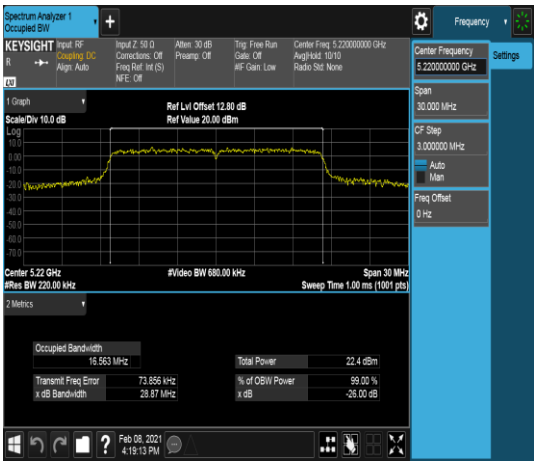
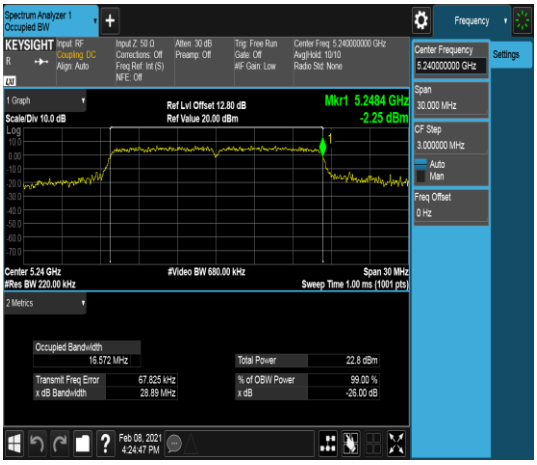
Test Data

26dB BANDWIDTH

UNII-1 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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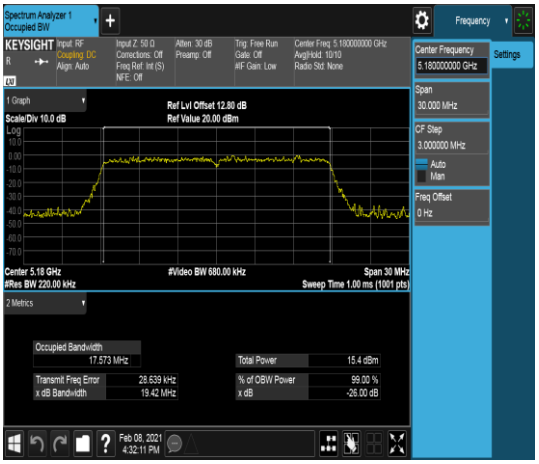
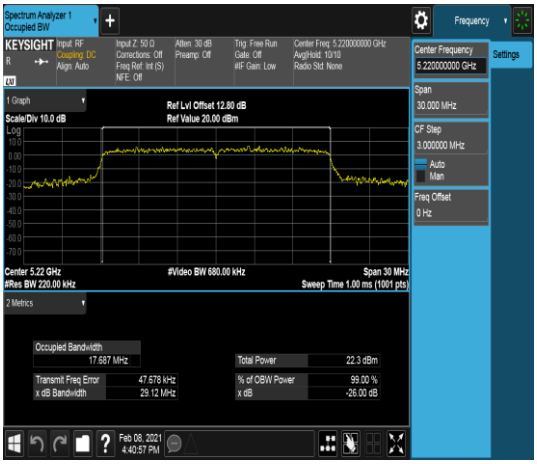
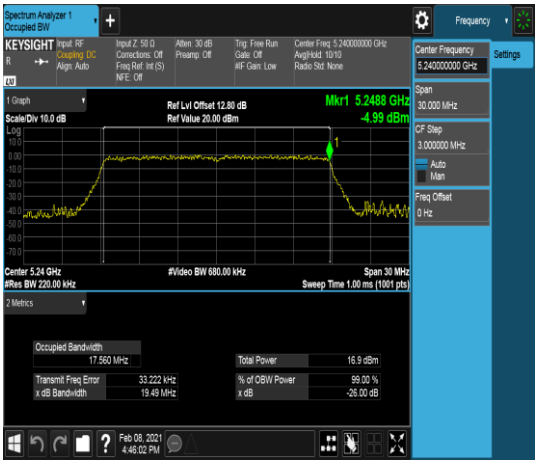
UNII-1 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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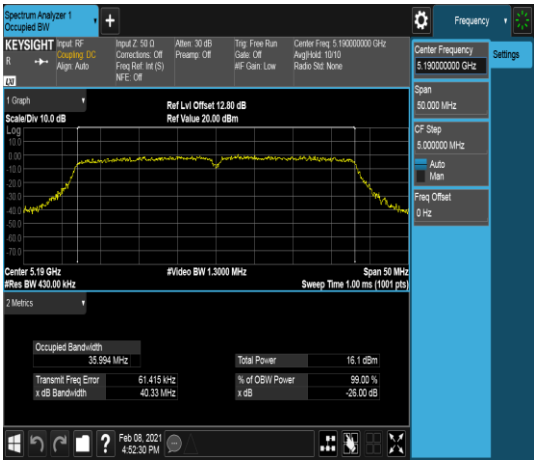
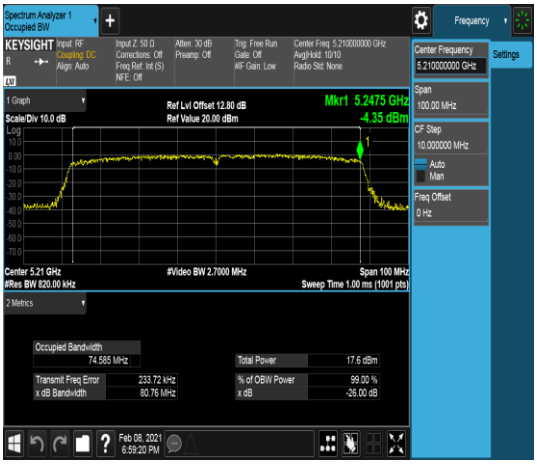
UNII-1 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

UNII-1 IEEE 802.11ac VHT80 mode- chain 0	
Low CH	
	

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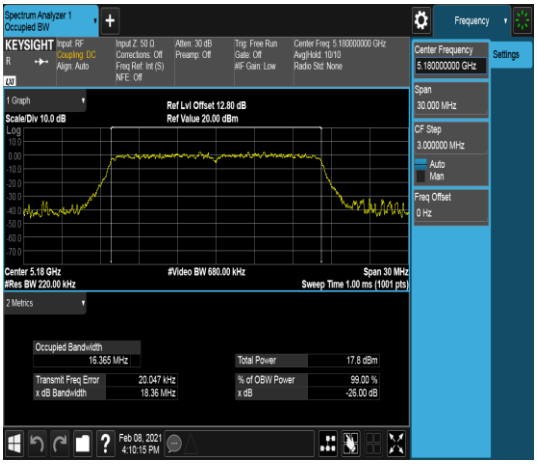
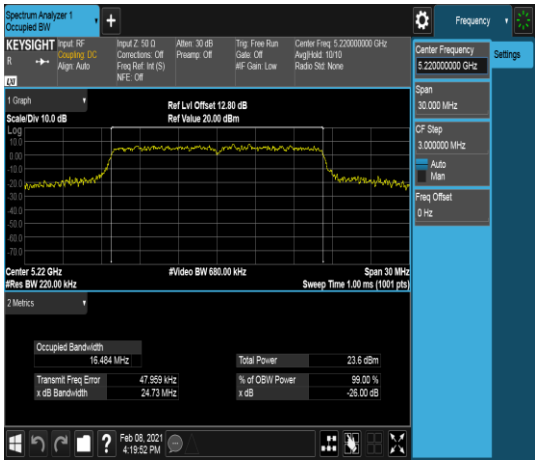
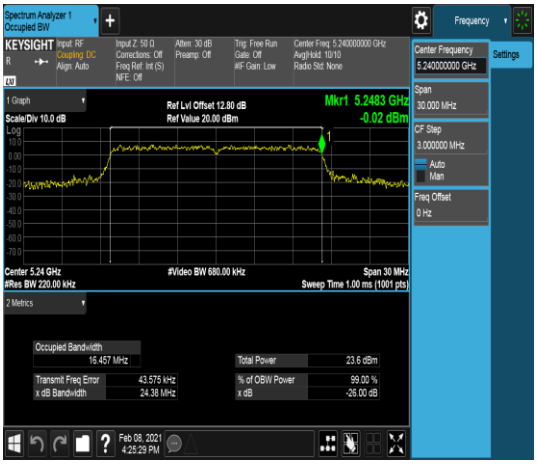
UNII-1 IEEE 802.11a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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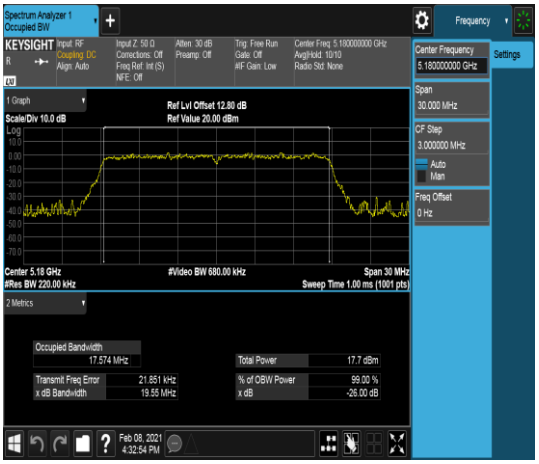
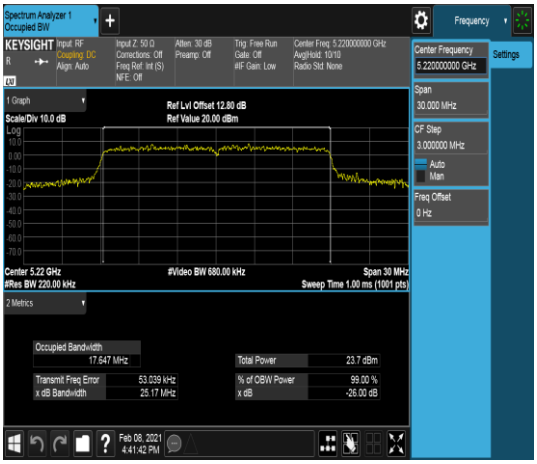
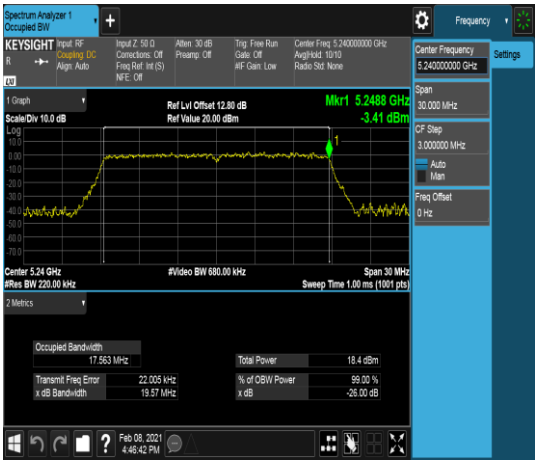
UNII-1 IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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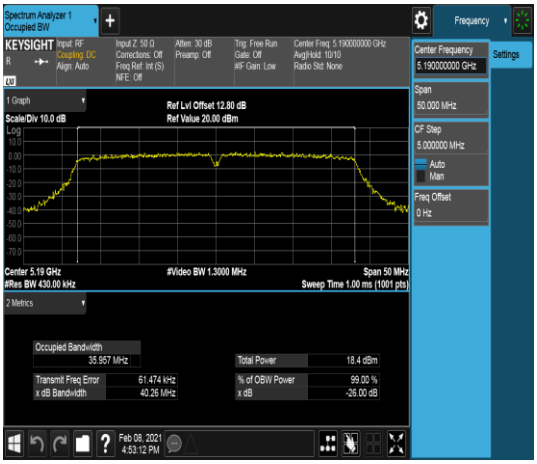
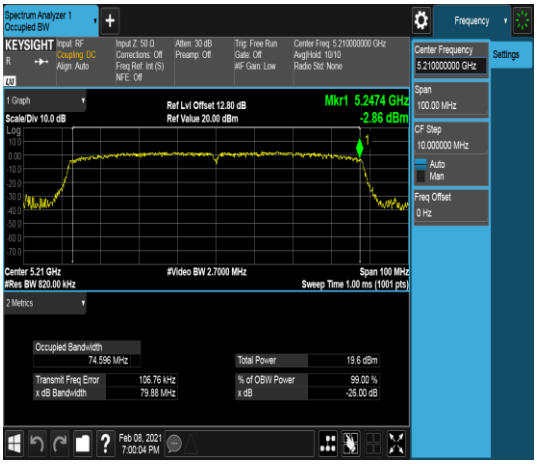
UNII-1 IEEE 802.11n HT40 mode- chain 1	
Low CH	**High CH**
	

UNII-1 IEEE 802.11ac VHT80 mode- chain 1	
Low CH	
	

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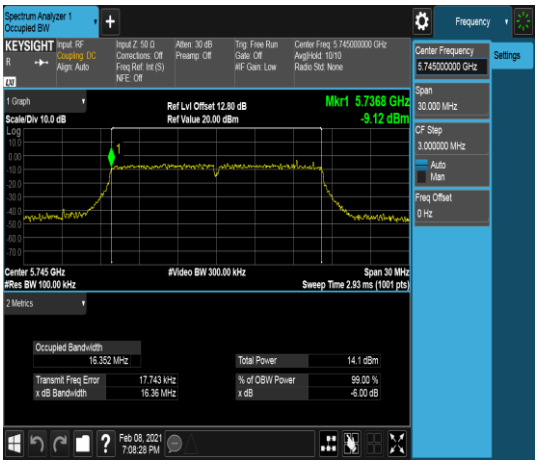
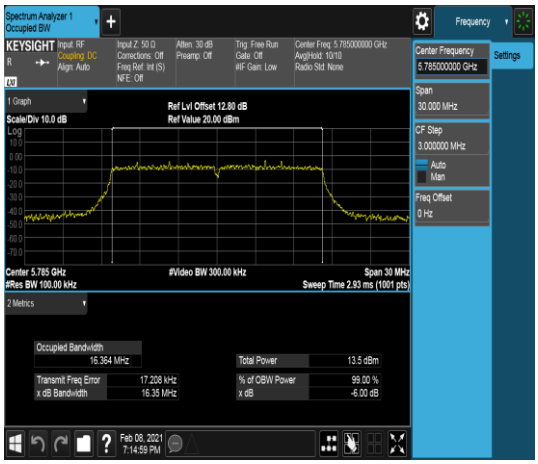
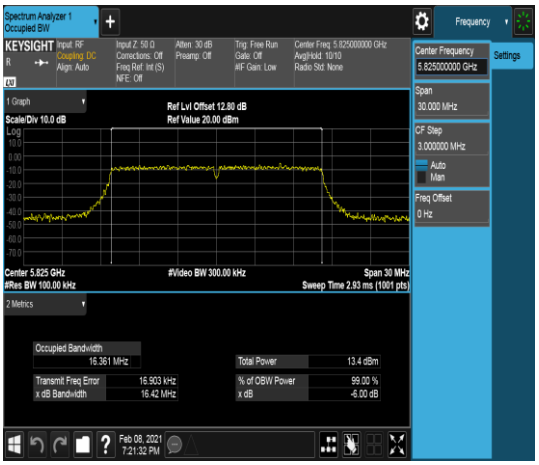
6dB BANDWIDTH

UNII-3 IEEE 802.11n a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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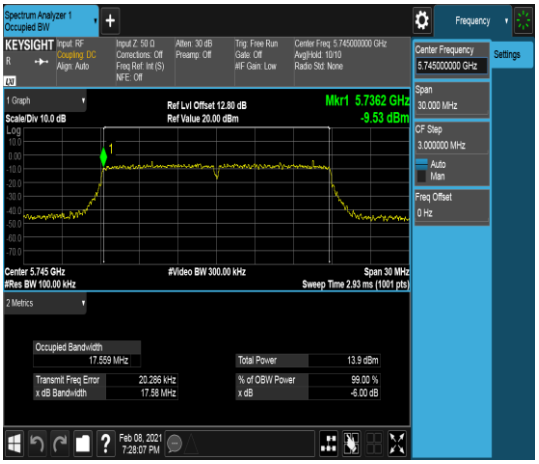
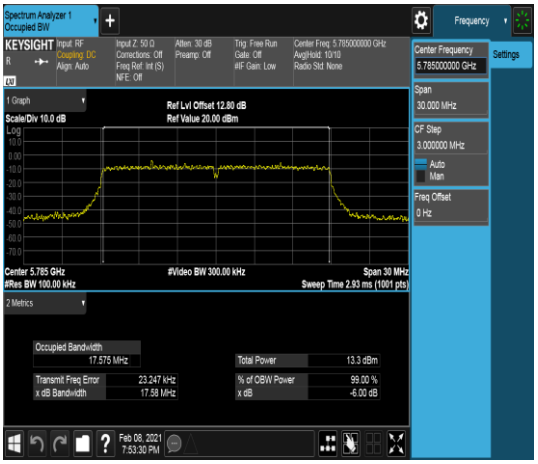
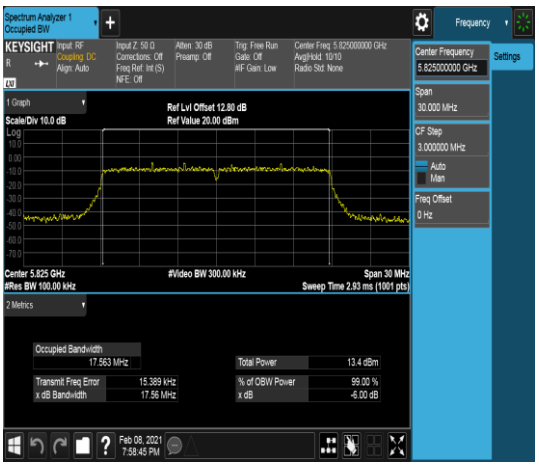
UNII-3 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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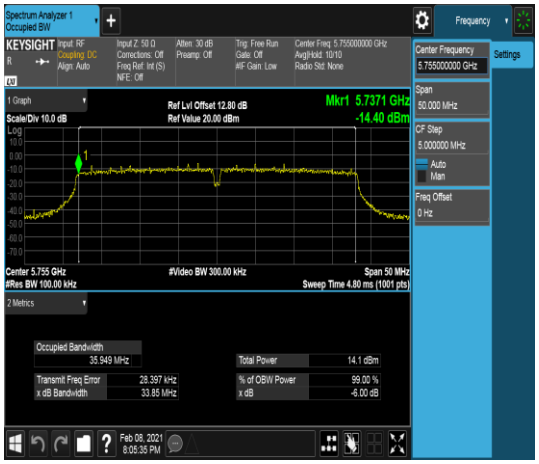
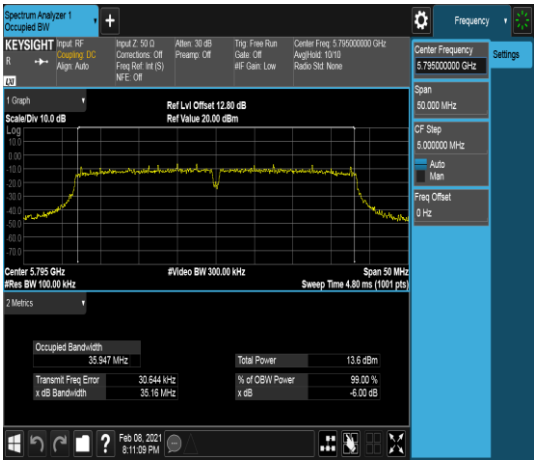
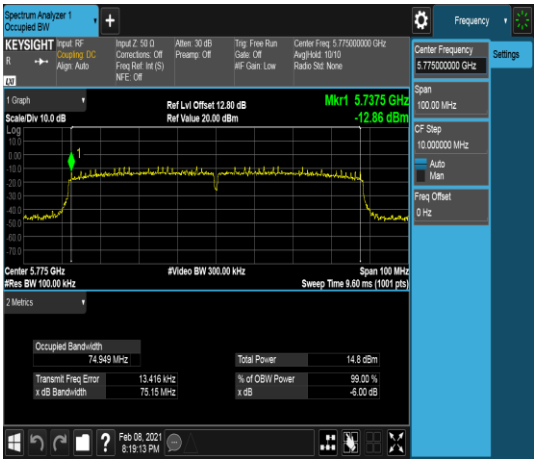
UNII-3 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

UNII-3 IEEE 802.11ac VHT80 mode- chain 0	
Mid CH	
	

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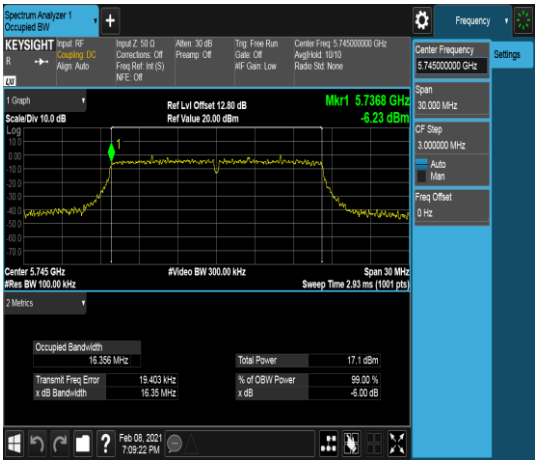
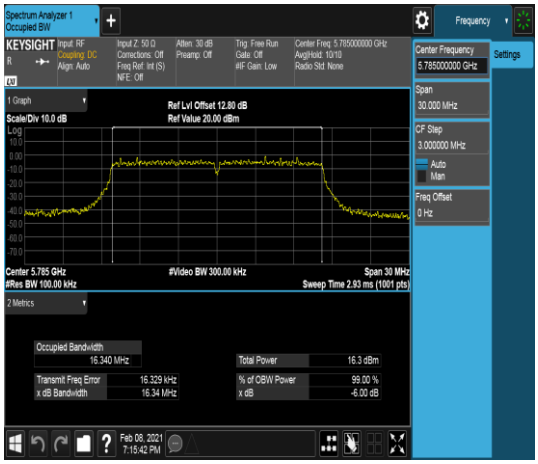
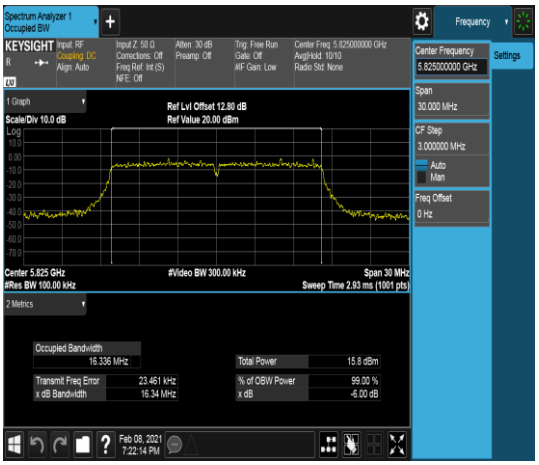
UNII-3 IEEE 802.11n a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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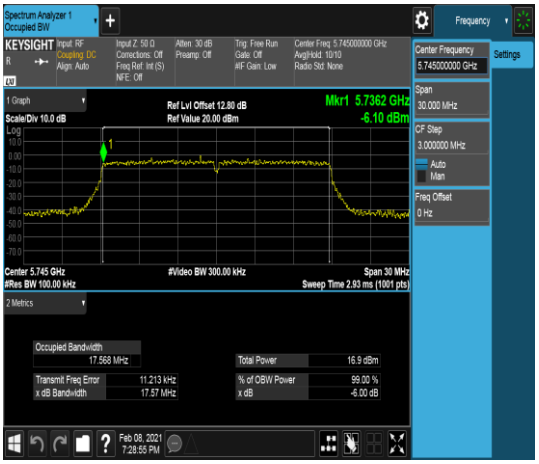
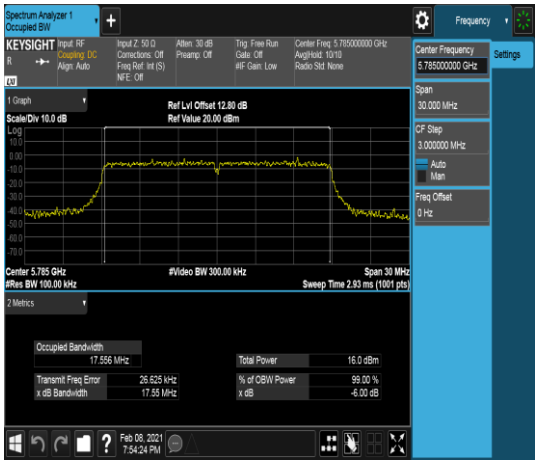
UNII-3 IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	

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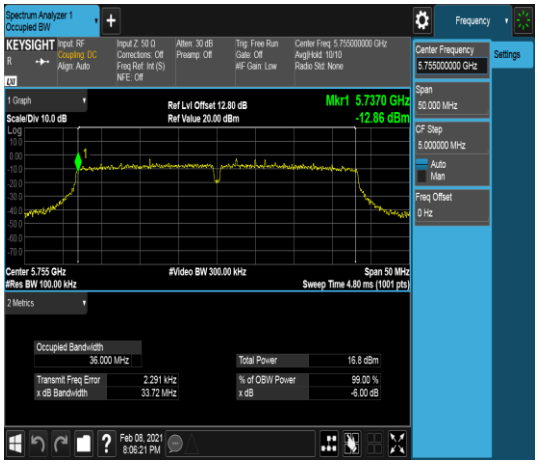
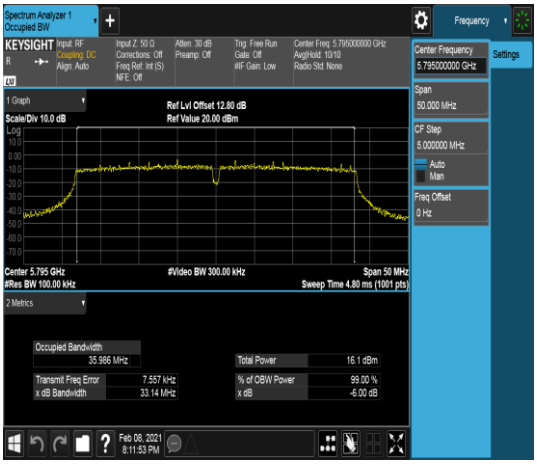
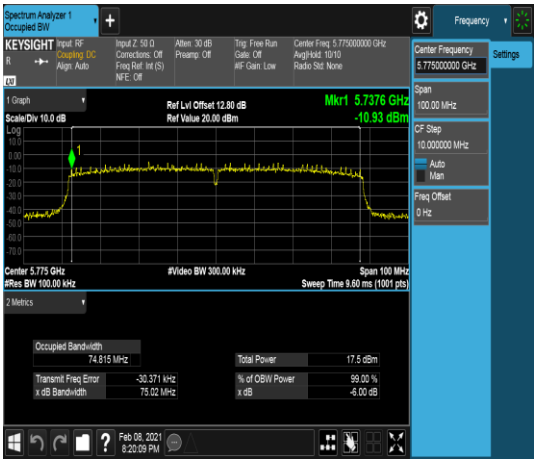
UNII-3 IEEE 802.11n HT40 mode- chain 1	
Low CH	**High CH**
	

UNII-3 IEEE 802.11ac VHT80 mode- chain 1	
Mid CH	
	

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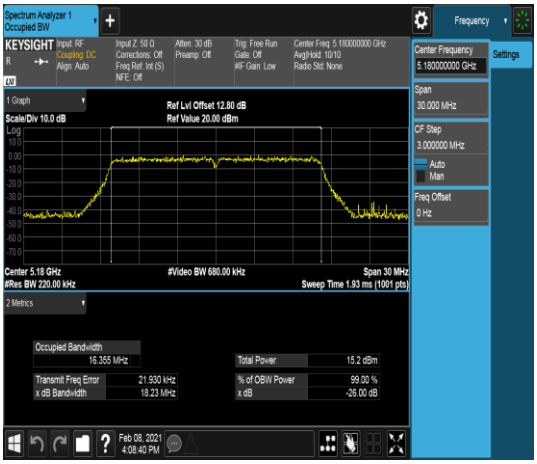
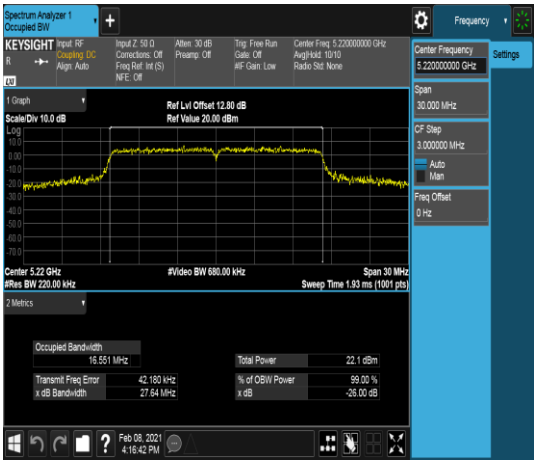
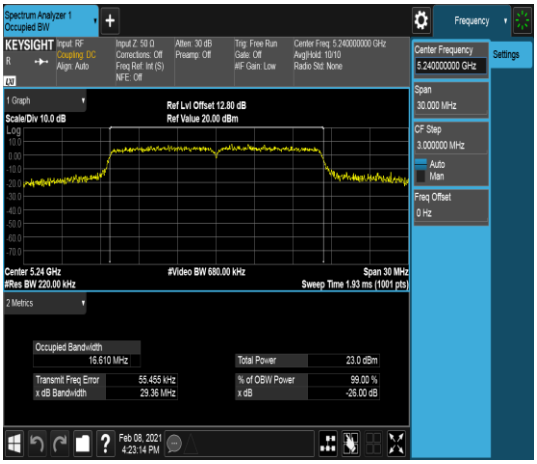
Test Data (OBW 99%)

UNII-1 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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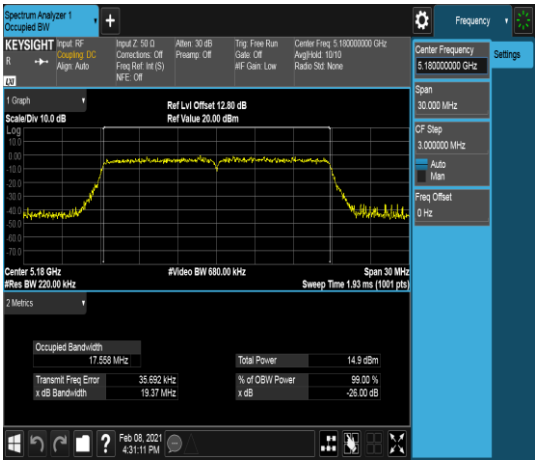
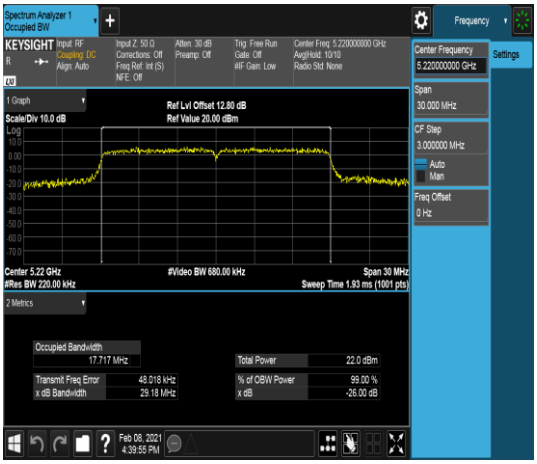
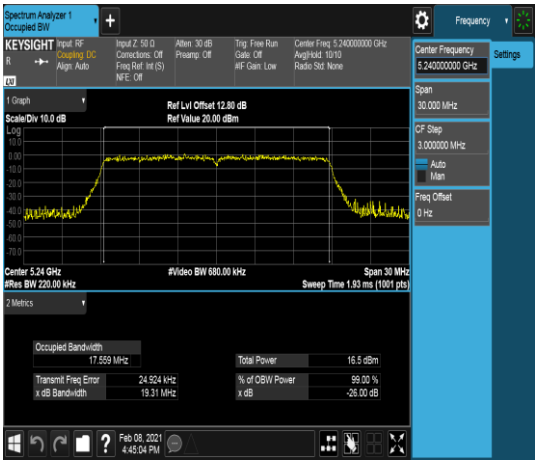
UNII-1 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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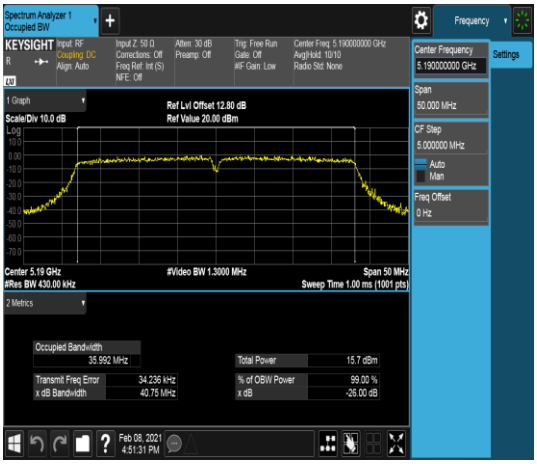
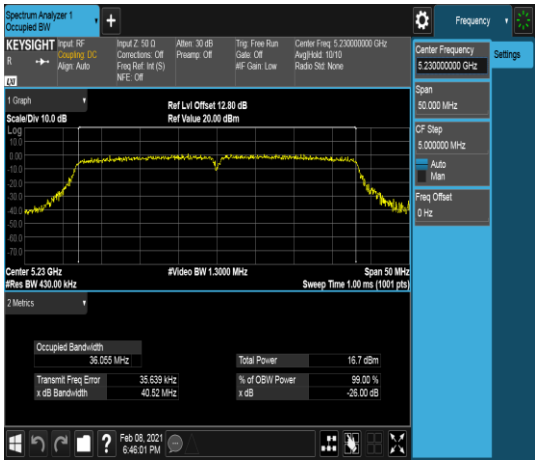
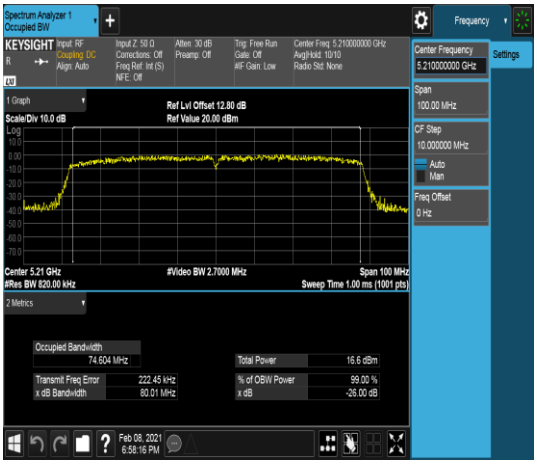
UNII-1 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

UNII-1 IEEE 802.11ac VHT80 mode- chain 0	
Low CH	
	

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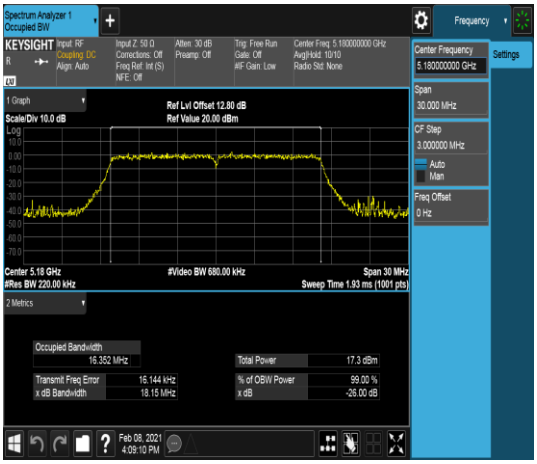
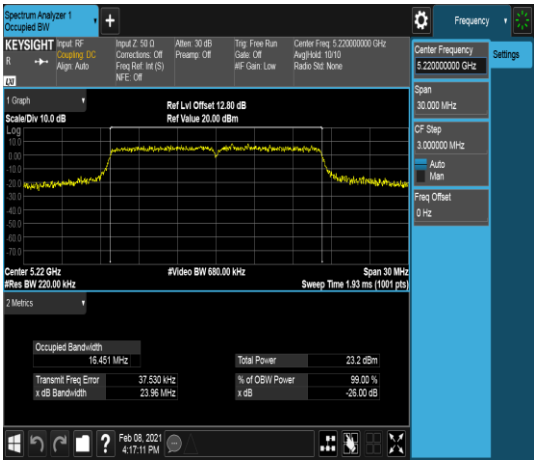
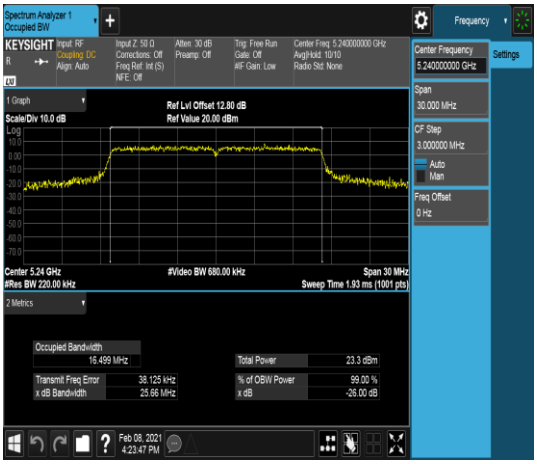
UNII-1 IEEE 802.11a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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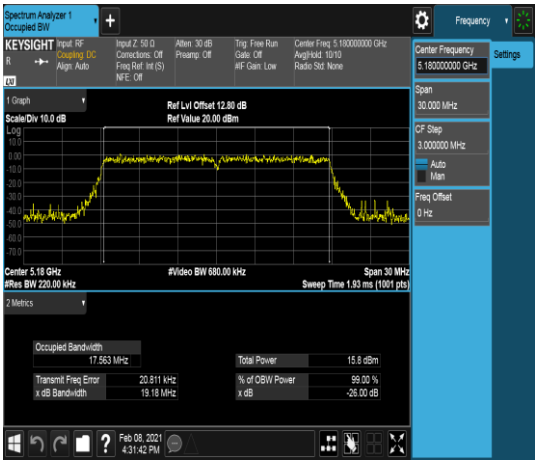
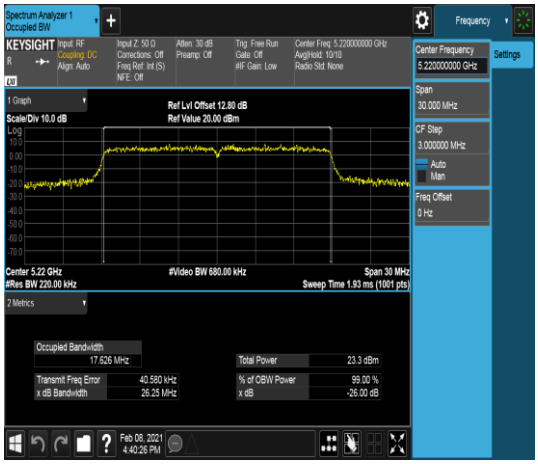
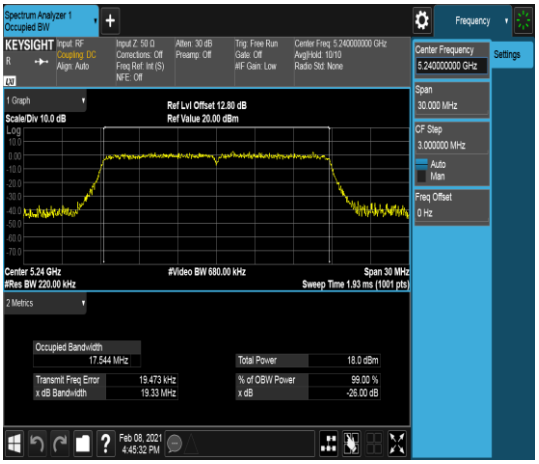
UNII-1 IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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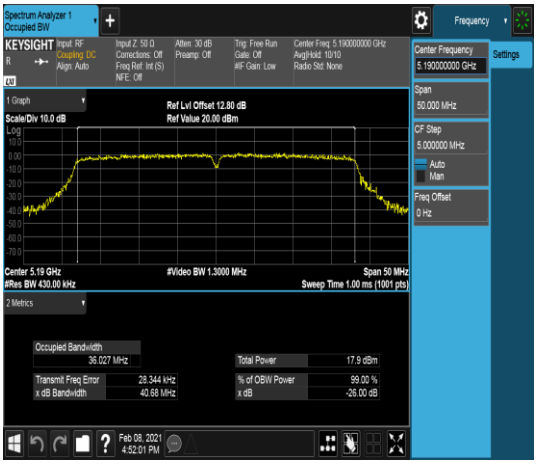
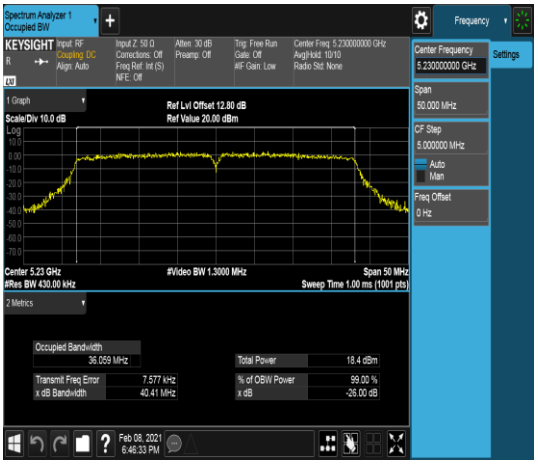
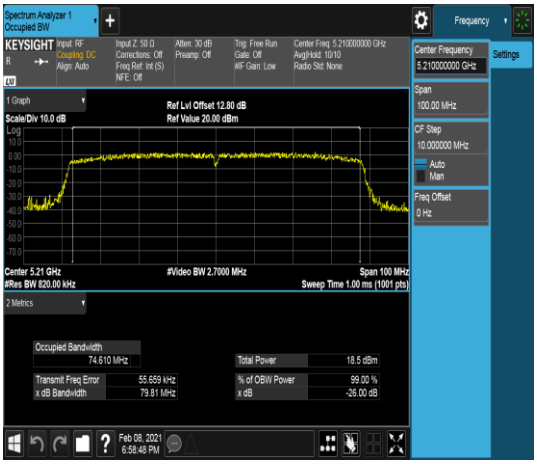
UNII-1 IEEE 802.11n HT40 mode- chain 1	
Low CH	**High CH**
	

UNII-1 IEEE 802.11ac VHT80 mode- chain 1	
Low CH	
	

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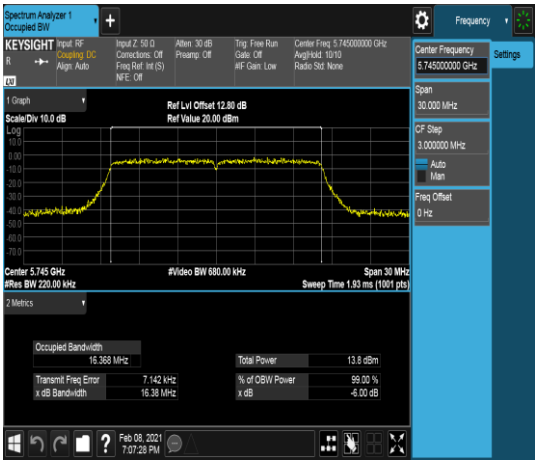
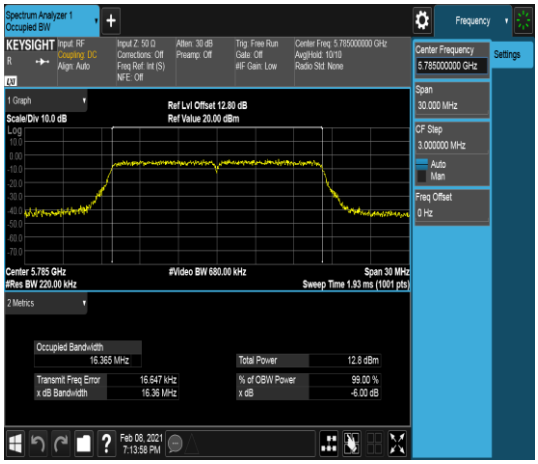
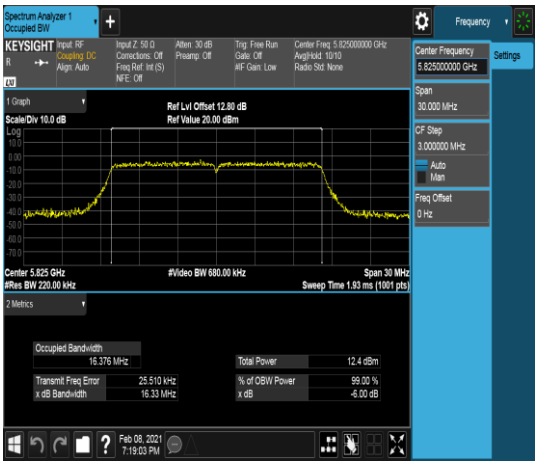
UNII-3 IEEE 802.11n a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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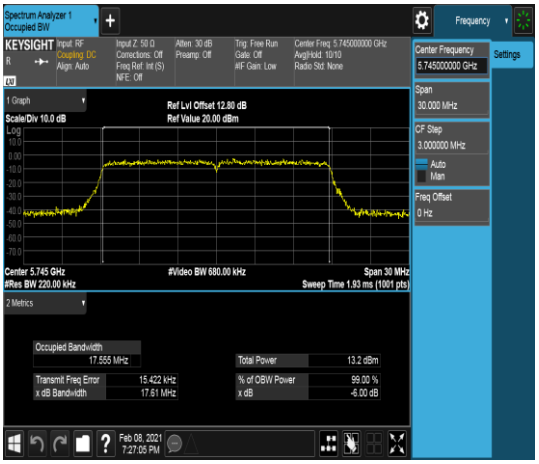
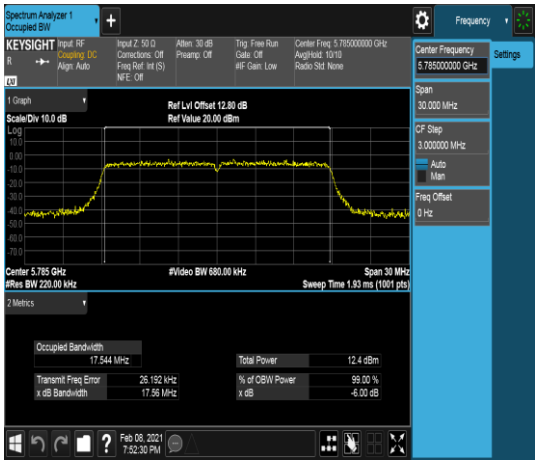
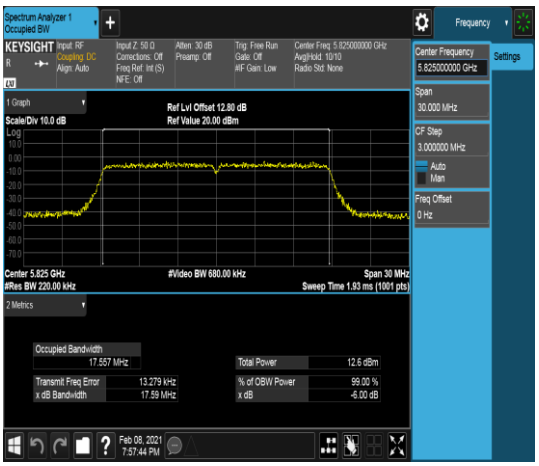
UNII-3 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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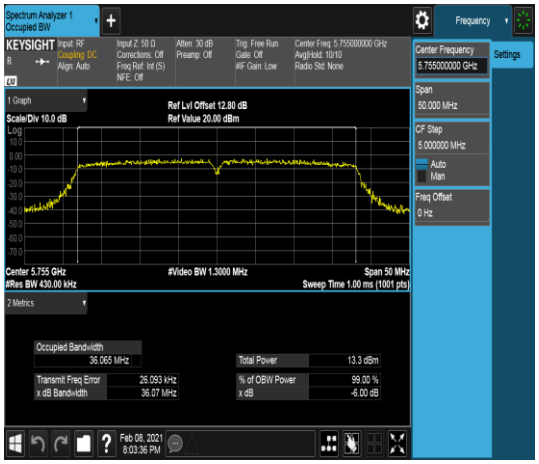
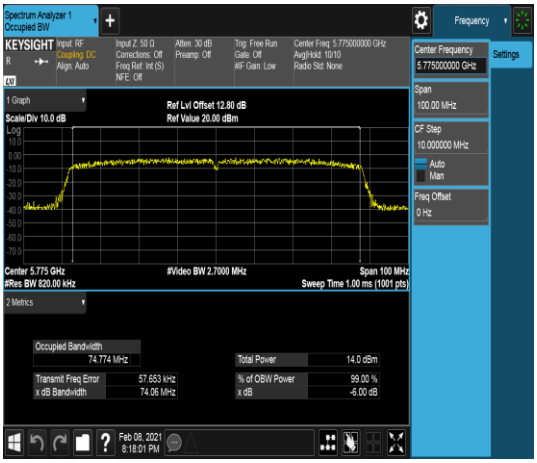
UNII-3 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

UNII-3 IEEE 802.11ac VHT80 mode- chain 0	
Mid CH	
	

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