RADIO TEST REPORT
FCC 47 CFR PART 15 SUBPART E

Test Standard	**FCC Part 15.407**
Product name	**Yushan X-ray Flat Panel Detector**
Brand Name	**INCX**
Model No.	**V17C, V14C, V14G, V17G, F14C, F14G**
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:

Shawn Wu
Supervisor

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	December 29, 2022	Initial Issue	ALL	Doris Chu

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1. GENERAL INFORMATION

1.1 EUT INFORMATION

<table>
<tr><td>Applicant</td><td colspan="6">InnoCare Optoelectronics Corp.
Rm. B, No. 2, Sec. 2, Huanxi Rd., Southern Taiwan Science Park, Xinshi Dist., Tainan, 741 Taiwan</td></tr>
<tr><td>Manufacturer</td><td colspan="6">InnoCare Optoelectronics Corp.
Rm. B, No. 2, Sec. 2, Huanxi Rd., Southern Taiwan Science Park, Xinshi Dist., Tainan City 741, Taiwan, R.O.C.</td></tr>
<tr><td>Equipment</td><td colspan="6">Yushan X-ray Flat Panel Detector</td></tr>
<tr><td>Model Name</td><td colspan="6">V17C, V14C, V14G, V17G, F14C, F14G</td></tr>
<tr><td rowspan="8">Model Discrepancy</td><td colspan="2">Model</td><td>PCBA X-Board</td><td>ROIC</td><td>Scintillator</td><td>Other</td></tr>
<tr><td>Main</td><td>V17C</td><td rowspan="6">different size</td><td>12</td><td>CsI</td><td rowspan="6">Marketing Differences</td></tr>
<tr><td rowspan="5">Series</td><td>V17G</td><td>12</td><td>GOS</td></tr>
<tr><td>V14C</td><td>10</td><td>CsI</td></tr>
<tr><td>V14G</td><td>10</td><td>GOS</td></tr>
<tr><td>F14C</td><td>10</td><td>CsI</td></tr>
<tr><td>F14G</td><td>10</td><td>GOS</td></tr>
<tr><td>Brand Name</td><td colspan="6">INCX</td></tr>
<tr><td>Received Date</td><td colspan="6">November 2, 2022</td></tr>
<tr><td>Date of Test</td><td colspan="6">November 10 ~ 23, 2022</td></tr>
<tr><td>Power Supply</td><td colspan="6">1. Power from Power Adapter.
Mean well / GSM60A24-P1L
I/P: 100-240VAC, 1.4-0.7A, 50-60Hz
O/P: 24VDC, 2.5A, 60W MAX.
2. Power from Battery.
11.4VDC, 4231mAh or 4129mAh/48Wh</td></tr>
<tr><td>HW Version</td><td colspan="6">V06</td></tr>
<tr><td>SW Version</td><td colspan="6">v111.253</td></tr>
</table>

Remark:
1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.
3. Disclaimer: The variant 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</td><td>5180 ~ 5240 MHz</td></tr>
<tr><td>IEEE 802.11n HT 40</td><td>5190 ~ 5230 MHz</td></tr>
<tr><td>IEEE 802.11ac VHT 20</td><td>5180 ~ 5240 MHz</td></tr>
<tr><td>IEEE 802.11ac VHT 40</td><td>5190 ~ 5230 MHz</td></tr>
<tr><td>IEEE 802.11ac VHT 80</td><td>5210 MHz</td></tr>
<tr><td>IEEE 802.11ax HE 20</td><td>5180 ~ 5240 MHz</td></tr>
<tr><td>IEEE 802.11ax HE 40</td><td>5190 ~ 5230 MHz</td></tr>
<tr><td>IEEE 802.11ax HE 80</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</td><td>5745 ~ 5825 MHz</td></tr>
<tr><td>IEEE 802.11n HT 40</td><td>5755 ~ 5795 MHz</td></tr>
<tr><td>IEEE 802.11ac VHT 20</td><td>5745 ~ 5825 MHz</td></tr>
<tr><td>IEEE 802.11ac VHT 40</td><td>5755 ~ 5795 MHz</td></tr>
<tr><td>IEEE 802.11ac VHT 80</td><td>5775 MHz</td></tr>
<tr><td>IEEE 802.11ax HE 20</td><td>5745 ~ 5825 MHz</td></tr>
<tr><td>IEEE 802.11ax HE 40</td><td>5755 ~ 5795 MHz</td></tr>
<tr><td>IEEE 802.11ax HE 80</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 mode: OFDM
3. IEEE 802.11n HT 40 mode: OFDM
4. IEEE 802.11ac VHT 20 mode: OFDM
5. IEEE 802.11ac VHT 40 mode: OFDM
6. IEEE 802.11ac VHT 80 mode: OFDM
7. IEEE 802.11ax HE 20 mode: OFDMA
8. IEEE 802.11ax HE 40 mode: OFDMA
9. IEEE 802.11ax HE 80 mode: OFDMA</td></tr>
</table>

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

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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

1.3 ANTENNA INFORMATION

Antenna Specification	☐ PIFA ☒ PCB ☐ Dipole ☐ Coils
Antenna Gain	Chain 0: 5150~5250MHz: Gain: 0.64 dBi 5725~5850MHz: Gain: 0.64 dBi Chain 1: 5150~5250MHz: Gain: -0.89 dBi 5725~5850MHz: Gain: -0.89 dBi Direction Gain: 5150~5250MHz: Gain: 2.92 dBi 5725~5850MHz: Gain: 2.92 dBi
Antenna connector	I-PEX

Notes:
1. Power Directional Gain = 10*log { [10^(Ant1/20) + 10^(Ant2/20) + … + 10^(Ant N /20)]^2 / N ANT} dBi
2. The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.

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1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.1183
Channel Bandwidth	± 2.1863
RF output power (Spectrum)	± 2.1865
Power Spectral density	± 2.1855
Radiated Emission_9kHz-30MHz	± 3.814
Radiated Emission_30MHz-200MHz	± 4.272
Radiated Emission_200MHz-1GHz	± 4.619
Radiated Emission_1GHz-6GHz	± 5.522
Radiated Emission_6GHz-18GHz	± 5.228
Radiated Emission_18GHz-26GHz	± 4.089
Radiated Emission_26GHz-40GHz	± 4.019

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.

☐ No. 12, Ln. 116, Wugong 3rd Rd., Wugu Dist., New Taipei City, Taiwan 24803

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	Tony Chao	-
Radiation	Ray Li, Tony Chao	-
RF Conducted	David Li	-

Remark: The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC pubic Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309

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1.6 INSTRUMENT CALIBRATION

RF Conducted Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Power Meter	Anritsu	ML2496A	2136002	2021-12-06	2022-12-05
EXA Signal Analyzer	Keysight	N9010B	MY60242460	2022-01-30	2023-01-29
Power Sensor	Anritsu	MA2411B	1911386	2022-08-08	2023-08-07
Power Sensor	Anritsu	MA2411B	1911387	2022-08-08	2023-08-07
Software	Radio Test Software Ver. 21				

3M 966 Chamber Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
K-Type Cable	Huber+Suhner	SUCOFLEX 102	29406/2	2021-12-05	2022-12-04
Bi-Log Antenna	Sunol Sciences	JB3	A030105	2022-08-03	2023-08-02
Spectrum Analyzer	Agilent	E4446A	MY46180323	2021-12-06	2022-12-05
Thermo-Hygro Meter	WISEWIND	1206	D07	2021-12-28	2022-12-27
Loop Antenna	COM-POWER	AL-130	121051	2022-04-13	2023-04-12
Horn Antenna	SCHWARZBECK	BBHA9170	1047	2022-01-11	2023-01-10
Coaxial Cable	EMCI	EMC101G- KM-KM-500	211041	2021-12-23	2022-12-22
Coaxial Cable	EMC	EMC101G-KM-KM-9000	211042	2021-12-23	2022-12-22
Pre-Amplifier	EMCI	EMC184045SE	980860	2021-12-28	2022-12-27
Horn Antenna	ETS LINDGREN	3116	00026370	2021-11-30	2022-11-29
Cable	Woken	J-1099	201709090004	2021-12-23	2022-12-22
Preamplifier	EMEC	EM330	060609	2022-02-23	2023-02-22
Preamplifier	HP	8449B	3008A00965	2021-12-24	2022-12-23
Cable	Huber+Suhner	104PEA	20995+11112+182330	2022-02-23	2023-02-22
Coaxial Cable	EMCI	EMC105	190914+33953	2022-06-15	2023-06-14
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2022-01-25	2023-01-24
High Pass Filters	MICRO TRONICS	HPM13195	003	2022-02-10	2023-02-09
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Software	e3 210616				

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

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AC Conducted Emissions Test Site					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal Date**	**Cal Due**
CABLE	EMCI	CFD300-NL	CERF	2022-06-27	2023-06-26
EMI Test Receiver	R&S	ESCI	100064	2022-06-17	2023-06-16
LISN	SCHAFFNER	NNB 41	03/10013	2022-02-15	2023-02-14
Software	EZ-EMC(CCS-3A1-CE-WUGU)				

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

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment						
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**	**IC**
	N/A					

Support Equipment						
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**	**IC**
1	NB(E)	Lenovo	T460	N/A	N/A	N/A

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 662911.

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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
15.407(a)	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 mode: MCS0
3. IEEE 802.11n HT 40 mode: MCS0
4. IEEE 802.11ac VHT 20 mode: MCS0
5. IEEE 802.11ac VHT 40 mode: MCS0
6. IEEE 802.11ac VHT 80 mode: MCS0
7. IEEE 802.11ax HE 20 mode: MCS0
8. IEEE 802.11ax HE 40 mode: MCS0
9. IEEE 802.11ax HE 80 mode: MCS0</td></tr>
<tr><td>Operating Frequency</td><td>
<table>
<tr><th></th><th>Mode</th><th>Frequency Range (MHz)</th></tr>
<tr><td rowspan="9">U-NII-1</td><td>IEEE 802.11a</td><td>5180, 5220, 5240</td></tr>
<tr><td>IEEE 802.11n HT 20</td><td>5180, 5220, 5240</td></tr>
<tr><td>IEEE 802.11n HT 40</td><td>5190, 5230</td></tr>
<tr><td>IEEE 802.11ac VHT 20</td><td>5180, 5220, 5240</td></tr>
<tr><td>IEEE 802.11ac VHT 40</td><td>5190, 5230</td></tr>
<tr><td>IEEE 802.11ac VHT 80</td><td>5210</td></tr>
<tr><td>IEEE 802.11ax HE 20</td><td>5180, 5220, 5240</td></tr>
<tr><td>IEEE 802.11ax HE 40</td><td>5190, 5230</td></tr>
<tr><td>IEEE 802.11ax HE 80</td><td>5210</td></tr>
<tr><td rowspan="9">U-NII-3</td><td>IEEE 802.11a</td><td>5745, 5785, 5825</td></tr>
<tr><td>IEEE 802.11n HT 20</td><td>5745, 5785, 5825</td></tr>
<tr><td>IEEE 802.11n HT 40</td><td>5755, 5795</td></tr>
<tr><td>IEEE 802.11ac VHT 20</td><td>5745, 5785, 5825</td></tr>
<tr><td>IEEE 802.11ac VHT 40</td><td>5755, 5795</td></tr>
<tr><td>IEEE 802.11ac VHT 80</td><td>5775</td></tr>
<tr><td>IEEE 802.11ax HE 20</td><td>5745, 5785, 5825</td></tr>
<tr><td>IEEE 802.11ax HE 40</td><td>5755, 5795</td></tr>
<tr><td>IEEE 802.11ax HE 80</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.
2. The worst-case data rates are determined to be as follows for each mode based upon investigations by measuring the power and PSD across all date rates, bandwidths, and modulations. The device supports SISO and MIMO at 802.11a/b/g/ n HT20 / ax HE20 / n HT40 / ax HE40 / ac VHT 80 / ax HE 80mode, per pre-test, MIMO 2TX mode was the worst and reported.
3.The mode IEEE 802.11ac VHT20 and VHT40 are only different in control messages with IEEE 802.11n 20 MHz and HT40, and have same power setting. Therefore, the highest power(IEEE 802.11n 20 MHz and HT40) were test conducted and radiated measurement and 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 (14inch) Mode 1: EUT power by Adapter (17inch)
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 (14inch) Mode 1: EUT power by Adapter (17inch)
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 (14inch) Mode 1: EUT power by Adapter (17inch)
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(X-Plane) were recorded in this report
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.

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3.3 EUT DUTY CYCLE

Temperature: 24.2 ~ 25.2℃ **Test date:** November 10 ~ 11, 2022

Humidity: 57 ~ 59% RH **Tested by:** David Li

Duty Cycle				
Configuration	Duty Cycle (%)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	99.56	0.02	0.74	0.01
802.11n HT20	98.80	0.05	1.52	0.01
802.11ac VHT20	99.38	0.03	0.78	0.01
802.11n HT40	98.27	0.08	2.94	0.01
802.11ac VHT40	98.76	0.05	1.57	0.01
802.11ac VHT80	98.14	0.08	3.16	0.01
802.11ax HE 20	99.40	0.03	1.01	0.01
802.11ax HE 40	98.48	0.07	1.92	0.01
802.11ax HE 80	97.22	0.12	3.57	4.00

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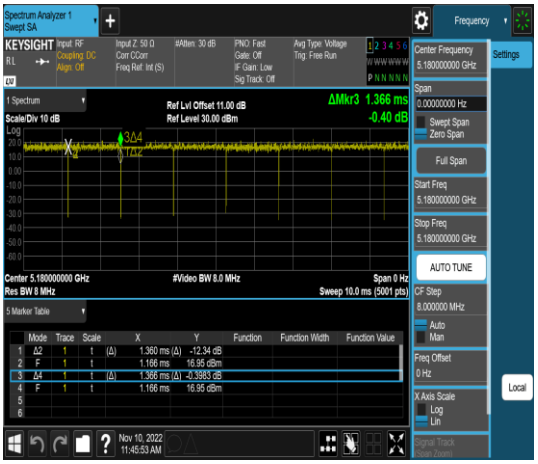
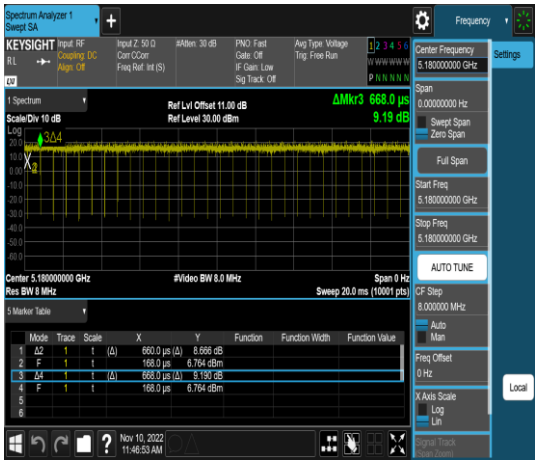
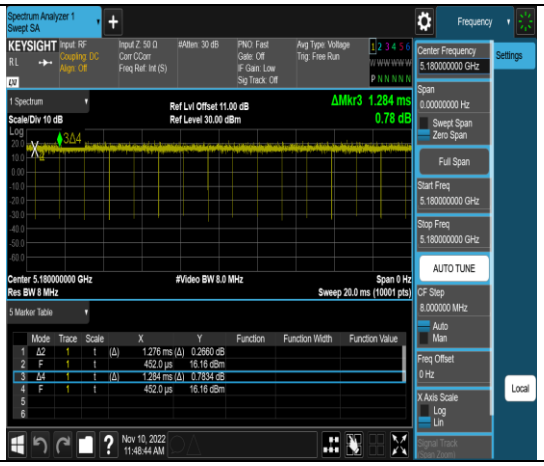
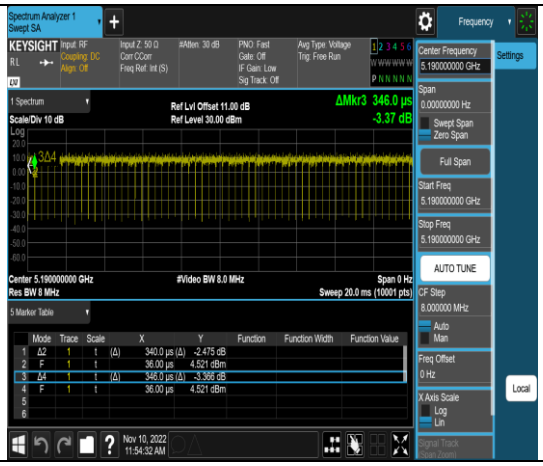
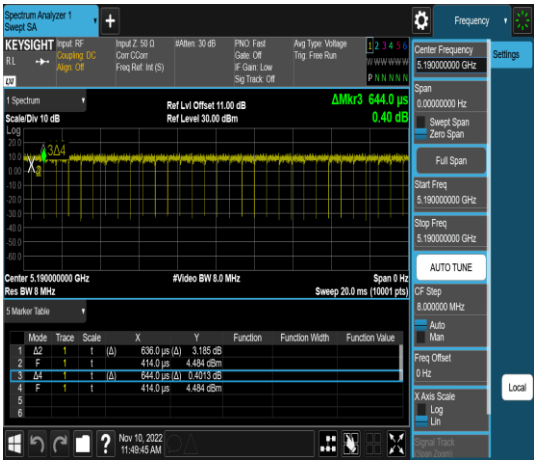
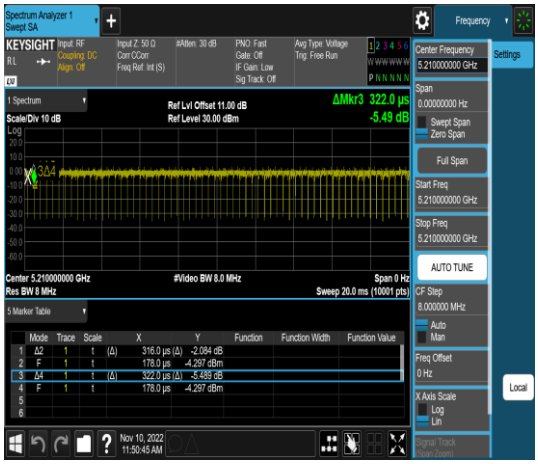
802.11a	802.11n HT20
	
802.11ac VHT20	**802.11n HT40**
	
802.11ac VHT40	**802.11ac_80**
	

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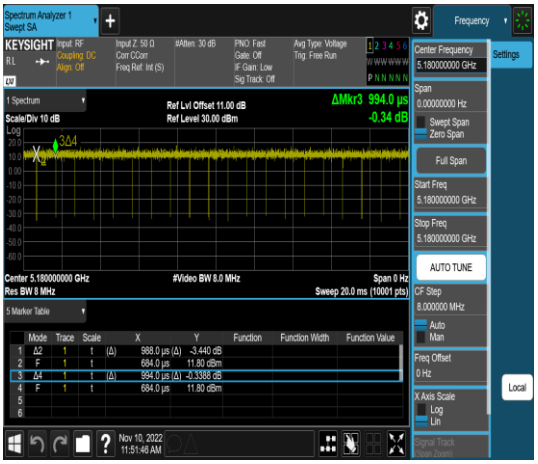
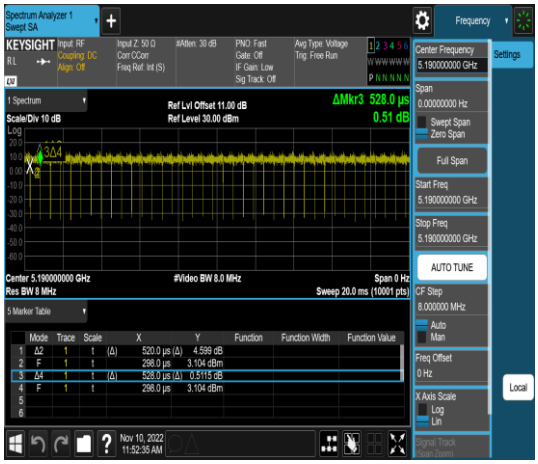
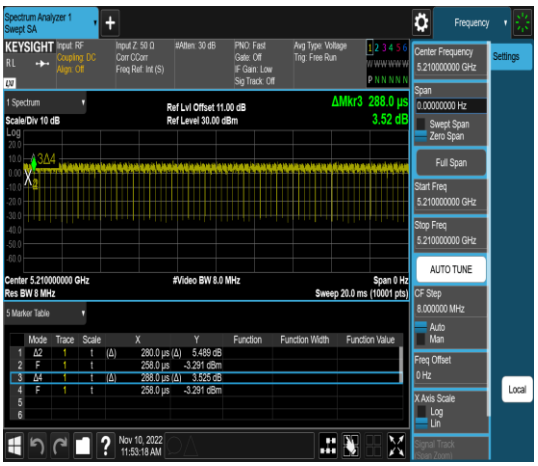
802.11ax HE 20	802.11ax HE 40
	
802.11ax HE 80	
	

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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

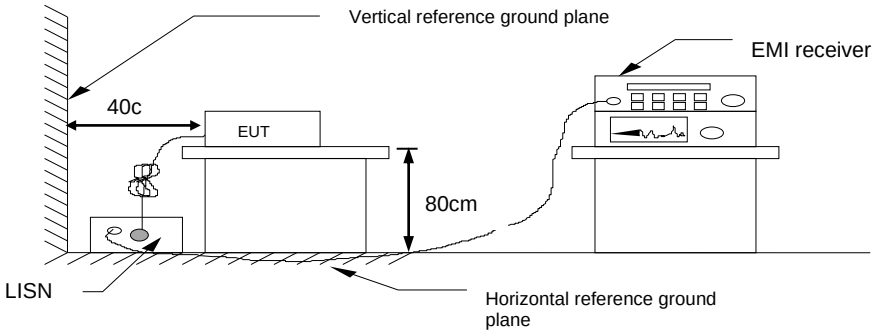
* Decreases with the logarithm of the frequency.

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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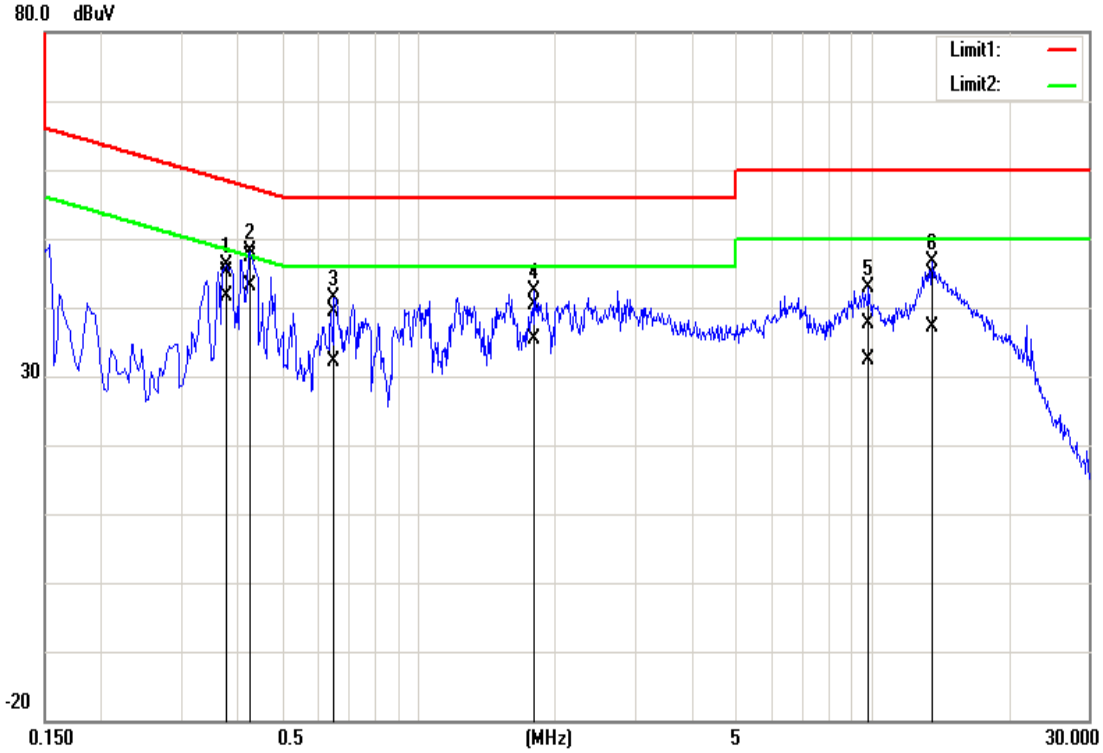
Test Data

Test Mode	Mode 1	Temp/Hum	24.5(℃)/ 58%RH
Phase	Line	Test Date	November 22, 2022
		Test Engineer	Tony Chao



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
0.3780	34.84	31.35	10.19	45.03	41.54	58.32	48.32	-13.29	-6.78	Pass
0.4260	37.13	32.95	10.19	47.32	43.14	57.33	47.33	-10.01	-4.19	Pass
0.6540	29.26	21.99	10.19	39.45	32.18	56.00	46.00	-16.55	-13.82	Pass
1.8060	30.05	25.15	10.25	40.30	35.40	56.00	46.00	-15.70	-10.60	Pass
9.8220	27.36	21.90	10.36	37.72	32.26	60.00	50.00	-22.28	-17.74	Pass
13.5620	34.56	26.85	10.36	44.92	37.21	60.00	50.00	-15.08	-12.79	Pass

Note: Correction factor = LISN loss + Cable loss

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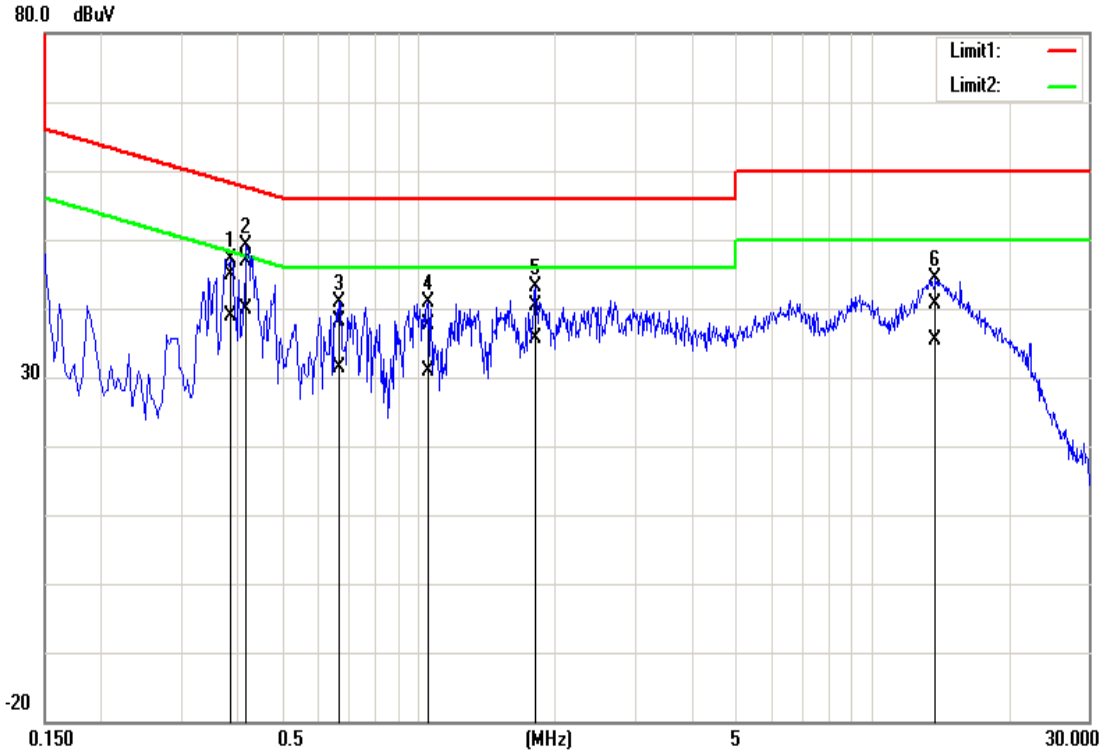
Test Mode	Mode 1	Temp/Hum	24.5(℃)/ 58%RH
Phase	Neutral	Test Date	November 22, 2022
		Test Engineer	Tony Chao



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
0.3860	34.59	28.63	10.18	44.77	38.81	58.15	48.15	-13.38	-9.34	Pass
0.4180	36.72	29.77	10.18	46.90	39.95	57.49	47.49	-10.59	-7.54	Pass
0.6700	28.07	21.26	10.18	38.25	31.44	56.00	46.00	-17.75	-14.56	Pass
1.0500	27.45	20.61	10.20	37.65	30.81	56.00	46.00	-18.35	-15.19	Pass
1.8100	30.08	25.40	10.23	40.31	35.63	56.00	46.00	-15.69	-10.37	Pass
13.8060	30.35	24.93	10.38	40.73	35.31	60.00	50.00	-19.27	-14.69	Pass

Note: Correction factor = LISN loss + Cable loss

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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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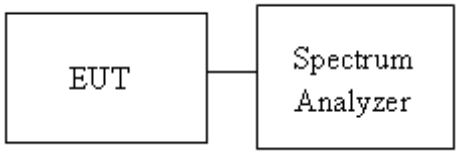
99%

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:	24.2 ~ 25.2℃	**Test date:**	November 10 ~ 11, 2022
Humidity:	57 ~ 59% RH	**Tested by:**	David Li

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	16.358	16.356	18.19	18.28
Mid	5220	16.354	16.343	18.66	18.30
High	5240	16.353	16.334	18.51	18.31
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	17.511	17.542	19.37	19.16
Mid	5220	17.514	17.534	19.22	19.18
High	5240	17.507	17.535	19.34	19.27
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	36.091	36.081	39.28	38.76
High	5230	36.042	36.004	39.05	38.72
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	75.805	75.937	85.17	85.49

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	Test mode: IEEE 802.11ax HE20 mode					
Channel	**Frequency (MHz)**	**RU config**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	full	18.899	18.895	20.20	20.33
Mid	5220	full	18.887	18.886	20.15	20.21
High	5240	full	18.880	18.900	20.19	20.35
	Test mode: IEEE 802.11ax HE40 mode					
Channel	**Frequency (MHz)**	**RU config**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5190	full	37.637	37.671	39.78	39.69
High	5230	full	37.593	37.606	39.66	39.79
	Test mode: IEEE 802.11ax HE80 mode					
Channel	**Frequency (MHz)**	**RU config**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Mid	5210	full	77.010	77.165	80.59	81.08

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UNII-3 5725-5825MHz						
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)**	**Limit**
Low	5745	16.354	16.344	15.70	16.35	>500kHz
Mid	5785	16.373	16.333	16.39	16.36	
High	5825	16.351	16.335	16.37	16.33	
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)**	**Limit**
Low	5745	17.503	17.536	15.92	17.31	>500kHz
Mid	5785	17.498	17.526	16.96	17.58	
High	5825	17.511	17.532	16.75	17.55	
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)**	**Limit**
Low	5755	36.007	36.043	35.56	35.96	>500kHz
High	5795	36.036	36.020	35.42	35.41	
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)**	**Limit**
Mid	5775	75.897	76.115	75.79	76.33	>500kHz

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	Test mode: IEEE 802.11ax HE20 mode						
Channel	**Frequency (MHz)**	**RU config**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**	**Limit**
Low	5745	full	18.883	18.888	17.83	17.95	>500kHz
Mid	5785	full	18.897	18.877	17.92	17.89	
High	5825	full	18.899	18.905	18.05	18.27	
	Test mode: IEEE 802.11ax HE40 mode						
Channel	**Frequency (MHz)**	**RU config**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**	**Limit**
Low	5755	full	37.588	37.613	37.55	37.75	>500kHz
High	5795	full	37.593	37.592	36.67	37.74	
	Test mode: IEEE 802.11ax HE80 mode						
Channel	**Frequency (MHz)**	**RU config**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**	**Limit**
Mid	5775	full	76.960	77.387	76.21	77.73	>500kHz

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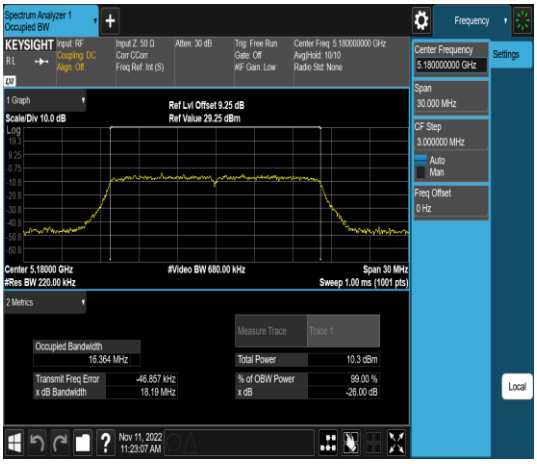
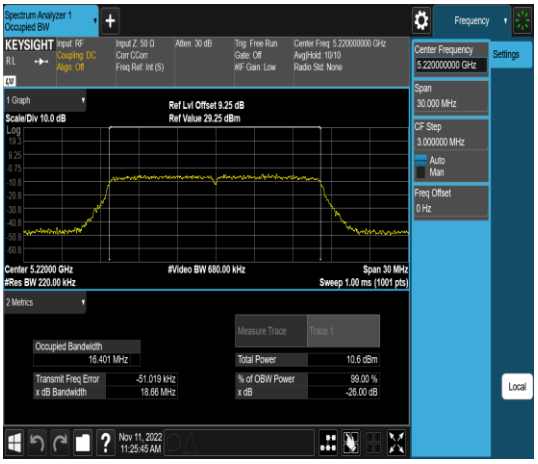
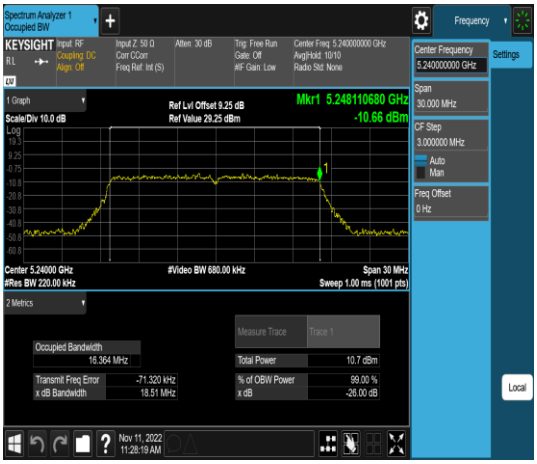
Test Plots (26dB BANDWIDTH)

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

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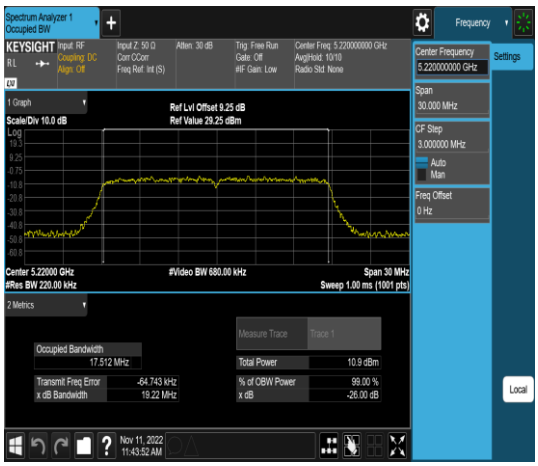
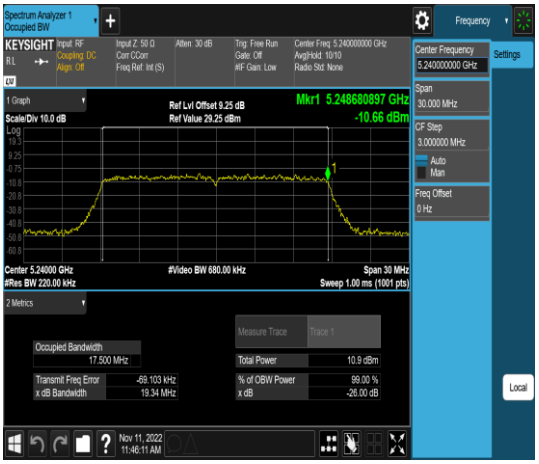
UNII-1 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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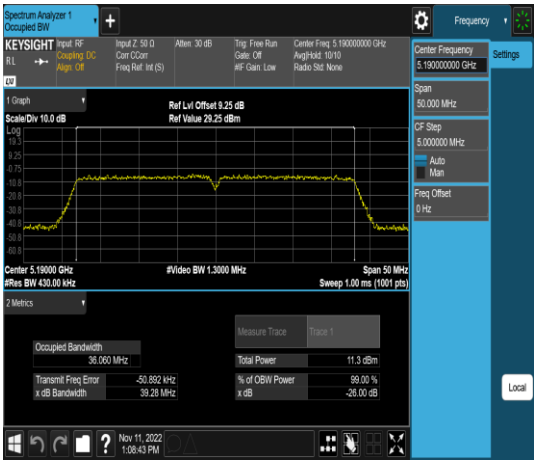
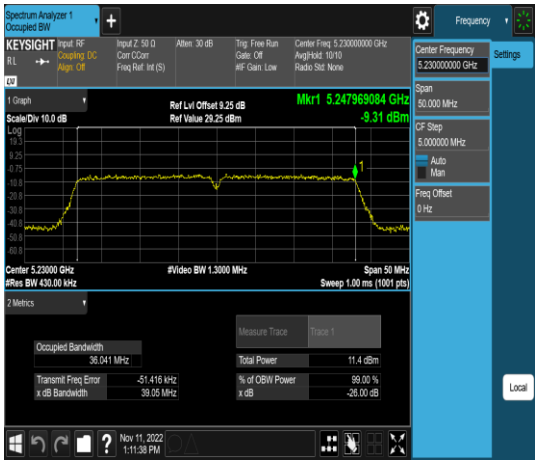
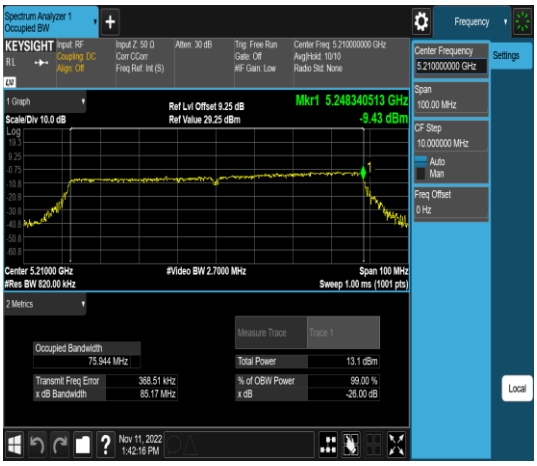
UNII-1 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

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

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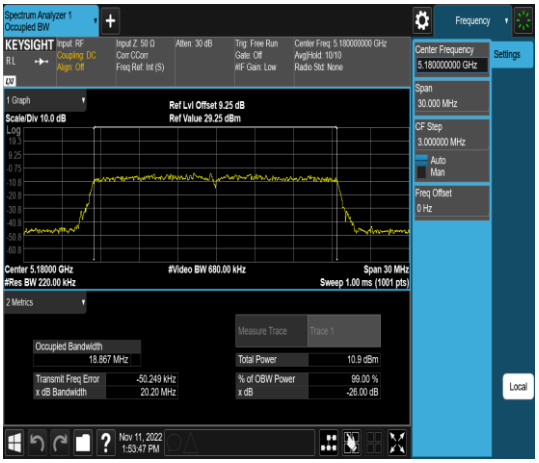
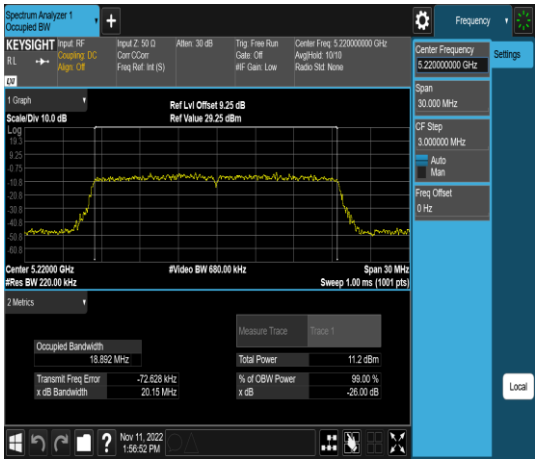
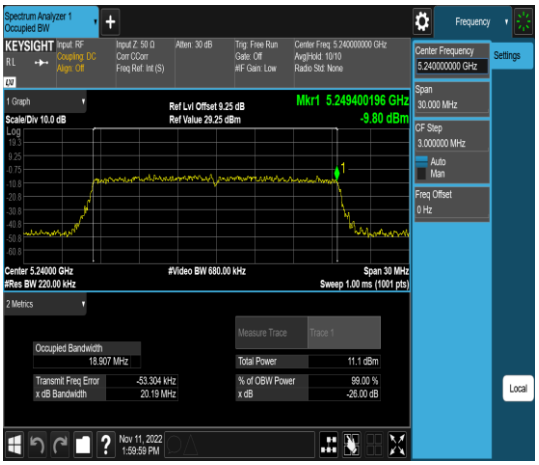
UNII-1 IEEE 802.11ax HE20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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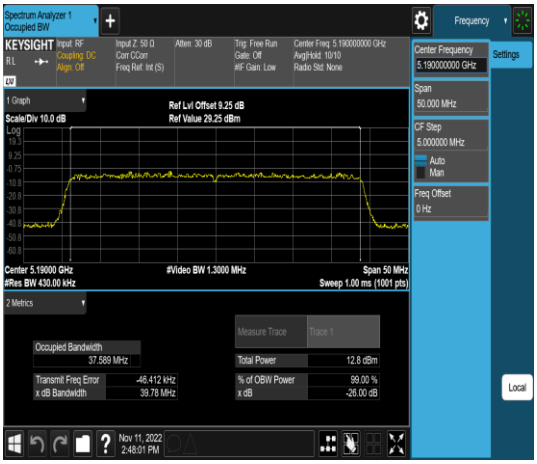
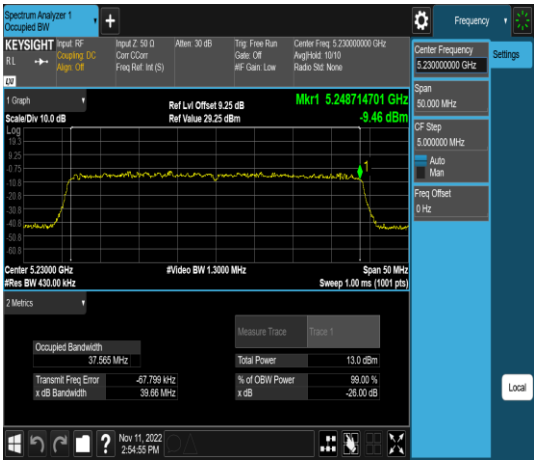
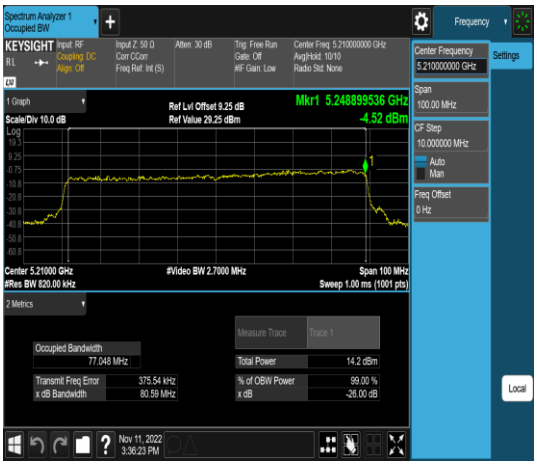
UNII-1 IEEE 802.11ax HE40 mode- chain 0	
Low CH	**High CH**
	

UNII-1 IEEE 802.11ax HE80 mode- chain 0	
Mid CH	
	

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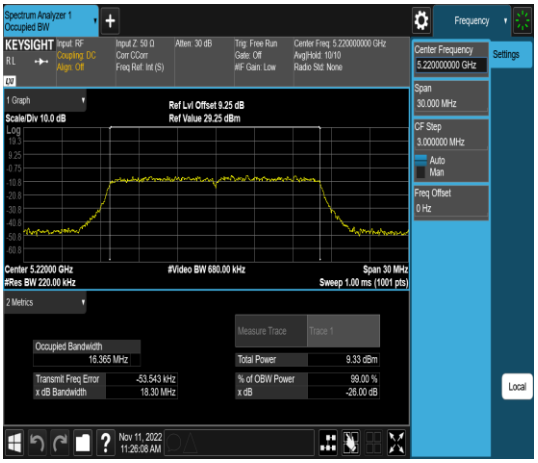
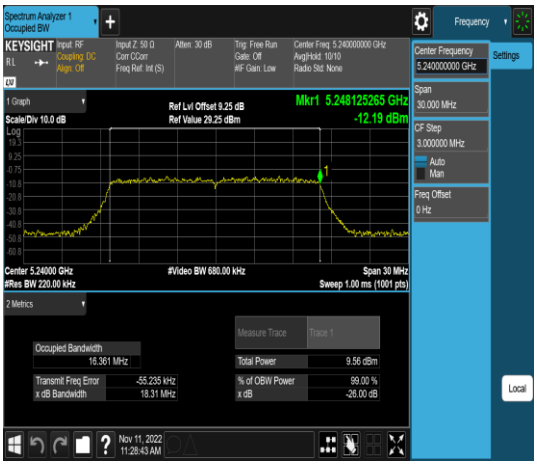
UNII-1 IEEE 802.11a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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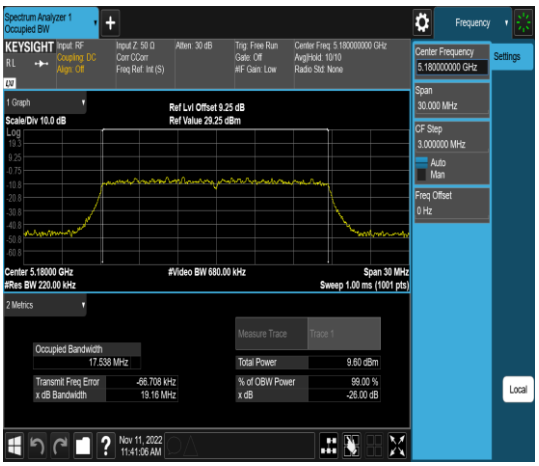
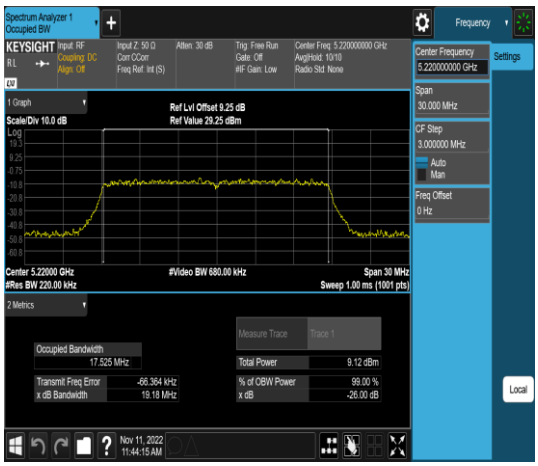
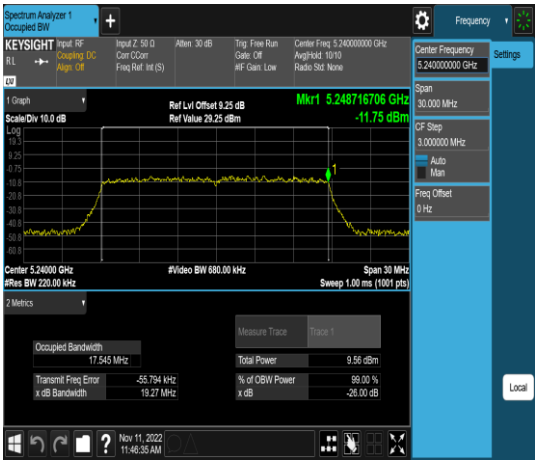
UNII-1 IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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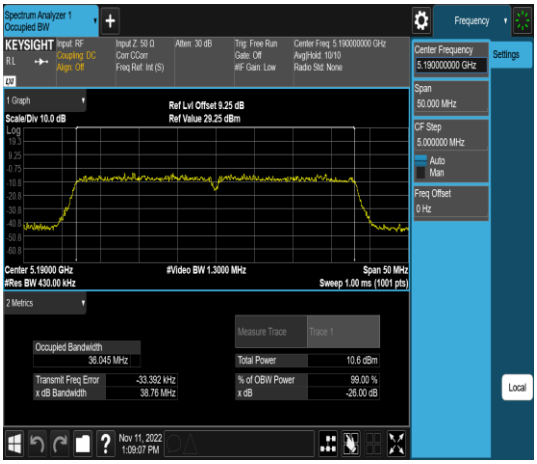
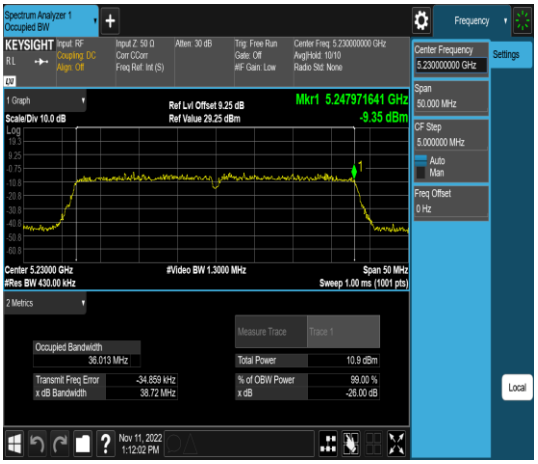
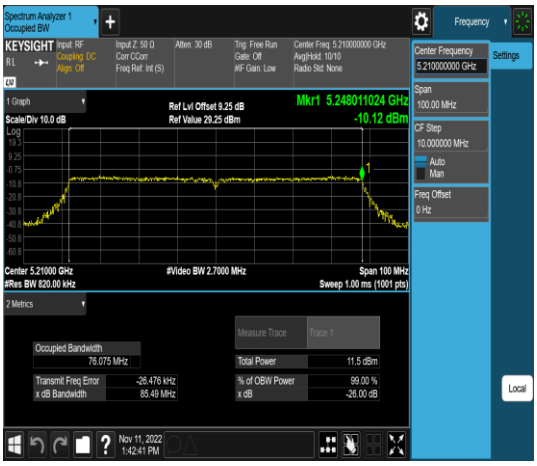
UNII-1 IEEE 802.11n HT40 mode- chain 1	
Low CH	**High CH**
	

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

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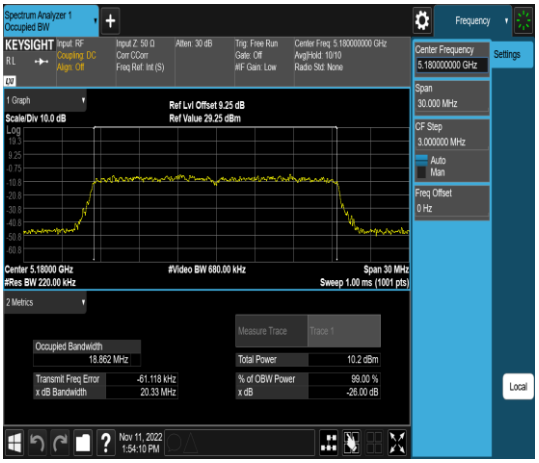
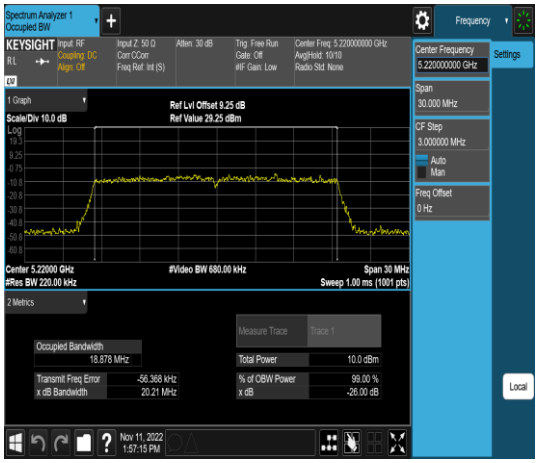
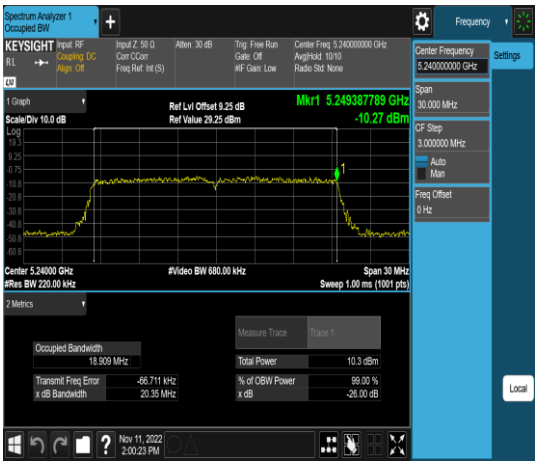
UNII-1 IEEE 802.11ax HE20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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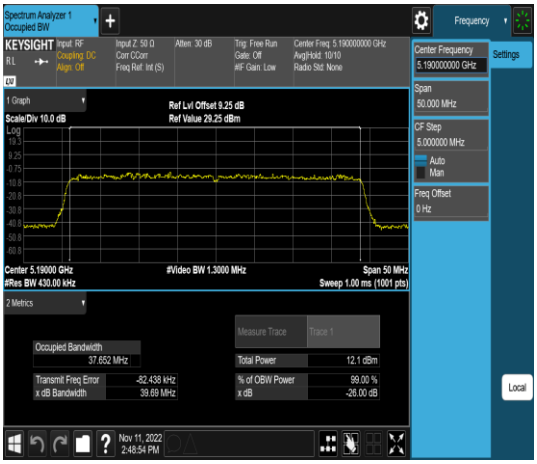
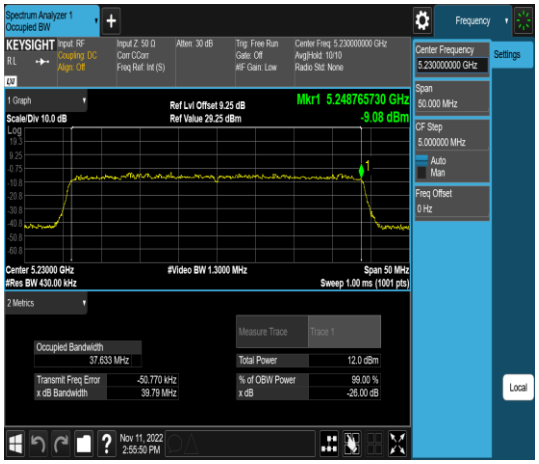
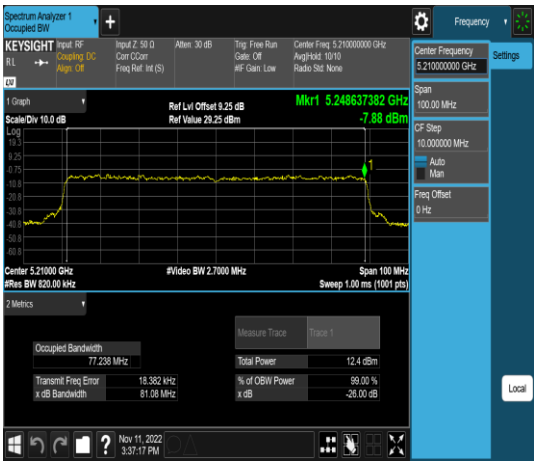
UNII-1 IEEE 802.11ax HE40 mode- chain 1	
Low CH	**High CH**
	

UNII-1 IEEE 802.11ax HE80 mode- chain 1	
Mid CH	
	

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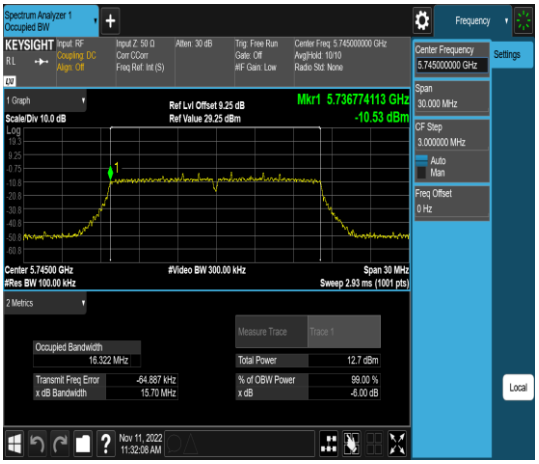
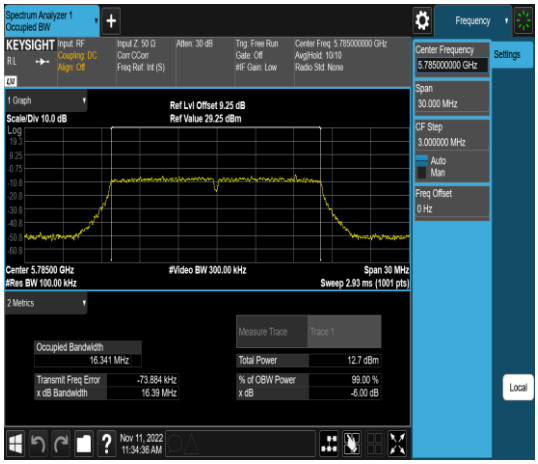
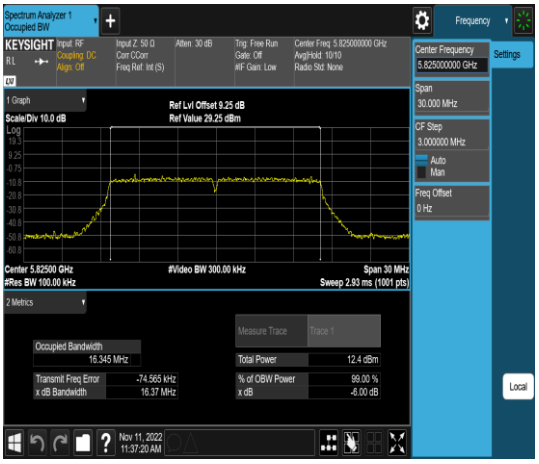
Test Plots (6dB BANDWIDTH)

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

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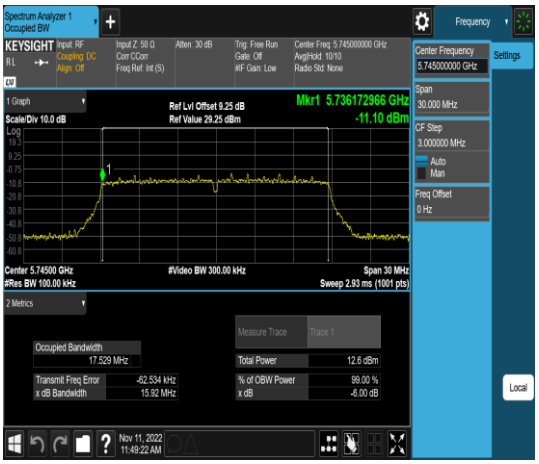
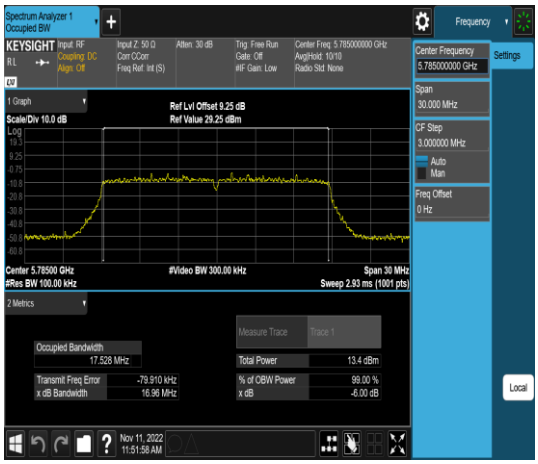
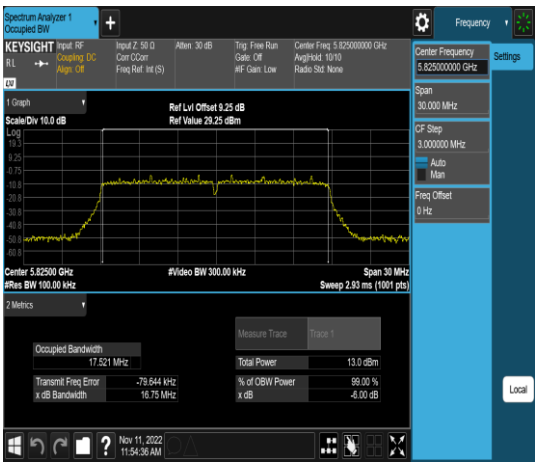
UNII-3 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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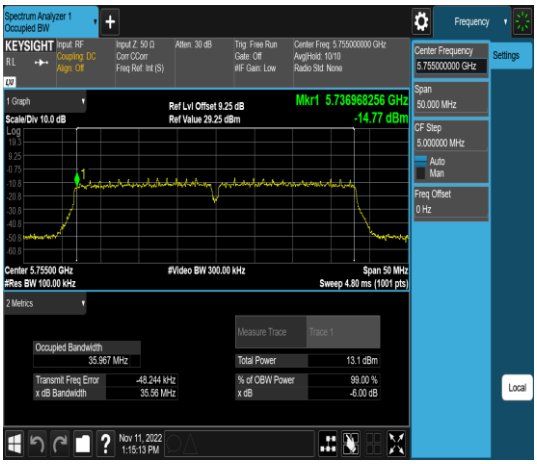
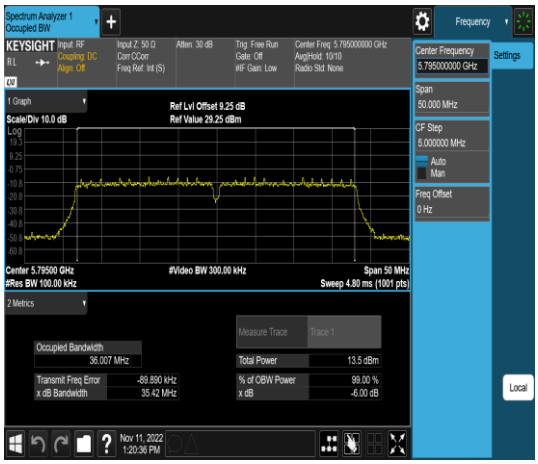
UNII-3 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

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

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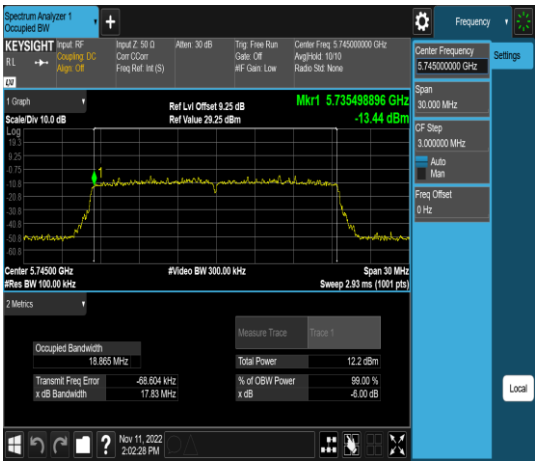
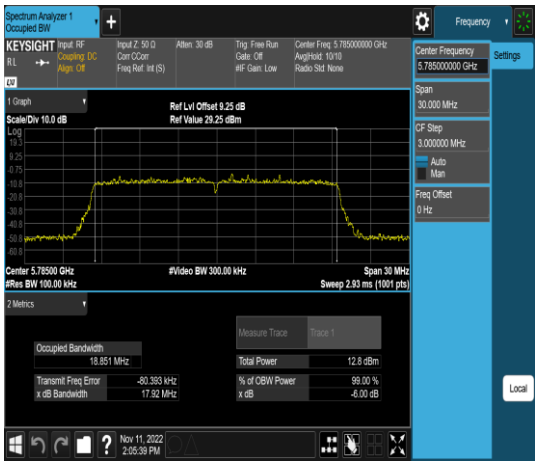
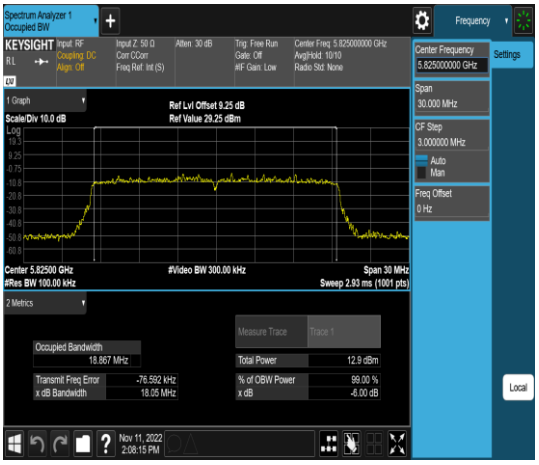
UNII-3 IEEE 802.11ax HE20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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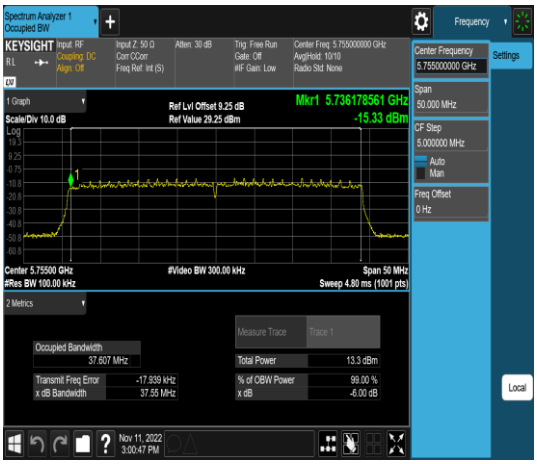
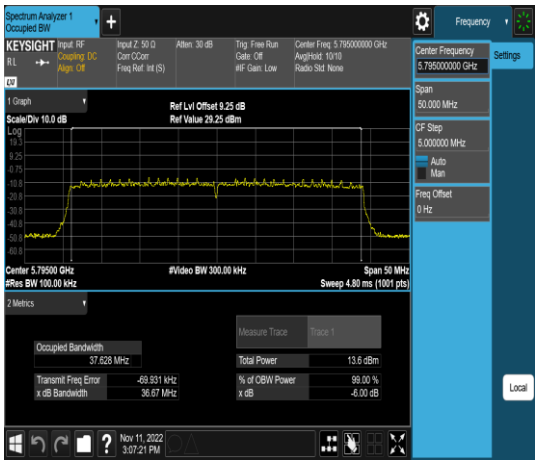
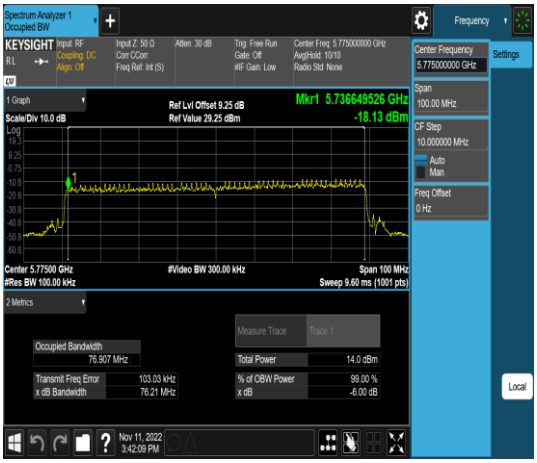
UNII-3 IEEE 802.11ax HE40 mode- chain 0	
Low CH	**High CH**
	

UNII-3 IEEE 802.11ax HE80 mode- chain 0	
Mid CH	
	

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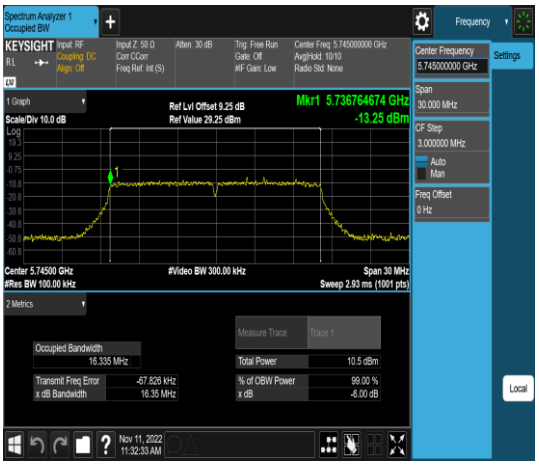
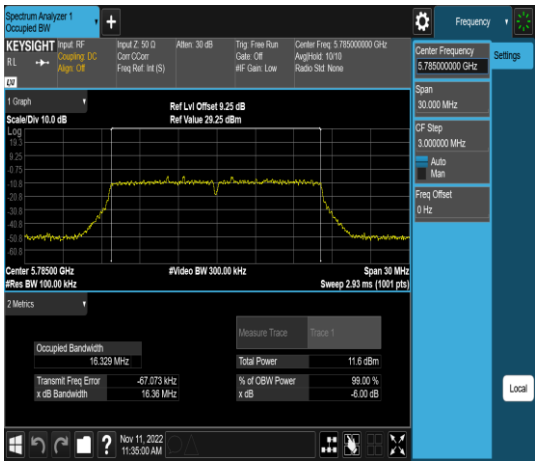
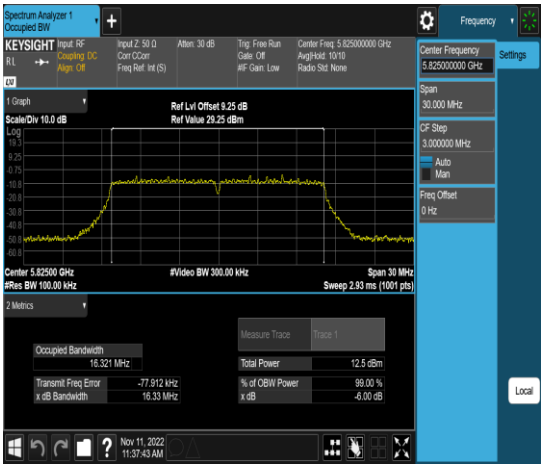
UNII-3 IEEE 802.11 a mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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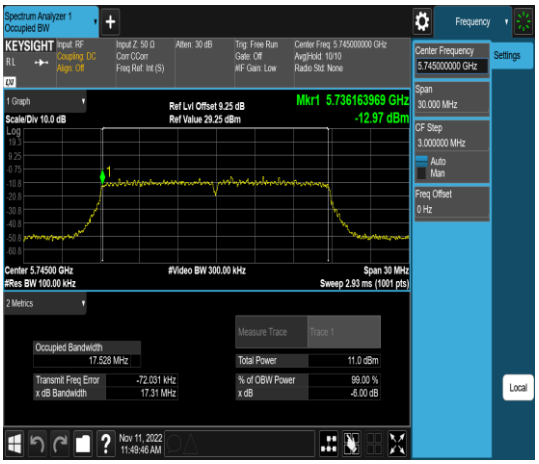
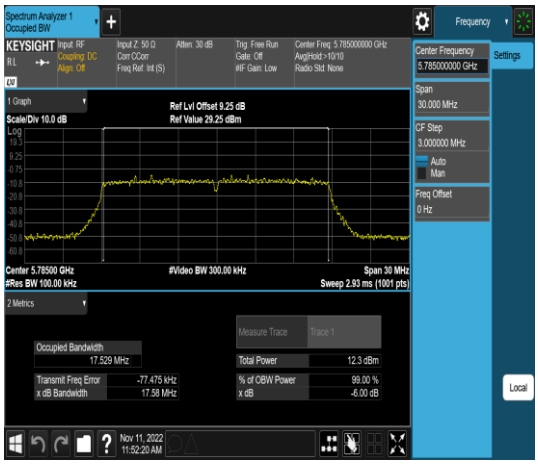
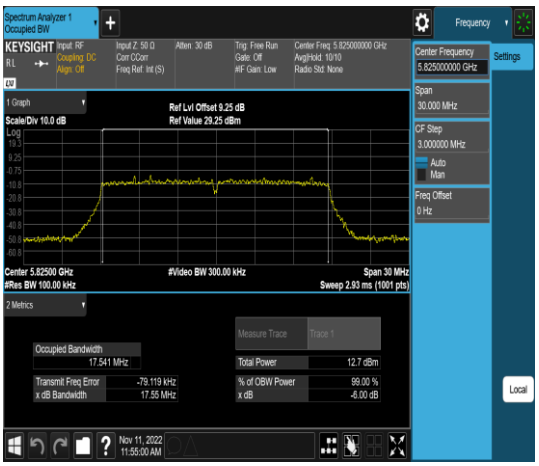
UNII-3 IEEE 802.11n HT20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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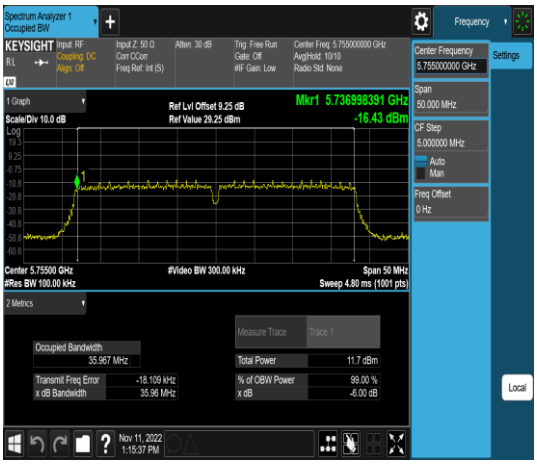
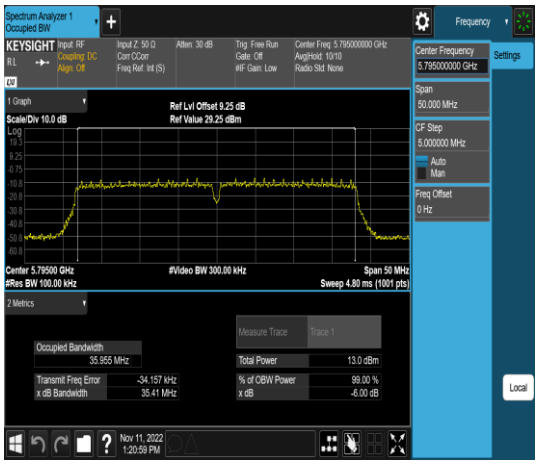
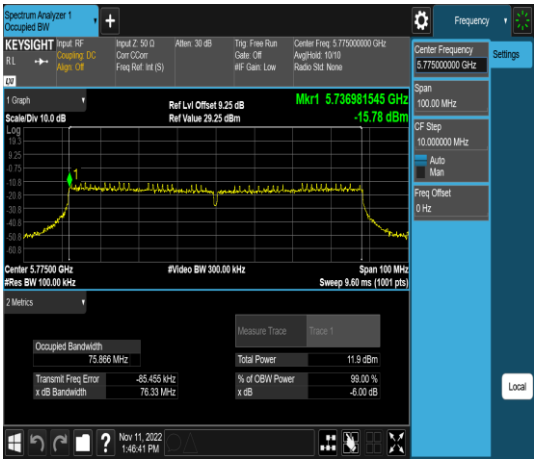
UNII-3 IEEE 802.11n HT40 mode- chain 1	
Low CH	**High CH**
	

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

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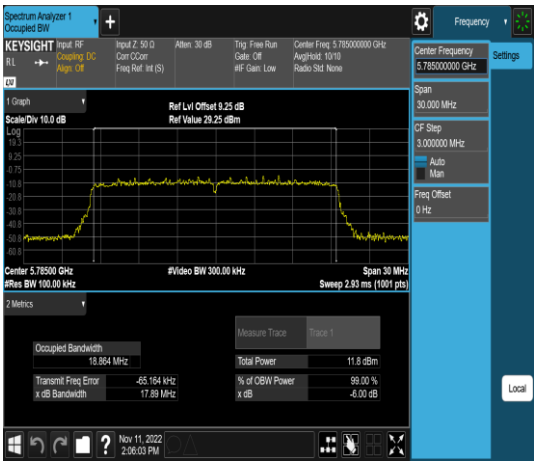
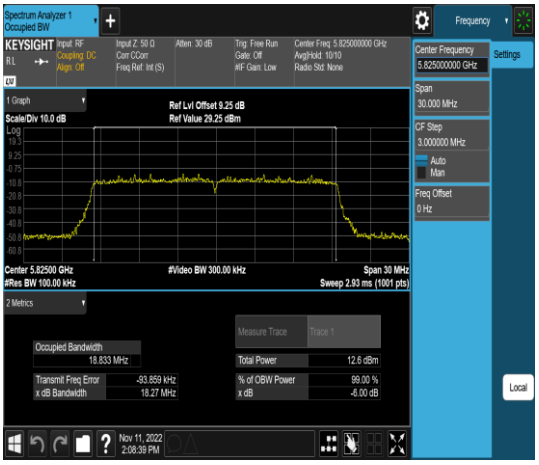
UNII-3 IEEE 802.11ax HE20 mode- chain 1	
Low CH	**Mid CH**
	
High CH	
	

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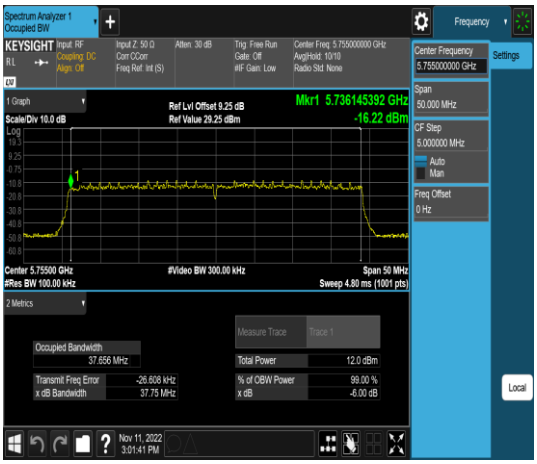
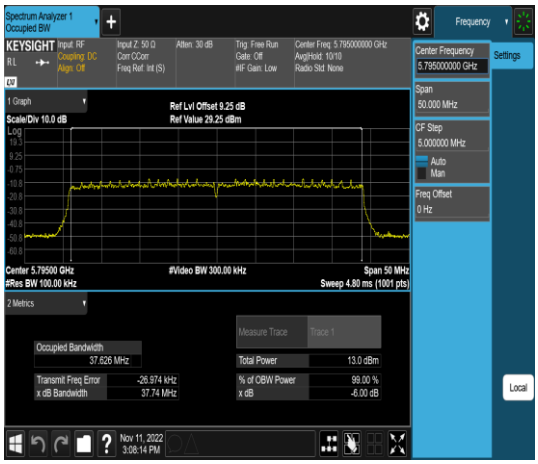
UNII-3 IEEE 802.11ax HE40 mode- chain 1	
Low CH	**High CH**
	

UNII-3 IEEE 802.11ax HE80 mode- chain 1	
Mid CH	

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