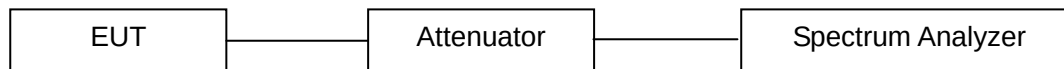


14.4 26dB Bandwidth & 99% Occupied Bandwidth

LIMITS

No restriction limits.

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

The antenna port of the EUT was connected to the input of a spectrum analyzer.

Analyzer was set as below according to FCC KDB789033(v02r01):

- a. For 26dB bandwidth, Set the RBW = Approximately 1% of the emission bandwidth
 - b. Set the VBW > RBW
 - c. Detector = peak.
 - d. Sweep time = auto couple.
 - e. Trace mode = max hold.
 - f. Allow trace to fully stabilize.
 - g. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 26 dB relative to the maximum level measured in the fundamental emission.
-
1. For 99% occupied bandwidth, Set the RBW = 1% to 5% of the OBW
 2. Set the VBW $\geq 3 \times$ RBW
 3. Detector = peak.
 4. Span = 1.5 times to 5.0 times the OBW
 5. Sweep time = auto couple.
 6. Trace mode = max hold. Allow trace to fully stabilize.
 7. Use the 99% power bandwidth function of the spectrum analyzer measure the occupied bandwidth.

TEST RESULTS

PASS

Please refer to the following table.

U-NII-1 Band			
Frequency MHz	Data Rate Mbps	26dB Bandwidth MHz	99% Occupied Bandwidth MHz
IEEE 802.11a Mode (OFDM)			
Channel: 5180	6	18.73	---
Channel: 5200	6	18.70	---
Channel: 5240	6	18.57	---
IEEE 802.11n(HT20) Mode (OFDM)			
Channel: 5180	MCS0	19.66	---
Channel: 5200	MCS0	19.53	---
Channel: 5240	MCS0	19.56	---
IEEE 802.11n(HT40) Mode (OFDM)			
Channel: 5190	MCS0	38.62	---
Channel: 5230	MCS0	38.47	---
IEEE 802.11ac (VHT20) Mode (OFDM)			
Channel: 5180	MCS0	19.65	---
Channel: 5200	MCS0	19.57	---
Channel: 5240	MCS0	19.53	---
IEEE 802.11ac (VHT40) Mode (OFDM)			
Channel: 5190	MCS0	38.68	---
Channel: 5230	MCS0	38.57	---
IEEE 802.11ac (VHT80) Mode (OFDM)			
Channel: 5210	MCS0	82.34	---
Note: Both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded.			

U-NII-1 Band			
Frequency MHz	Data Rate Mbps	26dB Bandwidth MHz	99% Occupied Bandwidth MHz
IEEE 802.11ax (HE20) Mode (OFDM)			
Channel: 5180	MCS0	20.25	---
Channel: 5200	MCS0	20.30	---
Channel: 5240	MCS0	20.30	---
IEEE 802.11ax (HE40) Mode (OFDM)			
Channel: 5190	MCS0	38.53	---
Channel: 5230	MCS0	38.52	---
IEEE 802.11ax (HE80) Mode (OFDM)			
Channel: 5210	MCS0	80.94	---
Note: Both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded.			

U-NII-2A Band			
Frequency MHz	Data Rate Mbps	26dB Bandwidth MHz	99% Occupied Bandwidth MHz
IEEE 802.11a Mode (OFDM)			
Channel: 5260	6	18.69	---
Channel: 5300	6	18.65	---
Channel: 5320	6	18.63	---
IEEE 802.11n(HT20) Mode (OFDM)			
Channel: 5260	MCS0	19.68	---
Channel: 5300	MCS0	19.68	---
Channel: 5320	MCS0	19.57	---
IEEE 802.11n(HT40) Mode (OFDM)			
Channel: 5270	MCS0	38.44	---
Channel: 5310	MCS0	38.44	---
IEEE 802.11ac (VHT20) Mode (OFDM)			
Channel: 5260	MCS0	19.68	---
Channel: 5300	MCS0	19.59	---
Channel: 5320	MCS0	19.69	---
IEEE 802.11ac (VHT40) Mode (OFDM)			
Channel: 5270	MCS0	38.51	---
Channel: 5310	MCS0	38.35	---
IEEE 802.11ac (VHT80) Mode (OFDM)			
Channel: 5290	MCS0	83.53	---
Note: Both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded.			

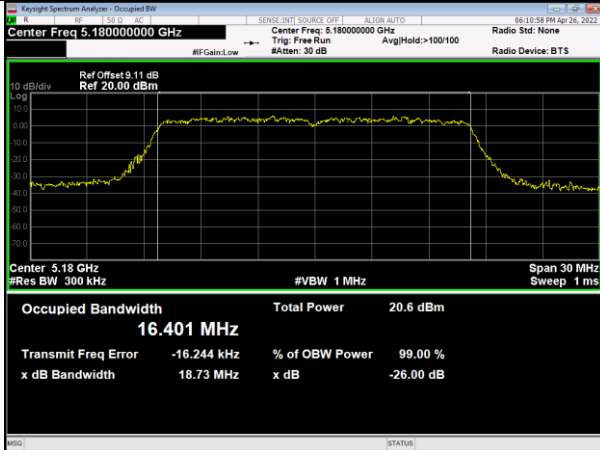
U-NII-2A Band			
Frequency MHz	Data Rate Mbps	26dB Bandwidth MHz	99% Occupied Bandwidth MHz
IEEE 802.11ax (HE20) Mode (OFDM)			
Channel: 5260	MCS0	20.40	---
Channel: 5300	MCS0	20.34	---
Channel: 5320	MCS0	20.44	---
IEEE 802.11ax (HE40) Mode (OFDM)			
Channel: 5270	MCS0	39.47	---
Channel: 5310	MCS0	39.66	---
IEEE 802.11ax (HE80) Mode (OFDM)			
Channel: 5290	MCS0	82.79	---
Note: Both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded.			

U-NII-2C Band			
Frequency MHz	Data Rate Mbps	26dB Bandwidth MHz	99% Occupied Bandwidth MHz
IEEE 802.11a Mode (OFDM)			
Channel: 5500	6	18.60	---
Channel: 5580	6	18.65	---
Channel: 5700	6	18.48	---
IEEE 802.11n(HT20) Mode (OFDM)			
Channel: 5500	MCS0	19.69	---
Channel: 5580	MCS0	19.69	---
Channel: 5700	MCS0	19.67	---
IEEE 802.11n(HT40) Mode (OFDM)			
Channel: 5510	MCS0	38.31	---
Channel: 5670	MCS0	38.49	---
IEEE 802.11ac (VHT20) Mode (OFDM)			
Channel: 5500	MCS0	19.59	---
Channel: 5580	MCS0	19.66	---
Channel: 5700	MCS0	19.55	---
IEEE 802.11ac (VHT40) Mode (OFDM)			
Channel: 5510	MCS0	38.30	---
Channel: 5670	MCS0	38.32	---
IEEE 802.11ac (VHT80) Mode (OFDM)			
Channel: 5610	MCS0	83.183	---
Note: Both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded.			

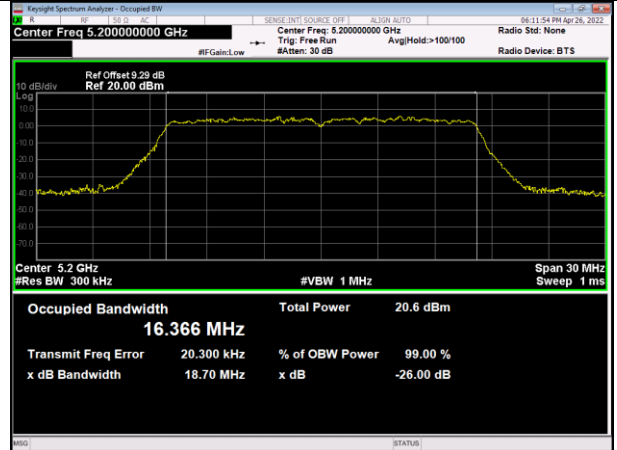
U-NII-2C Band			
Frequency MHz	Data Rate Mbps	26dB Bandwidth MHz	99% Occupied Bandwidth MHz
IEEE 802.11ax (HE20) Mode (OFDM)			
Channel: 5500	MCS0	20.33	---
Channel: 5580	MCS0	20.32	---
Channel: 5700	MCS0	20.36	---
IEEE 802.11ax (HE40) Mode (OFDM)			
Channel: 5510	MCS0	39.35	---
Channel: 5670	MCS0	39.44	---
IEEE 802.11ax (HE80) Mode (OFDM)			
Channel: 5610	MCS0	80.64	---
Note: Both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded.			

U-NII-1 Band 26dB Bandwidth

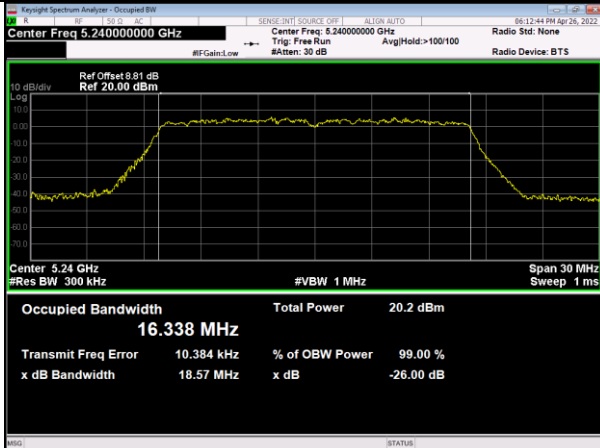
IEEE 802.11a Low Channel



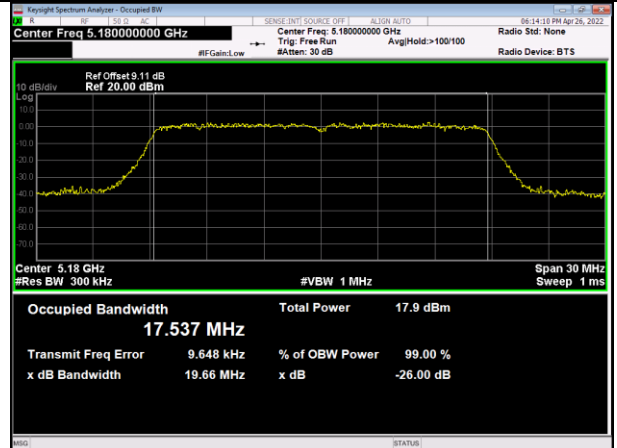
IEEE 802.11a Middle Channel



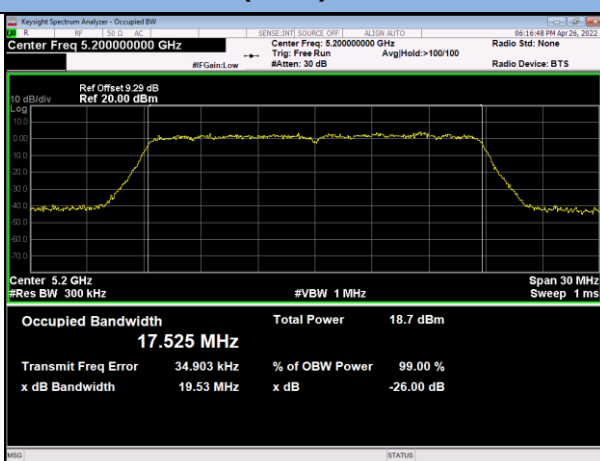
IEEE 802.11a High Channel



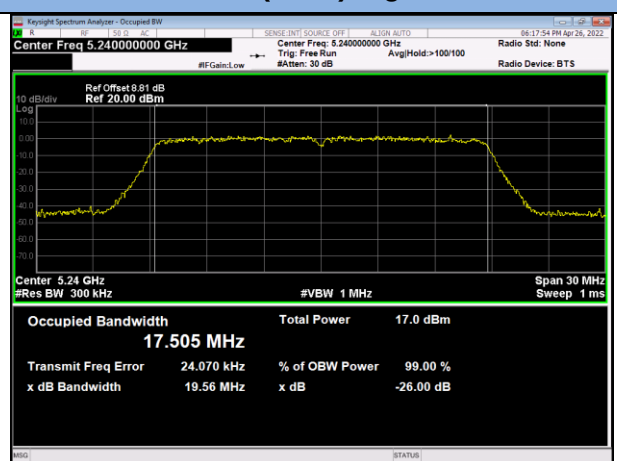
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

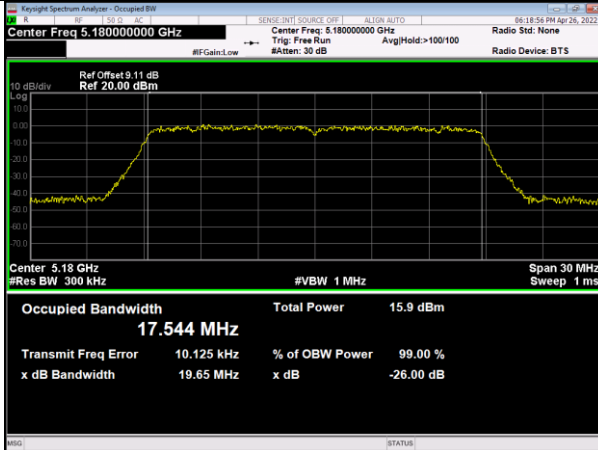


IEEE 802.11n(HT20) High Channel

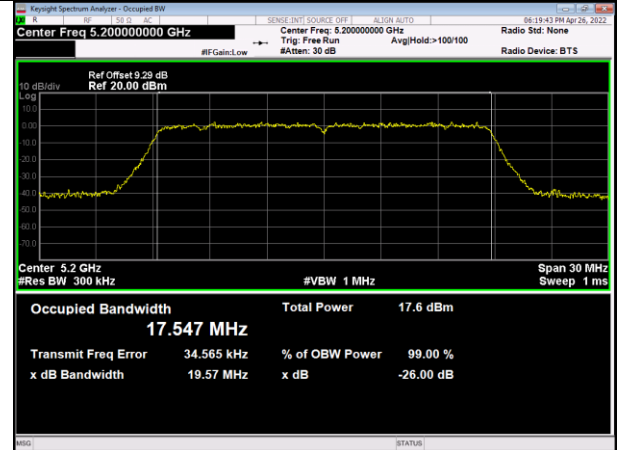


U-NII-1 Band 26dB Bandwidth

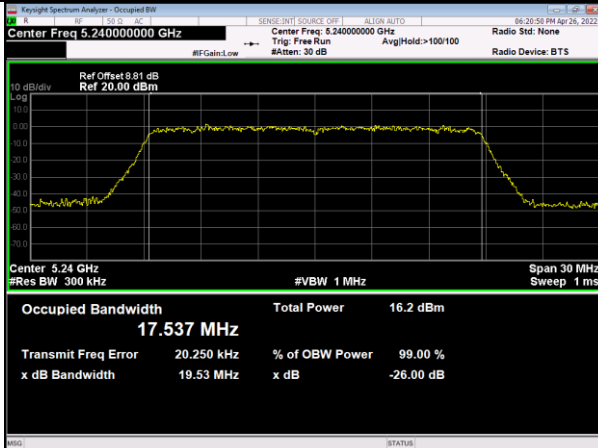
IEEE 802.11ac(VHT20) Low Channel



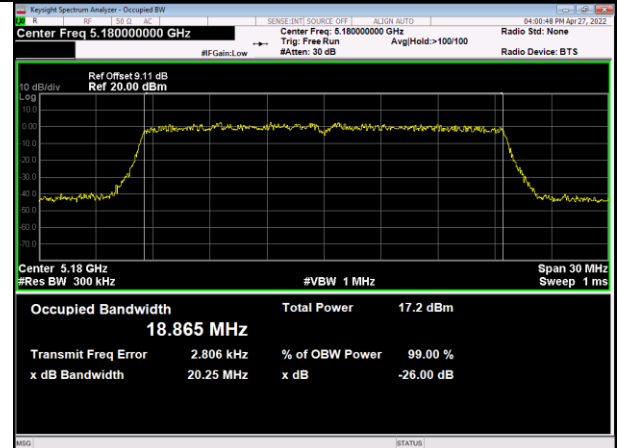
IEEE 802.11ac(VHT20) Middle Channel



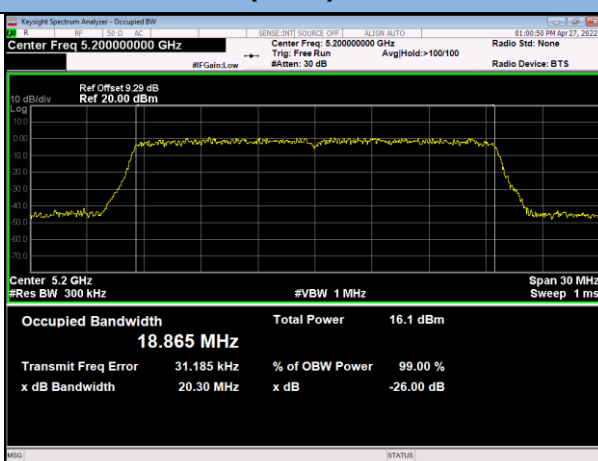
IEEE 802.11ac(VHT20) High Channel



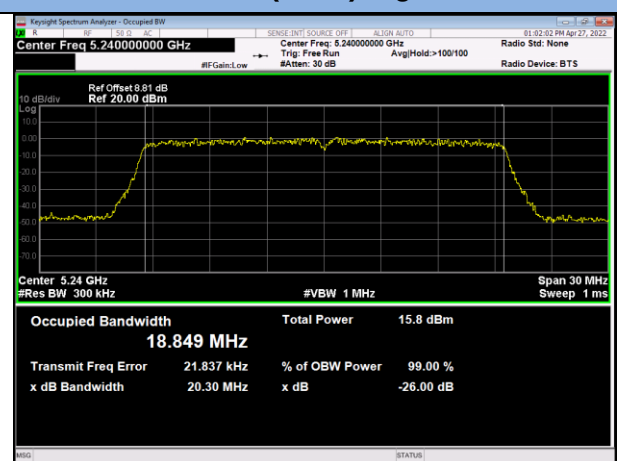
IEEE 802.11ax(HE20) Low Channel



IEEE 802.11ax(HE20) Middle Channel

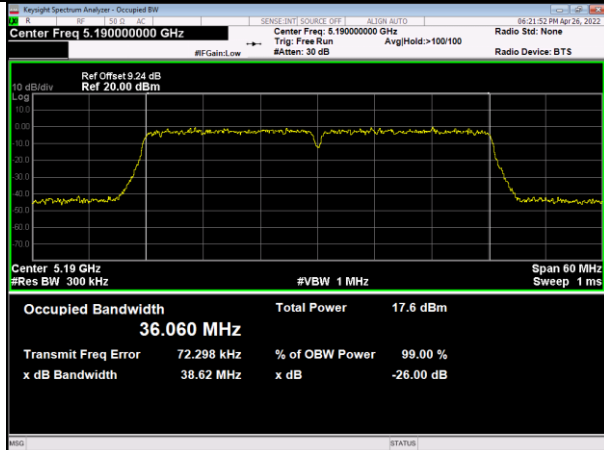


IEEE 802.11ax(HE20) High Channel

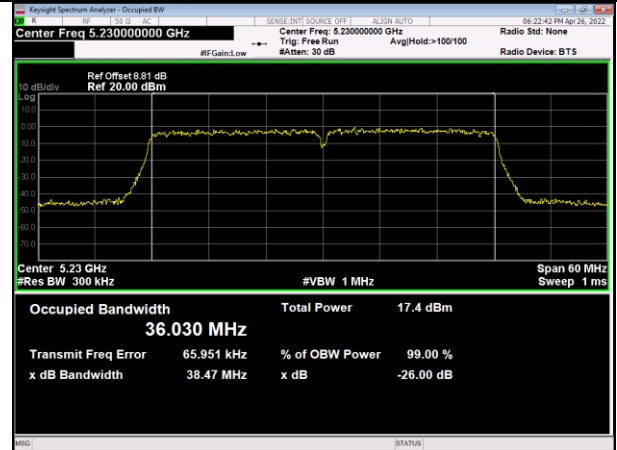


U-NII-1 Band 26dB Bandwidth

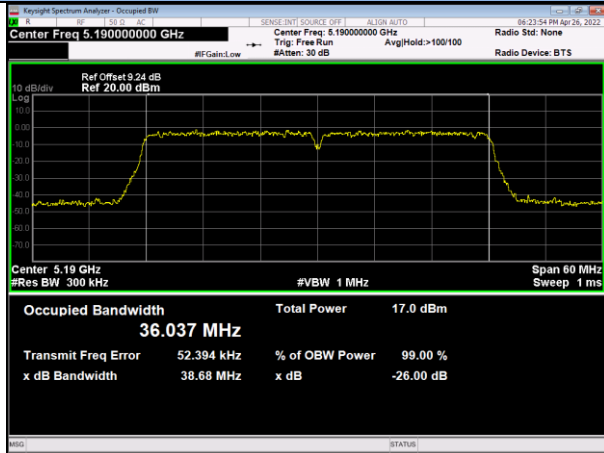
IEEE 802.11n(HT40) Low Channel



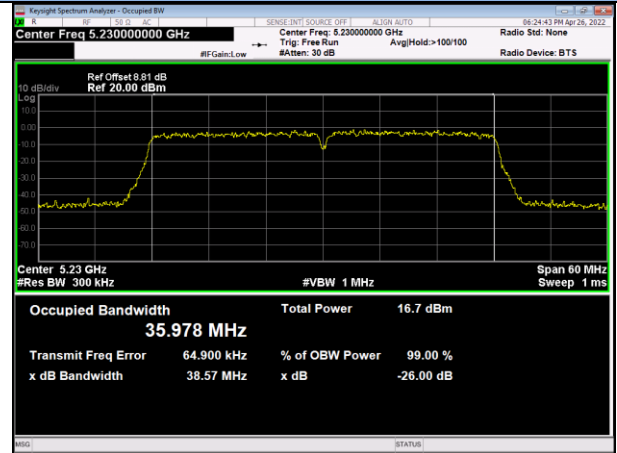
IEEE 802.11n(HT40) High Channel



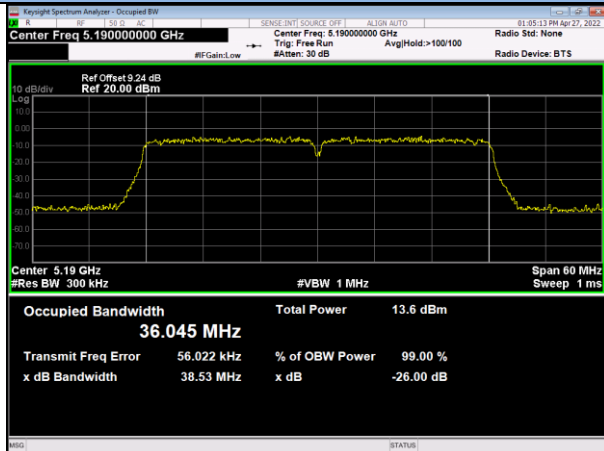
IEEE 802.11ac(VHT40) Low Channel



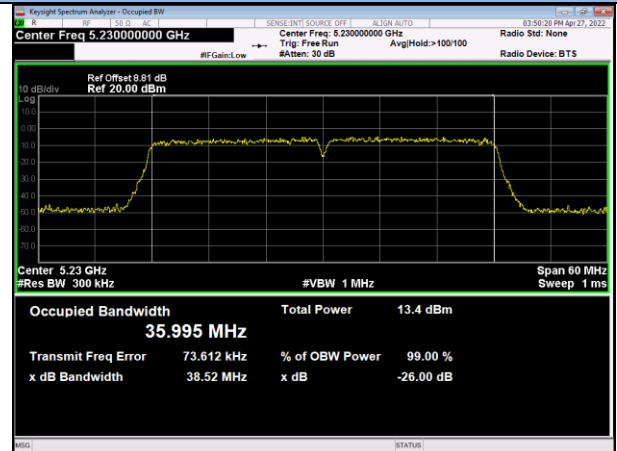
IEEE 802.11ac(VHT40) High Channel



IEEE 802.11ax(HE40) Low Channel

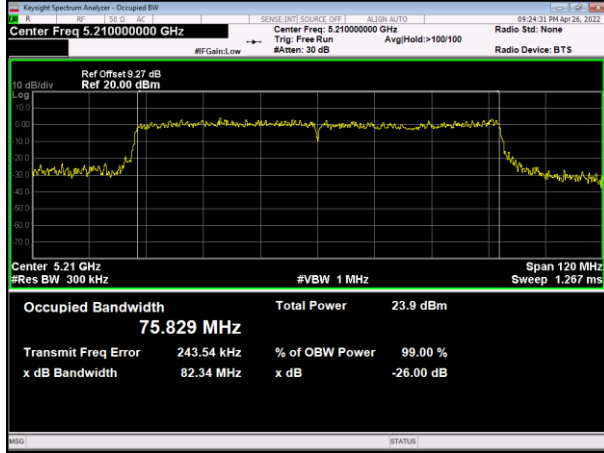


IEEE 802.11ax(HE40) High Channel

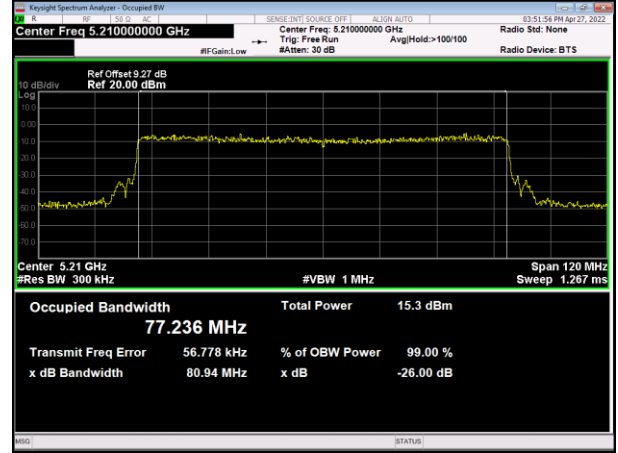


U-NII-1 Band 26dB Bandwidth

IEEE 802.11ac(VHT80)

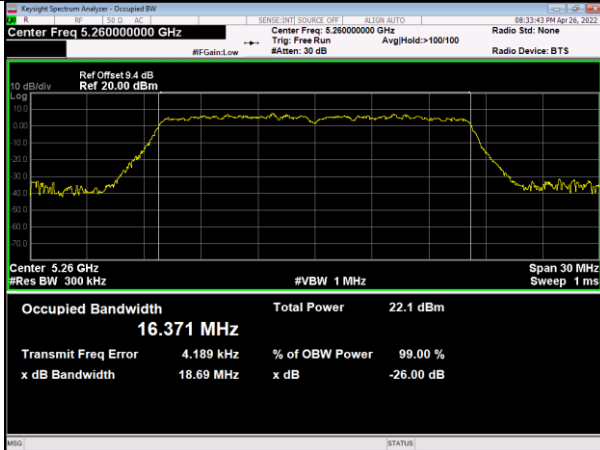


IEEE 802.11ax(HE80)

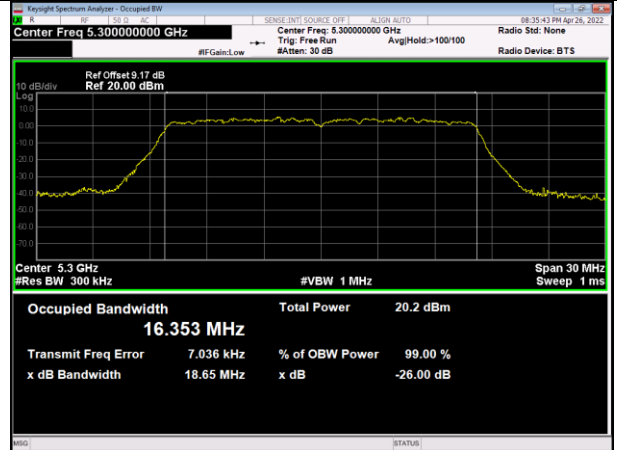


U-NII-2A Band 26dB Bandwidth

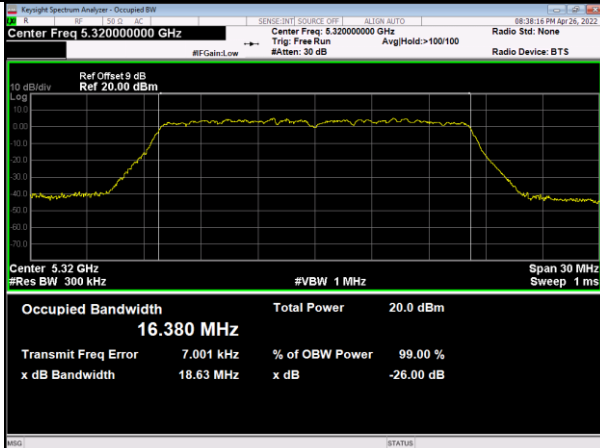
IEEE 802.11a Low Channel



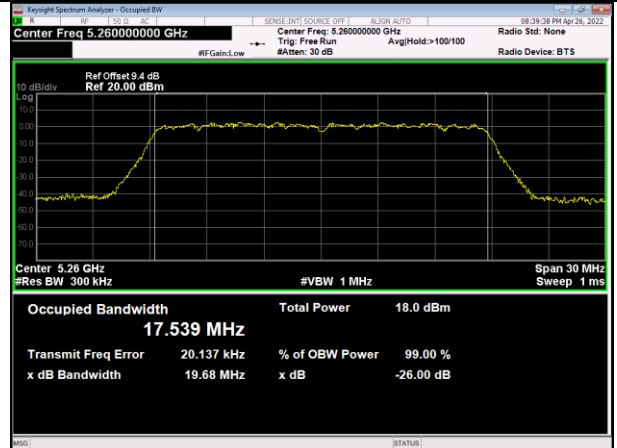
IEEE 802.11a Middle Channel



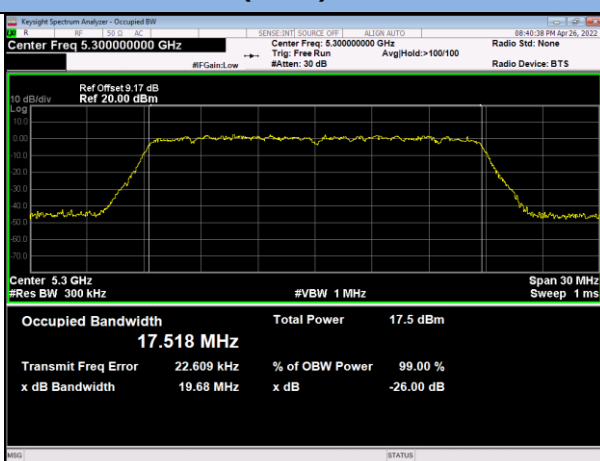
IEEE 802.11a High Channel



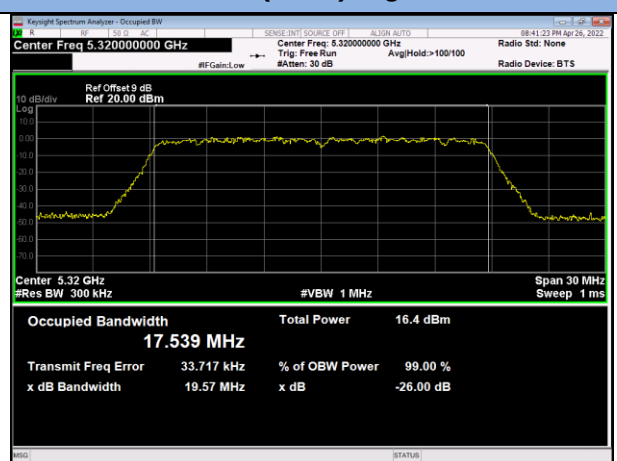
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

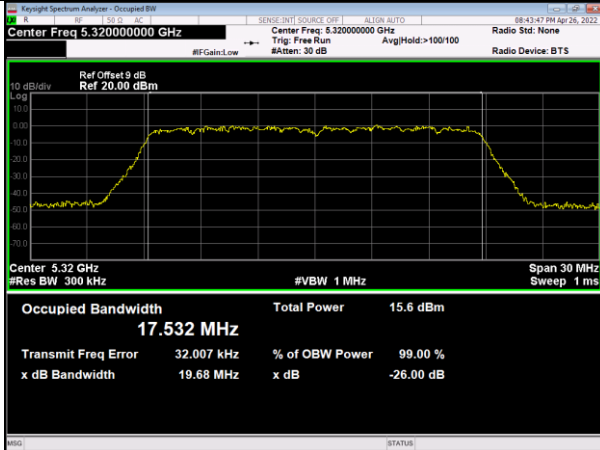


IEEE 802.11n(HT20) High Channel

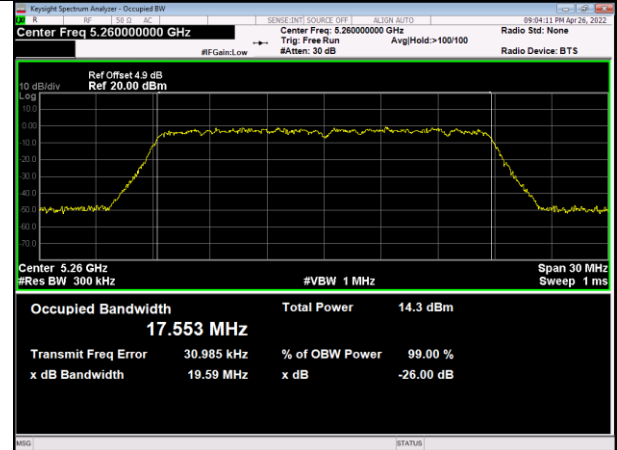


U-NII-2A Band 26dB Bandwidth

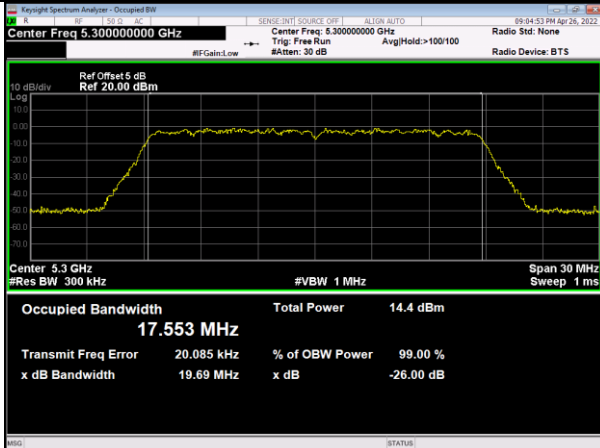
IEEE 802.11ac(VHT20) Low Channel



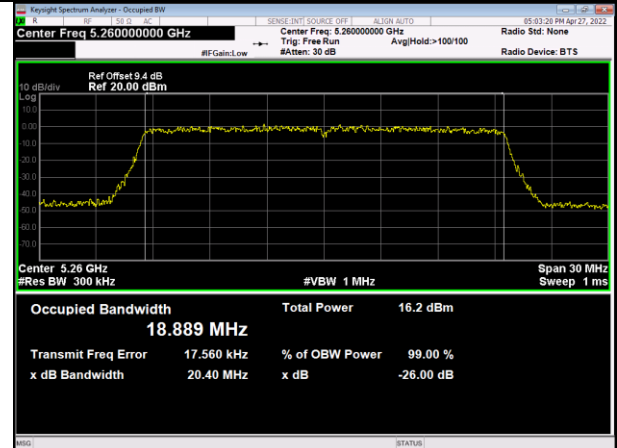
IEEE 802.11ac(VHT20) Middle Channel



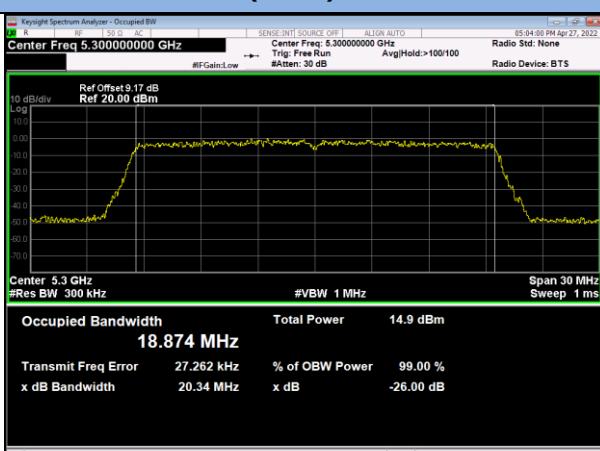
IEEE 802.11ac(VHT20) High Channel



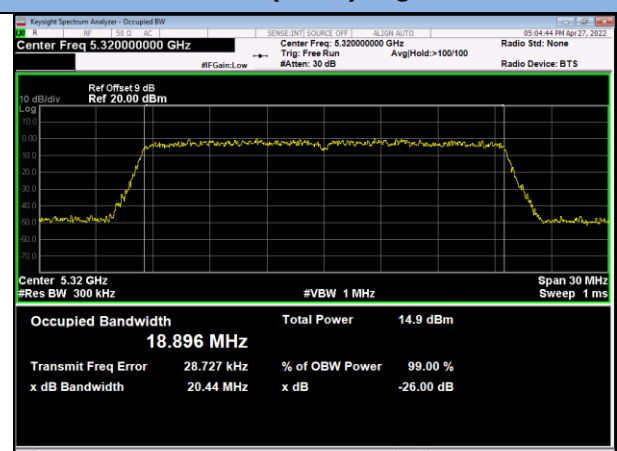
IEEE 802.11ax(HE20) Low Channel



IEEE 802.11ax(HE20) Middle Channel

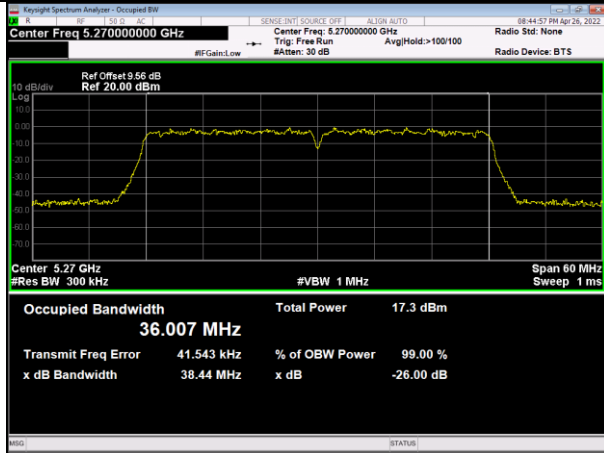


IEEE 802.11ax(HE20) High Channel

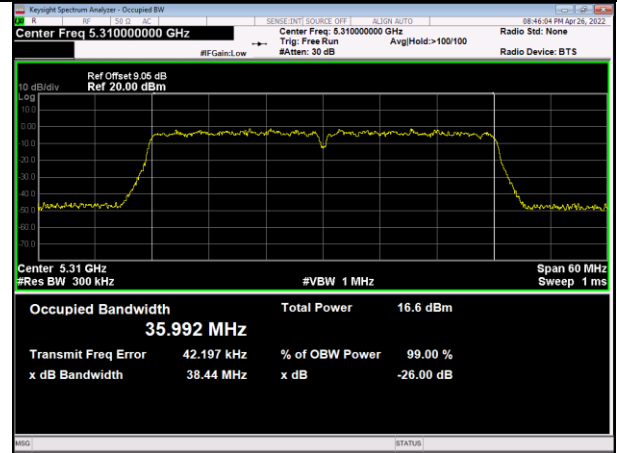


U-NII-2A Band 26dB Bandwidth

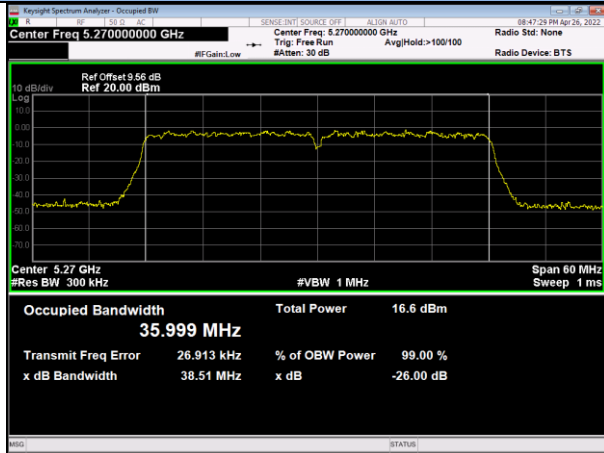
IEEE 802.11n(HT40) Low Channel



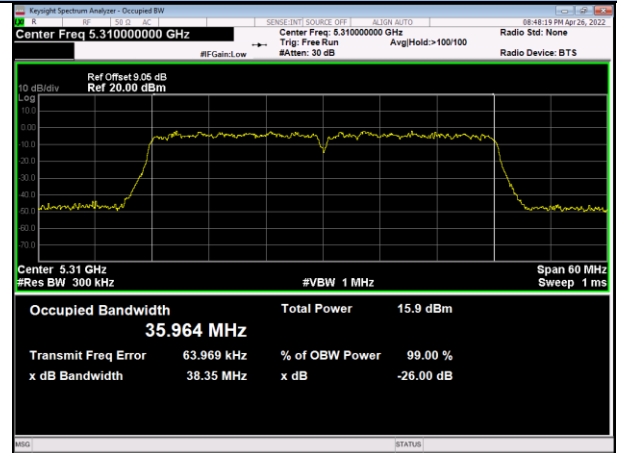
IEEE 802.11n(HT40) High Channel



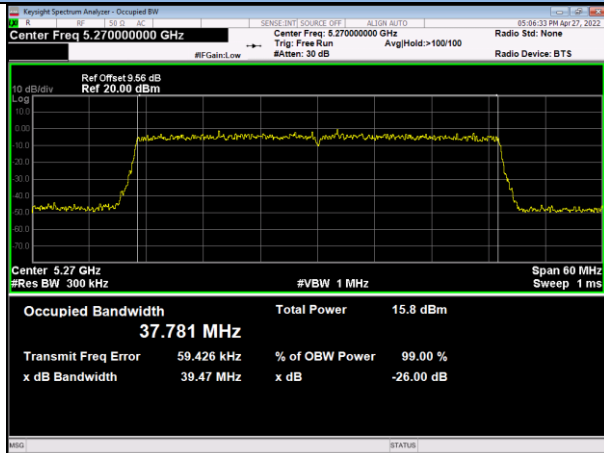
IEEE 802.11ac(VHT40) Low Channel



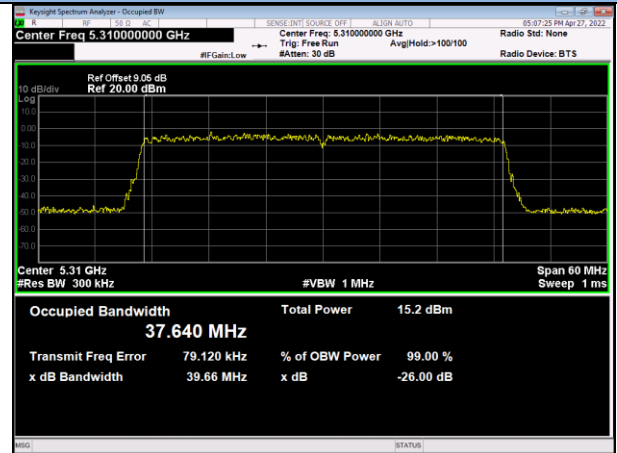
IEEE 802.11ac(VHT40) High Channel



IEEE 802.11ax(HE40) Low Channel

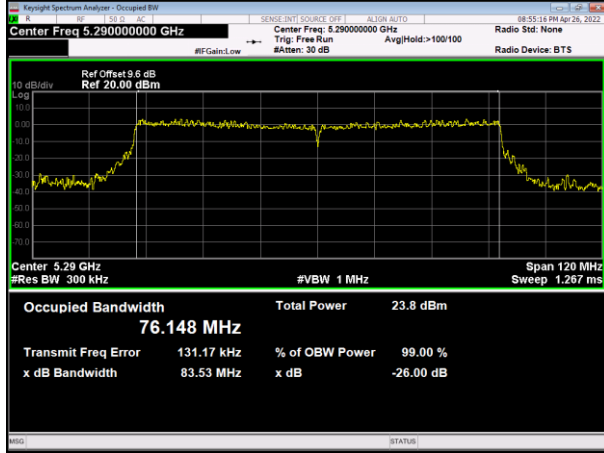


IEEE 802.11ax(HE40) High Channel

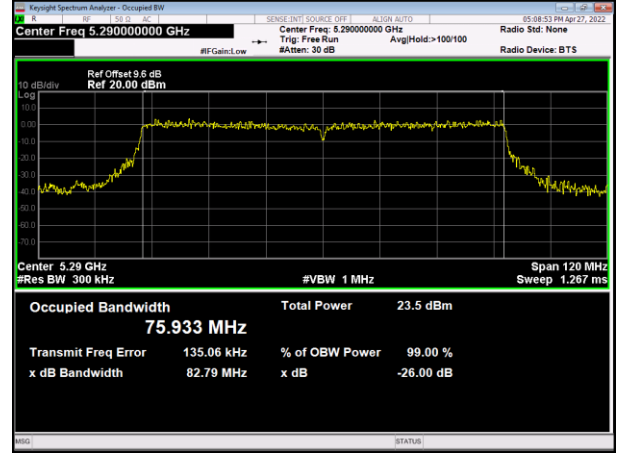


U-NII-2A Band 26dB Bandwidth

IEEE 802.11ac(VHT80)

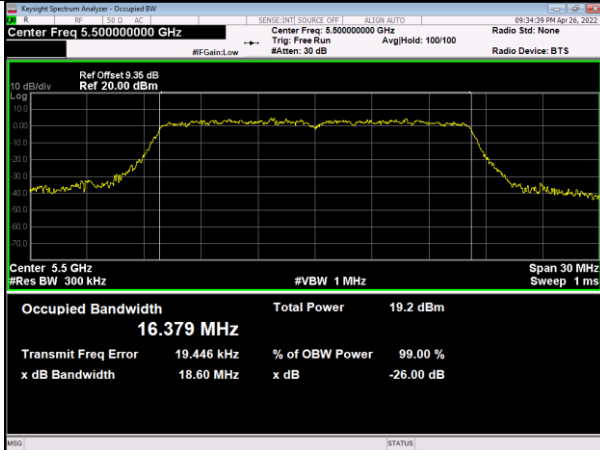


IEEE 802.11ax(HE80)

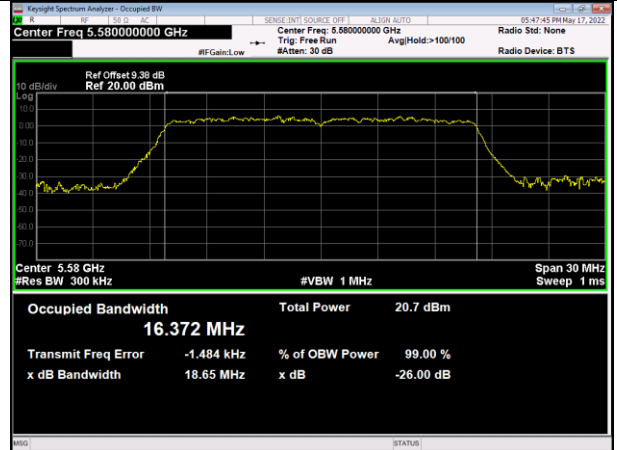


U-NII-2C Band 26dB Bandwidth

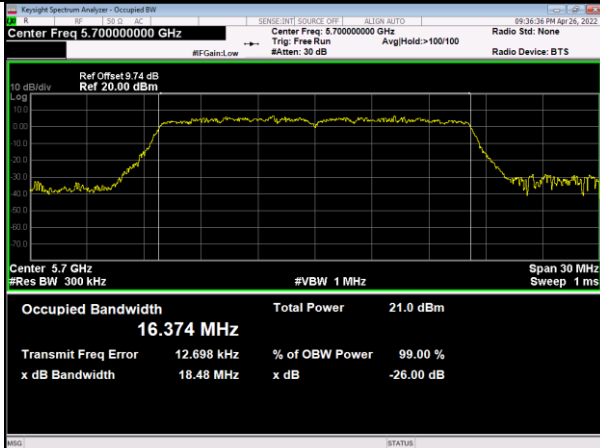
IEEE 802.11a Low Channel



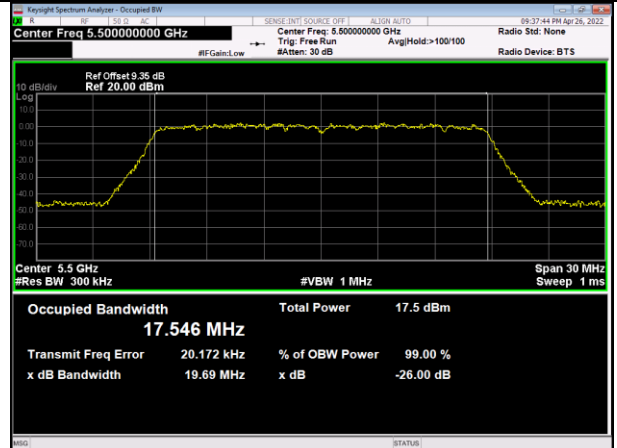
IEEE 802.11a Middle Channel



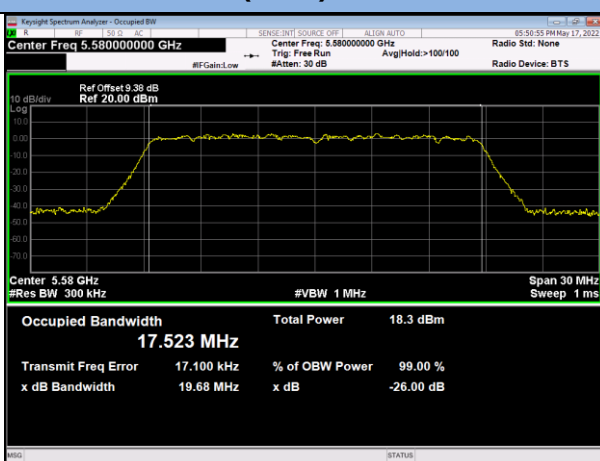
IEEE 802.11a High Channel



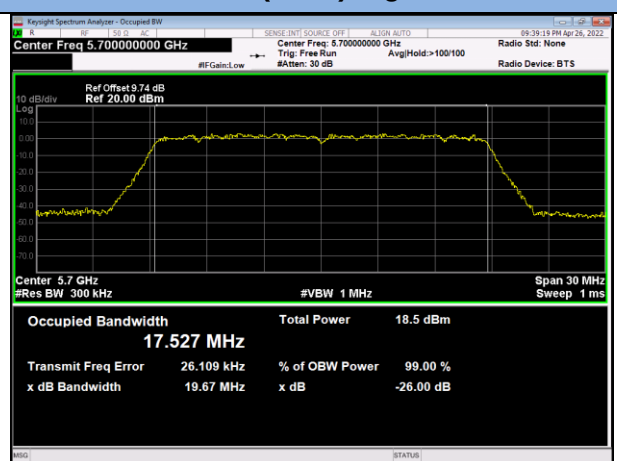
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

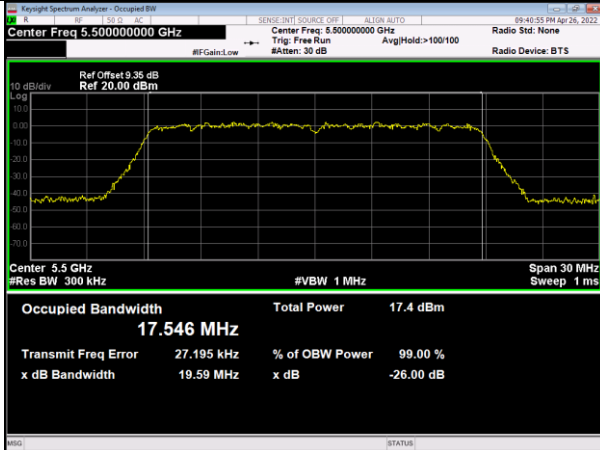


IEEE 802.11n(HT20) High Channel

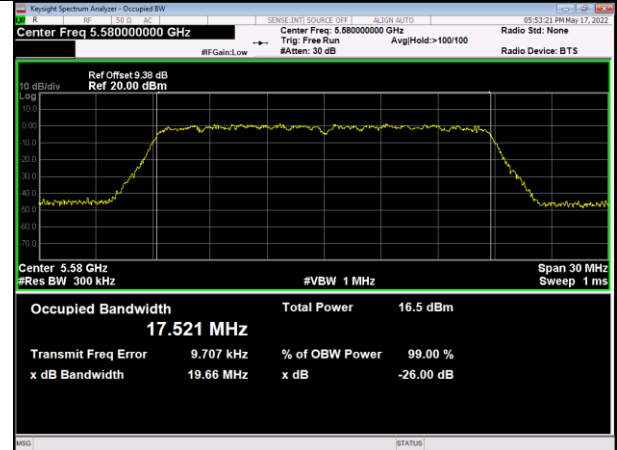


U-NII-2C Band 26dB Bandwidth

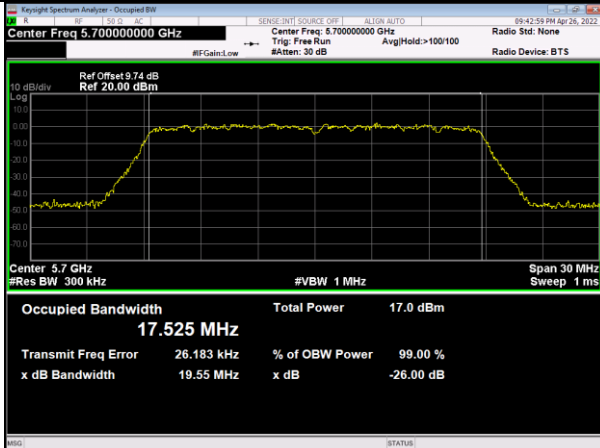
IEEE 802.11ac(VHT20) Low Channel



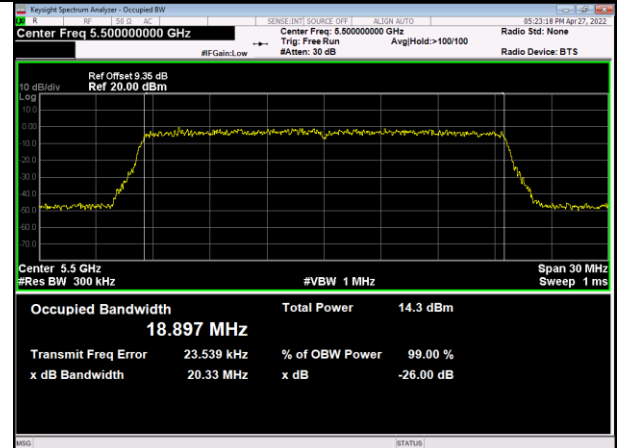
IEEE 802.11ac(VHT20) Middle Channel



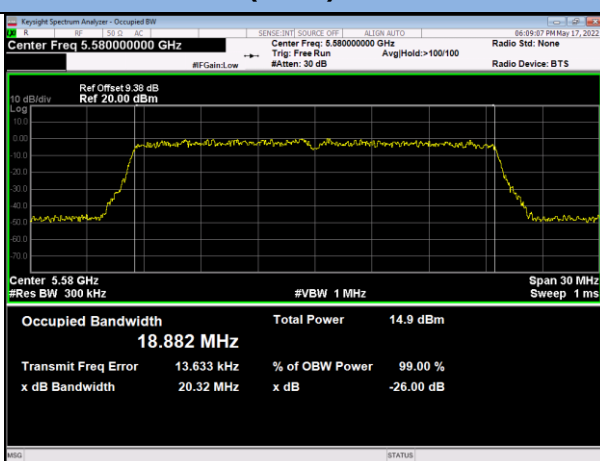
IEEE 802.11ac(VHT20) High Channel



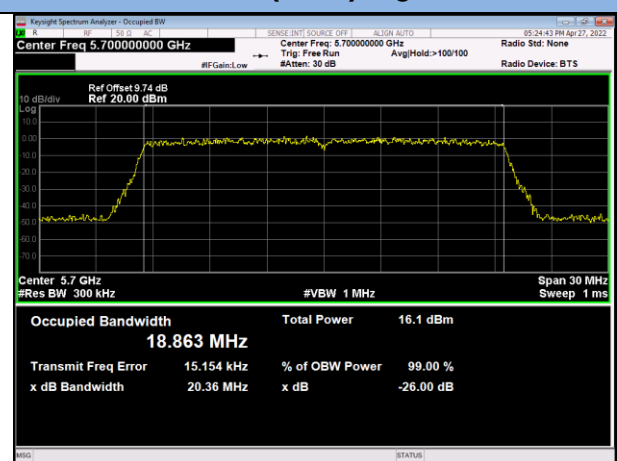
IEEE 802.11ax(HE20) Low Channel



IEEE 802.11ax(HE20) Middle Channel

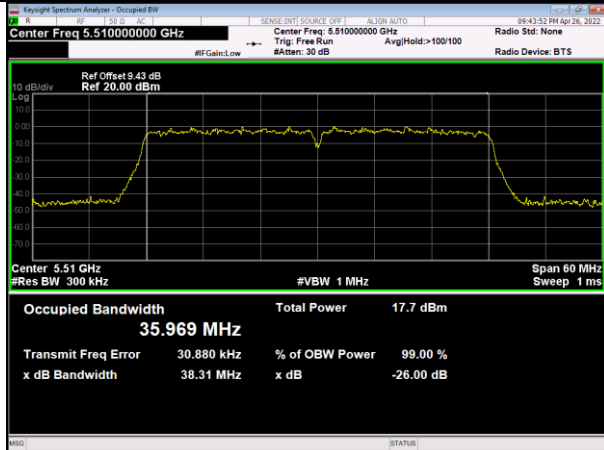


IEEE 802.11ax(HE20) High Channel

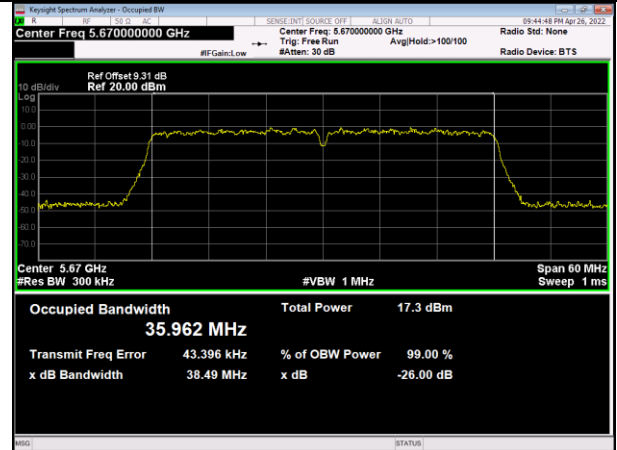


U-NII-2C Band 26dB Bandwidth

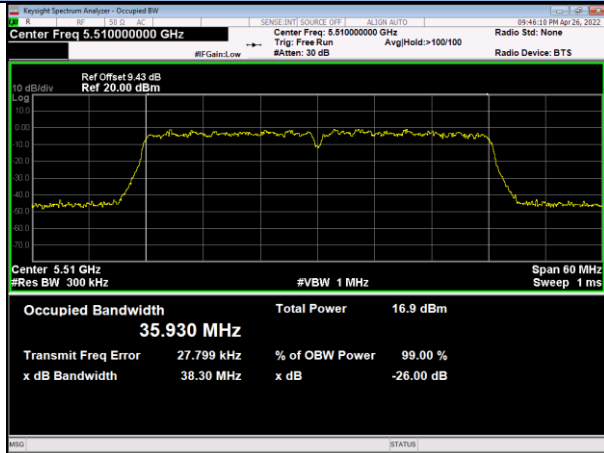
IEEE 802.11n(HT40) Low Channel



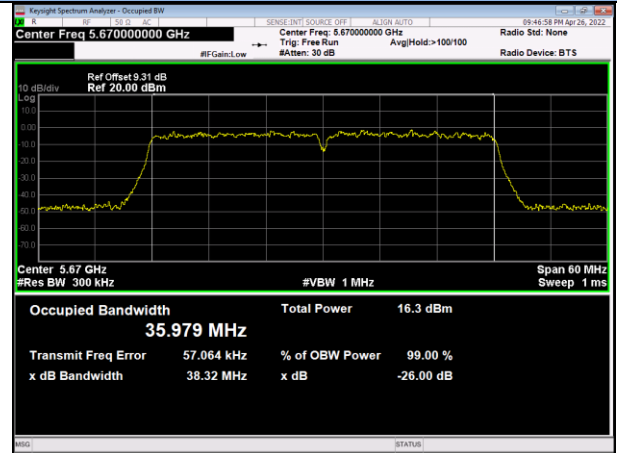
IEEE 802.11n(HT40) High Channel



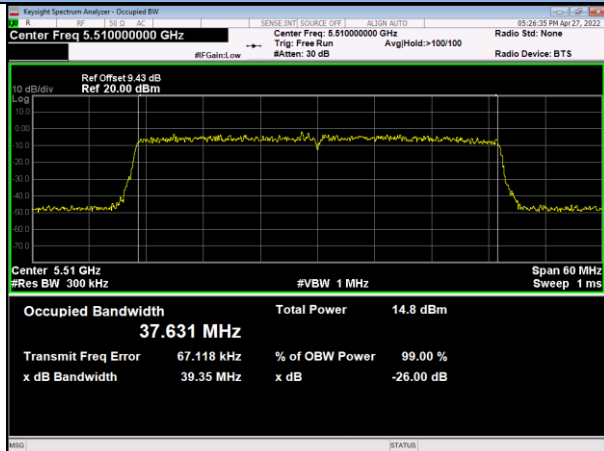
IEEE 802.11ac(VHT40) Low Channel



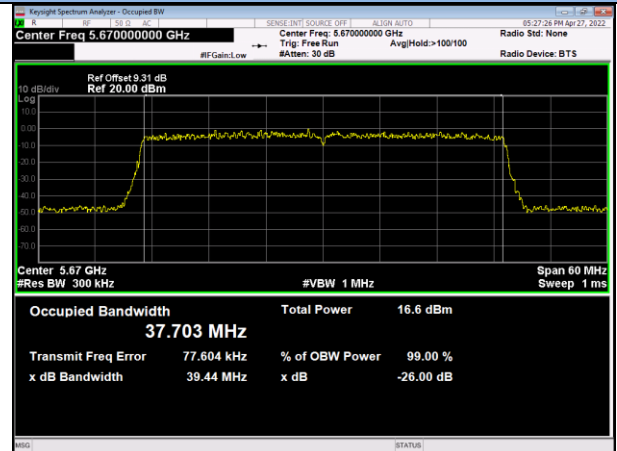
IEEE 802.11ac(VHT40) High Channel



IEEE 802.11ax(HE40) Low Channel

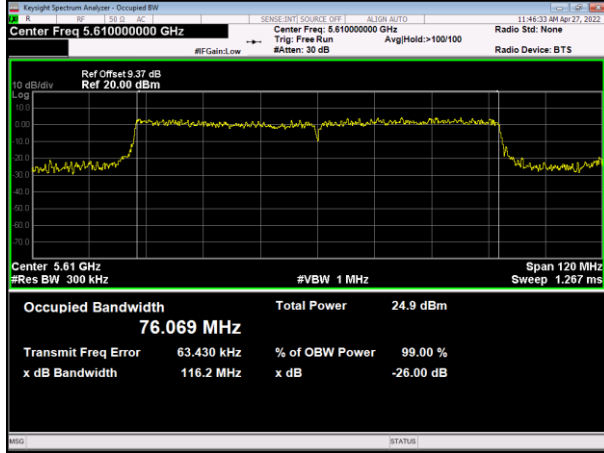


IEEE 802.11ax(HE40) High Channel

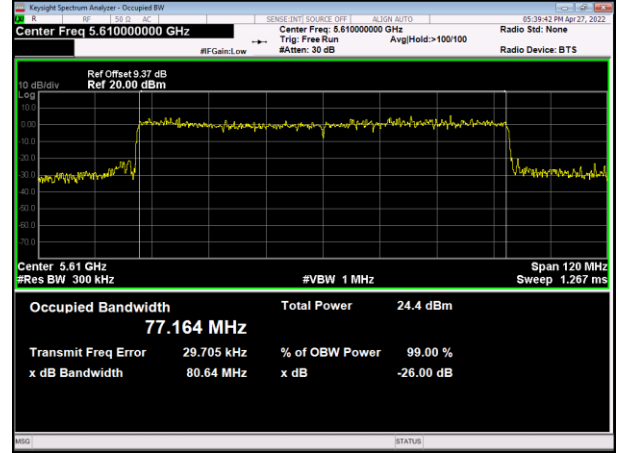


U-NII-2C Band 26dB Bandwidth

IEEE 802.11ac(VHT80)



IEEE 802.11ax(HE80)

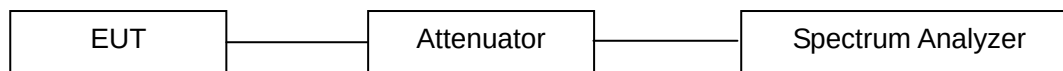


14.5 Power Spectral Density

LIMITS

Operation Band		Limit
☒ 5180~5240MHz	☐ Outdoor access point	17 dBm/MHz
	☐ Indoor access point	17 dBm/MHz
	☐ Fixed point-to-point access points	17 dBm/MHz
	☒ Client devices	11 dBm/MHz
☒ 5260~5320MHz	-	11 dBm/MHz
☒ 5500~5700MHz	-	11 dBm/MHz
☒ 5745~5825MHz	-	30 dBm/500kHz

BLOCK DIAGRAM OF TEST SETUP



TEST PROCEDURES

The antenna port of the EUT was connected to the input of a spectrum analyzer.

Analyzer was set as below according to FCC KDB789033 (v02r01):

- Set analyzer center frequency to center frequency
- Set the RBW to: 1MHz
- Set the VBW to: 3MHz
- Detector = RMS
- Sweep time = auto couple
- Trace Average = 100 times
- If measured bandwidth of Maximum PSD is specified in 500kHz, add $10\log(500\text{kHz}/\text{RBW})$ to the measured result, whereas RBW (<500kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement. Allow trace to fully stabilize.

TEST RESULTS

PASS

Please refer to the following test plots.

U-NII-1 Band							
Frequency MHz	Data Rate Mbps		Duty Cycle Factor (dB)	PSD dBm/MHz		Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11a Mode (OFDM, Antenna Gain=3.59dBi)							
Channel: 5180	6		0	8.713		8.713	11
Channel: 5200	6			8.349		8.349	11
Channel: 5240	6			8.141		8.141	11
IEEE 802.11n(HT20)Mode (OFDM, Antenna Gain=3.59dBi)							
Channel: 5180	SISO	MIMO	0	ANT_1 (SISO)	ANT_2 (SISO)	Ant_1+ANT_2 (MIMO)	---
	MCS 0	MCS 8		6.701	4.518	7.760	10.40
Channel: 5200	MCS 0	MCS 8		7.593	4.838	8.825	10.40
Channel: 5240	MCS 0	MCS 8		6.272	5.034	8.155	10.40
IEEE 802.11n(HT40) Mode (OFDM, Antenna Gain=3.59Bi)							
Channel: 5190	MCS 0	MCS 8	0	4.788	1.455	4.031	10.40
Channel: 5230	MCS 0	MCS 8		3.745	2.294	5.849	10.40
IEEE 802.11ac(VHT20) Mode (OFDM, Antenna Gain=3.59dBi)							
Channel: 5180	MCS 0	MCS 8	0	5.405	3.678	6.804	10.40
Channel: 5200	MCS 0	MCS 8		6.332	3.913	7.338	10.40
Channel: 5240	MCS 0	MCS 8		5.245	4.096	9.216	10.40
IEEE 802.11ac(VHT40) Mode (OFDM, Antenna Gain=3.59dBi)							
Channel: 5190	MCS 0	MCS 8	0	2.833	0.784	2.905	10.40
Channel: 5230	MCS 0	MCS 8		3.337	0.919	4.477	10.40
IEEE 802.11ac(VHT80) Mode (OFDM, Antenna Gain=3.59dBi)							
Channel: 5210	MCS 0	MCS 8	0	7.780	5.501	9.800	10.40
Note: 1. As for IEEE 802.11a mode, both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded. 2. As for IEEE 802.11n/ac mode, EUT working in MIMO mode. 3. Please refer to section 13 for duty cycle factor 4. Directional Gain = 3.59dBi + 10log(2) =6.60dBi >6 dBi, Therefore the limit drop of 0.60dBm.							

U-NII-1 Band							
Frequency MHz	Data Rate Mbps		Duty Cycle Factor (dB)	PSD dBm/MHz		Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11ax(HE20) Mode (OFDM, Antenna Gain=3.59dBi)							
Channel: 5180	SISO	MIMO	0	ANT_1 (SISO)	ANT_2 (SISO)	Ant_1+ANT_2 (MIMO)	---
	MCS 0	MCS 8		7.620	4.360	6.809	10.40
Channel: 5200	MCS 0	MCS 8		5.939	2.855	6.697	10.40
Channel: 5240	MCS 0	MCS 8		5.322	2.192	4.612	10.40
IEEE 802.11ax(HE40) Mode (OFDM, Antenna Gain=3.59dBi)							
Channel: 5190	MCS 0	MCS 8	0	-2.683	-1.102	3.880	10.40
Channel: 5230	MCS 0	MCS 8		-0.248	-1.622	2.987	10.40
IEEE 802.11ax(HE80) Mode (OFDM, Antenna Gain=3.59dBi)							
Channel: 5210	MCS 0	MCS 8	0	-1.155	5.728	8.561	10.40
Note: 1. As for IEEE 802.11a mode, both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded. 2. As for IEEE 802.11n/ac mode, EUT working in MIMO mode. 3. Please refer to section 13 for duty cycle factor 4. Directional Gain = 3.59dBi + 10log(2) =6.60dBi >6 dBi, Therefore the limit drop of 0.60dBm.							

U-NII-2A Band							
Frequency MHz	Data Rate Mbps		Duty Cycle Factor (dB)	PSD dBm/MHz		Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11a Mode (OFDM, Antenna Gain=3.79dBi)							
Channel: 5260	6		0	9.649		9.65	11
Channel: 5300	6			7.744		7.74	11
Channel: 5320	6			7.567		7.57	11
IEEE 802.11n(HT20)Mode (OFDM, Antenna Gain=3.79dBi)							
Channel: 5260	SISO	MIMO	0	ANT_1 (SISO)	ANT_2 (SISO)	Ant_1+ANT_2 (MIMO)	---
	MCS 0	MCS 8		7.509	4.574	9.206	10.20
Channel: 5300	MCS 0	MCS 8		7.245	5.156	8.288	10.20
Channel: 5320	MCS 0	MCS 8		5.746	4.939	8.903	10.20
IEEE 802.11n(HT40) Mode (OFDM, Antenna Gain=3.79Bi)							
Channel: 5270	MCS 0	MCS 8	0	3.873	1.51	5.149	10.20
Channel: 5310	MCS 0	MCS 8		3.104	1.724	4.925	10.20
IEEE 802.11ac(VHT20) Mode (OFDM, Antenna Gain=3.79dBi)							
Channel: 5260	MCS 0	MCS 8	0	5.570	3.623	8.539	10.20
Channel: 5300	MCS 0	MCS 8		5.506	3.812	8.175	10.20
Channel: 5320	MCS 0	MCS 8		4.609	4.092	8.199	10.20
IEEE 802.11ac(VHT40) Mode (OFDM, Antenna Gain=3.79dBi)							
Channel: 5270	MCS 0	MCS 8	0	2.400	0.98	4.522	10.20
Channel: 5310	MCS 0	MCS 8		1.661	0.768	3.216	10.20
IEEE 802.11ac(VHT80) Mode (OFDM, Antenna Gain=3.79dBi)							
Channel: 5290	MCS 0	MCS 8	0	8.761	3.949	10.00	10.20
Note: 1. As for IEEE 802.11a mode, both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded.							
2. As for IEEE 802.11n/ac mode, EUT working in MIMO mode.							
3. Please refer to section 13 for duty cycle factor							
4. Directional Gain = 3.79dBi + 10log(2) =6.80dBi >6 dBi, Therefore the limit drop of 0.80dBm.							

U-NII-2A Band							
Frequency MHz	Data Rate Mbps		Duty Cycle Factor (dB)	PSD dBm/MHz		Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11ax(HE20) Mode (OFDM, Antenna Gain=3.79dBi)							
Channel: 5260	SISO	MIMO	0	ANT_1 (SISO)	ANT_2 (SISO)	Ant_1+ANT_2 (MIMO)	---
	MCS 0	MCS 8		5.116	2.337	6.013	10.20
Channel: 5300	MCS 0	MCS 8		3.748	2.093	5.439	10.20
Channel: 5320	MCS 0	MCS 8		4.254	2.220	6.686	10.20
IEEE 802.11ax(HE40) Mode (OFDM, Antenna Gain=3.79dBi)							
Channel: 5270	MCS 0	MCS 8	0	2.373	1.120	2.764	10.20
Channel: 5310	MCS 0	MCS 8		1.694	-0.677	3.092	10.20
IEEE 802.11ax(HE80) Mode (OFDM, Antenna Gain=3.79dBi)							
Channel: 5290	MCS 0	MCS 8	0	7.353	6.855	9.629	10.20
Note: 1. As for IEEE 802.11a mode, both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded. 2. As for IEEE 802.11n/ac mode, EUT working in MIMO mode. 3. Please refer to section 13 for duty cycle factor 4. Directional Gain = 3.79dBi + 10log(2) =6.80dBi >6 dBi, Therefore the limit drop of 0.80dBm.							

U-NII-2C Band							
Frequency MHz	Data Rate Mbps		Duty Cycle Factor (dB)	PSD dBm/MHz		Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11a Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5500	6		0	7.281		7.28	11
Channel: 5580	6			8.525		8.53	11
Channel: 5700	6			9.075		9.08	11
IEEE 802.11n(HT20)Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5500	SISO	MIMO	0	ANT_1 (SISO)	ANT_2 (SISO)	Ant_1+ANT_2 (MIMO)	---
	MCS 0	MCS 8		6.909	4.998	9.228	9.43
Channel: 5580	MCS 0	MCS 8		7.391	5.256	8.283	9.43
Channel: 5700	MCS 0	MCS 8		7.999	6.318	9.328	9.43
IEEE 802.11n(HT40) Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5510	MCS 0	MCS 8	0	3.932	1.744	4.929	9.43
Channel: 5670	MCS 0	MCS 8		3.616	3.525	5.042	9.43
IEEE 802.11ac(VHT20) Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5500	MCS 0	MCS 8	0	7.007	3.886	7.211	9.43
Channel: 5580	MCS 0	MCS 8		5.857	5.072	7.495	9.43
Channel: 5700	MCS 0	MCS 8		6.325	4.922	8.301	9.43
IEEE 802.11ac(VHT40) Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5510	MCS 0	MCS 8	0	2.776	0.103	4.448	9.43
Channel: 5670	MCS 0	MCS 8		2.342	2.22	4.706	9.43
IEEE 802.11ac(VHT80) Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5610	MCS 0	MCS 8	0	8.227	2.884	9.340	9.43
Note: 1. As for IEEE 802.11a mode, both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded. 2. As for IEEE 802.11n/ac mode, EUT working in MIMO mode. 3. Please refer to section 13 for duty cycle factor 4. Directional Gain =4.56dBi + 10log(2) =7.57dBi >6 dBi, Therefore the limit drop of 1.57dBm.							

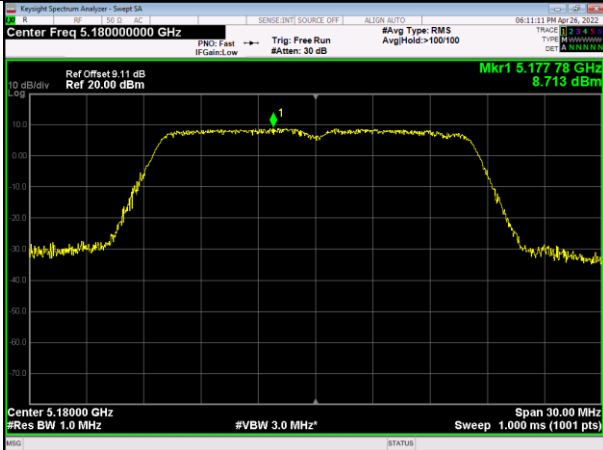
U-NII-2C Band							
Frequency MHz	Data Rate Mbps		Duty Cycle Factor (dB)	PSD dBm/MHz		Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11ax(HE20) Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5500	SISO	MIMO	0	ANT_1 (SISO)	ANT_2 (SISO)	Ant_1+ANT_2 (MIMO)	---
	MCS 0	MCS 8		3.711	3.268	4.769	9.43
Channel: 5580	MCS 0	MCS 8		4.770	4.530	5.799	9.43
Channel: 5700	MCS 0	MCS 8		5.511	3.738	6.838	9.43
IEEE 802.11ax(HE40) Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5510	MCS 0	MCS 8	0	1.234	1.571	3.544	9.43
Channel: 5670	MCS 0	MCS 8		3.213	0.675	5.291	9.43
IEEE 802.11ax(HE80) Mode (OFDM, Antenna Gain=4.56dBi)							
Channel: 5610	MCS 0	MCS 8	0	7.864	2.748	9.031	9.43
Note: 1. As for IEEE 802.11a mode, both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded.							
2. As for IEEE 802.11n/ac mode, EUT working in MIMO mode.							
3. Please refer to section 13 for duty cycle factor							
4. Directional Gain =4.56dBi + 10log(2) =7.57dBi >6 dBi, Therefore the limit drop of 1.57dBm.							

U-NII-3 Band							
Frequency MHz	Data Rate Mbps		Duty Cycle Factor (dB)	PSD dBm/500kHz		Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11a Mode (OFDM, Antenna Gain=3.85dBi)							
Channel: 5745	6		0	7.398		4.39	30
Channel: 5785	6			7.238		4.23	30
Channel: 5825	6			7.174		4.16	30
IEEE 802.11n(HT20)Mode (OFDM, Antenna Gain=3.85dBi)							
Channel: 5745	SISO	MIMO	0	ANT_1 (SISO)	ANT_2 (SISO)	Ant_1+ANT_2 (MIMO)	---
	MCS 0	MCS 8		4.954	4.867	4.900	29.14
Channel: 5785	MCS 0	MCS 8		5.329	5.104	5.224	29.14
Channel: 5825	MCS 0	MCS 8		5.350	3.718	4.609	29.14
IEEE 802.11n(HT40) Mode (OFDM, Antenna Gain=3.85Bi)							
Channel: 5755	MCS 0	MCS 8	0	2.007	1.625	1.818	29.14
Channel: 5795	MCS 0	MCS 8		2.463	1.323	1.931	29.14
IEEE 802.11ac (VHT20) Mode (OFDM, Antenna Gain=3.85dBi)							
Channel: 5745	MCS 0	MCS 8	0	3.974	3.431	3.711	29.14
Channel: 5785	MCS 0	MCS 8		3.597	3.262	3.424	29.14
Channel: 5825	MCS 0	MCS 8		4.522	2.498	3.636	29.14
IEEE 802.11ac (VHT40) Mode (OFDM, Antenna Gain=3.85dBi)							
Channel: 5755	MCS 0	MCS 8	0	1.265	0.112	0.719	29.14
Channel: 5795	MCS 0	MCS 8		1.834	0.704	1.303	29.14
IEEE 802.11ac (VHT80) Mode (OFDM, Antenna Gain=3.85dBi)							
Channel: 5775	MCS 0	MCS 8	0	6.472	5.454	5.999	29.14
Note: 1. As for IEEE 802.11a mode, both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded. 2. As for IEEE 802.11n/ac mode, EUT working in MIMO mode. 3. Please refer to section 13 for duty cycle factor 4. Directional Gain = 3.85dBi + 10log(2) =6.86dBi >6 dBi, Therefore the limit drop of 0.86dBm.							

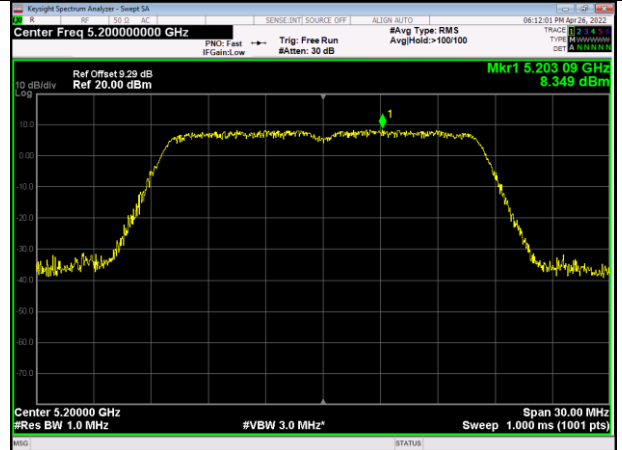
U-NII-3 Band							
Frequency MHz	Data Rate Mbps		Duty Cycle Factor (dB)	PSD dBm/500kHz		Total PSD with duty cycle factor	Limit dBm/ MHz
IEEE 802.11ax (HE20) Mode (OFDM, Antenna Gain=3.85dBi)							
Channel: 5745	SISO	MIMO	0	ANT_1 (SISO)	ANT_2 (SISO)	Ant_1+ANT_2 (MIMO)	---
	MCS 0	MCS 8		2.186	2.192	2.201	29.14
Channel: 5785	MCS 0	MCS 8		2.615	1.78	2.201	29.14
Channel: 5825	MCS 0	MCS 8		2.645	1.624	2.175	29.14
IEEE 802.11 ax (HE40) Mode (OFDM, Antenna Gain=3.85dBi)							
Channel: 5755	MCS 0	MCS 8	0	-0.983	-1.618	-1.308	29.14
Channel: 5795	MCS 0	MCS 8		-0.231	-1.736	-0.915	29.14
IEEE 802.11 ax (HE80) Mode (OFDM, Antenna Gain=3.85dBi)							
Channel: 5775	MCS 0	MCS 8	0	5.500	2.536	4.265	29.14
Note: 1. As for IEEE 802.11a mode, both of antennas have considered during pre-test, but only the worst case (ANT_1) was recorded. 2. As for IEEE 802.11n/ac mode, EUT working in MIMO mode. 3. Please refer to section 13 for duty cycle factor 4. Directional Gain = 3.85dBi + 10log(2) =6.86dBi >6 dBi, Therefore the limit drop of 0.86dBm.							

U-NII-1 Band

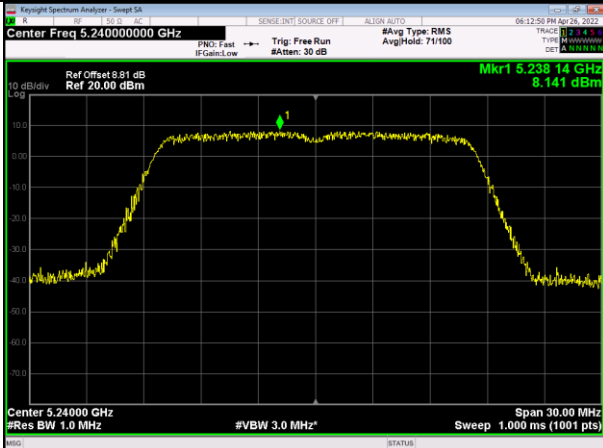
IEEE 802.11a Low Channel



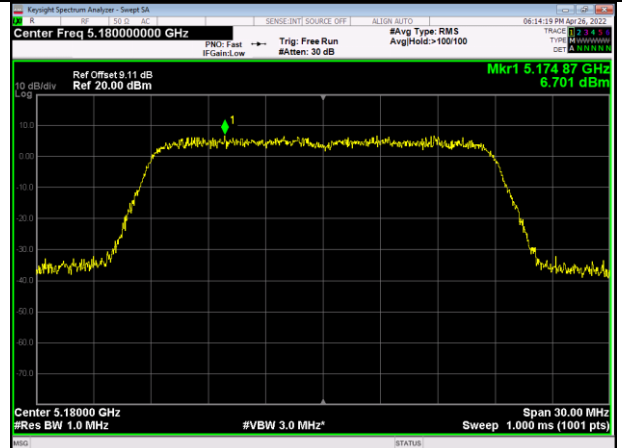
IEEE 802.11a Middle Channel



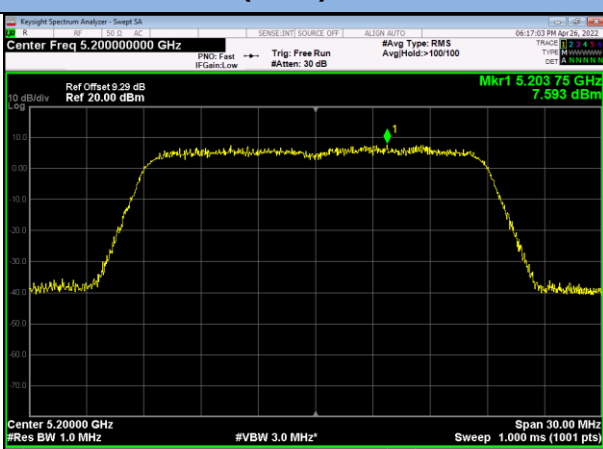
IEEE 802.11a High Channel



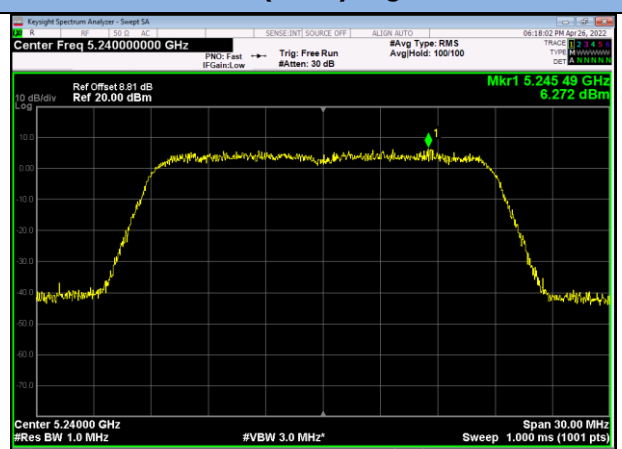
IEEE 802.11n(HT20) Low Channel



IEEE 802.11n(HT20) Middle Channel

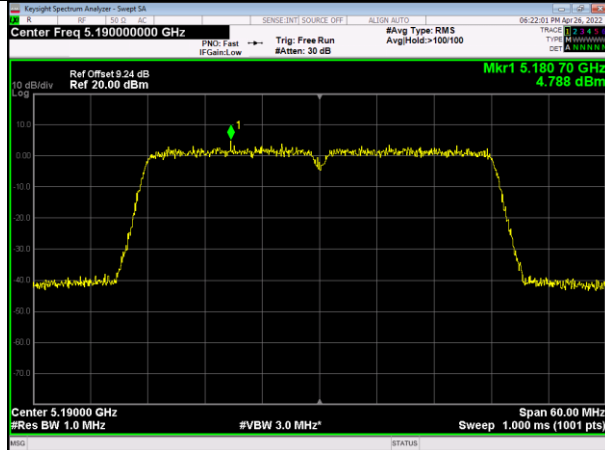


IEEE 802.11n(HT20) High Channel

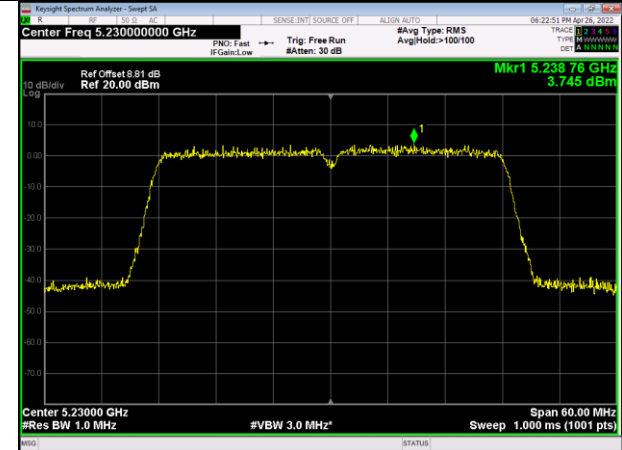


U-NII-1 Band

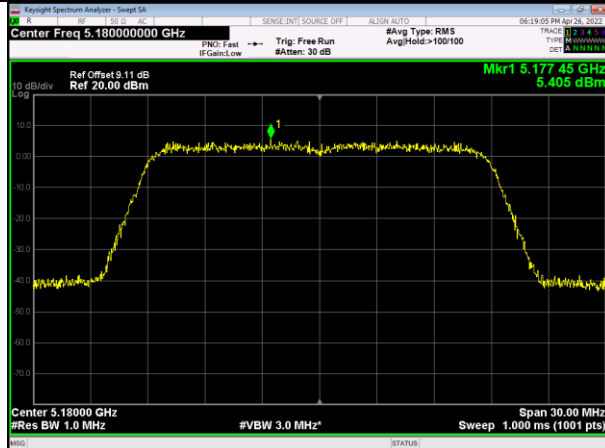
IEEE 802.11n(HT40) Low Channel



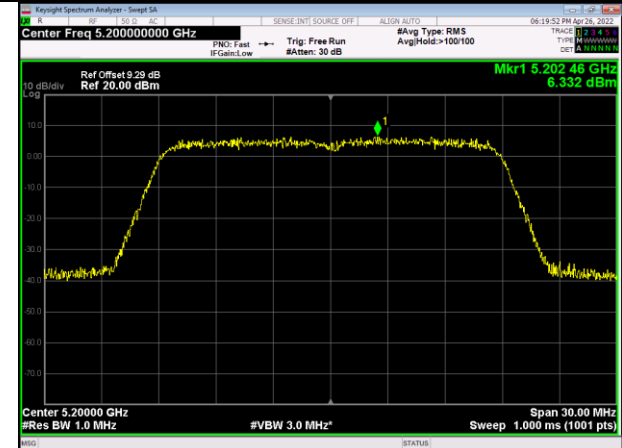
IEEE 802.11n(HT40) High Channel



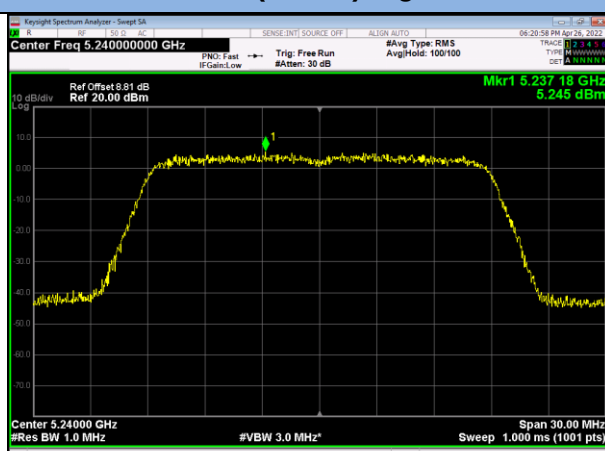
IEEE 802.11ac(VHT20) Low Channel



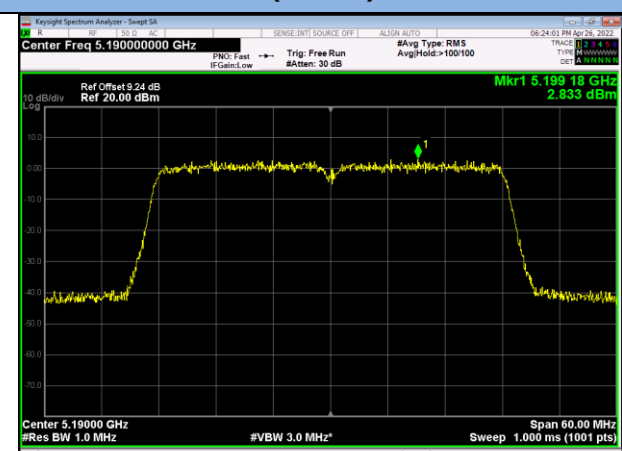
IEEE 802.11ac(VHT20) Middle Channel



IEEE 802.11ac(VHT20) High Channel

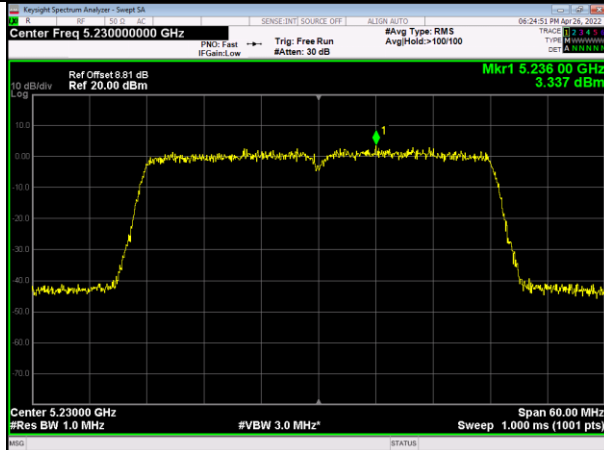


IEEE 802.11ac(VHT40) Low Channel

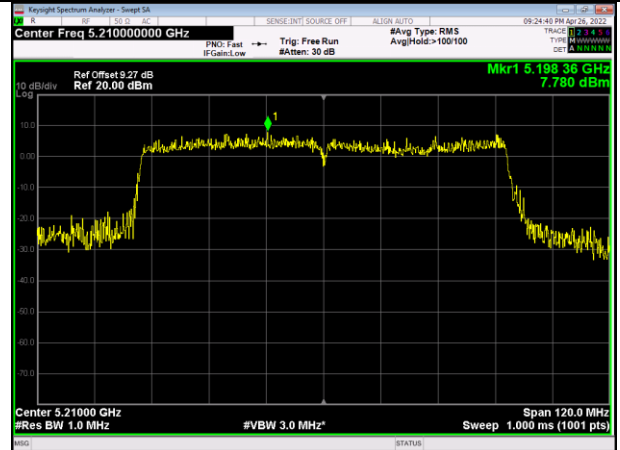


U-NII-1 Band

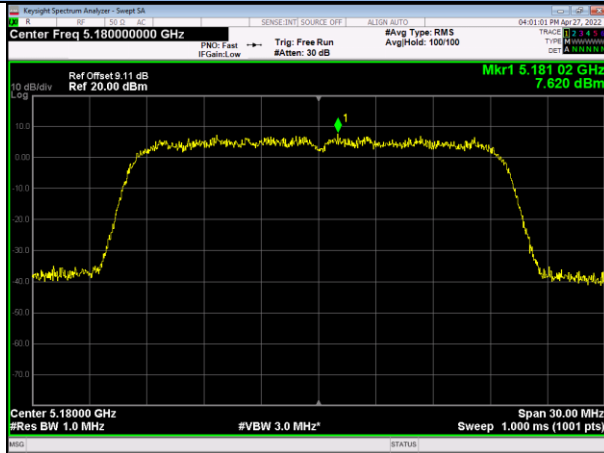
IEEE 802.11ac(VHT40) High Channel



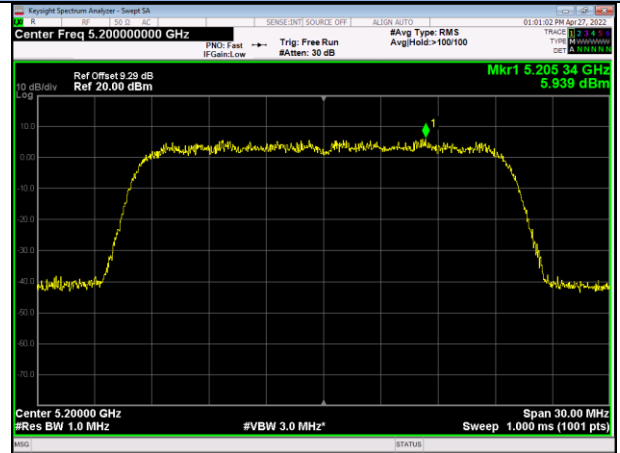
IEEE 802.11ac(VHT80)



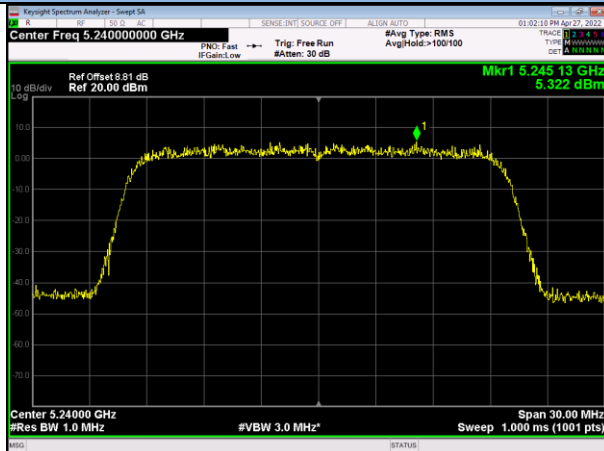
IEEE 802.11ax(HE20) Low Channel



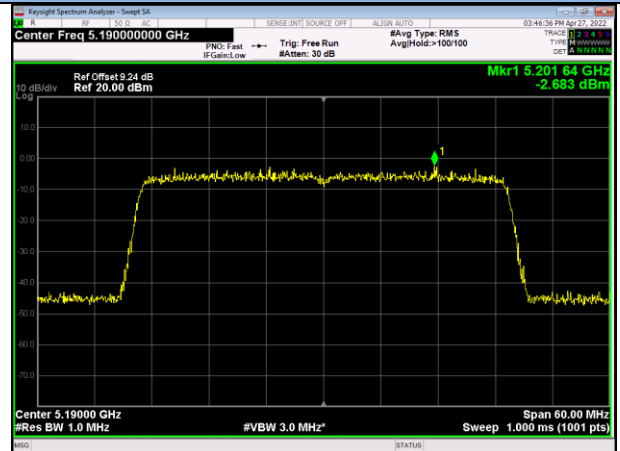
IEEE 802.11ax(HE20) Middle Channel



IEEE 802.11 ax(HE20) High Channel

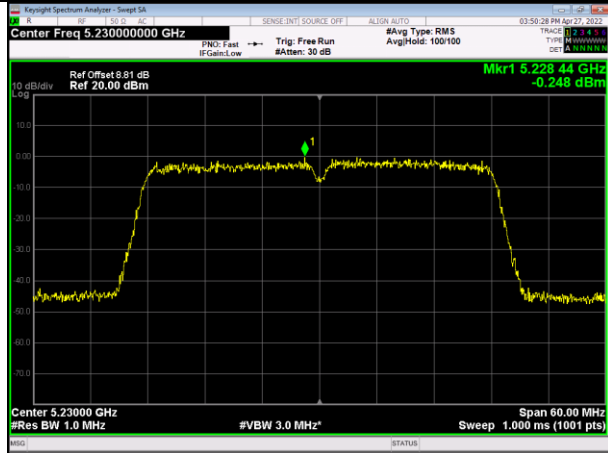


IEEE 802.11ax(HE40) Low Channel



U-NII-1 Band

IEEE 802.11ax(VHT40) High Channel



IEEE 802.11ax(HE80)

