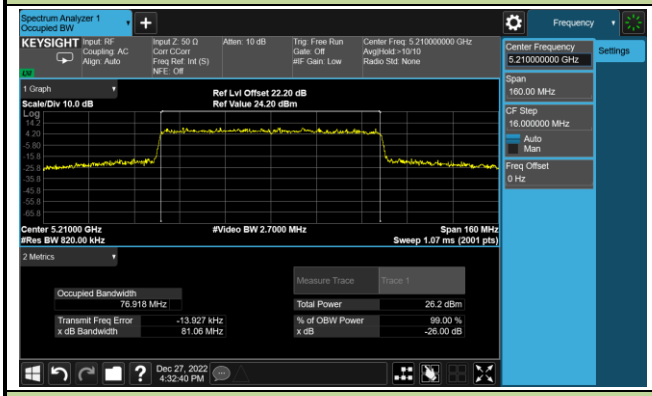
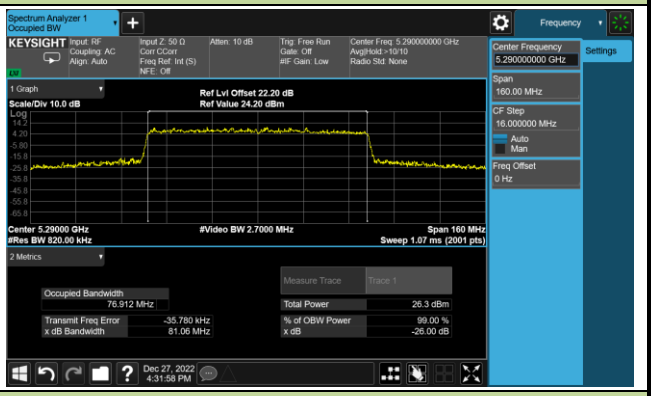
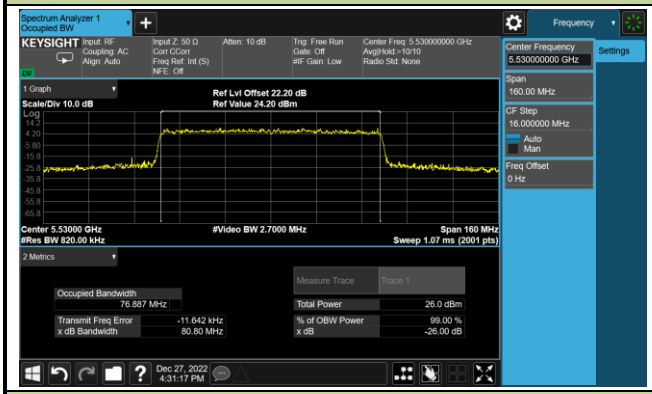
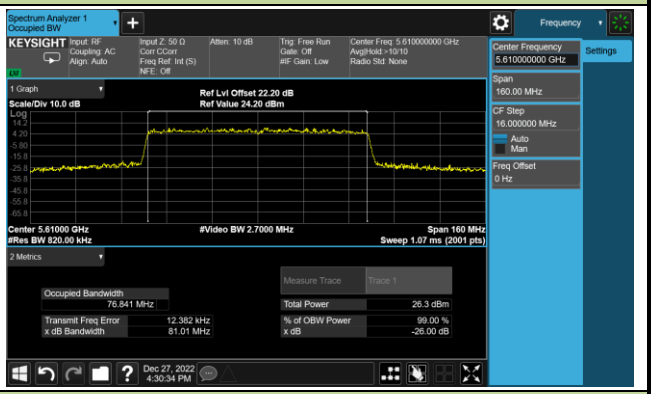
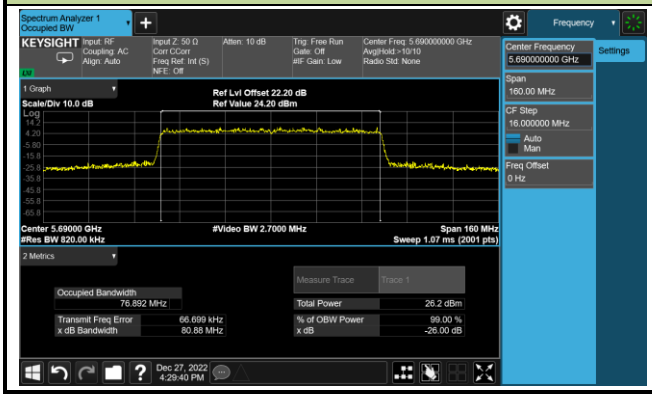
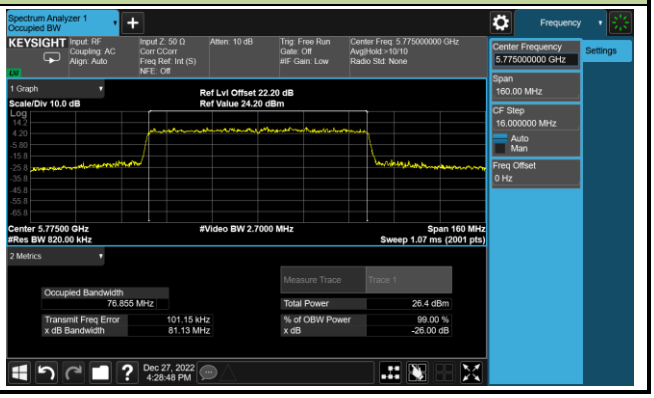
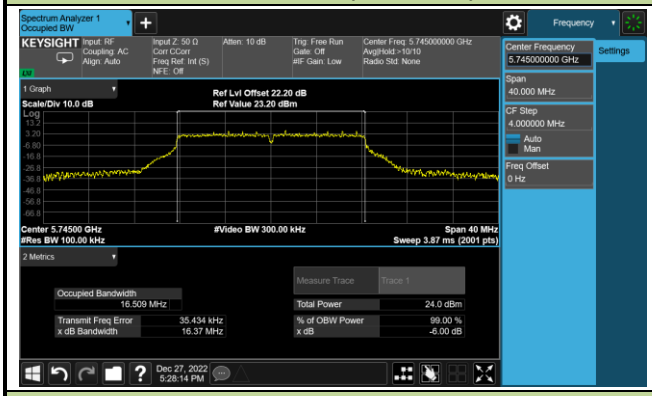
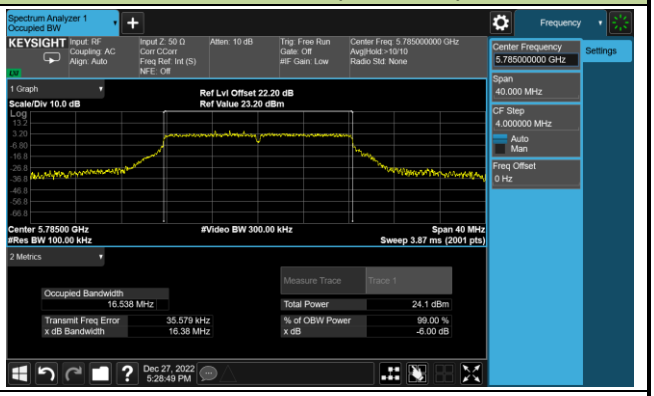
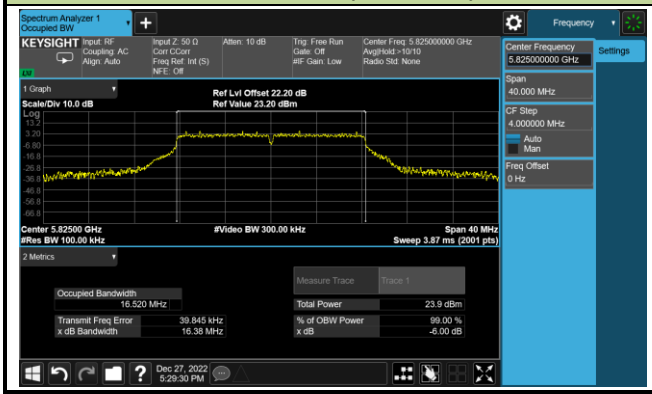
802.11ax-HE80 26dB Bandwidth	
Channel 42 (5210MHz)	Channel 58 (5290MHz)
	
Channel 106 (5530MHz)	Channel 122 (5610MHz)
	
Channel 138 (5690MHz)	Channel 155 (5775MHz)
	

A.3 6dB Bandwidth Test Result

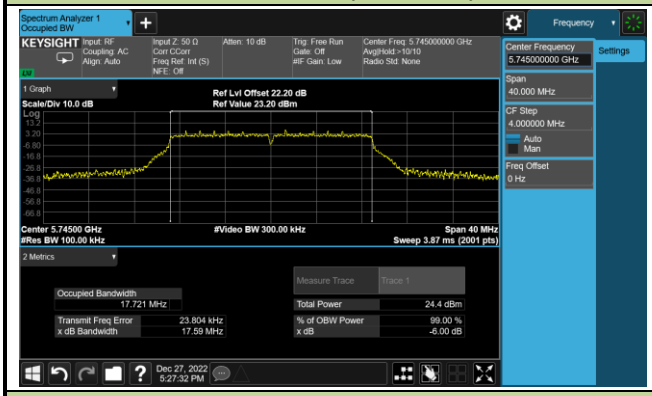
Test Site	SIP-TR1	Test Engineer	Alisa Deng
Test Date	2022-12-27		

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)
11a	6Mbps	149	5745	16.37	≥0.5
11a	6Mbps	157	5785	16.38	≥0.5
11a	6Mbps	165	5825	16.38	≥0.5
11ac-VHT20	MCS0	149	5745	17.59	≥0.5
11ac-VHT20	MCS0	157	5785	17.59	≥0.5
11ac-VHT20	MCS0	165	5825	17.60	≥0.5
11ac-VHT40	MCS0	151	5755	36.38	≥0.5
11ac-VHT40	MCS0	159	5795	36.34	≥0.5
11ac-VHT80	MCS0	155	5775	75.62	≥0.5
11ax-HE20	MCS0	149	5745	18.95	≥0.5
11ax-HE20	MCS0	157	5785	18.96	≥0.5
11ax-HE20	MCS0	165	5825	18.90	≥0.5
11ax-HE40	MCS0	151	5755	37.65	≥0.5
11ax-HE40	MCS0	159	5795	37.63	≥0.5
11ax-HE80	MCS0	155	5775	76.48	≥0.5

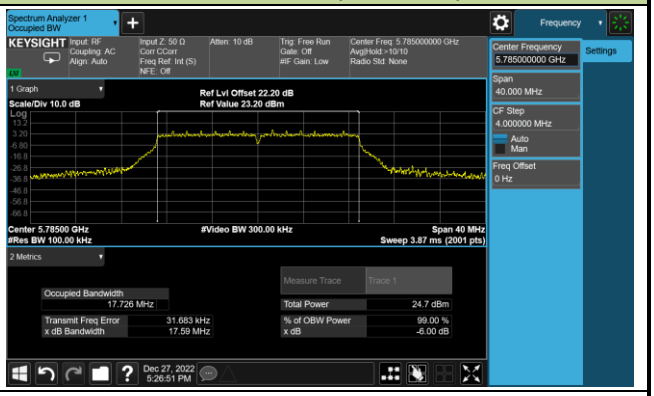
802.11a 6dB Bandwidth	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	
Channel 165 (5825MHz)	
	

802.11ac-VHT20 6dB Bandwidth

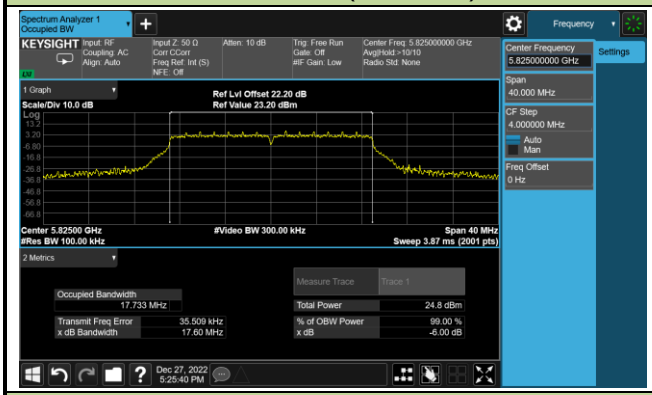
Channel 149 (5745MHz)



Channel 157 (5785MHz)

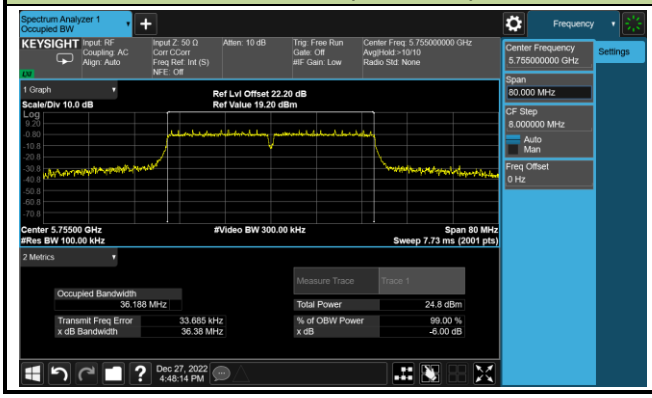


Channel 165 (5825MHz)

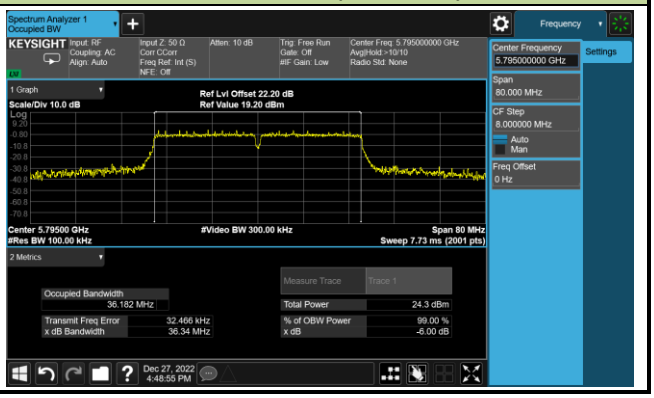


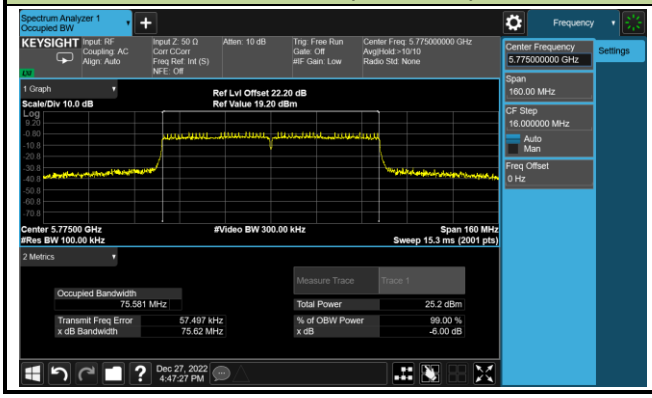
802.11ac-VHT40 6dB Bandwidth

Channel 151 (5755MHz)



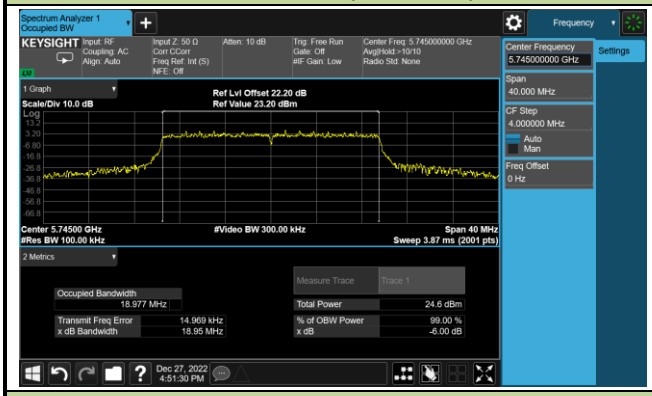
Channel 159 (5795MHz)



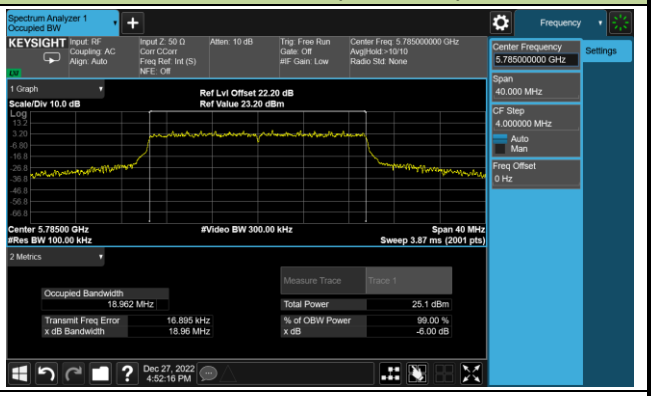
802.11ac-VHT80 6dB Bandwidth	
Channel 155 (5775MHz)	
	

802.11ax-HE20 6dB Bandwidth

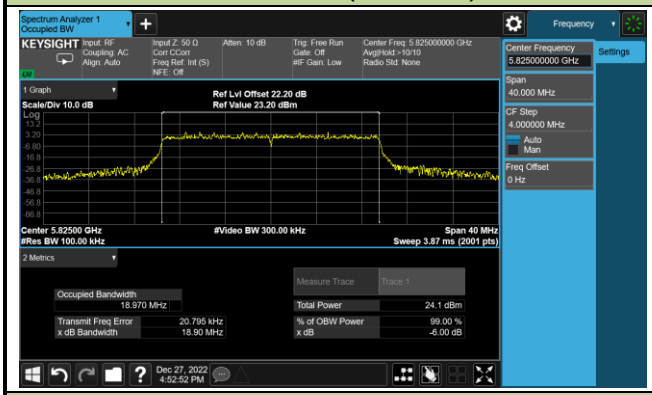
Channel 149 (5745MHz)



Channel 157 (5785MHz)

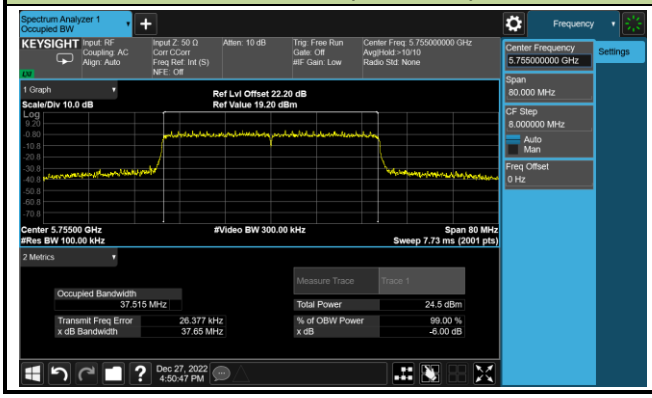


Channel 165 (5825MHz)

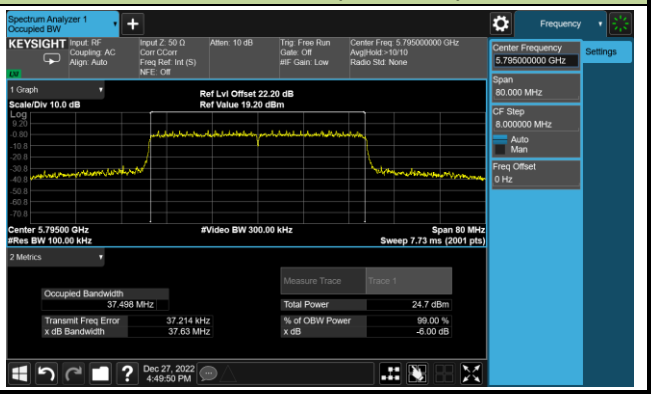


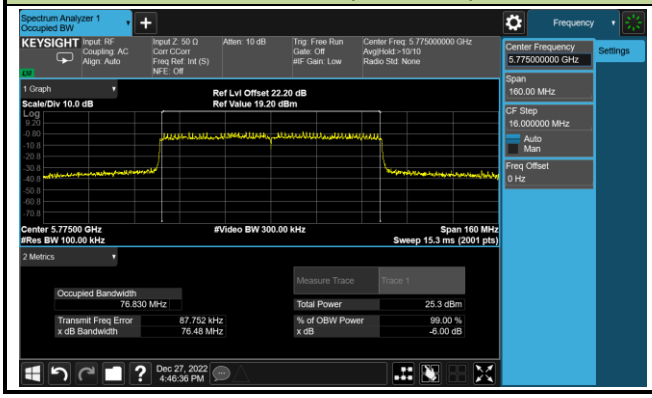
802.11ac-VHT40 6dB Bandwidth

Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ax-HE80 6dB Bandwidth	
Channel 155 (5775MHz)	
	

A.4 Output Power Test Result

Test Site	SIP-TR1	Test Engineer	Nandy Zhang
Test Date	2022-12-19		

Test Mode	Data Rate MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Average Power Limit (dBm)
				Ant 0	Ant 1		
11a	6Mbps	36	5180	16.90	16.75	19.84	≤ 30.00
11a	6Mbps	44	5220	18.35	18.40	21.39	≤ 30.00
11a	6Mbps	48	5240	18.15	18.19	21.18	≤ 30.00
11a	6Mbps	52	5260	18.18	18.33	21.27	≤ 23.98
11a	6Mbps	60	5300	18.25	18.39	21.33	≤ 23.98
11a	6Mbps	64	5320	17.90	18.06	20.99	≤ 23.98
11a	6Mbps	100	5500	14.65	14.47	17.57	≤ 23.98
11a	6Mbps	116	5580	18.07	17.97	21.03	≤ 23.98
11a	6Mbps	140	5700	14.57	14.18	17.39	≤ 23.98
11a	6Mbps	144	5720	18.21	17.97	21.10	≤ 22.95
11a	6Mbps	149	5745	18.19	18.07	21.14	≤ 30.00
11a	6Mbps	157	5785	18.41	18.24	21.34	≤ 30.00
11a	6Mbps	165	5825	18.26	17.89	21.09	≤ 30.00
11ac-VHT20	MCS0	36	5180	17.85	17.82	20.85	≤ 30.00
11ac-VHT20	MCS0	44	5220	18.40	18.25	21.34	≤ 30.00
11ac-VHT20	MCS0	48	5240	18.34	18.29	21.33	≤ 30.00
11ac-VHT20	MCS0	52	5260	18.20	18.16	21.19	≤ 23.98
11ac-VHT20	MCS0	60	5300	18.05	18.34	21.21	≤ 23.98
11ac-VHT20	MCS0	64	5320	17.76	17.95	20.87	≤ 23.98
11ac-VHT20	MCS0	100	5500	15.73	15.69	18.72	≤ 23.98
11ac-VHT20	MCS0	116	5580	18.28	18.12	21.21	≤ 23.98
11ac-VHT20	MCS0	140	5700	14.68	14.35	17.53	≤ 23.98
11ac-VHT20	MCS0	144	5720	18.42	17.95	21.20	≤ 22.99
11ac-VHT20	MCS0	149	5745	18.21	18.01	21.12	≤ 30.00
11ac-VHT20	MCS0	157	5785	18.22	17.81	21.03	≤ 30.00
11ac-VHT20	MCS0	165	5825	18.29	18.14	21.23	≤ 30.00

Test Mode	Data Rate MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Average Power Limit (dBm)
				Ant 0	Ant 1		
11ac-VHT40	MCS0	38	5190	16.09	15.89	19.00	≤ 30.00
11ac-VHT40	MCS0	46	5230	18.24	18.20	21.23	≤ 30.00
11ac-VHT40	MCS0	54	5270	18.18	18.41	21.31	≤ 23.98
11ac-VHT40	MCS0	62	5310	16.23	16.36	19.31	≤ 23.98
11ac-VHT40	MCS0	102	5510	14.53	14.61	17.58	≤ 23.98
11ac-VHT40	MCS0	110	5550	18.19	18.17	21.19	≤ 23.98
11ac-VHT40	MCS0	134	5670	16.26	16.03	19.16	≤ 23.98
11ac-VHT40	MCS0	142	5710	18.28	17.90	21.10	≤ 23.98
11ac-VHT40	MCS0	151	5755	18.21	18.16	21.20	≤ 30.00
11ac-VHT40	MCS0	159	5795	18.23	17.92	21.09	≤ 30.00
11ac-VHT80	MCS0	42	5210	15.67	15.48	18.59	≤ 30.00
11ac-VHT80	MCS0	58	5290	15.09	15.23	18.17	≤ 23.98
11ac-VHT80	MCS0	106	5530	13.59	13.01	16.32	≤ 23.98
11ac-VHT80	MCS0	122	5610	17.54	17.42	20.49	≤ 23.98
11ac-VHT80	MCS0	138	5690	18.19	18.13	21.17	≤ 23.98
11ac-VHT80	MCS0	155	5775	18.17	17.80	21.00	≤ 30.00
11ax-HE20	MCS0	36	5180	18.27	18.36	21.33	≤ 30.00
11ax-HE20	MCS0	44	5220	18.30	18.34	21.33	≤ 30.00
11ax-HE20	MCS0	48	5240	18.32	18.25	21.30	≤ 30.00
11ax-HE20	MCS0	52	5260	18.18	18.35	21.28	≤ 23.98
11ax-HE20	MCS0	60	5300	18.08	18.23	21.17	≤ 23.98
11ax-HE20	MCS0	64	5320	17.12	17.29	20.22	≤ 23.98
11ax-HE20	MCS0	100	5500	15.42	15.22	18.33	≤ 23.98
11ax-HE20	MCS0	116	5580	18.21	18.15	21.19	≤ 23.98
11ax-HE20	MCS0	140	5700	12.73	12.14	15.46	≤ 23.98
11ax-HE20	MCS0	144	5720	18.33	18.03	21.19	≤ 22.97
11ax-HE20	MCS0	149	5745	18.32	18.17	21.26	≤ 30.00
11ax-HE20	MCS0	157	5785	18.35	18.01	21.19	≤ 30.00
11ax-HE20	MCS0	165	5825	18.19	17.85	21.03	≤ 30.00

Test Mode	Data Rate MCS	Channel No.	Freq. (MHz)	Average Power (dBm)		Total Average Power (dBm)	Average Power Limit (dBm)
				Ant 0	Ant 1		
11ax-HE40	MCS0	38	5190	15.62	15.29	18.47	≤ 30.00
11ax-HE40	MCS0	46	5230	18.24	18.31	21.29	≤ 30.00
11ax-HE40	MCS0	54	5270	18.09	18.29	21.20	≤ 23.98
11ax-HE40	MCS0	62	5310	15.16	15.17	18.18	≤ 23.98
11ax-HE40	MCS0	102	5510	14.06	13.95	17.02	≤ 23.98
11ax-HE40	MCS0	110	5550	18.20	18.29	21.26	≤ 23.98
11ax-HE40	MCS0	134	5670	16.61	16.26	19.45	≤ 23.98
11ax-HE40	MCS0	142	5710	18.32	18.04	21.19	≤ 23.98
11ax-HE40	MCS0	151	5755	18.20	17.98	21.10	≤ 30.00
11ax-HE40	MCS0	159	5795	18.31	17.91	21.12	≤ 30.00
11ax-HE80	MCS0	42	5210	14.52	14.27	17.41	≤ 30.00
11ax-HE80	MCS0	58	5290	13.76	13.30	16.55	≤ 23.98
11ax-HE80	MCS0	106	5530	12.93	12.76	15.86	≤ 23.98
11ax-HE80	MCS0	122	5610	18.12	17.95	21.05	≤ 23.98
11ax-HE80	MCS0	138	5690	18.39	18.10	21.26	≤ 23.98
11ax-HE80	MCS0	155	5775	18.11	17.97	21.05	≤ 30.00

Note 1: Total Average Power (dBm) = $10*\log\{10^{(\text{Ant 0 Average Power /10})} + 10^{(\text{Ant 1 Average Power /10})}\}$.

Note 2: For straddle channel, Average Power Limit =11+10*log(5+26dBc/2).

Note 3: For straddle channel, we measured the output power based on the total EBW, it can satisfy the limit within each band of operation (U-NII 2C and U-NII 3).

A.5 Power Spectral Density Test Result

Test Site	SIP-TR1	Test Engineer	Nandy Zhang
Test Date	2022-12-19~2023-01-05		
Test Item	Power Spectral Density (UNII-Band 1 & UNII-2a & UNII-2c)		

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVPSD (dBm/ MHz)		Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)
				Ant 0	Ant 1			
11a	6Mbps	36	5180	4.71	4.97	94.71	8.09	16.10
11a	6Mbps	44	5220	6.23	6.28	94.71	9.50	16.10
11a	6Mbps	48	5240	6.11	6.05	94.71	9.32	16.10
11a	6Mbps	52	5260	5.97	6.01	94.71	9.24	10.10
11a	6Mbps	60	5300	6.00	6.29	94.71	9.39	10.10
11a	6Mbps	64	5320	5.92	6.04	94.71	9.23	10.10
11a	6Mbps	100	5500	3.12	3.08	94.71	6.34	10.10
11a	6Mbps	116	5580	6.42	6.24	94.71	9.58	10.10
11a	6Mbps	140	5700	3.12	2.34	94.71	5.99	10.10
11a	6Mbps	144	5720	6.21	5.84	94.71	9.27	10.10
11ac-VHT20	MCS0	36	5180	5.49	5.65	98.21	8.58	16.10
11ac-VHT20	MCS0	44	5220	6.28	6.10	98.21	9.20	16.10
11ac-VHT20	MCS0	48	5240	6.04	6.02	98.21	9.04	16.10
11ac-VHT20	MCS0	52	5260	5.62	5.74	98.21	8.69	10.10
11ac-VHT20	MCS0	60	5300	5.81	6.10	98.21	8.97	10.10
11ac-VHT20	MCS0	64	5320	5.62	6.10	98.21	8.88	10.10
11ac-VHT20	MCS0	100	5500	4.21	4.09	98.21	7.16	10.10
11ac-VHT20	MCS0	116	5580	6.47	6.25	98.21	9.37	10.10
11ac-VHT20	MCS0	140	5700	2.81	2.63	98.21	5.73	10.10
11ac-VHT20	MCS0	144	5720	6.29	5.79	98.21	9.06	10.10
11ac-VHT40	MCS0	38	5190	1.04	1.12	96.65	4.24	16.10
11ac-VHT40	MCS0	46	5230	3.15	3.14	96.65	6.30	16.10
11ac-VHT40	MCS0	54	5270	2.94	3.38	96.65	6.32	10.10
11ac-VHT40	MCS0	62	5310	1.61	1.76	96.65	4.84	10.10
11ac-VHT40	MCS0	102	5510	0.24	0.32	96.65	3.44	10.10
11ac-VHT40	MCS0	110	5550	3.26	3.15	96.65	6.36	10.10
11ac-VHT40	MCS0	134	5670	1.15	0.68	96.65	4.08	10.10
11ac-VHT40	MCS0	142	5710	3.48	2.94	96.65	6.38	10.10

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVPSD (dBm/ MHz)		Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/MHz)
				Ant 0	Ant 1			
11ac-VHT80	MCS0	42	5210	-2.10	-2.37	93.74	1.06	16.10
11ac-VHT80	MCS0	58	5290	-2.40	-2.37	93.74	0.91	10.10
11ac-VHT80	MCS0	106	5530	-4.22	-4.04	93.74	-0.84	10.10
11ac-VHT80	MCS0	122	5610	-0.33	-0.42	93.74	2.92	10.10
11ac-VHT80	MCS0	138	5690	0.31	0.25	93.74	3.57	10.10
11ax-HE20	MCS0	36	5180	5.56	5.61	97.76	8.69	16.10
11ax-HE20	MCS0	44	5220	5.59	5.44	97.76	8.62	16.10
11ax-HE20	MCS0	48	5240	5.67	5.65	97.76	8.77	16.10
11ax-HE20	MCS0	52	5260	5.75	5.74	97.76	8.85	10.10
11ax-HE20	MCS0	60	5300	5.63	5.72	97.76	8.78	10.10
11ax-HE20	MCS0	64	5320	4.88	5.25	97.76	8.18	10.10
11ax-HE20	MCS0	100	5500	3.44	3.12	97.76	6.39	10.10
11ax-HE20	MCS0	116	5580	5.58	5.39	97.76	8.59	10.10
11ax-HE20	MCS0	140	5700	0.48	0.22	97.76	3.46	10.10
11ax-HE20	MCS0	144	5720	6.11	5.54	97.76	8.94	10.10
11ax-HE40	MCS0	38	5190	0.69	0.59	95.93	3.83	16.10
11ax-HE40	MCS0	46	5230	3.22	3.44	95.93	6.52	16.10
11ax-HE40	MCS0	54	5270	3.00	3.43	95.93	6.41	10.10
11ax-HE40	MCS0	62	5310	0.45	0.38	95.93	3.60	10.10
11ax-HE40	MCS0	102	5510	-0.73	-0.64	95.93	2.51	10.10
11ax-HE40	MCS0	110	5550	2.89	2.76	95.93	6.01	10.10
11ax-HE40	MCS0	134	5670	1.11	0.82	95.93	4.15	10.10
11ax-HE40	MCS0	142	5710	3.20	2.69	95.93	6.14	10.10
11ax-HE80	MCS0	42	5210	-3.12	-3.19	92.45	0.20	16.10
11ax-HE80	MCS0	58	5290	-3.65	-3.31	92.45	-0.12	10.10
11ax-HE80	MCS0	106	5530	-4.91	-4.81	92.45	-1.51	10.10
11ax-HE80	MCS0	122	5610	-0.39	-0.11	92.45	3.11	10.10
11ax-HE80	MCS0	138	5690	0.05	0.04	92.45	3.40	10.10

Note 1: When EUT duty cycle < 98%, the total PSD (dBm/MHz) =10*log {$10^{(\text{Ant 0 AVGPSD}/10)}$ + $10^{(\text{Ant 1 AVGPSD}/10)}$} +10*log (1/Duty cycle).

When EUT duty cycle ≥ 98%, the total PSD (dBm/MHz) =10*log {$10^{(\text{Ant 0 AVGPSD}/10)}$ + $10^{(\text{Ant 1 AVGPSD}/10)}$}.

Note 2: For straddle channel, we measured the power density based on the total EBW, it can satisfy the limit within each band of operation (U-NII 2C and U-NII 3).

Test Site	SIP-TR1	Test Engineer	Nandy Zhang
Test Date	2022-12-21~2022-12-27		
Test Item	Power Spectral Density (UNII-Band 3)		

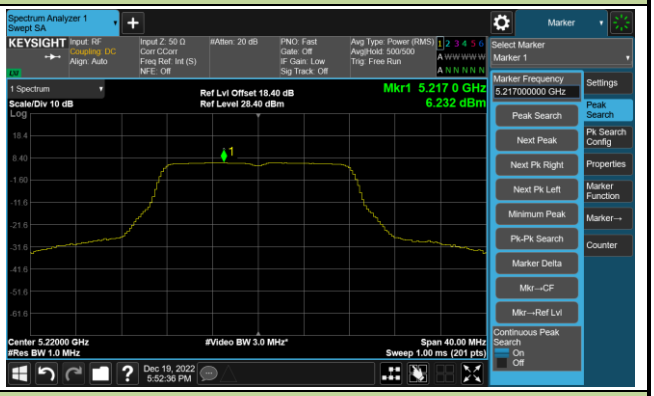
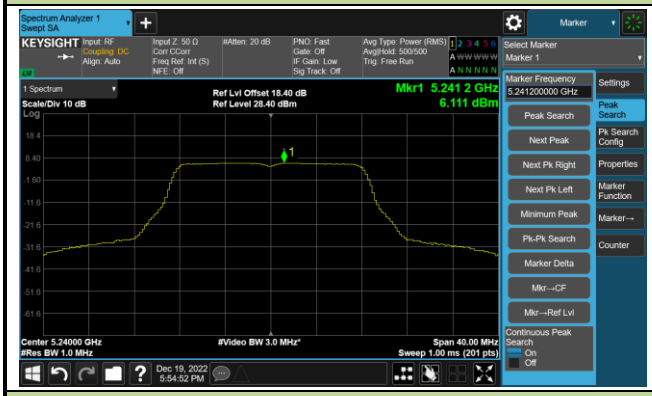
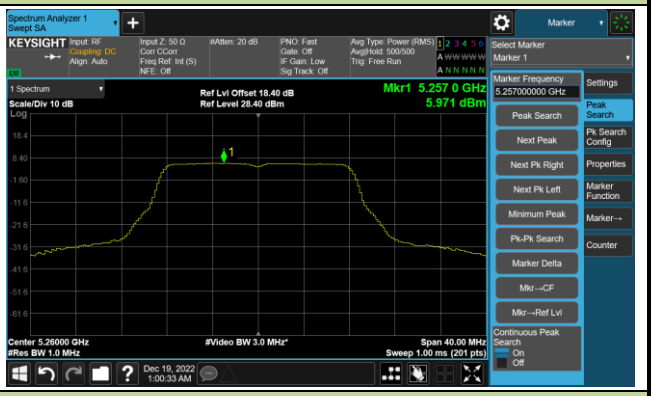
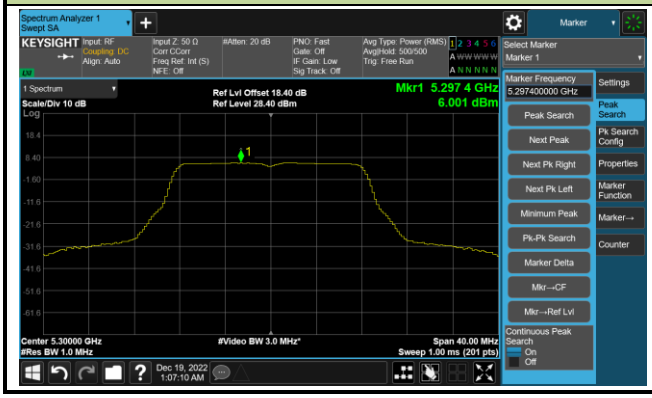
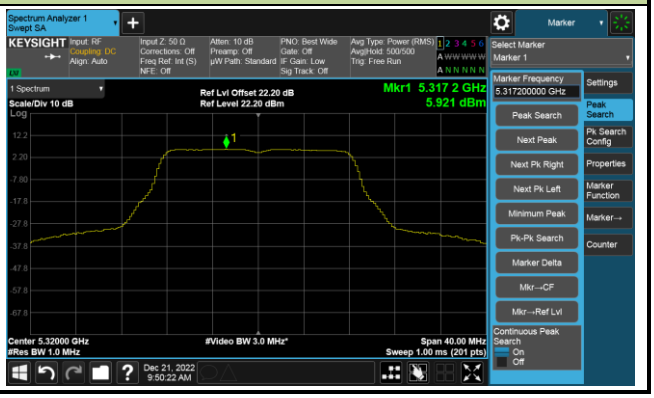
Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	AVPSD (dBm/ 510KHz)		Duty Cycle (%)	Total PSD (dBm/ 510KHz)	PSD Limit (dBm/ 500KHz)
				Ant 0	Ant 1			
11a	6Mbps	149	5745	3.35	3.23	94.71	6.54	≤ 29.10
11a	6Mbps	157	5785	3.43	3.23	94.71	6.58	≤ 29.10
11a	6Mbps	165	5825	3.33	3.03	94.71	6.43	≤ 29.10
11ac-VHT20	MCS0	149	5745	2.82	2.47	98.21	5.66	≤ 29.10
11ac-VHT20	MCS0	157	5785	2.60	2.56	98.21	5.59	≤ 29.10
11ac-VHT20	MCS0	165	5825	2.82	2.43	98.21	5.64	≤ 29.10
11ac-VHT40	MCS0	151	5755	-0.21	-0.11	96.65	3.00	≤ 29.10
11ac-VHT40	MCS0	159	5795	-0.05	-0.35	96.65	2.96	≤ 29.10
11ac-VHT80	MCS0	155	5775	-2.51	-3.21	93.74	0.45	≤ 29.10
11ax-HE20	MCS0	149	5745	2.65	2.82	97.76	5.84	≤ 29.10
11ax-HE20	MCS0	157	5785	2.77	2.17	97.76	5.59	≤ 29.10
11ax-HE20	MCS0	165	5825	2.27	2.03	97.76	5.26	≤ 29.10
11ax-HE40	MCS0	151	5755	-0.37	-0.76	95.93	2.63	≤ 29.10
11ax-HE40	MCS0	159	5795	-0.35	-0.19	95.93	2.92	≤ 29.10
11ax-HE80	MCS0	155	5775	-3.23	-2.84	92.45	0.32	≤ 29.10

Note 1:

When EUT duty cycle < 98%, the total PSD (dBm/510kHz) =10*log {$10^{(\text{Ant 0 AVGPSD}/10)}$ + $10^{(\text{Ant 1 AVGPSD}/10)}$} +10*log (1/Duty cycle).

When EUT duty cycle ≥ 98%, the total PSD (dBm/510kHz) =10*log {$10^{(\text{Ant 0 AVGPSD}/10)}$ + $10^{(\text{Ant 1 AVGPSD}/10)}$}.

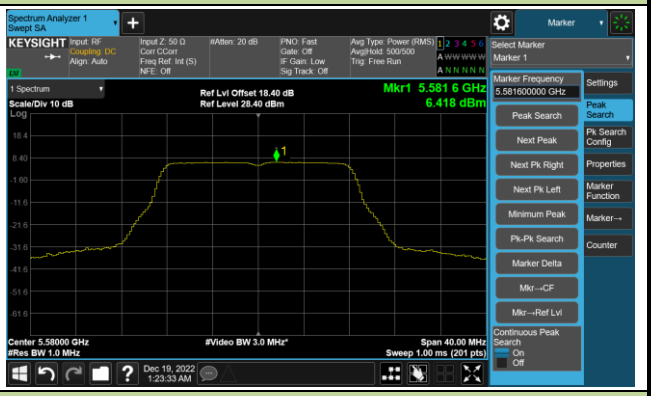
Note 2: PSD Limit (dBm/500KHz) = 30 - (6.90 - 6) = 29.10dBm/MHz.

802.11a Power Spectral Density- Ant 0	
Channel 36 (5180MHz)	Channel 44 (5220MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

802.11a Power Spectral Density- Ant 0

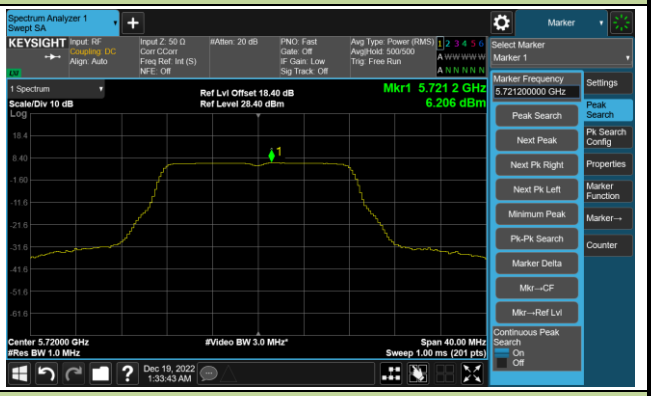
Channel 100 (5500MHz)

Channel 116 (5580MHz)



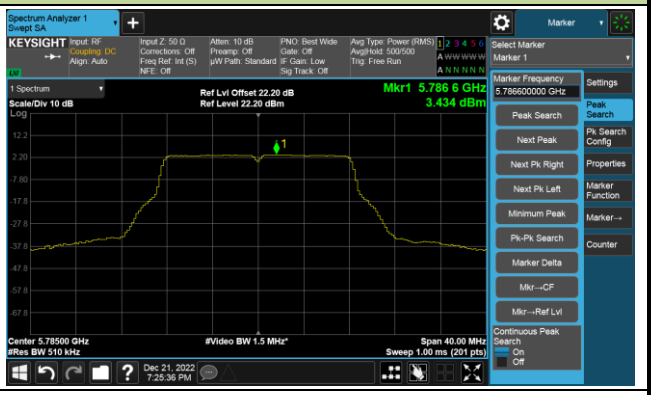
Channel 140 (5700MHz)

Channel 144(5720MHz)

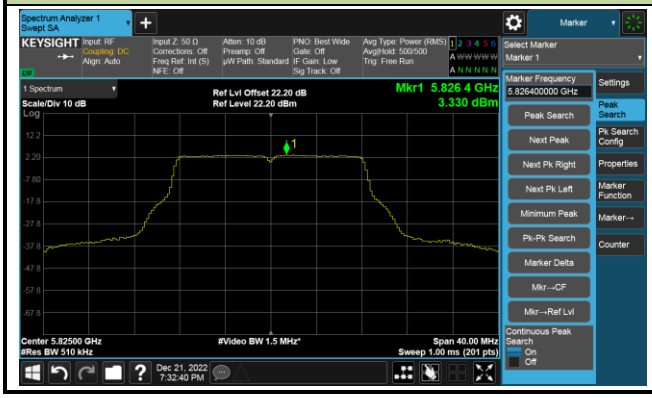


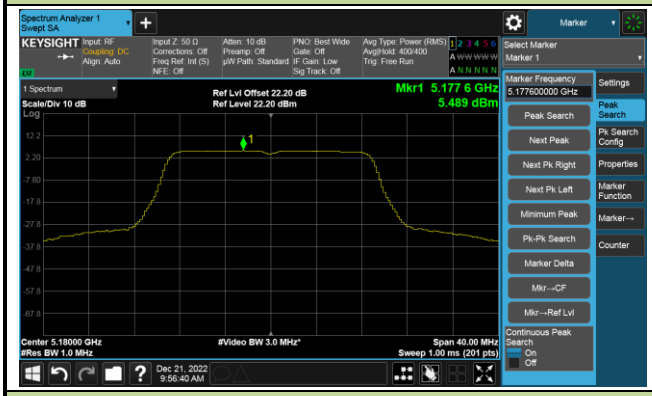
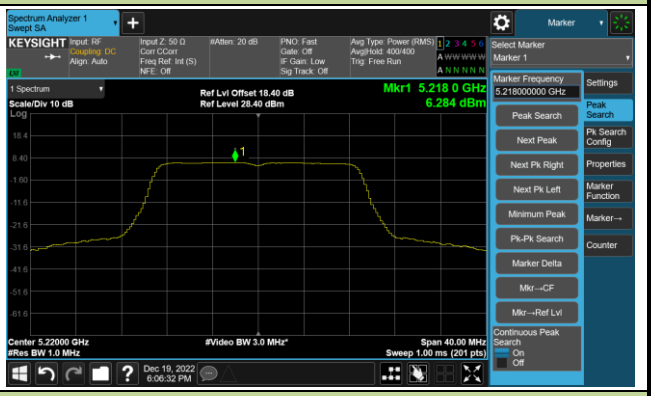
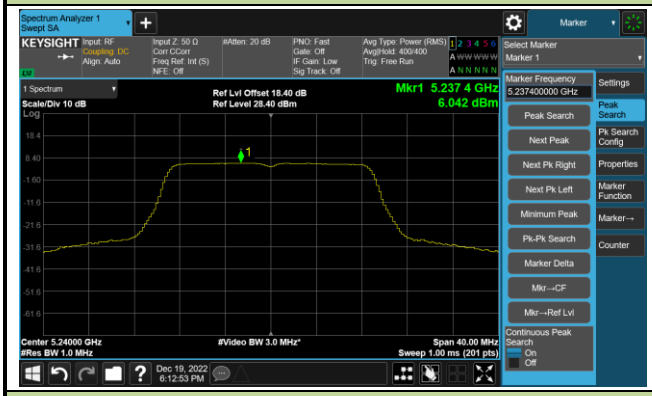
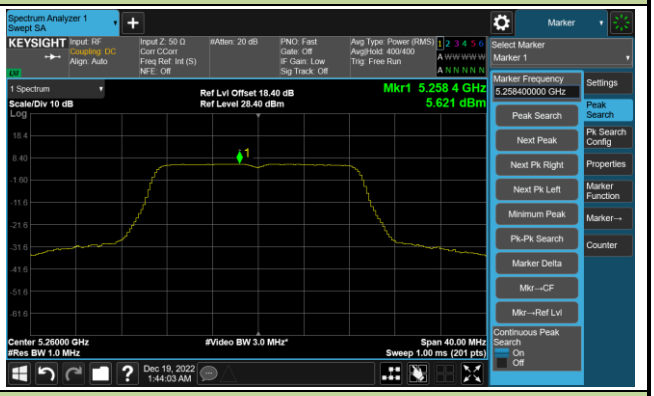
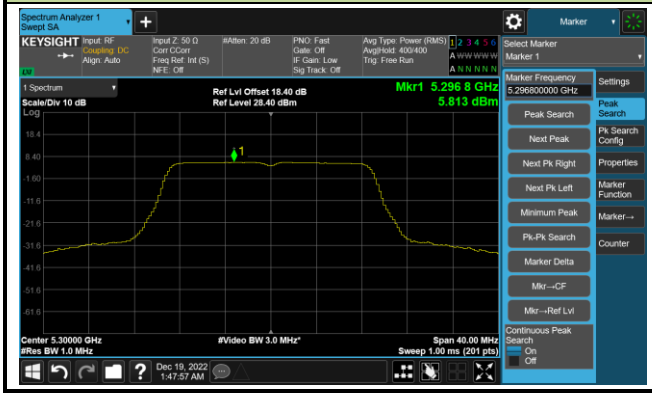
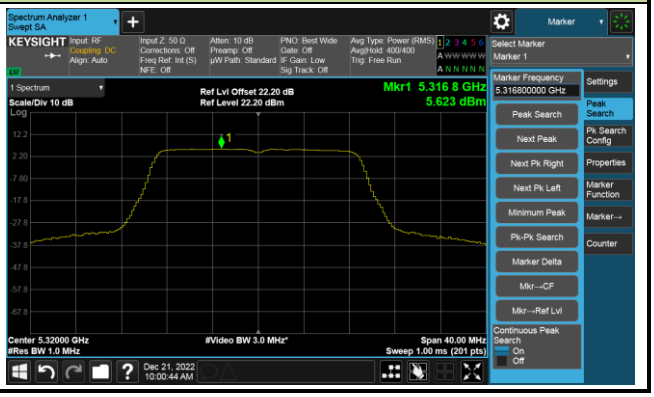
Channel 149 (5745MHz)

Channel 157 (5785MHz)



Channel 165 (5825MHz)

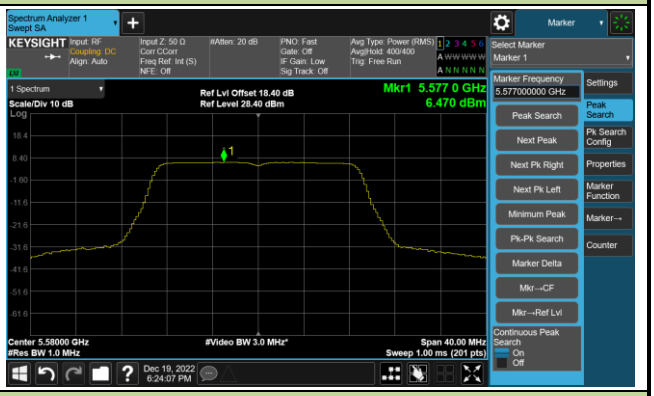


802.11ac-VHT20 Power Spectral Density- Ant 0	
Channel 36 (5180MHz)	Channel 44 (5220MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

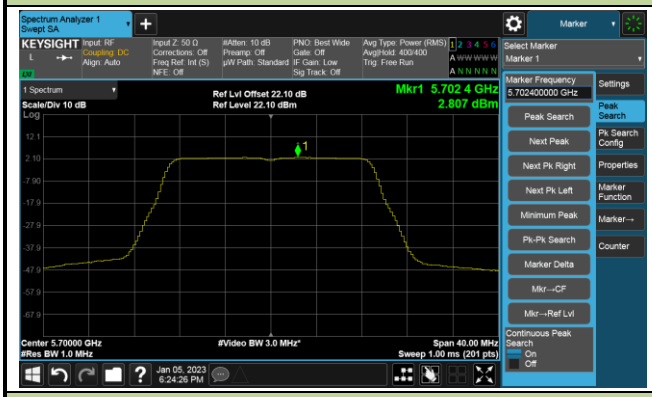
802.11ac-VHT20 Power Spectral Density- Ant 0

Channel 100 (5500MHz)

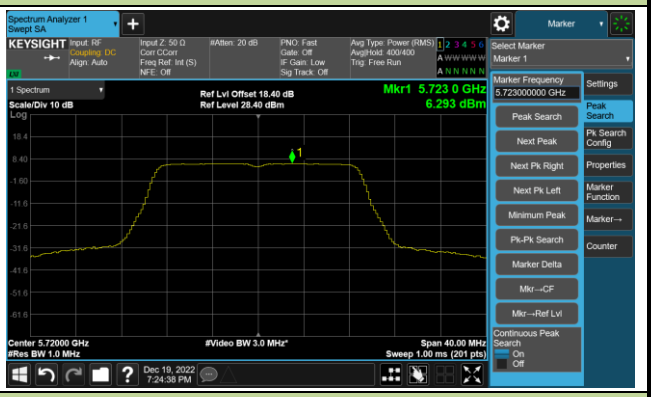
Channel 116 (5580MHz)



Channel 140 (5700MHz)

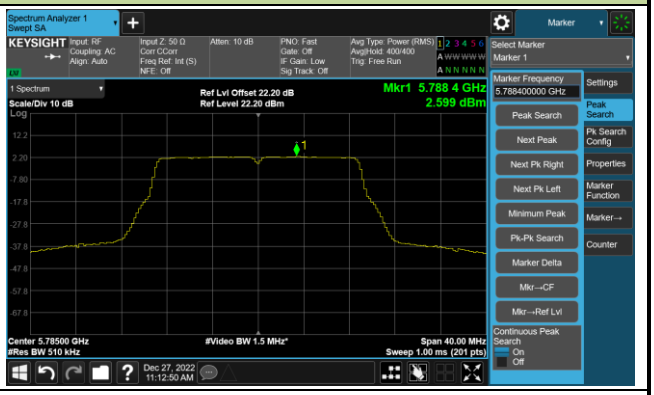


Channel 144(5720MHz)

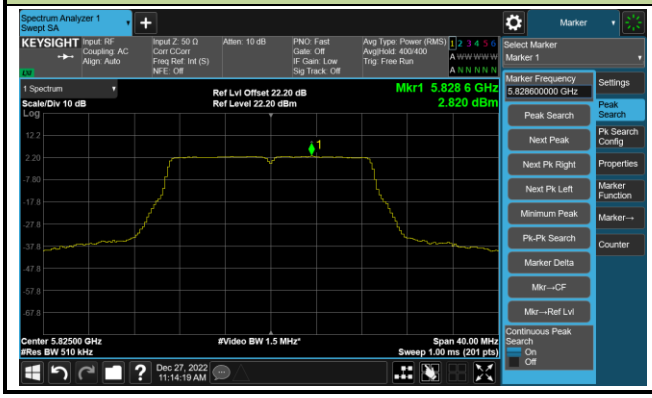


Channel 149 (5745MHz)

Channel 157 (5785MHz)

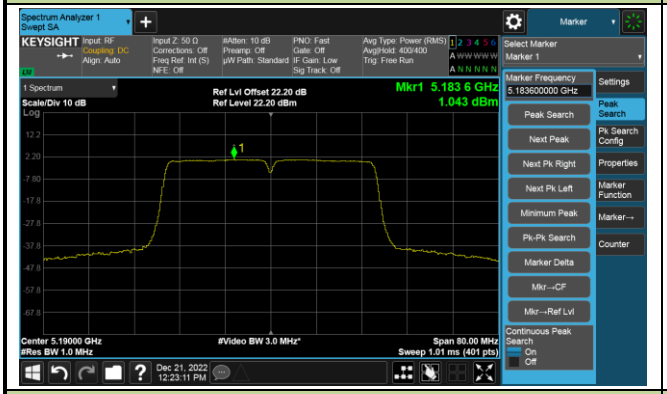


Channel 165 (5825MHz)



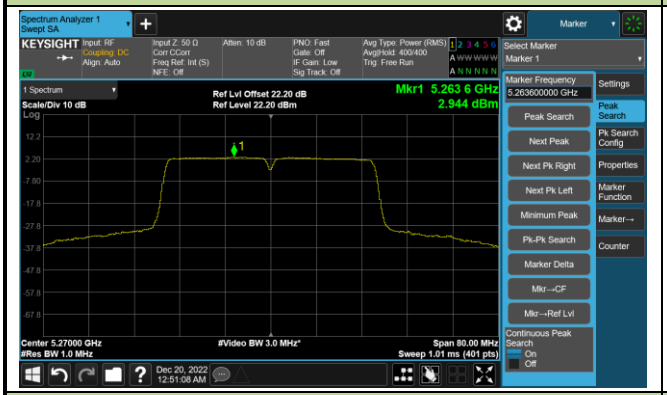
802.11ac-VHT40 Power Spectral Density- Ant 0

Channel 38 (5190MHz)

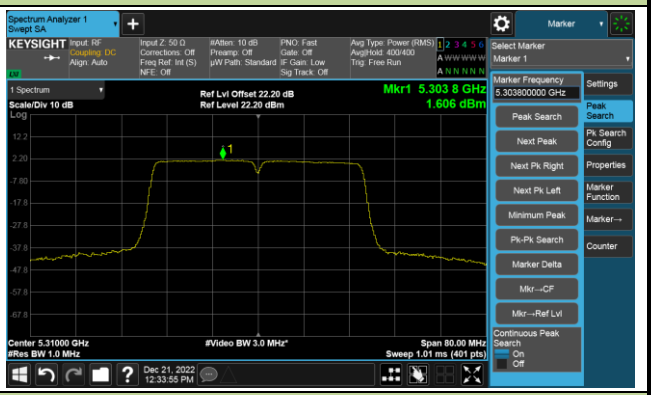


Channel 46 (5230MHz)

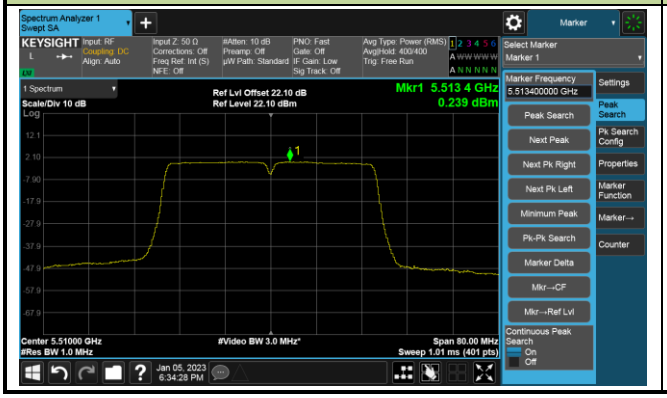
Channel 54 (5270MHz)



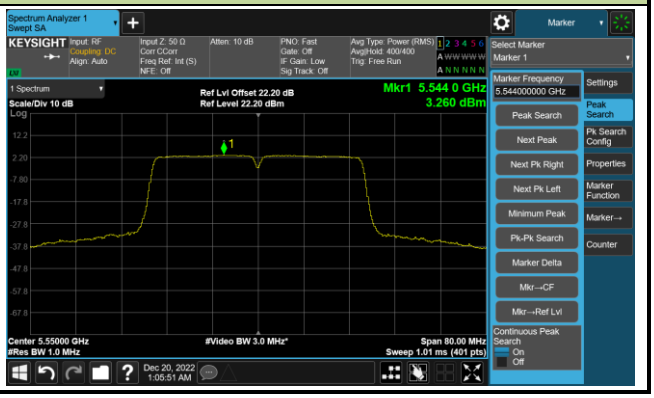
Channel 62 (5310MHz)

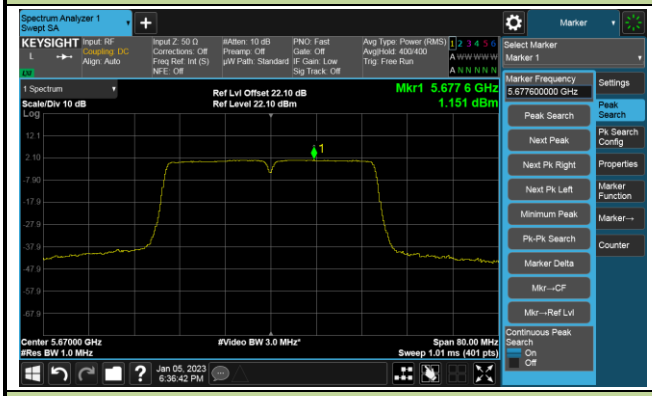
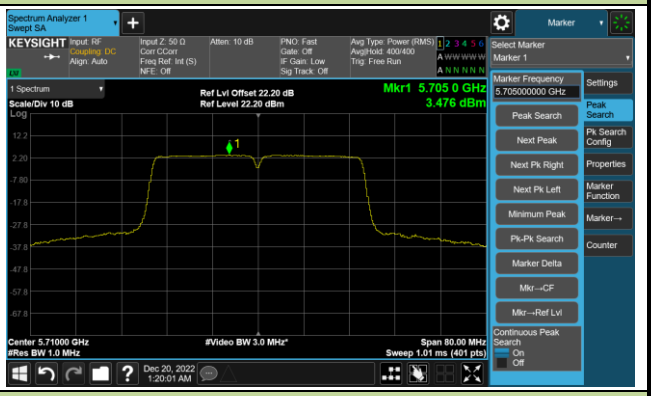
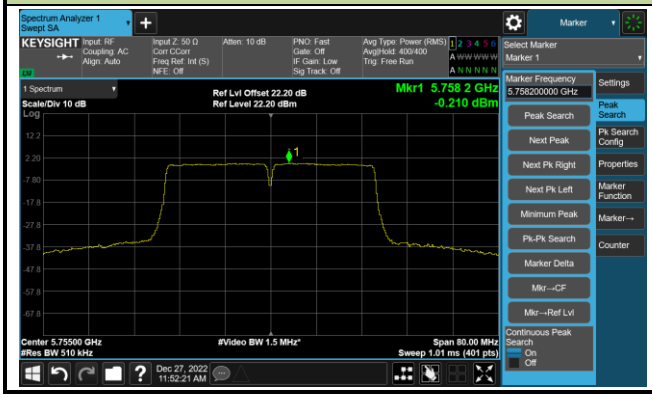
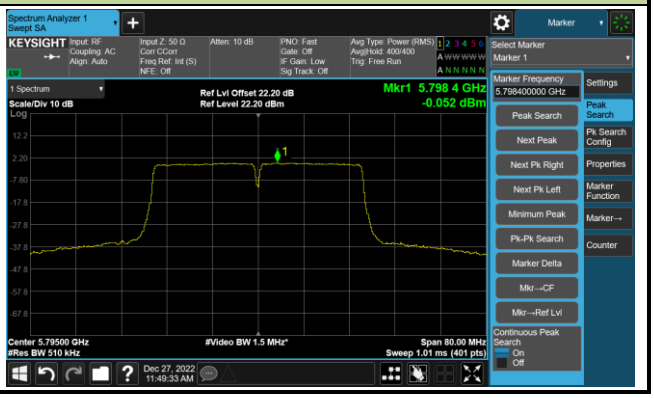


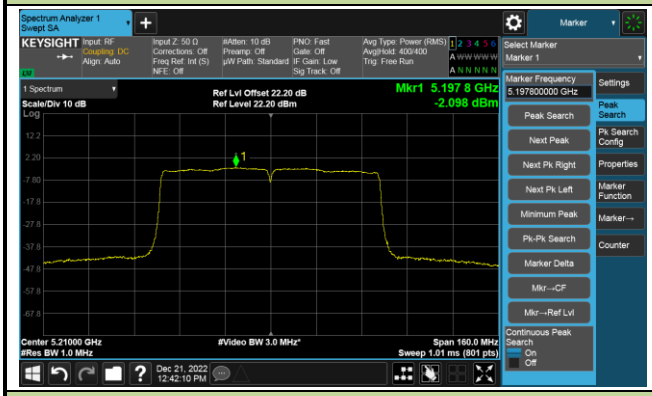
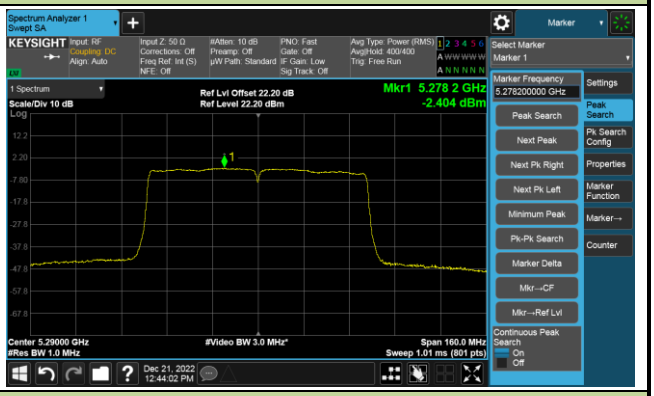
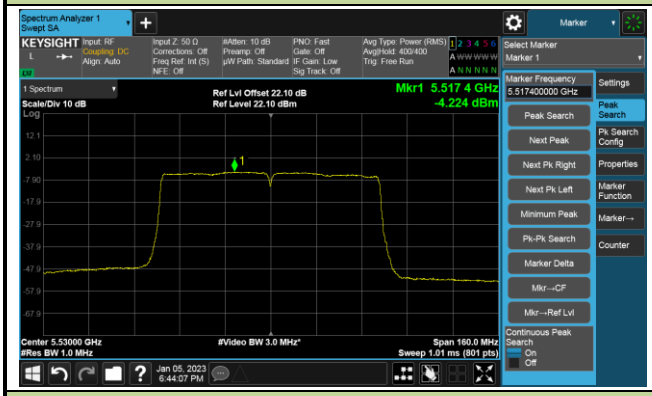
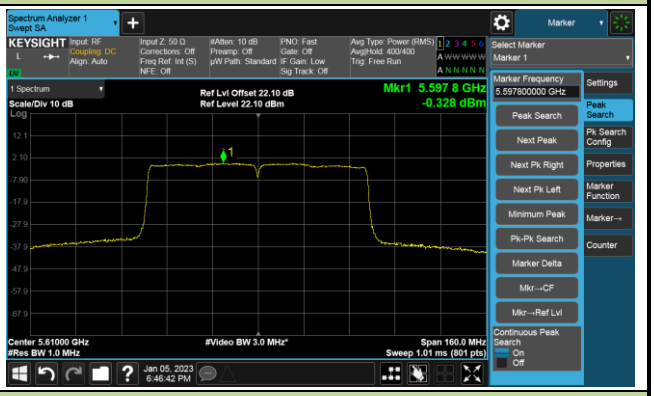
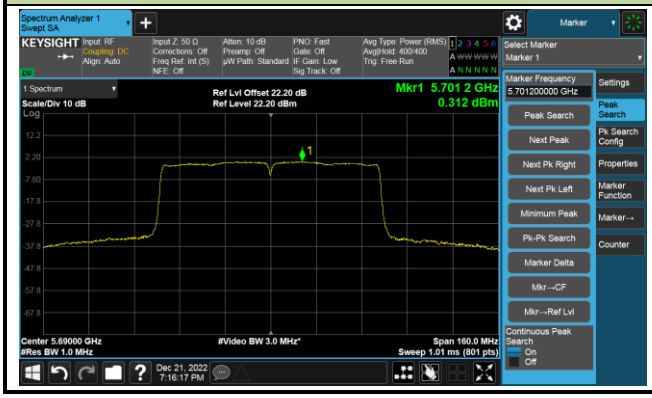
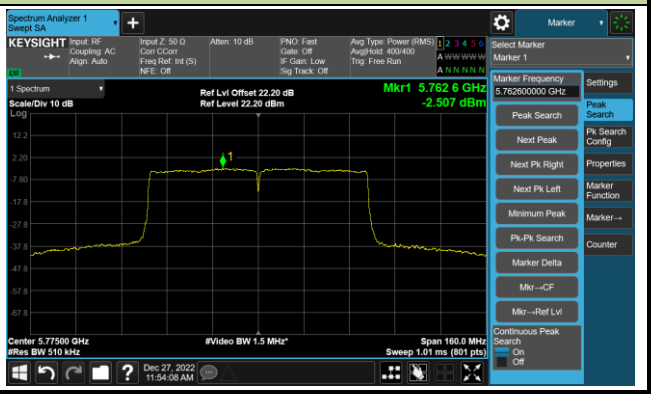
Channel 102 (5510MHz)

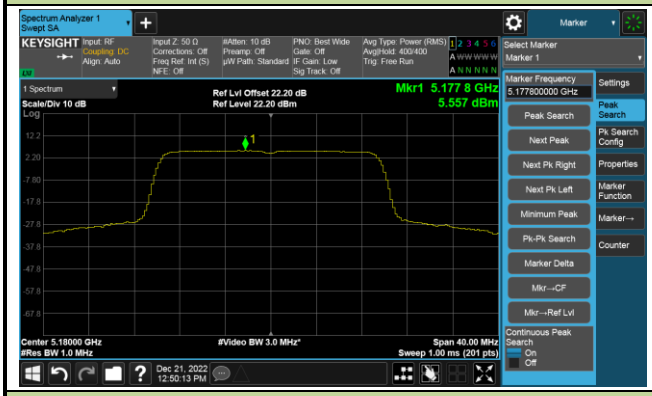
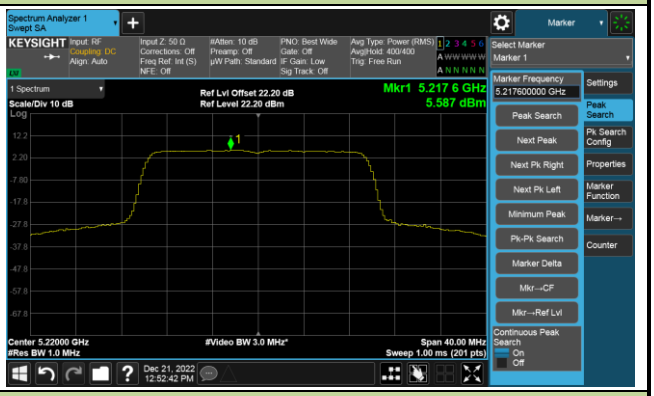
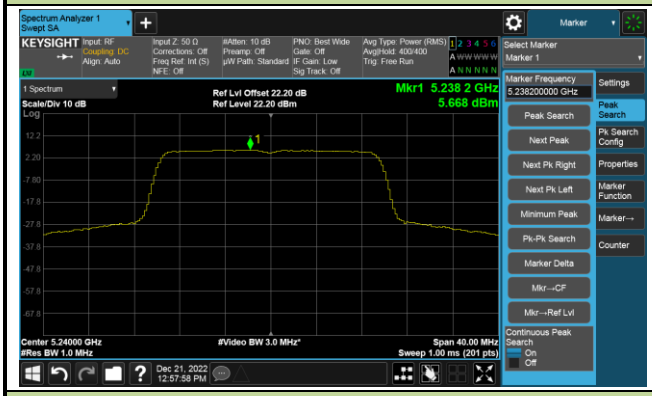
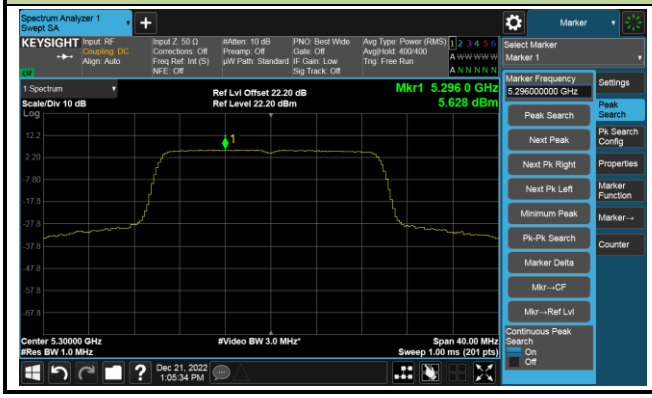
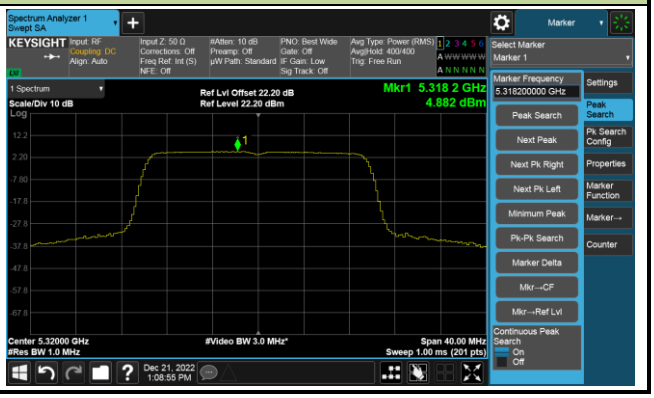


Channel 110 (5550MHz)



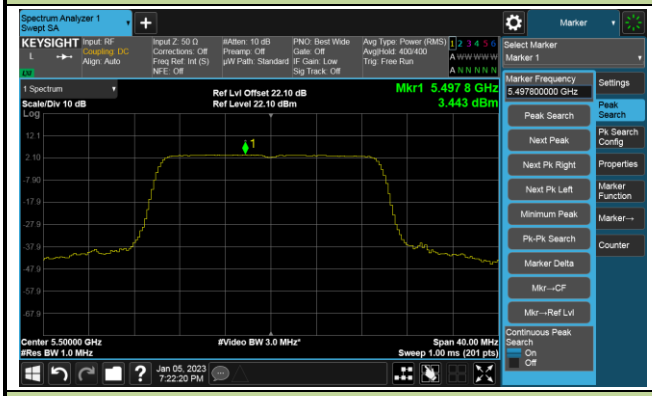
802.11ac-VHT40 Power Spectral Density- Ant 0	
Channel 134 (5670MHz)	Channel 142(5710MHz)
	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	

802.11ac-VHT80 Power Spectral Density- Ant 0	
Channel 42 (5210MHz)	Channel 58 (5290MHz)
	
Channel 106 (5530MHz)	Channel 122 (5610MHz)
	
Channel 138 (5690MHz)	Channel 155 (5775MHz)
	

802.11ax-HE20 Power Spectral Density- Ant 0	
Channel 36 (5180MHz)	Channel 44 (5220MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

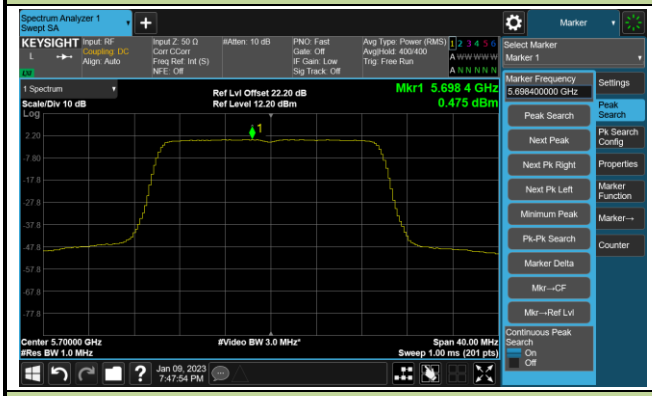
802.11ax-HE20 Power Spectral Density- Ant 0

Channel 100 (5500MHz)

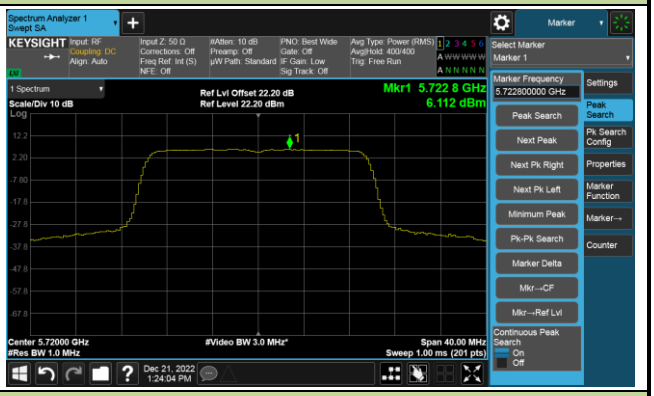


Channel 116 (5580MHz)

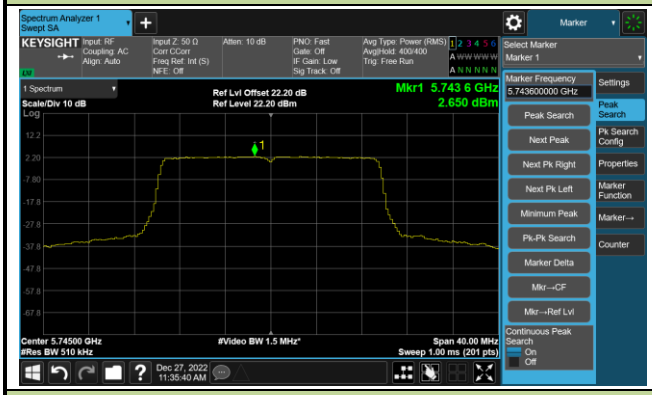
Channel 140 (5700MHz)



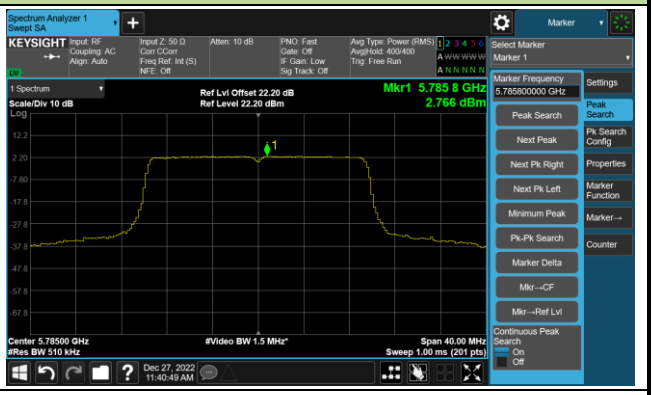
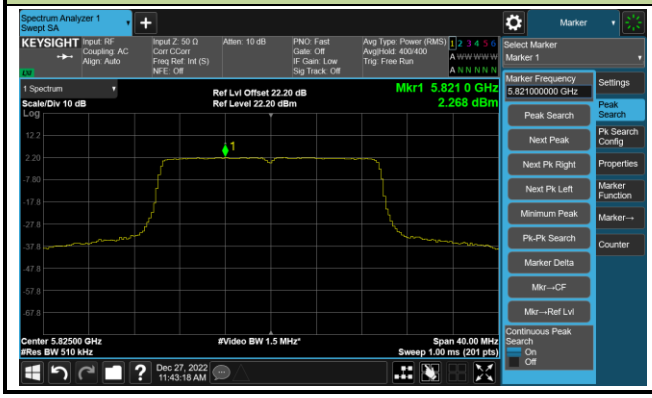
Channel 144(5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)