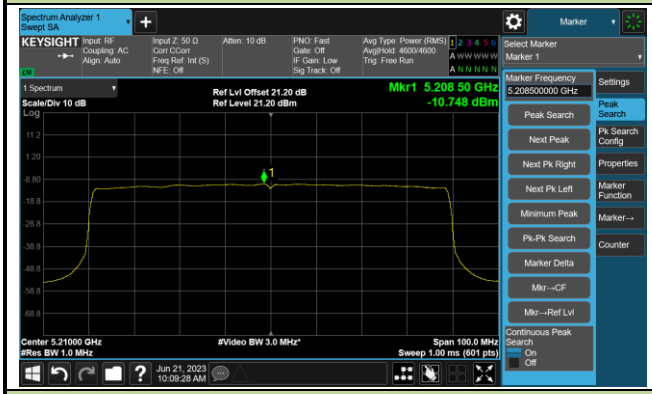
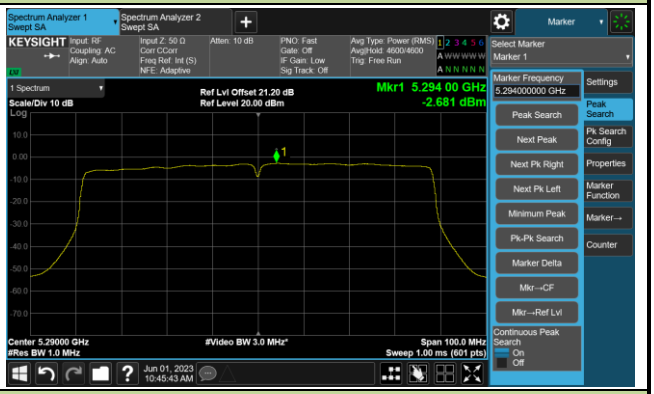
802.11ax-HE80 Power Spectral Density- AP Mode Ant 3

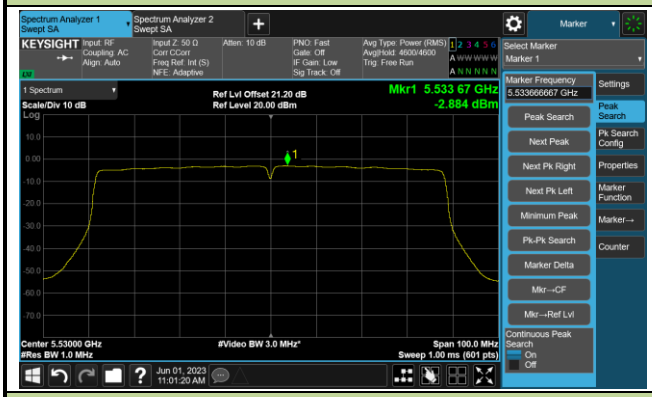
Channel 42 (5210MHz)



Channel 58 (5290MHz)

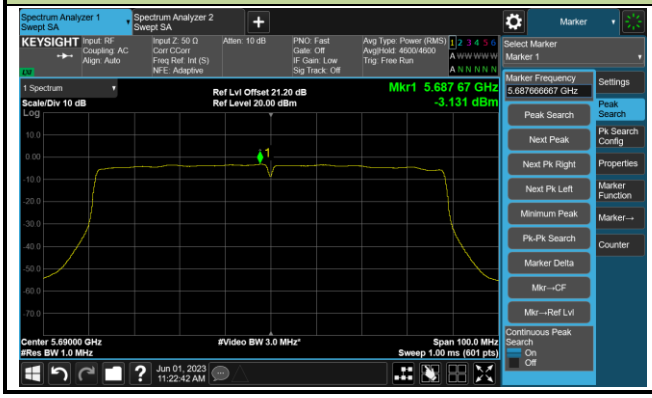


Channel 106 (5530MHz)

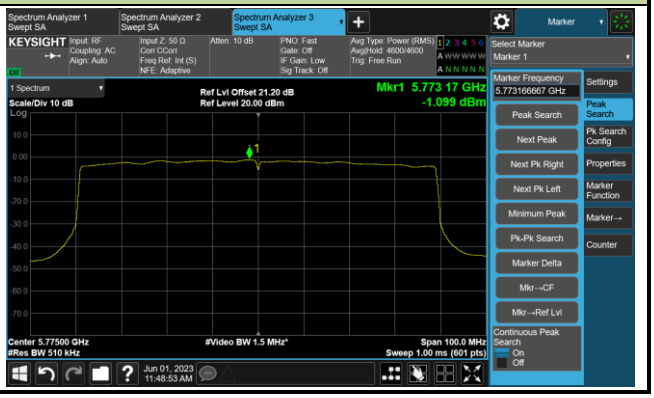


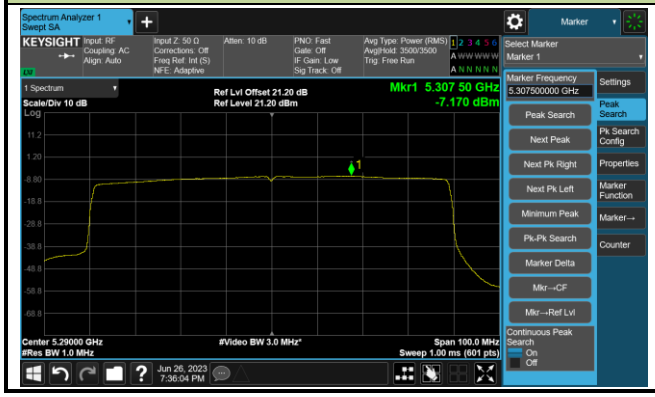
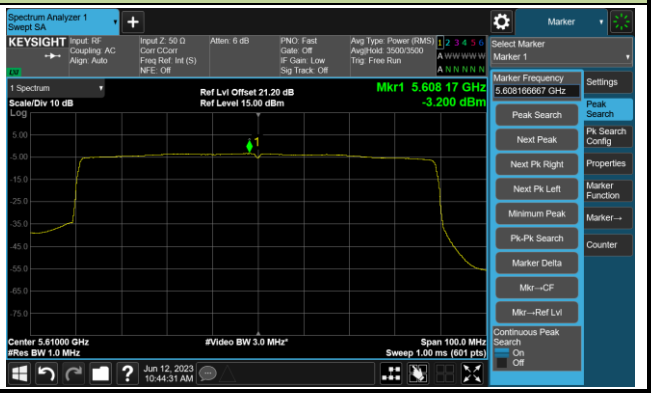
Channel 122 (5610MHz)

Channel 138 (5690MHz)



Channel 155 (5775MHz)



802.11ax-HE80+80 Power Spectral Density- AP Mode Ant 3	
Channel 42+58 (5210+5290MHz)	Channel 106+122 (5530+5610MHz)
	

Test Site	WZ-TR3	Test Engineer	Lynn Yang
Test Date	2023-06-06~2023-06-20	Test Mode	AP Mode
Antenna No.	2#		
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	Ant 2	Ant 3			
11a	6Mbps	36	5180	-4.955	-4.136	-5.115	-5.851	96.48	1.20	1.48
11a	6Mbps	44	5220	-4.881	-4.204	-5.108	-5.403	96.48	1.30	1.48
11a	6Mbps	48	5240	-5.231	-5.089	-5.393	-5.060	96.48	0.98	1.48
11a	6Mbps	52	5260	-10.751	-10.890	-11.377	-11.205	96.48	-4.87	-4.52
11a	6Mbps	60	5300	-10.520	-11.687	-12.357	-10.516	96.48	-5.02	-4.52
11a	6Mbps	64	5320	-10.220	-10.972	-12.149	-10.221	96.48	-4.65	-4.52
11a	6Mbps	100	5500	-11.765	-10.955	-11.341	-11.515	96.48	-5.21	-4.52
11a	6Mbps	116	5580	-11.608	-10.786	-11.416	-10.991	96.48	-5.01	-4.52
11a	6Mbps	140	5700	-11.114	-10.542	-11.228	-11.330	96.48	-4.87	-4.52
11a	6Mbps	144	5720	-10.636	-10.089	-11.700	-11.113	96.48	-4.67	-4.52
11ac-VHT20	MCS0	36	5180	-5.554	-4.941	-5.827	-6.306	86.95	1.00	1.48
11ac-VHT20	MCS0	44	5220	-5.582	-4.905	-5.869	-6.212	86.95	1.01	1.48
11ac-VHT20	MCS0	48	5240	-6.399	-5.645	-5.946	-5.676	86.95	0.72	1.48
11ac-VHT20	MCS0	52	5260	-11.713	-11.417	-12.244	-12.023	86.95	-5.21	-4.52
11ac-VHT20	MCS0	60	5300	-11.273	-12.079	-12.463	-10.973	86.95	-5.03	-4.52
11ac-VHT20	MCS0	64	5320	-10.887	-12.374	-12.925	-10.735	86.95	-5.00	-4.52
11ac-VHT20	MCS0	100	5500	-11.984	-10.838	-11.386	-11.764	86.95	-4.84	-4.52
11ac-VHT20	MCS0	116	5580	-11.897	-10.842	-11.770	-11.251	86.95	-4.79	-4.52
11ac-VHT20	MCS0	140	5700	-11.661	-10.784	-11.742	-11.436	86.95	-4.76	-4.52
11ac-VHT20	MCS0	144	5720	-11.809	-10.801	-11.875	-11.784	86.95	-4.92	-4.52
11ac-VHT40	MCS0	38	5190	-8.211	-7.367	-7.868	-8.382	86.95	-1.31	1.48
11ac-VHT40	MCS0	46	5230	-7.981	-7.330	-8.291	-8.958	86.95	-1.47	1.48
11ac-VHT40	MCS0	54	5270	-11.615	-11.158	-11.444	-11.927	86.95	-4.90	-4.52
11ac-VHT40	MCS0	62	5310	-11.176	-11.104	-11.488	-11.517	86.95	-4.69	-4.52
11ac-VHT40	MCS0	102	5510	-11.363	-10.946	-11.998	-11.943	86.95	-4.91	-4.52
11ac-VHT40	MCS0	110	5550	-11.518	-11.143	-11.560	-11.677	86.95	-4.84	-4.52
11ac-VHT40	MCS0	134	5670	-11.842	-11.105	-11.278	-11.794	86.95	-4.87	-4.52
11ac-VHT40	MCS0	142	5710	-11.565	-11.333	-11.806	-11.674	86.95	-4.96	-4.52

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	Ant 2	Ant 3			
11ac-VHT80	MCS0	42	5210	-11.552	-10.926	-11.604	-11.980	86.75	-4.86	1.48
11ac-VHT80	MCS0	58	5290	-12.035	-11.923	-12.075	-11.579	86.75	-5.26	-4.52
11ac-VHT80	MCS0	106	5530	-11.657	-10.909	-11.872	-11.846	86.75	-4.91	-4.52
11ac-VHT80	MCS0	122	5610	-12.140	-10.716	-11.442	-11.092	86.75	-4.68	-4.52
11ac-VHT80	MCS0	138	5690	-12.462	-10.822	-11.675	-11.617	86.75	-4.97	-4.52
11ac-VHT80 +80	MCS0	42	5210	-9.763	-8.732	--	--	86.75	-5.59	1.48
	MCS0	58	5290	--	--	-8.590	-8.411	86.75	-4.87	-4.52
11ac-VHT80 +80	MCS0	106	5530	-14.461	-13.418	--	--	86.75	-10.28	-4.52
	MCS0	122	5610	--	--	-14.014	-13.947	86.75	-10.35	-4.52
11ax-HE20	MCS0	36	5180	-5.509	-4.435	-5.639	-6.454	93.53	0.86	1.48
11ax-HE20	MCS0	44	5220	-5.666	-4.763	-5.777	-6.428	93.53	0.69	1.48
11ax-HE20	MCS0	48	5240	-5.310	-5.014	-5.695	-5.220	93.53	1.01	1.48
11ax-HE20	MCS0	52	5260	-11.220	-10.989	-11.801	-11.504	93.53	-5.06	-4.52
11ax-HE20	MCS0	60	5300	-10.535	-11.280	-11.786	-10.274	93.53	-4.62	-4.52
11ax-HE20	MCS0	64	5320	-10.681	-11.609	-12.113	-10.390	93.53	-4.83	-4.52
11ax-HE20	MCS0	100	5500	-10.879	-10.591	-11.157	-11.378	93.53	-4.68	-4.52
11ax-HE20	MCS0	116	5580	-11.328	-10.947	-11.029	-10.551	93.53	-4.64	-4.52
11ax-HE20	MCS0	140	5700	-11.201	-10.775	-11.330	-11.417	93.53	-4.86	-4.52
11ax-HE20	MCS0	144	5720	-11.385	-10.526	-11.644	-11.575	93.53	-4.95	-4.52
11ax-HE40	MCS0	38	5190	-7.472	-7.122	-8.061	-8.225	93.78	-1.40	1.48
11ax-HE40	MCS0	46	5230	-7.699	-7.652	-8.091	-8.403	93.78	-1.65	1.48
11ax-HE40	MCS0	54	5270	-11.545	-11.071	-11.308	-11.807	93.78	-5.12	-4.52
11ax-HE40	MCS0	62	5310	-11.107	-11.010	-11.461	-11.299	93.78	-4.92	-4.52
11ax-HE40	MCS0	102	5510	-11.137	-10.683	-11.761	-11.721	93.78	-5.00	-4.52
11ax-HE40	MCS0	110	5550	-11.210	-10.734	-11.265	-11.357	93.78	-4.84	-4.52
11ax-HE40	MCS0	134	5670	-12.628	-10.787	-11.000	-11.431	93.78	-5.11	-4.52
11ax-HE40	MCS0	142	5710	-11.645	-10.729	-11.204	-11.798	93.78	-5.02	-4.52
11ax-HE80	MCS0	42	5210	-11.938	-10.373	-11.665	-11.883	94.76	-5.16	1.48
11ax-HE80	MCS0	58	5290	-10.765	-11.123	-11.463	-11.273	94.76	-4.89	-4.52
11ax-HE80	MCS0	106	5530	-11.317	-10.842	-10.968	-11.542	94.76	-4.90	-4.52
11ax-HE80	MCS0	122	5610	-11.430	-10.893	-11.069	-11.339	94.76	-4.92	-4.52
11ax-HE80	MCS0	138	5690	-11.643	-11.114	-11.670	-11.554	94.76	-5.24	-4.52

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	Ant 2	Ant 3			
11ax-HE80+80	MCS0	42	5210	-10.545	-10.244	--	--	93.78	-7.10	1.48
		58	5290	--	--	-9.497	-9.518	93.78	-6.22	-4.52
11ax-HE80+80	MCS0	106	5530	-10.374	-9.569	--	--	93.78	-6.66	-4.52
		122	5610	--	--	-9.995	-9.933	93.78	-6.67	-4.52

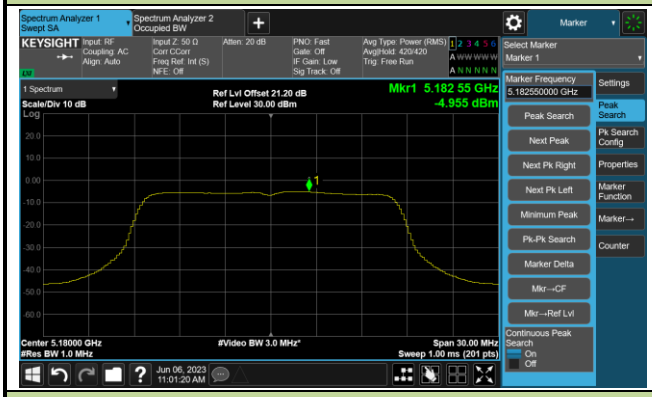
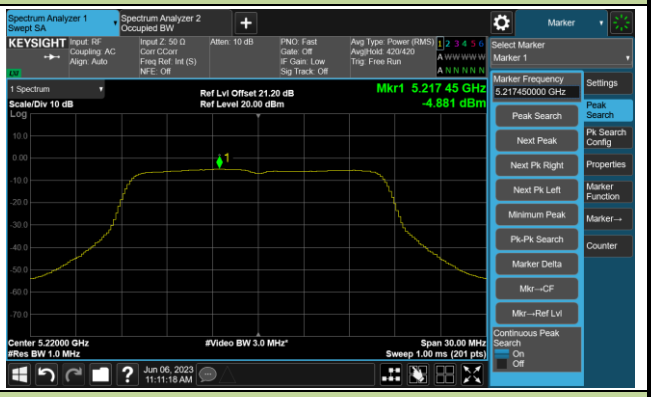
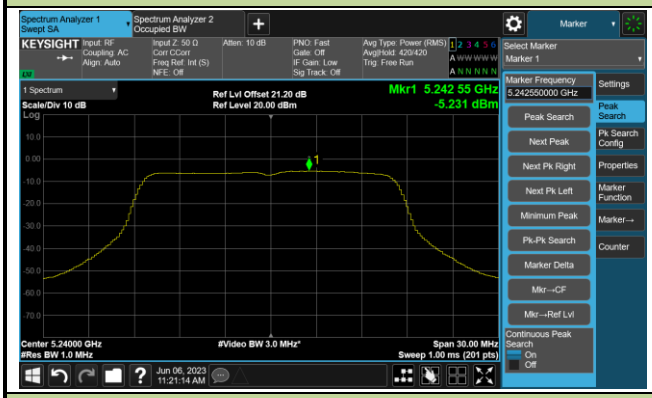
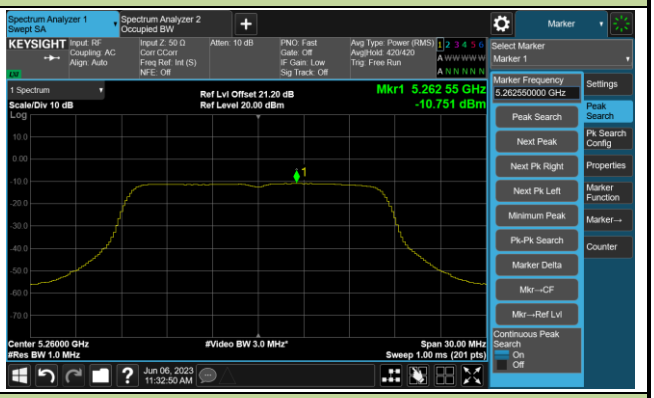
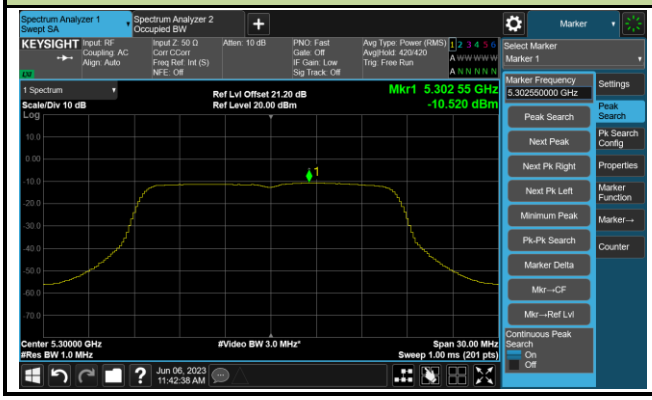
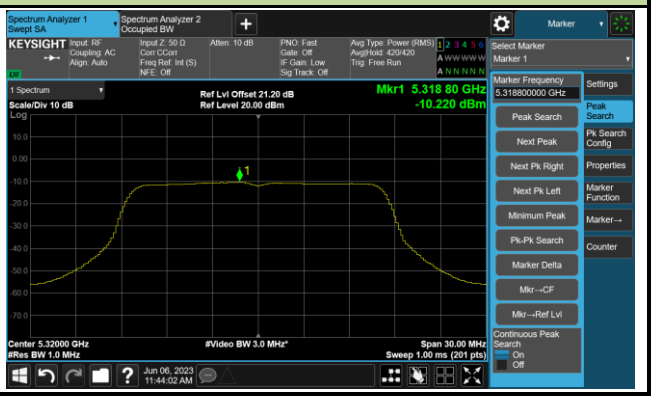
Note: The total PSD (dBm/MHz) =10*log {$10^{(\text{Ant 0 AVGPSD/10})}$ + $10^{(\text{Ant 1 AVGPSD/10})}$ +$10^{(\text{Ant 2 AVGPSD/10})}$ + $10^{(\text{Ant 3 AVGPSD/10})}$} +10*log (1/Duty cycle);

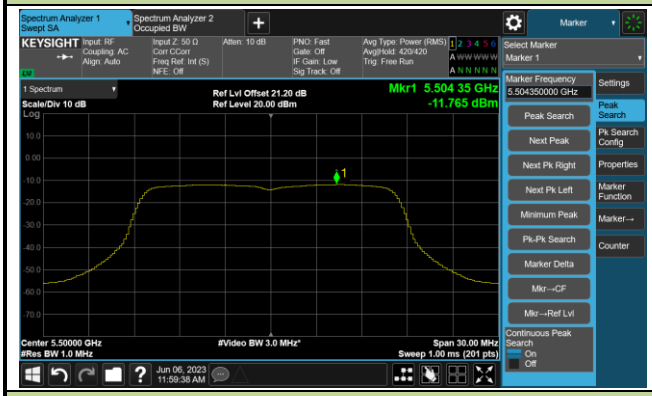
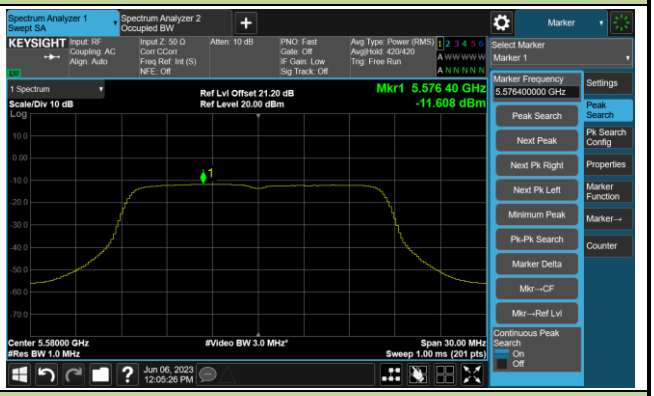
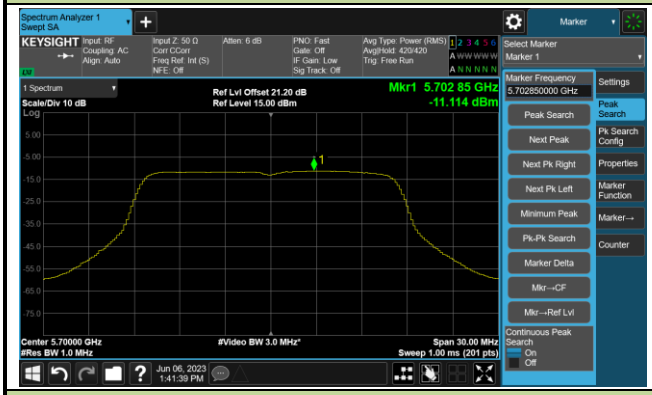
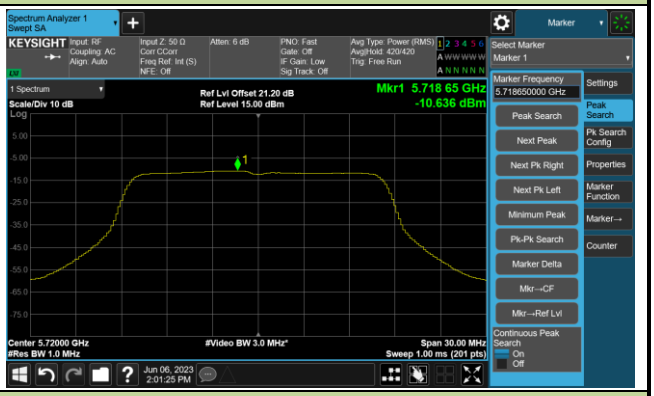
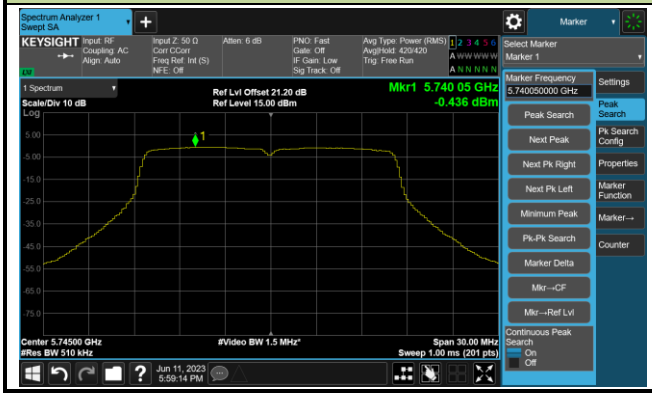
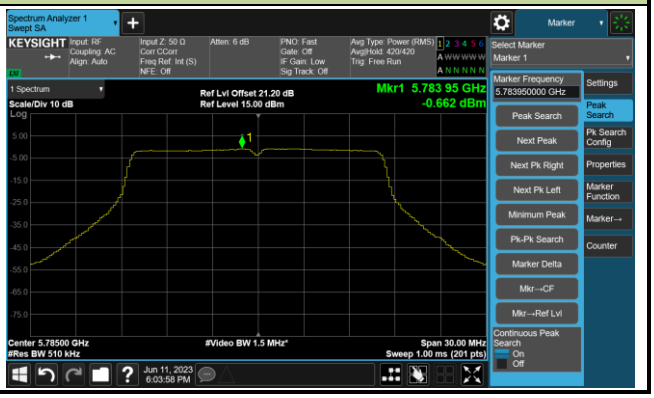
For 80+80 bandwidth, The total PSD (dBm/MHz) =10*log {$10^{(\text{Ant 0 AVGPSD/10})}$ + $10^{(\text{Ant 1 AVGPSD/10})}$} +10*log (1/Duty cycle) or 10*log {$10^{(\text{Ant 2 AVGPSD/10})}$ + $10^{(\text{Ant 3 AVGPSD/10})}$} +10*log (1/Duty cycle).

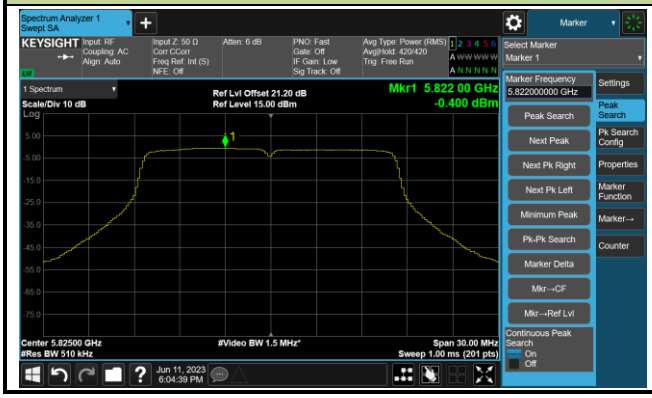
Test Site	WZ-TR3	Test Engineer	Lynn Yang
Test Date	2023-06-06~2023-06-20	Test Mode	AP Mode
Antenna No.	2#		
Test Item	Power Spectral Density (UNII-Band 3)		

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	Ant 2	Ant 3			
11a	6Mbps	149	5745	-0.436	-0.324	-0.639	-0.376	96.48	5.73	≤ 14.48
11a	6Mbps	157	5785	-0.662	-0.405	-1.202	-0.375	96.48	5.53	≤ 14.48
11a	6Mbps	165	5825	-0.400	0.120	-0.116	0.061	96.48	6.10	≤ 14.48
11ac-VHT20	MCS0	149	5745	-0.567	-0.602	-1.053	-0.740	86.95	5.89	≤ 14.48
11ac-VHT20	MCS0	157	5785	-1.191	-1.054	-1.370	-0.764	86.95	5.54	≤ 14.48
11ac-VHT20	MCS0	165	5825	-0.550	-0.194	-0.654	-0.016	86.95	6.28	≤ 14.48
11ac-VHT40	MCS0	151	5755	-3.269	-3.260	-3.815	-3.401	86.95	3.20	≤ 14.48
11ac-VHT40	MCS0	159	5795	-3.487	-3.533	-4.112	-3.210	86.95	3.05	≤ 14.48
11ac-VHT80	MCS0	155	5775	-6.438	-6.617	-6.932	-6.612	86.75	-0.01	≤ 14.48
11ax-HE20	MCS0	149	5745	-1.192	-0.284	-0.775	-0.190	93.53	5.72	≤ 14.48
11ax-HE20	MCS0	157	5785	-0.789	-0.878	-1.296	-0.861	93.53	5.36	≤ 14.48
11ax-HE20	MCS0	165	5825	-1.157	-0.653	-0.968	-0.358	93.53	5.54	≤ 14.48
11ax-HE40	MCS0	151	5755	-3.355	-3.488	-3.710	-3.520	93.78	2.78	≤ 14.48
11ax-HE40	MCS0	159	5795	-3.585	-3.599	-4.045	-3.303	93.78	2.67	≤ 14.48
11ax-HE80	MCS0	155	5775	-6.355	-6.372	-6.754	-6.257	94.76	-0.18	≤ 14.48

Note: The total PSD (dBm/510kHz) =10*log {$10^{(\text{Ant 0 AVGPSD}/10)}$ + $10^{(\text{Ant 1 AVGPSD}/10)}$ +$10^{(\text{Ant 2 AVGPSD}/10)}$ + $10^{(\text{Ant 3 AVGPSD}/10)}$} +10*log (1/Duty cycle).

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

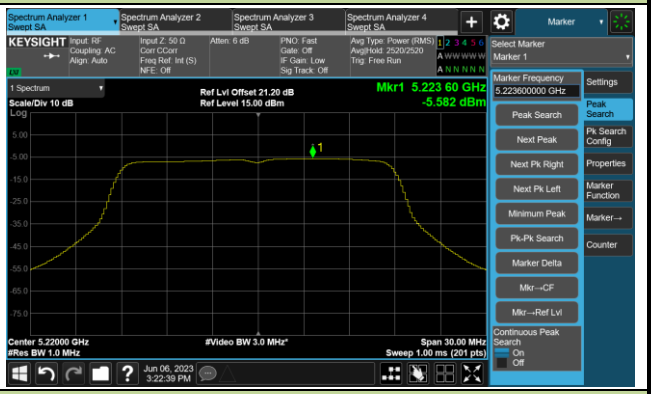
802.11a Power Spectral Density-AP Mode Ant 0	
Channel 100 (5500MHz)	Channel 116 (5580MHz)
	
Channel 140 (5700MHz)	Channel 144(5720MHz)
	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	

802.11a Power Spectral Density- AP Mode Ant 0	
Channel 165 (5825MHz)	
	

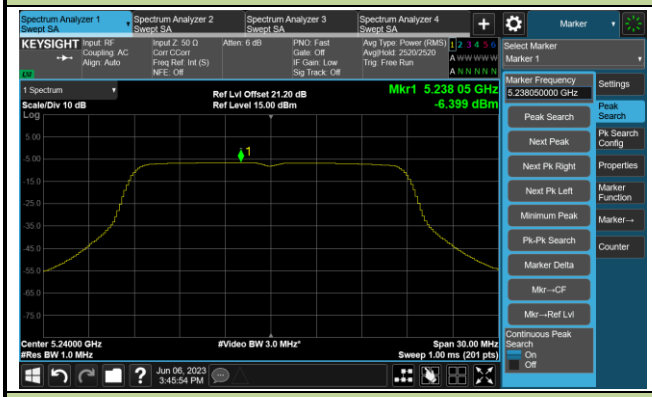
802.11ac-VHT20 Power Spectral Density- AP Mode Ant 0

Channel 36 (5180MHz)

Channel 44 (5220MHz)

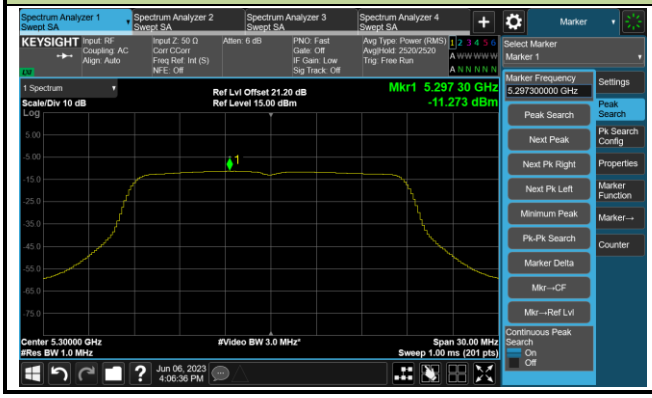


Channel 48 (5240MHz)

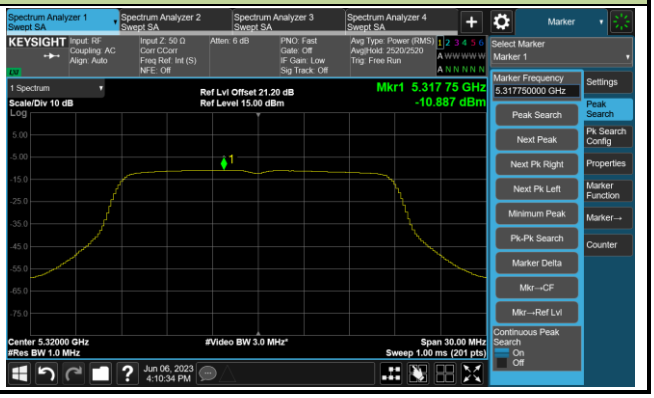


Channel 52 (5260MHz)

Channel 60 (5300MHz)

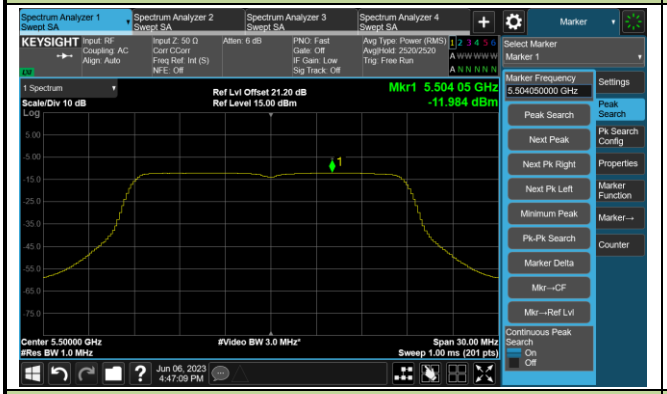


Channel 64 (5320MHz)

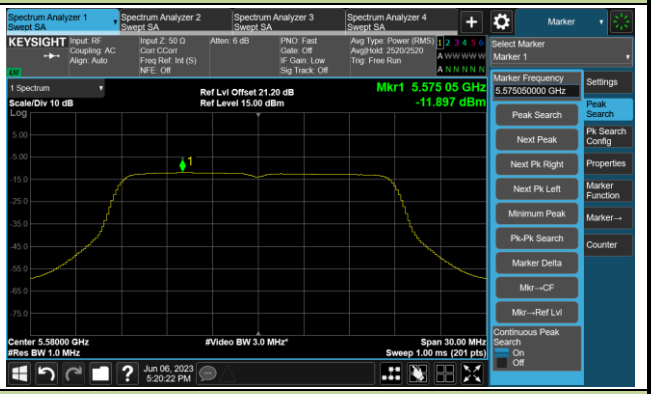


802.11ac-VHT20 Power Spectral Density- AP Mode Ant 0

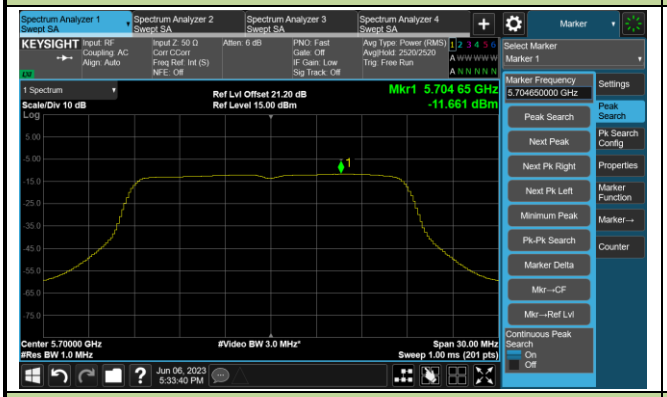
Channel 100 (5500MHz)



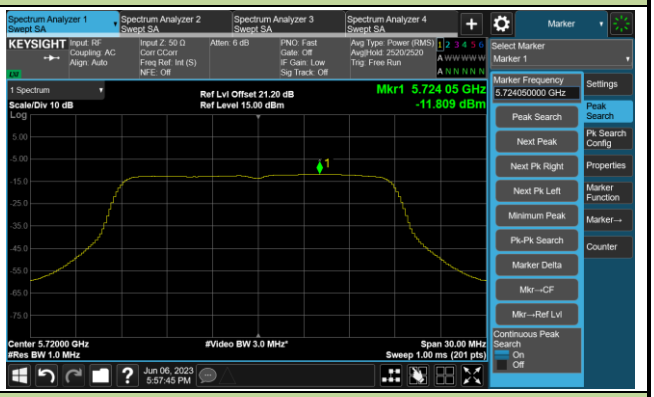
Channel 116 (5580MHz)



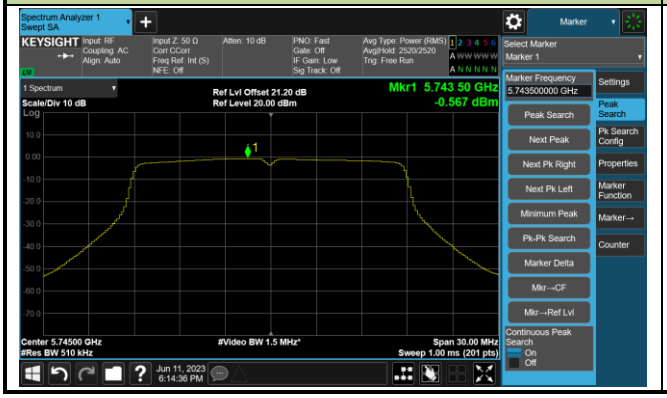
Channel 140 (5700MHz)



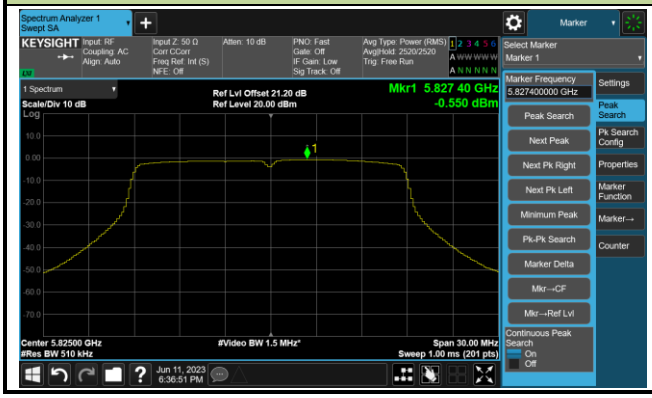
Channel 144(5720MHz)



Channel 149 (5745MHz)

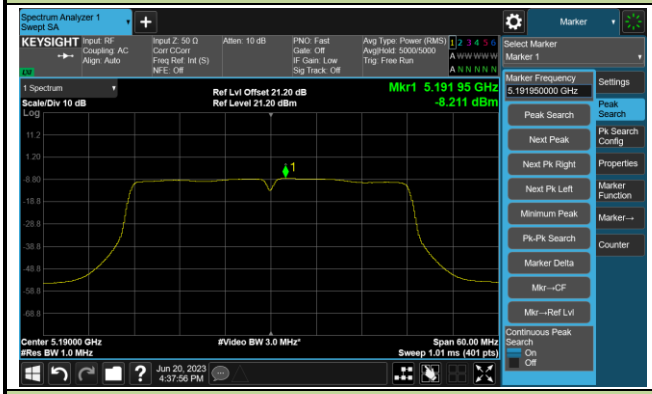


Channel 157 (5785MHz)

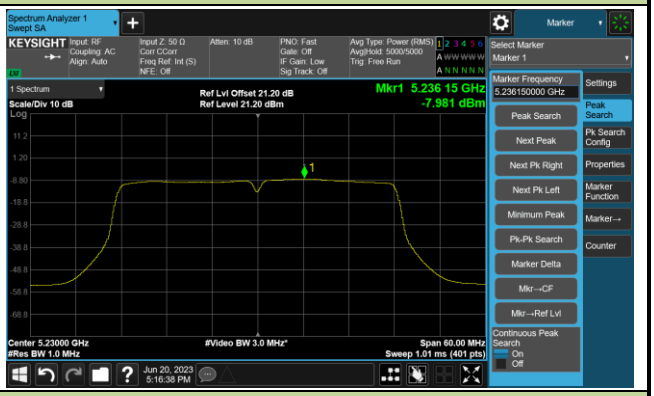
802.11ac-VHT20 Power Spectral Density- AP Mode Ant 0	
Channel 165 (5825MHz)	
	

802.11ac-VHT40 Power Spectral Density- AP Mode Ant 0

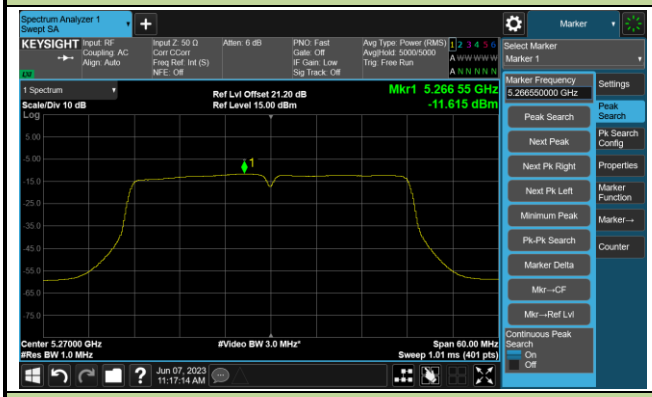
Channel 38 (5190MHz)



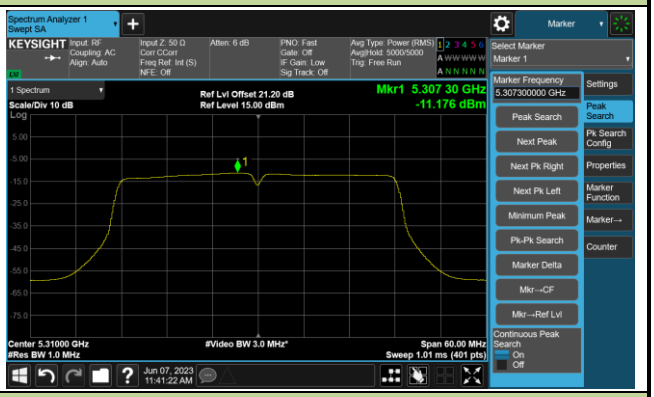
Channel 46 (5230MHz)



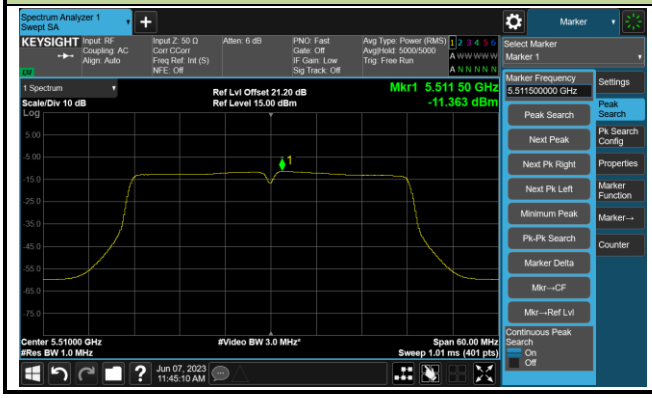
Channel 54 (5270MHz)



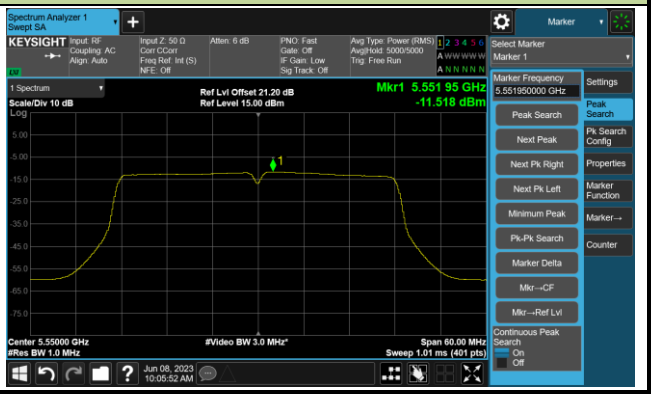
Channel 62 (5310MHz)

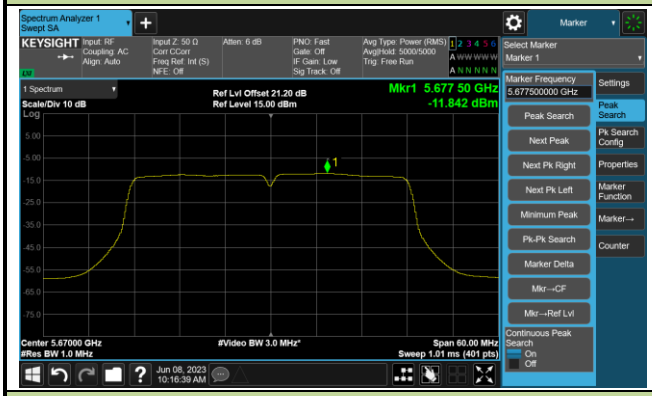
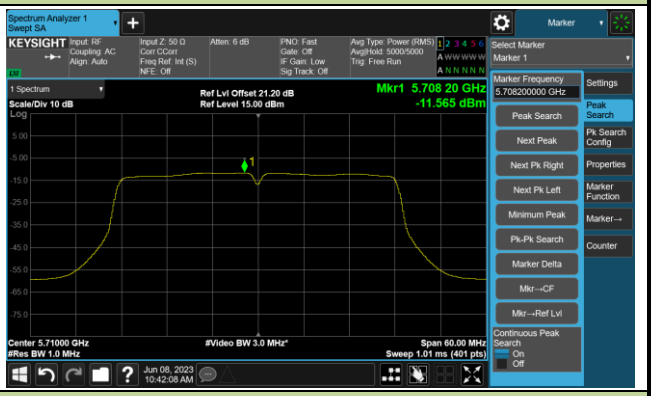
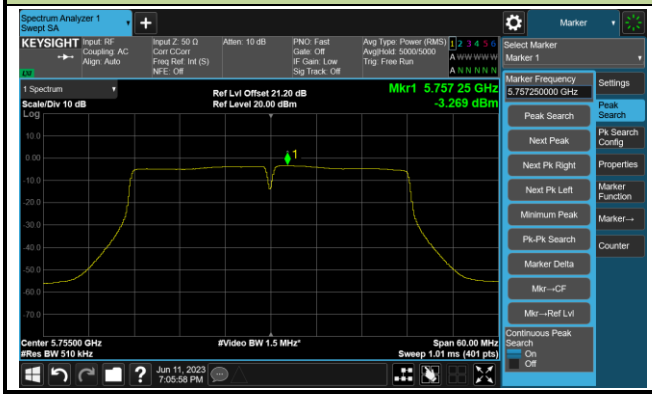
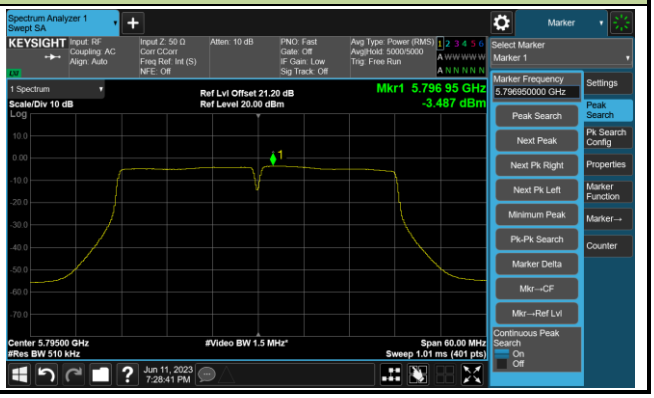


Channel 102 (5510MHz)



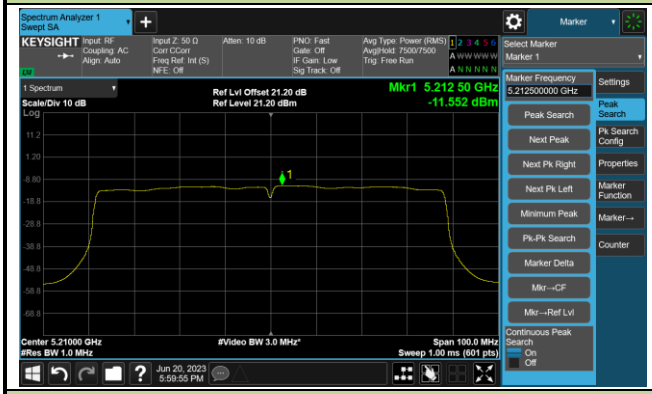
Channel 110 (5550MHz)



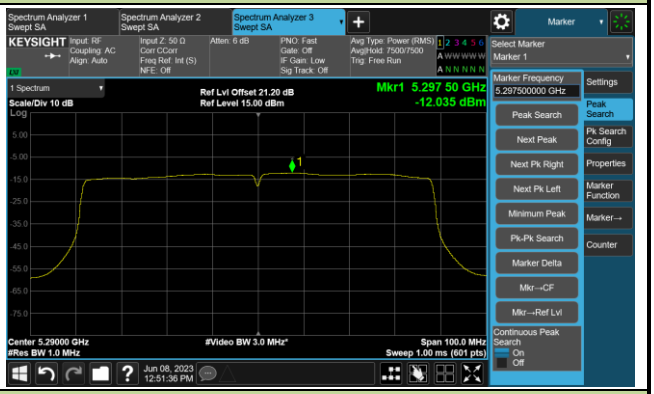
802.11ac-VHT40 Power Spectral Density- AP Mode Ant 0	
Channel 134 (5670MHz)	Channel 142(5710MHz)
	
Channel 151 (5755MHz)	Channel 159 (5795MHz)
	

802.11ac-VHT80 Power Spectral Density- AP Mode Ant 0

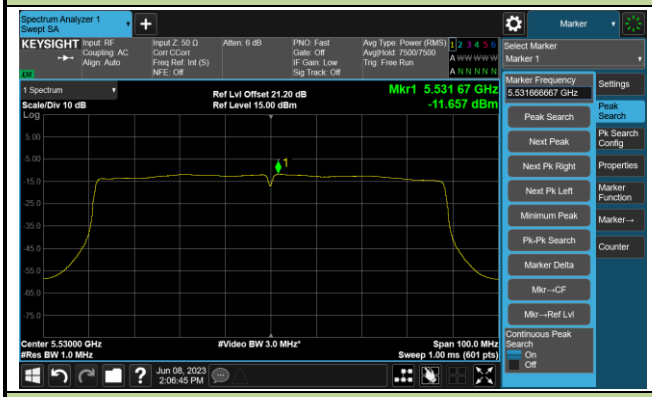
Channel 42 (5210MHz)



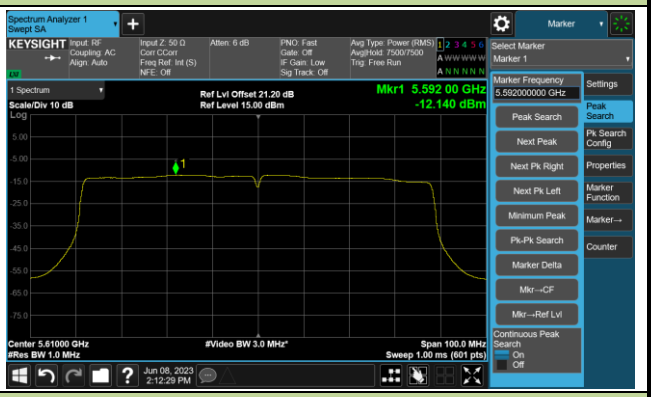
Channel 58 (5290MHz)



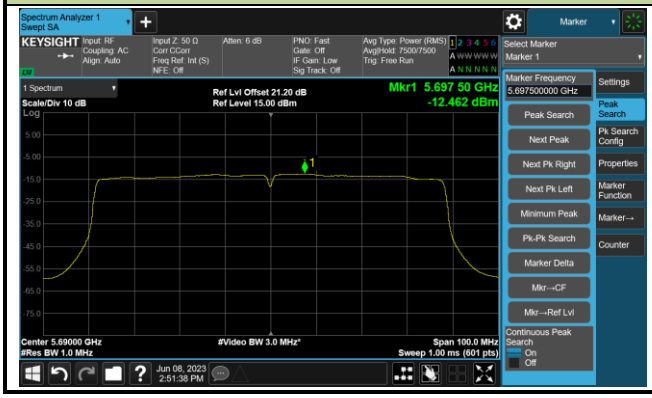
Channel 106 (5530MHz)



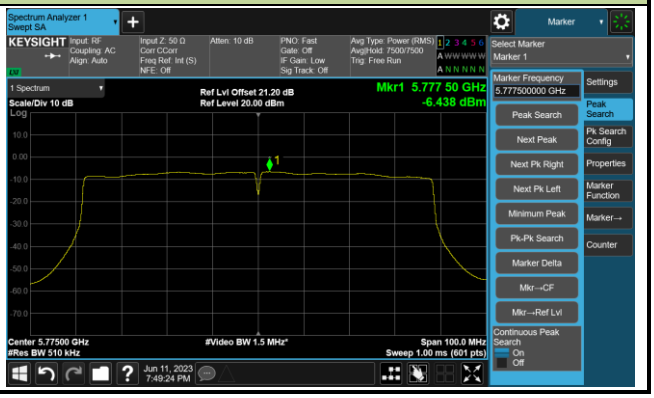
Channel 122 (5610MHz)

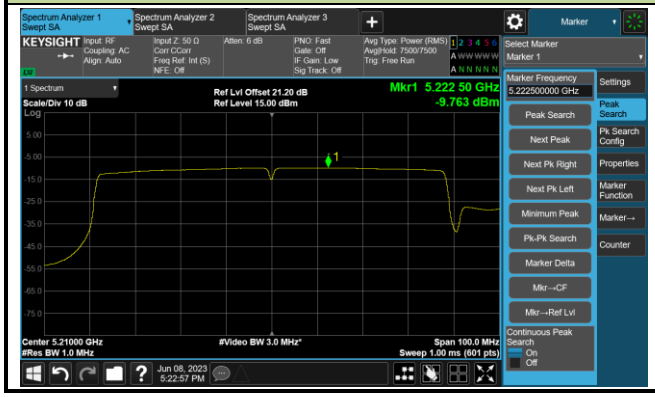
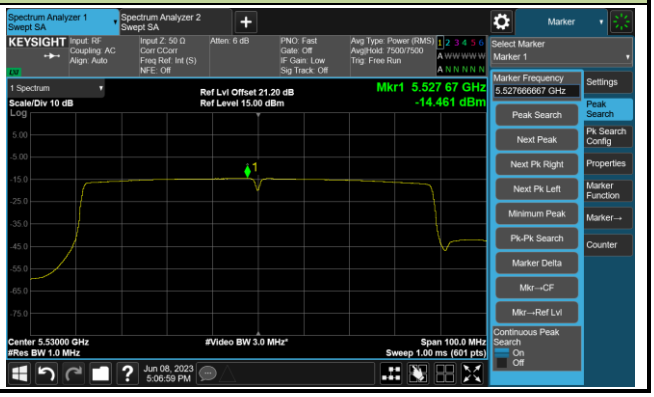


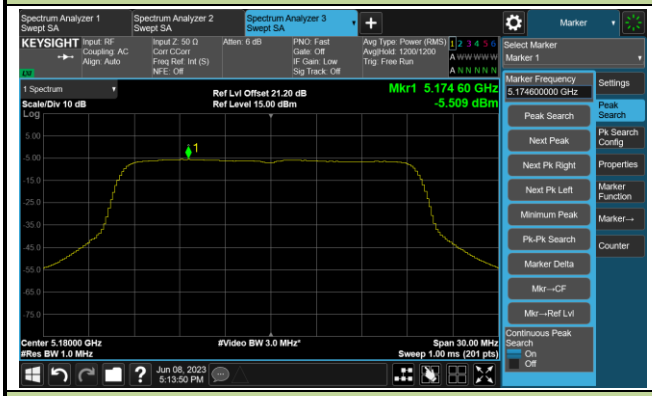
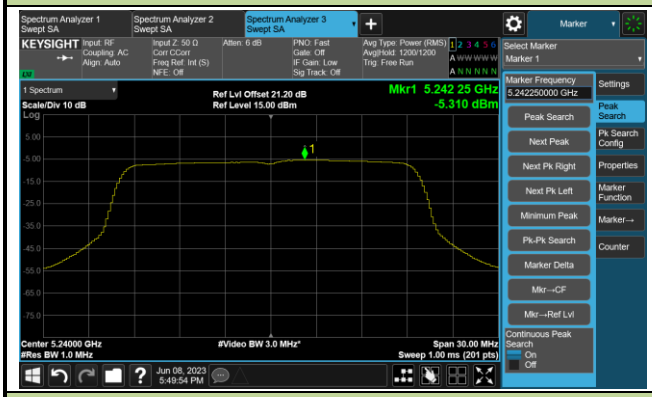
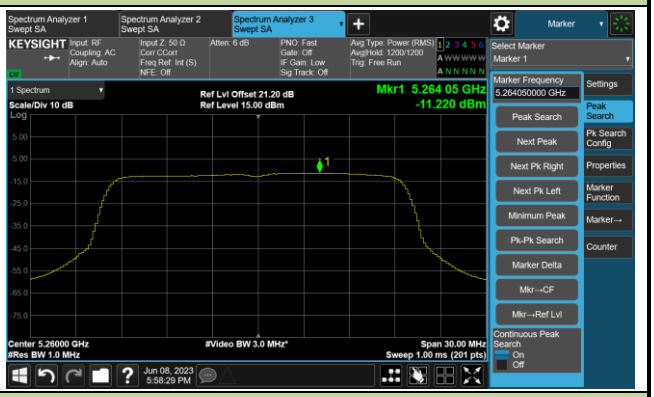
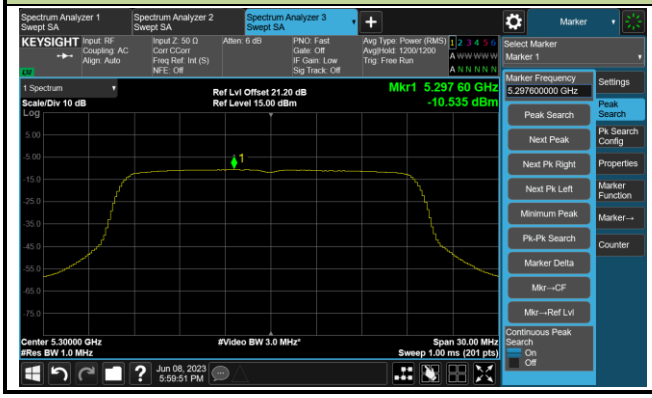
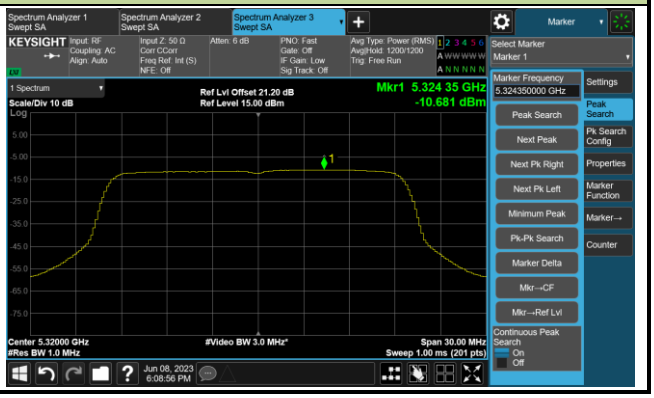
Channel 138 (5690MHz)

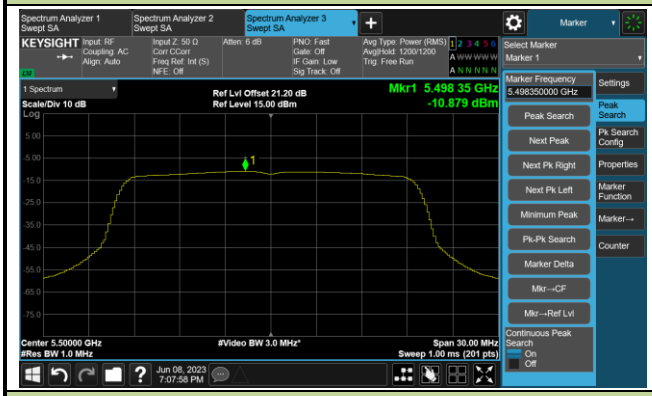
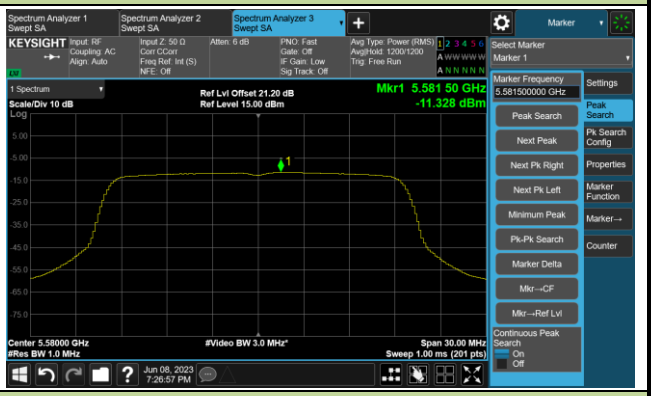
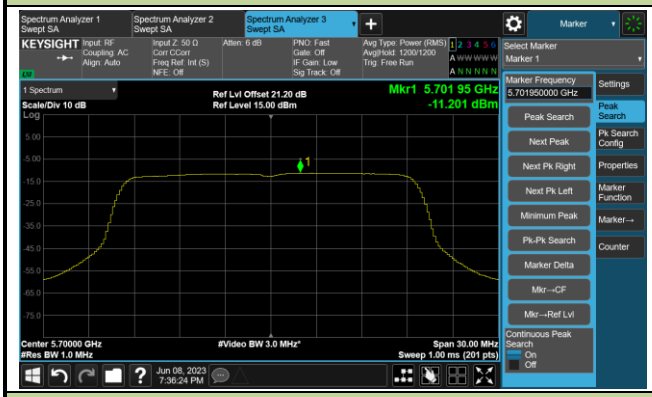
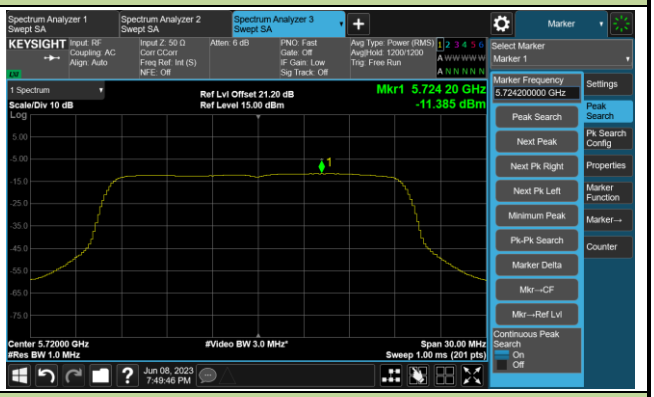
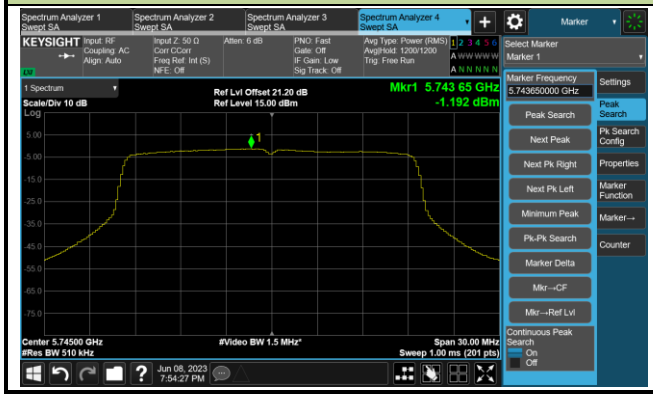
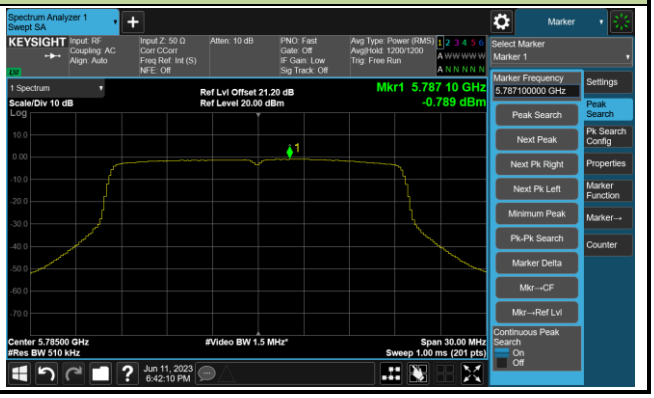


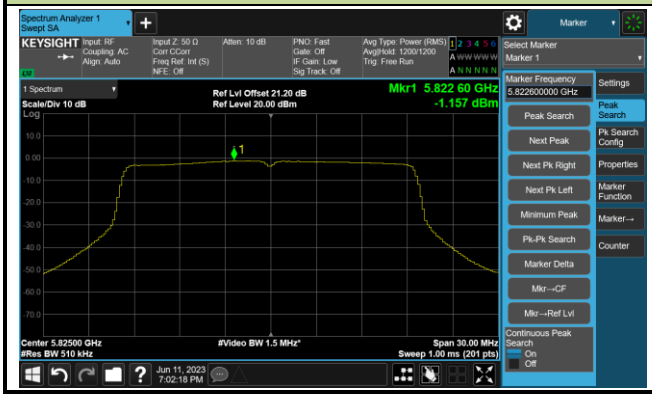
Channel 155 (5775MHz)



802.11ac-VHT80+80 Power Spectral Density- AP Mode Ant 0	
Channel 42+58 (5210+5290MHz)	Channel 106+122 (5530+5610MHz)
	

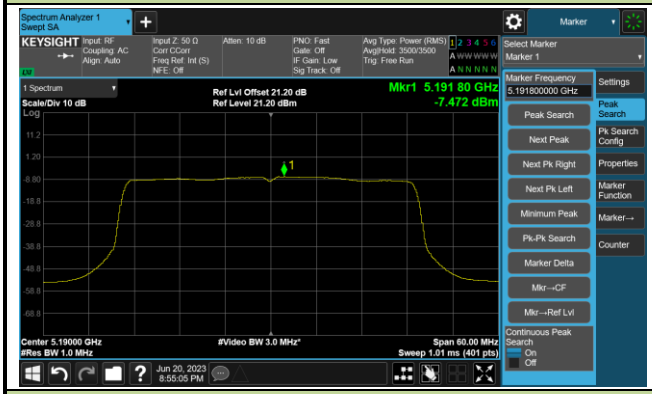
802.11ax-HE20 Power Spectral Density- AP Mode Ant 0	
Channel 36 (5180MHz)	Channel 44 (5220MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

802.11ax-HE20 Power Spectral Density- AP Mode Ant 0	
Channel 100 (5500MHz)	Channel 116 (5580MHz)
	
Channel 140 (5700MHz)	Channel 144(5720MHz)
	
Channel 149 (5745MHz)	Channel 157 (5785MHz)
	

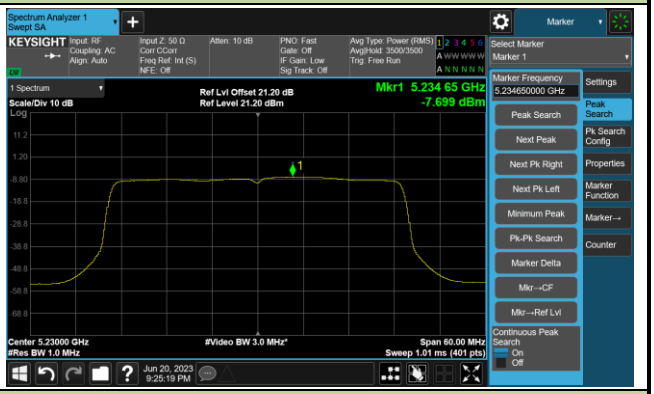
802.11ax-HE20 Power Spectral Density- AP Mode Ant 0	
Channel 165 (5825MHz)	
	

802.11ax-HE40 Power Spectral Density- AP Mode Ant 0

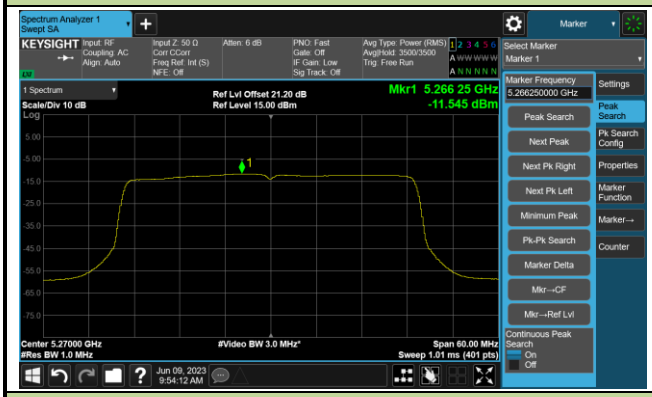
Channel 38 (5190MHz)



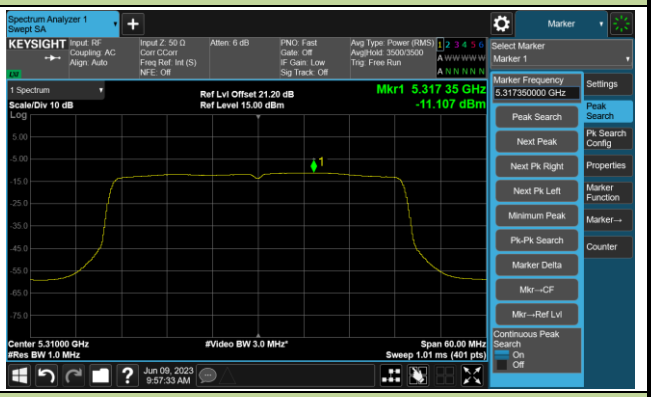
Channel 46 (5230MHz)



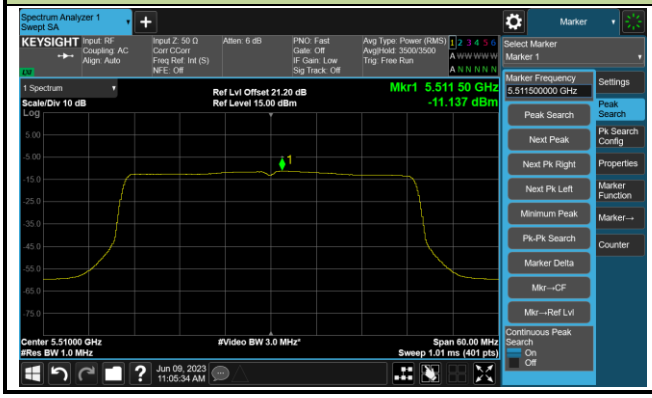
Channel 54 (5270MHz)



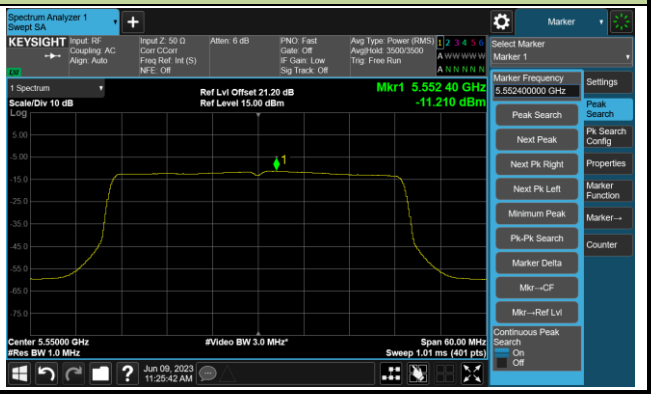
Channel 62 (5310MHz)

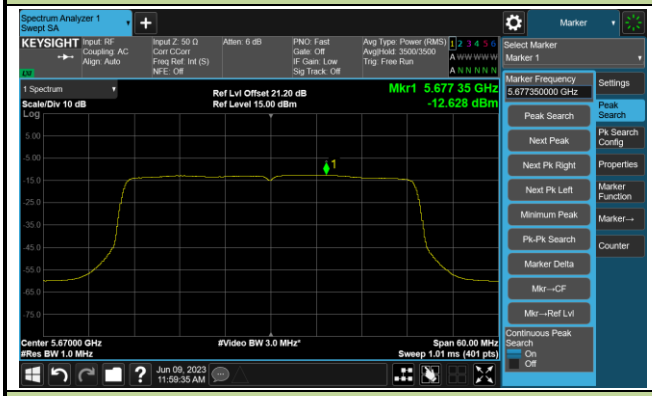
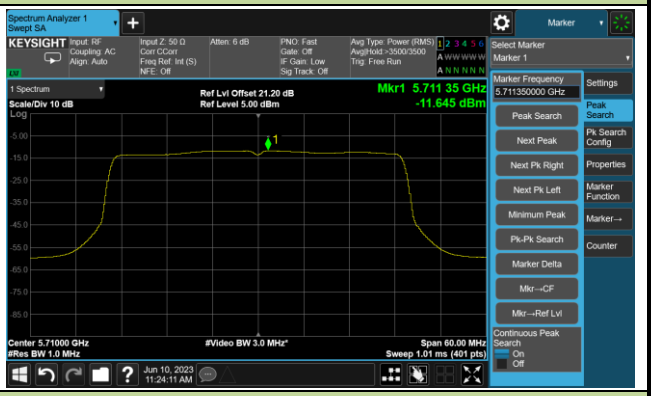
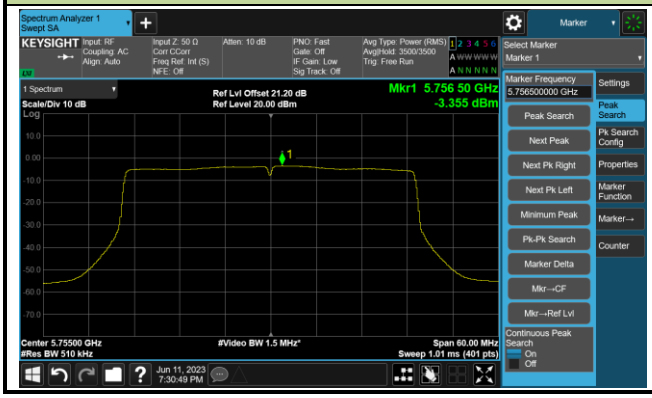
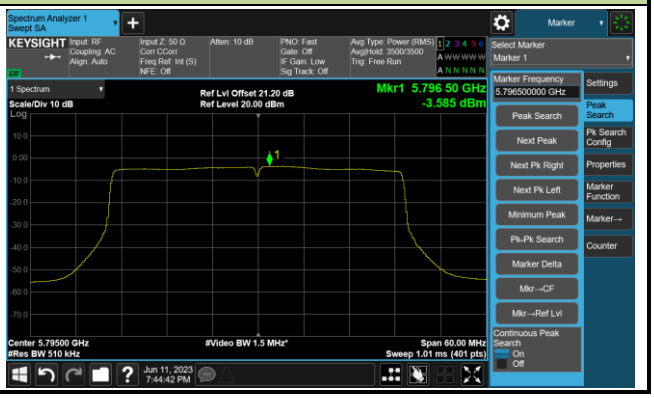


Channel 102 (5510MHz)



Channel 110 (5550MHz)



802.11ax-HE40 Power Spectral Density- AP Mode Ant 0	
Channel 134 (5670MHz)	Channel 142(5710MHz)
	
Channel 151 (5755MHz)	Channel 159 (5795MHz)