

802.11ax-HE80+80 Power Spectral Density

Channel 42 + 58 (5210MHz + 5290MHz) - Ant 0



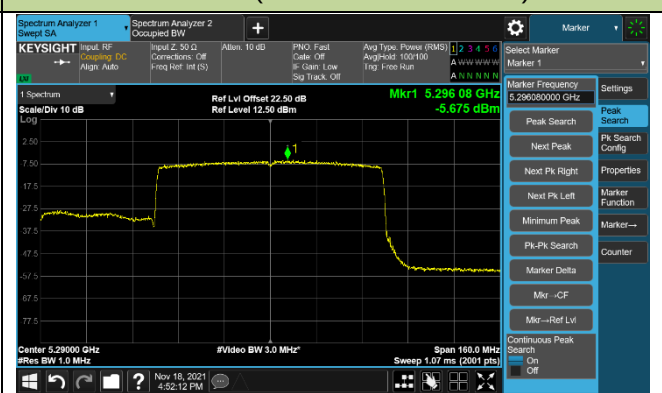
Channel 42 + 58 (5210MHz + 5290MHz) - Ant 1



Channel 42 + 58 (5210MHz + 5290MHz) - Ant 2

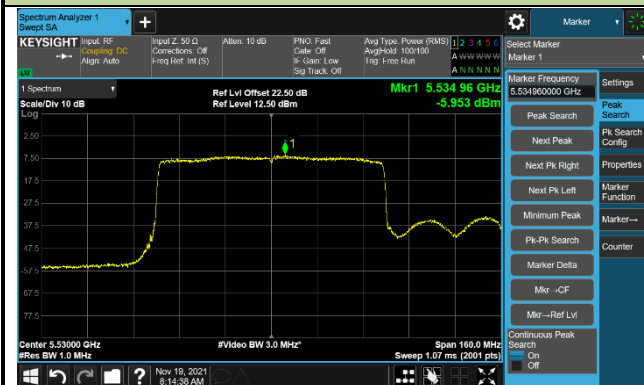


Channel 42 + 58 (5210MHz + 5290MHz) - Ant 3



802.11ax-HE80+80 Power Spectral Density

Channel 106 + 122 (5530MHz + 5610MHz) - Ant 0



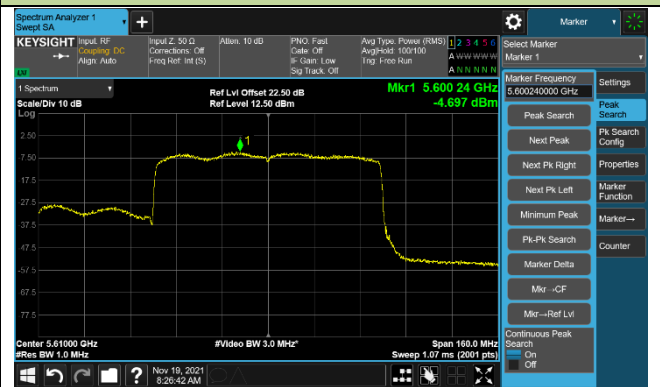
Channel 106 + 122 (5530MHz + 5610MHz) - Ant 1



Channel 106 + 122 (5530MHz + 5610MHz) - Ant 2



Channel 106 + 122 (5530MHz + 5610MHz) - Ant 3



Product	ACCESS POINT	Temperature	23 ~ 25°C
Test Engineer	Eric Lin	Relative Humidity	40 ~ 56%
Test Site	SR2	Test Date	2021/07/25 ~ 2021/11/18
Test Item	APEX0584 (UNII-1& UNII-2A & UNII-2C)		

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	PSD (dBm/MHz)				Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
				Ant 0	Ant 1	Ant 2	Ant 3				
11a	6Mbps	36	5180	3.05	3.86	2.71	3.44	96.34	9.47	≤ 14.99	Pass
11a	6Mbps	44	5220	3.55	3.85	3.12	3.42	96.34	9.67	≤ 14.99	Pass
11a	6Mbps	48	5240	3.85	4.25	3.99	4.17	96.34	10.25	≤ 14.99	Pass
11a	6Mbps	52	5260	2.13	2.28	1.97	2.28	96.34	8.35	≤ 8.99	Pass
11a	6Mbps	60	5300	2.00	2.14	2.12	2.32	96.34	8.33	≤ 8.99	Pass
11a	6Mbps	64	5320	2.37	2.49	2.23	2.37	96.34	8.55	≤ 8.99	Pass
11a	6Mbps	100	5500	2.39	2.24	2.28	2.05	96.34	8.42	≤ 8.99	Pass
11a	6Mbps	116	5580	2.12	2.19	1.95	1.83	96.34	8.21	≤ 8.99	Pass
11a	6Mbps	140	5700	2.35	1.93	1.98	1.93	96.34	8.23	≤ 8.99	Pass
11a	6Mbps	144	5720	2.65	2.17	2.34	2.43	96.34	8.58	≤ 8.99	Pass
11ac-VHT20	MCS0	36	5180	3.68	3.45	3.17	3.43	95.09	9.68	≤ 14.99	Pass
11ac-VHT20	MCS0	44	5220	3.64	3.06	3.96	3.97	95.09	9.91	≤ 14.99	Pass
11ac-VHT20	MCS0	48	5240	3.69	3.73	3.81	4.02	95.09	10.05	≤ 14.99	Pass
11ac-VHT20	MCS0	52	5260	2.59	2.73	1.73	2.27	95.09	8.59	≤ 8.99	Pass
11ac-VHT20	MCS0	60	5300	2.33	2.40	2.34	2.28	95.09	8.58	≤ 8.99	Pass
11ac-VHT20	MCS0	64	5320	2.86	2.38	2.14	2.69	95.09	8.76	≤ 8.99	Pass
11ac-VHT20	MCS0	100	5500	2.11	2.26	2.29	1.98	95.09	8.40	≤ 8.99	Pass
11ac-VHT20	MCS0	116	5580	2.55	2.64	2.17	2.21	95.09	8.64	≤ 8.99	Pass
11ac-VHT20	MCS0	140	5700	2.58	1.86	2.04	1.98	95.09	8.36	≤ 8.99	Pass
11ac-VHT20	MCS0	144	5720	2.54	2.49	2.39	2.60	95.09	8.74	≤ 8.99	Pass
11ac-VHT40	MCS0	38	5190	0.62	0.91	0.10	0.55	86.35	7.21	≤ 14.99	Pass
11ac-VHT40	MCS0	46	5230	0.37	0.07	-0.10	-0.08	86.35	6.73	≤ 14.99	Pass
11ac-VHT40	MCS0	54	5270	1.82	1.96	2.02	1.94	86.35	8.60	≤ 8.99	Pass
11ac-VHT40	MCS0	62	5310	1.80	1.68	1.73	1.26	86.35	8.28	≤ 8.99	Pass
11ac-VHT40	MCS0	102	5510	2.28	1.93	1.80	2.19	86.35	8.71	≤ 8.99	Pass
11ac-VHT40	MCS0	110	5550	2.35	2.01	2.02	1.96	86.35	8.74	≤ 8.99	Pass
11ac-VHT40	MCS0	134	5670	2.01	1.90	2.15	2.18	86.35	8.72	≤ 8.99	Pass
11ac-VHT40	MCS0	142	5710	2.22	2.01	2.05	2.07	86.35	8.75	≤ 8.99	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	PSD (dBm/MHz)				Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
				Ant 0	Ant 1	Ant 2	Ant 3				
11ac-VHT80	MCS0	42	5210	-2.38	-2.52	-2.44	-2.74	89.29	4.00	≤ 14.99	Pass
11ac-VHT80	MCS0	58	5290	-0.22	-0.06	0.03	-0.19	89.29	6.40	≤ 8.99	Pass
11ac-VHT80	MCS0	106	5530	-0.43	-1.22	-0.94	-1.14	89.29	5.59	≤ 8.99	Pass
11ac-VHT80	MCS0	122	5610	0.13	-0.10	-0.48	-0.56	89.29	6.27	≤ 8.99	Pass
11ac-VHT80	MCS0	138	5690	0.38	-0.03	0.20	0.15	89.29	6.69	≤ 8.99	Pass
11ax-HE20	MCS0	36	5180	3.52	3.93	3.61	4.08	94.04	10.08	≤ 14.99	Pass
11ax-HE20	MCS0	44	5220	3.98	3.75	3.70	4.13	94.04	10.18	≤ 14.99	Pass
11ax-HE20	MCS0	48	5240	3.96	4.15	3.50	3.75	94.04	10.13	≤ 14.99	Pass
11ax-HE20	MCS0	52	5260	2.09	1.99	1.76	2.13	94.04	8.28	≤ 8.99	Pass
11ax-HE20	MCS0	60	5300	1.97	2.10	1.99	2.41	94.04	8.41	≤ 8.99	Pass
11ax-HE20	MCS0	64	5320	2.20	2.12	1.87	2.28	94.04	8.40	≤ 8.99	Pass
11ax-HE20	MCS0	100	5500	2.01	1.94	1.93	2.03	94.04	8.26	≤ 8.99	Pass
11ax-HE20	MCS0	116	5580	2.09	2.04	1.78	1.85	94.04	8.23	≤ 8.99	Pass
11ax-HE20	MCS0	140	5700	2.06	1.93	1.71	1.73	94.04	8.15	≤ 8.99	Pass
11ax-HE20	MCS0	144	5720	2.06	2.26	1.84	1.91	94.04	8.39	≤ 8.99	Pass
11ax-HE40	MCS0	38	5190	0.67	1.18	0.45	0.73	93.77	7.07	≤ 14.99	Pass
11ax-HE40	MCS0	46	5230	1.26	1.02	1.24	1.18	93.77	7.47	≤ 14.99	Pass
11ax-HE40	MCS0	54	5270	2.34	2.09	2.21	2.47	93.77	8.58	≤ 8.99	Pass
11ax-HE40	MCS0	62	5310	2.19	2.16	1.98	2.13	93.77	8.42	≤ 8.99	Pass
11ax-HE40	MCS0	102	5510	2.85	2.01	2.08	2.34	93.77	8.63	≤ 8.99	Pass
11ax-HE40	MCS0	110	5550	2.75	2.39	2.41	2.13	93.77	8.73	≤ 8.99	Pass
11ax-HE40	MCS0	134	5670	2.43	2.06	2.25	2.08	93.77	8.51	≤ 8.99	Pass
11ax-HE40	MCS0	142	5710	2.53	2.48	2.48	2.03	93.77	8.69	≤ 8.99	Pass
11ax-HE80	MCS0	42	5210	-2.53	-2.69	-2.79	-2.99	93.97	3.54	≤ 14.99	Pass
11ax-HE80	MCS0	58	5290	0.54	0.48	0.55	0.58	93.97	6.83	≤ 8.99	Pass
11ax-HE80	MCS0	106	5530	-0.55	-1.52	-1.00	-1.02	93.97	5.28	≤ 8.99	Pass
11ax-HE80	MCS0	122	5610	0.97	0.91	0.30	-0.05	93.97	6.84	≤ 8.99	Pass
11ax-HE80	MCS0	138	5690	0.38	-0.15	-0.31	-0.47	93.97	6.16	≤ 8.99	Pass

Test Mode	Data Rate /MCS	Ch. No.	Freq. (MHz)	PSD (dBm/MHz)				Duty Cycle (%)	Total PSD (dBm/ MHz)	PSD Limit (dBm/ MHz)	Result
				Ant 0	Ant 1	Ant 2	Ant 3				
80+80 MHz mode fall within different UNII band											
11ac-VHT80+80	MCS0	42	5210	-7.92	-7.71	--	--	86.60	-4.18	≤ 14.99	Pass
		58	5290	--	--	-7.44	-8.11	86.60	-4.13	≤8.99	Pass
11ax-HE80+80	MCS0	42	5210	-2.71	-1.98	--	--	94.78	0.91	≤ 14.99	Pass
		58	5290	--	--	-3.03	-2.83	94.78	0.31	≤8.99	Pass
80+80 MHz mode fall within same UNII band											
11ac-VHT80+80	MCS0	106	5530	-2.89	-3.08	--	--	86.60	3.81	≤8.99	Pass
		122	5610	--	--	-2.38	-3.00				
11ax-HE80+80	MCS0	106	5530	-1.51	-1.44	--	--	94.78	4.64	≤8.99	Pass
		122	5610	--	--	-1.51	-2.01				

Note 1: When EUT duty cycle < 98%, Total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/MHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

Note 2: For 802.11ac-VHT80+80/ax-HE80+80 mode fall within different UNII band:

Ant 0 & 1: Total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)}\}$ (dBm/MHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

Ant 2 & 3: Total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/MHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

For 802.11ac-VHT80+80/ax-HE80+80 mode fall within same UNII band:

Total PSD (dBm/MHz) = $10 \cdot \log \{10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)}\}$ (dBm/MHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

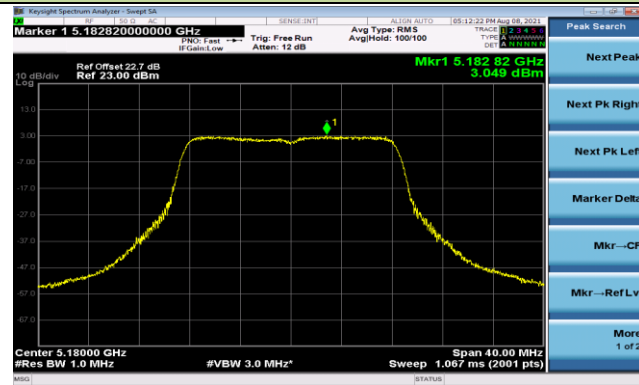
Product	ACCESS POINT	Temperature	24~27°C
Test Engineer	Eric Lin	Relative Humidity	58~60%
Test Site	SR2	Test Date	2021/07/25~2021/11/18
Frequency Band	APEX0584 (NII-3)		

Test Mode	Data Rate/ MCS	Ch. No.	Freq. (MHz)	PSD (dBm/510kHz)				Duty Cycle (%)	Total PSD (dBm/510kHz)	Limit (dBm/500kHz)	Result
				Ant 0	Ant 1	Ant 2	Ant 3				
11a	6Mbps	149	5745	8.13	7.96	8.67	8.22	96.34	14.44	27.99	Pass
11a	6Mbps	157	5785	8.33	8.51	8.22	8.77	96.34	14.64	27.99	Pass
11a	6Mbps	165	5825	8.78	8.47	8.29	8.48	96.34	14.69	27.99	Pass
11ac-VHT20	MCS0	149	5745	7.55	7.97	7.56	8.04	95.09	14.02	27.99	Pass
11ac-VHT20	MCS0	157	5785	8.41	8.45	8.31	8.39	95.09	14.63	27.99	Pass
11ac-VHT20	MCS0	165	5825	8.32	7.80	8.08	8.15	95.09	14.33	27.99	Pass
11ac-VHT40	MCS0	151	5755	5.13	5.18	4.76	4.94	86.35	11.66	27.99	Pass
11ac-VHT40	MCS0	159	5795	4.85	4.89	4.85	5.03	86.35	11.56	27.99	Pass
11ac-VHT80	MCS0	155	5775	0.58	0.68	0.75	0.59	89.29	7.16	27.99	Pass
11ax-HE20	MCS0	149	5745	8.27	8.12	8.07	8.15	94.04	14.44	27.99	Pass
11ax-HE20	MCS0	157	5785	7.94	8.22	7.89	8.33	94.04	14.38	27.99	Pass
11ax-HE20	MCS0	165	5825	8.59	8.17	8.39	8.53	94.04	14.71	27.99	Pass
11ax-HE40	MCS0	151	5755	5.56	5.61	5.22	5.19	93.77	11.70	27.99	Pass
11ax-HE40	MCS0	159	5795	5.15	5.58	5.41	5.37	93.77	11.68	27.99	Pass
11ax-HE80	MCS0	155	5775	1.01	0.74	0.64	0.73	93.97	7.07	27.99	Pass

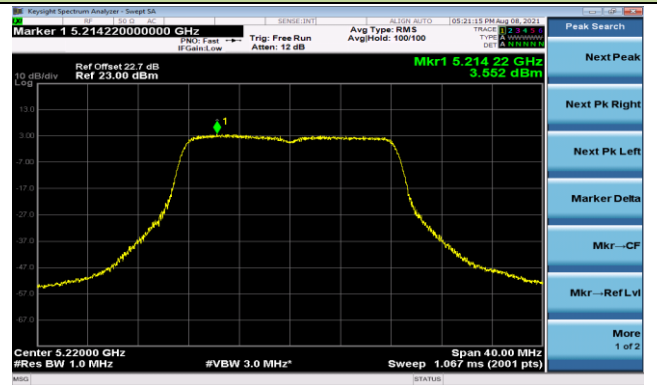
Note: When EUT duty cycle < 98%, the total PSD (dBm/500kHz) = $10 \cdot \log \{ 10^{(\text{Ant 0 PSD}/10)} + 10^{(\text{Ant 1 PSD}/10)} + 10^{(\text{Ant 2 PSD}/10)} + 10^{(\text{Ant 3 PSD}/10)} \}$ (dBm/500kHz) + $10 \cdot \log (1/\text{Duty Cycle})$.

802.11a Power Spectral Density - Ant 0

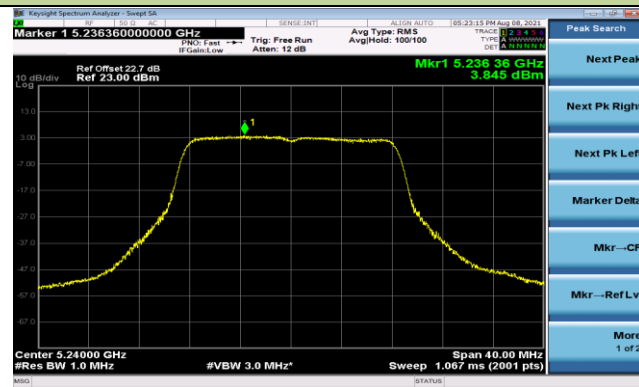
Channel 36 (5180MHz)



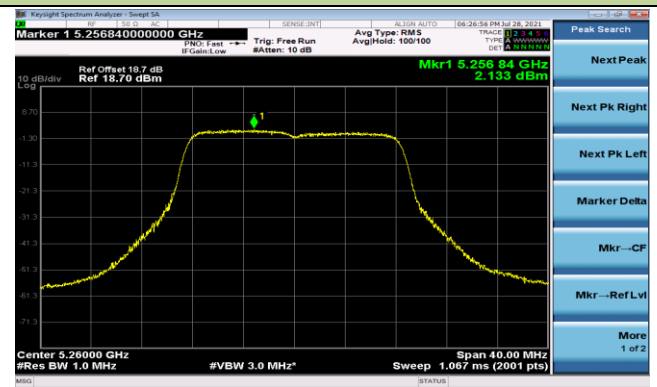
Channel 44 (5220MHz)



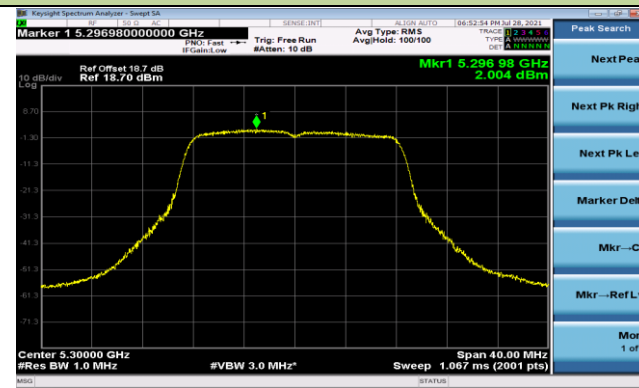
Channel 48 (5240MHz)



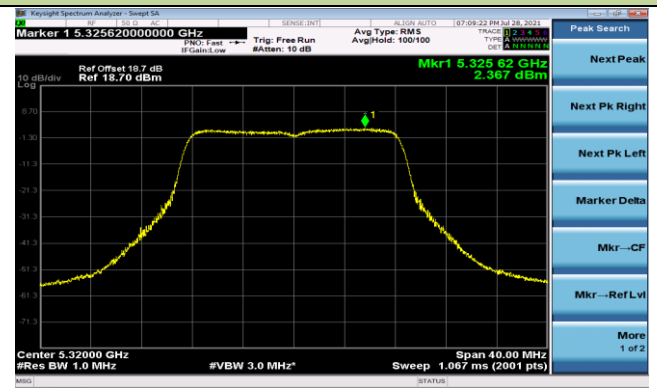
Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)

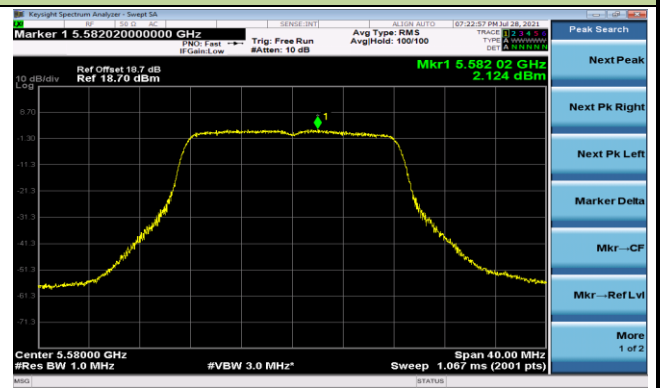


802.11a Power Spectral Density - Ant 0

Channel 100 (5500MHz)



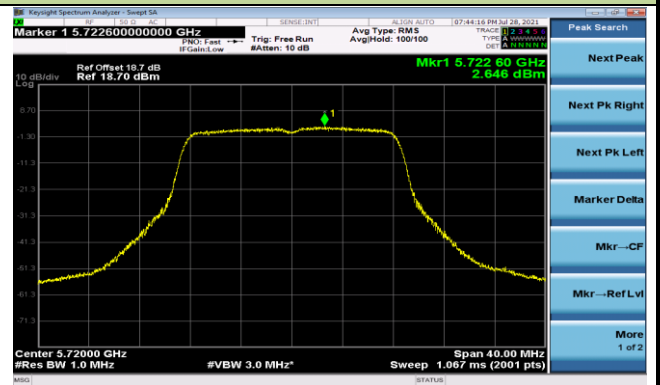
Channel 116 (5580MHz)



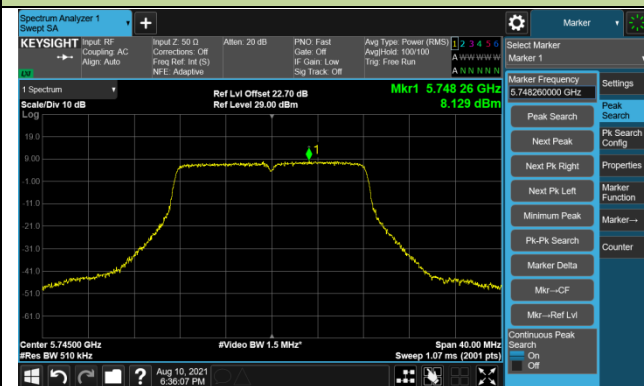
Channel 140 (5700MHz)



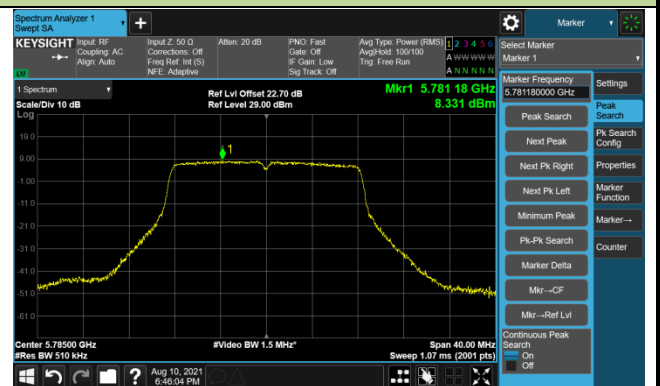
Channel 144 (5720MHz)



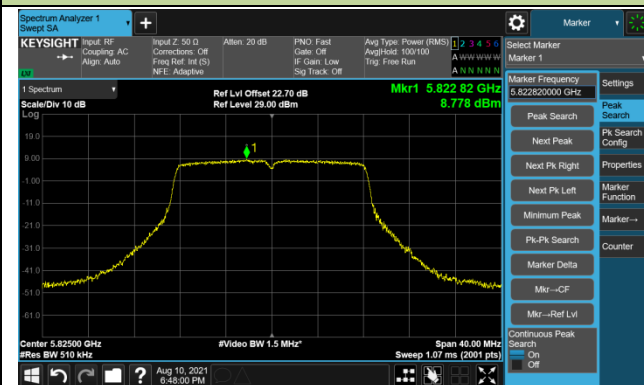
Channel 149 (5745MHz)



Channel 157 (5785MHz)

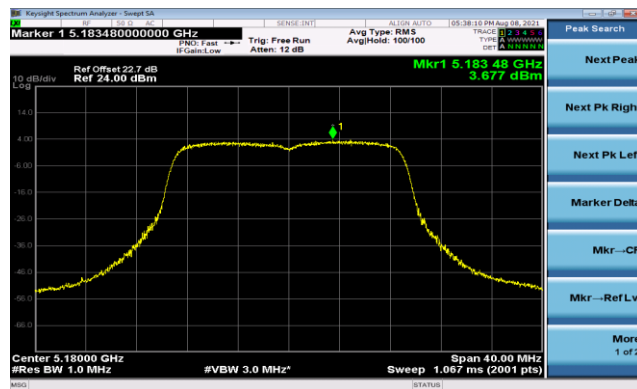


Channel 165 (5825MHz)

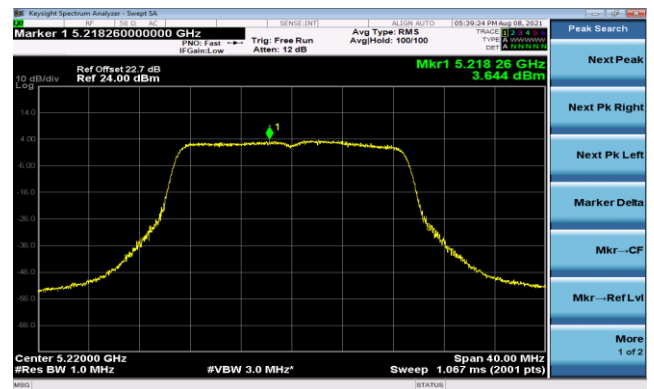


802.11ac-VHT20 Power Spectral Density - Ant 0

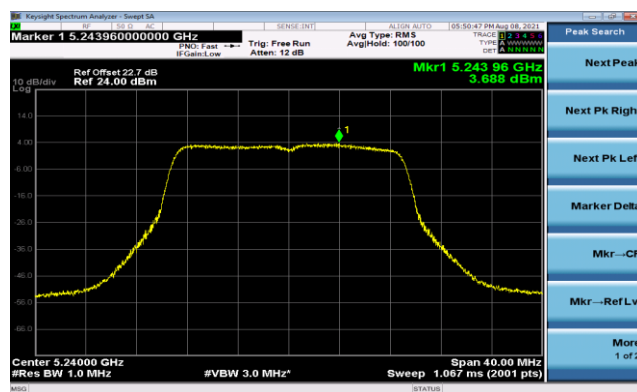
Channel 36 (5180MHz)



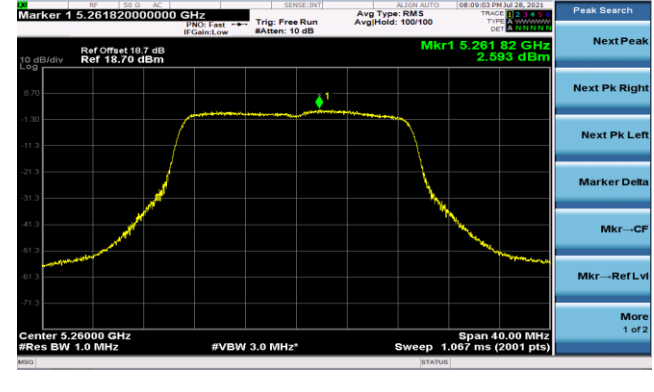
Channel 44 (5220MHz)



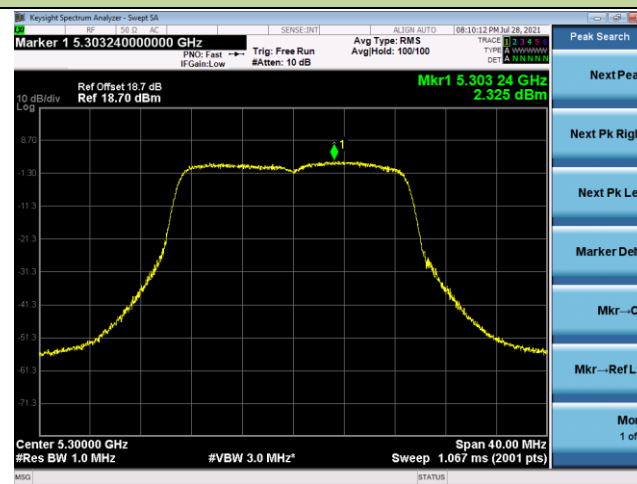
Channel 48 (5240MHz)



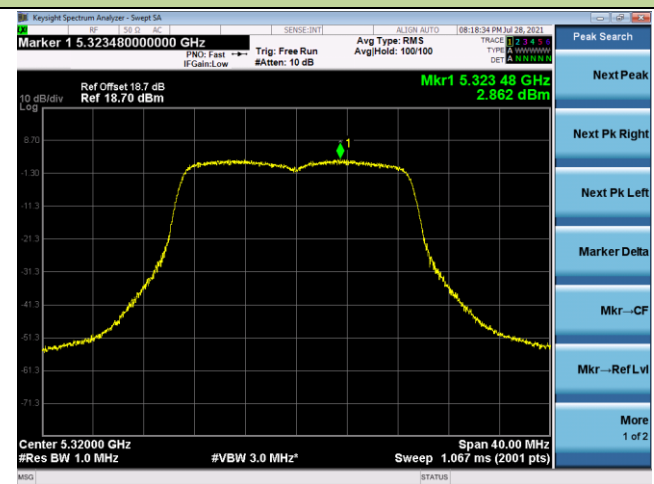
Channel 52 (5260MHz)



Channel 60 (5300MHz)

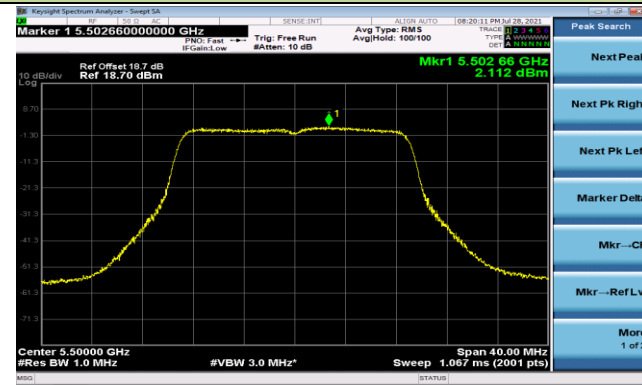


Channel 64 (5320MHz)

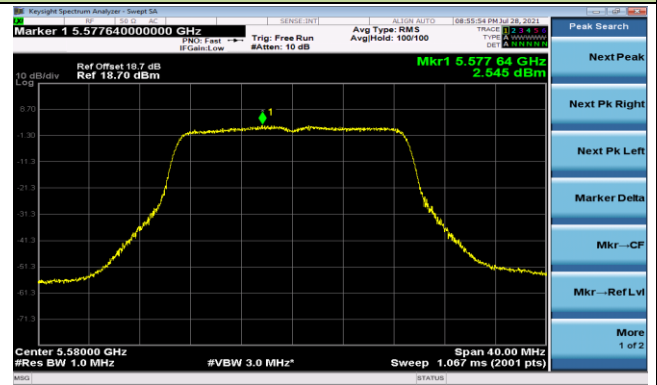


802.11ac-VHT20 Power Spectral Density - Ant 0

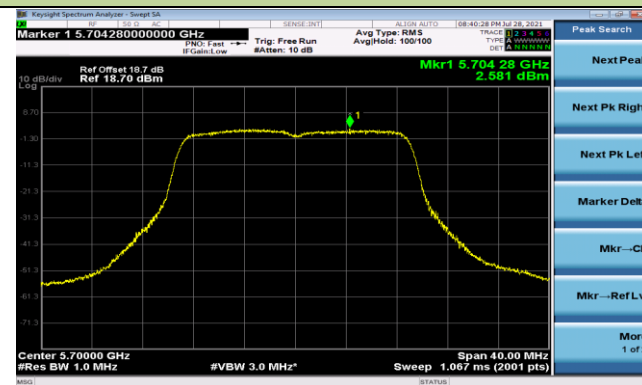
Channel 100 (5500MHz)



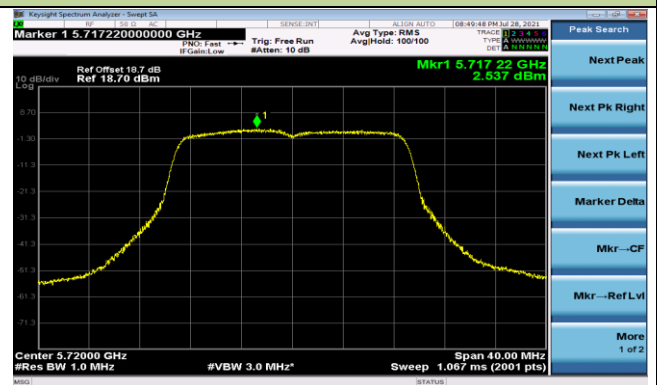
Channel 116 (5580MHz)



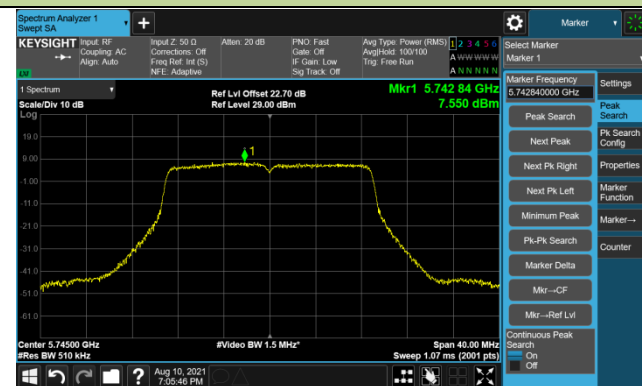
Channel 140 (5700MHz)



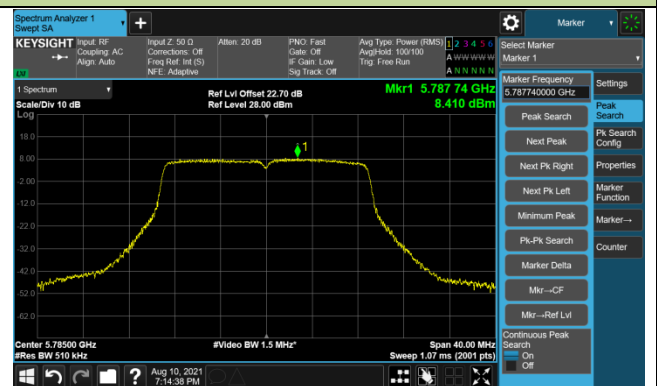
Channel 144 (5720MHz)



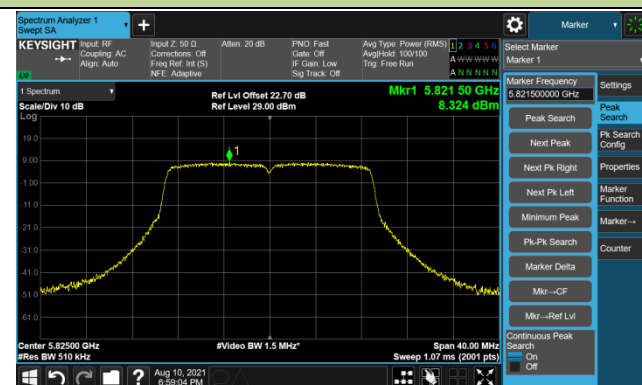
Channel 149 (5745MHz)



Channel 157 (5785MHz)

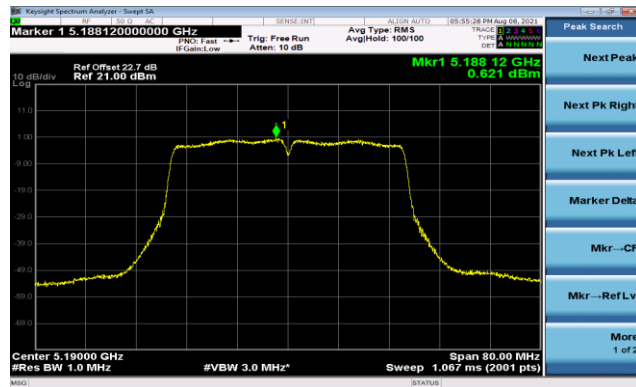


Channel 165 (5825MHz)

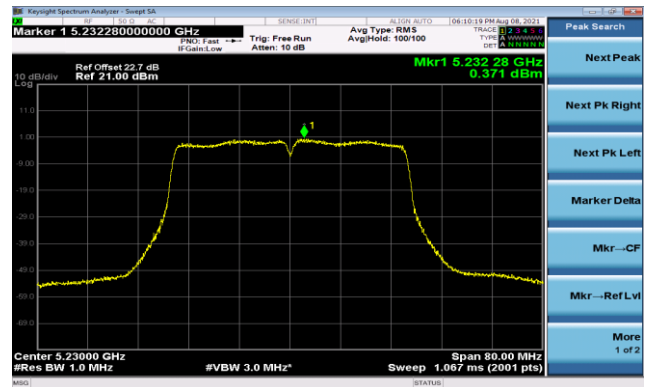


802.11ac-VHT40 Power Spectral Density - Ant 0

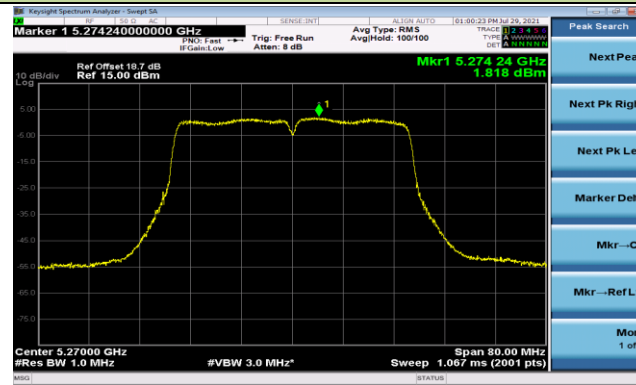
Channel 38 (5190MHz)



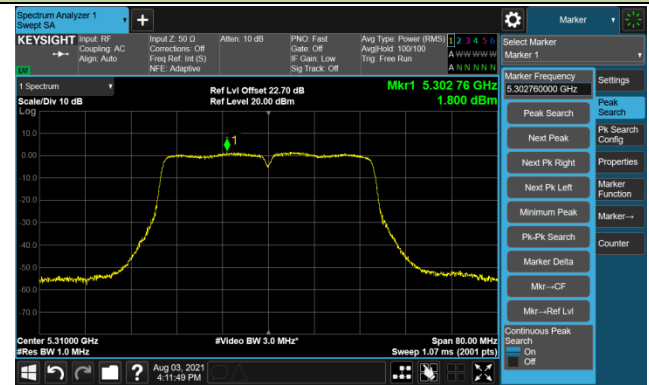
Channel 46 (5230MHz)



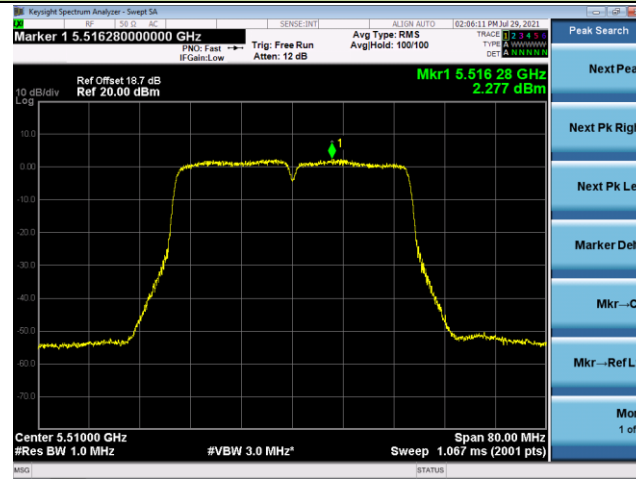
Channel 54 (5270MHz)



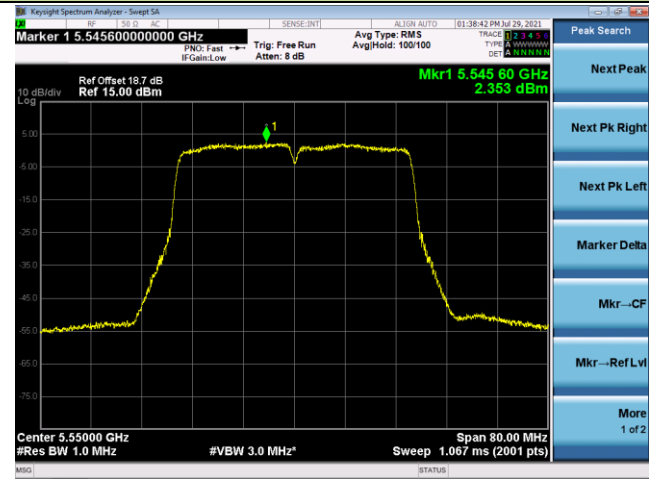
Channel 62 (5310MHz)



Channel 102 (5510MHz)

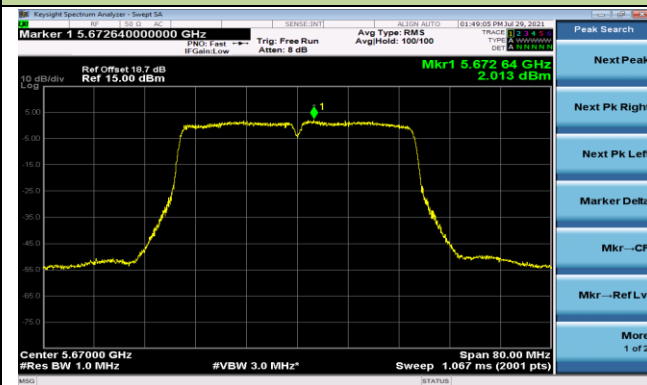


Channel 110 (5550MHz)

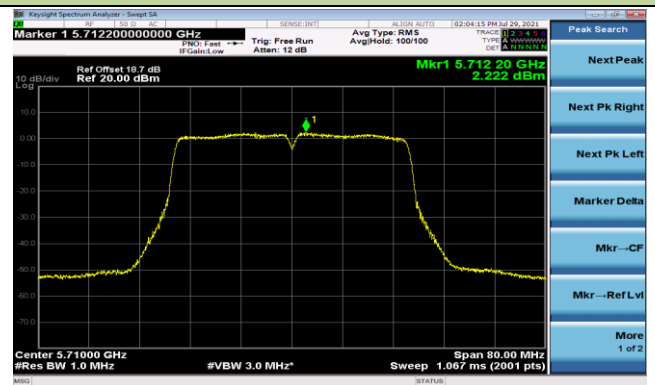


802.11ac-VHT40 Power Spectral Density - Ant 0

Channel 134 (5670MHz)



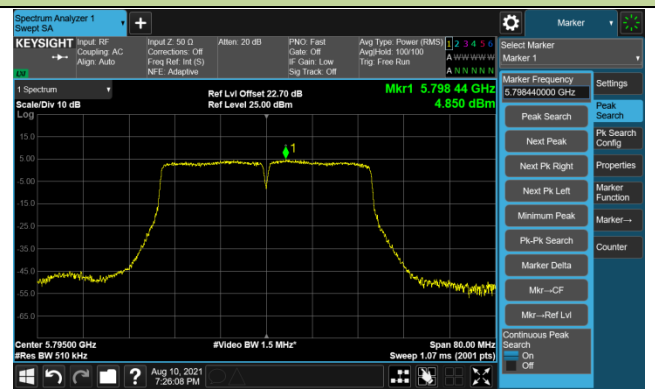
Channel 142 (5710MHz)



Channel 151 (5755MHz)

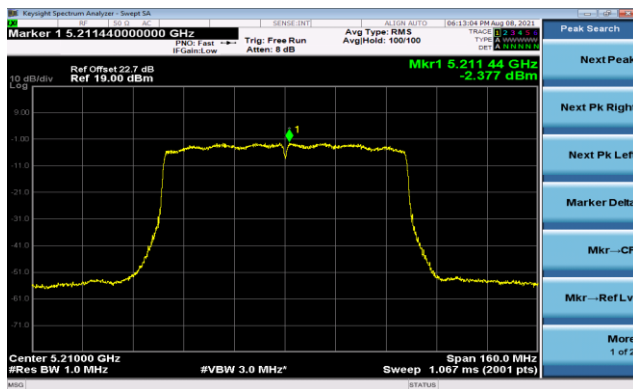


Channel 159 (5795MHz)

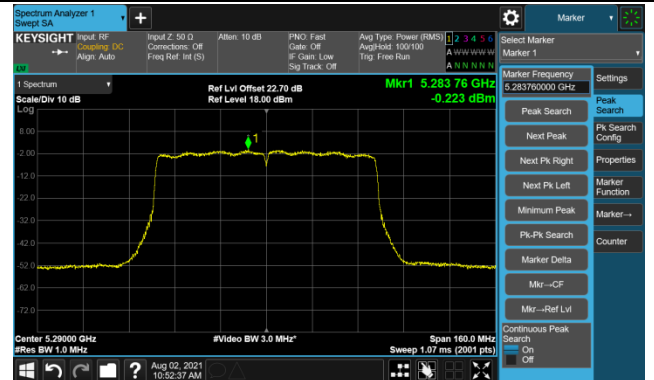


802.11ac-VHT80 Power Spectral Density - Ant 0

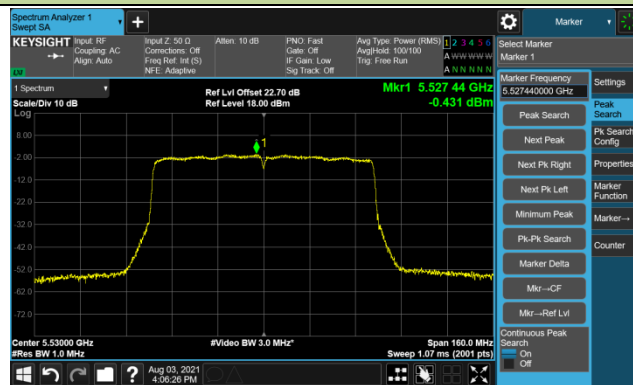
Channel 42 (5210MHz)



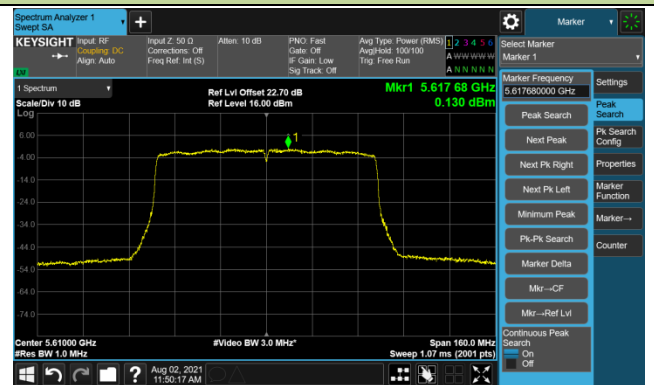
Channel 58 (5290MHz)



Channel 106 (5530MHz)



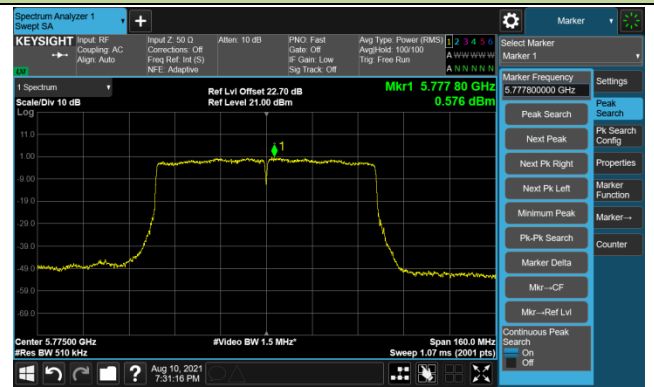
Channel 122 (5610MHz)



Channel 138 (5690MHz)

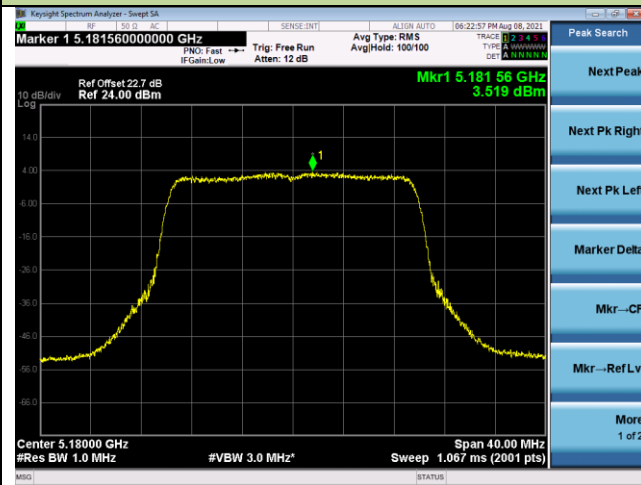


Channel 155 (5775MHz)

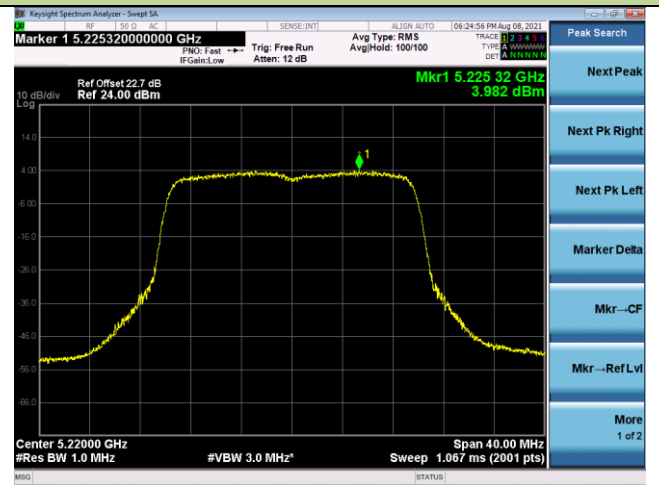


802.11ax-HE20 Power Spectral Density - Ant 0

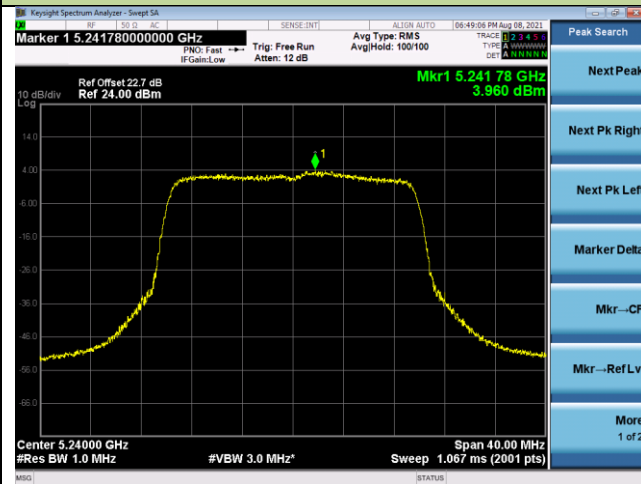
Channel 36 (5180MHz)



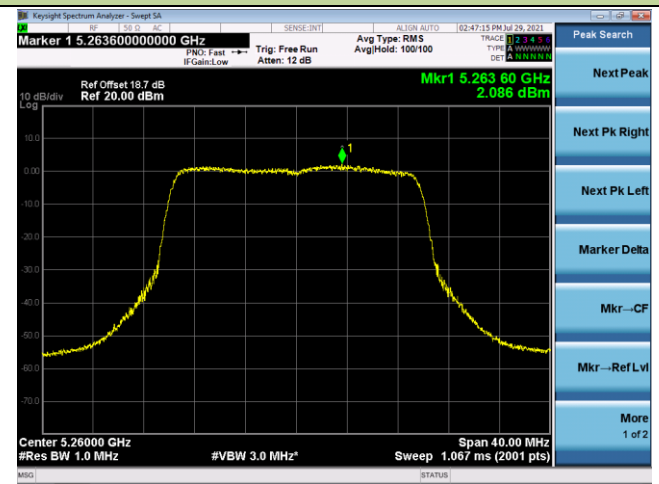
Channel 44 (5220MHz)



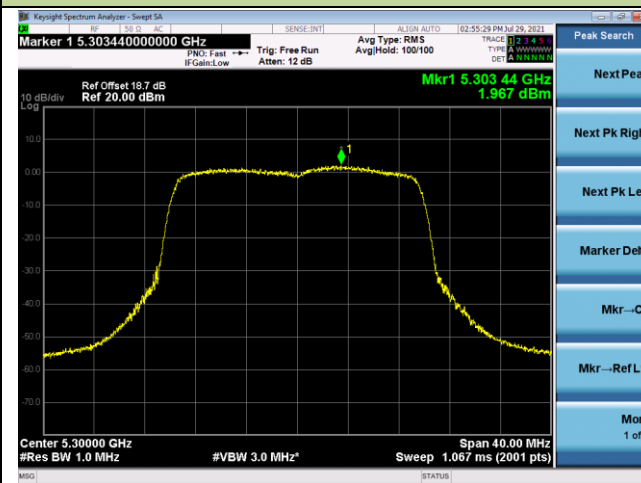
Channel 48 (5240MHz)



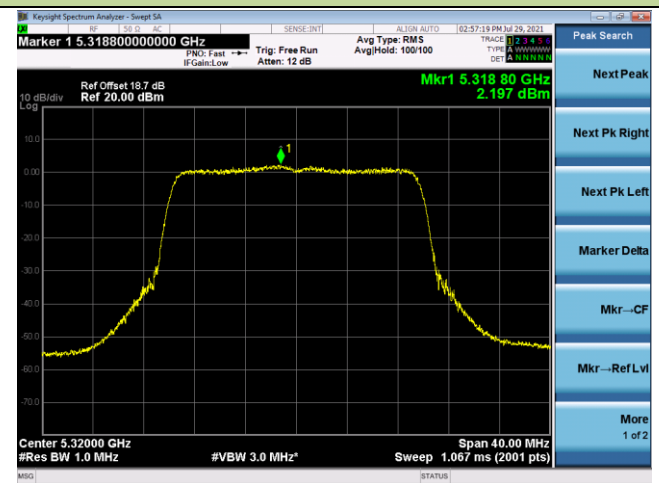
Channel 52 (5260MHz)



Channel 60 (5300MHz)

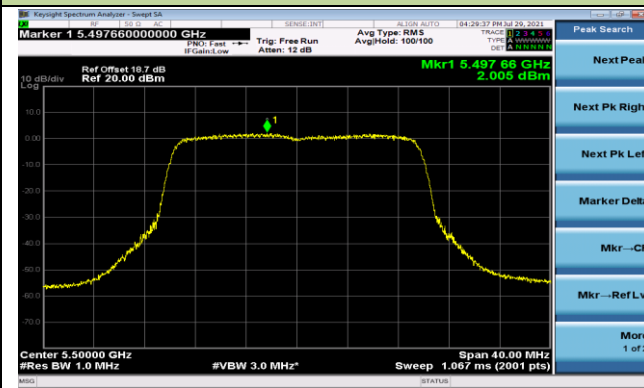


Channel 64 (5320MHz)

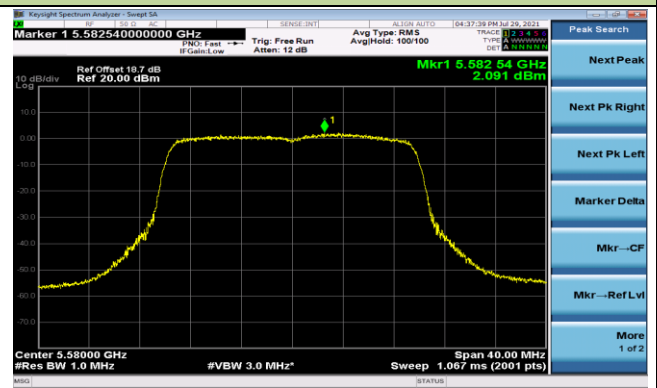


802.11ax-HE20 Power Spectral Density - Ant 0

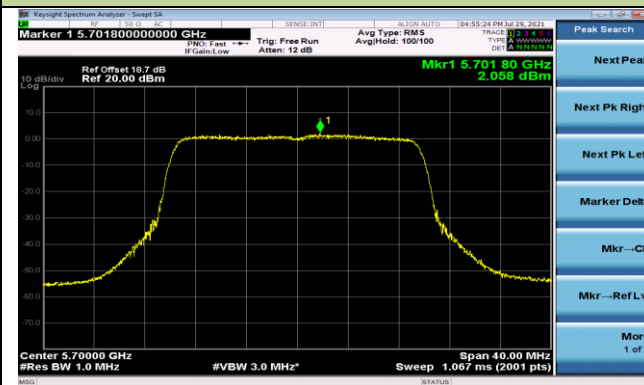
Channel 100 (5500MHz)



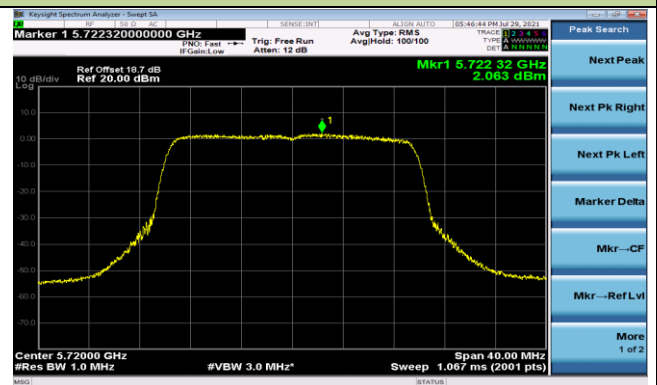
Channel 116 (5580MHz)



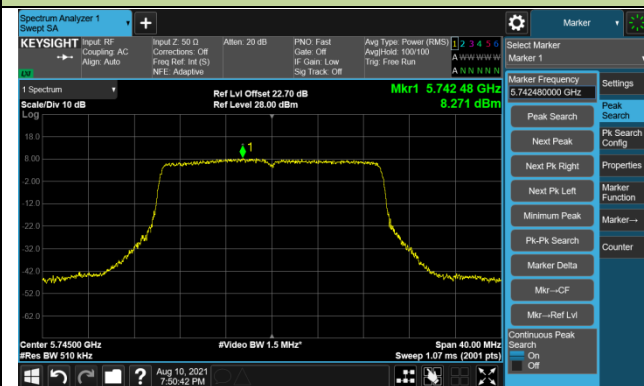
Channel 140 (5700MHz)



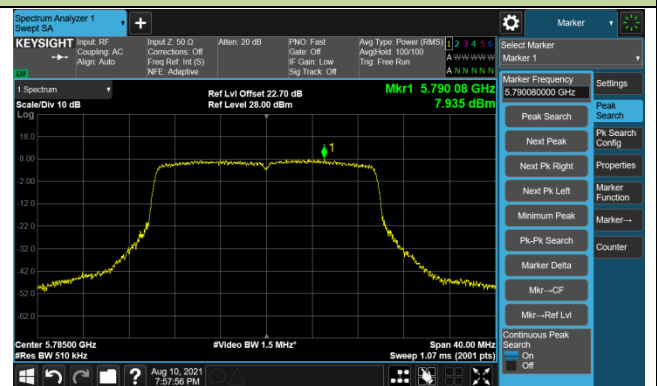
Channel 144 (5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

