

Channel 140 (5700MHz)



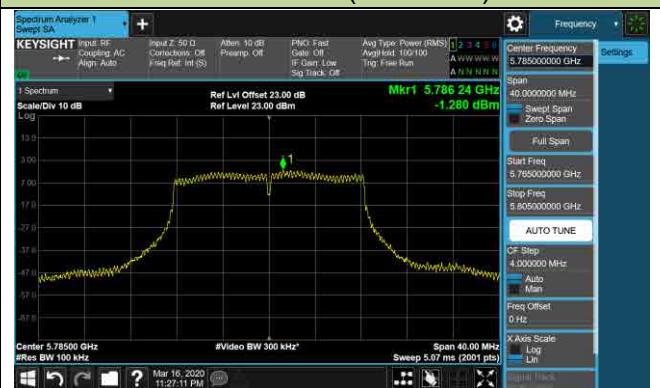
Channel 144 (5720MHz)



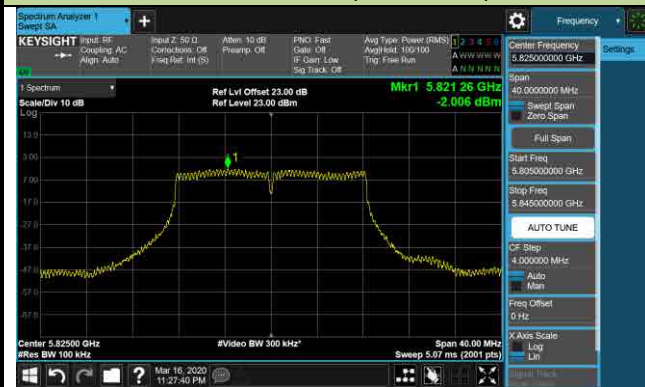
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11n-HT20 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)



Channel 100 (5500MHz)



Channel 120 (5600MHz)



802.11n-HT20 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

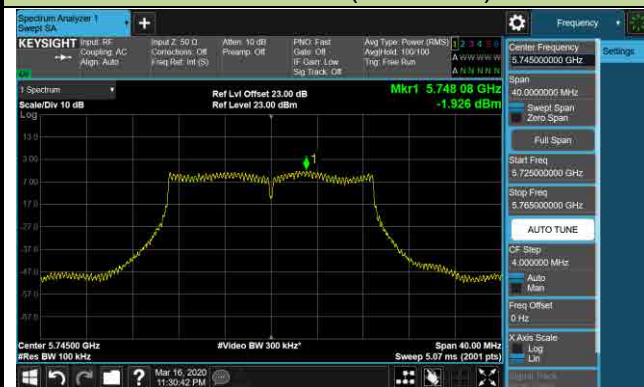
Channel 140 (5700MHz)



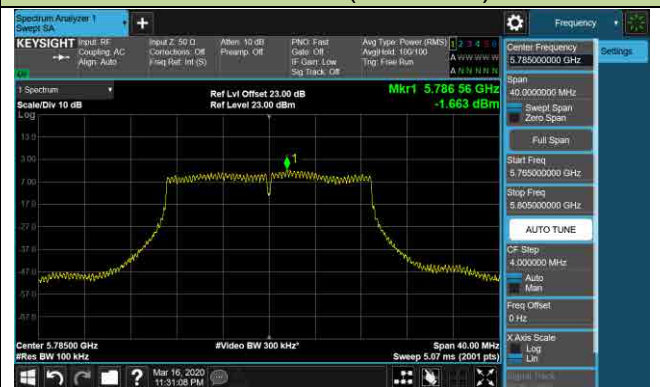
Channel 144 (5720MHz)



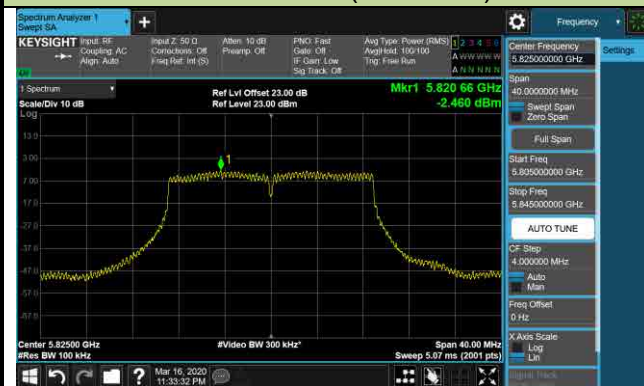
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11n-HT40 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

Channel 38 (5190MHz)



Channel 46 (5230MHz)



Channel 54 (5270MHz)



Channel 62 (5310MHz)



Channel 102 (5510MHz)



Channel 118 (5590MHz)



802.11n-HT40 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

Channel 134 (5670MHz)



Channel 142 (5710MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ax-HE20 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 52 (5260MHz)



Channel 60 (5300MHz)



Channel 64 (5320MHz)



Channel 100 (5500MHz)



Channel 120 (5600MHz)



802.11ax-HE20 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

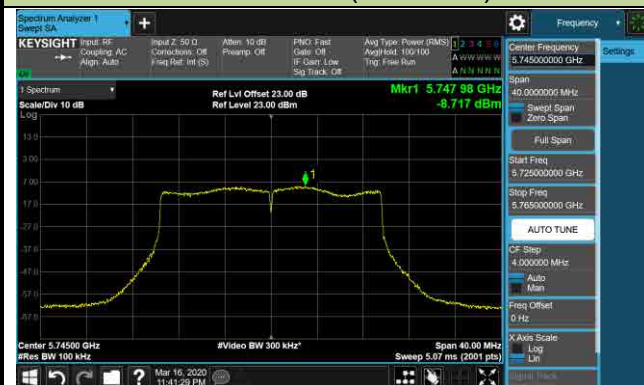
Channel 140 (5700MHz)



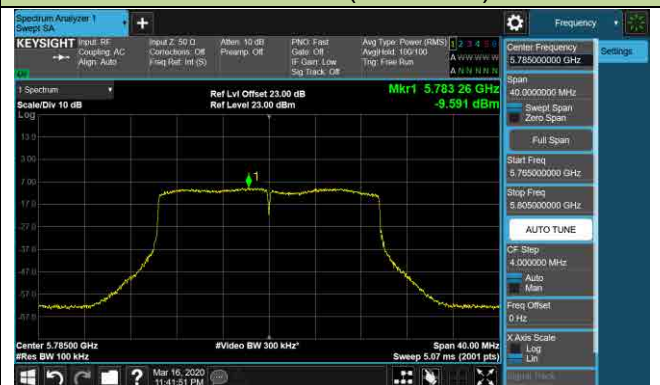
Channel 144 (5720MHz)



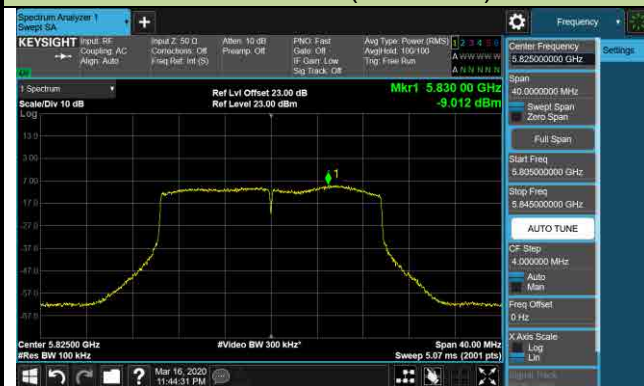
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11ax-HE40 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

Channel 38 (5190MHz)



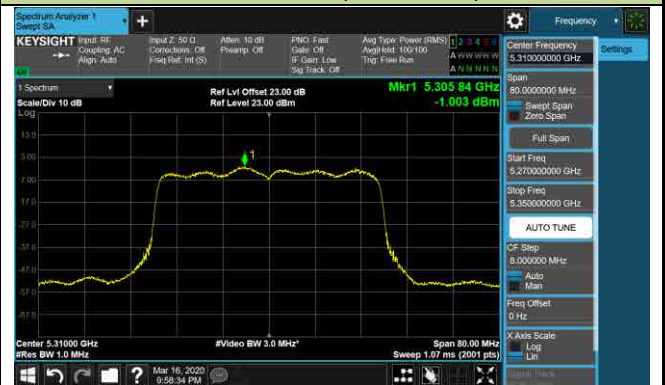
Channel 46 (5230MHz)



Channel 54 (5270MHz)



Channel 62 (5310MHz)



Channel 102 (5510MHz)



Channel 118 (5590MHz)



802.11ax-HE40 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 3

Channel 134 (5670MHz)



Channel 142 (5710MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ax-HE80 Power Spectral Density - Ant 3 / Ant 0 + 1 + 2 + 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 - Ant 3 / Ant 0 + 1 + 2 + 3

Channel 58 (5290MHz)



Channel 122 (5610MHz)



Scan Antenna 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)



Channel 100 (5500MHz)



Channel 120 (5600MHz)



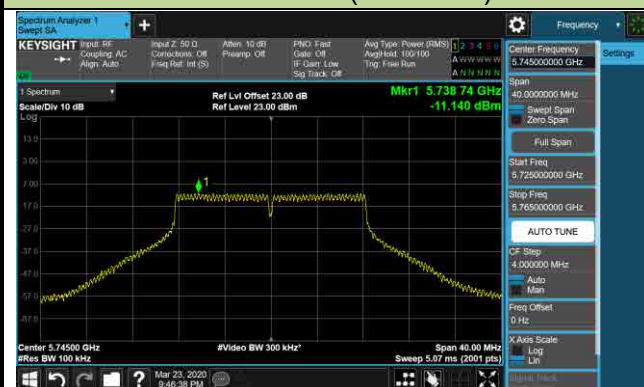
Channel 140 (5700MHz)



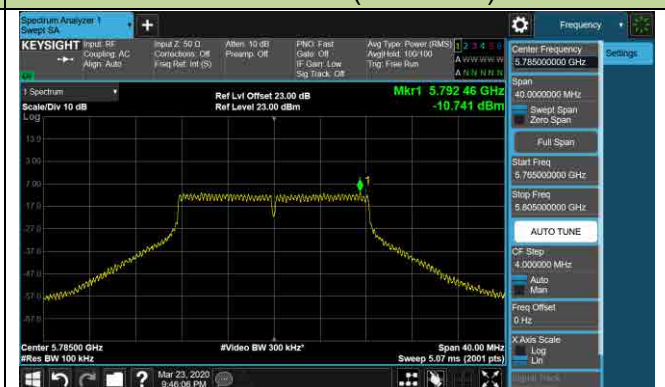
Channel 144 (5720MHz)



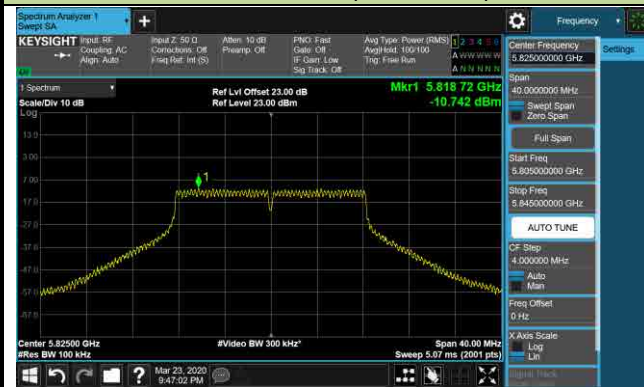
Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



待測物名稱	無線基地台	溫度	24°C
測試工程師	Peter Syu	濕度	56%
測試場地	SR1	測試日期	2020/03/18 ~2020/03/20
Model No.	OAW-AP1322	Test Item	Power Spectral Density

Test Mode	Data Rate/ MCS	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/MHz)	Ant 1 PSD (dBm/MHz)	Ant 2 PSD (dBm/MHz)	Ant 3 PSD (dBm/MHz)	Duty Cycle (%)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	Result
Ant 0 + 1 + 2 + 3											
11a	6Mbps	36	5180	3.46	4.35	3.50	3.67	91.70	10.16	≤ 10.98	Pass
11a	6Mbps	44	5220	4.03	4.90	4.02	4.75	91.70	10.84	≤ 10.98	Pass
11a	6Mbps	48	5240	4.65	3.29	4.35	4.48	91.70	10.62	≤ 10.98	Pass
11a	6Mbps	52	5260	-2.16	-1.83	-2.51	-2.40	91.70	4.18	≤ 4.98	Pass
11a	6Mbps	60	5300	-1.90	-2.17	-2.06	-1.12	91.70	4.60	≤ 4.98	Pass
11a	6Mbps	64	5320	-1.75	-1.56	-1.83	-1.07	91.70	4.86	≤ 4.98	Pass
11a	6Mbps	100	5500	-2.89	-0.52	-2.70	-1.75	91.70	4.54	≤ 4.98	Pass
11a	6Mbps	120	5600	-3.76	-2.39	-4.90	-4.15	91.70	2.69	≤ 4.98	Pass
11a	6Mbps	140	5700	-3.91	-1.00	-2.33	-4.13	91.70	3.75	≤ 4.98	Pass
11a	6Mbps	144	5720	-3.84	-2.50	-2.32	-4.55	91.70	3.19	≤ 4.98	Pass
11n-HT20	MCS0	36	5180	4.30	5.70	3.90	2.60	95.09	10.30	≤ 10.98	Pass
11n-HT20	MCS0	44	5220	3.40	5.04	4.51	4.53	95.09	10.43	≤ 10.98	Pass
11n-HT20	MCS0	48	5240	3.90	5.01	3.47	4.23	95.09	10.20	≤ 10.98	Pass
11n-HT20	MCS0	52	5260	-1.42	-0.80	-1.02	-1.04	95.09	4.96	≤ 4.98	Pass
11n-HT20	MCS0	60	5300	-1.44	-1.22	-2.19	-1.15	95.09	4.54	≤ 4.98	Pass
11n-HT20	MCS0	64	5320	-0.95	-0.63	-1.31	-2.99	95.09	4.64	≤ 4.98	Pass
11n-HT20	MCS0	100	5500	-2.45	-0.49	-2.11	-0.98	95.09	4.59	≤ 4.98	Pass
11n-HT20	MCS0	120	5600	-1.85	-1.76	-1.58	-0.87	95.09	4.52	≤ 4.98	Pass
11n-HT20	MCS0	140	5700	-0.82	-0.14	-0.56	-7.60	95.09	4.55	≤ 4.98	Pass
11n-HT20	MCS0	144	5720	-1.20	0.87	-2.28	-6.06	95.09	4.50	≤ 4.98	Pass
11n-HT40	MCS0	38	5190	-4.40	-3.32	-4.20	-4.00	87.10	2.66	≤ 10.98	Pass
11n-HT40	MCS0	46	5230	3.20	4.21	3.79	4.31	87.10	10.51	≤ 10.98	Pass
11n-HT40	MCS0	54	5270	-2.44	-1.65	-2.20	-1.59	87.10	4.67	≤ 4.98	Pass
11n-HT40	MCS0	62	5310	-2.12	-1.87	-2.89	-1.66	87.10	4.51	≤ 4.98	Pass
11n-HT40	MCS0	102	5510	-2.67	-1.93	-3.18	-0.96	87.10	4.52	≤ 4.98	Pass
11n-HT40	MCS0	118	5590	-2.83	-2.17	-3.30	-1.68	87.10	4.17	≤ 4.98	Pass
11n-HT40	MCS0	134	5670	-2.56	-2.03	-4.03	-1.83	87.10	4.09	≤ 4.98	Pass

11n-HT40	MCS0	142	5710	-2.74	-1.19	-3.62	-2.24	87.10	4.26	≤ 4.98	Pass
11ax-HE20	MCS0	36	5180	2.31	3.53	3.12	3.13	94.76	9.30	≤ 10.98	Pass
11ax-HE20	MCS0	44	5220	3.06	3.33	3.50	4.24	94.76	9.81	≤ 10.98	Pass
11ax-HE20	MCS0	48	5240	4.10	5.06	3.82	4.61	94.76	10.68	≤ 10.98	Pass
11ax-HE20	MCS0	52	5260	-1.77	-1.20	-1.88	-1.56	94.76	4.66	≤ 4.98	Pass
11ax-HE20	MCS0	60	5300	-1.28	-1.02	-2.51	-1.22	94.76	4.78	≤ 4.98	Pass
11ax-HE20	MCS0	64	5320	-1.83	-1.00	-2.96	-0.96	94.76	4.64	≤ 4.98	Pass
11ax-HE20	MCS0	100	5500	-1.95	-1.00	-3.23	-1.82	94.76	4.33	≤ 4.98	Pass
11ax-HE20	MCS0	120	5600	-1.87	-0.89	-3.09	-1.86	94.76	4.40	≤ 4.98	Pass
11ax-HE20	MCS0	140	5700	-2.40	-0.65	-3.16	-10.32	94.76	3.27	≤ 4.98	Pass
11ax-HE20	MCS0	144	5720	-1.65	0.71	-1.40	-9.89	94.76	4.53	≤ 4.98	Pass
11ax-HE40	MCS0	38	5190	-3.98	-3.17	-4.06	-3.22	94.25	2.69	≤ 10.98	Pass
11ax-HE40	MCS0	46	5230	3.56	4.87	4.14	4.27	94.25	10.51	≤ 10.98	Pass
11ax-HE40	MCS0	54	5270	-1.40	-1.57	-2.28	-1.59	94.25	4.58	≤ 4.98	Pass
11ax-HE40	MCS0	62	5310	-2.31	-1.20	-2.35	-1.71	94.25	4.41	≤ 4.98	Pass
11ax-HE40	MCS0	102	5510	-2.13	-1.58	-1.96	-0.53	94.25	4.78	≤ 4.98	Pass
11ax-HE40	MCS0	118	5590	-2.59	-1.04	-2.88	-1.47	94.25	4.35	≤ 4.98	Pass
11ax-HE40	MCS0	134	5670	-2.24	-0.94	-3.28	-1.47	94.25	4.38	≤ 4.98	Pass
11ax-HE40	MCS0	142	5710	-1.94	-0.77	-3.27	-5.15	94.25	3.79	≤ 4.98	Pass
11ax-HE80	MCS0	42	5210	-8.76	-7.85	-8.04	-8.01	93.92	-1.86	≤ 10.98	Pass
11ax-HE80	MCS0	58	5290	-1.80	-1.30	-2.34	-0.82	93.92	4.76	≤ 4.98	Pass
11ax-HE80	MCS0	106	5530	-1.76	-1.43	-2.56	-0.35	93.92	4.84	≤ 4.98	Pass
11ax-HE80	MCS0	122	5610	-2.37	-1.59	-3.03	-1.29	93.92	4.28	≤ 4.98	Pass
11ax-HE80	MCS0	138	5690	-1.05	-2.05	-3.53	-2.37	93.92	4.13	≤ 4.98	Pass
11ax-HE80 + 80	MCS0	42	5210	-5.79	-4.71			93.72	-1.92	≤ 4.98	Pass
		58	5290			-6.14	-2.78	93.72	-0.85	≤ 4.98	Pass
11ax-HE80 + 80	MCS0	106+122	5530+5610	-2.23	-2.93	-5.59	-3.71	93.47	2.87	≤ 4.98	Pass

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).

Note 2: 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 3: PSD Limit (dBm/MHz) = 17dBm/MHz - (12.02dBi - 6dBi) = 10.98dBm/MHz.

PSD Limit (dBm/MHz) = 11dBm/MHz - (12.02dBi - 6dBi) = 4.98dBm/MHz.

Product	無線基地台	Temperature	22°C
Test Engineer	Peter Syu	Relative Humidity	56%
Test Site	SR1	Test Date	2020/03/18 ~2020/03/20
Model No.	OAW-AP1322	Test Item	Power Spectral Density (UNII-Band 4)

Test Mode	Data Rate/MCS	Channel No.	Freq. (MHz)	Ant 0 PSD (dBm/100kHz)	Ant 1 PSD (dBm/100kHz)	Ant 2 PSD (dBm/100kHz)	Ant 3 PSD (dBm/100kHz)	Duty Cycle (%)	Constant Factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Result
Ant 0 + 1 + 2 + 3												
11a	6Mbps	149	5745	6.43	5.49	4.09	2.27	91.70	6.99	18.23	≤23.98	Pass
11a	6Mbps	157	5785	6.05	6.28	4.43	5.88	91.70	6.99	19.10	≤23.98	Pass
11a	6Mbps	165	5825	4.79	7.83	4.53	6.43	91.70	6.99	19.49	≤23.98	Pass
11n-HT20	MCS0	149	5745	6.9	7.60	5.66	3.10	95.09	6.99	19.12	≤23.98	Pass
11n-HT20	MCS0	157	5785	4.7	4.08	2.86	5.21	95.09	6.99	17.32	≤23.98	Pass
11n-HT20	MCS0	165	5825	4.8	5.13	4.00	6.25	95.09	6.99	18.13	≤23.98	Pass
11n-HT40	MCS0	151	5755	3.8	7.68	2.67	2.30	87.10	6.99	18.31	≤23.98	Pass
11n-HT40	MCS0	159	5795	5.6	5.01	1.74	2.36	87.10	6.99	17.60	≤23.98	Pass
11ax-HE20	MCS0	149	5745	5.38	8.79	5.99	1.92	94.76	6.99	19.41	≤23.98	Pass
11ax-HE20	MCS0	157	5785	6.61	4.38	4.31	5.56	94.76	6.99	18.56	≤23.98	Pass
11ax-HE20	MCS0	165	5825	5.77	4.51	4.27	5.54	94.76	6.99	18.31	≤23.98	Pass
11ax-HE40	MCS0	151	5755	4.11	4.44	1.72	2.72	94.25	6.99	16.65	≤23.98	Pass
11ax-HE40	MCS0	159	5795	6.29	6.03	2.25	2.25	94.25	6.99	17.90	≤23.98	Pass
11ax-HE80	MCS0	155	5775	2.63	2.70	-2.22	-1.88	93.92	6.99	14.20	≤23.98	Pass

Note 1: When EUT duty cycle ≥ 98%, 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/100kHz) + Constant Factor.

Note 2: When EUT duty cycle < 98%, 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/100kHz) + Constant Factor + $10 \cdot \log(1/\text{Duty Cycle})$.

Note 3: PSD Limit (dBm/500kHz) = 30dBm/500kHz - (12.02dBi - 6dBi) = 23.98dBm/500kHz.

802.11a Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 36 (5180MHz)



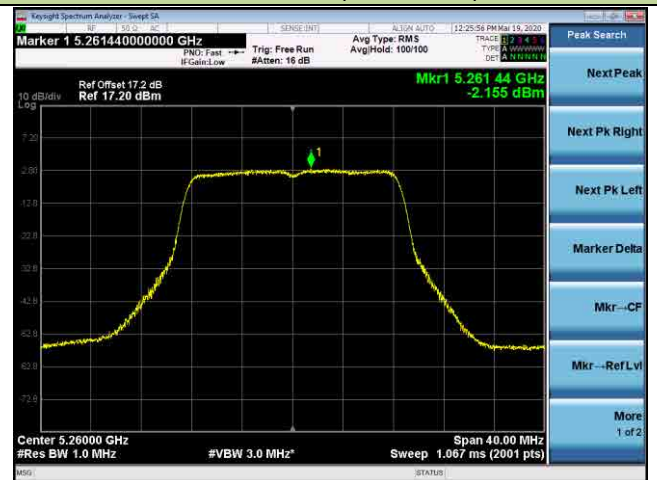
Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 52 (5260MHz)

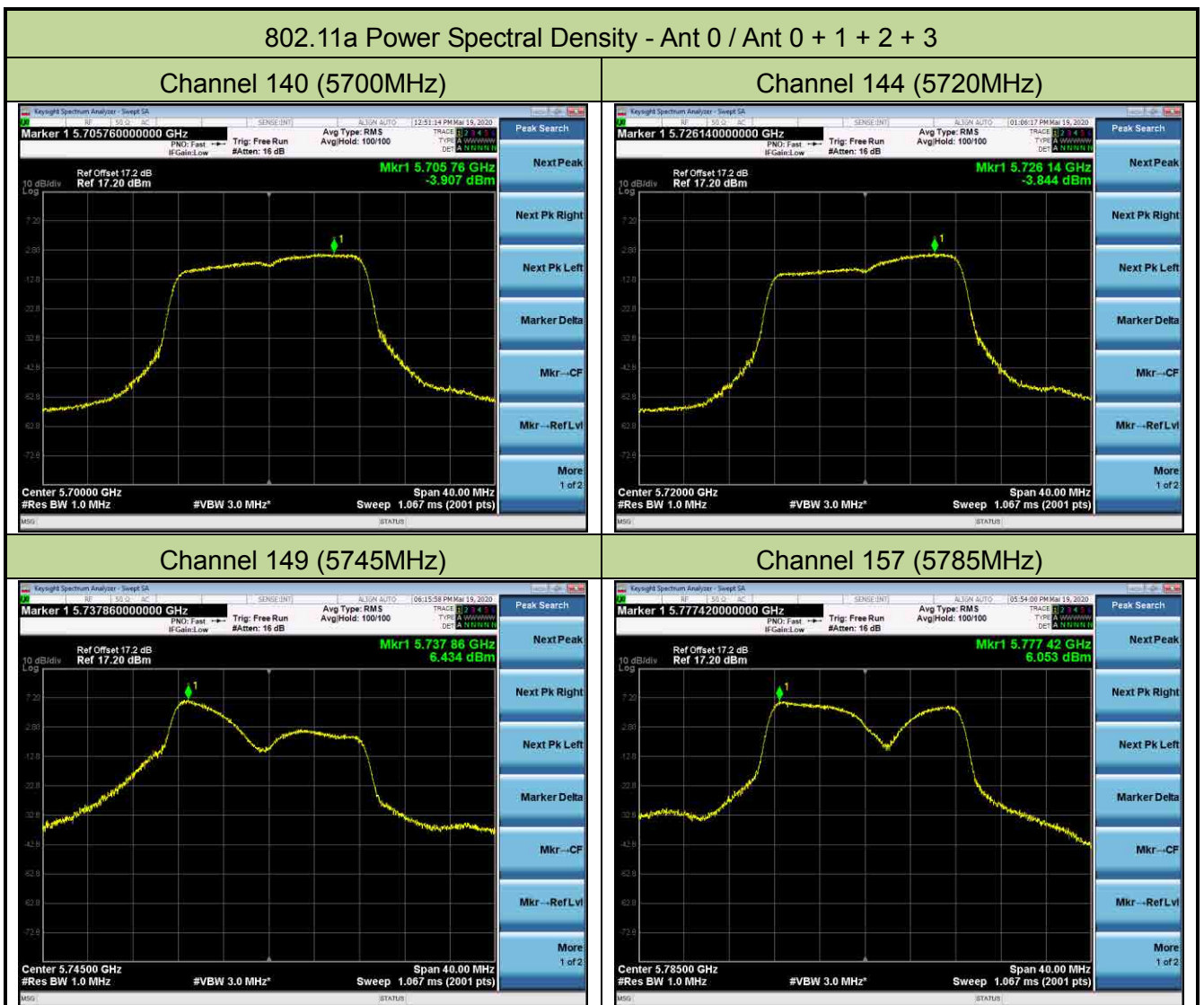
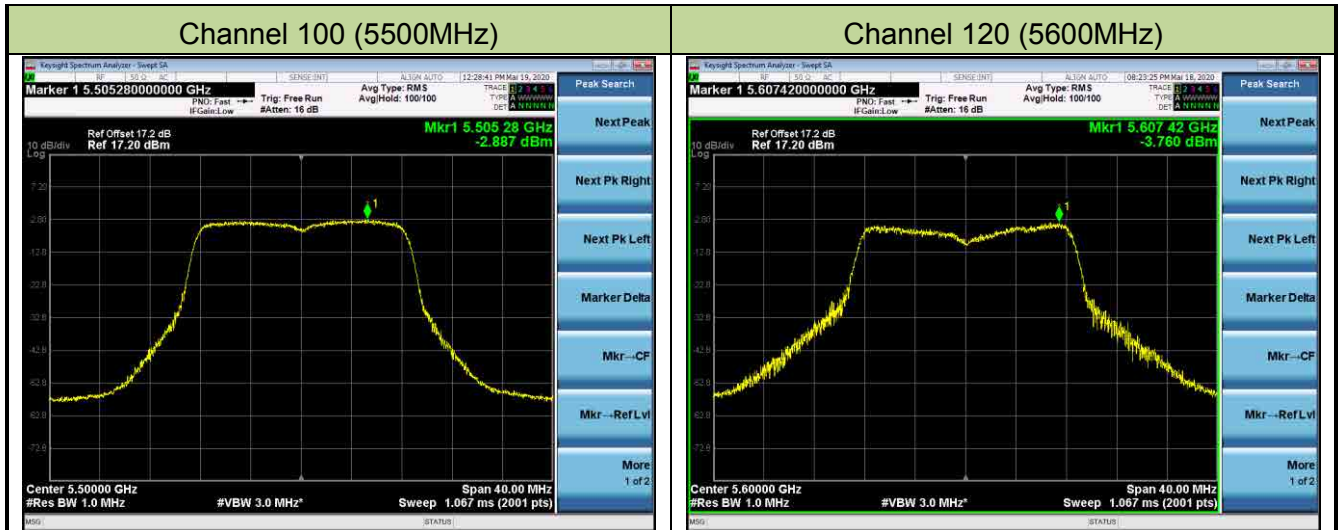


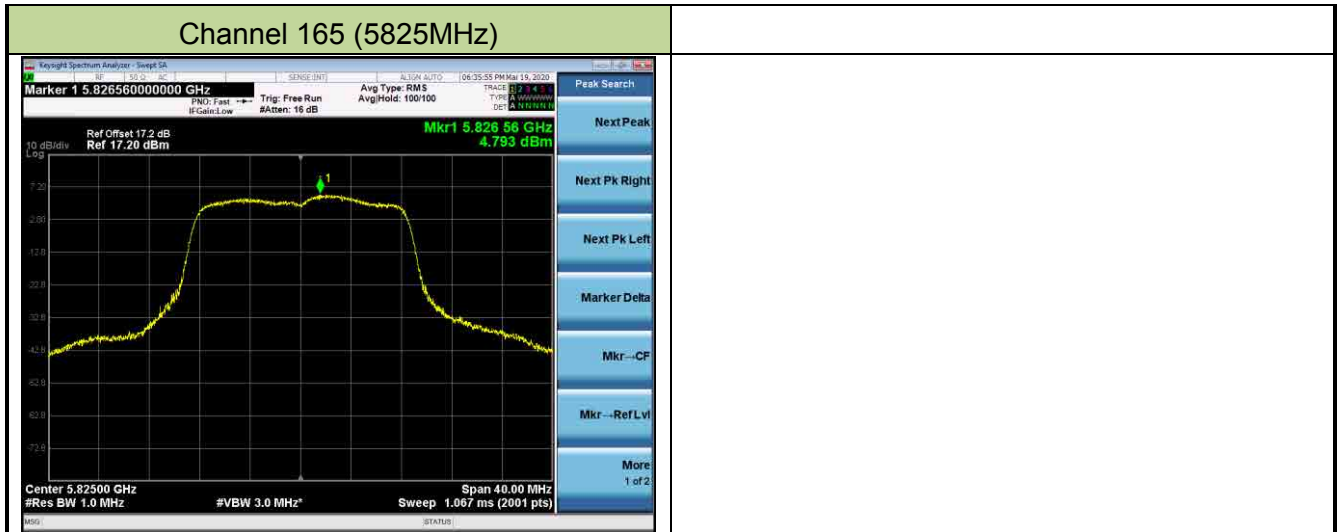
Channel 60 (5300MHz)



Channel 64 (5320MHz)







802.11n-HT20 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 36 (5180MHz)



Channel 44 (5220MHz)



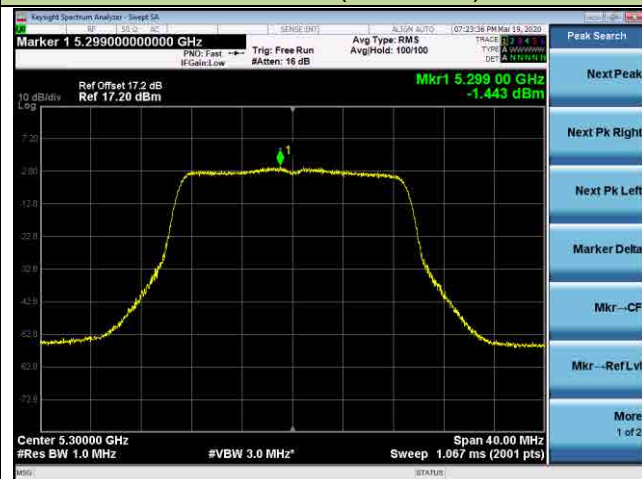
Channel 48 (5240MHz)



Channel 52 (5260MHz)

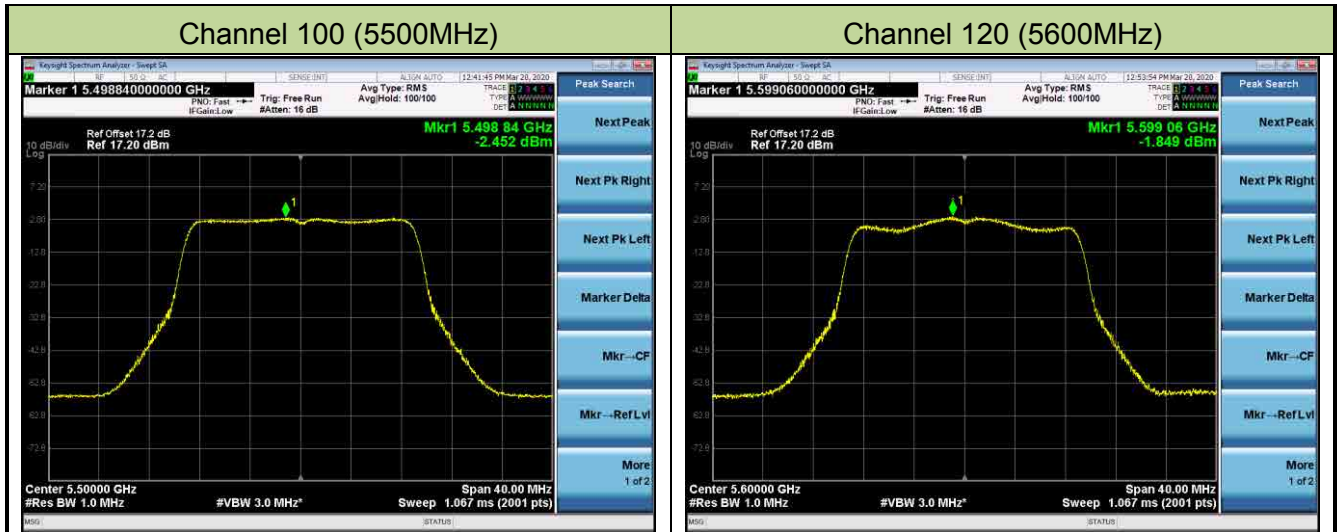


Channel 60 (5300MHz)



Channel 64 (5320MHz)





802.11n-HT20 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 140 (5700MHz)



Channel 144 (5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11n-HT40 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 38 (5190MHz)



Channel 46 (5230MHz)



Channel 54 (5270MHz)



Channel 62 (5310MHz)



Channel 102 (5510MHz)

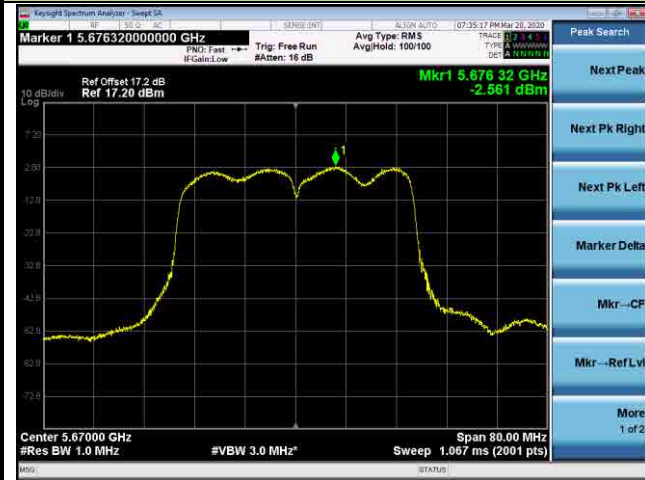


Channel 118 (5590MHz)



802.11n-HT40 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 134 (5670MHz)



Channel 142 (5710MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ax-HE20 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 36 (5180MHz)



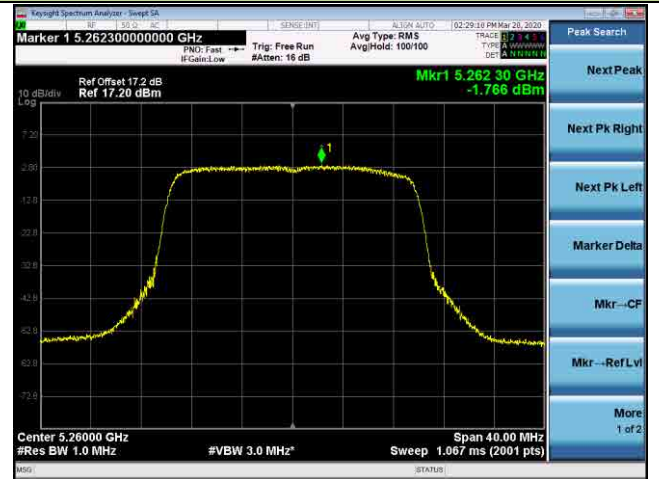
Channel 44 (5220MHz)



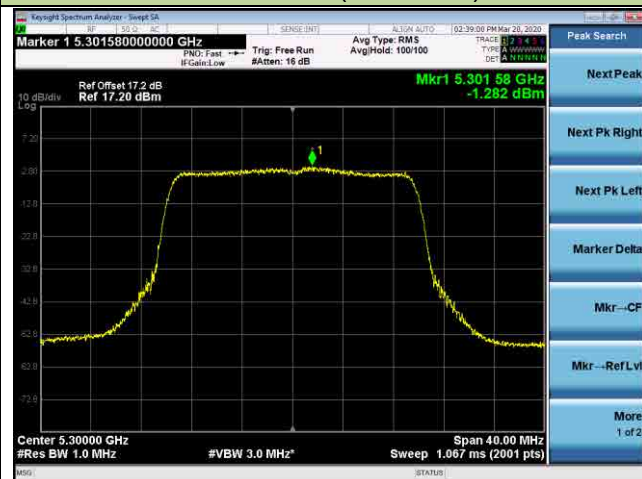
Channel 48 (5240MHz)



Channel 52 (5260MHz)

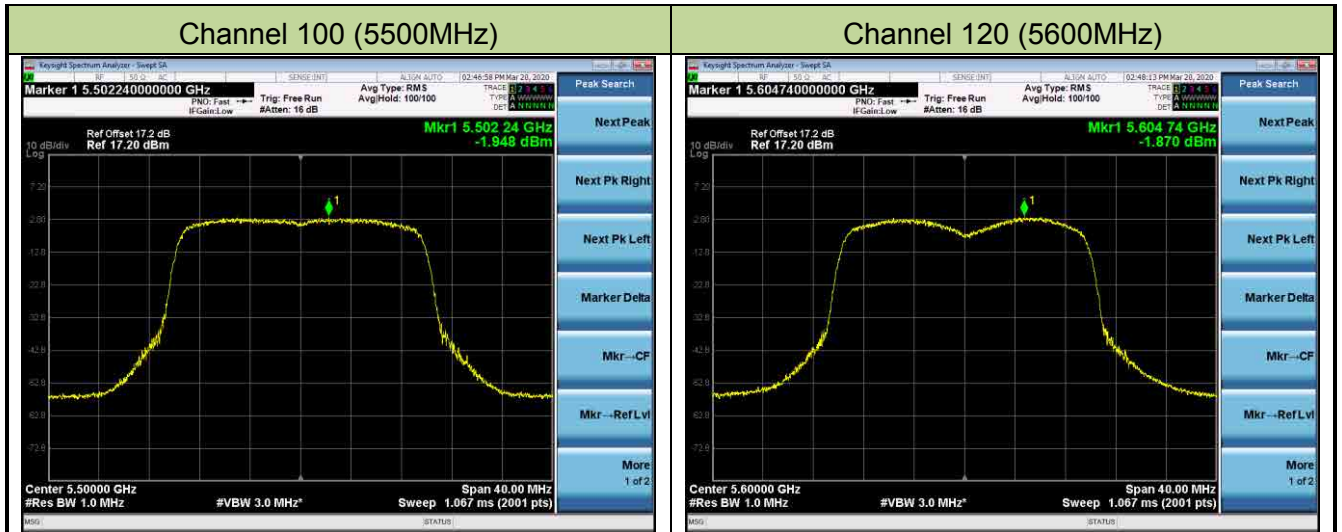


Channel 60 (5300MHz)



Channel 64 (5320MHz)





802.11ax-HE20 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 140 (5700MHz)



Channel 144 (5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11ax-HE40 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 38 (5190MHz)



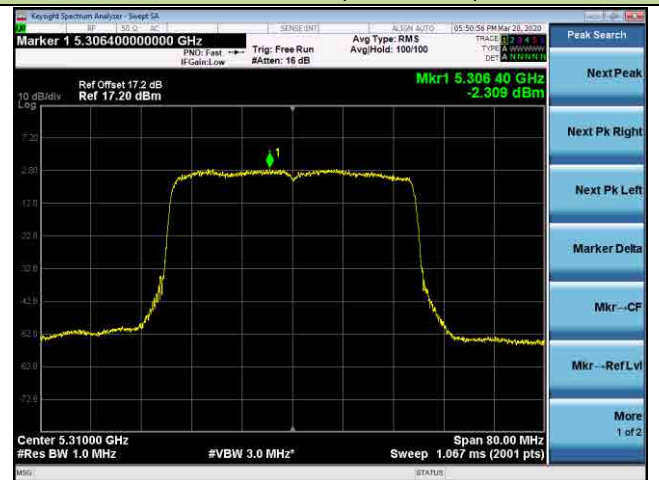
Channel 46 (5230MHz)



Channel 54 (5270MHz)



Channel 62 (5310MHz)



Channel 102 (5510MHz)



Channel 118 (5590MHz)



802.11ax-HE40 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 134 (5670MHz)



Channel 142 (5710MHz)



Channel 151 (5755MHz)



Channel 159 (5795MHz)



802.11ax-HE80 Power Spectral Density - Ant 0 / Ant 0 + 1 + 2 + 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 - Ant 0 / Ant 0 + 1 + 2 + 3

Channel 42 (5210MHz)



Channel 106 (5530MHz)



802.11a Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3

Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 52 (5260MHz)

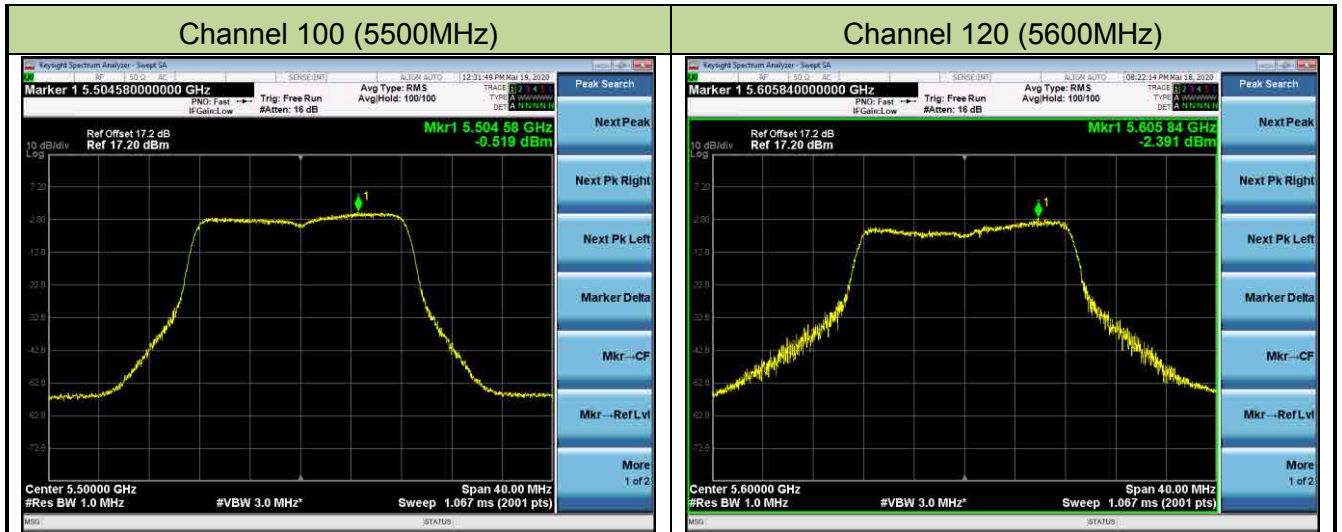


Channel 60 (5300MHz)



Channel 64 (5320MHz)





802.11a Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3

Channel 140 (5700MHz)



Channel 144 (5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11n-HT20 Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3

Channel 36 (5180MHz)



Channel 44 (5220MHz)



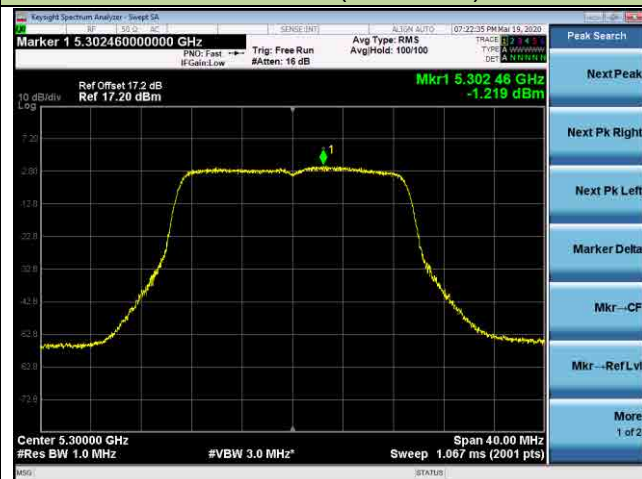
Channel 48 (5240MHz)



Channel 52 (5260MHz)

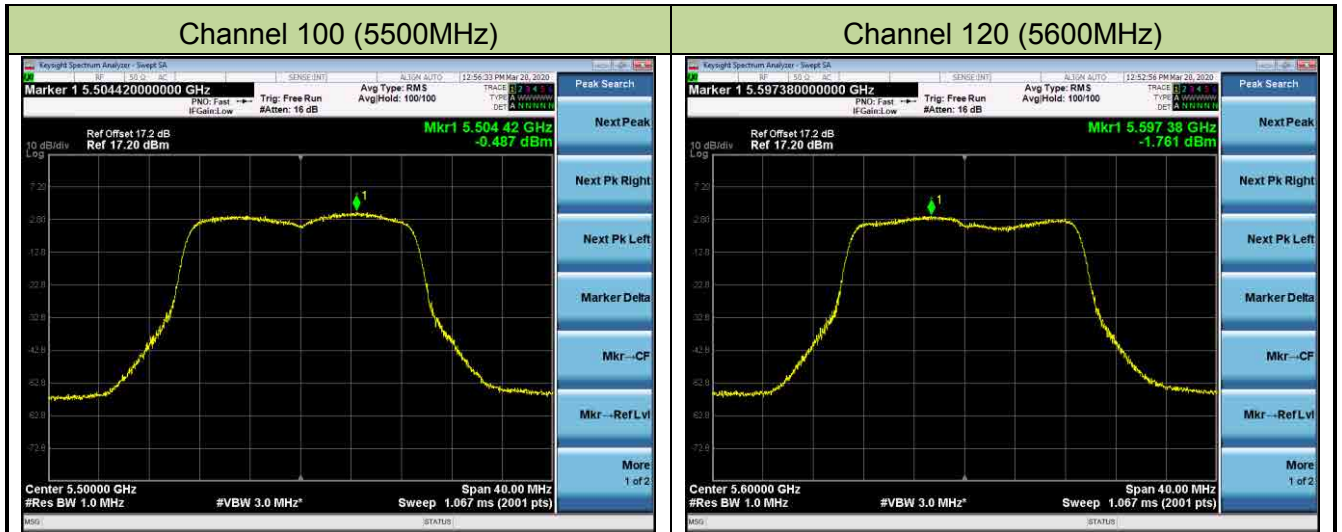


Channel 60 (5300MHz)



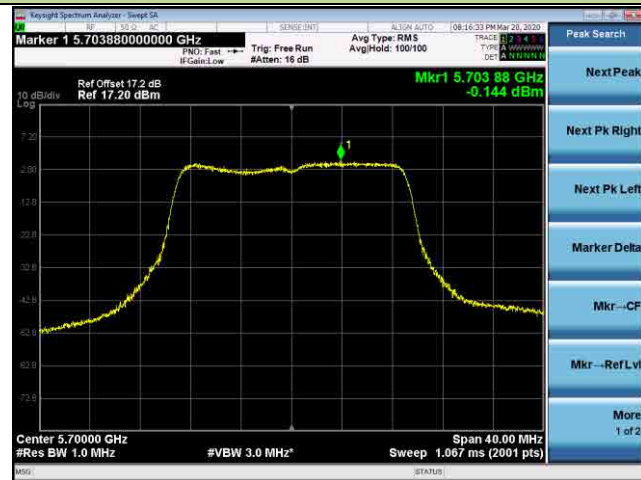
Channel 64 (5320MHz)





802.11n-HT20 Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3

Channel 140 (5700MHz)



Channel 144 (5720MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)



802.11n-HT40 Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3

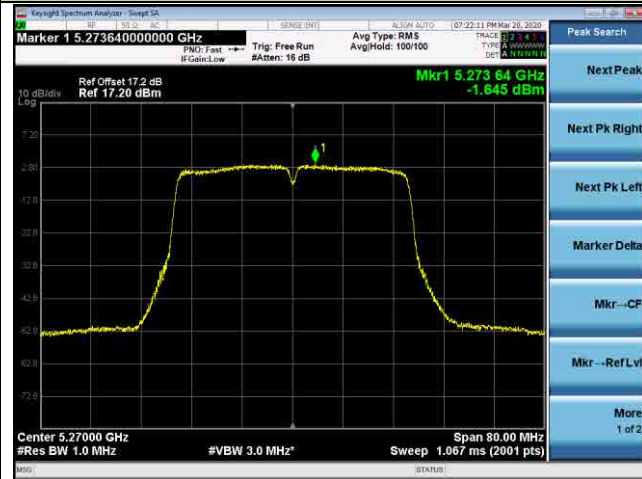
Channel 38 (5190MHz)



Channel 46 (5230MHz)



Channel 54 (5270MHz)



Channel 62 (5310MHz)



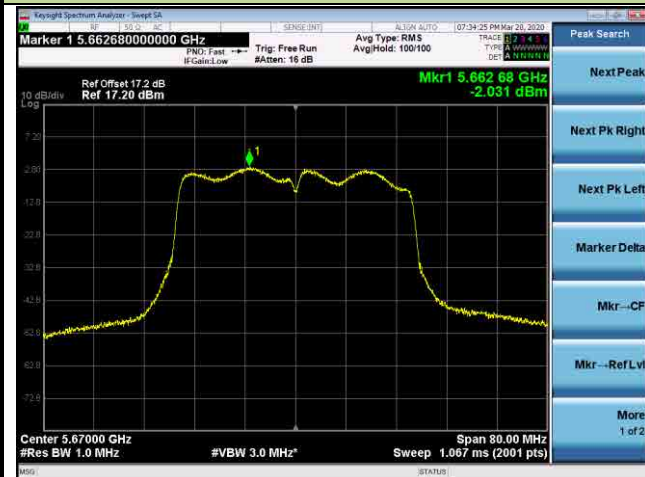
Channel 102 (5510MHz)



Channel 118 (5590MHz)



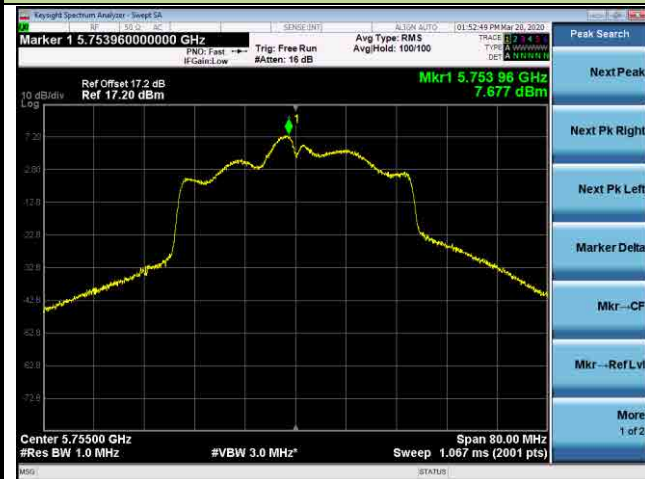
Channel 134 (5670MHz)



Channel 142 (5710MHz)



Channel 151 (5755MHz)

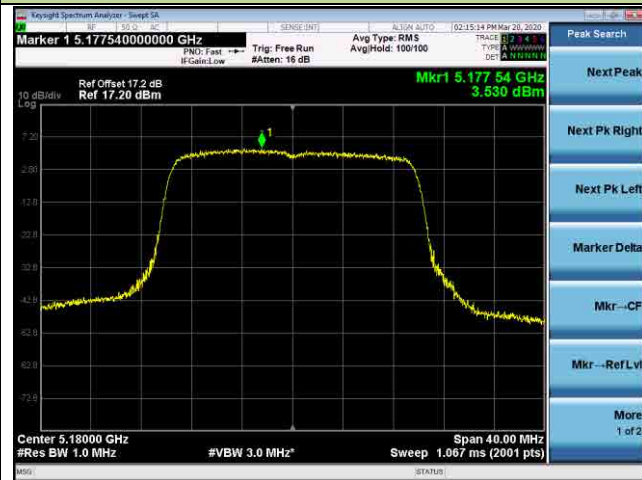


Channel 159 (5795MHz)



802.11ax-HE20 Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3

Channel 36 (5180MHz)



Channel 44 (5220MHz)



Channel 48 (5240MHz)



Channel 52 (5260MHz)

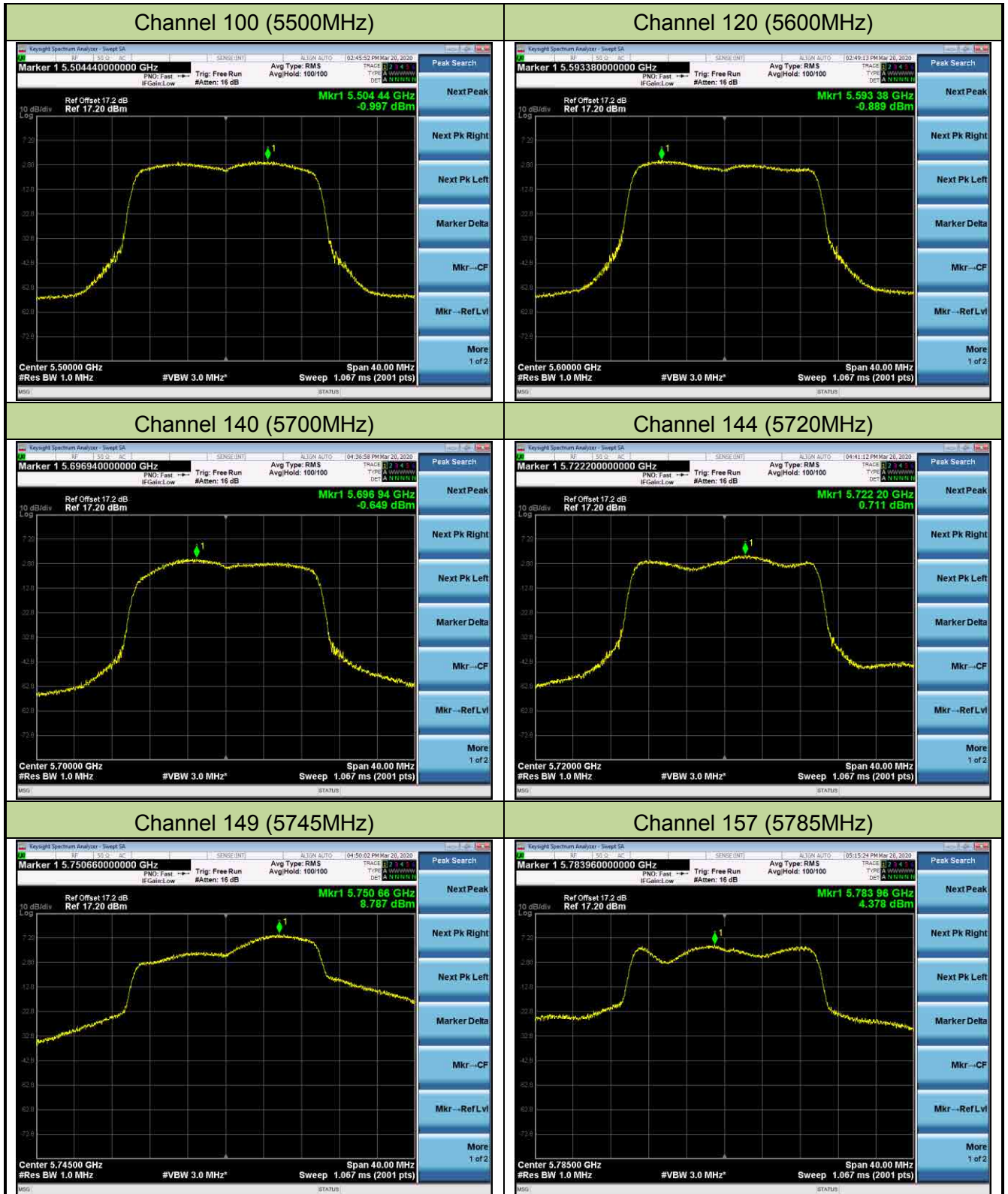


Channel 60 (5300MHz)



Channel 64 (5320MHz)

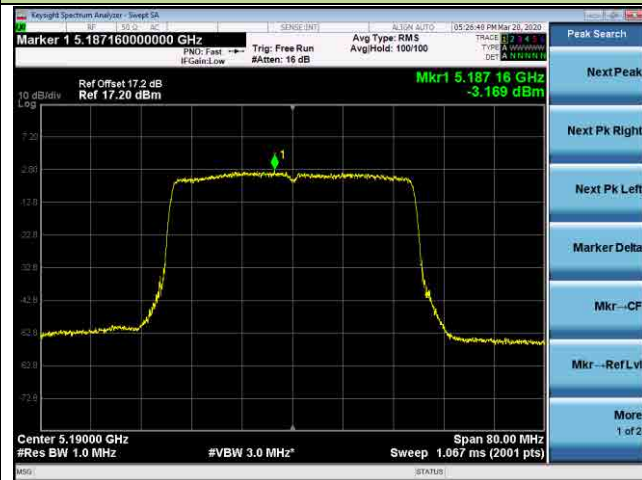






802.11ax-HE40 Power Spectral Density - Ant 1 / Ant 0 + 1 + 2 + 3

Channel 38 (5190MHz)



Channel 46 (5230MHz)



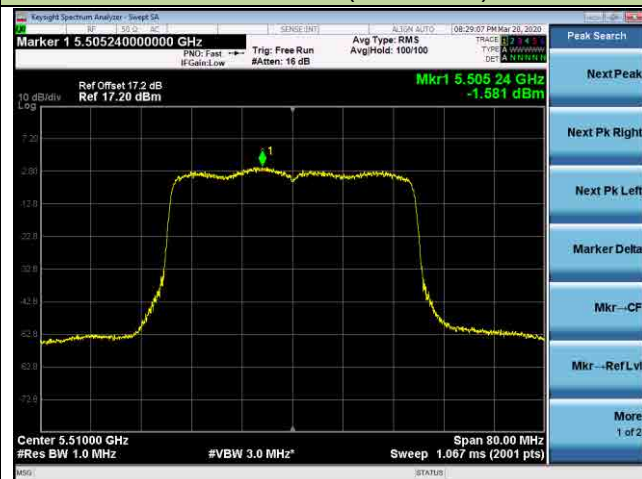
Channel 54 (5270MHz)



Channel 62 (5310MHz)



Channel 102 (5510MHz)



Channel 118 (5590MHz)

