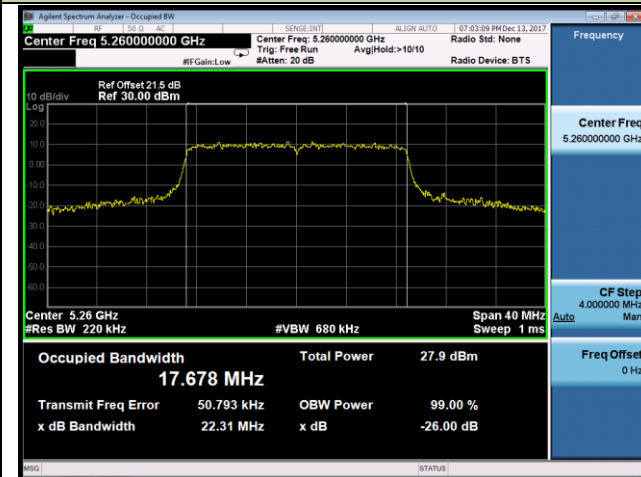
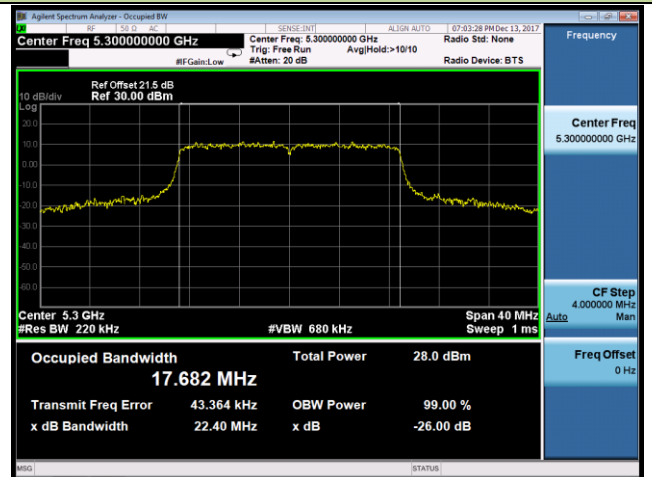


802.11n-HT20 26dB Bandwidth & 99% Bandwidth - Ant 1

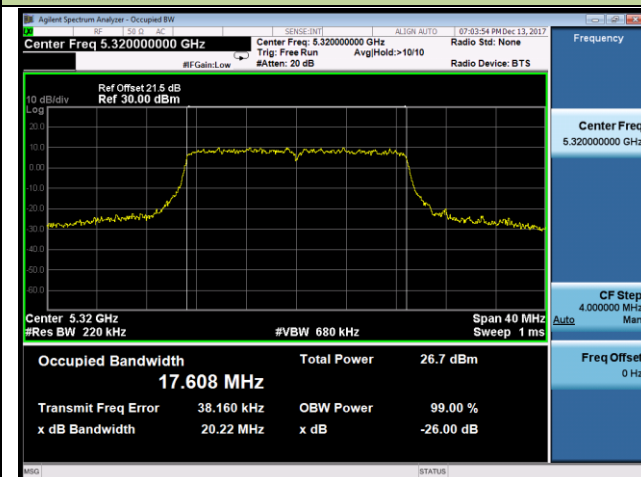
Channel 52 (5260MHz)



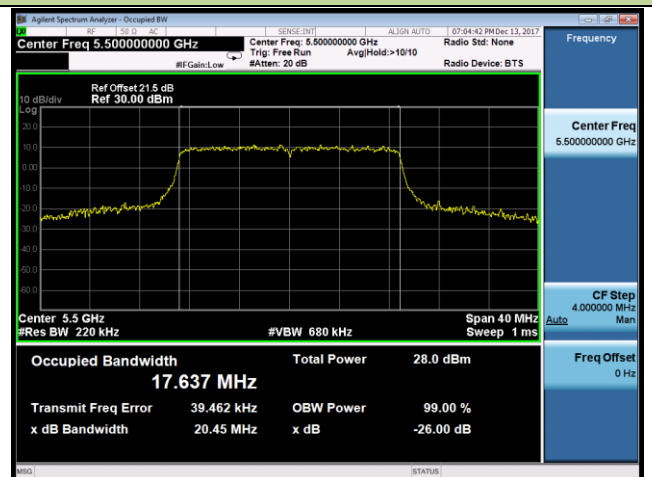
Channel 60 (5300MHz)



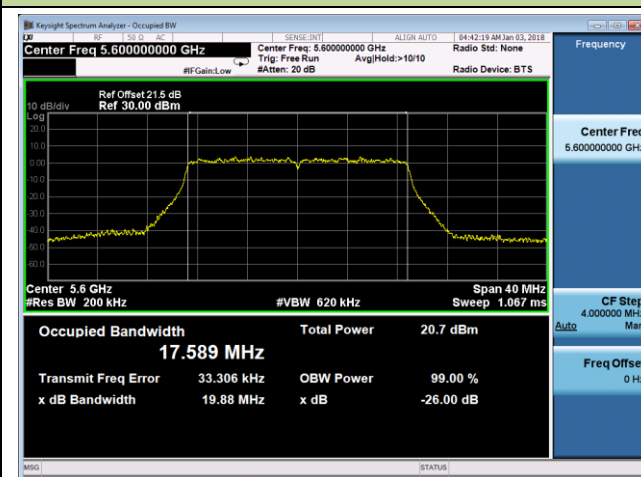
Channel 64 (5320MHz)



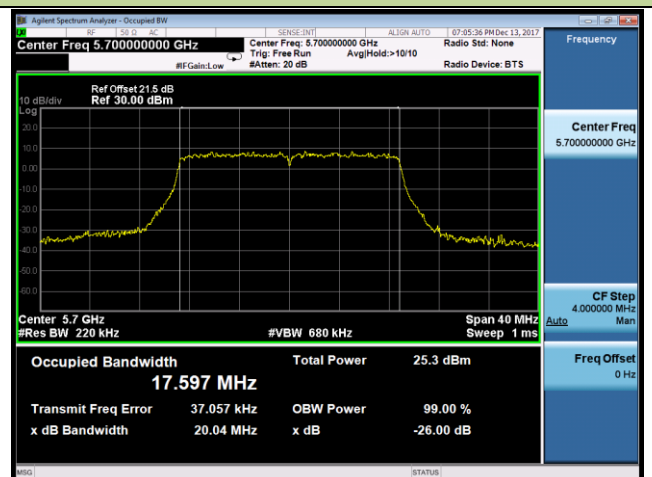
Channel 100 (5500MHz)

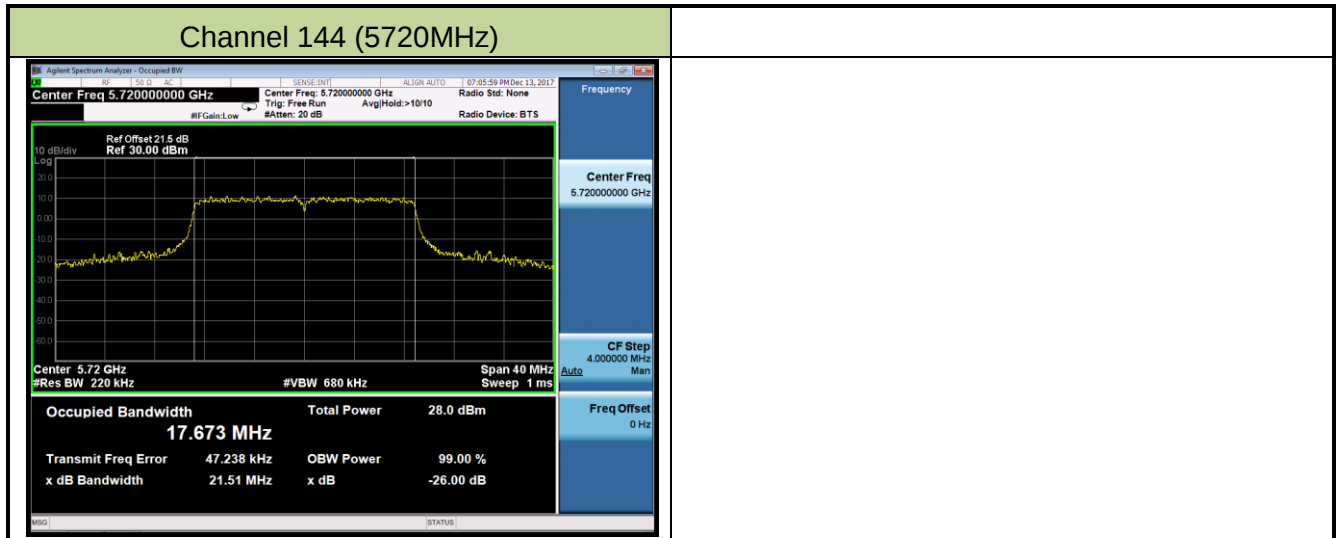


Channel 120 (5600MHz)



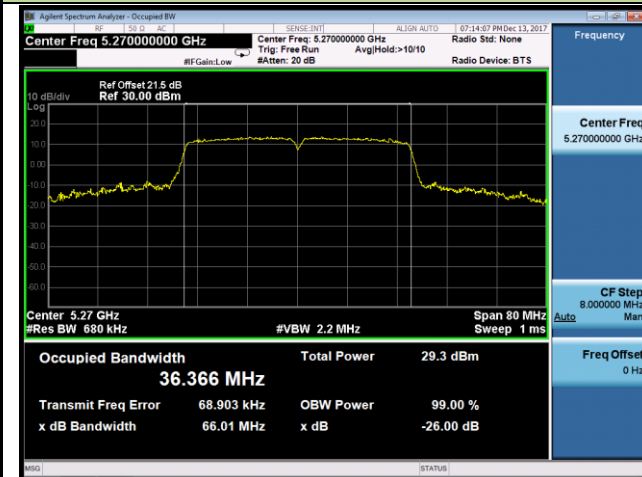
Channel 140 (5700MHz)



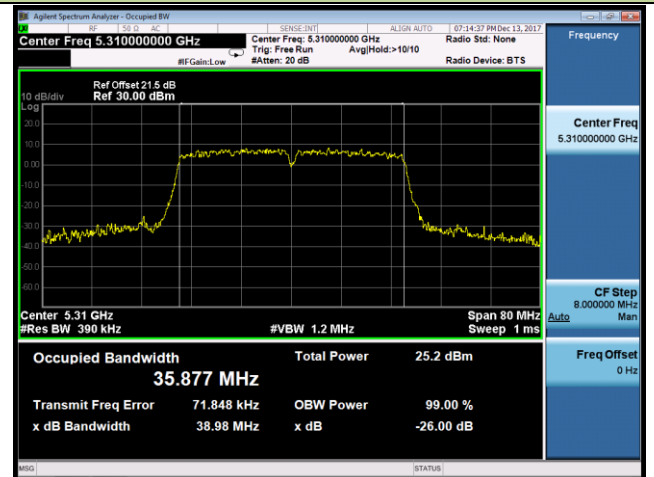


802.11n-HT40 26dB Bandwidth & 99% Bandwidth - Ant 1

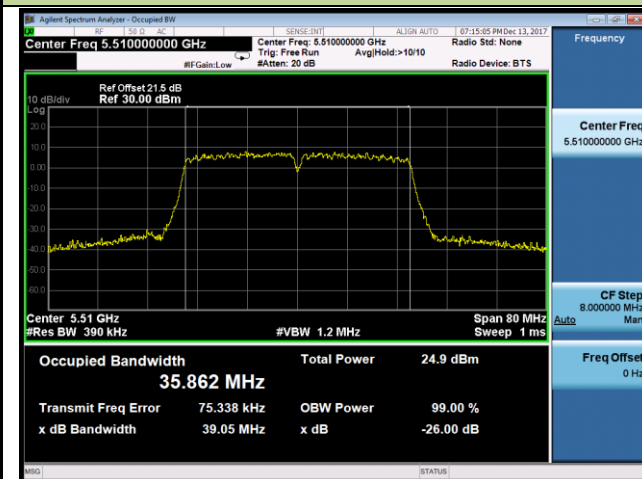
Channel 54 (5270MHz)



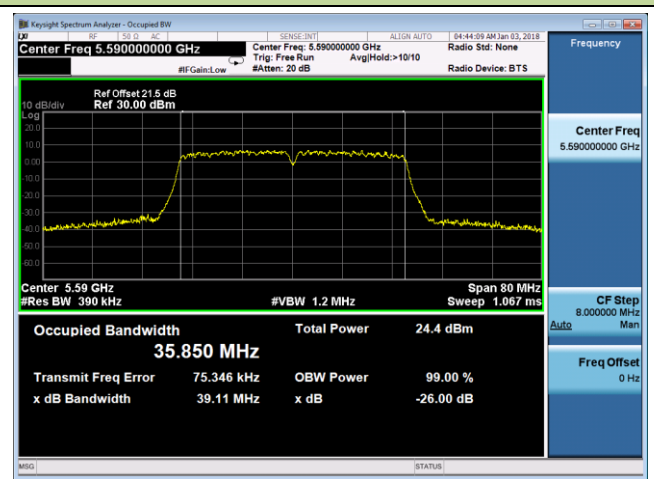
Channel 62 (5310MHz)



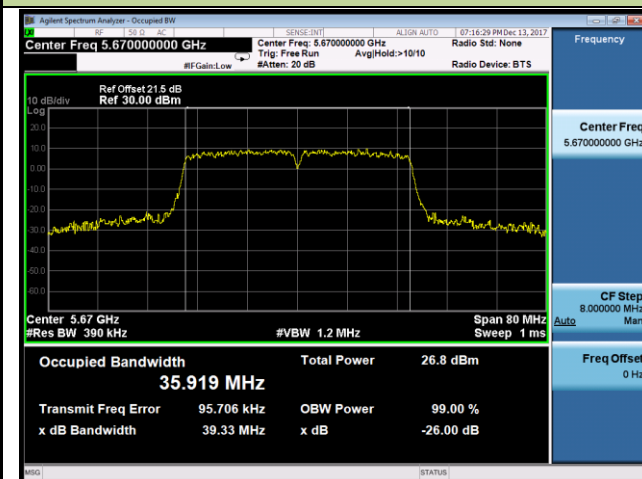
Channel 102 (5510MHz)



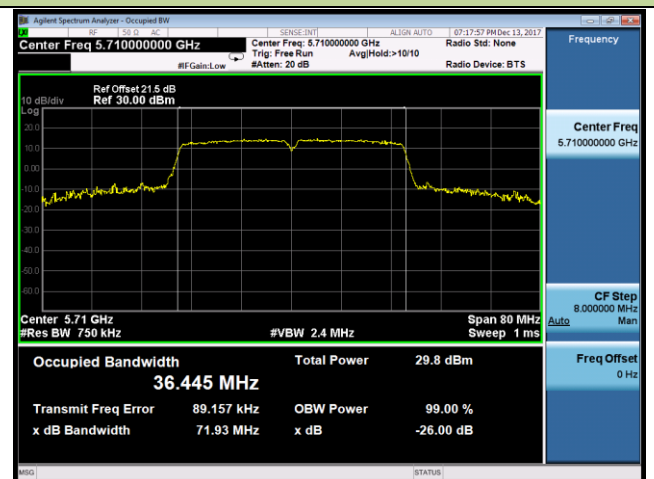
Channel 118 (5590MHz)



Channel 134 (5670MHz)

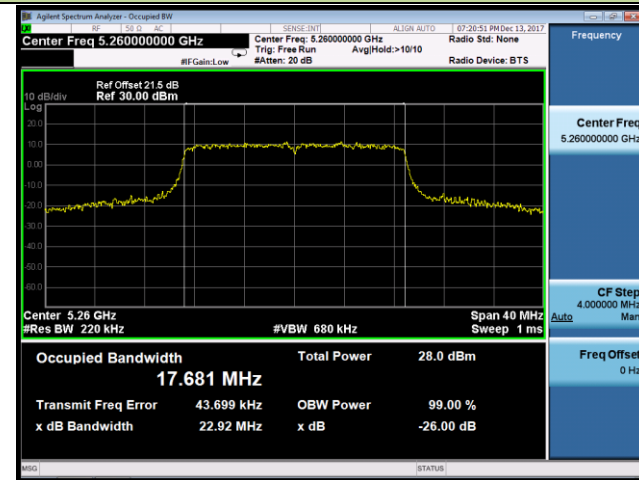


Channel 142 (5710MHz)

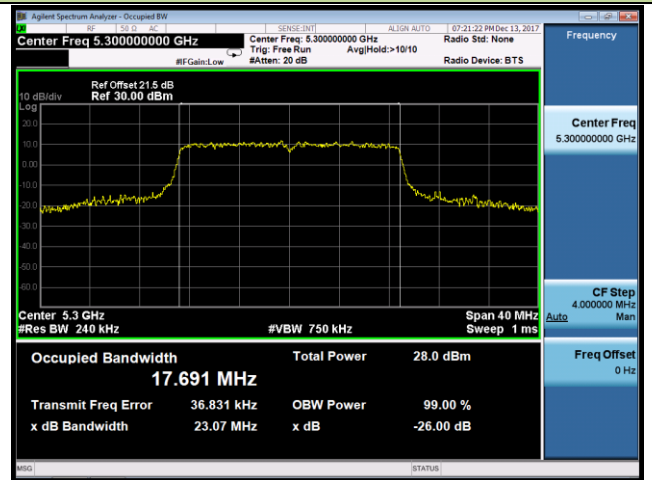


802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth - Ant 1

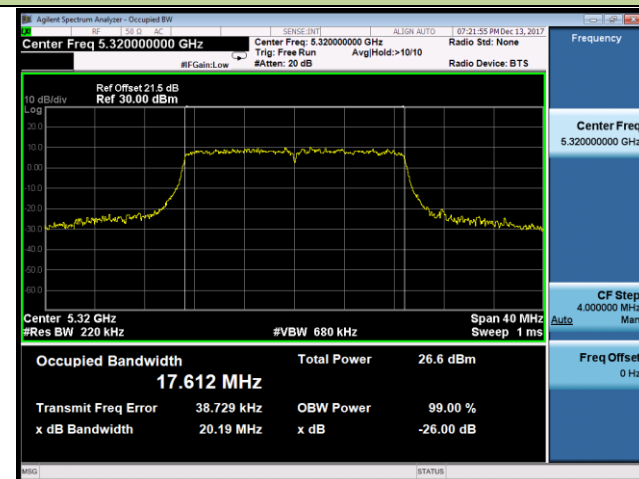
Channel 52 (5260MHz)



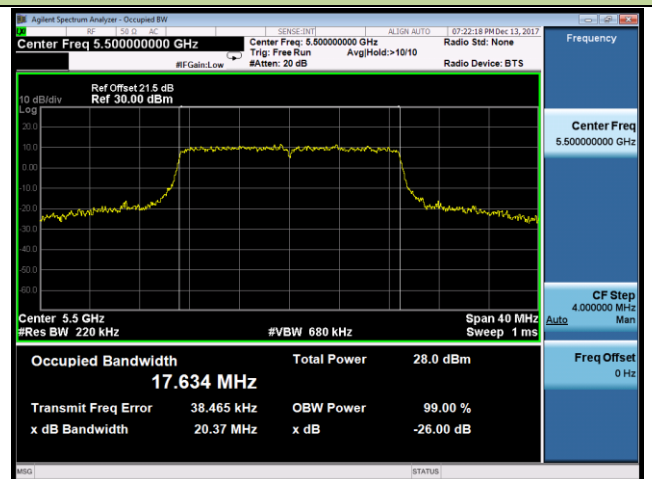
Channel 60 (5300MHz)



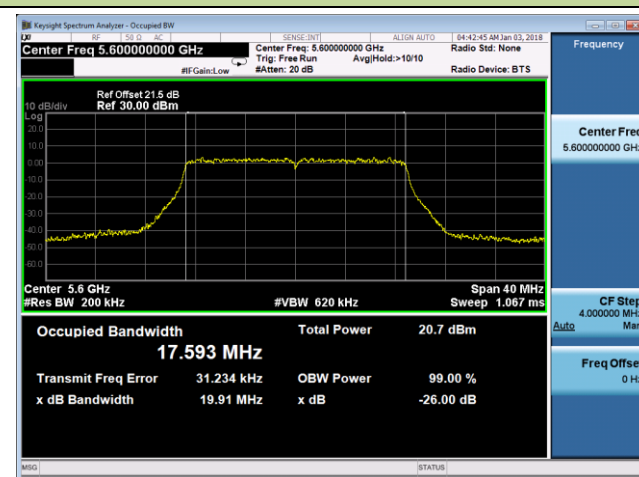
Channel 64 (5320MHz)



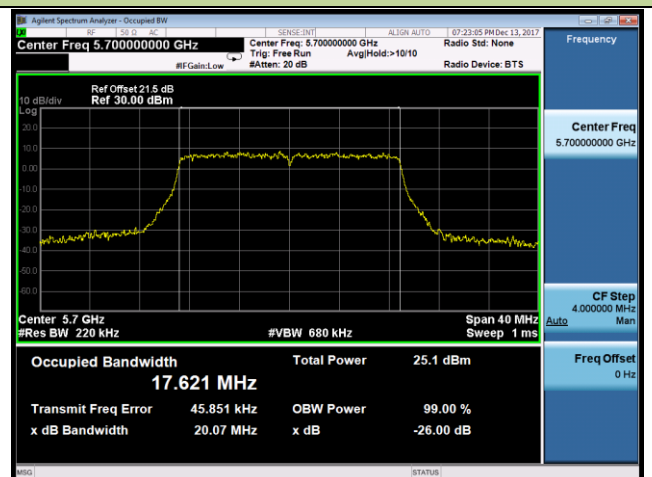
Channel 100 (5500MHz)

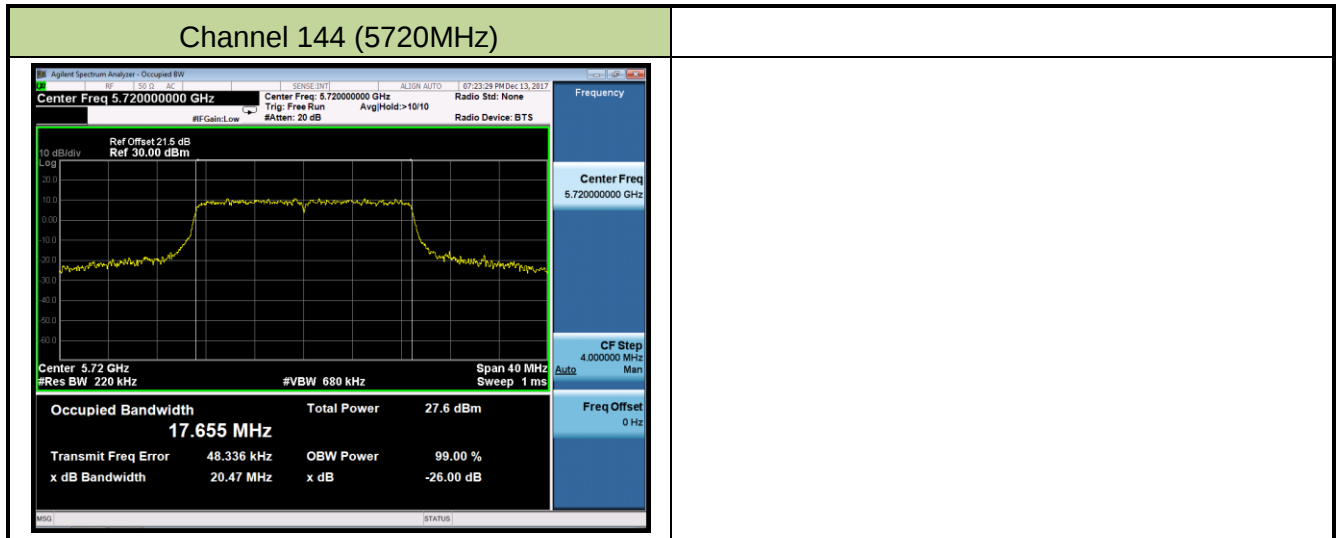


Channel 120 (5600MHz)



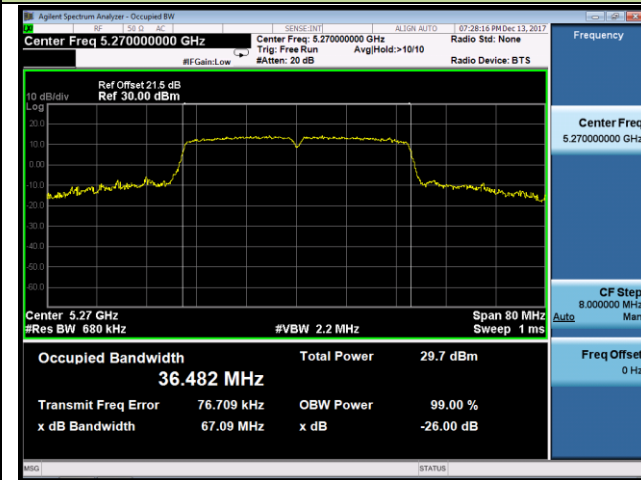
Channel 140 (5700MHz)



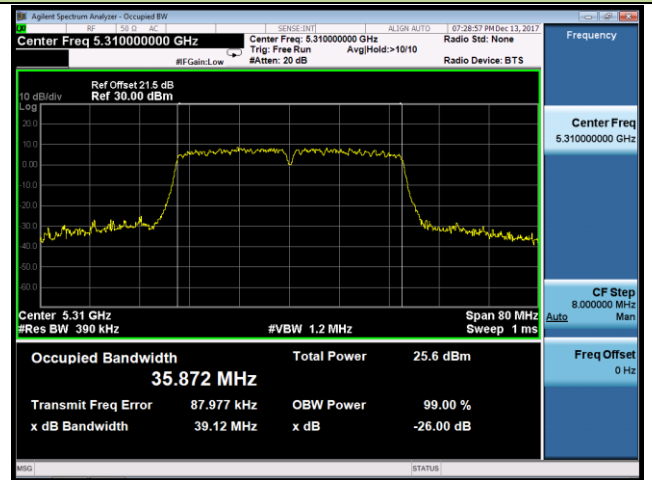


802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth - Ant 1

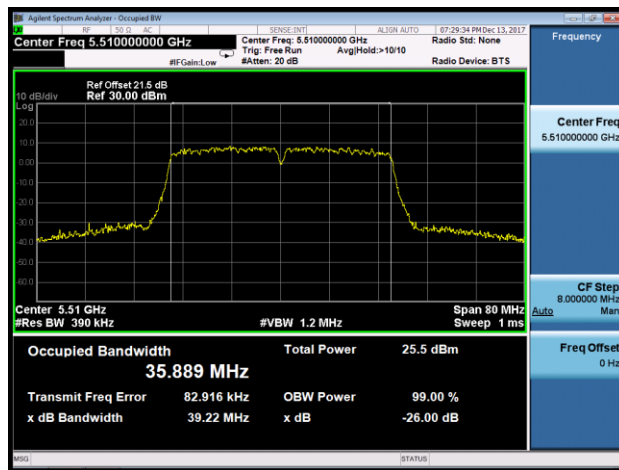
Channel 54 (5270MHz)



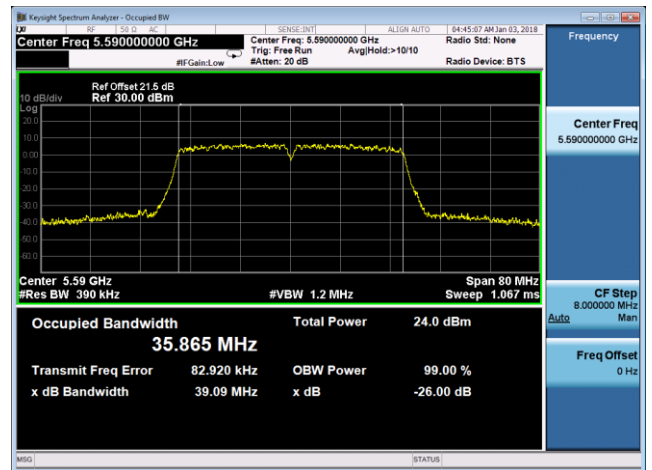
Channel 62 (5310MHz)



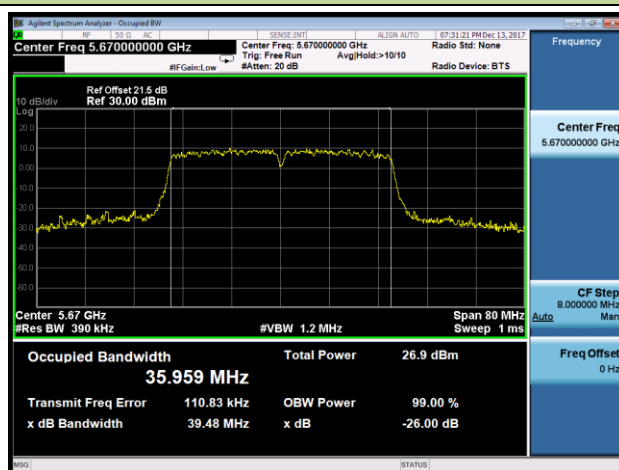
Channel 102 (5510MHz)



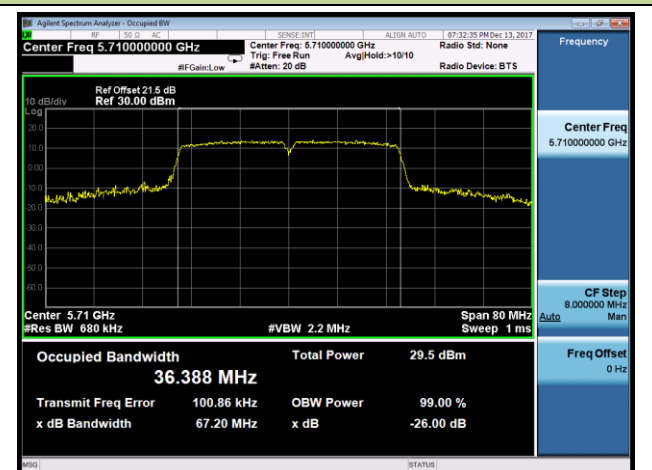
Channel 118 (5590MHz)



Channel 134 (5670MHz)

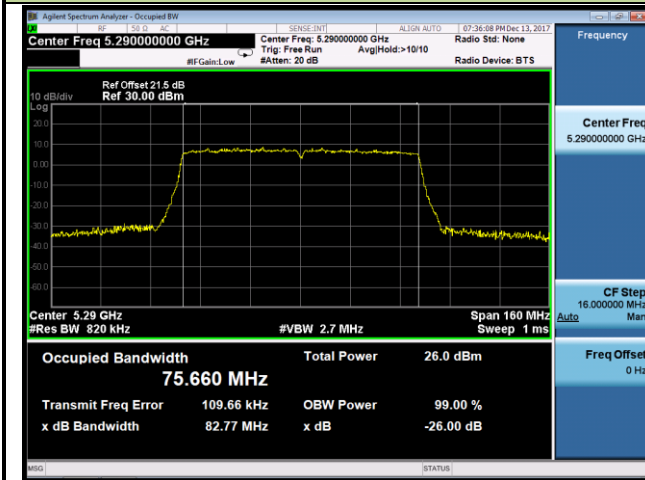


Channel 142 (5710MHz)

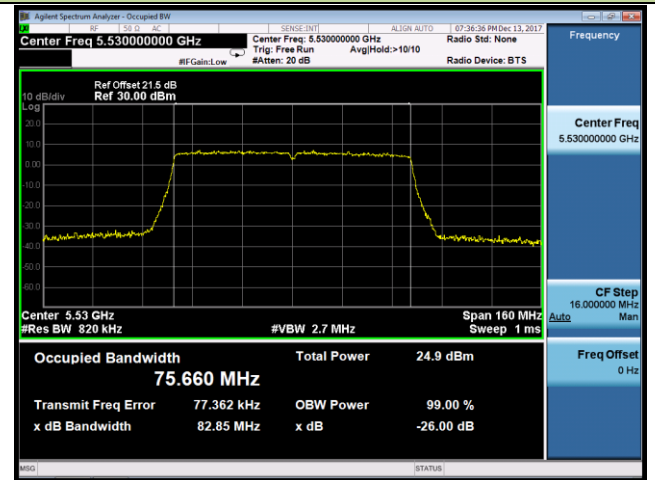


802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth - Ant 1

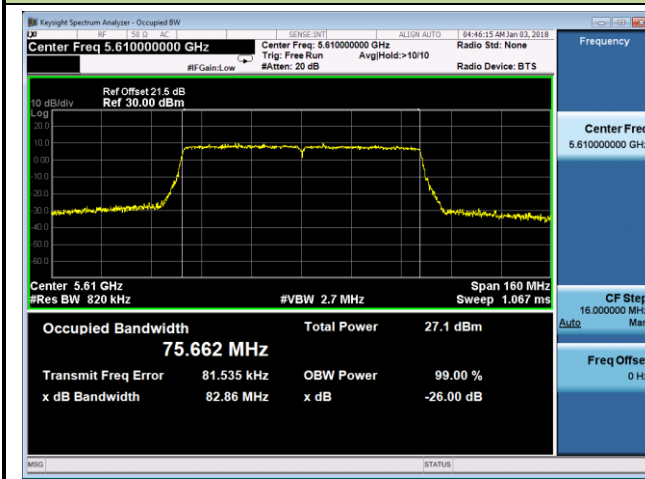
Channel 58 (5290MHz)



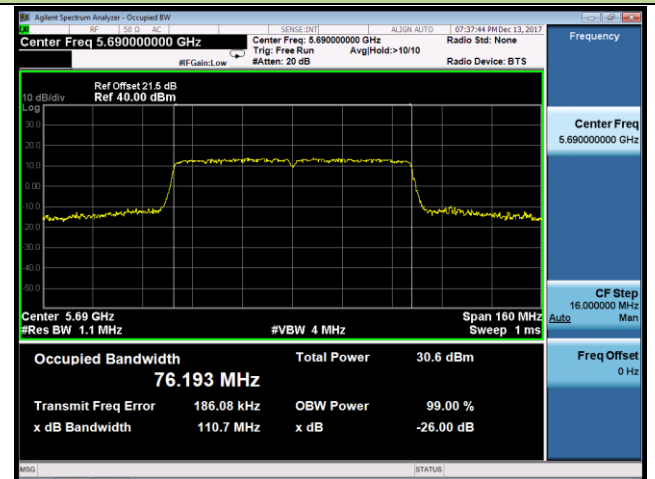
Channel 106 (5530MHz)



Channel 122 (5610MHz)



Channel 138 (5690MHz)



Product	AC220m Wi-Fi module OD US	Temperature	24°C
Test Engineer	Peter Xu	Relative Humidity	59%
Test Site	SR2	Test Date	2018/03/23
Antenna Type	WiFi Directional Antenna		
Test Item	26dB & 99% Bandwidth (NII-band 1, NII-band 2A & NII-band 2C, NII-band 3)		

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11a	6Mbps	36	5180	19.54	16.44
802.11a	6Mbps	44	5220	34.17	17.06
802.11a	6Mbps	48	5240	33.09	16.90
802.11a	6Mbps	52	5260	20.37	16.45
802.11a	6Mbps	60	5300	20.47	16.50
802.11a	6Mbps	64	5320	19.82	16.44
802.11a	6Mbps	100	5500	18.65	16.41
802.11a	6Mbps	120	5600	18.80	16.41
802.11a	6Mbps	140	5700	18.62	16.42
802.11a	6Mbps	144	5720	18.88	16.41
802.11a	6Mbps	149	5745	33.18	16.91
802.11a	6Mbps	157	5785	33.88	17.11
802.11a	6Mbps	165	5825	34.38	17.28
802.11n-HT20	MCS0	36	5180	20.27	17.61
802.11n-HT20	MCS0	44	5220	32.79	18.00
802.11n-HT20	MCS0	48	5240	30.60	17.87
802.11n-HT20	MCS0	52	5260	20.06	17.66
802.11n-HT20	MCS0	60	5300	20.05	17.67
802.11n-HT20	MCS0	64	5320	20.07	17.64
802.11n-HT20	MCS0	100	5500	19.77	17.60
802.11n-HT20	MCS0	120	5600	19.85	17.62
802.11n-HT20	MCS0	140	5700	19.73	17.62
802.11n-HT20	MCS0	144	5720	19.95	17.58
802.11n-HT20	MCS0	149	5745	31.71	17.88
802.11n-HT20	MCS0	157	5785	32.96	18.08
802.11n-HT20	MCS0	165	5825	35.28	18.22

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11n-HT40	MCS0	38	5190	39.08	35.85
802.11n-HT40	MCS0	46	5230	76.26	36.92
802.11n-HT40	MCS0	54	5270	58.22	36.26
802.11n-HT40	MCS0	62	5310	38.99	35.88
802.11n-HT40	MCS0	102	5510	39.11	35.88
802.11n-HT40	MCS0	118	5590	39.45	35.98
802.11n-HT40	MCS0	134	5670	39.49	35.99
802.11n-HT40	MCS0	142	5710	39.64	35.97
802.11n-HT40	MCS0	151	5755	75.17	36.92
802.11n-HT40	MCS0	159	5795	77.81	37.72
802.11ac-VHT20	MCS0	36	5180	20.14	17.62
802.11ac-VHT20	MCS0	44	5220	34.77	18.02
802.11ac-VHT20	MCS0	48	5240	30.71	17.92
802.11ac-VHT20	MCS0	52	5260	20.10	17.64
802.11ac-VHT20	MCS0	60	5300	20.22	17.63
802.11ac-VHT20	MCS0	64	5320	20.56	17.63
802.11ac-VHT20	MCS0	100	5500	19.75	17.60
802.11ac-VHT20	MCS0	120	5600	19.77	17.60
802.11ac-VHT20	MCS0	140	5700	19.82	17.62
802.11ac-VHT20	MCS0	144	5720	19.82	17.60
802.11ac-VHT20	MCS0	149	5745	31.80	17.93
802.11ac-VHT20	MCS0	157	5785	34.07	18.06
802.11ac-VHT20	MCS0	165	5825	34.79	18.13

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11ac-VHT40	MCS0	38	5190	39.14	35.90
802.11ac-VHT40	MCS0	46	5230	72.62	36.85
802.11ac-VHT40	MCS0	54	5270	58.74	36.22
802.11ac-VHT40	MCS0	62	5310	62.77	36.29
802.11ac-VHT40	MCS0	102	5510	39.09	35.98
802.11ac-VHT40	MCS0	118	5590	43.77	36.06
802.11ac-VHT40	MCS0	134	5670	39.55	35.99
802.11ac-VHT40	MCS0	142	5710	39.58	36.00
802.11ac-VHT40	MCS0	151	5755	75.15	36.94
802.11ac-VHT40	MCS0	159	5795	78.36	37.48
802.11ac-VHT80	MCS0	42	5210	83.09	75.70
802.11ac-VHT80	MCS0	58	5290	110.90	76.23
802.11ac-VHT80	MCS0	106	5530	83.53	75.97
802.11ac-VHT80	MCS0	122	5610	83.11	75.81
802.11ac-VHT80	MCS0	138	5690	83.75	75.81
802.11ac-VHT80	MCS0	155	5775	82.86	75.76

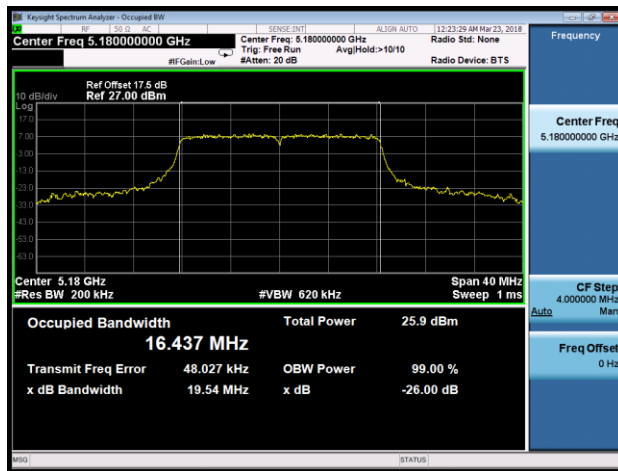
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 1					
802.11a	6Mbps	36	5180	18.98	16.41
802.11a	6Mbps	44	5220	28.94	16.67
802.11a	6Mbps	48	5240	29.13	16.67
802.11a	6Mbps	52	5260	18.93	16.43
802.11a	6Mbps	60	5300	18.82	16.44
802.11a	6Mbps	64	5320	18.81	16.40
802.11a	6Mbps	100	5500	18.99	16.42
802.11a	6Mbps	120	5600	18.88	16.42
802.11a	6Mbps	140	5700	18.92	16.41
802.11a	6Mbps	144	5720	19.06	16.43
802.11a	6Mbps	149	5745	31.50	16.82
802.11a	6Mbps	157	5785	29.59	16.78
802.11a	6Mbps	165	5825	28.73	16.76
802.11n-HT20	MCS0	36	5180	19.94	17.59
802.11n-HT20	MCS0	44	5220	28.11	17.76
802.11n-HT20	MCS0	48	5240	28.06	17.76
802.11n-HT20	MCS0	52	5260	19.67	17.61
802.11n-HT20	MCS0	60	5300	19.67	17.62
802.11n-HT20	MCS0	64	5320	19.85	17.60
802.11n-HT20	MCS0	100	5500	19.80	17.60
802.11n-HT20	MCS0	120	5600	19.88	17.58
802.11n-HT20	MCS0	140	5700	19.86	17.60
802.11n-HT20	MCS0	144	5720	19.77	17.63
802.11n-HT20	MCS0	149	5745	30.07	17.84
802.11n-HT20	MCS0	157	5785	29.74	17.80
802.11n-HT20	MCS0	165	5825	29.89	17.78

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 1					
802.11n-HT40	MCS0	38	5190	39.18	35.90
802.11n-HT40	MCS0	46	5230	65.01	36.42
802.11n-HT40	MCS0	54	5270	38.96	35.94
802.11n-HT40	MCS0	62	5310	39.18	35.93
802.11n-HT40	MCS0	102	5510	39.19	35.89
802.11n-HT40	MCS0	118	5590	38.96	35.96
802.11n-HT40	MCS0	134	5670	38.84	35.96
802.11n-HT40	MCS0	142	5710	38.85	35.98
802.11n-HT40	MCS0	151	5755	72.34	36.44
802.11n-HT40	MCS0	159	5795	74.54	36.62
802.11ac-VHT20	MCS0	36	5180	20.03	17.60
802.11ac-VHT20	MCS0	44	5220	28.12	17.76
802.11ac-VHT20	MCS0	48	5240	26.80	17.77
802.11ac-VHT20	MCS0	52	5260	19.60	17.62
802.11ac-VHT20	MCS0	60	5300	19.86	17.62
802.11ac-VHT20	MCS0	64	5320	19.96	17.61
802.11ac-VHT20	MCS0	100	5500	19.77	17.61
802.11ac-VHT20	MCS0	120	5600	19.84	17.61
802.11ac-VHT20	MCS0	140	5700	19.74	17.62
802.11ac-VHT20	MCS0	144	5720	19.92	17.61
802.11ac-VHT20	MCS0	149	5745	30.01	17.86
802.11ac-VHT20	MCS0	157	5785	29.25	17.82
802.11ac-VHT20	MCS0	165	5825	29.82	17.79

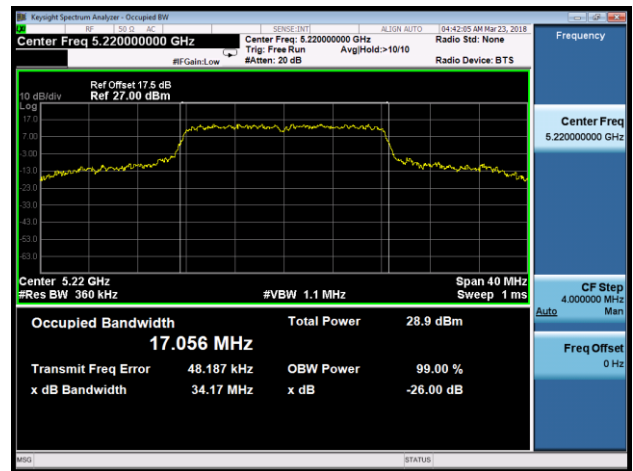
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 1					
802.11ac-VHT40	MCS0	38	5190	39.29	35.93
802.11ac-VHT40	MCS0	46	5230	66.75	36.41
802.11ac-VHT40	MCS0	54	5270	39.21	35.93
802.11ac-VHT40	MCS0	62	5310	39.35	35.96
802.11ac-VHT40	MCS0	102	5510	39.00	35.87
802.11ac-VHT40	MCS0	118	5590	39.16	35.90
802.11ac-VHT40	MCS0	134	5670	38.99	35.92
802.11ac-VHT40	MCS0	142	5710	39.08	35.91
802.11ac-VHT40	MCS0	151	5755	69.61	36.40
802.11ac-VHT40	MCS0	159	5795	72.48	36.55
802.11ac-VHT80	MCS0	42	5210	83.02	75.68
802.11ac-VHT80	MCS0	58	5290	83.05	75.72
802.11ac-VHT80	MCS0	106	5530	82.70	75.74
802.11ac-VHT80	MCS0	122	5690	82.35	75.70
802.11ac-VHT80	MCS0	138	5690	83.01	75.74
802.11ac-VHT80	MCS0	155	5775	83.35	75.74

802.11a 26dB Bandwidth & 99% Bandwidth - Ant 0

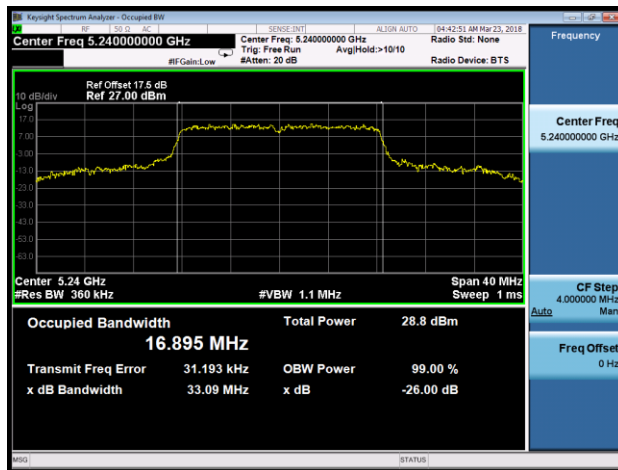
Channel 36 (5180MHz)



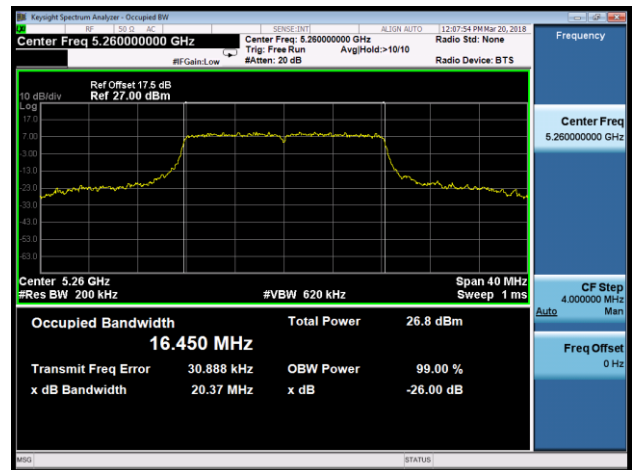
Channel 44 (5220MHz)



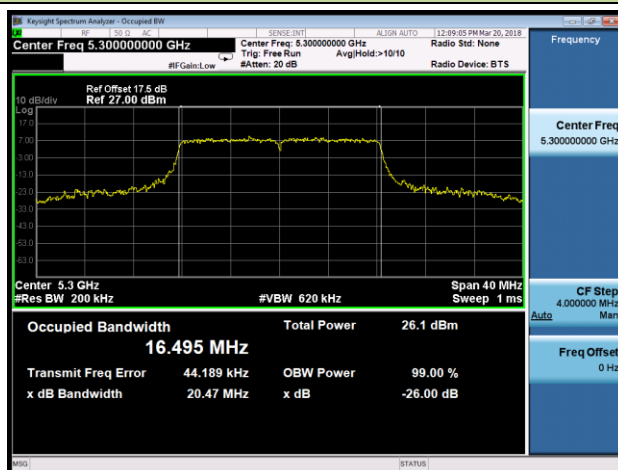
Channel 48 (5240MHz)



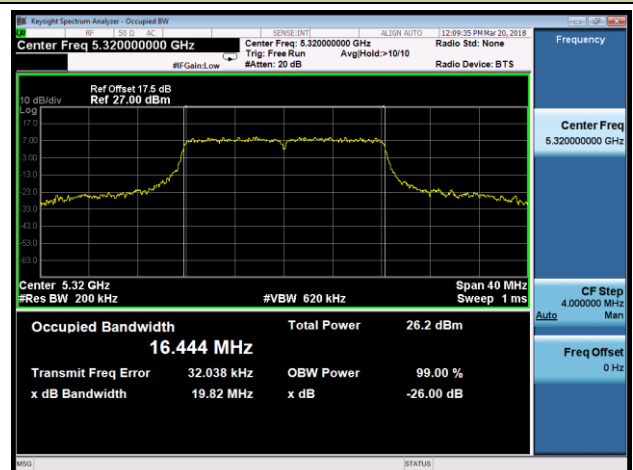
Channel 52 (5260MHz)



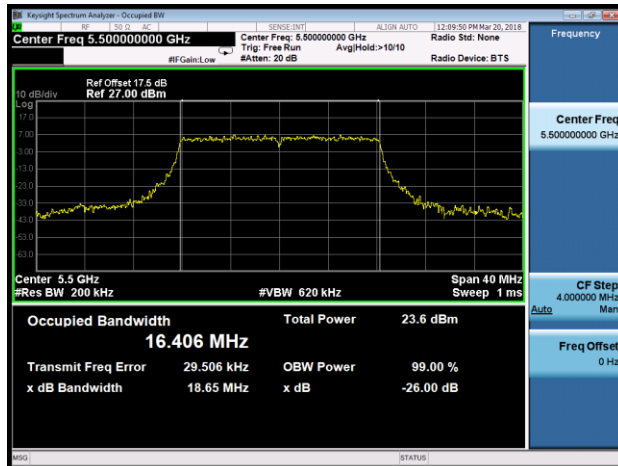
Channel 60 (5300MHz)



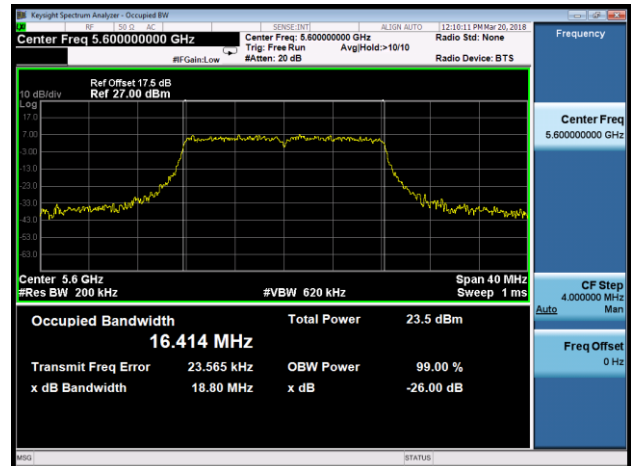
Channel 64 (5320MHz)



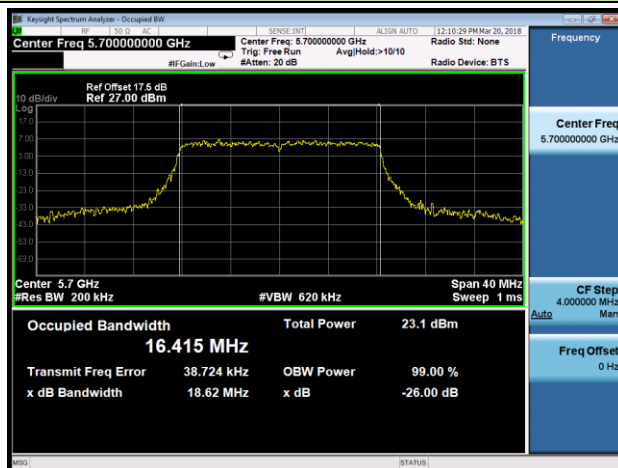
Channel 100 (5500MHz)



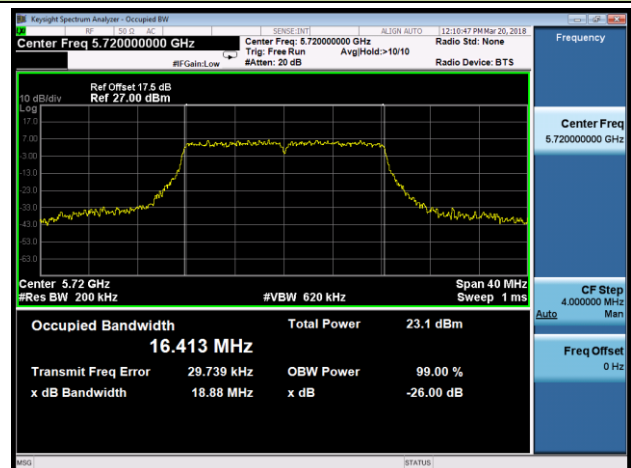
Channel 120 (5600MHz)



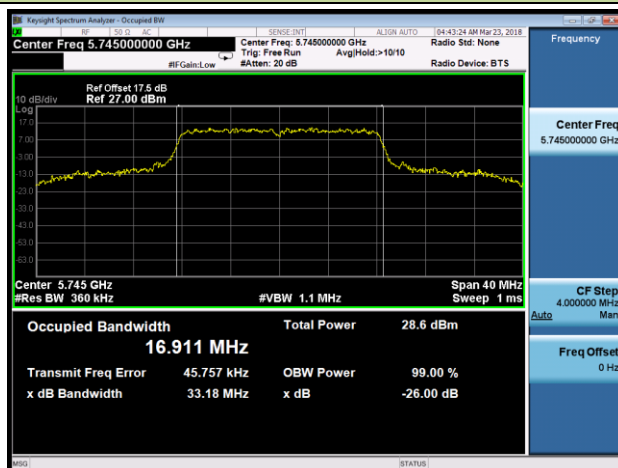
Channel 140 (5700MHz)



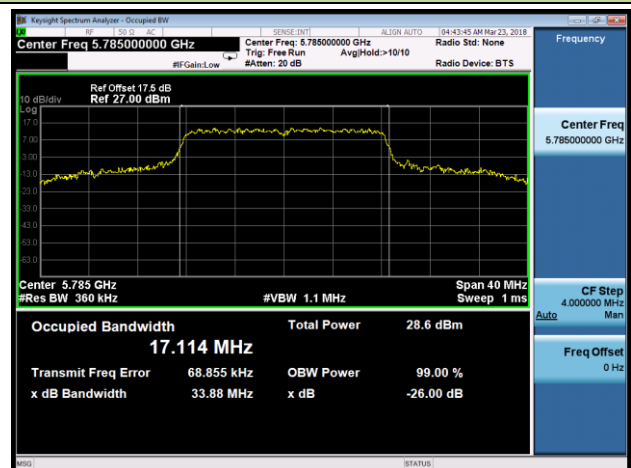
Channel 144 (5720MHz)

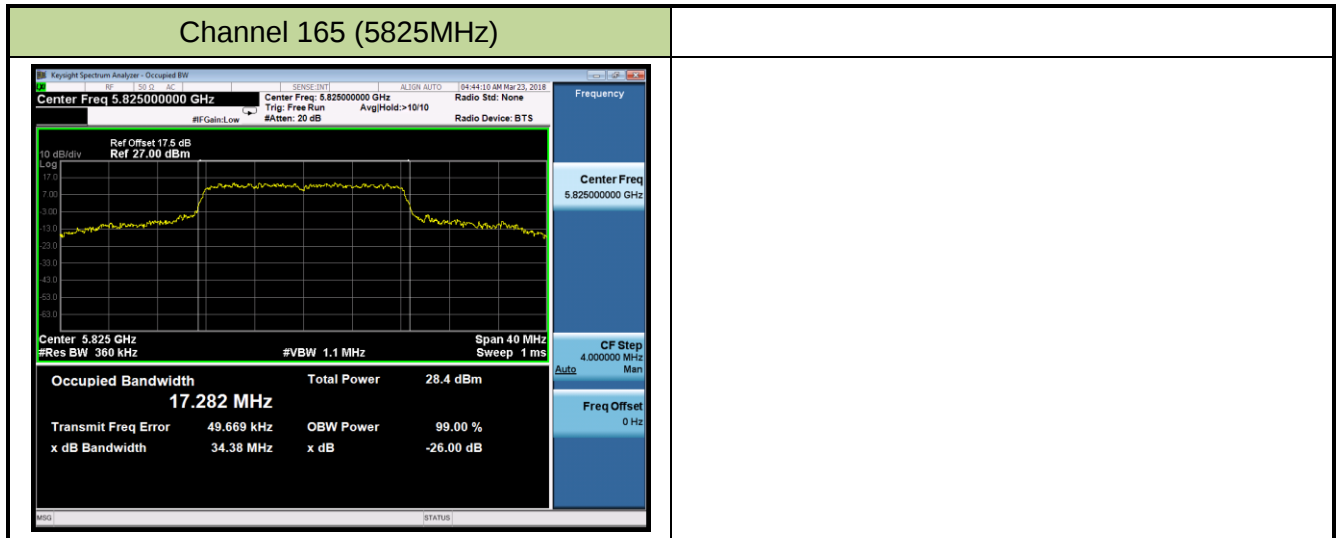


Channel 149 (5745MHz)



Channel 157 (5785MHz)



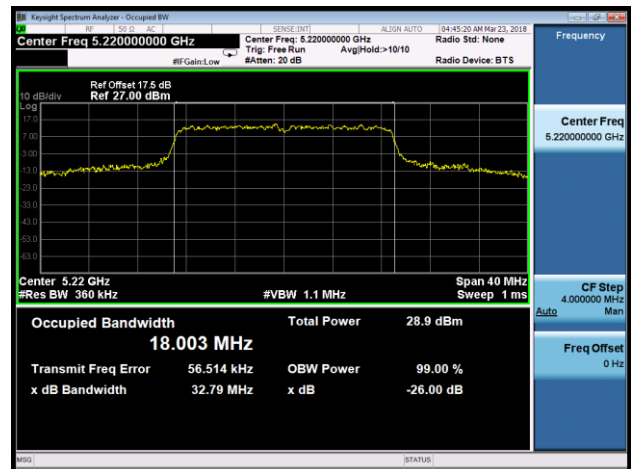


802.11n-HT20 26dB Bandwidth & 99% Bandwidth - Ant 0

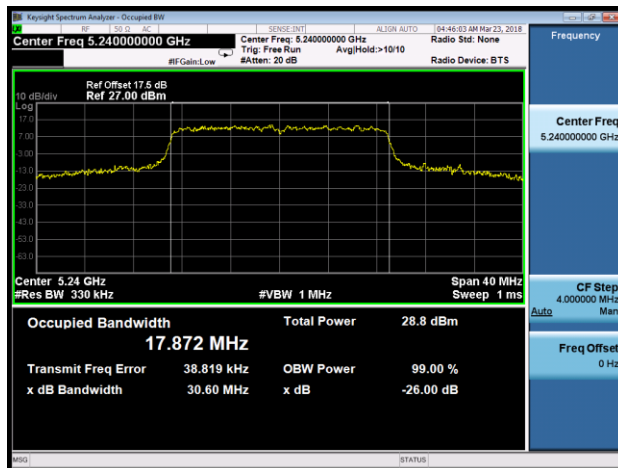
Channel 36 (5180MHz)



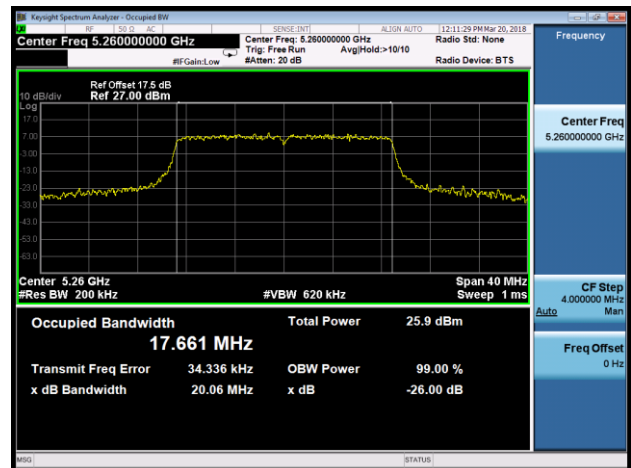
Channel 44 (5220MHz)



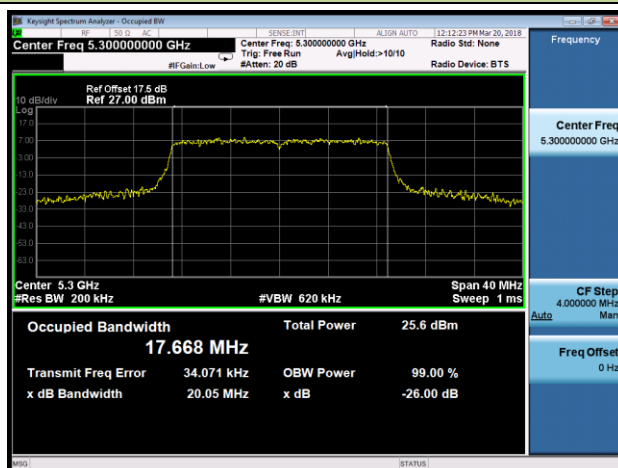
Channel 48 (5240MHz)



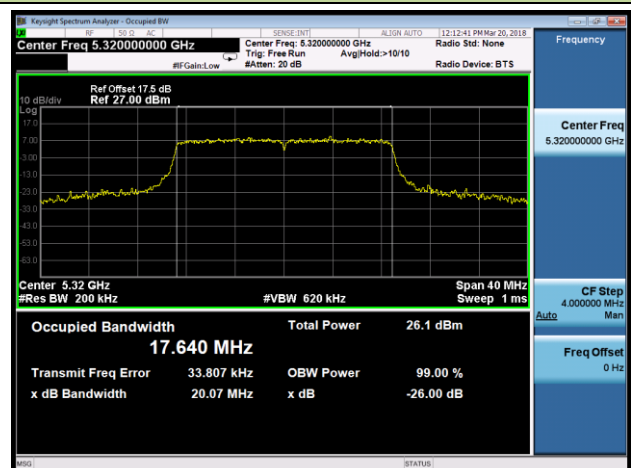
Channel 52 (5260MHz)



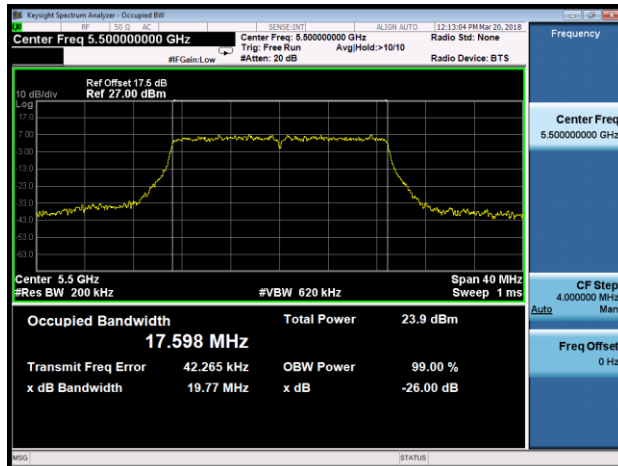
Channel 60 (5300MHz)



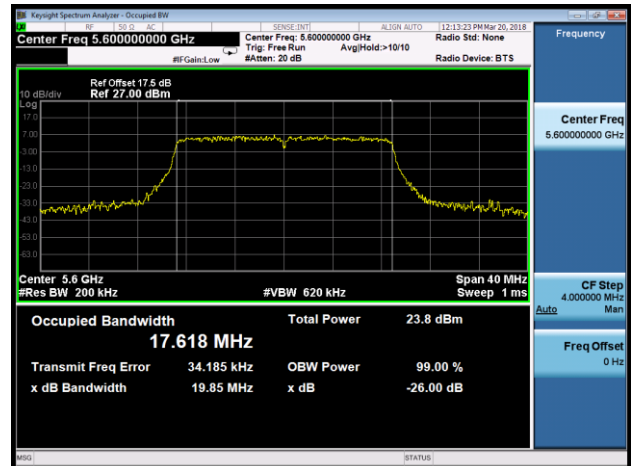
Channel 64 (5320MHz)



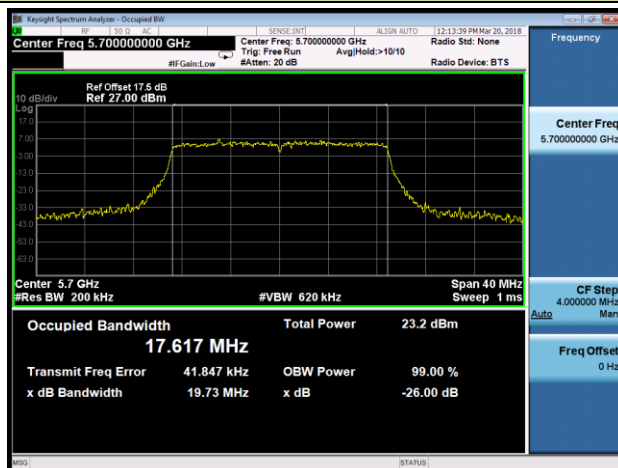
Channel 100 (5500MHz)



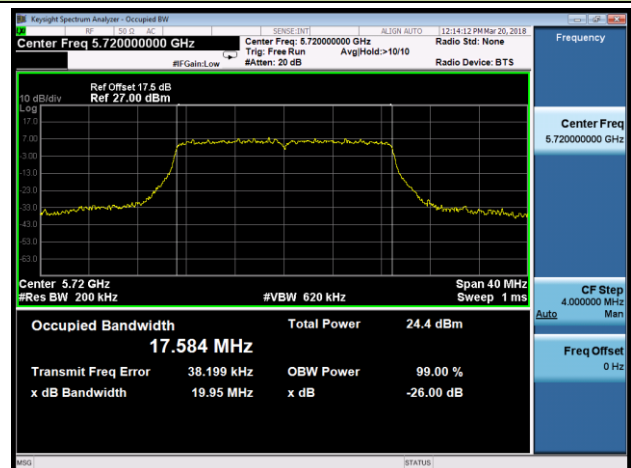
Channel 120 (5600MHz)



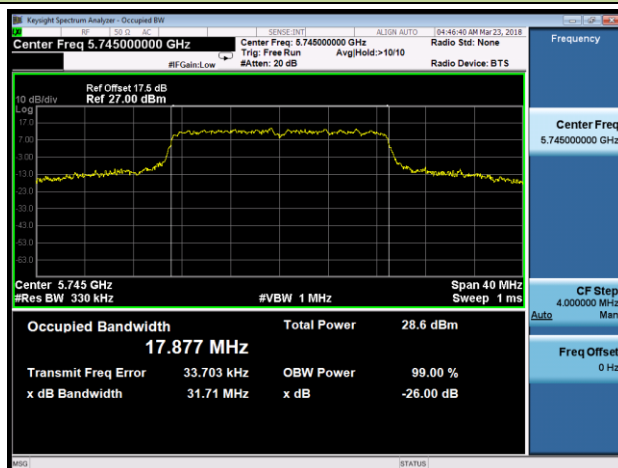
Channel 140 (5700MHz)



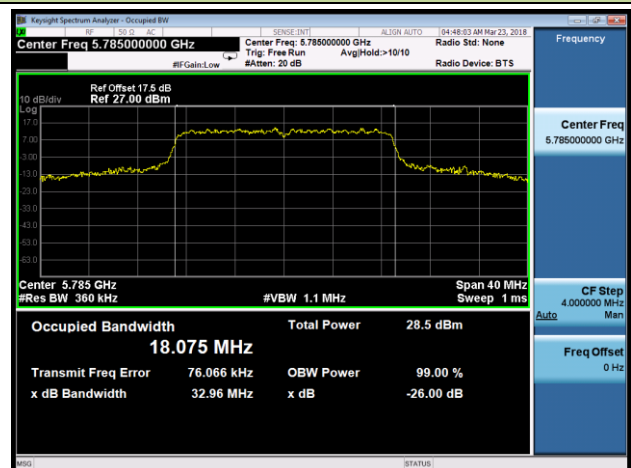
Channel 144 (5720MHz)

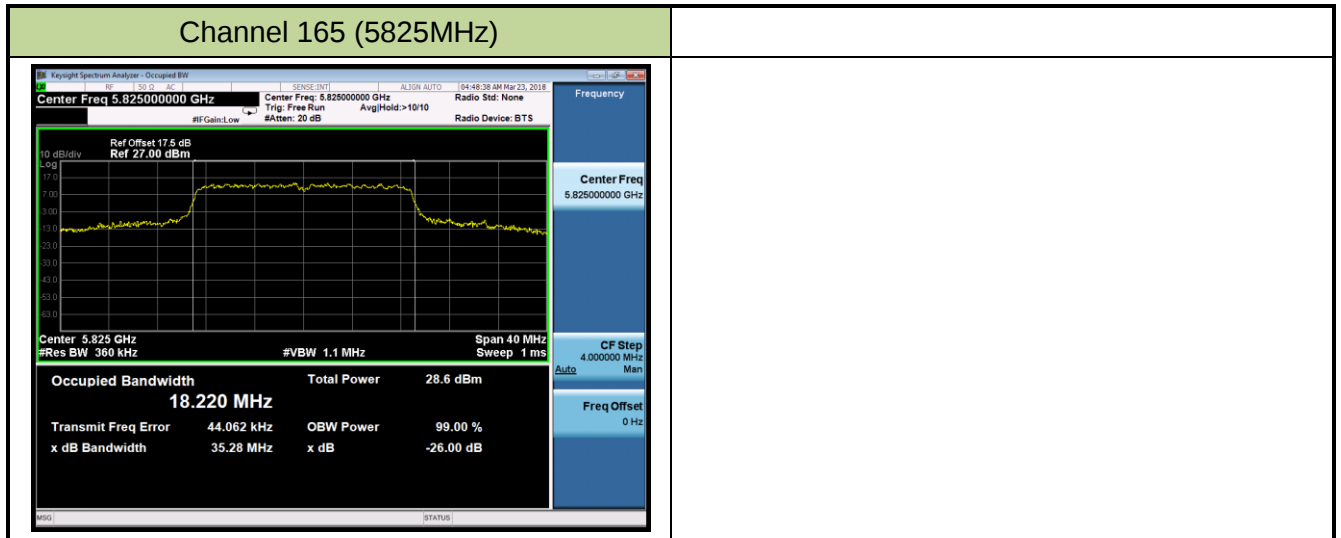


Channel 149 (5745MHz)



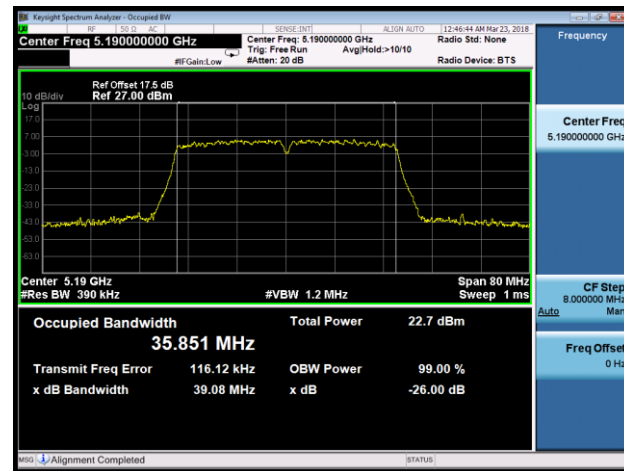
Channel 157 (5785MHz)



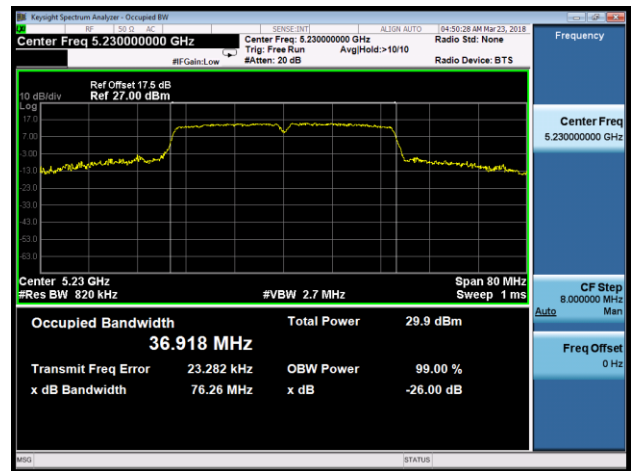


802.11n-HT40 26dB Bandwidth & 99% Bandwidth - Ant 0

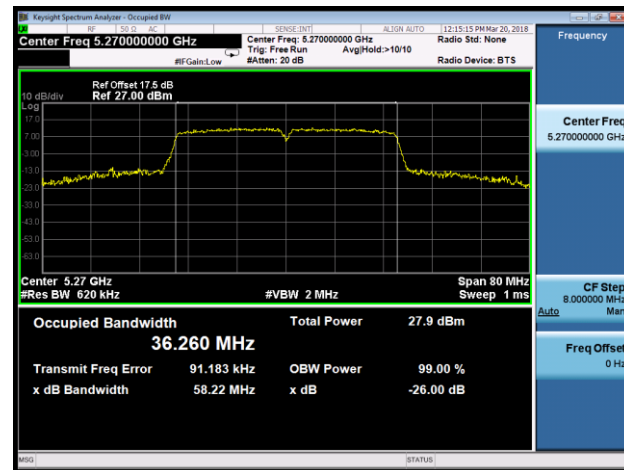
Channel 38 (5190MHz)



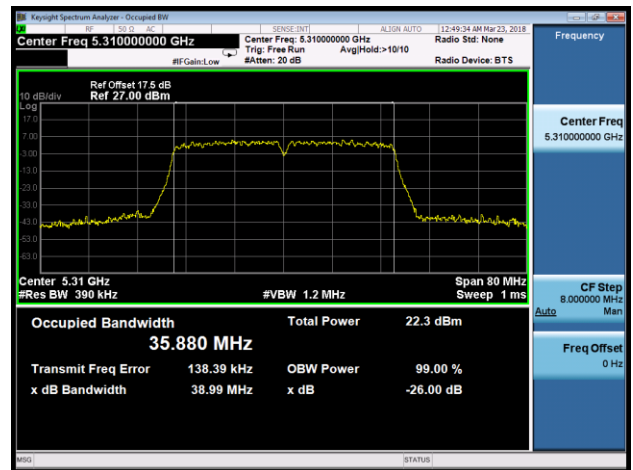
Channel 46 (5230MHz)



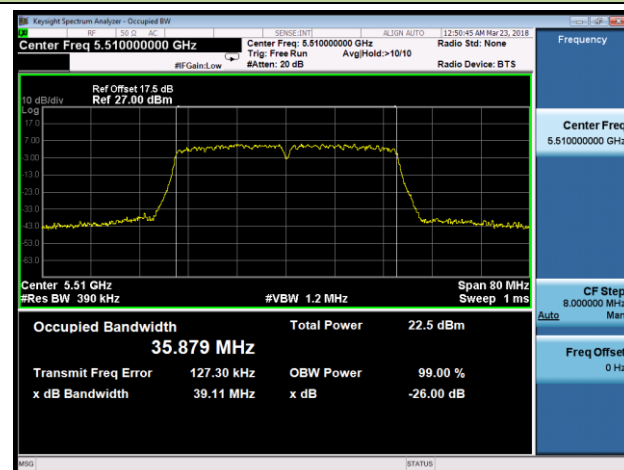
Channel 54 (5270MHz)



Channel 62 (5310MHz)



Channel 102 (5510MHz)



Channel 118 (5590MHz)

