

Appendix E

RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: Tablet pc

Trade Mark: DayMark

Test Model: MATT85

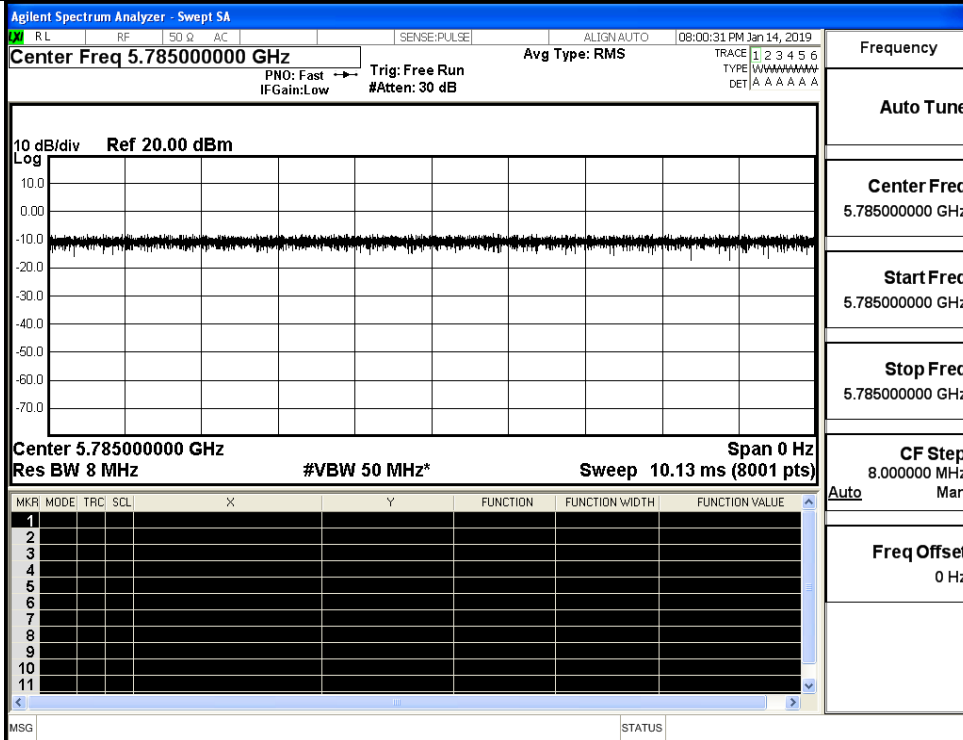
Environmental Conditions

Temperature:	24.3 ° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina Xu
Supervised by:	Jayden Zhuo

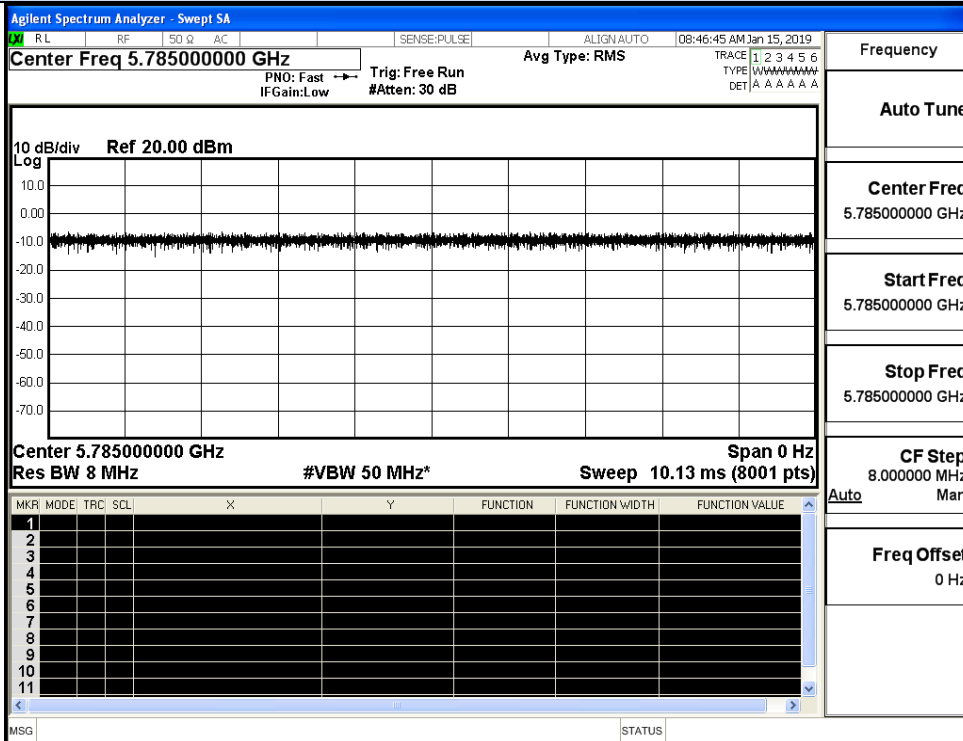
E.1 Duty Cycle

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5785	100	0.00	0.01
11N20 SISO	5785	100	0.00	0.01
11N40 SISO	5755	100	0.00	0.01

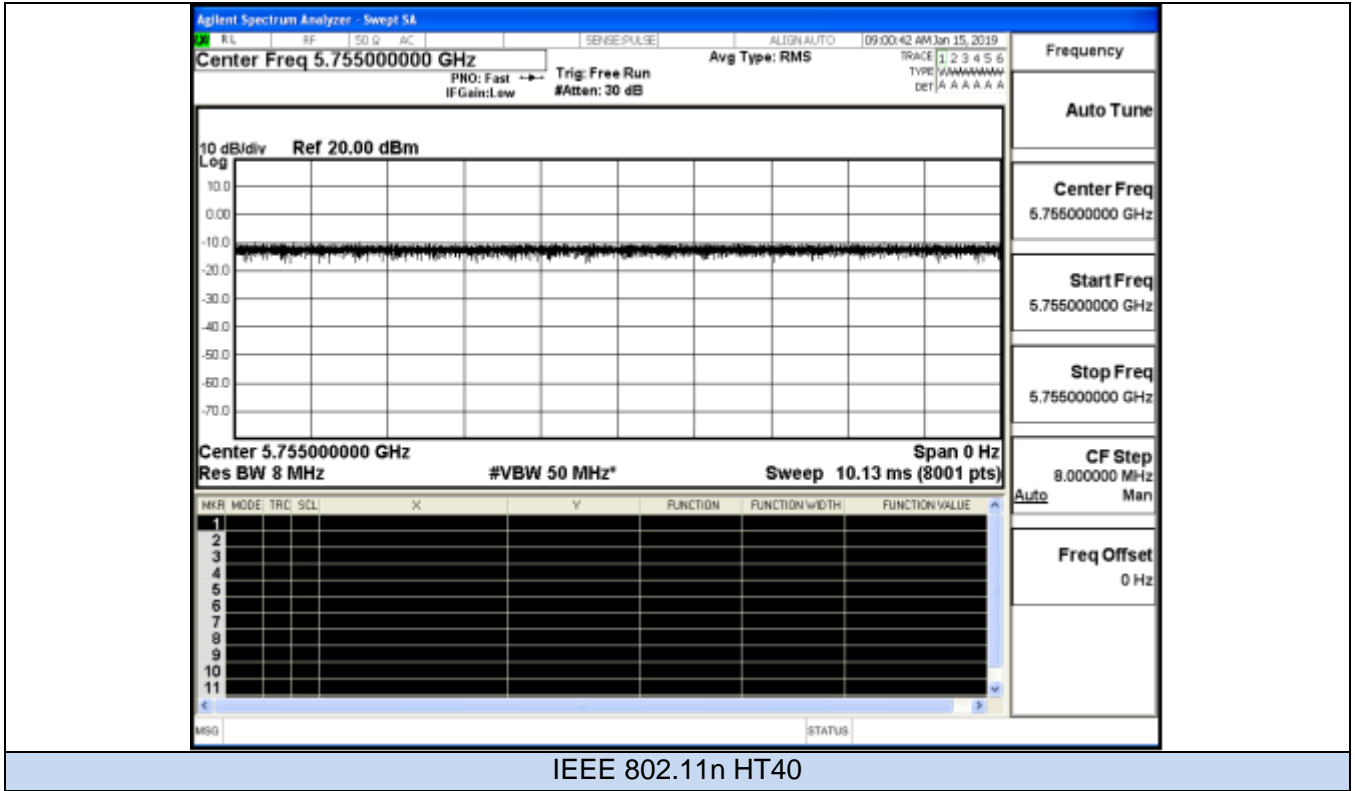
On Time and Duty Cycle



IEEE 802.11a



IEEE 802.11n HT20



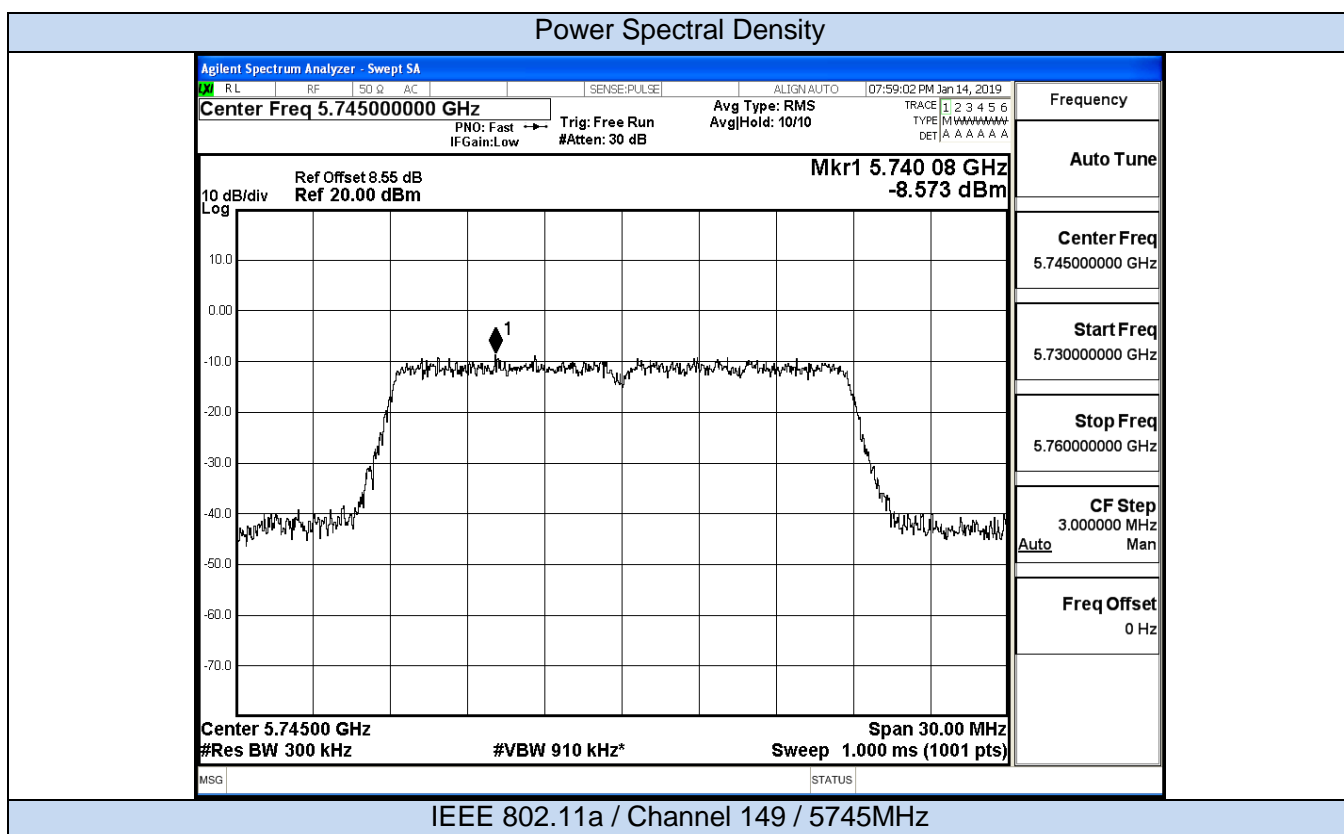
IEEE 802.11n HT40

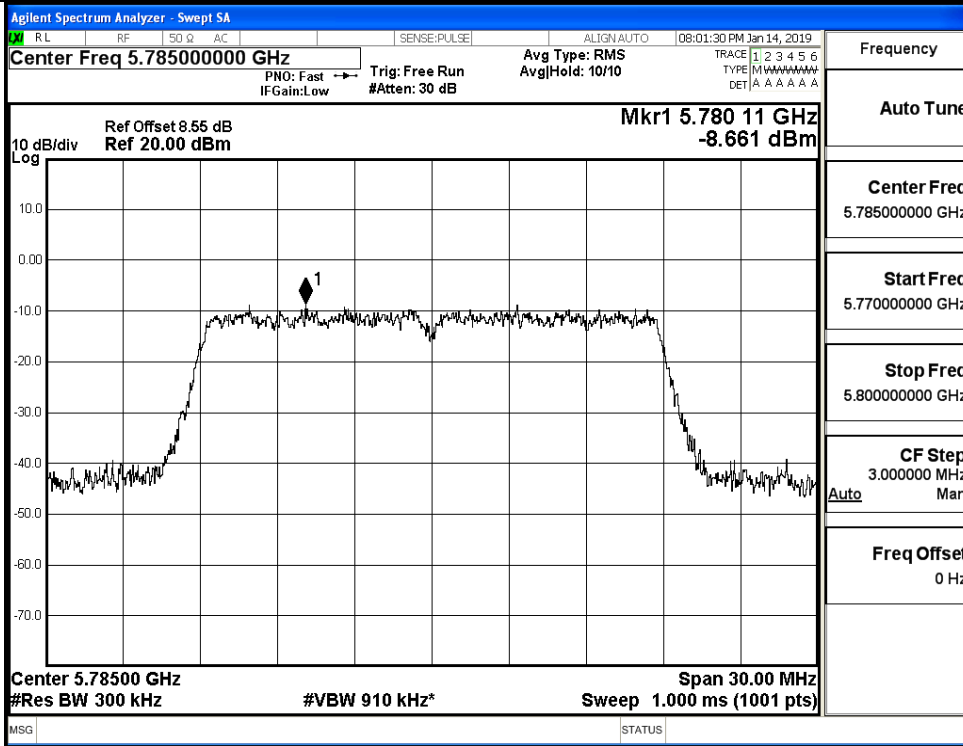
E.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	6.11	0	6.11	30	Pass
	157	5785	5.93	0	5.93		Pass
	165	5825	5.63	0	5.63		Pass
11N20 SISO	149	5745	6.94	0	6.94	30	Pass
	157	5785	6.95	0	6.95		Pass
	165	5825	6.59	0	6.59		Pass
11N40 SISO	151	5755	7.11	0	7.11	30	Pass
	159	5795	7.00	0	7.00		Pass

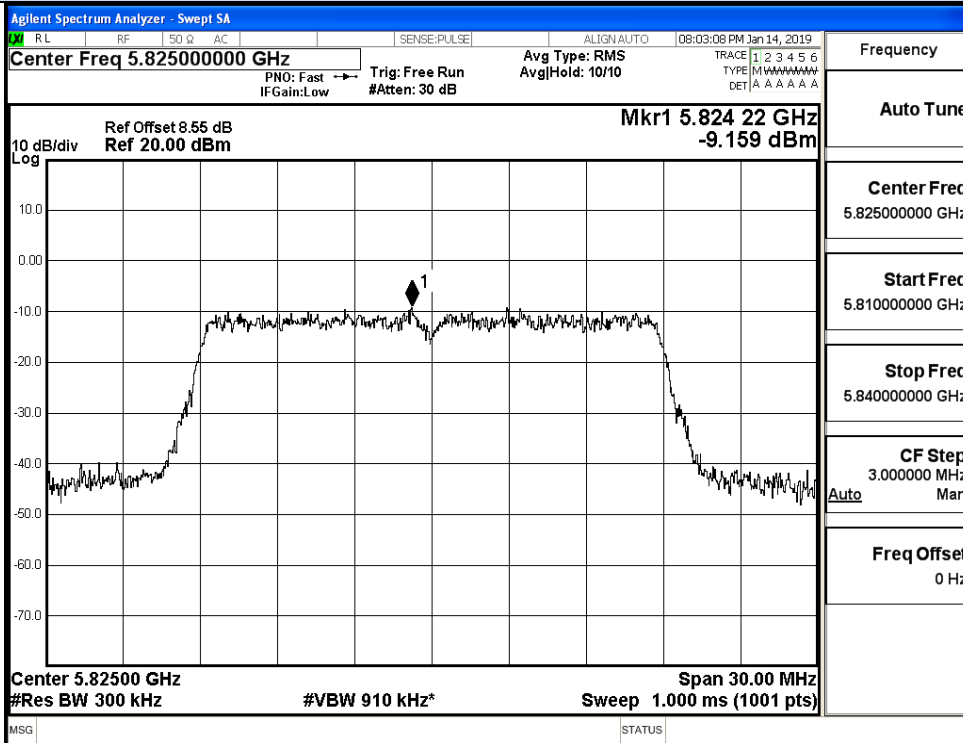
E.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/300KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
11A	149	5745	-8.57	0	2.218	-6.36	30	Pass
	157	5785	-8.66	0	2.218	-6.44		Pass
	165	5825	-9.16	0	2.218	-6.94		Pass
11N20 SISO	149	5745	-7.07	0	2.218	-4.86	30	Pass
	157	5785	-7.64	0	2.218	-5.43		Pass
	165	5825	-6.79	0	2.218	-4.57		Pass
11N40 SISO	151	5755	-10.19	0	2.218	-7.97	30	Pass
	159	5795	-9.97	0	2.218	-7.76		Pass



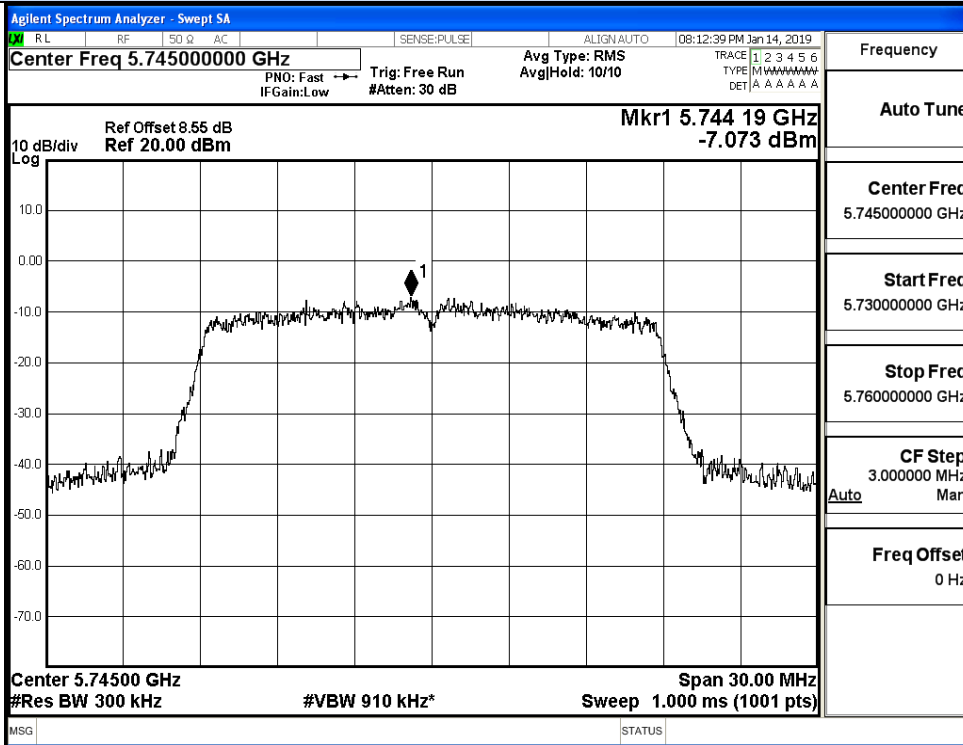


IEEE 802.11a / Channel 157 / 5785MHz

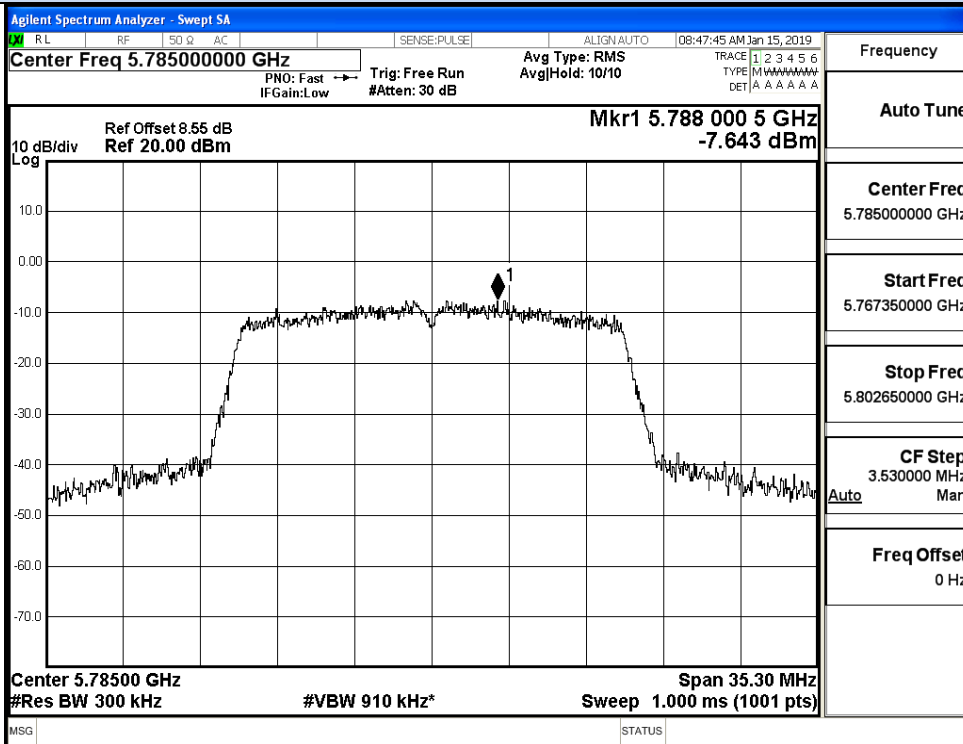


IEEE 802.11a / Channel 165 / 5825MHz

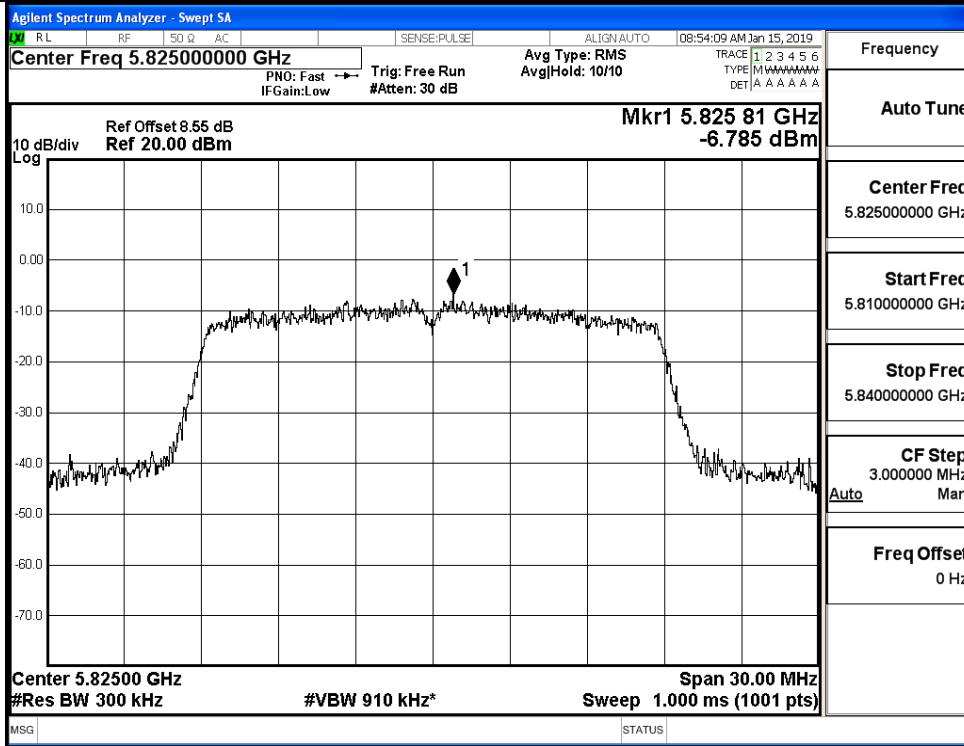
Power Spectral Density



IEEE 802.11n20 / Channel 149 / 5745MHz

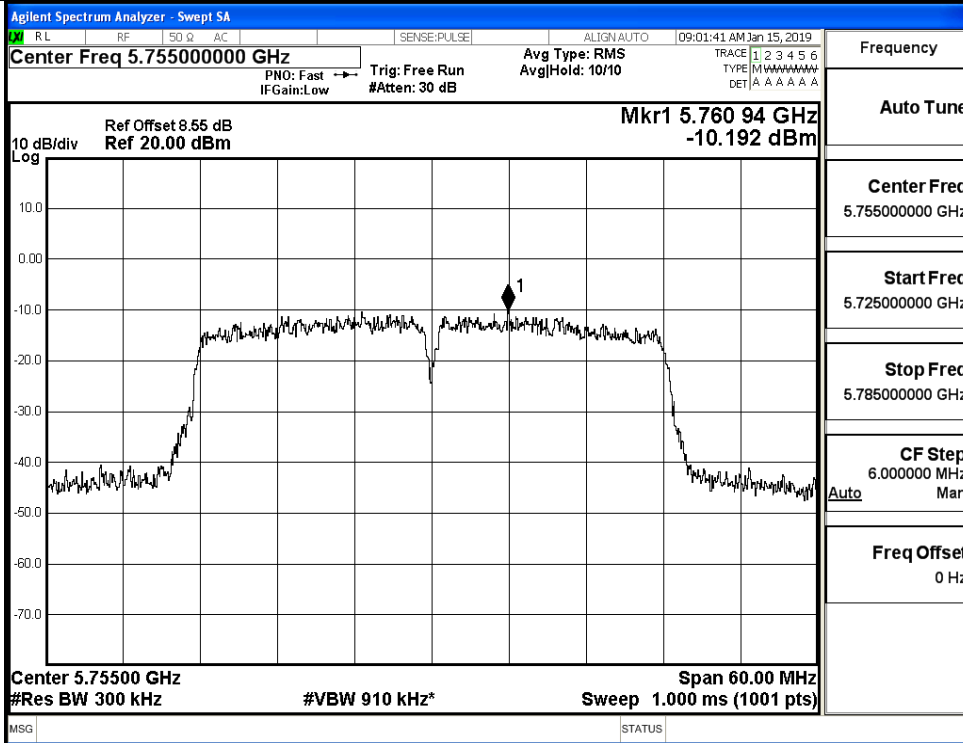


IEEE 802.11n20 / Channel 157 / 5785MHz

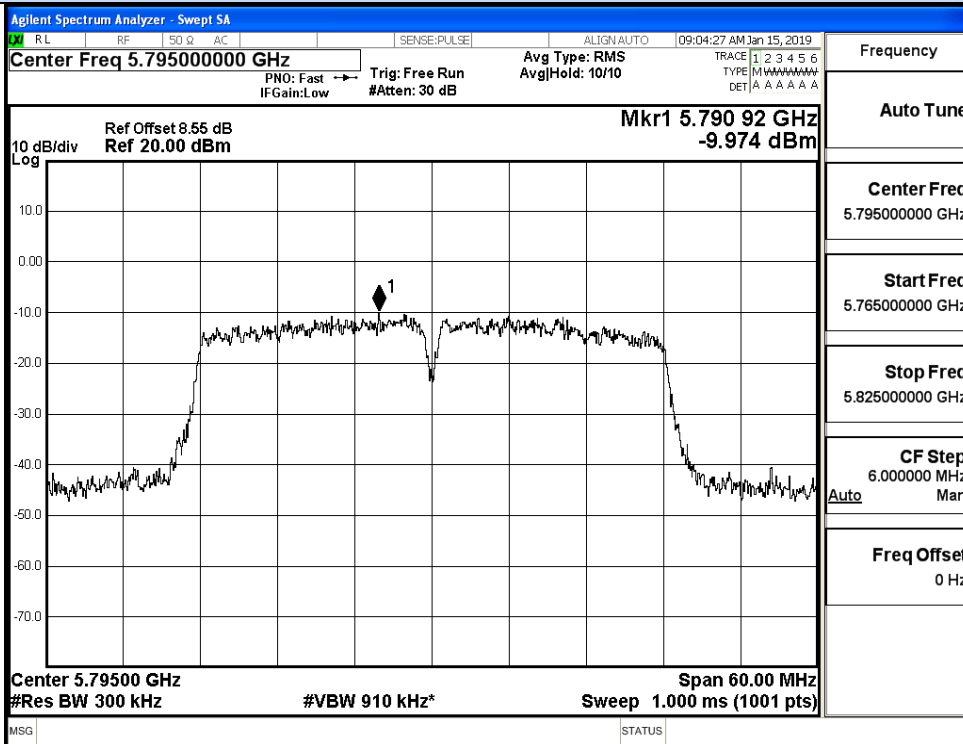


IEEE 802.11n20 / Channel 165 / 5825MHz

Power Spectral Density



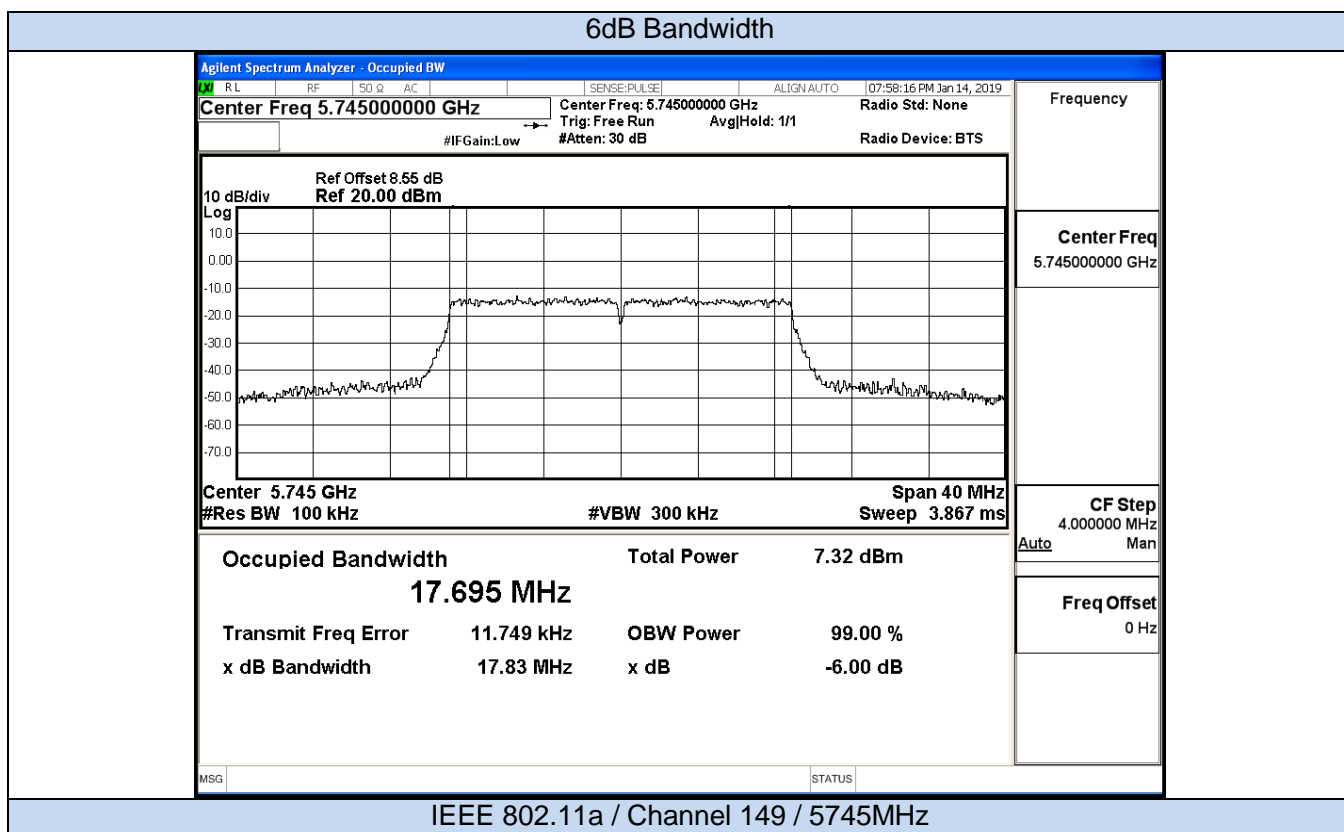
IEEE 802.11n40 / Channel 151 / 5755MHz

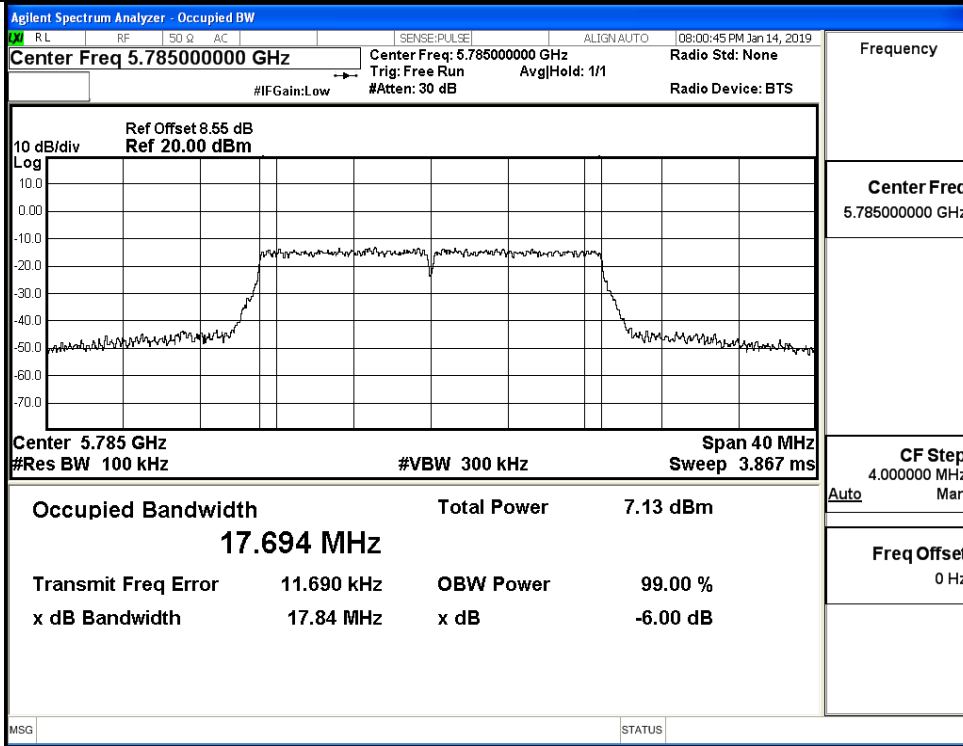


IEEE 802.11n40 / Channel 159 / 5795MHz

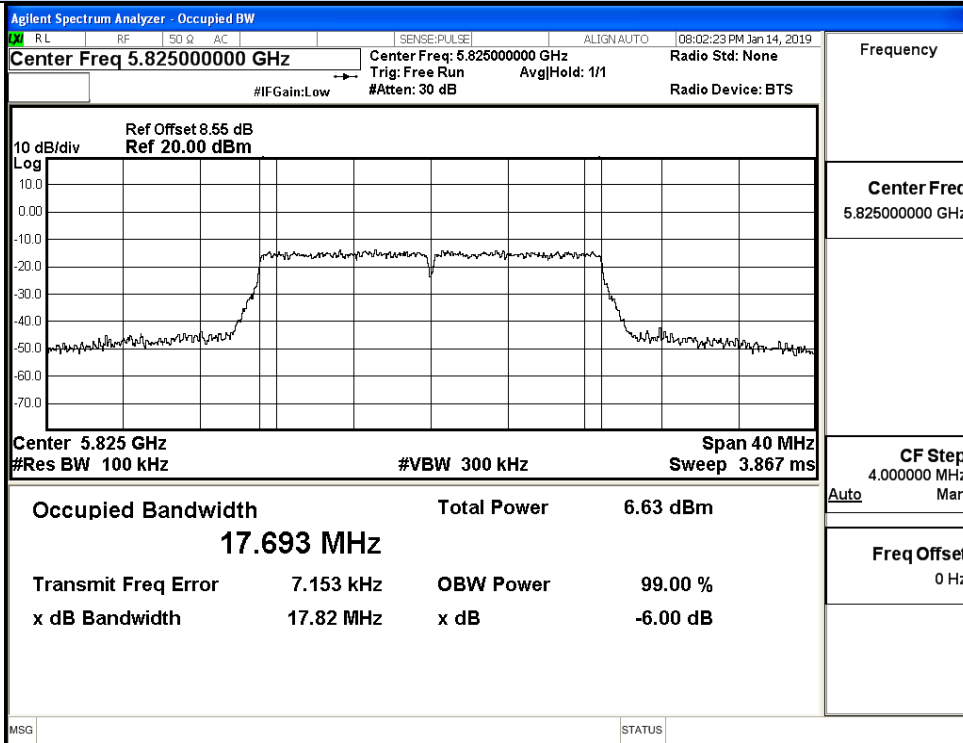
E.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Verdict
11A	149	5745	17.83	17.598	>=0.5	Pass
	157	5785	17.84	17.597		Pass
	165	5825	17.82	17.588		Pass
11N20 SISO	149	5745	17.65	17.608	>=0.5	Pass
	157	5785	17.65	17.605		Pass
	165	5825	17.61	17.606		Pass
11N40 SISO	151	5755	36.40	35.920	>=0.5	Pass
	159	5795	36.39	35.896		Pass



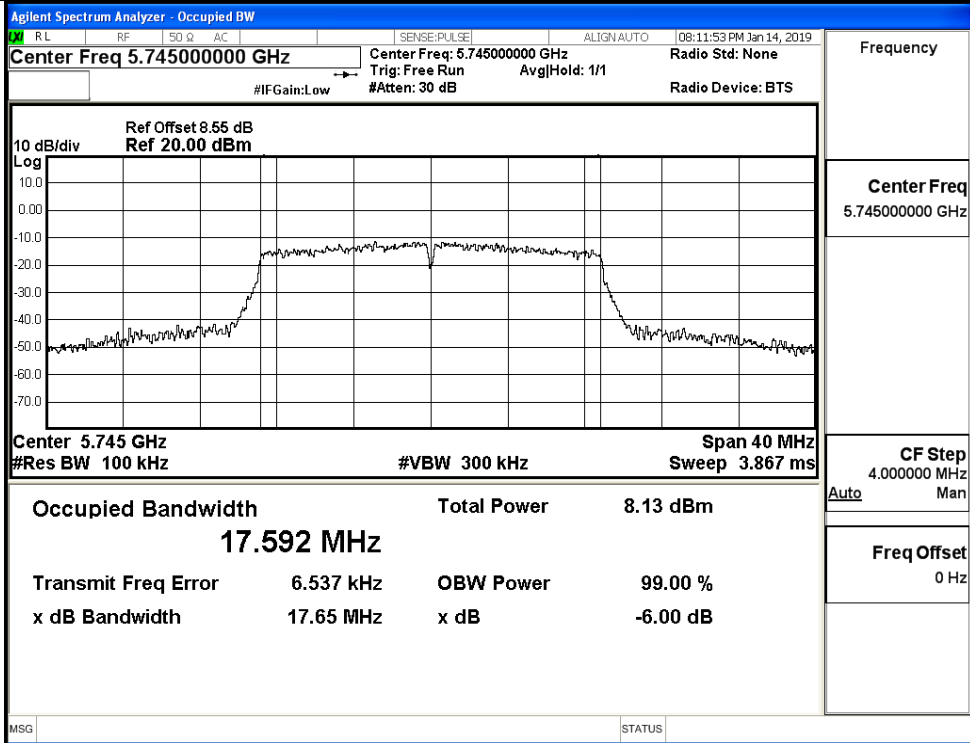


IEEE 802.11a / Channel 157 / 5785MHz

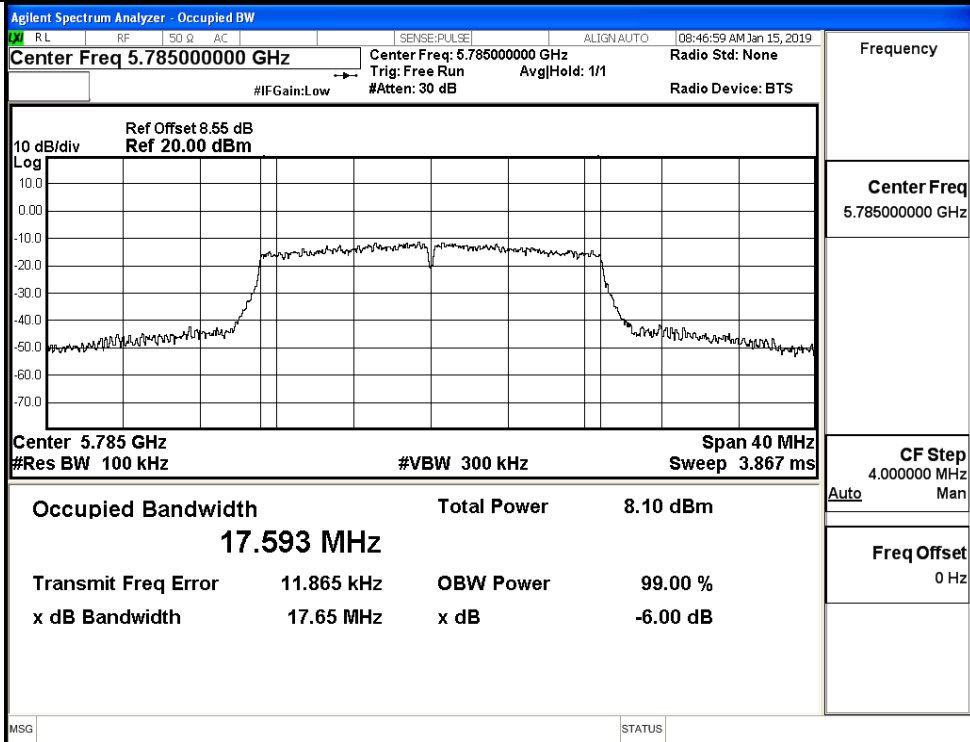


IEEE 802.11a / Channel 165 / 5825MHz

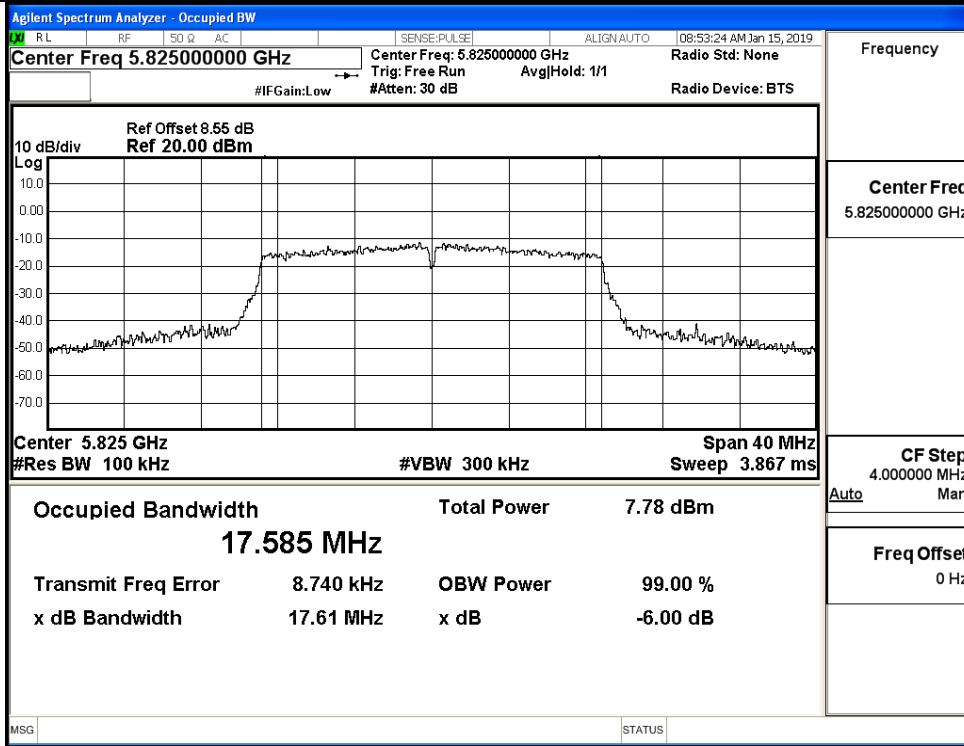
6dB Bandwidth



IEEE 802.11n20 / Channel 149 / 5745MHz



IEEE 802.11n20 / Channel 157 / 5785MHz



IEEE 802.11n20 / Channel 165 / 5825MHz

6dB Bandwidth

Agilent Spectrum Analyzer - Occupied BW

RL	RF	SO	Q	AC	SENSE:PULSE	ALIGN:AUTO	09:00:56 AM Jan 15, 2019	
Center Freq 5.755000000 GHz					Center Freq: 5.755000000 GHz	Trig: Free Run	Avg/Hold: 1/1	Radio Std: None
#IFGain:Low					#Atten: 30 dB	Radio Device: BTS		

Ref Offset 8.55 dB
Ref 20.00 dBm

Center 5.755 GHz Span 80 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 7.667 ms

Occupied Bandwidth	Total Power	8.60 dBm
35.959 MHz		
Transmit Freq Error	-8.247 kHz	OBW Power 99.00 %
x dB Bandwidth	36.40 MHz	x dB -6.00 dB

MSG STATUS

IEEE 802.11n40 / Channel 151 / 5755MHz

Agilent Spectrum Analyzer - Occupied BW

RL	RF	SO	Q	AC	SENSE:PULSE	ALIGN:AUTO	09:03:42 AM Jan 15, 2019	
Center Freq 5.795000000 GHz					Center Freq: 5.795000000 GHz	Trig: Free Run	Avg/Hold: 1/1	Radio Std: None
#IFGain:Low					#Atten: 30 dB	Radio Device: BTS		

Ref Offset 8.55 dB
Ref 20.00 dBm

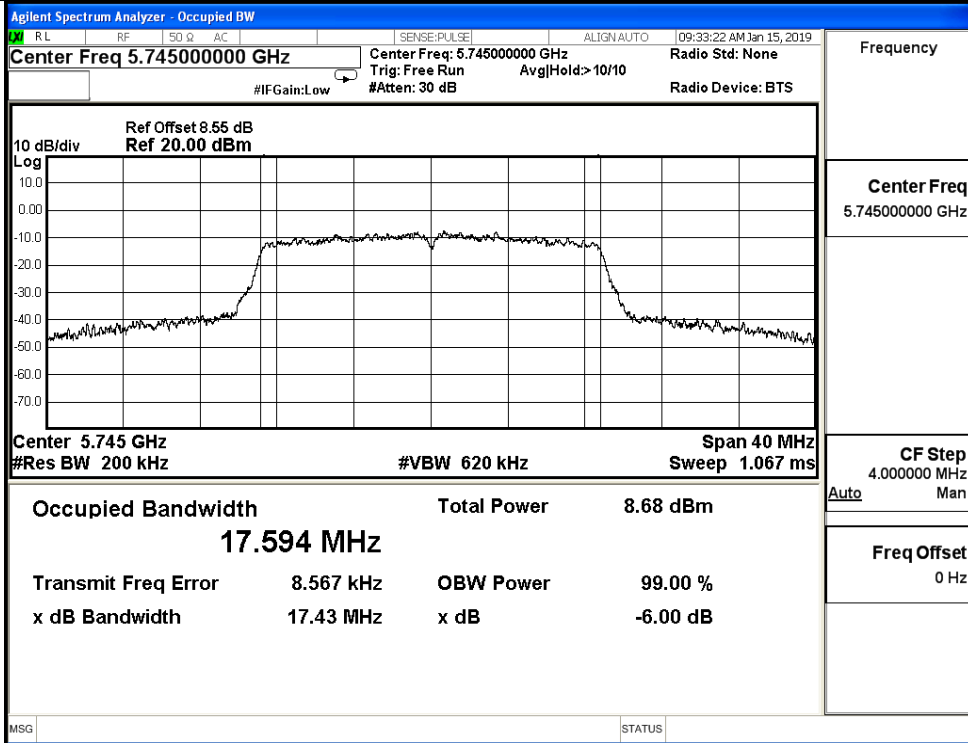
Center 5.795 GHz Span 80 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 7.667 ms

Occupied Bandwidth	Total Power	8.46 dBm
35.960 MHz		
Transmit Freq Error	-1.182 kHz	OBW Power 99.00 %
x dB Bandwidth	36.39 MHz	x dB -6.00 dB

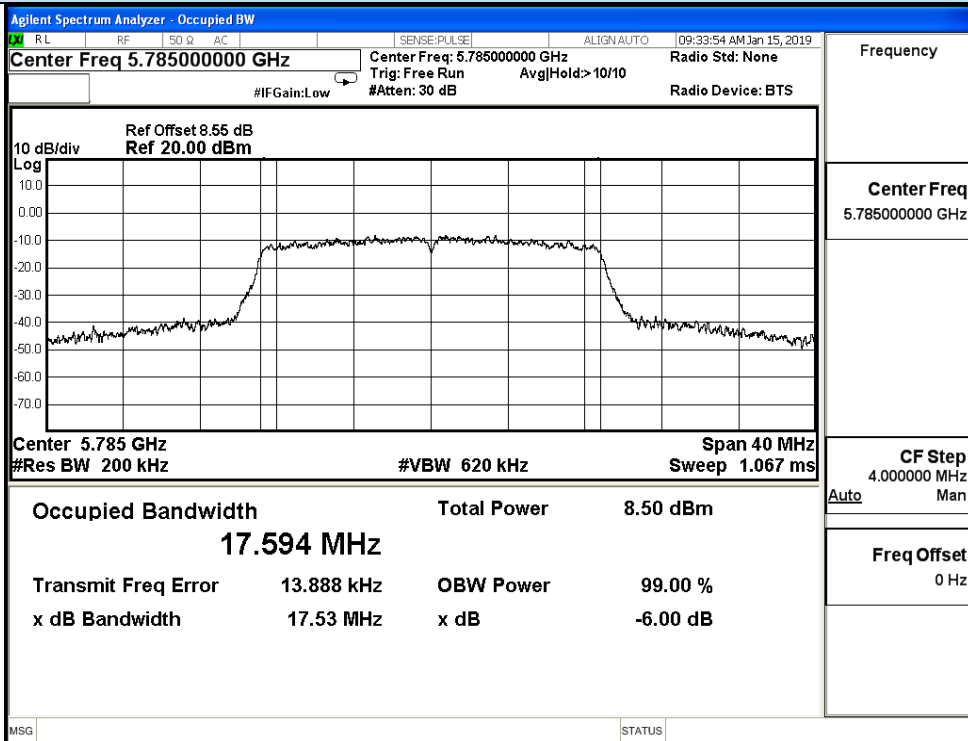
MSG STATUS

IEEE 802.11n40 / Channel 159 / 5795MHz

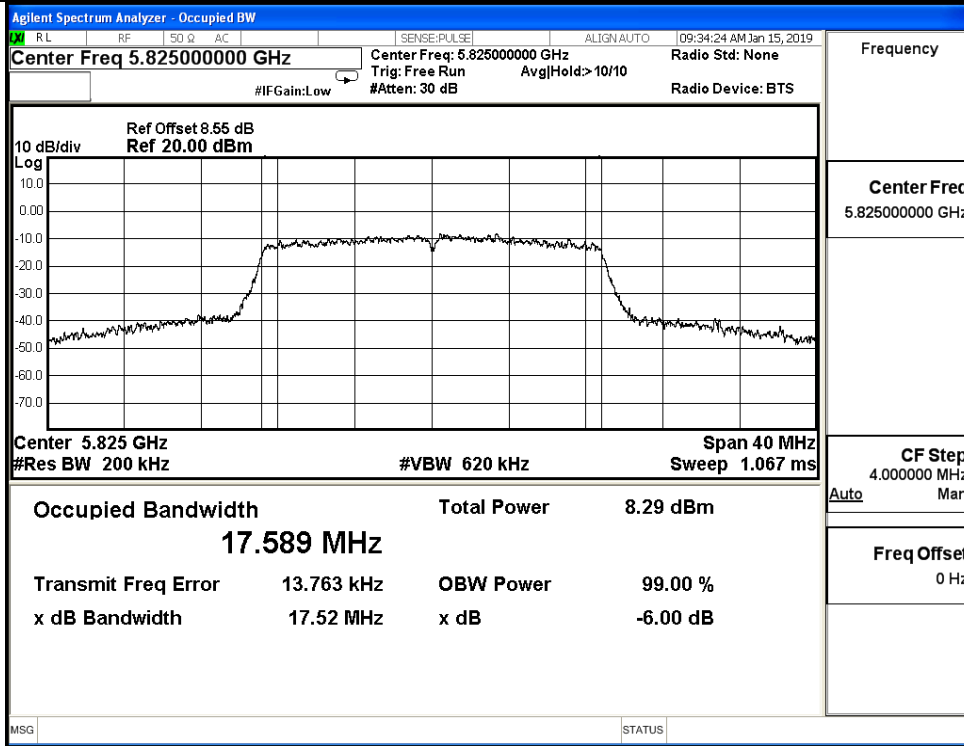
99% Occupied Bandwidth



IEEE 802.11a / Channel 149 / 5745MHz

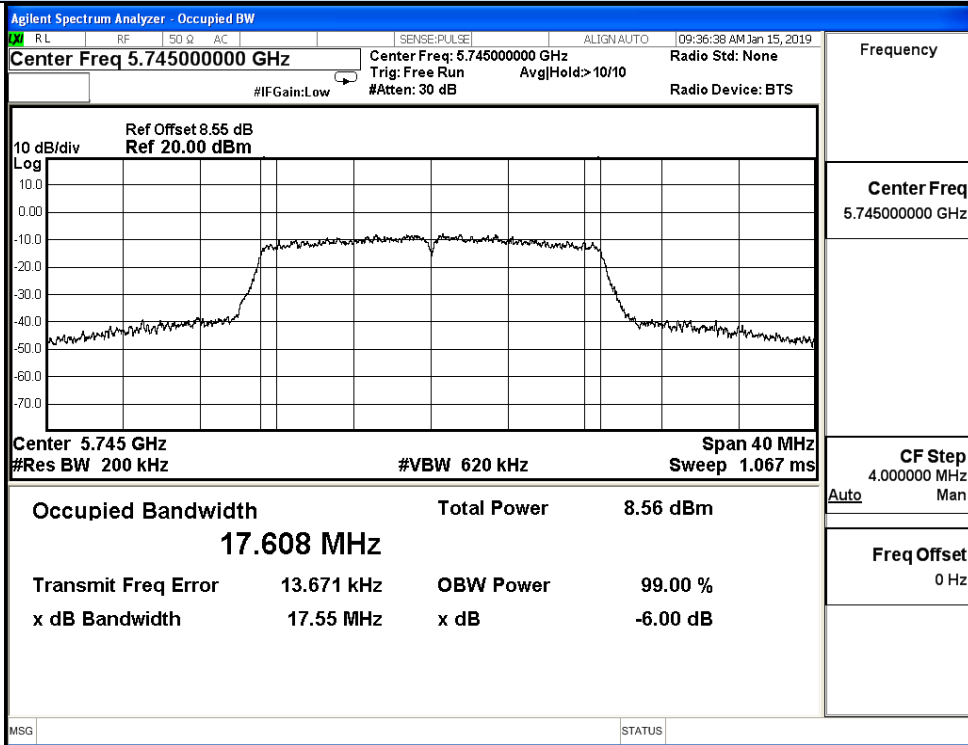


IEEE 802.11a / Channel 157 / 5785MHz

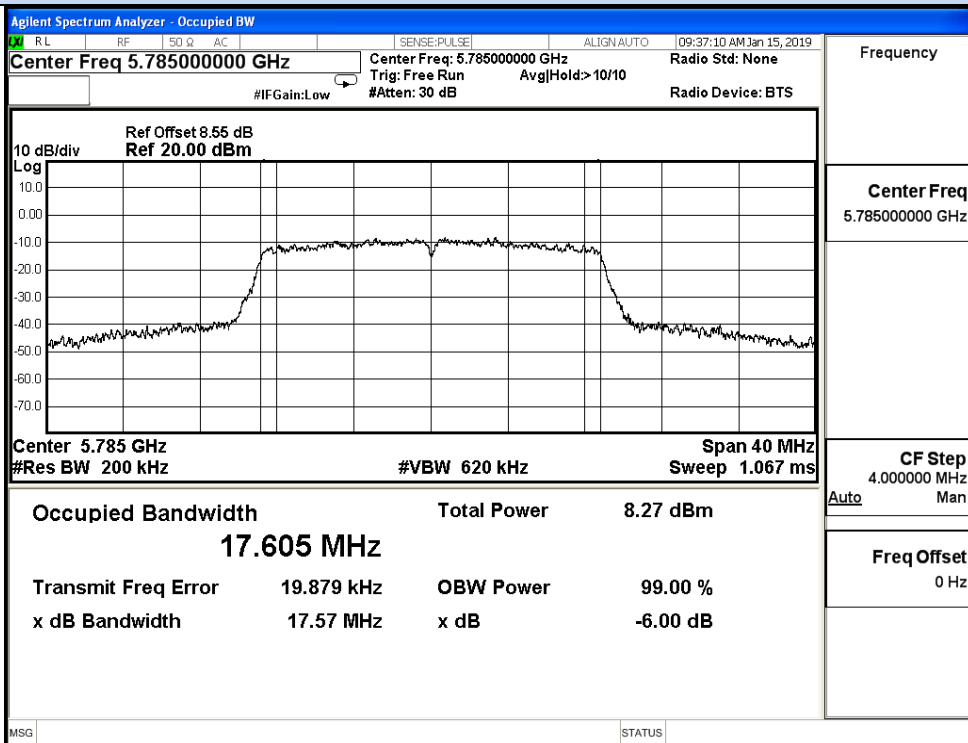


IEEE 802.11a / Channel 165 / 5825MHz

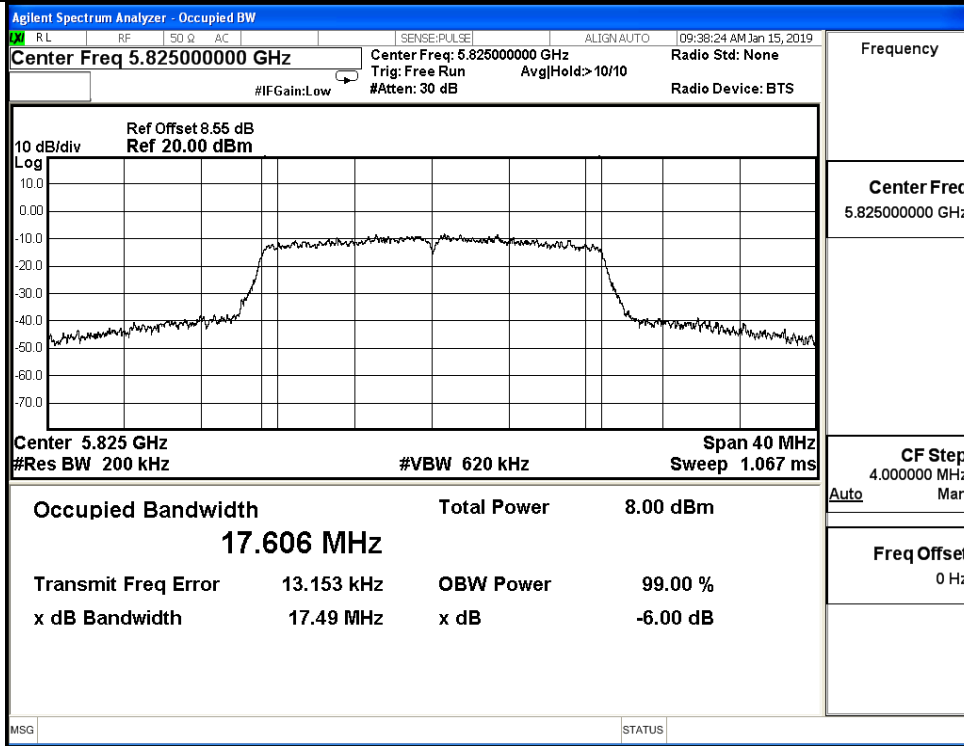
99% Occupied Bandwidth



IEEE 802.11n20 / Channel 149 / 5745MHz



IEEE 802.11n20 / Channel 157 / 5785MHz



IEEE 802.11n20 / Channel 165 / 5825MHz

99% Occupied Bandwidth

Agilent Spectrum Analyzer - Occupied BW

RL	RF	50 Ω	AC	SENSE:PULSE	ALIGN:AUTO	09:41:59 AM Jan 15, 2019
Center Freq 5.755000000 GHz				Center Freq: 5.755000000 GHz	Trig: Free Run	Avg/Hold:>10/10
#IFGain:Low				#Atten: 30 dB	Radio Device: BTS	

Ref Offset 8.55 dB
Ref 20.00 dBm

Center 5.755 GHz Span 80 MHz
#Res BW 390 kHz #VBW 1.2 MHz Sweep 1.067 ms

Occupied Bandwidth	Total Power	8.62 dBm
35.936 MHz		
Transmit Freq Error	69.653 kHz	OBW Power
		99.00 %
x dB Bandwidth	35.68 MHz	x dB
		-6.00 dB

MSG STATUS

IEEE 802.11n40 / Channel 151 / 5755MHz

Agilent Spectrum Analyzer - Occupied BW

RL	RF	50 Ω	AC	SENSE:PULSE	ALIGN:AUTO	09:42:36 AM Jan 15, 2019
Center Freq 5.795000000 GHz				Center Freq: 5.795000000 GHz	Trig: Free Run	Avg/Hold:>10/10
#IFGain:Low				#Atten: 30 dB	Radio Device: BTS	

Ref Offset 8.55 dB
Ref 20.00 dBm

Center 5.795 GHz Span 80 MHz
#Res BW 390 kHz #VBW 1.2 MHz Sweep 1.067 ms

Occupied Bandwidth	Total Power	8.75 dBm
35.892 MHz		
Transmit Freq Error	32.023 kHz	OBW Power
		99.00 %
x dB Bandwidth	35.65 MHz	x dB
		-6.00 dB

MSG STATUS

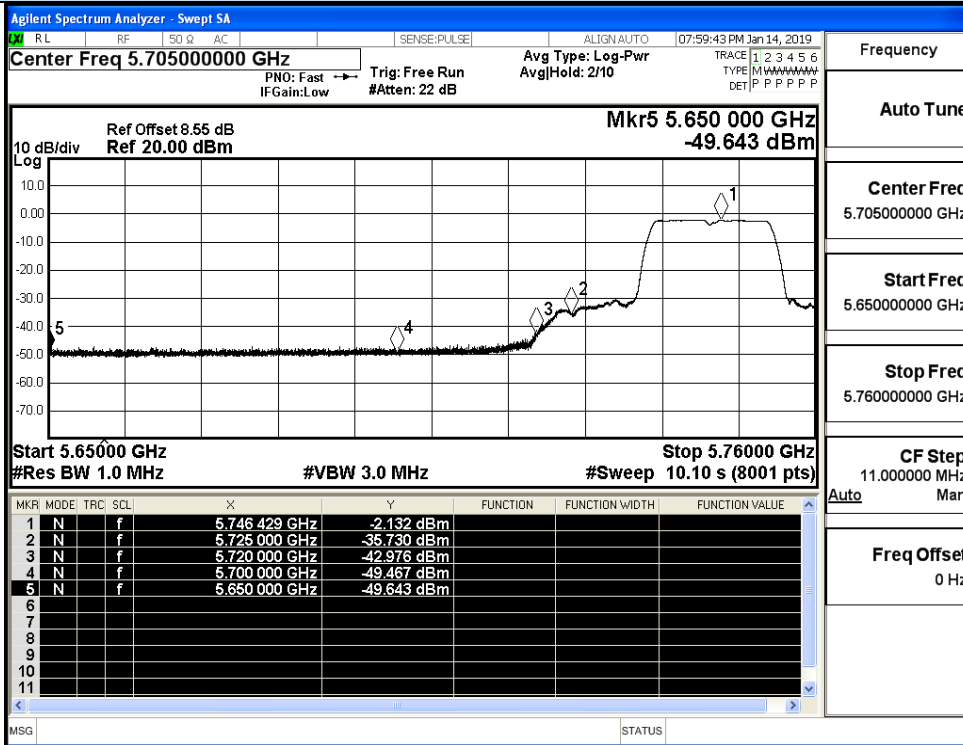
IEEE 802.11n40 / Channel 159 / 5795MHz

D.5 Undesirable Emissions Measurement

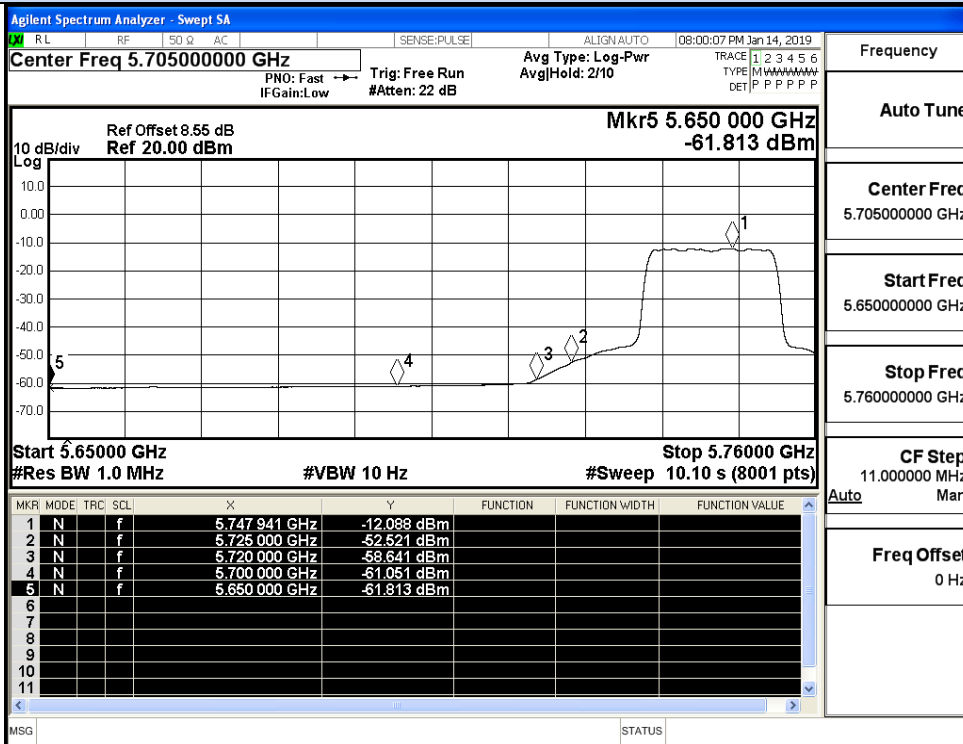
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11A	149	5650.0	-49.64	2.00	-47.64	Peak	27.0	Pass
		5650.0	-61.81	2.00	-59.81	Average	27.0	Pass
		5700.0	-49.47	2.00	-47.47	Peak	15.6	Pass
		5700.0	-61.05	2.00	-59.05	Average	15.6	Pass
		5720.0	-42.98	2.00	-40.98	Peak	10.0	Pass
		5720.0	-58.64	2.00	-56.64	Average	10.0	Pass
		5725.0	-35.73	2.00	-33.73	Peak	-27.0	Pass
	5725.0	-52.52	2.00	-50.52	Average	-27.0	Pass	
	165	5850.0	-43.35	2.00	-41.35	Peak	-27.0	Pass
		5850.0	-59.27	2.00	-57.27	Average	-27.0	Pass
		5855.0	-49.39	2.00	-47.39	Peak	10.0	Pass
		5855.0	-60.60	2.00	-58.60	Average	10.0	Pass
		5875.0	-49.24	2.00	-47.24	Peak	15.6	Pass
		5875.0	-61.15	2.00	-59.15	Average	15.6	Pass
5925.0		-50.04	2.00	-48.04	Peak	27.0	Pass	
5925.0	-61.74	2.00	-59.74	Average	27.0	Pass		
11N20 SISO	149	5650.0	-49.29	2.00	-47.29	Peak	27.0	Pass
		5650.0	-61.44	2.00	-59.44	Average	27.0	Pass
		5700.0	-48.45	2.00	-46.45	Peak	15.6	Pass
		5700.0	-58.65	2.00	-56.65	Average	15.6	Pass
		5720.0	-44.10	2.00	-42.10	Peak	10.0	Pass
		5720.0	-60.44	2.00	-58.44	Average	10.0	Pass
		5725.0	-36.82	2.00	-34.82	Peak	-27.0	Pass
	5725.0	-53.53	2.00	-51.53	Average	-27.0	Pass	
	165	5850.0	-45.54	2.00	-43.54	Peak	-27.0	Pass
		5850.0	-58.98	2.00	-56.98	Average	-27.0	Pass
		5855.0	-48.02	2.00	-46.02	Peak	10.0	Pass
		5855.0	-60.08	2.00	-58.08	Average	10.0	Pass
		5875.0	-49.16	2.00	-47.16	Peak	15.6	Pass
		5875.0	-60.78	2.00	-58.78	Average	15.6	Pass
5925.0		-49.58	2.00	-47.58	Peak	27.0	Pass	
5925.0	-61.69	2.00	-59.69	Average	27.0	Pass		

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11N40 SISO	151	5650.0	-49.61	2.00	-47.61	Peak	27.0	Pass
		5650.0	-61.57	2.00	-59.57	Average	27.0	Pass
		5700.0	-46.31	2.00	-44.31	Peak	15.6	Pass
		5700.0	-59.91	2.00	-57.91	Average	15.6	Pass
		5720.0	-38.60	2.00	-36.60	Peak	10.0	Pass
		5720.0	-51.83	2.00	-49.83	Average	10.0	Pass
		5725.0	-36.08	2.00	-34.08	Peak	-27.0	Pass
	5725.0	-49.29	2.00	-47.29	Average	-27.0	Pass	
	159	5850.0	-49.13	2.00	-47.13	Peak	-27.0	Pass
		5850.0	-59.87	2.00	-57.87	Average	-27.0	Pass
		5855.0	-48.77	2.00	-46.77	Peak	10.0	Pass
		5855.0	-60.15	2.00	-58.15	Average	10.0	Pass
		5875.0	-49.83	2.00	-47.83	Peak	15.6	Pass
		5875.0	-60.83	2.00	-58.83	Average	15.6	Pass
5925.0		-50.02	2.00	-48.02	Peak	27.0	Pass	
5925.0	-61.43	2.00	-59.43	Average	27.0	Pass		

Undesirable Emissions Measurement

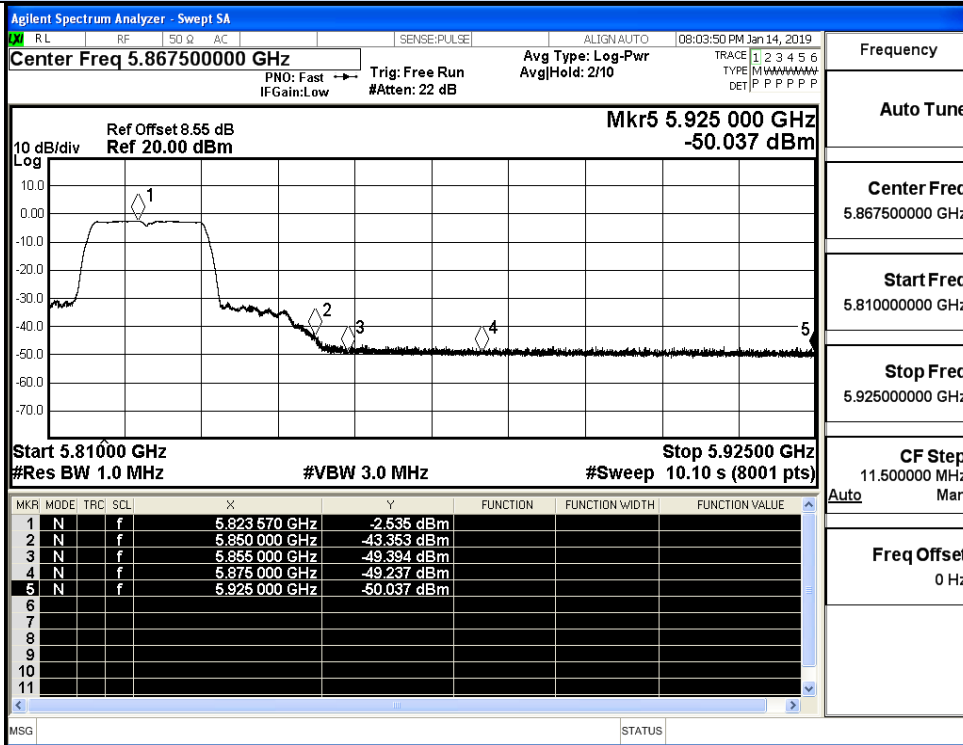


IEEE 802.11a / Channel 149 / 5745MHz / Peak

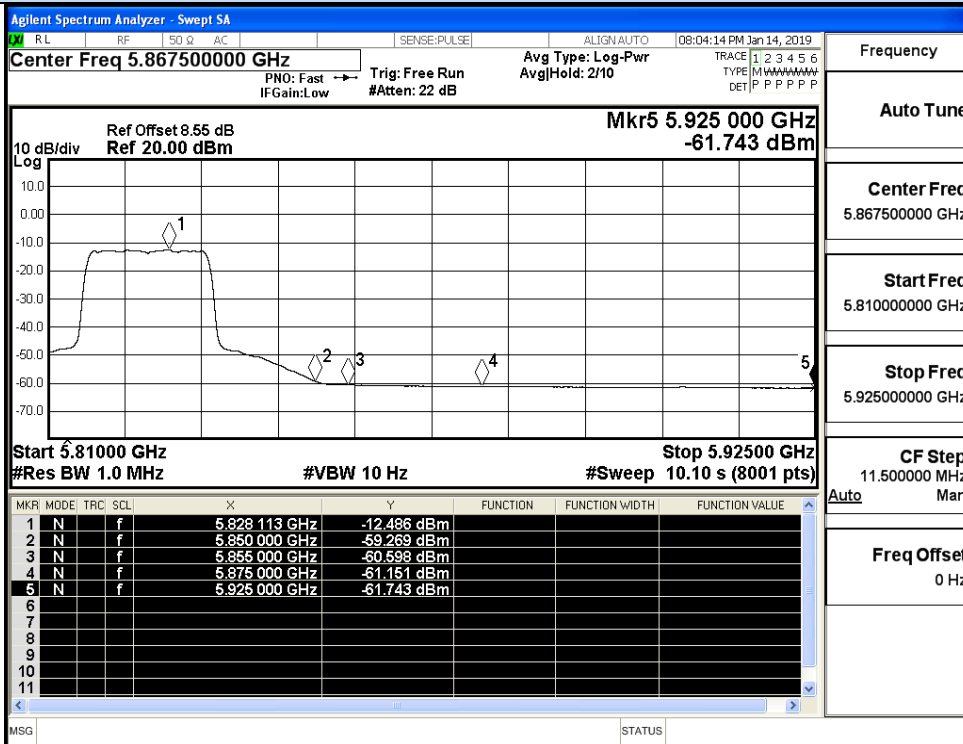


IEEE 802.11a / Channel 148 / 5745MHz / Average

Undesirable Emissions Measurement

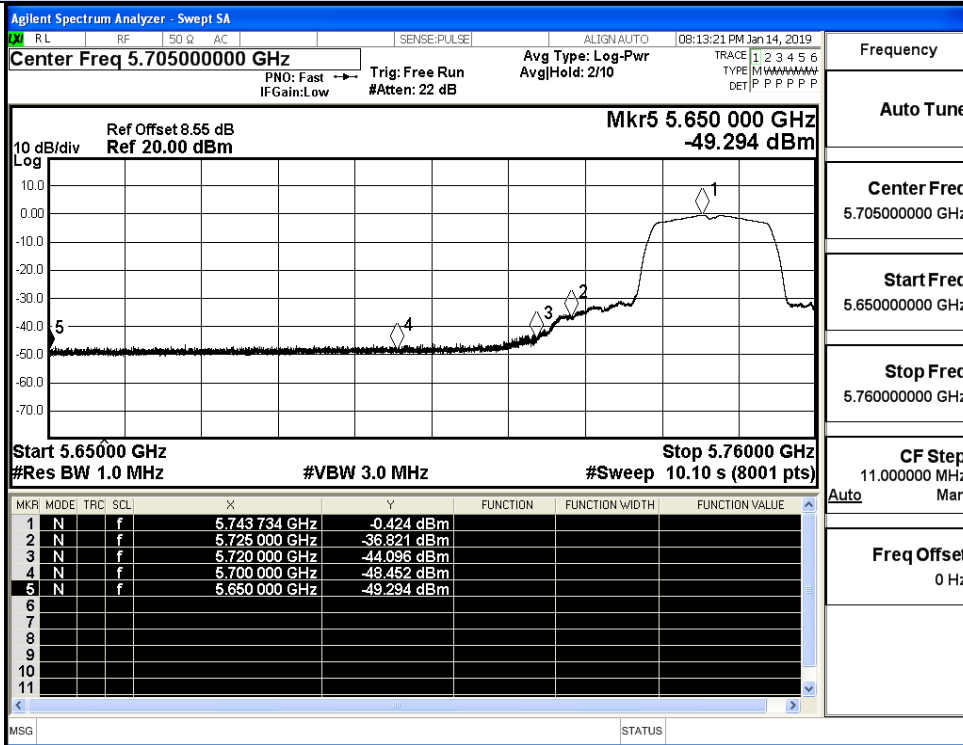


IEEE 802.11a / Channel 165 / 5825MHz / Peak

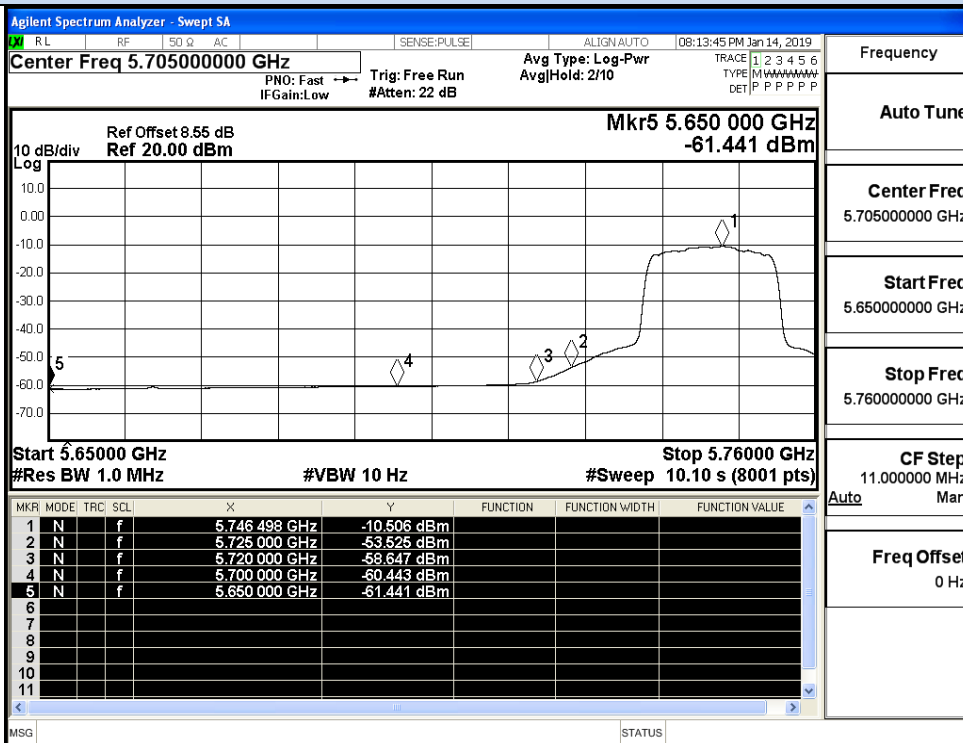


IEEE 802.11a / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

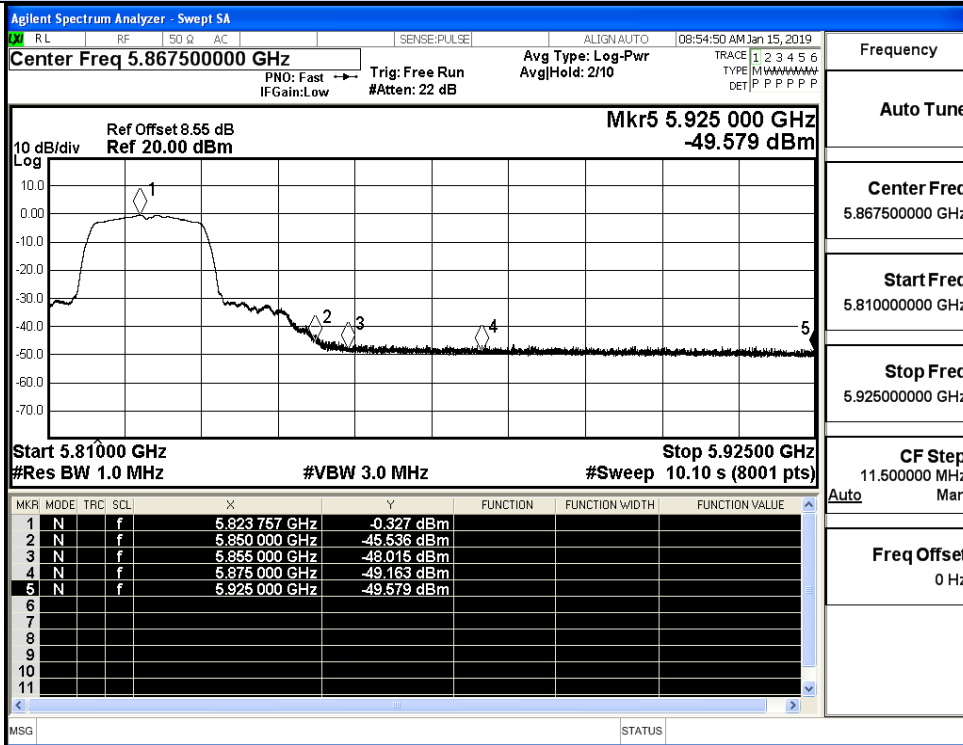


IEEE 802.11n20 / Channel 149 / 5745MHz / Peak

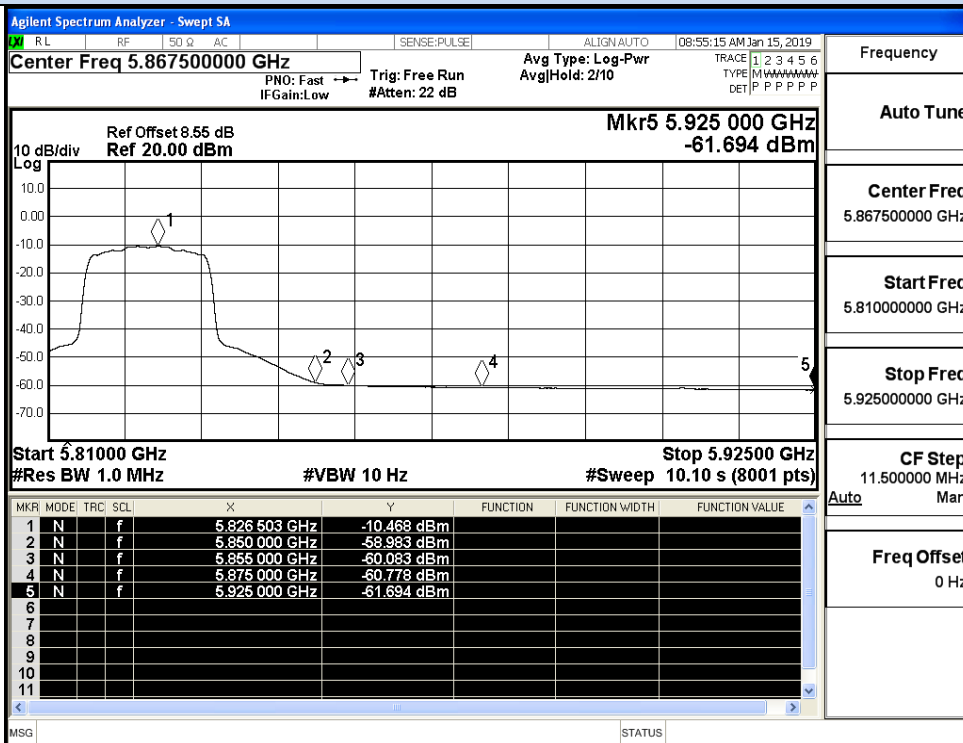


IEEE 802.11n20 / Channel 149 / 5745MHz / Average

Undesirable Emissions Measurement

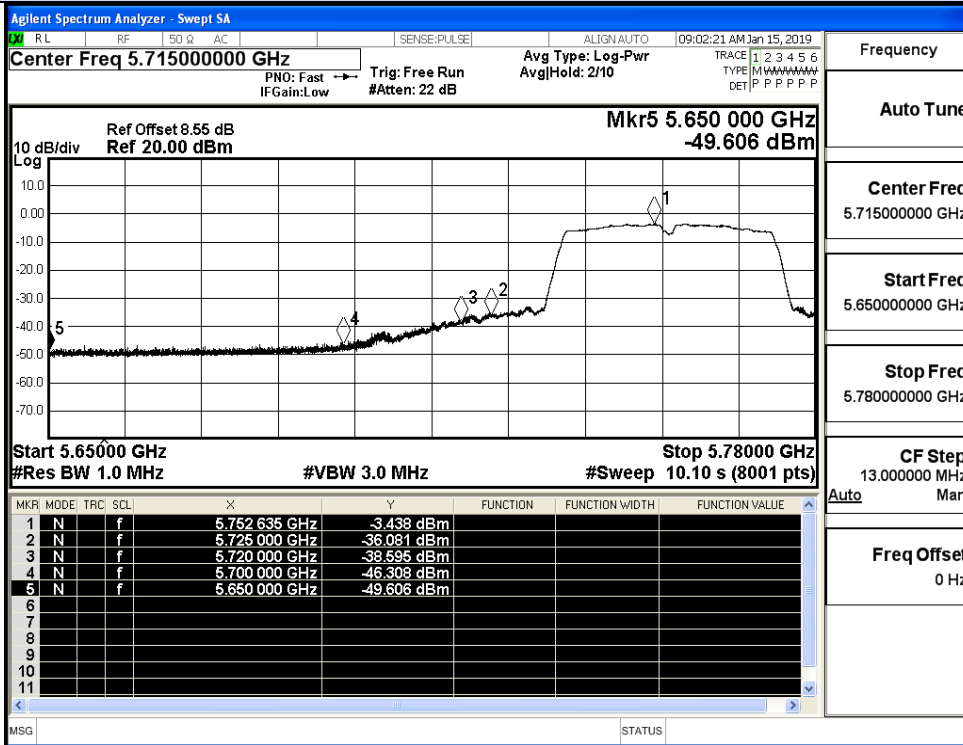


IEEE 802.11n20 / Channel 165 / 5825MHz / Peak

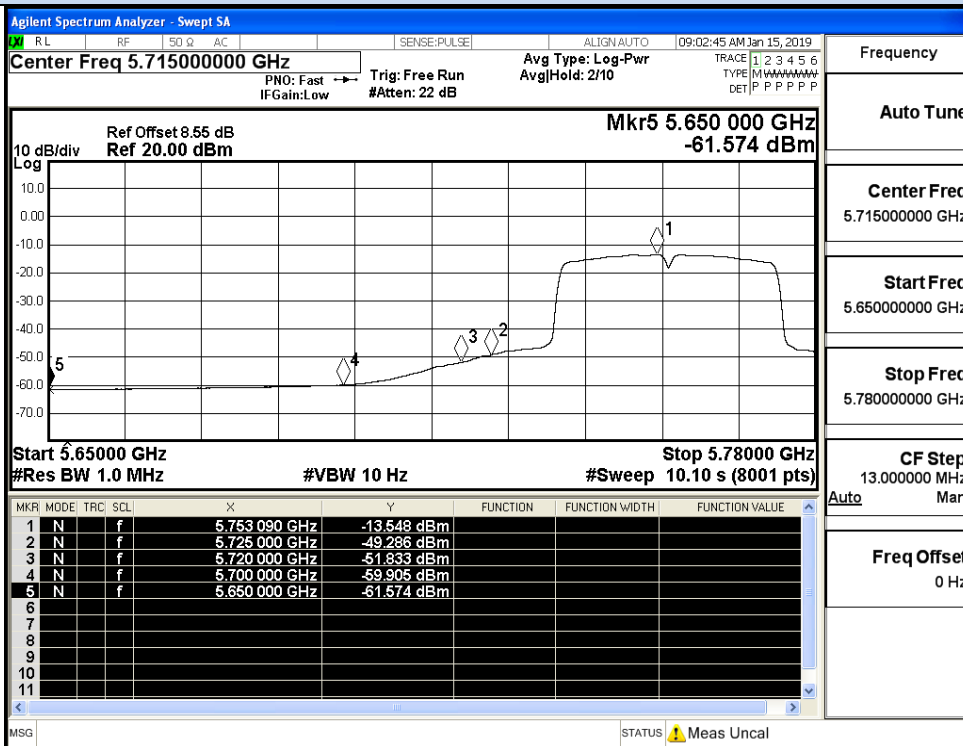


IEEE 802.11n20 / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement

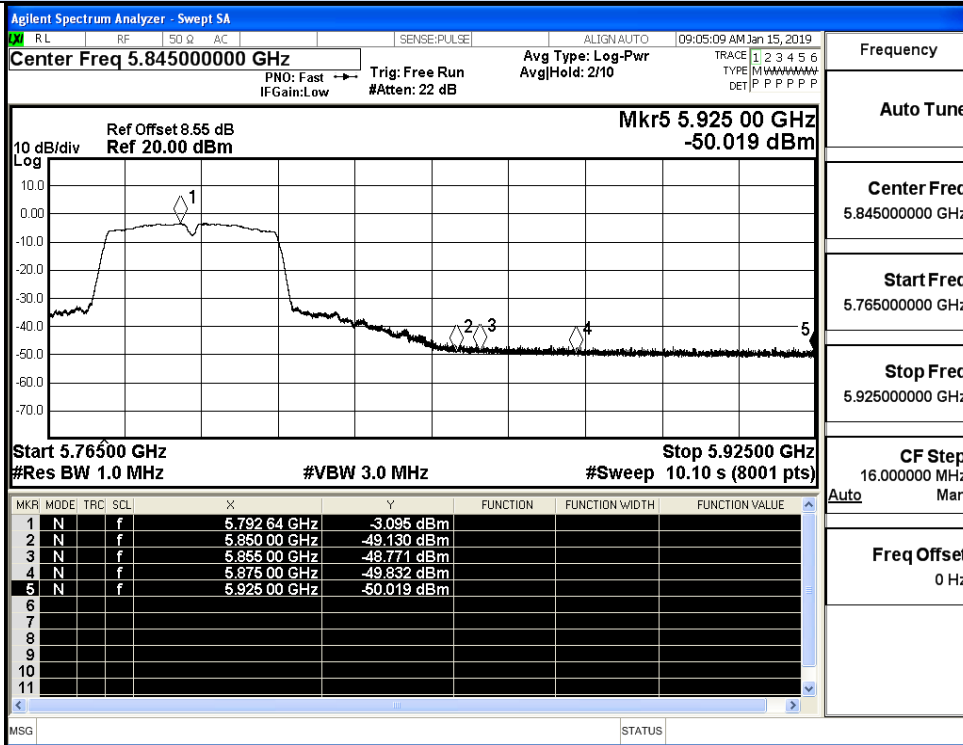


IEEE 802.11n40 / Channel 151 / 5755MHz / Peak

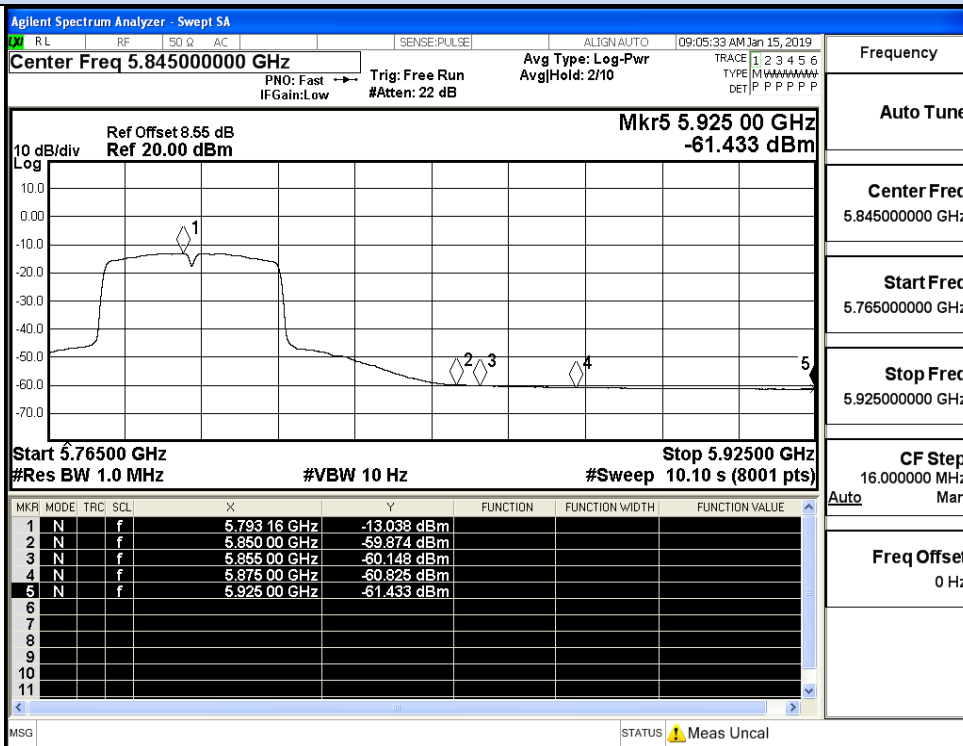


IEEE 802.11n40 / Channel 151 / 5755MHz / Average

Undesirable Emissions Measurement



IEEE 802.11n40 / Channel 159 / 5795MHz / Peak



IEEE 802.11n40 / Channel 159 / 5795MHz / Average