Appendix B

RF Test Data for 5.2G WLAN (Conducted Measurement)

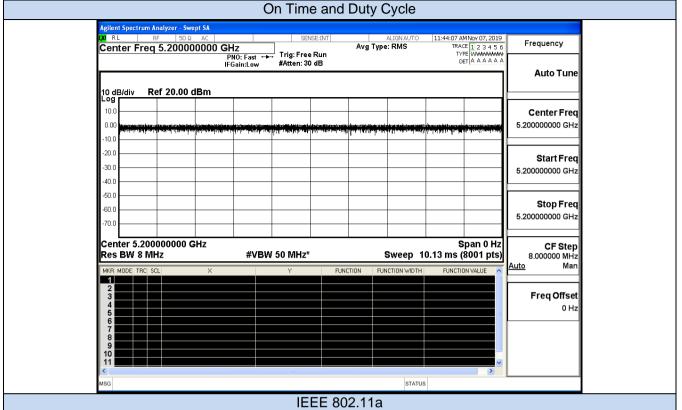
Product Name: Portable 4G LTE Router Test Model: GL-E750C6

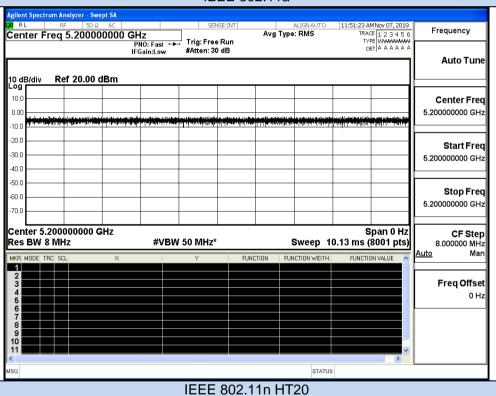
Environmental Conditions

Temperature:	23.9°C		
Relative Humidity:	53.9%		
ATM Pressure:	100.0 kPa		
Test Engineer:	Diamond.Lu		
Supervised by:	Wang.Chuang		

B.1 Duty Cycle

Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5200	100	0.00	0.01
11N20 SISO	5200	100	0.00	0.01
11N40 SISO	5190	100	0.00	0.01
11AC20 SISO	5200	100	0.00	0.01
11AC40 SISO	5190	100	0.00	0.01
11AC80 SISO	5210	100	0.00	0.01





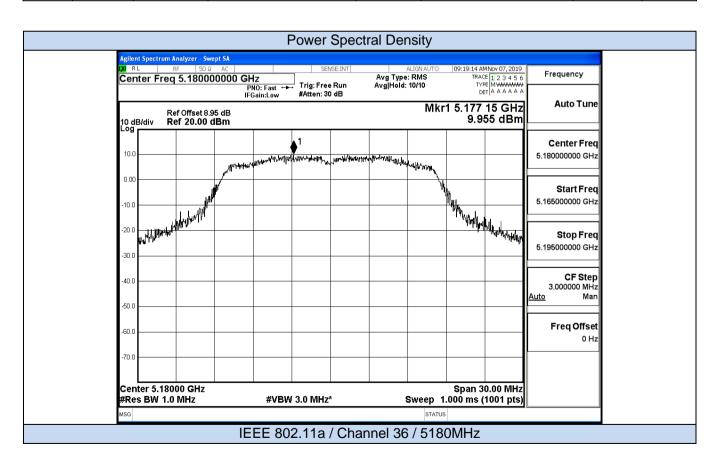
SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2AFIW-E750C6 Report No.: LCS191011018AEC100 gilent Spectrum Analyzer - Swept SA RL | RF | 50 Ω AC | Center Freq 5.1900000000 GHz ALIGNAUTO 11:57:10 AMNov 07, 2019 Avg Type: RMS TRACE 12 3 4 5 6 TYPE WWWWWWW DET A A A A A A Frequency PNO: Fast ↔ IFGain:Low Tria: Free Run #Atten: 30 dB Auto Tune 10 dB/div Ref 20.00 dBm 10.0 Center Freq 0.00 5.190000000 GHz -10.0 -20.0 Start Freq -30.0 5.190000000 GHz 40.0 Stop Freq -60.0 5.190000000 GHz -70.0 Center 5.190000000 GHz Span 0 Hz CF Step Sweep 10.13 ms (8001 pts) Res BW 8 MHz **#VBW 50 MHz*** 8.000000 MHz <u>Auto</u> FUNCTION Freq Offset 0 Hz STATUS IEEE 802.11 AC40 gilent Spectrum Analyzer - Swept SA ALIGNAUTO 12:00:47 PMNov 07, 2019 Avg Type: RMS TRACE [1 2 3 4 5 6 7 YPE | WWWWWW DET | A A A A A A SENSE:INT Frequency PNO: Fast → Trig: Free Run IFGain:Low #Atten: 30 dB Auto Tune 10 dB/div Ref 20.00 dBm 10.0 Center Freq 5.210000000 GHz 0.00 -20.0 Start Freq -30.0 5.210000000 GHz -40.0 -50.0 Stop Freq -60.0 5.210000000 GHz Center 5.210000000 GHz Span 0 Hz CF Step 8.000000 MHz Sweep 10.13 ms (8001 pts) Res BW 8 MHz **#VBW 50 MHz*** <u>Auto</u> FUNCTION FUNCTION WIDTH Freq Offset 0 Hz STATUS IEEE 802.11AC80

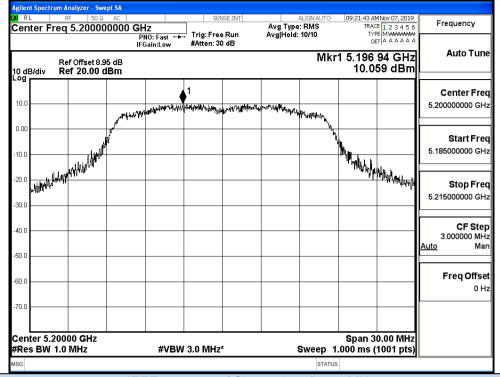
B.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
	36	5180	19.07	0	19.07		Pass
11A	40	5200	19.52	0	19.52	30	Pass
	48	5240	19.49	0	19.49		Pass
111100	36	5180	19.93	0	19.93		Pass
11N20 SISO	40	5200	19.42	0	19.42	30	Pass
3130	48	5240	19.24	0	19.24		Pass
11N40	38	5190	18.51	0	18.51	30	Pass
SISO	46	5230	18.48	0	18.48	30	Pass
11AC20	36	5180	19.48	0	19.48		Pass
SISO	40	5200	18.58	0	18.58	30	Pass
3130	48	5240	19.48	0	19.48	30	Pass
11AC40	38	5190	18.76	0	18.76	30	Pass
SISO	46	5230	19.54	0	19.54	30	Pass
11AC80 SISO	42	5210	18.92	0	18.92	30	Pass

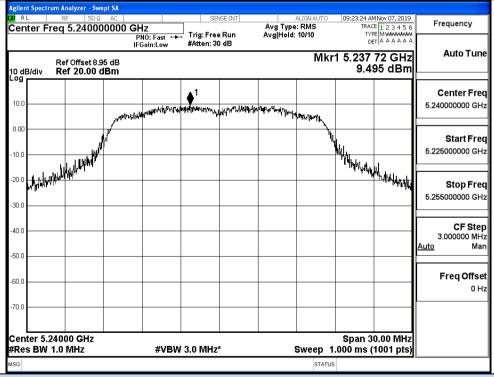
B.3 Power Spectral Density

Test Mode	Channe I	Frequenc y (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor(d B)	Report Power Density (dBm/MHz)	Limit (dBm/MH z)	Verdic t
	36	5180	9.96	0	9.96		Pass
11A	40	5200	10.06	0	10.06	17	Pass
	48	5240	9.50	0	9.50	1	Pass
11N2	36	5180	10.13	0	10.13		Pass
0	40	5200	9.84	0	9.84	17	Pass
SISO	48	5240	9.62	0	9.62		Pass
11N4	38	5190	7.28	0	7.28		Pass
0 SISO	46	5230	5.92	0	5.92	17	Pass
11AC	36	5180	10.53	0	10.53		Pass
20	40	5200	9.17	0	9.17	17	Pass
SISO	48	5240	9.67	0	9.67	1/	Pass
11AC	38	5190	5.43	0	5.43		Pass
40 SISO	46	5230	6.06	0	6.06	17	Pass
11AC 80 SISO	42	5210	3.31	0	3.31	17	Pass

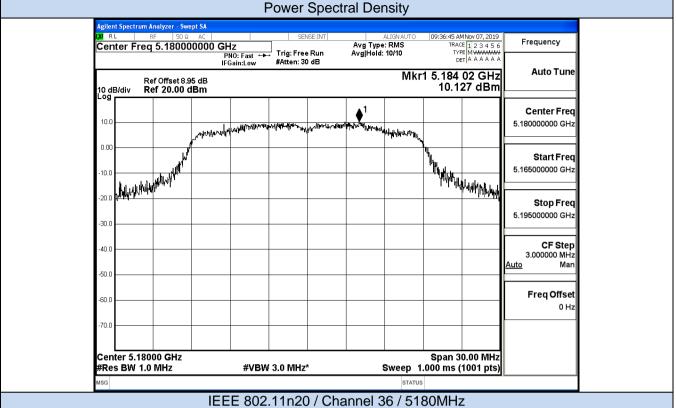


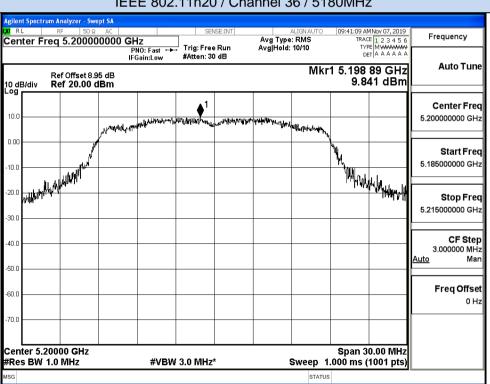


IEEE 802.11na / Channel 40 / 5200MHz

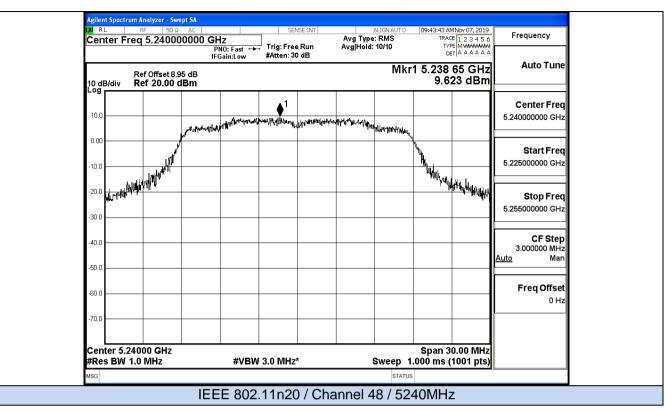


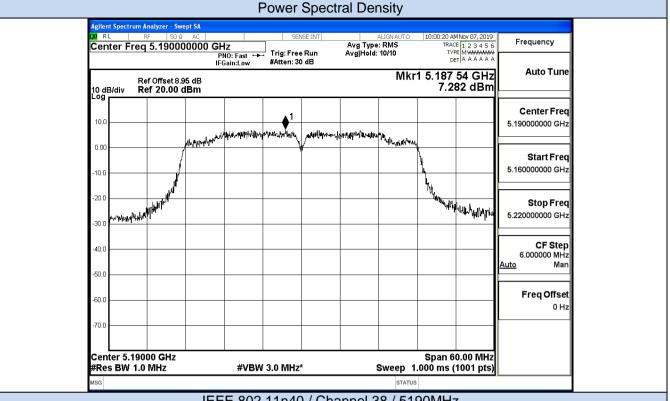
IEEE 802.11na / Channel 48 / 5240MHz





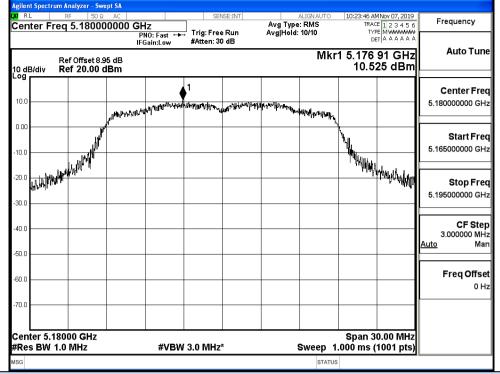
IEEE 802.11n20 / Channel 40 / 5200MHz



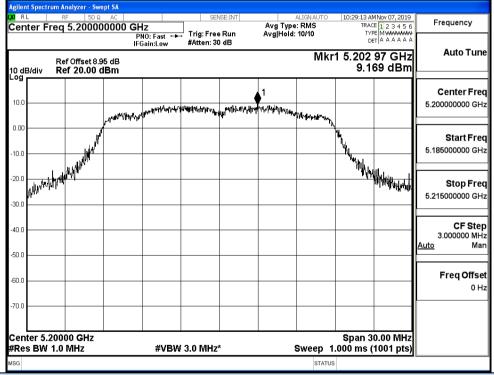


IEEE 802.11n40 / Channel 38 / 5190MHz Agilent Spectrum Analyzer - Swept SA Avg Type: RMS TRACE 1 2 3 4 5 6 Avg|Hold: 10/10 Type Mwww.mw DET|A A A A A A Frequency Center Freq 5.230000000 GHz PNO: Fast → Trig: Free Run IFGain:Low #Atten: 30 dB Mkr1 5.231 74 GHz 5.922 dBm **Auto Tune** Ref Offset 8.95 dB Ref 20.00 dBm 10 dB/div Log Center Freq 5.230000000 GHz 0.00 Start Freq 5.200000000 GHz -10.0 The state of the s 4/1/4/4/4/ -20.0 Stop Freq 5.260000000 GHz CF Step -40.0 6.000000 MHz -50.0 Freq Offset -60.0 0 Hz Center 5.23000 GHz #Res BW 1.0 MHz Span 60.00 MHz Sweep 1.000 ms (1001 pts) #VBW 3.0 MHz*

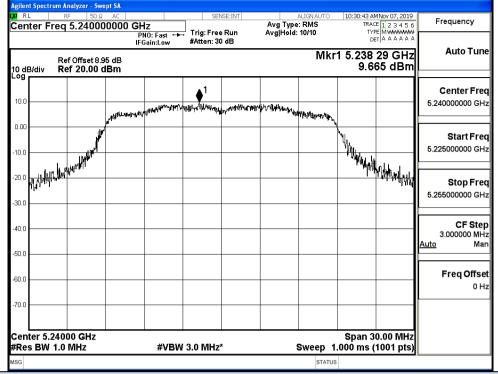
IEEE 802.11n40 / Channel 46 / 5230MHz



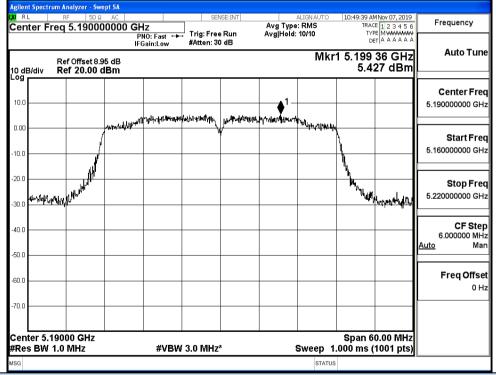
IEEE 802.11ac20 / Channel 36 / 5180MHz



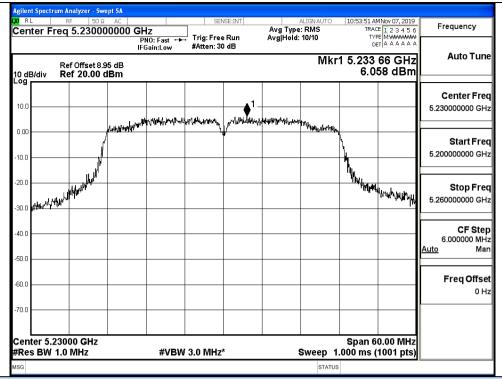
IEEE 802.11ac20 / Channel 40 / 5200MHz



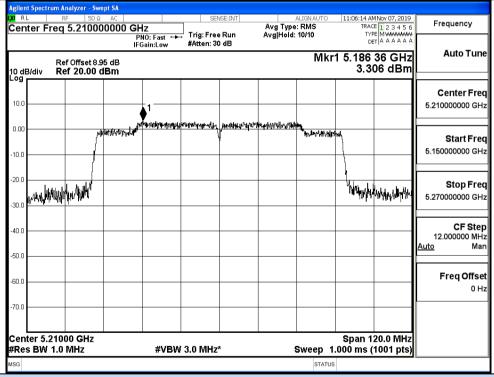
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



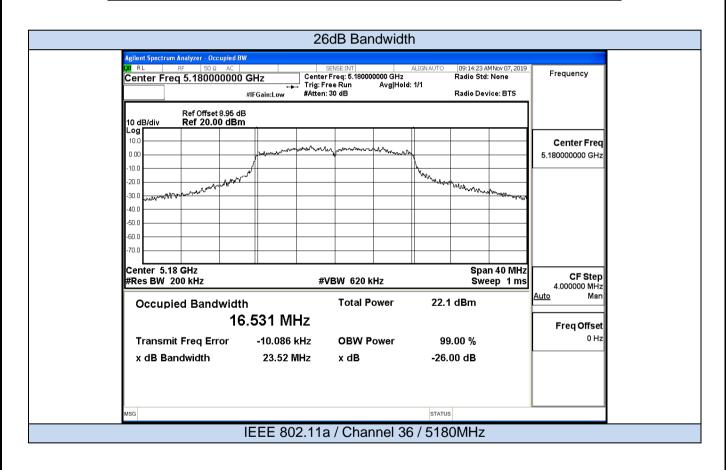
IEEE 802.11ac40 / Channel 46 / 5230MHz

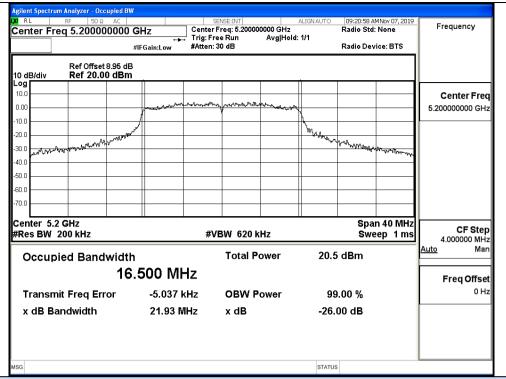


IEEE 802.11ac80 / Channel 42 / 5210MHz

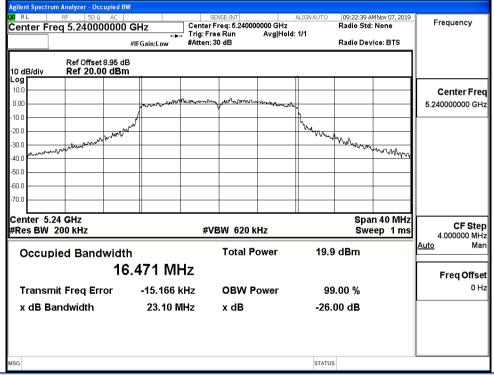
B.4 Emission Bandwidth

Test Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
	36	5180	23.52		Pass
11A	40	5200	21.93	No Limit	Pass
	48	5240	23.10		Pass
11N20	36	5180	30.28		Pass
SISO	40	5200	26.91	No Limit	Pass
3130	48	5240	23.72		Pass
11N40	38	5190	41.53	No Limit	Pass
SISO	46	5230	42.10	INO LIITIIL	Pass
11AC20	36	5180	22.00		Pass
SISO	40	5200	21.65	No Limit	Pass
3130	48	5240	23.59		Pass
11AC40	38	5190	40.95	No Limit	Pass
SISO	46	5230	41.82	INO LIIIIII	Pass
11AC80 SISO	42	5210	150.3	No Limit	Pass

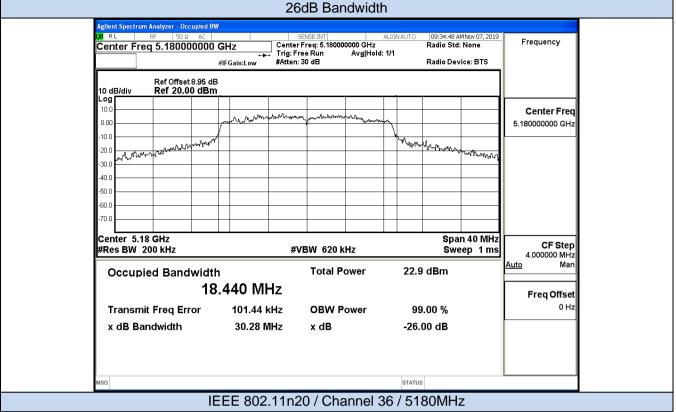




IEEE 802.11a / Channel 40 / 5200MHz



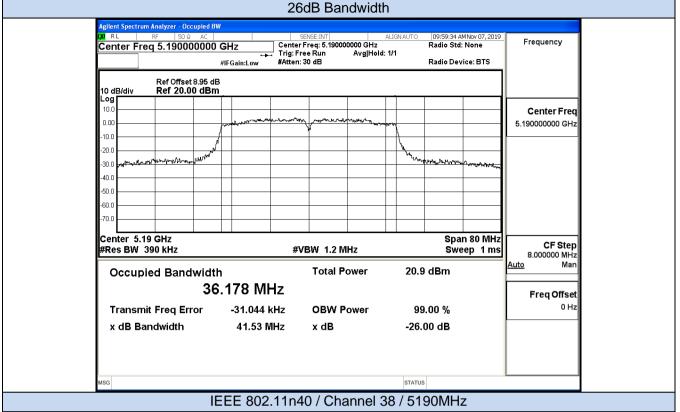
IEEE 802.11a / Channel 48 / 5240MHz

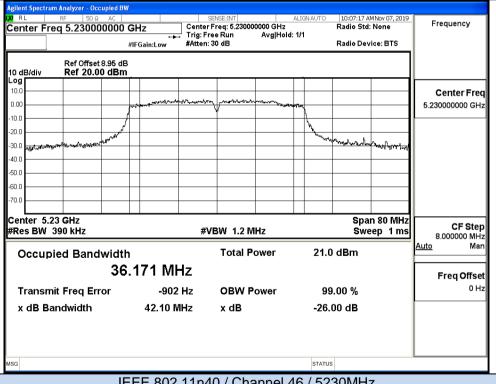


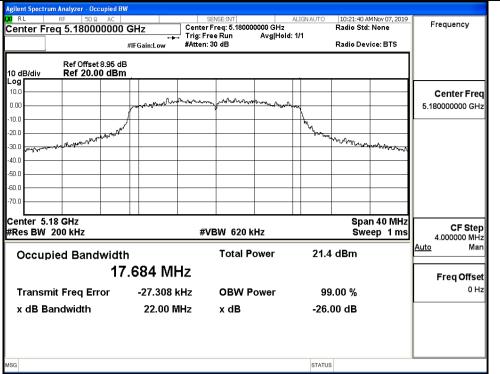
Agilent Spectrum Analyzer - Occupied BW SENSE:INT ALIGNAUTO Center Freq: 5.200000000 GHz Trig: Free Run Avg|Hold:>1/1 #Atten: 30 dB Frequency Center Freq 5.200000000 GHz Radio Device: BTS Ref Offset 8.95 dB Ref 20.00 dBm 10 dB/div Center Freq 0.00 5.200000000 GHz -10.0 holava MANN they whom they would -20.0 MANNEY WANDERNY -30.0 **4**0 f 50.0 Center 5.2 GHz Span 40 MHz CF Step 4.000000 MHz #Res BW 200 kHz **#VBW 620 kHz** Sweep 1 ms <u> Auto</u> Occupied Bandwidth **Total Power** 21.9 dBm 17.952 MHz Freq Offset 0 Hz Transmit Freq Error 5.903 kHz **OBW Power** 99.00 % x dB 26.91 MHz -26.00 dB x dB Bandwidth STATUS

IEEE 802.11n20 / Channel 48 / 5240MHz

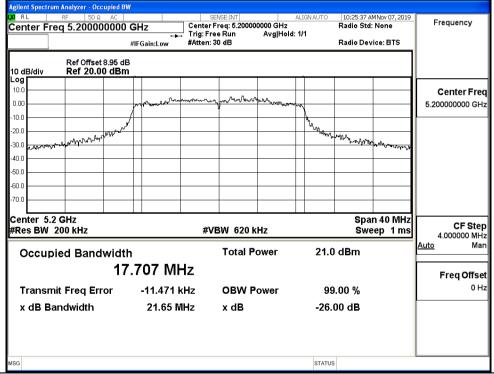
STATUS



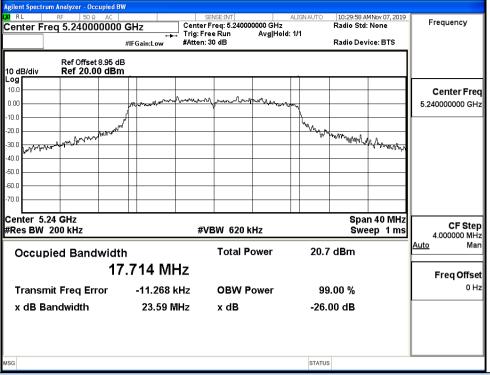




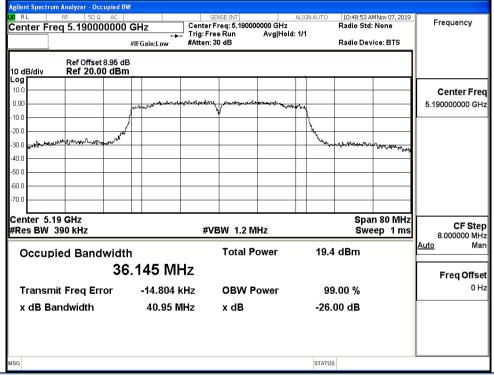
IEEE 802.11ac20 / Channel 36 / 5180MHz



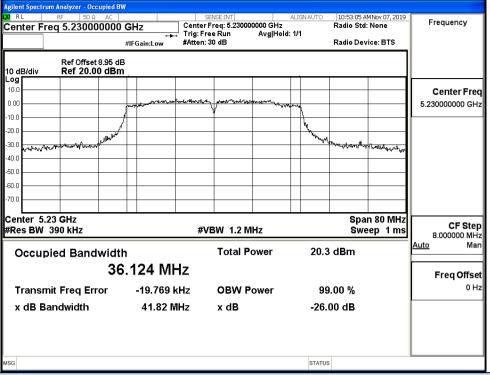
IEEE 802.11ac20 / Channel 40 / 5200MHz



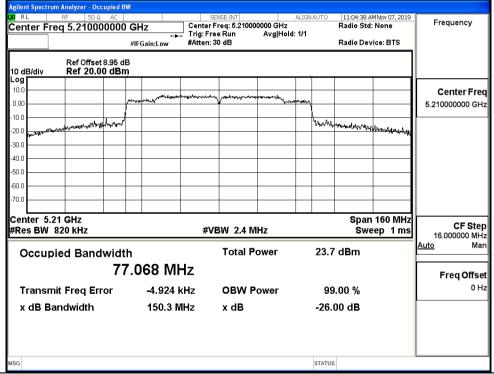
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



IEEE 802.11ac40 / Channel 46 / 5230MHz



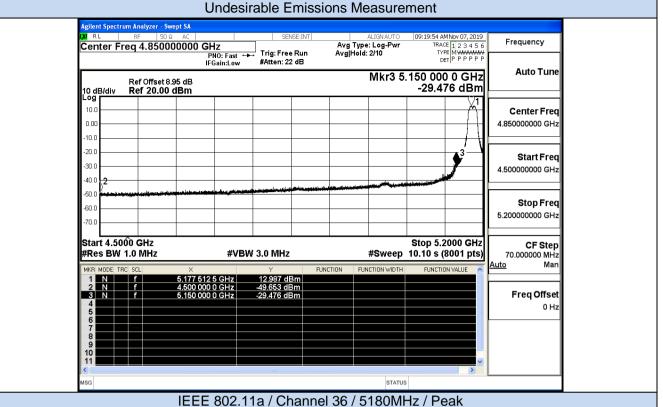
IEEE 802.11ac80 / Channel 42 / 5210MHz

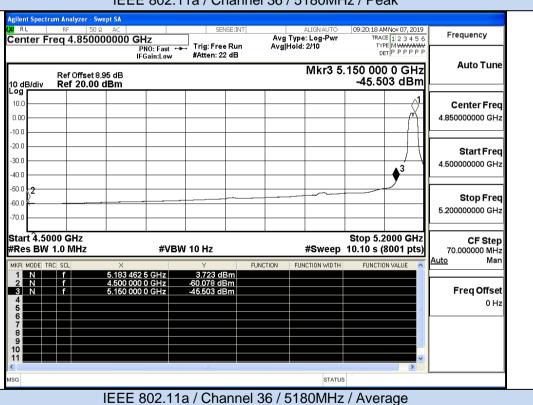
B.5 Undesirable Emissions Measurement

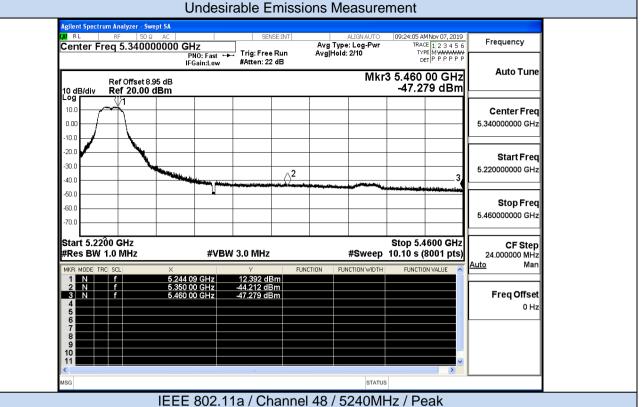
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
		4500.0	-49.65	2.00	0	47.58	Peak	68.20	Pass
		4500.0	-60.08	2.00	0	37.15	Average	54.00	Pass
	36	5150.0	-29.48	2.00	0	67.75	Peak	68.20	Pass
		5150.0	-45.50	2.00	0	51.73	Average	54.00	Pass
11A		5350.0	-44.21	2.00	0	53.02	Peak	68.20	Pass
		5350.0	-53.62	2.00	0	43.61	Average	54.00	Pass
	48	5460.0	-47.28	2.00	0	49.95	Peak	68.20	Pass
		5460.0	-57.83	2.00	0	39.40	Average	54.00	Pass
		4500.0	-50.11	2.00	0	47.12	Peak	68.20	Pass
		4500.0	-60.07	2.00	0	37.16	Average	54.00	Pass
	36	5150.0	-46.13	2.00	0	51.10	Peak	68.20	Pass
11N20		5150.0	-45.52	2.00	0	51.71	Average	54.00	Pass
SISO		5350.0	-43.52	2.00	0	53.71	Peak	68.20	Pass
		5350.0	-53.38	2.00	0	43.85	Average	54.00	Pass
	48	5460.0	-46.95	2.00	0	50.28	Peak	68.20	Pass
		5460.0	-57.35	2.00	0	39.88	Average	54.00	Pass
	38	4500.0	-50.07	2.00	0	47.16	Peak	68.20	Pass
		4500.0	-60.06	2.00	0	37.17	Average	54.00	Pass
		5150.0	-32.55	2.00	0	64.68	Peak	68.20	Pass
11N40		5150.0	-45.43	2.00	0	51.80	Average	54.00	Pass
SISO		5350.0	-43.53	2.00	0	53.70	Peak	68.20	Pass
		5350.0	-53.72	2.00	0	43.51	Average	54.00	Pass
	46	5460.0	-47.62	2.00	0	49.61	Peak	68.20	Pass
		5460.0	-57.79	2.00	0	39.44	Average	54.00	Pass
		4500.0	-49.71	2.00	0	47.52	Peak	68.20	Pass
		4500.0	-60.09	2.00	0	37.14	Average	54.00	Pass
	36	5150.0	-37.34	2.00	0	59.89	Peak	68.20	Pass
11AC20		5150.0	-46.64	2.00	0	50.59	Average	54.00	Pass
SISO		4500.0	-49.71	2.00	0	47.52	Peak	68.20	Pass
		4500.0	-60.09	2.00	0	37.14	Average	54.00	Pass
	48	5150.0	-37.34	2.00	0	59.89	Peak	68.20	Pass
		5150.0	-46.64	2.00	0	50.59	Average	54.00	Pass
		4500.0	-49.90	2.00	0	47.33	Peak	68.20	Pass
11AC40		4500.0	-59.97	2.00	0	37.26	Average	54.00	Pass
SISO	38	5150.0	-33.38	2.00	0	63.85	Peak	68.20	Pass
		5150.0	-45.45	2.00	0	51.78	Average	54.00	Pass

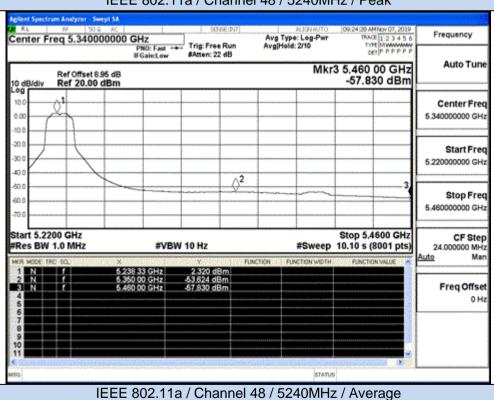
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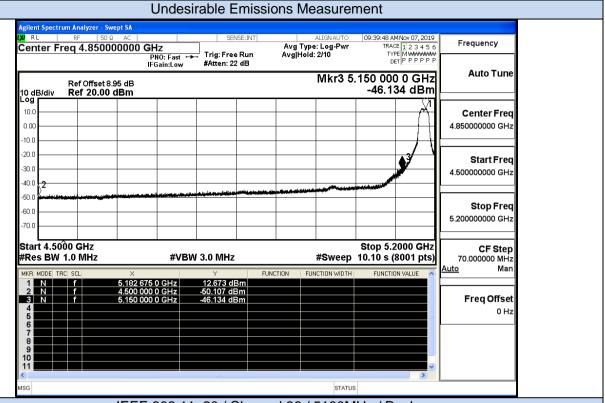
<u>SHENZH</u>	SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD.					2AFIW-E750C6	Report No.: L	.CS19101101	8AEC100
		5350.0	-43.23	2.00	0	54.00	Peak	68.20	Pass
		5350.0	-53.43	2.00	0	43.80	Average	54.00	Pass
	46	5460.0	-47.28	2.00	0	49.95	Peak	68.20	Pass
		5460.0	-57.72	2.00	0	39.51	Average	54.00	Pass
		4500.0	-41.52	2.00	0	55.71	Peak	68.20	Pass
		5150.0	-53.86	2.00	0	43.37	Average	54.00	Pass
		4500.0	-47.09	2.00	0	50.14	Peak	68.20	Pass
11AC80		5150.0	-57.40	2.00	0	39.83	Average	54.00	Pass
SISO	42	5350.0	-41.52	2.00	0	55.71	Peak	68.20	Pass
		5460.0	-53.86	2.00	0	43.37	Average	54.00	Pass
		5350.0	-47.09	2.00	0	50.14	Peak	68.20	Pass
		5460.0	-57.40	2.00	0	39.83	Average	54.00	Pass



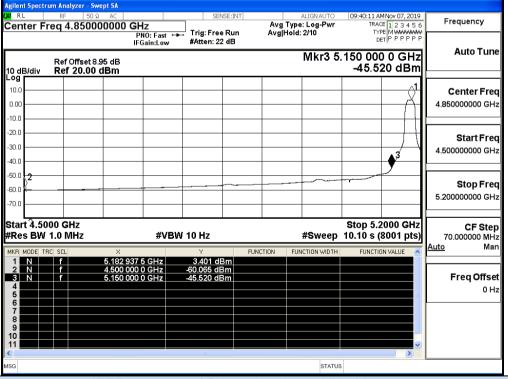




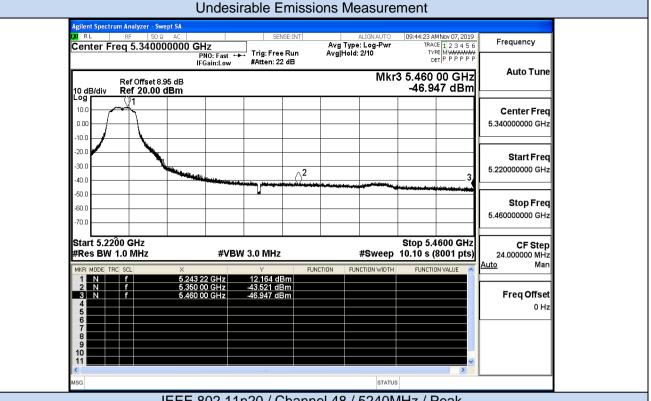


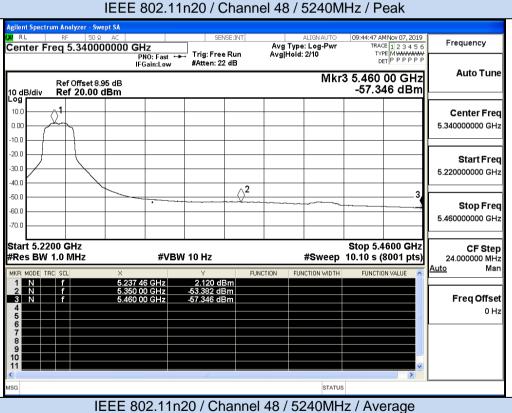


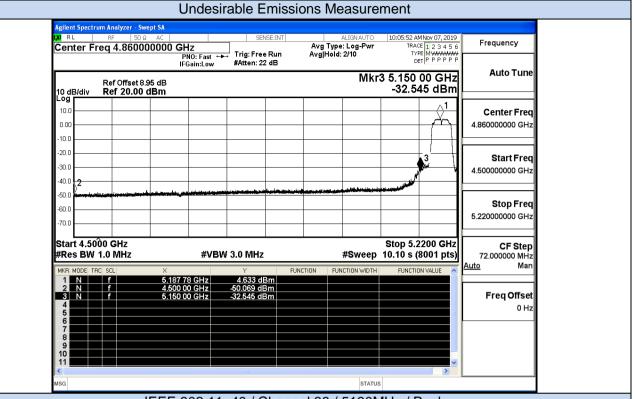


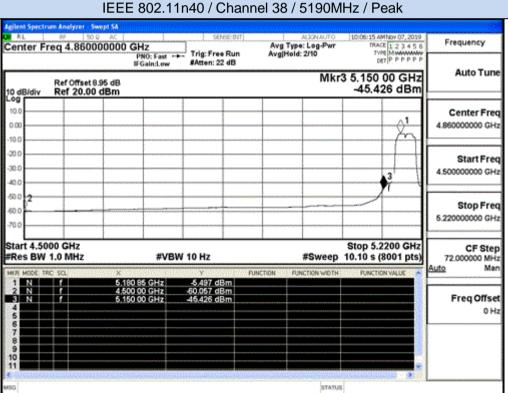


IEEE 802.11n20 / Channel 36 / 5180MHz / Average

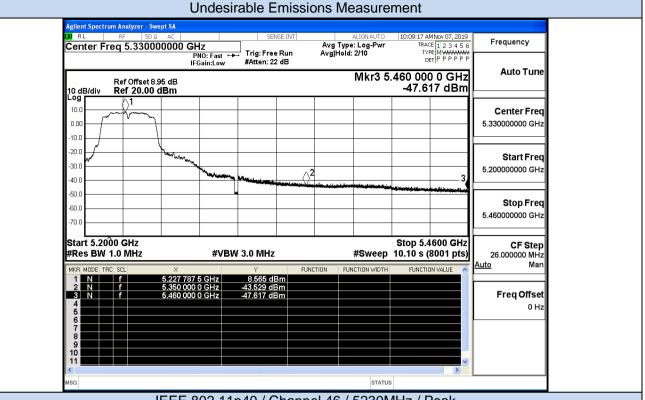


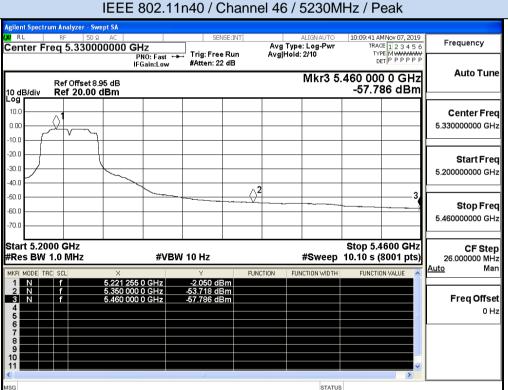




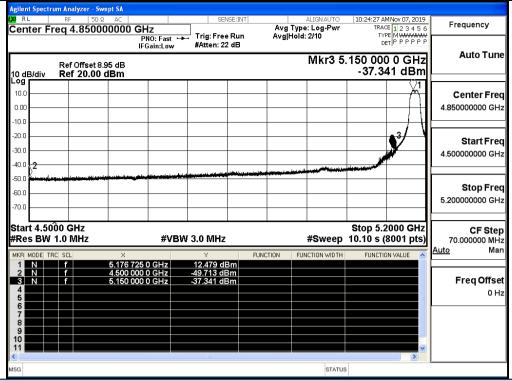


IEEE 802.11n40 / Channel 38 / 5190MHz / Average

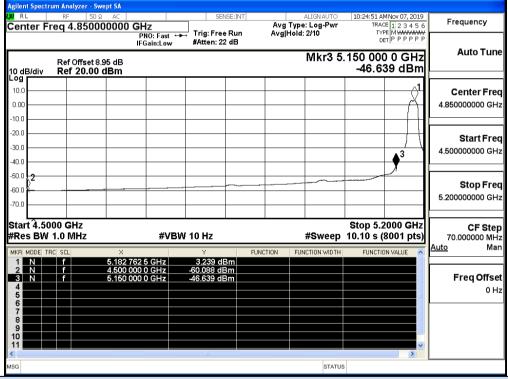




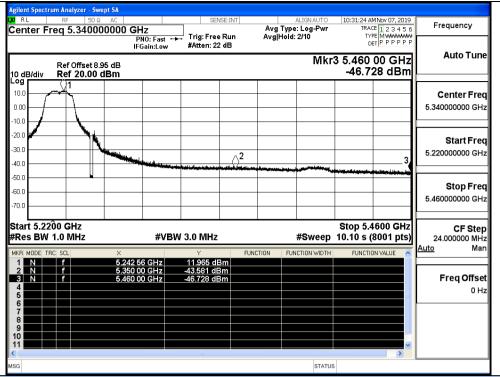
IEEE 802.11n40 / Channel 46 / 5230MHz / Average



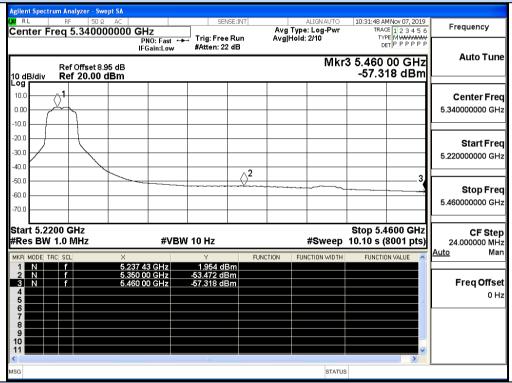
IEEE 802.11ac20 / Channel 36 / 5180MHz / Peak



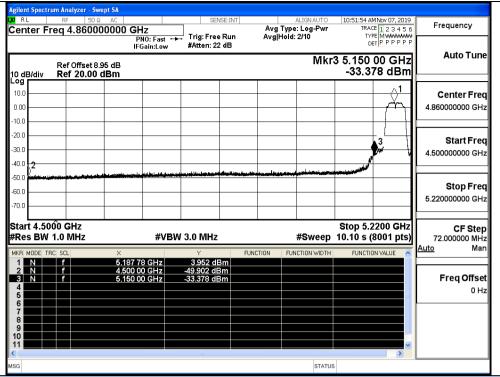
IEEE 802.11ac20 / Channel 36 / 5180MHz / Average



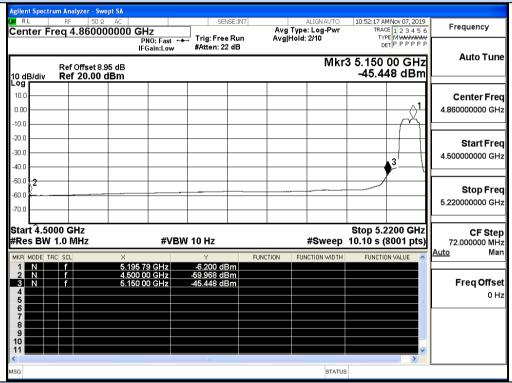
IEEE 802.11ac20 / Channel 48 / 5240MHz / Peak



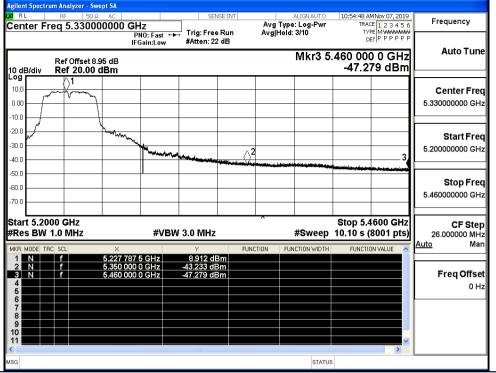
IEEE 802.11ac20 / Channel 48 / 5240MHz / Average



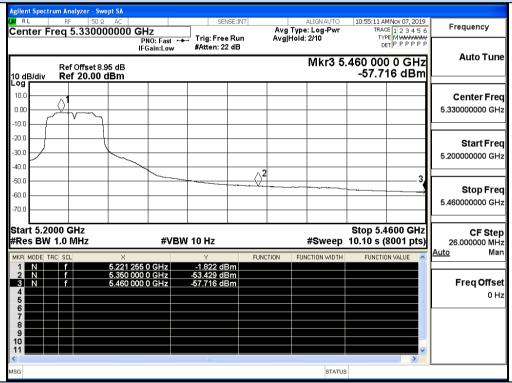
IEEE 802.11ac40 / Channel 38/5190MHz / Peak



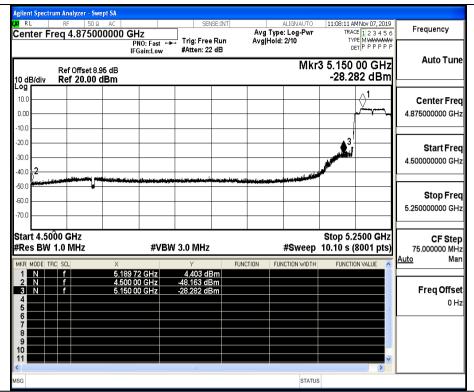
IEEE 802.11ac40 / Channel 38 / 5190MHz / Average



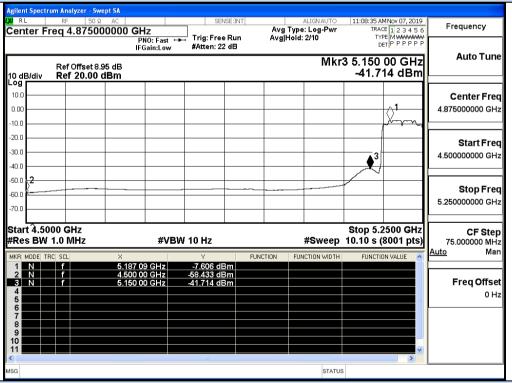
IEEE 802.11ac40 / Channel 46/ 5230MHz / Peak



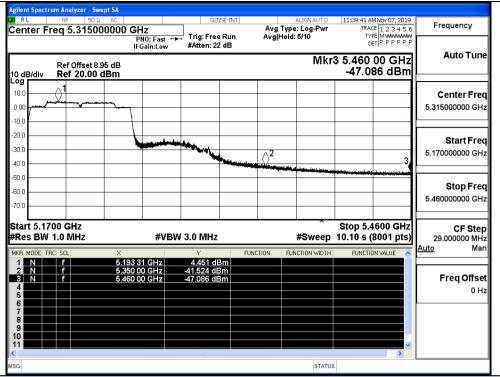
IEEE 802.11ac40 / Channel 46 / 5230MHz / Average



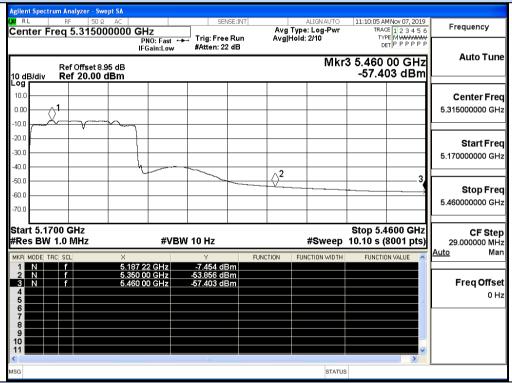
IEEE 802.11ac80 / Channel 42 / 5210MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average



IEEE 802.11ac80 / Channel 42/ 5210MHz / Peak



IEEE 802.11ac80 / Channel 42 / 5210MHz / Average