Appendix B

RF Test Data for 5.2G WLAN (Conducted Measurement)

Product Name: Panda Wireless AC600 Dual Band Wireless AC USB Adapter With 5dBi Antenna

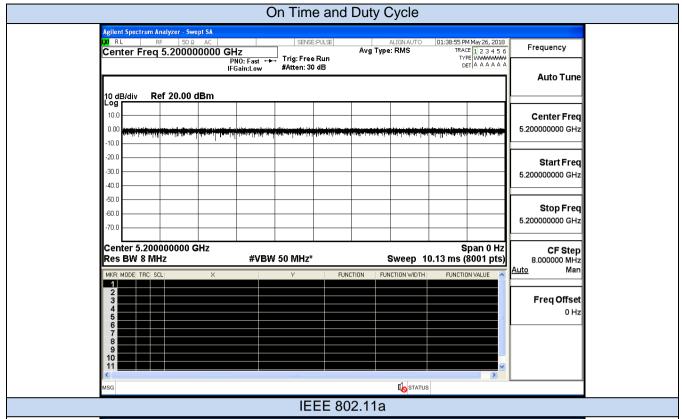
> **Trade Mark: Panda Wireless Test Model: PAU0B**

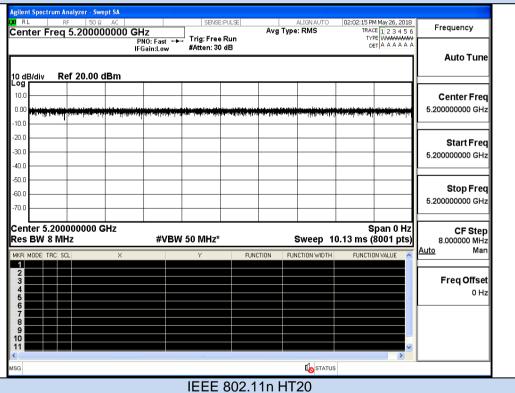
Environmental Conditions

Temperature:	24.6 ° C
Relative Humidity:	52.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

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



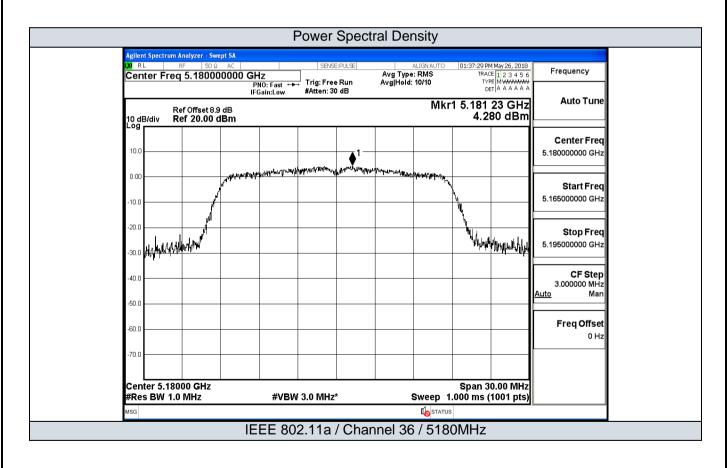


B.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	
	36	5180	14.33	0	14.33		
IEEE 802.11a	40	5200	14.85	0	14.85	24	
	48	5240	15.69	0	15.69		
	36	5180	14.93	0	14.93		
IEEE 802.11n HT20	40	5200	15.27	0	15.27	24	
	48	5240	15.62	0	15.62		
IEEE 802.11n HT40	38	5190	15.10	0	15.10	24	
1EEE 802.1111 H140	46	5230	15.73	0	15.73		
IEEE 802.11ac VHT20	36	5180	12.81	0	12.81	24	
	40	5200	13.26	0	13.26		
	48	5240	13.71	0	13.71		
IEEE 802.11ac VHT40	38	5190	13.51	0	13.51	24	
	46	5230	14.17	0	14.17	24	
IEEE 802.11ac VHT80	42	5210	11.52	0	11.52	24	

B.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor(dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)	
	36	5180	4.280	0	4.28		
IEEE 802.11a	40	5200	5.139	0	5.14	11	
	48	5240	5.642	0	5.64		
	36	5180	4.773	0	4.77		
IEEE 802.11n HT20	40	5200	5.081	0	5.08	11	
	48	5240	5.439	0	5.44		
IEEE 802.11n HT40	38	5190	1.700	0	1.70	11	
IEEE 802.11h H140	46	5230	2.708	0	2.71	11	
	36	5180	3.484	0	3.48		
IEEE 802.11ac VHT20	40	5200	3.684	0	3.68	11	
	48	5240	4.858	0	4.86		
IEEE 802.11ac VHT40	38	5190	-0.020	0	-0.02	11	
	46	5230	0.749	0	0.75	1.1	
IEEE 802.11ac VHT80	42	5210	-4.283	0	-4.28	11	



#VBW 3.0 MHz*

-50 O

-60.0

-70.0

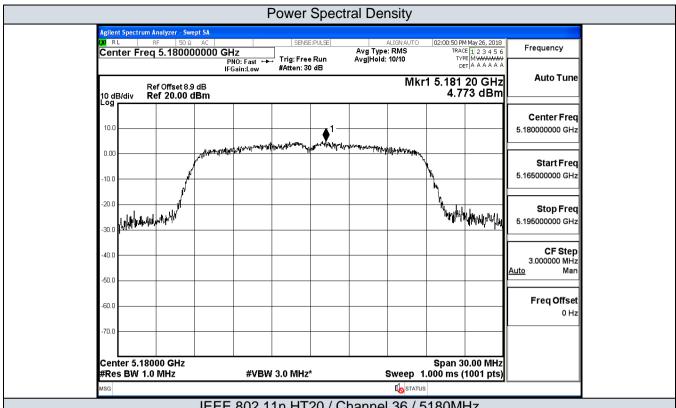
Center 5.24000 GHz #Res BW 1.0 MHz <u>Auto</u>

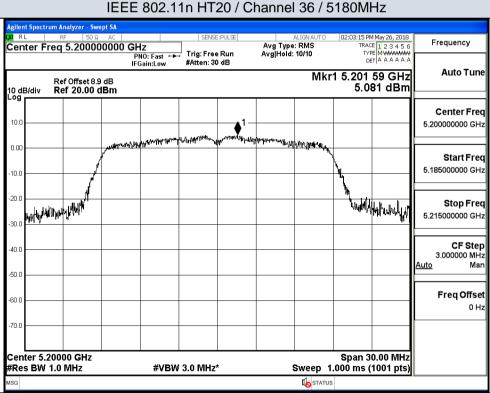
Span 30.00 MHz Sweep 1.000 ms (1001 pts)

STATUS

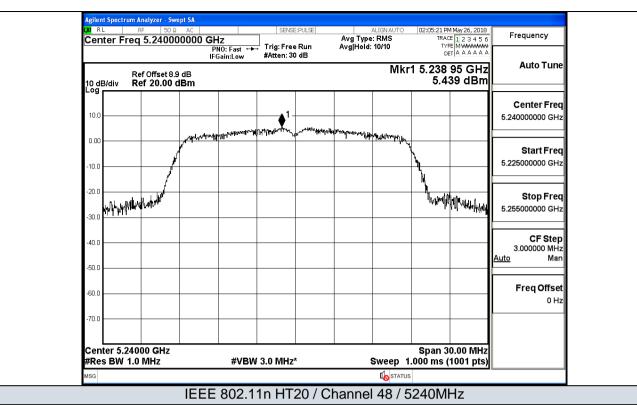
Freq Offset

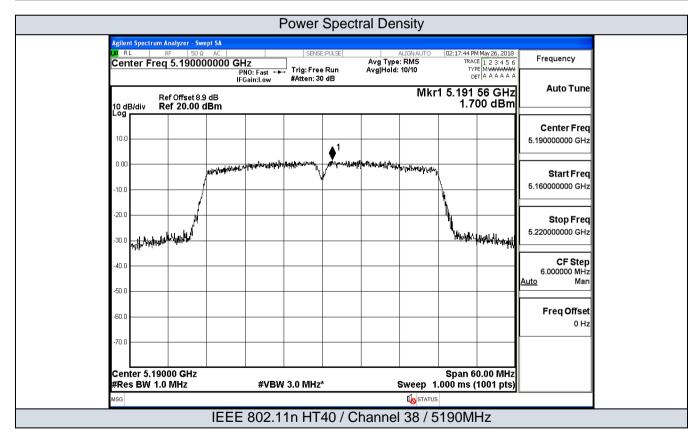
0 Hz





IEEE 802.11n HT20 / Channel 40 / 5200MHz





#VBW 3.0 MHz*

-50 O

-60.0

-70.0

Center 5.18000 GHz #Res BW 1.0 MHz <u>Auto</u>

Span 30.00 MHz Sweep 1.000 ms (1001 pts)

STATUS

Freq Offset

0 Hz

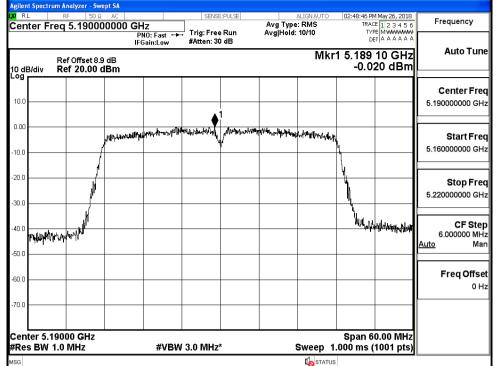
#VBW 3.0 MHz*

Span 30.00 MHz Sweep 1.000 ms (1001 pts)

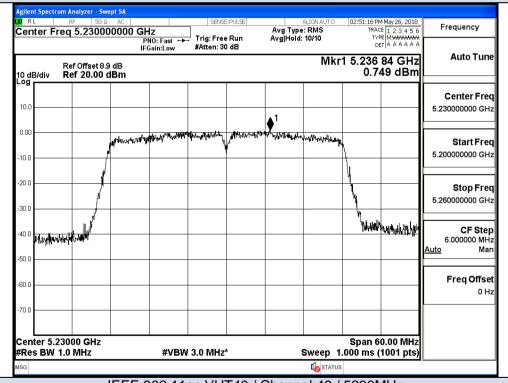
STATUS

-70.0

Center 5.24000 GHz #Res BW 1.0 MHz



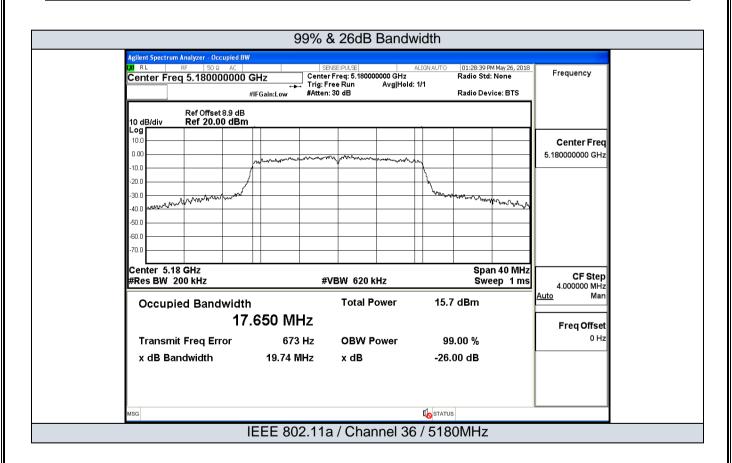
IEEE 802.11ac VHT40 / Channel 38 / 5190MHz

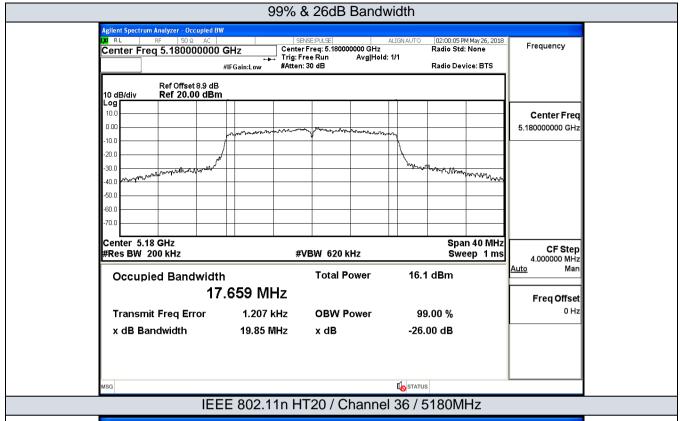


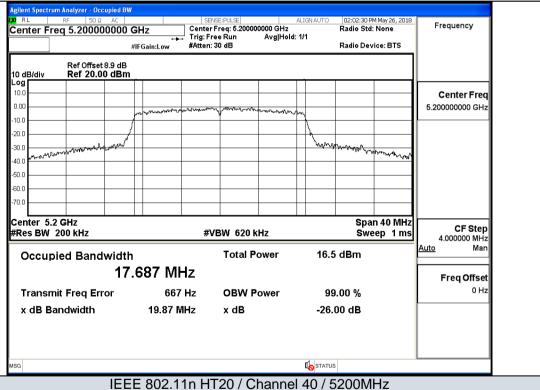
IEEE 802.11ac VHT40 / Channel 46 / 5230MHz

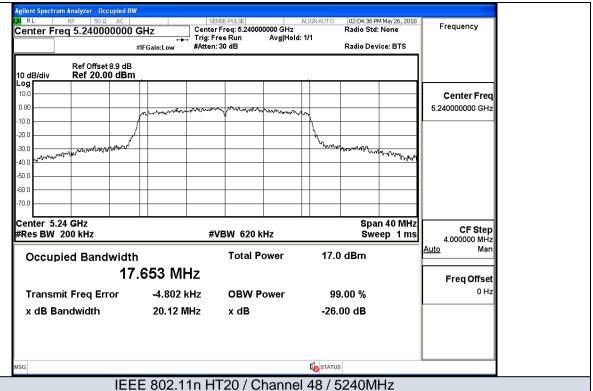
B.4 Emission Bandwidth

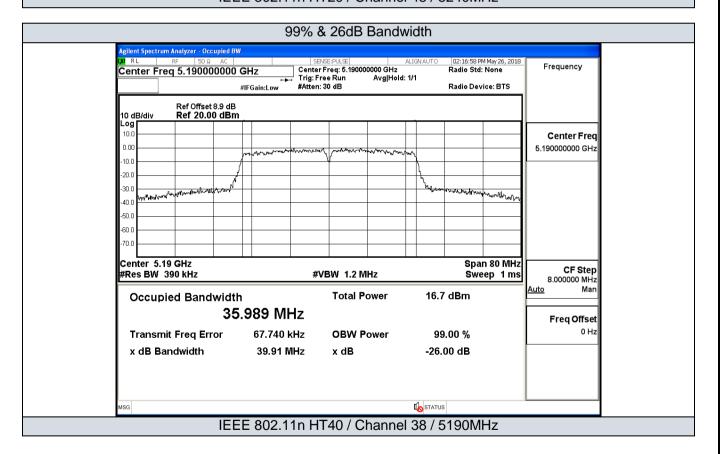
Test Mode	Channel	Frequency (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	
	36	5180	17.650	19.740		
IEEE 802.11a	40	5200	17.668	21.190	No Limit	
	48	5240	17.658	20.230		
	36	5180	17.659	19.850		
IEEE 802.11n HT20	40	5200	17.687	19.870	No Limit	
	48	5240	17.653	20.120		
IEEE 802.11n HT40	38	5190	35.989	39.910	No Limit	
	46	5230	35.980	39.430	NO LITTIL	
IEEE 802.11ac VHT20	36	5180	17.594	19.580		
	40	5200	17.541	19.620	No Limit	
	48	5240	17.603	19.500		
IEEE 802.11ac VHT40	38	5190	35.894	39.260	No Limit	
	46	5230	35.975	39.090	INO LITTIL	
IEEE 802.11ac VHT80	42	5210	75.365	80.910	No Limit	







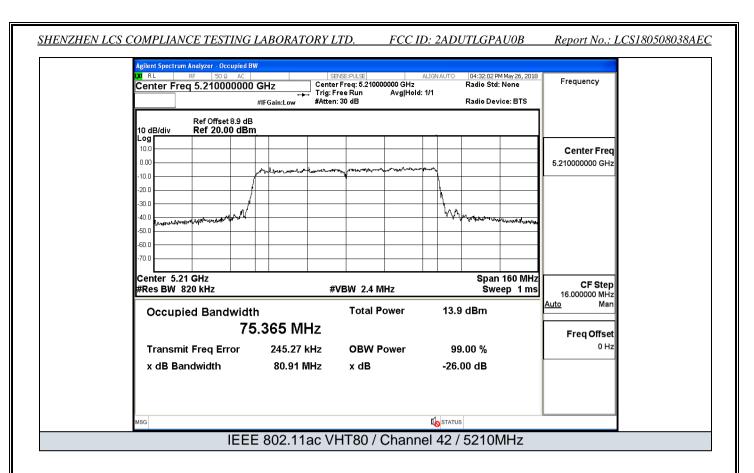




STATUS

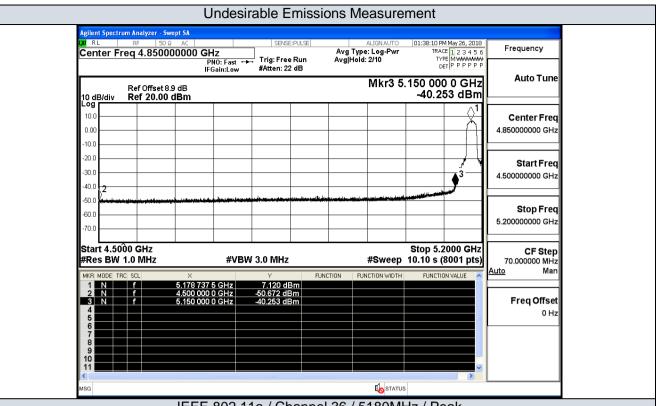
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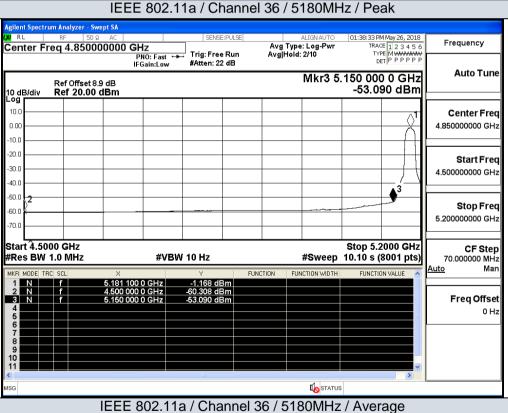
STATUS



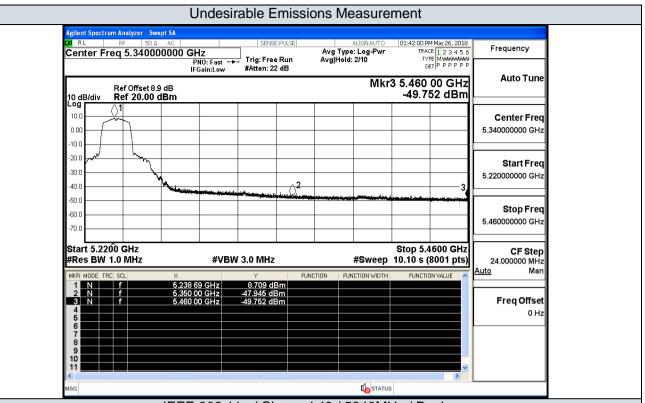
B.5 Undesirable Emissions Measurement

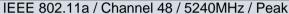
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	Ground Reflection Factor (dB)	Covert Radiated E Level At 3m (dBuV/m)	Detector	Limit (dBuV/m)
		4500.0	-50.672	5.000	0	49.556	Peak	68.20
	36	4500.0	-60.308	5.000	0	39.920	Average	54.00
	30	5150.0	-40.253	5.000	0	59.975	Peak	68.20
IEEE 802.111a		5150.0	-53.090	5.000	0	47.138	Average	54.00
1EEE 602.111a		5350.0	-47.945	5.000	0	52.283	Peak	68.20
	48	5350.0	-58.132	5.000	0	42.096	Average	54.00
	40	5460.0	-49.752	5.000	0	50.476	Peak	68.20
		5460.0	-60.055	5.000	0	40.173	Average	54.00
		4500.0	-50.781	5.000	0	49.447	Peak	68.20
	20	4500.0	-60.245	5.000	0	39.983	Average	54.00
	36	5150.0	-40.709	5.000	0	59.519	Peak	68.20
IEEE 000 444 = LIT00		5150.0	-52.992	5.000	0	47.236	Average	54.00
IEEE 802.111n HT20		5350.0	-47.454	5.000	0	52.774	Peak	68.20
	40	5350.0	-58.030	5.000	0	42.198	Average	54.00
	48	5460.0	-50.331	5.000	0	49.897	Peak	68.20
		5460.0	-59.938	5.000	0	40.290	Average	54.00
		4500.0	-50.207	5.000	0	50.021	Peak	68.20
		4500.0	-60.264	5.000	0	39.964	Average	54.00
	38	5150.0	-36.655	5.000	0	63.573	Peak	68.20
		5150.0	-47.222	5.000	0	53.006	Average	54.00
IEEE 802.111n HT40		5350.0	-47.924	5.000	0	52.304	Peak	68.20
		5350.0	-57.956	5.000	0	42.272	Average	54.00
	46	5460.0	-50.006	5.000	0	50.222	Peak	68.20
		5460.0	-59.679	5.000	0	40.549	Average	54.00
		4500.0	-50.272	5.000	0	49.956	Peak	68.20
		4500.0	-60.250	5.000	0	39.978	Average	54.00
	36	5150.0	-43.746	5.000	0	56.482	Peak	68.20
		5150.0	-54.617	5.000	0	45.611	Average	54.00
IEEE 802.111ac VHT20		4500.0	-48.676	5.000	0	51.552	Peak	68.20
		4500.0	-58.759	5.000	0	41.469	Average	54.00
	48	5150.0	-49.659	5.000	0	50.569	Peak	68.20
		5150.0	-60.110	5.000	0	40.118	Average	54.00
		4500.0	-50.085	5.000	0	50.143	Peak	68.20
	38	4500.0	-60.231	5.000	0	39.997	Average	54.00
		5150.0	-41.332	5.000	0	58.896	Peak	68.20
		5150.0	-52.558	5.000	0	47.670	Average	54.00
IEEE 802.111ac VHT40		5350.0	-48.690	5.000	0	51.538	Peak	68.20
		5350.0	-58.690	5.000	0	41.538	Average	54.00
	46	5460.0	-49.440	5.000	0	50.788	Peak	68.20
		5460.0	-59.794	5.000	0	40.434	Average	54.00
		4500.0	-47.554	5.000	0	52.674	Peak	68.20
	42	4500.0	-57.025	5.000	0	43.203	Average	54.00
		5150.0	-48.823	5.000	0	51.405	Peak	68.20
		5150.0	-58.007	5.000	0	42.221	Average	54.00
IEEE 802.111ac VHT80		5350.0	-50.196	5.000	0	50.032	Peak	68.20
		5350.0	-60.158	5.000	0	40.070	Average	54.00
		5460.0	-42.620	5.000	0	57.608	Peak	68.20
	-	5460.0	-51.623	5.000	0	48.605		54.00
	<u>i</u>	3400.0	-31.023	5.000	U	40.003	Average	34.00

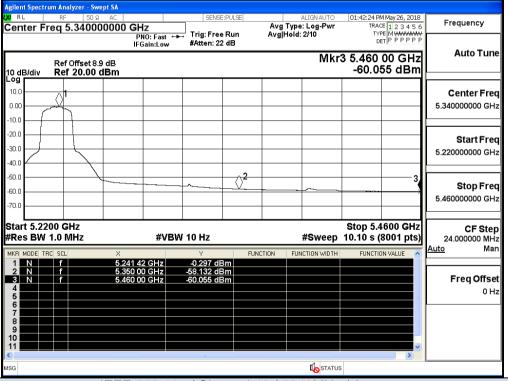




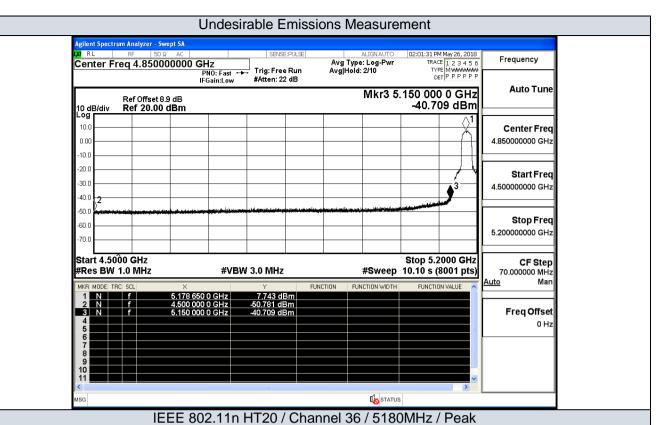
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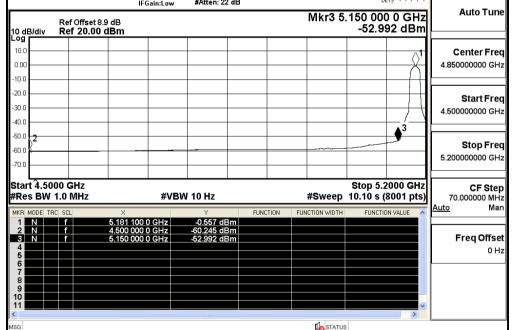


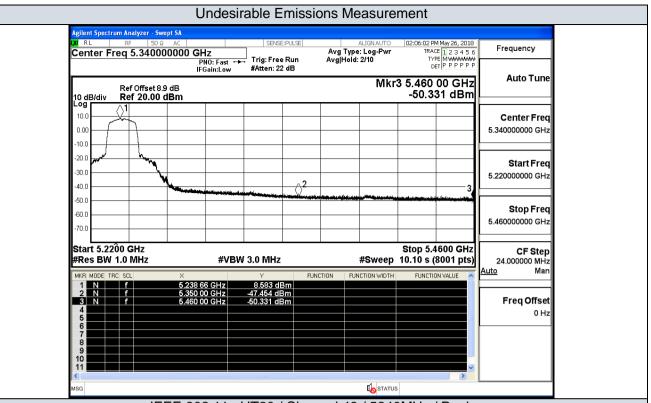


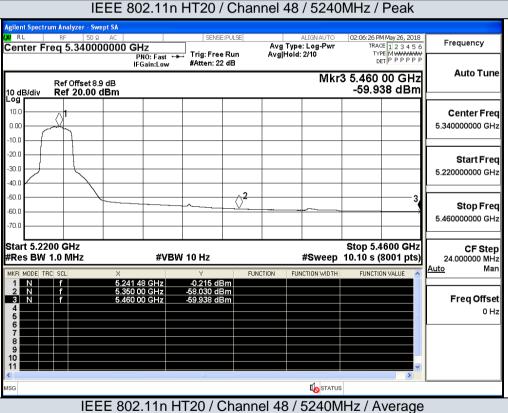
Frequency

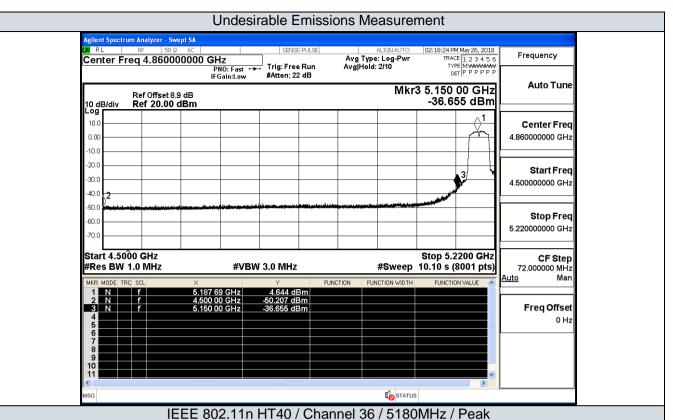


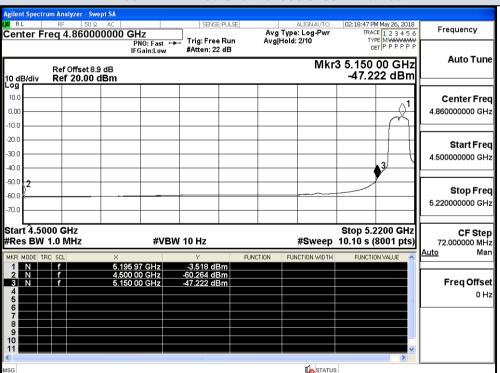




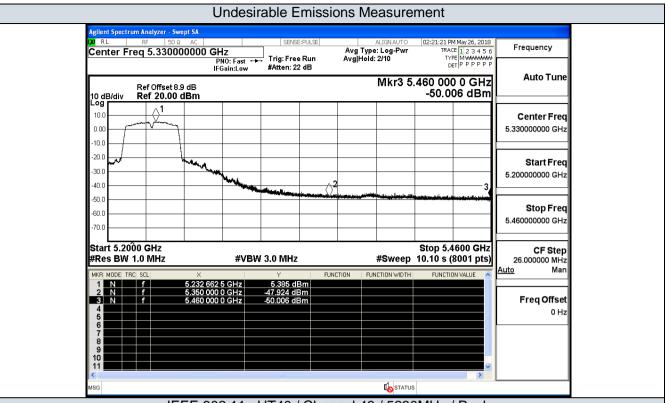


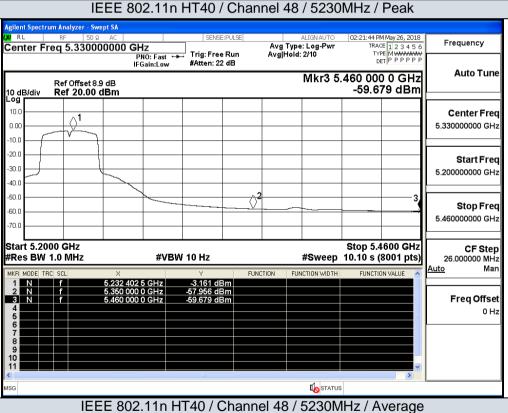




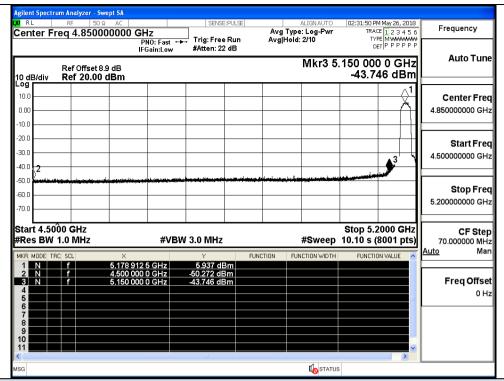


IEEE 802.11n HT40 / Channel 36 / 5180MHz / Average

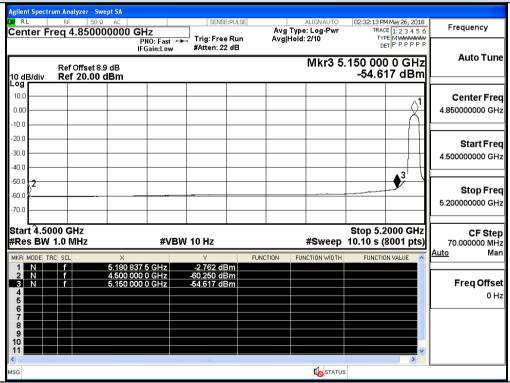




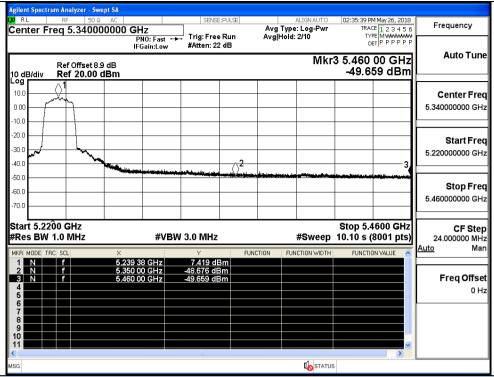
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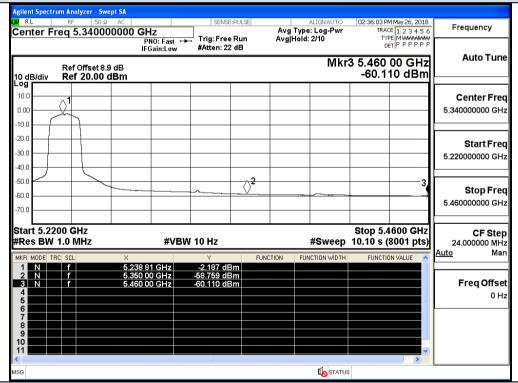
IEEE 802.11ac VHT20 / Channel 36 / 5180MHz / Peak



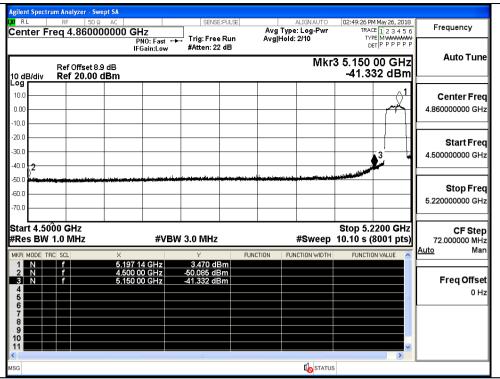
IEEE 802.11ac VHt20 / Channel 36 / 5180MHz / Average



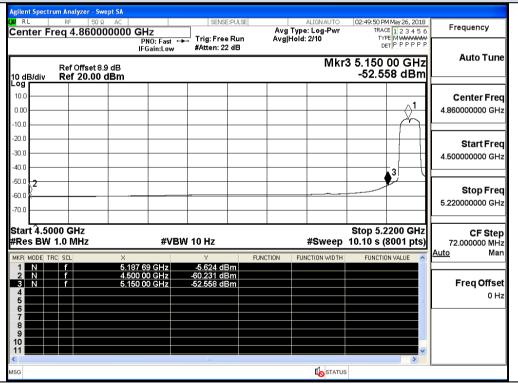
IEEE 802.11ac VHT20 / Channel 48 / 5240MHz / Peak



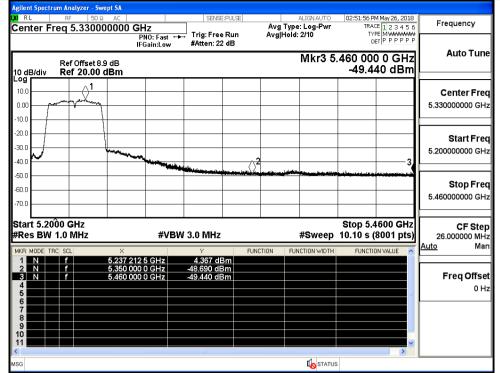
IEEE 802.11ac VHT20 / Channel 48 / 5240MHz / Average



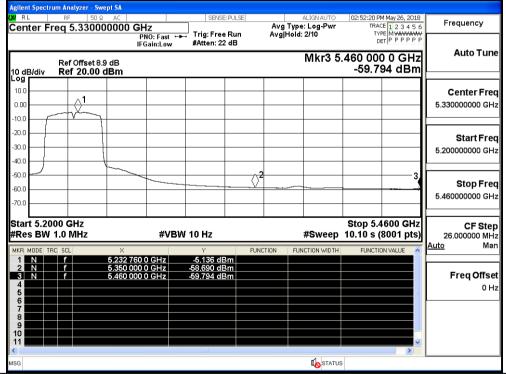
IEEE 802.11ac VHT40 / Channel 36 / 5180MHz / Peak



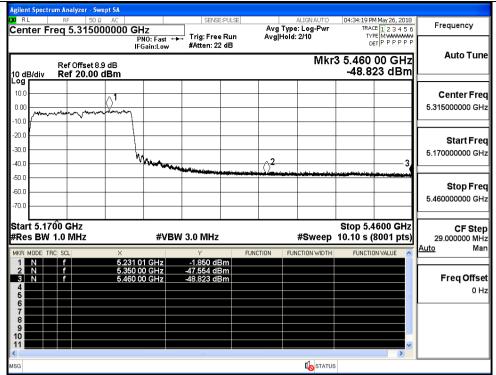
IEEE 802.11ac VHT40 / Channel 36 / 5180MHz / Average



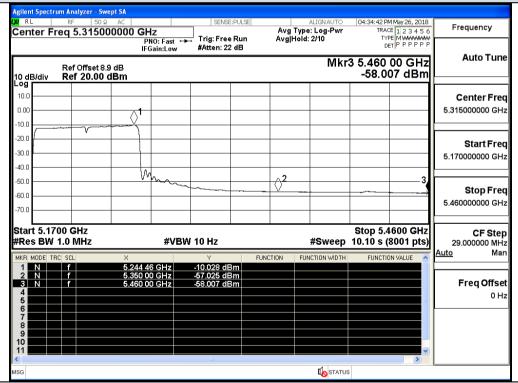
IEEE 802.11ac VHT40 / Channel 48 / 5230MHz / Peak



IEEE 802.11ac VHT40 / Channel 48 / 5230MHz / Average



IEEE 802.11ac VHT80 / Channel 42 / 5210MHz / Peak



IEEE 802.11ac VHT80 / Channel 42 / 5210MHz / Average