Appendix E

RF Test Data for 5.2G WLAN (Conducted Measurement)

Product Name: Two in one convertible notebook

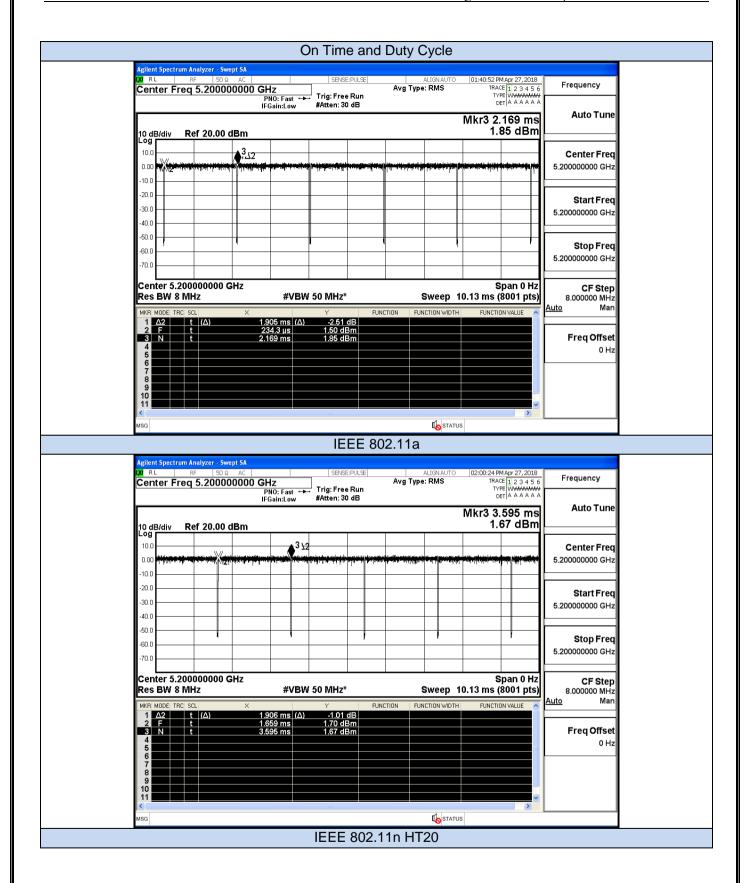
Trade Mark: YUKO Test Model: A1162

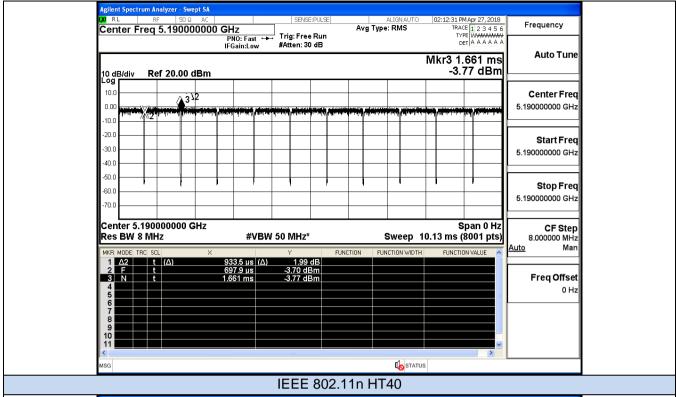
Environmental Conditions

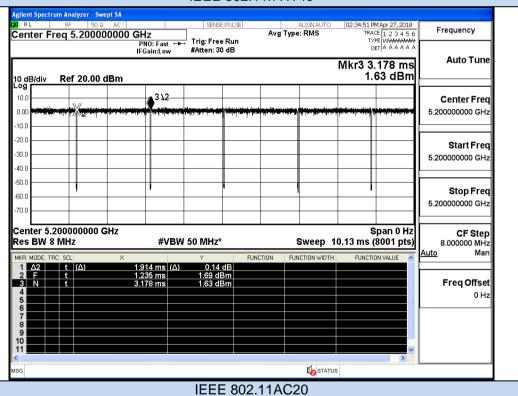
Temperature:	23.5 ° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Mina.xu
Supervised by:	Jayden.Zhuo

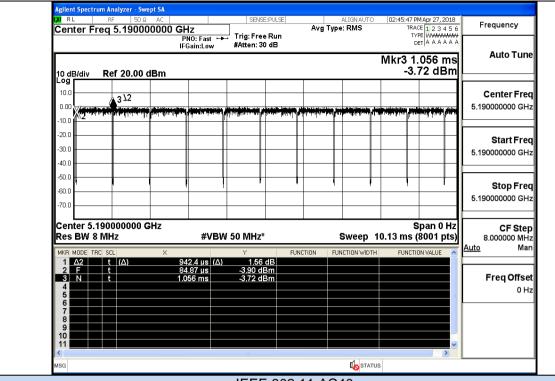
E.1 Duty Cycle

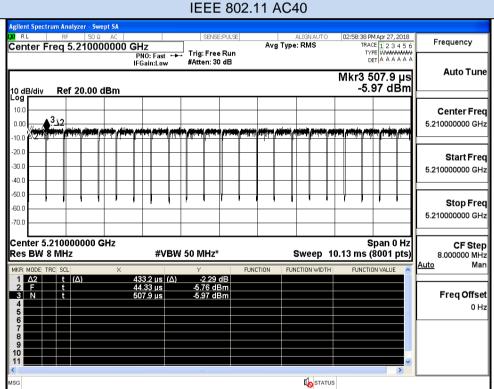
Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5200	98.49	0.07	0.01
11N20 SISO	5200	98.49	0.07	0.01
11N40 SISO	5190	96.97	0.13	0.01
11AC20 SISO	5200	98.50	0.07	0.01
11AC40 SISO	5190	97.00	0.13	0.01
11AC80 SISO	5210	93.44	0.29	0.01











IEEE 802.11AC80

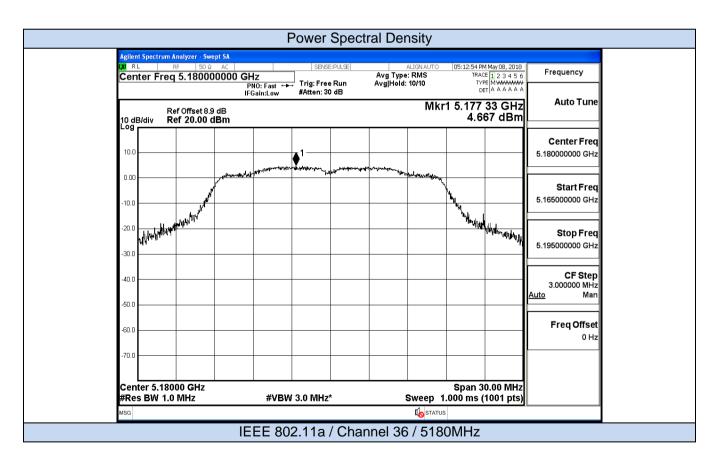
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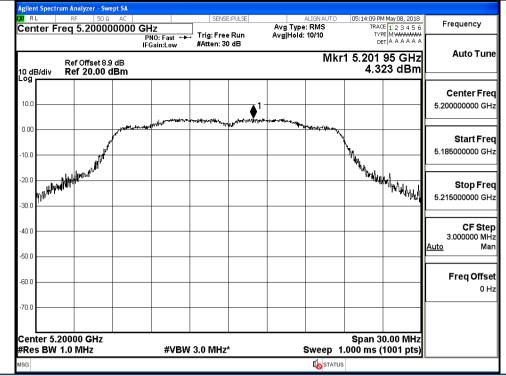
E.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor (dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
	36	5180	13.94	0.07	14.01		Pass
11A	40	5200	13.87	0.07	13.94	24	Pass
	48	5240	13.38	0.07	0.07 13.45		Pass
111120	36	5180	13.78	0.07	13.85		Pass
11N20 SISO	40	5200	13.78	0.07	13.85	24	Pass
3130	48 5240		13.85	0.07	13.92		Pass
11N40	38	5190	13.84	0.13	13.97	24	Pass
SISO 46		5230	13.87 0.13 14.00		2 4	Pass	
11AC20	36	5180	13.47	0.07	13.54		Pass
SISO	40	5200	13.80	0.07	13.87	24	Pass
3130	48	5240	13.90	0.07	13.97		Pass
11AC40	38	5190	13.85	0.13	13.98	24	Pass
SISO	46	5230	13.84	0.13	13.97		Pass
11AC80 SISO	42	5210	12.09	0.29	12.38	24	Pass

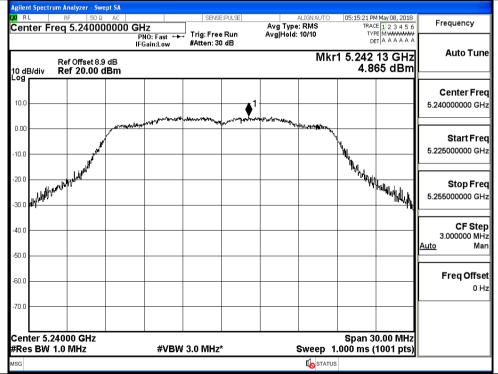
E.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/MHz)	Duty Cycle Factor (dB)	Report Power Density (dBm/MHz)	Limit (dBm/MHz)	Verdic t
	36	5180	4.67	0.07	4.74		Pass
11A	40	5200	4.32	0.07	4.39	11	Pass
	48	5240	4.87	0.07	4.94		Pass
11N20	36	5180	5.48	0.07	5.55		Pass
SISO	40	5200	4.56	0.07	4.63	11	Pass
3130	48	5240	4.70	0.07	4.77		Pass
11N40	38	5190	1.95	0.13	2.08	11	Pass
SISO	46	5230	1.50	0.13	1.63] ''	Pass
11AC20	36	5180	4.77	0.07	4.84		Pass
SISO	40	5200	5.00	0.07	5.07	11	Pass
3130	48	5240	5.00	0.07	5.07		Pass
11AC40	38	5190	1.80	0.13	1.93	11	Pass
SISO	46	5230	1.56	0.13	1.69	1	Pass
11AC80 SISO	42	5210	-1.31	0.29	-1.02	11	Pass

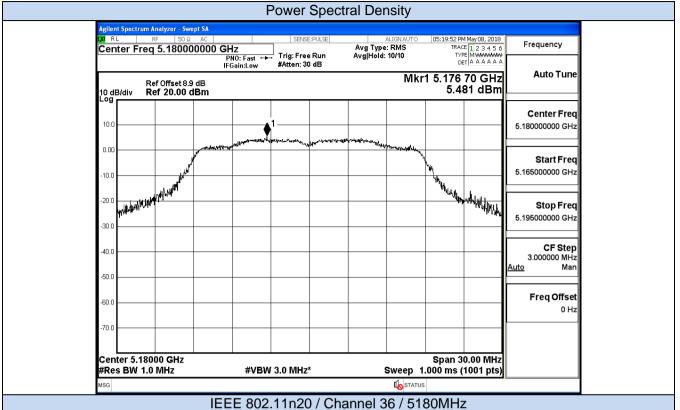




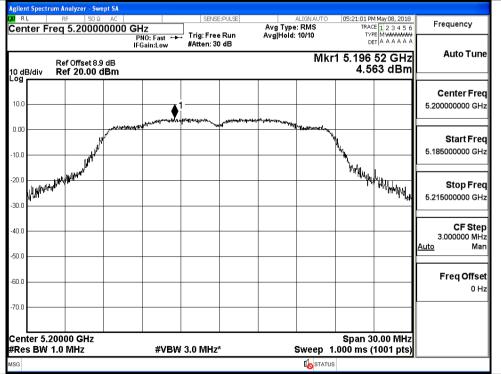
IEEE 802.11a / Channel 40 / 5200MHz



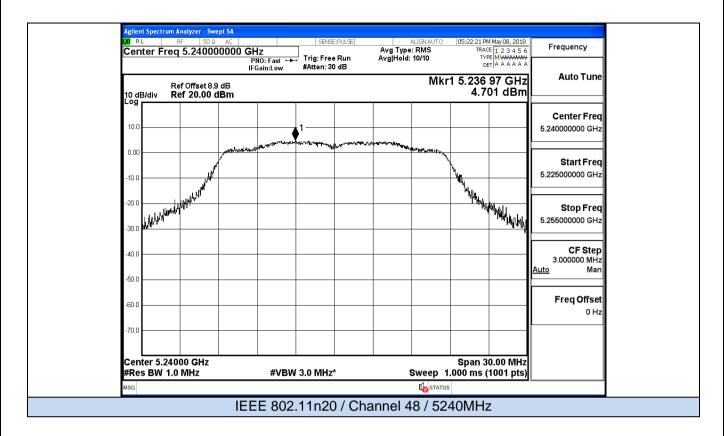
IEEE 802.11a / Channel 48 / 5240MHz

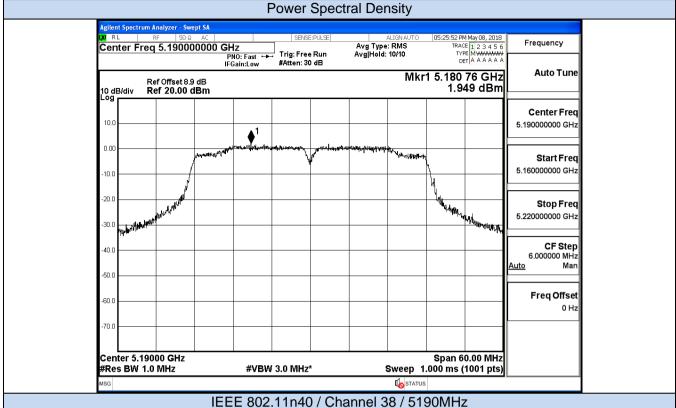


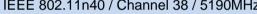


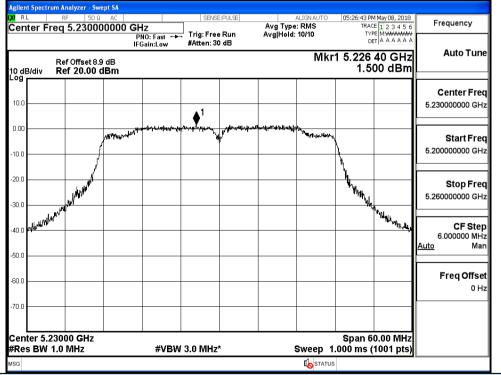


IEEE 802.11n20 / Channel 40 / 5200MHz

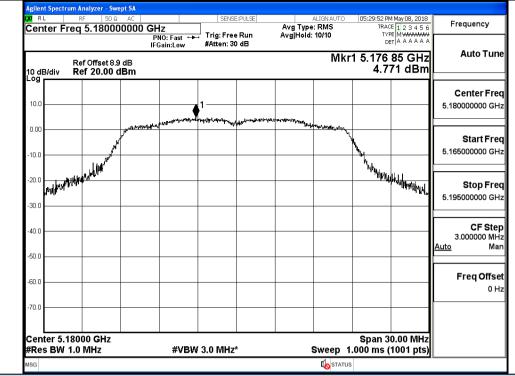




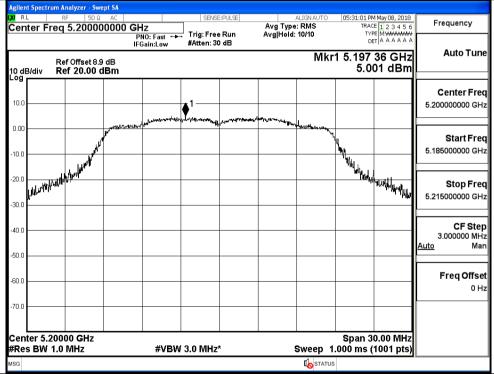




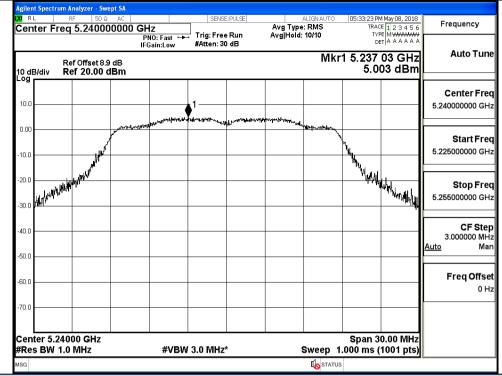
IEEE 802.11n40 / Channel 46 / 5230MHz



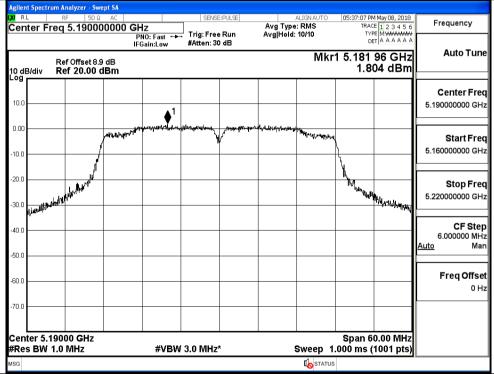
IEEE 802.11ac20 / Channel 36 / 5180MHz



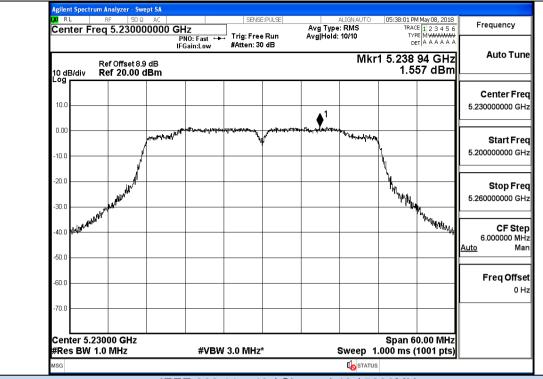
IEEE 802.11ac20 / Channel 40 / 5200MHz



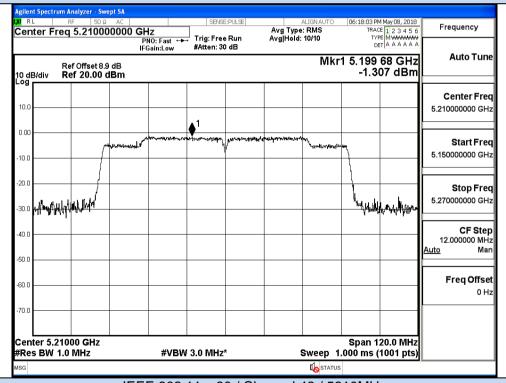
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



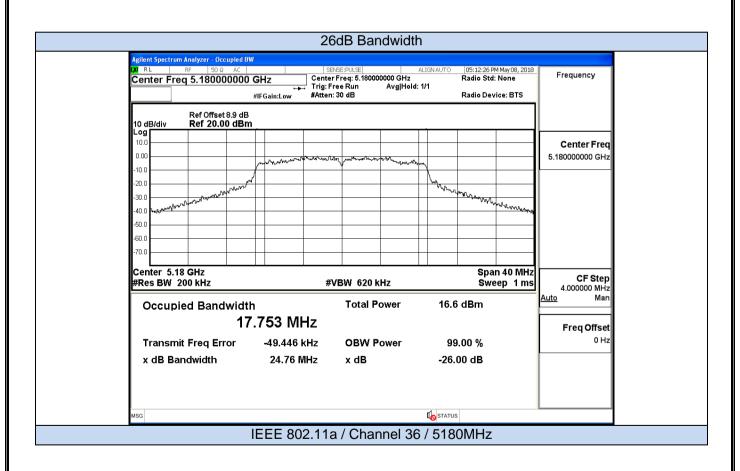
IEEE 802.11ac40 / Channel 46 / 5230MHz

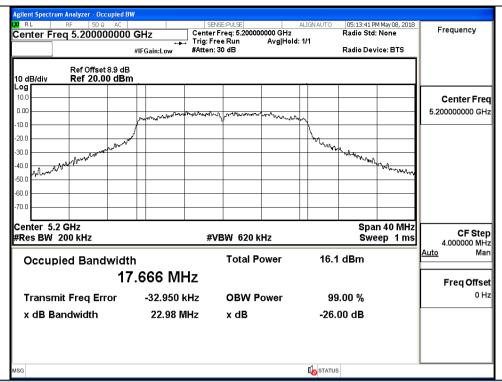


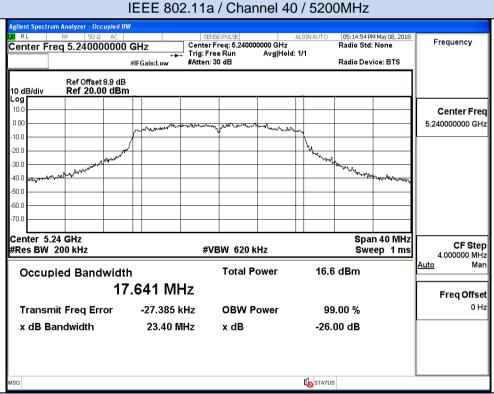
IEEE 802.11ac80 / Channel 42 / 5210MHz

E.4 Emission Bandwidth

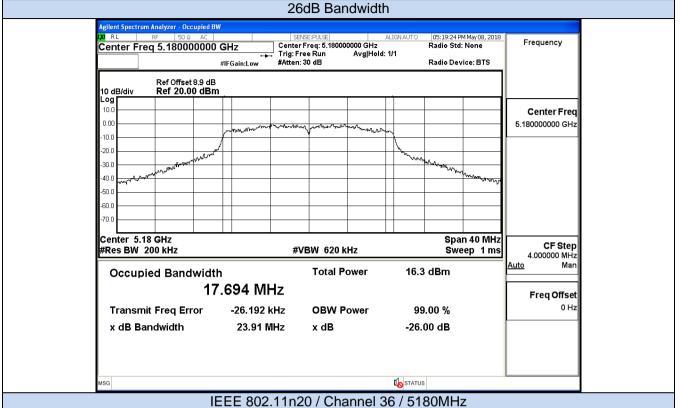
Test Mode	Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Verdict
	36	5180	24.76	17.753		Pass
11A	40	5200	22.98	17.666	No Limit	Pass
	48	5240	23.40	17.641	1	Pass
	36	5180	23.91	17.694		Pass
11N20 SISO	40	5200	22.70	17.666	No Limit	Pass
	48	5240	21.82	17.642	1	Pass
44140 0100	38	5190	44.87	36.143	NIo I insit	Pass
11N40 SISO	46	5230	41.79	36.045	No Limit	Pass
11AC20 SISO	36	5180	24.39	17.699		Pass
	40	5200	24.66	17.727	No Limit	Pass
	48	5240	22.75	17.637		Pass
11AC40 SISO	38	5190	44.15	36.102	No Limit	Pass
	46	5230	42.40	36.067	No Limit	Pass
11AC80 SISO	42	5210	75.70	75.701	No Limit	Pass

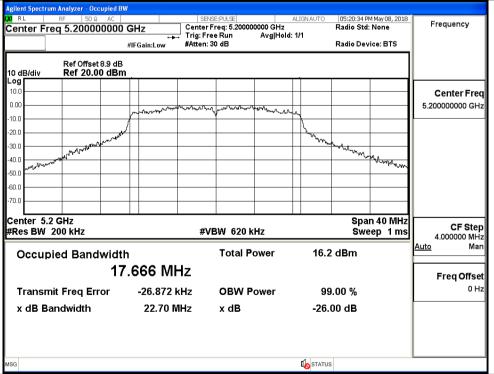




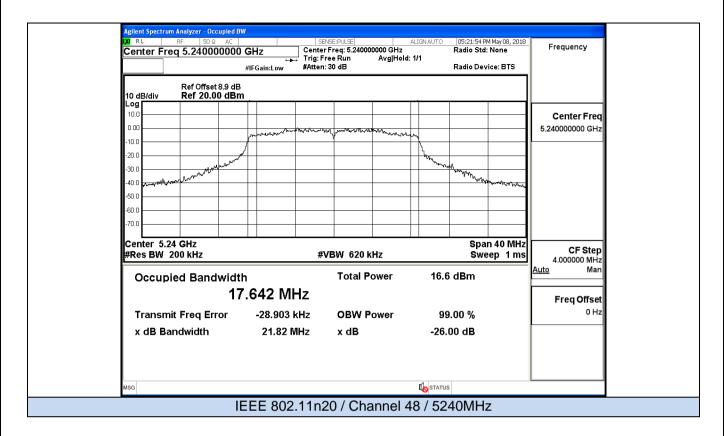


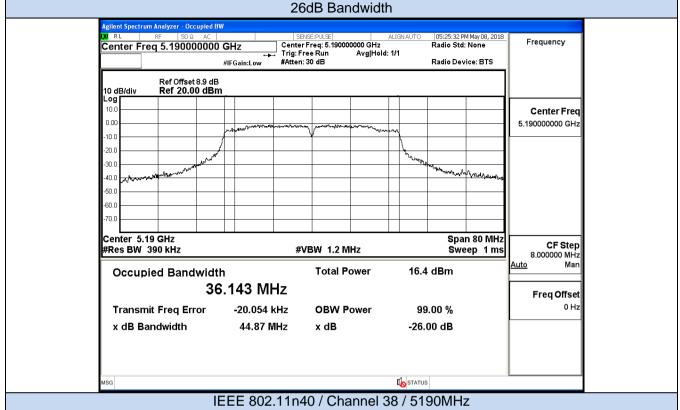
IEEE 802.11a / Channel 48 / 5240MHz

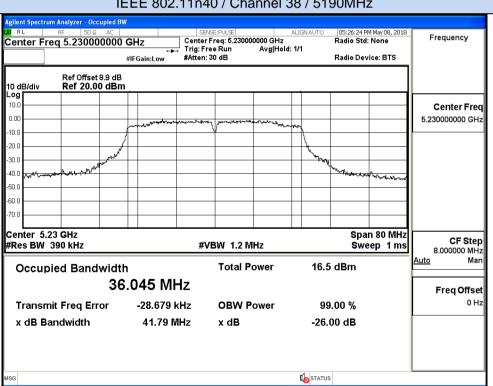




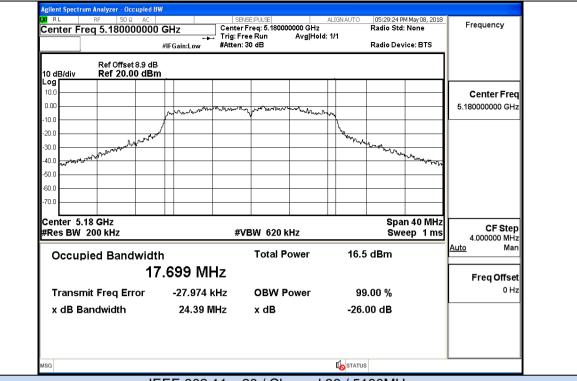
IEEE 802.11n20 / Channel 40 / 5200MHz



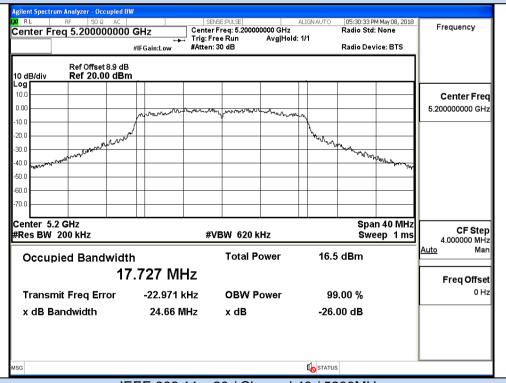




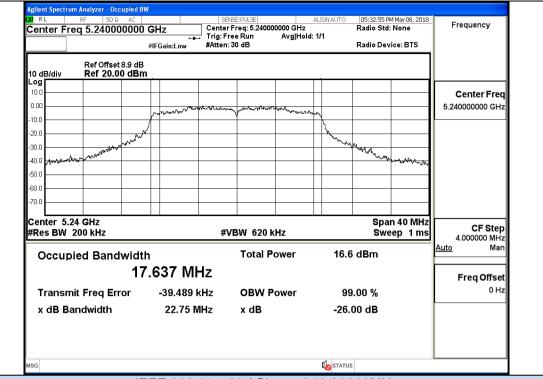
IEEE 802.11n40 / Channel 46 / 5230MHz



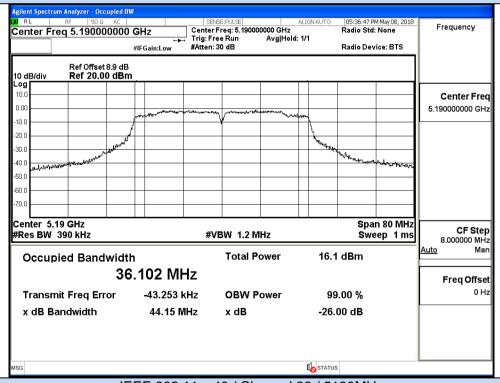
IEEE 802.11ac20 / Channel 36 / 5180MHz



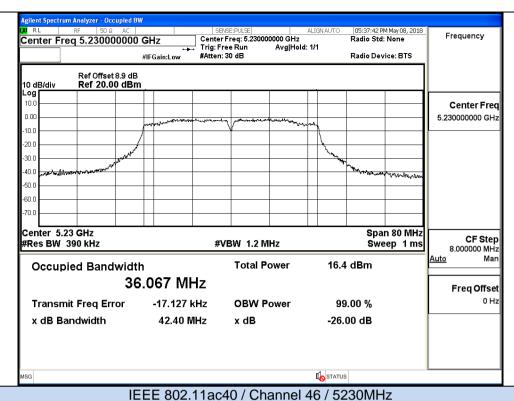
IEEE 802.11ac20 / Channel 40 / 5200MHz

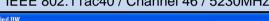


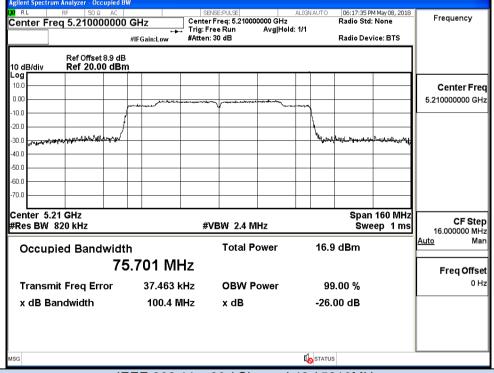
IEEE 802.11ac20 / Channel 48 / 5240MHz



IEEE 802.11ac40 / Channel 38 / 5190MHz



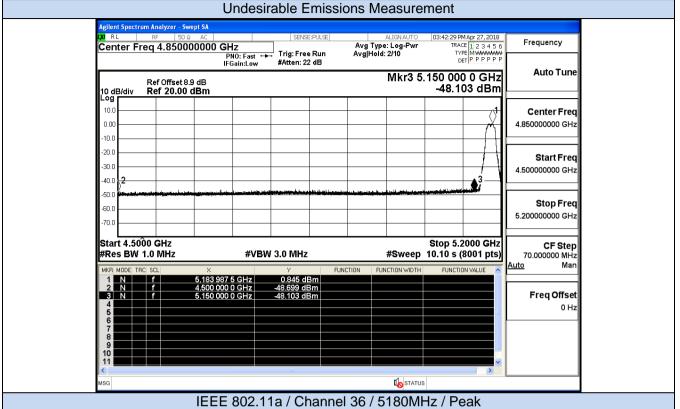


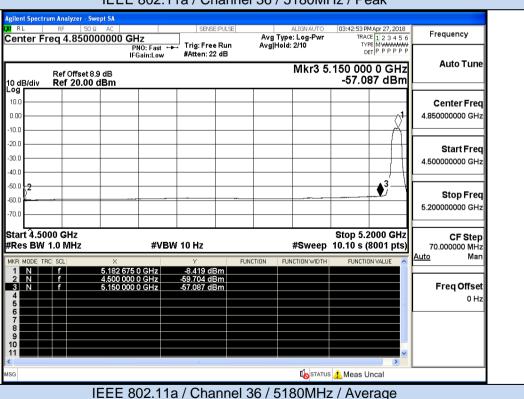


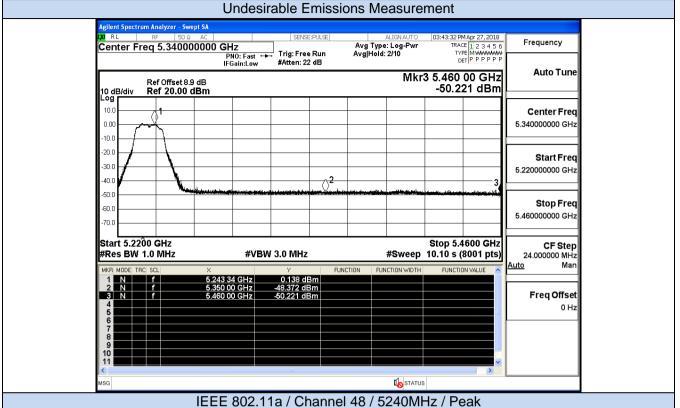
IEEE 802.11ac80 / Channel 42 / 5210MHz

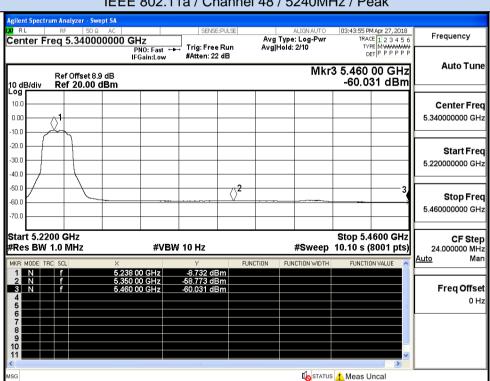
E.5 Undesirable Emissions Measurement

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	-48.70	2.00	0	48.53	Peak	74.00	Pass
	00	4500.0	-59.70	2.00	0	37.53	Average	54.00	Pass
	36	5150.0	-48.10	2.00	0	49.13	Peak	74.00	Pass
444		5150.0	-57.09	2.00	0	40.14	Average	54.00	Pass
11A		5350.0	-48.37	2.00	0	48.86	Peak	74.00	Pass
		5350.0	-58.77	2.00	0	38.46	Average	54.00	Pass
	48	5460.0	-50.22	2.00	0	47.01	Peak	74.00	Pass
		5460.0	-60.03	2.00	0	37.20	Average	54.00	Pass
		4500.0	-50.44	2.00	0	46.79	Peak	74.00	Pass
		4500.0	-59.72	2.00	0	37.51	Average	54.00	Pass
	36	5150.0	-47.41	2.00	0	49.82	Peak	74.00	Pass
11N20		5150.0	-57.04	2.00	0	40.19	Average	54.00	Pass
SISO		5350.0	-48.43	2.00	0	48.80	Peak	74.00	Pass
		5350.0	-58.71	2.00	0	38.52	Average	54.00	Pass
	48	5460.0	-49.03	2.00	0	48.20	Peak	74.00	Pass
		5460.0	-60.00	2.00	0	37.23	Average	54.00	Pass
		4500.0	-49.27	2.00	0	47.96	Peak	74.00	Pass
		4500.0	-59.68	2.00	0	37.55	Average	54.00	Pass
	38	5150.0	-47.91	2.00	0	49.32	Peak	74.00	Pass
11N40		5150.0	-56.87	2.00	0	40.36	Average	54.00	Pass
SISO		5350.0	-47.79	2.00	0	49.44	Peak	74.00	Pass
0.00		5350.0	-58.51	2.00	0	38.72	Average	54.00	Pass
	46	5460.0	-49.74	2.00	0	47.49	Peak	74.00	Pass
		5460.0	-59.72	2.00	0	37.51	Average	54.00	Pass
		4500.0	-50.22	2.00	0	47.01	Peak	74.00	Pass
		4500.0	-59.67	2.00	0	37.56	Average	54.00	Pass
	36	5150.0	-47.57	2.00	0	49.66	Peak	74.00	Pass
11AC20		5150.0	-57.07	2.00	0	40.16	Average	54.00	Pass
SISO	48	4500.0	-50.22	2.00	0	47.01	Peak	74.00	Pass
3130		4500.0	-59.67	2.00	0	37.56	Average	54.00	Pass
		5150.0	-47.57	2.00	0	49.66	Peak	74.00	Pass
		5150.0	-57.07	2.00	0	40.16	Average	54.00	Pass
		4500.0	-50.48	2.00	0	46.75	Peak	74.00	Pass
	38	4500.0	-59.75	2.00	0	37.48	Average	54.00	Pass
		5150.0	-46.44	2.00	0	50.79	Peak	74.00	Pass
11AC40		5150.0	-56.88	2.00	0	40.35	Average	54.00	Pass
SISO		5350.0	-48.83	2.00	0	48.40	Peak	74.00	Pass
3130		5350.0	-46.63 -58.52	2.00	0	38.71		54.00	Pass
	46	5460.0	-58.52 -49.19	2.00	0	48.04	Average Peak	74.00	Pass
		5460.0	-49.19	2.00	0	48.04 37.50	Average	54.00	Pass
			-48.72	2.00	0	48.51	Peak	74.00	Pass
		4500.0 5150.0	-58.19	2.00	0	39.04	Average	54.00	Pass
		4500.0	-49.96	2.00	0	47.27	Peak	74.00	Pass
11AC80	40	5150.0	-59.30	2.00	0	37.93	Average	54.00	Pass
SISO	42	5350.0	-48.72	2.00	0	48.51	Peak	74.00	Pass
		5460.0	-58.19	2.00	0	39.04	Average	54.00	Pass
		5350.0	-49.96	2.00	0	47.27	Peak	74.00	Pass
		5460.0	-59.30	2.00	0	37.93	Average	54.00	Pass

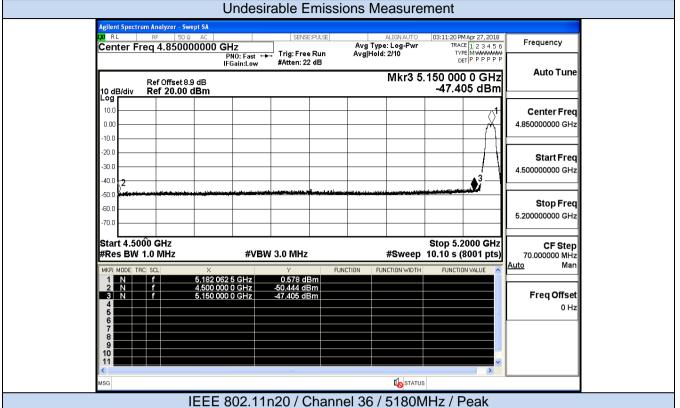


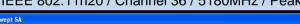


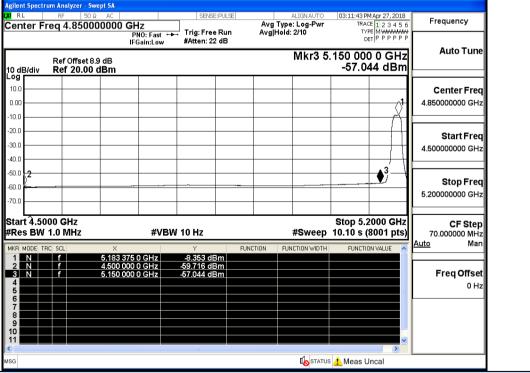




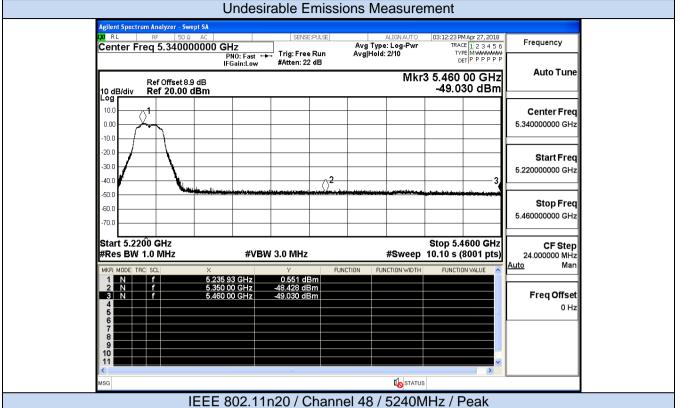
IEEE 802.11a / Channel 48 / 5240MHz / Average

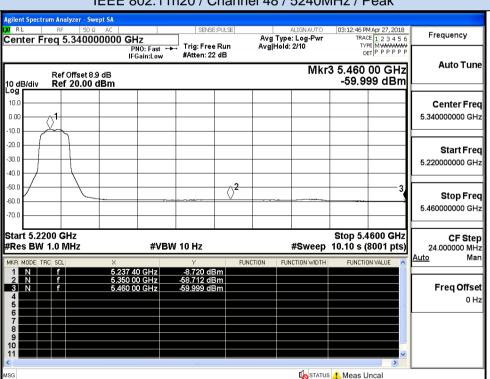




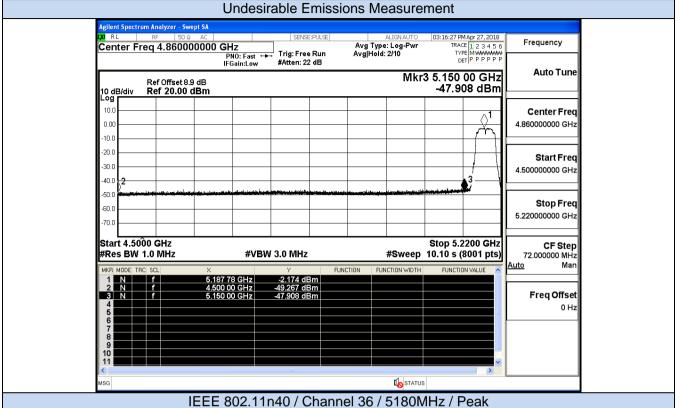


IEEE 802.11n20 / Channel 36 / 5180MHz / Average

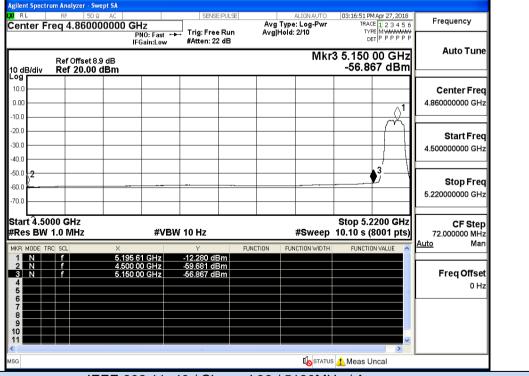




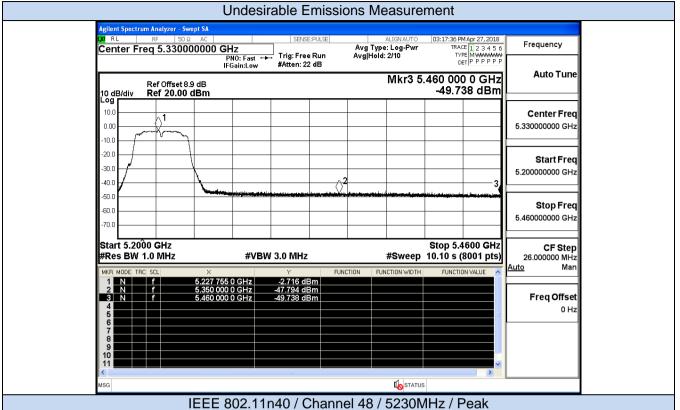
IEEE 802.11n20 / Channel 48 / 5240MHz / Average

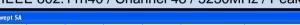


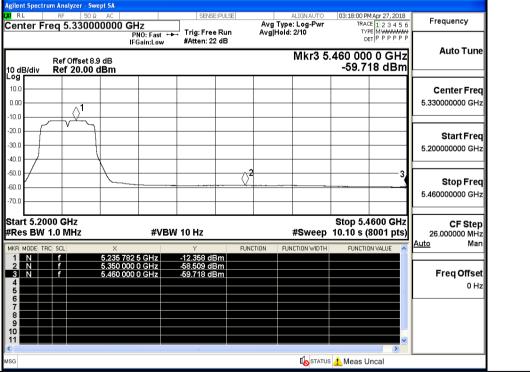




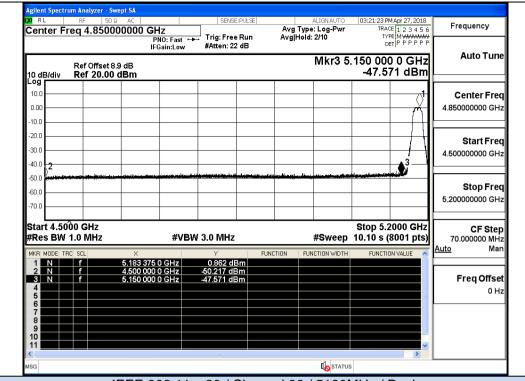
IEEE 802.11n40 / Channel 36 / 5180MHz / Average



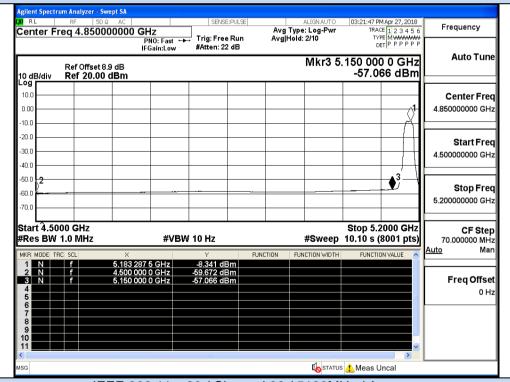




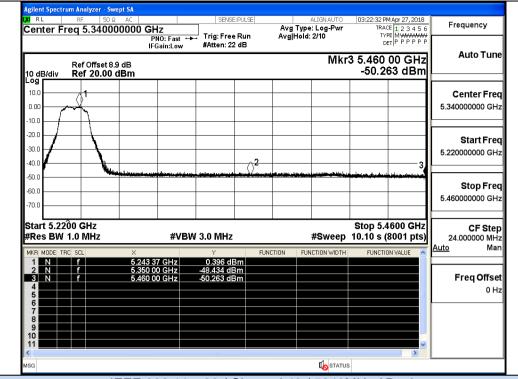
IEEE 802.11n40 / Channel 48 / 5230MHz / Average



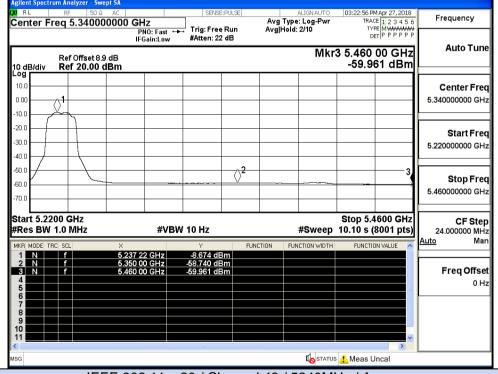




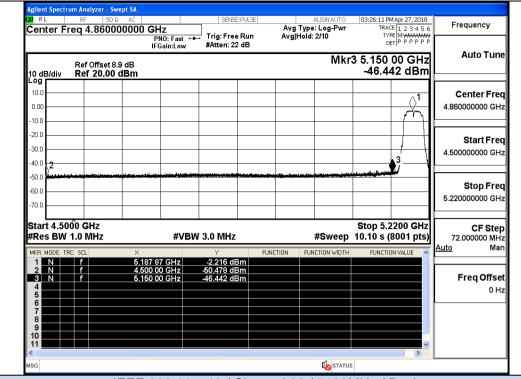
IEEE 802.11ac20 / Channel 36 / 5180MHz / Average

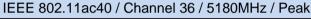


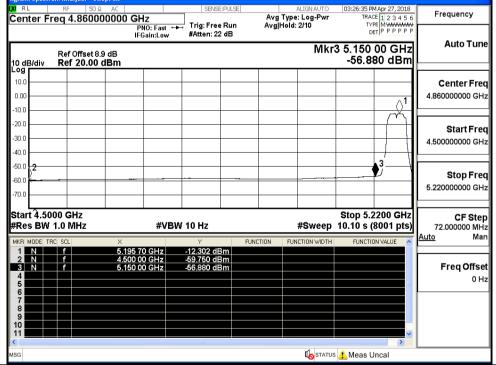




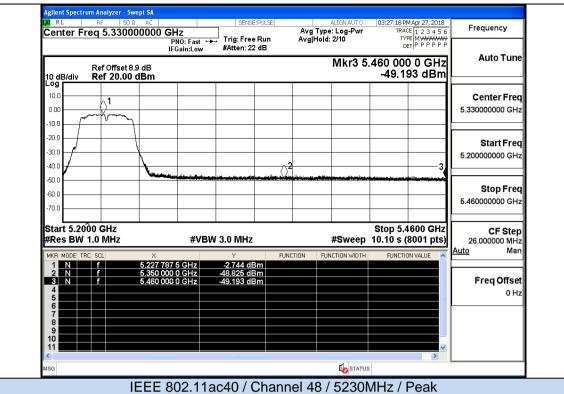
IEEE 802.11ac20 / Channel 48 / 5240MHz / Average

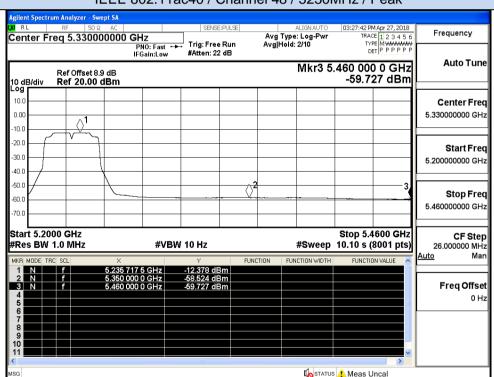






IEEE 802.11ac40 / Channel 36 / 5180MHz / Average





IEEE 802.11ac40 / Channel 48 / 5230MHz / Average

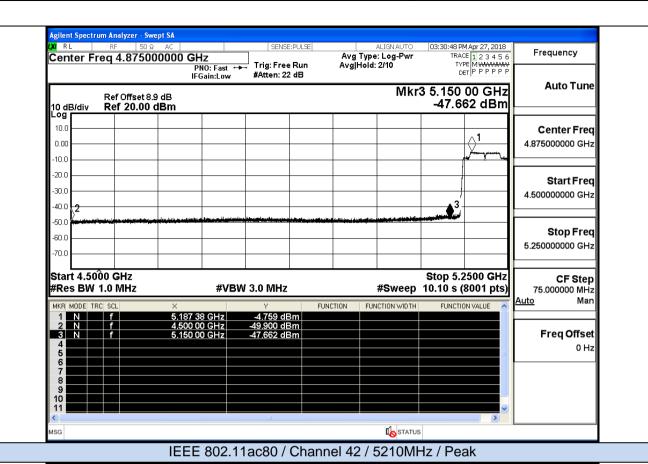
Agilent Spectrum Analyzer - Swept SA

-60.0

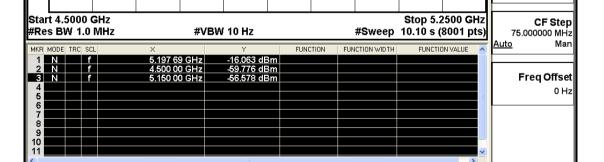
-70.0

Stop Freq

5.250000000 GHz

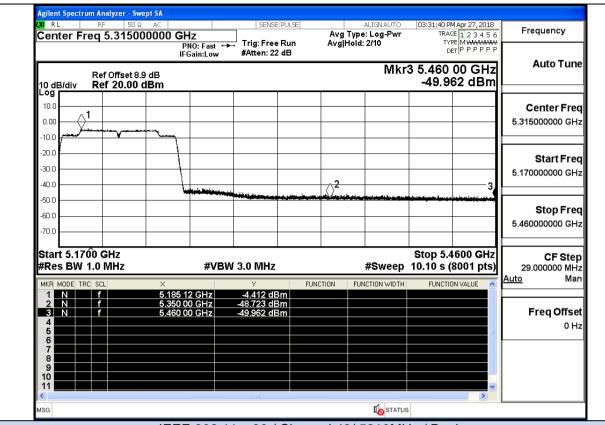


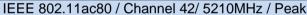
SENSE:PULSE ALIGN AUTO 03:31:12 PM Apr 27, 2018 Avg Type: Log-Pwr Avg|Hold: 2/10 Frequency TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P P P P P P Center Freq 4.875000000 GHz Trig: Free Run PNO: Fast ↔ IFGain:Low #Atten: 22 dB Auto Tune Mkr3 5.150 00 GHz Ref Offset 8.9 dB Ref 20.00 dBm -56.578 dBm 10 dB/div 10.0 Center Freq 0.00 4.875000000 GHz <u>, 1</u> 10.0 -20.0 Start Freq -30.0 4.500000000 GHz 40.0 -50.0

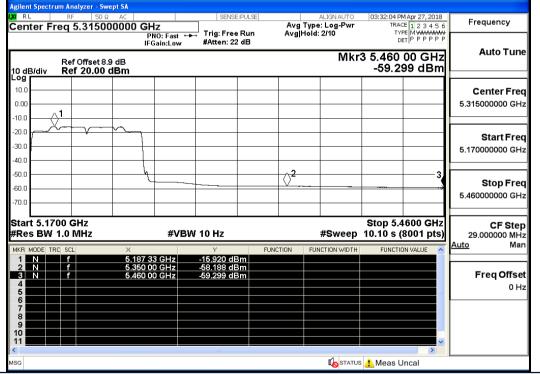


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🏡 STATUS 🔔 Meas Uncal







IEEE 802.11ac80 / Channel 42 / 5210MHz / Average