Appendix C

RF Test Data for 5.8G WLAN (Conducted Measurement)

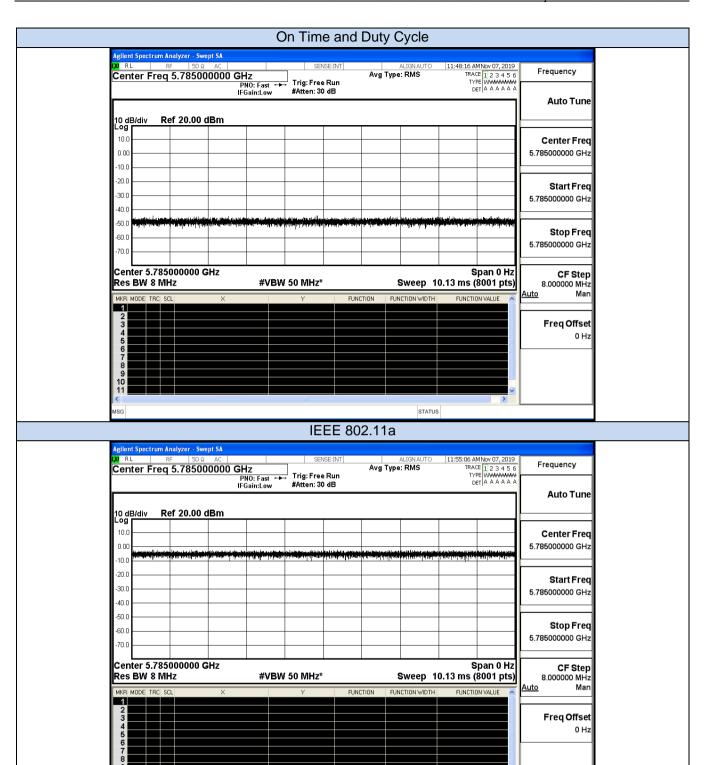
Product Name: Portable 4G LTE Router Test Model: GL-E750C4

Environmental Conditions

Temperature:	23.4°C
Relative Humidity:	53.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond.Lu
Supervised by:	Wang.Chuang

C.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
11AC20 SISO	5785	100	0.00	0.01
11AC40 SISO	5755	100	0.00	0.01
11AC80 SISO	5775	100	0.00	0.01



IEEE 802.11n HT20

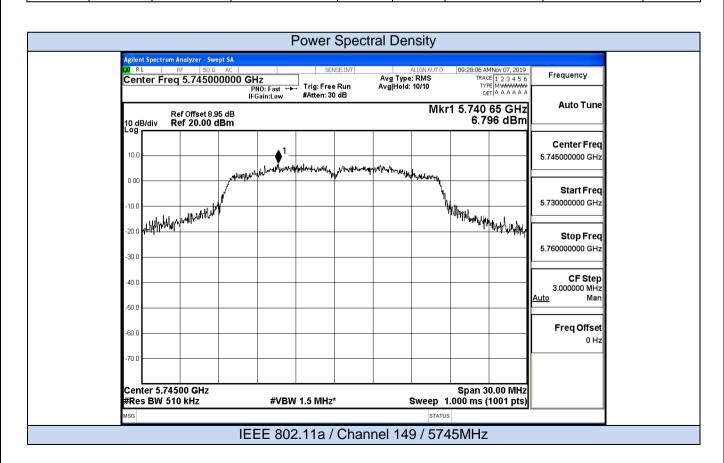
STATUS

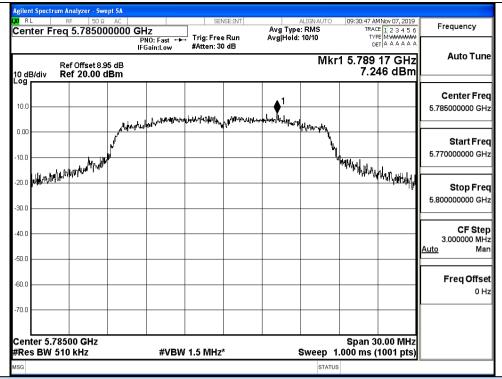
C.2 Maximum Conduct Output Power

Test Mode	Channel	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	18.37	0	18.37		Pass
	157	5785	19.06	0	19.06	30	Pass
	165	5825	19.13	0	19.13		Pass
44100	149	5745	18.34	0	18.34		Pass
11N20 SISO	157	5785	18.25	0	18.25	30	Pass
3130	165	5825	18.95	0	18.95		Pass
11N40	151	5755	18.57	0	18.57	30	Pass
SISO	159	5795	19.53	0	19.53		Pass
11AC20	149	5745	19.55	0	19.55		Pass
SISO	157	5785	18.65	0	18.65	30	Pass
3130	165	5825	19.55	0	19.55		Pass
11AC40	151	5755	18.89	0	18.89	20	Pass
SISO	159	5795	19.67	0	19.67	30	Pass
11AC80 SISO	155	5775	19.57	0	19.57	30	Pass

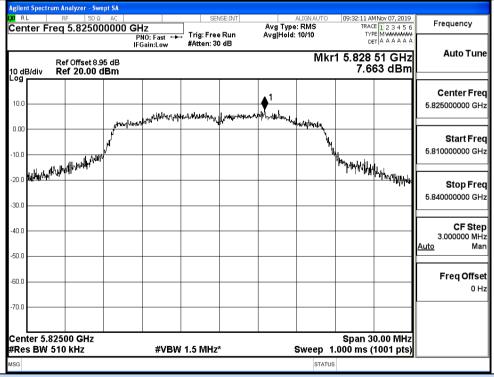
C.3 Power Spectral Density

Test Mode	Channel	Frequency (MHz)	Power Density (dBm/500KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
	149	5745	6.80	0	2.218	9.018		Pass
11A	157	5785	7.25	0	2.218	9.468	30	Pass
	165	5825	7.66	0	2.218	9.878		Pass
	149	5745	6.62	0	2.218	8.838		Pass
11N20	157	5785	6.37	0	2.218	8.588	30	Pass
SISO	165	5825	7.37	0	2.218	9.588		Pass
11N40	151	5755	3.72	0	2.218	5.938	30	Pass
SISO	159	5795	3.86	0	2.218	6.078	30	Pass
	149	5745	7.13	0	2.218	9.348		Pass
11AC20	157	5785	6.24	0	2.218	8.458	30	Pass
SISO	165	5825	6.77	0	2.218	8.988		Pass
11AC40	151	5755	3.24	0	2.218	5.458	30	Pass
SISO	159	5795	4.15	0	2.218	6.368		Pass
11AC80 SISO	155	5775	1.21	0	2.218	3.428	30	Pass

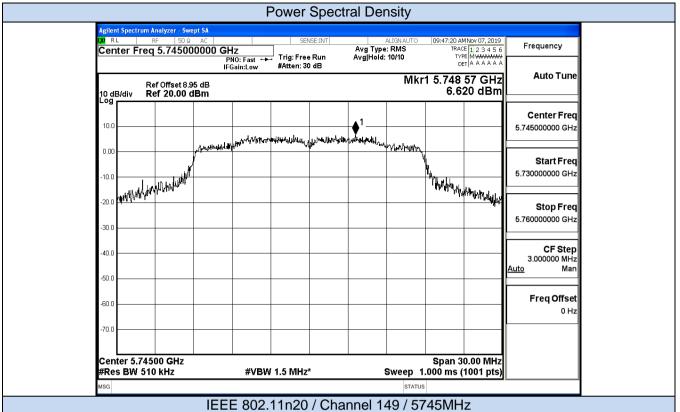


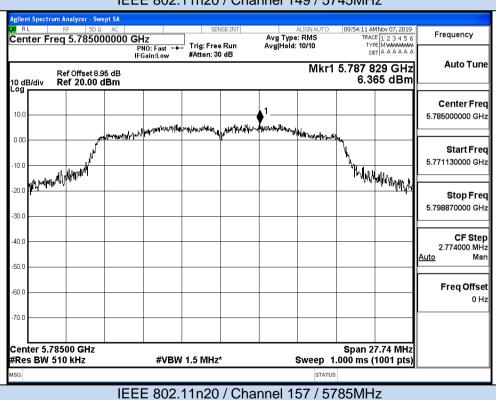


IEEE 802.11na / Channel 157 / 5785MHz



IEEE 802.11na / Channel 165 / 5825MHz

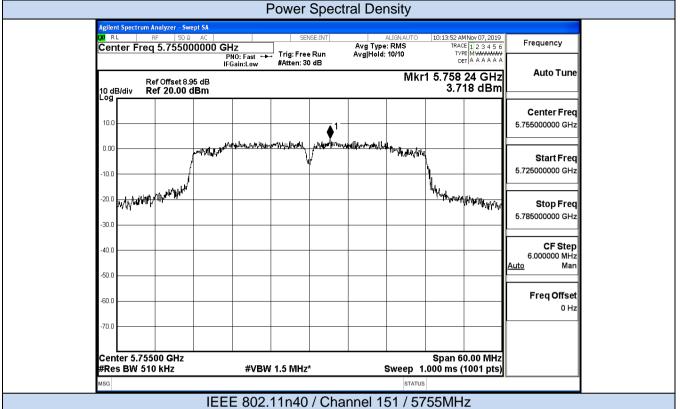


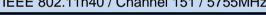


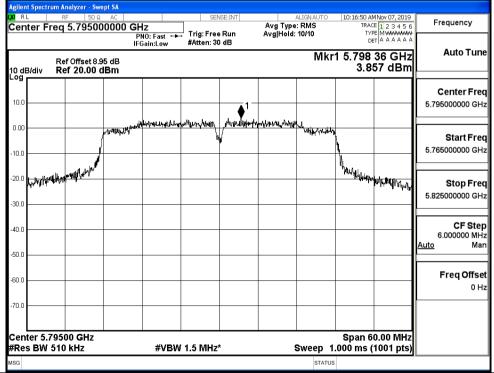
#VBW 1.5 MHz*

Center 5.82500 GHz #Res BW 510 kHz Span 30.00 MHz Sweep 1.000 ms (1001 pts)

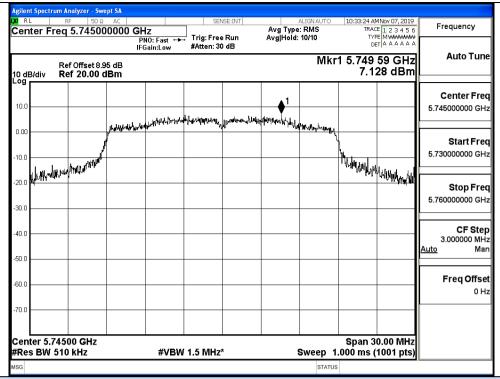
STATUS



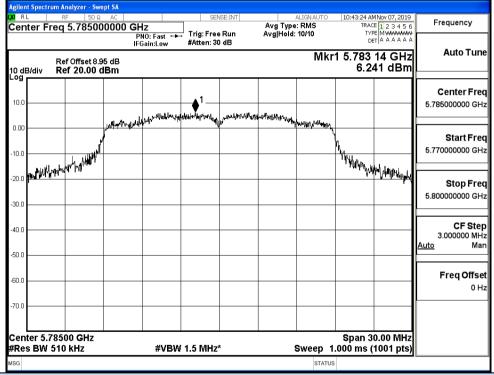




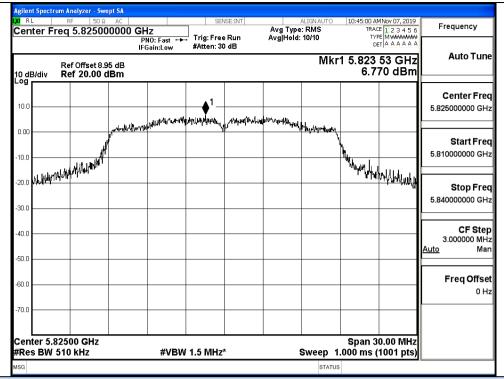
IEEE 802.11n40 / Channel 159 / 5795MHz



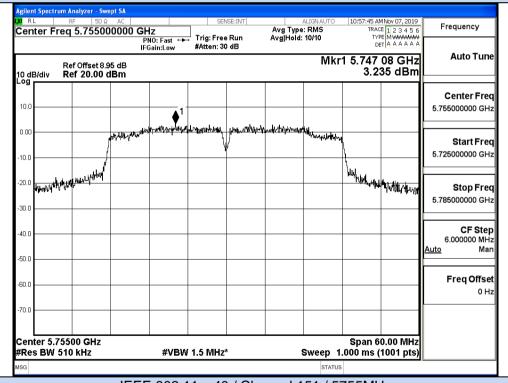
IEEE 802.11ac20 / Channel 149 / 5745MHz



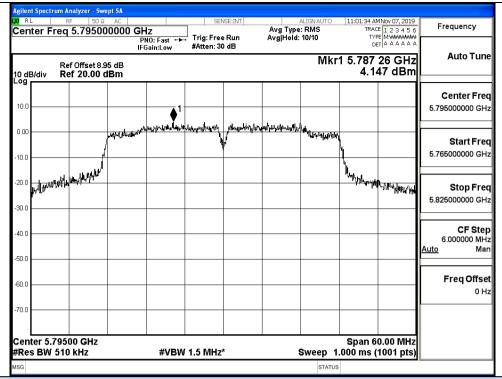
IEEE 802.11ac20 / Channel 157 / 5785MHz



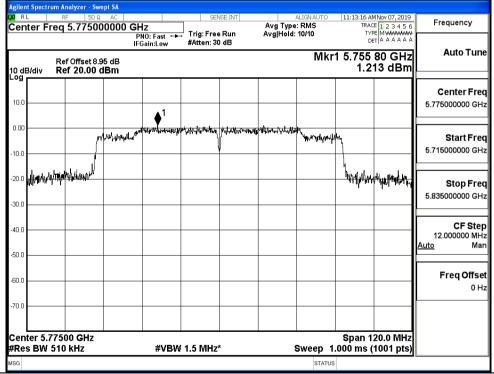
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



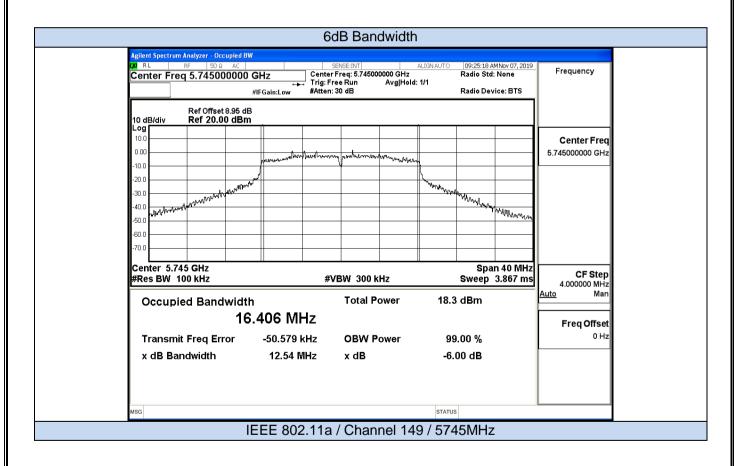
IEEE 802.11ac40 / Channel 159 / 5795MHz

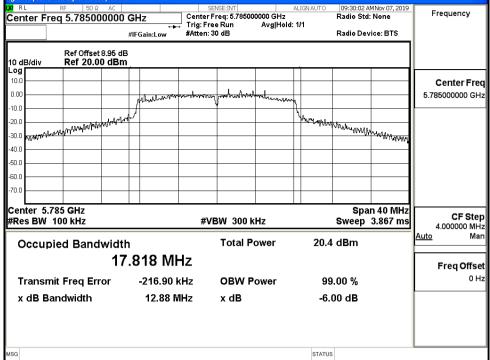


IEEE 802.11ac80 / Channel 155/ 5775MHz

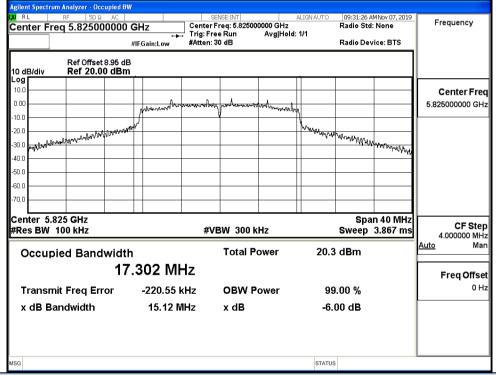
C.4 6dB and 99% Occupied Bandwidth

Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
	149	5745	12.54		Pass
11A	157	5785	12.88	>=0.5	Pass
	165	5825	15.12]	Pass
11N20	149	5745	13.63		Pass
SISO	157	5785	13.87	>=0.5	Pass
3130	165	5825	13.94	1	Pass
11N40	151	5755	33.89	>=0.5	Pass
SISO	159	5795	35.10	>=0.5	Pass
11AC20S	149	5745	14.07	. 0.5	Pass
ISO	157	5785	15.09	>=0.5	Pass
130	165	5825	14.40	1	Pass
11AC40S	151	5755	35.11	>=0.5	Pass
ISO	159	5795	35.10	1	Pass
11AC80S ISO	155	5775	75.38	>=0.5	Pass

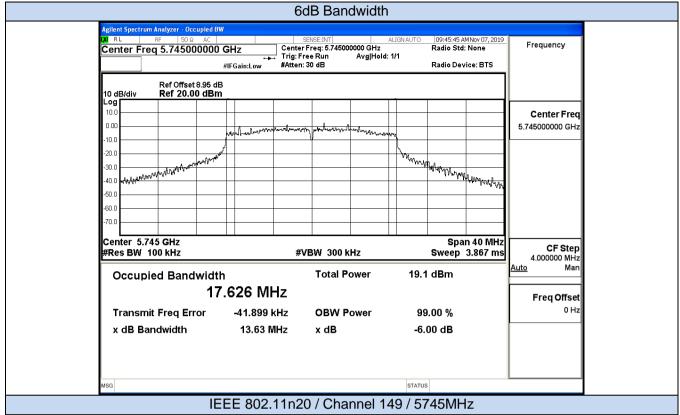




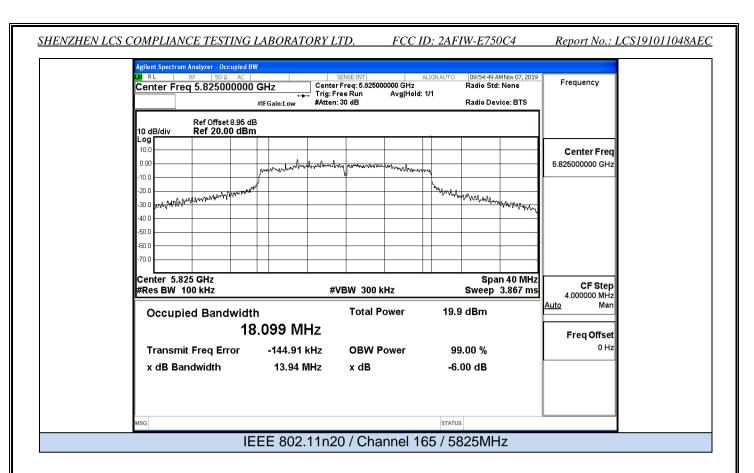
IEEE 802.11a / Channel 157 / 5785MHz

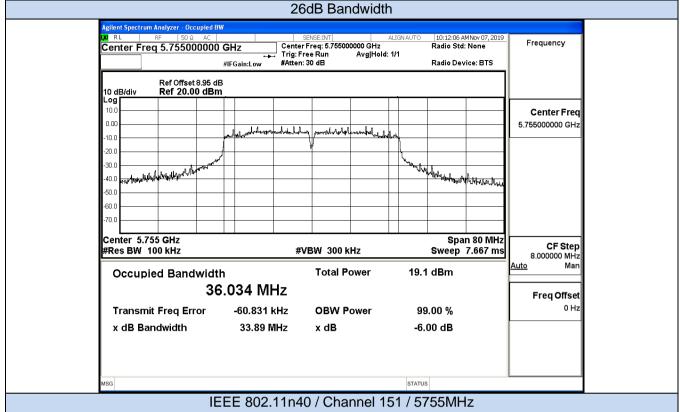


IEEE 802.11a / Channel 165 / 5825MHz



Agilent Spectrum Analyzer - Occupied BW SENSE:INT ALIGNAUTO Center Freq: 5.785000000 GHz Trig: Free Run Avg|Hold: 1/1 #Atten: 30 dB Frequency Center Freq 5.785000000 GHz #IFGain:Low Radio Device: BTS Ref Offset 8.95 dB Ref 20.00 dBm 10 dB/div Center Freq 0.00 5.785000000 GHz 10.0 -20.0 Warner March March March -30.0 -4n n nentranta_na 50.0 Center 5.785 GHz Span 40 MHz CF Step 4.000000 MHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 3.867 ms <u> Auto</u> Occupied Bandwidth **Total Power** 19.3 dBm 17.598 MHz Freq Offset 0 Hz Transmit Freq Error -37.812 kHz **OBW Power** 99.00 % x dB 13.87 MHz -6.00 dB x dB Bandwidth STATUS IEEE 802.11n20 / Channel 157 / 5785MHz





Agilent Spectrum Analyzer - Occupied BW SENSE:INT ALIGNAUTO Center Freq: 5.795000000 GHz Trig: Free Run Avg|Hold: 1/1 #Atten: 30 dB Frequency Center Freq 5.795000000 GHz #IFGain:Low Radio Device: BTS Ref Offset 8.95 dB Ref 20.00 dBm 10 dB/div Center Freq 0.00 5.795000000 GHz -10.0 -20.0 phone of him of his order Marine Marine Company of the Company -30.0 -**4**n n -50.0 Center 5.795 GHz Span 80 MHz CF Step 8.000000 MHz #Res BW 100 kHz **#VBW** 300 kHz Sweep 7.667 ms <u> Auto</u> Occupied Bandwidth **Total Power** 20.8 dBm 36.607 MHz Freq Offset 0 Hz Transmit Freq Error -120.75 kHz **OBW Power** 99.00 % x dB 35.10 MHz -6.00 dB x dB Bandwidth STATUS IEEE 802.11n40 / Channel 159 / 5795MHz

#VBW 300 kHz

x dB

Total Power

OBW Power

Span 40 MHz

Sweep 3.867 ms

20.2 dBm

99.00 %

-6.00 dB

STATUS

CF Step

4.000000 MHz Man

Freq Offset 0 Hz

<u>Auto</u>

-50.0 -60.0 -70.0

Center 5.785 GHz

#Res BW 100 kHz

Occupied Bandwidth

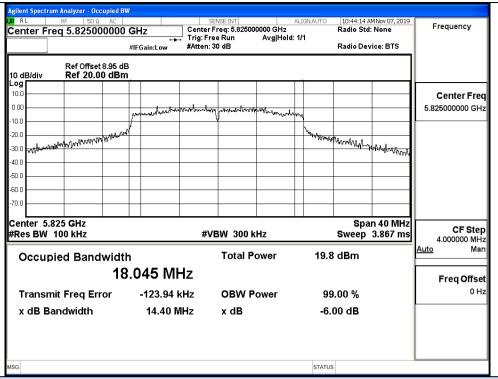
Transmit Freq Error

x dB Bandwidth

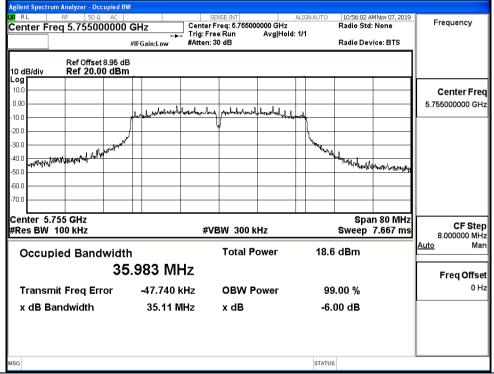
18.011 MHz

-92.426 kHz

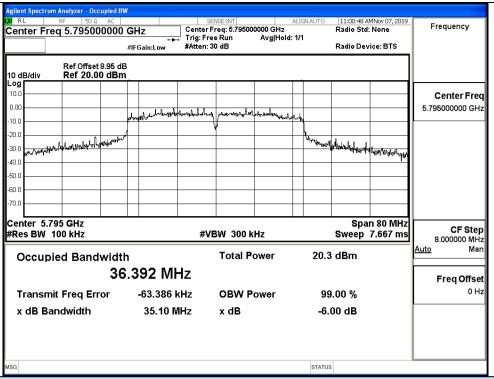
15.09 MHz



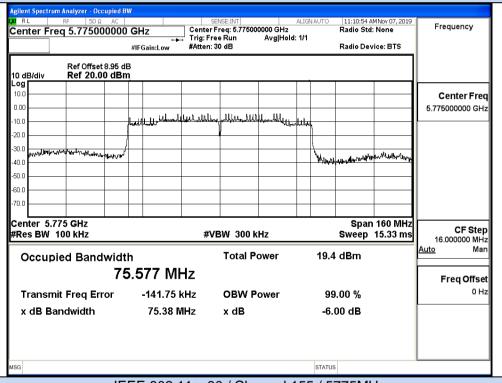
IEEE 802.11ac20 / Channel 165 / 5825MHz



IEEE 802.11ac40 / Channel 151 / 5755MHz



IEEE 802.11ac40 / Channel 159 / 5795MHz



IEEE 802.11ac80 / Channel 155 / 5775MHz

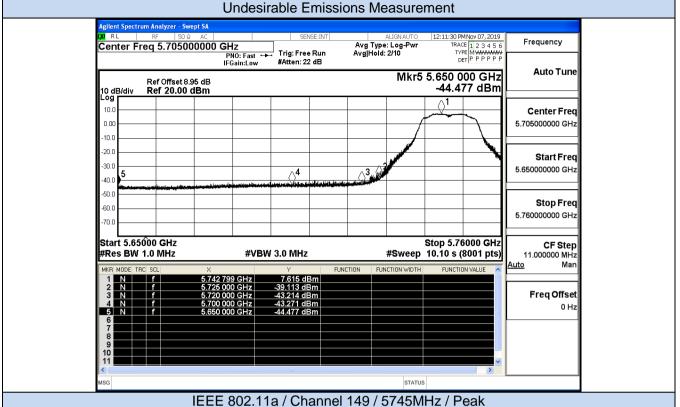
C.5 Undesirable Emissions Measurement

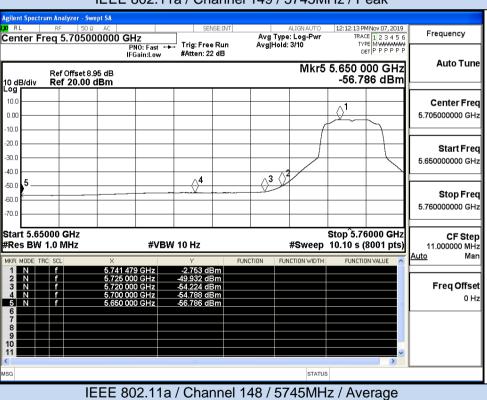
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
		5650.0	-44.48	3.53	-40.95	Peak	-27.0	Pass
		5650.0	-56.79	3.53	-53.26	Average	-27.0	Pass
		5700.0	-43.27	3.53	-39.74	Peak	10	Pass
		5700.0	-54.79	3.53	-51.26	Average	10	Pass
	149	5720.0	-43.21	3.53	-39.68	Peak	15.6	Pass
		5720.0	-54.22	3.53	-50.69	Average	15.6	Pass
		5725.0	-39.11	3.53	-35.58	Peak	27.0	Pass
		5725.0	-49.93	3.53	-46.40	Average	27.0	Pass
11A		5850.0	-27.97	3.53	-24.44	Peak	27.0	Pass
		5850.0	-43.66	3.53	-40.13	Average	27.0	Pass
		5855.0	-33.46	3.53	-29.93	Peak	15.6	Pass
	405	5855.0	-47.95	3.53	-44.42	Average	15.6	Pass
	165	5875.0	-41.42	3.53	-37.89	Peak	10	Pass
		5875.0	-53.59	3.53	-50.06	Average	10	Pass
		5925.0	-42.61	3.53	-39.08	Peak	-27.0	Pass
		5925.0	-53.69	3.53	-50.16	Average	-27.0	Pass
		5650.0	-45.11	3.53	-41.58	Peak	-27.0	Pass
		5650.0	-56.45	3.53	-52.92	Average	-27.0	Pass
		5700.0	-41.51	3.53	-37.98	Peak	10	Pass
	4.40	5700.0	-51.76	3.53	-48.23	Average	10	Pass
	149	5720.0	-37.67	3.53	-34.14	Peak	15.6	Pass
		5720.0	-54.22	3.53	-50.69	Average	15.6	Pass
		5725.0	-27.86	3.53	-24.33	Peak	27.0	Pass
11N20		5725.0	-45.51	3.53	-41.98	Average	27.0	Pass
SISO		5850.0	-29.86	3.53	-26.33	Peak	27.0	Pass
		5850.0	-48.36	3.53	-44.83	Average	27.0	Pass
		5855.0	-31.91	3.53	-28.38	Peak	15.6	Pass
		5855.0	-50.34	3.53	-46.81	Average	15.6	Pass
	165	5875.0	-37.54	3.53	-34.01	Peak	10	Pass
		5875.0	-53.19	3.53	-49.66	Average	10	Pass
		5925.0	-42.80	3.53	-39.27	Peak	-27.0	Pass
		5925.0	-54.05	3.53	-50.52	Average	-27.0	Pass

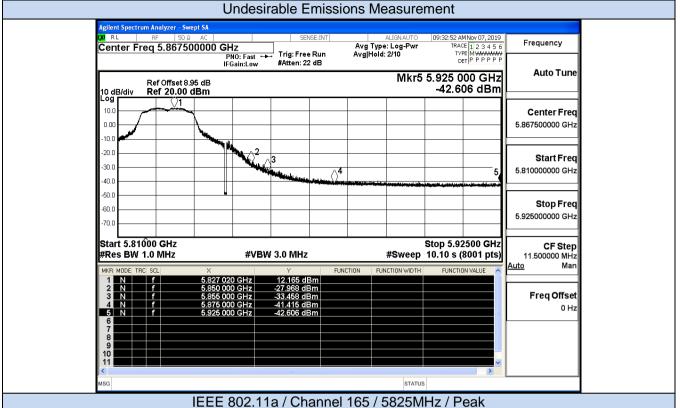
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
		5650.0	-44.86	3.53	-41.33	Peak	-27.0	Pass
		5650.0	-56.99	3.53	-53.46	Average	-27.0	Pass
		5700.0	-39.76	3.53	-36.23	Peak	10	Pass
		5700.0	-53.07	3.53	-49.54	Average	10	Pass
	151	5720.0	-33.84	3.53	-30.31	Peak	15.6	Pass
		5720.0	-46.36	3.53	-42.83	Average	15.6	Pass
		5725.0	-32.92	3.53	-29.39	Peak	27.0	Pass
11N40		5725.0	-44.72	3.53	-41.19	Average	27.0	Pass
SISO		5850.0	-35.16	3.53	-31.63	Peak	27.0	Pass
		5850.0	-47.45	3.53	-43.92	Average	27.0	Pass
		5855.0	-36.79	3.53	-33.26	Peak	15.6	Pass
		5855.0	-49.11	3.53	-45.58	Average	15.6	Pass
	159	5875.0	-41.04	3.53	-37.51	Peak	10	Pass
		5875.0	-52.91	3.53	-49.38	Average	10	27.0 Pass 10 Pass 10 Pass 10 Pass 11 Pass 15.6 Pass 15.6 Pass 27.0 Pass 27.0 Pass 27.0 Pass 15.6 Pass 10 Pass 27.0 Pass 27.0 Pass 27.0 Pass 27.0 Pass 10 Pass 15.6 Pass 15.6 Pass 27.0 Pass 27.0 Pass 27.0 Pass 27.0 Pass 15.6 Pass 27.0 Pass 15.6 <
		5925.0	-43.16	3.53	-39.63	Peak	-27.0	Pass
		5925.0	-53.94	3.53	-50.41	Average	-27.0	Pass
		5650.0	-45.41	3.53	-41.88	Peak	-27.0	Pass
		5650.0	-57.31	3.53	-53.78	Average	-27.0	Pass
		5700.0	-42.68	3.53	-39.15	Peak	10	Pass
		5700.0	-54.03	3.53	-50.50	Average	10	Pass
	149	5720.0	-39.76	3.53	-36.23	Peak	15.6	Pass
		5720.0	-55.30	3.53	-51.77	Average	15.6	Pass
		5725.0	-31.15	3.53	-27.62	Peak	27.0	Pass
11AC2		5725.0	-48.68	3.53	-45.15	Average	27.0	Pass
0		5850.0	-40.46	3.53	-36.93	Peak	27.0	Pass
SISO		5850.0	-53.61	3.53	-50.08	Average	27.0	Pass
		5855.0	-41.22	3.53	-37.69	Peak	15.6	Pass
		5855.0	-54.57	3.53	-51.04	Average	15.6	Pass
	165	5875.0	-44.65	3.53	-41.12	Peak		Pass
		5875.0	-56.08	3.53	-52.55	Average		Pass
		5925.0	-45.11	3.53	-41.58	Peak	-27.0	Pass
		5925.0	-56.37	3.53	-52.84	Average	-27.0	Pass
		5650.0	-44.97	3.53	-41.44	Peak	-27.0	Pass
		5650.0	-56.83	3.53	-53.30	Average	-27.0	Pass
11AC4		5700.0	-41.48	3.53	-37.95	Peak	10	Pass
0	151	5700.0	-53.15	3.53	-49.62	Average	10	Pass
SISO		5720.0	-32.93	3.53	-29.40	Peak	15.6	Pass
		5720.0	-46.00	3.53	-42.47	Average	15.6	Pass

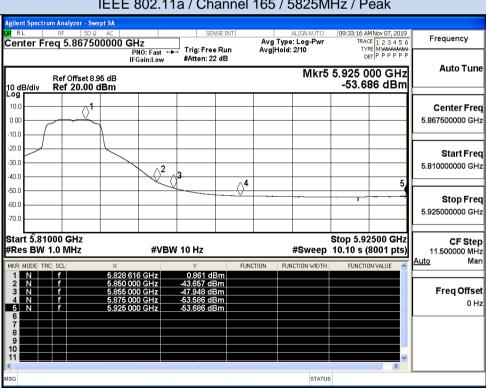
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EN LCS CC	MPLIANCE T	ESTING LABORATOR	RY LTD.	FCC ID: 2AFIW-E75	0C4 Re	port No.: LCS1	91011048AEC
	5725.0	-31.22	3.53	-27.69	Peak	27.0	Pass
	5725.0	-44.34	3.53	-40.81	Average	27.0	Pass
	5850.0	-34.26	3.53	-30.73	Peak	27.0	Pass
	5850.0	-47.75	3.53	-44.22	Average	27.0	Pass
	5855.0	-36.39	3.53	-32.86	Peak	15.6	Pass
	5855.0	-49.30	3.53	-45.77	Average	15.6	Pass
159	5875.0	-41.07	3.53	-37.54	Peak	10	Pass
	5875.0	-52.94	3.53	-49.41	Average	10	Pass
	5925.0	-42.91	3.53	-39.38	Peak	-27.0	Pass
	5925.0	-54.14	3.53	-50.61	Average	-27.0	Pass
	5725.0	-37.28	3.53	-33.75	Peak	27.0	Pass
	5720.0	-39.14	3.53		Peak	15.6	Pass
							Pass
		-46.15	3.53	-42.62	Peak	-27.0	Pass
	5725.0	-50.27	3.53	-46.74	Average	27.0	Pass
	5720.0	-51.77	3.53	-48.24	Average	15.6	Pass
	5700.0	-55.92	3.53	-52.39	Average	10	Pass
155	5650.0	-57.51	3.53	-53.98	Average	-27.0	Pass
100	5850.0	-37.28	3.53	-33.75	Peak	27.0	Pass
	5855.0	-39.14	3.53	-35.61	Peak	15.6	Pass
	5875.0	-45.02	3.53	-41.49	Peak	10	Pass
	5925.0	-46.15	3.53	-42.62	Peak	-27.0	Pass
	5850.0	-50.27	3.53	-46.74	Average	27.0	Pass
			3.53	-48.24	Average	15.6	Pass
	0000.0						
	5875.0	-55.92	3.53	-52.39	Average	10	Pass
		5725.0 5725.0 5850.0 5850.0 5855.0 5855.0 5875.0 5875.0 5925.0 5720.0	5725.0 -31.22 5725.0 -44.34 5850.0 -34.26 5850.0 -47.75 5855.0 -36.39 5875.0 -49.30 5875.0 -41.07 5875.0 -52.94 5925.0 -42.91 5925.0 -54.14 5725.0 -37.28 5720.0 -39.14 5725.0 -50.27 5720.0 -51.77 5700.0 -55.92 155 5650.0 -57.51 5850.0 -37.28 5855.0 -39.14 5875.0 -45.02 5925.0 -46.15	5725.0 -31.22 3.53 5725.0 -44.34 3.53 5850.0 -34.26 3.53 5850.0 -47.75 3.53 5855.0 -36.39 3.53 5855.0 -49.30 3.53 5875.0 -41.07 3.53 5875.0 -52.94 3.53 5925.0 -42.91 3.53 5925.0 -54.14 3.53 5725.0 -37.28 3.53 5720.0 -39.14 3.53 5720.0 -46.15 3.53 5725.0 -50.27 3.53 5720.0 -51.77 3.53 5700.0 -55.92 3.53 5700.0 -55.92 3.53 5850.0 -37.28 3.53 5855.0 -39.14 3.53 5855.0 -39.14 3.53 5850.0 -46.15 3.53 5850.0 -50.27 3.53 5850.0 -50.27 3.53 <td>5725.0 -31.22 3.53 -27.69 5725.0 -44.34 3.53 -40.81 5850.0 -34.26 3.53 -30.73 5850.0 -47.75 3.53 -44.22 5855.0 -36.39 3.53 -32.86 5855.0 -49.30 3.53 -45.77 5875.0 -41.07 3.53 -37.54 5875.0 -52.94 3.53 -49.41 5925.0 -54.14 3.53 -50.61 5725.0 -37.28 3.53 -33.75 5720.0 -39.14 3.53 -35.61 5700.0 -45.02 3.53 -41.49 5650.0 -46.15 3.53 -42.62 5725.0 -50.27 3.53 -48.24 5720.0 -51.77 3.53 -48.24 5720.0 -51.77 3.53 -52.39 5850.0 -57.51 3.53 -53.98 5850.0 -37.28 3.53 -33.75</td> <td>5725.0 -31.22 3.53 -27.69 Peak 5725.0 -44.34 3.53 -40.81 Average 5850.0 -34.26 3.53 -30.73 Peak 5850.0 -47.75 3.53 -44.22 Average 5855.0 -36.39 3.53 -32.86 Peak 5855.0 -49.30 3.53 -37.54 Peak 5875.0 -41.07 3.53 -37.54 Peak 5875.0 -52.94 3.53 -39.38 Peak 5925.0 -42.91 3.53 -39.38 Peak 5925.0 -54.14 3.53 -50.61 Average 5725.0 -37.28 3.53 -33.75 Peak 5720.0 -39.14 3.53 -35.61 Peak 5720.0 -46.15 3.53 -42.62 Peak 5850.0 -45.02 3.53 -53.98 Average 5850.0 -37.28 3.53 -33.75 Peak 5700.0 -55.92 3.53 -52.39 Average 5850.0 -37.28 3.53 -33.75 Peak 5700.0 -55.92 3.53 -52.39 Average 5850.0 -37.28 3.53 -33.75 Peak 5850.0 -37.28 3.53 -33.75 Peak</td> <td> 5725.0</td>	5725.0 -31.22 3.53 -27.69 5725.0 -44.34 3.53 -40.81 5850.0 -34.26 3.53 -30.73 5850.0 -47.75 3.53 -44.22 5855.0 -36.39 3.53 -32.86 5855.0 -49.30 3.53 -45.77 5875.0 -41.07 3.53 -37.54 5875.0 -52.94 3.53 -49.41 5925.0 -54.14 3.53 -50.61 5725.0 -37.28 3.53 -33.75 5720.0 -39.14 3.53 -35.61 5700.0 -45.02 3.53 -41.49 5650.0 -46.15 3.53 -42.62 5725.0 -50.27 3.53 -48.24 5720.0 -51.77 3.53 -48.24 5720.0 -51.77 3.53 -52.39 5850.0 -57.51 3.53 -53.98 5850.0 -37.28 3.53 -33.75	5725.0 -31.22 3.53 -27.69 Peak 5725.0 -44.34 3.53 -40.81 Average 5850.0 -34.26 3.53 -30.73 Peak 5850.0 -47.75 3.53 -44.22 Average 5855.0 -36.39 3.53 -32.86 Peak 5855.0 -49.30 3.53 -37.54 Peak 5875.0 -41.07 3.53 -37.54 Peak 5875.0 -52.94 3.53 -39.38 Peak 5925.0 -42.91 3.53 -39.38 Peak 5925.0 -54.14 3.53 -50.61 Average 5725.0 -37.28 3.53 -33.75 Peak 5720.0 -39.14 3.53 -35.61 Peak 5720.0 -46.15 3.53 -42.62 Peak 5850.0 -45.02 3.53 -53.98 Average 5850.0 -37.28 3.53 -33.75 Peak 5700.0 -55.92 3.53 -52.39 Average 5850.0 -37.28 3.53 -33.75 Peak 5700.0 -55.92 3.53 -52.39 Average 5850.0 -37.28 3.53 -33.75 Peak 5850.0 -37.28 3.53 -33.75 Peak	5725.0

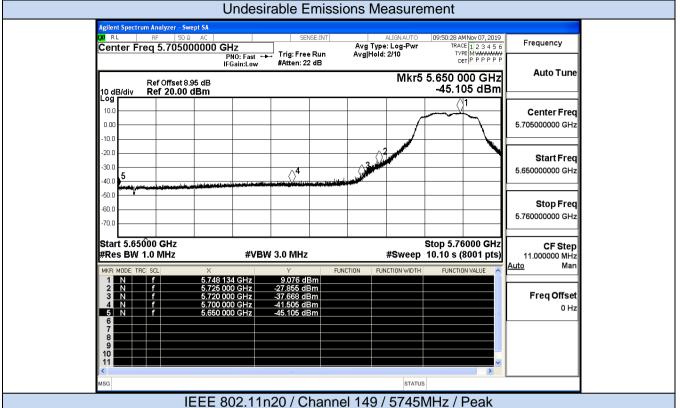


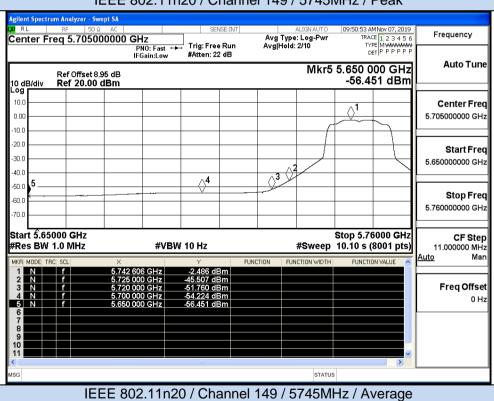


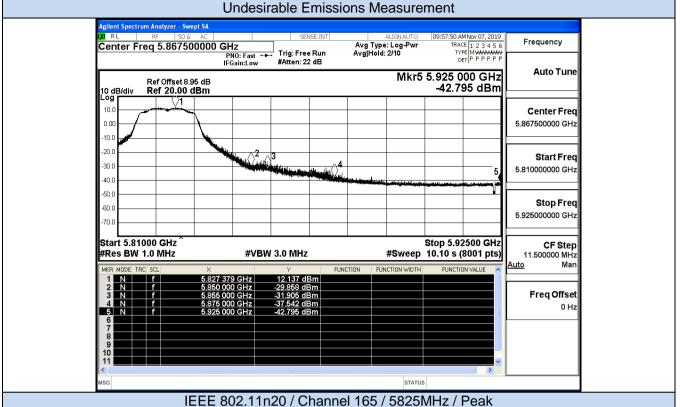


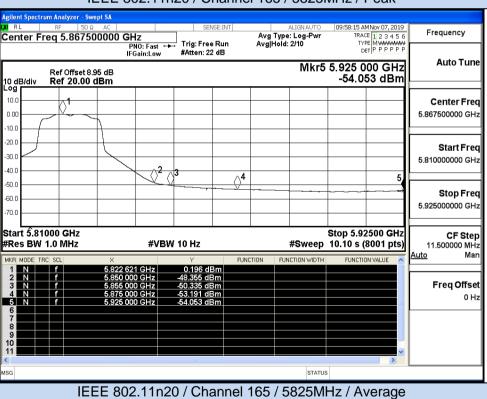


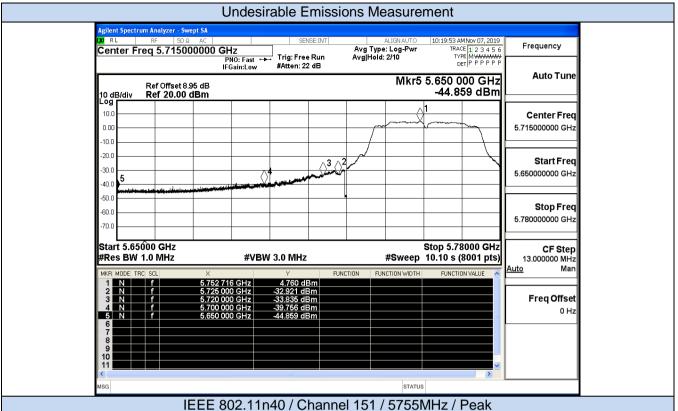
IEEE 802.11a / Channel 165 / 5825MHz / Average

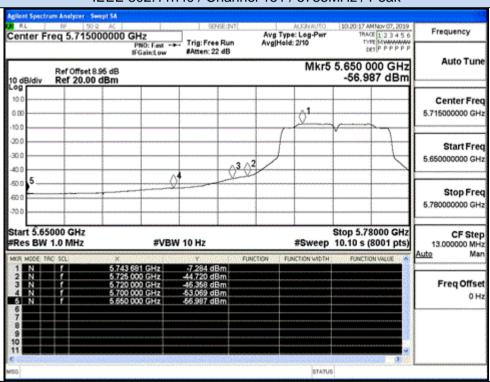




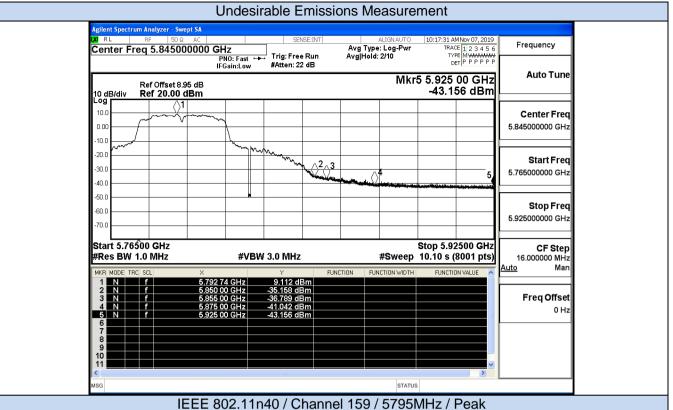


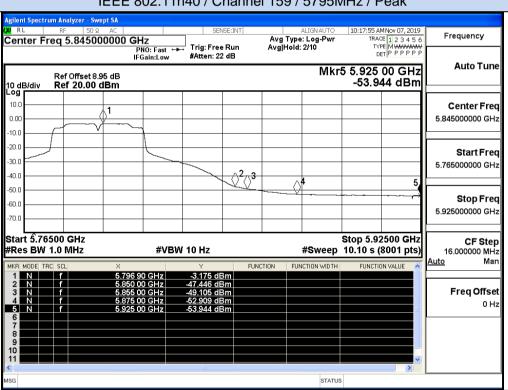






IEEE 802.11n40 / Channel 151 / 5755MHz / Average





IEEE 802.11n40 / Channel 159 / 5795MHz / Average

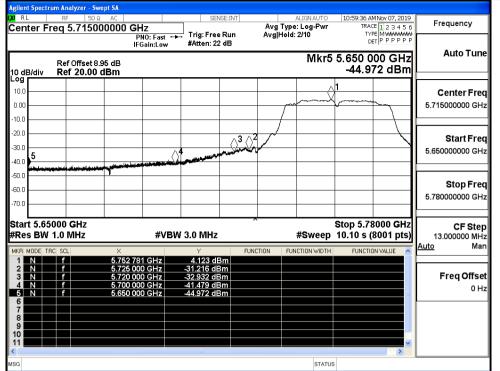
STATUS

-55.304 dBm -57.307 dBm Freq Offset

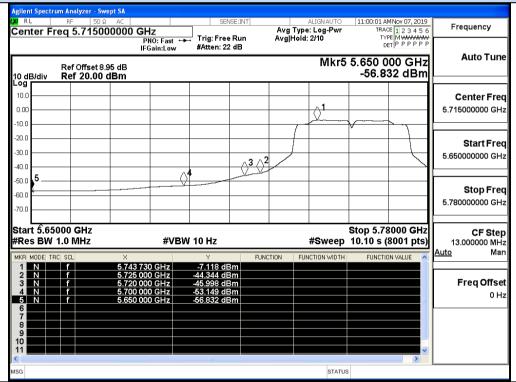
0 Hz

STATUS

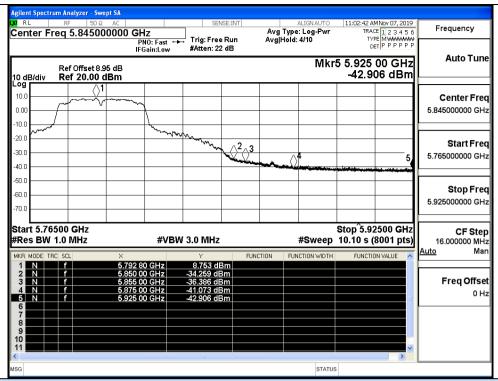
Freq Offset



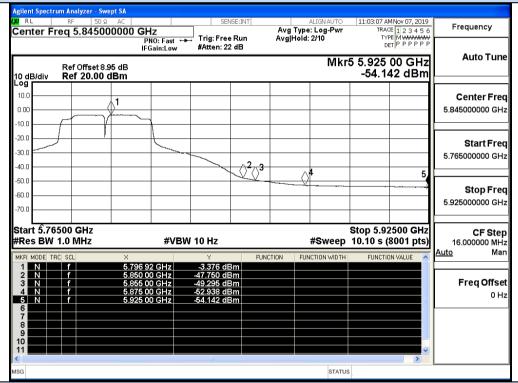
IEEE 802.11ac40 / Channel 151 / 5755MHz / Peak



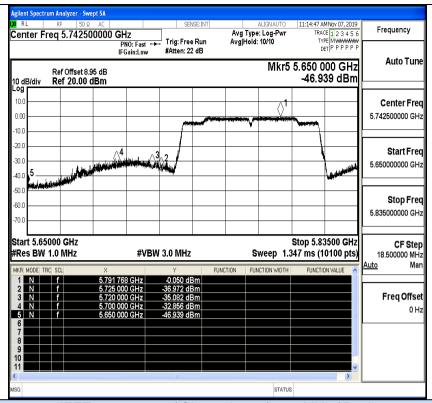
IEEE 802.11ac40 / Channel 151 / 5755MHz / Average



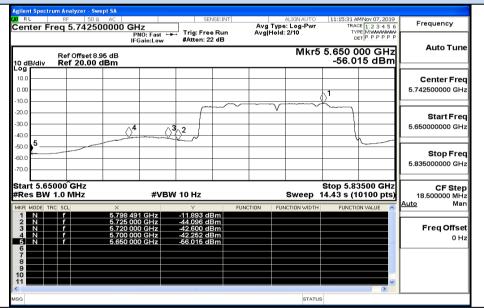
IEEE 802.11ac40 / Channel 159 / 5795MHz / Peak



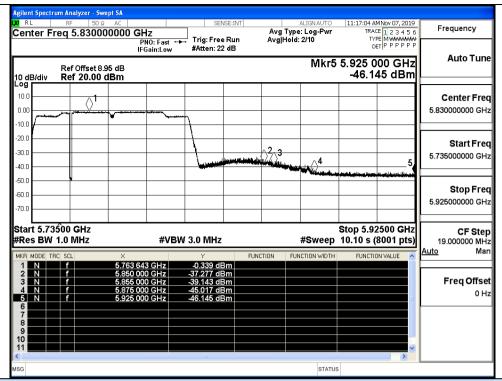
IEEE 802.11ac40 / Channel 159 / 5795MHz / Average



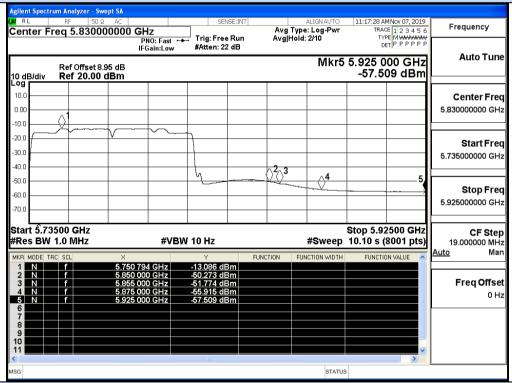
IEEE 802.11ac80 / Channel 155 / 5775MHz / Peak



IEEE 802.11ac80 / Channel 155 / 5775MHz / Average



IEEE 802.11ac80 / Channel 155/ 5775MHz / Peak



IEEE 802.11ac80 / Channel 155 / 5775MHz / Average