

Appendix E

RF Test Data for 5.8G WLAN (Conducted Measurement)

Product Name: Legends Ultimate Home Arcade

Trade Mark: N/A

Test Model: HA8800

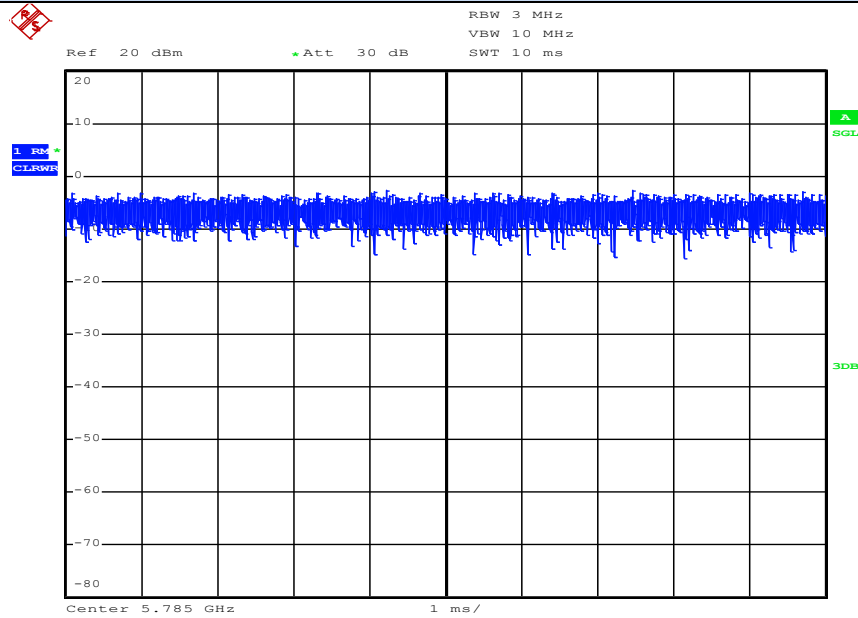
Environmental Conditions

Temperature:	24.5 ° C
Relative Humidity:	54.3%
ATM Pressure:	100.0 kPa
Test Engineer:	JK ZHOU
Supervised by:	Wang.Chuang

D.1 Duty Cycle

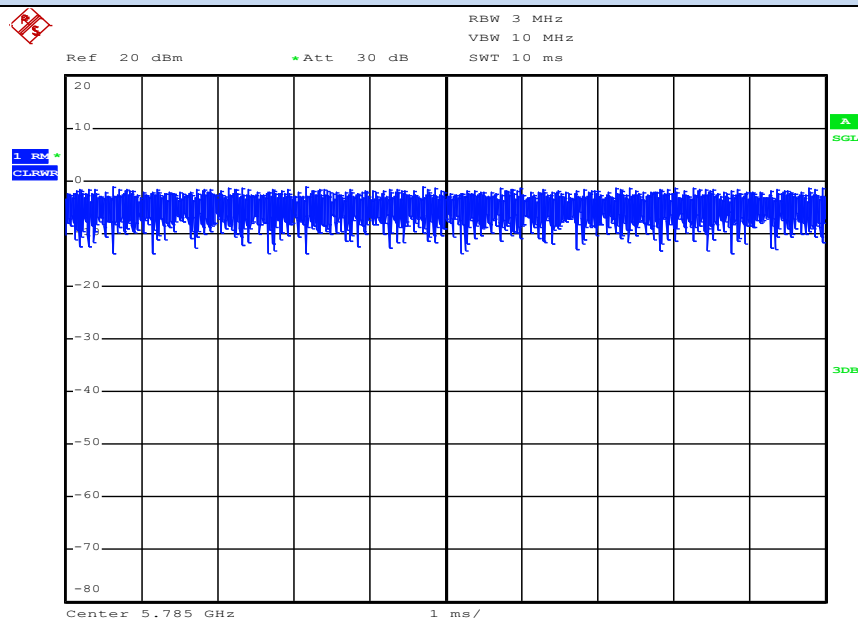
Test Mode	Test Frequency (MHz)	Duty Cycle (%)	10log(1/x) Factor (dB)	1/B Minimum VBW(KHz)
11A	5785	100	0.00	0.01
11N20 SISO	5785	100	0.00	0.01
11N40 SISO	5755	100	0.00	0.01
11AC20 SISO	5785	100	0.00	0.01
11AC40 SISO	5755	100	0.00	0.01
11AC80 SISO	5775	100	0.00	0.01

On Time and Duty Cycle



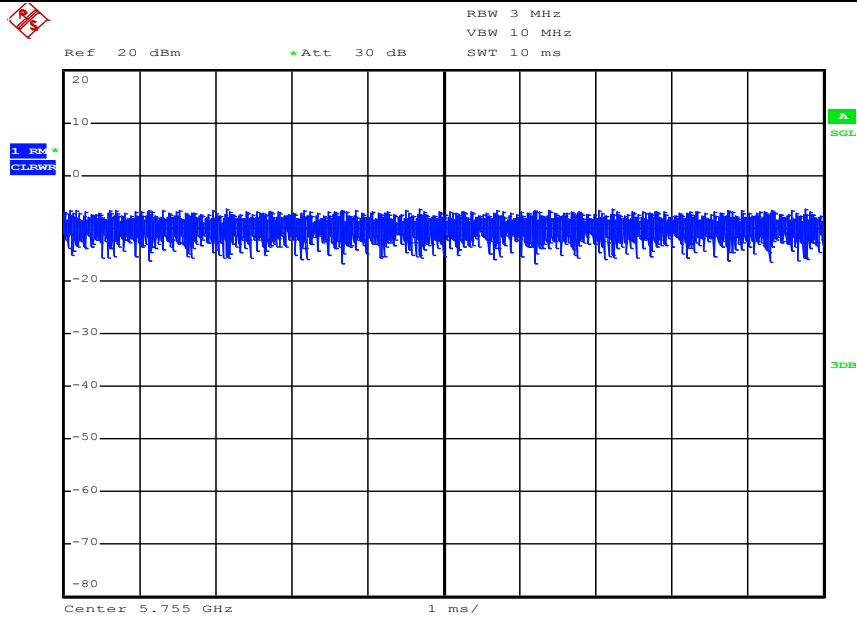
Date: 23.SEP.2019 21:19:56

IEEE 802.11a



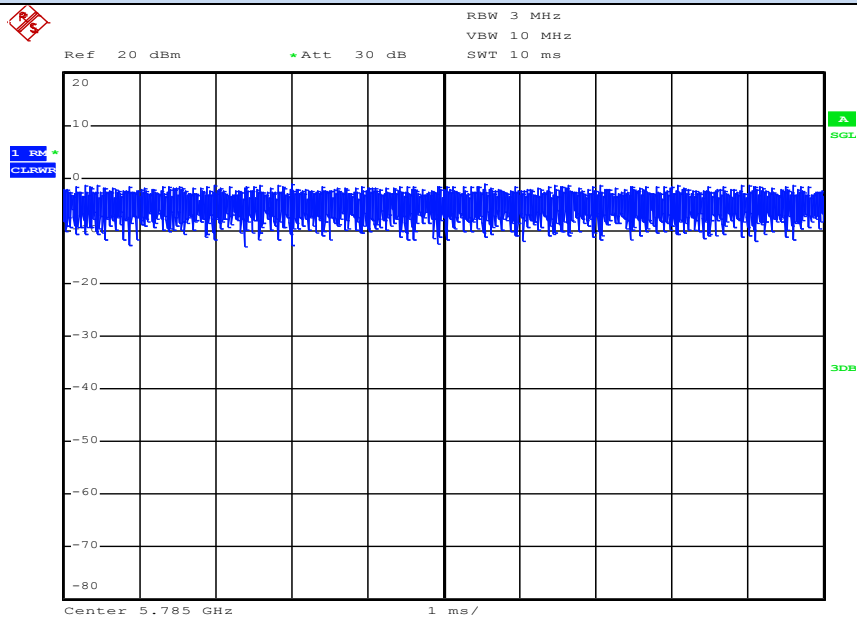
Date: 15.AUG.2019 17:42:20

IEEE 802.11n HT20



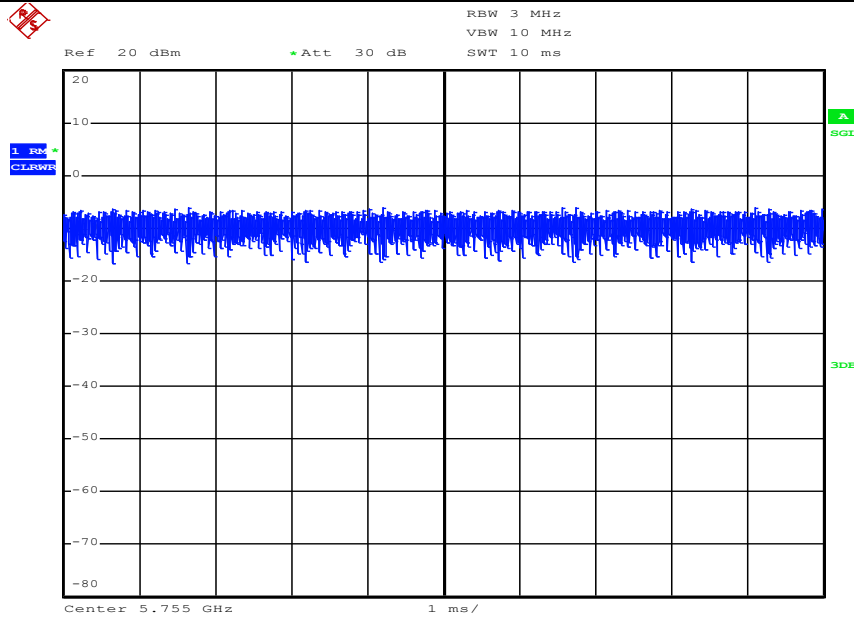
Date: 15.AUG.2019 17:43:46

IEEE 802.11n HT40



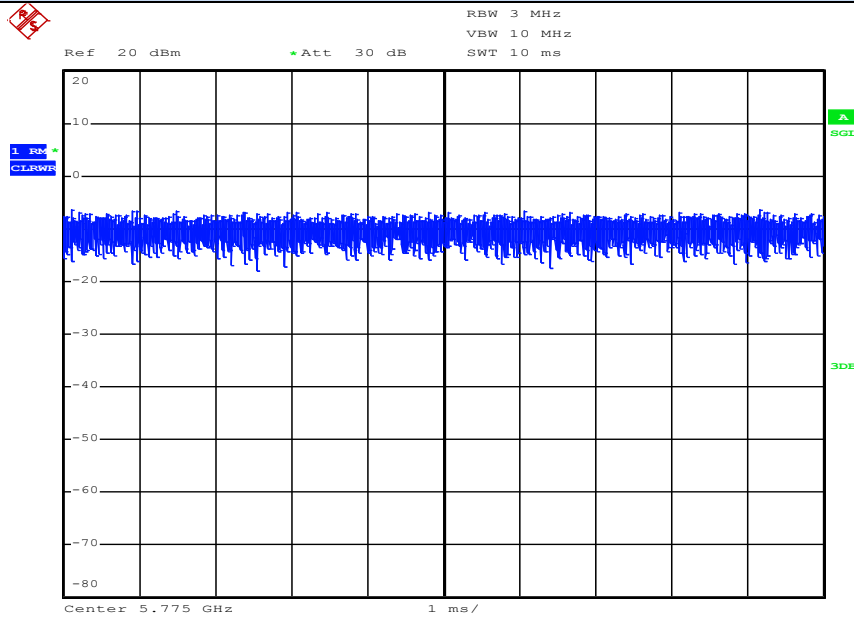
Date: 15.AUG.2019 17:45:47

IEEE 802.11AC20



Date: 15.AUG.2019 17:47:03

IEEE 802.11AC40



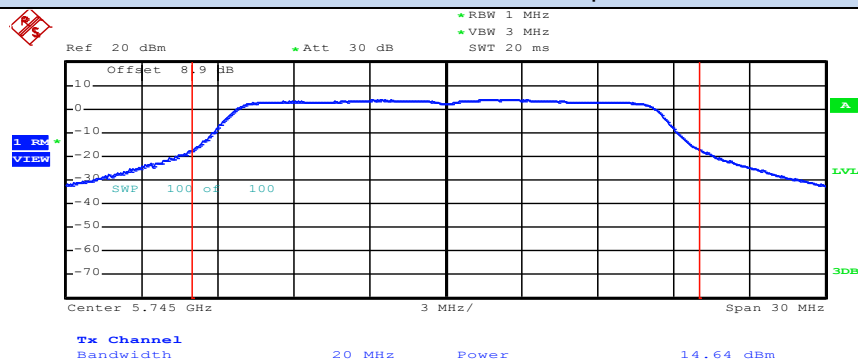
Date: 23.SEP.2019 19:53:40

IEEE 802.11AC80

D.2 Maximum Conduct Output Power

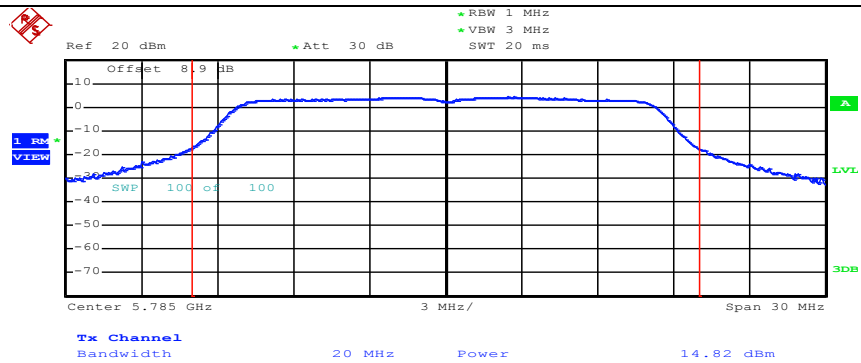
Test Mode	Channel I	Frequency (MHz)	AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit (dBm)	Verdict
11A	149	5745	14.64	0	14.64	30	Pass
	157	5785	14.82	0	14.82		Pass
	165	5825	15.2	0	15.2		Pass
11N20 SISO	149	5745	14.64	0	14.64	30	Pass
	157	5785	14.81	0	14.81		Pass
	165	5825	15.25	0	15.25		Pass
11N40 SISO	151	5755	14.33	0	14.33	30	Pass
	159	5795	14.77	0	14.77		Pass
11AC20 SISO	149	5745	14.65	0	14.65	30	Pass
	157	5785	14.81	0	14.81		Pass
	165	5825	15.19	0	15.19		Pass
11AC40 SISO	151	5755	14.42	0	14.42	30	Pass
	159	5795	14.68	0	14.68		Pass
11AC80 SISO	155	5775	15.01	0	15.01	30	Pass

Maximum Conducted Output Power



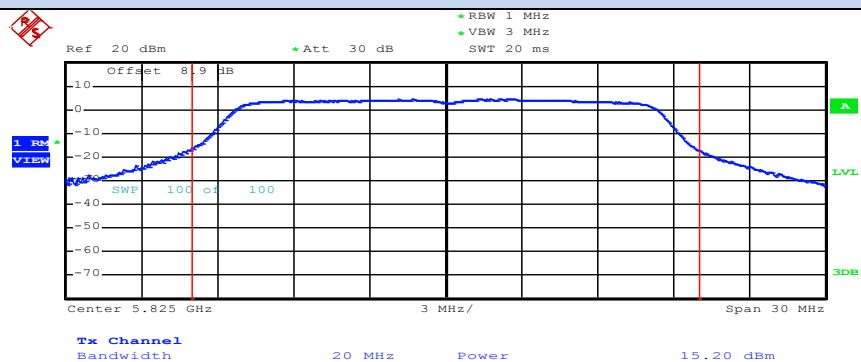
Date: 7.AUG.2019 17:59:12

IEEE 802.11a / Channel 149 / 5745MHz



Date: 7.AUG.2019 18:00:15

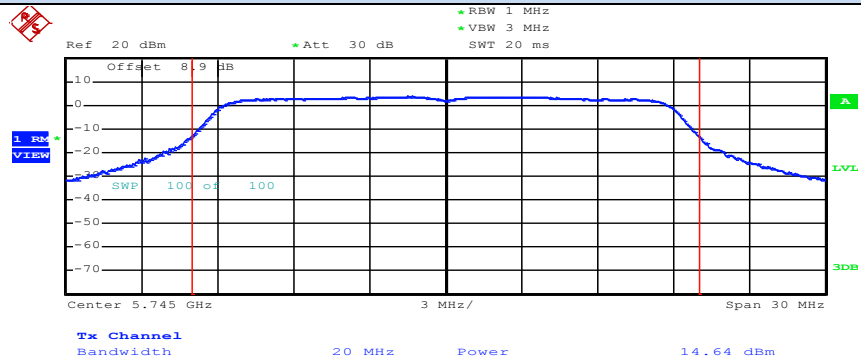
IEEE 802.11a / Channel 157 / 5785MHz



Date: 7.AUG.2019 18:01:22

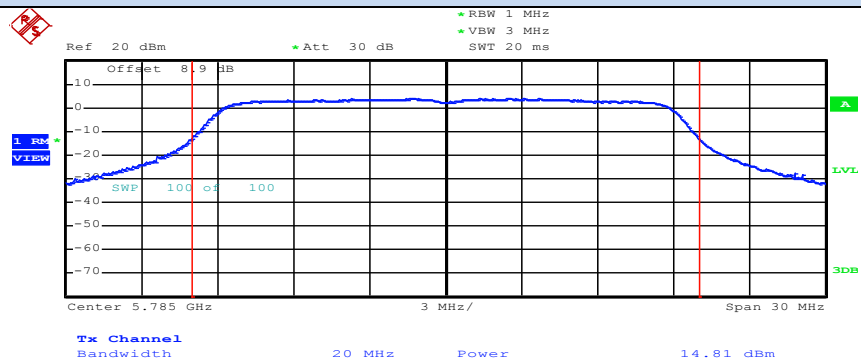
IEEE 802.11a / Channel 165 / 5825MHz

Maximum Conducted Output Power



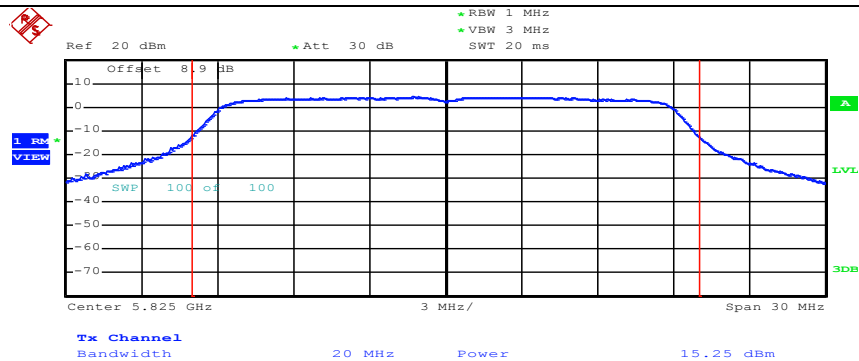
Date: 7.AUG.2019 18:06:22

IEEE 802.11n20 / Channel 149 / 5745MHz



Date: 7.AUG.2019 18:07:22

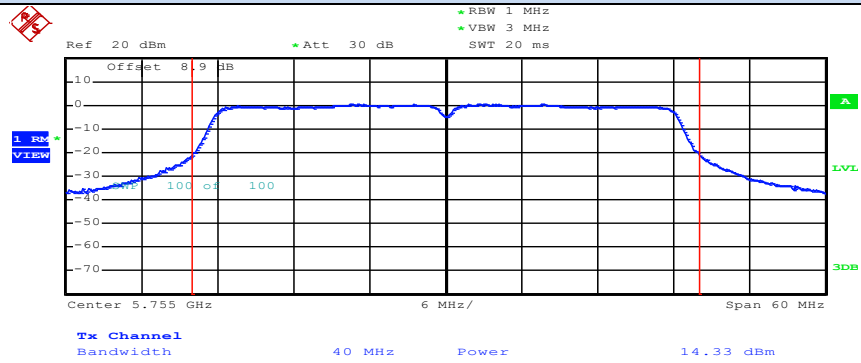
IEEE 802.11n20 / Channel 157 / 5785MHz



Date: 7.AUG.2019 18:08:21

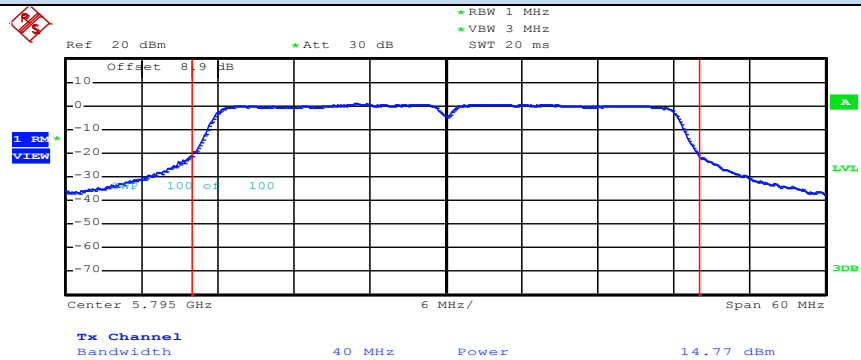
IEEE 802.11n20 / Channel 165 / 5825MHz

Maximum Conducted Output Power



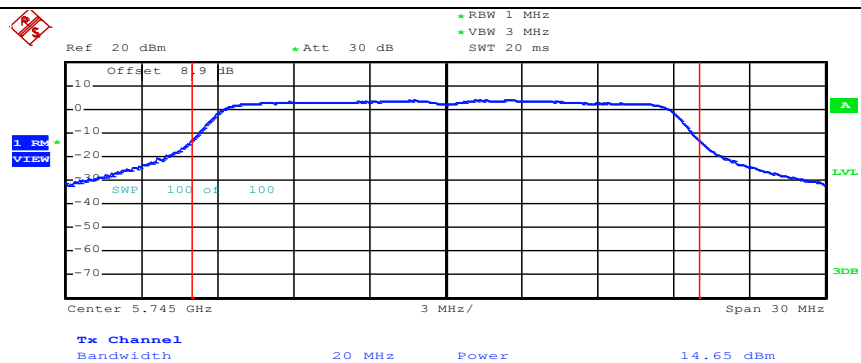
Date: 7.AUG.2019 18:11:44

IEEE 802.11n40 / Channel 151 / 5755MHz



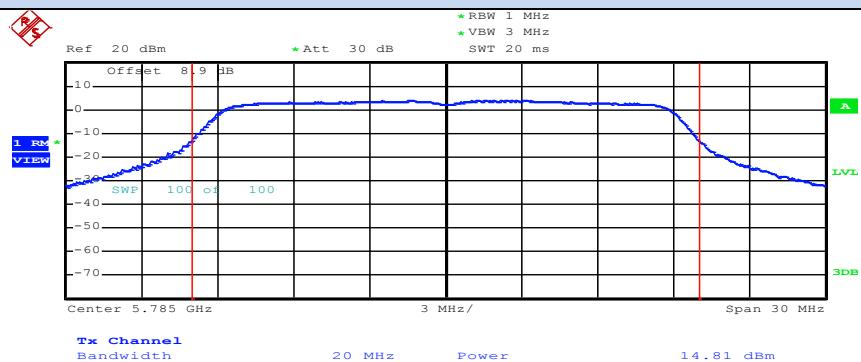
Date: 7.AUG.2019 18:12:49

IEEE 802.11n40 / Channel 159 / 5795MHz



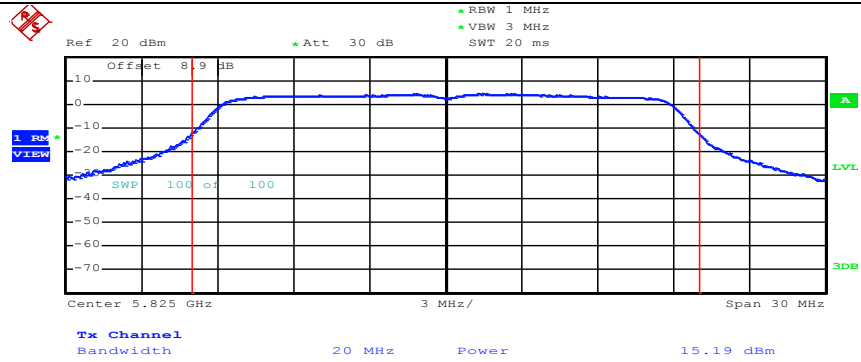
Date: 7.AUG.2019 18:16:59

IEEE 802.11ac20 / Channel 149 / 5745MHz



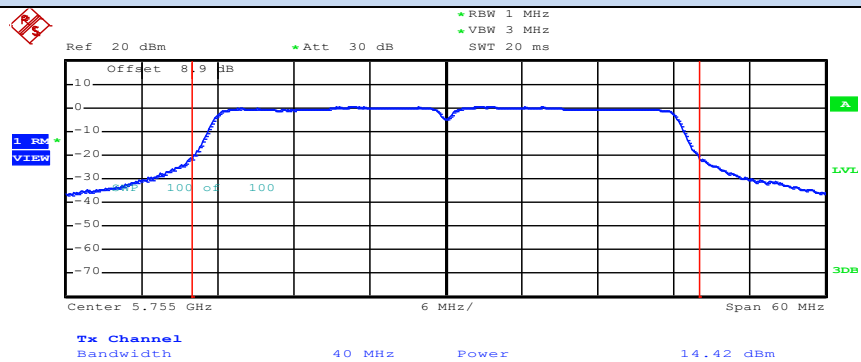
Date: 7.AUG.2019 18:17:58

IEEE 802.11ac20 / Channel 157 / 5785MHz



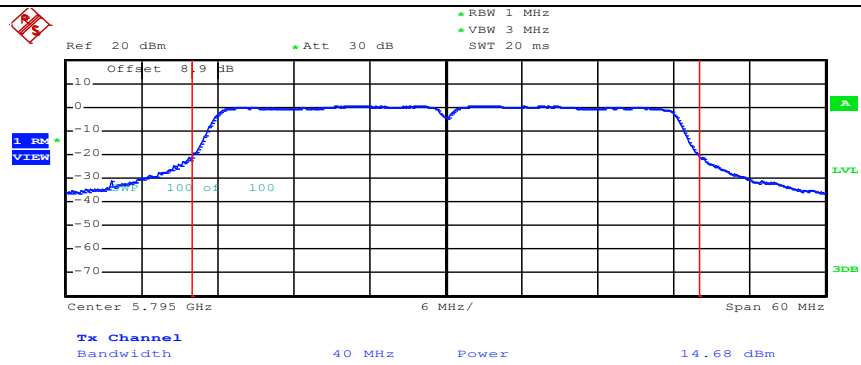
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IEEE 802.11ac20 / Channel 165/ 5825MHz



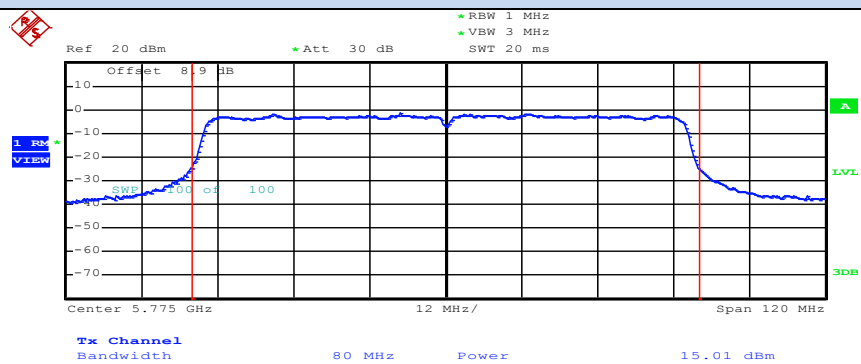
Date: 7.AUG.2019 18:22:14

IEEE 802.11ac40 / Channel 151 / 5755MHz



Date: 7.AUG.2019 18:23:15

IEEE 802.11ac40 / Channel 159 / 5795MHz

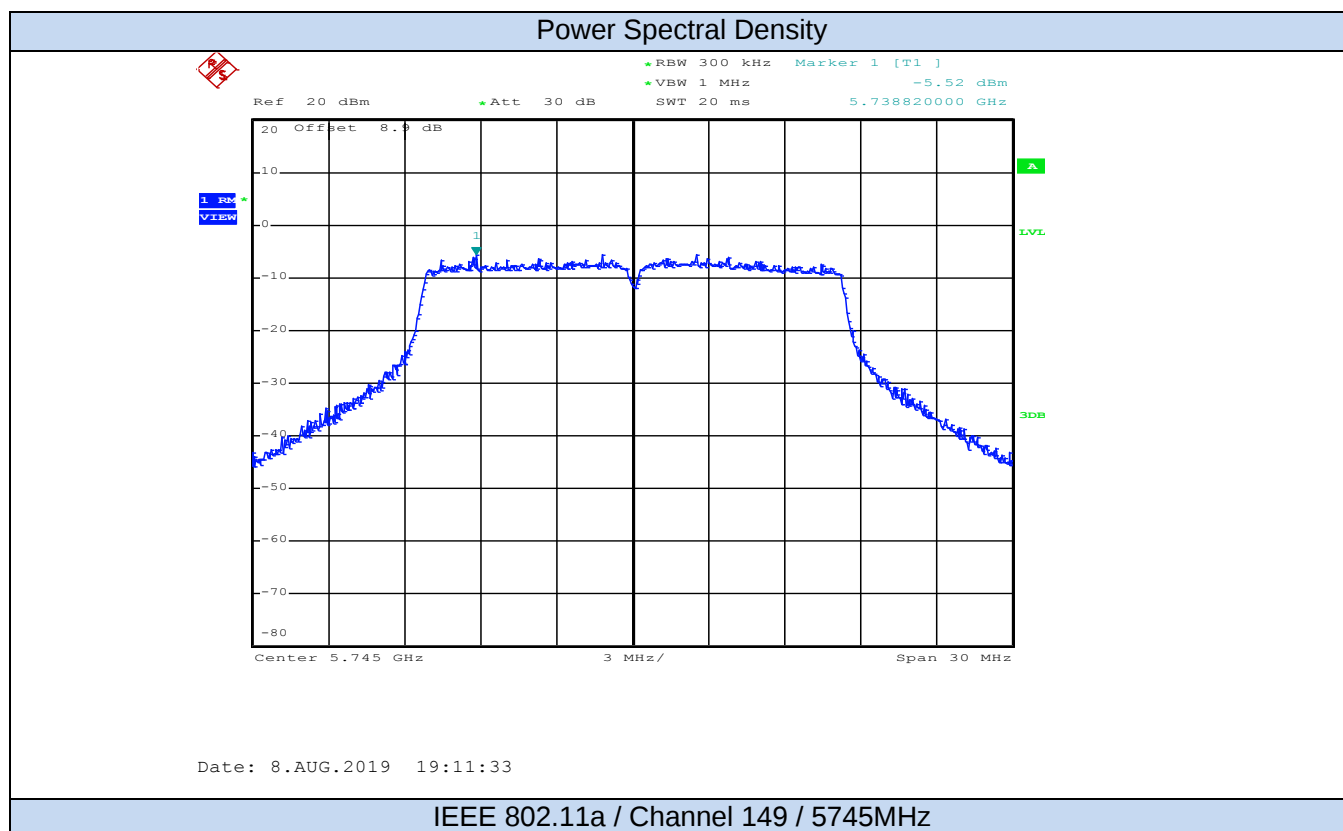


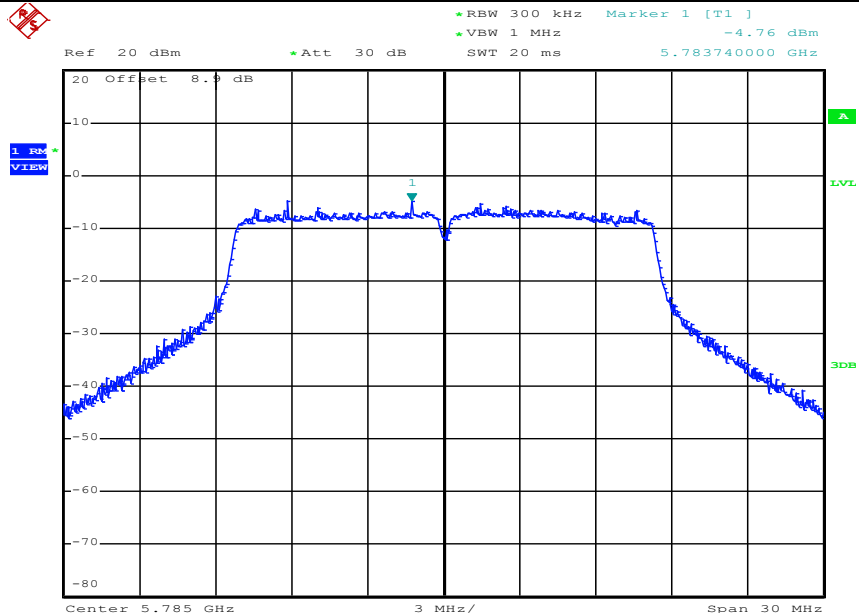
Date: 7.AUG.2019 18:26:25

IEEE 802.11ac80 / Channel 155 / 5775MHz

D.3 Power Spectral Density

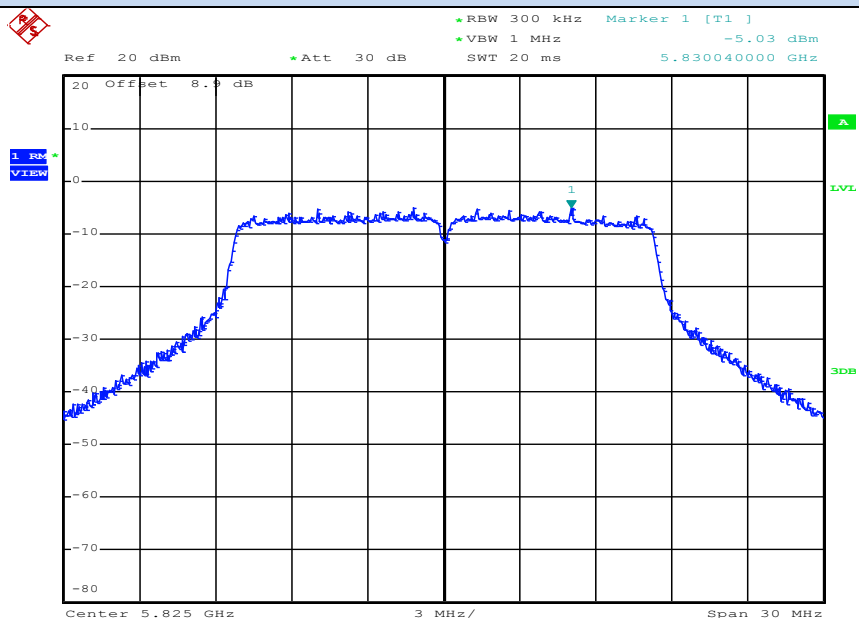
Test Mode	Channel	Frequency (MHz)	Power Density (dBm/300KHz)	Duty Cycle Factor (dB)	RBW Factor (dB)	Report Power Density (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
11A	149	5745	-5.52	0	2.218	-3.302	30	Pass
	157	5785	-4.76	0	2.218	-2.542		Pass
	165	5825	-5.03	0	2.218	-2.812		Pass
11N20 SISO	149	5745	-5.22	0	2.218	-3.002	30	Pass
	157	5785	-5.29	0	2.218	-3.072		Pass
	165	5825	-4.54	0	2.218	-2.322		Pass
11N40 SISO	151	5755	-7.87	0	2.218	-5.652	30	Pass
	159	5795	-8.04	0	2.218	-5.822		Pass
11AC20 SISO	149	5745	-5.21	0	2.218	-2.992	30	Pass
	157	5785	-5.21	0	2.218	-2.992		Pass
	165	5825	-4.66	0	2.218	-2.442		Pass
11AC40 SISO	151	5755	-8.13	0	2.218	-5.912	30	Pass
	159	5795	-8.13	0	2.218	-5.912		Pass
11AC80 SISO	155	5775	-10.69	0	2.218	-8.472	30	Pass





Date: 8.AUG.2019 19:14:55

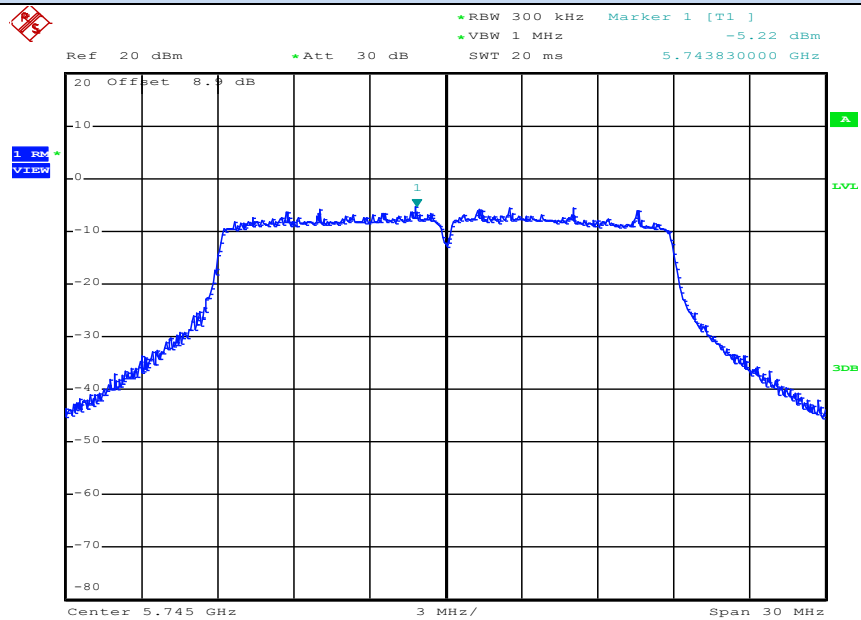
IEEE 802.11na / Channel 157 / 5785MHz



Date: 8.AUG.2019 19:16:52

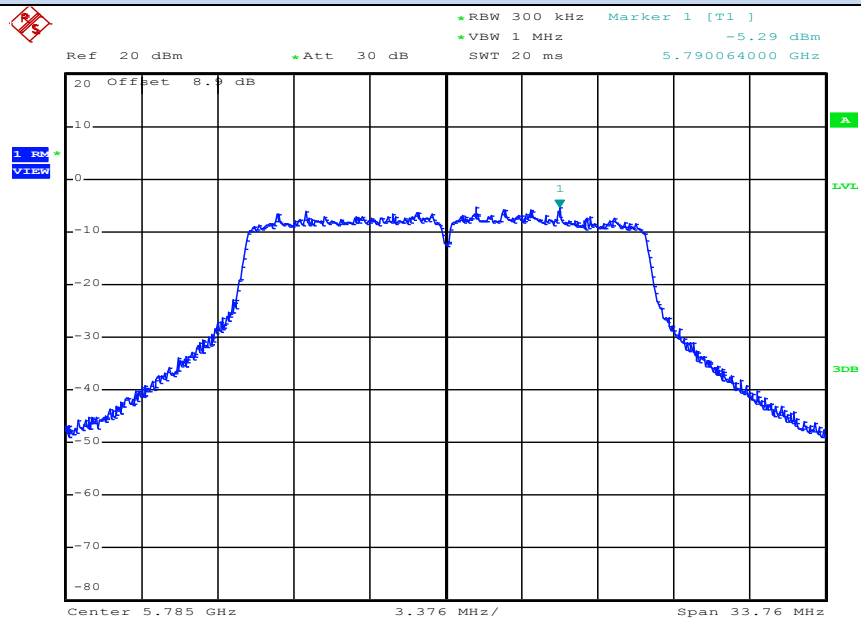
IEEE 802.11na / Channel 165 / 5825MHz

Power Spectral Density



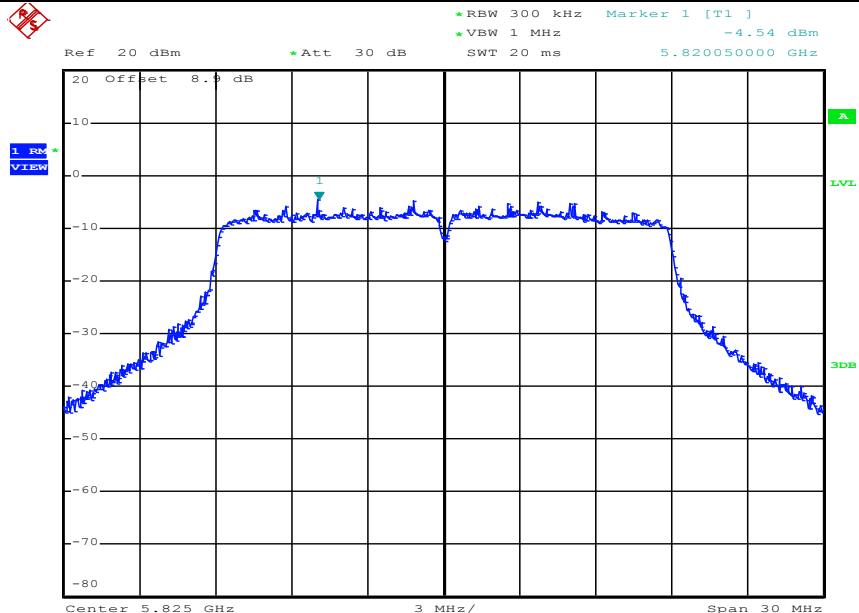
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IEEE 802.11n20 / Channel 149 / 5745MHz



Date: 8.AUG.2019 19:32:26

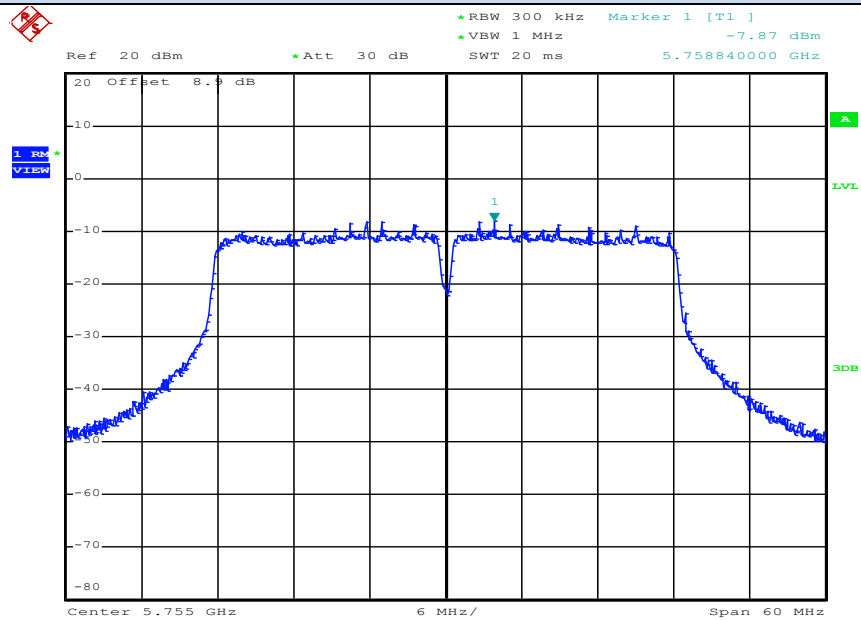
IEEE 802.11n20 / Channel 157 / 5785MHz



Date: 8.AUG.2019 19:34:57

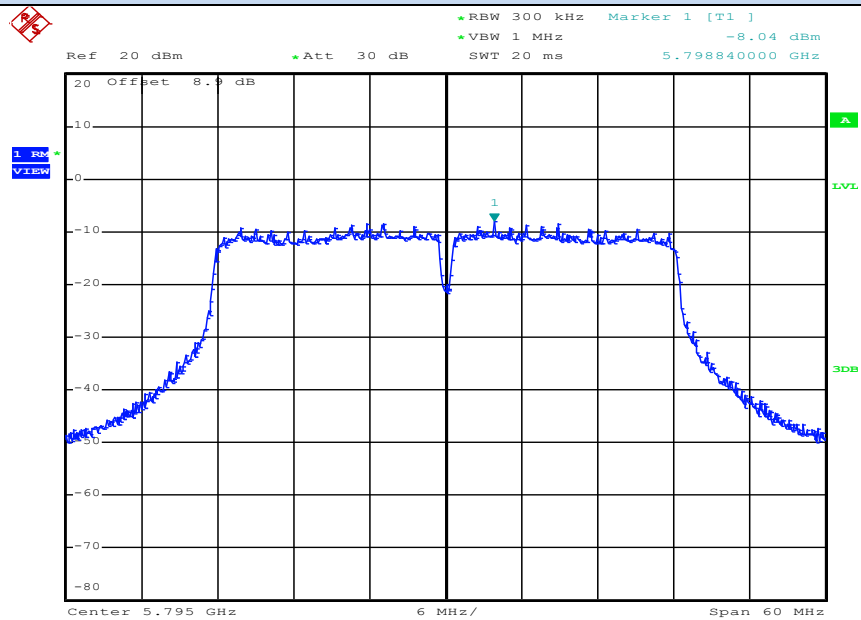
IEEE 802.11n20 / Channel 165 / 5825MHz

Power Spectral Density



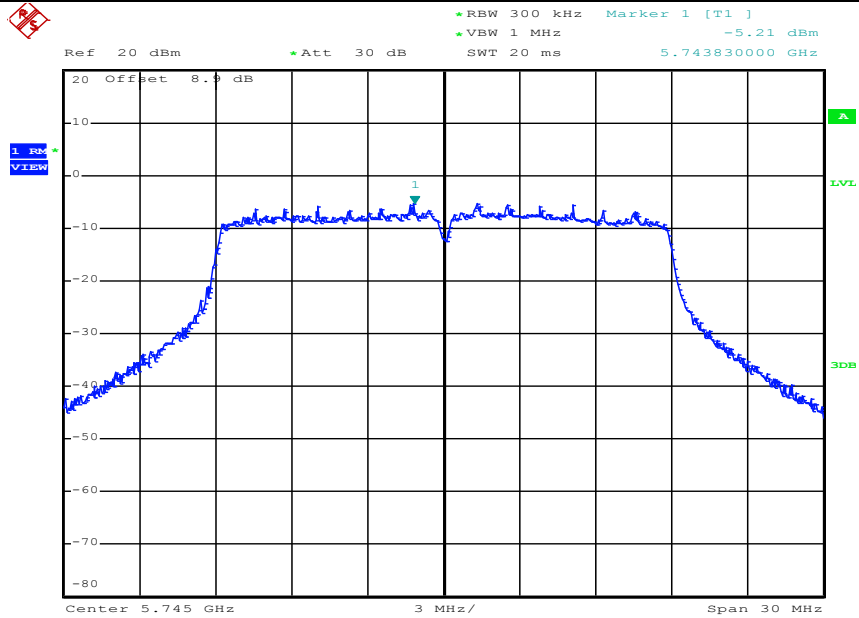
Date: 8.AUG.2019 19:45:23

IEEE 802.11n40 / Channel 151 / 5755MHz



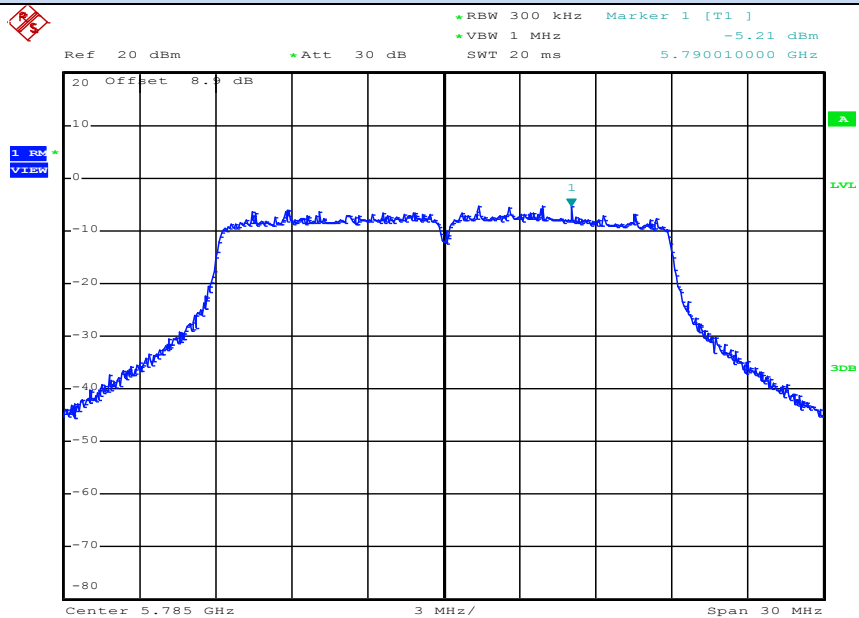
Date: 8.AUG.2019 19:48:44

IEEE 802.11n40 / Channel 159 / 5795MHz



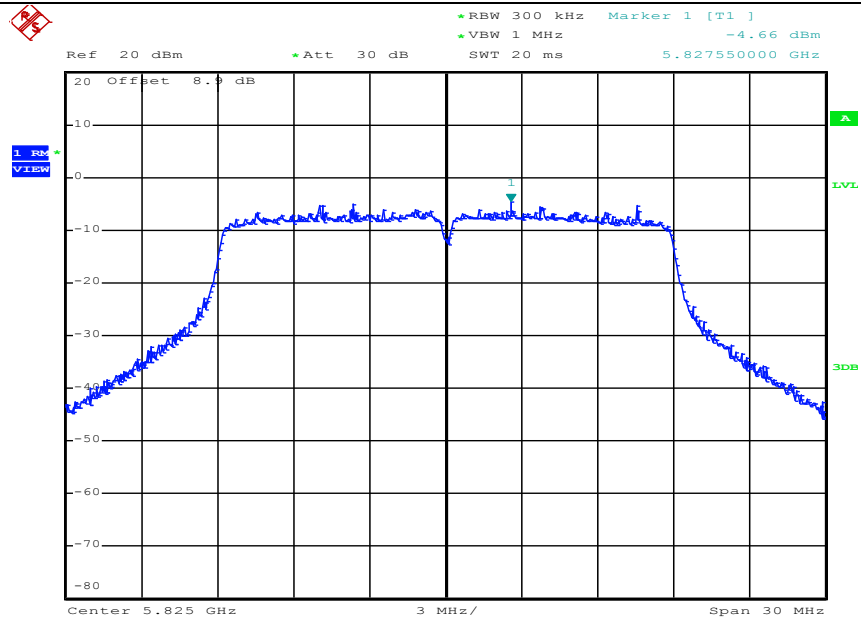
Date: 8.AUG.2019 20:10:48

IEEE 802.11ac20 / Channel 149 / 5745MHz



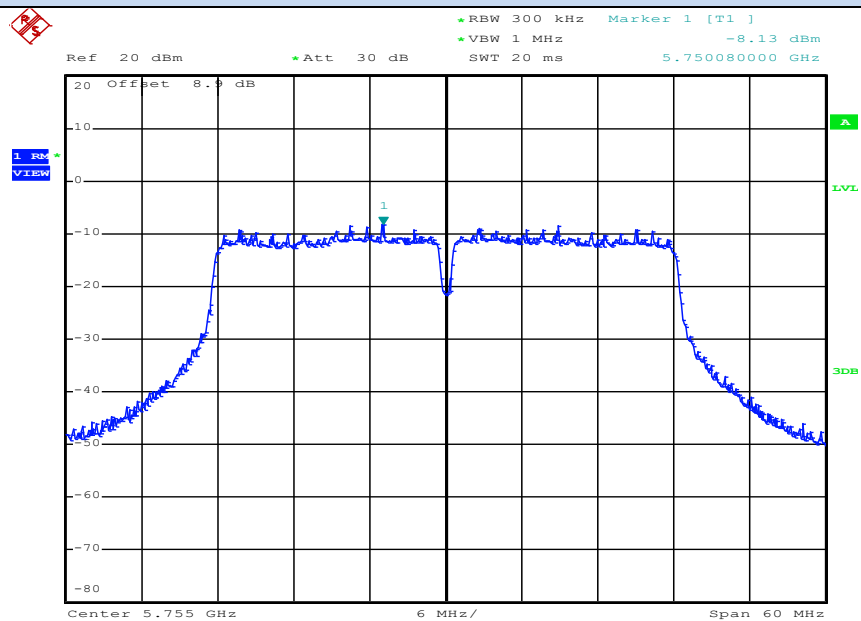
Date: 8.AUG.2019 20:14:03

IEEE 802.11ac20 / Channel 157 / 5785MHz



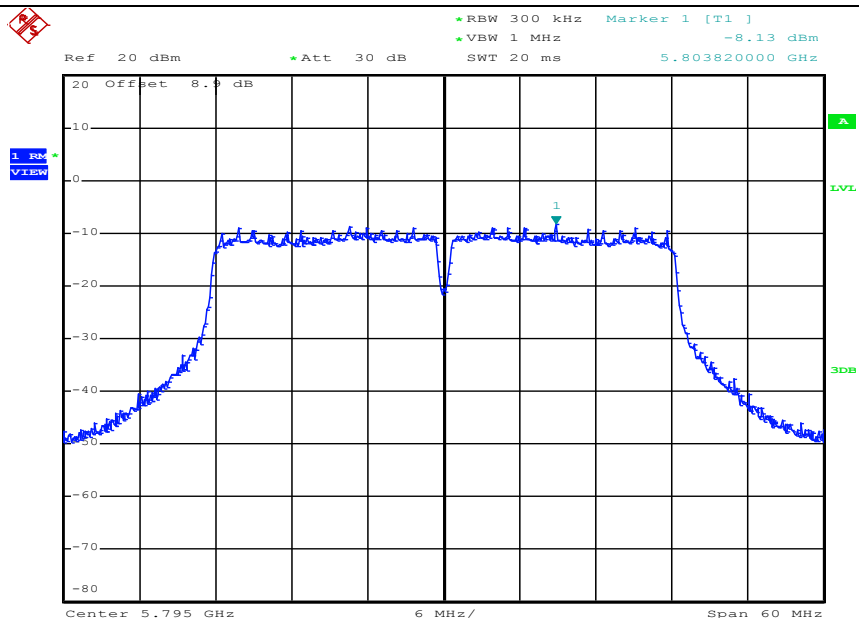
Date: 8.AUG.2019 20:15:45

IEEE 802.11ac20 / Channel 165 / 5825MHz



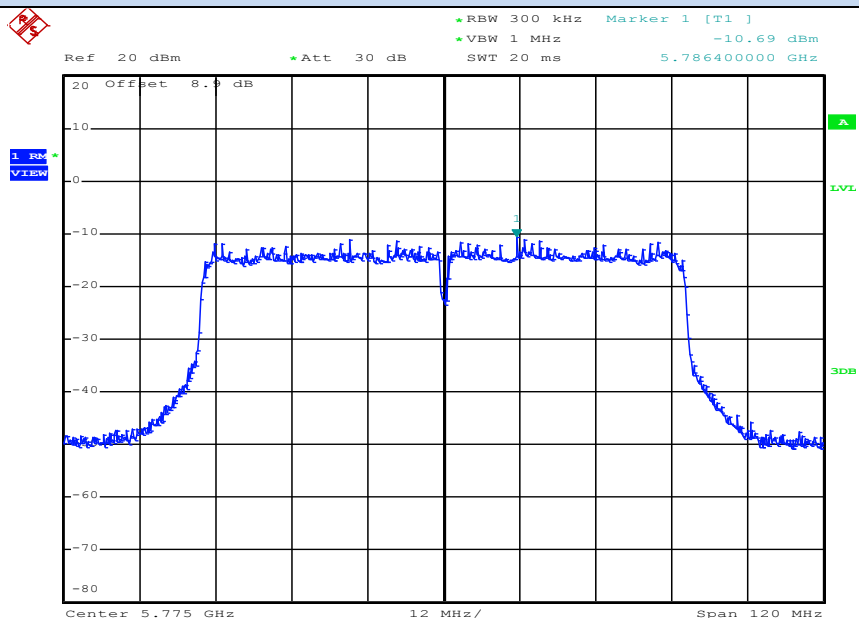
Date: 8.AUG.2019 21:09:05

IEEE 802.11ac40 / Channel 151 / 5755MHz



Date: 8.AUG.2019 21:12:22

IEEE 802.11ac40 / Channel 159 / 5795MHz

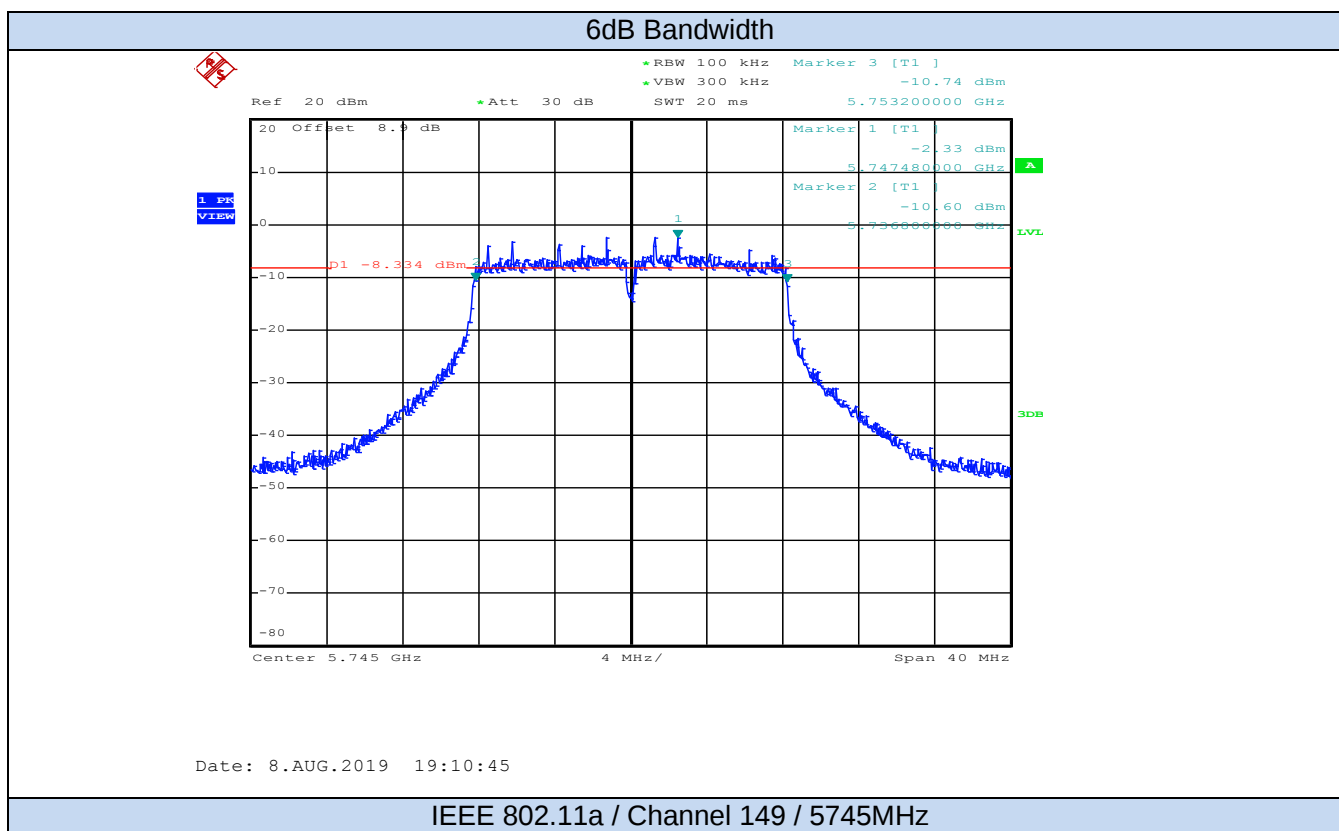


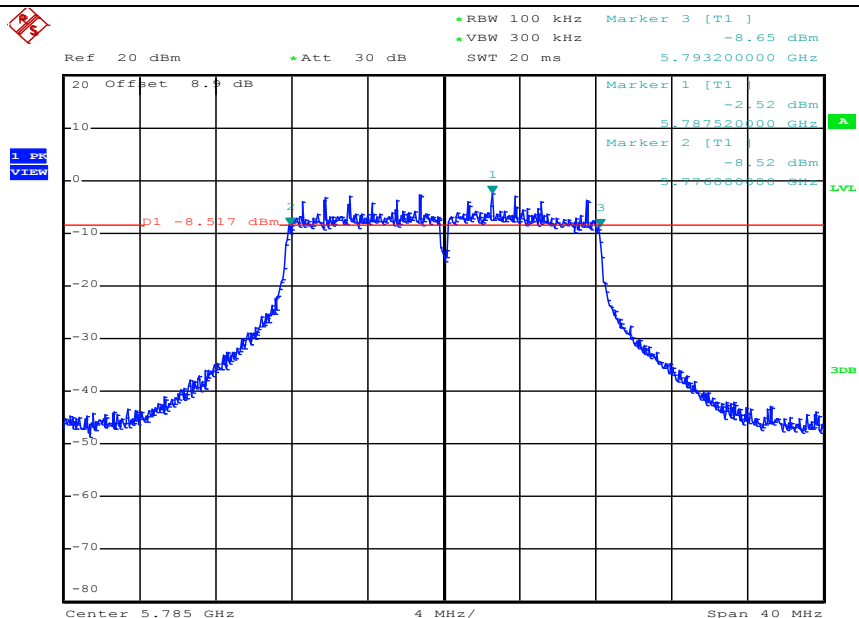
Date: 8.AUG.2019 21:21:55

IEEE 802.11ac80 / Channel 155/ 5775MHz

D.4 Emission Bandwidth

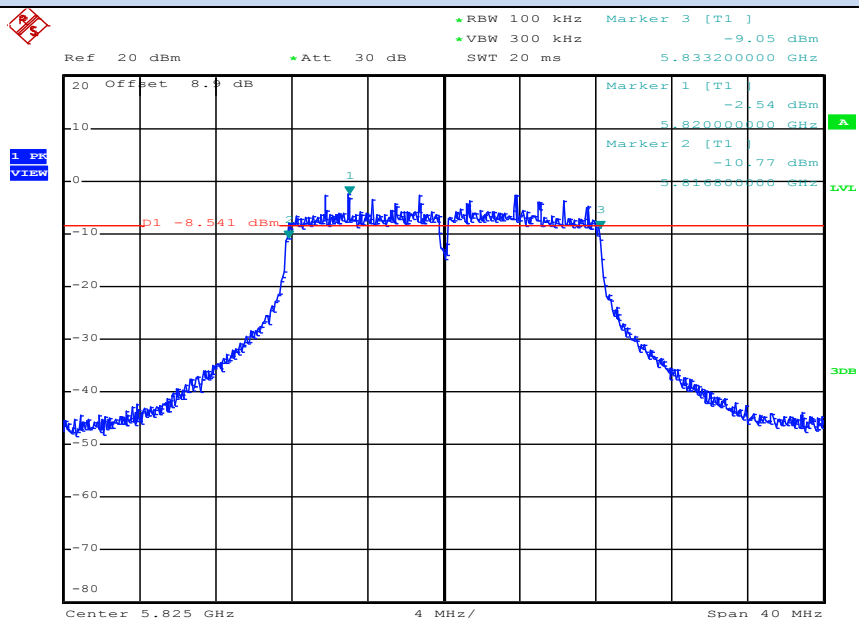
Test Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	Verdict
11A	149	5745	16.400	>=0.5	Pass
	157	5785	16.320		Pass
	165	5825	16.400		Pass
11N20 SISO	149	5745	17.680	>=0.5	Pass
	157	5785	16.880		Pass
	165	5825	17.040		Pass
11N40 SISO	151	5755	35.280	>=0.5	Pass
	159	5795	35.520		Pass
11AC20S ISO	149	5745	16.880	>=0.5	Pass
	157	5785	16.880		Pass
	165	5825	17.040		Pass
11AC40S ISO	151	5755	35.520	>=0.5	Pass
	159	5795	35.280		Pass
11AC80S ISO	155	5775	74.240	>=0.5	Pass





Date: 8.AUG.2019 19:14:07

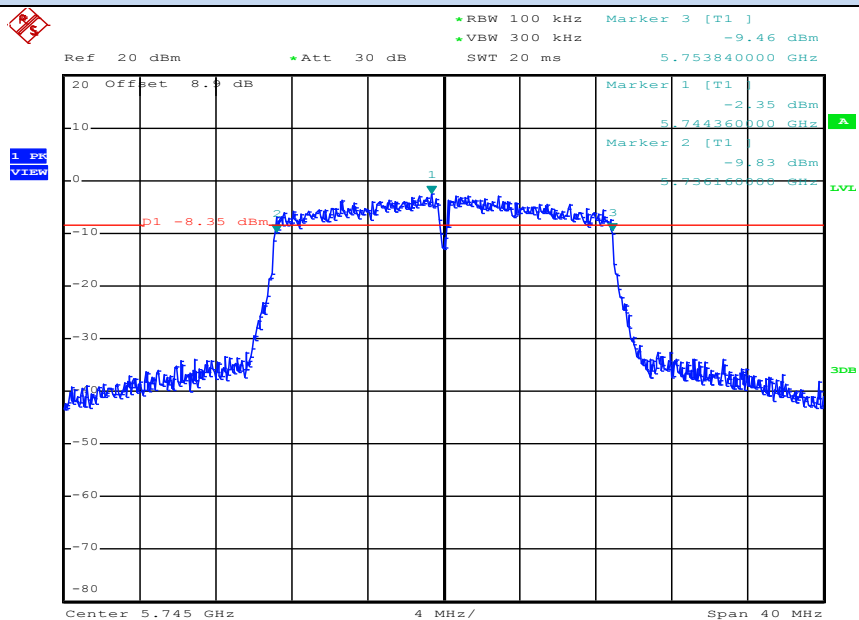
IEEE 802.11a / Channel 157 / 5785MHz



Date: 8.AUG.2019 19:16:04

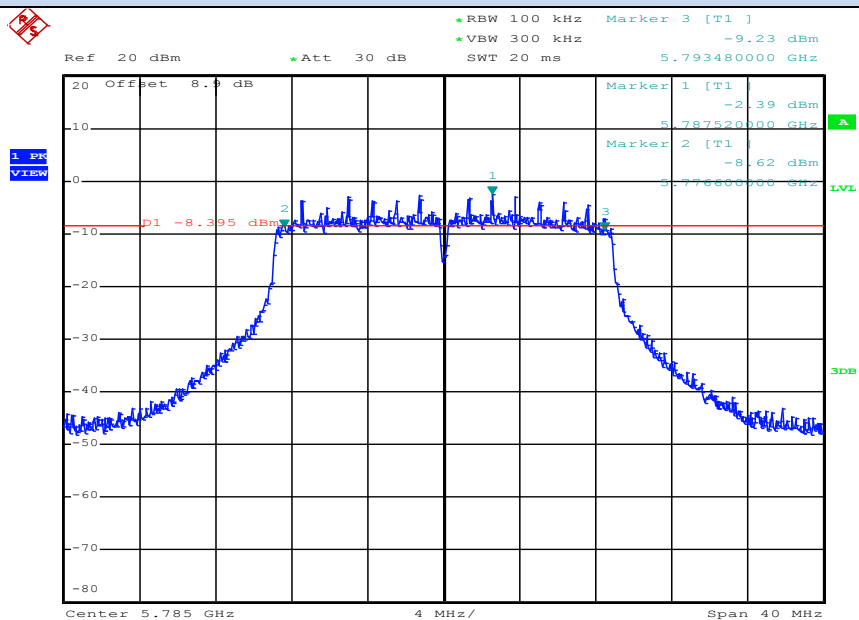
IEEE 802.11a / Channel 165 / 5825MHz

6dB Bandwidth



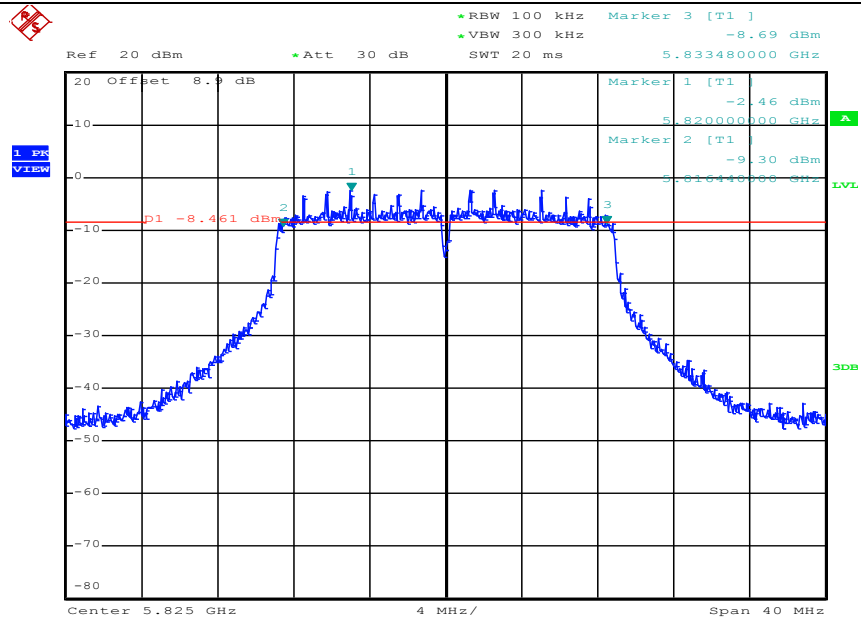
Date: 15.AUG.2019 17:41:58

IEEE 802.11n20 / Channel 149 / 5745MHz



Date: 8.AUG.2019 19:31:39

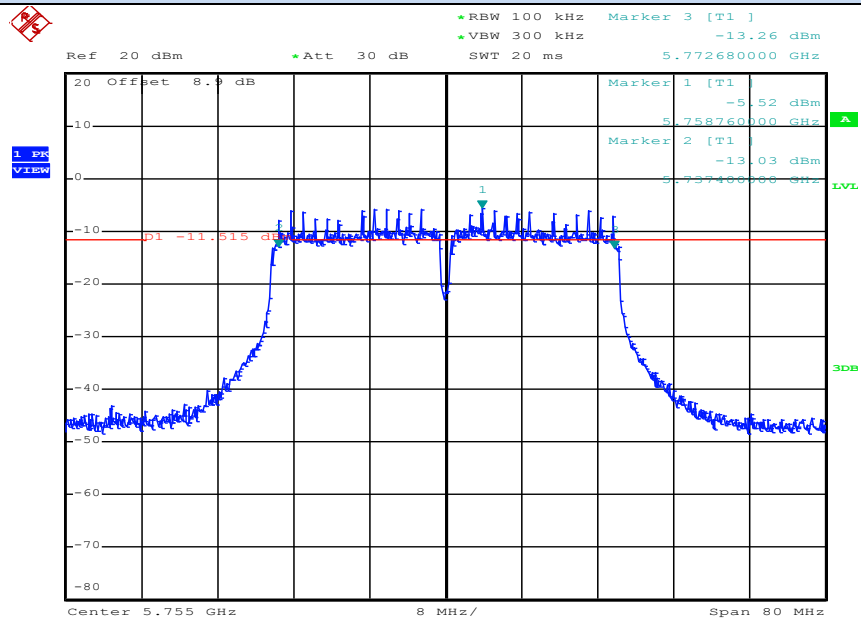
IEEE 802.11n20 / Channel 157 / 5785MHz



Date: 8.AUG.2019 19:34:09

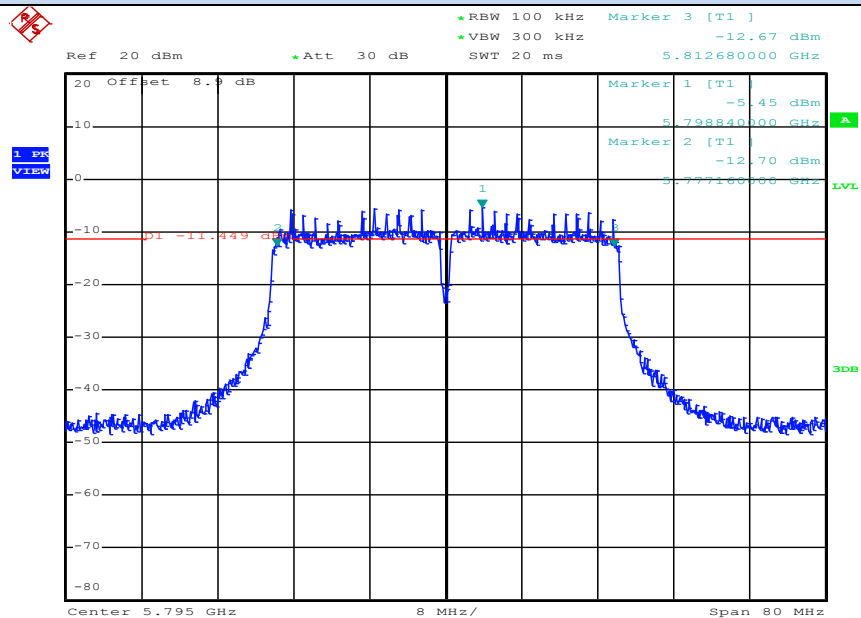
IEEE 802.11n20 / Channel 165 / 5825MHz

6dB Bandwidth



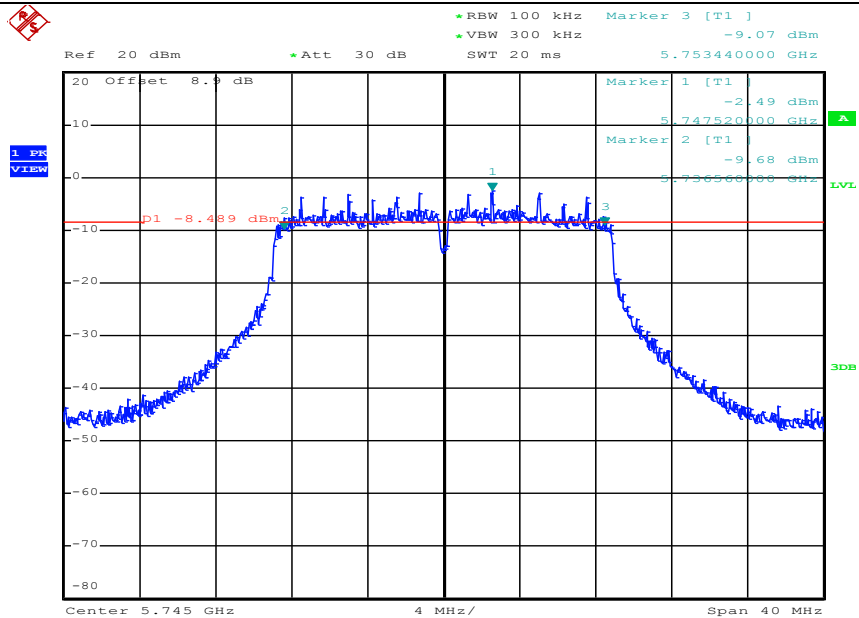
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IEEE 802.11n40 / Channel 151 / 5755MHz



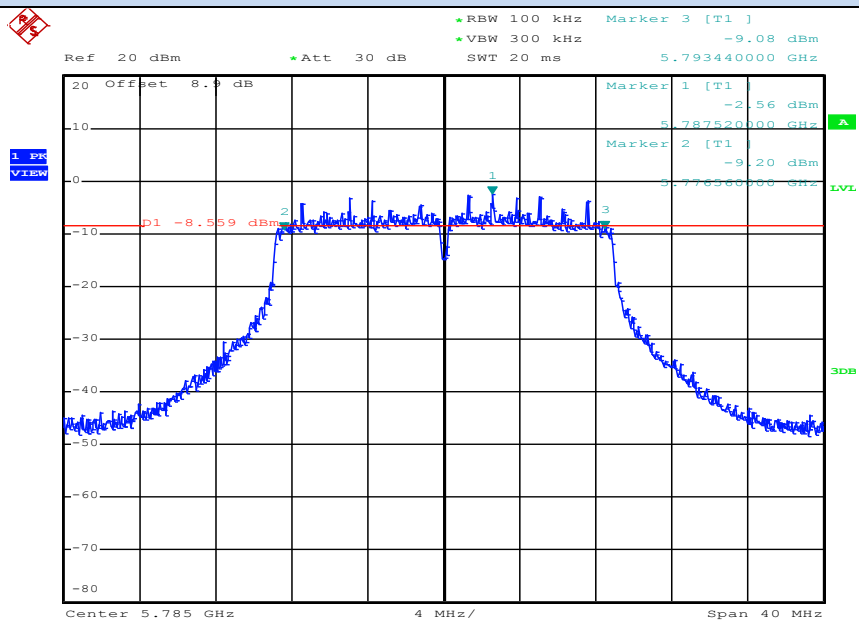
Date: 8.AUG.2019 19:47:56

IEEE 802.11n40 / Channel 159 / 5795MHz



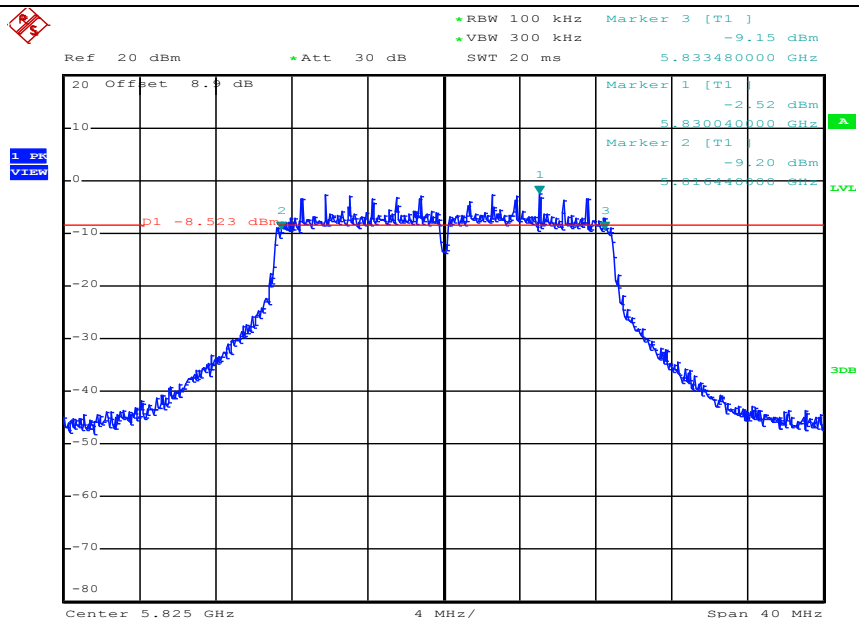
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IEEE 802.11ac20 / Channel 149 / 5745MHz



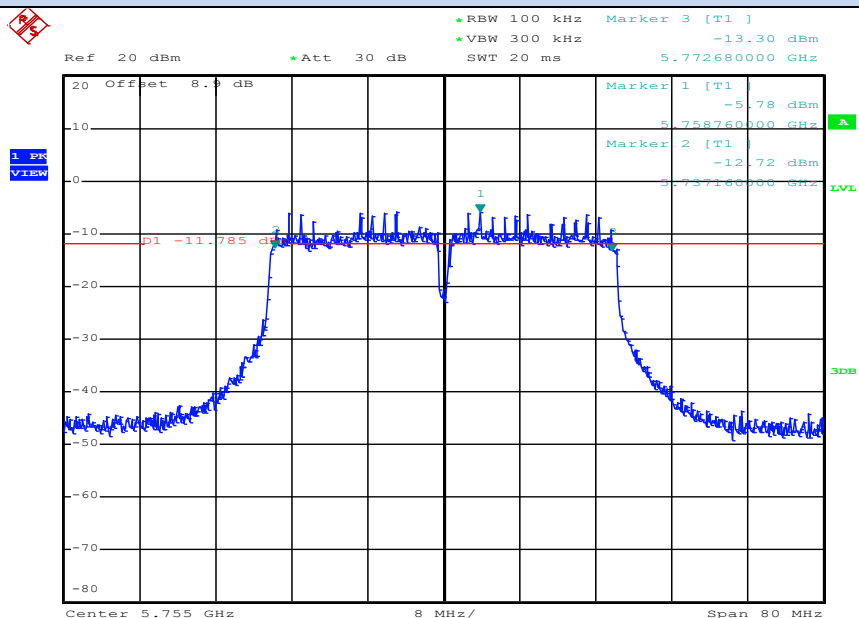
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IEEE 802.11ac20 / Channel 157/ 5785MHz



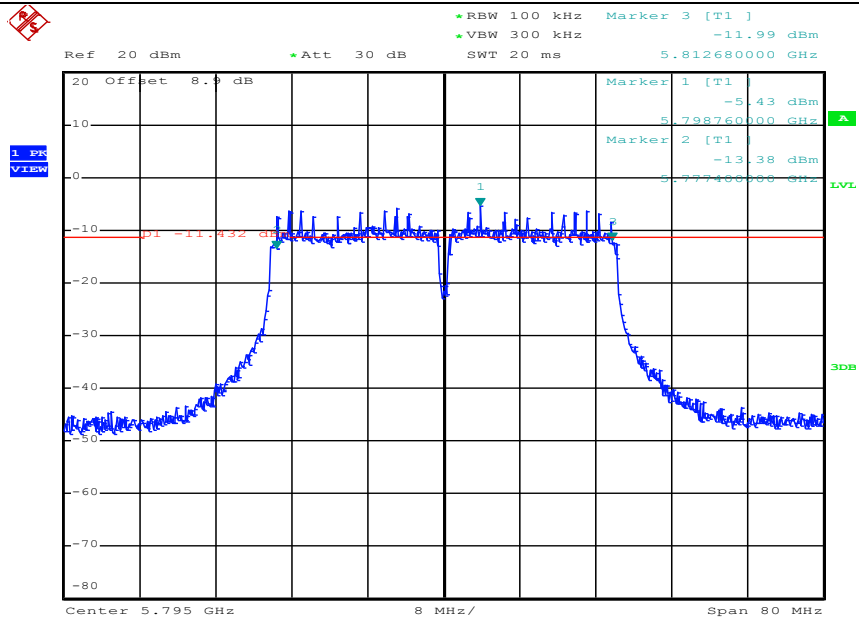
Date: 8.AUG.2019 20:14:57

IEEE 802.11ac20 / Channel 165 / 5825MHz



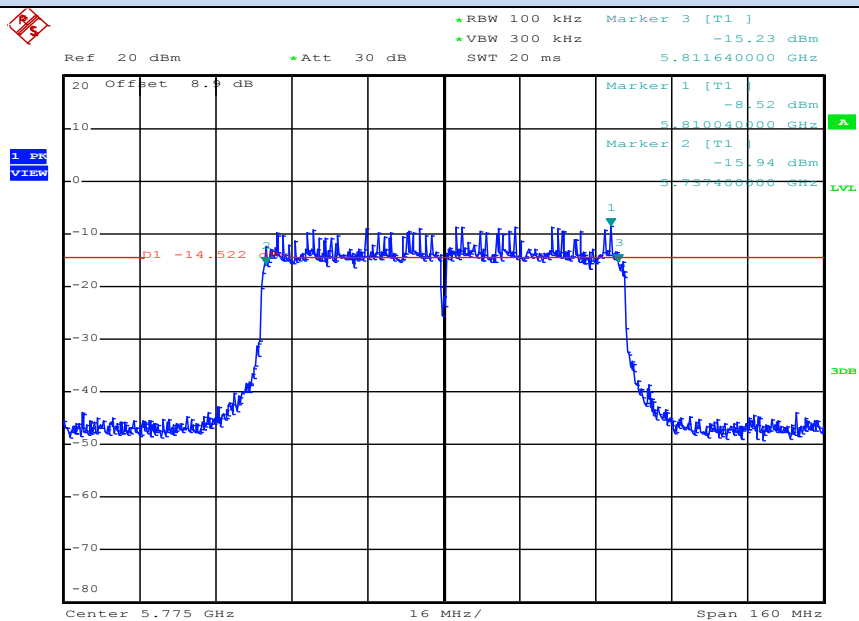
Date: 8.AUG.2019 21:08:17

IEEE 802.11ac40 / Channel 151 / 5755MHz



Date: 8.AUG.2019 21:11:34

IEEE 802.11ac40 / Channel 159 / 5795MHz



Date: 8.AUG.2019 21:21:07

IEEE 802.11ac80 / Channel 155 / 5775MHz

D.5 Undesirable Emissions Measurement

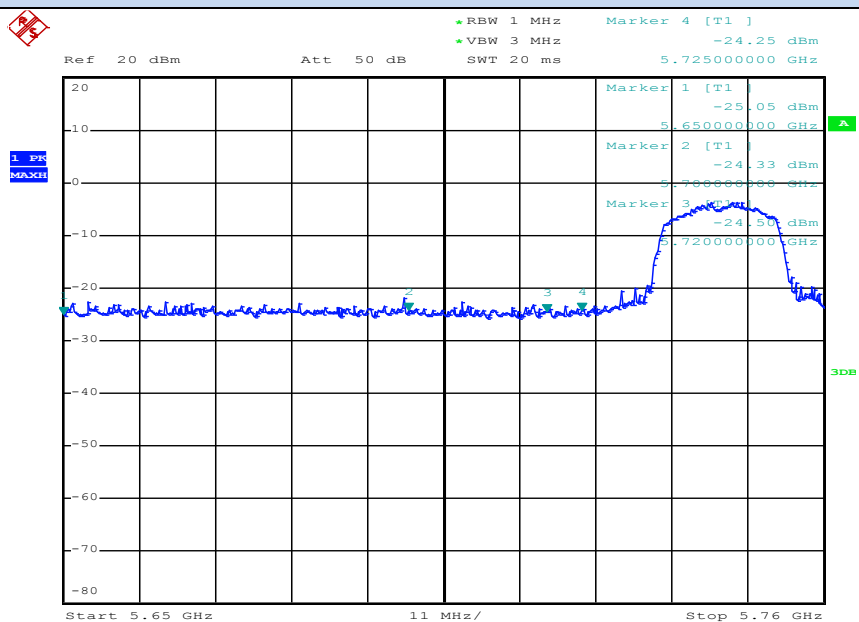
Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11A	149	5650.0	-25.05	2.00	-23.05	Peak	-27.0	Pass
		5650.0	-36.40	2.00	-34.4	Average	-27.0	Pass
		5700.0	-37.93	2.00	-35.93	Peak	10	Pass
		5700.0	-48.53	2.00	-46.53	Average	10	Pass
		5720.0	-37.46	2.00	-35.46	Peak	15.6	Pass
		5720.0	-48.67	2.00	-46.67	Average	15.6	Pass
		5725.0	-36.69	2.00	-34.69	Peak	27.0	Pass
		5725.0	-48.49	2.00	-46.49	Average	27.0	Pass
	165	5850.0	-35.24	2.00	-33.24	Peak	27.0	Pass
		5850.0	-48.59	2.00	-46.59	Average	27.0	Pass
		5855.0	-36.49	2.00	-34.49	Peak	15.6	Pass
		5855.0	-48.52	2.00	-46.52	Average	15.6	Pass
		5875.0	-35.88	2.00	-33.88	Peak	10	Pass
		5875.0	-48.26	2.00	-46.26	Average	10	Pass
		5925.0	-24.80	2.00	-22.8	Peak	-27.0	Pass
		5925.0	-36.67	2.00	-34.67	Average	-27.0	Pass
11N20 SISO	149	5650.0	-24.18	2.00	-22.18	Peak	-27.0	Pass
		5650.0	-36.40	2.00	-34.4	Average	-27.0	Pass
		5700.0	-36.96	2.00	-34.96	Peak	10	Pass
		5700.0	-48.64	2.00	-46.64	Average	10	Pass
		5720.0	-38.16	2.00	-36.16	Peak	15.6	Pass
		5720.0	-48.52	2.00	-46.52	Average	15.6	Pass
		5725.0	-37.50	2.00	-35.5	Peak	27.0	Pass
		5725.0	-48.46	2.00	-46.46	Average	27.0	Pass
	165	5850.0	-37.23	2.00	-35.23	Peak	27.0	Pass
		5850.0	-48.49	2.00	-46.49	Average	27.0	Pass
		5855.0	-37.81	2.00	-35.81	Peak	15.6	Pass
		5855.0	-48.43	2.00	-46.43	Average	15.6	Pass
		5875.0	-36.31	2.00	-34.31	Peak	10	Pass
		5875.0	-48.25	2.00	-46.25	Average	10	Pass
		5925.0	-23.79	2.00	-21.79	Peak	-27.0	Pass
		5925.0	-36.63	2.00	-34.63	Average	-27.0	Pass

Note: EIRP = Conducted Power + Antenna Gain

Test Mode	Channel	Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm/MHz)	Detector	Limit (dBm/MHz)	Verdict
11N40 SISO	151	5650.0	-22.67	2.00	-20.67	Peak	-27.0	Pass
		5650.0	-36.20	2.00	-34.20	Average	-27.0	Pass
		5700.0	-36.10	2.00	-34.10	Peak	10	Pass
		5700.0	-48.45	2.00	-46.45	Average	10	Pass
		5720.0	-37.12	2.00	-35.12	Peak	15.6	Pass
		5720.0	-48.52	2.00	-46.52	Average	15.6	Pass
		5725.0	-34.36	2.00	-32.36	Peak	27.0	Pass
	159	5725.0	-48.15	2.00	-46.15	Average	27.0	Pass
		5850.0	-36.48	2.00	-34.48	Peak	27.0	Pass
		5850.0	-48.55	2.00	-46.55	Average	27.0	Pass
		5855.0	-36.27	2.00	-34.27	Peak	15.6	Pass
		5855.0	-48.47	2.00	-46.47	Average	15.6	Pass
		5875.0	-36.43	2.00	-34.43	Peak	10	Pass
		5875.0	-48.22	2.00	-46.22	Average	10	Pass
11AC20 SISO	149	5925.0	-23.69	2.00	-21.69	Peak	-27.0	Pass
		5925.0	-36.62	2.00	-34.62	Average	-27.0	Pass
		5650.0	-23.24	2.00	-21.24	Peak	-27.0	Pass
		5650.0	-36.41	2.00	-34.41	Average	-27.0	Pass
		5700.0	-35.28	2.00	-33.28	Peak	10	Pass
		5700.0	-48.69	2.00	-46.69	Average	10	Pass
		5720.0	-36.71	2.00	-34.71	Peak	15.6	Pass
	165	5720.0	-48.54	2.00	-46.54	Average	15.6	Pass
		5725.0	-36.56	2.00	-34.56	Peak	27.0	Pass
		5725.0	-48.45	2.00	-46.45	Average	27.0	Pass
		5850.0	-37.00	2.00	-35.00	Peak	27.0	Pass
		5850.0	-48.54	2.00	-46.54	Average	27.0	Pass
		5855.0	-37.84	2.00	-35.84	Peak	15.6	Pass
		5855.0	-48.45	2.00	-46.45	Average	15.6	Pass
11AC40 SISO	151	5875.0	-37.36	2.00	-35.36	Peak	10	Pass
		5875.0	-48.25	2.00	-46.25	Average	10	Pass
		5925.0	-24.98	2.00	-22.98	Peak	-27.0	Pass
		5925.0	-36.59	2.00	-34.59	Average	-27.0	Pass
	159	5650.0	-23.33	2.00	-21.33	Peak	-27.0	Pass
		5650.0	-36.21	2.00	-34.21	Average	-27.0	Pass
		5700.0	-37.43	2.00	-35.43	Peak	10	Pass
		5700.0	-48.48	2.00	-46.48	Average	10	Pass
		5720.0	-36.23	2.00	-34.23	Peak	15.6	Pass
		5720.0	-48.46	2.00	-46.46	Average	15.6	Pass
		5725.0	-34.19	2.00	-32.19	Peak	27.0	Pass
11AC80 SISO	155	5725.0	-48.11	2.00	-46.11	Average	27.0	Pass
		5850.0	-36.37	2.00	-34.37	Peak	27.0	Pass
		5850.0	-48.57	2.00	-46.57	Average	27.0	Pass
		5855.0	-36.68	2.00	-34.68	Peak	15.6	Pass
		5855.0	-48.49	2.00	-46.49	Average	15.6	Pass
		5875.0	-36.32	2.00	-34.32	Peak	10	Pass
		5875.0	-48.22	2.00	-46.22	Average	10	Pass
	159	5925.0	-24.02	2.00	-22.02	Peak	-27.0	Pass
		5925.0	-36.62	2.00	-34.62	Average	-27.0	Pass
		5725.0	-37.28	2.00	-35.28	Peak	27.0	Pass
		5720.0	-36.10	2.00	-34.1	Peak	15.6	Pass
		5700.0	-36.34	2.00	-34.34	Peak	10	Pass
		5650.0	-24.44	2.00	-22.44	Peak	-27.0	Pass
		5725.0	-48.54	2.00	-46.54	Average	27.0	Pass
	155	5720.0	-48.46	2.00	-46.46	Average	15.6	Pass
		5700.0	-48.21	2.00	-46.21	Average	10	Pass
		5650.0	-36.33	2.00	-34.33	Average	-27.0	Pass
		5850.0	-37.28	2.00	-35.28	Peak	27.0	Pass
		5855.0	-36.10	2.00	-34.1	Peak	15.6	Pass
		5875.0	-36.34	2.00	-34.34	Peak	10	Pass
		5925.0	-24.79	2.00	-22.79	Peak	-27.0	Pass
	155	5850.0	-48.54	2.00	-46.54	Average	27.0	Pass
		5855.0	-48.46	2.00	-46.46	Average	15.6	Pass
		5875.0	-48.21	2.00	-46.21	Average	10	Pass
		5925.0	-36.59	2.00	-34.59	Average	-27.0	Pass

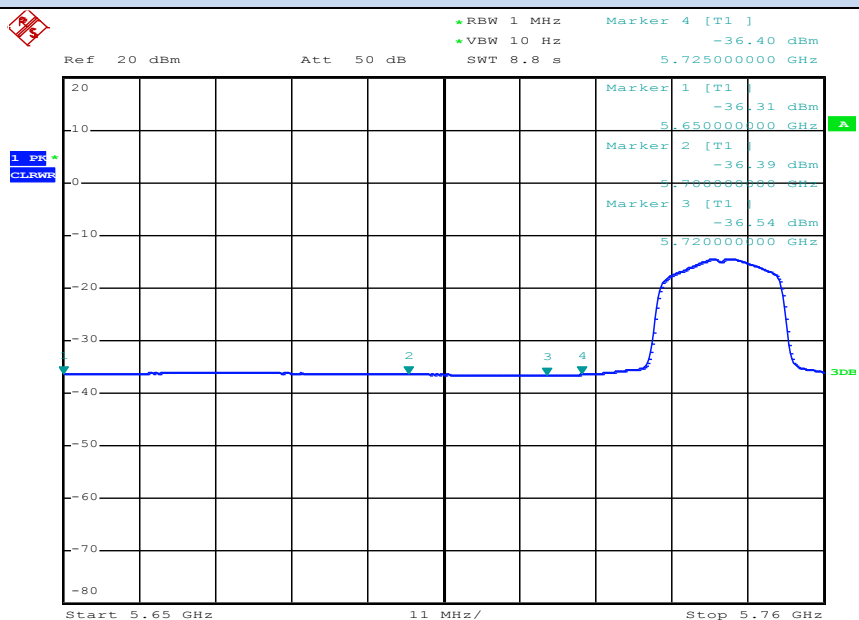
Note: EIRP = Conducted Power + Antenna Gain

Undesirable Emissions Measurement



Date: 22.AUG.2019 18:18:07

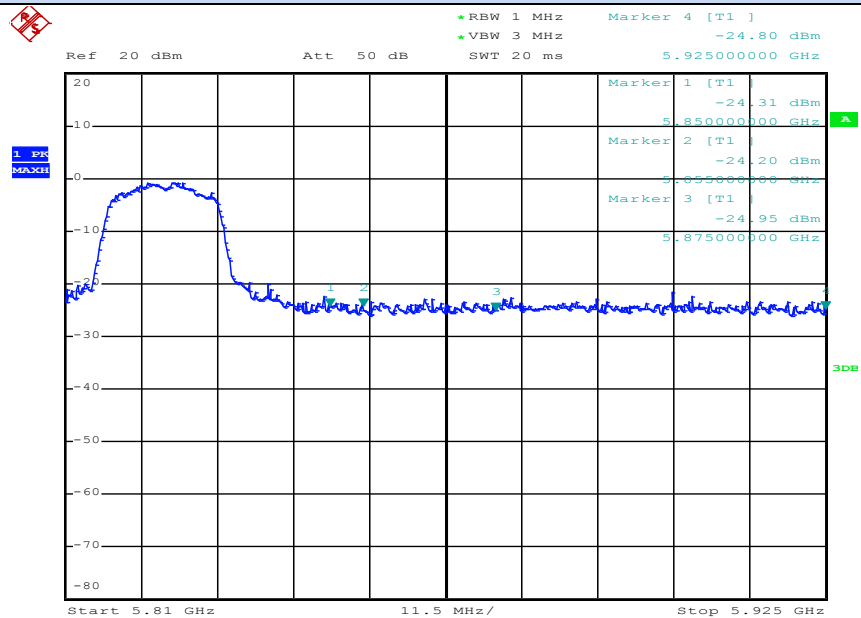
IEEE 802.11a / Channel 149 / 5745MHz / Peak



Date: 22.AUG.2019 18:19:19

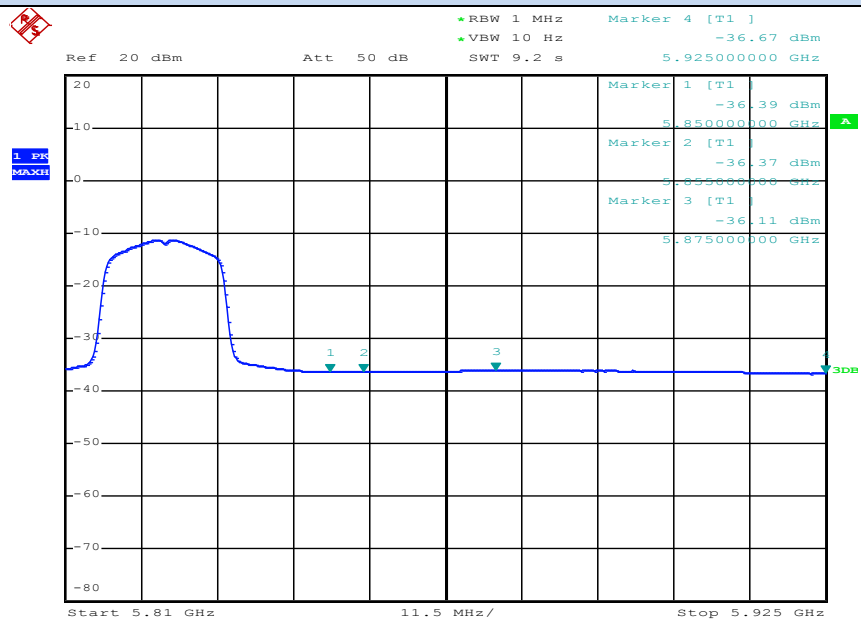
IEEE 802.11a / Channel 148 / 5745MHz / Average

Undesirable Emissions Measurement



Date: 22.AUG.2019 18:07:24

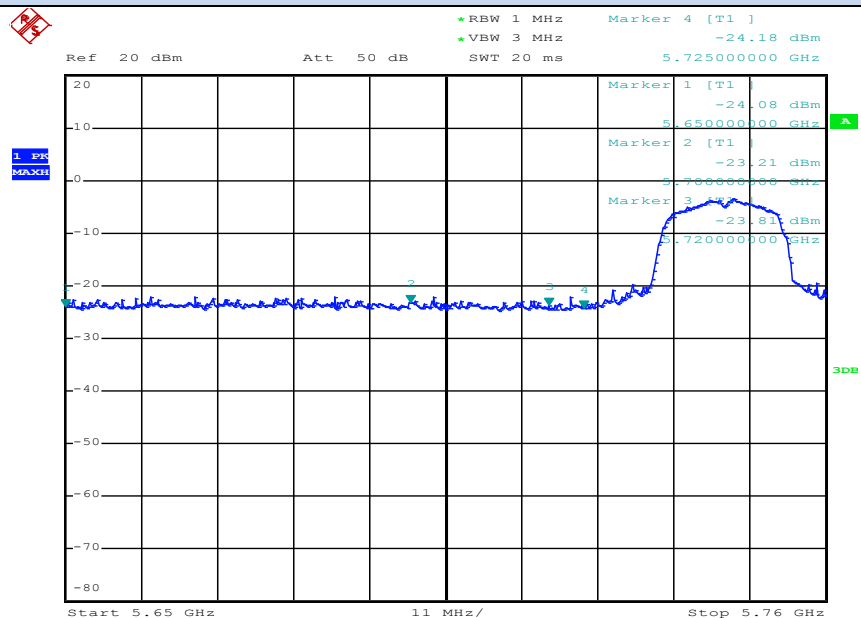
IEEE 802.11a / Channel 165 / 5825MHz / Peak



Date: 22.AUG.2019 18:06:21

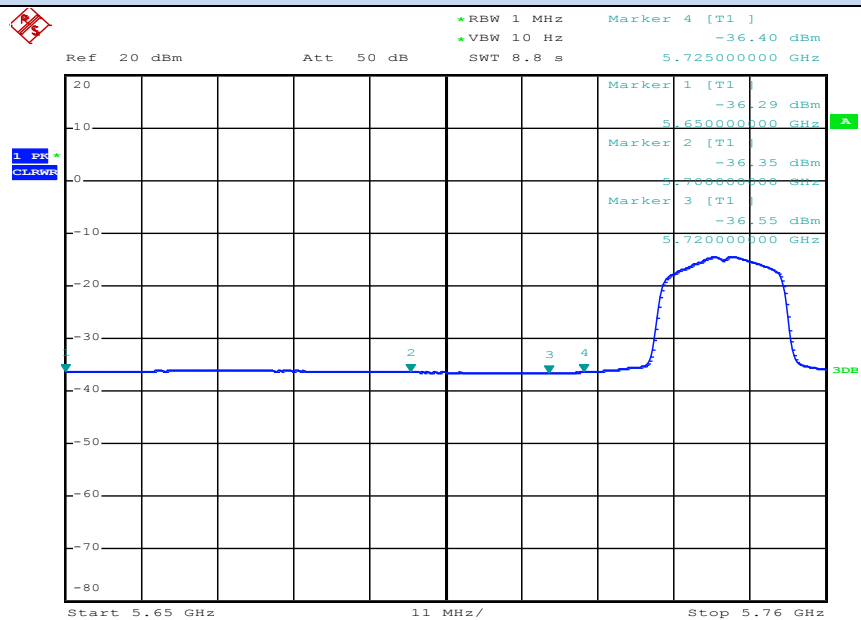
IEEE 802.11a / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement



Date: 22.AUG.2019 18:22:19

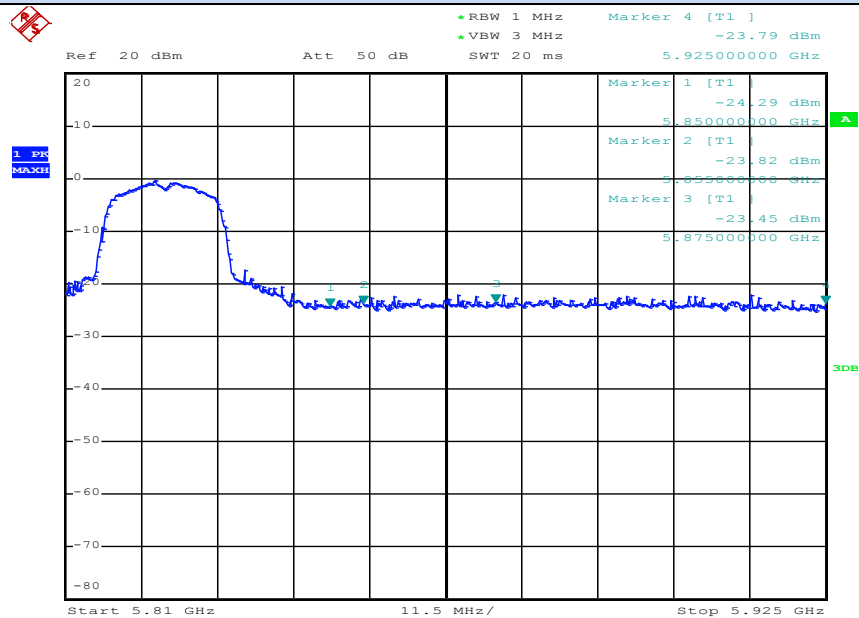
IEEE 802.11n20 / Channel 149 / 5745MHz / Peak



Date: 22.AUG.2019 18:20:19

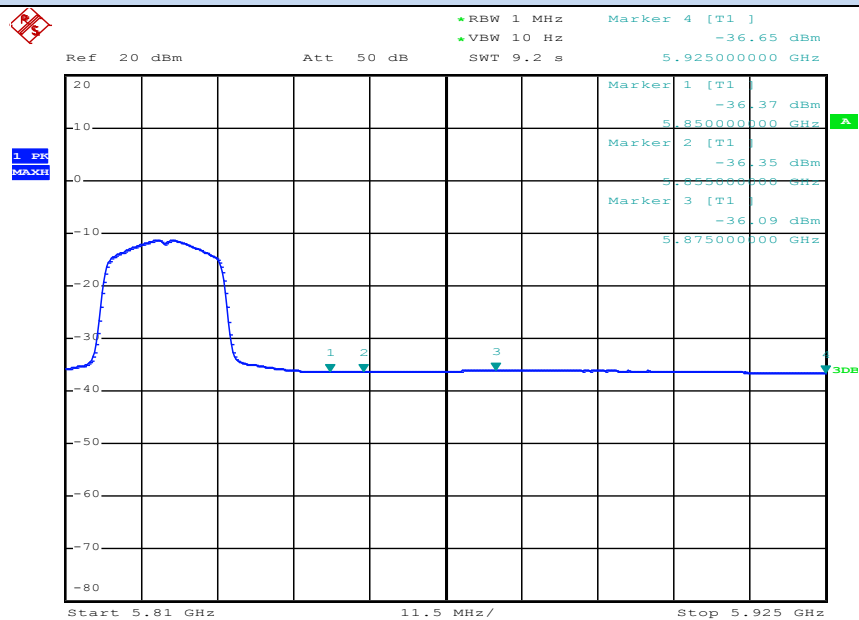
IEEE 802.11n20 / Channel 149 / 5745MHz / Average

Undesirable Emissions Measurement



Date: 22.AUG.2019 18:08:58

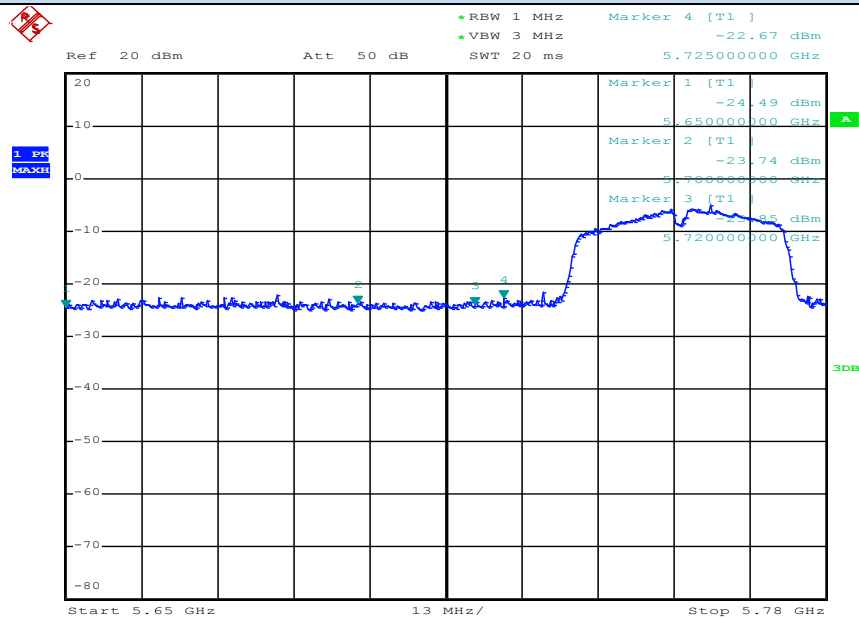
IEEE 802.11n20 / Channel 165 / 5825MHz / Peak



Date: 22.AUG.2019 18:10:15

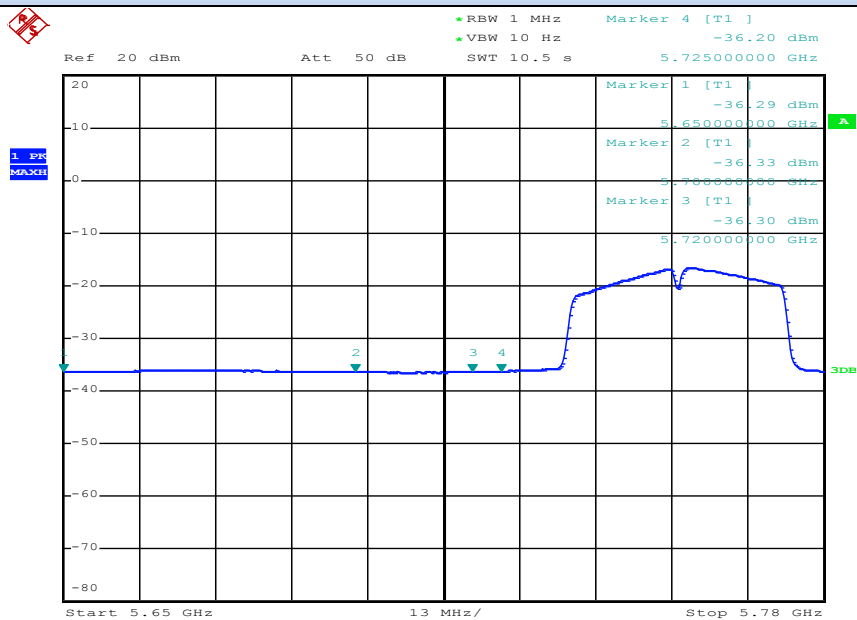
IEEE 802.11n20 / Channel 165 / 5825MHz / Average

Undesirable Emissions Measurement



Date: 22.AUG.2019 18:30:33

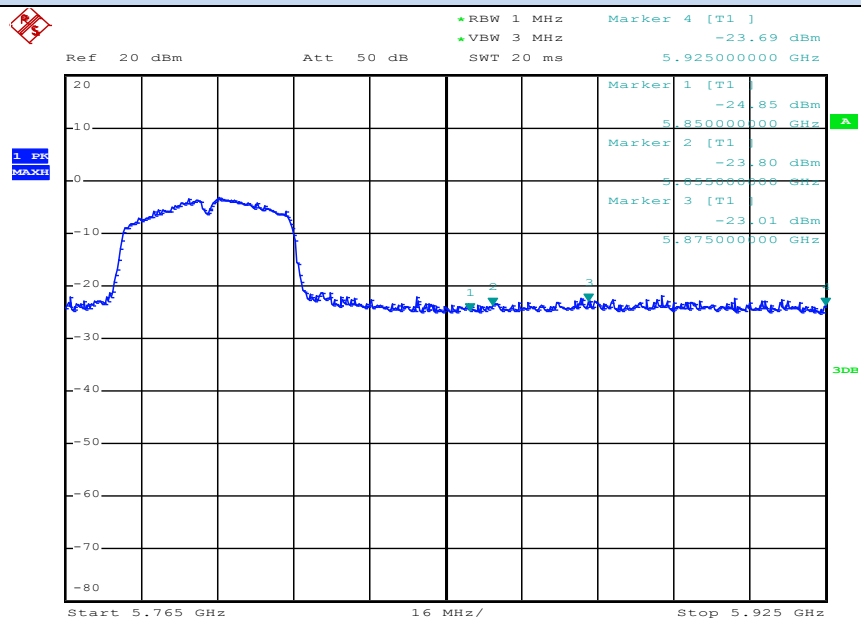
IEEE 802.11n40 / Channel 151 / 5755MHz / Peak



Date: 22.AUG.2019 18:29:30

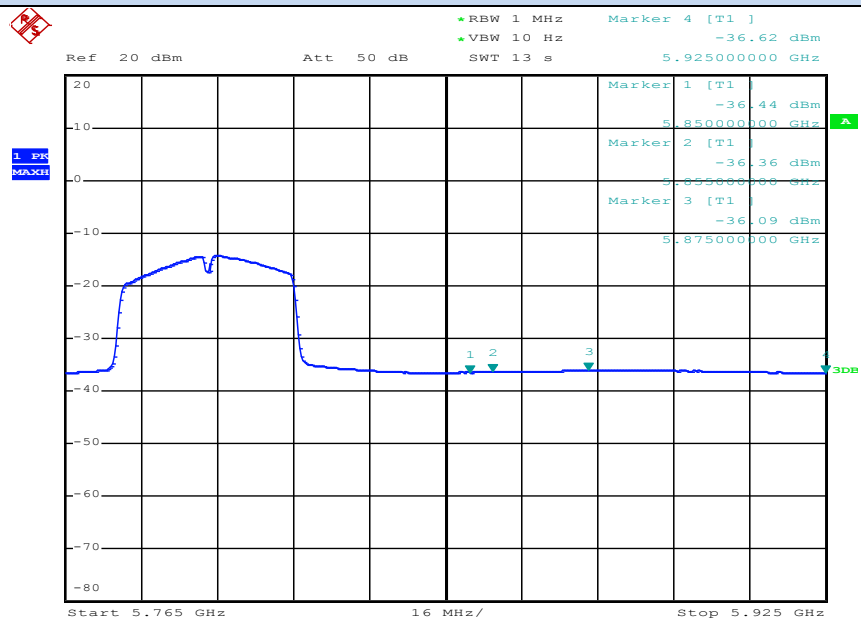
IEEE 802.11n40 / Channel 151 / 5755MHz / Average

Undesirable Emissions Measurement



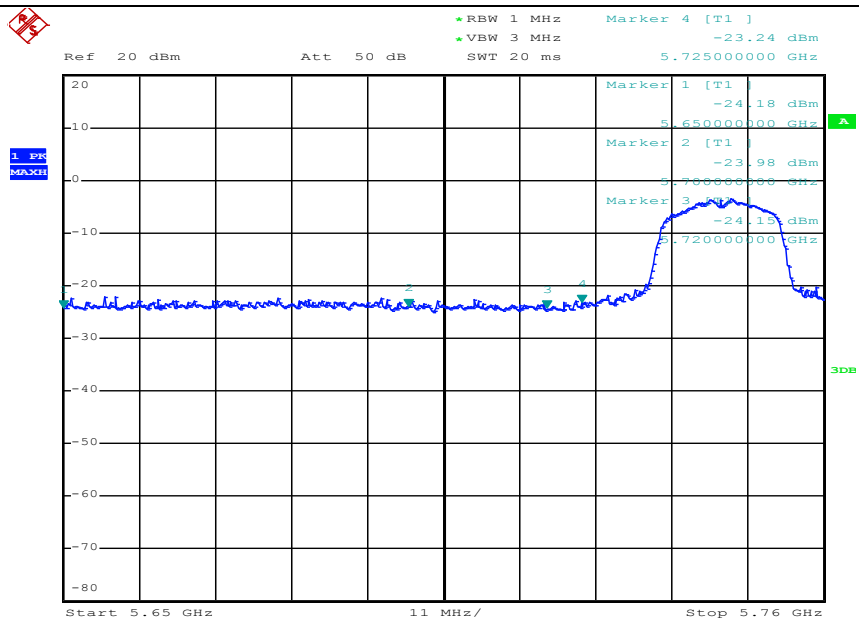
Date: 22.AUG.2019 18:41:11

IEEE 802.11n40 / Channel 159 / 5795MHz / Peak



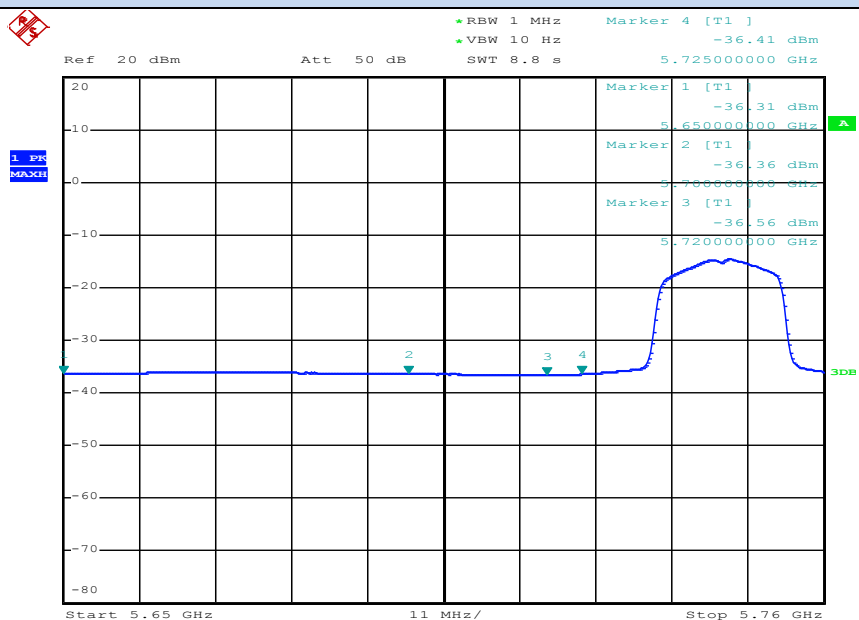
Date: 22.AUG.2019 18:41:58

IEEE 802.11n40 / Channel 159 / 5795MHz / Average



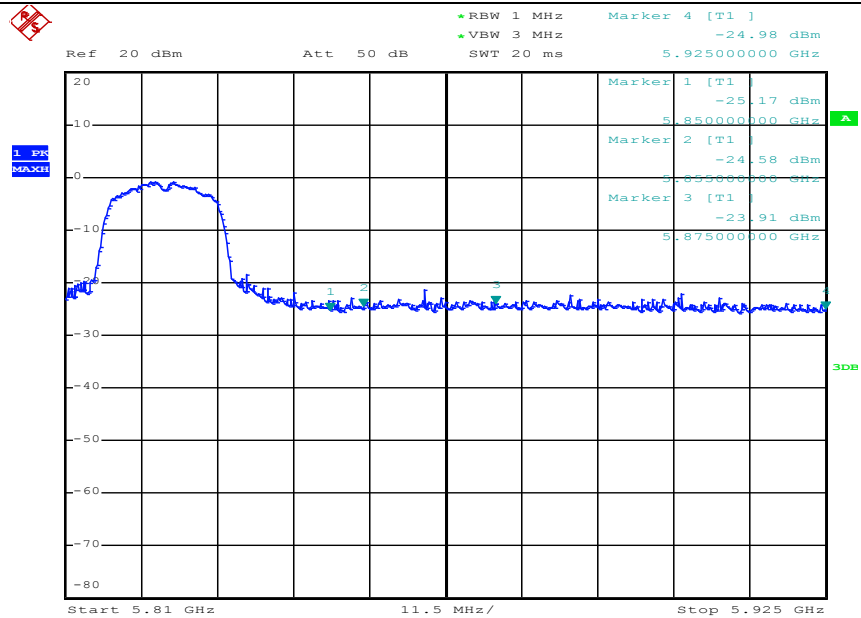
Date: 22.AUG.2019 18:23:42

IEEE 802.11ac20 / Channel 149 / 5745MHz / Peak



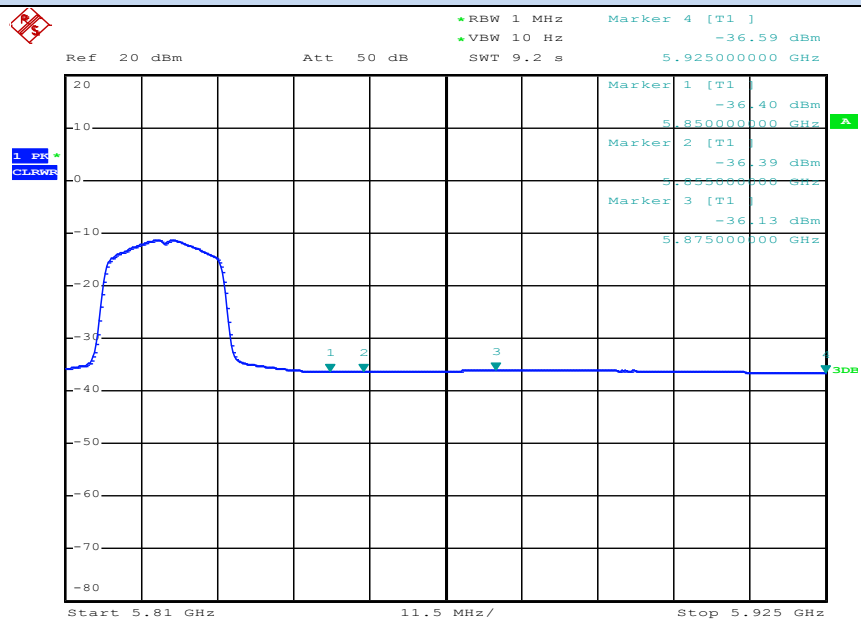
Date: 22.AUG.2019 18:24:22

IEEE 802.11ac20 / Channel 149 / 5745MHz / Average



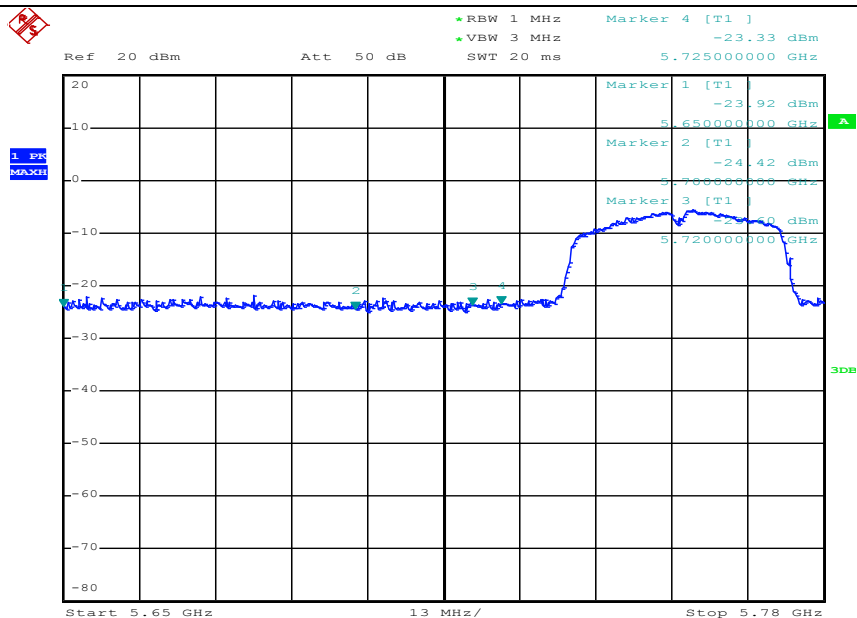
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IEEE 802.11ac20 / Channel 165 / 5825MHz / Peak



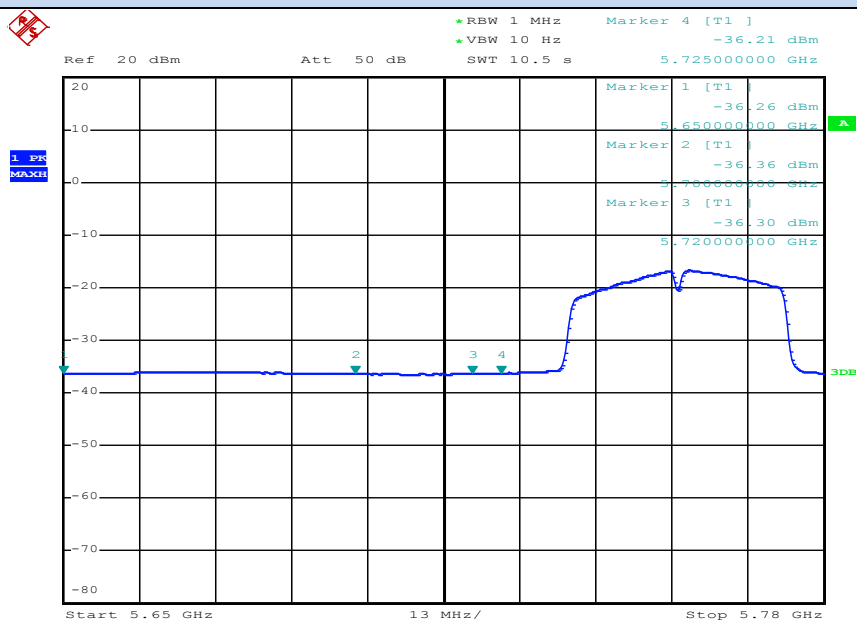
Date: 22.AUG.2019 18:12:14

IEEE 802.11ac20 / Channel 165 / 5825MHz / Average



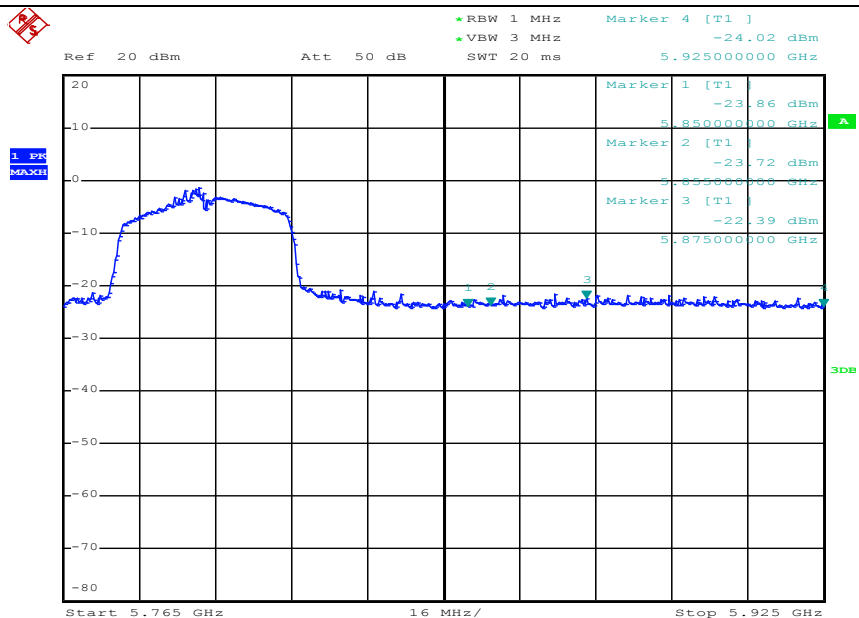
Date: 22.AUG.2019 18:31:40

IEEE 802.11ac40 / Channel 151 / 5755MHz / Peak



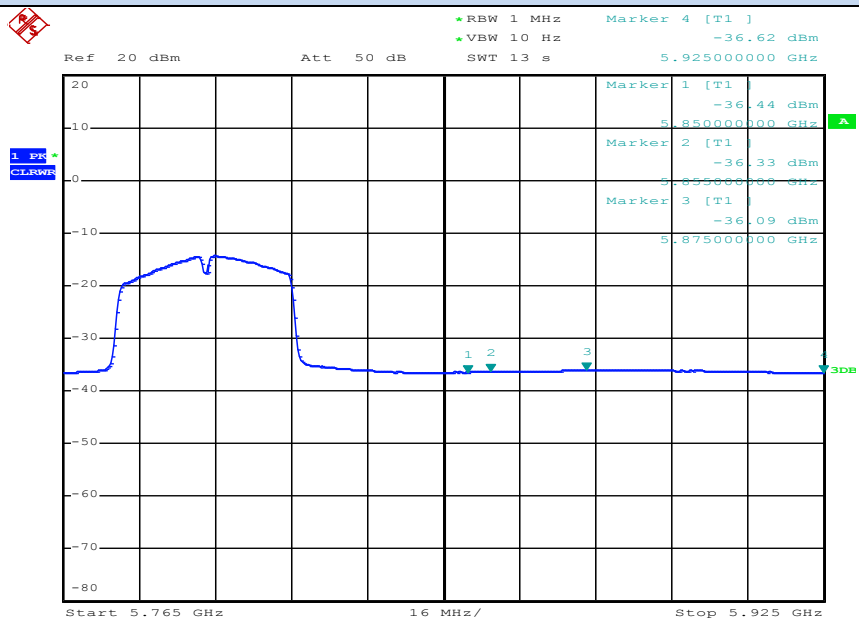
Date: 22.AUG.2019 18:32:37

IEEE 802.11ac40 / Channel 151 / 5755MHz / Average



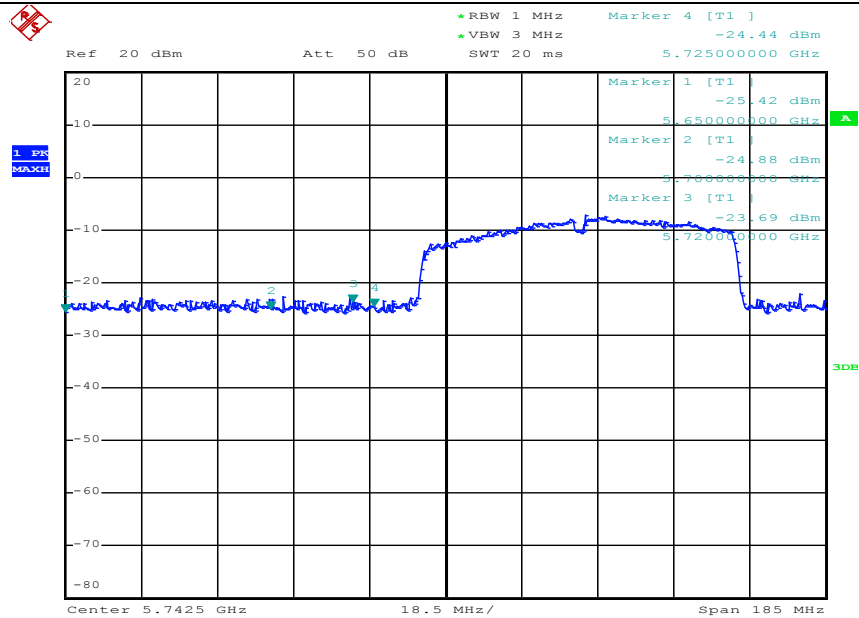
Date: 22.AUG.2019 18:40:06

IEEE 802.11ac40 / Channel 159 / 5795MHz / Peak



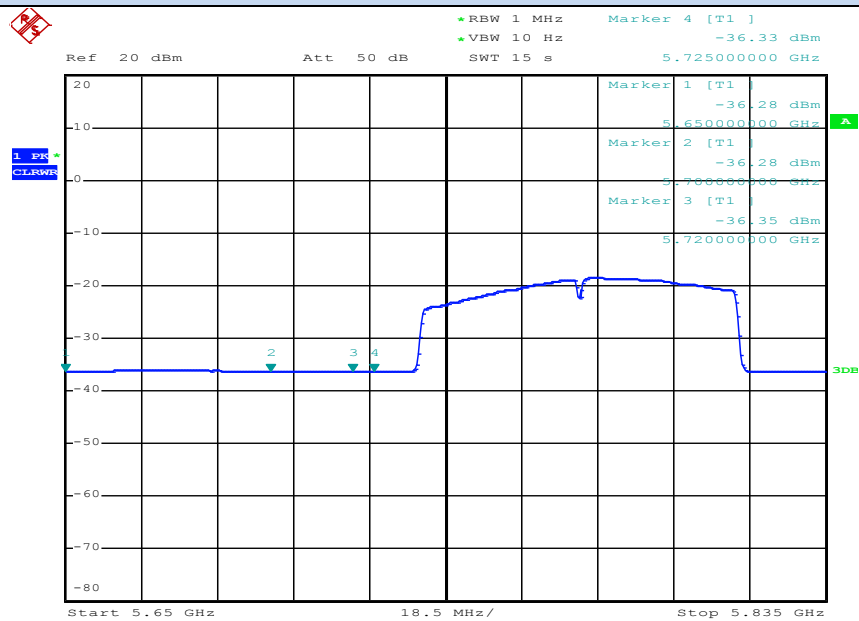
Date: 22.AUG.2019 18:36:17

IEEE 802.11ac40 / Channel 159 / 5795MHz / Average



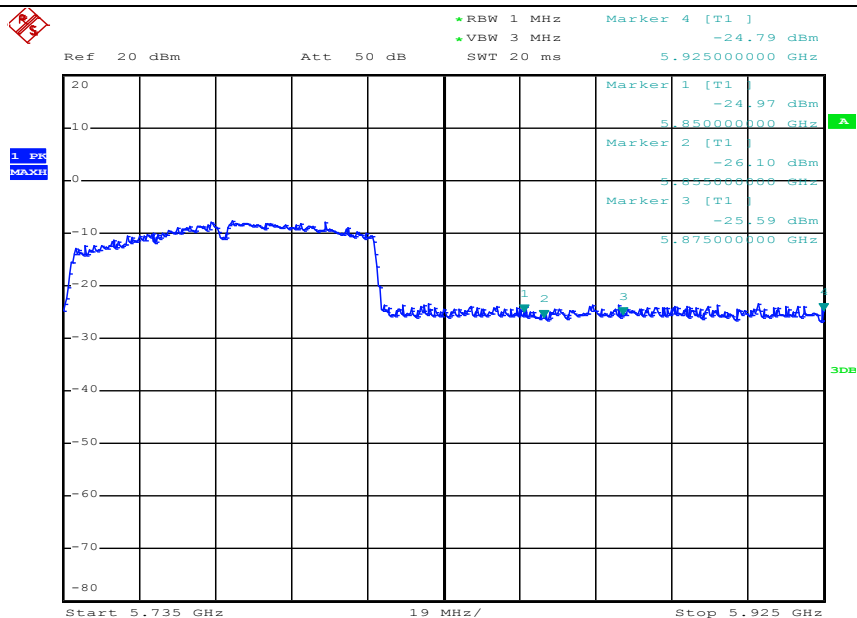
Date: 22.AUG.2019 19:00:53

IEEE 802.11ac80 / Channel 155 / 5775MHz / Peak



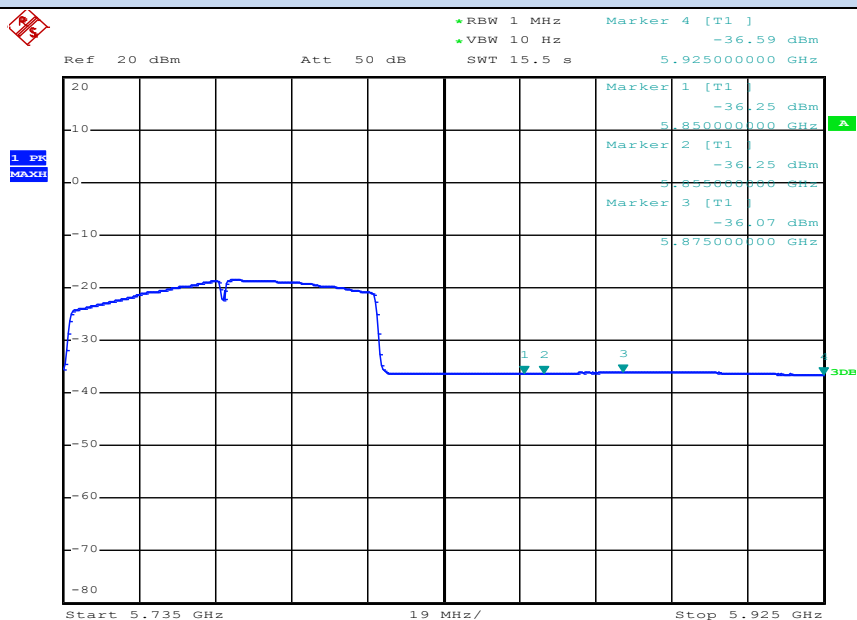
Date: 22.AUG.2019 18:59:58

IEEE 802.11ac80 / Channel 155 / 5775MHz / Average



Date: 22.AUG.2019 19:03:37

IEEE 802.11ac80 / Channel 155/ 5775MHz / Peak



Date: 22.AUG.2019 19:04:35

IEEE 802.11ac80 / Channel 155 / 5775MHz / Average