

Appendix B: Module YL7981, ANT1

Test Information:

Sample No.:	2XY1-2	Test Date:	2025/02/21~2025/02/22
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	23.4~24.2	Relative Humidity: (%)	45~46	ATM Pressure: (kPa)	101.5~101.7
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Emission Bandwidth

26dB Emission Bandwidth

5150-5250MHz

Mode	Test Frequency (MHz)	Result (MHz)
802.11a	5180	20.747
	5200	19.920
	5240	19.920
802.11ac20	5180	29.922
	5200	28.138
	5240	20.695
802.11ac40	5190	54.915
	5230	41.241
802.11ac80	5210	100.743
802.11ax20_RU_Full	5180	27.851
	5200	27.980
	5240	20.140
802.11ax40_RU_Full	5190	47.094
	5230	39.940
802.11ax80_RU_Full	5210	90.891

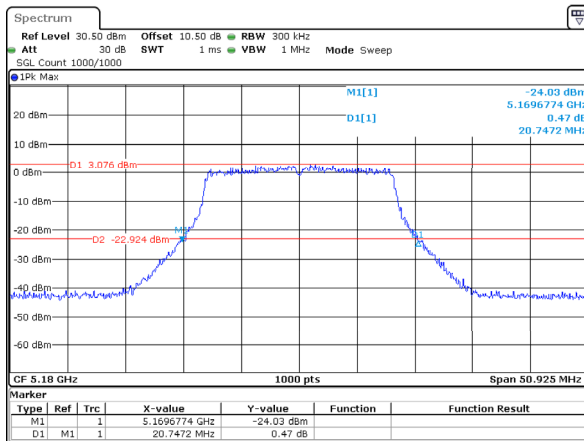
6dB Emission Bandwidth

5725-5850MHz

Mode	Test Frequency (MHz)	Result (MHz)	Limit(MHz)	Verdict
802.11a	5745	16.567	0.5	Pass
	5785	16.567	0.5	Pass
	5825	16.567	0.5	Pass
802.11ac20	5745	17.668	0.5	Pass
	5785	17.668	0.5	Pass
	5825	17.668	0.5	Pass
802.11ac40	5755	35.235	0.5	Pass
	5795	35.335	0.5	Pass
802.11ac80	5775	75.676	0.5	Pass
802.11ax20_RU_Full	5745	19.019	0.5	Pass
	5785	19.069	0.5	Pass
	5825	18.969	0.5	Pass
802.11ax40_RU_Full	5755	36.136	0.5	Pass
	5795	34.735	0.5	Pass
802.11ax80_RU_Full	5775	76.276	0.5	Pass

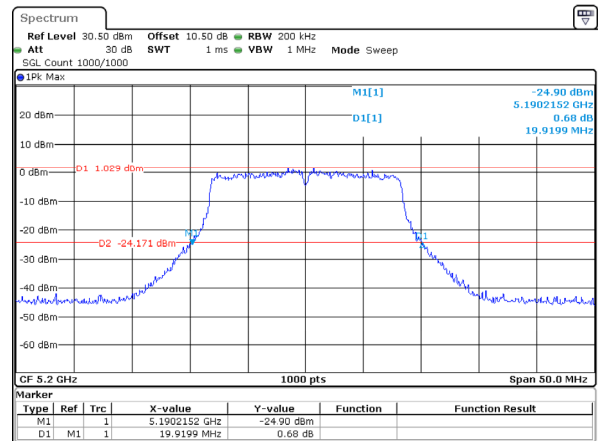
5150-5250MHz

802.11a_5180MHz



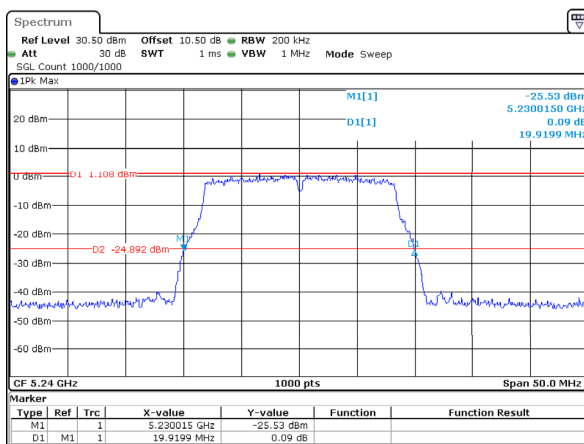
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Date: 21.FEB.2025 14:47:03

802.11a_5200MHz



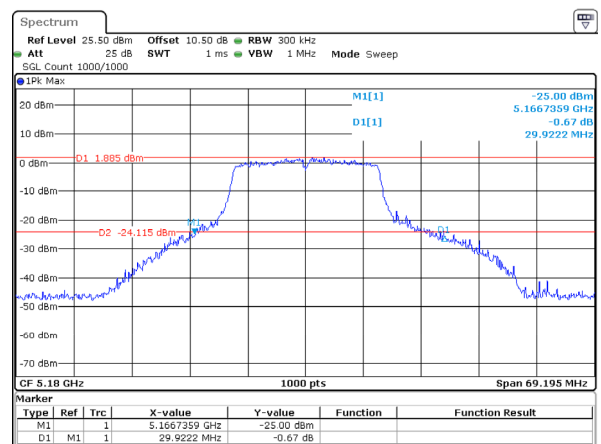
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802.11a_5240MHz



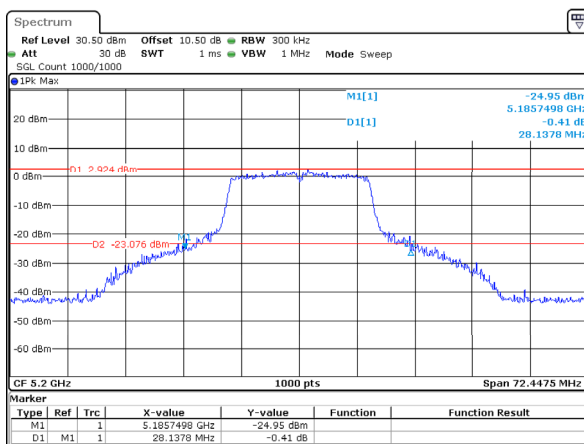
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802.11ac20_5180MHz



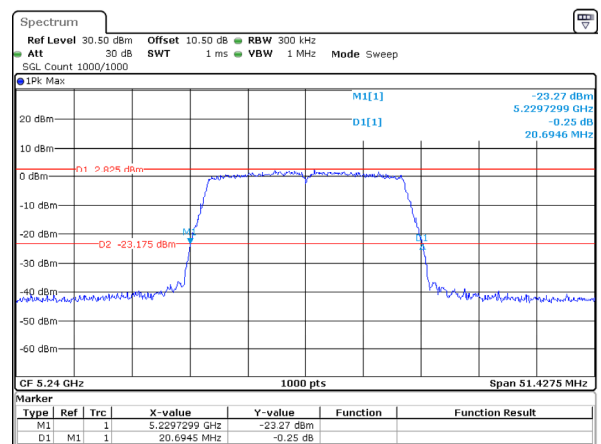
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802.11ac20_5200MHz



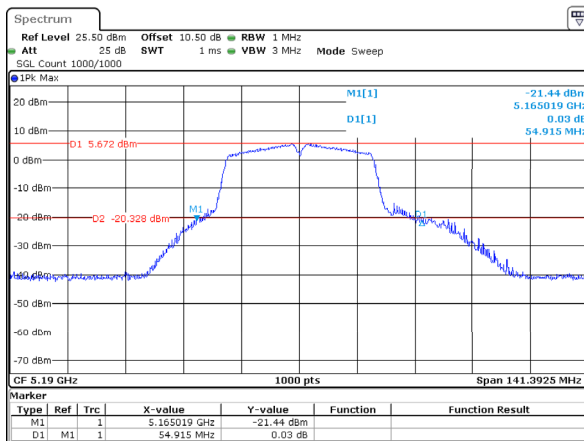
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802.11ac20_5240MHz

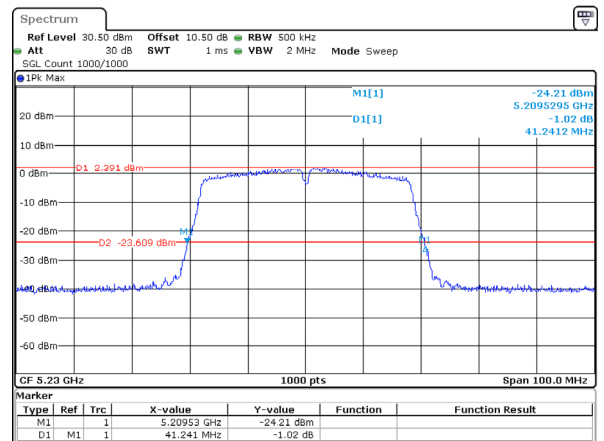


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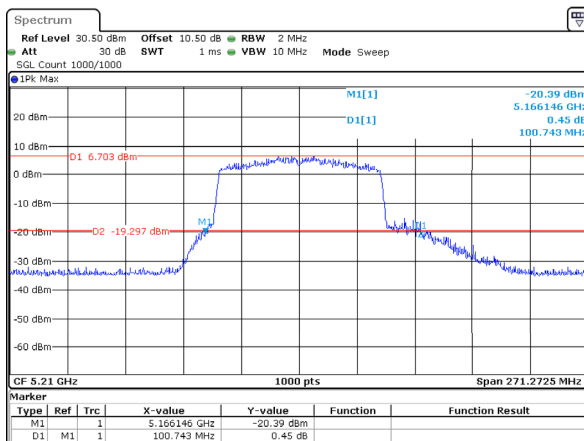
802.11ac40_5190MHz



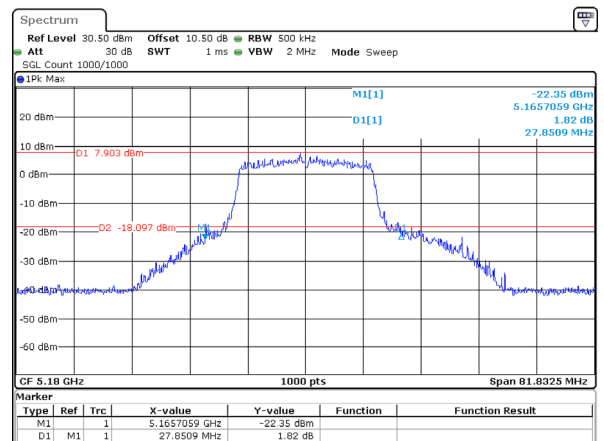
802.11ac40_5230MHz



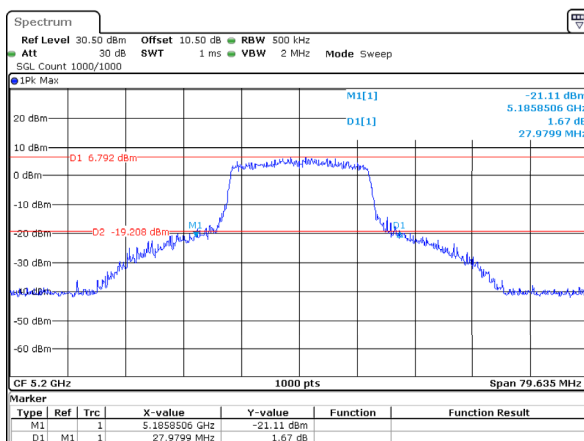
802.11ac80_5210MHz



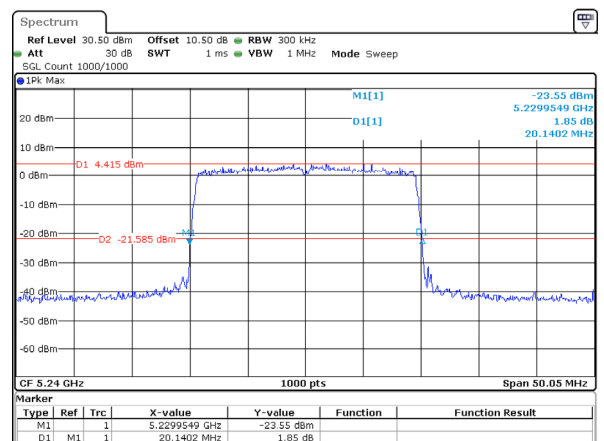
802.11ax20_5180MHz_RU_Full



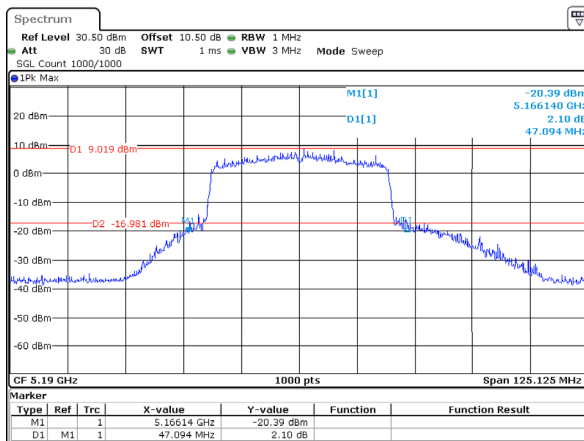
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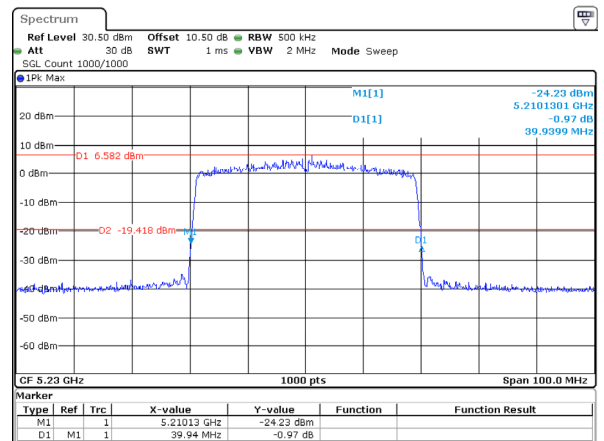
802.11ax20_5240MHz_RU_Full



802.11ax40_5190MHz_RU_Full

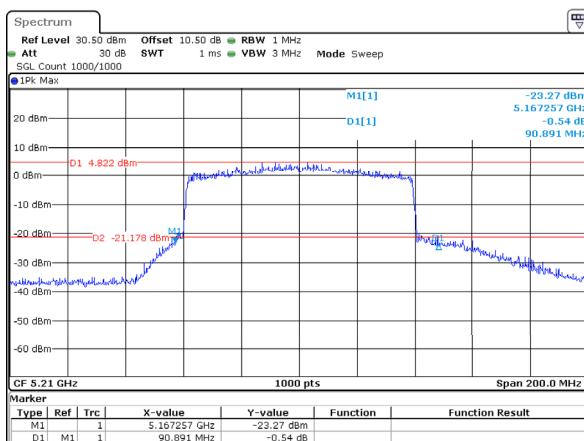


802.11ax40_5230MHz_RU_Full

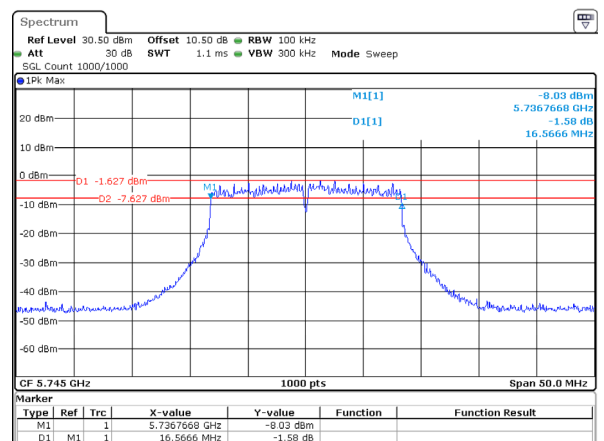


5725-5850MHz

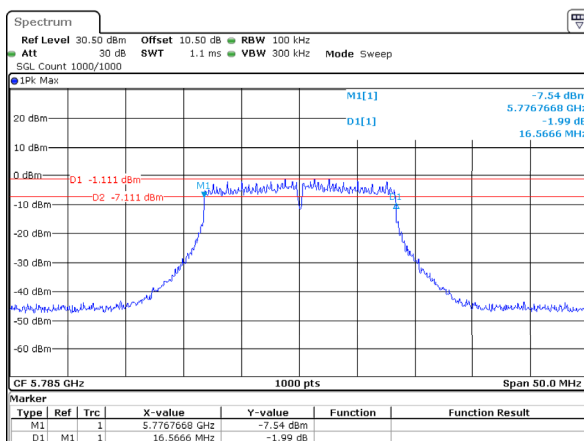
802.11ax80_5210MHz_RU_Full



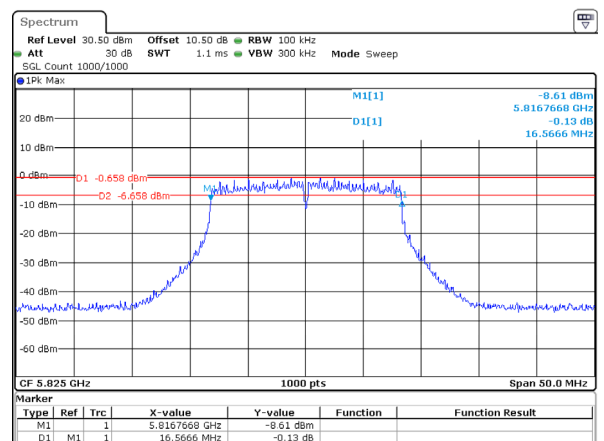
802.11a_5745MHz



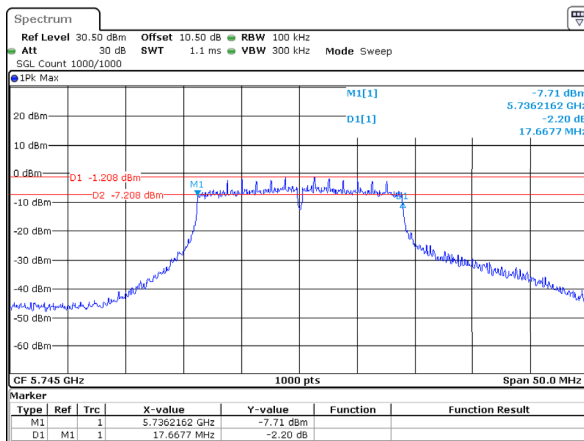
802.11a_5785MHz



802.11a_5825MHz

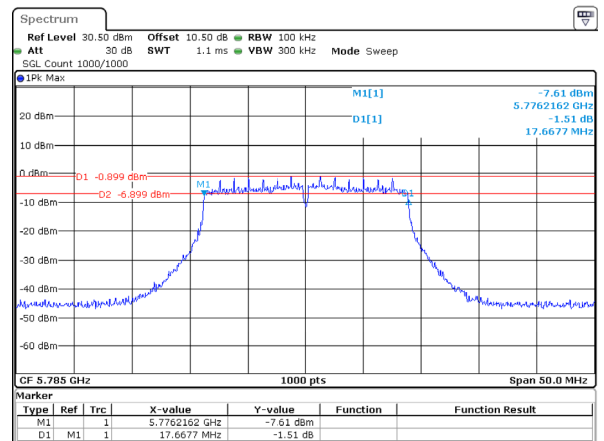


802.11ac20_5745MHz



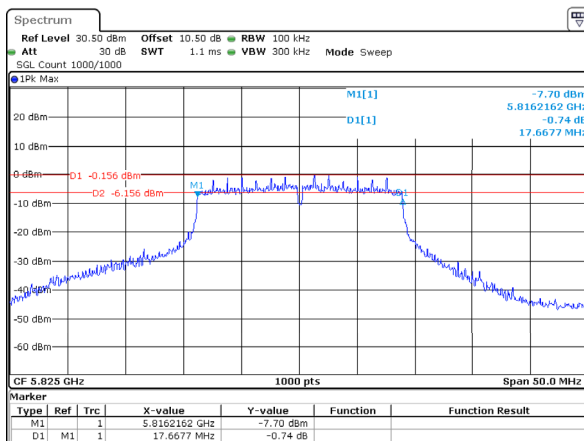
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802.11ac20_5785MHz



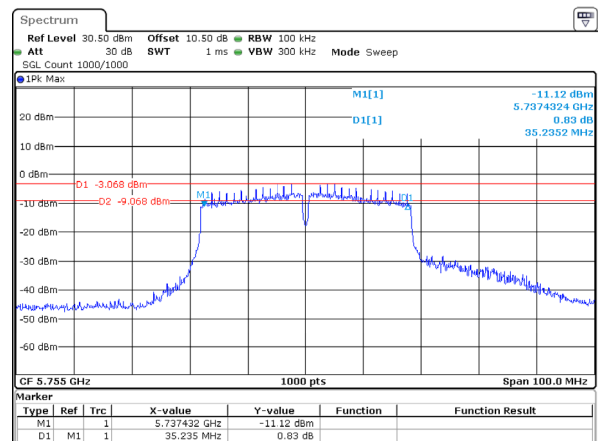
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802.11ac20_5825MHz



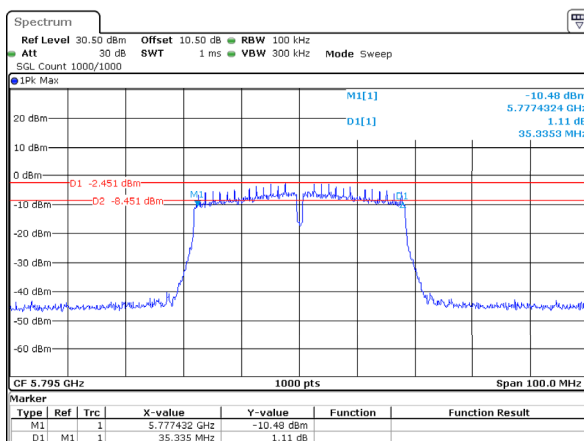
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802.11ac40_5755MHz



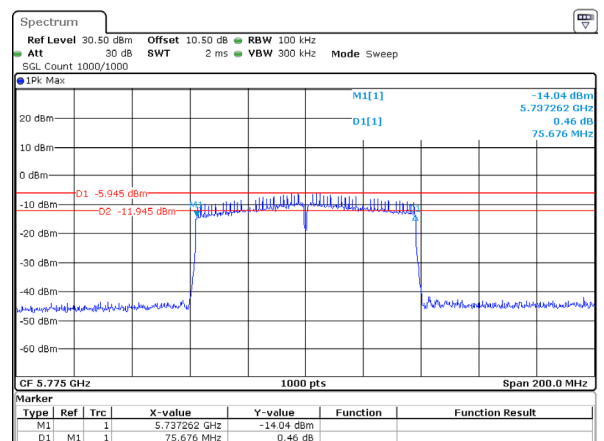
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802.11ac40_5795MHz



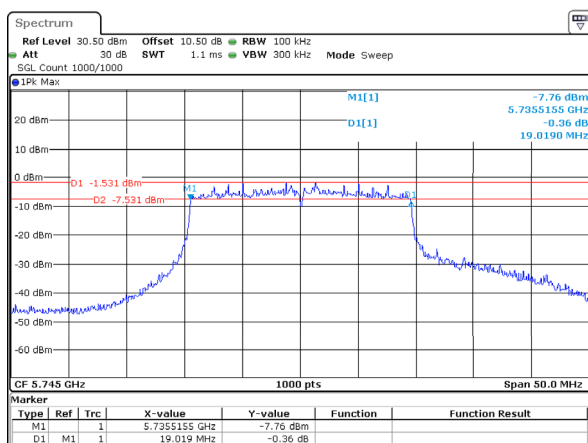
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802.11ac80_5775MHz

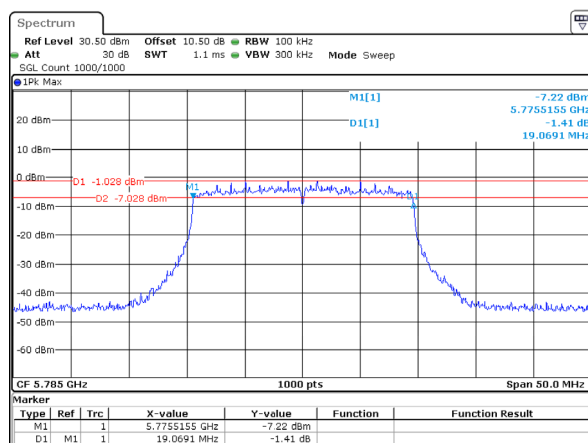


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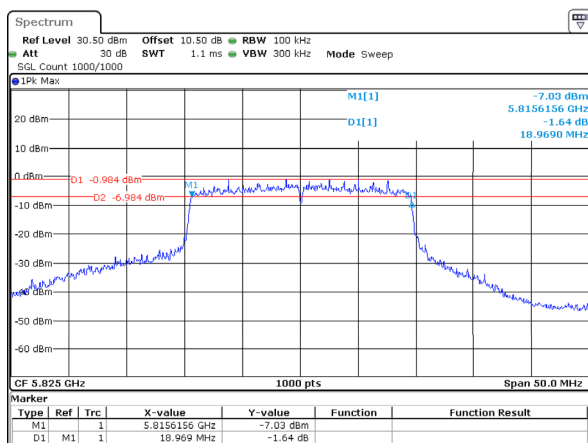
802.11ax20_5745MHz_RU_Full



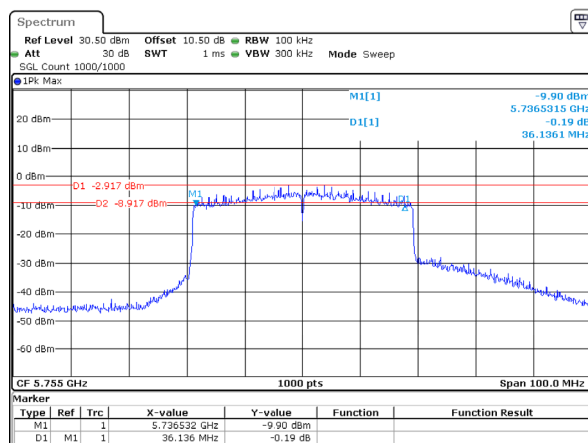
802.11ax20_5785MHz_RU_Full



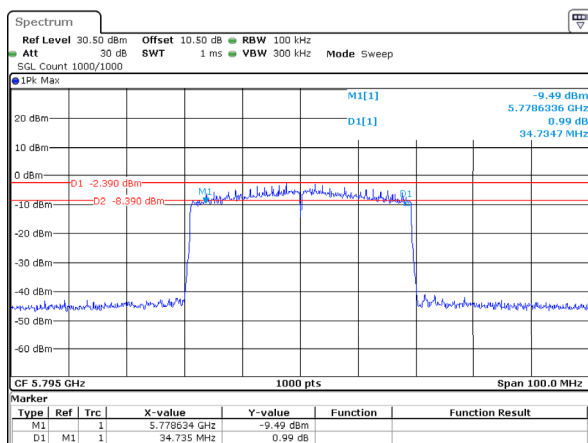
802.11ax20_5825MHz_RU_Full



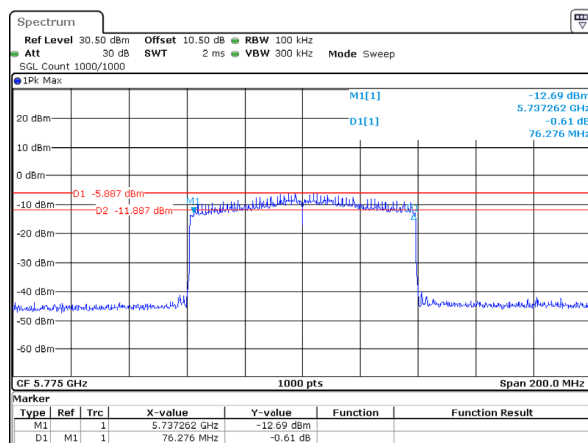
802.11ax40_5755MHz_RU_Full



802.11ax40_5795MHz_RU_Full



802.11ax80_5775MHz_RU_Full



99% Occupied Bandwidth

5150-5250MHz

Mode	Test Frequency (MHz)	99% OBW (MHz)
802.11a	5180	16.500
	5200	16.550
	5240	16.550
802.11ac20	5180	17.900
	5200	17.950
	5240	17.750
802.11ac40	5190	36.600
	5230	36.200
802.11ac80	5210	75.600
802.11ax20_RU_Full	5180	19.100
	5200	19.150
	5240	18.850
802.11ax40_RU_Full	5190	37.700
	5230	37.600
802.11ax80_RU_Full	5210	77

Note:

The 99% Occupied Bandwidth have not fall into the band 5250-5350MHz, please refer to the test plots of 99% Occupied Bandwidth.

5725-5850MHz

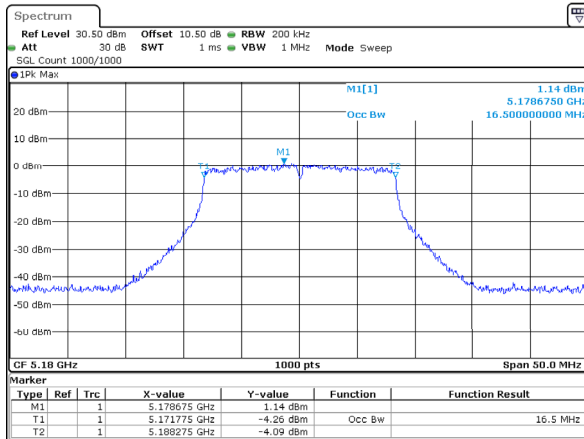
Mode	Test Frequency (MHz)	99% OBW (MHz)
802.11a	5745	16.500
	5785	16.550
	5825	16.550
802.11ac20	5745	17.900
	5785	17.750
	5825	17.900
802.11ac40	5755	36.500
	5795	36.300
802.11ac80	5775	75.200
802.11ax20_RU_Full	5745	19.100
	5785	19.050
	5825	19.100
802.11ax40_RU_Full	5755	37.800
	5795	37.700
802.11ax80_RU_Full	5775	77

Note:

The 99% Occupied Bandwidth have not fall into the band 5470-5725MHz, please refer to the test plots of 99% Occupied Bandwidth.

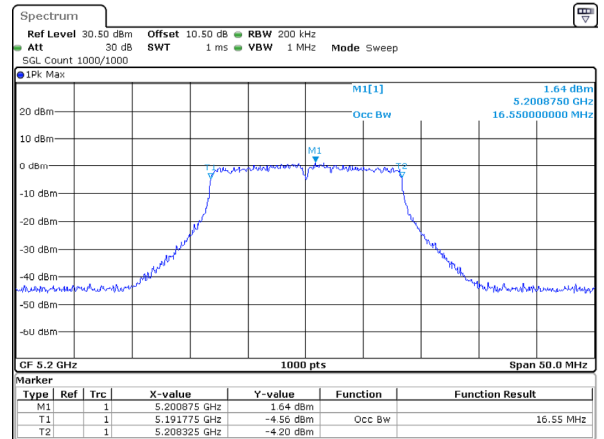
5150-5250MHz

802.11a_5180MHz



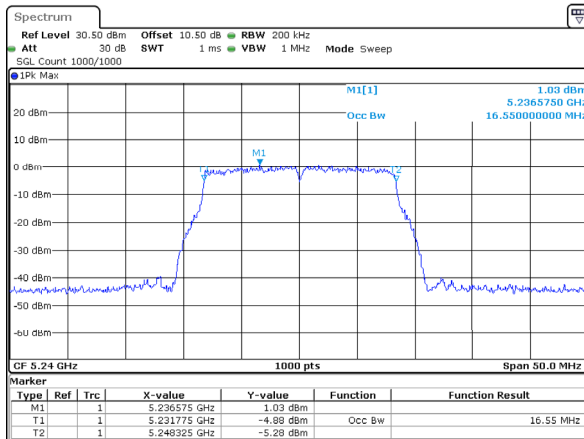
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802.11a_5200MHz



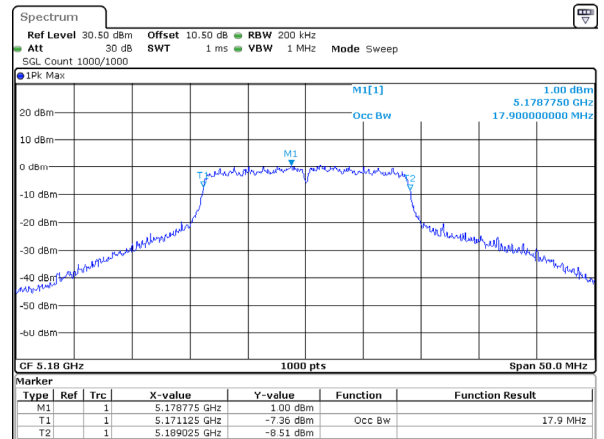
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802.11a_5240MHz



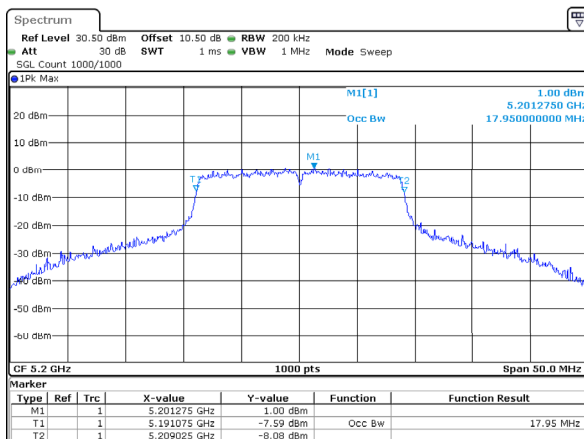
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802.11ac20_5180MHz



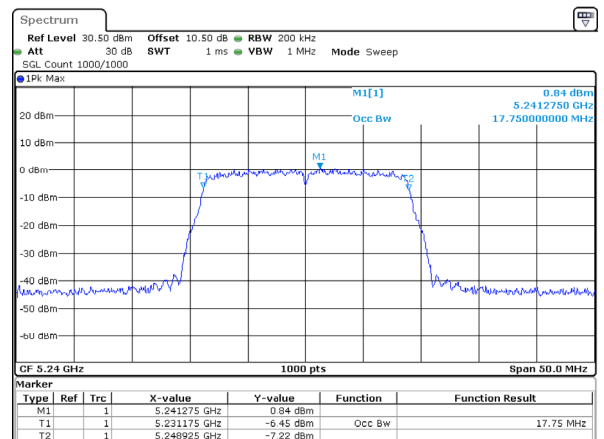
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802.11ac20_5200MHz



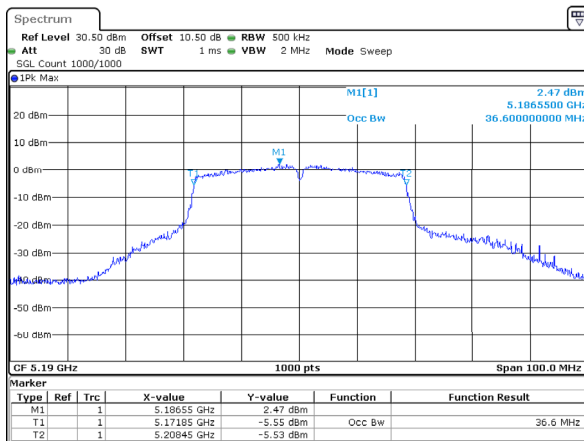
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802.11ac20_5240MHz

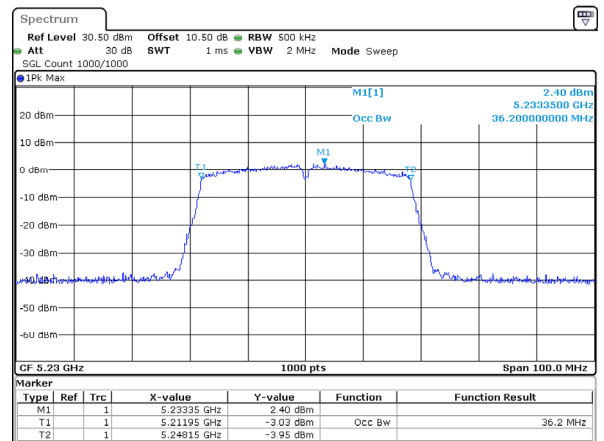


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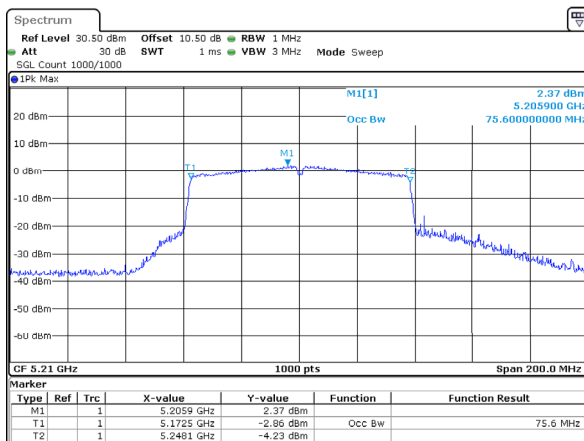
802.11ac40_5190MHz



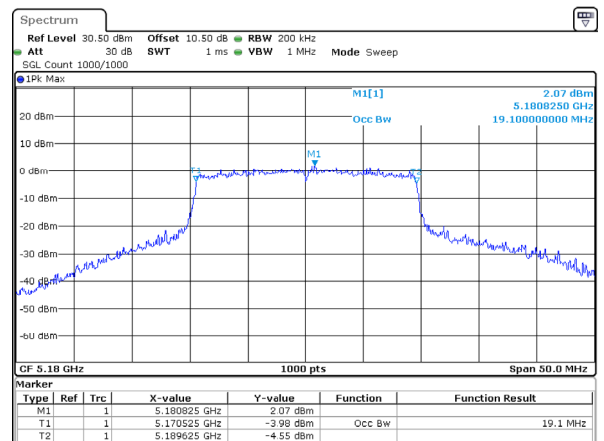
802.11ac40_5230MHz



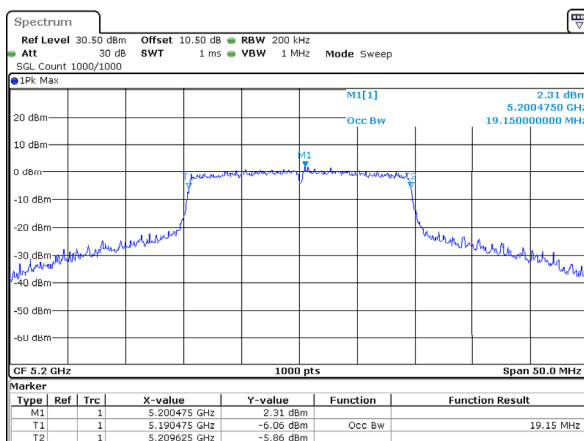
802.11ac80_5210MHz



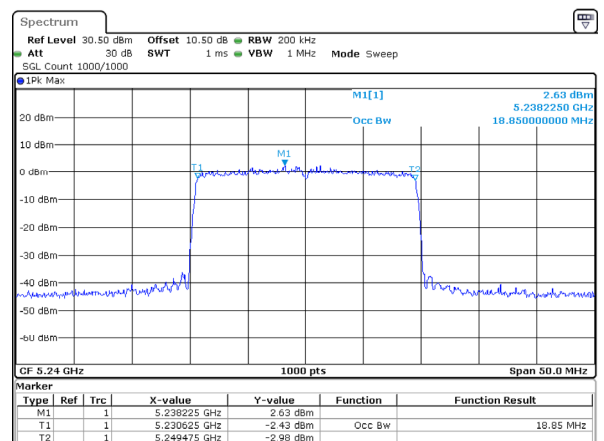
802.11ax20_5180MHz_RU_Full



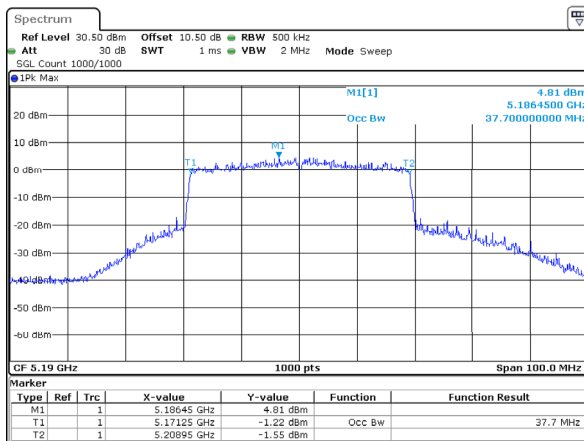
802.11ax20_5200MHz_RU_Full



802.11ax20_5240MHz_RU_Full

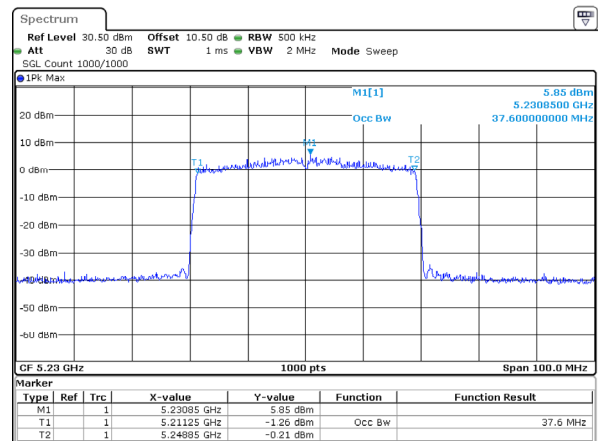


802.11ax40_5190MHz_RU_Full



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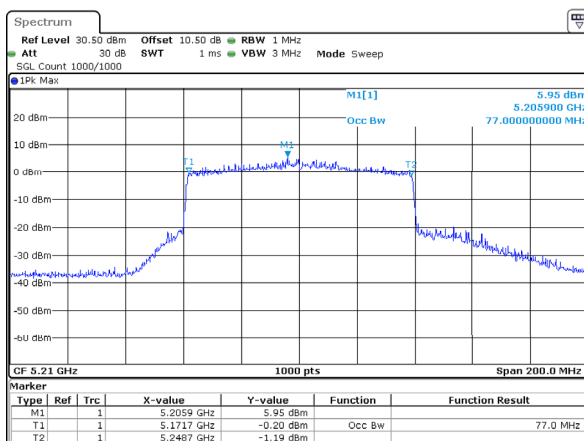
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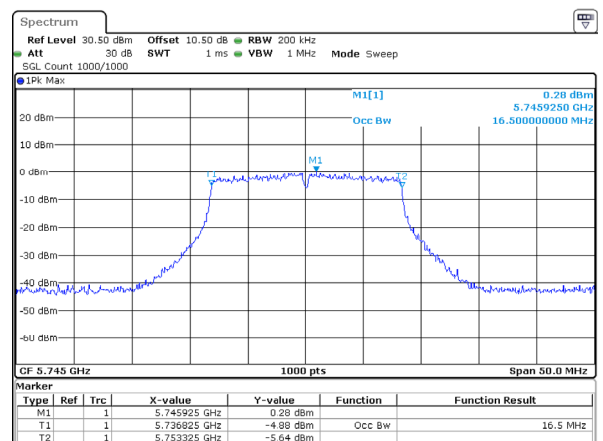
5725-5850MHz

802.11ax80_5210MHz_RU_Full



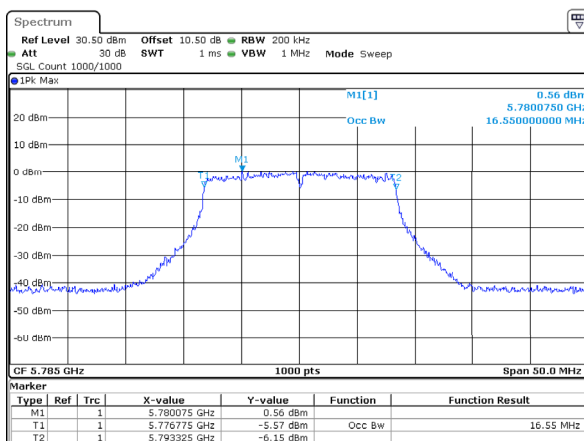
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802.11a_5745MHz



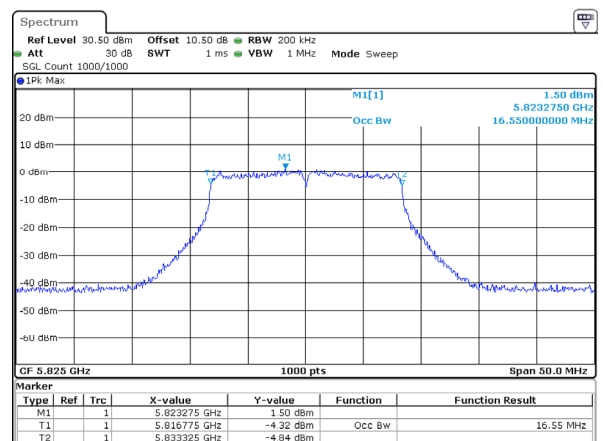
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Date: 21.FEB.2025 18:15:35

802.11a_5785MHz



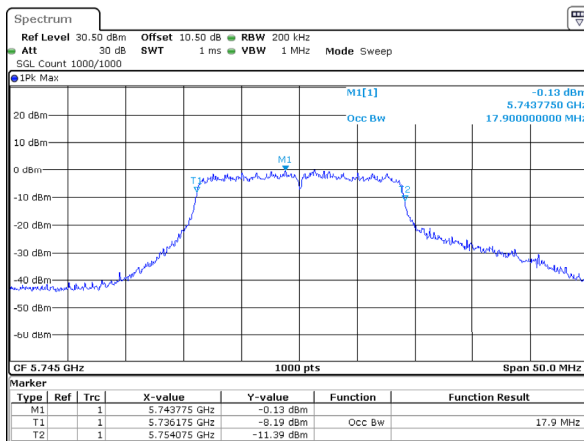
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802.11a_5825MHz



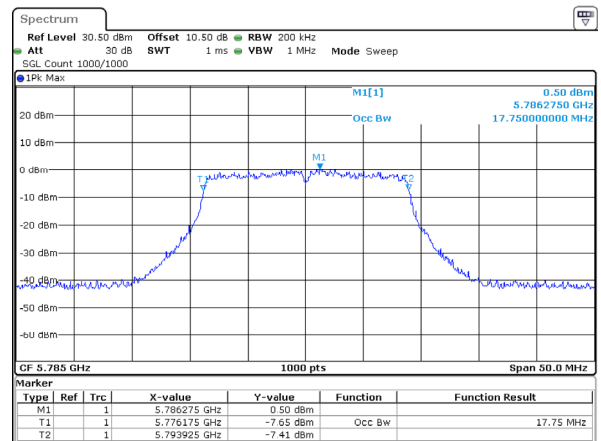
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802.11ac20_5745MHz



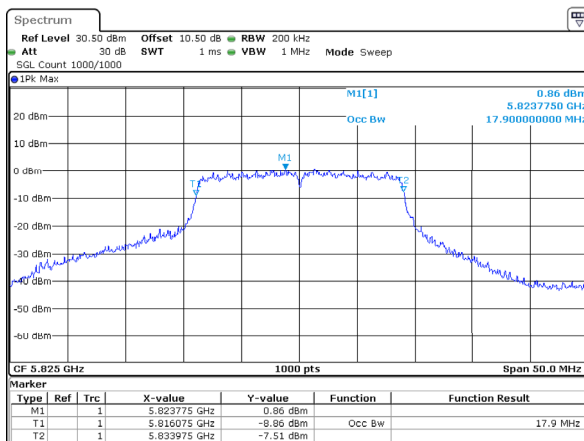
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802.11ac20_5785MHz



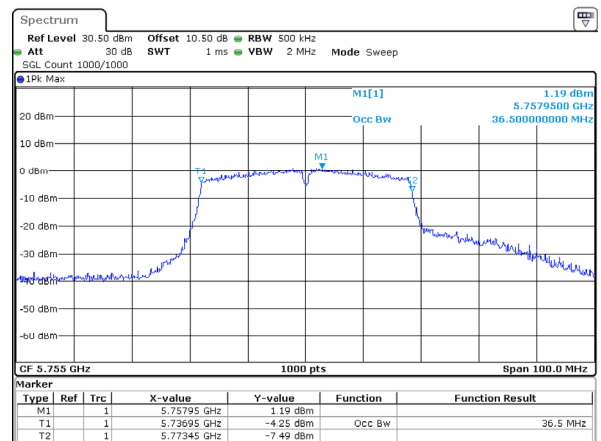
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802.11ac20_5825MHz



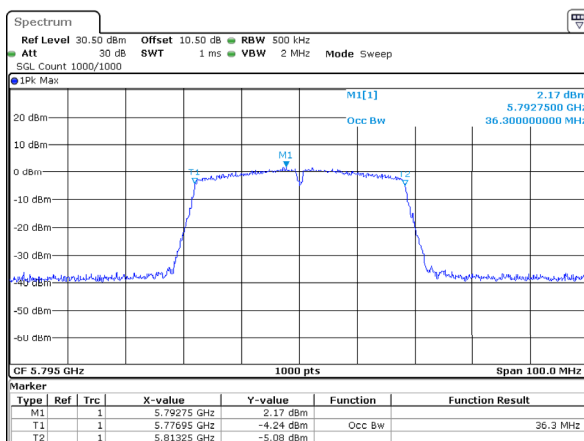
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802.11ac40_5755MHz



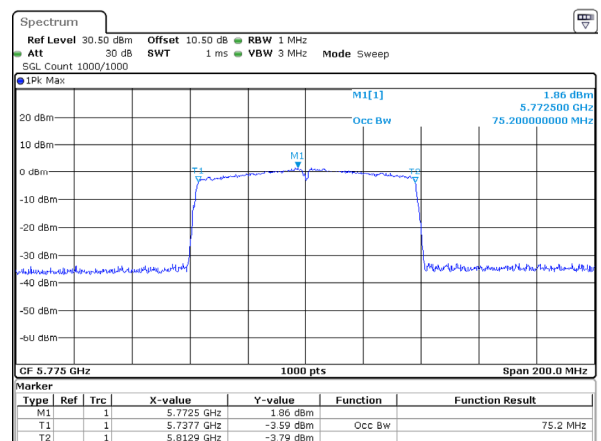
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802.11ac40_5795MHz



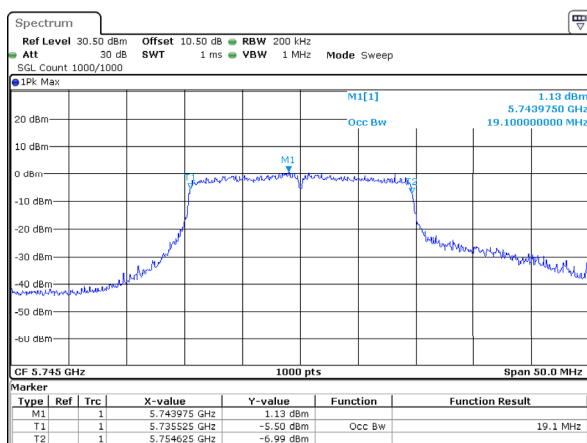
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802.11ac80_5775MHz



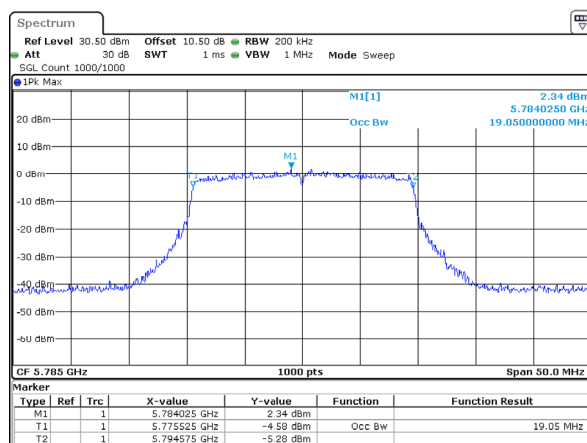
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802.11ax20_5745MHz_RU_Full



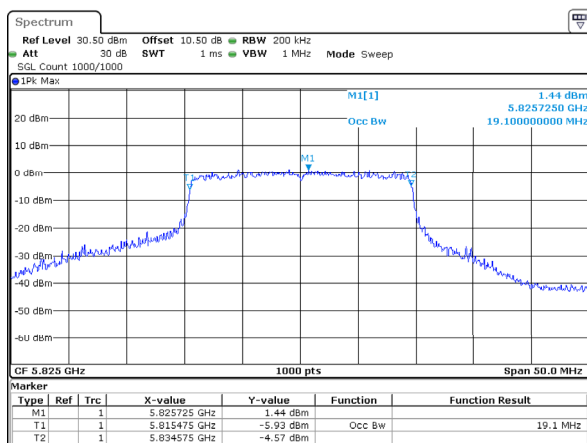
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Date: 21.FEB.2025 18:33:05

802.11ax20_5785MHz_RU_Full



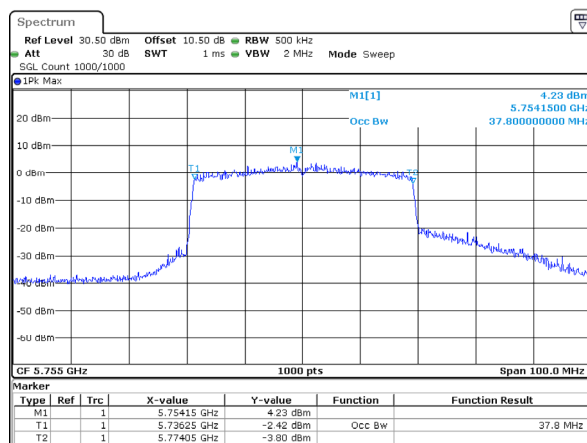
ProjectNo.:2401Z40977E-RF-2-NT1 Tester:Rainbow Zhu
Date: 21.FEB.2025 18:35:22

802.11ax20_5825MHz_RU_Full



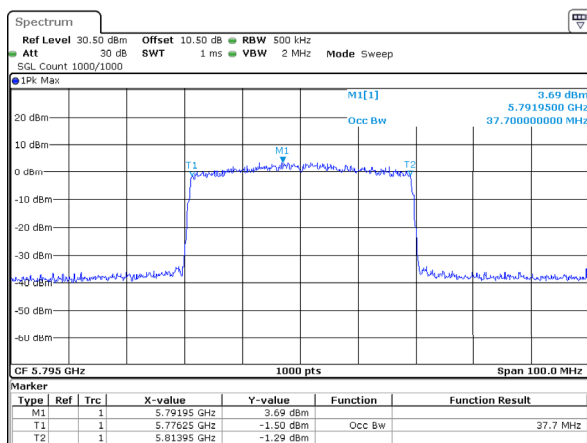
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Date: 21.FEB.2025 18:40:09

802.11ax40_5755MHz_RU_Full



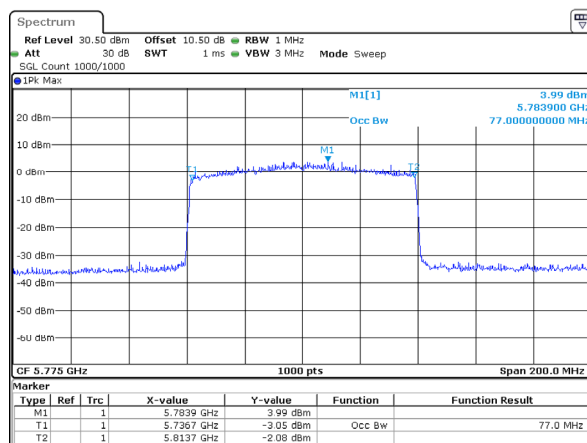
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Date: 21.FEB.2025 18:41:42

802.11ax40_5795MHz_RU_Full



ProjectNo.:2401Z40977E-RF-2-NT1 Tester:Rainbow Zhu
Date: 21.FEB.2025 18:42:53

802.11ax80_5775MHz_RU_Full



ProjectNo.:2401Z40977E-RF-2-NT1 Tester:Rainbow Zhu
Date: 21.FEB.2025 18:44:18

Maximum Conducted Output Power

5150-5250MHz

Mode	Test Frequency (MHz)	Average Output Power(dBm)	Limit (dBm)	Verdict
802.11a	5180	11.35	30	Pass
	5200	10.64	30	Pass
	5240	10.46	30	Pass
802.11ac20	5180	10.58	30	Pass
	5200	10.66	30	Pass
	5240	11.02	30	Pass
802.11ac40	5190	10.85	30	Pass
	5230	11.17	30	Pass
802.11ac80	5210	10.43	30	Pass
802.11ax20_RU_Full	5180	10.69	30	Pass
	5200	10.73	30	Pass
	5240	11.22	30	Pass
802.11ax40_RU_Full	5190	11.18	30	Pass
	5230	11.50	30	Pass
802.11ax80_RU_Full	5210	10.69	30	Pass

5725-5850MHz

Mode	Test Frequency (MHz)	Average Output Power(dBm)	Limit (dBm)	Verdict
802.11a	5745	9.37	30	Pass
	5785	9.88	30	Pass
	5825	10.41	30	Pass
802.11ac20	5745	9.55	30	Pass
	5785	10.44	30	Pass
	5825	10.55	30	Pass
802.11ac40	5755	9.8	30	Pass
	5795	10.59	30	Pass
802.11ac80	5775	9.77	30	Pass
802.11ax20_RU_Full	5745	9.64	30	Pass
	5785	10.57	30	Pass
	5825	10.59	30	Pass
802.11ax40_RU_Full	5755	10.09	30	Pass
	5795	10.84	30	Pass
802.11ax80_RU_Full	5775	10.14	30	Pass

Power Spectral Density

5150-5250MHz

Mode	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor(dB)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11a	5180	-0.93	1.14	0.21	17	Pass
	5200	-0.96	1.14	0.18	17	Pass
	5240	-1.13	1.14	0.01	17	Pass
802.11ac20	5180	-0.21	0.19	-0.02	17	Pass
	5200	-0.26	0.19	-0.07	17	Pass
	5240	-0.13	0.19	0.06	17	Pass
802.11ac40	5190	-2.63	0.36	-2.27	17	Pass
	5230	-2.36	0.36	-2.00	17	Pass
802.11ac80	5210	-6.57	0.70	-5.87	17	Pass
802.11ax20_RU_Full	5180	-0.30	/	-0.30	17	Pass
	5200	-0.32	/	-0.32	17	Pass
	5240	0.44	/	0.44	17	Pass
802.11ax40_RU_Full	5190	-2.22	0.13	-2.09	17	Pass
	5230	-1.91	0.13	-1.78	17	Pass
802.11ax80_RU_Full	5210	-5.79	0.25	-5.54	17	Pass

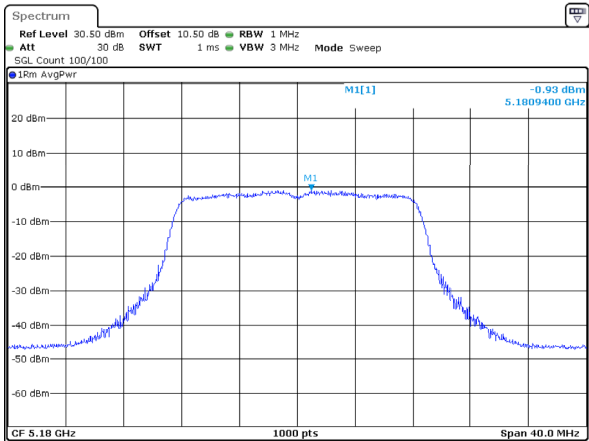
5725-5850MHz

Mode	Test Frequency (MHz)	Reading (dBm/500kHz)	Duty Cycle Factor(dB)	Result (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
802.11a	5745	-4.81	1.14	-3.67	30	Pass
	5785	-4.23	1.14	-3.09	30	Pass
	5825	-3.62	1.14	-2.48	30	Pass
802.11ac20	5745	-4.07	0.19	-3.88	30	Pass
	5785	-3.15	0.19	-2.96	30	Pass
	5825	-2.86	0.19	-2.67	30	Pass
802.11ac40	5755	-6.46	0.36	-6.10	30	Pass
	5795	-5.73	0.36	-5.37	30	Pass
802.11ac80	5775	-9.63	0.70	-8.93	30	Pass
802.11ax20_RU_Full	5745	-4.13	/	-4.13	30	Pass
	5785	-3.15	/	-3.15	30	Pass
	5825	-3.29	/	-3.29	30	Pass
802.11ax40_RU_Full	5755	-6.01	0.13	-5.88	30	Pass
	5795	-5.53	0.13	-5.40	30	Pass
802.11ax80_RU_Full	5775	-8.99	0.25	-8.74	30	Pass

Result = Reading + Duty Cycle Factor

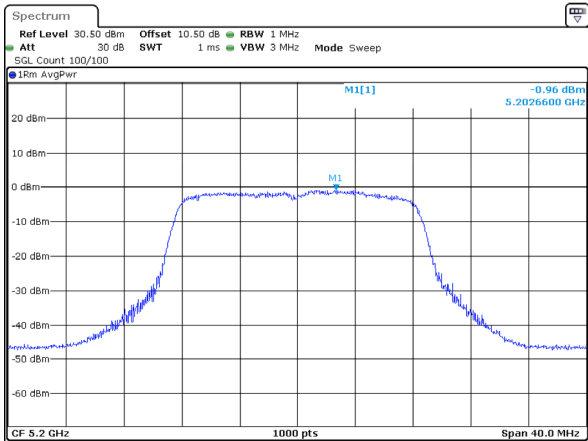
5150-5250MHz

802.11a_5180MHz



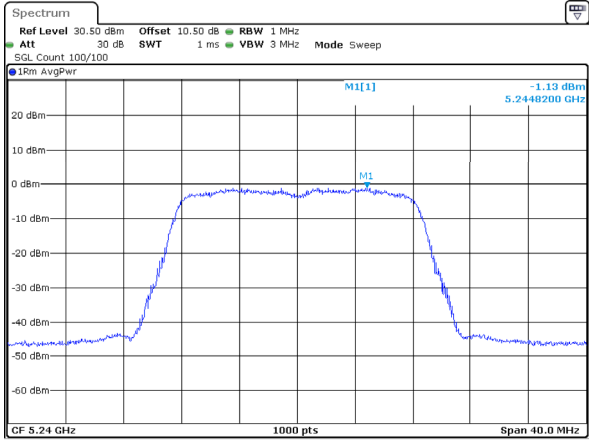
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Date: 21.FEB.2025 14:48:04

802.11a_5200MHz



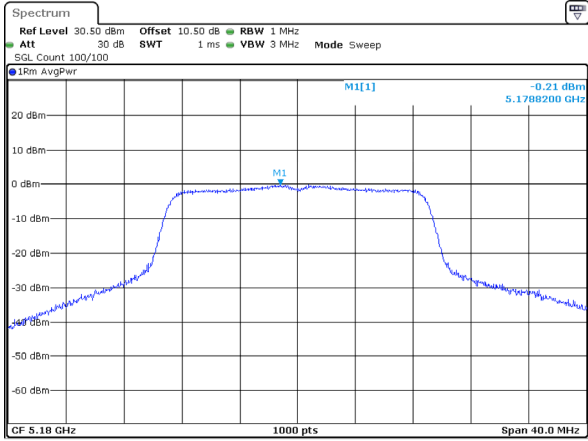
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802.11a_5240MHz



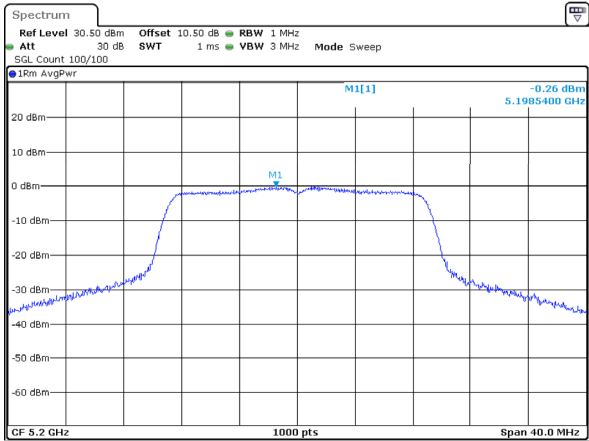
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802.11ac20_5180MHz



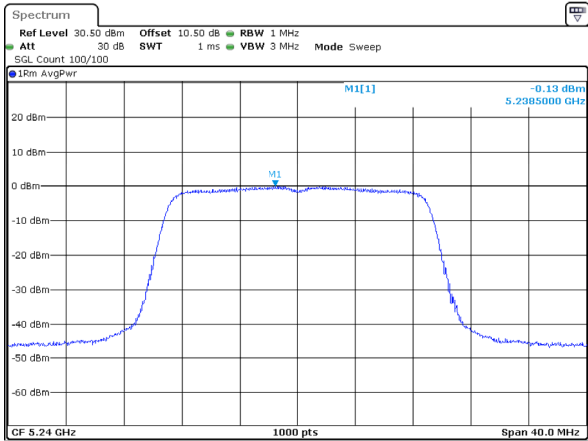
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802.11ac20_5200MHz



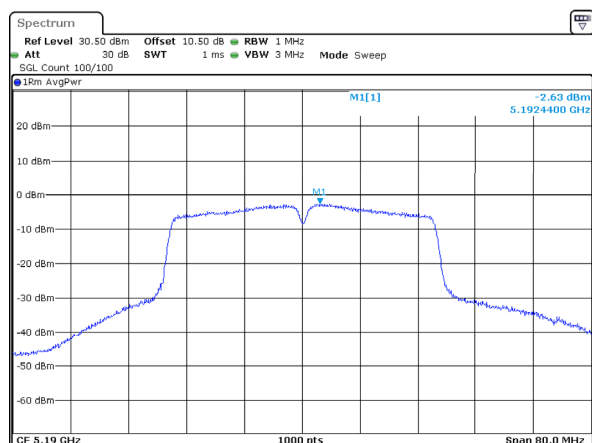
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802.11ac20_5240MHz



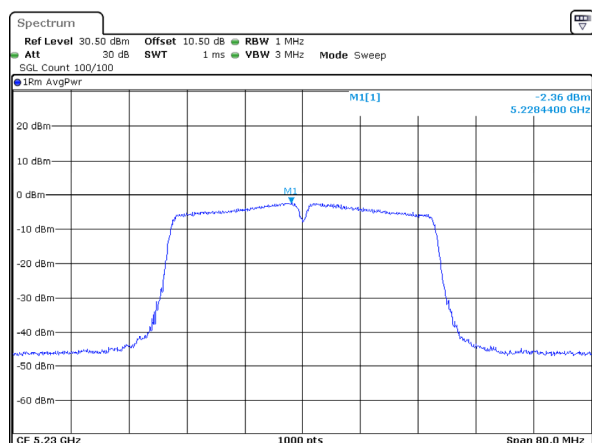
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802.11ac40_5190MHz



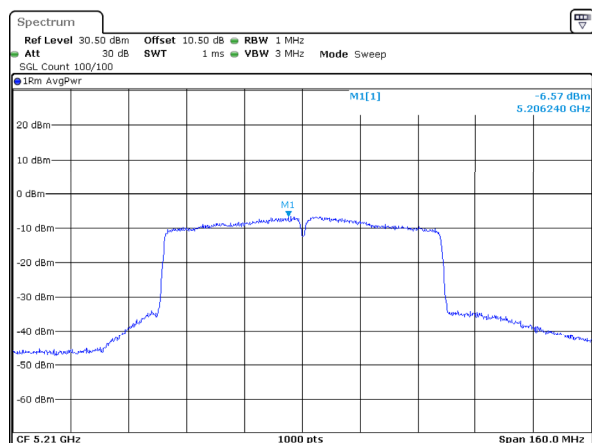
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802.11ac40_5230MHz



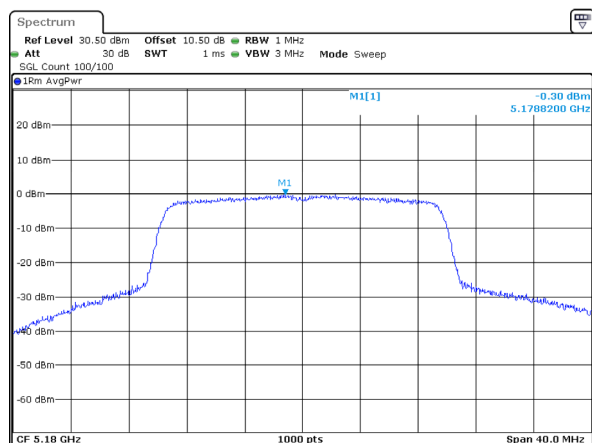
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802.11ac80_5210MHz



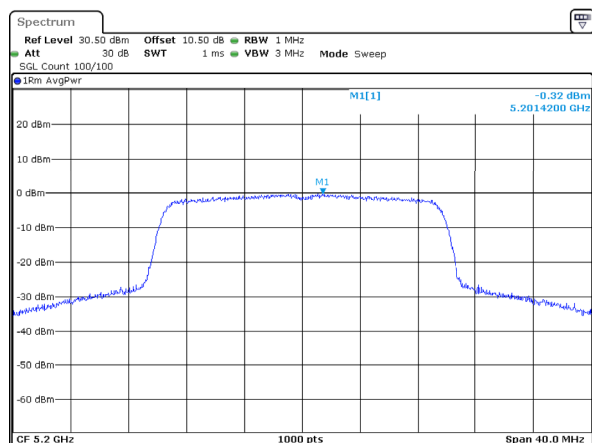
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802.11ax20_5180MHz_RU_Full



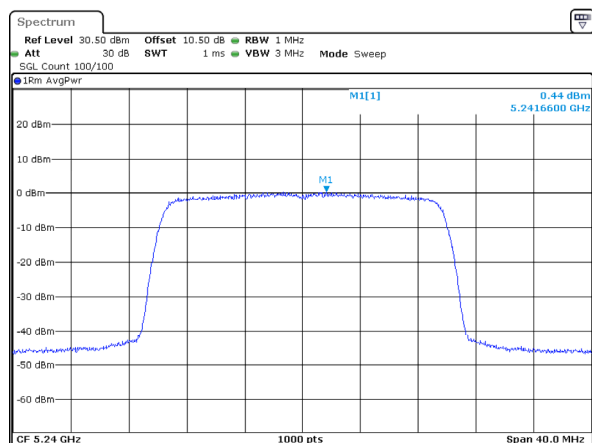
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802.11ax20_5200MHz_RU_Full



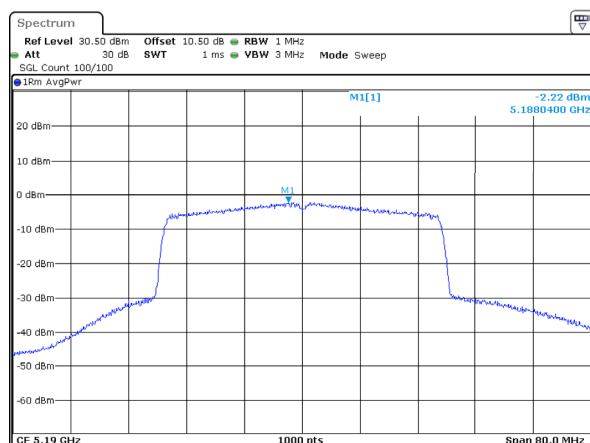
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802.11ax20_5240MHz_RU_Full



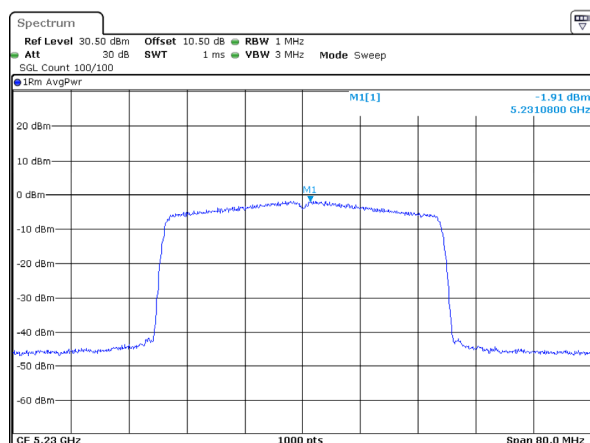
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802.11ax40_5190MHz_RU_Full



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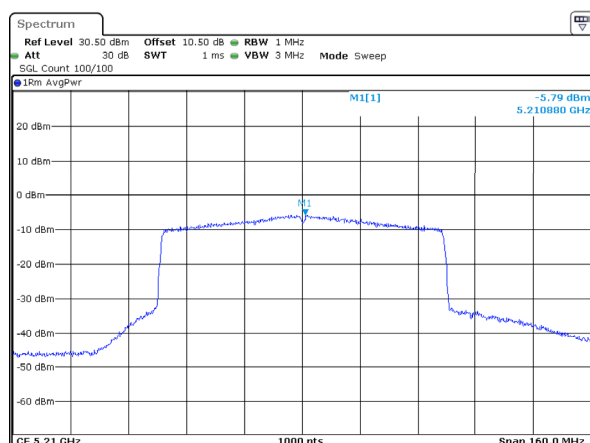
802.11ax40_5230MHz_RU_Full



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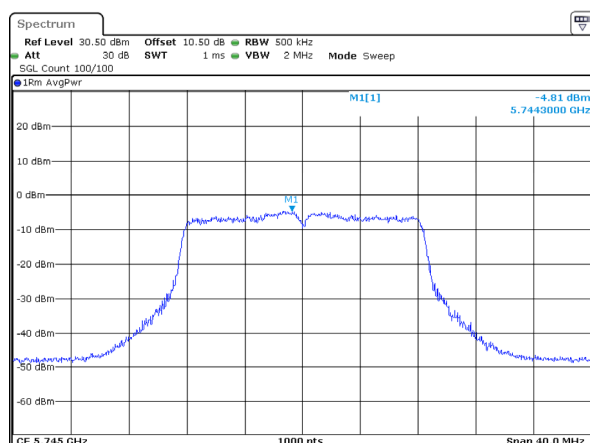
5725-5850MHz

802.11ax80_5210MHz_RU_Full



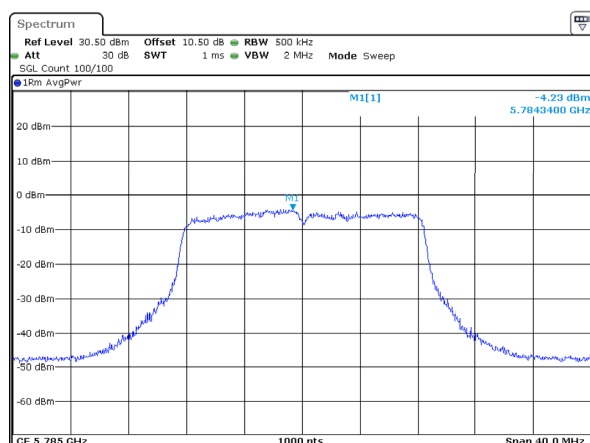
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802.11a_5745MHz



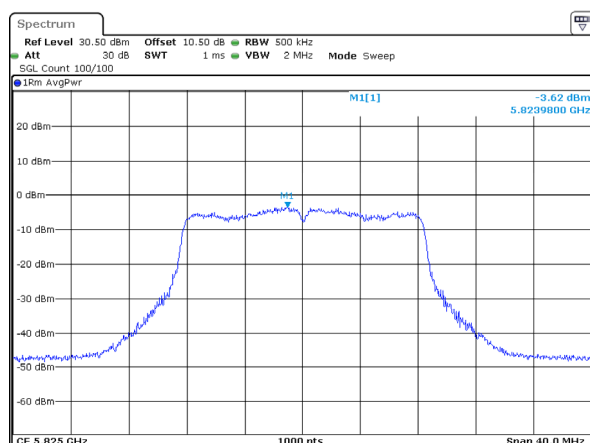
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802.11a_5785MHz



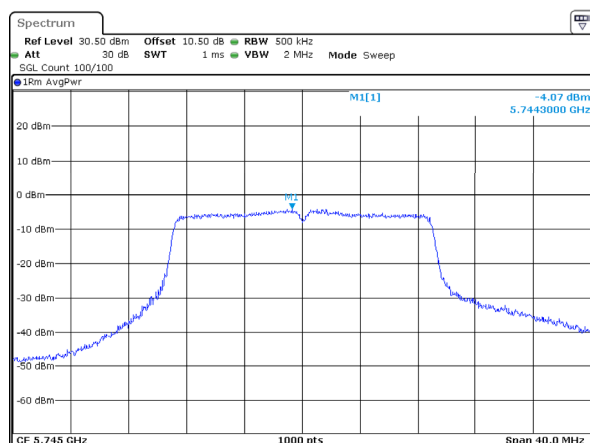
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802.11a_5825MHz



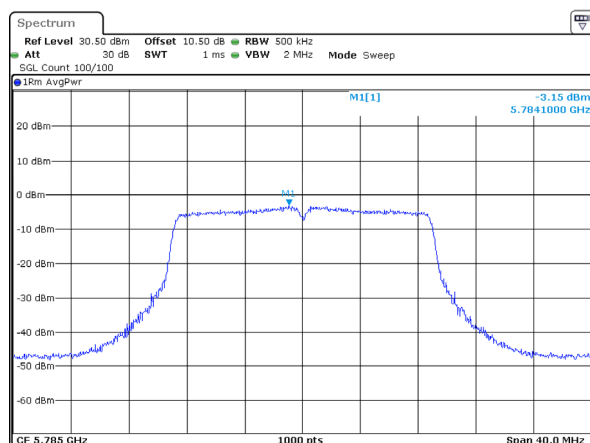
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802.11ac20_5745MHz



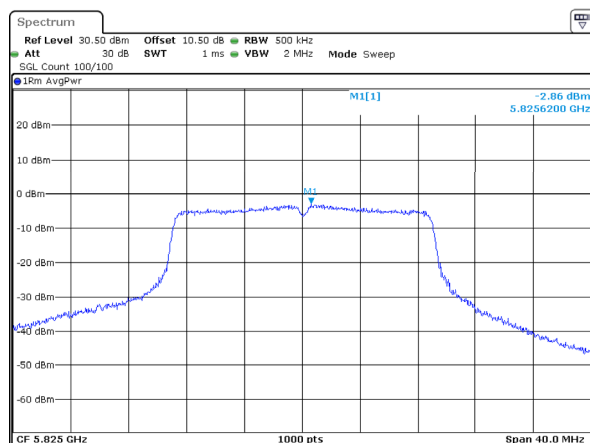
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Date: 21.FEB.2025 18:23:22

802.11ac20_5785MHz



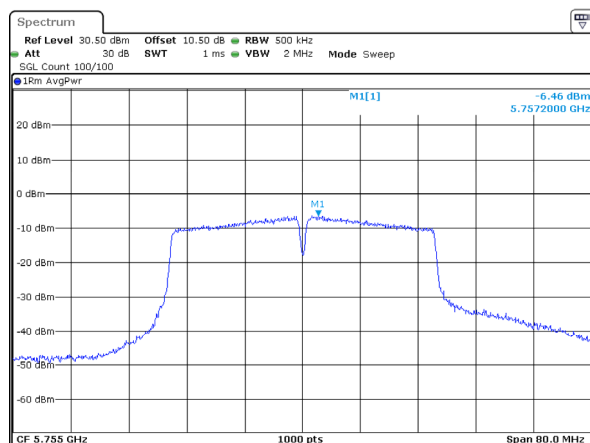
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802.11ac20_5825MHz



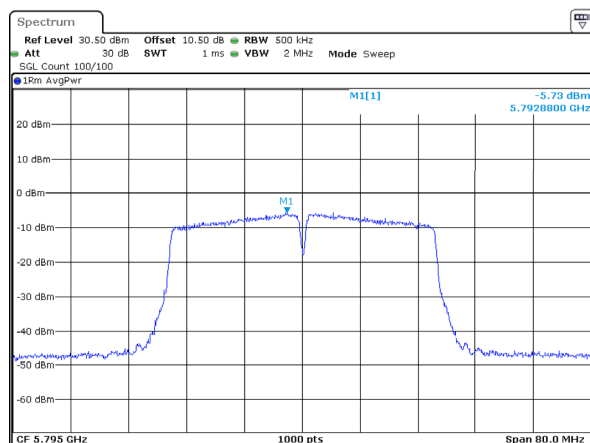
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802.11ac40_5755MHz



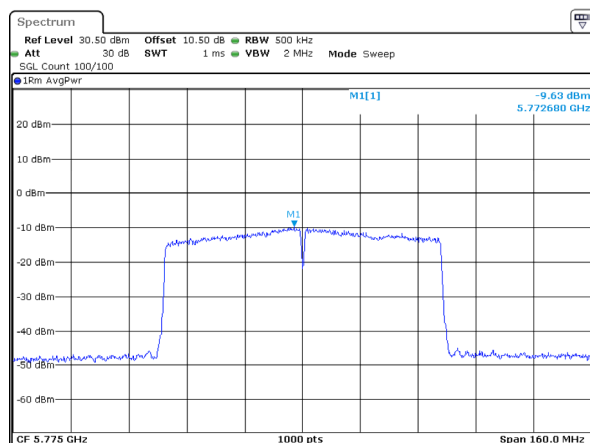
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Date: 21.FEB.2025 18:28:38

802.11ac40_5795MHz



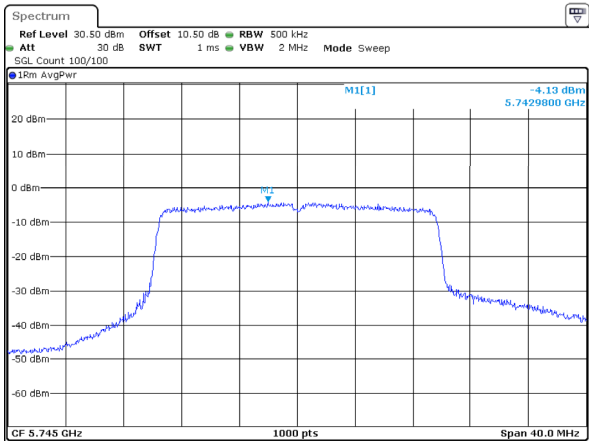
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802.11ac80_5775MHz



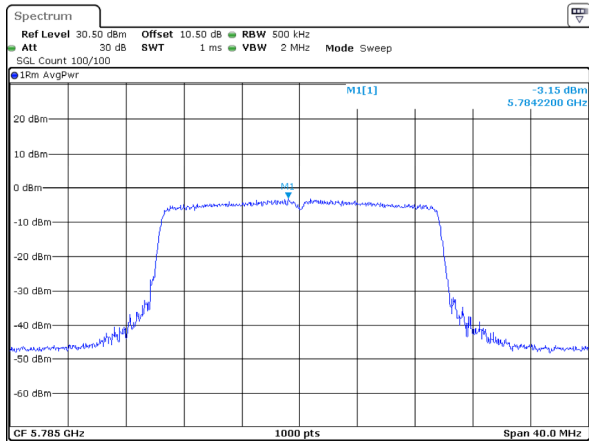
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Date: 21.FEB.2025 18:31:11

802.11ax20_5745MHz_RU_Full



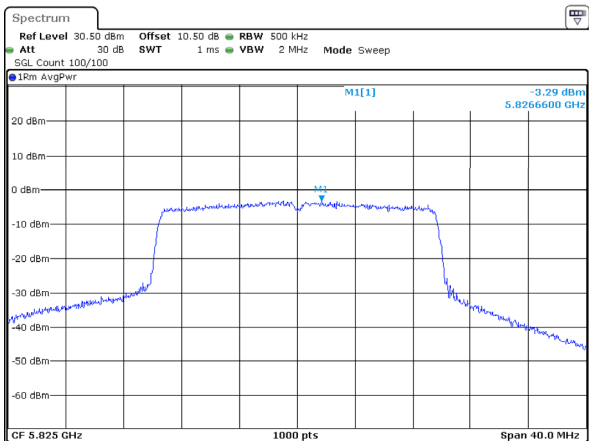
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Date: 21.FEB.2025 18:33:23

802.11ax20_5785MHz_RU_Full



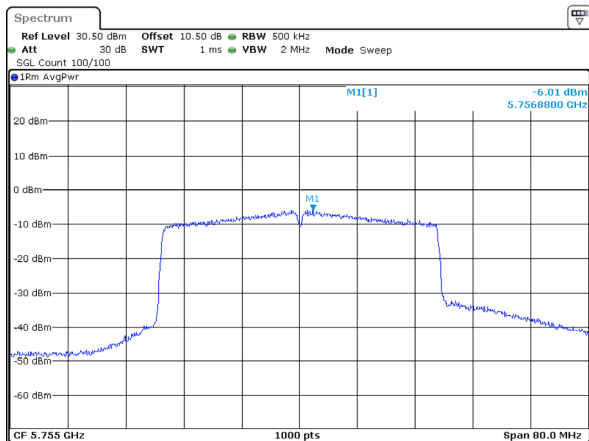
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Date: 21.FEB.2025 18:35:43

802.11ax20_5825MHz_RU_Full



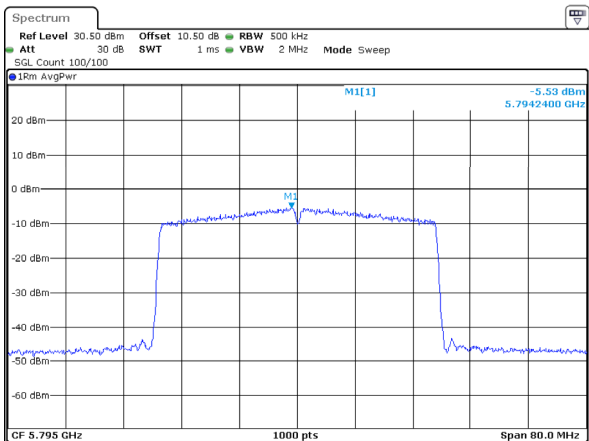
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802.11ax40_5755MHz_RU_Full



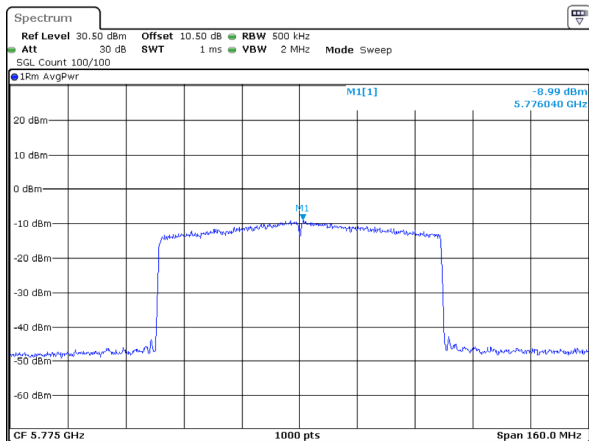
ProjectNo.:2401Z40977E-RF-2-ANT1 Tester:Rainbow Zhu
Date: 21.FEB.2025 18:42:01

802.11ax40_5795MHz_RU_Full



ProjectNo.:2401Z40977E-RF-2-ANT1 Tester:Rainbow Zhu
Date: 21.FEB.2025 18:43:11

802.11ax80_5775MHz_RU_Full



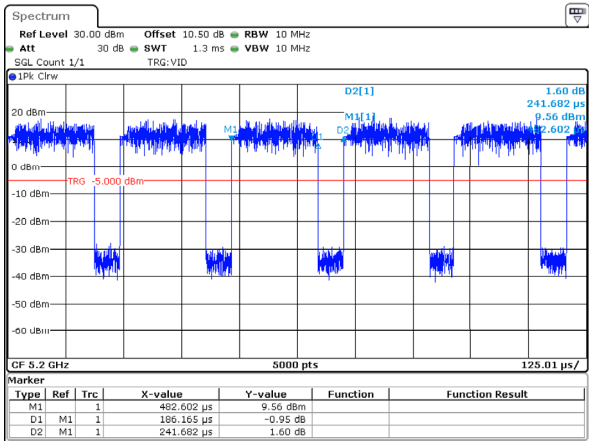
ProjectNo.:2401Z40977E-RF-2-ANT1 Tester:Rainbow Zhu
Date: 21.FEB.2025 18:44:39

Duty Cycle

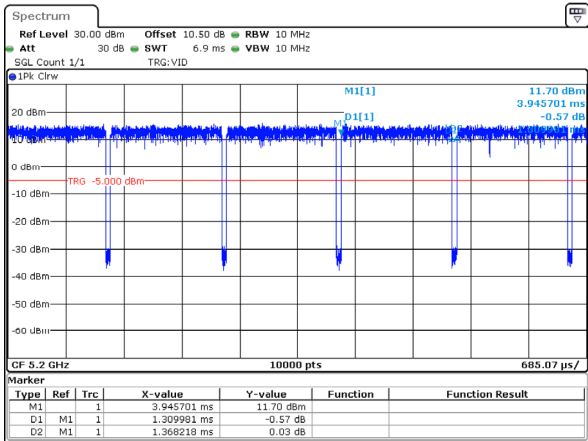
Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11a	5200	0.186	0.242	76.86	1.14	5376	10
802.11ac20	5200	1.310	1.368	95.76	0.19	763	1
802.11ac40	5190	0.656	0.713	92.01	0.36	1524	2
802.11ac80	5210	0.324	0.381	85.04	0.70	3086	5
802.11ax20_RU_Full	5200	3.868	3.927	98.50	/	/	0.010
802.11ax40_RU_Full	5190	1.973	2.031	97.14	0.13	507	1
802.11ax80_RU_Full	5210	0.976	1.034	94.39	0.25	1025	2

Duty Cycle = Ton/(Ton+Toff)*100%

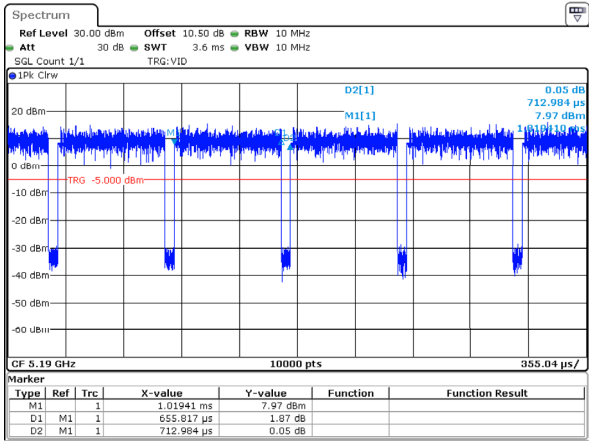
802.11a_5200MHz



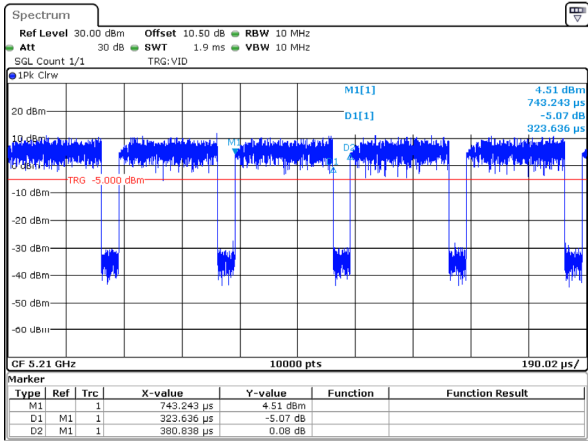
802.11ac20_5200MHz



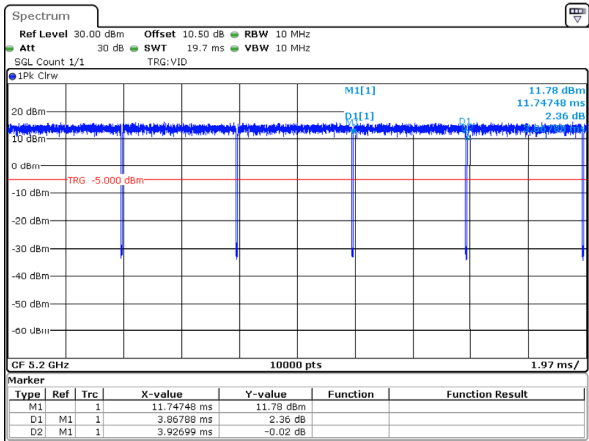
802.11ac40_5190MHz



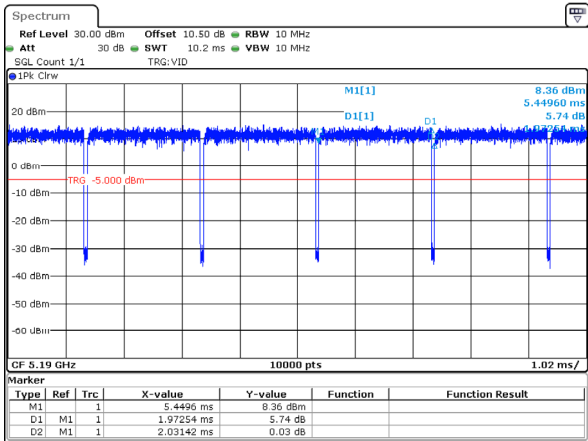
802.11ac80_5210MHz



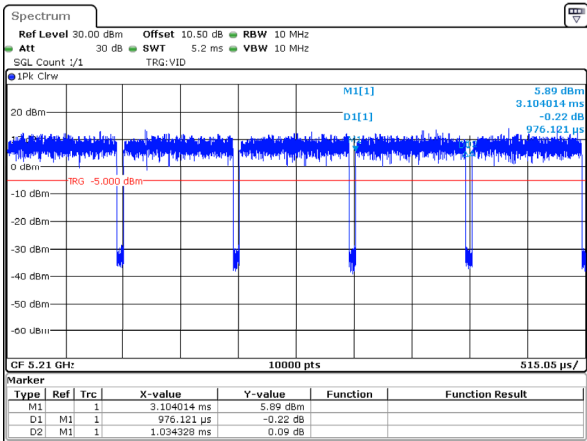
802.11ax20_5200MHz_RU_Full



802.11ax40_5190MHz_RU_Full



802.11ax80_5210MHz_RU_Full



ProjectNo.:1401Z40977E-RF-2-ANT1 Tester:Rainbow Zhu
Date: 21.FEB.2025 14:45:04