

Power Spectral Density

Test Information:

Sample No.:	306X-1	Test Date:	2025/04/16~2025/05/05
Test Site:	RF	Test Mode:	Transmitting
Tester:	Kungfumaster Liang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.5-26.9	Relative Humidity: (%)	47-55	ATM Pressure: (kPa)	100.1~101
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Test Data:**5150-5250MHz**

Mode	Antenna	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor(dB)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11a	Chain 0	5180	1.49	/	1.49	17	Pass
		5200	1.92	/	1.92	17	Pass
		5240	1.20	/	1.20	17	Pass
	Chain 1	5180	0.10	/	0.10	17	Pass
		5200	-0.82	/	-0.82	17	Pass
		5240	-0.52	/	-0.52	17	Pass
	Chain 0+Chain 1	5180	3.86	/	3.86	17	Pass
		5200	3.77	/	3.77	17	Pass
		5240	3.43	/	3.43	17	Pass
802.11ac20	Chain 0	5180	0.55	/	0.55	17	Pass
		5200	0.71	/	0.71	17	Pass
		5240	0.28	/	0.28	17	Pass
	Chain 1	5180	-1.15	/	-1.15	17	Pass
		5200	-1.40	/	-1.40	17	Pass
		5240	-0.96	/	-0.96	17	Pass
	Chain 0+Chain 1	5180	2.79	/	2.79	17	Pass
		5200	2.79	/	2.79	17	Pass
		5240	2.71	/	2.71	17	Pass
802.11ac40	Chain 0	5190	-2.04	/	-2.04	17	Pass
		5230	-2.88	/	-2.88	17	Pass
	Chain 1	5190	-4.19	/	-4.19	17	Pass
		5230	-3.89	/	-3.89	17	Pass
	Chain 0+Chain 1	5190	0.03	/	0.03	17	Pass
		5230	-0.35	/	-0.35	17	Pass
802.11ac80	Chain 0	5210	-7.23	/	-7.23	17	Pass
	Chain 1	5210	-8.45	/	-8.45	17	Pass
	Chain 0+Chain 1	5210	-4.79	/	-4.79	17	Pass

Mode	Antenna	Test Frequency (MHz)	Reading (dBm/MHz)	Duty Cycle Factor(dB)	Result (dBm/MHz)	Limit (dBm/MHz)	Verdict
802.11ax20 RU_Full	Chain 0	5180	0.45	/	0.45	17	Pass
		5200	0.50	/	0.50	17	Pass
		5240	-0.25	/	-0.25	17	Pass
	Chain 1	5180	-1.41	/	-1.41	17	Pass
		5200	-1.68	/	-1.68	17	Pass
		5240	-1.20	/	-1.20	17	Pass
	Chain 0+Chain 1	5180	2.63	/	2.63	17	Pass
		5200	2.56	/	2.56	17	Pass
		5240	2.31	/	2.31	17	Pass
802.11ax40 RU_Full	Chain 0	5190	-2.39	/	-2.39	17	Pass
		5230	-2.85	/	-2.85	17	Pass
	Chain 1	5190	-4.12	/	-4.12	17	Pass
		5230	-4.16	/	-4.16	17	Pass
	Chain 0+Chain 1	5190	-0.16	/	-0.16	17	Pass
		5230	-0.45	/	-0.45	17	Pass
802.11ax80 RU_Full	Chain 0	5210	-7.49	/	-7.49	17	Pass
	Chain 1	5210	-9.32	/	-9.32	17	Pass
	Chain 0+Chain 1	5210	-5.3	/	-5.3	17	Pass

Note:

1. Result = Reading + Duty Cycle Factor

2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01:

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the k_{th} antenna is being fed by spatial stream j , or zero if it is not;

G_k is the gain in dBi of the k_{th} antenna.

Chain 0 Gain:	1.87	dBi	Directional gain:	4.92	dBi
Chain 1 Gain:	1.94	dBi			

5725-5850MHz

Mode	Antenna	Test Frequency (MHz)	Reading (dBm/500kHz)	Duty Cycle Factor(dB)	Result (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
802.11a	Chain 0	5745	-5.85	/	-5.85	30	Pass
		5785	-6.16	/	-6.16	30	Pass
		5825	-6.24	/	-6.24	30	Pass
	Chain 1	5745	-7.65	/	-7.65	30	Pass
		5785	-6.96	/	-6.96	30	Pass
		5825	-6.26	/	-6.26	30	Pass
	Chain 0+Chain 1	5745	-3.65	/	-3.65	30	Pass
		5785	-3.53	/	-3.53	30	Pass
		5825	-3.24	/	-3.24	30	Pass
802.11ac20	Chain 0	5745	-6.99	/	-6.99	30	Pass
		5785	-7.08	/	-7.08	30	Pass
		5825	-7.30	/	-7.30	30	Pass
	Chain 1	5745	-9.28	/	-9.28	30	Pass
		5785	-8.85	/	-8.85	30	Pass
		5825	-7.93	/	-7.93	30	Pass
	Chain 0+Chain 1	5745	-4.98	/	-4.98	30	Pass
		5785	-4.87	/	-4.87	30	Pass
		5825	-4.59	/	-4.59	30	Pass
802.11ac40	Chain 0	5755	-10.12	/	-10.12	30	Pass
		5795	-10.01	/	-10.01	30	Pass
	Chain 1	5755	-11.14	/	-11.14	30	Pass
		5795	-11.05	/	-11.05	30	Pass
	Chain 0+Chain 1	5755	-7.59	/	-7.59	30	Pass
		5795	-7.49	/	-7.49	30	Pass
802.11ac80	Chain 0	5775	-14.54	/	-14.54	30	Pass
	Chain 1	5775	-15.29	/	-15.29	30	Pass
	Chain 0+Chain 1	5775	-11.89	/	-11.89	30	Pass

Mode	Antenna	Test Frequency (MHz)	Reading (dBm/500kHz)	Duty Cycle Factor(dB)	Result (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
802.11ax20_RU_Full	Chain 0	5745	-7.37	/	-7.37	30	Pass
		5785	-7.62	/	-7.62	30	Pass
		5825	-8.04	/	-8.04	30	Pass
	Chain 1	5745	-9.69	/	-9.69	30	Pass
		5785	-8.59	/	-8.59	30	Pass
		5825	-8.22	/	-8.22	30	Pass
	Chain 0+Chain 1	5745	-5.37	/	-5.37	30	Pass
		5785	-5.07	/	-5.07	30	Pass
		5825	-5.12	/	-5.12	30	Pass
802.11ax40_RU_Full	Chain 0	5755	-10.04	/	-10.04	30	Pass
		5795	-10.27	/	-10.27	30	Pass
	Chain 1	5755	-11.68	/	-11.68	30	Pass
		5795	-10.57	/	-10.57	30	Pass
	Chain 0+Chain 1	5755	-7.77	/	-7.77	30	Pass
		5795	-7.41	/	-7.41	30	Pass
802.11ax80_RU_Full	Chain 0	5775	-14.84	/	-14.84	30	Pass
	Chain 1	5775	-14.59	/	-14.59	30	Pass
	Chain 0+Chain 1	5775	-11.70	/	-11.70	30	Pass

Note:

1. Result = Reading + Duty Cycle Factor

2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01:

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

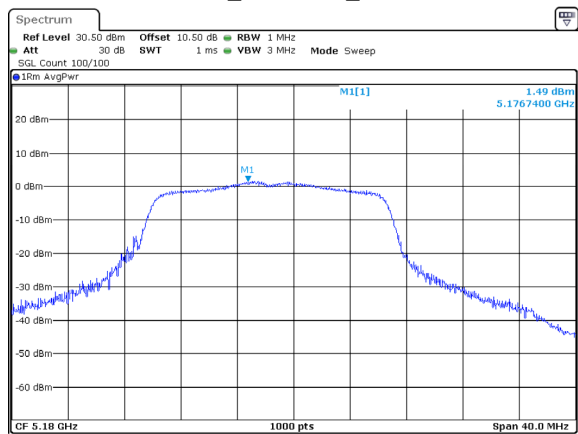
$g_{j,k} = 10^{G_k/20}$ if the k_{th} antenna is being fed by spatial stream j , or zero if it is not;

G_k is the gain in dBi of the k_{th} antenna.

Chain 0 Gain:	2.02	dBi	Directional gain:	4.70	dBi
Chain 1 Gain:	1.35	dBi			

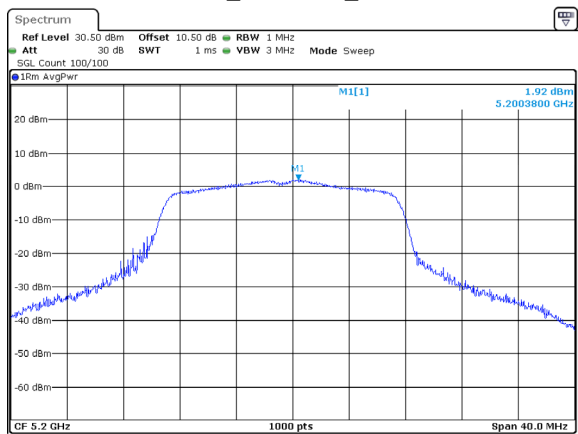
5150-5250MHz

802.11a_5180MHz_Chain 0



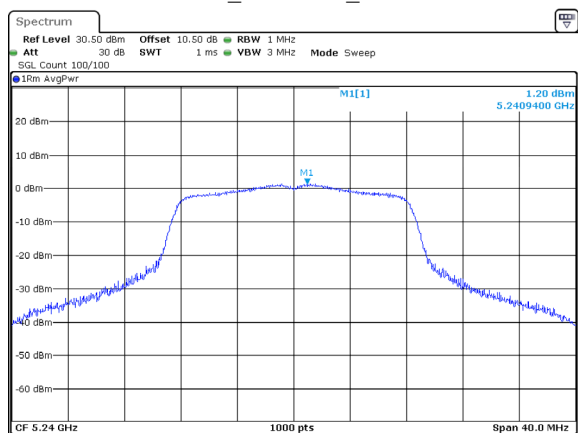
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802.11a_5200MHz_Chain 0



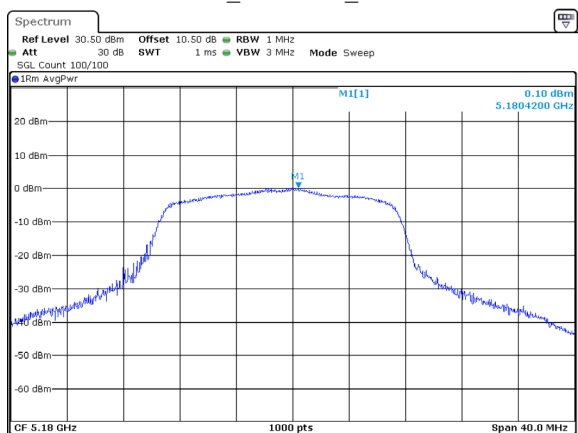
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802.11a_5240MHz_Chain 0



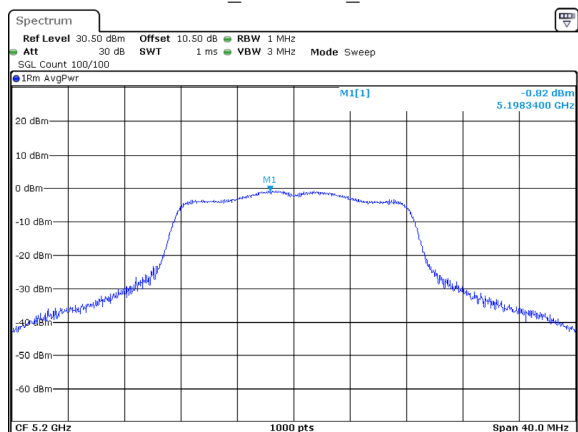
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802.11a_5180MHz_Chain 1



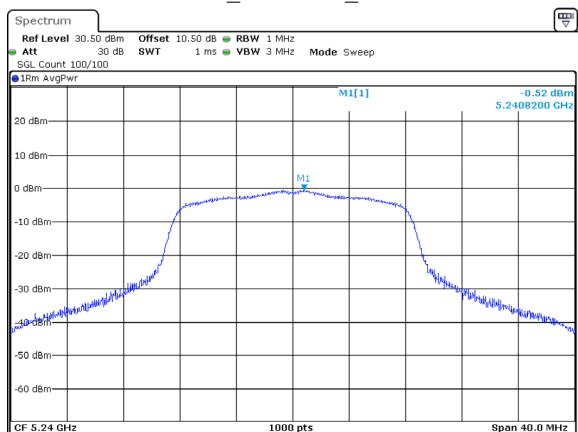
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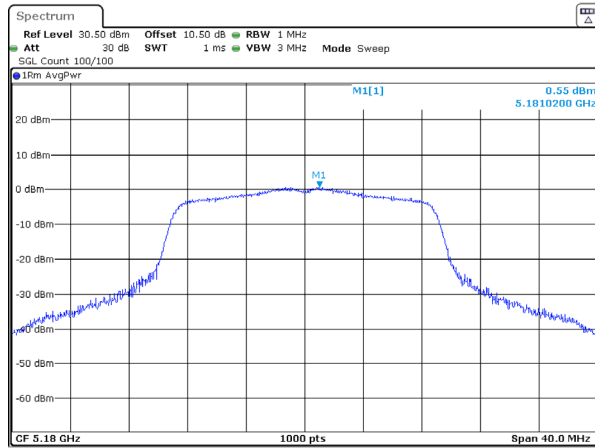
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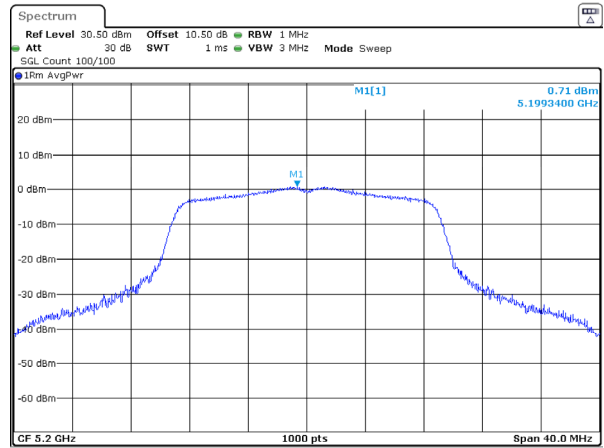
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802.11ac20_5180MHz_Chain 0



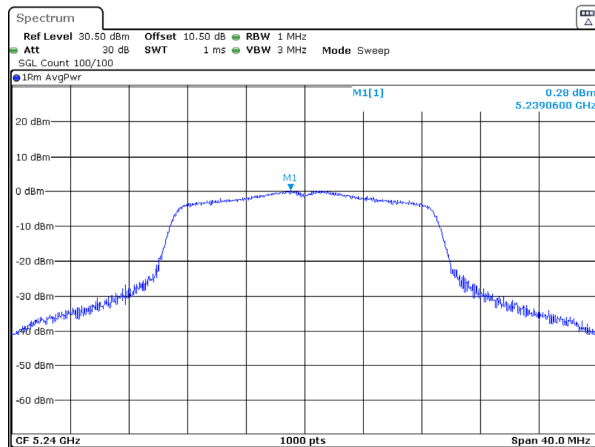
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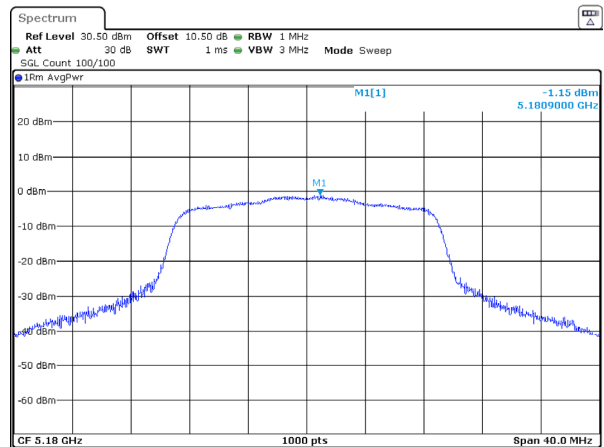
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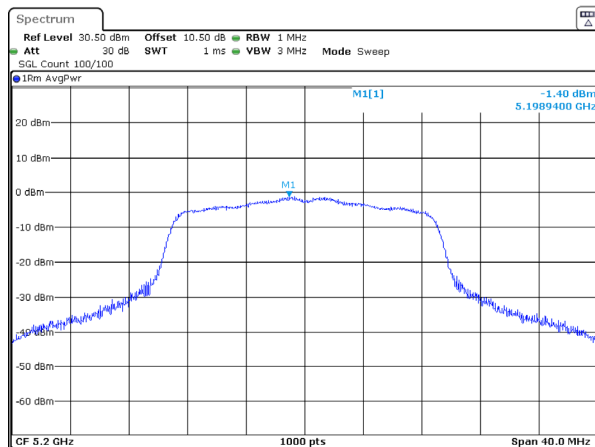
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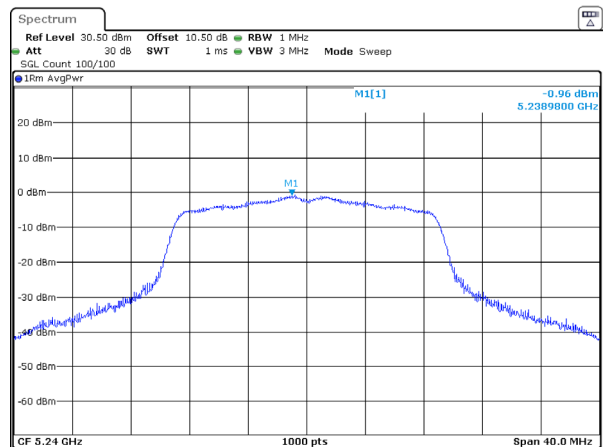
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802.11ac20_5200MHz_Chain 1



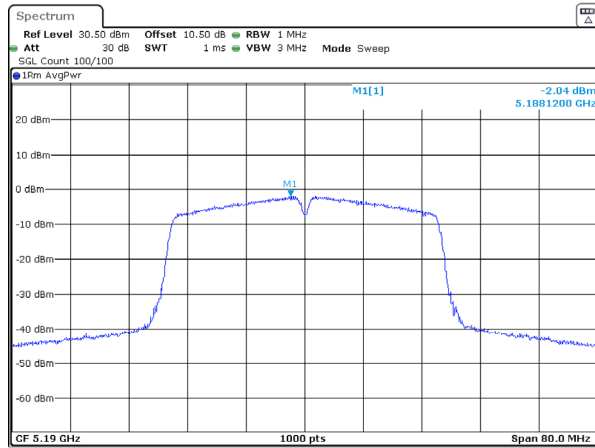
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802.11ac20_5240MHz_Chain 1



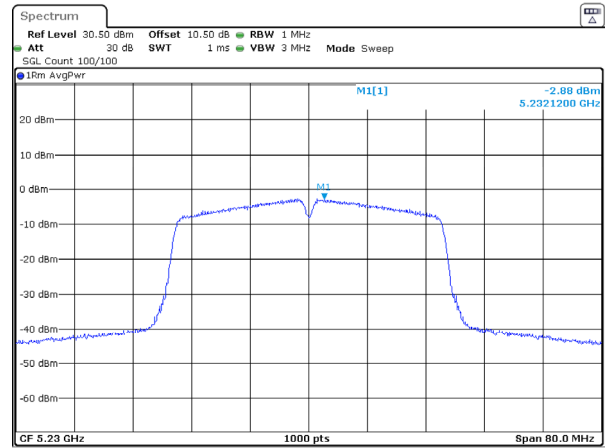
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802.11ac40_5190MHz_Chain 0



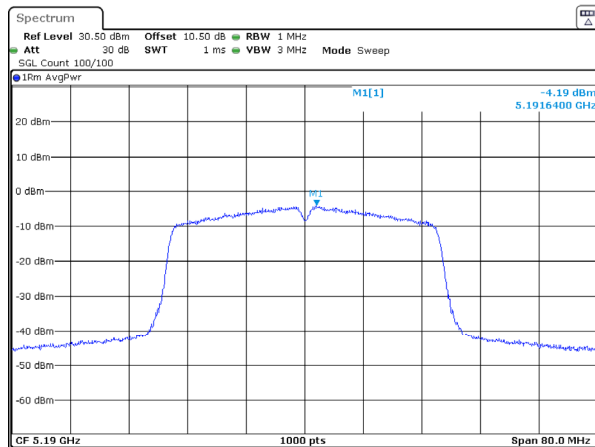
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802.11ac40_5230MHz_Chain 0



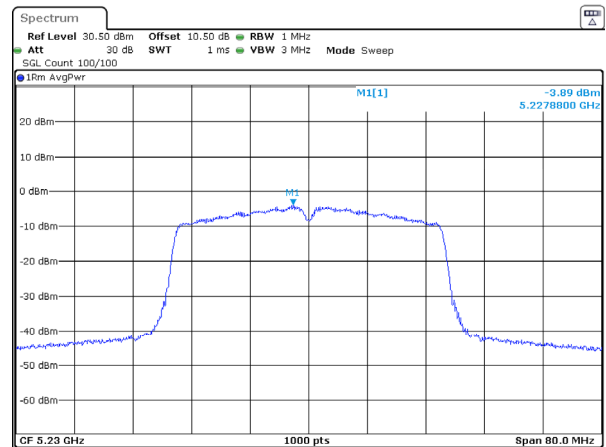
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802.11ac40_5190MHz_Chain 1



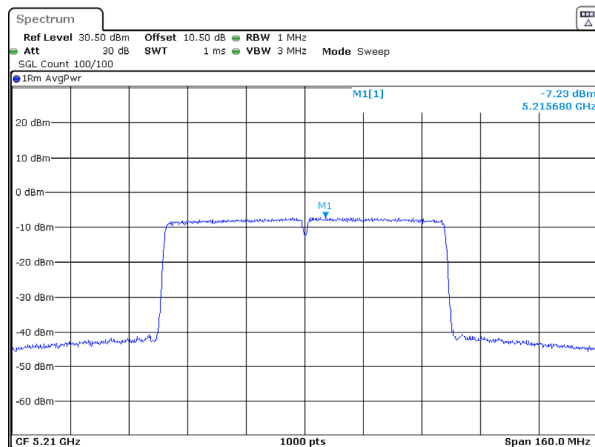
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802.11ac40_5230MHz_Chain 1



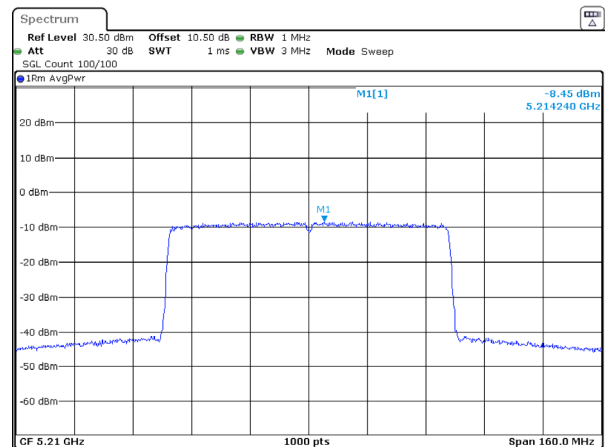
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802.11ac80_5210MHz_Chain 0



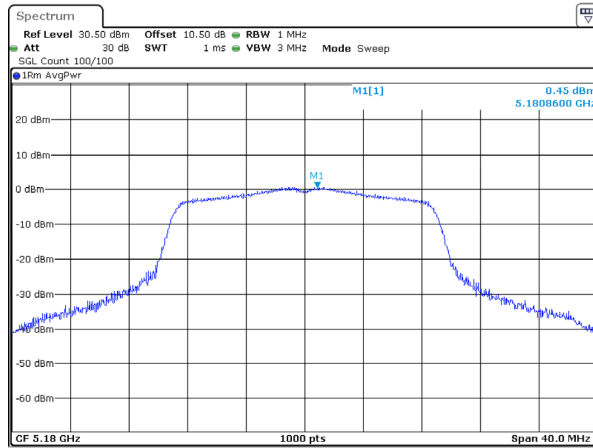
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802.11ac80_5210MHz_Chain 1

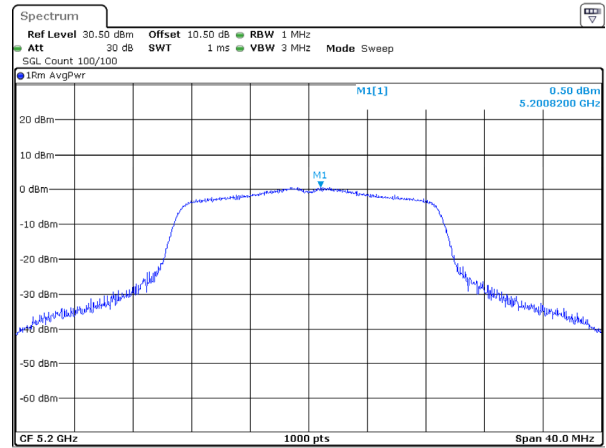


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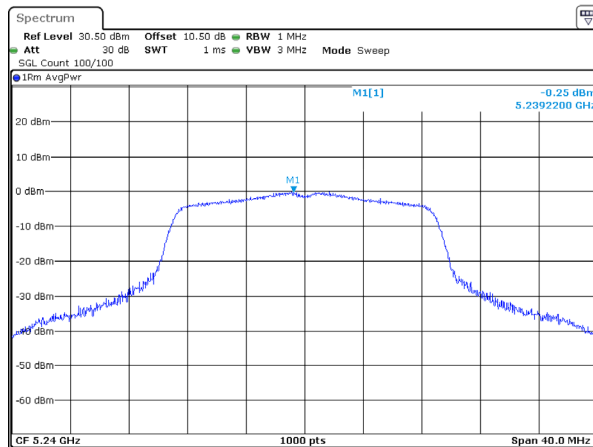
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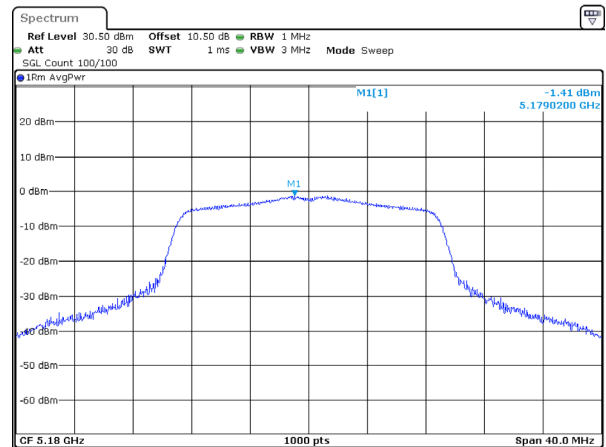
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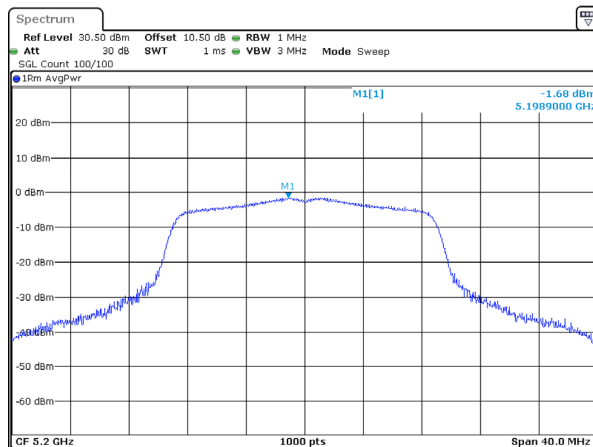
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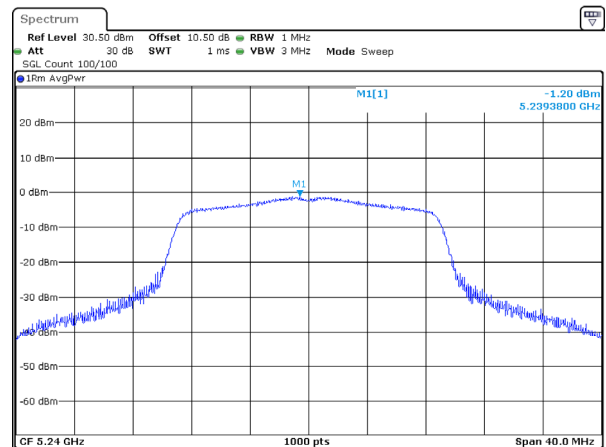
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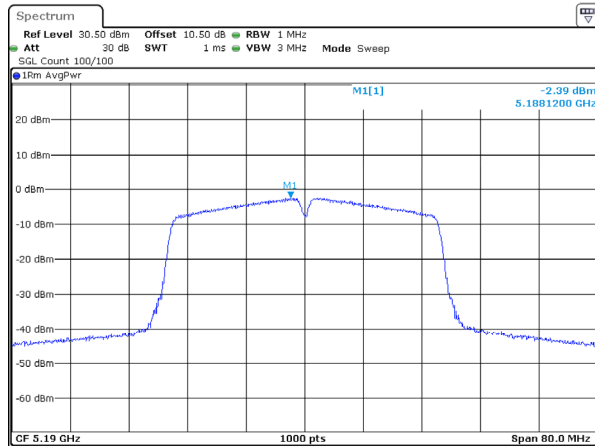
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802.11ax20_5240MHz_RU_Full_Chain 1

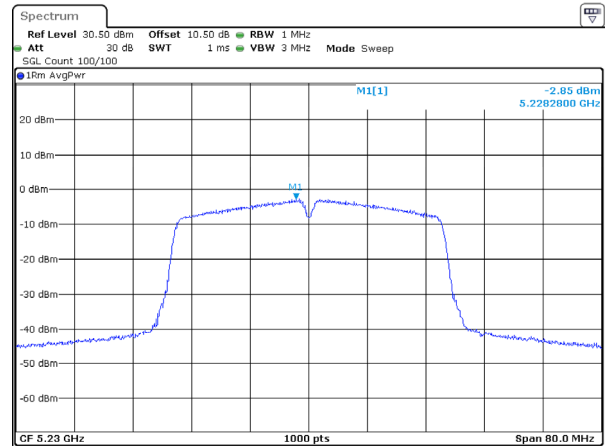


802.11ax40_5190MHz_RU_Full_Chain 0



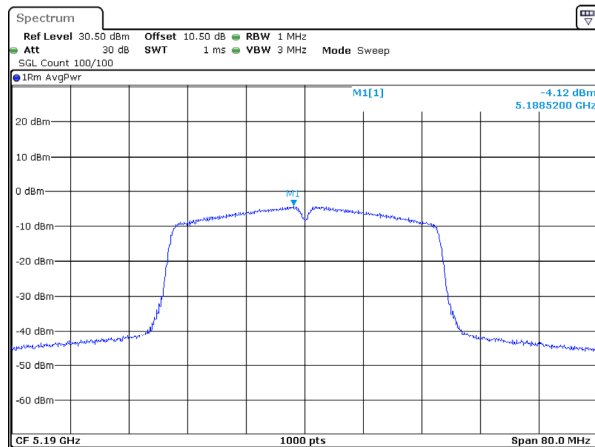
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802.11ax40_5230MHz_RU_Full_Chain 0



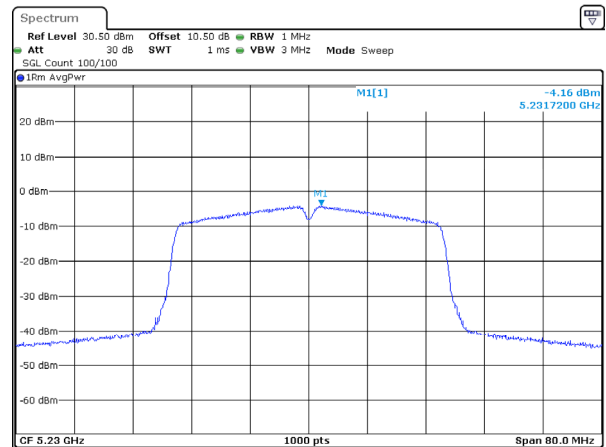
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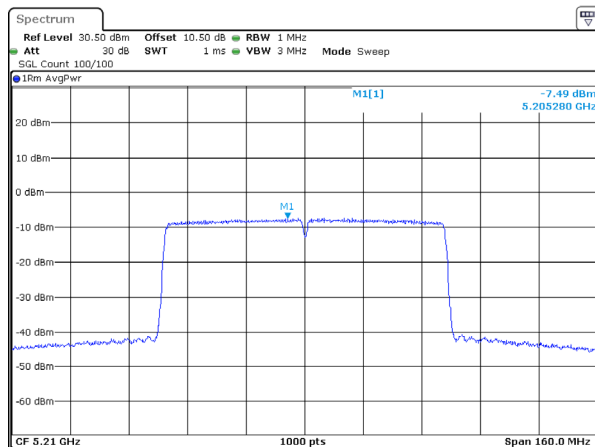
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802.11ax40_5230MHz_RU_Full_Chain 1



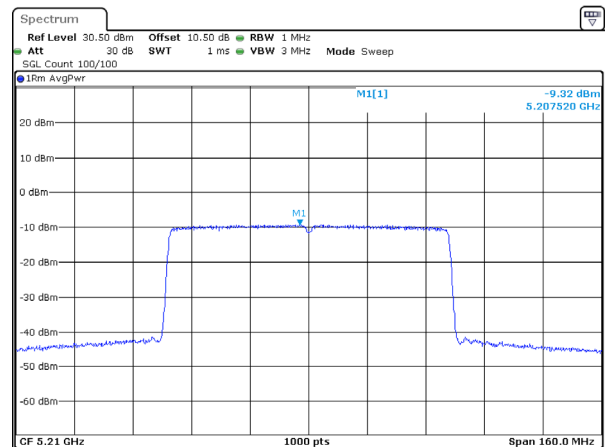
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802.11ax80_5210MHz_RU_Full_Chain 0



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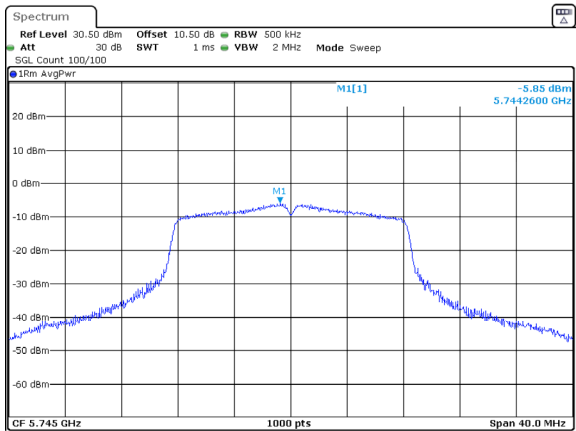
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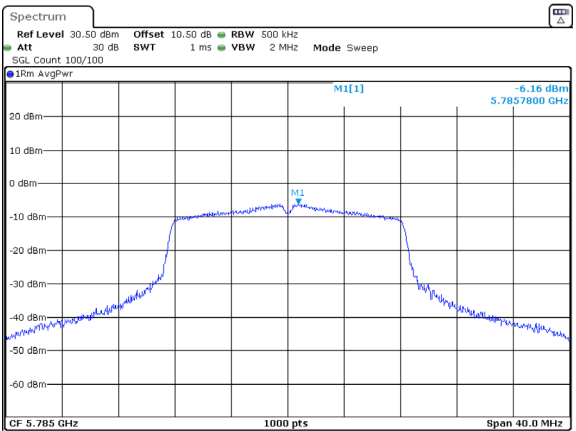
5725-5850MHz

802.11a_5745MHz_Chain 0



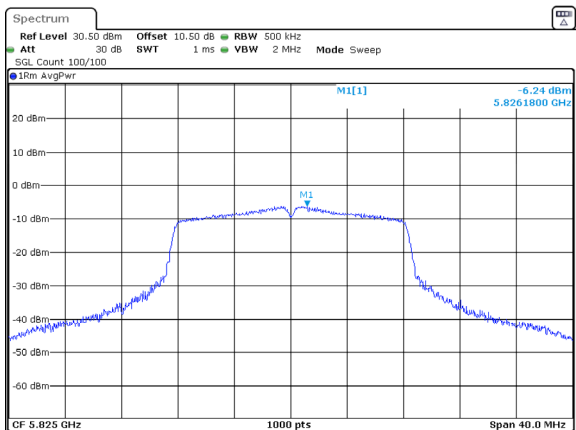
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802.11a_5785MHz_Chain 0



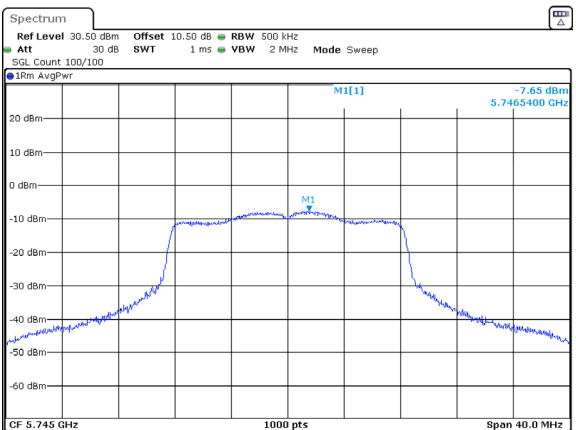
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802.11a_5825MHz_Chain 0



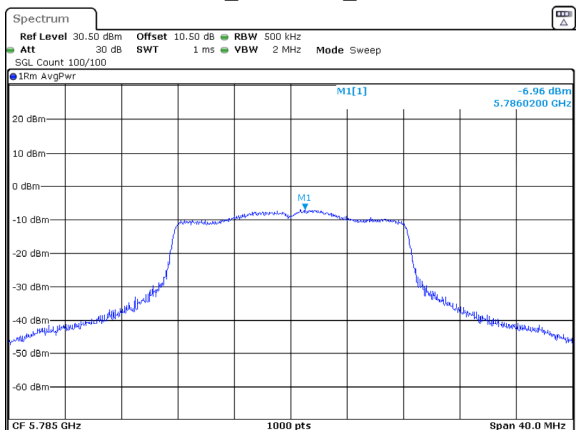
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802.11a_5745MHz_Chain 1



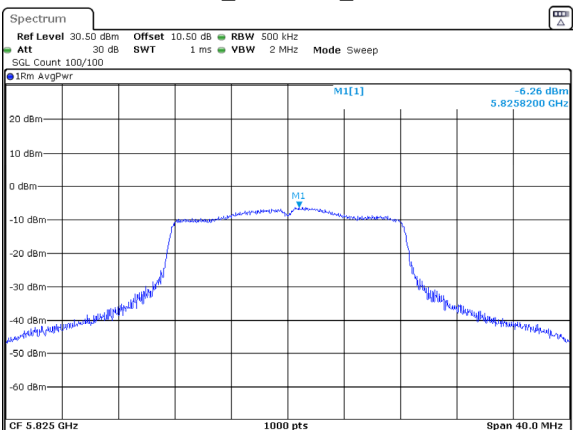
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802.11a_5785MHz_Chain 1



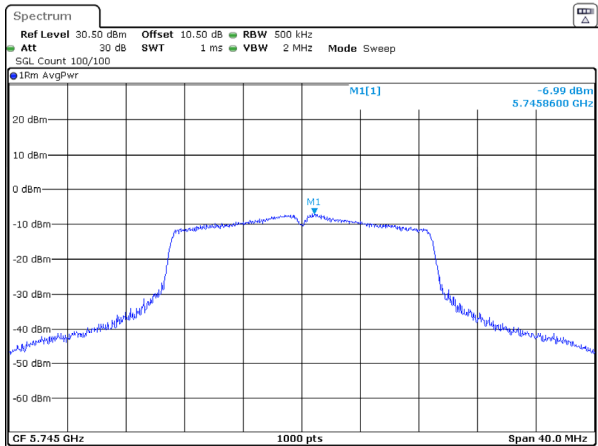
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802.11a_5825MHz_Chain 1



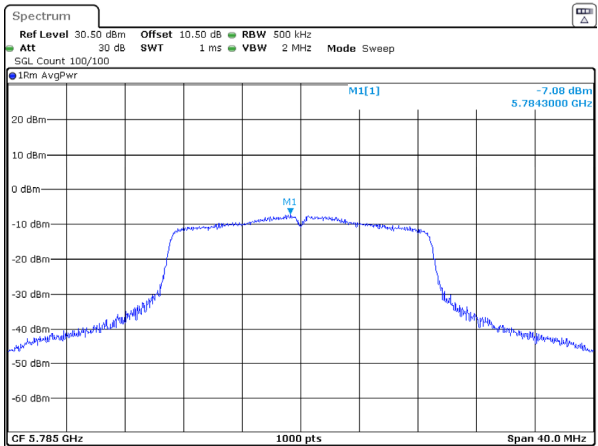
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802.11ac20_5745MHz_Chain 0



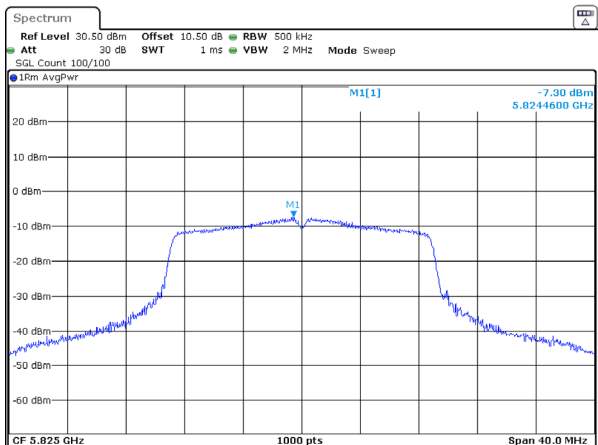
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Date: 16.APR.2025 23:29:06

802.11ac20_5785MHz_Chain 0



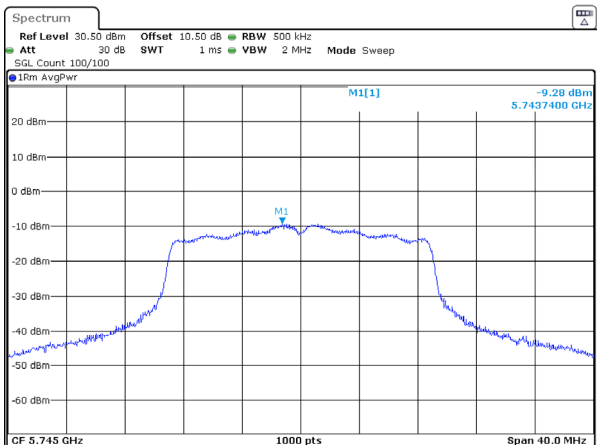
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 16.APR.2025 23:31:35

802.11ac20_5825MHz_Chain 0



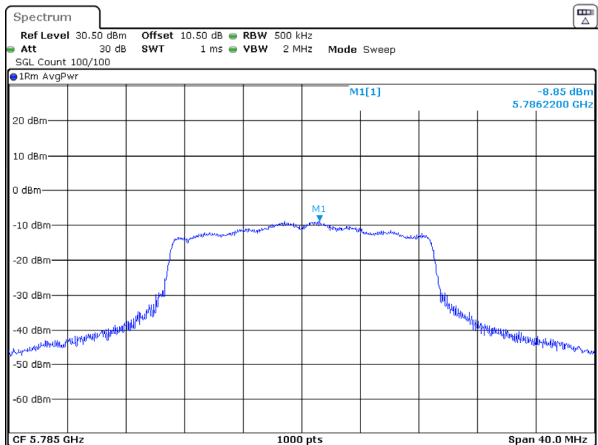
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 16.APR.2025 23:33:23

802.11ac20_5745MHz_Chain 1



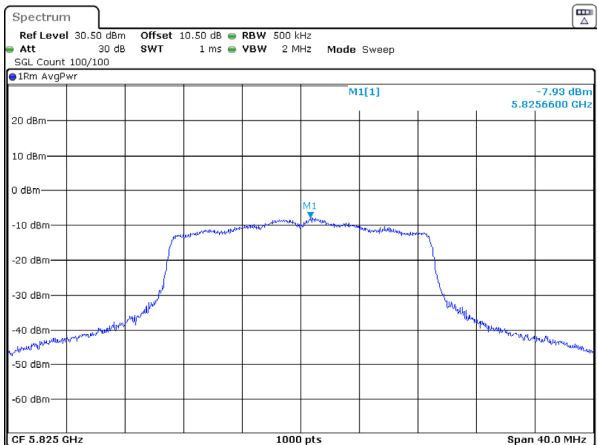
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 17.APR.2025 00:43:01

802.11ac20_5785MHz_Chain 1



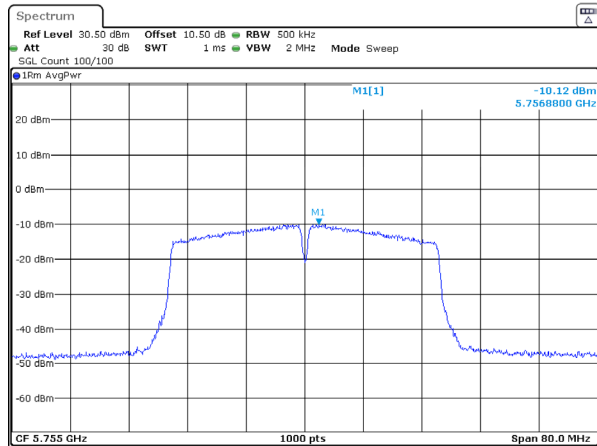
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 17.APR.2025 00:45:27

802.11ac20_5825MHz_Chain 1



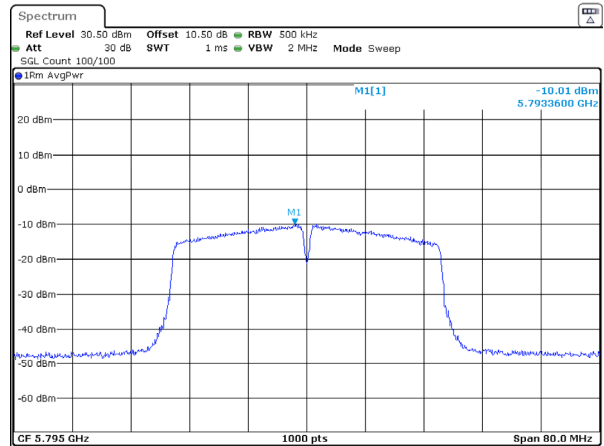
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 17.APR.2025 00:47:07

802.11ac40_5755MHz_Chain 0



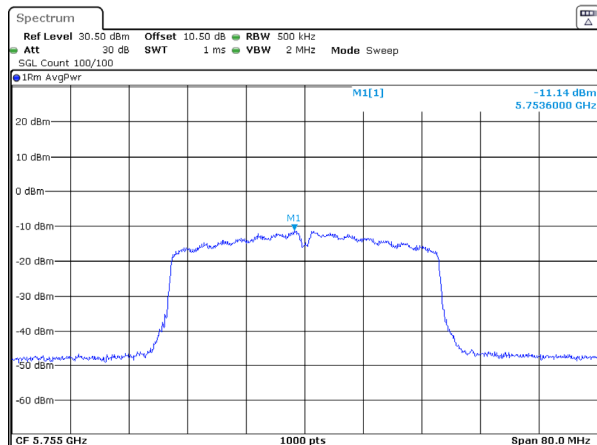
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 16.APR.2025 23:37:51

802.11ac40_5795MHz_Chain 0



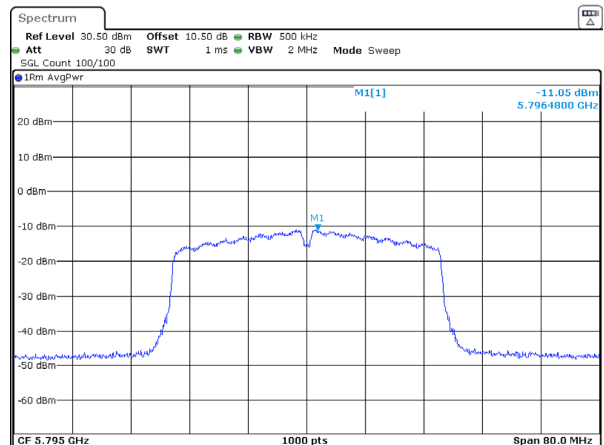
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 16.APR.2025 23:39:02

802.11ac40_5755MHz_Chain 1



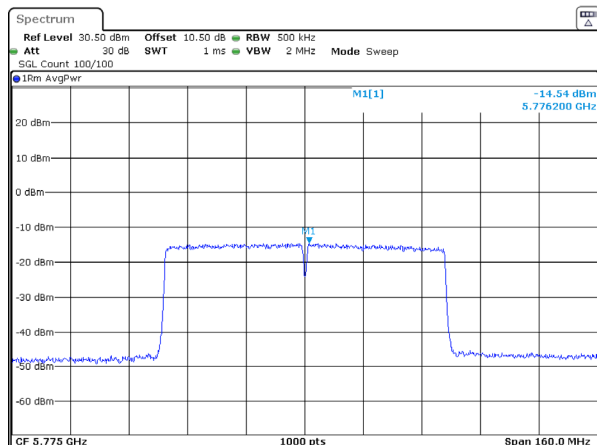
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 17.APR.2025 00:51:53

802.11ac40_5795MHz_Chain 1



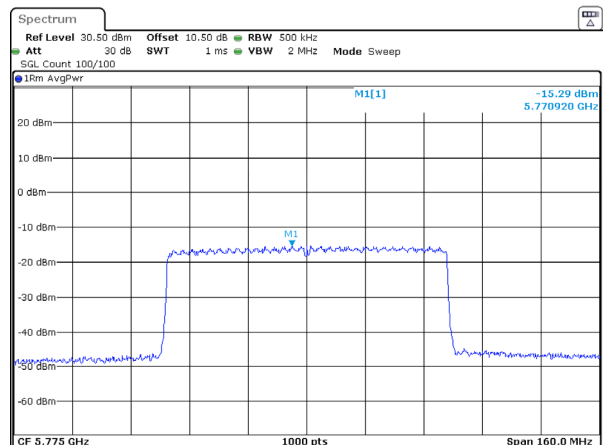
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 17.APR.2025 00:53:06

802.11ac80_5775MHz_Chain 0



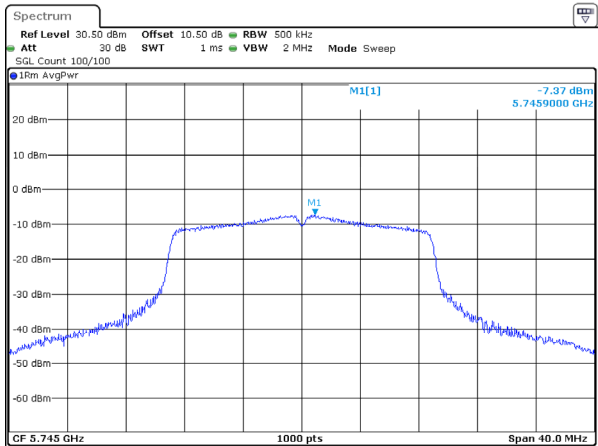
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 16.APR.2025 23:44:35

802.11ac80_5775MHz_Chain 1

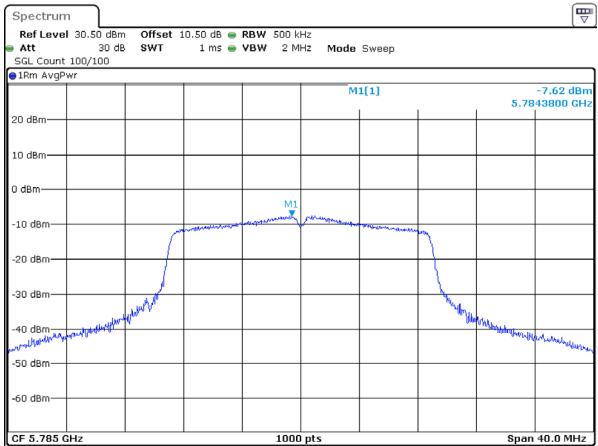


ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 17.APR.2025 00:54:36

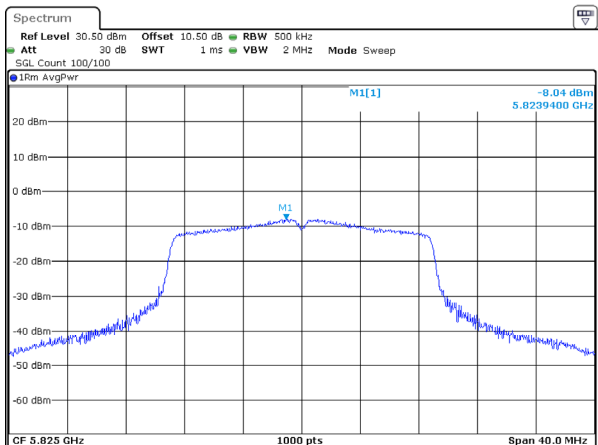
802.11ax20_5745MHz_RU_Full_Chain 0



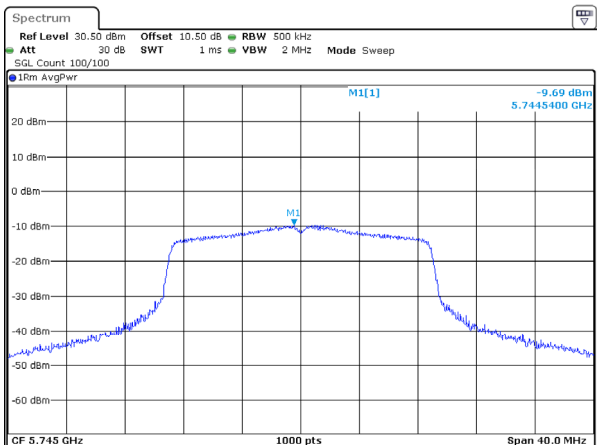
802.11ax20_5785MHz_RU_Full_Chain 0



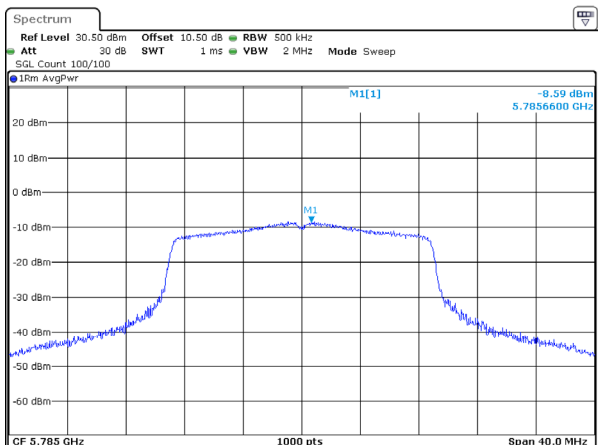
802.11ax20_5825MHz_RU_Full_Chain 0



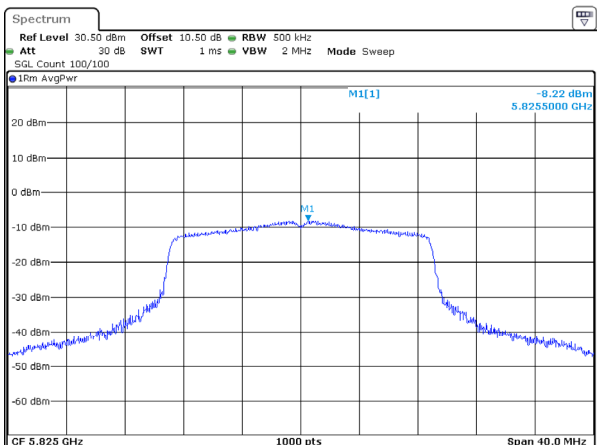
802.11ax20_5745MHz_RU_Full_Chain 1



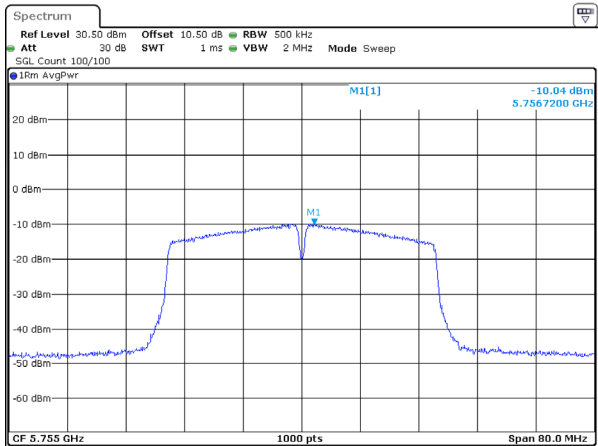
802.11ax20_5785MHz_RU_Full_Chain 1



802.11ax20_5825MHz_RU_Full_Chain 1

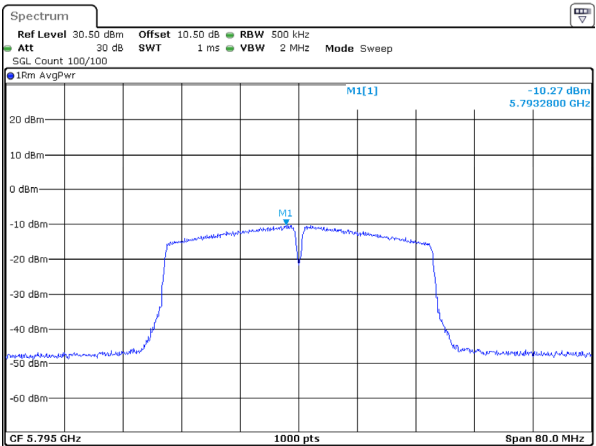


802.11ax40_5755MHz_RU_Full_Chain 0



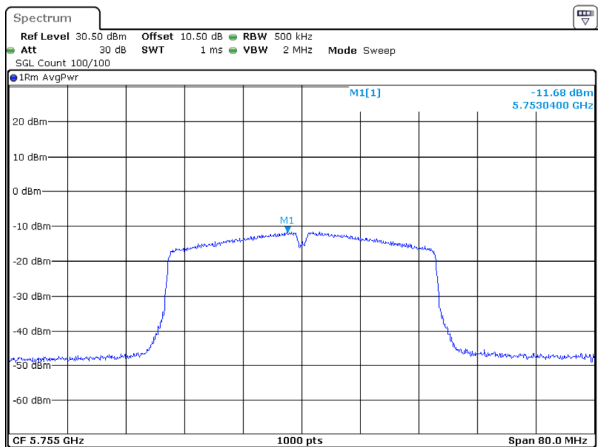
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 5.MAY.2025 11:25:10

802.11ax40_5795MHz_RU_Full_Chain 0



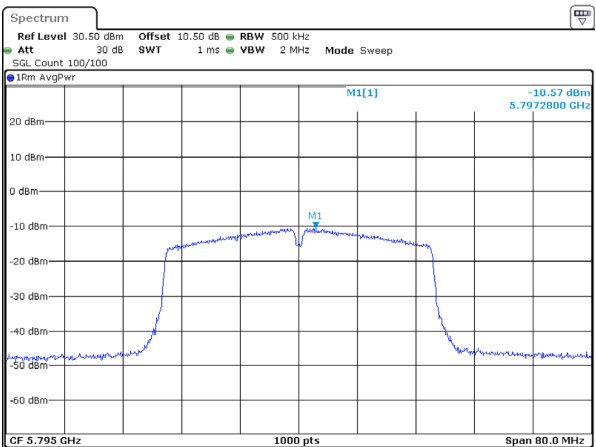
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 5.MAY.2025 11:26:30

802.11ax40_5755MHz_RU_Full_Chain 1



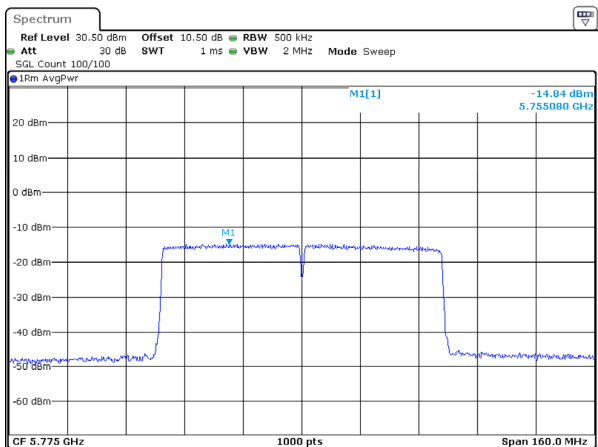
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 5.MAY.2025 11:52:29

802.11ax40_5795MHz_RU_Full_Chain 1



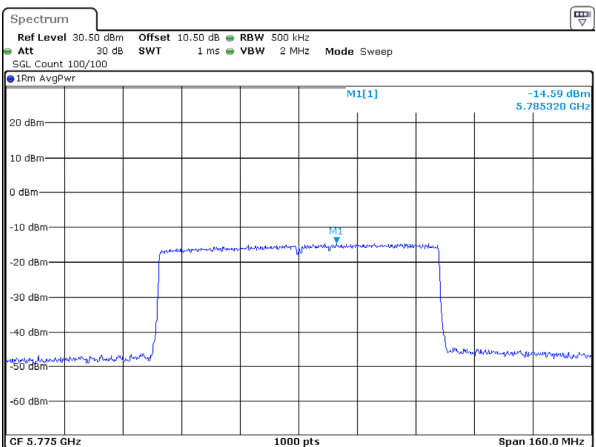
ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 5.MAY.2025 11:53:46

802.11ax80_5775MHz_RU_Full_Chain 0



ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 5.MAY.2025 11:28:28

802.11ax80_5775MHz_RU_Full_Chain 1



ProjectNo.:2501P42038E-RF Tester:Kungfumaater Liang
Date: 5.MAY.2025 11:55:25

Duty Cycle**Test Information:**

Sample No.:	306X-1	Test Date:	2025/04/15~2025/04/28
Test Site:	RF	Test Mode:	Transmitting
Tester:	Kungfumaster Liang	Test Result:	Pass

Environmental Conditions:

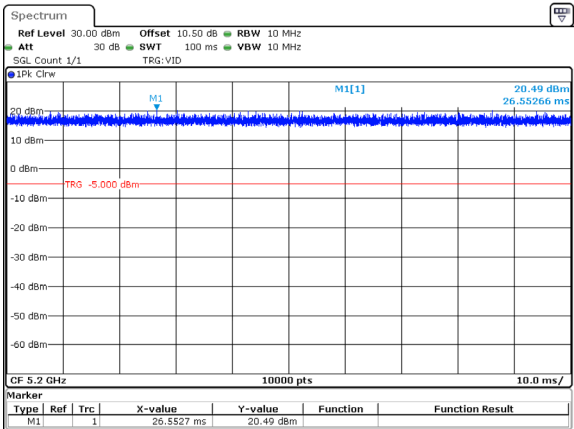
Temperature: (°C)	25.5-26.9	Relative Humidity: (%)	47-55	ATM Pressure: (kPa)	100.1~101
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Test Data:

Mode	Antenna	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11a	Chain 0	5200	100	100	100	NA	NA	0.010
802.11ac20	Chain 0	5200	100	100	100	NA	NA	0.010
802.11ac40	Chain 0	5190	100	100	100	NA	NA	0.010
802.11ac80	Chain 0	5210	100	100	100	NA	NA	0.010
802.11ax20_RU_Full	Chain 0	5200	100	100	100	NA	NA	0.010
802.11ax40_RU_Full	Chain 0	5190	100	100	100	NA	NA	0.010
802.11ax80_RU_Full	Chain 0	5210	100	100	100	NA	NA	0.010

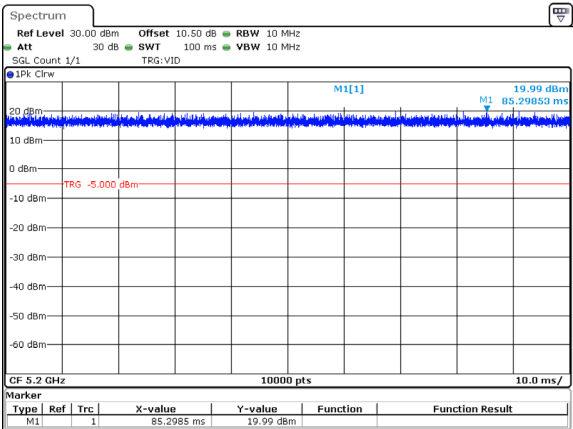
Duty Cycle = Ton/(Ton+Toff)*100%

802.11a_5200MHz_Chain 0



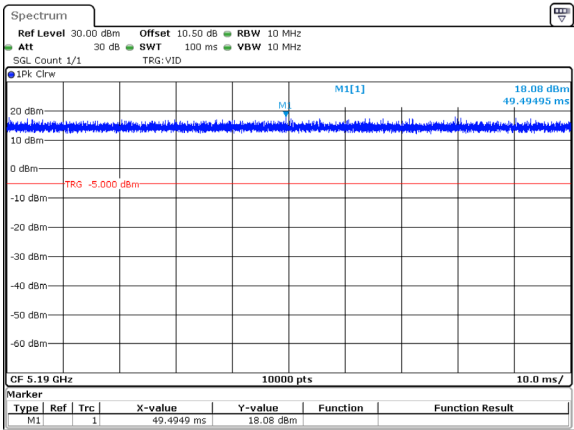
ProjectNo.:2501P42038E-RF Tester:Kungfumaster Liang
Date: 15.APR.2025 23:49:13

802.11ac20_5200MHz_Chain 0



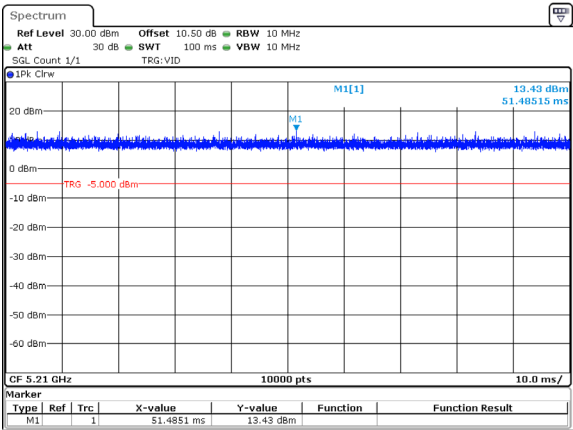
ProjectNo.:2501P42038E-RF Tester:Kungfumaster Liang
Date: 15.APR.2025 23:51:46

802.11ac40_5190MHz_Chain 0



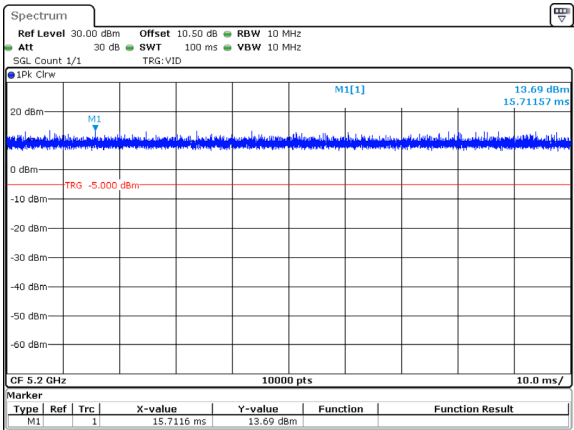
ProjectNo.:2501P42038E-RF Tester:Kungfumaster Liang
Date: 15.APR.2025 23:52:27

802.11ac80_5210MHz_Chain 0



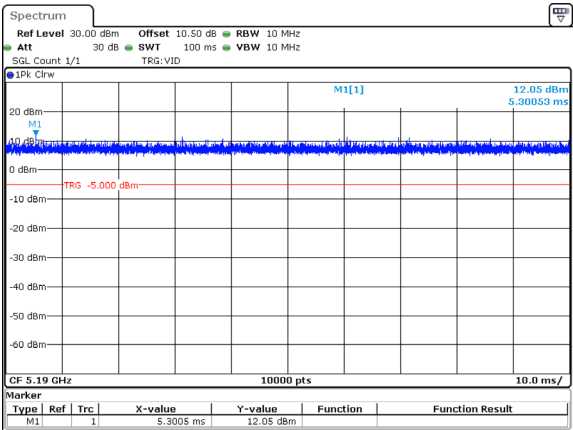
ProjectNo.:2501P42038E-RF Tester:Kungfumaster Liang
Date: 15.APR.2025 23:53:03

802.11ax20_5200MHz_RU_Full_Chain 0



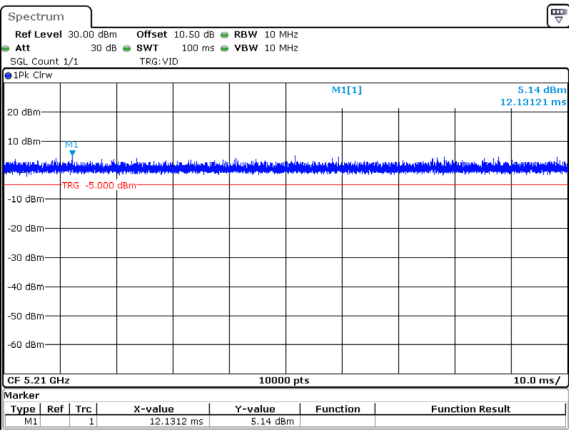
ProjectNo.:2501P42038E-RF Tester:Kungfumaster Liang
Date: 26.APR.2025 10:13:40

802.11ax40_5190MHz_RU_Full_Chain 0



ProjectNo.:2501P42038E-RF Tester:Kungfumaster Liang
Date: 26.APR.2025 10:15:05

802.11ax80_5210MHz_RU_Full_Chain 0



ProjectNo.:2501P42038E-RF Tester:Kungfumaster Liang
Date: 28.APR.2025 18:16:12

RF EXPOSURE EVALUATION

Applicable Standard

FCC§1.1310 and §2.1093.

Test Result

Compliance, please refer to the SAR report: 2501P42038E-SA.

EUT PHOTOGRAPHS

Please refer to the attachment 2501P42038E-RF External photo and 2501P42038E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2501P42038E-RF-00B Test Setup photo.

******* END OF REPORT *******