

6dB Emission Bandwidth**Test Information:**

Sample No.:	36VE-1	Test Date:	2025/08/15
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

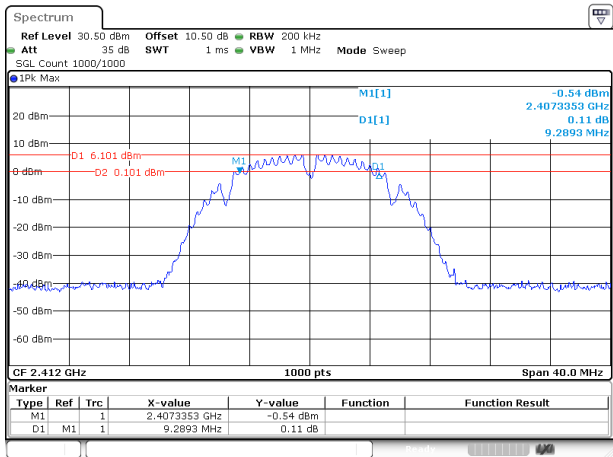
Environmental Conditions:

Temperature: (°C)	25.2	Relative Humidity: (%)	51	ATM Pressure: (kPa)	100.0
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Test Data:

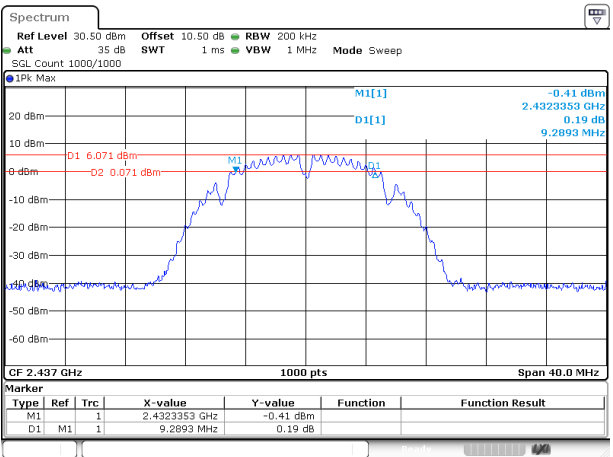
Mode	Test Frequency (MHz)	Result (MHz)	Limit (MHz)	Verdict
802.11b	2412	9.289	≥0.5	Pass
	2437	9.289	≥0.5	Pass
	2462	9.289	≥0.5	Pass
802.11g	2412	16.617	≥0.5	Pass
	2437	16.697	≥0.5	Pass
	2462	16.697	≥0.5	Pass
802.11n20	2412	17.938	≥0.5	Pass
	2437	17.818	≥0.5	Pass
	2462	17.898	≥0.5	Pass
802.11n40	2422	36.677	≥0.5	Pass
	2437	36.597	≥0.5	Pass
	2452	36.757	≥0.5	Pass
802.11ax20_RU_Full	2412	19.379	≥0.5	Pass
	2437	19.219	≥0.5	Pass
	2462	19.219	≥0.5	Pass
802.11ax40_RU_Full	2422	38.278	≥0.5	Pass
	2437	38.198	≥0.5	Pass
	2452	38.438	≥0.5	Pass

802.11b_2412MHz



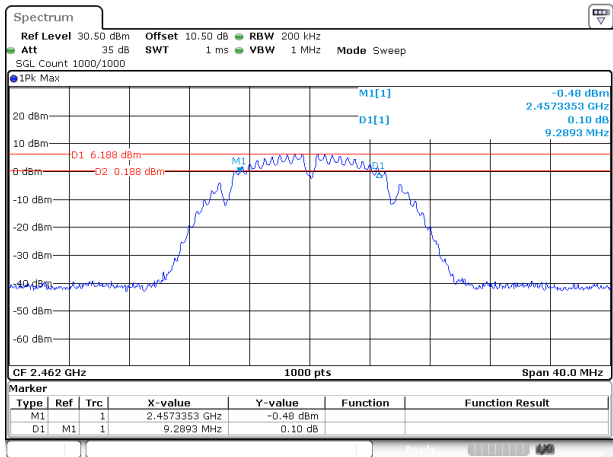
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:12:07

802.11b_2437MHz



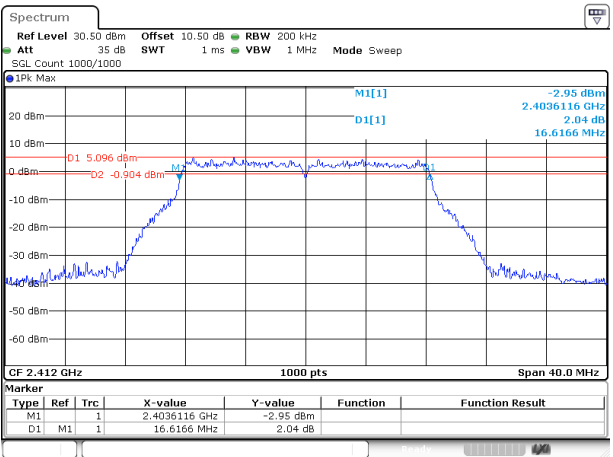
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:15:20

802.11b_2462MHz



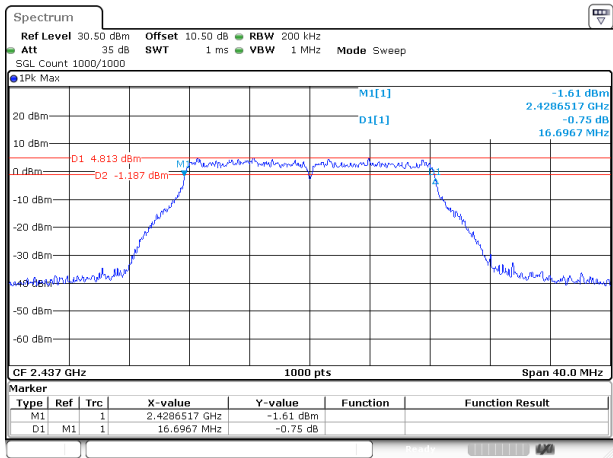
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:20:04

802.11g_2412MHz



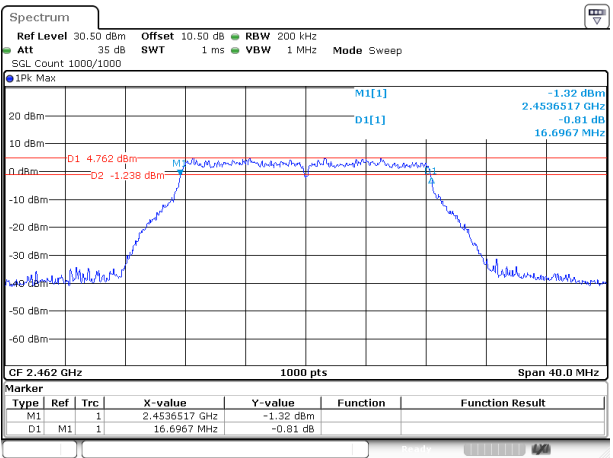
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:23:38

802.11g_2437MHz



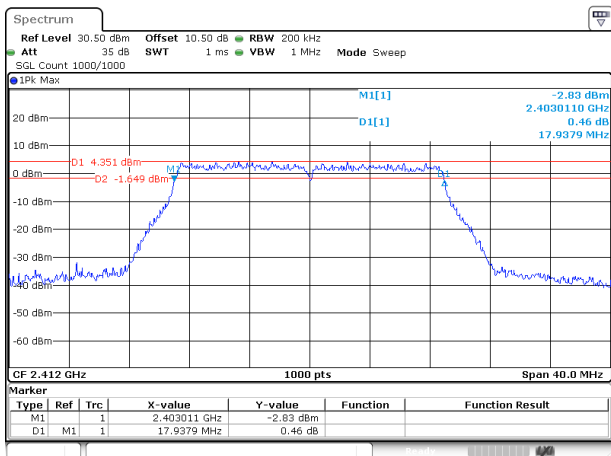
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:29:39

802.11g_2462MHz



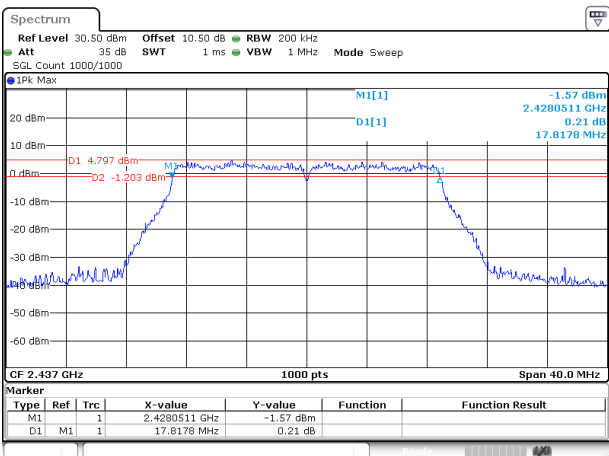
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:36:30

802.11n20_2412MHz



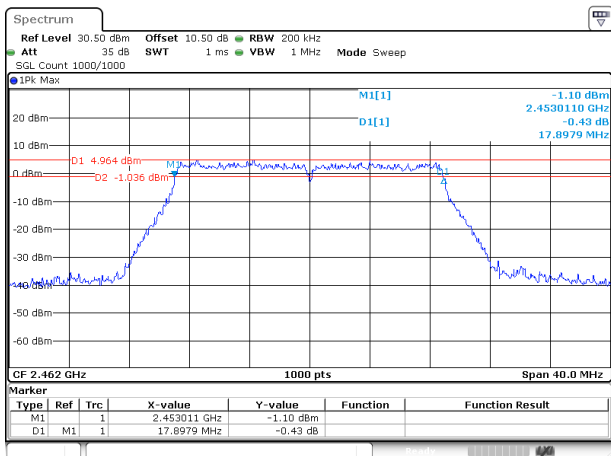
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:41:43

802.11n20_2437MHz



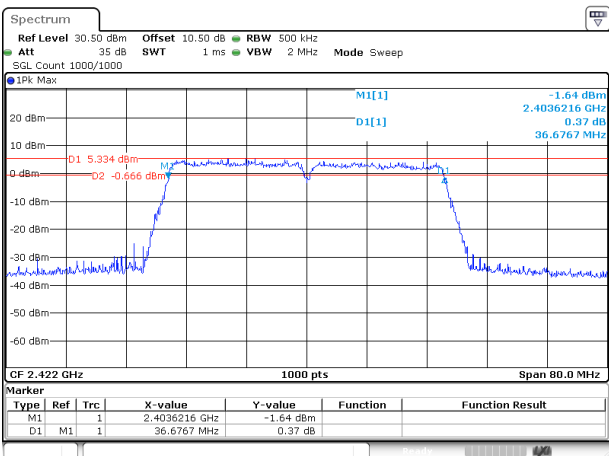
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:45:18

802.11n20_2462MHz



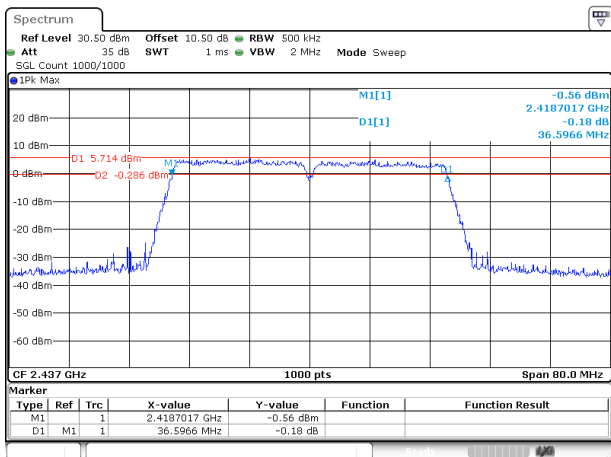
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:48:21

802.11n40_2422MHz



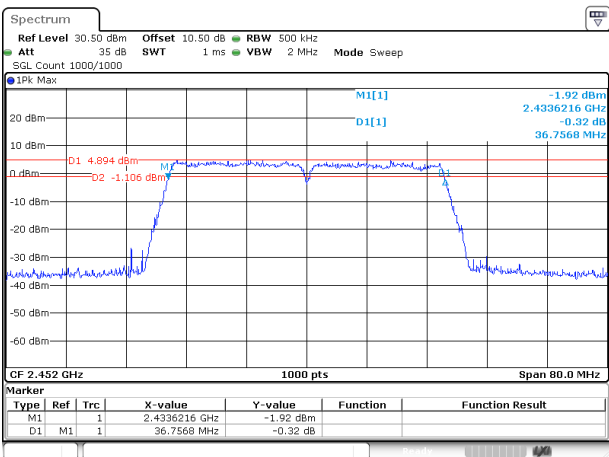
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:51:44

802.11n40_2437MHz



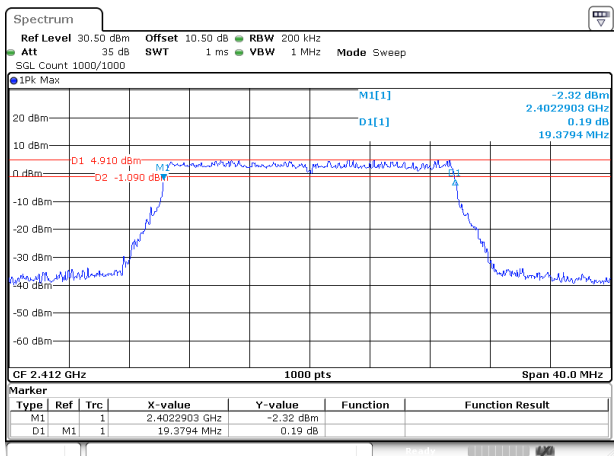
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:55:28

802.11n40_2452MHz



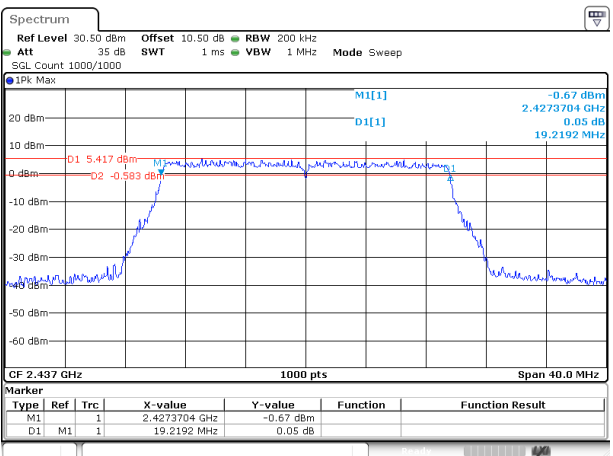
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:21:06

802.11ax20_2412MHz_RU_Full



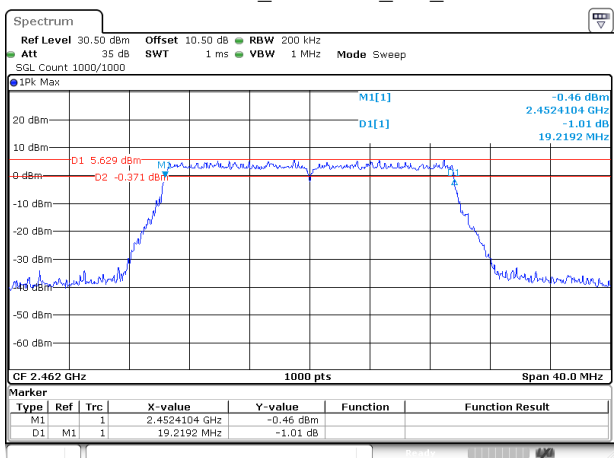
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:25:23

802.11ax20_2437MHz_RU_Full



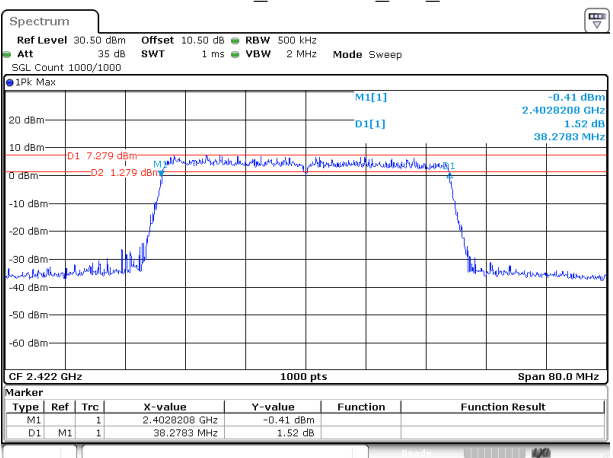
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:28:48

802.11ax20_2462MHz_RU_Full



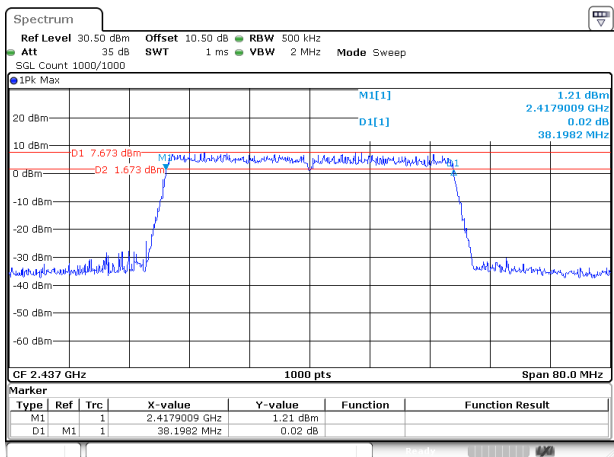
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:31:59

802.11ax40_2422MHz_RU_Full



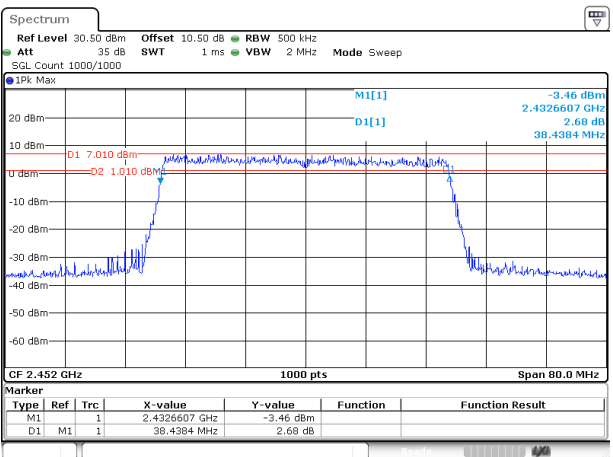
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:34:56

802.11ax40_2437MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:38:50

802.11ax40_2452MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 18:14:01

99% Occupied Bandwidth**Test Information:**

Sample No.:	36VE-1	Test Date:	2025/08/15
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	N/A

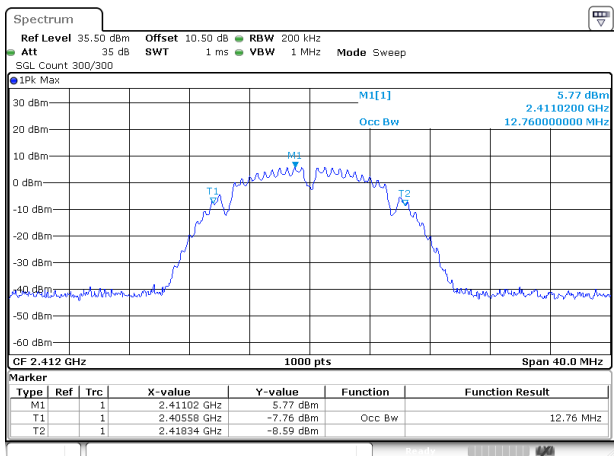
Environmental Conditions:

Temperature: (°C)	25.2	Relative Humidity: (%)	51	ATM Pressure: (kPa)	100.0
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Test Data:

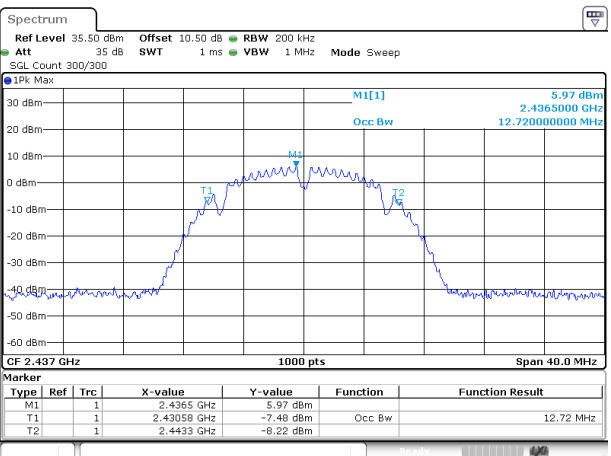
Mode	Test Frequency (MHz)	99% OBW (MHz)
802.11b	2412	12.760
	2437	12.720
	2462	12.760
802.11g	2412	16.840
	2437	16.800
	2462	16.840
802.11n20	2412	17.960
	2437	17.960
	2462	17.960
802.11n40	2422	36.560
	2437	36.560
	2452	36.560
802.11ax20_RU_Full	2412	19.120
	2437	19.120
	2462	19.080
802.11ax40_RU_Full	2422	37.920
	2437	37.920
	2452	37.920

802.11b_2412MHz



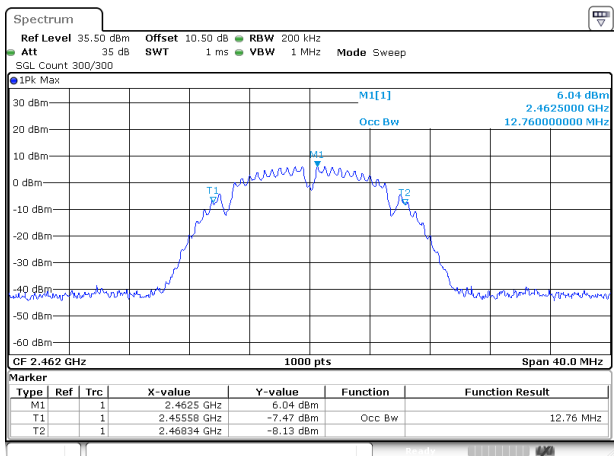
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:12:31

802.11b_2437MHz



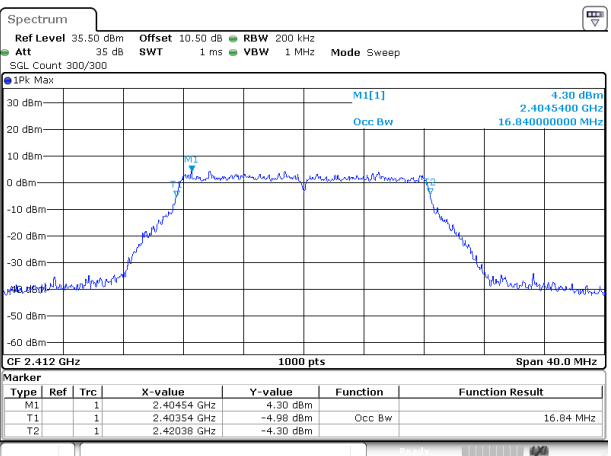
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:15:41

802.11b_2462MHz



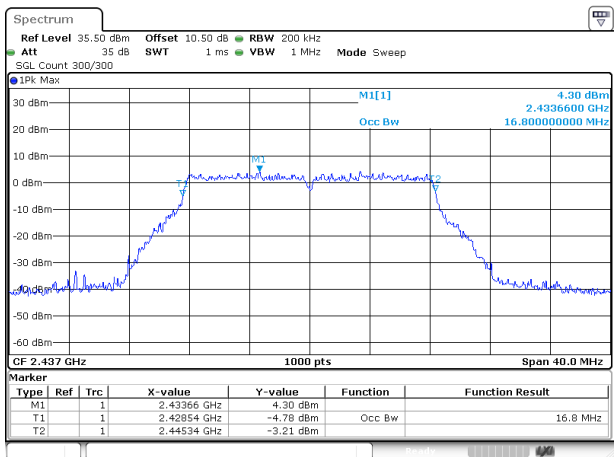
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:20:26

802.11g_2412MHz



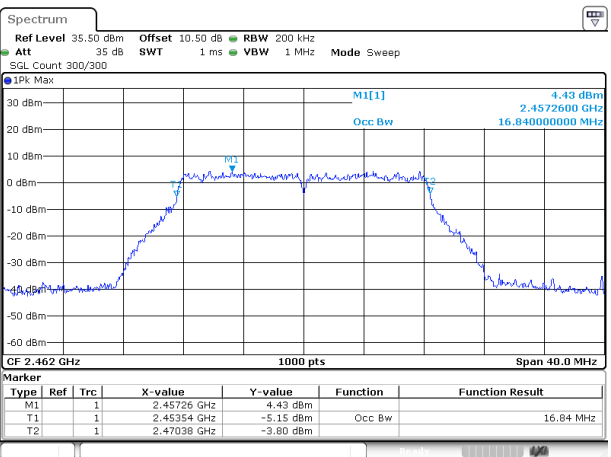
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:24:02

802.11g_2437MHz



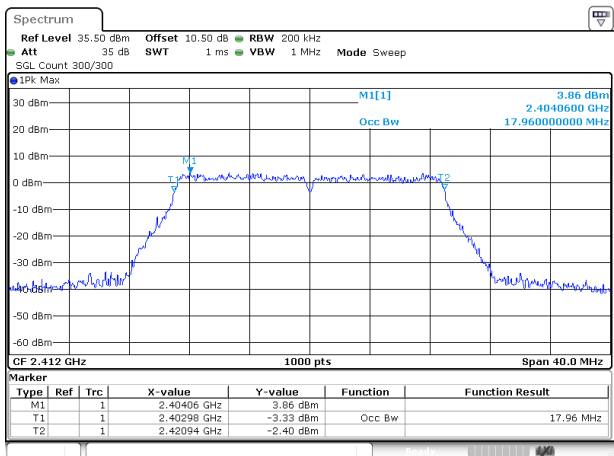
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:30:00

802.11g_2462MHz



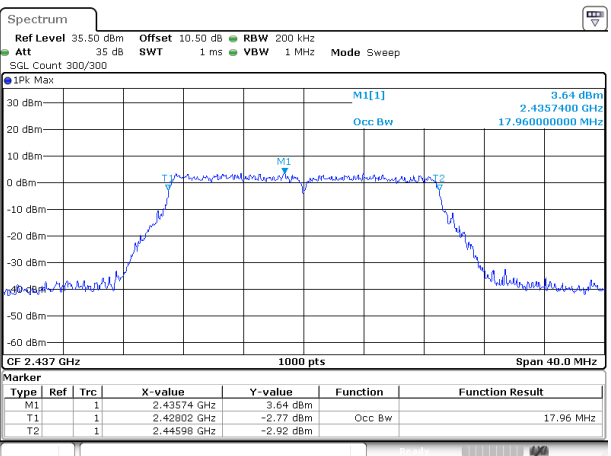
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:37:23

802.11n20_2412MHz



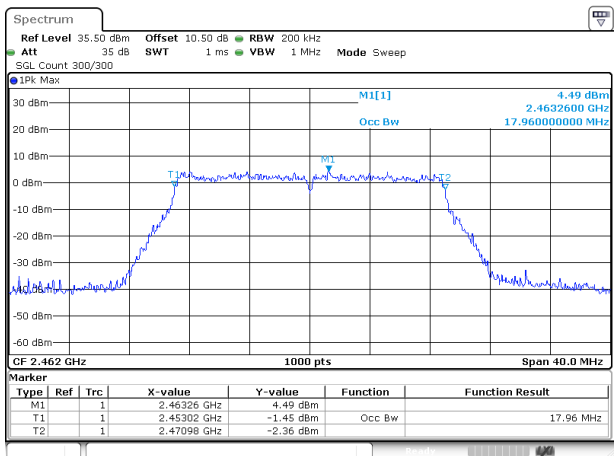
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:42:07

802.11n20_2437MHz



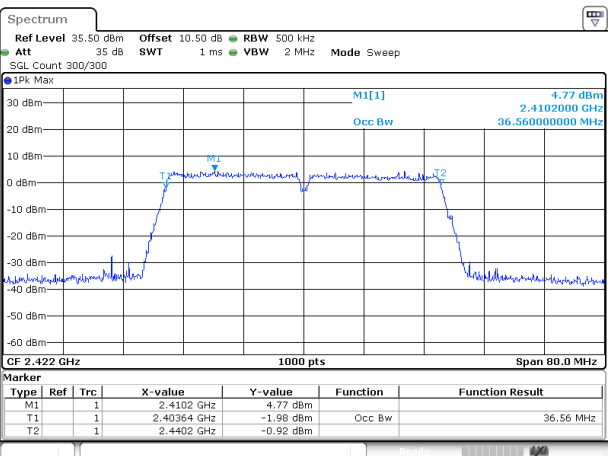
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:45:19

802.11n20_2462MHz



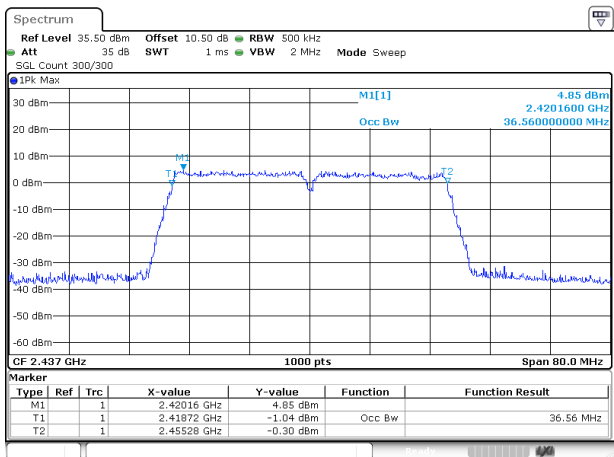
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:48:44

802.11n40_2422MHz



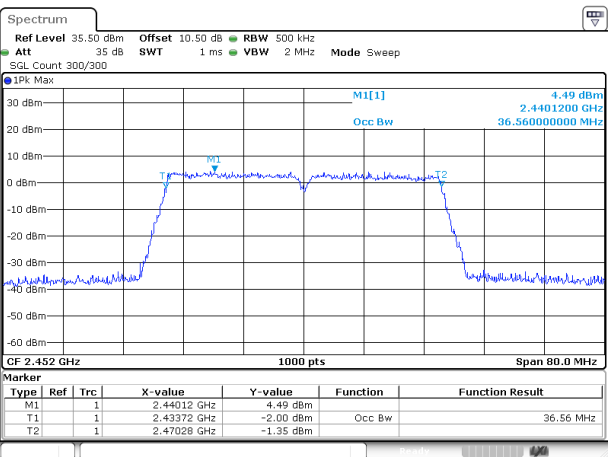
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:51:55

802.11n40_2437MHz



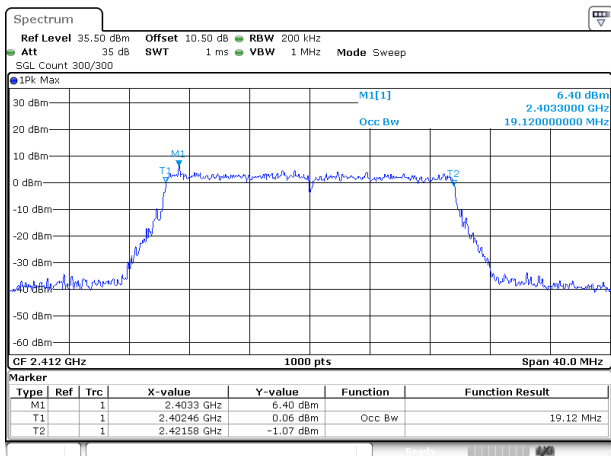
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:55:38

802.11n40_2452MHz



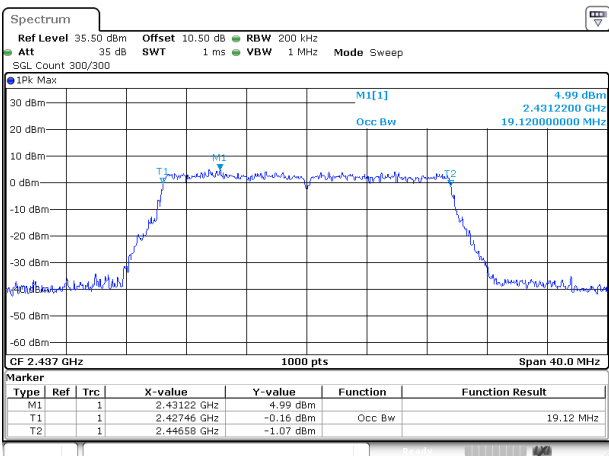
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:21:17

802.11ax20_2412MHz_RU_Full



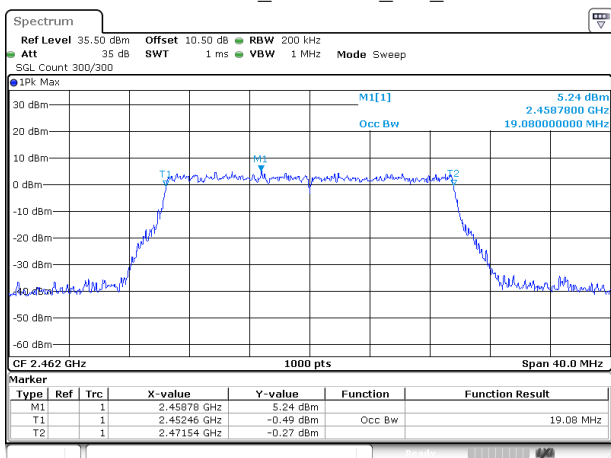
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:25:46

802.11ax20_2437MHz_RU_Full



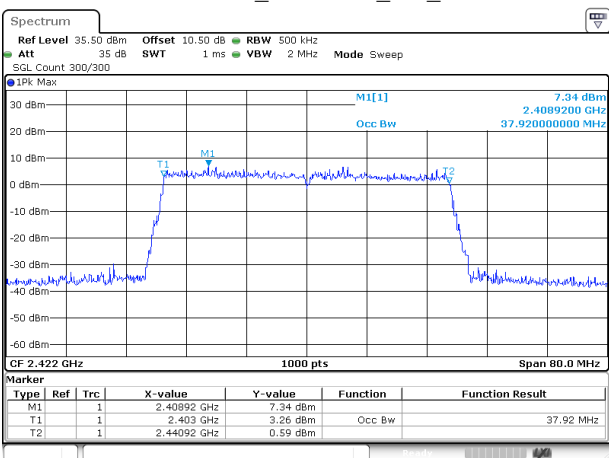
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:29:09

802.11ax20_2462MHz_RU_Full



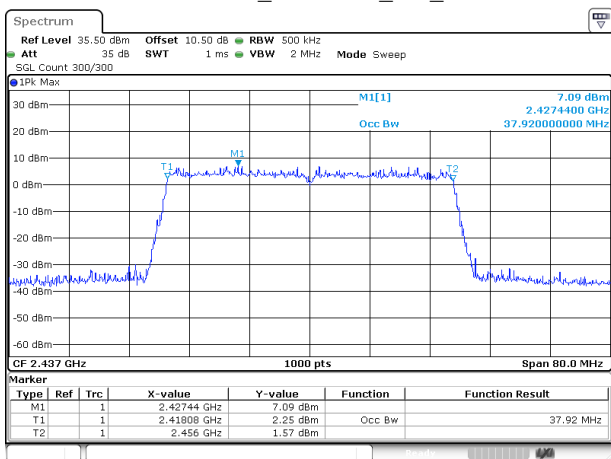
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:32:21

802.11ax40_2422MHz_RU_Full



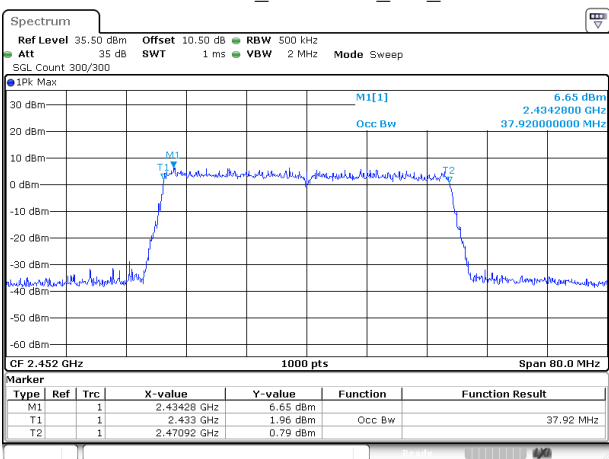
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:35:15

802.11ax40_2437MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:39:01

802.11ax40_2452MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 18:14:13

Maximum Conducted Output Power**Test Information:**

Sample No.:	36VE-1	Test Date:	2025/08/15
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.2	Relative Humidity: (%)	51	ATM Pressure: (kPa)	100.0
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Test Data:

Mode	Test Frequency (MHz)	Peak Output Power (dBm)	Average Output Power (dBm)	Limit (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit_IC (dBm)	Verdict
802.11b	2412	17.70	14.31	30	4	21.70	36	Pass
	2437	17.66	14.04	30	4	21.66	36	Pass
	2462	17.73	14.48	30	4	21.73	36	Pass
802.11g	2412	22.12	14.95	30	4	26.12	36	Pass
	2437	22.29	15.44	30	4	26.29	36	Pass
	2462	22.27	15.46	30	4	26.27	36	Pass
802.11n20	2412	22.22	15.37	30	4	26.22	36	Pass
	2437	22.31	15.22	30	4	26.31	36	Pass
	2462	22.49	15.29	30	4	26.49	36	Pass
802.11n40	2422	21.54	14.64	30	4	25.54	36	Pass
	2437	21.93	15.18	30	4	25.93	36	Pass
	2452	21.46	14.54	30	4	25.46	36	Pass
802.11ax20 _RU_Full	2412	22.84	15.39	30	4	26.84	36	Pass
	2437	22.84	15.49	30	4	26.84	36	Pass
	2462	22.93	15.70	30	4	26.93	36	Pass
802.11ax40 _RU_Full	2422	22.04	14.48	30	4	26.04	36	Pass
	2437	22.76	14.79	30	4	26.76	36	Pass
	2452	22.13	14.96	30	4	26.13	36	Pass

Power Spectral Density**Test Information:**

Sample No.:	36VE-1	Test Date:	2025/08/15
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

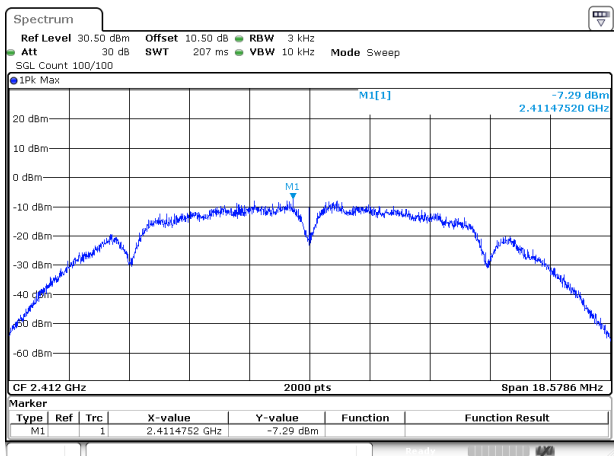
Environmental Conditions:

Temperature: (°C)	25.2	Relative Humidity: (%)	51	ATM Pressure: (kPa)	100.0
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Test Data:

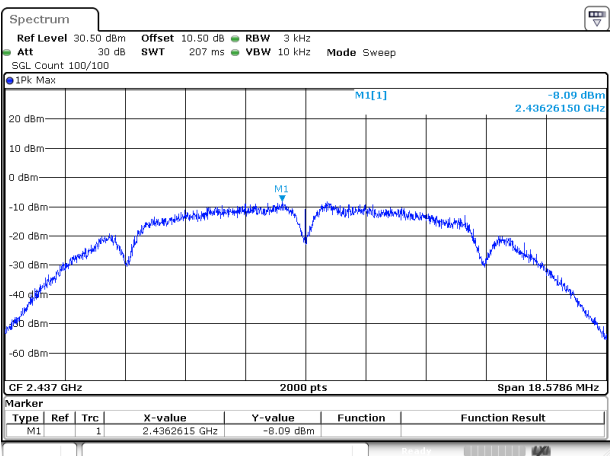
Mode	Test Frequency (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
802.11b	2412	-7.29	8	Pass
	2437	-8.09	8	Pass
	2462	-7.53	8	Pass
802.11g	2412	-9.55	8	Pass
	2437	-8.20	8	Pass
	2462	-9.32	8	Pass
802.11n20	2412	-9.59	8	Pass
	2437	-9.34	8	Pass
	2462	-9.11	8	Pass
802.11n40	2422	-12.99	8	Pass
	2437	-11.18	8	Pass
	2452	-13.08	8	Pass
802.11ax20_RU_Full	2412	-10.11	8	Pass
	2437	-10.04	8	Pass
	2462	-10.71	8	Pass
802.11ax40_RU_Full	2422	-13.82	8	Pass
	2437	-12.15	8	Pass
	2452	-13.29	8	Pass

802.11b_2412MHz



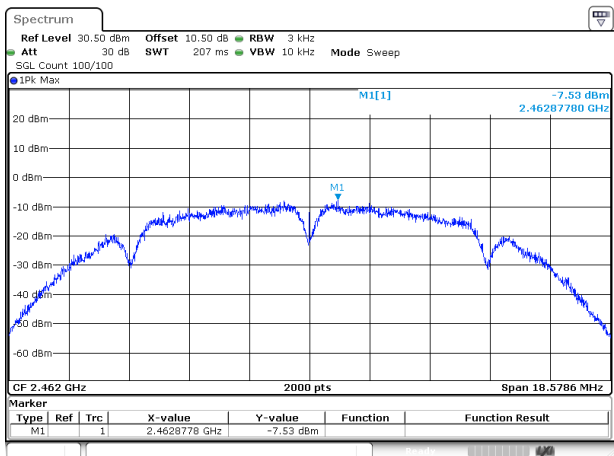
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:14:08

802.11b_2437MHz



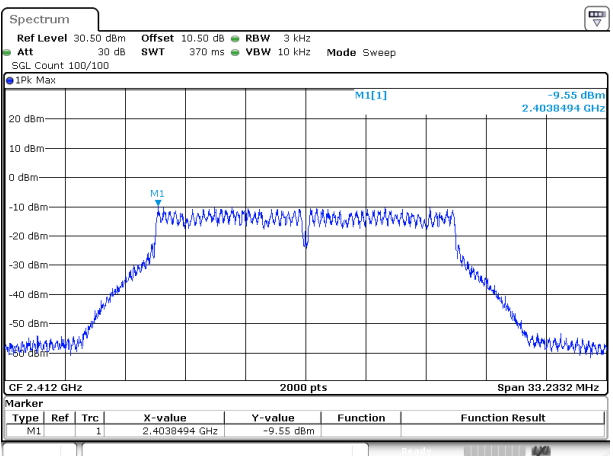
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:16:58

802.11b_2462MHz



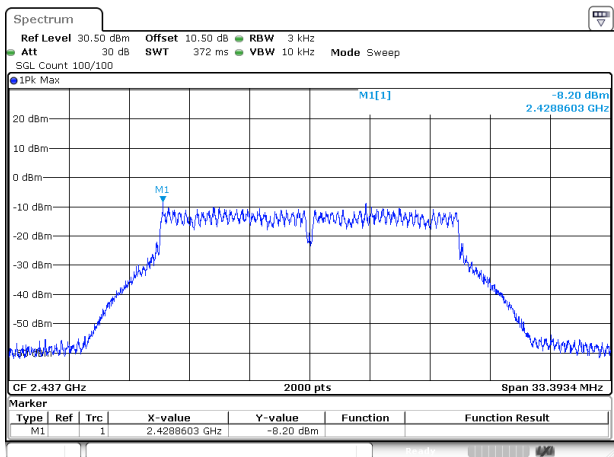
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:22:01

802.11g_2412MHz



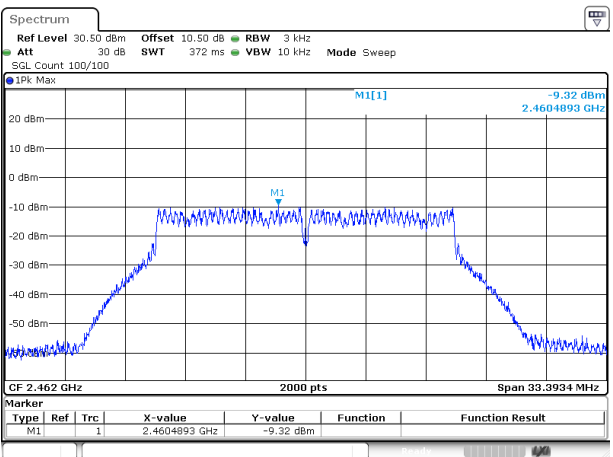
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:26:16

802.11g_2437MHz



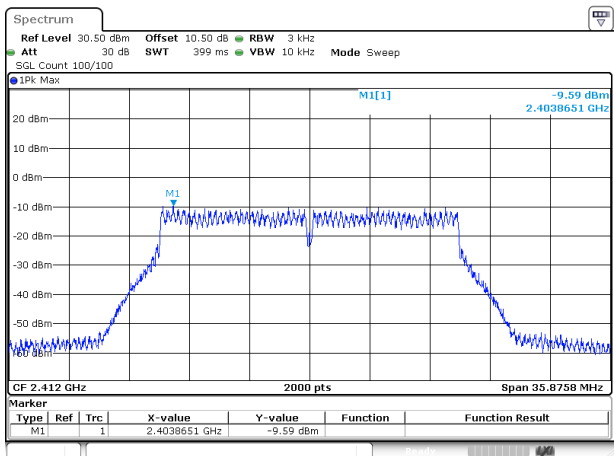
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:32:53

802.11g_2462MHz



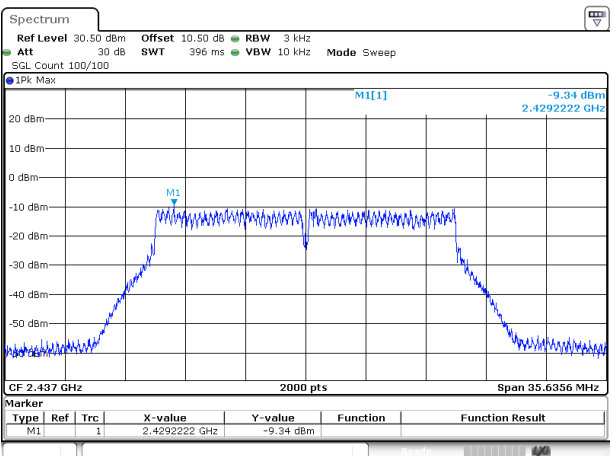
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:40:16

802.11n20_2412MHz



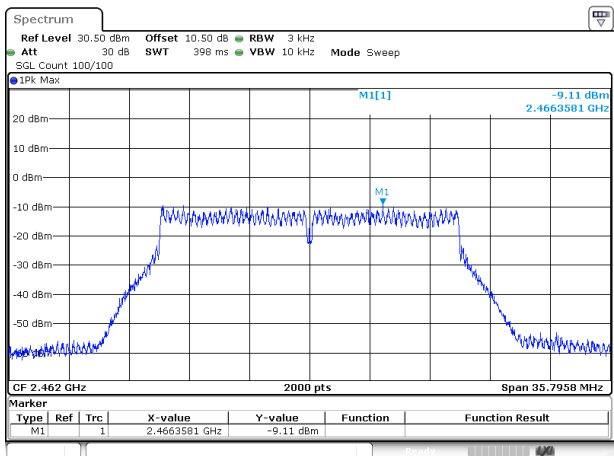
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:44:09

802.11n20_2437MHz



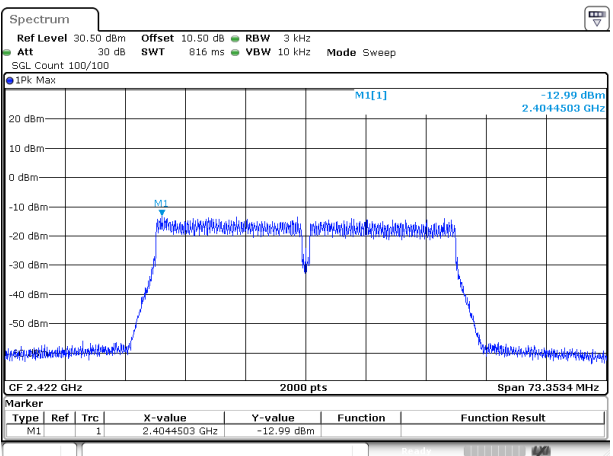
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:47:19

802.11n20_2462MHz



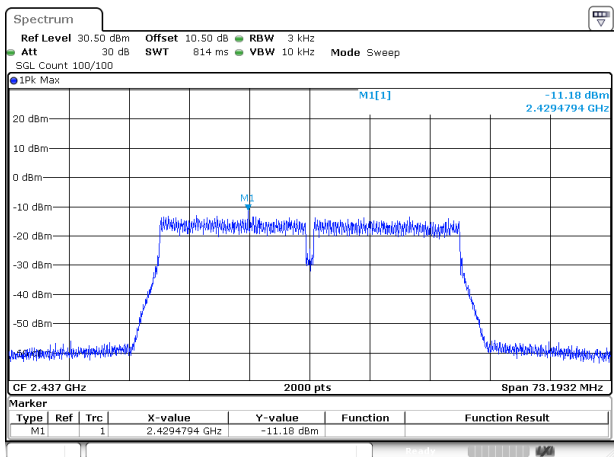
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:50:55

802.11n40_2422MHz



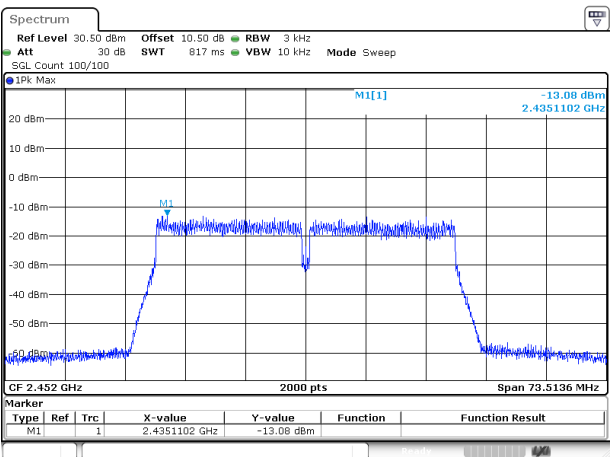
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:54:55

802.11n40_2437MHz



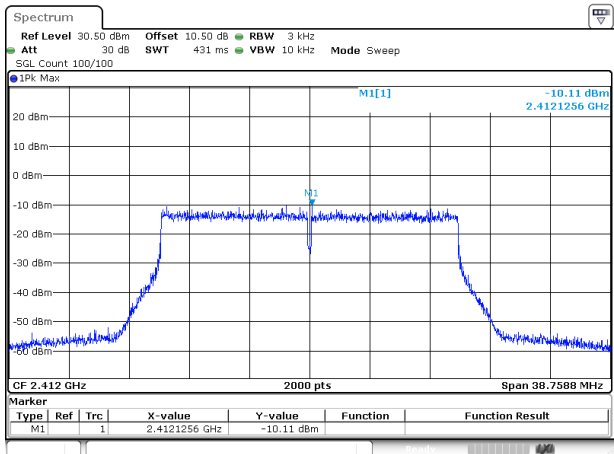
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:15:09

802.11n40_2452MHz



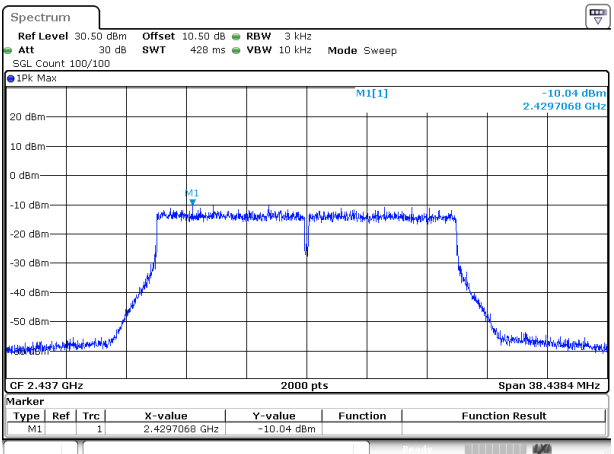
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:24:17

802.11ax20_2412MHz_RU_Full



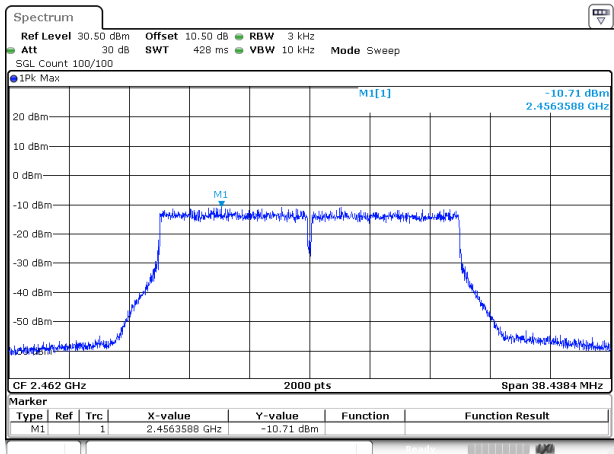
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Date: 15.AUG.2025 17:27:51

802.11ax20_2437MHz_RU_Full



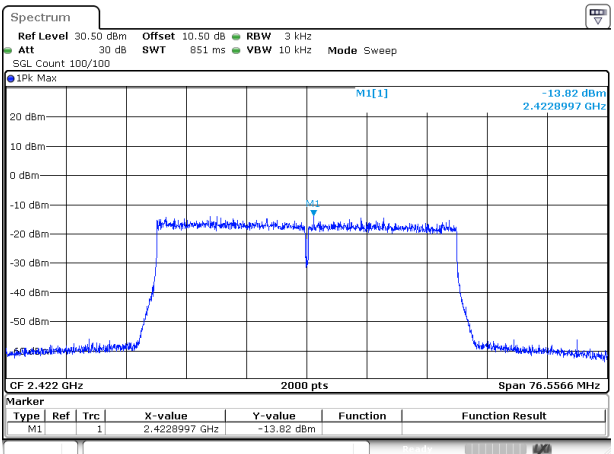
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Date: 15.AUG.2025 17:30:53

802.11ax20_2462MHz_RU_Full



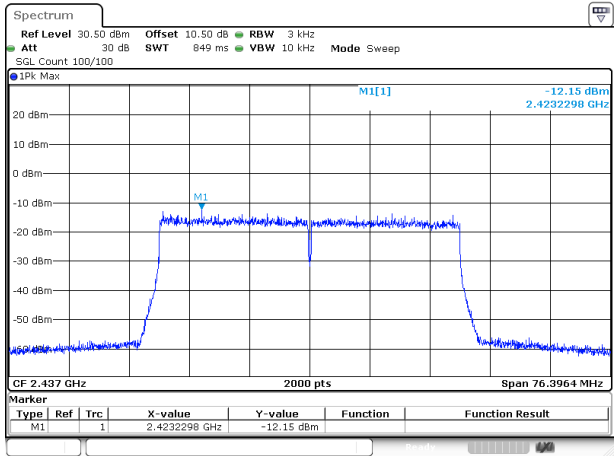
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Date: 15.AUG.2025 17:34:24

802.11ax40_2422MHz_RU_Full



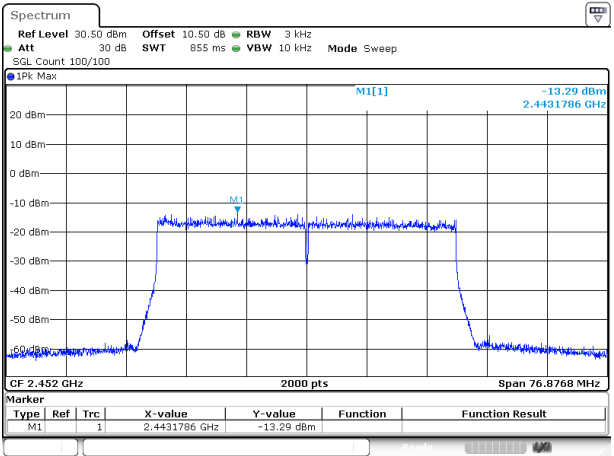
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:38:28

802.11ax40_2437MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 18:13:16

802.11ax40_2452MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 18:17:31

100 kHz Bandwidth of Frequency Band Edge

Test Information:

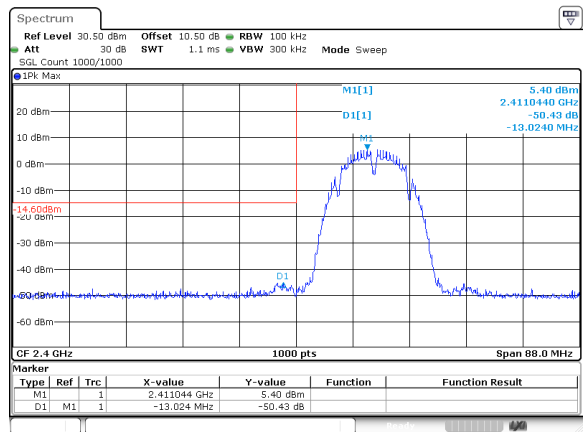
Sample No.:	36VE-1	Test Date:	2025/08/15
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.2	Relative Humidity: (%)	51	ATM Pressure: (kPa)	100.0
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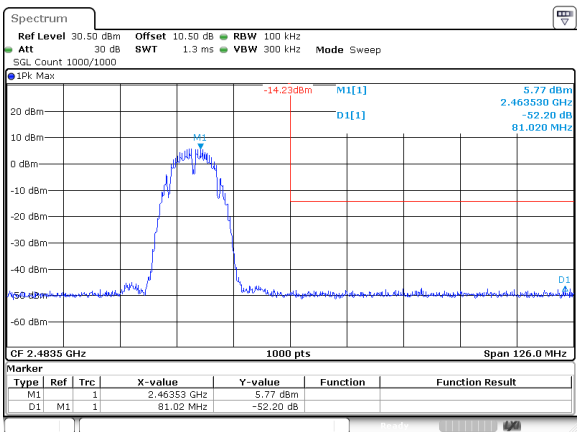
Test Data:

802.11b_2412MHz



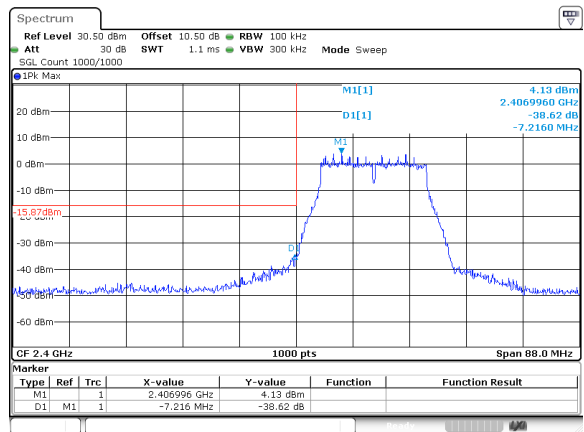
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:13:09

802.11b_2462MHz



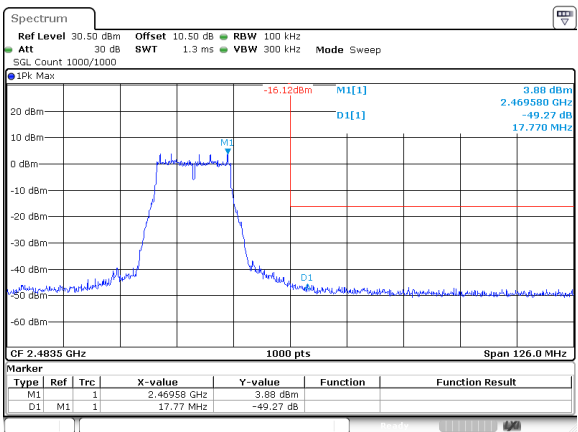
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:21:00

802.11g_2412MHz



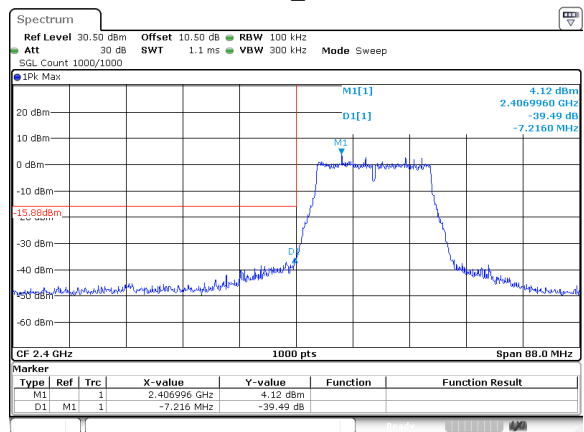
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Date: 15.AUG.2025 16:24:49

802.11g_2462MHz



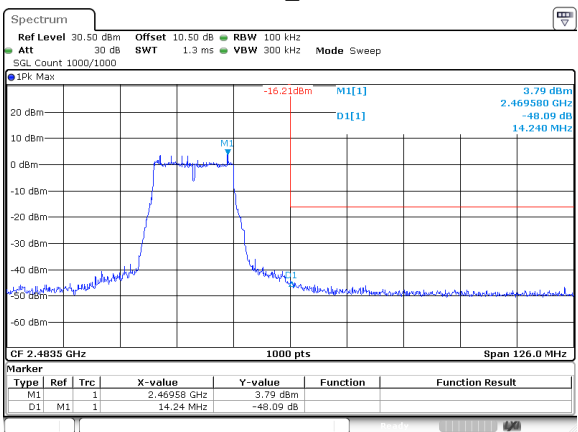
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:30:53

802.11n20_2412MHz



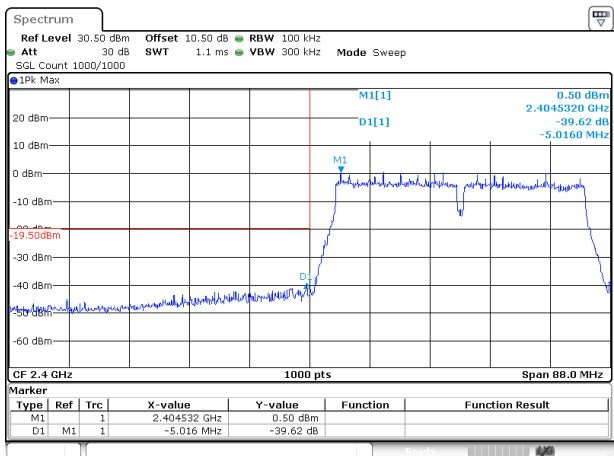
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:42:43

802.11n20_2462MHz



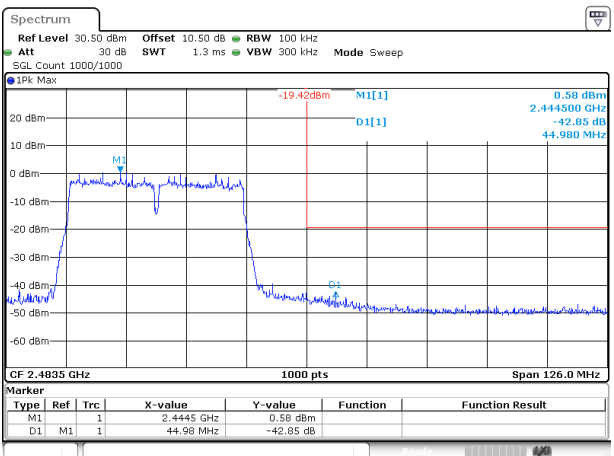
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:49:28

802.11n40_2422MHz



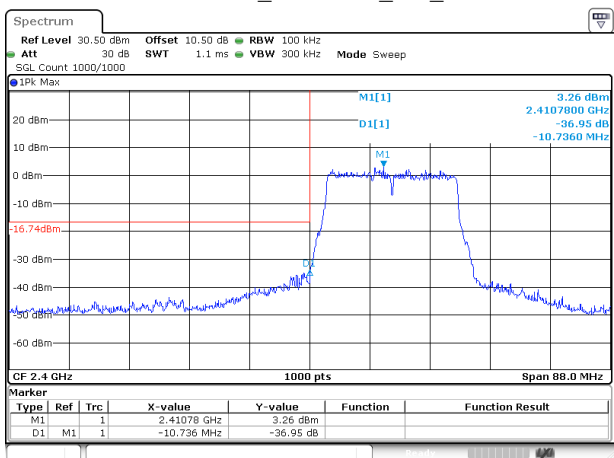
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:52:29

802.11n40_2452MHz



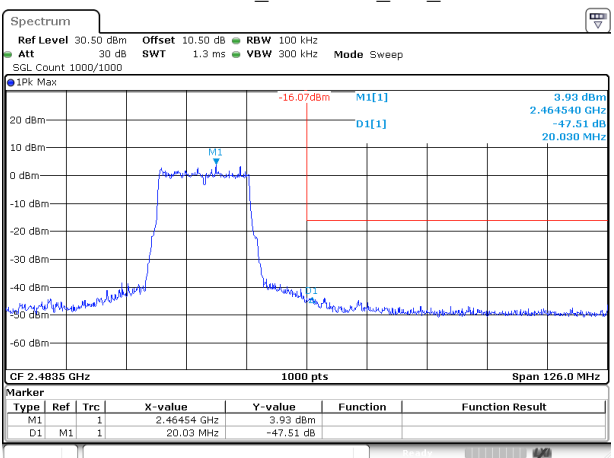
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:21:51

802.11ax20_2412MHz_RU_Full



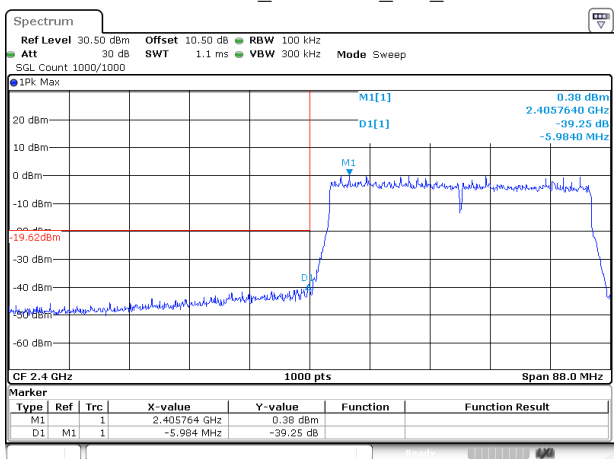
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:26:18

802.11ax20_2462MHz_RU_Full



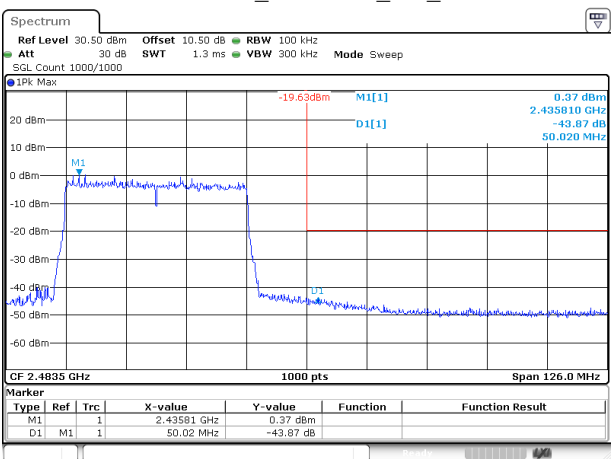
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:32:54

802.11ax40_2422MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:35:58

802.11ax40_2452MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 18:15:01

Duty Cycle**Test Information:**

Sample No.:	36VE-1	Test Date:	2025/08/15
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	N/A

Environmental Conditions:

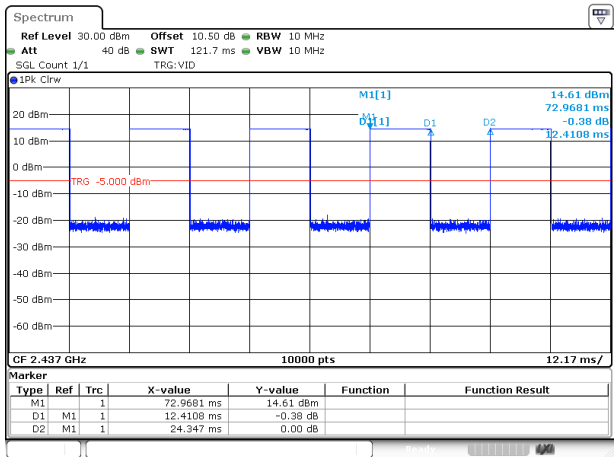
Temperature: (°C)	25.2	Relative Humidity: (%)	51	ATM Pressure: (kPa)	100.0
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Test Data:

Mode	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11b	2437	12.411	24.347	50.98	2.93	81	0.100
802.11g	2437	5.476	10.342	52.95	2.76	183	0.200
802.11n20	2437	5.357	10.332	51.85	2.85	187	0.200
802.11n40	2437	3.012	6.348	47.45	3.24	332	0.500
802.11ax20_RU_Full	2437	4.638	10.347	44.82	3.48	216	0.300
802.11ax40_RU_Full	2437	4.618	10.337	44.67	3.50	217	0.300

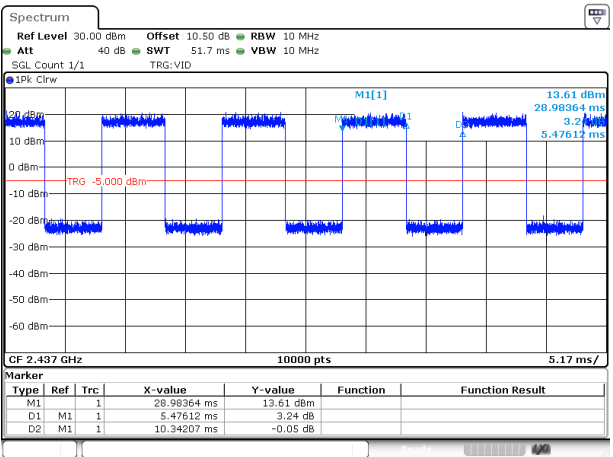
$$\text{Duty Cycle} = \text{Ton}/(\text{Ton}+\text{Toff})*100\%$$

802.11b_2437MHz



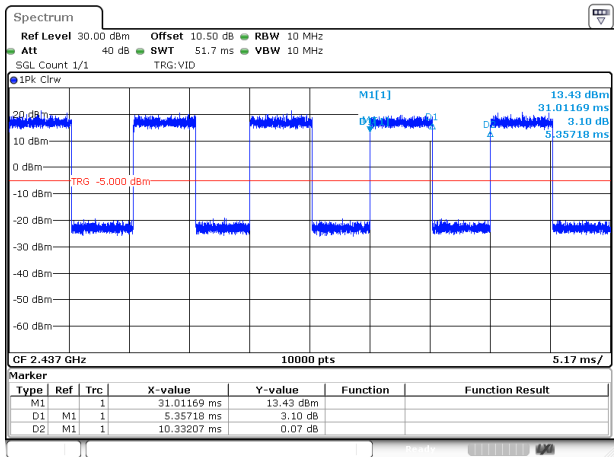
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:06:43

802.11g_2437MHz



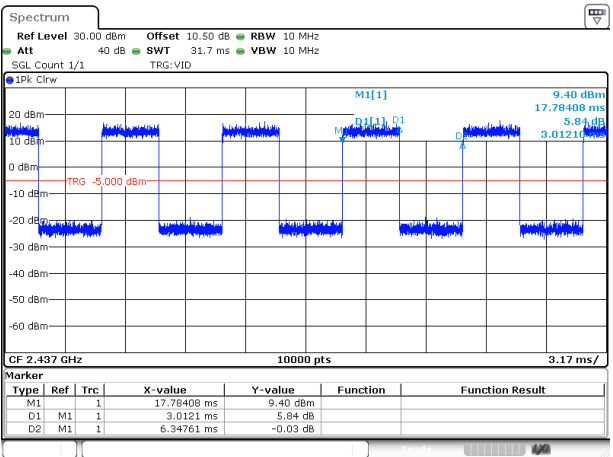
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:07:17

802.11n20_2437MHz



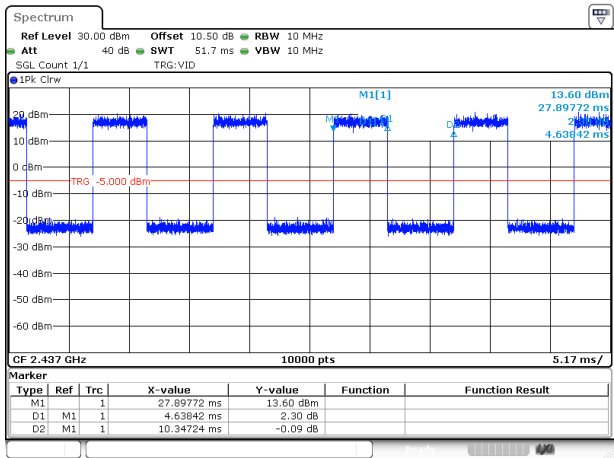
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:07:43

802.11n40_2437MHz



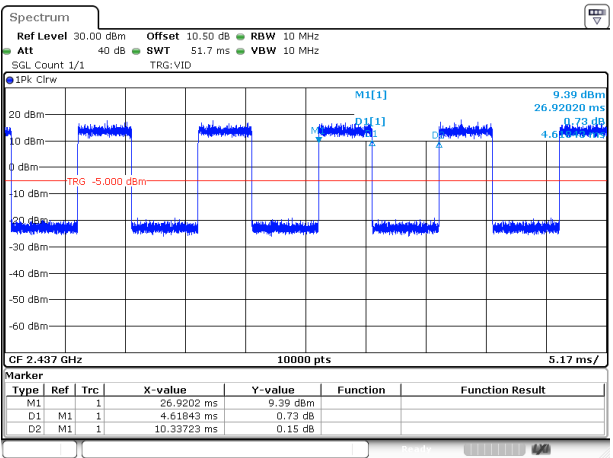
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:08:20

802.11ax20_2437MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:09:20

802.11ax40_2437MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:09:54

Conducted Spurious Emission**Test Information:**

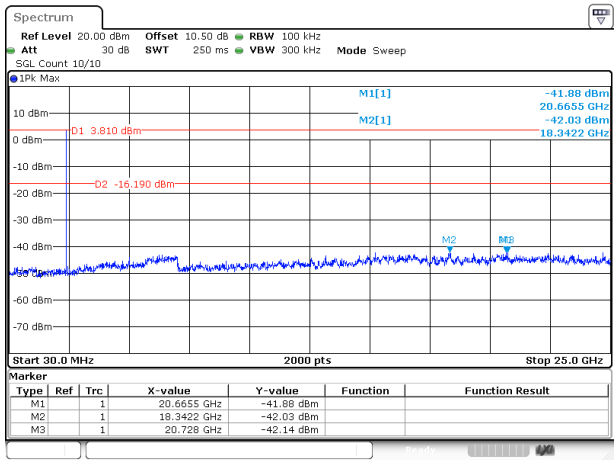
Sample No.:	36VE-1	Test Date:	2025/08/15~2025/08/16
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.2~26.6	Relative Humidity: (%)	51~58	ATM Pressure: (kPa)	100.0~100.2
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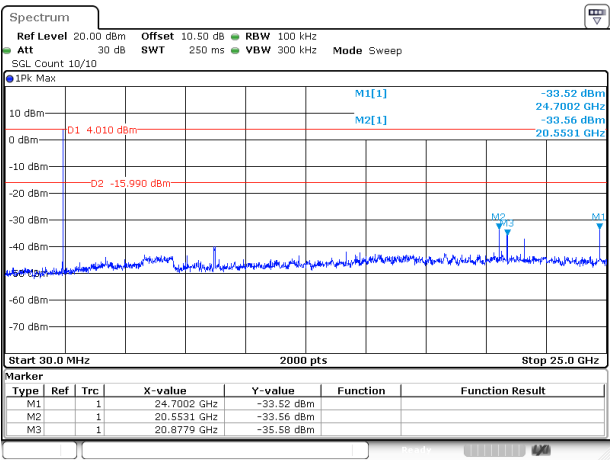
Test Data:

802.11b_2412MHz



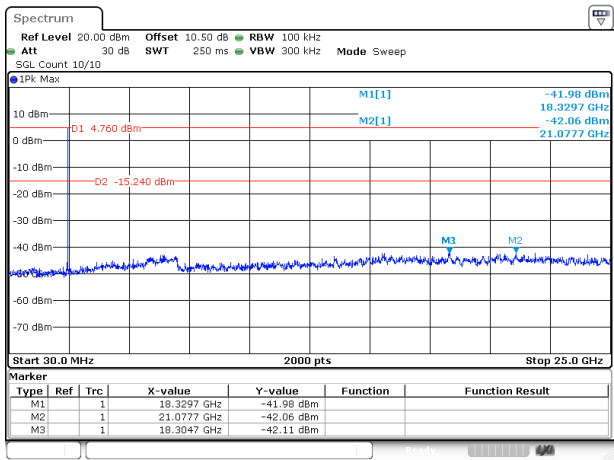
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:13:30

802.11b_2437MHz



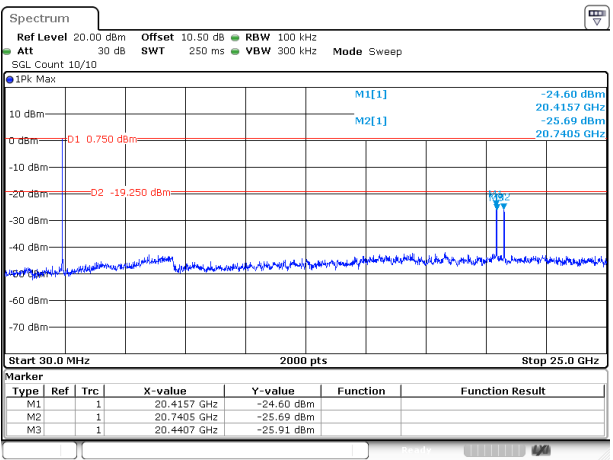
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 16.AUG.2025 15:30:51

802.11b_2462MHz



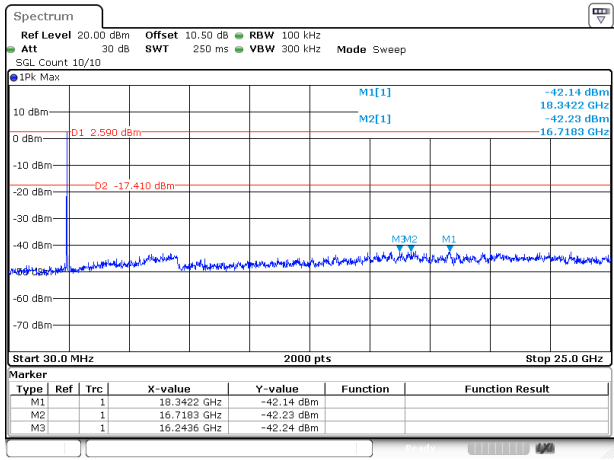
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:21:21

802.11g_2412MHz



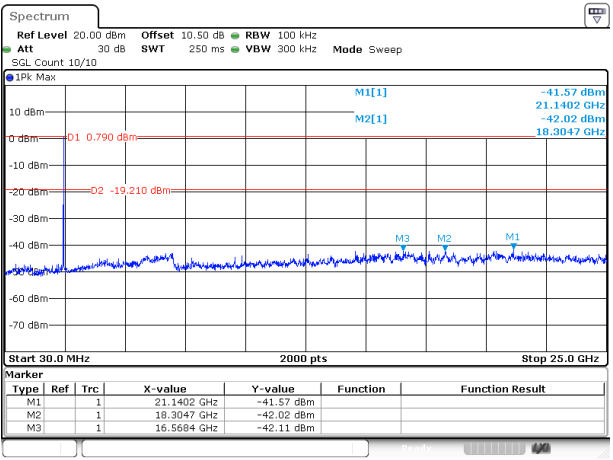
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:25:10

802.11g_2437MHz



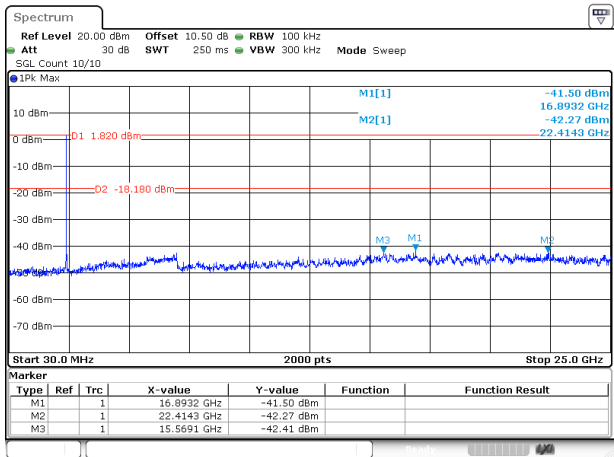
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 16.AUG.2025 15:31:26

802.11g_2462MHz



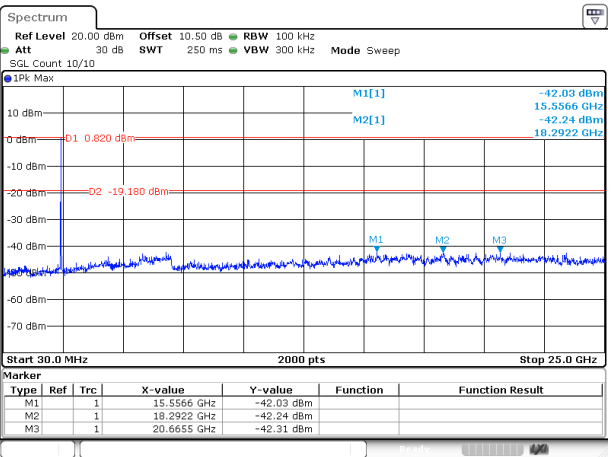
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:39:14

802.11n20_2412MHz



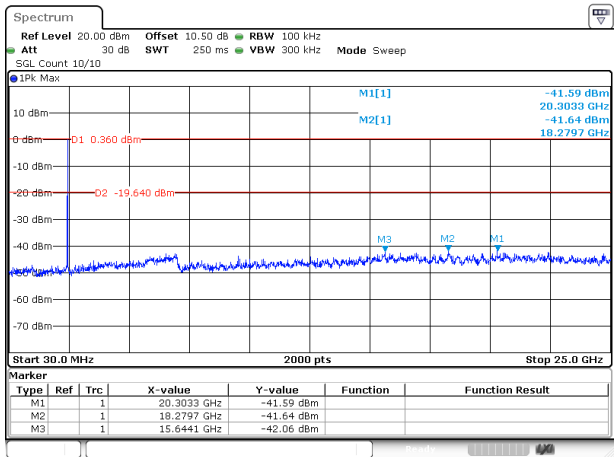
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:43:04

802.11n20_2437MHz



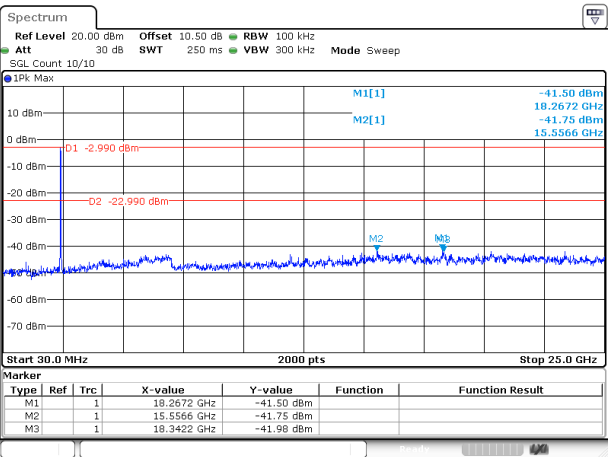
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 16.AUG.2025 15:32:19

802.11n20_2462MHz



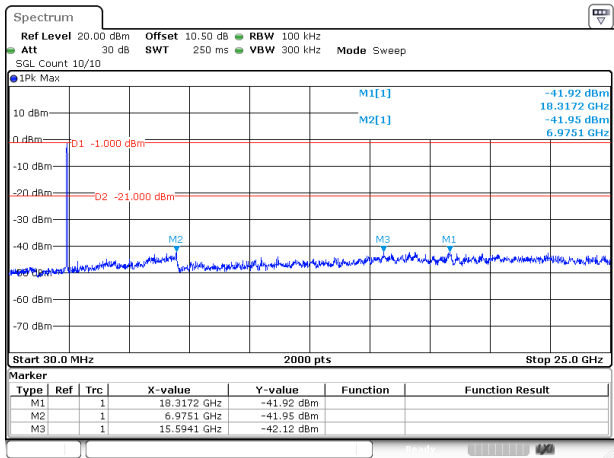
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:49:50

802.11n40_2422MHz



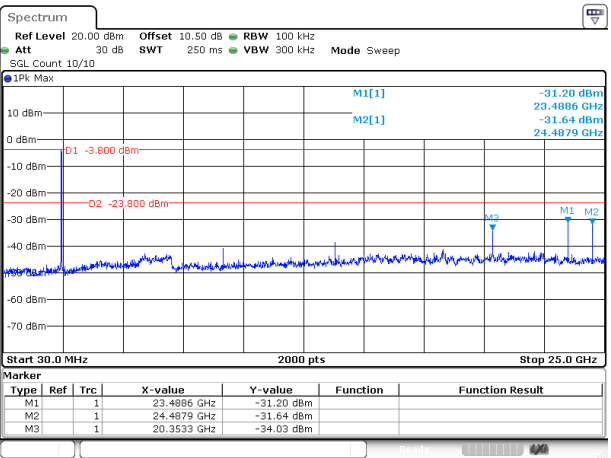
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 16:52:51

802.11n40_2437MHz



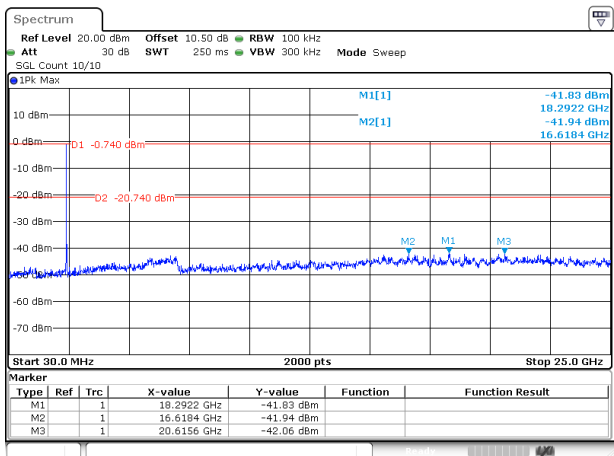
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 16.AUG.2025 15:33:04

802.11n40_2452MHz



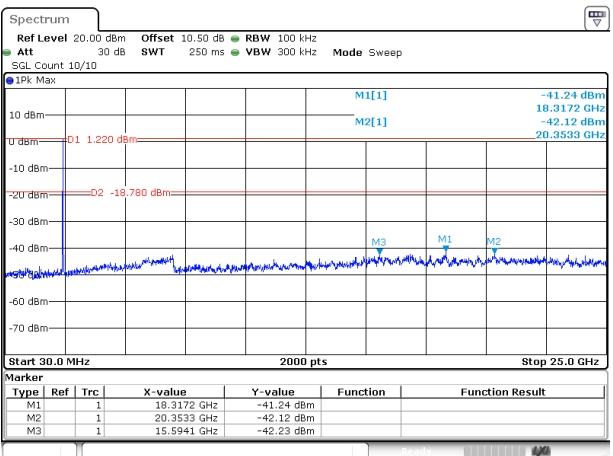
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:22:12

802.11ax20_2412MHz_RU_Full



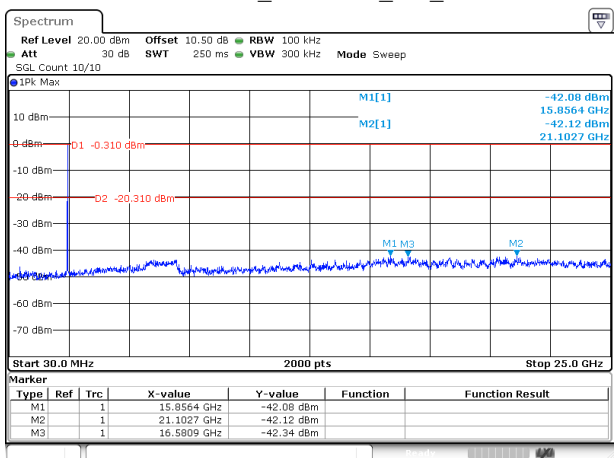
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:26:42

802.11ax20_2437MHz_RU_Full



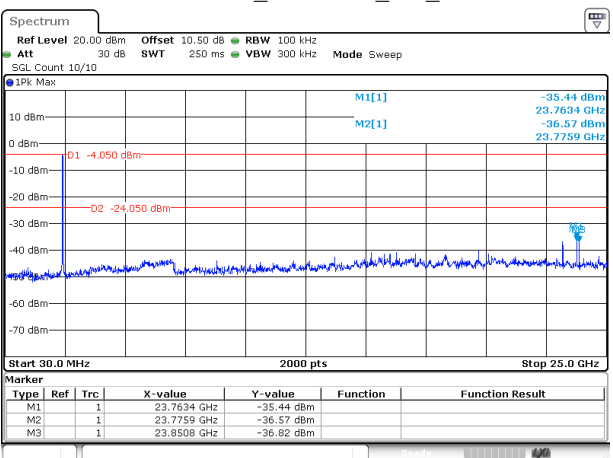
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 16.AUG.2025 15:33:45

802.11ax20_2462MHz_RU_Full



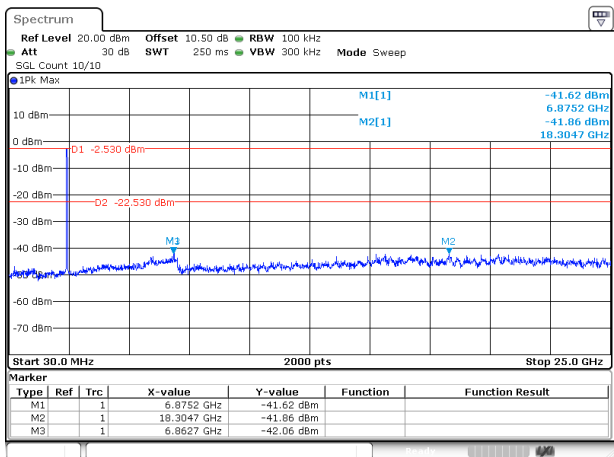
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Date: 15.AUG.2025 17:33:15

802.11ax40_2422MHz_RU_Full



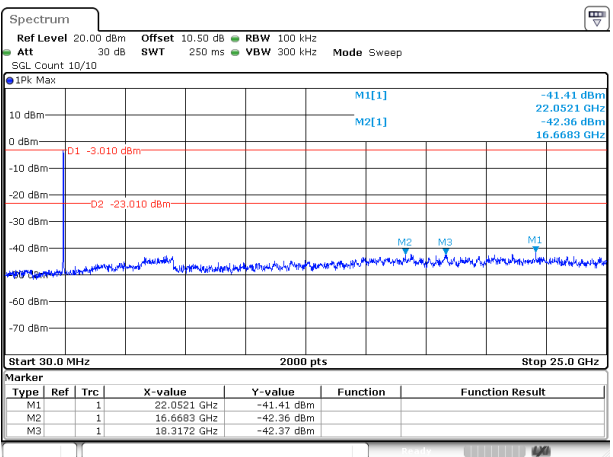
ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 17:36:20

802.11ax40_2437MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 16.AUG.2025 15:35:49

802.11ax40_2452MHz_RU_Full



ProjectNo.:2501V19918E-RF Tester:Rainbow Zhu
Date: 15.AUG.2025 18:15:22

RF EXPOSURE EVALUATION

MPE-Based Exemption

Applicable Standard

According to subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

According to KDB 447498 D04 v01 Interim General RF Exposure Guidance

MPE-Based Exemption:

General frequency and separation-distance dependent MPE-based effective radiated power(ERP) thresholds are in Table B.1 [Table 1 of § 1.1307(b)(3)(i)(C)] to support an exemption from further evaluation from 300 kHz through 100 GHz.

Table 1 to § 1.1307(b)(3)(i)(C) - Single RF Sources Subject to Routine Environmental Evaluation

RF Source frequency (MHz)	Threshold ERP (watts)
0.3-1.34	$1,920 R^2$.
1.34-30	$3,450 R^2/f^2$.
30-300	$3.83 R^2$.
300-1,500	$0.0128 R^2 f$.
1,500-100,000	$19.2 R^2$.

R is the minimum separation distance in meters

f = frequency in MHz

For multiple RF sources: Multiple RF sources are exempt if:

in the case of fixed RF sources operating in the same time-averaging period, or of multiple mobile or portable RF sources within a device operating in the same time averaging period, if the sum of the fractional contributions to the applicable thresholds is less than or equal to 1 as indicated in the following equation:

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

Result

Mode	Frequency (MHz)	Tune up conducted power [#] (dBm)	Antenna Gain [#]		ERP		Evaluation Distance (m)	ERP Limit (mW)
			(dBi)	(dBd)	(dBm)	(mW)		
BT	2402-2480	10.0	4.00	1.85	11.85	15.31	0.2	768
BLE	2402-2480	4.5	4.00	1.85	6.35	4.32	0.2	768
2.4G Wi-Fi	2412-2462	23.0	4.00	1.85	24.85	305.49	0.2	768
5.2G Wi-Fi	5180-5240	13.5	3.50	1.35	14.85	30.55	0.2	768
5.3G Wi-Fi	5260-5320	13.5	3.50	1.35	14.85	30.55	0.2	768
5.6G Wi-Fi	5500-5720	14.5	3.50	1.35	15.85	38.46	0.2	768
5.8G Wi-Fi	5745-5825	11.0	3.50	1.35	12.35	17.18	0.2	768

Note: 1. The tune up conducted power and antenna gain was declared by the applicant.

2. 0dBd=2.15dBi

3. The BT and Wi-Fi can transmit at same time, the 2.4G and 5G Wi-Fi cannot transmit at same time.

Simultaneous transmitting consideration (worst case):

The ratio= $ERP_{BT} / \text{limit} + ERP_{2.4G \text{ Wi-Fi}} / \text{limit} = 15.31/768 + 305.49/768 = 0.418 < 1.0$

So simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant

Field reference level exposure exemption limits

Applicable Standard

According to RSS-102 Issue 6§6.6:

Field reference level (FRL) exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm (i.e. mobile devices), except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 1 W (adjusted for tune-up tolerance)
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance)
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz
- at or above 6 GHz and the source-based, time-averaged maximum EIRP of the device is equal to or less than 5 W (adjusted for tune-up tolerance) In these cases, the information contained in the RF exposure technical brief may be limited to information that demonstrates how the EIRP was derived.

Calculated Data:

Mode	Frequency (MHz)	Maximum tune-up conducted power [#] (dBm)	Antenna Gain [#]	Maximum tune-up EIRP		Evaluation Distance (m)	Limit (mW)
			(dBi)	(dBm)	(mW)		
BT	2402-2480	10.0	4.00	14.00	25.12	0.2	2676
BLE	2402-2480	4.5	4.00	8.50	7.08	0.2	2676
2.4G Wi-Fi	2412-2462	23.0	4.00	27.00	501.19	0.2	2684
5.2G Wi-Fi	5180-5240	13.5	3.50	17.00	50.12	0.2	4525
5.3G Wi-Fi	5260-5320	13.5	3.50	17.00	50.12	0.2	4573
5.6G Wi-Fi	5500-5720	14.5	3.50	18.00	63.10	0.2	4714
5.8G Wi-Fi	5745-5825	11.0	3.50	14.50	28.18	0.2	4857

Note: 1. The tune up conducted power[#] and antenna gain[#] was declared by the applicant.

2. The BT and Wi-Fi can transmit at same time, the 2.4G and 5G Wi-Fi cannot transmit at same time.

Simultaneous transmitting consideration (worst case):

The ratio= $EIRP_{BT}/limit + EIRP_{2.4G\ Wi-Fi}/limit = 25.12/2676 + 501.19/2684 = 0.196 < 1.0$

So simultaneous exposure is compliant.

Result: Compliant

Note: To maintain compliance with the RF exposure guidelines, place the equipment at least 20cm from nearby persons.

EUT PHOTOGRAPHS

Please refer to the attachment 2501V19918E-RF-EXP External photo and 2501V19918E-RF-INP Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2501V19918E-RF-TSPA Test Setup photo.

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