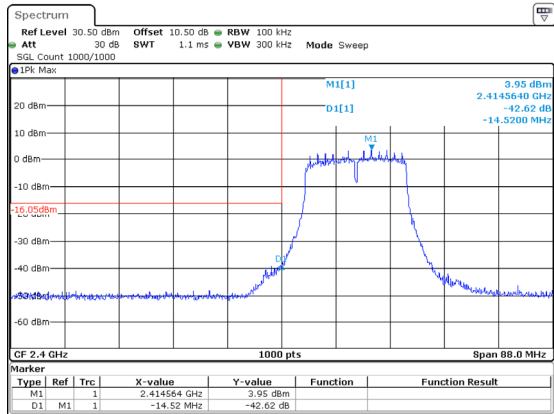
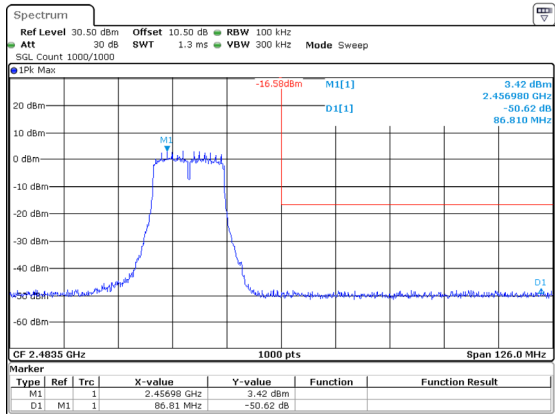


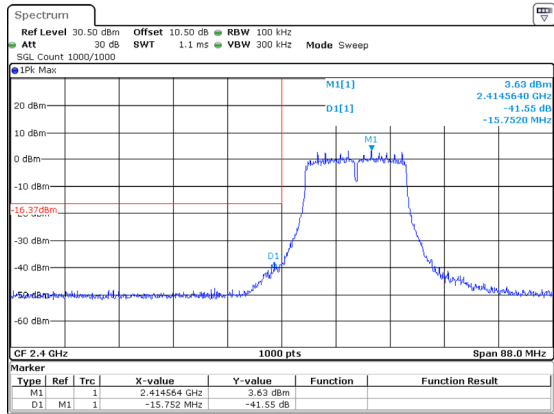
802.11g_2412MHz_Chain 2



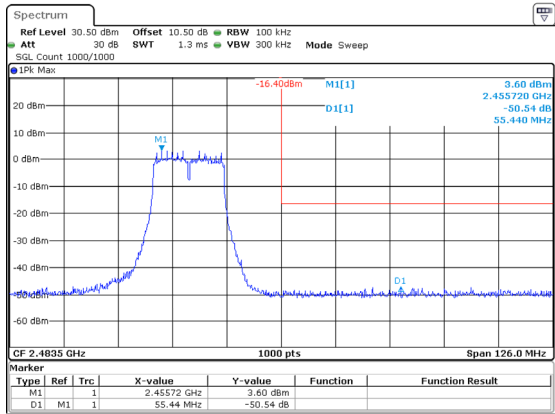
802.11g_2462MHz_Chain 2



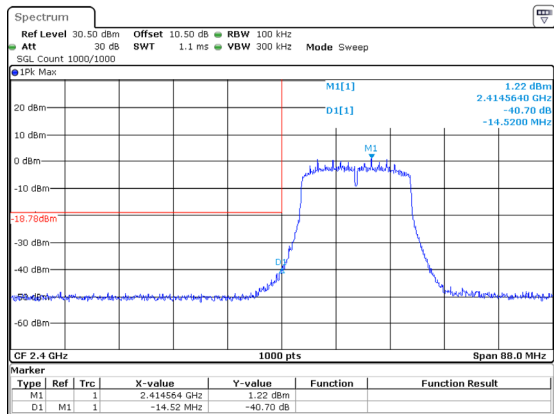
802.11g_2412MHz_Chain 3



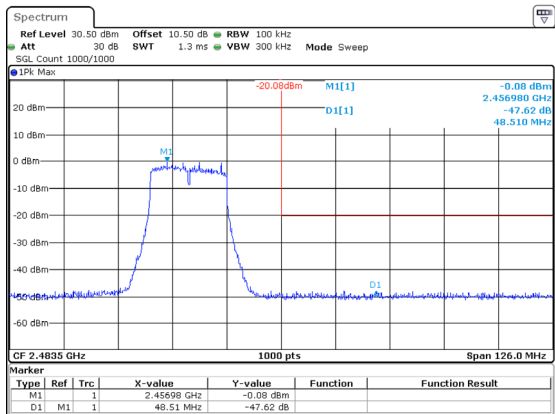
802.11g_2462MHz_Chain 3



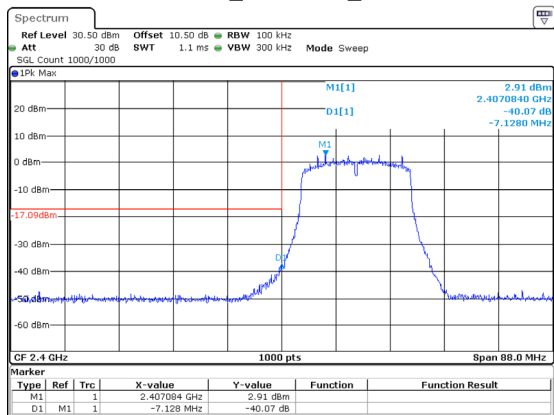
802.11n20_2412MHz_Chain 0



802.11n20_2462MHz_Chain 0

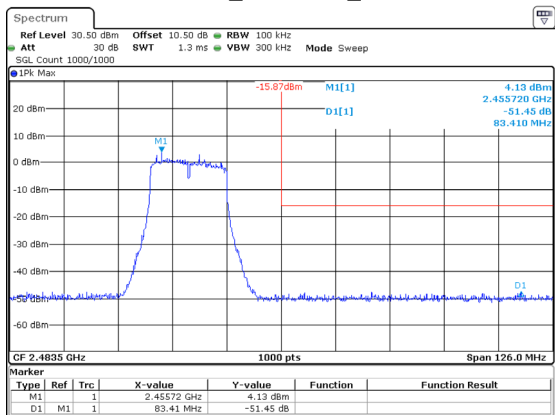


802.11n20_2412MHz_Chain 1



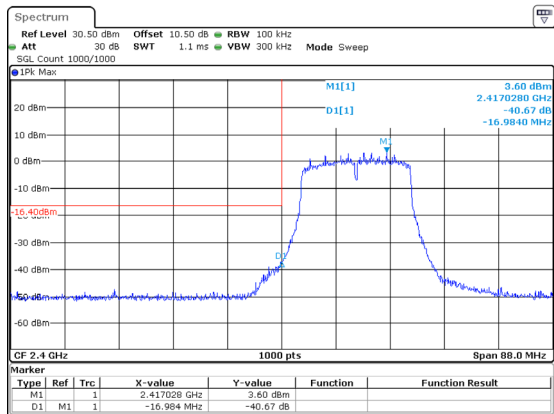
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 13:28:51

802.11n20_2462MHz_Chain 1



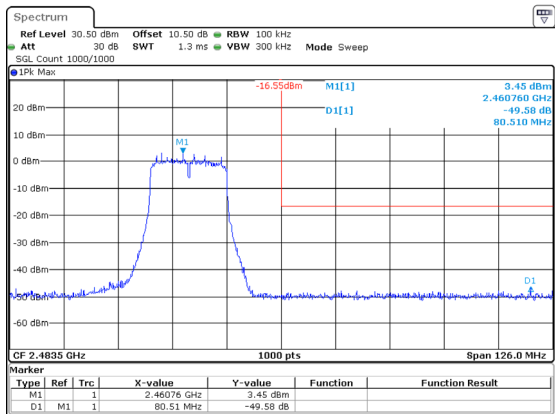
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 14:03:08

802.11n20_2412MHz_Chain 2



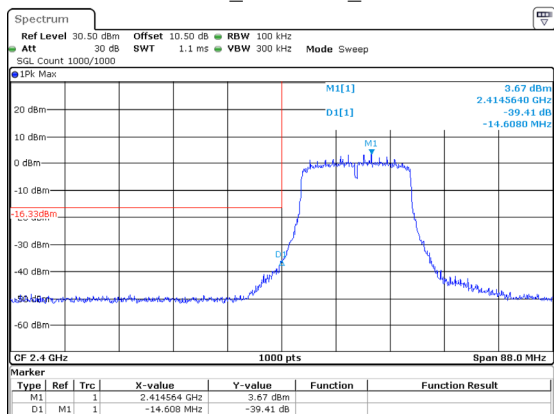
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 13:37:14

802.11n20_2462MHz_Chain 2



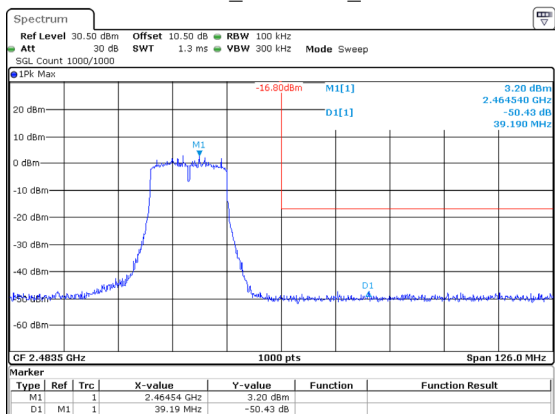
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 14:03:55

802.11n20_2412MHz_Chain 3



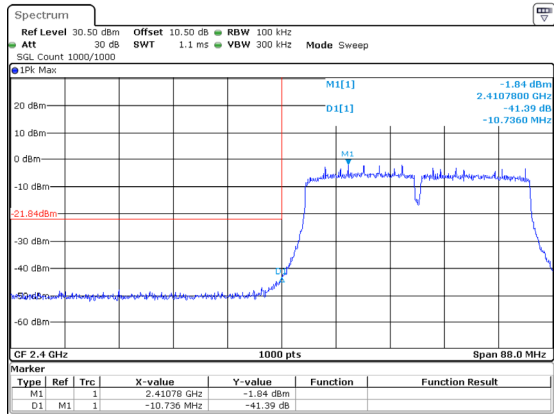
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 13:40:45

802.11n20_2462MHz_Chain 3



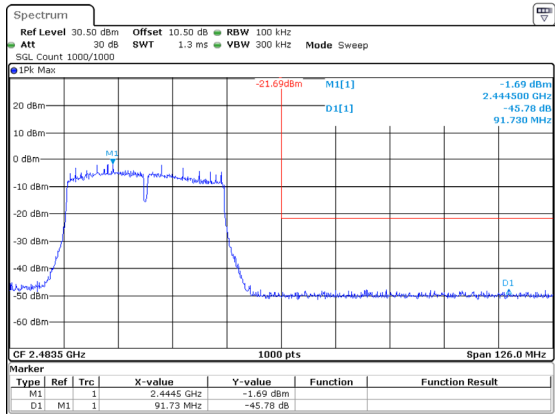
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 14:11:52

802.11n40_2422MHz_Chain 0



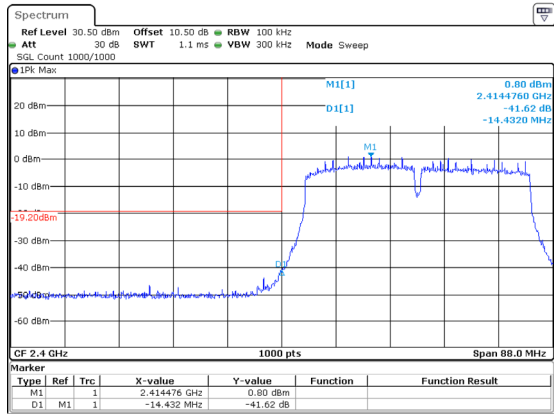
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 14:15:47

802.11n40_2452MHz_Chain 0



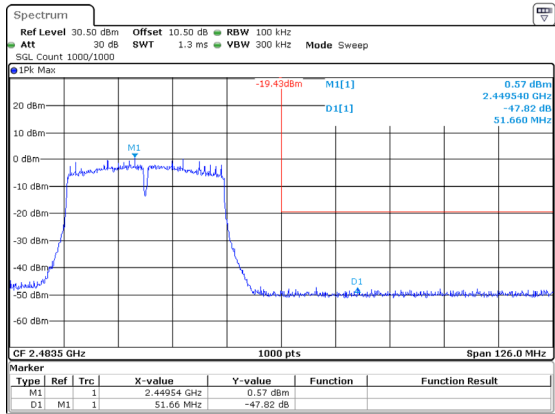
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 14:54:08

802.11n40_2422MHz_Chain 1



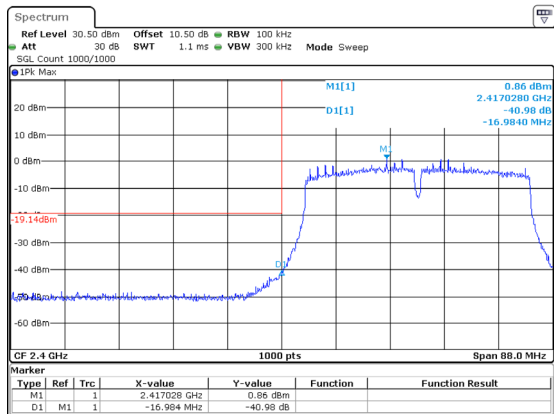
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 14:21:29

802.11n40_2452MHz_Chain 1



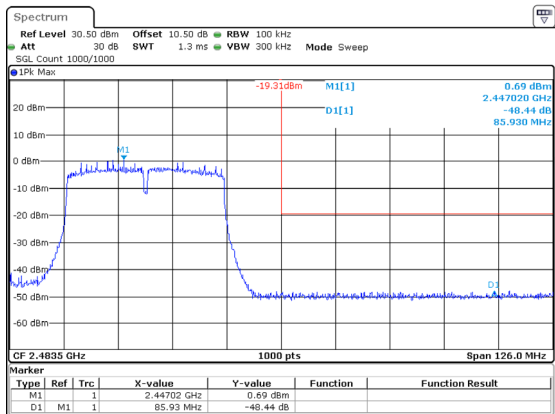
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 15:13:23

802.11n40_2422MHz_Chain 2



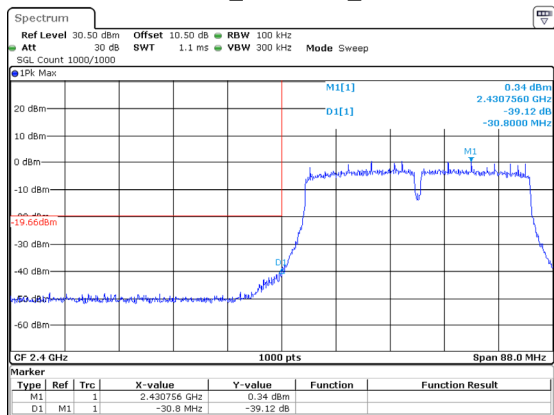
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 14:27:42

802.11n40_2452MHz_Chain 2



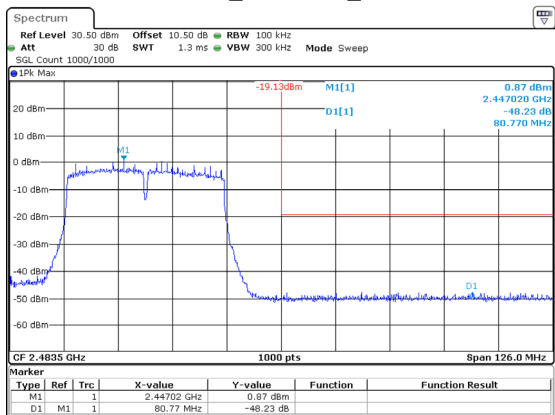
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 15:18:37

802.11n40_2422MHz_Chain 3



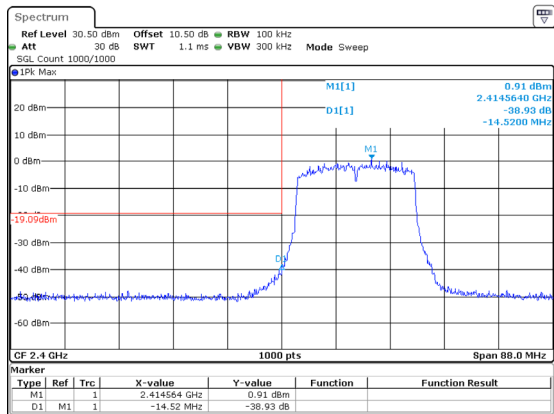
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 14:52:14

802.11n40_2452MHz_Chain 3



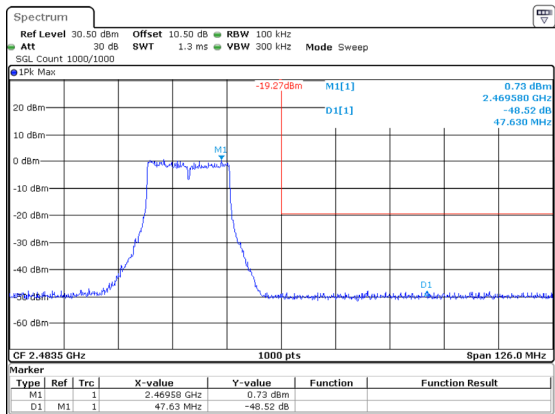
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 15:23:37

802.11ax20_2412MHz_RU_Full_Chain 0



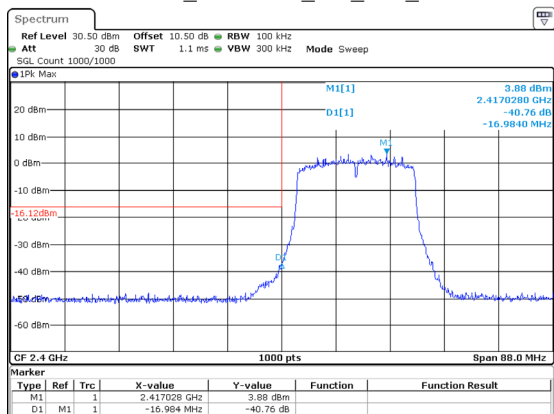
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 15:29:59

802.11ax20_2462MHz_RU_Full_Chain 0



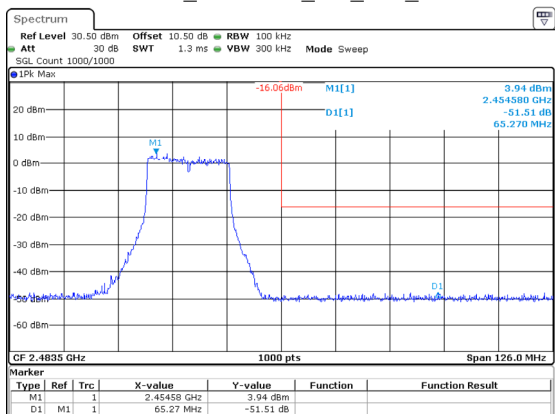
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 16:28:43

802.11ax20_2412MHz_RU_Full_Chain 1



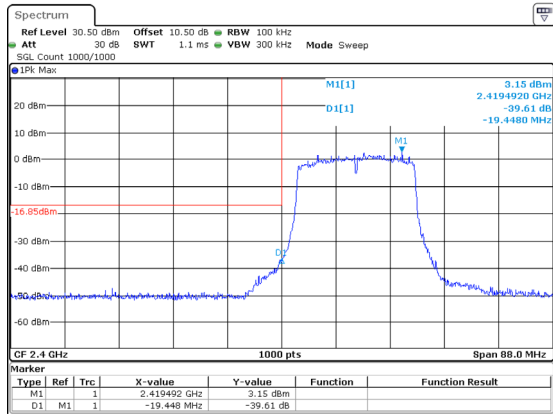
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 15:34:26

802.11ax20_2462MHz_RU_Full_Chain 1



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 16:31:54

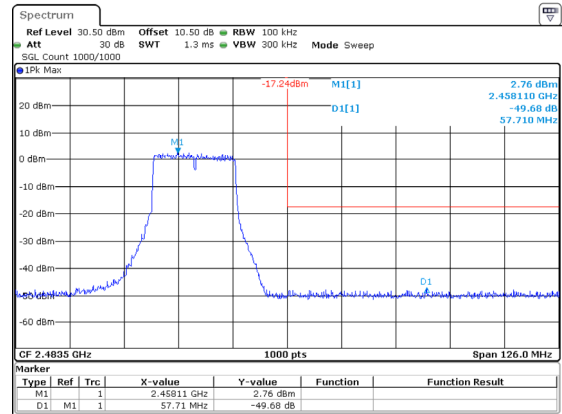
802.11ax20_2412MHz_RU_Full_Chain 2



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu

Date: 15.JAN.2025 15:37:43

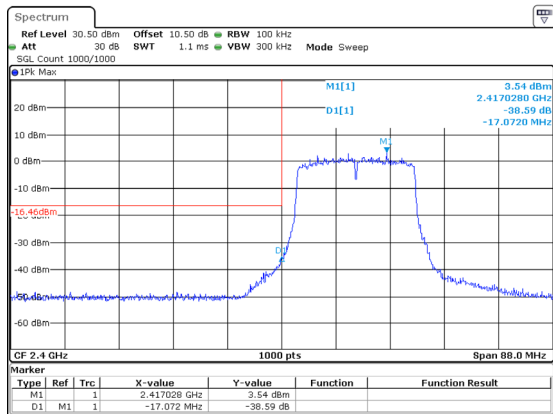
802.11ax20_2462MHz_RU_Full_Chain 2



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu

Date: 15.JAN.2025 16:35:04

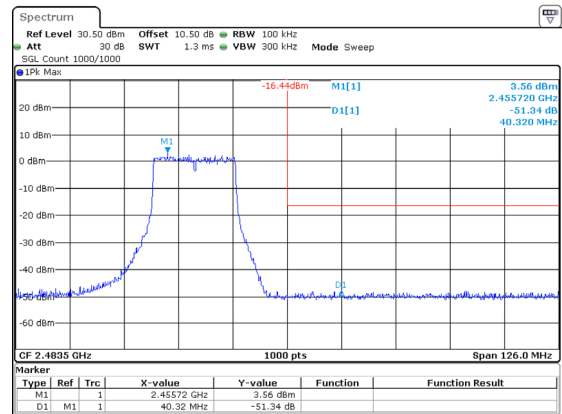
802.11ax20_2412MHz_RU_Full_Chain 3



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu

Date: 15.JAN.2025 15:40:58

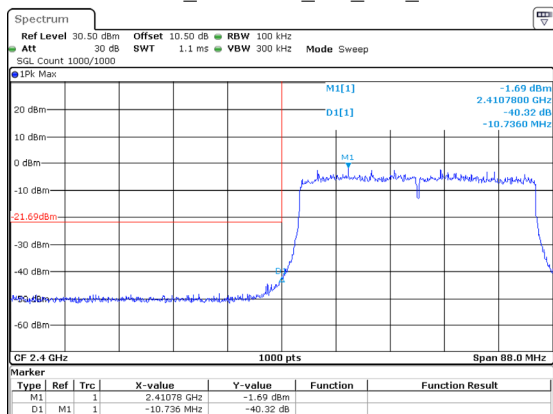
802.11ax20_2462MHz_RU_Full_Chain 3



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu

Date: 15.JAN.2025 16:38:20

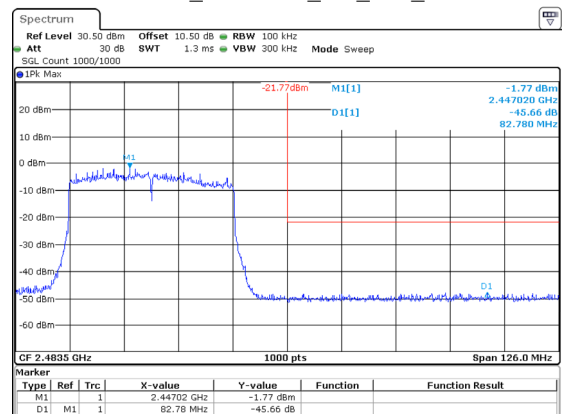
802.11ax40_2422MHz_RU_Full_Chain 0



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu

Date: 15.JAN.2025 16:41:36

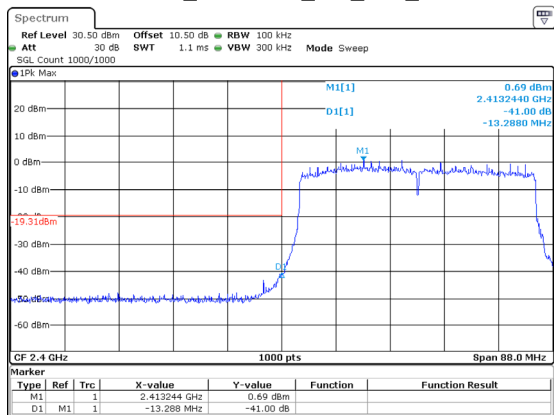
802.11ax40_2452MHz_RU_Full_Chain 0



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu

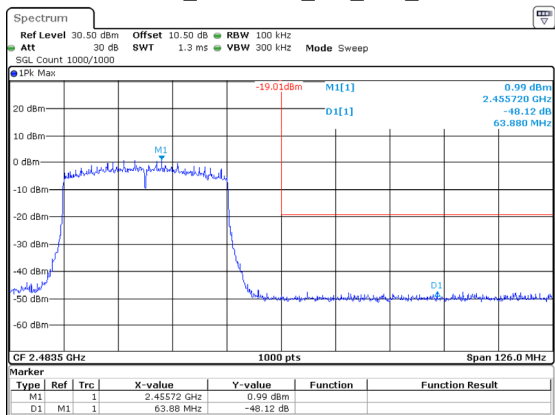
Date: 15.JAN.2025 17:15:02

802.11ax40_2422MHz_RU_Full_Chain 1



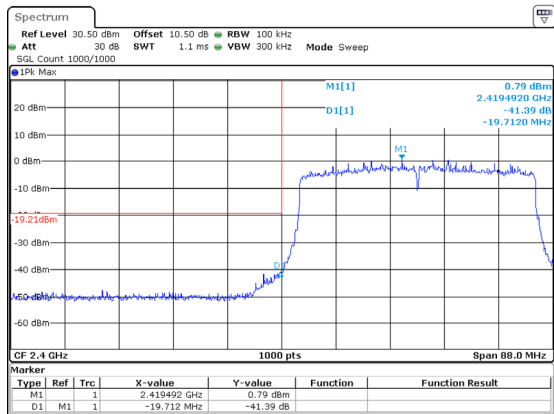
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 16:44:52

802.11ax40_2452MHz_RU_Full_Chain 1



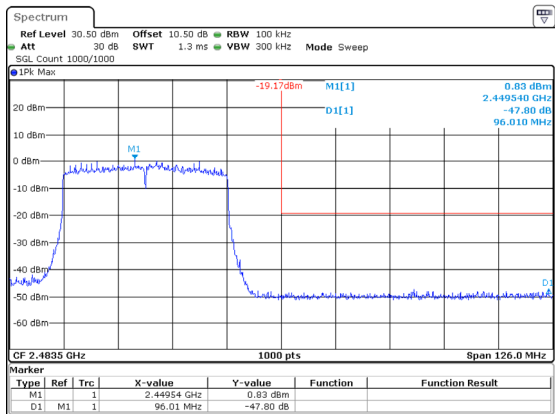
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 17:18:11

802.11ax40_2422MHz_RU_Full_Chain 2



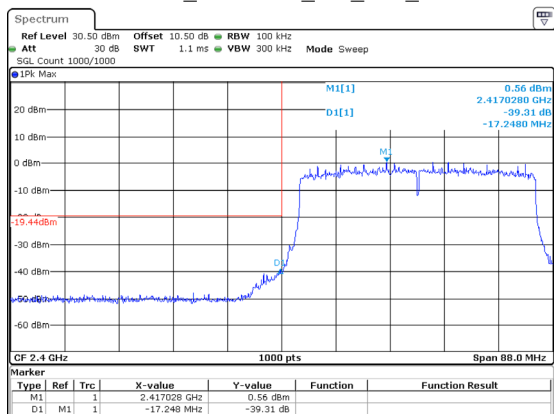
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 16:48:05

802.11ax40_2452MHz_RU_Full_Chain 2



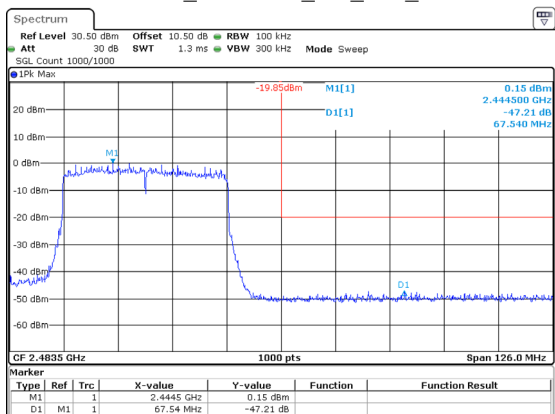
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 17:21:30

802.11ax40_2422MHz_RU_Full_Chain 3



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 16:51:16

802.11ax40_2452MHz_RU_Full_Chain 3



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 17:24:53

Duty Cycle

Test Information:

Sample No.:	2S0O-6	Test Date:	2025/01/15
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rainbow Zhu	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24~26	Relative Humidity: (%)	49~55	ATM Pressure: (kPa)	101.1~101.7
----------------------	-------	------------------------------	-------	------------------------	-------------

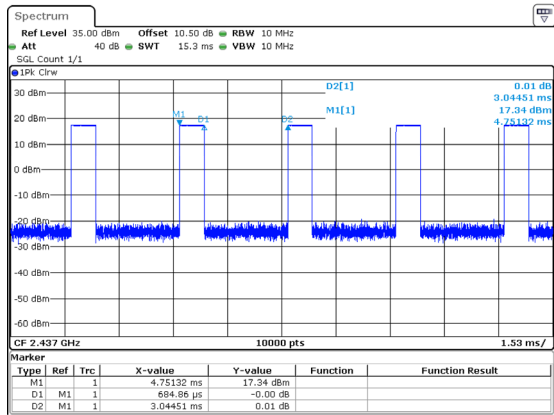
Test Data:

Mode	Antenna	Test Frequency (MHz)	Ton (ms)	Ton+Toff (ms)	Duty Cycle (%)	Duty Cycle Factor(dB)	1/Ton (Hz)	VBW Setting (kHz)
802.11b	Chain 0	2437	0.685	3.045	22.50	6.48	1460	2
802.11g	Chain 0	2437	1.962	2.042	96.08	0.17	510	1
802.11n20	Chain 0	2437	5.419	6.765	80.10	0.96	185	0.2
802.11n40	Chain 0	2437	5.416	6.772	79.98	0.97	185	0.2
802.11ax20_RU_Full	Chain 0	2437	5.433	6.778	80.16	0.96	184	0.2
802.11ax40_RU_Full	Chain 0	2437	5.433	6.778	80.16	0.96	184	0.2

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

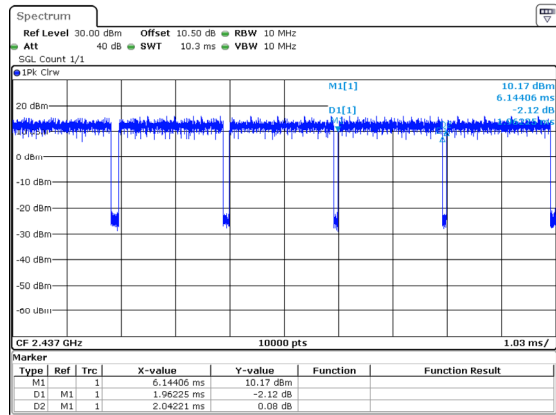
2.4G

802.11b_2437MHz_Chain 0



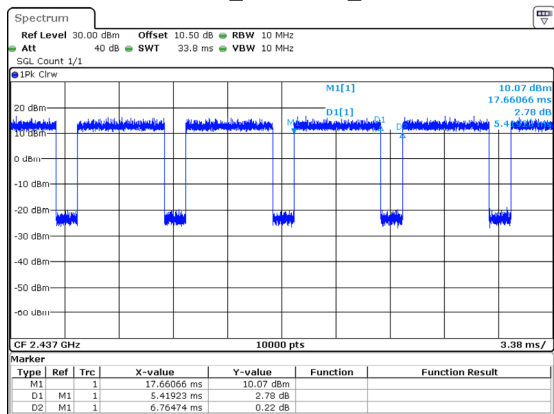
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 09:58:17

802.11g_2437MHz_Chain 0



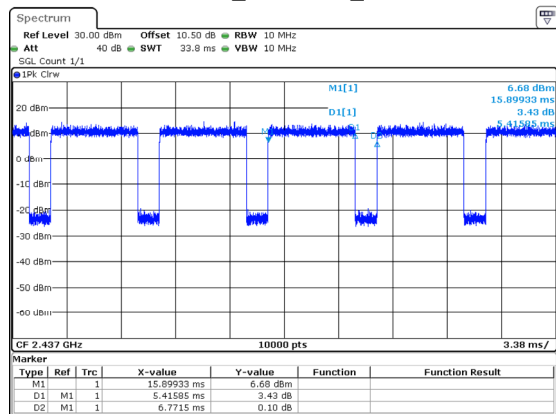
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 09:50:41

802.11n20_2437MHz_Chain 0



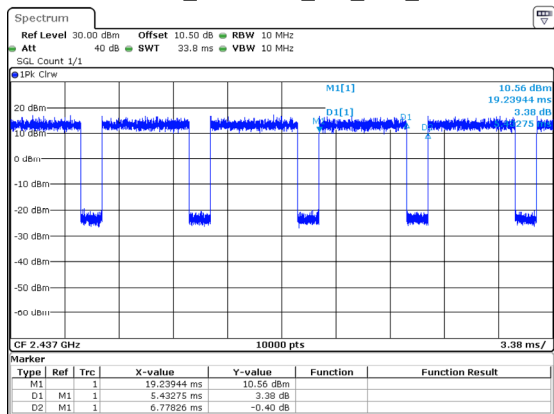
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 09:51:44

802.11n40_2437MHz_Chain 0



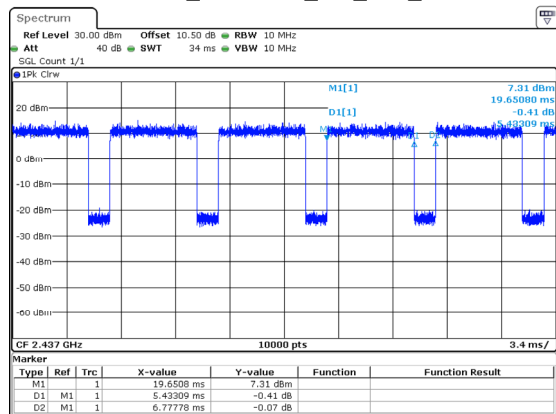
ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 09:52:47

802.11ax20_2437MHz_RU_Full_Chain 0



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 09:53:52

802.11ax40_2437MHz_RU_Full_Chain 0



ProjectNo.:2401X96326E-RF Tester:Rainbow Zhu
Date: 15.JAN.2025 09:54:53

RF EXPOSURE EVALUATION

MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Result

Calculation formula:

Prediction of power density at the distance of the applicable MPE limit

$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm²);

P = power input to the antenna (in appropriate units, e.g., mW);

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Calculated Data:

For worst case:

Mode	Frequency (MHz)	Antenna Gain [#]		Max Tune-up Power [#]		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
BLE	2402-2480	4.10	2.57	12.0	15.85	30	0.0036	1.0
2.4G Wi-Fi	2412-2462	7.78	6.00	29.0	794.33	30	0.4214	1.0
5G Wi-Fi	5150-5250	6.04	4.02	28.5	707.95	30	0.2516	1.0
	5250-5350	6.55	4.52	23.5	223.87	30	0.0895	1.0
	5470-5725	5.74	3.75	24.0	251.19	30	0.0833	1.0
	5725-5850	5.36	3.44	27.5	562.34	30	0.1710	1.0
6G Wi-Fi	5925-6425	7.38	5.47	16.5	44.67	30	0.0216	1.0
	6425-6525	6.79	4.78	17.0	50.12	30	0.0212	1.0
	6525-6875	7.68	5.86	17.0	50.12	30	0.0260	1.0
	6875-7125	8.24	6.67	16.0	39.81	30	0.0235	1.0

Note:

- 1) The tune up conducted power and antenna gain was declared by the applicant.
- 2) For the Wi-Fi mode, the antenna gain should be the directional gain.
- 3) The BLE, 2.4G Wi-Fi, 5G Wi-Fi and 6G Wi-Fi can simultaneous transmitting.

Simultaneous transmitting consideration (worst case):

The ratio=MPE_{BLE}/limit+ MPE_{2.4G Wi-Fi}/limit+MPE_{5G Wi-Fi}/limit +MPE_{6G Wi-Fi}/limit

$$= 0.0036/1.0+0.4214/1.0+0.2516/1.0+0.0260/1.0 =0.703<1.0$$

So simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 30cm from nearby persons.

Result: Compliant.

EXPOSURE LIMITS

Applicable Standard

According to RSS-102 issue 6 §5.3.2:

Table 7: RF field strength and power density limits for devices used by the general public (uncontrolled environment)

Frequency range (MHz)	Electric field (V _{RMS} /m)	Magnetic field (A _{RMS} /m)	Power density (W/m ²)	Reference period (minutes)
10-20	27.46	0.0728	2	6
20-48	58.07 / $f^{0.25}$	0.1540 / $f^{0.25}$	8.944 / $f^{0.5}$	6
48-300	22.06	0.05852	1.291	6
300-6000	3.142 $f^{0.3417}$	0.008335 $f^{0.3417}$	0.02619 $f^{0.6834}$	6
6000-15000	61.4	0.163	10	6
15000-150000	61.4	0.163	10	616000 / $f^{1.2}$
150000-300000	0.158 $f^{0.5}$	4.21×10 ⁻⁴ $f^{0.5}$	6.67×10 ⁻⁵ f	616000 / $f^{1.2}$

Note: f is frequency in MHz.

Result:

Calculated Formulary:

Predication of MPE limit at a given distance

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. W/m²)

P = power input to the antenna (in appropriate units, e.g., W).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

For worst case:

Mode	Frequency (MHz)	Antenna Gain [#]		Max Tune-up Power [#]		Evaluation Distance (cm)	Power Density (W/m ²)	MPE Limit (W/m ²)
		(dBi)	(numeric)	(dBm)	(mW)			
BLE	2402-2480	4.10	2.57	12.0	15.85	30	0.036	5.35
2.4G Wi-Fi	2412-2462	7.78	6.00	29.0	794.33	30	4.214	5.37
5G Wi-Fi	5150-5250	6.04	4.02	16.5	44.67	30	0.159	9.01
	5250-5350	6.55	4.52	16.5	44.67	30	0.179	9.13
	5470-5725	5.74	3.75	24.0	251.19	30	0.833	9.39
	5725-5850	5.36	3.44	27.5	562.34	30	1.710	9.69
6G Wi-Fi	5925-6425	7.38	5.47	16.5	44.67	30	0.216	9.92
	6425-6525	6.79	4.78	17.0	50.12	30	0.212	10.00
	6525-6875	7.68	5.86	17.0	50.12	30	0.260	10.00
	6875-7125	8.24	6.67	16.0	39.81	30	0.235	10.00

Note:

- 1) The tune up conducted power and antenna gain was declared by the applicant.
- 2) For the Wi-Fi mode, the antenna gain should be the directional gain.
- 3) The BLE, 2.4G Wi-Fi, 5G Wi-Fi and 6G Wi-Fi can simultaneous transmitting.

Simultaneous transmitting consideration (worst case):

The ratio=MPE_{BLE}/limit+ MPE_{2.4G Wi-Fi}/limit+MPE_{5G Wi-Fi}/limit +MPE_{6G Wi-Fi}/limit

$$= 0.036/5.35+4.214/5.37+1.710/9.69+0.260/10.00 =0.994<1.0$$

So simultaneous exposure is compliant.

Result: Compliant.

Note: To maintain compliance with the RF exposure guidelines, place the equipment at least 30cm from nearby persons.

EUT PHOTOGRAPHS

Please refer to the attachment 2401X96326E-RF External photo and 2401X96326E-RF Internal photo.

TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2401X96326E-RFB Test Setup photo.

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