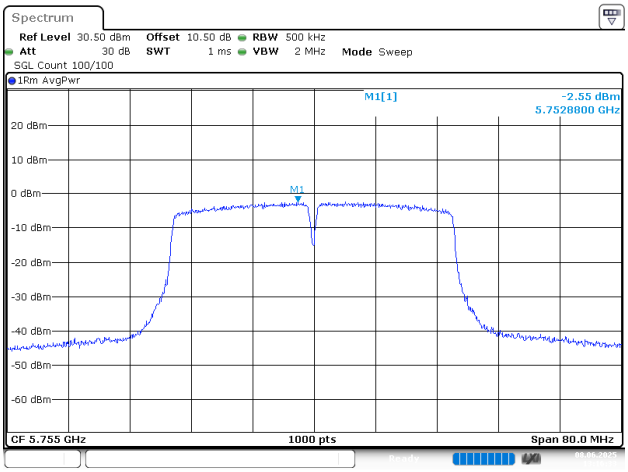
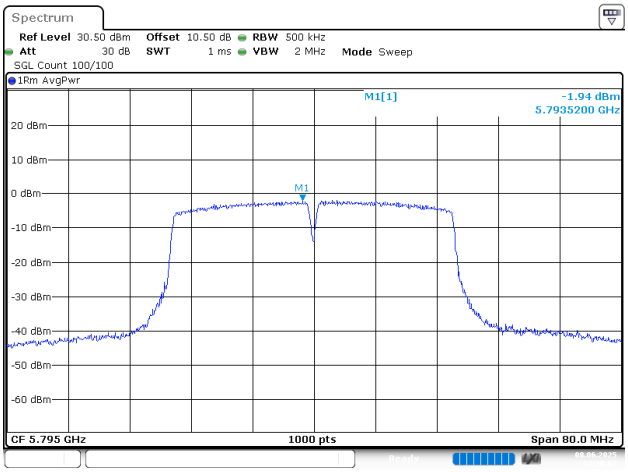
802.11n ht40_5755MHz_Chain 0



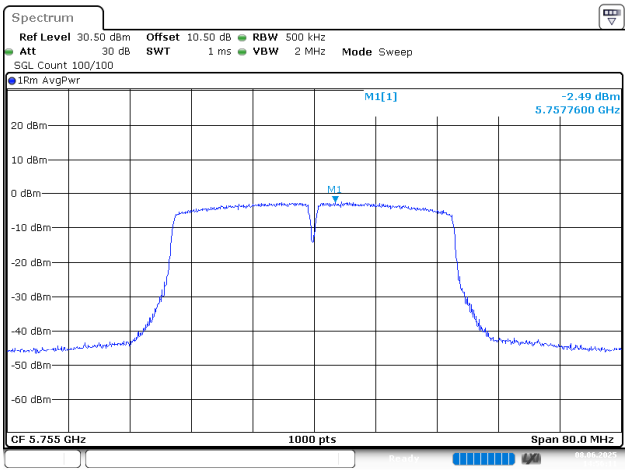

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 13:16:34

802.11n ht40_5795MHz_Chain 0



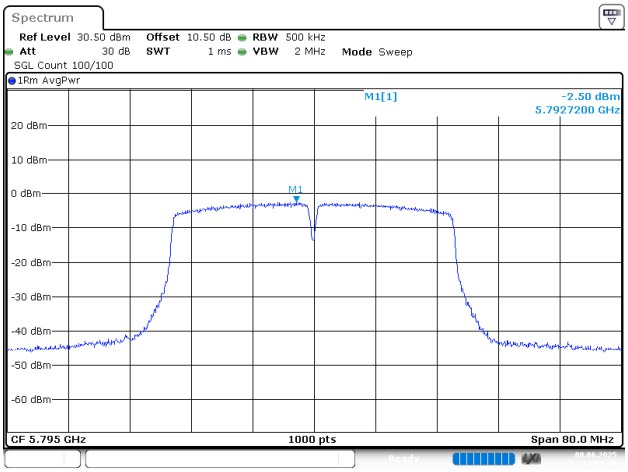

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 13:18:08

802.11n ht40_5755MHz_Chain 1



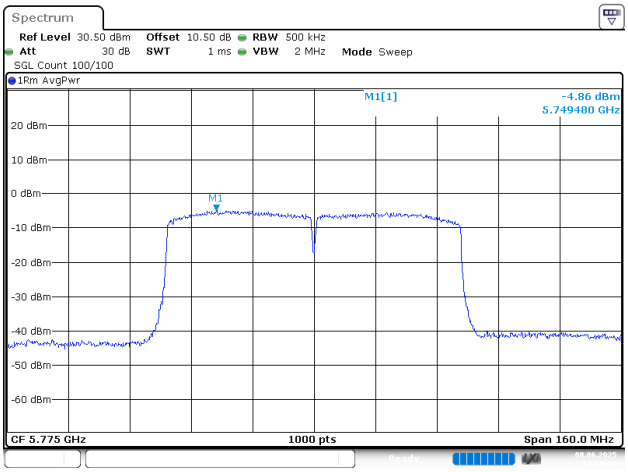

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 14:56:12

802.11n ht40_5795MHz_Chain 1



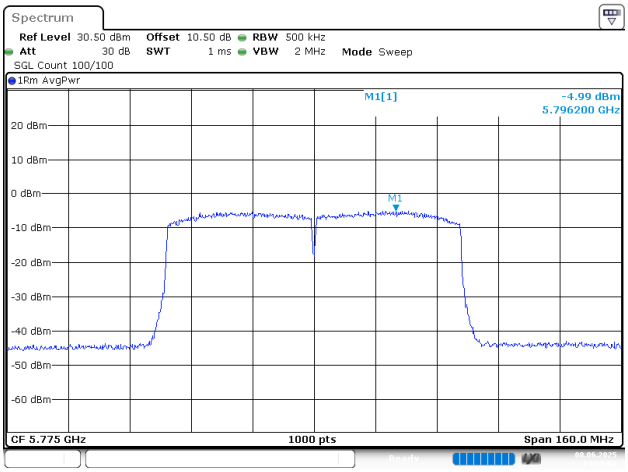

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 14:57:30

802.11ac vht80_5775MHz_Chain 0




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 13:19:45

802.11ac vht80_5775MHz_Chain 1




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 14:59:06

## 5.7 Duty Cycle

### Test Information:

| | | | |
|---|---|---|---|
| **Serial No.:** | 31QP-1 | **Test Date:** | 2025/06/08 |
| **Test Site:** | RF | **Test Mode:** | Transmitting |
| **Tester:** | Conor Fu | **Test Result:** | N/A |

### Environmental Conditions:

| | | | | | |
|---|---|---|---|---|---|
| **Temperature: (°C)** | 25.4 | **Relative Humidity: (%)** | 62 | **ATM Pressure: (kPa)** | 100.1 |

### Test Equipment List and Details:

| Manufacturer | Description | Model | Serial Number | Calibration Date | Calibration Due Date |
|---|---|---|---|---|---|
| R&S | Spectrum Analyzer | FSV40 | 101461 | 2024/09/05 | 2025/09/04 |
| Narda | Coaxial Attenuator | 773-10 | F-08-EM511 | 2025/06/07 | 2026/06/06 |

** Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

### Test Data:

**5150-5250MHz**

| Mode | Test Frequency (MHz) | Ton (ms) | Ton+Toff (ms) | Duty Cycle (%) | Duty Cycle Factor(dB) | 1/Ton (Hz) | VBW Setting (kHz) |
|---|---|---|---|---|---|---|---|
| 802.11a | 5200 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11n ht20 | 5200 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11n ht40 | 5190 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11ac vht80 | 5210 | 100 | 100 | 100 | 0 | NA | 0.010 |

**5250-5350MHz**

| Mode | Test Frequency (MHz) | Ton (ms) | Ton+Toff (ms) | Duty Cycle (%) | Duty Cycle Factor(dB) | 1/Ton (Hz) | VBW Setting (kHz) |
|---|---|---|---|---|---|---|---|
| 802.11a | 5280 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11n ht20 | 5280 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11n ht40 | 5270 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11ac vht80 | 5290 | 100 | 100 | 100 | 0 | NA | 0.010 |

**5470-5725MHz**

| Mode | Test Frequency (MHz) | Ton (ms) | Ton+Toff (ms) | Duty Cycle (%) | Duty Cycle Factor(dB) | 1/Ton (Hz) | VBW Setting (kHz) |
|---|---|---|---|---|---|---|---|
| 802.11a | 5580 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11n ht20 | 5580 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11n ht40 | 5550 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11ac vht80 | 5610 | 100 | 100 | 100 | 0 | NA | 0.010 |

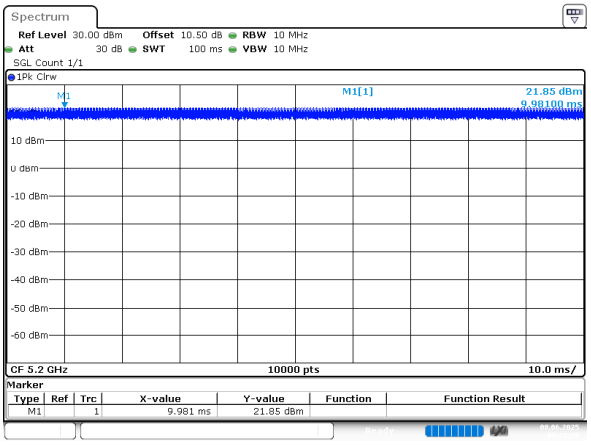
**5725-5850MHz**

| Mode | Test Frequency (MHz) | Ton (ms) | Ton+Toff (ms) | Duty Cycle (%) | Duty Cycle Factor(dB) | 1/Ton (Hz) | VBW Setting (kHz) |
|---|---|---|---|---|---|---|---|
| 802.11a | 5785 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11n ht20 | 5785 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11n ht40 | 5755 | 100 | 100 | 100 | 0 | NA | 0.010 |
| 802.11ac vht80 | 5775 | 100 | 100 | 100 | 0 | NA | 0.010 |

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

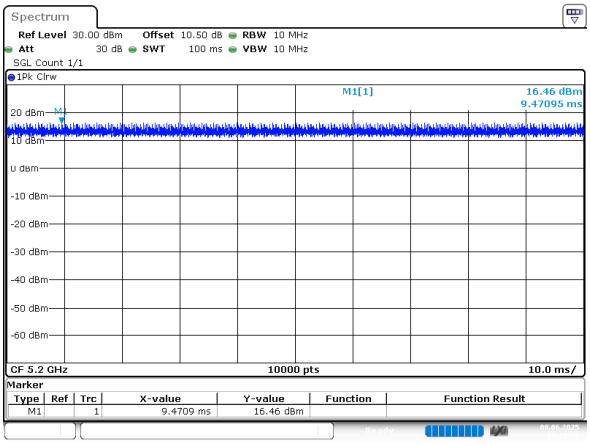
## 5150-5250MHz

802.11a_5200MHz



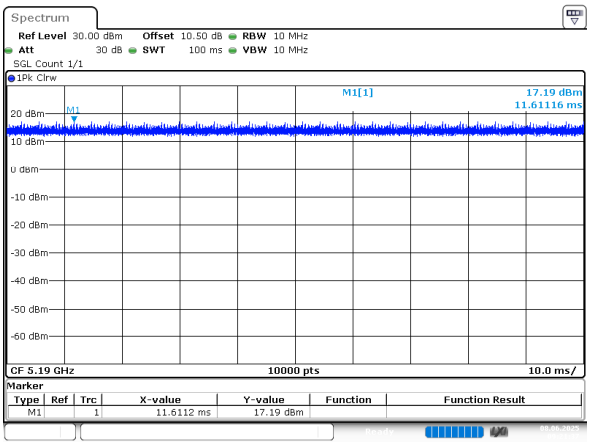

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:18:39

802.11n ht20_5200MHz



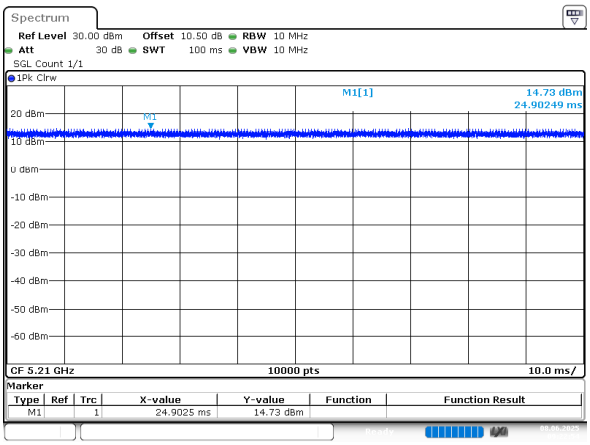

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:20:17

802.11n ht40_5190MHz




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:21:37

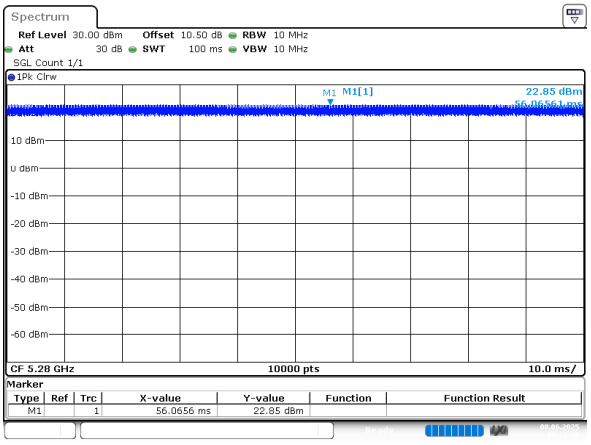
802.11ac vht80_5210MHz




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:22:55

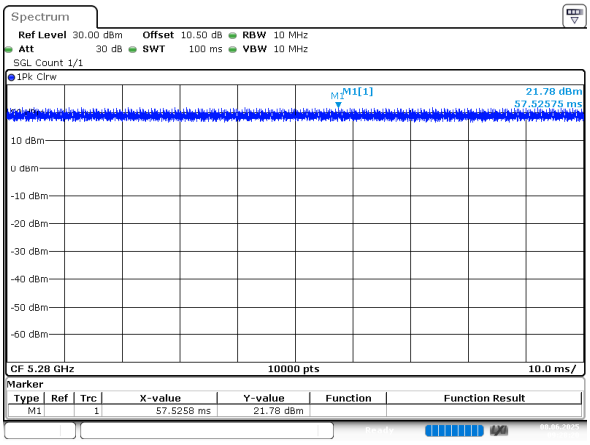
## 5250-5350MHz

802.11a_5280MHz



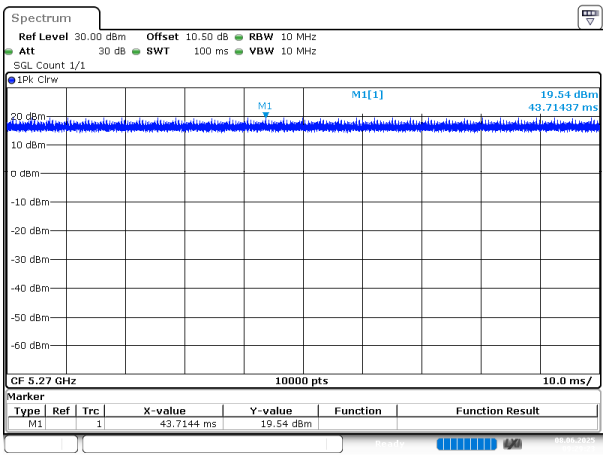

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:27:11

802.11n ht20_5280MHz



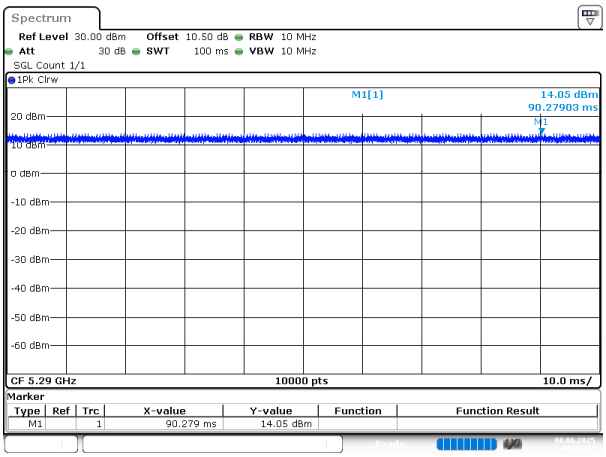

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:28:20

802.11n ht40_5270MHz




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:29:24

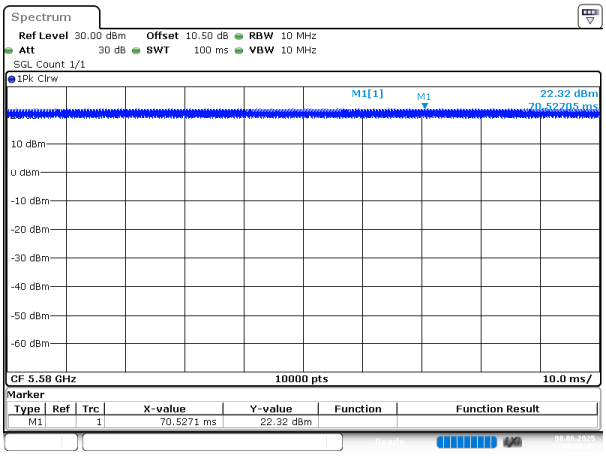
802.11ac vht80_5290MHz




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:31:25

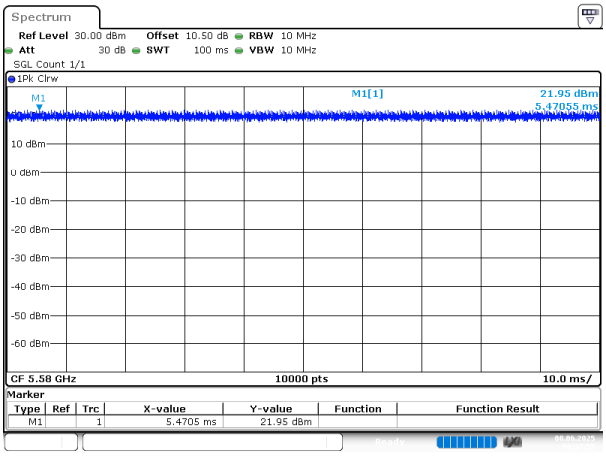
**5470-5725MHz**

802.11a_5580MHz



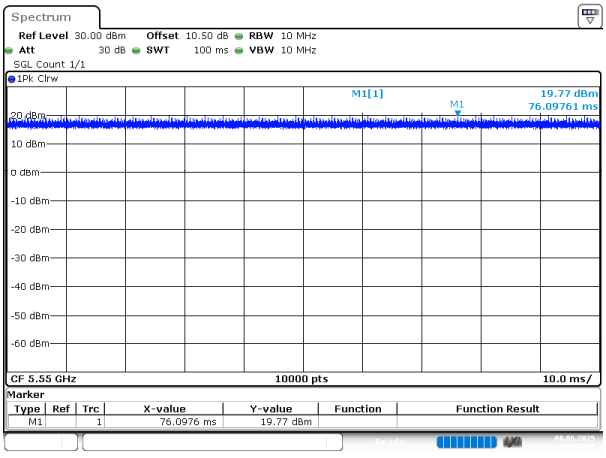

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:36:48

802.11n ht20_5580MHz



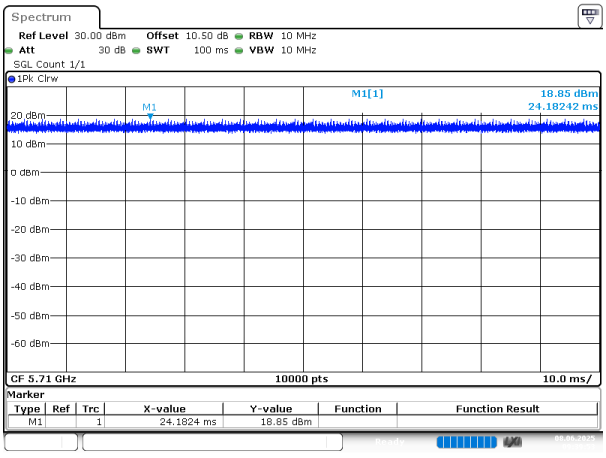

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:37:56

802.11n ht40_5550MHz




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:38:59

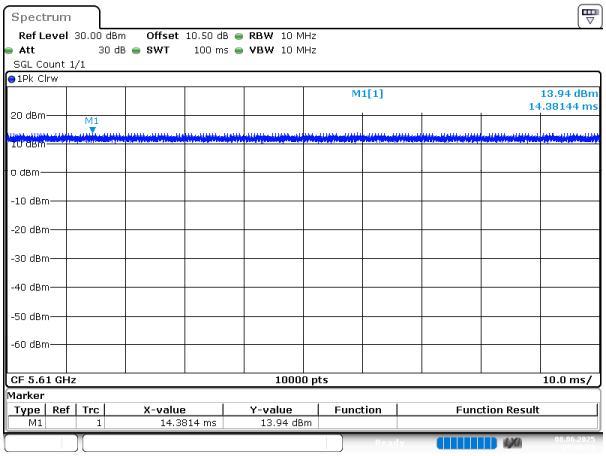
802.11n ht40_5710MHz




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:39:54

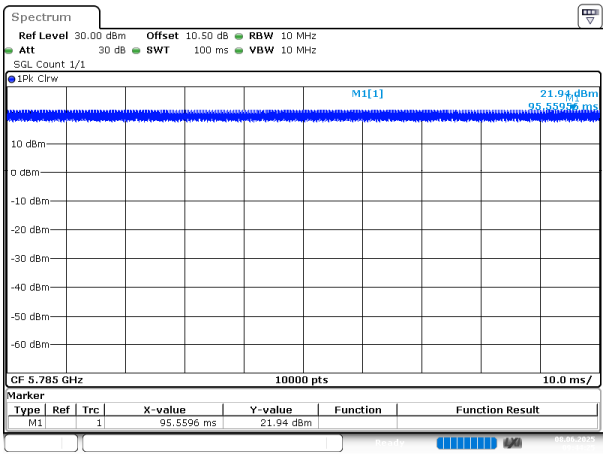
**5725-5850MHz**

802.11ac vht80_5610MHz



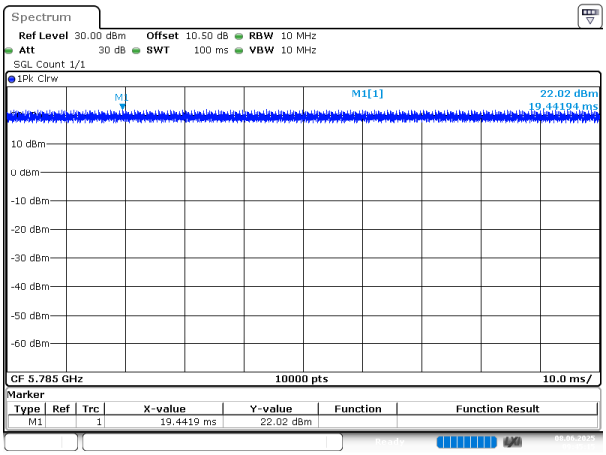

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:41:00

802.11a_5785MHz



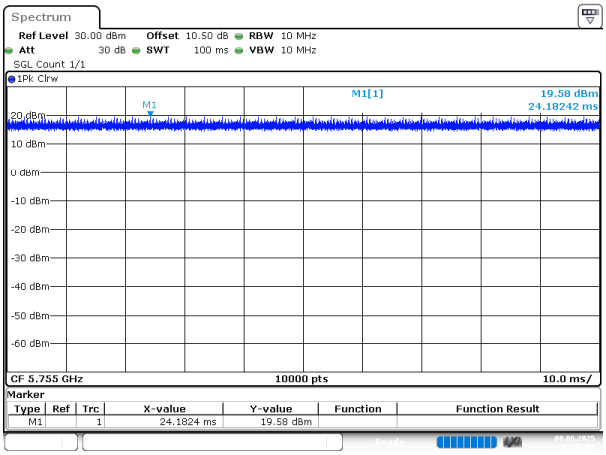

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:44:25

802.11n ht20_5785MHz



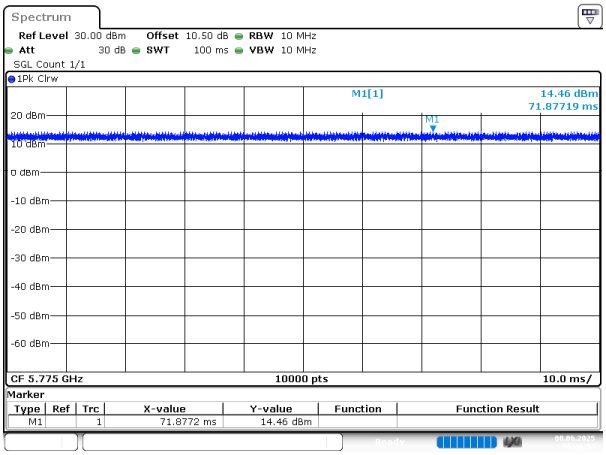

ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:45:15

802.11n ht40_5755MHz




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:46:08

802.11ac vht80_5775MHz




ProjectNo.:2502S54931E-RF Tester:Conor Fu
Date: 8.JUN.2025 09:46:55

# EXHIBIT A - EUT PHOTOGRAPHS

Please refer to the attachment 2502S54931E-RF-EXP EUT EXTERNAL PHOTOGRAPHS and 2502S54931E-RF-INP EUT INTERNAL PHOTOGRAPHS.

# EXHIBIT B - TEST SETUP PHOTOGRAPHS

Please refer to the attachment 2502S54931E-RF-00B-TSP TEST SETUP PHOTOGRAPHS.

# EXHIBIT C - RF EXPOSURE EVALUATION

## Maximum Permissible Exposure (MPE)

### Applicable Standard

According to subpart §1.1310,15.247(i) and 15.407(f)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/f²) | 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.

**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. $mW/cm^2$);
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);

**Calculated Data:**

| Mode | Frequency (MHz) | Antenna Gain | | Conducted Average Output Power including Tune-up Tolerance▲ | | Evaluation Distance (cm) | Power Density ($mW/cm^2$) | MPE Limit ($mW/cm^2$) |
|---|---|---|---|---|---|---|---|---|
| | | (dBi) | (numeric) | (dBm) | (mW) | | | |
| 2.4G WIFI | 2412-2462 | 8.20 | 6.607 | 22.5 | 177.83 | 20 | 0.2339 | 1.0 |
| 5G WIFI | 5150-5250 | 5.69 | 3.707 | 15 | 31.62 | 20 | 0.0233 | 1.0 |
| | 5250-5350 | 5.69 | 3.707 | 18 | 63.10 | 20 | 0.0466 | 1.0 |
| | 5470-5725 | 5.17 | 3.289 | 18.5 | 70.79 | 20 | 0.0463 | 1.0 |
| | 5725-5850 | 4.10 | 2.570 | 18.5 | 70.79 | 20 | 0.0362 | 1.0 |

Note:
The Conducted Average Output Power including Tune-up Tolerance provided by manufacturer.
2.4G WiFi and 5G WiFi can't transmit simultaneously.

**Result:** The device meets FCC MPE at 20 cm distance

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