

## **APPENDIX**

**WIR125040**

**FCC247 Data**

**§ 15.203      Antenna Requirement**

\* No appendix data.

## § 15.207(a) Conducted Emissions Limits

| Conducted Emissions Datasheet |                        |                   |                       |                    |                                                                 |           |
|-------------------------------|------------------------|-------------------|-----------------------|--------------------|-----------------------------------------------------------------|-----------|
| METrak Number                 | 125040                 |                   |                       | Test Specification | FCC Part 15, Subpart B, Section 15.107; ICES-003, Section 3.2.1 |           |
| Customer                      | Lumin                  |                   |                       | Equipment Class    | B                                                               |           |
| EUT Name                      | Lumin Smart Panel      |                   |                       | Engineer           | Donald Salguero                                                 |           |
| Model/Part Number             | LSP-12                 |                   |                       | Test Date(s)       | 3/21/2023                                                       |           |
| Serial Number                 | N/A                    |                   |                       | Temperature        | 19.7°C                                                          |           |
| Mode of Operation             | Active Connection      |                   |                       | Relative Humidity  | 31%                                                             |           |
| Notes:                        |                        |                   |                       |                    |                                                                 |           |
| Start Frequency               |                        | 150 kHz           |                       | Stop Frequency     |                                                                 | 30 MHz    |
| Line Under Test               |                        | Line 1            |                       |                    |                                                                 |           |
| Frequency                     | Quasi-Peak Measurement | Correction Factor | Corrected Measurement | Quasi-Peak Limit   | Margin                                                          | Result    |
| MHz                           | dBμV                   | dB                | dBμV                  | dBμV               | dB                                                              | Pass/Fail |
| 0.15                          | 49.32                  | 10.5              | 59.82                 | 66                 | -6.18                                                           | PASS      |
| 5.044                         | 43.1                   | 10.05             | 53.15                 | 60                 | -6.85                                                           | PASS      |
| 5.064                         | 43.14                  | 10.05             | 53.19                 | 60                 | -6.81                                                           | PASS      |
| 5.098                         | 43.1                   | 10.05             | 53.15                 | 60                 | -6.85                                                           | PASS      |
| 5.119                         | 43.09                  | 10.05             | 53.14                 | 60                 | -6.86                                                           | PASS      |
| 5.144                         | 43.05                  | 10.05             | 53.1                  | 60                 | -6.9                                                            | PASS      |
| Frequency                     | Average Measurement    | Correction Factor | Corrected Measurement | Average Limit      | Margin                                                          | Result    |
| MHz                           | dBμV                   | dB                | dBμV                  | dBμV               | dB                                                              | Pass/Fail |
| 4.956                         | 35.31                  | 10.05             | 45.36                 | 46                 | -0.643                                                          | PASS      |
| 5.14                          | 35.31                  | 10.05             | 45.36                 | 50                 | -4.636                                                          | PASS      |
| 5.16                          | 35.33                  | 10.05             | 45.38                 | 50                 | -4.62                                                           | PASS      |
| 5.181                         | 35.24                  | 10.05             | 45.29                 | 50                 | -4.705                                                          | PASS      |
| 5.206                         | 35.26                  | 10.05             | 45.31                 | 50                 | -4.69                                                           | PASS      |
| 5.227                         | 35.24                  | 10.05             | 45.29                 | 50                 | -4.708                                                          | PASS      |

Figure 1: CEV Data (240V60Hz, L1)

| Conducted Emissions Datasheet |                        |                   |                       |                    |                                                                 |           |
|-------------------------------|------------------------|-------------------|-----------------------|--------------------|-----------------------------------------------------------------|-----------|
| METrak Number                 | 125040                 |                   |                       | Test Specification | FCC Part 15, Subpart B, Section 15.107; ICES-003, Section 3.2.1 |           |
| Customer                      | Lumin                  |                   |                       | Equipment Class    | B                                                               |           |
| EUT Name                      | Lumin Smart Panel      |                   |                       | Engineer           | Donald Salguero                                                 |           |
| Model/Part Number             | LSP-12                 |                   |                       | Test Date(s)       | 3/21/2023                                                       |           |
| Serial Number                 | N/A                    |                   |                       | Temperature        | 19.7°C                                                          |           |
| Mode of Operation             | Active Connection      |                   |                       | Relative Humidity  | 31%                                                             |           |
| Notes:                        |                        |                   |                       |                    |                                                                 |           |
| Start Frequency               |                        | 150 kHz           |                       | Stop Frequency     |                                                                 | 30 MHz    |
| Line Under Test               |                        | Line 2            |                       |                    |                                                                 |           |
| Frequency                     | Quasi-Peak Measurement | Correction Factor | Corrected Measurement | Quasi-Peak Limit   | Margin                                                          | Result    |
| MHz                           | dBμV                   | dB                | dBμV                  | dBμV               | dB                                                              | Pass/Fail |
| 5.169                         | 29.42                  | 10.1              | 39.52                 | 60                 | -20.479                                                         | PASS      |
| 5.215                         | 29.74                  | 10.1              | 39.84                 | 60                 | -20.158                                                         | PASS      |
| 5.236                         | 30.01                  | 10.1              | 40.11                 | 60                 | -19.89                                                          | PASS      |
| 5.286                         | 30.26                  | 10.11             | 40.37                 | 60                 | -19.631                                                         | PASS      |
| 5.331                         | 29.64                  | 10.11             | 39.75                 | 60                 | -20.252                                                         | PASS      |
| 5.498                         | 28.94                  | 10.11             | 39.05                 | 60                 | -20.955                                                         | PASS      |
| Frequency                     | Average Measurement    | Correction Factor | Corrected Measurement | Average Limit      | Margin                                                          | Result    |
| MHz                           | dBμV                   | dB                | dBμV                  | dBμV               | dB                                                              | Pass/Fail |
| 5.194                         | 21.18                  | 10.1              | 31.28                 | 50                 | -18.717                                                         | PASS      |
| 5.219                         | 21.67                  | 10.1              | 31.78                 | 50                 | -18.222                                                         | PASS      |
| 5.244                         | 21.8                   | 10.1              | 31.9                  | 50                 | -18.097                                                         | PASS      |
| 5.286                         | 21.69                  | 10.11             | 31.79                 | 50                 | -18.205                                                         | PASS      |
| 5.323                         | 21.29                  | 10.11             | 31.4                  | 50                 | -18.605                                                         | PASS      |
| 5.348                         | 21                     | 10.11             | 31.11                 | 50                 | -18.891                                                         | PASS      |

Figure 2: CEV Data (240V60Hz, L2)

| Conducted Emissions Datasheet |                        |                   |                       |                    |                                                                 |           |
|-------------------------------|------------------------|-------------------|-----------------------|--------------------|-----------------------------------------------------------------|-----------|
| METrak Number                 | 125040                 |                   |                       | Test Specification | FCC Part 15, Subpart B, Section 15.107; ICES-003, Section 3.2.1 |           |
| Customer                      | Lumin                  |                   |                       | Equipment Class    | B                                                               |           |
| EUT Name                      | Lumin Smart Panel      |                   |                       | Engineer           | Donald Salguero                                                 |           |
| Model/Part Number             | LSP-12                 |                   |                       | Test Date(s)       | 3/21/2023                                                       |           |
| Serial Number                 | N/A                    |                   |                       | Temperature        | 19.7°C                                                          |           |
| Mode of Operation             | Active Connection      |                   |                       | Relative Humidity  | 31%                                                             |           |
| Notes:                        |                        |                   |                       |                    |                                                                 |           |
| Start Frequency               |                        | 150 kHz           |                       | Stop Frequency     |                                                                 | 30 MHz    |
| Line Under Test               |                        | Neutral           |                       |                    |                                                                 |           |
| Frequency                     | Quasi-Peak Measurement | Correction Factor | Corrected Measurement | Quasi-Peak Limit   | Margin                                                          | Result    |
| MHz                           | dBμV                   | dB                | dBμV                  | dBμV               | dB                                                              | Pass/Fail |
| 5.227                         | 38.75                  | 10.08             | 48.84                 | 60                 | -11.164                                                         | PASS      |
| 5.277                         | 38.78                  | 10.08             | 48.87                 | 60                 | -11.135                                                         | PASS      |
| 5.311                         | 38.46                  | 10.08             | 48.54                 | 60                 | -11.457                                                         | PASS      |
| 7.718                         | 39.8                   | 10.12             | 49.92                 | 60                 | -10.081                                                         | PASS      |
| 7.76                          | 40.2                   | 10.12             | 50.32                 | 60                 | -9.68                                                           | PASS      |
| 7.83                          | 39.85                  | 10.12             | 49.97                 | 60                 | -10.027                                                         | PASS      |
| Frequency                     | Average Measurement    | Correction Factor | Corrected Measurement | Average Limit      | Margin                                                          | Result    |
| MHz                           | dBμV                   | dB                | dBμV                  | dBμV               | dB                                                              | Pass/Fail |
| 5.277                         | 33.2                   | 10.08             | 43.28                 | 50                 | -6.716                                                          | PASS      |
| 7.73                          | 33.47                  | 10.12             | 43.59                 | 50                 | -6.408                                                          | PASS      |
| 7.755                         | 34.28                  | 10.12             | 44.4                  | 50                 | -5.598                                                          | PASS      |
| 7.785                         | 34.71                  | 10.12             | 44.83                 | 50                 | -5.172                                                          | PASS      |
| 7.805                         | 34.76                  | 10.12             | 44.88                 | 50                 | -5.116                                                          | PASS      |
| 7.83                          | 34.26                  | 10.12             | 44.38                 | 50                 | -5.617                                                          | PASS      |

Figure 3: CEV Data (240V60Hz, N)

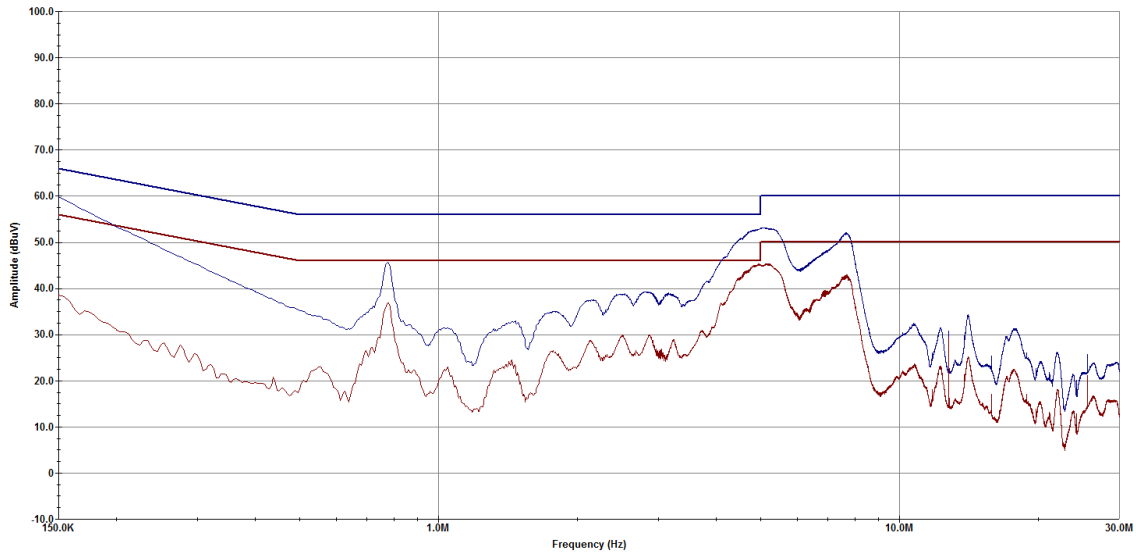
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Model/Part Number - LSP-12  
Serial Number - LS-100687

Eurofins Electrical and Electronic Testing NA, Inc.

Conducted Emissions

Line

— Quasi-Peak Limit  
— Average Limit  
— Quasi-Peak Measurement  
— Average Measurement



Operator: Donald Salguero

Last Data Update 09:18:26 AM, Tuesday, March 21, 2023

**Figure 4: CEV Prescan (240V60Hz, L1).png**

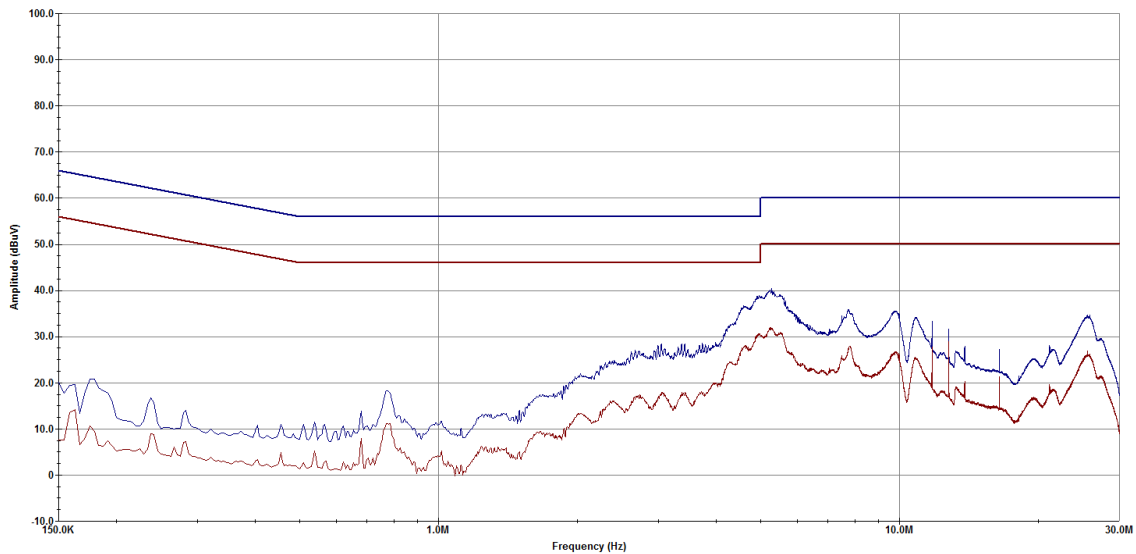
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Model/Part Number - LSP-12  
Serial Number - LS100687

Eurofins Electrical and Electronic Testing NA, Inc.

Conducted Emissions

L2

— Quasi-Peak Limit  
— Average Limit  
— Quasi-Peak Measurement  
— Average Measurement



Operator: Donald Salguero

Last Data Update 09:10:13 AM, Tuesday, March 21, 2023

**Figure 5: CEV Prescan (240V60Hz, L2).png**

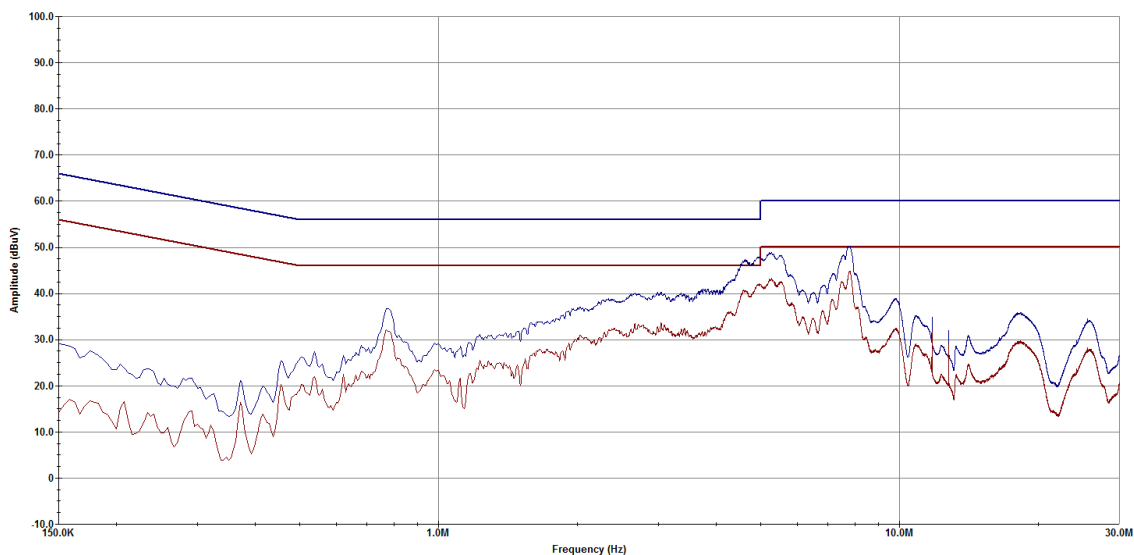
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Model/Part Number - LSP-12  
Serial Number - LS-100687

Eurofins Electrical and Electronic Testing NA, Inc.

Conducted Emissions

Neutral

— Quasi-Peak Limit  
— Average Limit  
— Quasi-Peak Measurement  
— Average Measurement

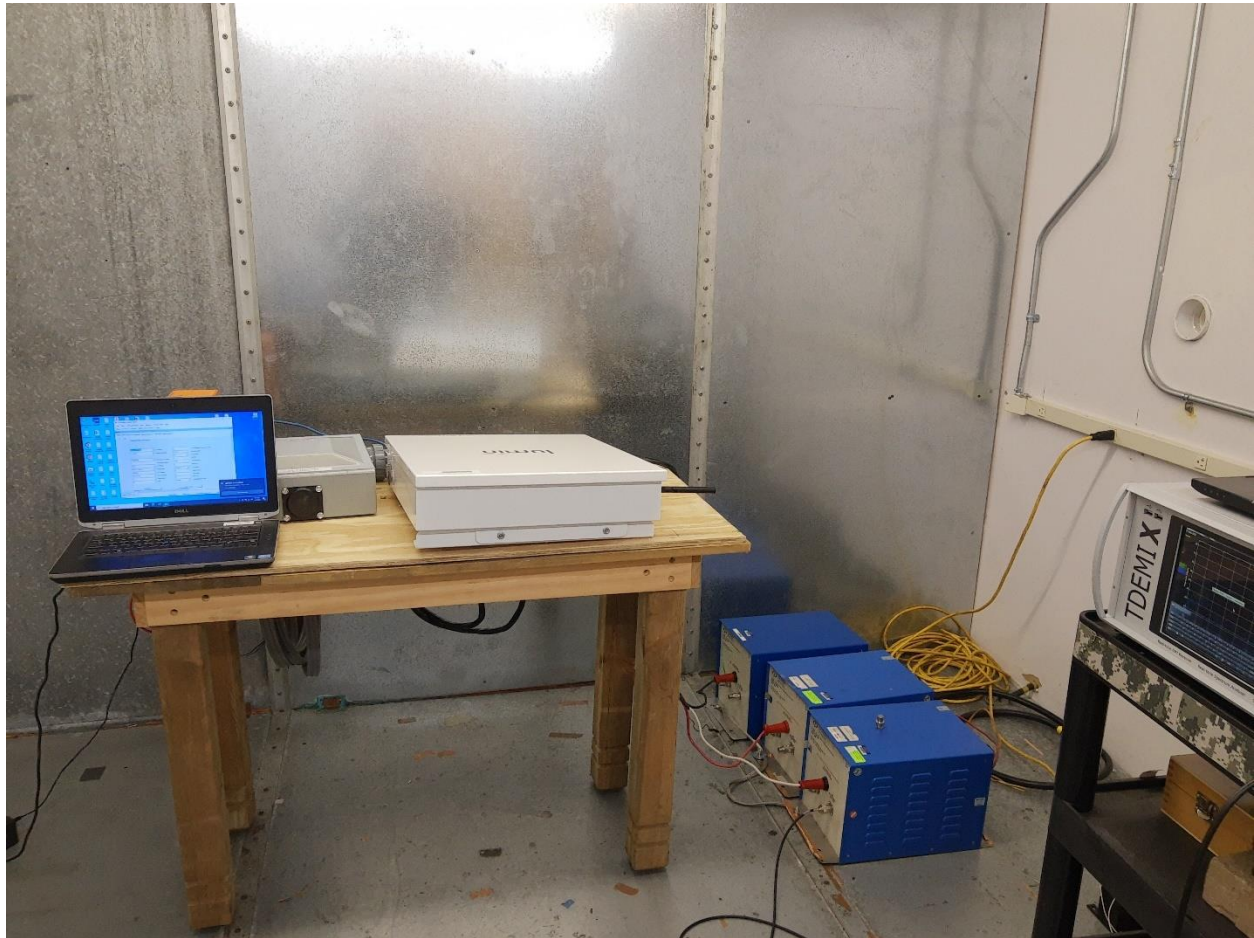


Operator: Donald Salguero

Last Data Update 09:08:04 AM, Tuesday, March 21, 2023

**Figure 6: CEV Prescan (240V60Hz, N).png**





**Figure 7: CEV Setup**

### § 15.247(a)(2) 6 dB Bandwidth

| Mode       | Frequency (MHz) | Measured -6dB Bandwidth (MHz) | Measured 99% Bandwidth (MHz) |
|------------|-----------------|-------------------------------|------------------------------|
| 802.11b    | 2412            | 7.689                         | 13.3151                      |
|            | 2437            | 7.24                          | 13.3556                      |
|            | 2462            | 8.179                         | 13.2958                      |
| 802.11g    | 2412            | 14.609                        | 16.536                       |
|            | 2437            | 15.466                        | 16.5962                      |
|            | 2462            | 15.233                        | 16.4504                      |
| 802.11n 20 | 2412            | 14.119                        | 17.5741                      |
|            | 2437            | 15.585                        | 17.6388                      |
|            | 2462            | 13.889                        | 17.552                       |
| 802.11n 40 | 2422            | 35.182                        | 35.8993                      |
|            | 2437            | 35.293                        | 36.0628                      |
|            | 2452            | 35.215                        | 36.0442                      |

Figure 8: OBW, Test Results

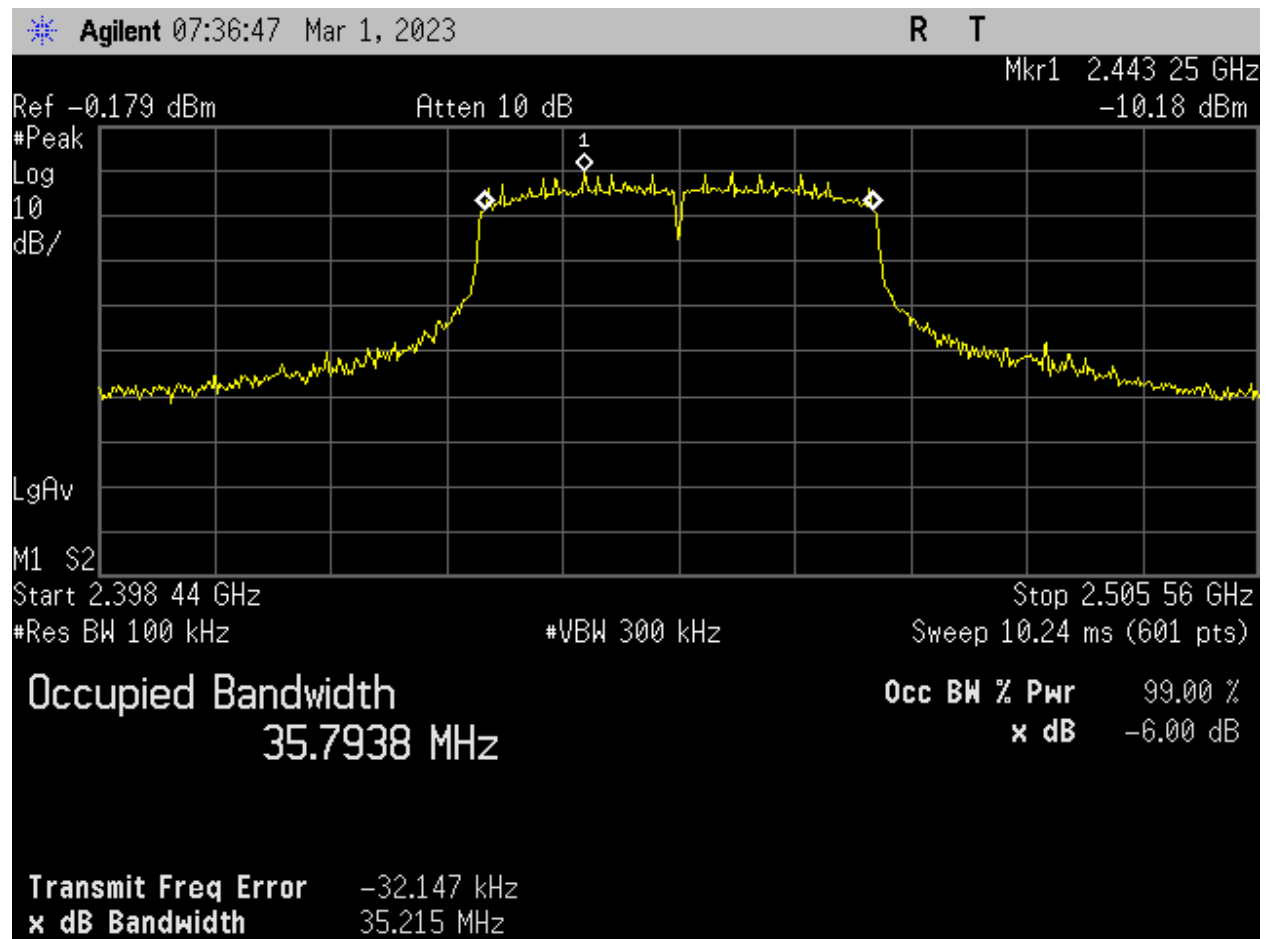


Figure 9: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_Occupied Bandwidth\_-6dB\_Port 1.

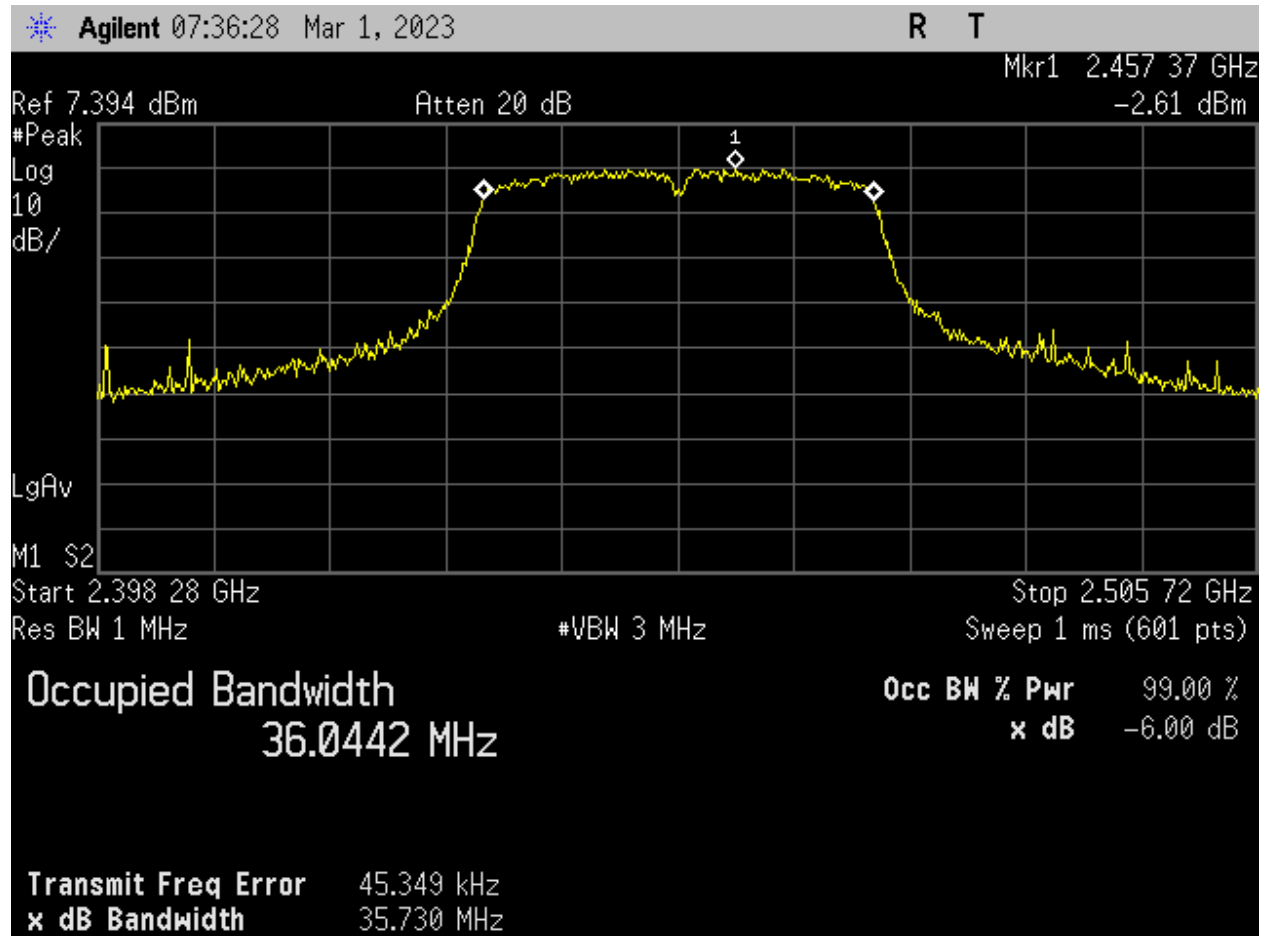


Figure 10: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_Occupied Bandwidth\_99 percent\_Port 1.

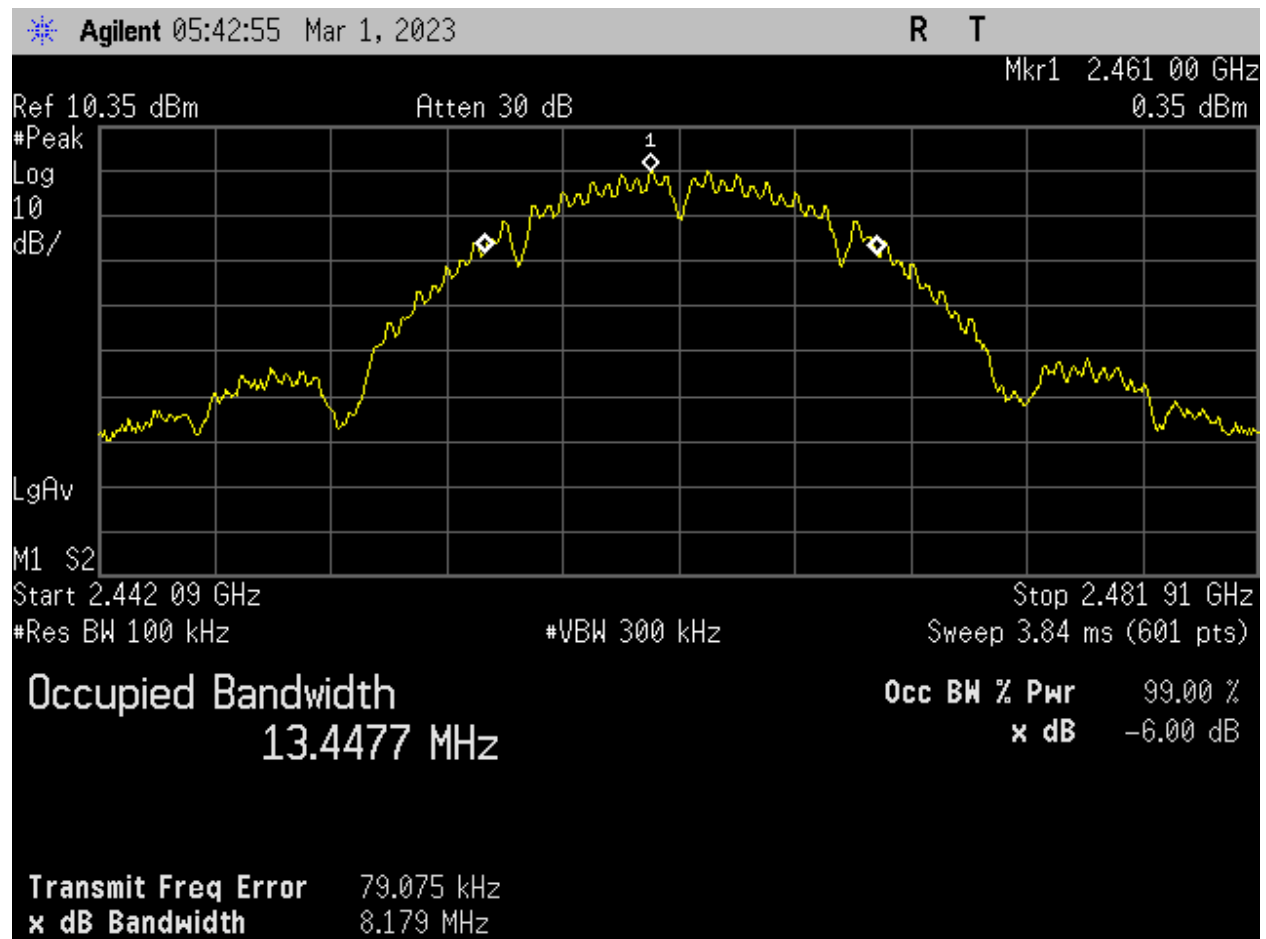


Figure 11: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_Occupied Bandwidth\_-6dB\_Port 1.

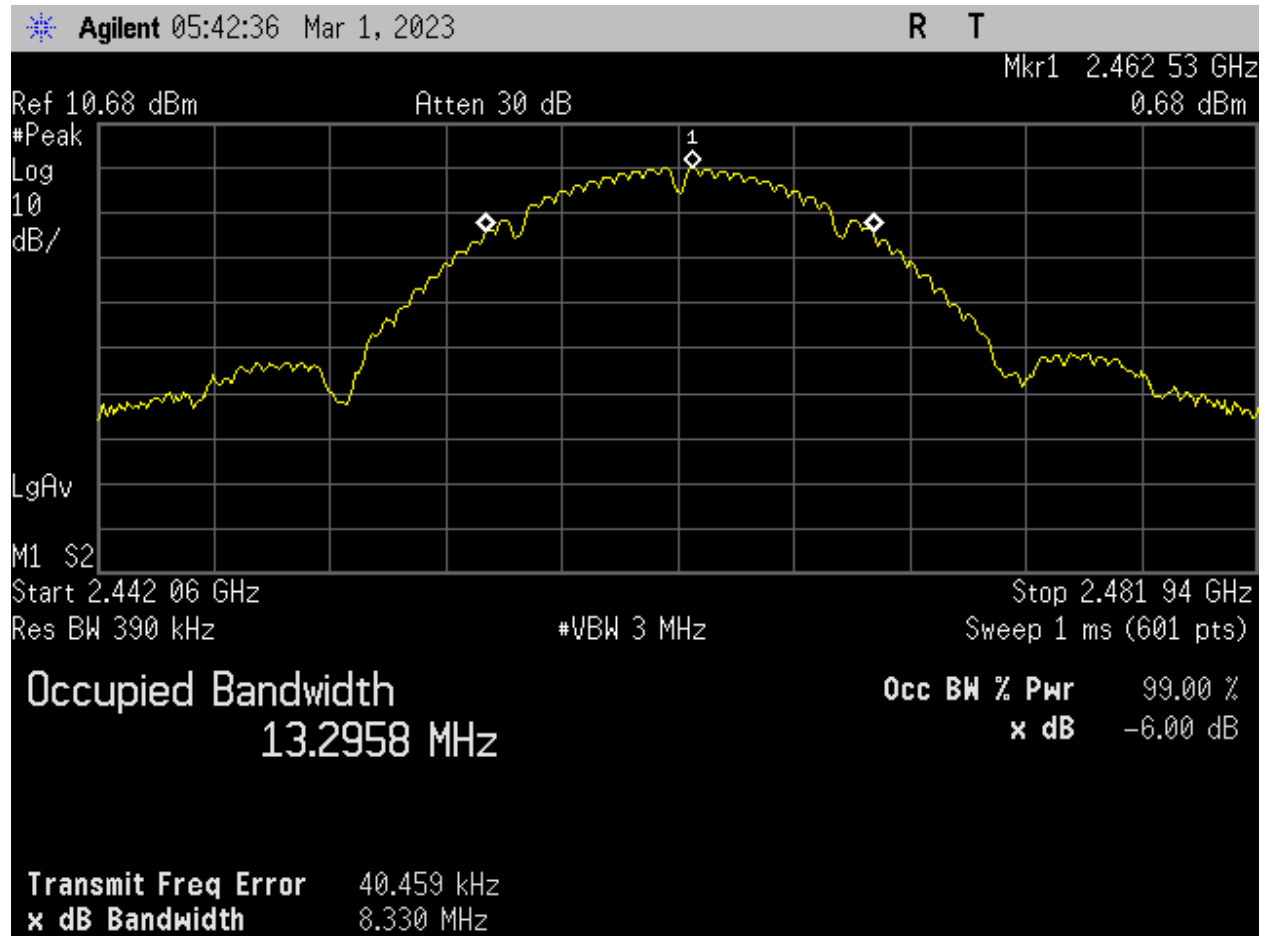


Figure 12: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_Occupied Bandwidth\_99 percent\_Port 1.

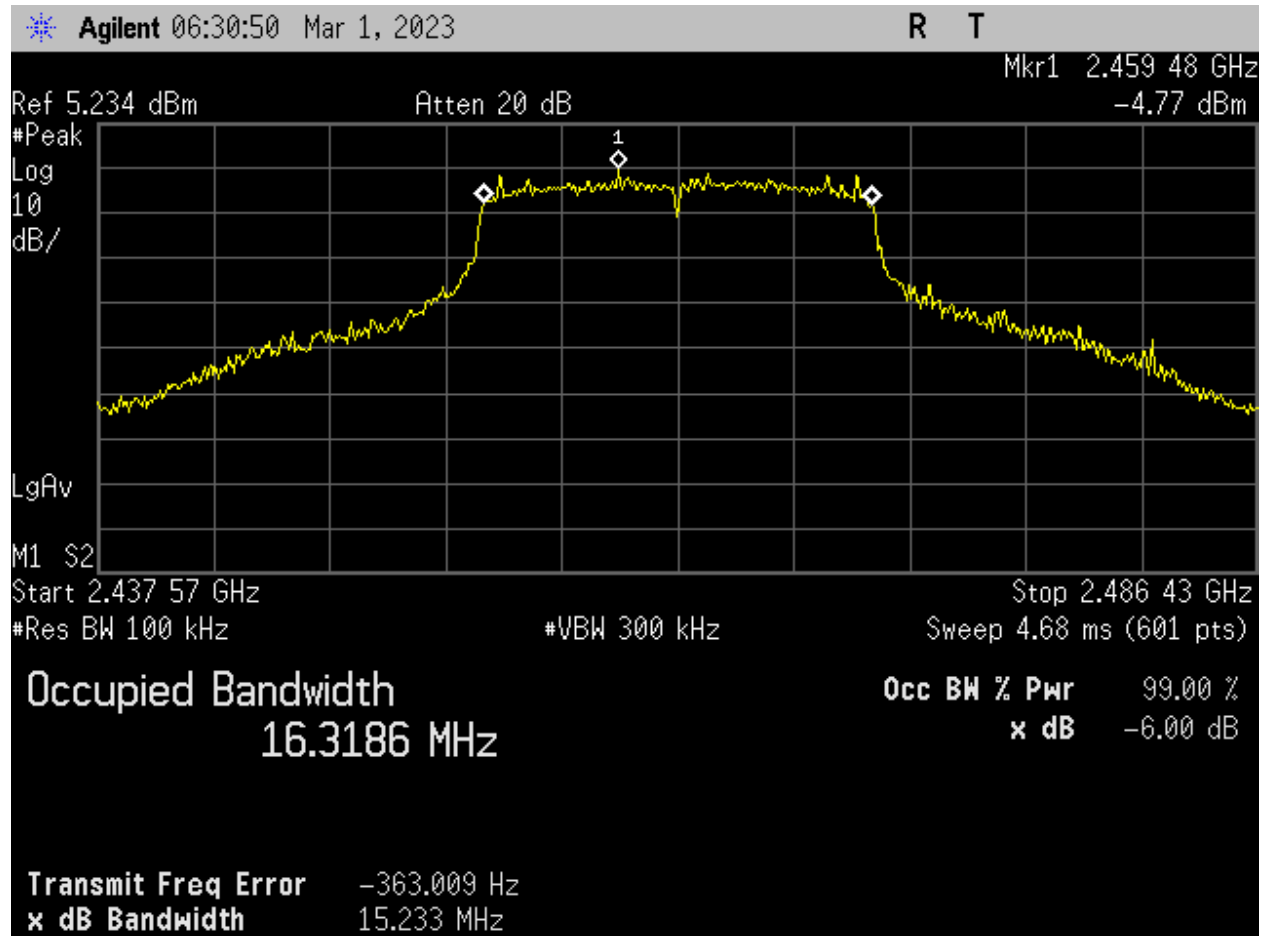


Figure 13: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_Occupied Bandwidth\_-6dB\_Port 1.

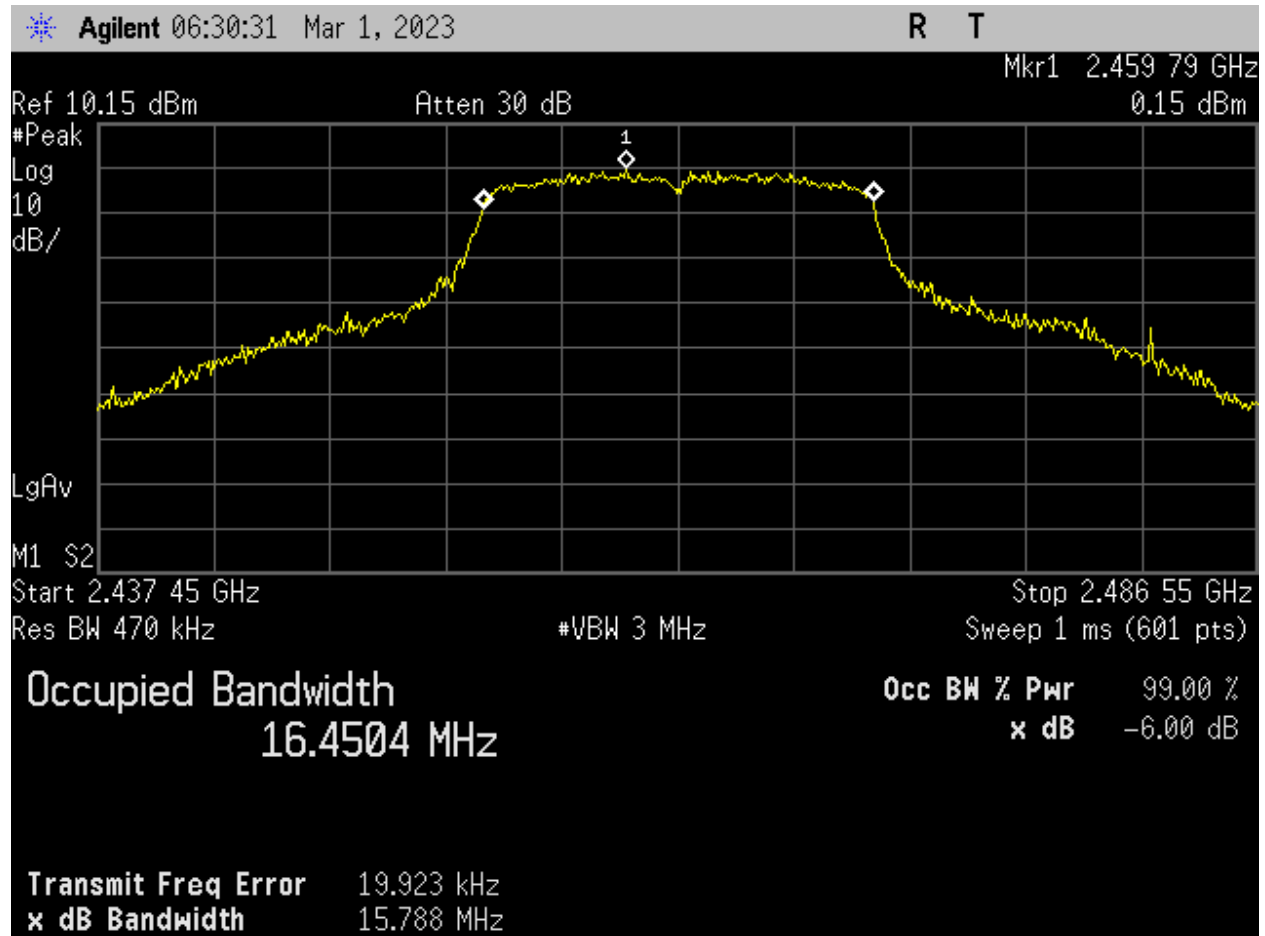


Figure 14: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_Occupied Bandwidth\_99 percent\_Port 1.



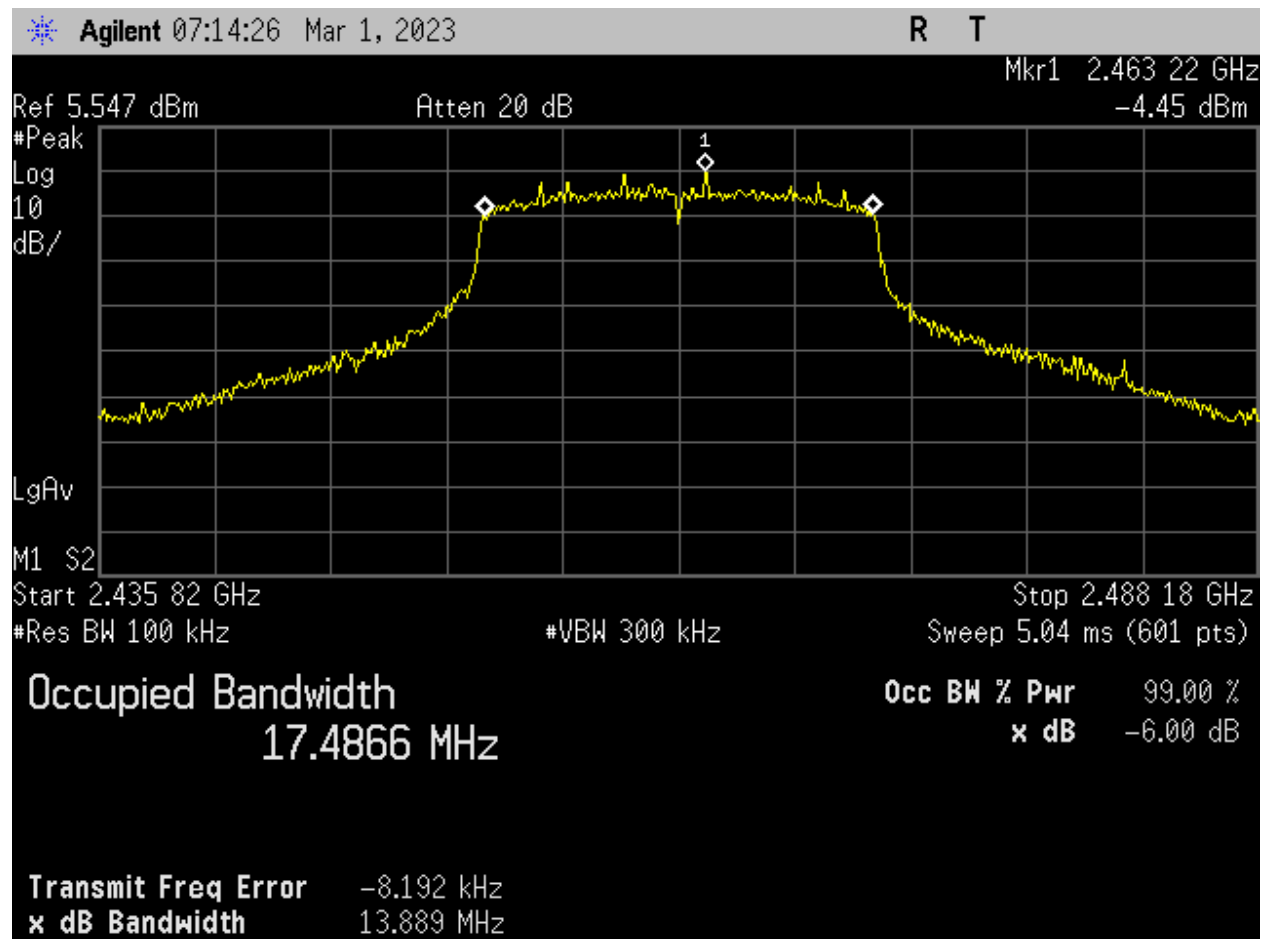


Figure 15: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_Occupied Bandwidth\_-6dB\_Port 1.

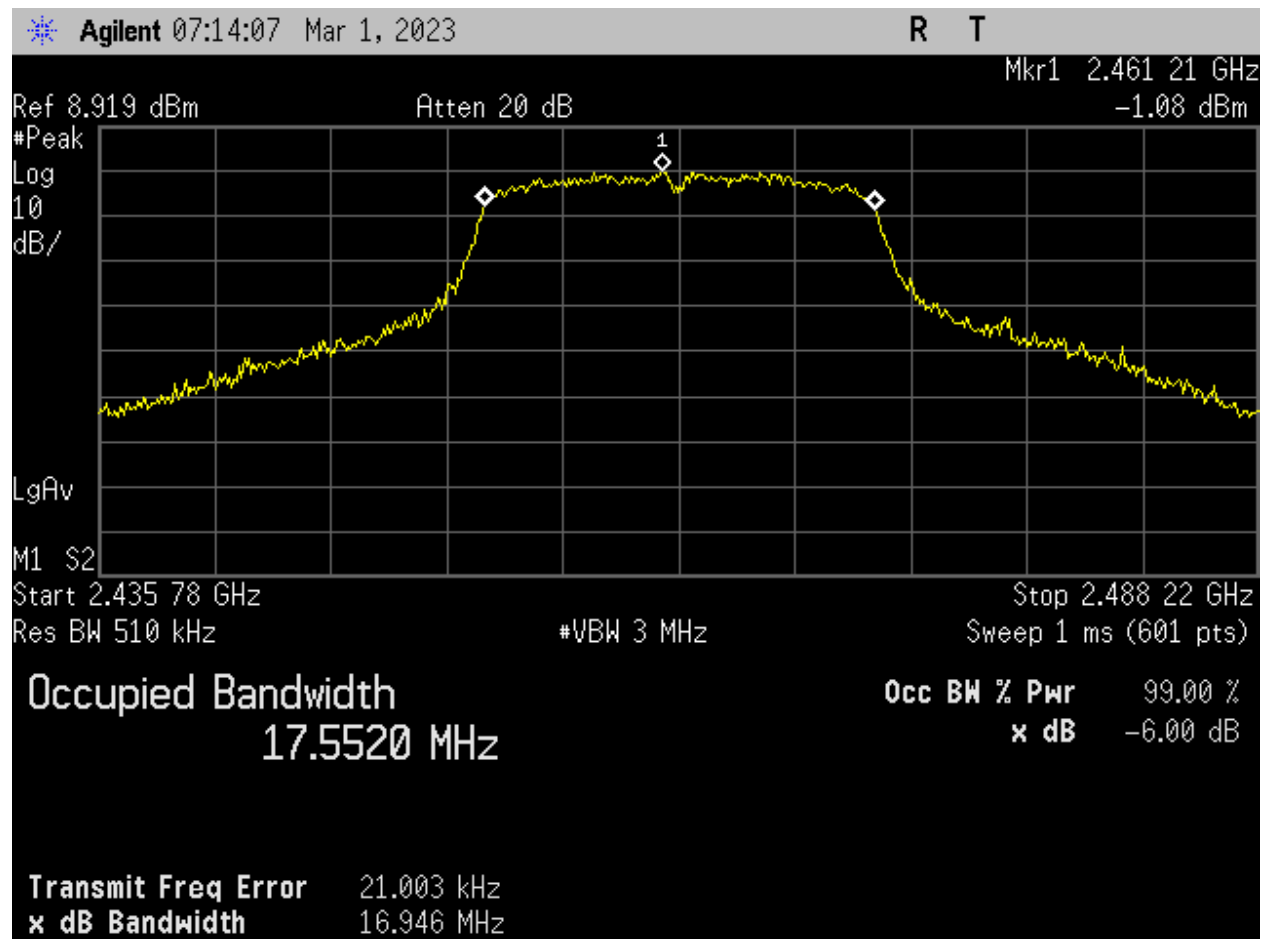


Figure 16: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_Occupied Bandwidth\_99 percent\_Port 1.

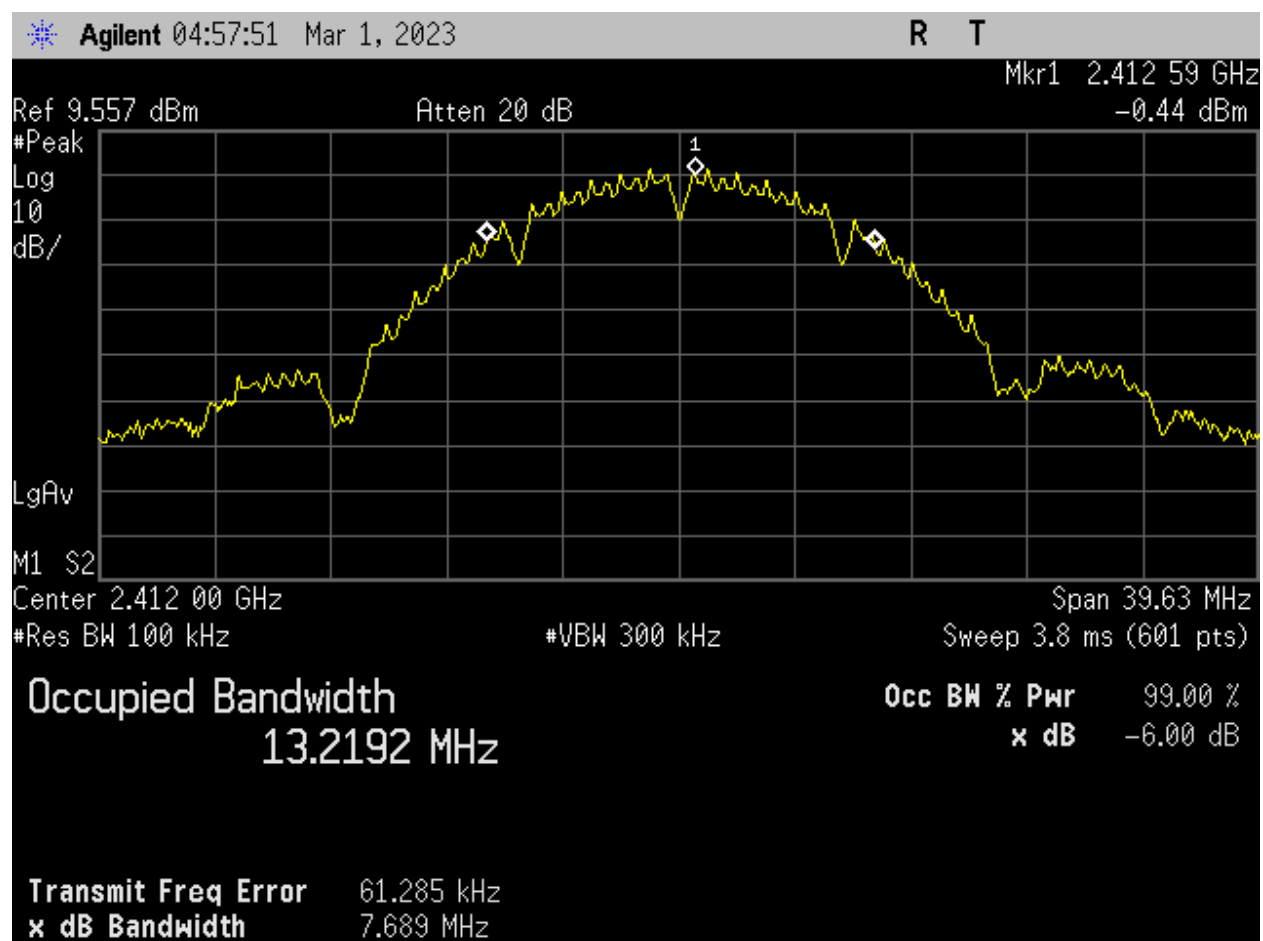


Figure 17: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_Occupied Bandwidth\_-6dB\_Port 1.

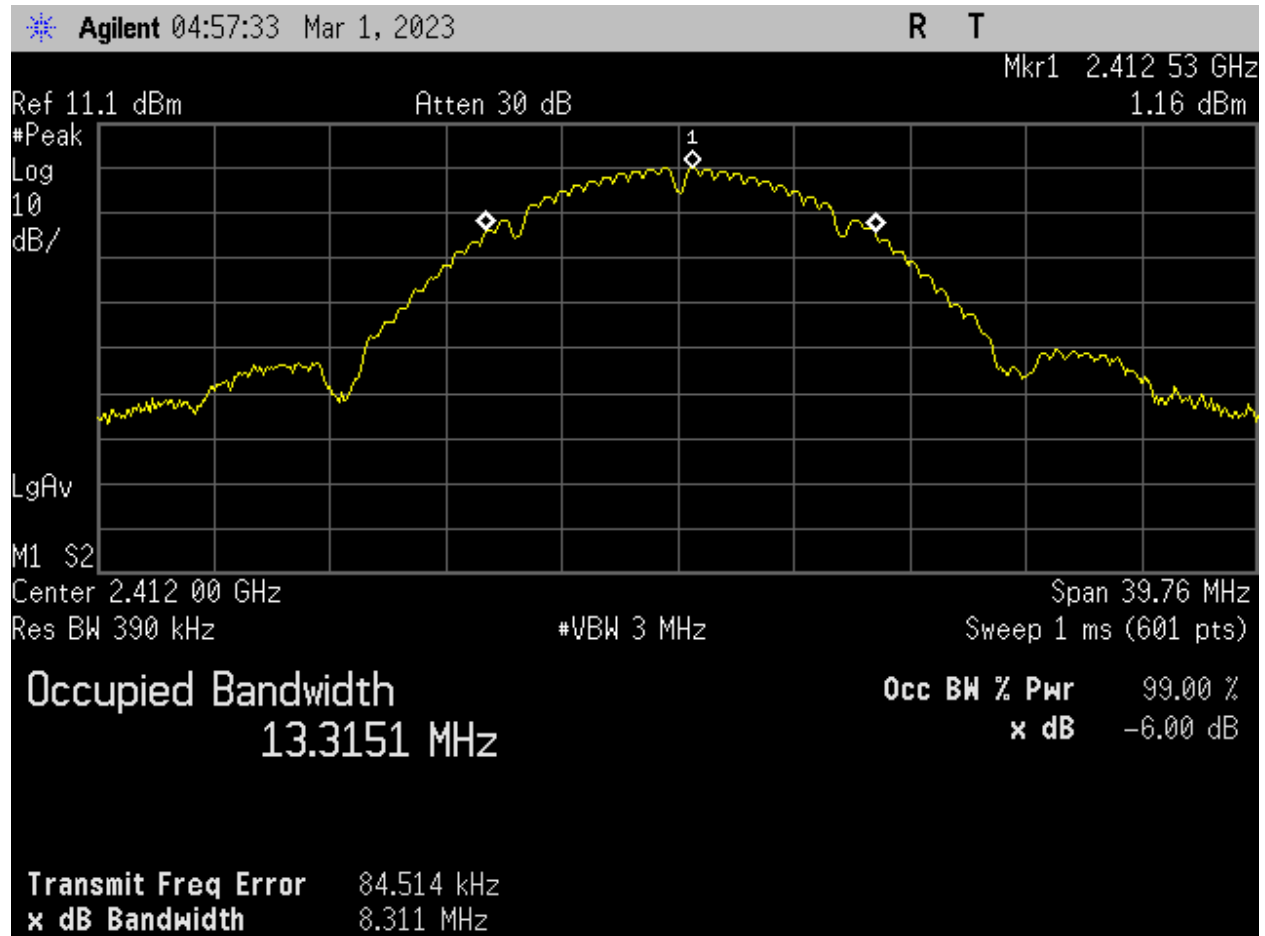


Figure 18: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_Occupied Bandwidth\_99 percent\_Port 1.

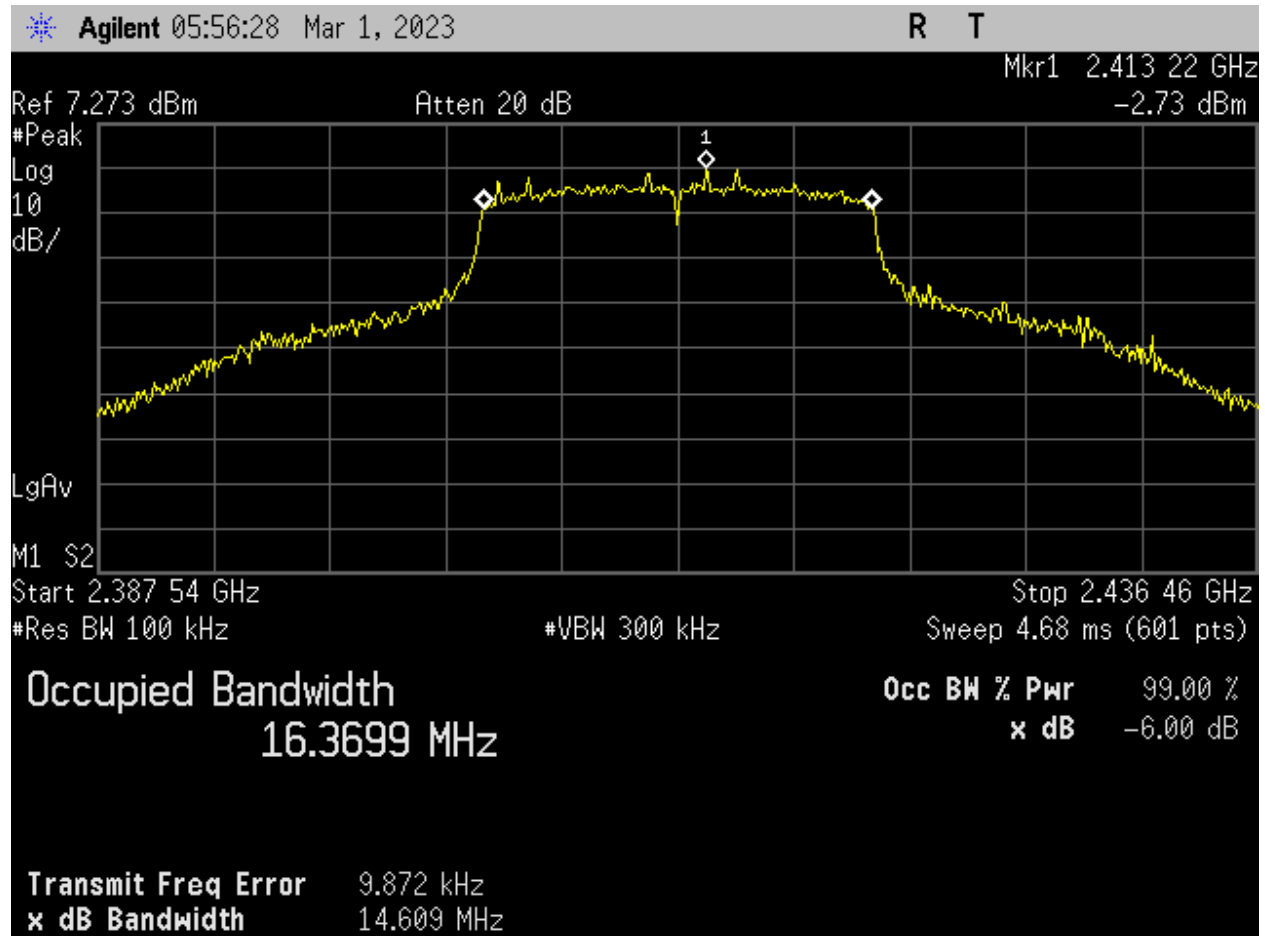


Figure 19: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_Occupied Bandwidth\_-6dB\_Port 1.

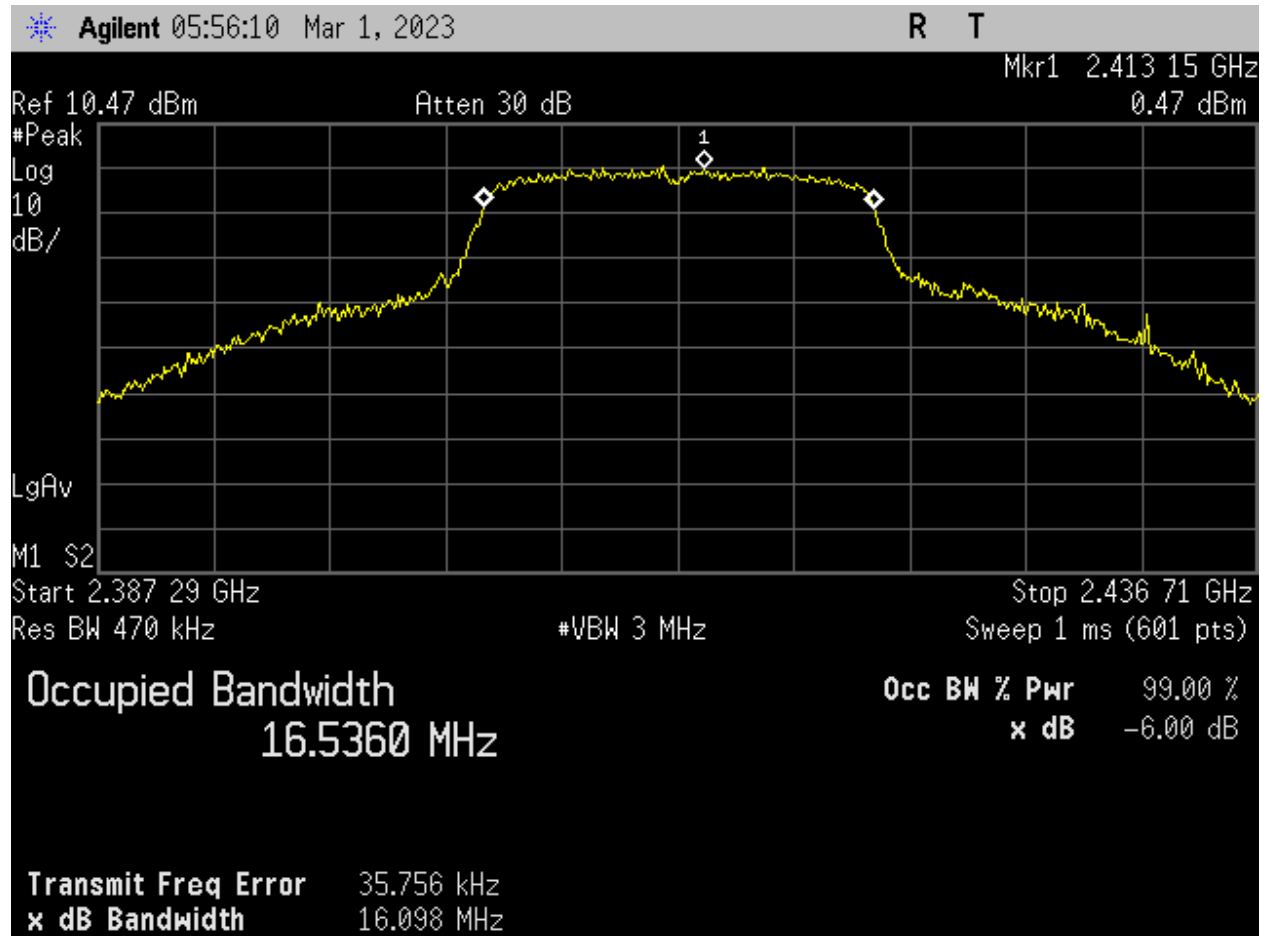


Figure 20: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_Occupied Bandwidth\_99 percent\_Port 1.

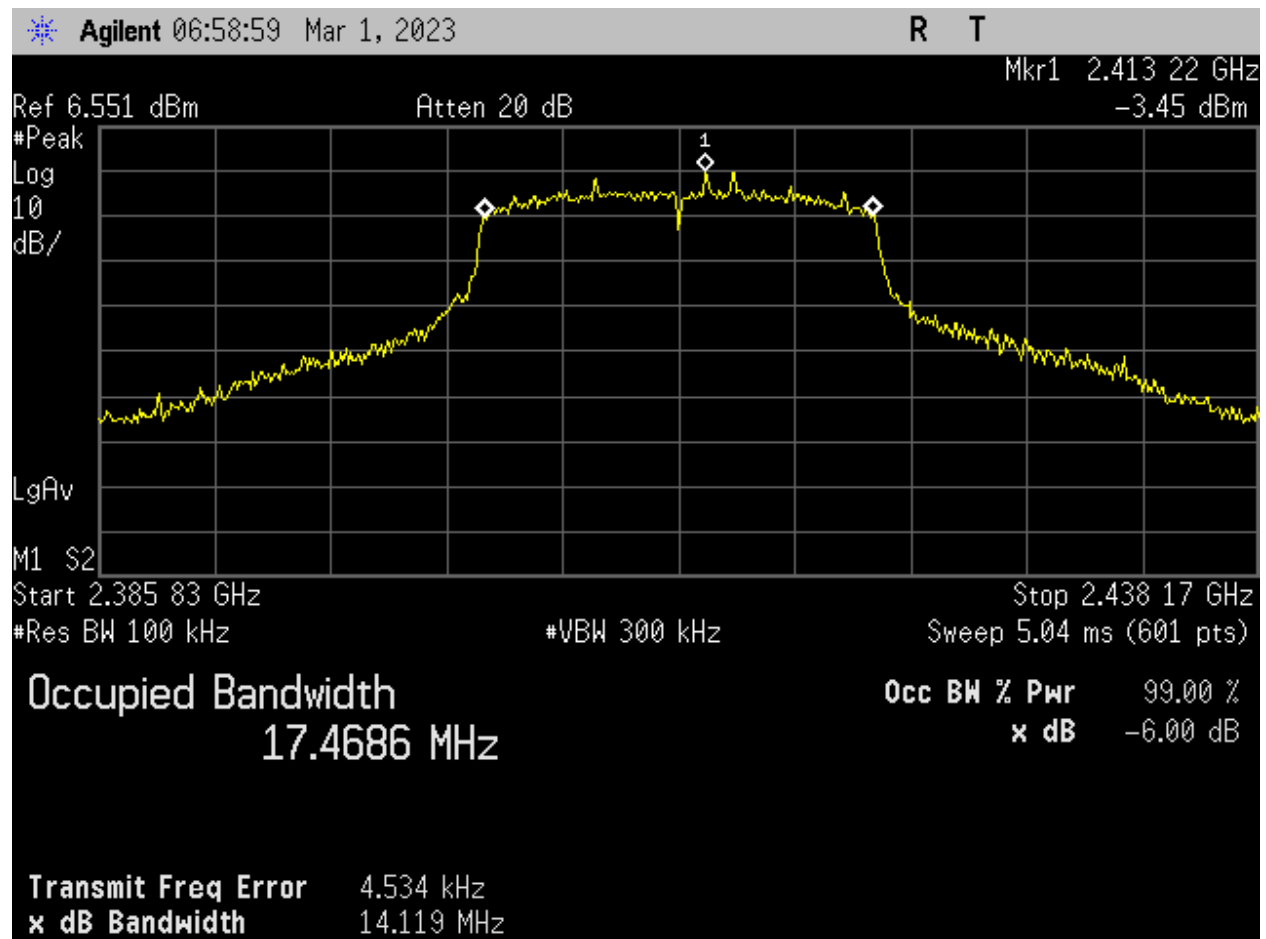


Figure 21: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_Occupied Bandwidth\_-6dB\_Port 1.

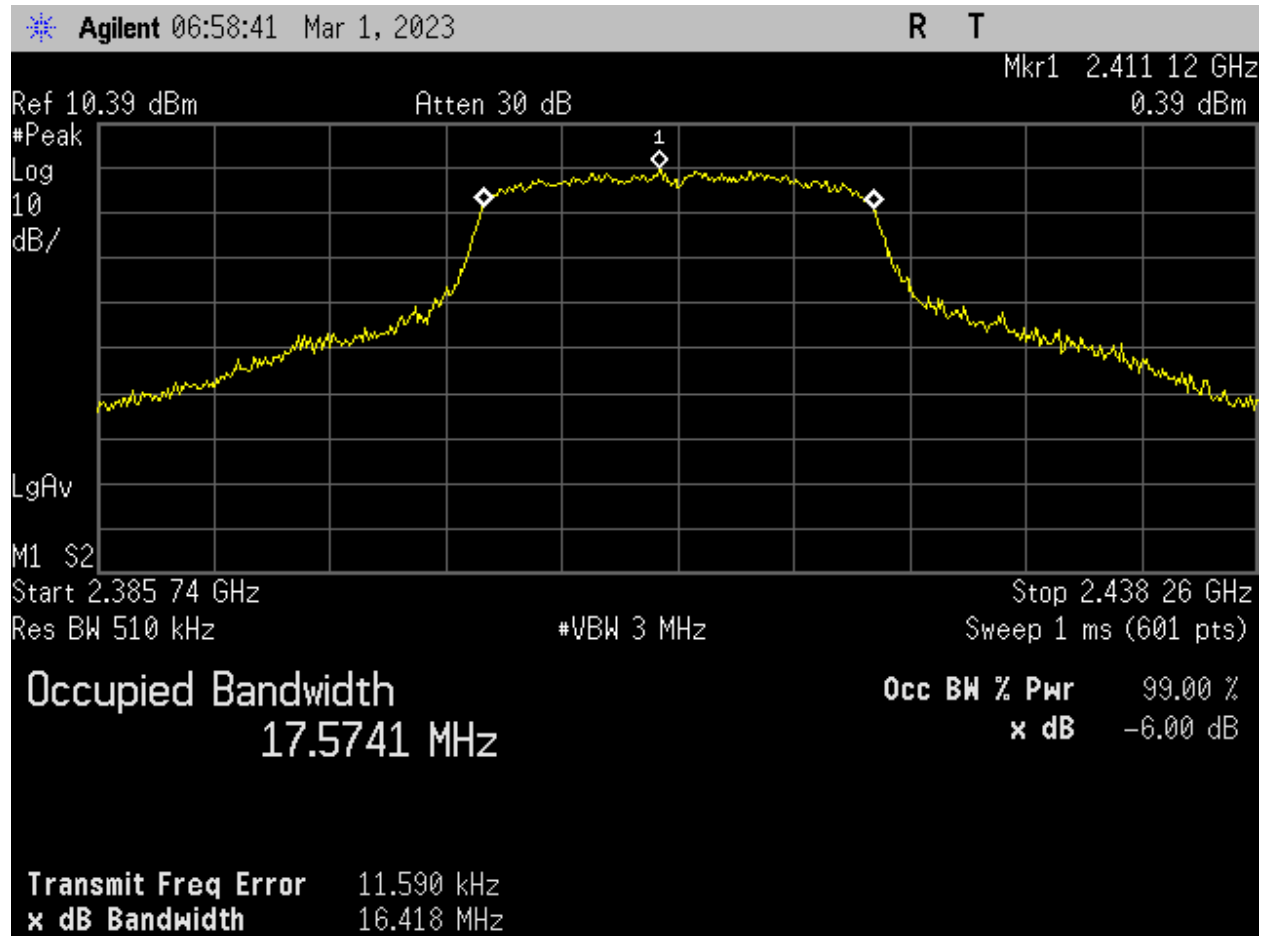


Figure 22: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_Occupied Bandwidth\_99 percent\_Port 1.



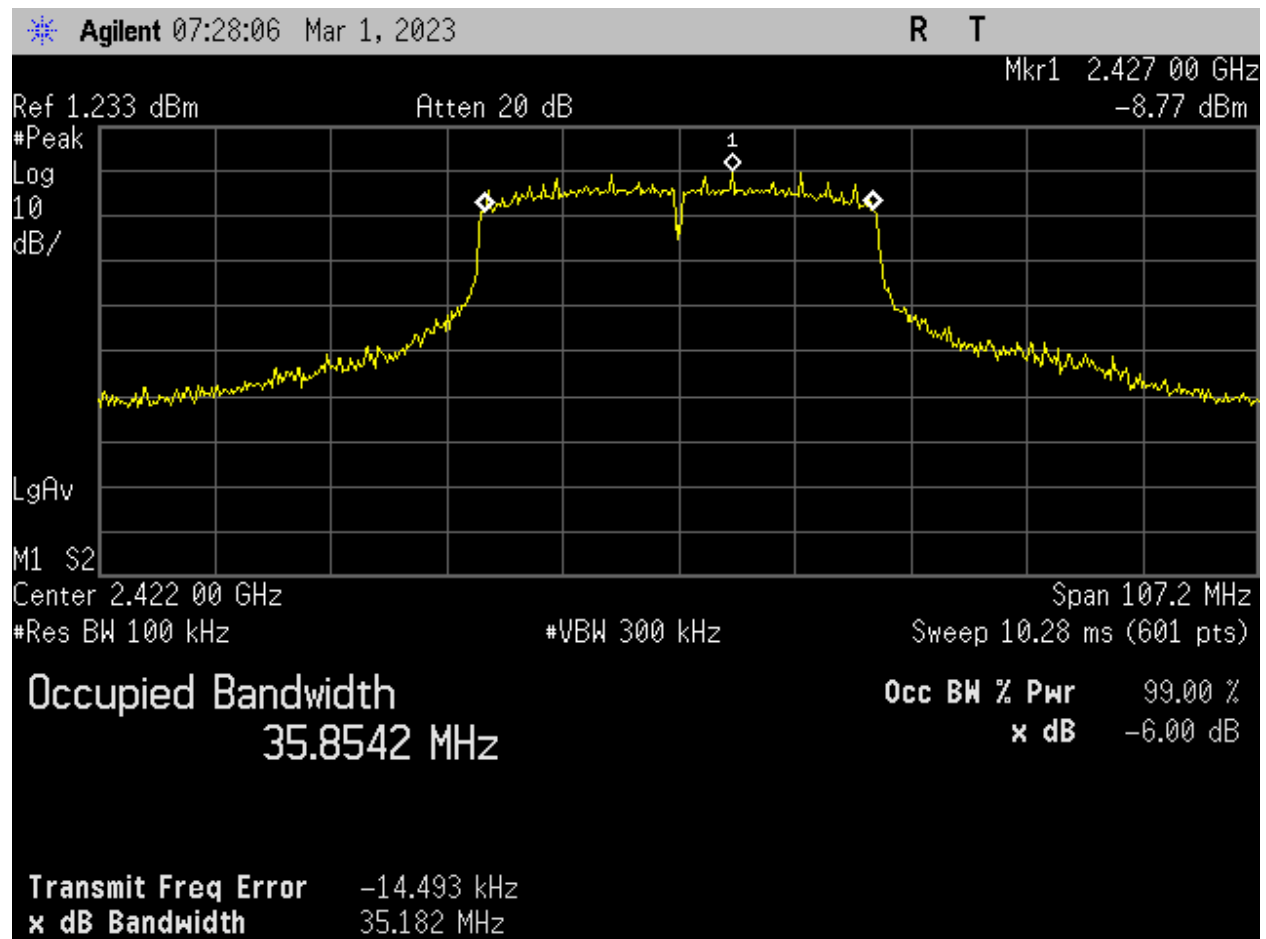


Figure 23: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_Occupied Bandwidth\_-6dB\_Port 1.

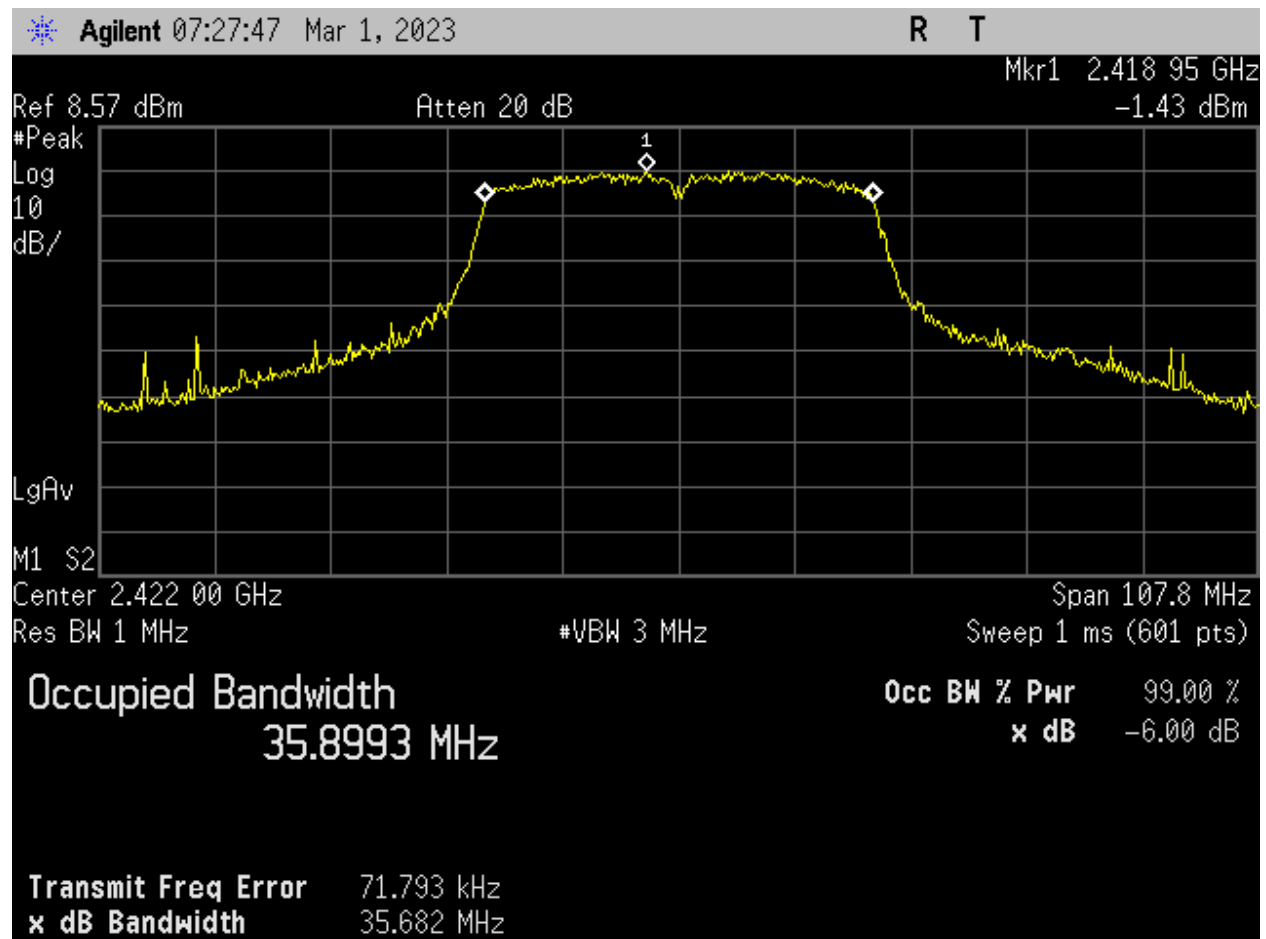


Figure 24: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_Occupied Bandwidth\_99 percent\_Port 1.

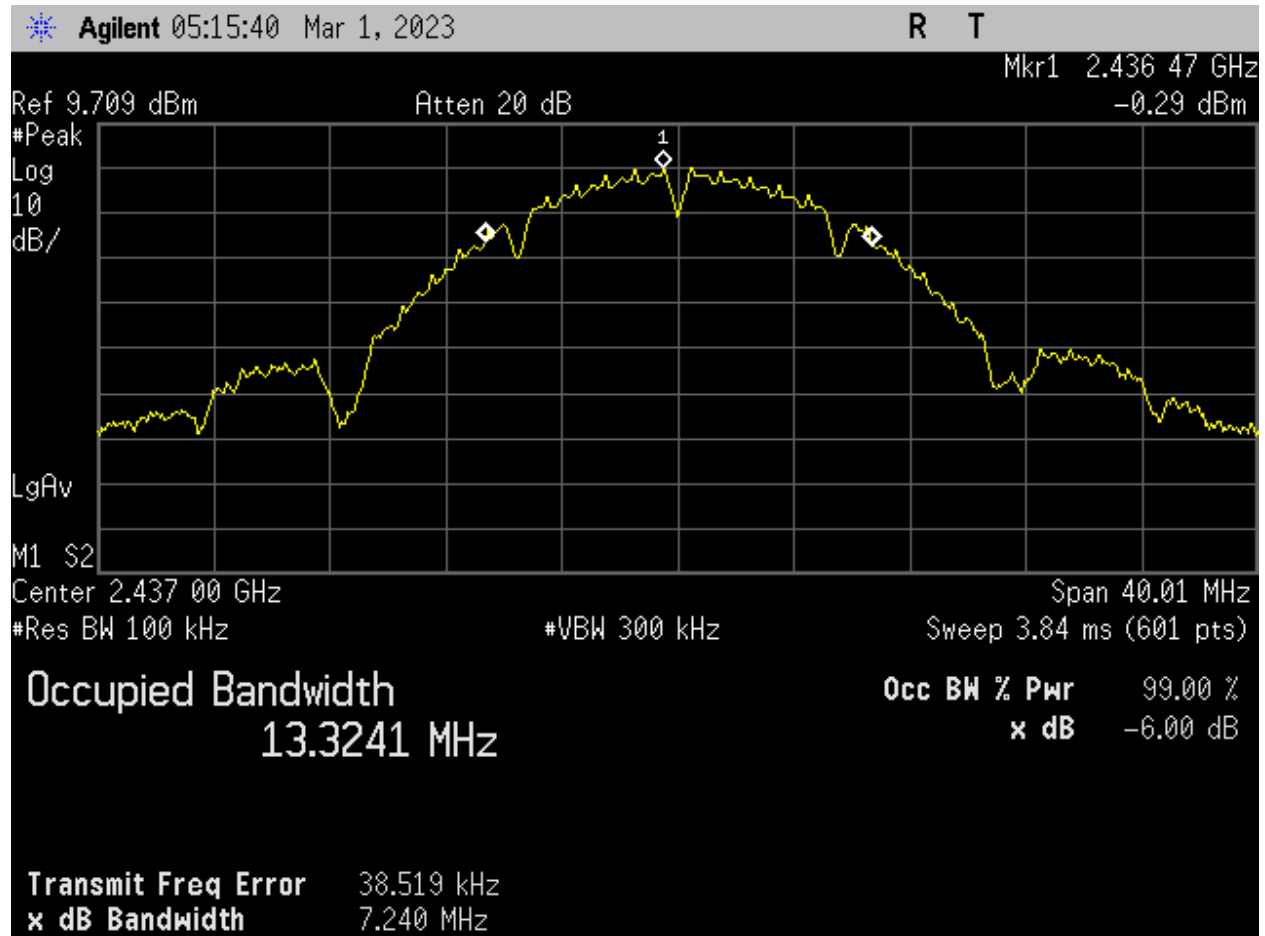


Figure 25: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_Occupied Bandwidth\_-6dB\_Port 1.

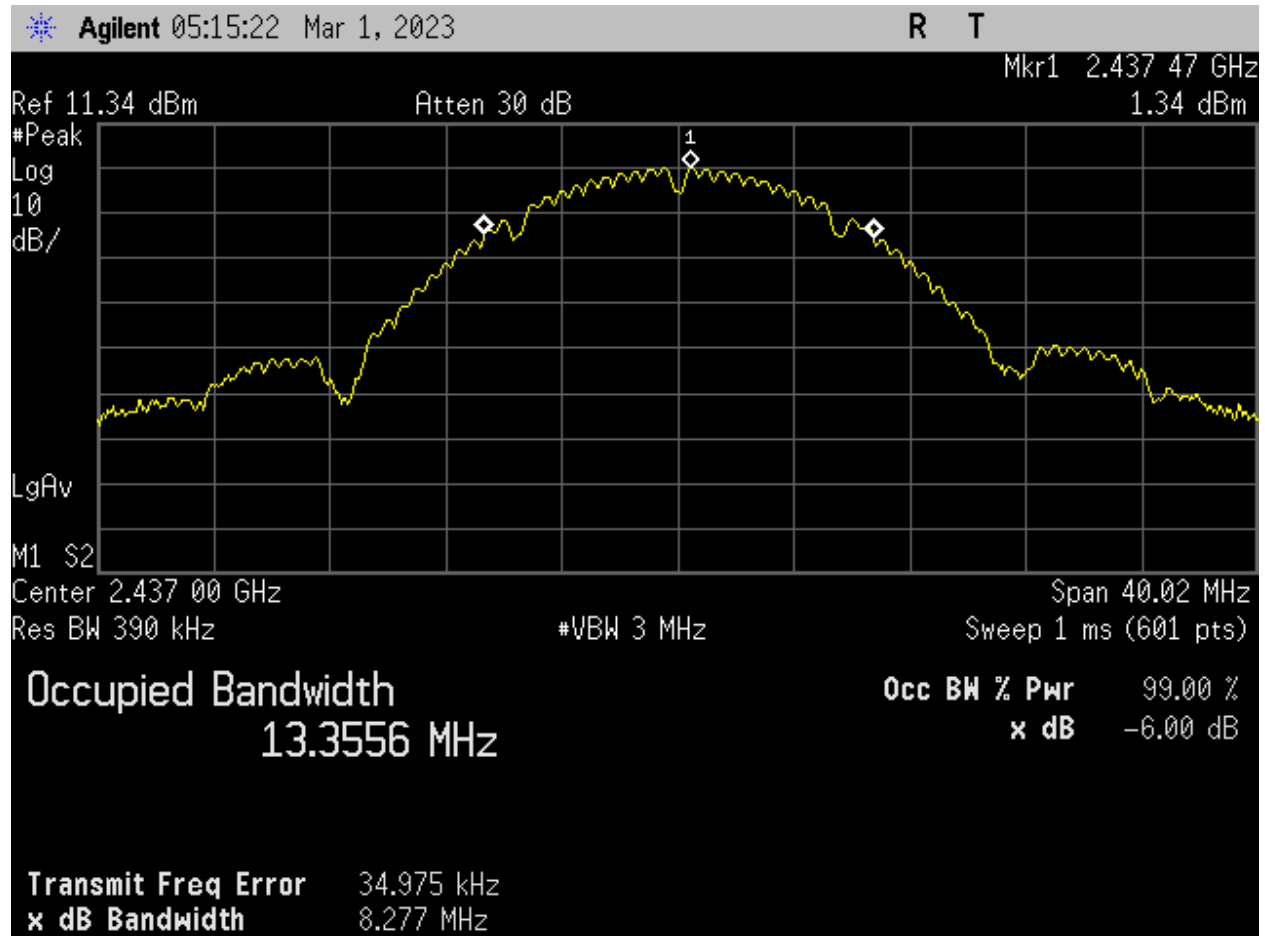


Figure 26: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_Occupied Bandwidth\_99 percent\_Port 1.

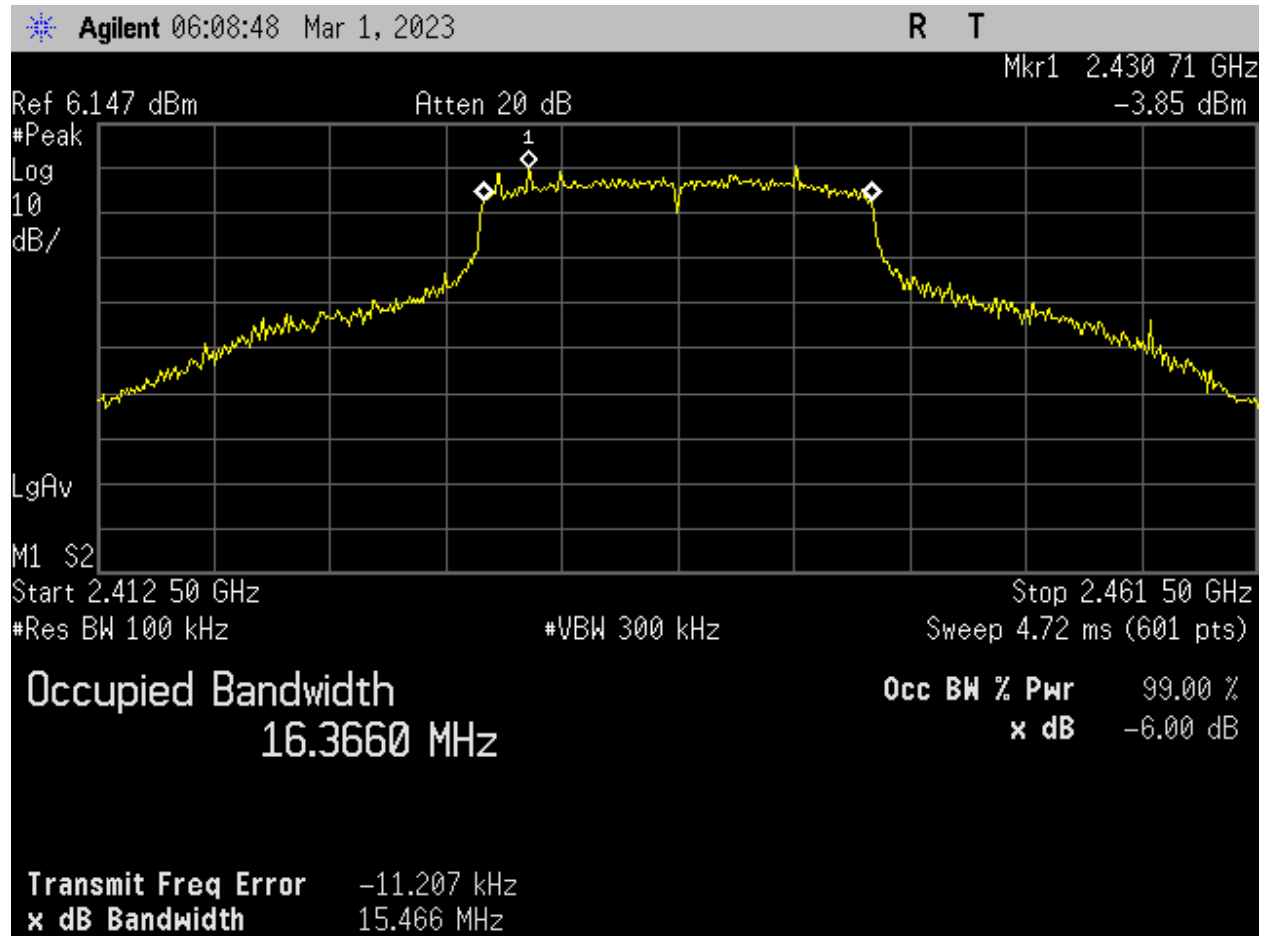


Figure 27: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_Occupied Bandwidth\_-6dB\_Port 1.

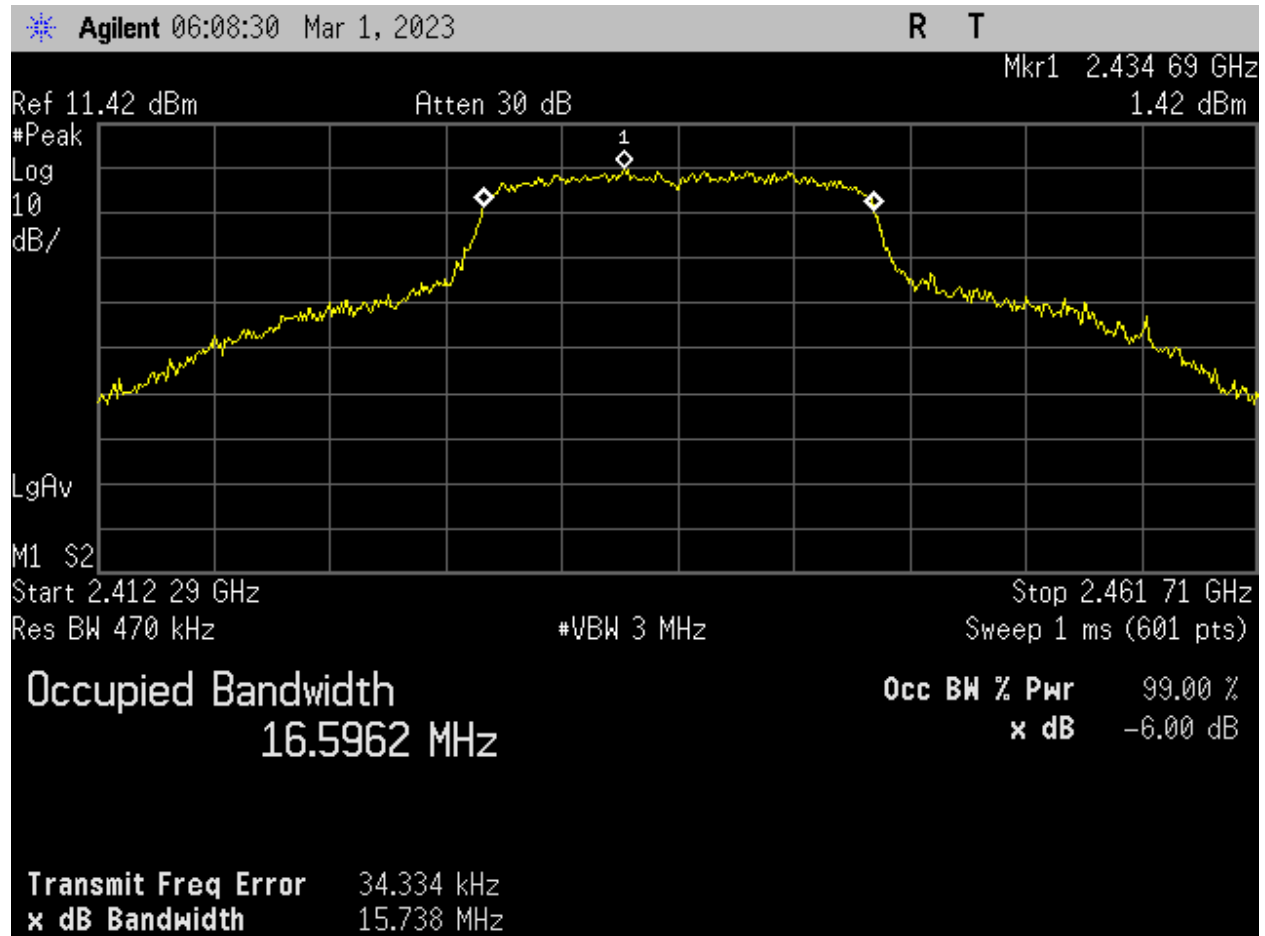


Figure 28: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_Occupied Bandwidth\_99 percent\_Port 1.

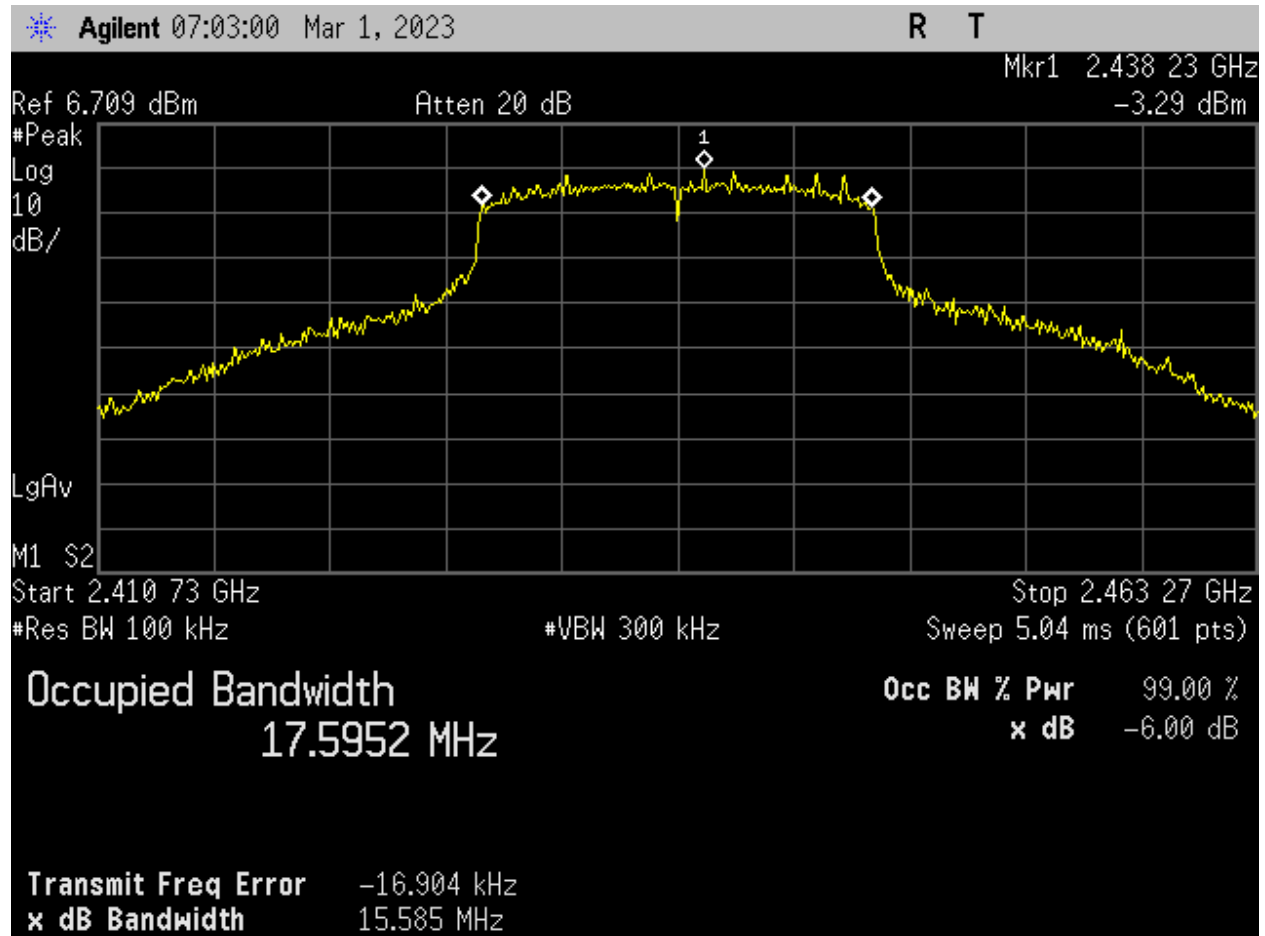


Figure 29: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_Occupied Bandwidth\_-6dB\_Port 1.

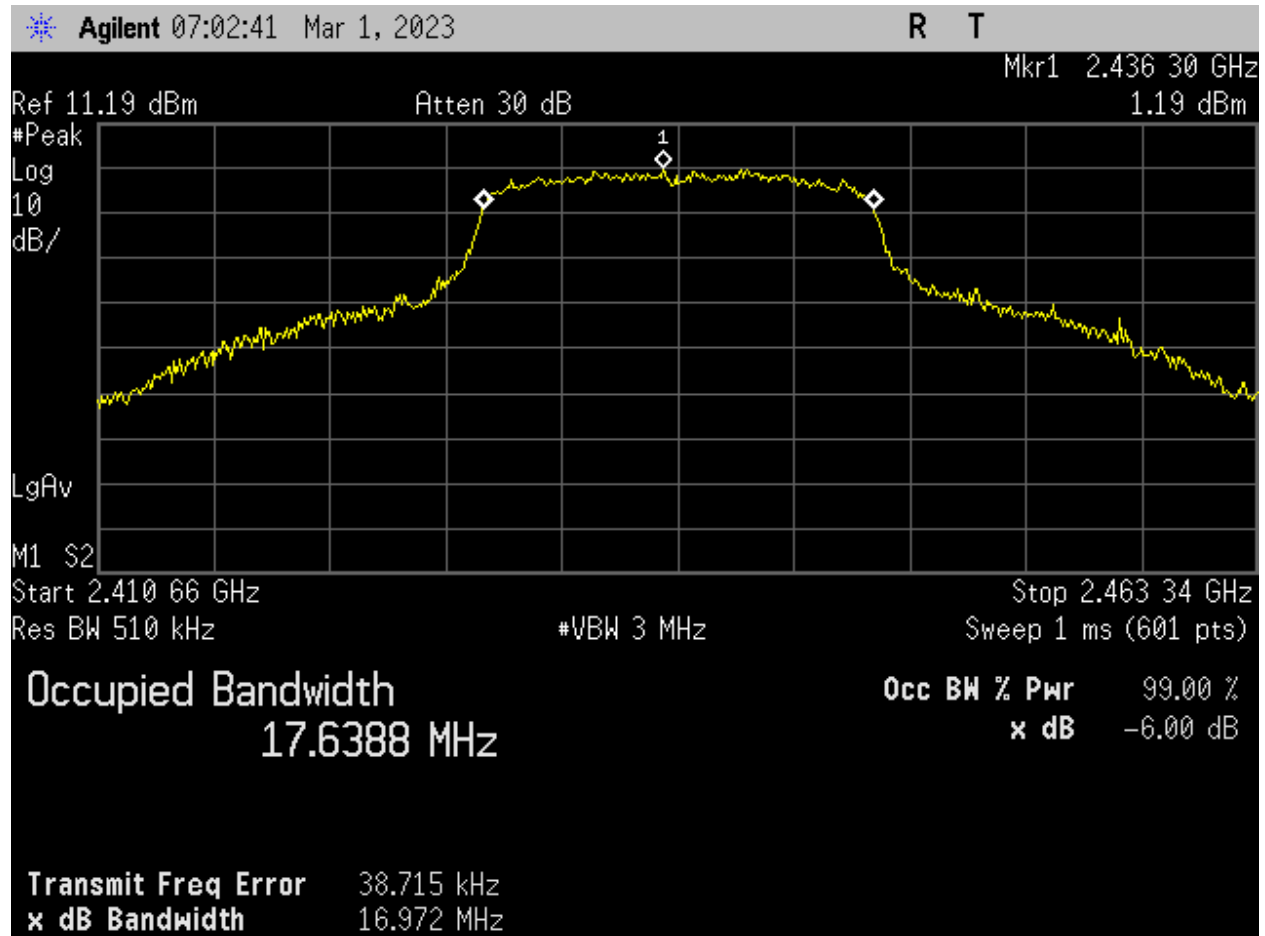


Figure 30: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_Occupied Bandwidth\_99 percent\_Port 1.



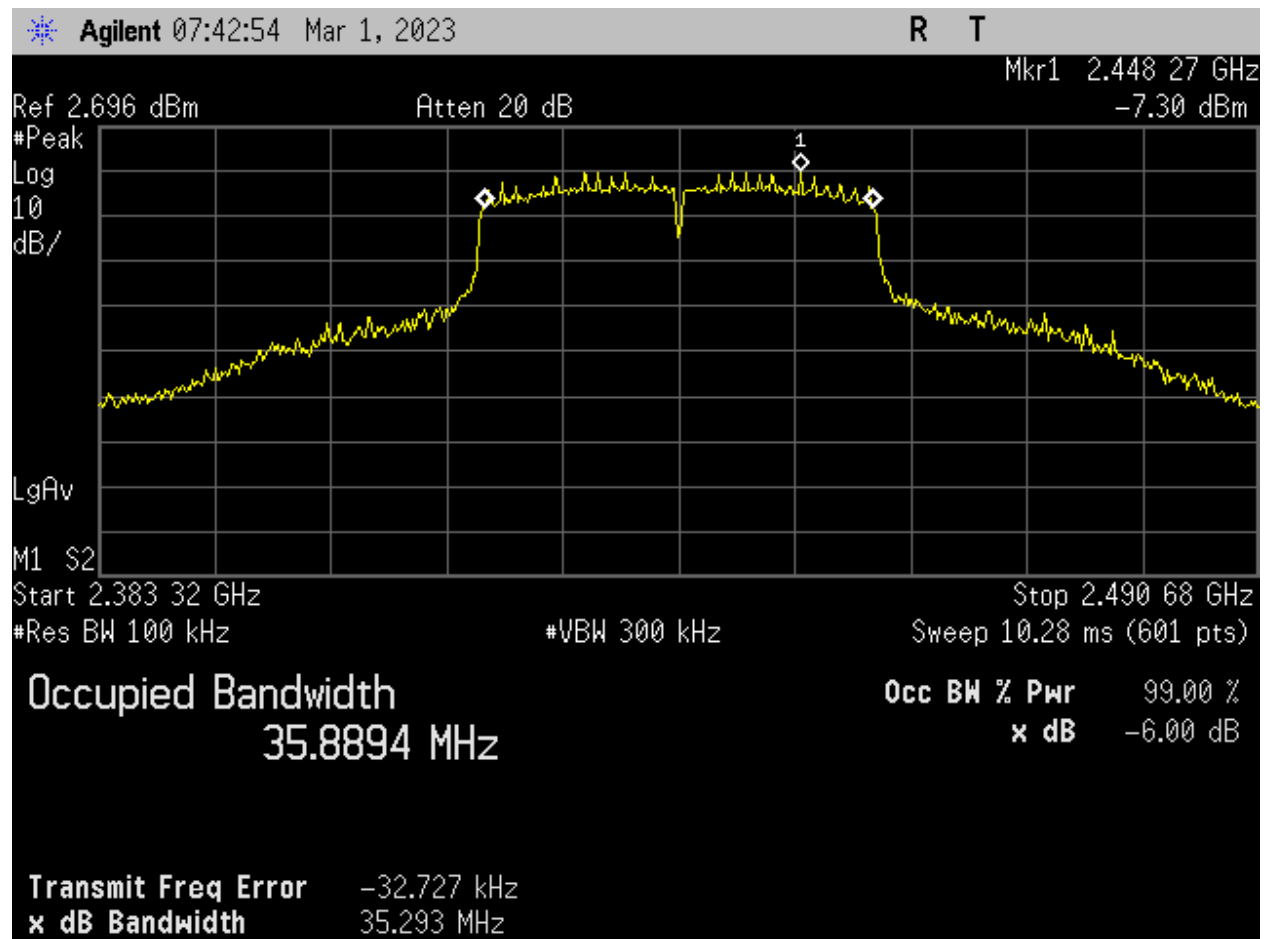


Figure 31: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_Occupied Bandwidth\_-6dB\_Port 1.

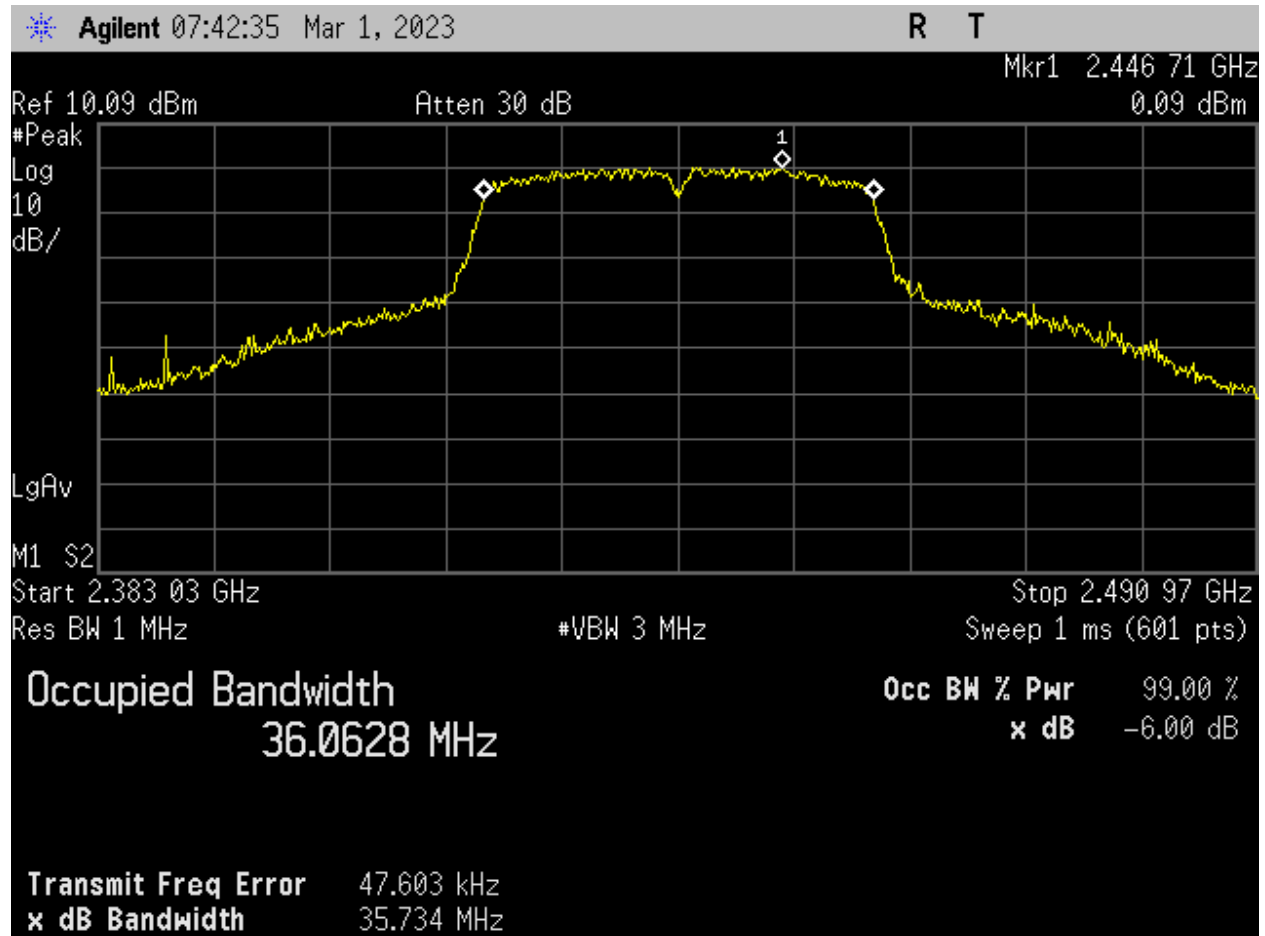


Figure 32: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_Occupied Bandwidth\_99 percent\_Port 1.

## Duty Cycle

| Mode       | On Time (ms) | Period (ms) | DC (%) | 1/T (Hz) | VBW (Hz)    |
|------------|--------------|-------------|--------|----------|-------------|
| 802.11b    | --           | --          | 100%   | --       | $\geq 10$   |
| 802.11g    | 2.05         | 2.225       | 92.13% | 449      | $\geq 500$  |
| 802.11n 20 | 191          | 2.026       | 94.27% | 494      | $\geq 500$  |
| 802.11n 40 | 0915         | 1.055       | 86.73% | 948      | $\geq 1000$ |

Figure 33: DC Test Results

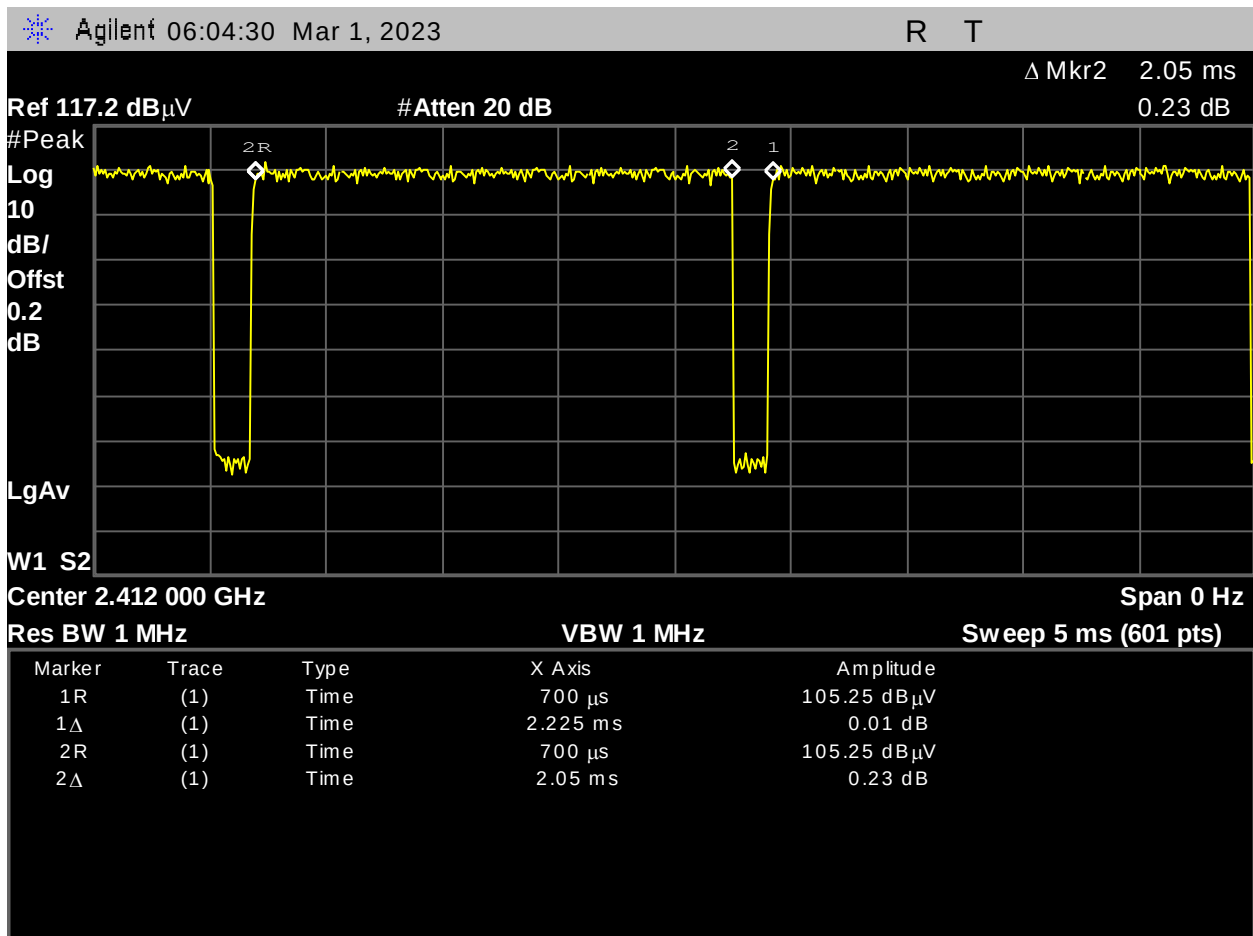


Figure 34: g mode duty cycle.

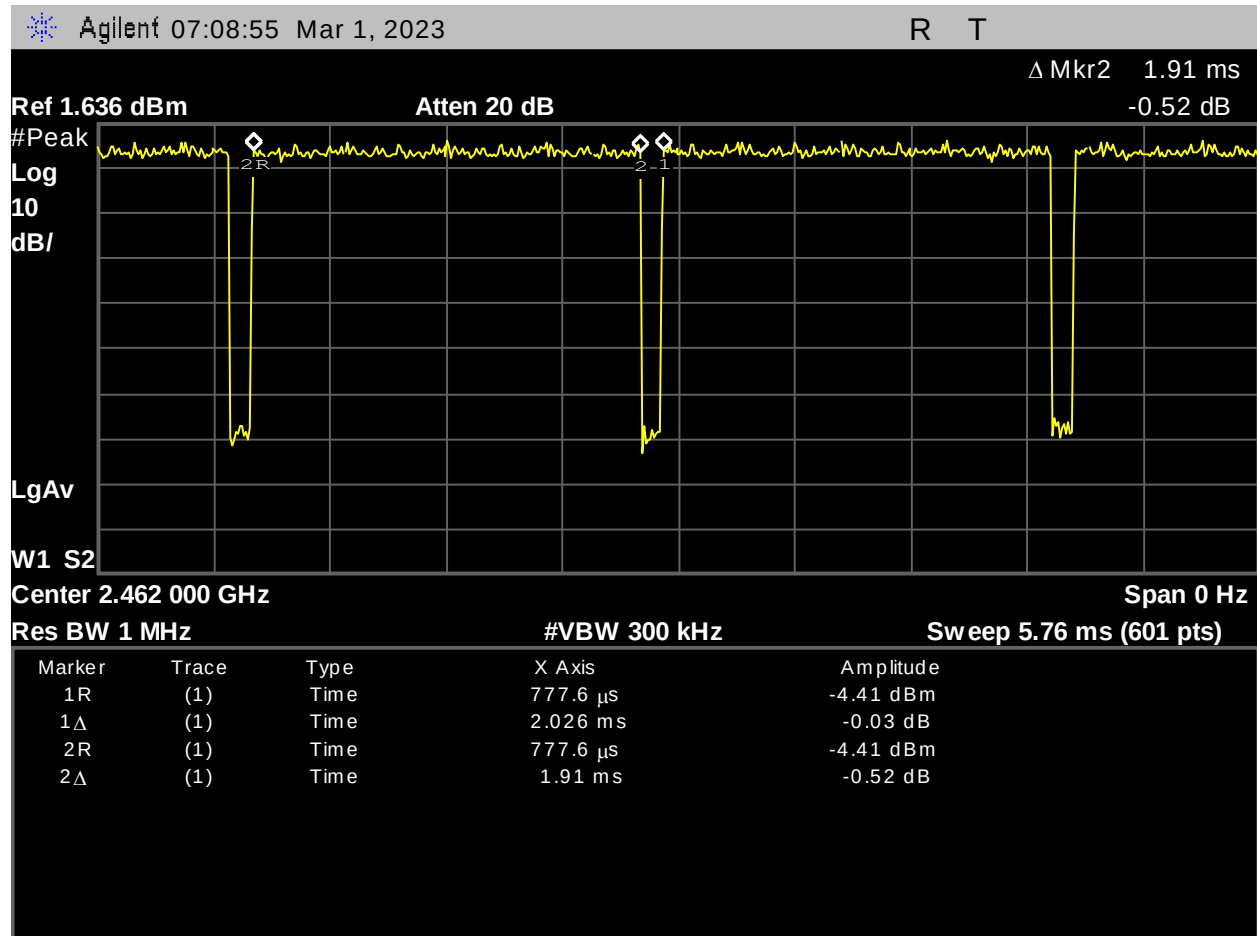


Figure 35: N20 mode duty cycle.

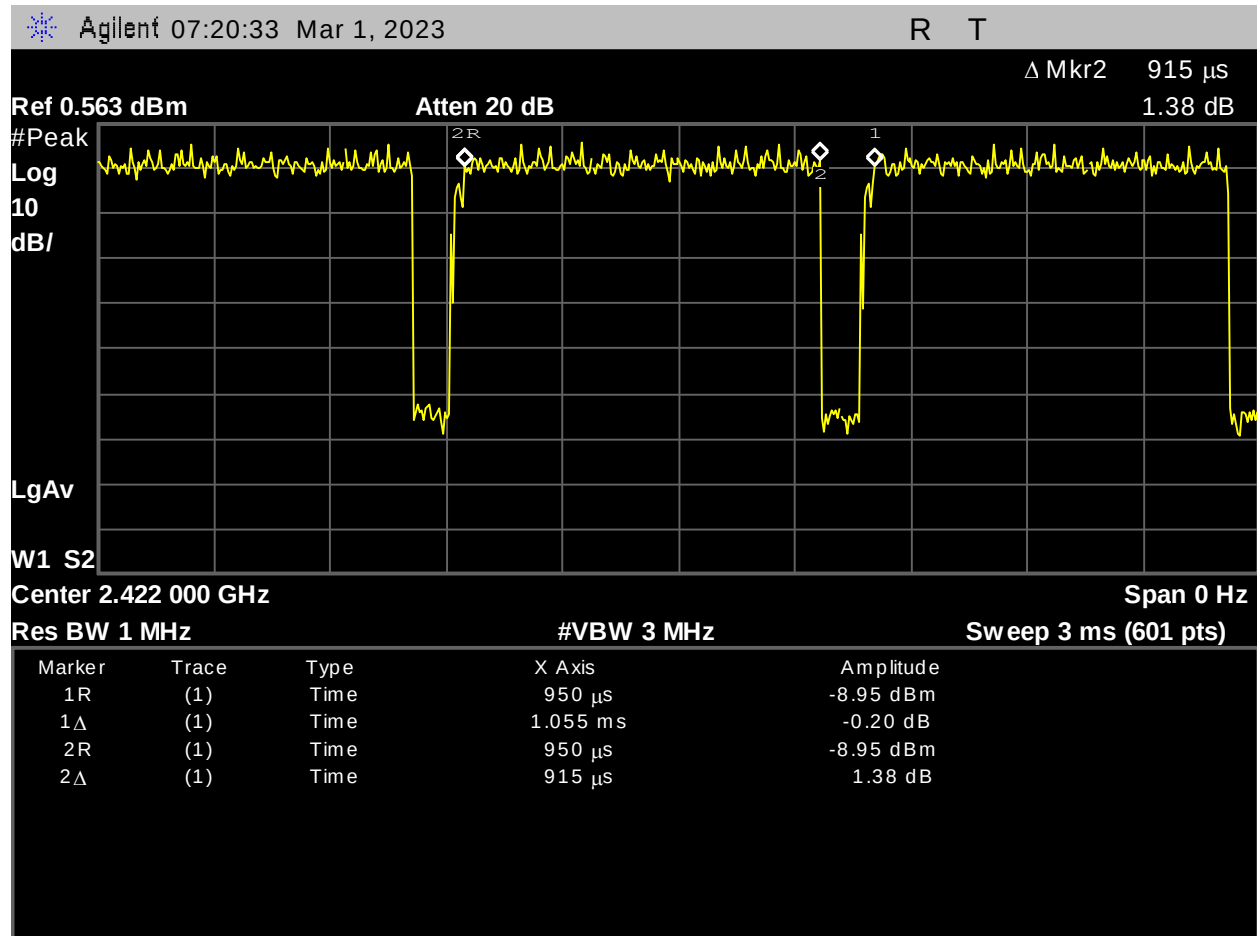


Figure 36: N40 mode duty cycle.

## § 15.247(b) Conducted Power Output

| Mode       | Frequency (MHz) | Measured Conducted Power (dBm) | DCCF (dB) | Limit (dBm) | Margin (dB) | Antenna Gain (dBi) | EIRP (dBm) | Limit EIRP (dBm) | Margin (dB) |
|------------|-----------------|--------------------------------|-----------|-------------|-------------|--------------------|------------|------------------|-------------|
| 802.11b    | 2412            | 18.78                          | 0         | 30          | -11.22      | 2                  | 20.78      | 36               | -15.22      |
|            | 2437            | 19.03                          | 0         | 30          | -10.97      | 2                  | 21.03      | 36               | -14.97      |
|            | 2462            | 18.25                          | 0         | 30          | -11.75      | 2                  | 20.25      | 36               | -15.75      |
| 802.11g    | 2412            | 17.04                          | 0.36      | 30          | -12.6       | 2                  | 19.4       | 36               | -16.6       |
|            | 2437            | 17.28                          | 0.36      | 30          | -12.36      | 2                  | 19.64      | 36               | -16.36      |
|            | 2462            | 15.93                          | 0.36      | 30          | -13.71      | 2                  | 18.29      | 36               | -17.71      |
| 802.11n 20 | 2412            | 15.79                          | 0.26      | 30          | -13.95      | 2                  | 18.05      | 36               | -17.95      |
|            | 2437            | 16.88                          | 0.26      | 30          | -12.86      | 2                  | 19.14      | 36               | -16.86      |
|            | 2462            | 14.85                          | 0.26      | 30          | -14.89      | 2                  | 17.11      | 36               | -18.89      |
| 802.11n 40 | 2422            | 13.87                          | 0.62      | 30          | -15.51      | 2                  | 16.49      | 36               | -19.51      |
|            | 2437            | 15.95                          | 0.62      | 30          | -13.43      | 2                  | 18.57      | 36               | -17.43      |
|            | 2452            | 12.86                          | 0.62      | 30          | -16.52      | 2                  | 15.48      | 36               | -20.52      |

Figure 37: Output Power, Test Results

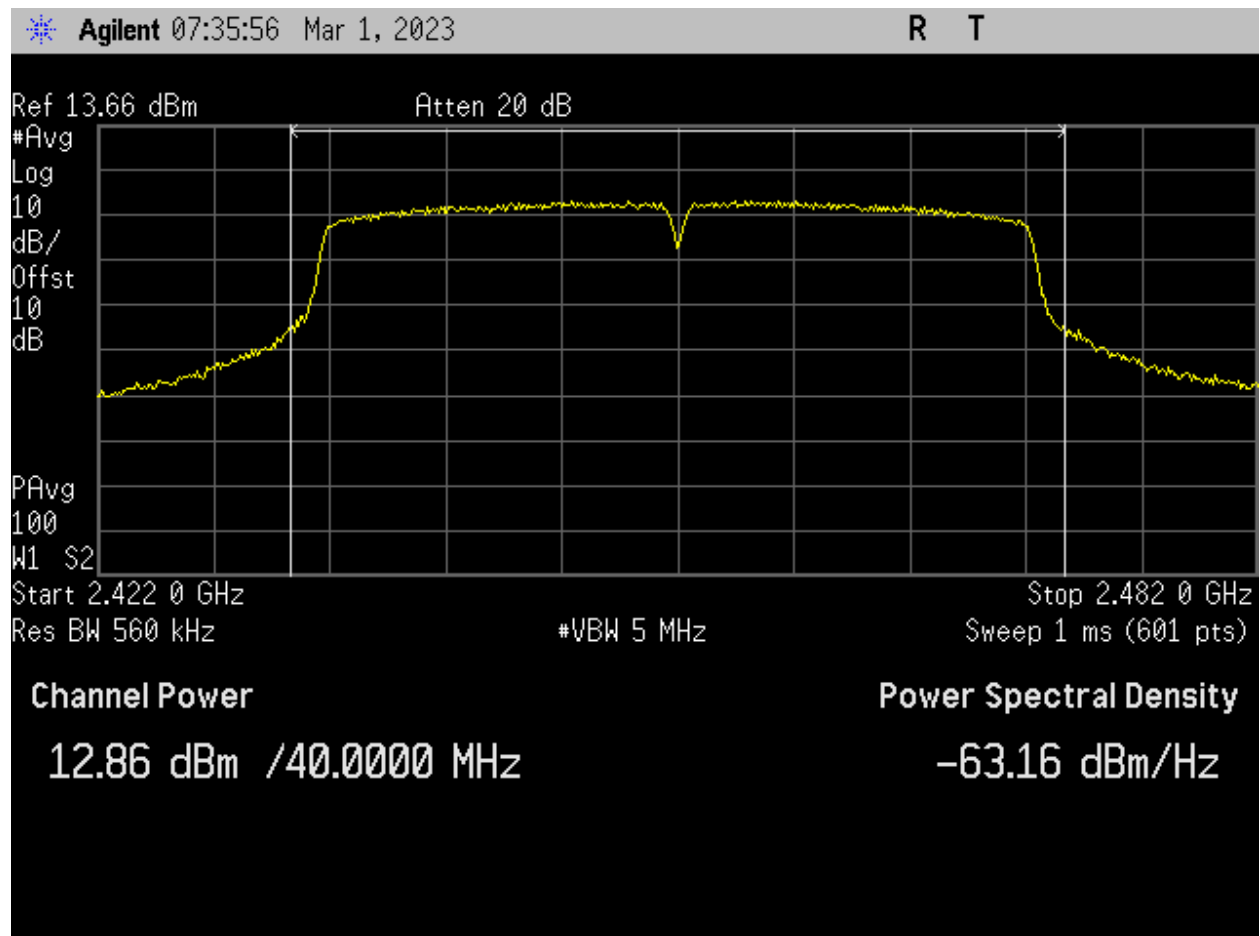


Figure 38: WIF1\_High Ch\_2452MHz\_40MHz BW\_n-mode\_Output Power\_Port 1.

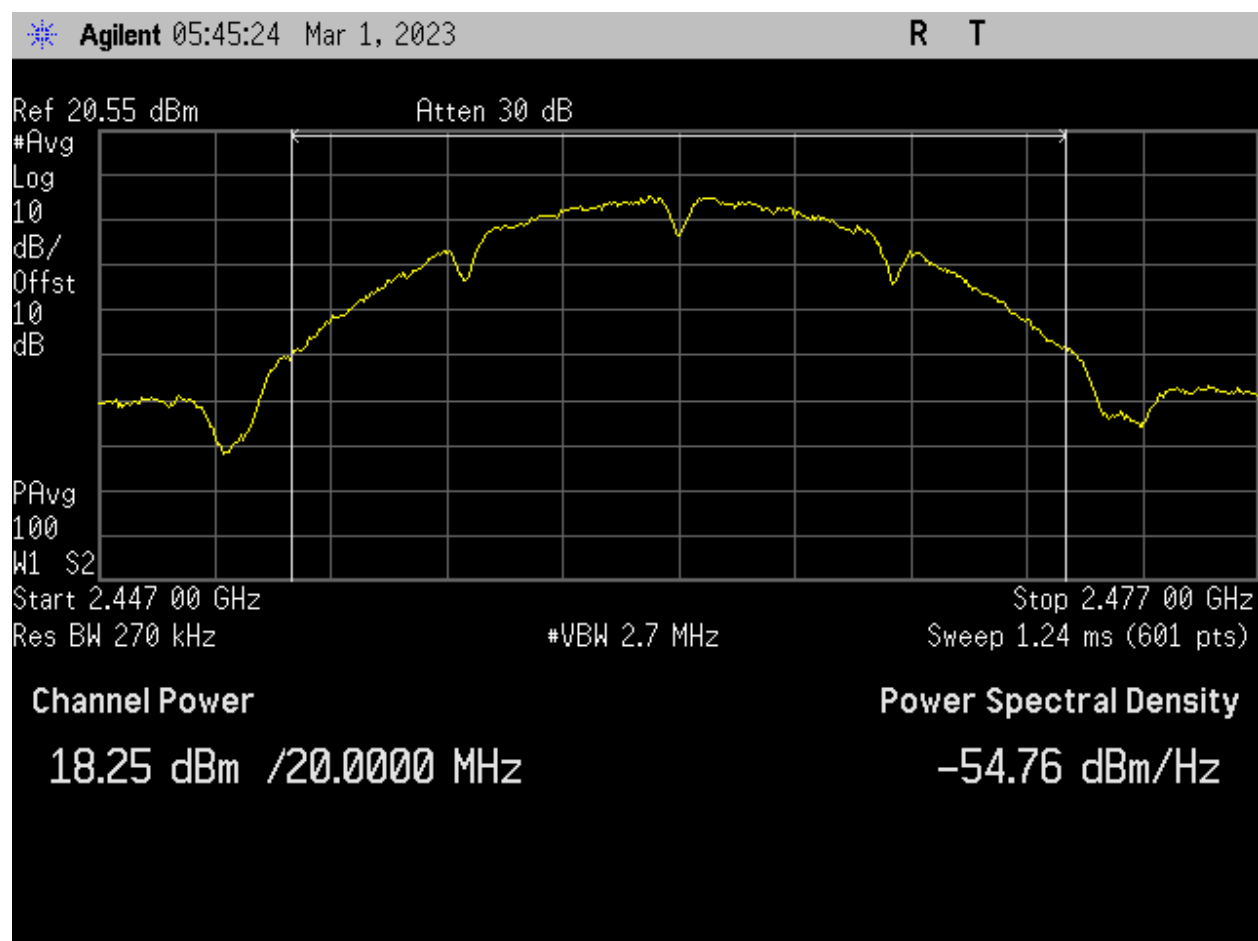


Figure 39: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_Output Power\_Port 1.

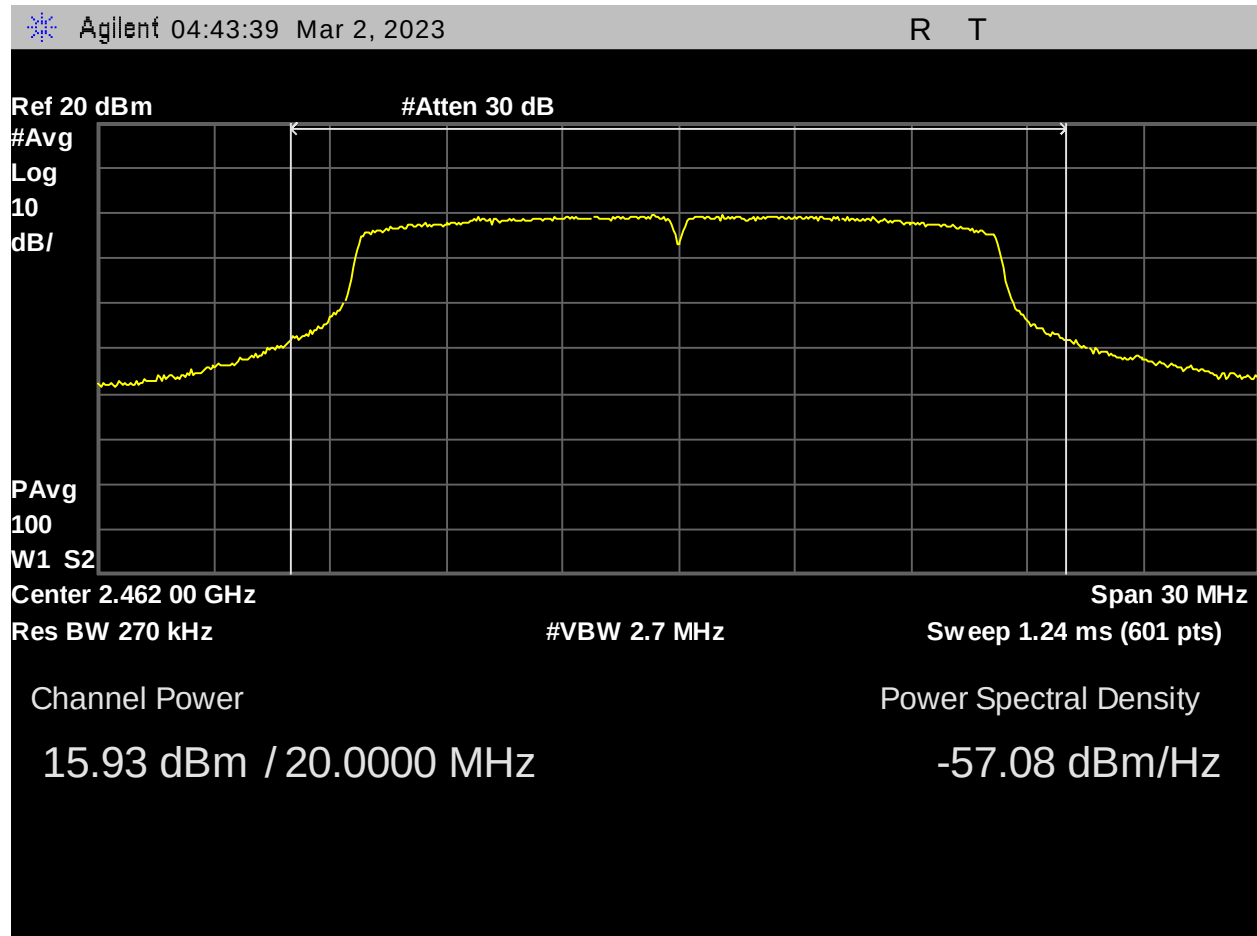


Figure 40: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_Output Power\_Port 1



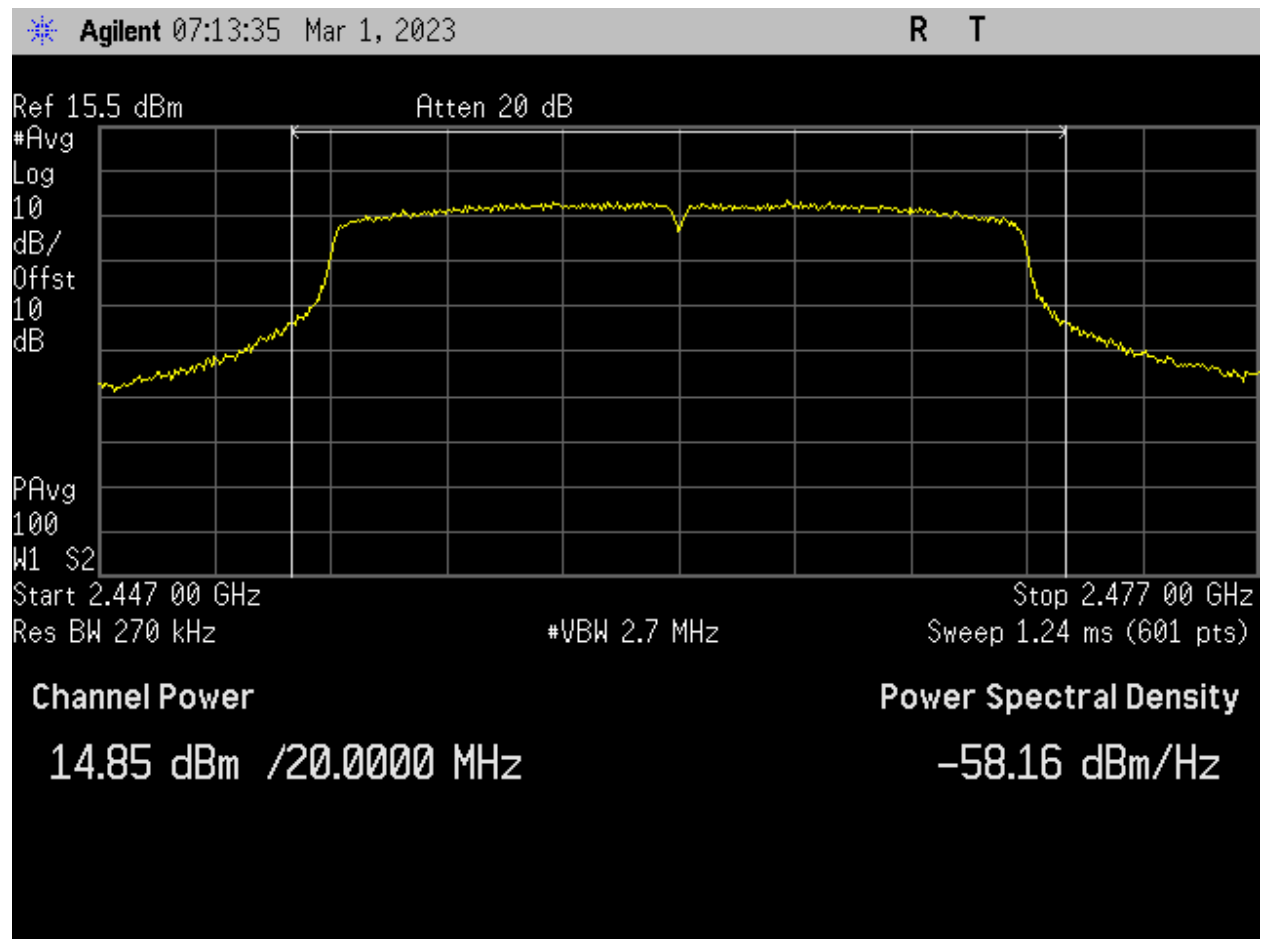


Figure 41: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_Output Power\_Port 1.

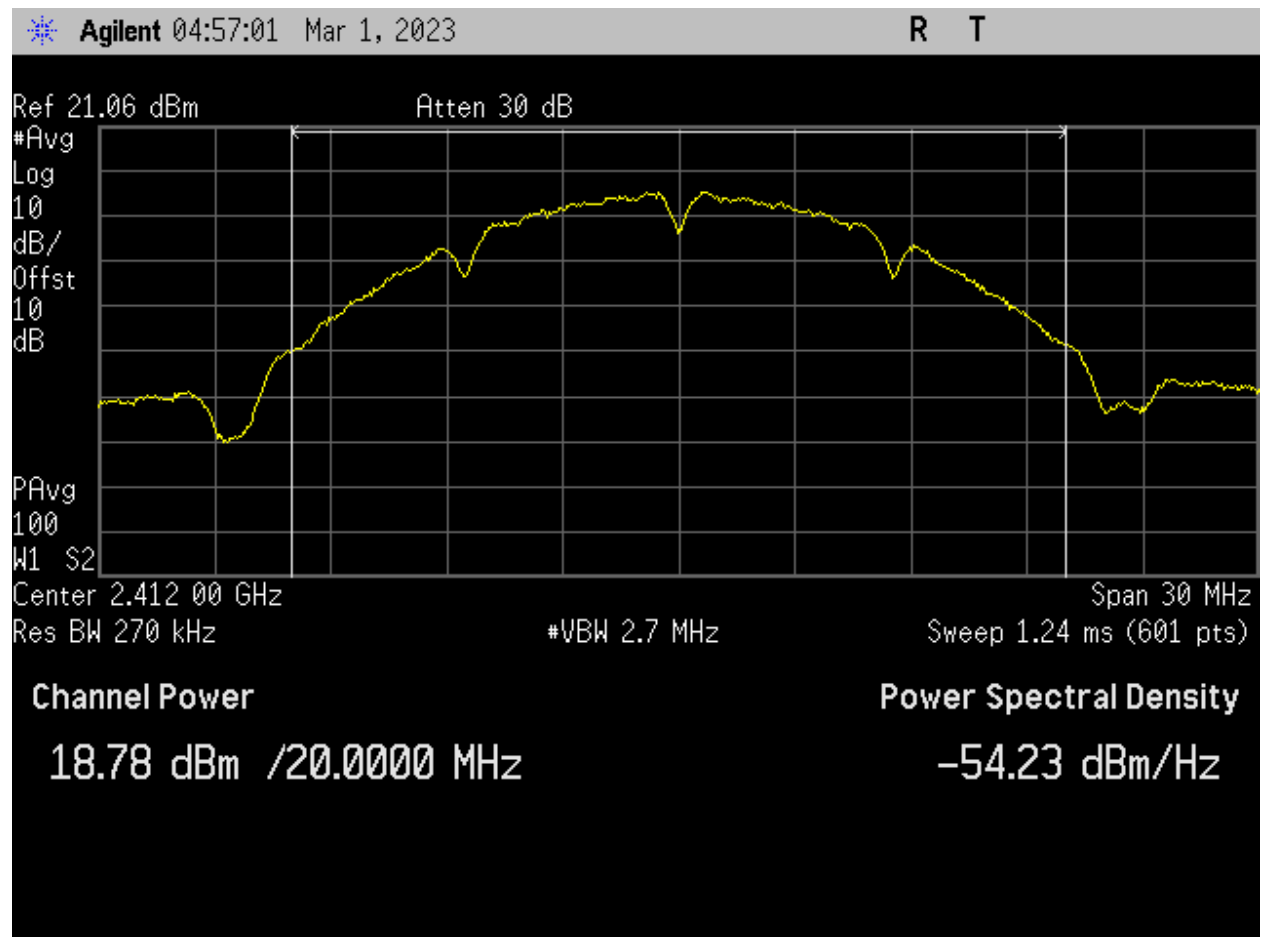


Figure 42: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_Output Power\_Port 1.

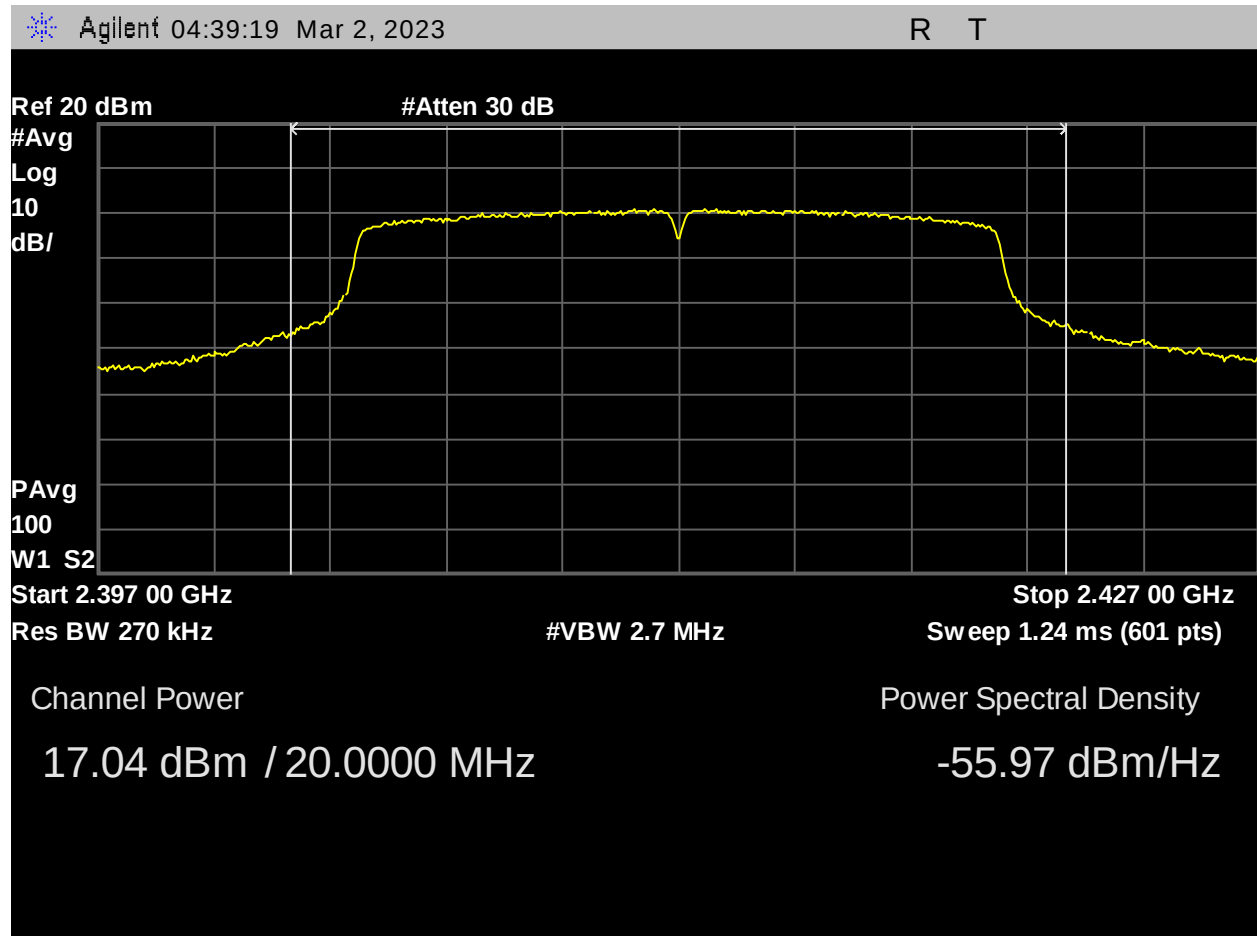


Figure 43: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_Output Power\_Port 1

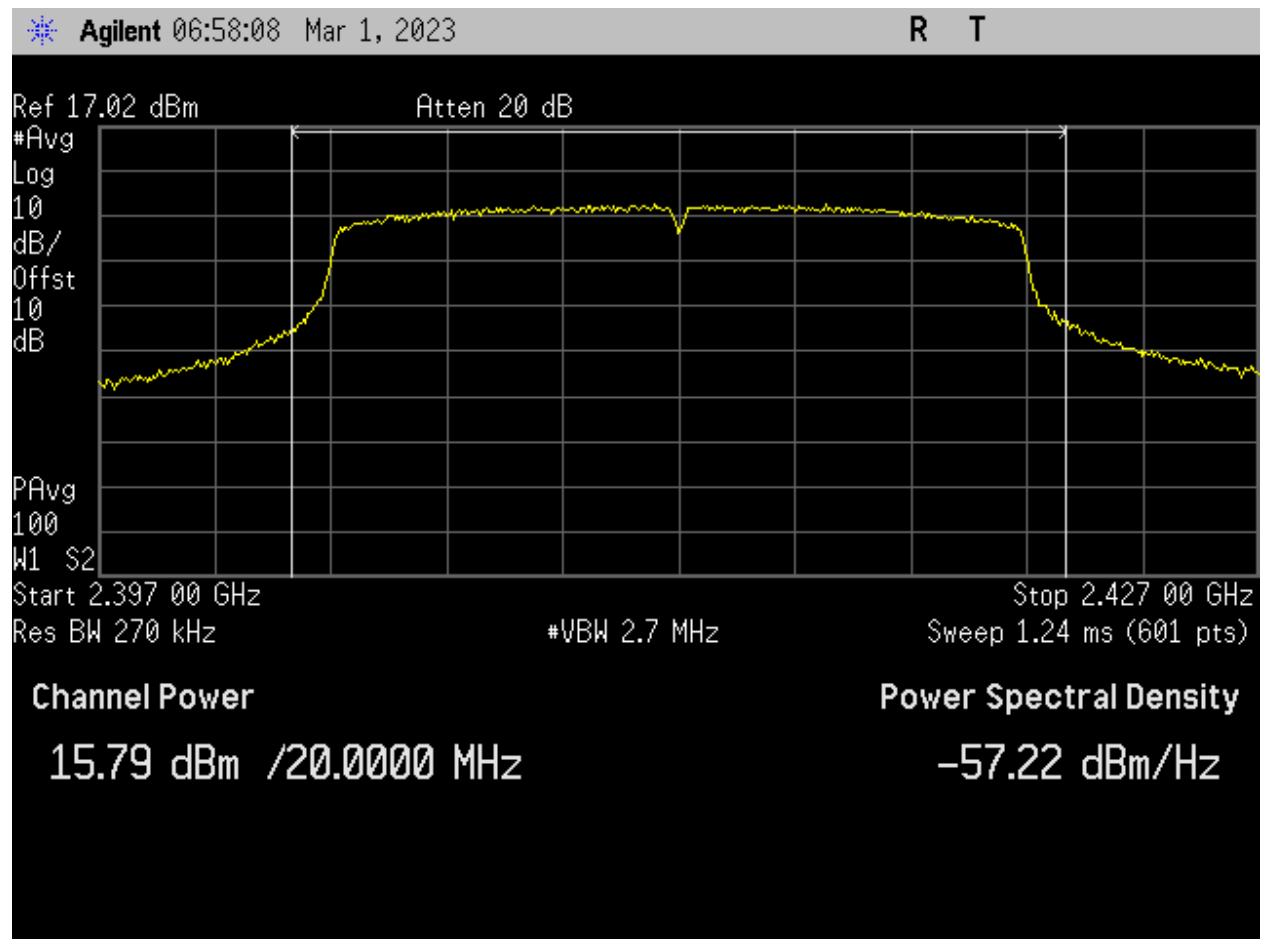


Figure 44: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_Output Power\_Port 1.

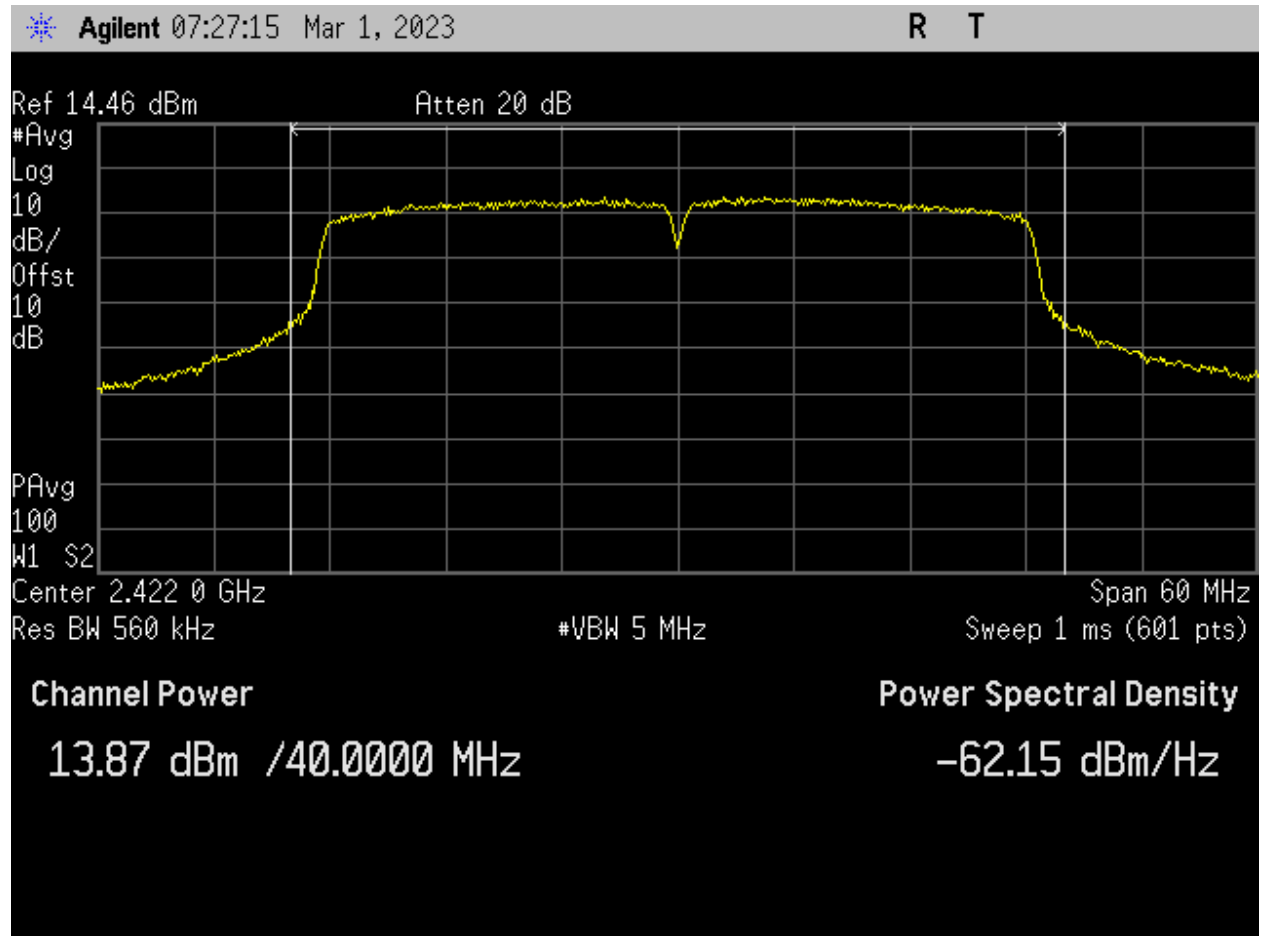


Figure 45: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_Output Power\_Port 1.

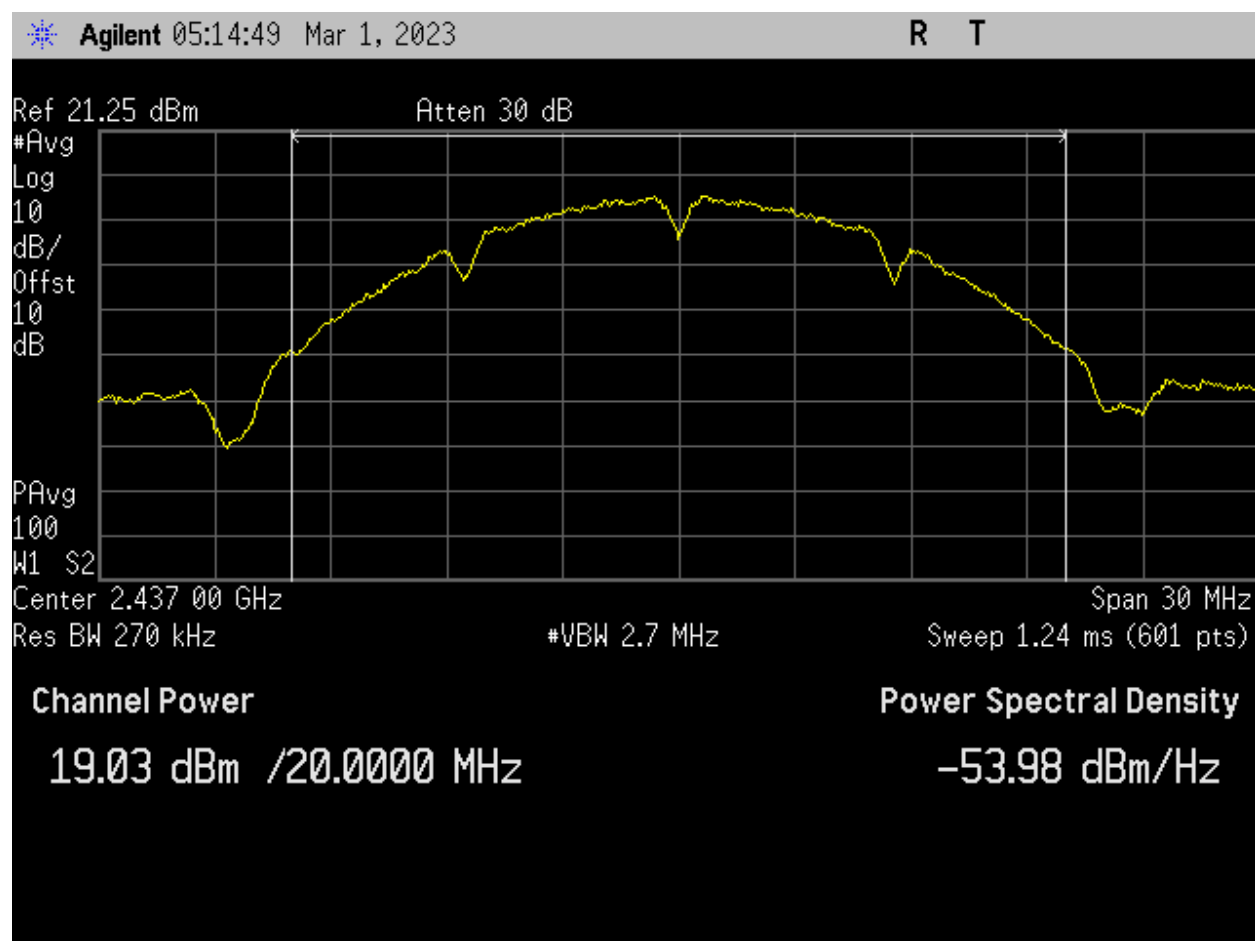


Figure 46: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_Output Power\_Port 1.

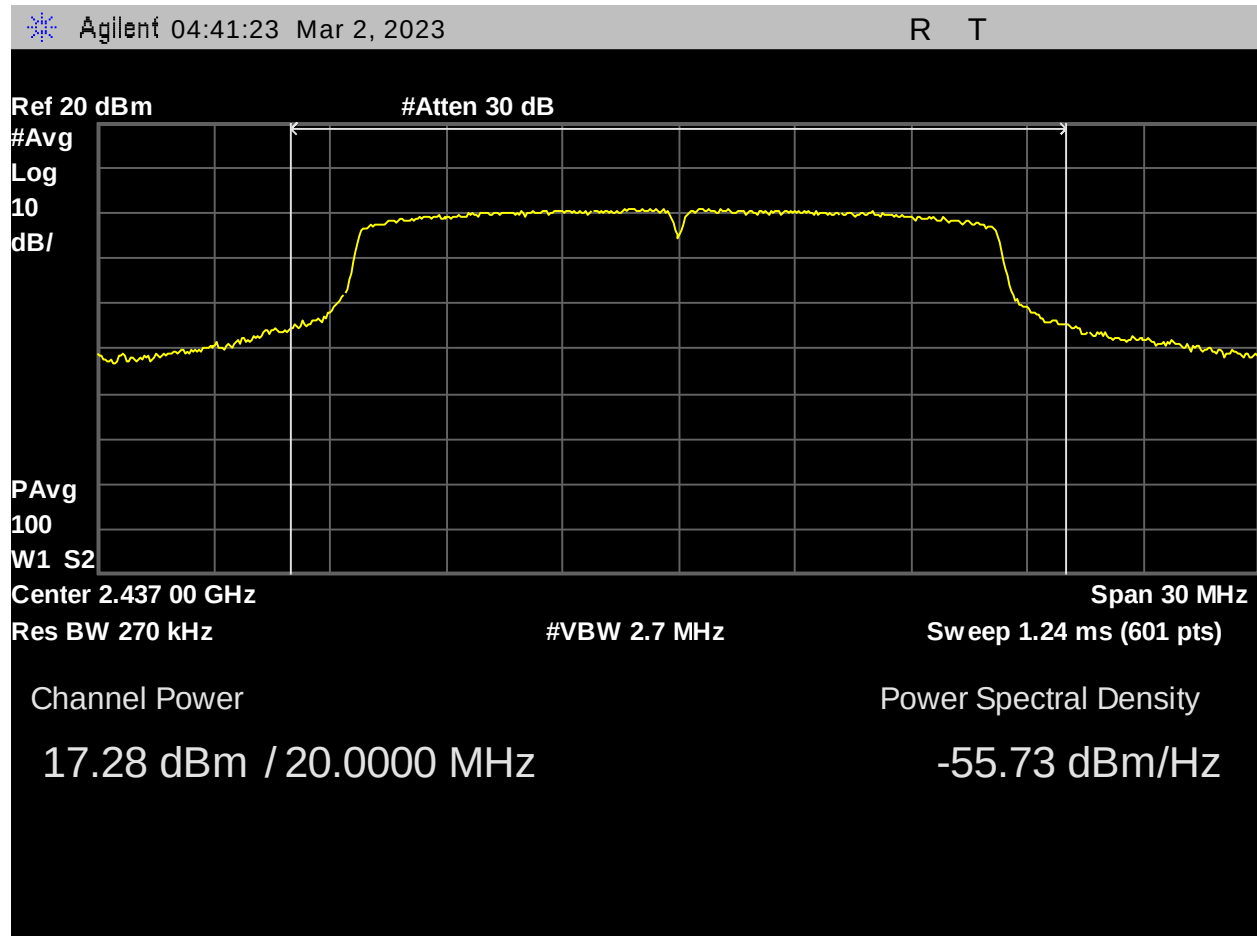


Figure 47: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_Output Power\_Port 1

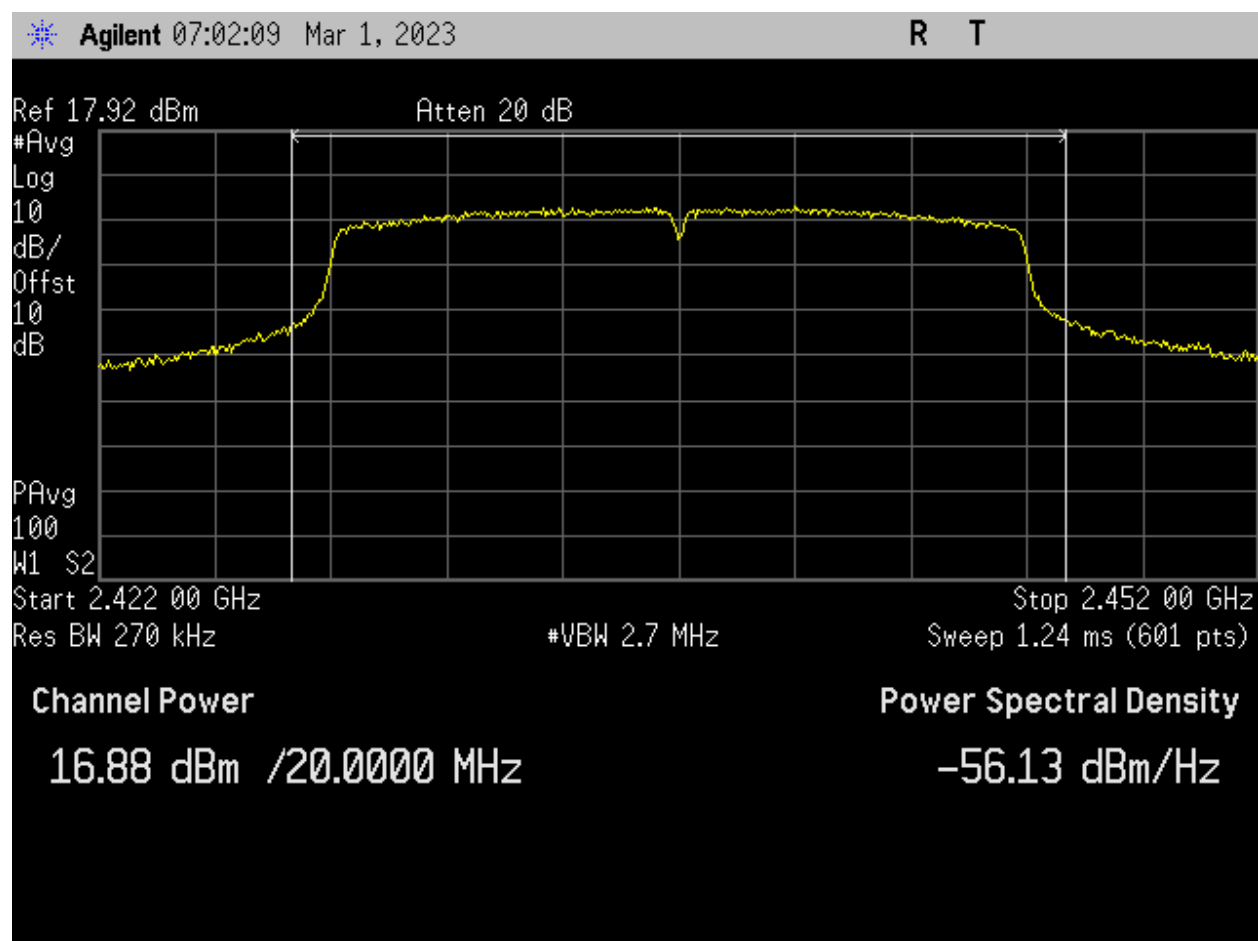


Figure 48: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_Output Power\_Port 1.



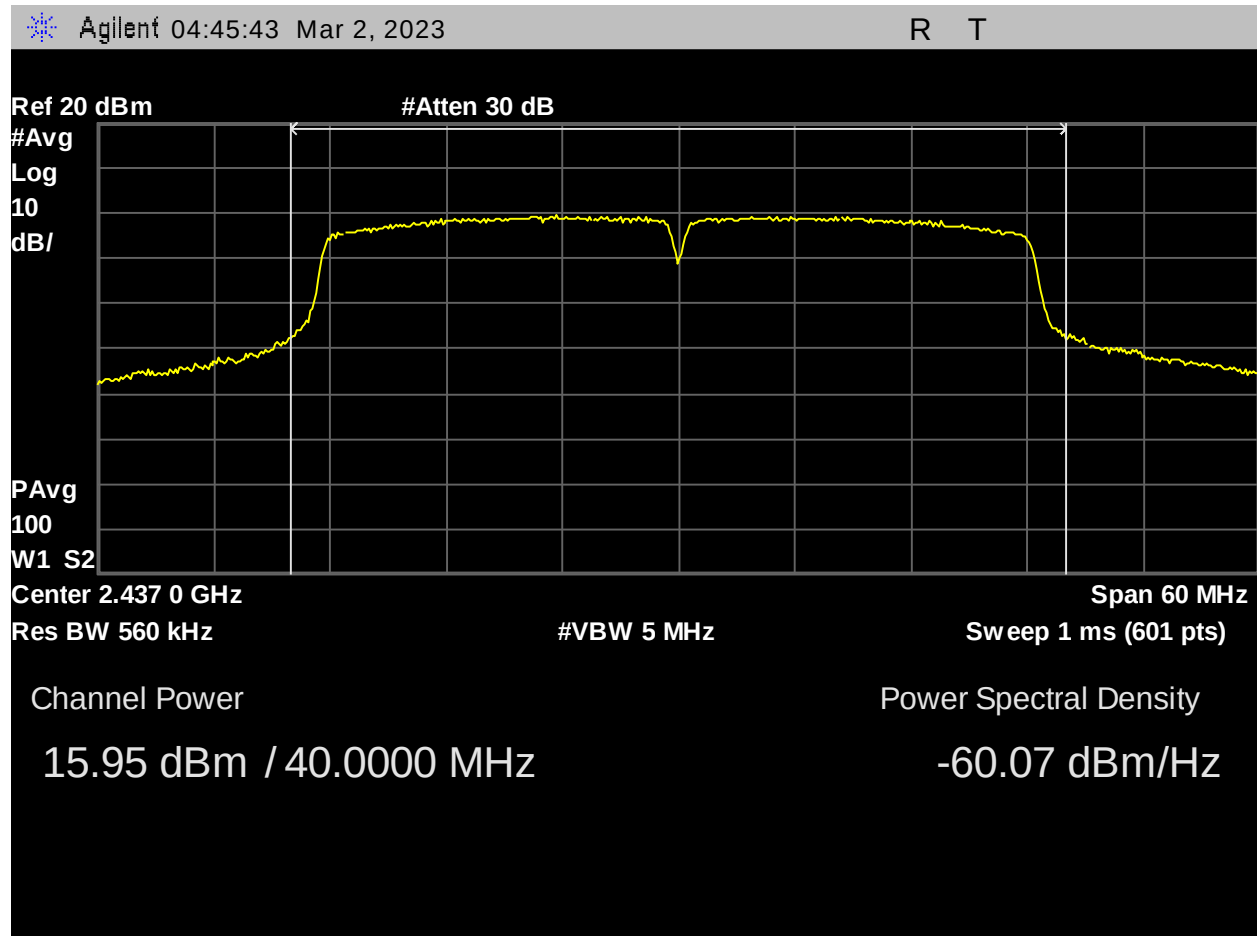


Figure 49: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_Output Power\_Port 1

## § 15.209 Radiated Spurious Emissions Requirements and Band Edge

### Conducted in-lieu of Radiated Spurious Emissions



Figure 50: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_15.209\_1-26GHz avg\_Port 1.

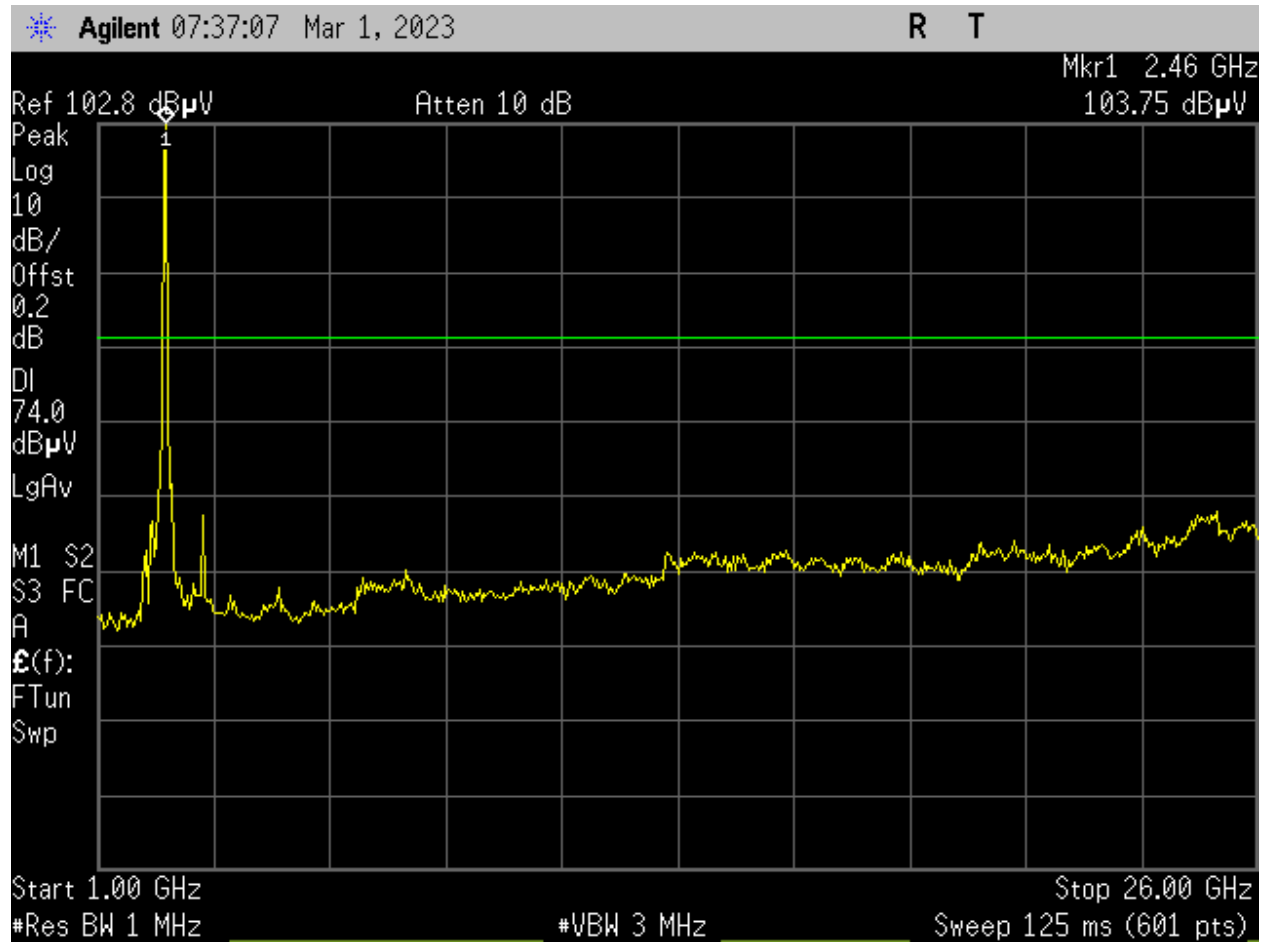


Figure 51: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_15.209\_1-26GHz \_Peak\_Port 1.

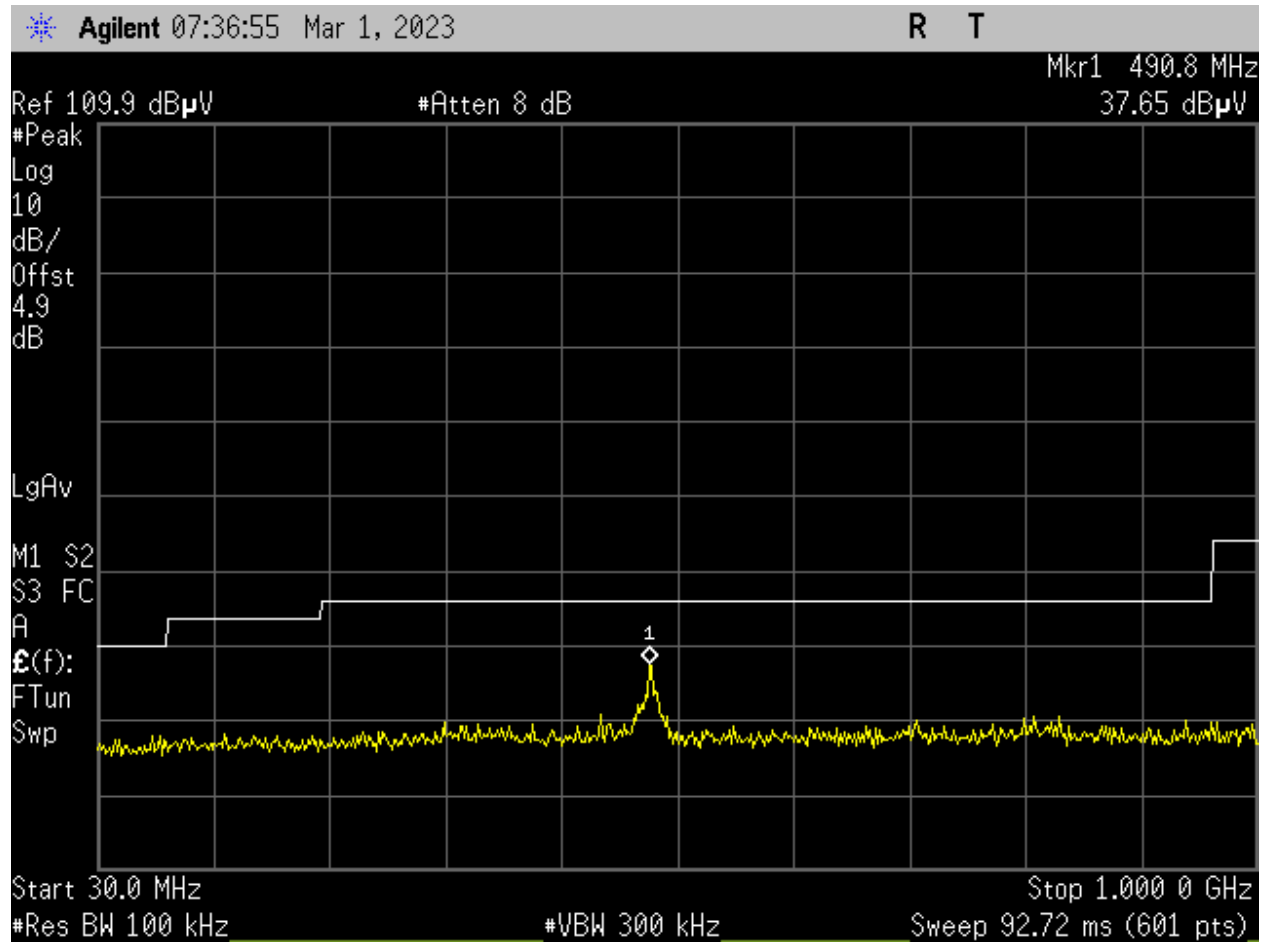


Figure 52: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

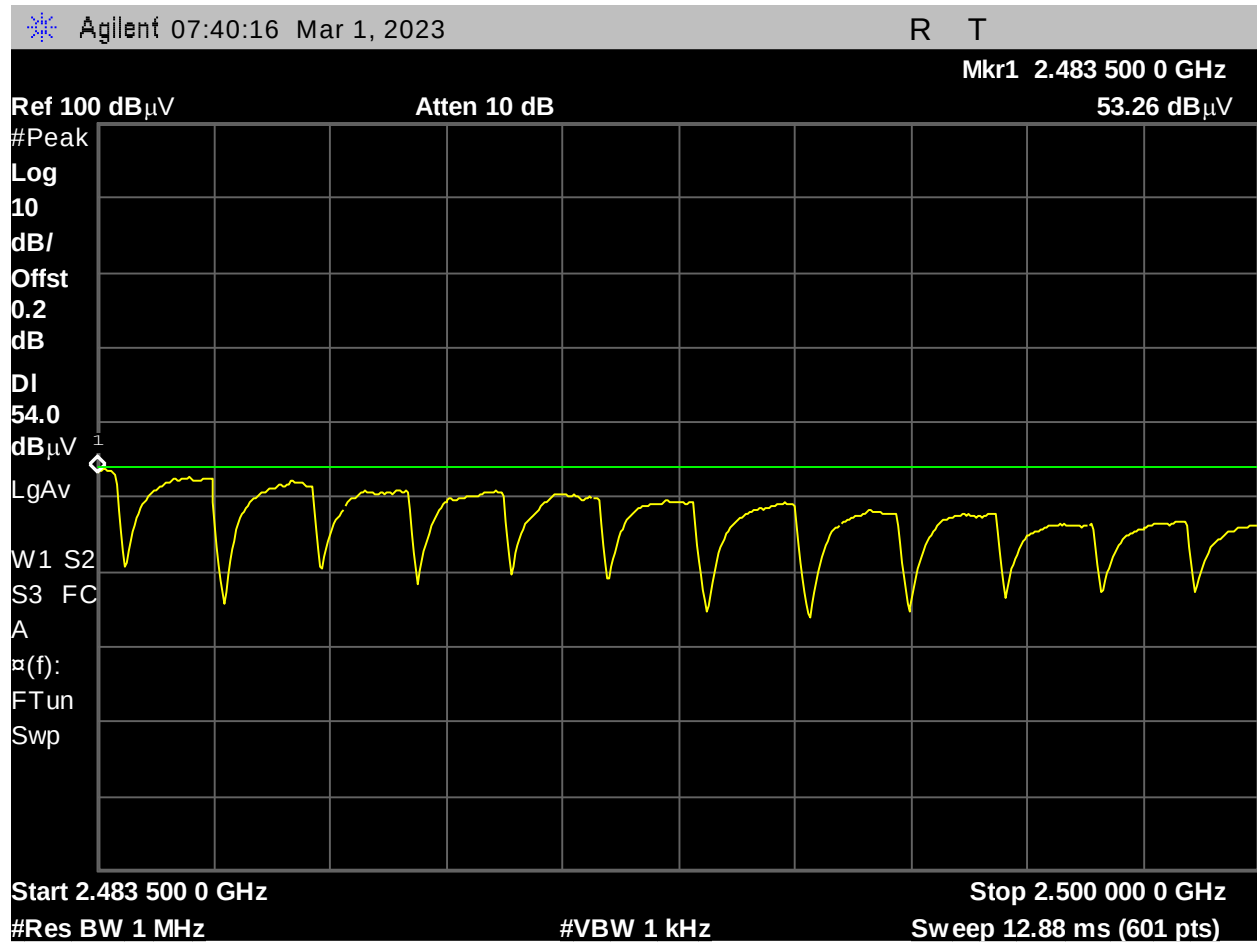


Figure 53: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_15.209\_Upper Band Edge Avg\_Port 1.

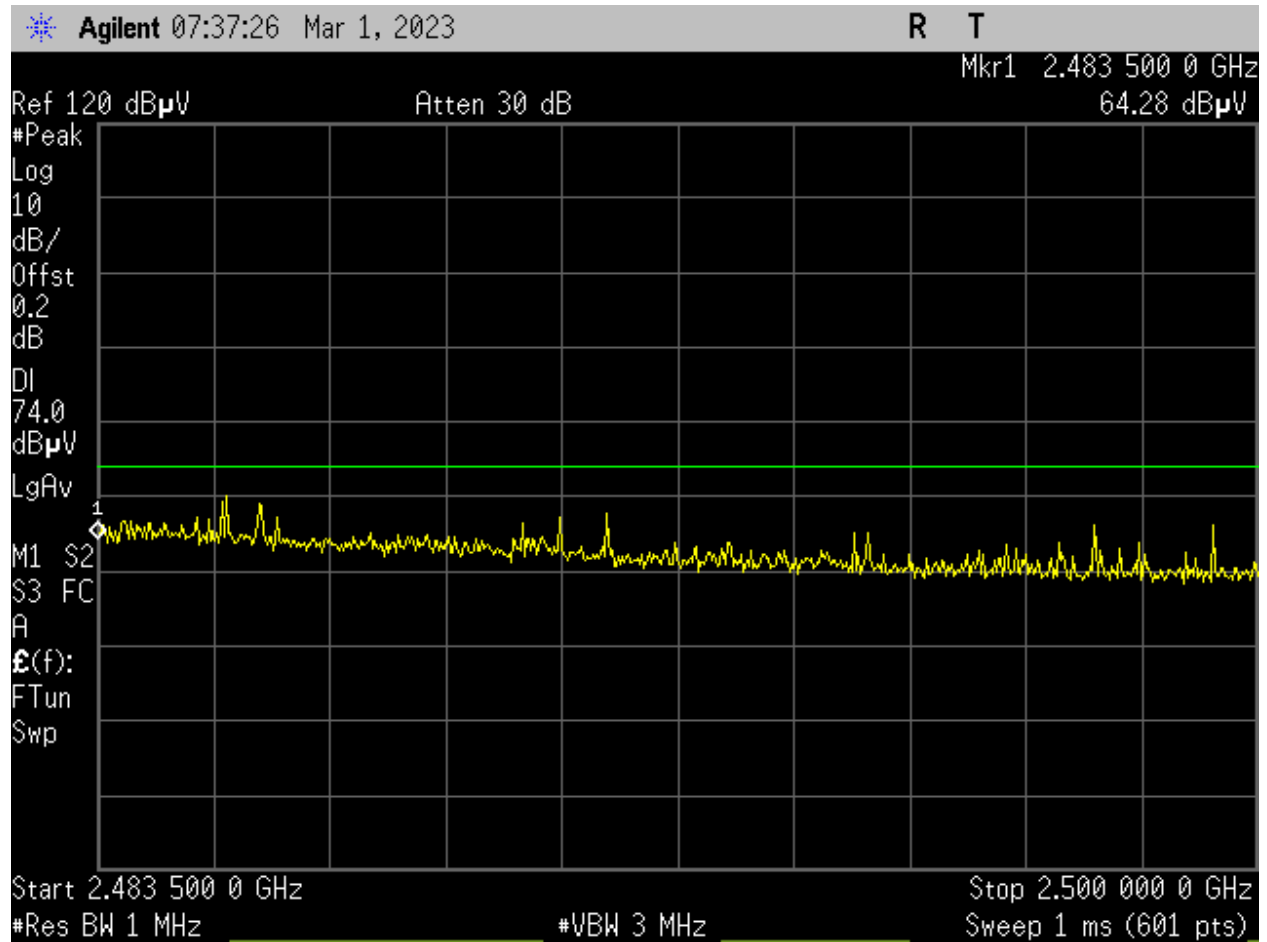


Figure 54: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_15.209\_Upper Band Edge Peak\_Port 1.

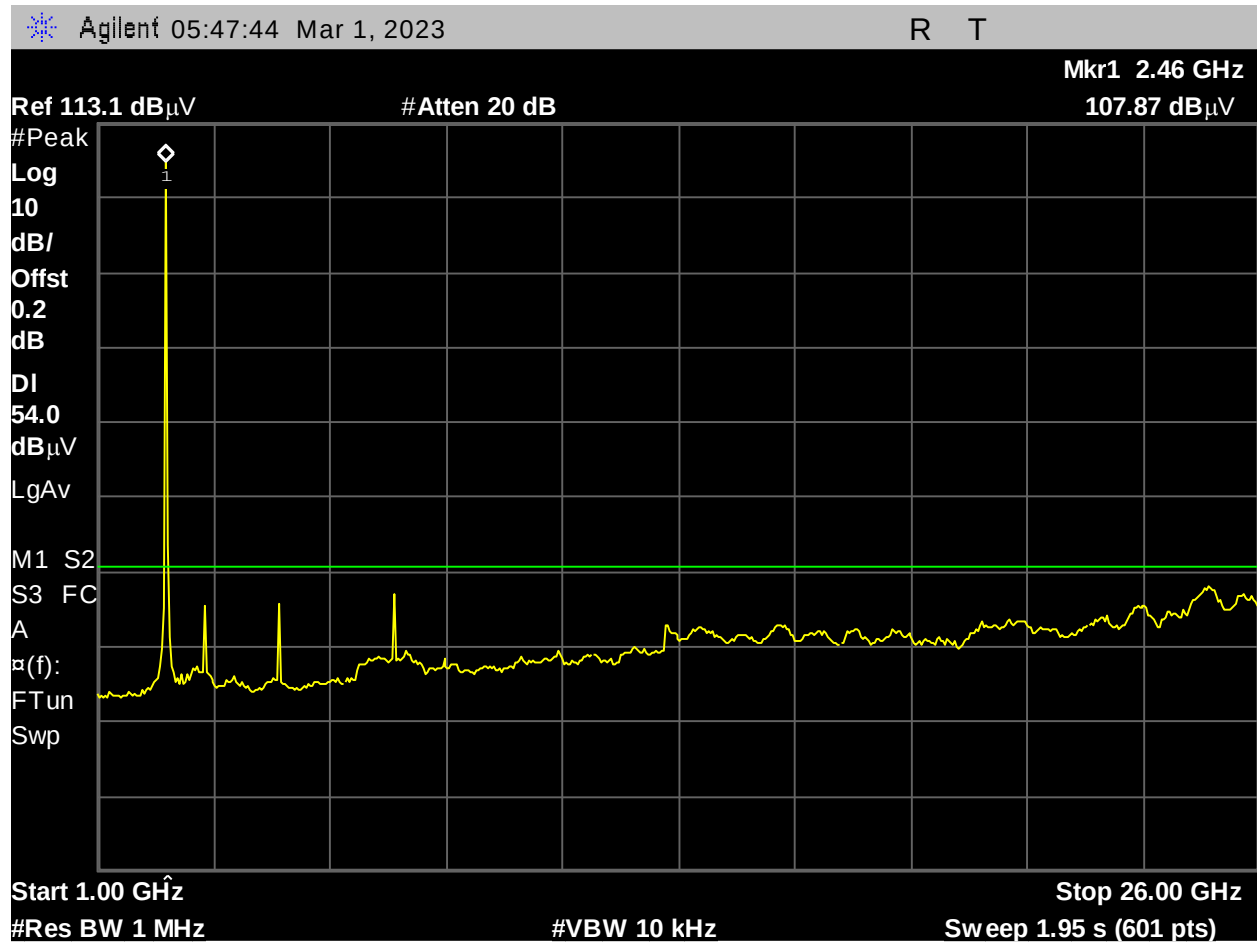


Figure 55: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_15.209\_1-26GHz avg\_Port 1.

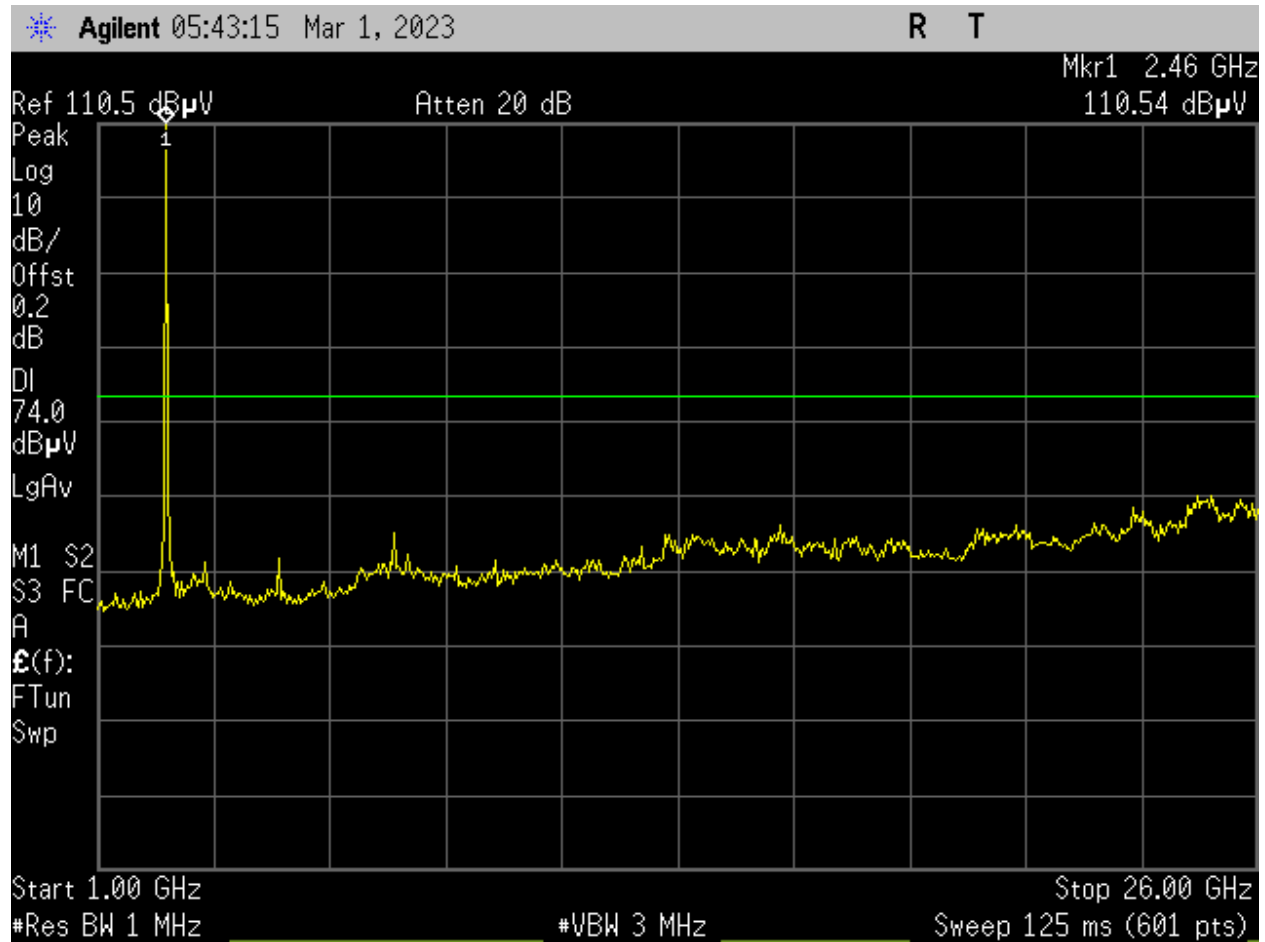


Figure 56: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_15.209\_1-26GHz \_Peak\_Port 1.



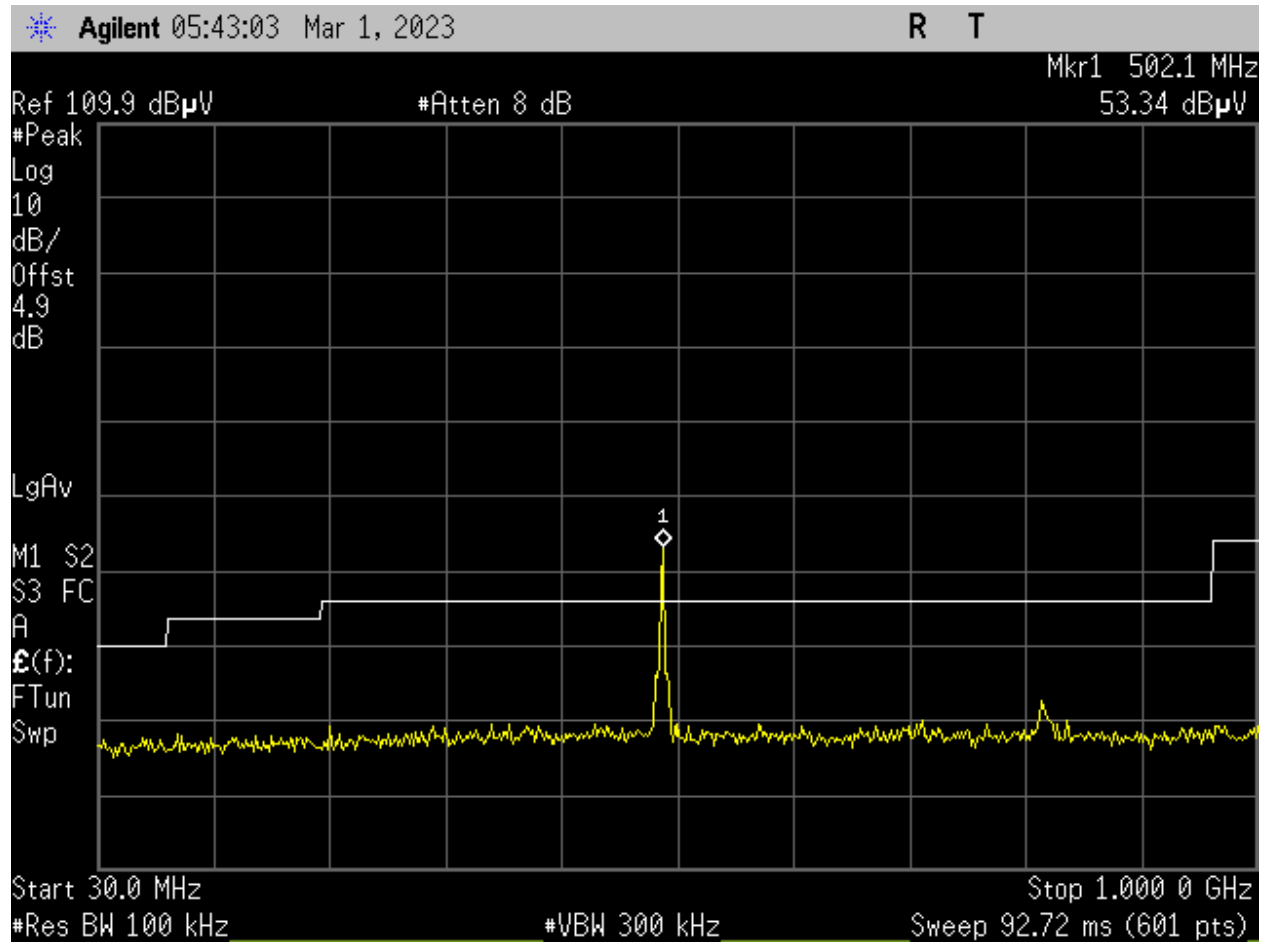


Figure 57: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

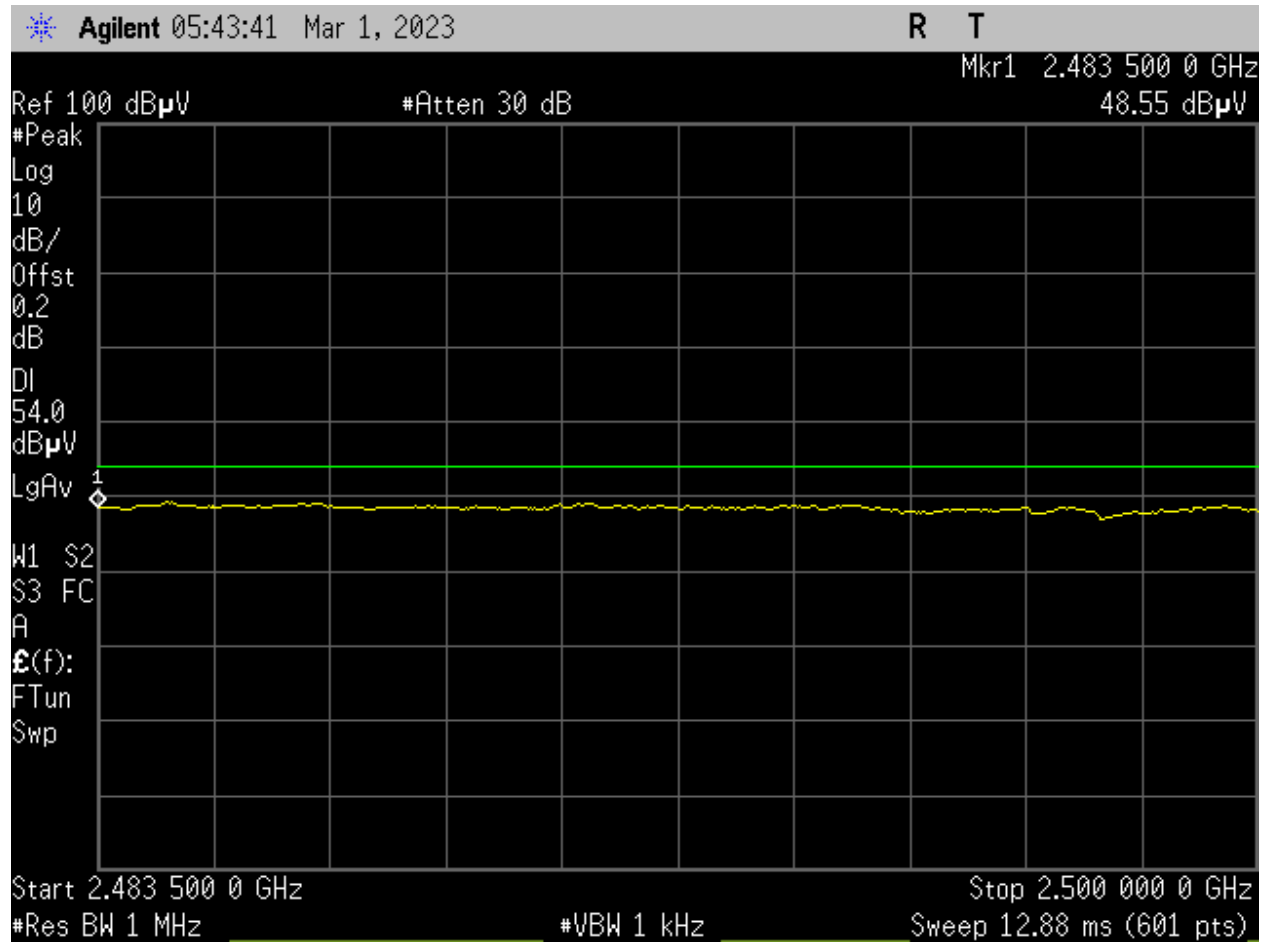


Figure 58: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_15.209\_Upper Band Edge Avg\_Port 1.

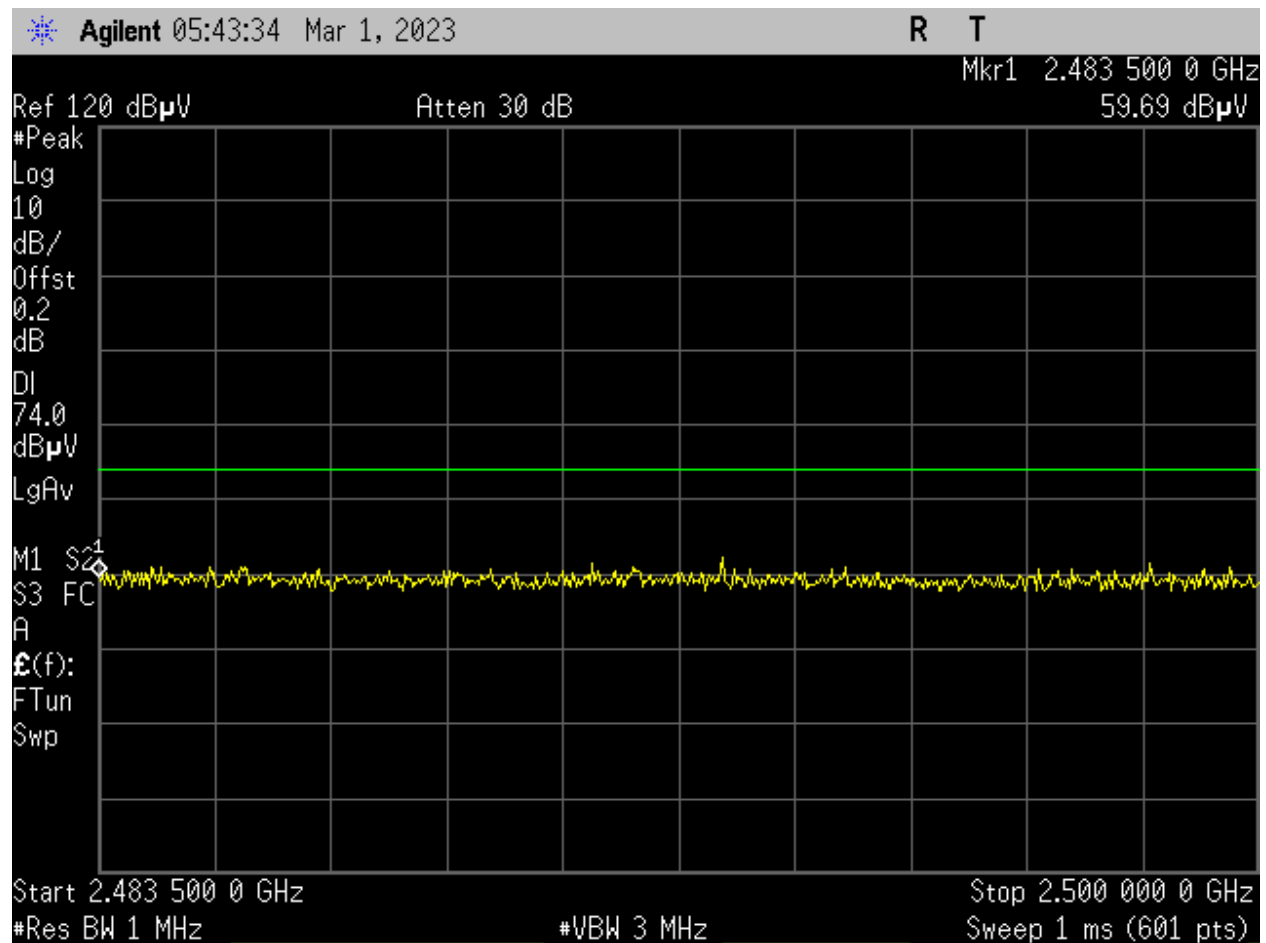


Figure 59: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_15.209\_Upper Band Edge Peak\_Port 1.

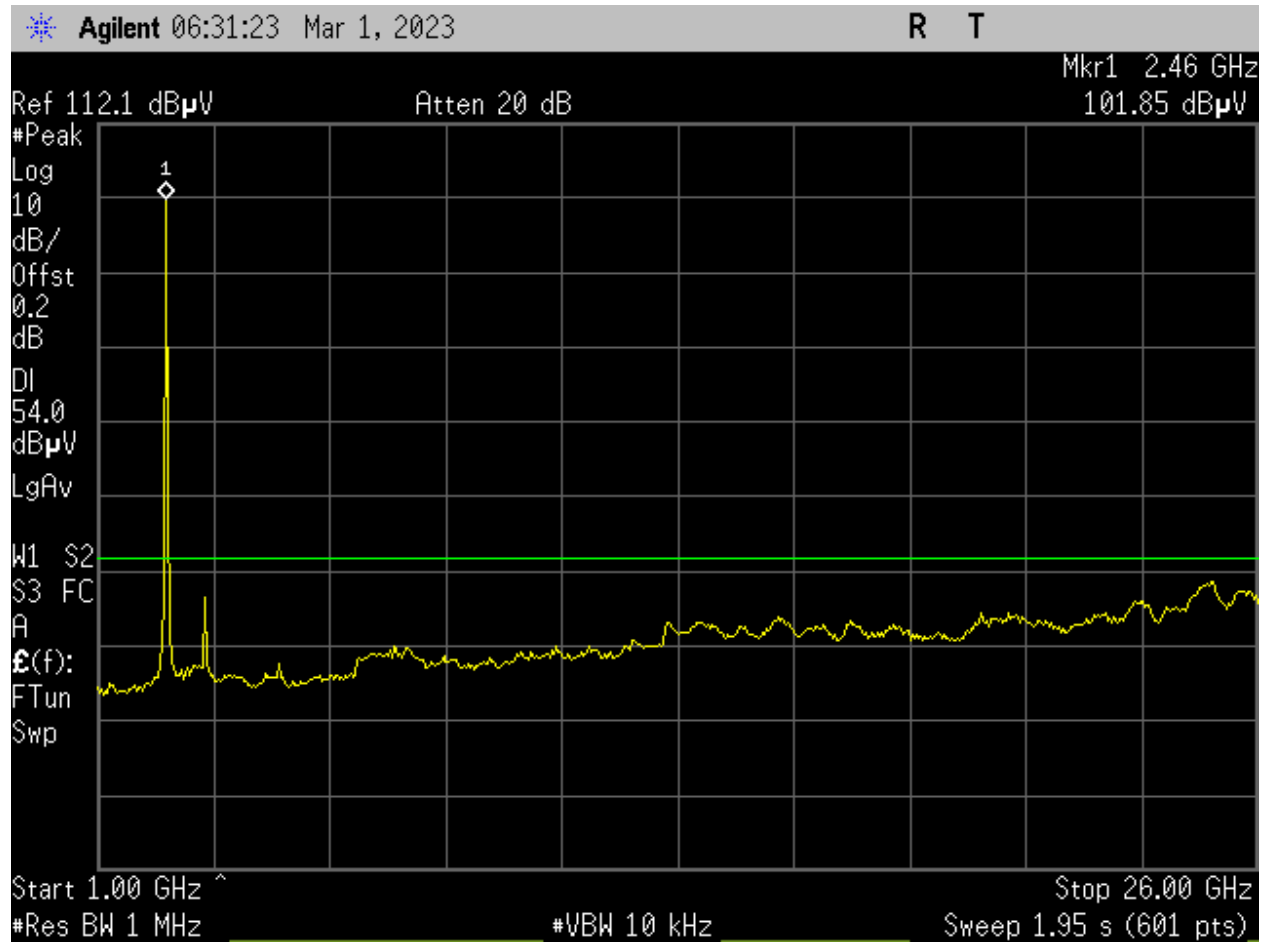


Figure 60: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_15.209\_1-26GHz avg\_Port 1.

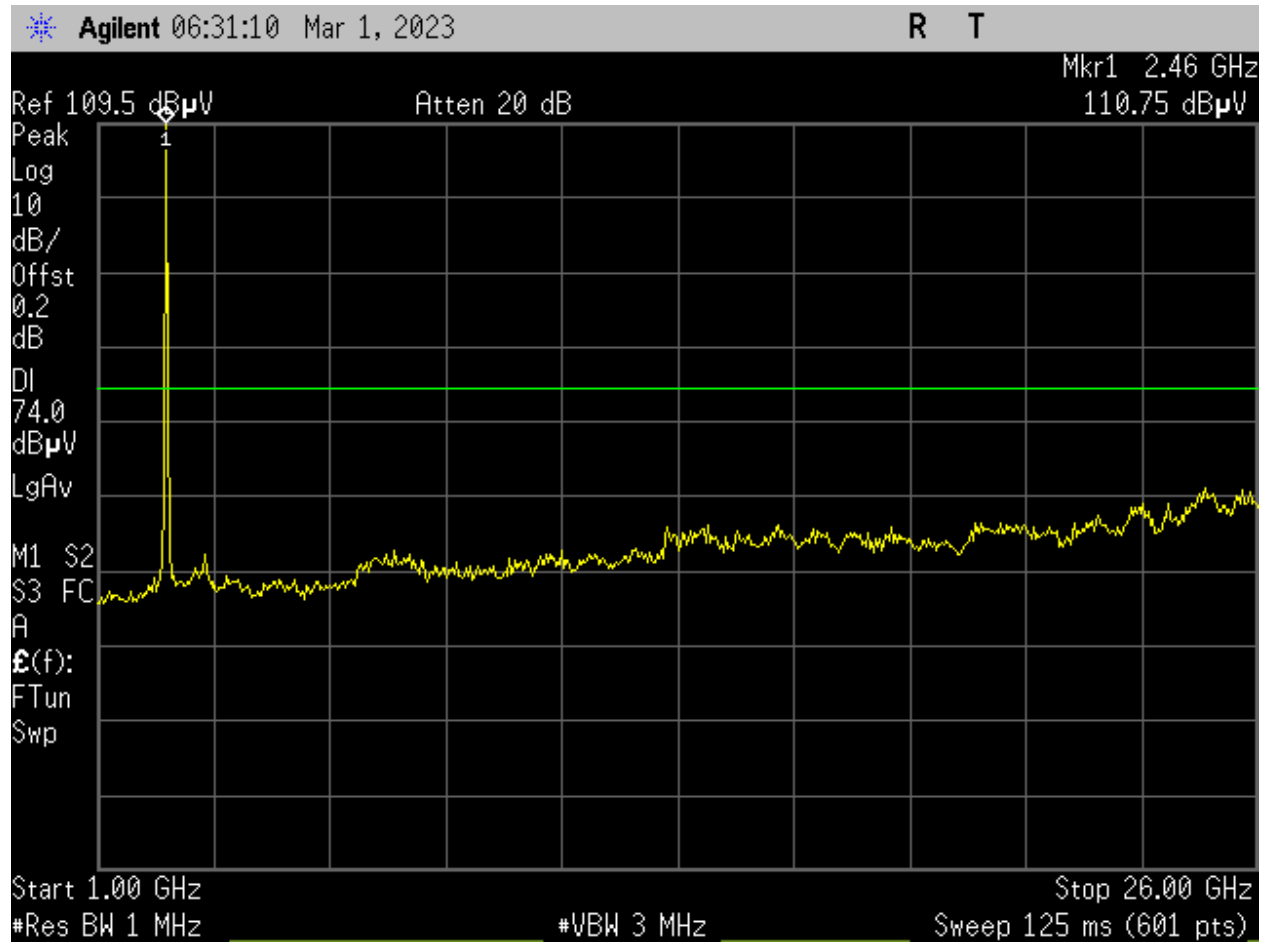


Figure 61: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_15.209\_1-26GHz \_Peak\_Port 1.

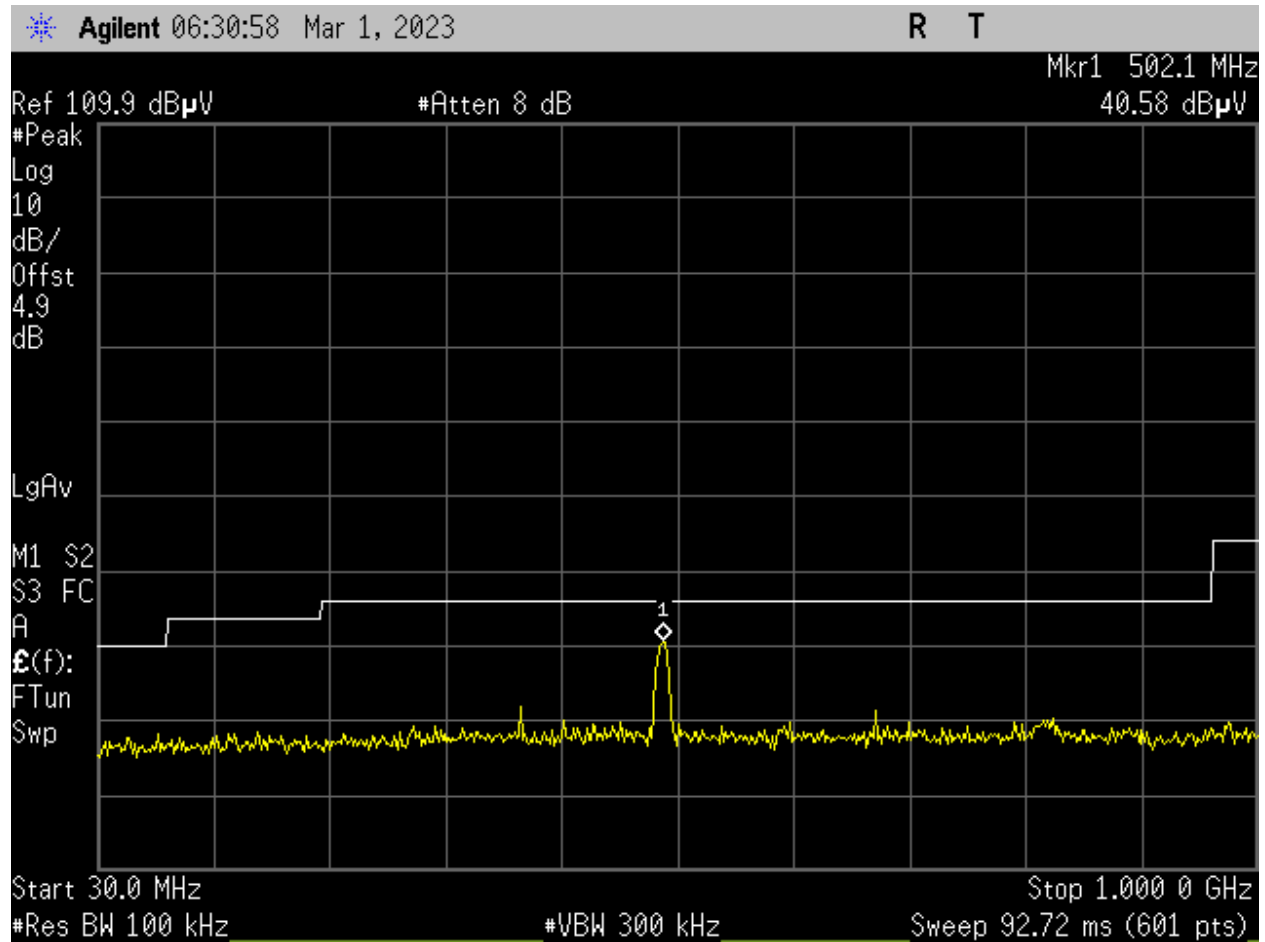


Figure 62: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

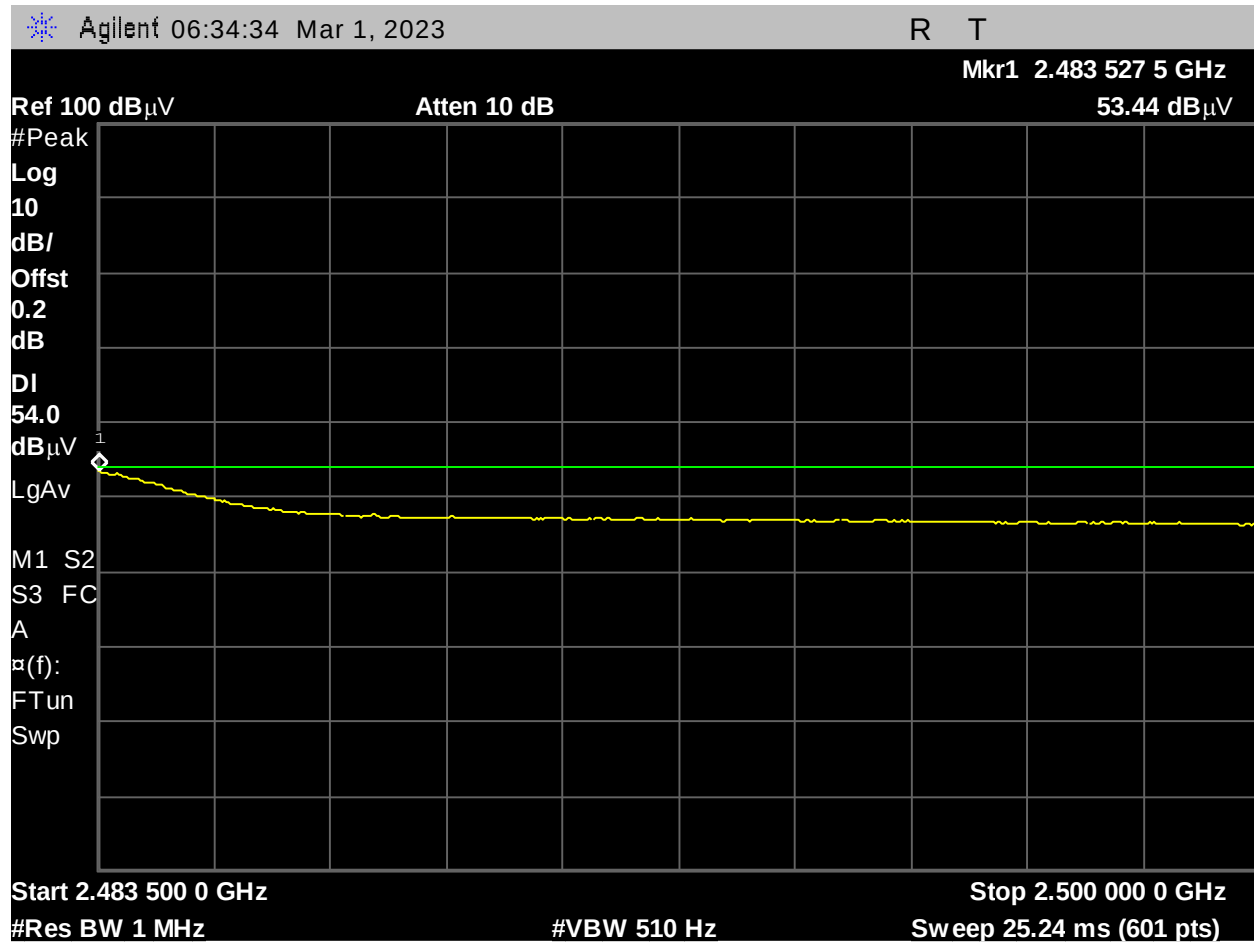


Figure 63: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_15.209\_Upper Band Edge Avg\_Port 1.

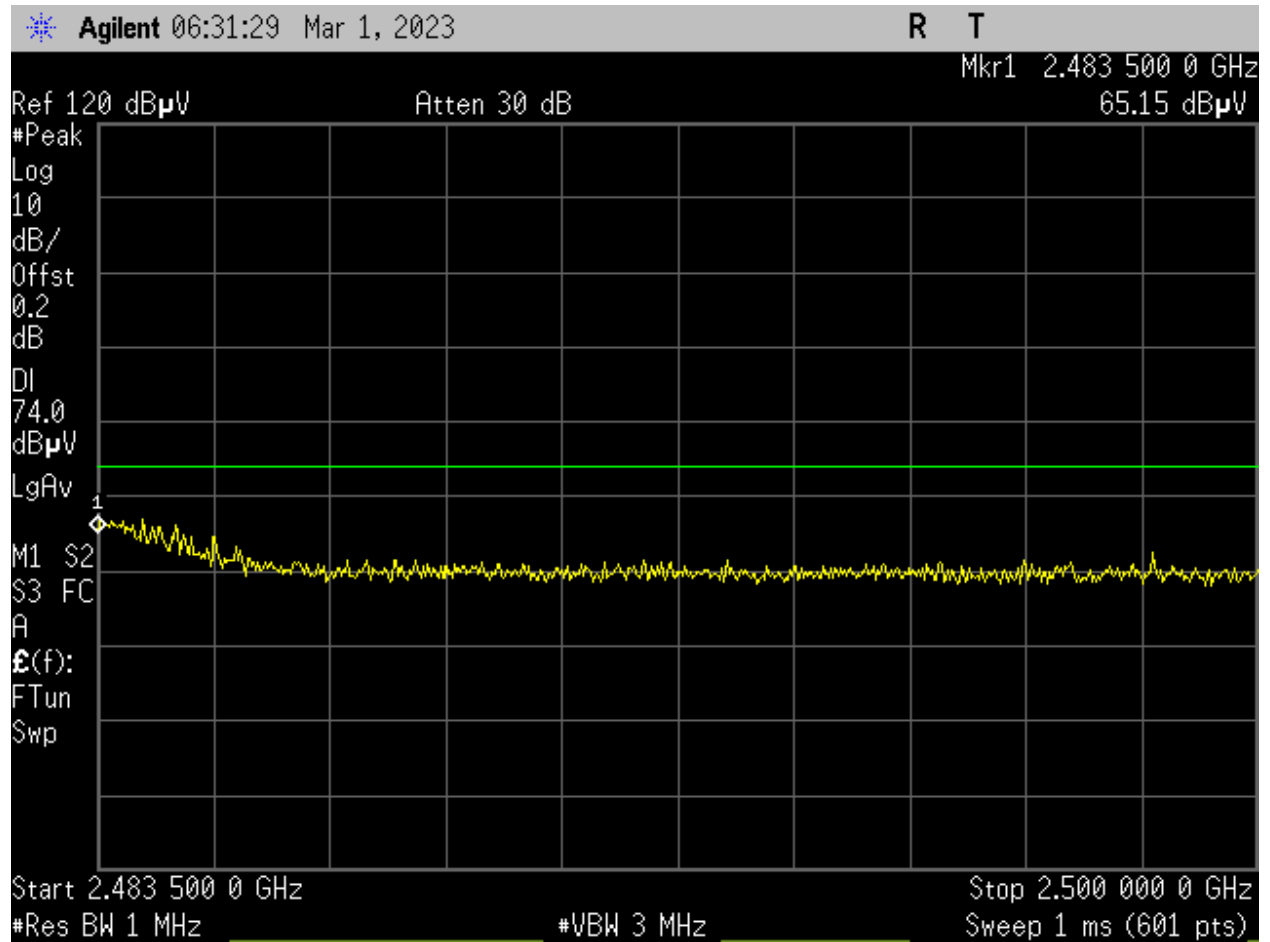


Figure 64: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_15.209\_Upper Band Edge Peak\_Port 1.



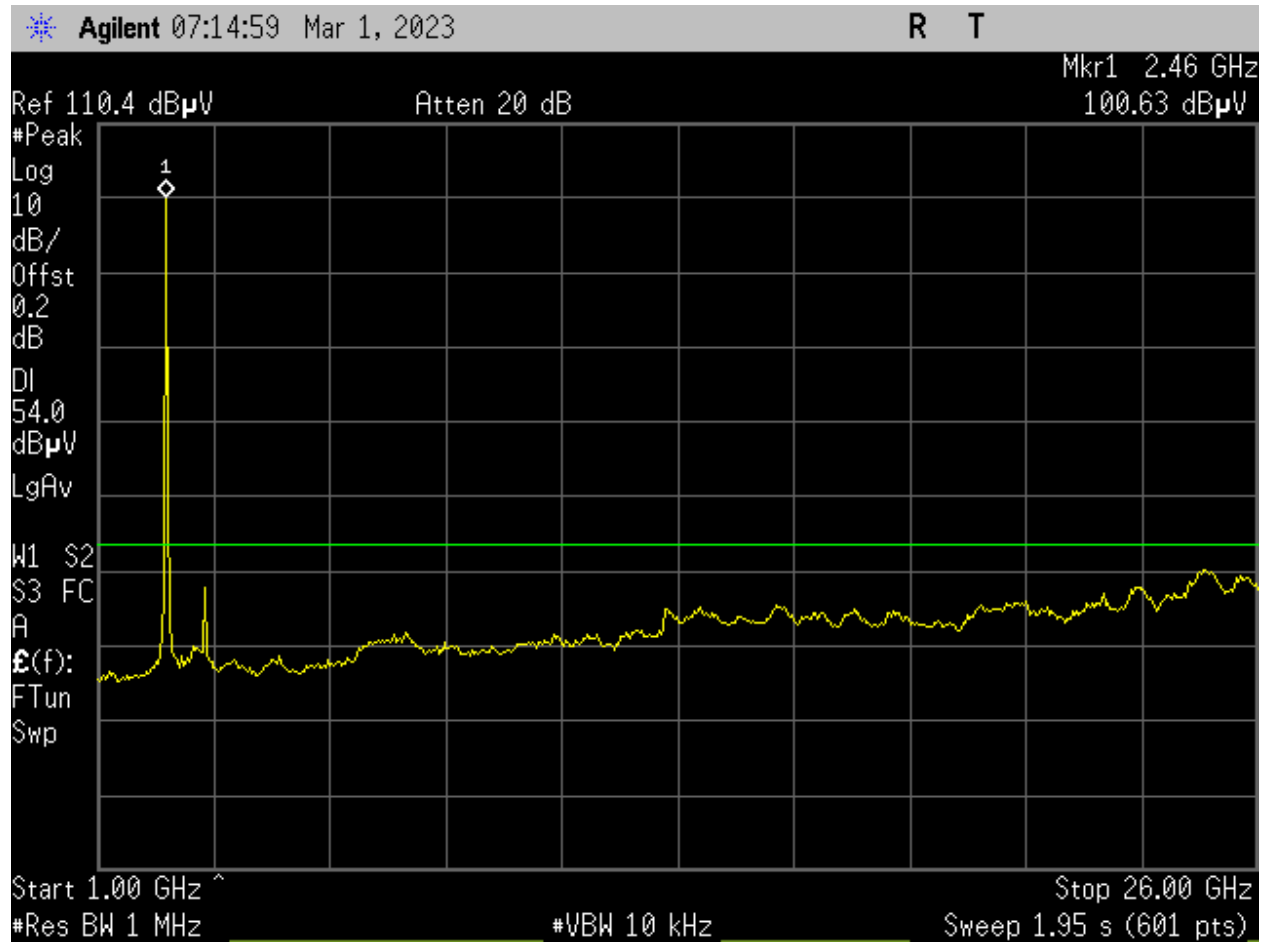


Figure 65: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_15.209\_1-26GHz avg\_Port 1.

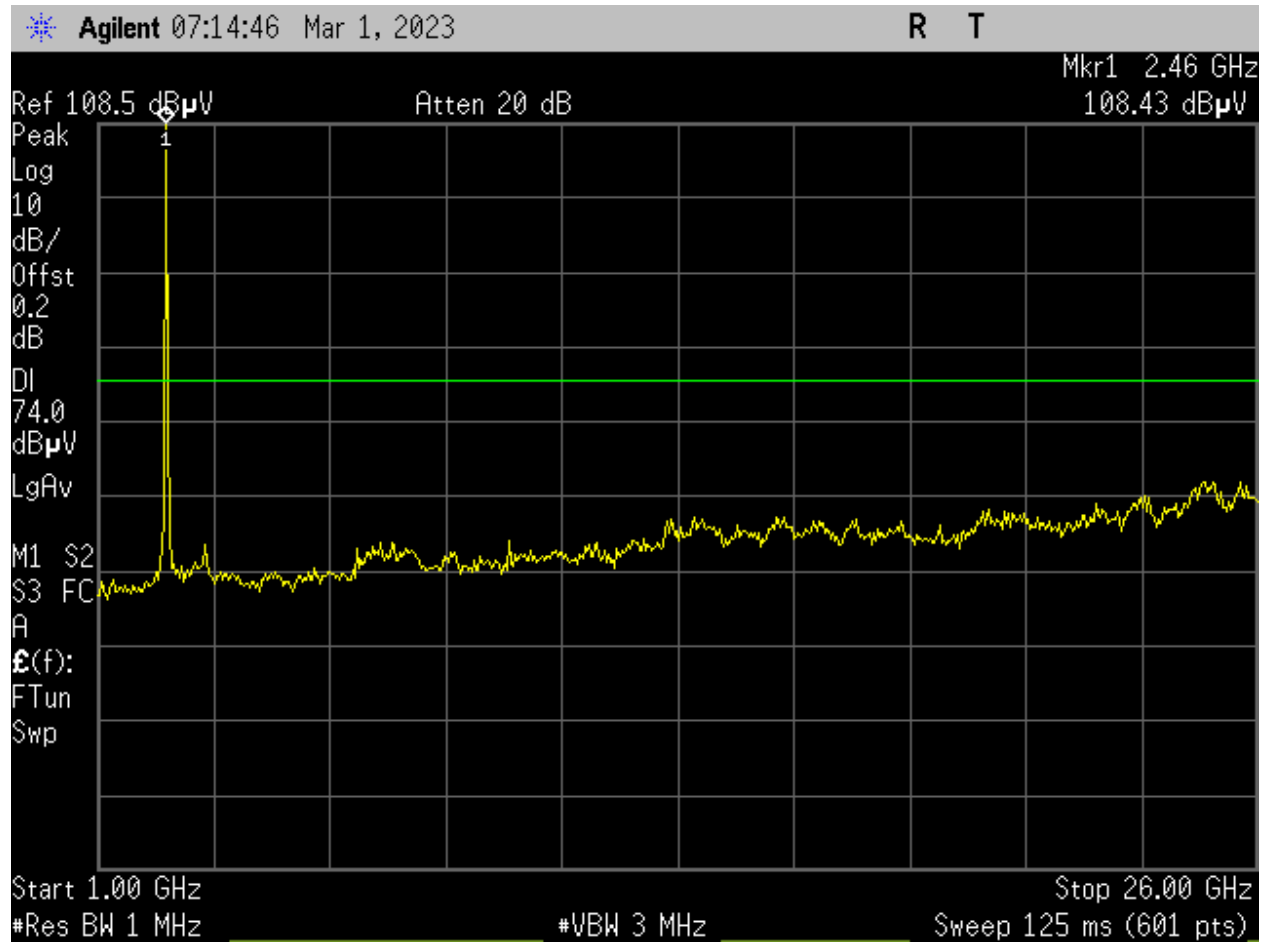


Figure 66: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_15.209\_1-26GHz \_Peak\_Port 1.

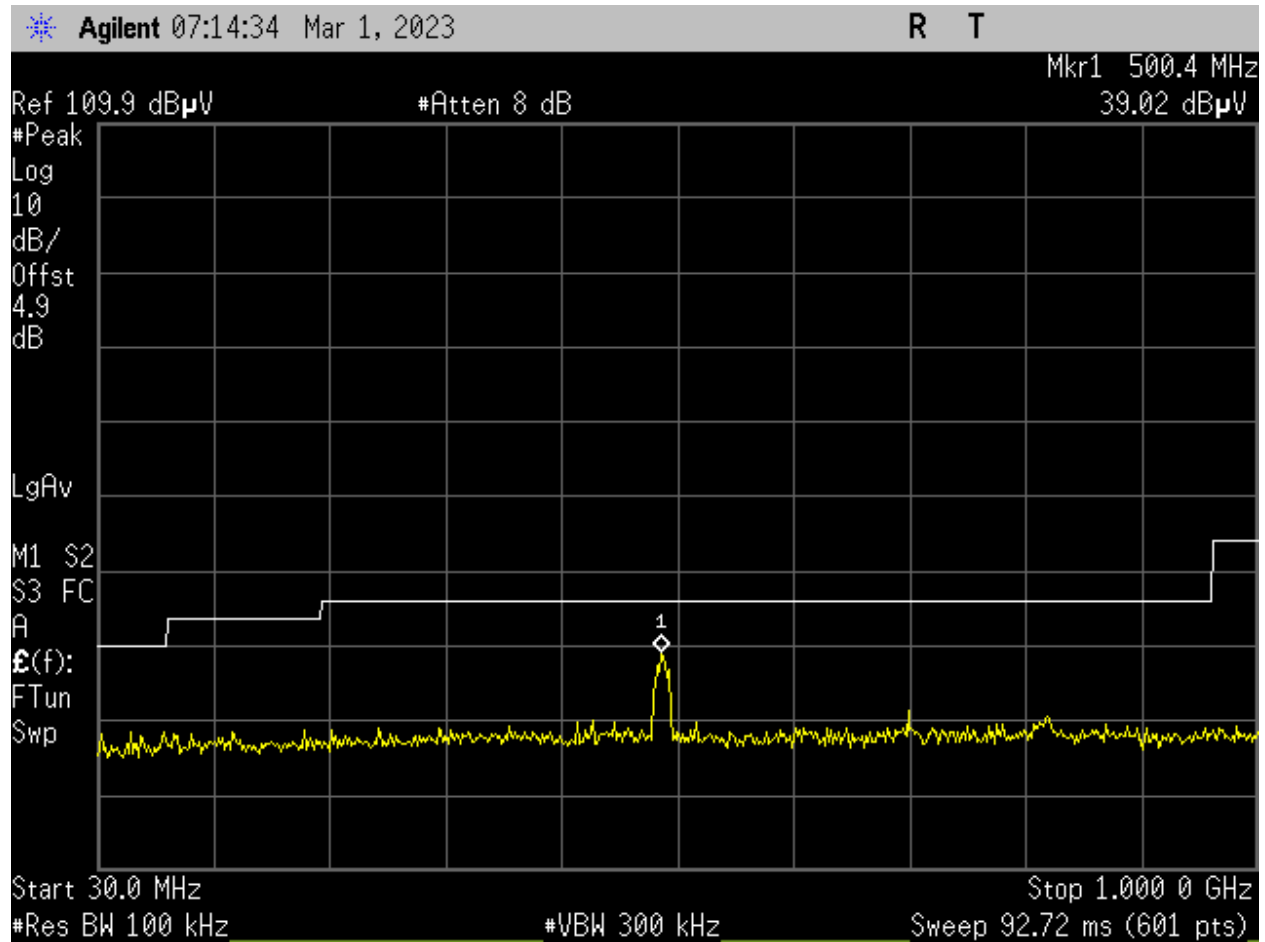


Figure 67: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

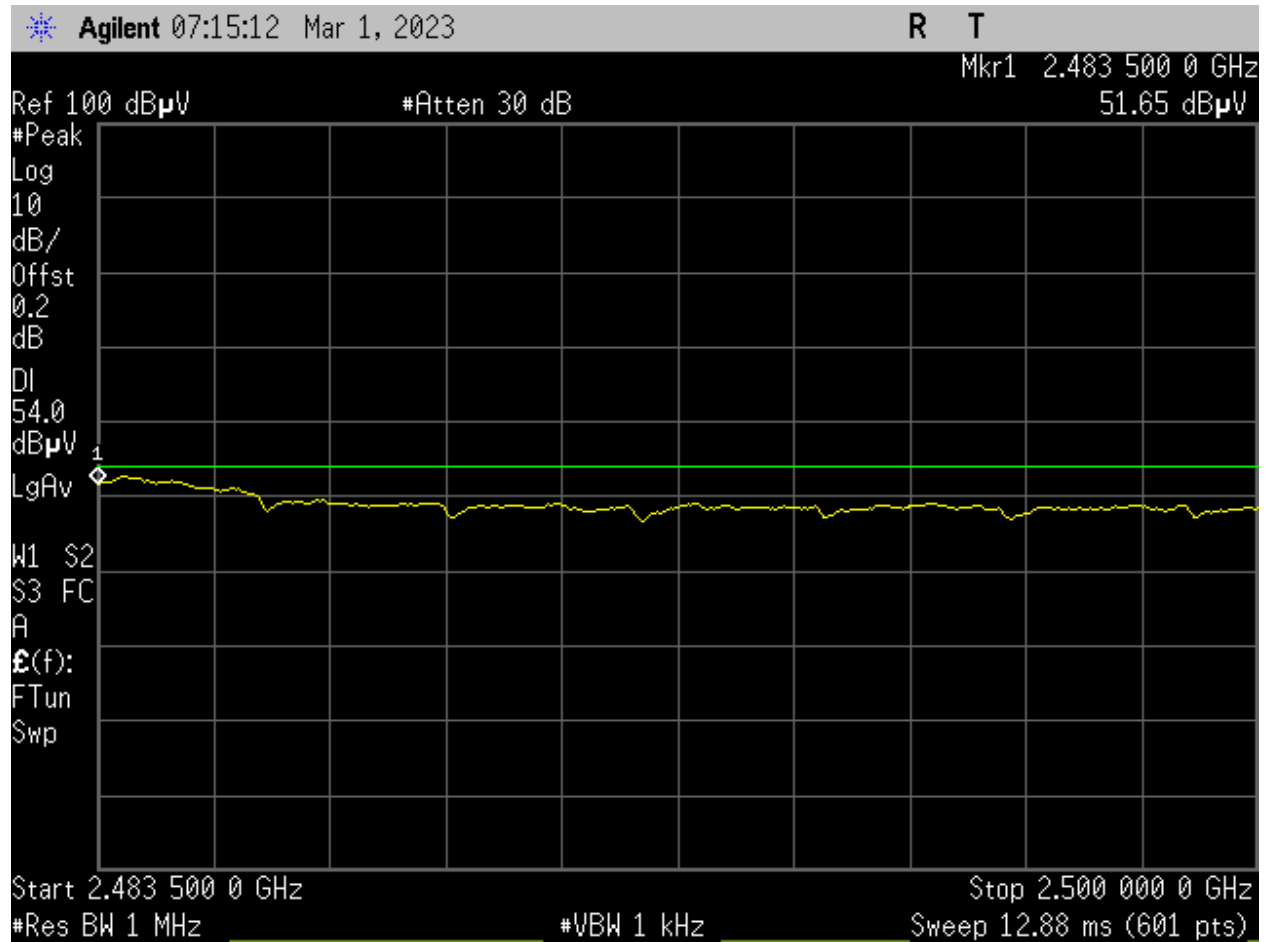


Figure 68: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_15.209\_Upper Band Edge Avg\_Port 1.

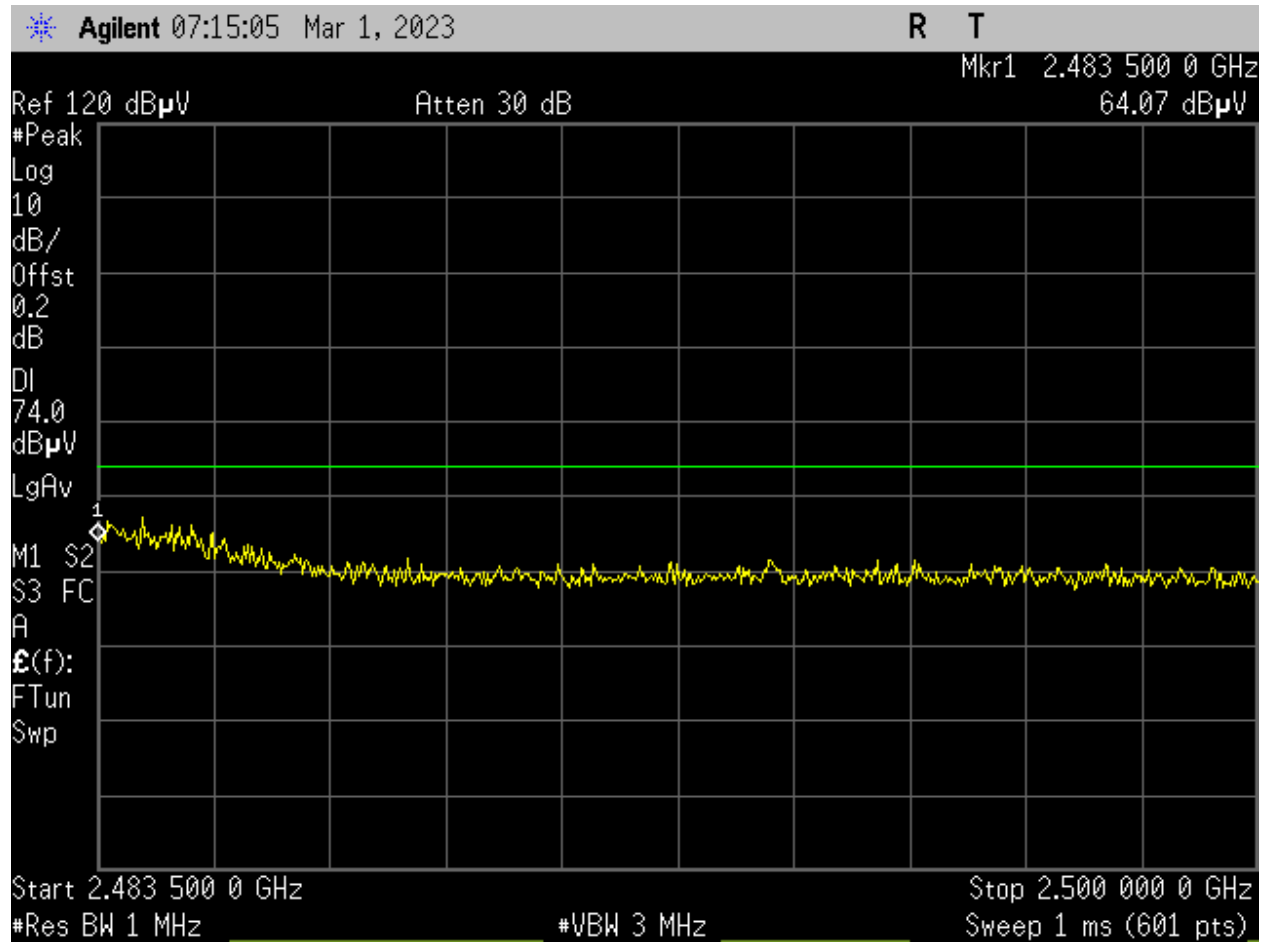


Figure 69: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_15.209\_Upper Band Edge Peak\_Port 1.

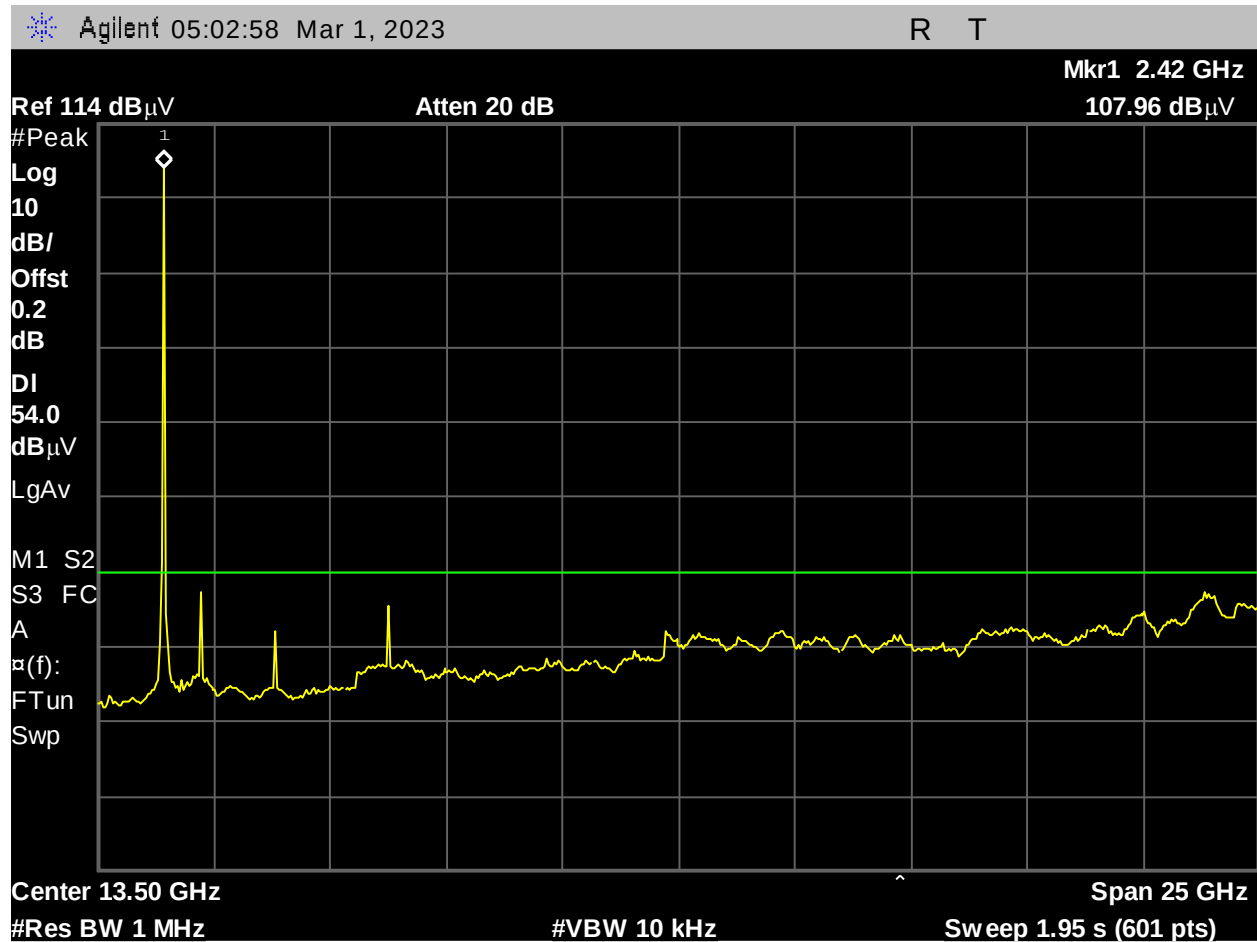


Figure 70: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_15.209\_1-26GHz avg\_Port 1.

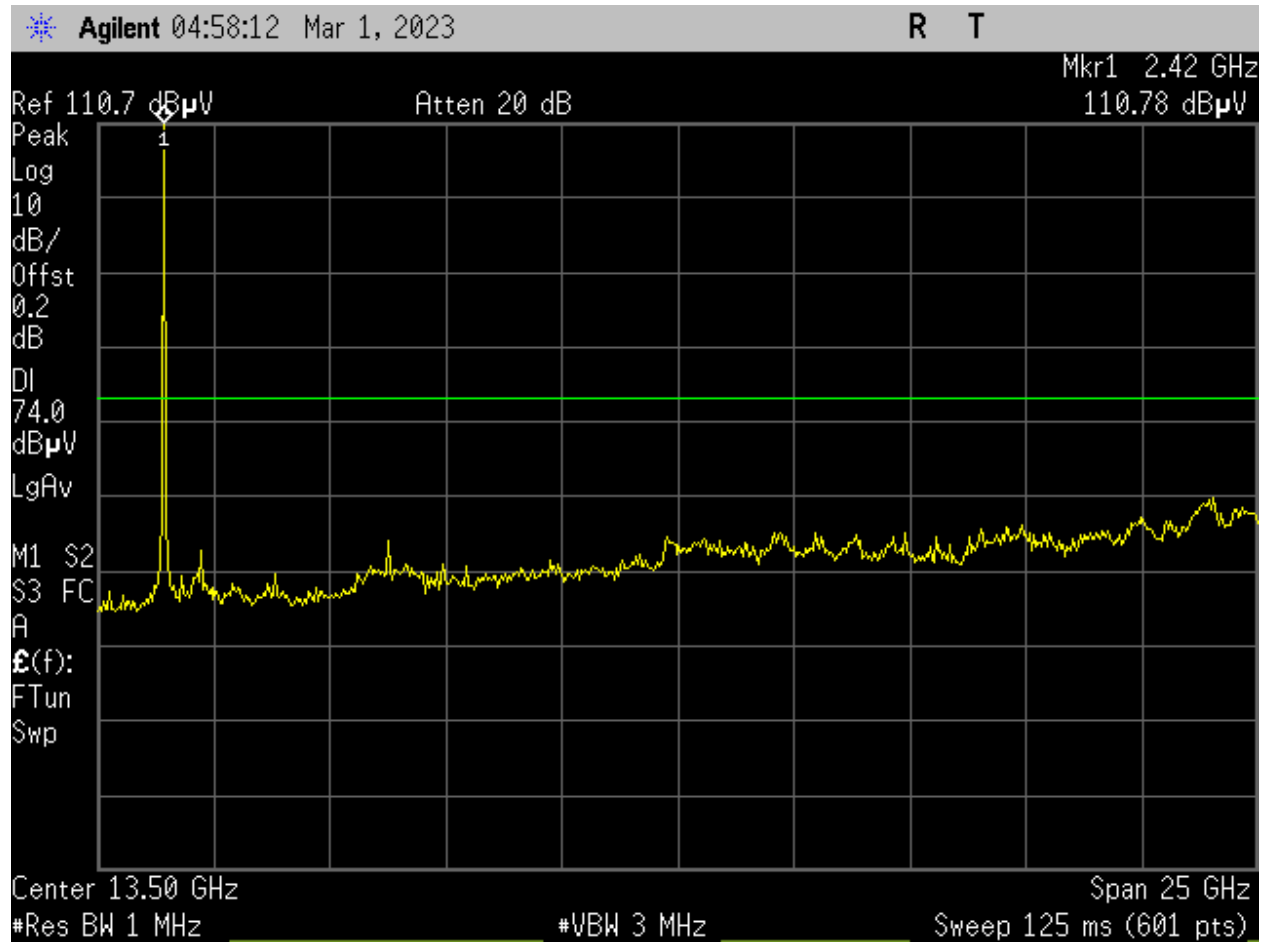


Figure 71: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_15.209\_1-26GHz \_Peak\_Port 1.

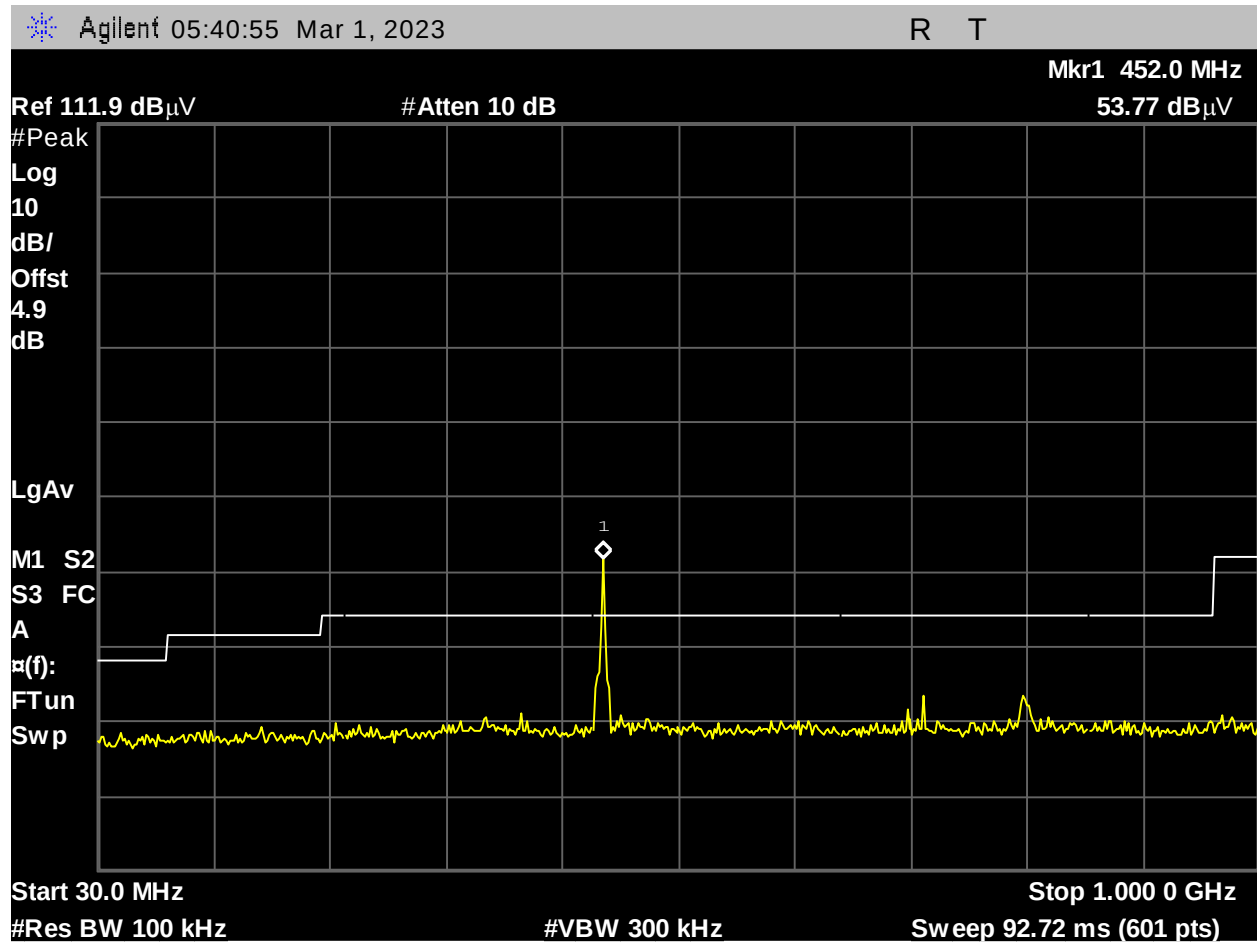


Figure 72: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_15.209\_30-1000MHz\_Peak\_Port 1.



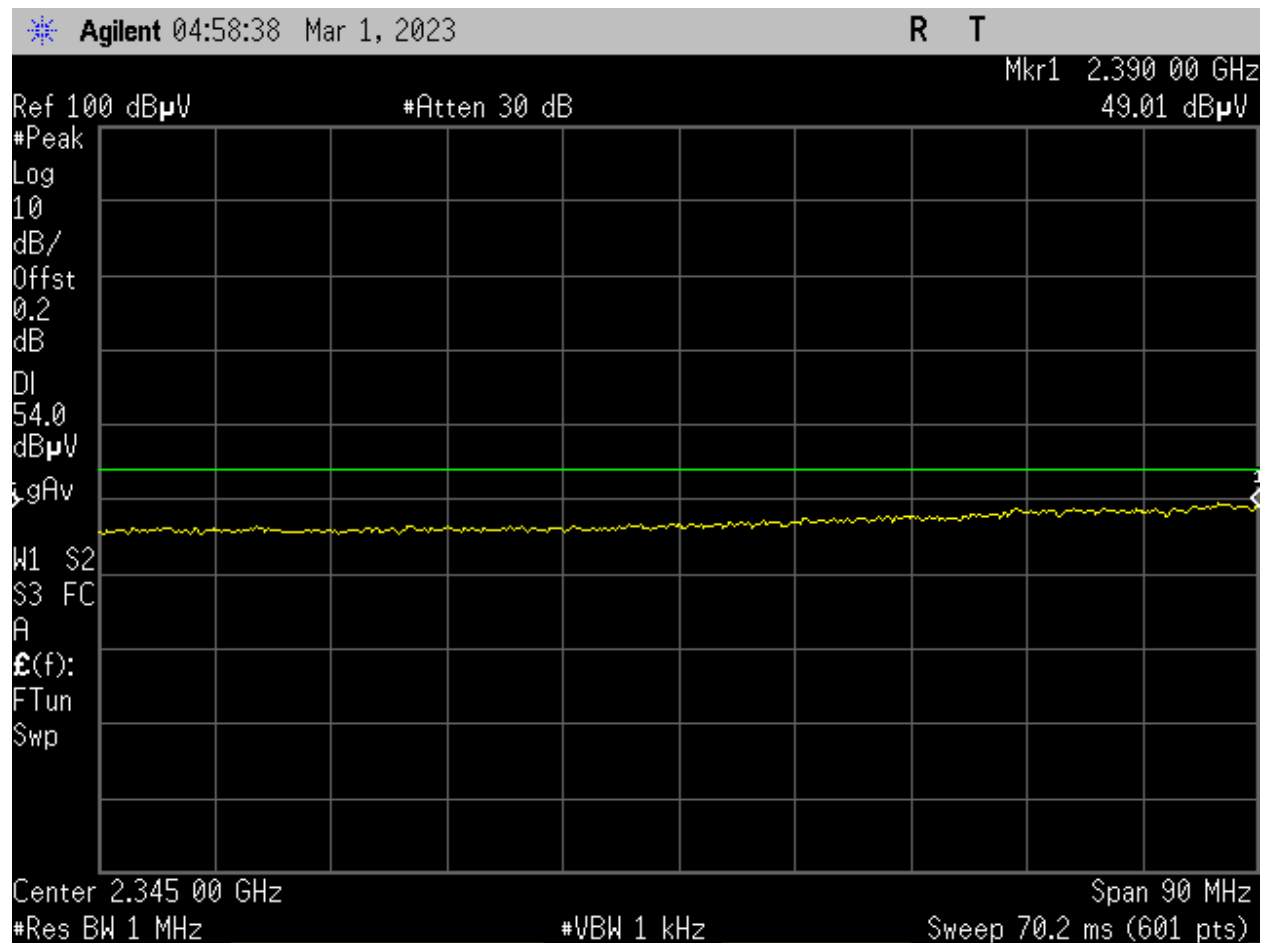


Figure 73: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_15.209\_Lower Band Edge Avg\_Port 1.

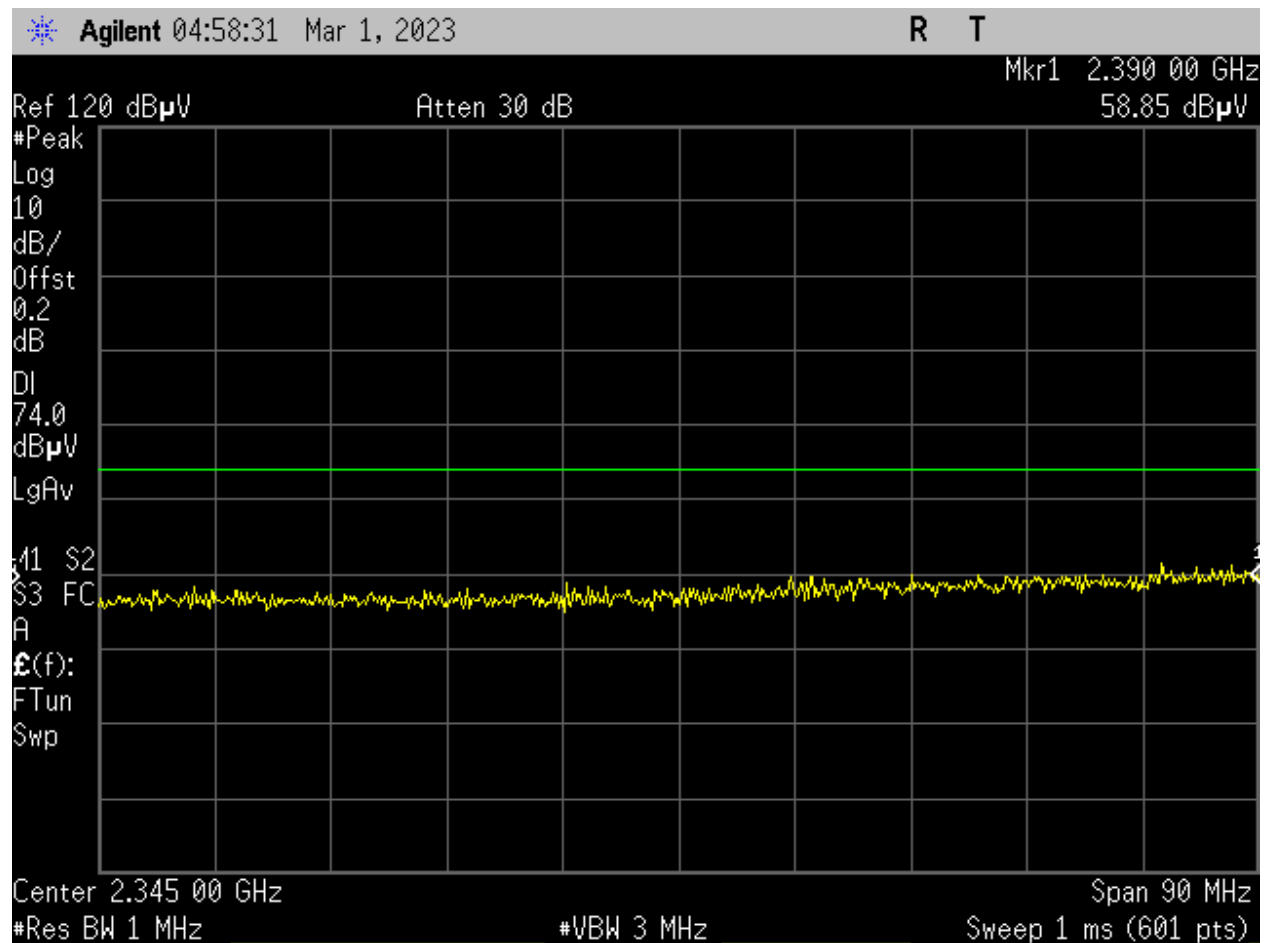


Figure 74: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_15.209\_Lower Band Edge Peak\_Port 1.

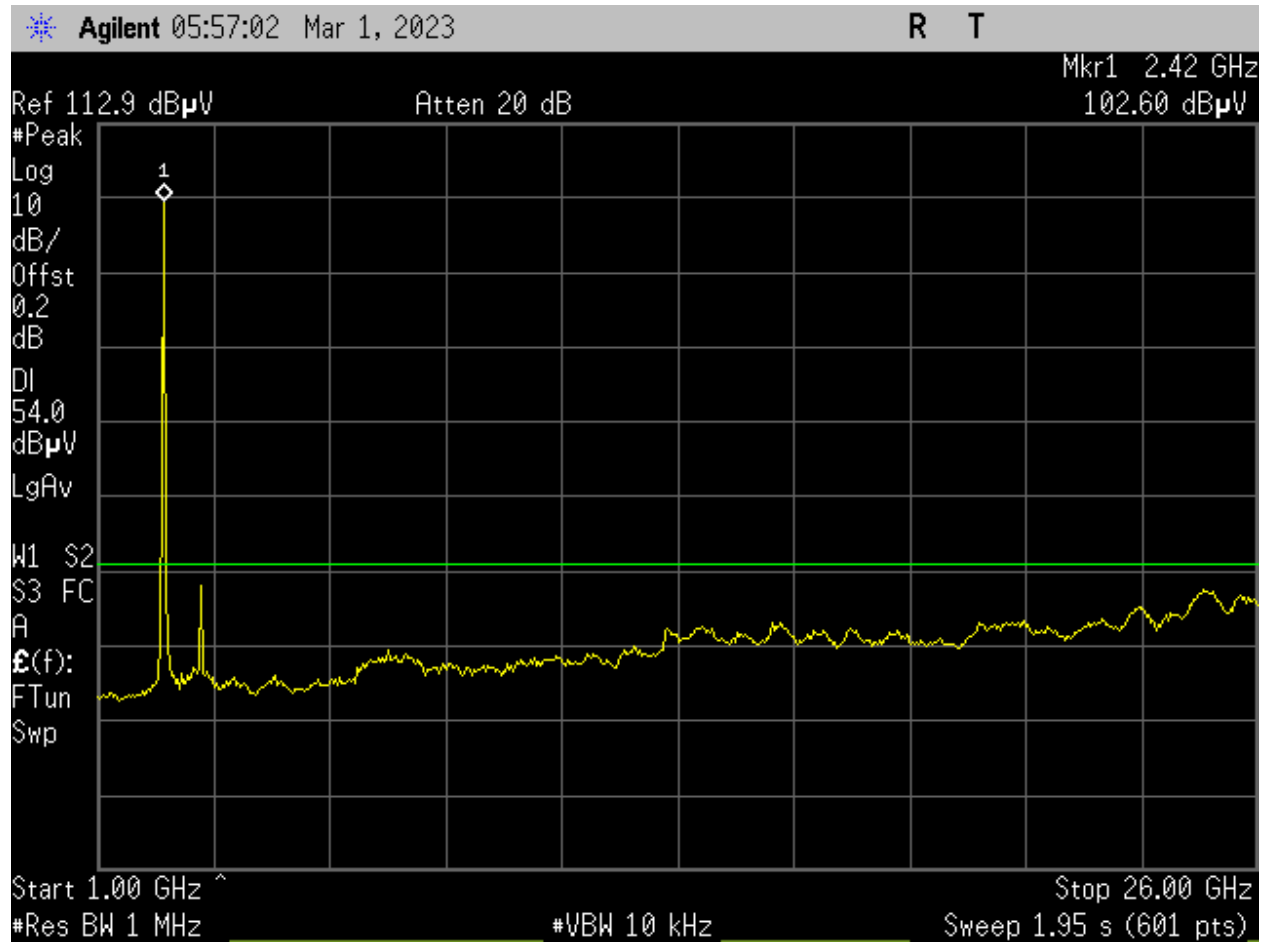


Figure 75: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_15.209\_1-26GHz avg\_Port 1.

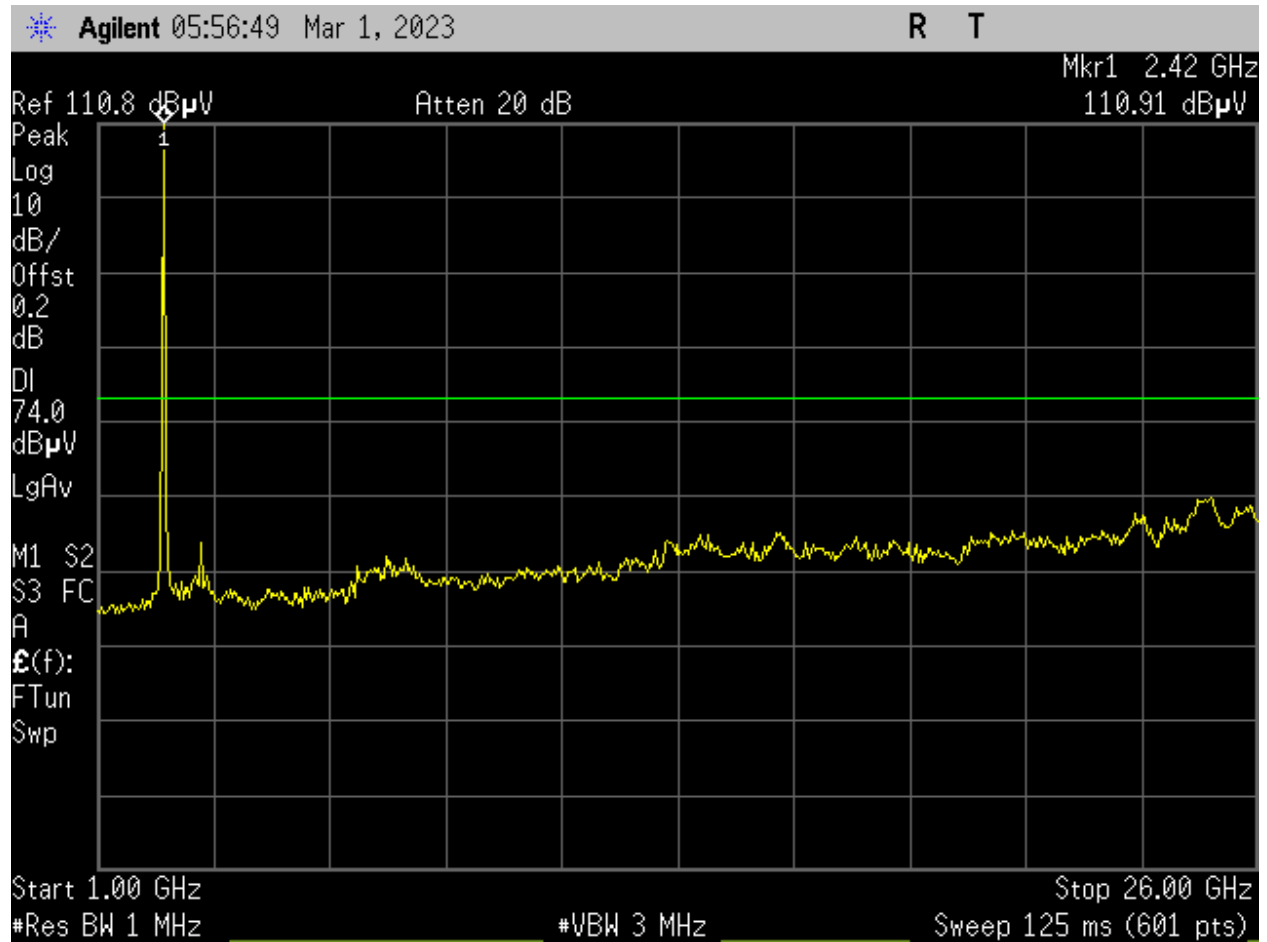


Figure 76: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_15.209\_1-26GHz \_Peak\_Port 1.

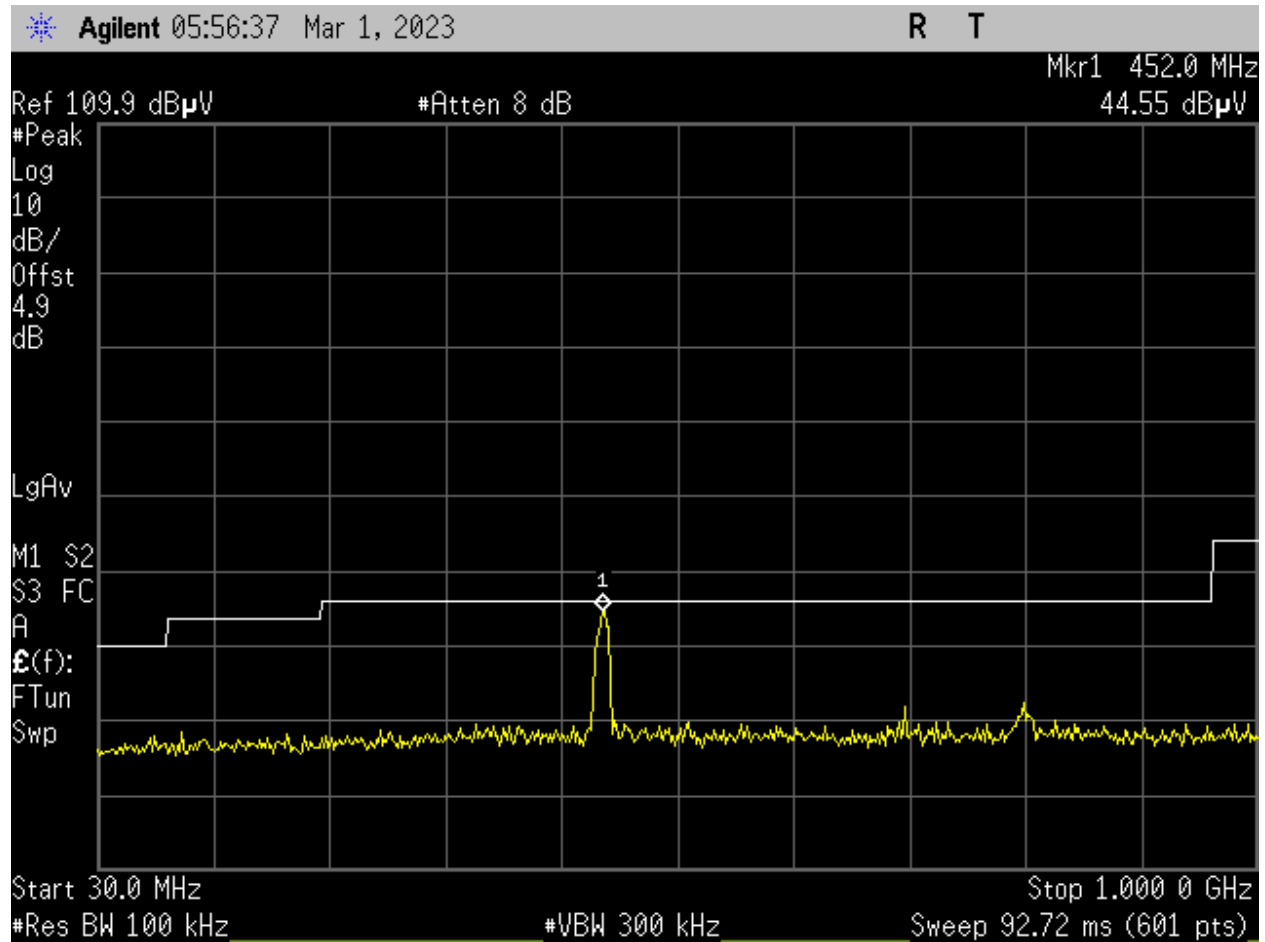


Figure 77: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

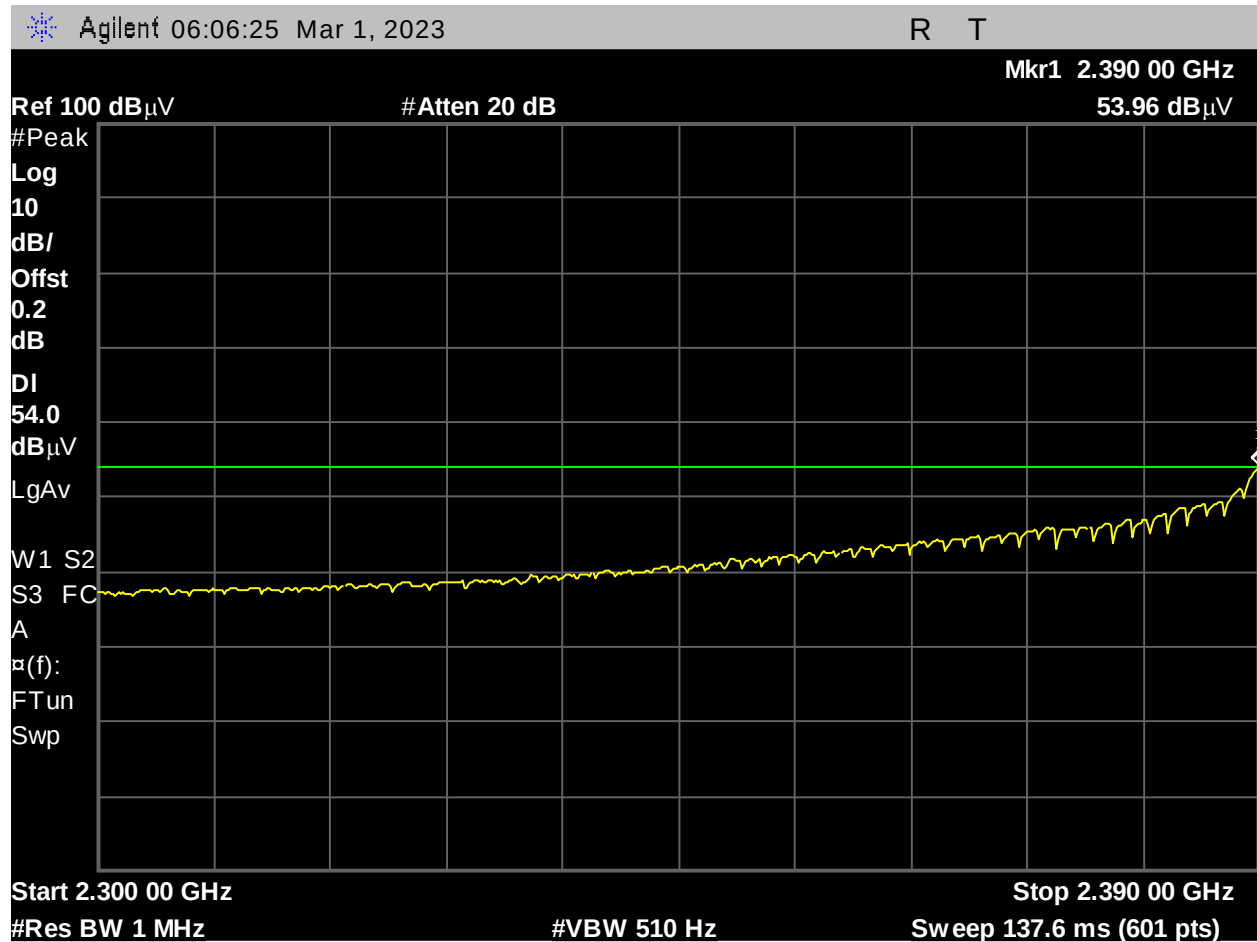


Figure 78: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_15.209\_Lower Band Edge Avg\_Port 1.

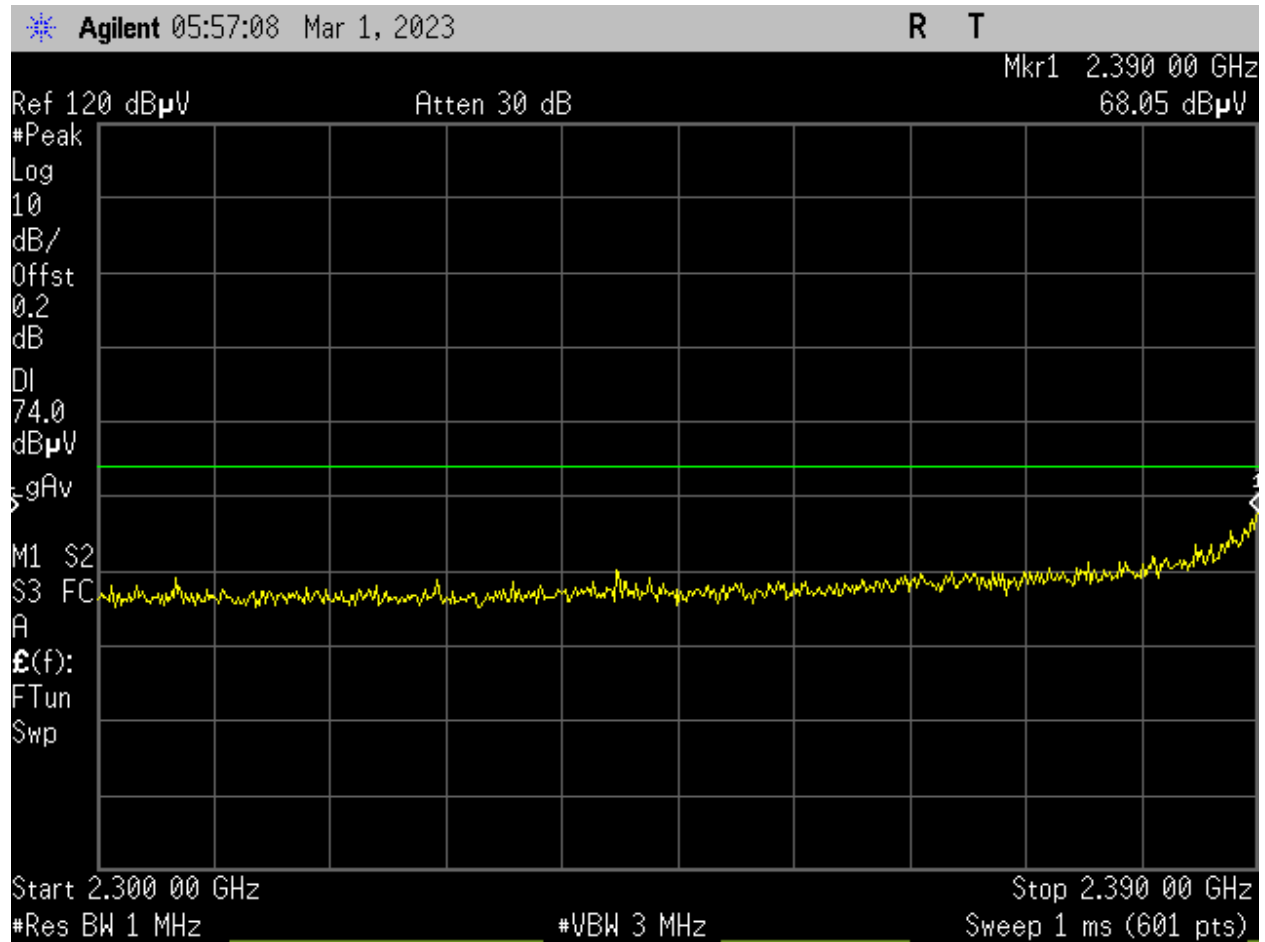


Figure 79: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_15.209\_Lower Band Edge Peak\_Port 1.

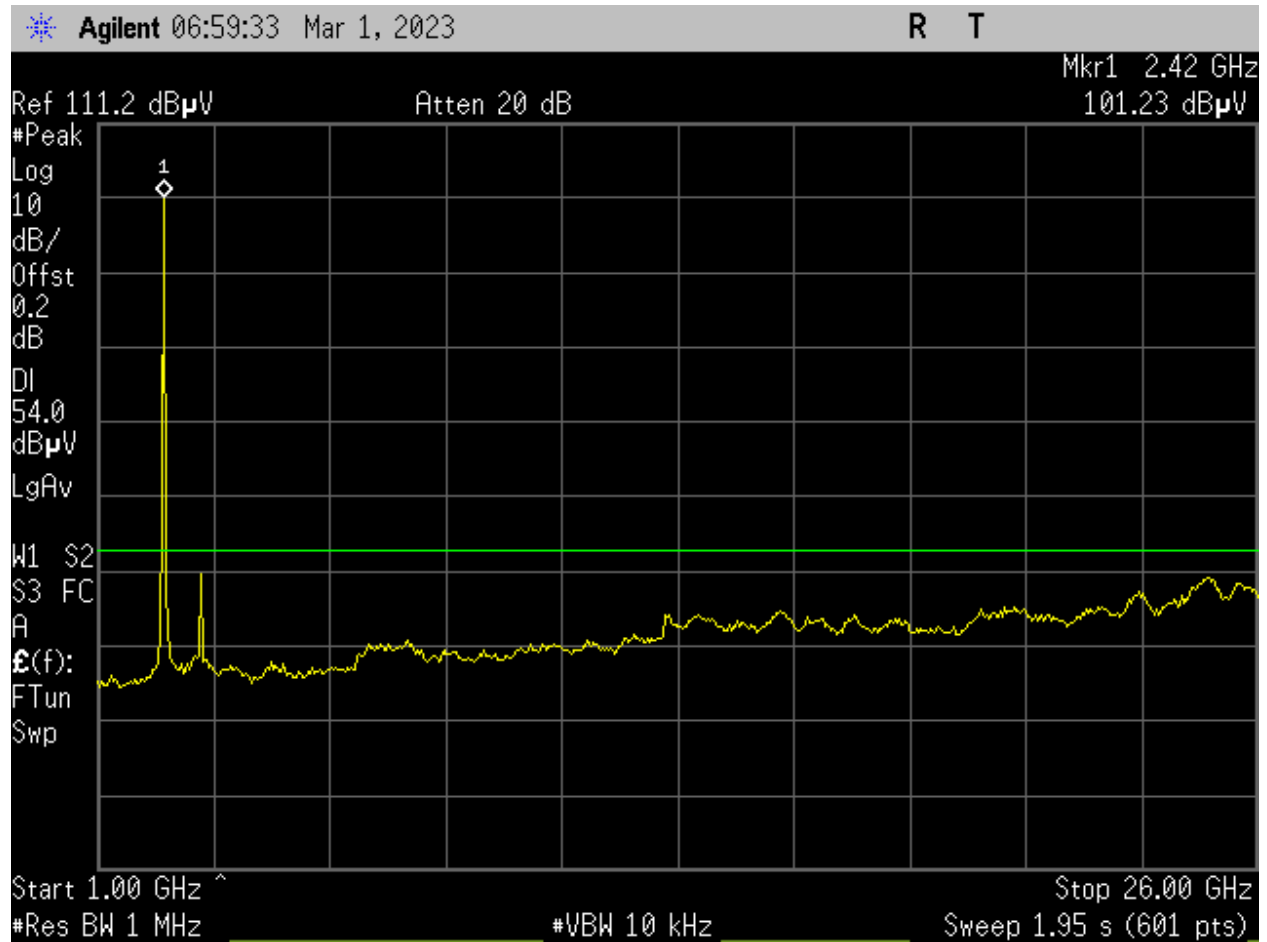


Figure 80: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_15.209\_1-26GHz avg\_Port 1.



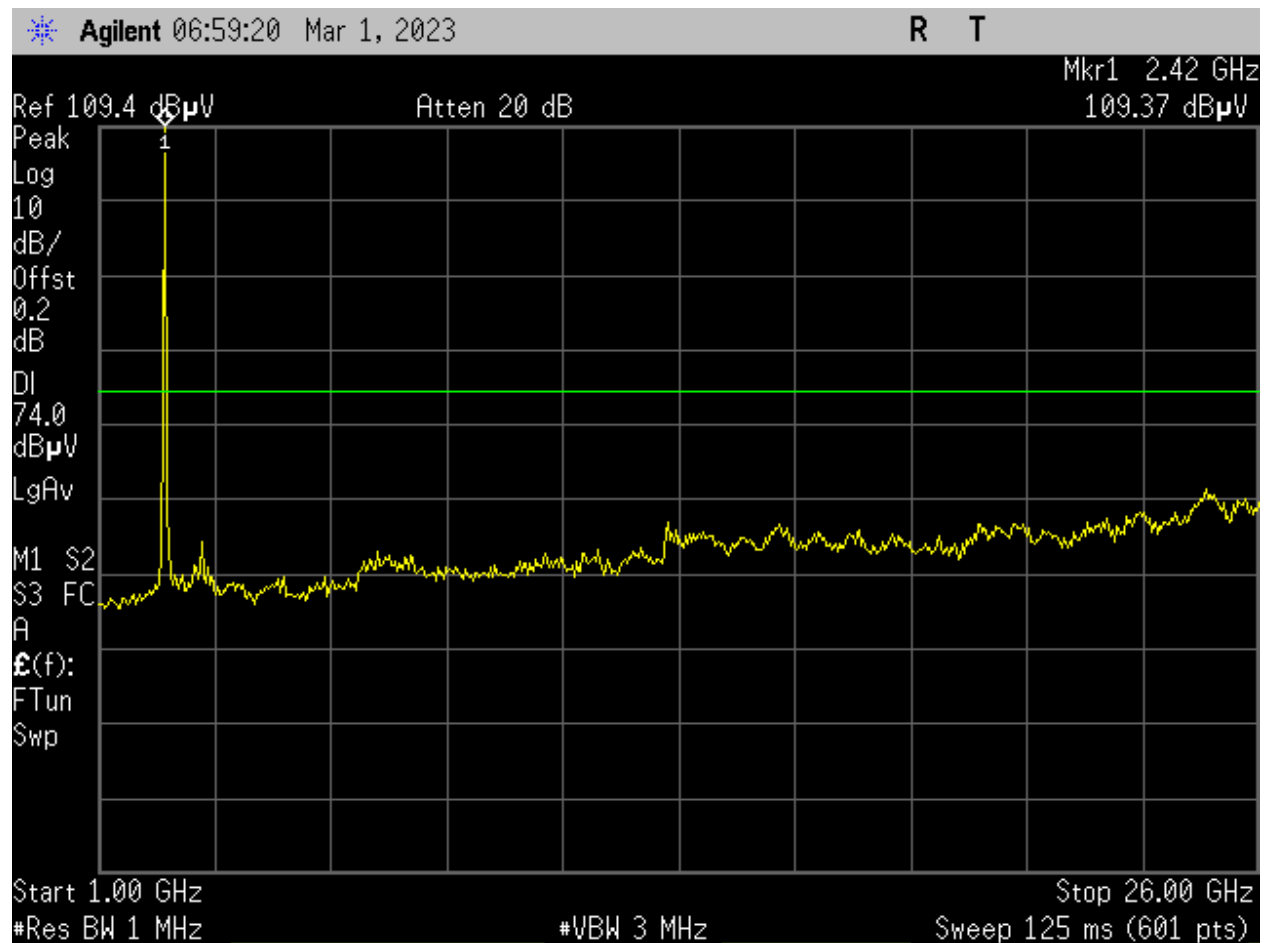


Figure 81: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_15.209\_1-26GHz\_Peak\_Port 1.

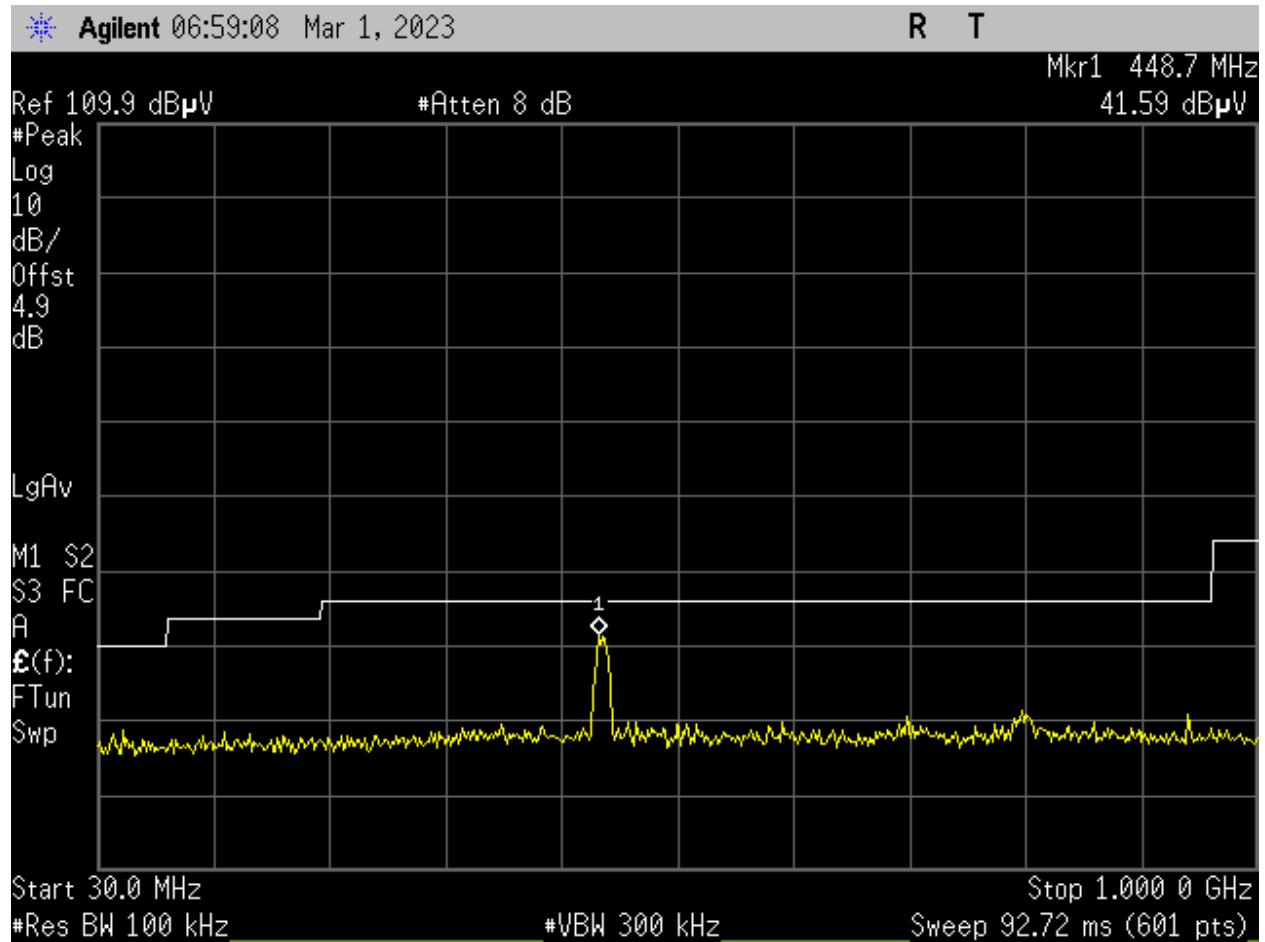


Figure 82: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

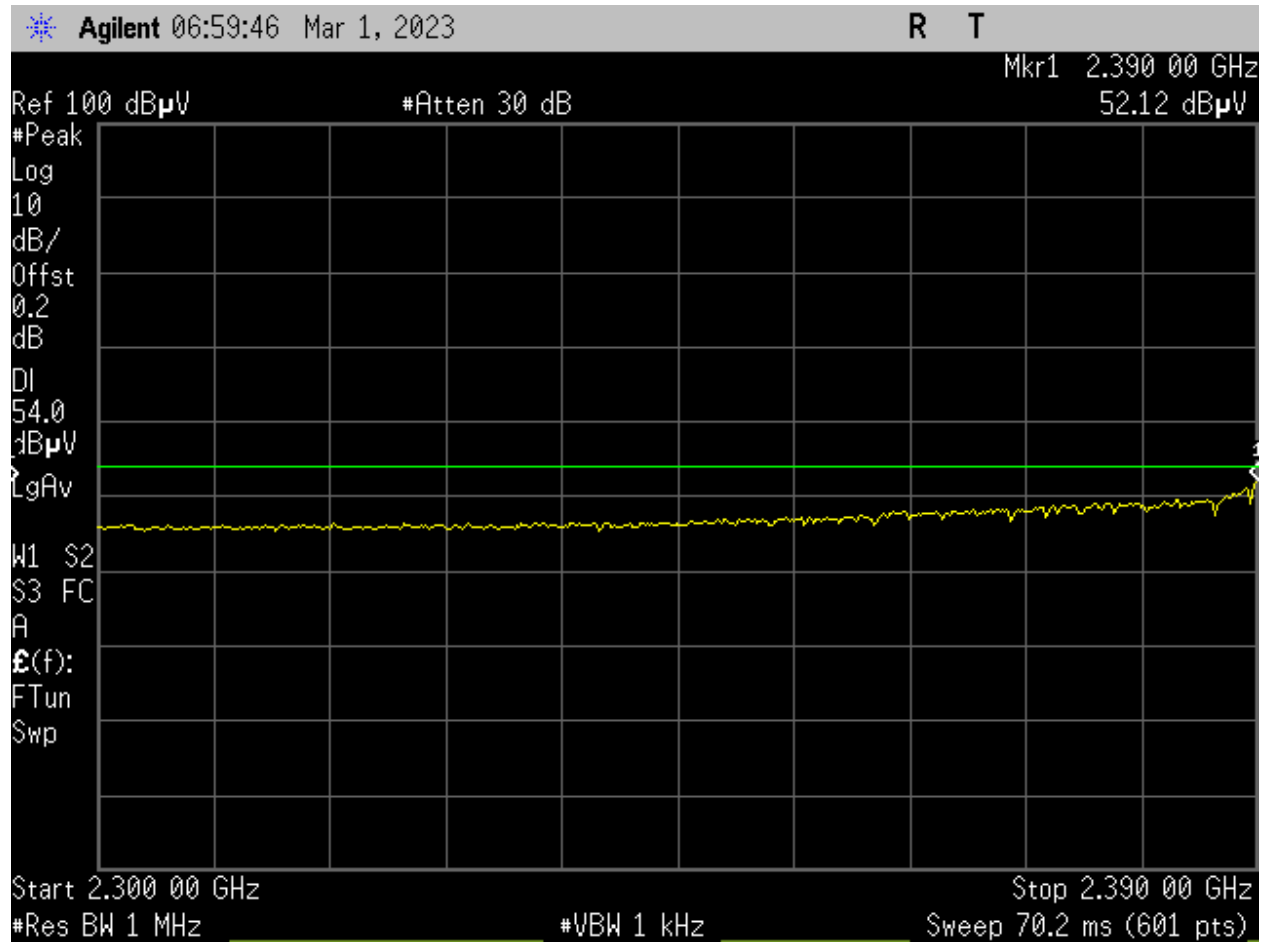


Figure 83: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_15.209\_Lower Band Edge Avg\_Port 1.

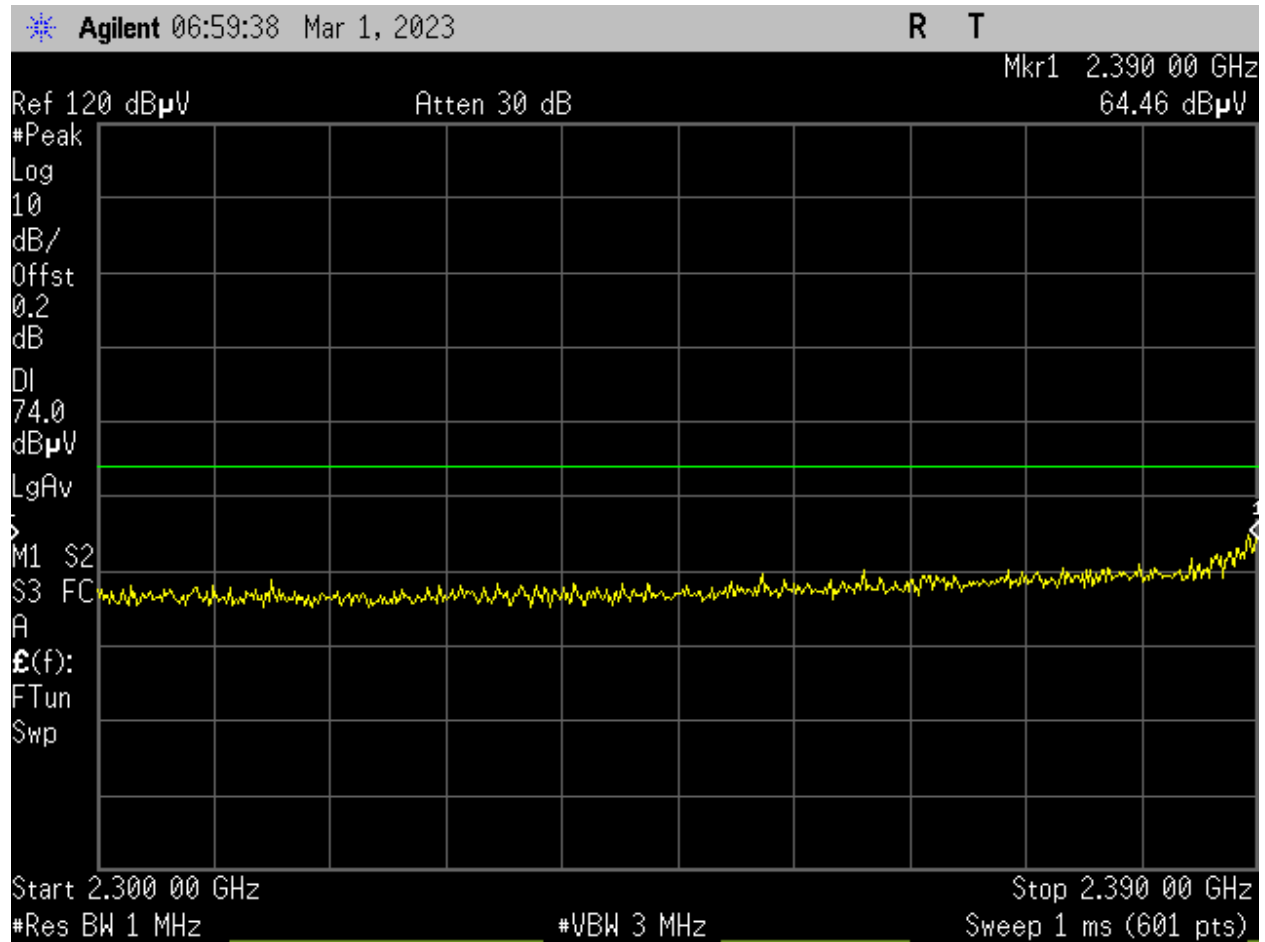


Figure 84: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_15.209\_Lower Band Edge Peak\_Port 1.

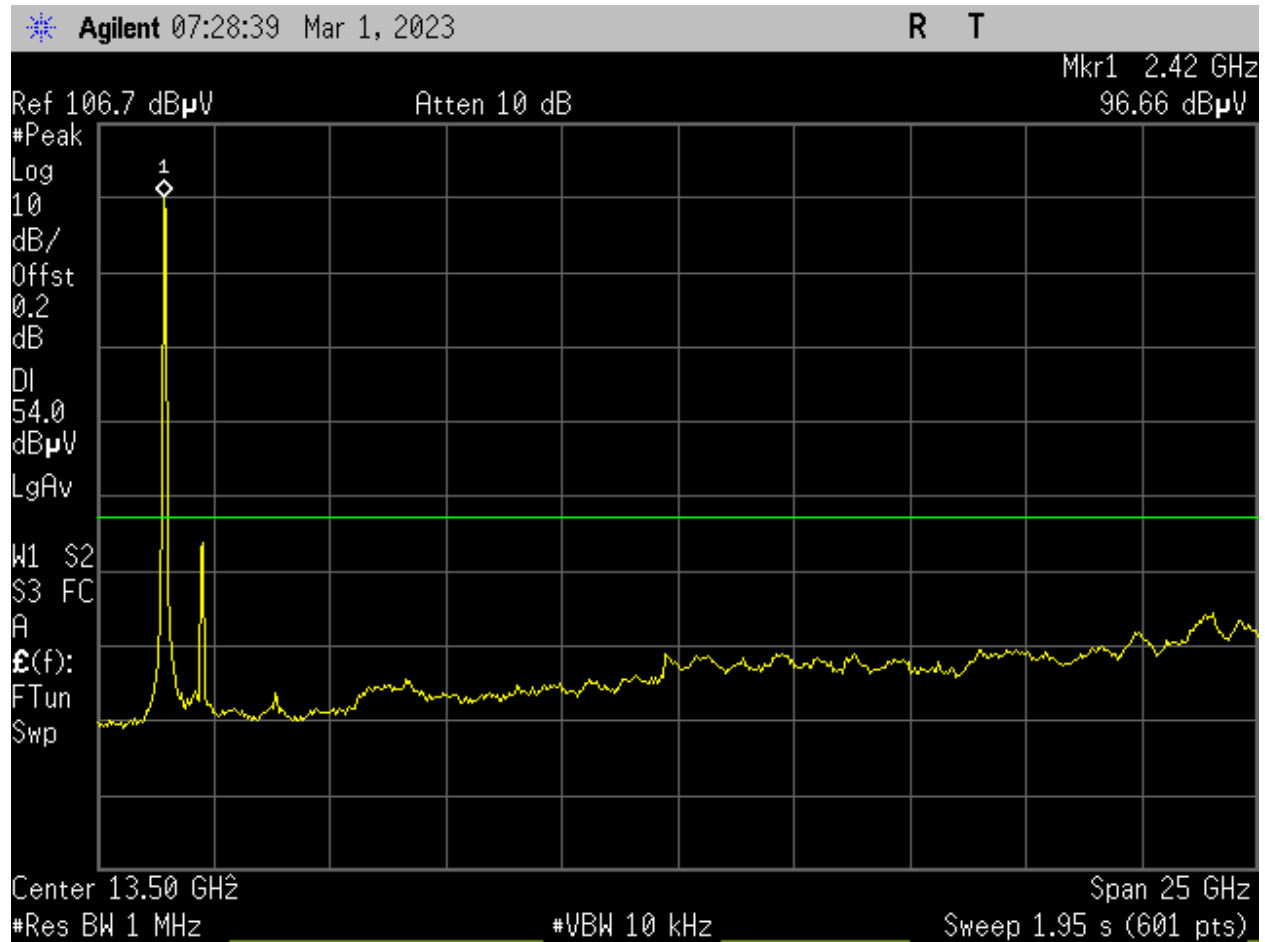


Figure 85: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_15.209\_1-26GHz avg\_Port 1.

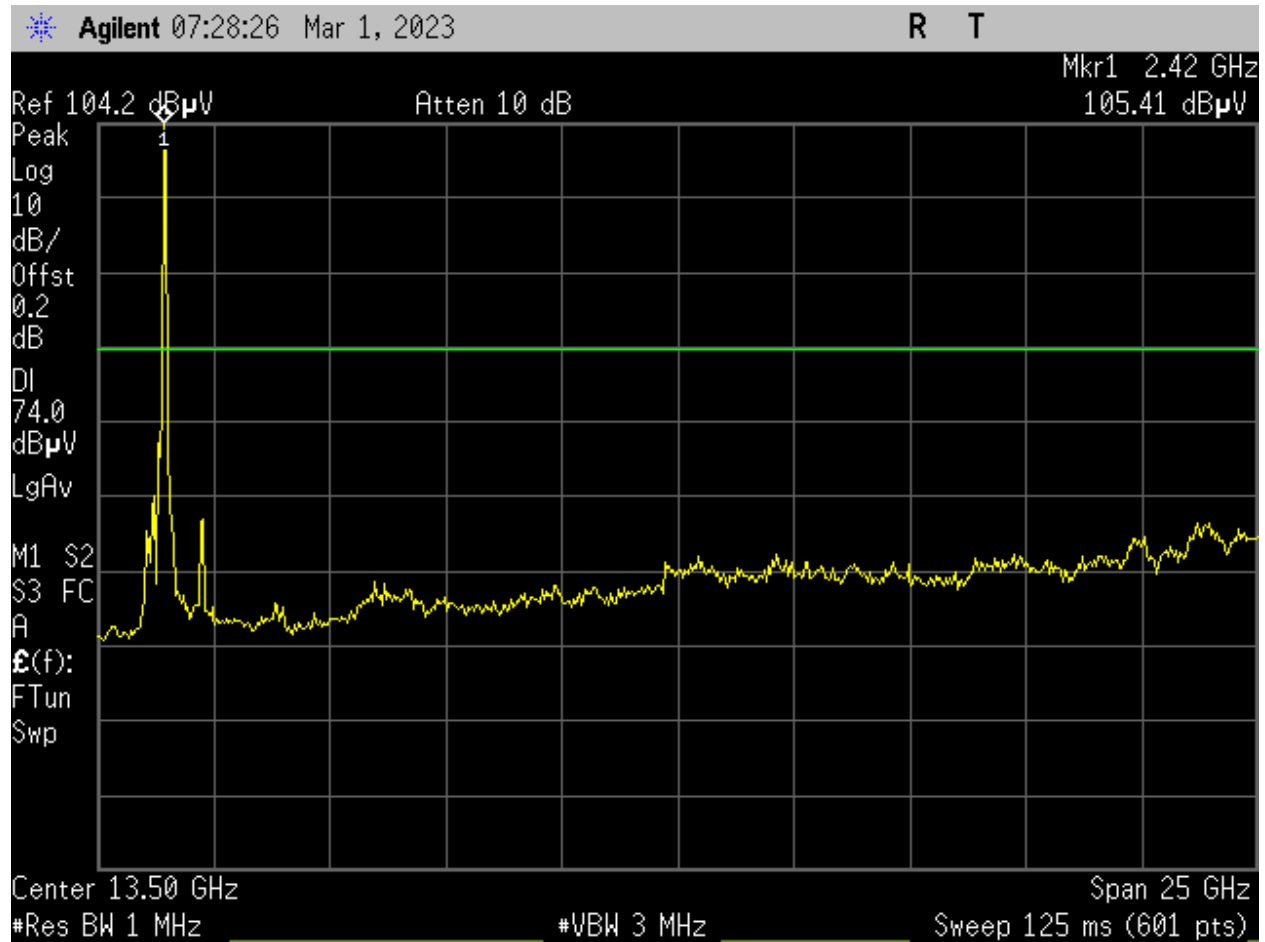


Figure 86: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_15.209\_1-26GHz \_Peak\_Port 1.

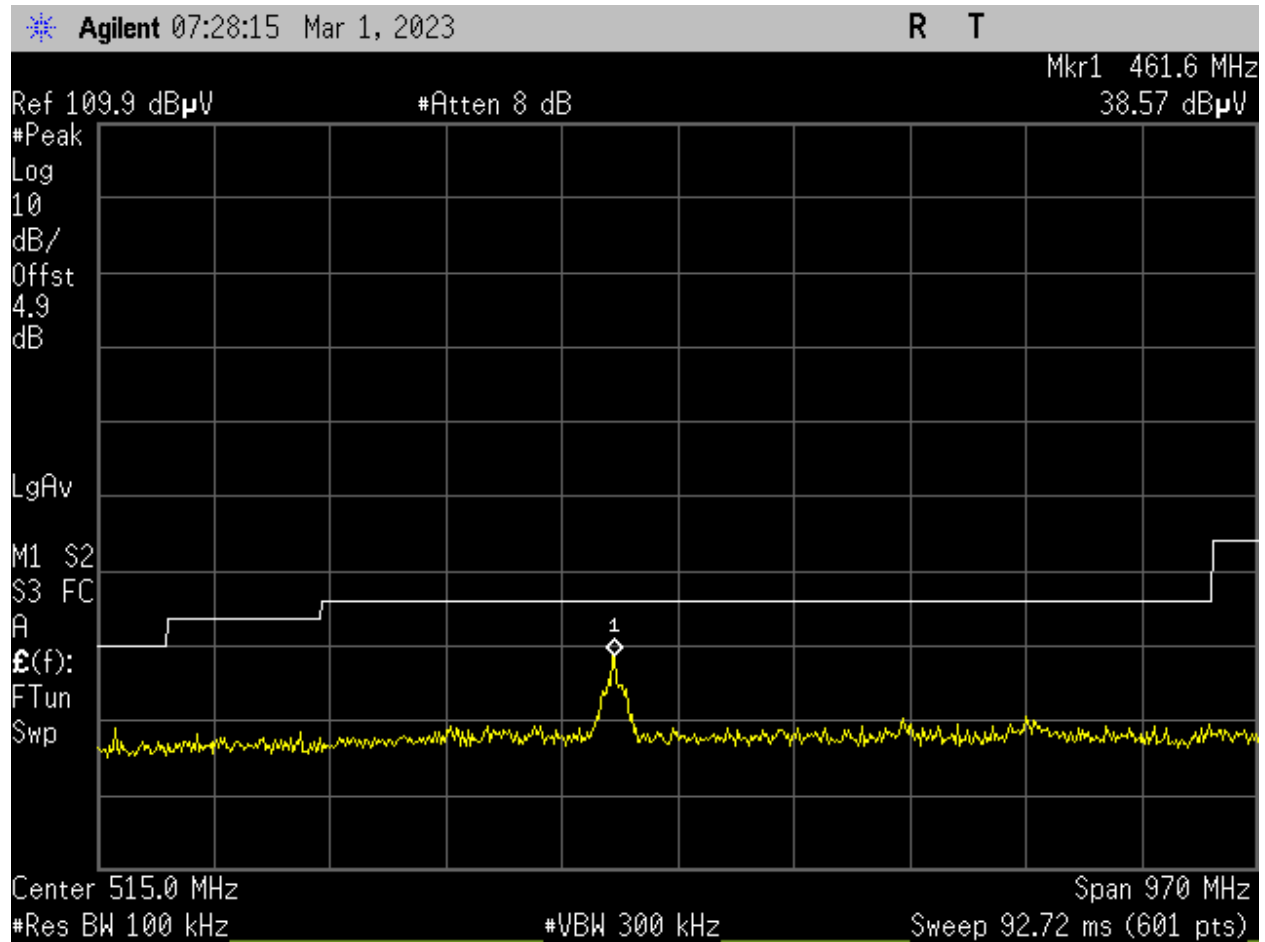


Figure 87: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

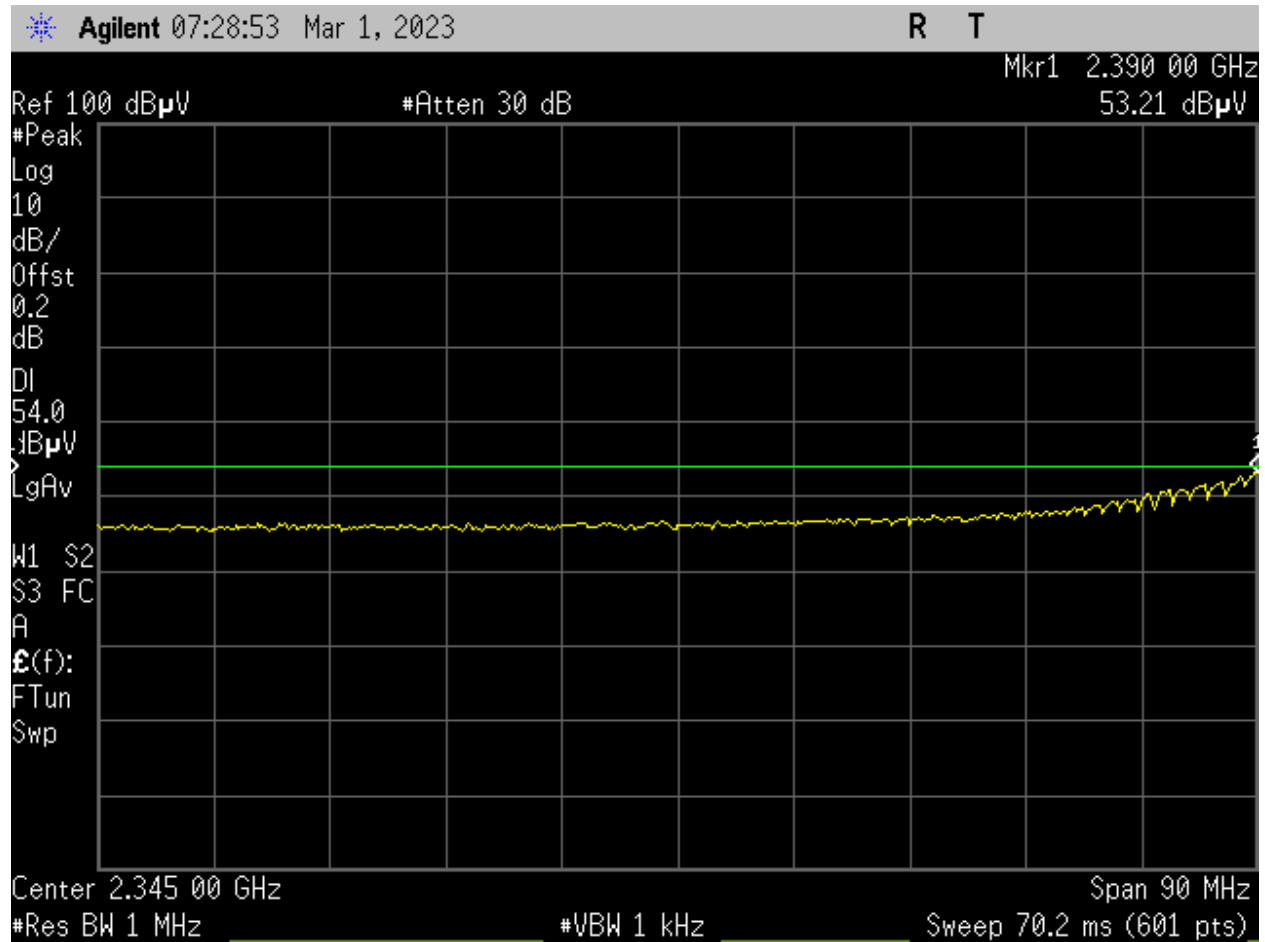


Figure 88: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_15.209\_Lower Band Edge Avg\_Port 1.



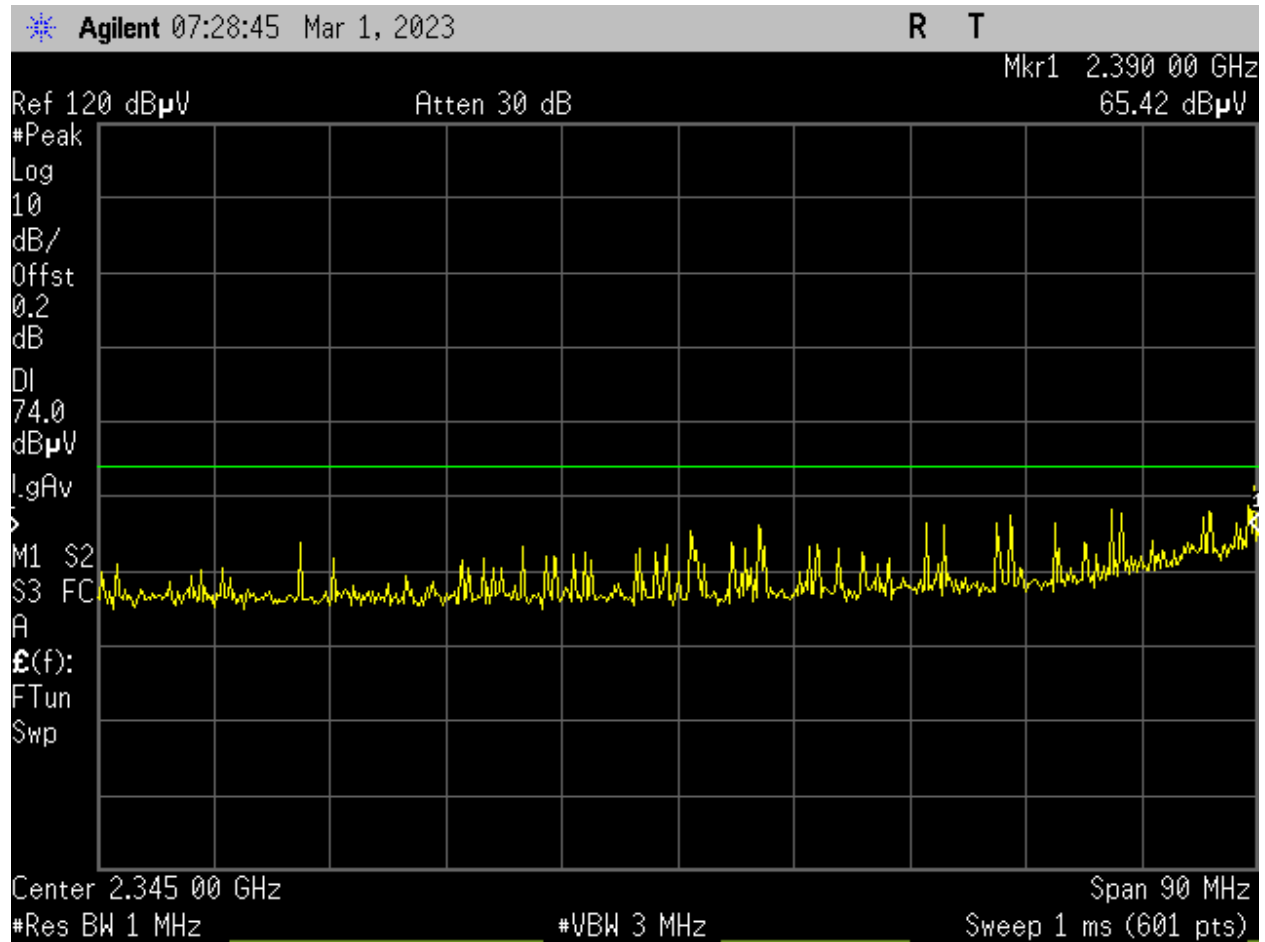


Figure 89: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_15.209\_Lower Band Edge Peak\_Port 1.

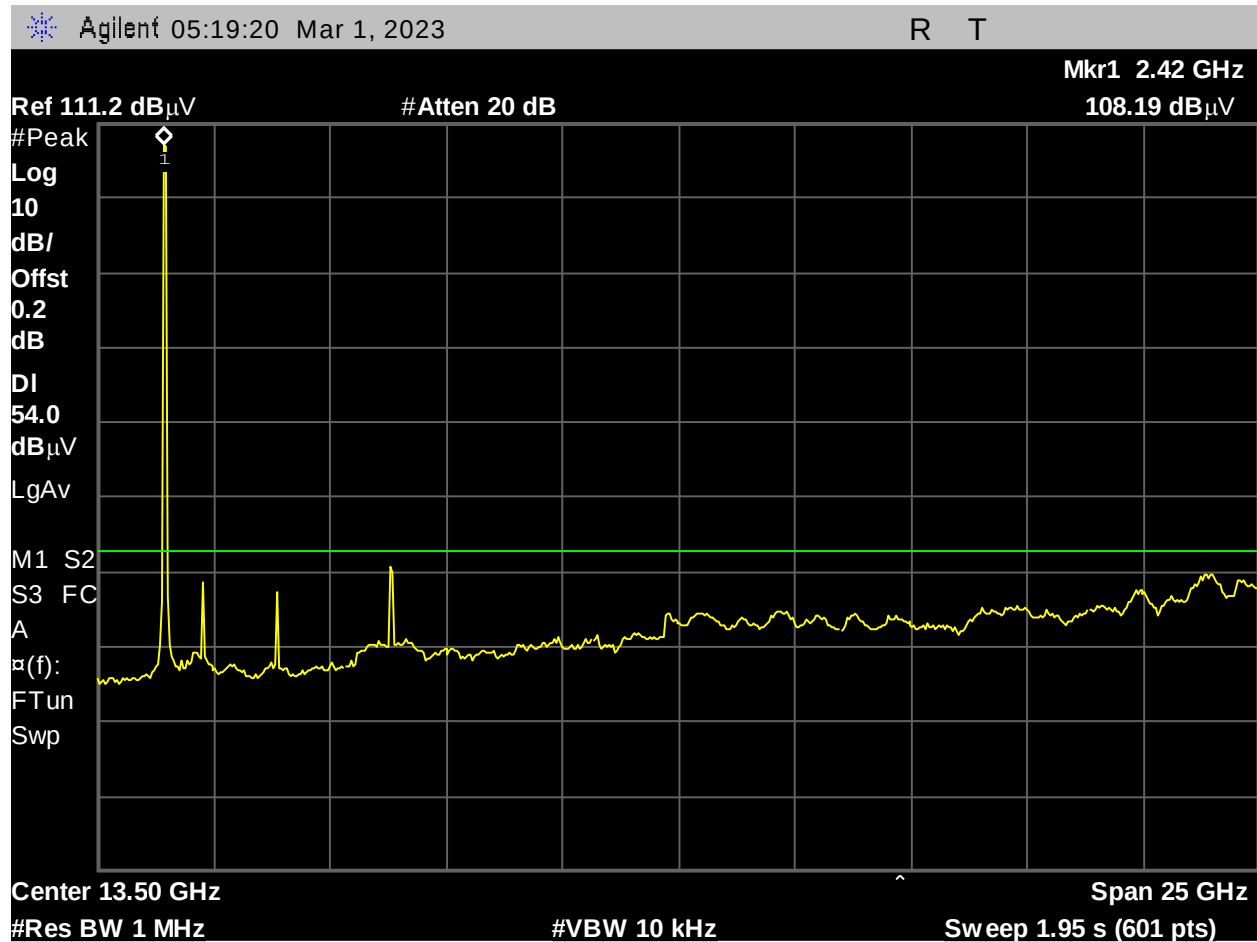


Figure 90: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_15.209\_1-26GHz avg\_Port 1.

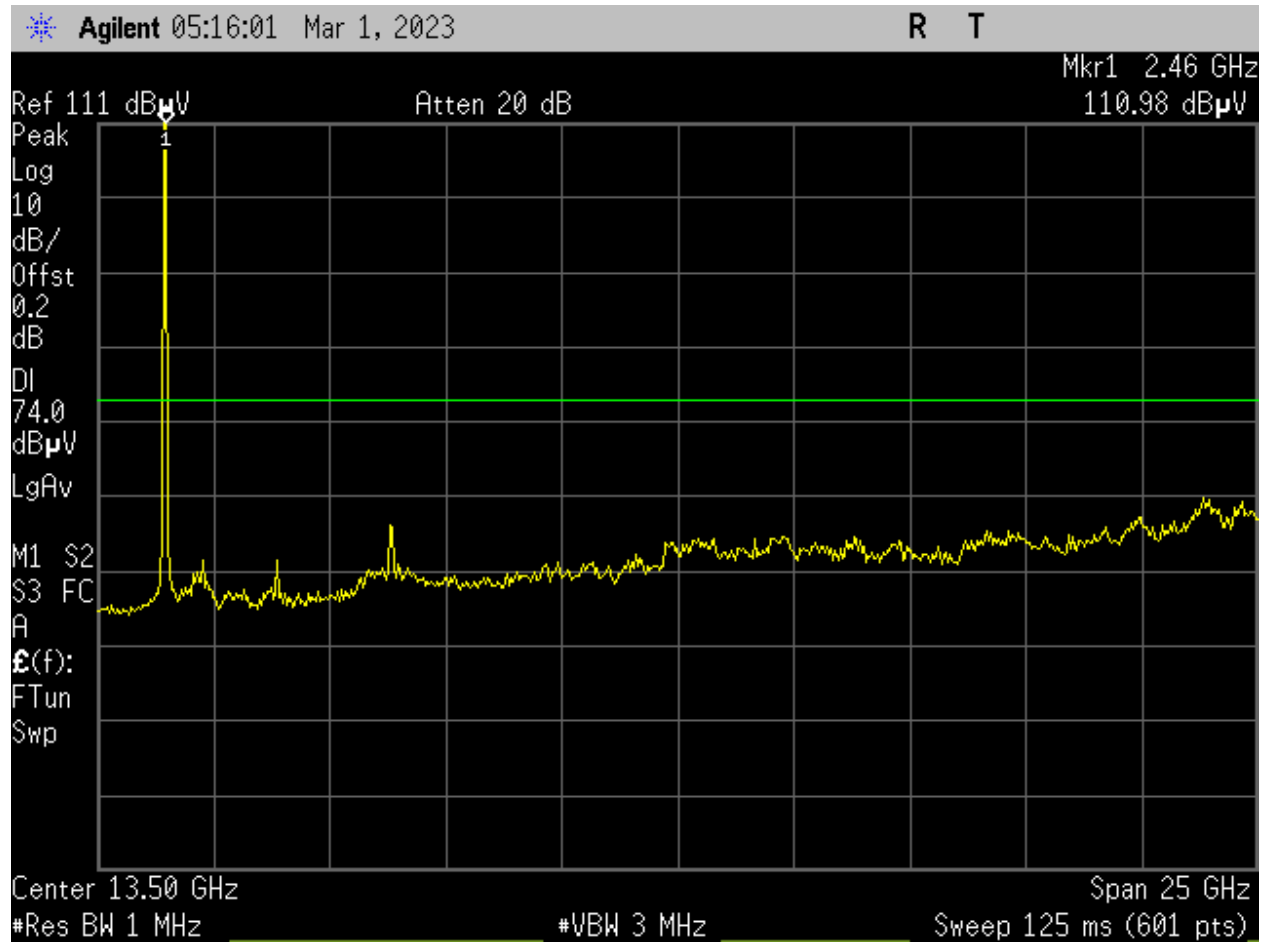


Figure 91: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_15.209\_1-26GHz \_Peak\_Port 1.

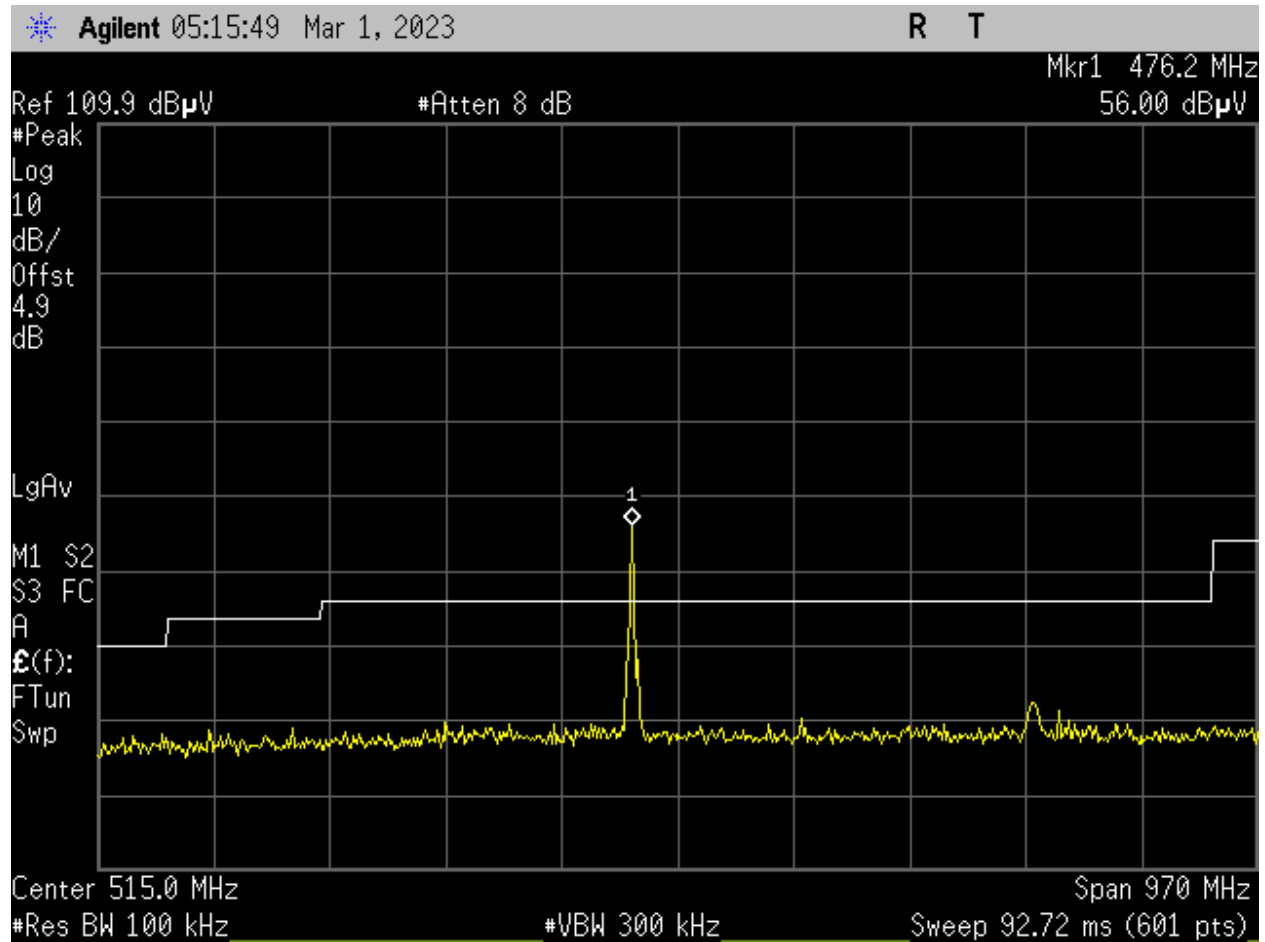


Figure 92: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

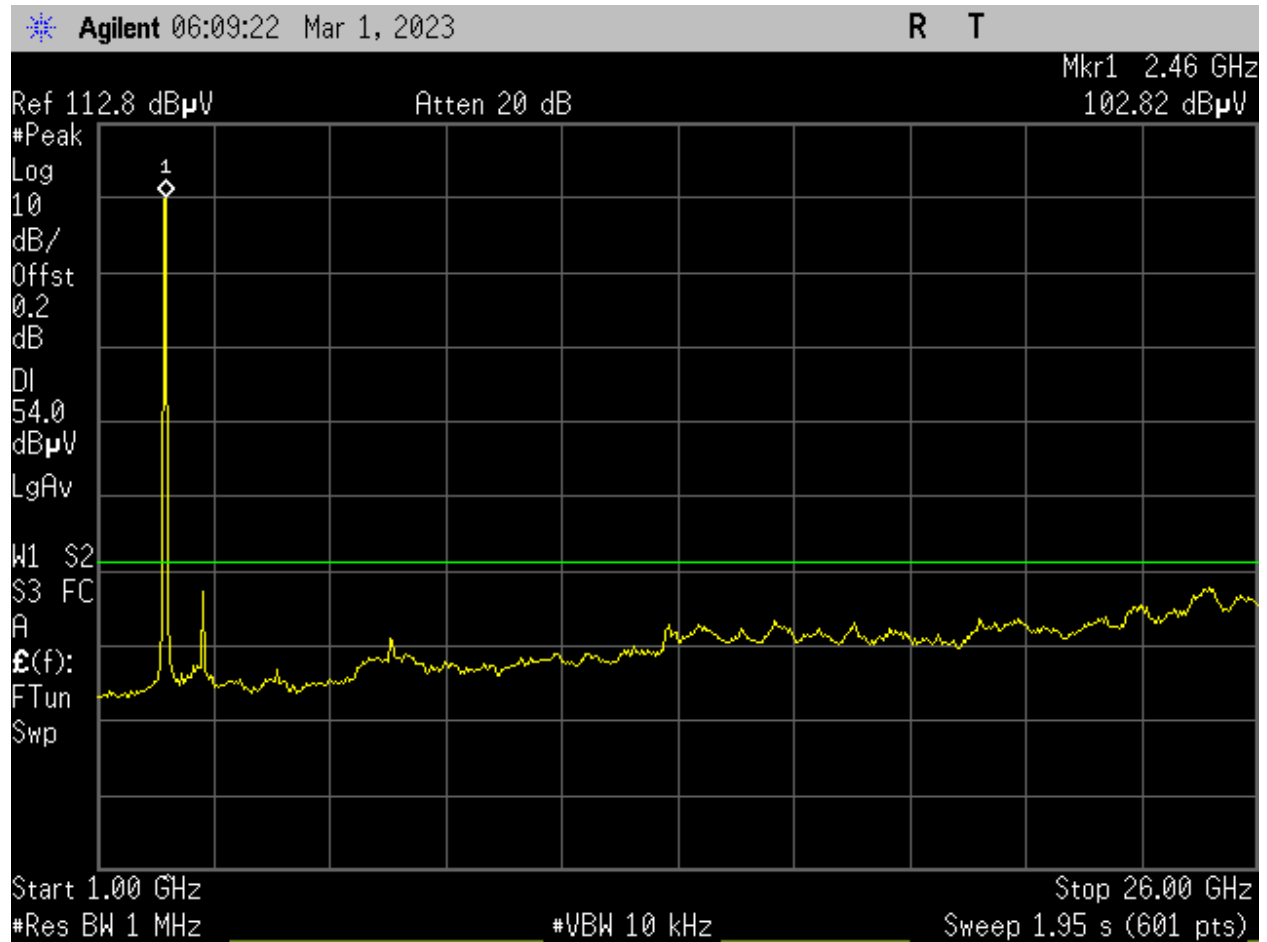


Figure 93: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_15.209\_1-26GHz avg\_Port 1.

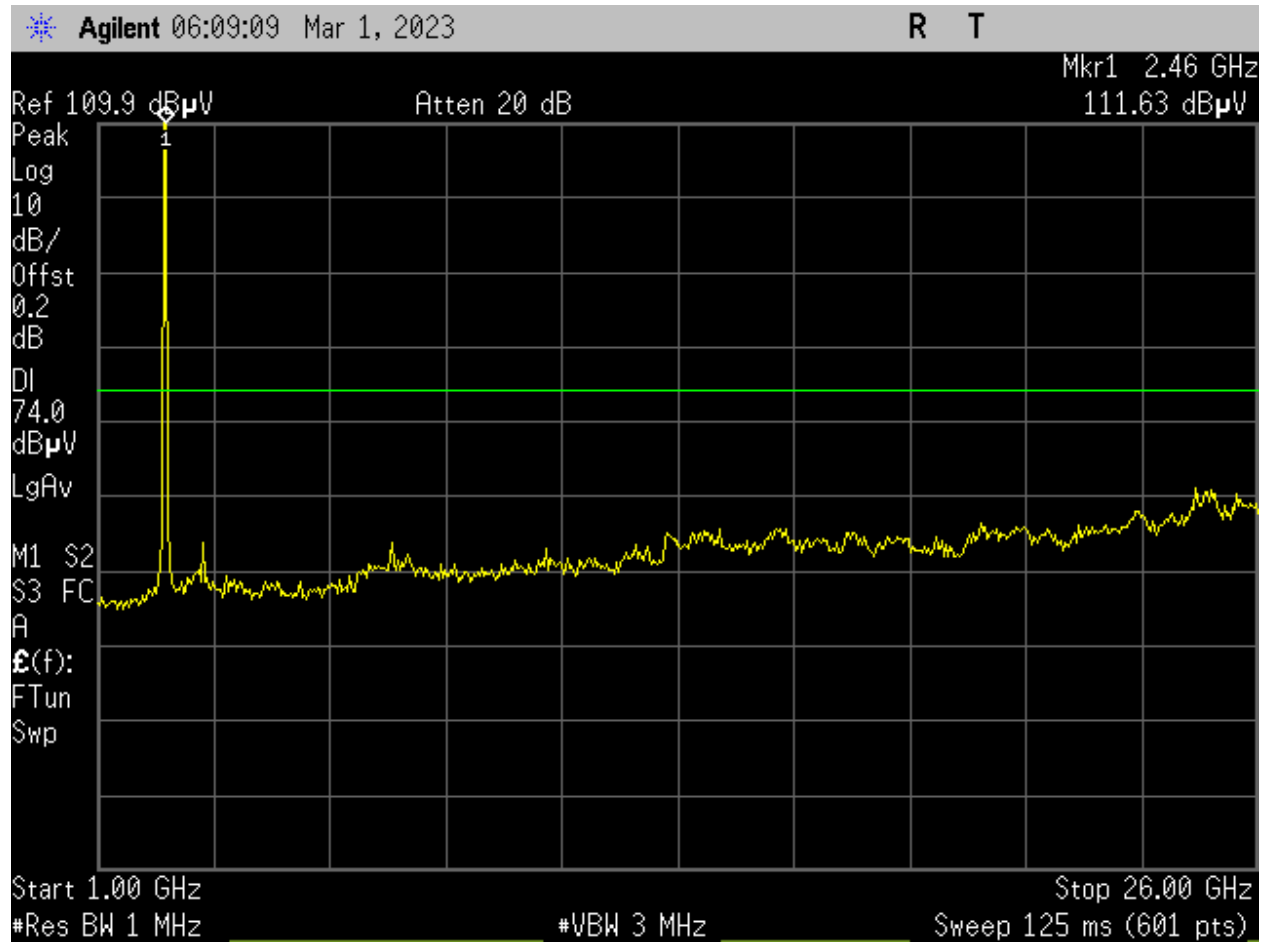


Figure 94: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_15.209\_1-26GHz \_Peak\_Port 1.

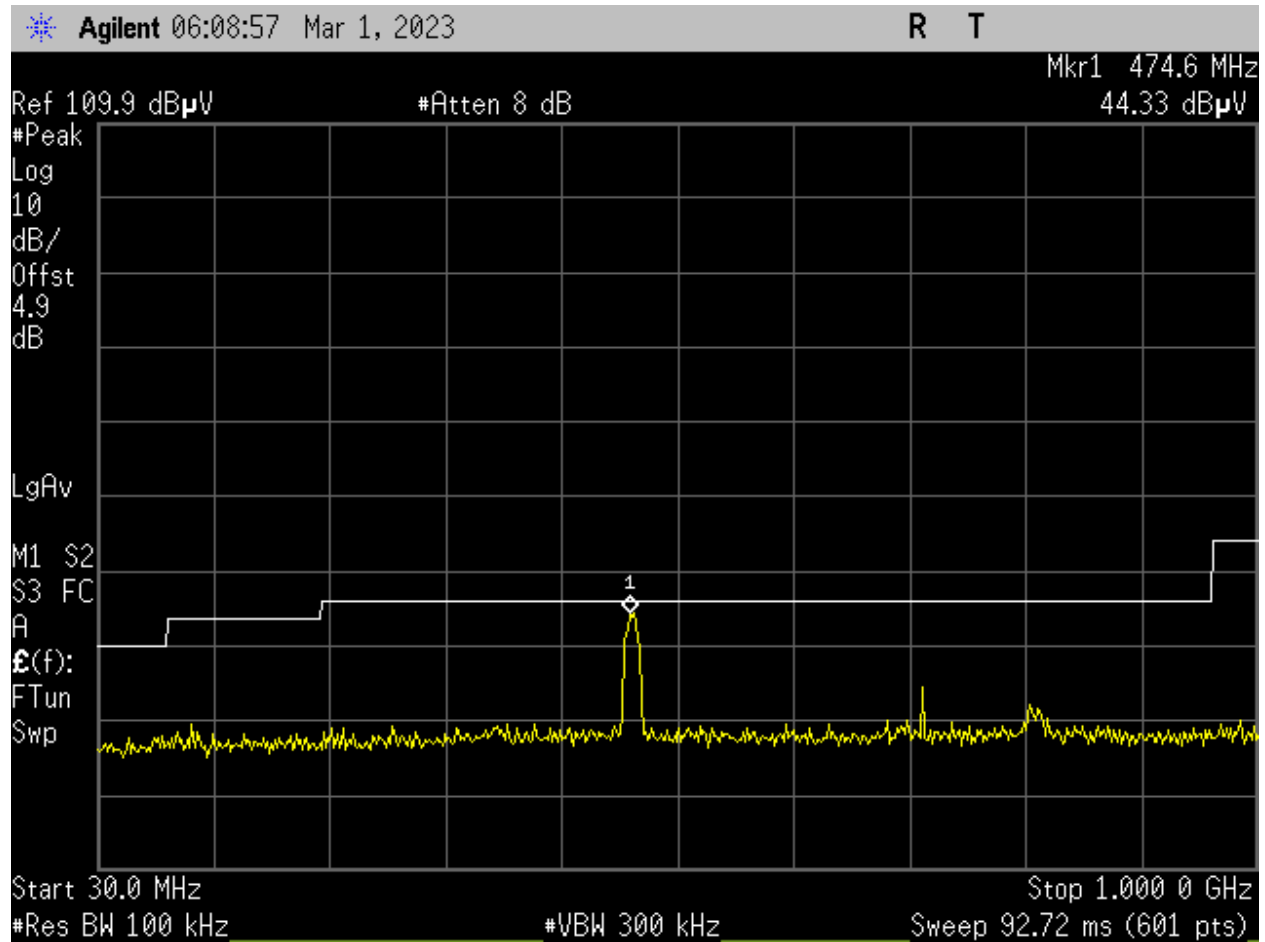


Figure 95: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

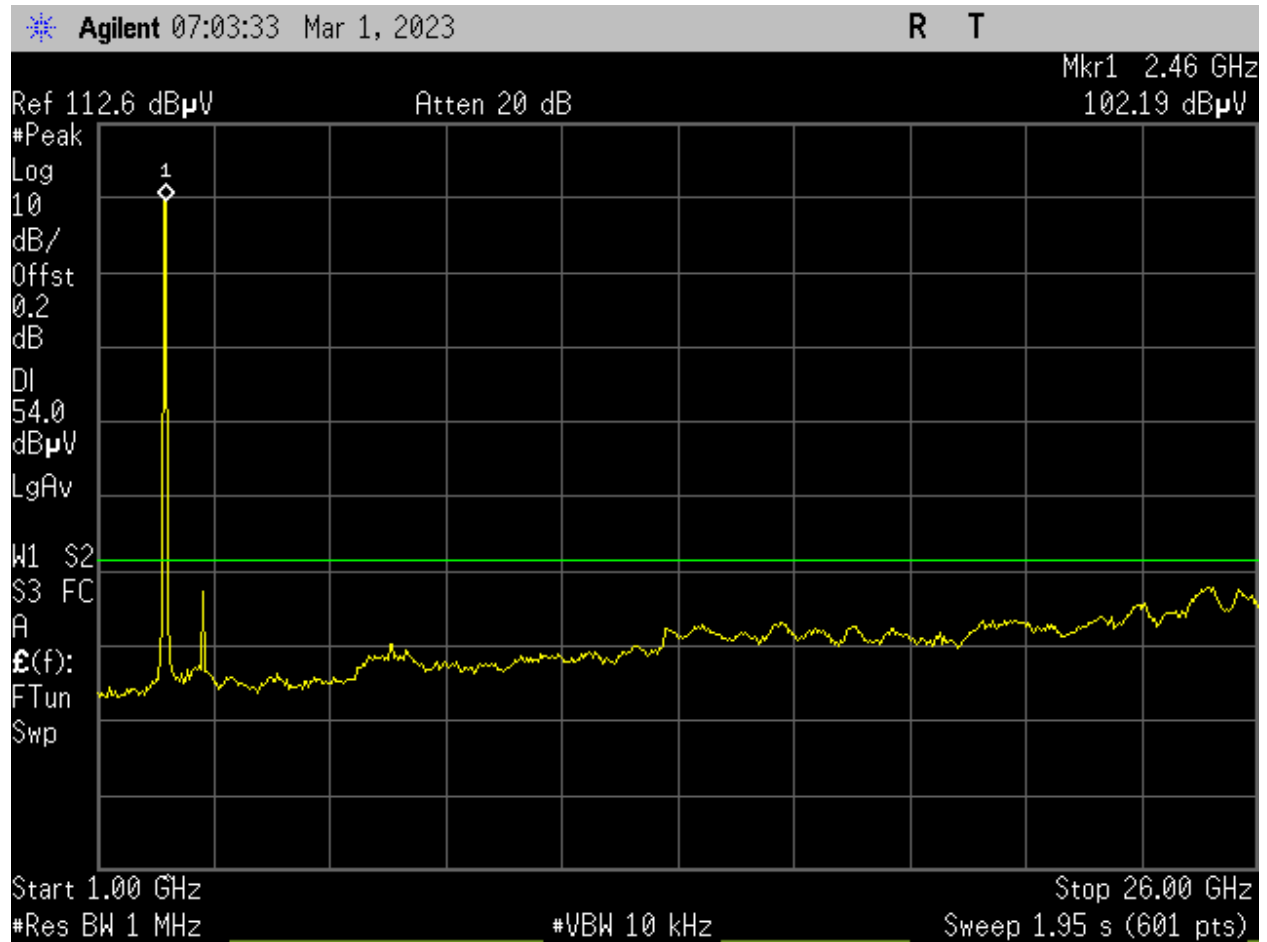


Figure 96: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_15.209\_1-26GHz avg\_Port 1.



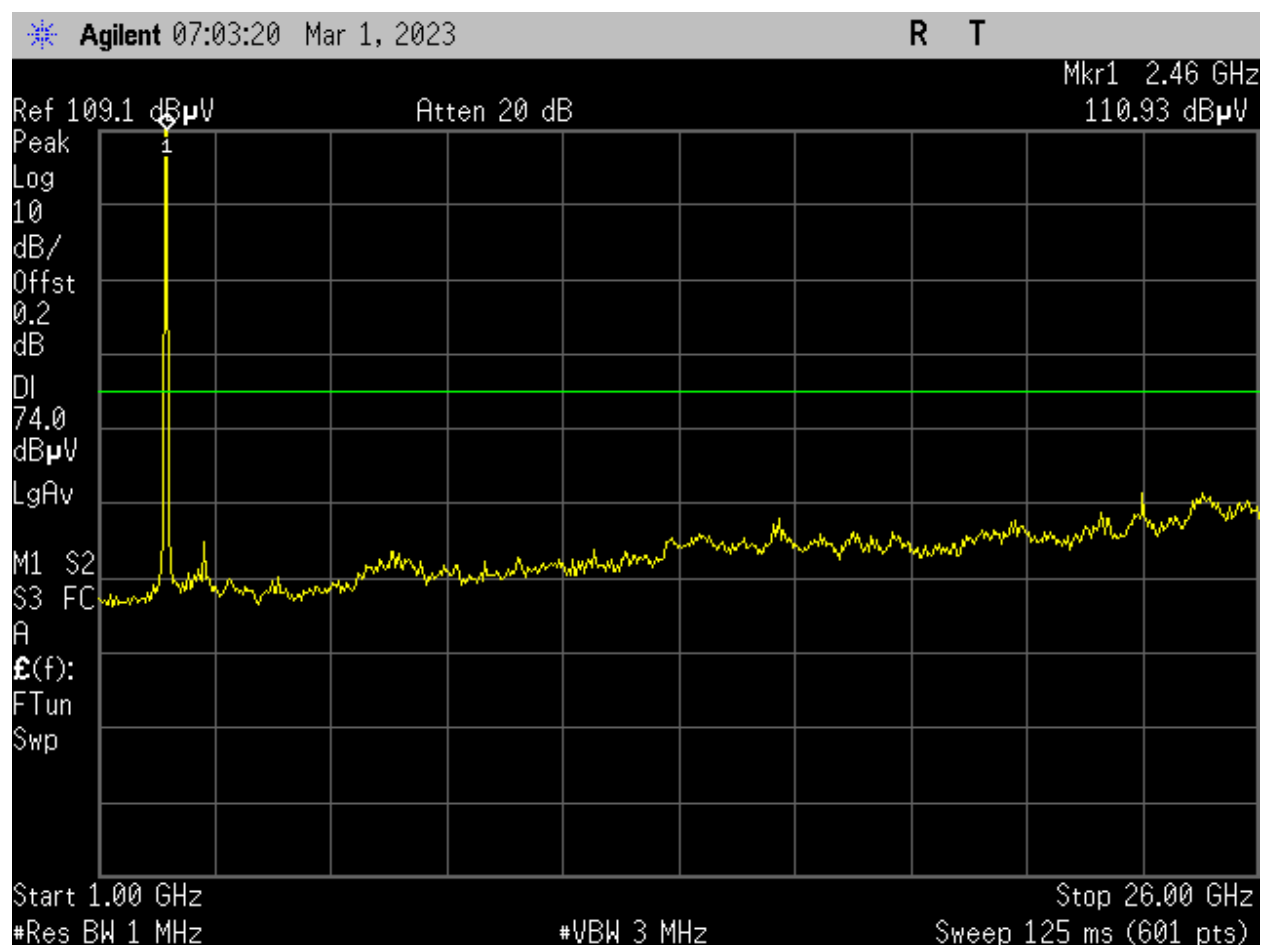


Figure 97: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_15.209\_1-26GHz \_Peak\_Port 1.

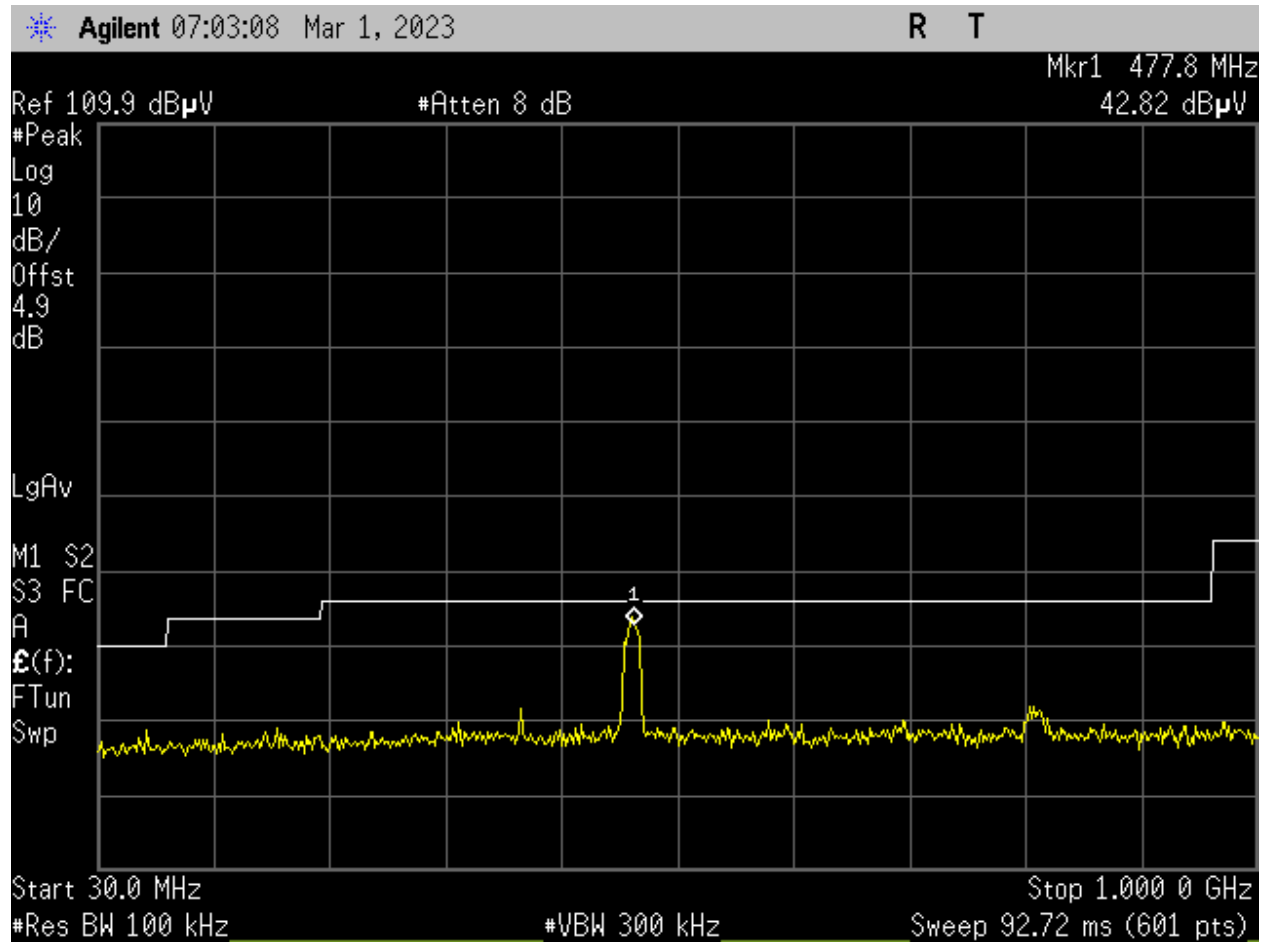


Figure 98: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

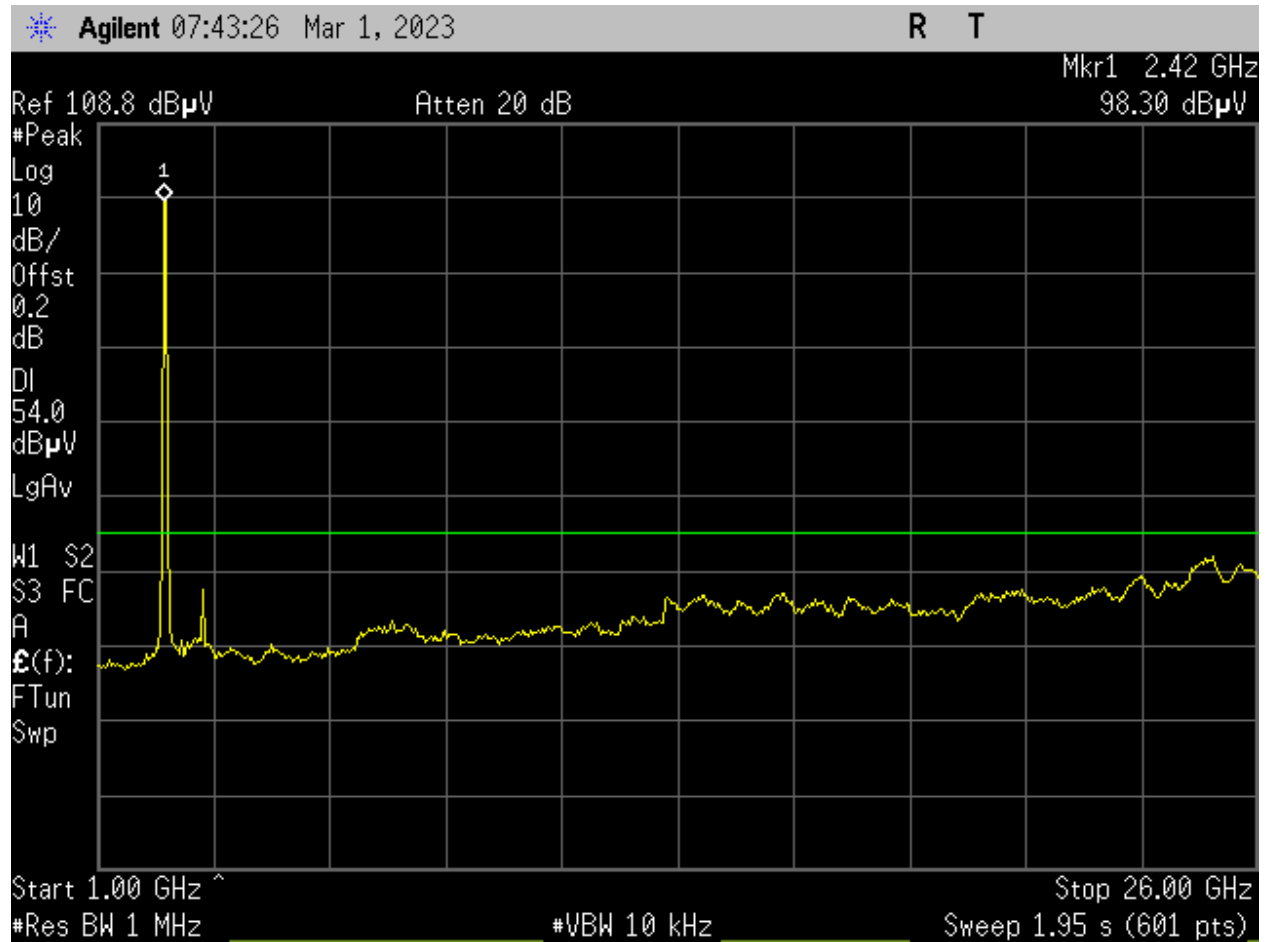


Figure 99: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_15.209\_1-26GHz avg\_Port 1.

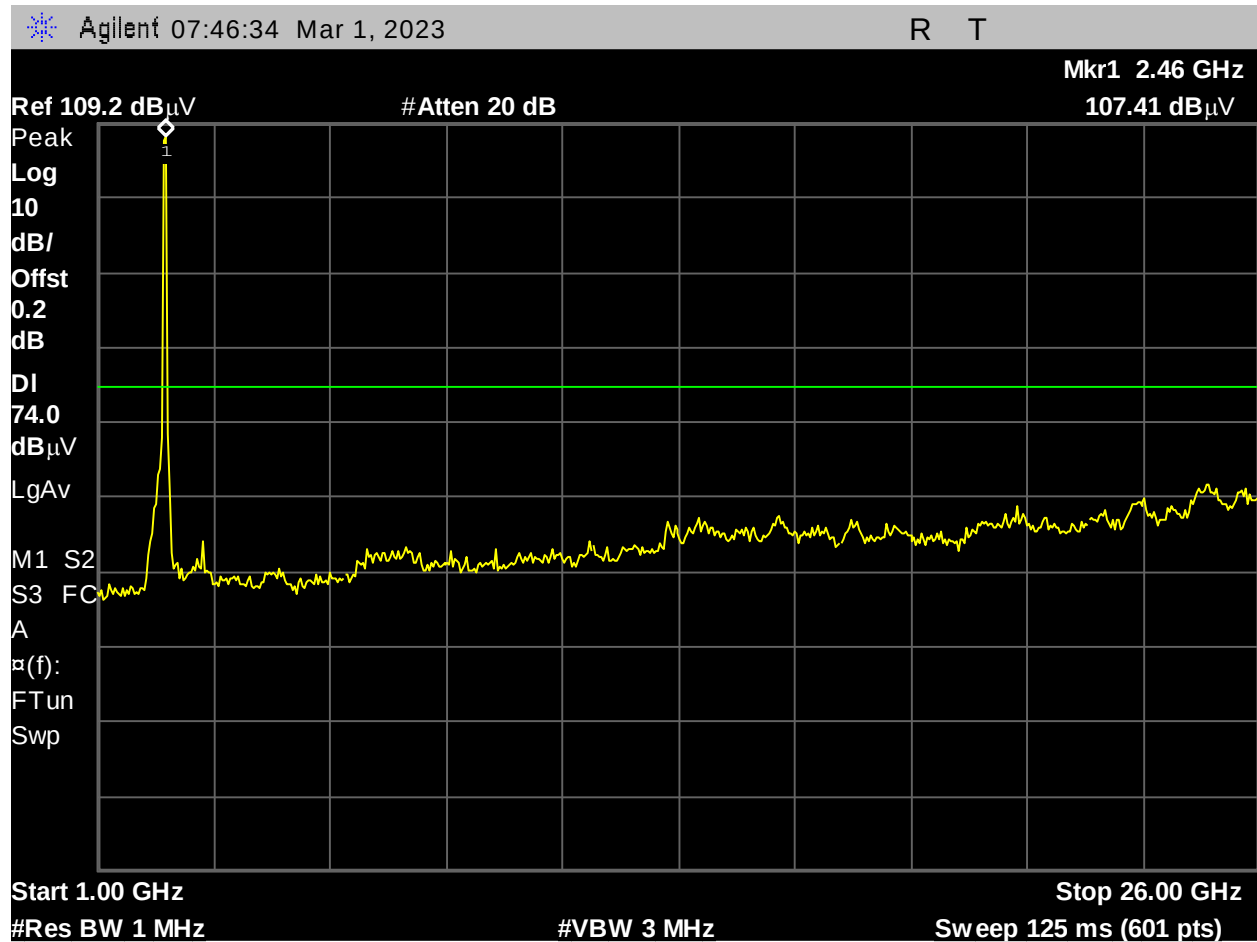


Figure 100: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_15.209\_1-26GHz \_Peak\_Port 1.

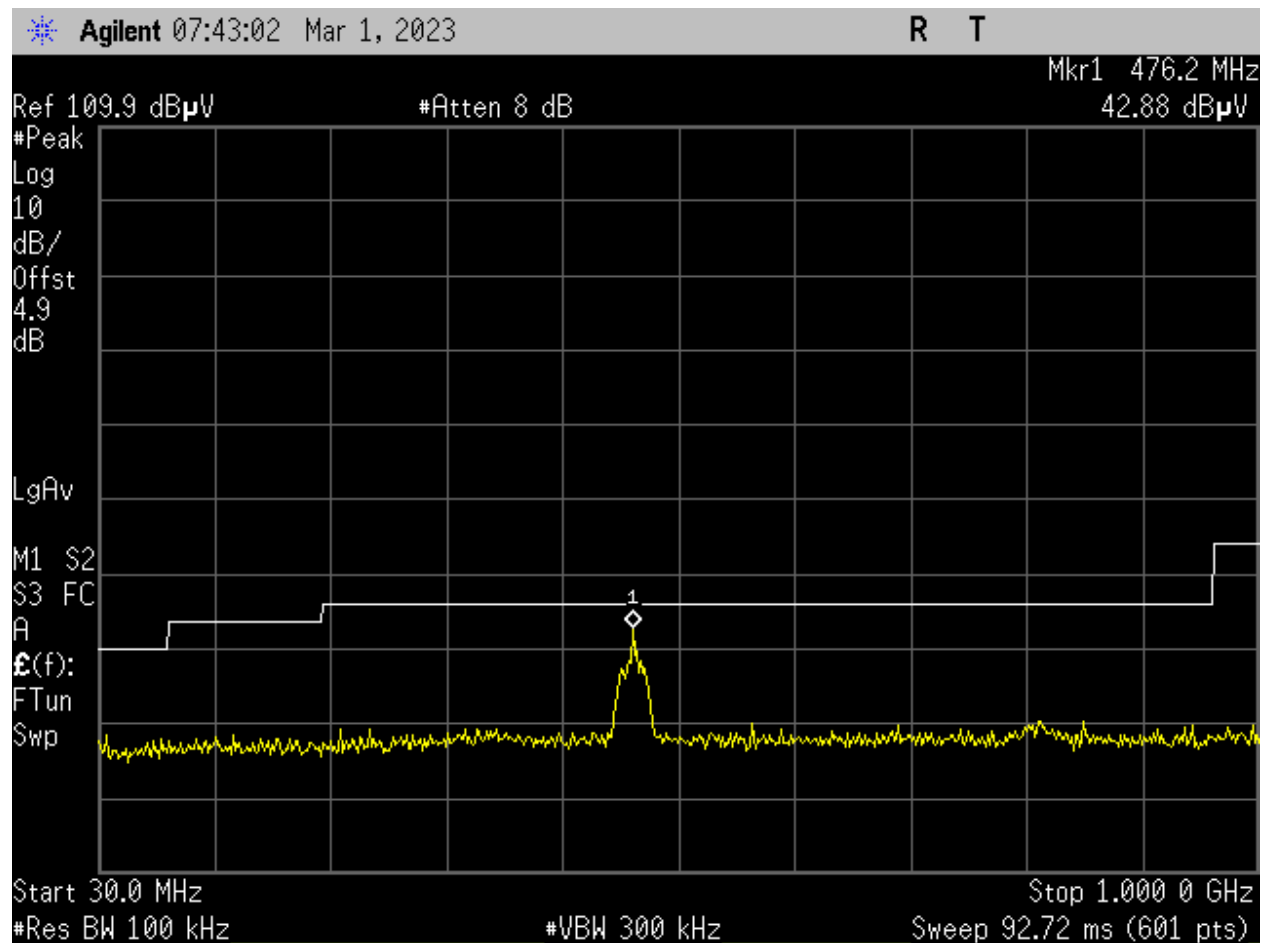
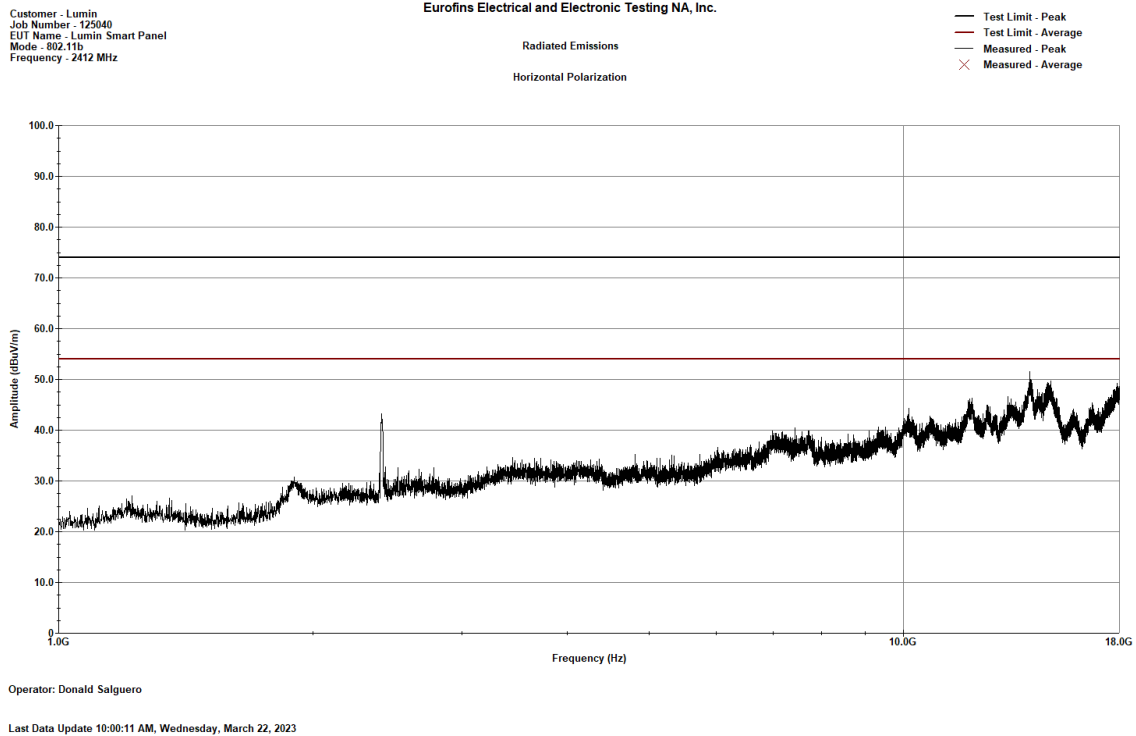


Figure 101: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_15.209\_30-1000MHz\_Peak\_Port 1.

## Cabinet Radiated Spurious Emissions



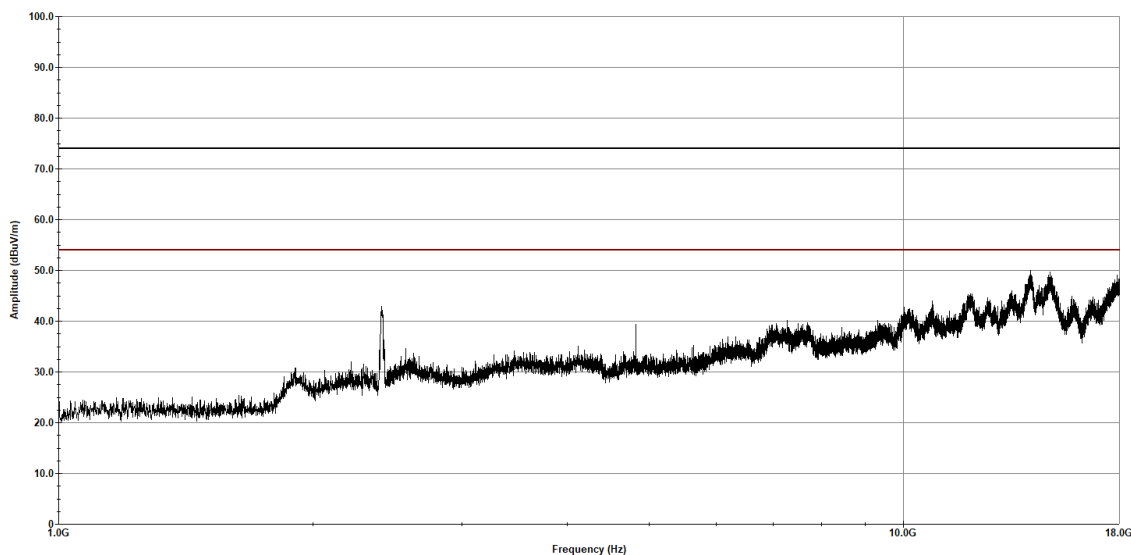
**Figure 102: Cabinet Radiated Spurious Emissions, 80211b 2412MHz, 1-18 GHz - H.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 10:07:01 AM, Wednesday, March 22, 2023

**Figure 103: Cabinet Radiated Spurious Emissions, 80211b 2412MHz, 1-18 GHz - V.png**

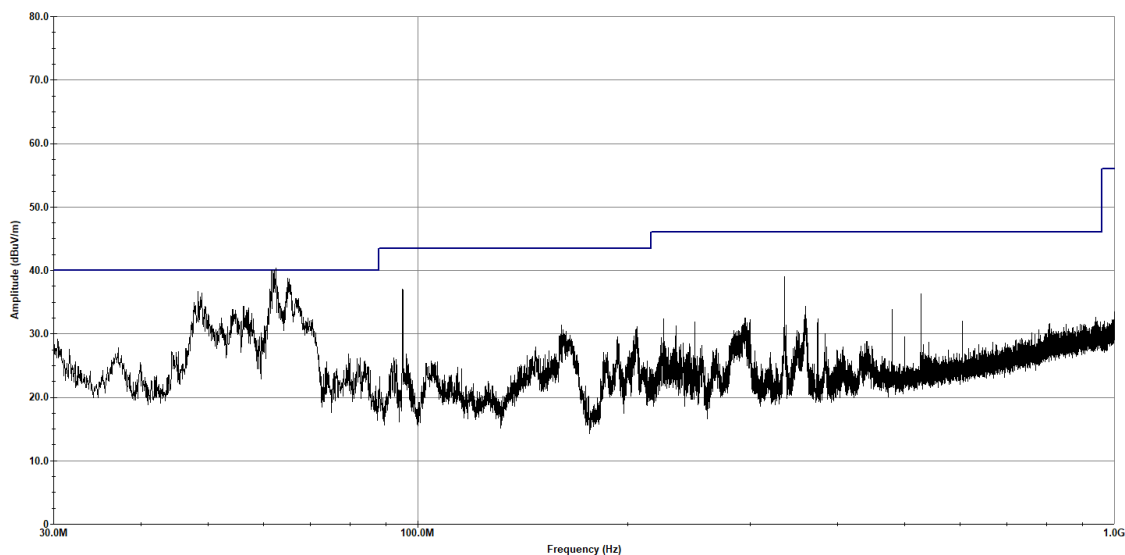
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 12:02:05 PM, Tuesday, March 21, 2023

**Figure 104: Cabinet Radiated Spurious Emissions, 80211b 2412MHz, 30 MHz to 1 GHz - H.png**



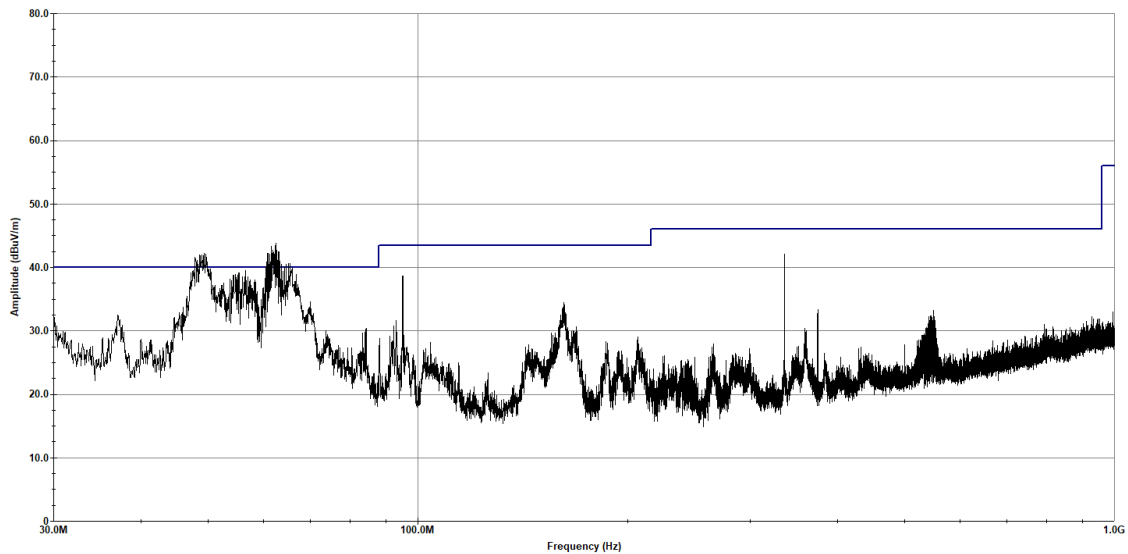
Customer - Lumin  
 Job Number - 125040  
 EUT Name - Lumin Smart Panel  
 Mode - 802.11b  
 Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
 — Measured - Peak  
 × Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 11:56:26 AM, Tuesday, March 21, 2023

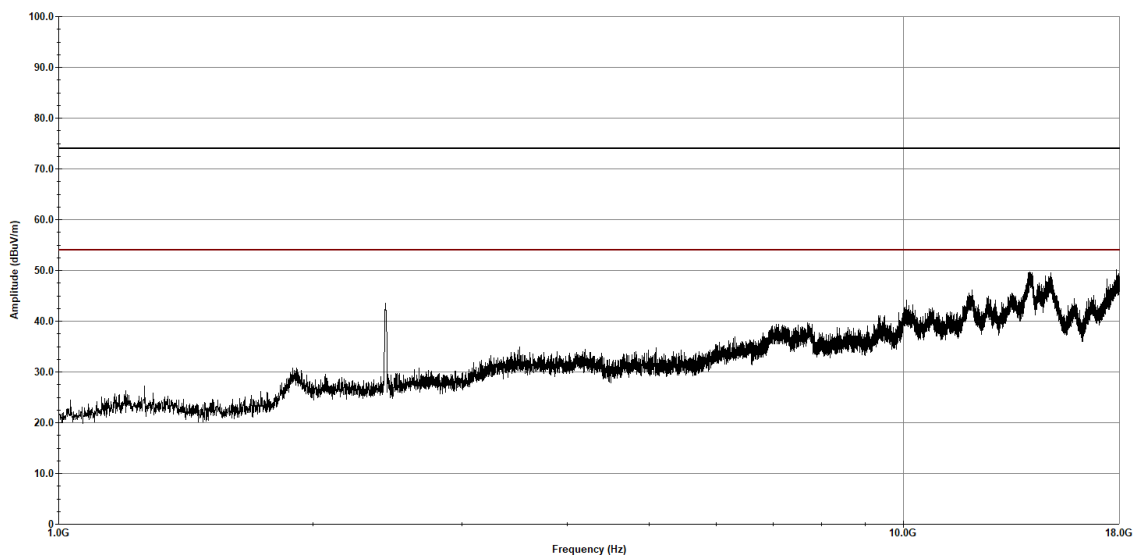
**Figure 105: Cabinet Radiated Spurious Emissions, 80211b 2412MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 10:22:03 AM, Wednesday, March 22, 2023

**Figure 106: Cabinet Radiated Spurious Emissions, 80211b 2437MHz, 1-18 GHz - H.png**

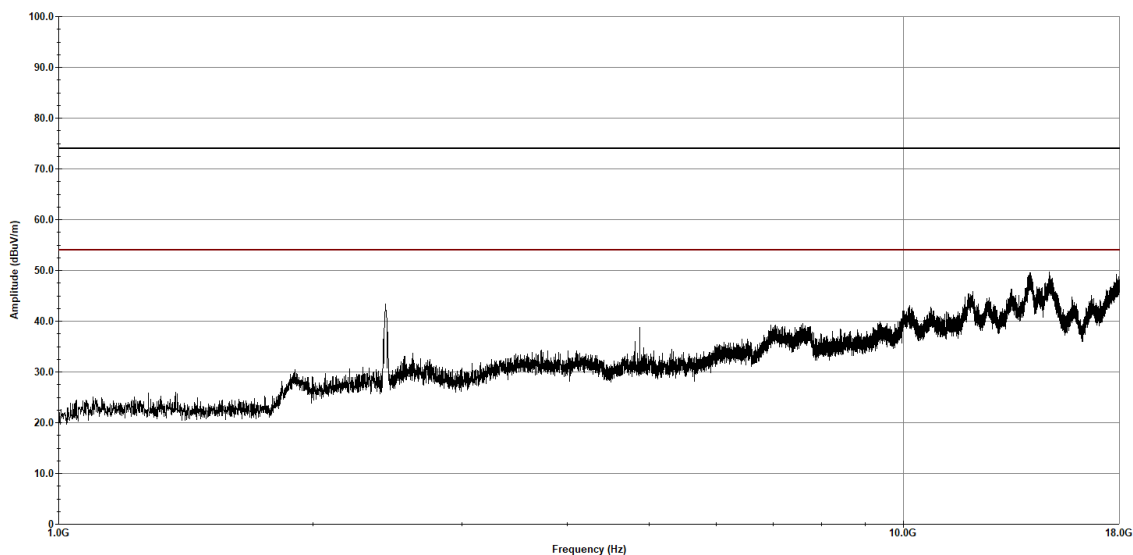
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 10:15:01 AM, Wednesday, March 22, 2023

**Figure 107: Cabinet Radiated Spurious Emissions, 80211b 2437MHz, 1-18 GHz - V.png**

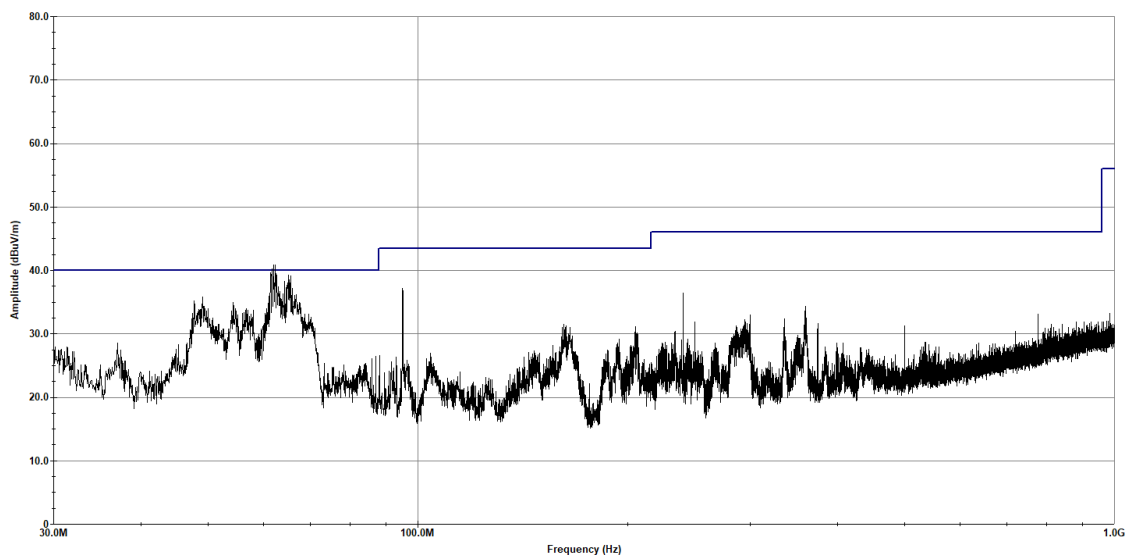
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 01:40:03 PM, Tuesday, March 21, 2023

**Figure 108: Cabinet Radiated Spurious Emissions, 80211b 2437MHz, 30 MHz to 1 GHz - H.png**

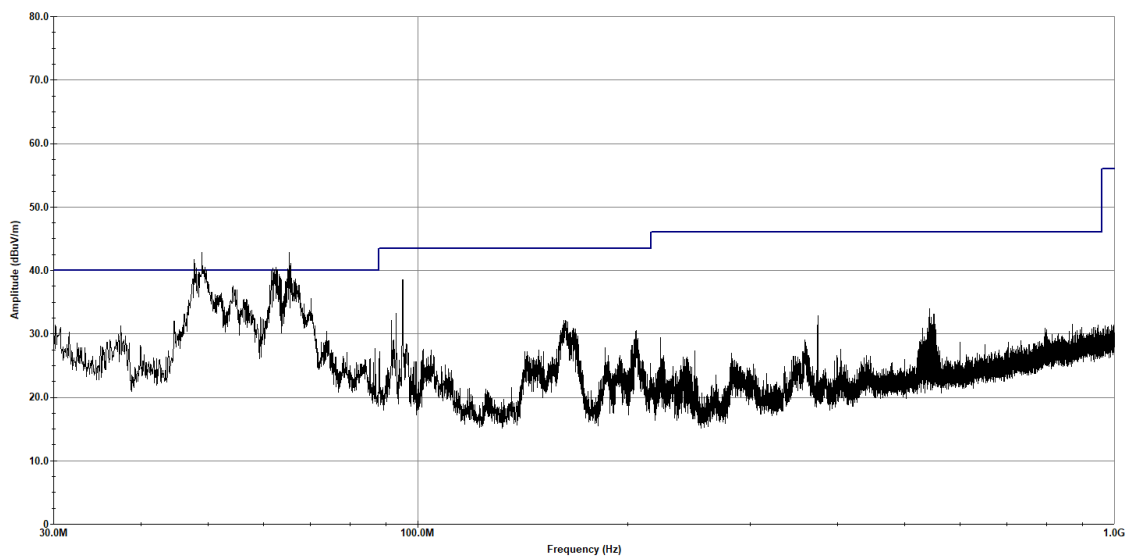
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 01:45:02 PM, Tuesday, March 21, 2023

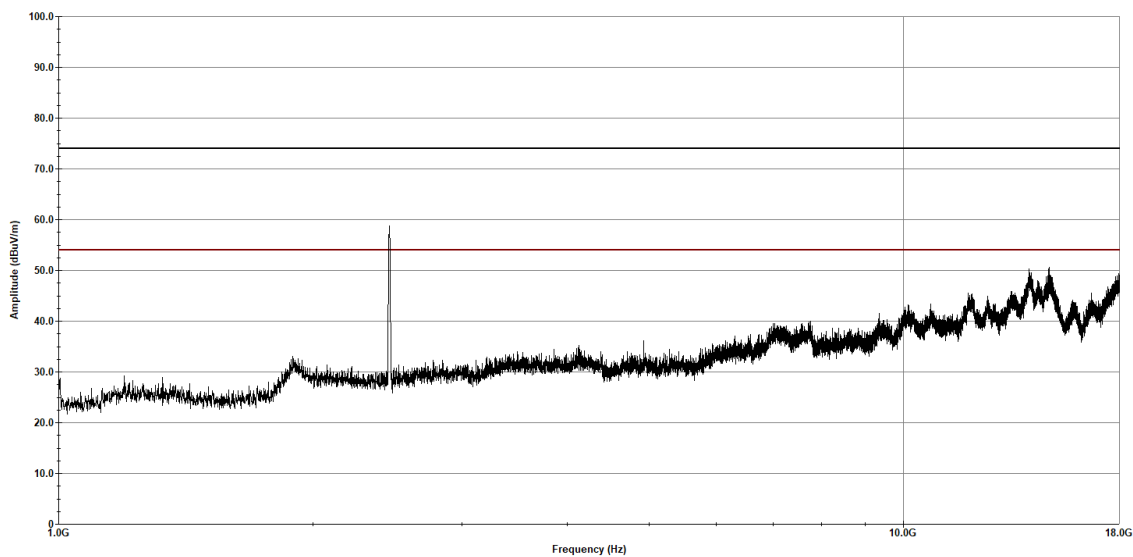
**Figure 109: Cabinet Radiated Spurious Emissions, 80211b 2437MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 10:41:37 AM, Wednesday, March 22, 2023

**Figure 110: Cabinet Radiated Spurious Emissions, 80211b 2462MHz, 1-18 GHz - H.png**

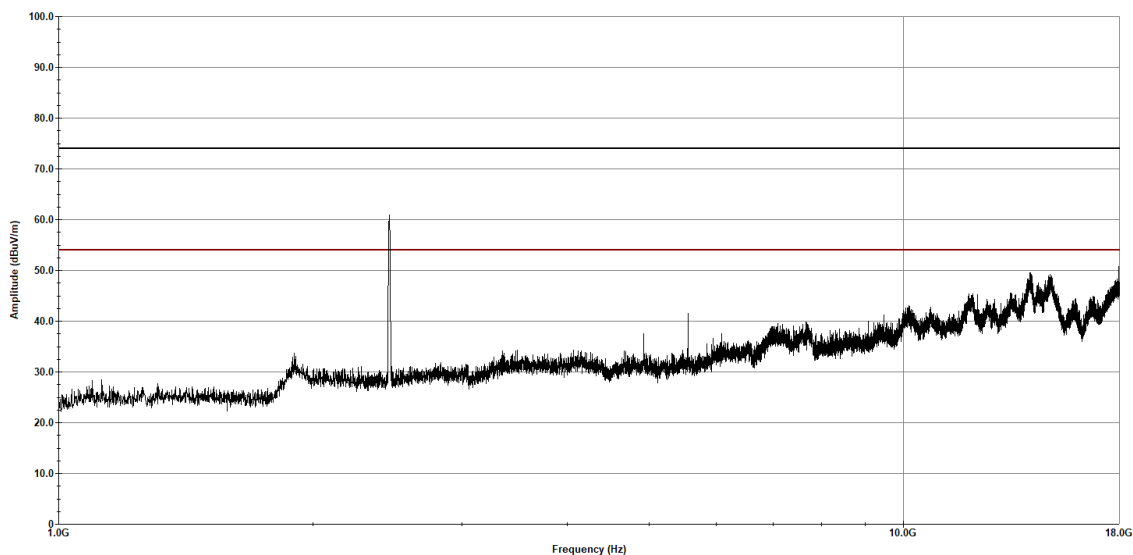
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 10:48:22 AM, Wednesday, March 22, 2023

**Figure 111: Cabinet Radiated Spurious Emissions, 80211b 2462MHz, 1-18 GHz - V.png**

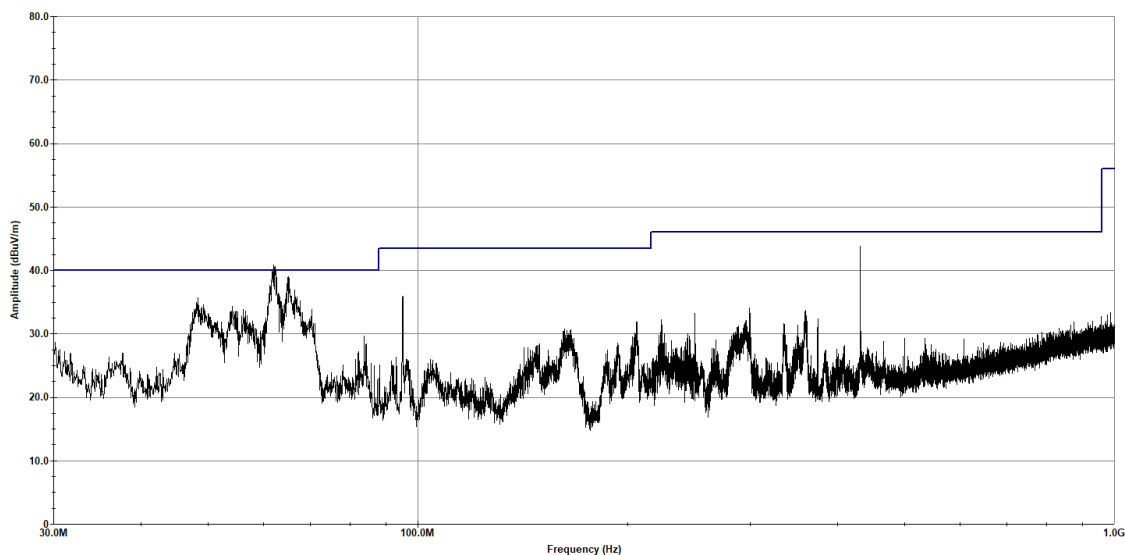
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 01:56:01 PM, Tuesday, March 21, 2023

**Figure 112: Cabinet Radiated Spurious Emissions, 80211b 2462MHz, 30 MHz to 1 GHz - H.png**



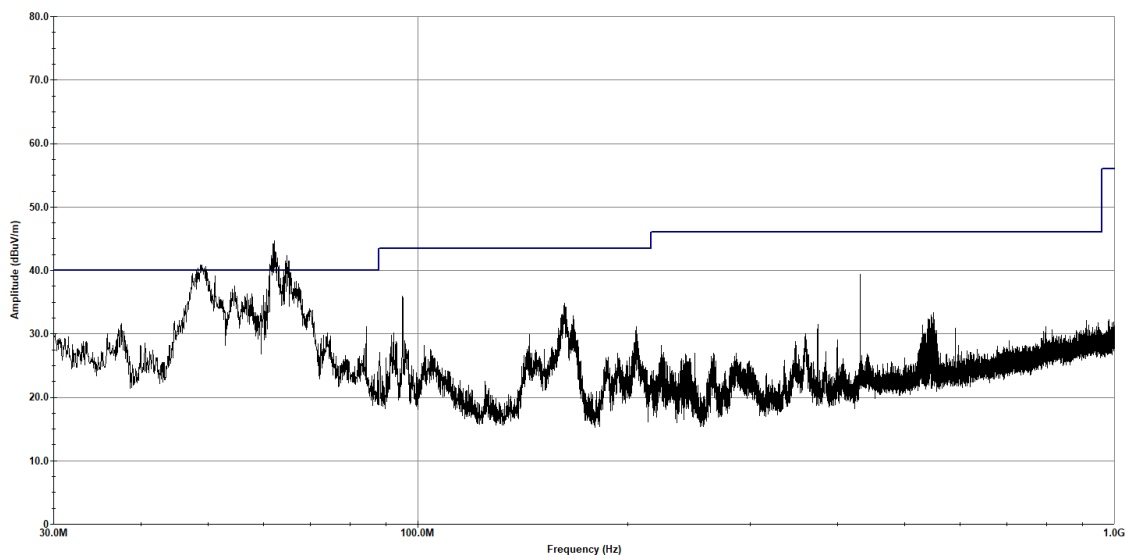
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11b  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 02:01:34 PM, Tuesday, March 21, 2023

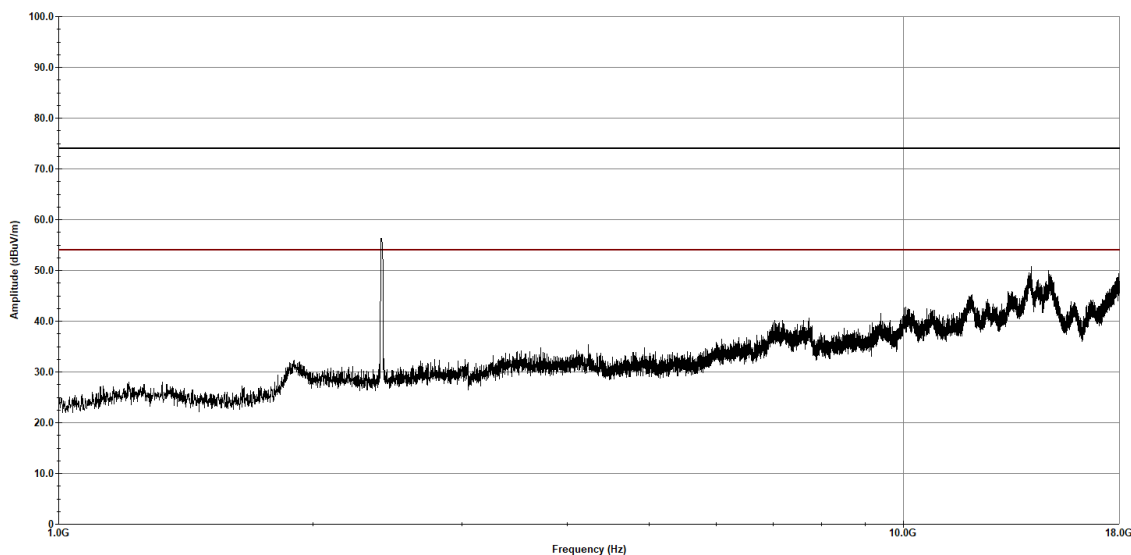
**Figure 113: Cabinet Radiated Spurious Emissions, 80211b 2462MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 11:31:44 AM, Wednesday, March 22, 2023

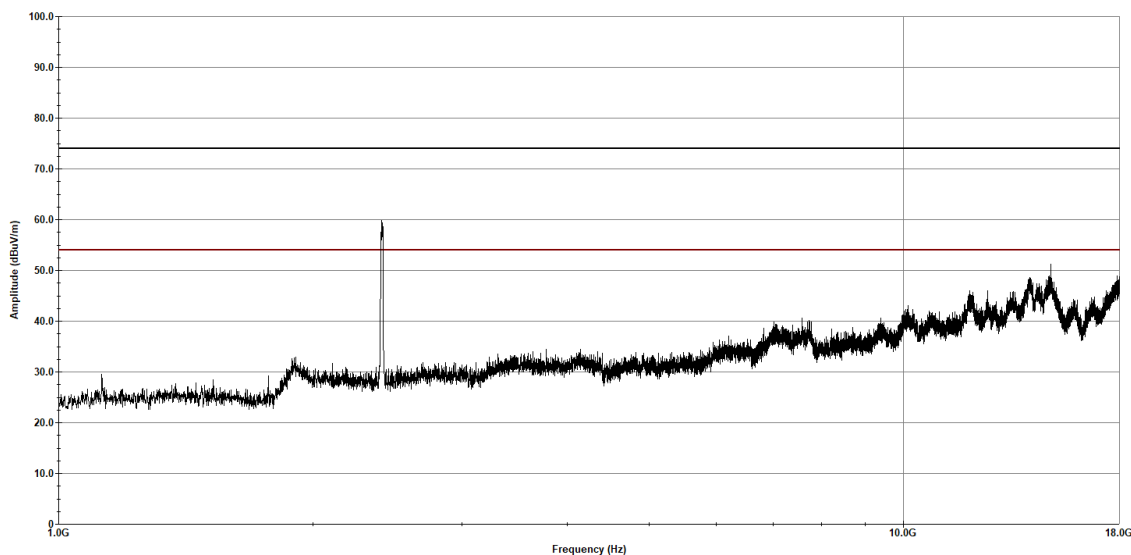
**Figure 114: Cabinet Radiated Spurious Emissions, 80211g 2412MHz, 1-18 GHz - H.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 11:38:28 AM, Wednesday, March 22, 2023

**Figure 115: Cabinet Radiated Spurious Emissions, 80211g 2412MHz, 1-18 GHz - V.png**

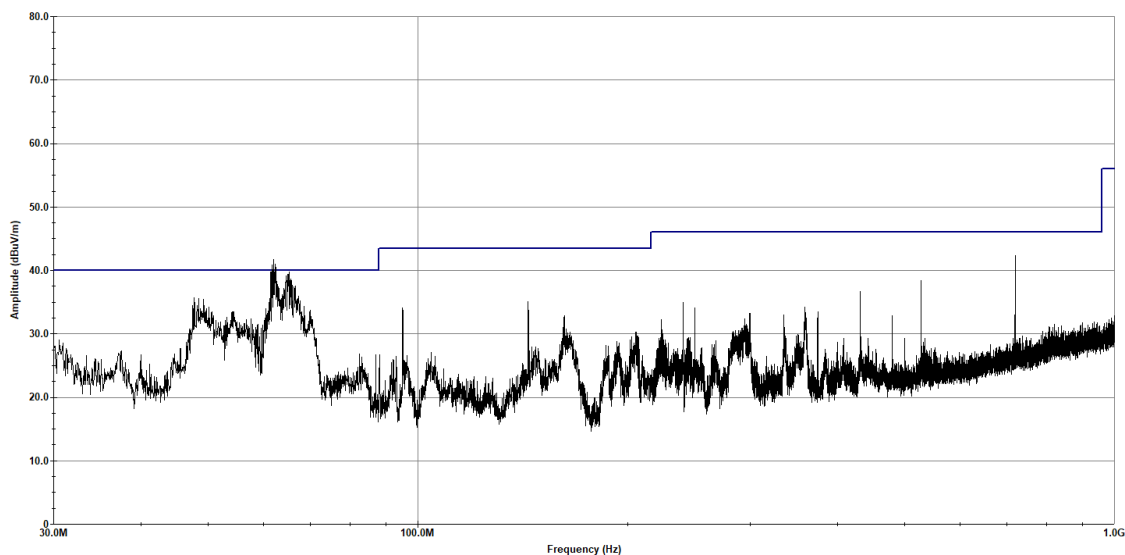
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 02:45:36 PM, Tuesday, March 21, 2023

**Figure 116: Cabinet Radiated Spurious Emissions, 80211g 2412MHz, 30 MHz to 1 GHz - H.png**

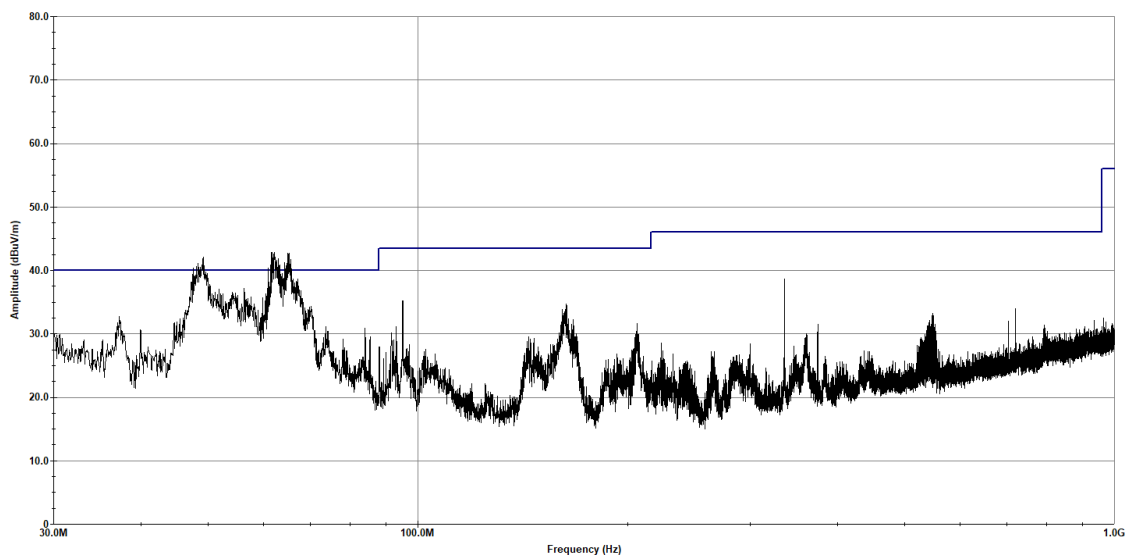
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 02:54:41 PM, Tuesday, March 21, 2023

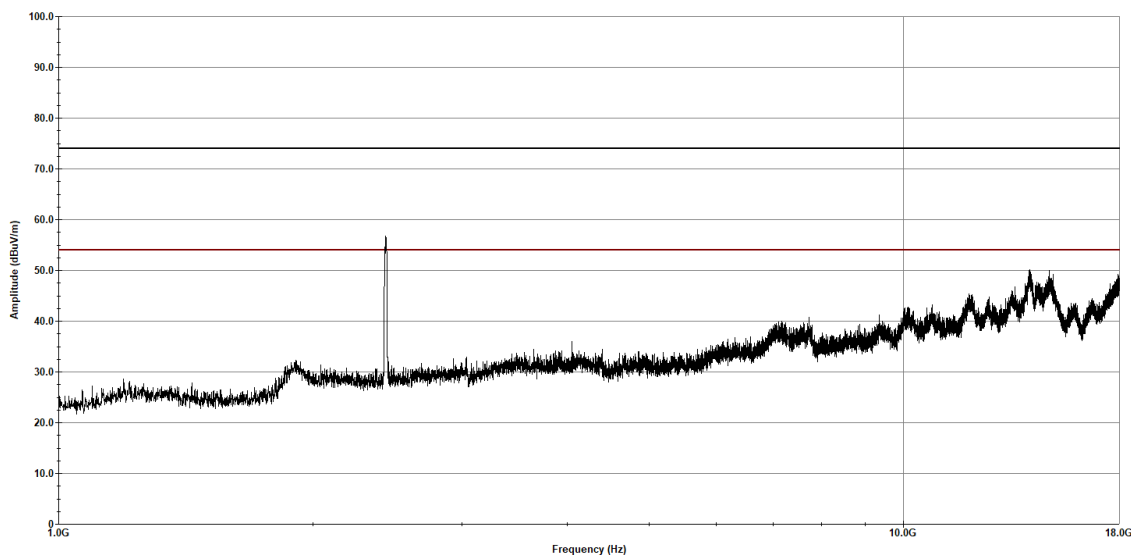
**Figure 117: Cabinet Radiated Spurious Emissions, 80211g 2412MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 11:22:26 AM, Wednesday, March 22, 2023

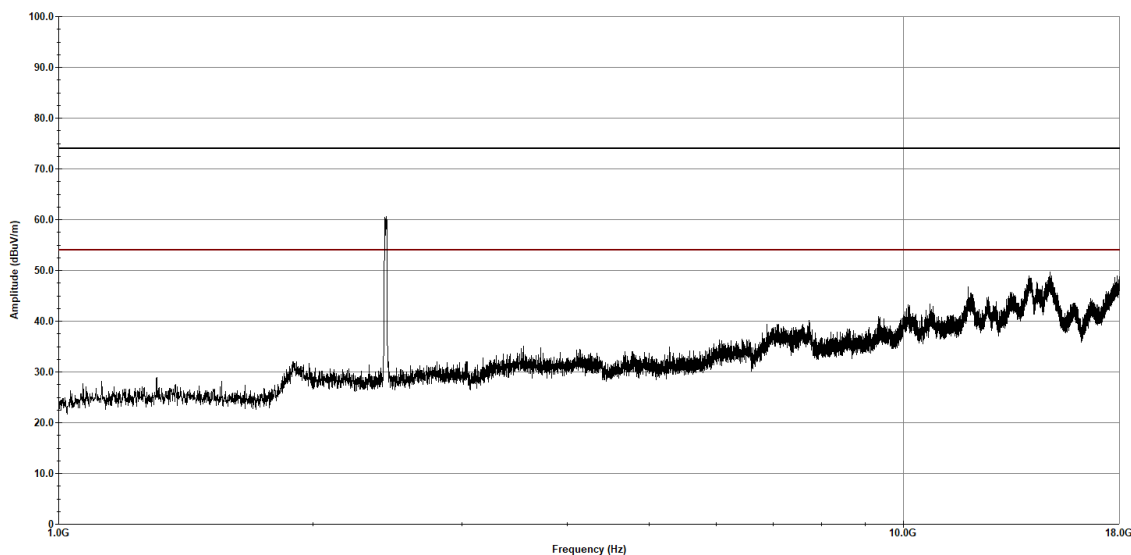
**Figure 118: Cabinet Radiated Spurious Emissions, 80211g 2437MHz, 1-18 GHz - H.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 11:15:29 AM, Wednesday, March 22, 2023

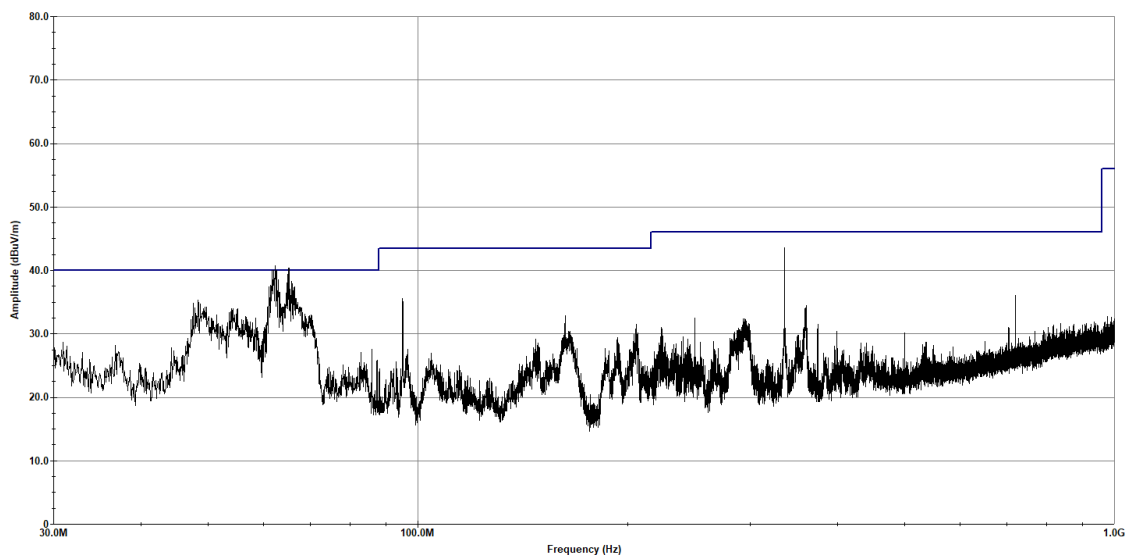
**Figure 119: Cabinet Radiated Spurious Emissions, 80211g 2437MHz, 1-18 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 02:29:55 PM, Tuesday, March 21, 2023

**Figure 120: Cabinet Radiated Spurious Emissions, 80211g 2437MHz, 30 MHz to 1 GHz - H.png**



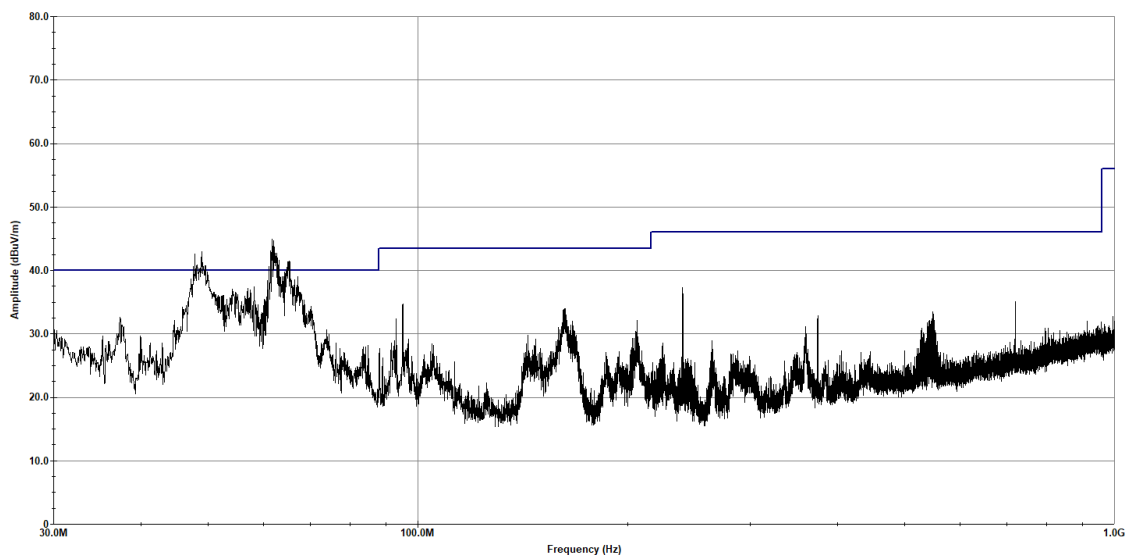
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 02:35:55 PM, Tuesday, March 21, 2023

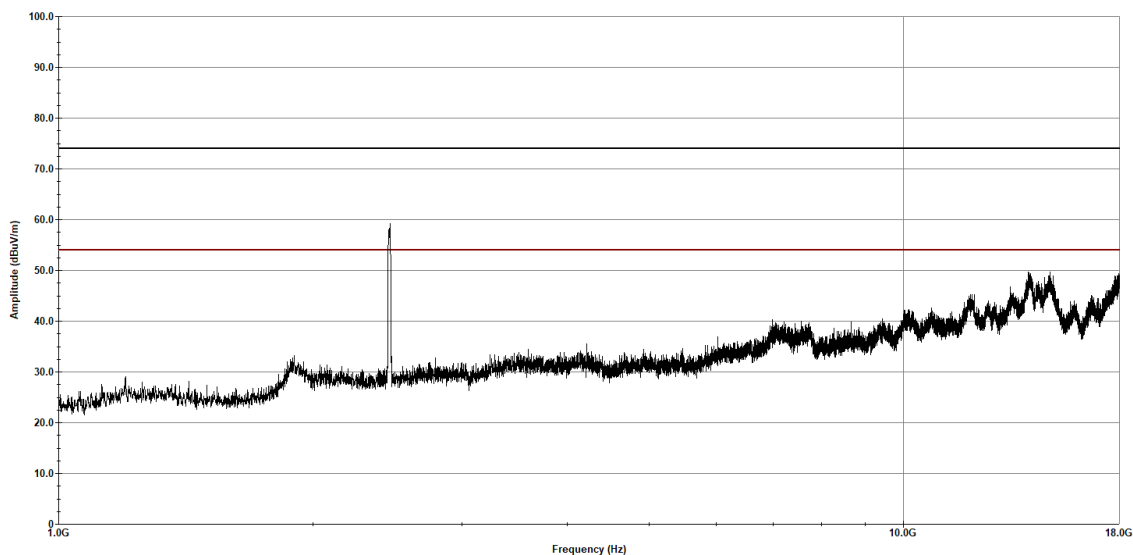
**Figure 121: Cabinet Radiated Spurious Emissions, 80211g 2437MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 10:56:55 AM, Wednesday, March 22, 2023

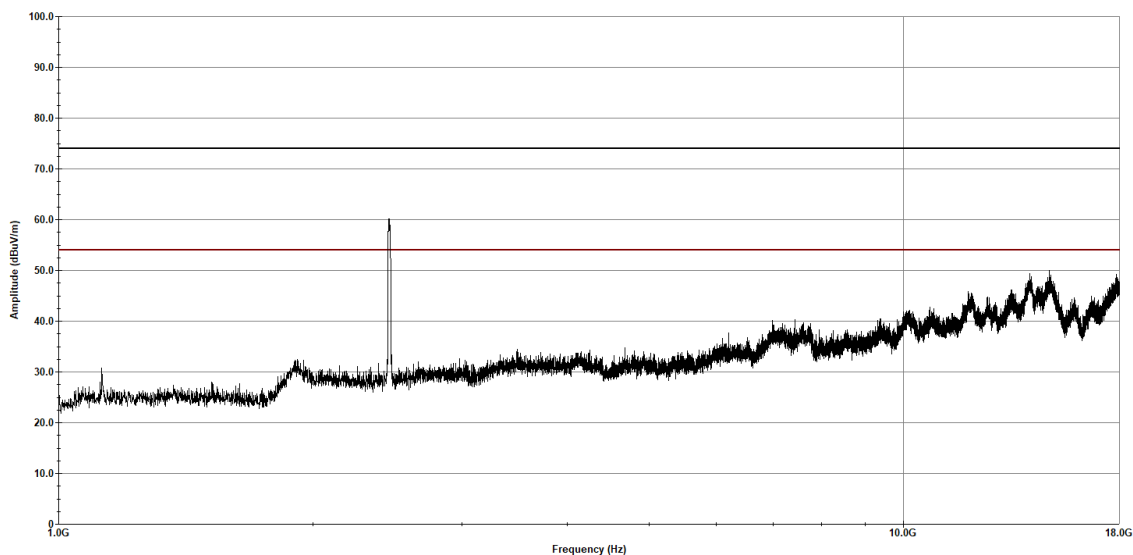
**Figure 122: Cabinet Radiated Spurious Emissions, 80211g 2462MHz, 1-18 GHz - H.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 11:07:32 AM, Wednesday, March 22, 2023

**Figure 123: Cabinet Radiated Spurious Emissions, 80211g 2462MHz, 1-18 GHz - V.png**

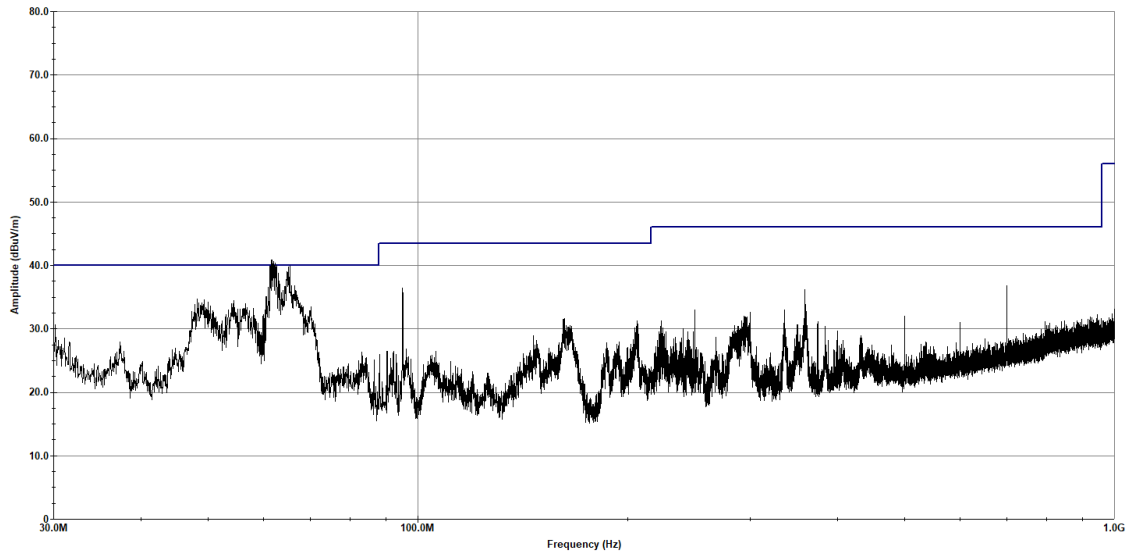
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 02:22:01 PM, Tuesday, March 21, 2023

**Figure 124: Cabinet Radiated Spurious Emissions, 80211g 2462MHz, 30 MHz to 1 GHz - H.png**

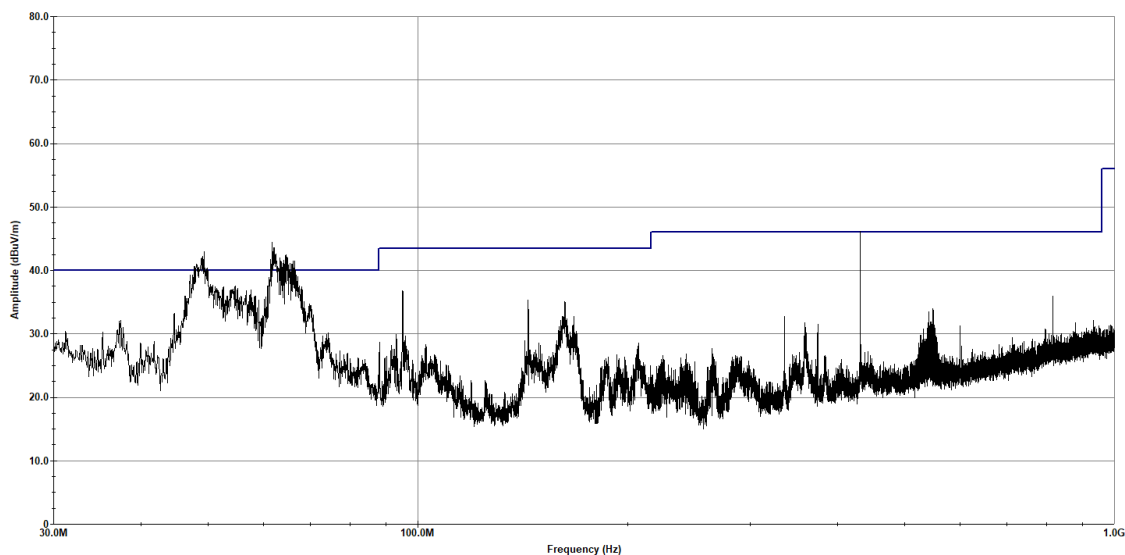
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11g  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 02:12:20 PM, Tuesday, March 21, 2023

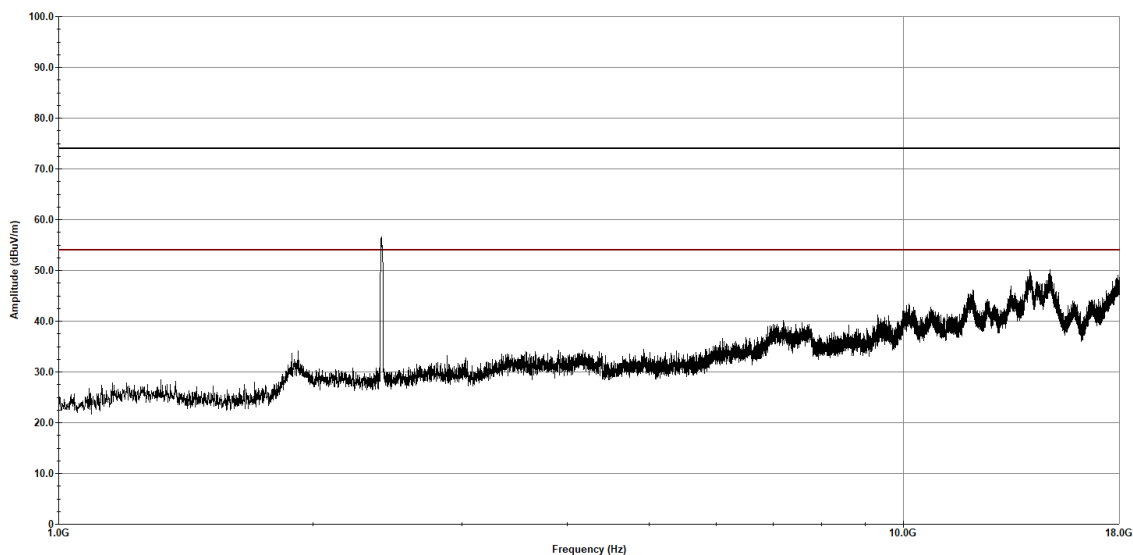
**Figure 125: Cabinet Radiated Spurious Emissions, 80211g 2462MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 12:47:15 PM, Wednesday, March 22, 2023

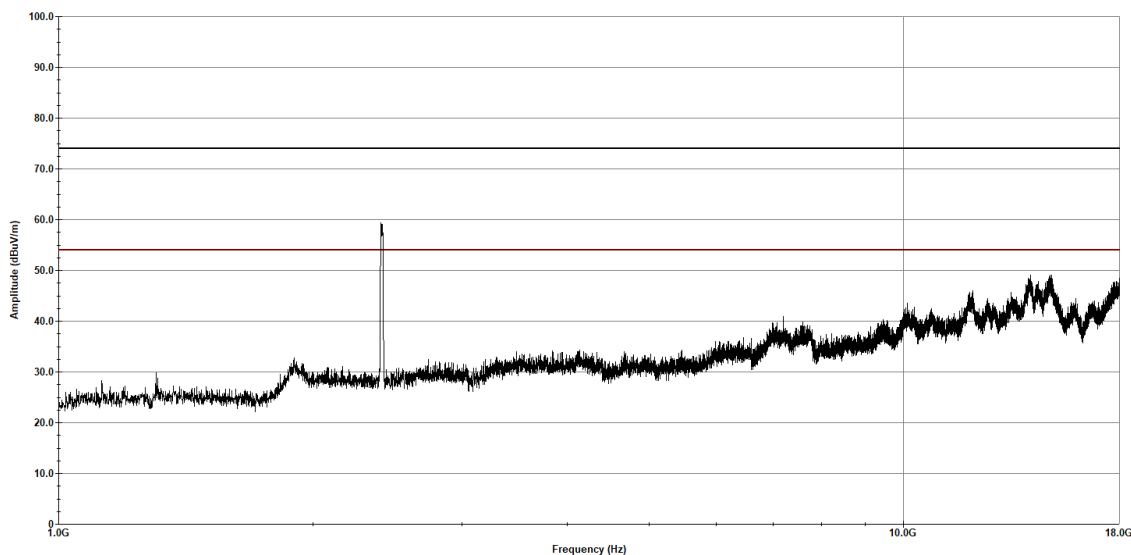
**Figure 126: Cabinet Radiated Spurious Emissions, 80211n 20BW 2412MHz, 1-18 GHz - H.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 12:40:18 PM, Wednesday, March 22, 2023

**Figure 127: Cabinet Radiated Spurious Emissions, 80211n 20BW 2412MHz, 1-18 GHz - V.png**

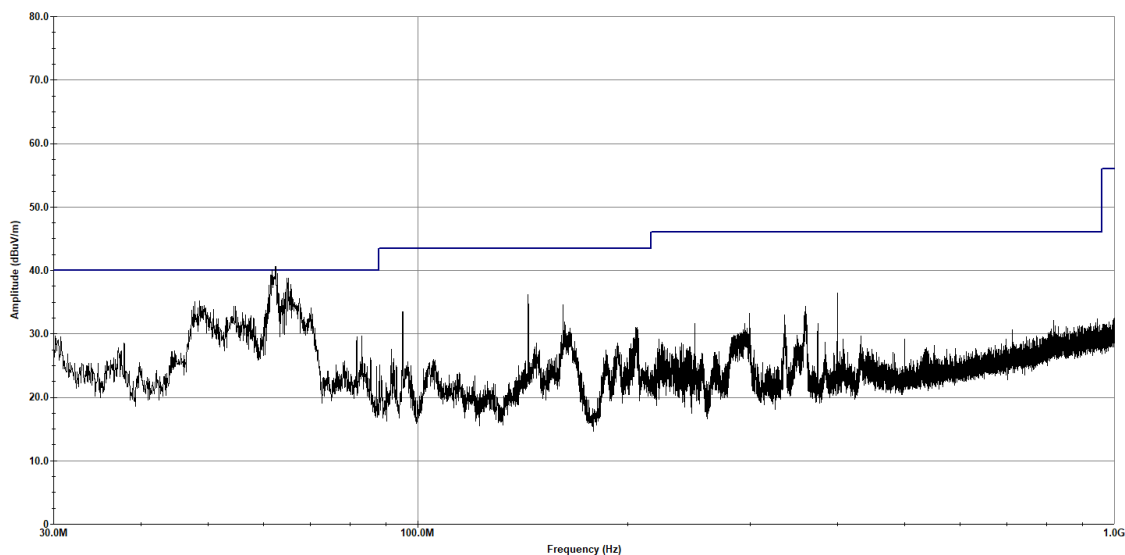
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 03:04:20 PM, Tuesday, March 21, 2023

**Figure 128: Cabinet Radiated Spurious Emissions, 80211n 20BW 2412MHz, 30 MHz to 1 GHz - H.png**



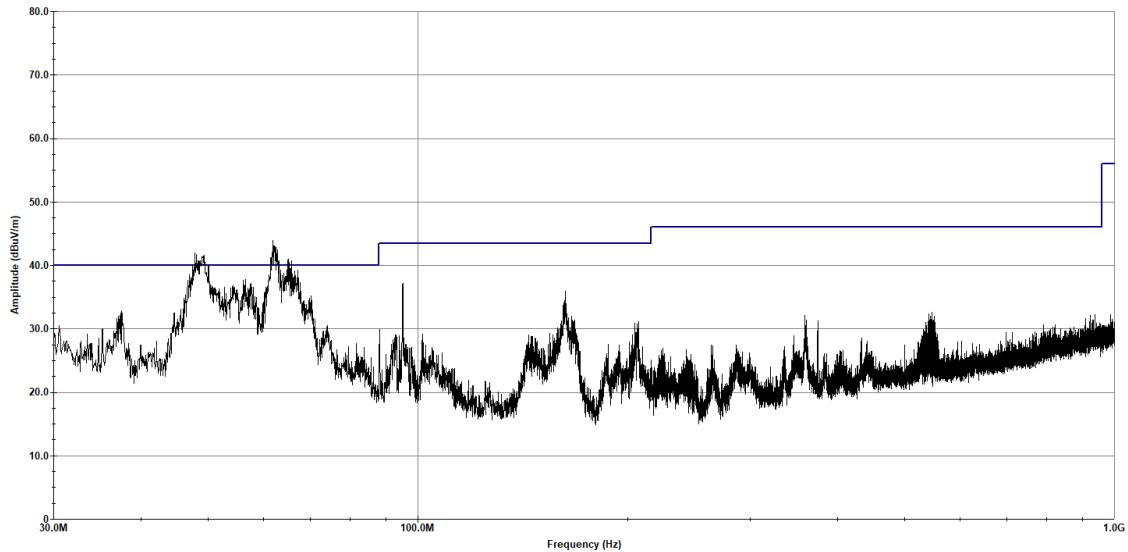
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2412 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 03:11:40 PM, Tuesday, March 21, 2023

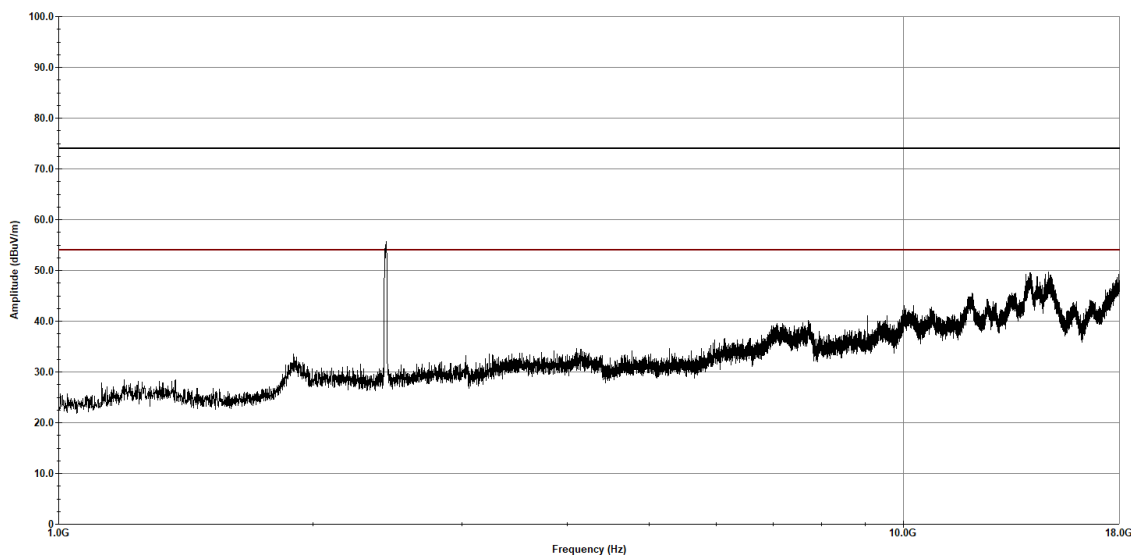
**Figure 129: Cabinet Radiated Spurious Emissions, 80211n 20BW 2412MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 12:56:21 PM, Wednesday, March 22, 2023

**Figure 130: Cabinet Radiated Spurious Emissions, 80211n 20BW 2437MHz, 1-18 GHz - H.png**

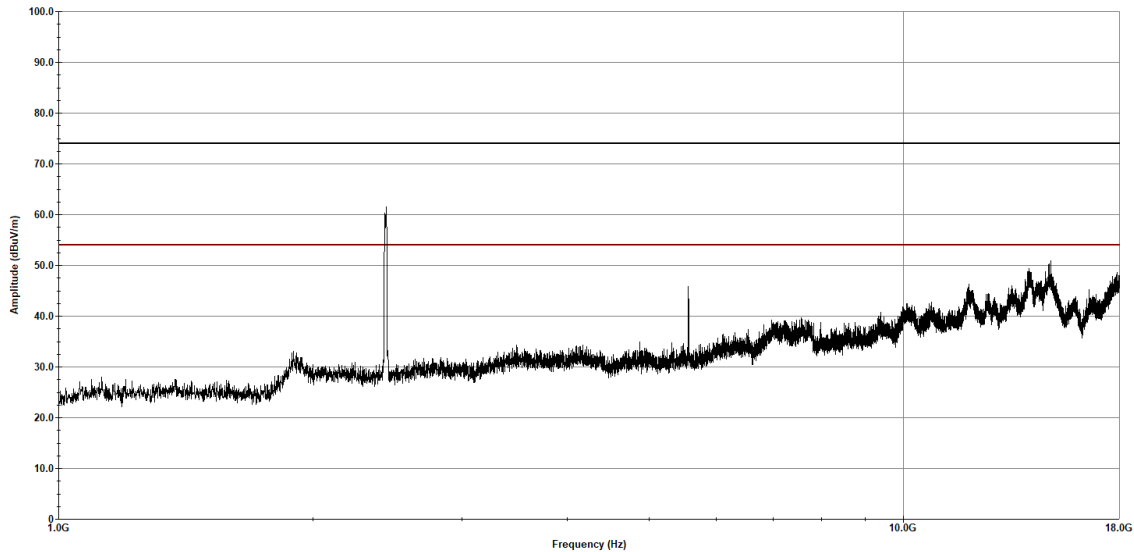
Customer - Lumin  
 Job Number - 125040  
 EUT Name - Lumin Smart Panel  
 Mode - 802.11n HT20  
 Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Peak  
 — Test Limit - Average  
 — Measured - Peak  
 × Measured - Average



Operator: Donald Salguero

Last Data Update 01:03:24 PM, Wednesday, March 22, 2023

**Figure 131: Cabinet Radiated Spurious Emissions, 80211n 20BW 2437MHz, 1-18 GHz - V.png**

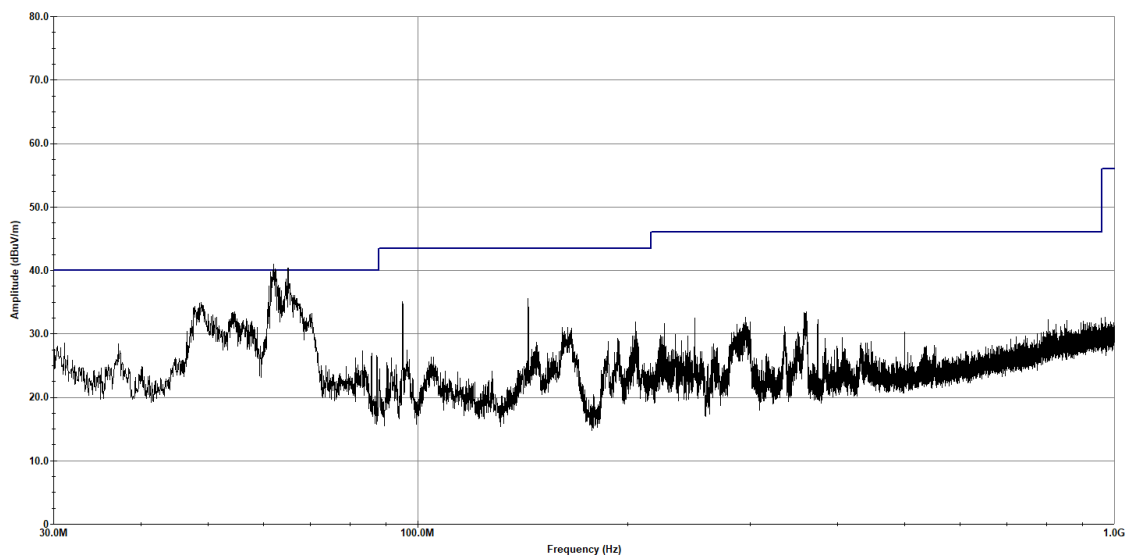
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 03:27:59 PM, Tuesday, March 21, 2023

**Figure 132: Cabinet Radiated Spurious Emissions, 80211n 20BW 2437MHz, 30 MHz to 1 GHz - H.png**

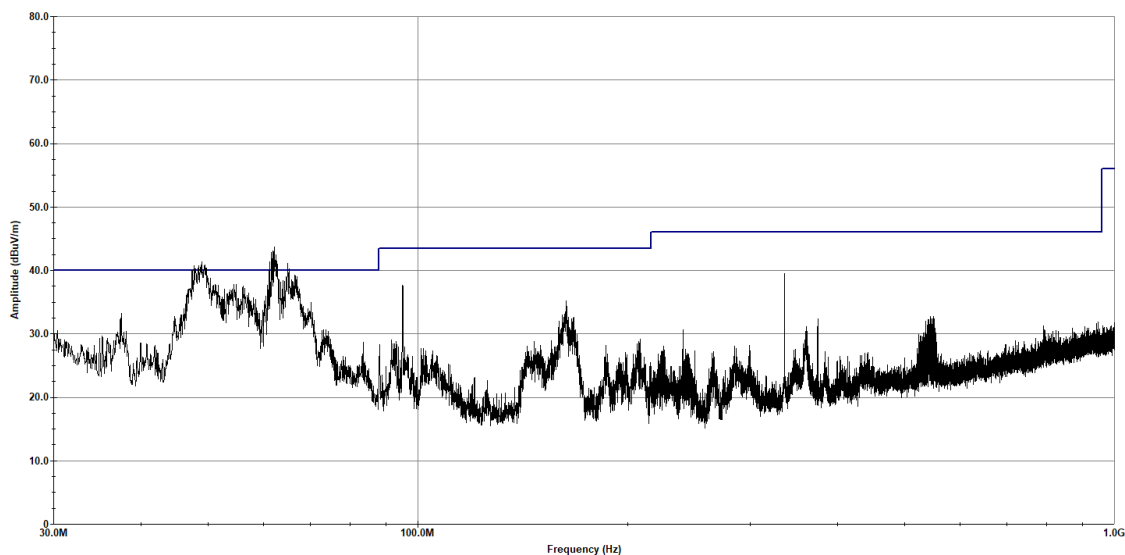
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 03:20:52 PM, Tuesday, March 21, 2023

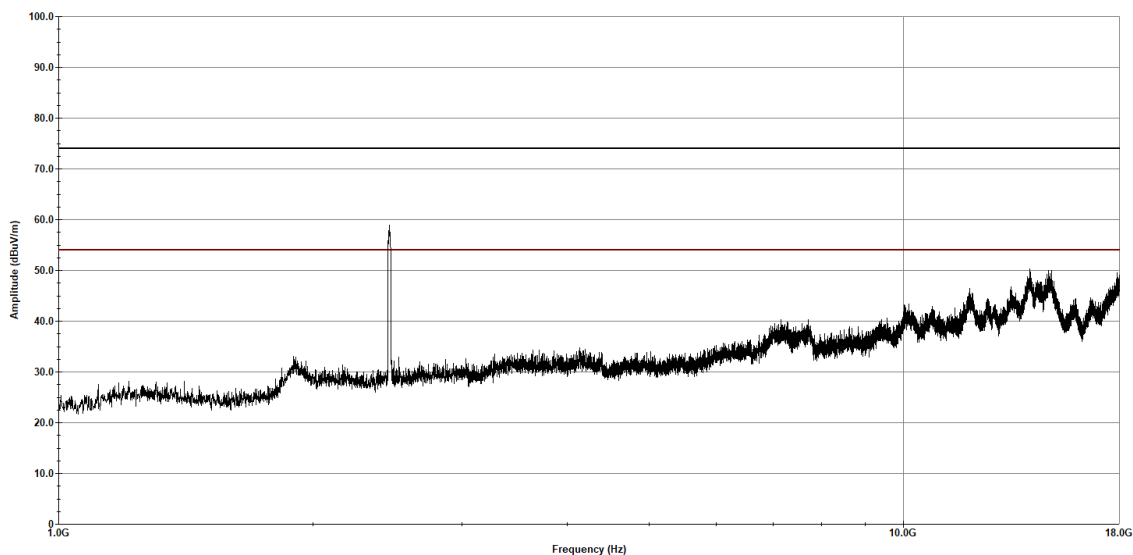
**Figure 133: Cabinet Radiated Spurious Emissions, 80211n 20BW 2437MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 01:11:59 PM, Wednesday, March 22, 2023

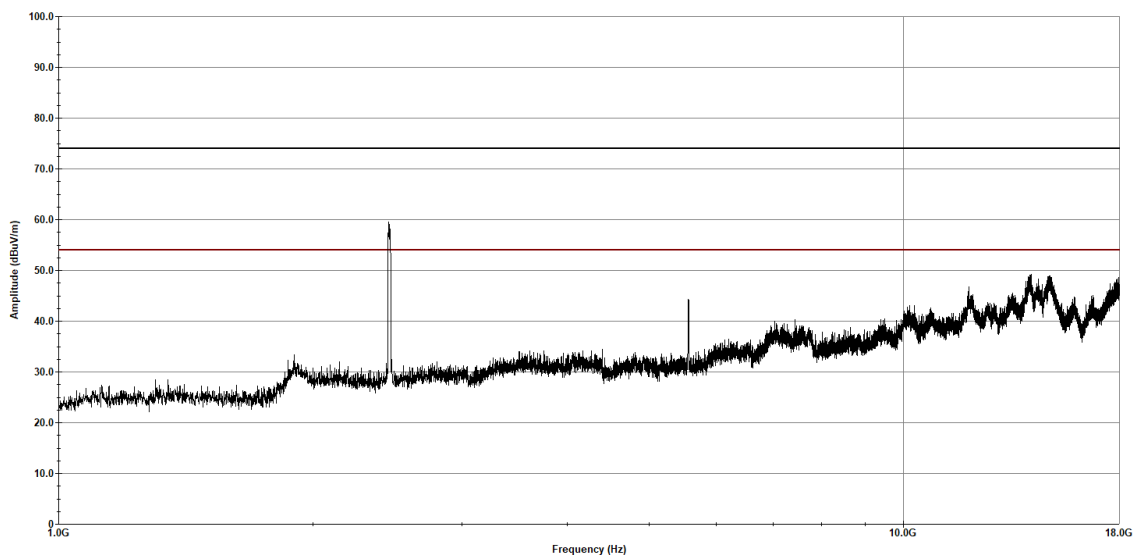
**Figure 134: Cabinet Radiated Spurious Emissions, 80211n 20BW 2462MHz, 1-18 GHz - H.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 01:19:23 PM, Wednesday, March 22, 2023

**Figure 135: Cabinet Radiated Spurious Emissions, 80211n 20BW 2462MHz, 1-18 GHz - V.png**

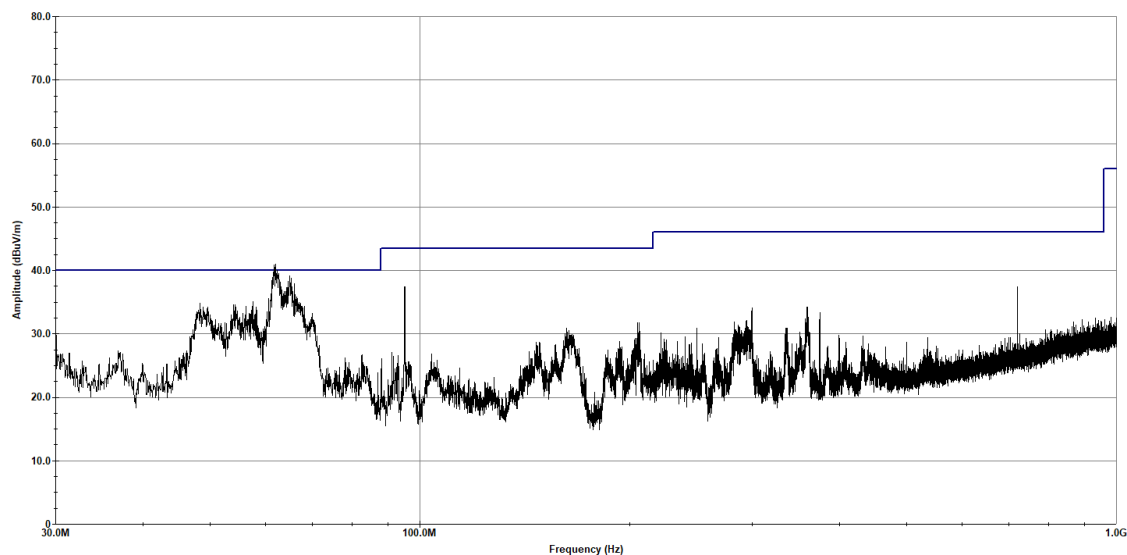
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 03:38:14 PM, Tuesday, March 21, 2023

**Figure 136: Cabinet Radiated Spurious Emissions, 80211n 20BW 2462MHz, 30 MHz to 1 GHz - H.png**



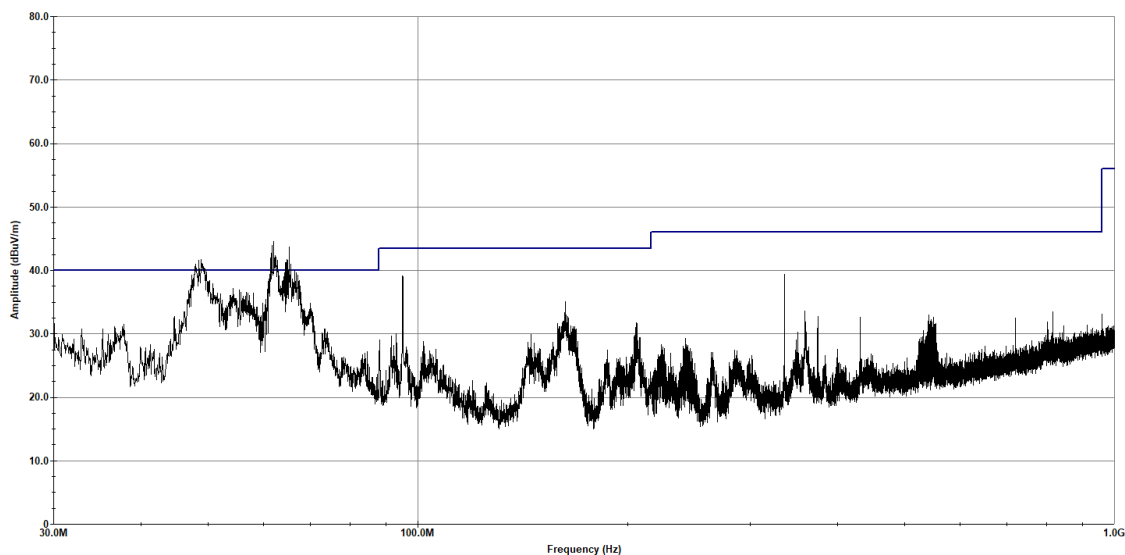
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT20  
Frequency - 2462 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 03:44:02 PM, Tuesday, March 21, 2023

**Figure 137: Cabinet Radiated Spurious Emissions, 80211n 20BW 2462MHz, 30 MHz to 1 GHz - V.png**

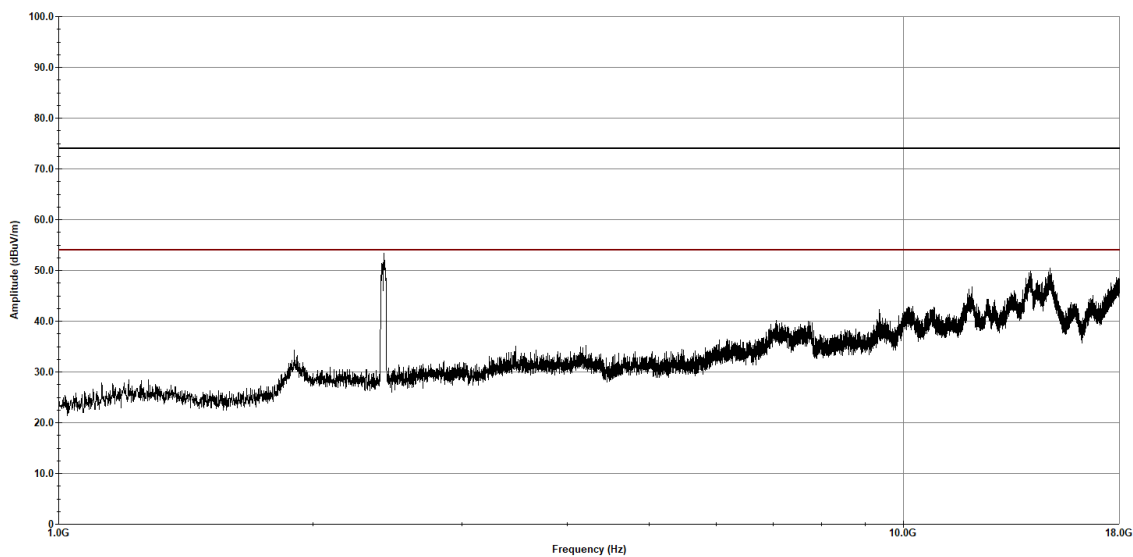
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2422 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 02:17:14 PM, Wednesday, March 22, 2023

**Figure 138: Cabinet Radiated Spurious Emissions, 80211n 40BW 2422MHz, 1-18 GHz - H.png**

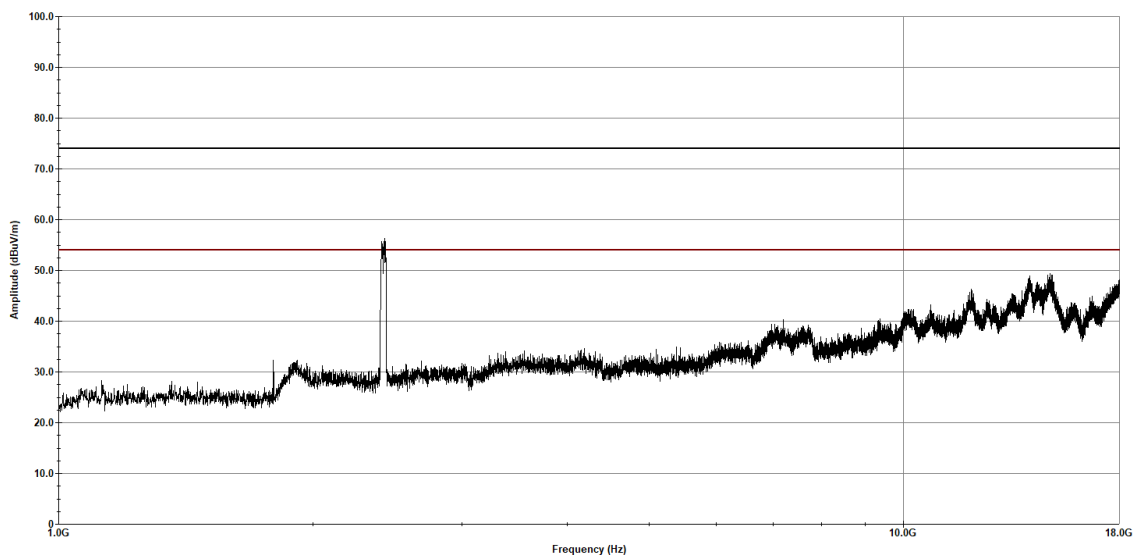
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2422 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 02:10:33 PM, Wednesday, March 22, 2023

**Figure 139: Cabinet Radiated Spurious Emissions, 80211n 40BW 2422MHz, 1-18 GHz - V.png**

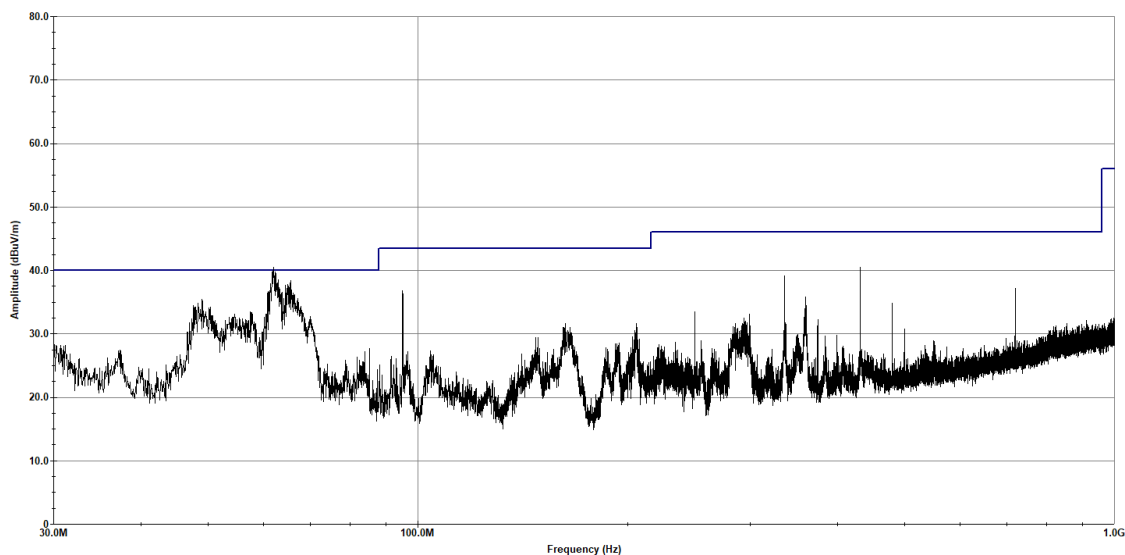
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2422 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 04:20:04 PM, Tuesday, March 21, 2023

**Figure 140: Cabinet Radiated Spurious Emissions, 80211n 40BW 2422MHz, 30 MHz to 1 GHz - H.png**

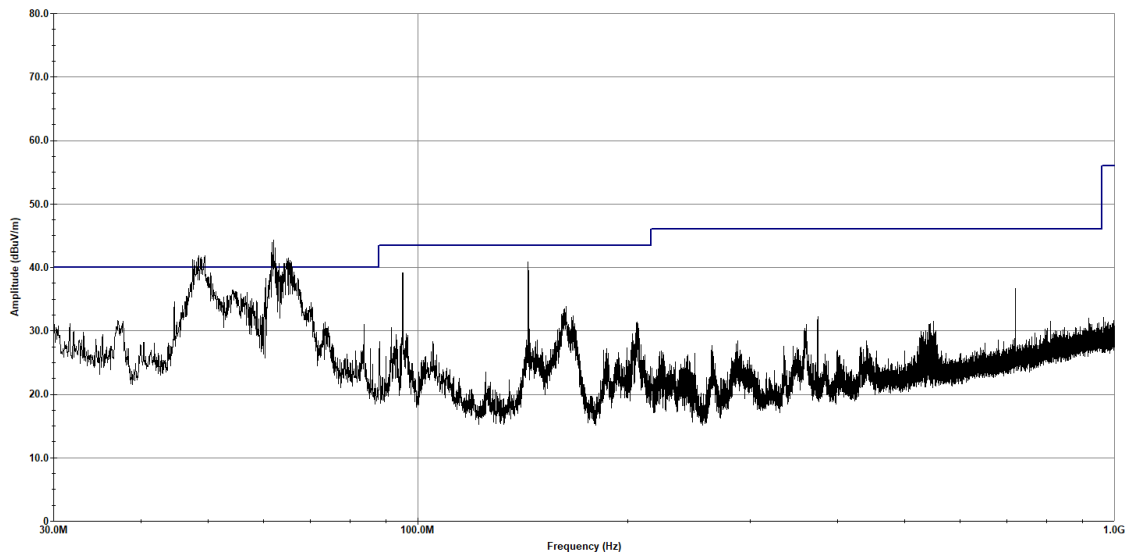
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2422 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 04:25:39 PM, Tuesday, March 21, 2023

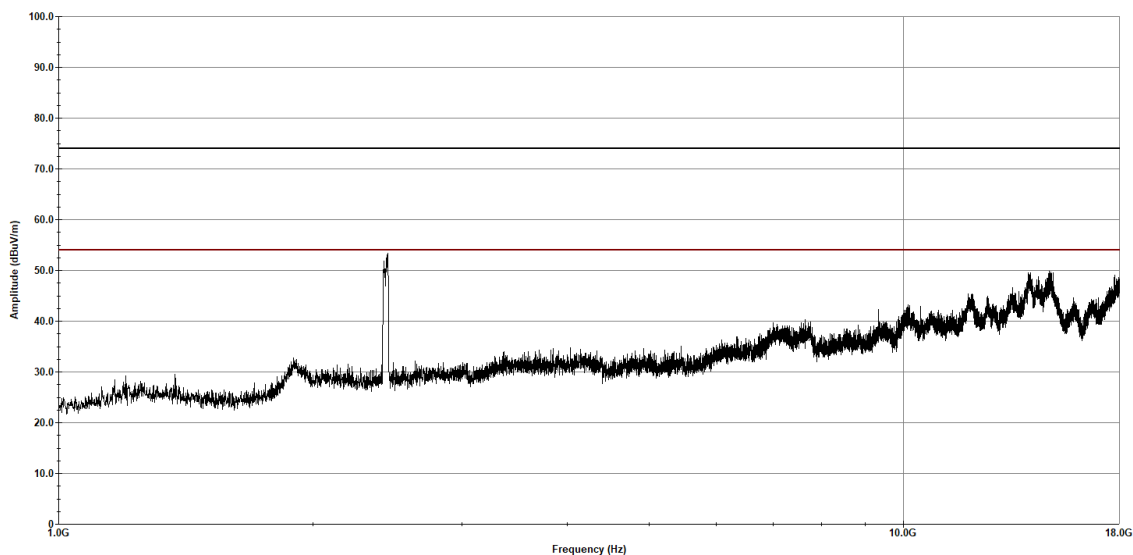
**Figure 141: Cabinet Radiated Spurious Emissions, 80211n 40BW 2422MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 01:52:46 PM, Wednesday, March 22, 2023

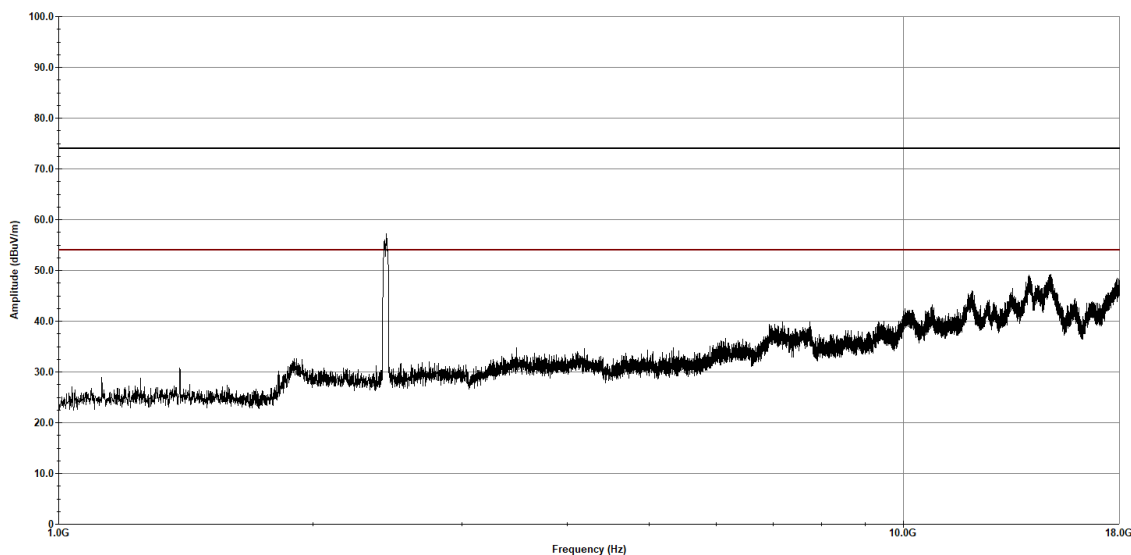
**Figure 142: Cabinet Radiated Spurious Emissions, 80211n 40BW 2437MHz, 1-18 GHz - H.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 01:59:23 PM, Wednesday, March 22, 2023

**Figure 143: Cabinet Radiated Spurious Emissions, 80211n 40BW 2437MHz, 1-18 GHz - V.png**

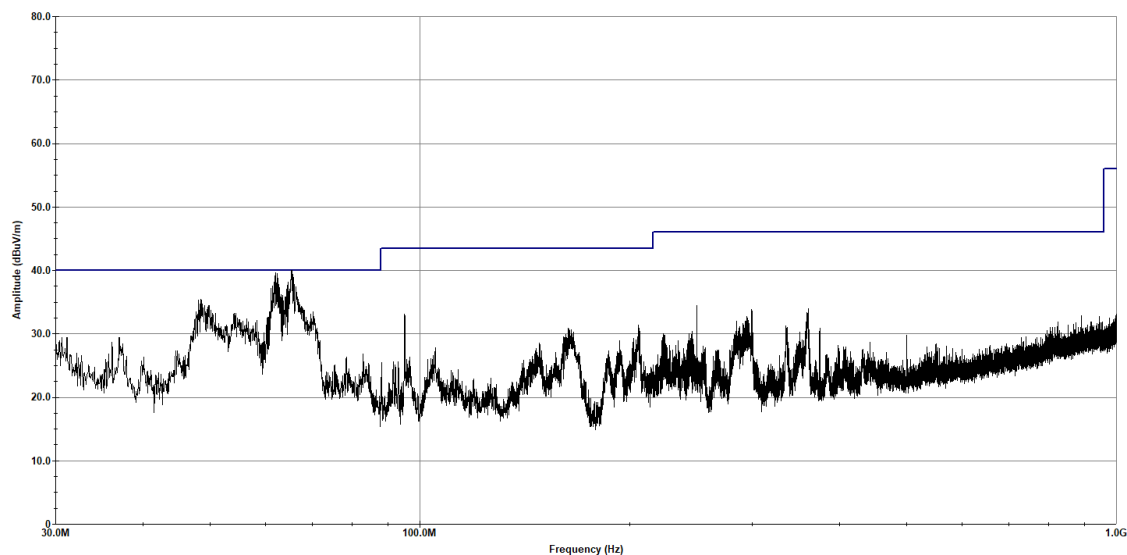
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 04:11:05 PM, Tuesday, March 21, 2023

**Figure 144: Cabinet Radiated Spurious Emissions, 80211n 40BW 2437MHz, 30 MHz to 1 GHz - H.png**



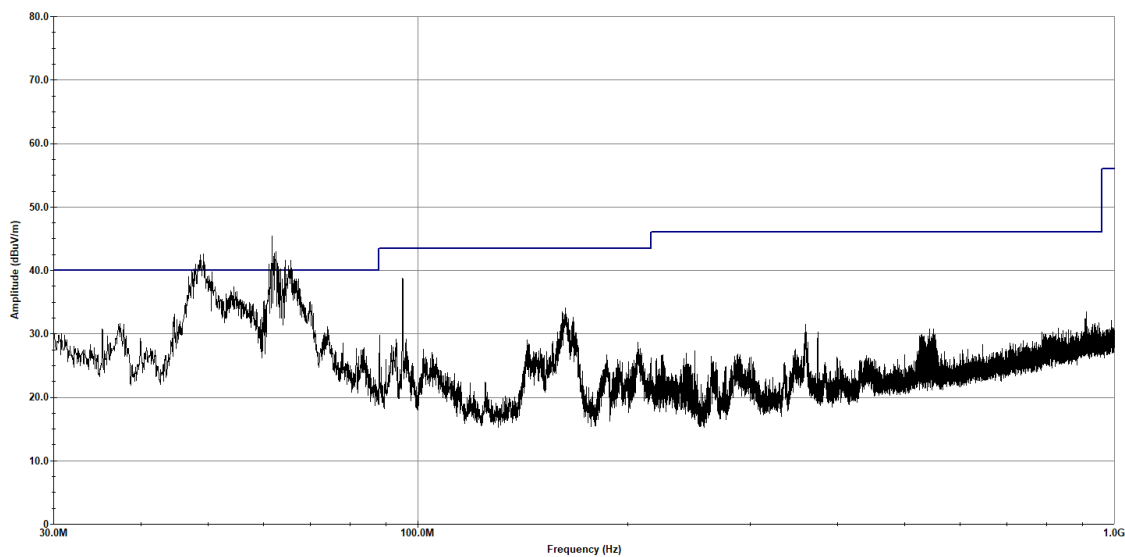
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2437 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 04:04:38 PM, Tuesday, March 21, 2023

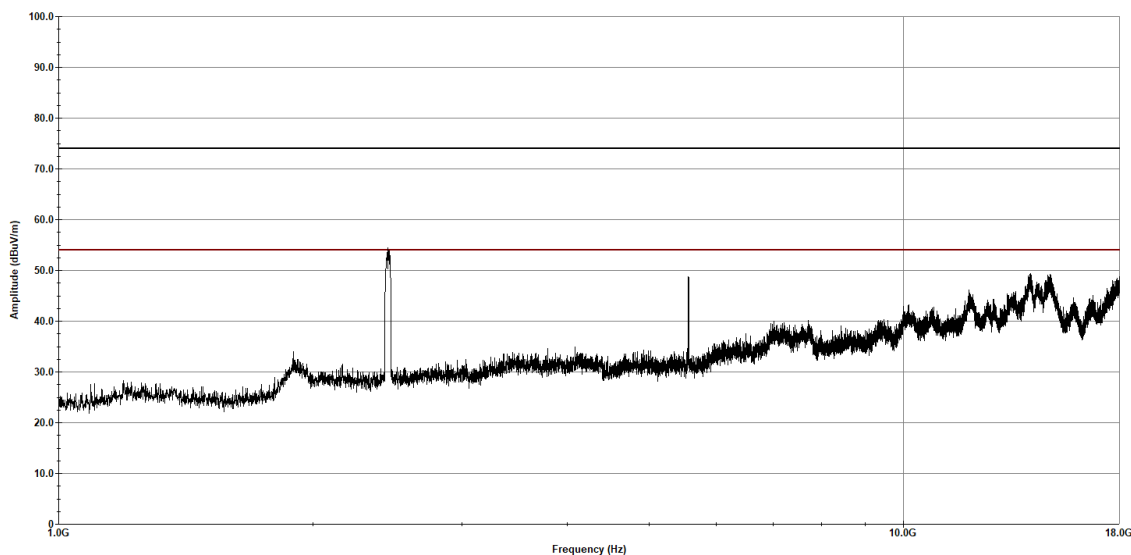
**Figure 145: Cabinet Radiated Spurious Emissions, 80211n 40BW 2437MHz, 30 MHz to 1 GHz - V.png**

Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2452 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions  
Horizontal Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 01:27:51 PM, Wednesday, March 22, 2023

**Figure 146: Cabinet Radiated Spurious Emissions, 80211n 40BW 2452MHz, 1-18 GHz - H.png**

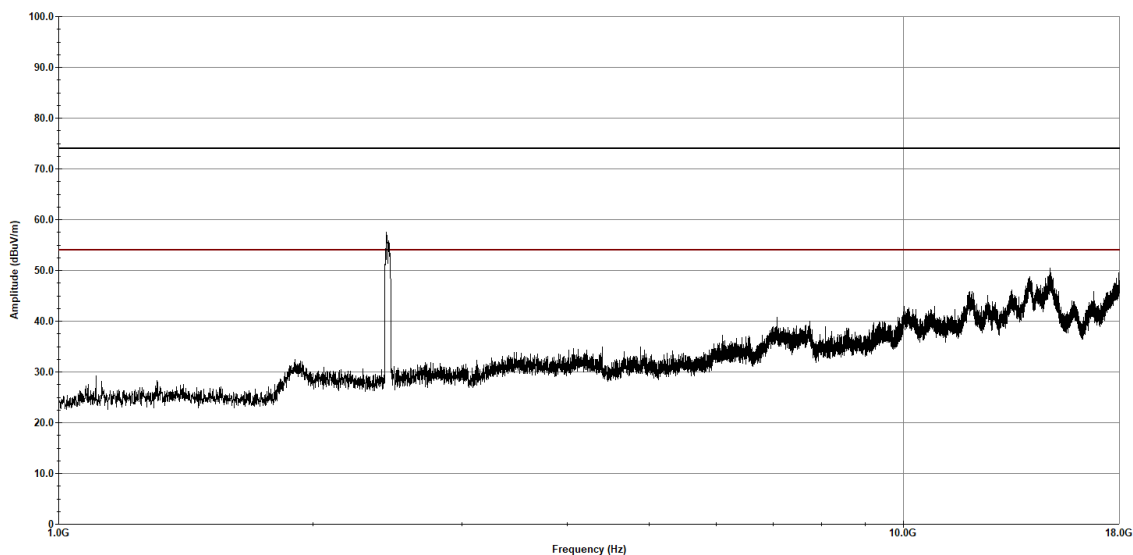
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2452 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Peak  
— Test Limit - Average  
— Measured - Peak  
× Measured - Average



Operator: Donald Salguero

Last Data Update 01:34:53 PM, Wednesday, March 22, 2023

**Figure 147: Cabinet Radiated Spurious Emissions, 80211n 40BW 2452MHz, 1-18 GHz - V.png**

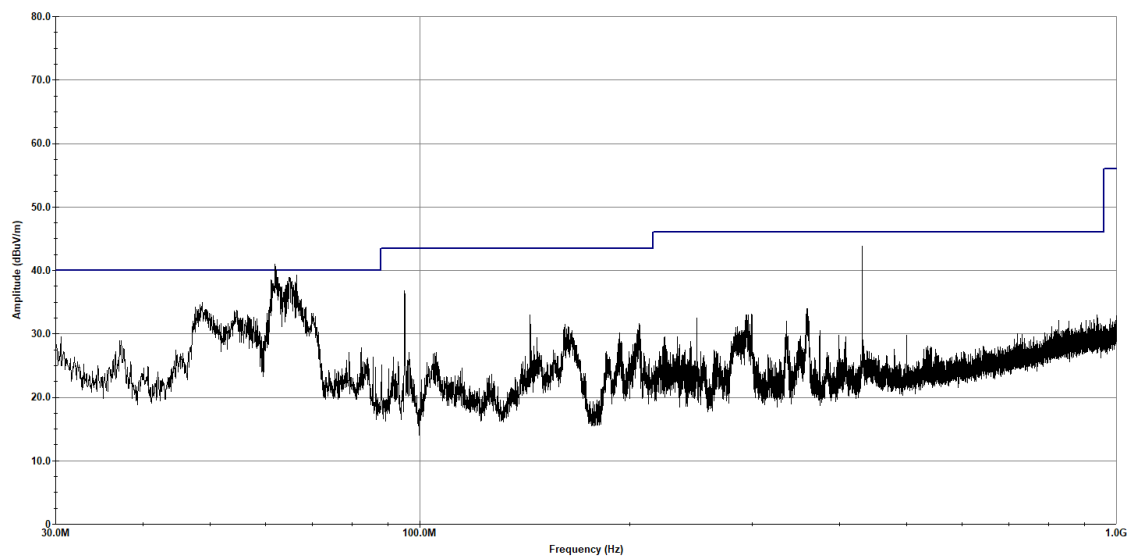
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2452 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Horizontal Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak



Operator: Donald Salguero

Last Data Update 03:51:40 PM, Tuesday, March 21, 2023

**Figure 148: Cabinet Radiated Spurious Emissions, 80211n 40BW 2452MHz, 30 MHz to 1 GHz - H.png**

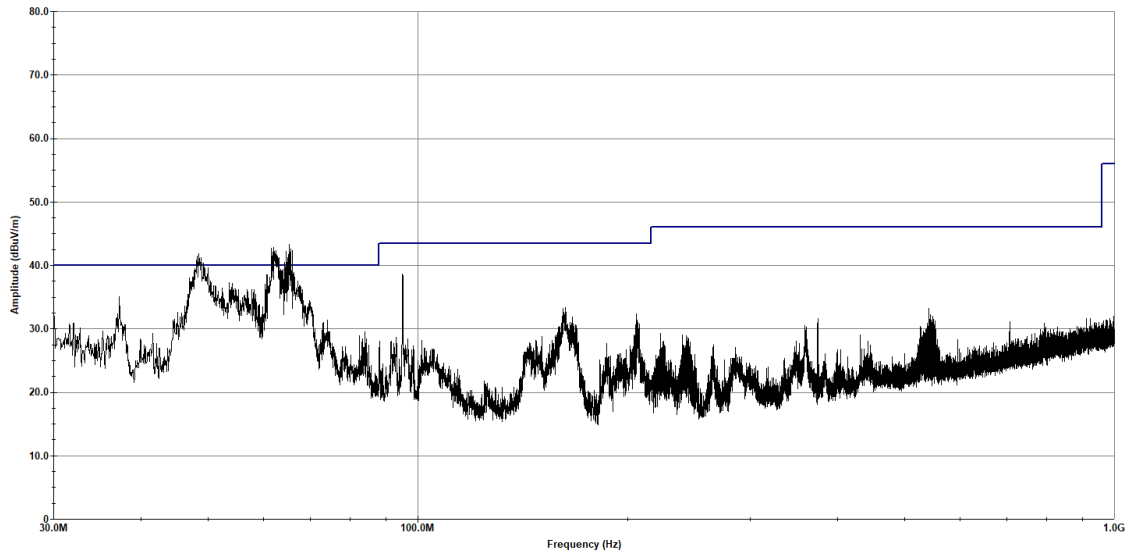
Customer - Lumin  
Job Number - 125040  
EUT Name - Lumin Smart Panel  
Mode - 802.11n HT40  
Frequency - 2452 MHz

Eurofins Electrical and Electronic Testing NA, Inc.

Radiated Emissions

Vertical Polarization

— Test Limit - Quasi-Peak  
— Measured - Peak  
× Measured - Quasi-Peak



Operator: Donald Salguero

Last Data Update 03:57:21 PM, Tuesday, March 21, 2023

**Figure 149: Cabinet Radiated Spurious Emissions, 80211n 40BW 2452MHz, 30 MHz to 1 GHz - V.png**

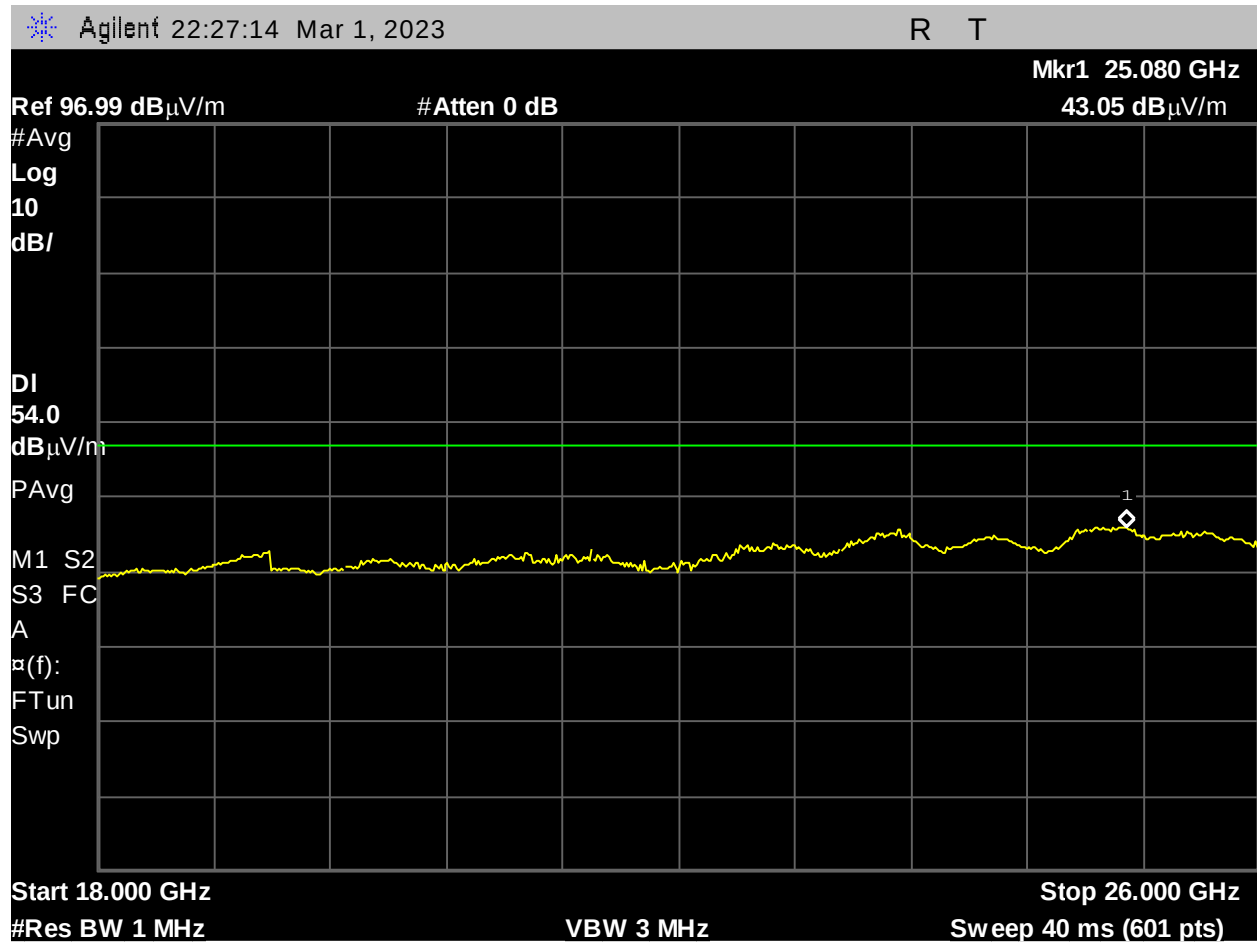


Figure 150: AVG cabinet Radiated Spurious Emissions, 80211b 2412MHz, 18-26 GHz

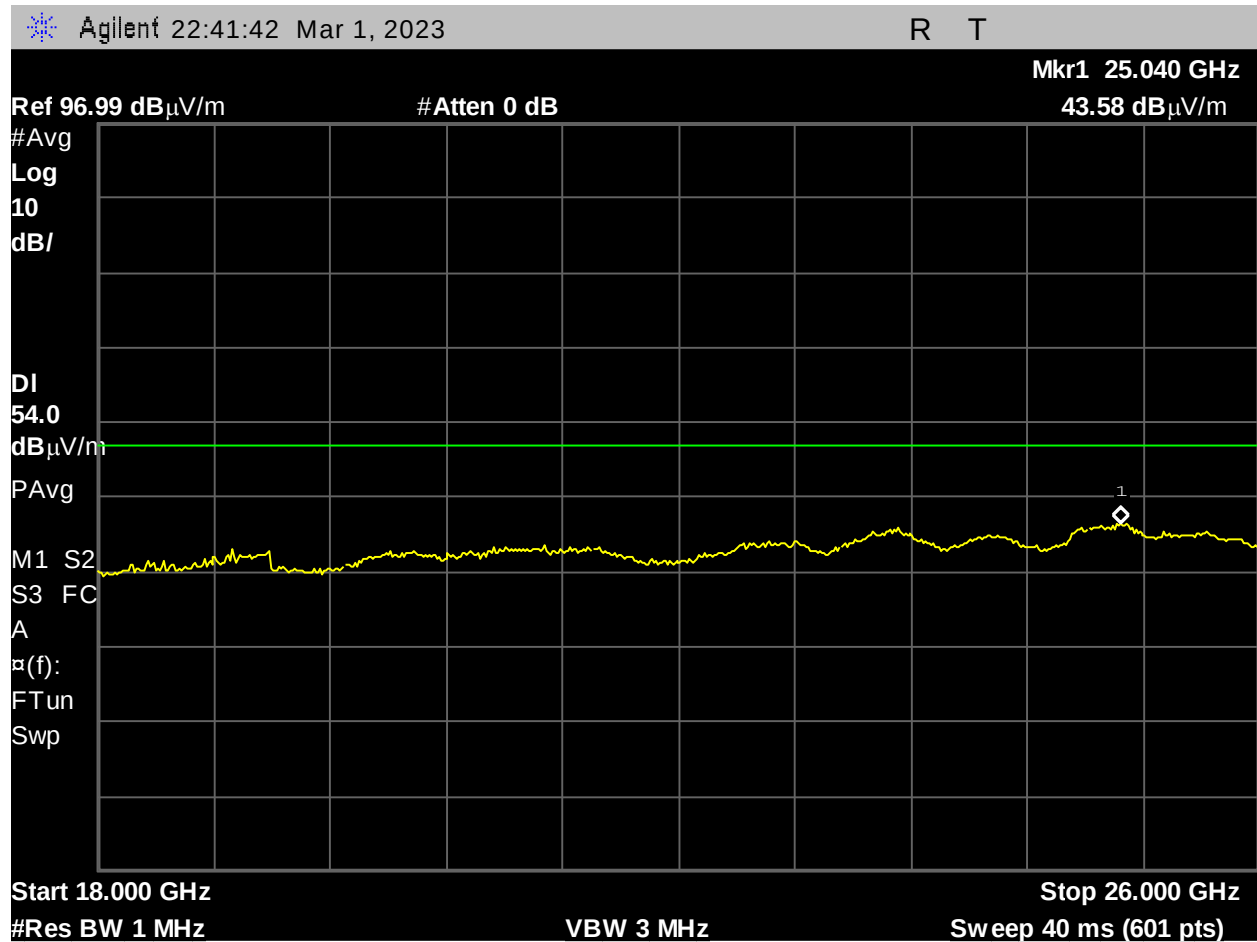


Figure 151: AVG cabinet Radiated Spurious Emissions, 80211b 2437MHz, 18-26 GHz

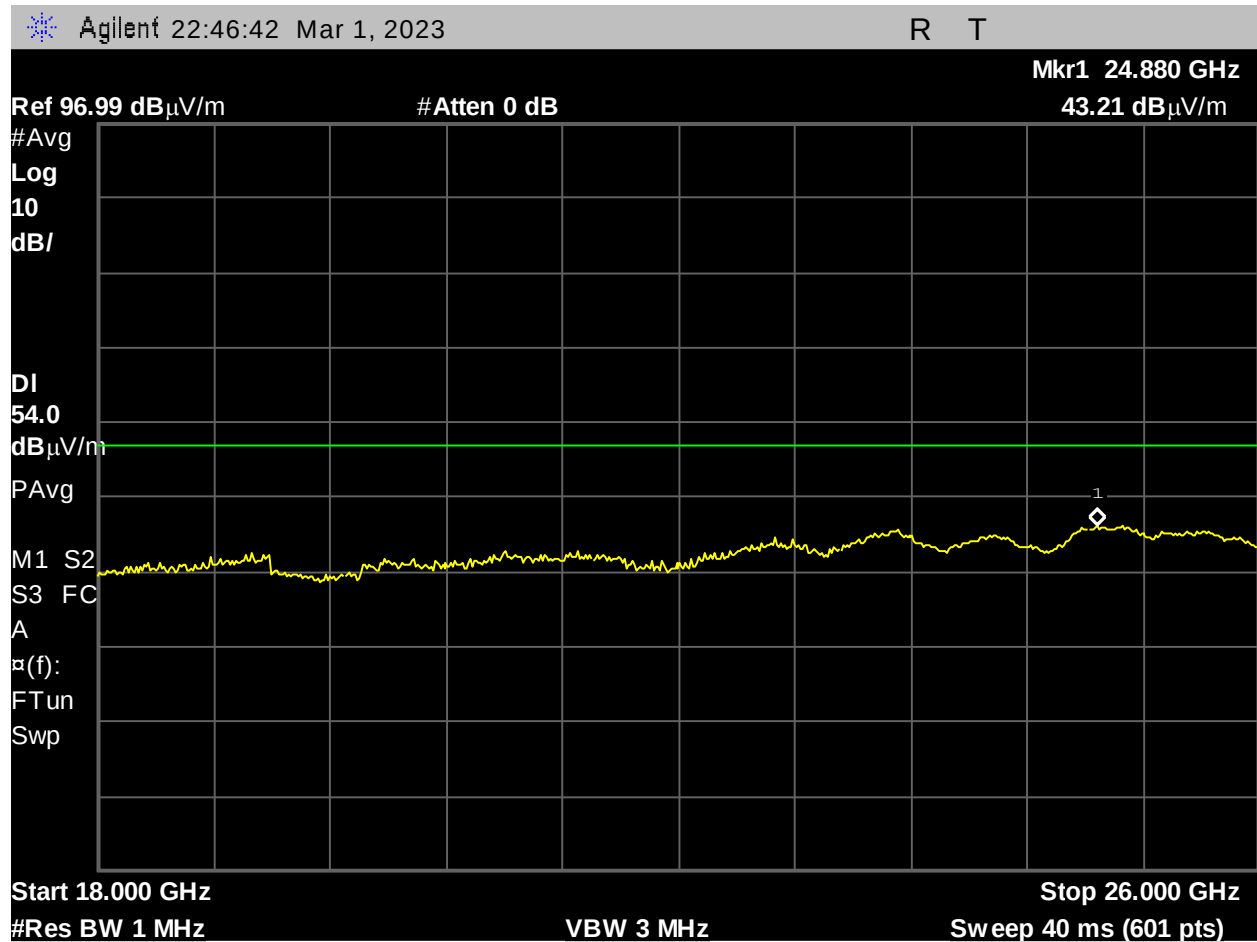


Figure 152: AVG cabinet Radiated Spurious Emissions, 80211b 2462MHz, 18-26 GHz



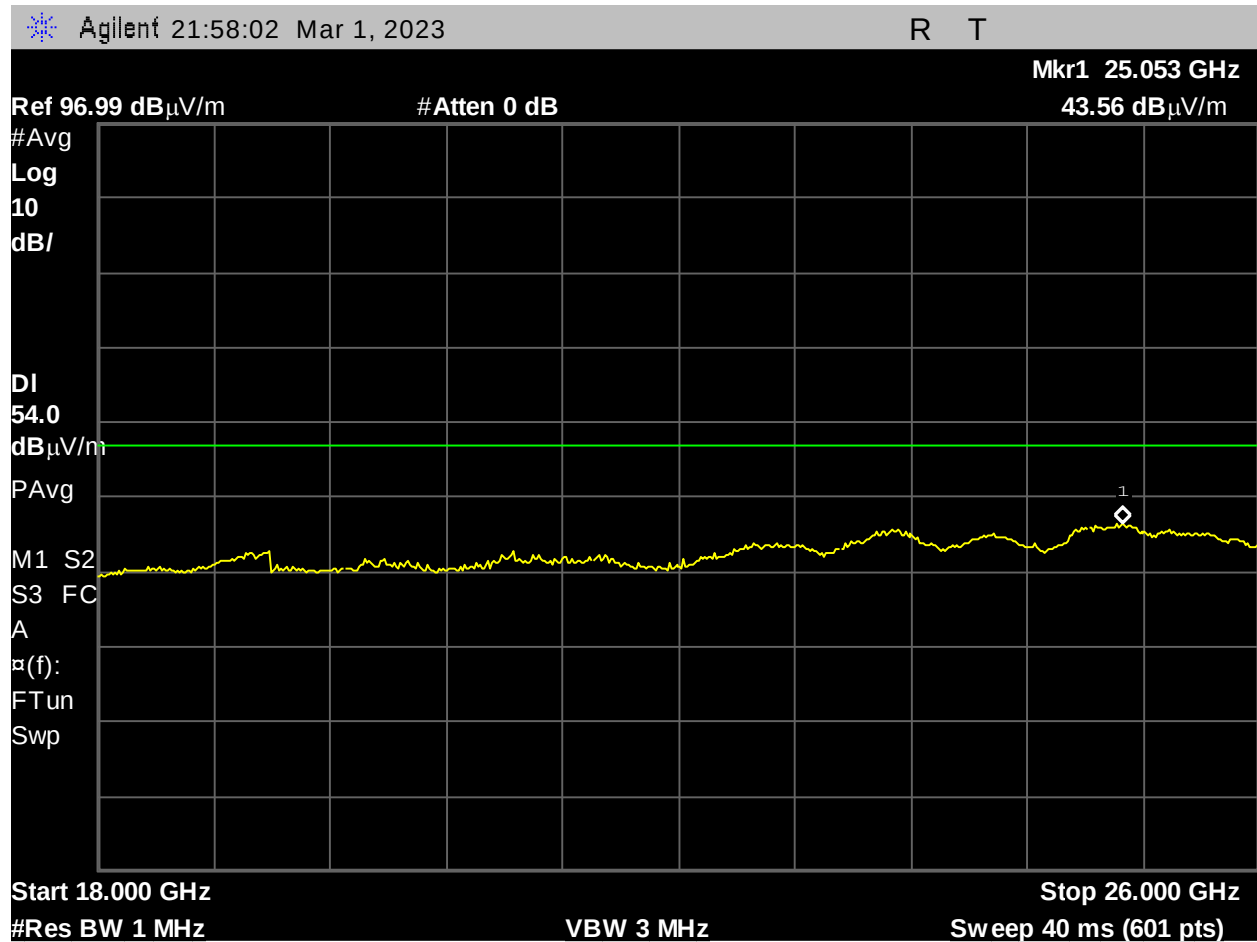


Figure 153: AVG cabinet Radiated Spurious Emissions, 80211g 2412MHz, 18-26 GHz

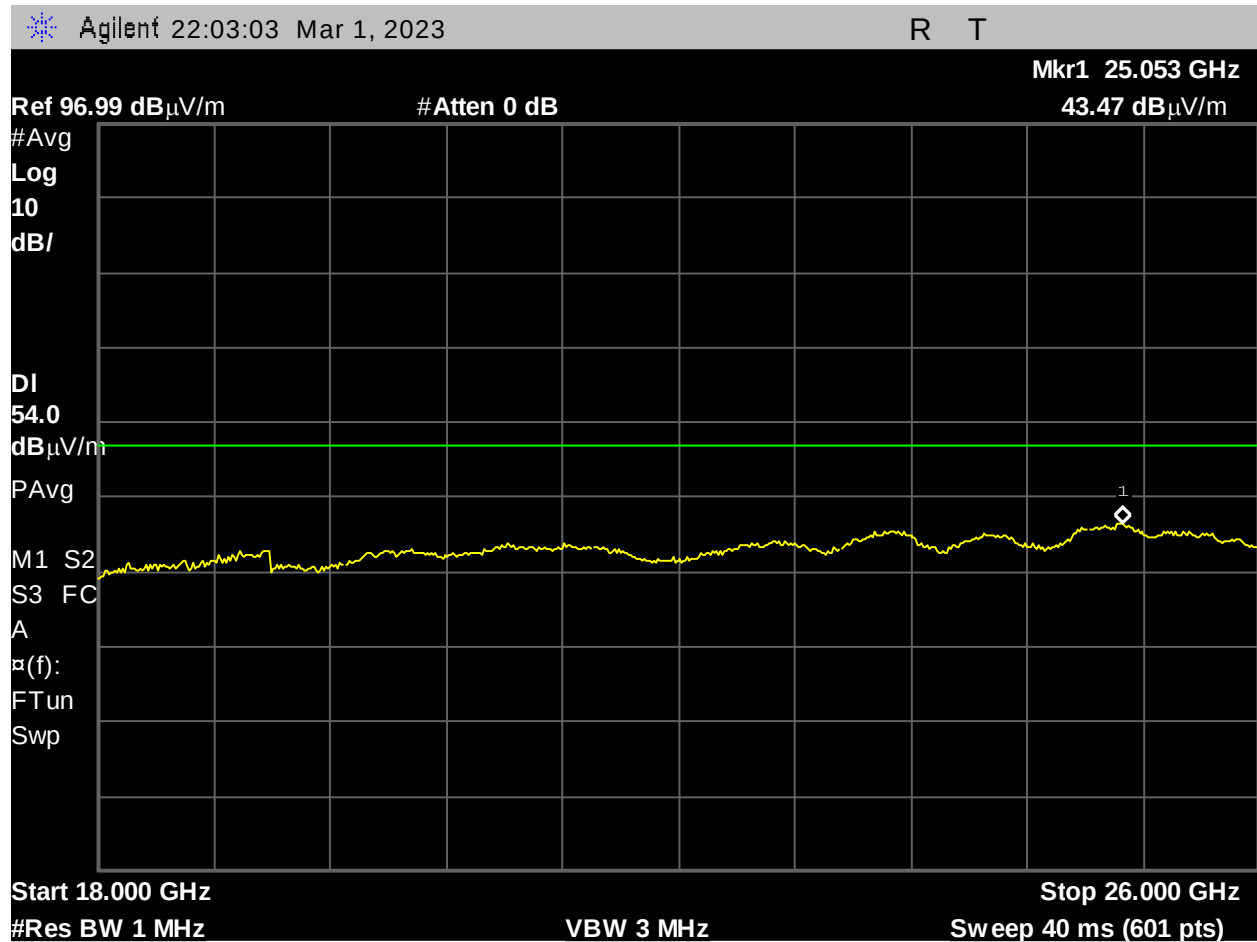


Figure 154: AVG cabinet Radiated Spurious Emissions, 80211g 2437MHz, 18-26 GHz

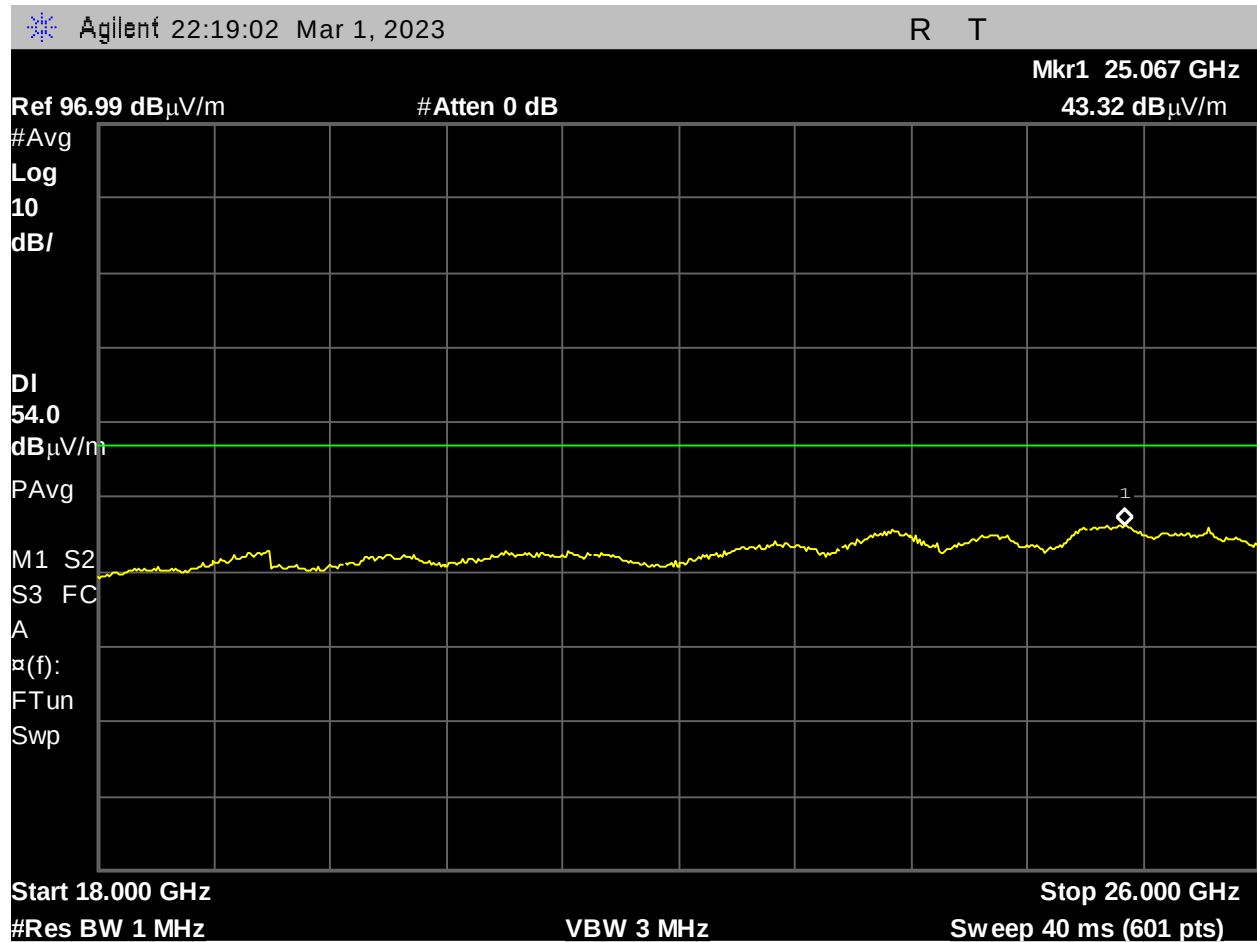


Figure 155: AVG cabinet Radiated Spurious Emissions, 80211g 2462MHz, 18-26 GHz

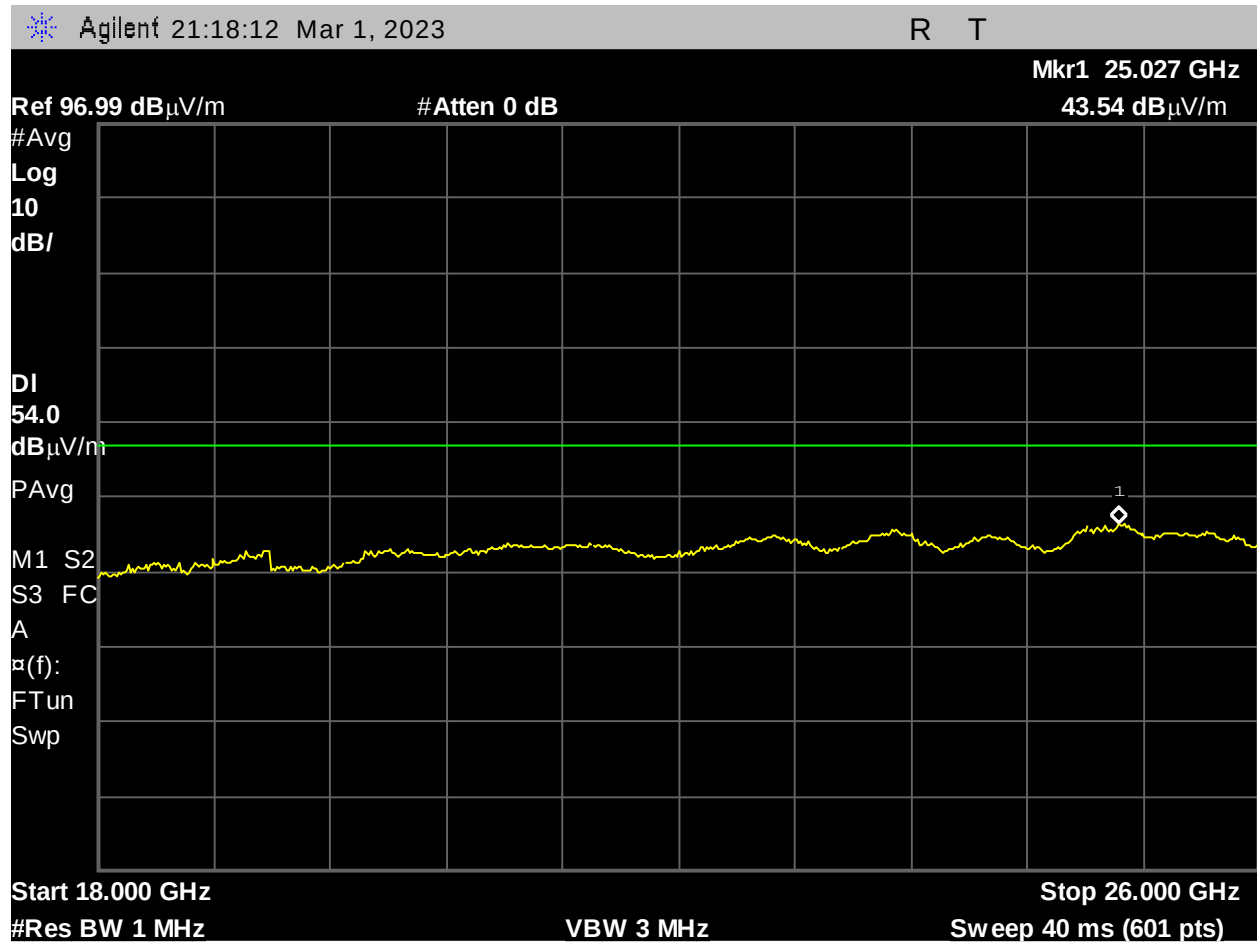


Figure 156: AVG cabinet Radiated Spurious Emissions, 80211n 20BW 2412MHz, 18-26 GHz

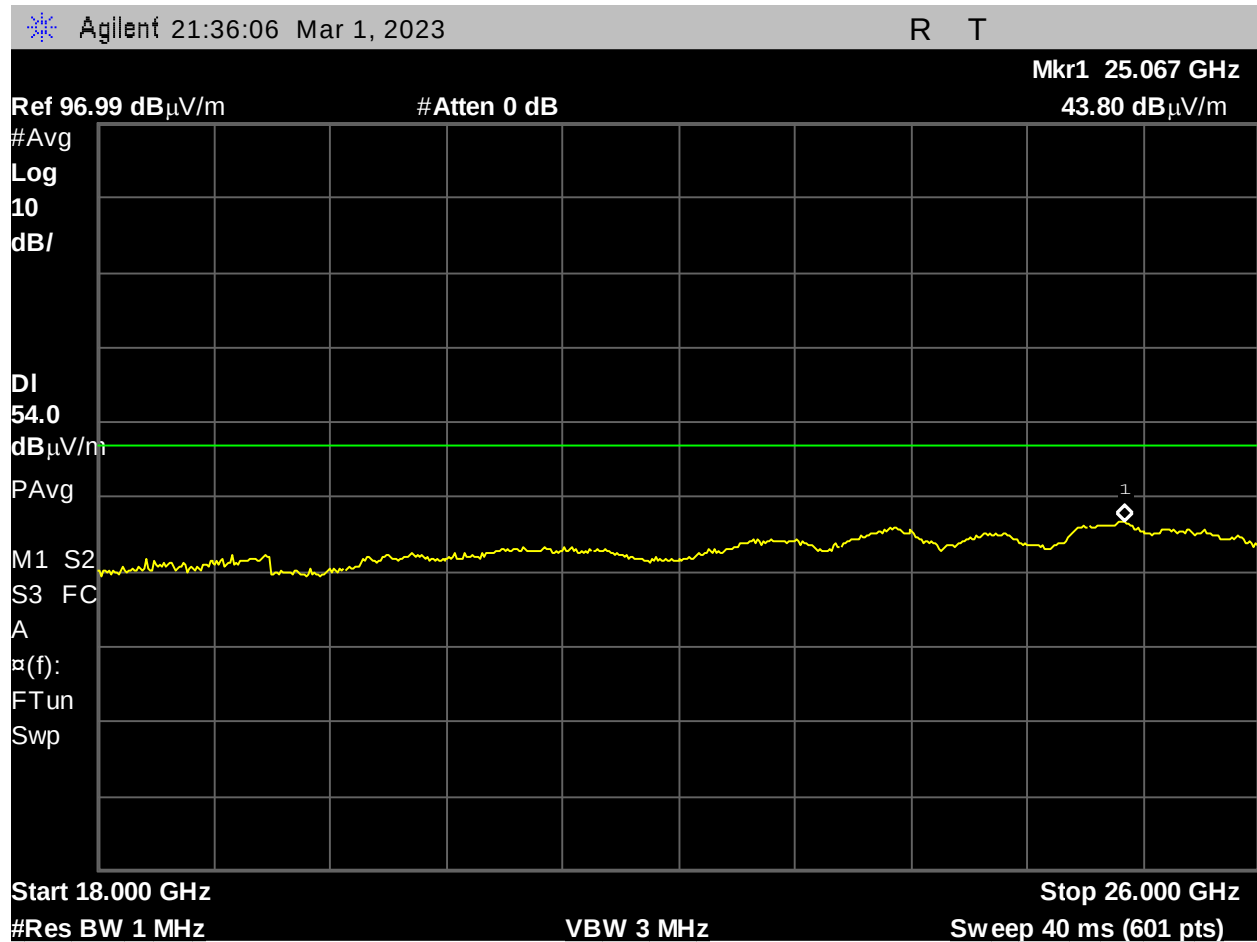


Figure 157: AVG cabinet Radiated Spurious Emissions, 80211n 20BW 2437MHz, 18-26 GHz

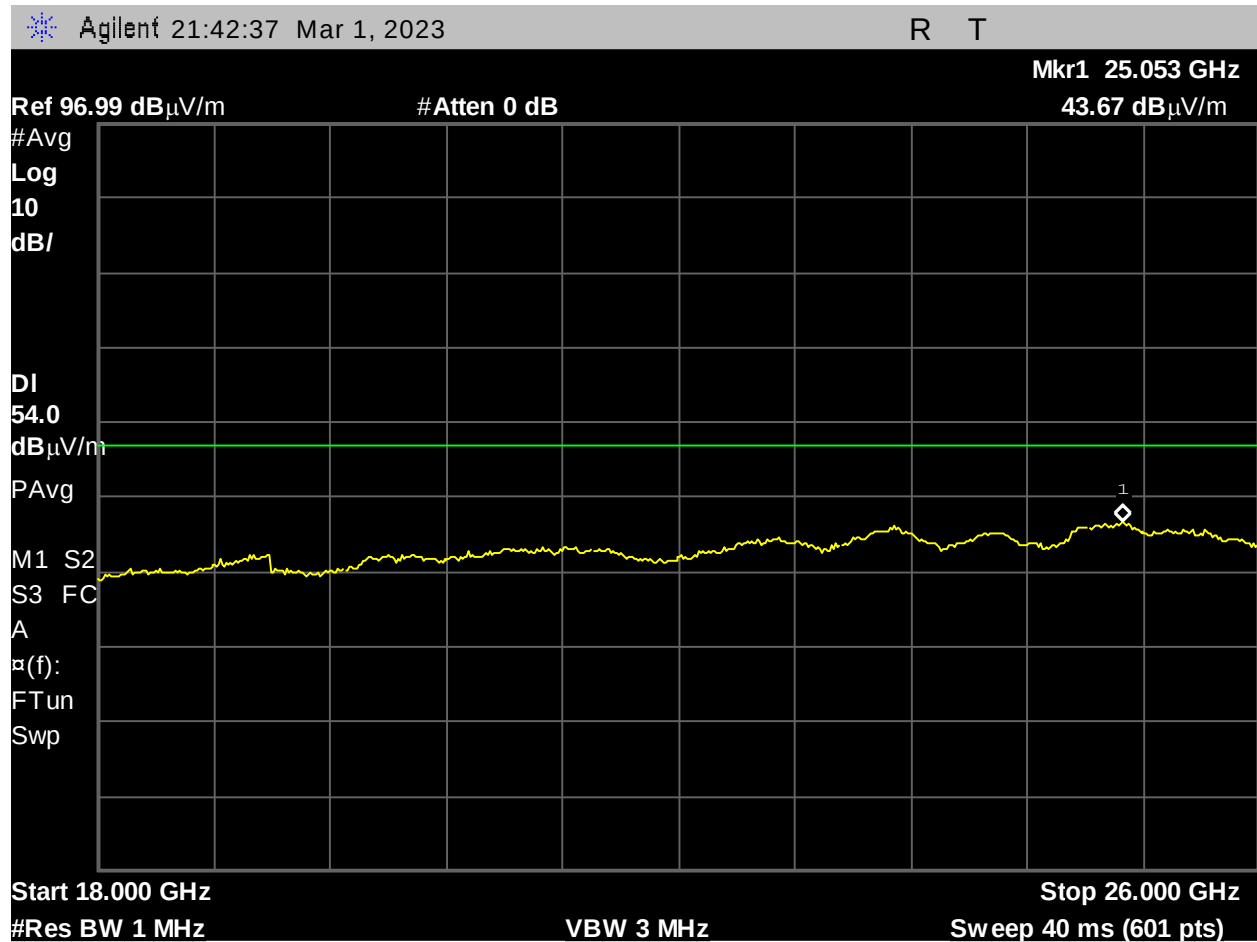


Figure 158: AVG cabinet Radiated Spurious Emissions, 80211n 20BW 2462MHz, 18-26 GHz

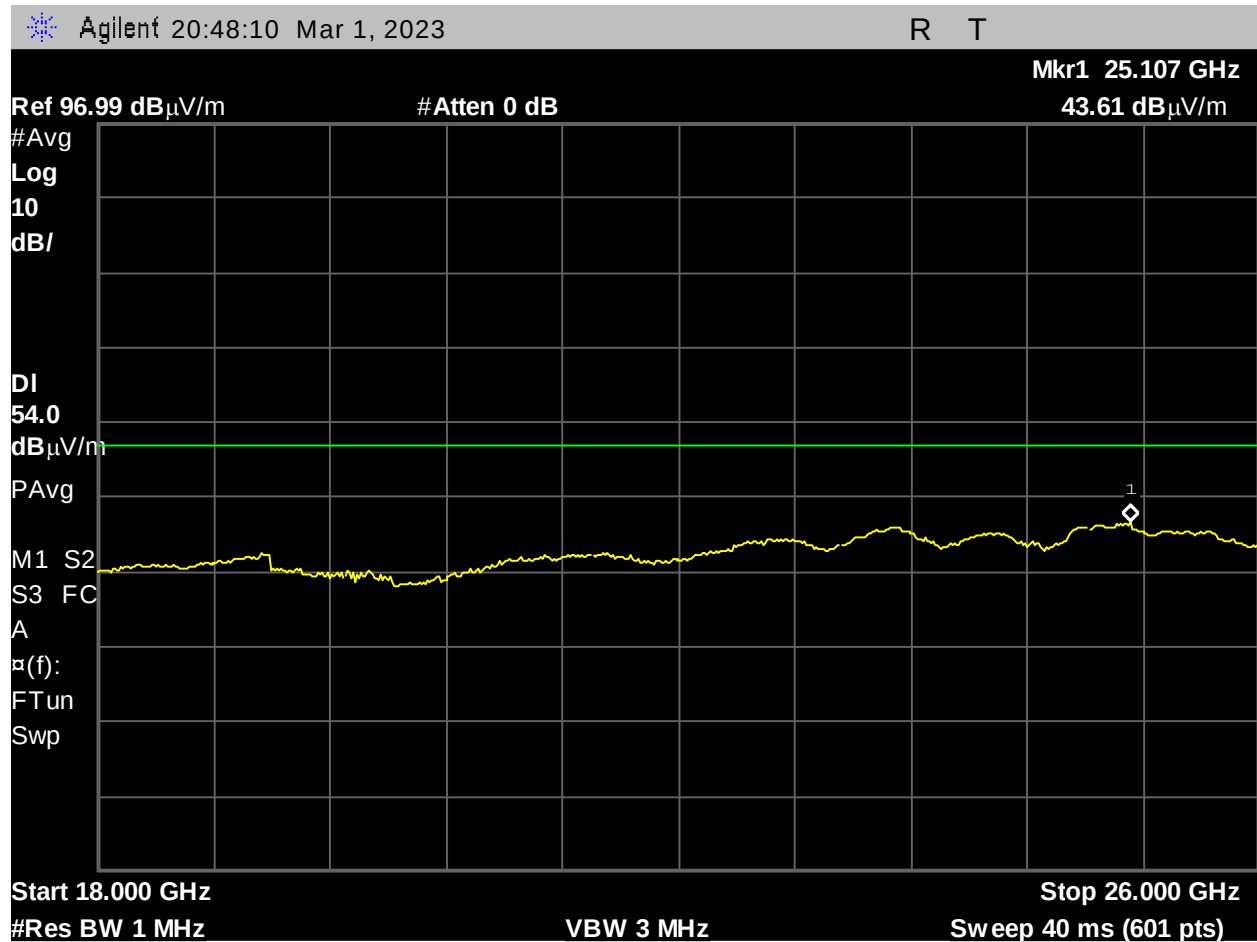


Figure 159: AVG cabinet Radiated Spurious Emissions, 80211n 40BW 2422MHz, 18-26 GHz

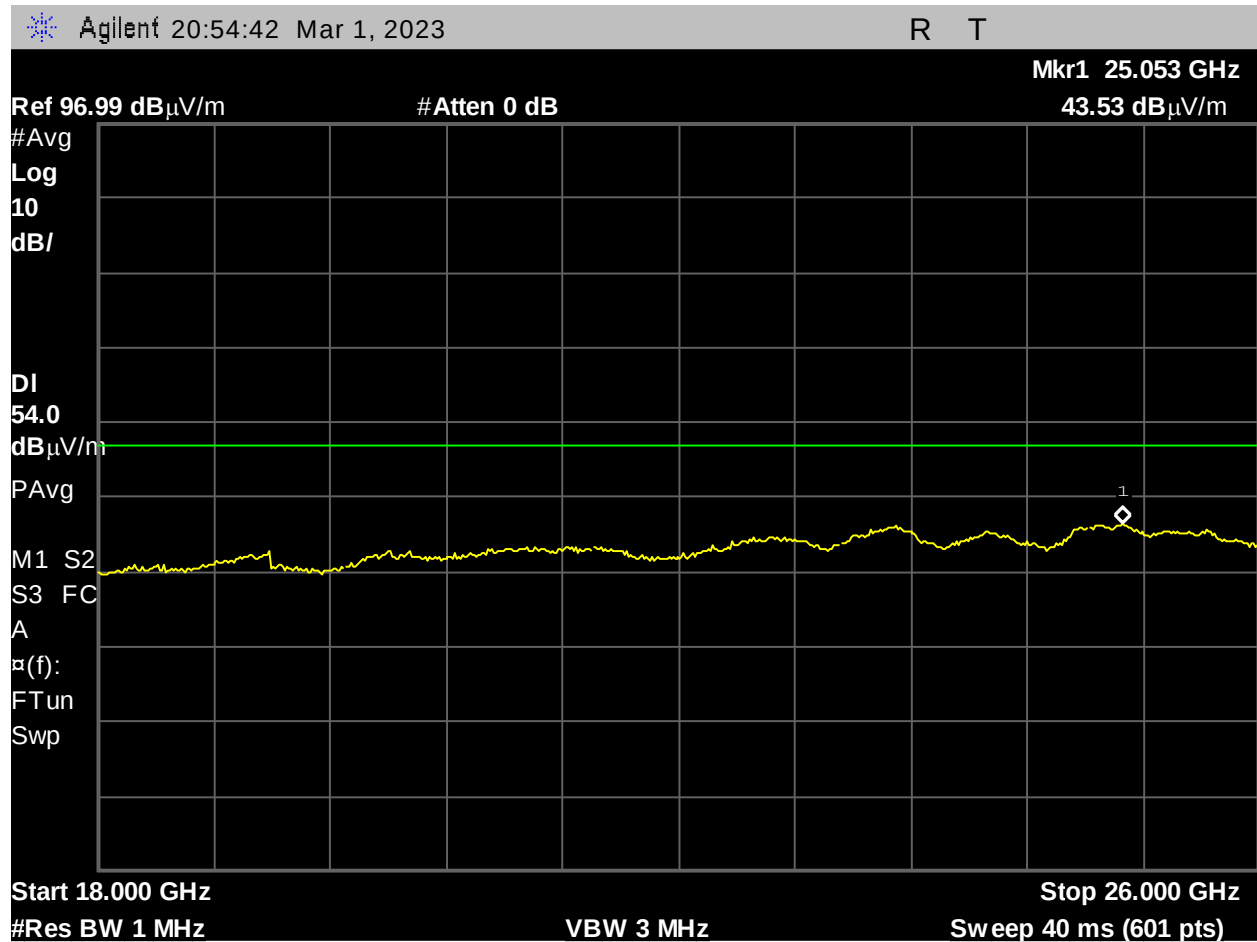


Figure 160: AVG cabinet Radiated Spurious Emissions, 80211n 40BW 2437MHz, 18-26 GHz



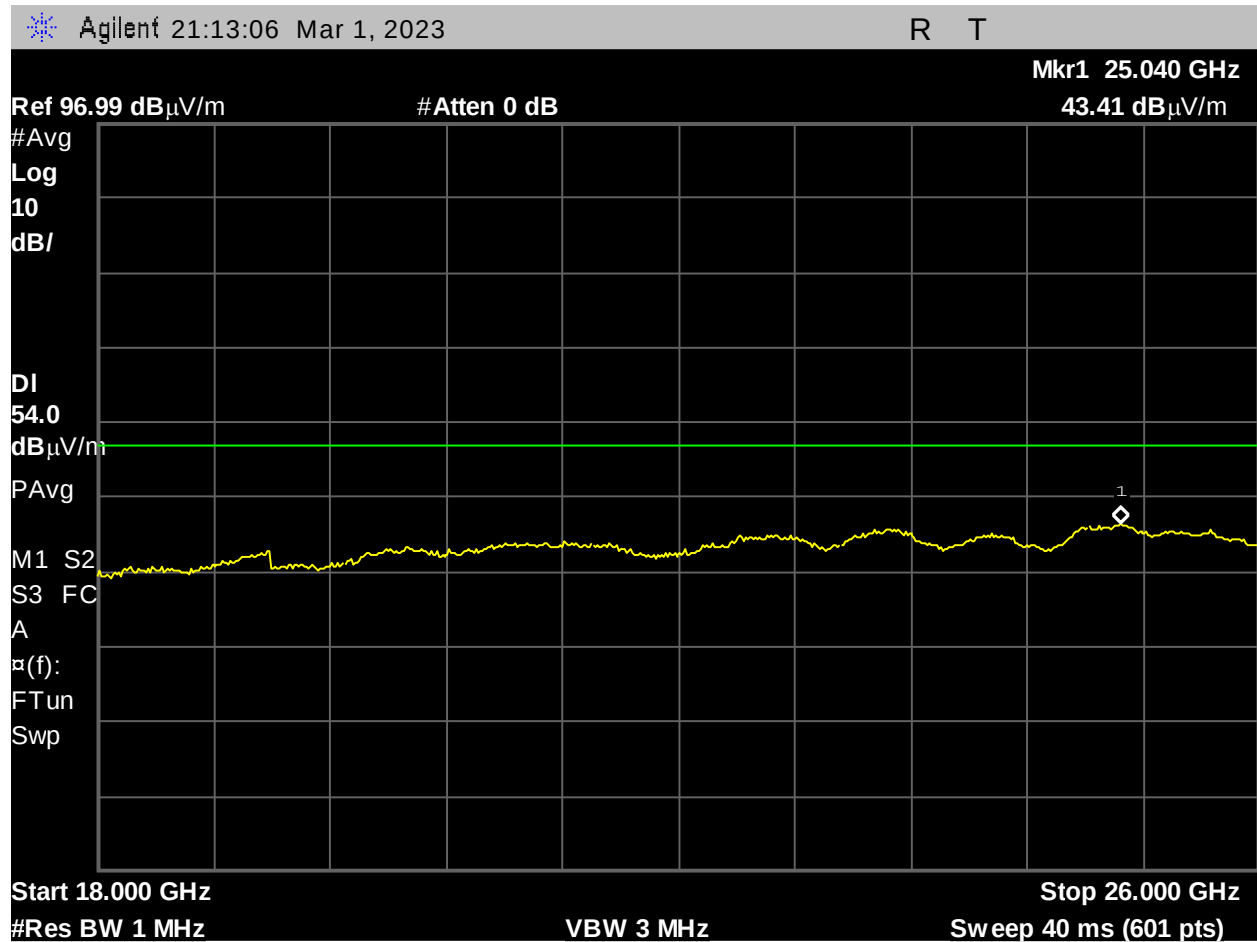


Figure 161: AVG cabinet Radiated Spurious Emissions, 80211n 40BW 2452MHz, 18-26 GHz

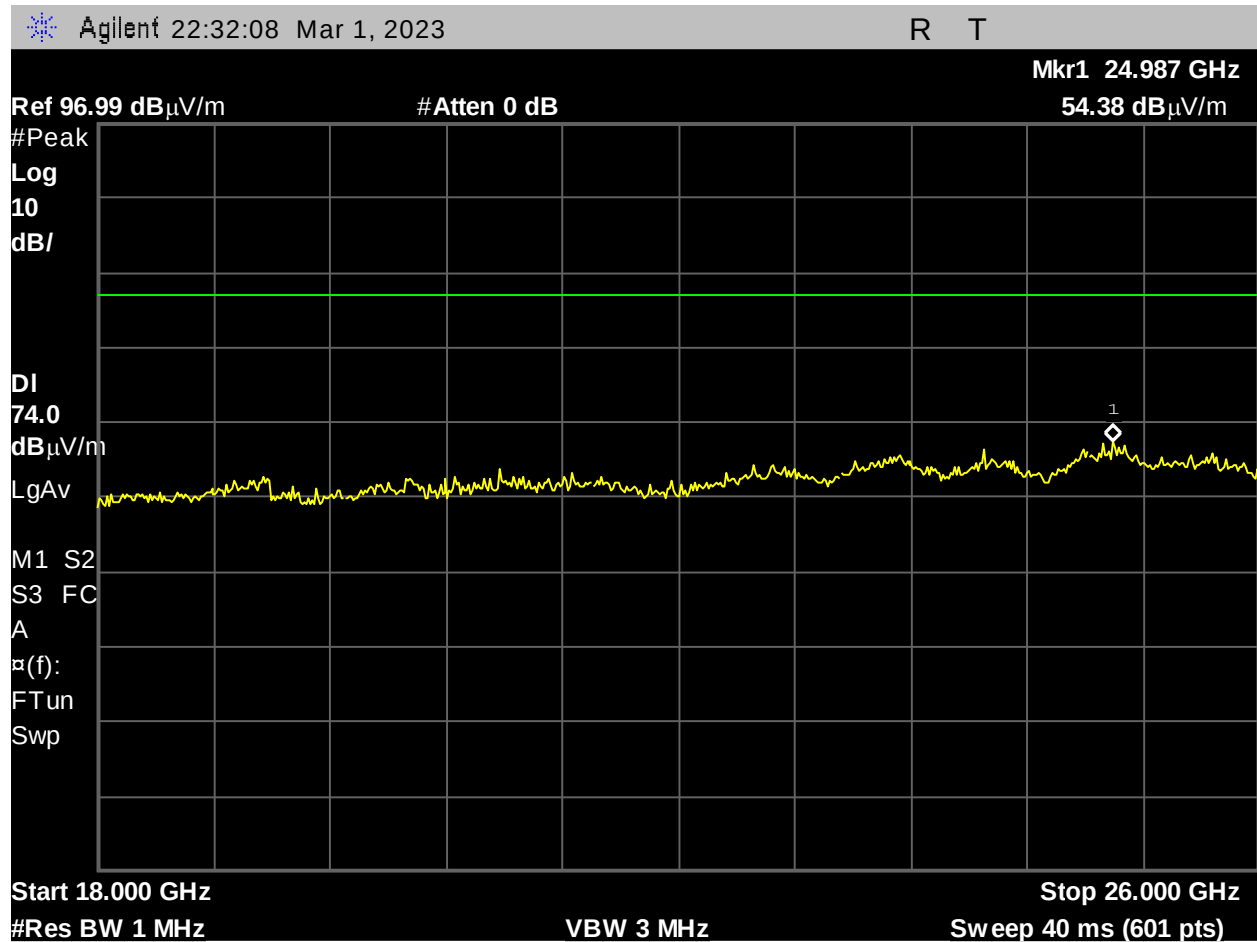


Figure 162: PK cabinet Radiated Spurious Emissions, 80211b 2412MHz, 18-26 GHz

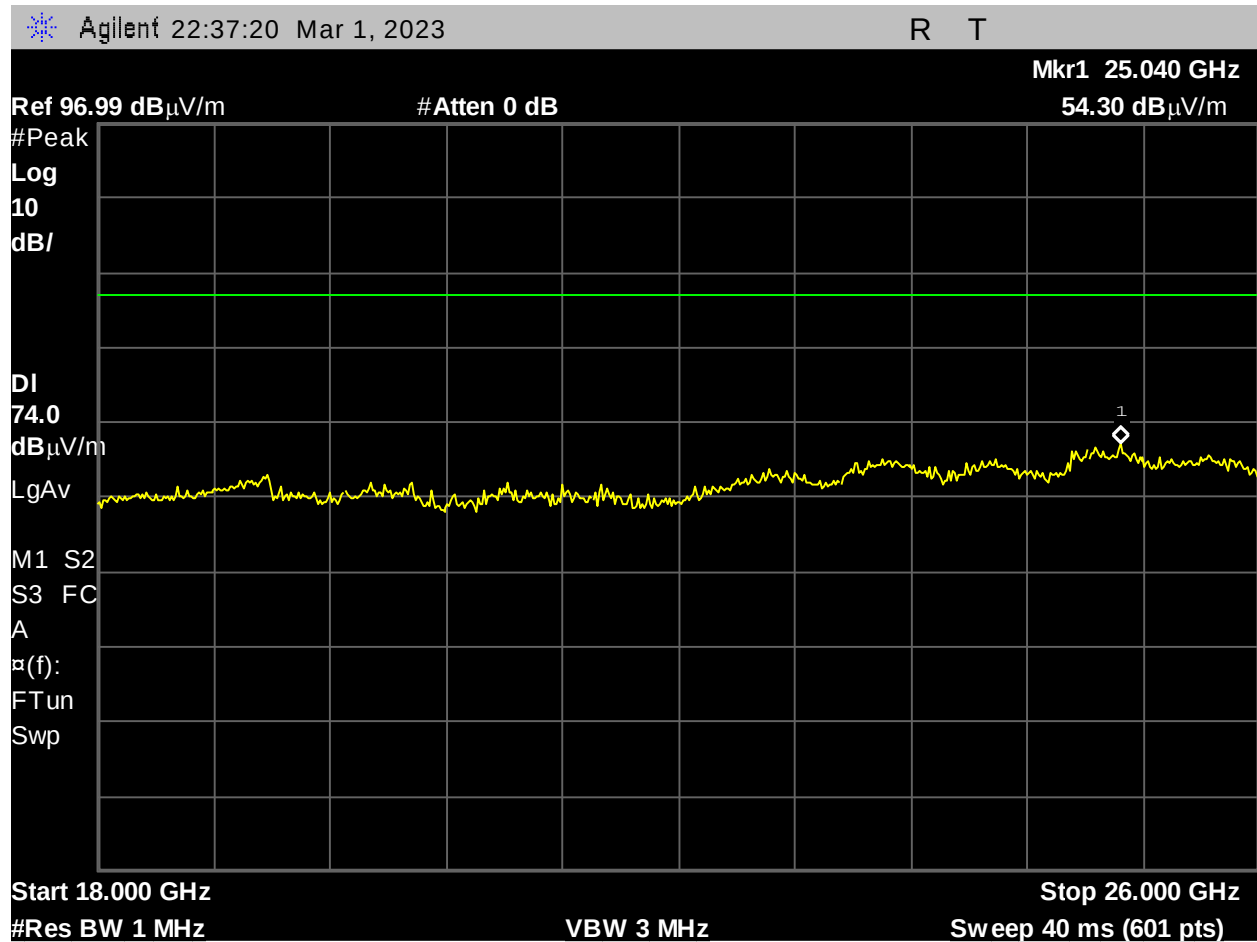


Figure 163: PK cabinet Radiated Spurious Emissions, 80211b 2437MHz, 18-26 GHz

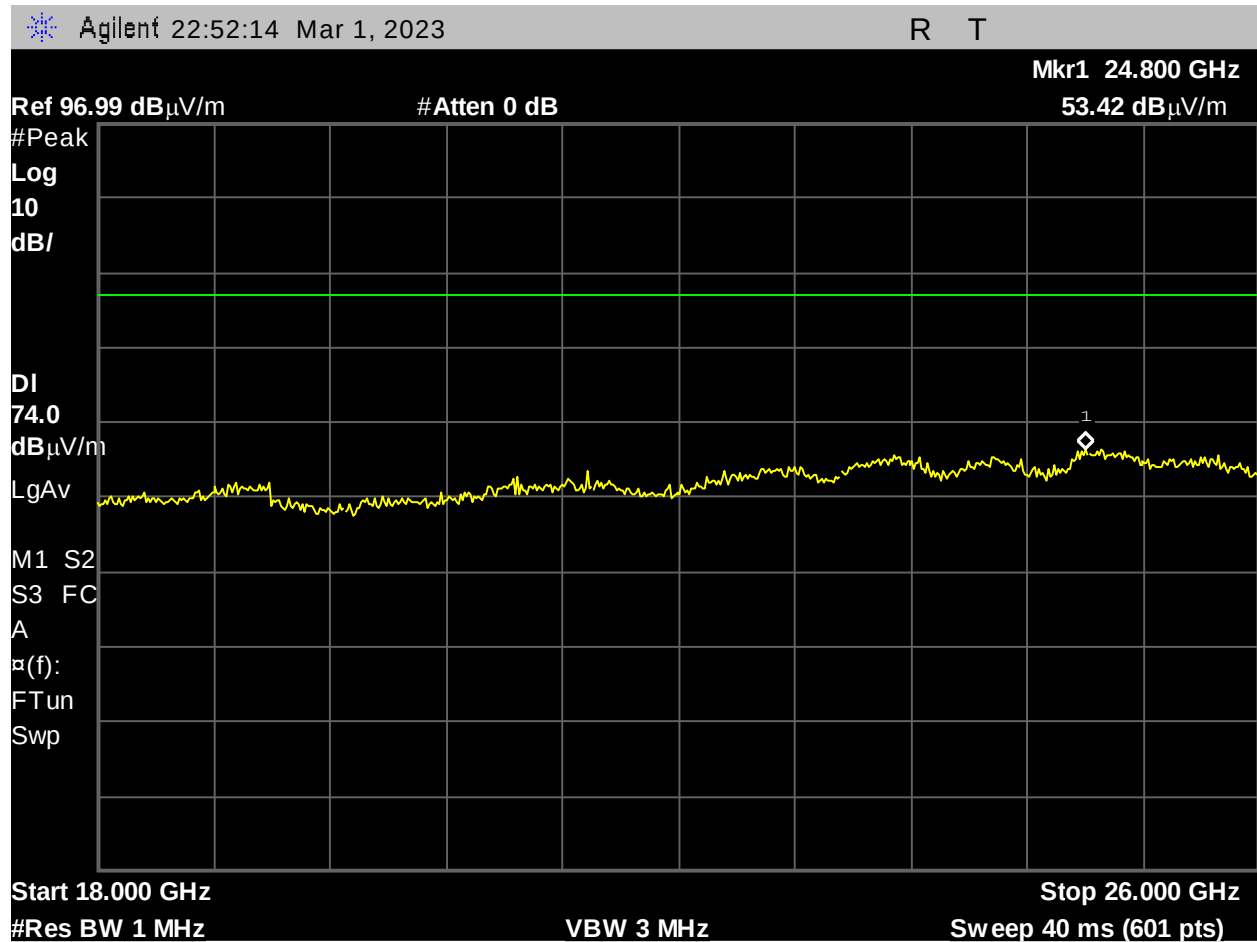


Figure 164: PK cabinet Radiated Spurious Emissions, 80211b 2462MHz, 18-26 GHz

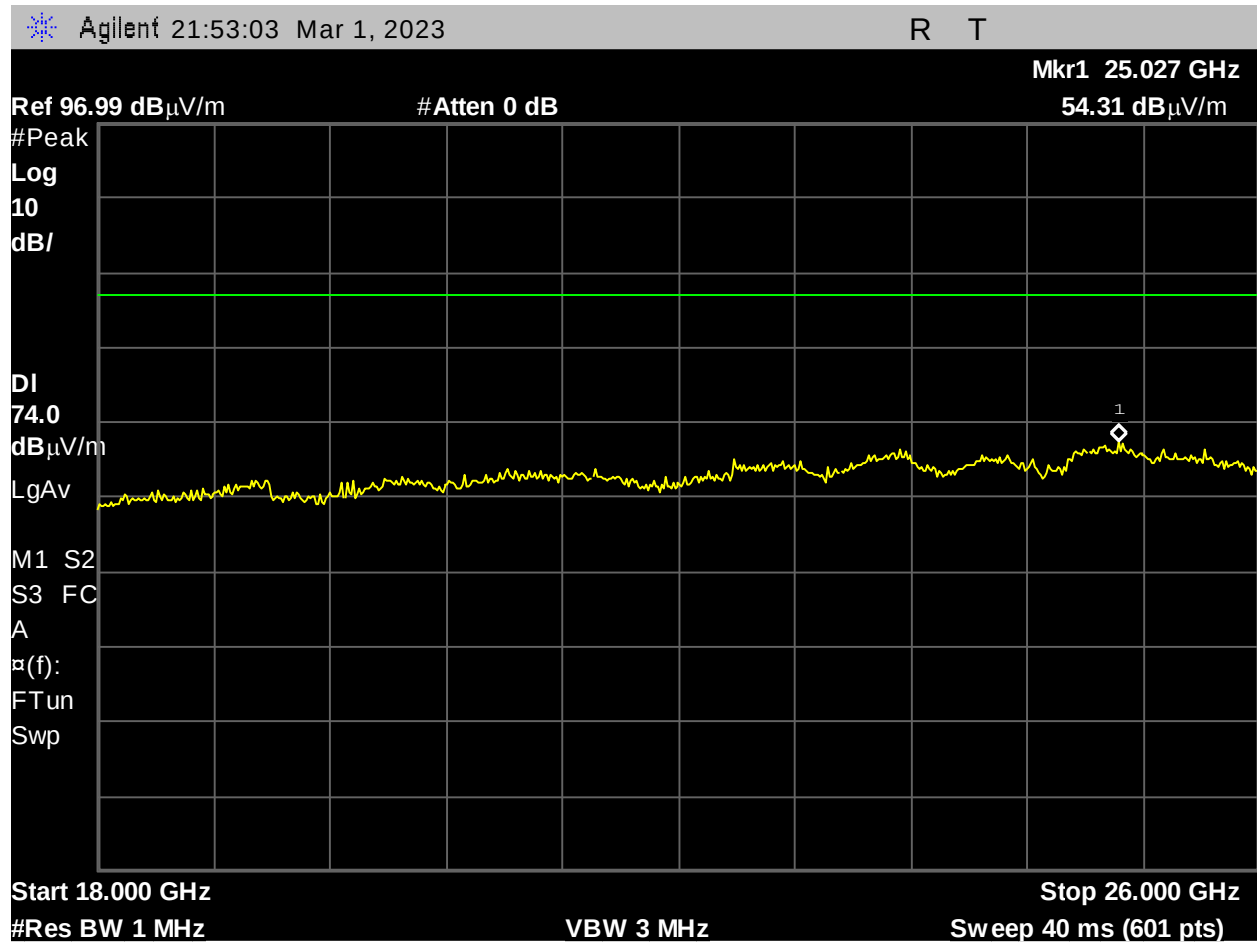


Figure 165: PK cabinet Radiated Spurious Emissions, 80211g 2412MHz, 18-26 GHz

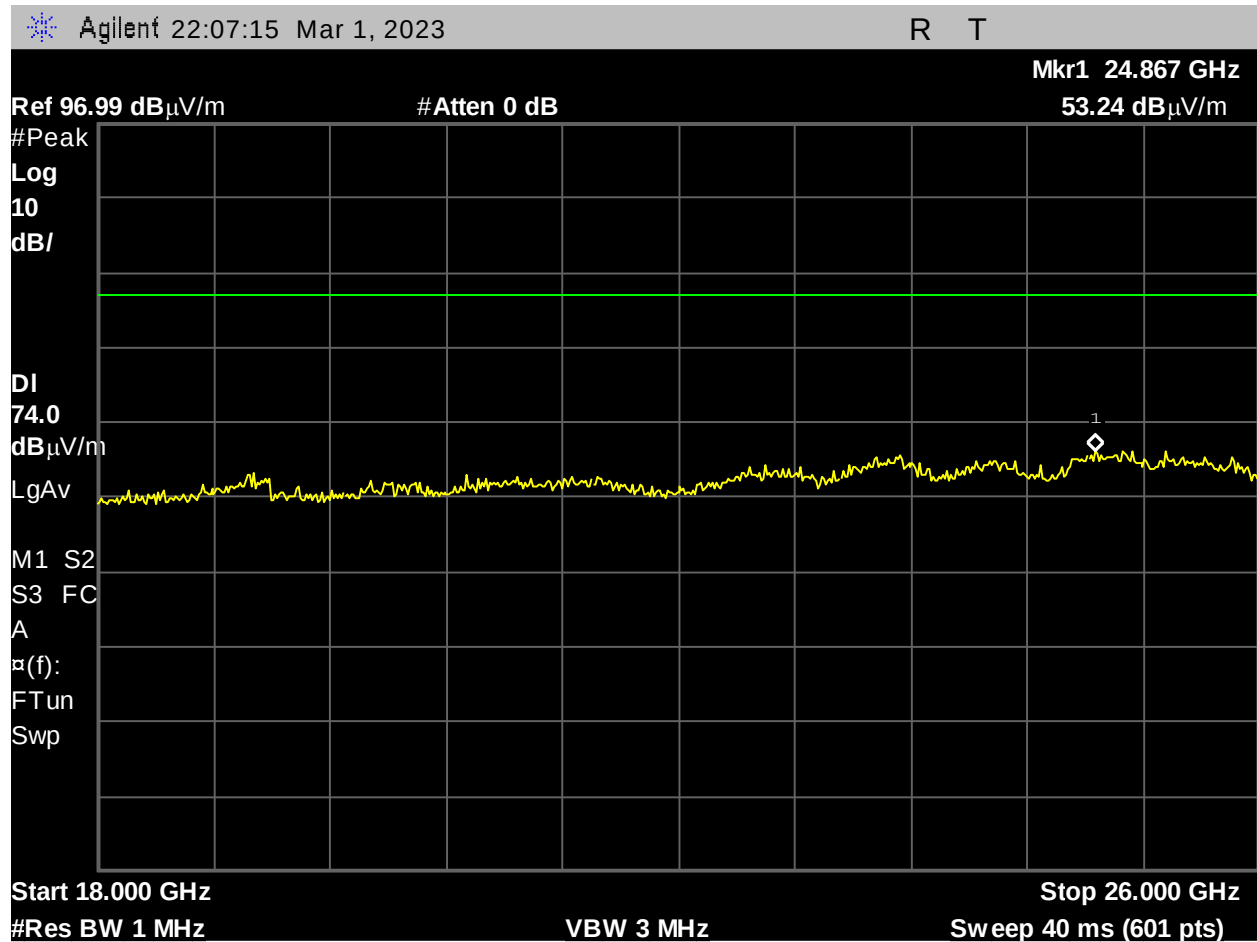


Figure 166: PK cabinet Radiated Spurious Emissions, 80211g 2437MHz, 18-26 GHz

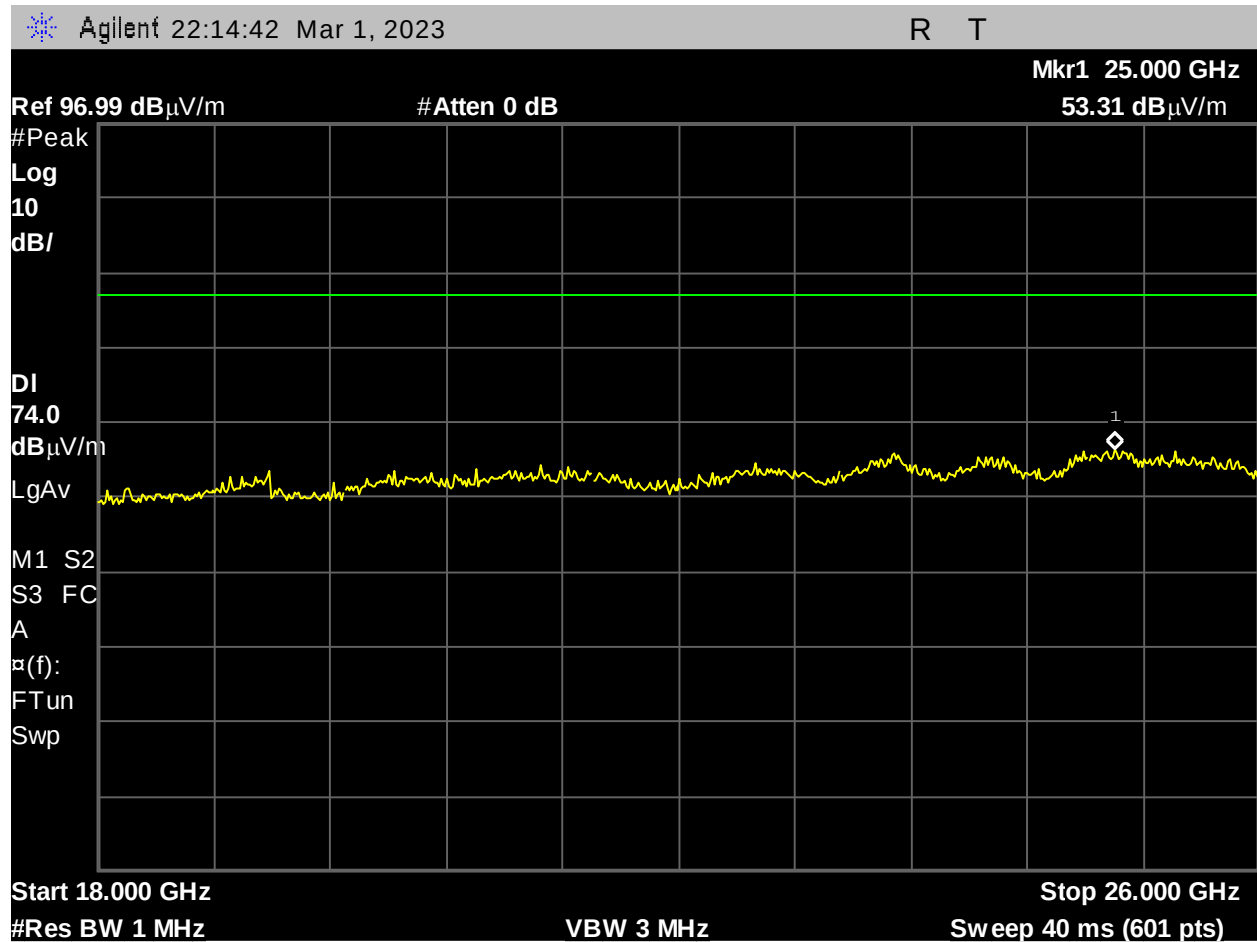


Figure 167: PK cabinet Radiated Spurious Emissions, 80211g 2462MHz, 18-26 GHz

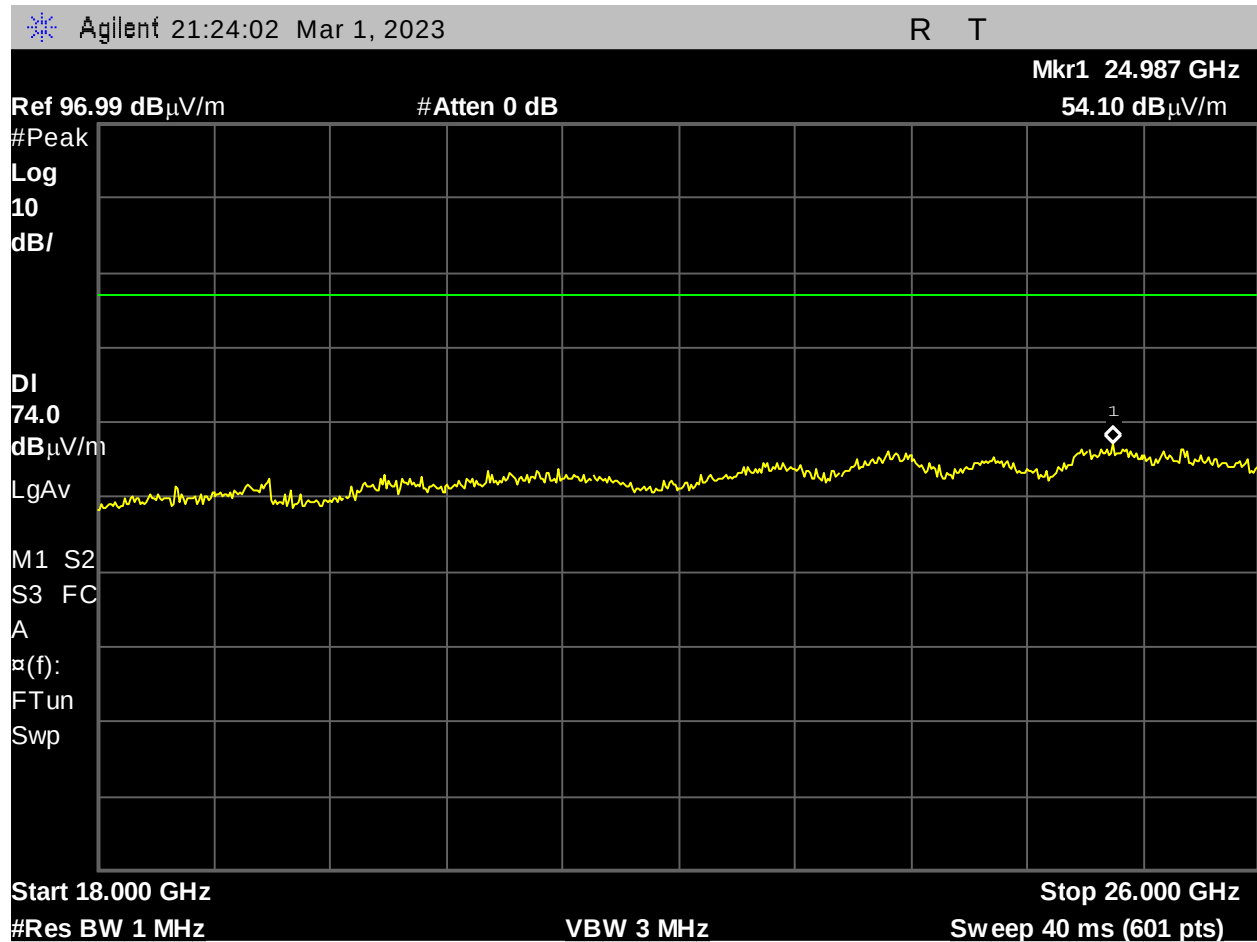


Figure 168: PK cabinet Radiated Spurious Emissions, 80211n 20BW 2412MHz, 18-26 GHz



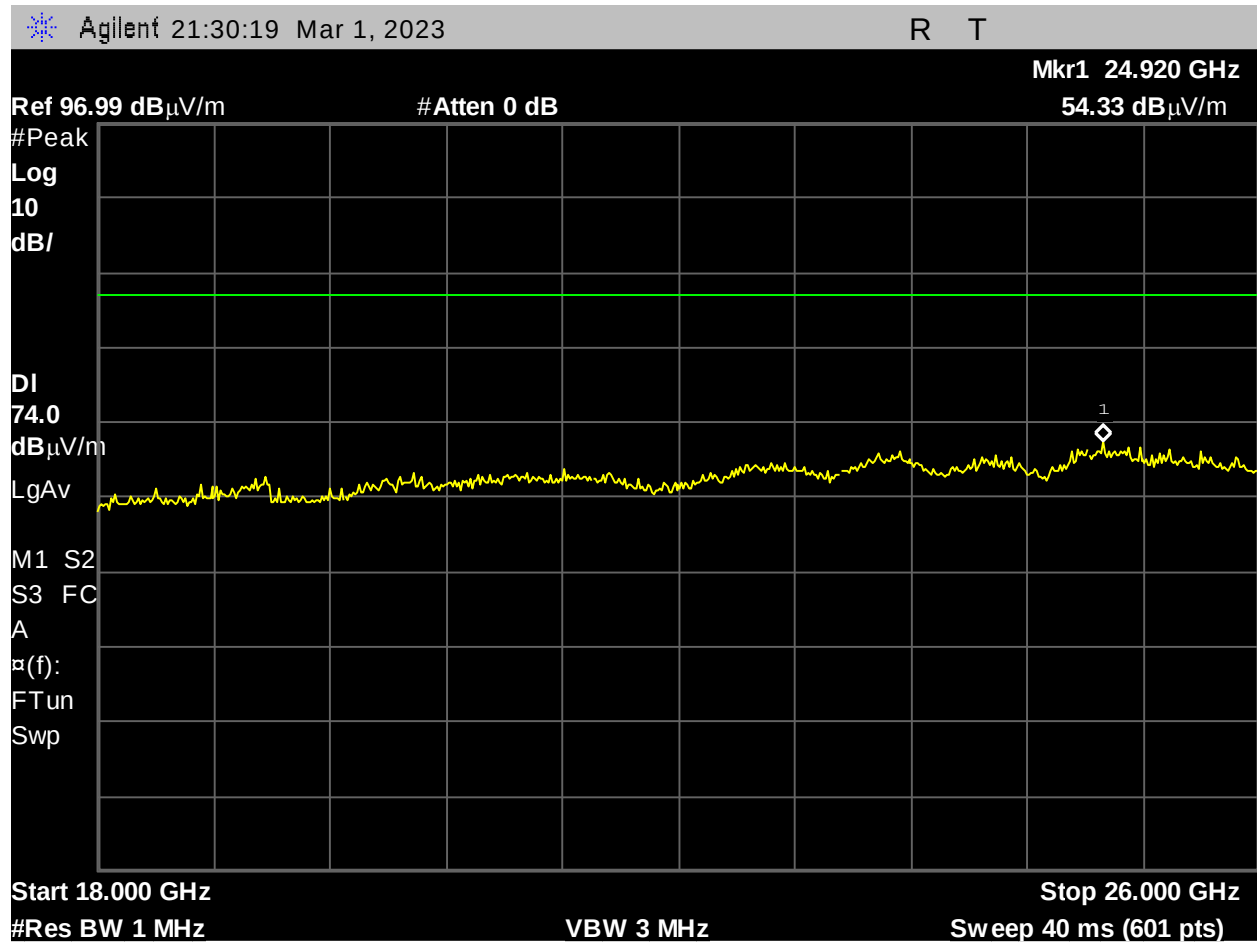


Figure 169: PK cabinet Radiated Spurious Emissions, 80211n 20BW 2437MHz, 18-26 GHz

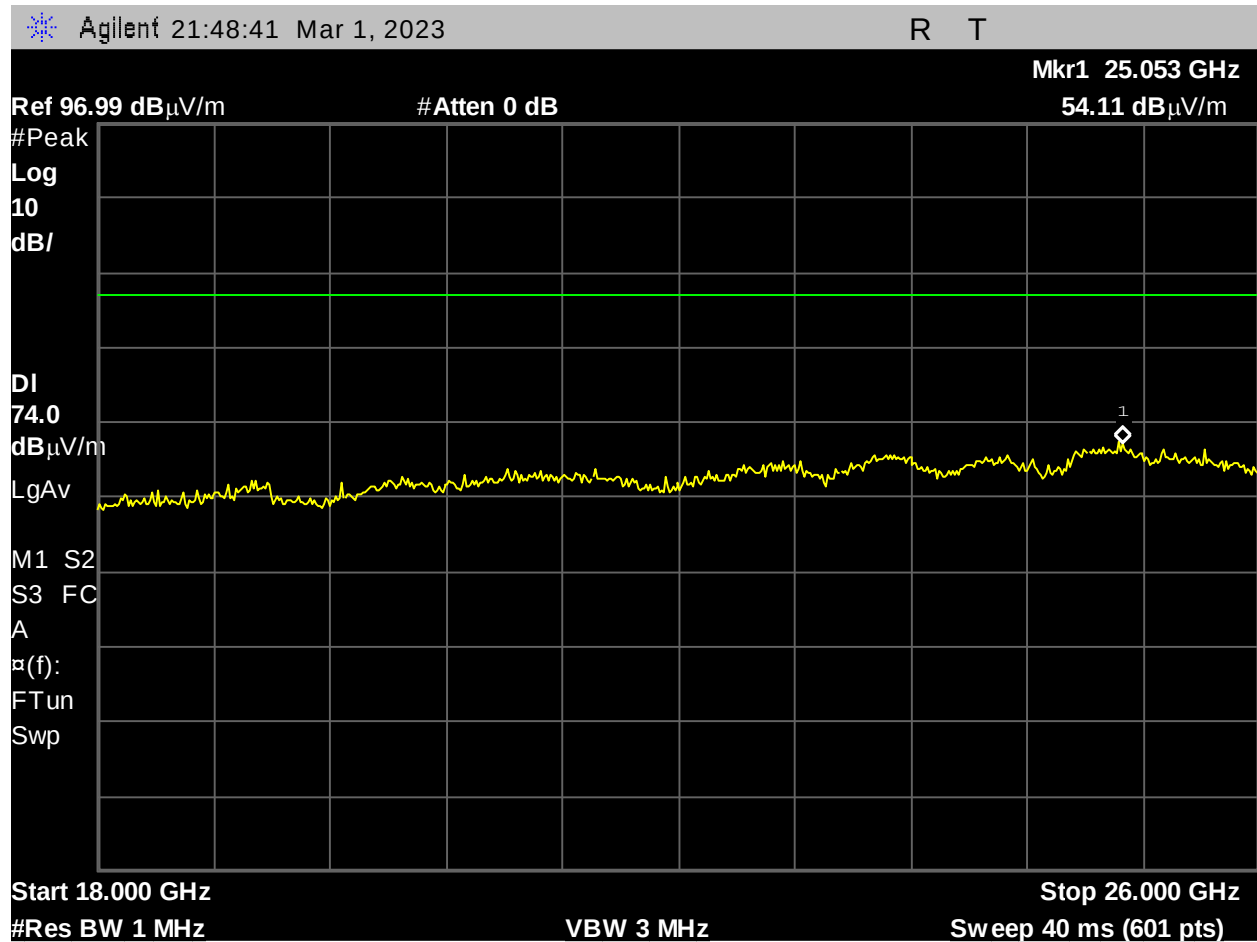


Figure 170: PK cabinet Radiated Spurious Emissions, 80211n 20BW 2462MHz, 18-26 GHz

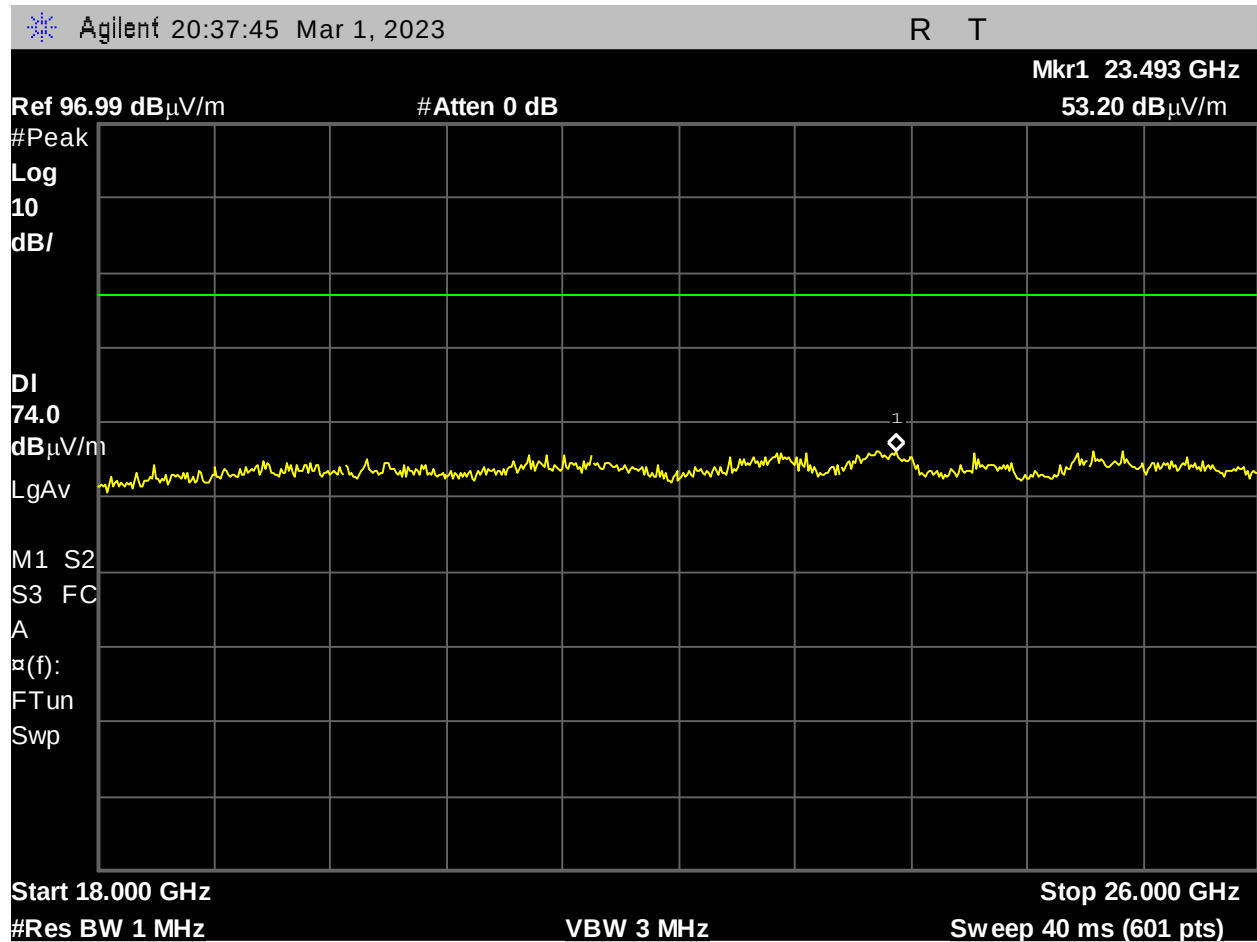


Figure 171: PK cabinet Radiated Spurious Emissions, 80211n 40BW 2422MHz, 18-26 GHz

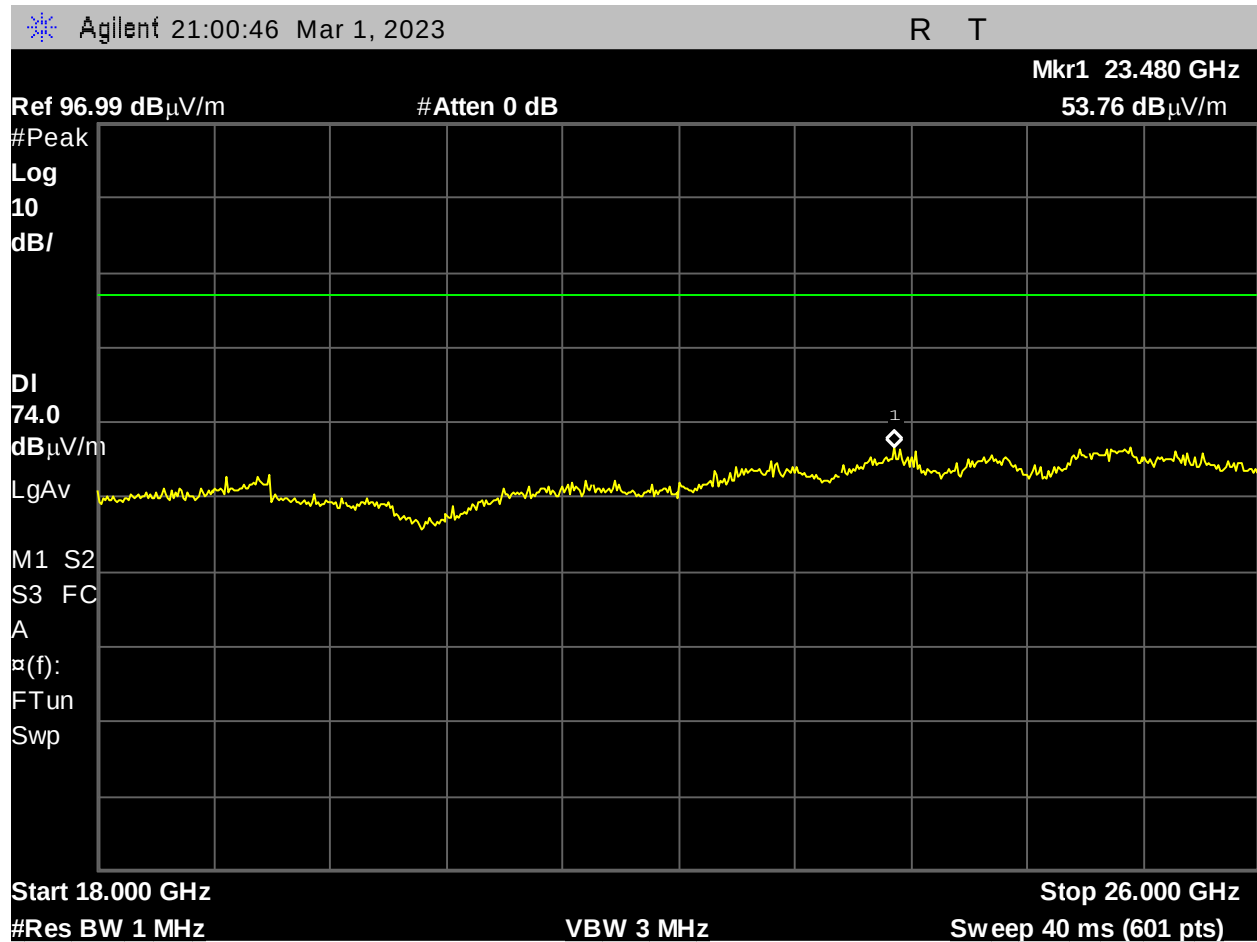


Figure 172: PK cabinet Radiated Spurious Emissions, 80211n 40BW 2437MHz, 18-26 GHz

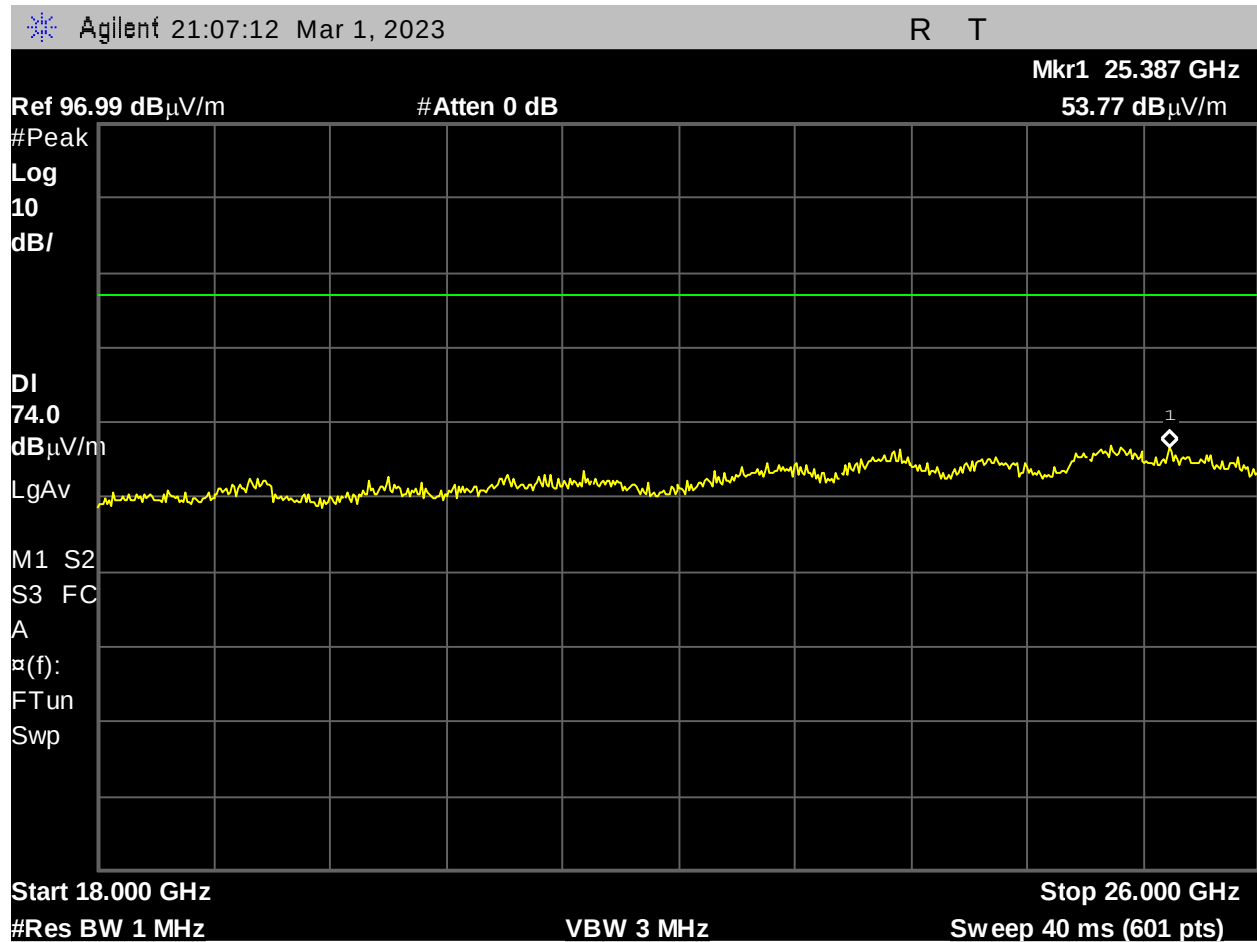
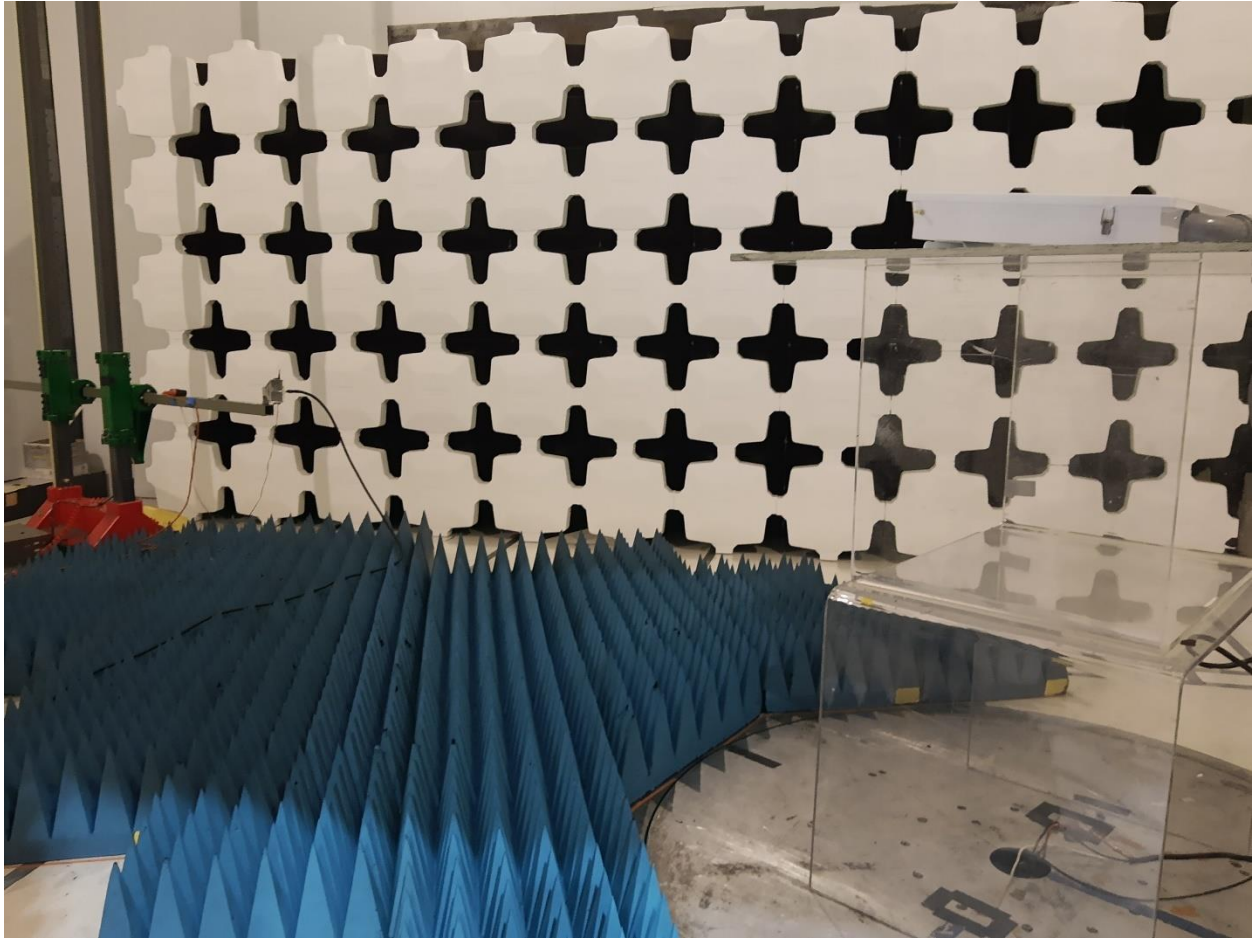


Figure 173: PK cabinet Radiated Spurious Emissions, 80211n 40BW 2452MHz, 18-26 GHz



**Figure 174: REE Setup (18GHz - 26GHz)**



**Figure 175: REE Setup (30Mhz-1Ghz)**



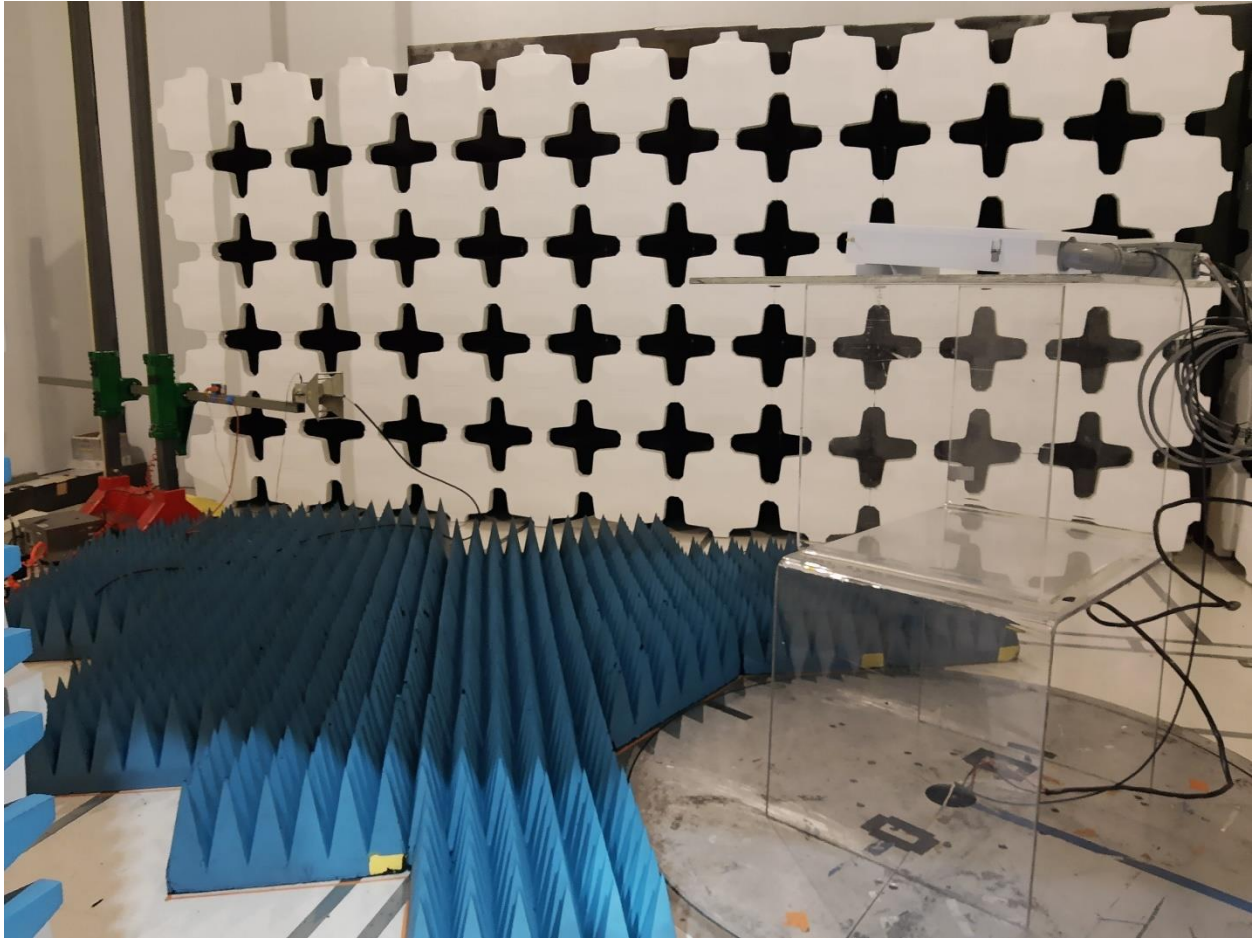
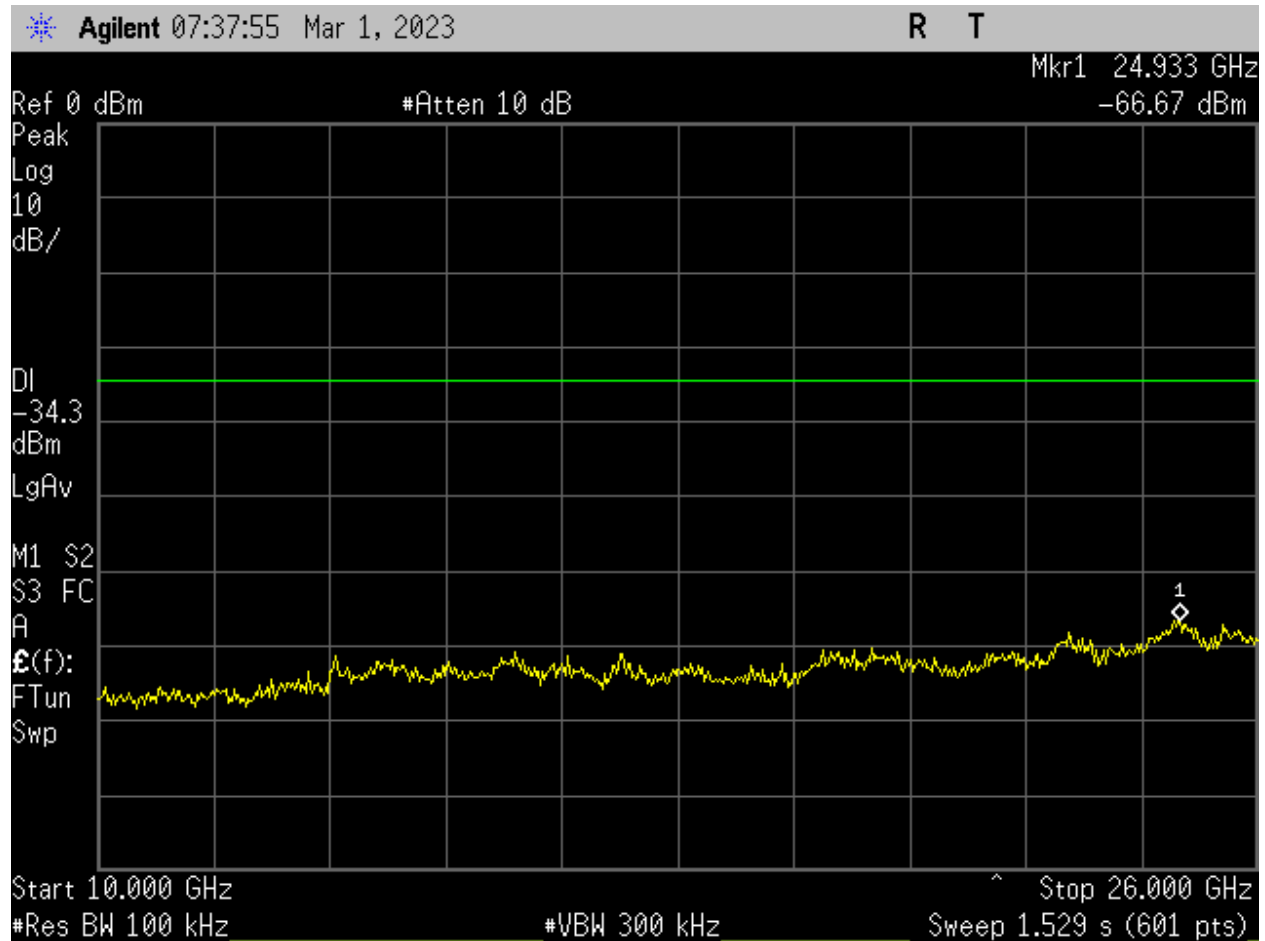


Figure 176: RES Setup (1GHz - 18GHz)



**§ 15.247(d) Spurious Emissions in Non-restricted Bands**



**Figure 177: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_-20dBc\_10-26GHz\_Port 1.**

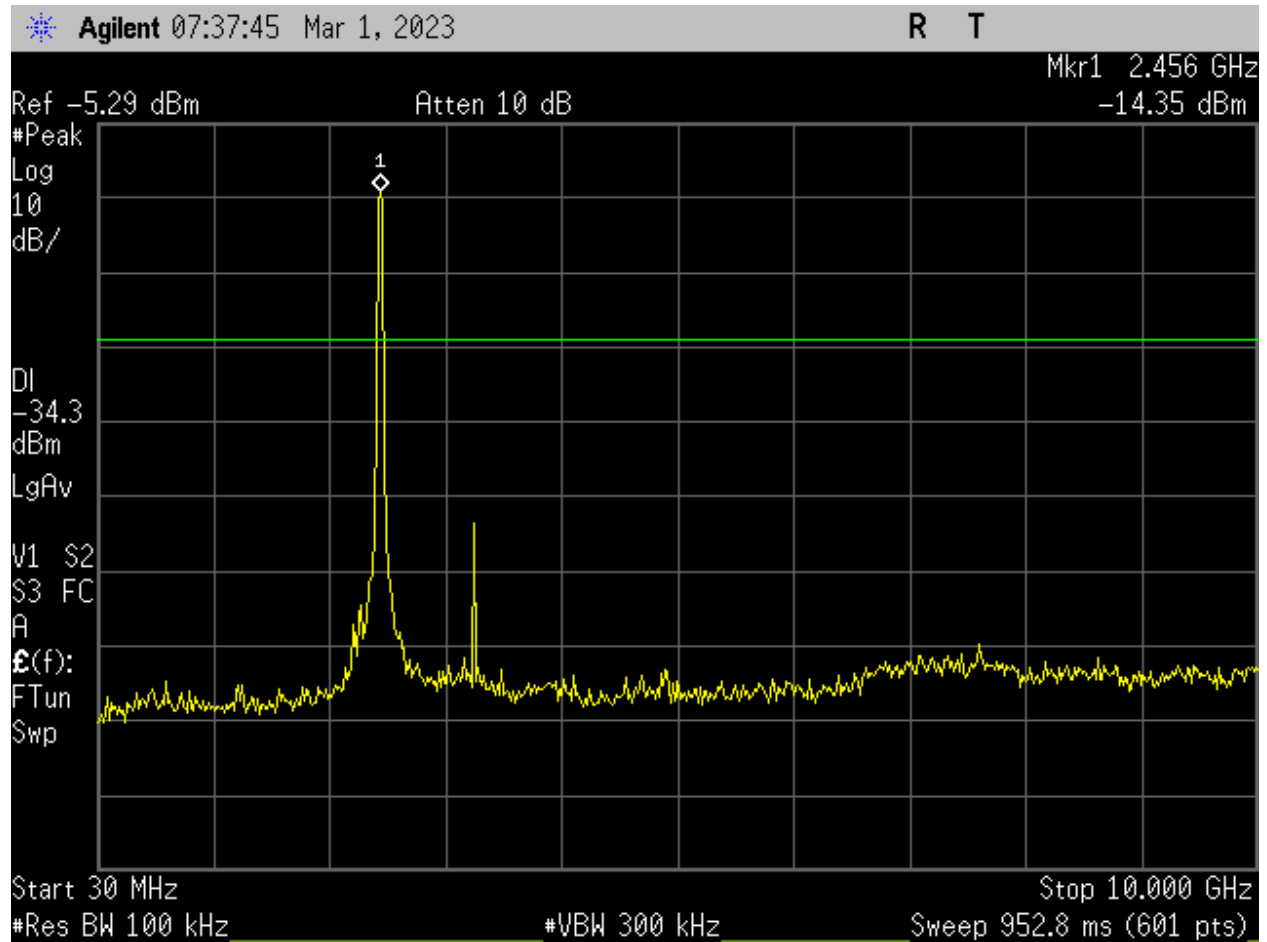


Figure 178: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_-20dBc\_30MHz-10GHz\_Port 1.

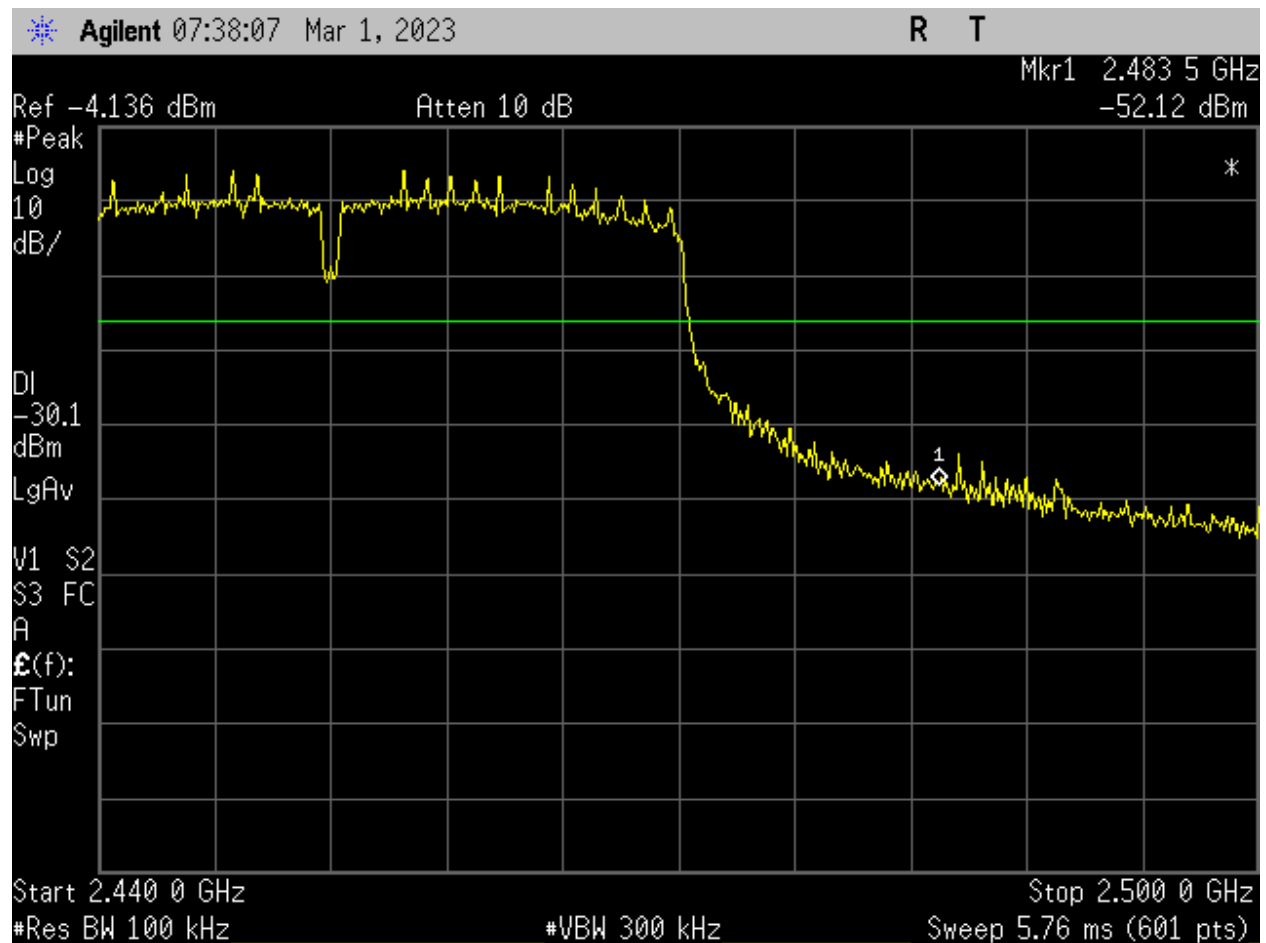


Figure 179: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_-20dBc\_Upper Band Edge\_Port 1.

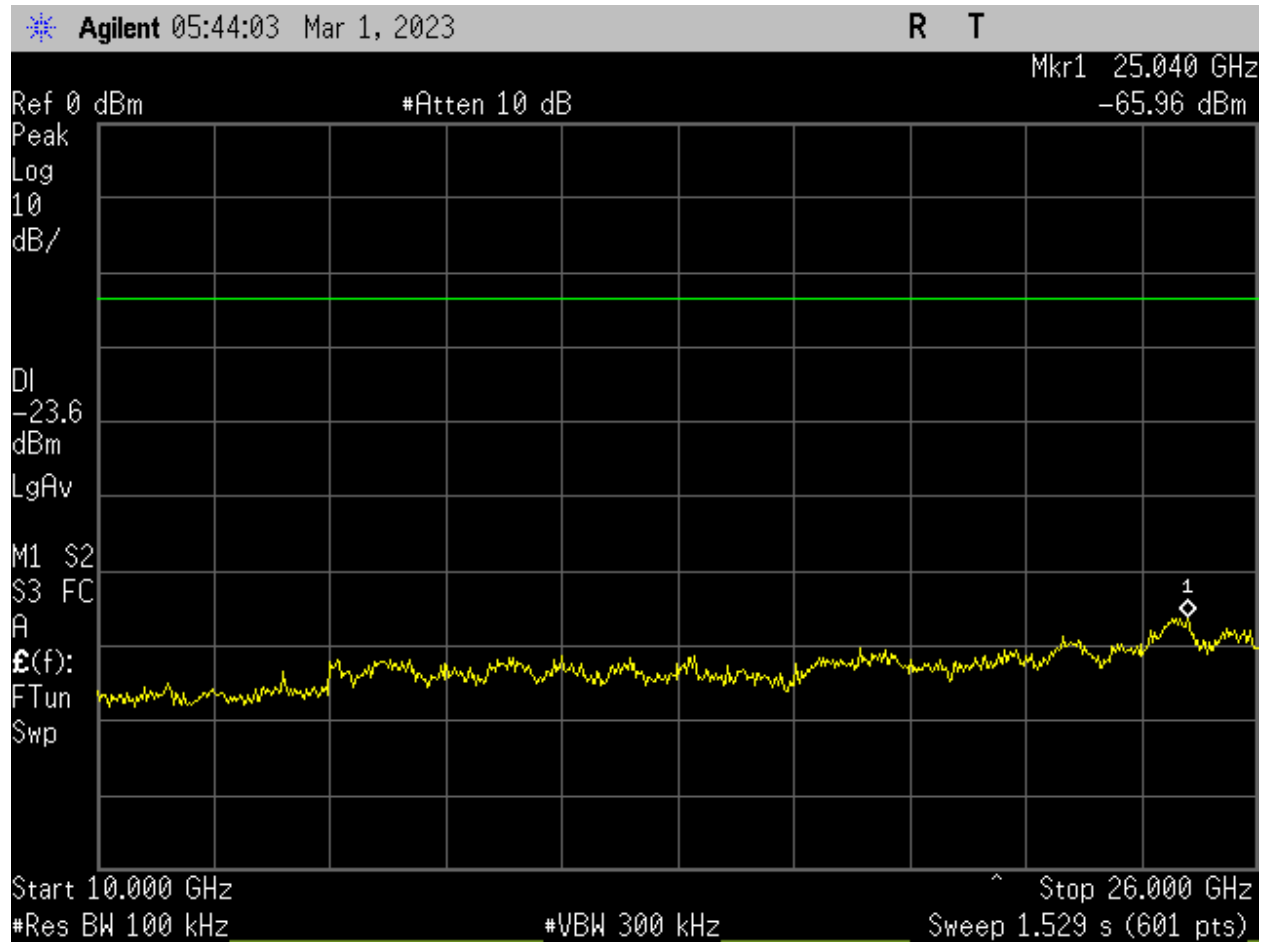


Figure 180: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_-20dBc\_10-26GHz\_Port 1.

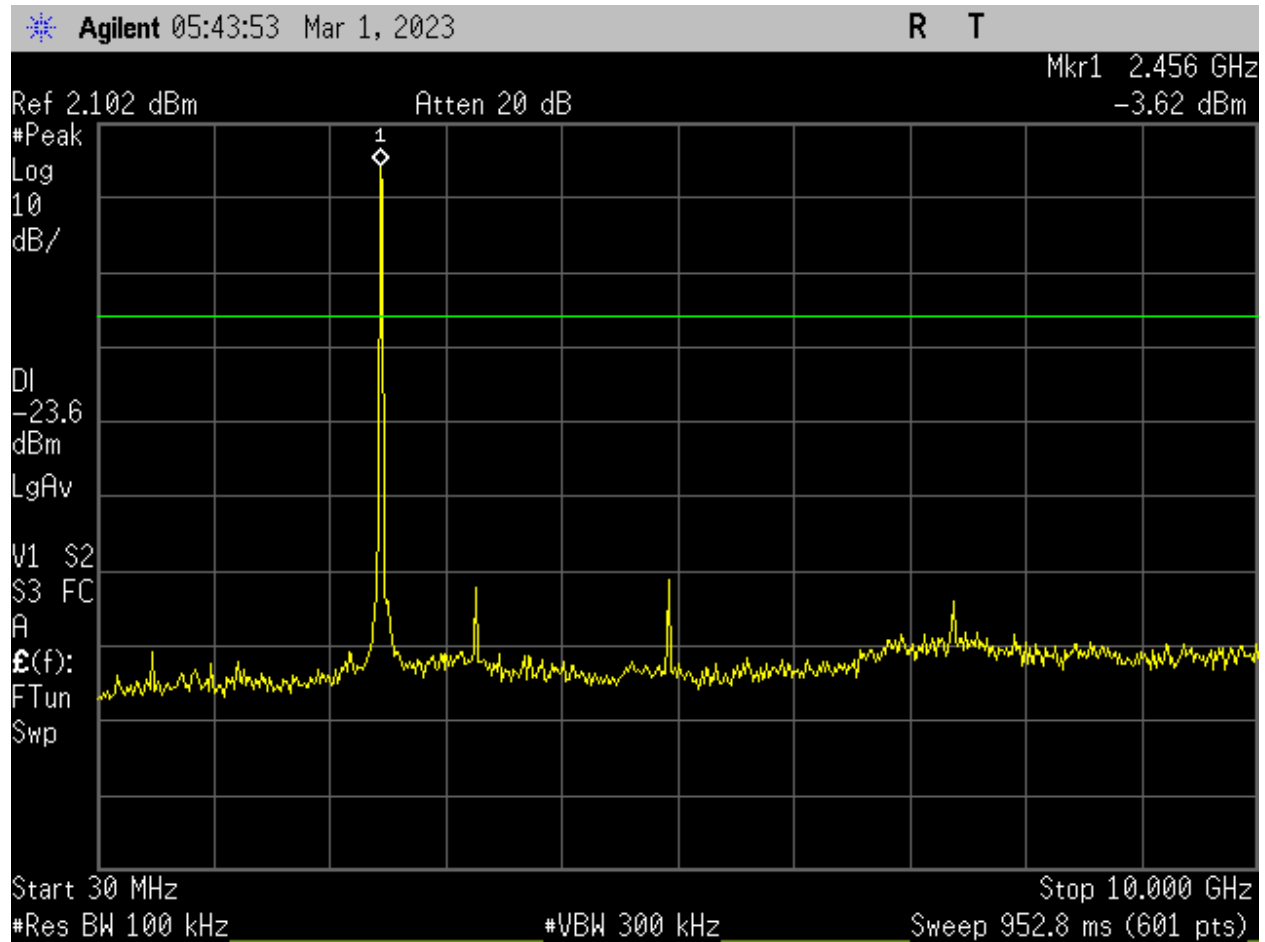


Figure 181: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_-20dBc\_30MHz-10GHz\_Port 1.

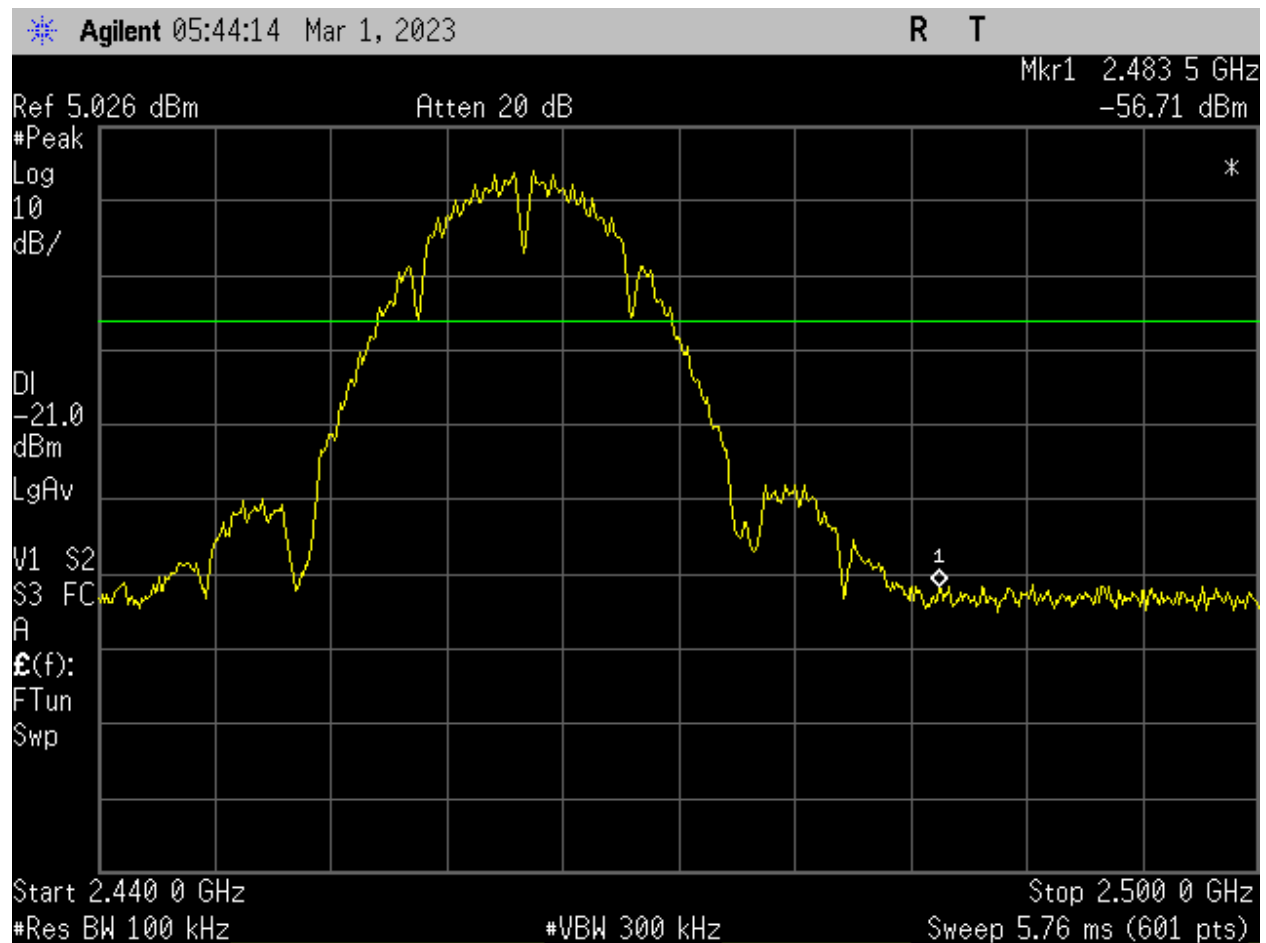


Figure 182: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_-20dBc\_Upper Band Edge\_Port 1.

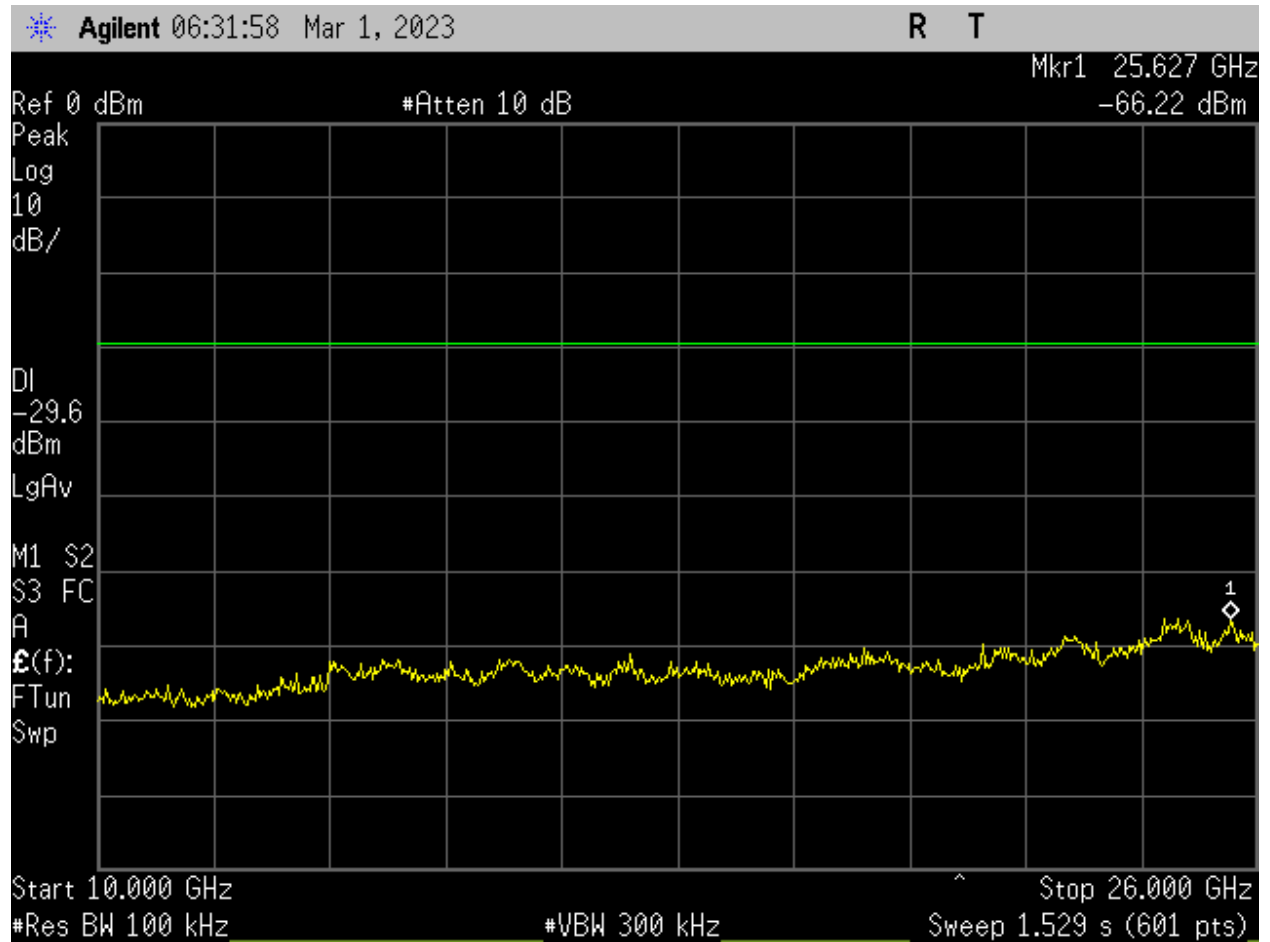


Figure 183: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_-20dBc\_10-26GHz\_Port 1.

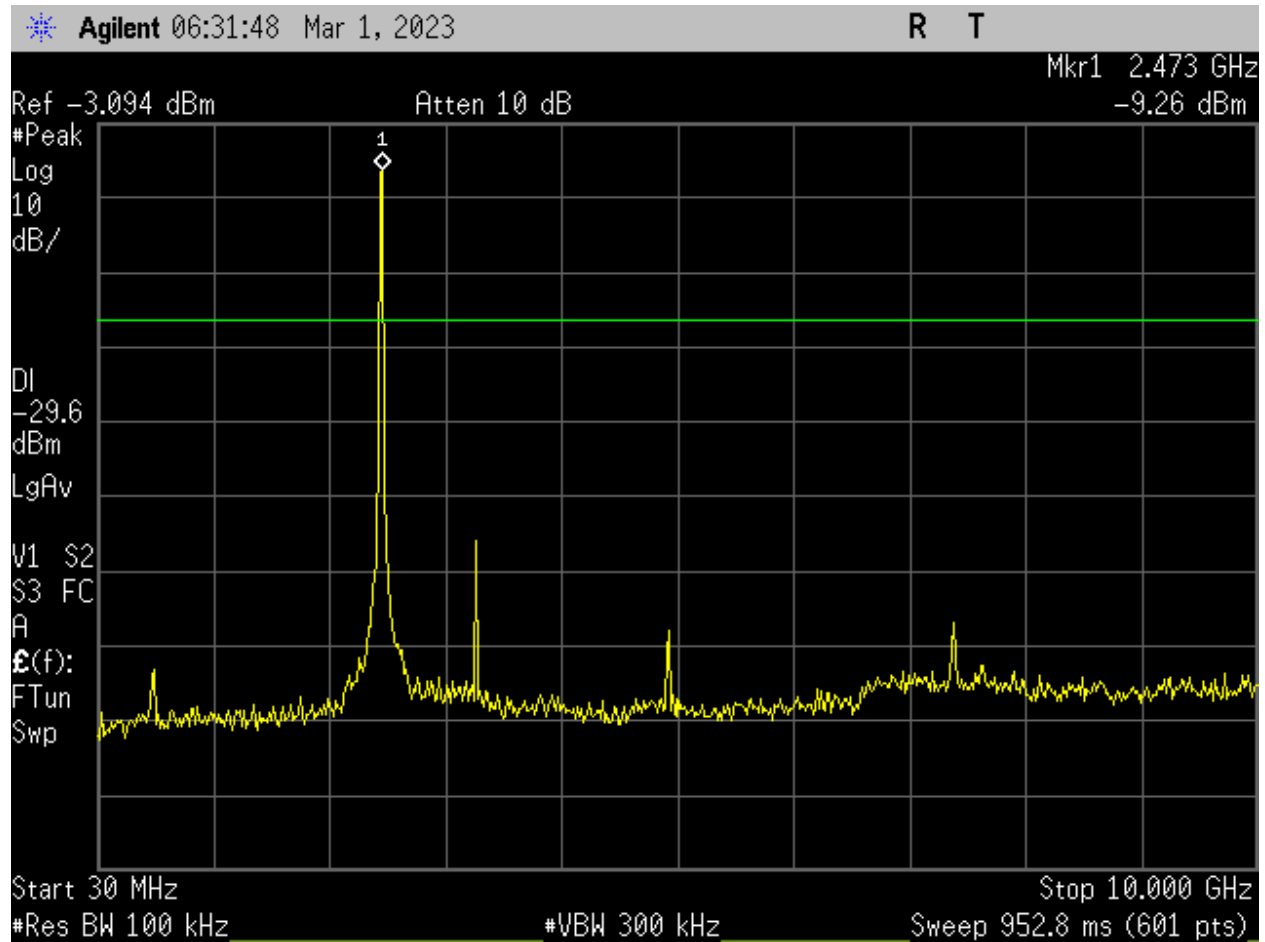


Figure 184: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_-20dBc\_30MHz-10GHz\_Port 1.



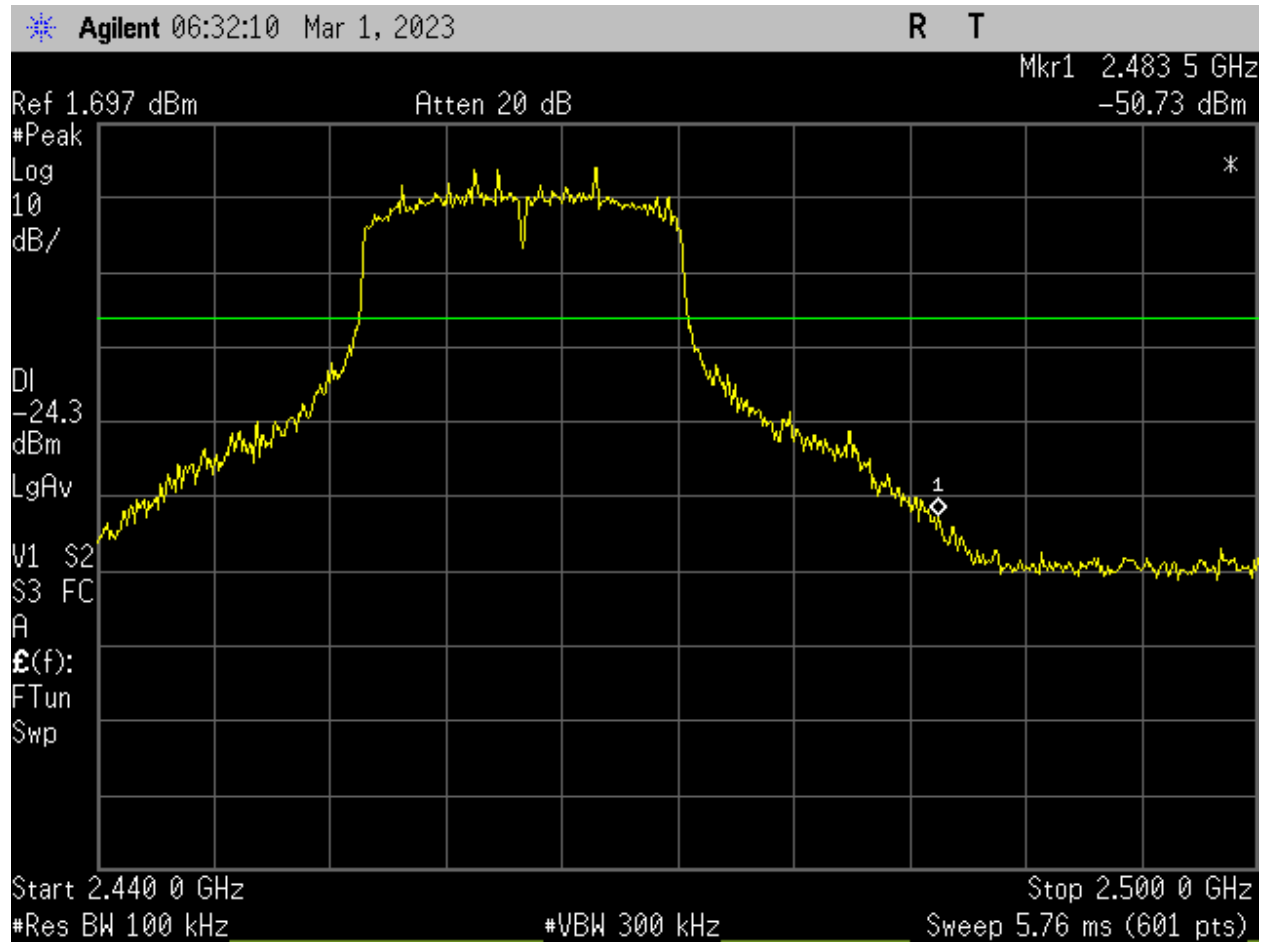


Figure 185: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_-20dBc\_Upper Band Edge\_Port 1.

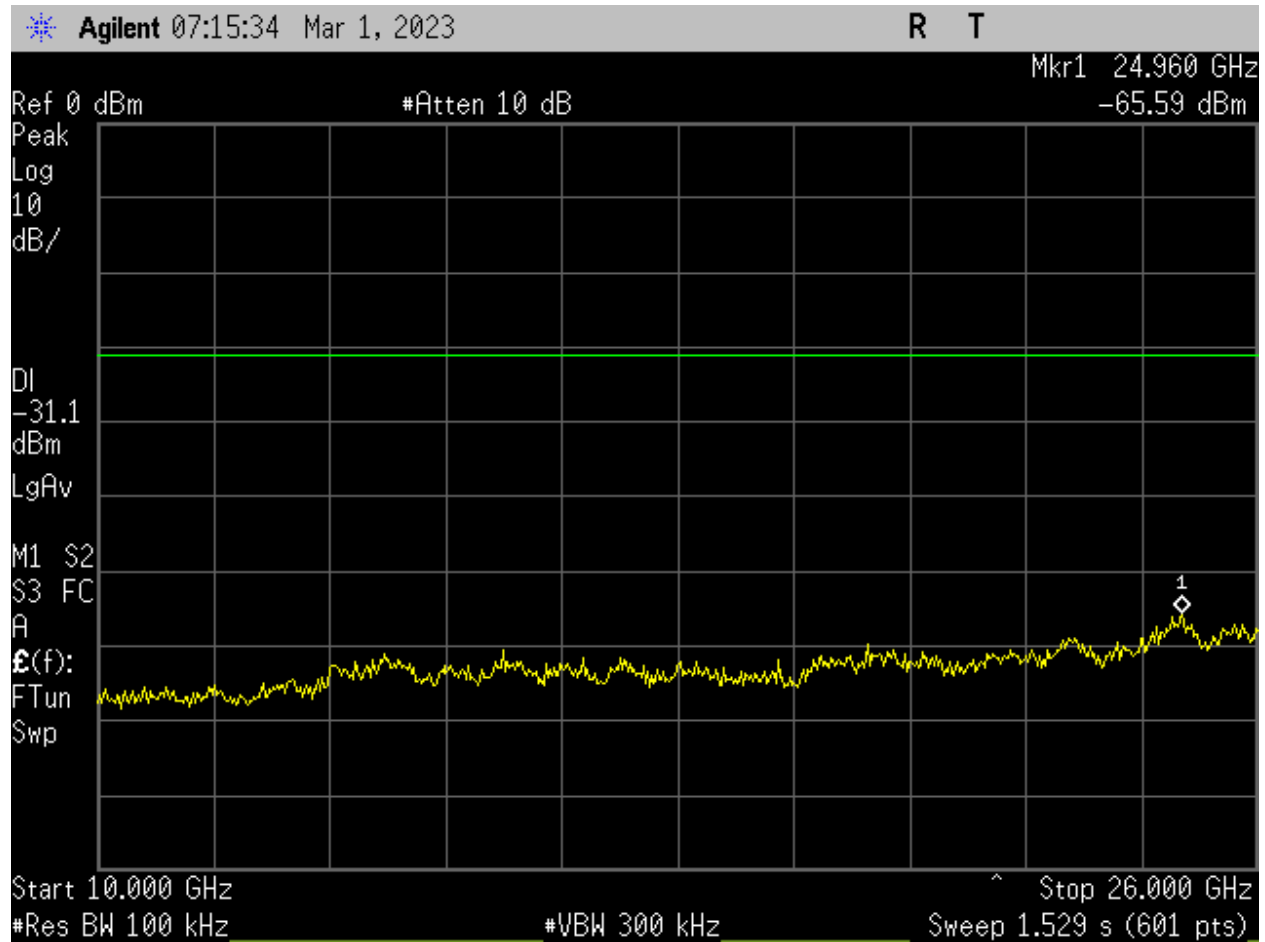


Figure 186: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_-20dBc\_10-26GHz\_Port 1.

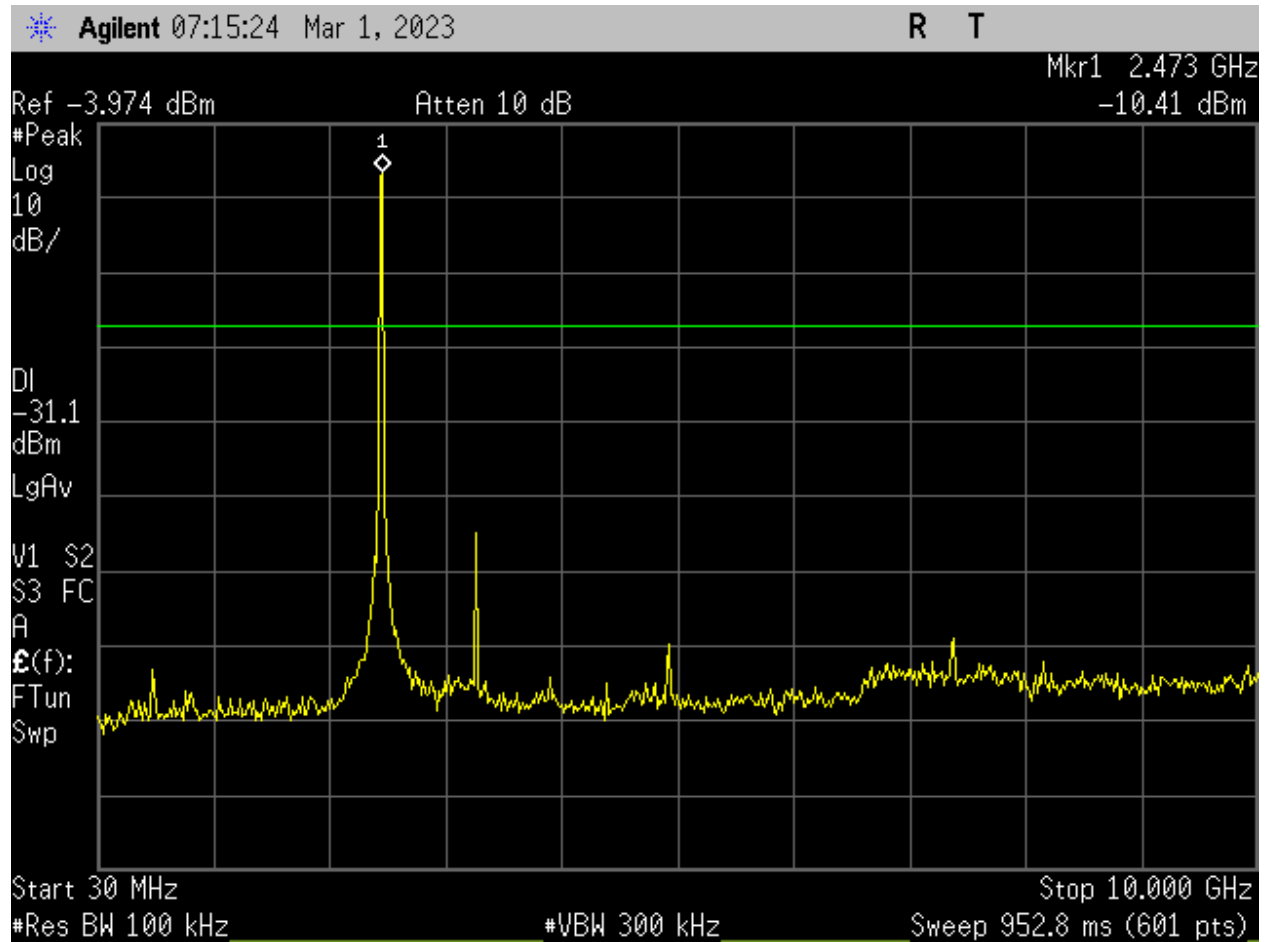


Figure 187: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_-20dBc\_30MHz-10GHz\_Port 1.

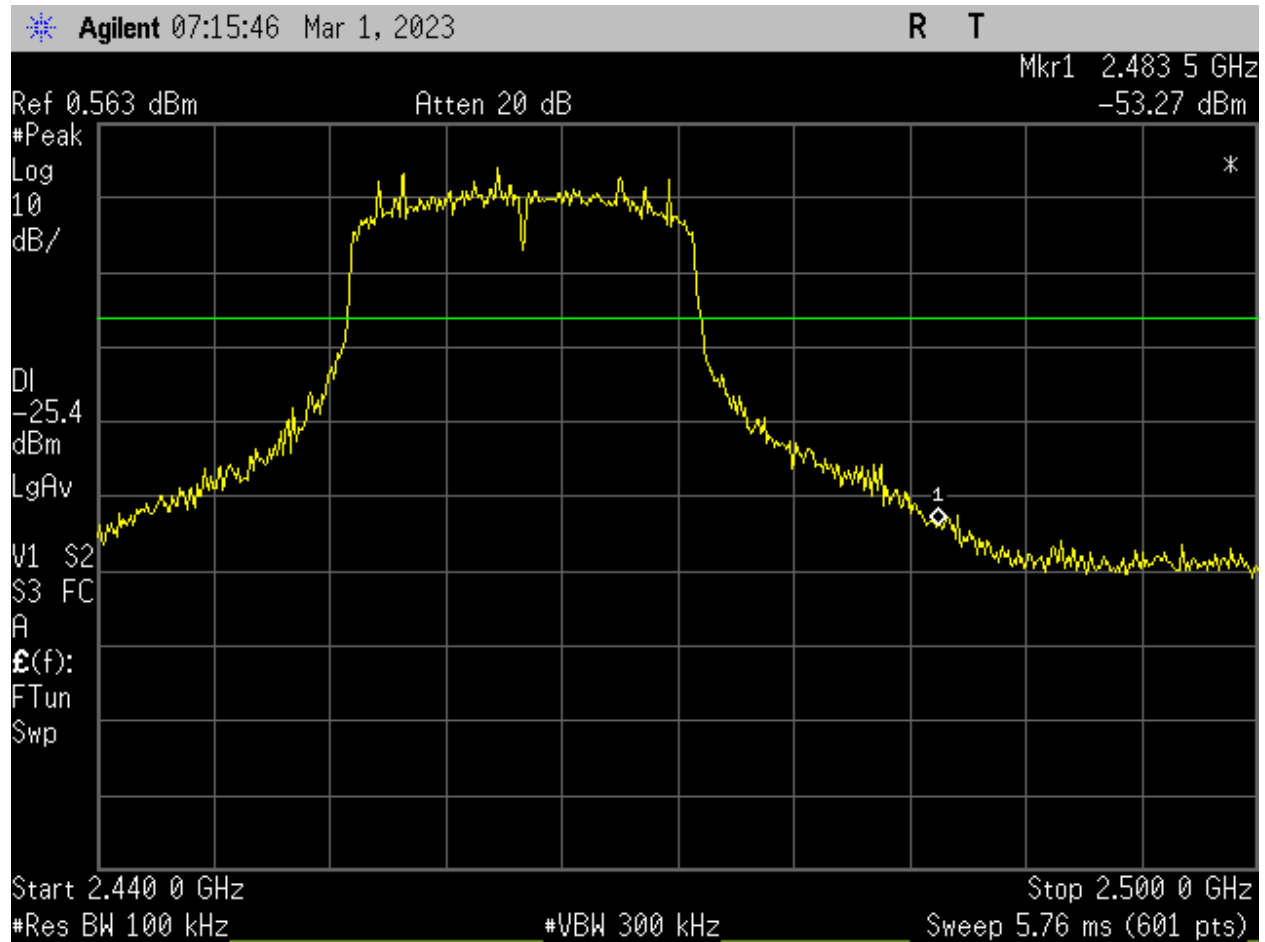


Figure 188: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_-20dBc\_Upper Band Edge\_Port 1.



Figure 189: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_-20dBc\_10-26GHz\_Port 1.

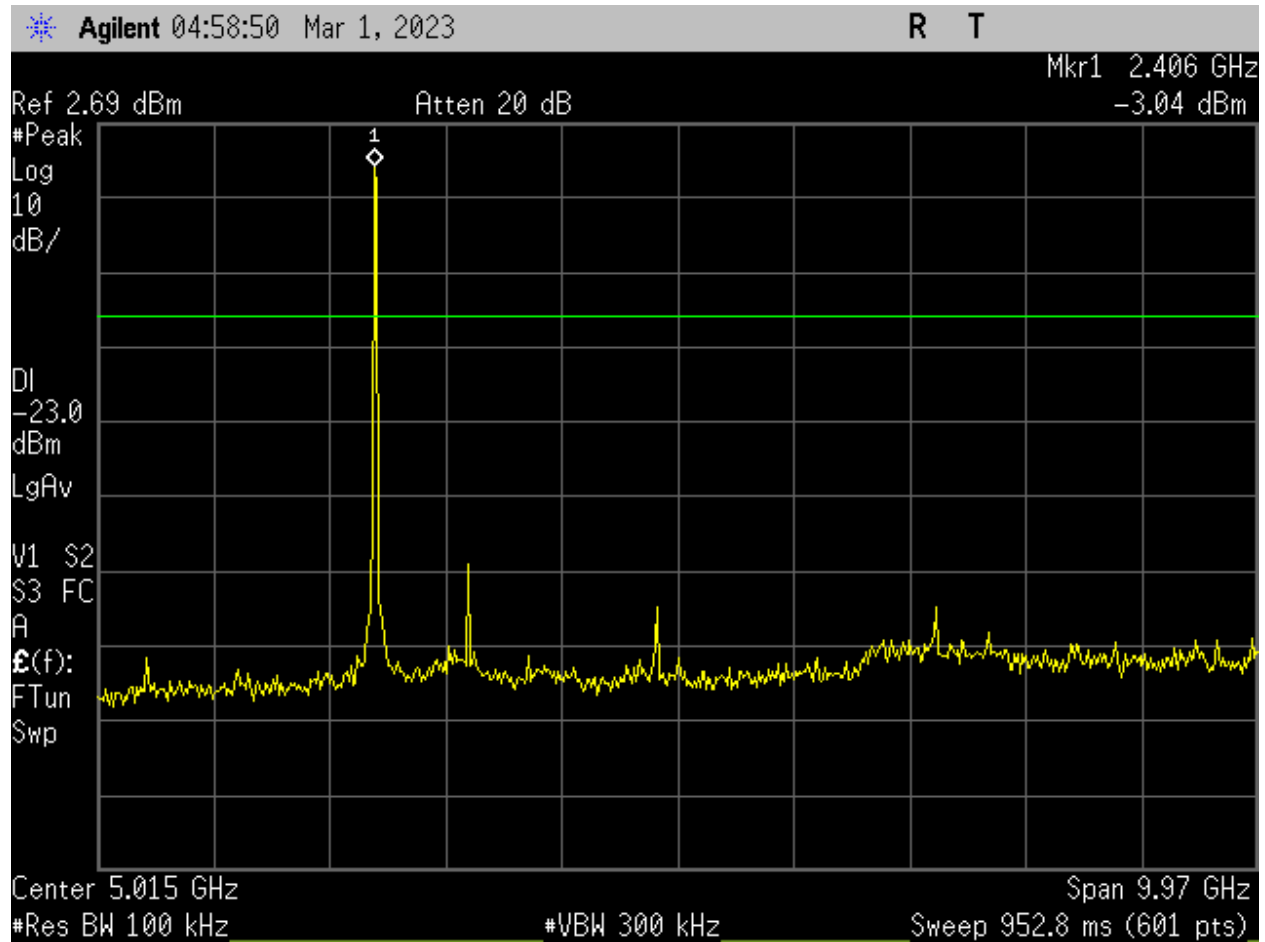


Figure 190: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_-20dBc\_30MHz-10GHz\_Port 1.

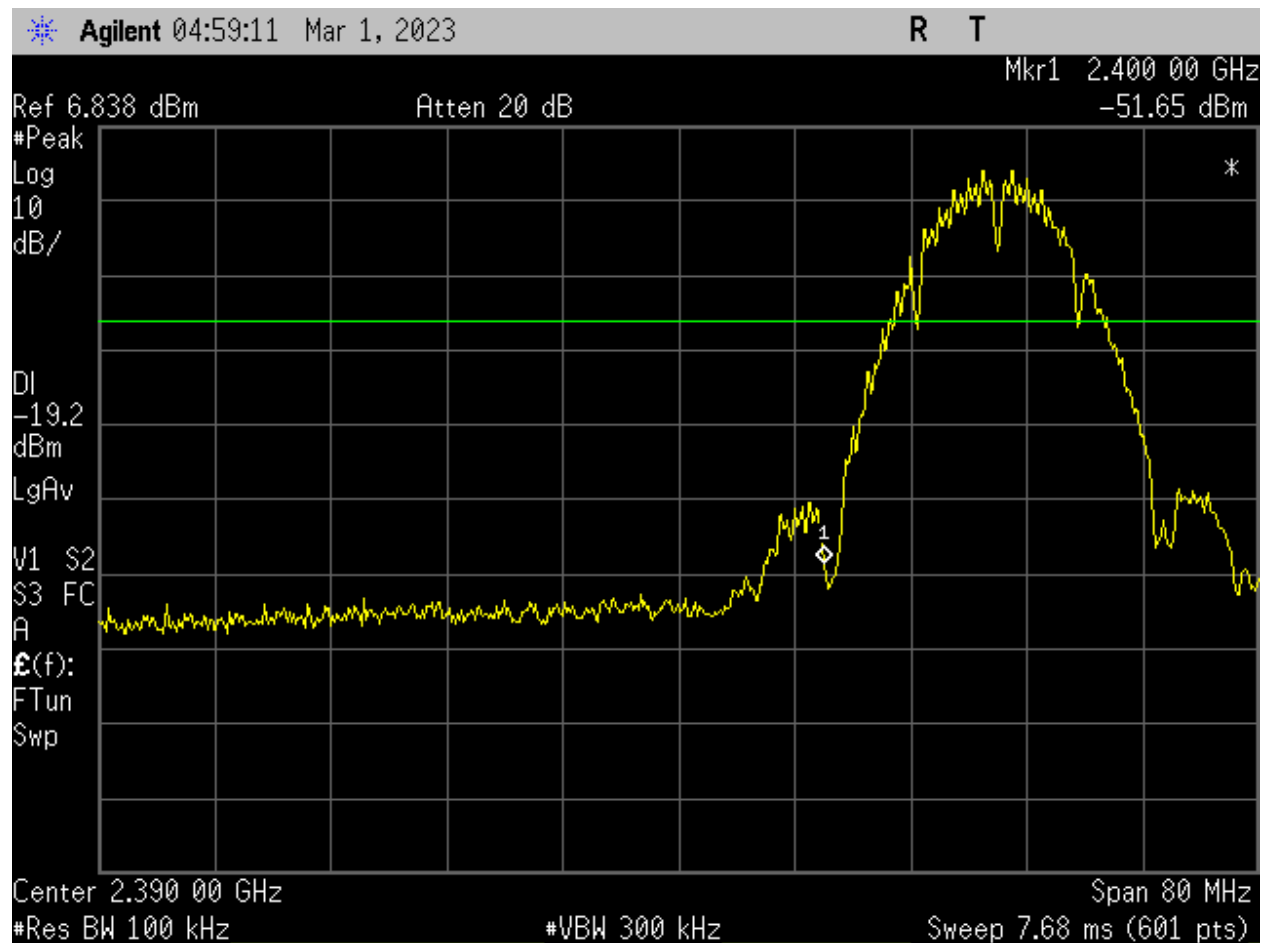


Figure 191: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_-20dBc\_Lower Band Edge\_Port 1.

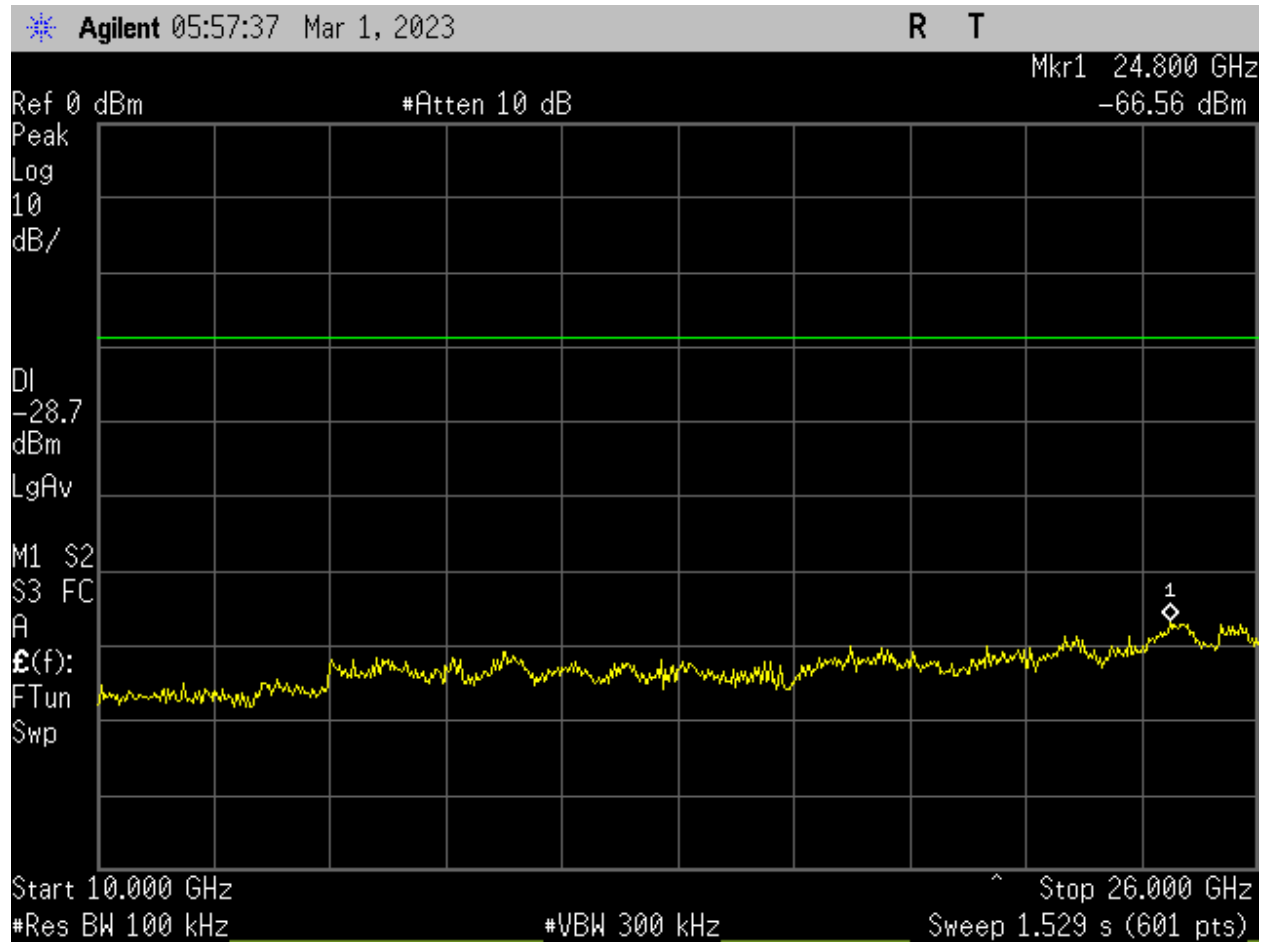


Figure 192: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_-20dBc\_10-26GHz\_Port 1.



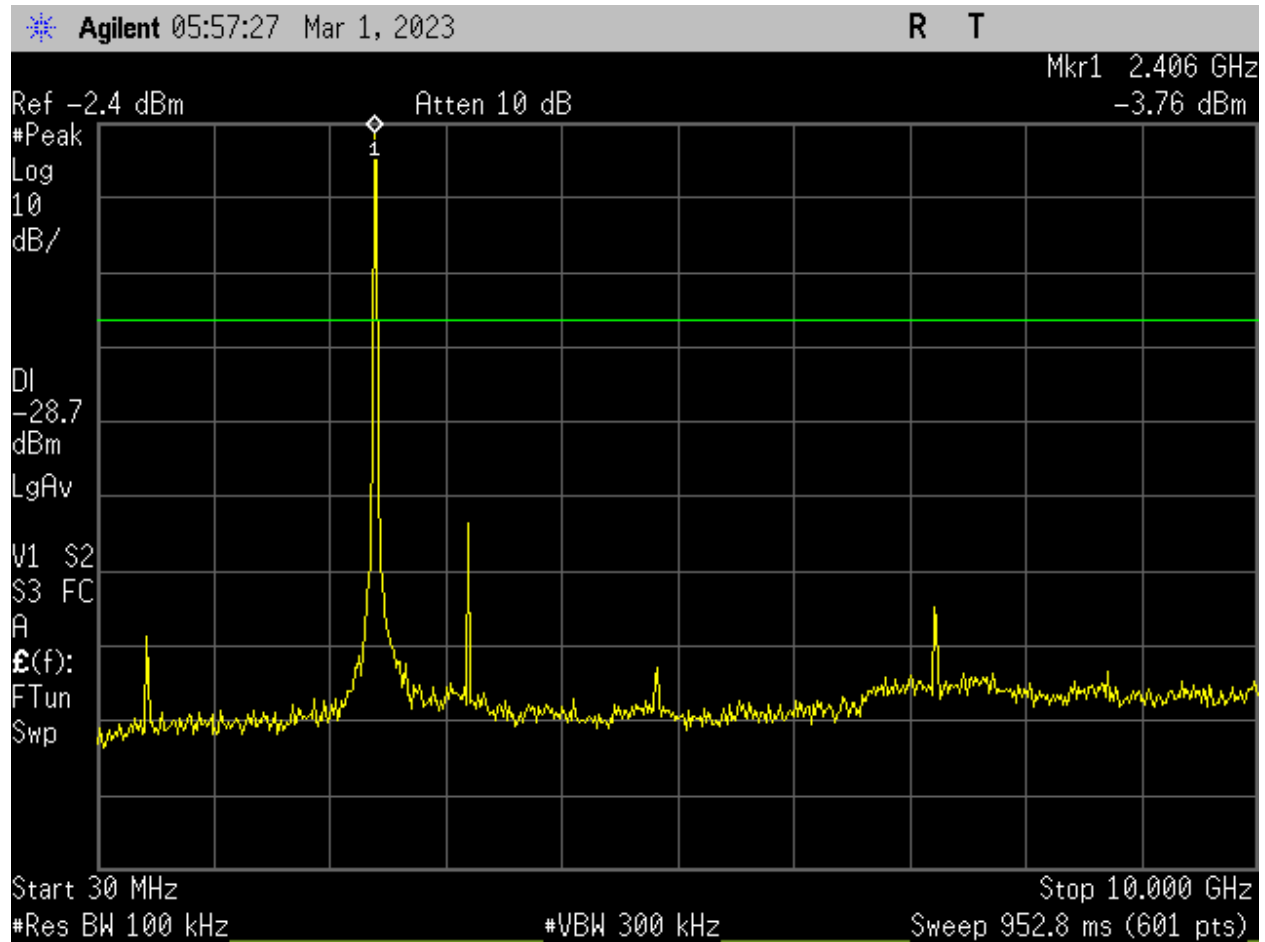


Figure 193: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_-20dBc\_30MHz-10GHz\_Port 1.

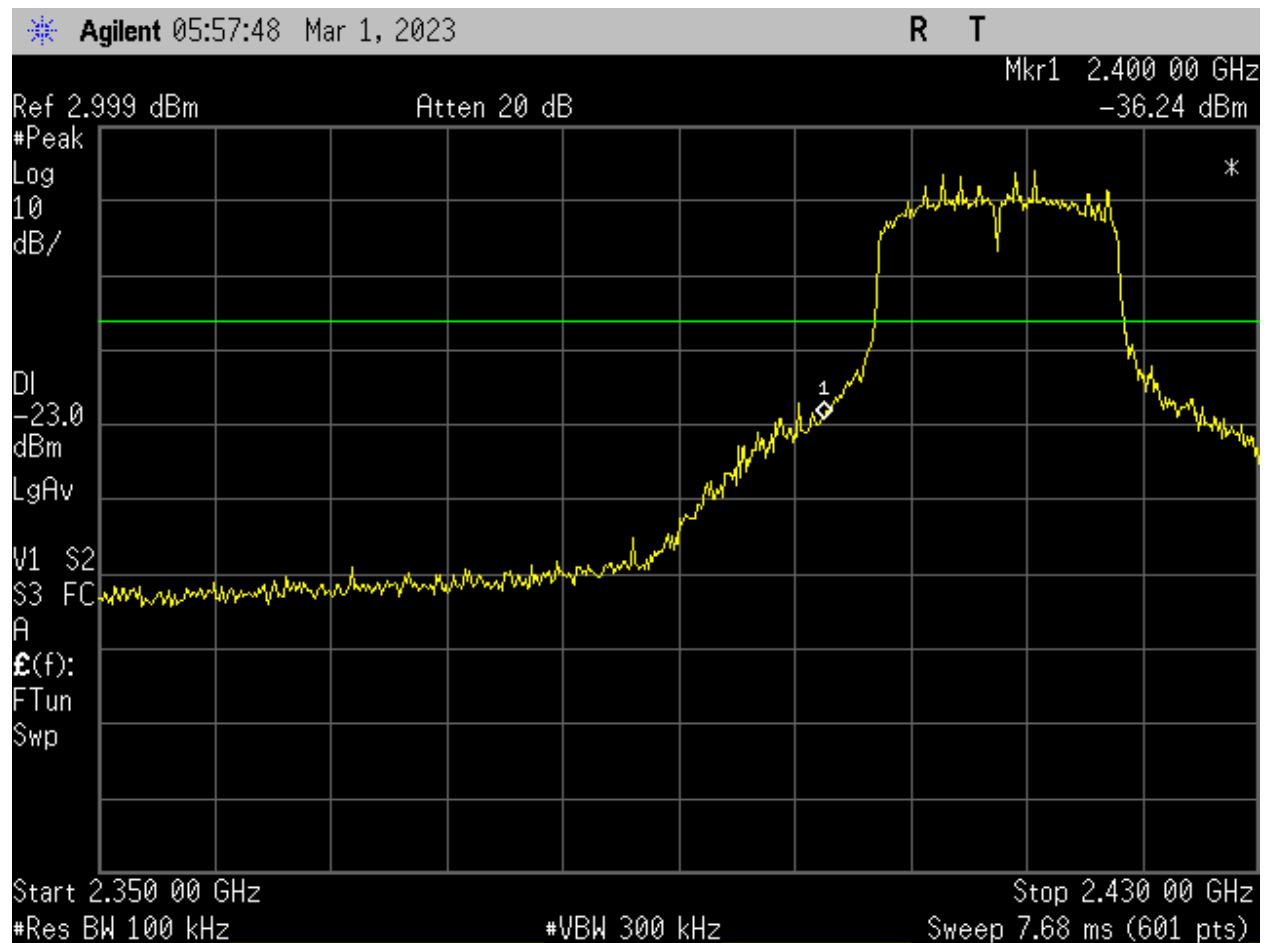


Figure 194: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_-20dBc\_Lower Band Edge\_Port 1.



Figure 195: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_-20dBc\_10-26GHz\_Port 1.

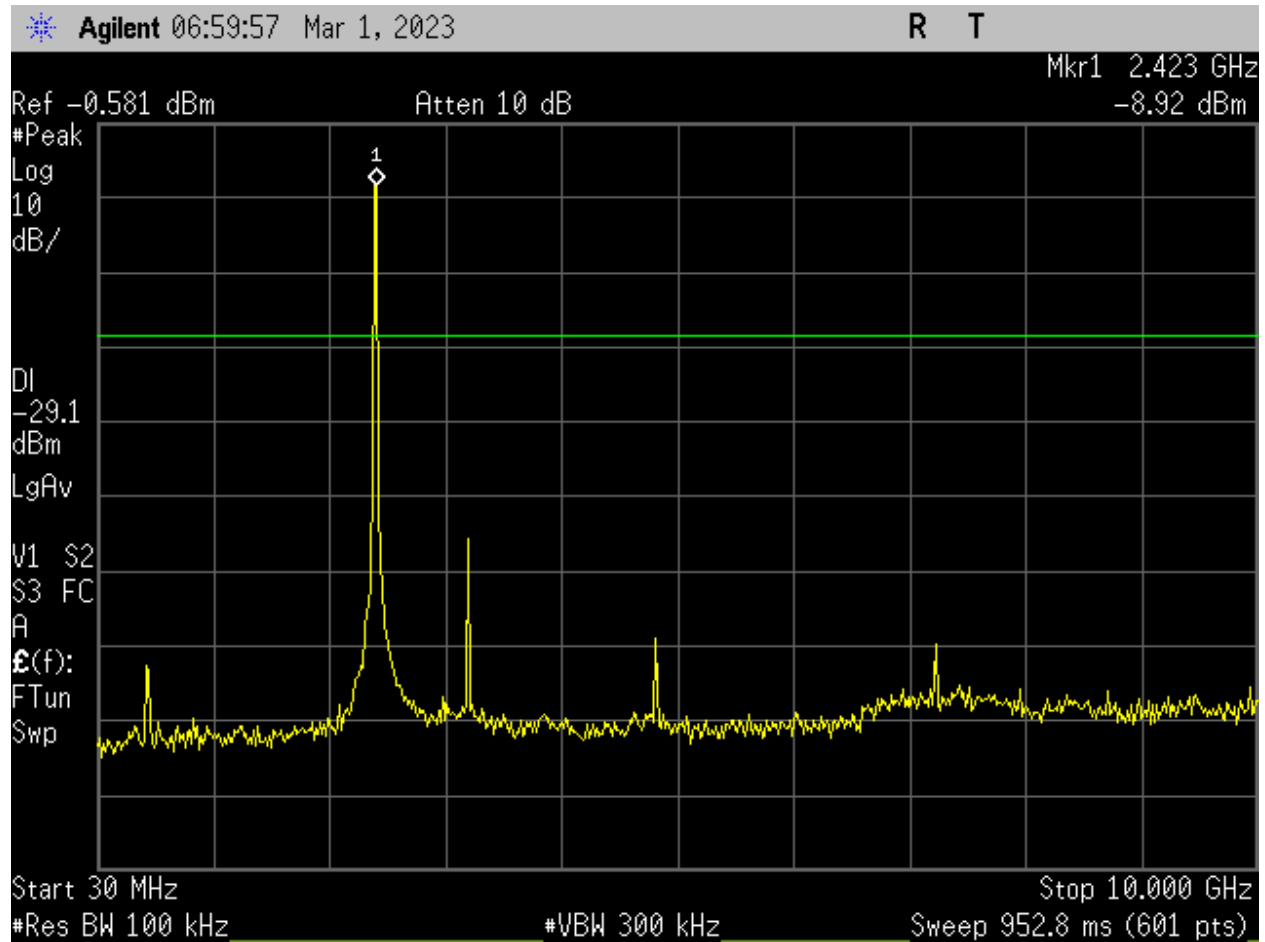


Figure 196: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_-20dBc\_30MHz-10GHz\_Port 1.

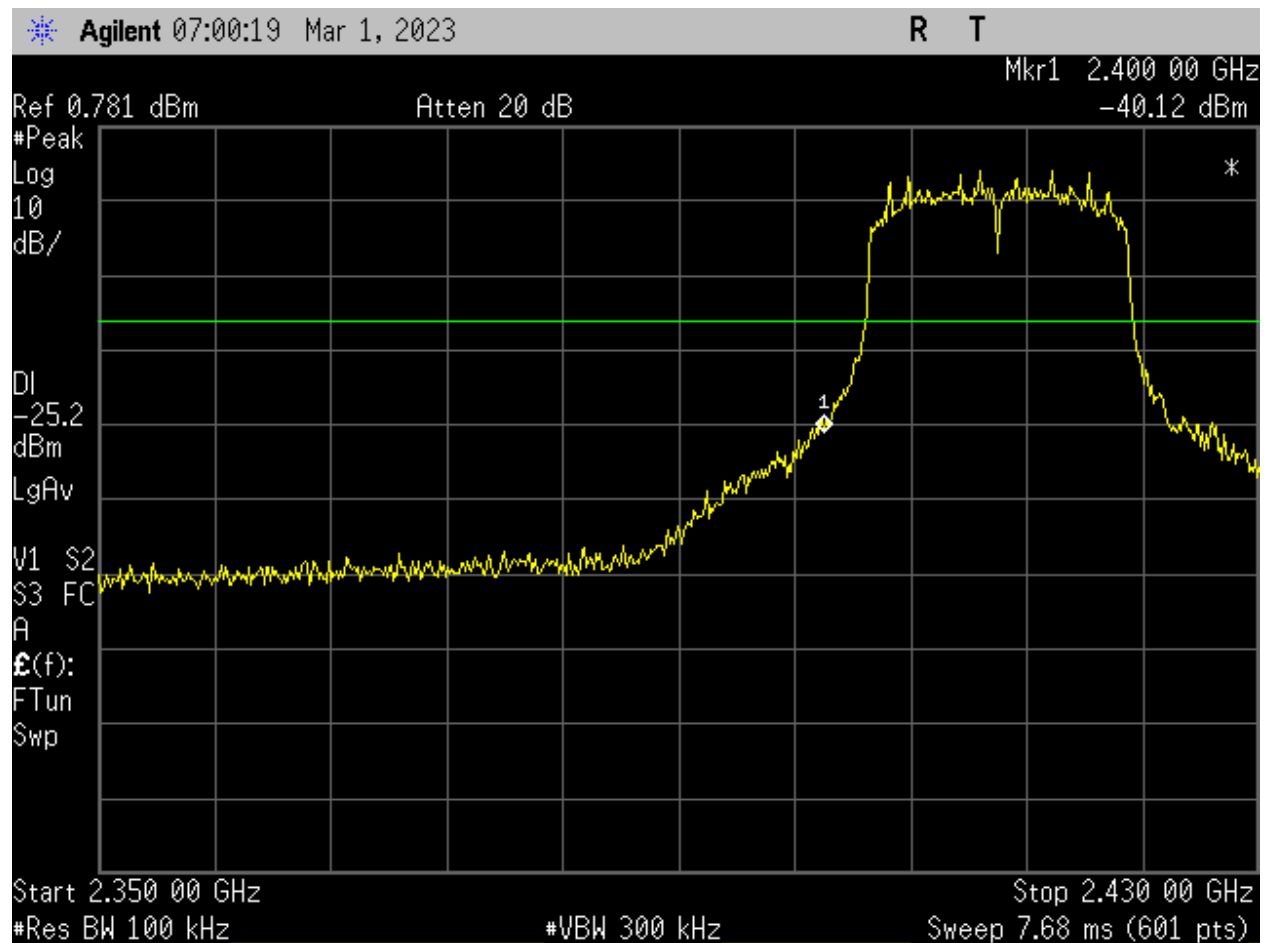


Figure 197: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_-20dBc\_Lower Band Edge\_Port 1.

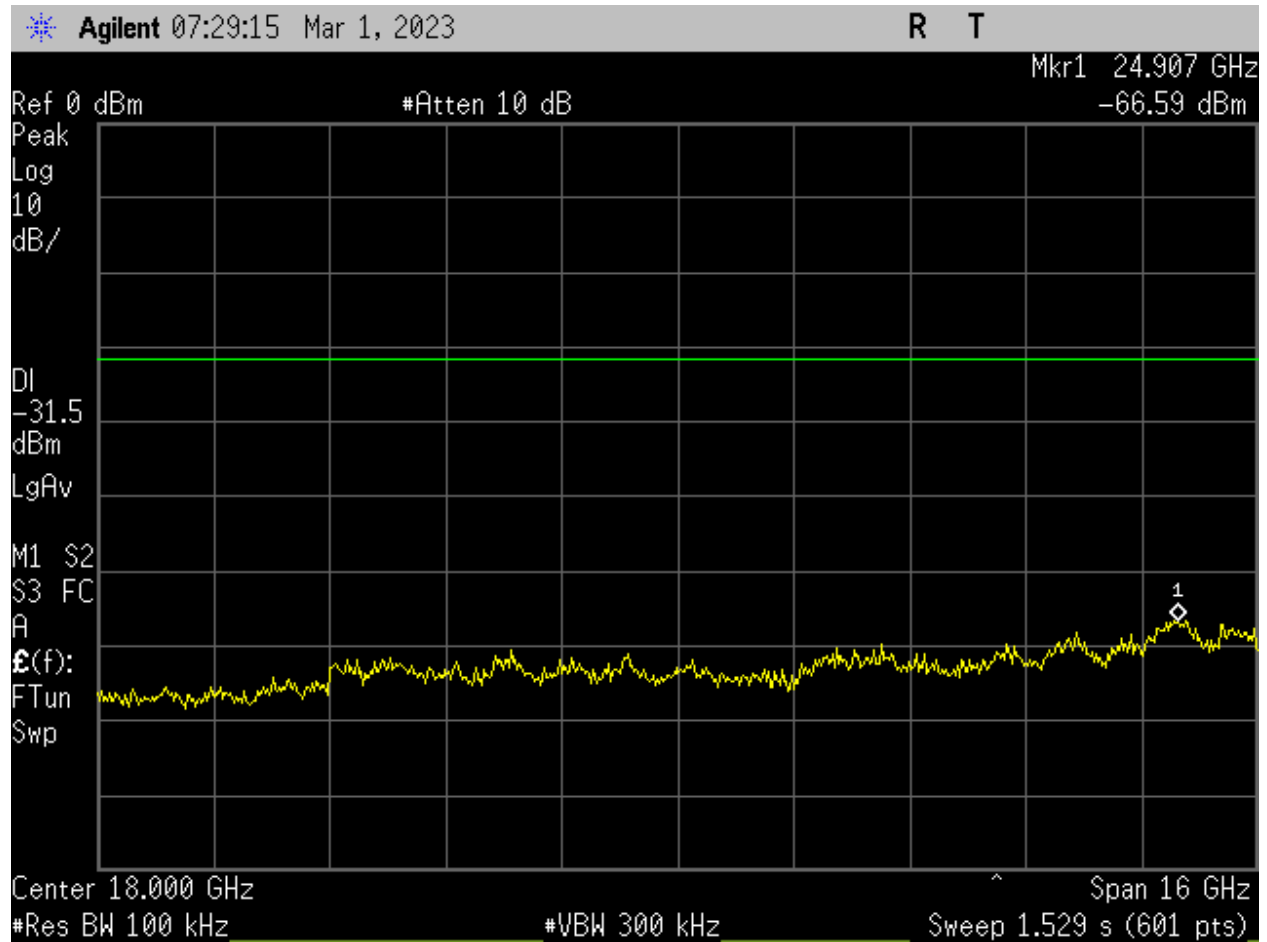


Figure 198: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_-20dBc\_10-26GHz\_Port 1.

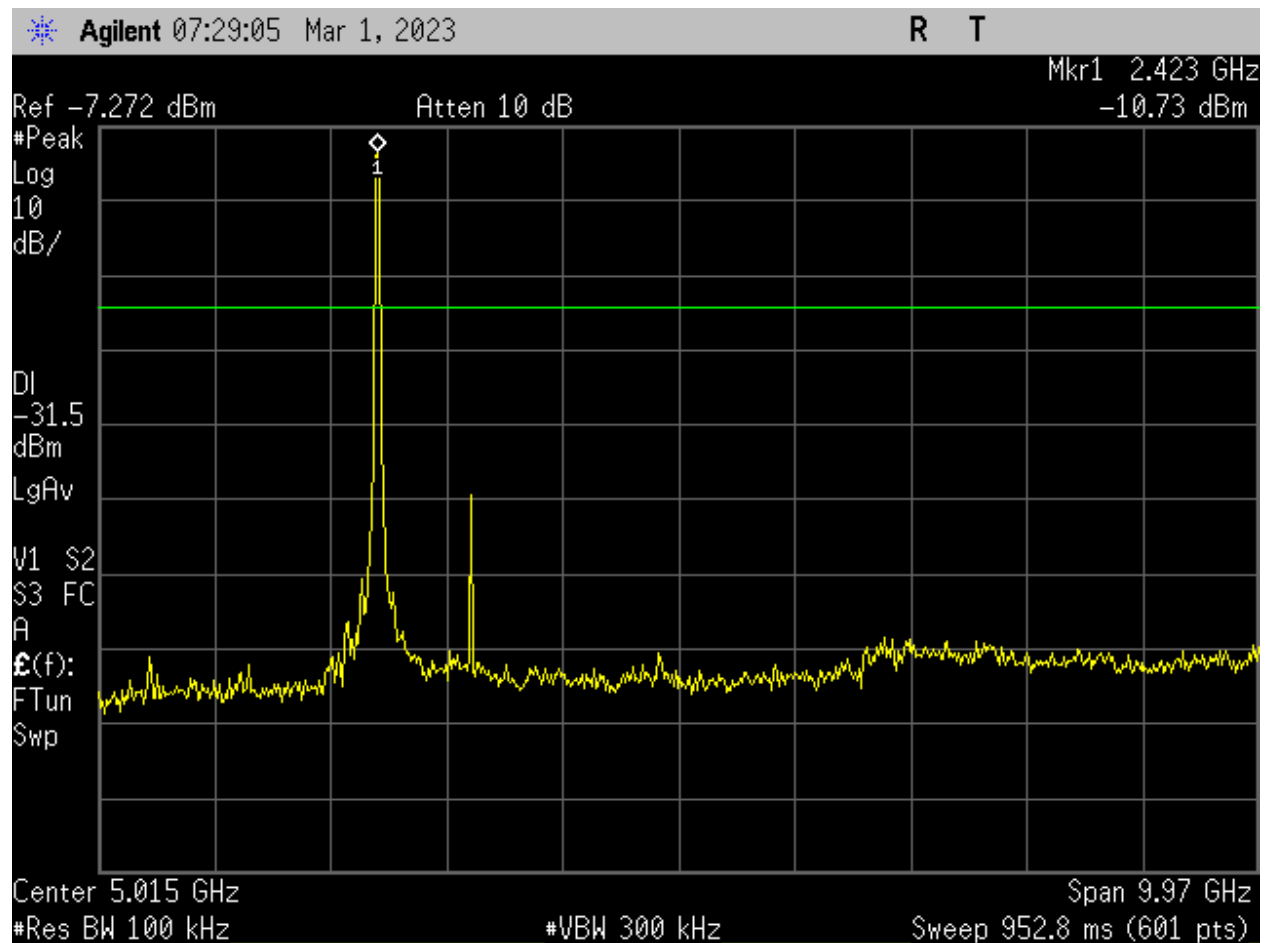


Figure 199: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_-20dBc\_30MHz-10GHz\_Port 1.

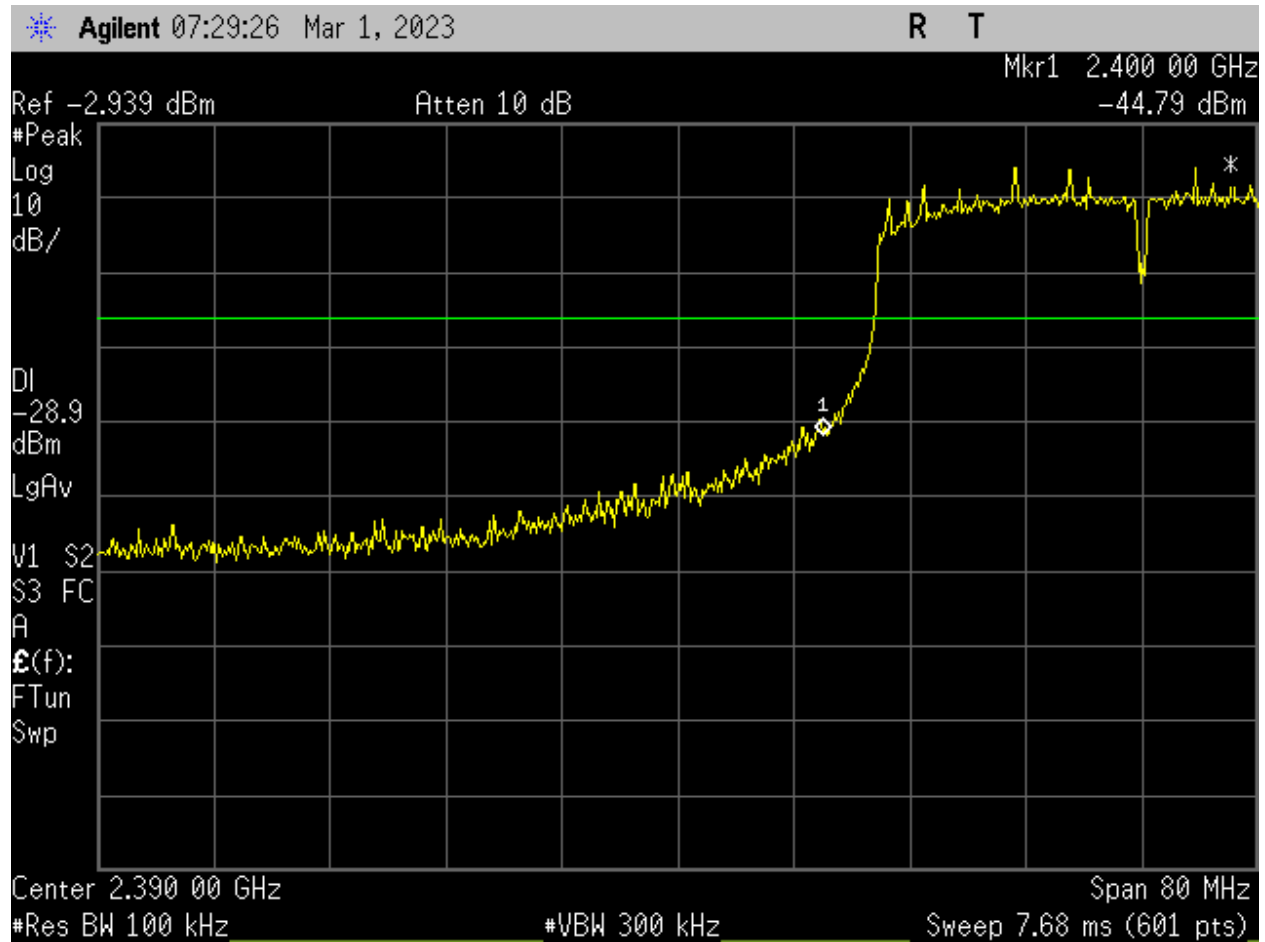


Figure 200: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_-20dBc\_Lower Band Edge\_Port 1.



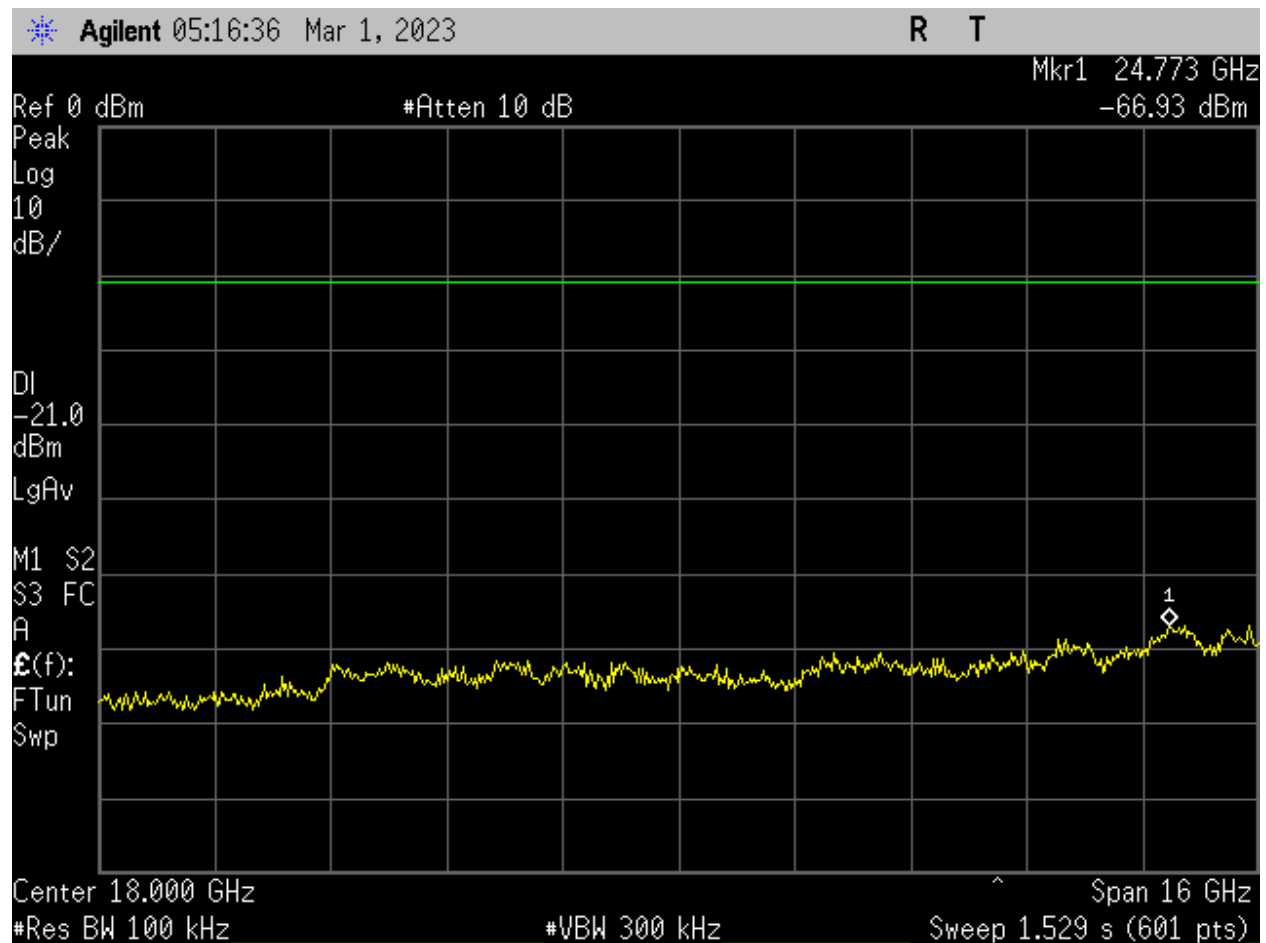


Figure 201: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_-20dBc\_10-26GHz\_Port 1.

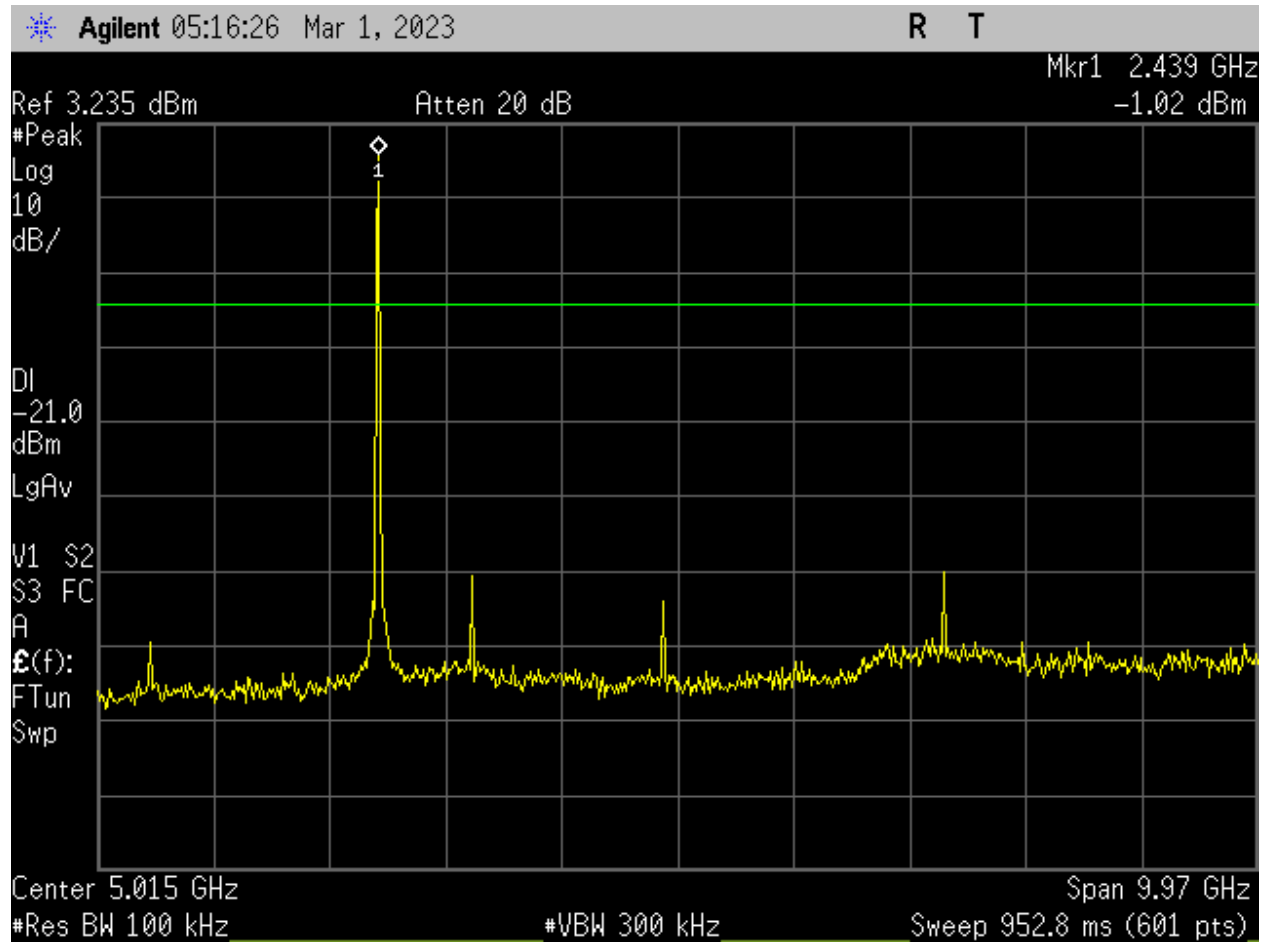


Figure 202: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_-20dBc\_30MHz-10GHz\_Port 1.

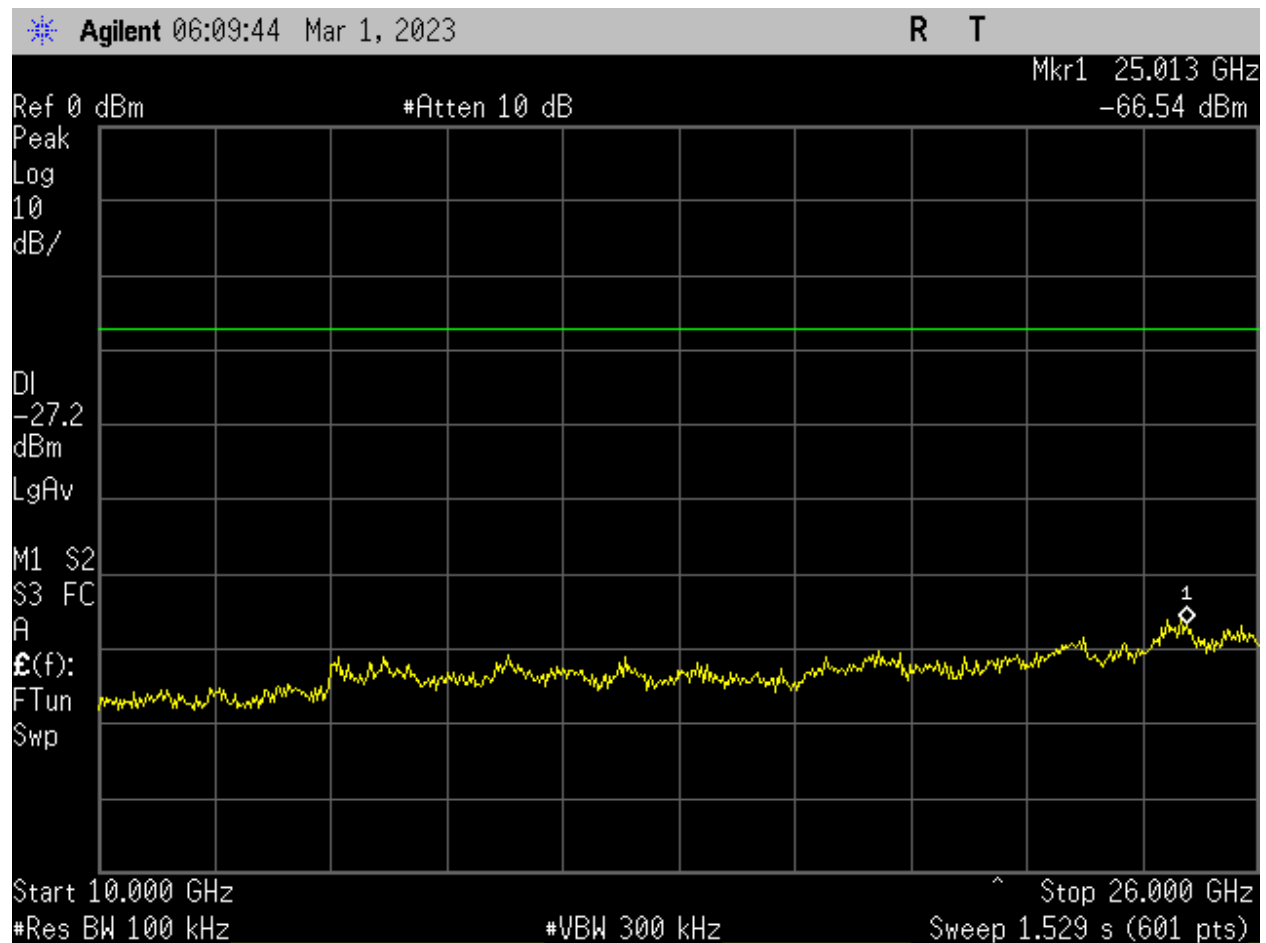


Figure 203: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_-20dBc\_10-26GHz\_Port 1.

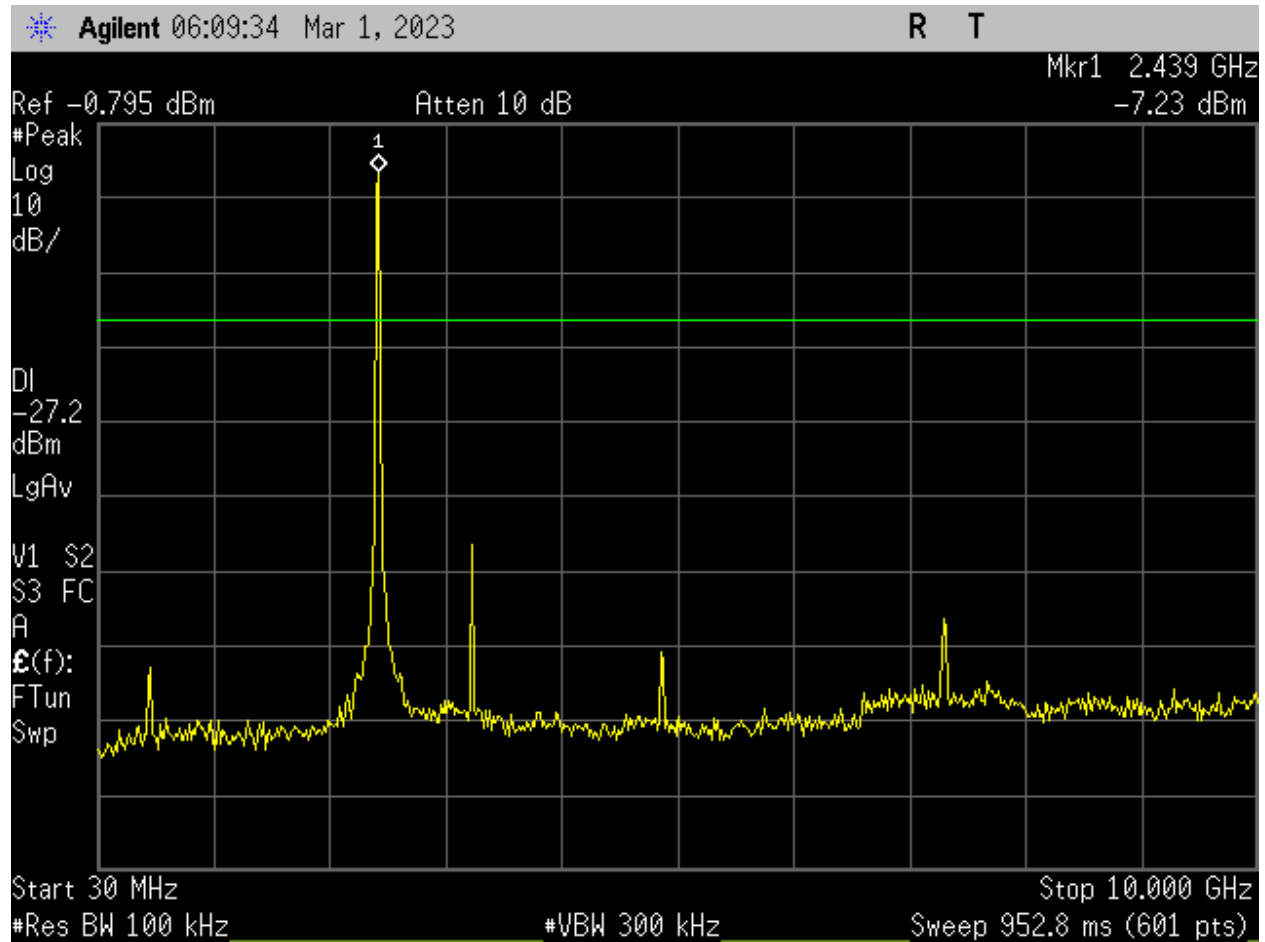


Figure 204: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_-20dBc\_30MHz-10GHz\_Port 1.

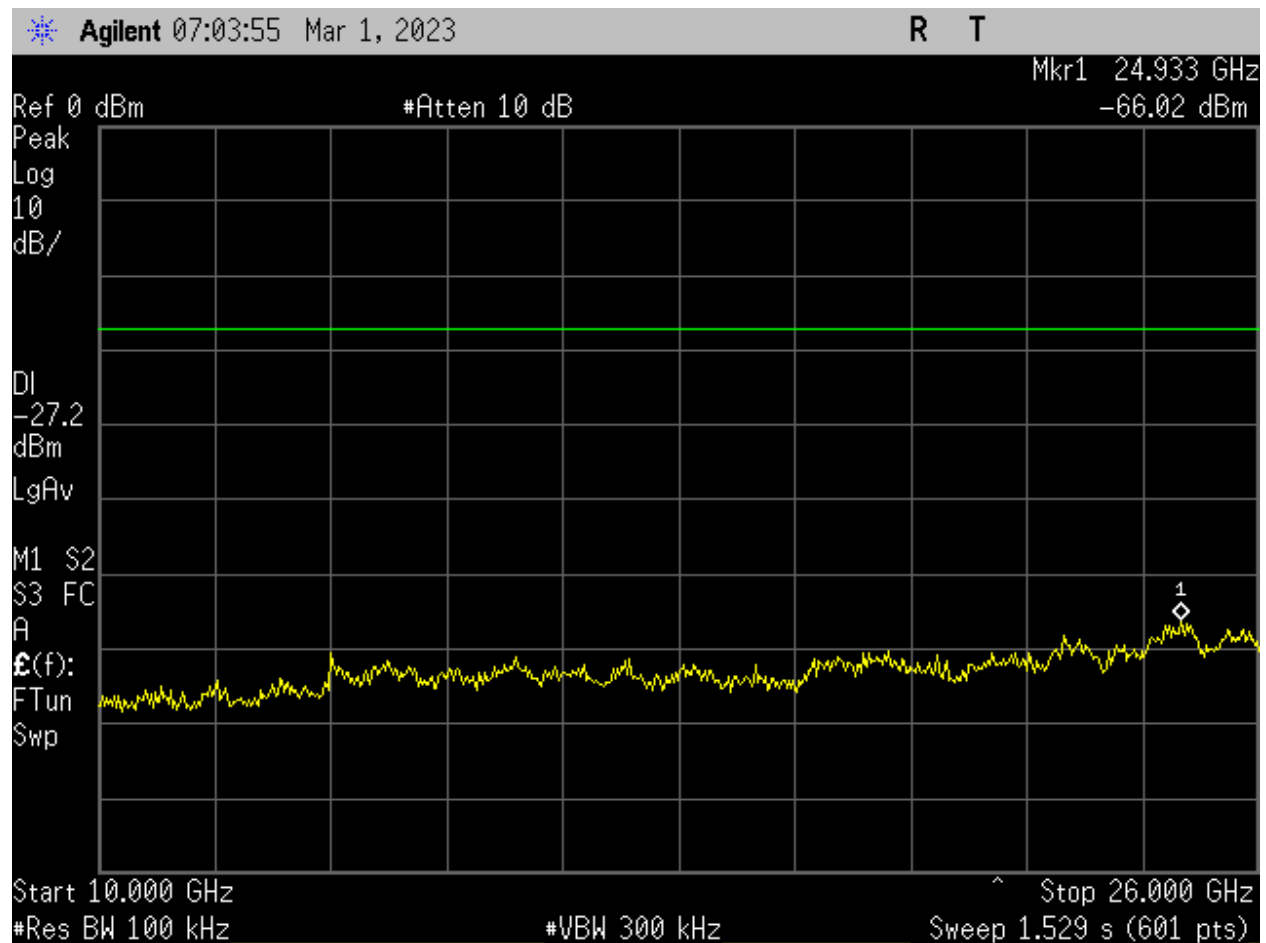


Figure 205: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_-20dBc\_10-26GHz\_Port 1.

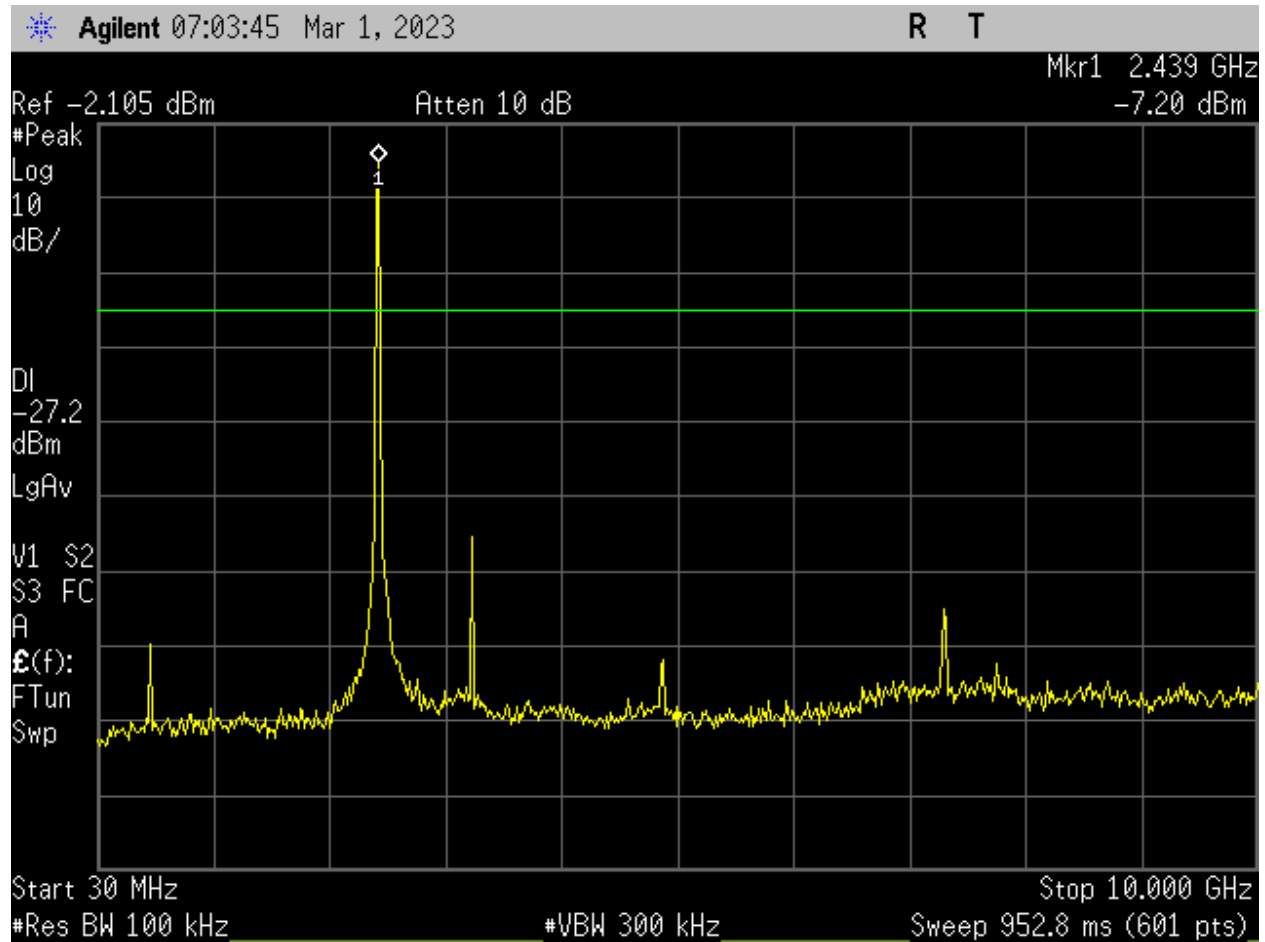


Figure 206: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_-20dBc\_30MHz-10GHz\_Port 1.

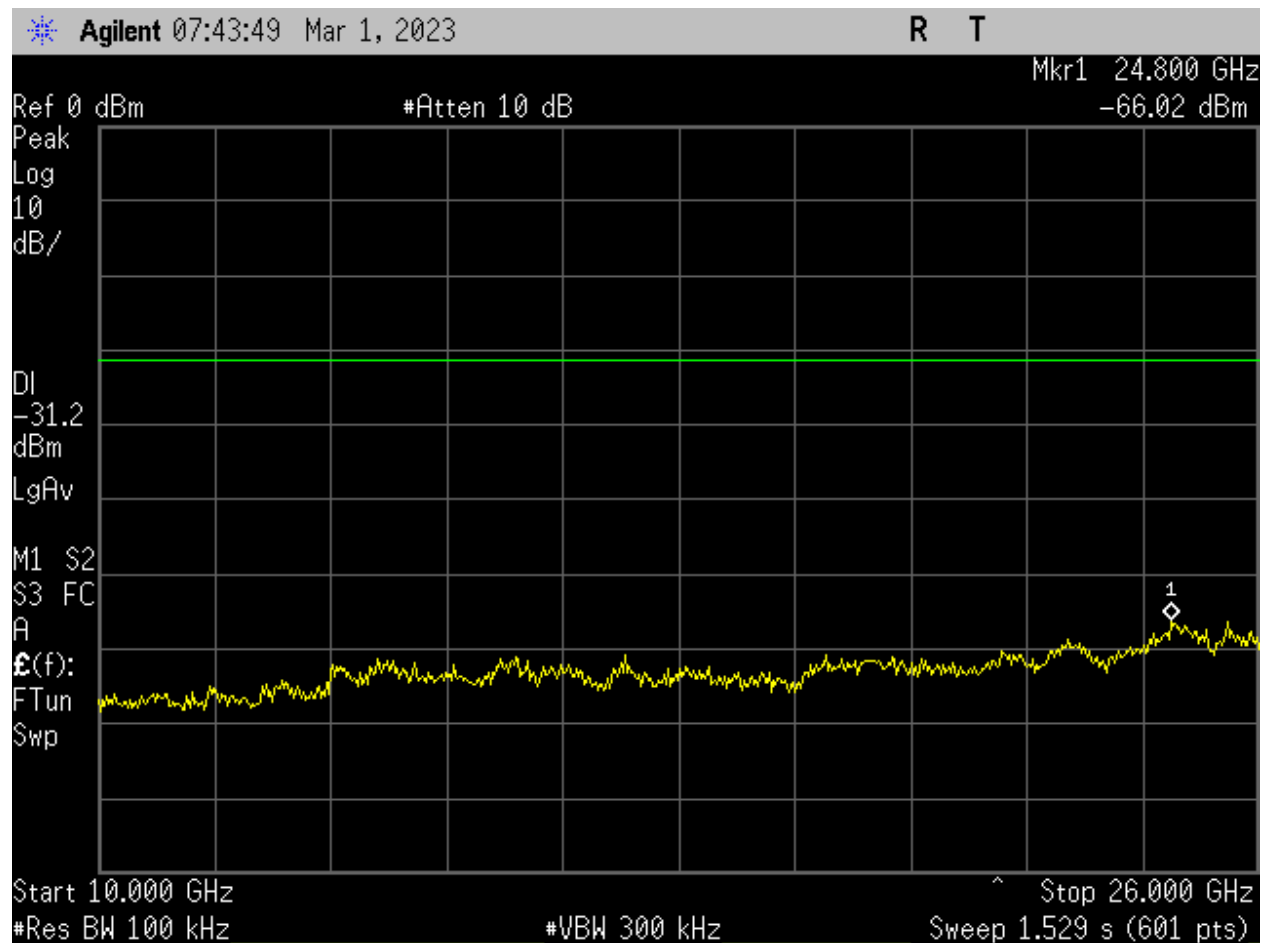


Figure 207: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_-20dBc\_10-26GHz\_Port 1.

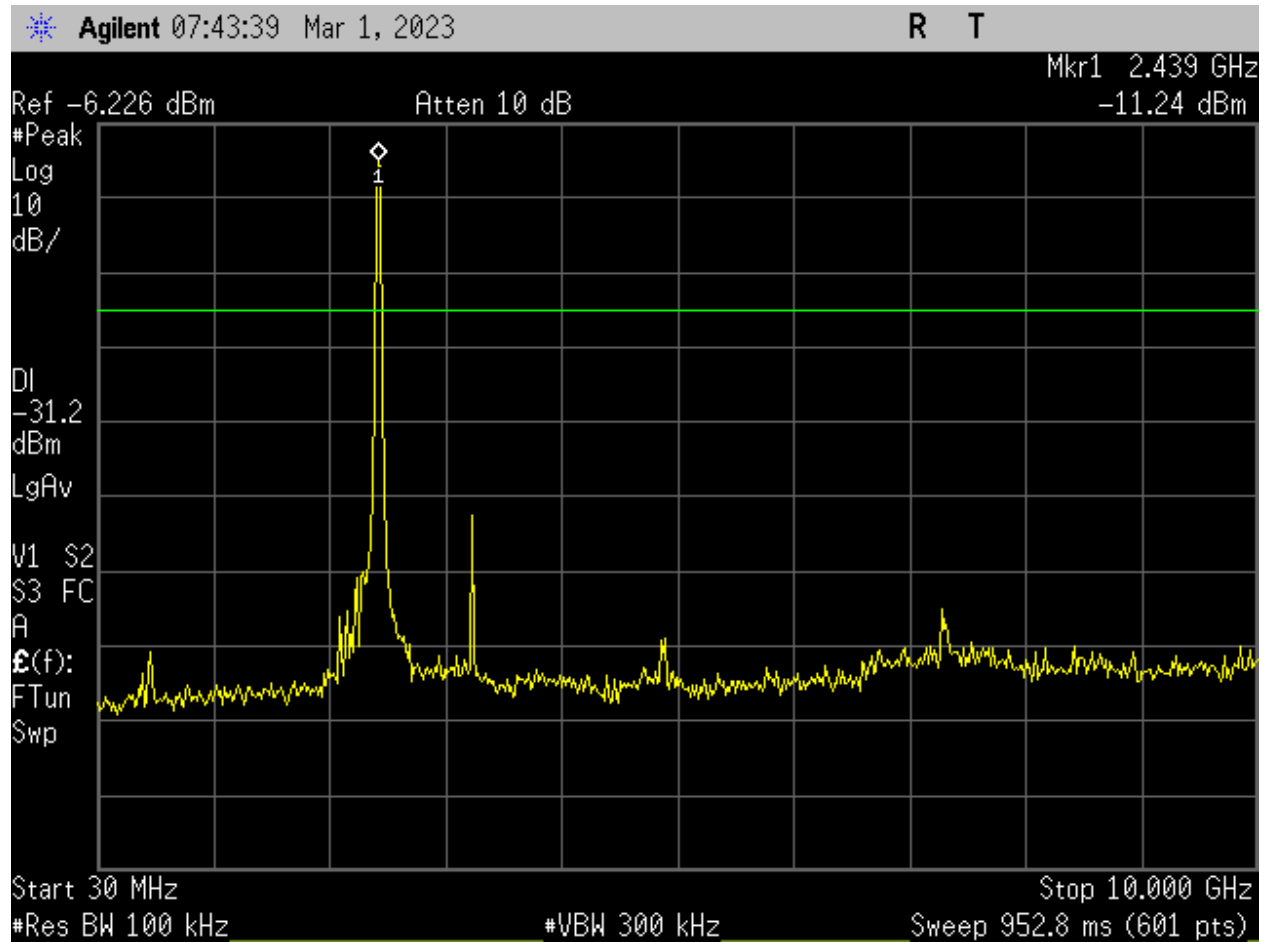


Figure 208: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_-20dBc\_30MHz-10GHz\_Port 1.



## § 15.247(e) Power Spectral Density

| Mode       | Frequency (MHz) | Measured Conducted PSD (dBm) | Limit (dBm) | Margin (dB) |
|------------|-----------------|------------------------------|-------------|-------------|
| 802.11b    | 2412            | 0.42                         | 8           | -7.58       |
|            | 2437            | -2.22                        | 8           | -10.22      |
|            | 2462            | -3.06                        | 8           | -11.06      |
| 802.11g    | 2412            | -3.97                        | 8           | -11.97      |
|            | 2437            | -4.24                        | 8           | -12.24      |
|            | 2462            | -5.11                        | 8           | -13.11      |
| 802.11n 20 | 2412            | -2.91                        | 8           | -10.91      |
|            | 2437            | -3.96                        | 8           | -11.96      |
|            | 2462            | -6.1                         | 8           | -14.1       |
| 802.11n 40 | 2422            | -7.78                        | 8           | -15.78      |
|            | 2437            | -8.7                         | 8           | -16.7       |
|            | 2452            | -9.72                        | 8           | -17.72      |

**Figure 209: PSD, Test Results**

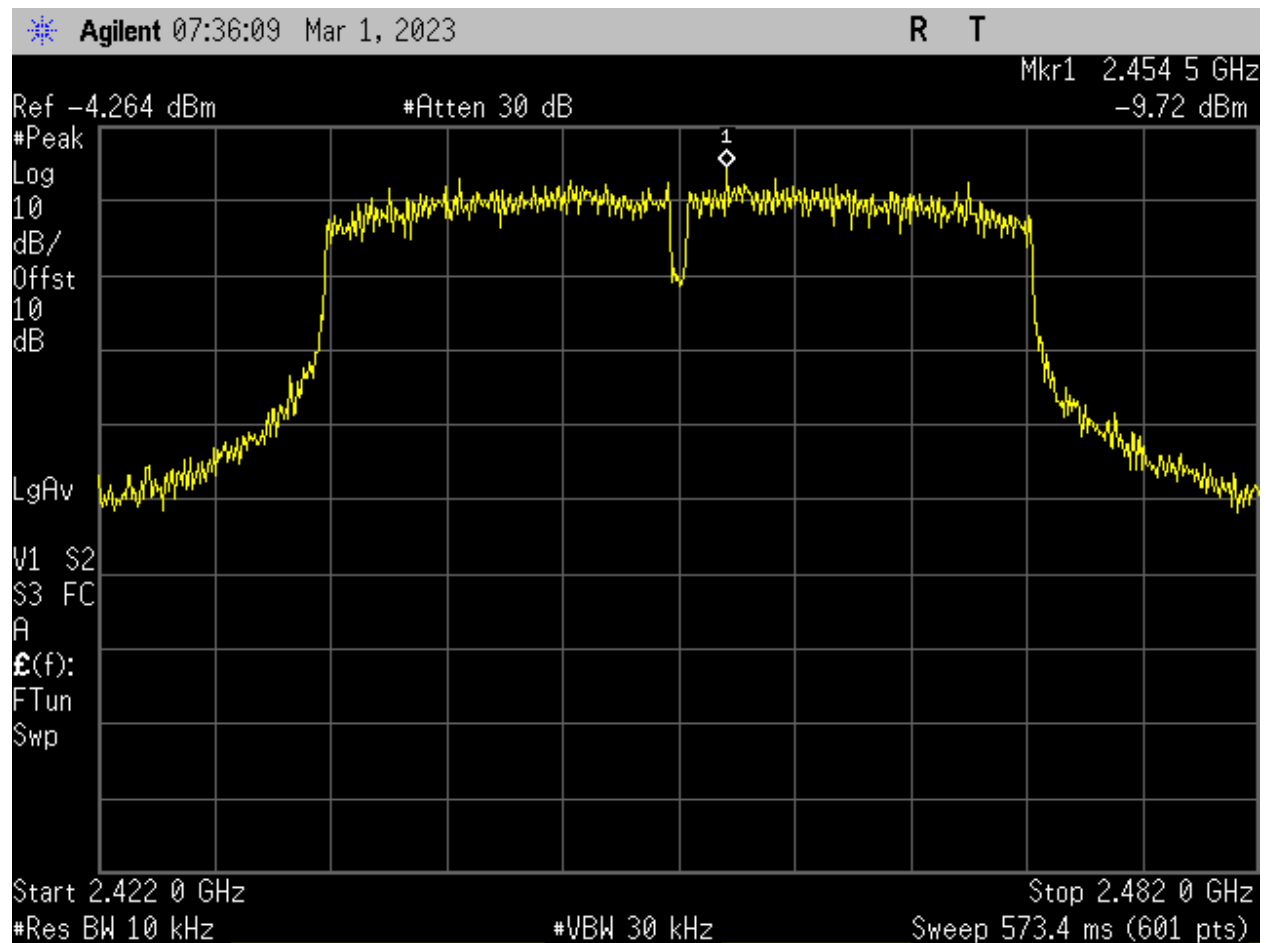


Figure 210: WIFI\_High Ch\_2452MHz\_40MHz BW\_n-mode\_Spectral Density\_Port 1.

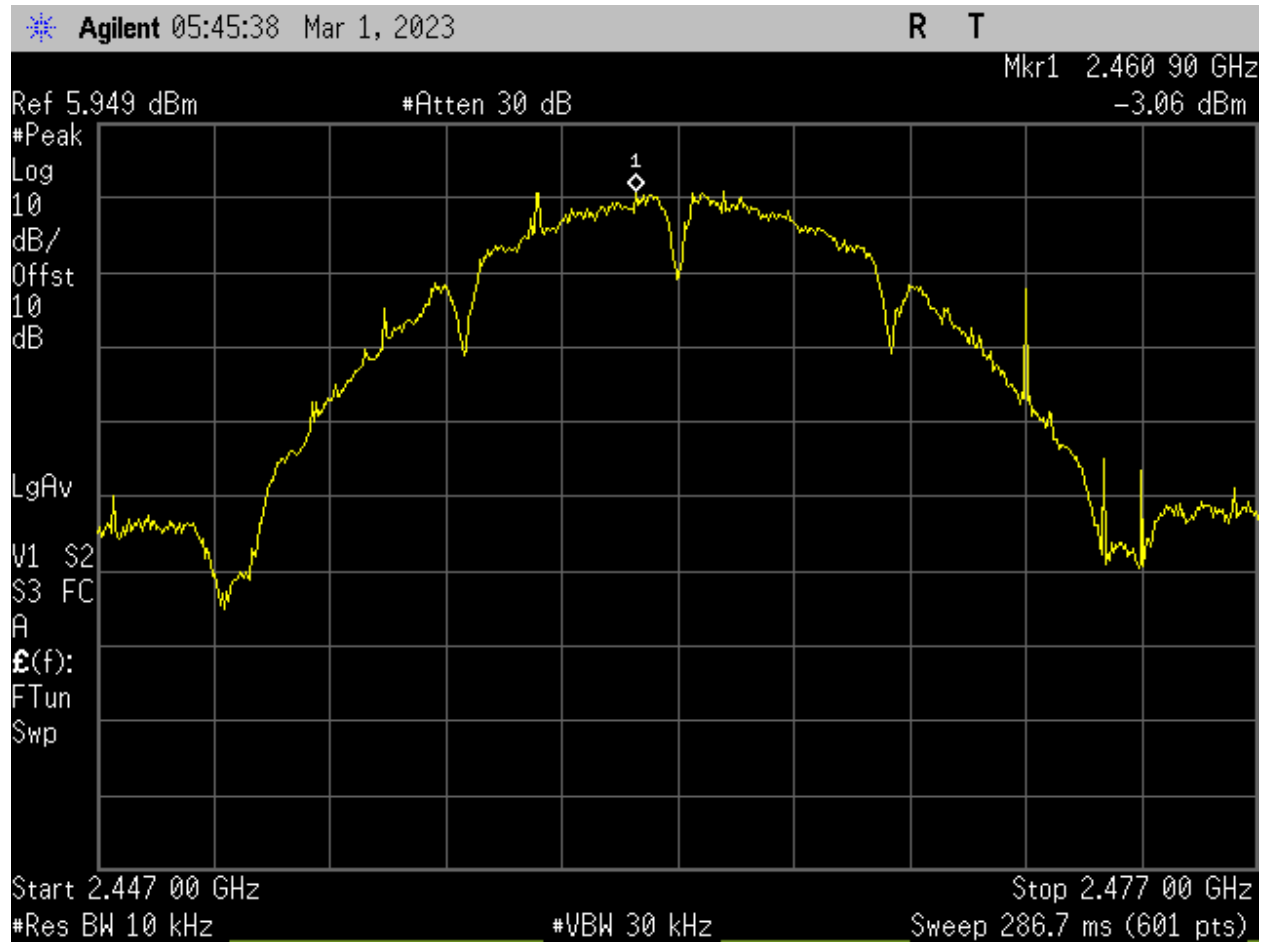


Figure 211: WIFI\_High Ch\_2462MHz\_20MHz BW\_b-mode\_Spectral Density\_Port 1.

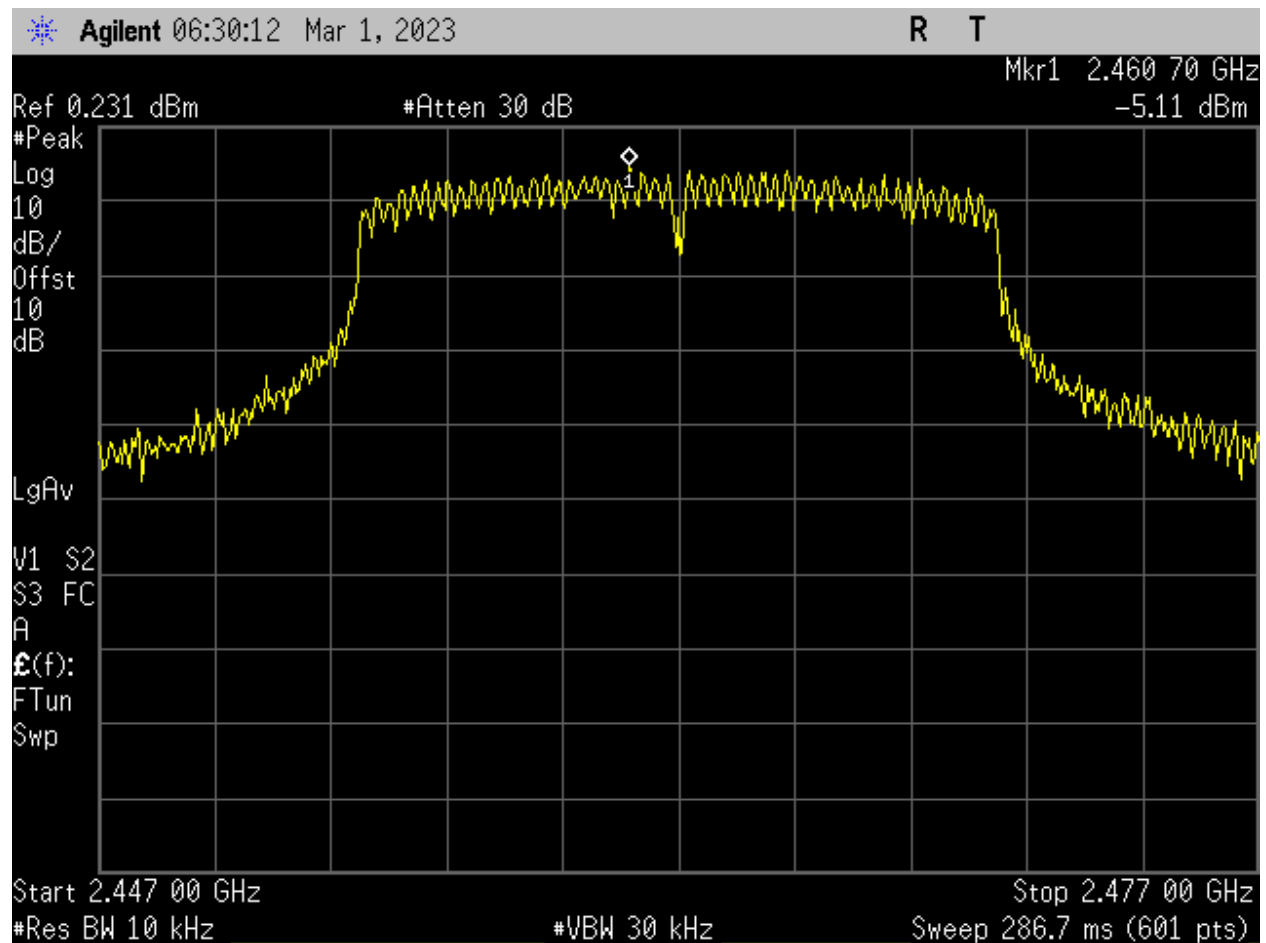


Figure 212: WIFI\_High Ch\_2462MHz\_20MHz BW\_g-mode\_Spectral Density\_Port 1.

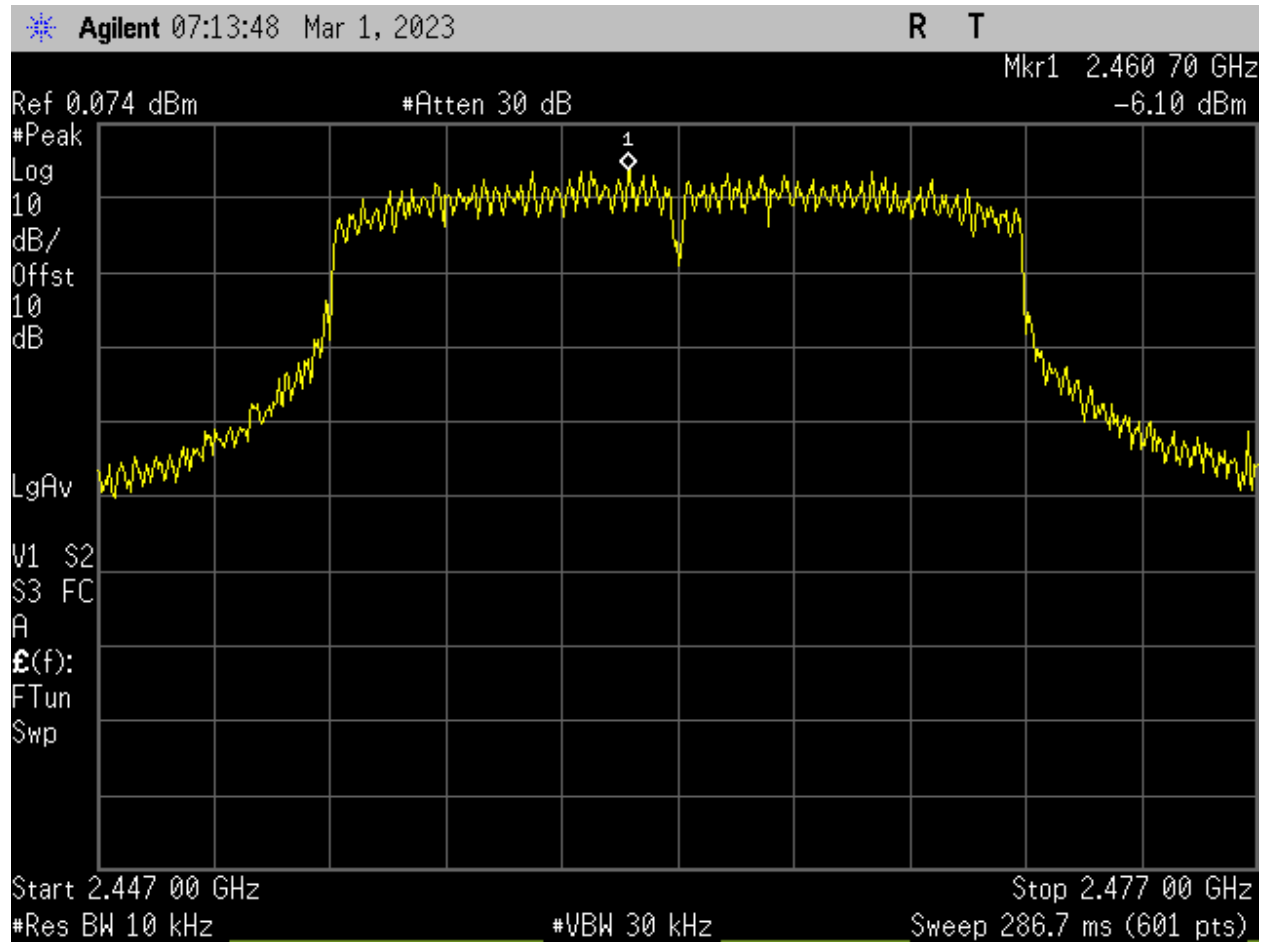


Figure 213: WIFI\_High Ch\_2462MHz\_20MHz BW\_n-mode\_Spectral Density\_Port 1.

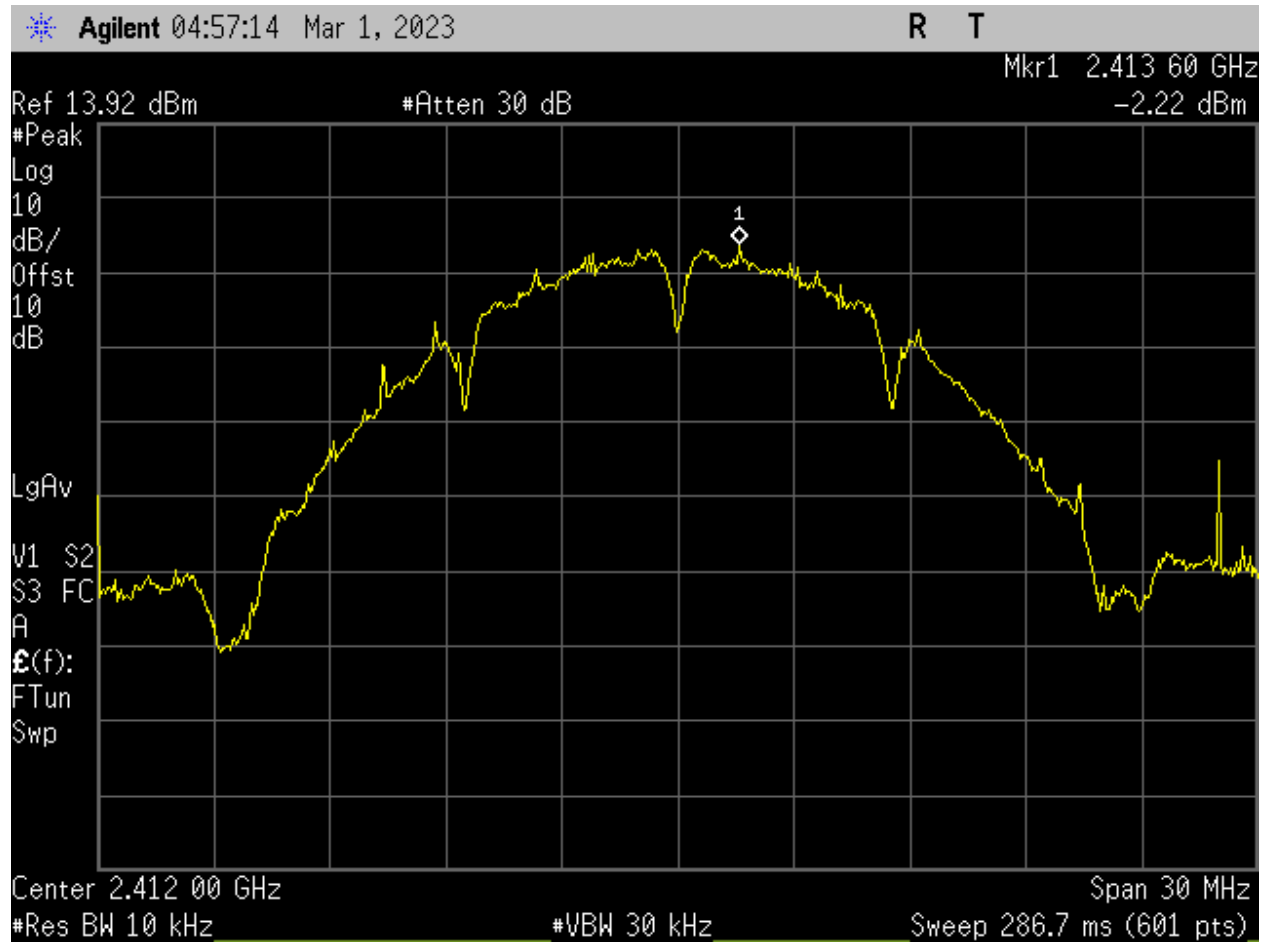


Figure 214: WIFI\_Low Ch\_2412MHz\_20MHz BW\_b-mode\_Spectral Density\_Port 1.

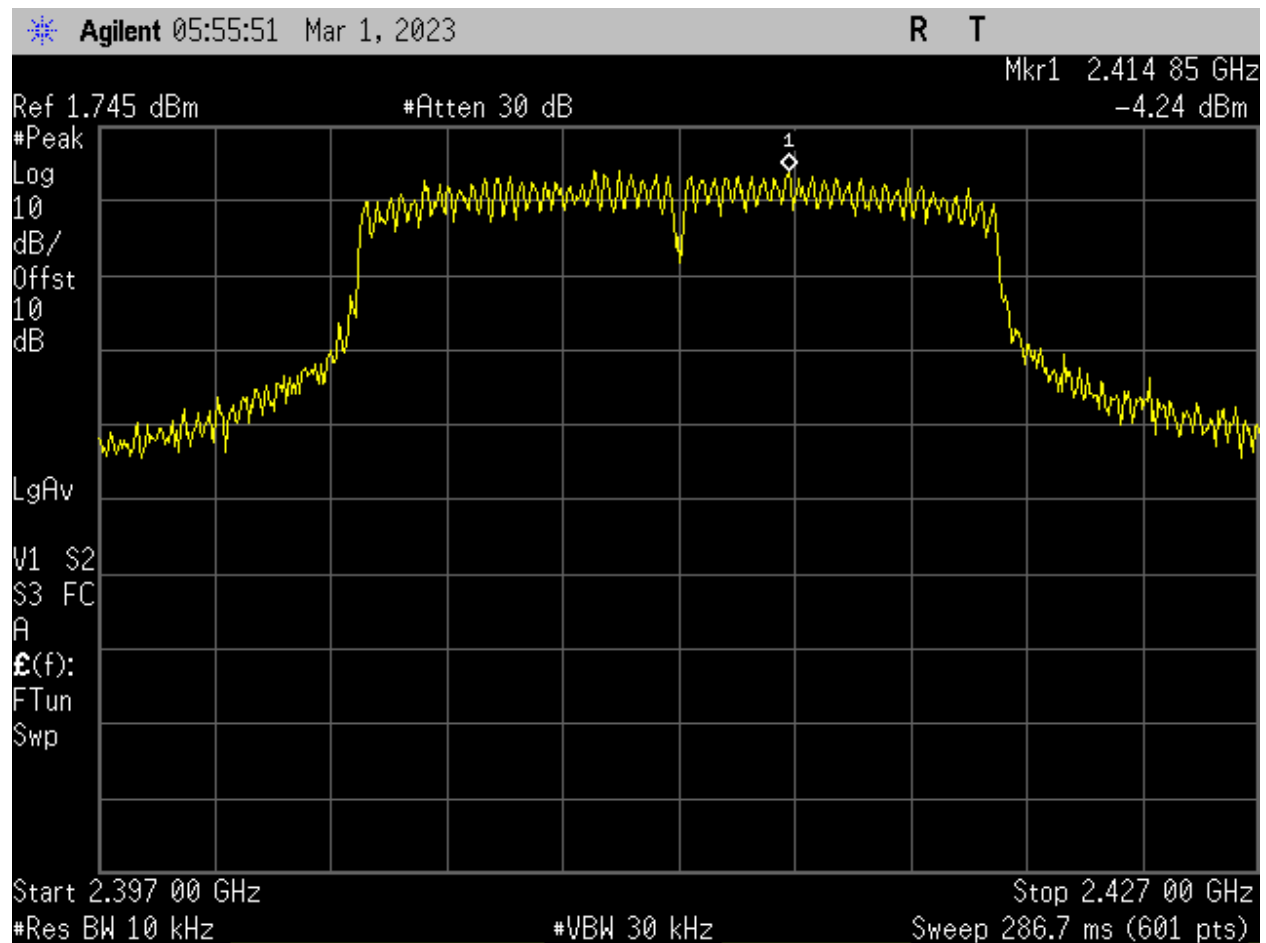


Figure 215: WIFI\_Low Ch\_2412MHz\_20MHz BW\_g-mode\_Spectral Density\_Port 1.

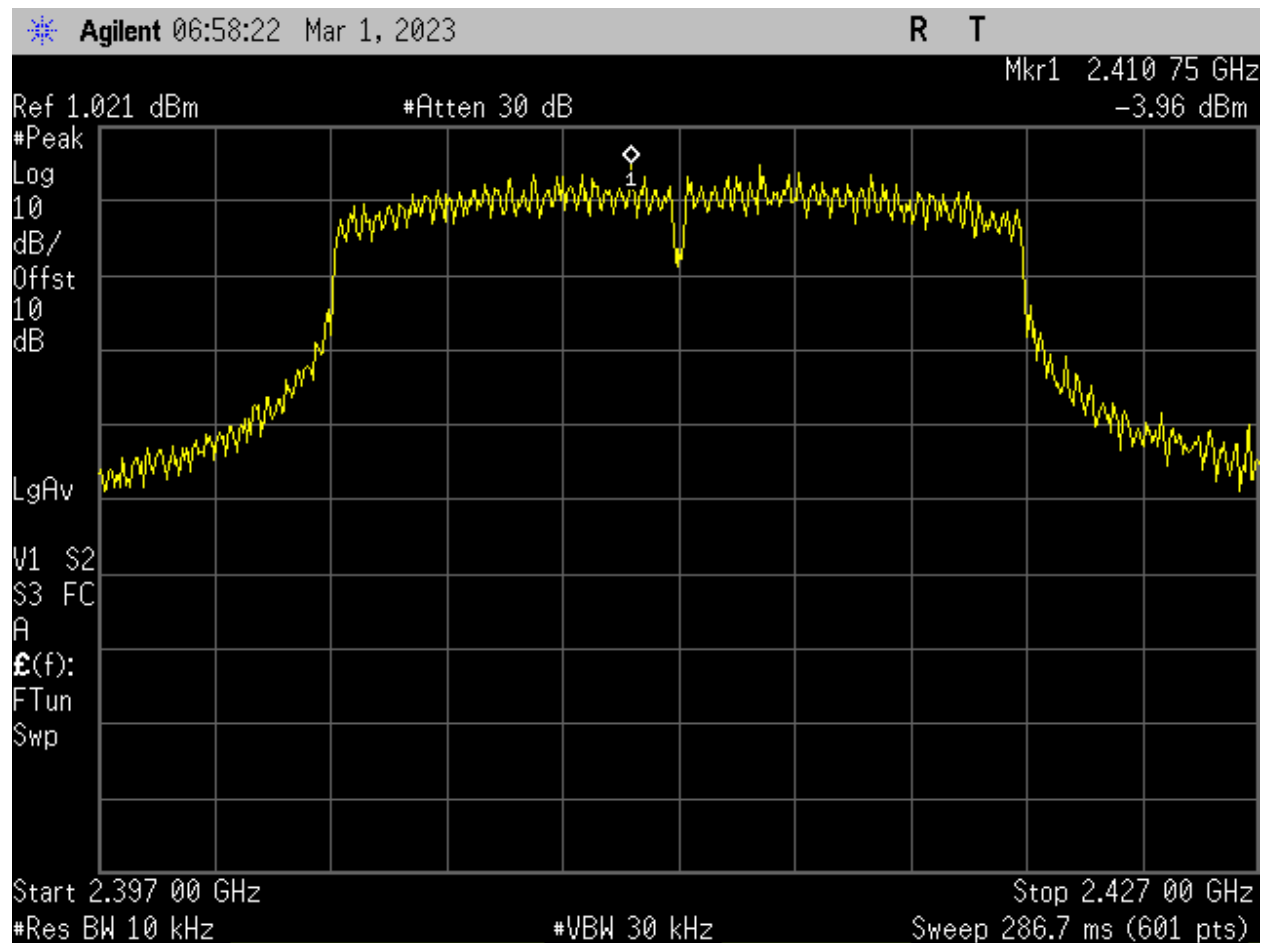


Figure 216: WIFI\_Low Ch\_2412MHz\_20MHz BW\_n-mode\_Spectral Density\_Port 1.



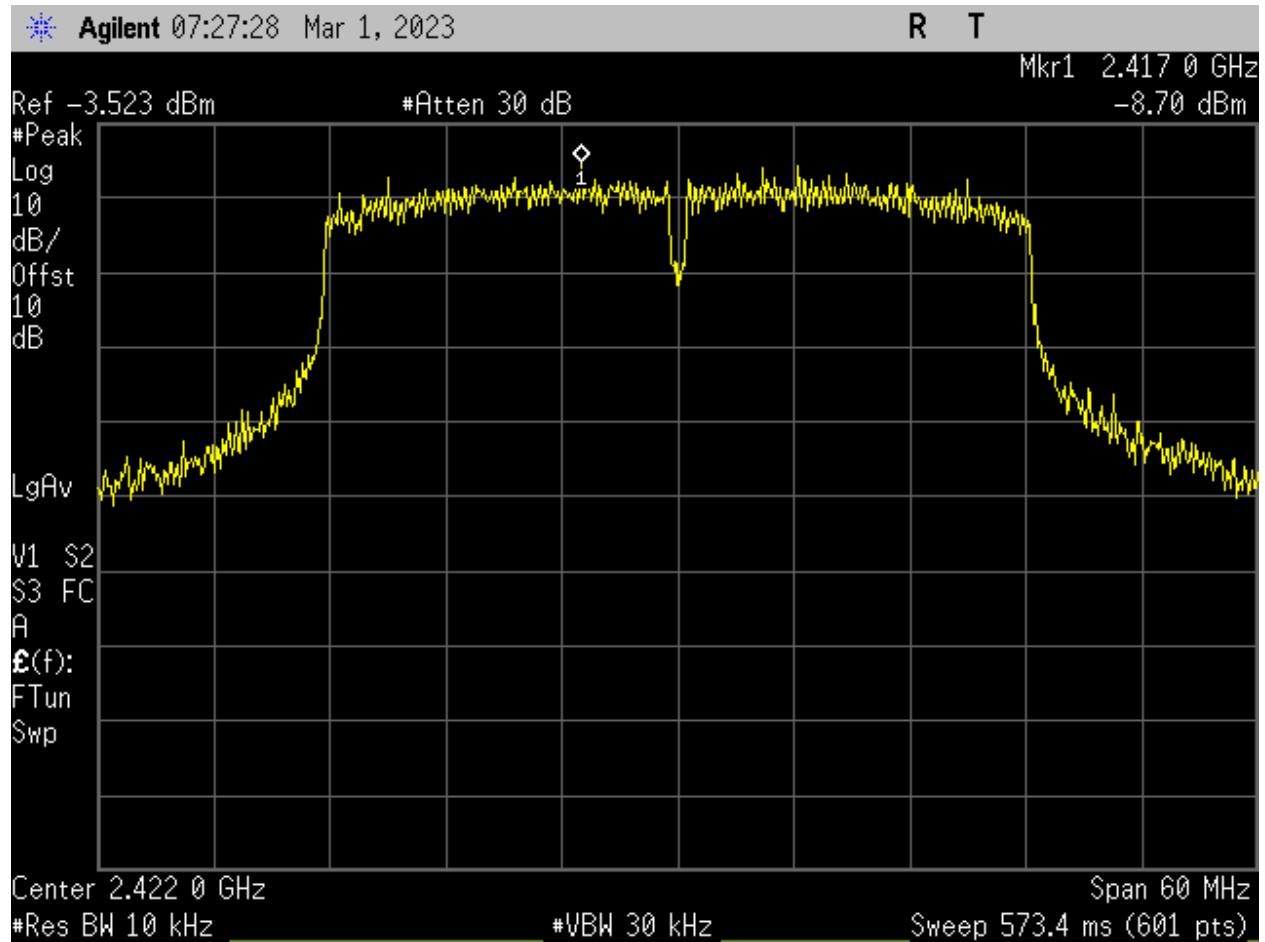


Figure 217: WIFI\_Low Ch\_2422MHz\_40MHz BW\_n-mode\_Spectral Density\_Port 1.

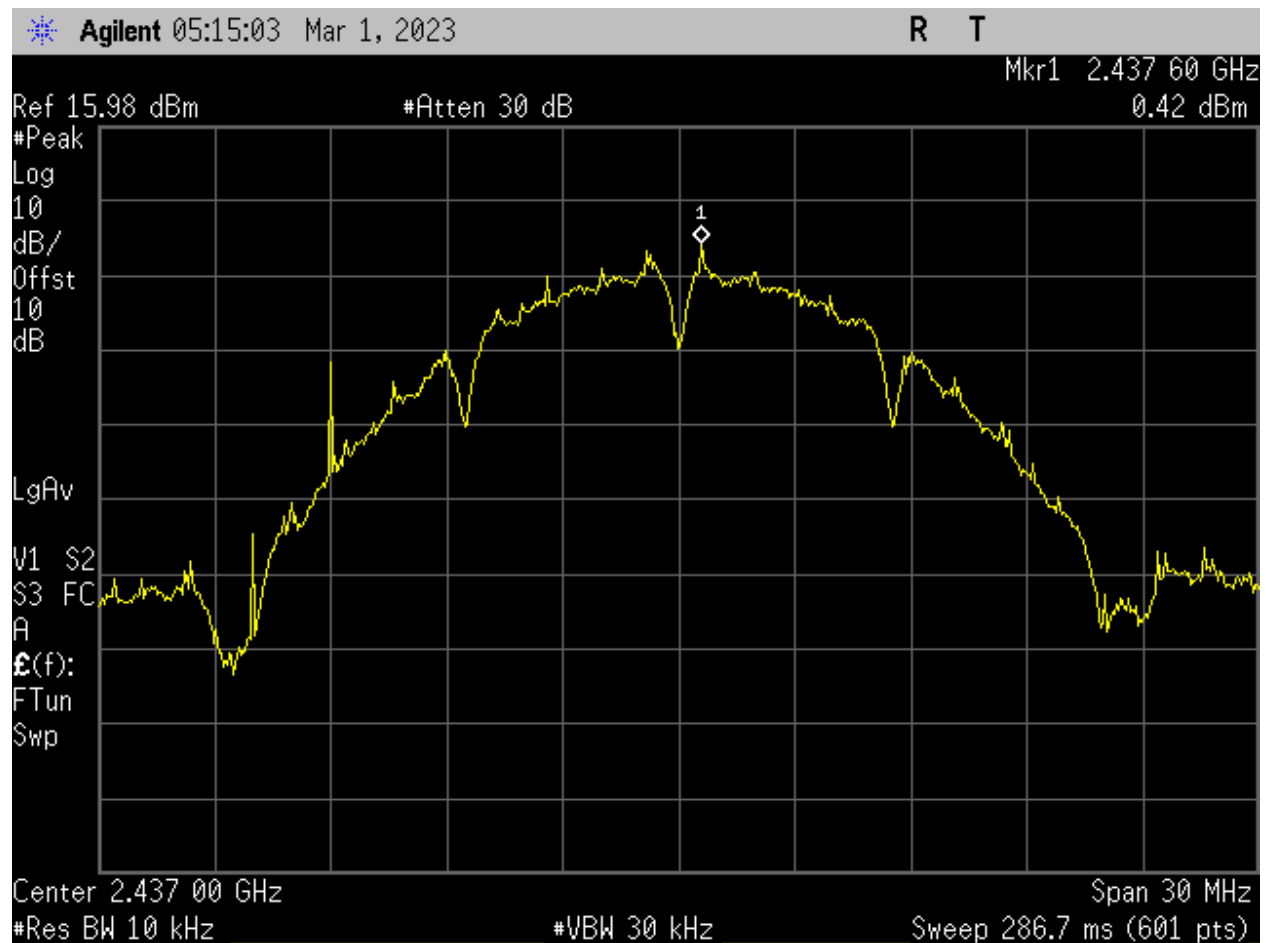


Figure 218: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_b-mode\_Spectral Density\_Port 1.

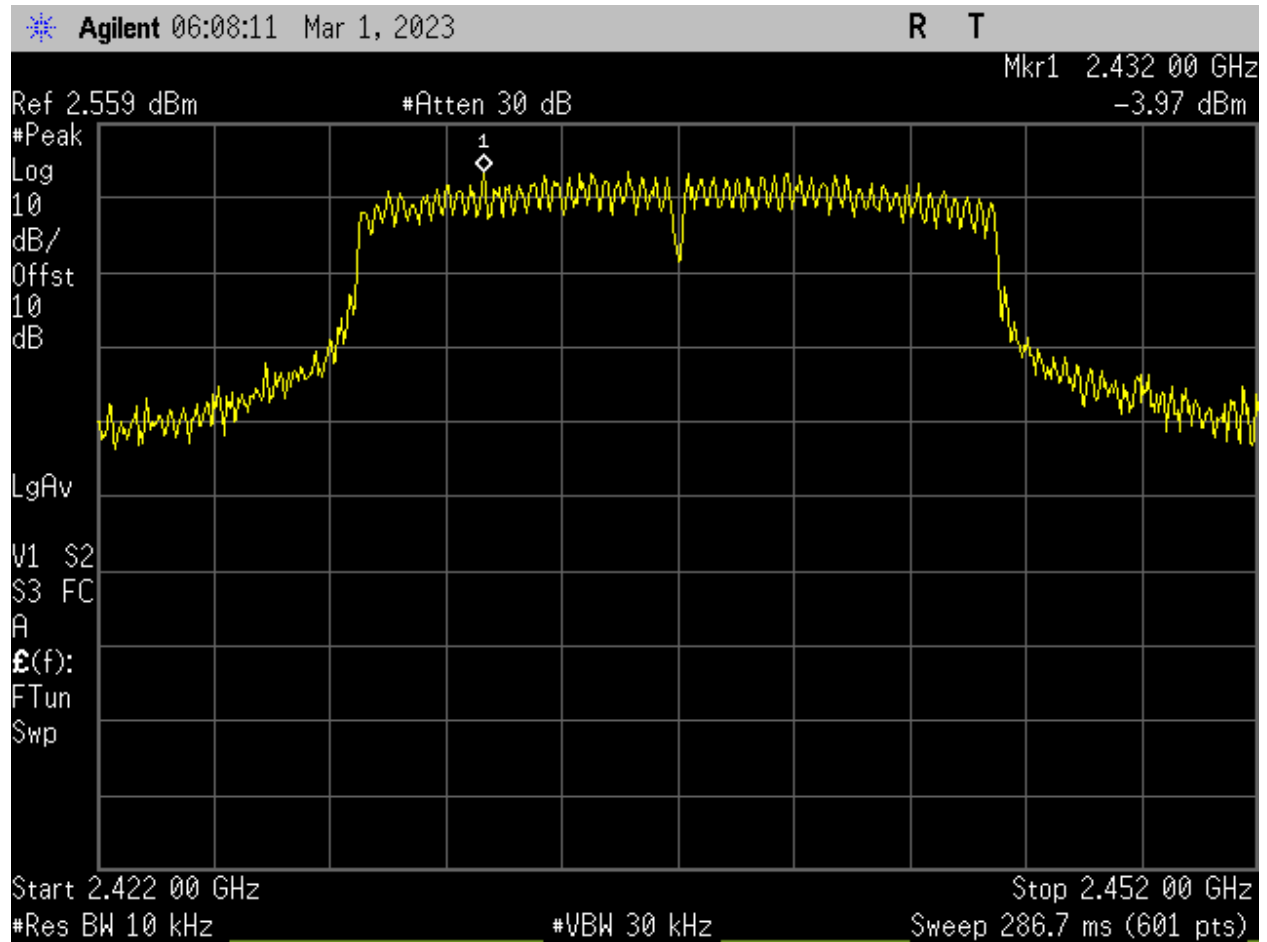


Figure 219: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_g-mode\_Spectral Density\_Port 1.

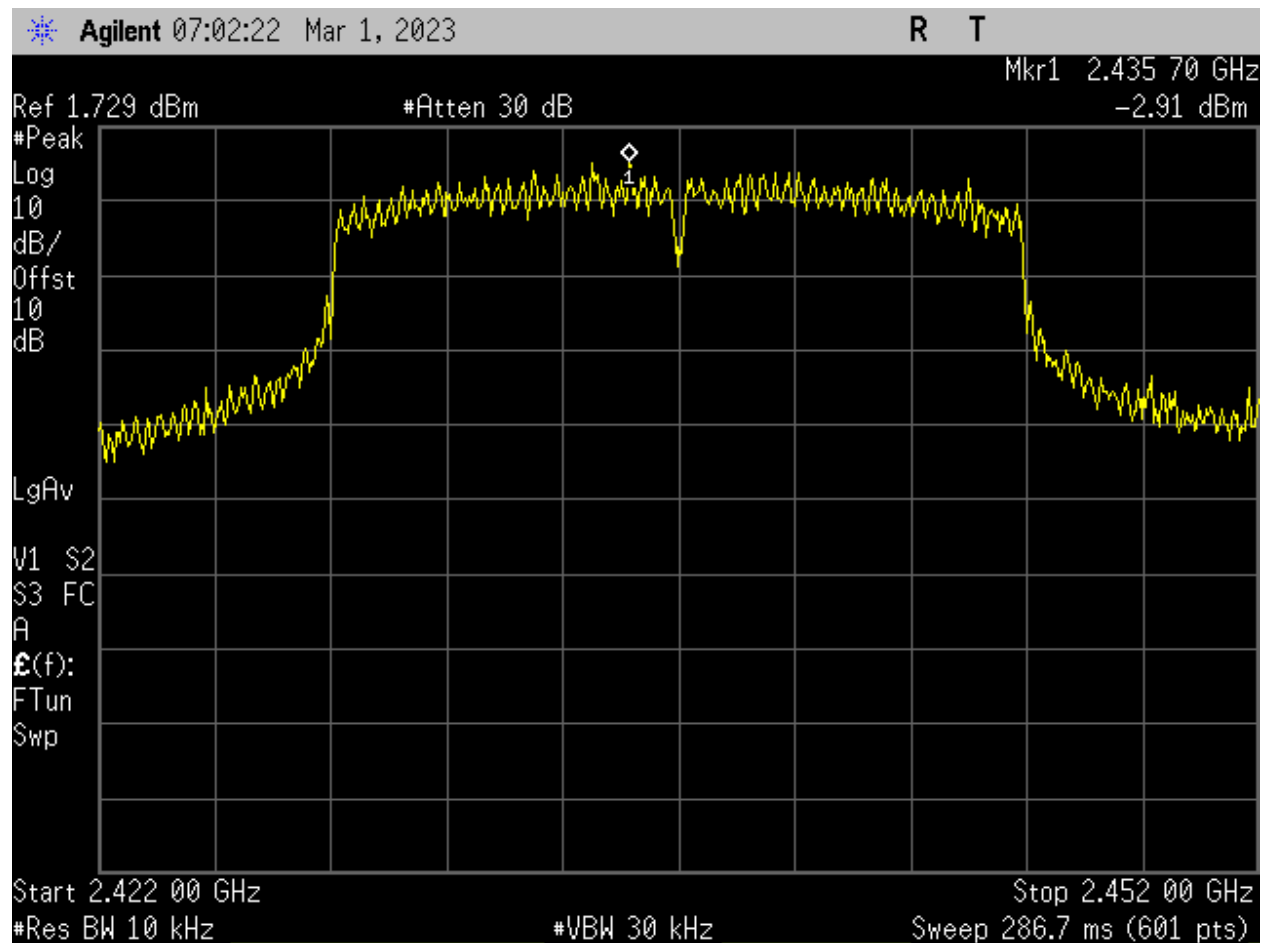


Figure 220: WIFI\_Mid Ch\_2437MHz\_20MHz BW\_n-mode\_Spectral Density\_Port 1.

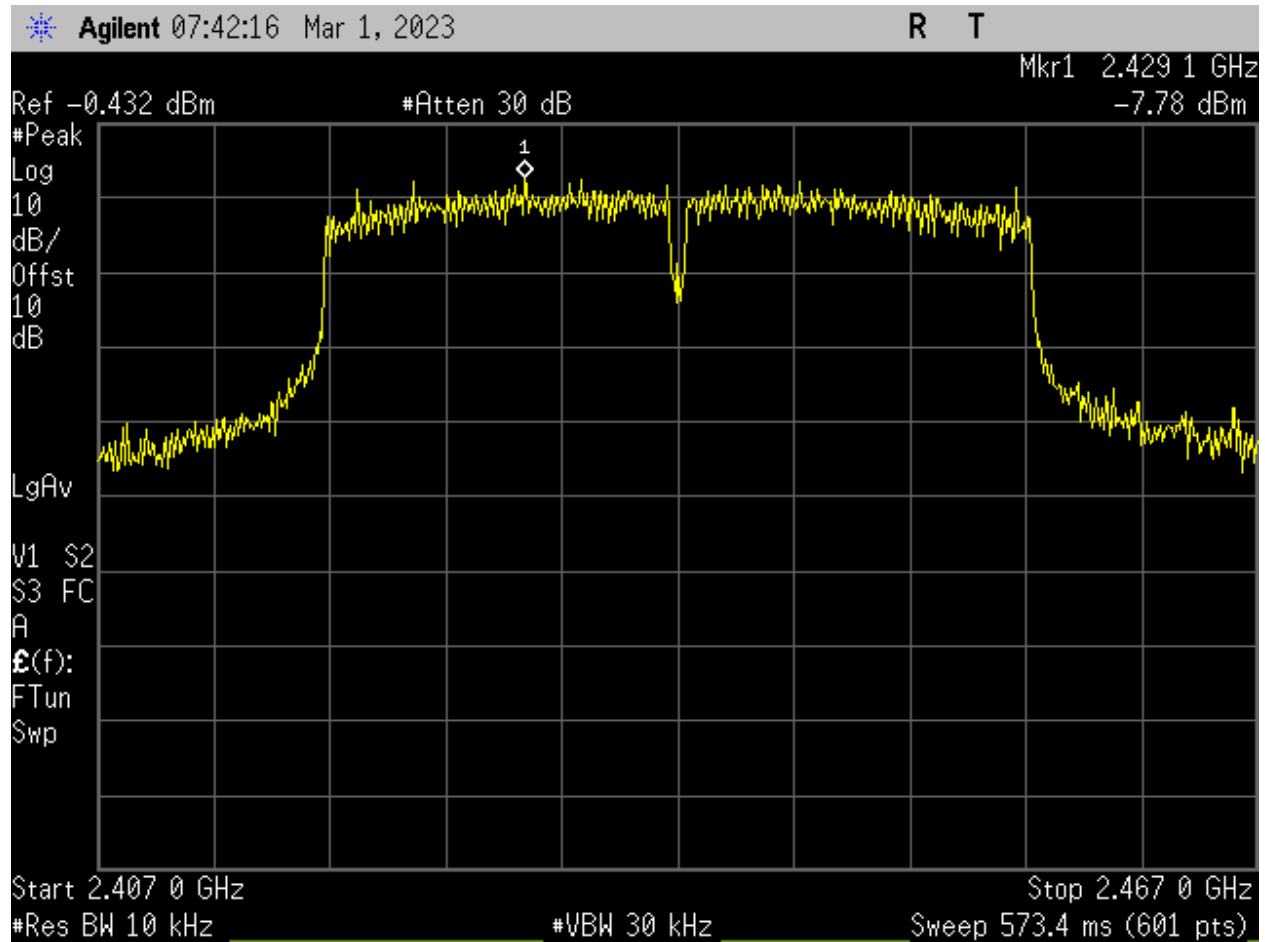


Figure 221: WIFI\_Mid Ch\_2437MHz\_40MHz BW\_n-mode\_Spectral Density\_Port 1.

## § 15.247(i) Maximum Permissible Exposure

| FCC                |                    |                   |                    |                      |                                          |                                |        |                  |        |
|--------------------|--------------------|-------------------|--------------------|----------------------|------------------------------------------|--------------------------------|--------|------------------|--------|
| Frequency<br>(MHz) | Con. Pwr.<br>(dBm) | Con. Pwr.<br>(mW) | Ant. Gain<br>(dBi) | Ant. Gain<br>numeric | Pwr.<br>Density<br>(mW/cm <sup>2</sup> ) | Limit<br>(mW/cm <sup>2</sup> ) | Margin | Distance<br>(cm) | Result |
| 2437               | 19.01              | 79.616            | 2                  | 1.585                | 0.0251                                   | 1                              | 0.9749 | 20               | Pass   |

**Figure 222: FCC MPE**