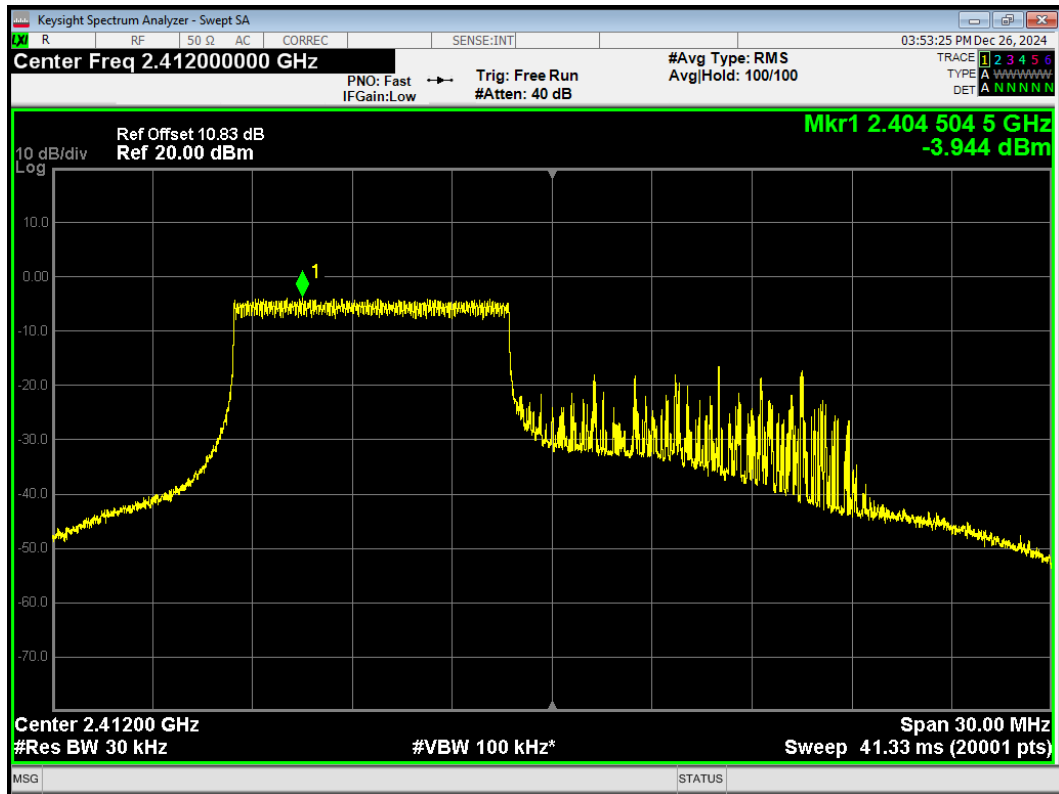


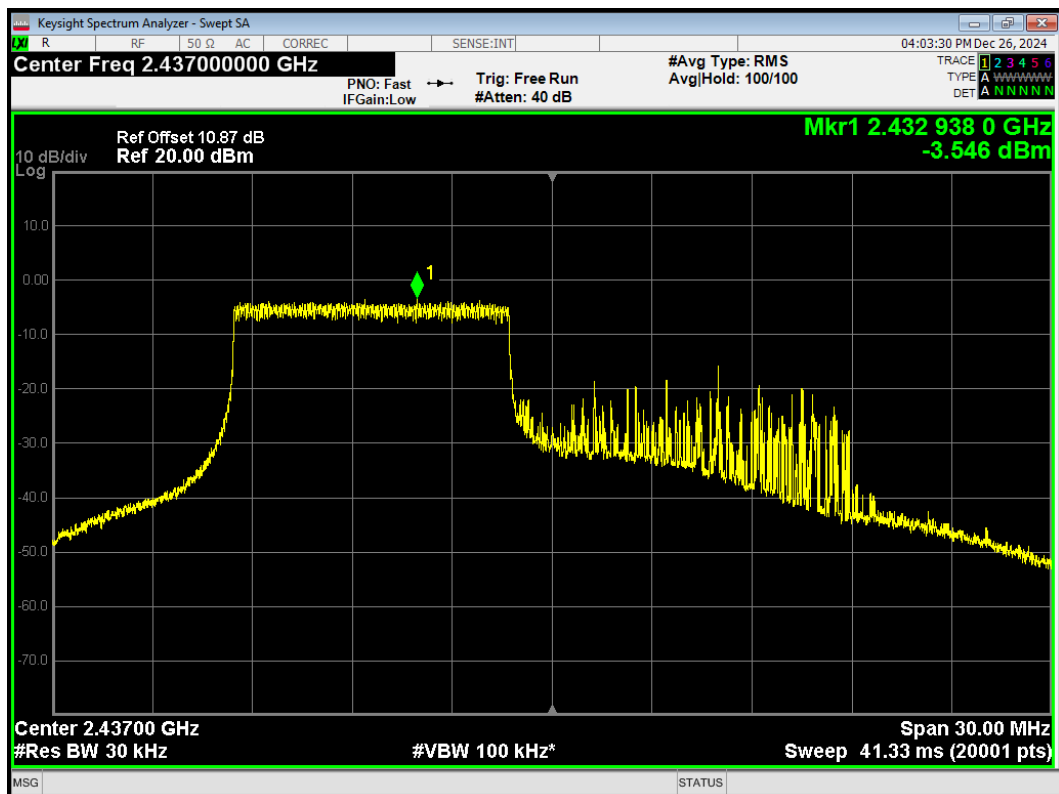
TB Mode

SISO Antenna 1

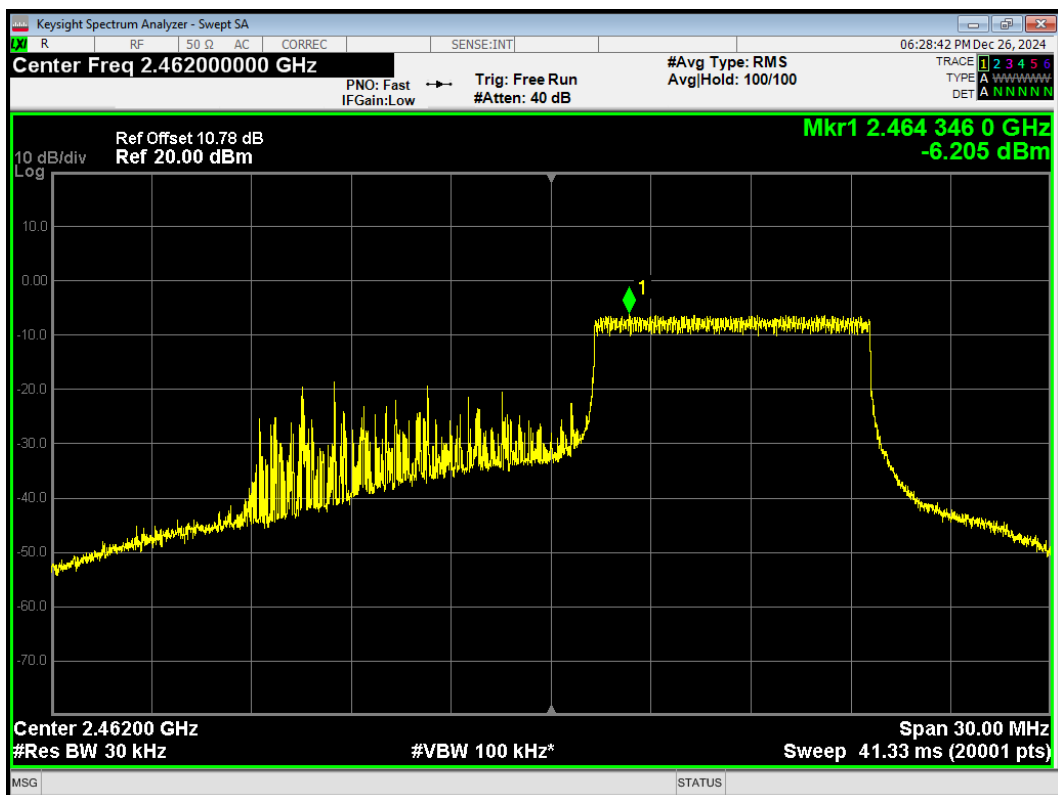
PSD 802.11ax(HE20) 106T 2412MHz



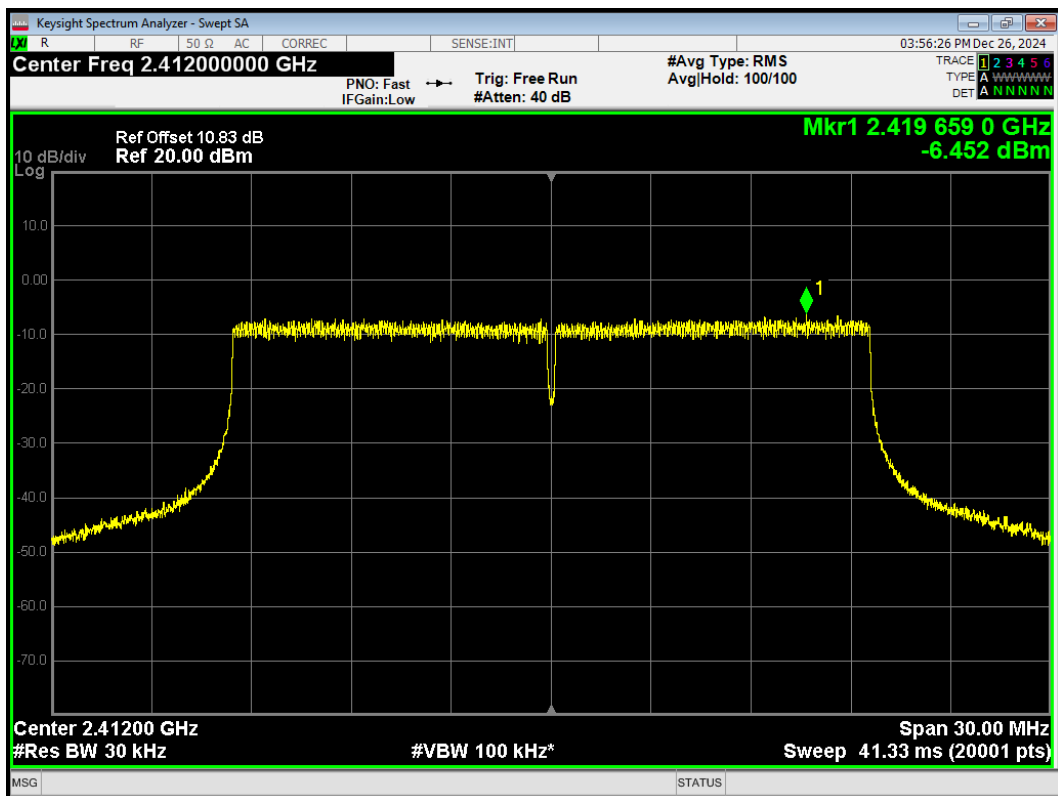
PSD 802.11ax(HE20) 106T 2437MHz



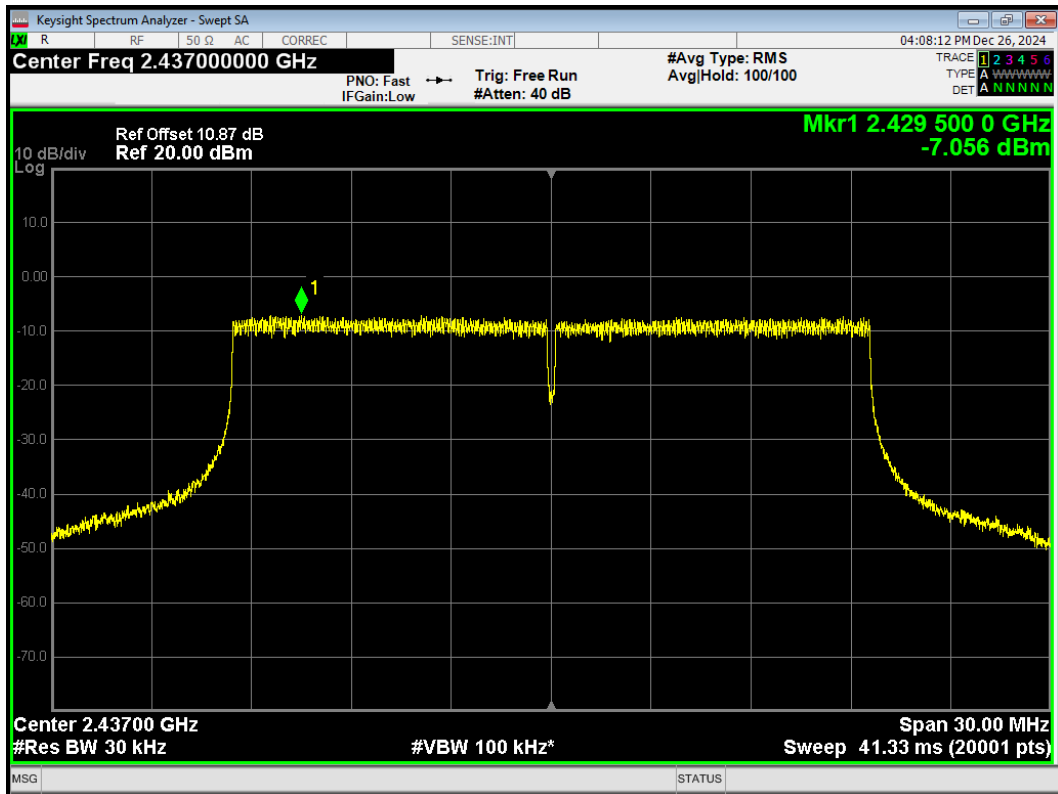
PSD 802.11ax(HE20) 106T 2462MHz



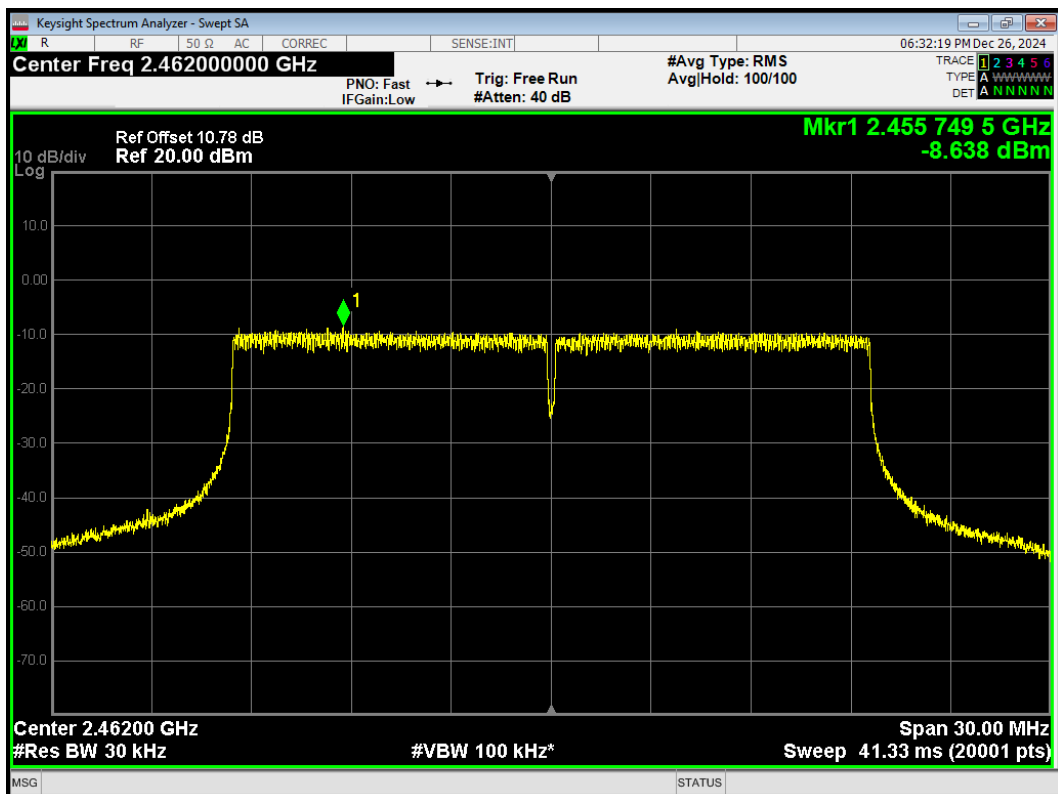
PSD 802.11ax(HE20) 242T 2412MHz



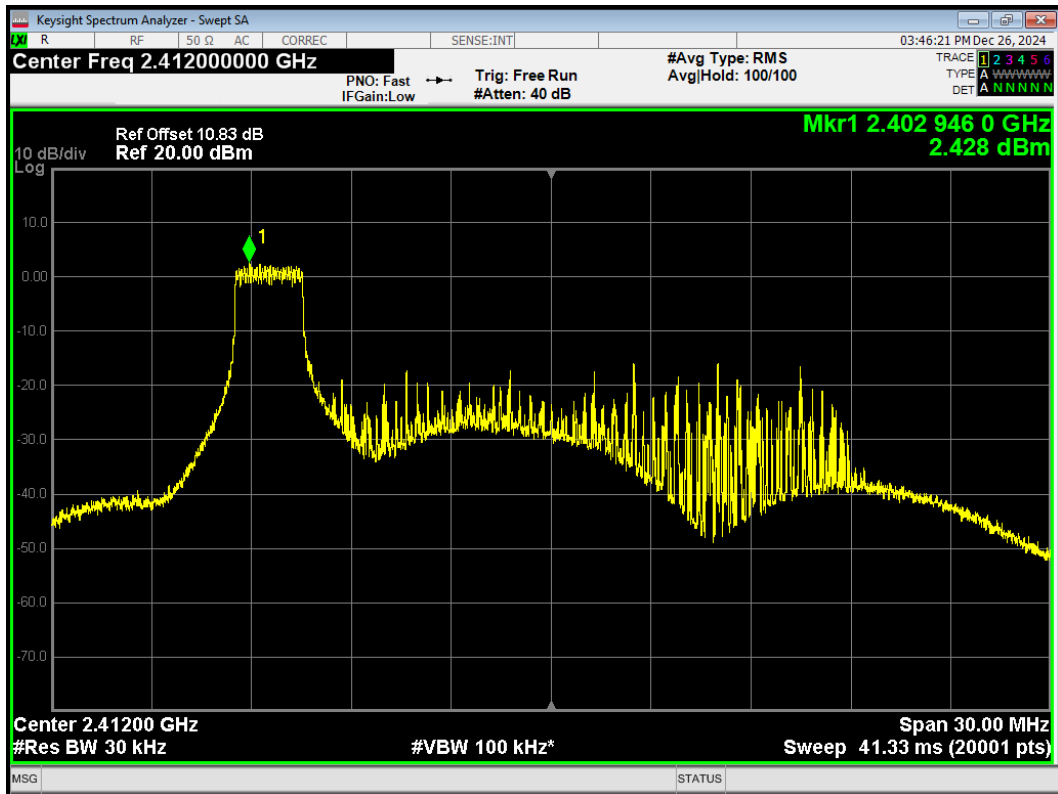
PSD 802.11ax(HE20) 242T 2437MHz



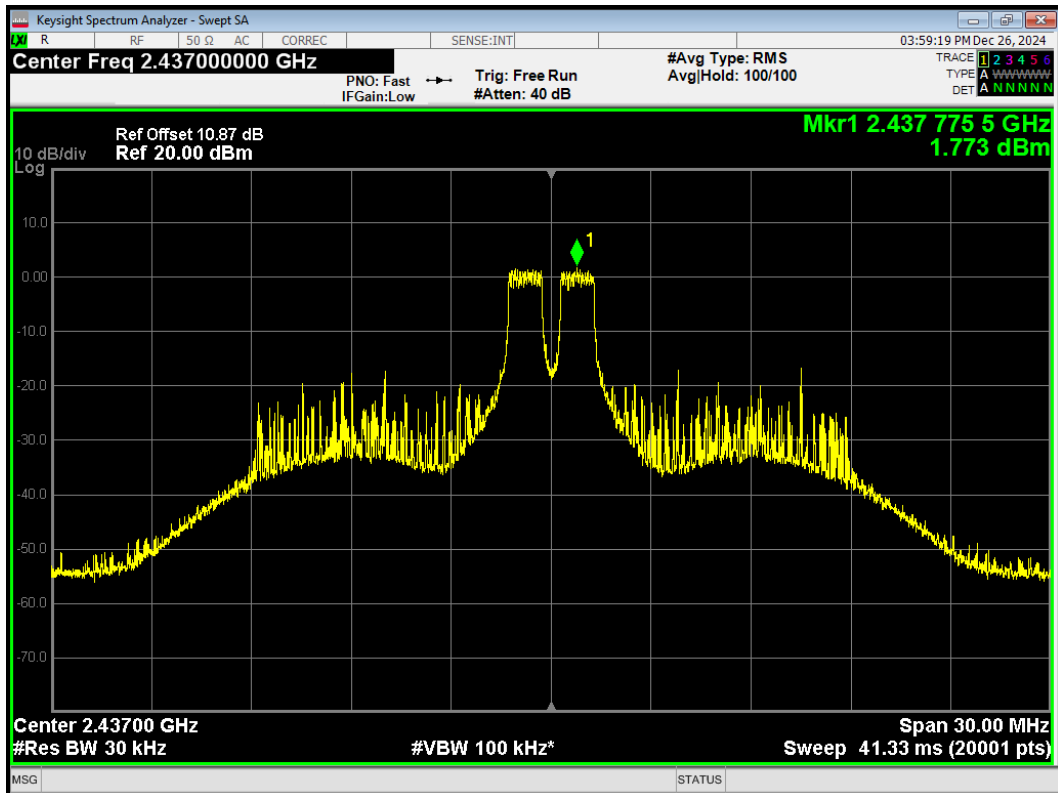
PSD 802.11ax(HE20) 242T 2462MHz



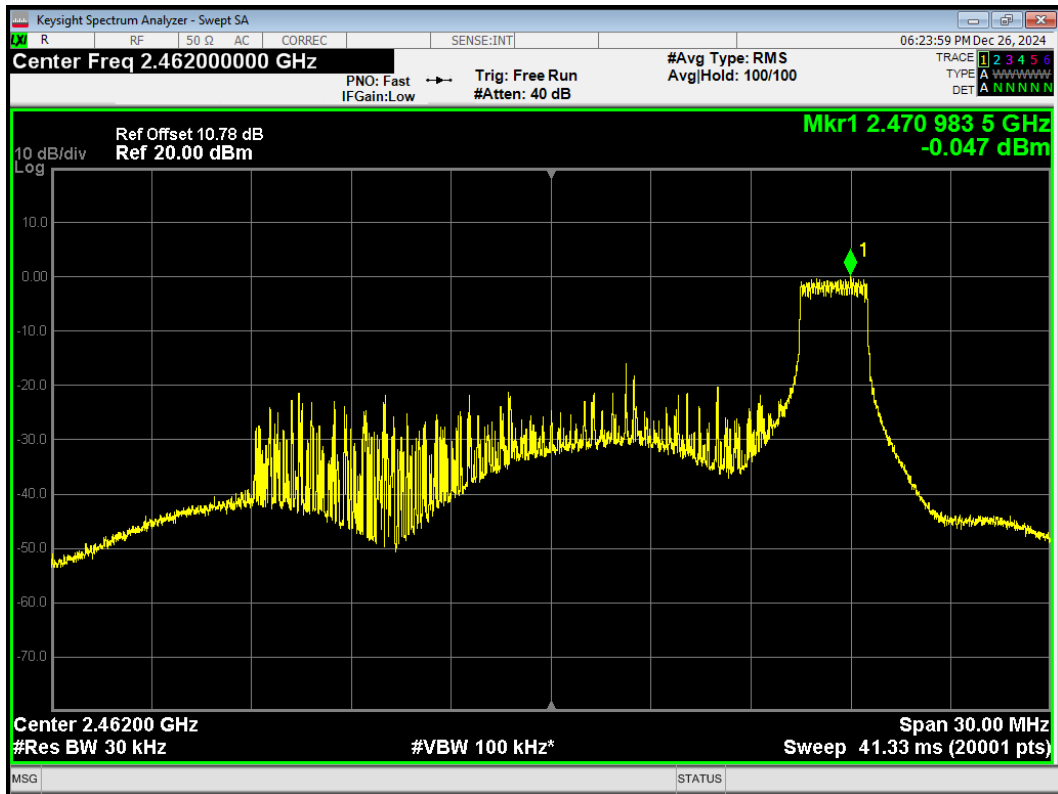
PSD 802.11ax(HE20) 26T 2412MHz



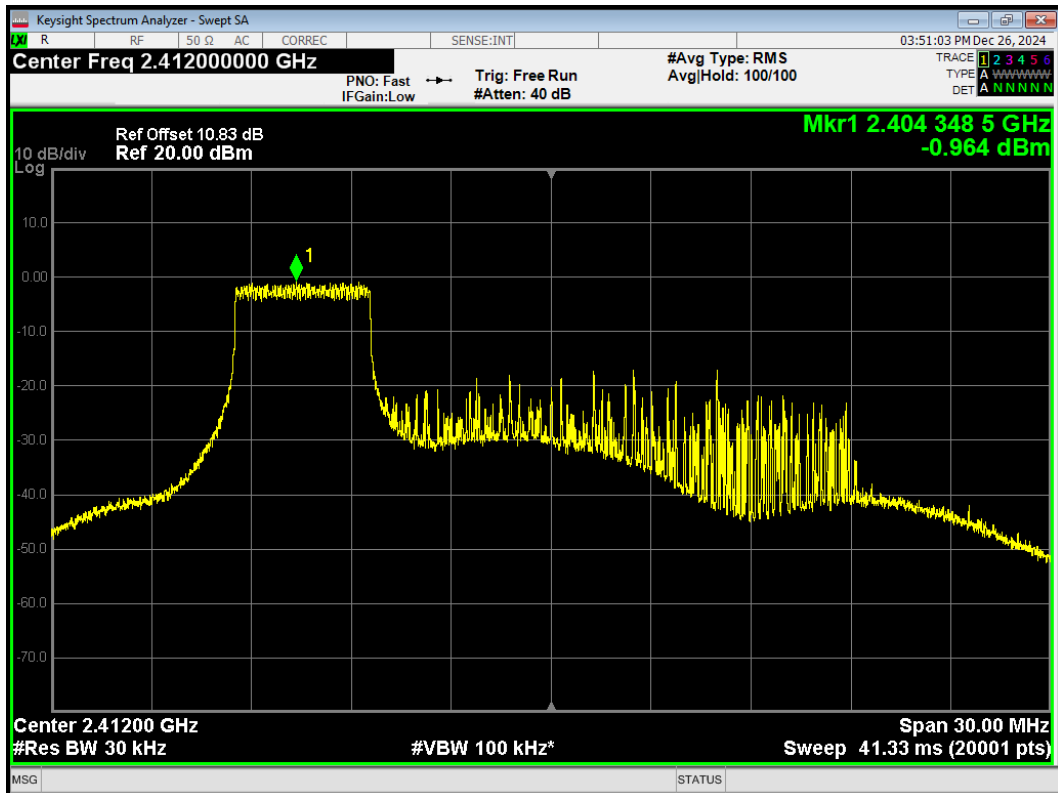
PSD 802.11ax(HE20) 26T 2437MHz



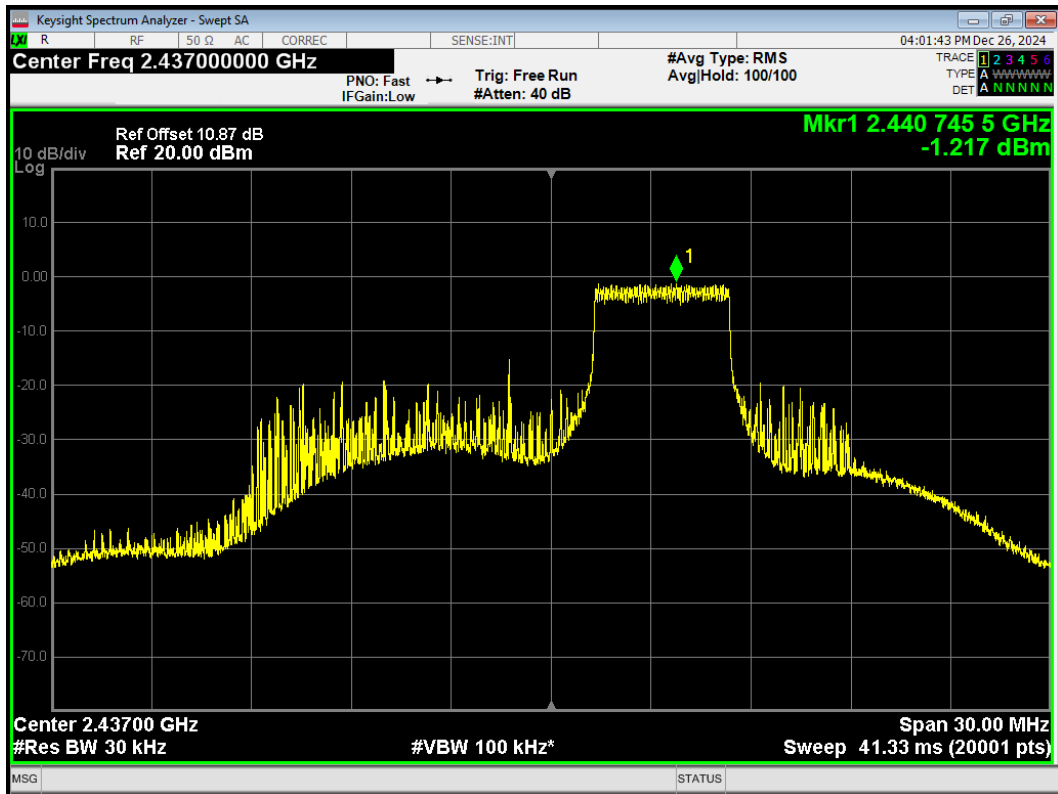
PSD 802.11ax(HE20) 26T 2462MHz



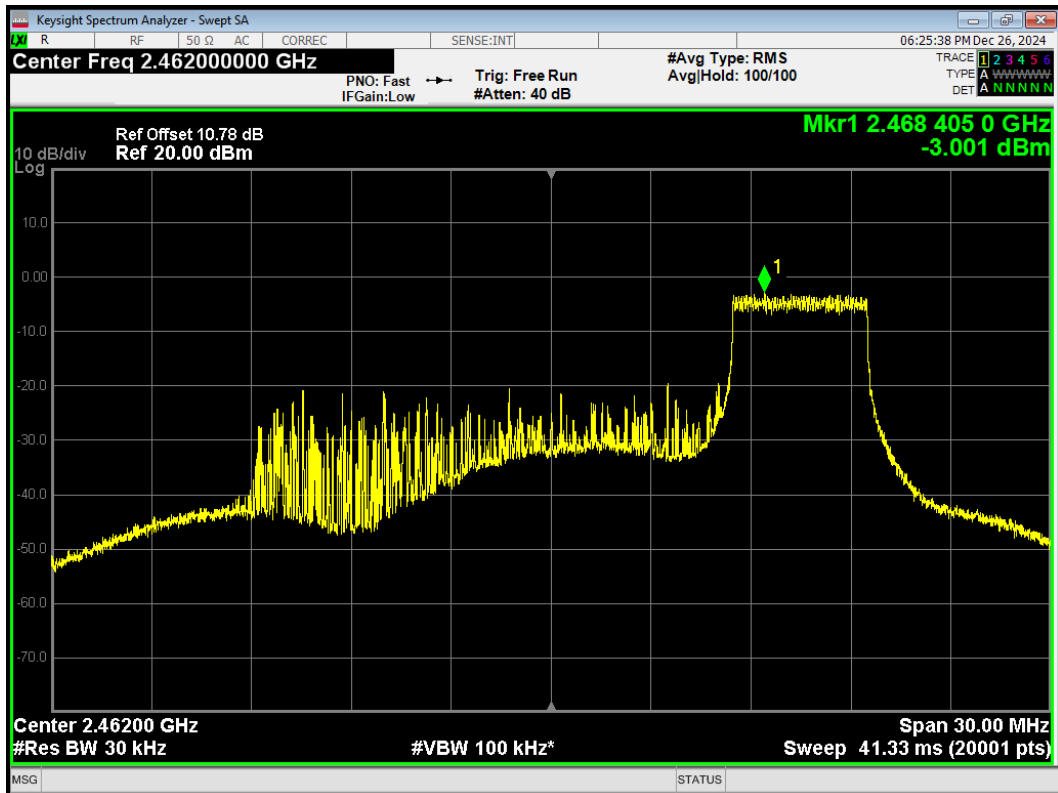
PSD 802.11ax(HE20) 52T 2412MHz



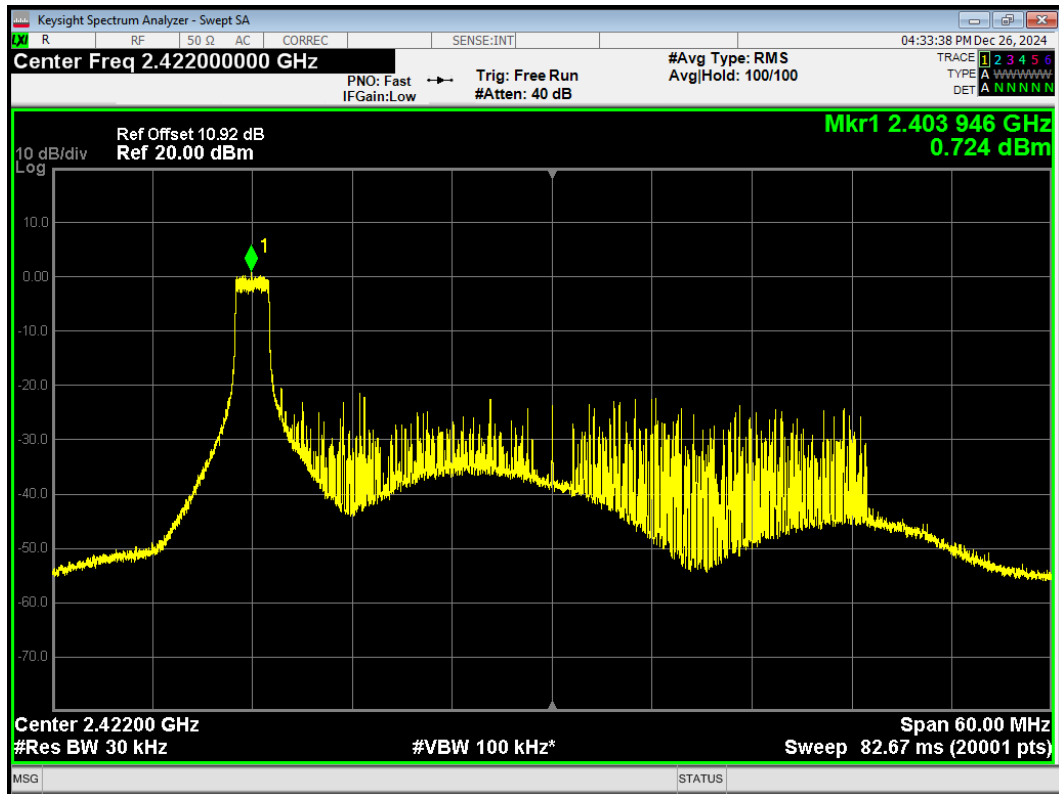
PSD 802.11ax(HE20) 52T 2437MHz



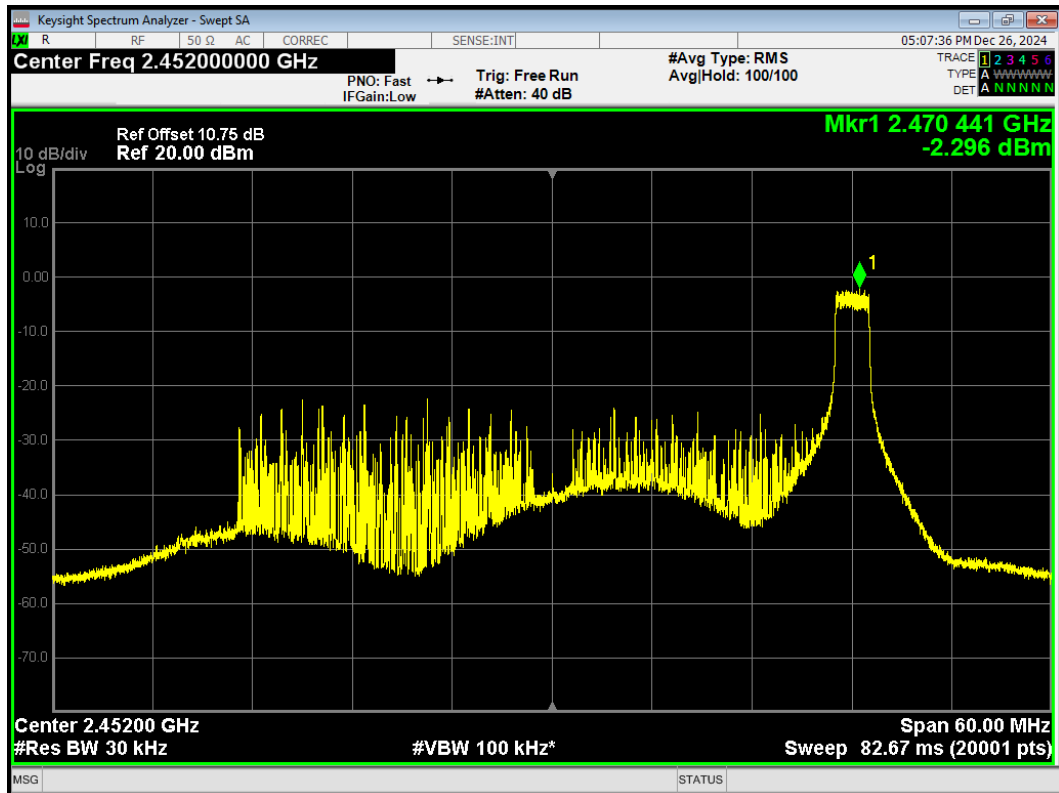
PSD 802.11ax(HE20) 52T 2462MHz



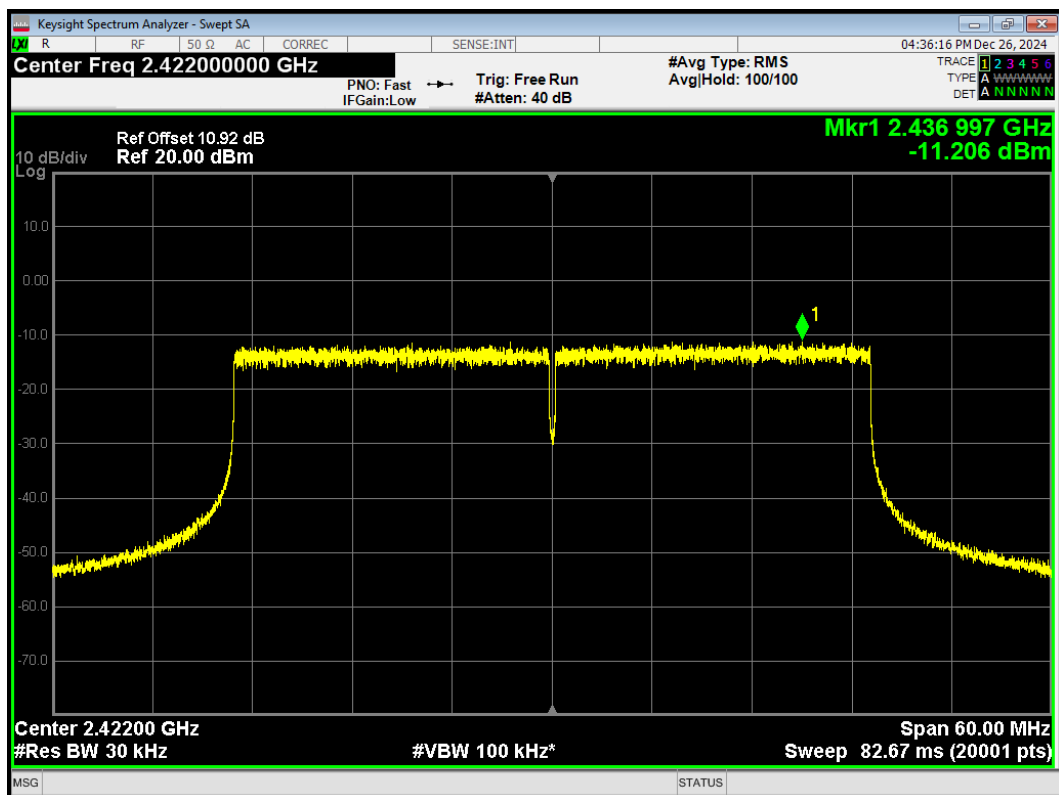
PSD 802.11ax(HE40) 26T 2422MHz



PSD 802.11ax(HE40) 26T 2452MHz

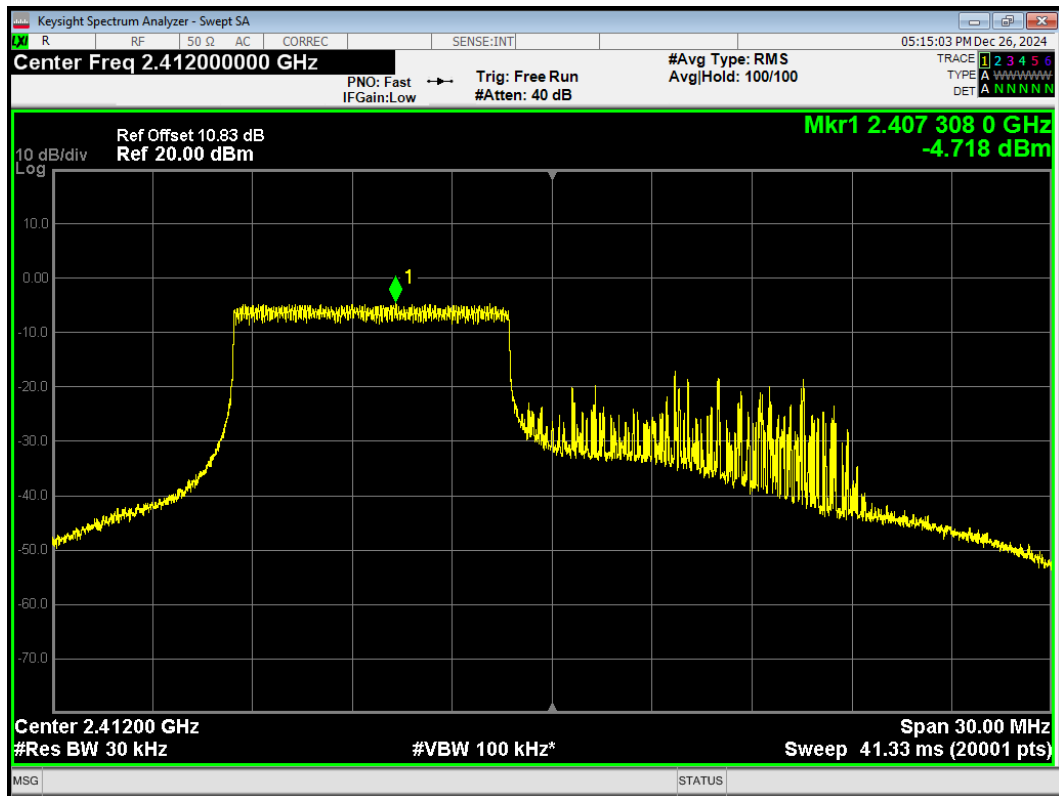


PSD 802.11ax(HE40) 484T 2422MHz

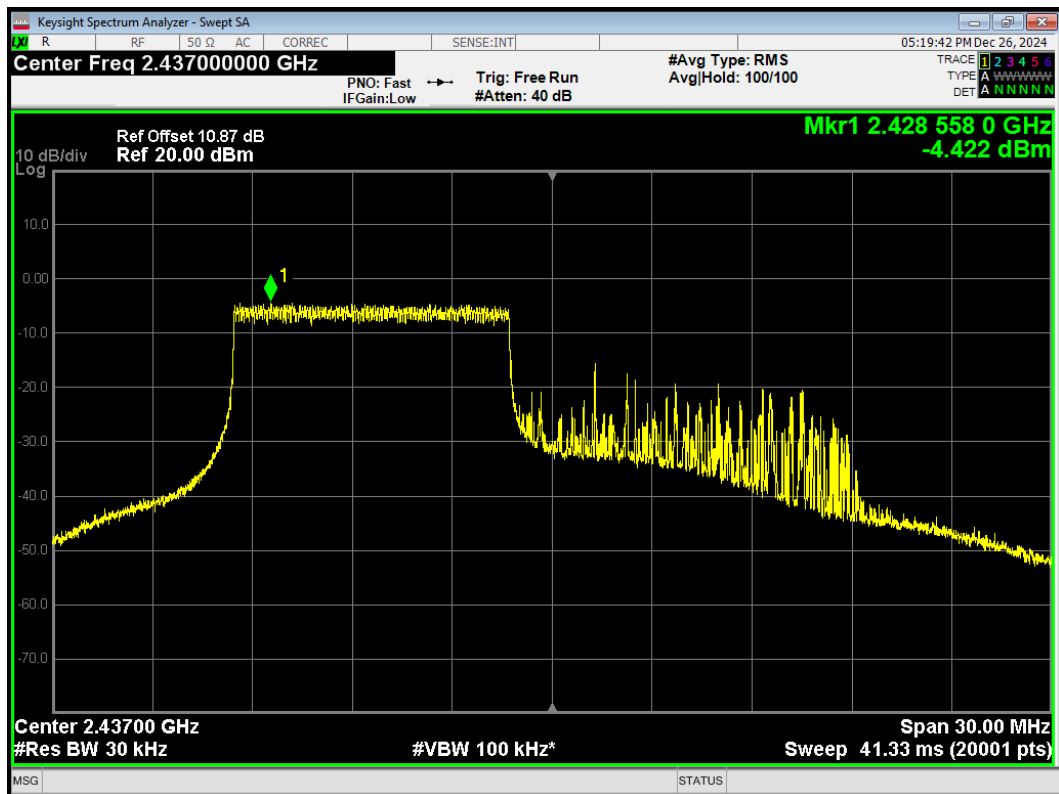


SISO Antenna 2

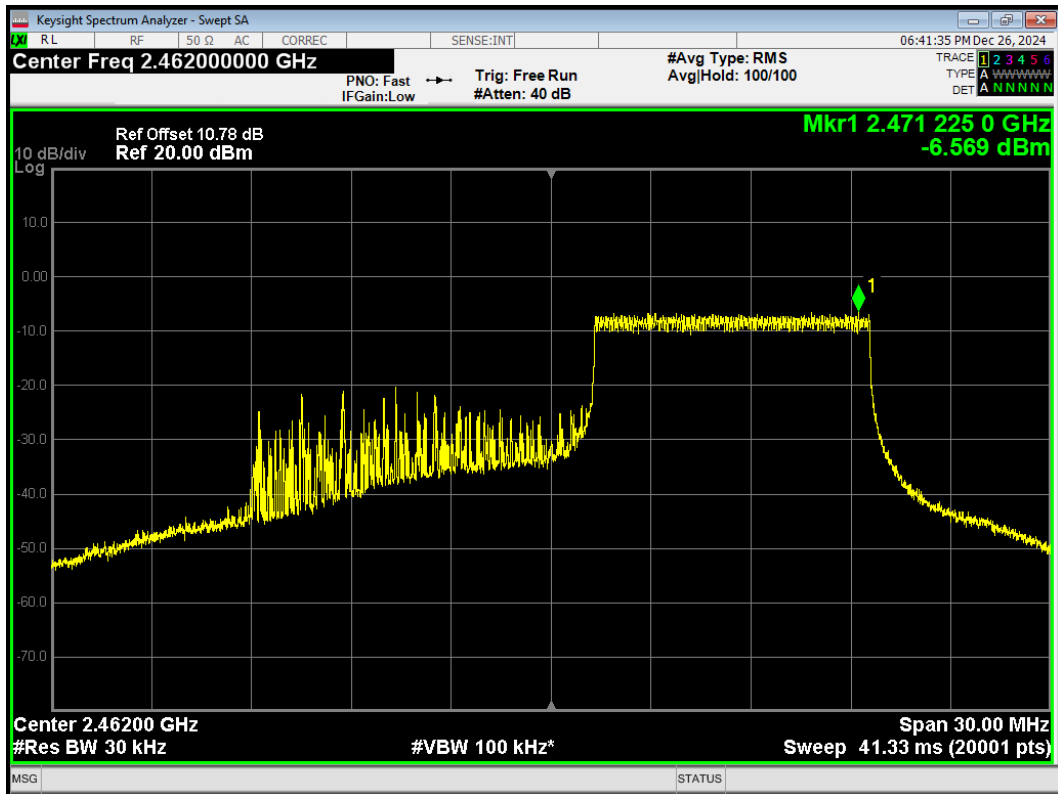
PSD 802.11ax(HE20) 106T 2412MHz



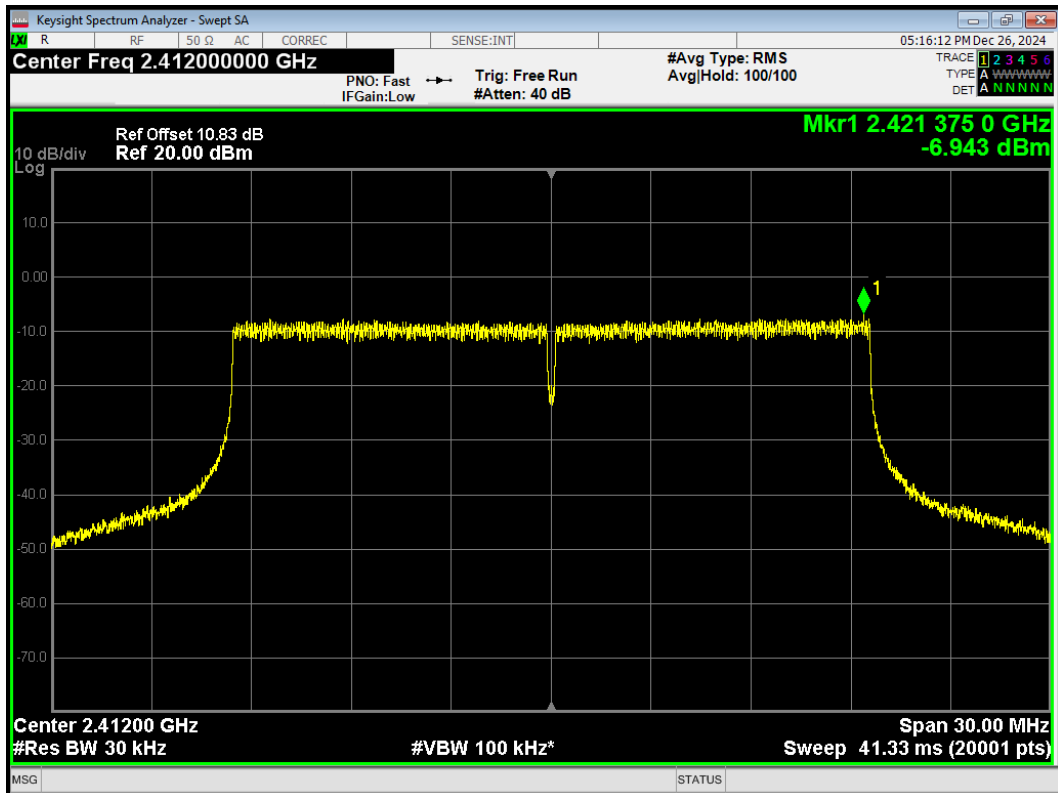
PSD 802.11ax(HE20) 106T 2437MHz



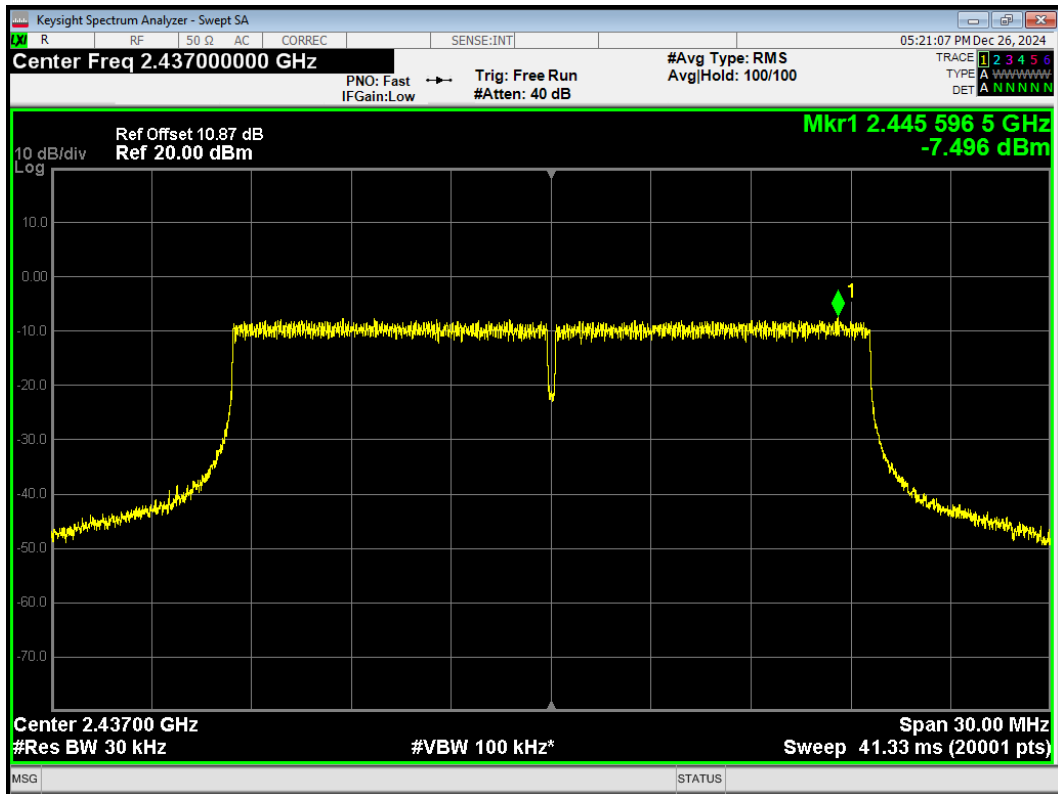
PSD 802.11ax(HE20) 106T 2462MHz



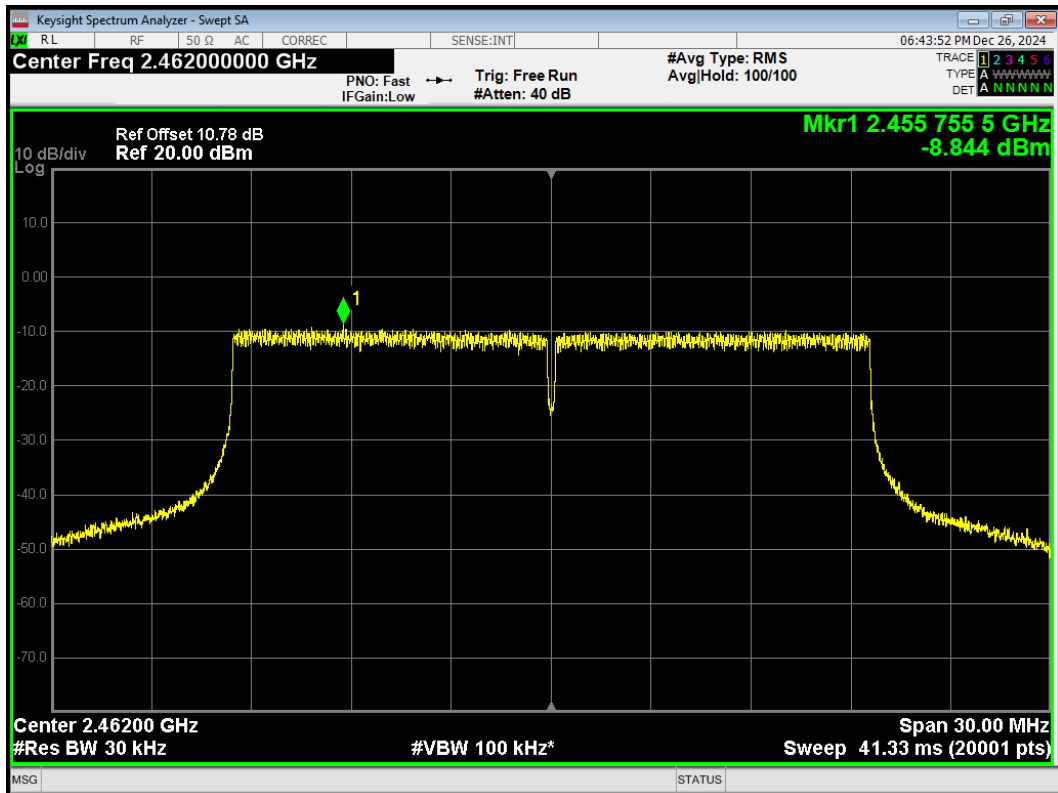
PSD 802.11ax(HE20) 242T 2412MHz



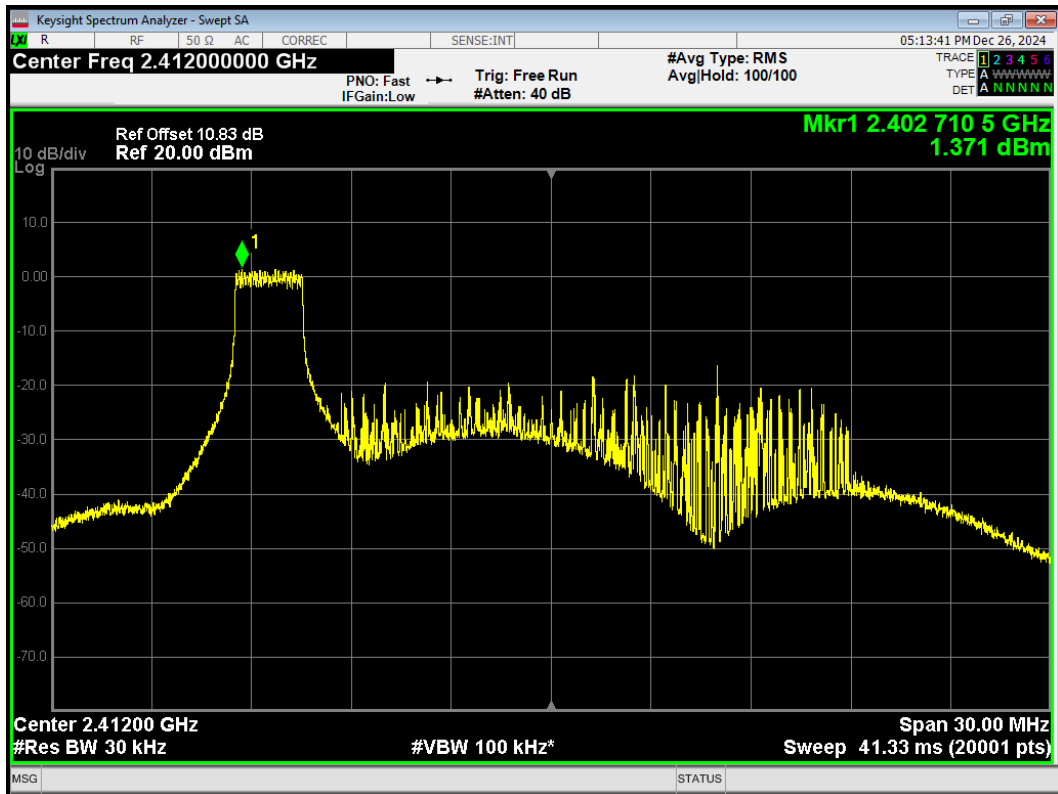
PSD 802.11ax(HE20) 242T 2437MHz



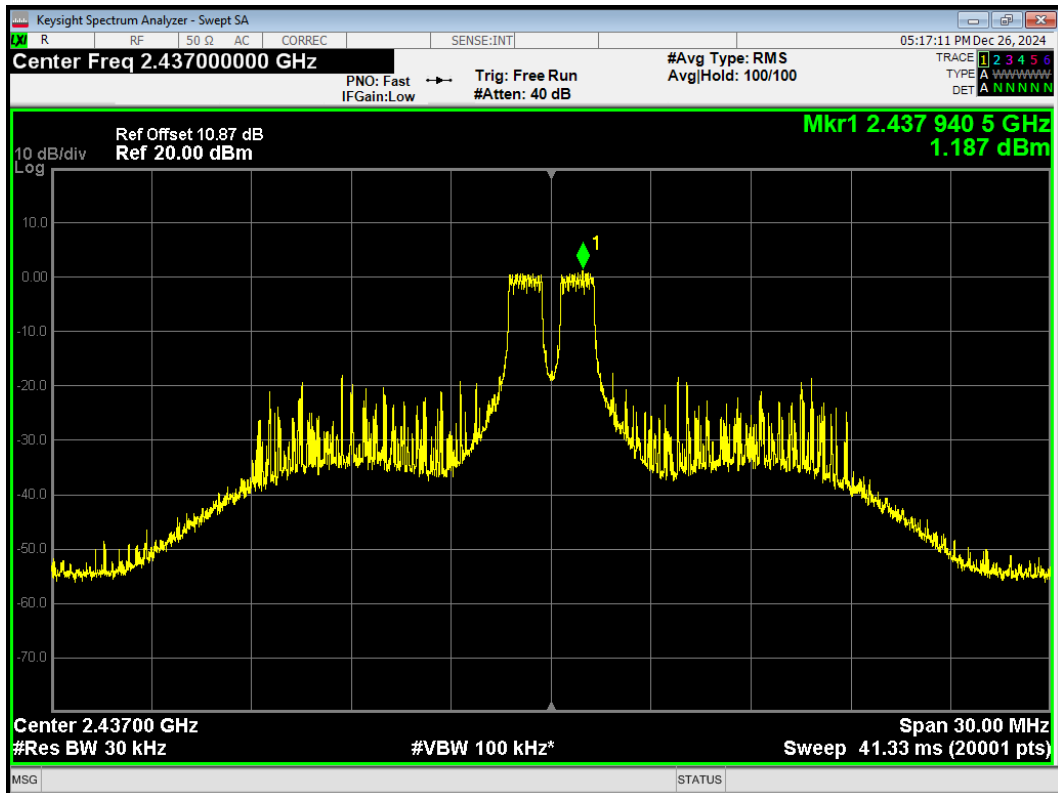
PSD 802.11ax(HE20) 242T 2462MHz



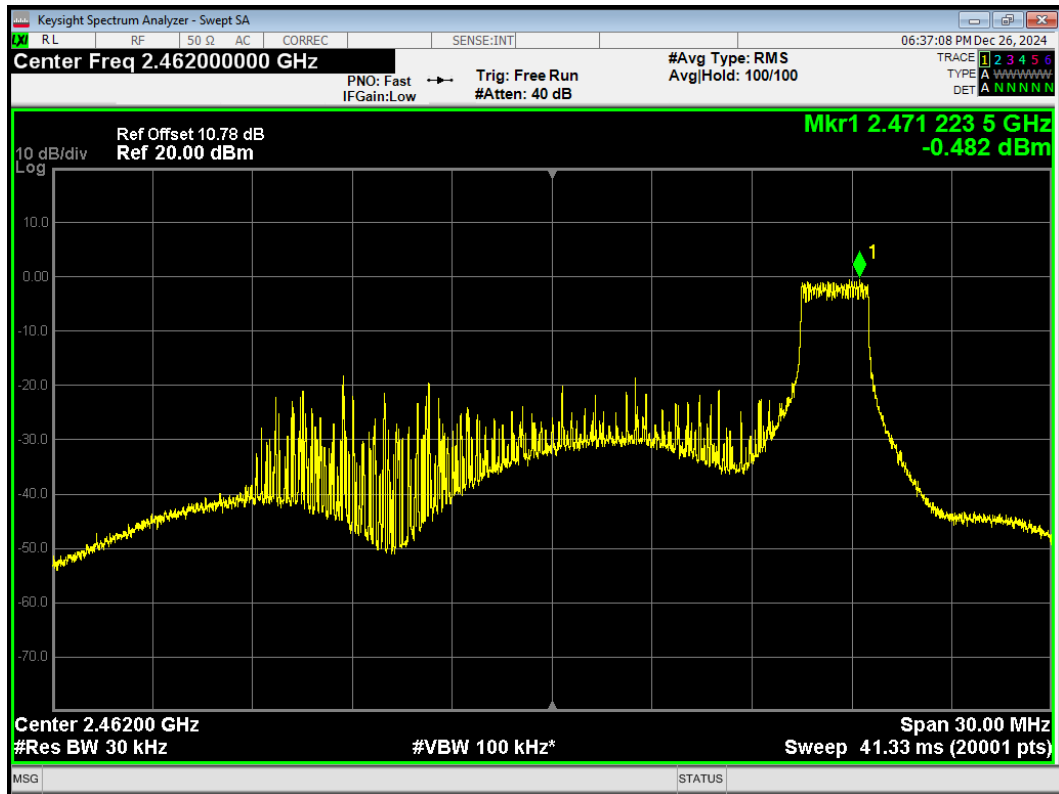
PSD 802.11ax(HE20) 26T 2412MHz



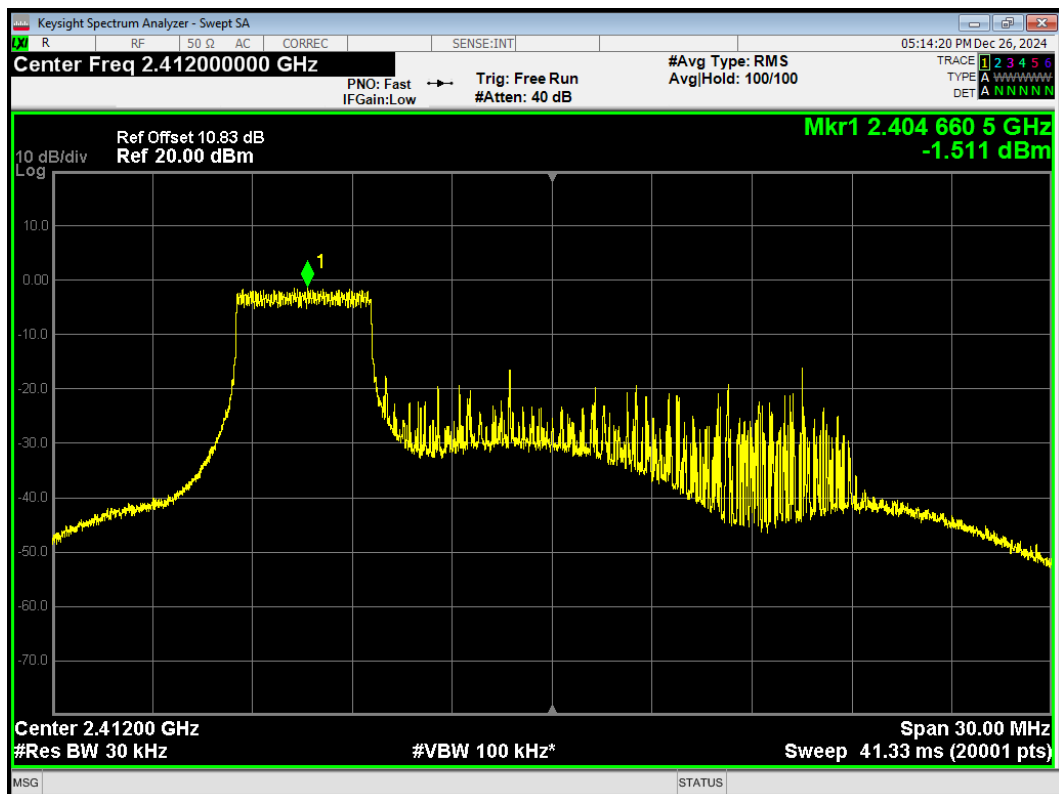
PSD 802.11ax(HE20) 26T 2437MHz



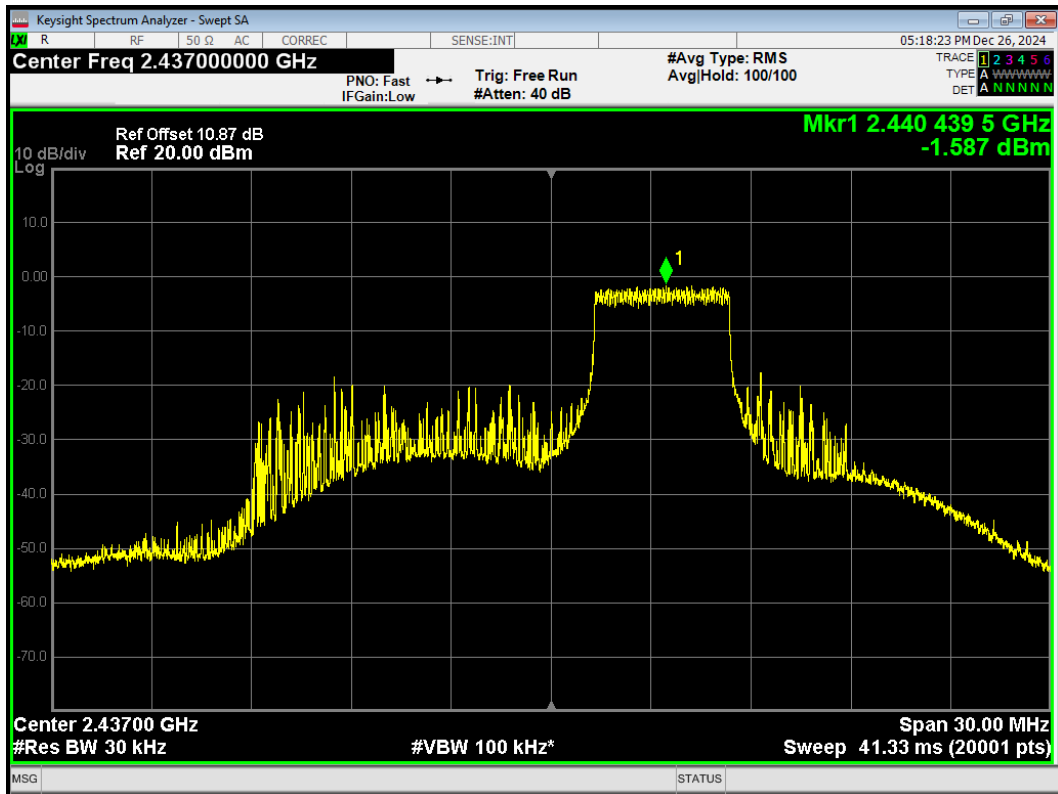
PSD 802.11ax(HE20) 26T 2462MHz



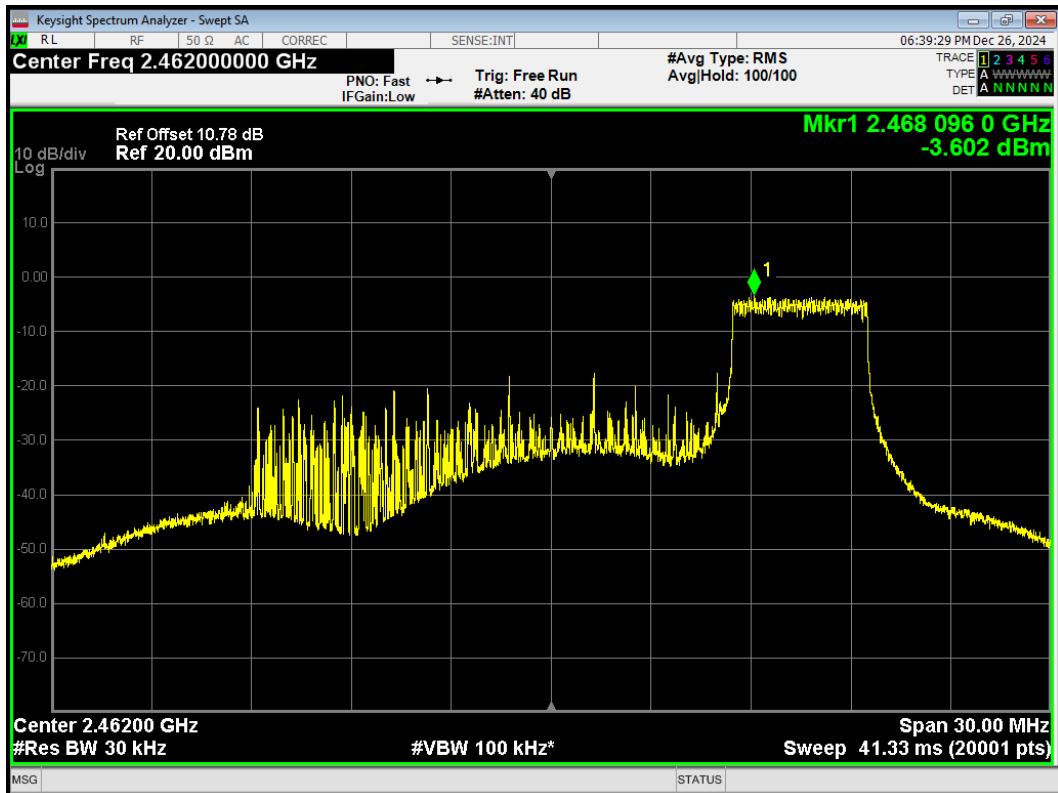
PSD 802.11ax(HE20) 52T 2412MHz



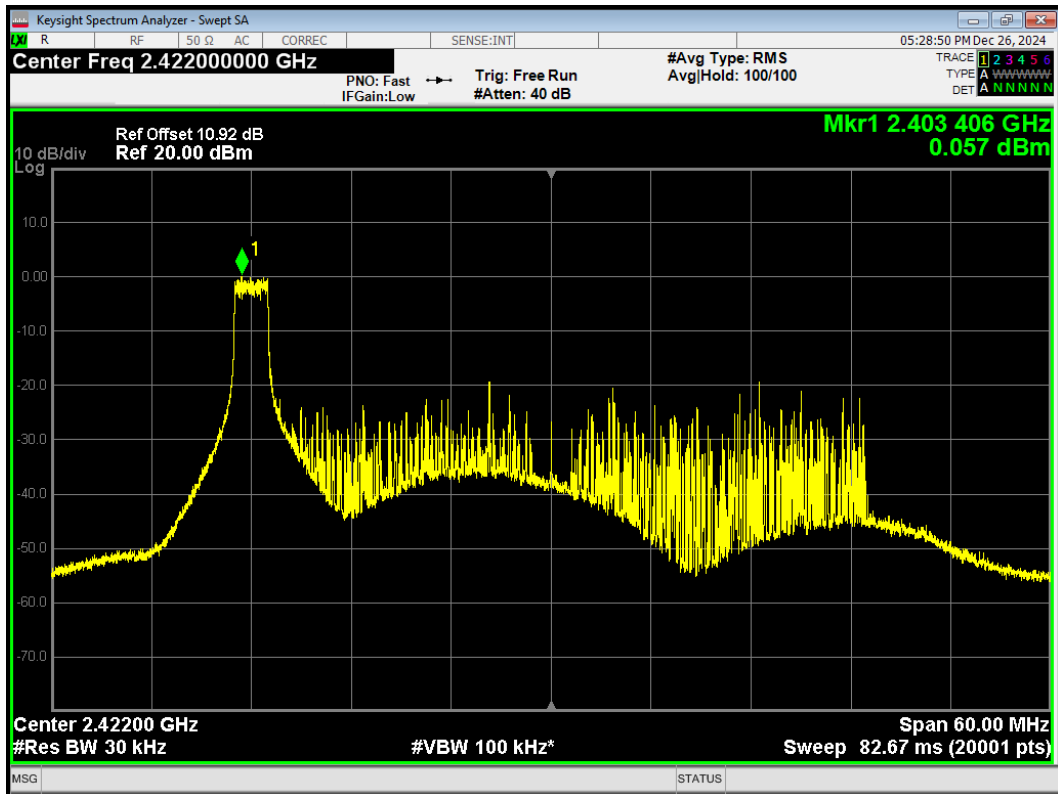
PSD 802.11ax(HE20) 52T 2437MHz



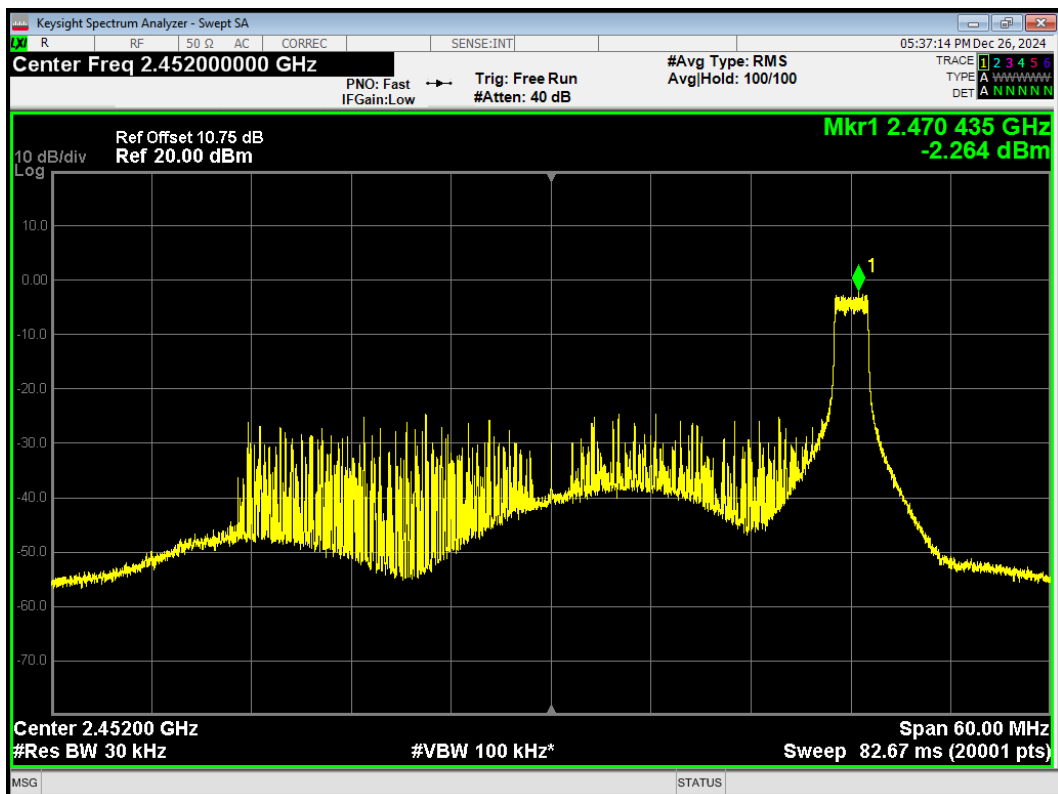
PSD 802.11ax(HE20) 52T 2462MHz



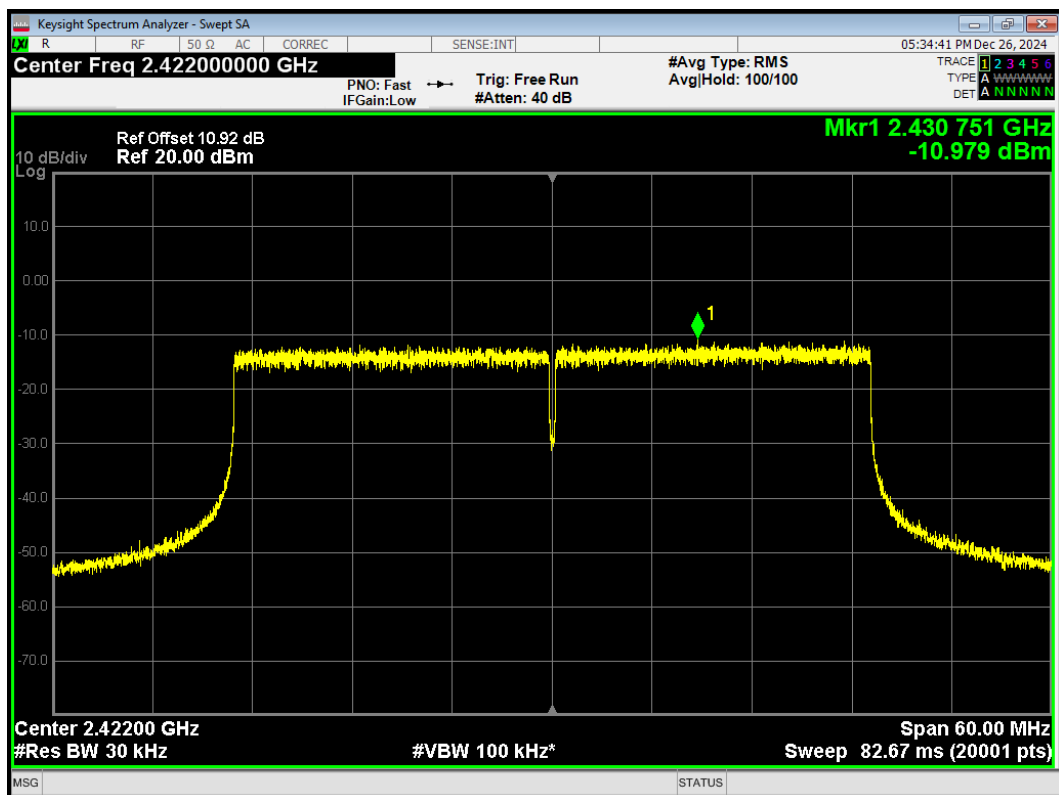
PSD 802.11ax(HE40) 26T 2422MHz



PSD 802.11ax(HE40) 26T 2452MHz

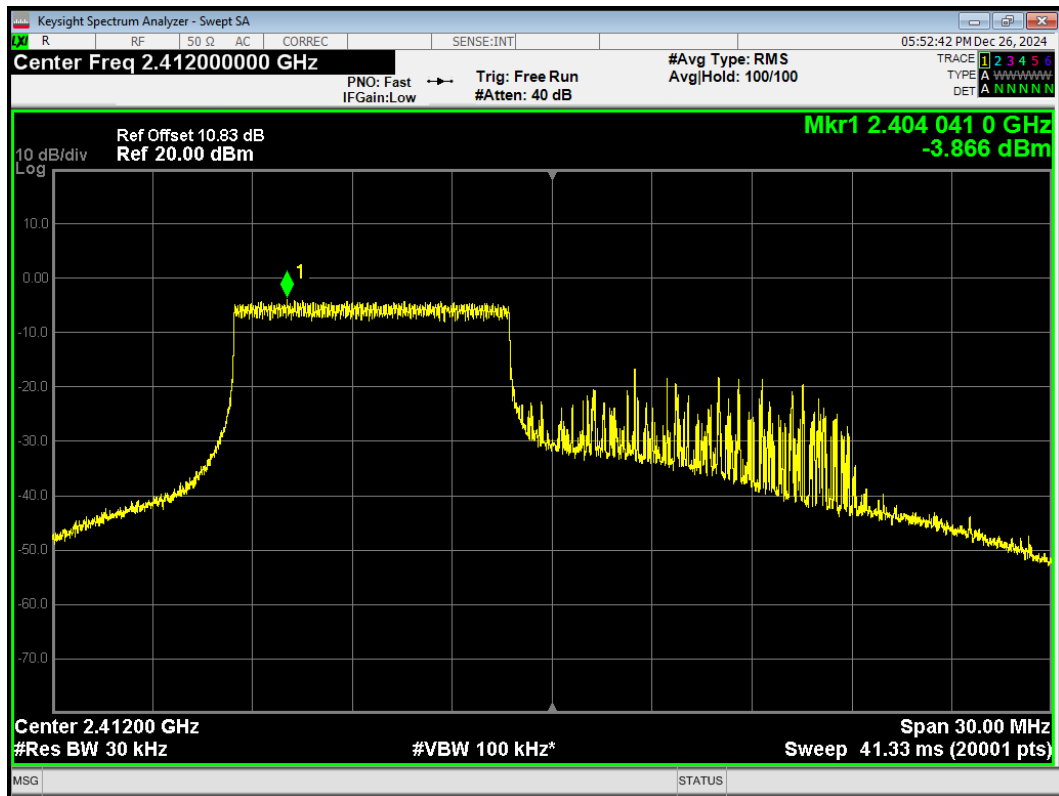


PSD 802.11ax(HE40) 484T 2422MHz

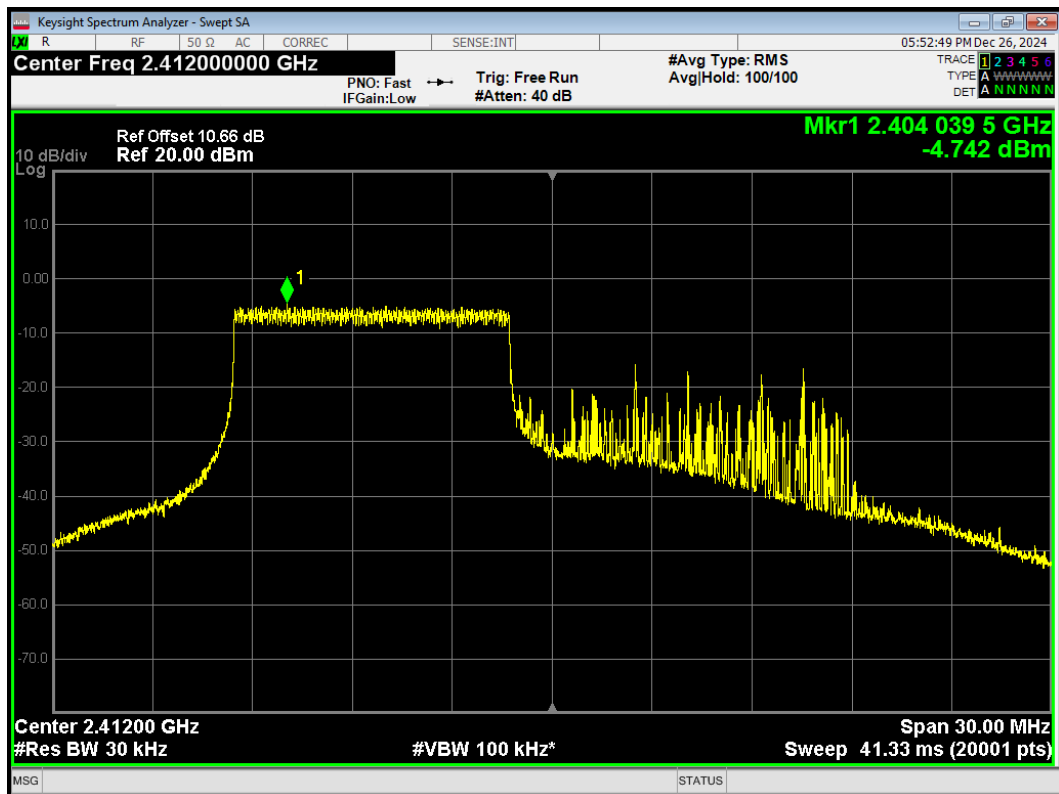


MIMO

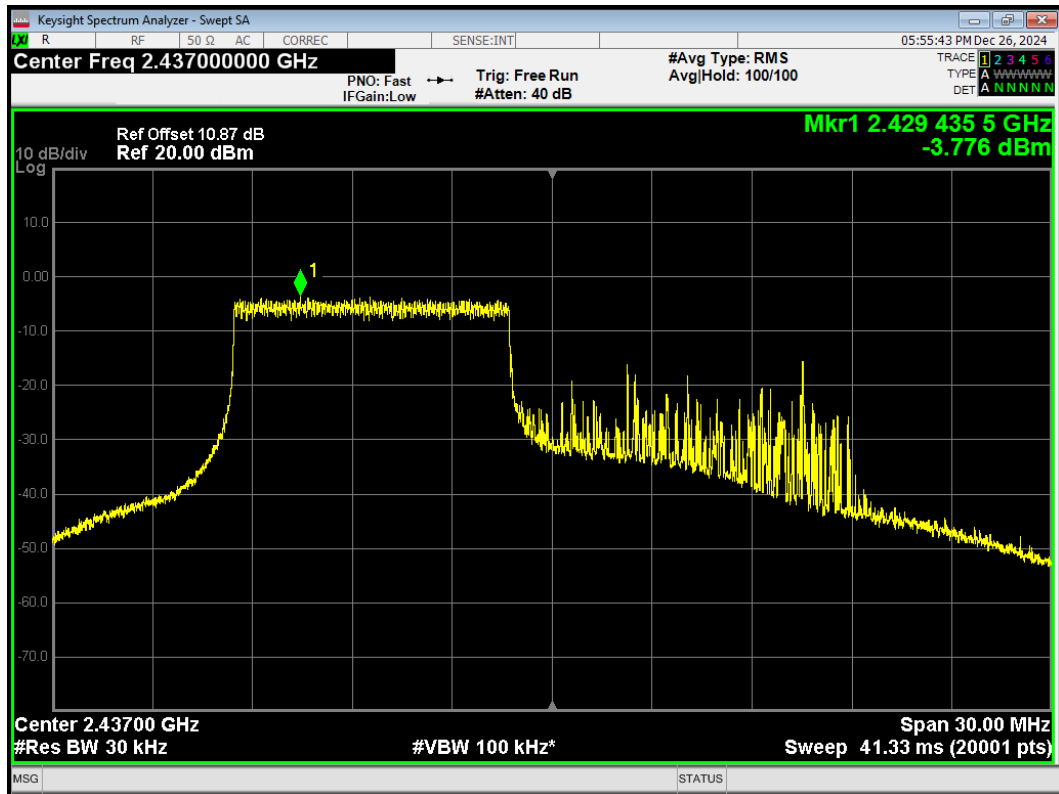
PSD 802.11ax HE20 106-Tones 2412MHz Ant1



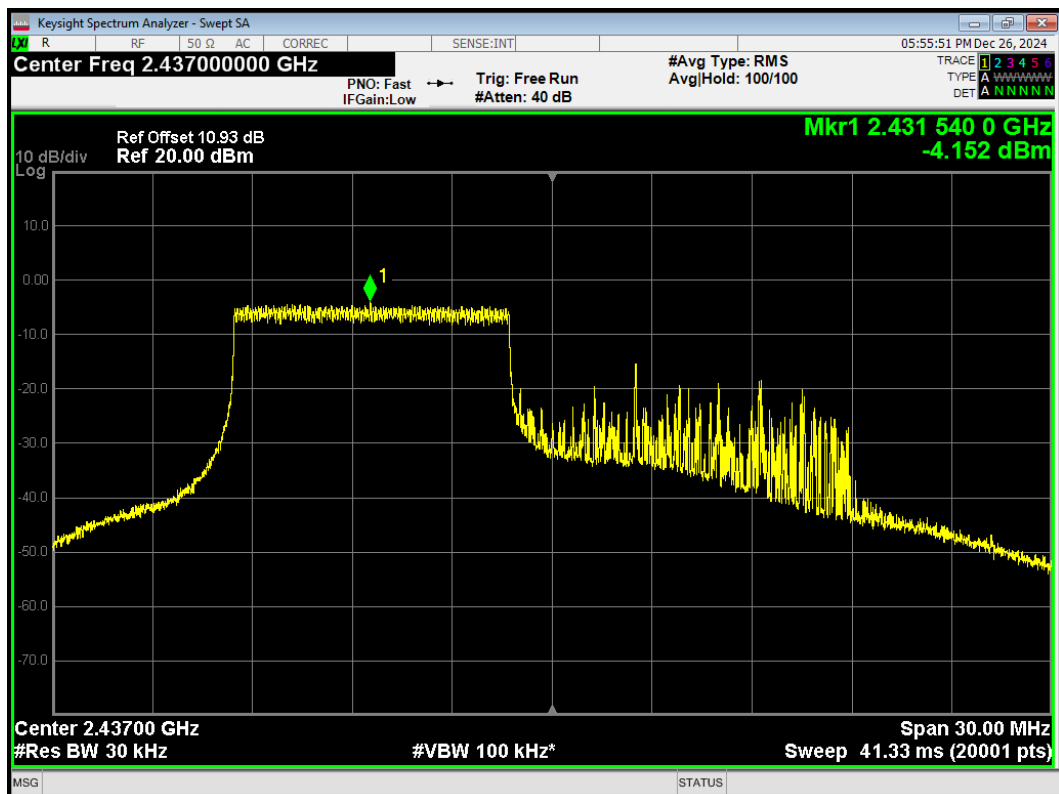
PSD 802.11ax HE20 106-Tones 2412MHz Ant2



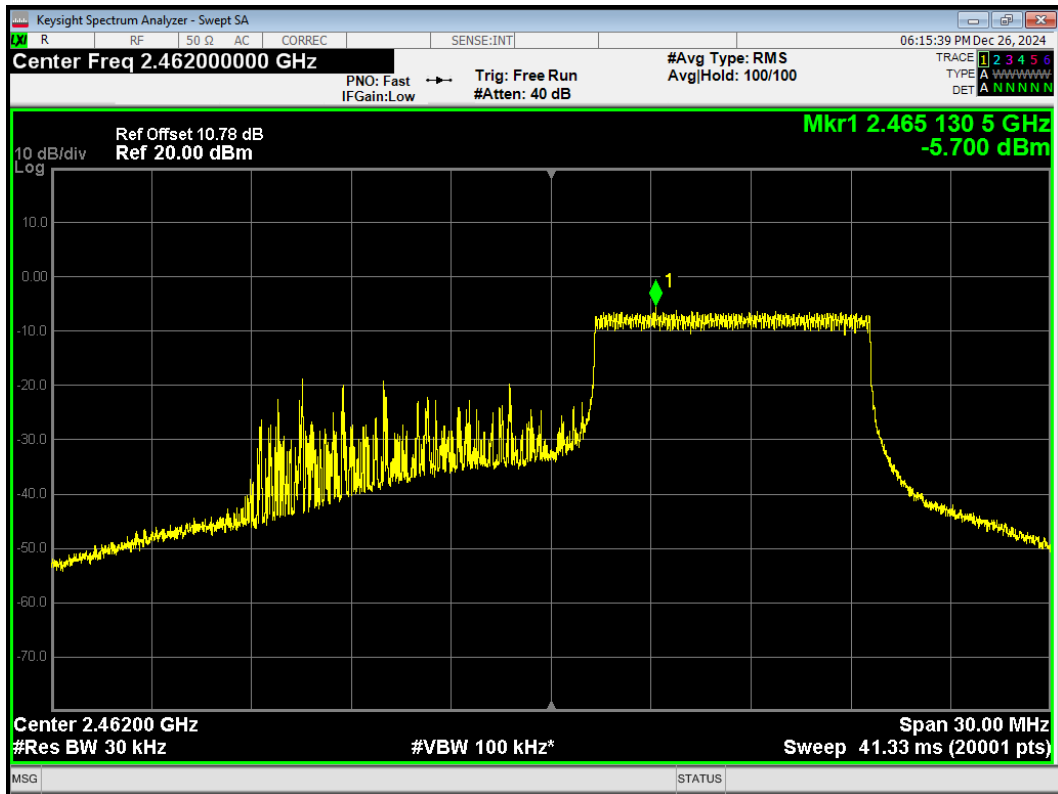
PSD 802.11ax HE20 106-Tones 2437MHz Ant1



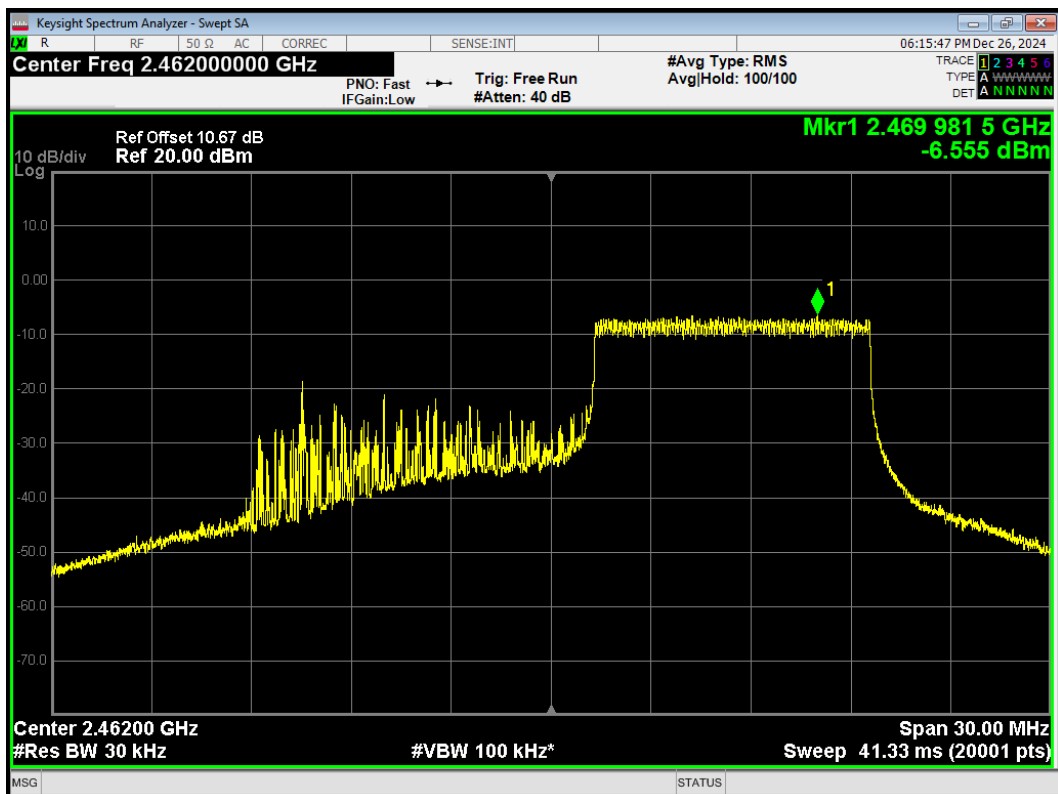
PSD 802.11ax HE20 106-Tones 2437MHz Ant2



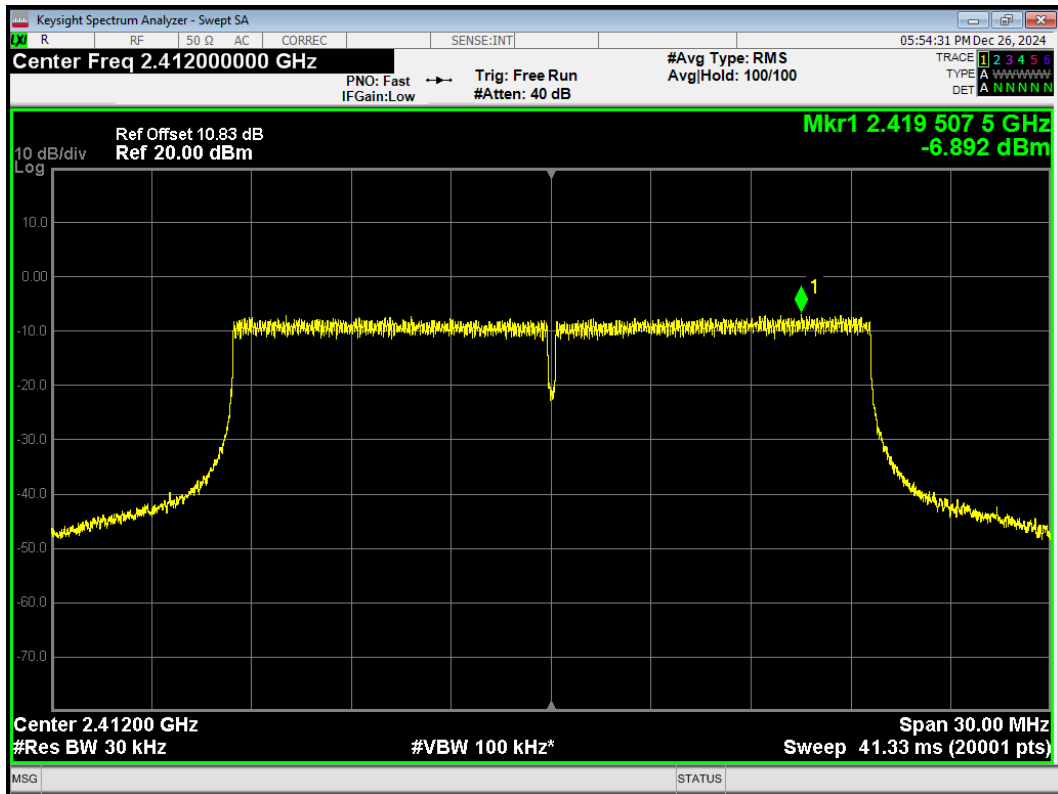
PSD 802.11ax HE20 106-Tones 2462MHz Ant1



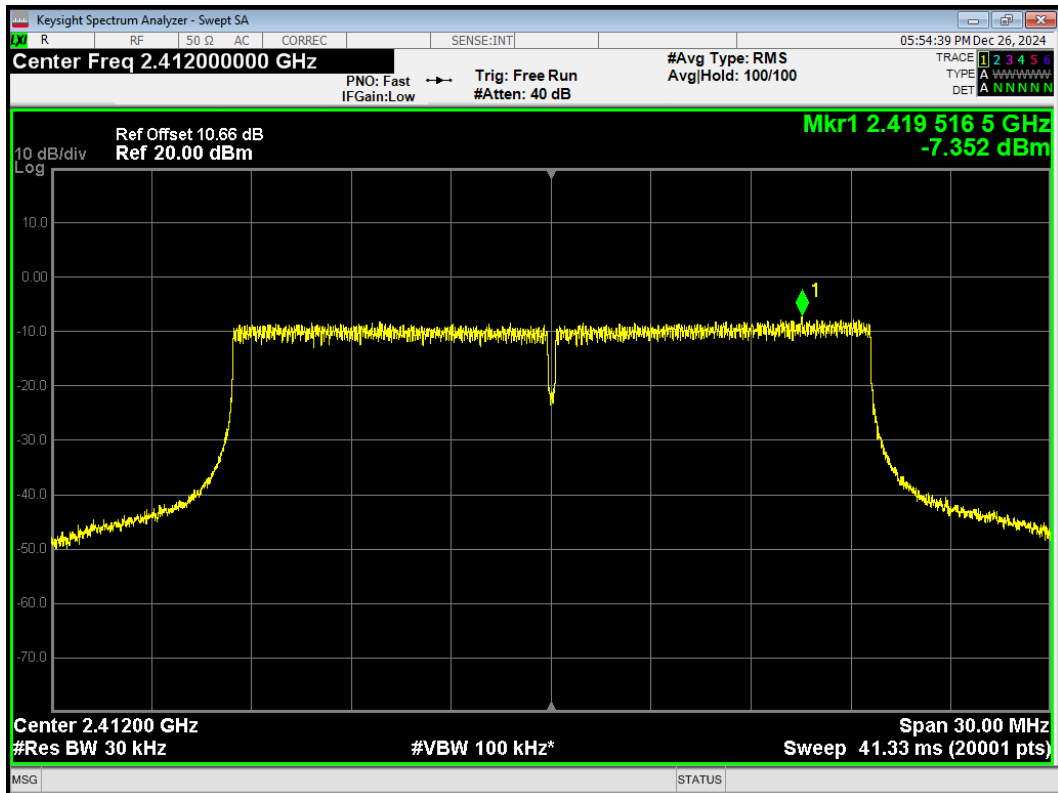
PSD 802.11ax HE20 106-Tones 2462MHz Ant2



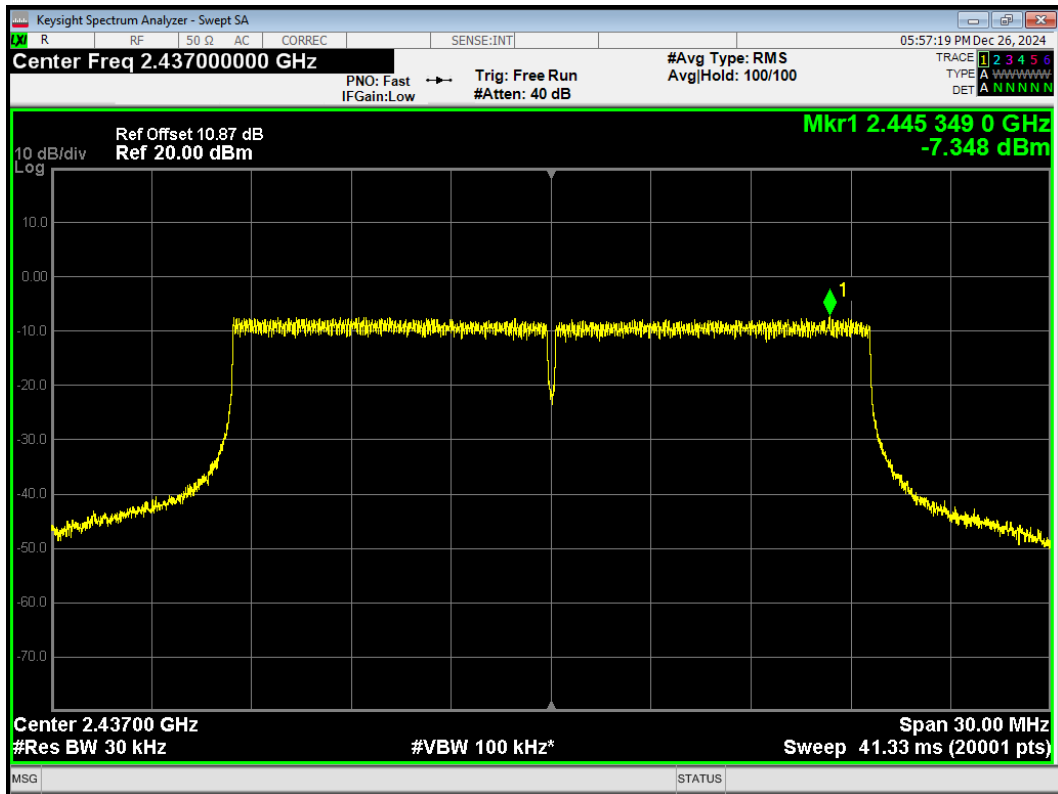
PSD 802.11ax HE20 242-Tones 2412MHz Ant1



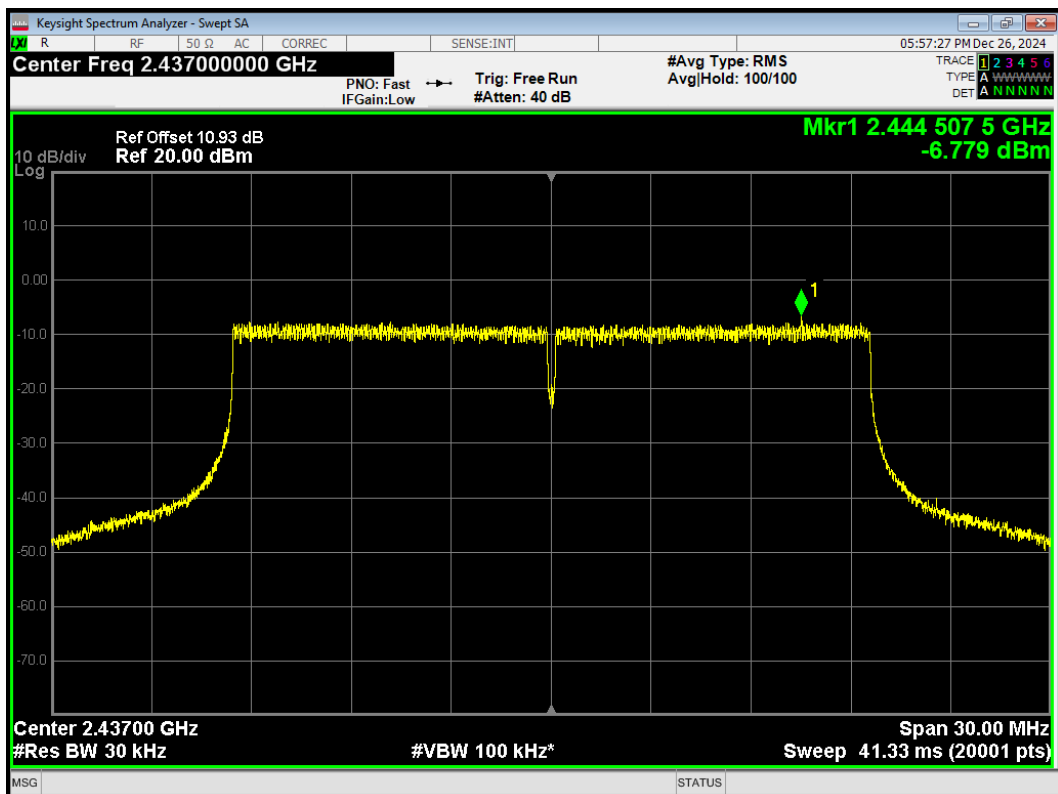
PSD 802.11ax HE20 242-Tones 2412MHz Ant2



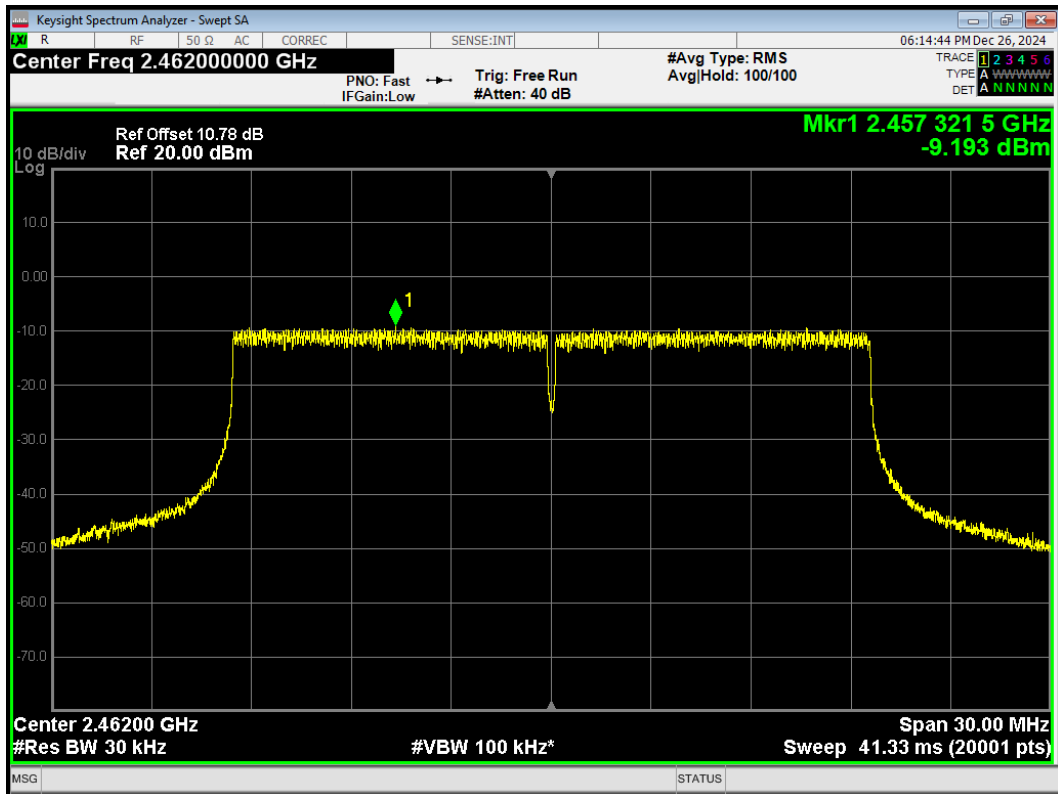
PSD 802.11ax HE20 242-Tones 2437MHz Ant1



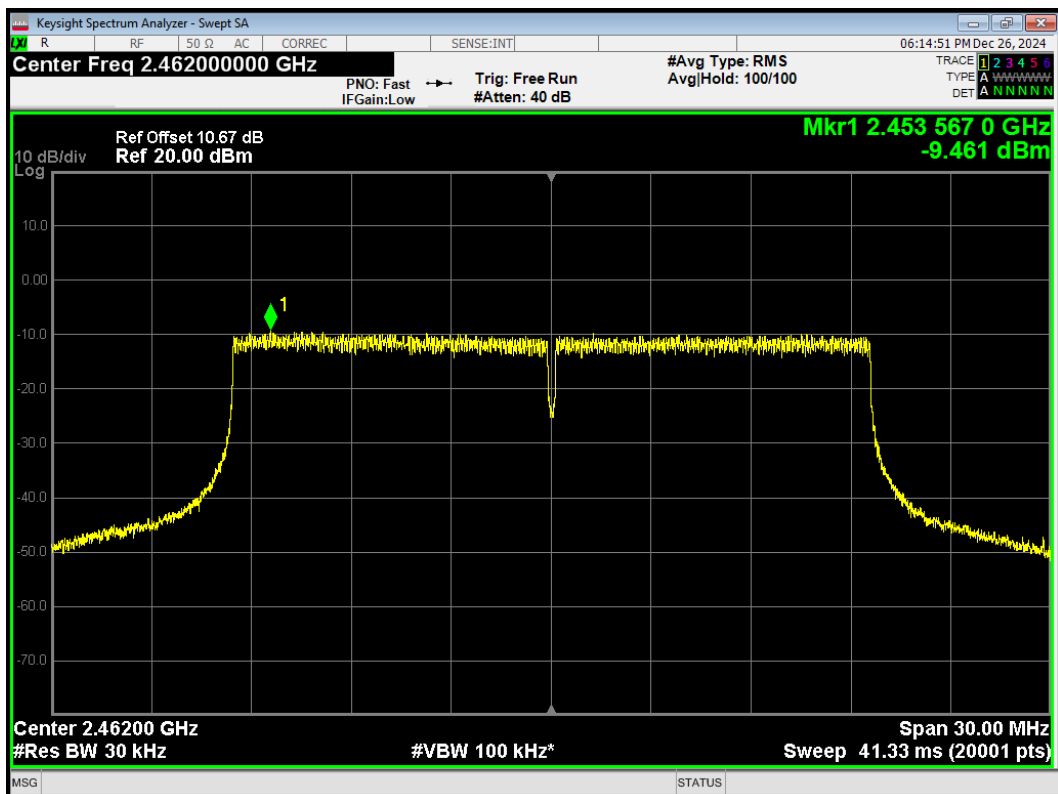
PSD 802.11ax HE20 242-Tones 2437MHz Ant2



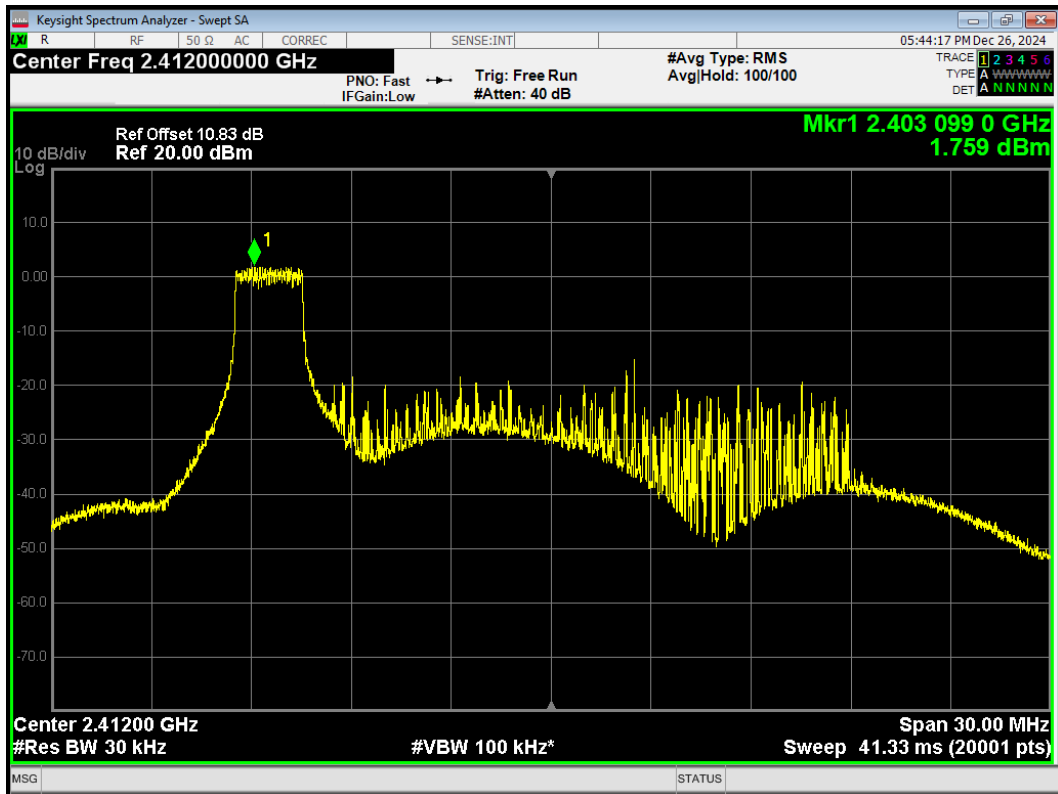
PSD 802.11ax HE20 242-Tones 2462MHz Ant1



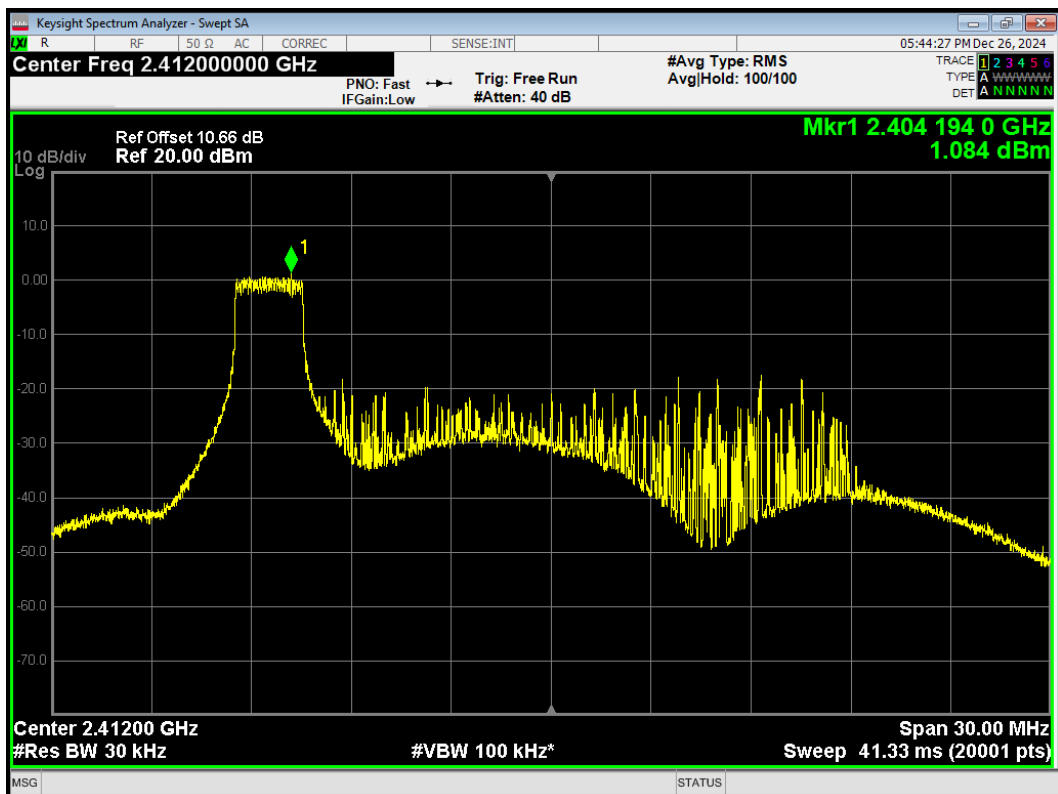
PSD 802.11ax HE20 242-Tones 2462MHz Ant2



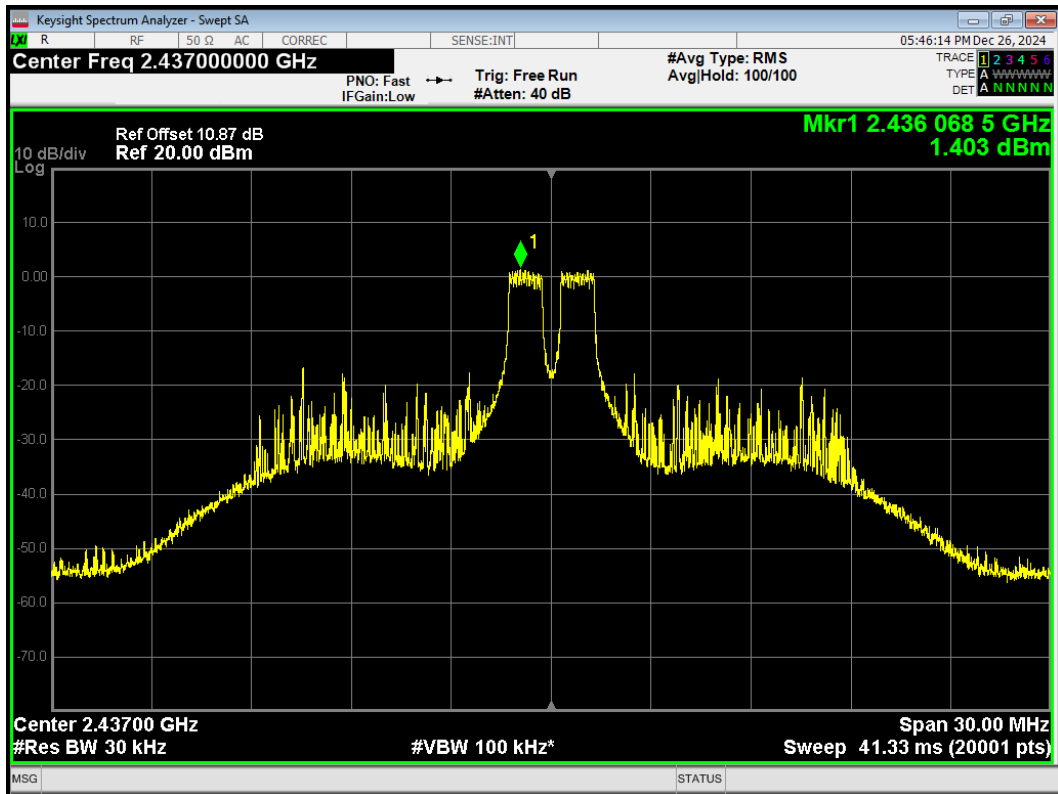
PSD 802.11ax HE20 26-Tones 2412MHz Ant1



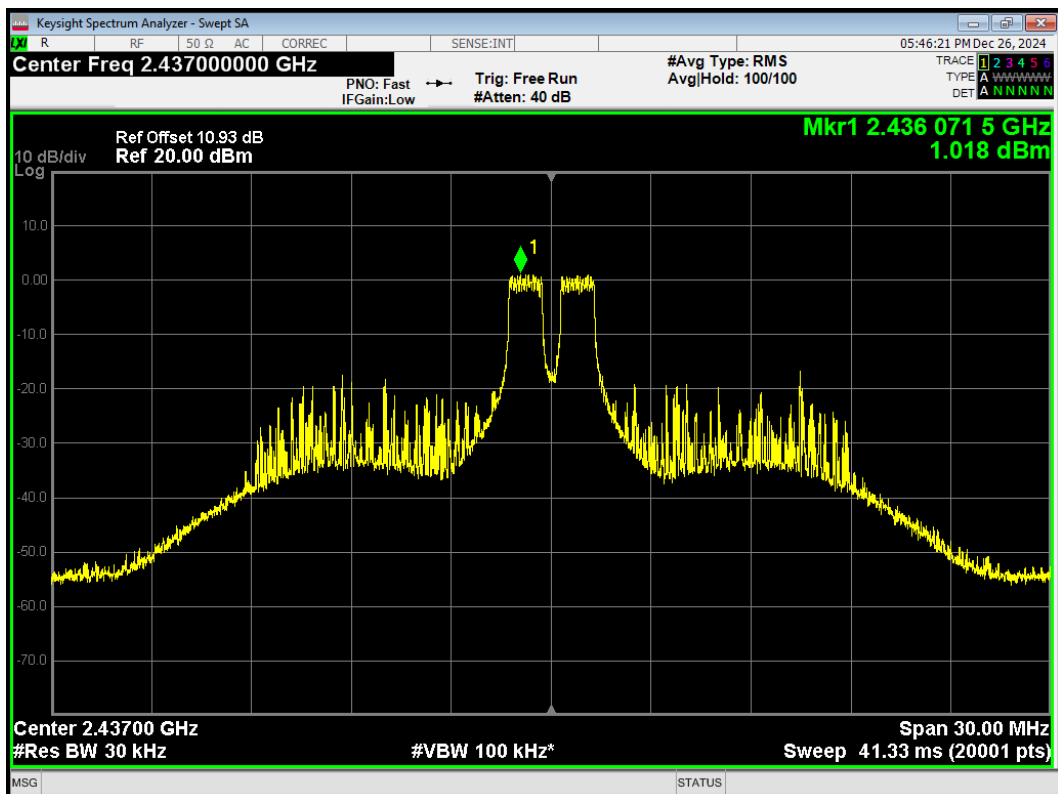
PSD 802.11ax HE20 26-Tones 2412MHz Ant2



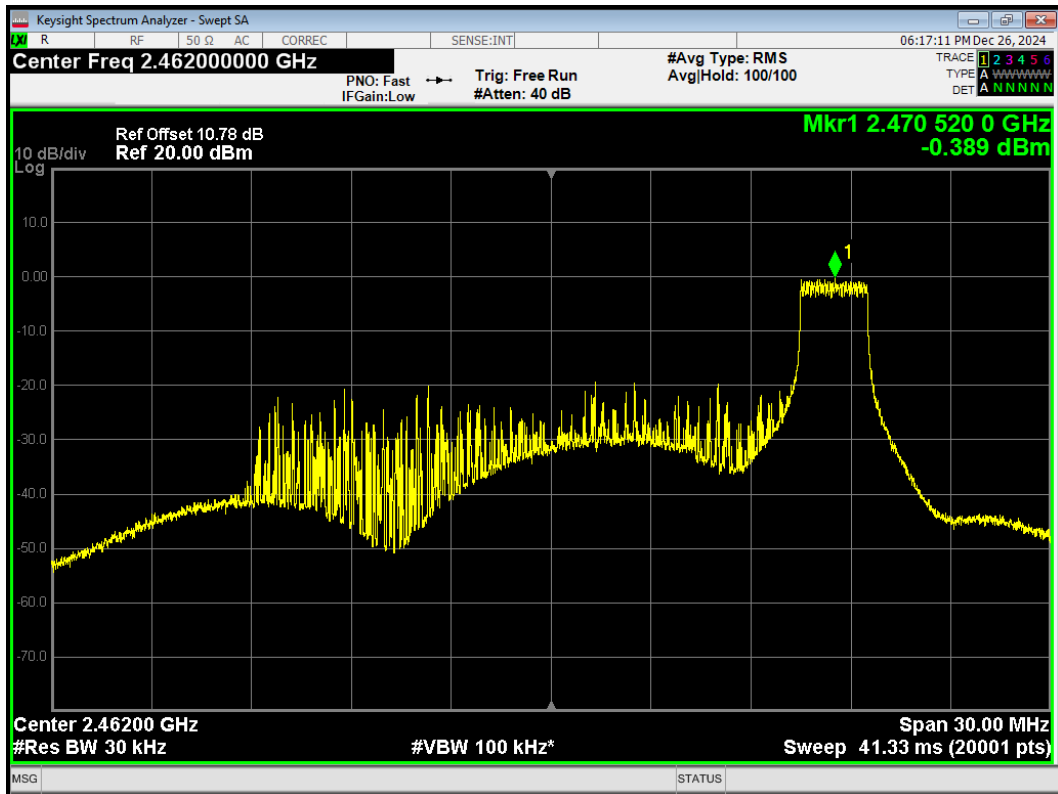
PSD 802.11ax HE20 26-Tones 2437MHz Ant1



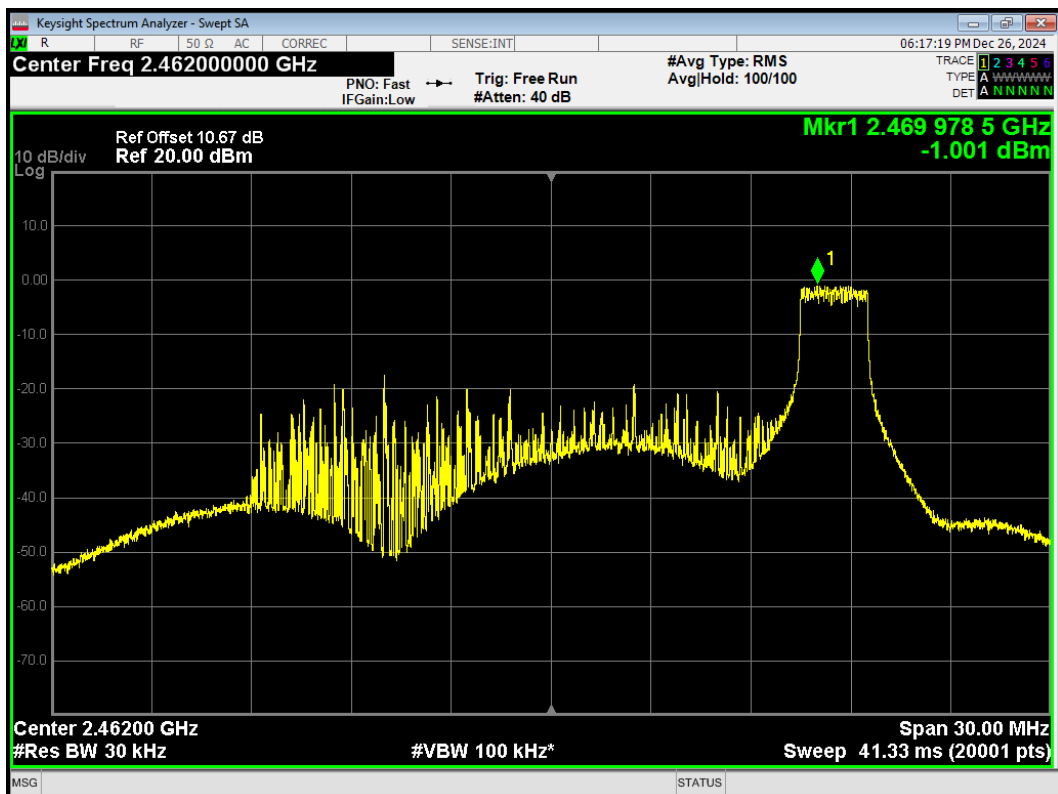
PSD 802.11ax HE20 26-Tones 2437MHz Ant2



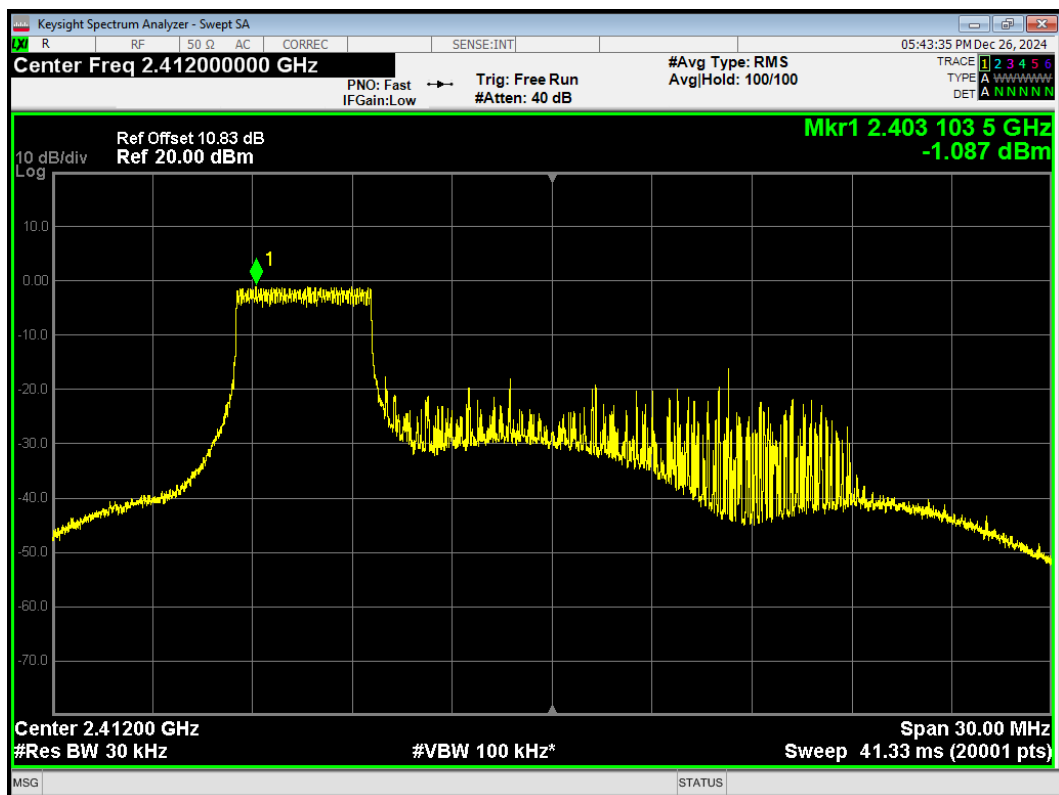
PSD 802.11ax HE20 26-Tones 2462MHz Ant1



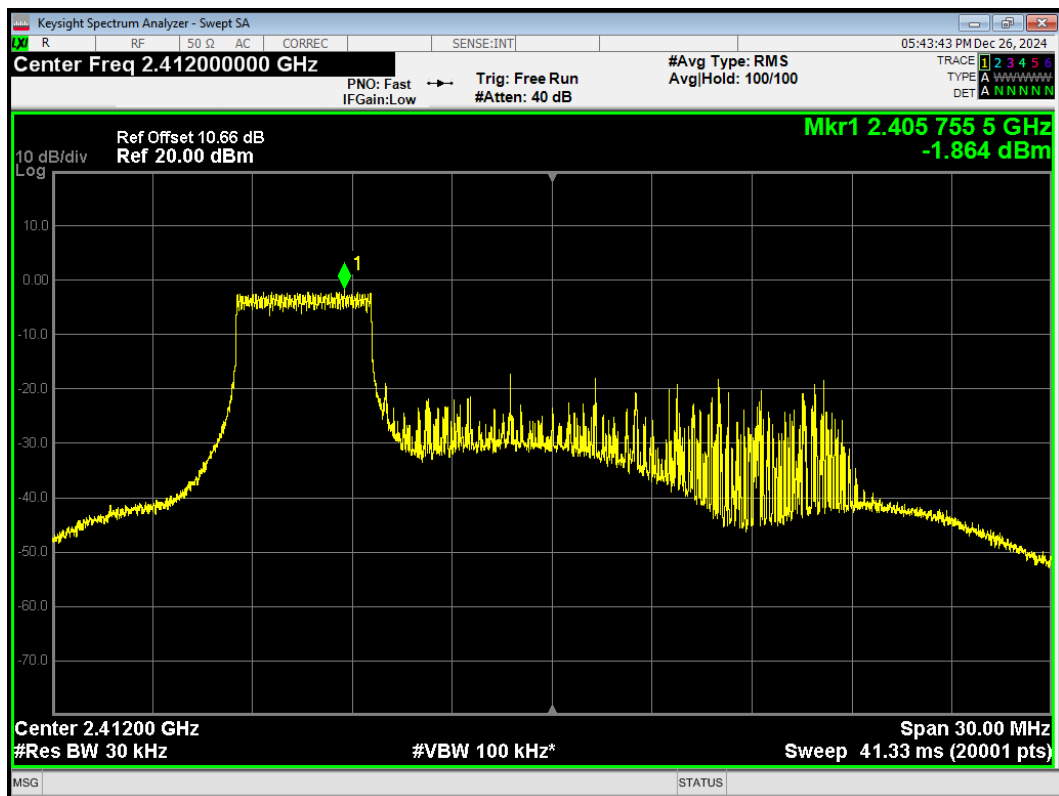
PSD 802.11ax HE20 26-Tones 2462MHz Ant2



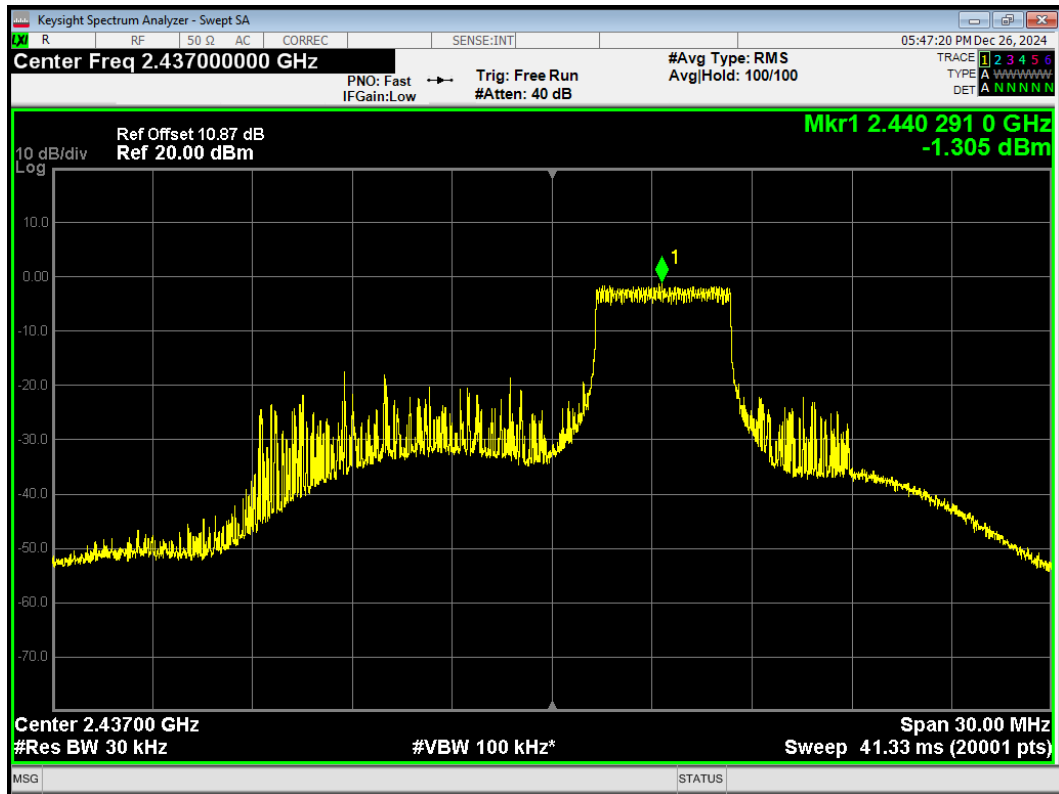
PSD 802.11ax HE20 52-Tones 2412MHz Ant1



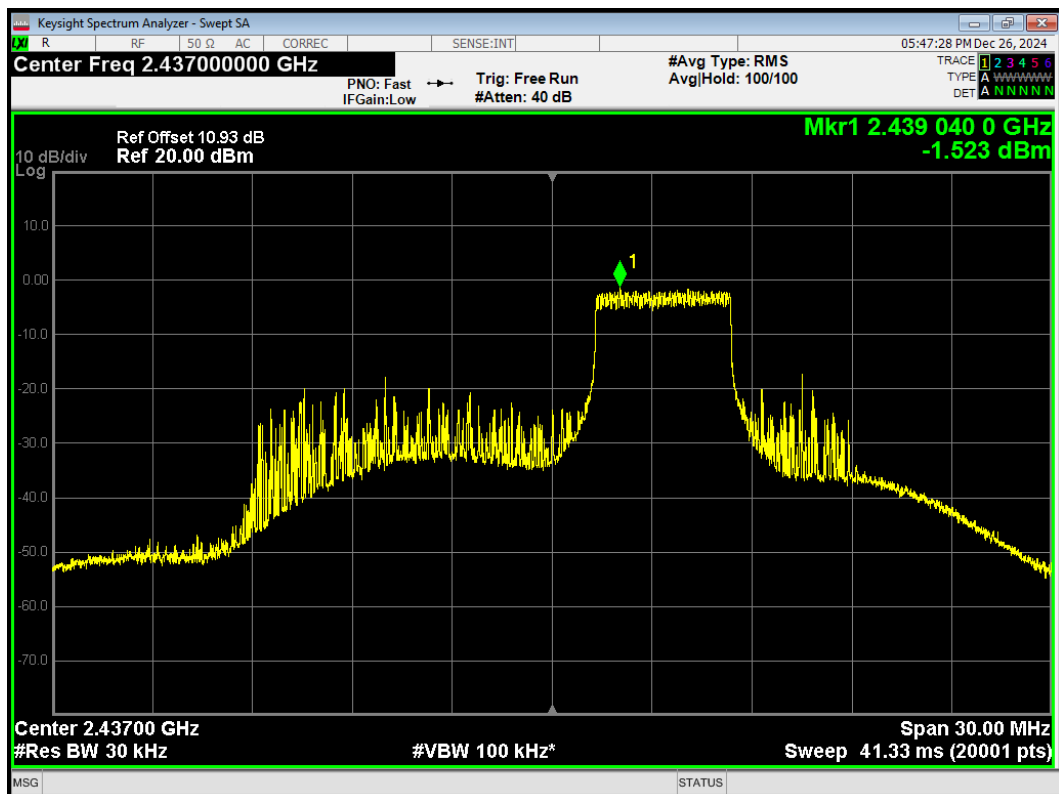
PSD 802.11ax HE20 52-Tones 2412MHz Ant2



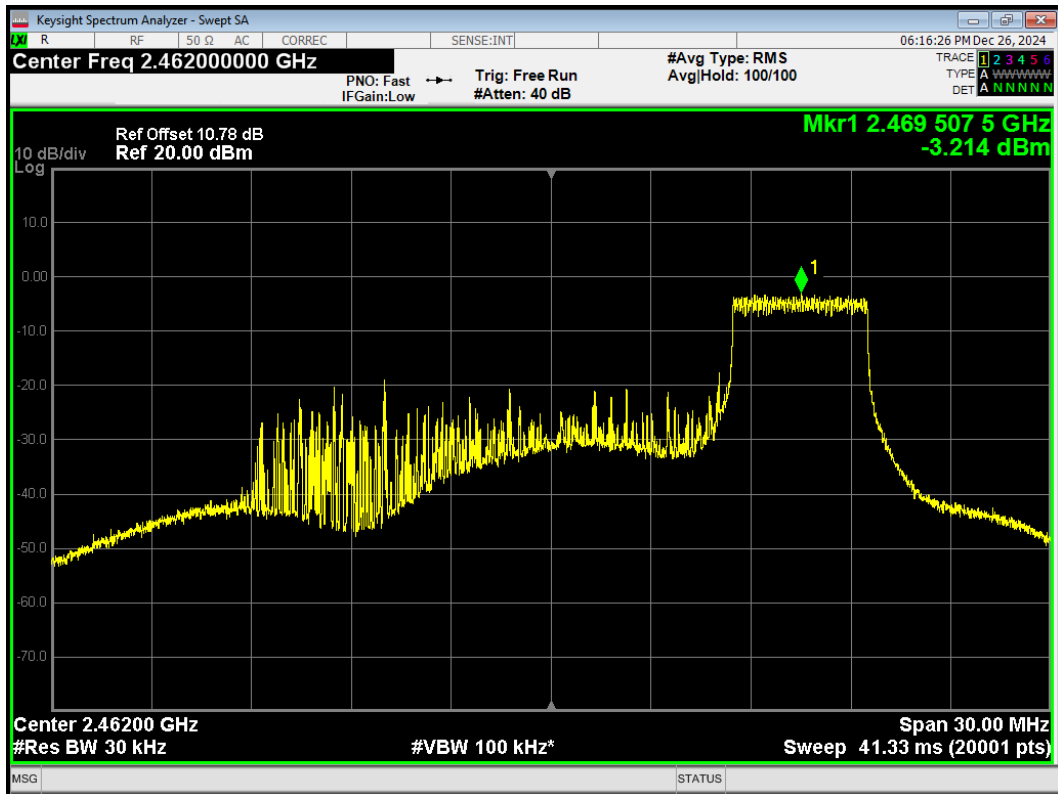
PSD 802.11ax HE20 52-Tones 2437MHz Ant1



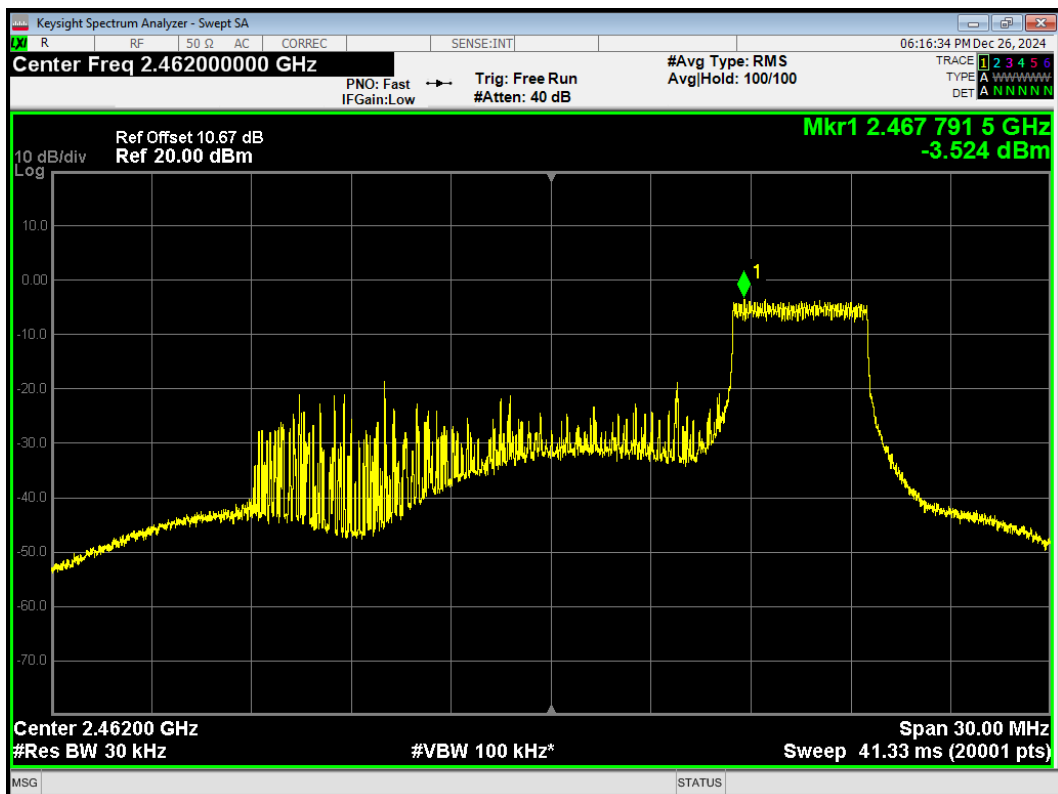
PSD 802.11ax HE20 52-Tones 2437MHz Ant2



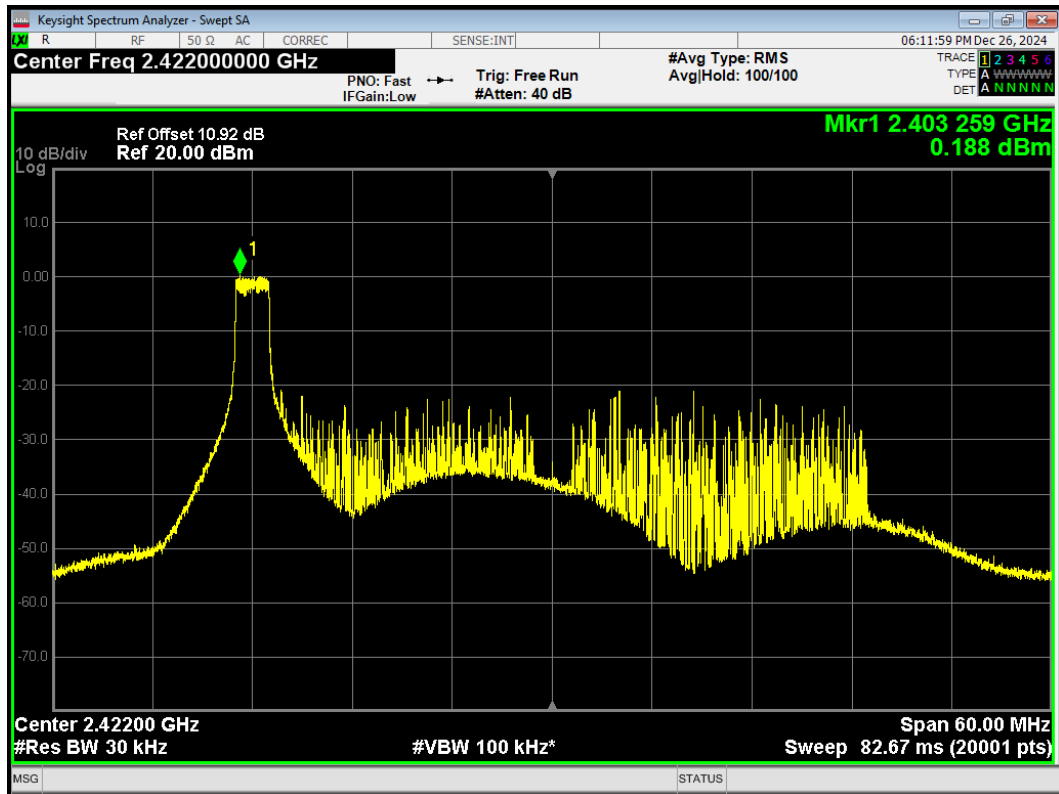
PSD 802.11ax HE20 52-Tones 2462MHz Ant1



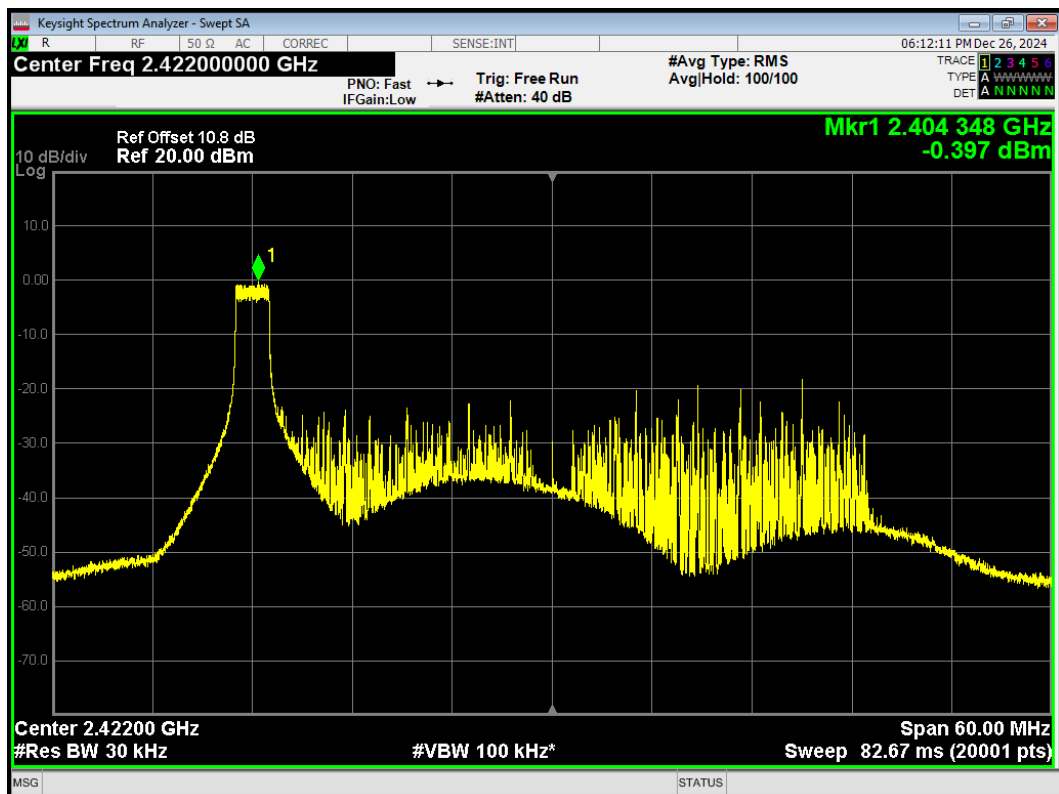
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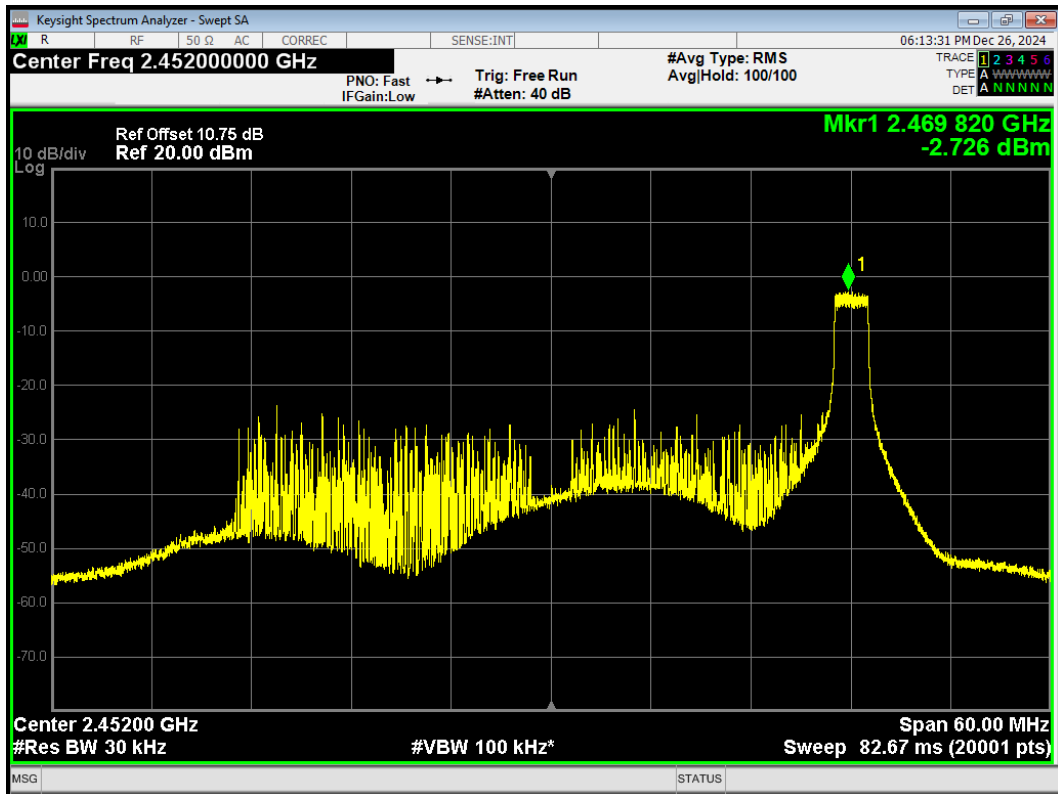
PSD 802.11ax HE40 26-Tones 2422MHz Ant1



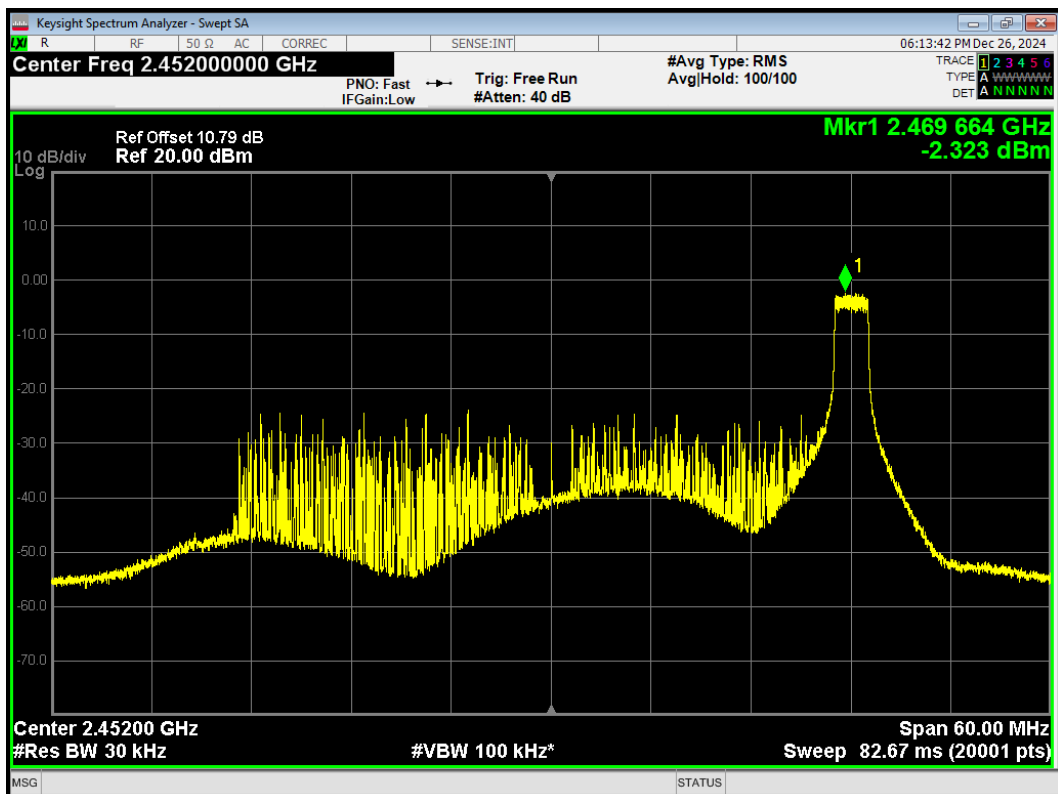
PSD 802.11ax HE40 26-Tones 2422MHz Ant2



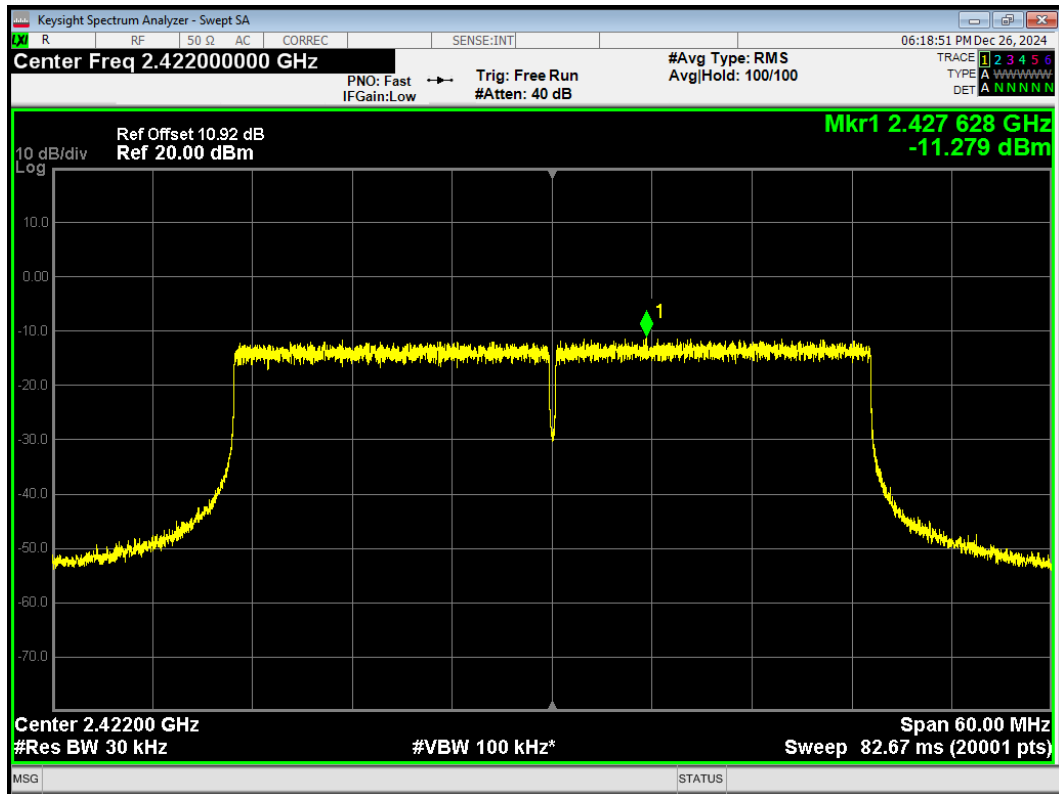
PSD 802.11ax HE40 26-Tones 2452MHz Ant1



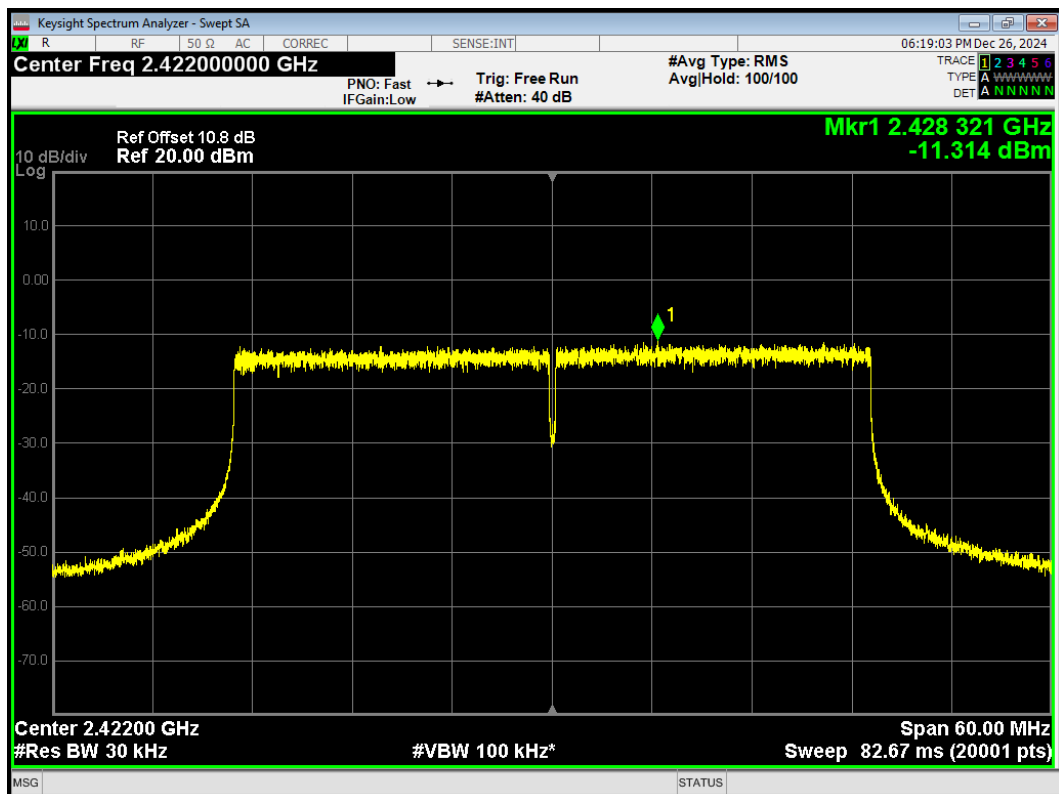
PSD 802.11ax HE40 26-Tones 2452MHz Ant2



PSD 802.11ax HE40 484-Tones 2422MHz Ant1



PSD 802.11ax HE40 484-Tones 2422MHz Ant2



## 5.5. Spurious RF Conducted Emissions

### Ambient Condition

| Temperature | Relative humidity |
|-------------|-------------------|
| 15°C ~ 35°C | 20% ~ 80%         |

### Method of Measurement

The EUT was connected to the spectrum analyzer with a known loss. The spectrum analyzer scans from 30MHz to the 10th harmonic of the carrier. The peak detector is used. Set RBW to 100 kHz and VBW to 300 kHz, Sweep is set to AUTO.

The test is in transmitting mode.

### Test Setup



### Limits

Rule Part 15.247(d) pacifies that "In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. "

| Test Mode                          | Carrier frequency (MHz) | Reference value (dBm) | Limit  |
|------------------------------------|-------------------------|-----------------------|--------|
| Bluetooth<br>(Low Energy)<br>(1M)  | 2402                    | 5.85                  | -24.15 |
|                                    | 2440                    | 7.27                  | -22.73 |
|                                    | 2480                    | 7.00                  | -23.00 |
| Bluetooth<br>(Low Energy)<br>(2M)  | 2402                    | 5.87                  | -24.13 |
|                                    | 2440                    | 7.44                  | -22.56 |
|                                    | 2480                    | 6.51                  | -23.49 |
| Bluetooth<br>(Low Energy)<br>(S=2) | 2402                    | 6.01                  | -23.99 |
|                                    | 2440                    | 7.26                  | -22.74 |
|                                    | 2480                    | 6.92                  | -23.08 |
| Bluetooth<br>(Low Energy)<br>(S=8) | 2402                    | 4.49                  | -25.51 |
|                                    | 2440                    | 6.23                  | -23.77 |
|                                    | 2480                    | 7.32                  | -22.68 |

| Test Mode     | Carrier frequency (MHz) | Freq Range [Mhz] | Reference value (dBm) | Limit  |
|---------------|-------------------------|------------------|-----------------------|--------|
| 802.11b       | 2412                    | 30~1000          | 9.40                  | -20.60 |
|               |                         | 1000~26500       | 9.40                  | -20.60 |
|               | 2437                    | 30~1000          | 9.17                  | -20.83 |
|               |                         | 1000~26500       | 9.17                  | -20.83 |
|               | 2462                    | 30~1000          | 9.15                  | -20.85 |
|               |                         | 1000~26500       | 9.15                  | -20.85 |
| 802.11g       | 2412                    | 30~1000          | 7.80                  | -22.20 |
|               |                         | 1000~26500       | 7.80                  | -22.20 |
|               | 2437                    | 30~1000          | 7.07                  | -22.93 |
|               |                         | 1000~26500       | 7.07                  | -22.93 |
|               | 2462                    | 30~1000          | 6.99                  | -23.01 |
|               |                         | 1000~26500       | 6.99                  | -23.01 |
| 802.11n HT20  | 2412                    | 30~1000          | 6.37                  | -23.63 |
|               |                         | 1000~26500       | 6.37                  | -23.63 |
|               | 2437                    | 30~1000          | 7.47                  | -22.53 |
|               |                         | 1000~26500       | 7.47                  | -22.53 |
|               | 2462                    | 30~1000          | 7.31                  | -22.69 |
|               |                         | 1000~26500       | 7.31                  | -22.69 |
| 802.11n HT40  | 2422                    | 30~1000          | 2.52                  | -27.48 |
|               |                         | 1000~26500       | 2.52                  | -27.48 |
|               | 2437                    | 30~1000          | 4.20                  | -25.80 |
|               |                         | 1000~26500       | 4.20                  | -25.80 |
|               | 2452                    | 30~1000          | 0.94                  | -29.06 |
|               |                         | 1000~26500       | 0.94                  | -29.06 |
| 802.11ax HE20 | 2412                    | 30~1000          | 7.09                  | -22.91 |
|               |                         | 1000~26500       | 7.09                  | -22.91 |
|               | 2437                    | 30~1000          | 7.38                  | -22.62 |
|               |                         | 1000~26500       | 7.38                  | -22.62 |
|               | 2462                    | 30~1000          | 4.20                  | -25.80 |
|               |                         | 1000~26500       | 4.20                  | -25.80 |
| 802.11ax HE40 | 2422                    | 30~1000          | 2.43                  | -27.57 |
|               |                         | 1000~26500       | 2.43                  | -27.57 |
|               | 2437                    | 30~1000          | 3.72                  | -26.28 |
|               |                         | 1000~26500       | 3.72                  | -26.28 |
|               | 2452                    | 30~1000          | -1.05                 | -31.05 |
|               |                         | 1000~26500       | -1.05                 | -31.05 |

**TB Mode**

| Test Mode                  | Carrier frequency (MHz)/ Channel | RU Index | Reference value (dBm) | Limit  |
|----------------------------|----------------------------------|----------|-----------------------|--------|
| 802.11ax HE20<br>26-Tones  | 2412/CH 1                        | 0        | 13.840                | -16.16 |
|                            | 2437/CH 6                        | 4        | 13.220                | -16.78 |
|                            | 2462/CH11                        | 8        | 10.990                | -19.01 |
| 802.11ax HE20<br>52-Tones  | 2412/CH 1                        | 37       | 11.030                | -18.97 |
|                            | 2437/CH 6                        | 38       | 10.520                | -19.48 |
|                            | 2462/CH11                        | 40       | 9.050                 | -20.95 |
| 802.11ax HE20<br>106-Tones | 2412/CH 1                        | 53       | 8.580                 | -21.42 |
|                            | 2437/CH 6                        | 53       | 9.030                 | -20.97 |
|                            | 2462/CH11                        | 54       | 6.510                 | -23.49 |
| 802.11ax HE20<br>242-Tones | 2412/CH 1                        | 61       | 7.090                 | -22.91 |
|                            | 2437/CH 6                        | 61       | 6.880                 | -23.12 |
|                            | 2462/CH11                        | 61       | 4.390                 | -25.61 |
| 802.11ax HE40<br>26-Tones  | 2422/CH3                         | 0        | 11.980                | -18.02 |
|                            | 2452/CH9                         | 17       | 9.060                 | -20.94 |
| 802.11ax HE40<br>484-Tones | 2422/CH3                         | 65       | 1.950                 | -28.05 |

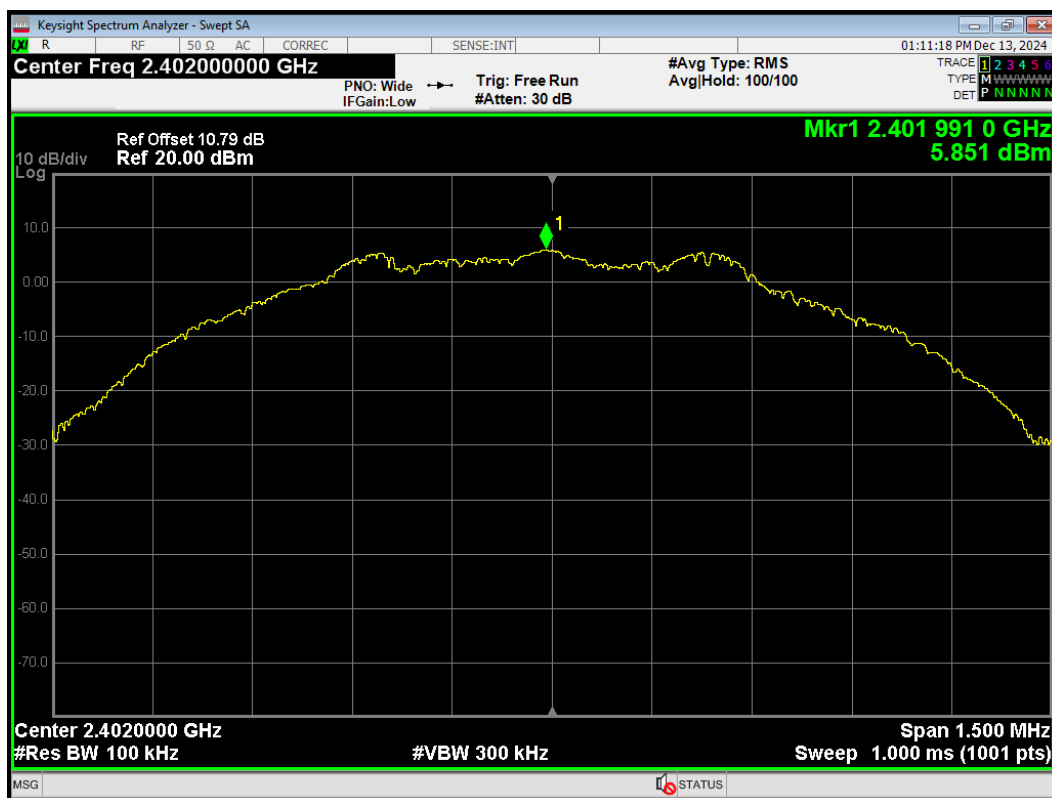
**Measurement Uncertainty**

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor  $k = 1.96$ .

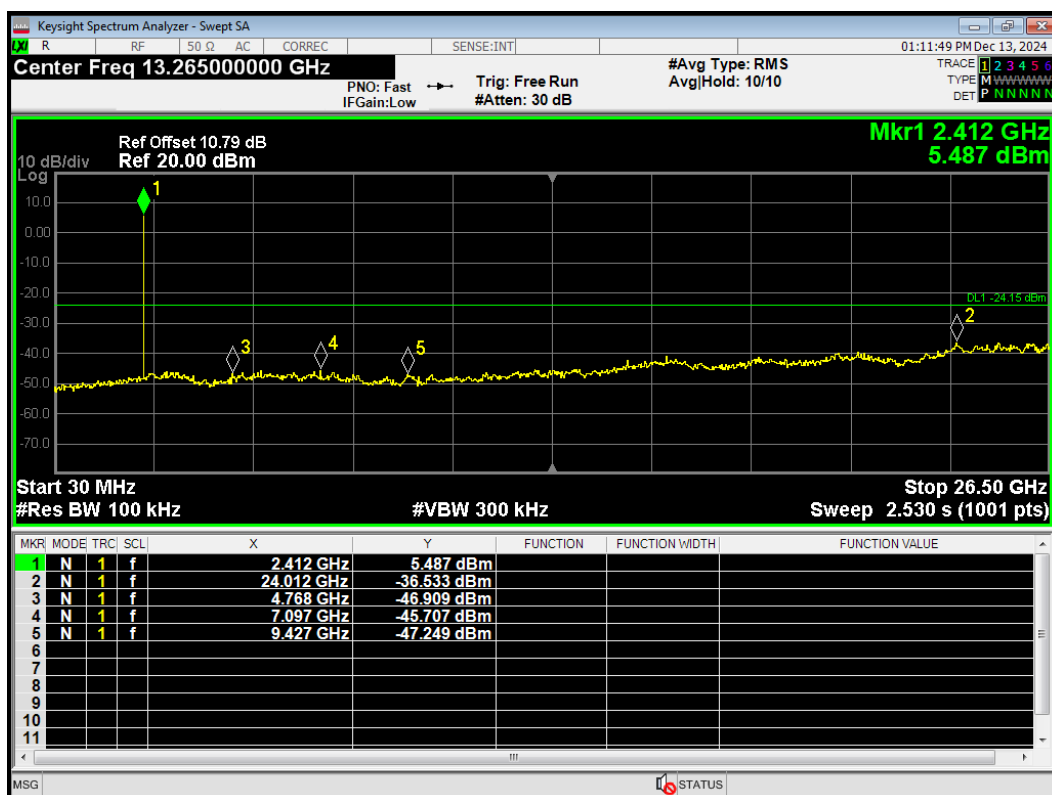
| Frequency   | Uncertainty |
|-------------|-------------|
| 100kHz-2GHz | 0.684 dB    |
| 2GHz-26GHz  | 1.407 dB    |

Test Results:

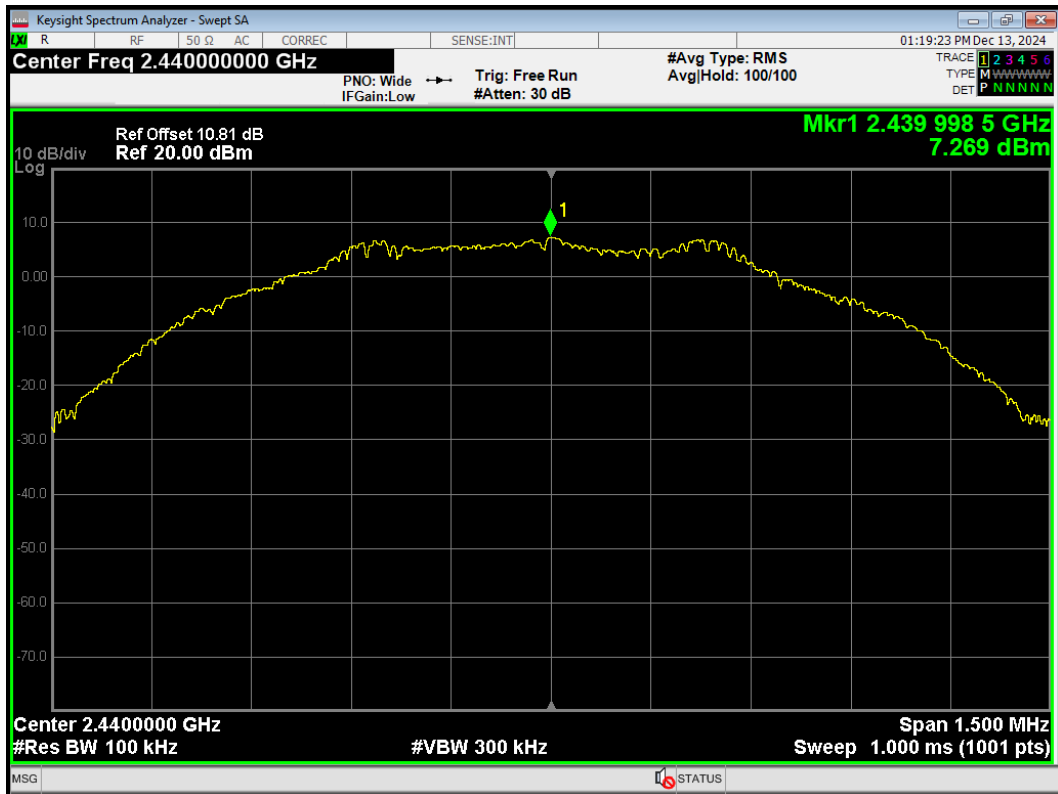
Tx. Spurious Bluetooth LE (1M) 2402MHz Ref



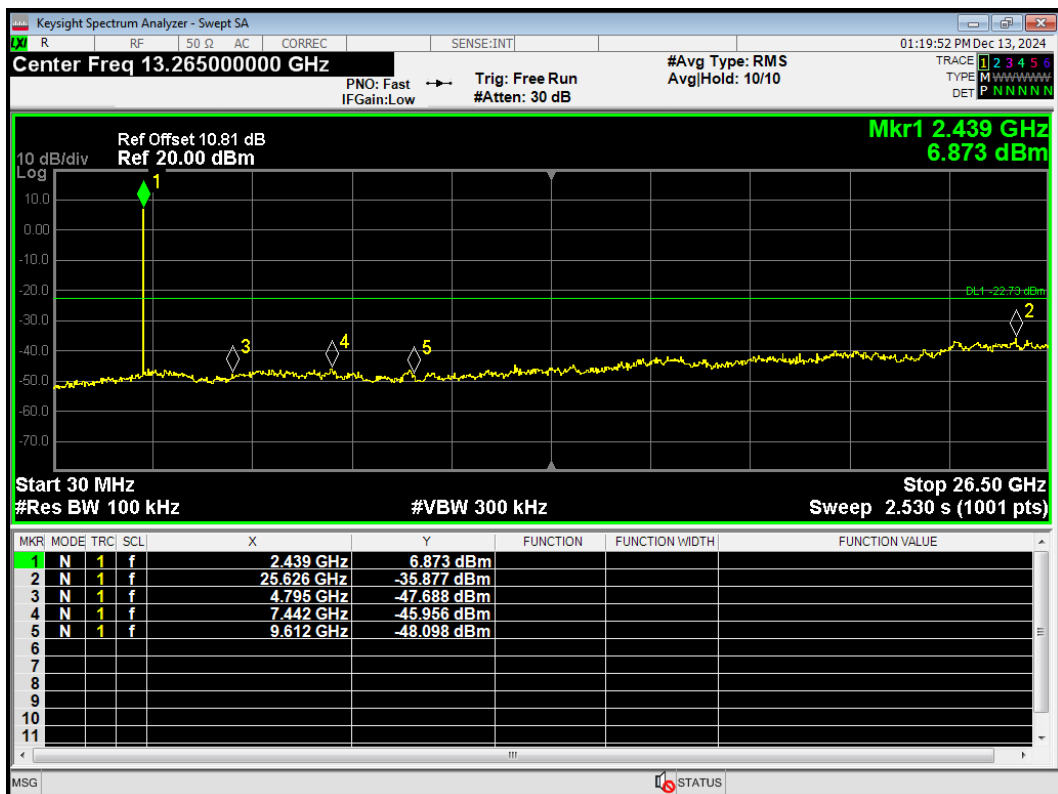
Tx. Spurious Bluetooth LE (1M) 2402MHz Emission



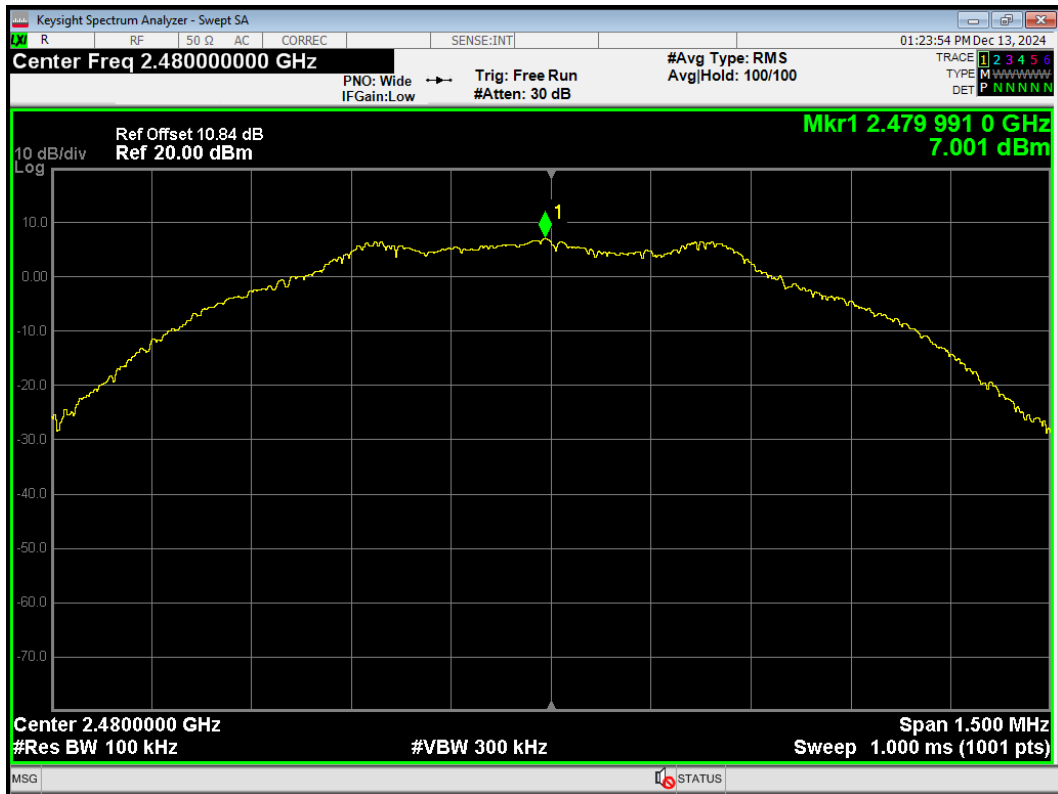
Tx. Spurious Bluetooth LE (1M) 2440MHz Ref



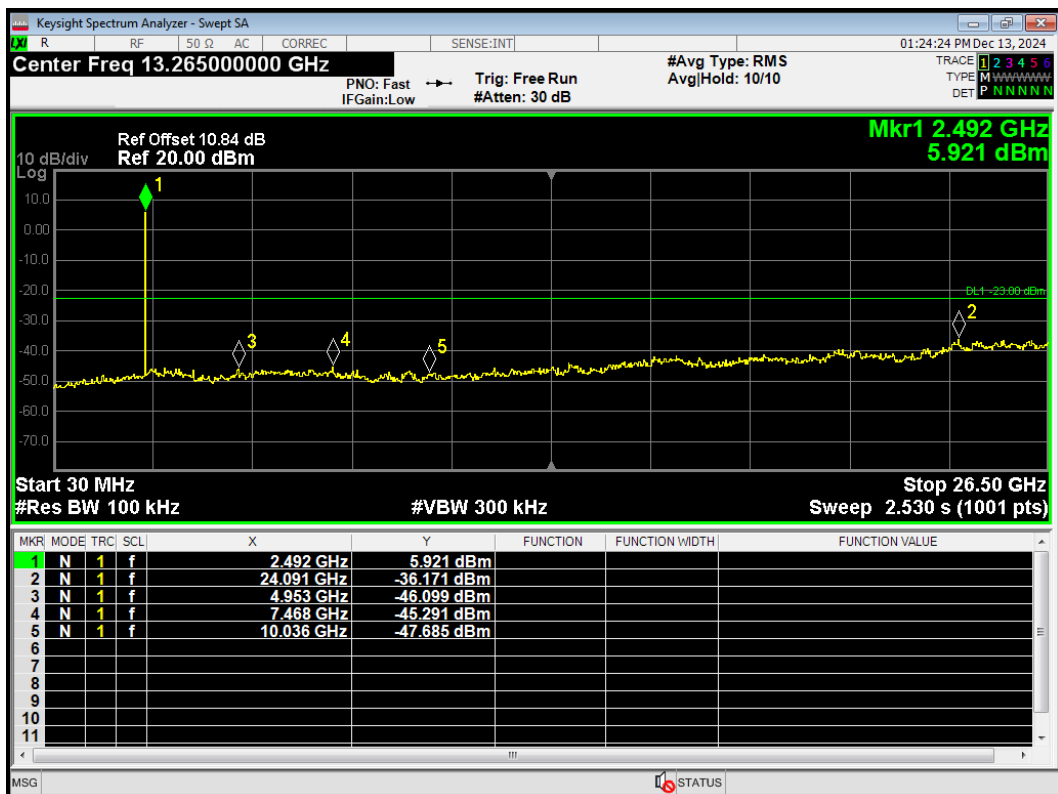
Tx. Spurious Bluetooth LE (1M) 2440MHz Emission



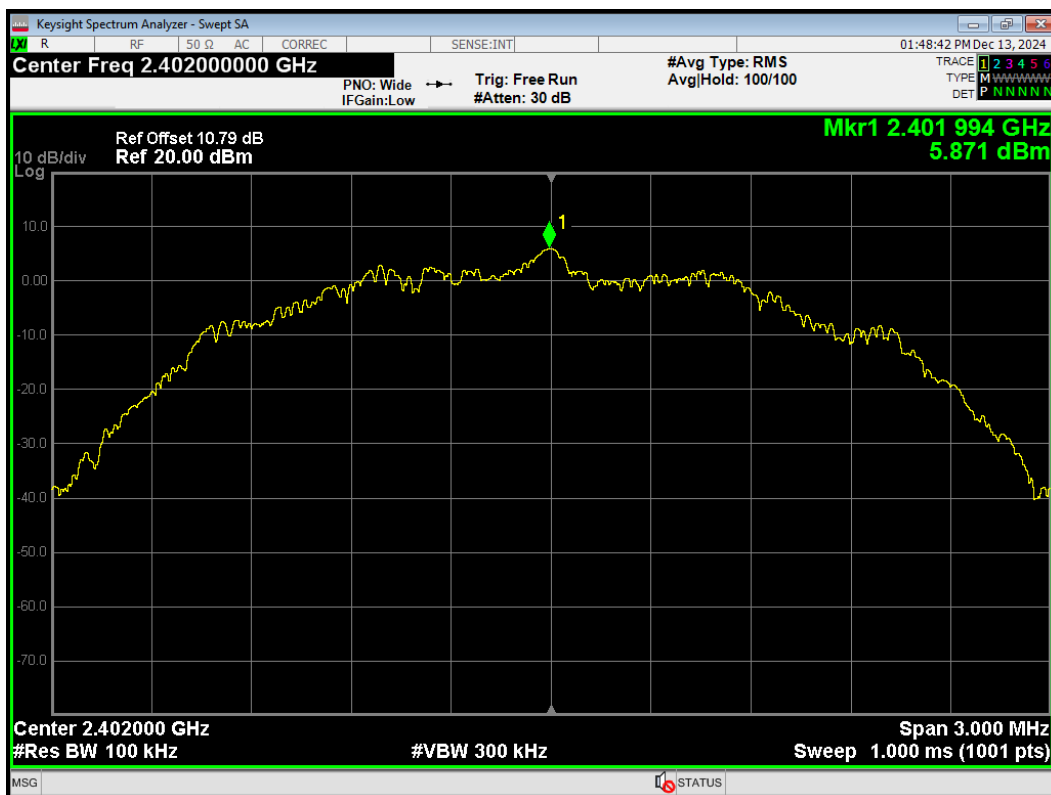
Tx. Spurious Bluetooth LE (1M) 2480MHz Ref



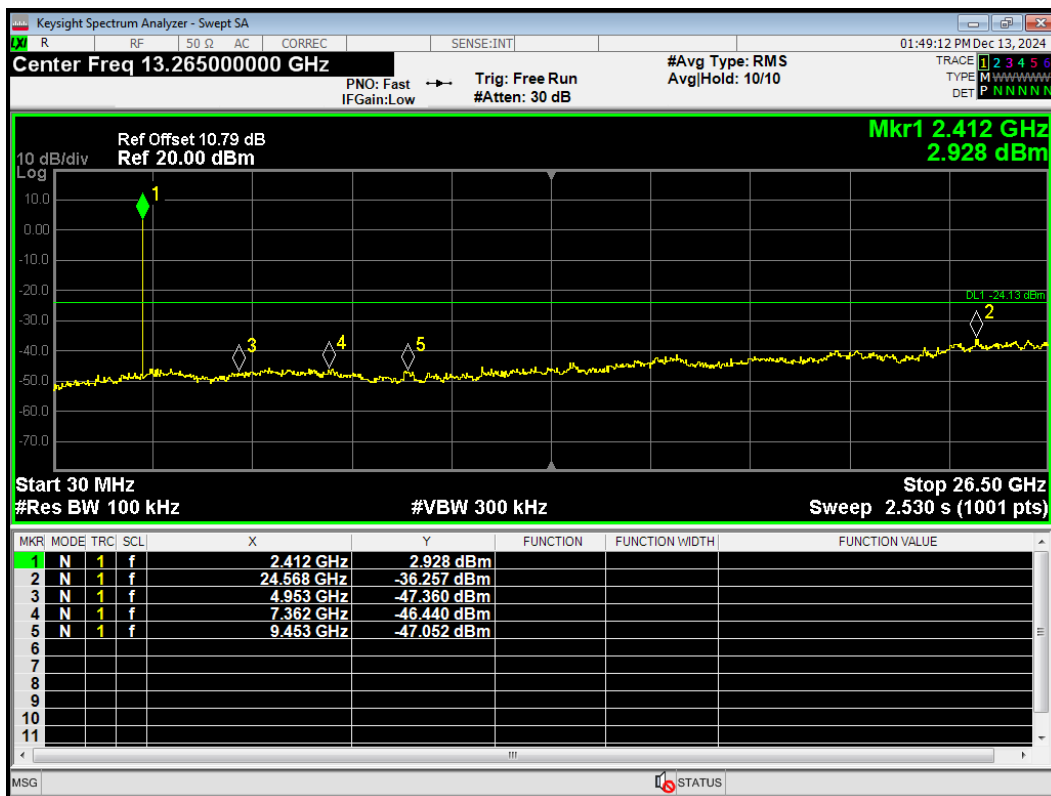
Tx. Spurious Bluetooth LE (1M) 2480MHz Emission



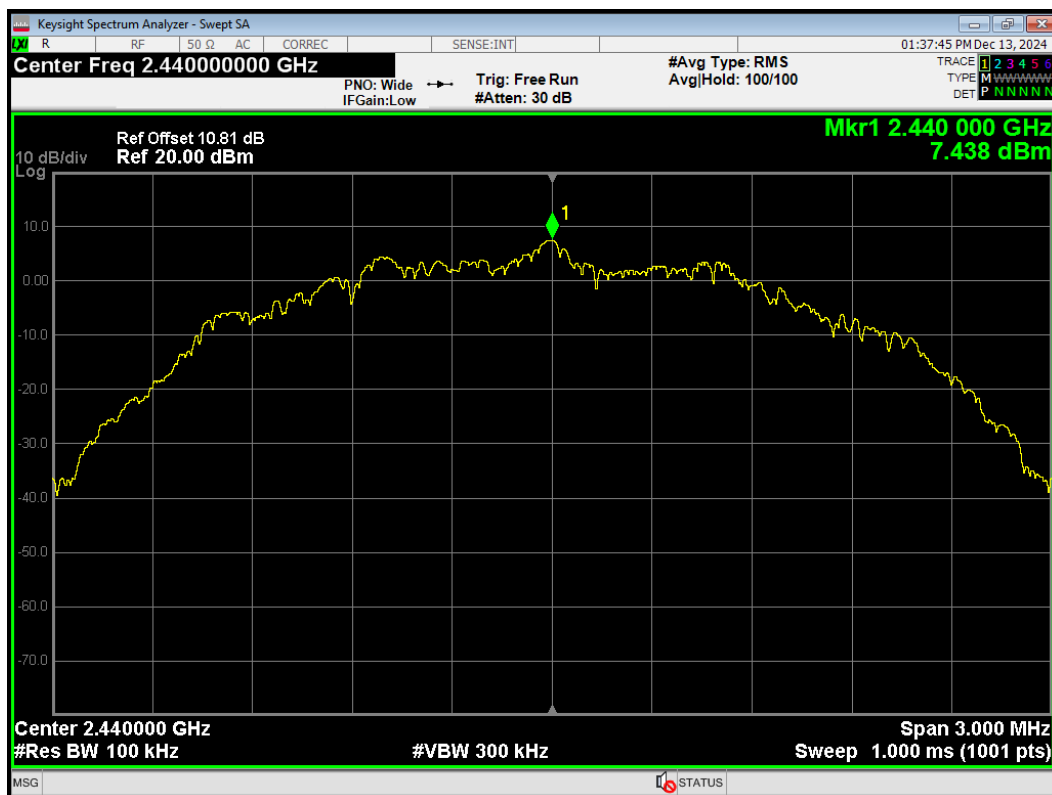
Tx. Spurious Bluetooth LE (2M) 2402MHz Ref



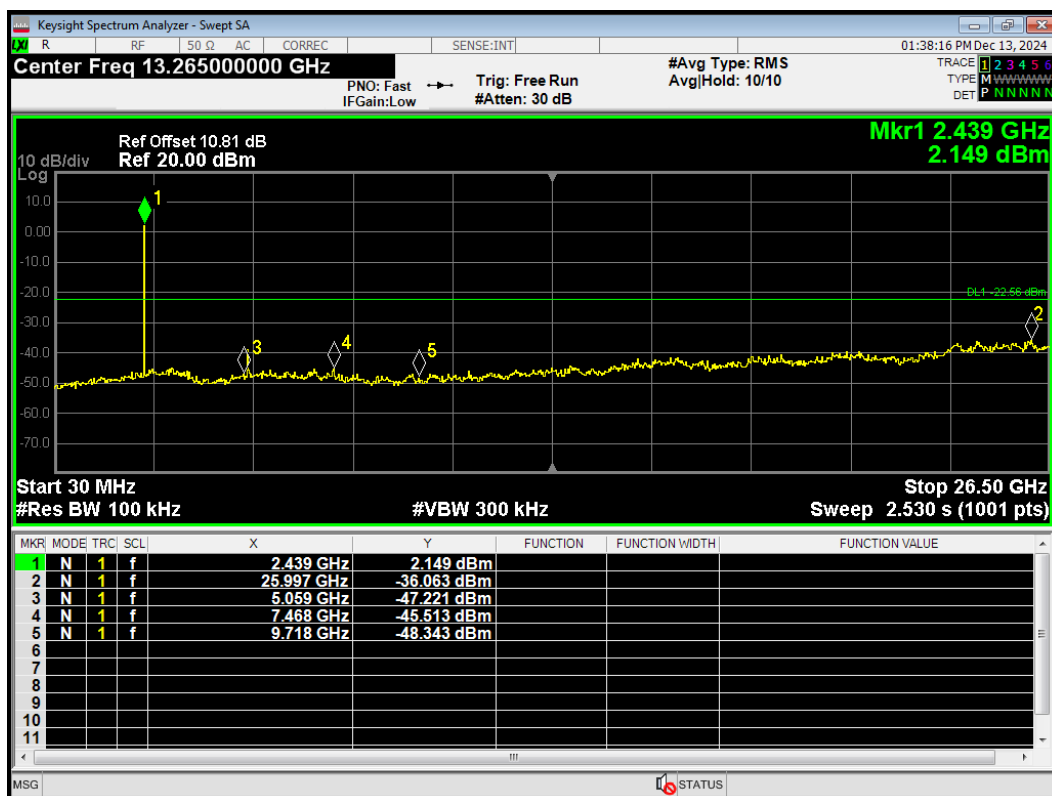
Tx. Spurious Bluetooth LE (2M) 2402MHz Emission



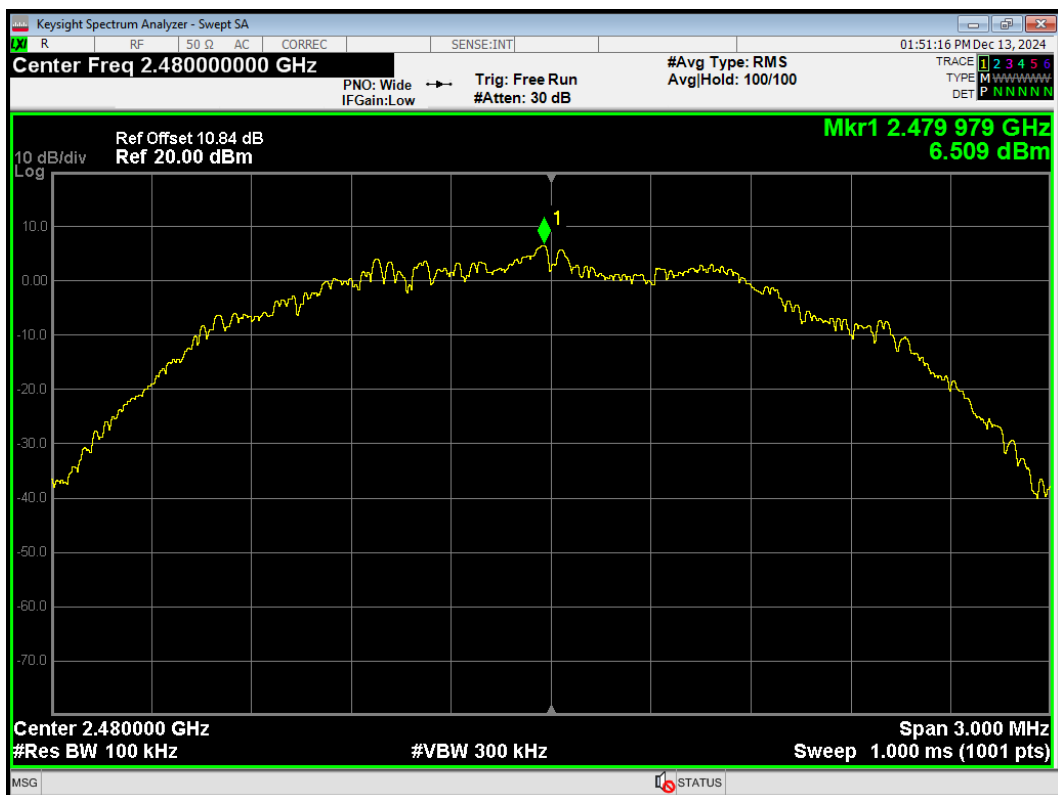
Tx. Spurious Bluetooth LE (2M) 2440MHz Ref



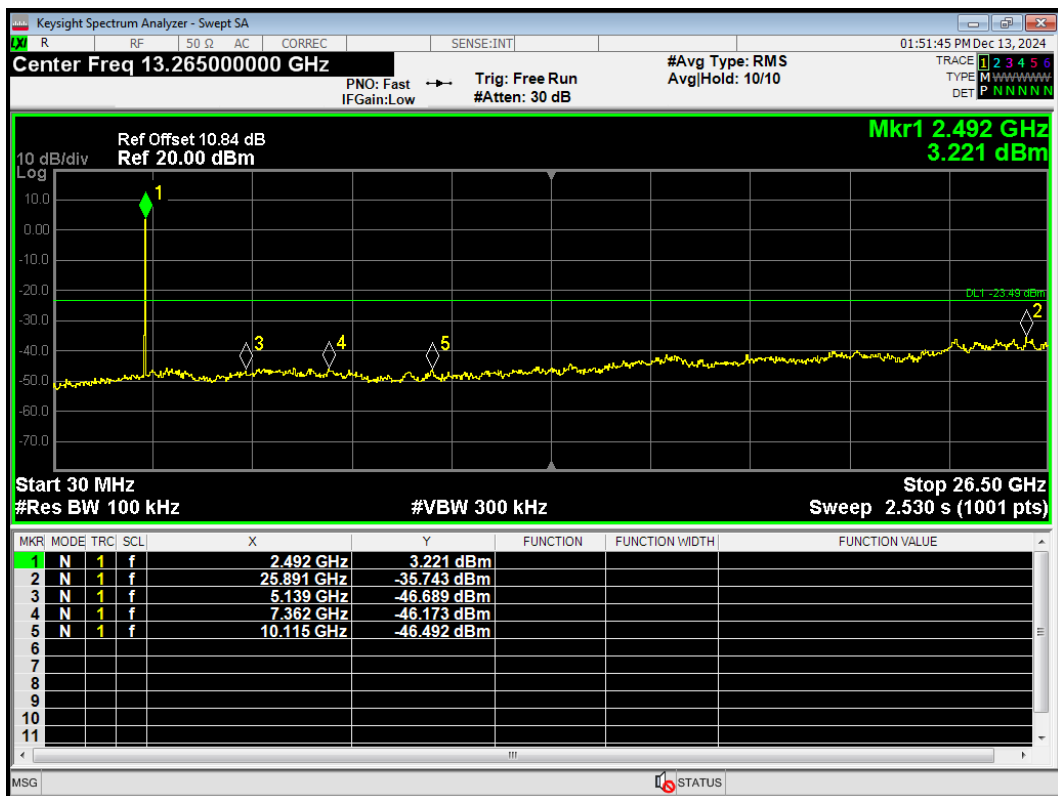
Tx. Spurious Bluetooth LE (2M) 2440MHz Emission



Tx. Spurious Bluetooth LE (2M) 2480MHz Ref



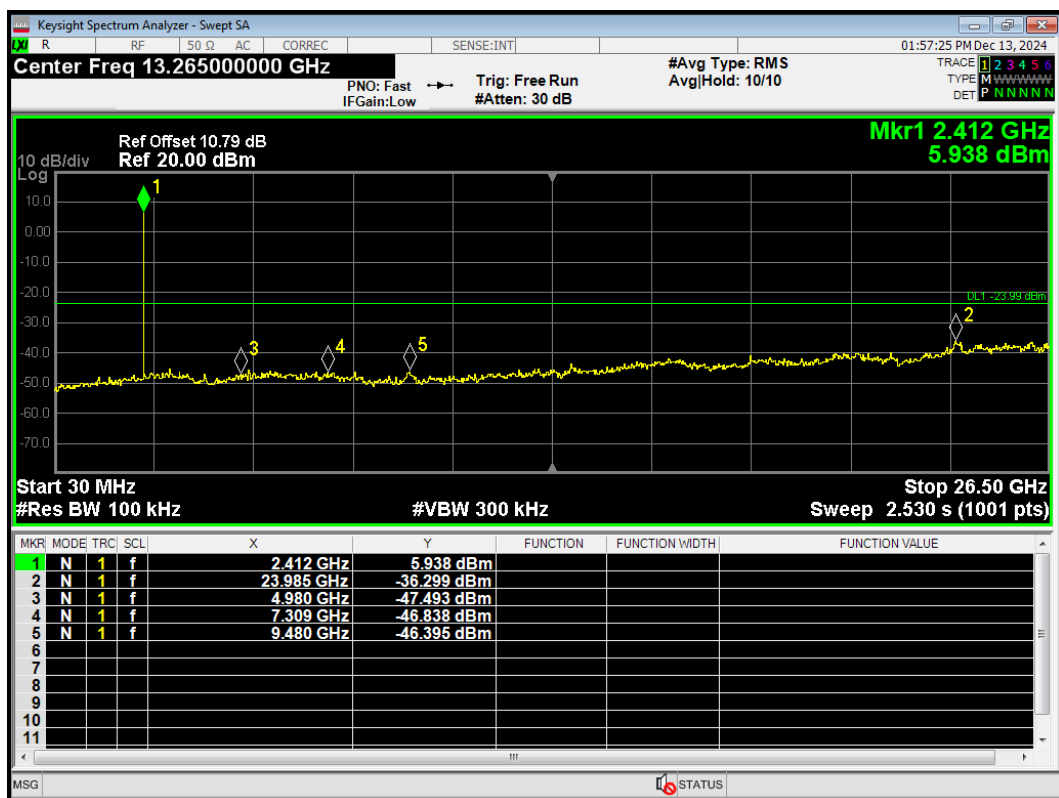
Tx. Spurious Bluetooth LE (2M) 2480MHz Emission



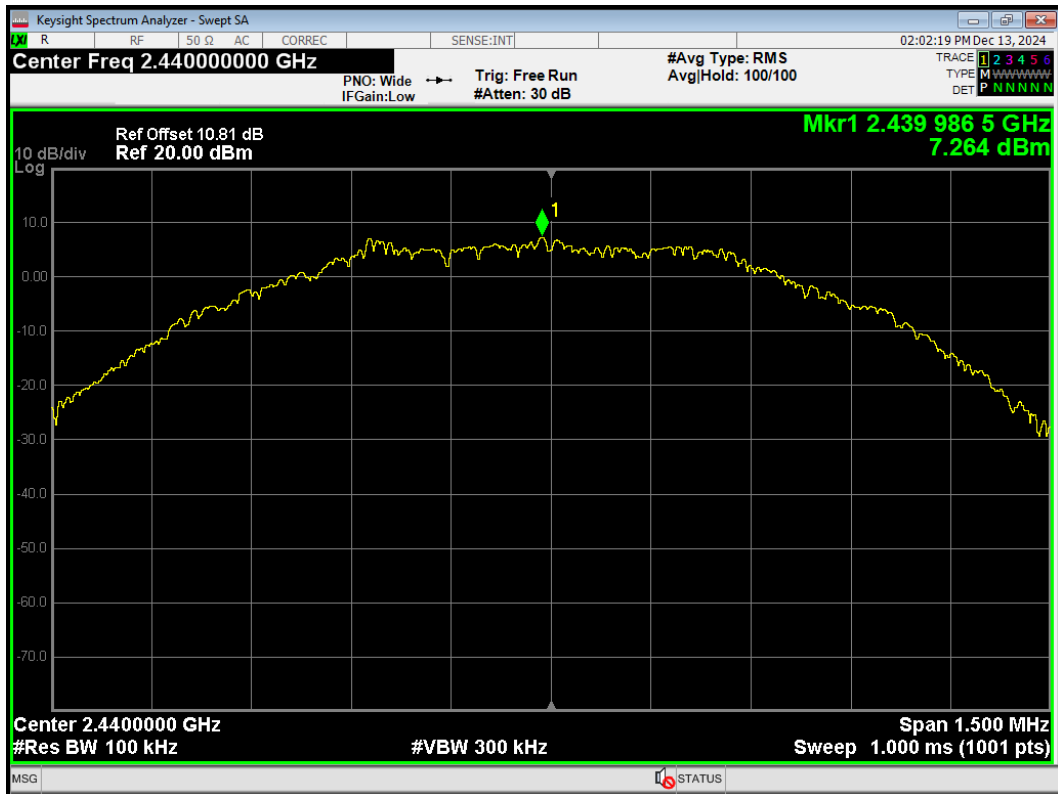
Tx. Spurious Bluetooth LE (S=2) 2402MHz Ref



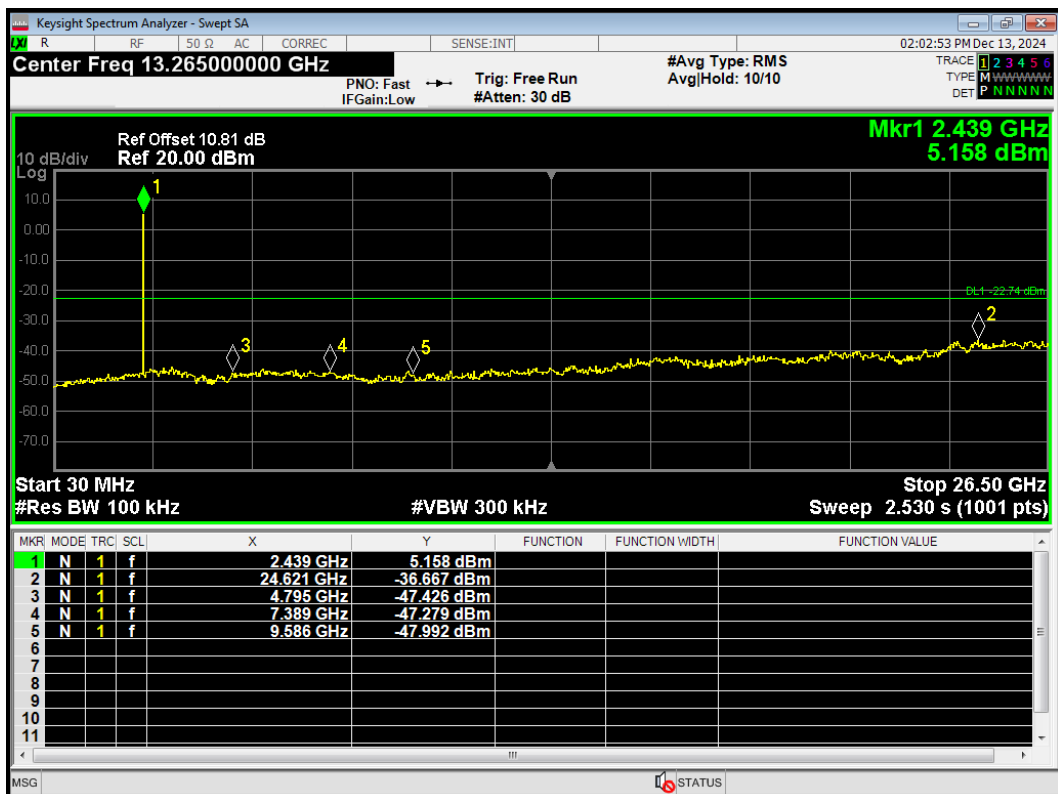
Tx. Spurious Bluetooth LE (S=2) 2402MHz Emission



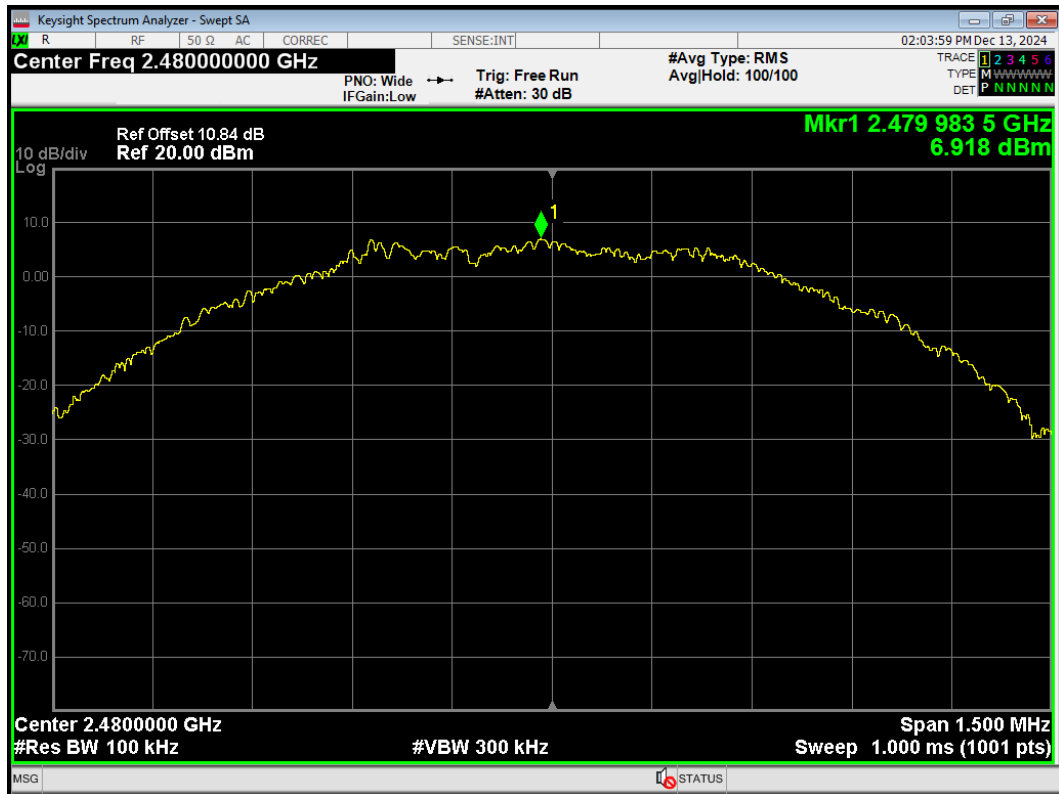
Tx. Spurious Bluetooth LE (S=2) 2440MHz Ref



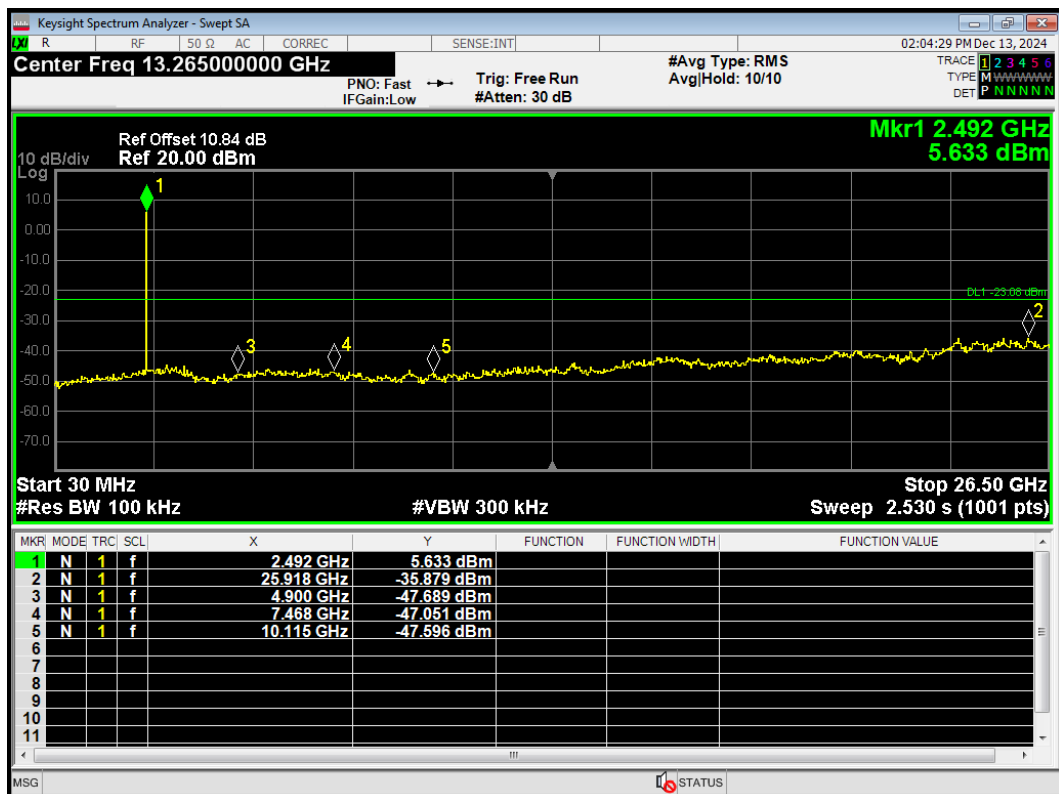
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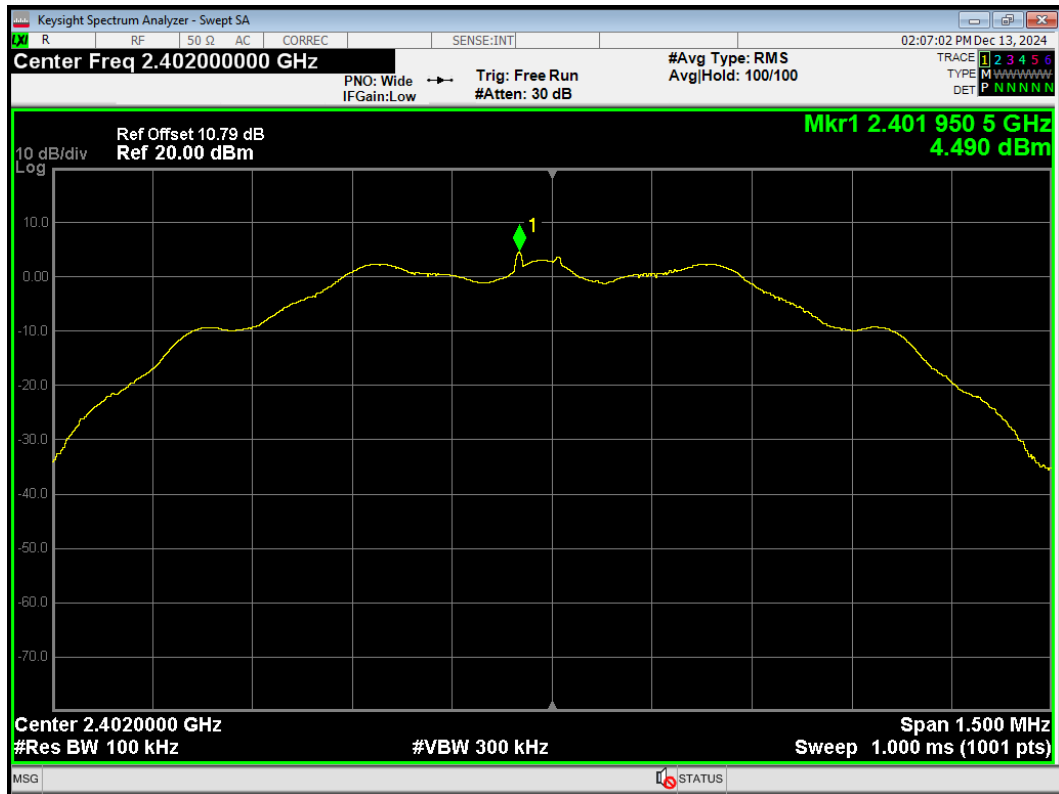
Tx. Spurious Bluetooth LE (S=2) 2480MHz Ref



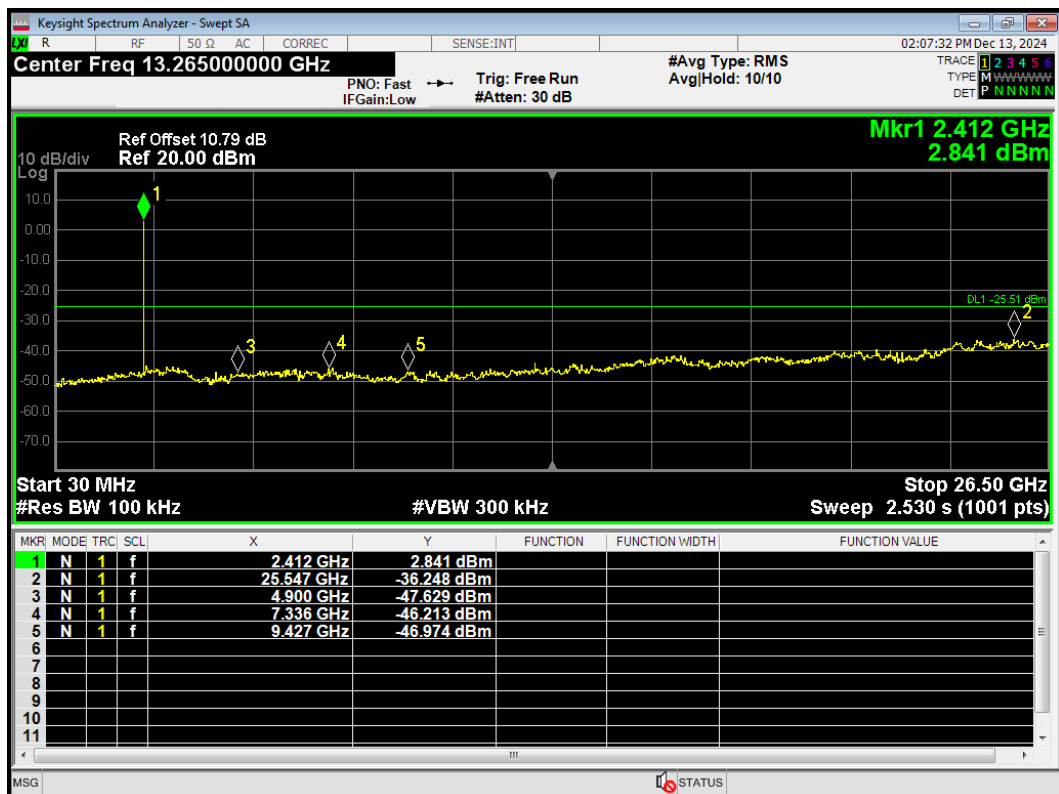
Tx. Spurious Bluetooth LE (S=2) 2480MHz Emission



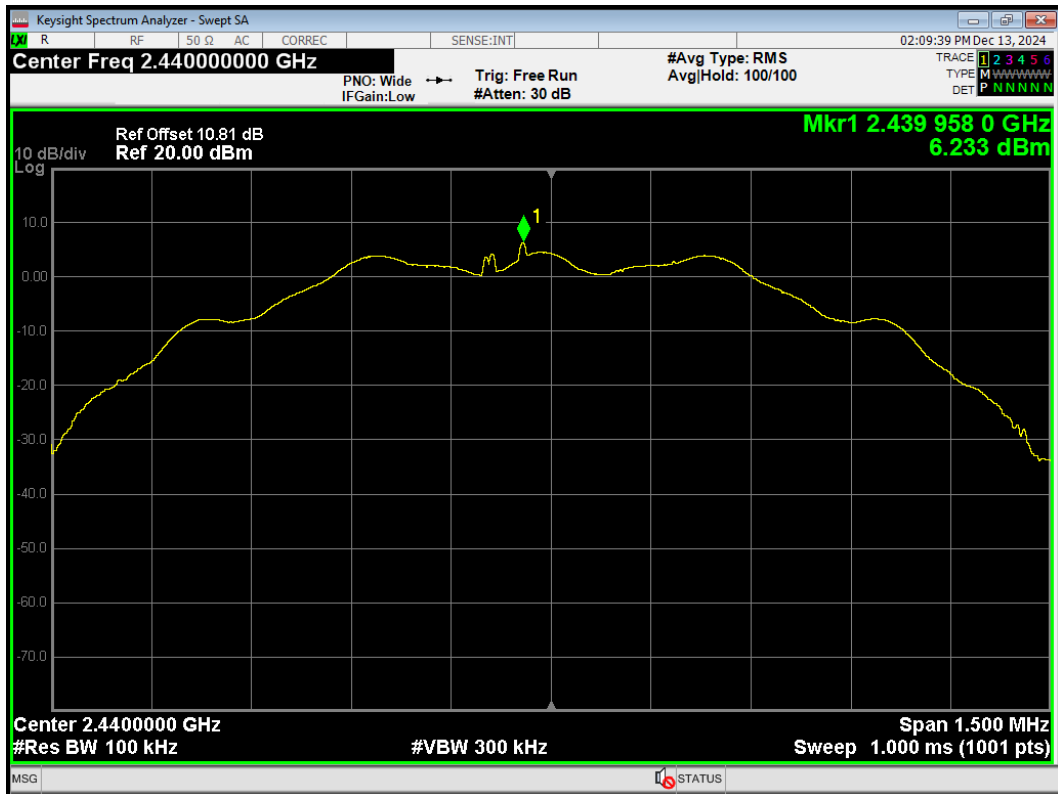
Tx. Spurious Bluetooth LE (S=8) 2402MHz Ref



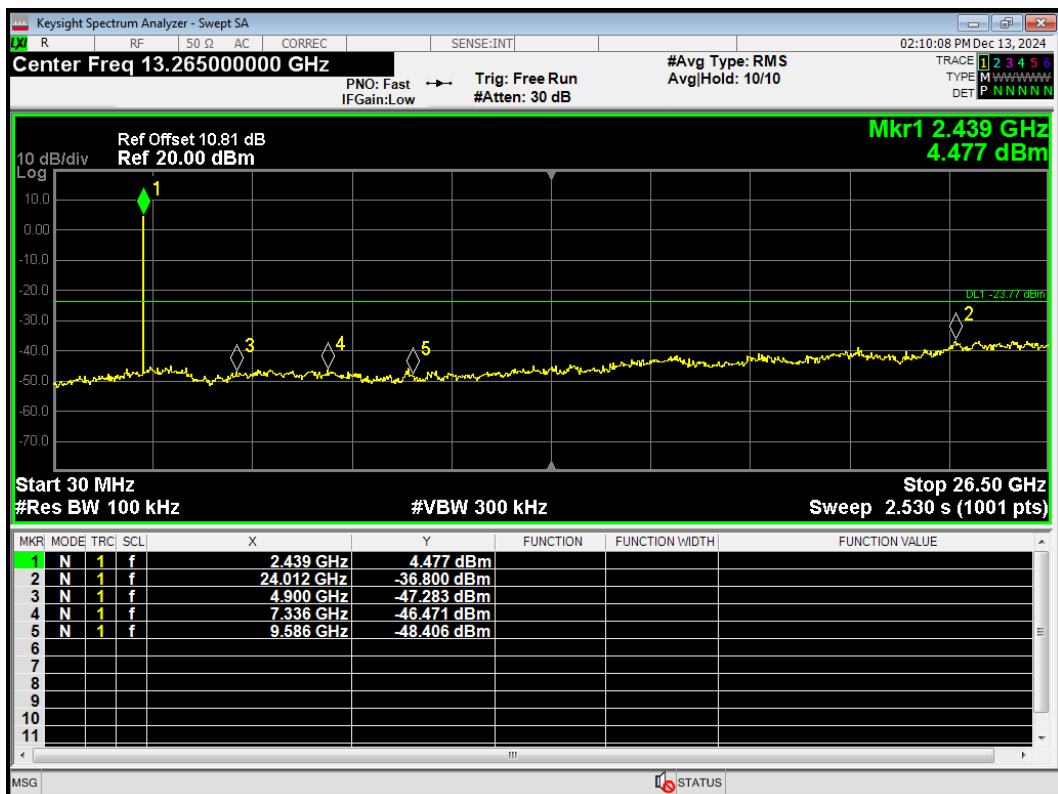
Tx. Spurious Bluetooth LE (S=8) 2402MHz Emission



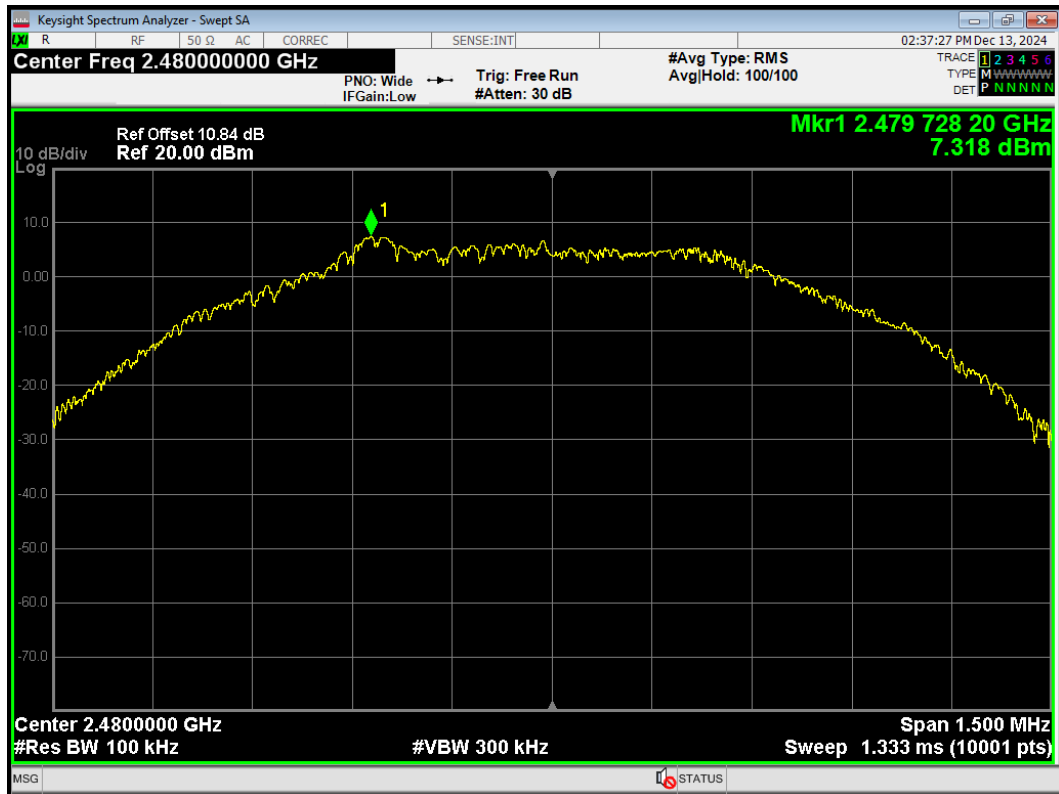
Tx. Spurious Bluetooth LE (S=8) 2440MHz Ref



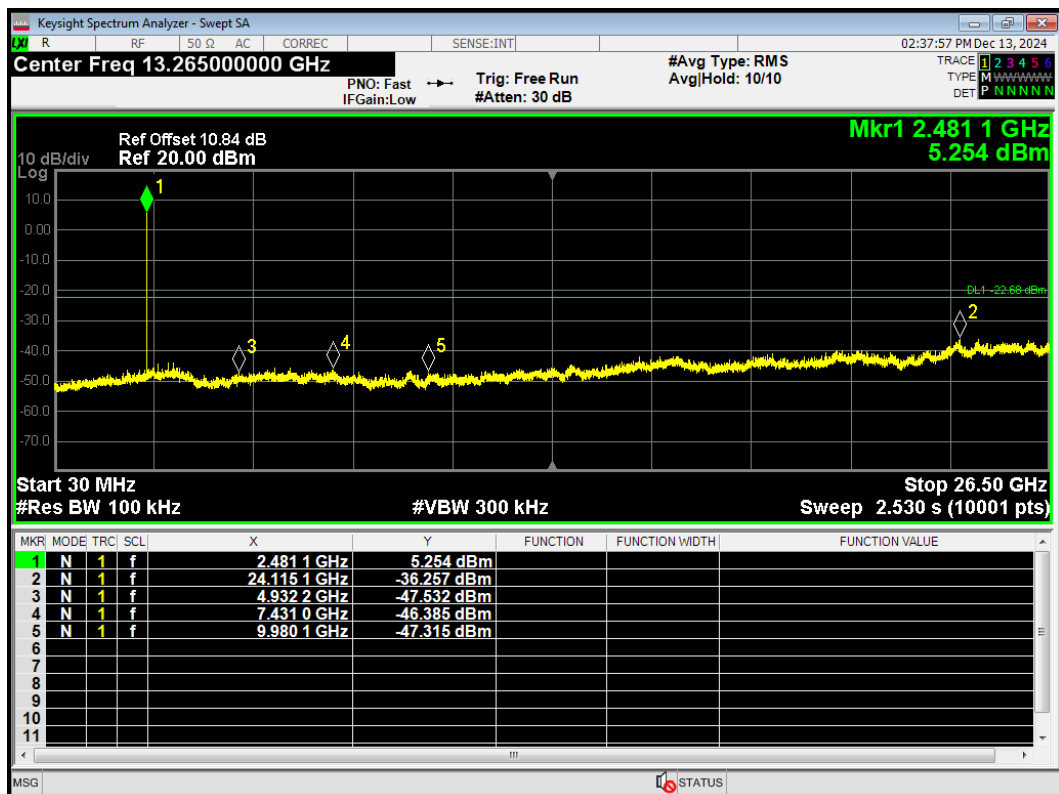
Tx. Spurious Bluetooth LE (S=8) 2440MHz Emission



Tx. Spurious Bluetooth LE (S=8) 2480MHz Ref



Tx. Spurious Bluetooth LE (S=8) 2480MHz Emission



802.11b\_2412



802.11b\_2437



802.11b\_2462

