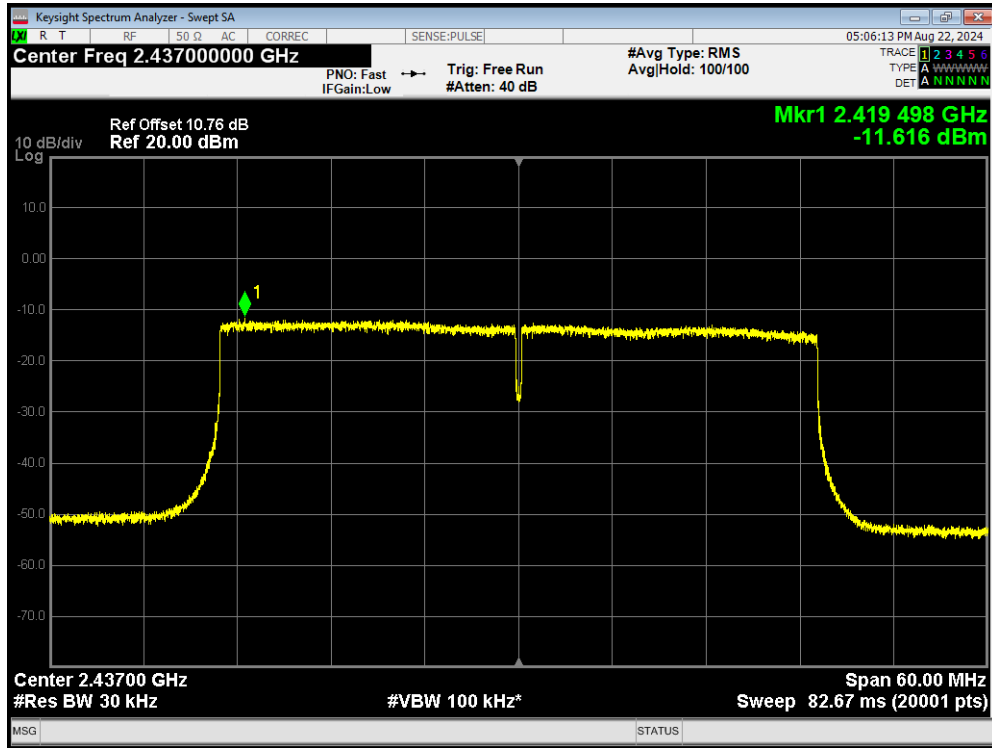
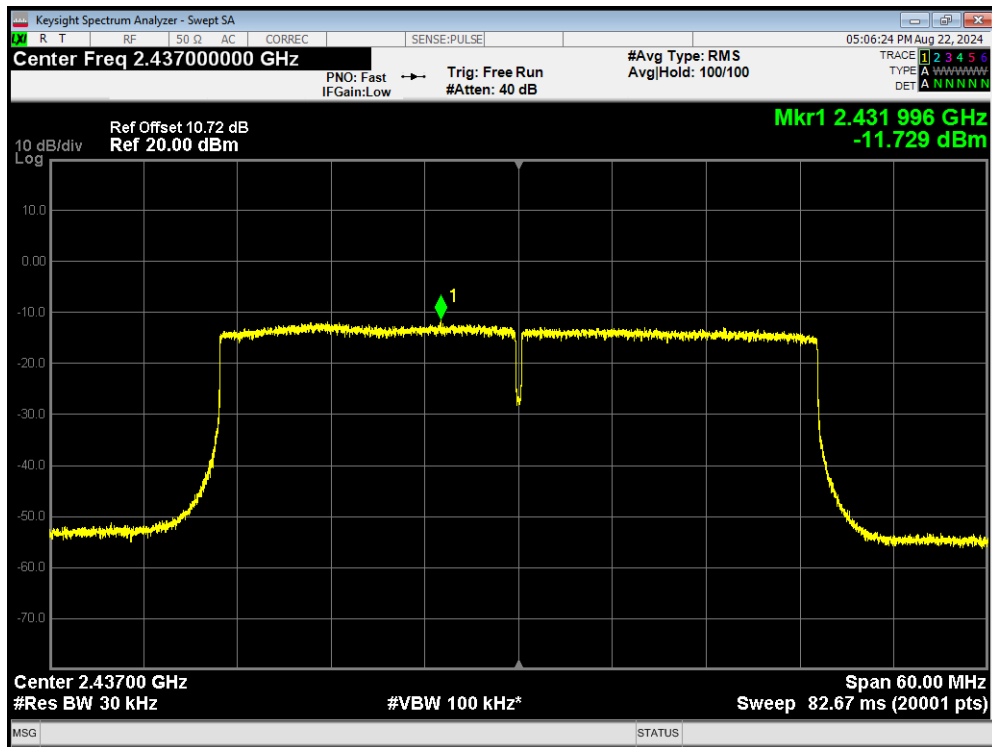


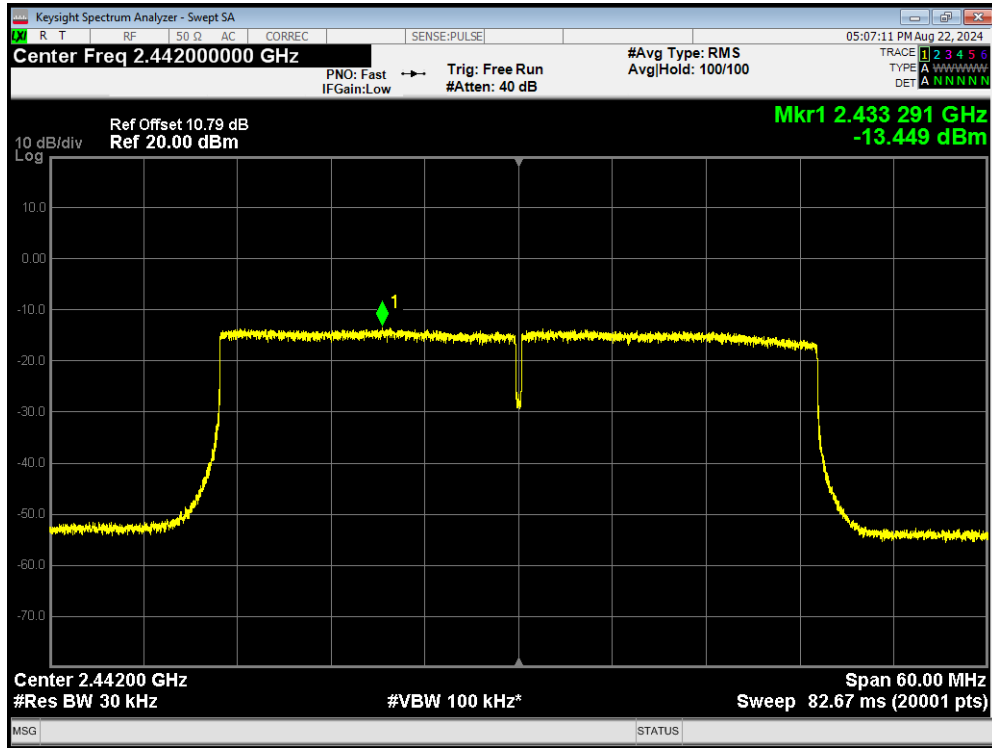
PSD 802.11ax(HE40) 2437MHz Ant1



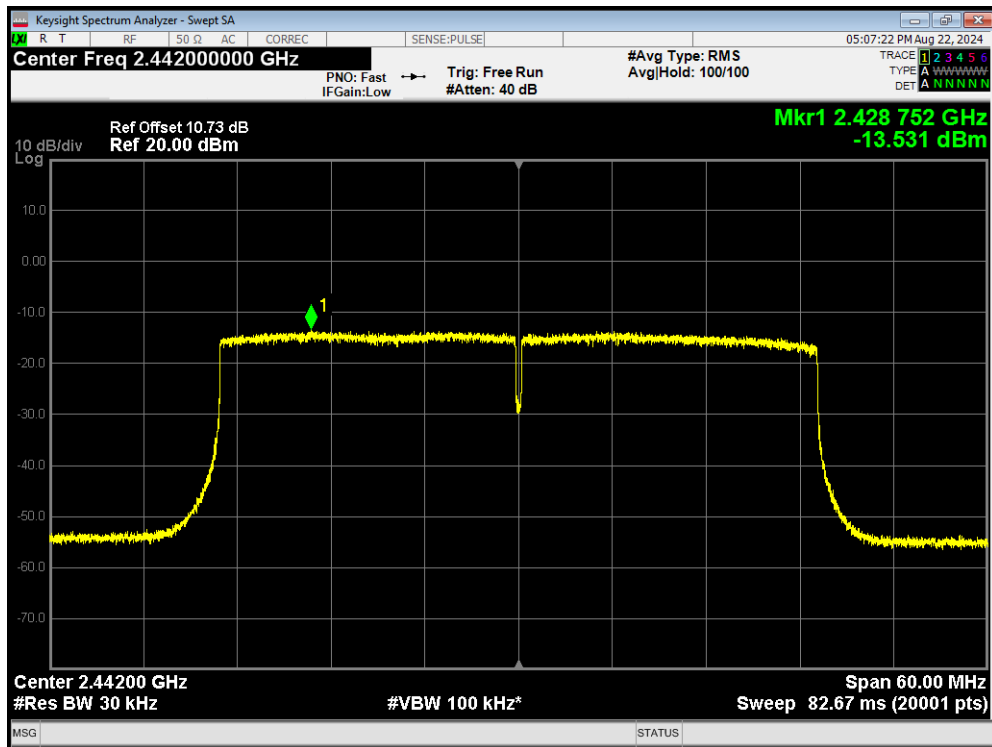
PSD 802.11ax(HE40) 2437MHz Ant2



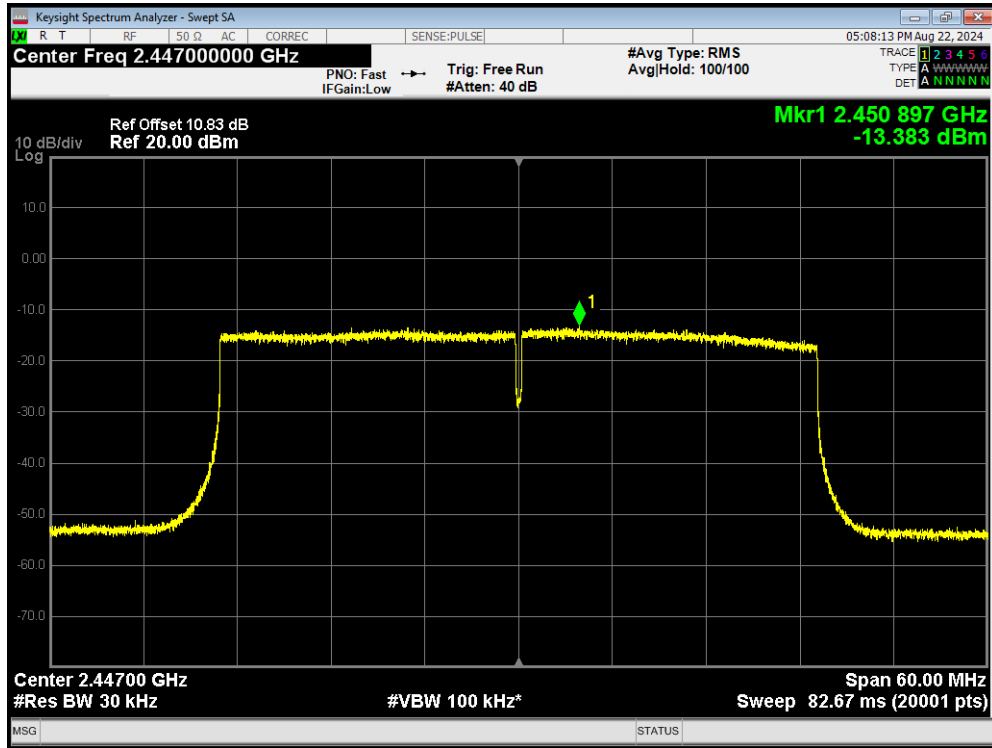
PSD 802.11ax(HE40) 2442MHz Ant1



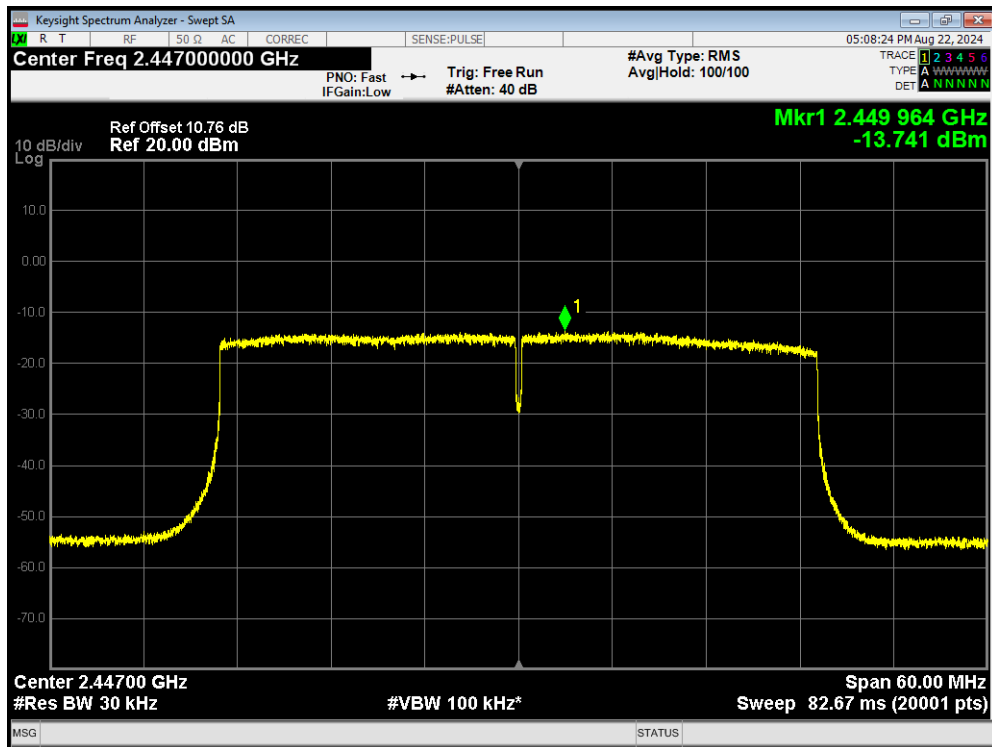
PSD 802.11ax(HE40) 2442MHz Ant2



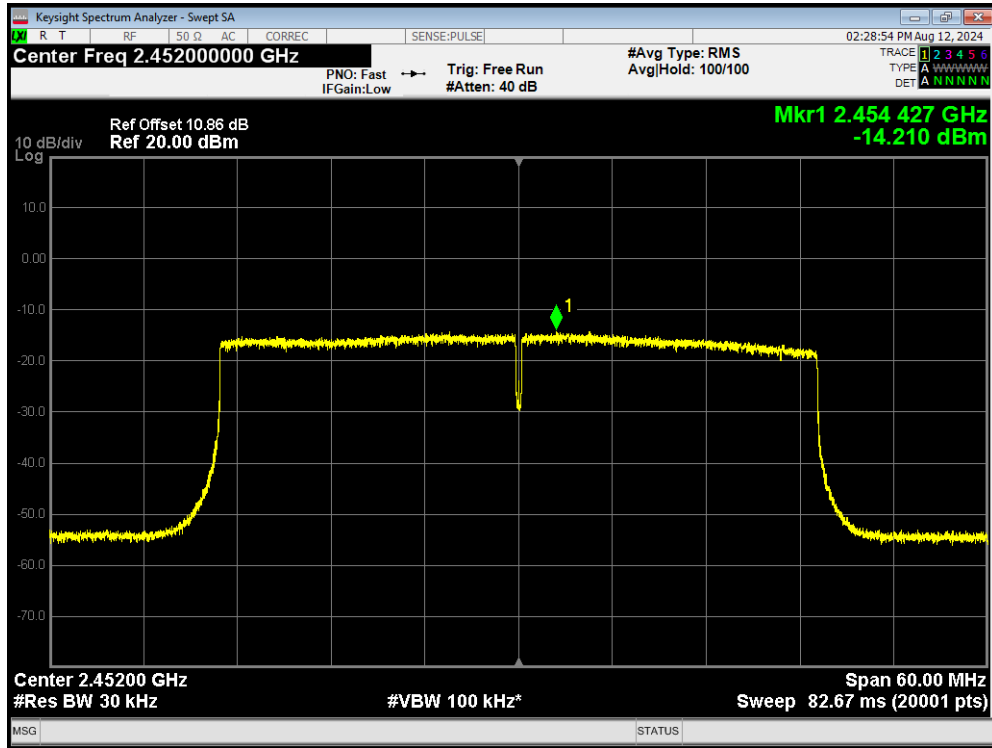
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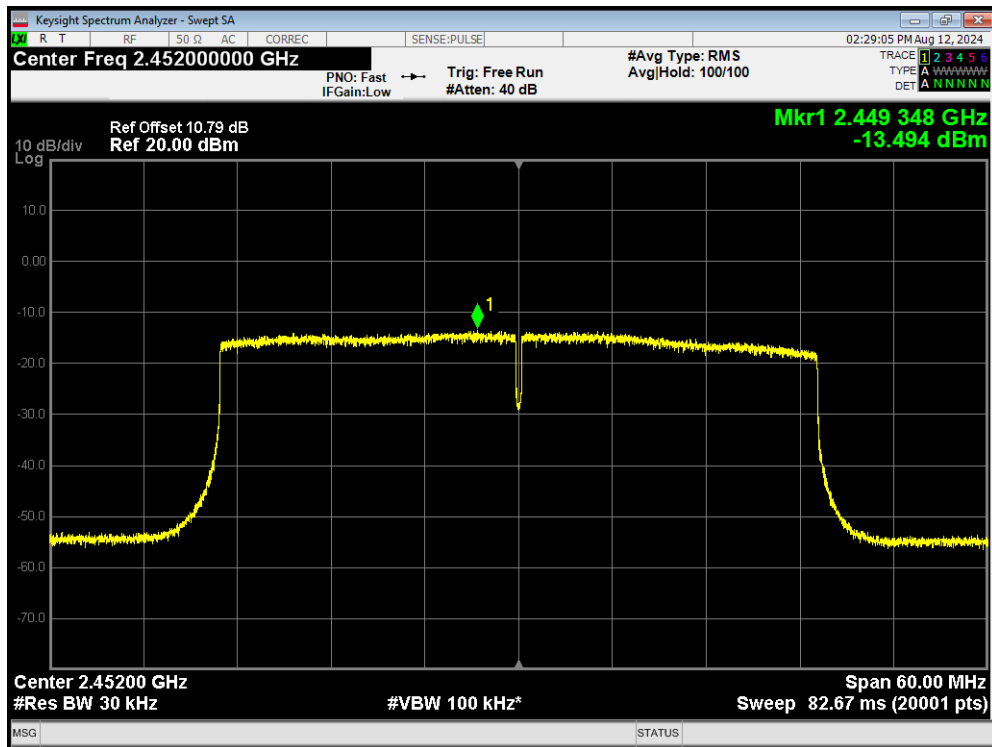
PSD 802.11ax(HE40) 2447MHz Ant2



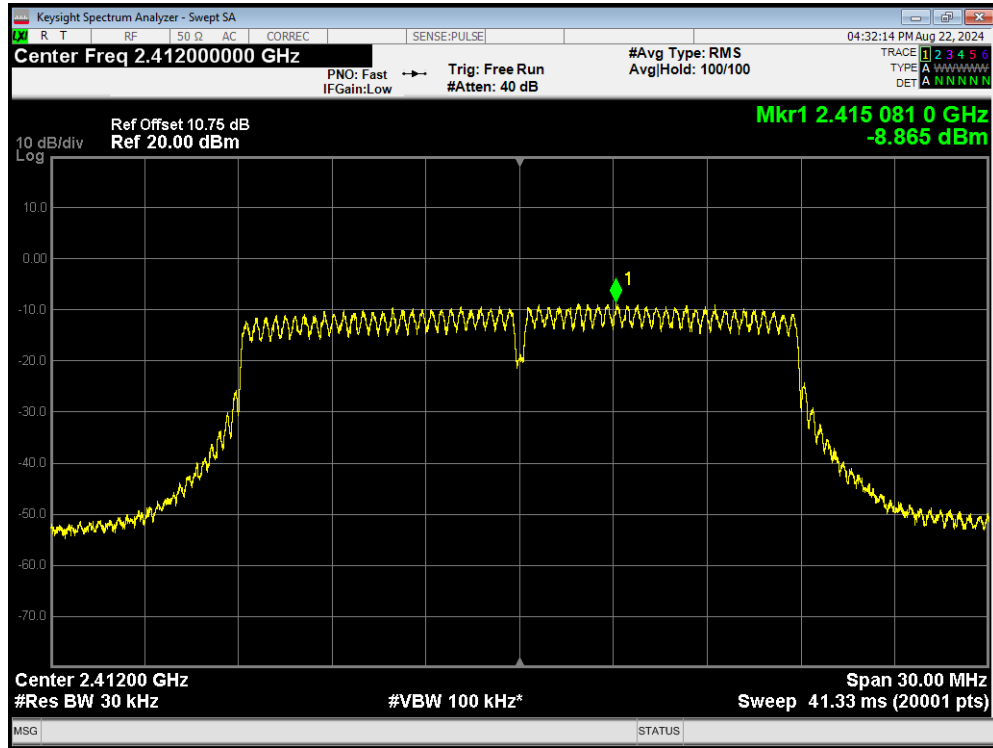
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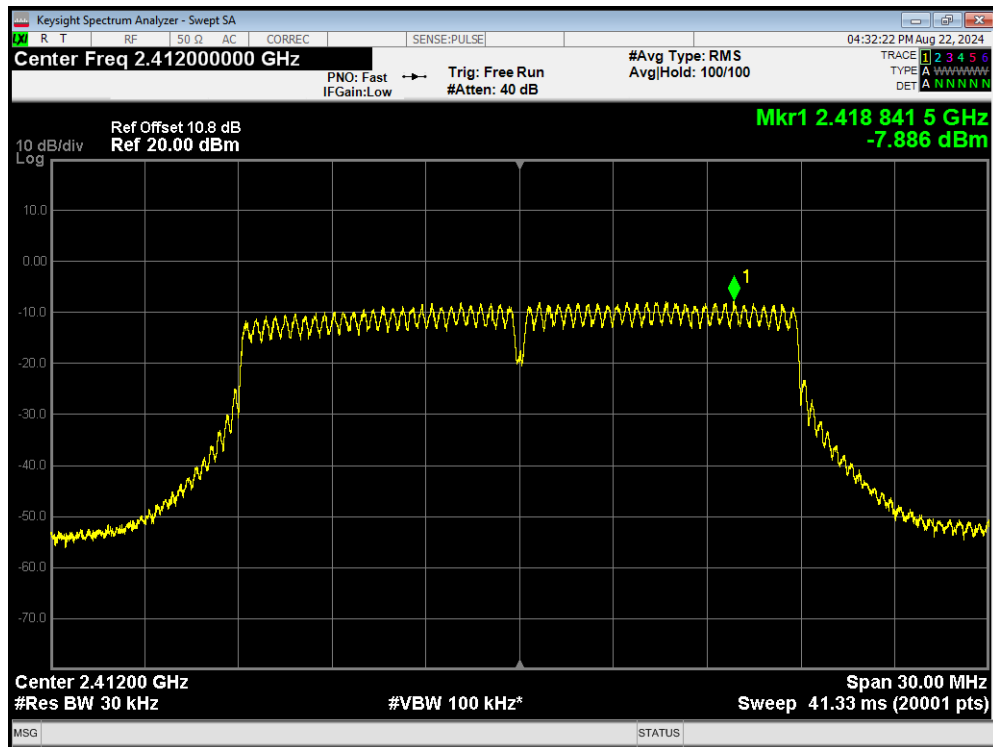
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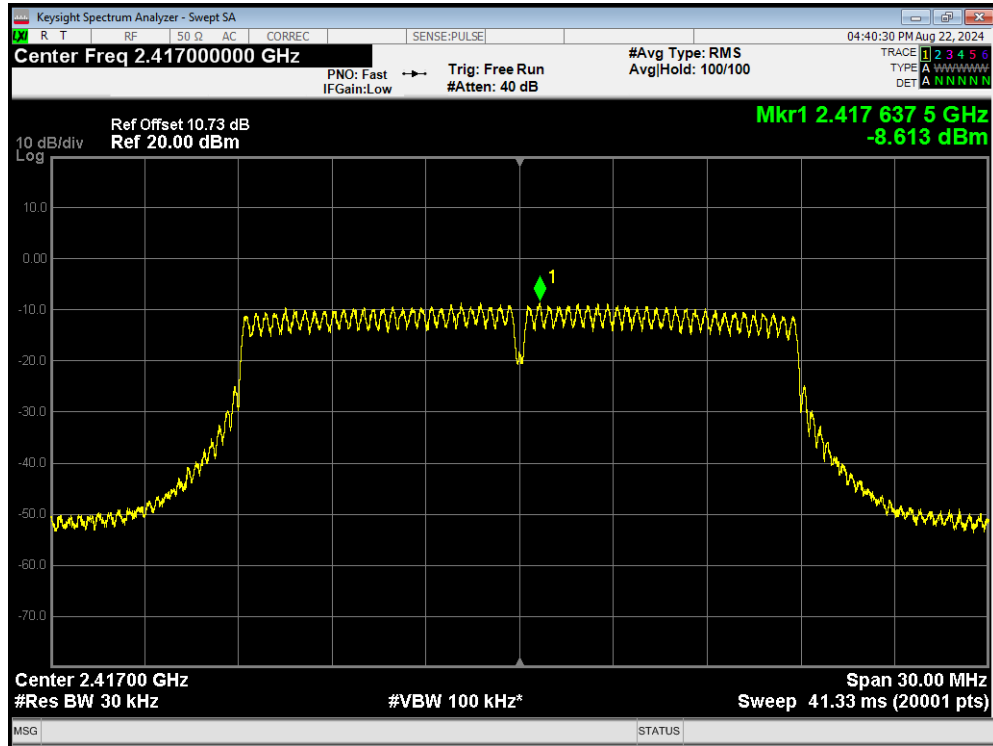
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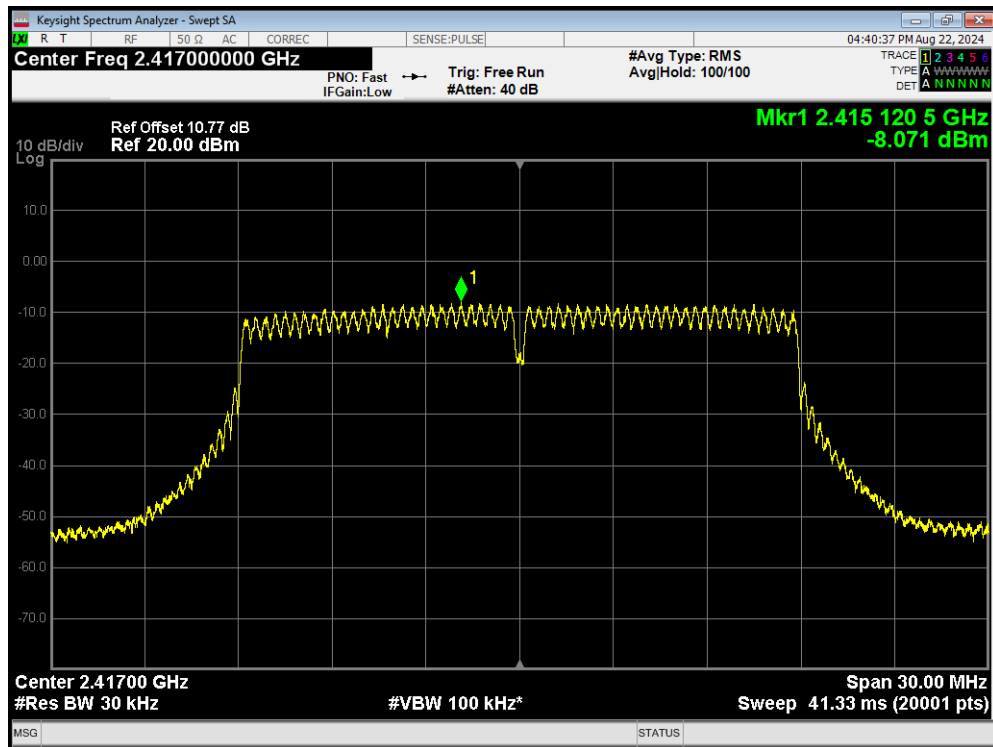
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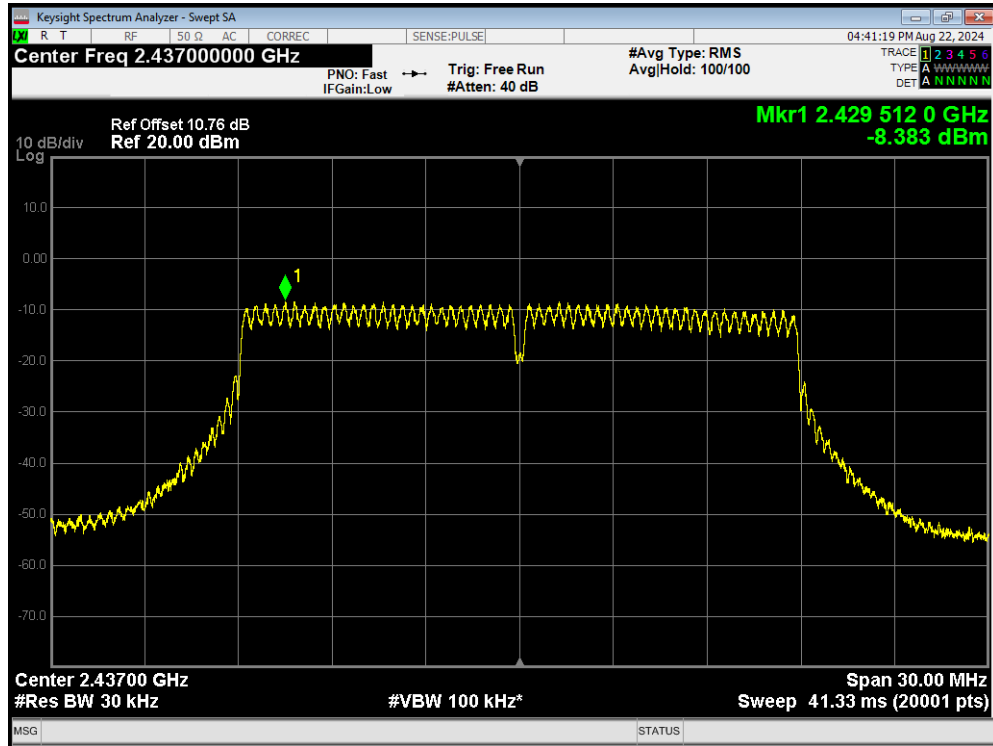
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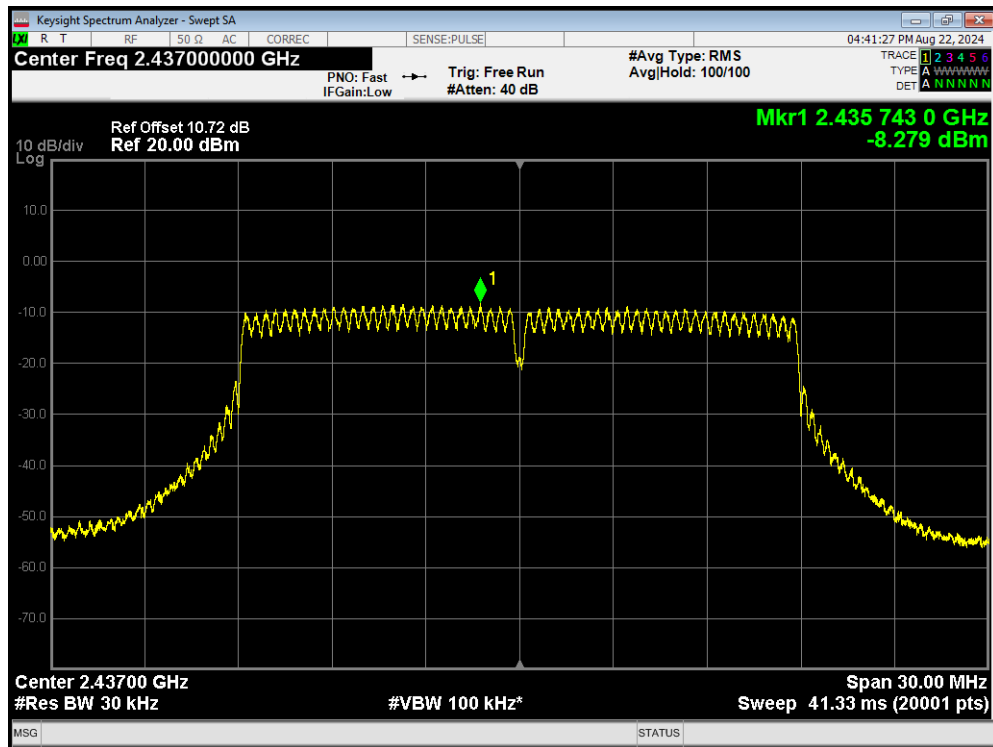
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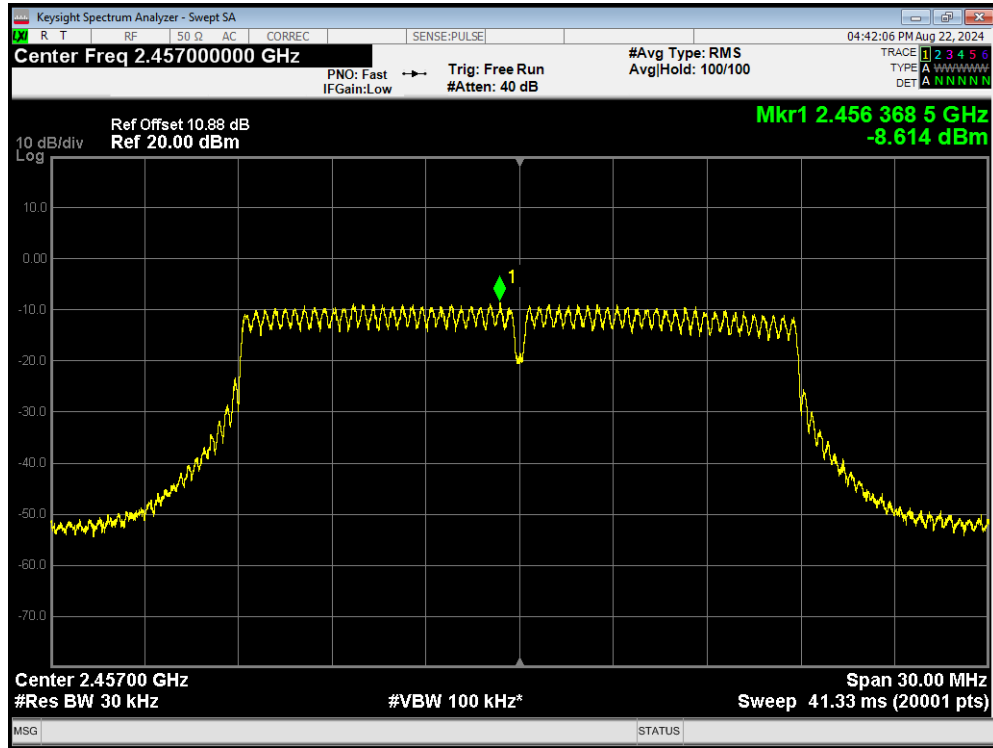
PSD 802.11n(HT20) 2437MHz Ant1



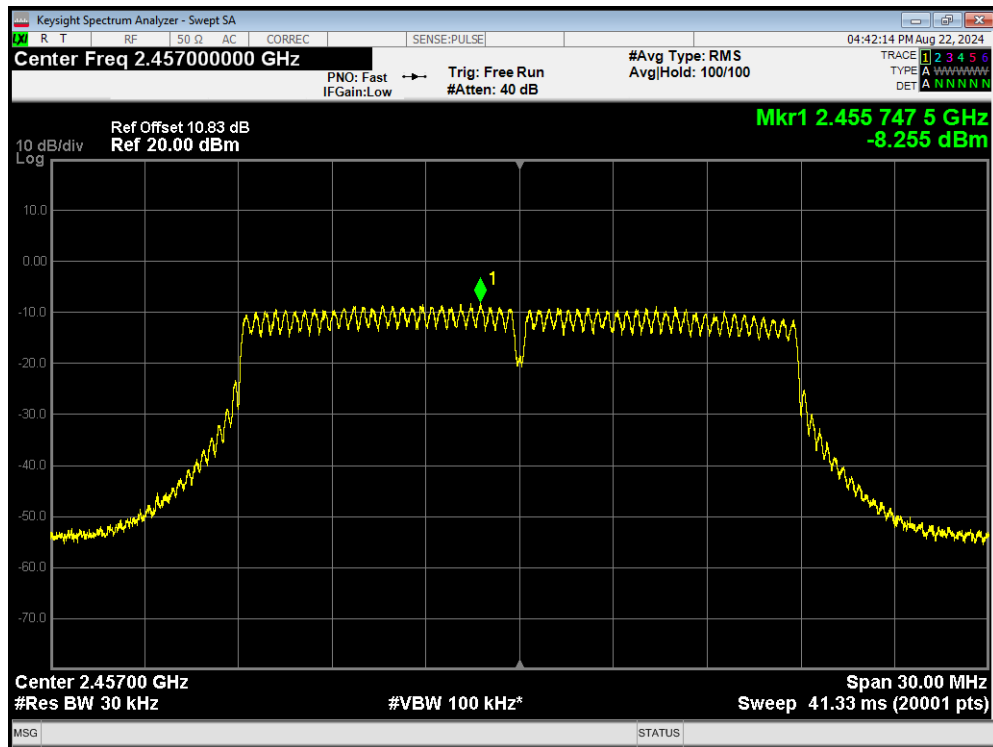
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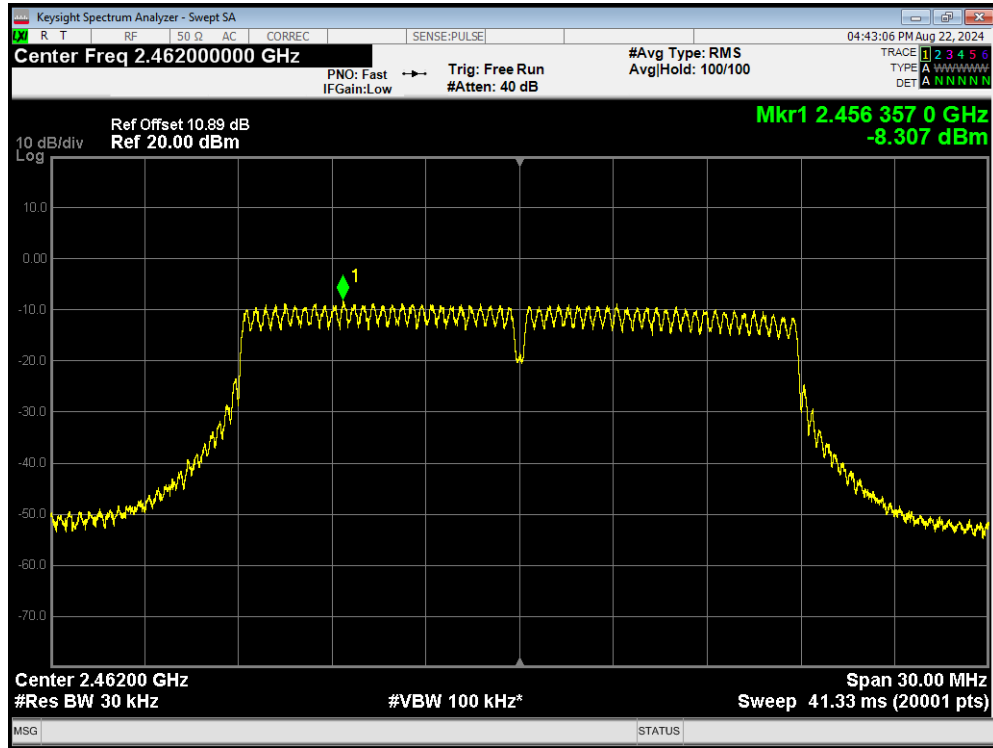
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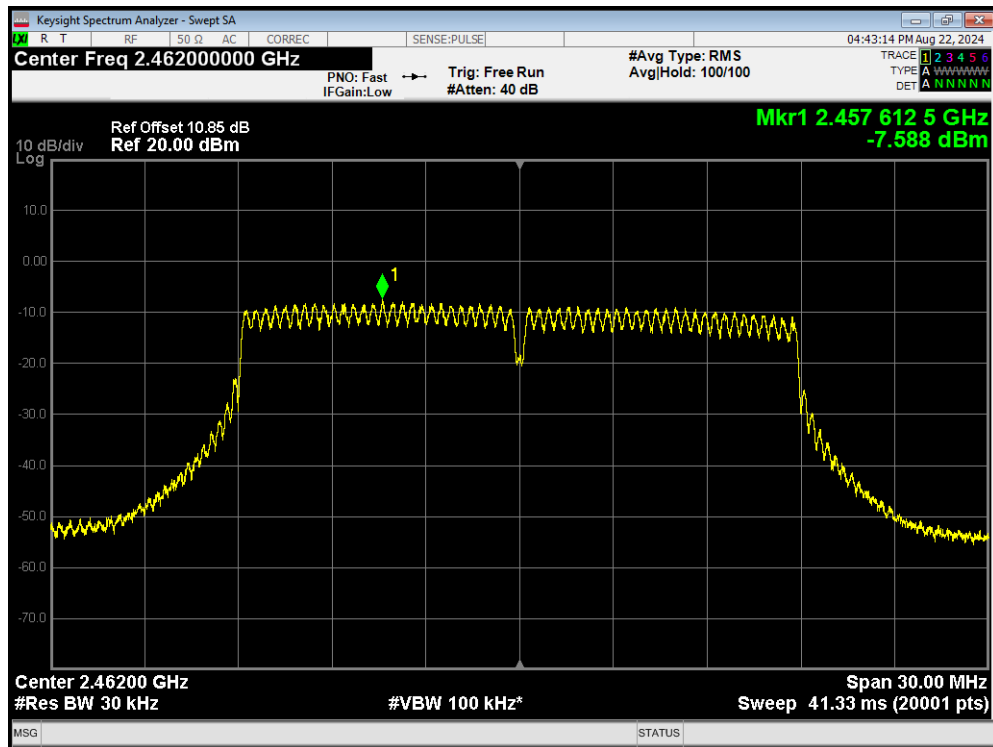
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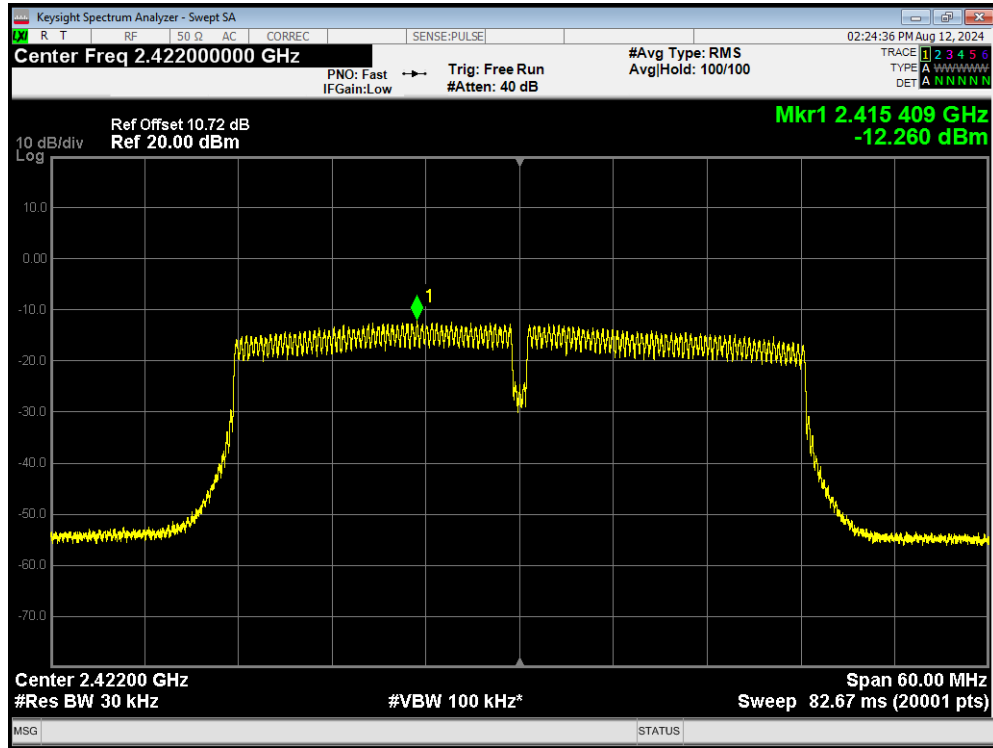
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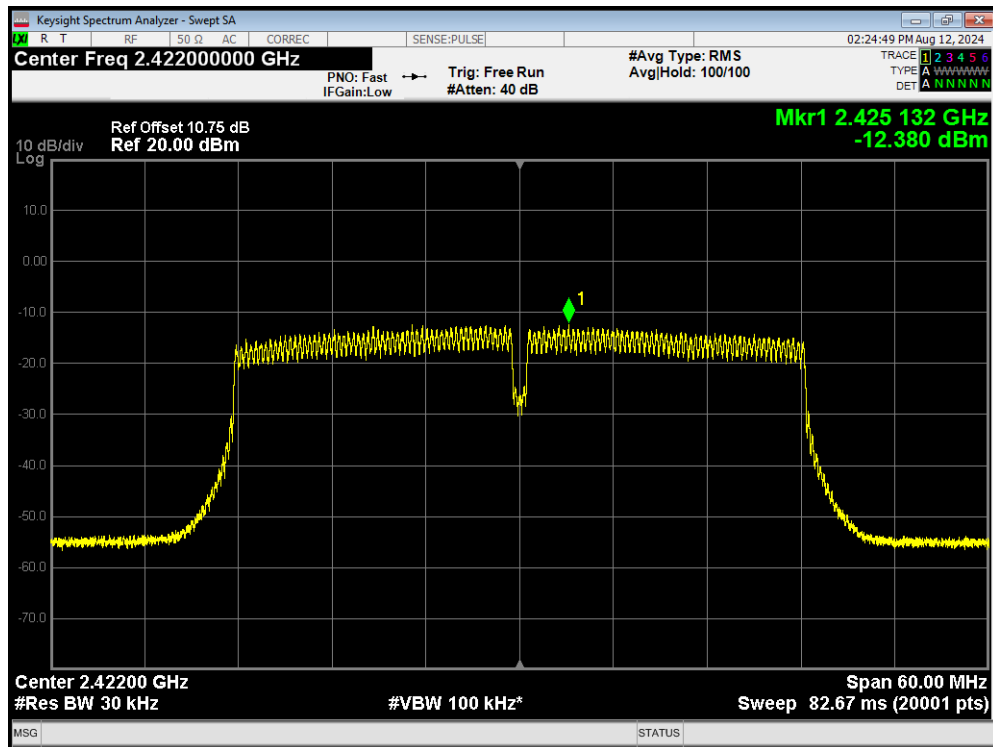
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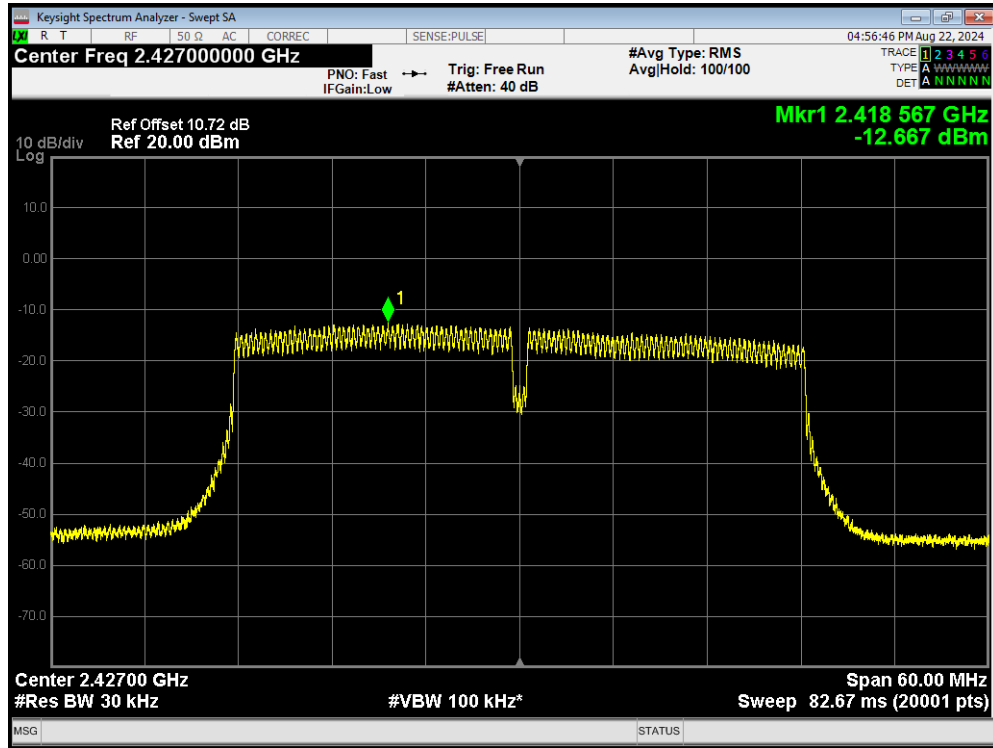
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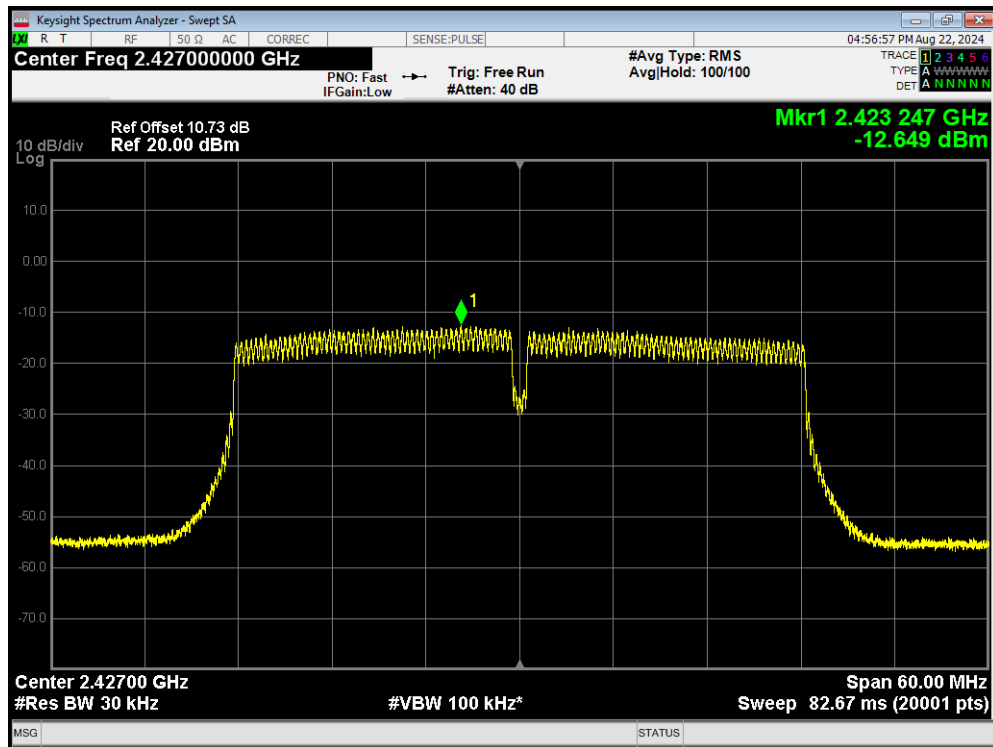
PSD 802.11n(HT40) 2422MHz Ant2



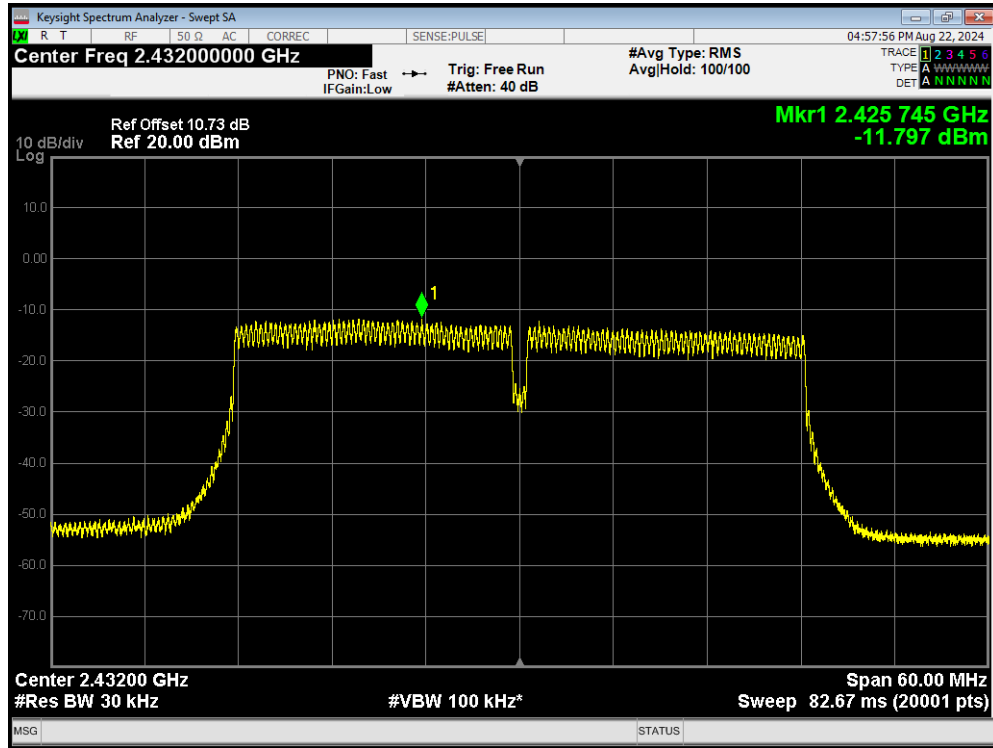
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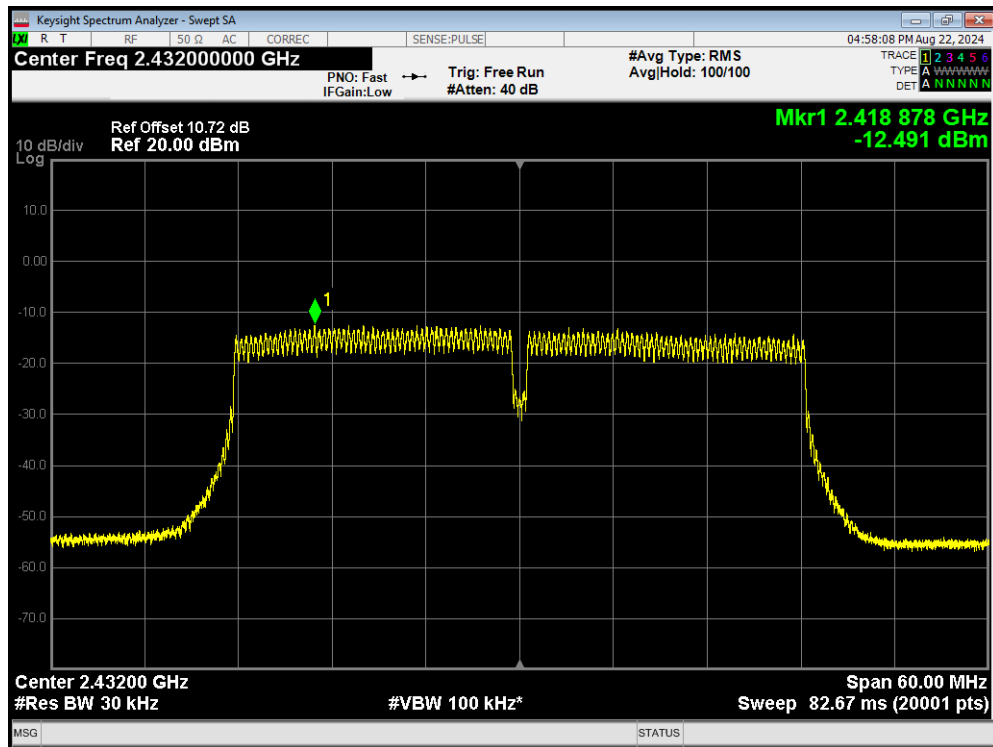
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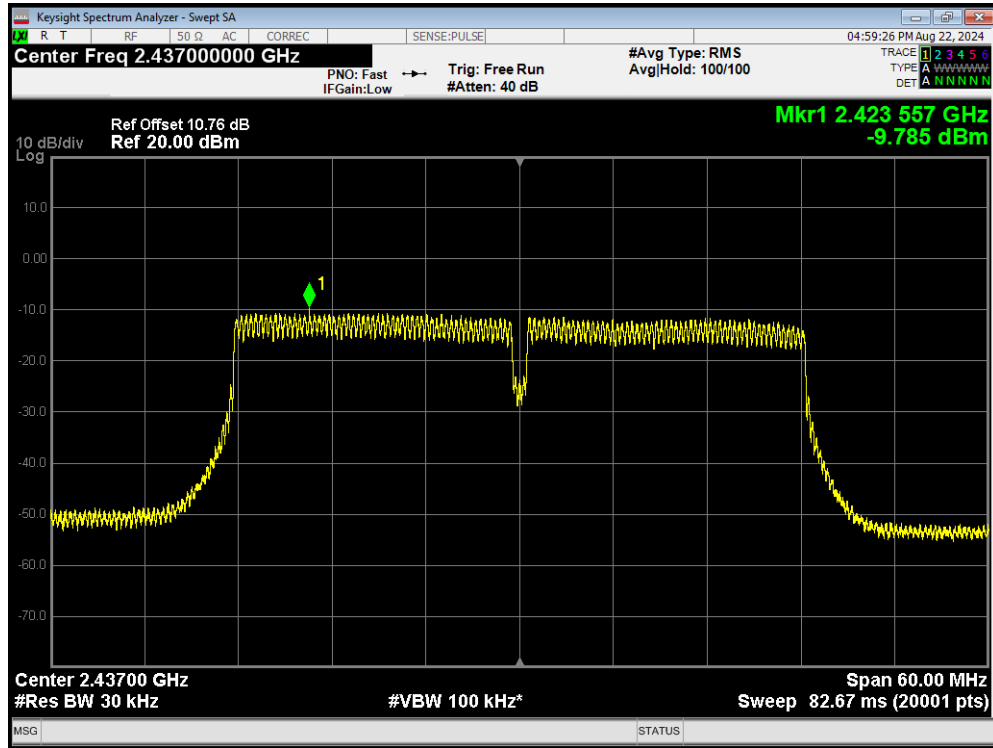
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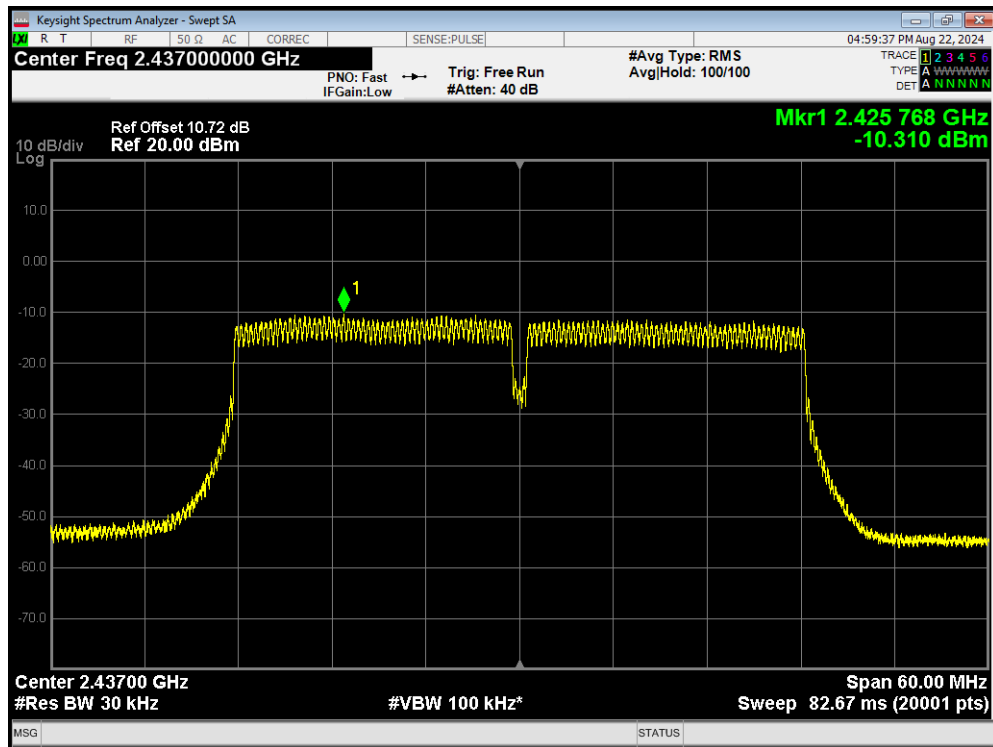
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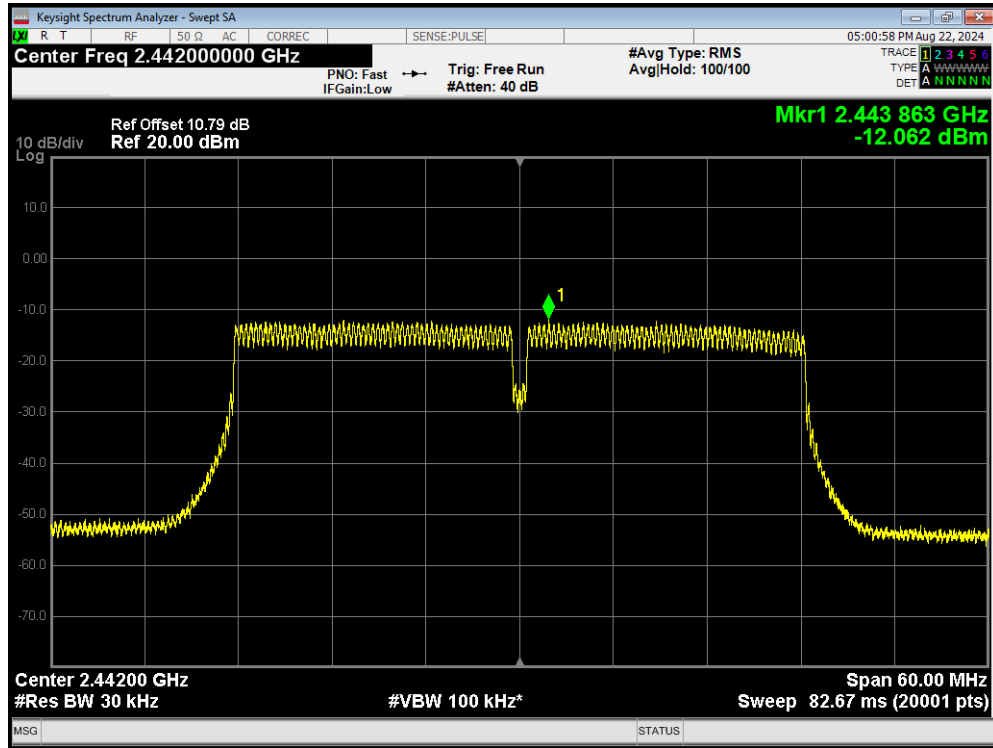
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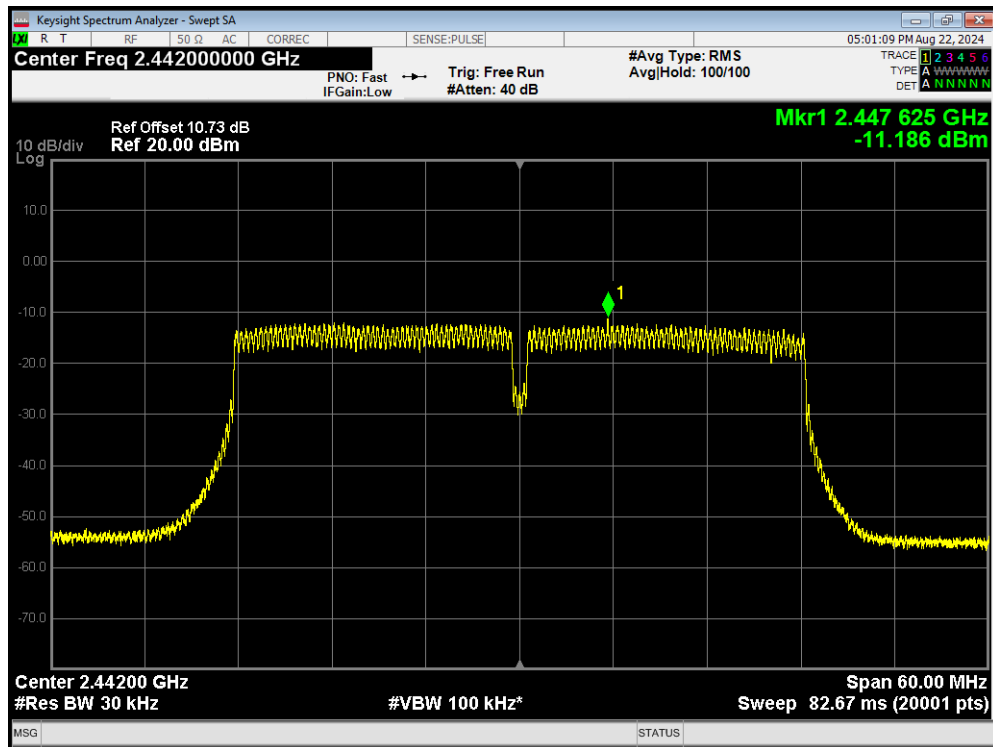
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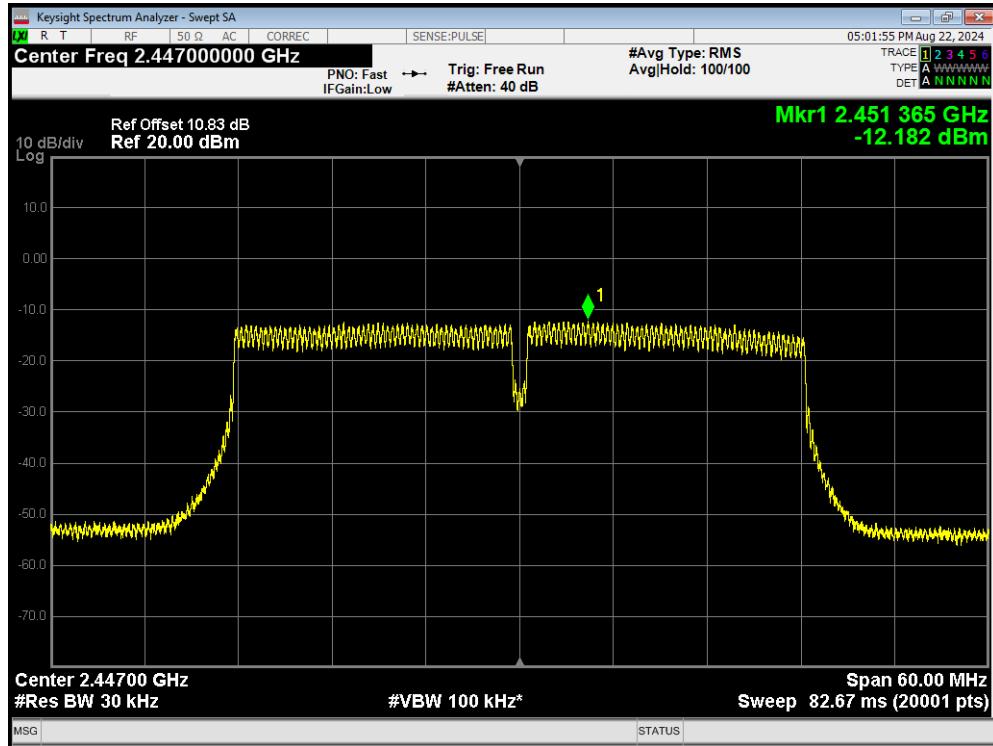
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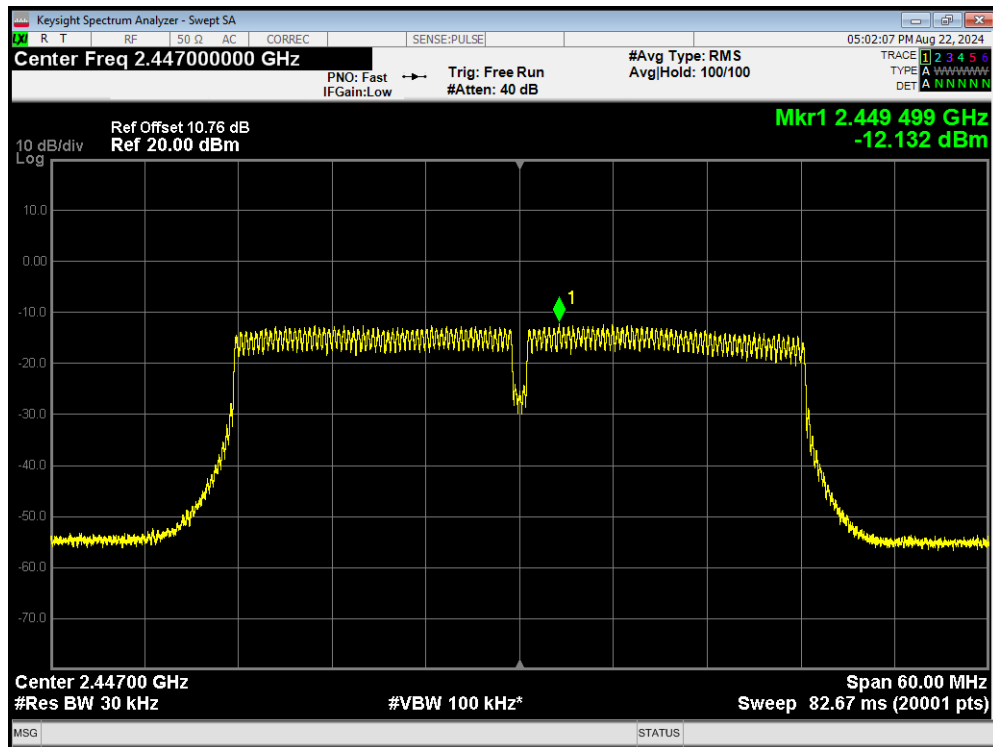
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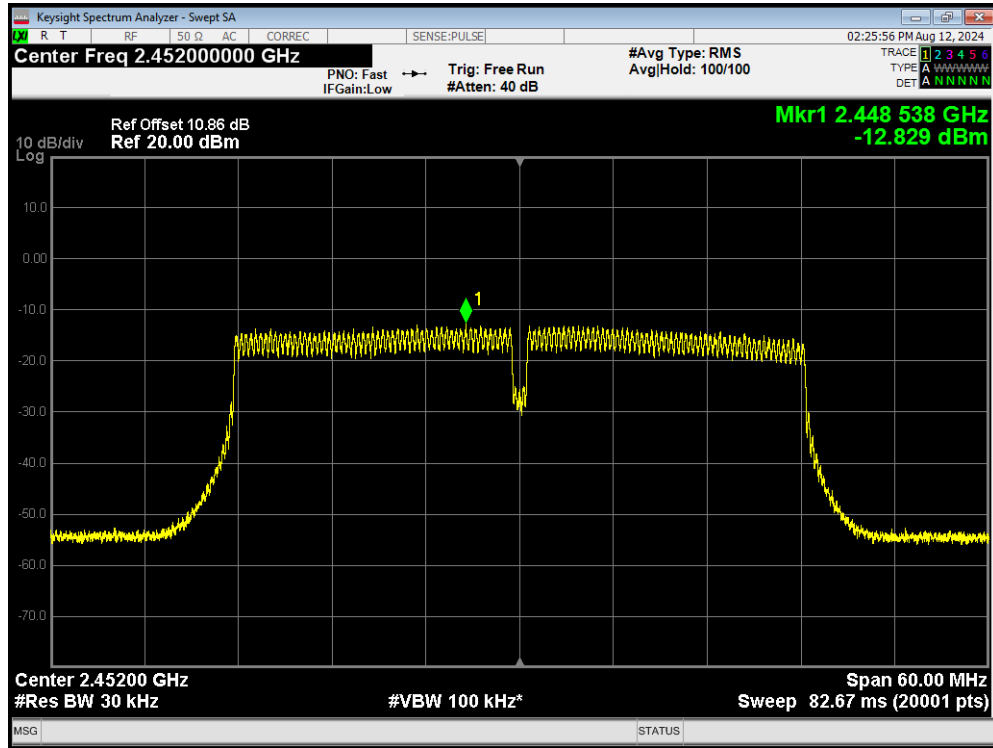
PSD 802.11n(HT40) 2447MHz Ant1



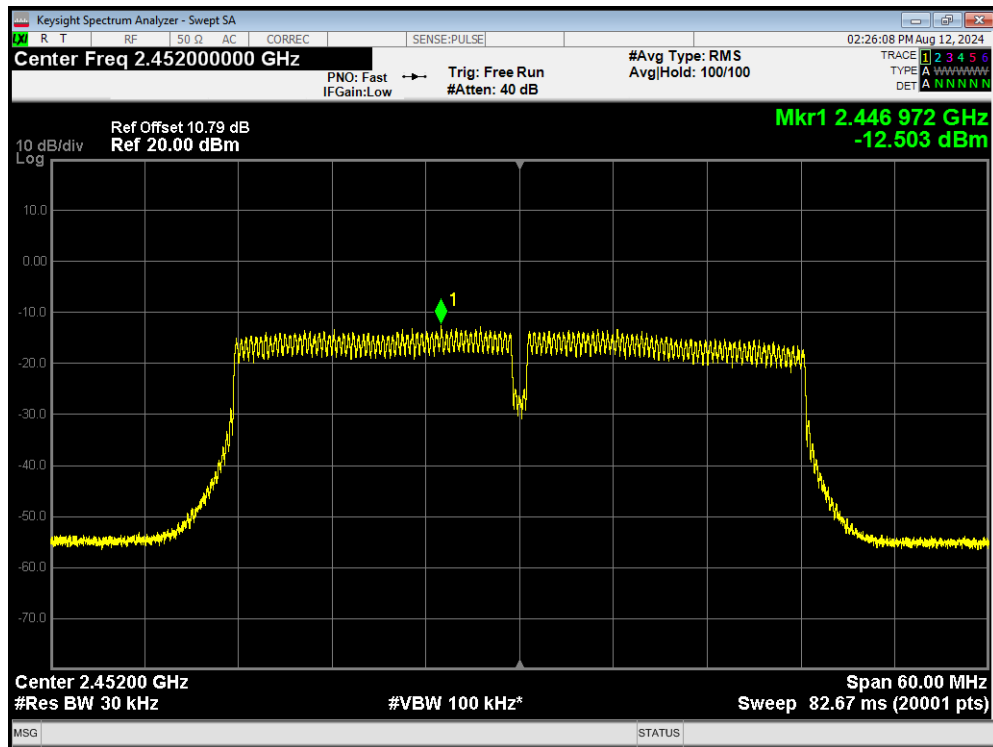
PSD 802.11n(HT40) 2447MHz Ant2



PSD 802.11n(HT40) 2452MHz Ant1



PSD 802.11n(HT40) 2452MHz 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) specifies 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."

Bluetooth LE

Antenna 1

Test Mode	Carrier frequency (MHz)	Reference value (dBm)	Limit
Bluetooth (Low Energy) (1M)	2402	7.720	-22.28
	2440	7.970	-22.03
	2480	6.570	-23.43
Bluetooth (Low Energy) (2M)	2402	7.700	-22.30
	2440	7.990	-22.01
	2480	6.600	-23.40
Bluetooth (Low Energy) (S=2)	2402	7.800	-22.20
	2440	7.930	-22.07
	2480	7.100	-22.90
Bluetooth (Low Energy) (S=8)	2402	5.430	-24.57
	2440	5.830	-24.17
	2480	5.670	-24.33

Antenna 2

Test Mode	Carrier frequency (MHz)	Reference value (dBm)	Limit
Bluetooth (Low Energy) (1M)	2402	7.350	-22.65
	2440	7.750	-22.25
	2480	6.800	-23.20
Bluetooth (Low Energy) (2M)	2402	7.110	-22.89
	2440	7.540	-22.46
	2480	6.870	-23.13
Bluetooth (Low Energy) (S=2)	2402	7.300	-22.70
	2440	7.990	-22.01
	2480	6.580	-23.42
Bluetooth (Low Energy) (S=8)	2402	6.260	-23.74
	2440	6.610	-23.39
	2480	5.800	-24.20

Wi-Fi 2.4G

Test Mode	Carrier frequency (MHz)	Reference value (dBm)	Limit
802.11b	2412	9.530	-20.47
	2437	10.660	-19.34
	2462	10.660	-19.34
802.11g	2412	7.310	-22.69
	2437	7.550	-22.45
	2457	4.550	-25.45
	2462	7.330	-22.67
802.11n HT20	2412	6.050	-23.95
	2417	4.320	-25.68
	2437	7.670	-22.33
	2457	3.020	-26.98
	2462	7.330	-22.67
802.11n HT40	2422	3.790	-26.21
	2427	0.670	-29.33
	2432	2.140	-27.86
	2437	5.300	-24.70
	2442	0.710	-29.29
	2447	1.030	-28.97
	2452	3.860	-26.14
802.11ax HE20	2412	6.130	-23.87
	2417	2.460	-27.54
	2437	7.720	-22.28
	2452	3.100	-26.90
	2457	4.470	-25.53
	2462	7.010	-22.99
802.11ax HE40	2422	4.240	-25.76
	2427	-0.020	-30.02
	2432	3.480	-26.52
	2437	5.250	-24.75
	2442	1.520	-28.48
	2447	0.960	-29.04
	2452	3.180	-26.82

Measurement Uncertainty

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

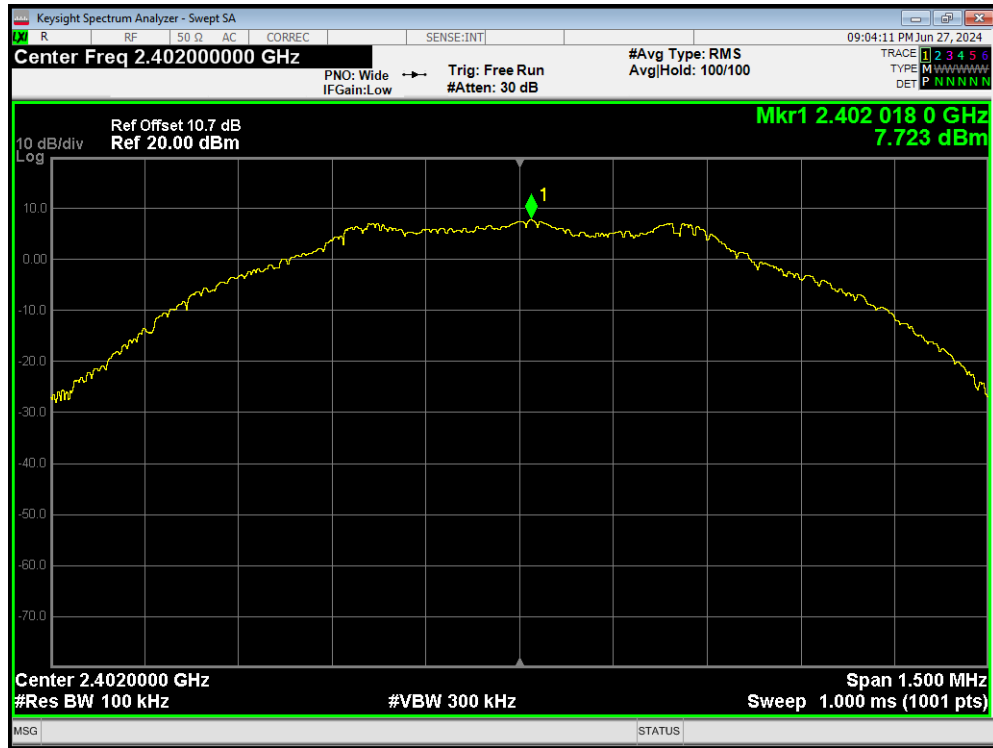
Frequency	Uncertainty
100kHz-2GHz	0.684 dB
2GHz-26GHz	1.407 dB

Test Results:

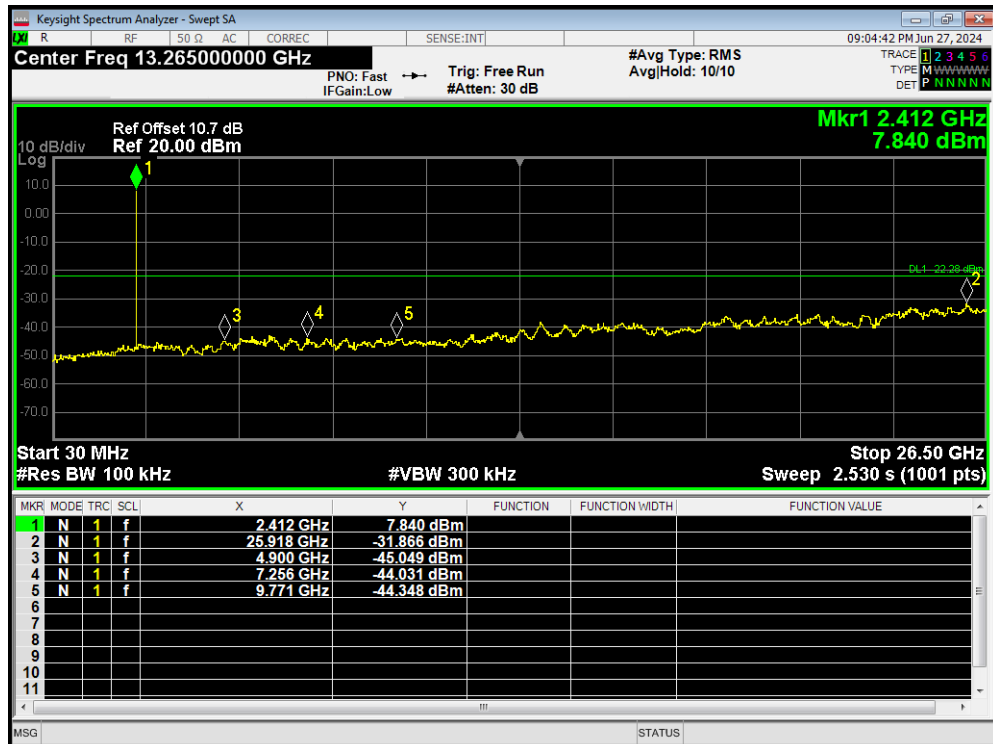
Bluetooth LE

Antenna 1

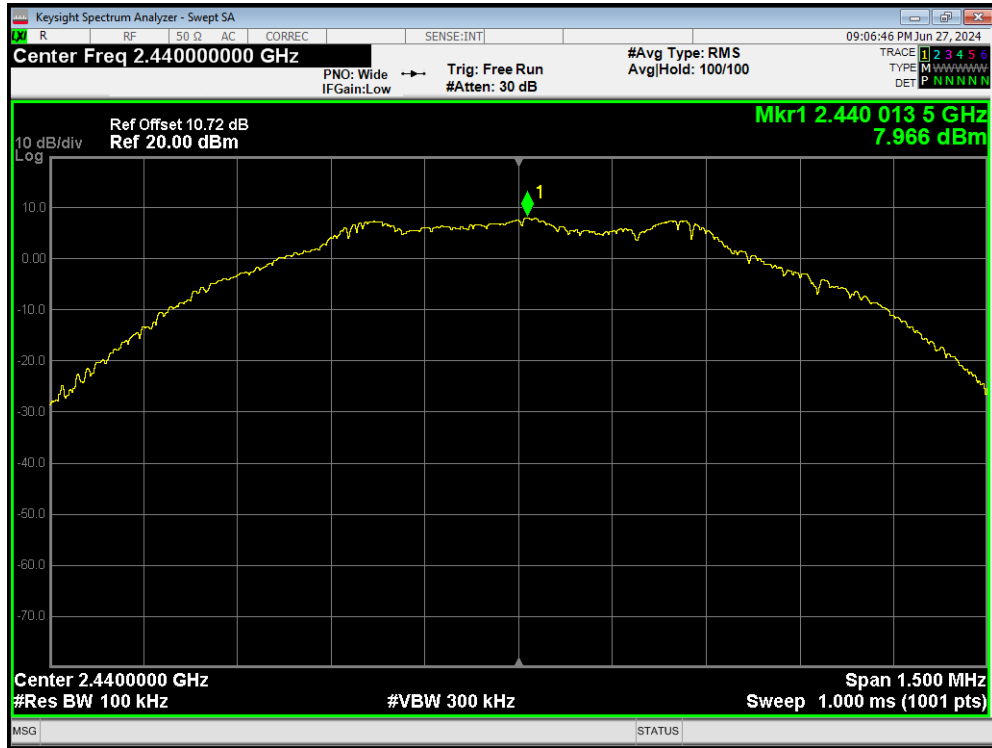
Tx. Spurious BLE (1M) 2402MHz Ref



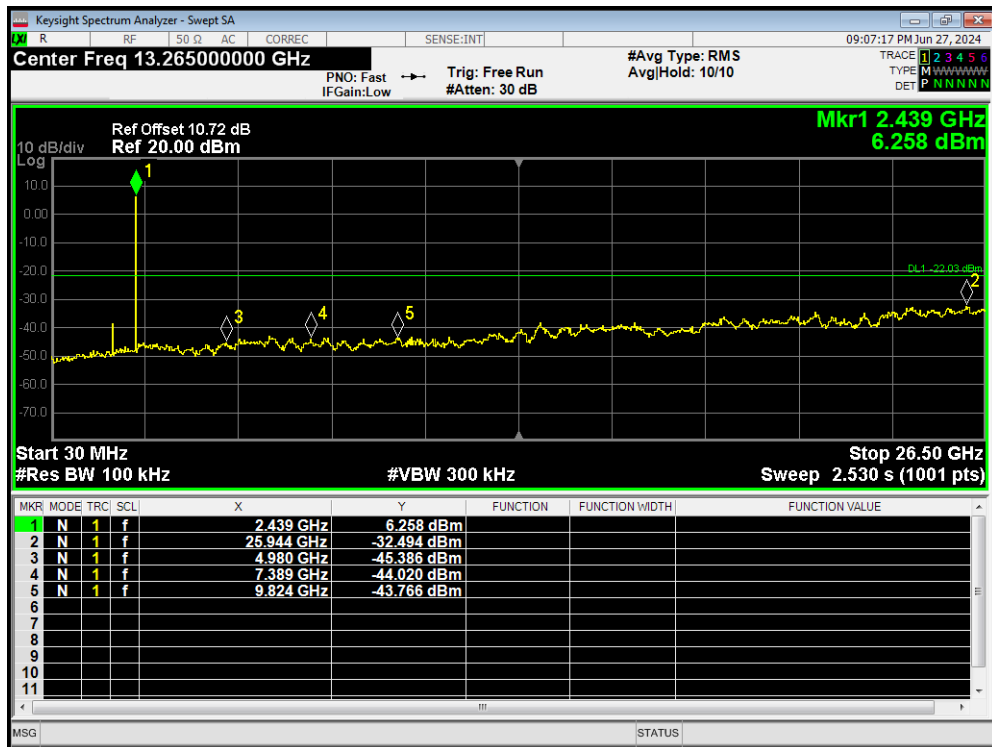
Tx. Spurious BLE (1M) 2402MHz Emission



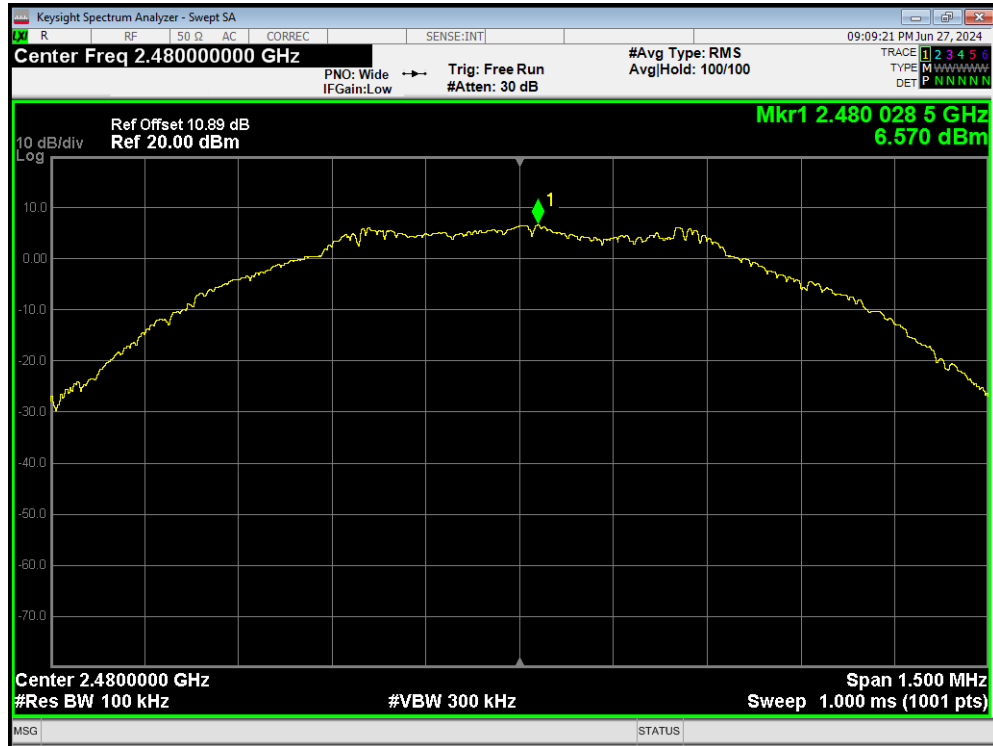
Tx. Spurious BLE (1M) 2440MHz Ref



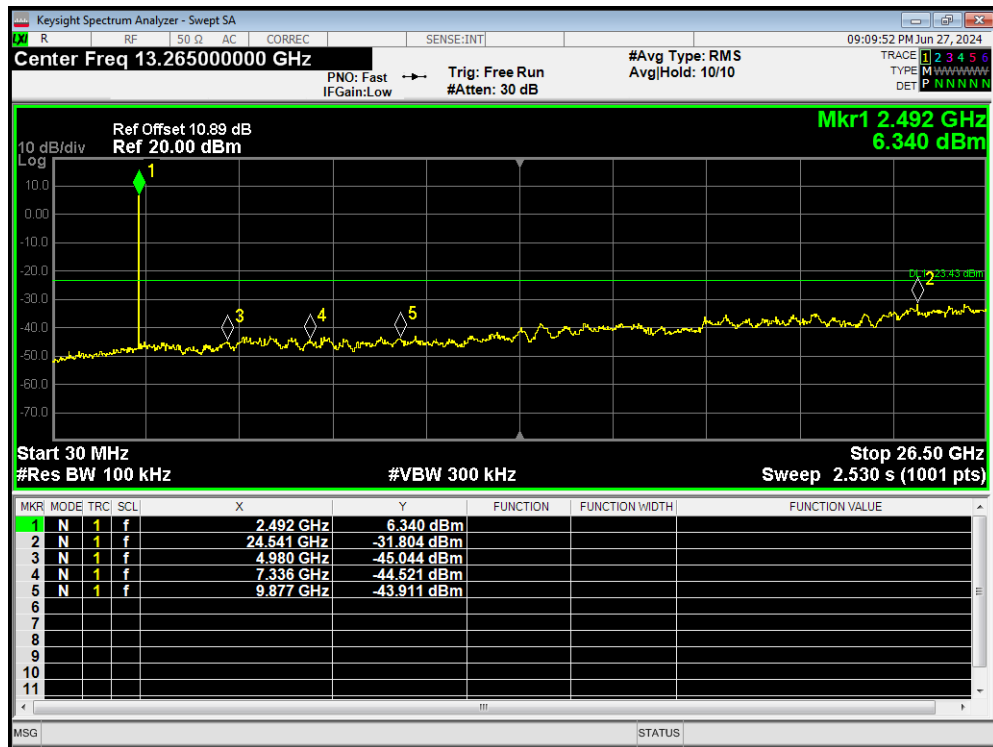
Tx. Spurious BLE (1M) 2440MHz Emission



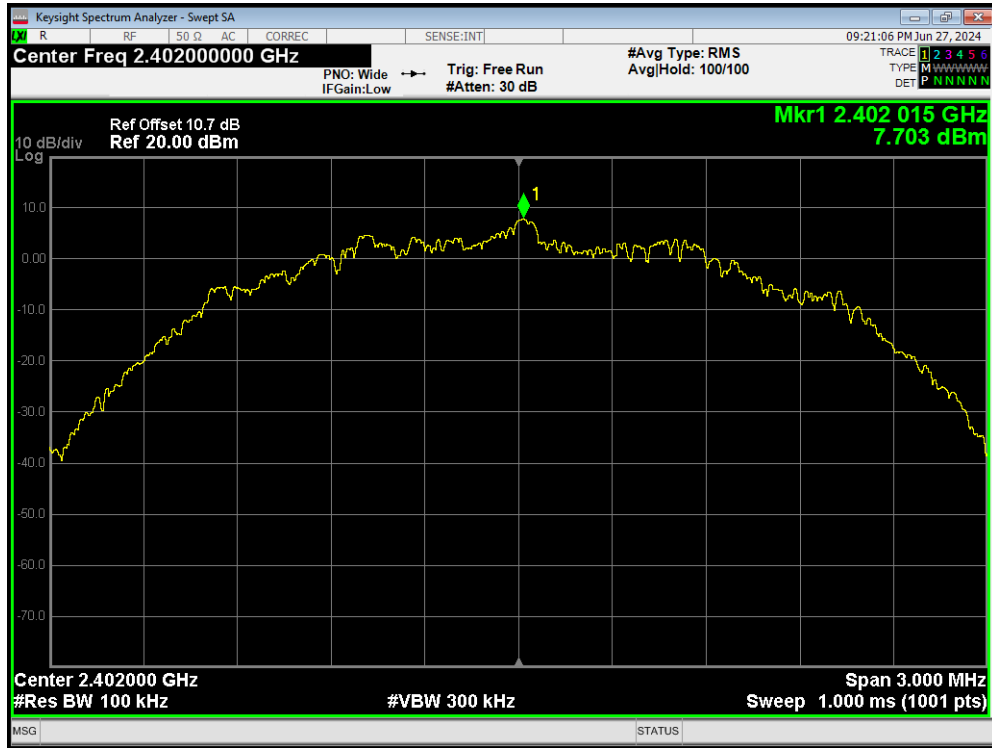
Tx. Spurious BLE (1M) 2480MHz Ref



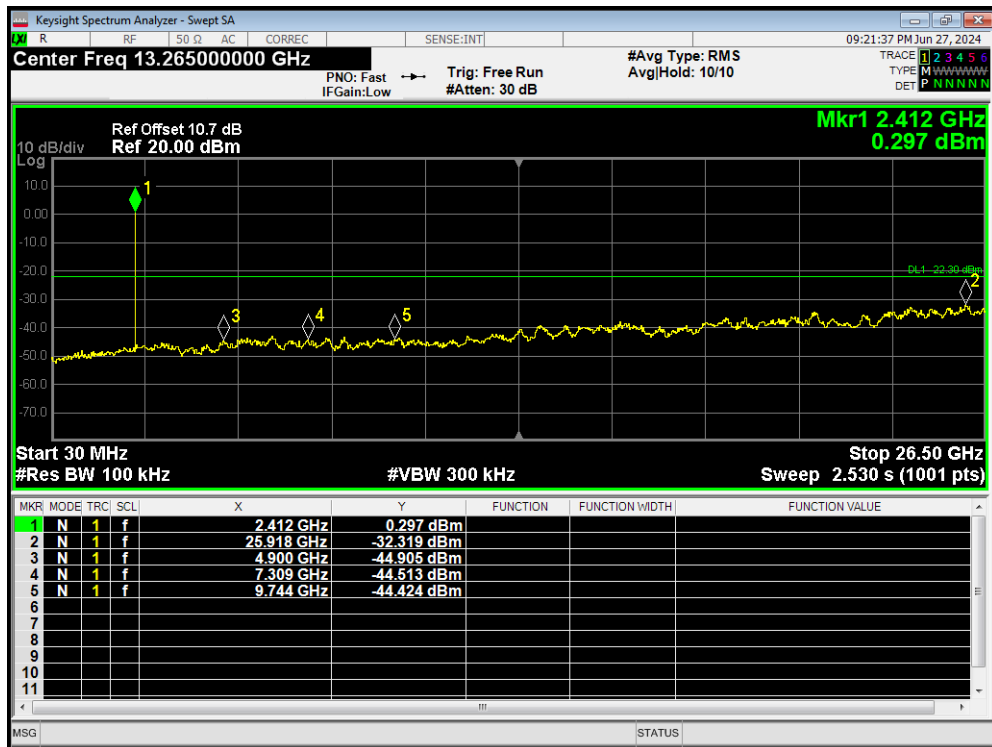
Tx. Spurious BLE (1M) 2480MHz Emission



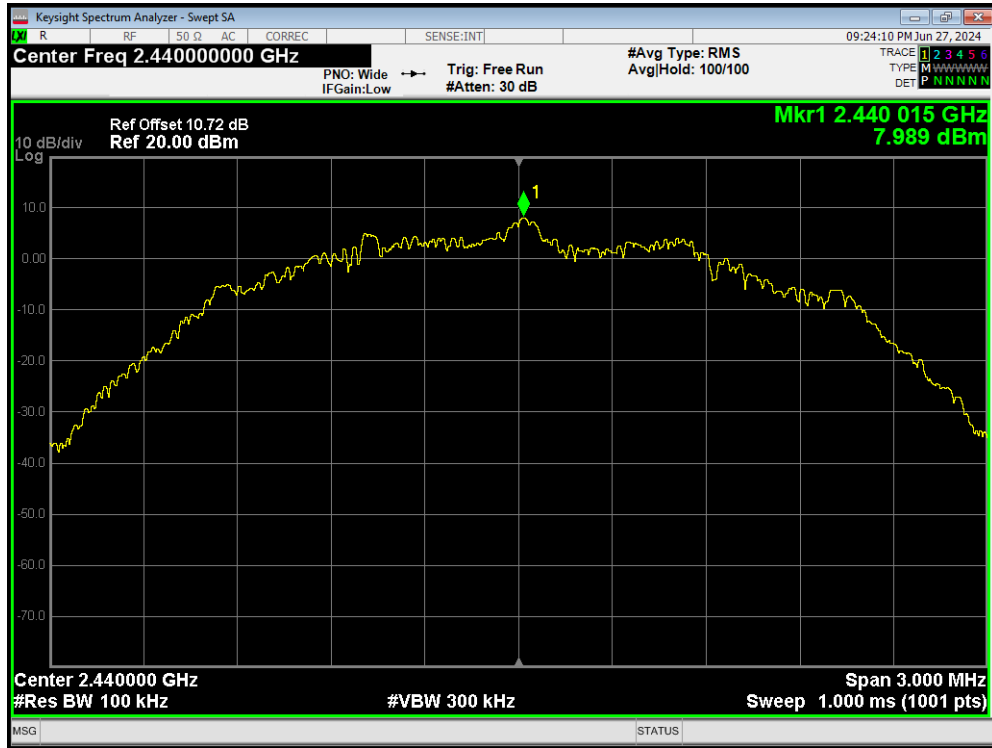
Tx. Spurious BLE (2M) 2402MHz Ref



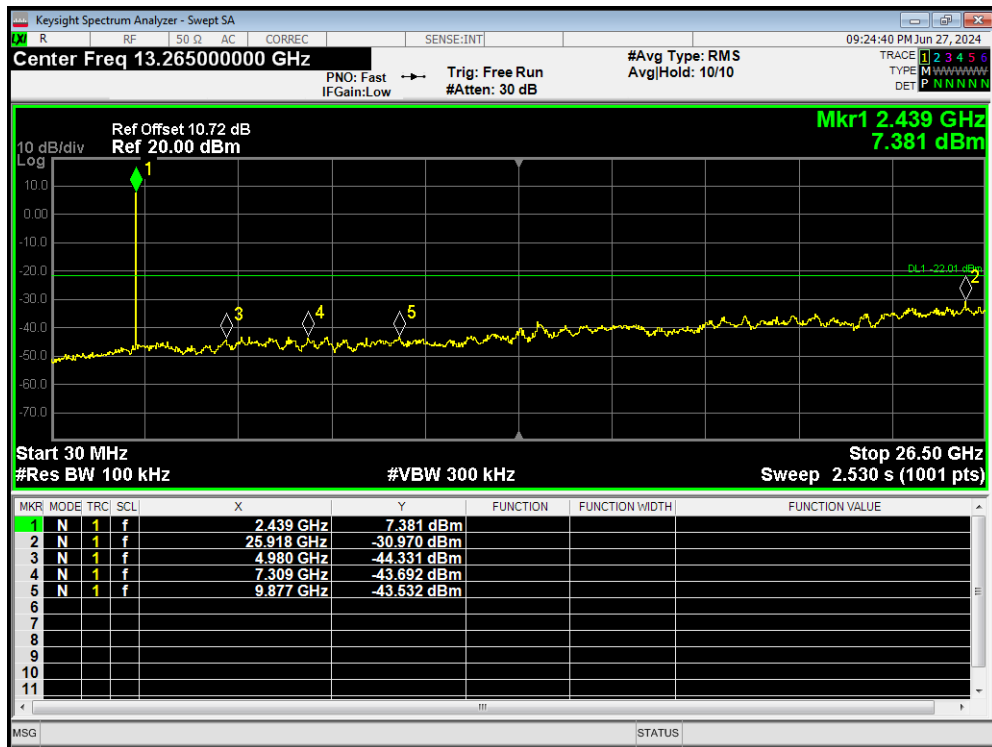
Tx. Spurious BLE (2M) 2402MHz Emission



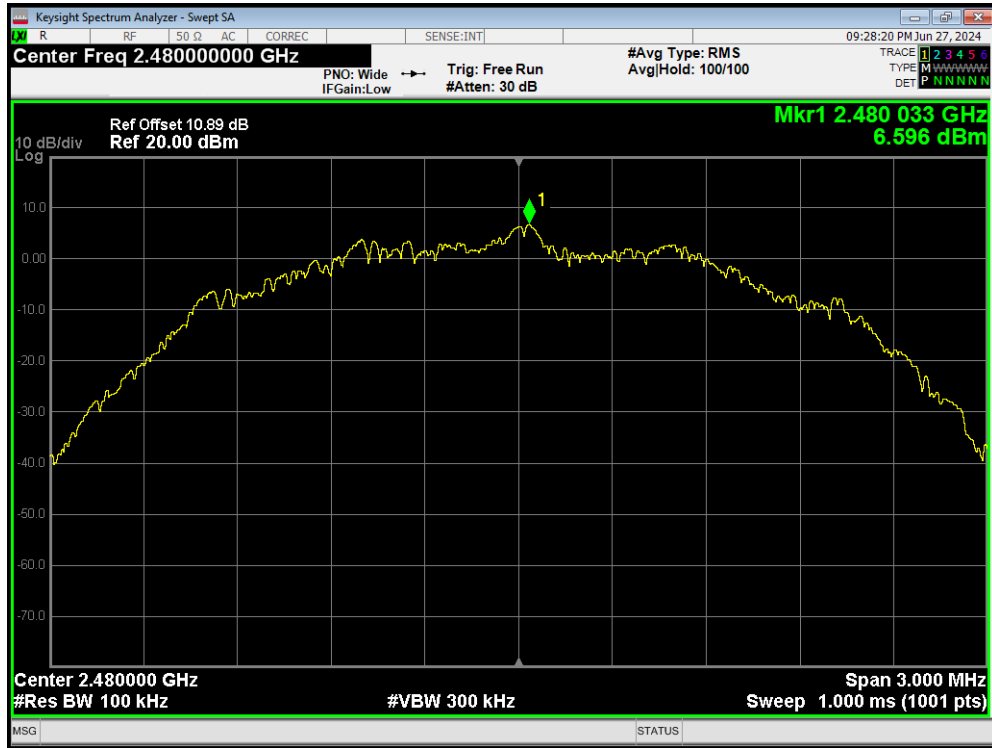
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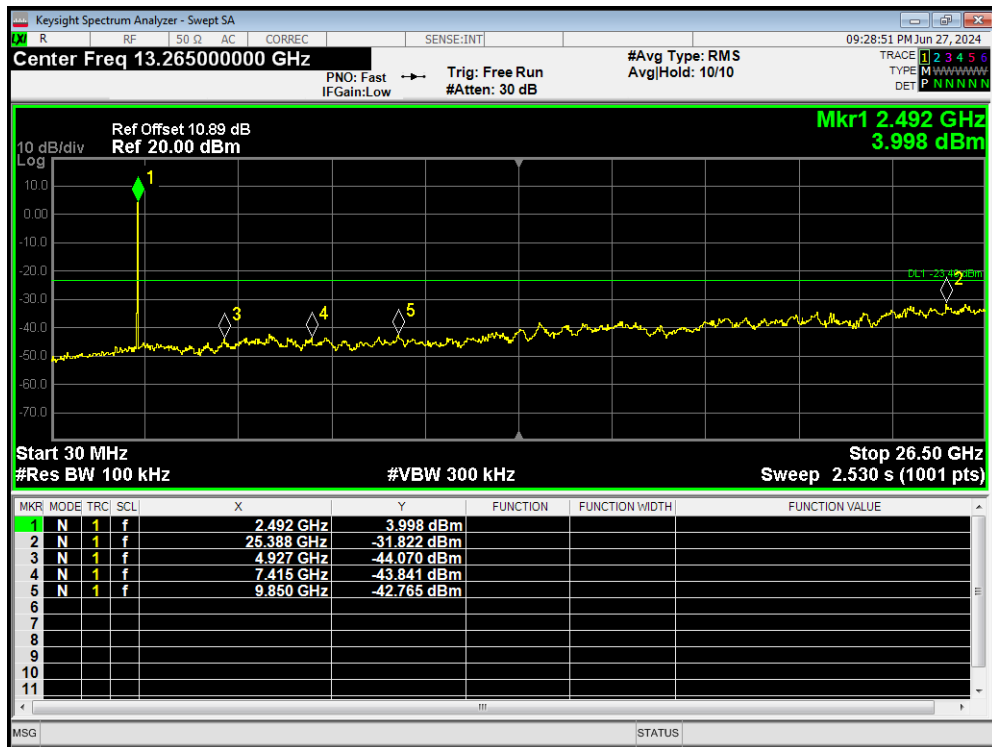
Tx. Spurious BLE (2M) 2440MHz Emission



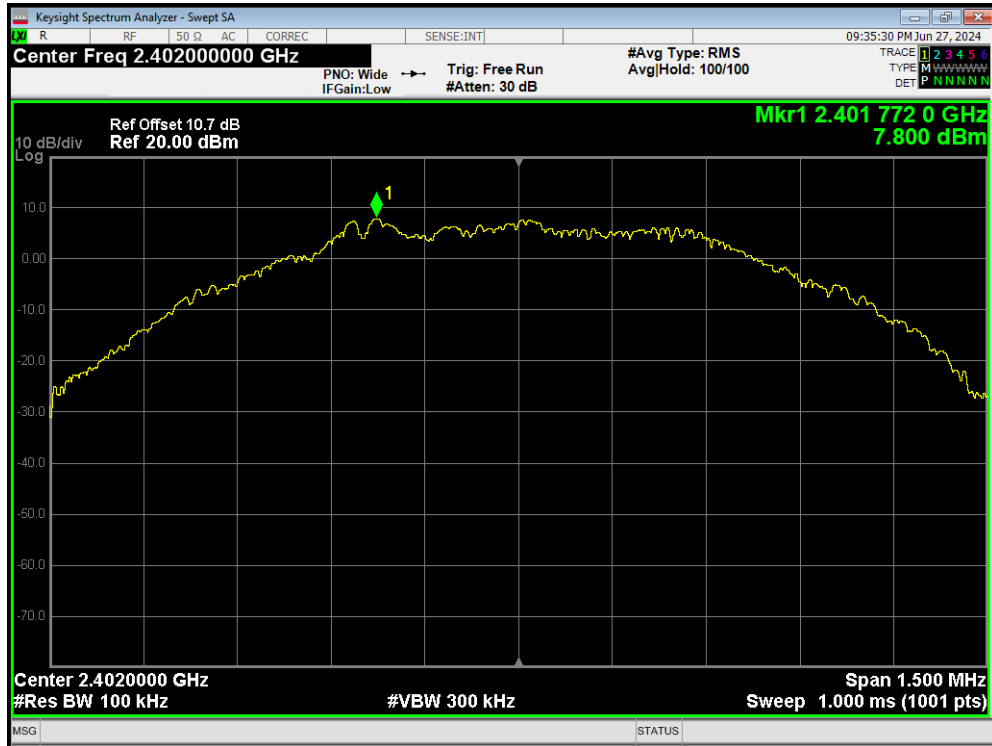
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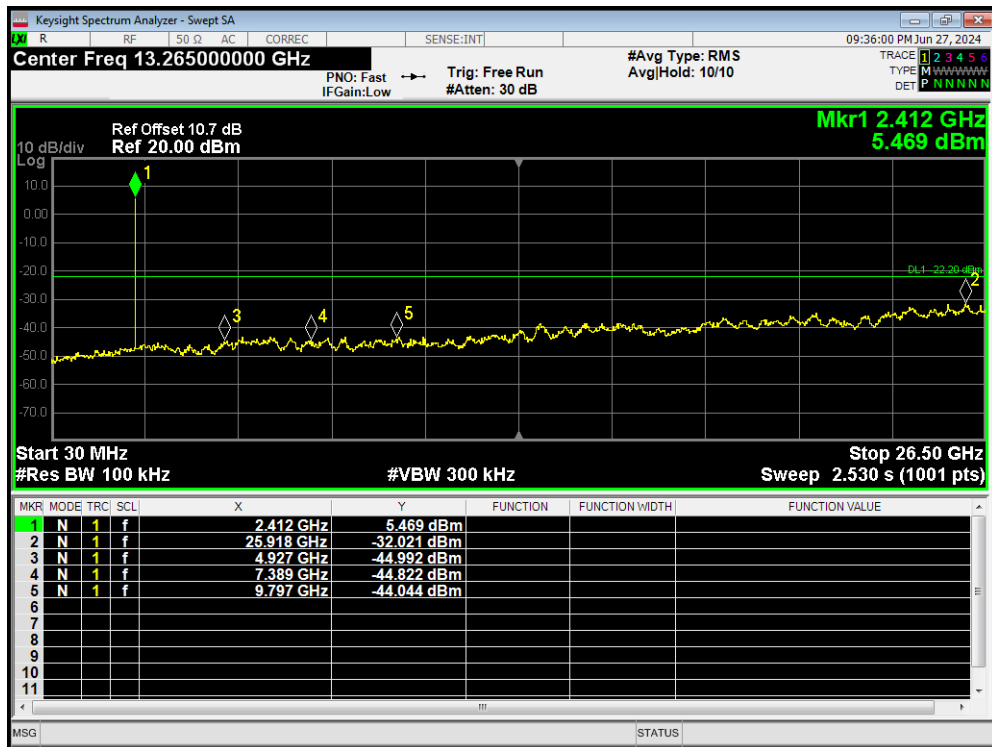
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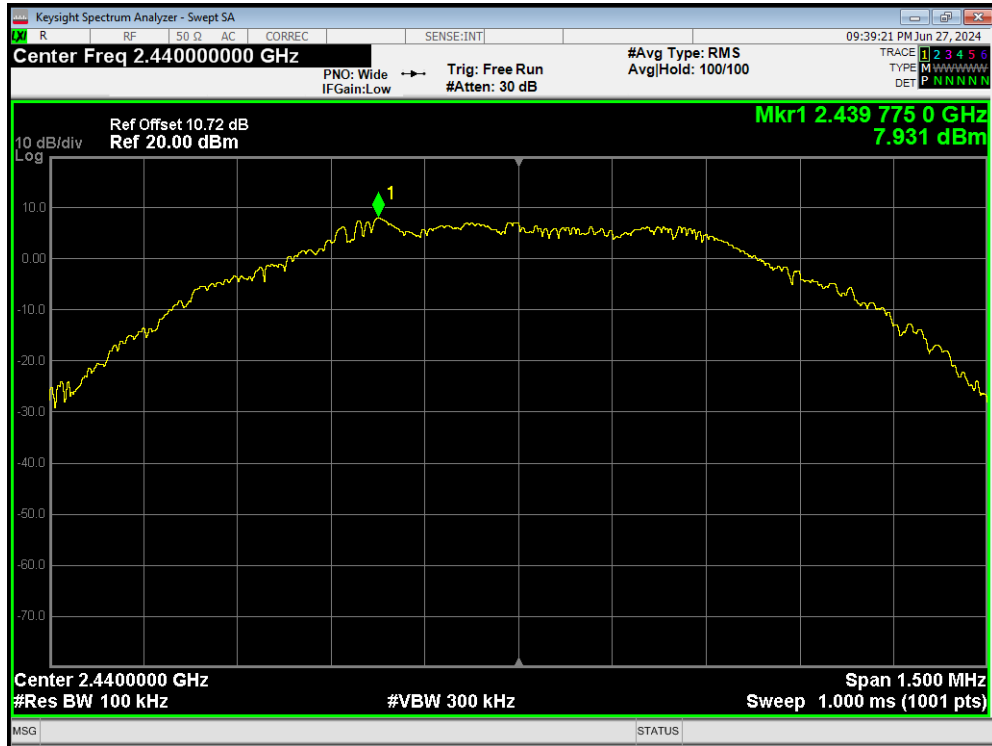
Tx. Spurious S=2 2402MHz Ref



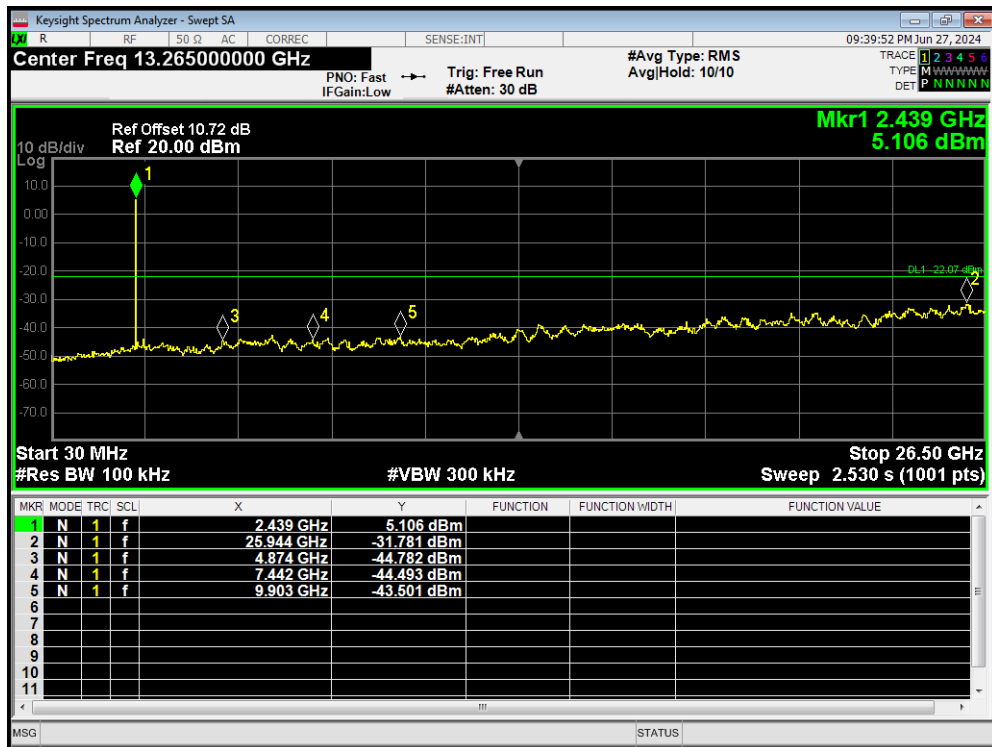
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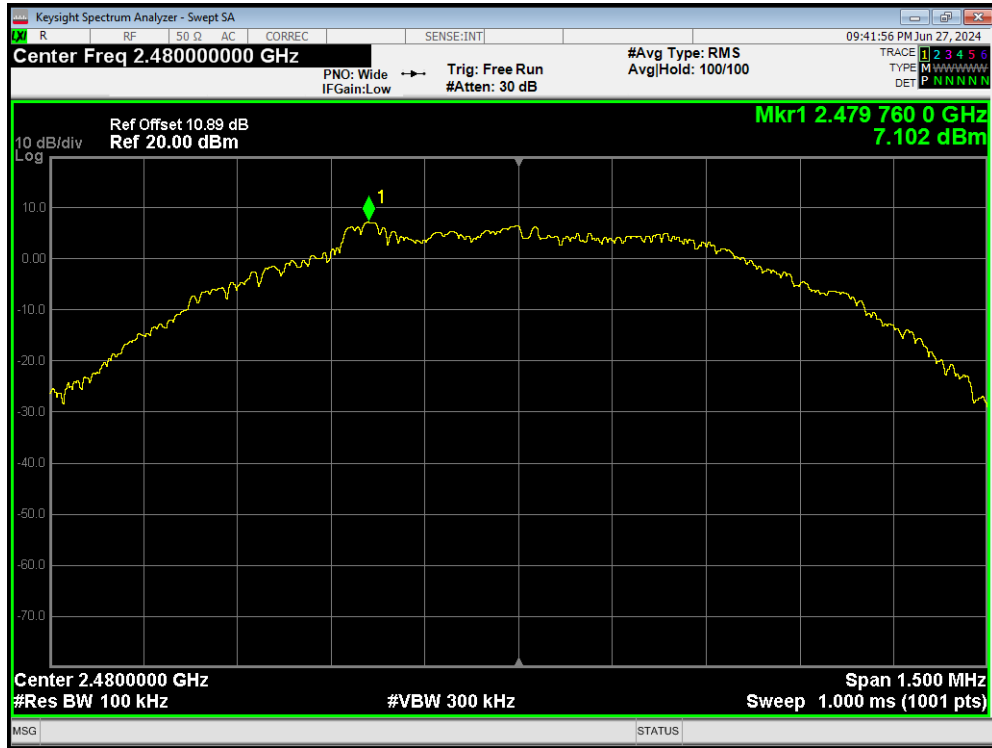
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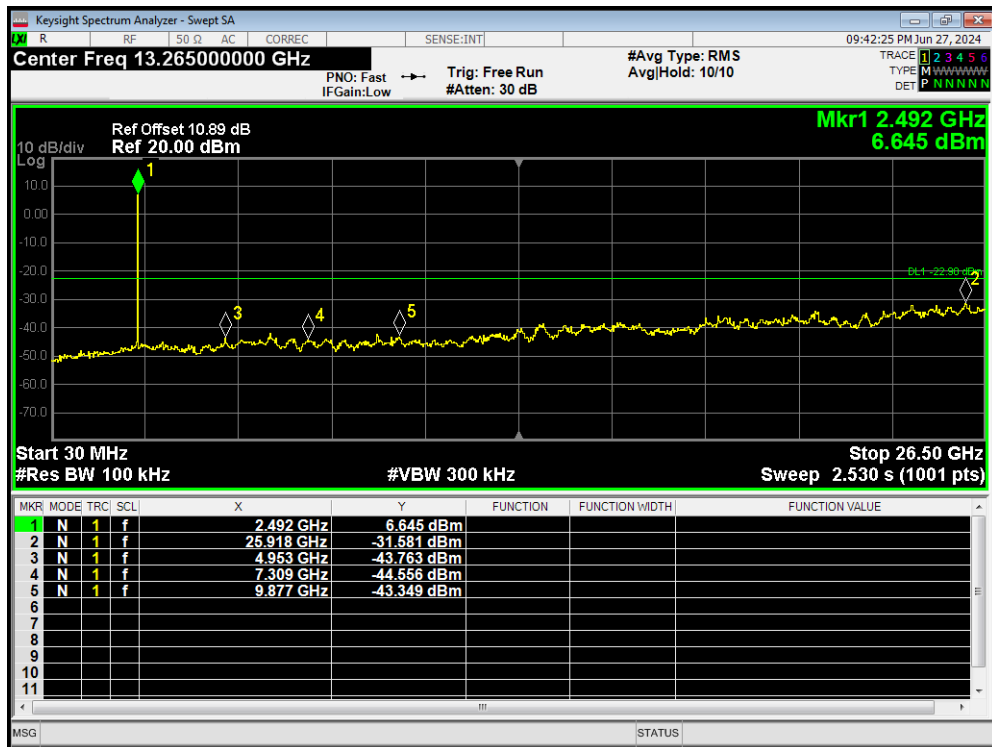
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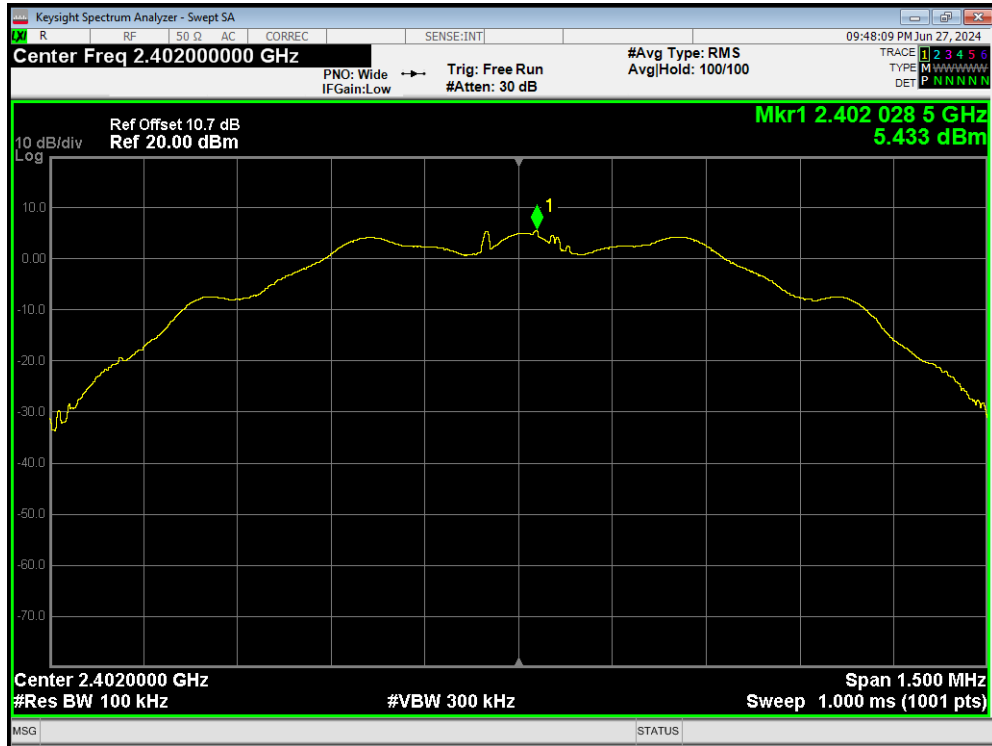
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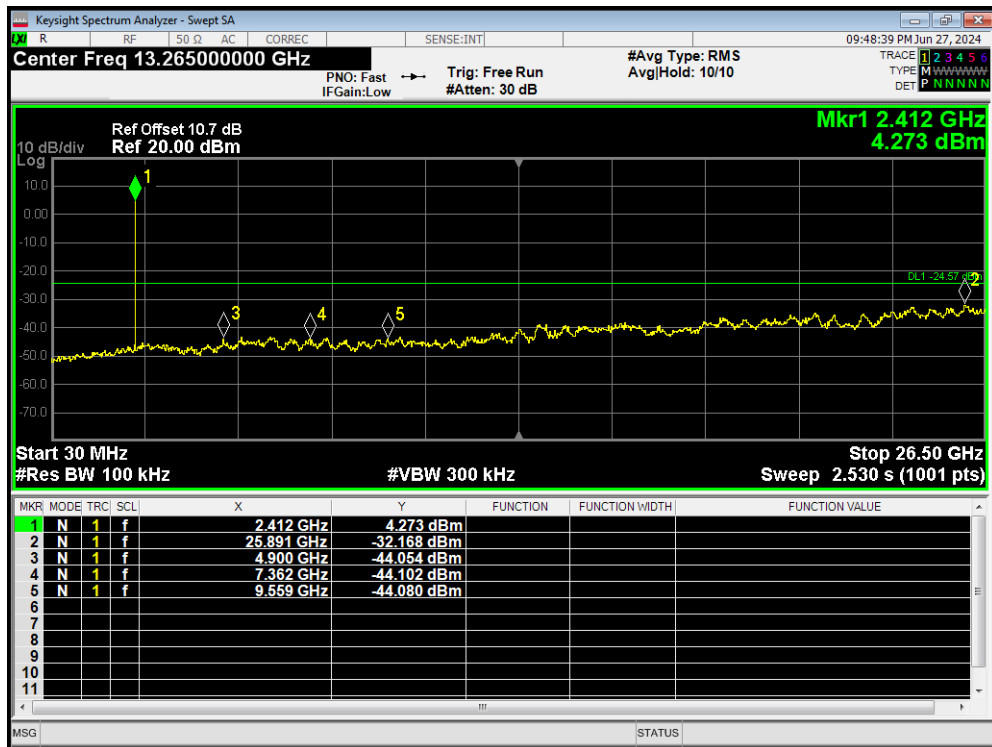
Tx. Spurious S=2 2480MHz Emission



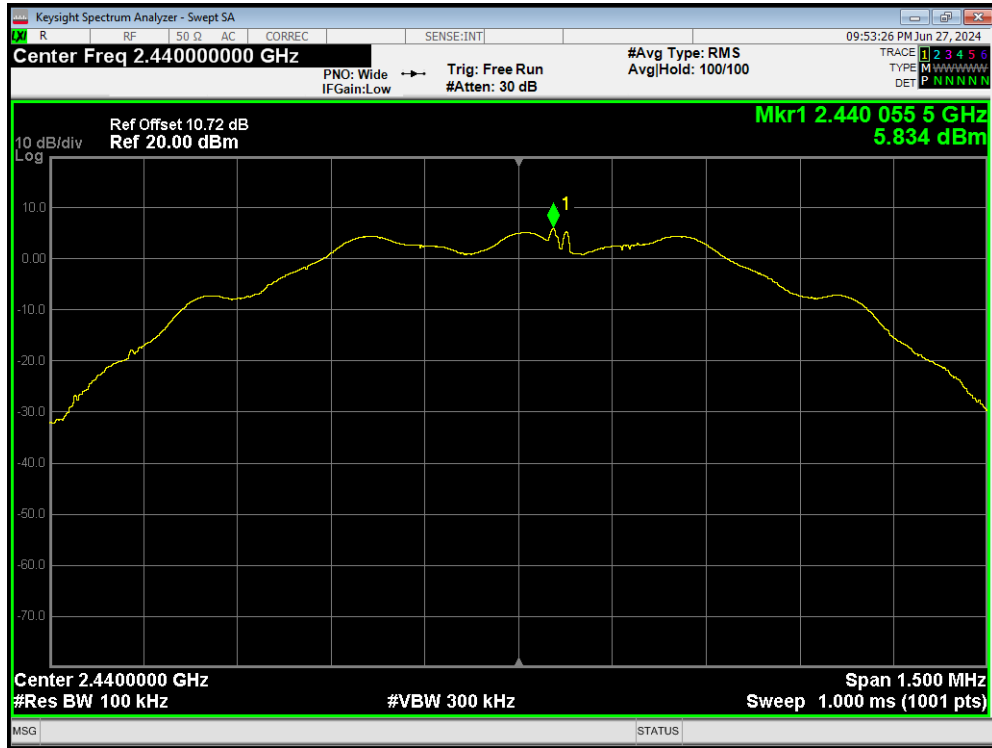
Tx. Spurious S=8 2402MHz Ref



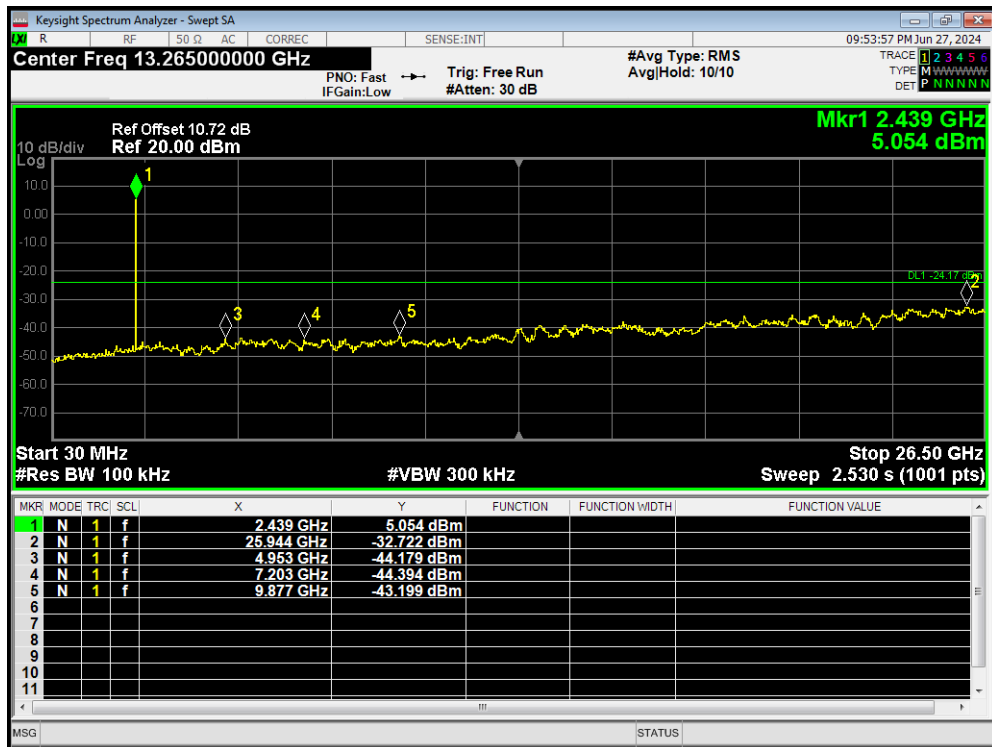
Tx. Spurious S=8 2402MHz Emission



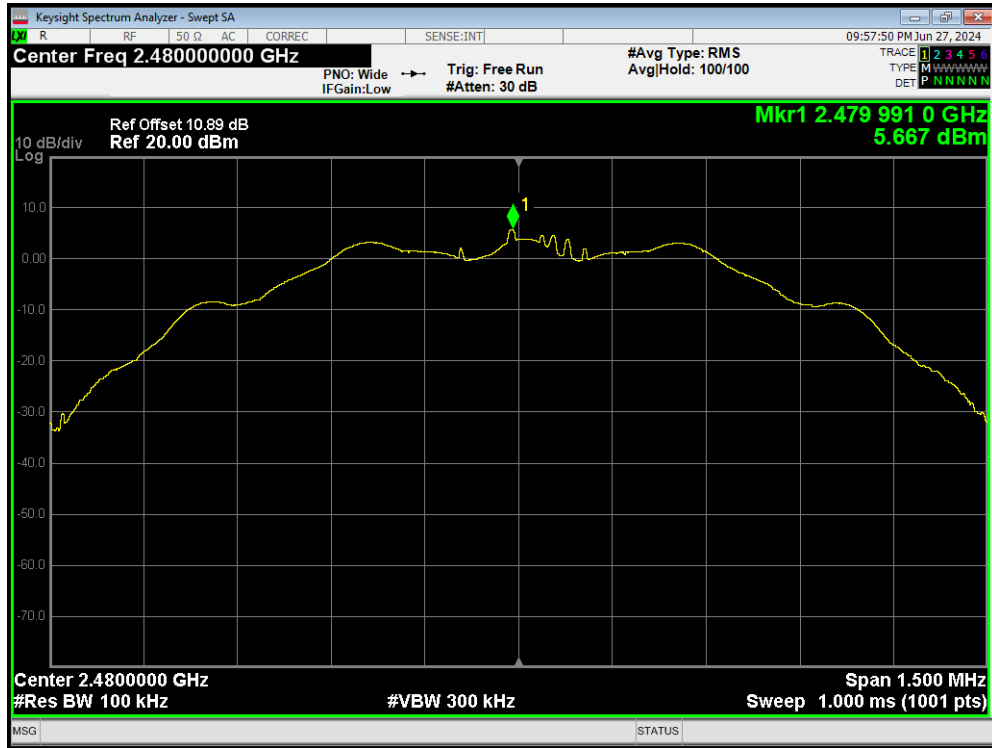
Tx. Spurious S=8 2440MHz Ref



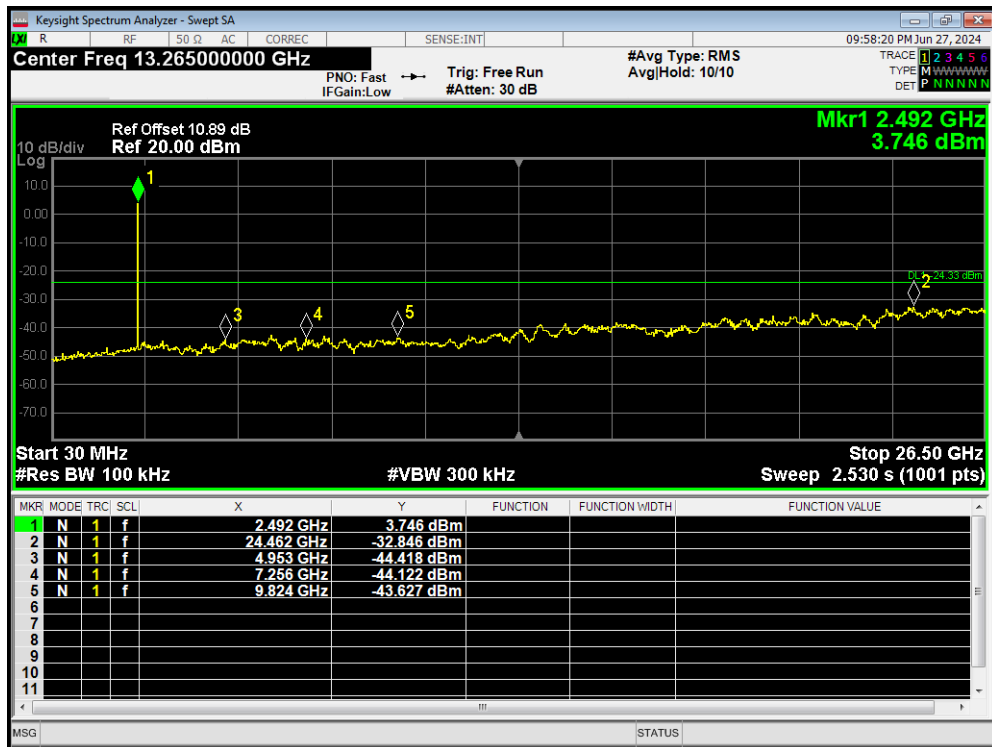
Tx. Spurious S=8 2440MHz Emission



Tx. Spurious S=8 2480MHz Ref

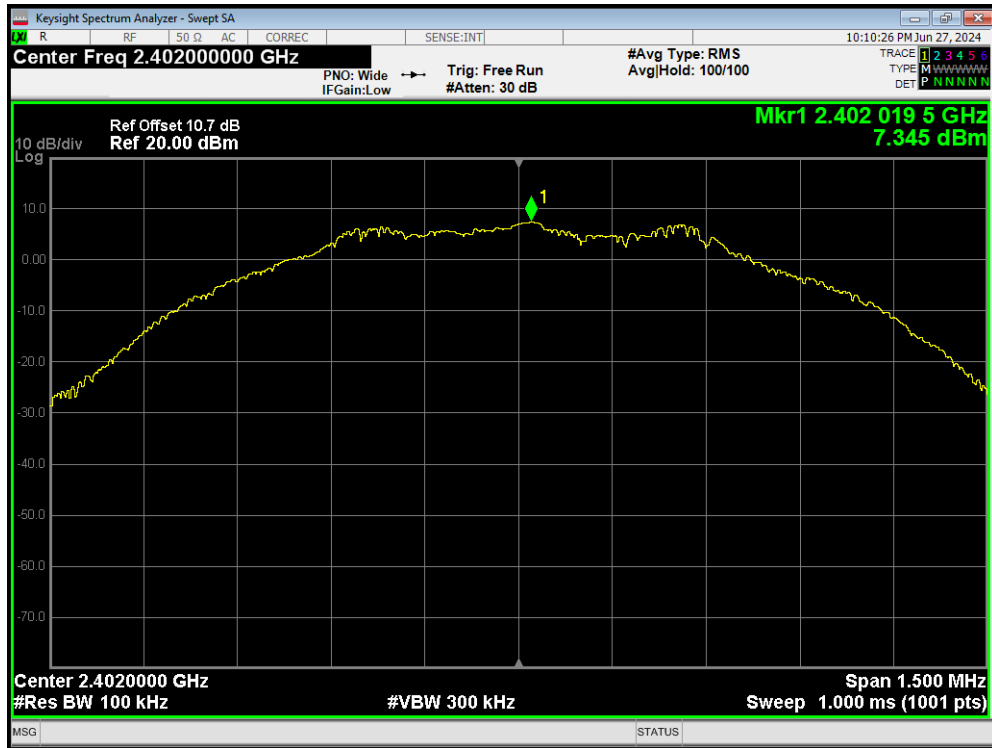


Tx. Spurious S=8 2480MHz Emission

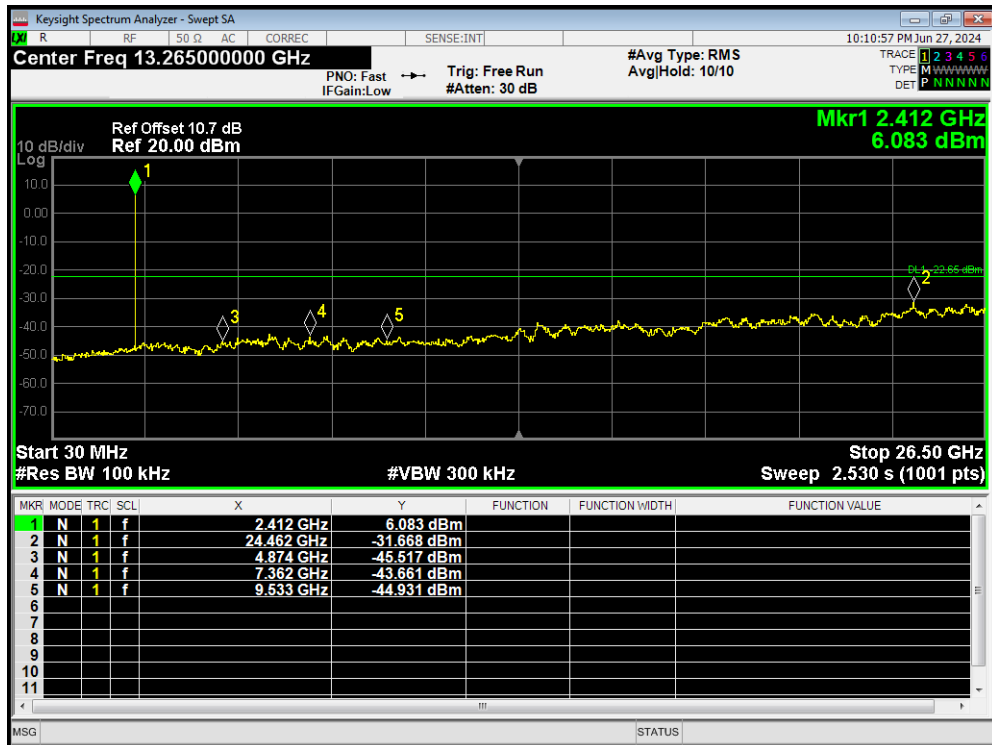


Antenna 2

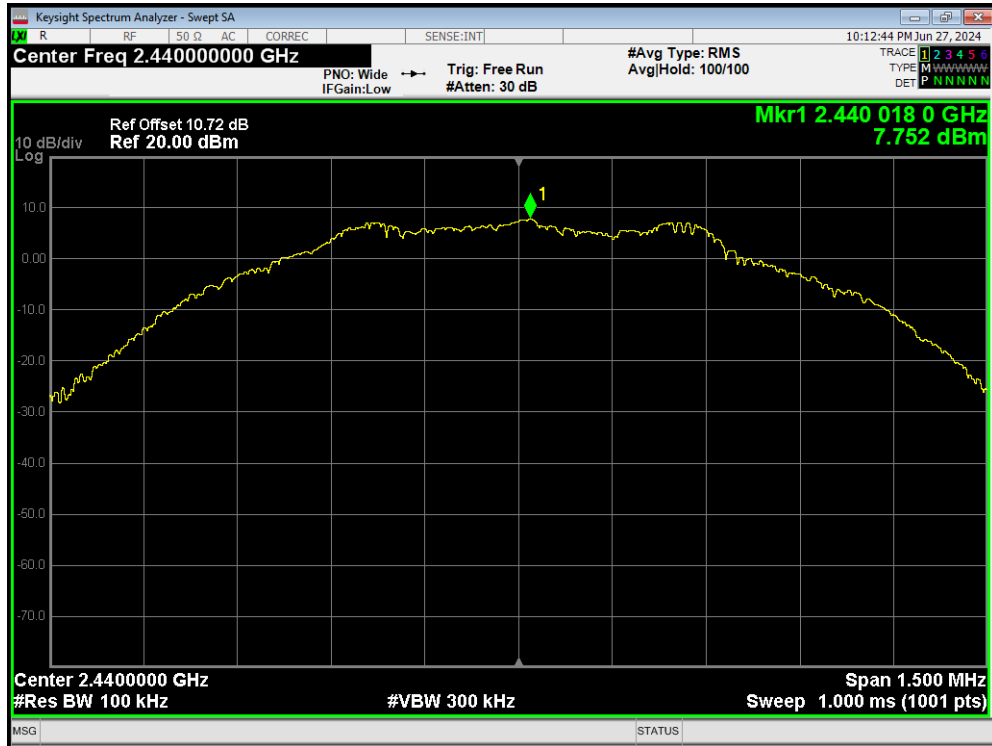
Tx. Spurious BLE (1M) 2402MHz Ref



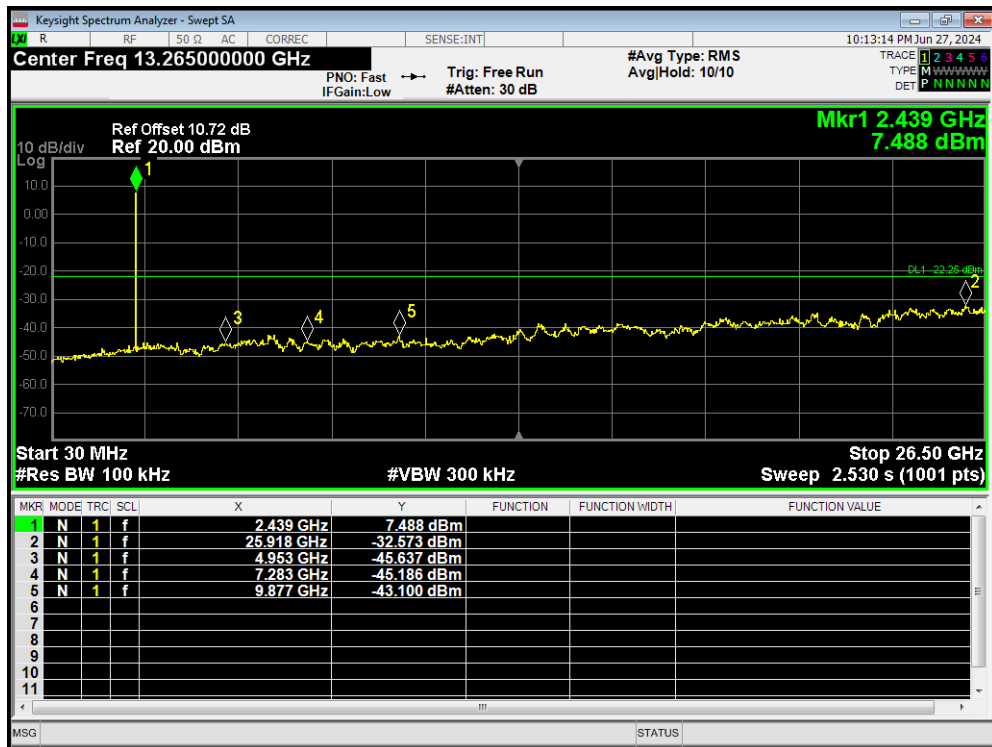
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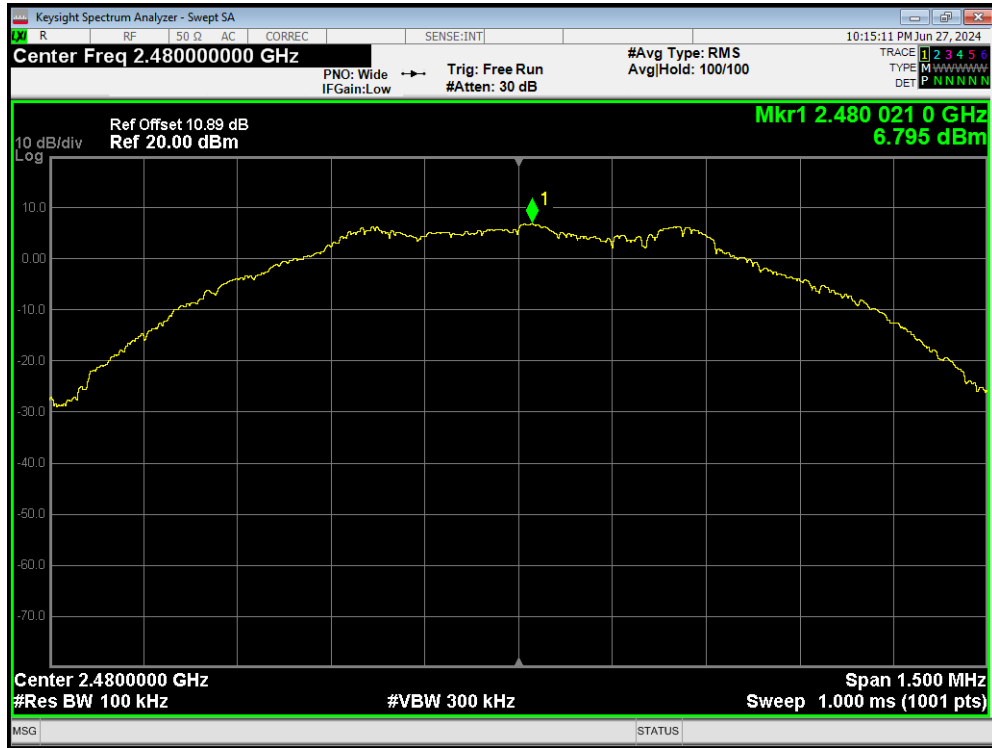
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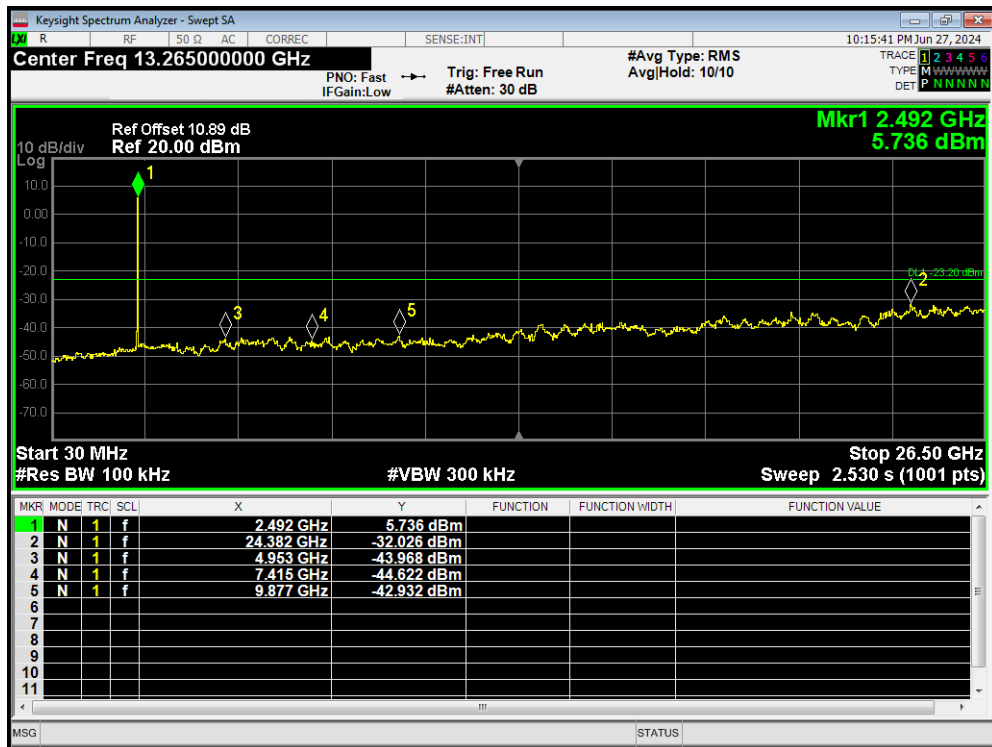
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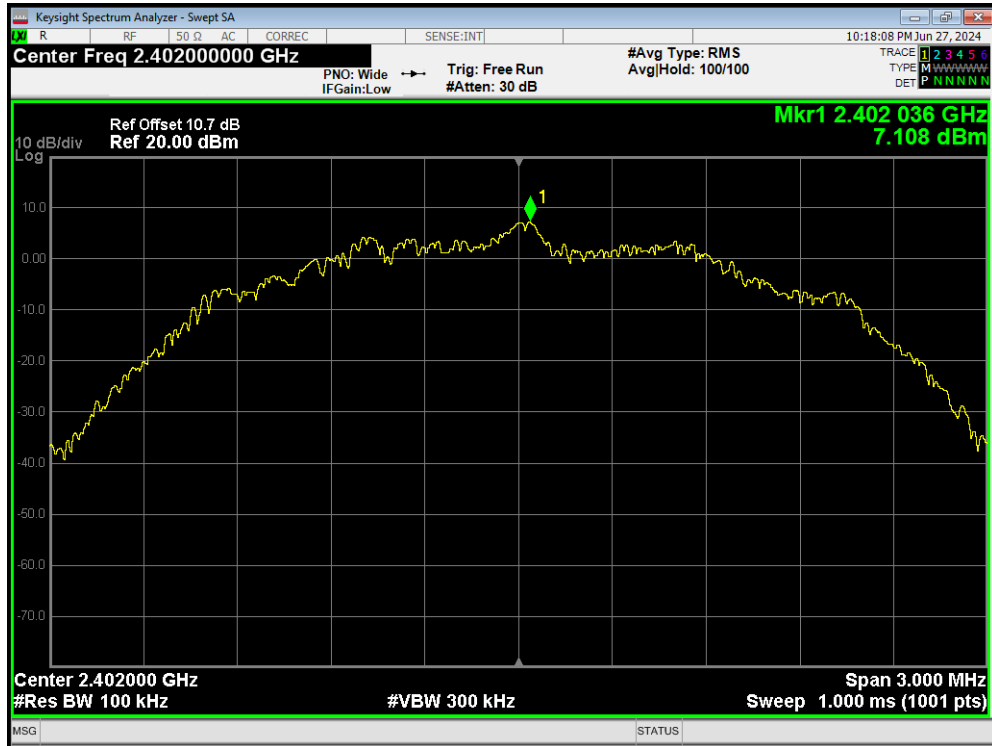
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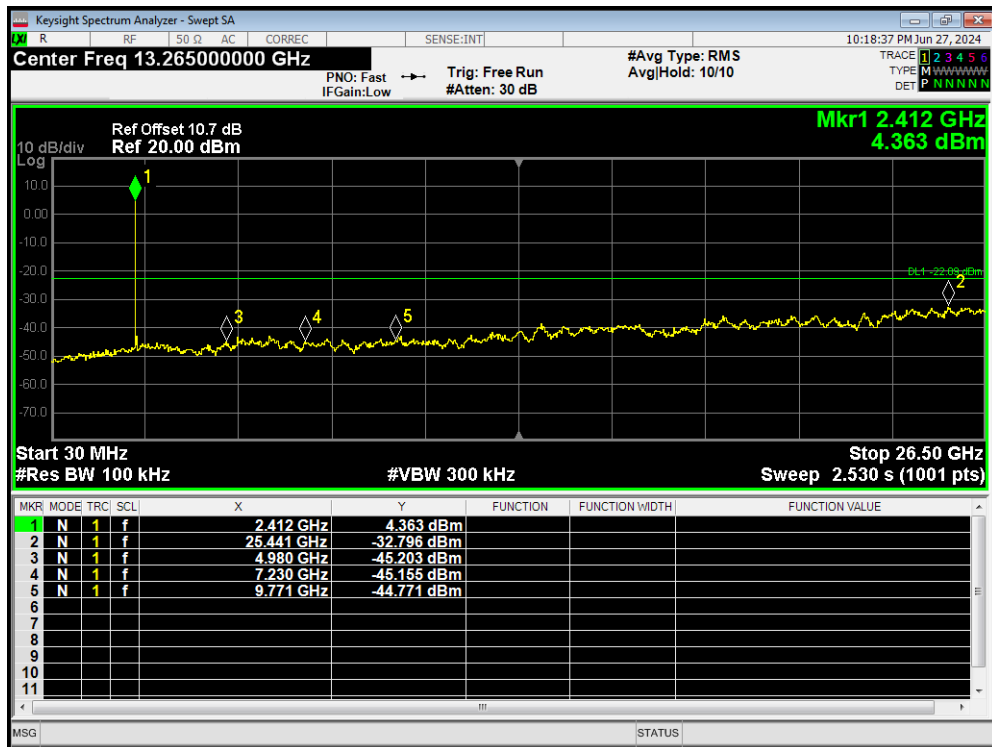
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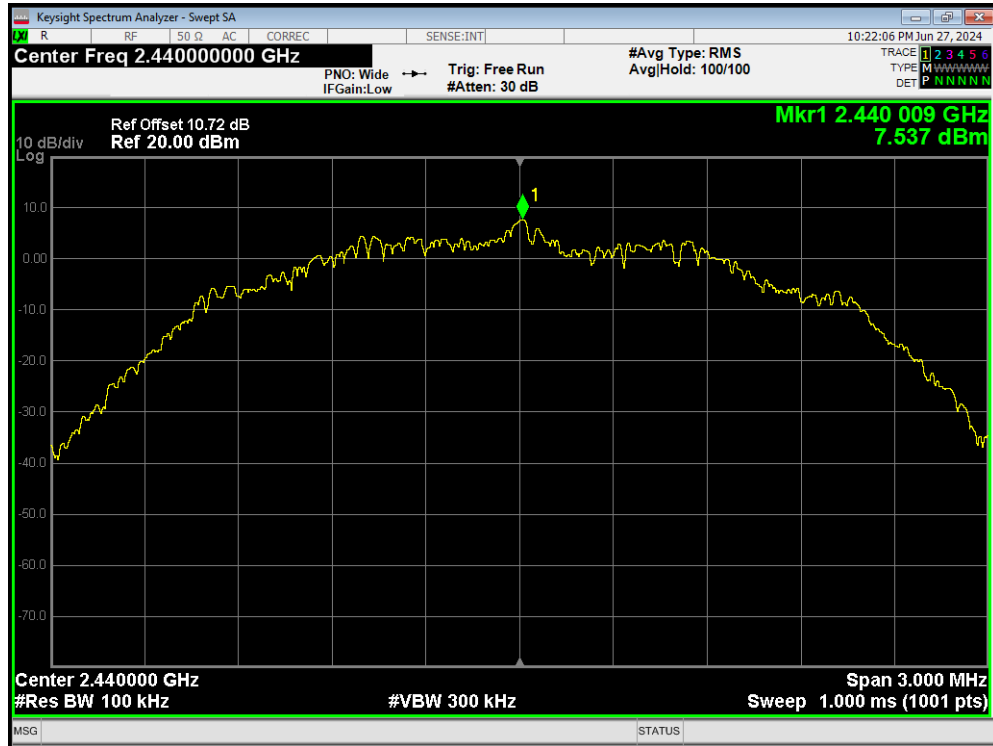
Tx. Spurious BLE (2M) 2402MHz Ref



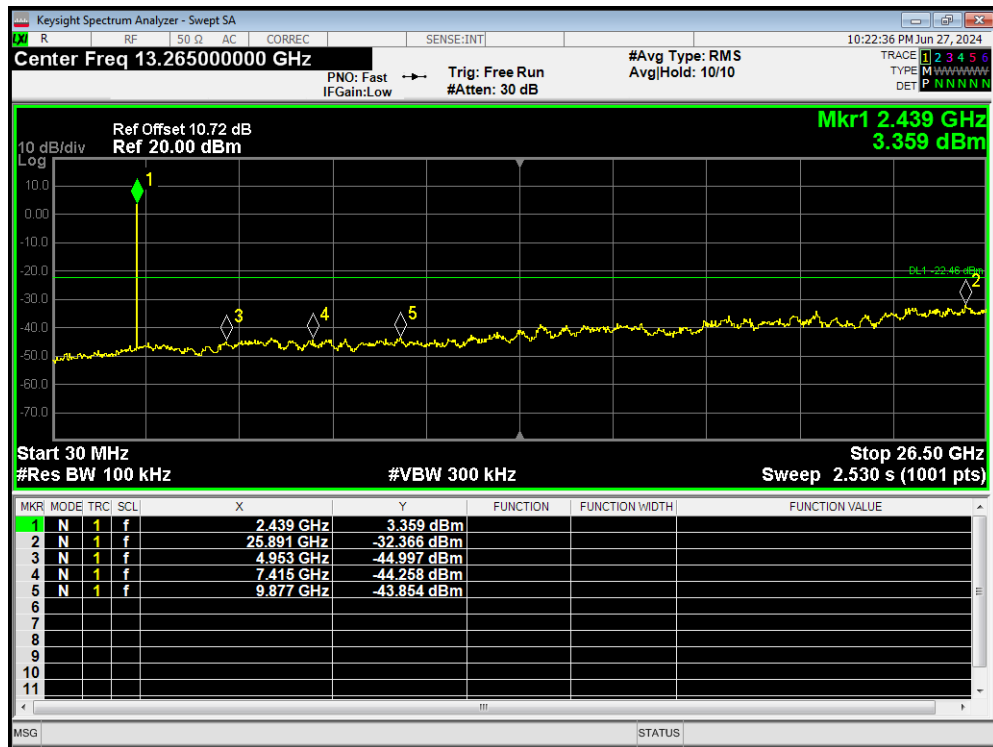
Tx. Spurious BLE (2M) 2402MHz Emission



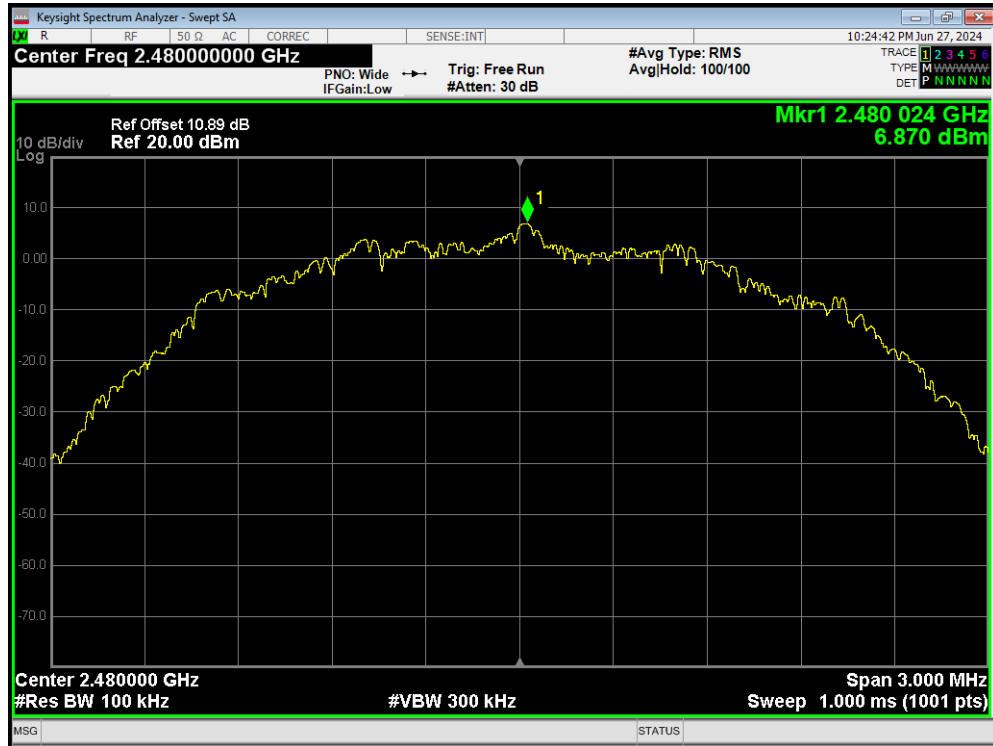
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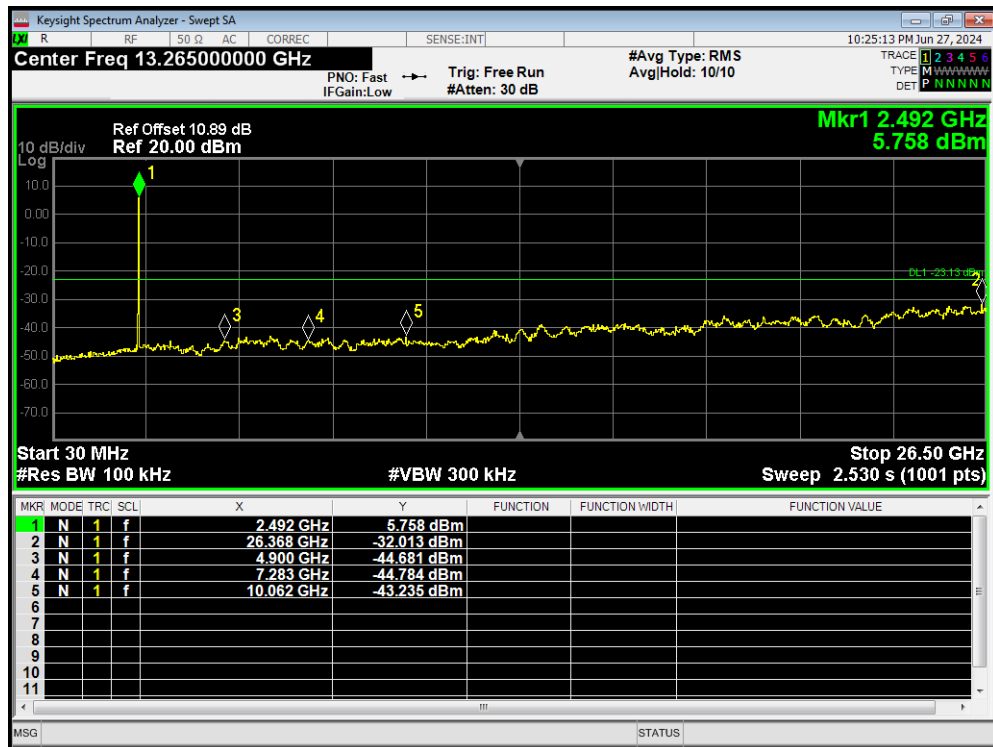
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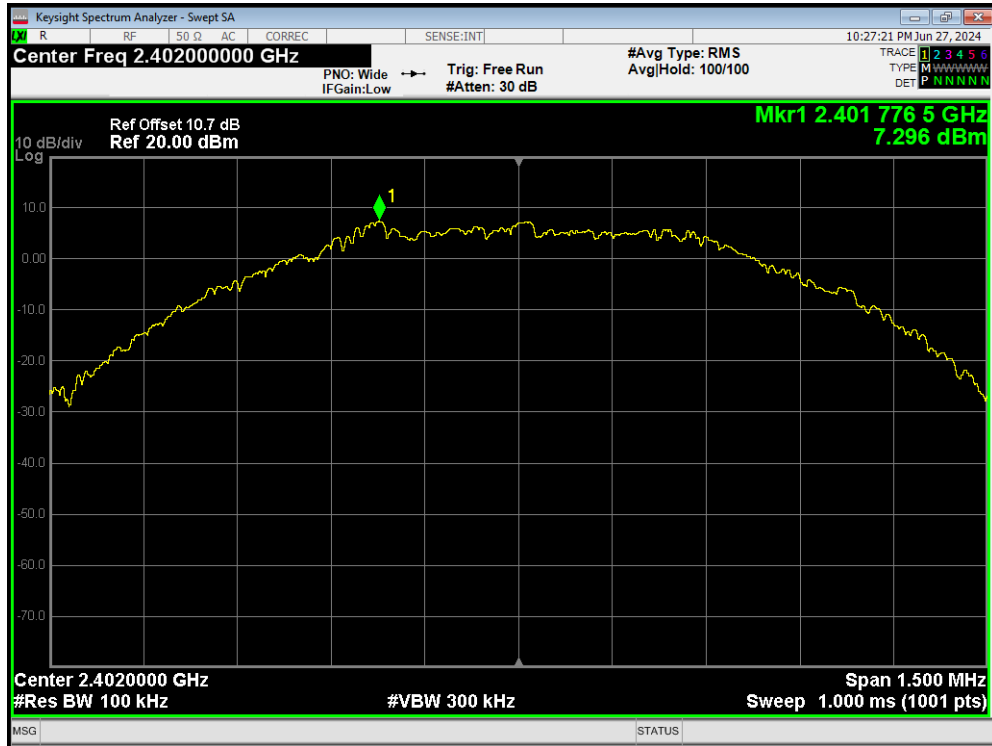
Tx. Spurious BLE (2M) 2480MHz Ref



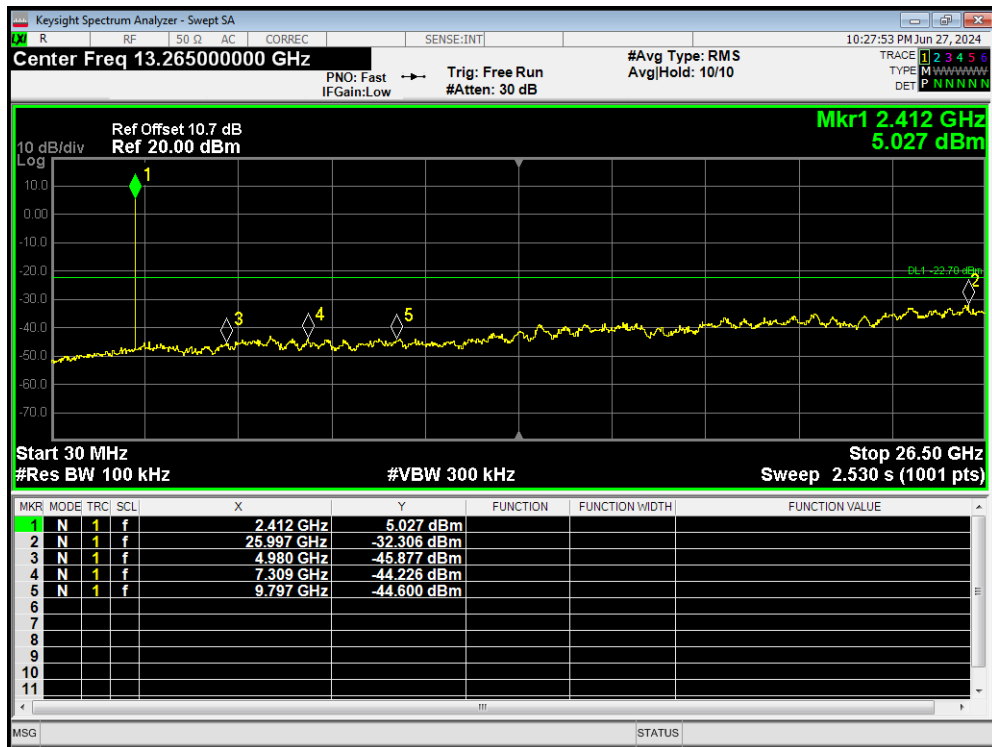
Tx. Spurious BLE (2M) 2480MHz Emission



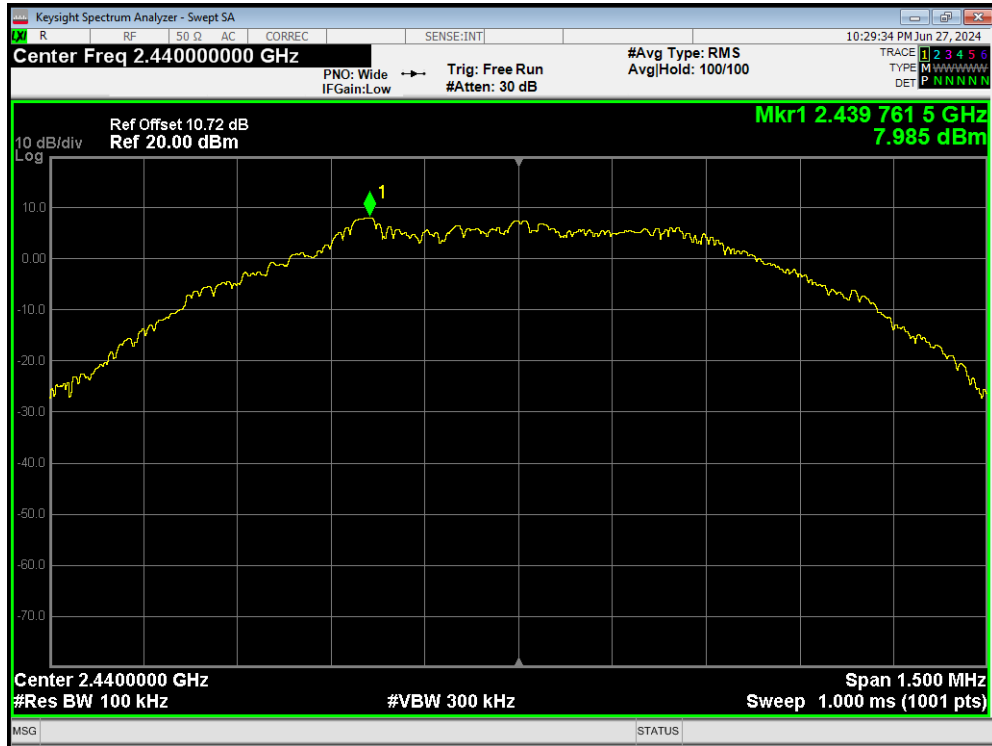
Tx. Spurious S=2 2402MHz Ref



Tx. Spurious S=2 2402MHz Emission



Tx. Spurious S=2 2440MHz Ref



Tx. Spurious S=2 2440MHz Emission

