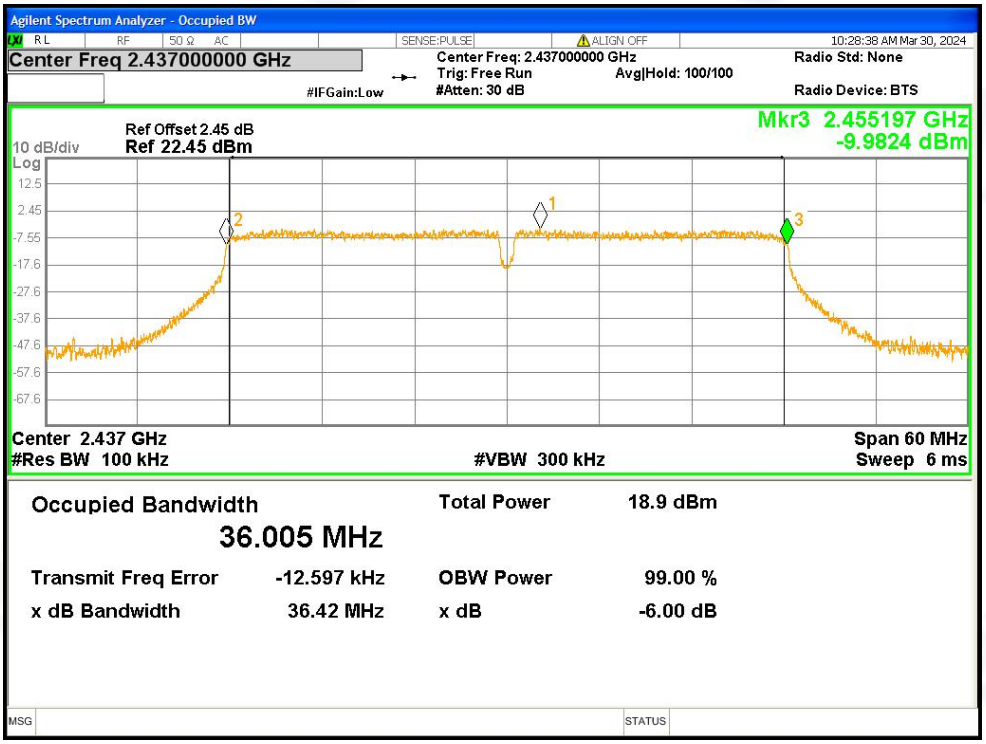
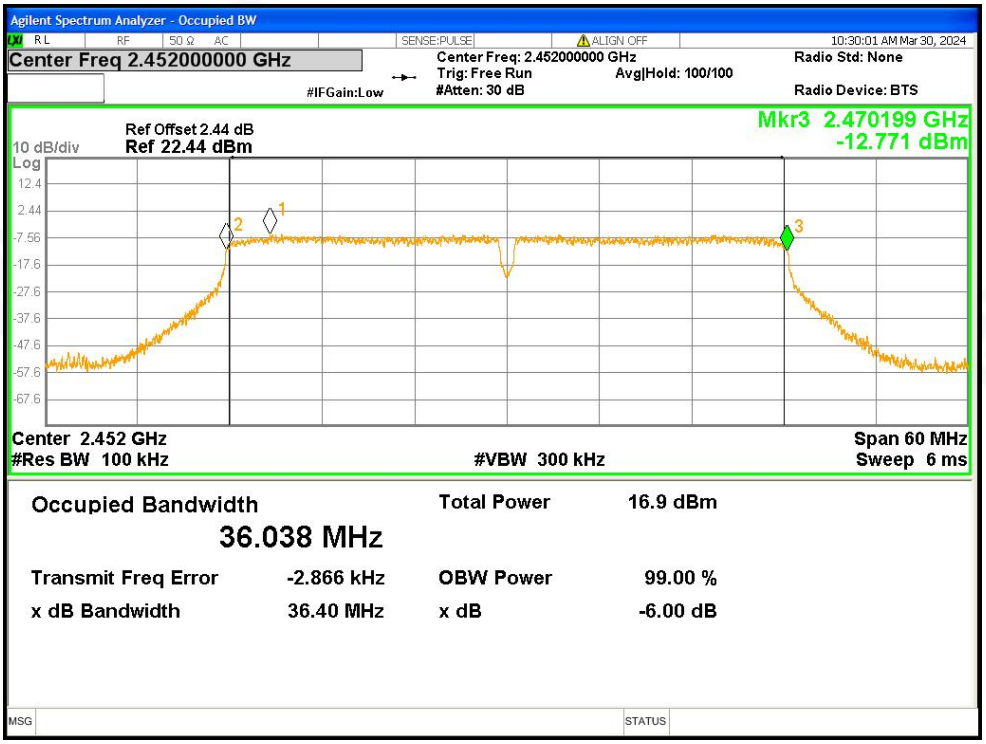
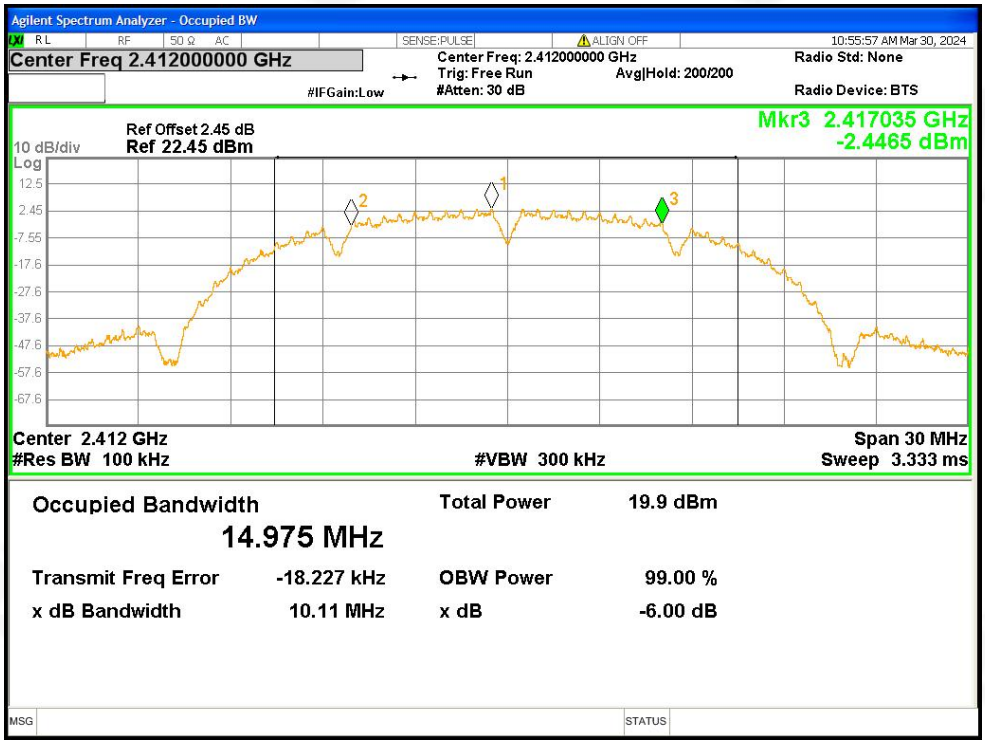


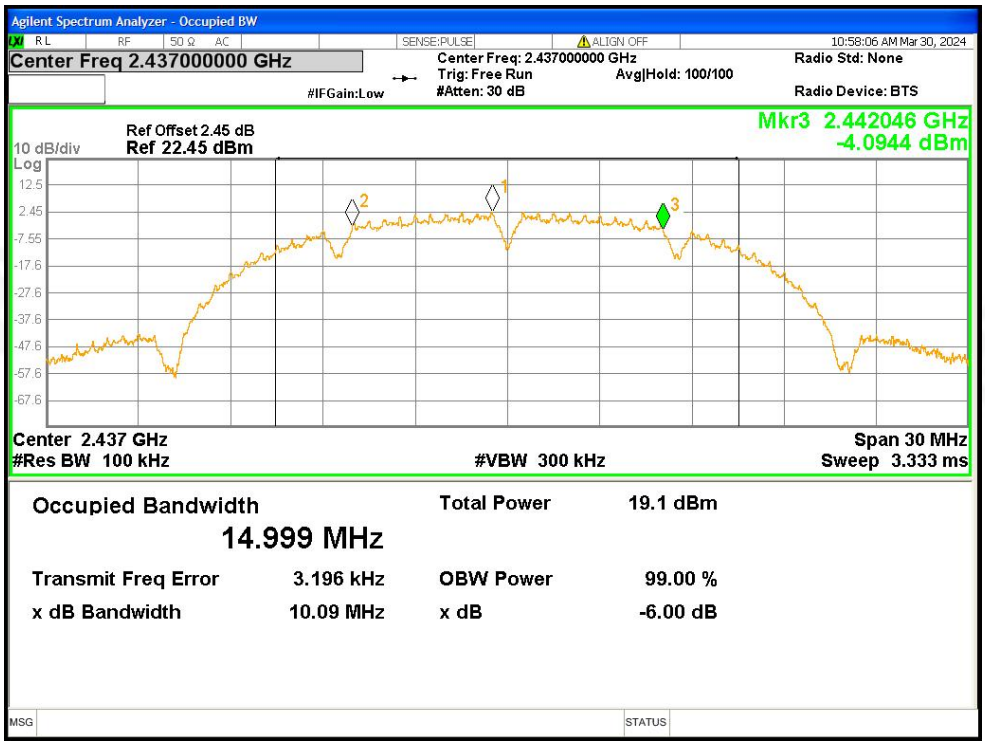
-6dB Bandwidth NVNT n40 2437MHz Ant0



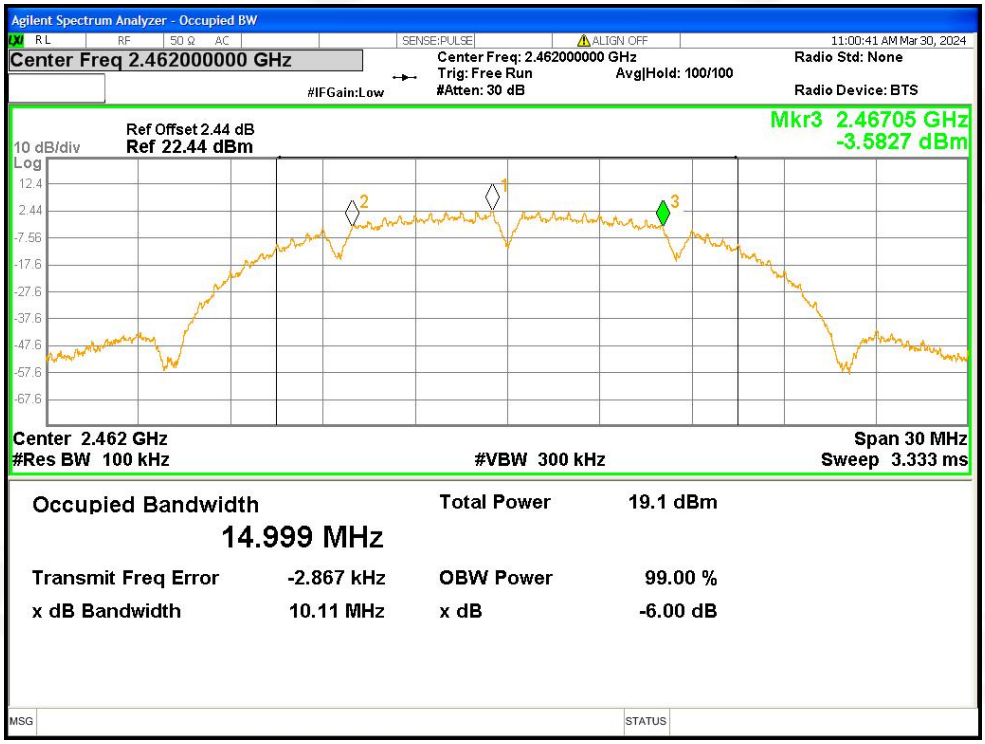
-6dB Bandwidth NVNT n40 2452MHz Ant0



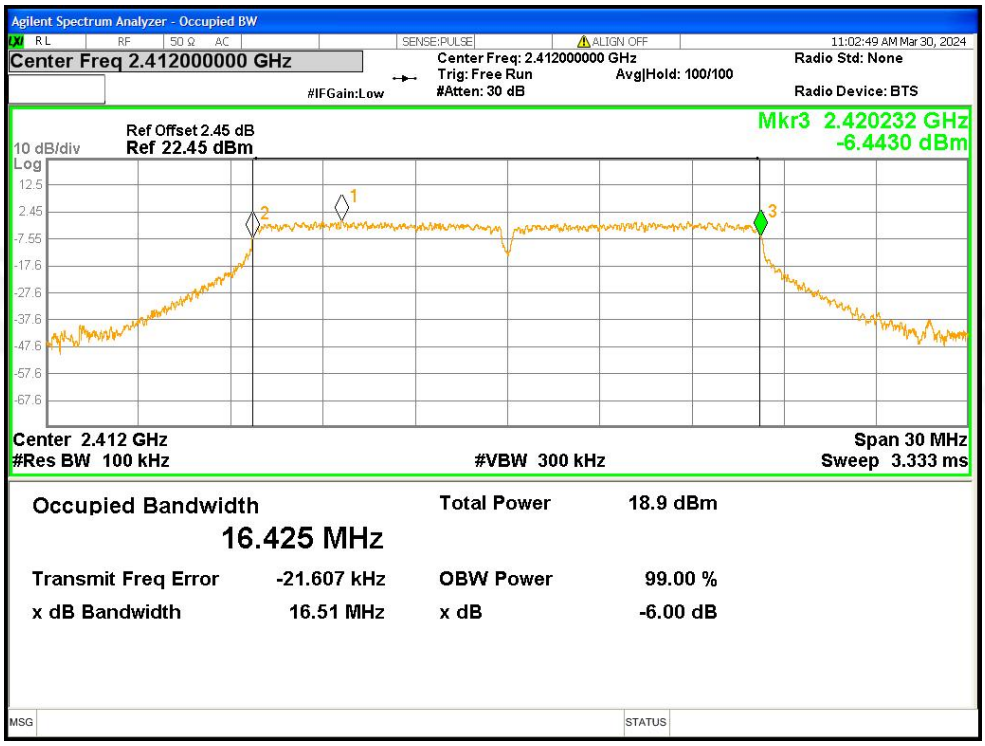
-6dB Bandwidth NVNT b 2412MHz Ant1



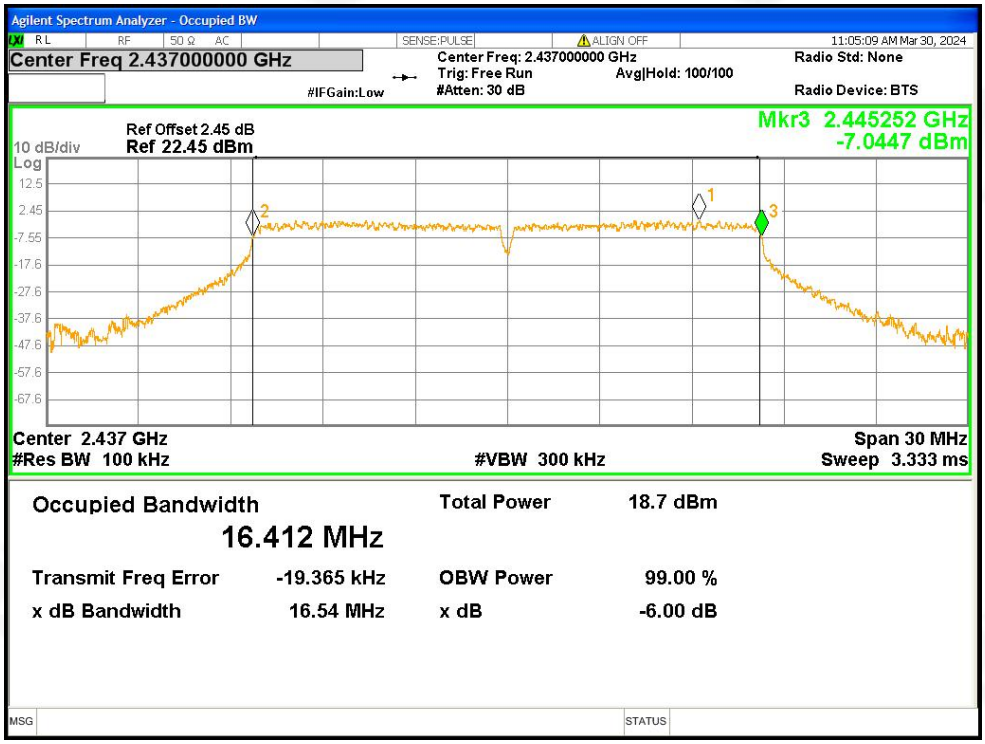
-6dB Bandwidth NVNT b 2437MHz Ant1



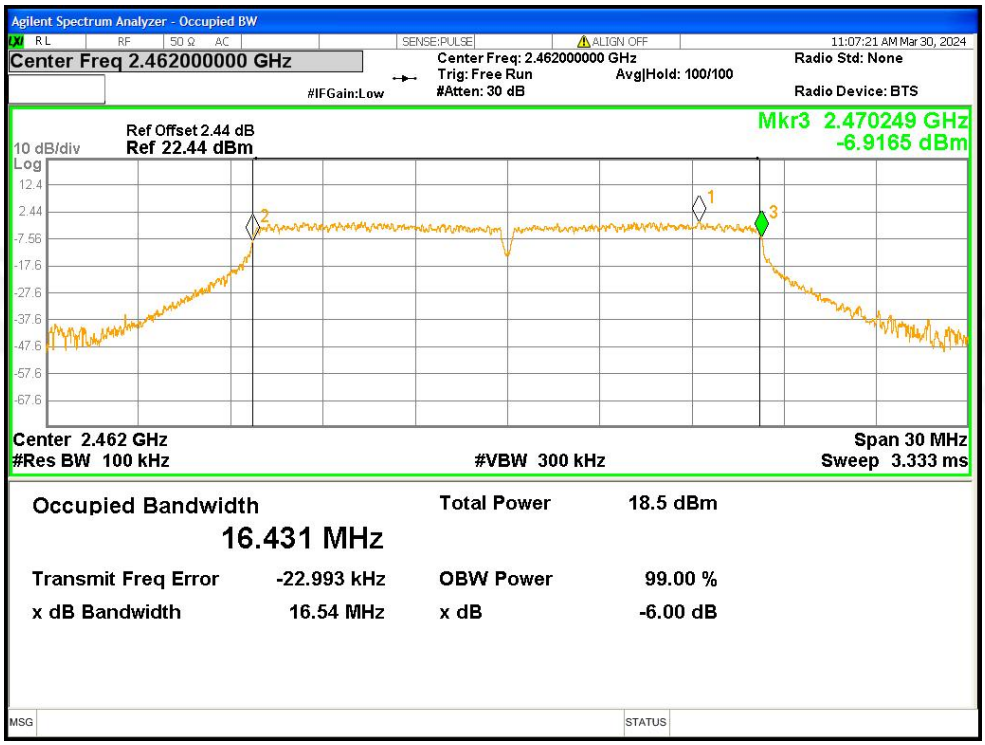
-6dB Bandwidth NVNT b 2462MHz Ant1



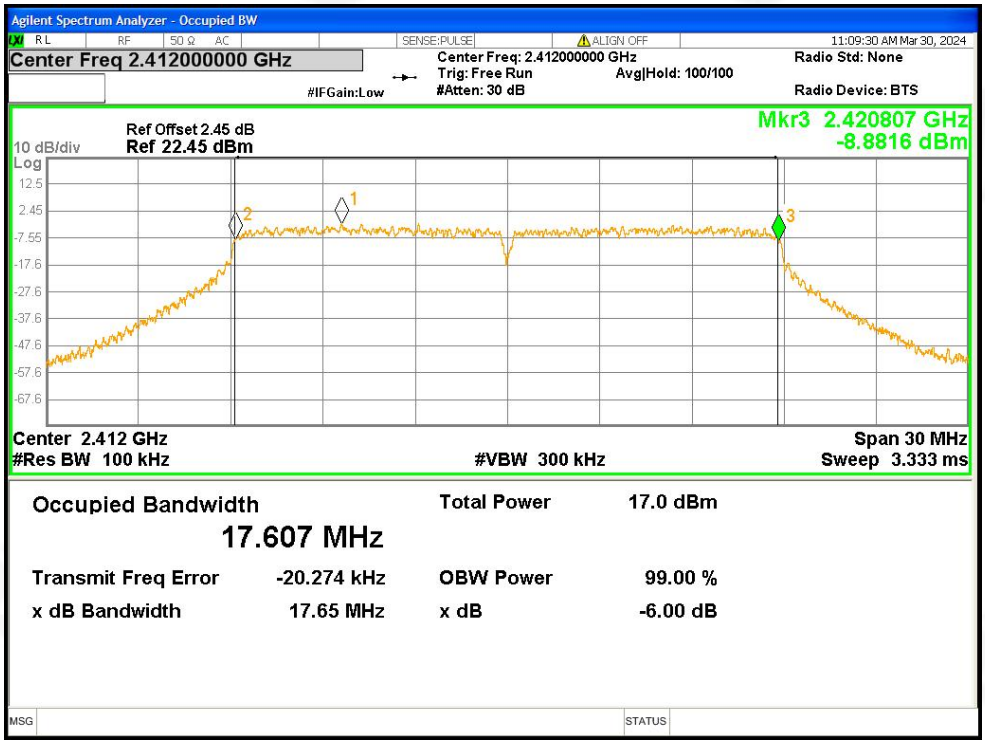
-6dB Bandwidth NVNT g 2412MHz Ant1



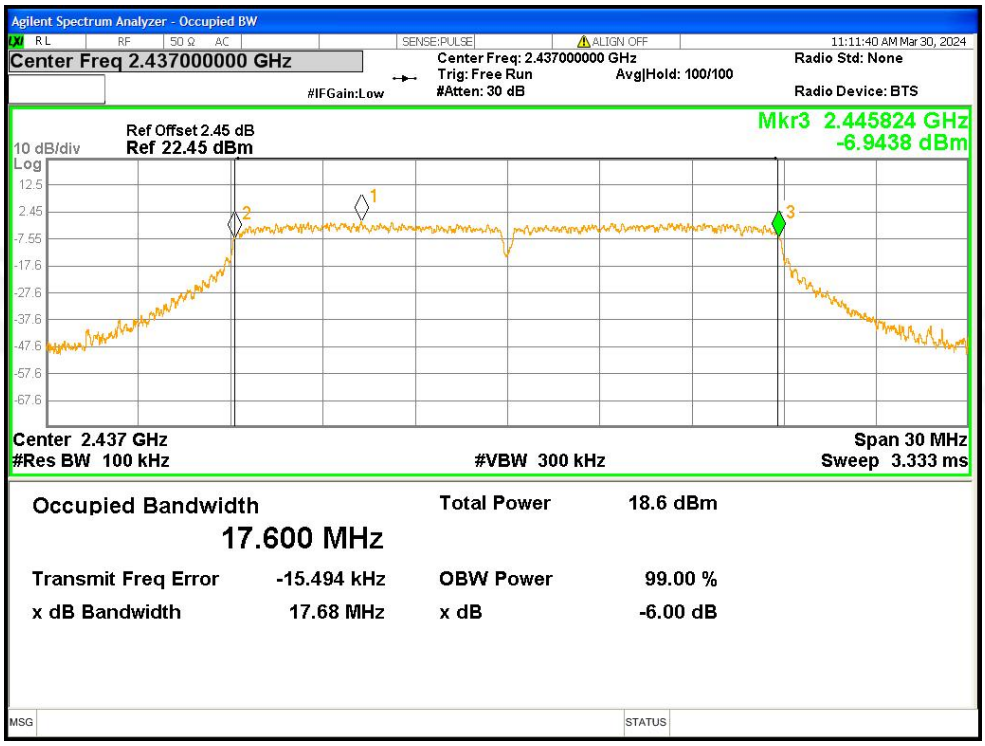
-6dB Bandwidth NVNT g 2437MHz Ant1



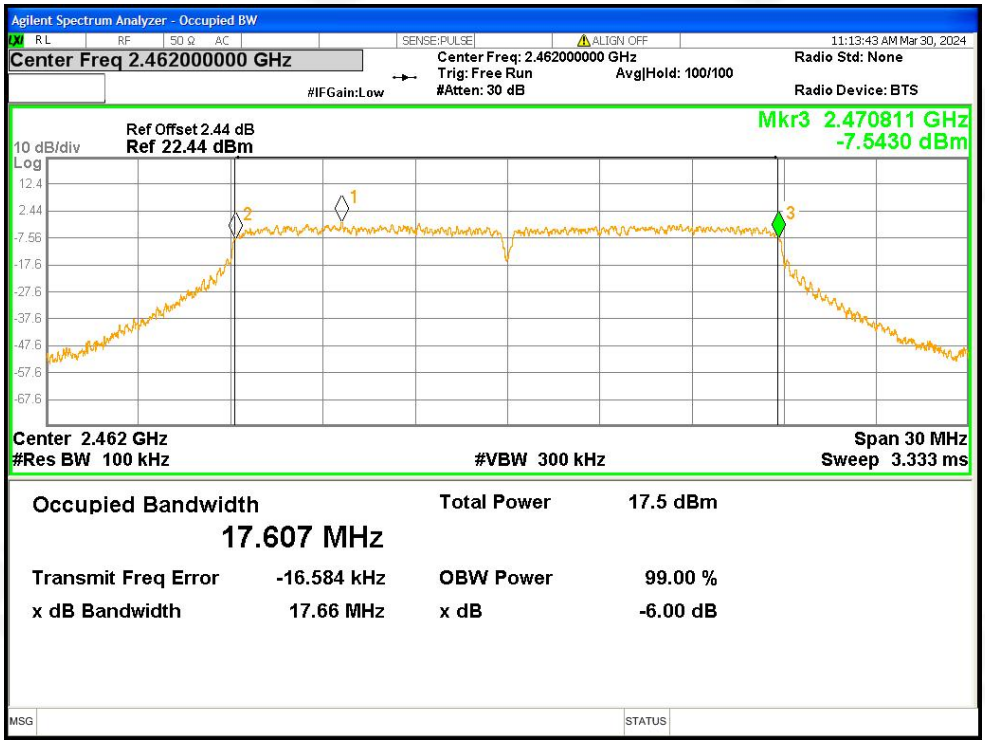
-6dB Bandwidth NVNT g 2462MHz Ant1



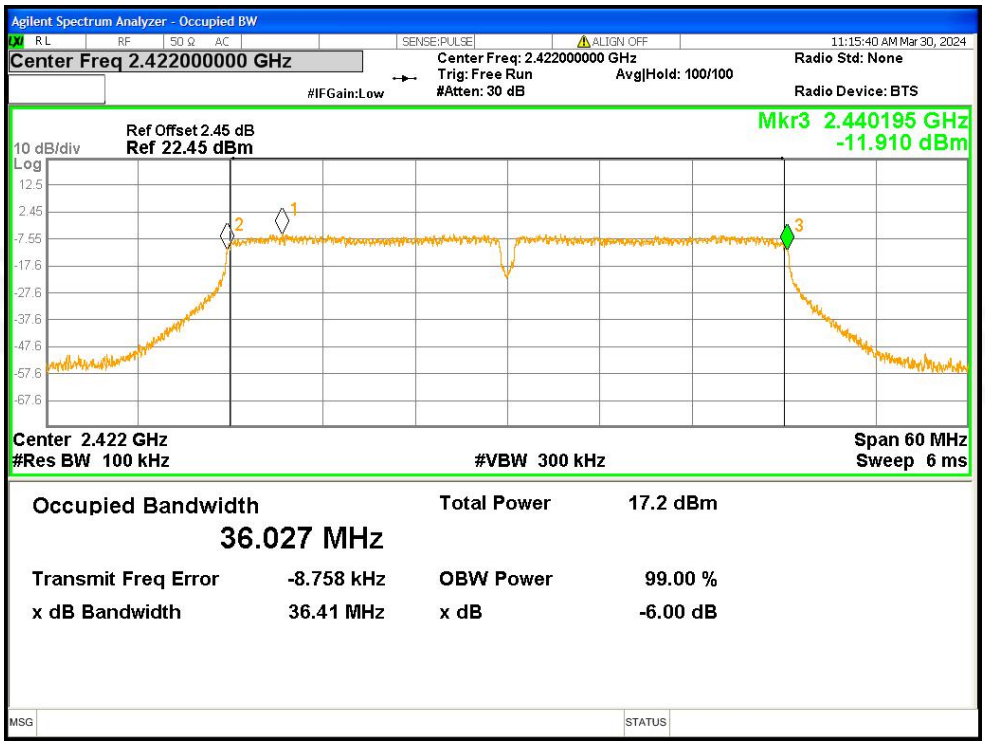
-6dB Bandwidth NVNT n20 2412MHz Ant1



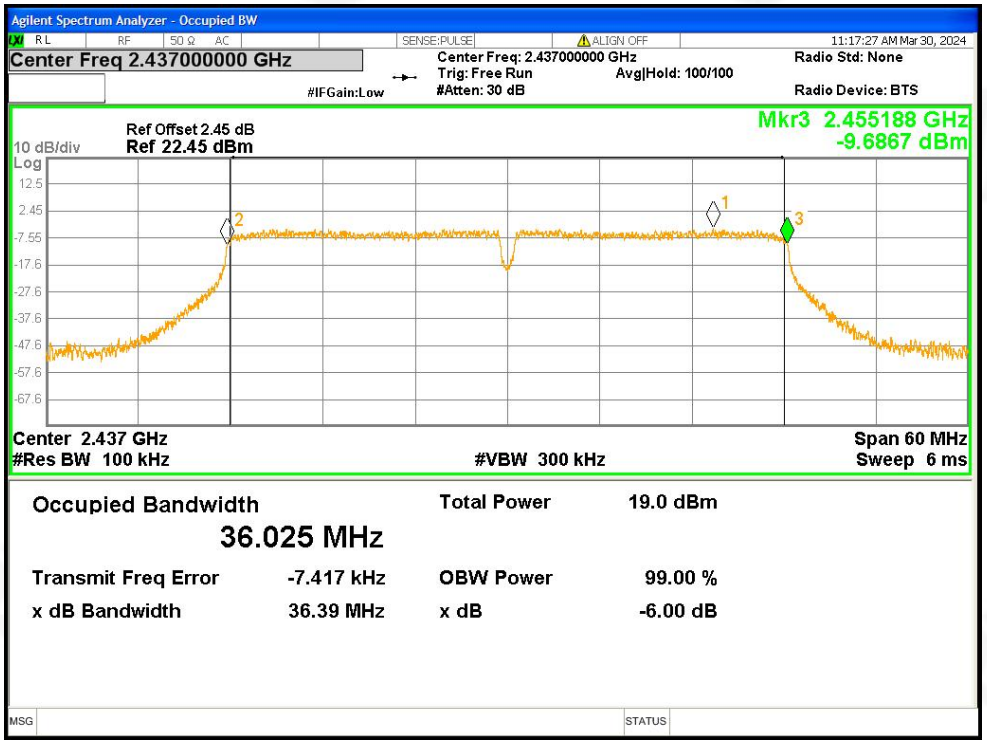
-6dB Bandwidth NVNT n20 2437MHz Ant1



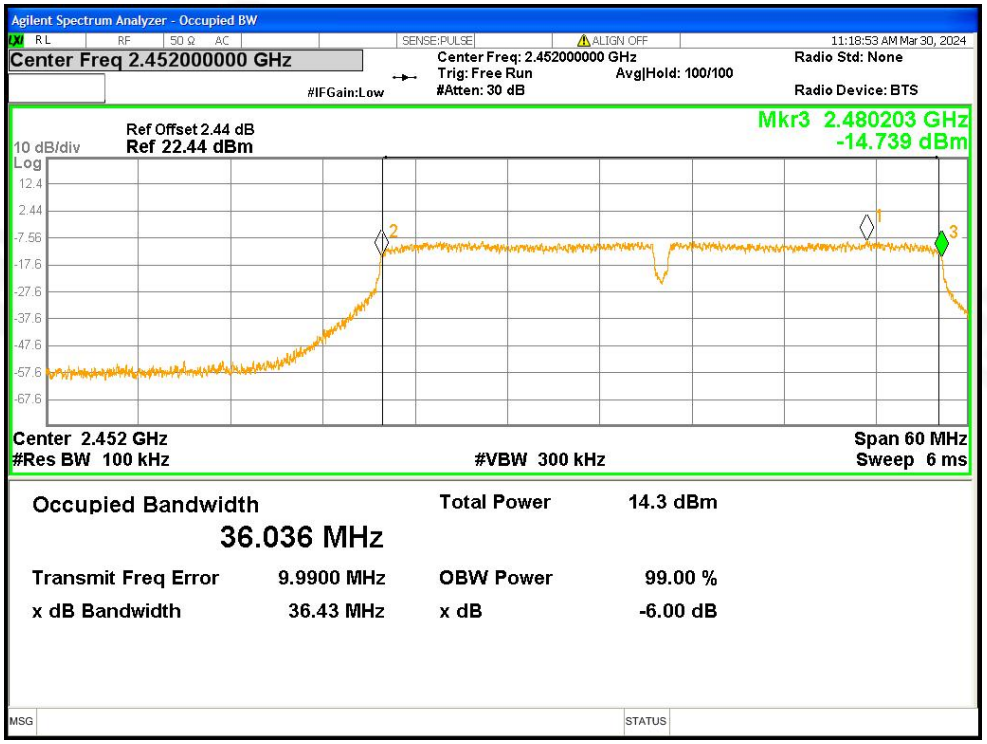
-6dB Bandwidth NVNT n20 2462MHz Ant1



-6dB Bandwidth NVNT n40 2422MHz Ant1



-6dB Bandwidth NVNT n40 2437MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant1

8.PEAK OUTPUT POWER TEST

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

8.1 APPLIED PROCEDURES/LIMIT

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

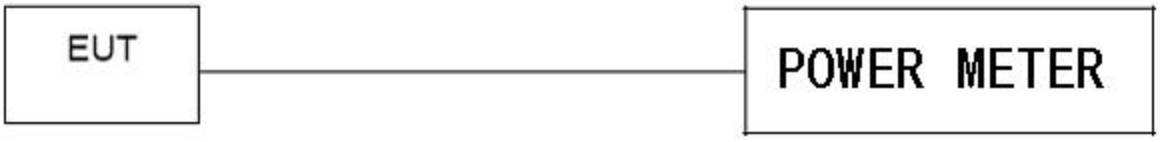
8.2 TEST PROCEDURE

a. The EUT was directly connected to the Power meter

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP



8.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

8.6 TEST RESULT

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant0	15.61	0	15.61	30	Pass
b	2437	Ant0	15.32	0	15.32	30	Pass
b	2462	Ant0	15.09	0	15.09	30	Pass
g	2412	Ant0	16.03	0	16.03	30	Pass
g	2437	Ant0	15.96	0	15.96	30	Pass
g	2462	Ant0	15.78	0	15.78	30	Pass
n20	2412	Ant0	14.25	0	14.25	30	Pass
n20	2437	Ant0	16.01	0	16.01	30	Pass
n20	2462	Ant0	14.8	0	14.8	30	Pass
n40	2422	Ant0	14.42	0	14.42	30	Pass
n40	2437	Ant0	**16.14**	0	16.14	30	Pass
n40	2452	Ant0	14.11	0	14.11	30	Pass

Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
b	2412	Ant1	16.11	0	16.11	30	Pass
b	2437	Ant1	15.33	0	15.33	30	Pass
b	2462	Ant1	15.31	0	15.31	30	Pass
g	2412	Ant1	16.1	0	16.1	30	Pass
g	2437	Ant1	16.01	0	16.01	30	Pass
g	2462	Ant1	15.9	0	15.9	30	Pass
n20	2412	Ant1	14.36	0	14.36	30	Pass
n20	2437	Ant1	16.03	0	16.03	30	Pass
n20	2462	Ant1	14.86	0	14.86	30	Pass
n40	2422	Ant1	14.44	0	14.44	30	Pass
n40	2437	Ant1	**16.21**	0	16.21	30	Pass
n40	2452	Ant1	14.42	0	10.42	30	Pass

ANT0+ANT1

Mode	Frequency (MHz)	Conducted Power ant 0 (dBm)	Conducted Power ant 1 (dBm)	MIMO Conducted Power (dBm)	Limit (dBm)	Verdict
n20	2412	14.25	14.36	17.32	27.71	Pass
n20	2437	16.01	16.03	19.03	27.71	Pass
n20	2462	14.8	14.86	17.84	27.71	Pass
n40	2422	14.42	14.44	17.44	27.71	Pass
n40	2437	16.14	16.21	**19.19**	27.71	Pass
n40	2452	14.11	14.42	17.28	27.71	Pass

EUT suppots MIMO mode for 802.11n mode, Direction Gain=antenna gain+10*log(X)=5.28+3.01=8.29(X is the number of antennas, it is should be 2)
For MIMO mode, as the antenna gain is larger than 6 dBi, then the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

9.1 APPLICABLE STANDARD

in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in§15.205(a), must also comply with the radiated emission limits specified in15.209(a).

9.2 TEST PROCEDURE

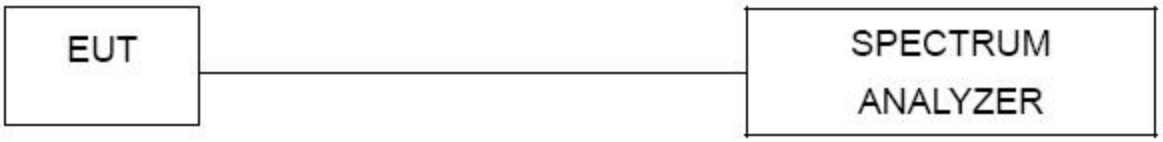
Using the following spectrum analyzer setting:

A) Set the RBW = 100KHz.
B) Set the VBW = 300KHz.
C) Sweep time = auto couple.
D) Detector function = peak.
E) Trace mode = max hold.
F) Allow trace to fully stabilize.

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



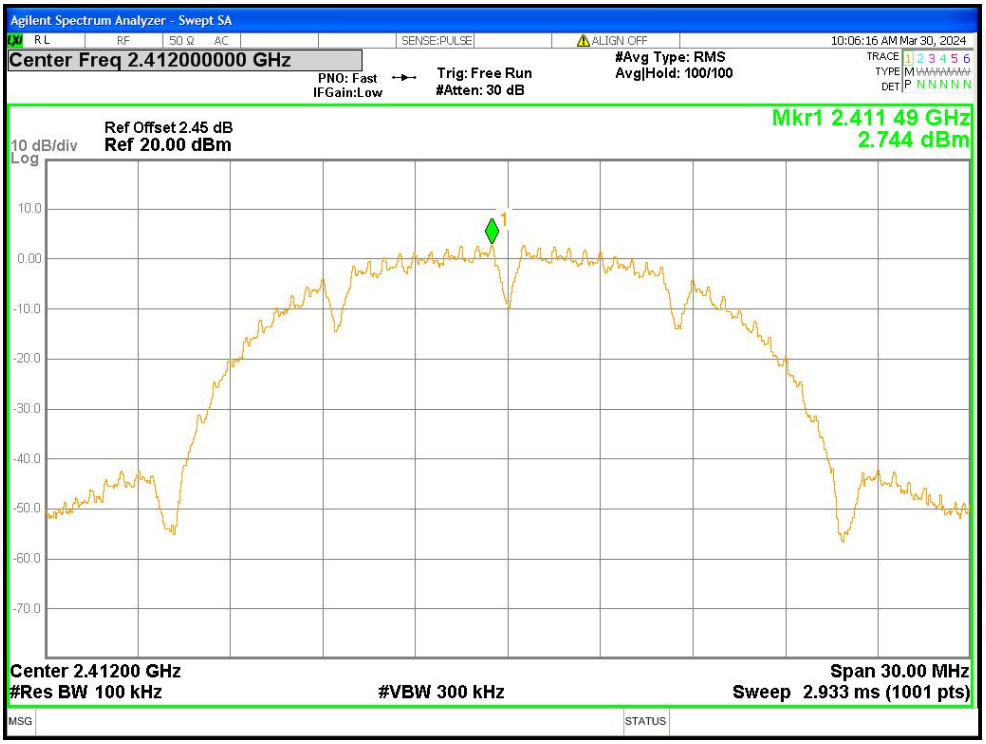
9.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

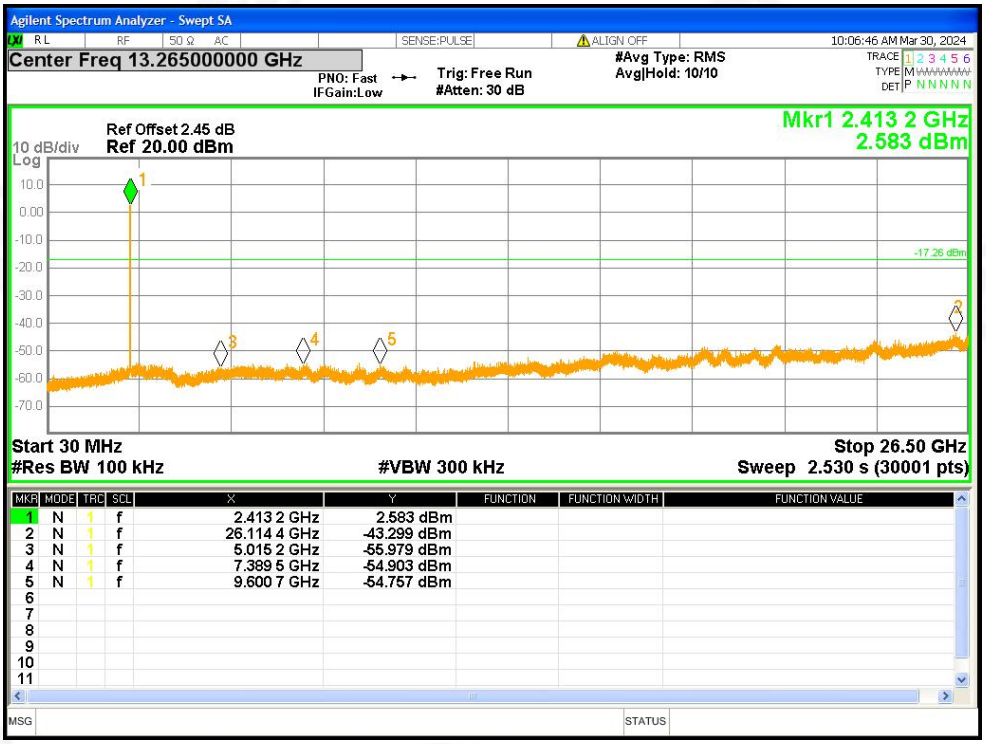
9.6 TEST RESULTS

For 802.11n, the antenna factor 10*log(2)=8.29dB is added to the final test table.

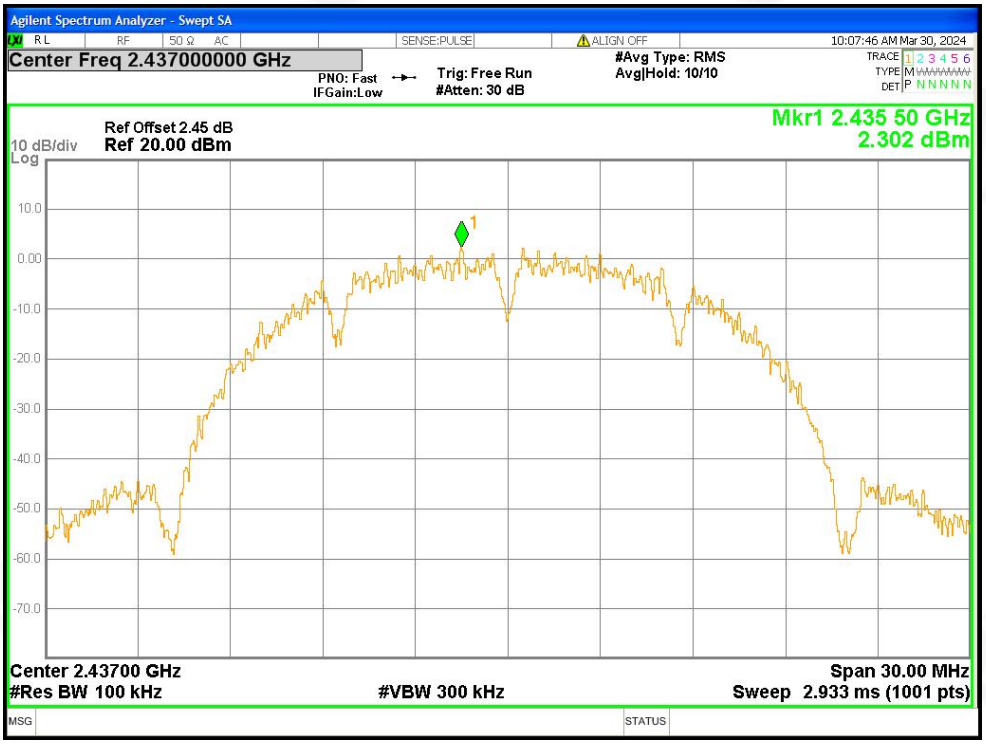
All in the worst-case mode



Tx. Spurious NVNT b 2412MHz Ant0 Ref



Tx. Spurious NVNT b 2412MHz Ant0 Emission



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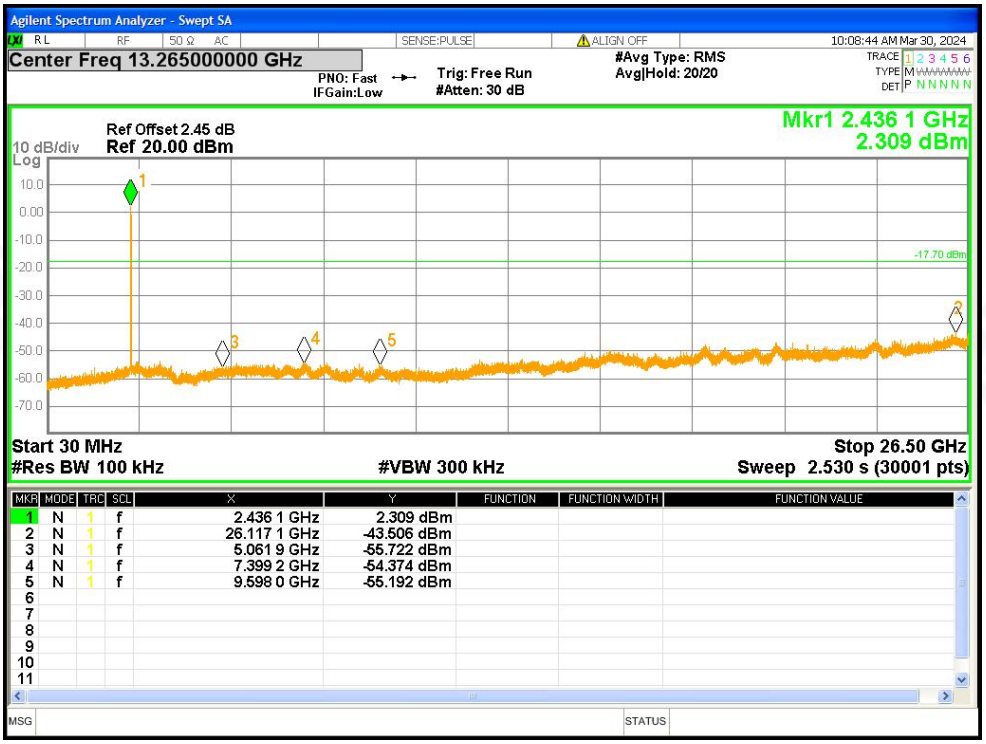

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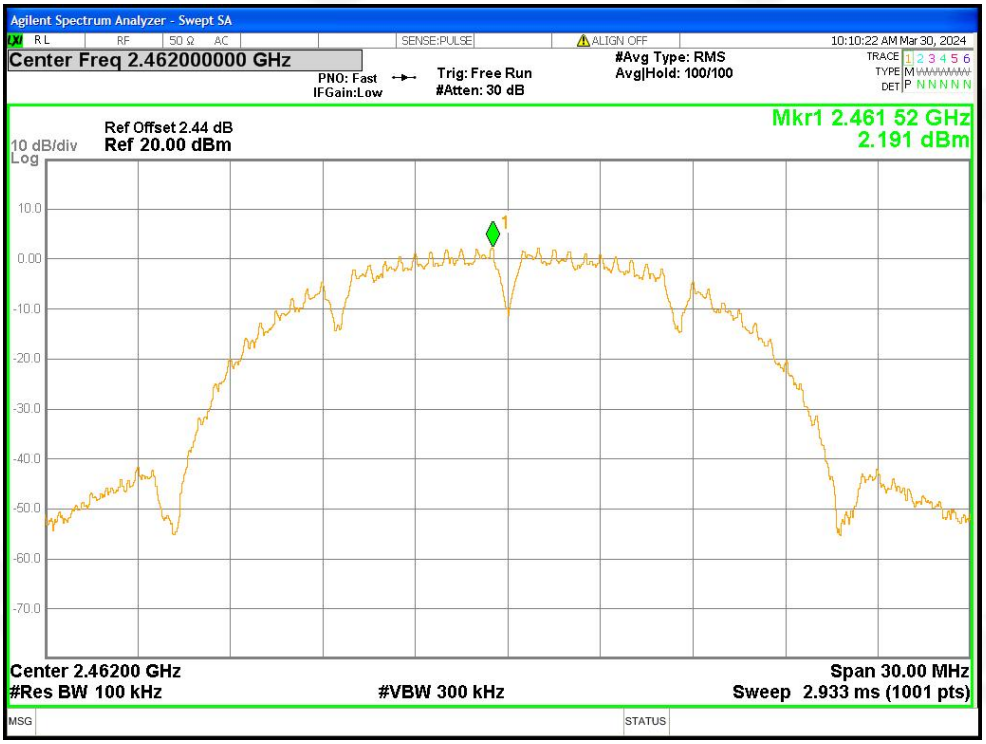

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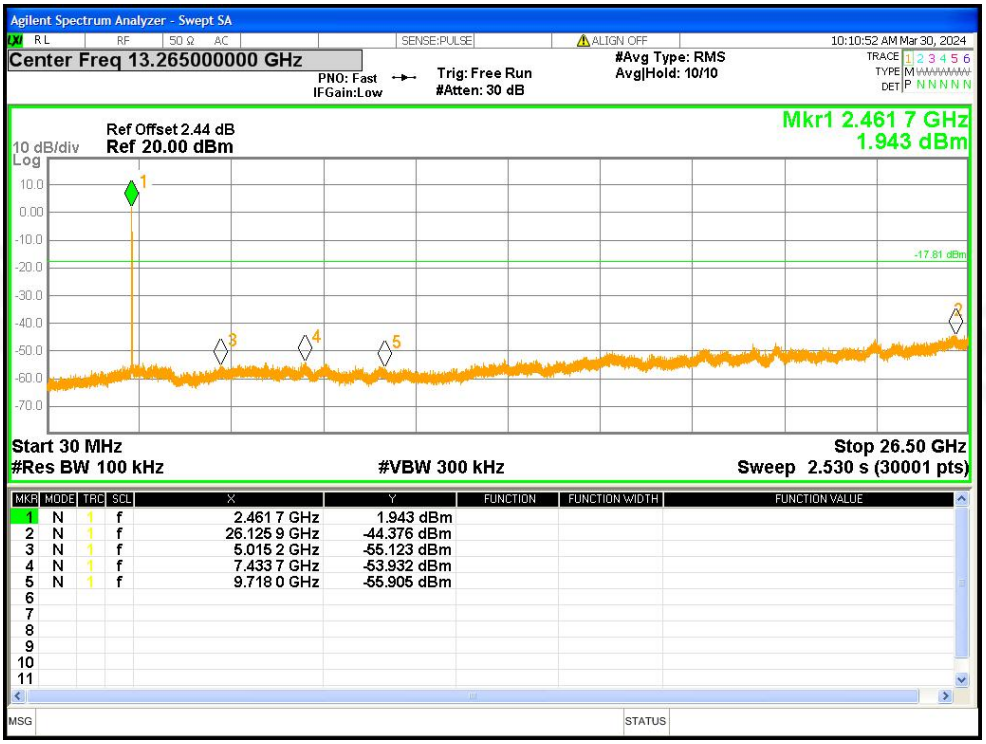

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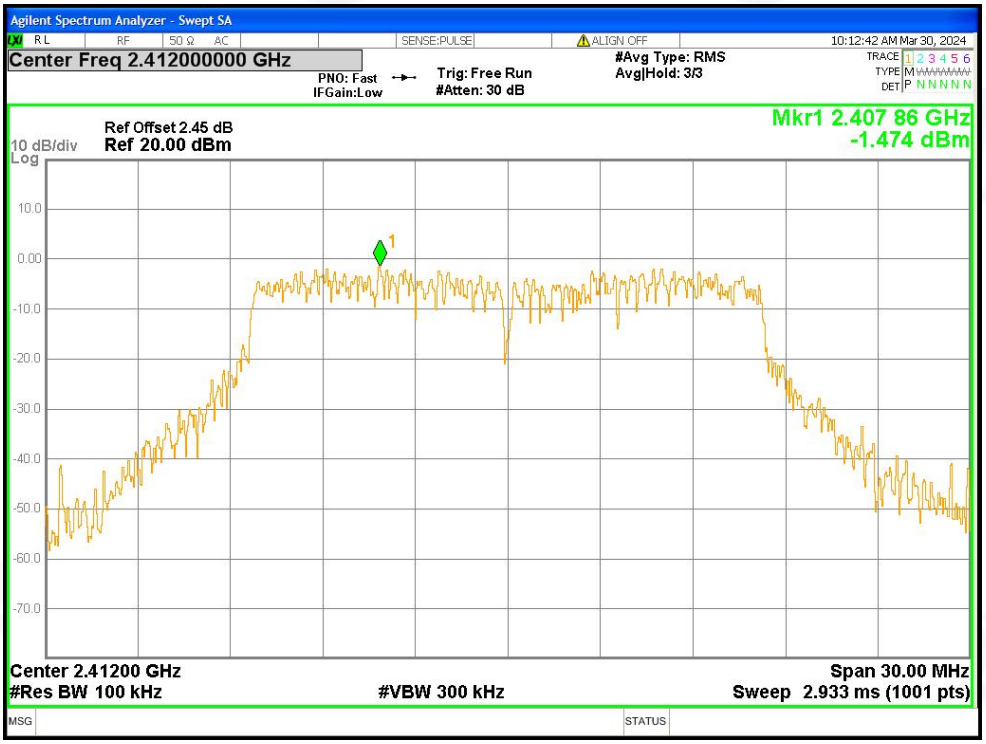

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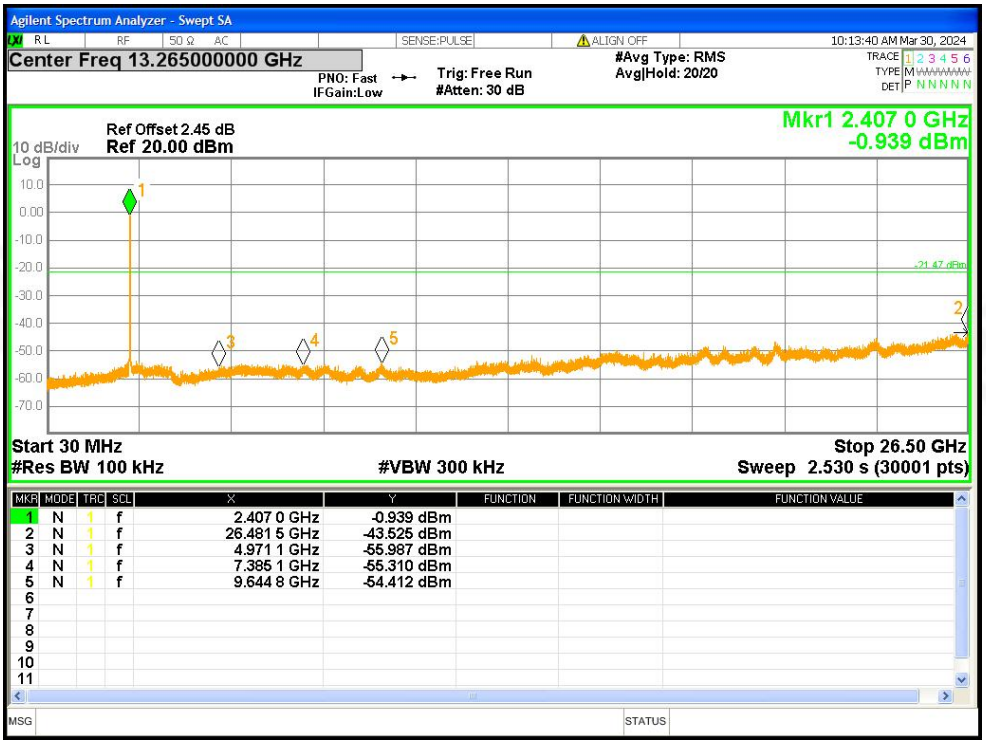

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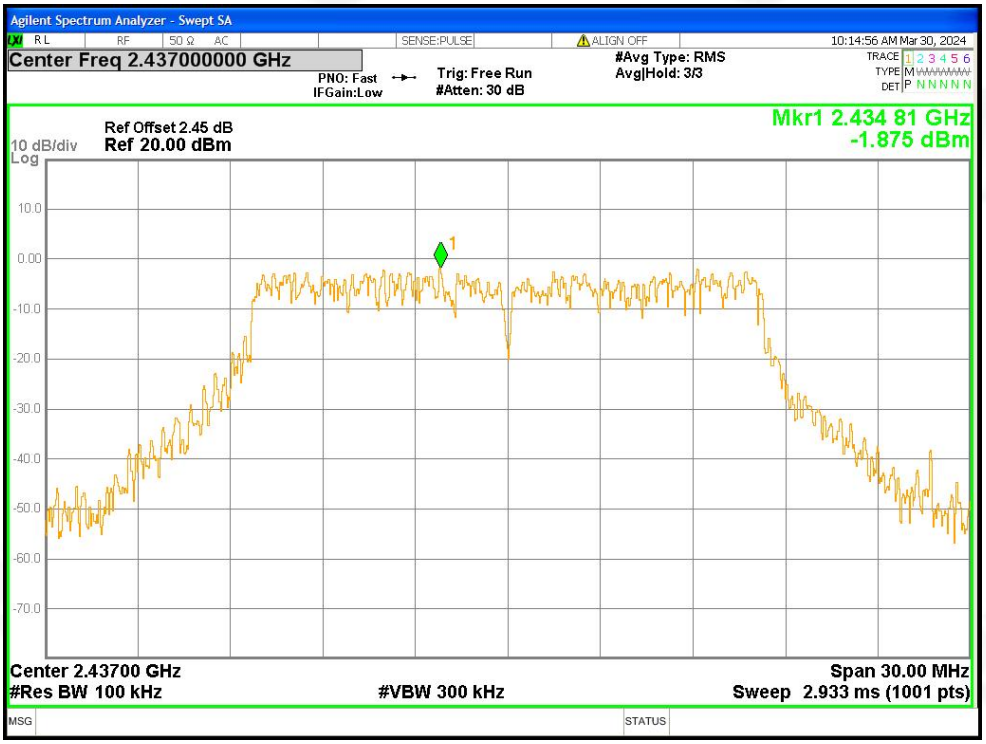

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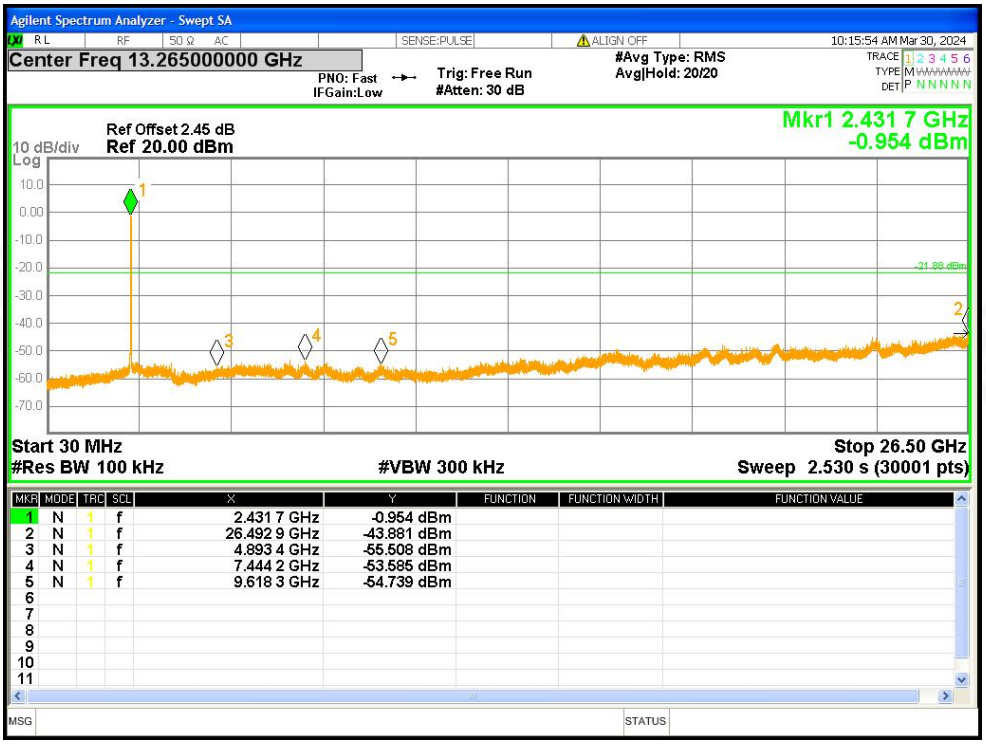
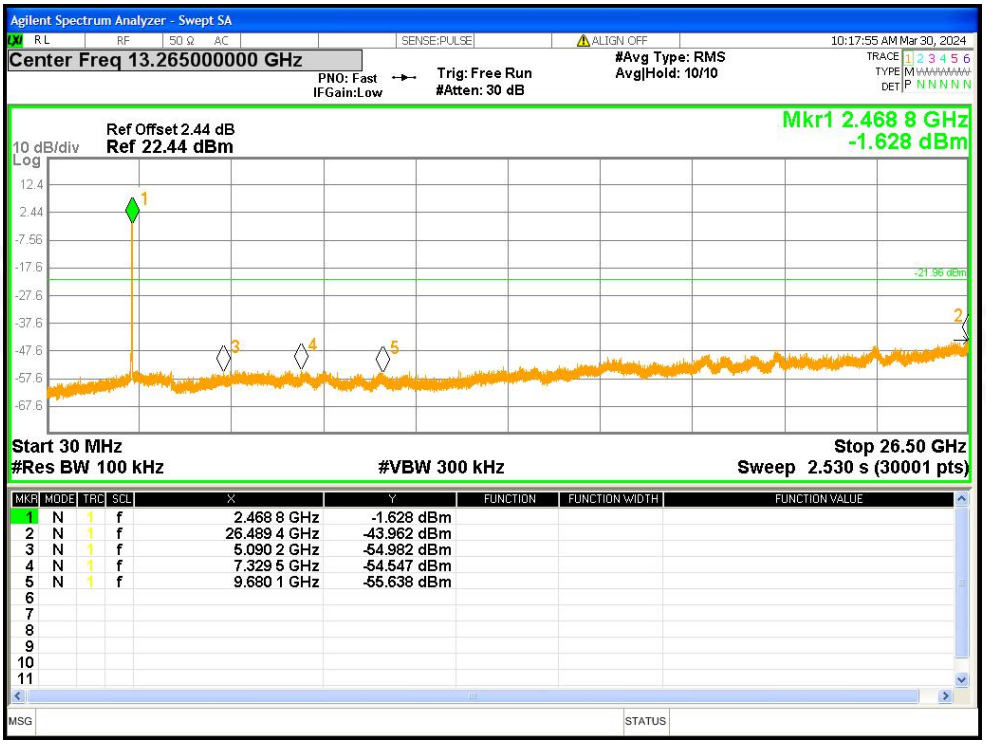


Tx. Spurious NVNT g 2437MHz Ant0 Emission

Tx. Spurious NVNT g 2462MHz Ant0 Ref



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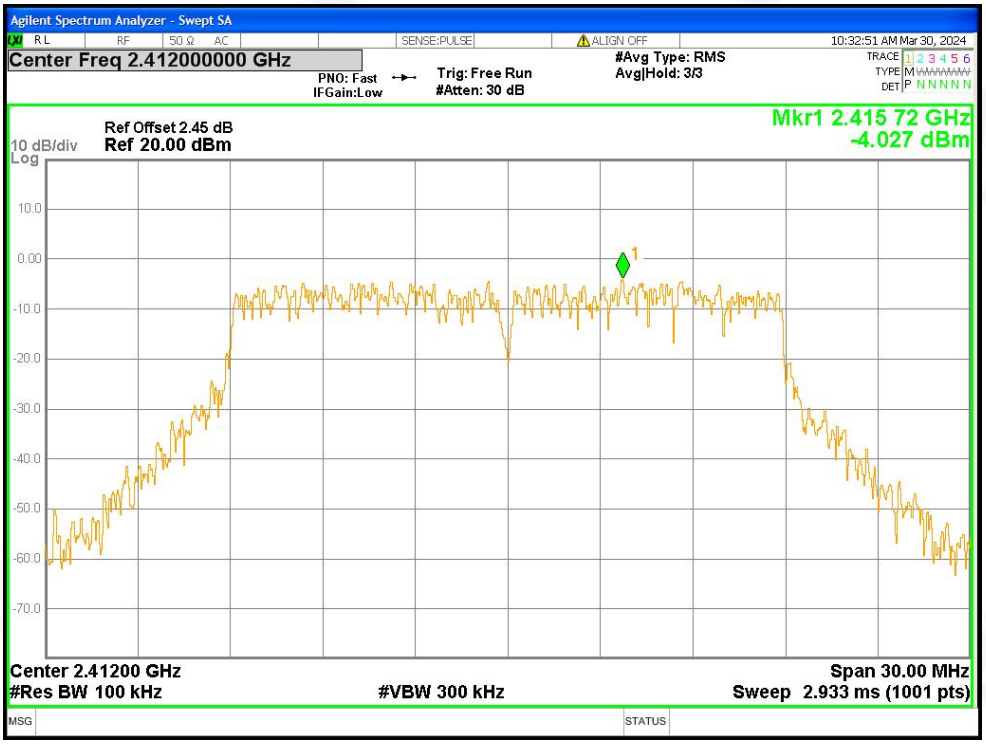

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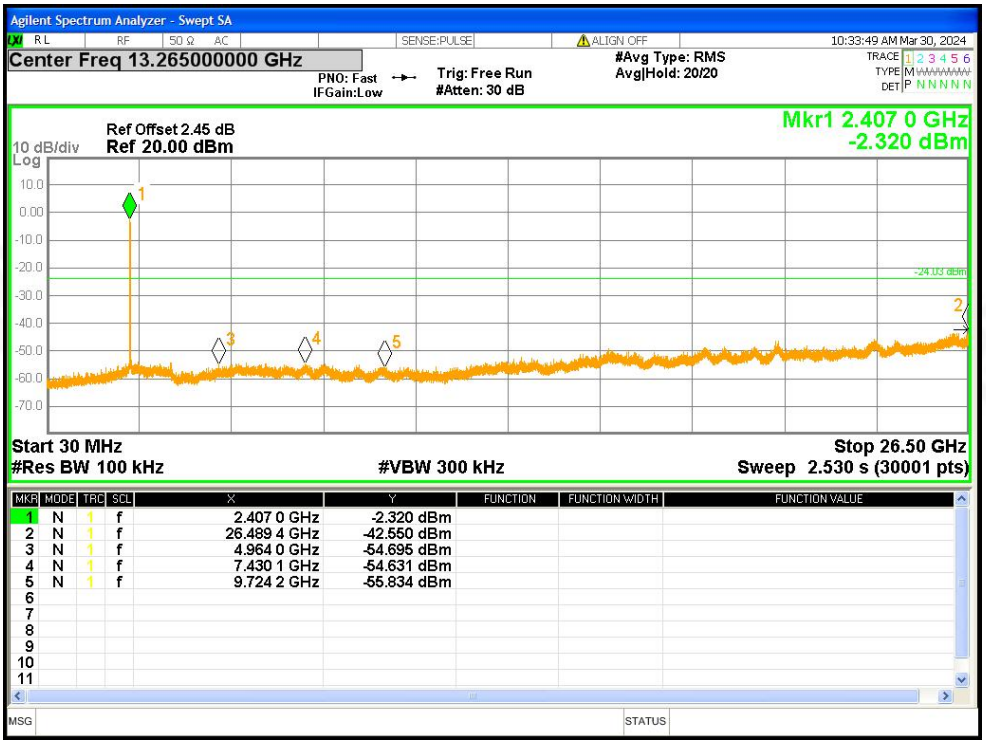

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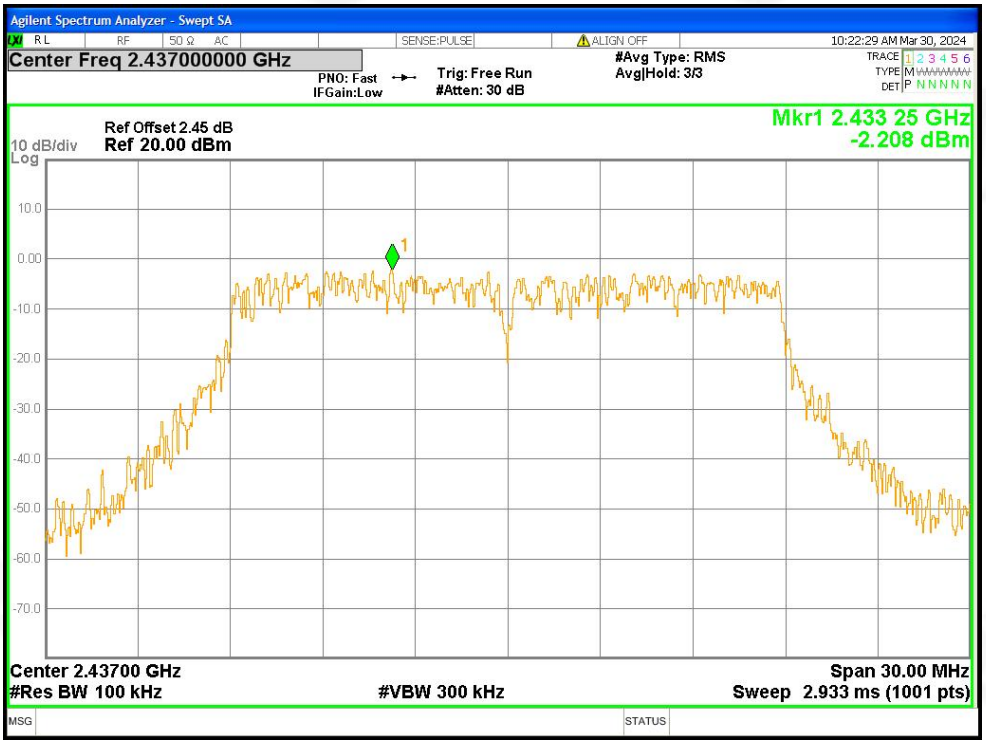

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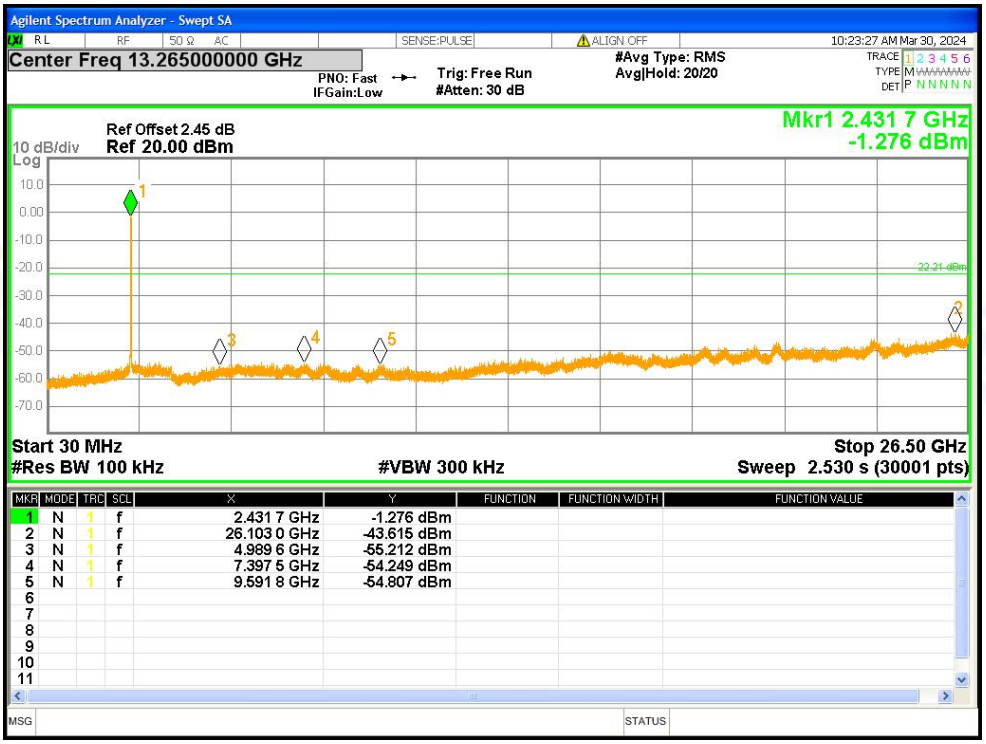

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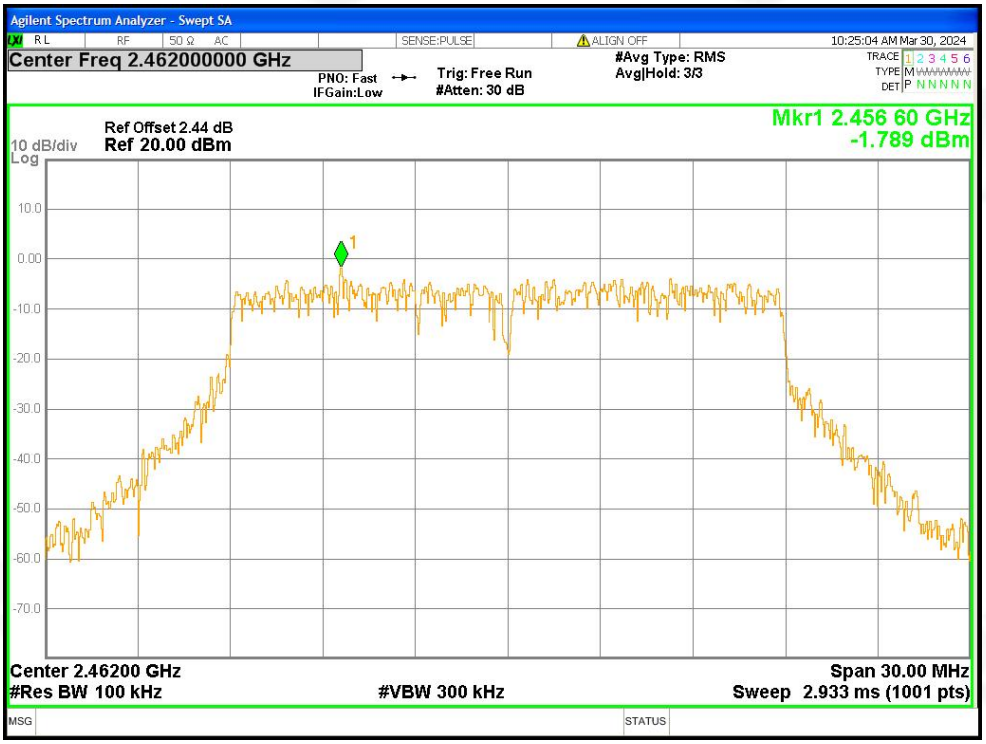

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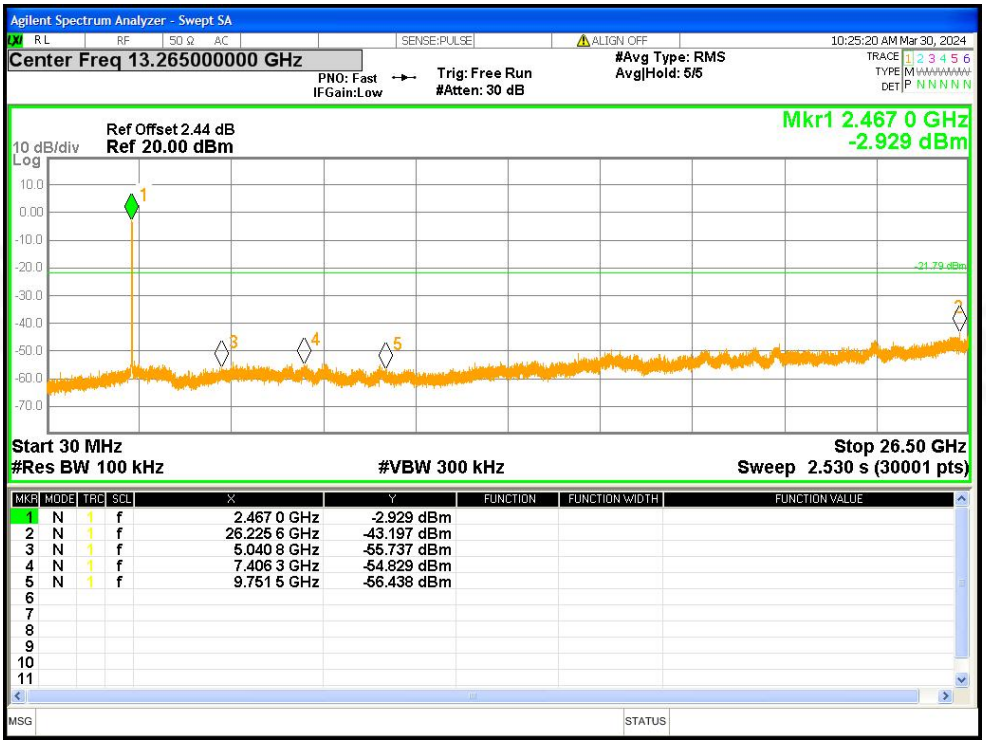

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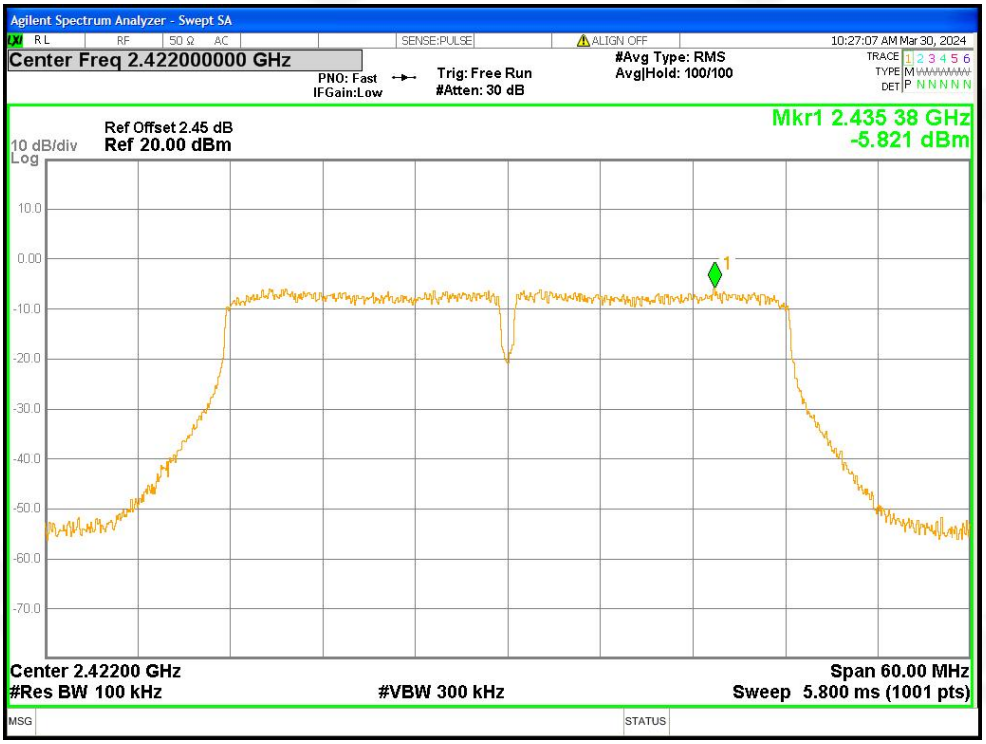
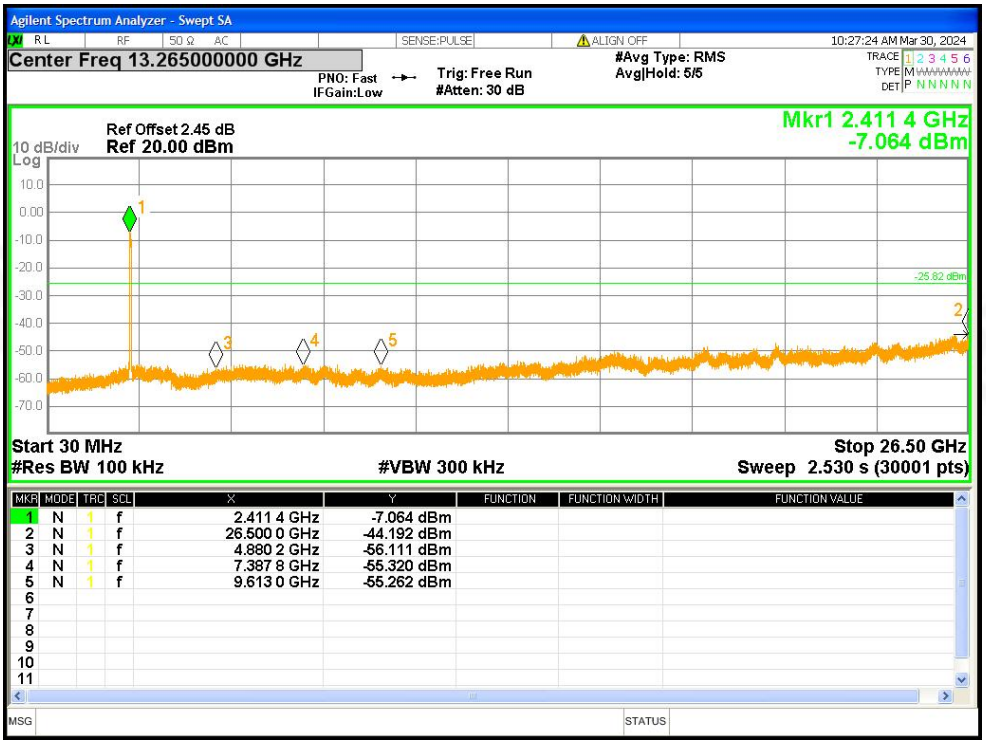


Tx. Spurious NVNT n40 2422MHz Ant0 Ref



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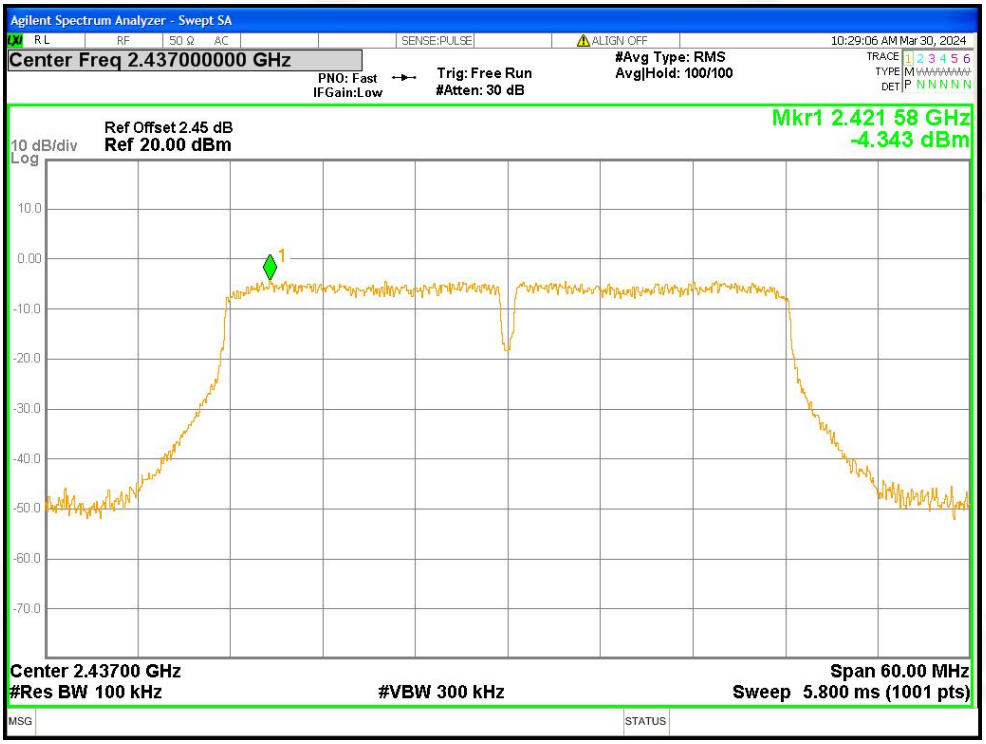

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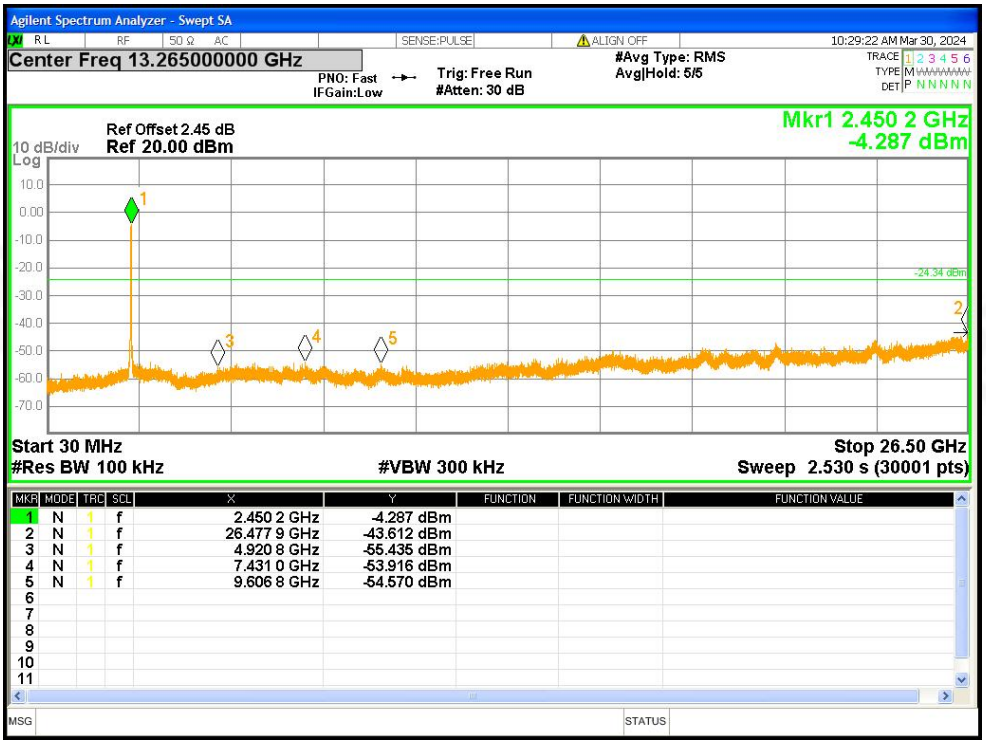
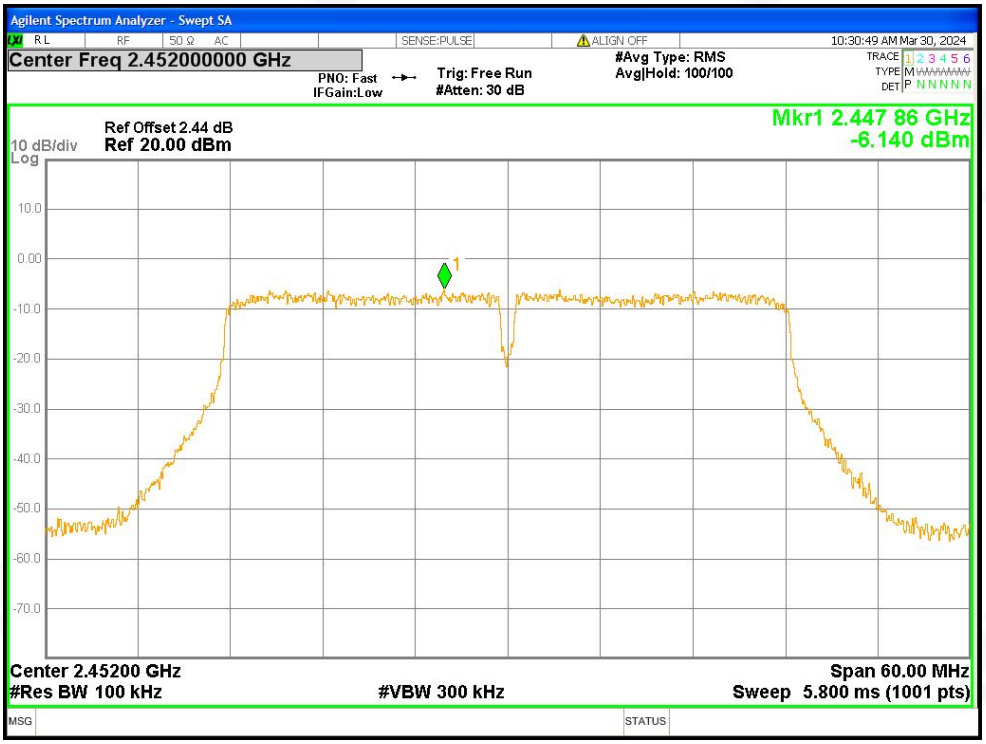
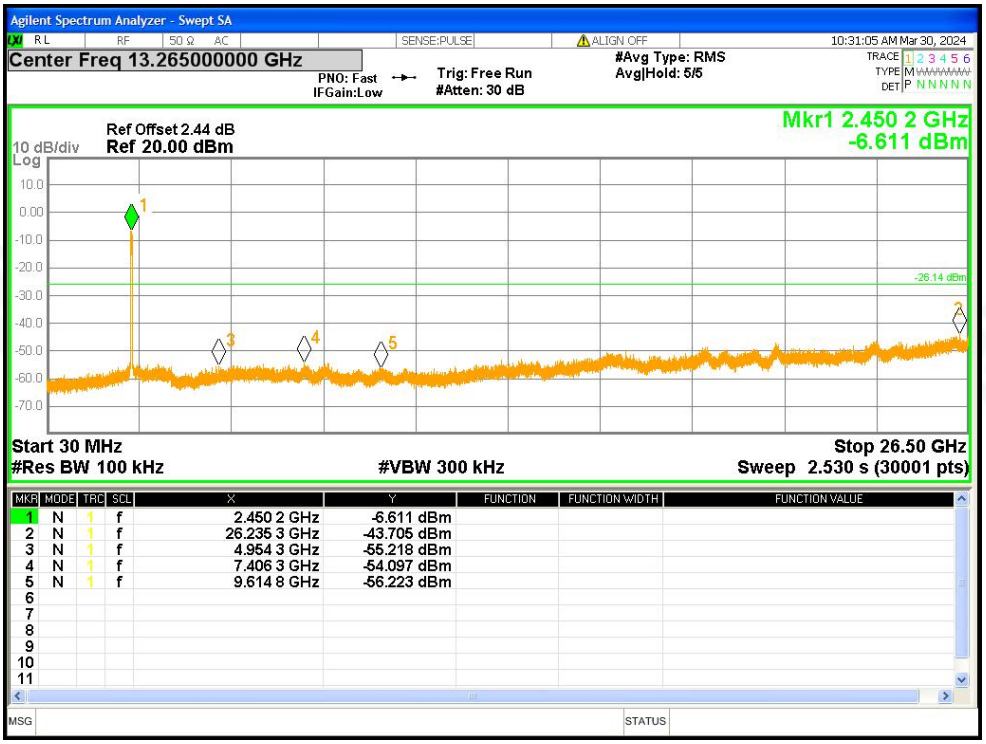


Tx. Spurious NVNT n40 2437MHz Ant0 Emission



Tx. Spurious NVNT n40 2452MHz Ant0 Ref



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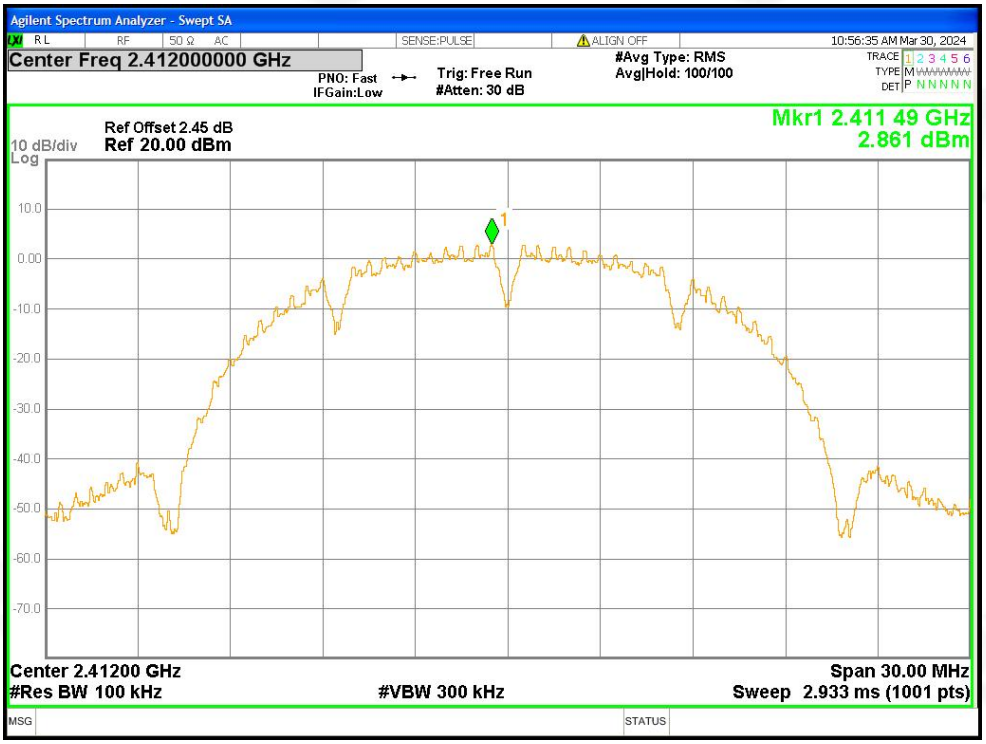
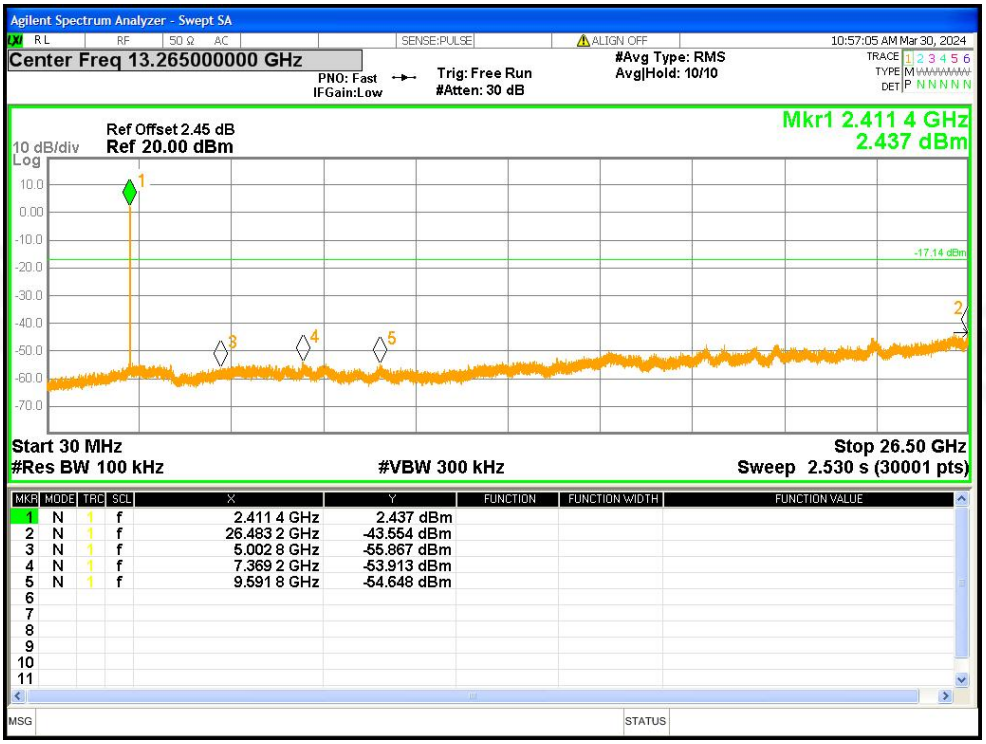
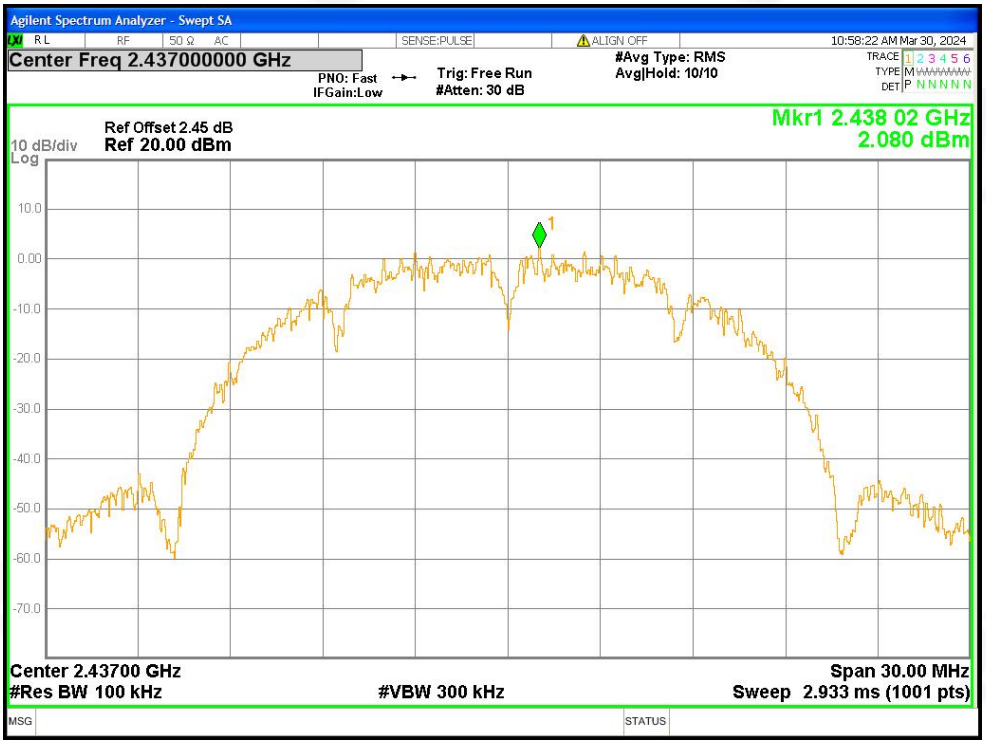


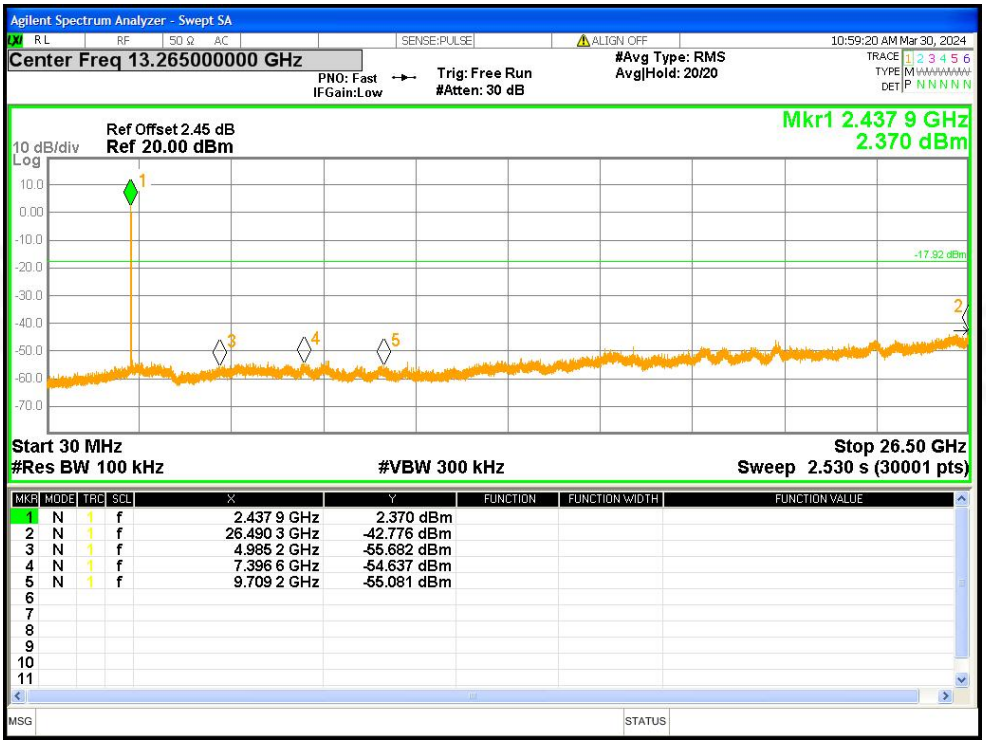
Tx. Spurious NVNT b 2412MHz Ant1 Ref



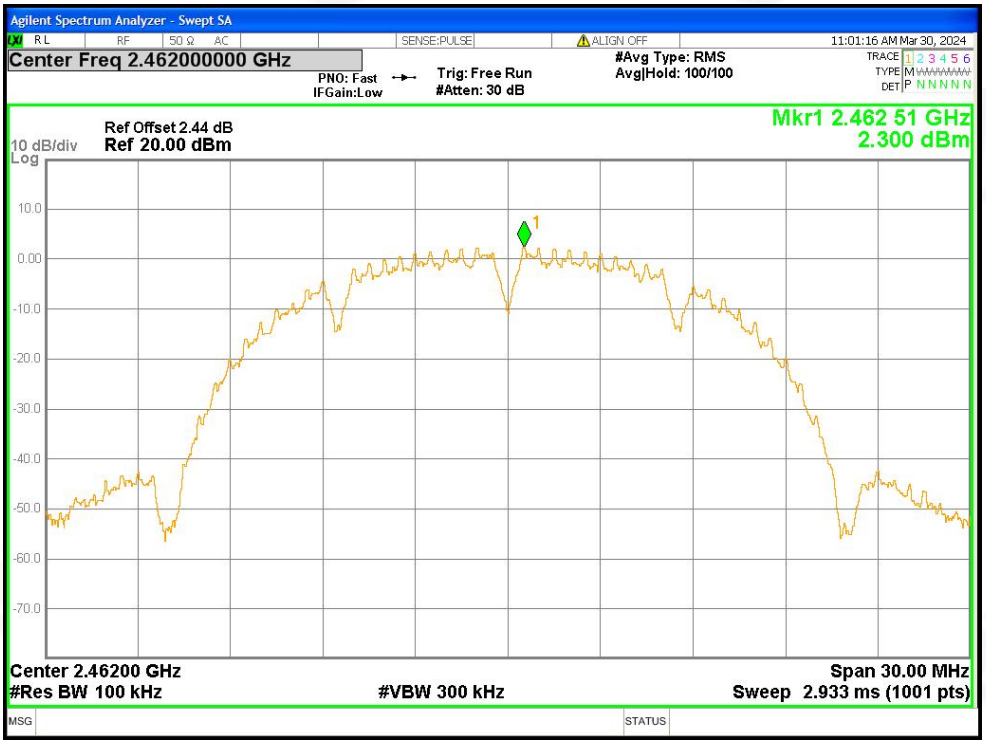
Tx. Spurious NVNT b 2412MHz Ant1 Emission



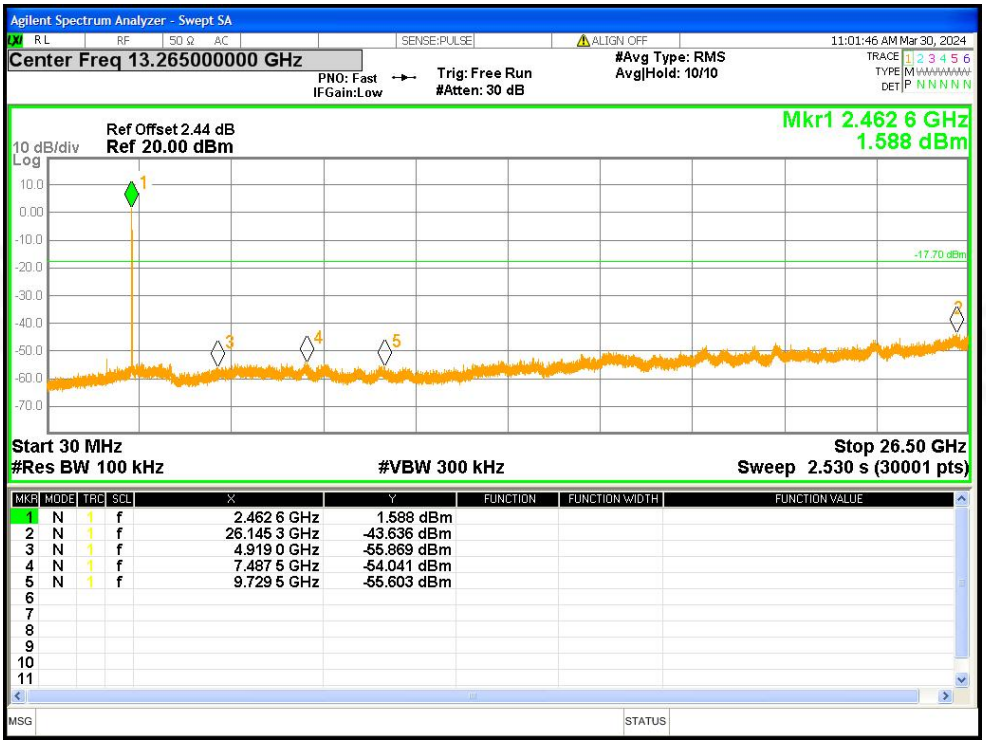
Tx. Spurious NVNT b 2437MHz Ant1 Ref



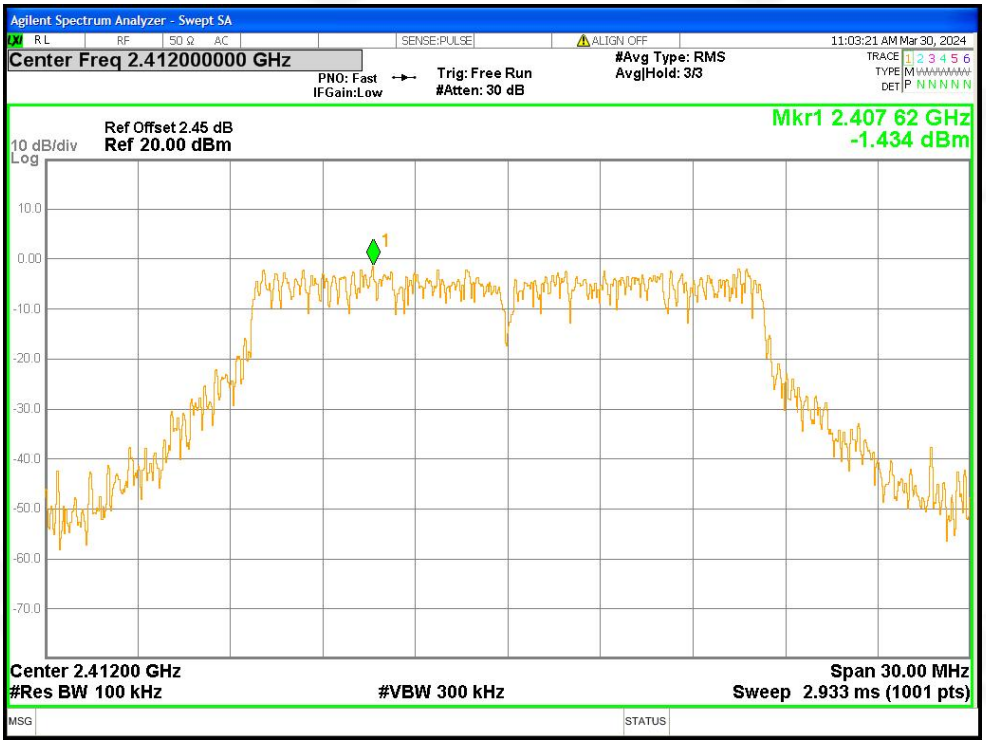
Tx. Spurious NVNT b 2437MHz Ant1 Emission



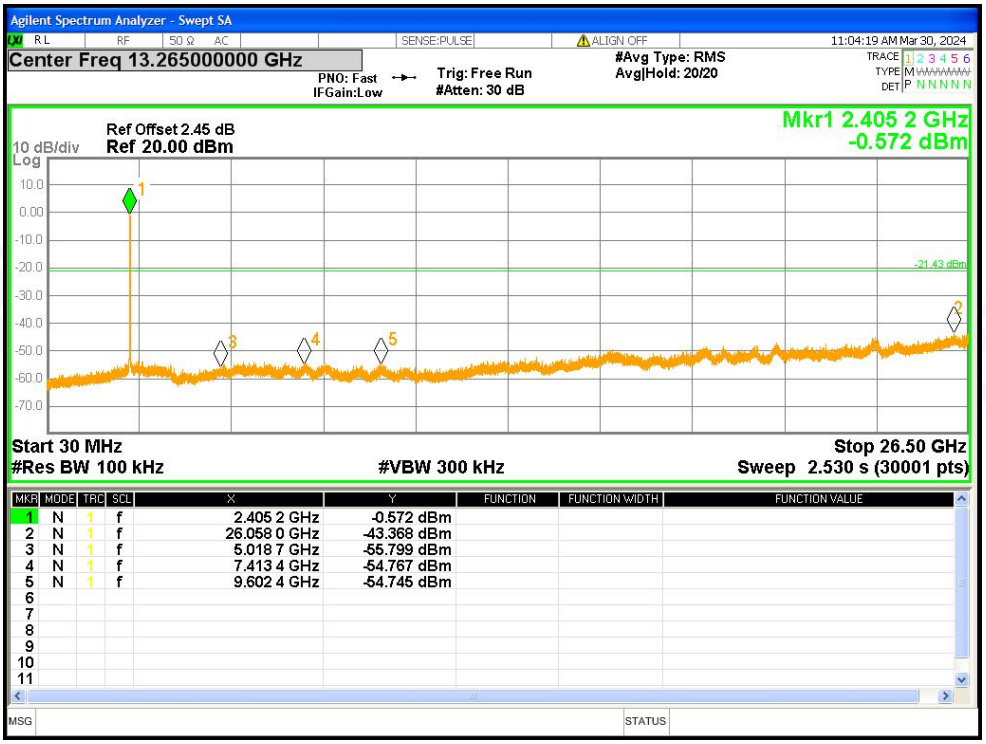
Tx. Spurious NVNT b 2462MHz Ant1 Ref



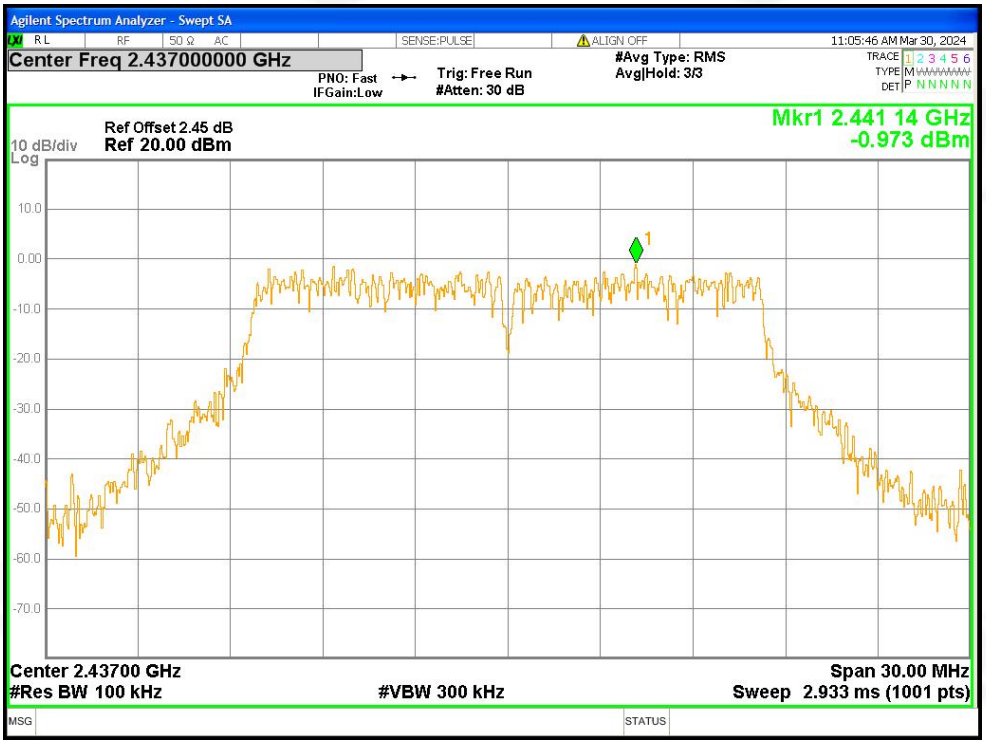
Tx. Spurious NVNT b 2462MHz Ant1 Emission



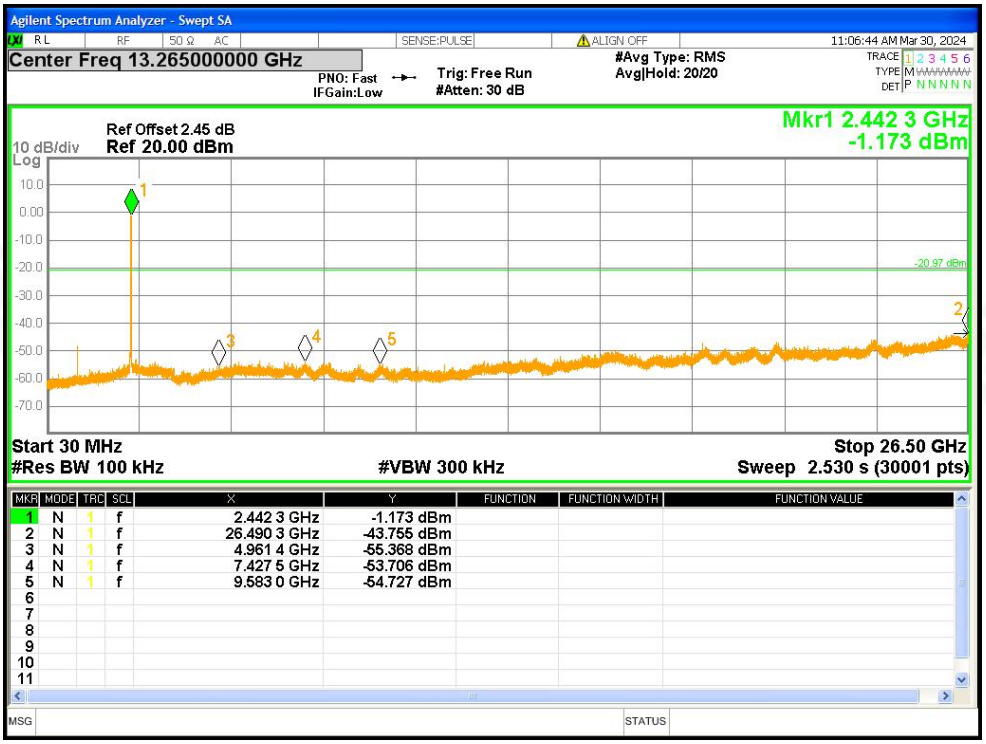
Tx. Spurious NVNT g 2412MHz Ant1 Ref



Tx. Spurious NVNT g 2412MHz Ant1 Emission



Tx. Spurious NVNT g 2437MHz Ant1 Ref



Tx. Spurious NVNT g 2437MHz Ant1 Emission