

FCC Appendix RF Test Data for 2.4GWIFI

Company: : CHENGDU XINHONGJIN TECHNOLOGY CO., LTD.

EUT : Laser Engraver

Model Number : M1

FCC ID : 2BQVW-M1

Report No. : CTA25081202301

Reviewed By : Eric Wang

A.1 -6dB Bandwidth

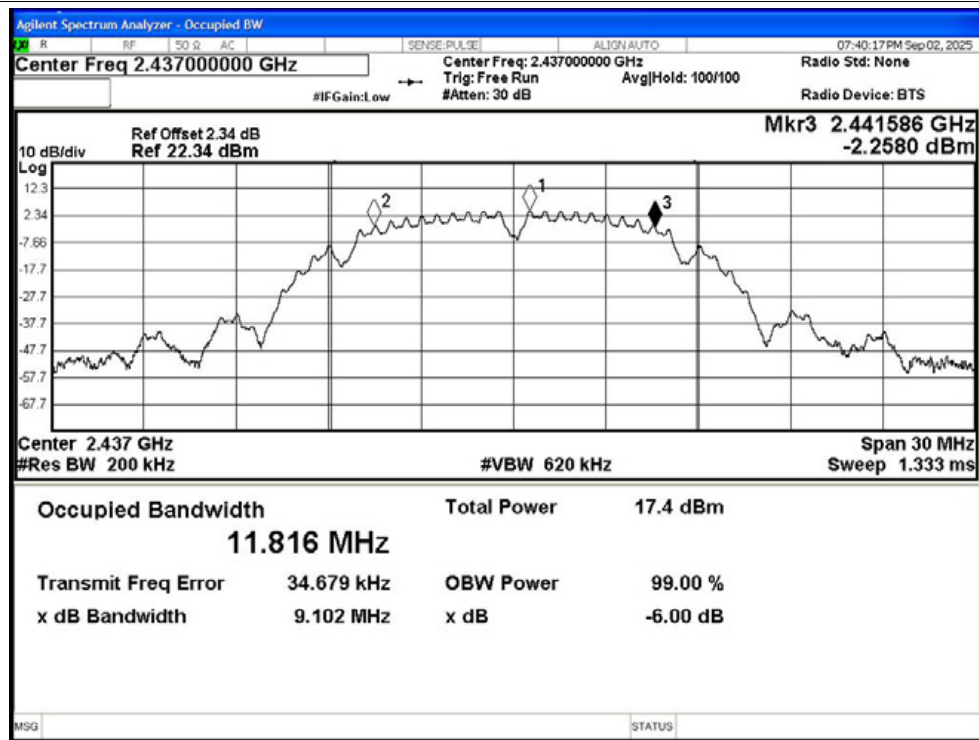
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.096	≥ 0.5	Pass
NVNT	b	2437	Ant1	9.102	≥ 0.5	Pass
NVNT	b	2462	Ant1	9.077	≥ 0.5	Pass
NVNT	g	2412	Ant1	16.299	≥ 0.5	Pass
NVNT	g	2437	Ant1	16.333	≥ 0.5	Pass
NVNT	g	2462	Ant1	16.351	≥ 0.5	Pass
NVNT	n20	2412	Ant1	17.15	≥ 0.5	Pass
NVNT	n20	2437	Ant1	17.286	≥ 0.5	Pass
NVNT	n20	2462	Ant1	17.345	≥ 0.5	Pass
NVNT	n40	2422	Ant1	36.062	≥ 0.5	Pass
NVNT	n40	2437	Ant1	35.757	≥ 0.5	Pass
NVNT	n40	2452	Ant1	35.763	≥ 0.5	Pass

Test Graphs

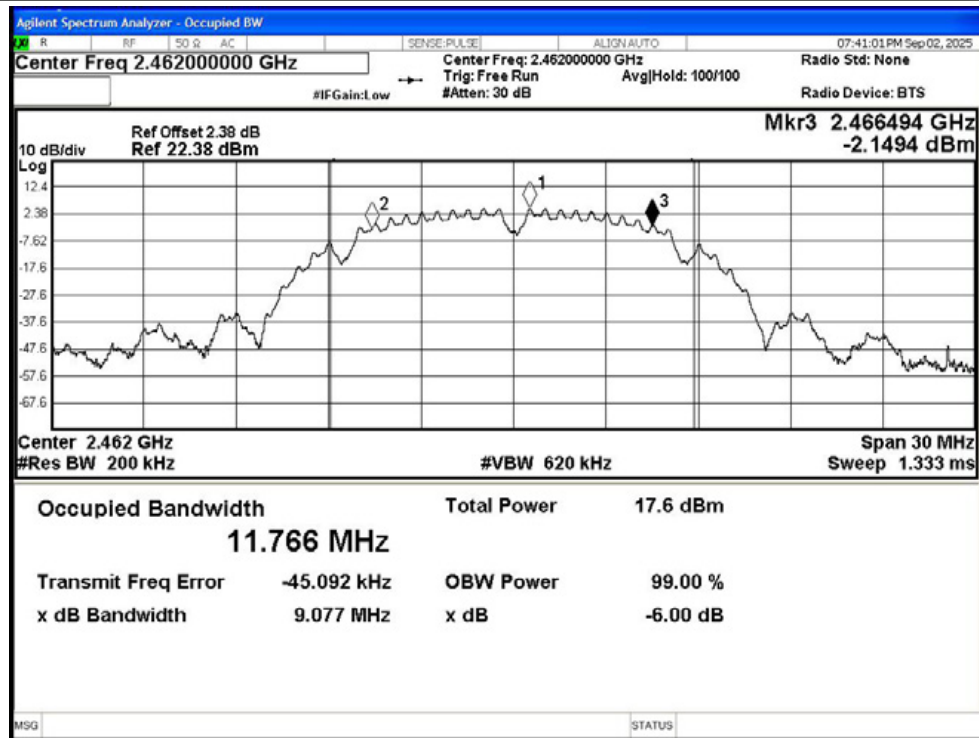
-6dB Bandwidth NVNT b 2412MHz Ant1



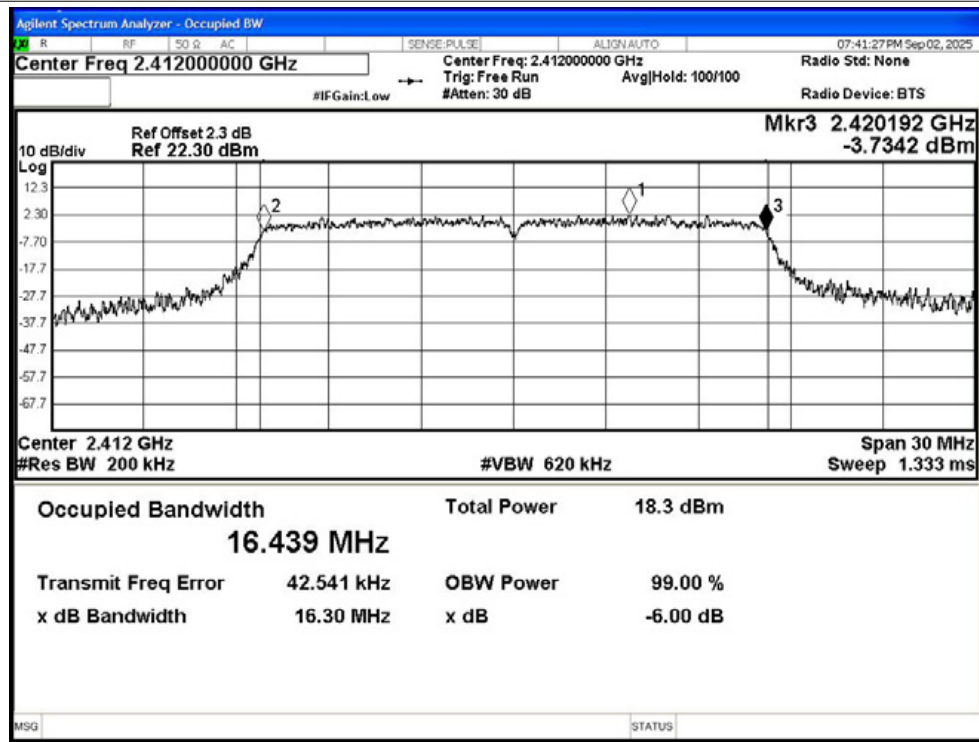
-6dB Bandwidth NVNT b 2437MHz Ant1



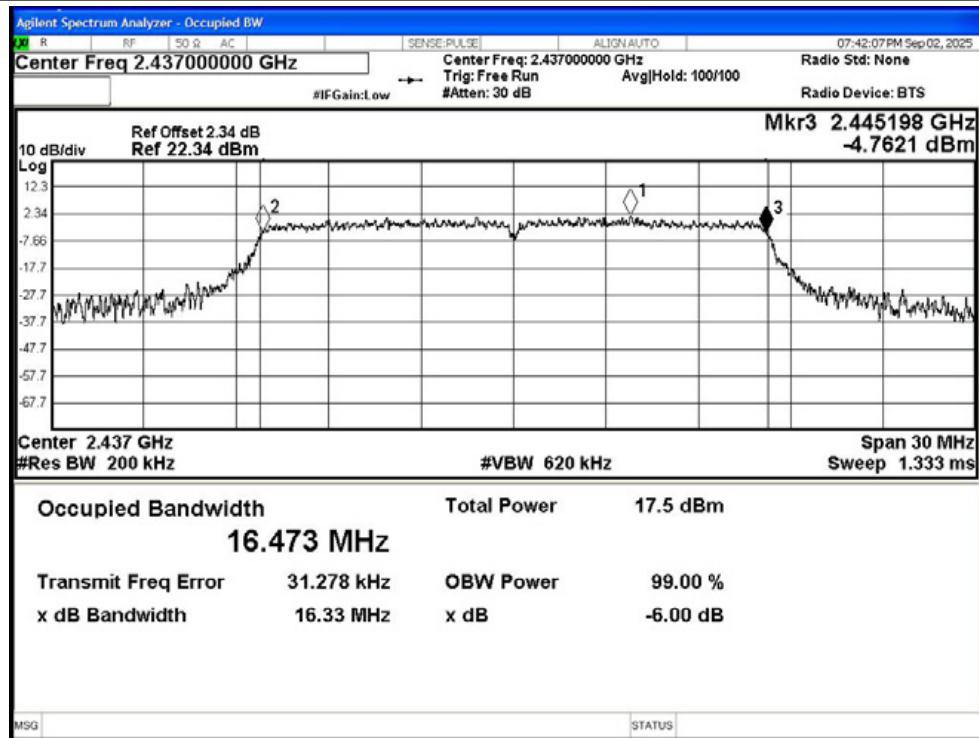
-6dB Bandwidth NVNT b 2462MHz Ant1



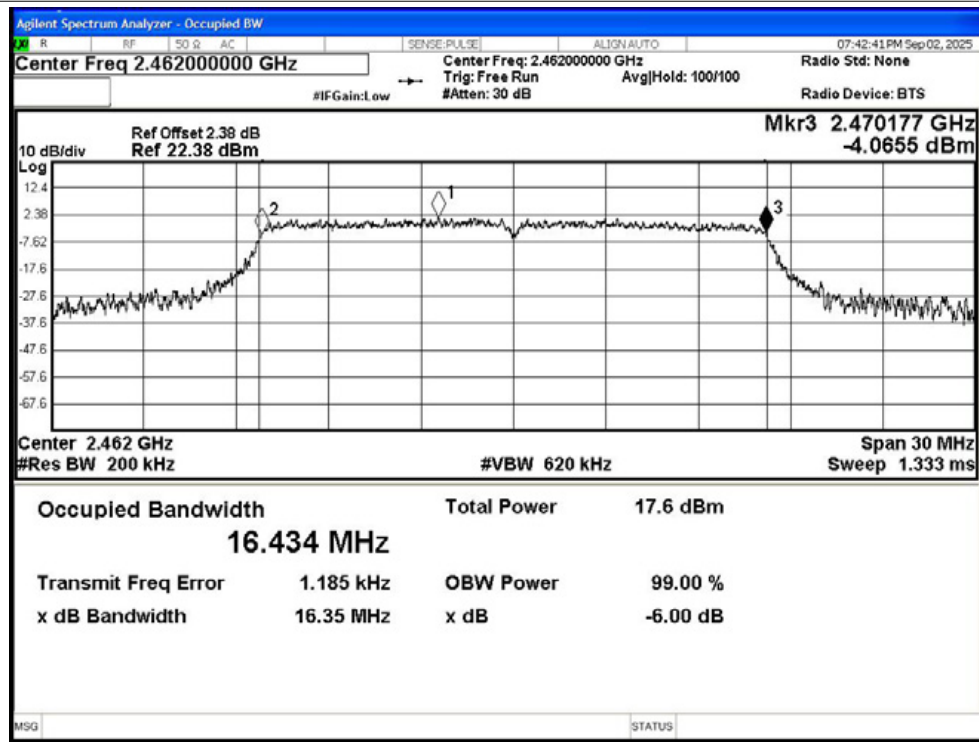
-6dB Bandwidth NVNT g 2412MHz Ant1



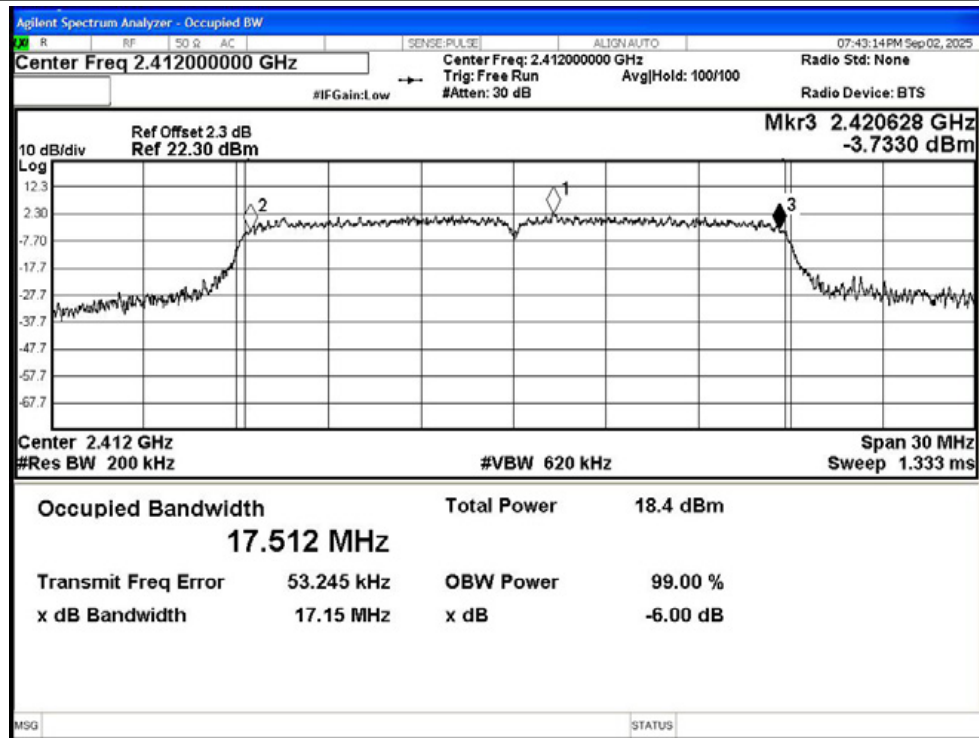
-6dB Bandwidth NVNT g 2437MHz Ant1



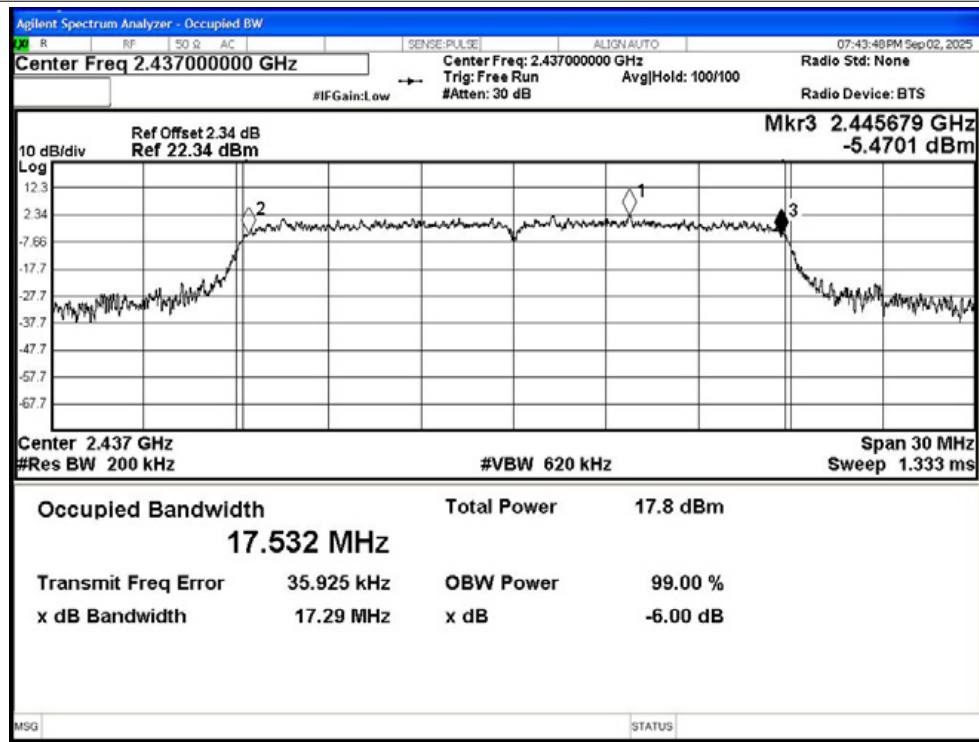
-6dB Bandwidth NVNT g 2462MHz Ant1



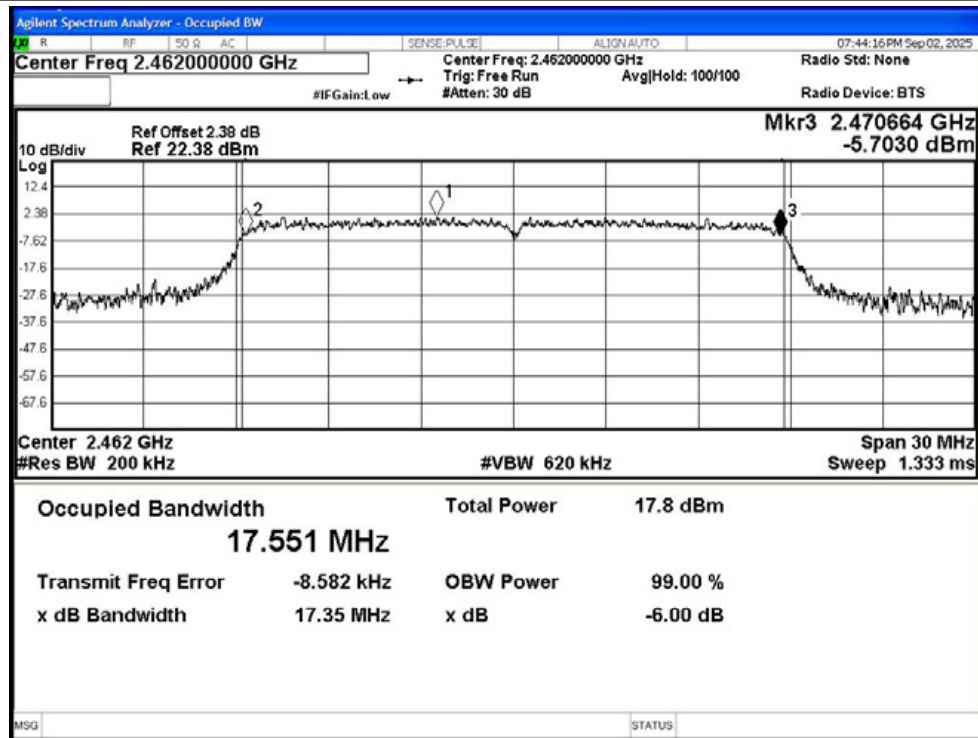
-6dB Bandwidth NVNT n20 2412MHz Ant1



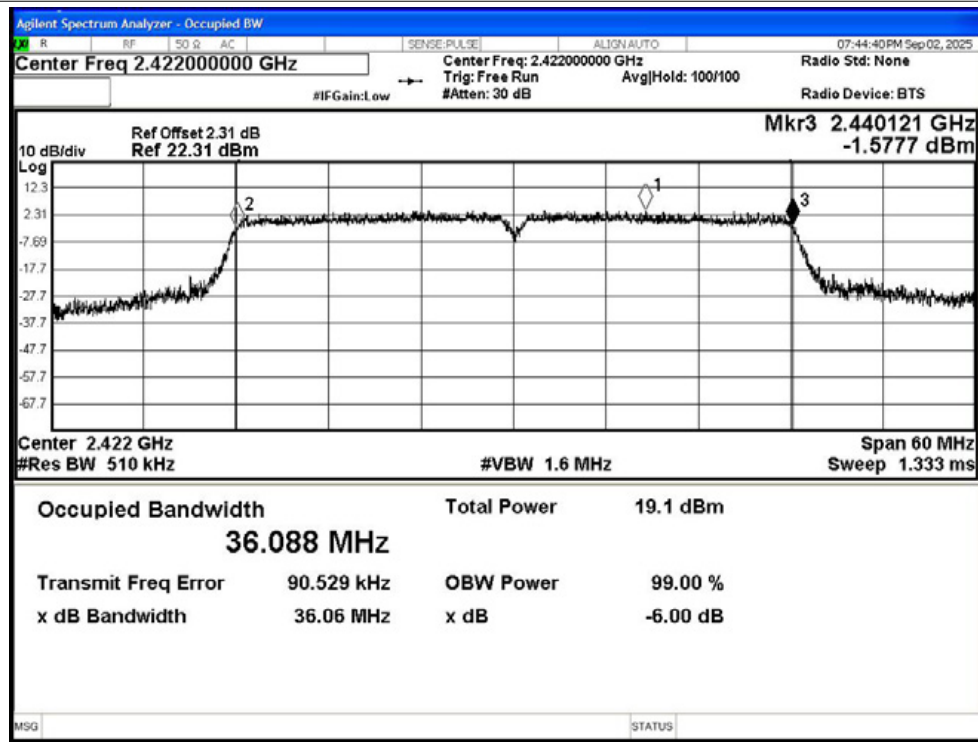
-6dB Bandwidth NVNT n20 2437MHz Ant1



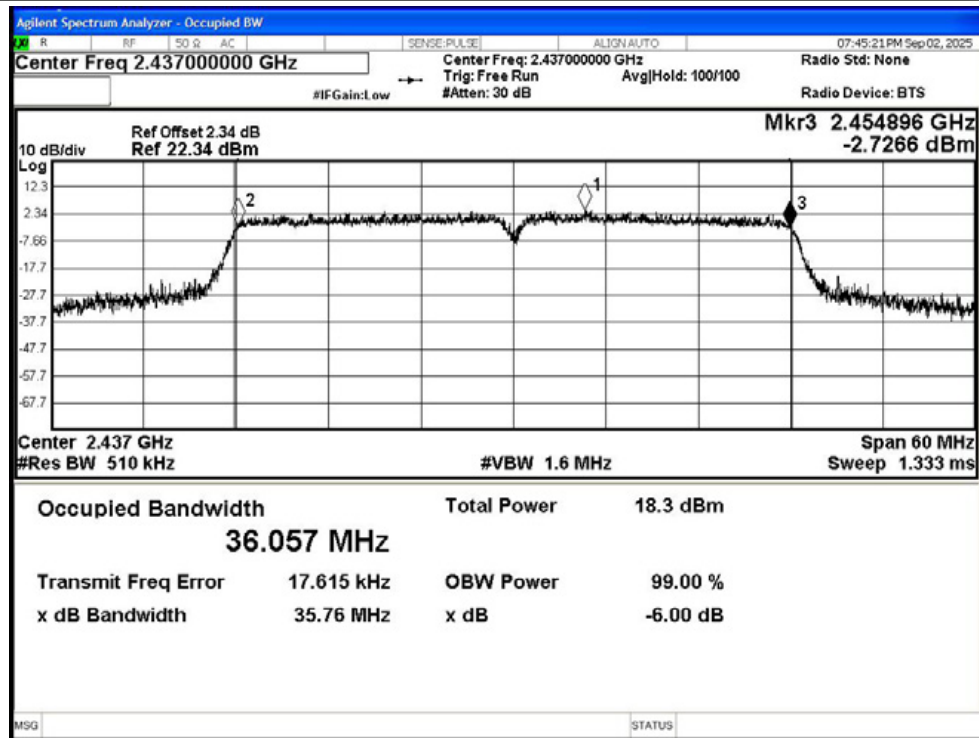
-6dB Bandwidth NVNT n20 2462MHz Ant1



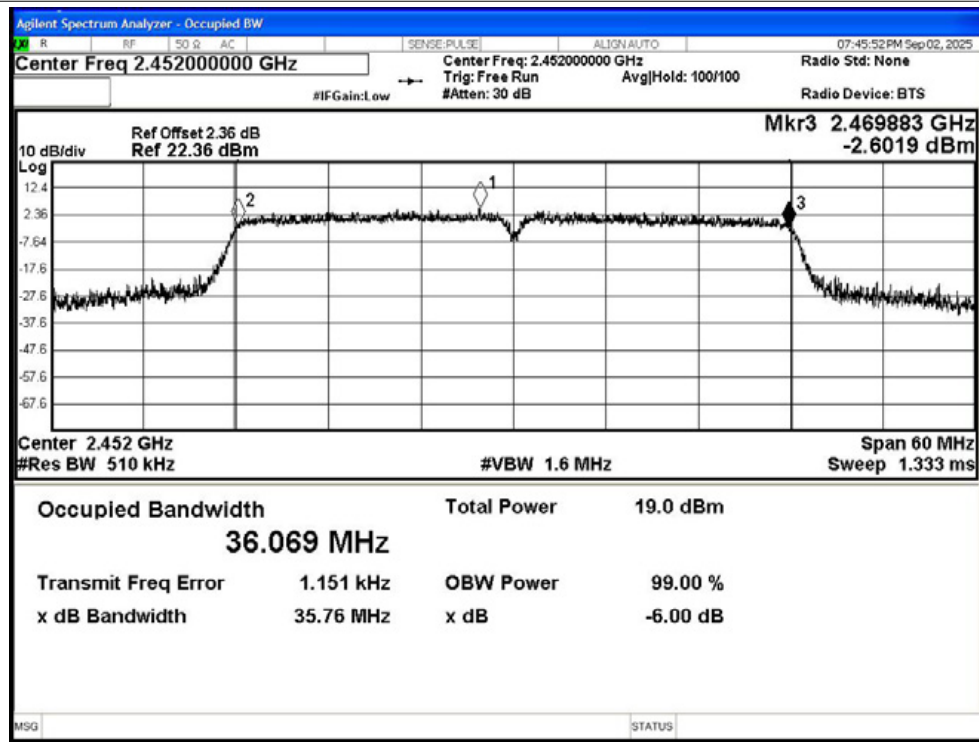
-6dB Bandwidth NVNT n40 2422MHz Ant1



-6dB Bandwidth NVNT n40 2437MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant1



A.2 Maximum Peak Conducted Output Power

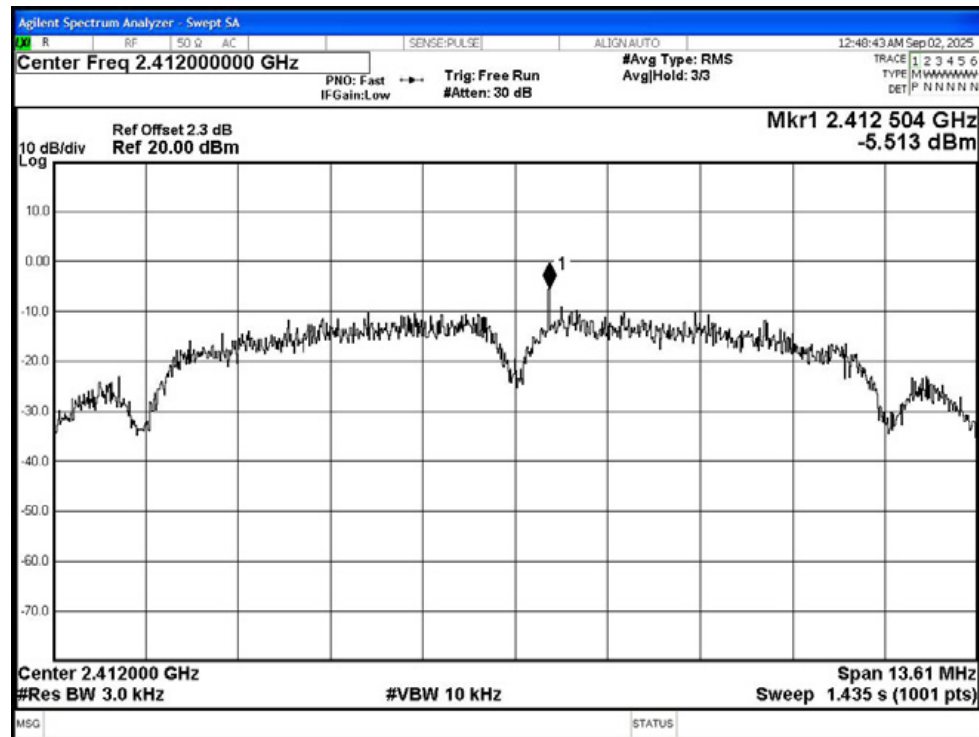
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.67	30	Pass
NVNT	b	2437	Ant1	14.09	30	Pass
NVNT	b	2462	Ant1	14.5	30	Pass
NVNT	g	2412	Ant1	14.18	30	Pass
NVNT	g	2437	Ant1	14.55	30	Pass
NVNT	g	2462	Ant1	13.76	30	Pass
NVNT	n20	2412	Ant1	13.69	30	Pass
NVNT	n20	2437	Ant1	13.68	30	Pass
NVNT	n20	2462	Ant1	13.16	30	Pass
NVNT	n40	2422	Ant1	13.22	30	Pass
NVNT	n40	2437	Ant1	13.01	30	Pass
NVNT	n40	2452	Ant1	12.85	30	Pass

A.3 Maximum Power Spectral Density Level

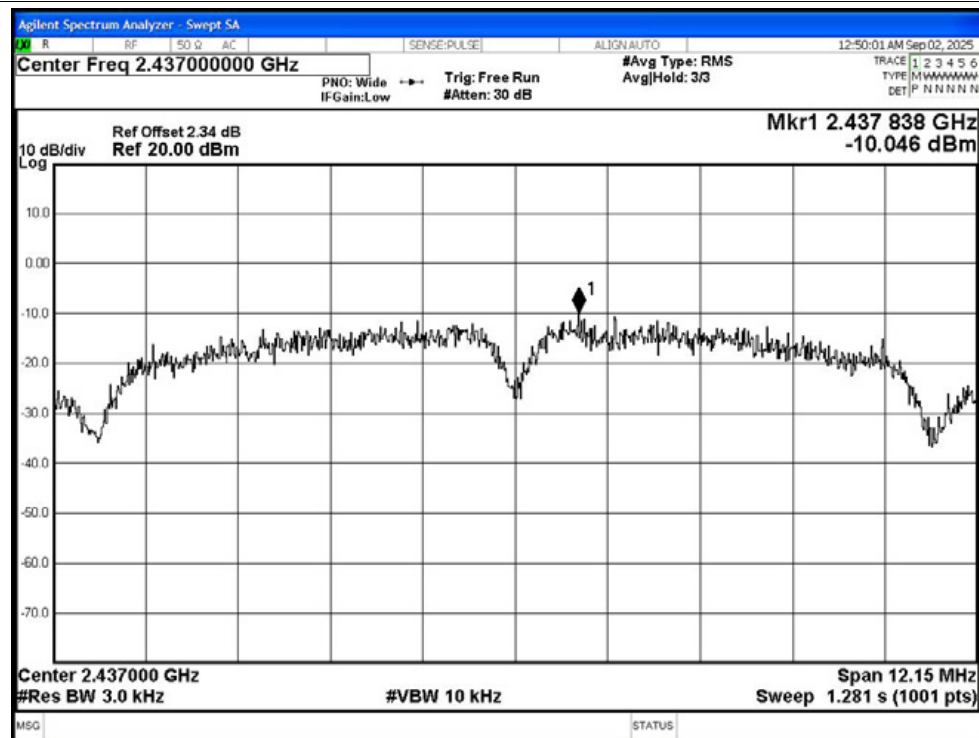
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-5.51	8	Pass
NVNT	b	2437	Ant1	-10.05	8	Pass
NVNT	b	2462	Ant1	-9.71	8	Pass
NVNT	g	2412	Ant1	-16.12	8	Pass
NVNT	g	2437	Ant1	-16.27	8	Pass
NVNT	g	2462	Ant1	-17.06	8	Pass
NVNT	n20	2412	Ant1	-16.18	8	Pass
NVNT	n20	2437	Ant1	-16.6	8	Pass
NVNT	n20	2462	Ant1	-17.09	8	Pass
NVNT	n40	2422	Ant1	-20.2	8	Pass
NVNT	n40	2437	Ant1	-20.24	8	Pass
NVNT	n40	2452	Ant1	-21.15	8	Pass

Test Graphs

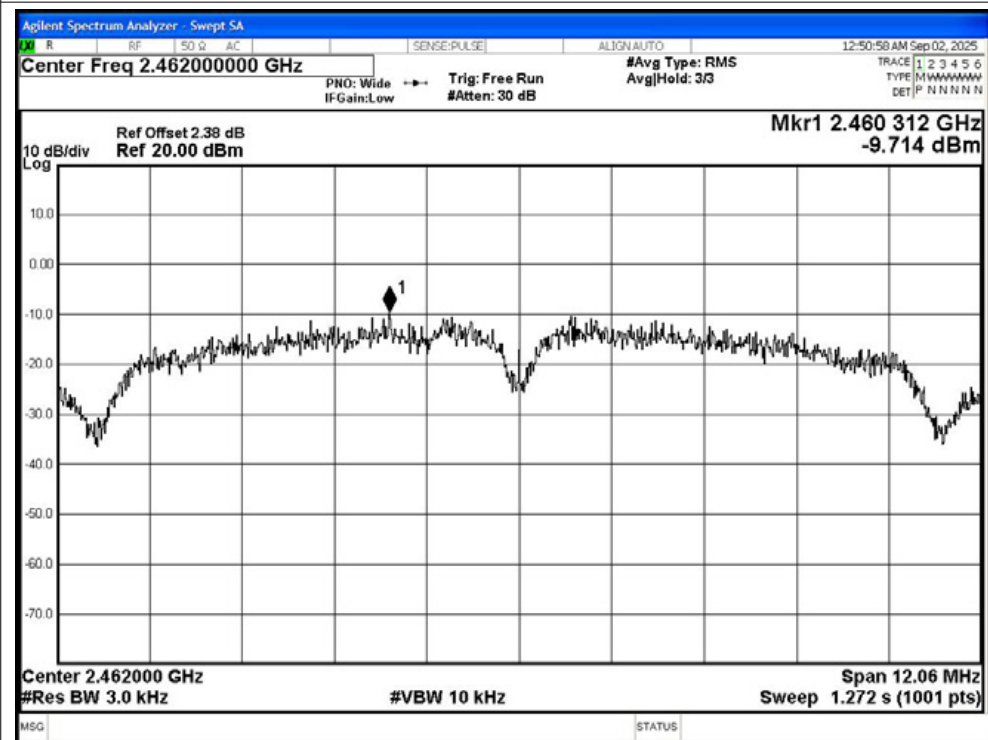
PSD NVNT b 2412MHz Ant1



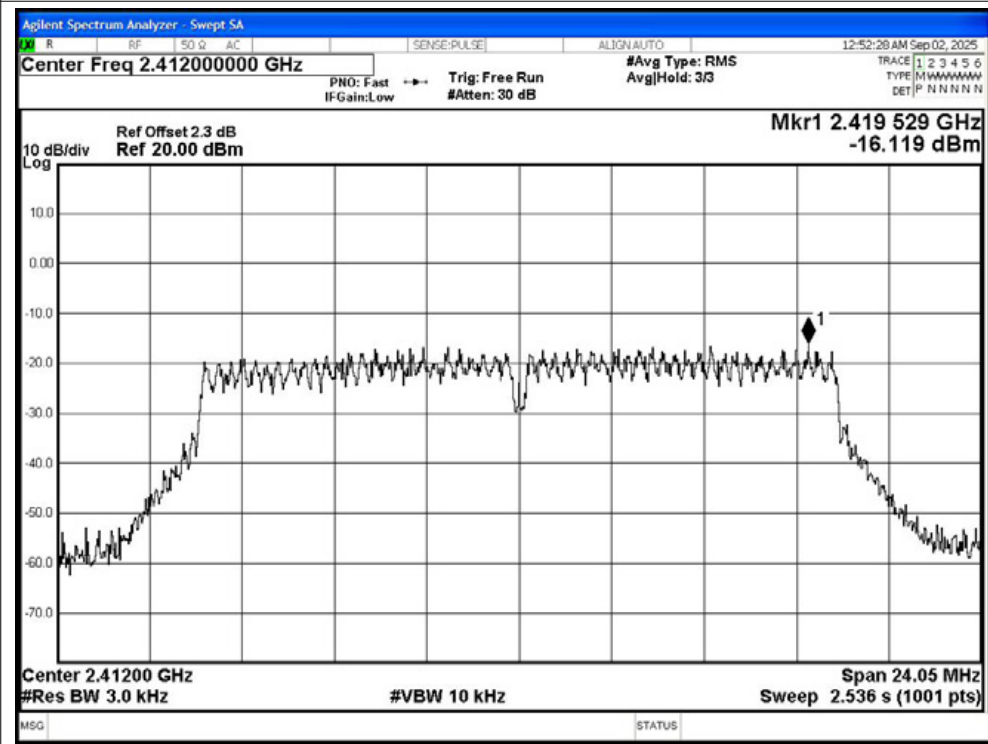
PSD NVNT b 2437MHz Ant1



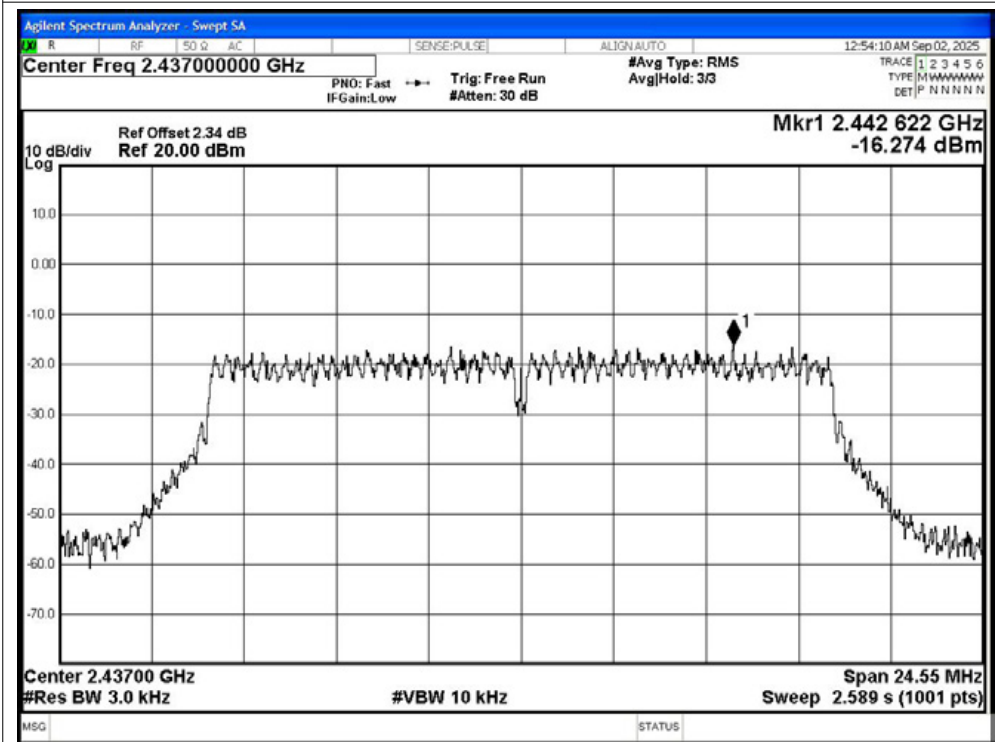
PSD NVNT b 2462MHz Ant1



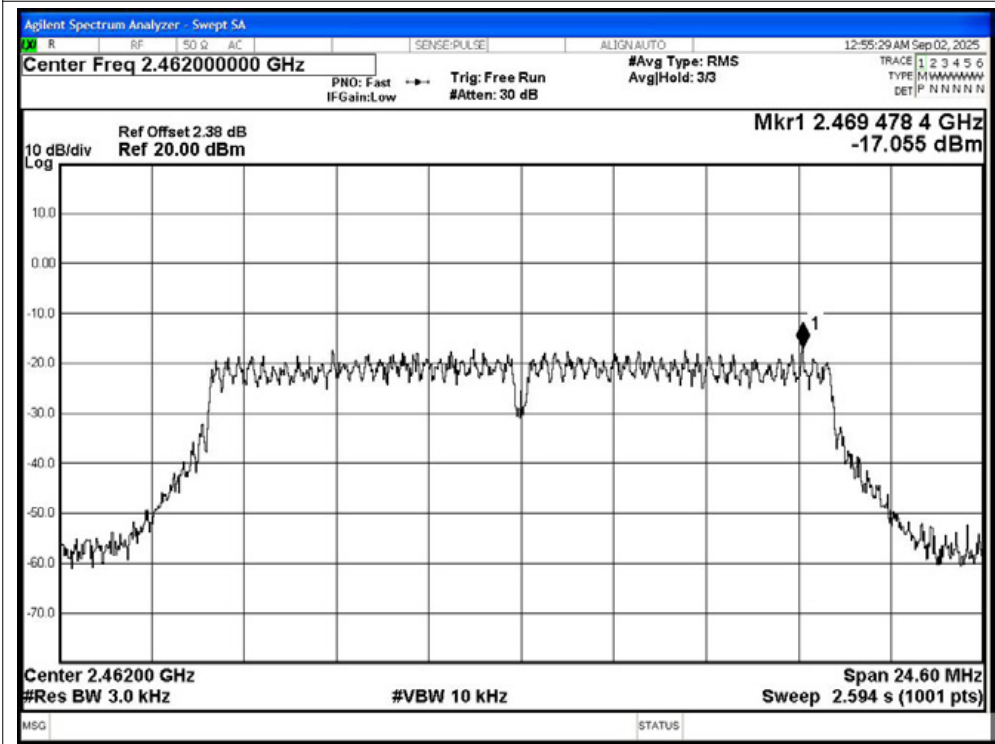
PSD NVNT g 2412MHz Ant1



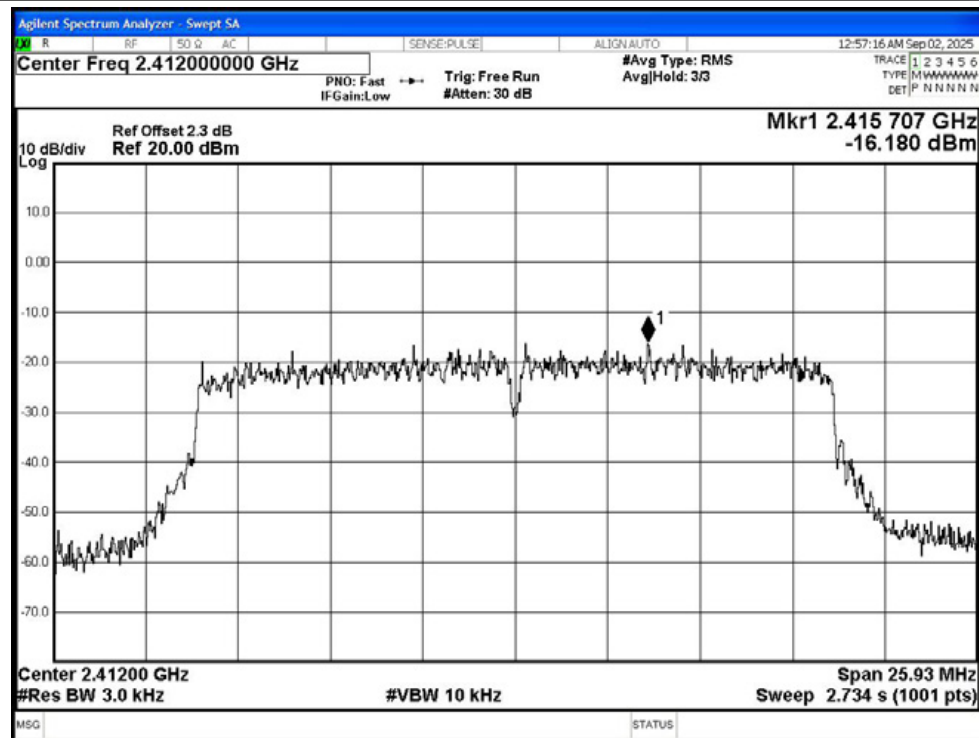
PSD NVNT g 2437MHz Ant1



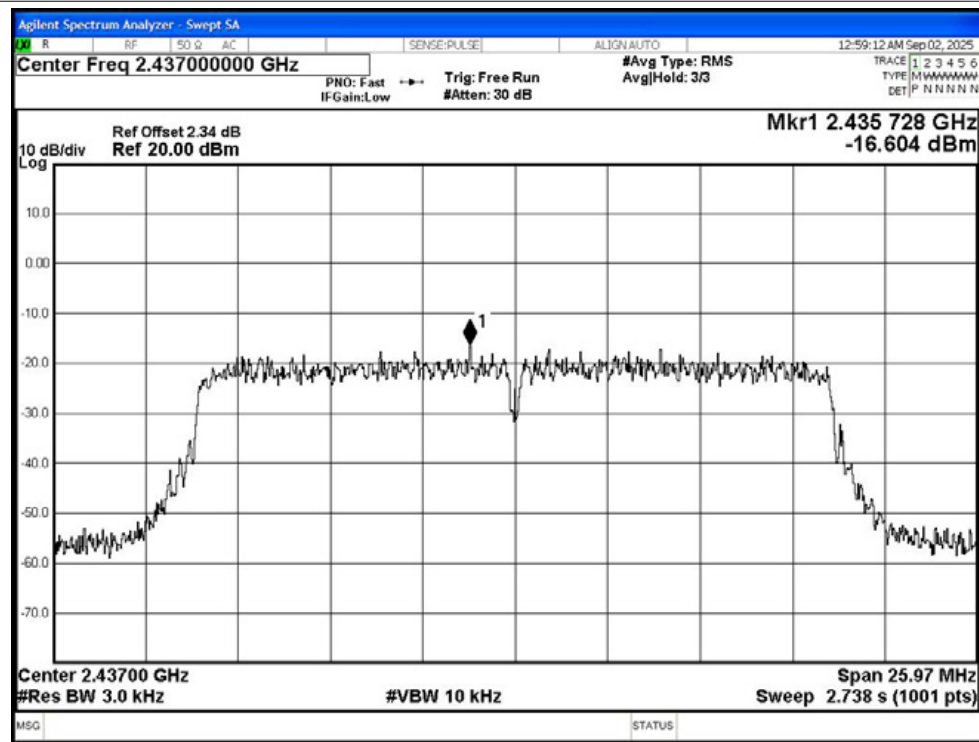
PSD NVNT g 2462MHz Ant1



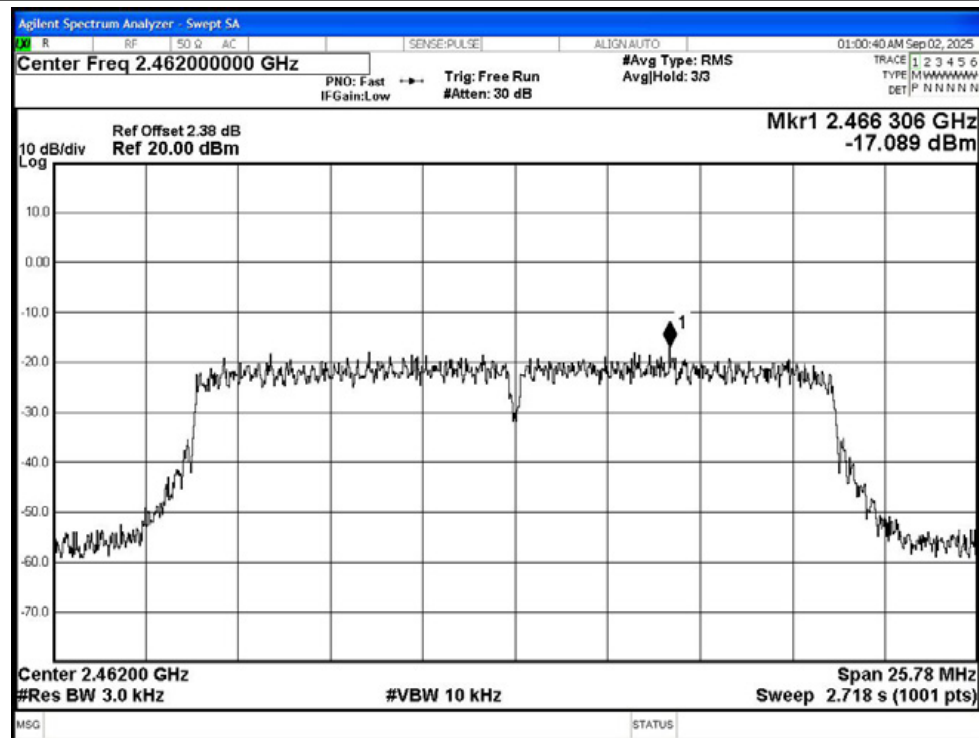
PSD NVNT n20 2412MHz Ant1



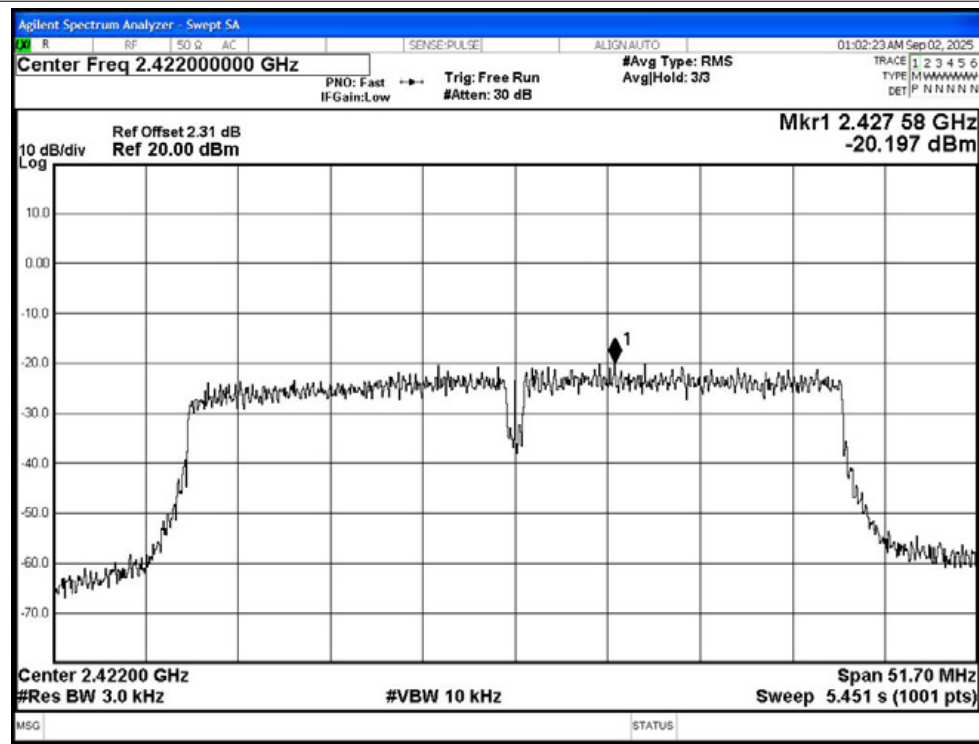
PSD NVNT n20 2437MHz Ant1



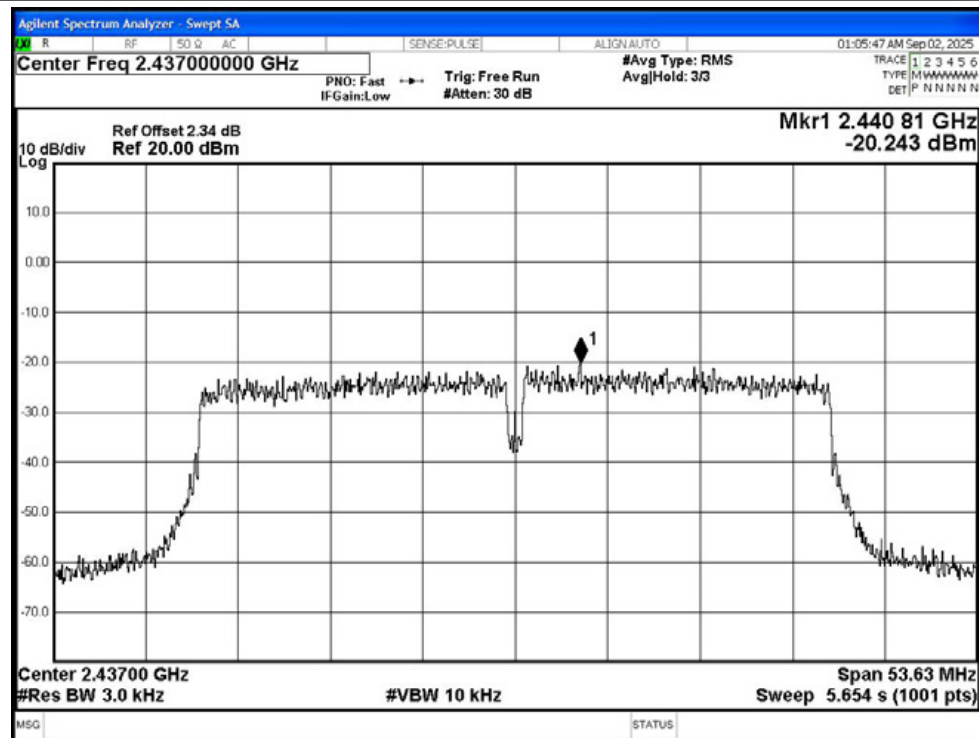
PSD NVNT n20 2462MHz Ant1



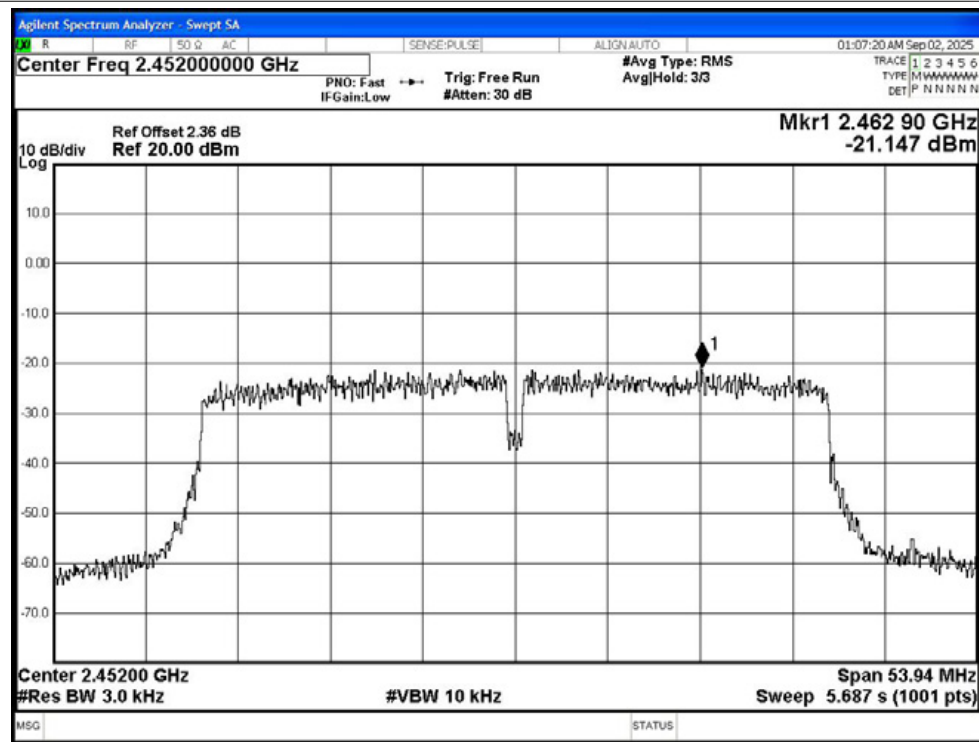
PSD NVNT n40 2422MHz Ant1



PSD NVNT n40 2437MHz Ant1



PSD NVNT n40 2452MHz Ant1



A.4 Band Edge

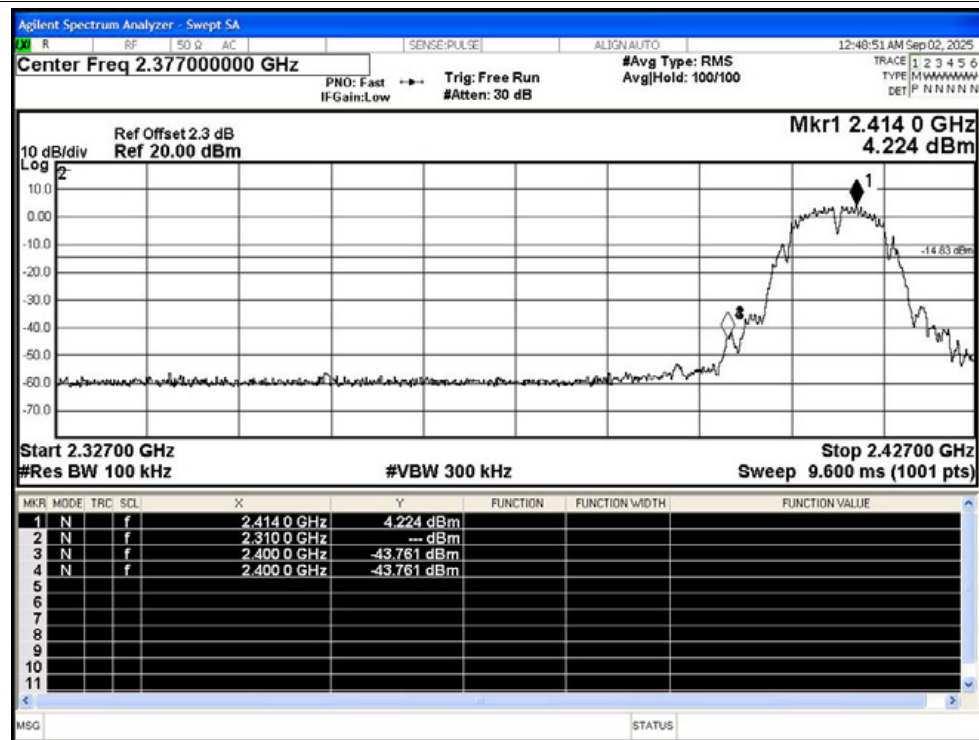
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-48.93	-20	Pass
NVNT	b	2462	Ant1	-58.16	-20	Pass
NVNT	g	2412	Ant1	-32.49	-20	Pass
NVNT	g	2462	Ant1	-42.9	-20	Pass
NVNT	n20	2412	Ant1	-29.94	-20	Pass
NVNT	n20	2462	Ant1	-38.42	-20	Pass
NVNT	n40	2422	Ant1	-34.44	-20	Pass
NVNT	n40	2452	Ant1	-37.92	-20	Pass

Test Graphs

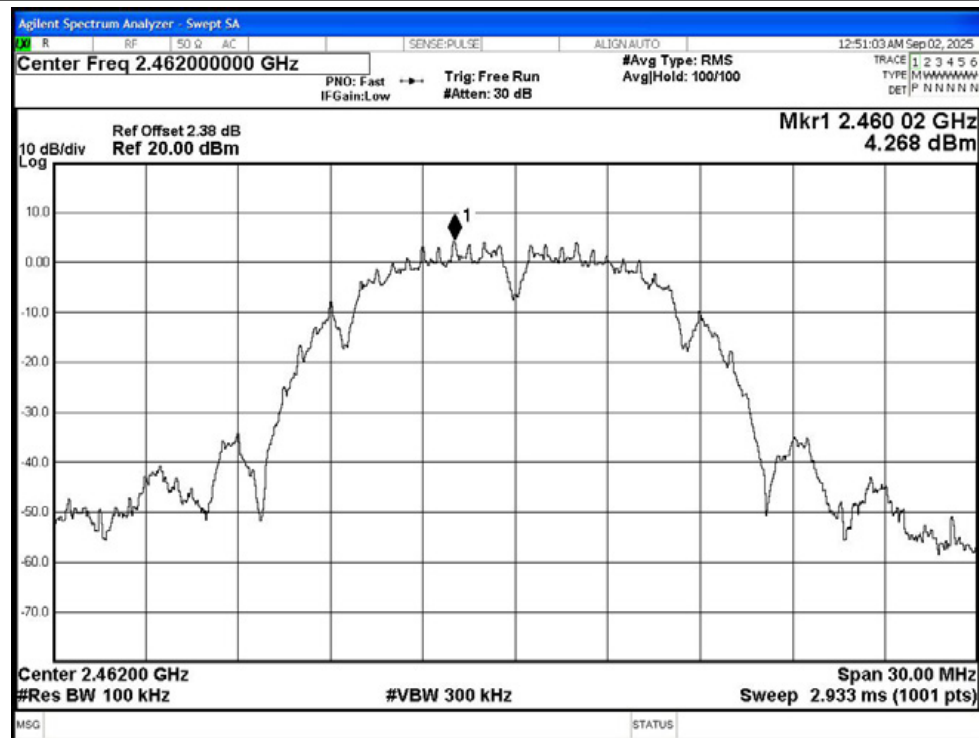
Band Edge NVNT b 2412MHz Ant1 Ref



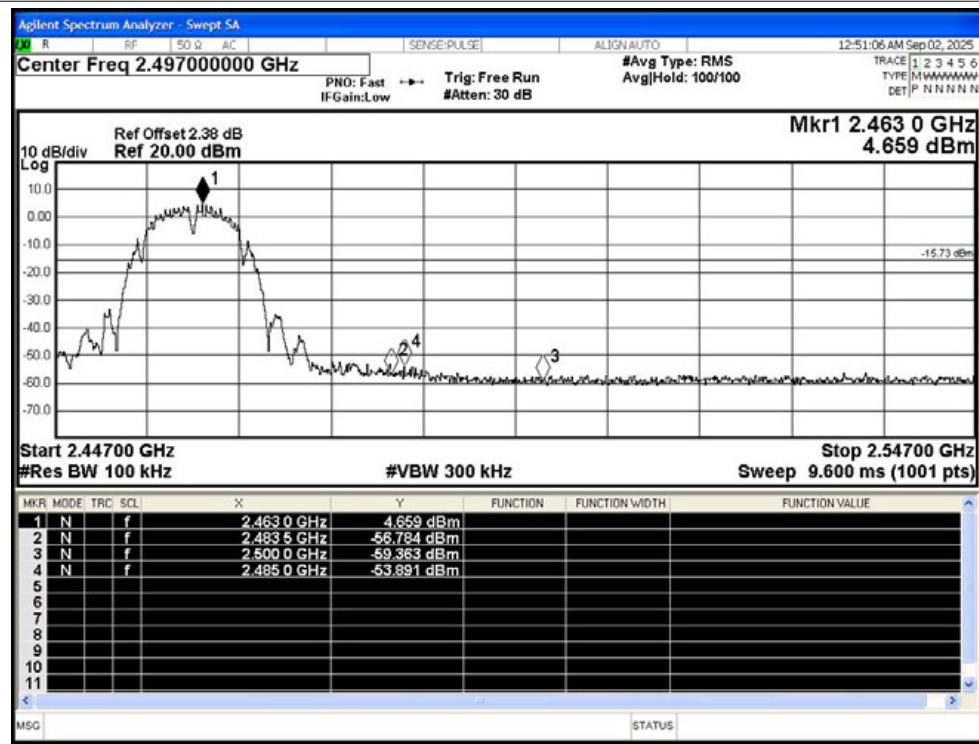
Band Edge NVNT b 2412MHz Ant1 Emission



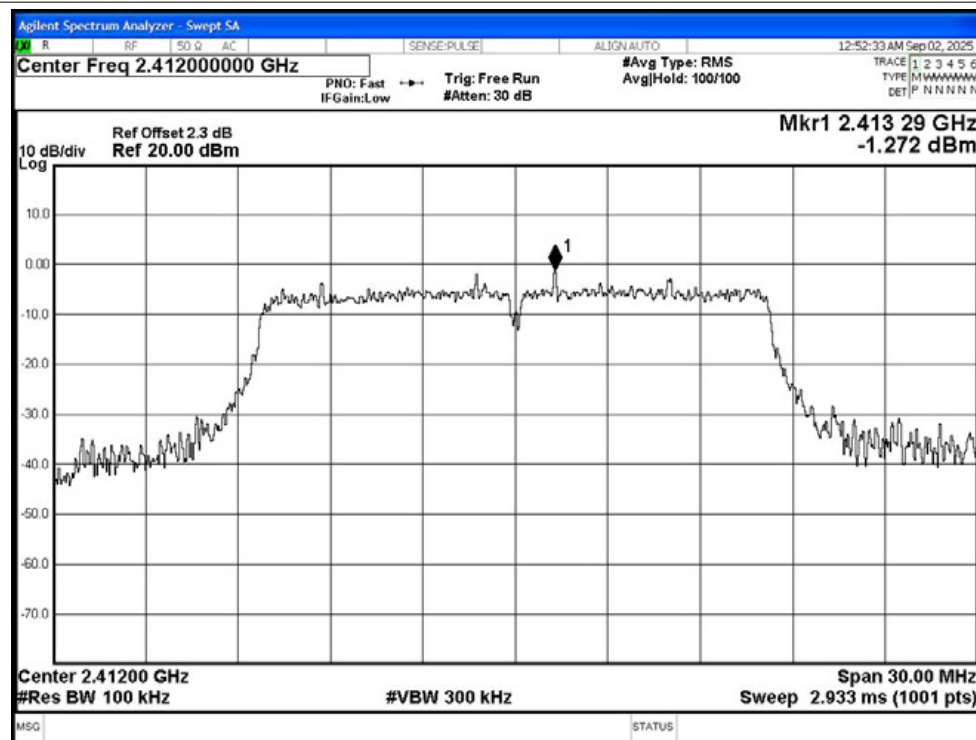
Band Edge NVNT b 2462MHz Ant1 Ref



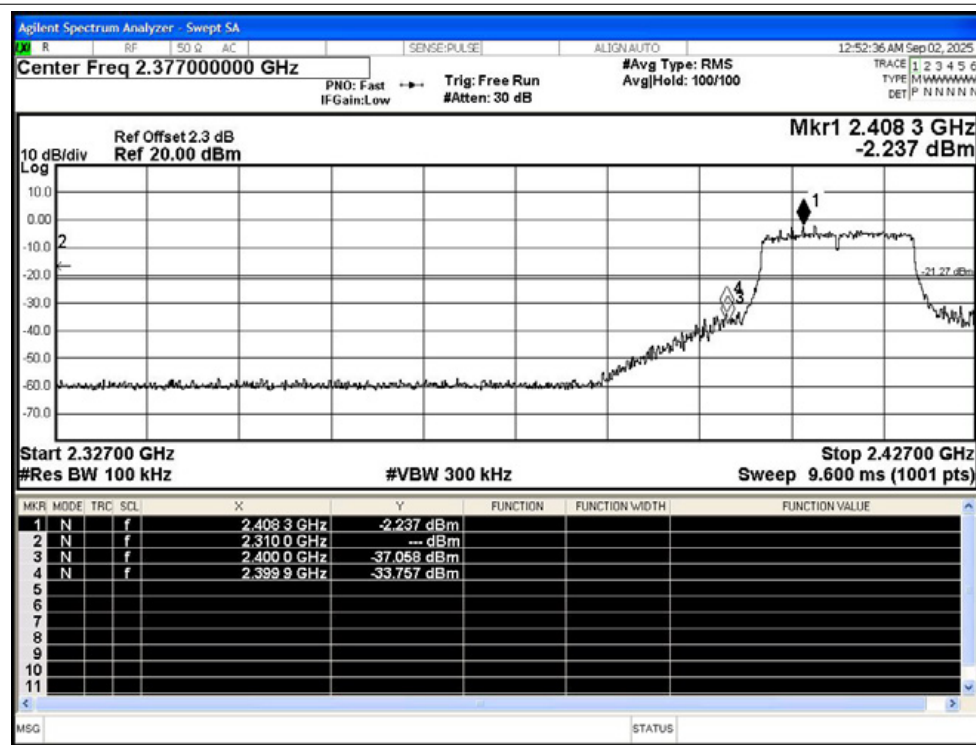
Band Edge NVNT b 2462MHz Ant1 Emission



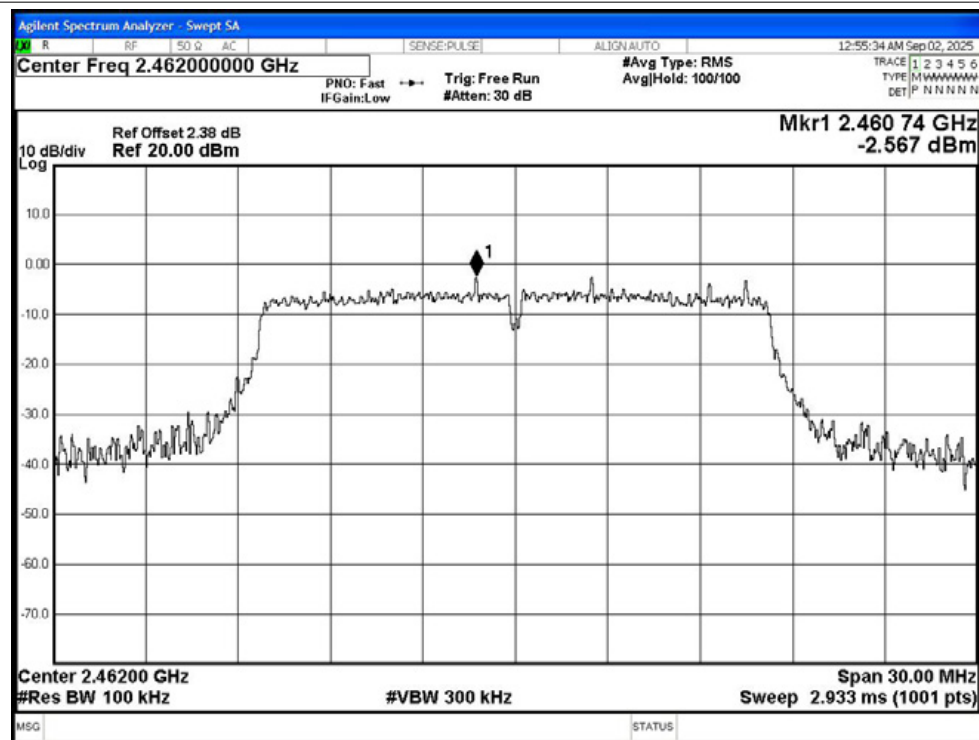
Band Edge NVNT g 2412MHz Ant1 Ref



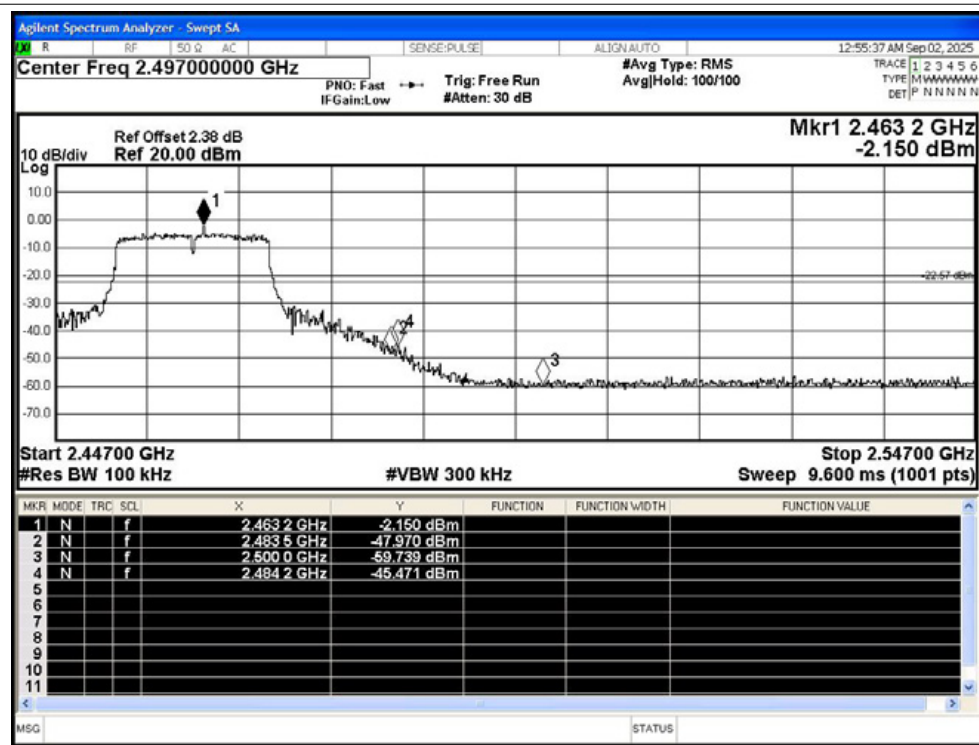
Band Edge NVNT g 2412MHz Ant1 Emission



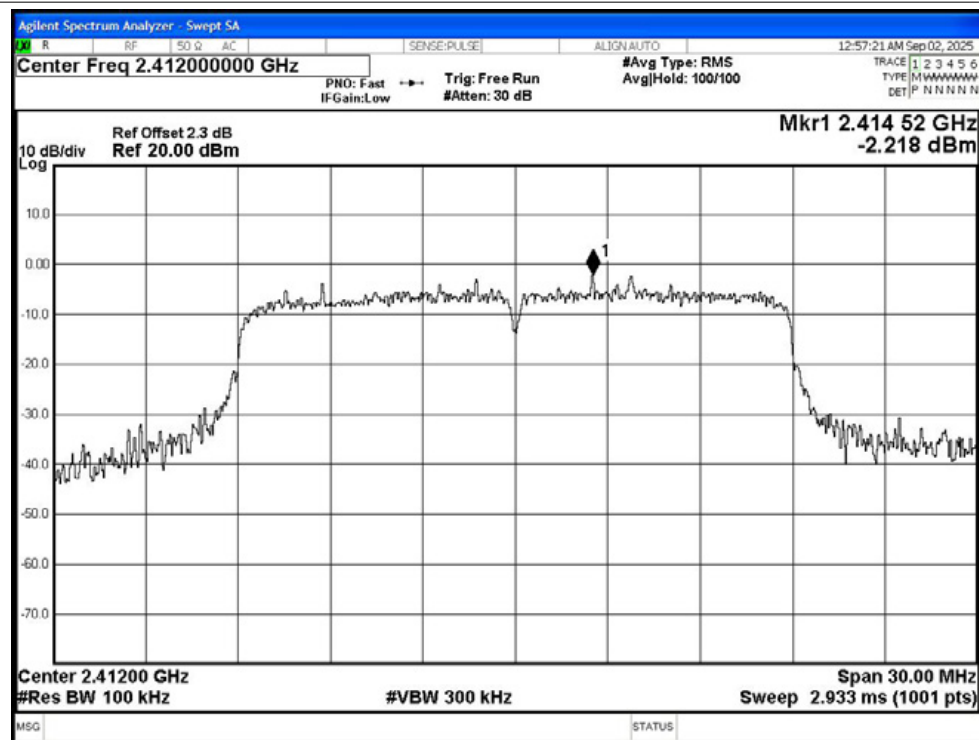
Band Edge NVNT g 2462MHz Ant1 Ref



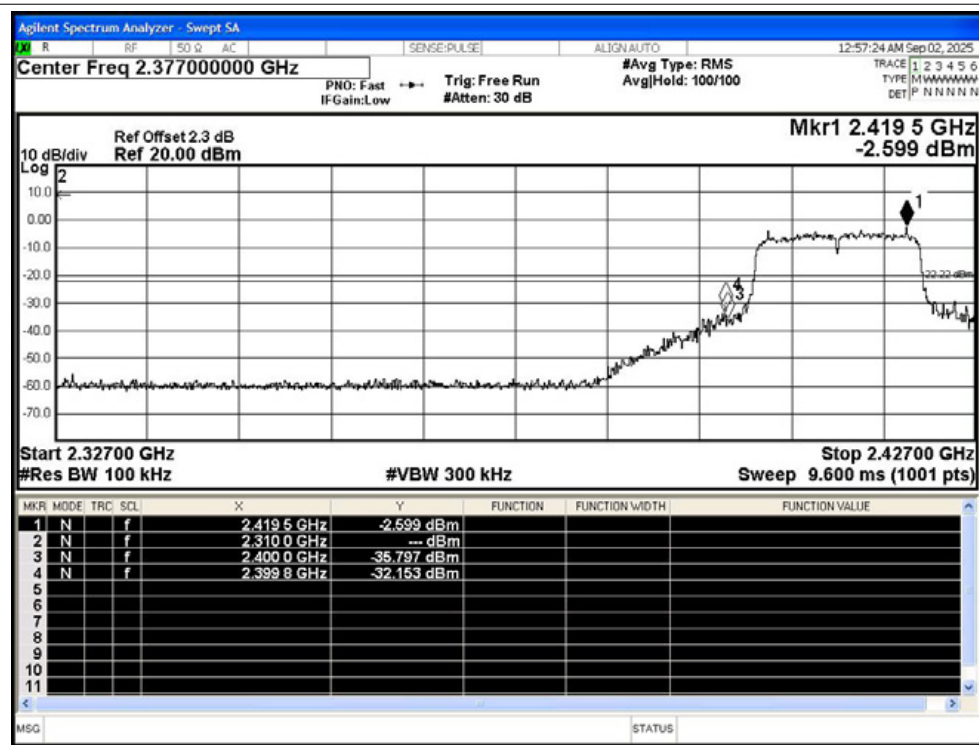
Band Edge NVNT g 2462MHz Ant1 Emission



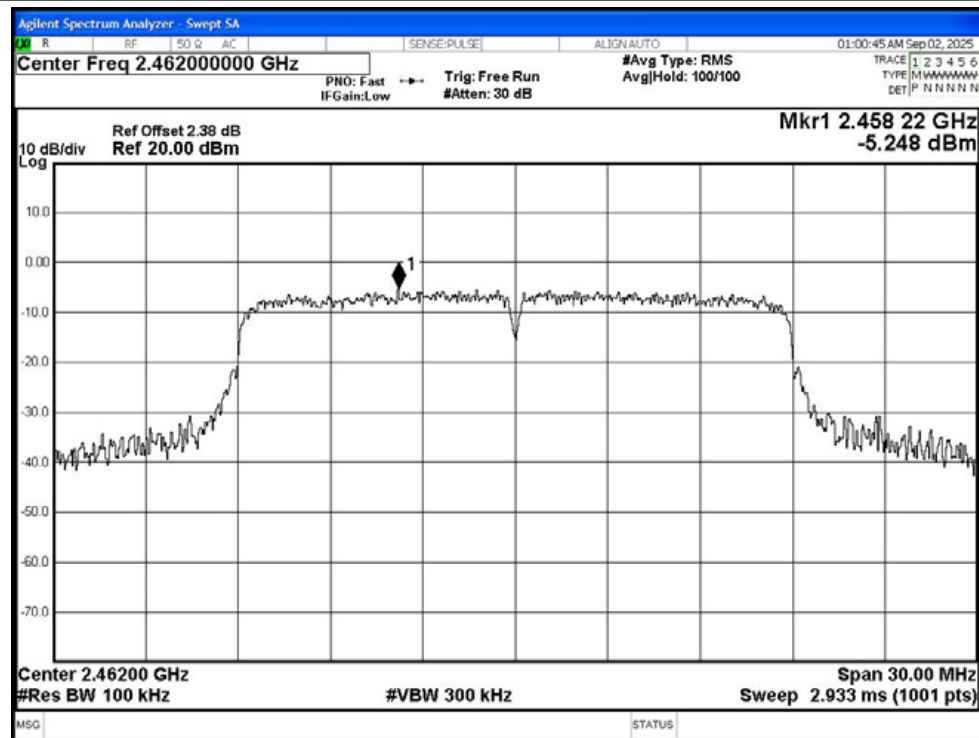
Band Edge NVNT n20 2412MHz Ant1 Ref



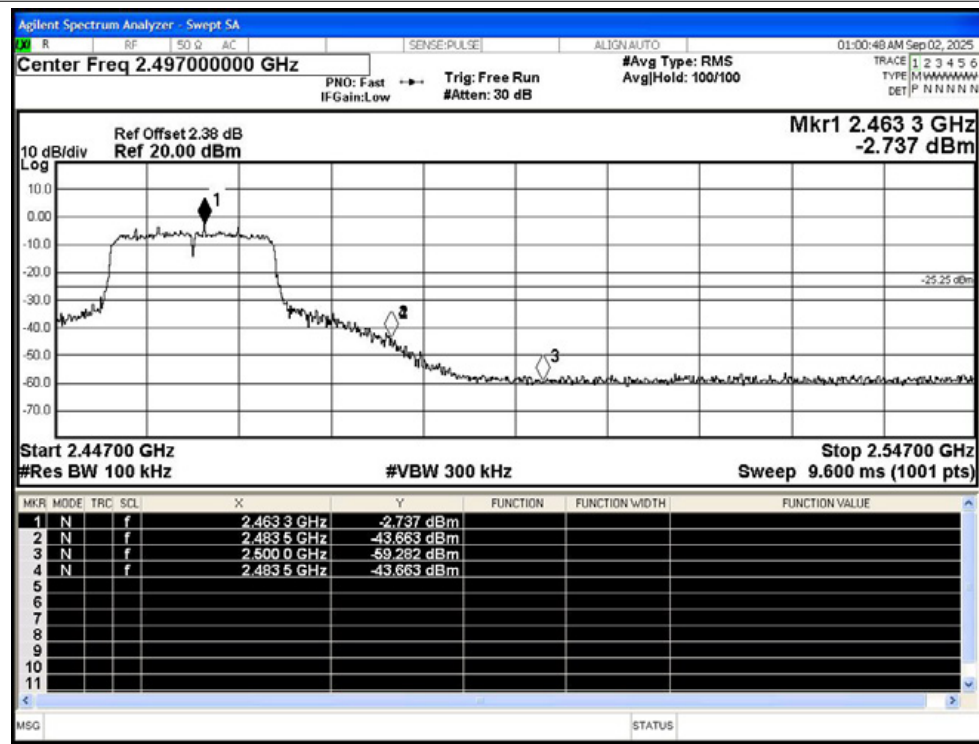
Band Edge NVNT n20 2412MHz Ant1 Emission



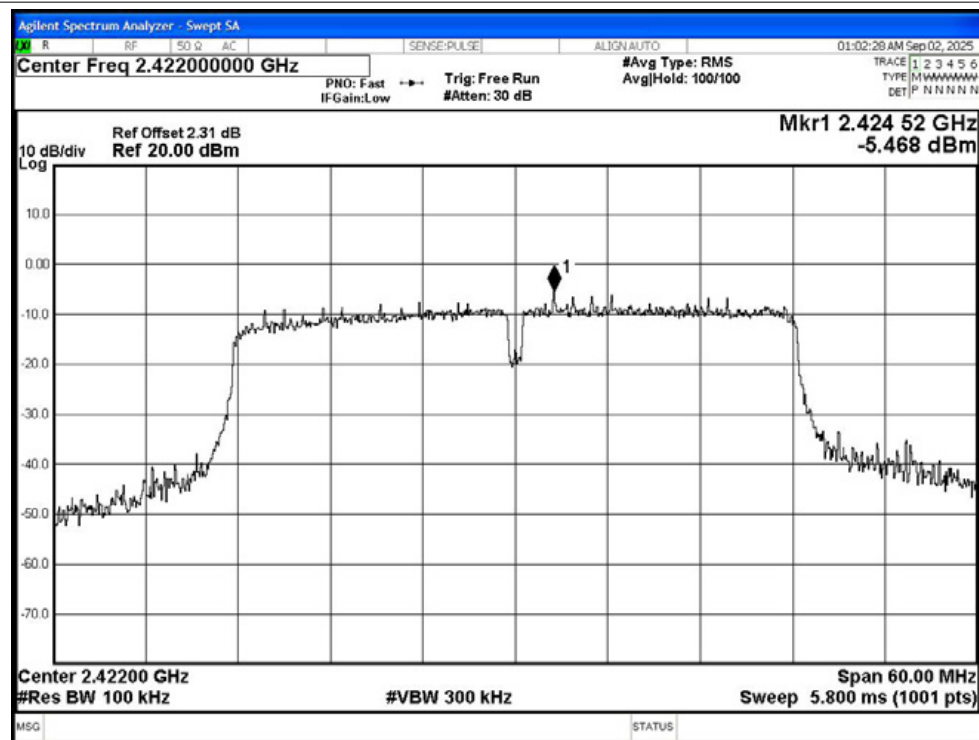
Band Edge NVNT n20 2462MHz Ant1 Ref



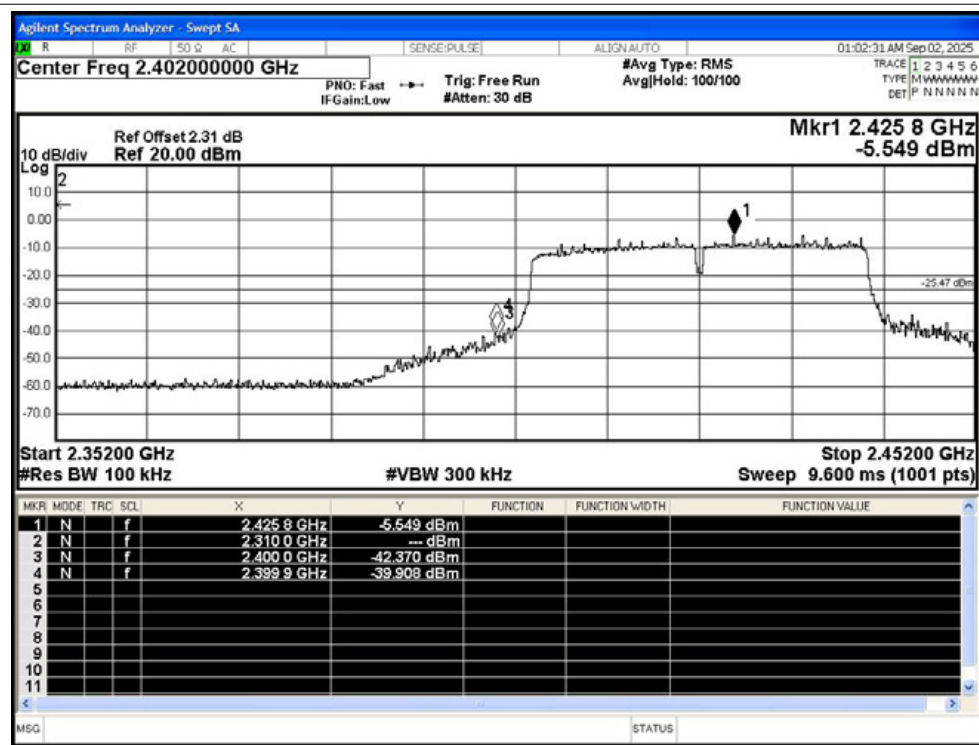
Band Edge NVNT n20 2462MHz Ant1 Emission



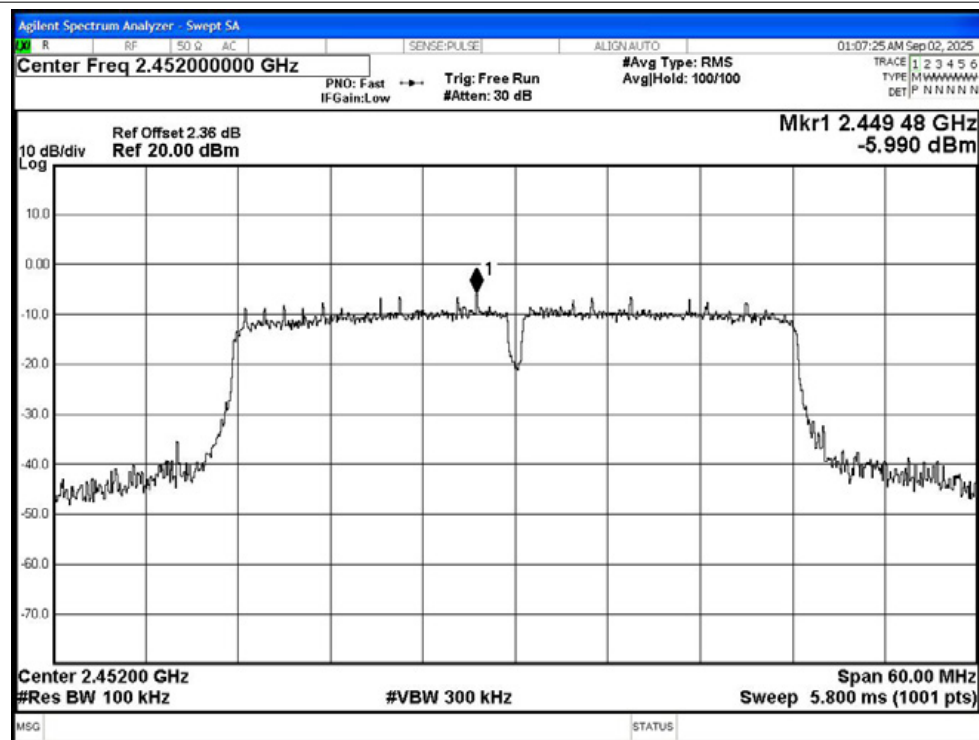
Band Edge NVNT n40 2422MHz Ant1 Ref



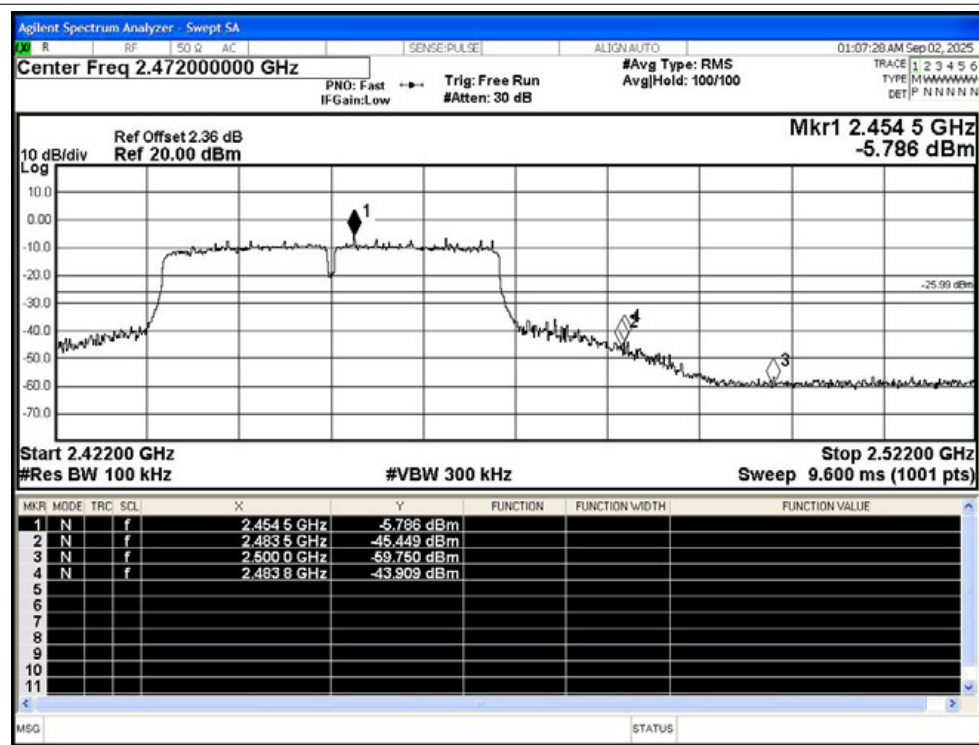
Band Edge NVNT n40 2422MHz Ant1 Emission



Band Edge NVNT n40 2452MHz Ant1 Ref



Band Edge NVNT n40 2452MHz Ant1 Emission



A.5 Conducted RF Spurious Emission

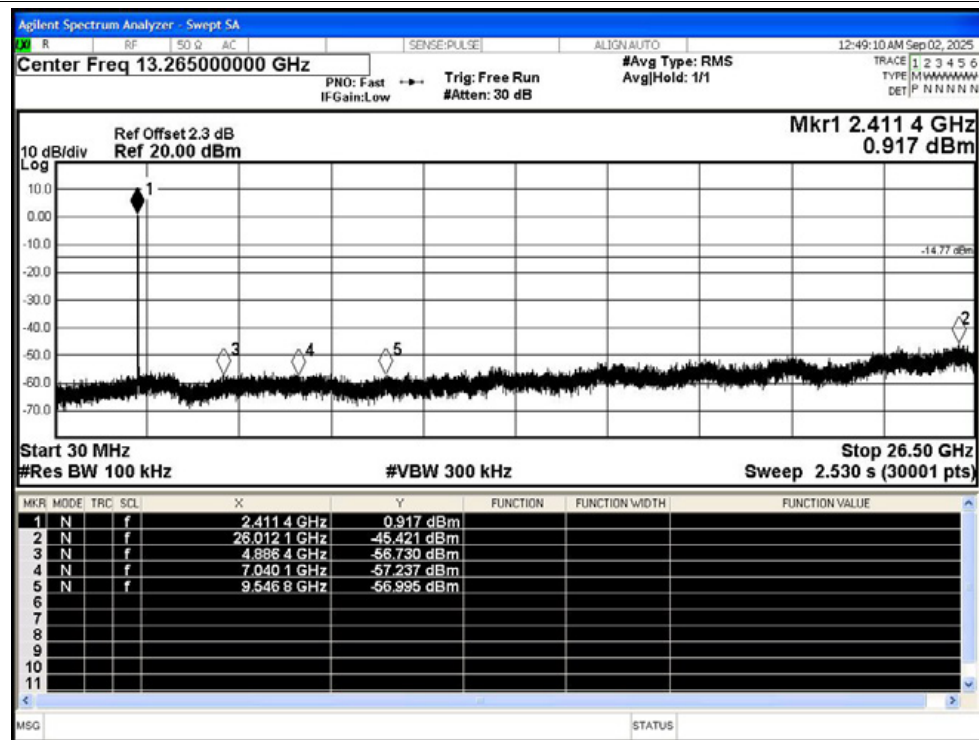
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-50.65	-20	Pass
NVNT	b	2437	Ant1	-49.3	-20	Pass
NVNT	b	2462	Ant1	-49.88	-20	Pass
NVNT	g	2412	Ant1	-44.31	-20	Pass
NVNT	g	2437	Ant1	-43.87	-20	Pass
NVNT	g	2462	Ant1	-43.52	-20	Pass
NVNT	n20	2412	Ant1	-43.2	-20	Pass
NVNT	n20	2437	Ant1	-43.16	-20	Pass
NVNT	n20	2462	Ant1	-43.35	-20	Pass
NVNT	n40	2422	Ant1	-39.45	-20	Pass
NVNT	n40	2437	Ant1	-39.81	-20	Pass
NVNT	n40	2452	Ant1	-40.12	-20	Pass

Test Graphs

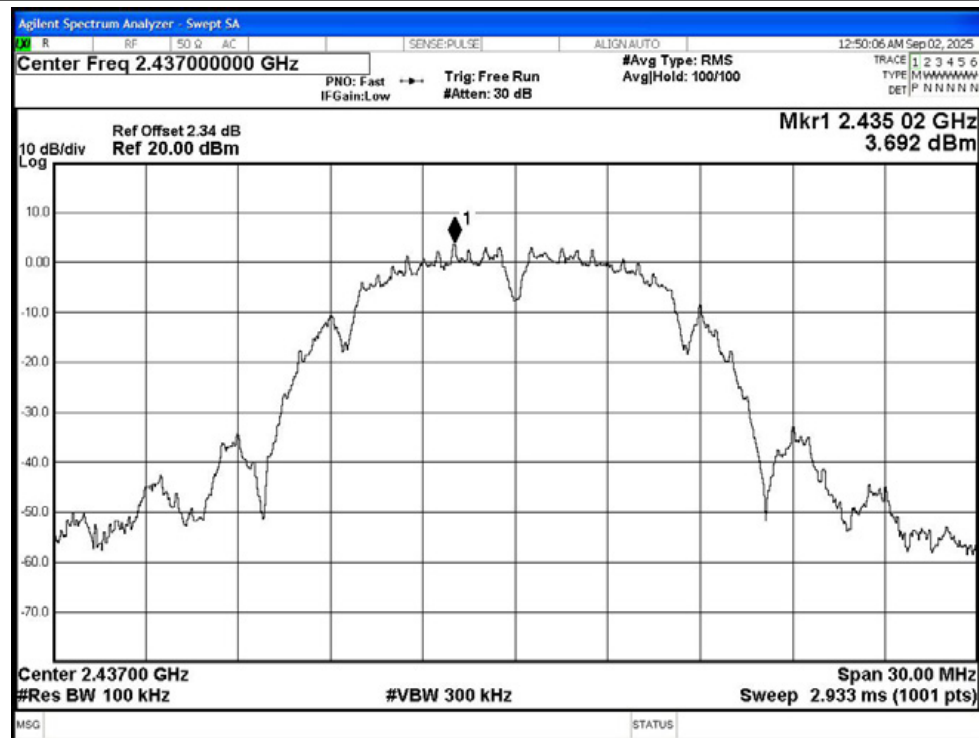
Tx. Spurious NVNT b 2412MHz Ant1 Ref



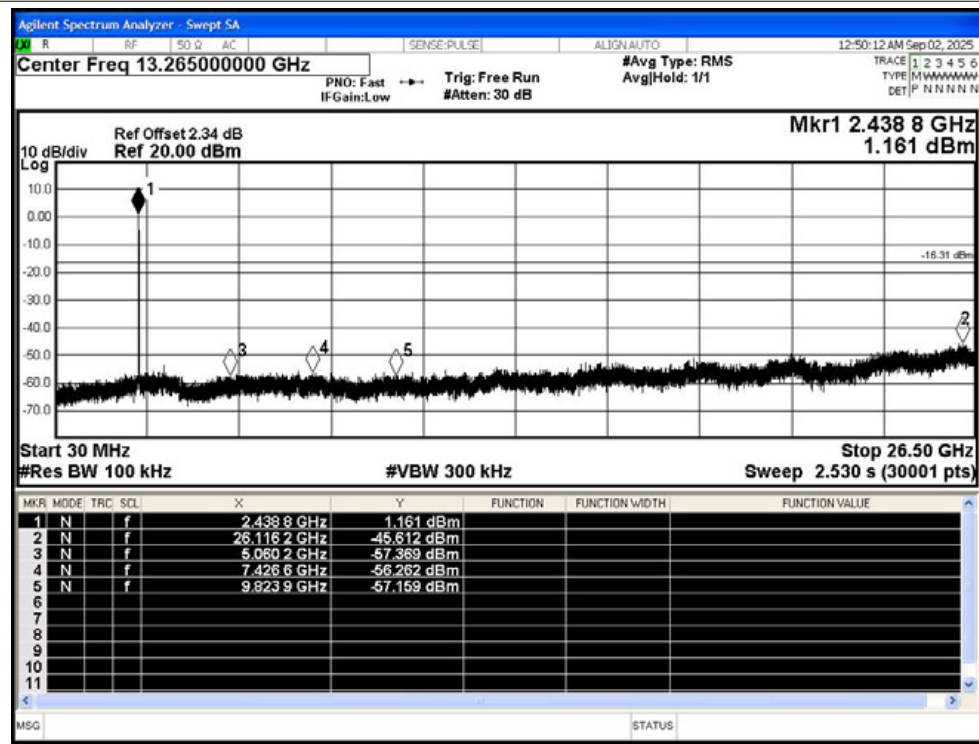
Tx. Spurious NVNT b 2412MHz Ant1 Emission



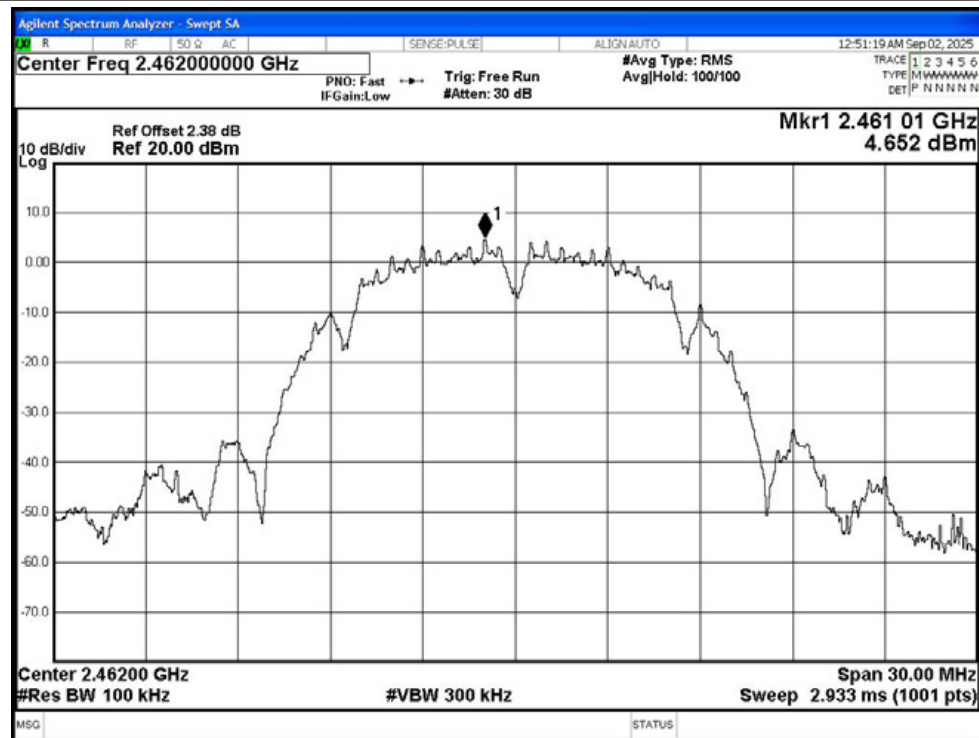
Tx. Spurious NVNT b 2437MHz Ant1 Ref



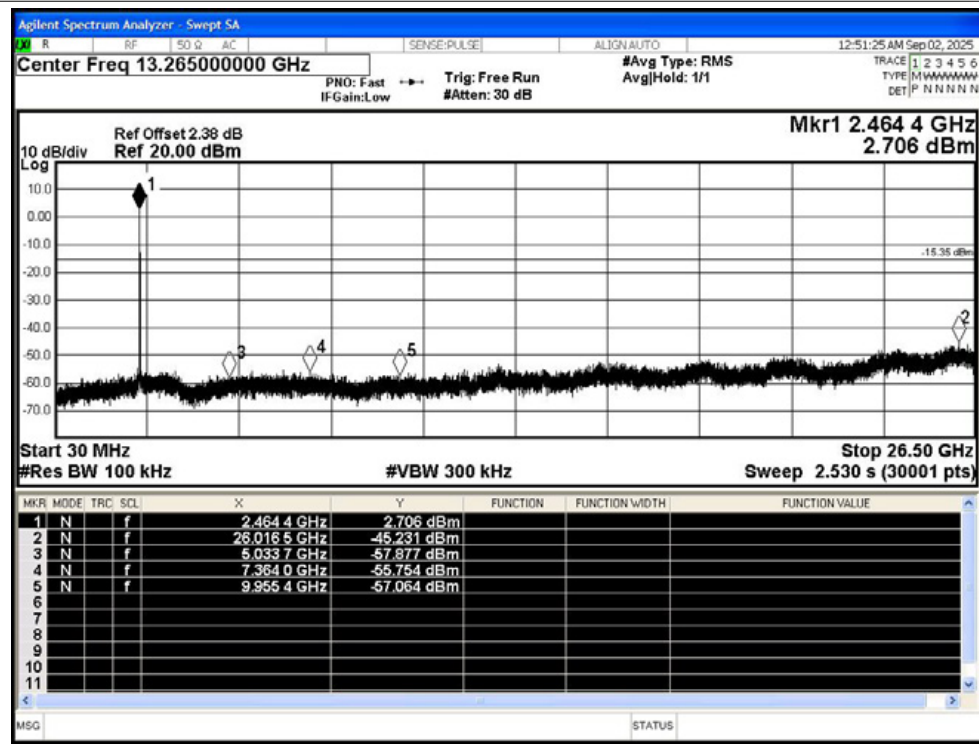
Tx. Spurious NVNT b 2437MHz Ant1 Emission



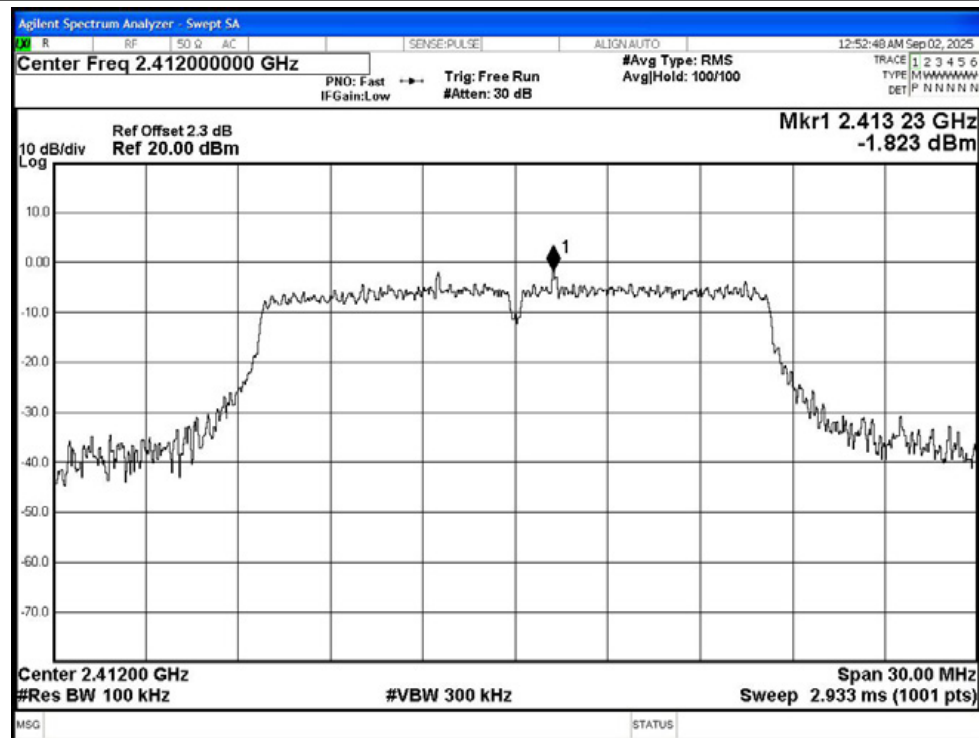
Tx. Spurious NVNT b 2462MHz Ant1 Ref



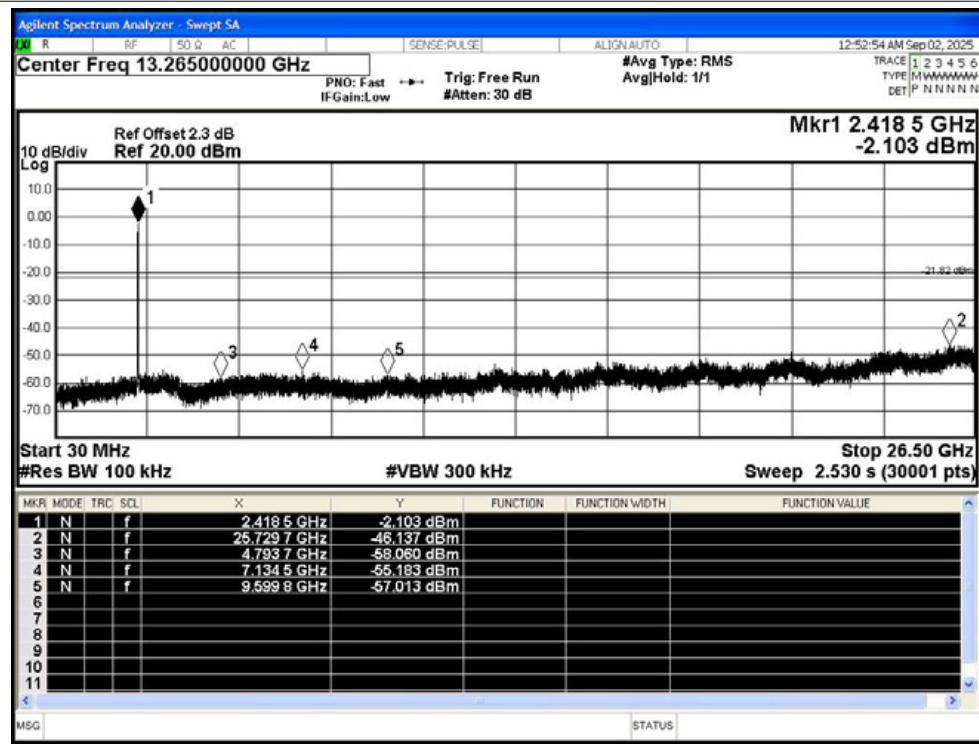
Tx. Spurious NVNT b 2462MHz Ant1 Emission



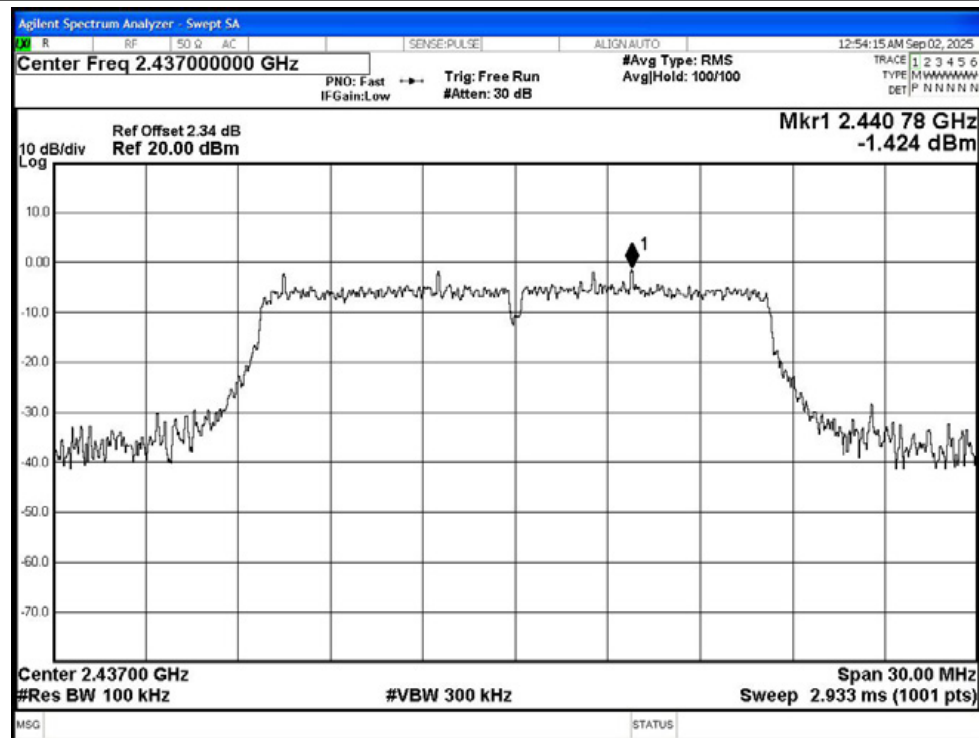
Tx. Spurious NVNT g 2412MHz Ant1 Ref



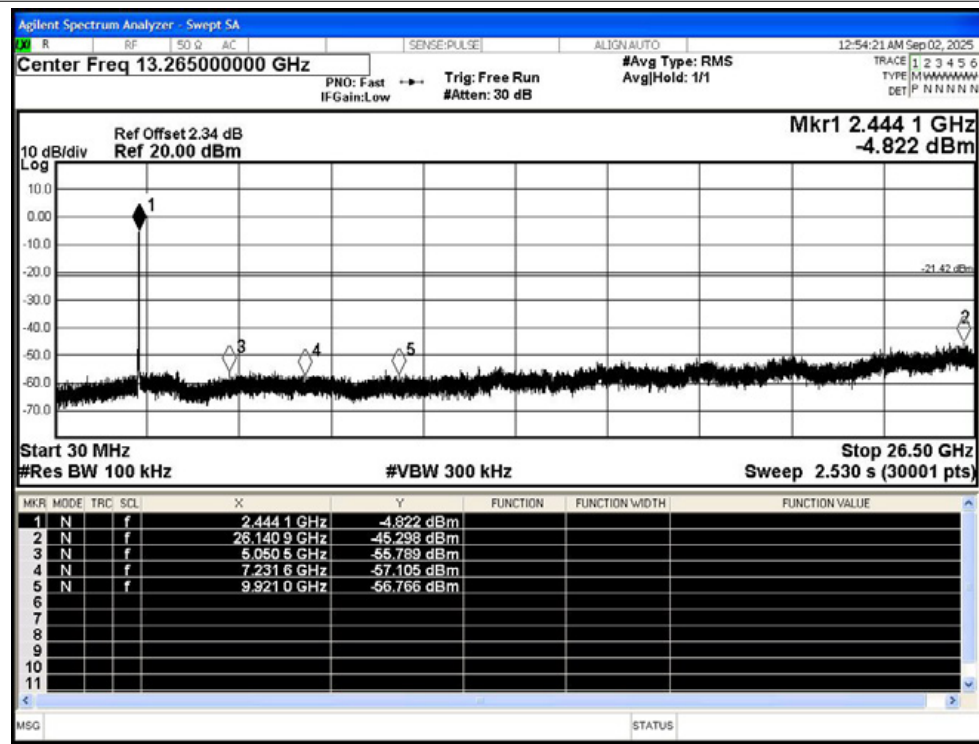
Tx. Spurious NVNT g 2412MHz Ant1 Emission



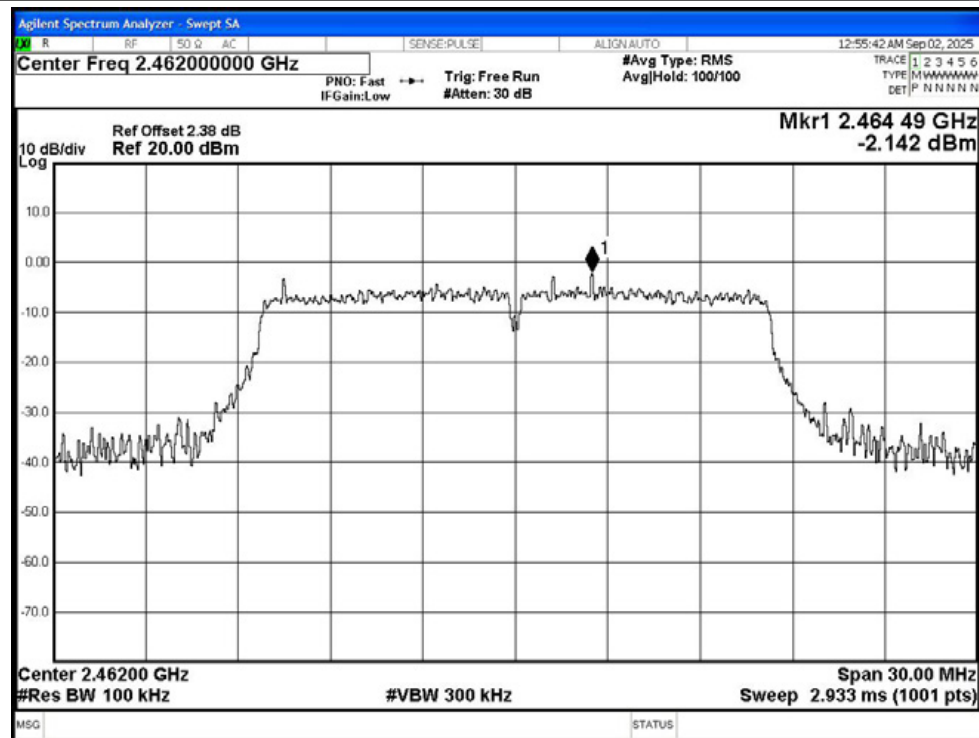
Tx. Spurious NVNT g 2437MHz Ant1 Ref



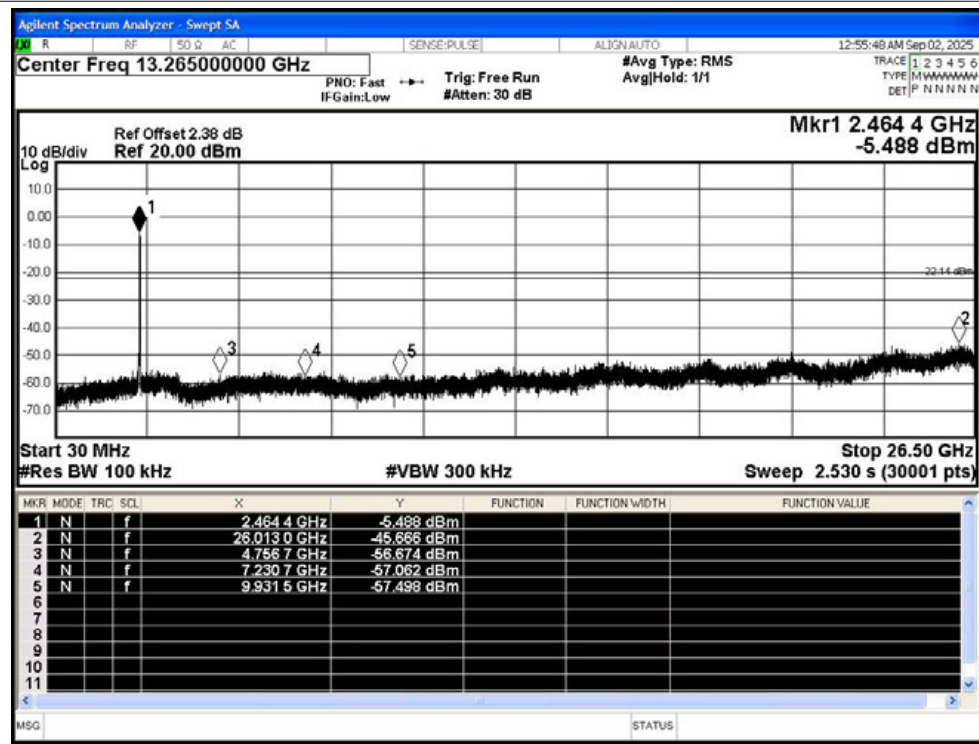
Tx. Spurious NVNT g 2437MHz Ant1 Emission



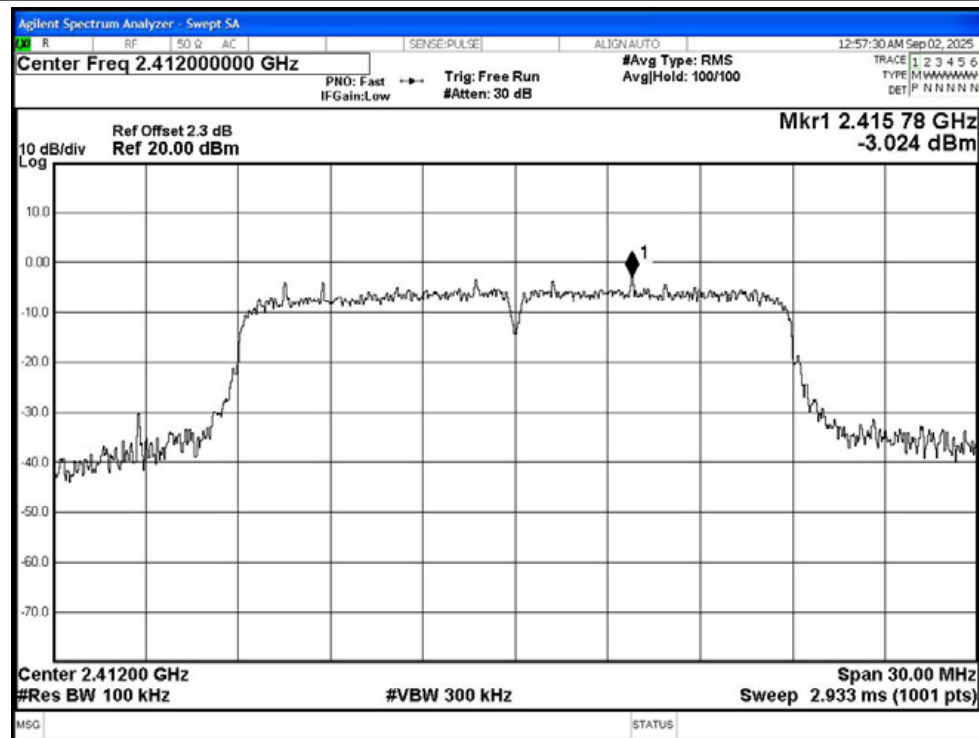
Tx. Spurious NVNT g 2462MHz Ant1 Ref



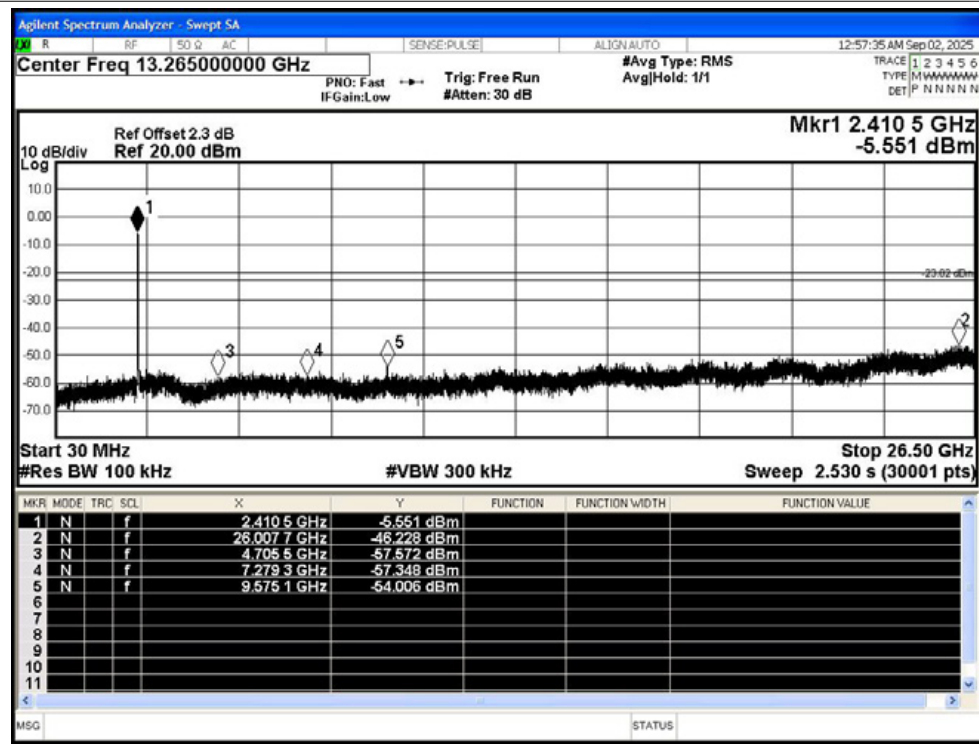
Tx. Spurious NVNT g 2462MHz Ant1 Emission



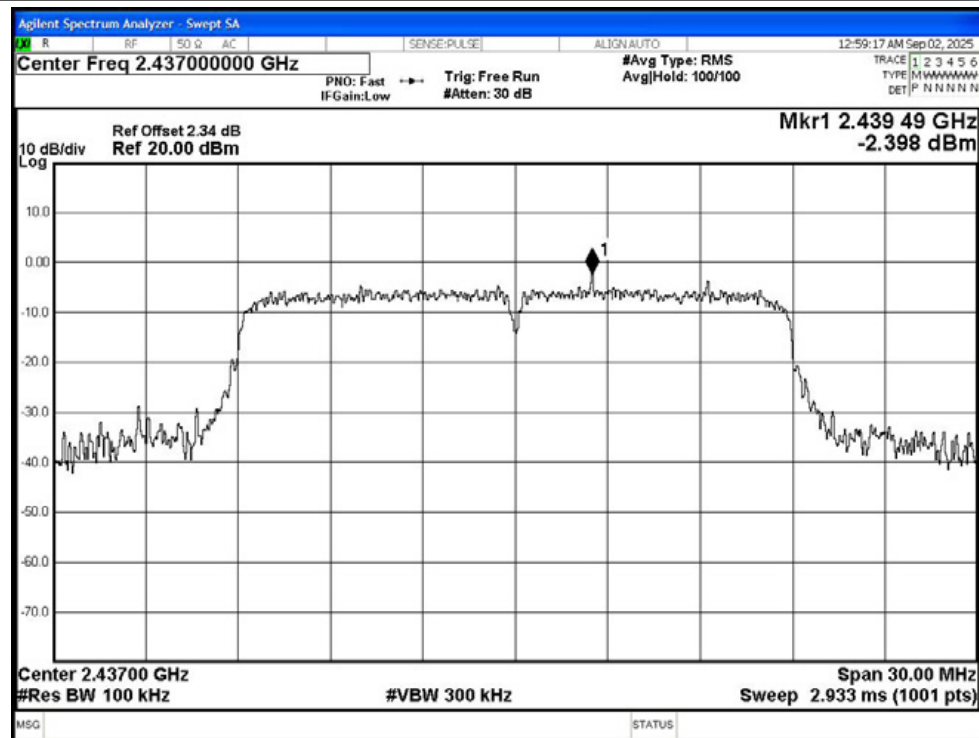
Tx. Spurious NVNT n20 2412MHz Ant1 Ref



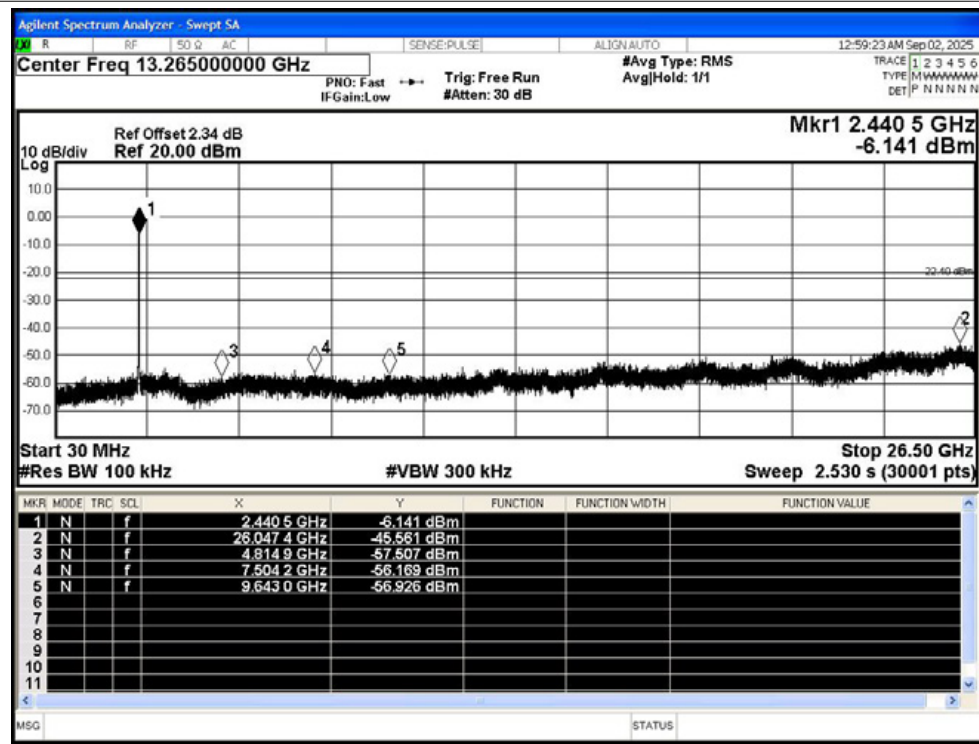
Tx. Spurious NVNT n20 2412MHz Ant1 Emission



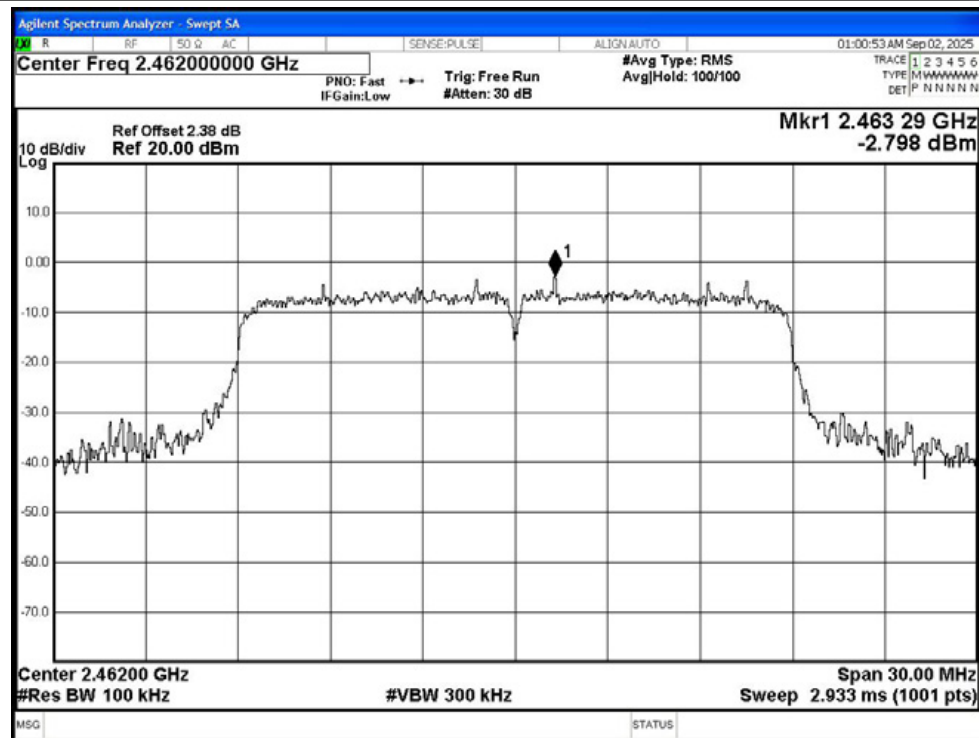
Tx. Spurious NVNT n20 2437MHz Ant1 Ref



Tx. Spurious NVNT n20 2437MHz Ant1 Emission



Tx. Spurious NVNT n20 2462MHz Ant1 Ref



Tx. Spurious NVNT n20 2462MHz Ant1 Emission

