



Appendix C

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Smart Diagnostic System

Test Model: P102

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Taylor Hu
Supervised by:	Nick Peng





C.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant0	9.048	>=0.5	Pass
NVNT	b	2437	Ant0	9.585	>=0.5	Pass
NVNT	b	2462	Ant0	10.02	>=0.5	Pass
NVNT	g	2412	Ant0	15.743	>=0.5	Pass
NVNT	g	2437	Ant0	16.289	>=0.5	Pass
NVNT	g	2462	Ant0	15.741	>=0.5	Pass
NVNT	n20	2412	Ant0	16.217	>=0.5	Pass
NVNT	n20	2437	Ant0	16.923	>=0.5	Pass
NVNT	n20	2462	Ant0	16.586	>=0.5	Pass
NVNT	n40	2422	Ant0	35.162	>=0.5	Pass
NVNT	n40	2437	Ant0	35.124	>=0.5	Pass
NVNT	n40	2452	Ant0	35.538	>=0.5	Pass

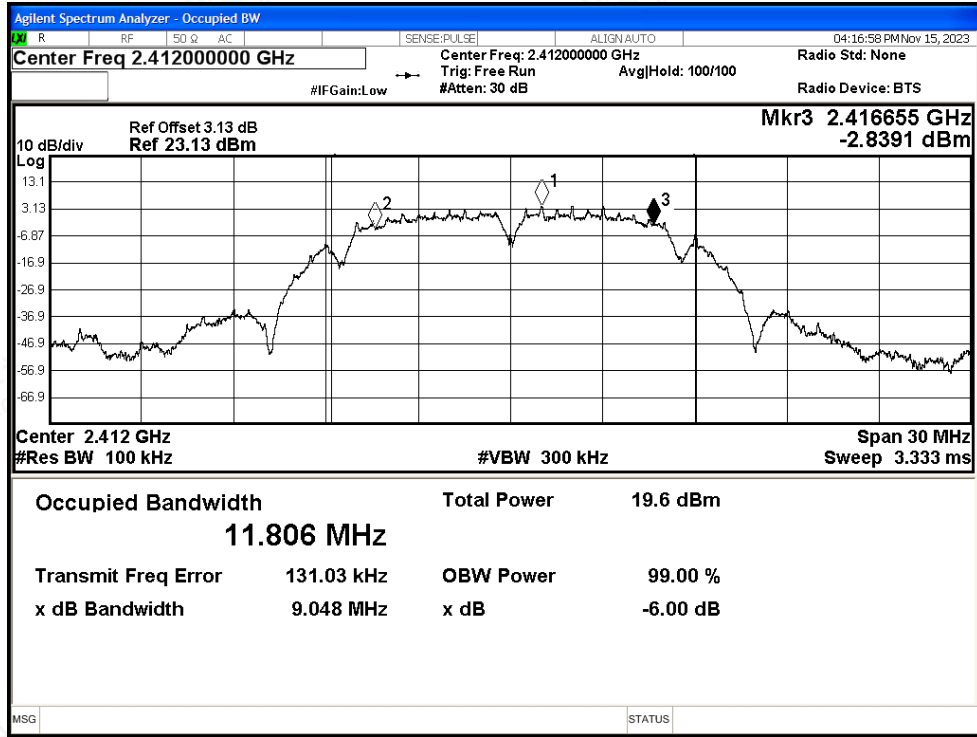


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 Scan code to check authenticity

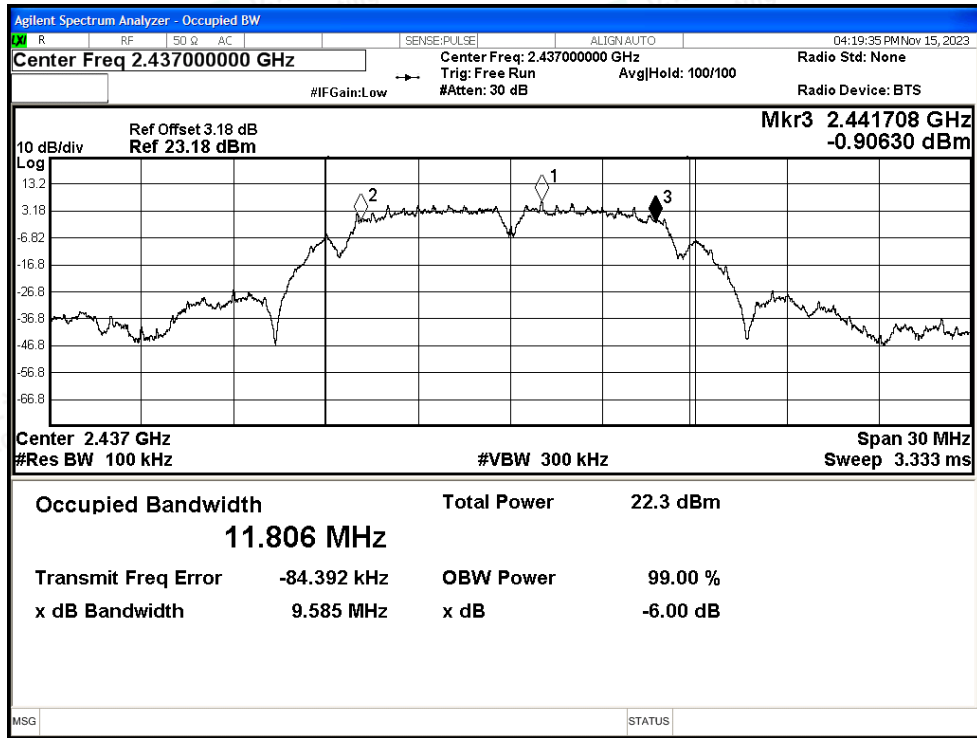


Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant0

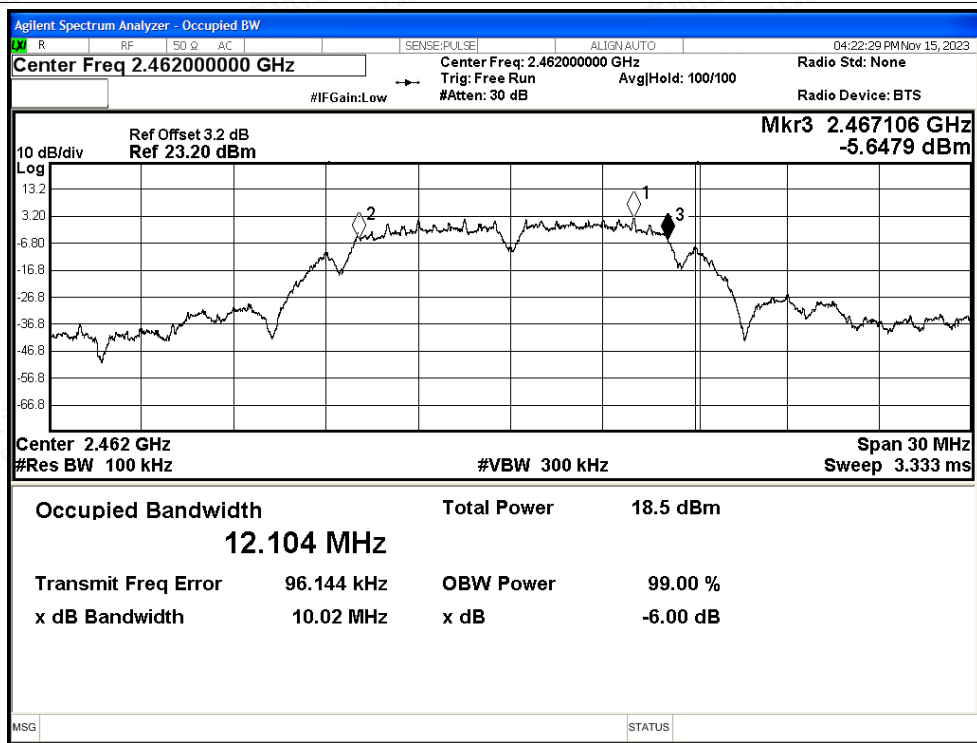


-6dB Bandwidth NVNT b 2437MHz Ant0

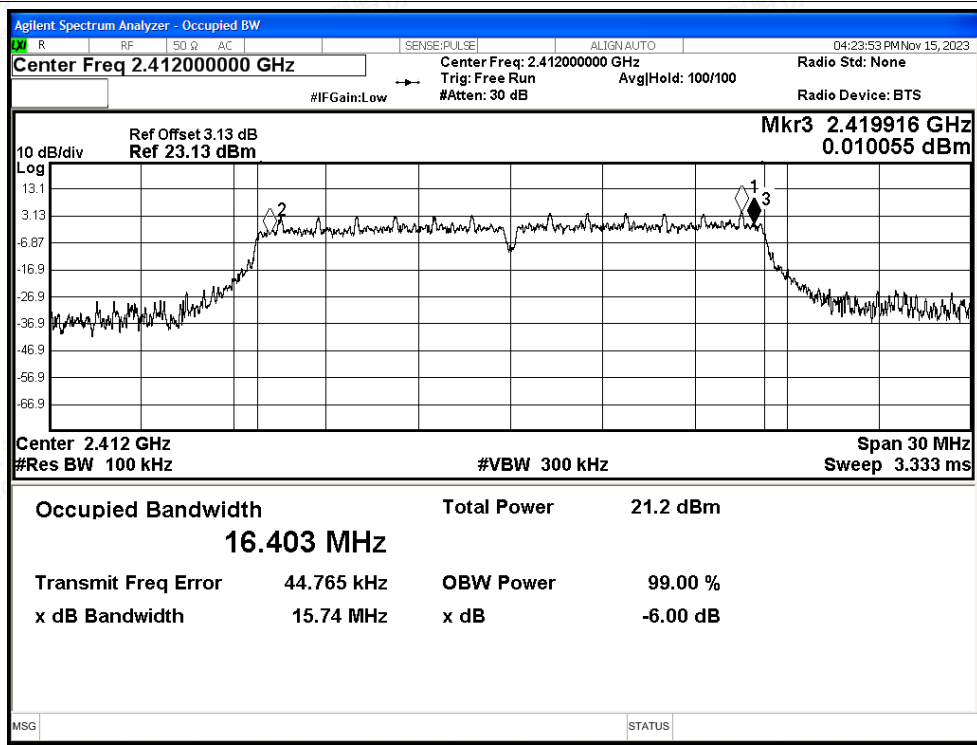




-6dB Bandwidth NVNT b 2462MHz Ant0

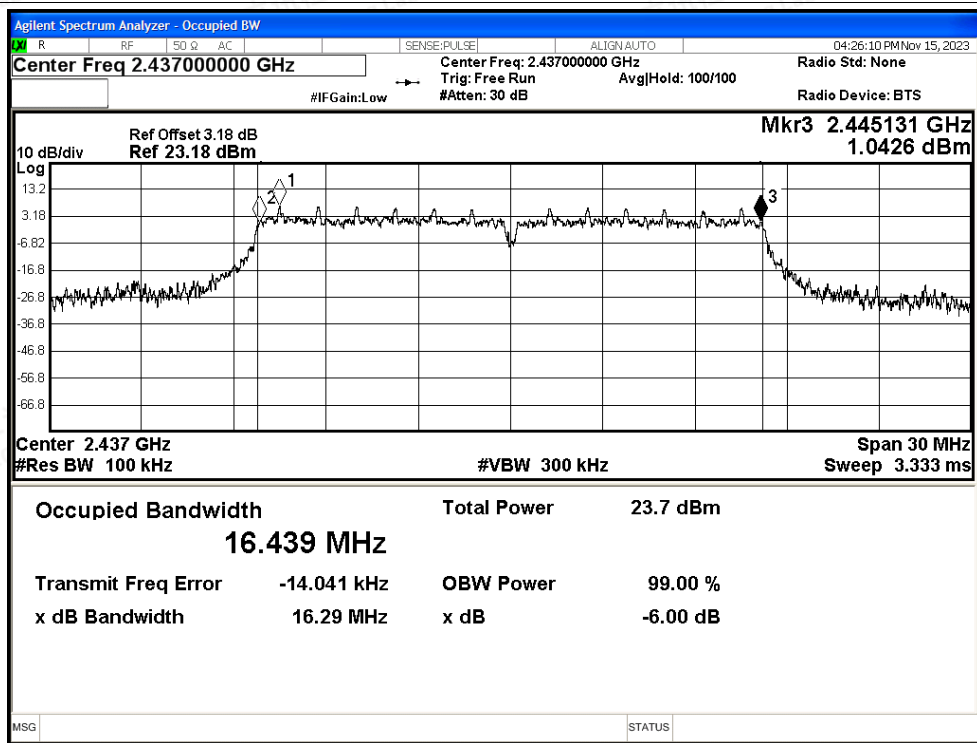


-6dB Bandwidth NVNT g 2412MHz Ant0

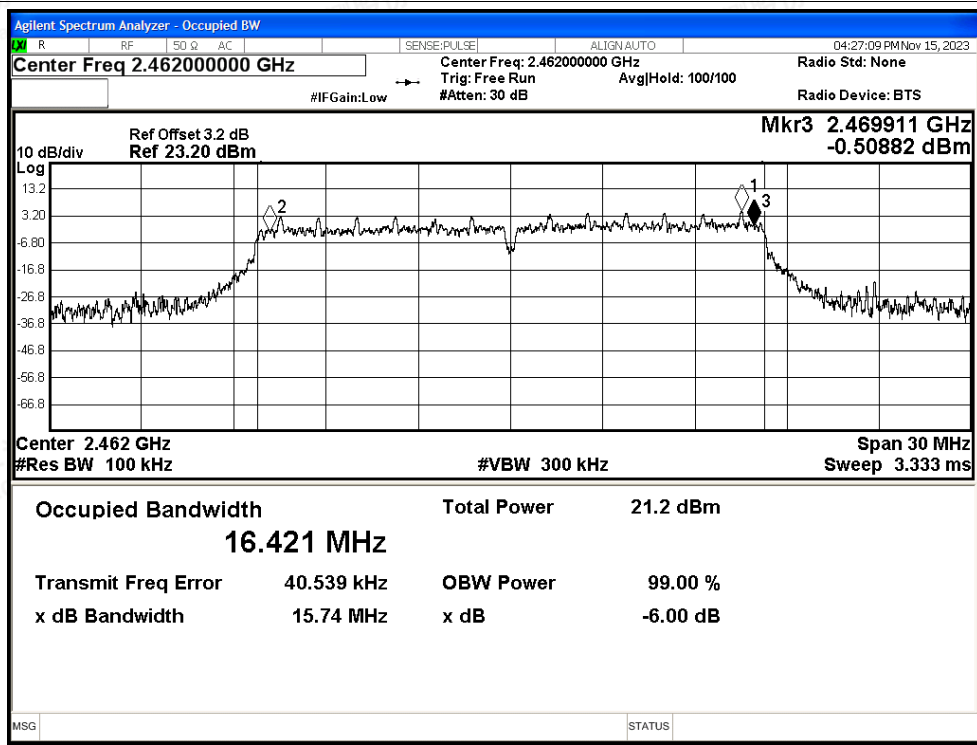




-6dB Bandwidth NVNT g 2437MHz Ant0

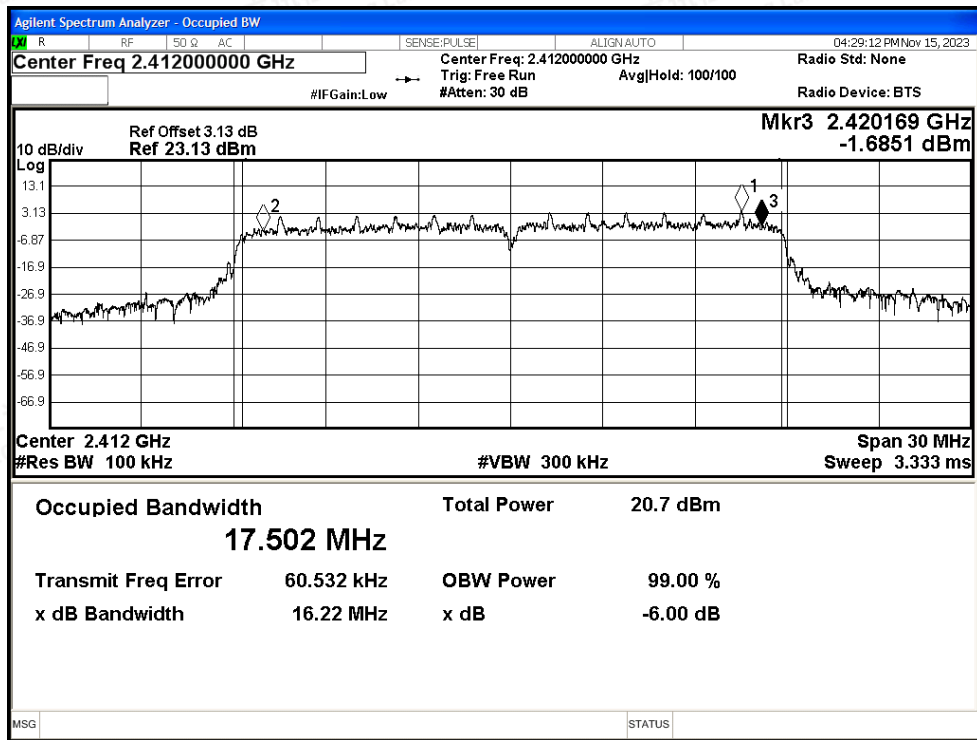


-6dB Bandwidth NVNT g 2462MHz Ant0

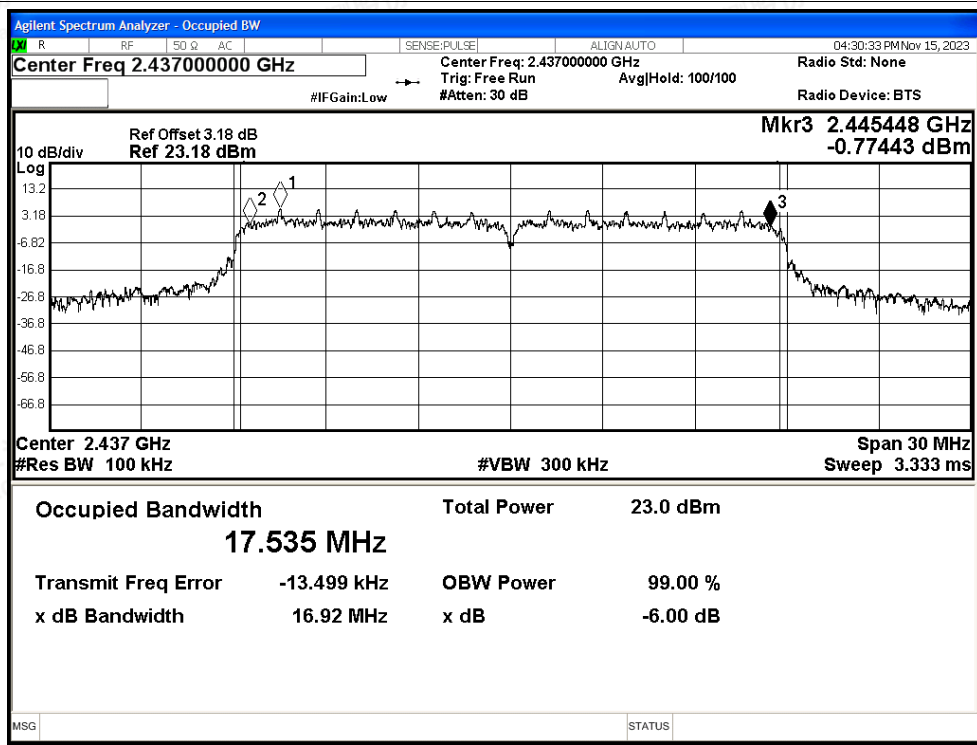




-6dB Bandwidth NVNT n20 2412MHz Ant0

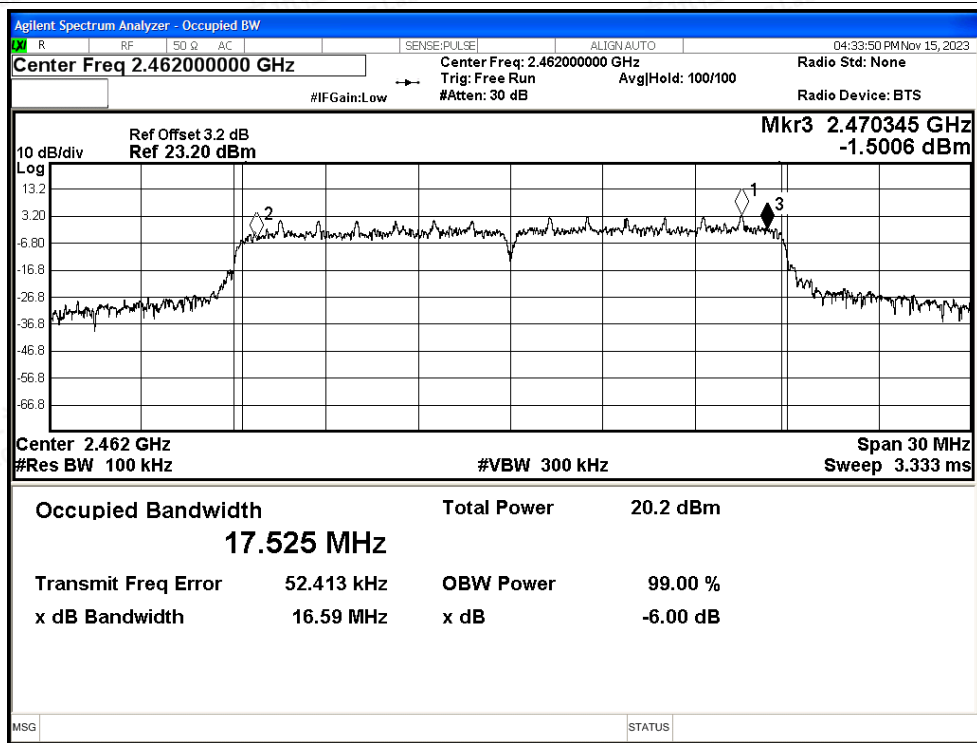


-6dB Bandwidth NVNT n20 2437MHz Ant0

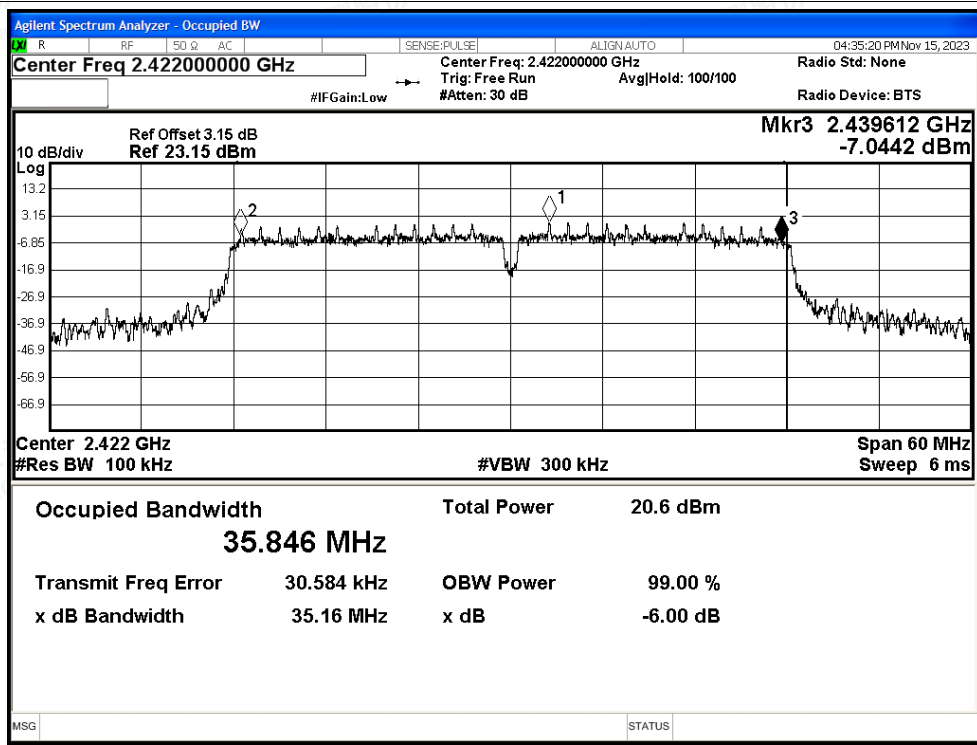




-6dB Bandwidth NVNT n20 2462MHz Ant0

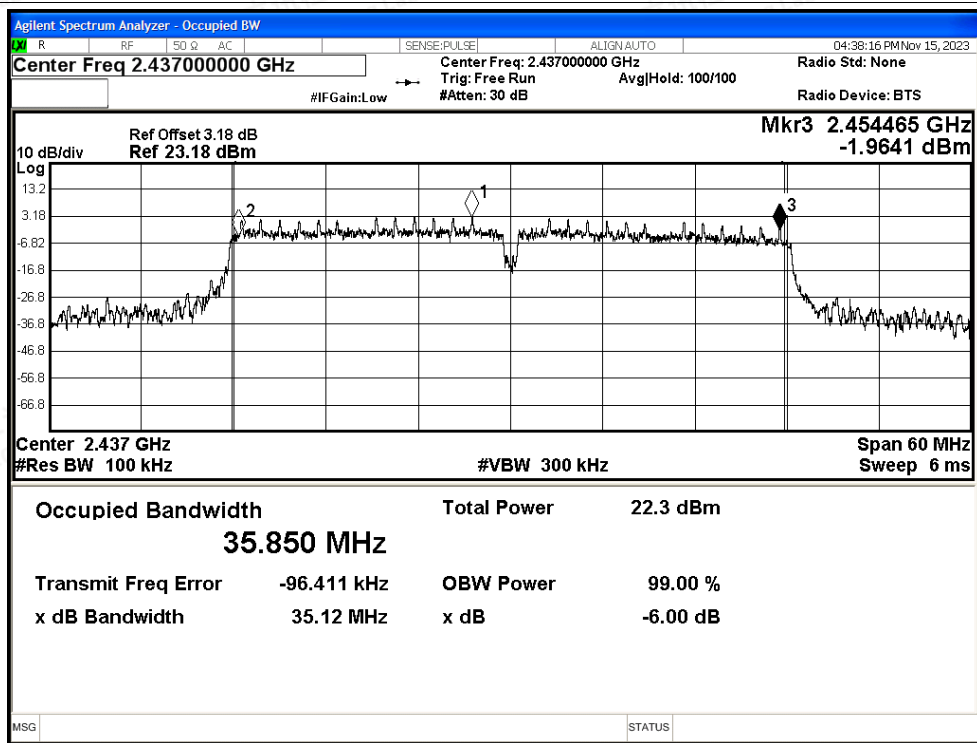


-6dB Bandwidth NVNT n40 2422MHz Ant0

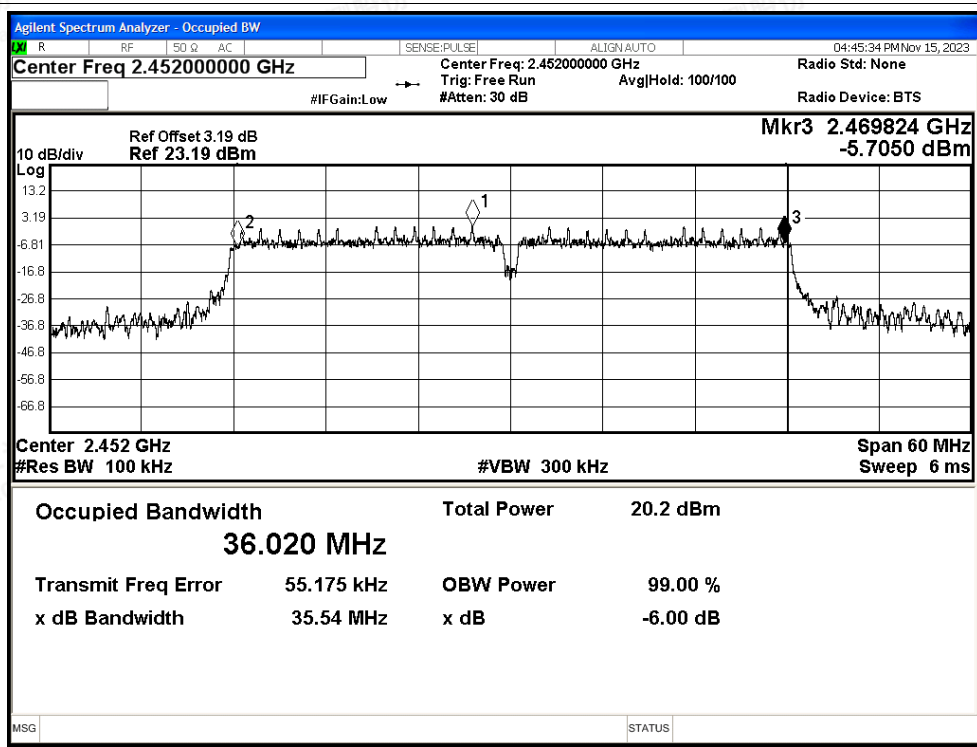




-6dB Bandwidth NVNT n40 2437MHz Ant0



-6dB Bandwidth NVNT n40 2452MHz Ant0





Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.623	≥ 0.5	Pass
NVNT	b	2437	Ant1	9.101	≥ 0.5	Pass
NVNT	b	2462	Ant1	9.527	≥ 0.5	Pass
NVNT	g	2412	Ant1	16.03	≥ 0.5	Pass
NVNT	g	2437	Ant1	15.927	≥ 0.5	Pass
NVNT	g	2462	Ant1	16.074	≥ 0.5	Pass
NVNT	n20	2412	Ant1	16.795	≥ 0.5	Pass
NVNT	n20	2437	Ant1	16.2	≥ 0.5	Pass
NVNT	n20	2462	Ant1	16.766	≥ 0.5	Pass
NVNT	n40	2422	Ant1	35.222	≥ 0.5	Pass
NVNT	n40	2437	Ant1	35.127	≥ 0.5	Pass
NVNT	n40	2452	Ant1	35.435	≥ 0.5	Pass

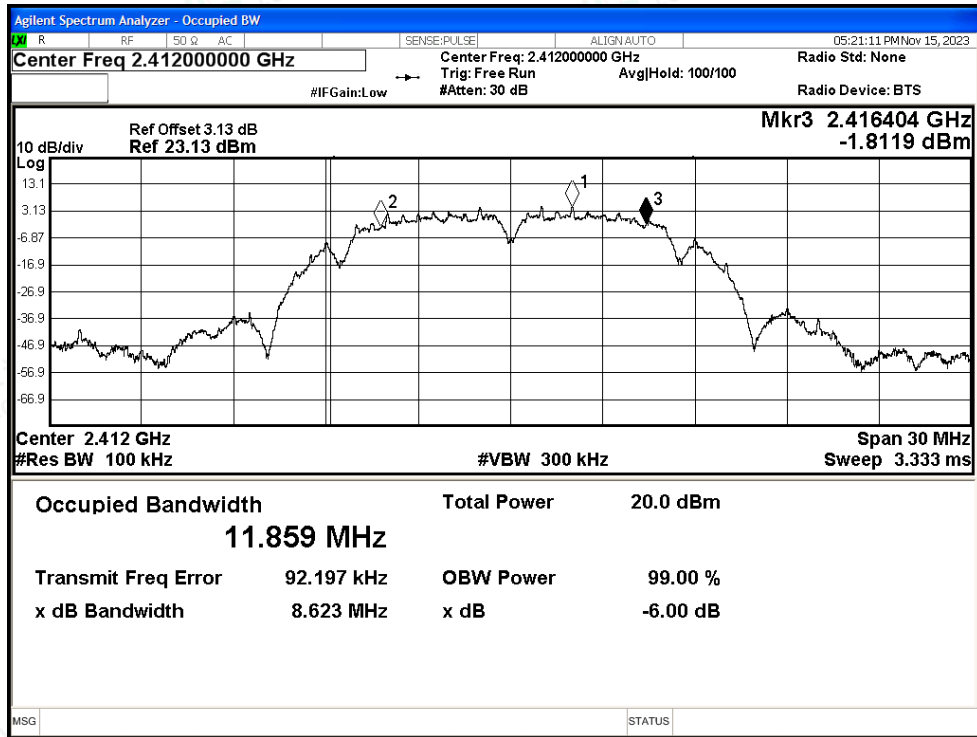


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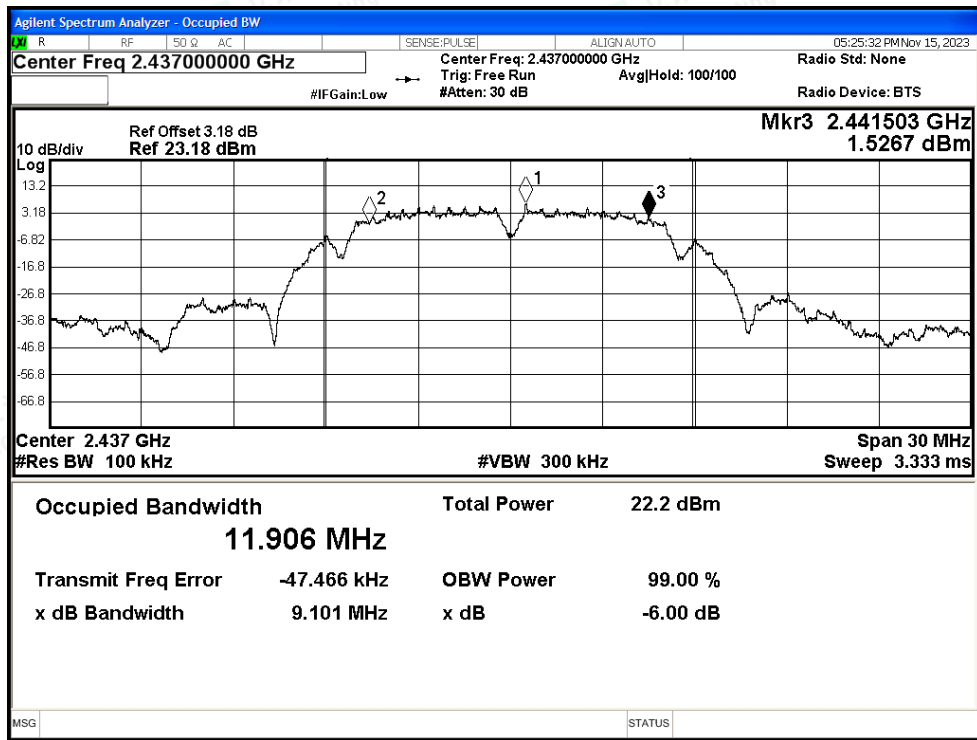


Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1

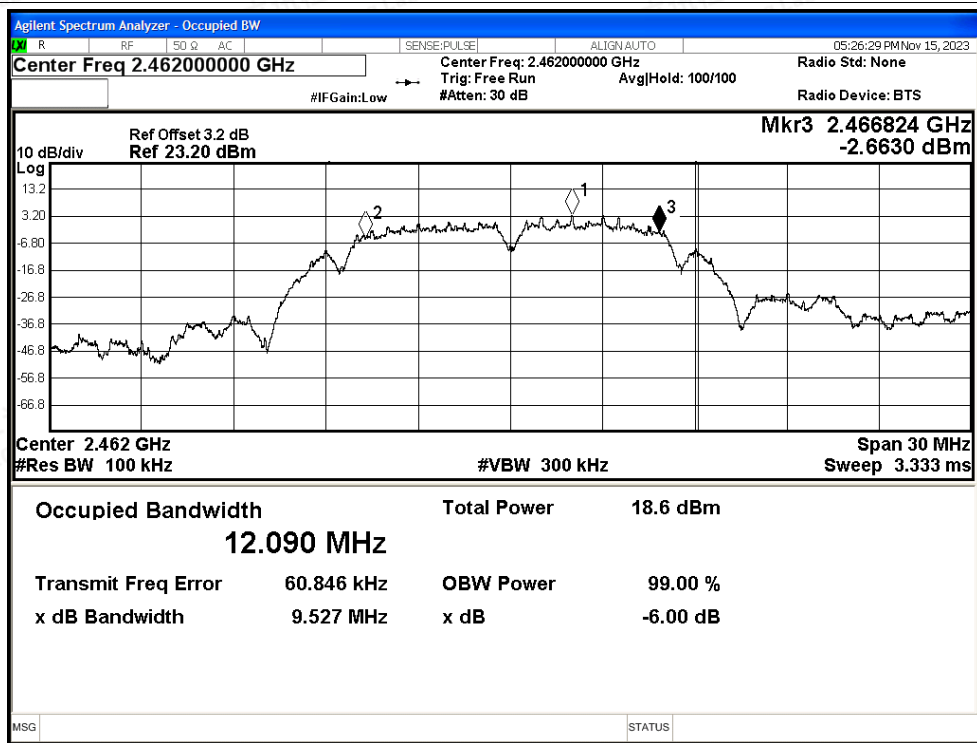


-6dB Bandwidth NVNT b 2437MHz Ant1

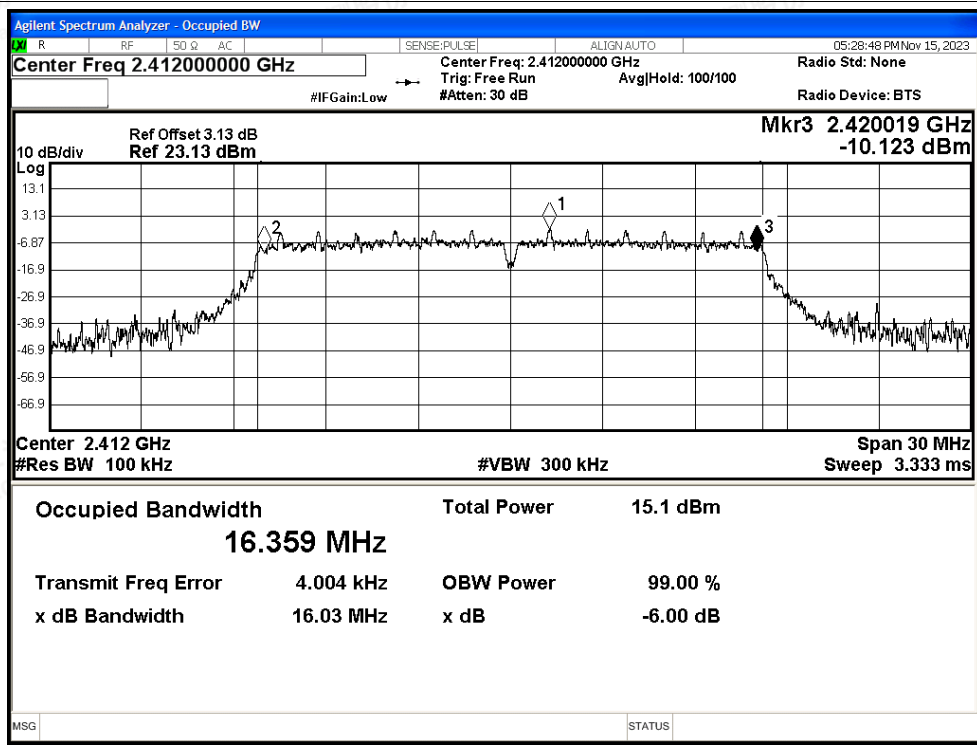




-6dB Bandwidth NVNT b 2462MHz Ant1

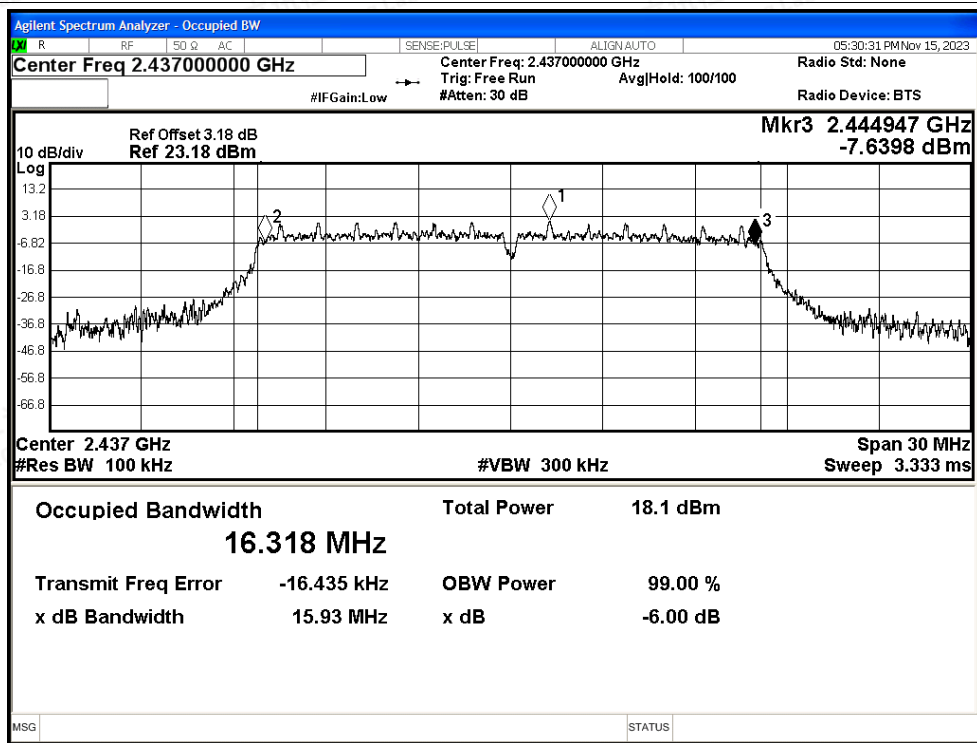


-6dB Bandwidth NVNT g 2412MHz Ant1

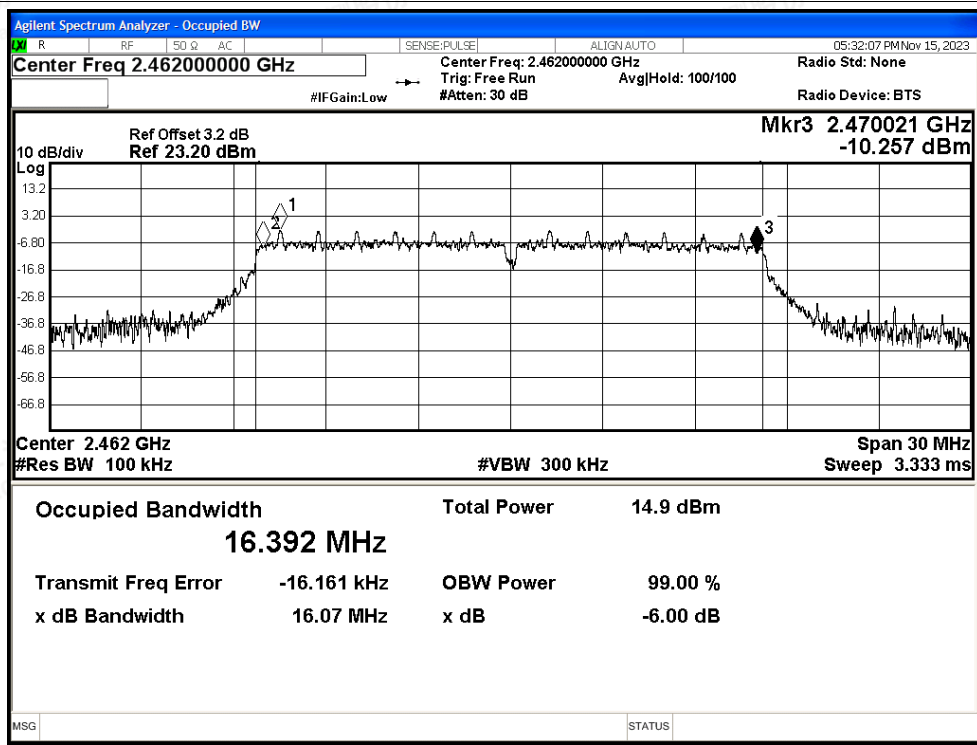




-6dB Bandwidth NVNT g 2437MHz Ant1



-6dB Bandwidth NVNT g 2462MHz Ant1

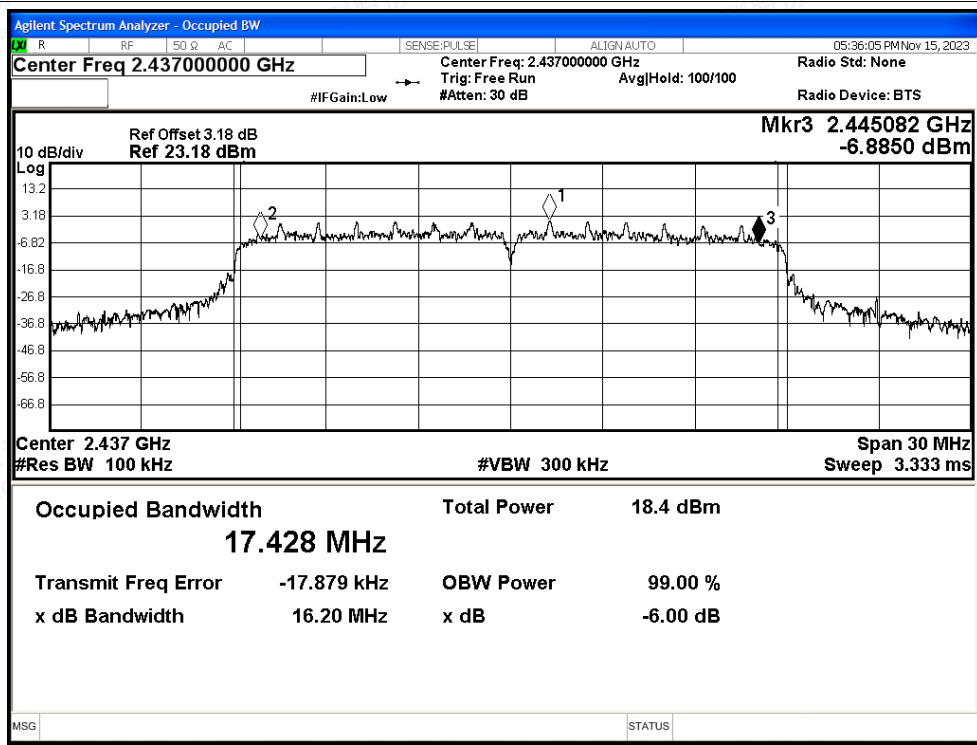




-6dB Bandwidth NVNT n20 2412MHz Ant1

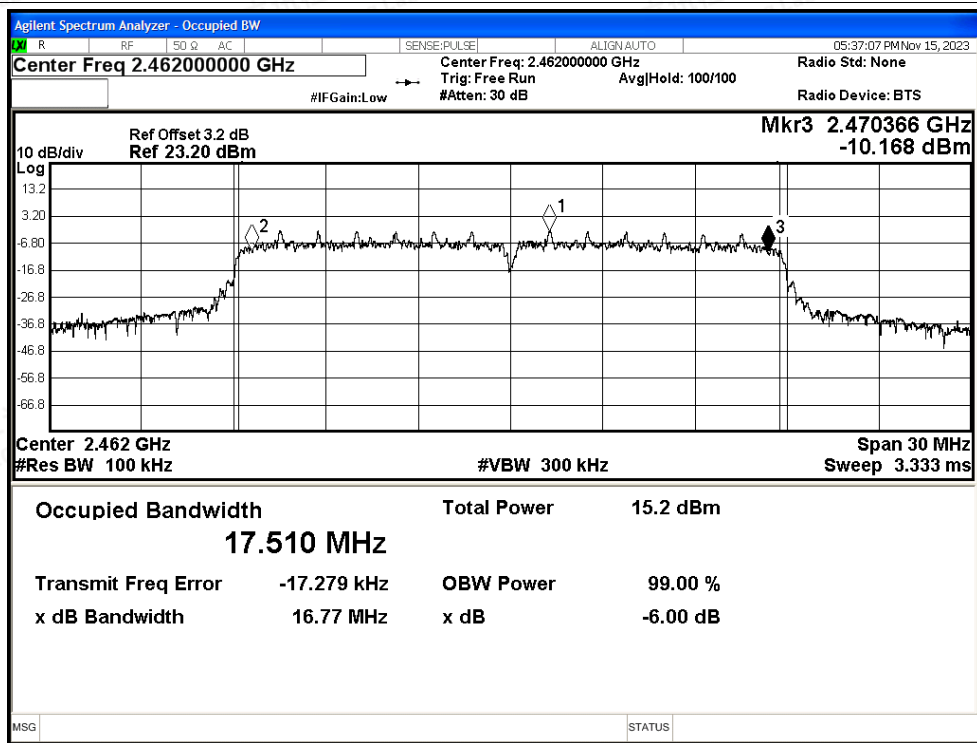


-6dB Bandwidth NVNT n20 2437MHz Ant1

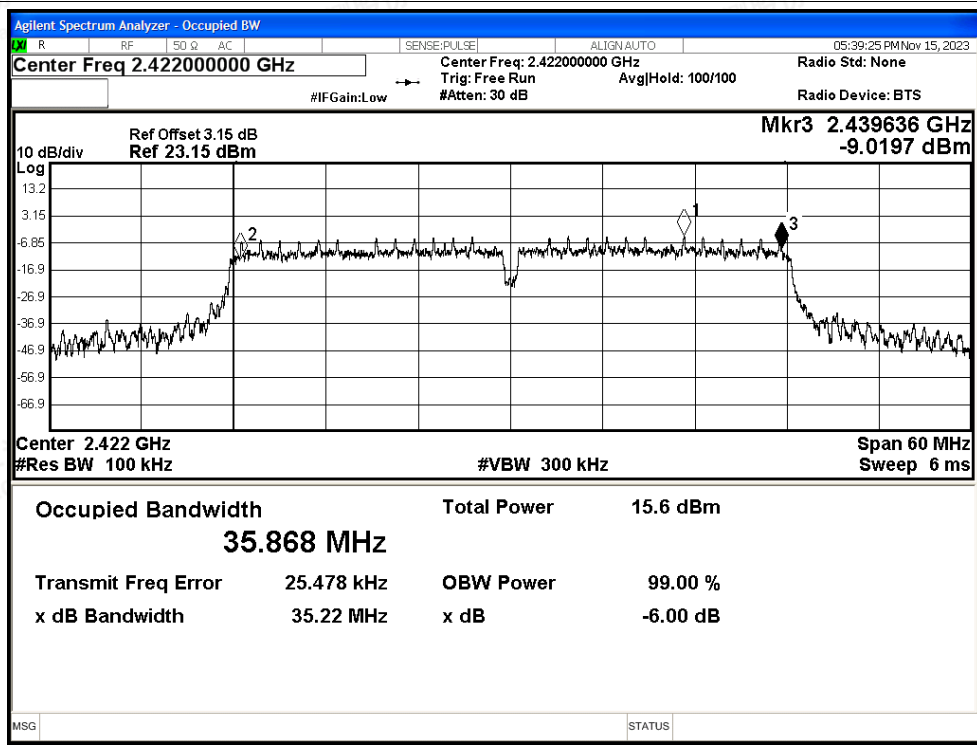




-6dB Bandwidth NVNT n20 2462MHz Ant1

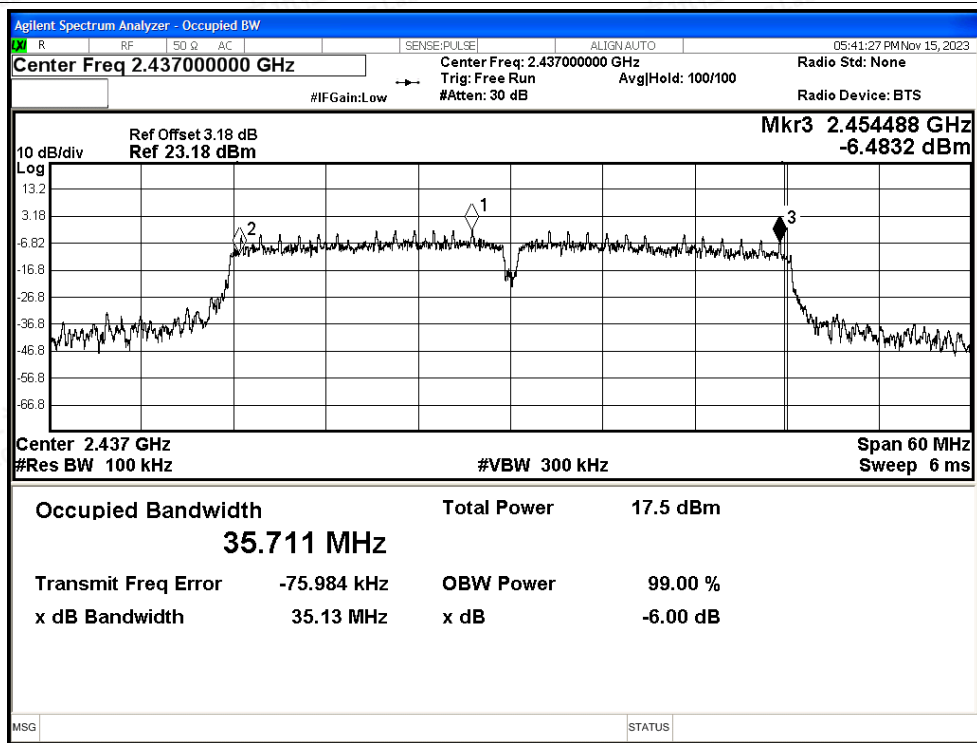


-6dB Bandwidth NVNT n40 2422MHz Ant1

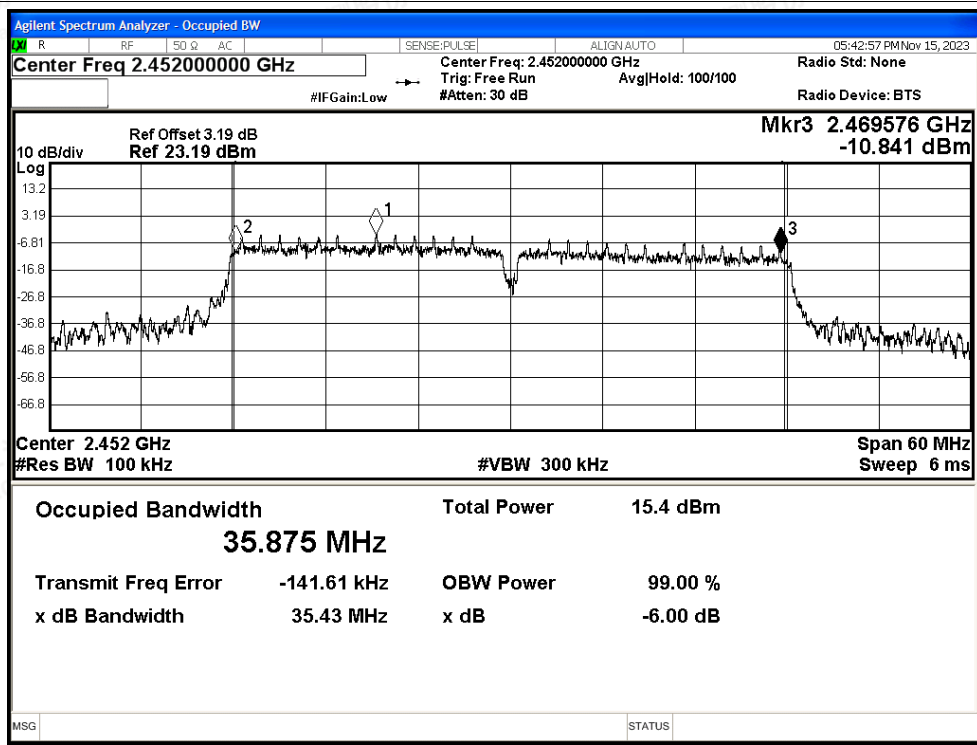




-6dB Bandwidth NVNT n40 2437MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant1





C.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant0	14.64	30	Pass
NVNT	b	2437	Ant0	17.38	30	Pass
NVNT	b	2462	Ant0	13.54	30	Pass
NVNT	g	2412	Ant0	15.65	30	Pass
NVNT	g	2437	Ant0	15.28	30	Pass
NVNT	g	2462	Ant0	15.28	30	Pass
NVNT	n20	2412	Ant0	15.68	30	Pass
NVNT	n20	2437	Ant0	14.27	30	Pass
NVNT	n20	2462	Ant0	13.32	30	Pass
NVNT	n40	2422	Ant0	13.64	30	Pass
NVNT	n40	2437	Ant0	15.52	30	Pass
NVNT	n40	2452	Ant0	13.34	30	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.02	30	Pass
NVNT	b	2437	Ant1	17.35	30	Pass
NVNT	b	2462	Ant1	13.73	30	Pass
NVNT	g	2412	Ant1	13.54	30	Pass
NVNT	g	2437	Ant1	16.43	30	Pass
NVNT	g	2462	Ant1	13.17	30	Pass
NVNT	n20	2412	Ant1	13.59	30	Pass
NVNT	n20	2437	Ant1	16.48	30	Pass
NVNT	n20	2462	Ant1	13.31	30	Pass
NVNT	n40	2422	Ant1	13.57	30	Pass
NVNT	n40	2437	Ant1	15.44	30	Pass
NVNT	n40	2452	Ant1	13.39	30	Pass



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C.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant0	-11.24	8	Pass
NVNT	b	2437	Ant0	-8.14	8	Pass
NVNT	b	2462	Ant0	-11.48	8	Pass
NVNT	g	2412	Ant0	-15.4	8	Pass
NVNT	g	2437	Ant0	-15.68	8	Pass
NVNT	g	2462	Ant0	-15.87	8	Pass
NVNT	n20	2412	Ant0	-15.67	8	Pass
NVNT	n20	2437	Ant0	-14.62	8	Pass
NVNT	n20	2462	Ant0	-17.43	8	Pass
NVNT	n40	2422	Ant0	-20.13	8	Pass
NVNT	n40	2437	Ant0	-15.92	8	Pass
NVNT	n40	2452	Ant0	-19.35	8	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-10.12	8	Pass
NVNT	b	2437	Ant1	-7.78	8	Pass
NVNT	b	2462	Ant1	-12.3	8	Pass
NVNT	g	2412	Ant1	-16.95	8	Pass
NVNT	g	2437	Ant1	-13.46	8	Pass
NVNT	g	2462	Ant1	-17.23	8	Pass
NVNT	n20	2412	Ant1	-16.15	8	Pass
NVNT	n20	2437	Ant1	-14.78	8	Pass
NVNT	n20	2462	Ant1	-17.7	8	Pass
NVNT	n40	2422	Ant1	-19.38	8	Pass
NVNT	n40	2437	Ant1	-16.85	8	Pass
NVNT	n40	2452	Ant1	-18.68	8	Pass

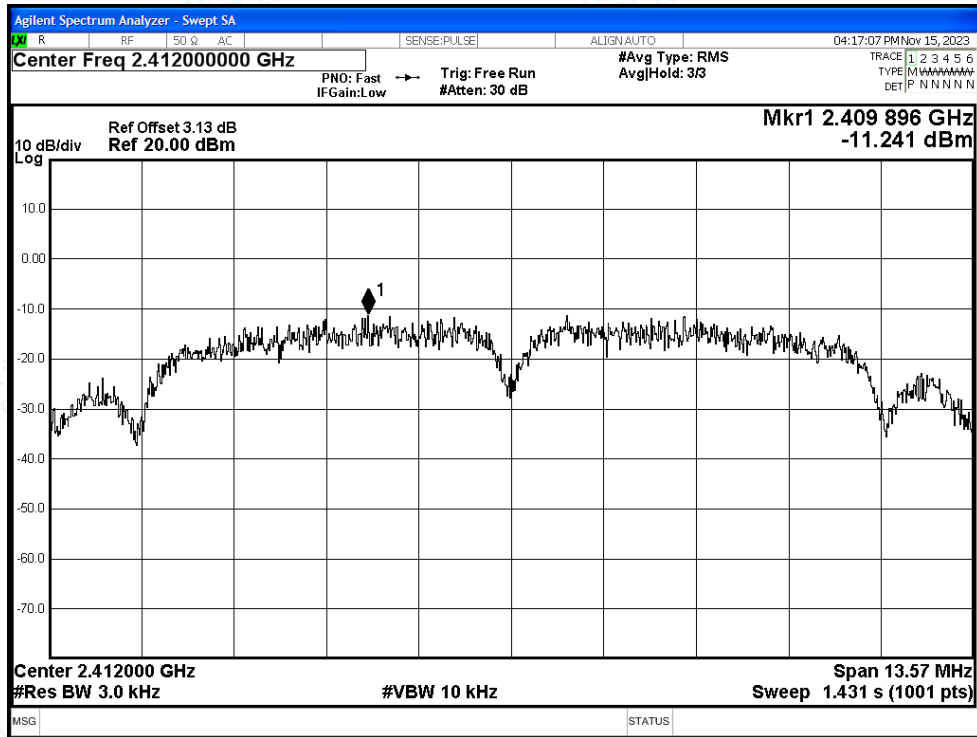


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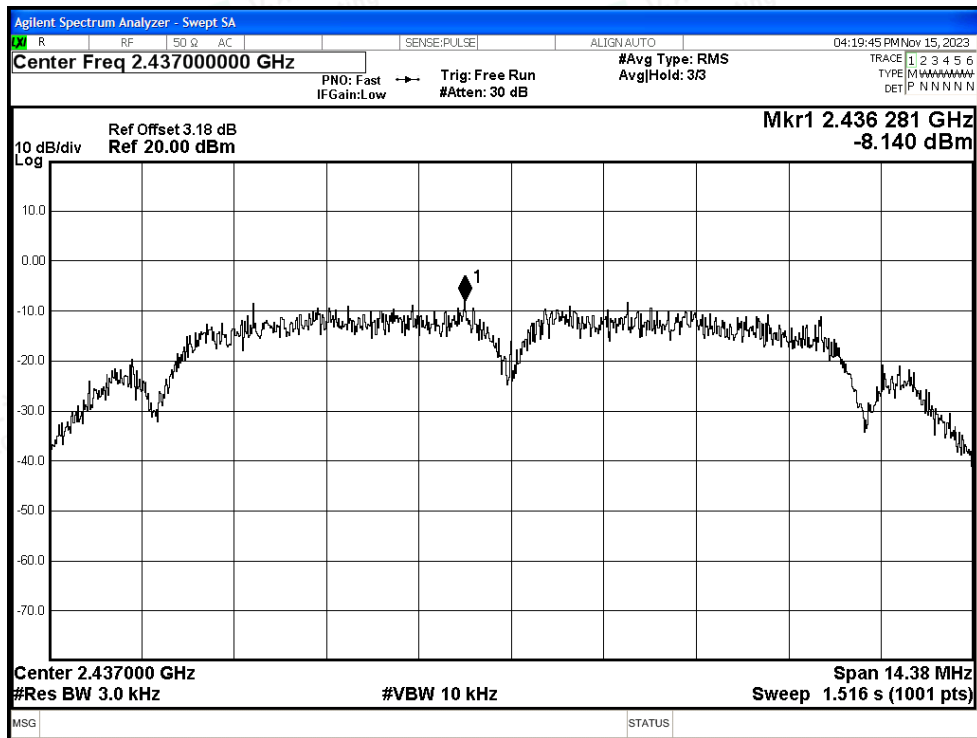


Test Graphs

PSD NVNT b 2412MHz Ant0

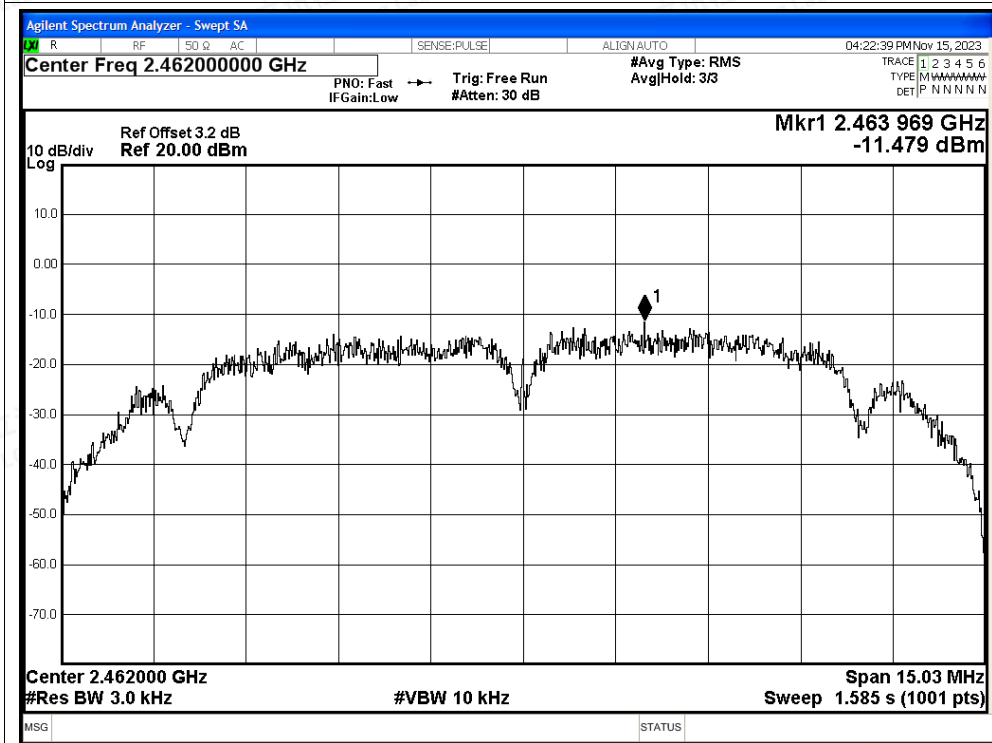


PSD NVNT b 2437MHz Ant0

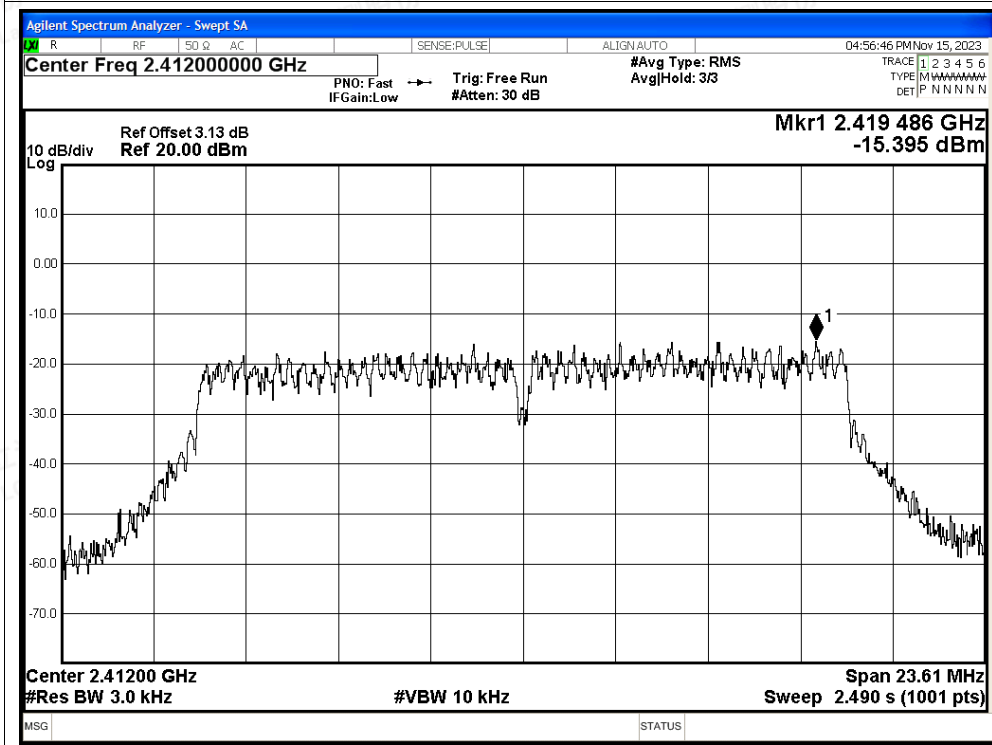




PSD NVNT b 2462MHz Ant0

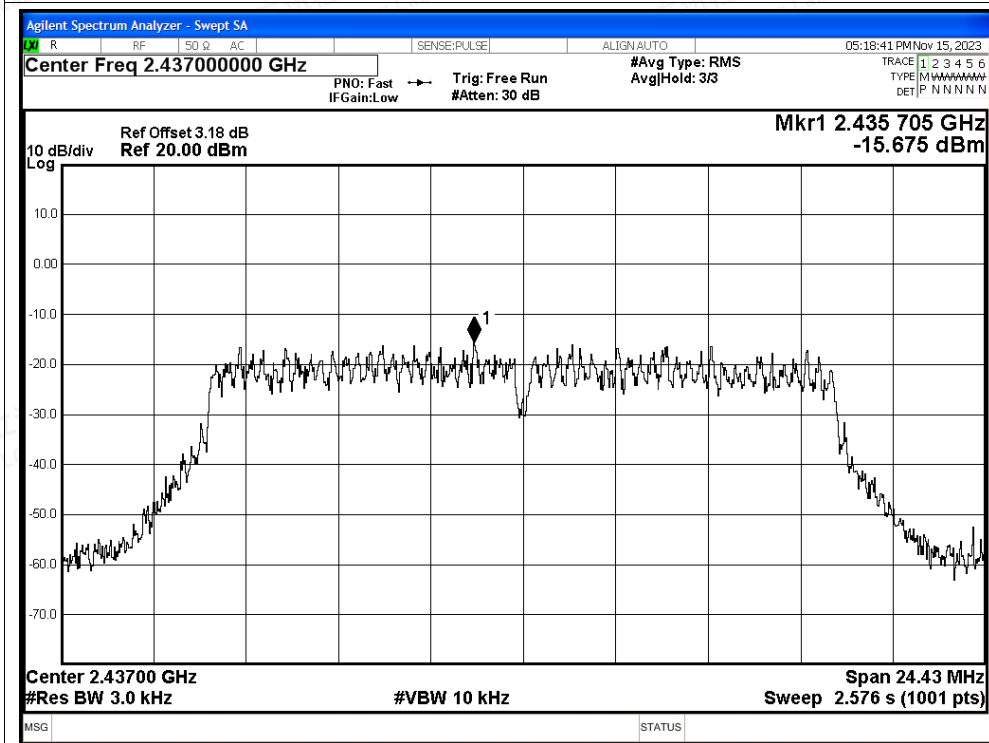


PSD NVNT g 2412MHz Ant0

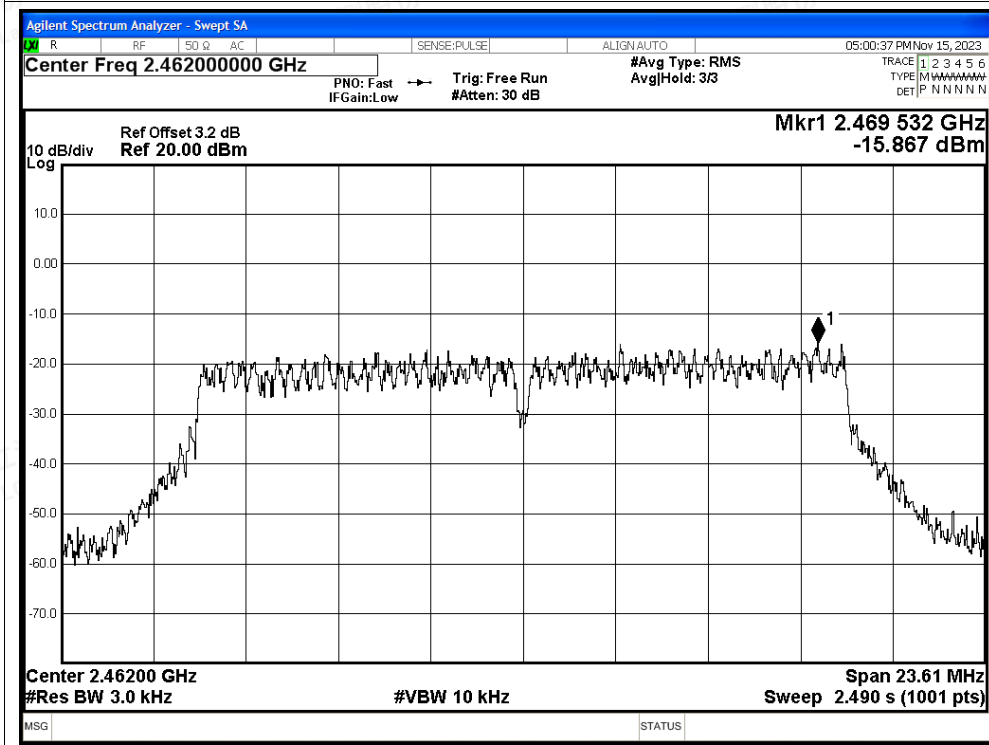


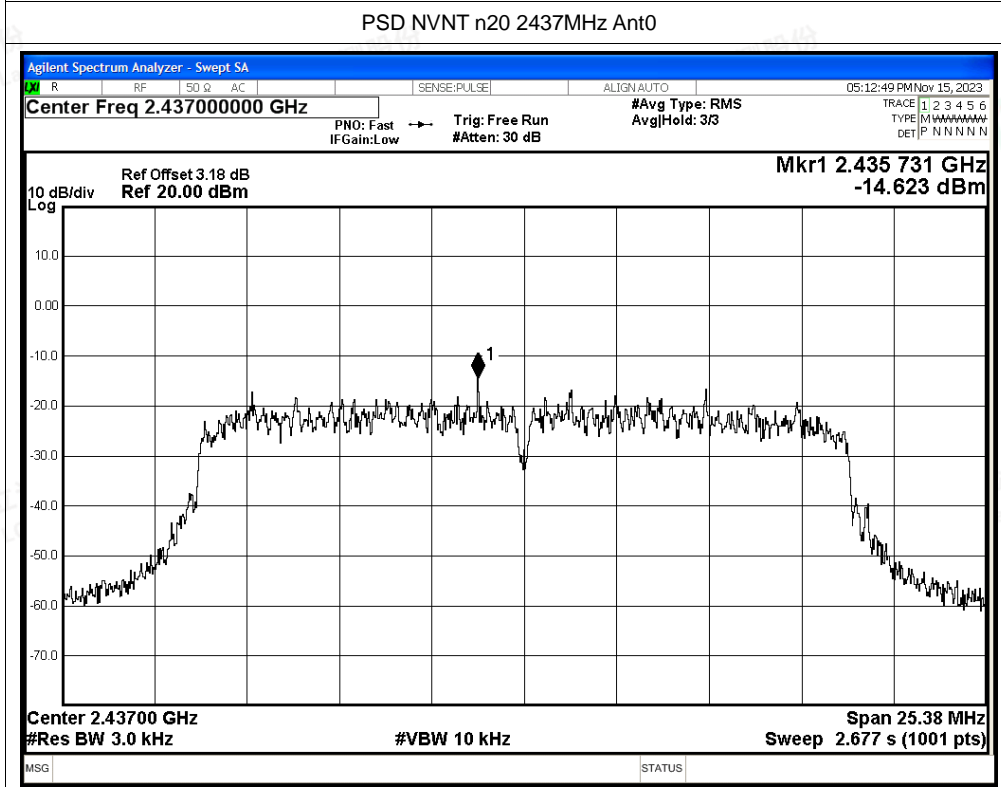
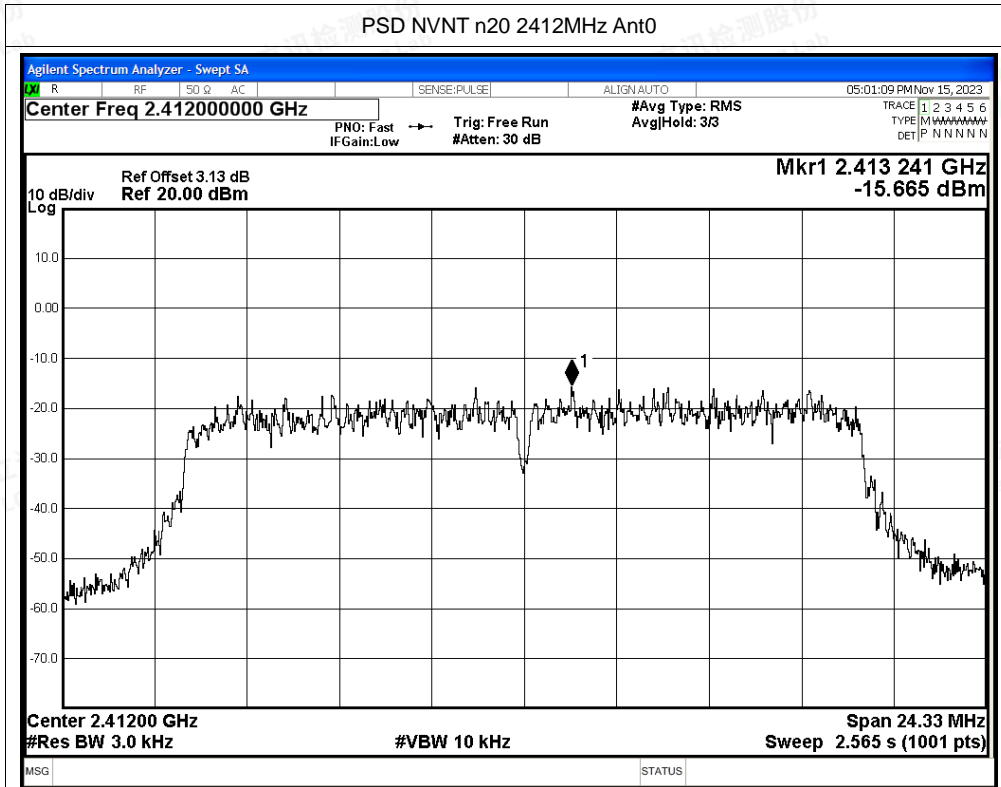


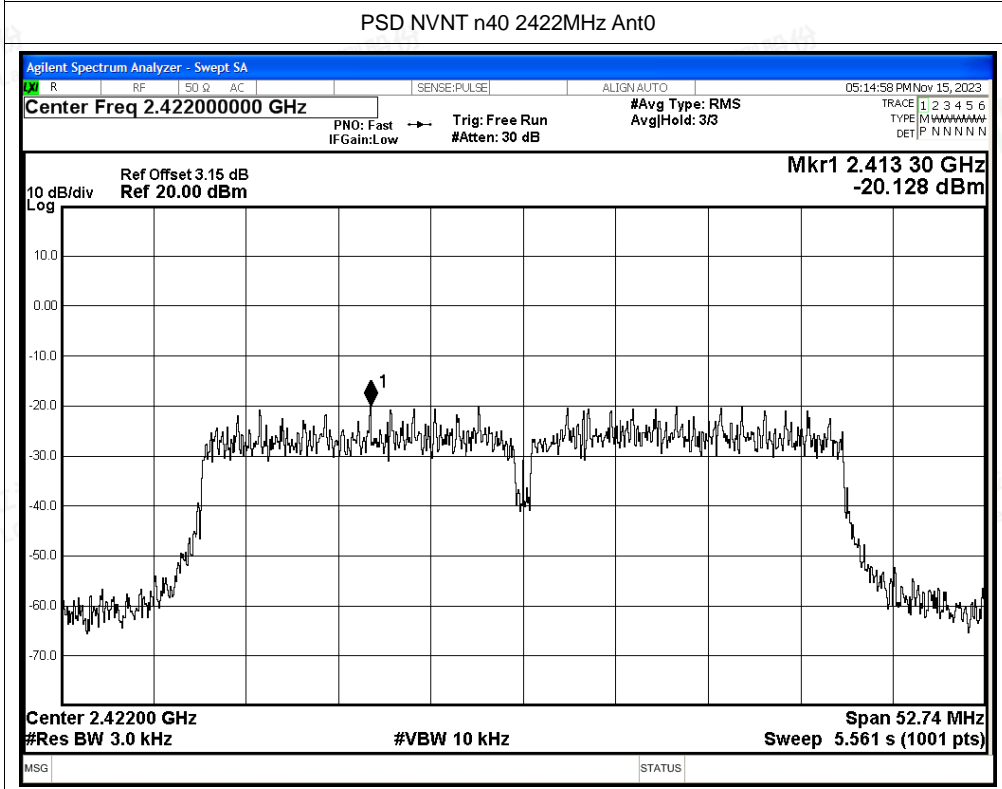
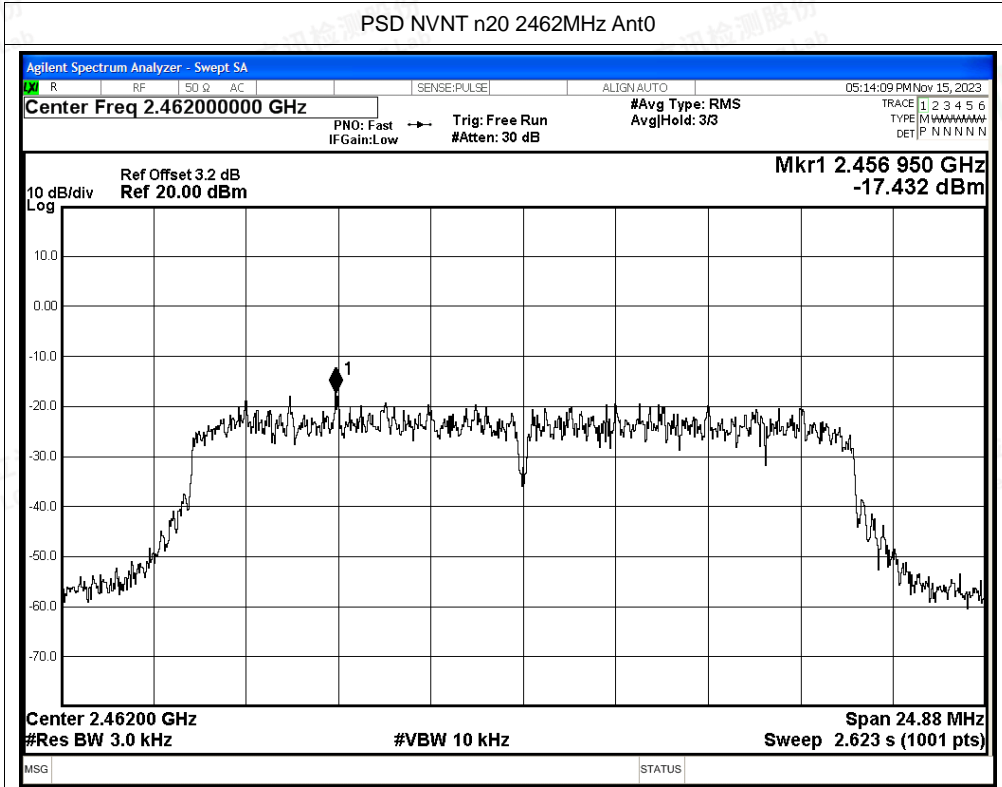
PSD NVNT g 2437MHz Ant0

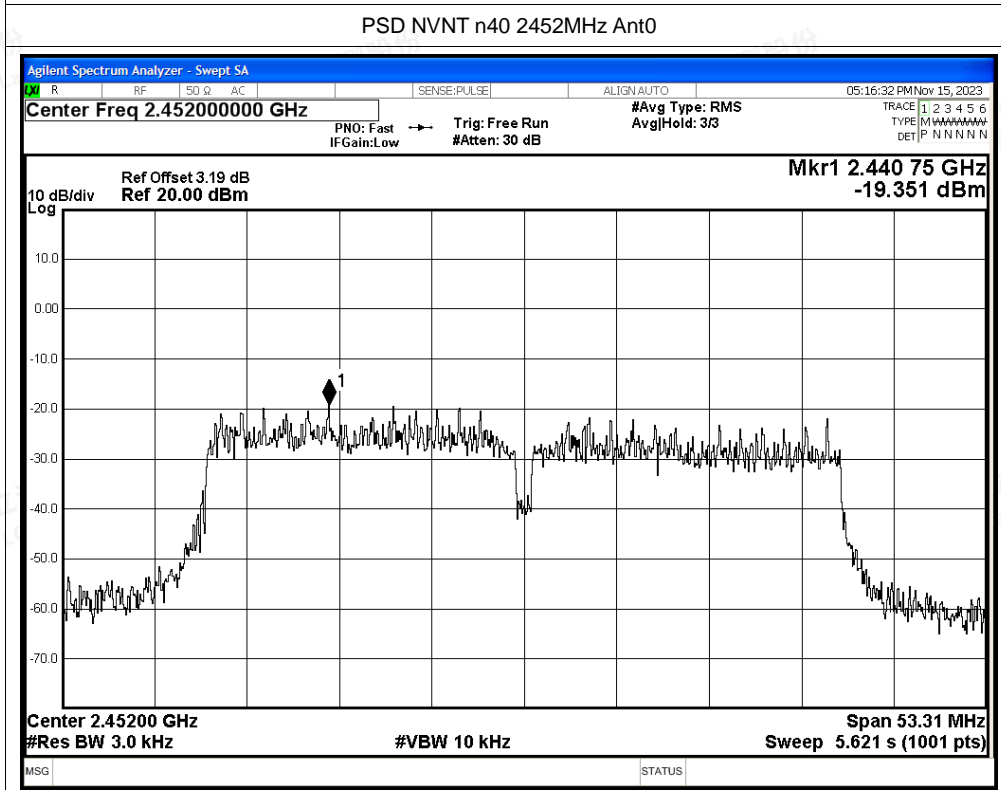
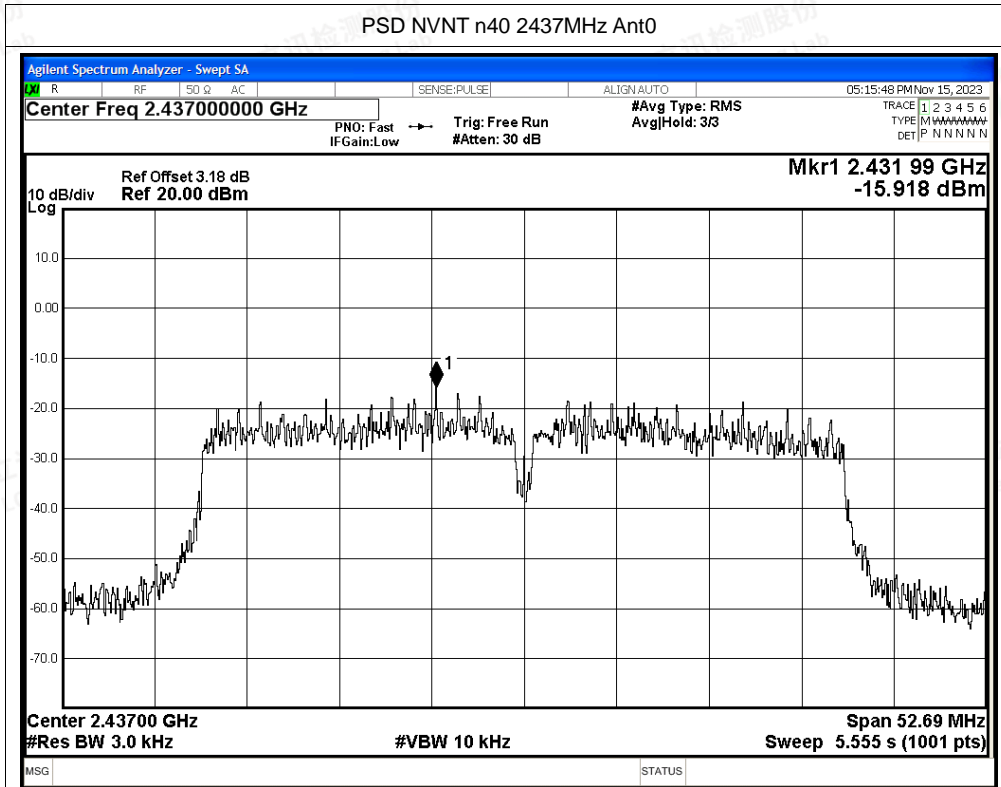


PSD NVNT g 2462MHz Ant0





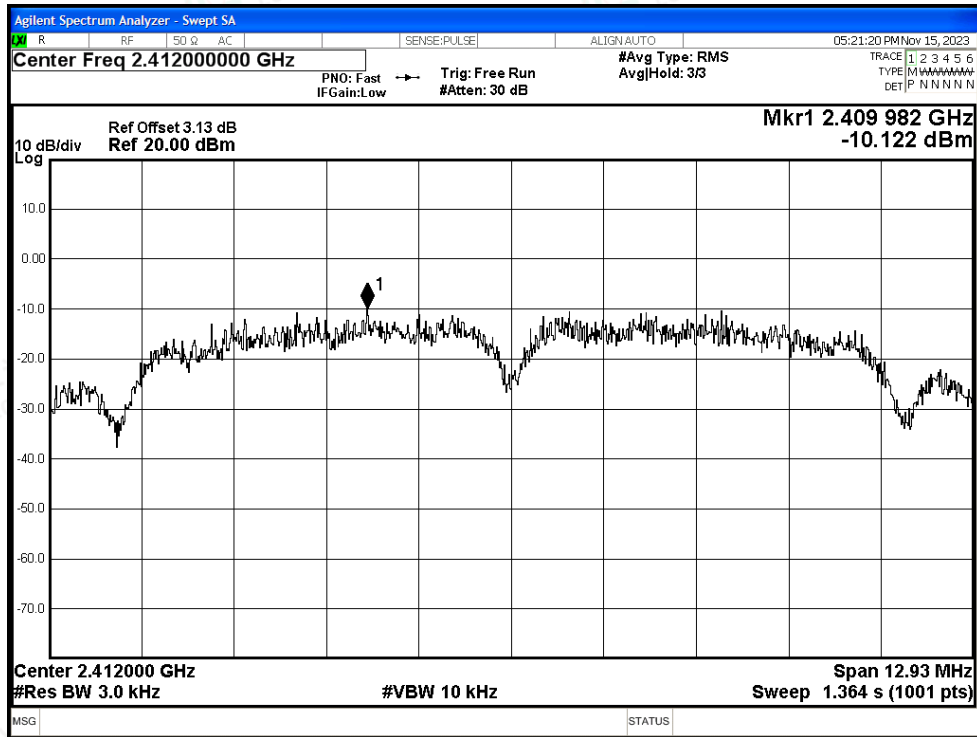




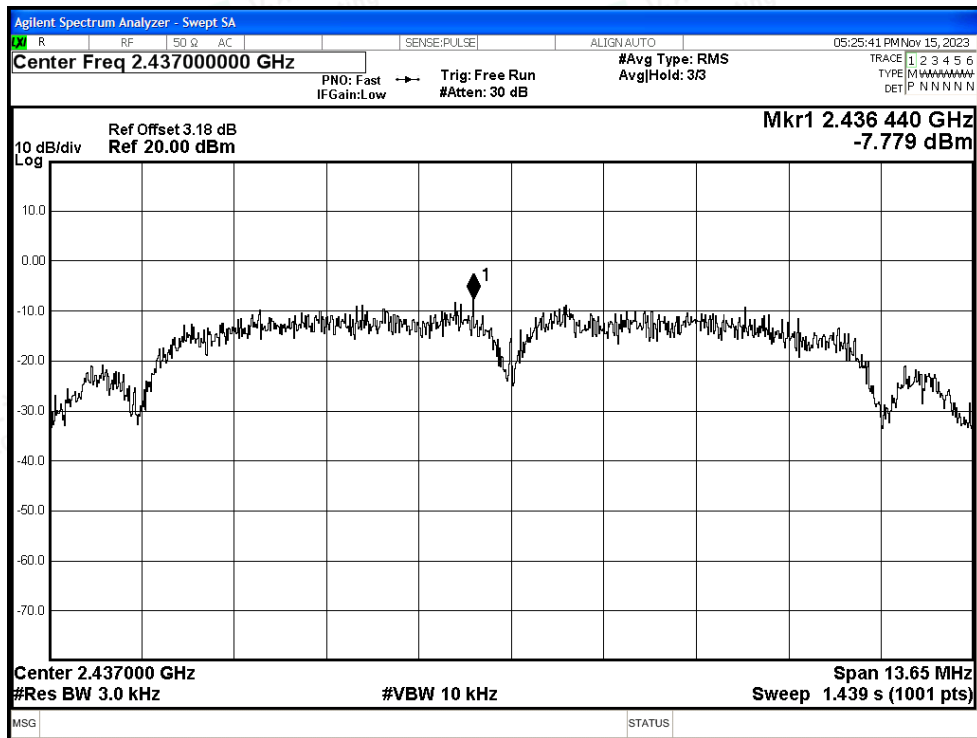


Test Graphs

PSD NVNT b 2412MHz Ant1

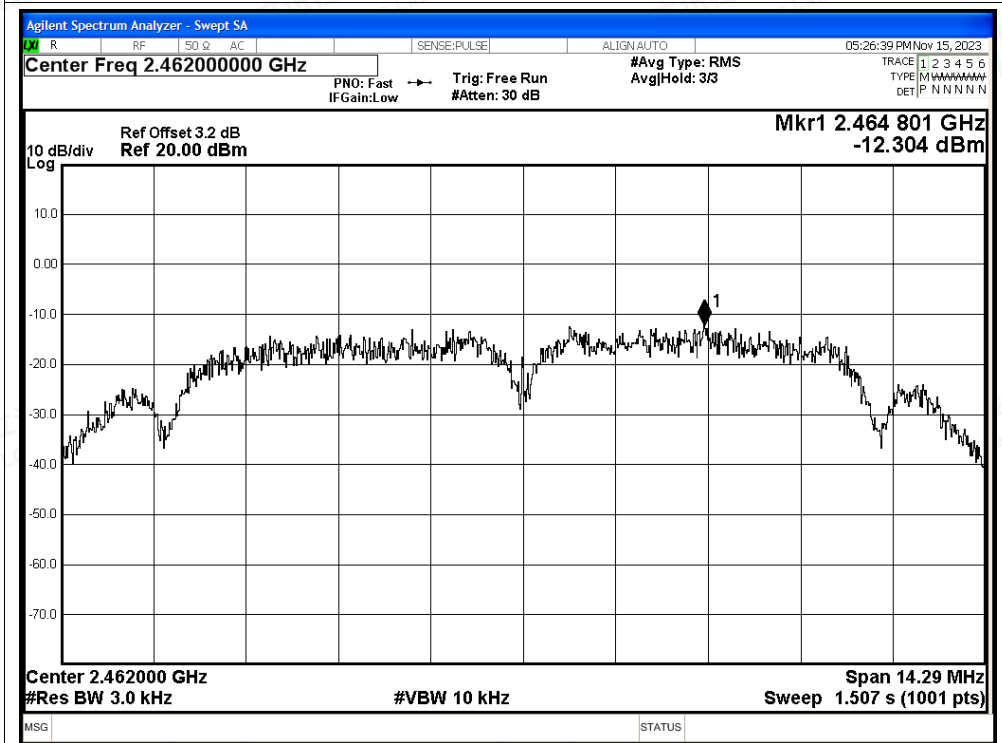


PSD NVNT b 2437MHz Ant1

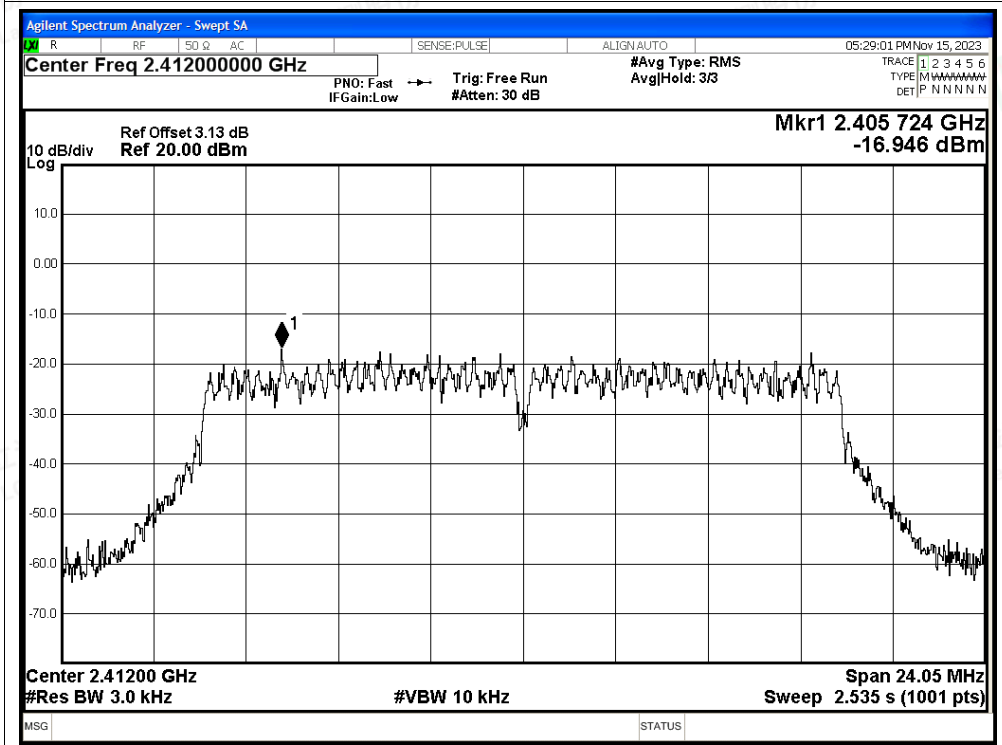


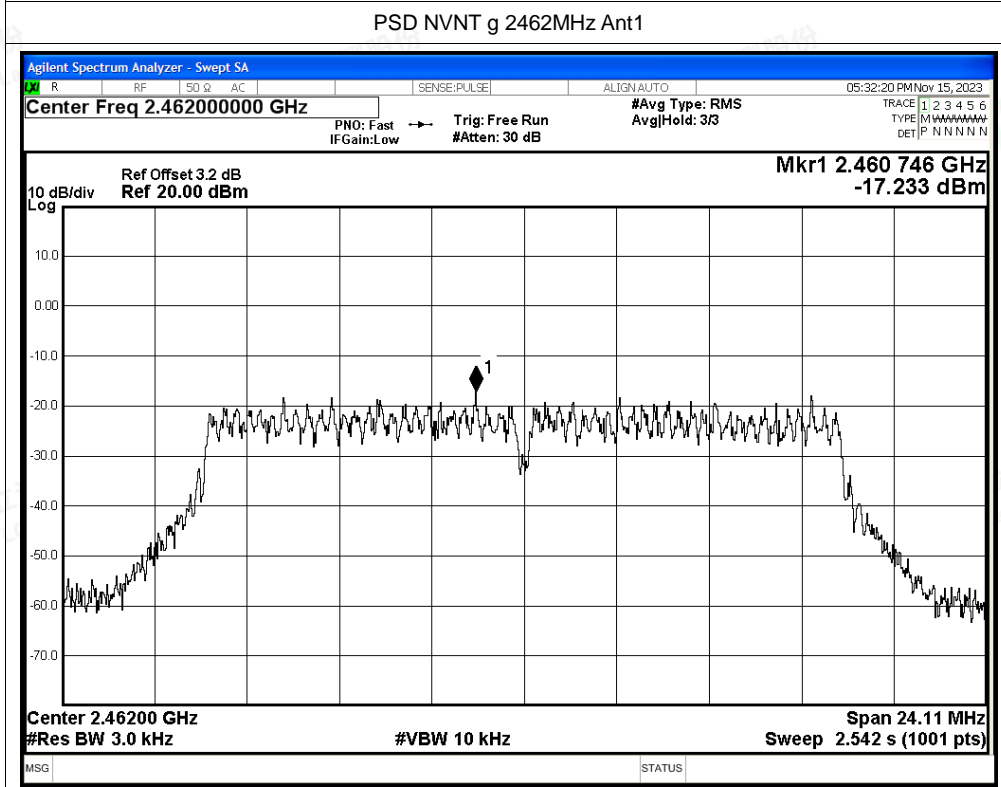
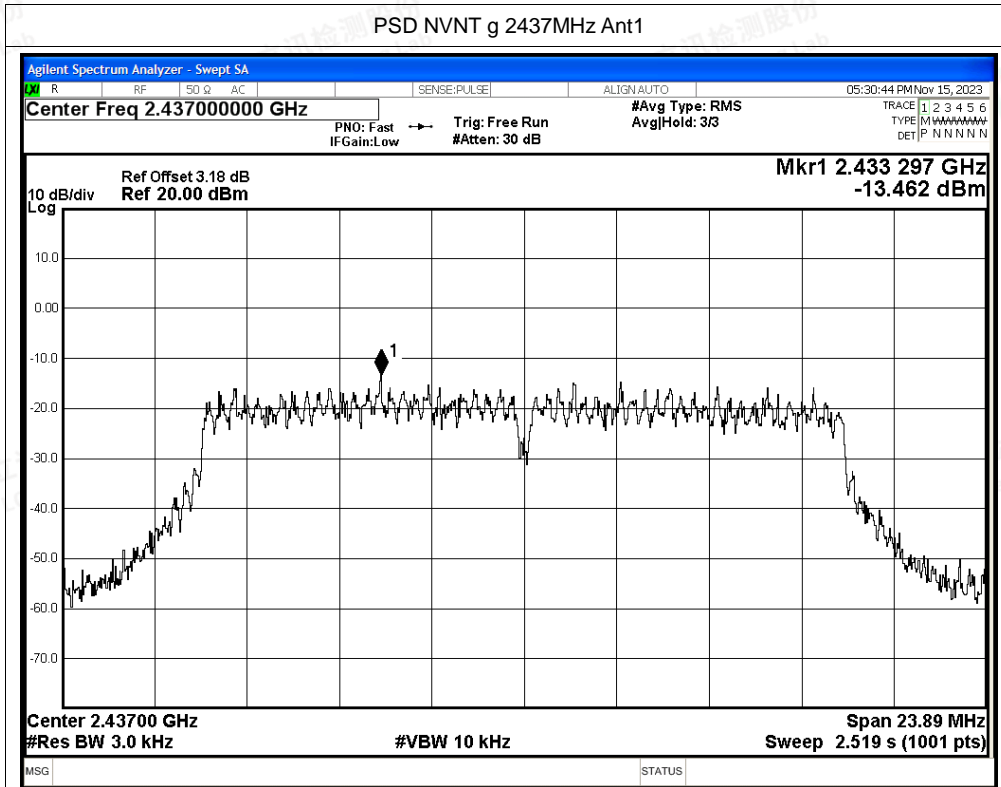


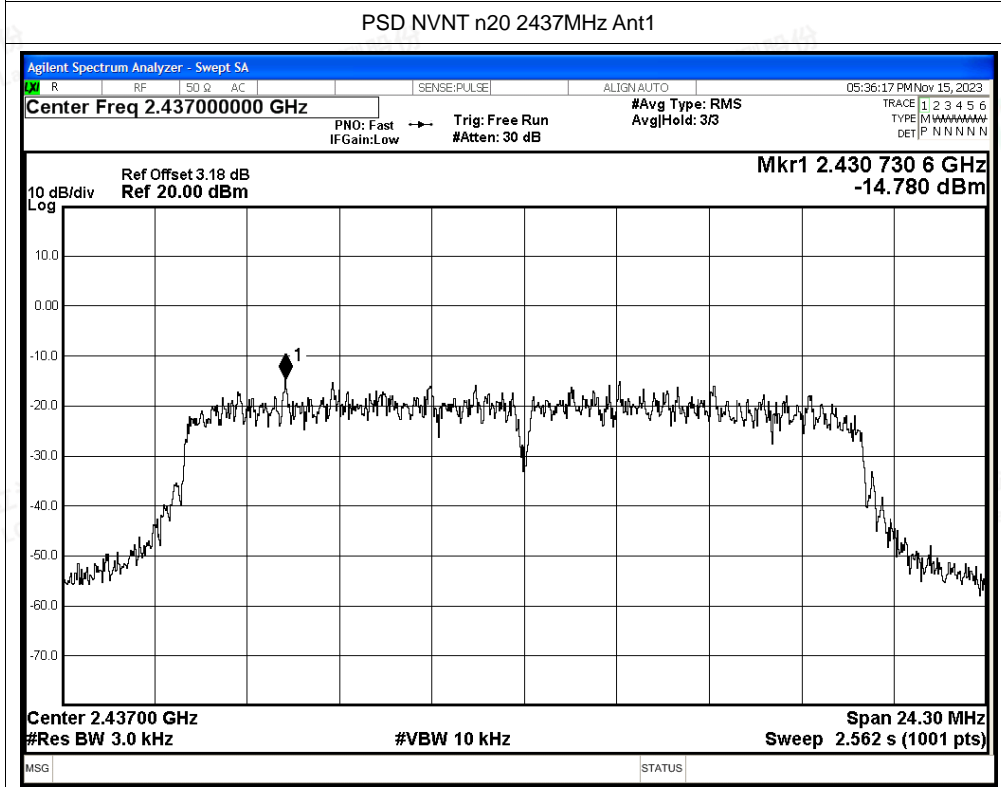
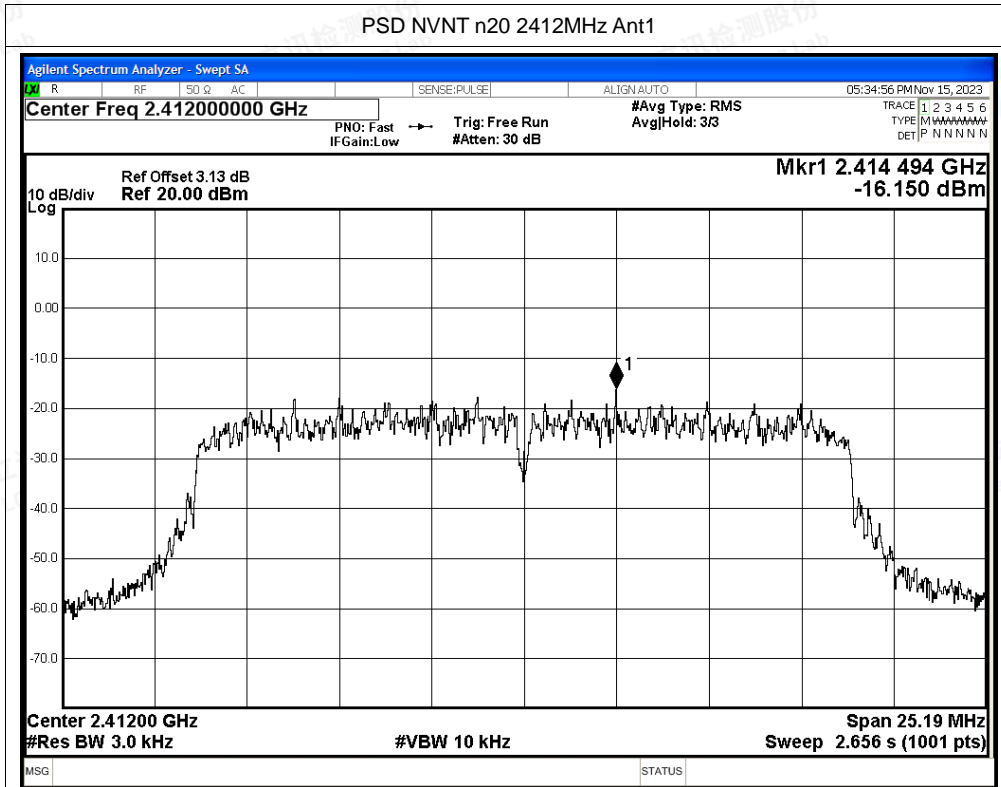
PSD NVNT b 2462MHz Ant1

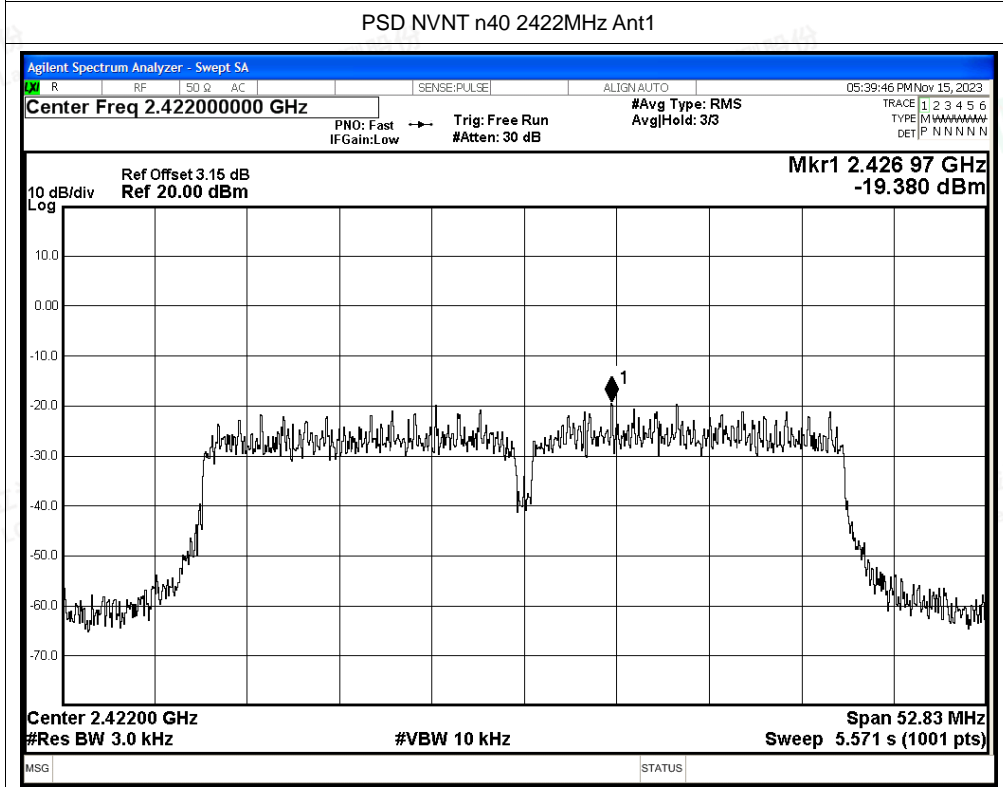
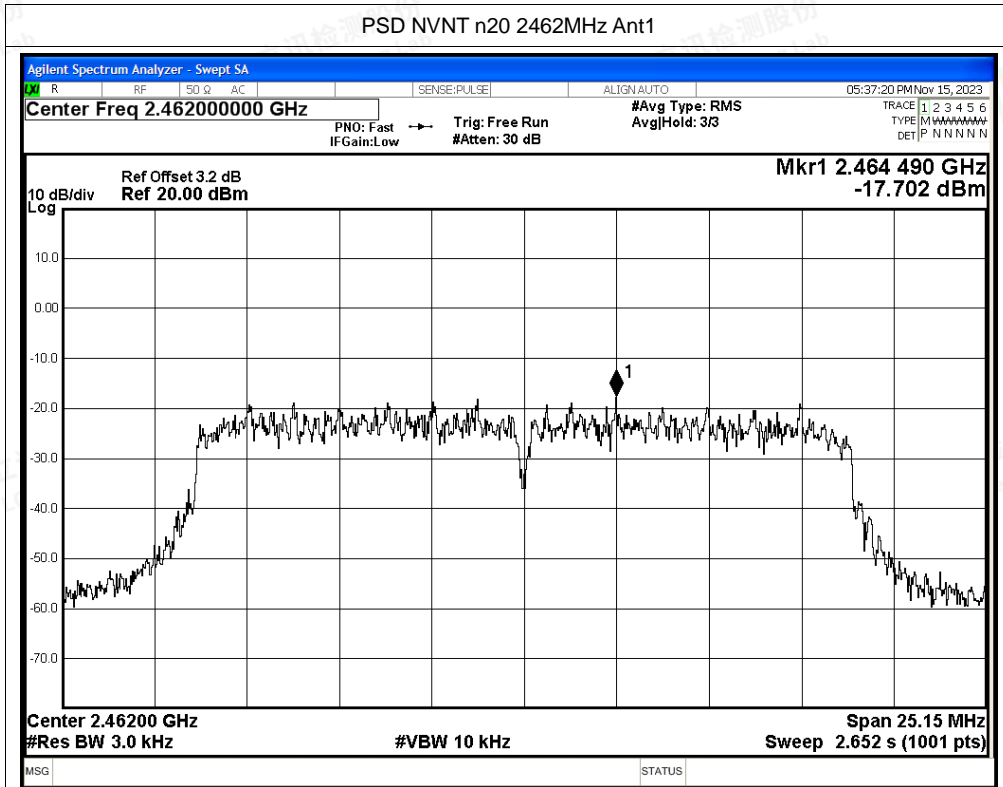


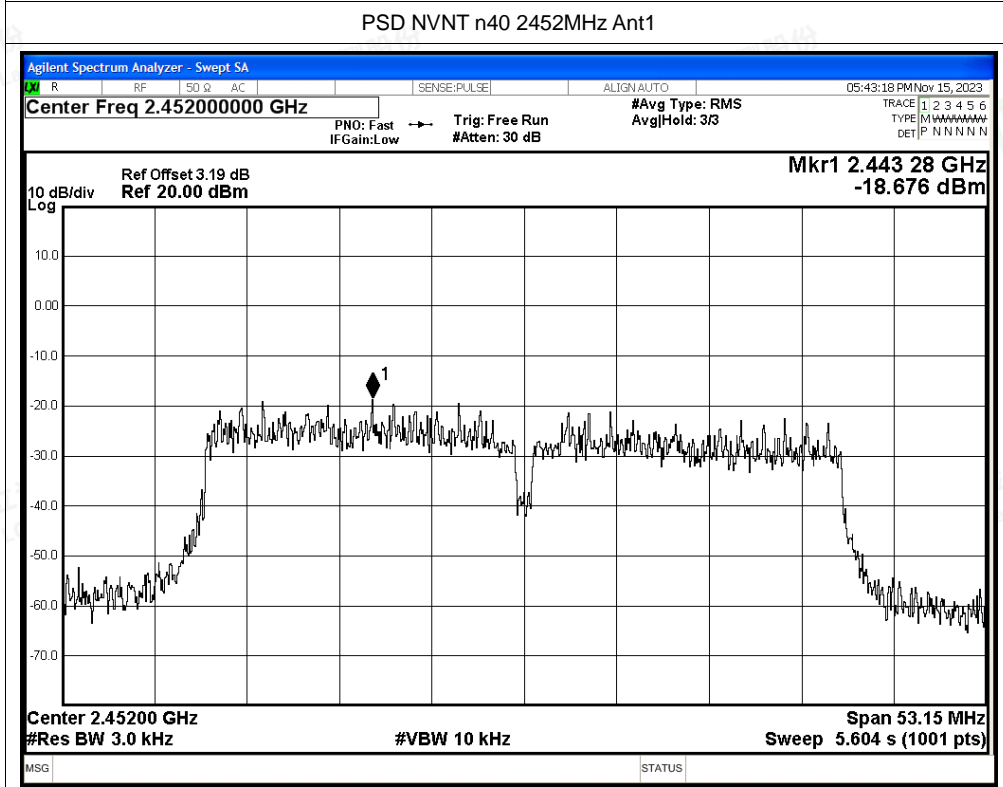
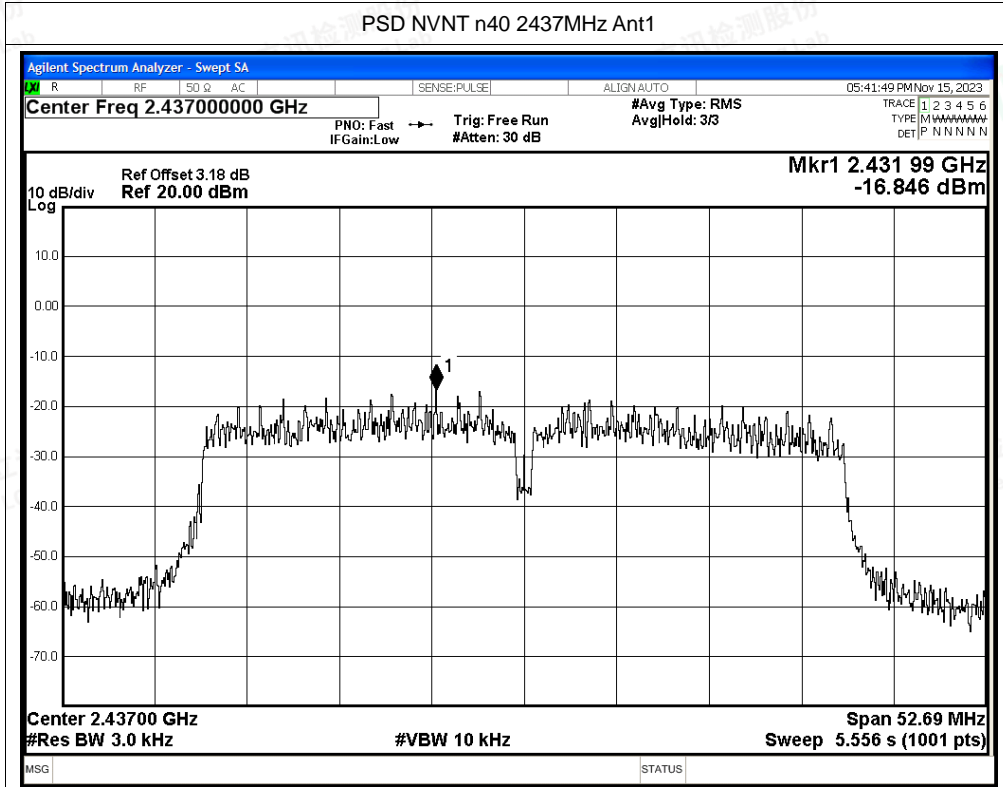
PSD NVNT g 2412MHz Ant1













C.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant0	-46.64	-20	Pass
NVNT	b	2462	Ant0	-50.72	-20	Pass
NVNT	g	2412	Ant0	-27.43	-20	Pass
NVNT	g	2462	Ant0	-40.25	-20	Pass
NVNT	n20	2412	Ant0	-33.24	-20	Pass
NVNT	n20	2462	Ant0	-41.02	-20	Pass
NVNT	n40	2422	Ant0	-31.85	-20	Pass
NVNT	n40	2452	Ant0	-33.44	-20	Pass

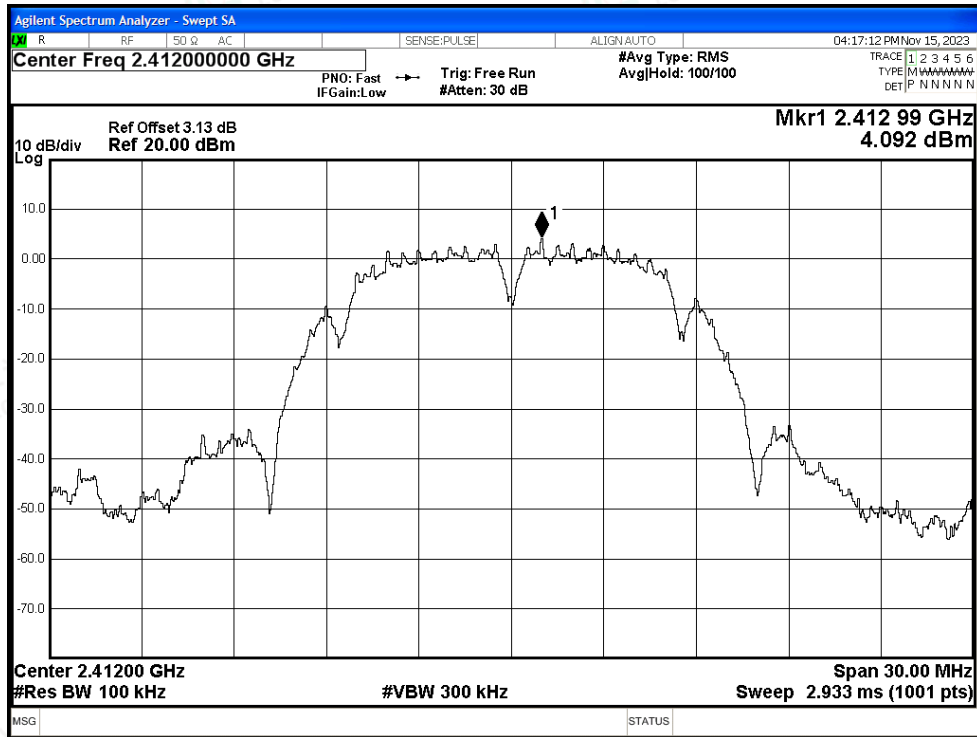


Shenzhen LCS Compliance Testing Laboratory Ltd.
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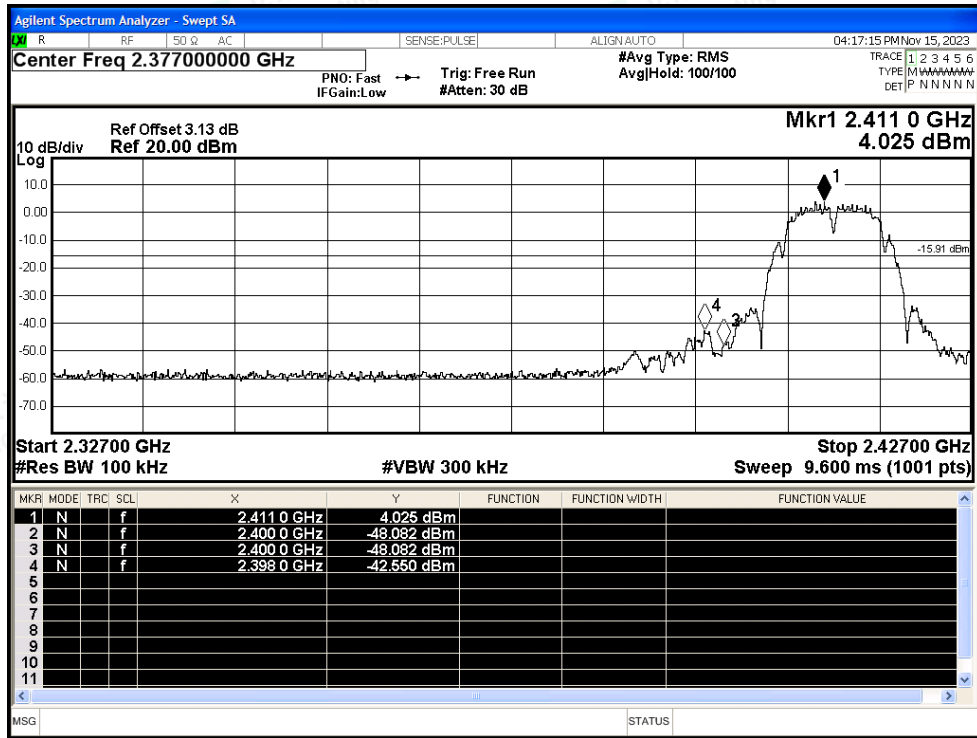


Test Graphs

Band Edge NVNT b 2412MHz Ant0 Ref

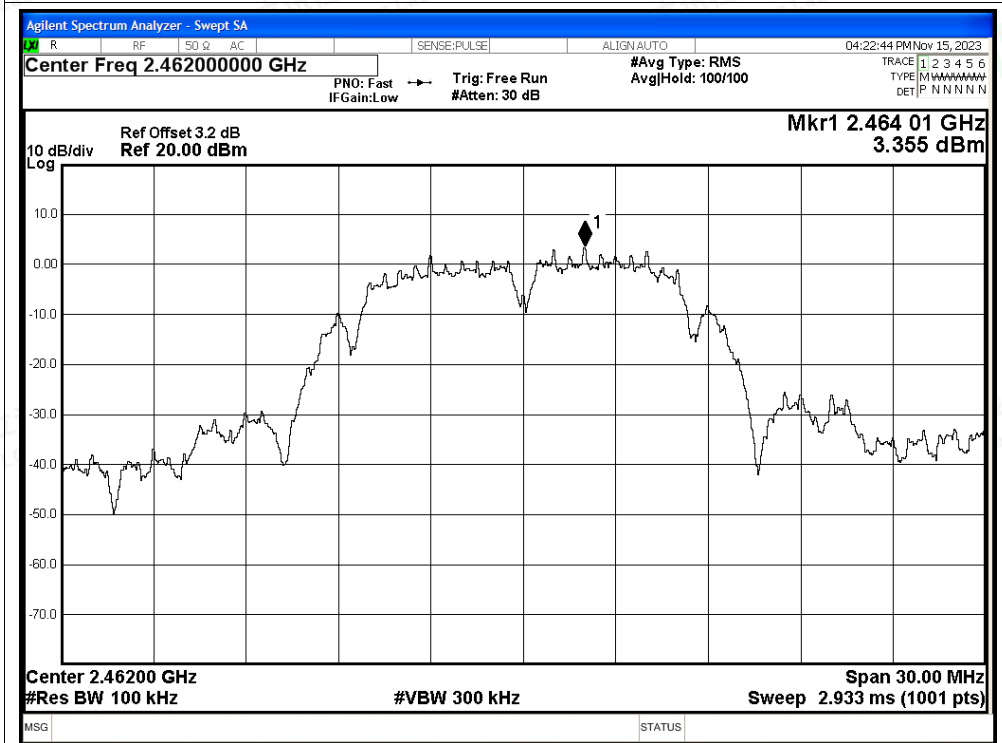


Band Edge NVNT b 2412MHz Ant0 Emission

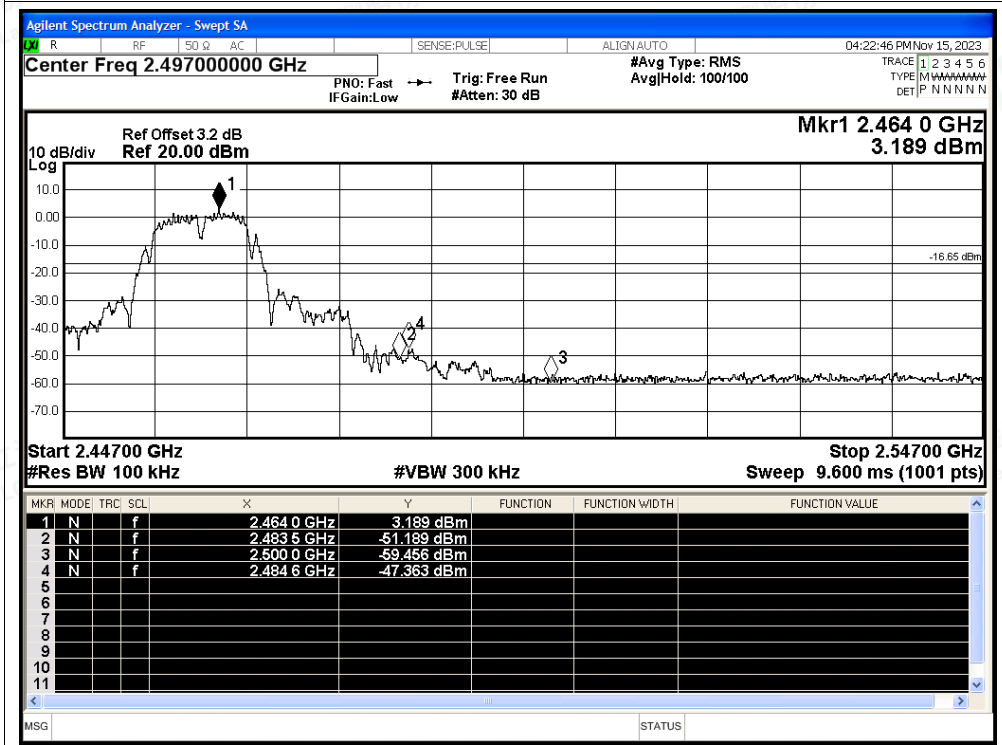




Band Edge NVNT b 2462MHz Ant0 Ref

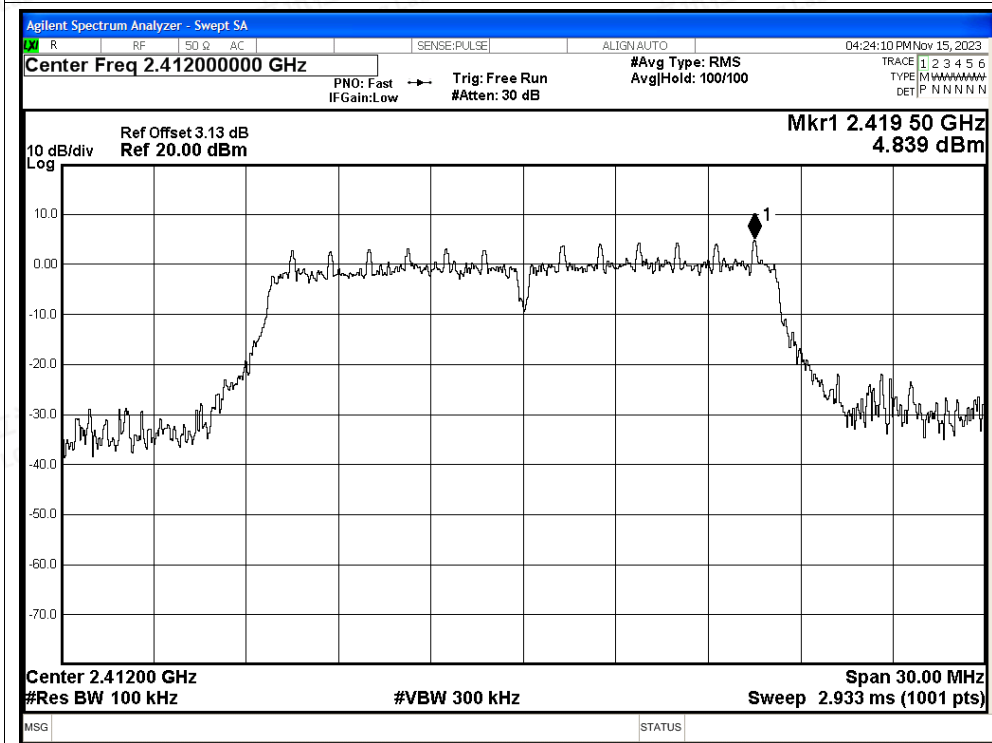


Band Edge NVNT b 2462MHz Ant0 Emission

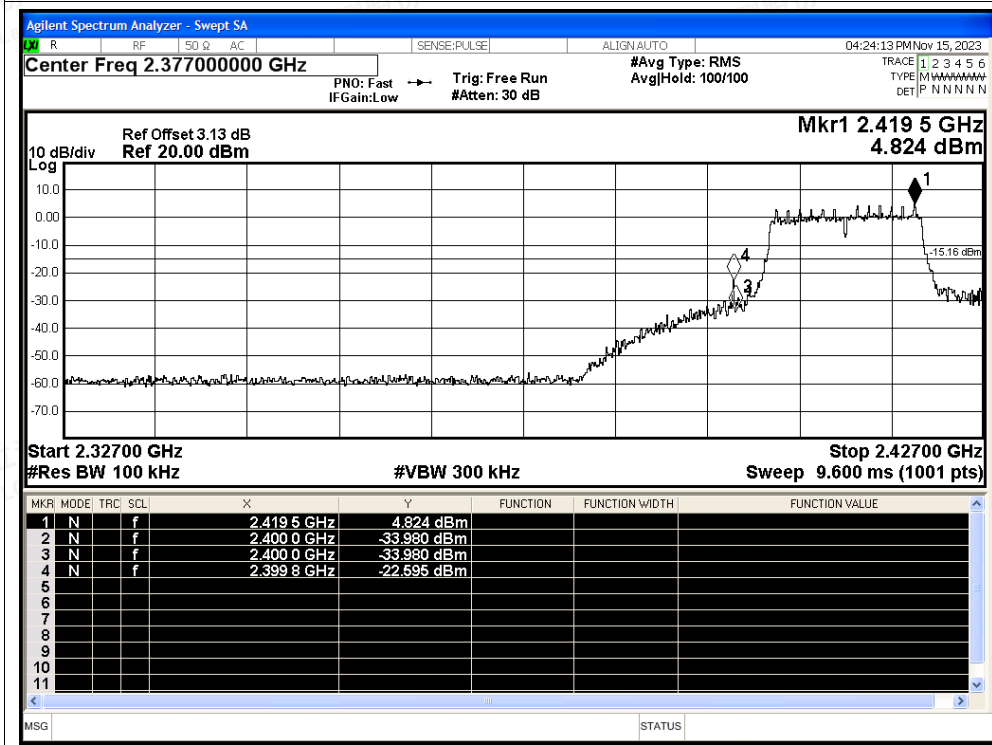




Band Edge NVNT g 2412MHz Ant0 Ref

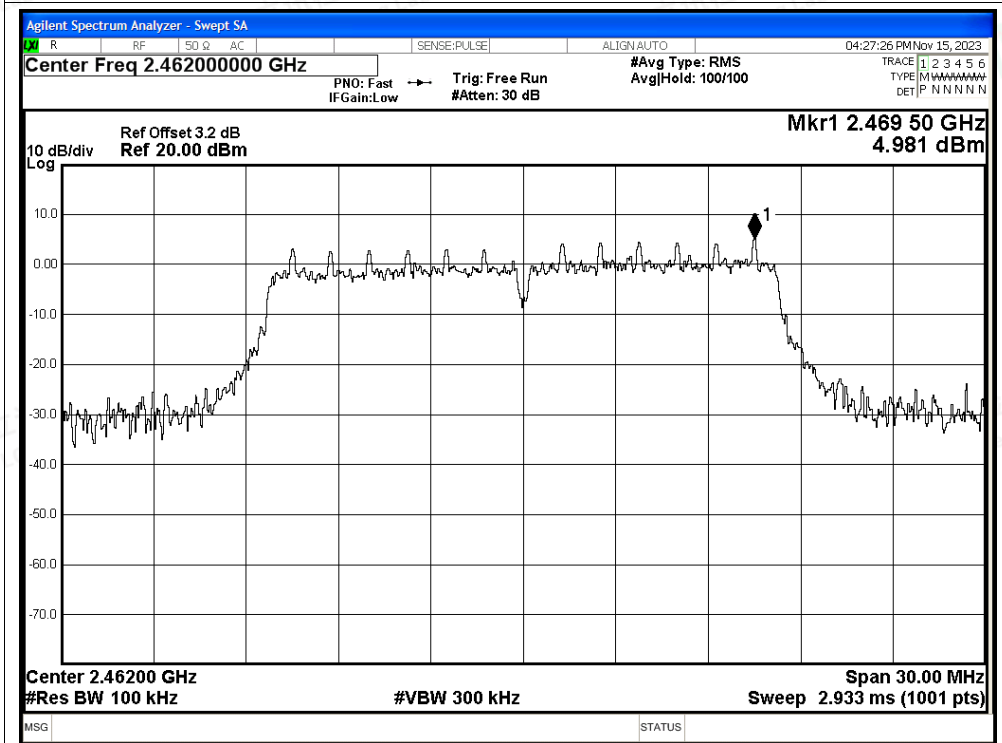


Band Edge NVNT g 2412MHz Ant0 Emission

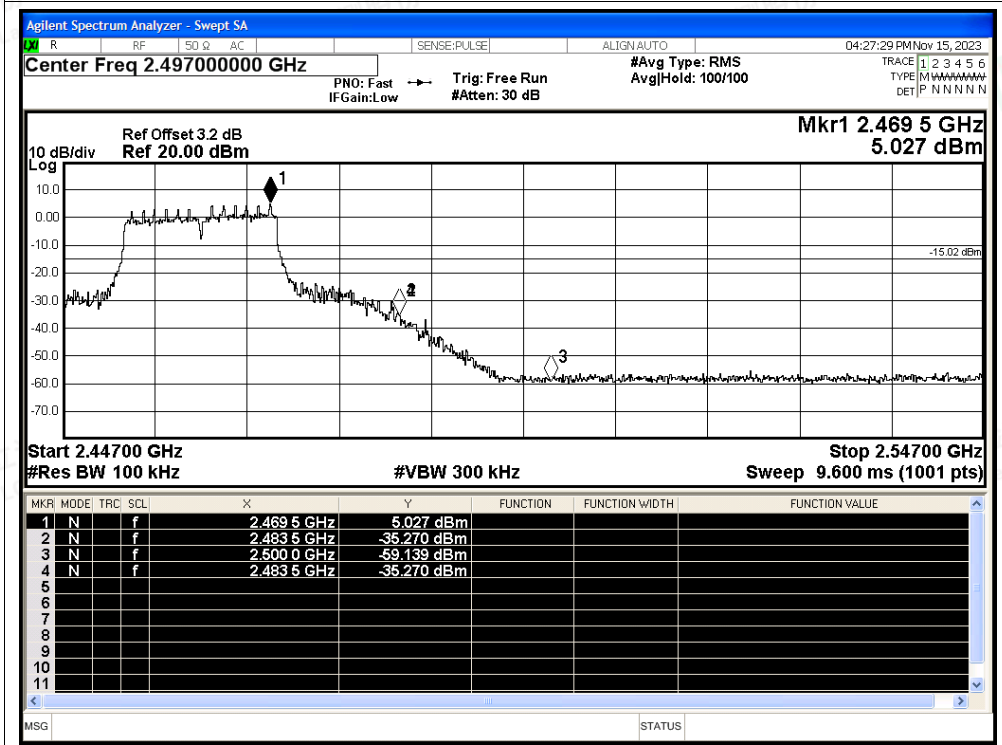




Band Edge NVNT g 2462MHz Ant0 Ref

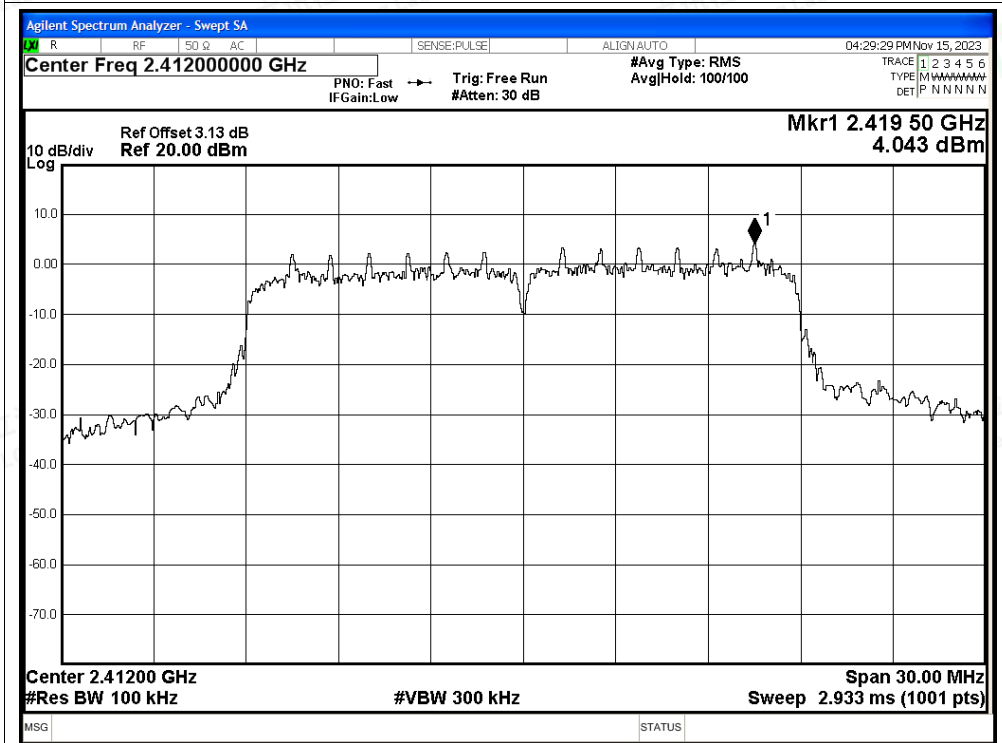


Band Edge NVNT g 2462MHz Ant0 Emission

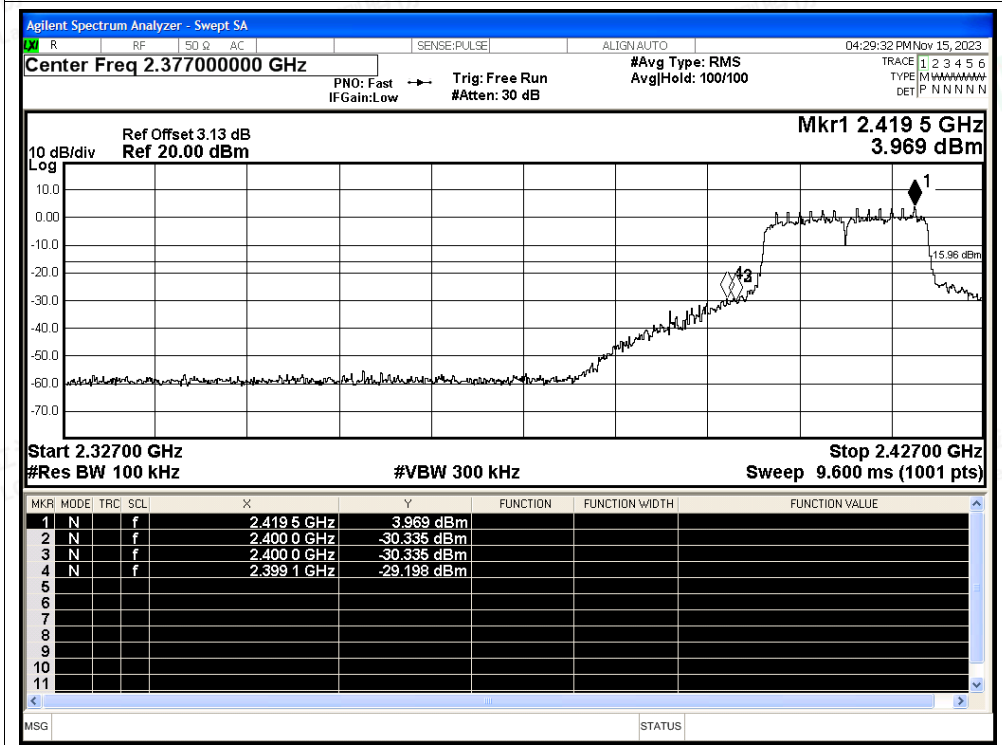




Band Edge NVNT n20 2412MHz Ant0 Ref

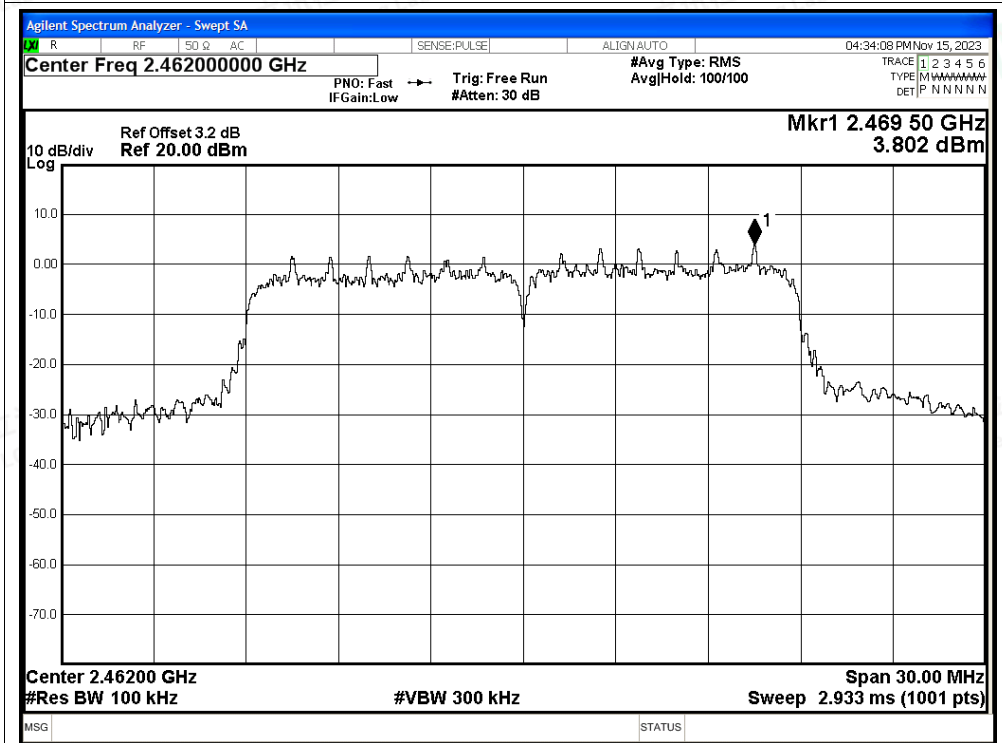


Band Edge NVNT n20 2412MHz Ant0 Emission

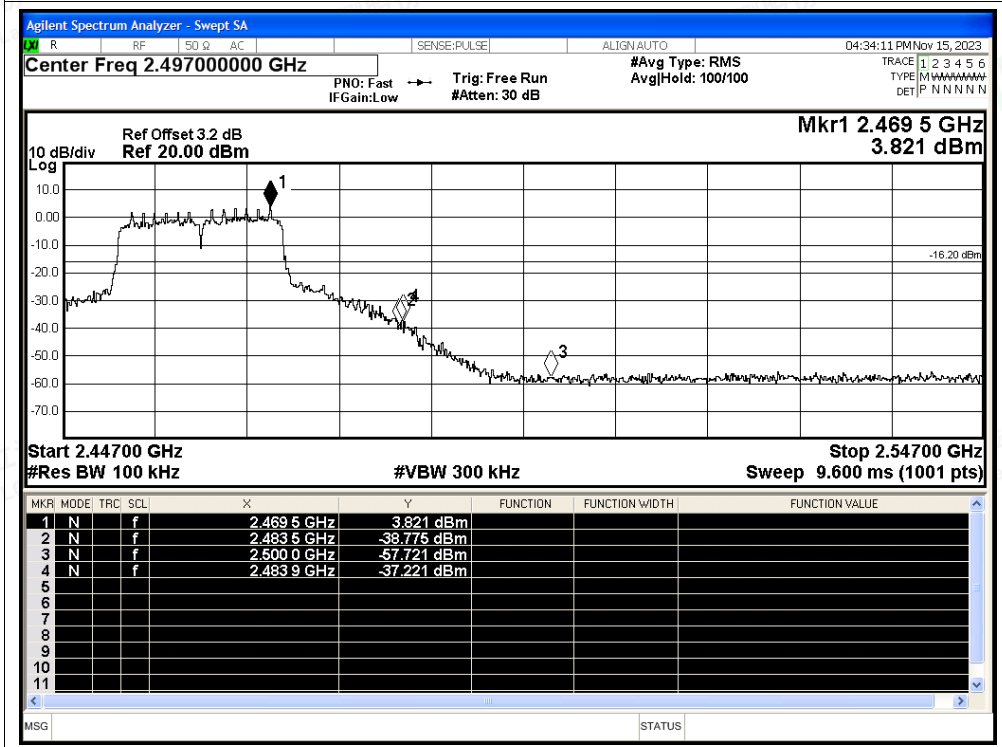




Band Edge NVNT n20 2462MHz Ant0 Ref

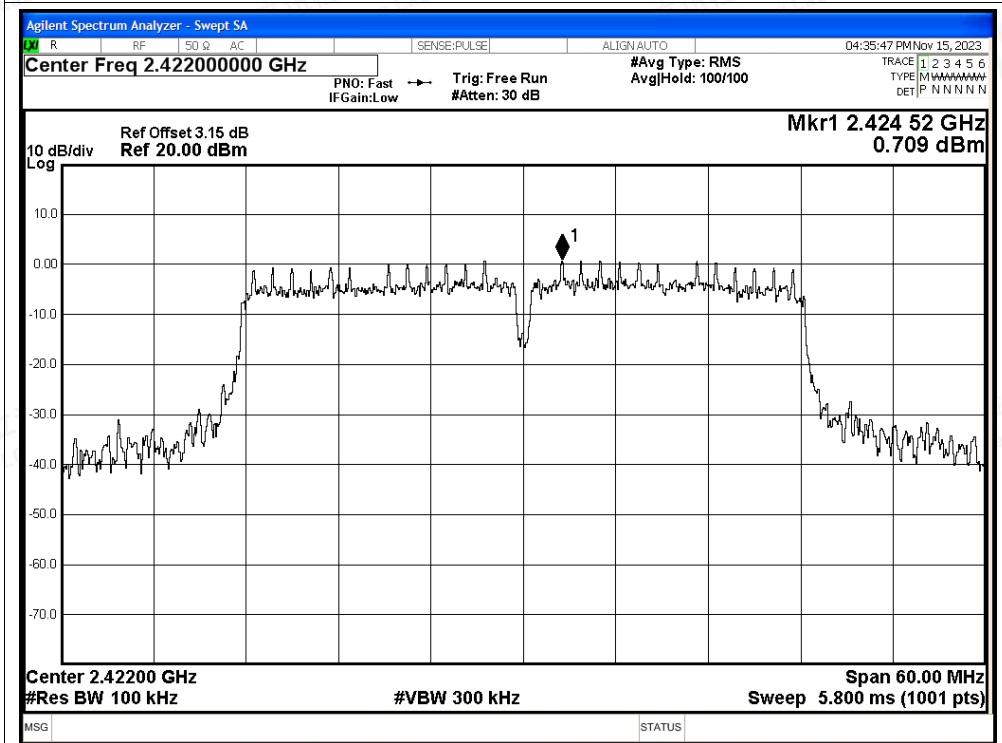


Band Edge NVNT n20 2462MHz Ant0 Emission

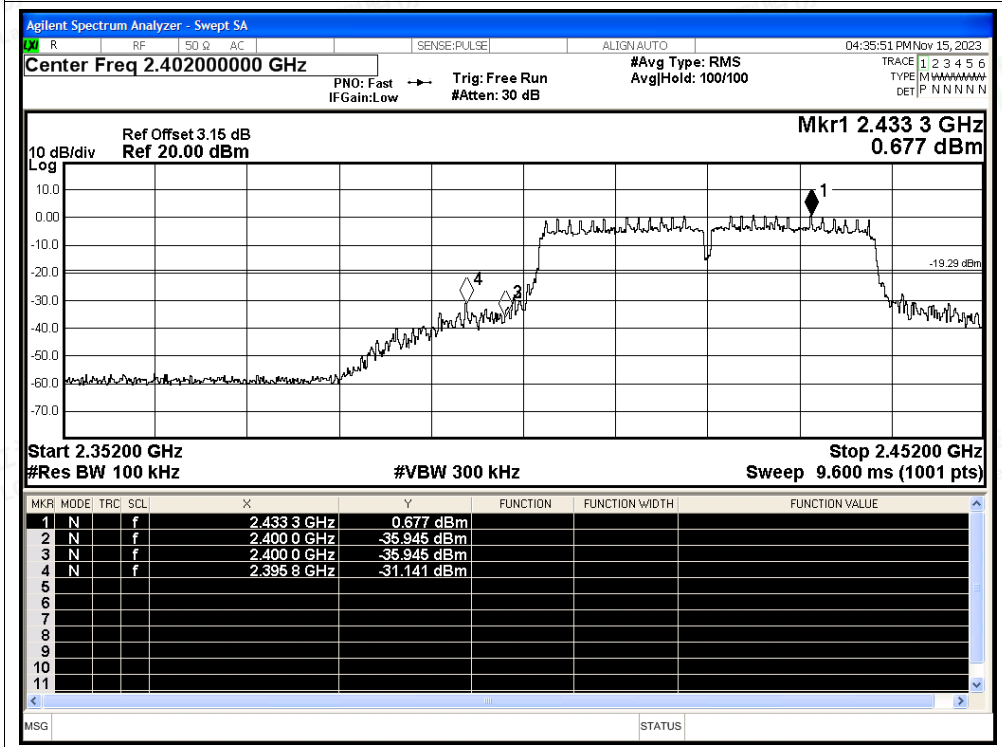




Band Edge NVNT n40 2422MHz Ant0 Ref

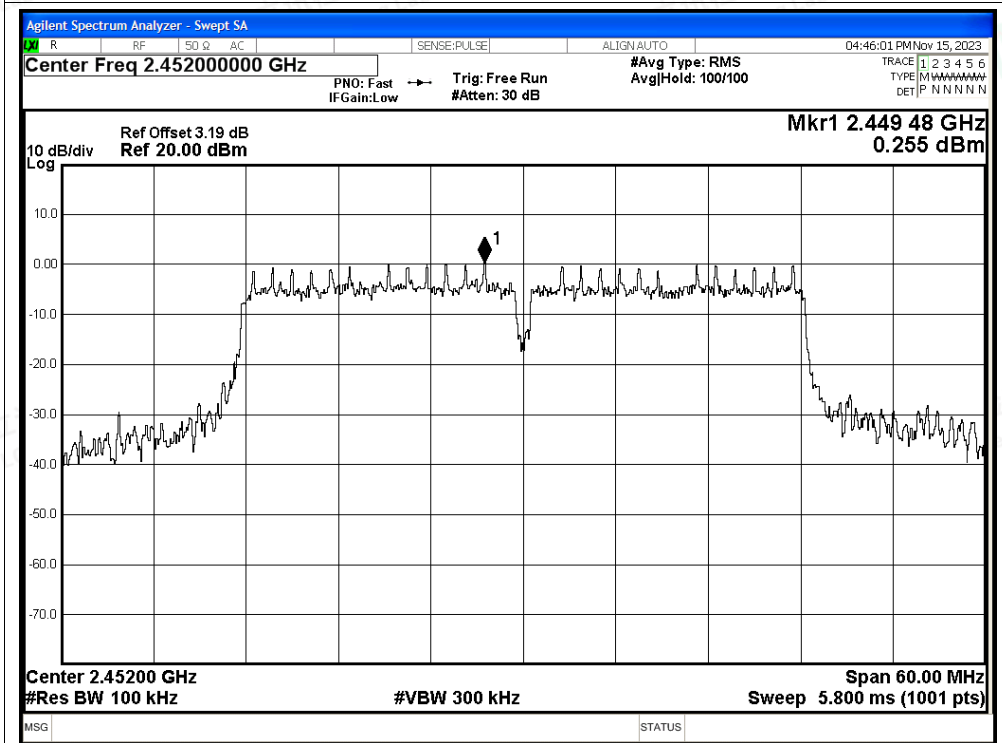


Band Edge NVNT n40 2422MHz Ant0 Emission

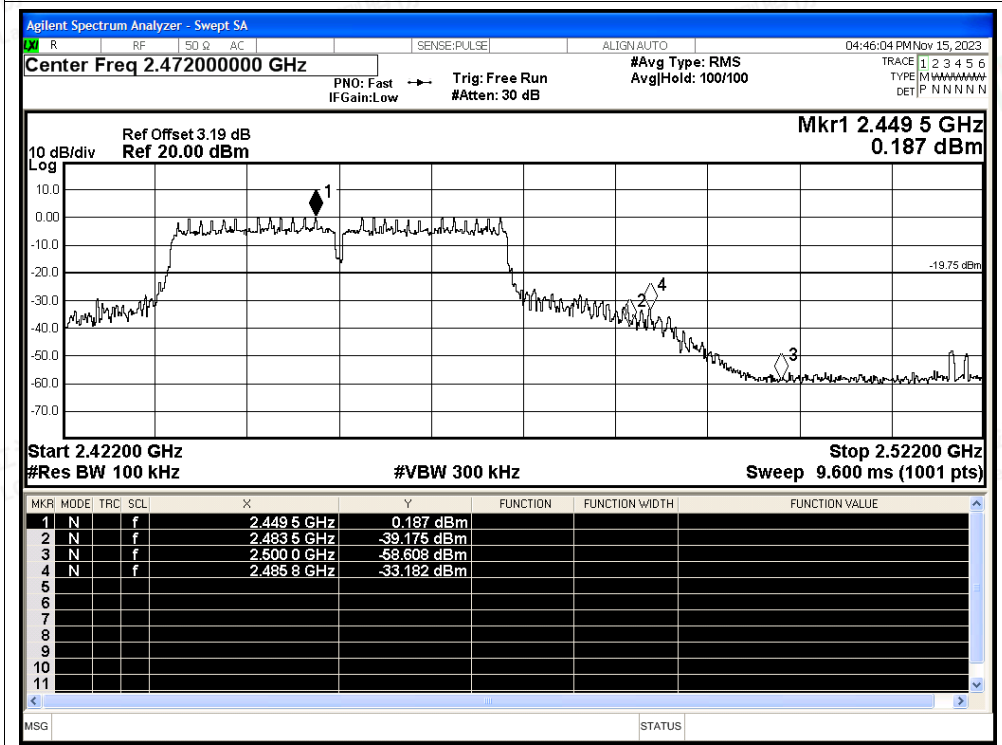




Band Edge NVNT n40 2452MHz Ant0 Ref



Band Edge NVNT n40 2452MHz Ant0 Emission





Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-46.12	-20	Pass
NVNT	b	2462	Ant1	-47.86	-20	Pass
NVNT	g	2412	Ant1	-34.04	-20	Pass
NVNT	g	2462	Ant1	-45.58	-20	Pass
NVNT	n20	2412	Ant1	-33.95	-20	Pass
NVNT	n20	2462	Ant1	-42.79	-20	Pass
NVNT	n40	2422	Ant1	-31.04	-20	Pass
NVNT	n40	2452	Ant1	-38.9	-20	Pass

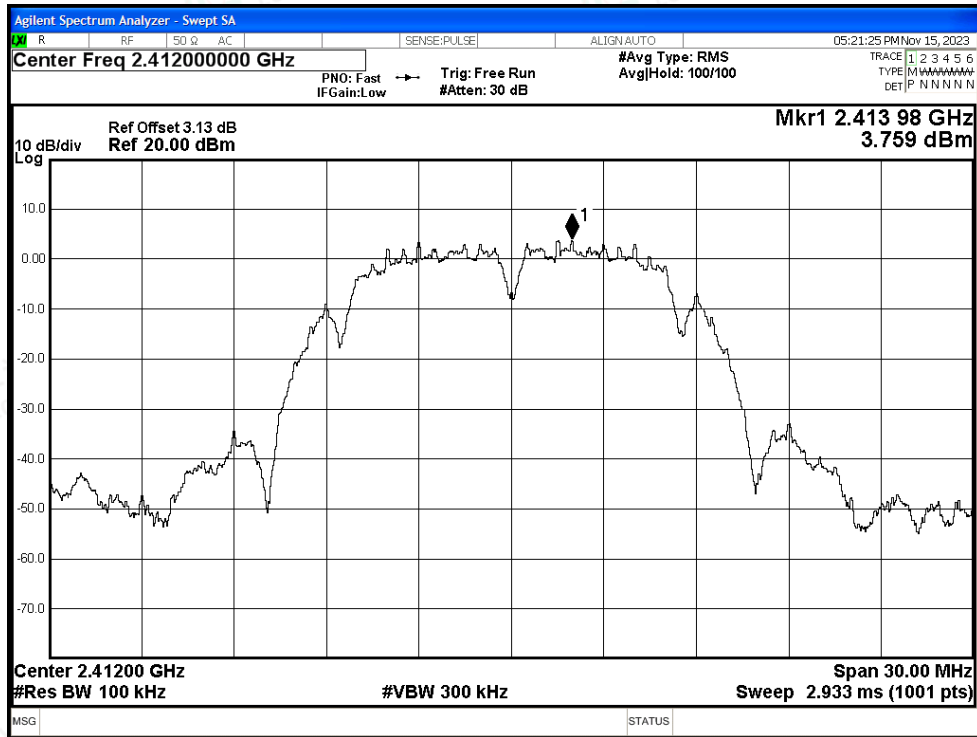


Shenzhen LCS Compliance Testing Laboratory Ltd.
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Scan code to check authenticity

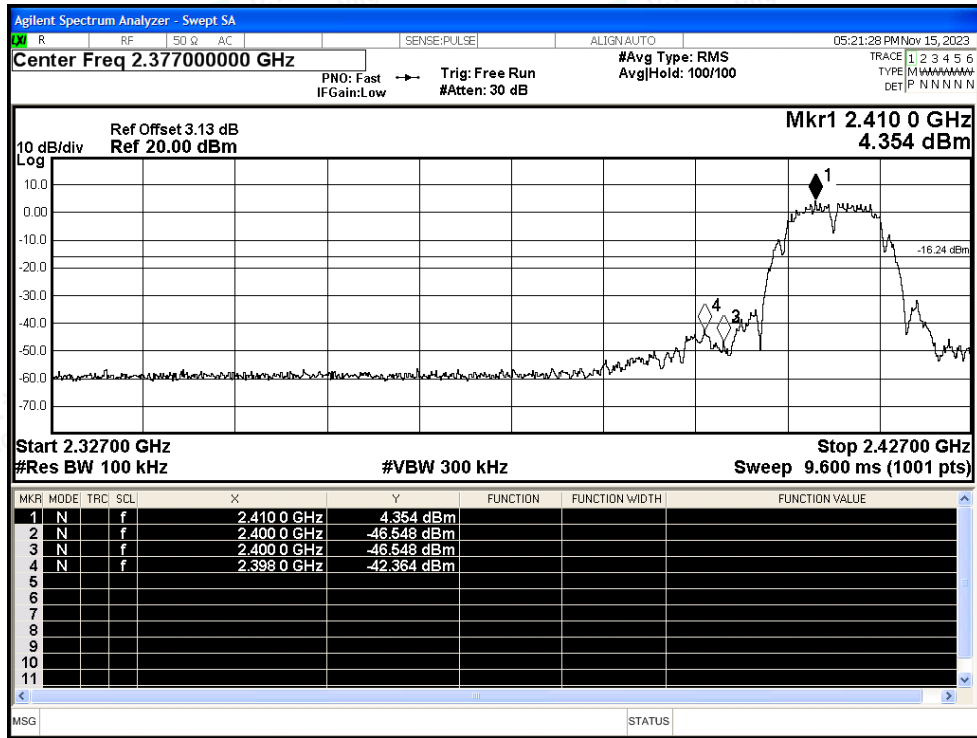


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref

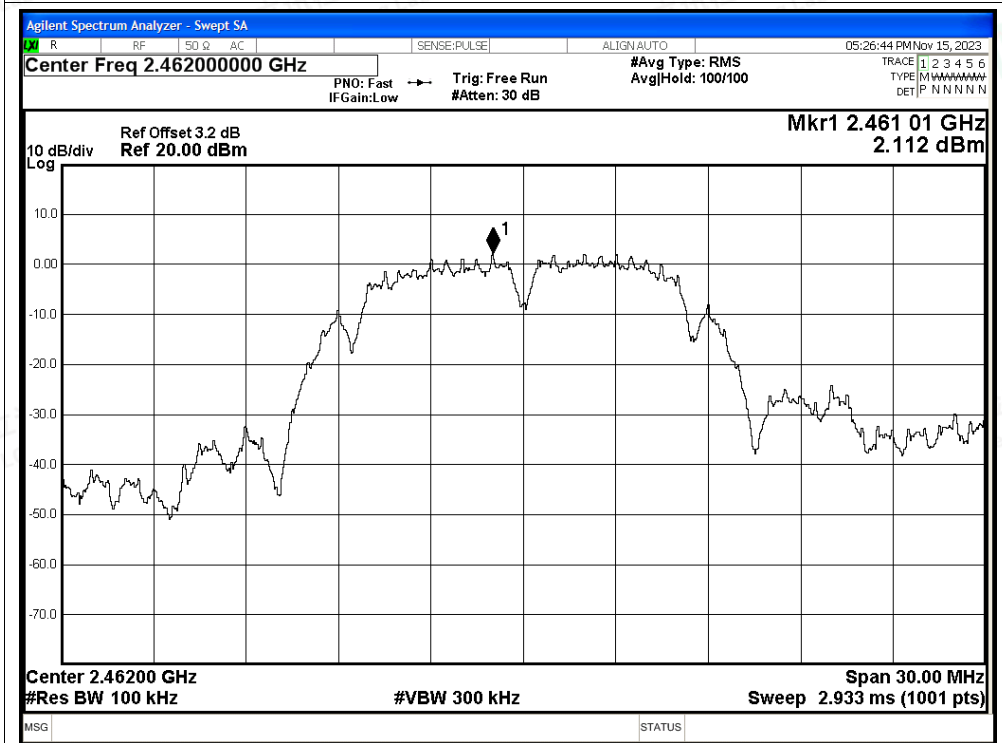


Band Edge NVNT b 2412MHz Ant1 Emission

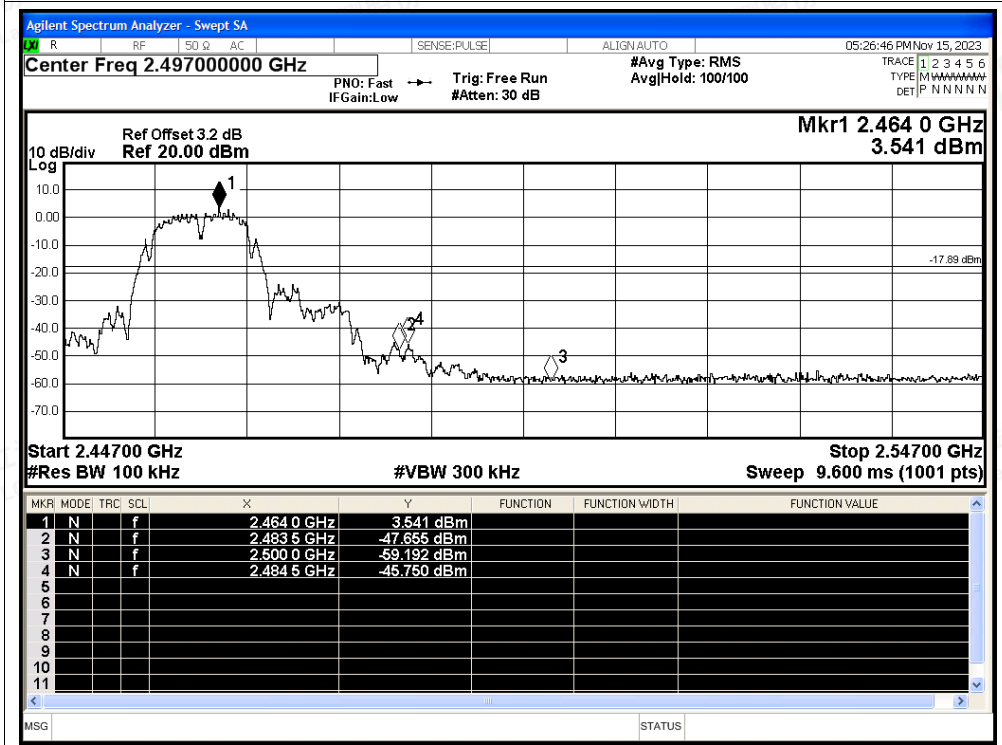




Band Edge NVNT b 2462MHz Ant1 Ref

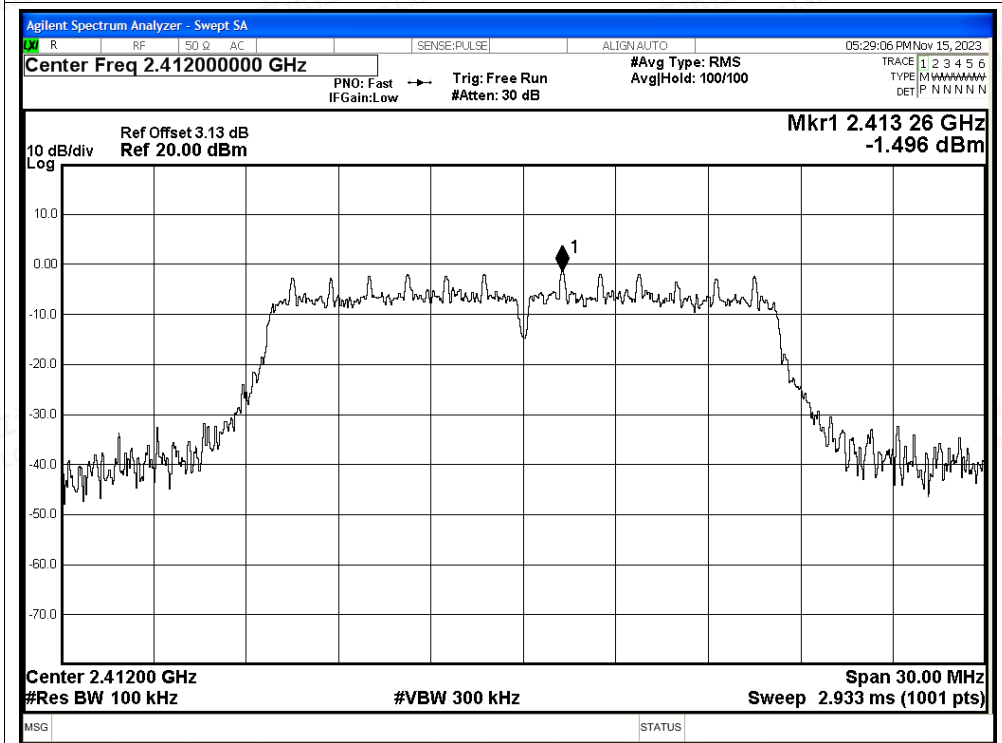


Band Edge NVNT b 2462MHz Ant1 Emission

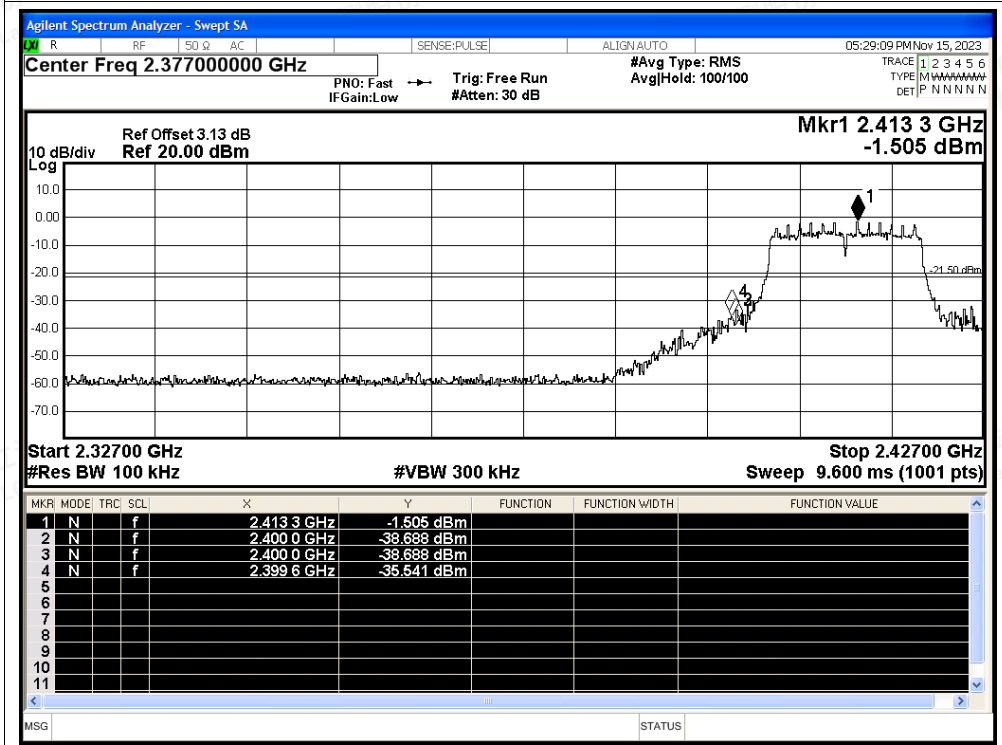




Band Edge NVNT g 2412MHz Ant1 Ref

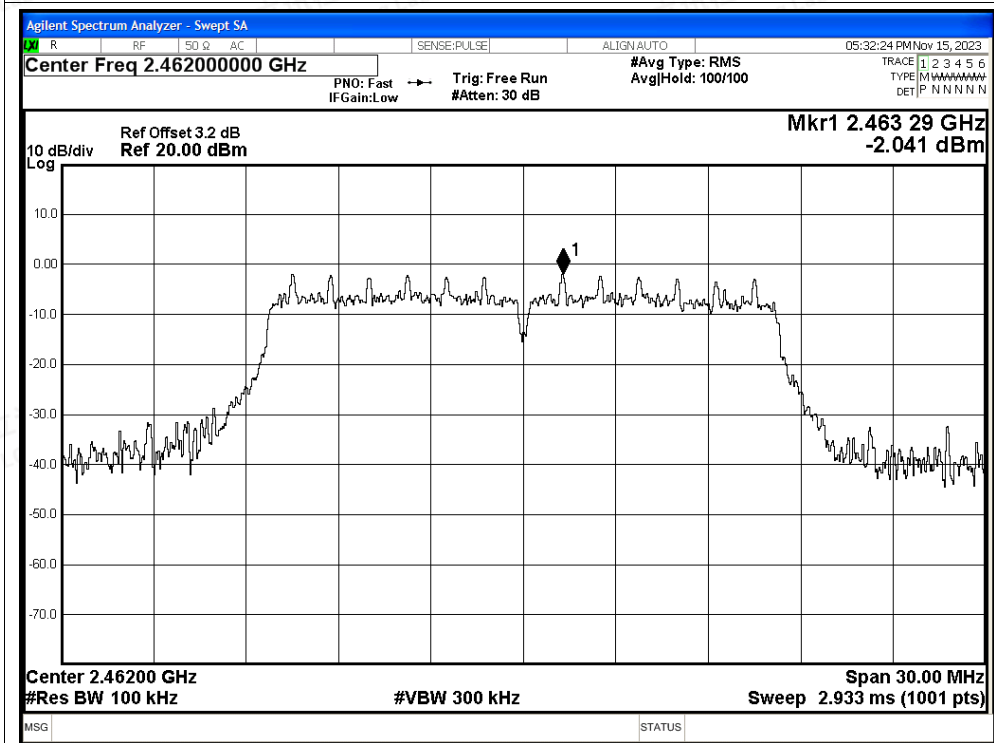


Band Edge NVNT g 2412MHz Ant1 Emission

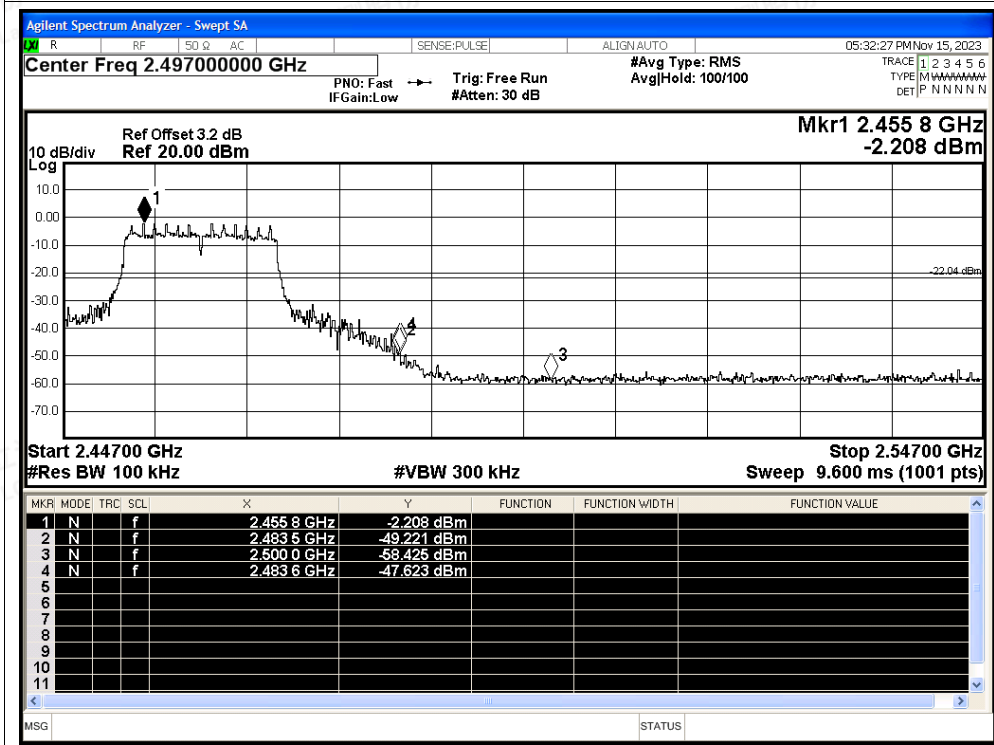




Band Edge NVNT g 2462MHz Ant1 Ref

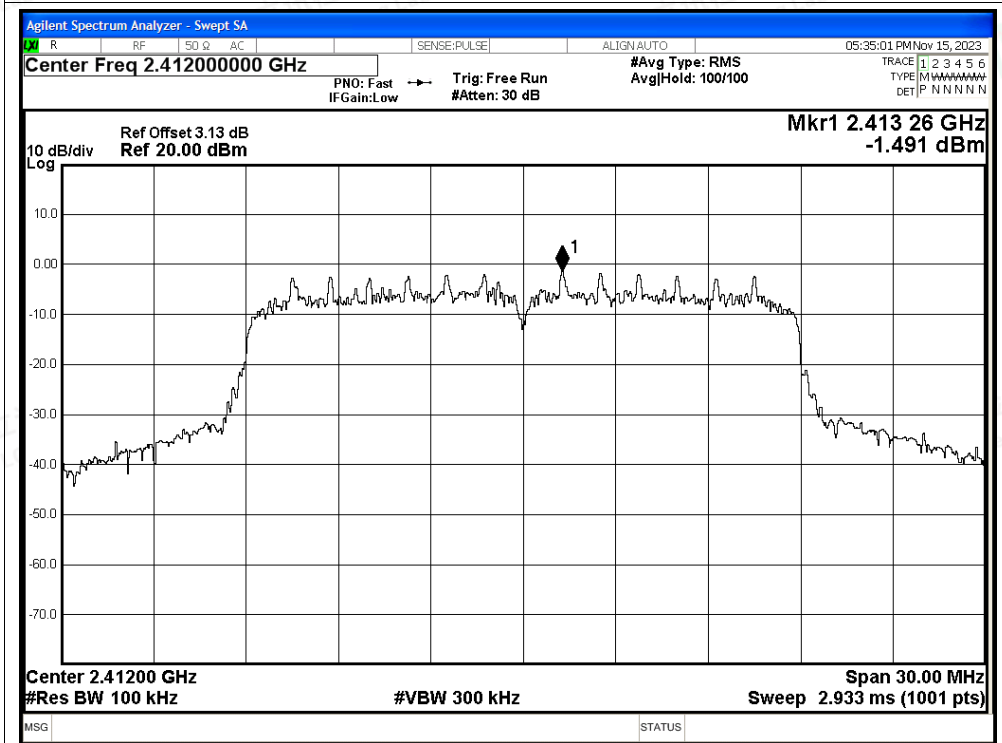


Band Edge NVNT g 2462MHz Ant1 Emission

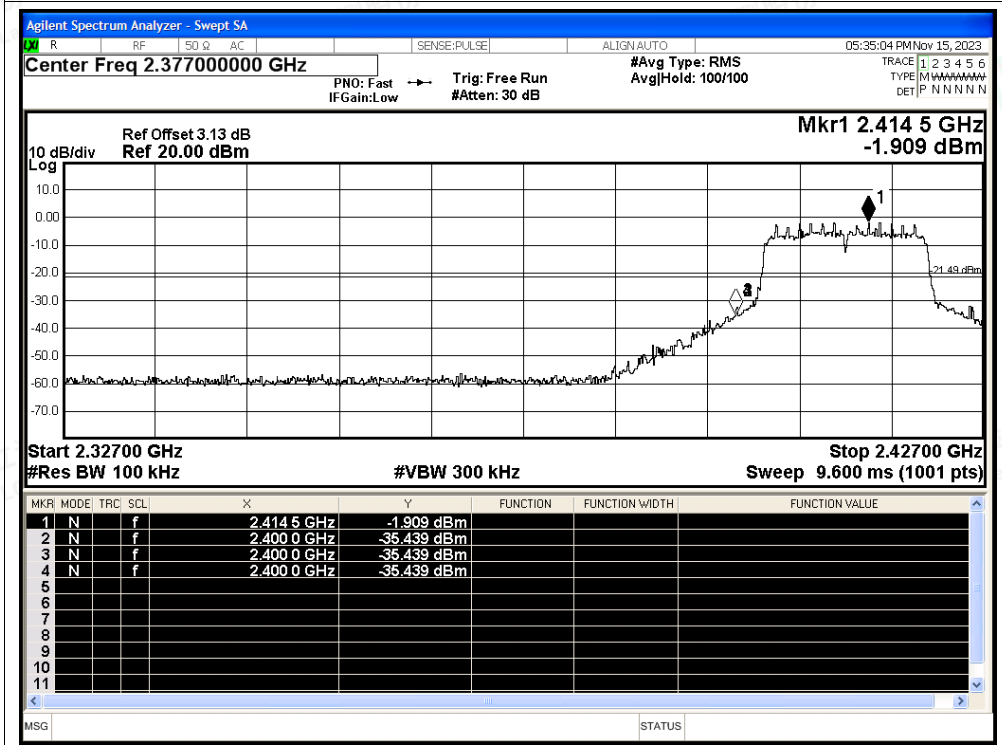




Band Edge NVNT n20 2412MHz Ant1 Ref

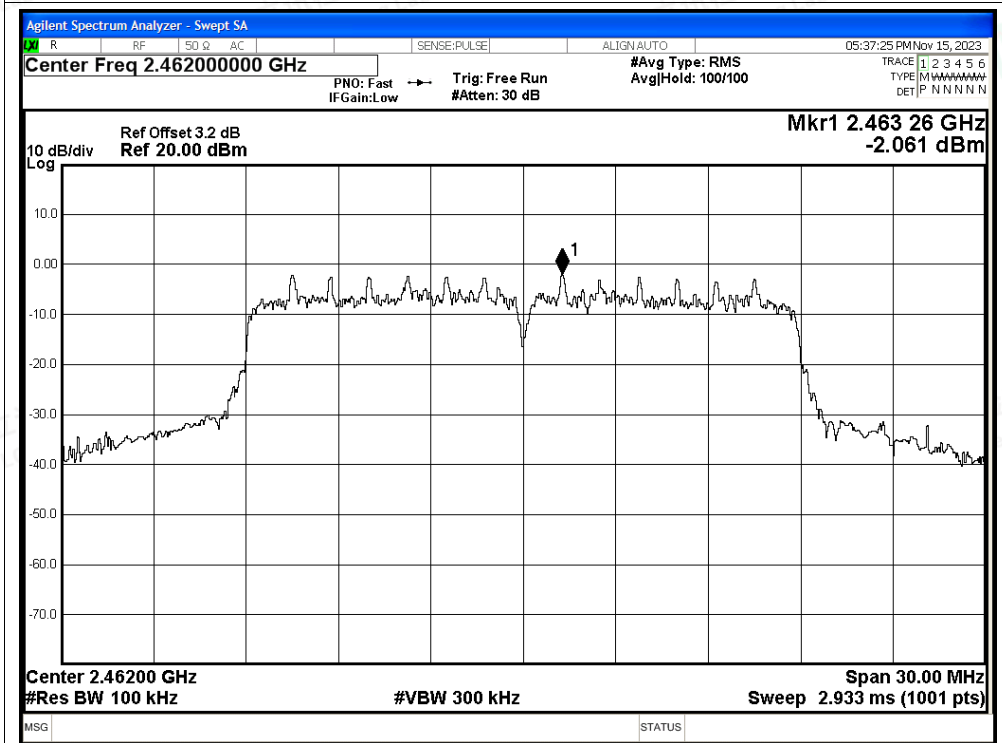


Band Edge NVNT n20 2412MHz Ant1 Emission

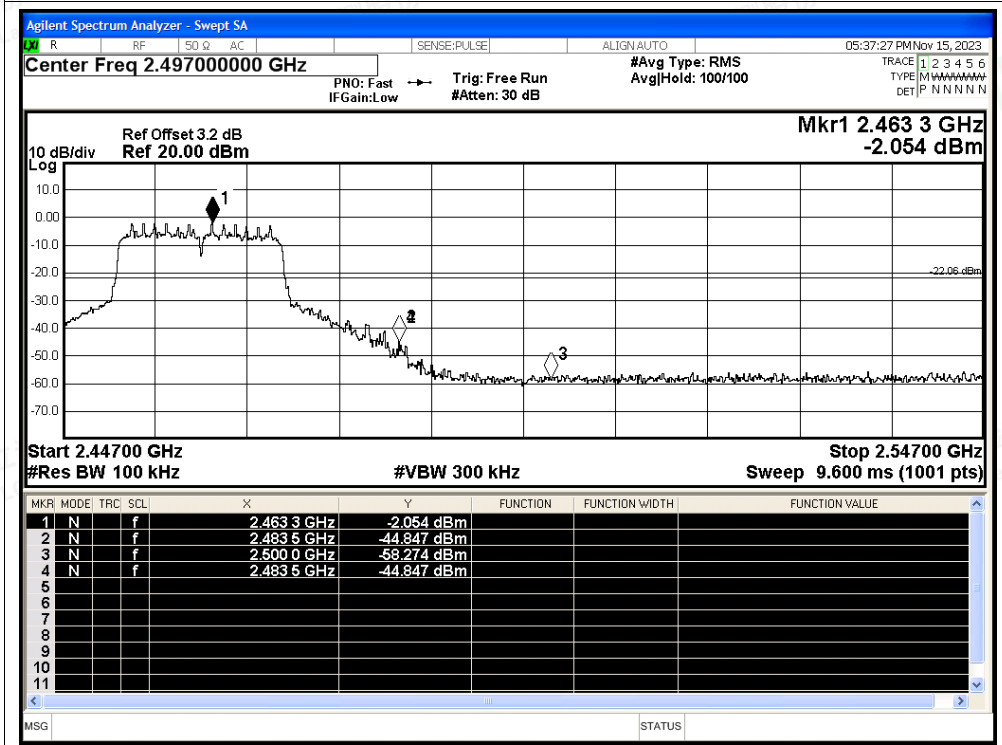




Band Edge NVNT n20 2462MHz Ant1 Ref

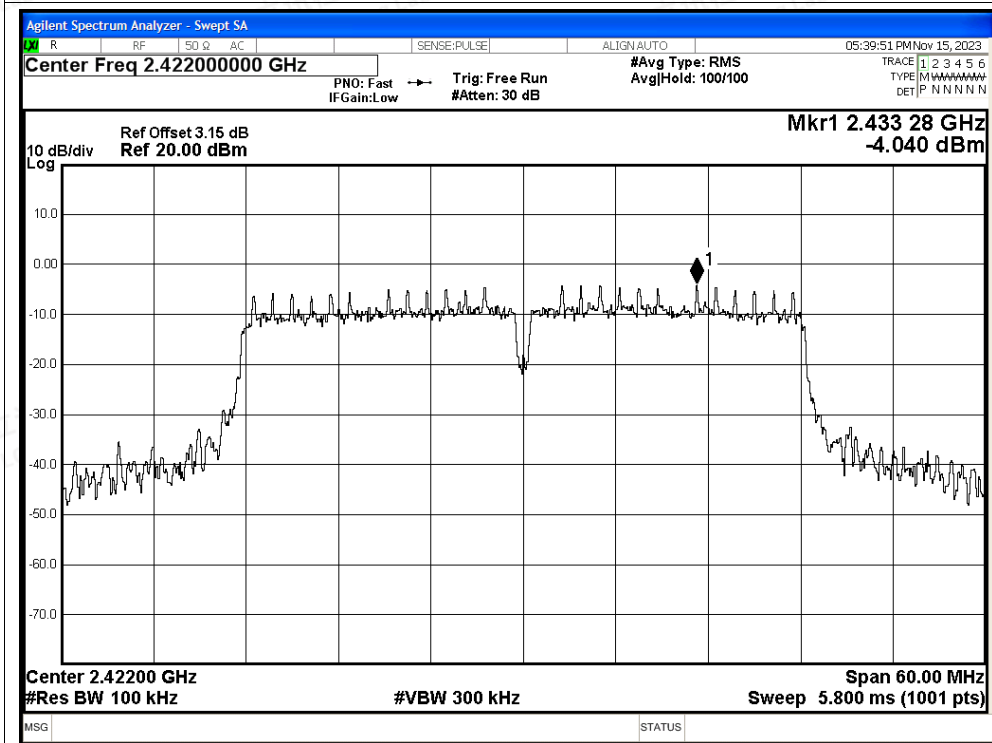


Band Edge NVNT n20 2462MHz Ant1 Emission

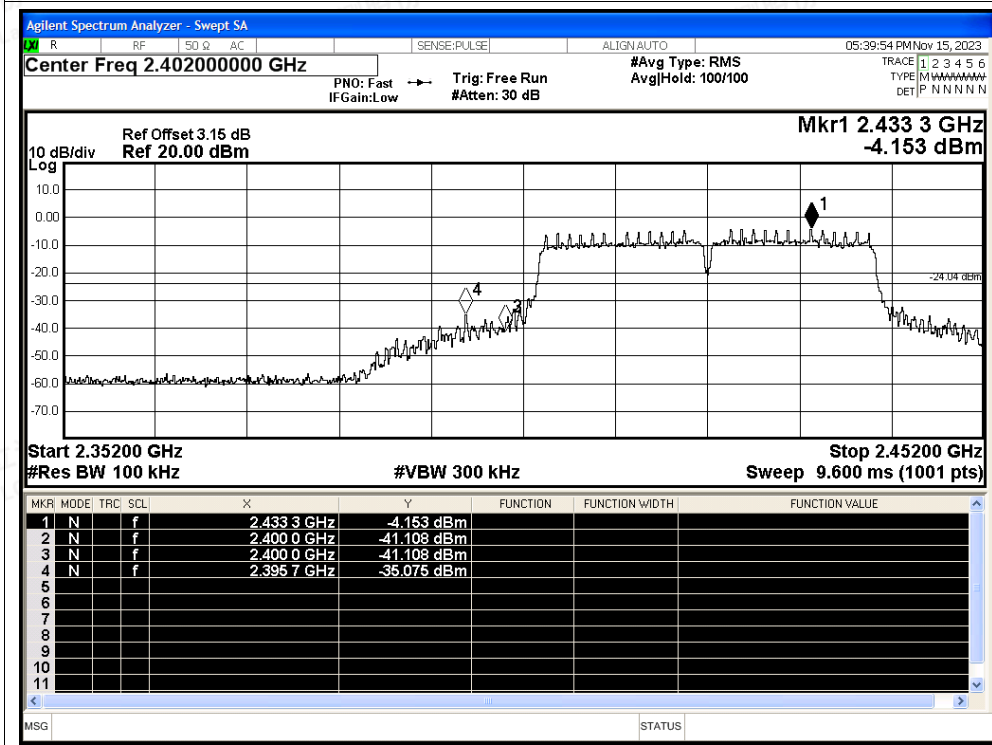




Band Edge NVNT n40 2422MHz Ant1 Ref

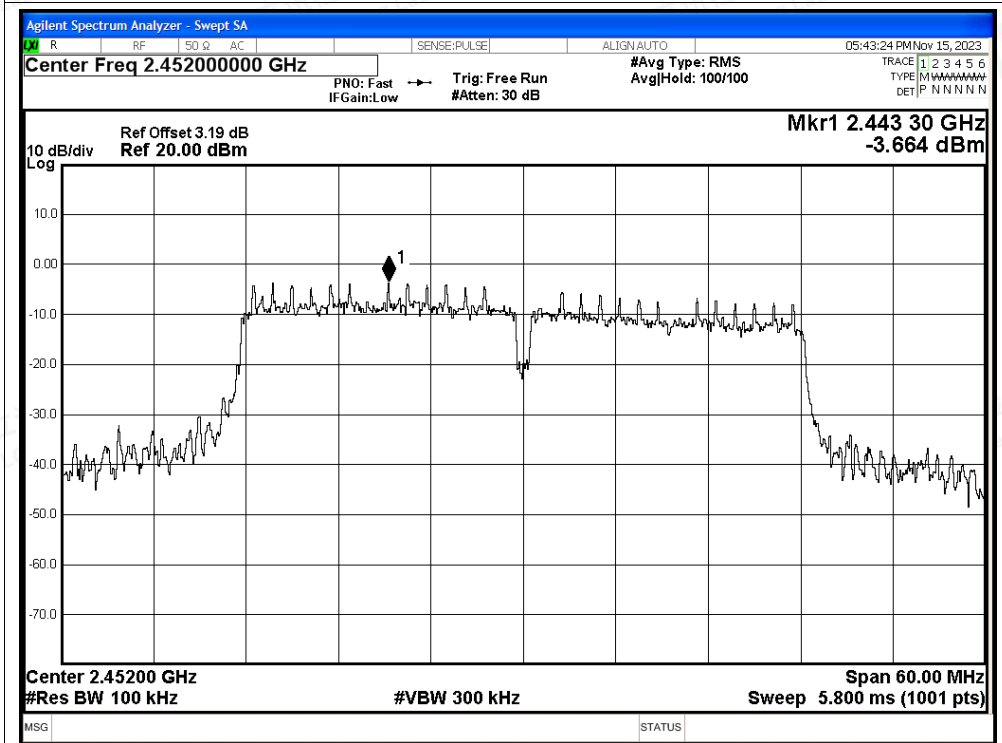


Band Edge NVNT n40 2422MHz Ant1 Emission

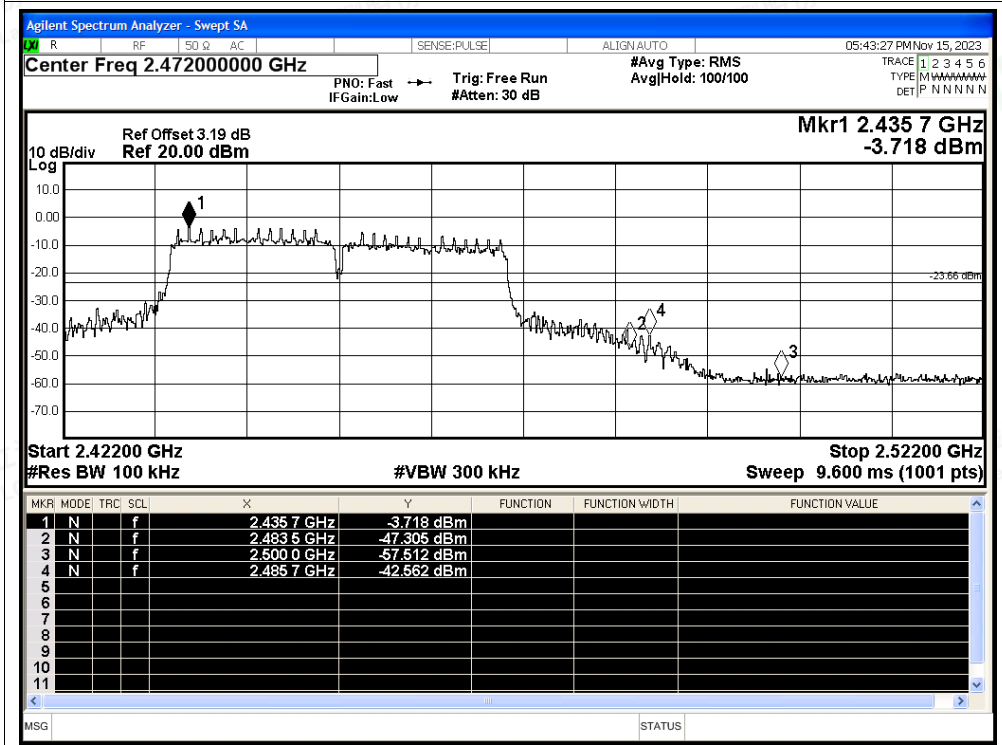




Band Edge NVNT n40 2452MHz Ant1 Ref



Band Edge NVNT n40 2452MHz Ant1 Emission





C.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant0	-50.14	-20	Pass
NVNT	b	2437	Ant0	-50.87	-20	Pass
NVNT	b	2462	Ant0	-48.52	-20	Pass
NVNT	g	2412	Ant0	-49.48	-20	Pass
NVNT	g	2437	Ant0	-53.57	-20	Pass
NVNT	g	2462	Ant0	-50.15	-20	Pass
NVNT	n20	2412	Ant0	-48.27	-20	Pass
NVNT	n20	2437	Ant0	-51.92	-20	Pass
NVNT	n20	2462	Ant0	-49.09	-20	Pass
NVNT	n40	2422	Ant0	-46.25	-20	Pass
NVNT	n40	2437	Ant0	-48.22	-20	Pass
NVNT	n40	2452	Ant0	-45.46	-20	Pass

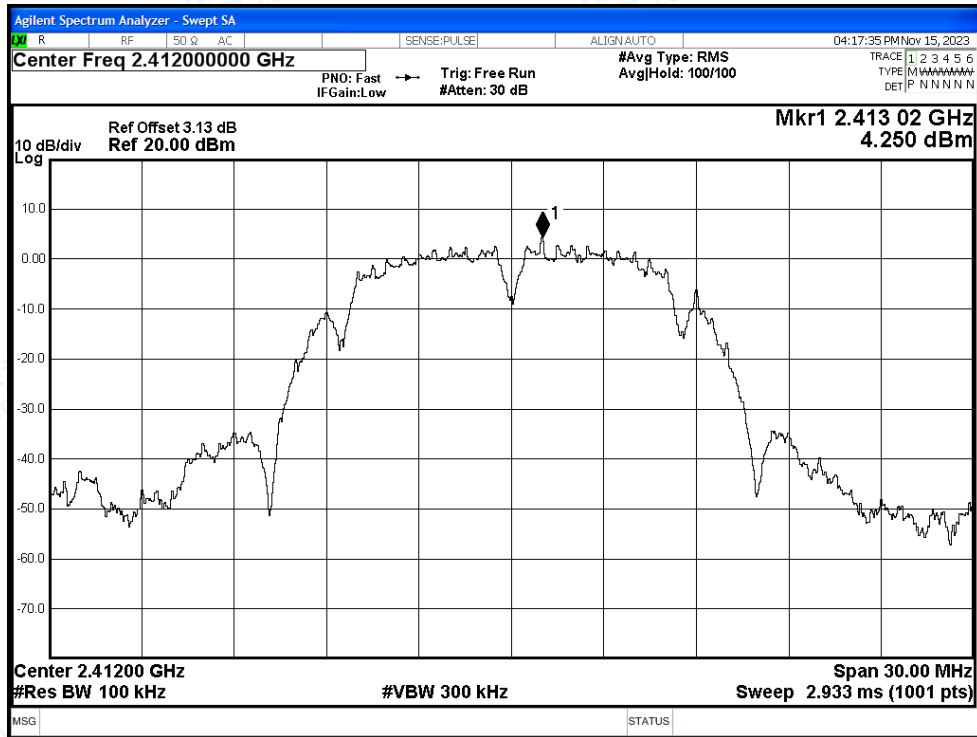


Shenzhen LCS Compliance Testing Laboratory Ltd.
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 Scan code to check authenticity

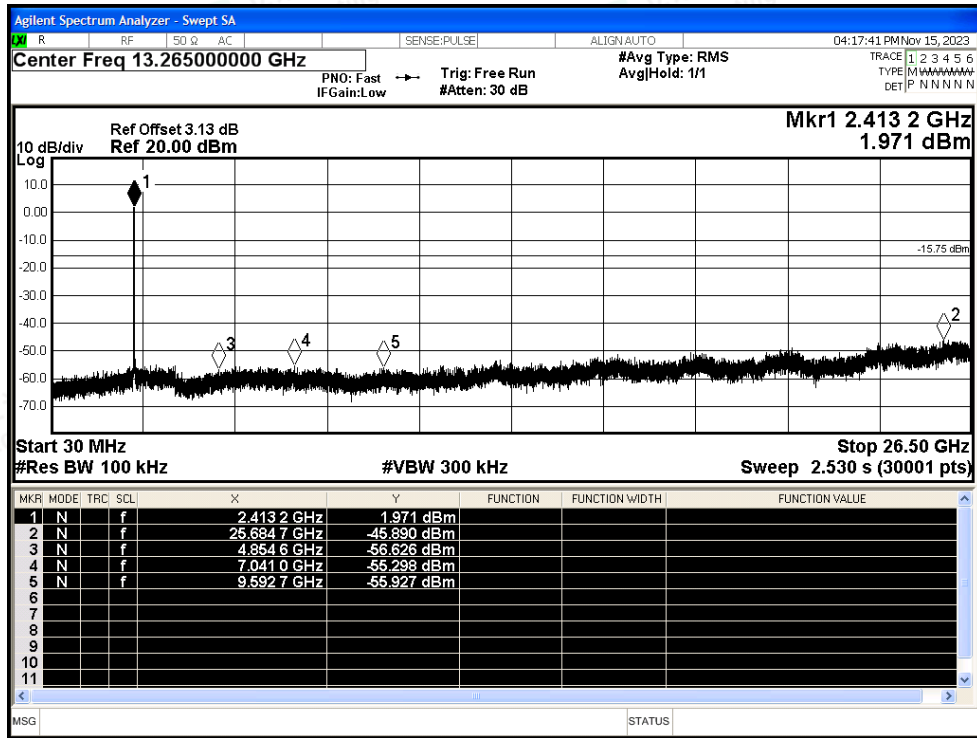


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant0 Ref

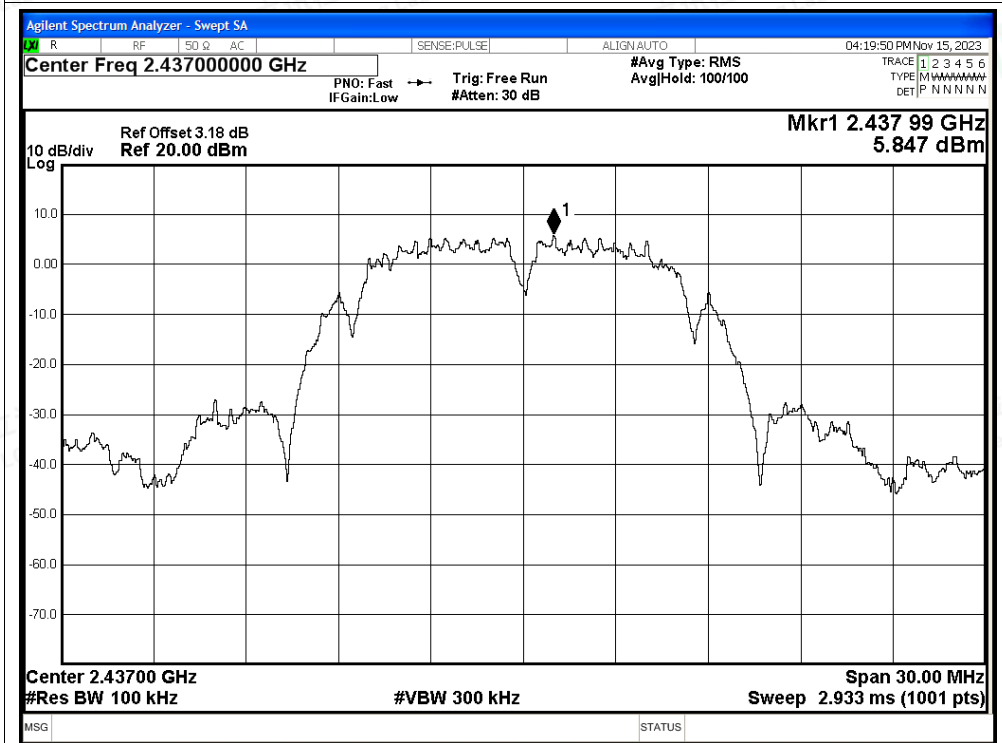


Tx. Spurious NVNT b 2412MHz Ant0 Emission

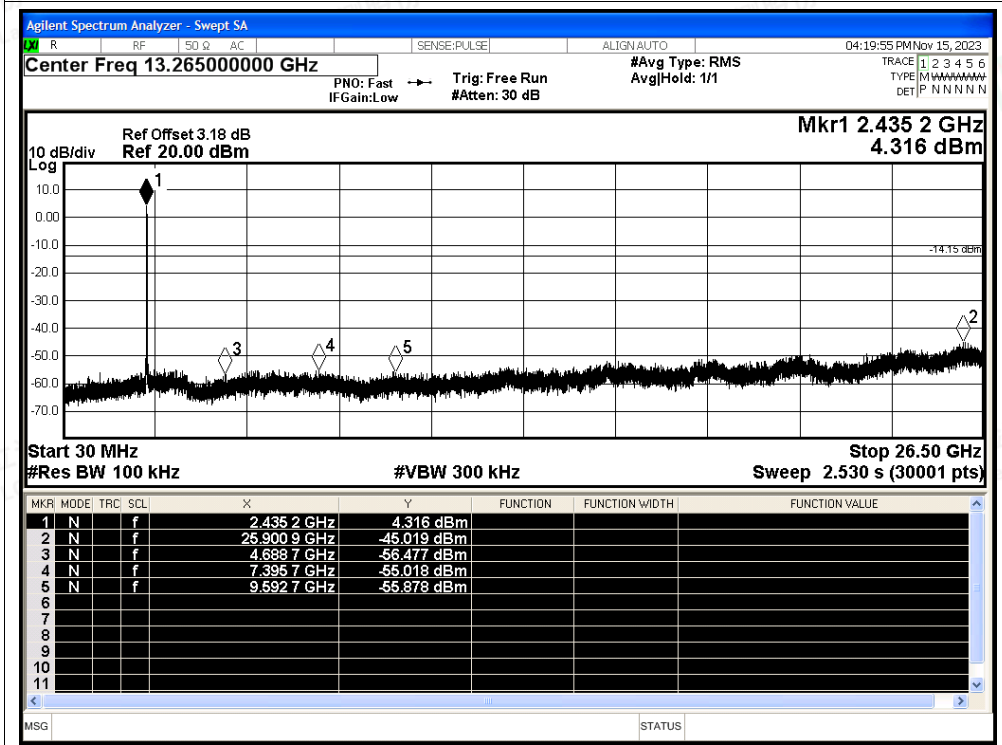




Tx. Spurious NVNT b 2437MHz Ant0 Ref

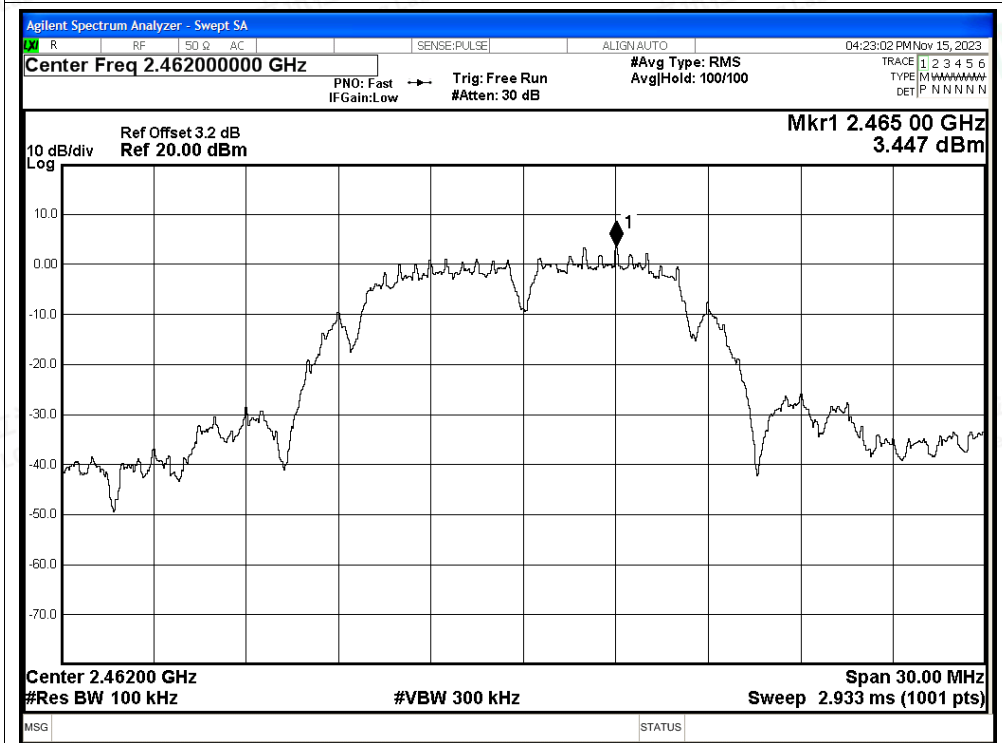


Tx. Spurious NVNT b 2437MHz Ant0 Emission

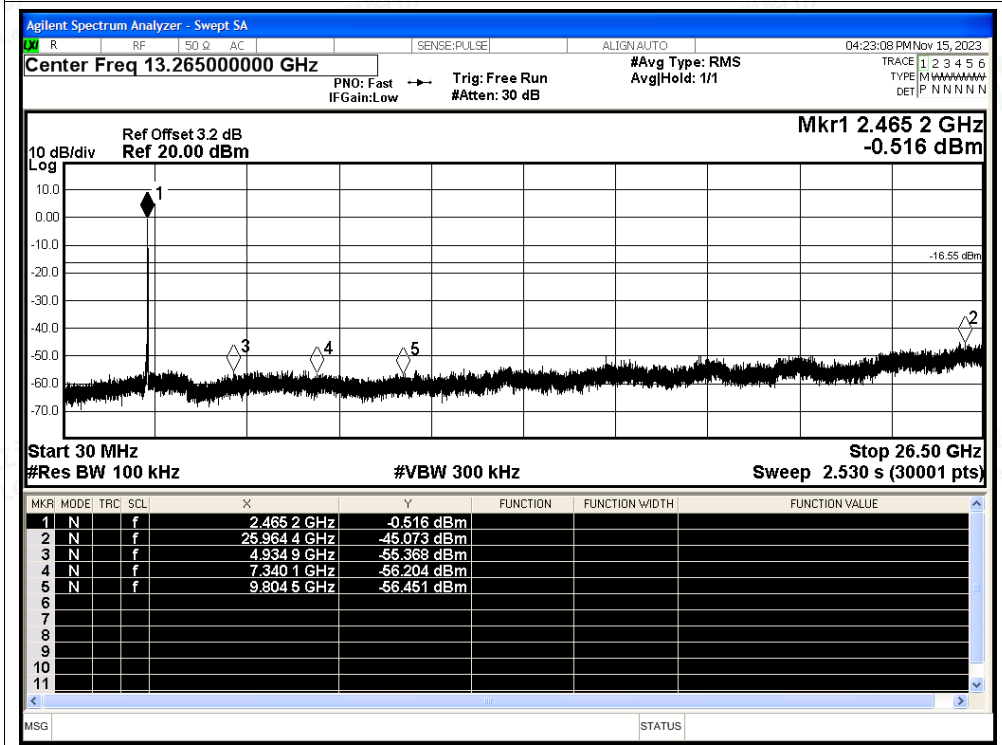




Tx. Spurious NVNT b 2462MHz Ant0 Ref

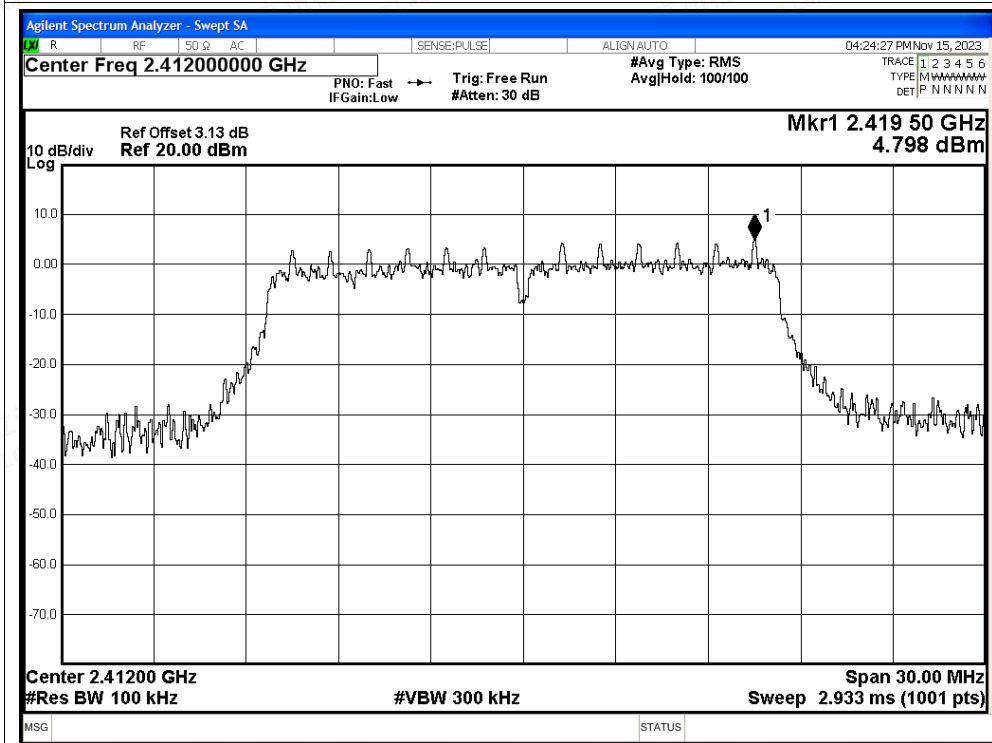


Tx. Spurious NVNT b 2462MHz Ant0 Emission

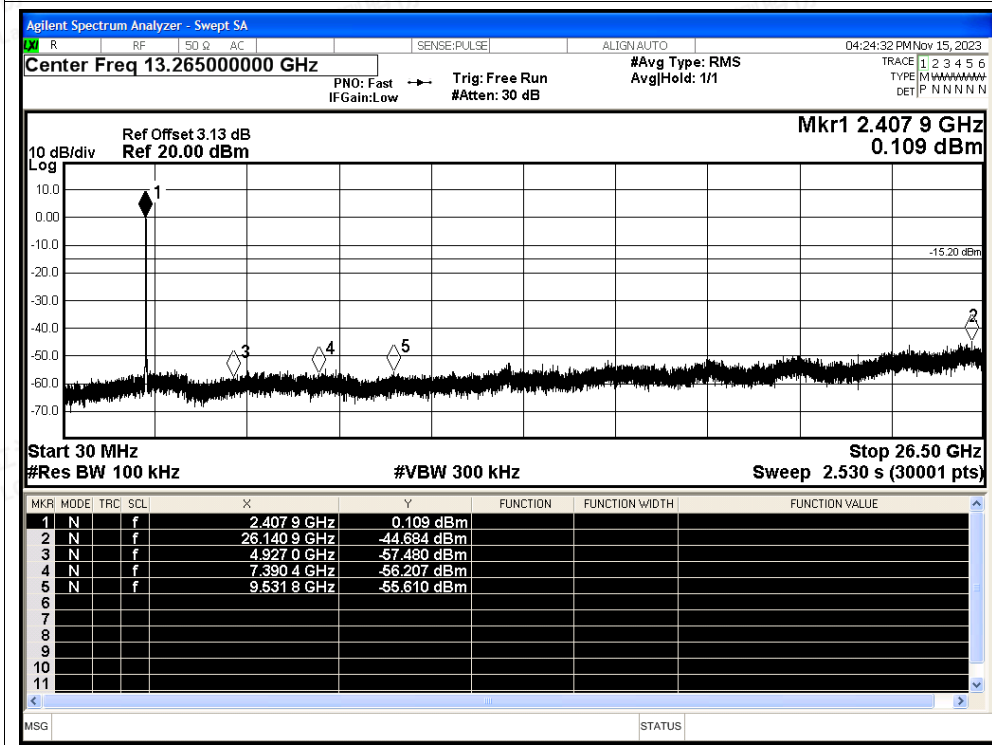




Tx. Spurious NVNT g 2412MHz Ant0 Ref

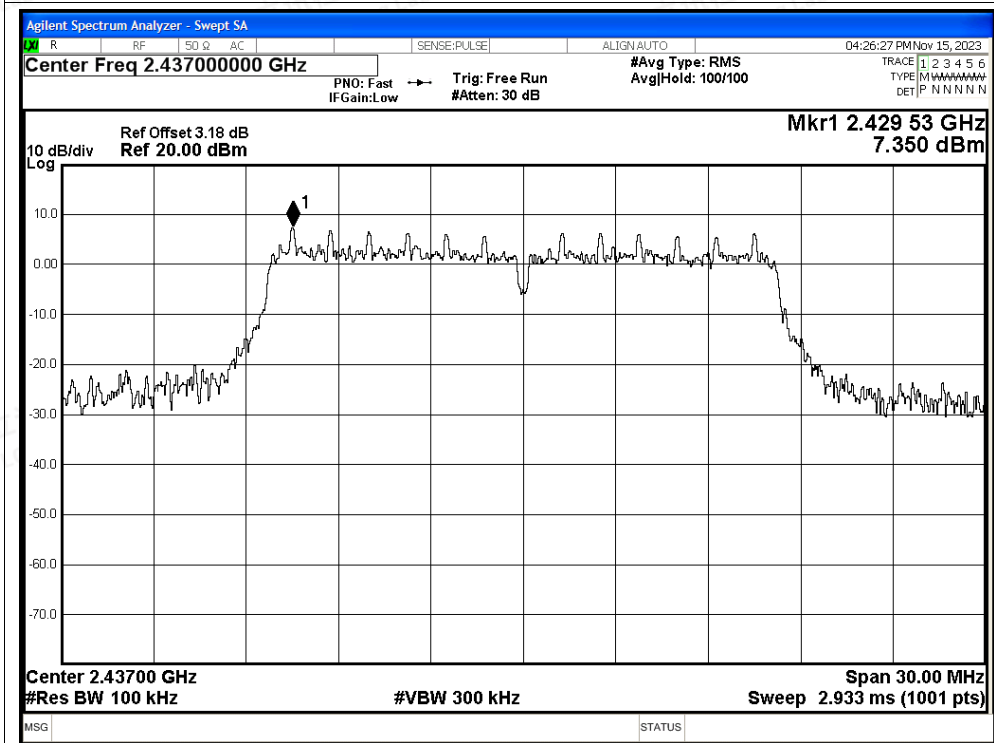


Tx. Spurious NVNT g 2412MHz Ant0 Emission

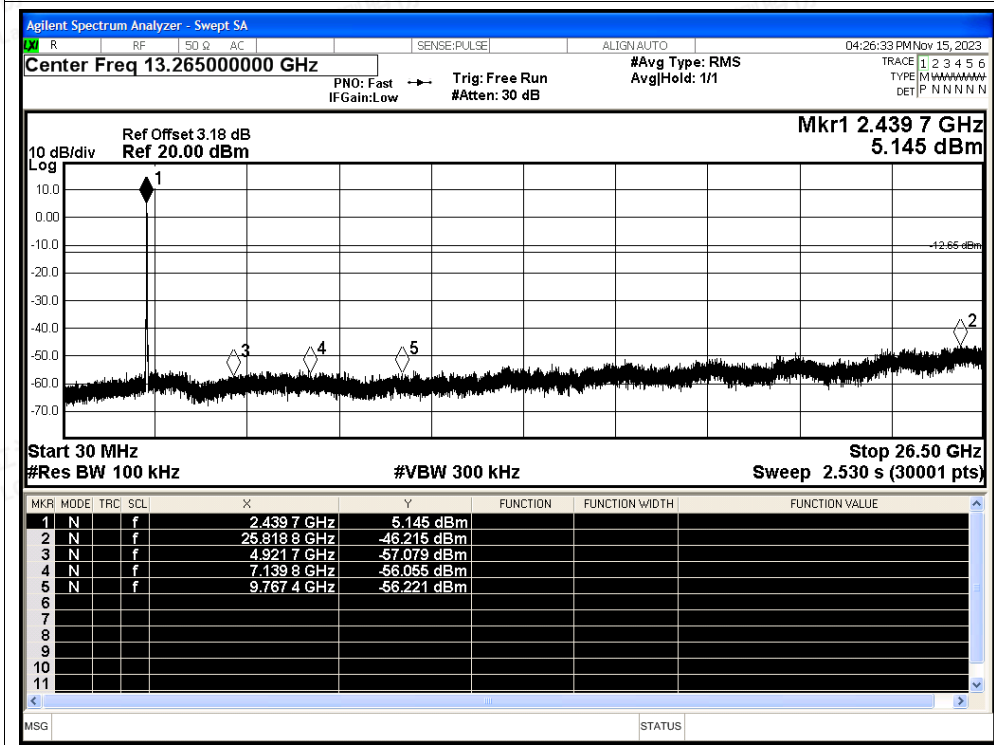




Tx. Spurious NVNT g 2437MHz Ant0 Ref

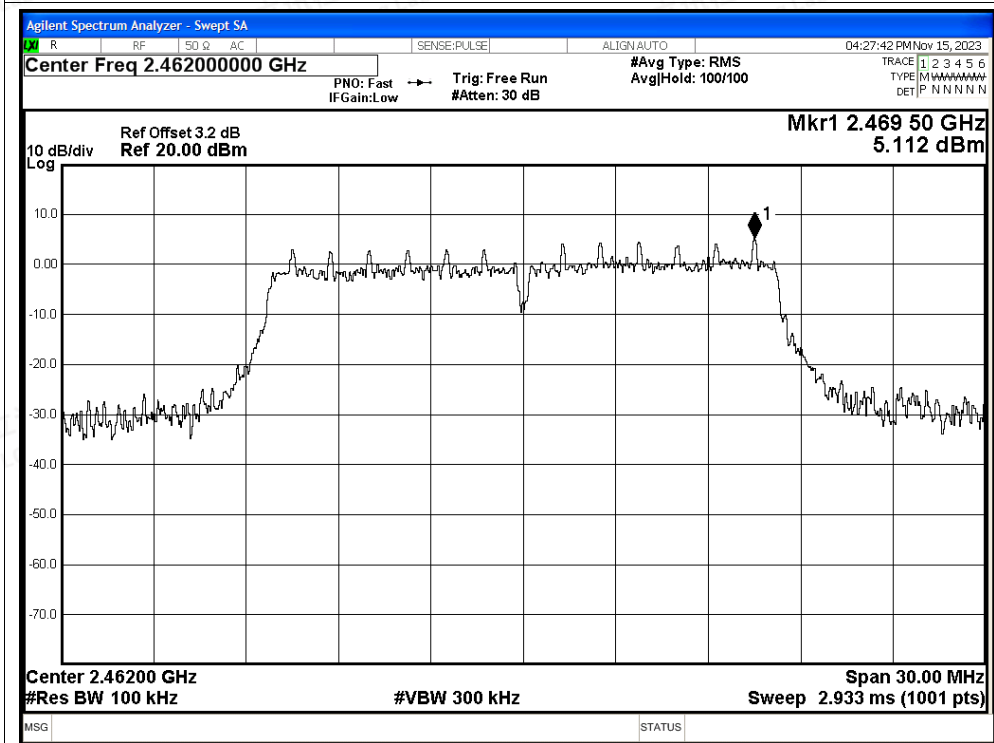


Tx. Spurious NVNT g 2437MHz Ant0 Emission

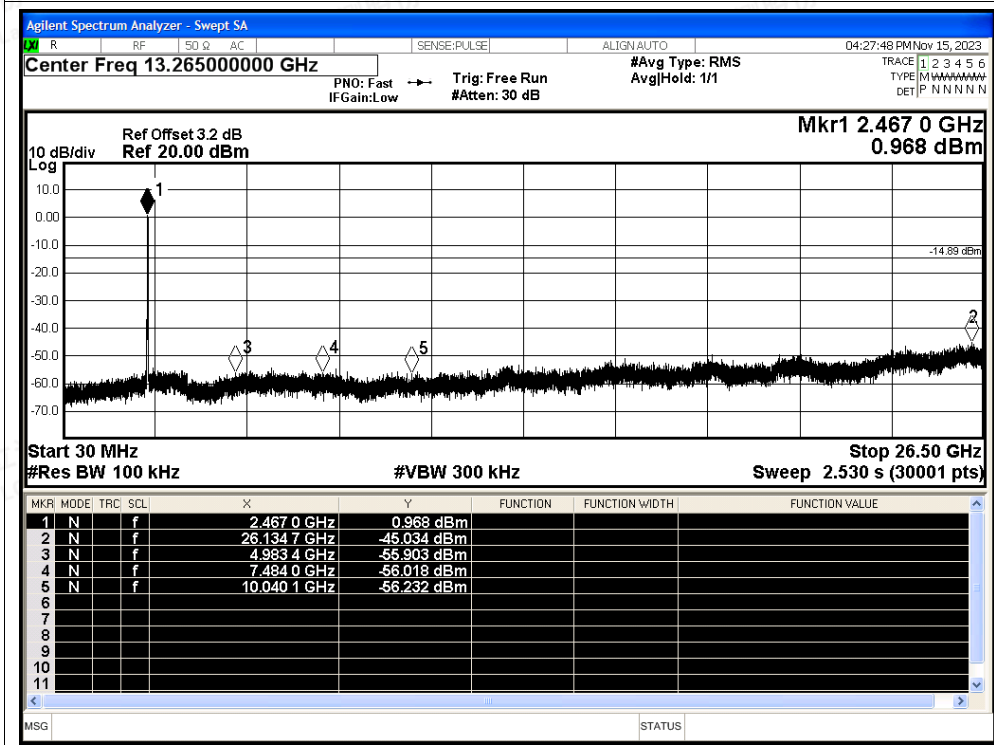




Tx. Spurious NVNT g 2462MHz Ant0 Ref

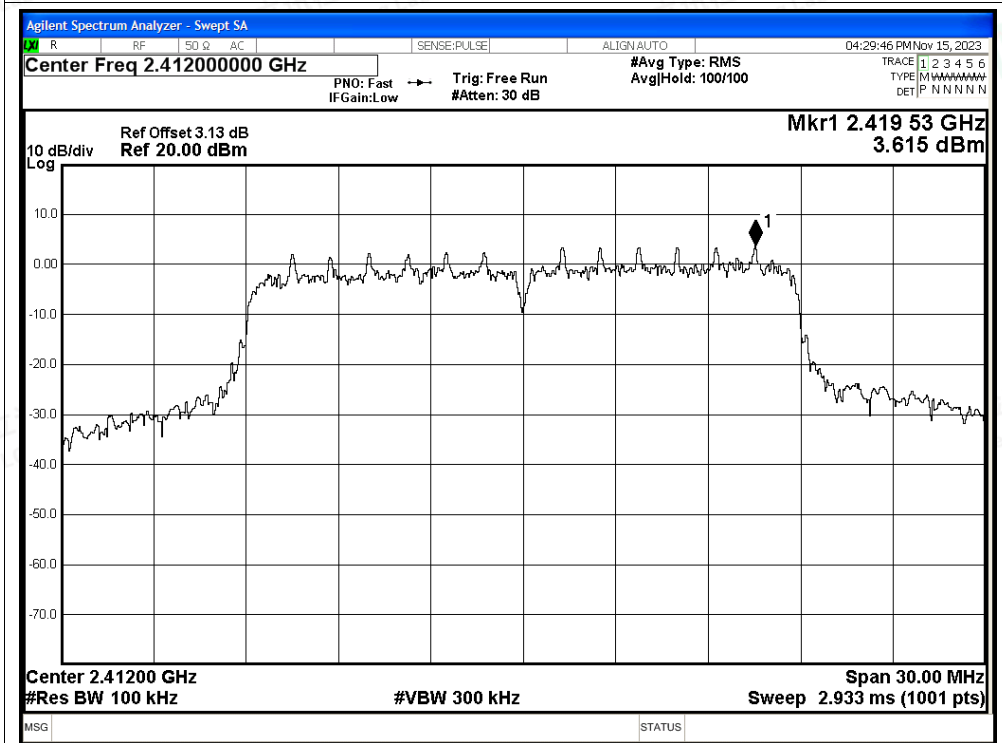


Tx. Spurious NVNT g 2462MHz Ant0 Emission

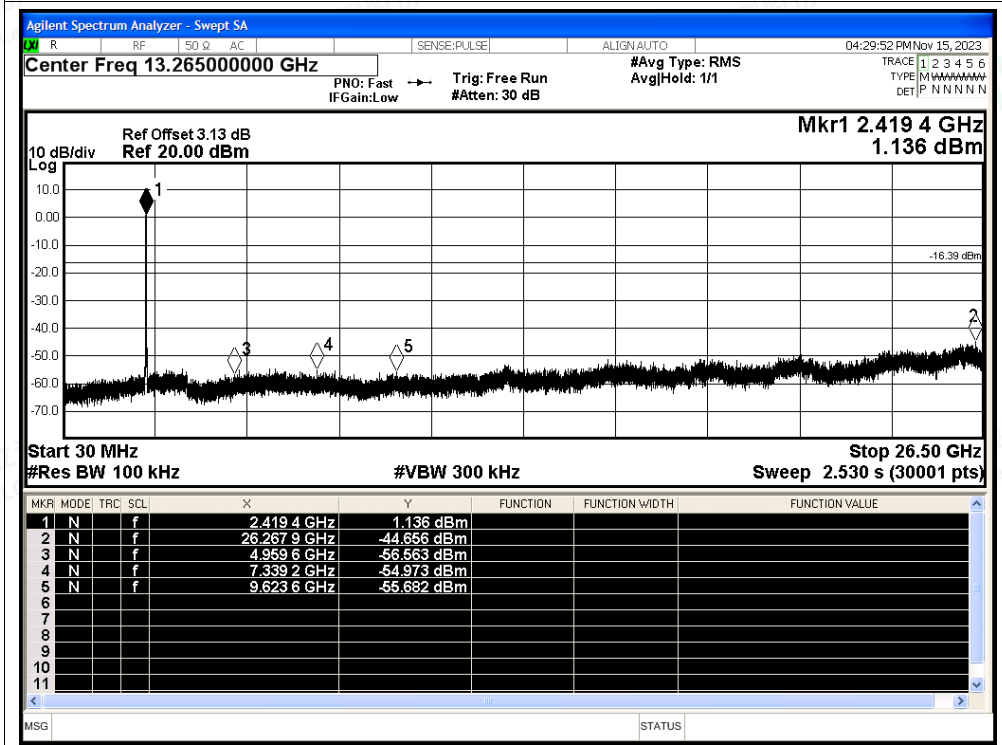




Tx. Spurious NVNT n20 2412MHz Ant0 Ref

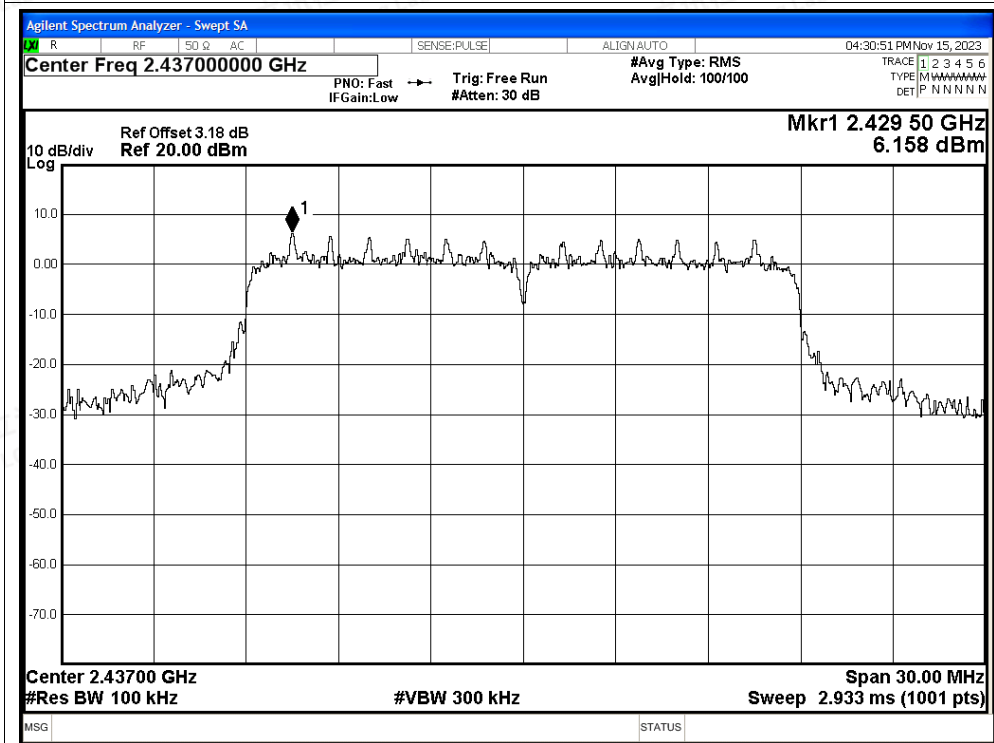


Tx. Spurious NVNT n20 2412MHz Ant0 Emission

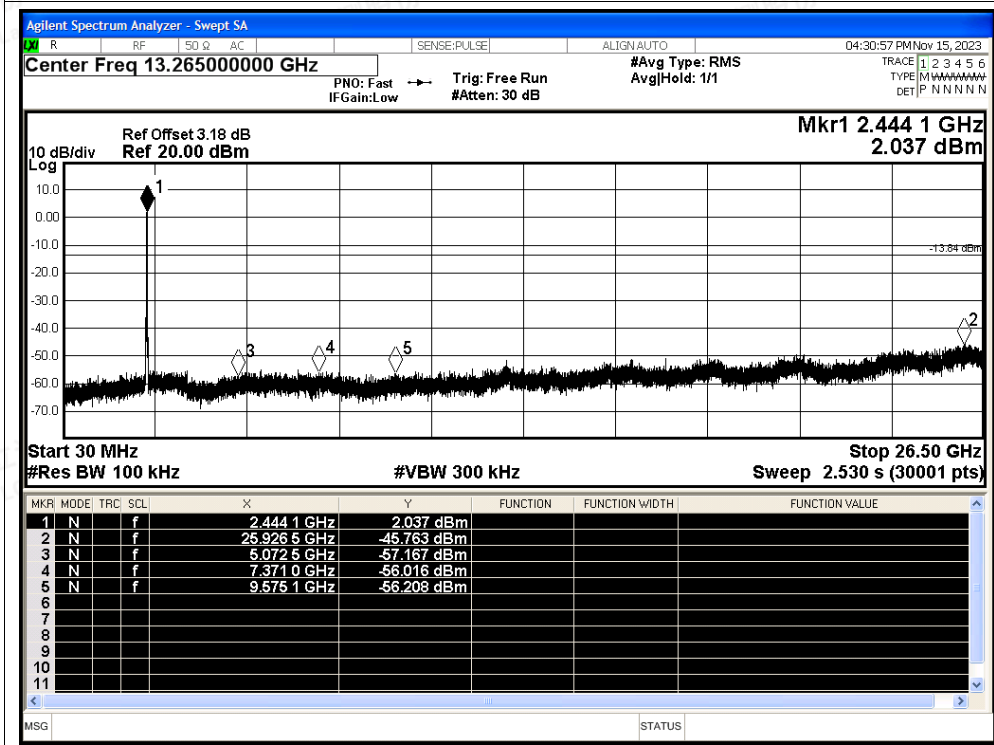




Tx. Spurious NVNT n20 2437MHz Ant0 Ref

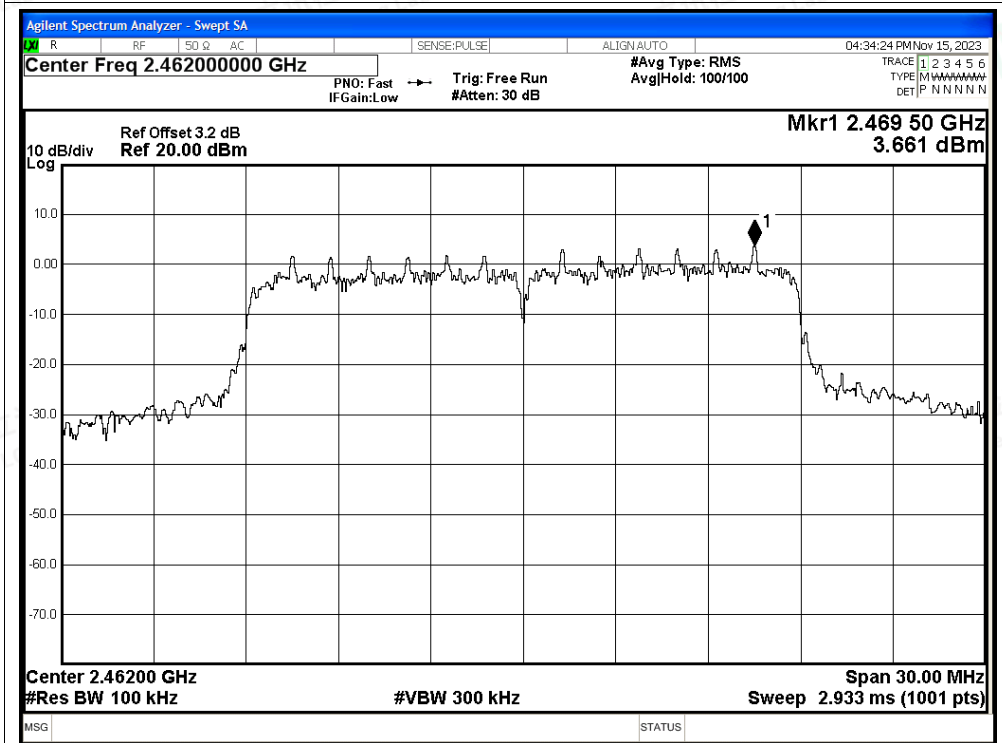


Tx. Spurious NVNT n20 2437MHz Ant0 Emission

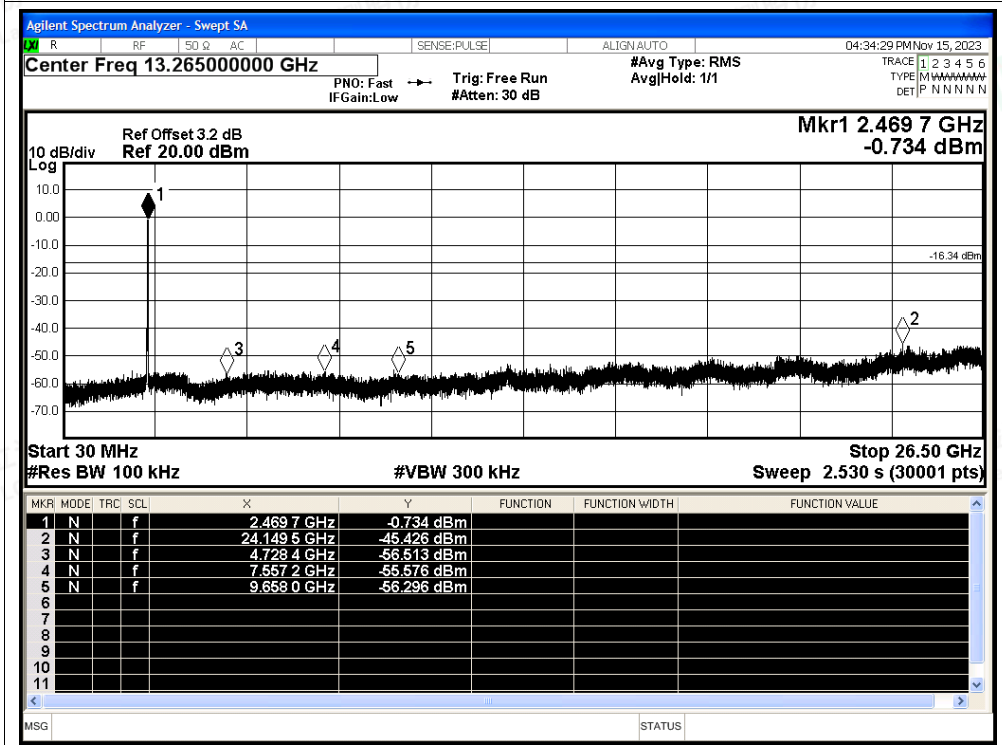




Tx. Spurious NVNT n20 2462MHz Ant0 Ref

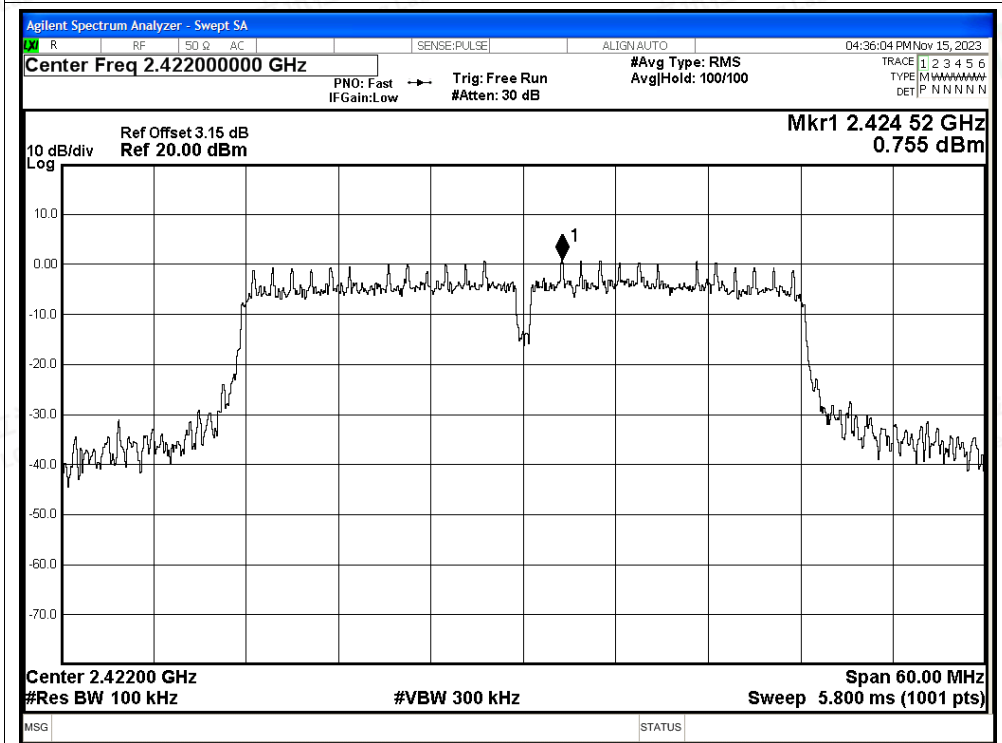


Tx. Spurious NVNT n20 2462MHz Ant0 Emission

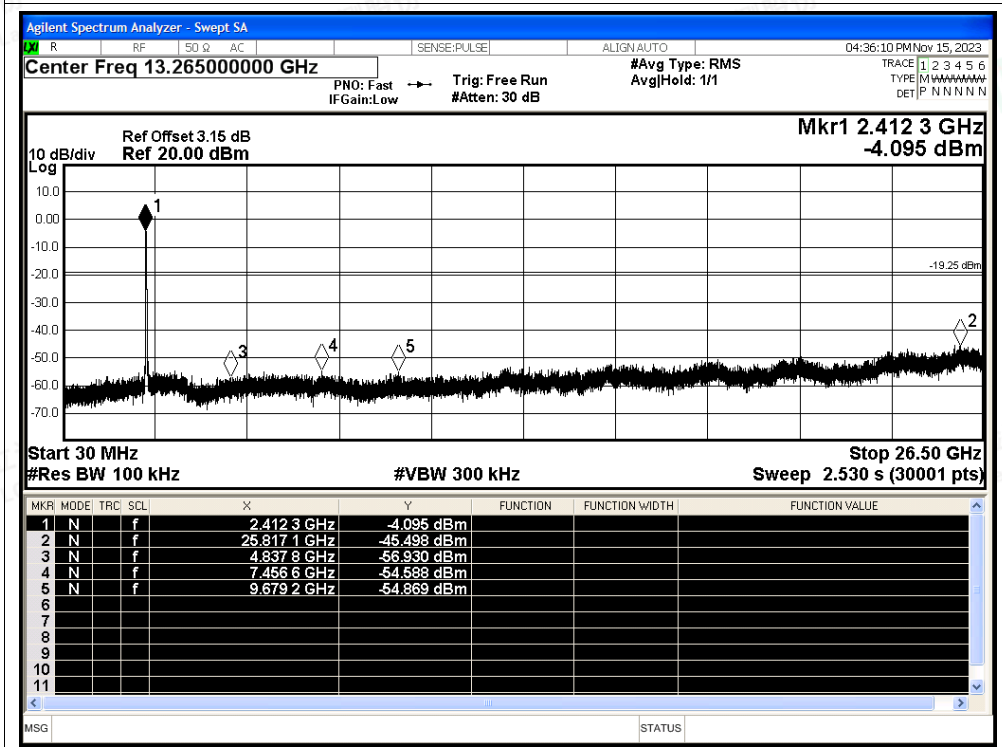




Tx. Spurious NVNT n40 2422MHz Ant0 Ref

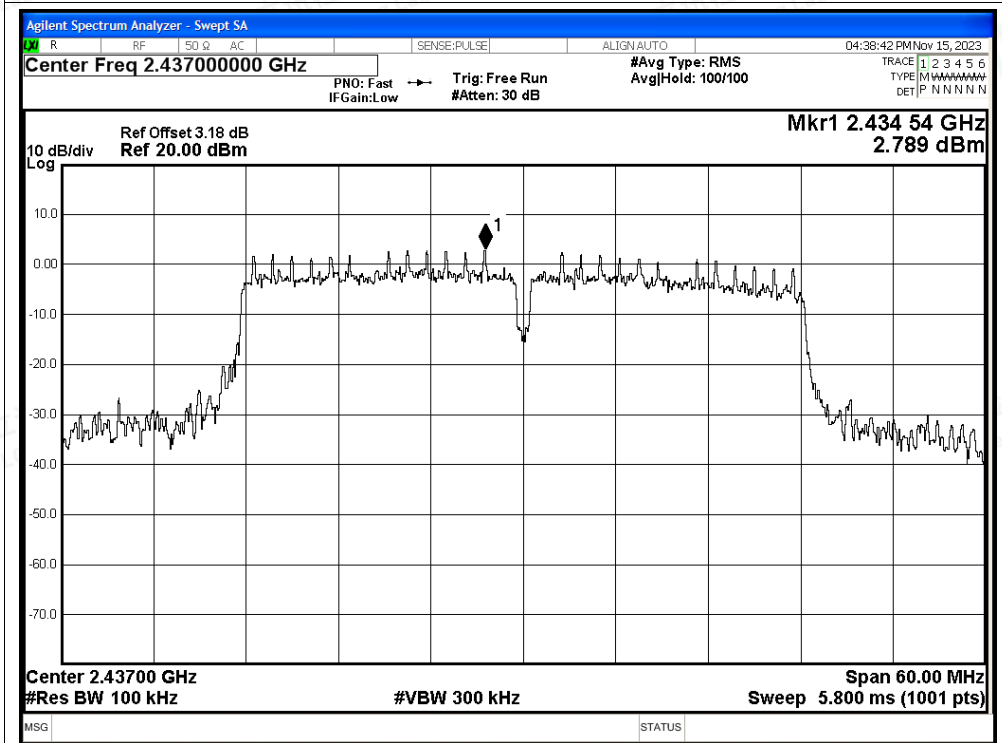


Tx. Spurious NVNT n40 2422MHz Ant0 Emission

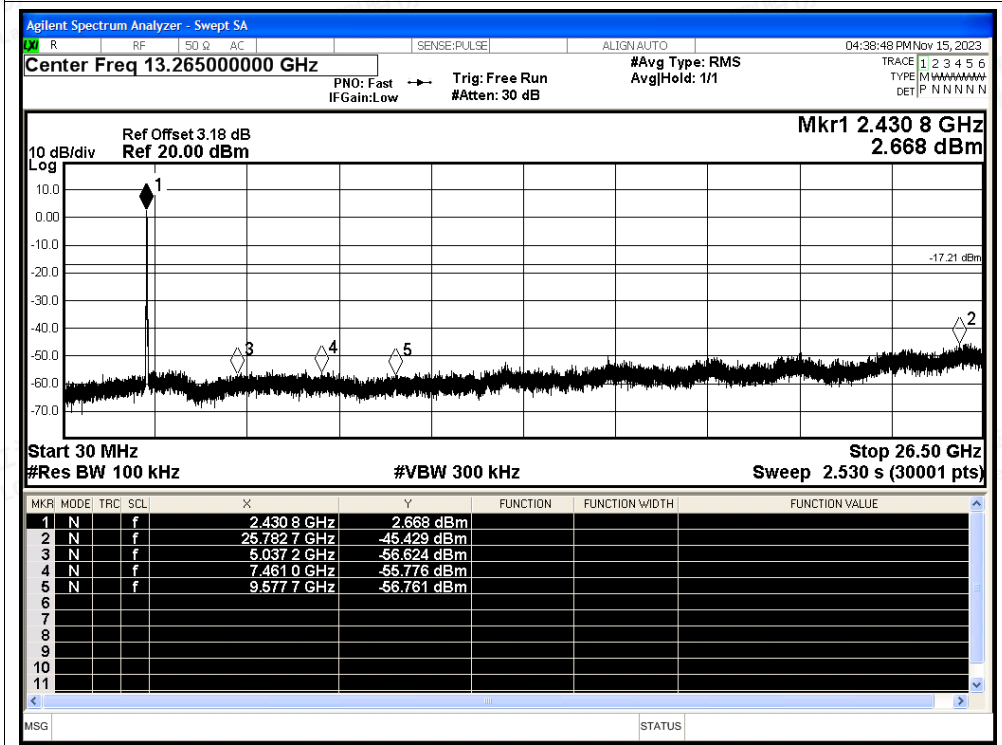




Tx. Spurious NVNT n40 2437MHz Ant0 Ref

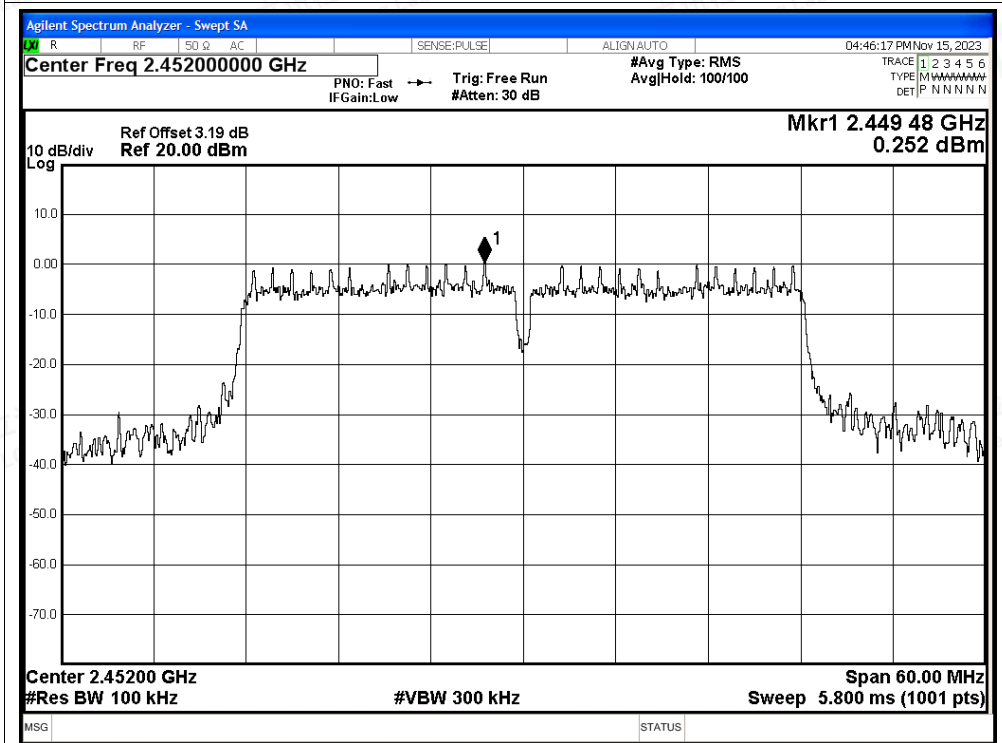


Tx. Spurious NVNT n40 2437MHz Ant0 Emission

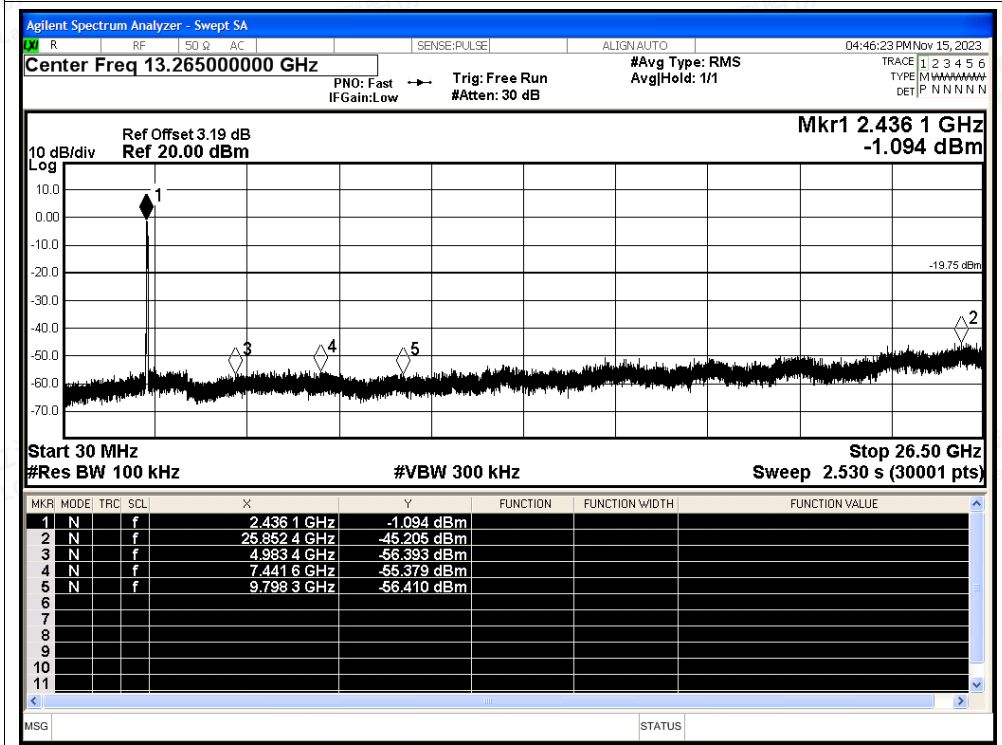




Tx. Spurious NVNT n40 2452MHz Ant0 Ref



Tx. Spurious NVNT n40 2452MHz Ant0 Emission





Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.58	-20	Pass
NVNT	b	2437	Ant1	-52.4	-20	Pass
NVNT	b	2462	Ant1	-48.97	-20	Pass
NVNT	g	2412	Ant1	-44.48	-20	Pass
NVNT	g	2437	Ant1	-47.5	-20	Pass
NVNT	g	2462	Ant1	-43.96	-20	Pass
NVNT	n20	2412	Ant1	-44.12	-20	Pass
NVNT	n20	2437	Ant1	-46.3	-20	Pass
NVNT	n20	2462	Ant1	-43.38	-20	Pass
NVNT	n40	2422	Ant1	-40.96	-20	Pass
NVNT	n40	2437	Ant1	-43.39	-20	Pass
NVNT	n40	2452	Ant1	-41.74	-20	Pass

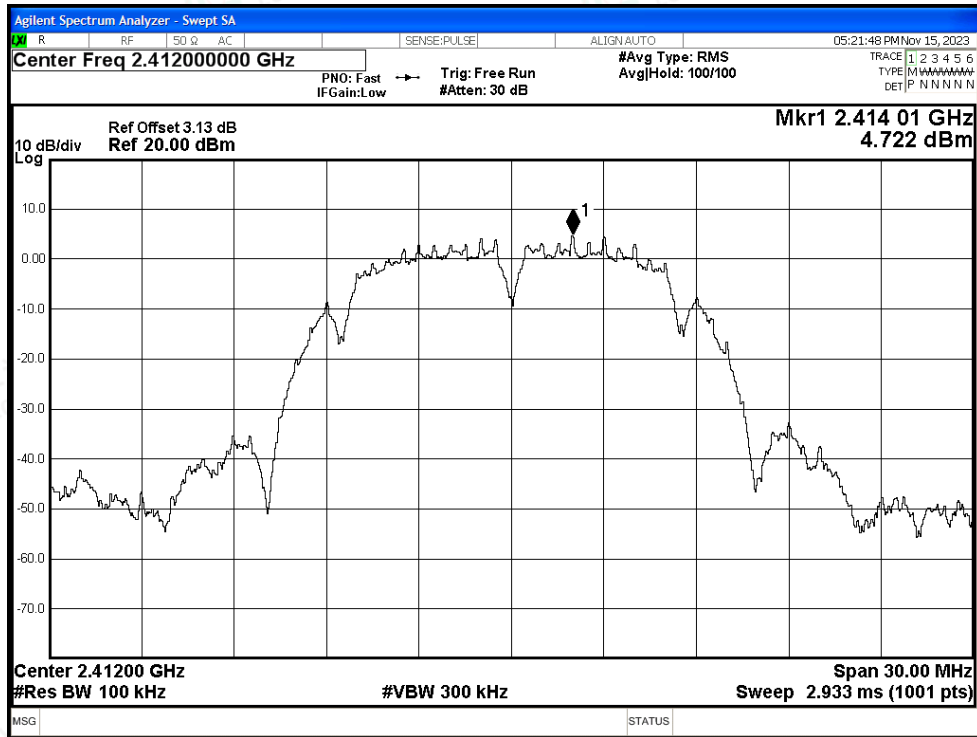


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Scan code to check authenticity

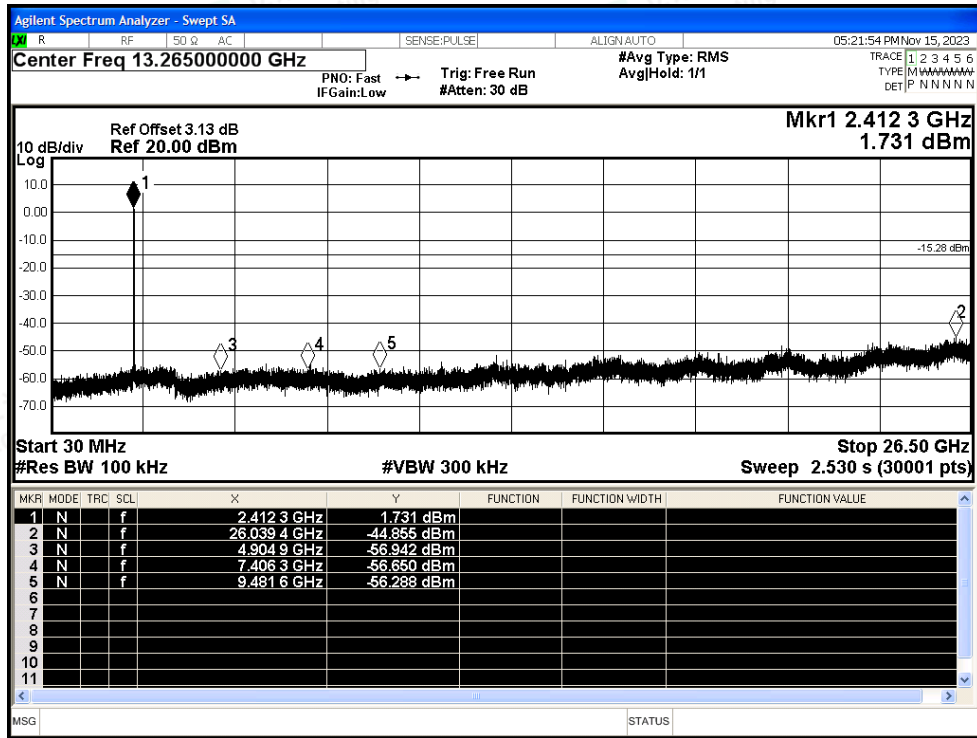


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref

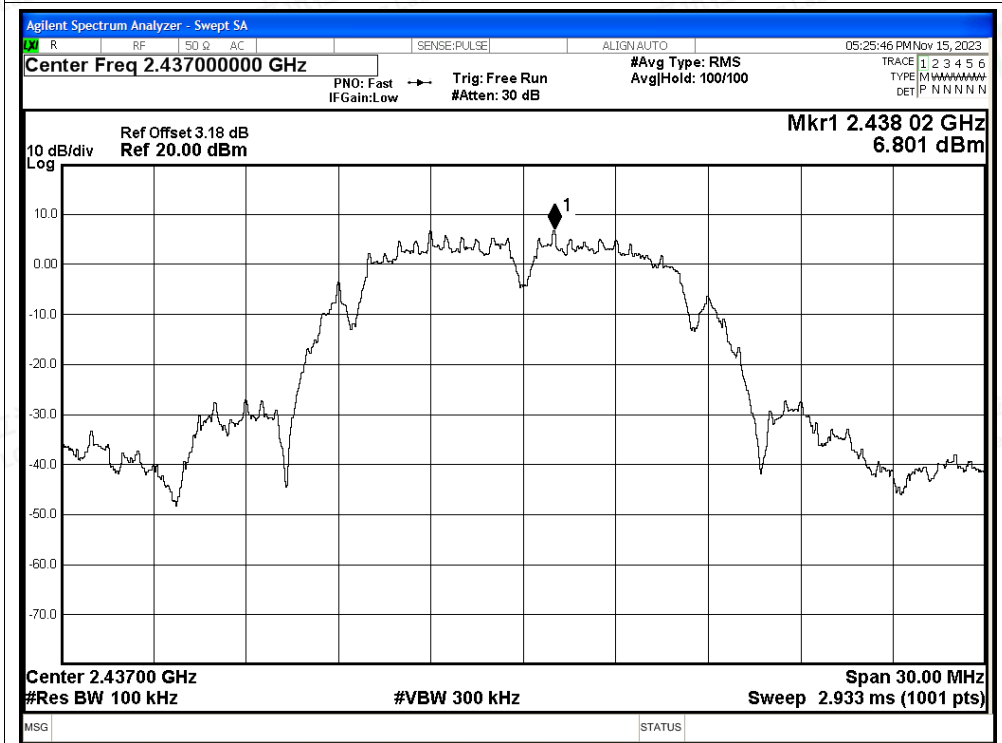


Tx. Spurious NVNT b 2412MHz Ant1 Emission

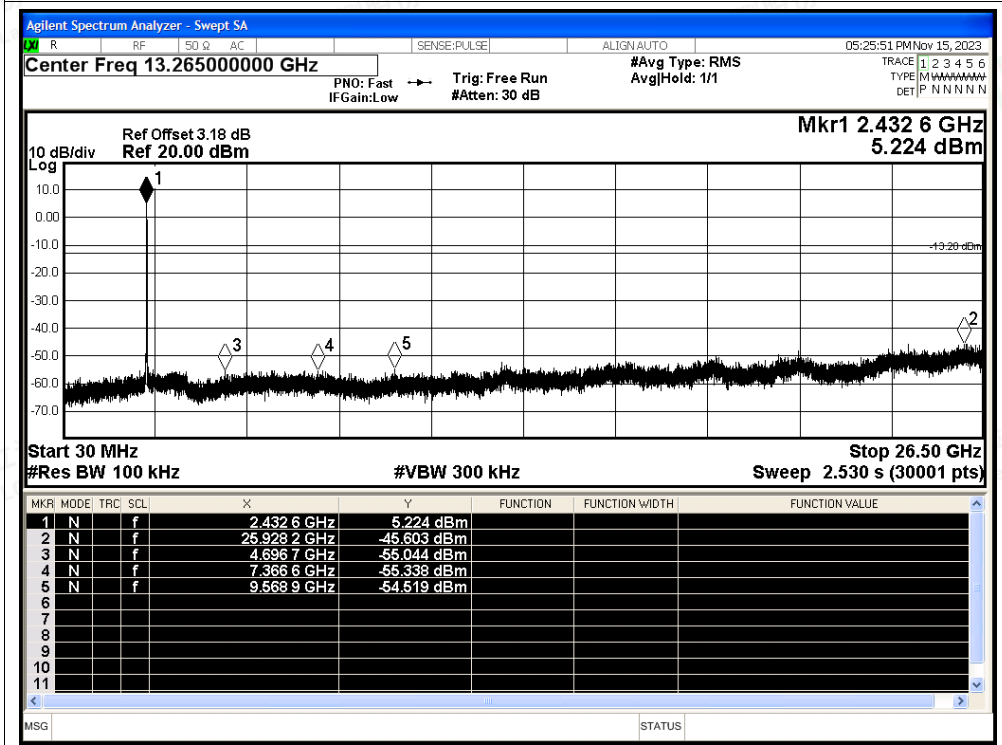




Tx. Spurious NVNT b 2437MHz Ant1 Ref

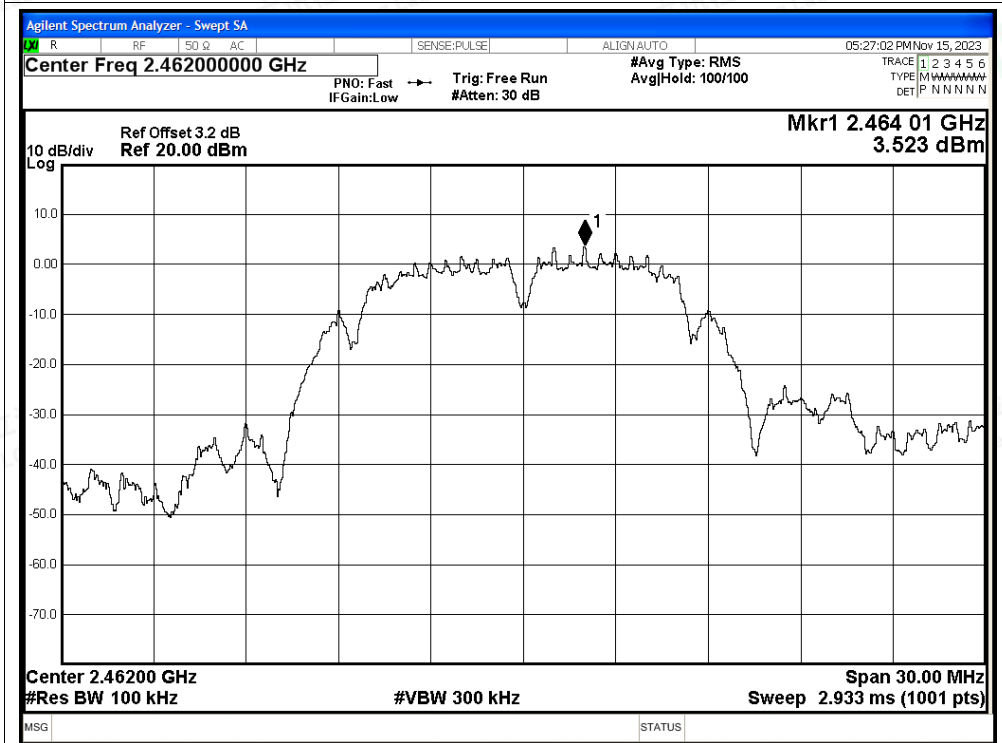


Tx. Spurious NVNT b 2437MHz Ant1 Emission

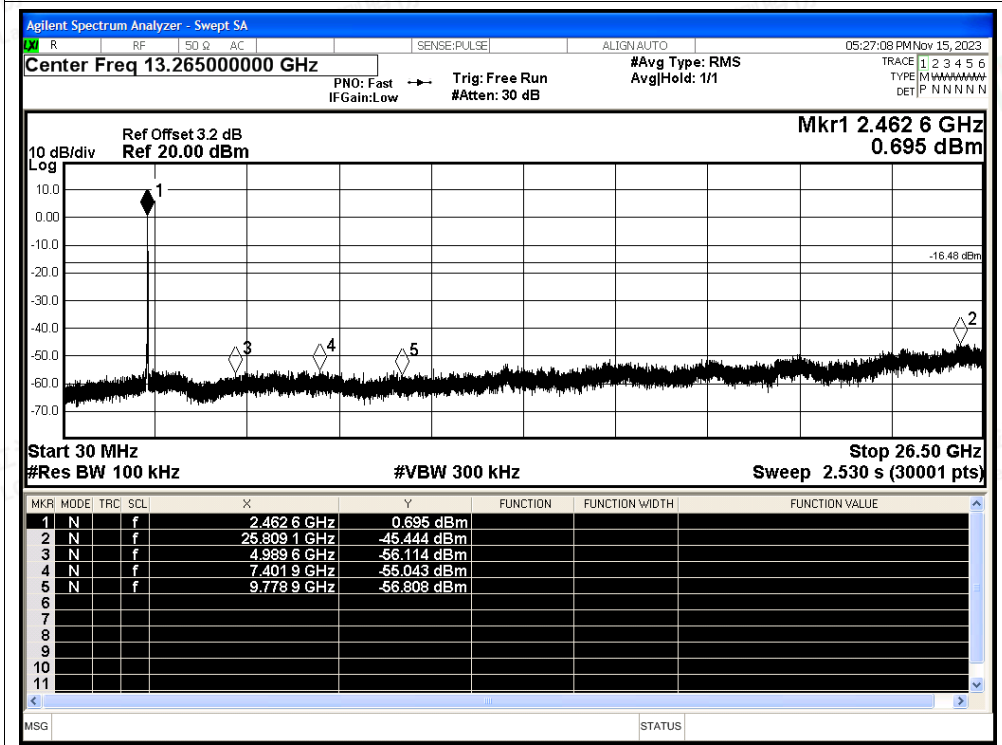




Tx. Spurious NVNT b 2462MHz Ant1 Ref

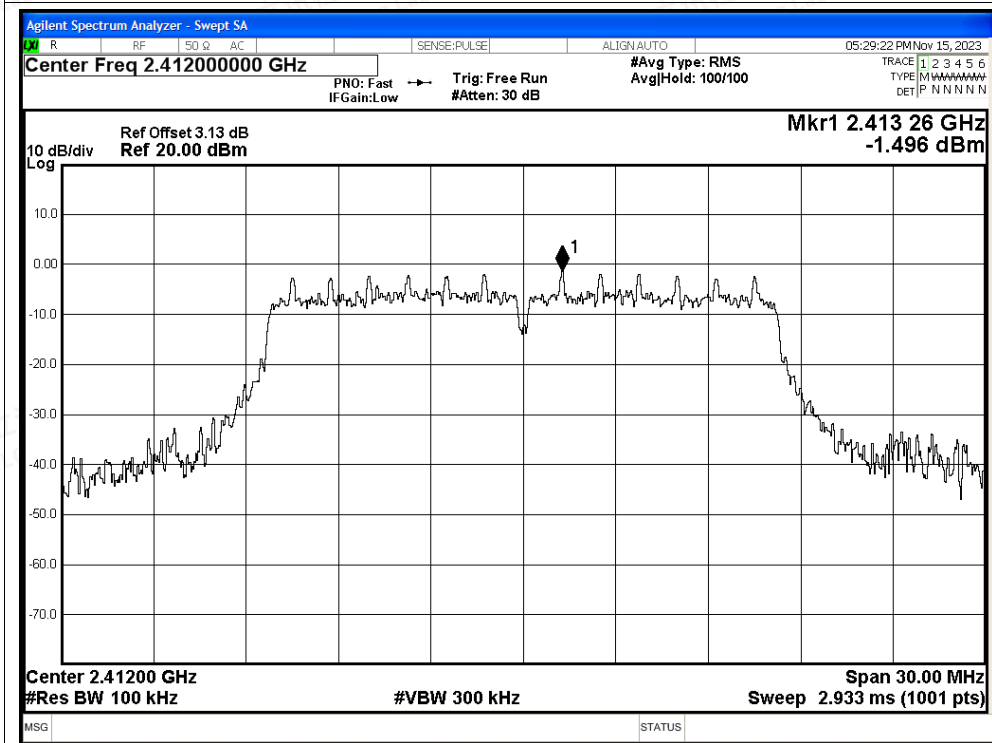


Tx. Spurious NVNT b 2462MHz Ant1 Emission

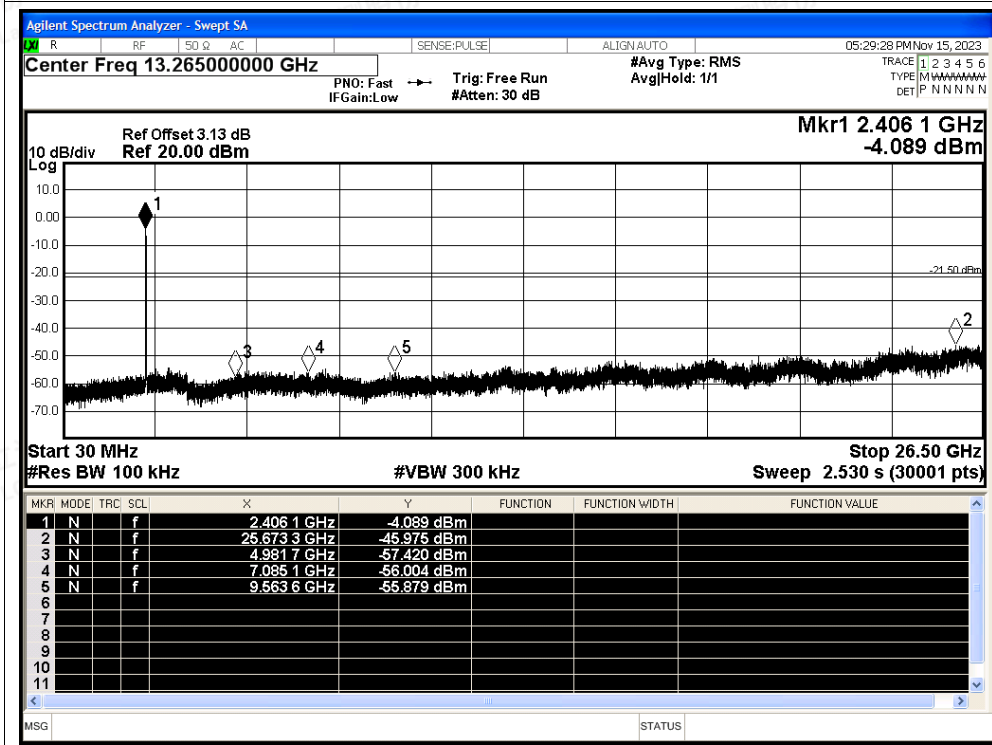




Tx. Spurious NVNT g 2412MHz Ant1 Ref

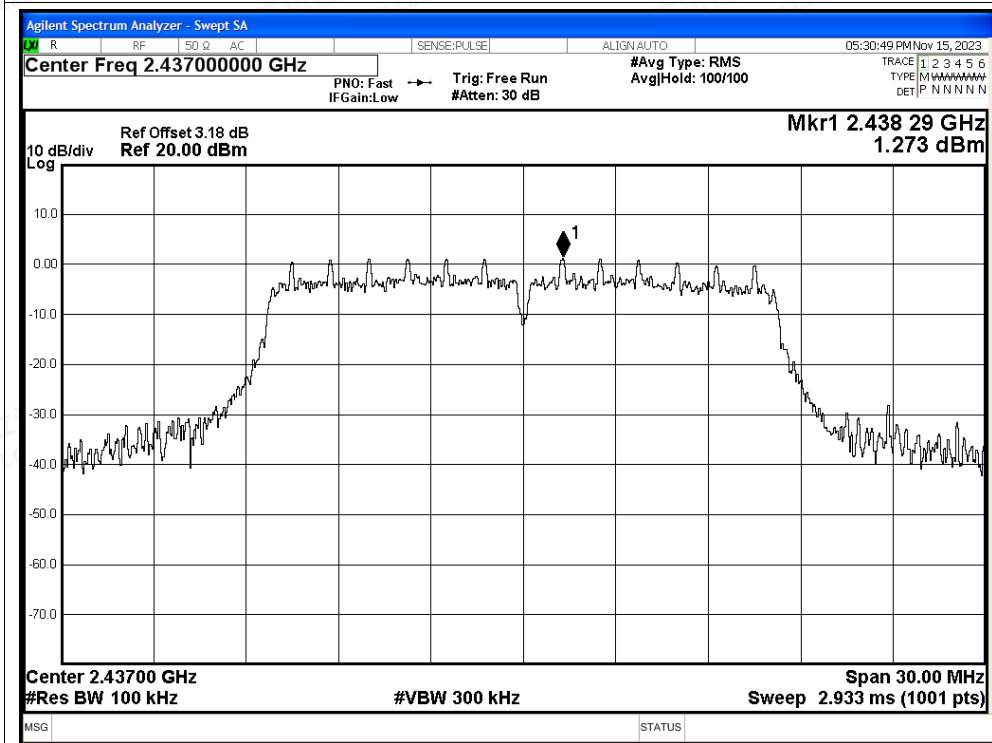


Tx. Spurious NVNT g 2412MHz Ant1 Emission

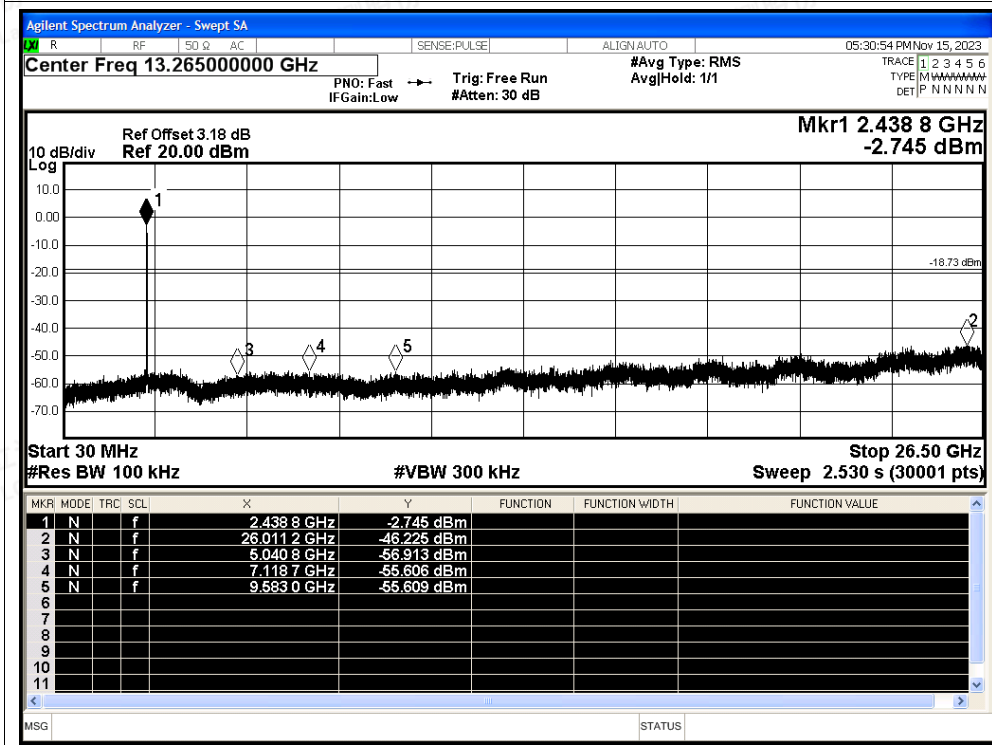




Tx. Spurious NVNT g 2437MHz Ant1 Ref

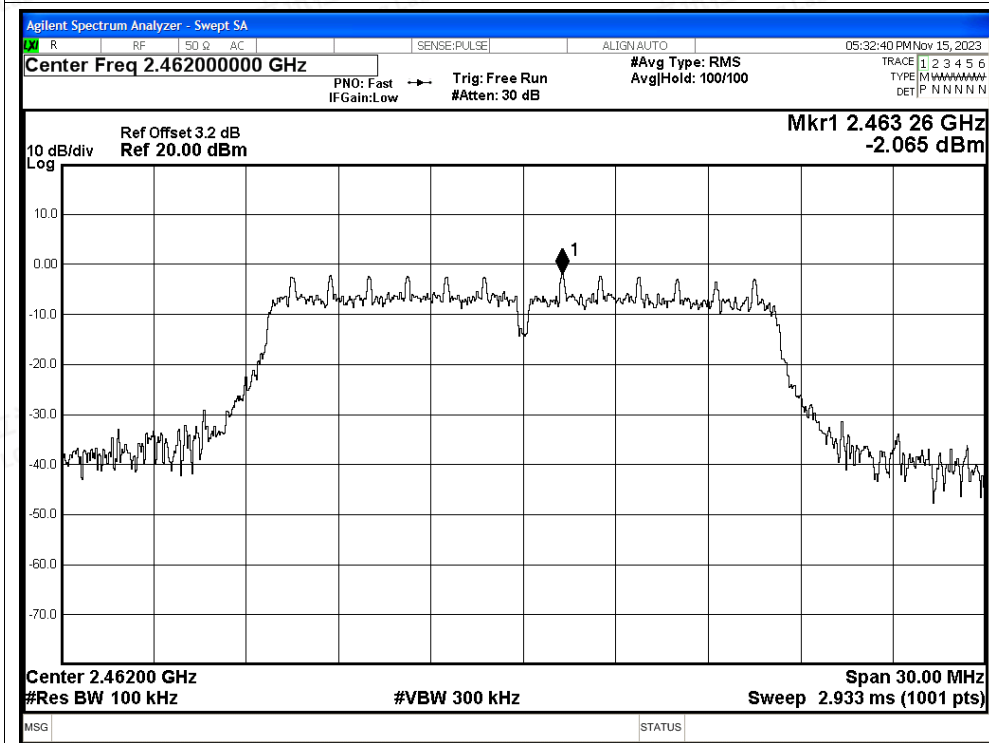


Tx. Spurious NVNT g 2437MHz Ant1 Emission

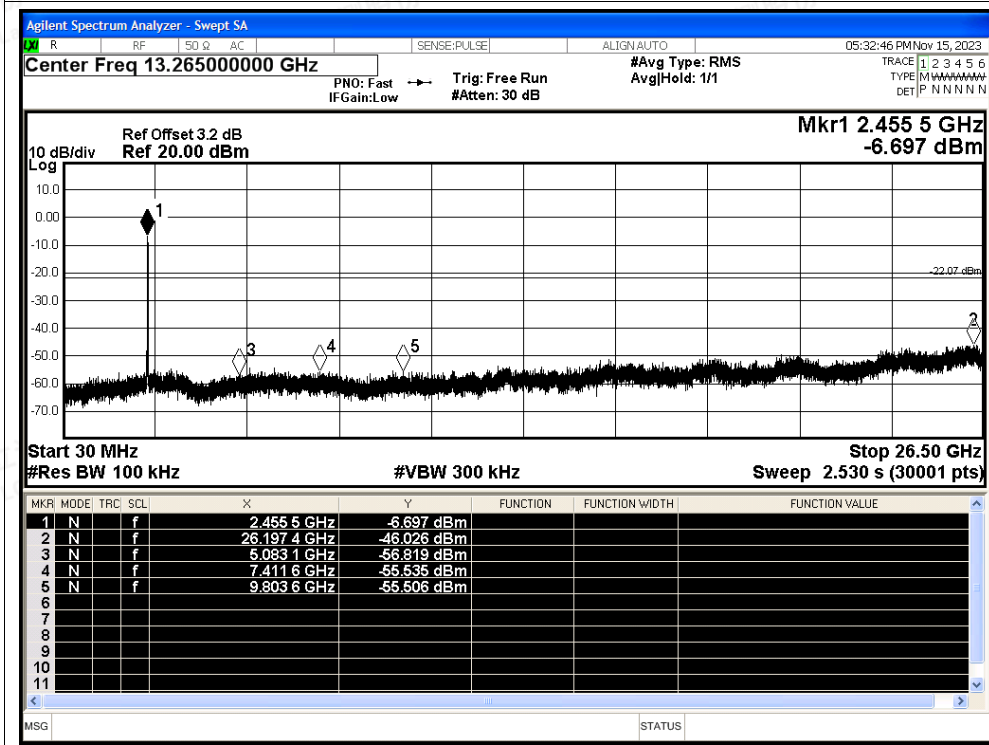




Tx. Spurious NVNT g 2462MHz Ant1 Ref

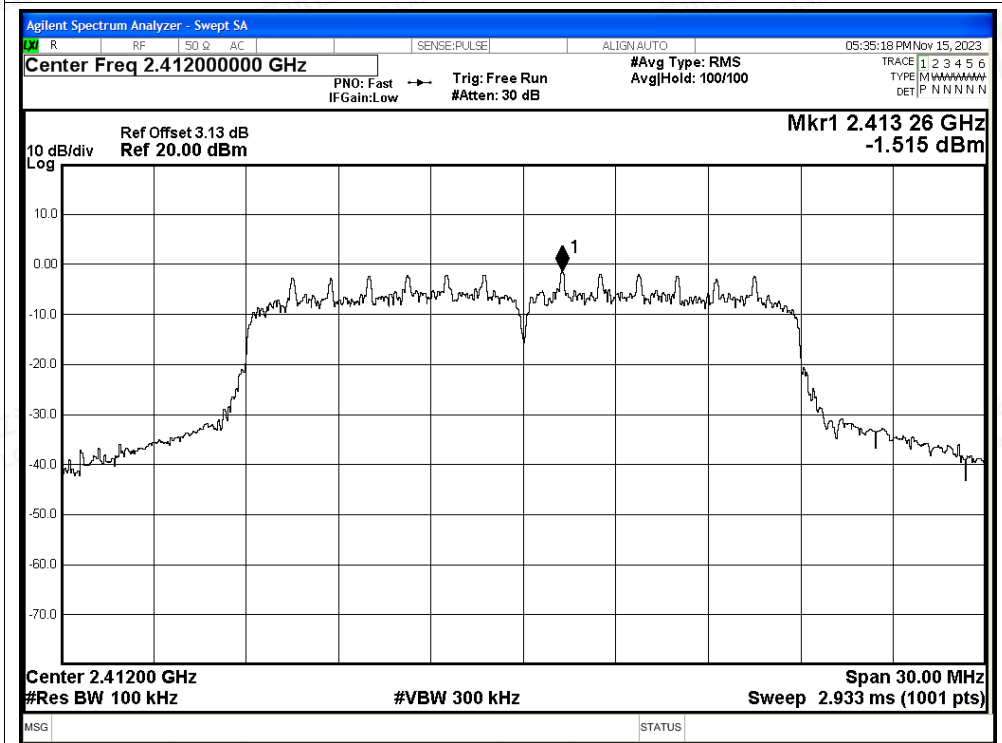


Tx. Spurious NVNT g 2462MHz Ant1 Emission

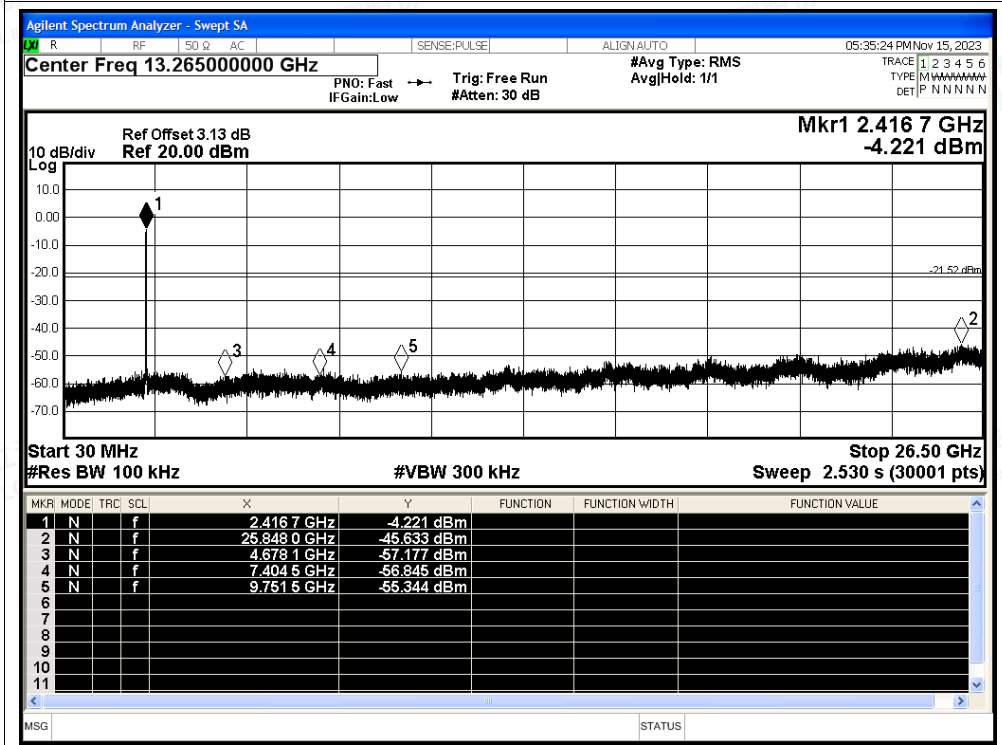




Tx. Spurious NVNT n20 2412MHz Ant1 Ref

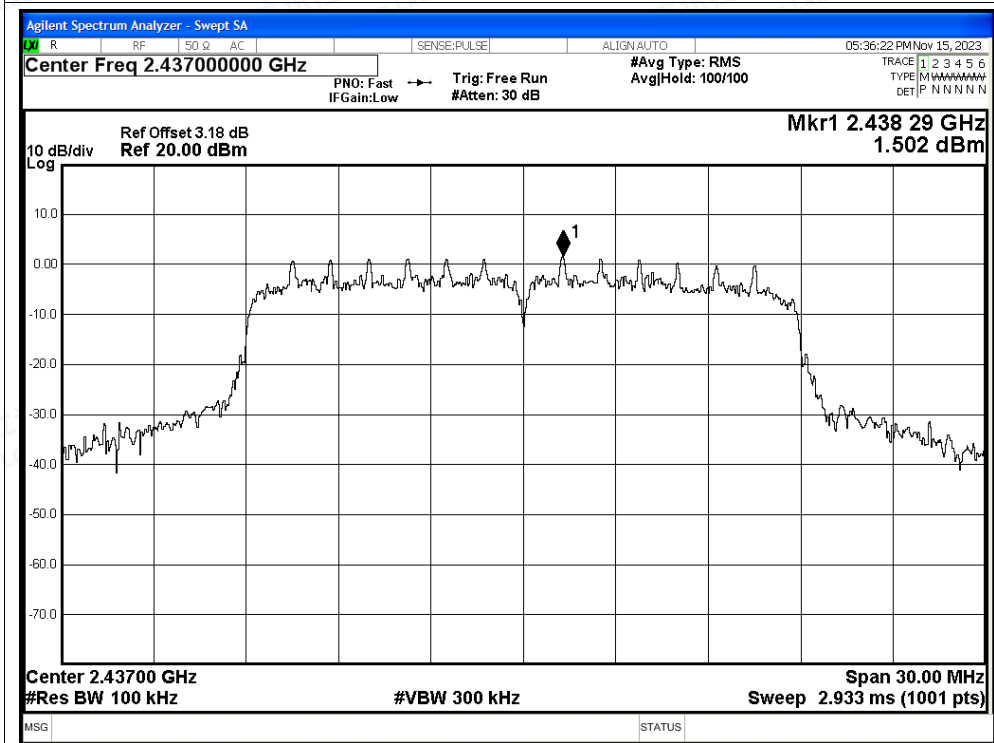


Tx. Spurious NVNT n20 2412MHz Ant1 Emission

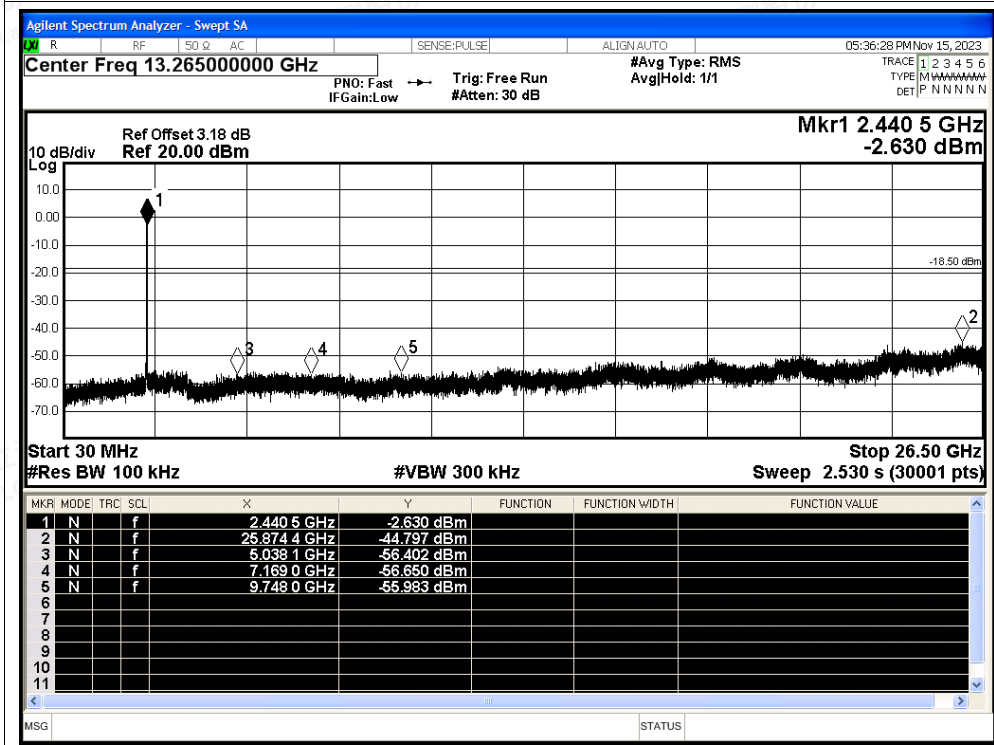




Tx. Spurious NVNT n20 2437MHz Ant1 Ref

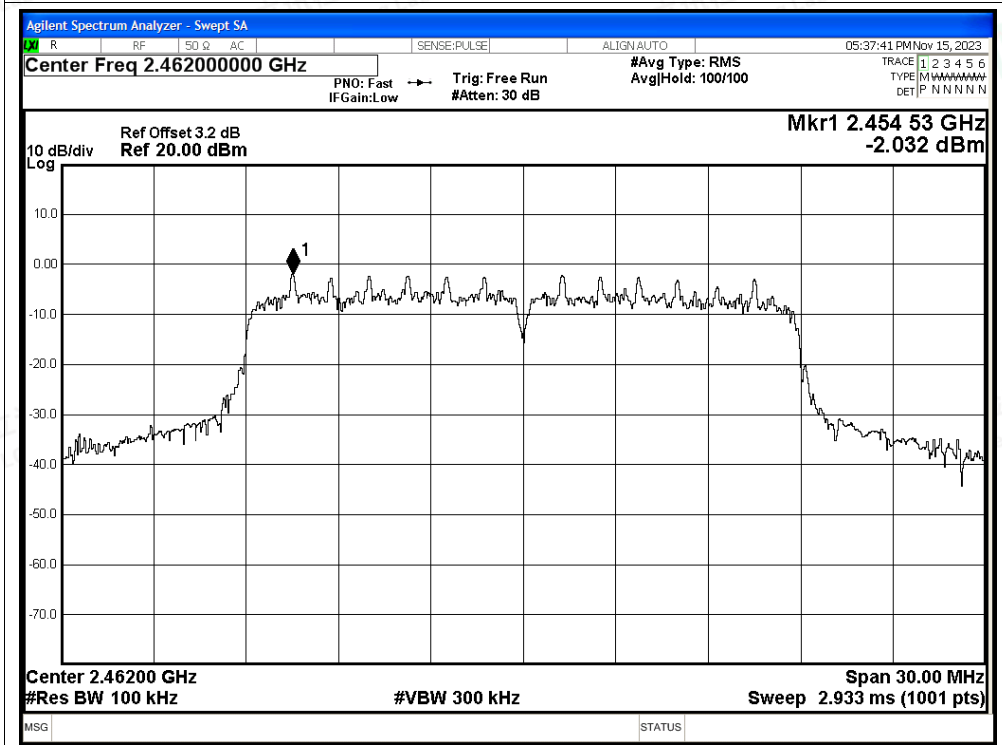


Tx. Spurious NVNT n20 2437MHz Ant1 Emission

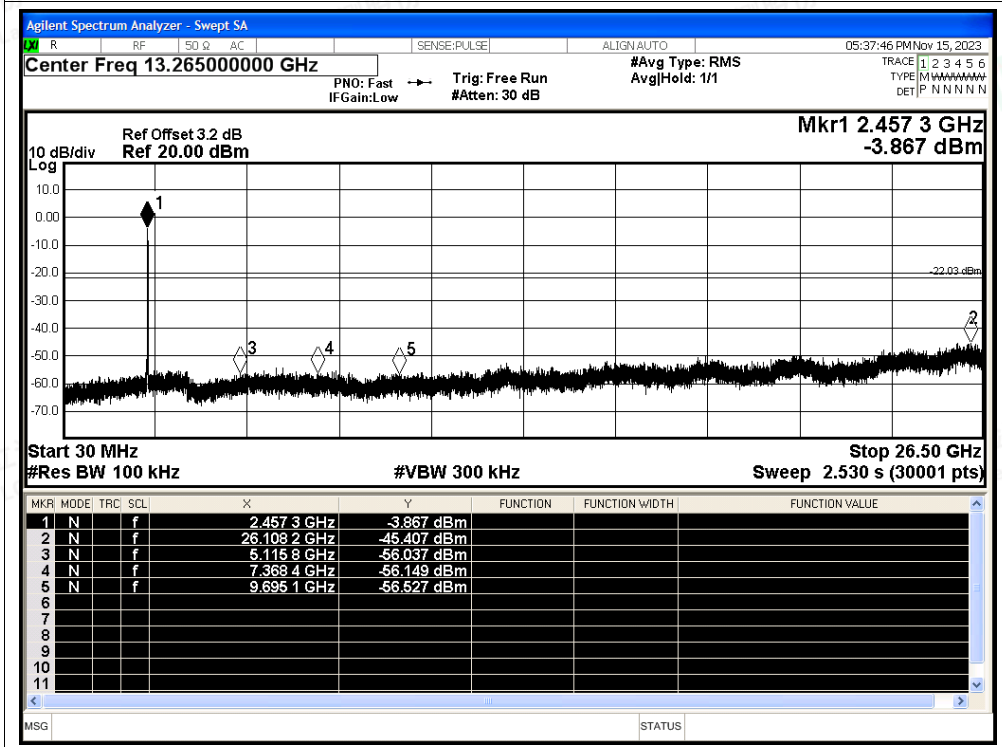




Tx. Spurious NVNT n20 2462MHz Ant1 Ref

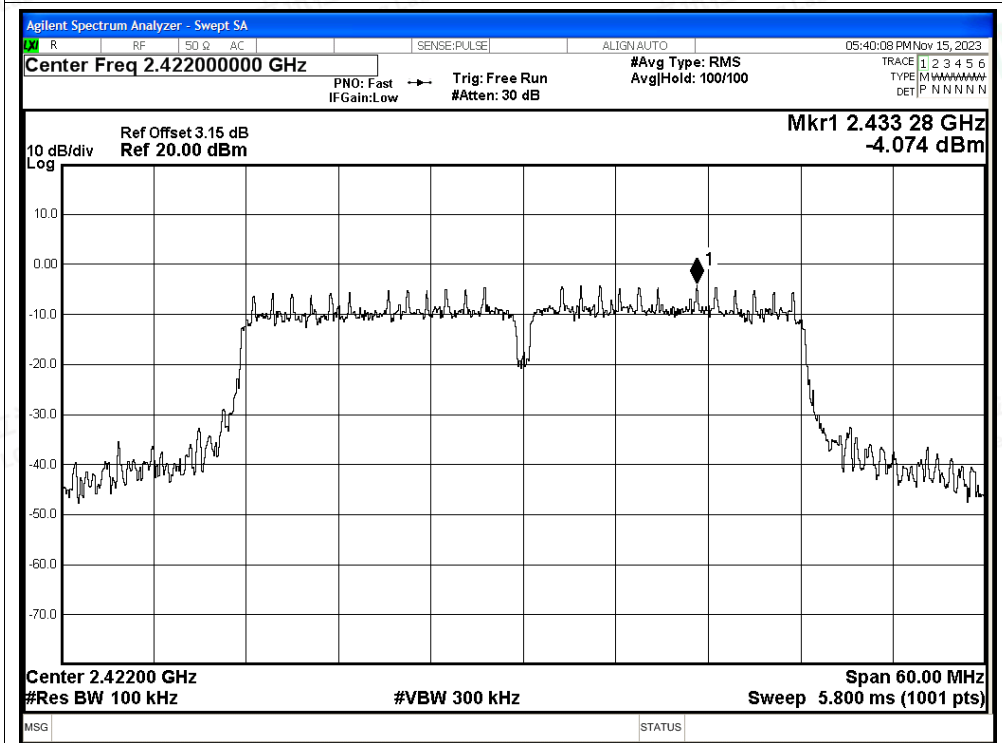


Tx. Spurious NVNT n20 2462MHz Ant1 Emission

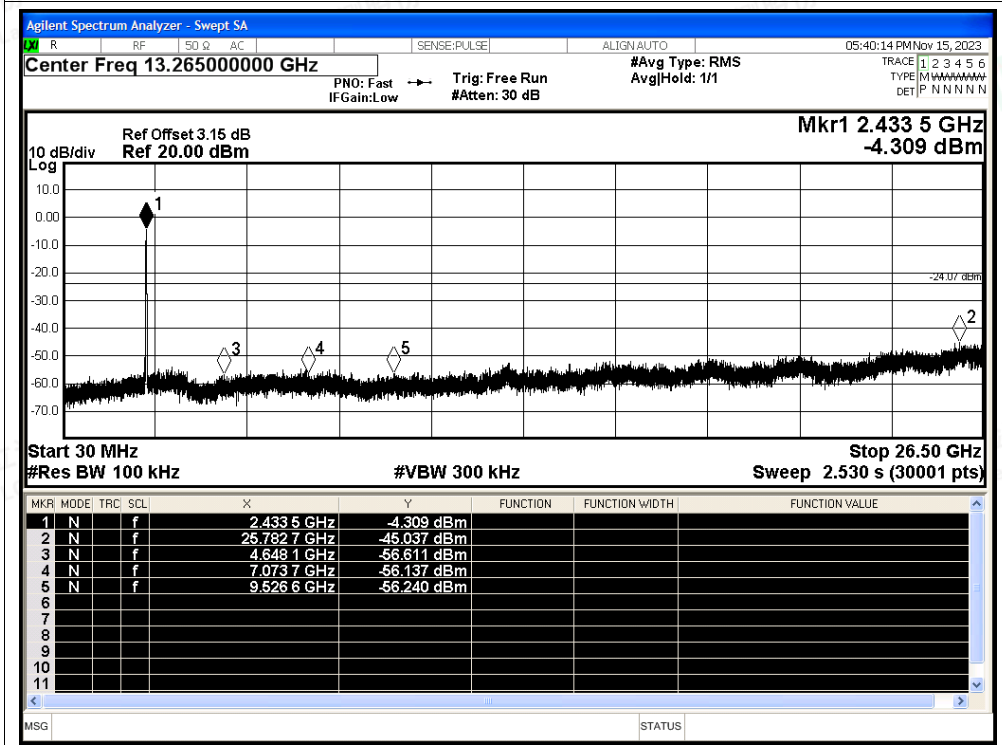




Tx. Spurious NVNT n40 2422MHz Ant1 Ref

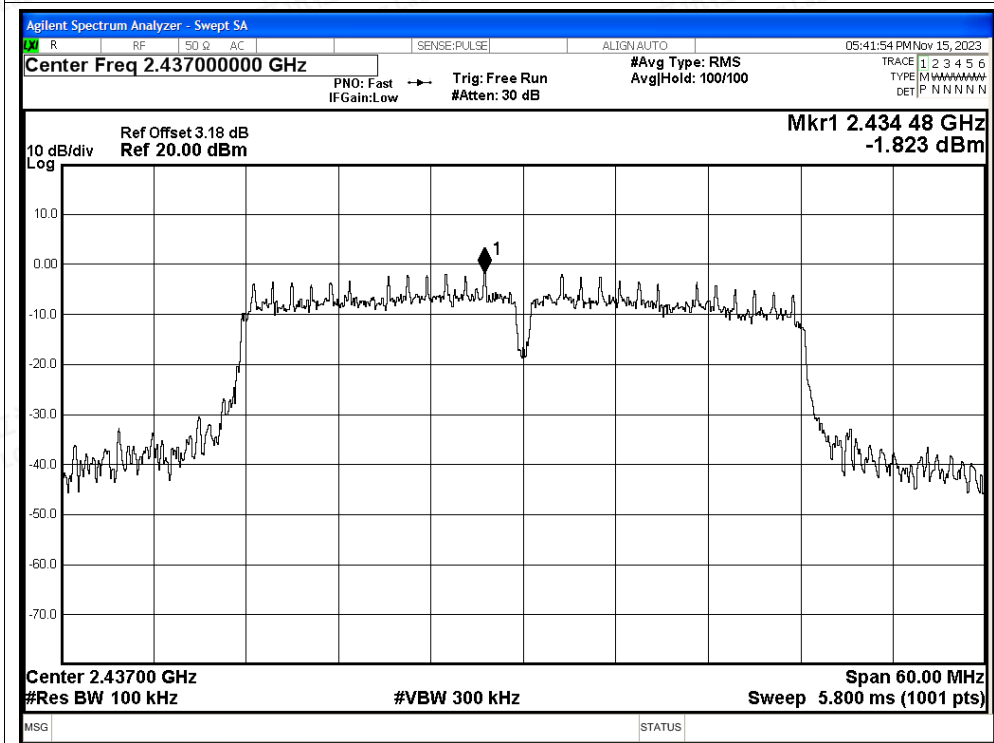


Tx. Spurious NVNT n40 2422MHz Ant1 Emission

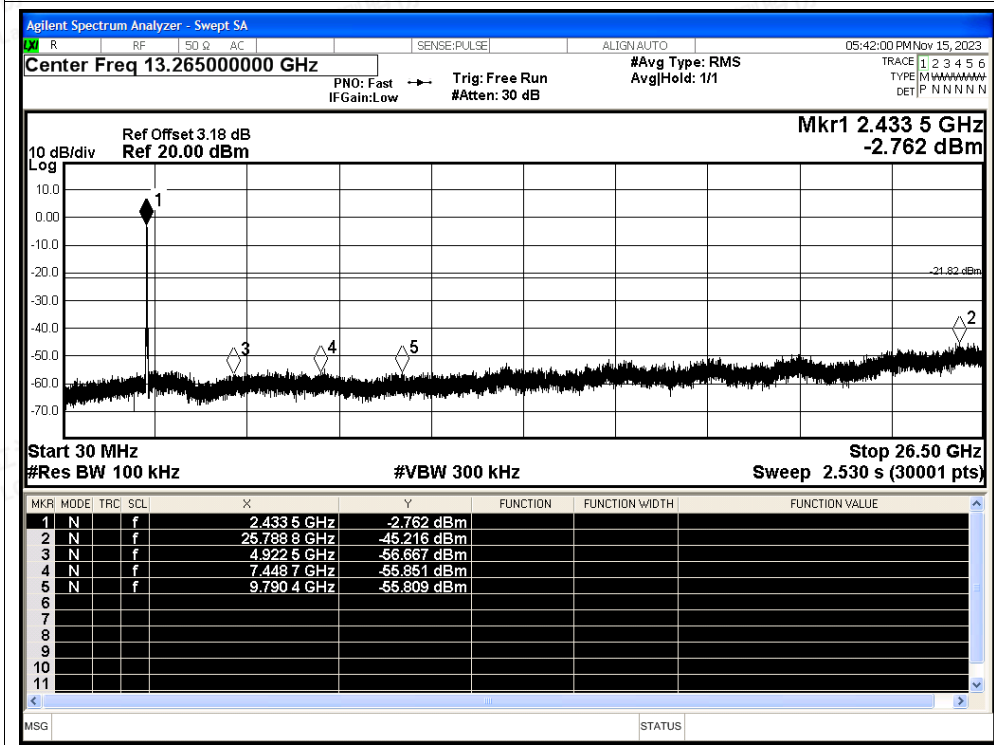




Tx. Spurious NVNT n40 2437MHz Ant1 Ref

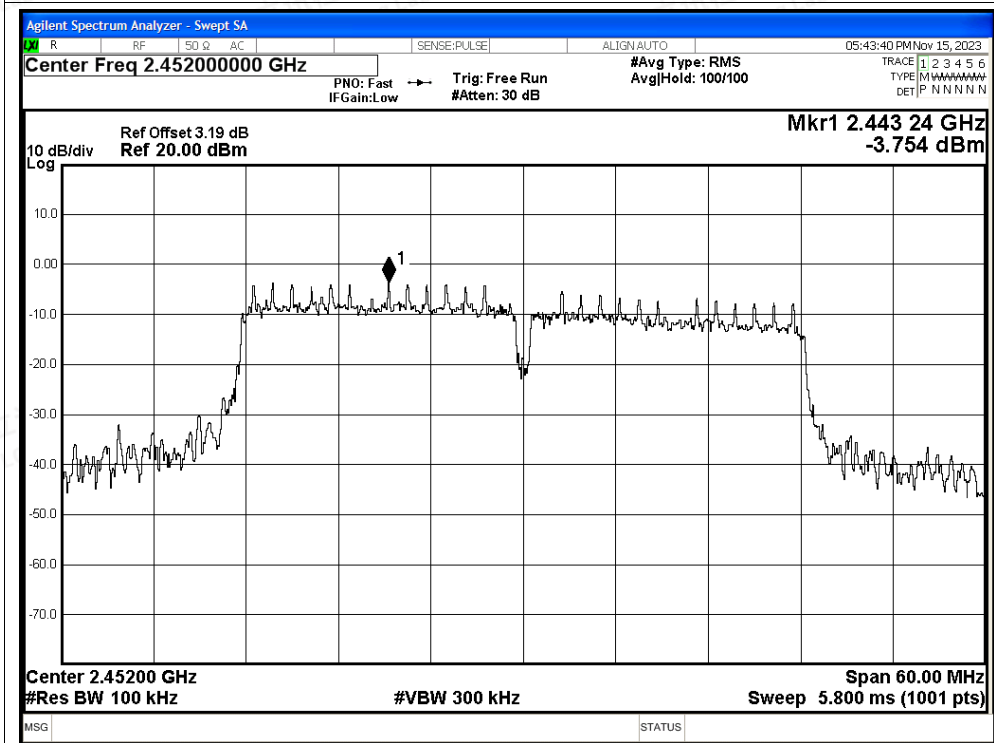


Tx. Spurious NVNT n40 2437MHz Ant1 Emission





Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Tx. Spurious NVNT n40 2452MHz Ant1 Emission

