



Appendix A for 2.4GWIFI Test Data

Product Name: Motorcycle navigator

Test Model: SK-8168-MAIN-V6.2

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52%
ATM Pressure:	101.0 kPa
Test Engineer:	Jim Liu
Supervised by:	Lake Xie

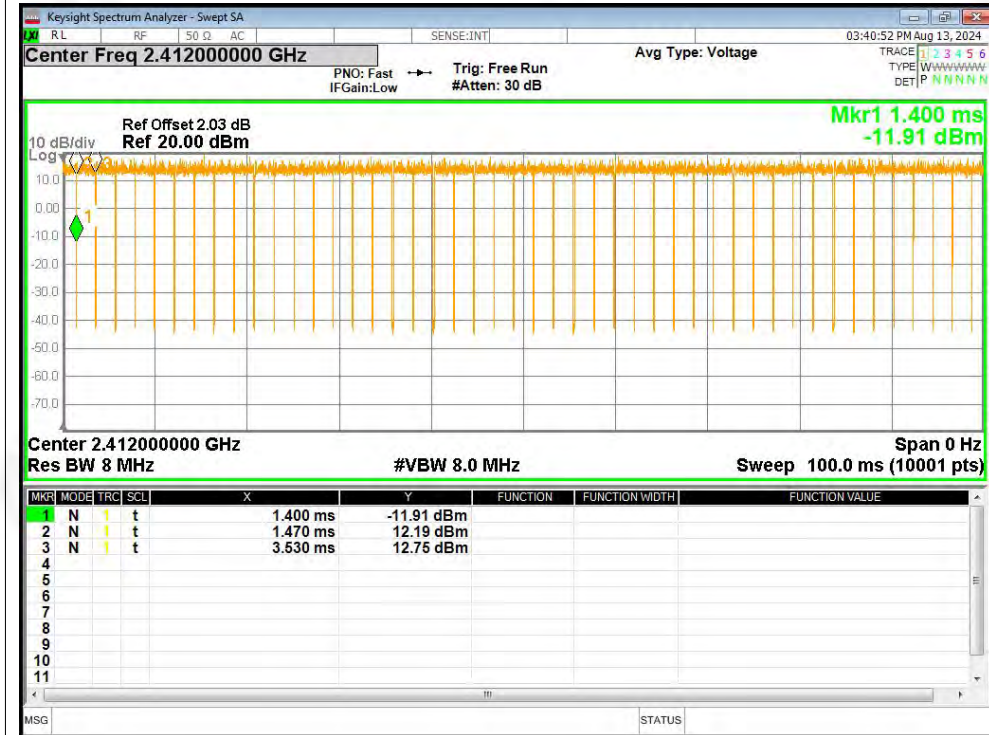
**Duty Cycle**

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	96.71	0.15	0.49
NVNT	b	2437	Ant1	99.68	0	0.08
NVNT	b	2462	Ant1	98.96	0	0.08
NVNT	g	2412	Ant1	97.18	0.12	0.48
NVNT	g	2437	Ant1	96.71	0.15	0.49
NVNT	g	2462	Ant1	95.83	0.18	0.48
NVNT	n20	2412	Ant1	97.46	0.11	0.52
NVNT	n20	2437	Ant1	96.97	0.13	0.52
NVNT	n20	2462	Ant1	91.87	0.37	0.52
NVNT	n40	2422	Ant1	91.26	0.4	1.06
NVNT	n40	2437	Ant1	95	0.22	1.05
NVNT	n40	2452	Ant1	88.79	0.52	1.05

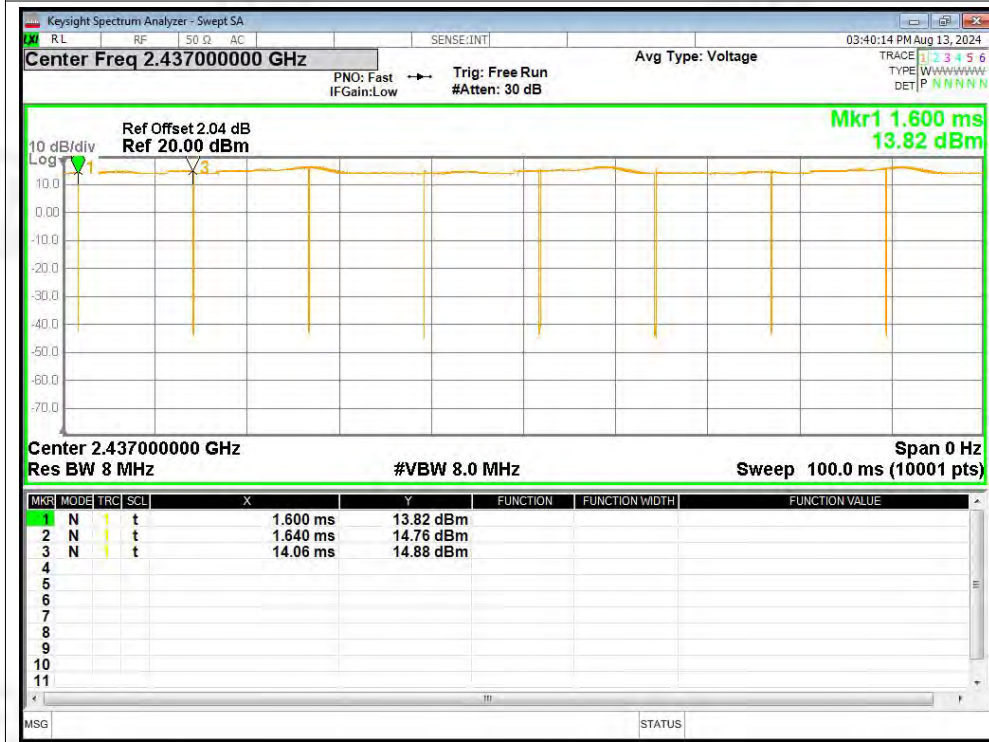


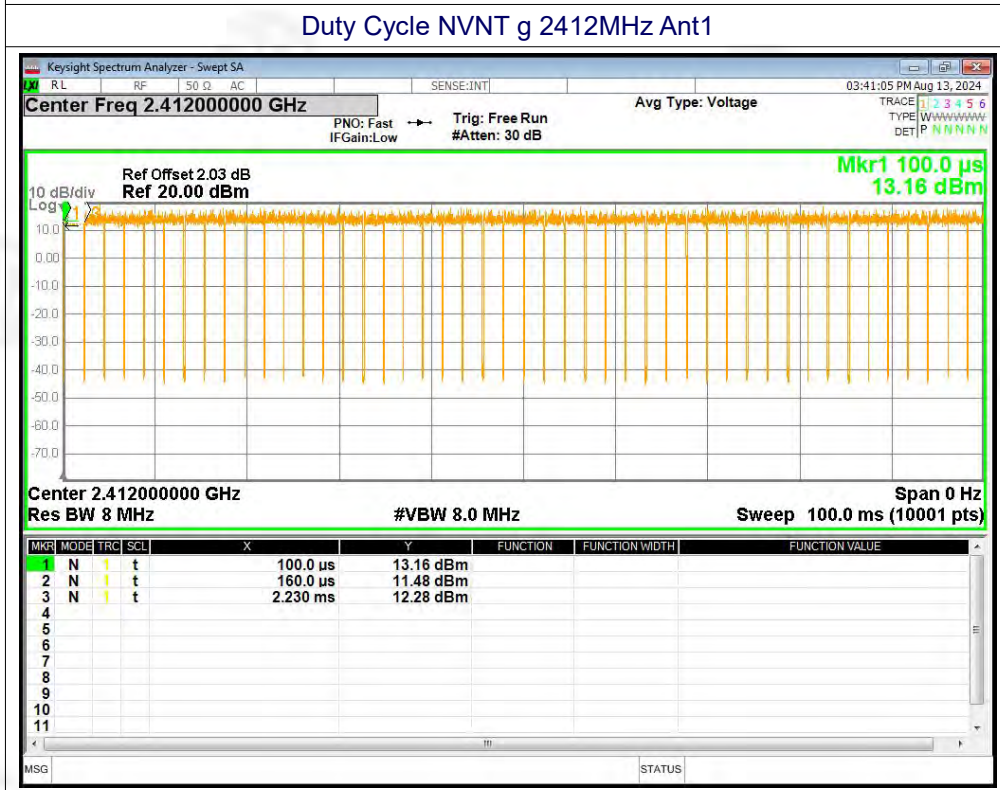
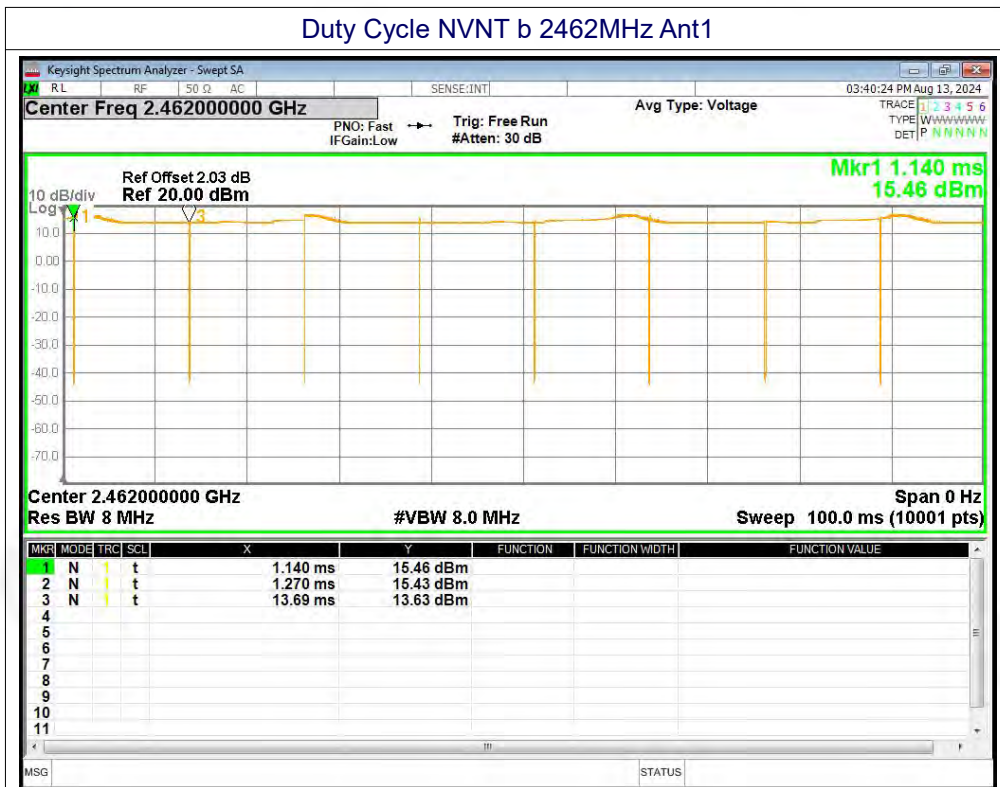
Test Graphs

Duty Cycle NVNT b 2412MHz Ant1



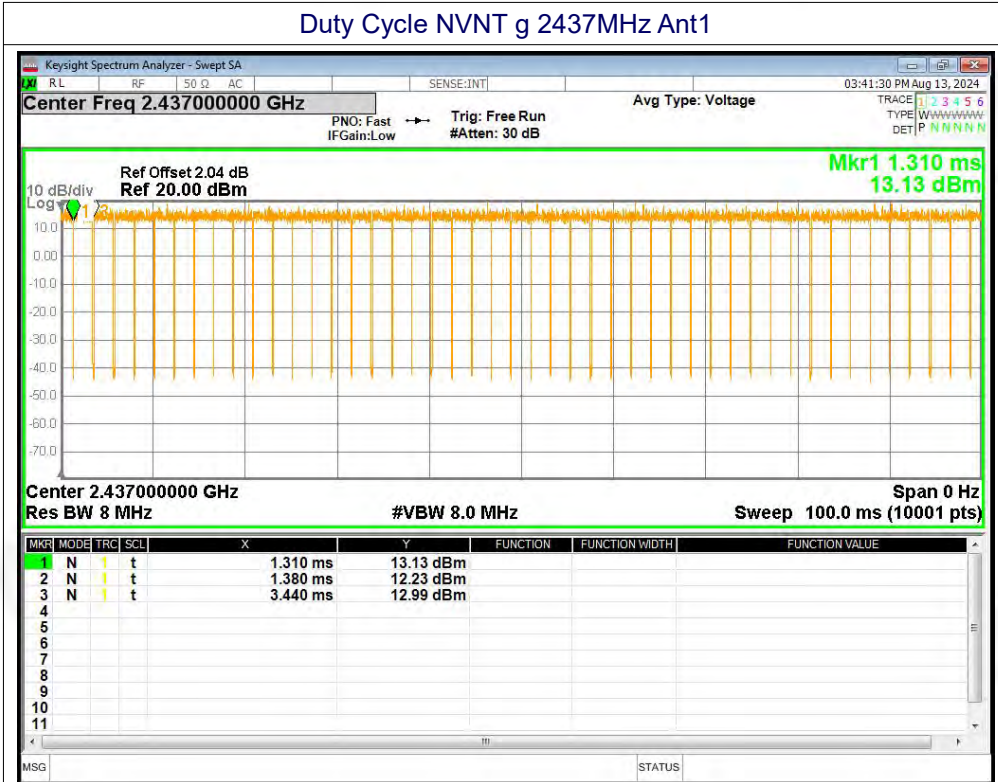
Duty Cycle NVNT b 2437MHz Ant1



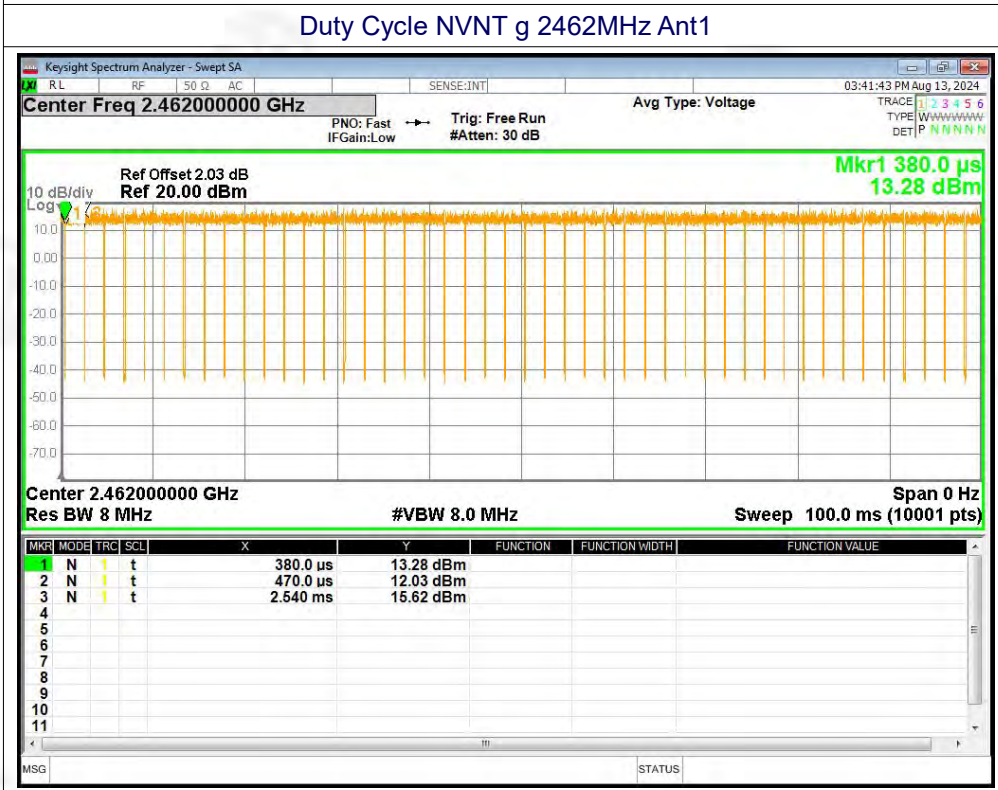




Duty Cycle NVNT g 2437MHz Ant1

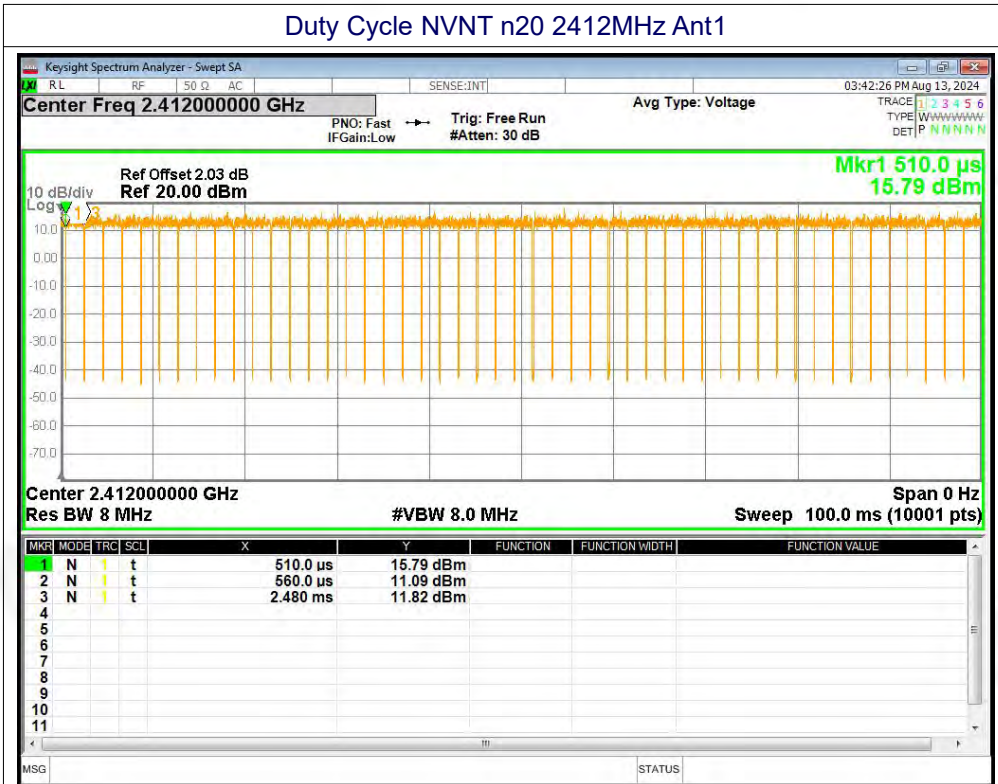


Duty Cycle NVNT g 2462MHz Ant1

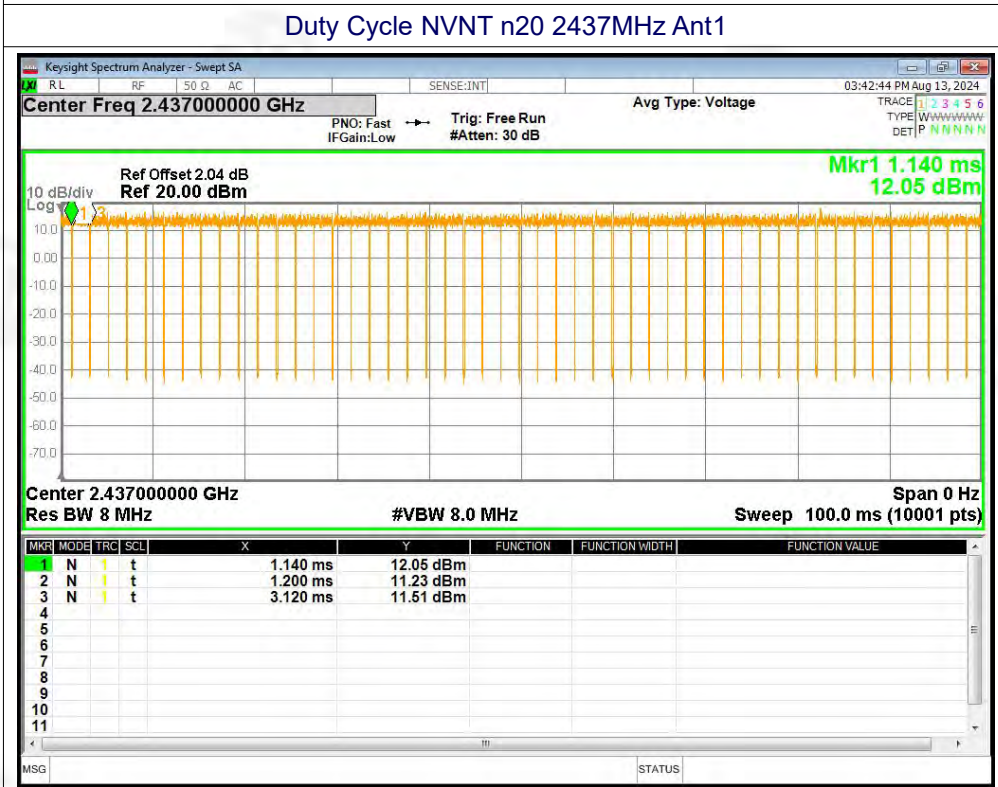




Duty Cycle NVNT n20 2412MHz Ant1

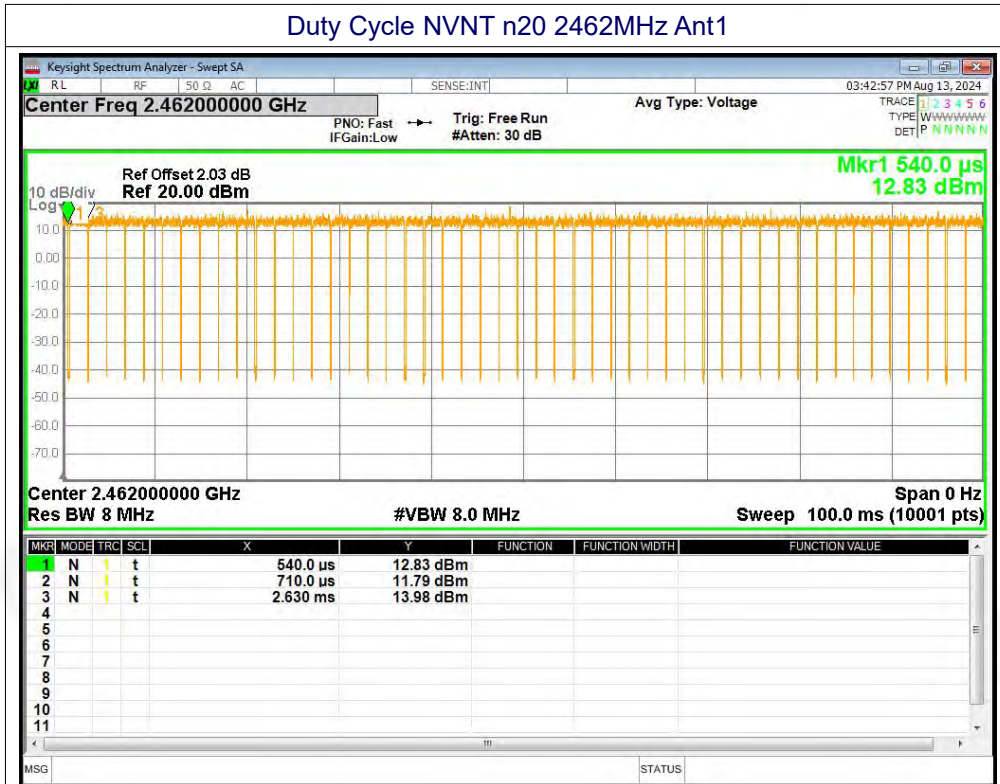


Duty Cycle NVNT n20 2437MHz Ant1

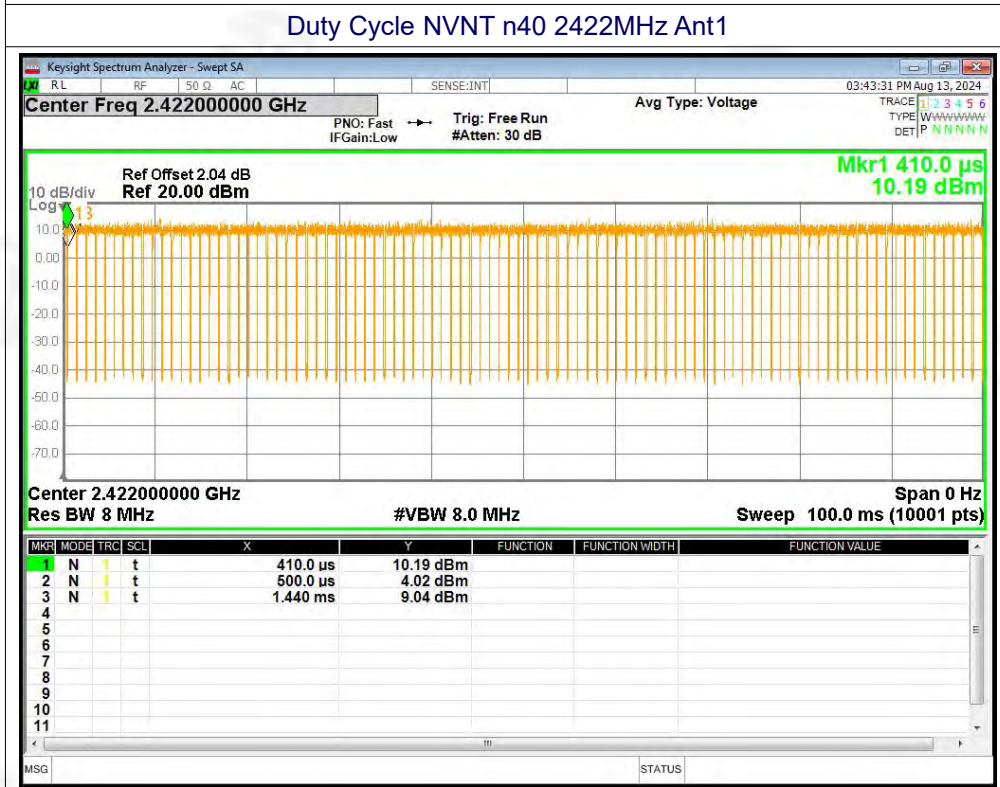




Duty Cycle NVNT n20 2462MHz Ant1

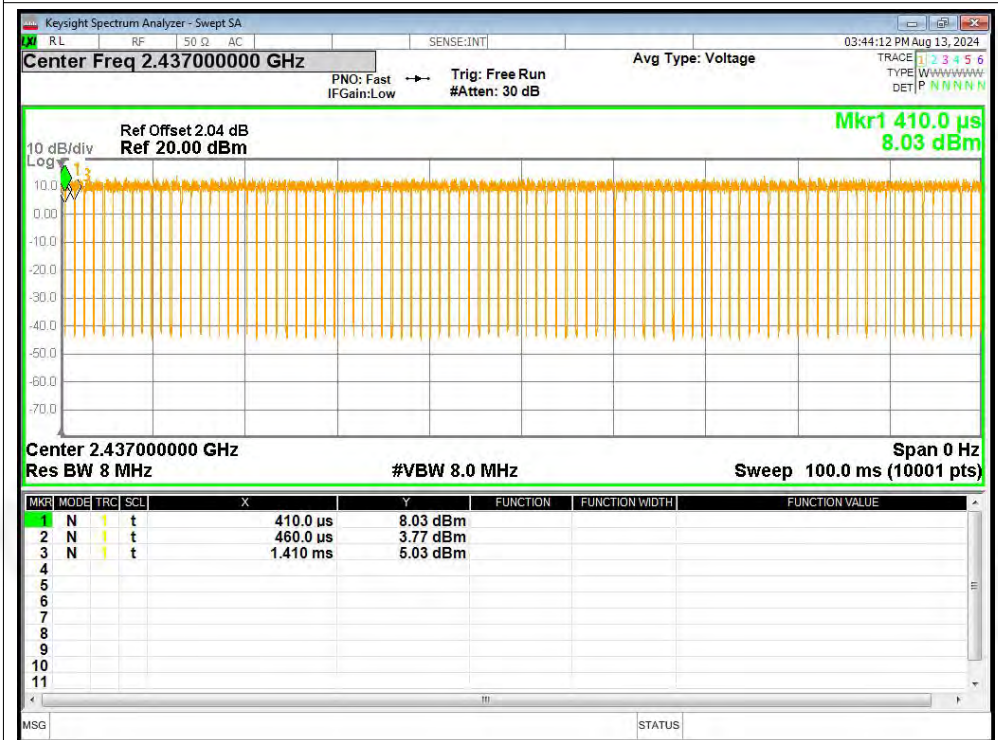


Duty Cycle NVNT n40 2422MHz Ant1

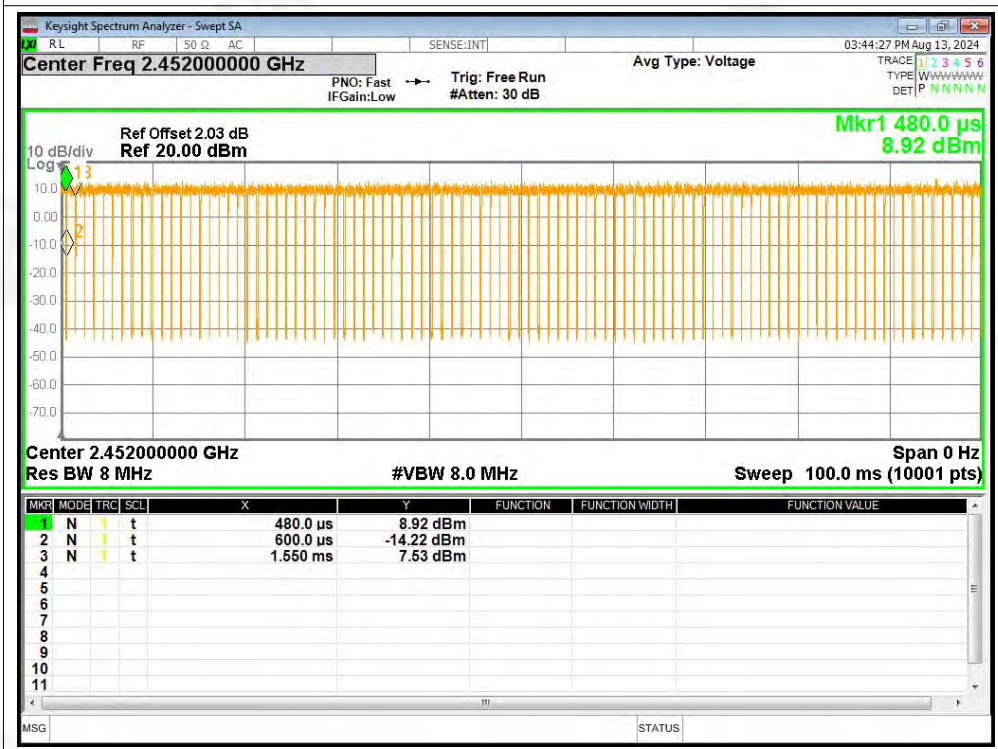




Duty Cycle NVNT n40 2437MHz Ant1

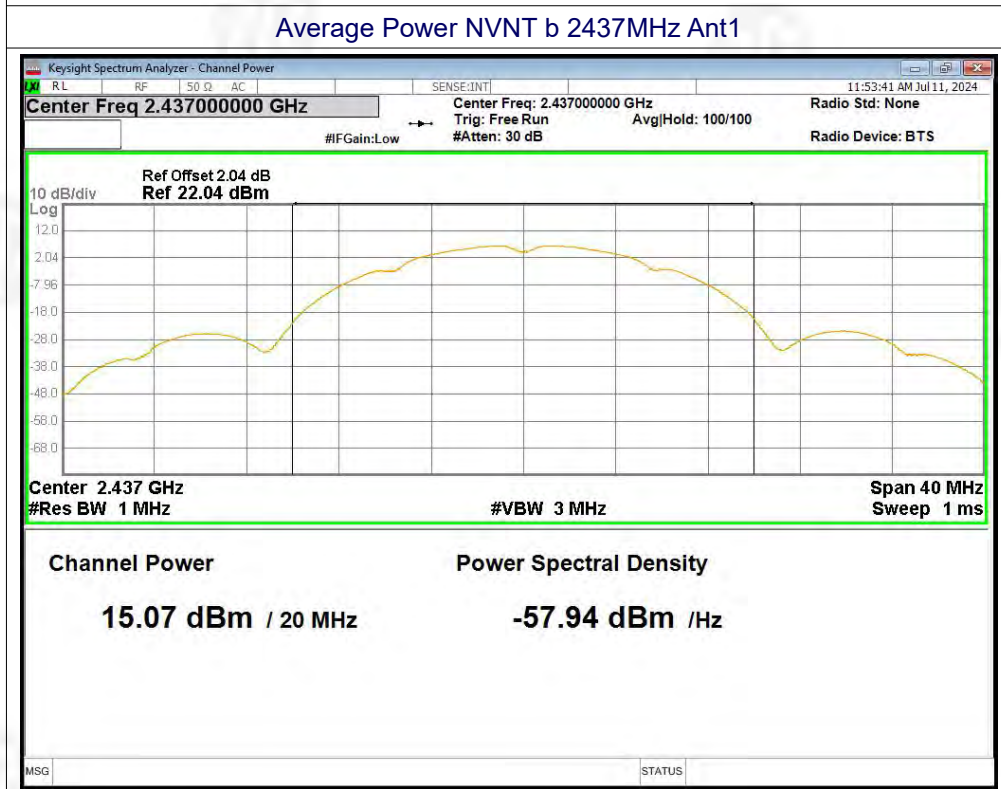
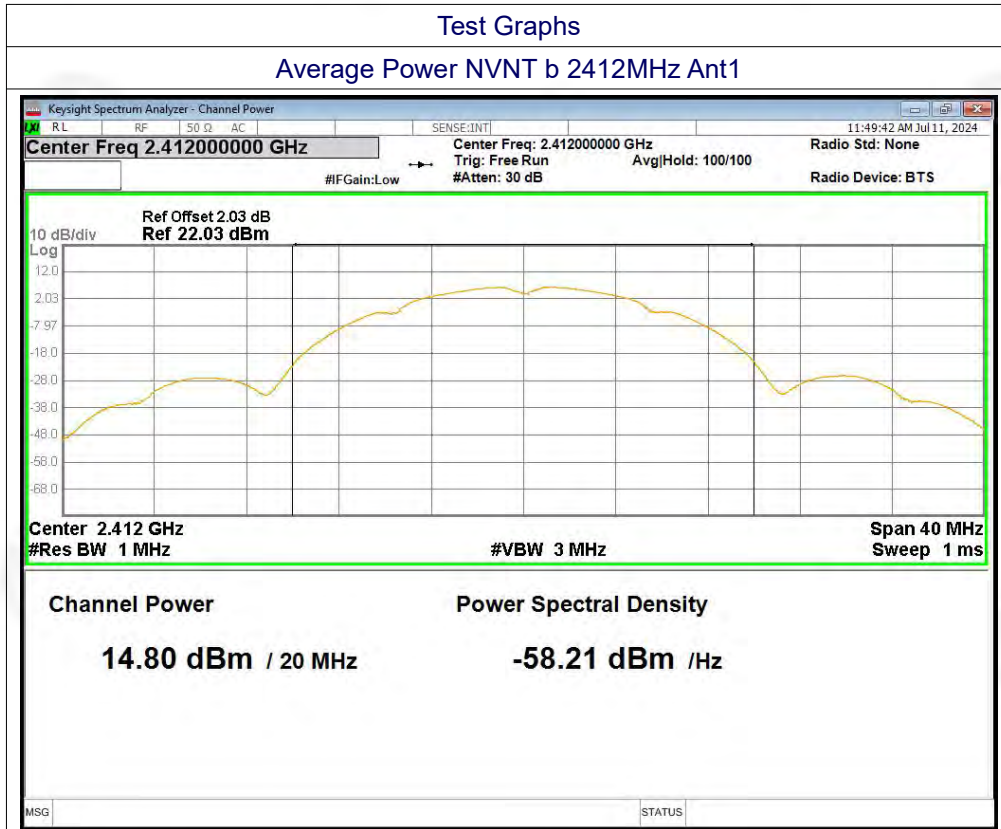


Duty Cycle NVNT n40 2452MHz Ant1



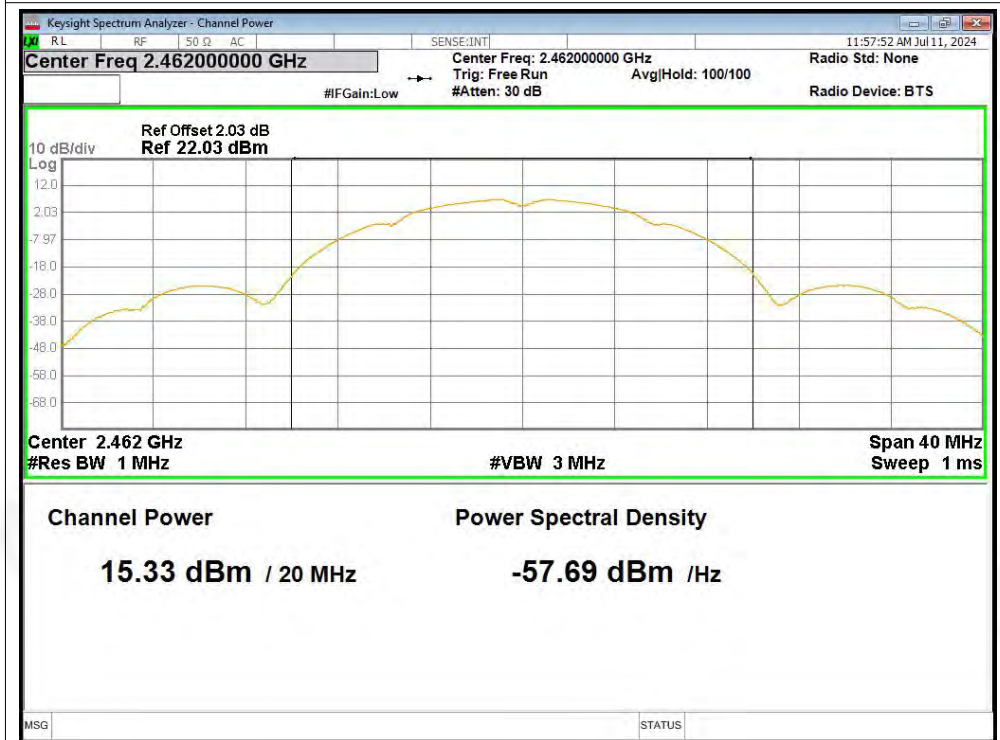
**Maximum Average Conducted Output Power**

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.8	0.15	14.95	30	Pass
NVNT	b	2437	Ant1	15.07	0	15.07	30	Pass
NVNT	b	2462	Ant1	15.33	0	15.33	30	Pass
NVNT	g	2412	Ant1	14.31	0.12	14.43	30	Pass
NVNT	g	2437	Ant1	14.61	0.15	14.76	30	Pass
NVNT	g	2462	Ant1	14.83	0.18	15.01	30	Pass
NVNT	n20	2412	Ant1	11.64	0.11	11.75	30	Pass
NVNT	n20	2437	Ant1	12.01	0.13	12.14	30	Pass
NVNT	n20	2462	Ant1	12.28	0.37	12.65	30	Pass
NVNT	n40	2422	Ant1	12.19	0.4	12.59	30	Pass
NVNT	n40	2437	Ant1	12.44	0.22	12.66	30	Pass
NVNT	n40	2452	Ant1	12.59	0.52	13.11	30	Pass

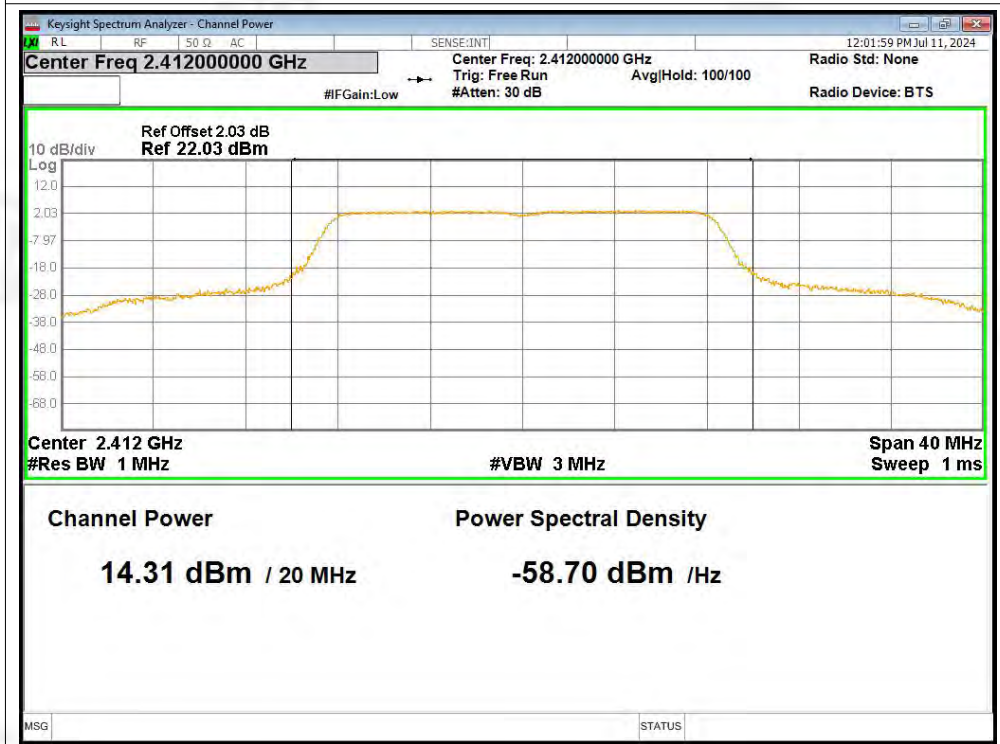




Average Power NVNT b 2462MHz Ant1



Average Power NVNT g 2412MHz Ant1

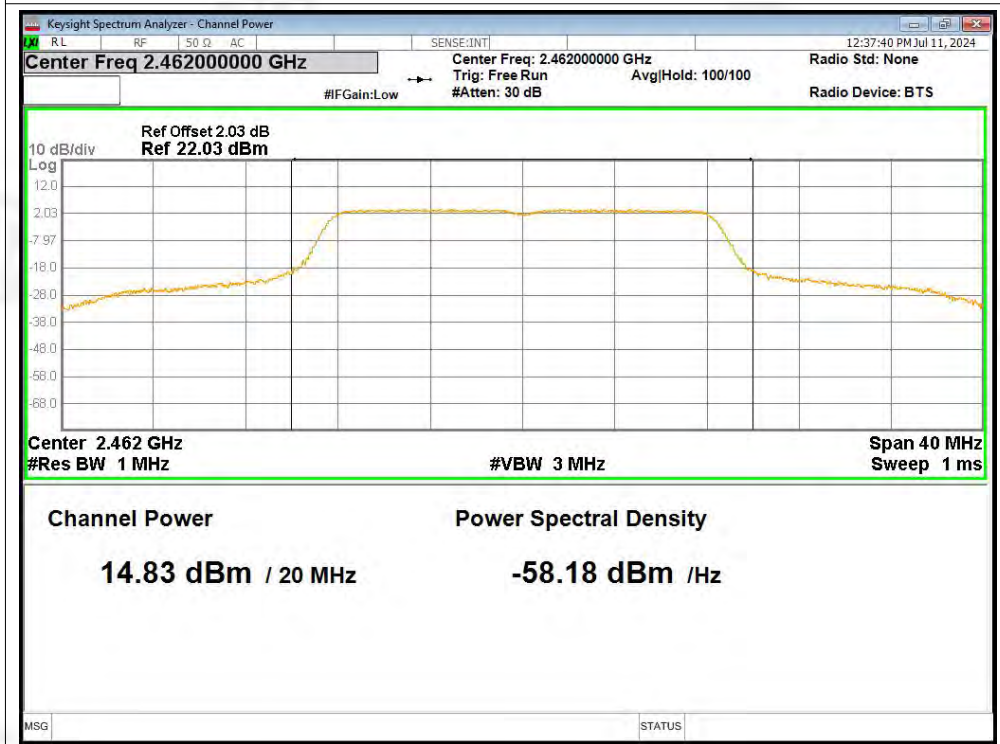




Average Power NVNT g 2437MHz Ant1

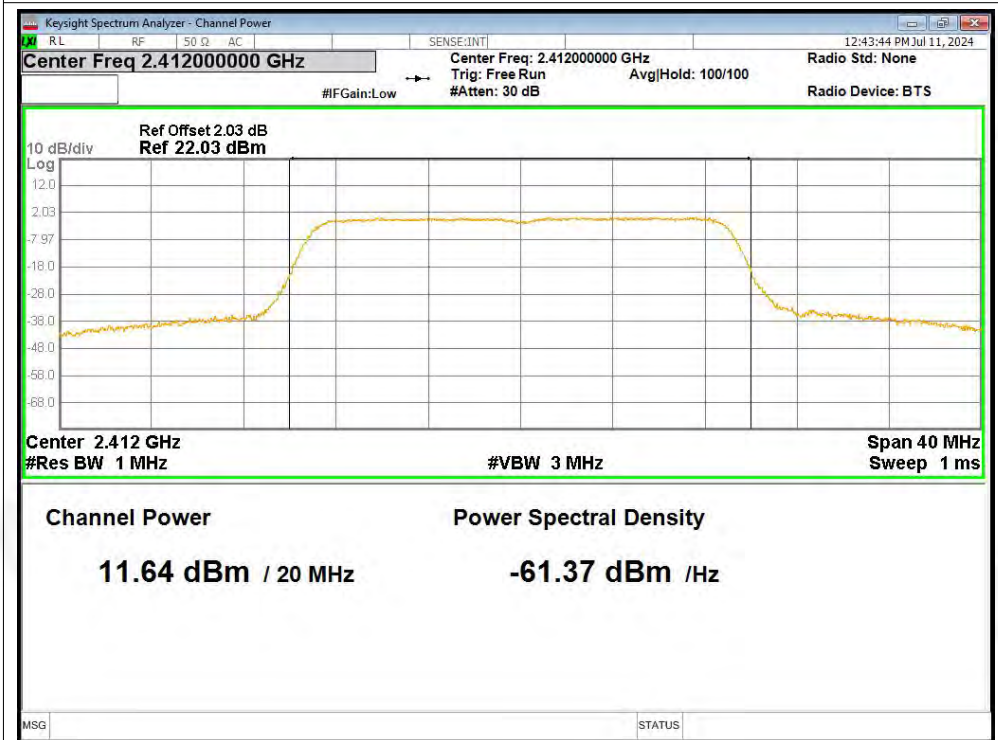


Average Power NVNT g 2462MHz Ant1

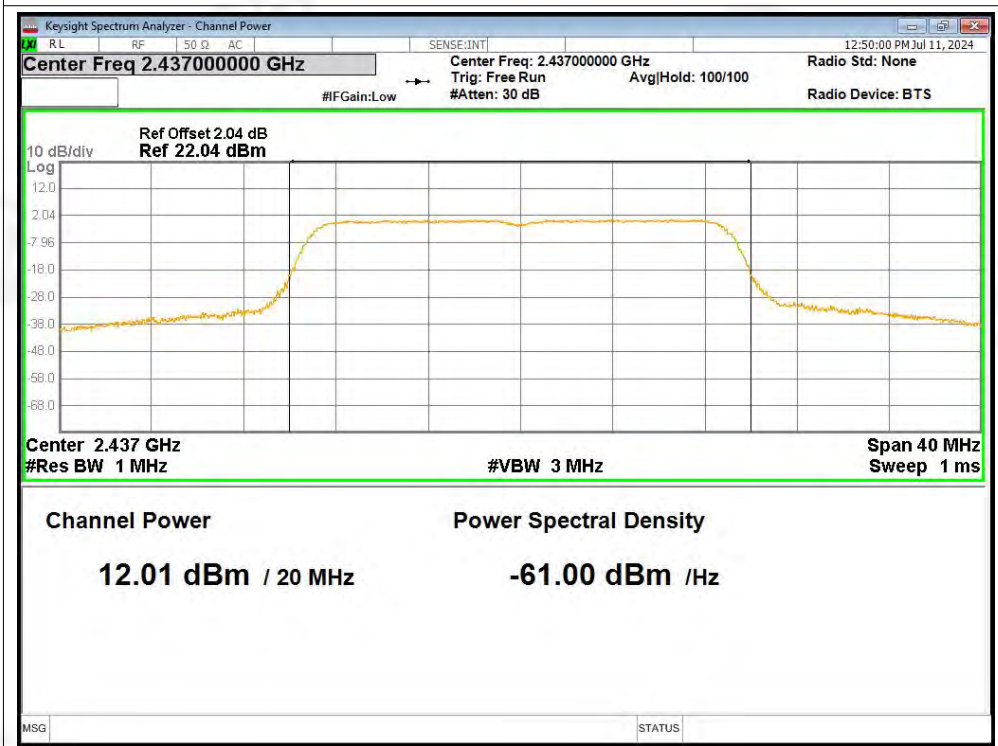




Average Power NVNT n20 2412MHz Ant1

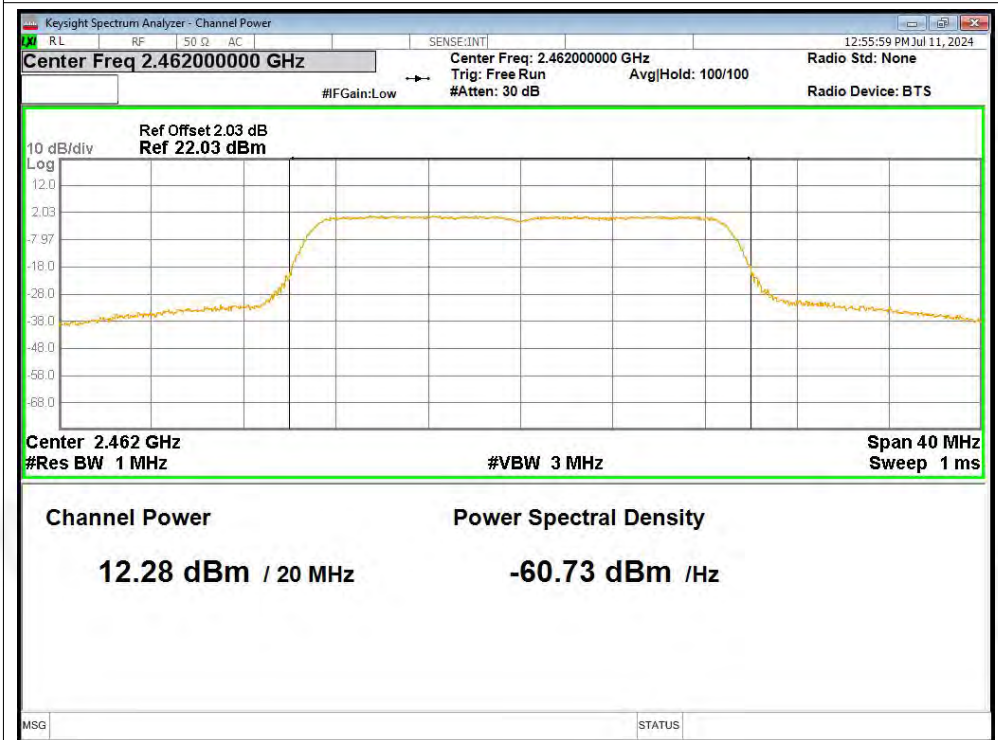


Average Power NVNT n20 2437MHz Ant1

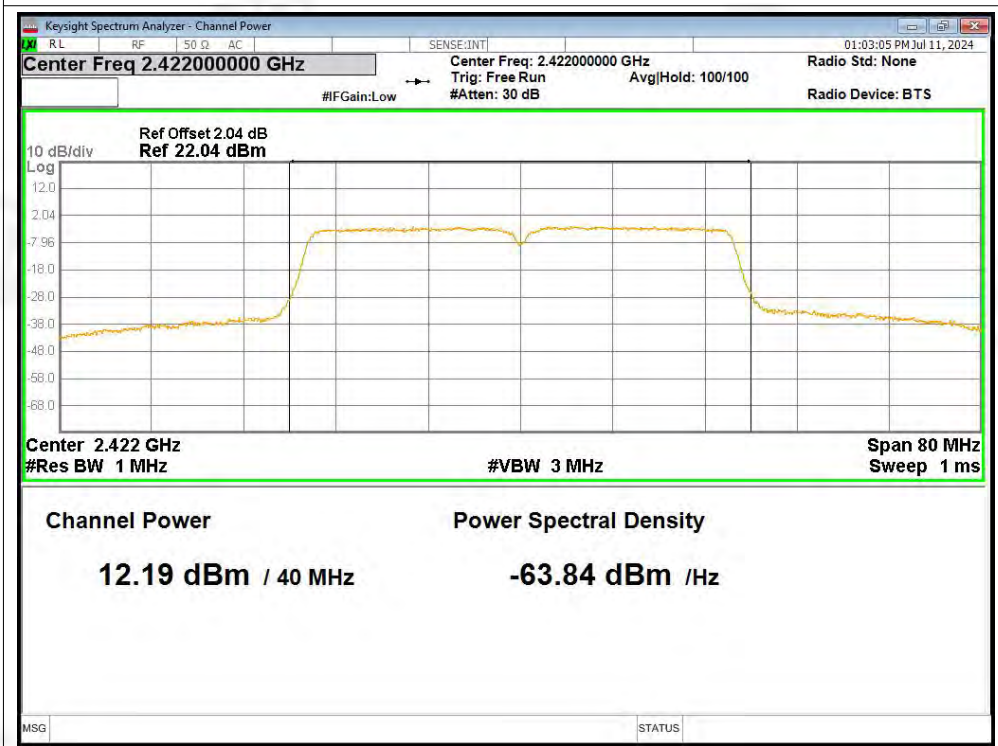




Average Power NVNT n20 2462MHz Ant1

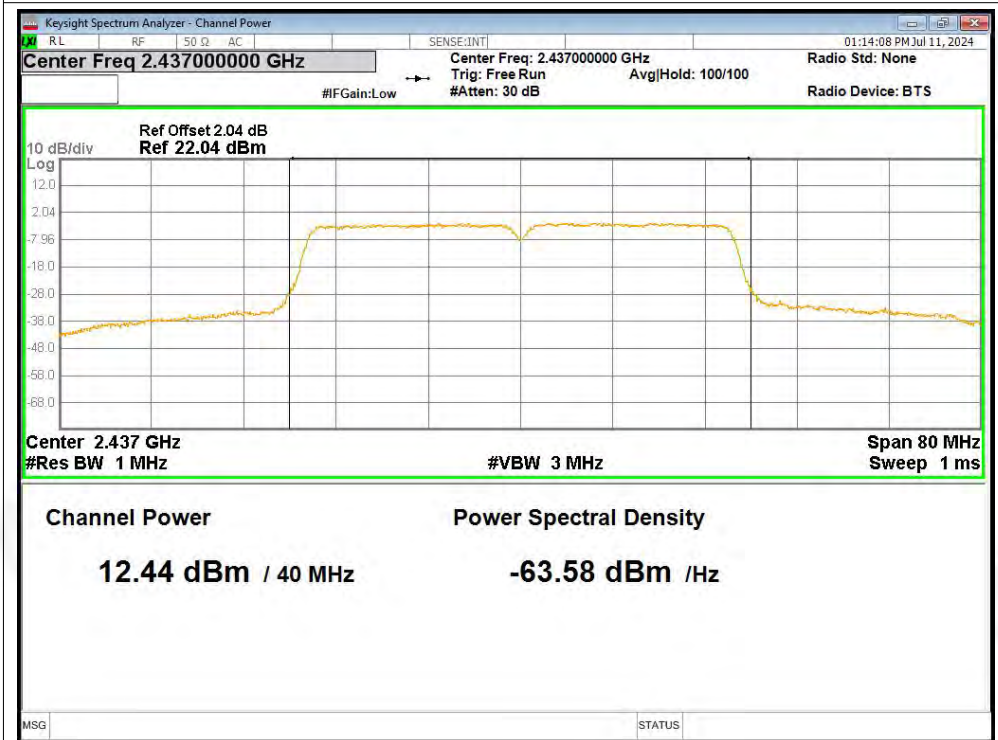


Average Power NVNT n40 2422MHz Ant1

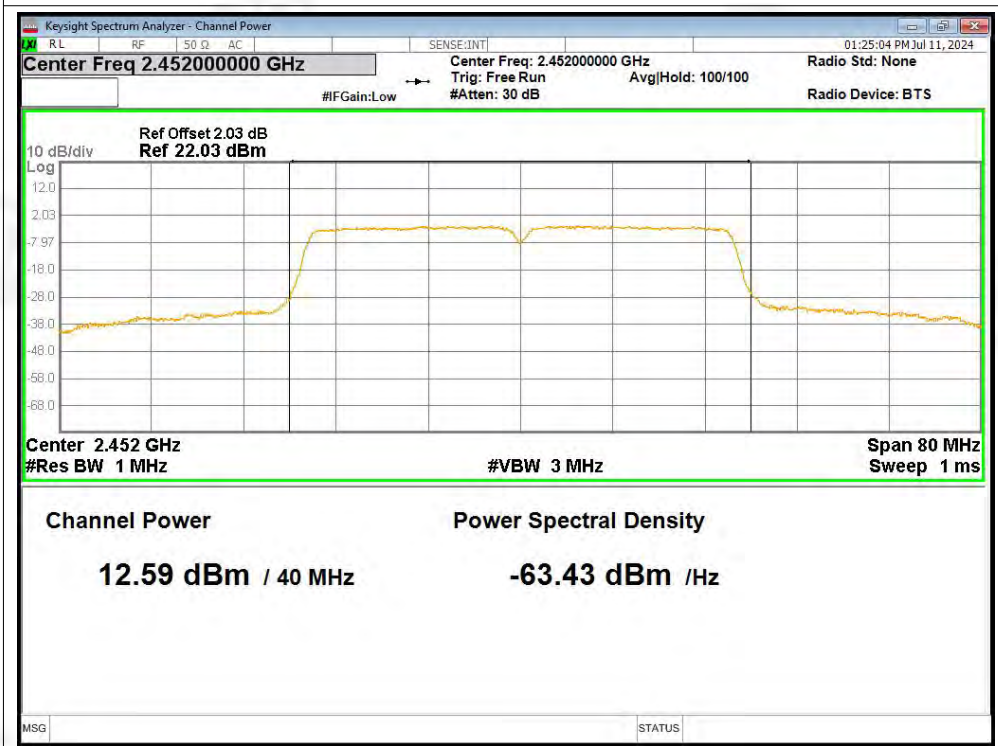




Average Power NVNT n40 2437MHz Ant1



Average Power NVNT n40 2452MHz Ant1



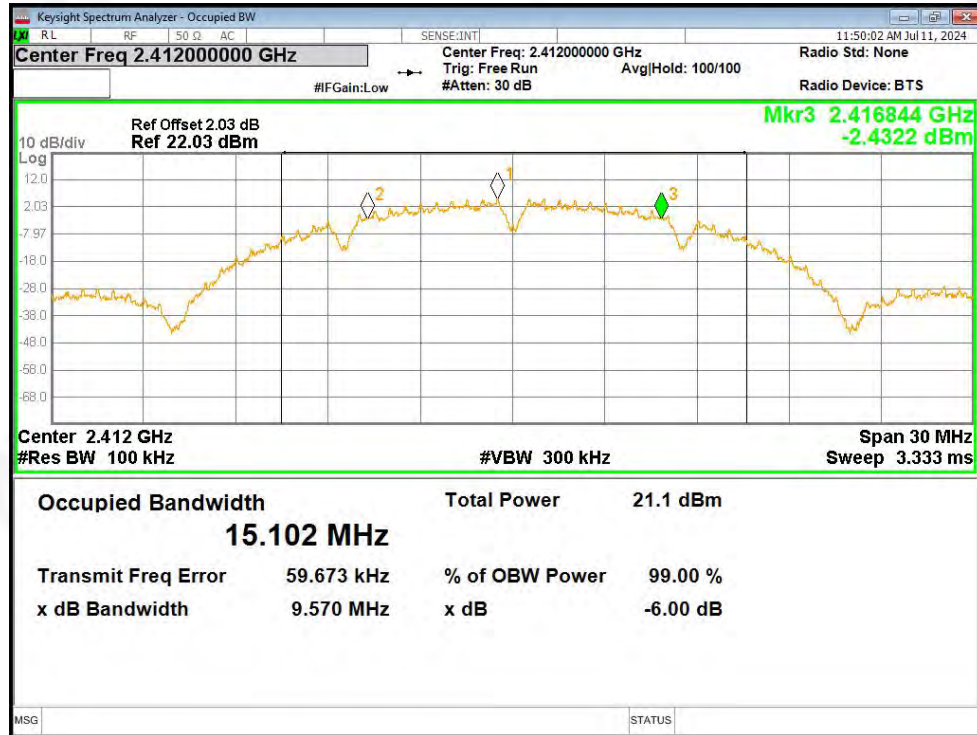
**-6dB Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.57	0.5	Pass
NVNT	b	2437	Ant1	10.058	0.5	Pass
NVNT	b	2462	Ant1	9.547	0.5	Pass
NVNT	g	2412	Ant1	16.355	0.5	Pass
NVNT	g	2437	Ant1	16.35	0.5	Pass
NVNT	g	2462	Ant1	16.338	0.5	Pass
NVNT	n20	2412	Ant1	17.729	0.5	Pass
NVNT	n20	2437	Ant1	17.742	0.5	Pass
NVNT	n20	2462	Ant1	17.686	0.5	Pass
NVNT	n40	2422	Ant1	36.345	0.5	Pass
NVNT	n40	2437	Ant1	36.401	0.5	Pass
NVNT	n40	2452	Ant1	36.37	0.5	Pass

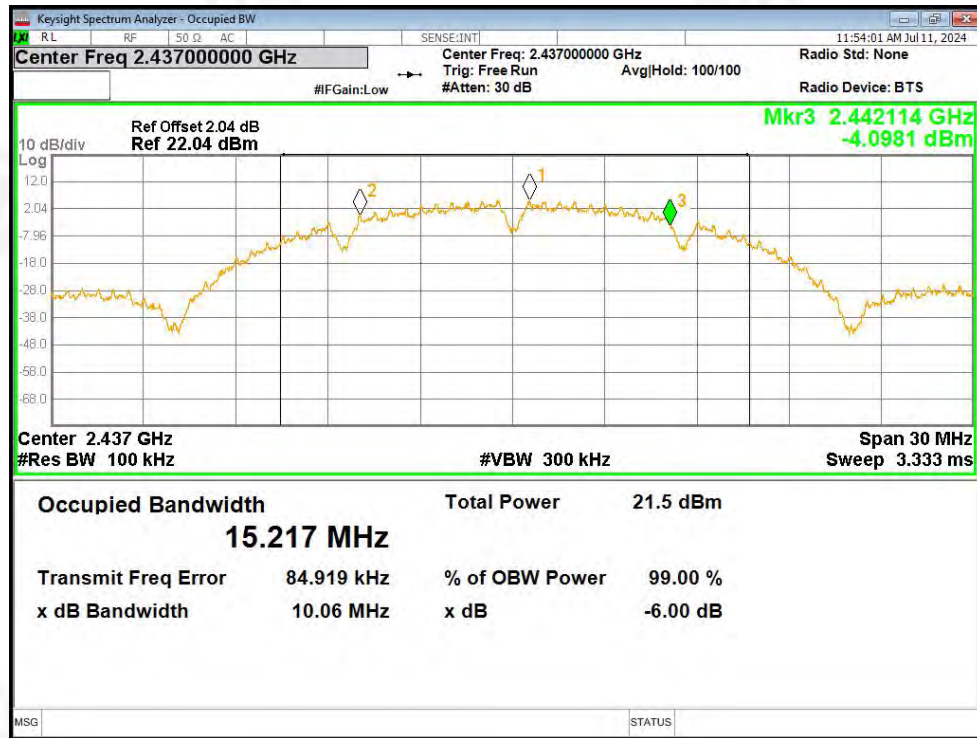


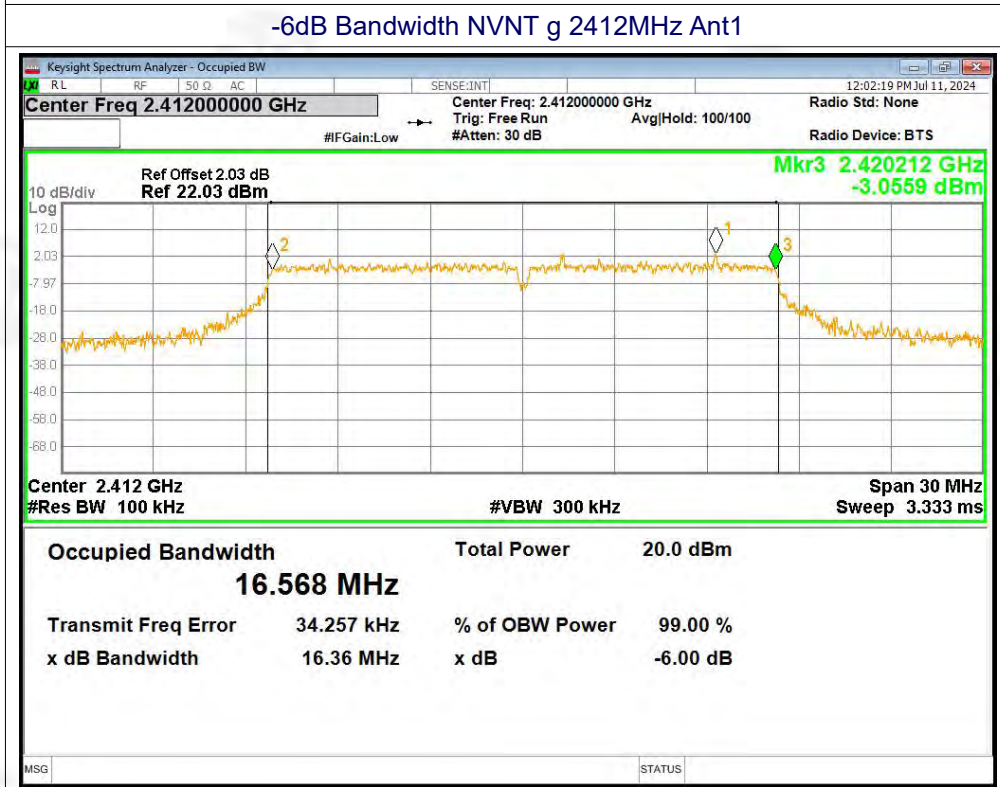
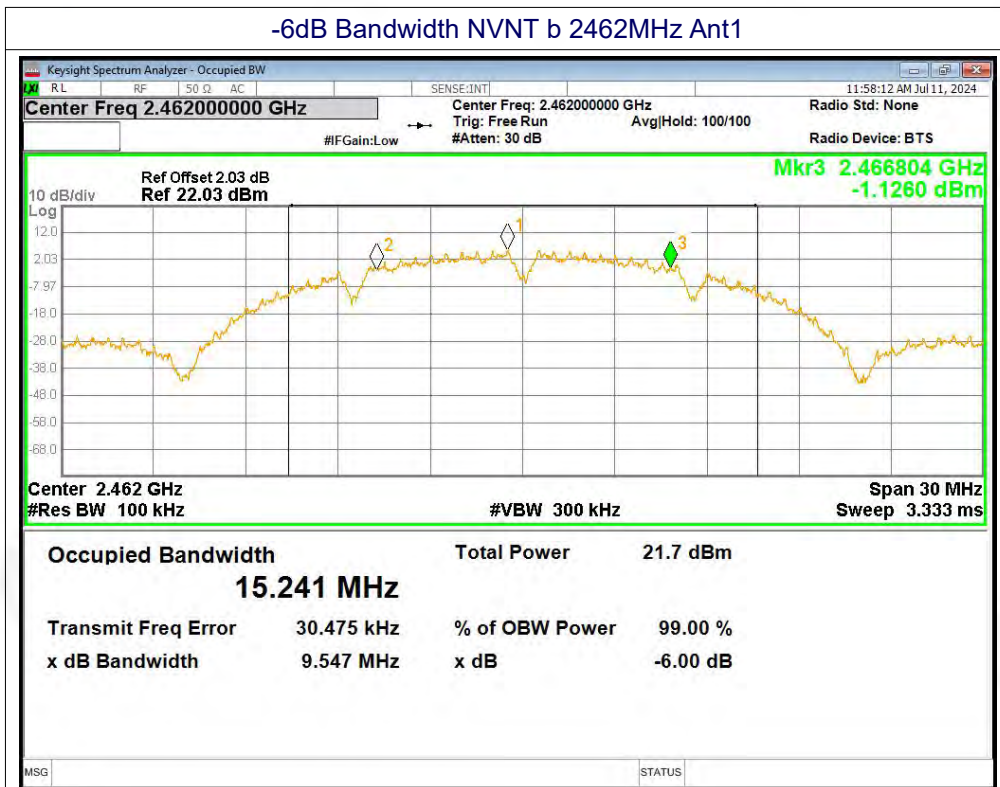
Test Graphs

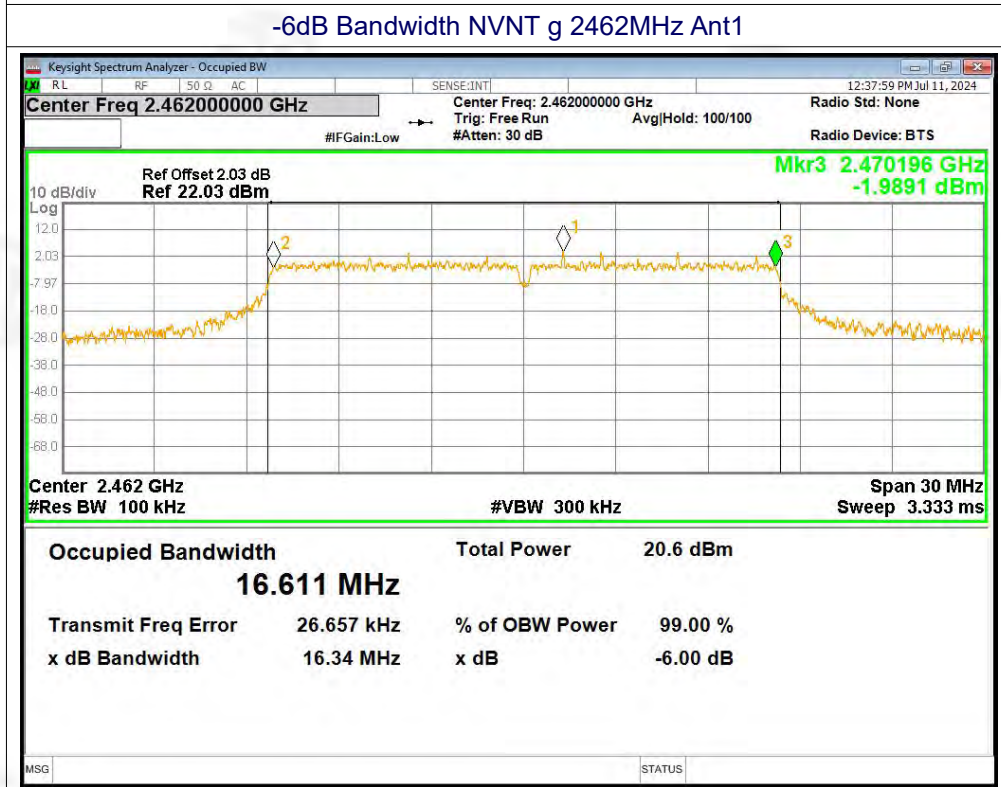
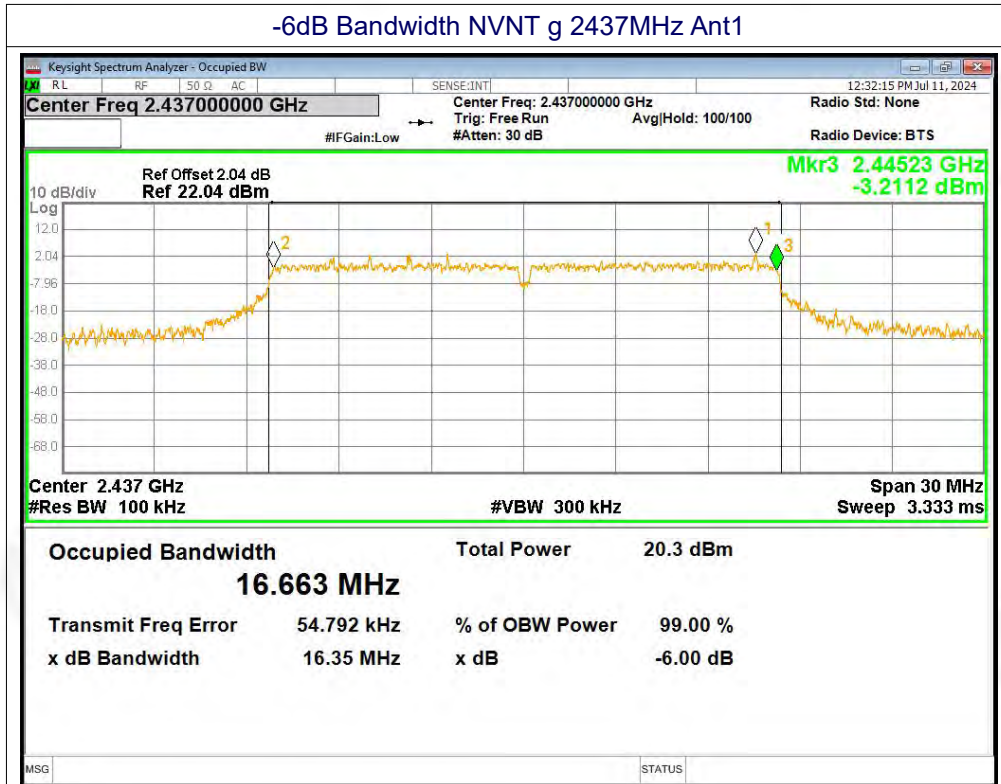
-6dB Bandwidth NVNT b 2412MHz Ant1



-6dB Bandwidth NVNT b 2437MHz Ant1

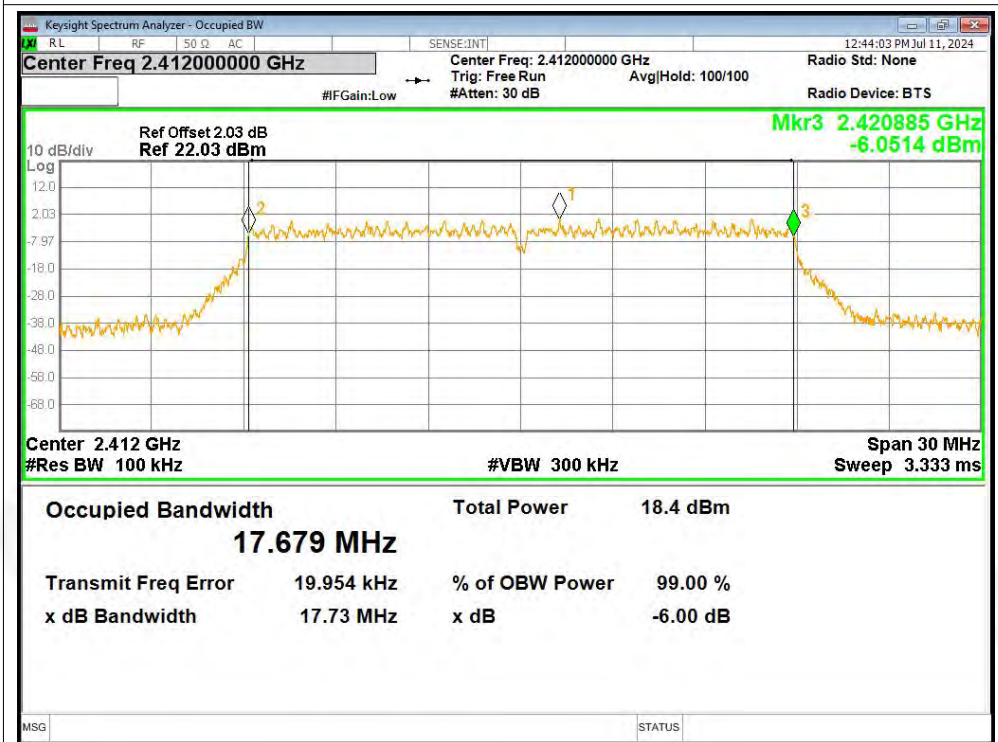




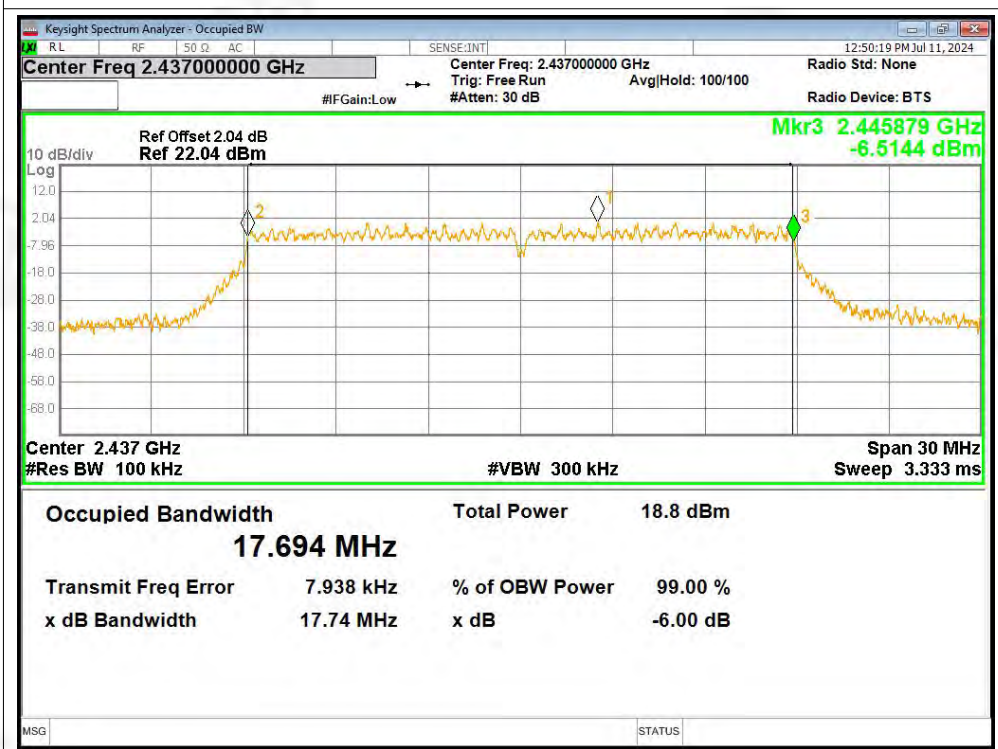




-6dB Bandwidth NVNT n20 2412MHz Ant1

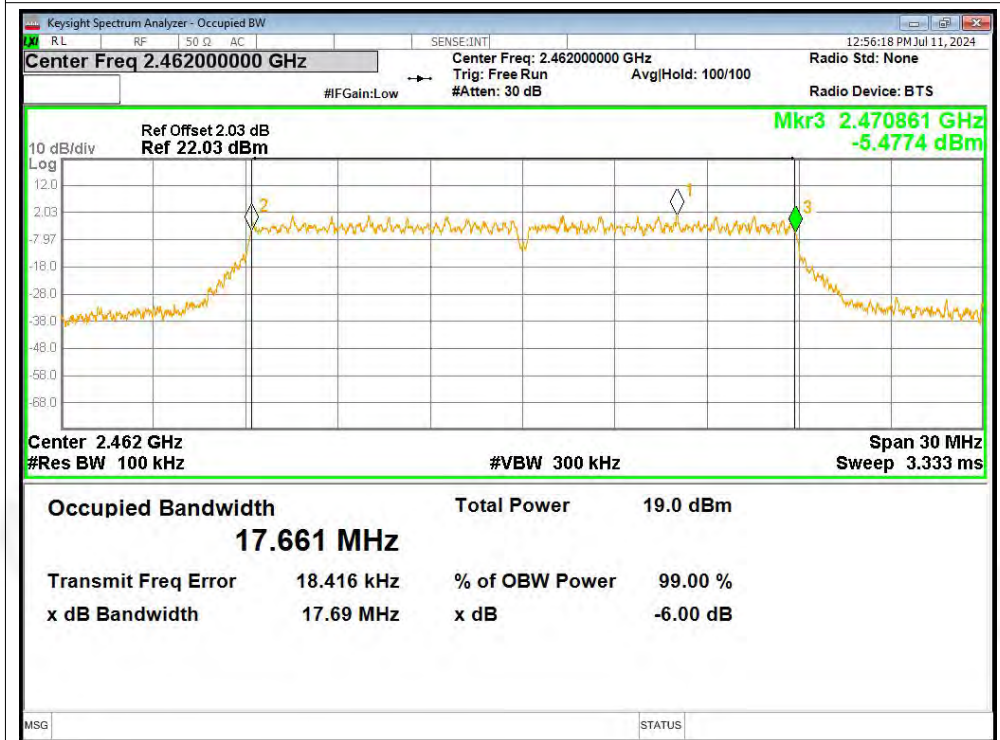


-6dB Bandwidth NVNT n20 2437MHz Ant1

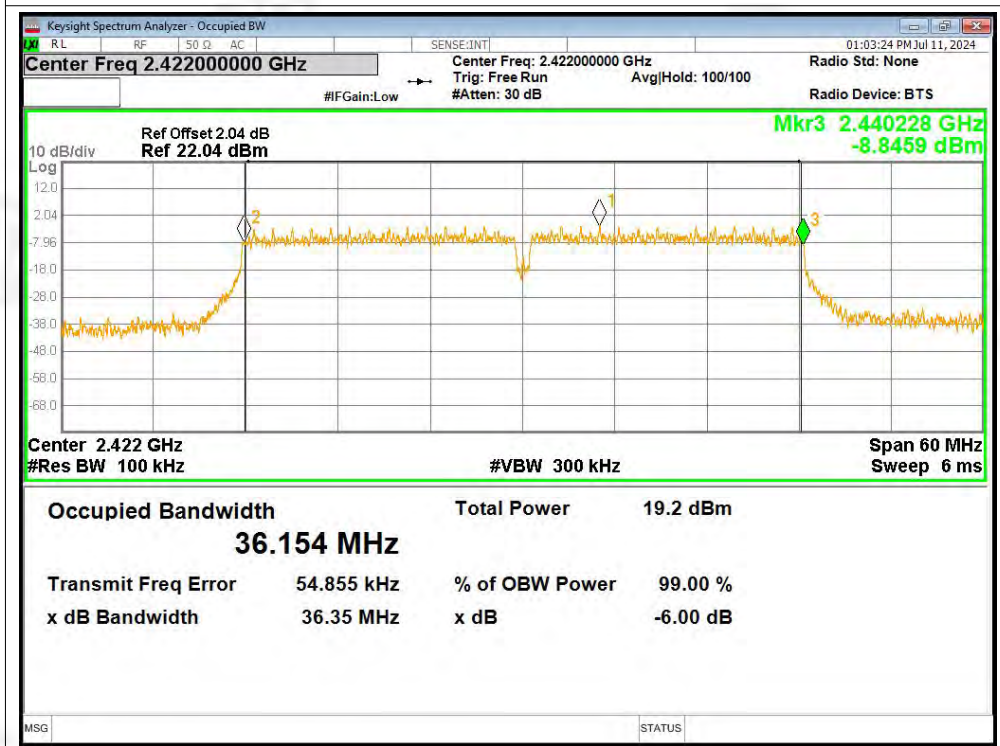




-6dB Bandwidth NVNT n20 2462MHz Ant1

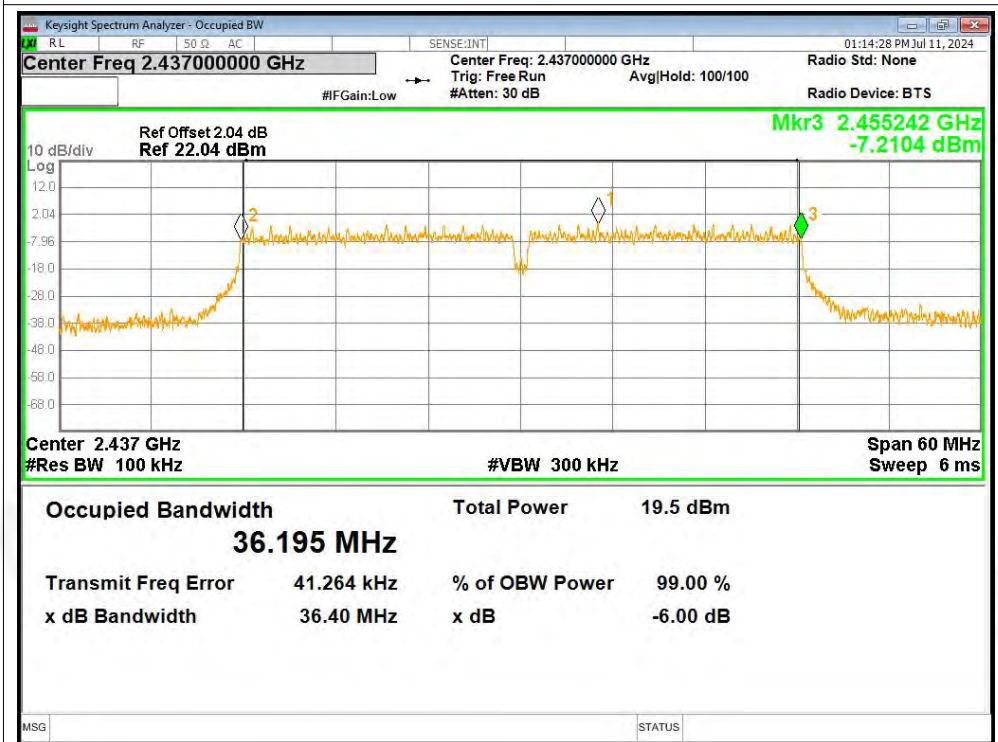


-6dB Bandwidth NVNT n40 2422MHz Ant1

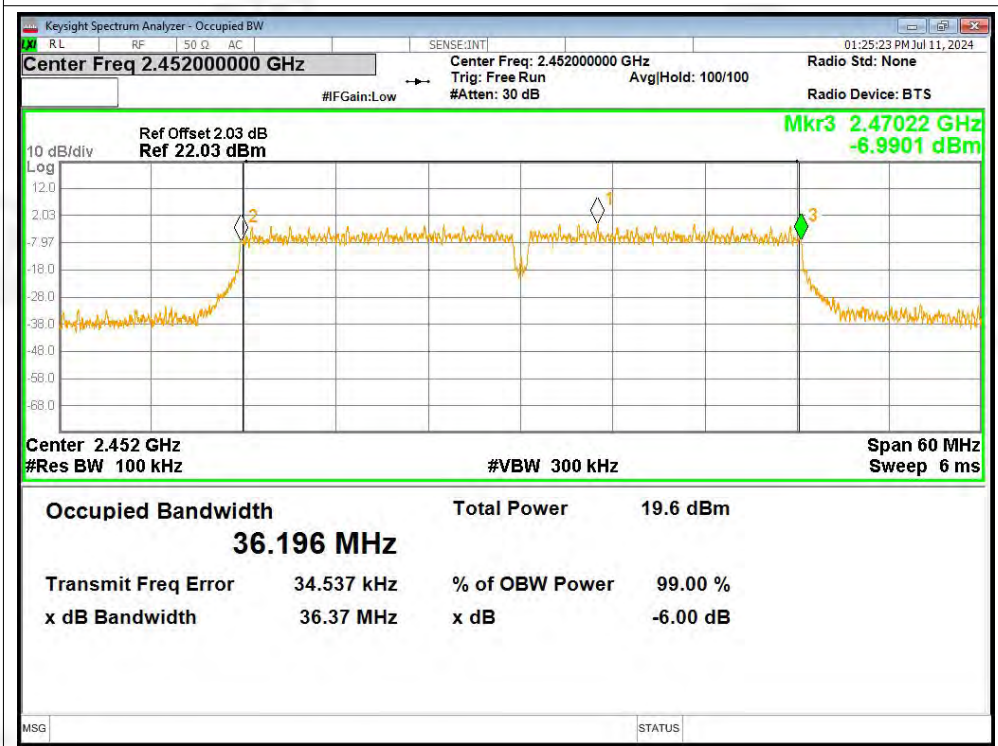




-6dB Bandwidth NVNT n40 2437MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant1



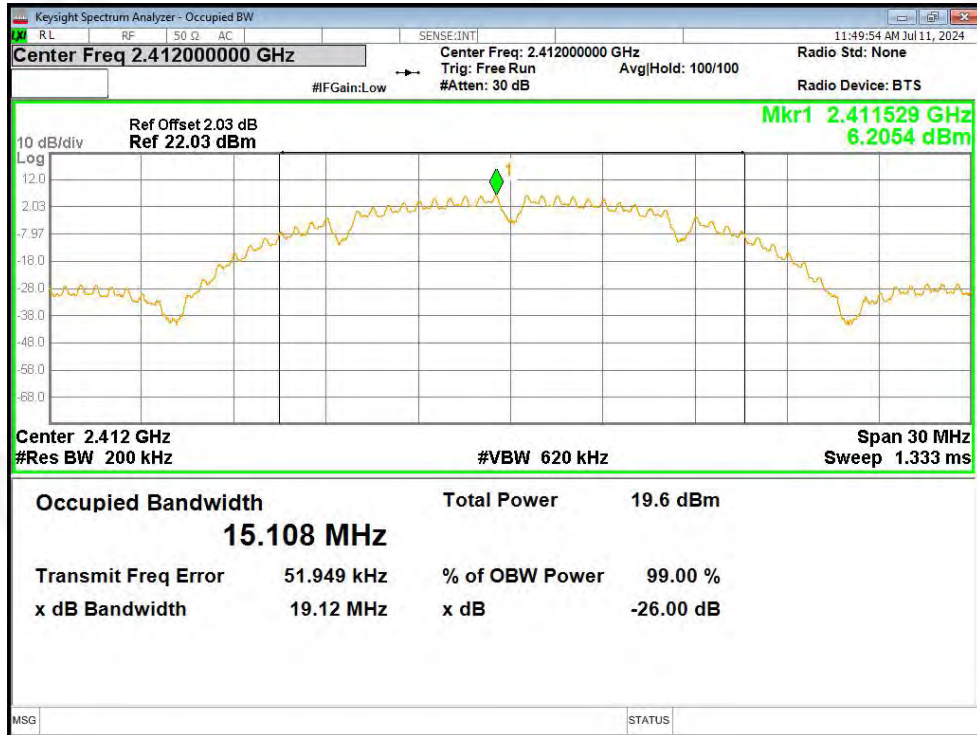
**Occupied Channel Bandwidth**

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	15.108
NVNT	b	2437	Ant1	15.172
NVNT	b	2462	Ant1	15.209
NVNT	g	2412	Ant1	16.795
NVNT	g	2437	Ant1	16.932
NVNT	g	2462	Ant1	16.904
NVNT	n20	2412	Ant1	17.723
NVNT	n20	2437	Ant1	17.745
NVNT	n20	2462	Ant1	17.76
NVNT	n40	2422	Ant1	36.295
NVNT	n40	2437	Ant1	36.35
NVNT	n40	2452	Ant1	36.347

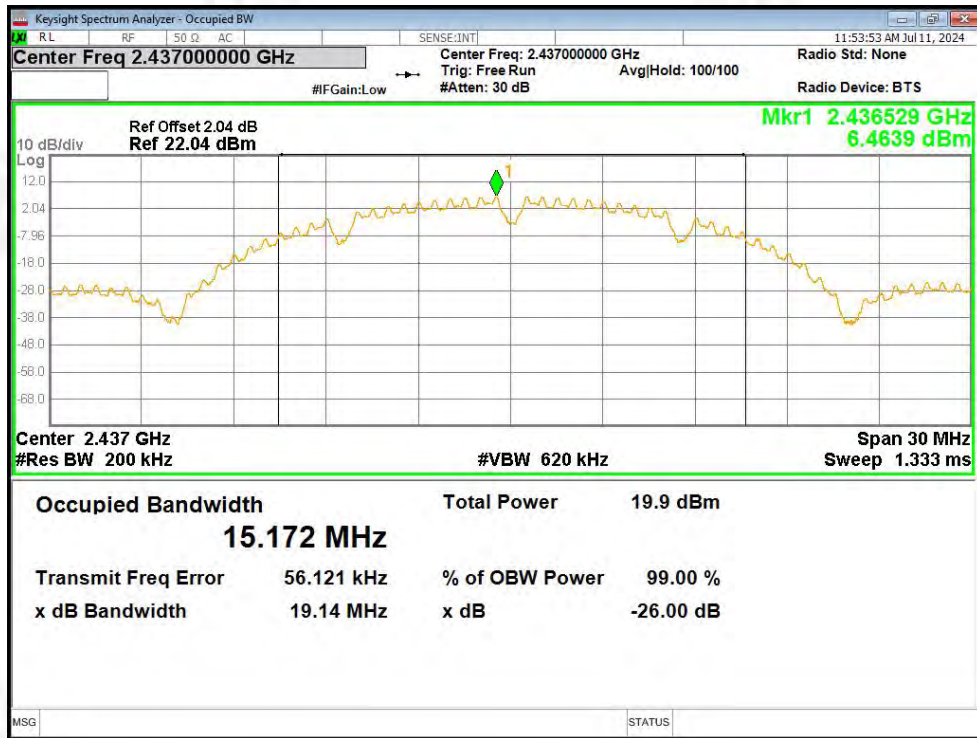


Test Graphs

OBW NVNT b 2412MHz Ant1

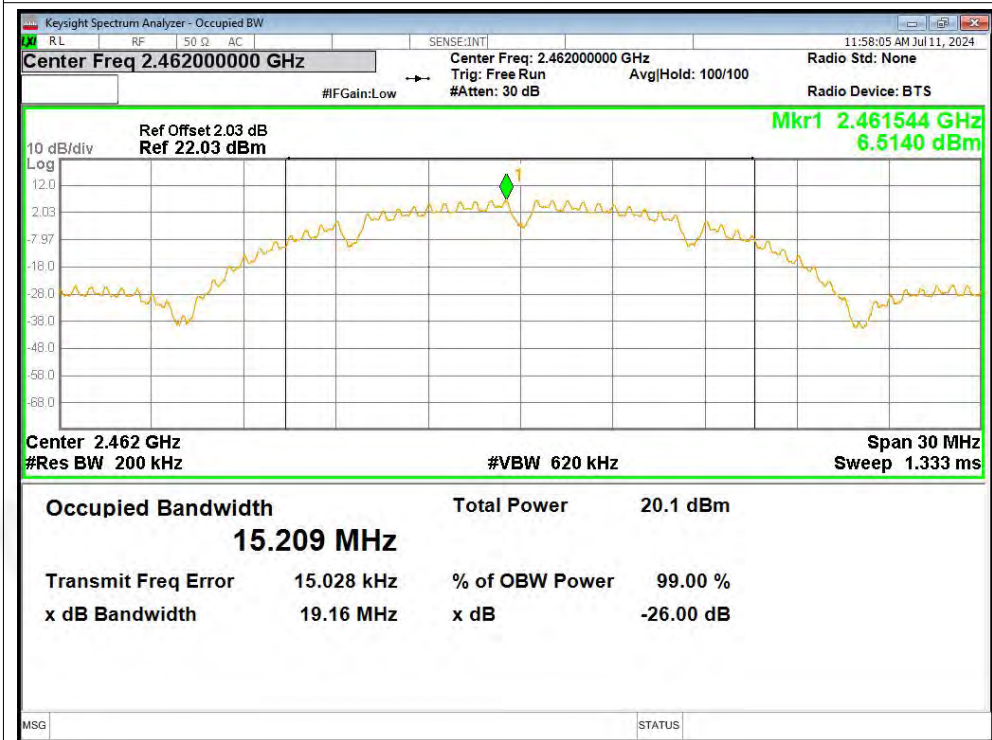


OBW NVNT b 2437MHz Ant1

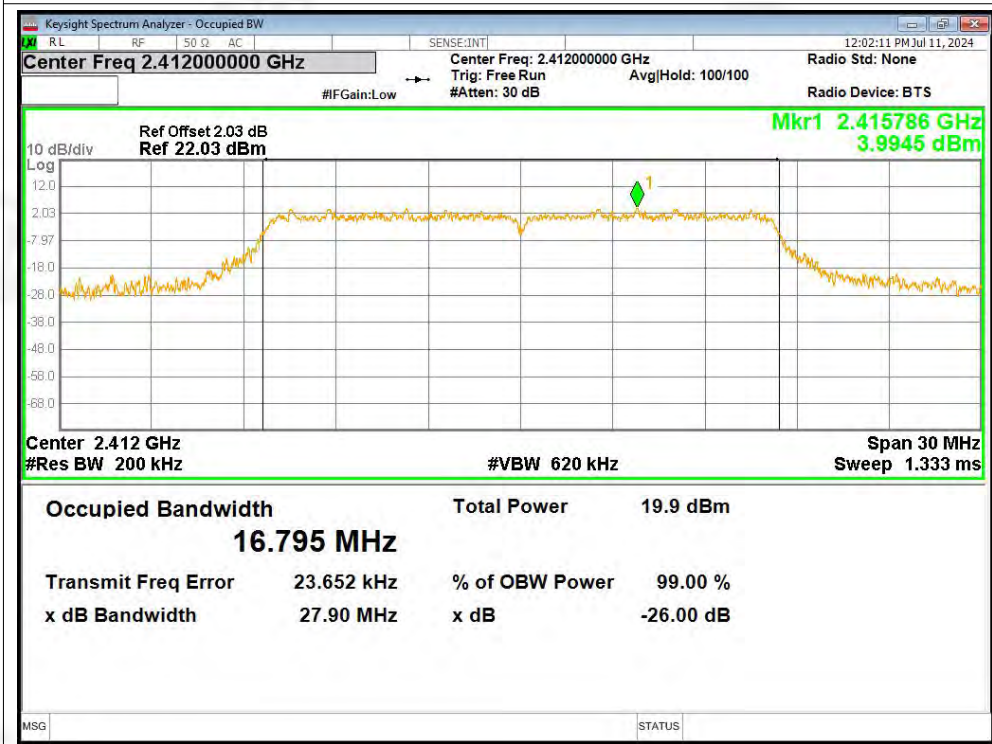




OBW NVNT b 2462MHz Ant1

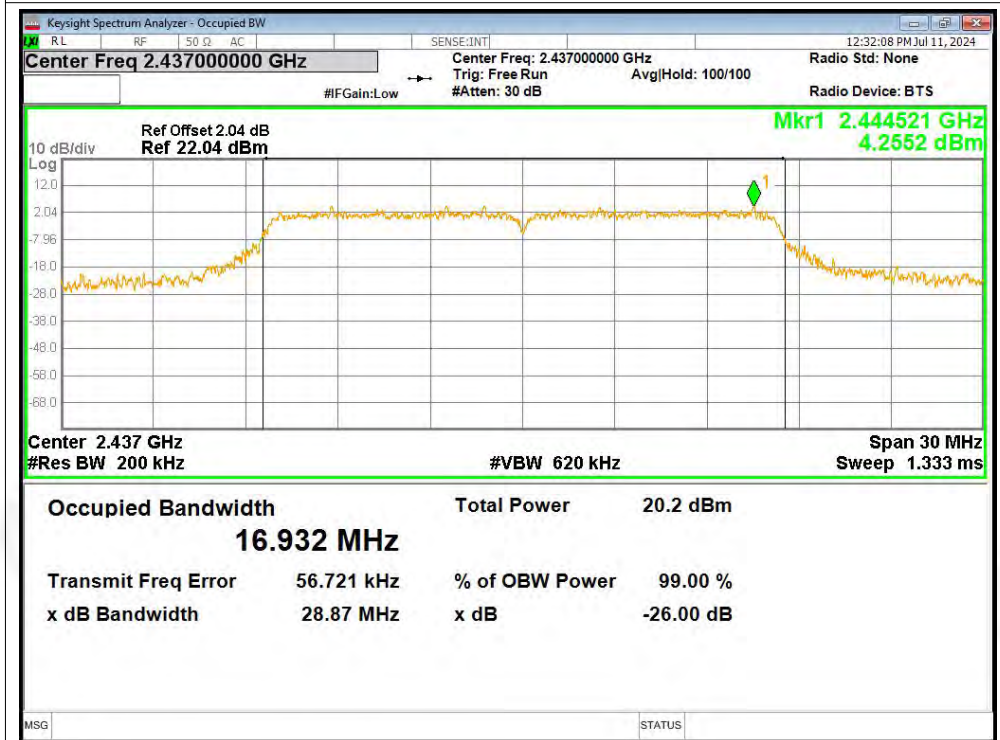


OBW NVNT g 2412MHz Ant1

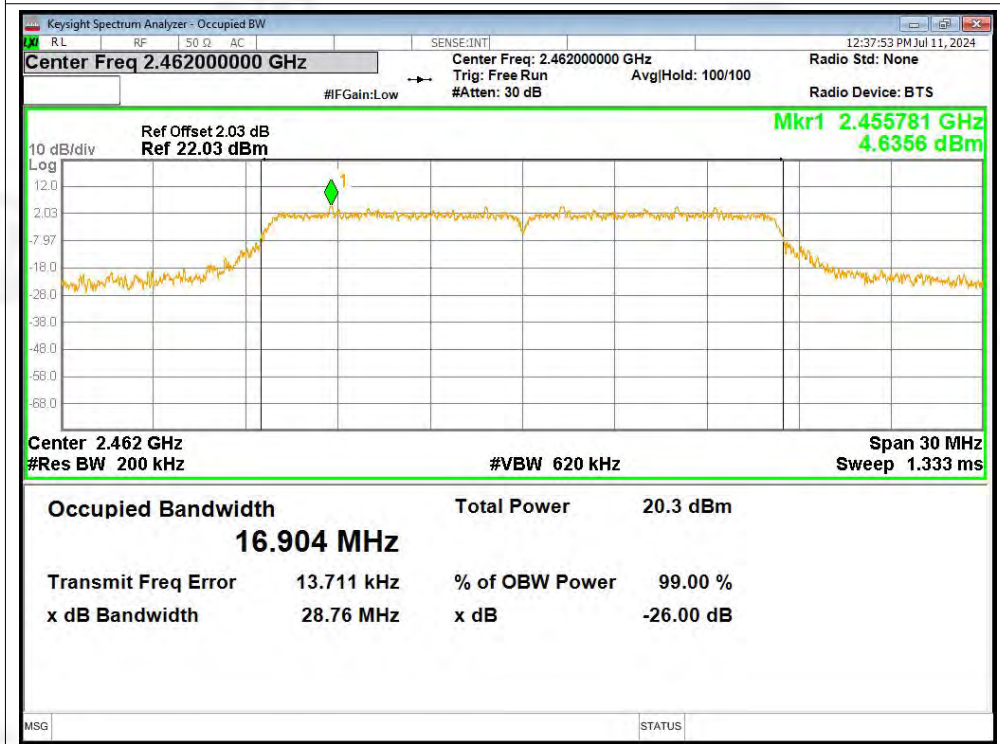




OBW NVNT g 2437MHz Ant1

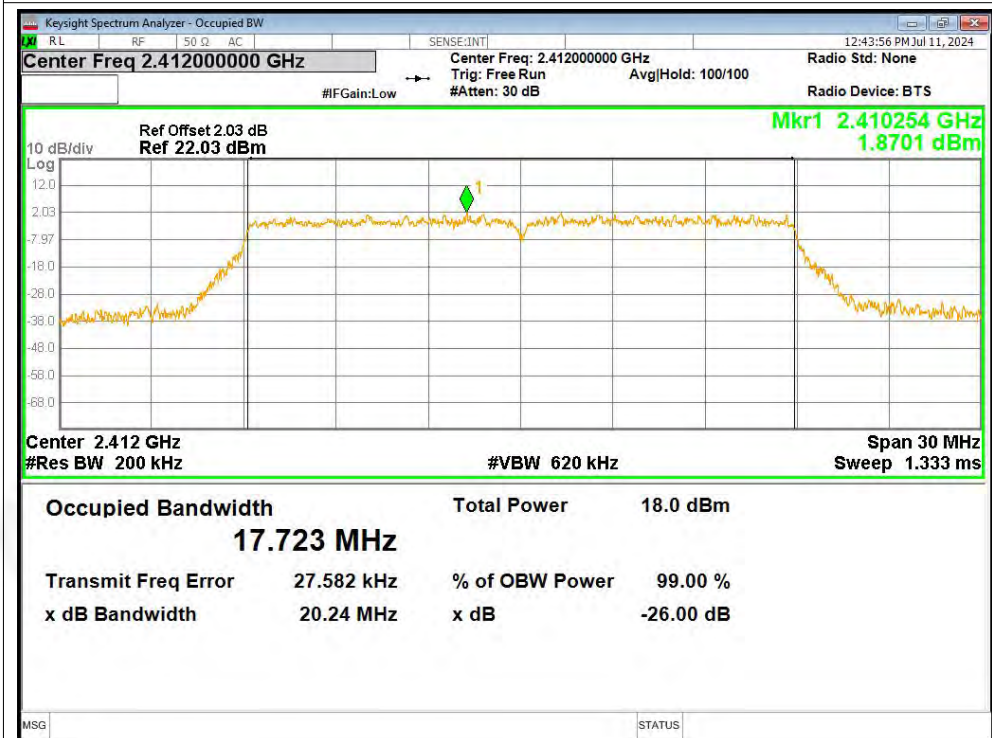


OBW NVNT g 2462MHz Ant1

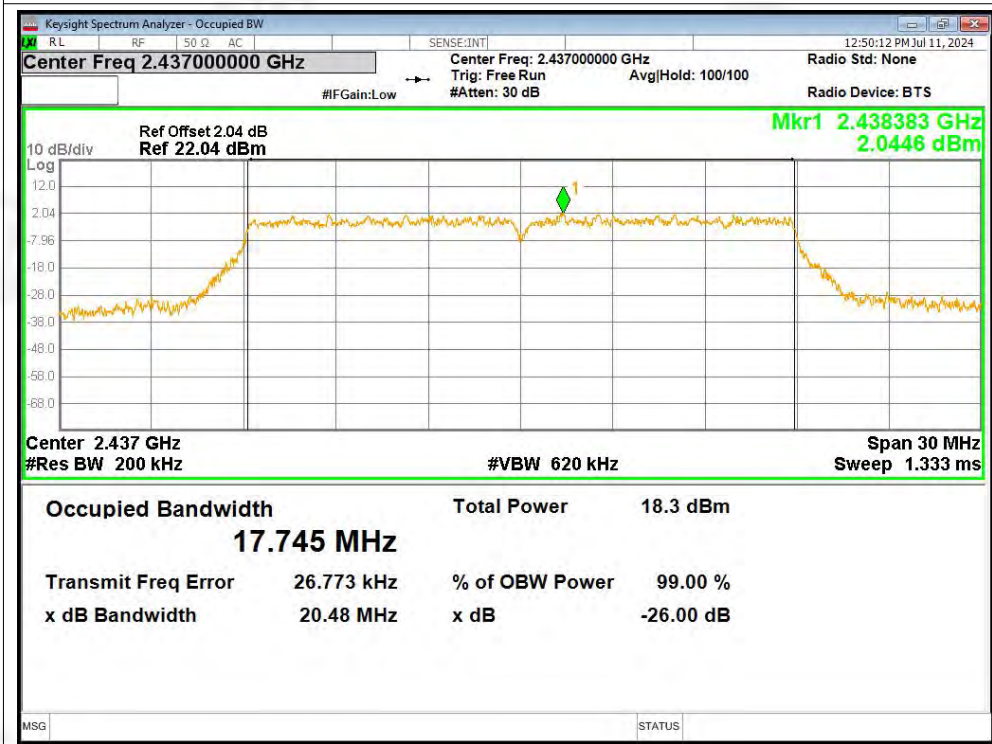




OBW NVNT n20 2412MHz Ant1

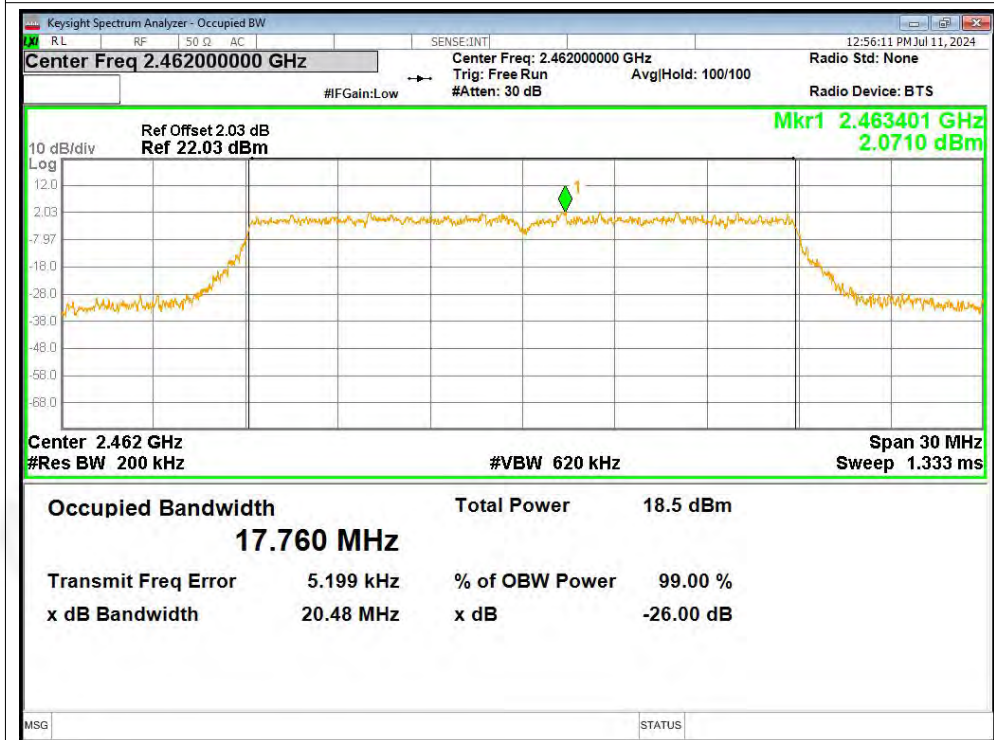


OBW NVNT n20 2437MHz Ant1

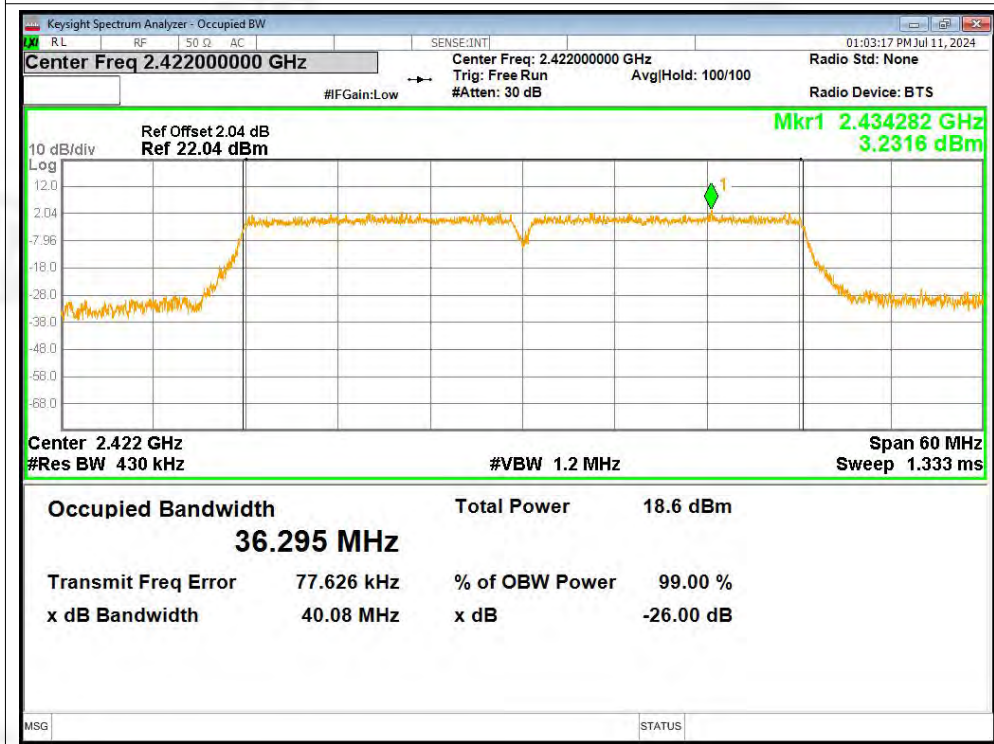




OBW NVNT n20 2462MHz Ant1

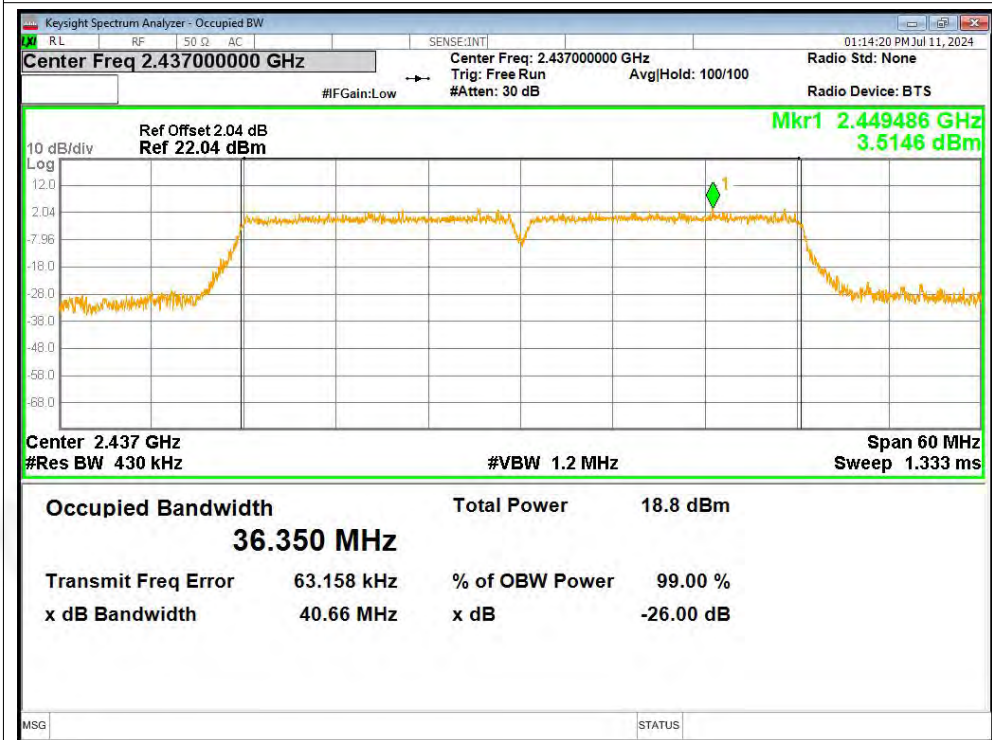


OBW NVNT n40 2422MHz Ant1

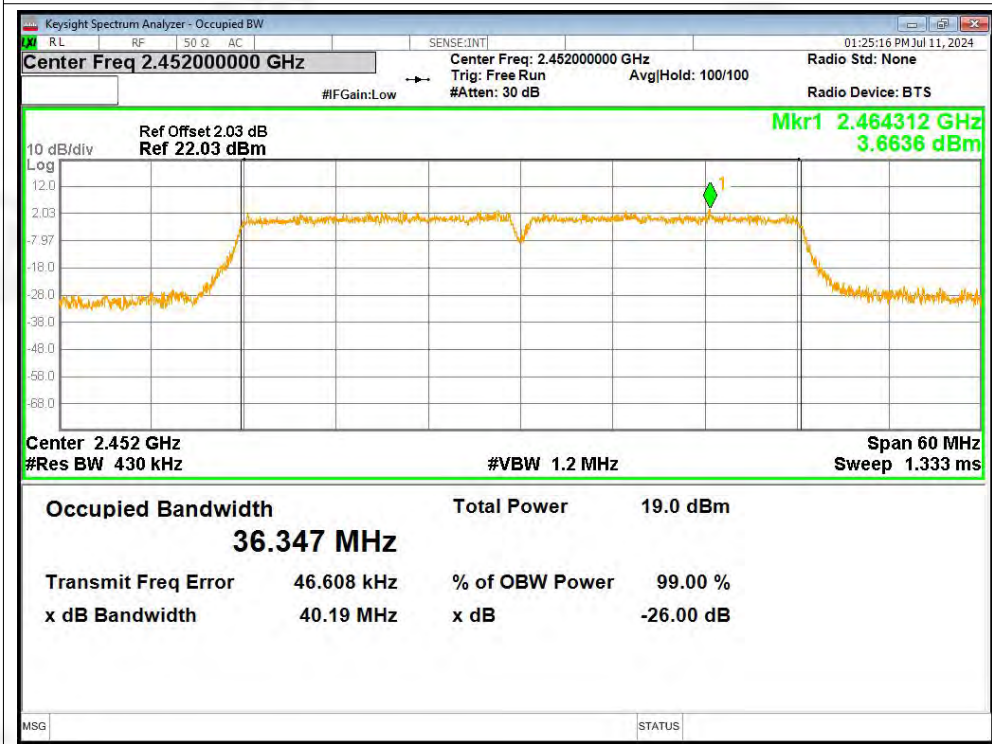




OBW NVNT n40 2437MHz Ant1



OBW NVNT n40 2452MHz Ant1



**Maximum Power Spectral Density Level**

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Duty Factor (dB)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-10.75	0.15	-10.6	8	Pass
NVNT	b	2437	Ant1	-10.39	0	-10.39	8	Pass
NVNT	b	2462	Ant1	-10.45	0	-10.45	8	Pass
NVNT	g	2412	Ant1	-11.45	0.12	-11.33	8	Pass
NVNT	g	2437	Ant1	-10.95	0.15	-10.8	8	Pass
NVNT	g	2462	Ant1	-10.96	0.18	-10.78	8	Pass
NVNT	n20	2412	Ant1	-13.2	0.11	-13.09	8	Pass
NVNT	n20	2437	Ant1	-12.38	0.13	-12.25	8	Pass
NVNT	n20	2462	Ant1	-12.45	0.37	-12.08	8	Pass
NVNT	n40	2422	Ant1	-15.84	0.4	-15.44	8	Pass
NVNT	n40	2437	Ant1	-15.38	0.22	-15.16	8	Pass
NVNT	n40	2452	Ant1	-15.52	0.52	-15	8	Pass

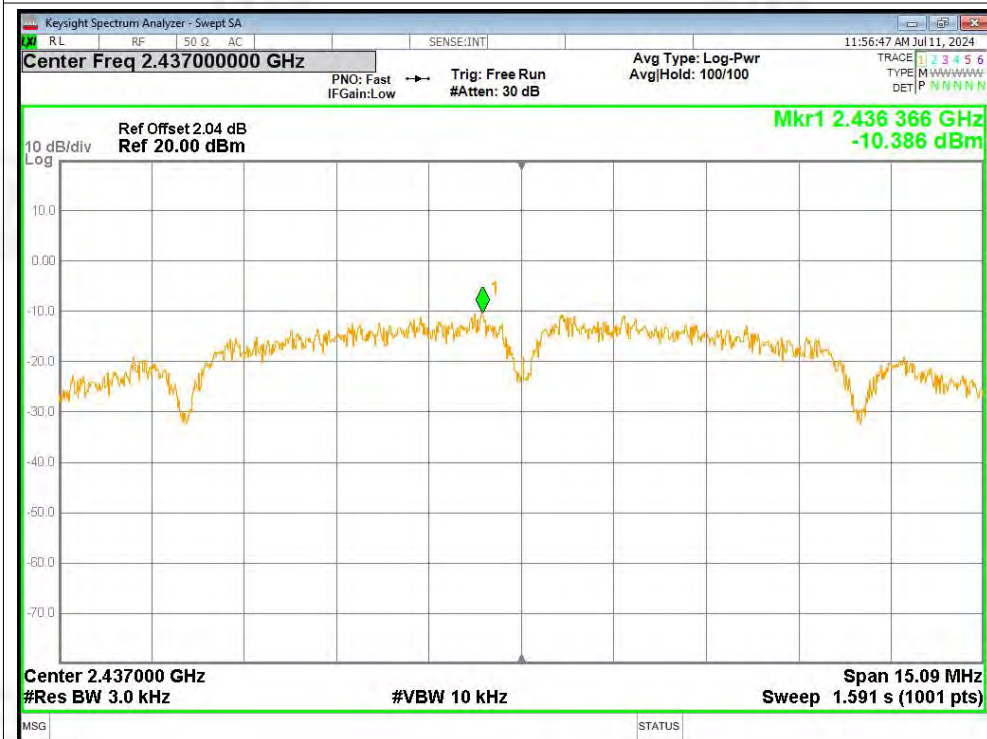


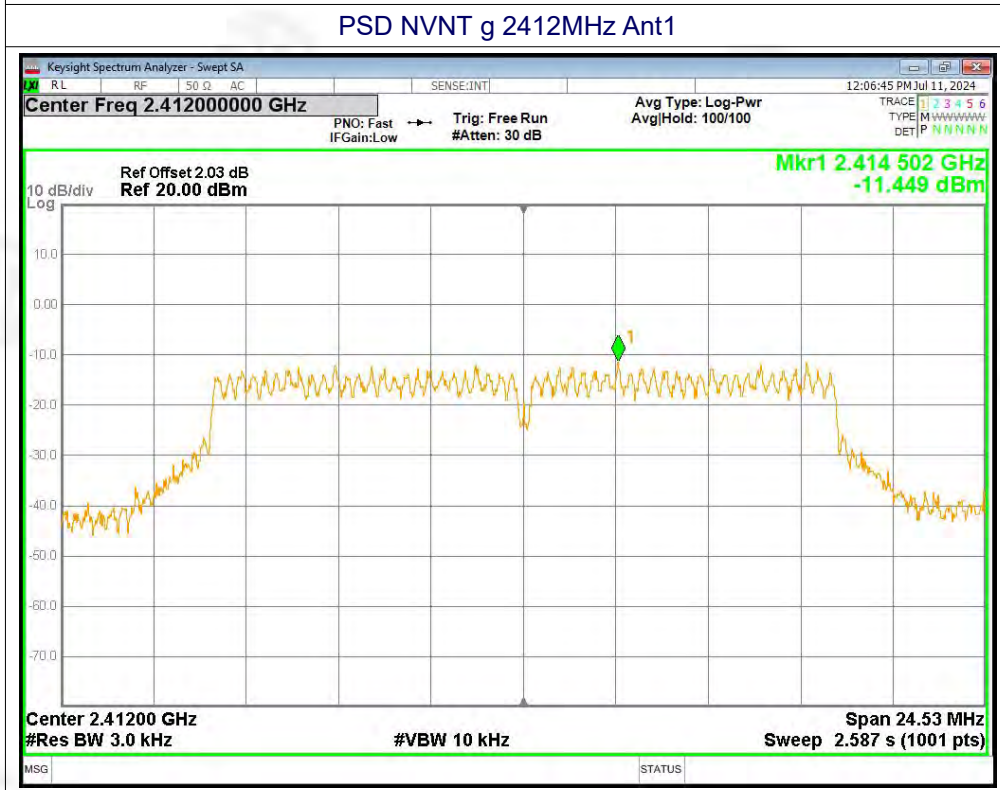
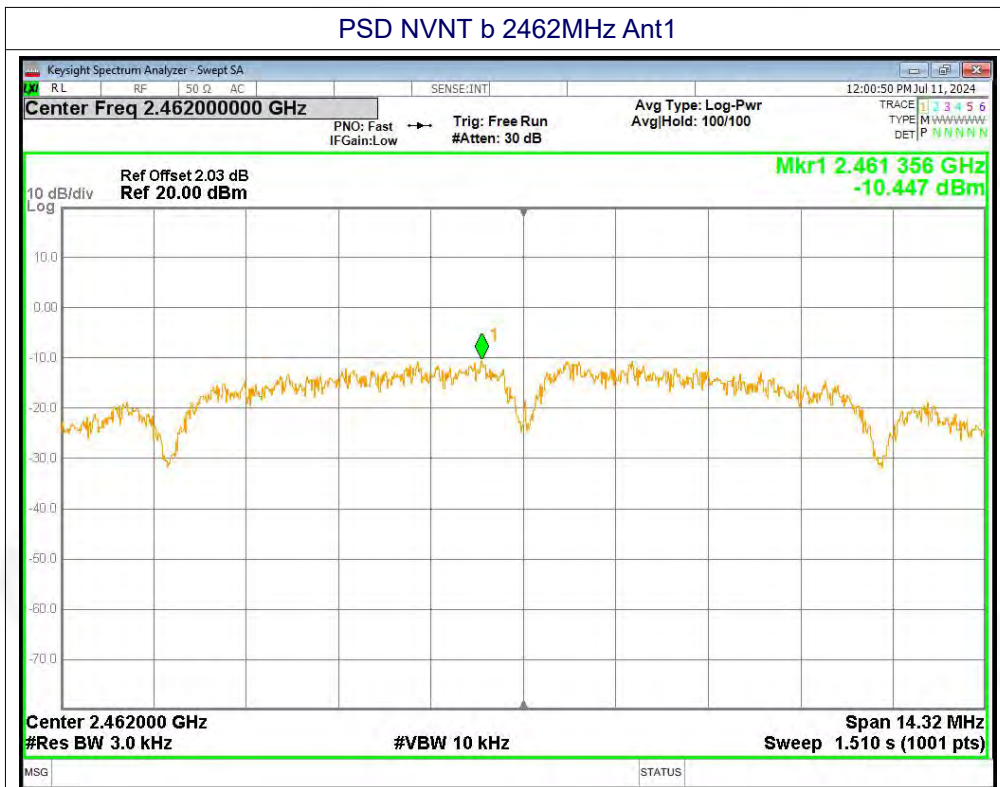
Test Graphs

PSD NVNT b 2412MHz Ant1



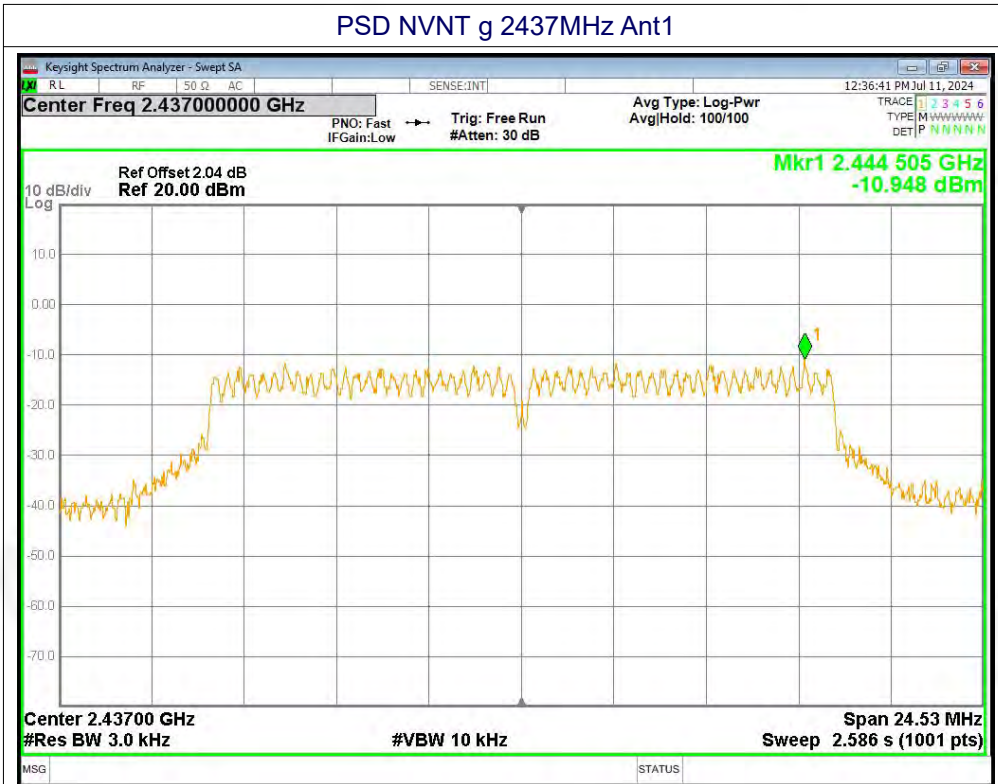
PSD NVNT b 2437MHz Ant1



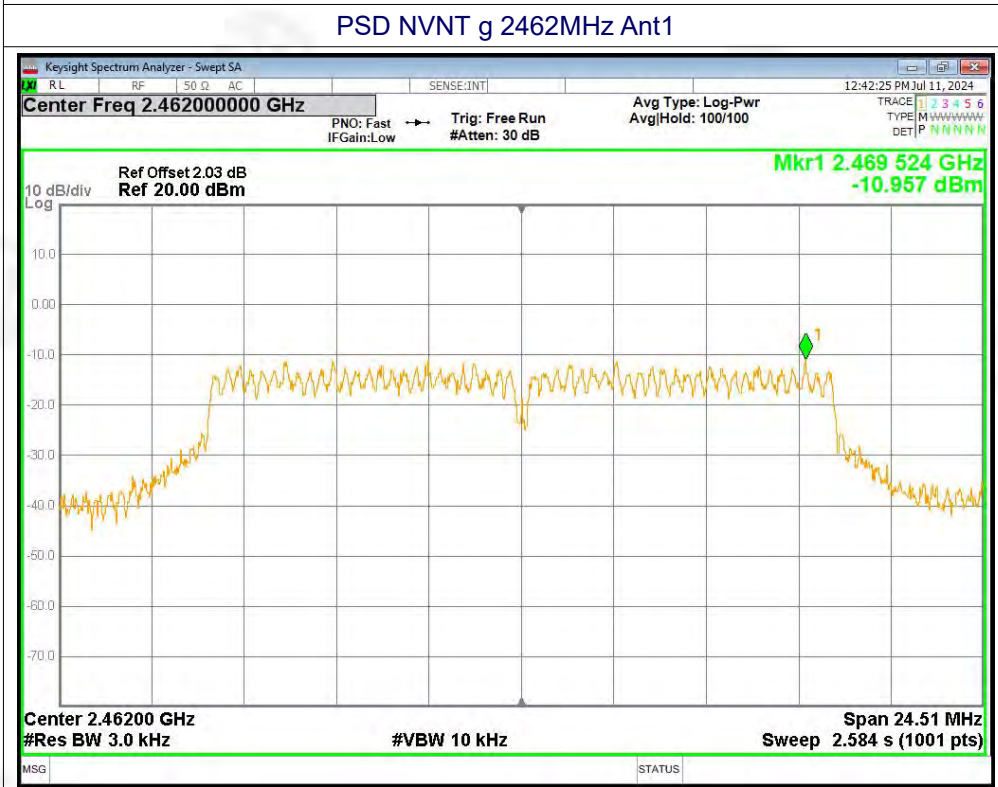




PSD NVNT g 2437MHz Ant1

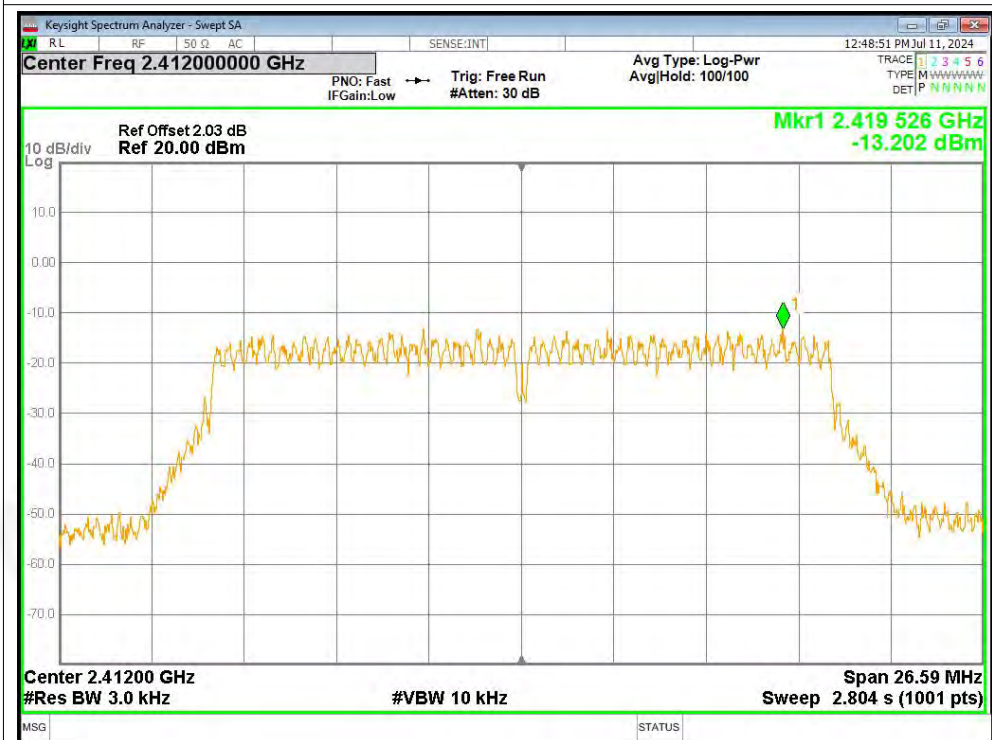


PSD NVNT g 2462MHz Ant1



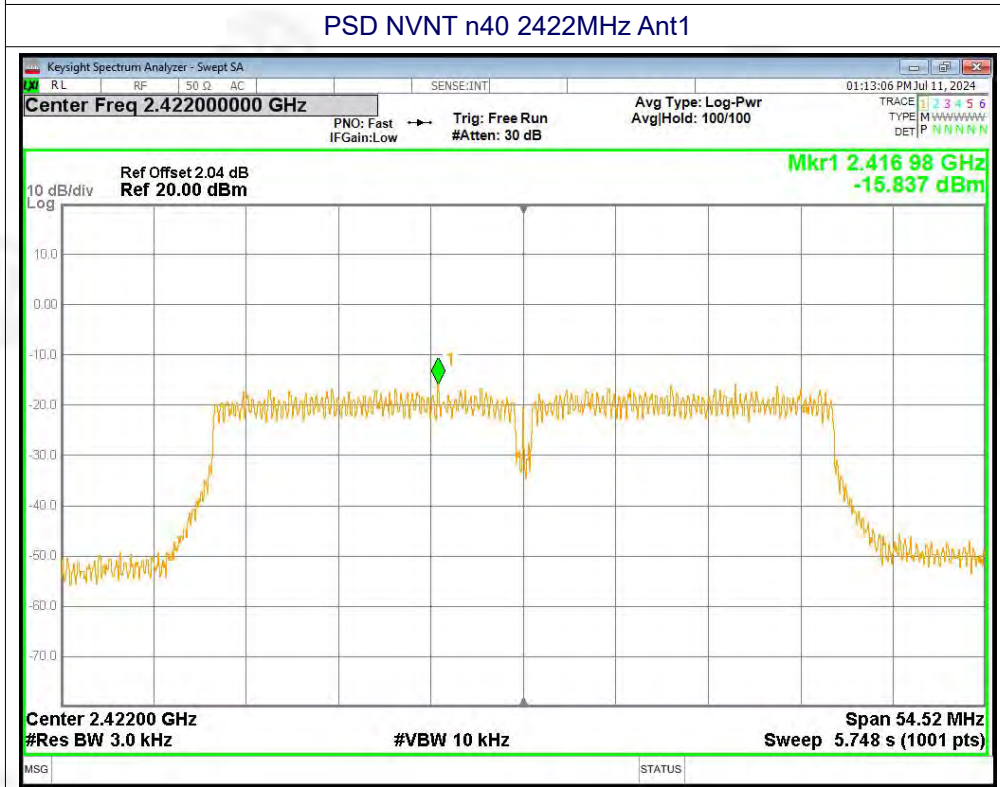
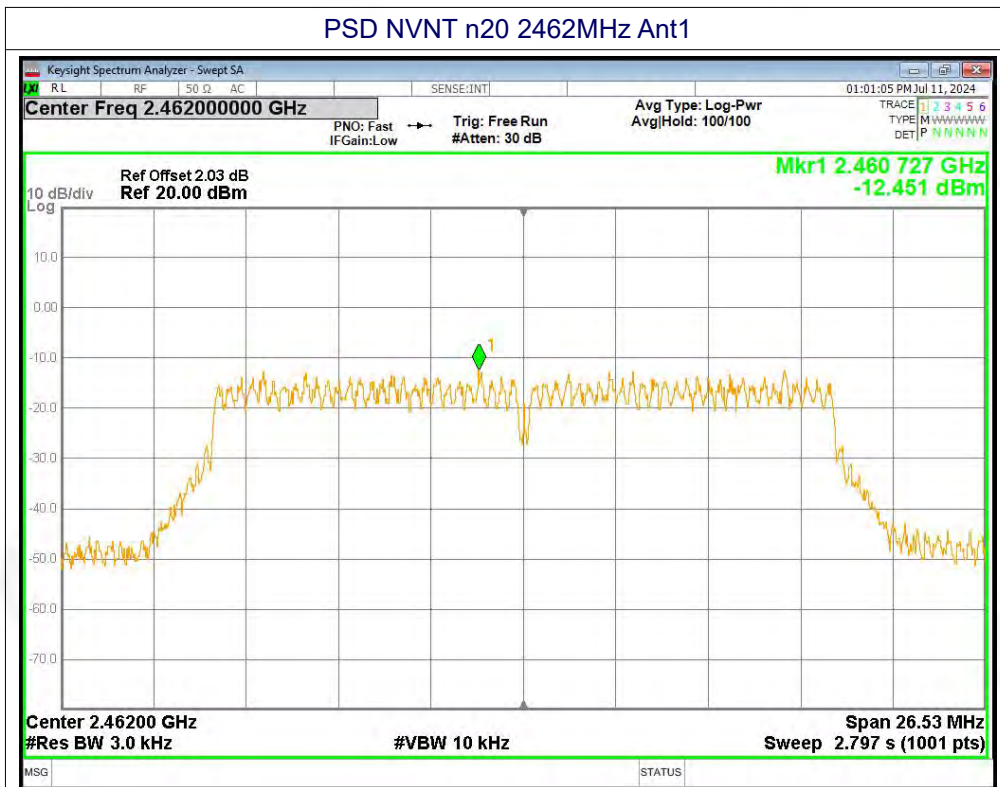


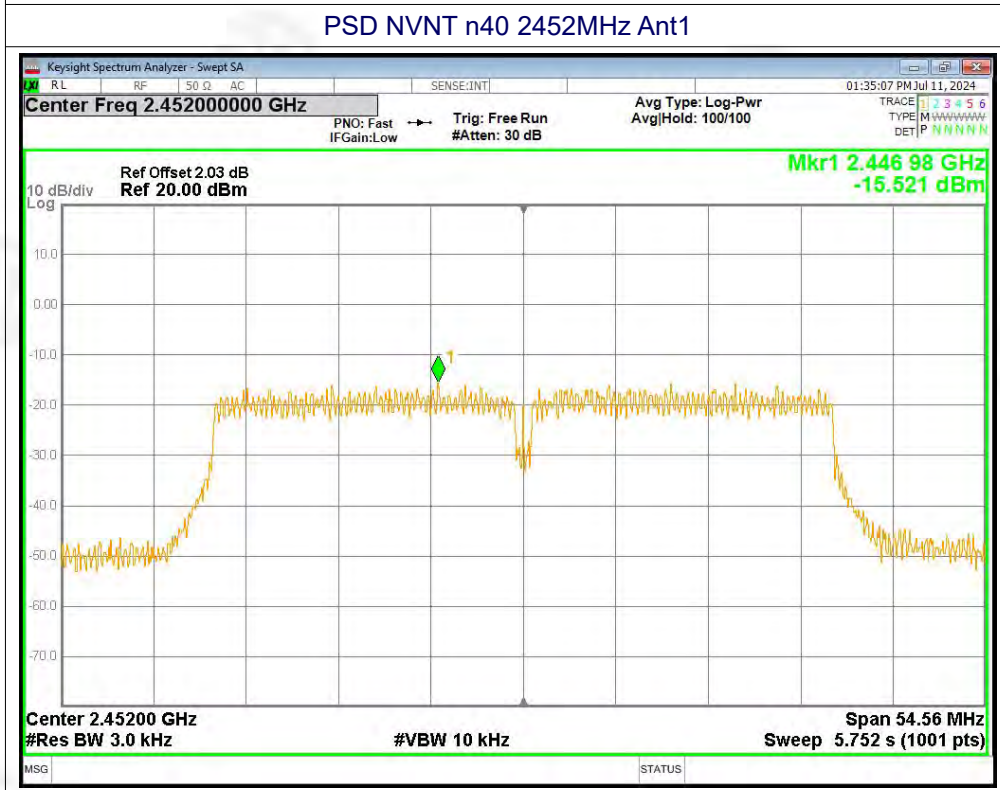
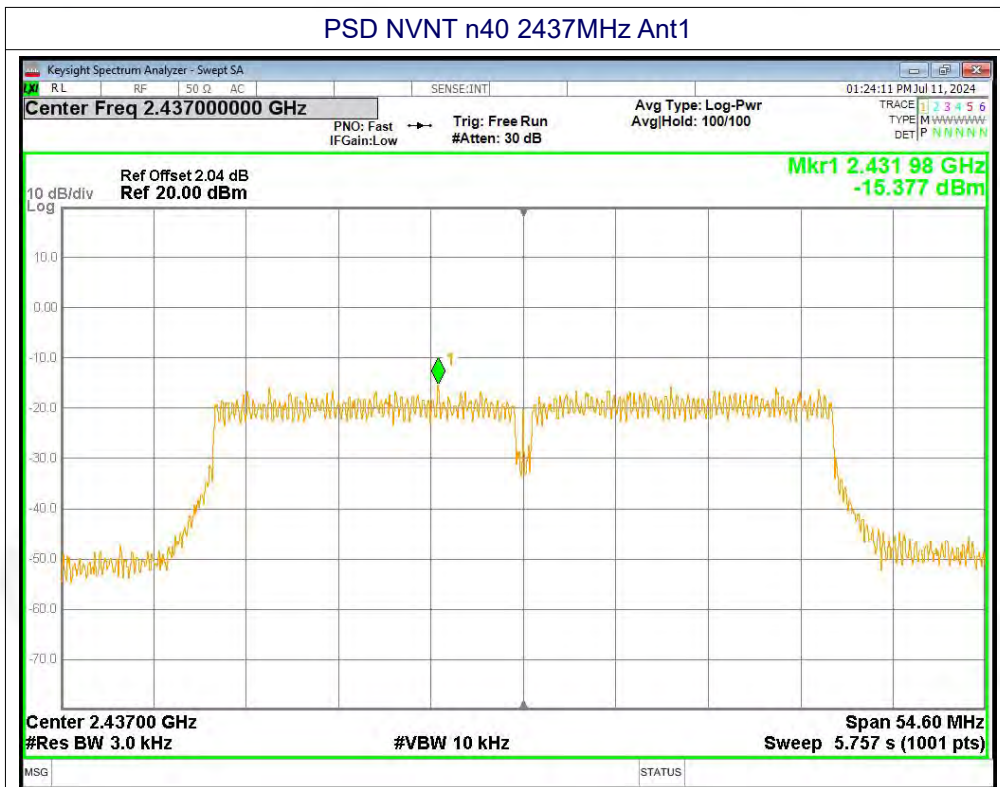
PSD NVNT n20 2412MHz Ant1



PSD NVNT n20 2437MHz Ant1







**Band Edge**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-32.88	-30	Pass
NVNT	b	2462	Ant1	-53.62	-30	Pass
NVNT	g	2412	Ant1	-37.96	-30	Pass
NVNT	g	2462	Ant1	-38.42	-30	Pass
NVNT	n20	2412	Ant1	-36.64	-30	Pass
NVNT	n20	2462	Ant1	-40.64	-30	Pass
NVNT	n40	2422	Ant1	-31.77	-30	Pass
NVNT	n40	2452	Ant1	-31.09	-30	Pass

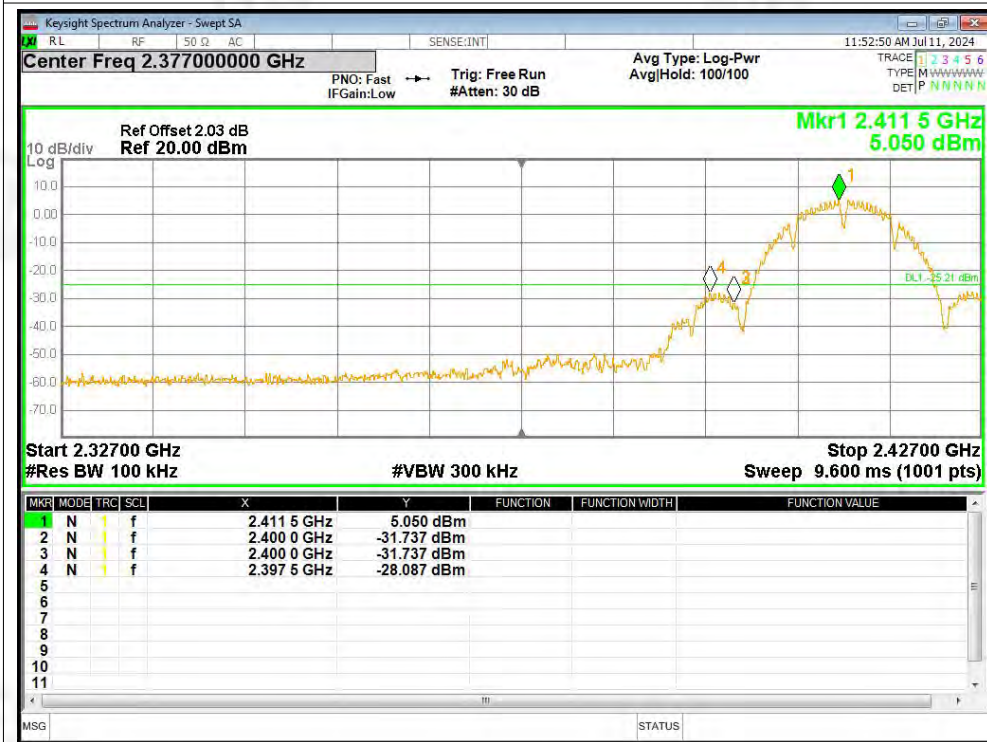


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref

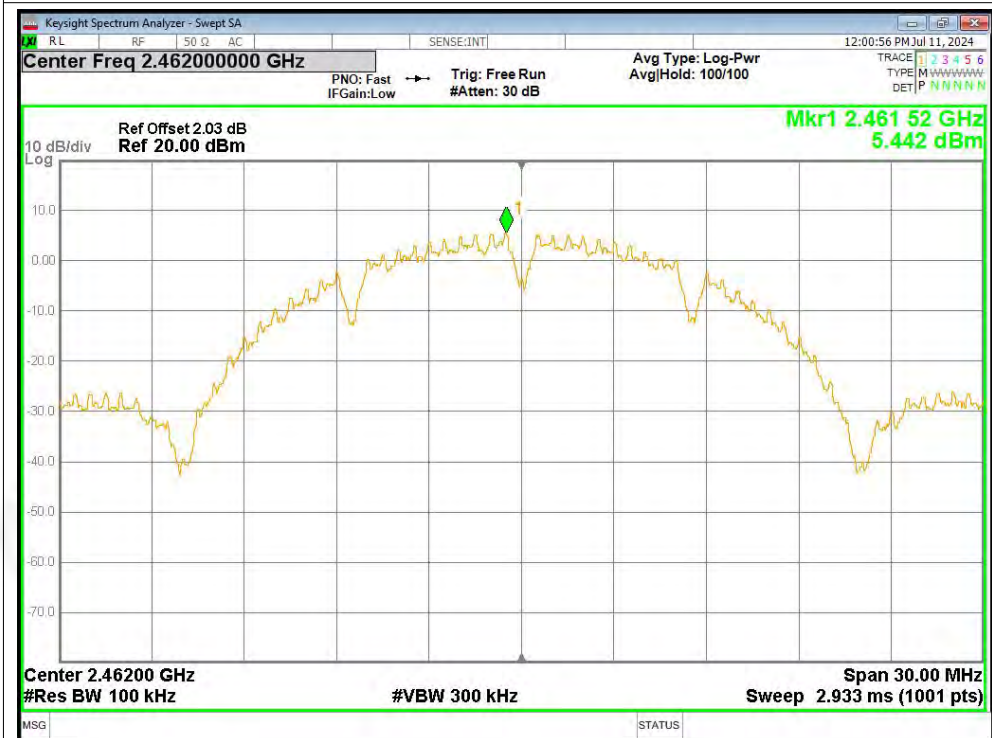


Band Edge NVNT b 2412MHz Ant1 Emission

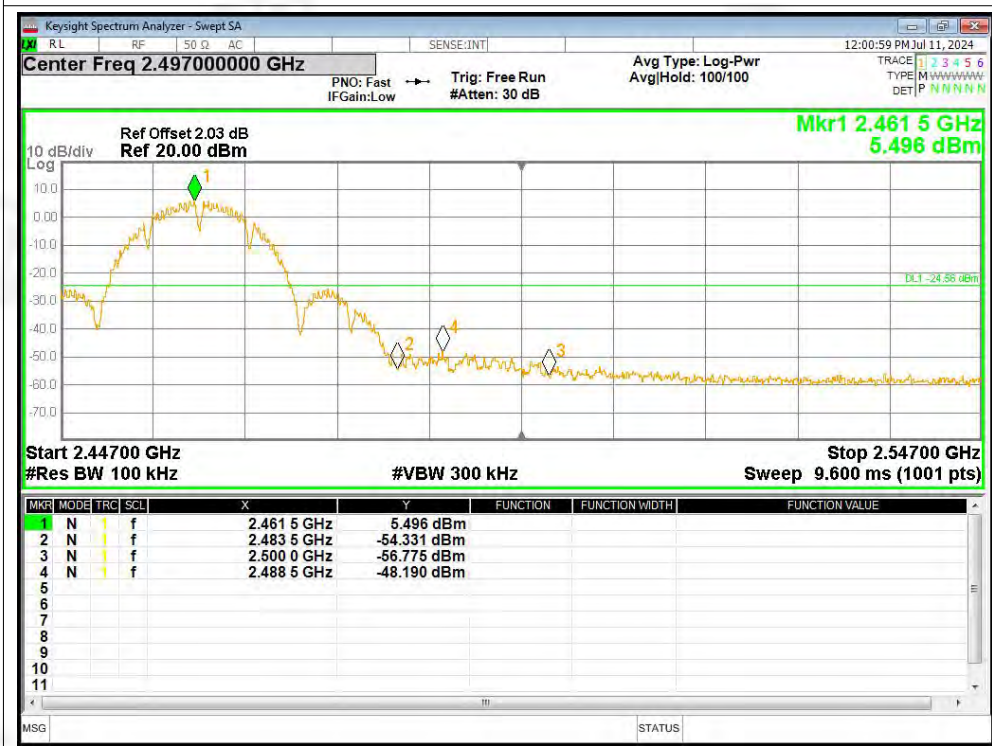




Band Edge NVNT b 2462MHz Ant1 Ref

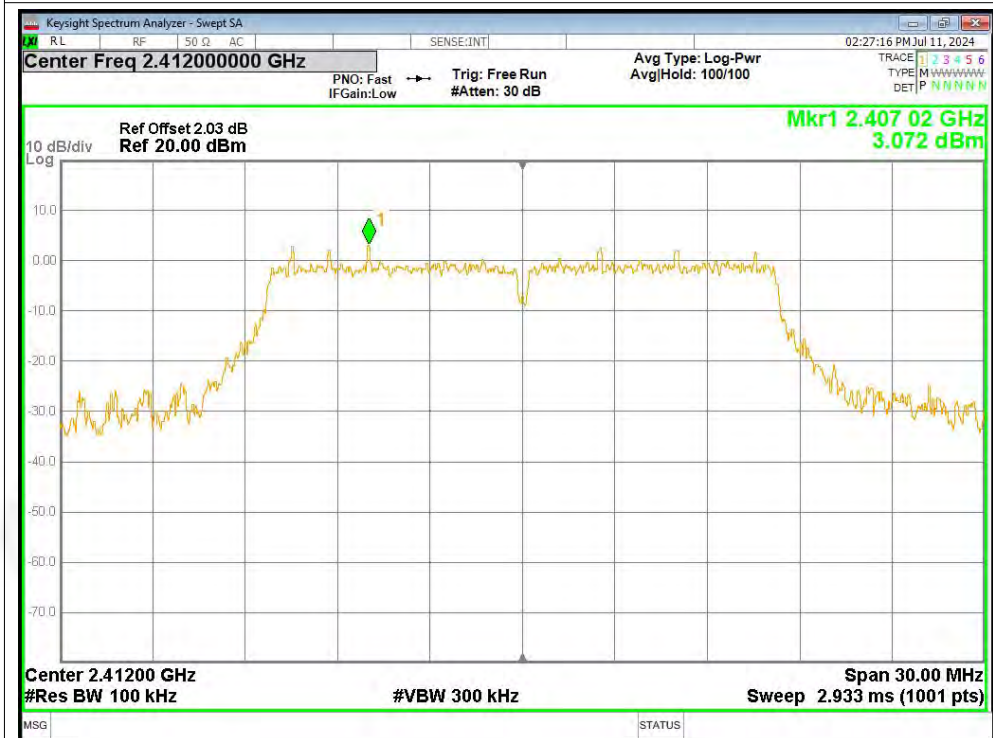


Band Edge NVNT b 2462MHz Ant1 Emission

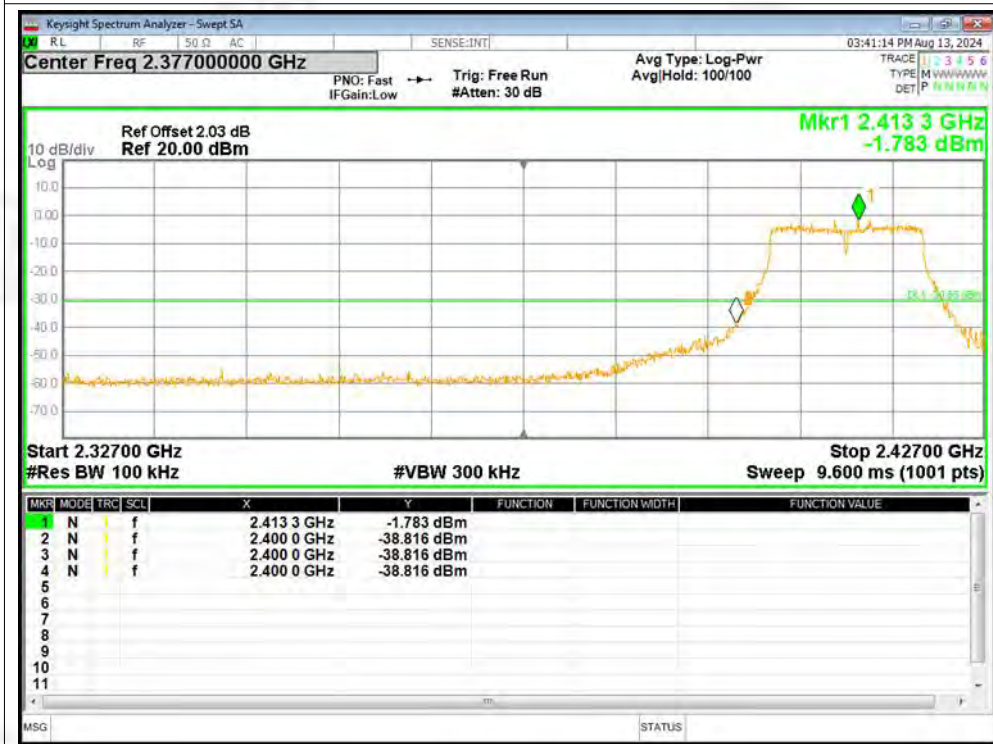




Band Edge NVNT g 2412MHz Ant1 Ref



Band Edge NVNT g 2412MHz Ant1 Emission

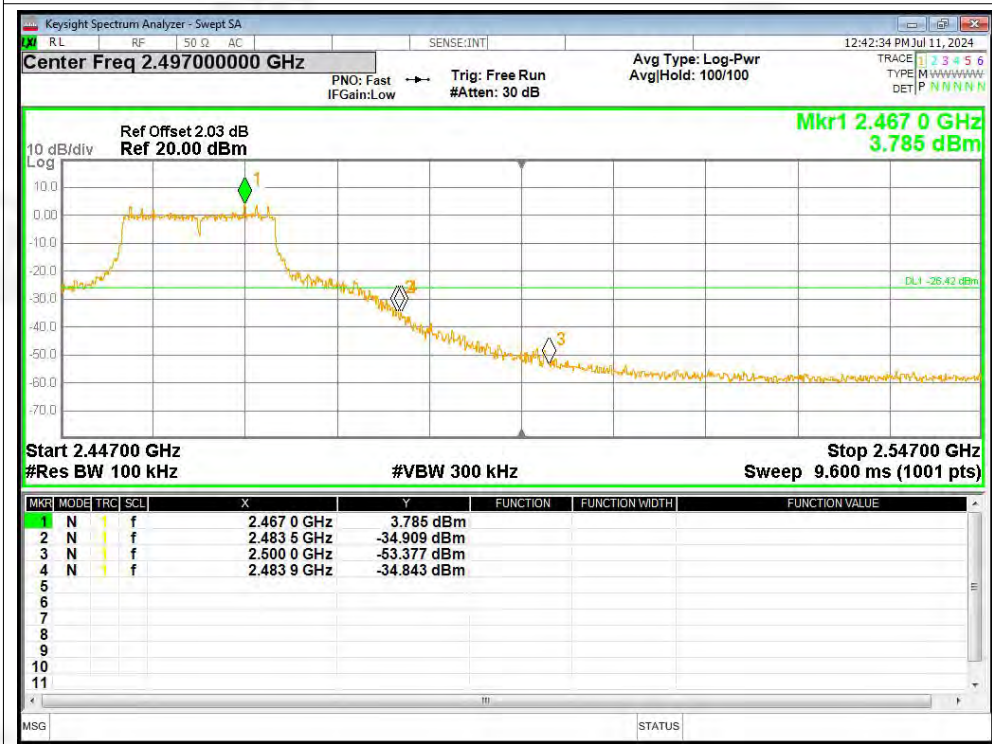




Band Edge NVNT g 2462MHz Ant1 Ref

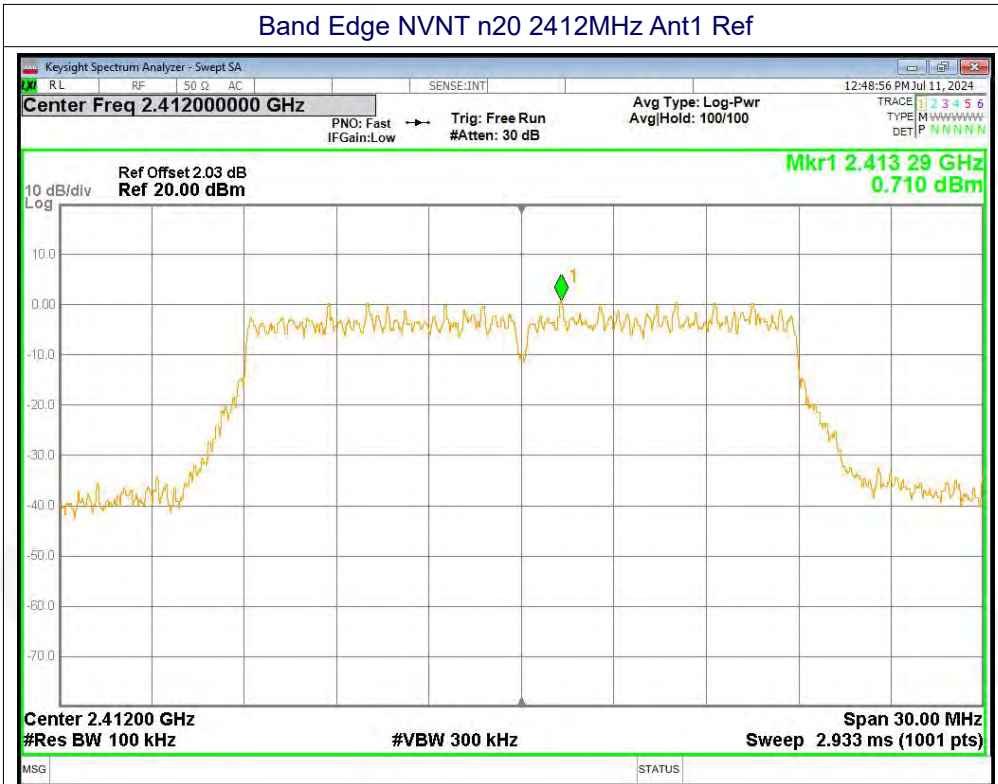


Band Edge NVNT g 2462MHz Ant1 Emission





Band Edge NVNT n20 2412MHz Ant1 Ref

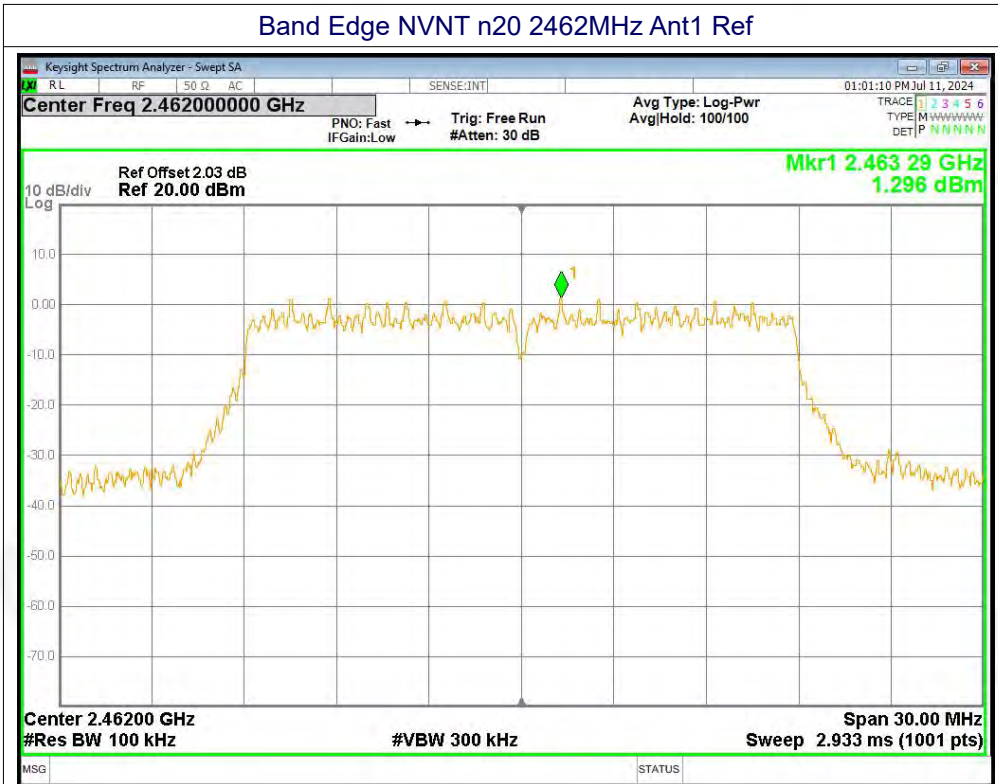


Band Edge NVNT n20 2412MHz Ant1 Emission

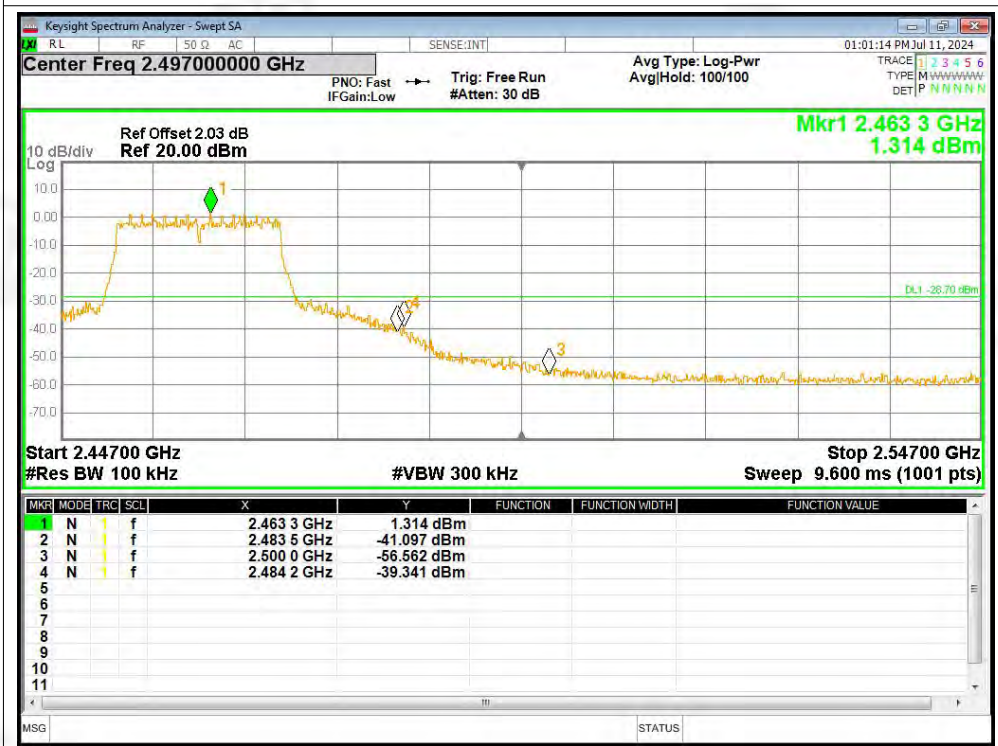


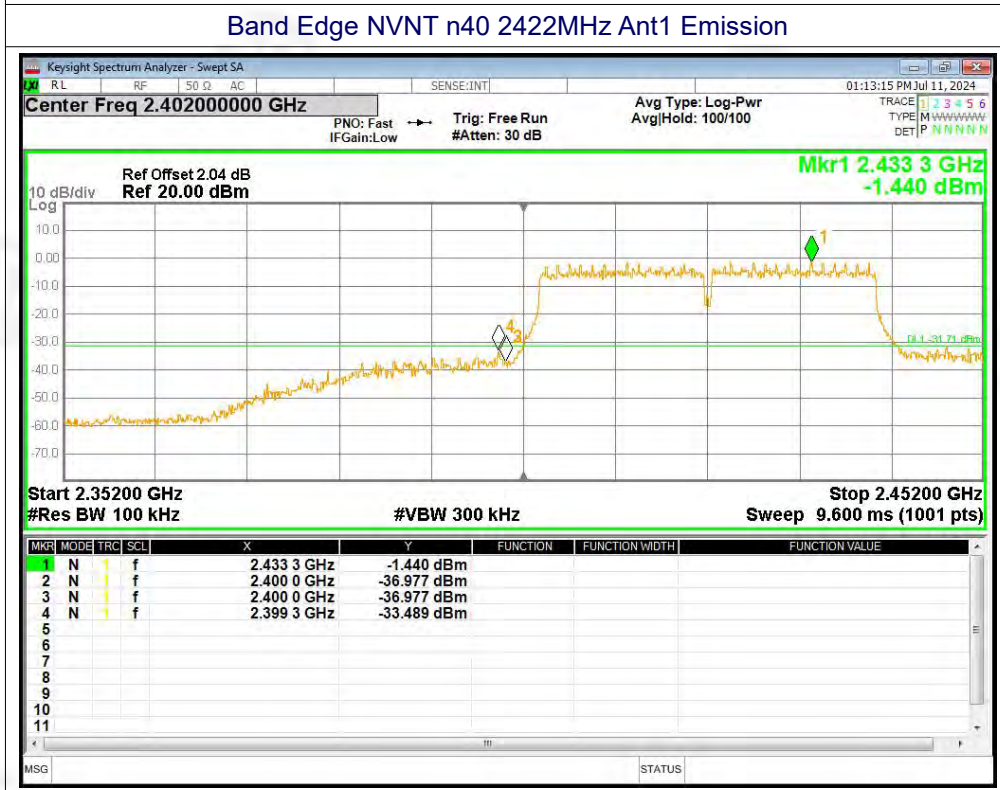
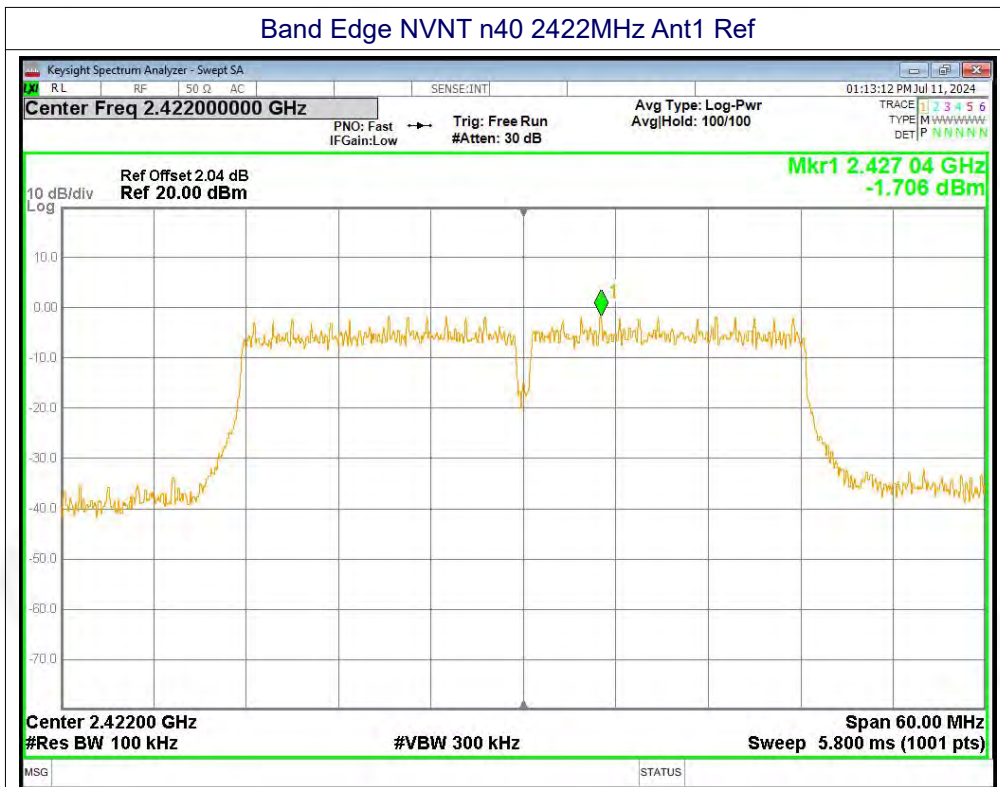


Band Edge NVNT n20 2462MHz Ant1 Ref



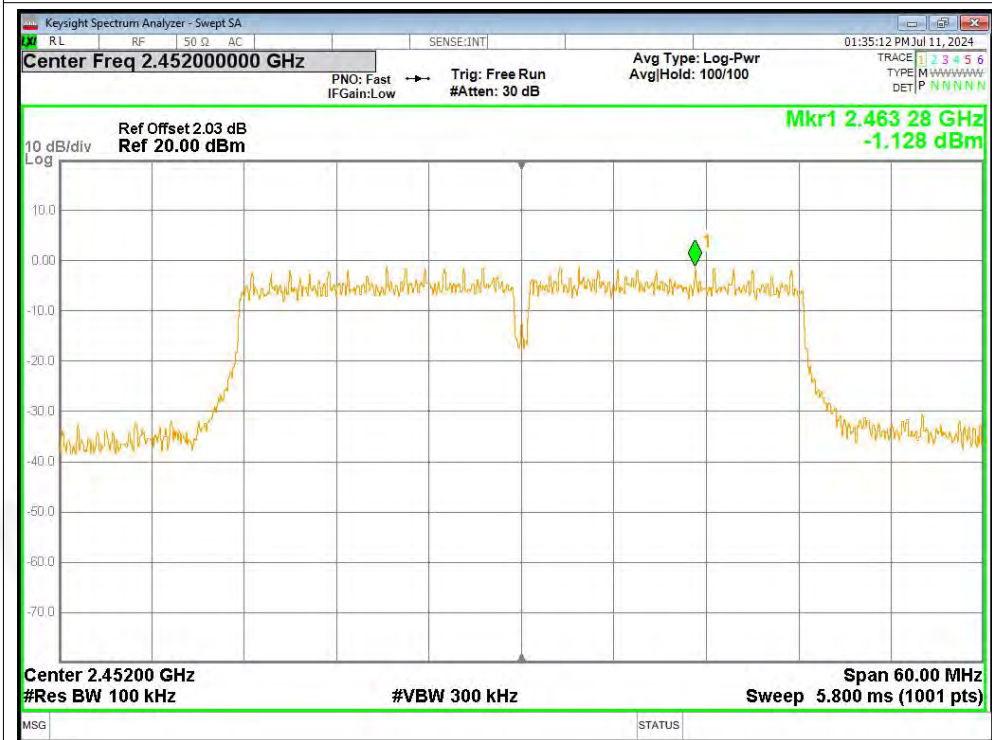
Band Edge NVNT n20 2462MHz Ant1 Emission



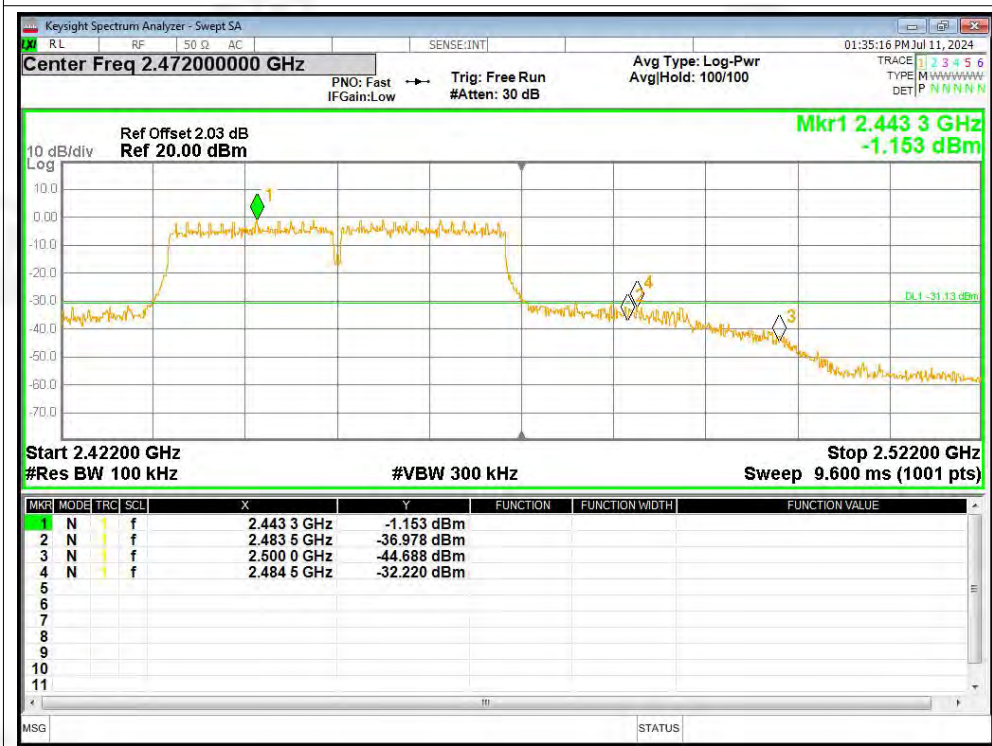




Band Edge NVNT n40 2452MHz Ant1 Ref



Band Edge NVNT n40 2452MHz Ant1 Emission



**Conducted RF Spurious Emission**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-41.21	-30	Pass
NVNT	b	2437	Ant1	-42.45	-30	Pass
NVNT	b	2462	Ant1	-42.55	-30	Pass
NVNT	g	2412	Ant1	-49.35	-30	Pass
NVNT	g	2437	Ant1	-50.88	-30	Pass
NVNT	g	2462	Ant1	-50.08	-30	Pass
NVNT	n20	2412	Ant1	-46.93	-30	Pass
NVNT	n20	2437	Ant1	-46.92	-30	Pass
NVNT	n20	2462	Ant1	-47.28	-30	Pass
NVNT	n40	2422	Ant1	-45.02	-30	Pass
NVNT	n40	2437	Ant1	-45.4	-30	Pass
NVNT	n40	2452	Ant1	-45.49	-30	Pass

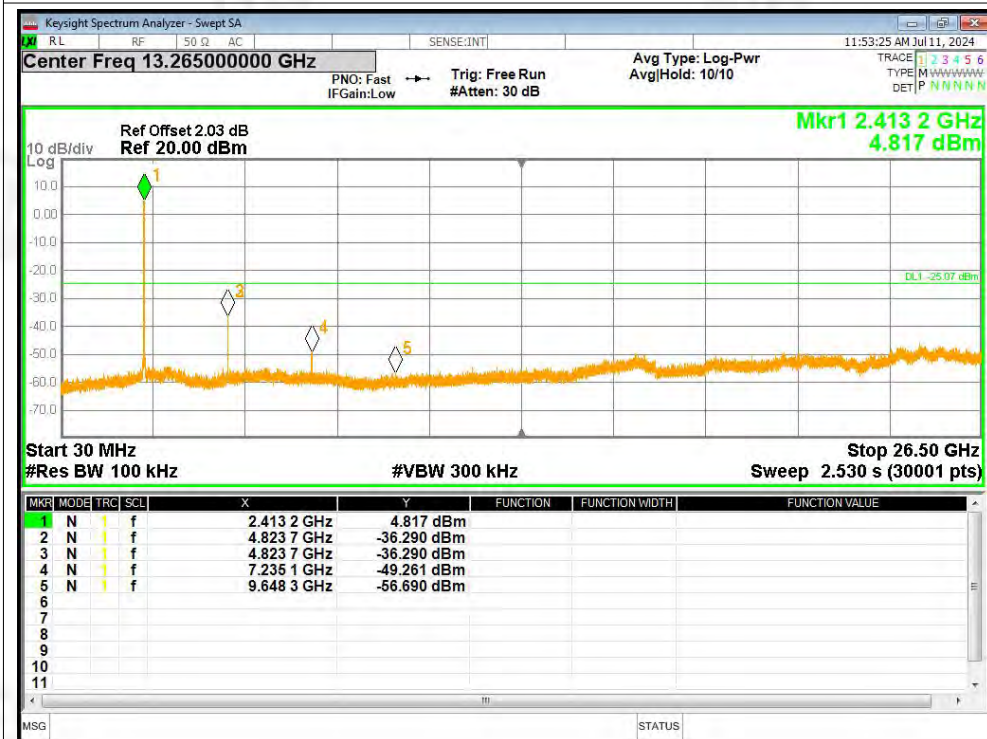


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref

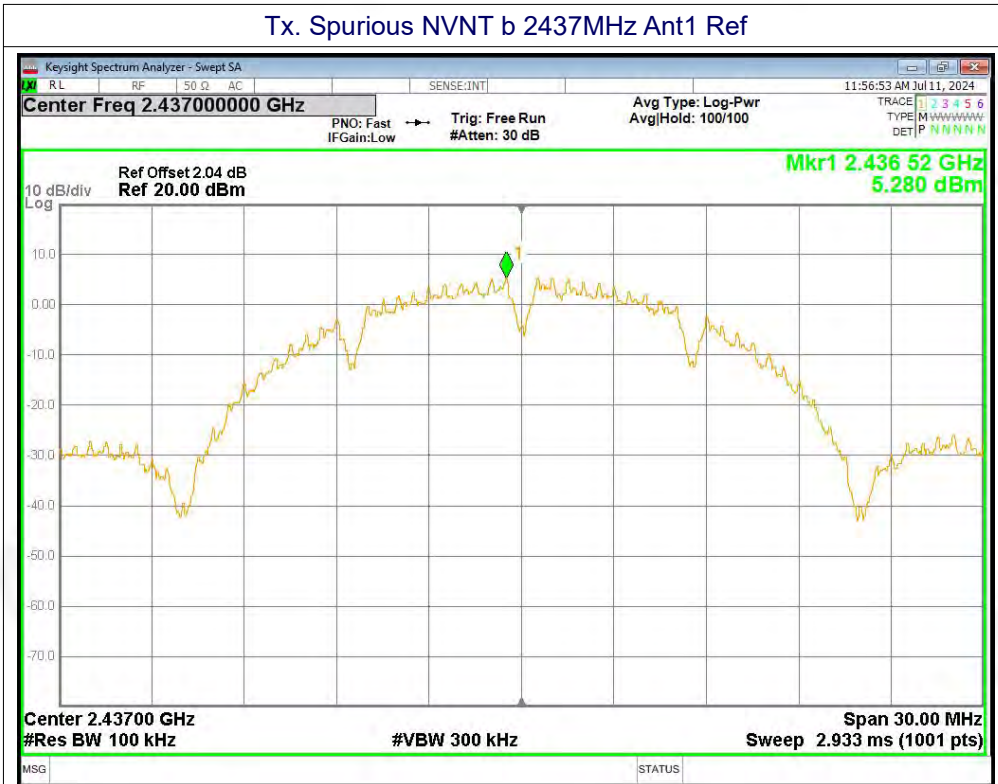


Tx. Spurious NVNT b 2412MHz Ant1 Emission

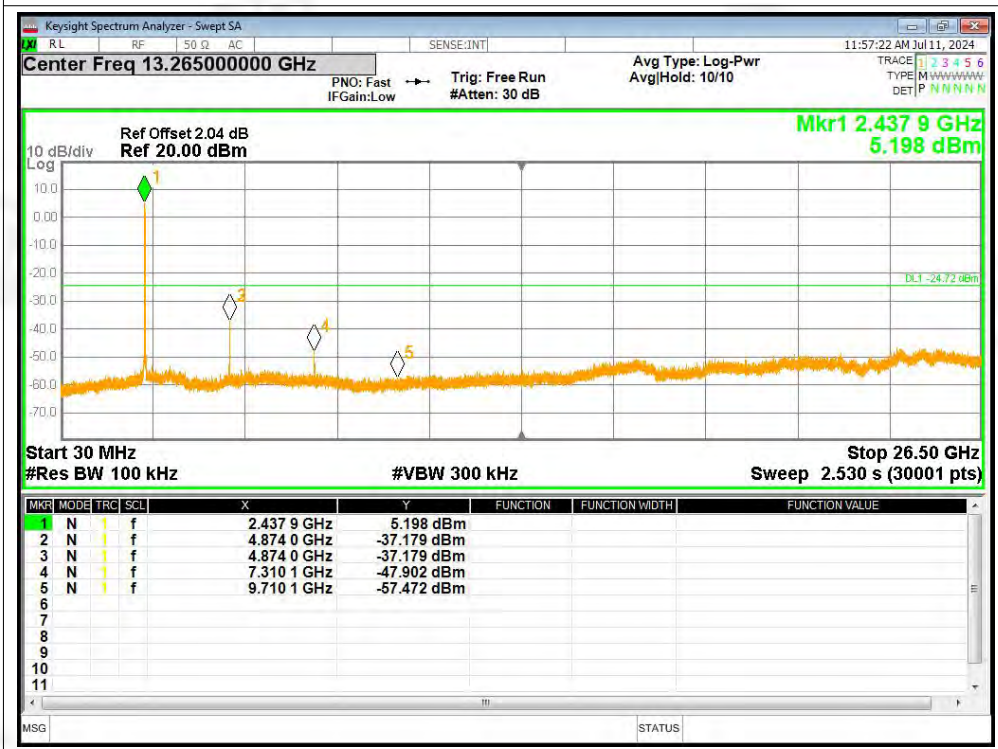




Tx. Spurious NVNT b 2437MHz Ant1 Ref

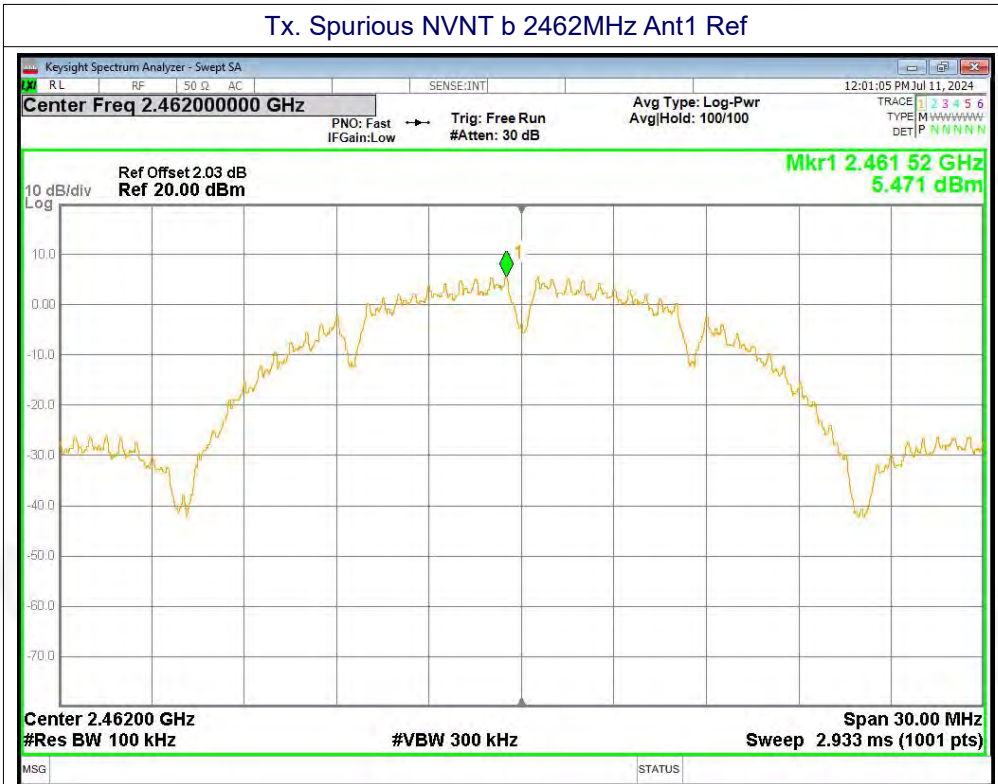


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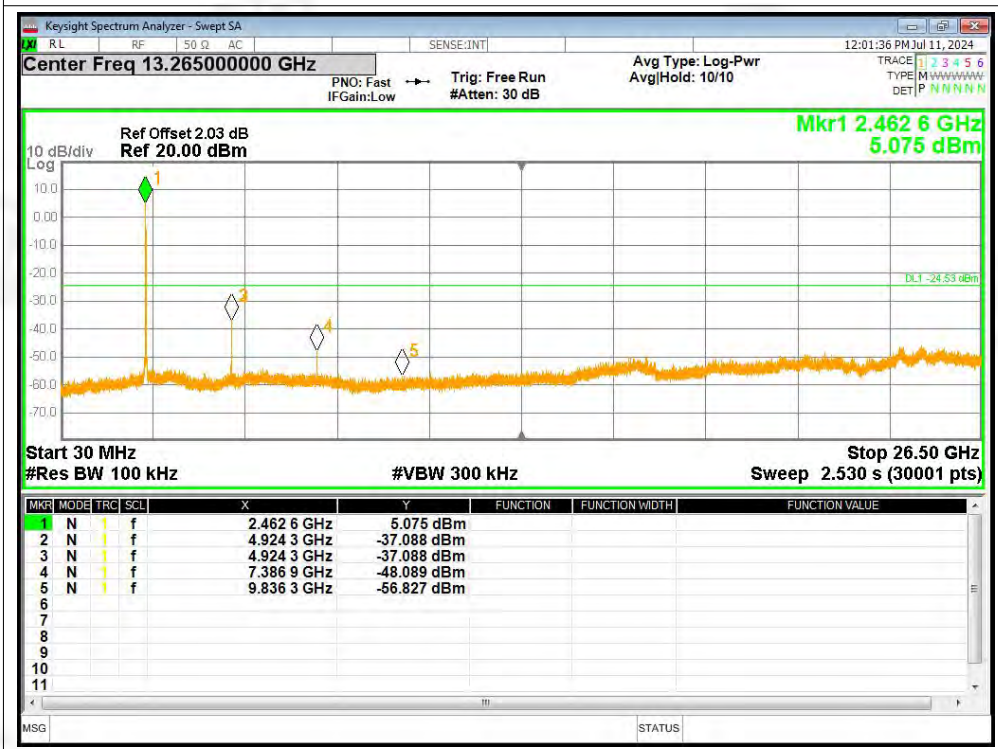




Tx. Spurious NVNT b 2462MHz Ant1 Ref

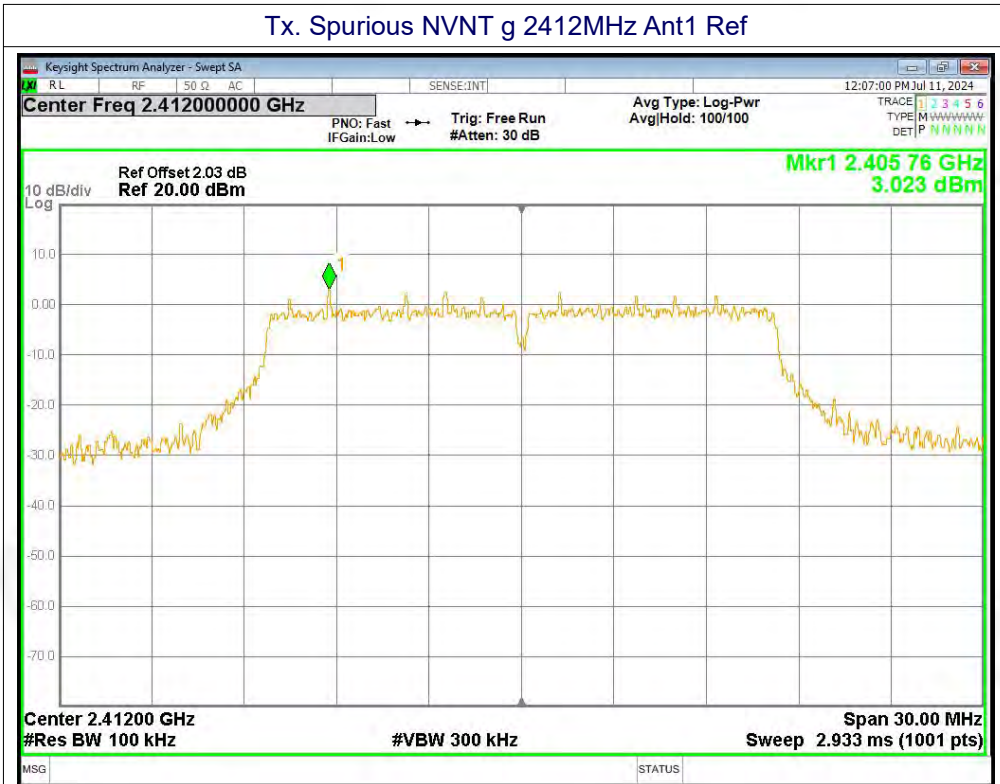


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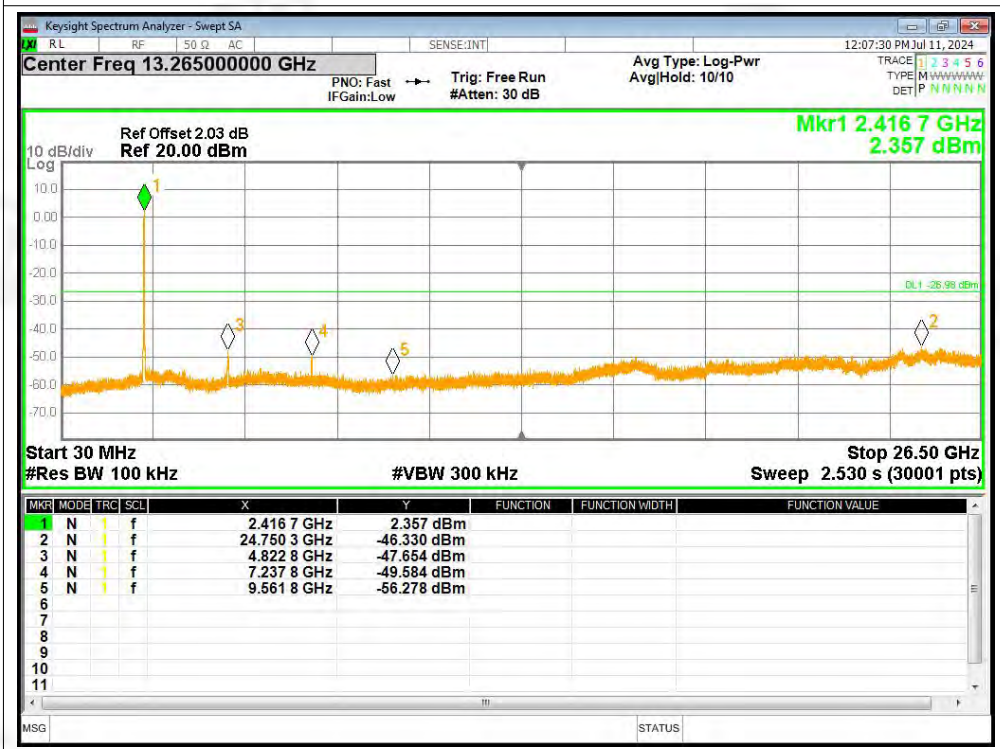




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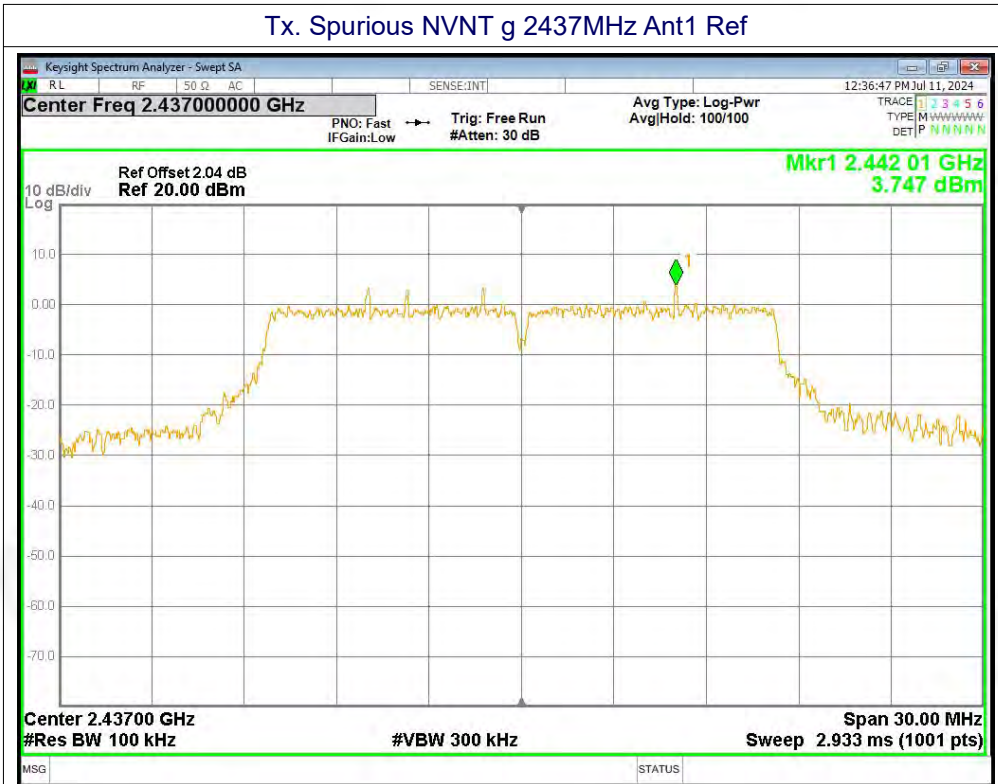


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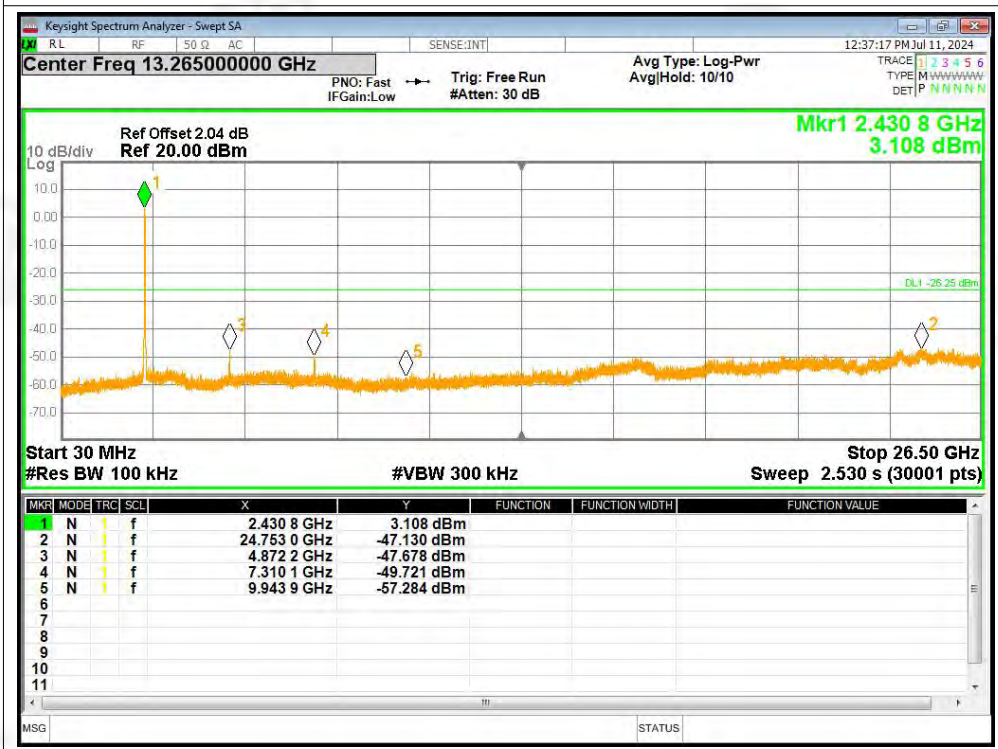




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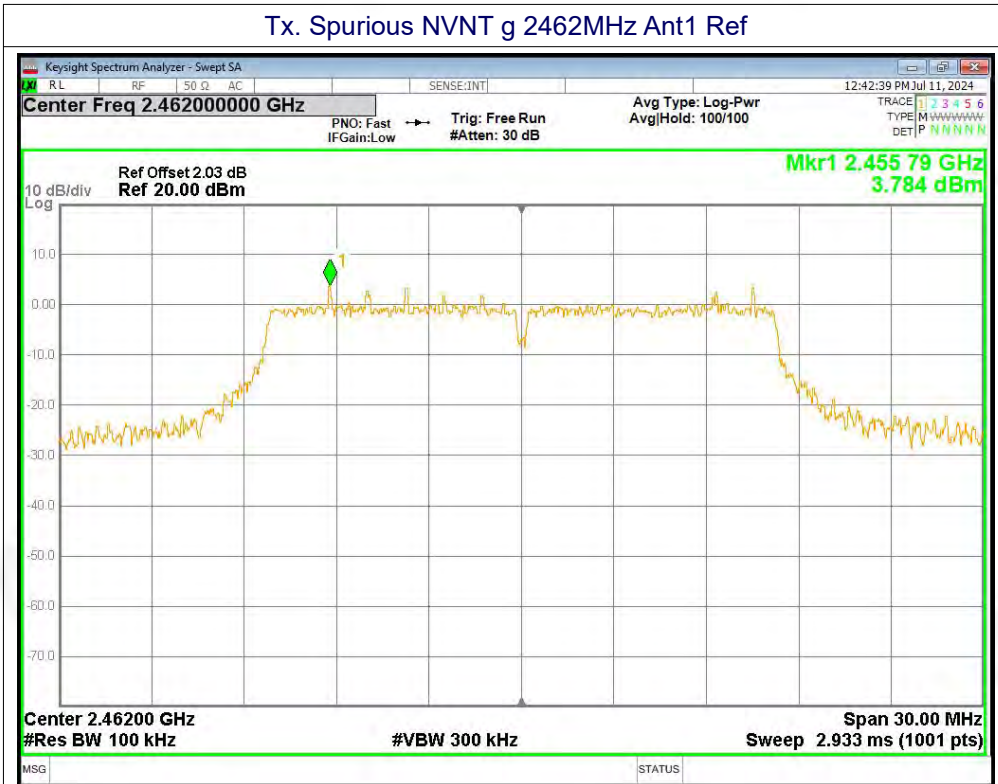


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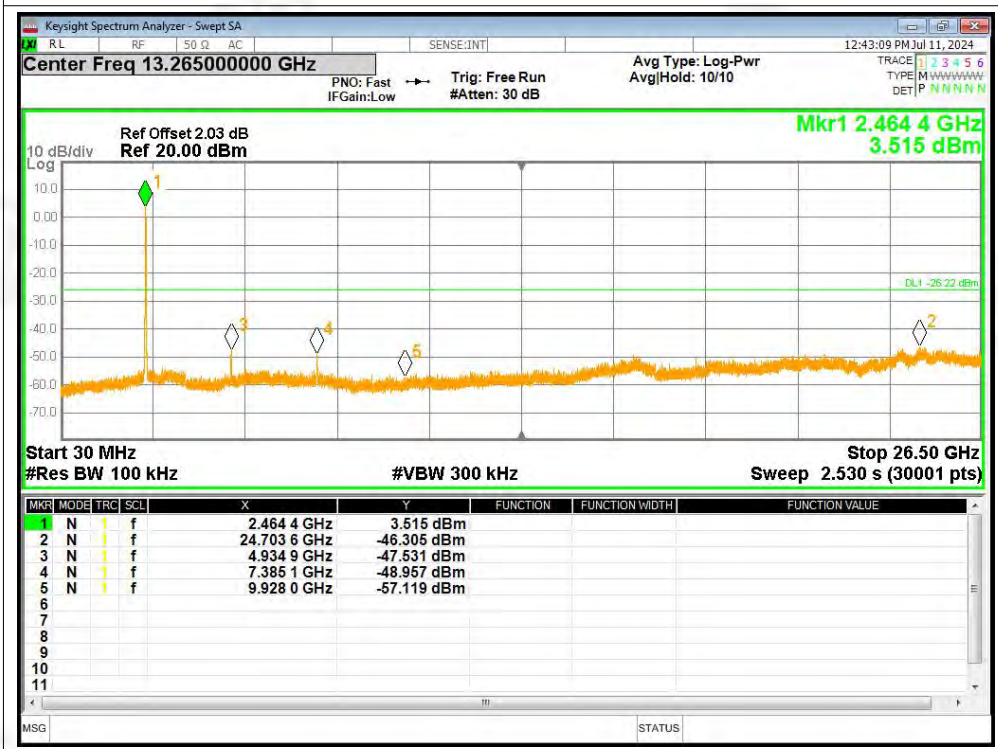




Tx. Spurious NVNT g 2462MHz Ant1 Ref

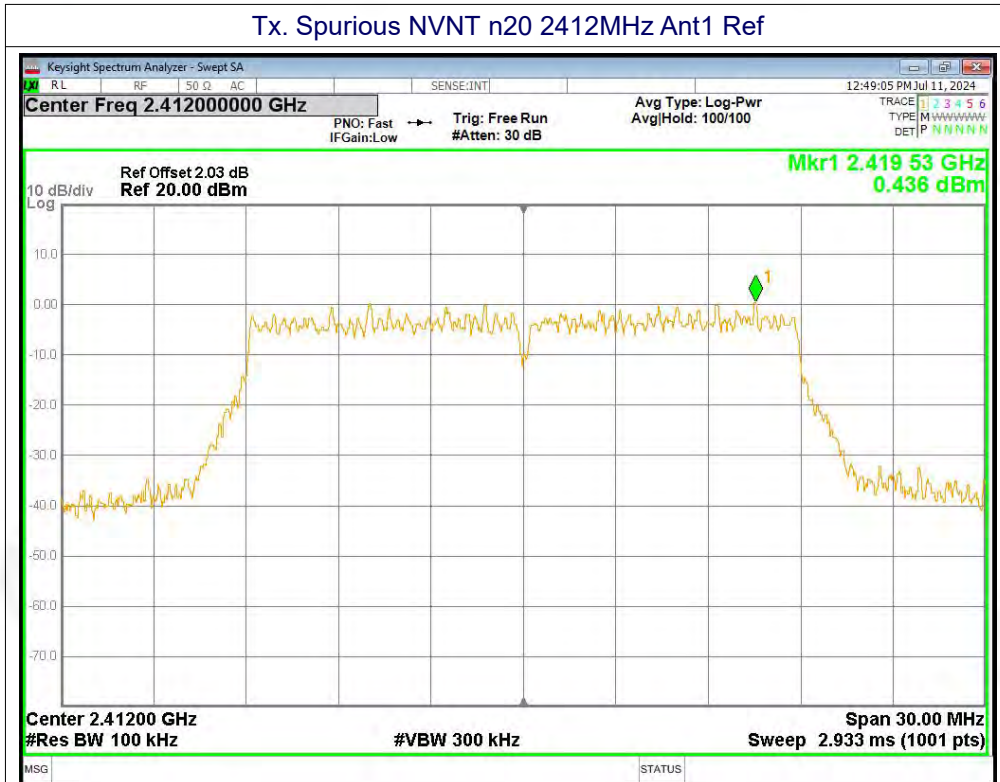


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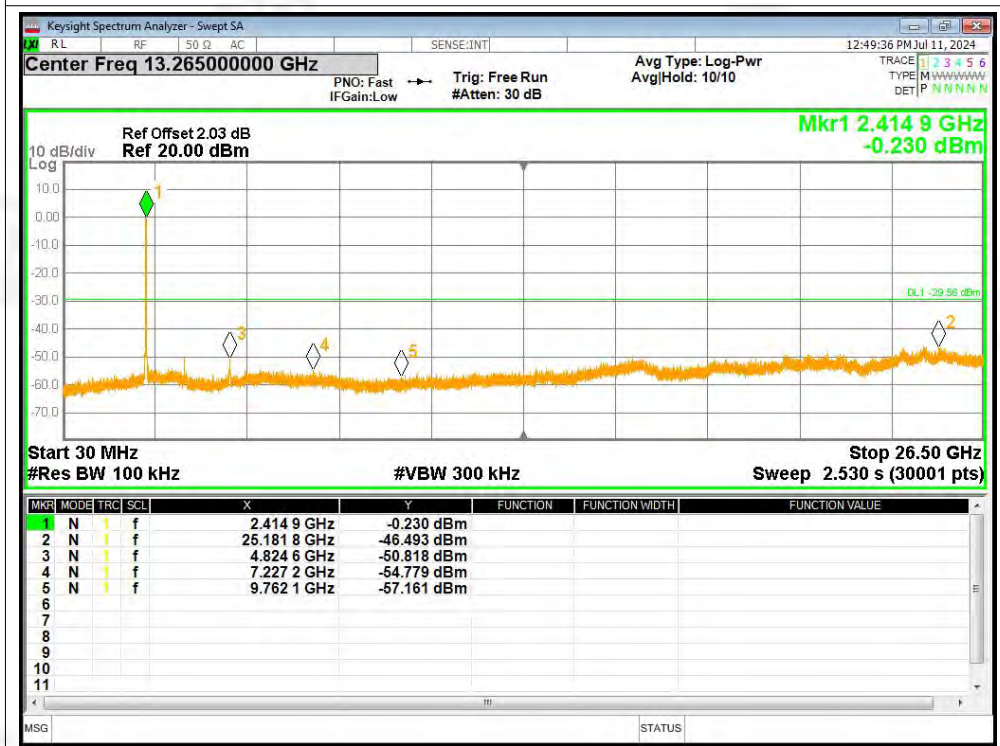




Tx. Spurious NVNT n20 2412MHz Ant1 Ref

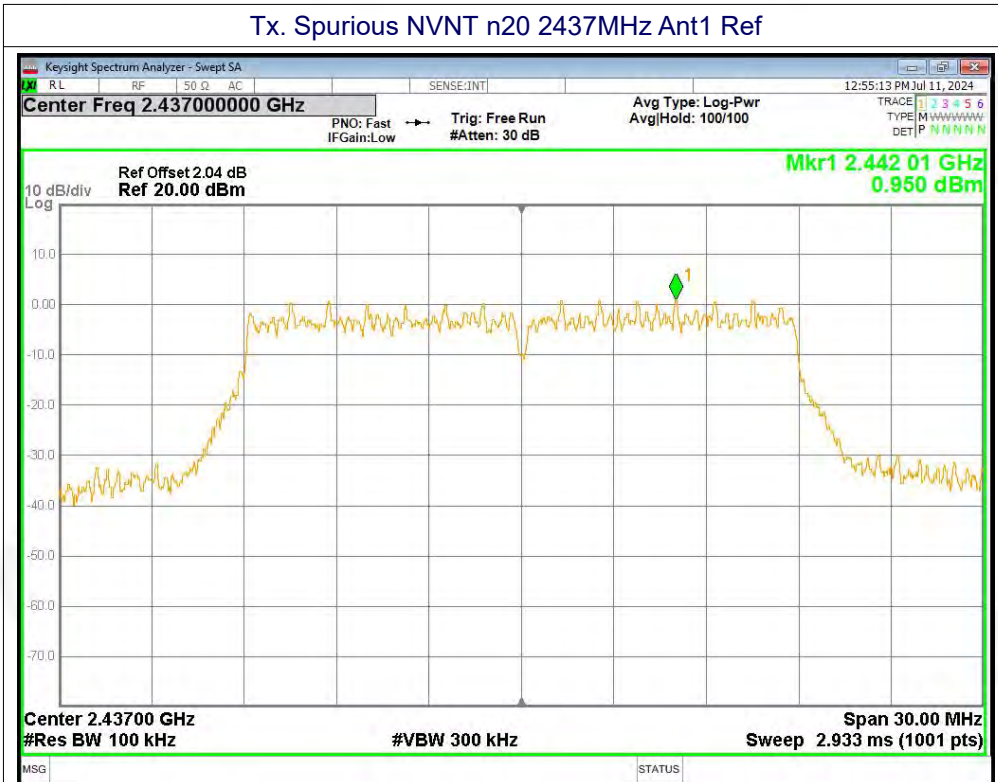


Tx. Spurious NVNT n20 2412MHz Ant1 Emission

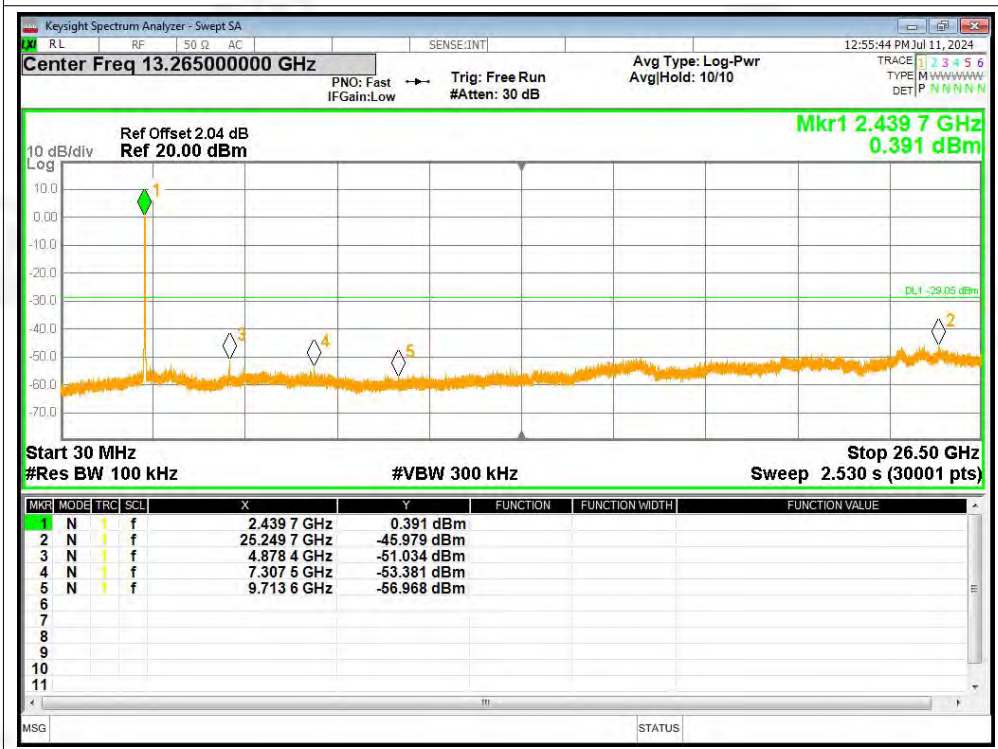




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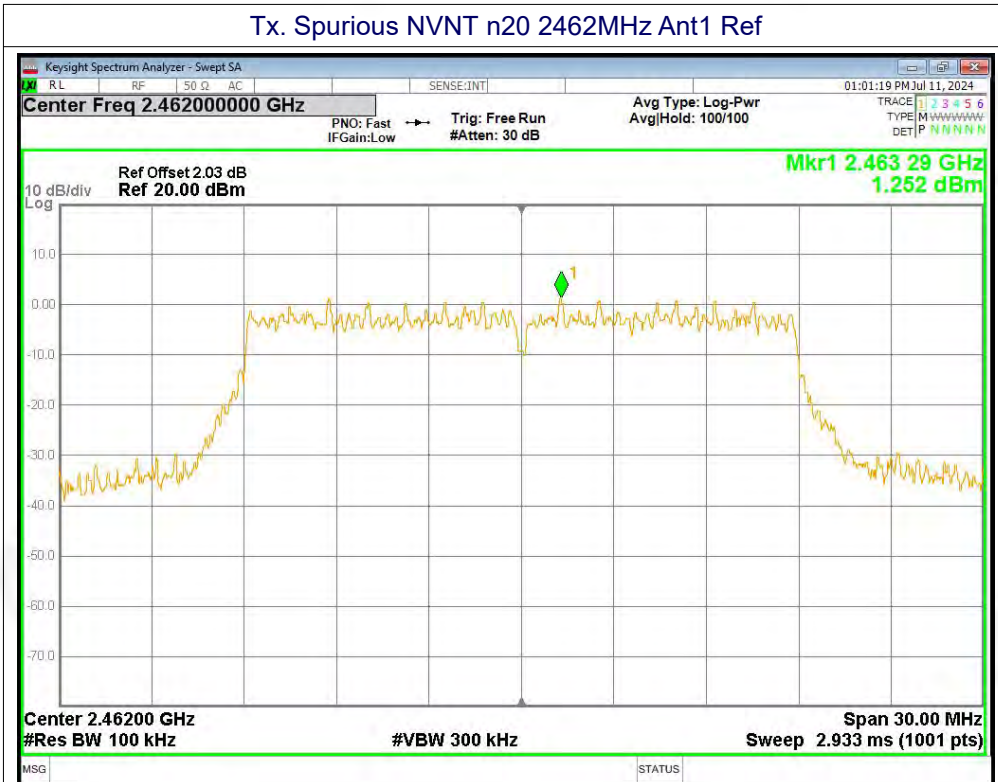


Tx. Spurious NVNT n20 2437MHz Ant1 Emission

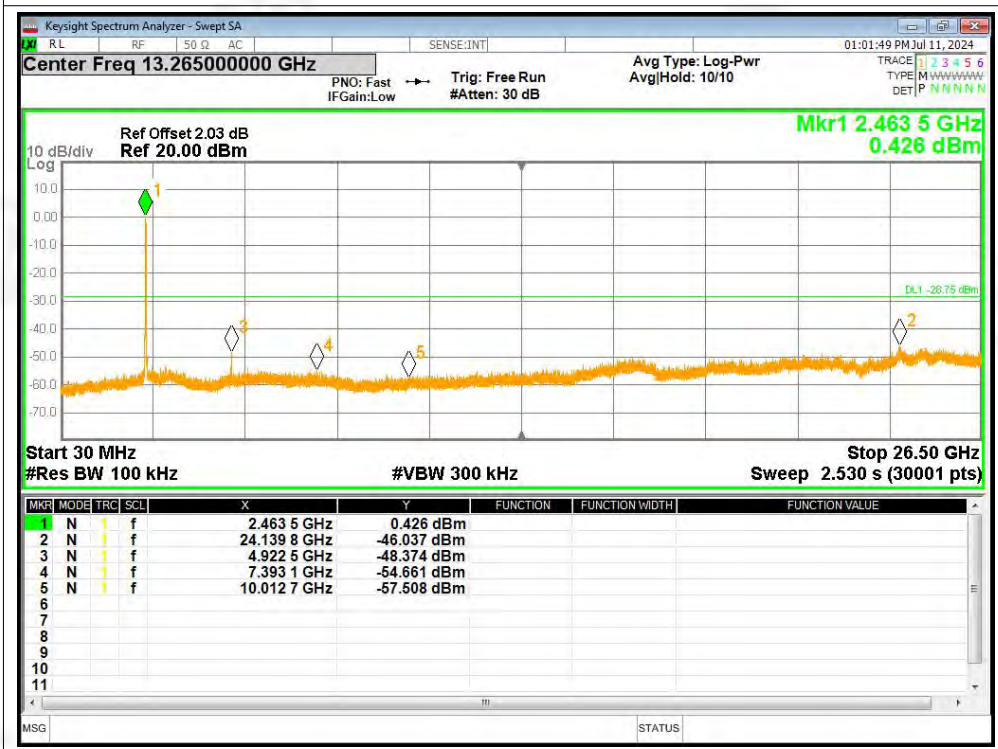




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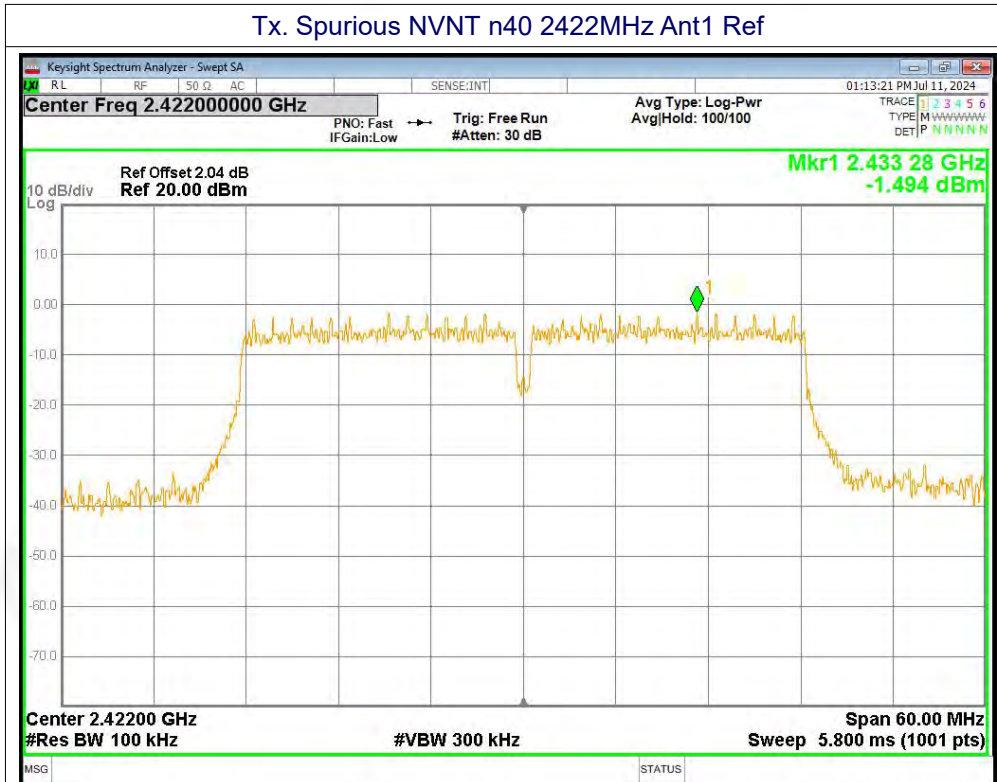


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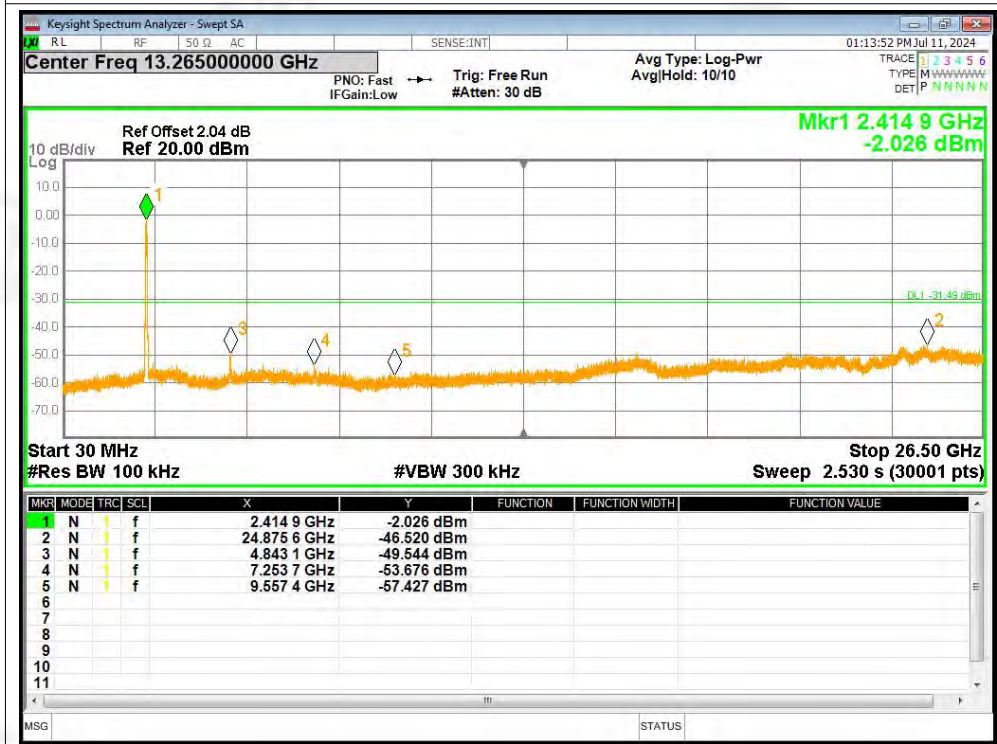




Tx. Spurious NVNT n40 2422MHz Ant1 Ref

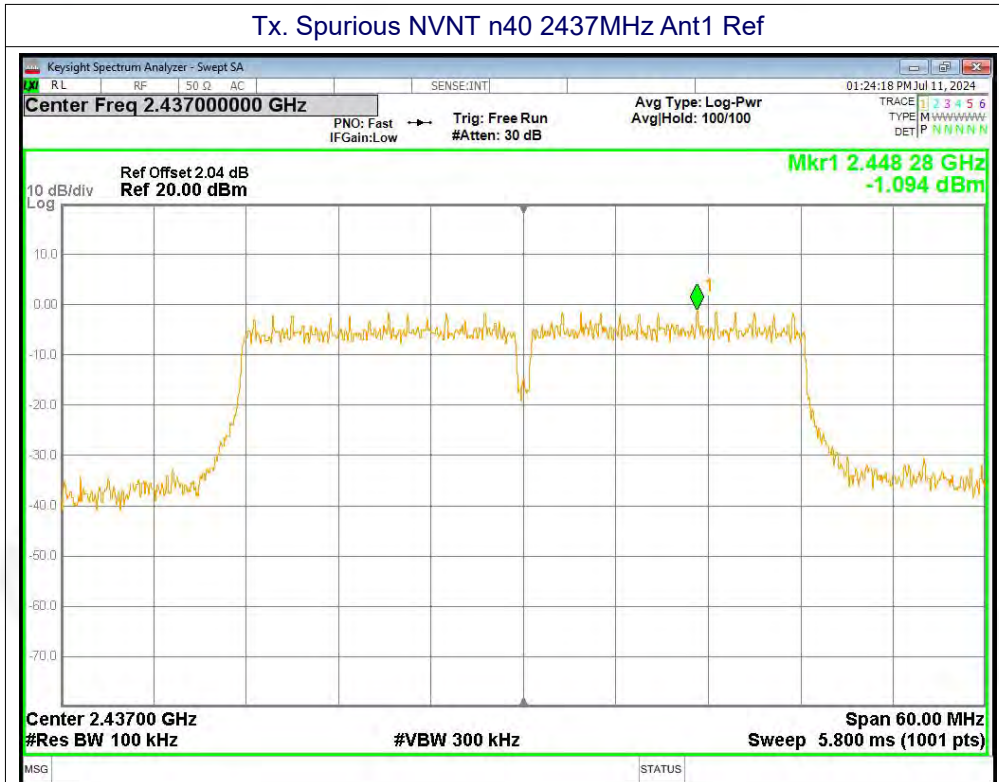


Tx. Spurious NVNT n40 2422MHz Ant1 Emission

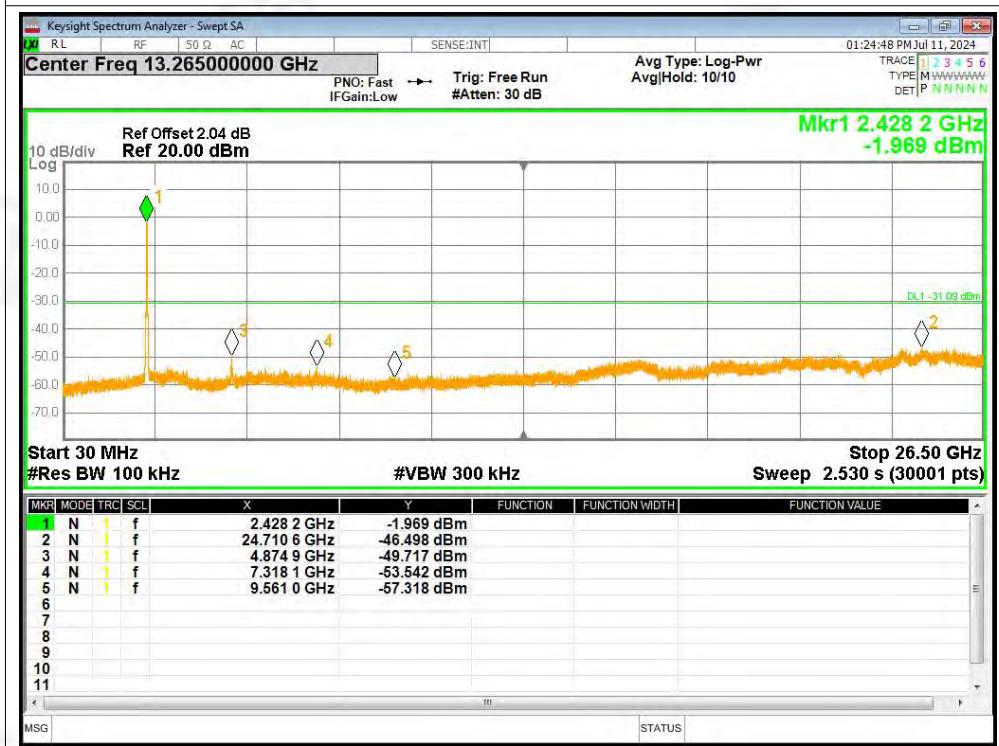




Tx. Spurious NVNT n40 2437MHz Ant1 Ref



Tx. Spurious NVNT n40 2437MHz Ant1 Emission





Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Tx. Spurious NVNT n40 2452MHz Ant1 Emission

