

Appendix A for 2.4GWIFI Test Data

Product Name: E2Pro Dash Cam

Test Model: E2Pro

Environmental Conditions

Temperature:	23.8℃
Relative Humidity:	52%
ATM Pressure:	101.0 kPa
Test Engineer:	Leon Li
Supervised by:	Baret Wu

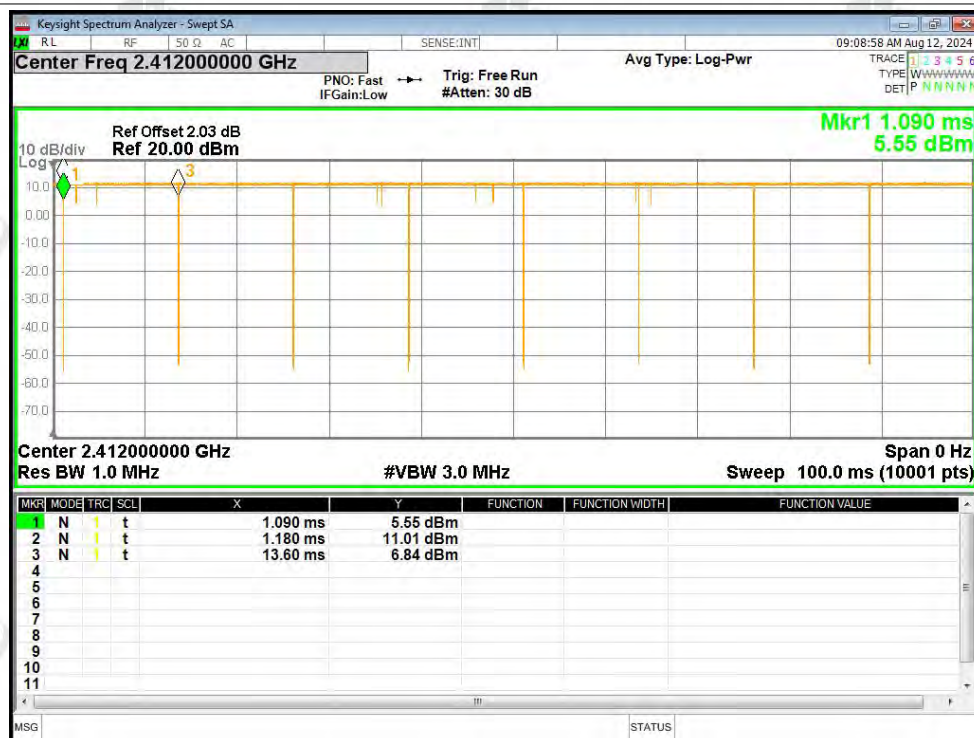


Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.28	0	0.08
NVNT	b	2437	Ant1	99.28	0	0.08
NVNT	b	2462	Ant1	99.2	0	0.08
NVNT	g	2412	Ant1	93.21	0.31	0.49
NVNT	g	2437	Ant1	93.64	0.29	0.49
NVNT	g	2462	Ant1	94.06	0.27	0.49
NVNT	n20	2412	Ant1	97.96	0.09	0.52
NVNT	n20	2437	Ant1	93.69	0.28	0.52
NVNT	n20	2462	Ant1	96.97	0.13	0.52
NVNT	n40	2422	Ant1	89.52	0.48	1.06
NVNT	n40	2437	Ant1	91.35	0.39	1.05
NVNT	n40	2452	Ant1	87.85	0.56	1.06

Test Graphs

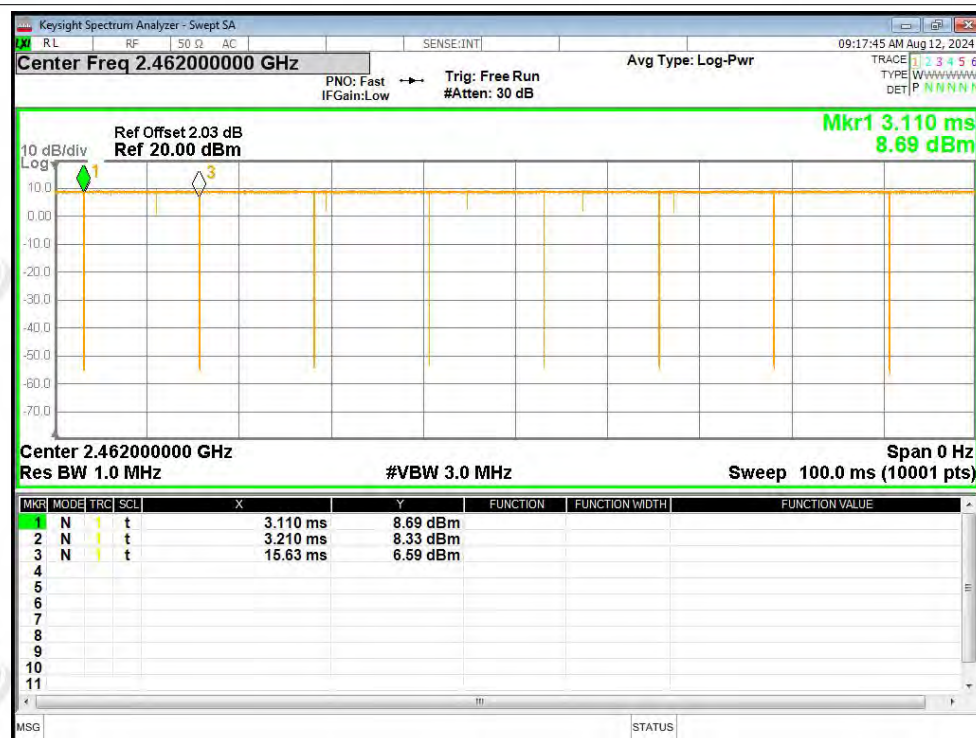
Duty Cycle NVNT b 2412MHz Ant1



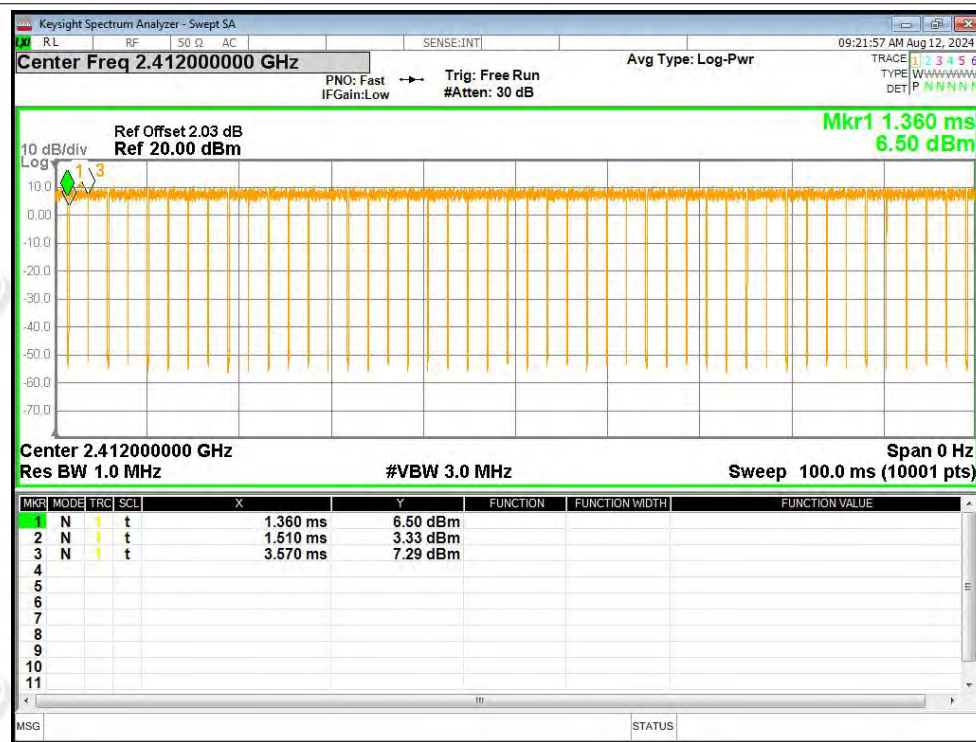
Duty Cycle NVNT b 2437MHz Ant1



Duty Cycle NVNT b 2462MHz Ant1

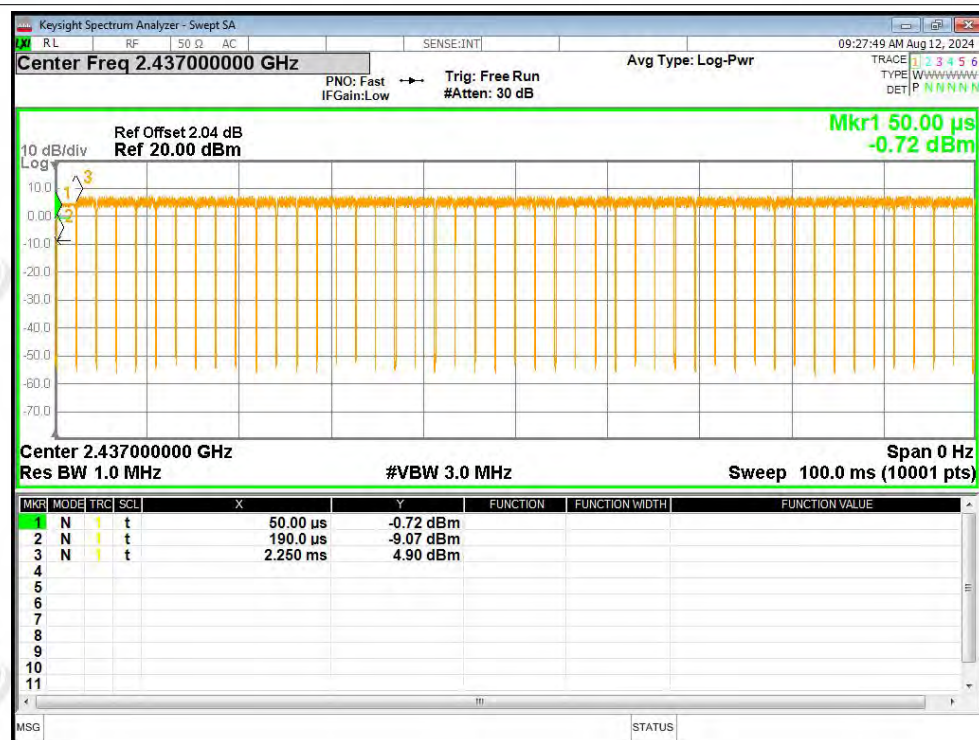


Duty Cycle NVNT g 2412MHz Ant1

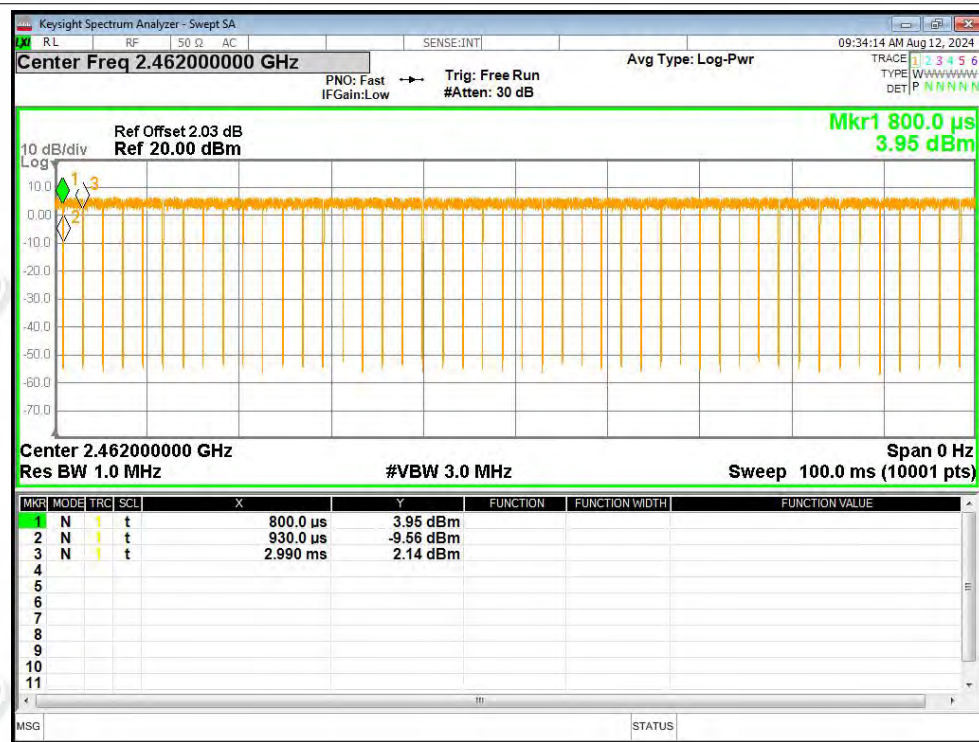




Duty Cycle NVNT g 2437MHz Ant1

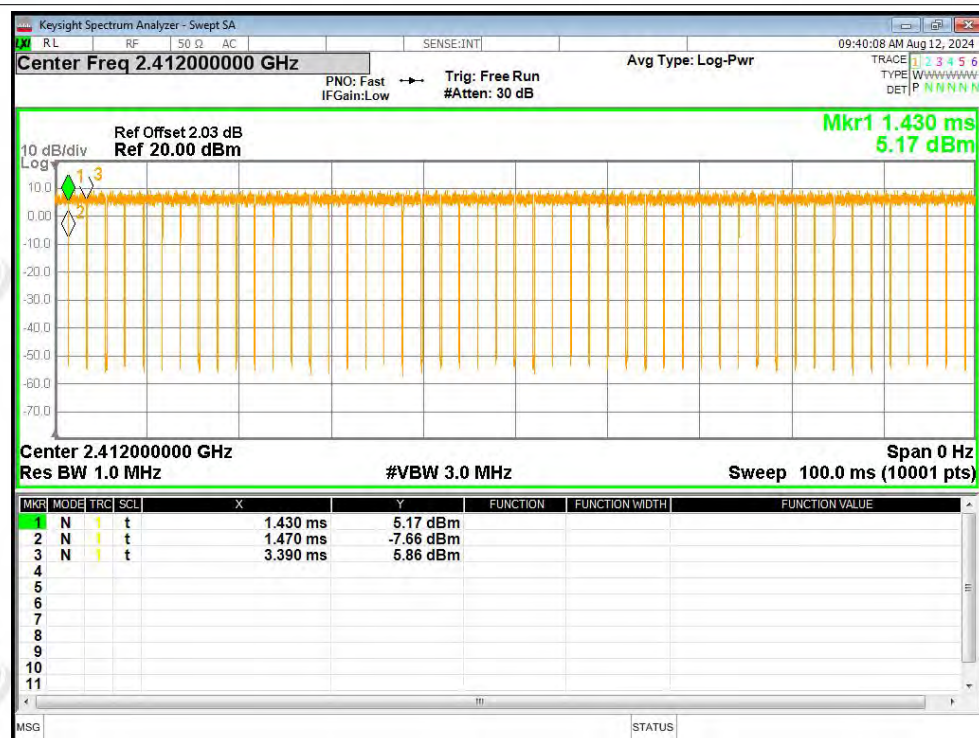


Duty Cycle NVNT g 2462MHz Ant1

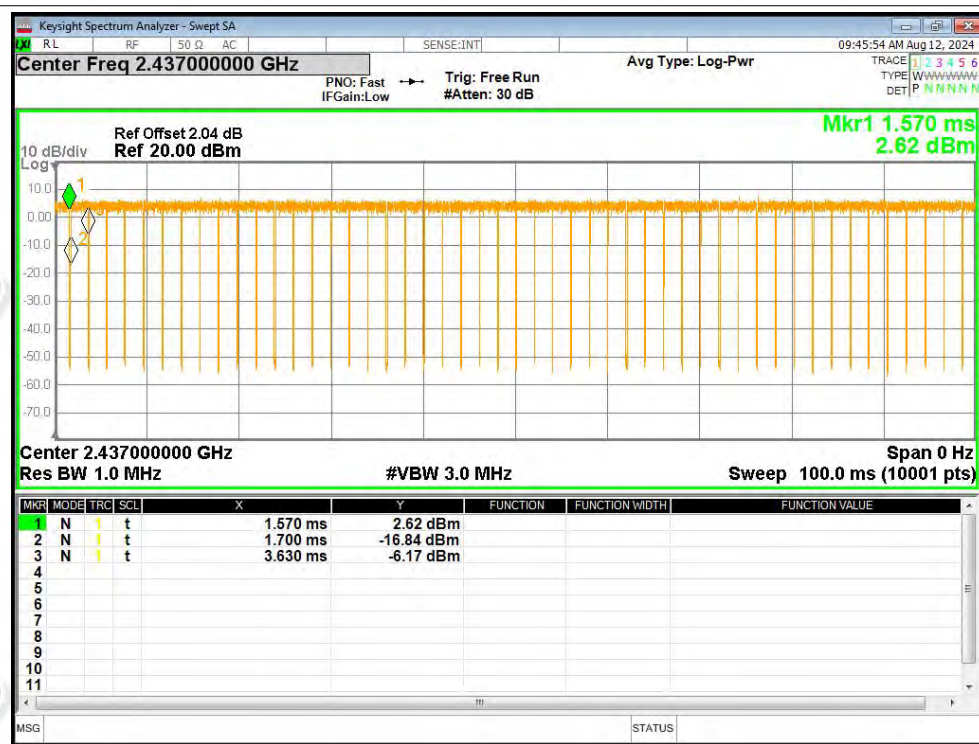




Duty Cycle NVNT n20 2412MHz Ant1

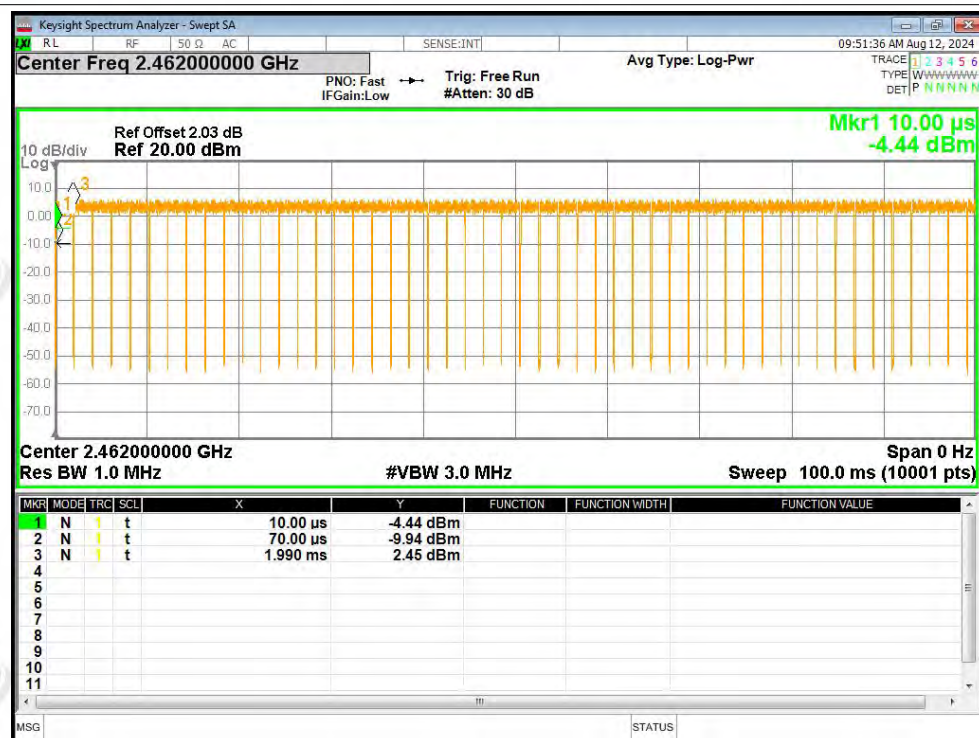


Duty Cycle NVNT n20 2437MHz Ant1

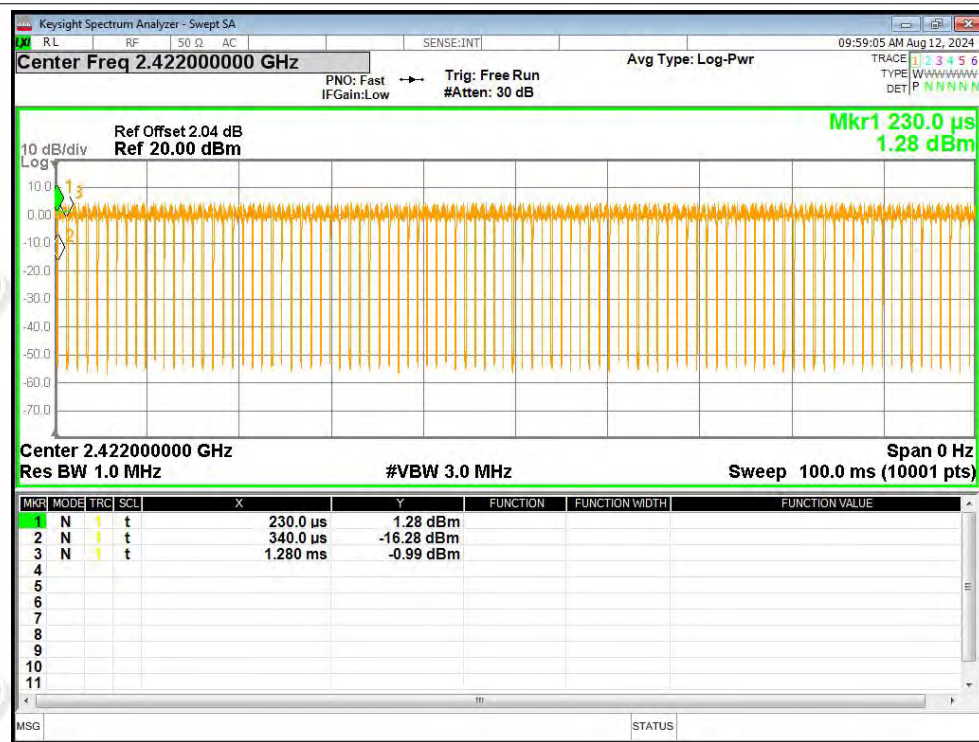




Duty Cycle NVNT n20 2462MHz Ant1

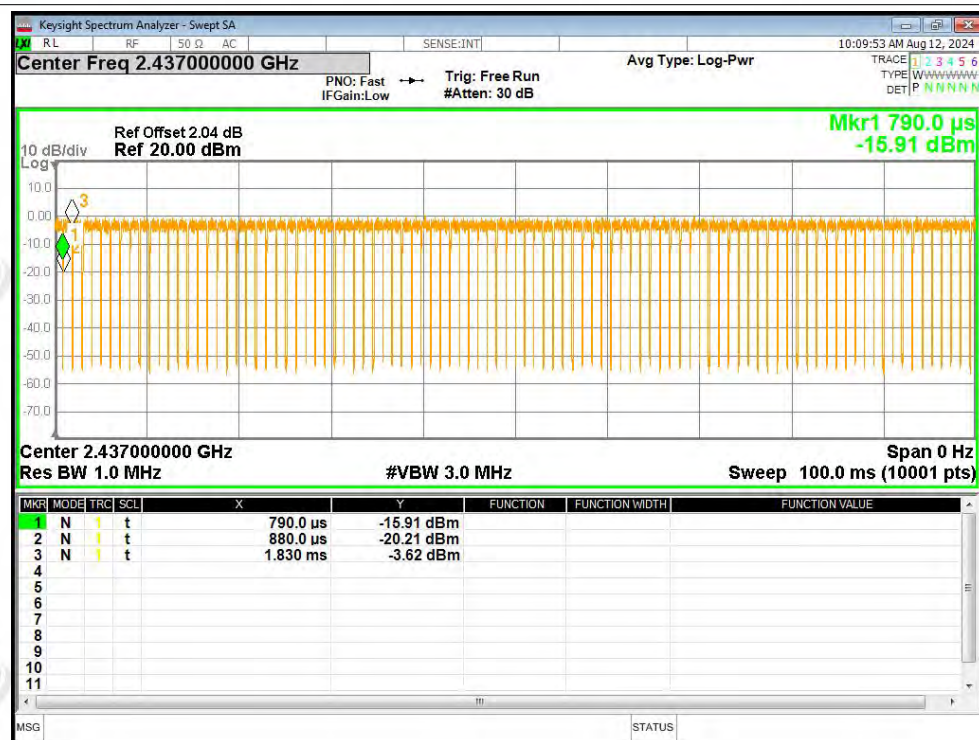


Duty Cycle NVNT n40 2422MHz Ant1

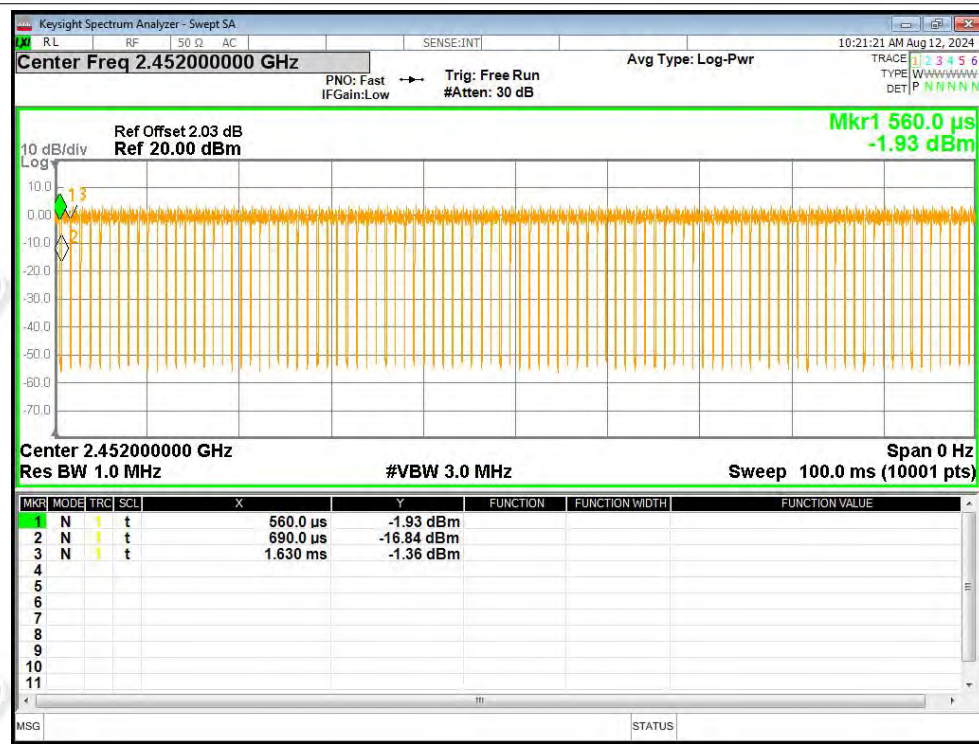




Duty Cycle NVNT n40 2437MHz Ant1



Duty Cycle NVNT n40 2452MHz Ant1





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Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	16.95	30	Pass
NVNT	b	2437	Ant1	15.37	30	Pass
NVNT	b	2462	Ant1	13.77	30	Pass
NVNT	g	2412	Ant1	15.82	30	Pass
NVNT	g	2437	Ant1	13.41	30	Pass
NVNT	g	2462	Ant1	12.09	30	Pass
NVNT	n20	2412	Ant1	14.42	30	Pass
NVNT	n20	2437	Ant1	12.77	30	Pass
NVNT	n20	2462	Ant1	11.8	30	Pass
NVNT	n40	2422	Ant1	13.12	30	Pass
NVNT	n40	2437	Ant1	13.3	30	Pass
NVNT	n40	2452	Ant1	12.39	30	Pass



Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	7.547	0.5	Pass
NVNT	b	2437	Ant1	8.995	0.5	Pass
NVNT	b	2462	Ant1	8.522	0.5	Pass
NVNT	g	2412	Ant1	13.199	0.5	Pass
NVNT	g	2437	Ant1	15.699	0.5	Pass
NVNT	g	2462	Ant1	16.405	0.5	Pass
NVNT	n20	2412	Ant1	14.767	0.5	Pass
NVNT	n20	2437	Ant1	16.38	0.5	Pass
NVNT	n20	2462	Ant1	16.923	0.5	Pass
NVNT	n40	2422	Ant1	32.529	0.5	Pass
NVNT	n40	2437	Ant1	35.696	0.5	Pass
NVNT	n40	2452	Ant1	35.044	0.5	Pass

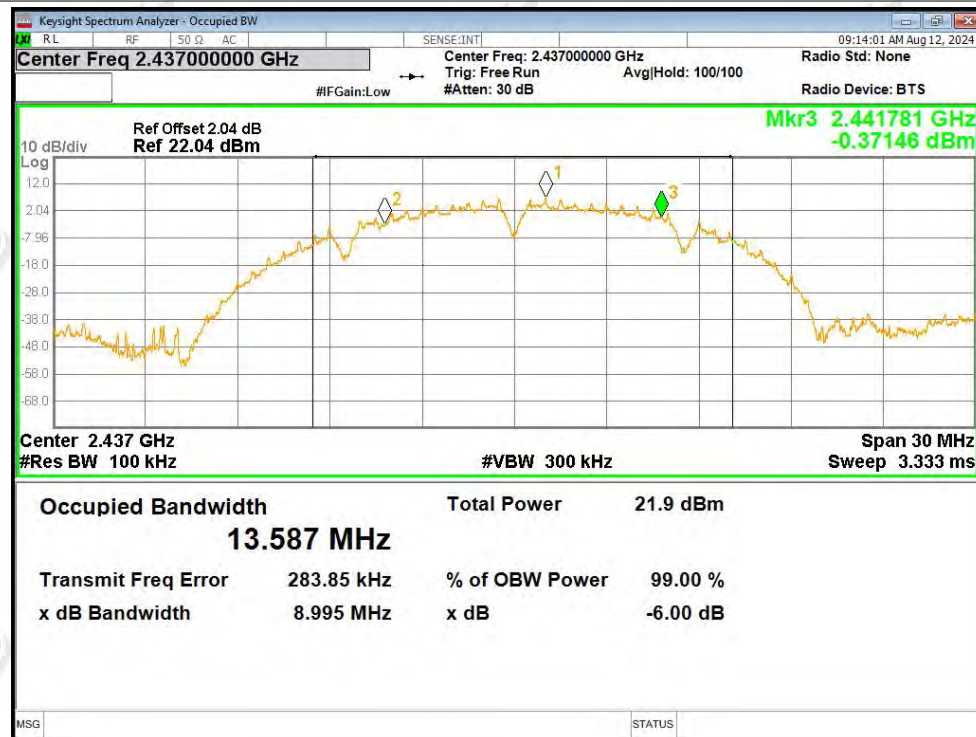


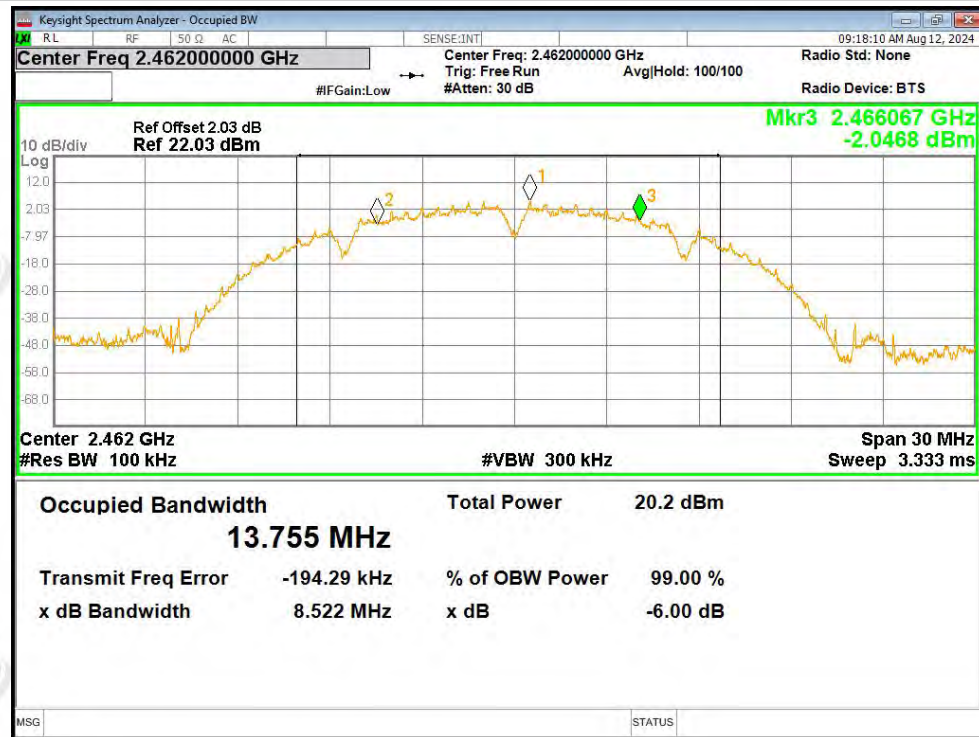
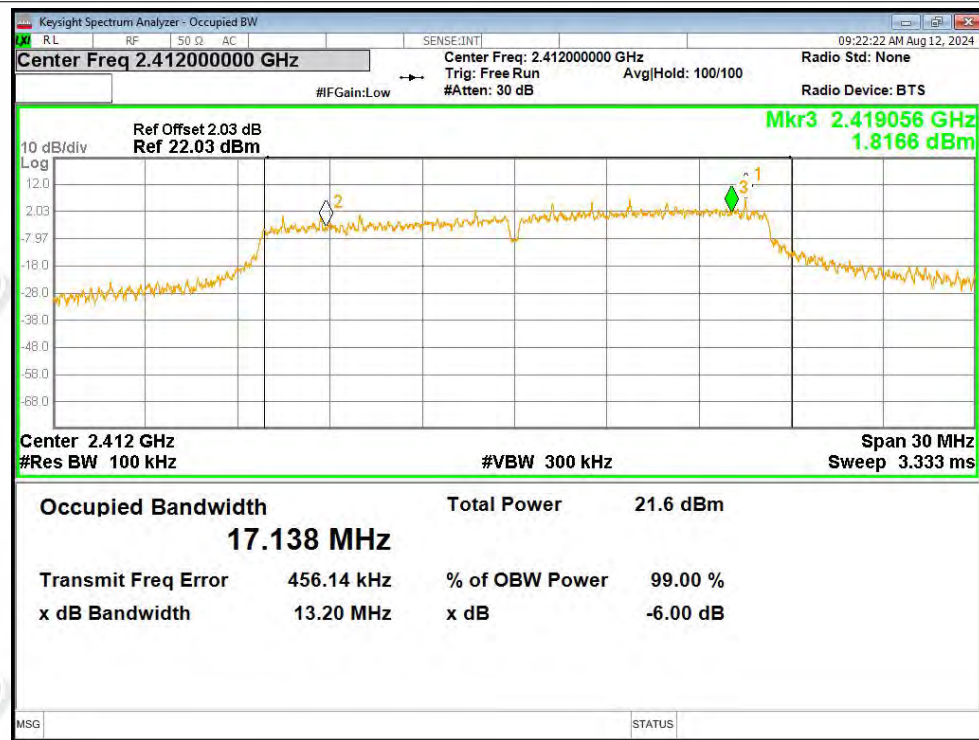
Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



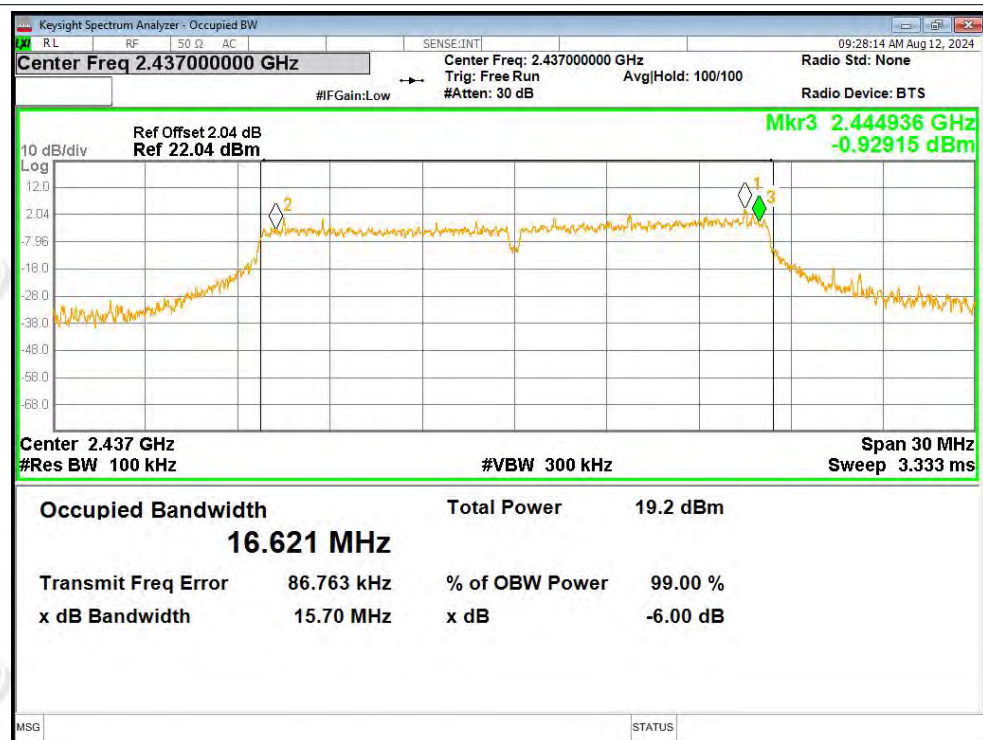
-6dB Bandwidth NVNT b 2437MHz Ant1



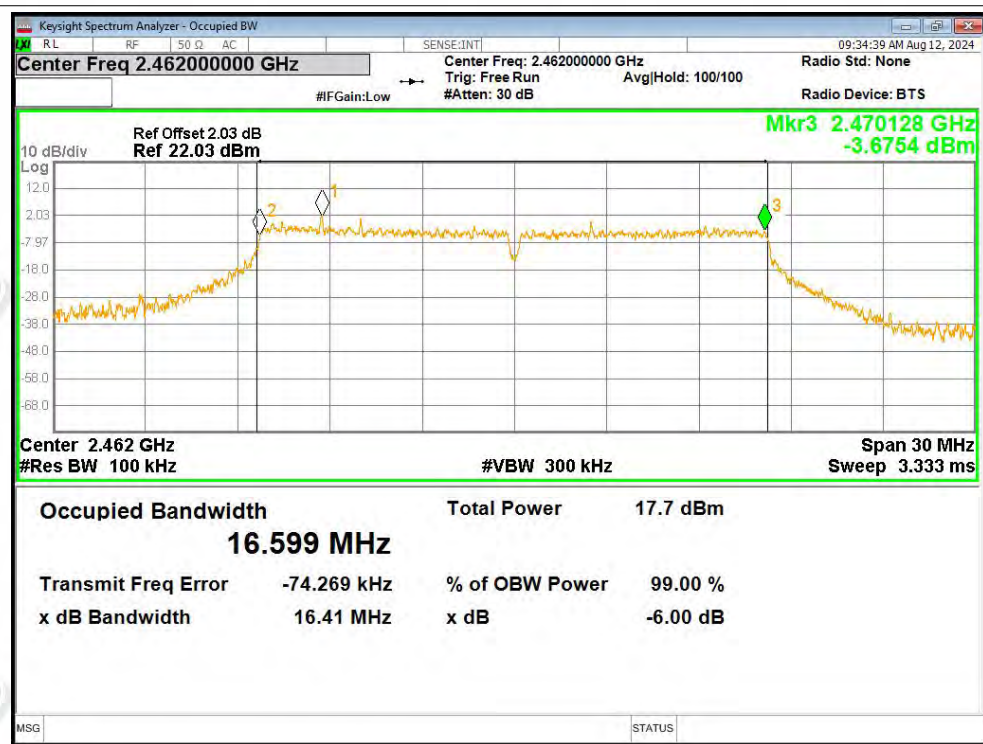
**-6dB Bandwidth NVNT b 2462MHz Ant1****-6dB Bandwidth NVNT g 2412MHz Ant1**



-6dB Bandwidth NVNT g 2437MHz Ant1

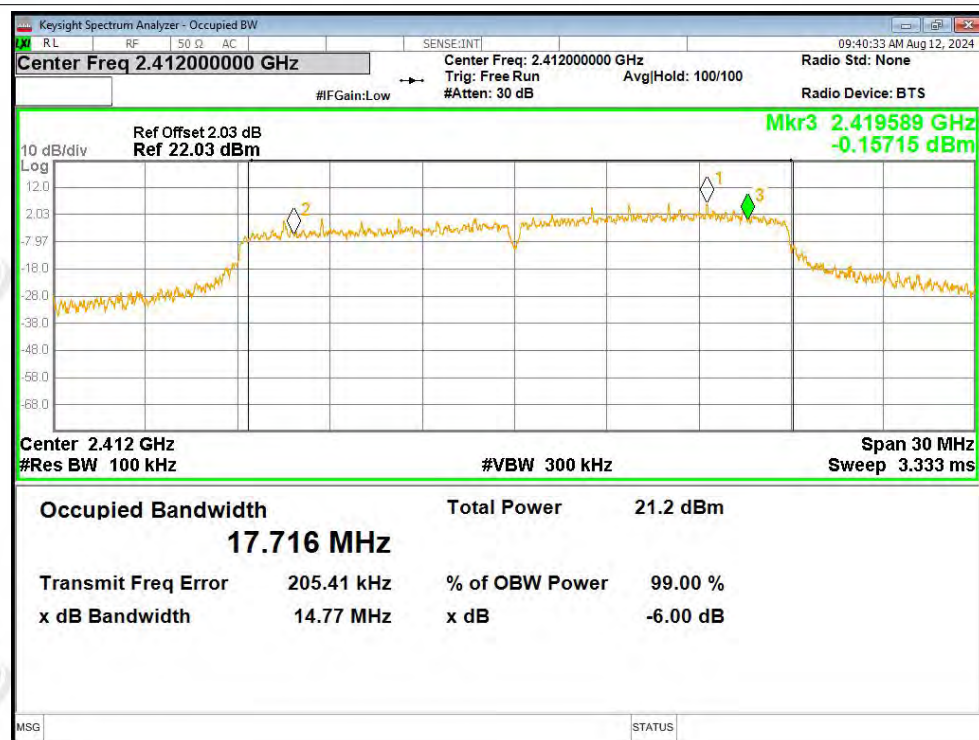


-6dB Bandwidth NVNT g 2462MHz Ant1

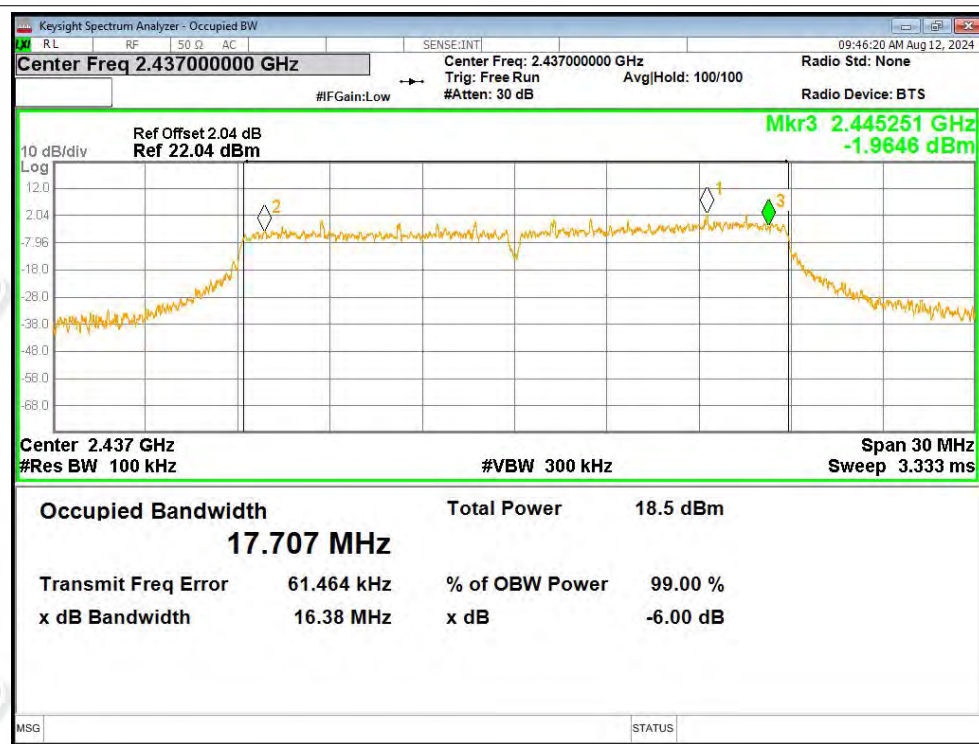




-6dB Bandwidth NVNT n20 2412MHz Ant1

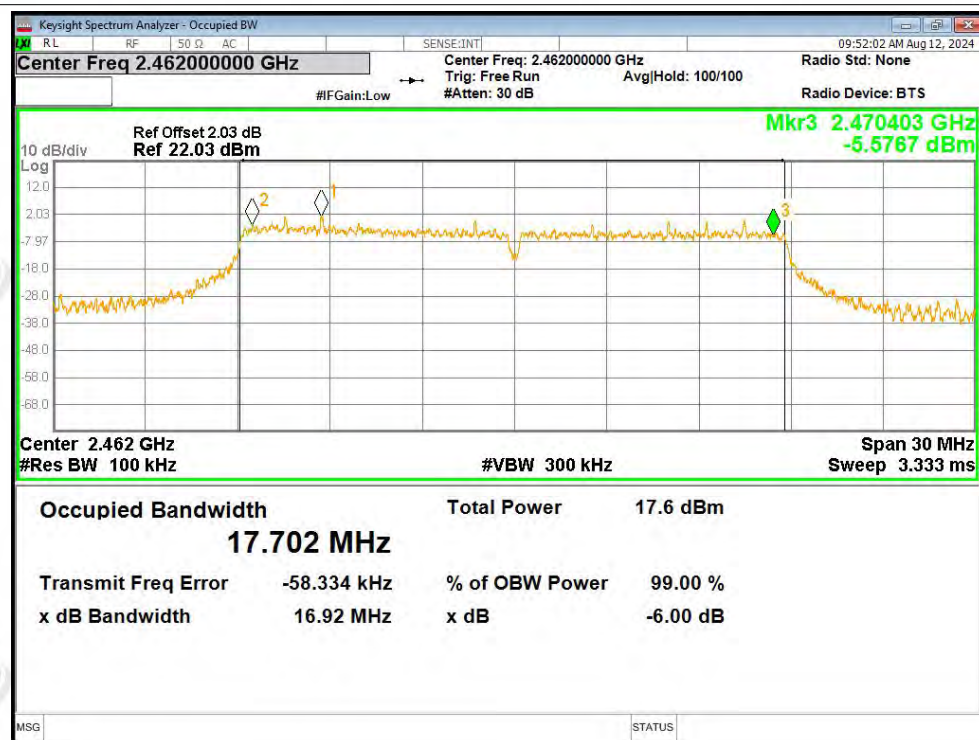


-6dB Bandwidth NVNT n20 2437MHz Ant1

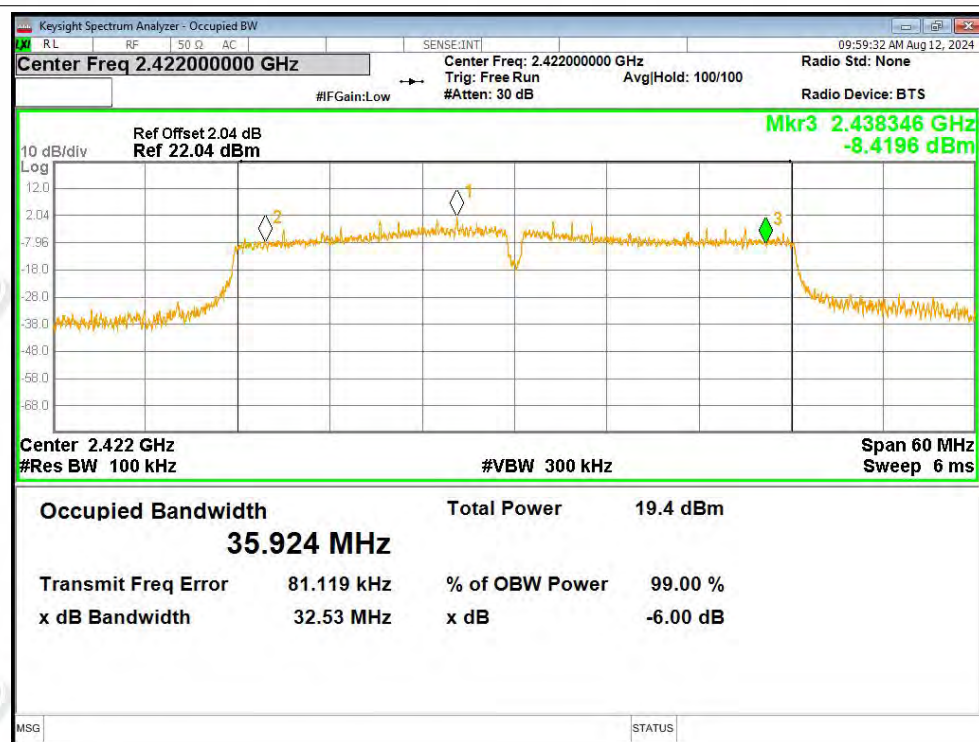




-6dB Bandwidth NVNT n20 2462MHz Ant1

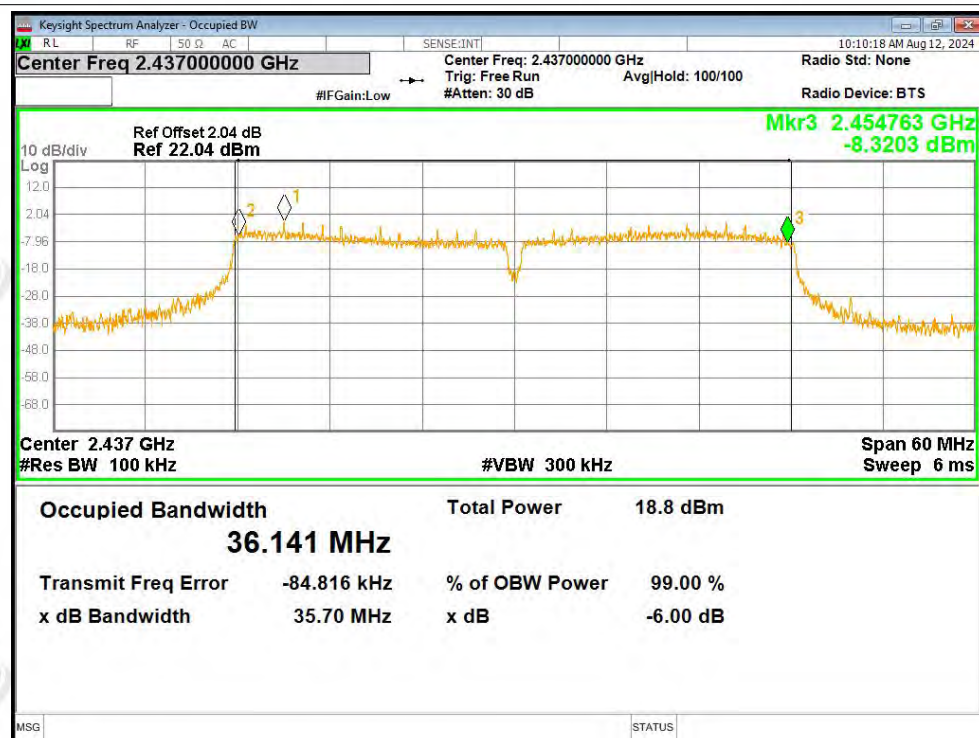


-6dB Bandwidth NVNT n40 2422MHz Ant1

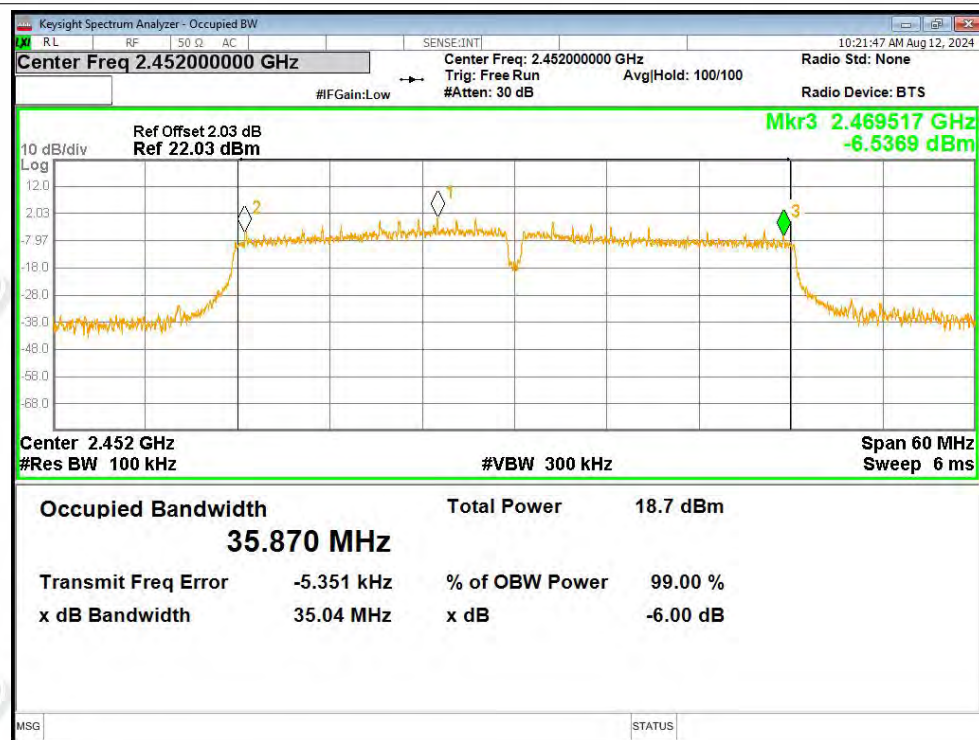




-6dB Bandwidth NVNT n40 2437MHz Ant1



-6dB Bandwidth NVNT n40 2452MHz Ant1





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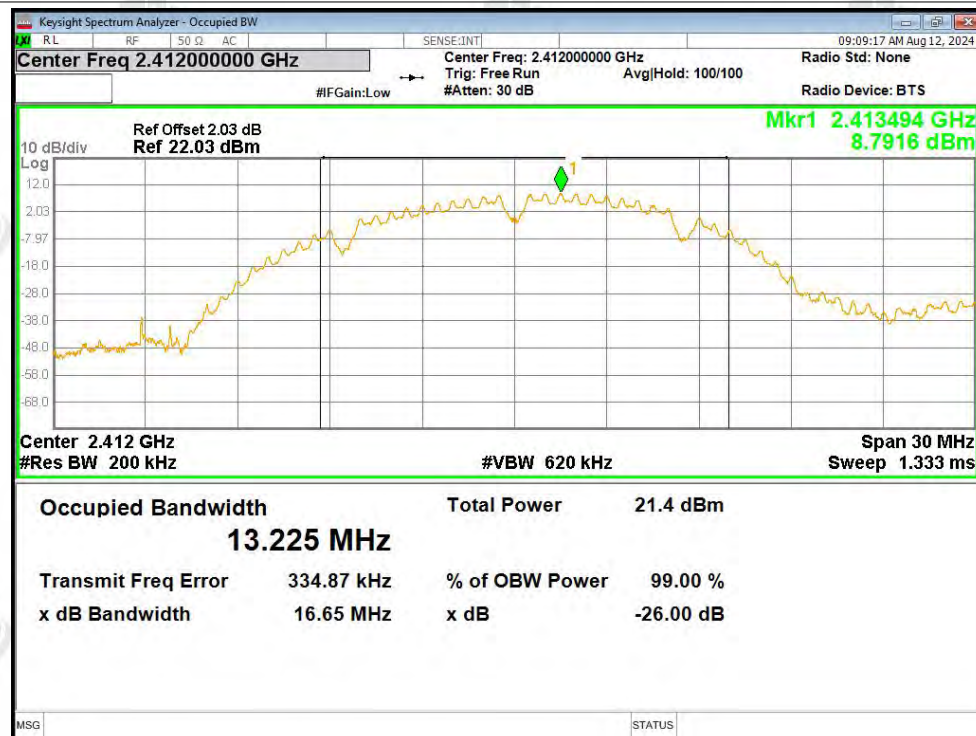
Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	13.225
NVNT	b	2437	Ant1	13.59
NVNT	b	2462	Ant1	13.795
NVNT	g	2412	Ant1	17.237
NVNT	g	2437	Ant1	16.779
NVNT	g	2462	Ant1	16.806
NVNT	n20	2412	Ant1	17.801
NVNT	n20	2437	Ant1	17.83
NVNT	n20	2462	Ant1	17.86
NVNT	n40	2422	Ant1	36.117
NVNT	n40	2437	Ant1	36.388
NVNT	n40	2452	Ant1	36.037

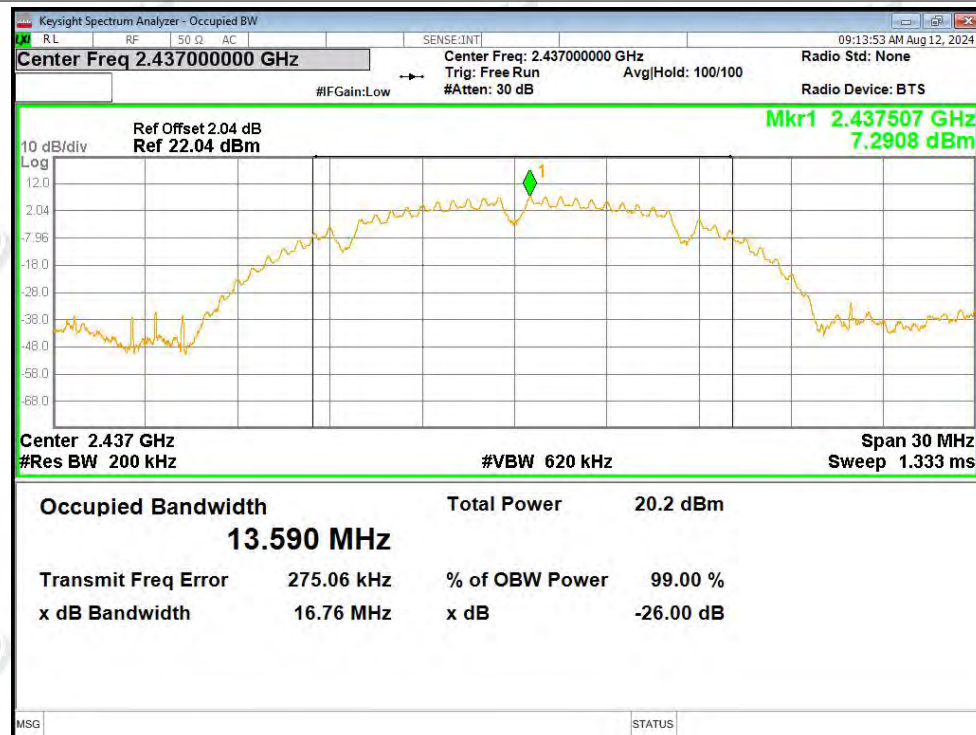


Test Graphs

OBW NVNT b 2412MHz Ant1

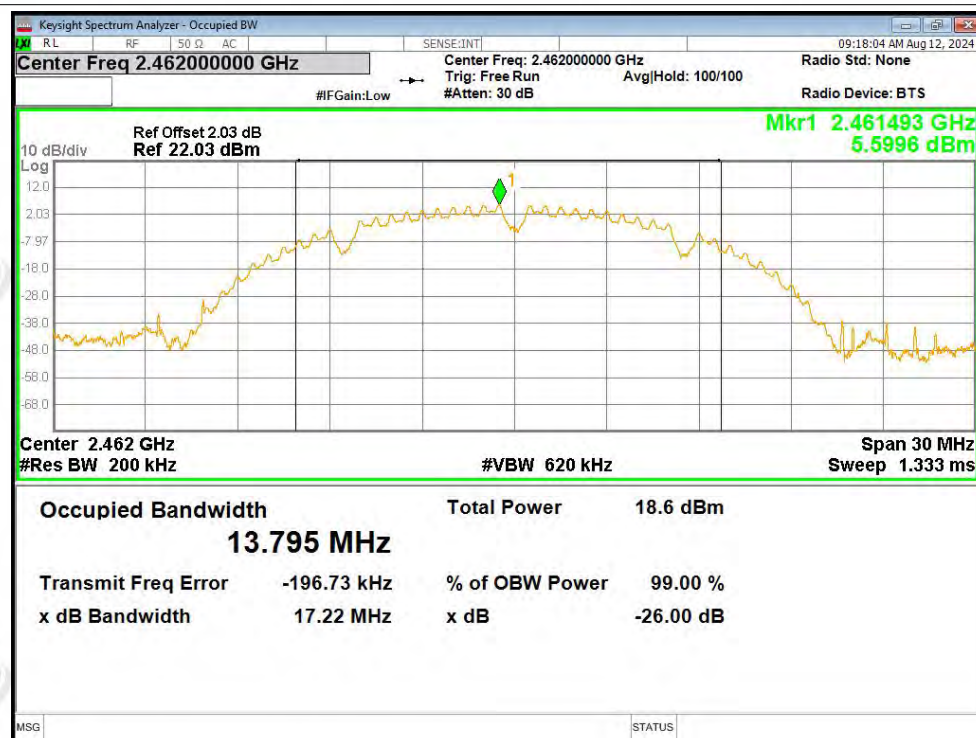


OBW NVNT b 2437MHz Ant1

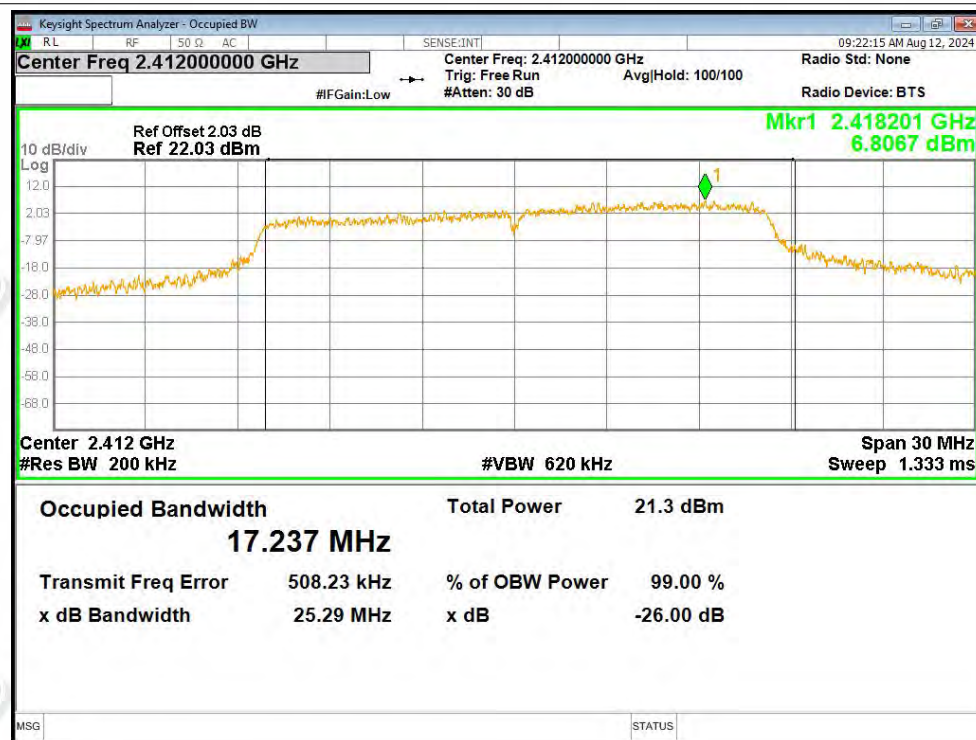




OBW NVNT b 2462MHz Ant1

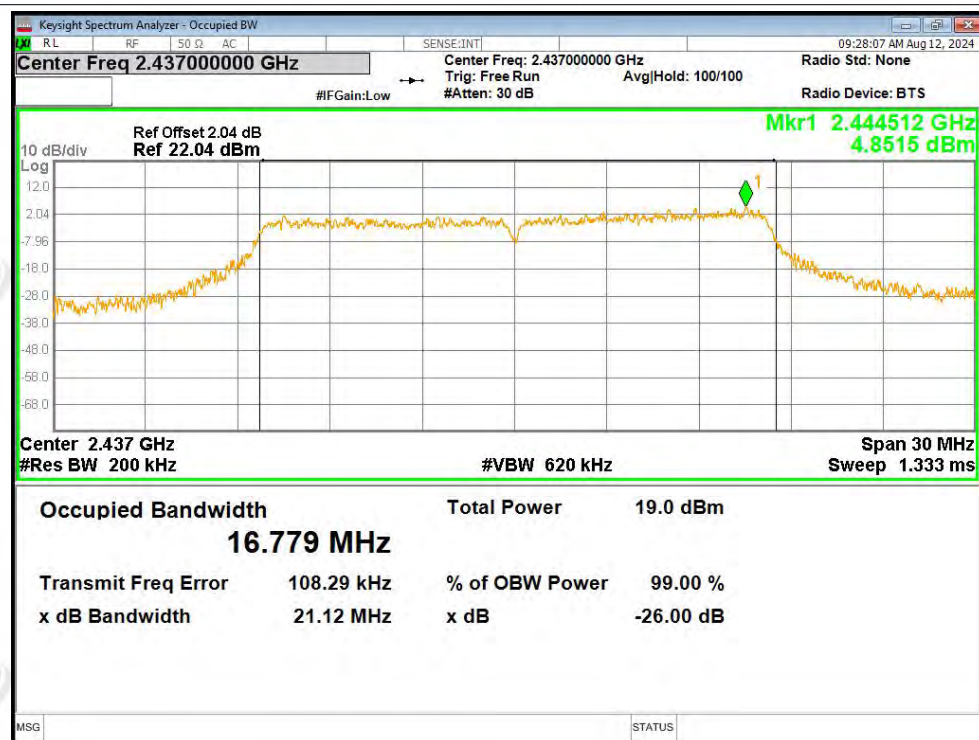


OBW NVNT g 2412MHz Ant1

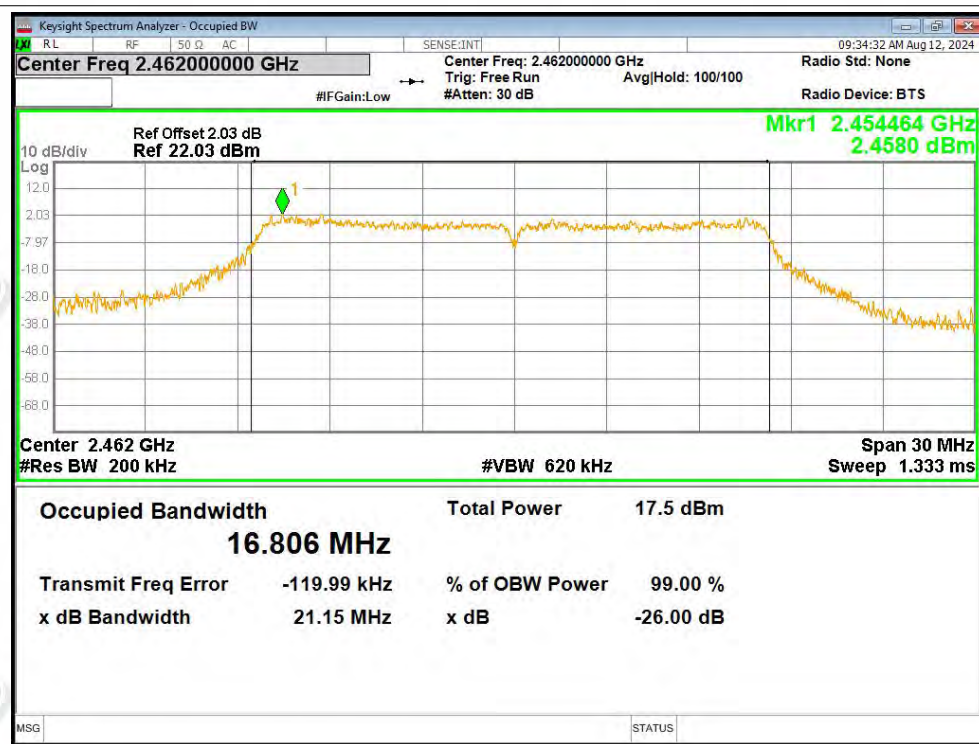




OBW NVNT g 2437MHz Ant1

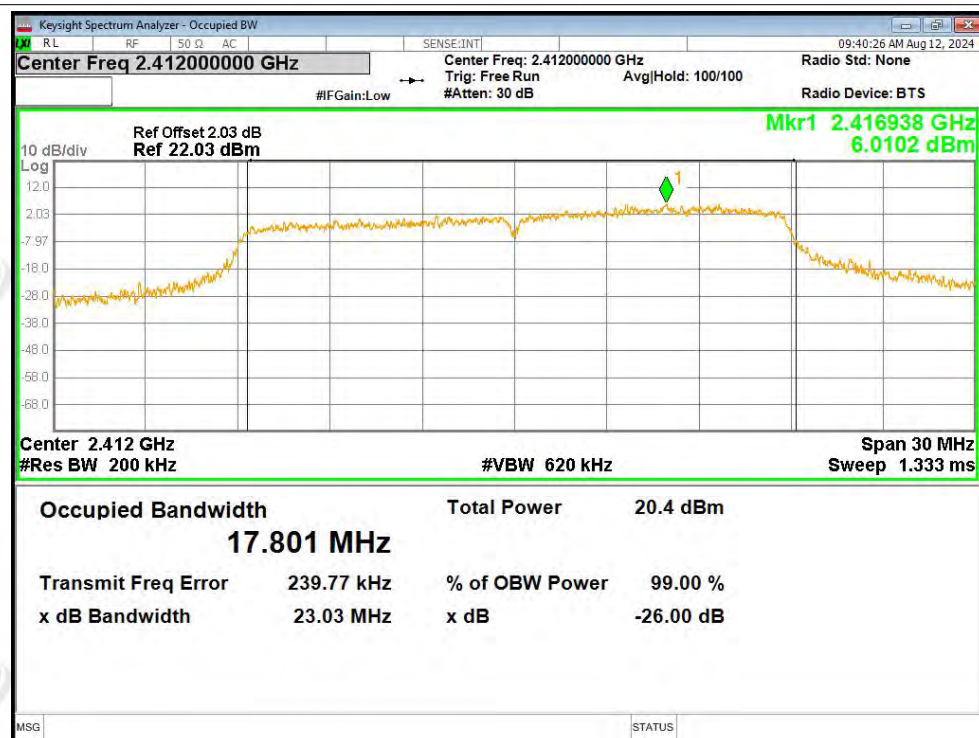


OBW NVNT g 2462MHz Ant1

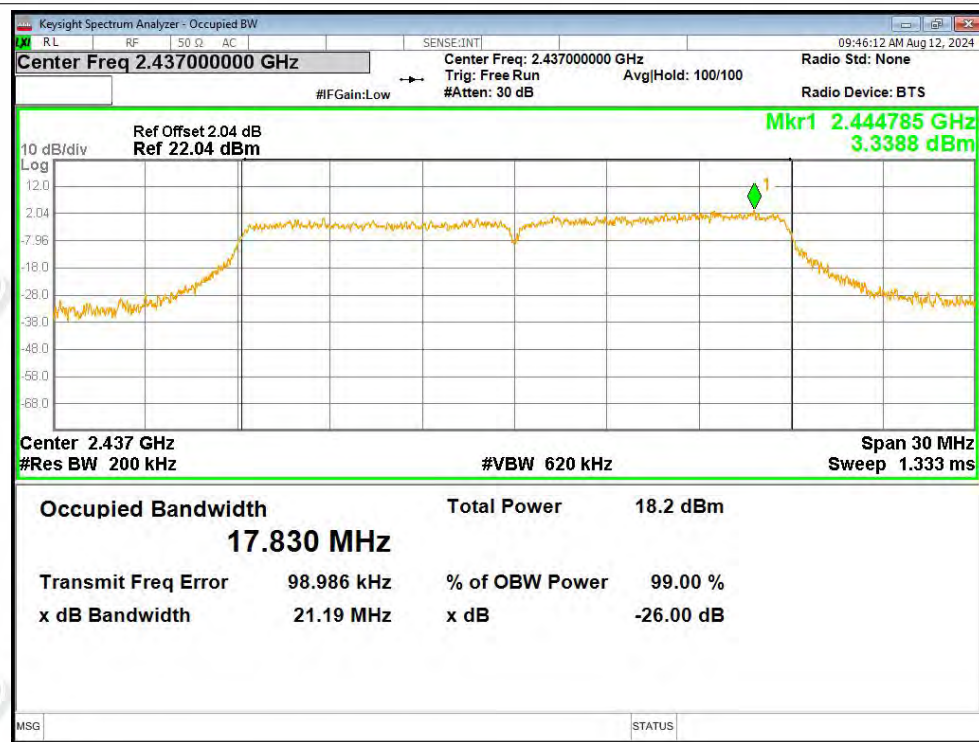




OBW NVNT n20 2412MHz Ant1

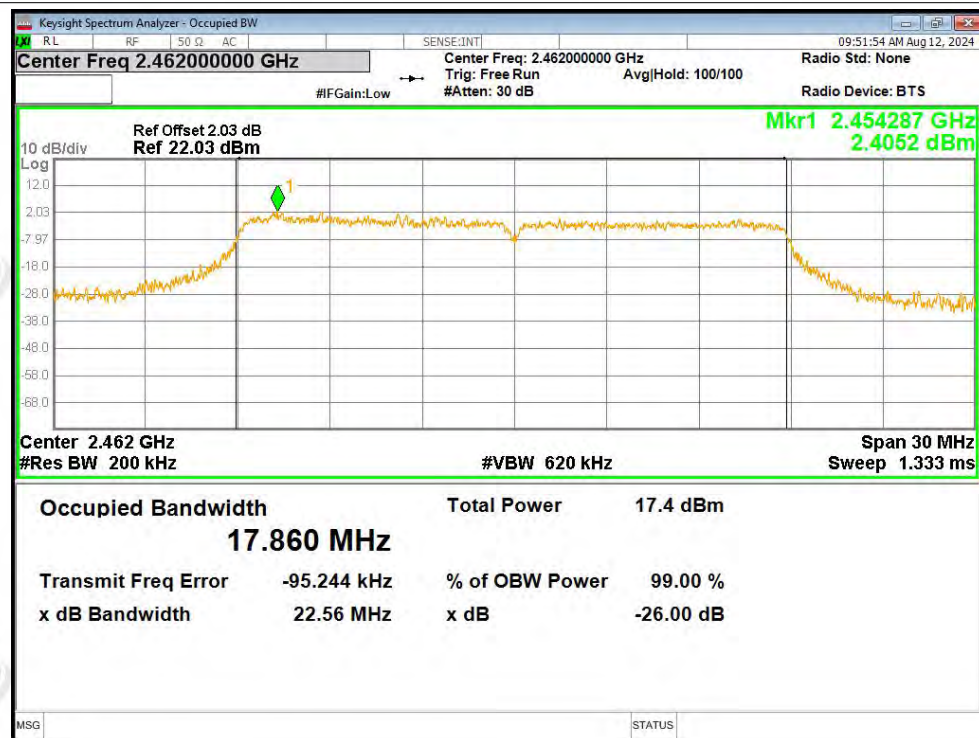


OBW NVNT n20 2437MHz Ant1

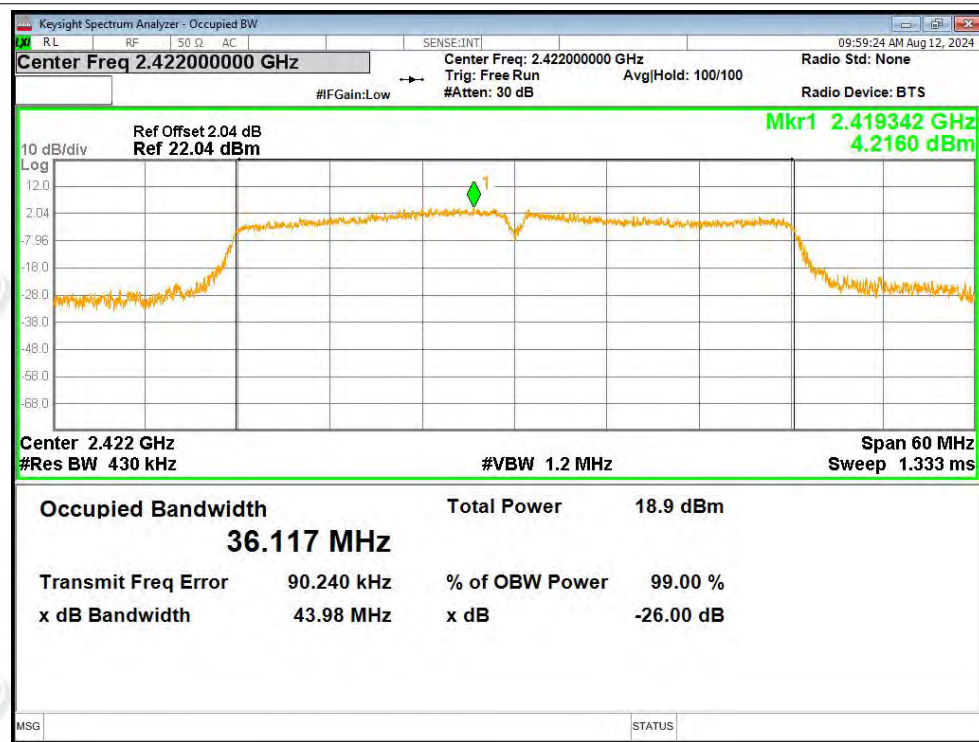




OBW NVNT n20 2462MHz Ant1

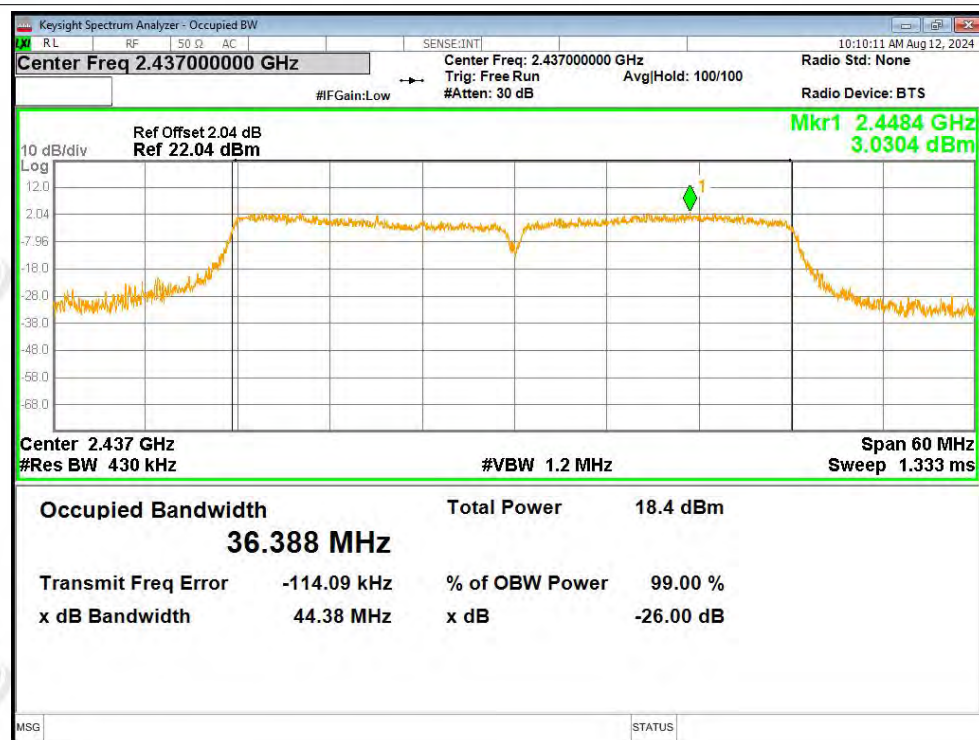


OBW NVNT n40 2422MHz Ant1

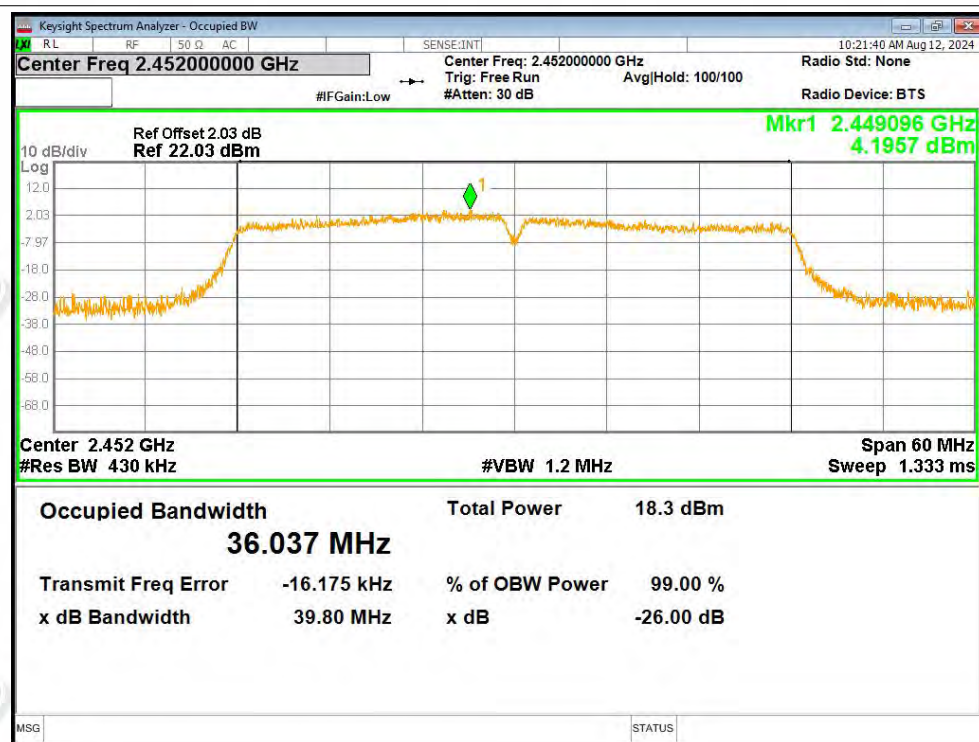




OBW NVNT n40 2437MHz Ant1



OBW NVNT n40 2452MHz Ant1





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Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-3.49	-3.49	8	Pass
NVNT	b	2437	Ant1	-6.37	-6.37	8	Pass
NVNT	b	2462	Ant1	-7.61	-7.61	8	Pass
NVNT	g	2412	Ant1	-7.55	-7.55	8	Pass
NVNT	g	2437	Ant1	-9.03	-9.03	8	Pass
NVNT	g	2462	Ant1	-11.93	-11.93	8	Pass
NVNT	n20	2412	Ant1	-7.56	-7.56	8	Pass
NVNT	n20	2437	Ant1	-11.35	-11.35	8	Pass
NVNT	n20	2462	Ant1	-11.25	-11.25	8	Pass
NVNT	n40	2422	Ant1	-11.48	-11.48	8	Pass
NVNT	n40	2437	Ant1	-13.94	-13.94	8	Pass
NVNT	n40	2452	Ant1	-13.23	-13.23	8	Pass

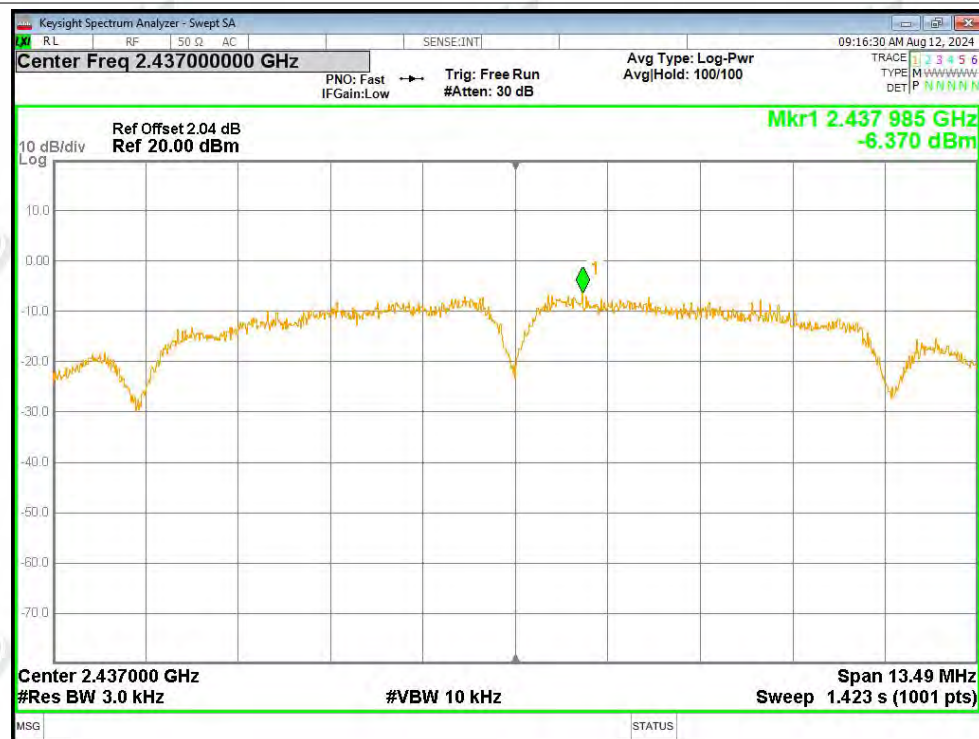


Test Graphs

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1

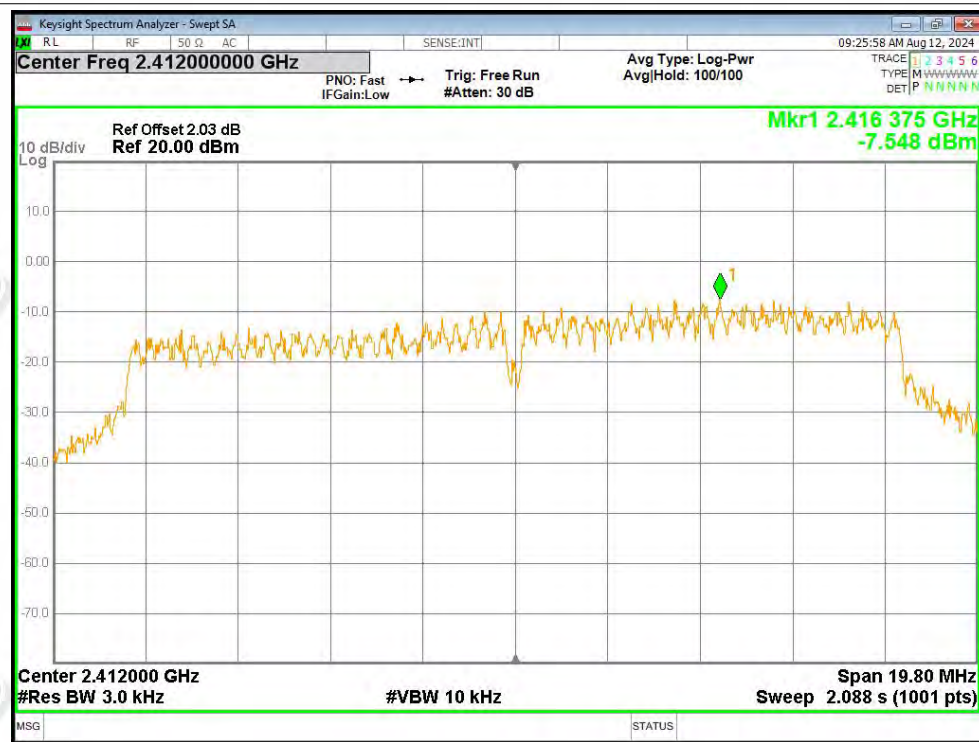




PSD NVNT b 2462MHz Ant1

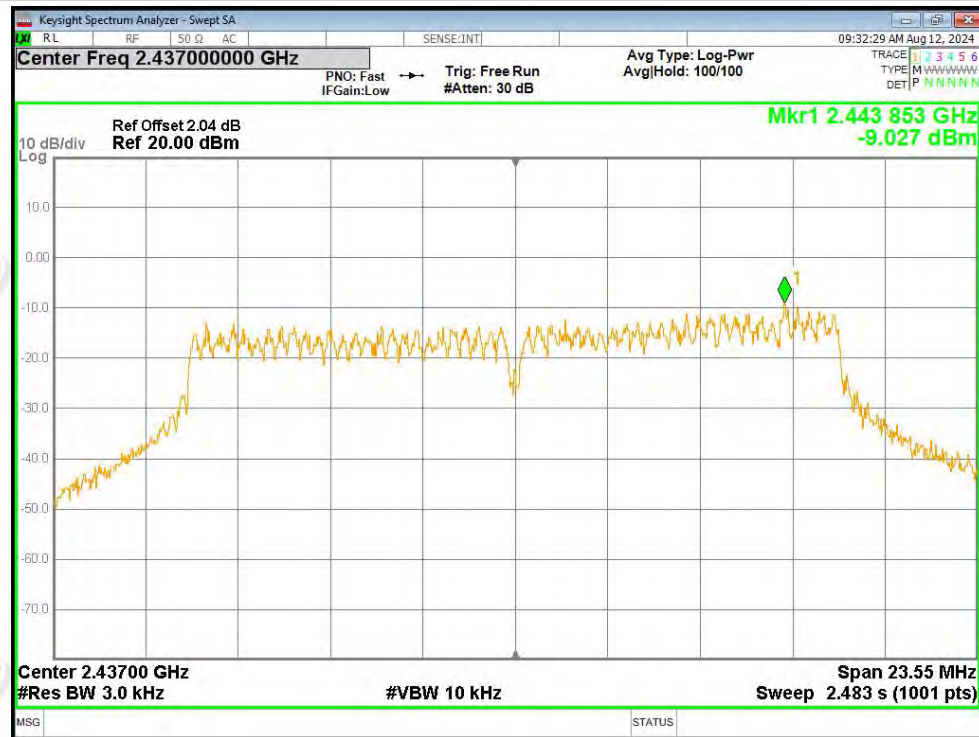


PSD NVNT g 2412MHz Ant1





PSD NVNT g 2437MHz Ant1

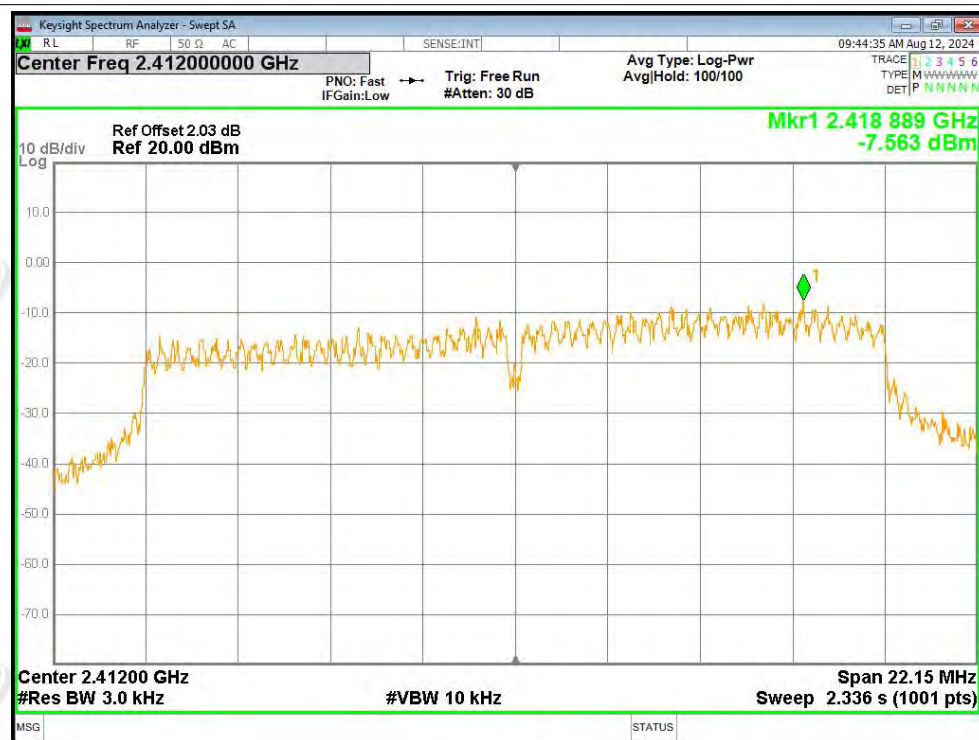


PSD NVNT g 2462MHz Ant1

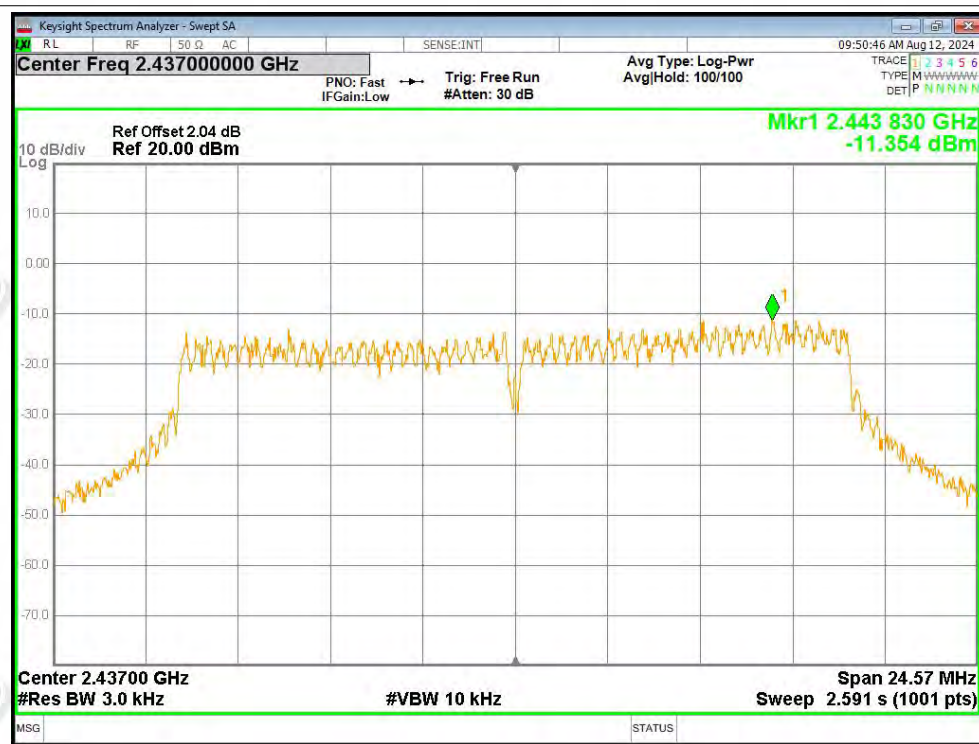




PSD NVNT n20 2412MHz Ant1



PSD NVNT n20 2437MHz Ant1

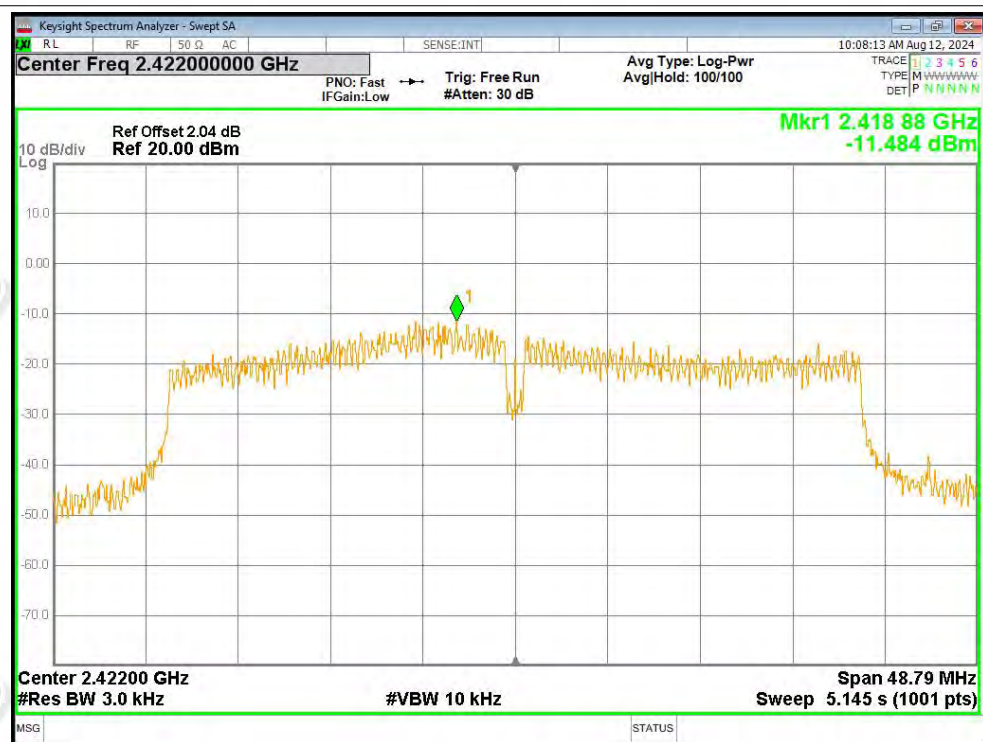




PSD NVNT n20 2462MHz Ant1



PSD NVNT n40 2422MHz Ant1

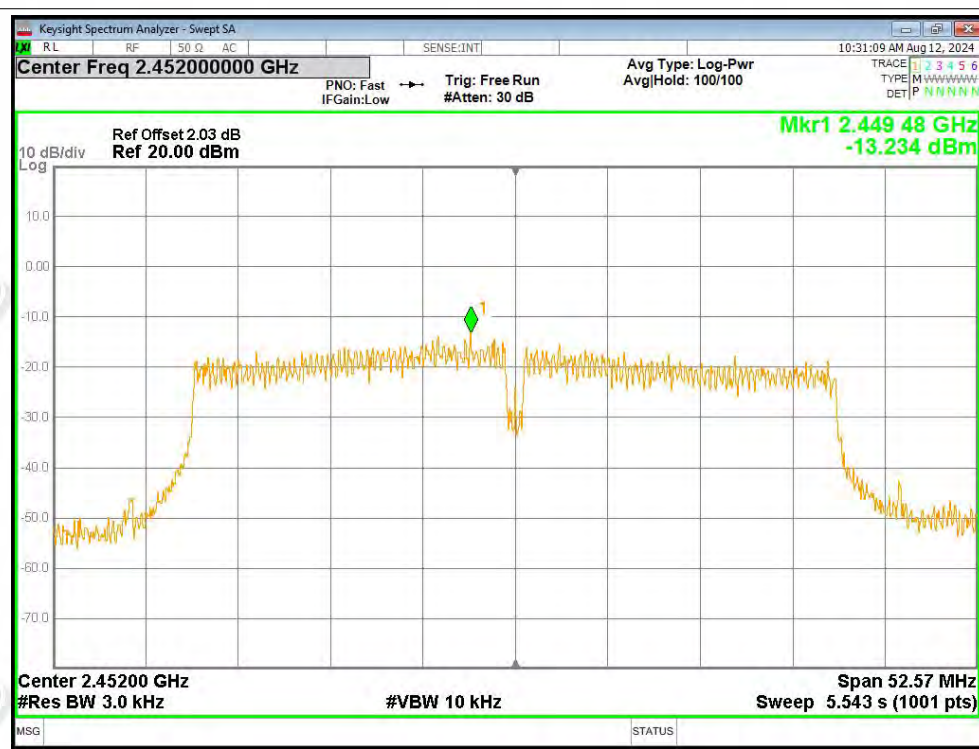




PSD NVNT n40 2437MHz Ant1



PSD NVNT n40 2452MHz Ant1





Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-41.55	-20	Pass
NVNT	b	2462	Ant1	-60.51	-20	Pass
NVNT	g	2412	Ant1	-31.47	-20	Pass
NVNT	g	2462	Ant1	-48.31	-20	Pass
NVNT	n20	2412	Ant1	-31.81	-20	Pass
NVNT	n20	2462	Ant1	-41.38	-20	Pass
NVNT	n40	2422	Ant1	-30.08	-20	Pass
NVNT	n40	2452	Ant1	-35.22	-20	Pass

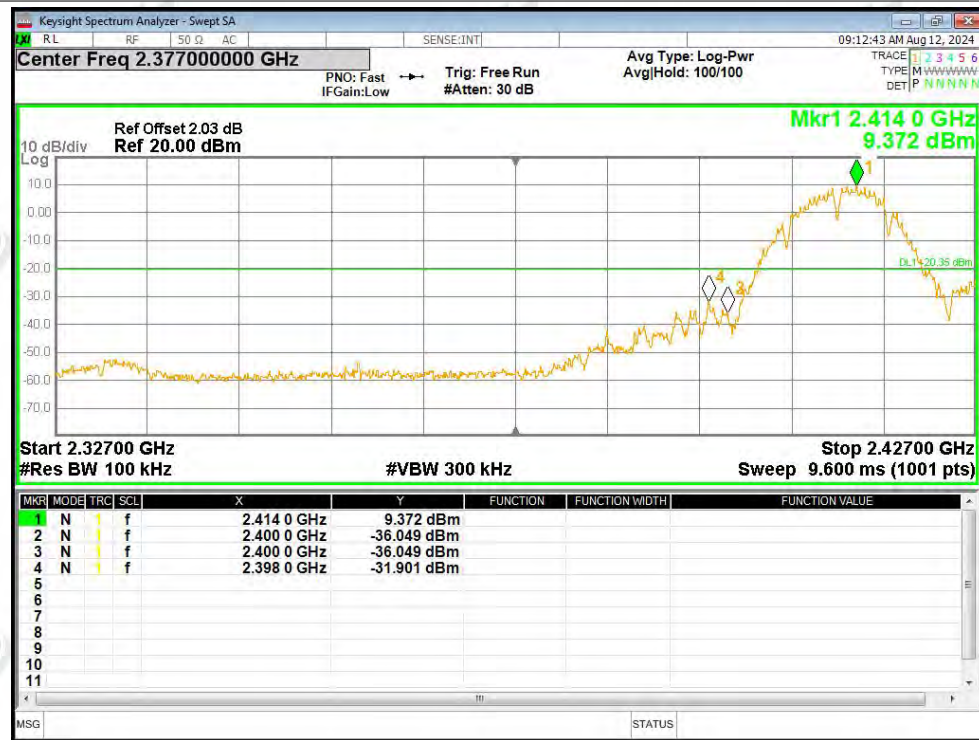


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission

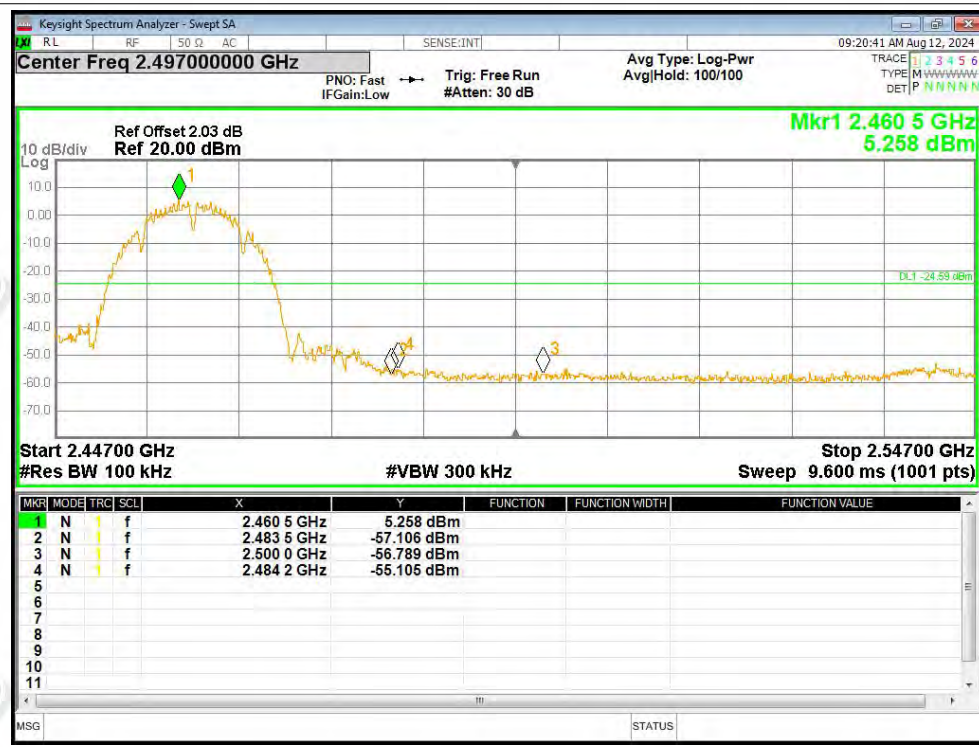




Band Edge NVNT b 2462MHz Ant1 Ref



Band Edge NVNT b 2462MHz Ant1 Emission

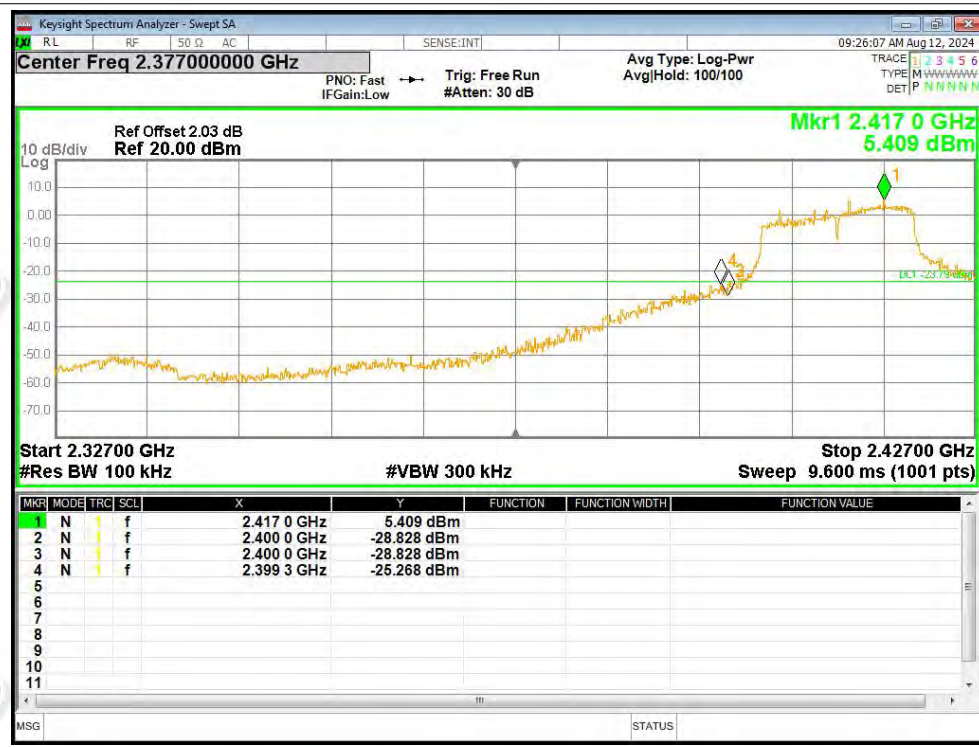




Band Edge NVNT g 2412MHz Ant1 Ref



Band Edge NVNT g 2412MHz Ant1 Emission

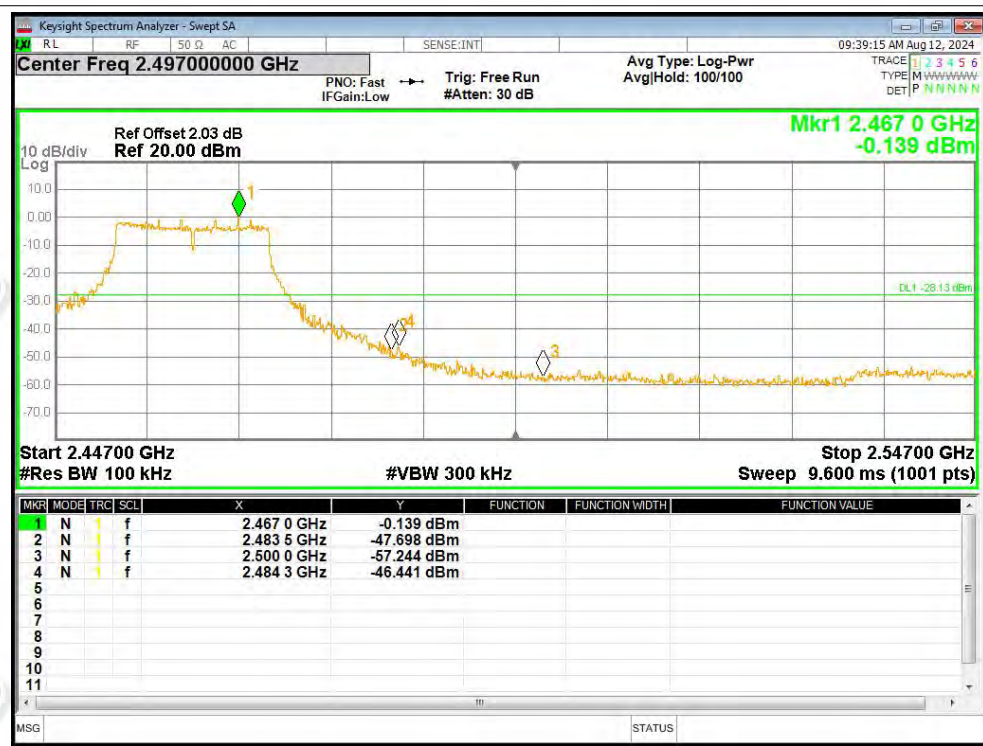




Band Edge NVNT g 2462MHz Ant1 Ref



Band Edge NVNT g 2462MHz Ant1 Emission

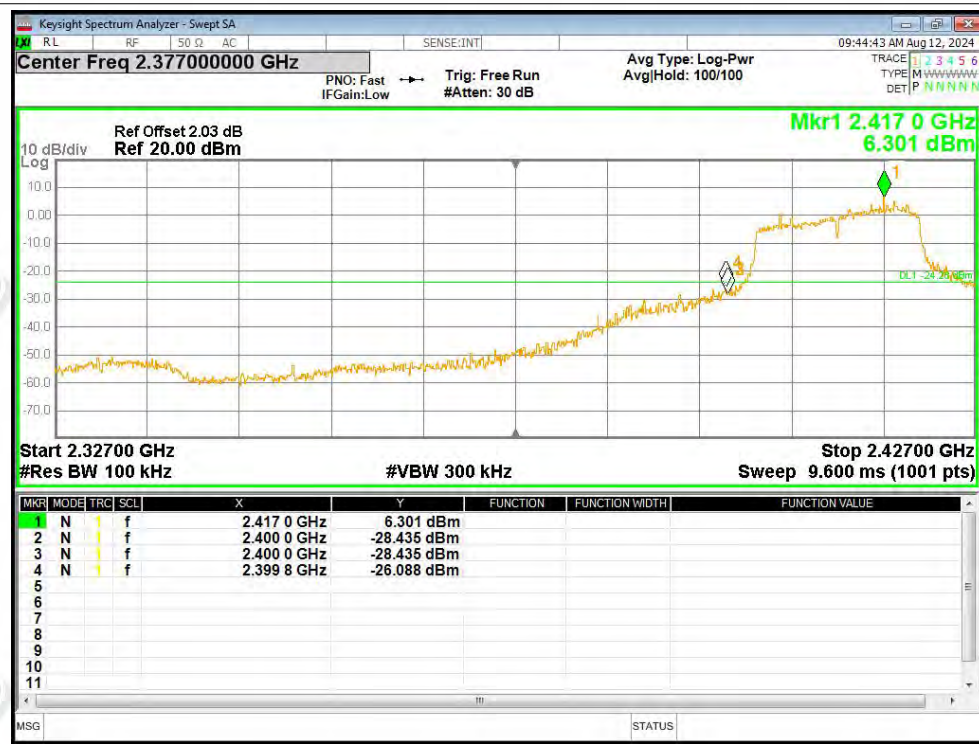




Band Edge NVNT n20 2412MHz Ant1 Ref



Band Edge NVNT n20 2412MHz Ant1 Emission

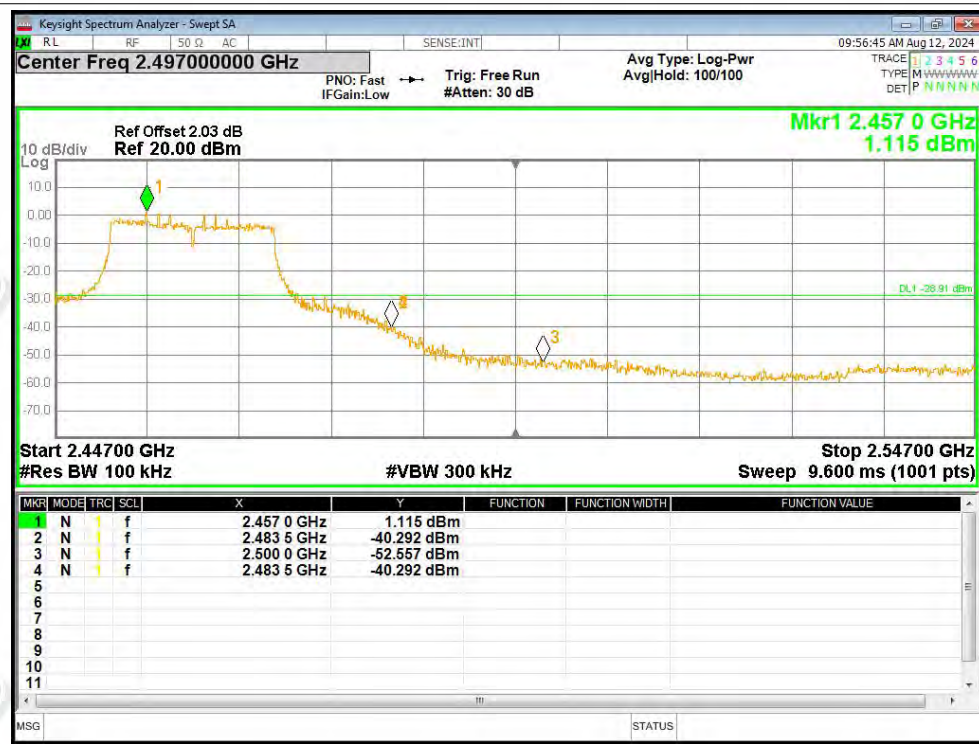


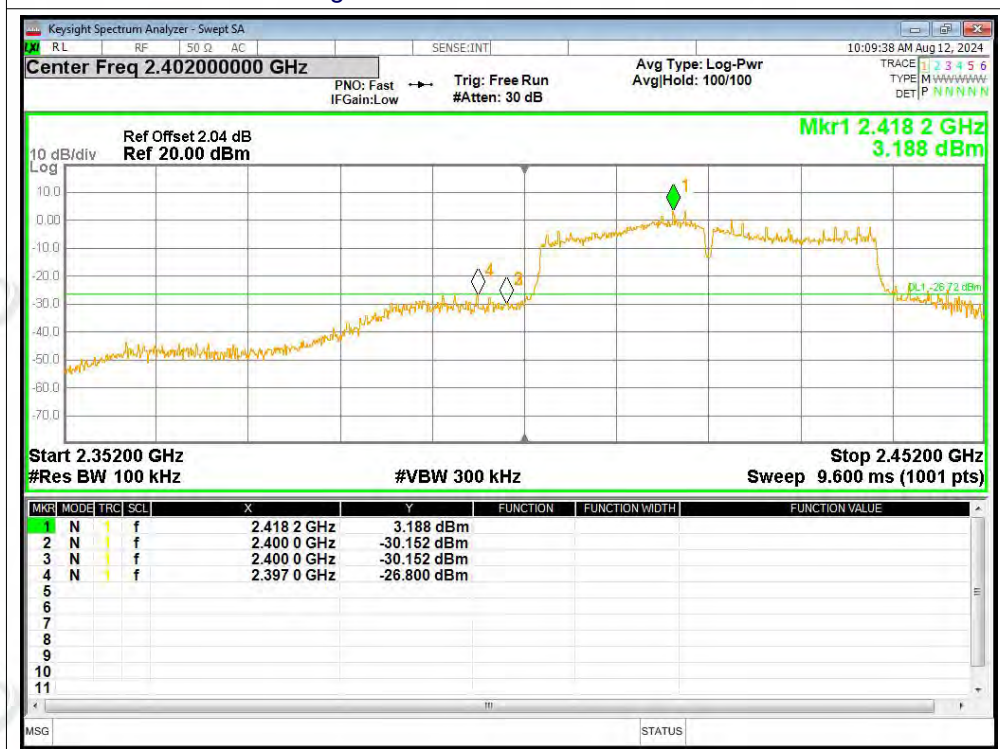
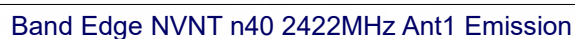


Band Edge NVNT n20 2462MHz Ant1 Ref



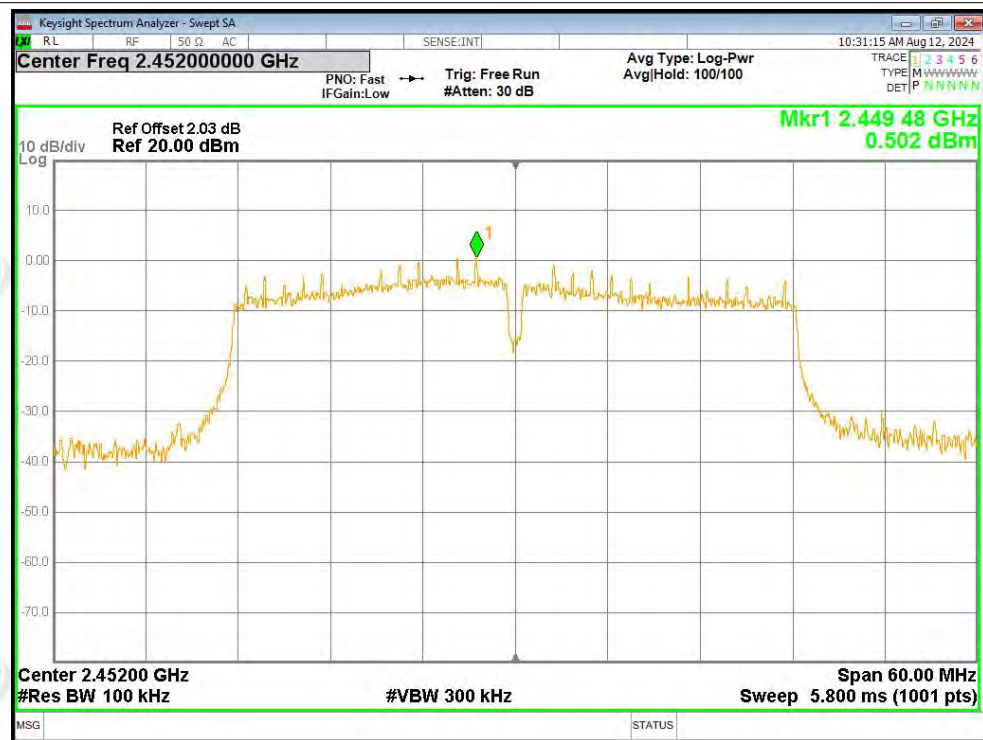
Band Edge NVNT n20 2462MHz Ant1 Emission



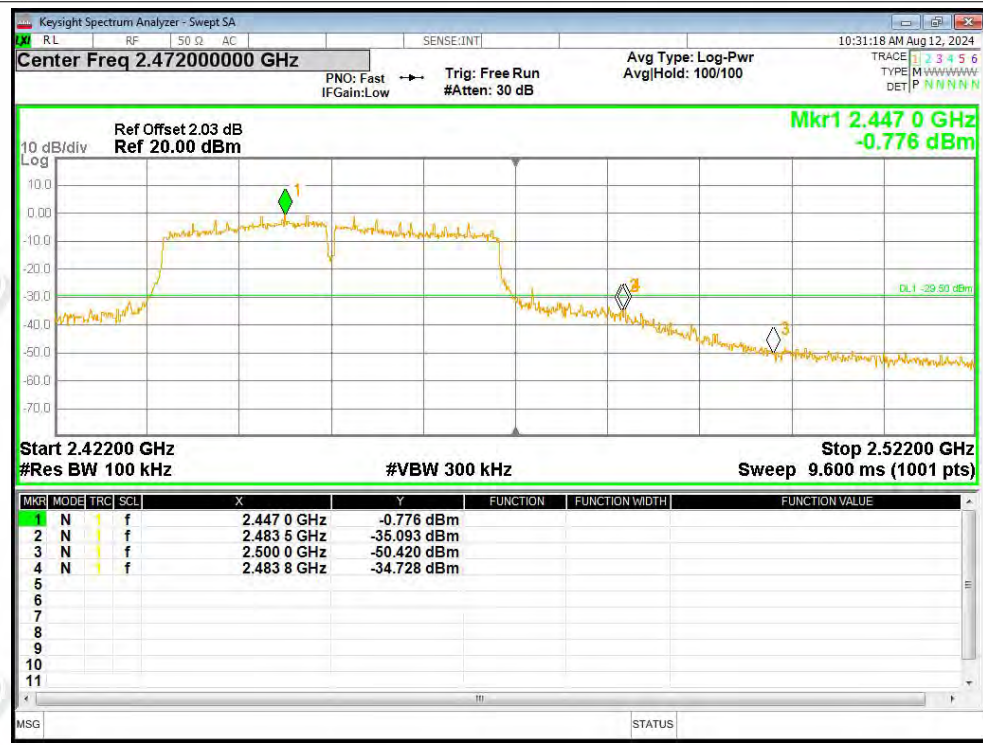




Band Edge NVNT n40 2452MHz Ant1 Ref



Band Edge NVNT n40 2452MHz Ant1 Emission



**ZHONGHAN****Conducted RF Spurious Emission**

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-42.23	-20	Pass
NVNT	b	2437	Ant1	-41.69	-20	Pass
NVNT	b	2462	Ant1	-39.69	-20	Pass
NVNT	g	2412	Ant1	-49.92	-20	Pass
NVNT	g	2437	Ant1	-50.18	-20	Pass
NVNT	g	2462	Ant1	-47.7	-20	Pass
NVNT	n20	2412	Ant1	-48.27	-20	Pass
NVNT	n20	2437	Ant1	-48.34	-20	Pass
NVNT	n20	2462	Ant1	-48.59	-20	Pass
NVNT	n40	2422	Ant1	-50.05	-20	Pass
NVNT	n40	2437	Ant1	-47.61	-20	Pass
NVNT	n40	2452	Ant1	-46.59	-20	Pass

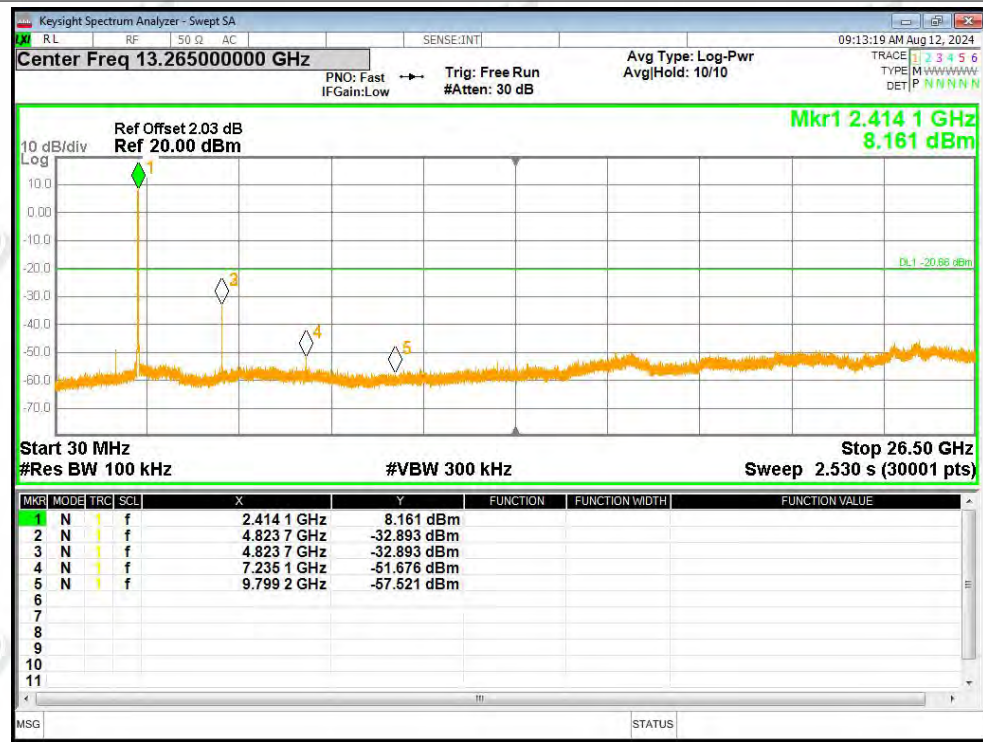


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission

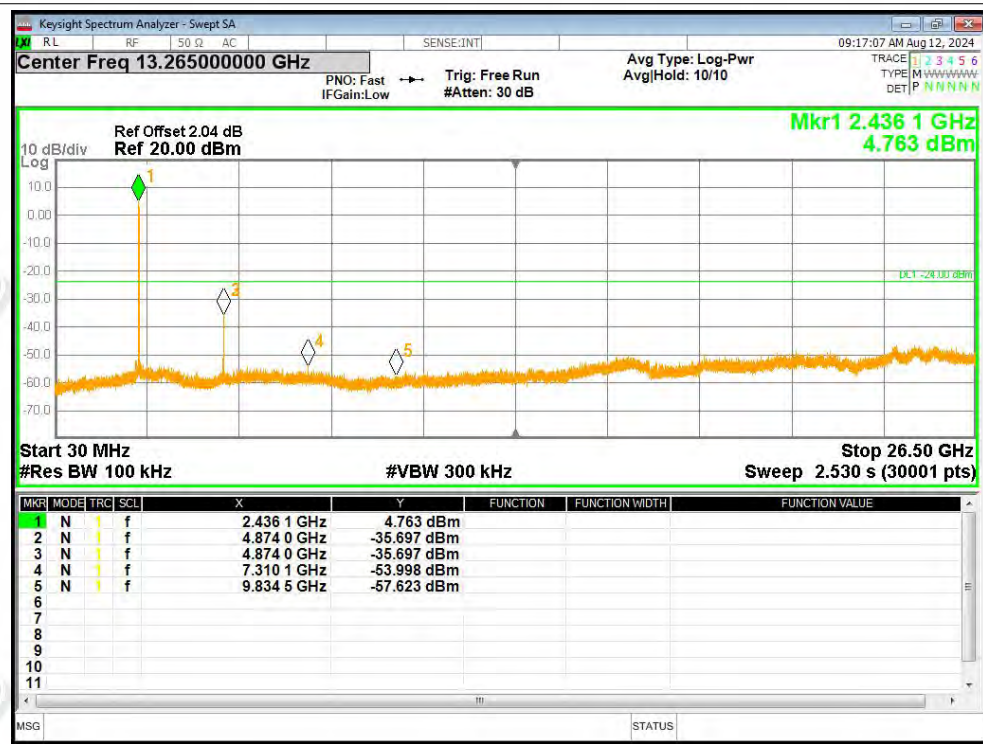




Tx. Spurious NVNT b 2437MHz Ant1 Ref



Tx. Spurious NVNT b 2437MHz Ant1 Emission

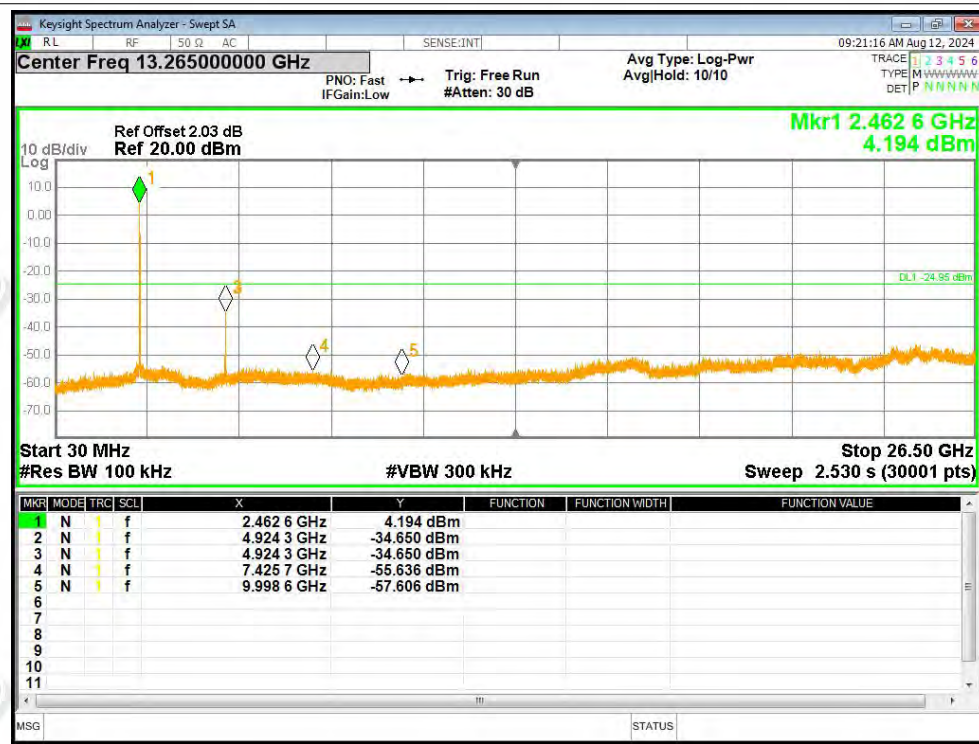




Tx. Spurious NVNT b 2462MHz Ant1 Ref



Tx. Spurious NVNT b 2462MHz Ant1 Emission

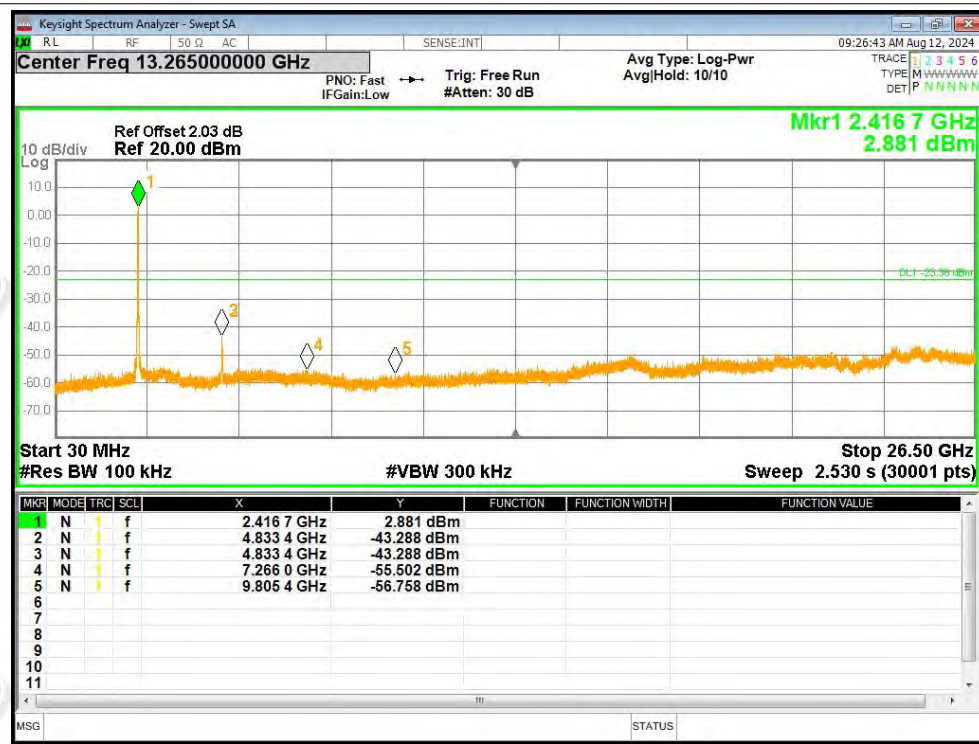




Tx. Spurious NVNT g 2412MHz Ant1 Ref

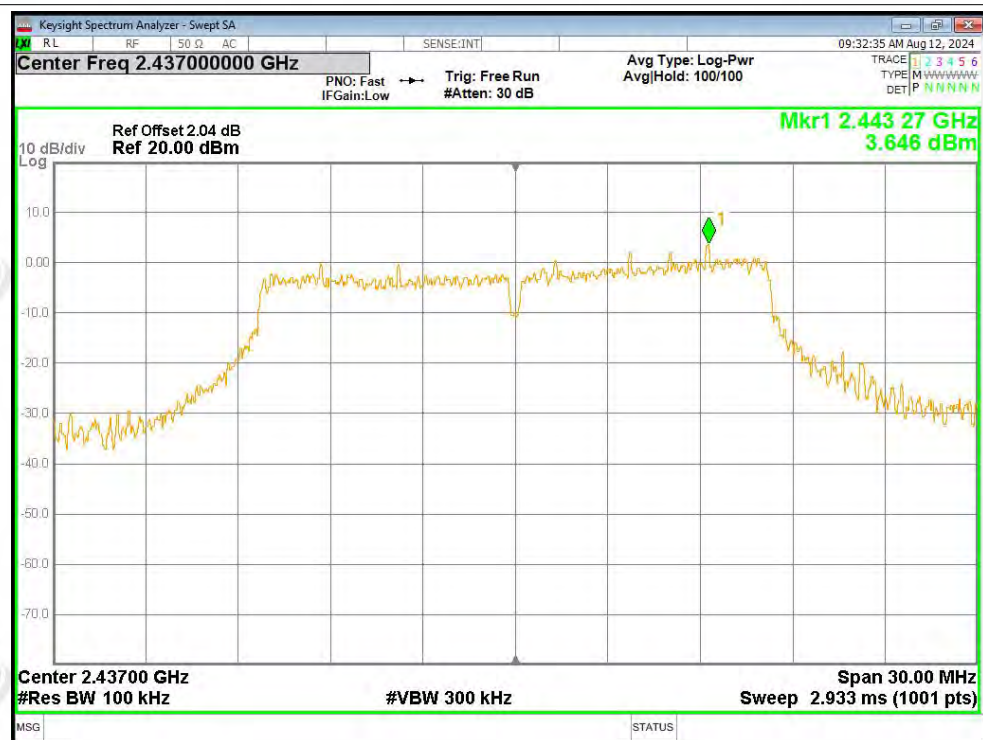


Tx. Spurious NVNT g 2412MHz Ant1 Emission

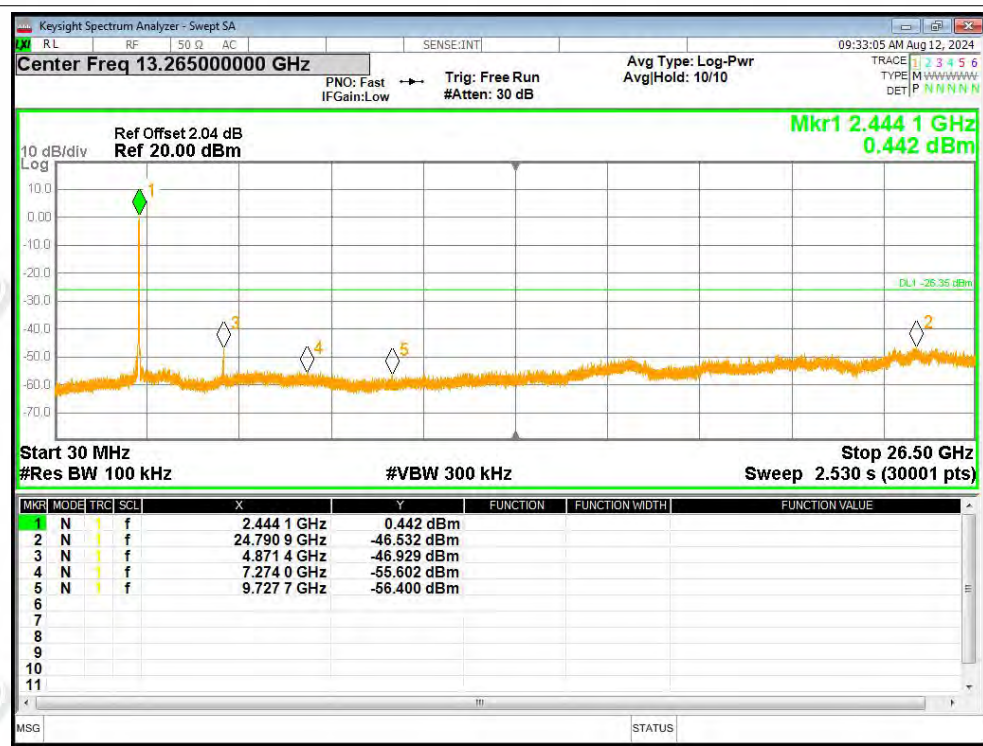




Tx. Spurious NVNT g 2437MHz Ant1 Ref



Tx. Spurious NVNT g 2437MHz Ant1 Emission

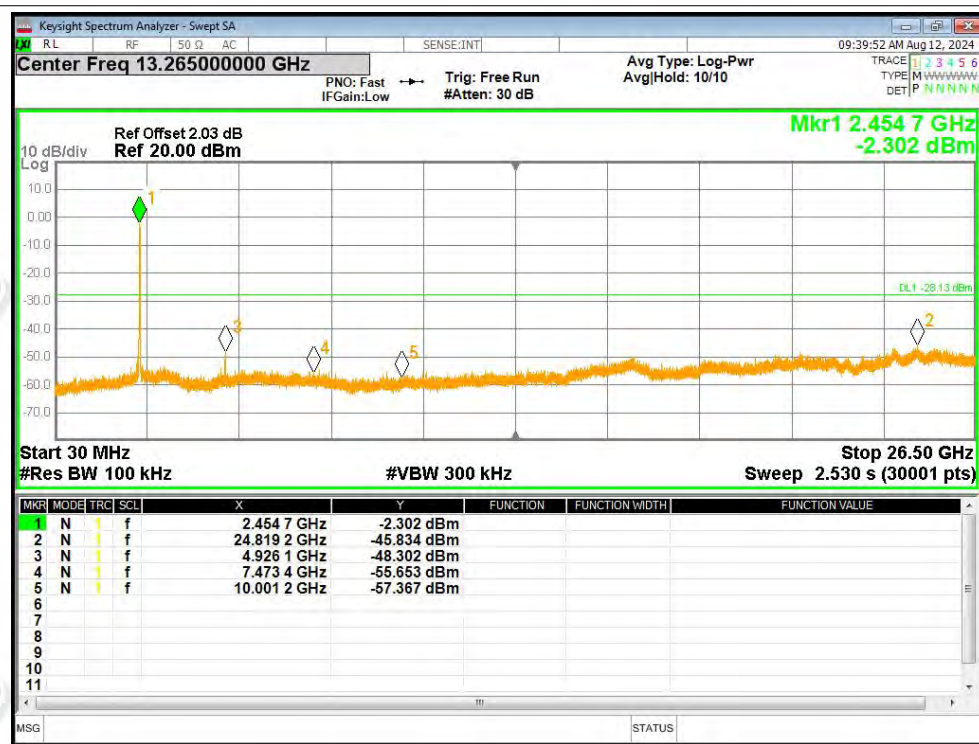




Tx. Spurious NVNT g 2462MHz Ant1 Ref



Tx. Spurious NVNT g 2462MHz Ant1 Emission

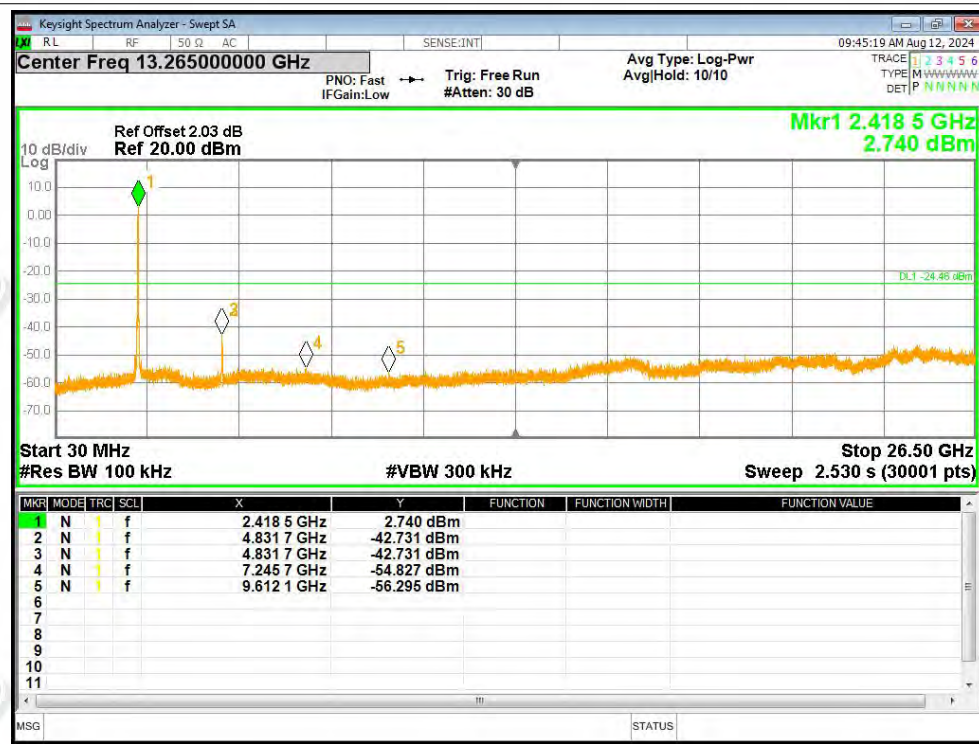




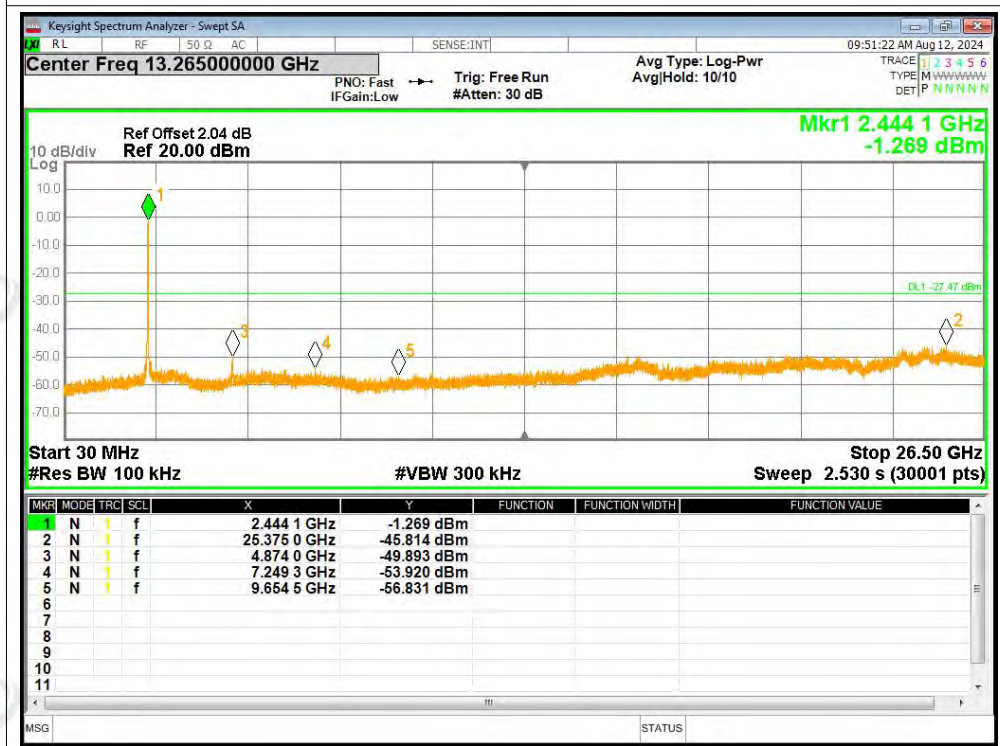
Tx. Spurious NVNT n20 2412MHz Ant1 Ref



Tx. Spurious NVNT n20 2412MHz Ant1 Emission

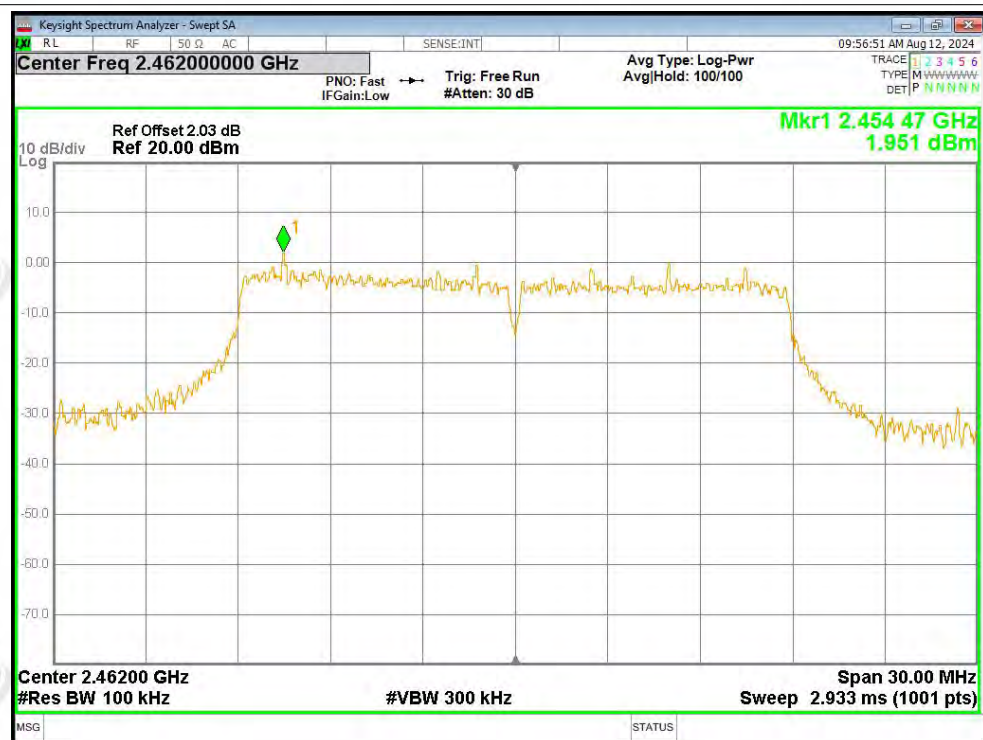


Tx. Spurious NVNT n20 2437MHz Ant1 Emission

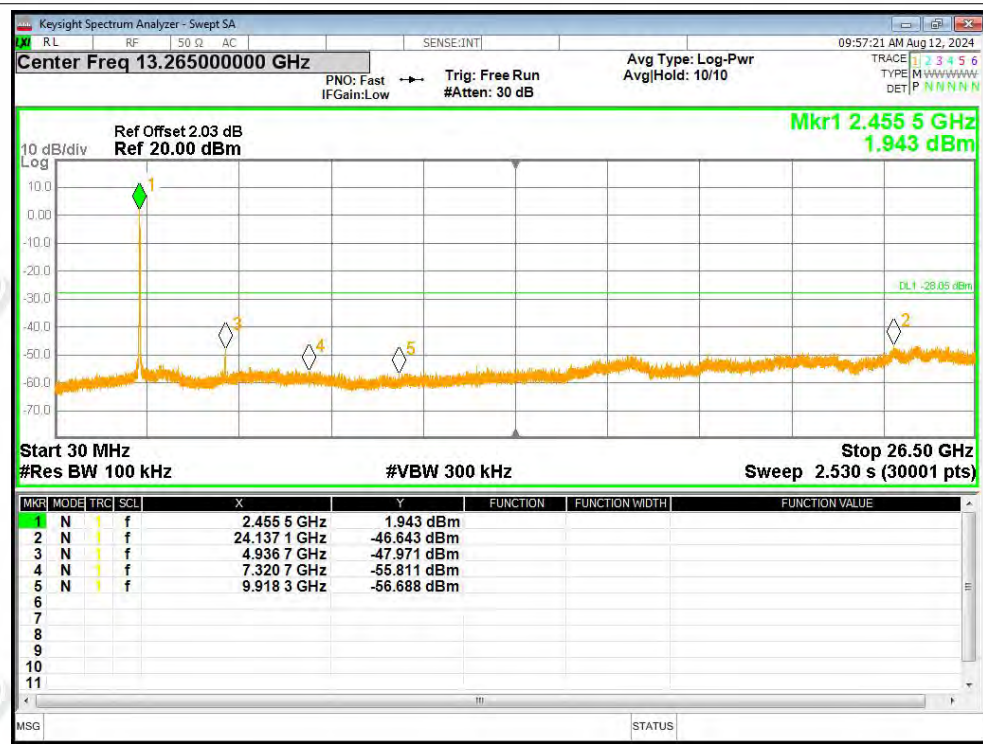




Tx. Spurious NVNT n20 2462MHz Ant1 Ref



Tx. Spurious NVNT n20 2462MHz Ant1 Emission

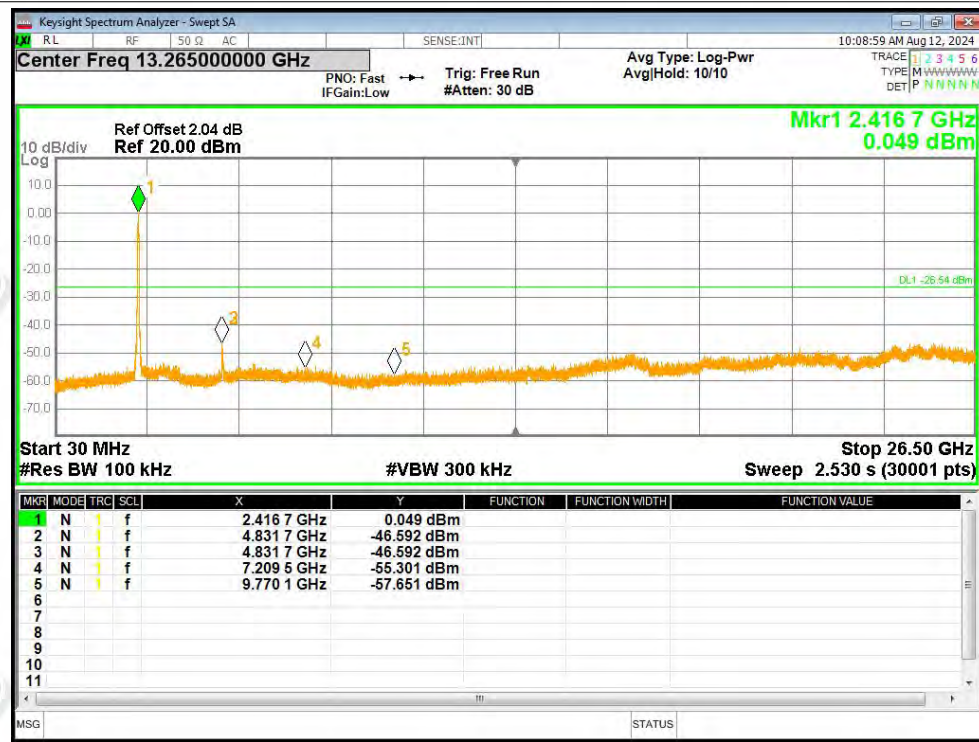




Tx. Spurious NVNT n40 2422MHz Ant1 Ref



Tx. Spurious NVNT n40 2422MHz Ant1 Emission

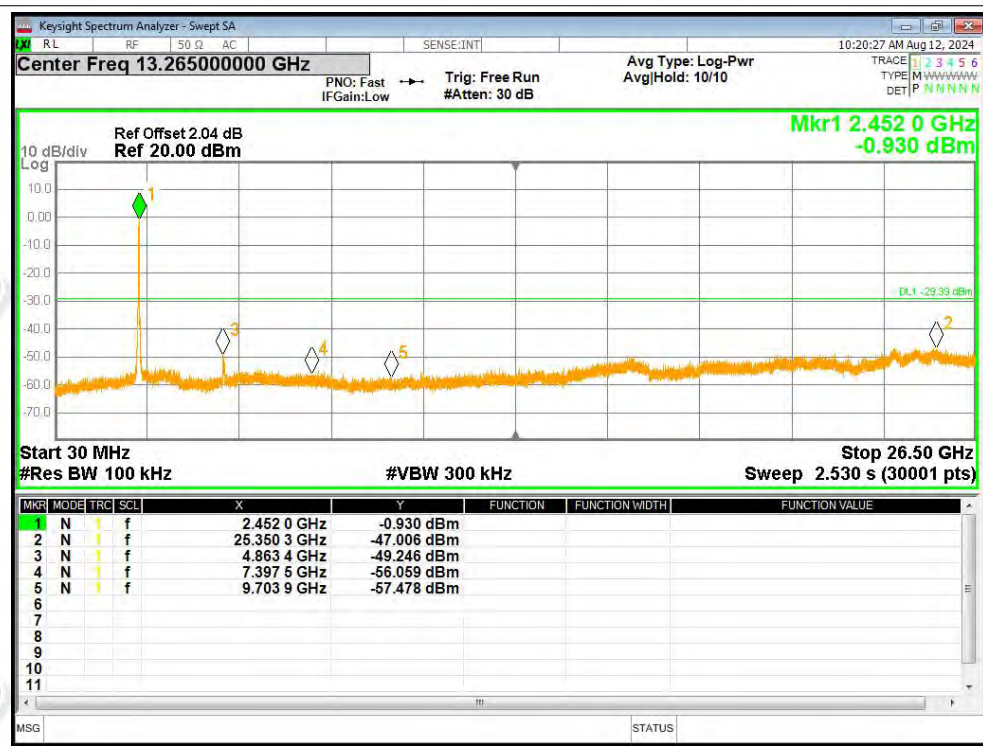




Tx. Spurious NVNT n40 2437MHz Ant1 Ref



Tx. Spurious NVNT n40 2437MHz Ant1 Emission





Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Tx. Spurious NVNT n40 2452MHz Ant1 Emission

