

The Hyperspace Lighting Company Limited Liability Company

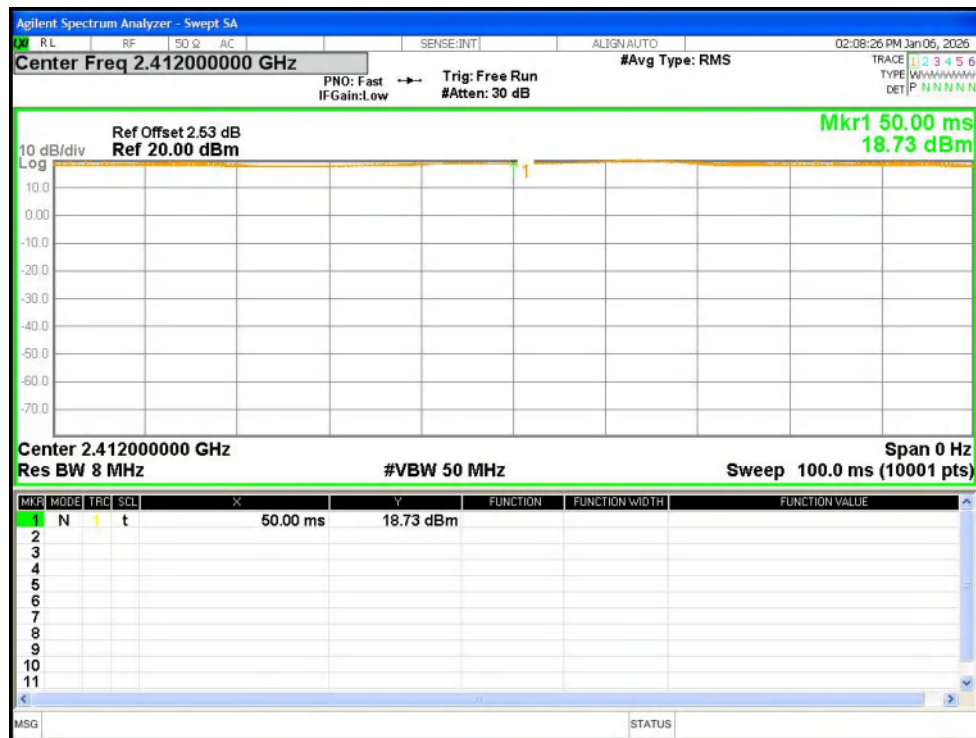
FCC ID: 2BUDS-HC15-SE

Model:HC15-SE

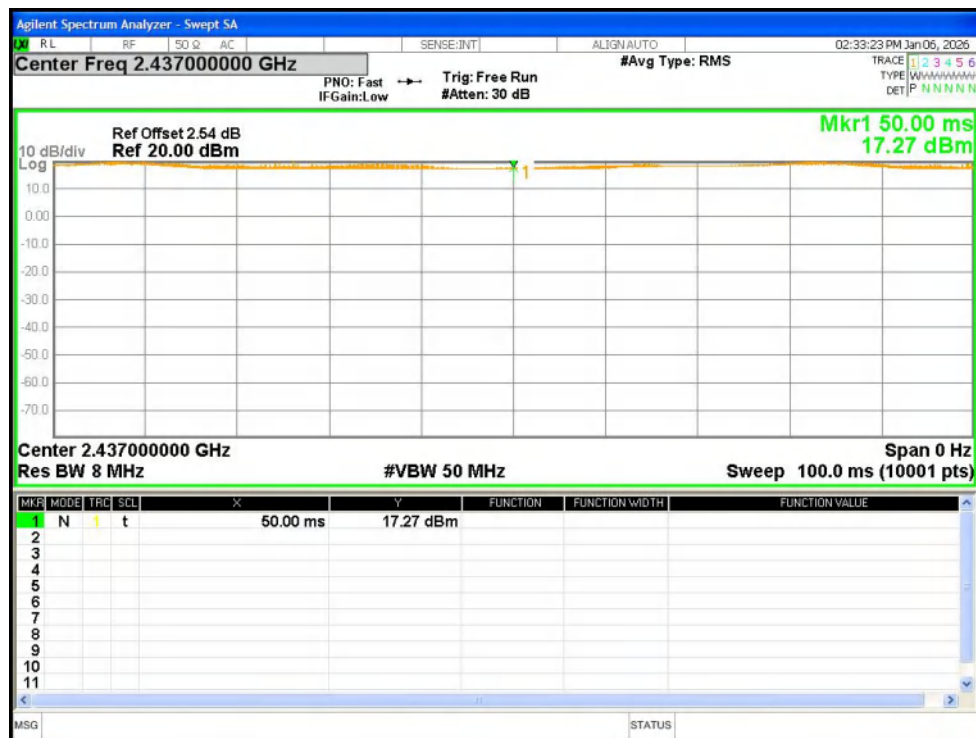
1. Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	100	0	0
NVNT	b	2437	Ant1	100	0	0
NVNT	b	2462	Ant1	100	0	0
NVNT	g	2412	Ant1	100	0	0
NVNT	g	2437	Ant1	100	0	0
NVNT	g	2462	Ant1	100	0	0
NVNT	n20	2412	Ant1	100	0	0
NVNT	n20	2437	Ant1	100	0	0
NVNT	n20	2462	Ant1	100	0	0
NVNT	n40	2422	Ant1	100	0	0
NVNT	n40	2437	Ant1	100	0	0
NVNT	n40	2452	Ant1	100	0	0

Report

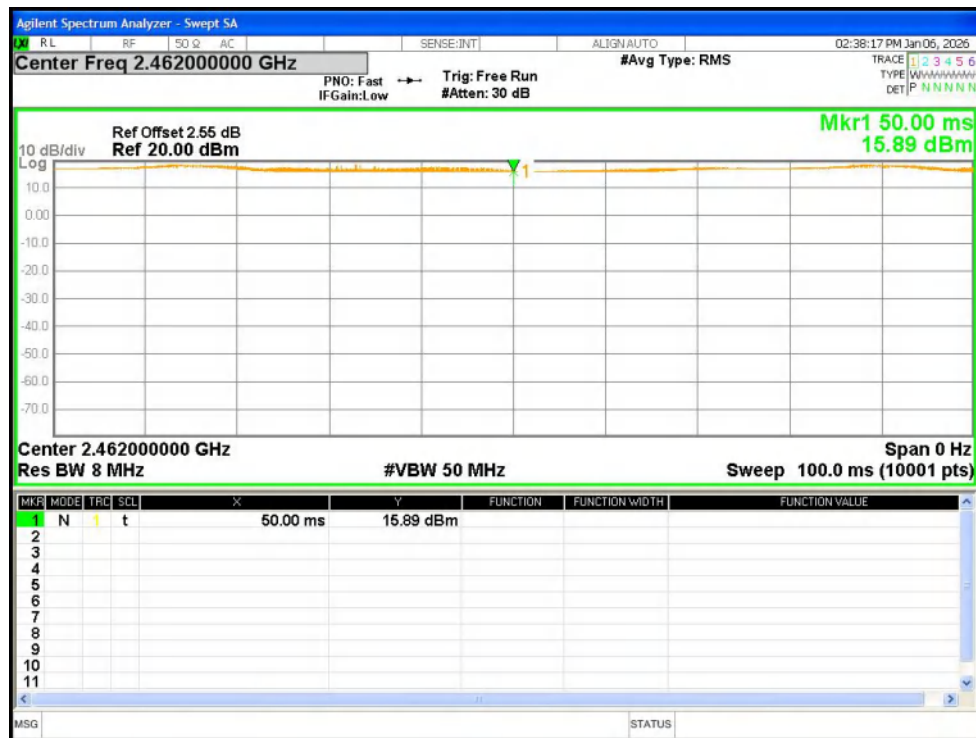


Duty Cycle NVNT b 2412MHz Ant1

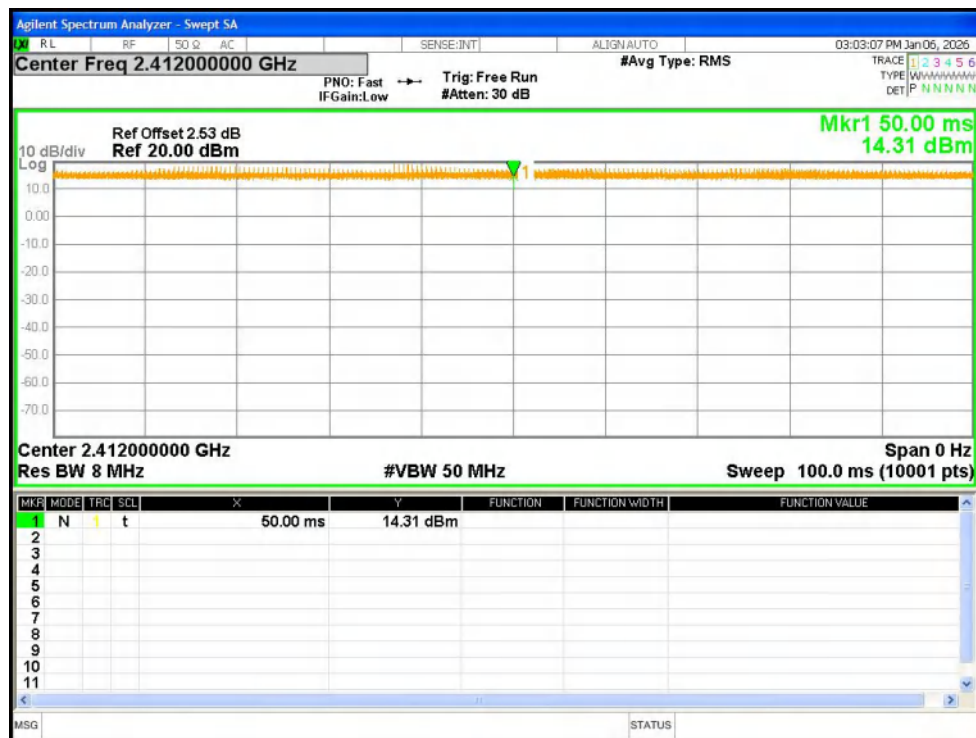


Duty Cycle NVNT b 2437MHz Ant1

Report

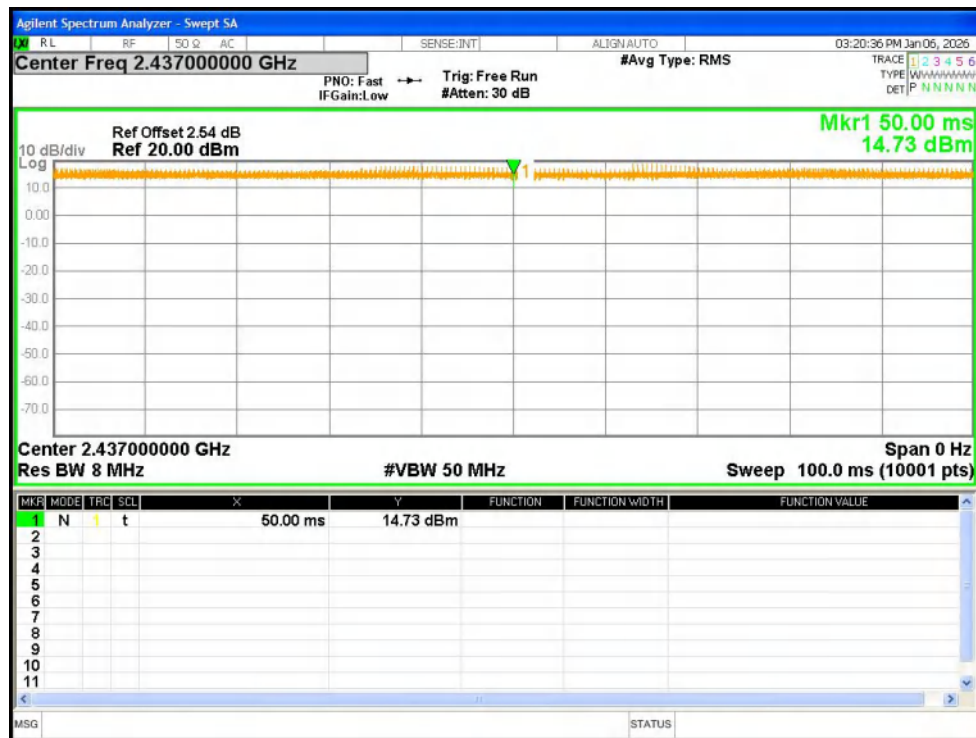


Duty Cycle NVNT b 2462MHz Ant1

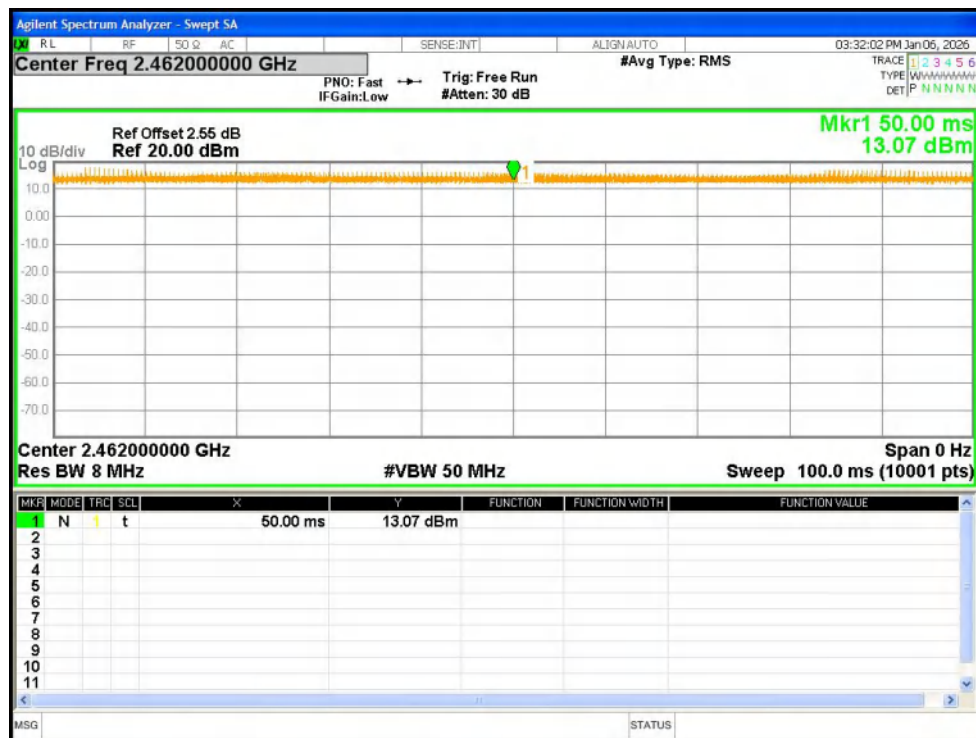


Duty Cycle NVNT g 2412MHz Ant1

Report

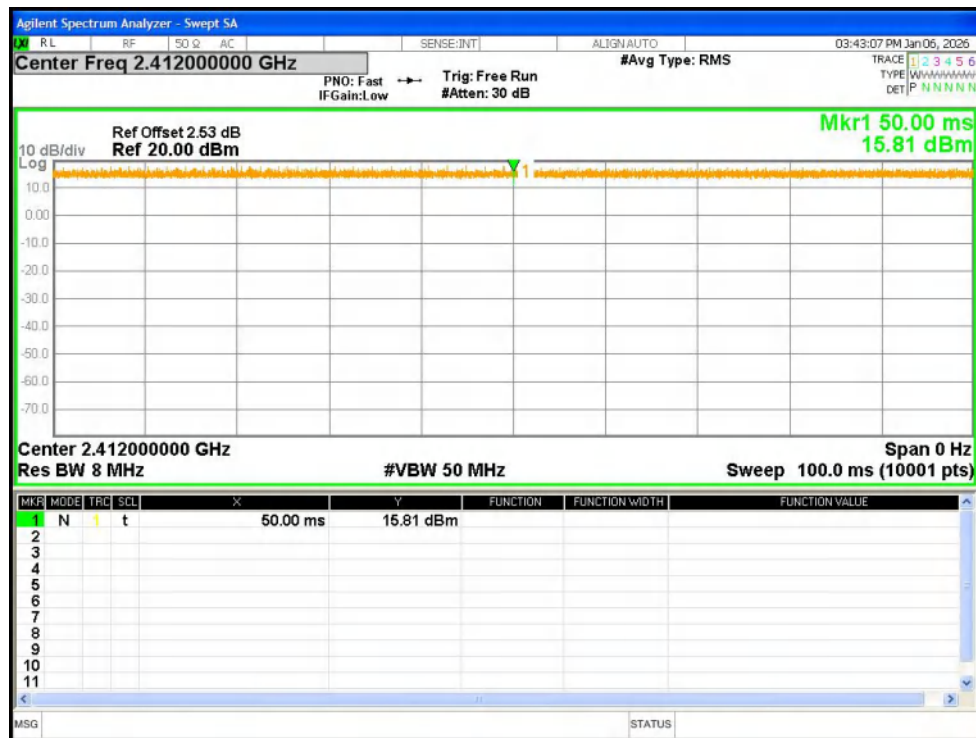


Duty Cycle NVNT g 2437MHz Ant1

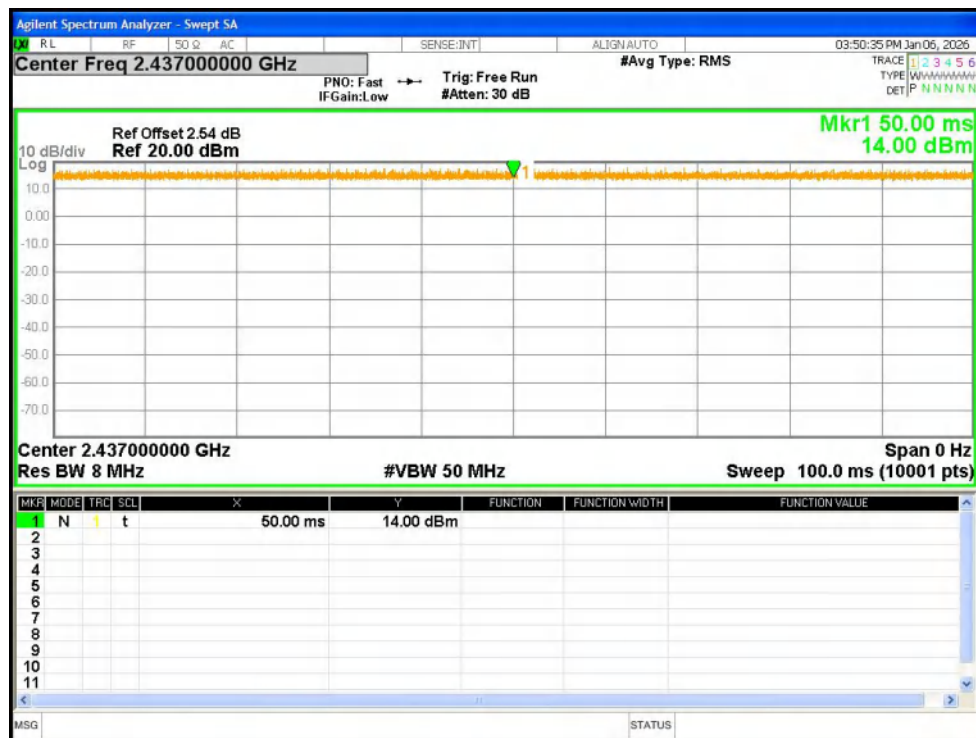


Duty Cycle NVNT g 2462MHz Ant1

Report

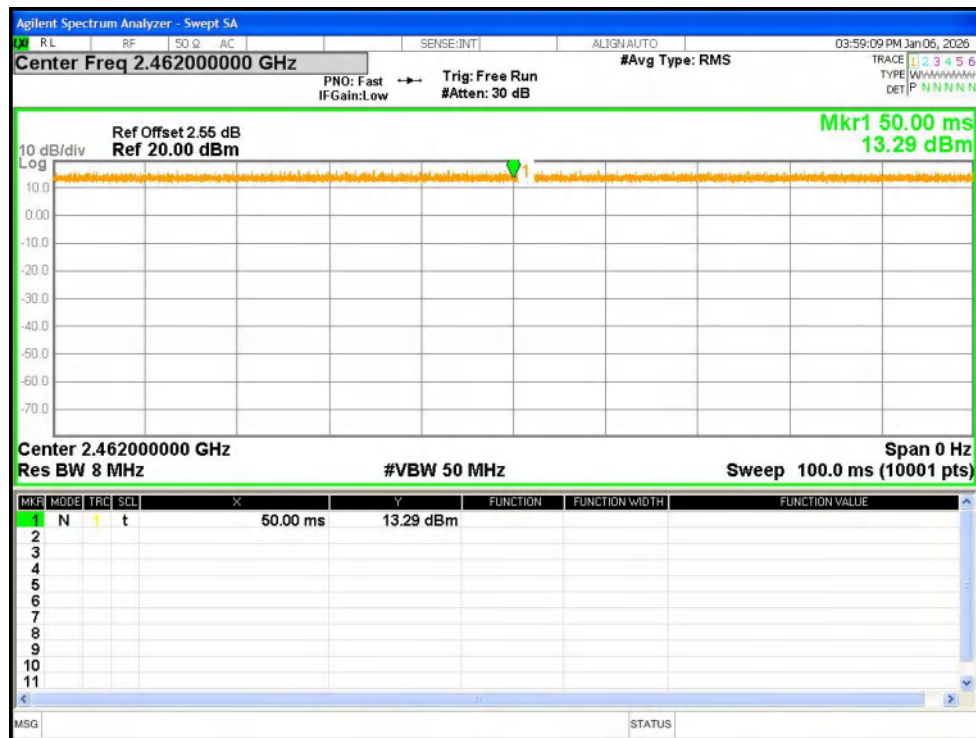


Duty Cycle NVNT n20 2412MHz Ant1

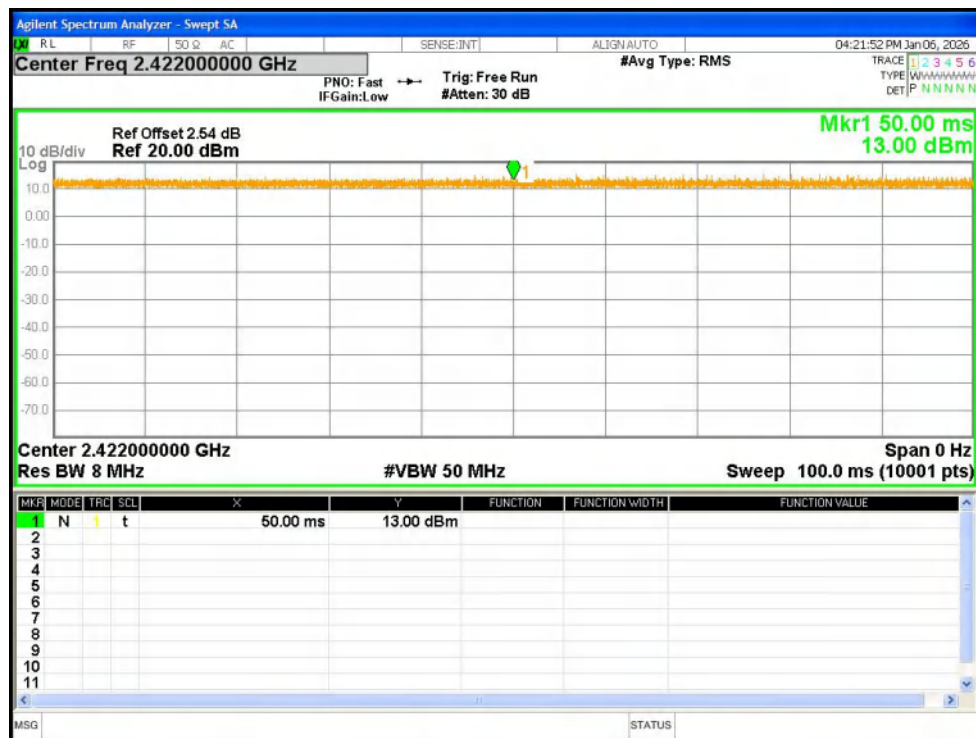


Duty Cycle NVNT n20 2437MHz Ant1

Report

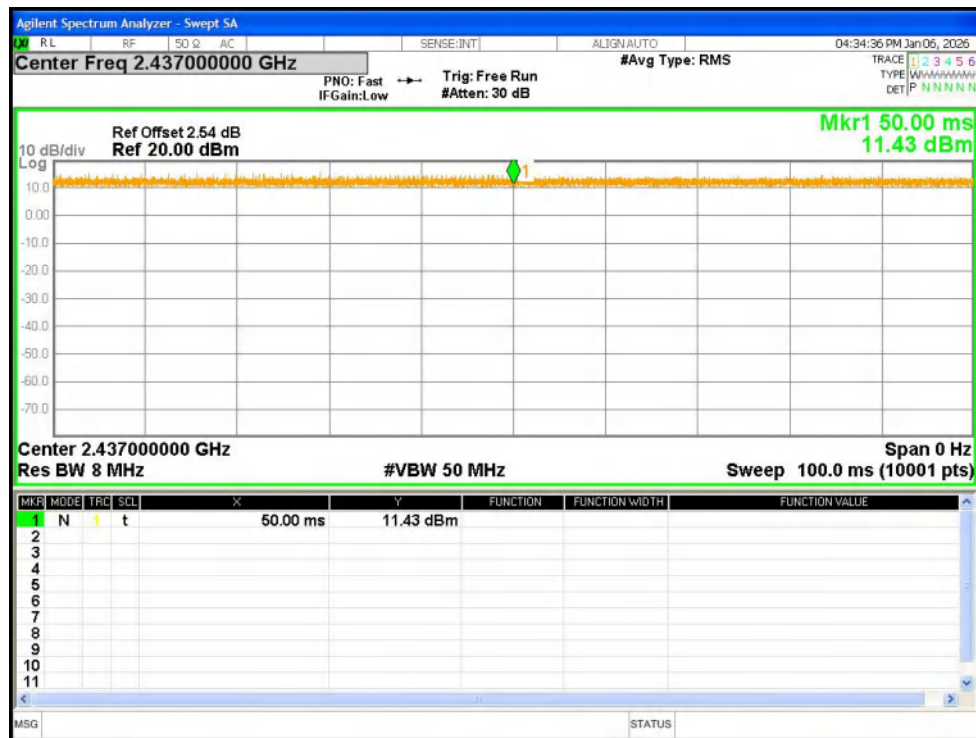


Duty Cycle NVNT n20 2462MHz Ant1

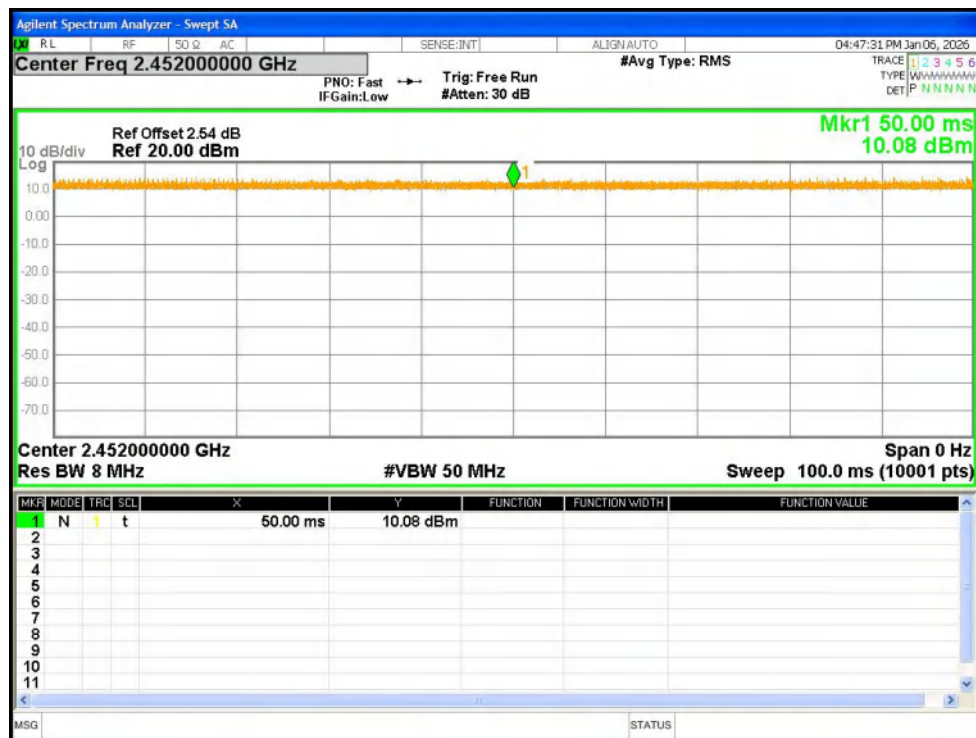


Duty Cycle NVNT n40 2422MHz Ant1

Report



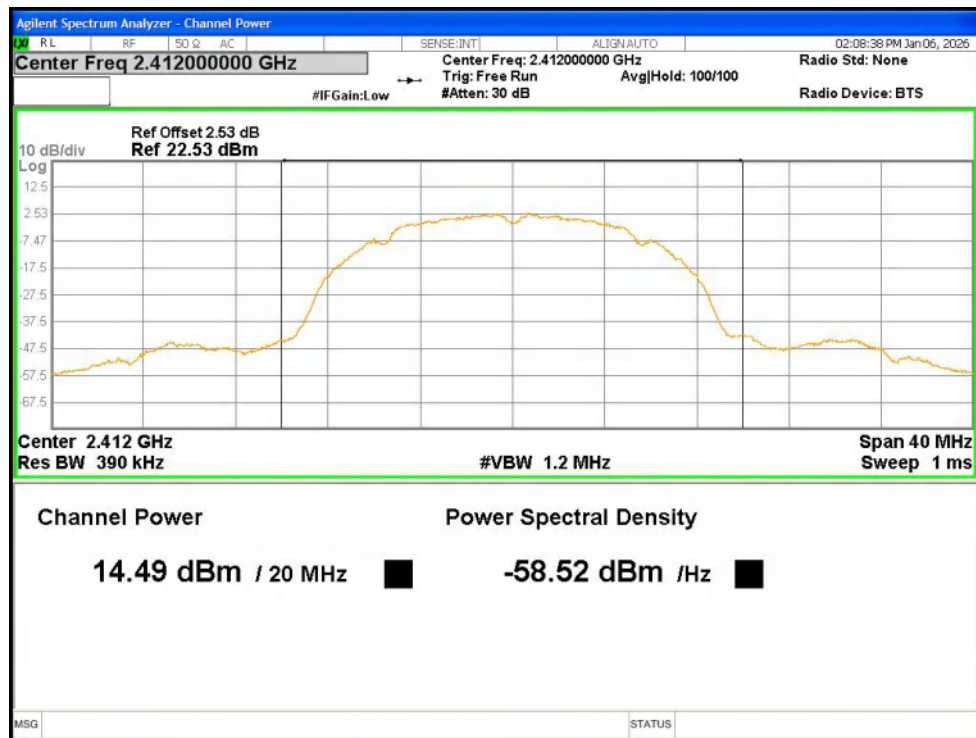
Duty Cycle NVNT n40 2437MHz Ant1



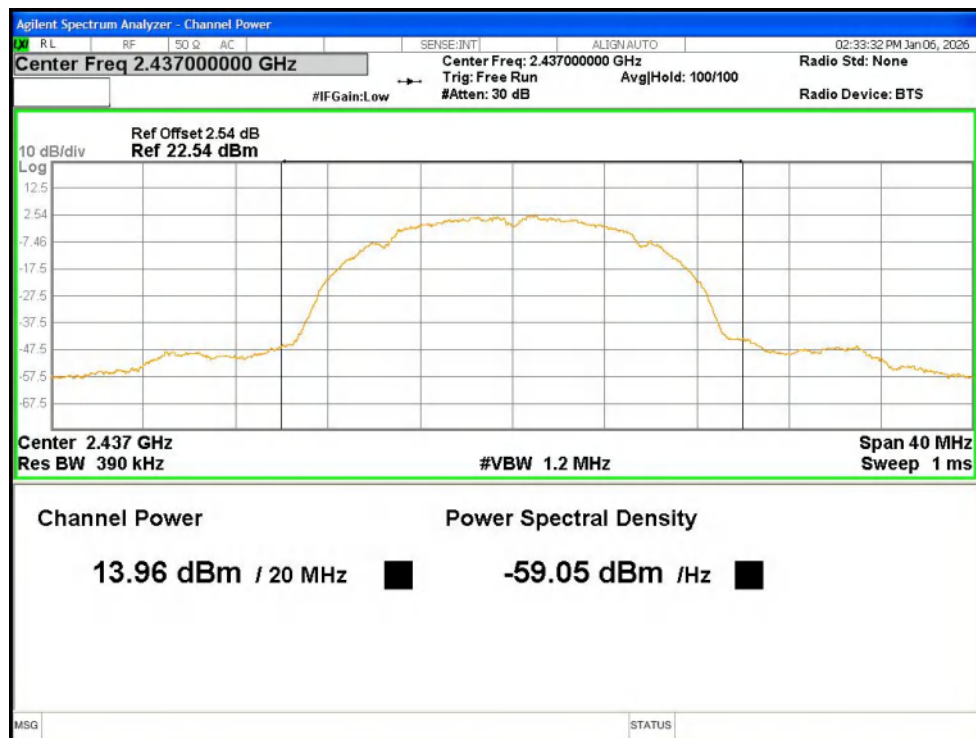
Duty Cycle NVNT n40 2452MHz Ant1

2. Maximum Average Conducted Output Power

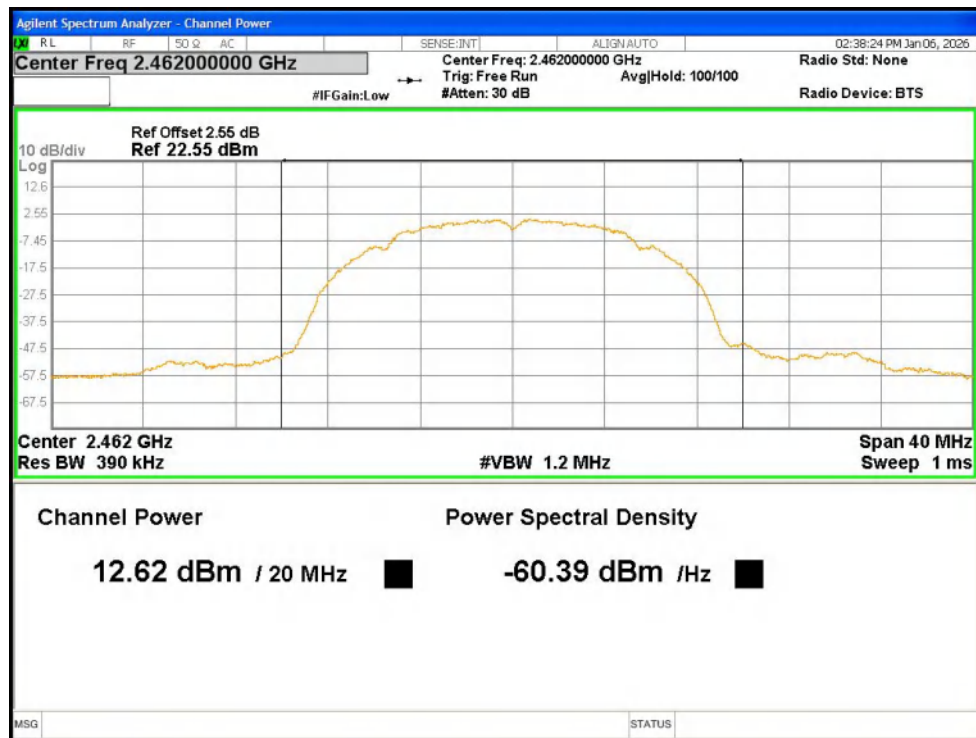
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.49	0	14.49	30	Pass
NVNT	b	2437	Ant1	13.96	0	13.96	30	Pass
NVNT	b	2462	Ant1	12.62	0	12.62	30	Pass
NVNT	g	2412	Ant1	12.31	0	12.31	30	Pass
NVNT	g	2437	Ant1	12.11	0	12.11	30	Pass
NVNT	g	2462	Ant1	10.93	0	10.93	30	Pass
NVNT	n20	2412	Ant1	12.28	0	12.28	30	Pass
NVNT	n20	2437	Ant1	11.97	0	11.97	30	Pass
NVNT	n20	2462	Ant1	10.8	0	10.8	30	Pass
NVNT	n40	2422	Ant1	11.43	0	11.43	30	Pass
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NVNT	n40	2452	Ant1	10.81	0	10.81	30	Pass



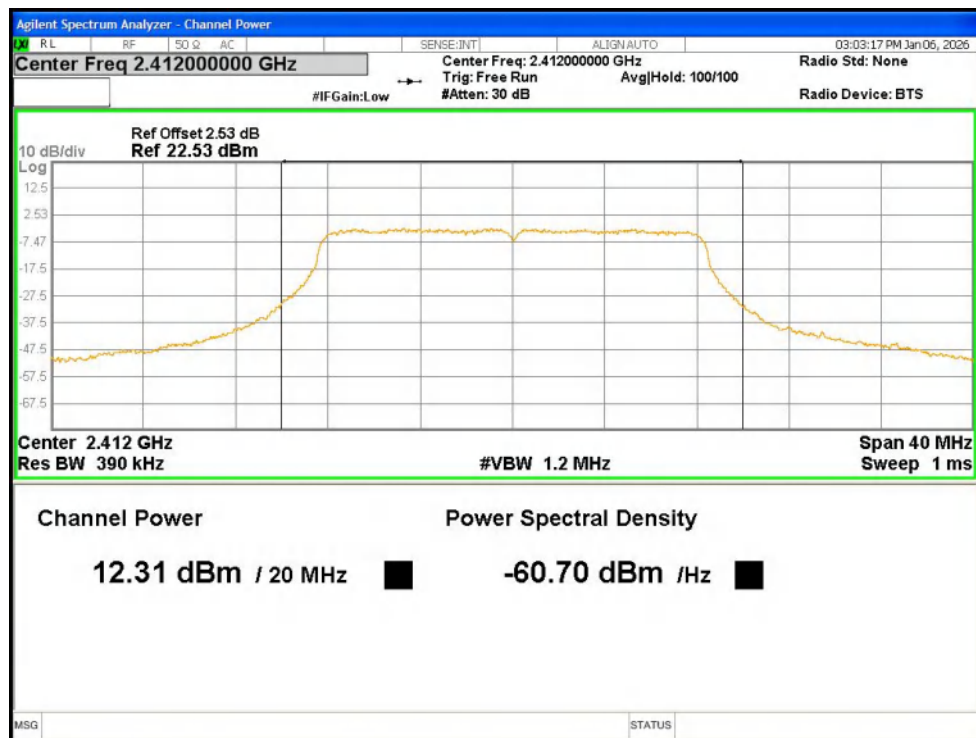
Average Power NVNT b 2412MHz Ant1



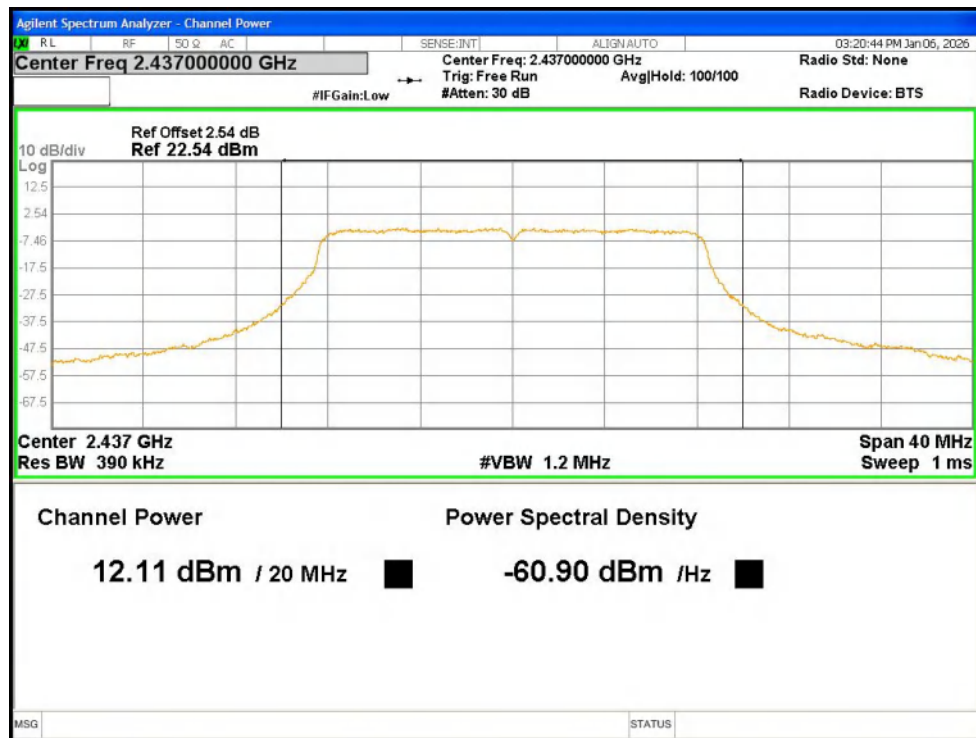
Average Power NVNT b 2437MHz Ant1



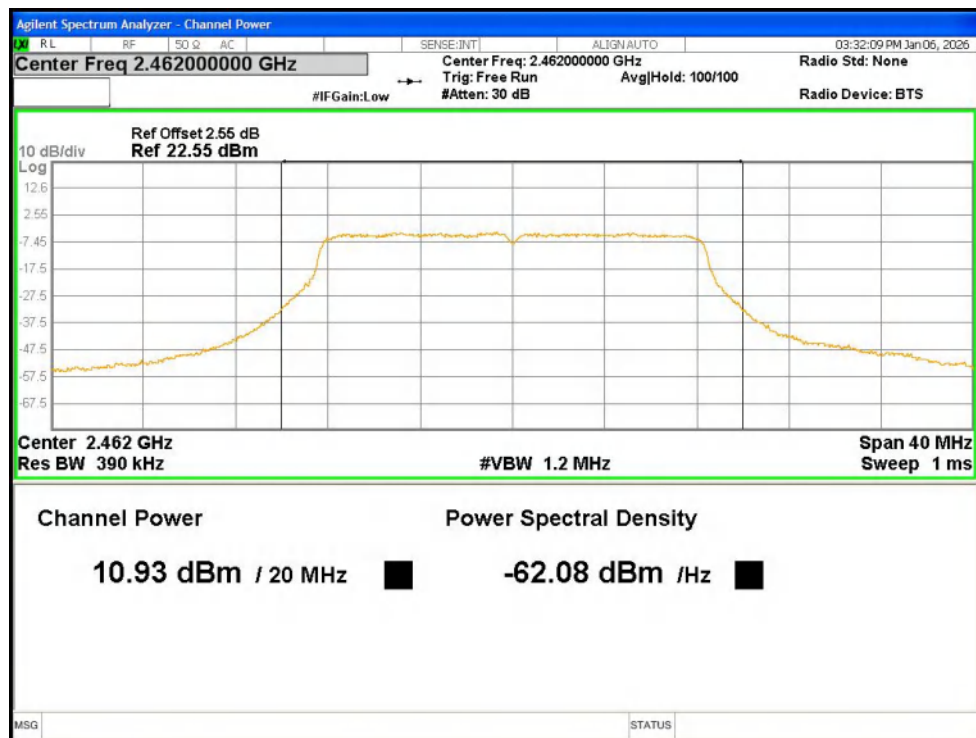
Average Power NVNT b 2462MHz Ant1



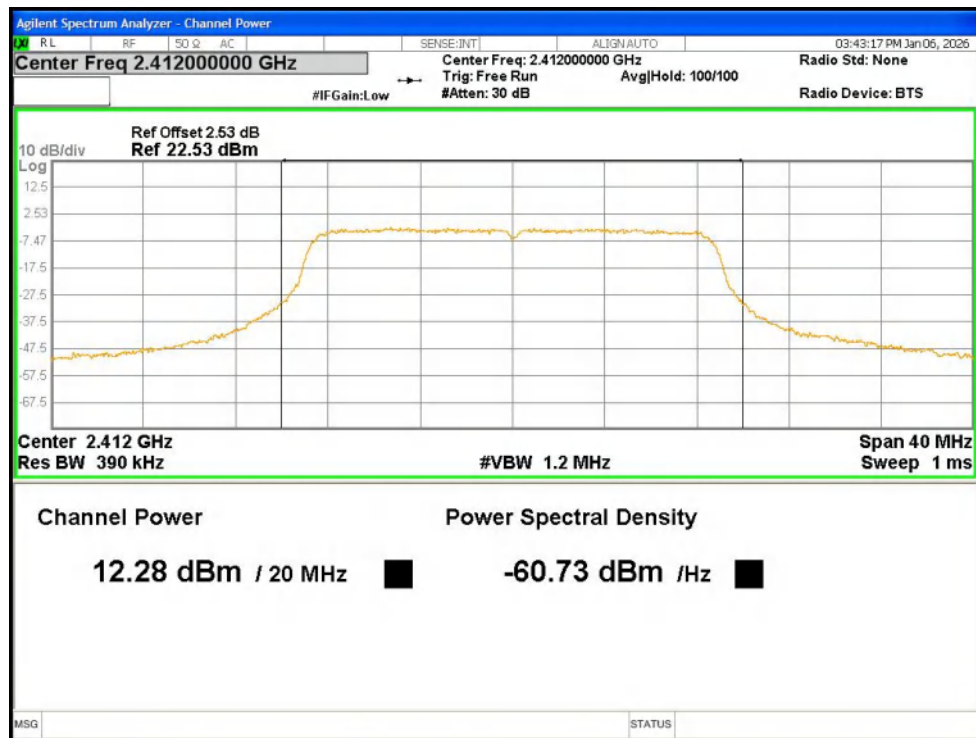
Average Power NVNT g 2412MHz Ant1



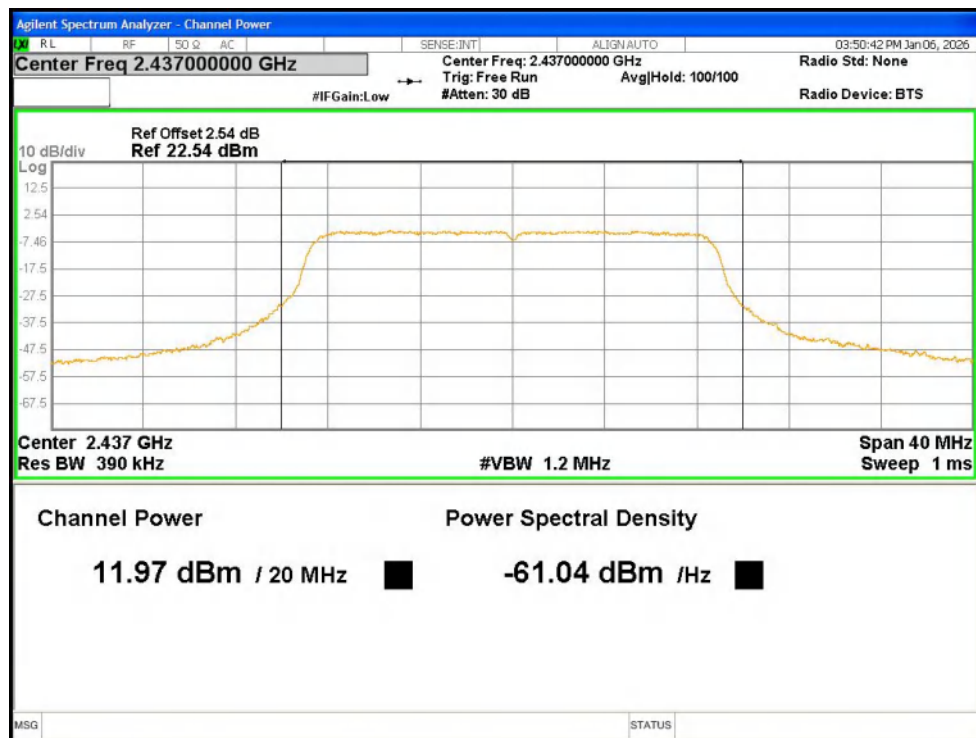
Average Power NVNT g 2437MHz Ant1



Average Power NVNT g 2462MHz Ant1

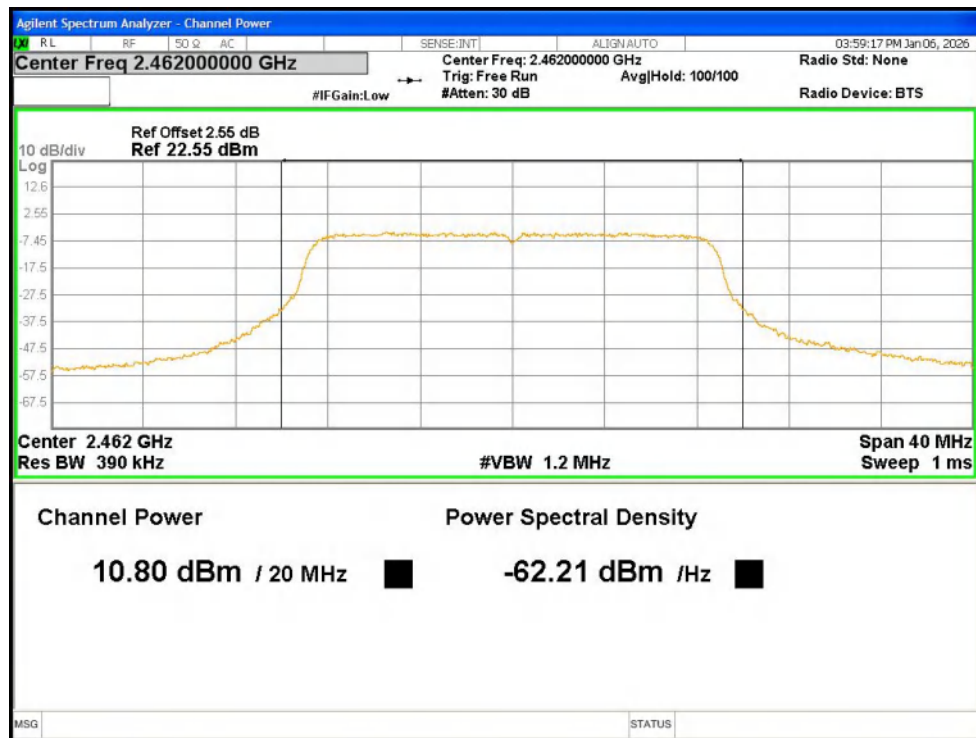


Average Power NVNT n20 2412MHz Ant1

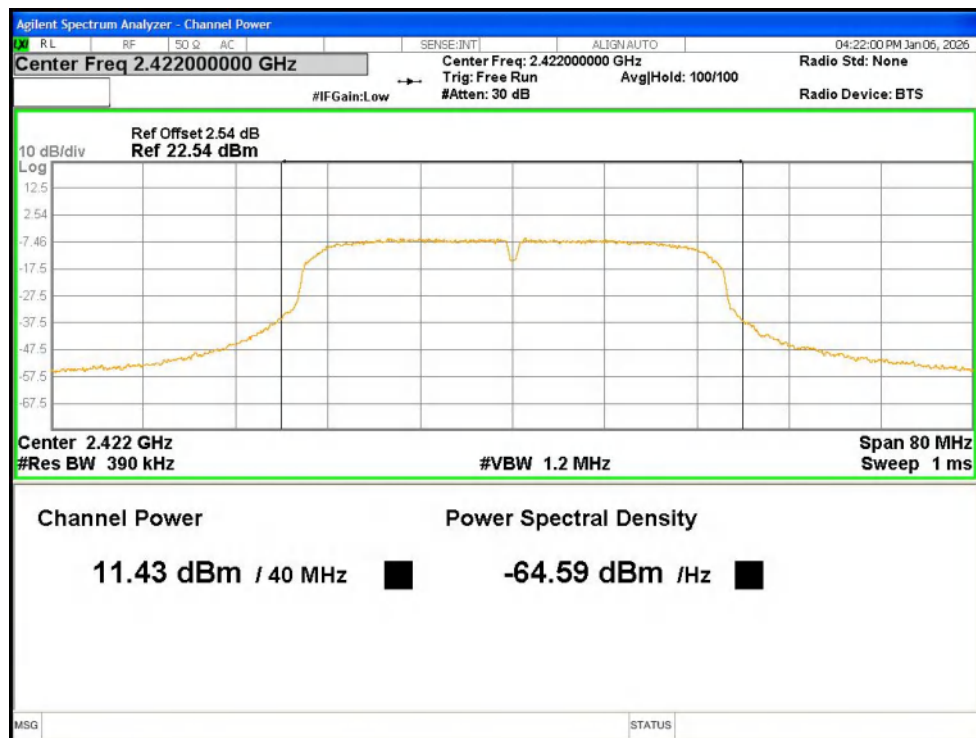


Average Power NVNT n20 2437MHz Ant1

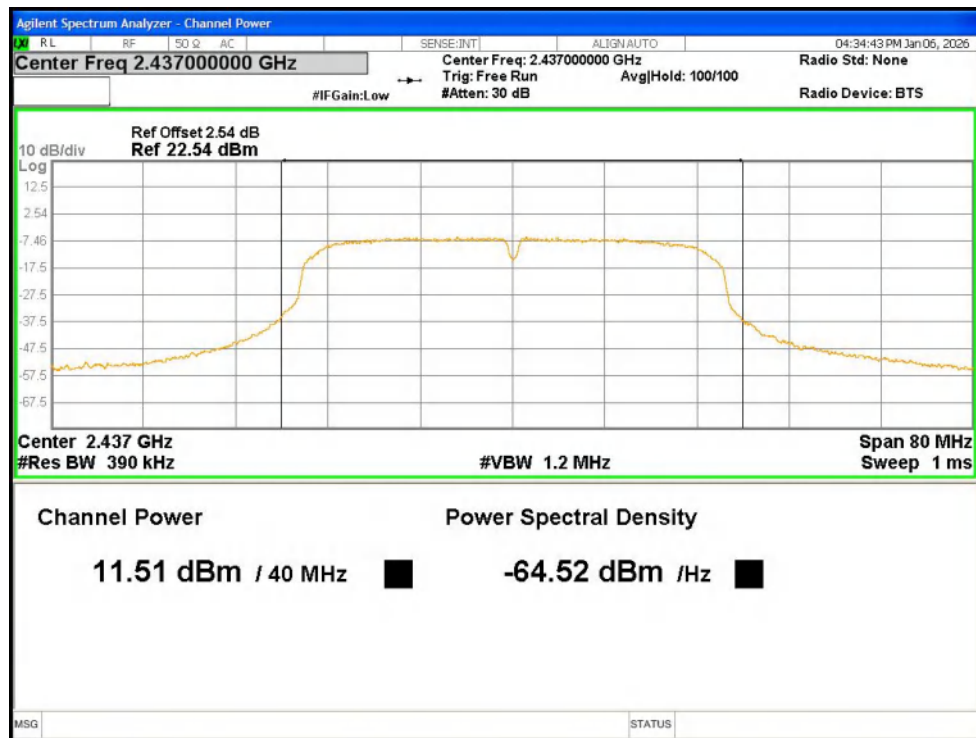
Report



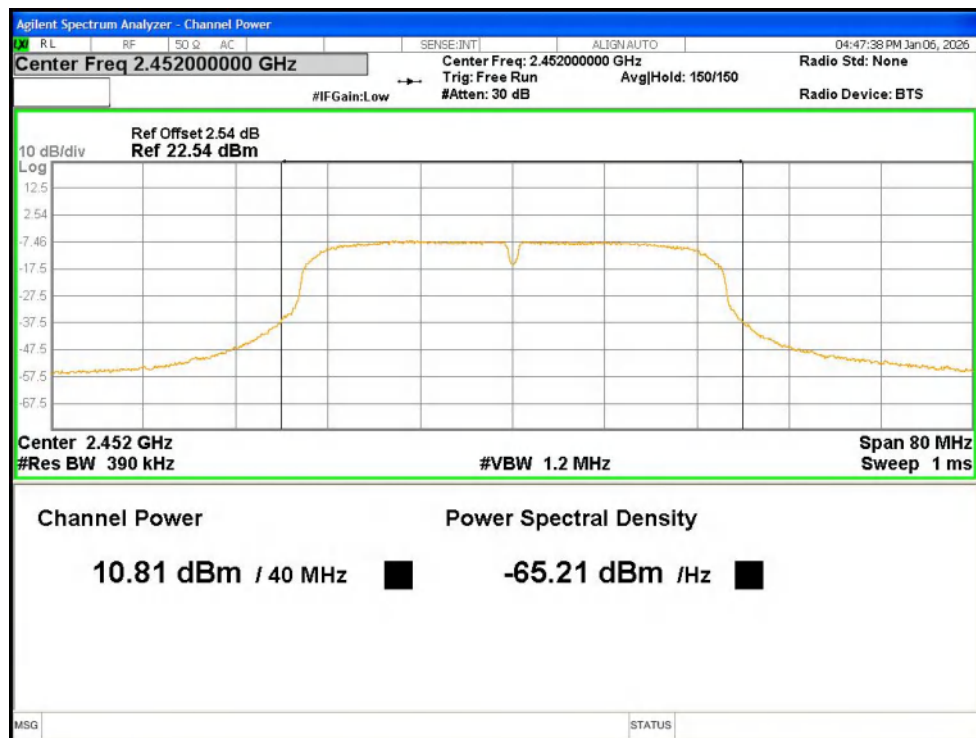
Average Power NVNT n20 2462MHz Ant1



Average Power NVNT n40 2422MHz Ant1



Average Power NVNT n40 2437MHz Ant1

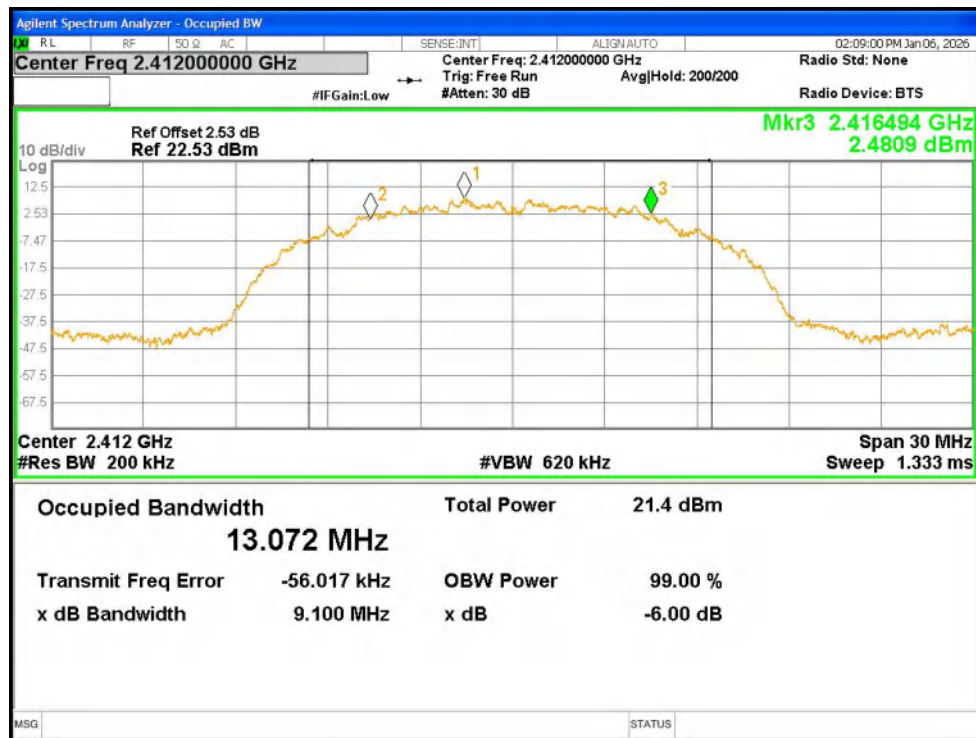


Average Power NVNT n40 2452MHz Ant1

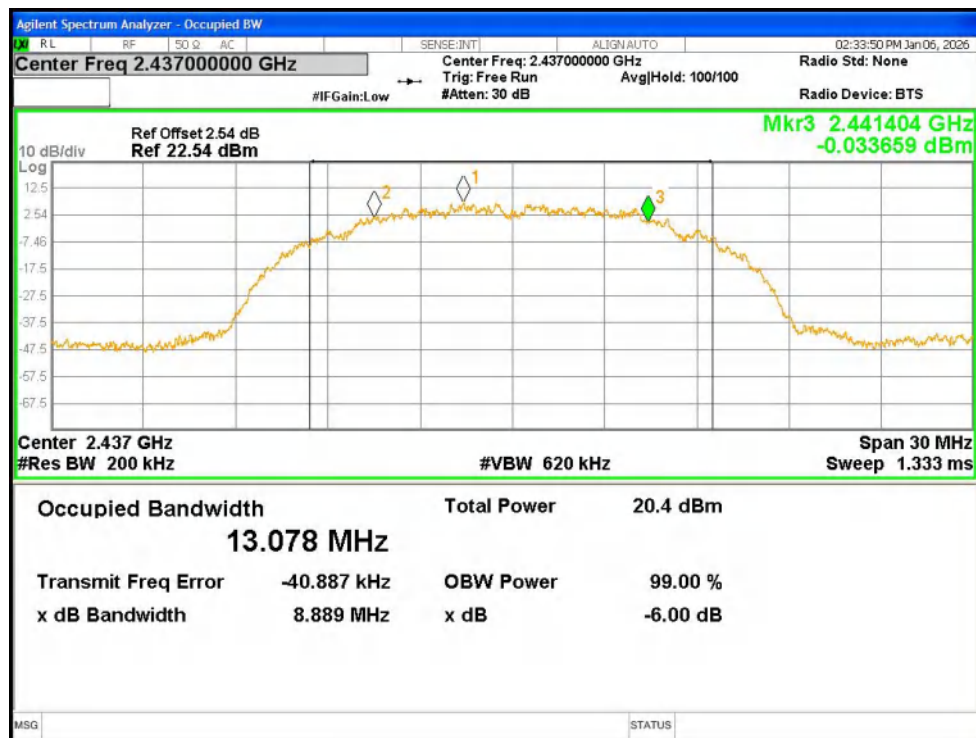
3. -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.1	0.5	Pass
NVNT	b	2437	Ant1	8.889	0.5	Pass
NVNT	b	2462	Ant1	9.164	0.5	Pass
NVNT	g	2412	Ant1	16.376	0.5	Pass
NVNT	g	2437	Ant1	16.394	0.5	Pass
NVNT	g	2462	Ant1	16.411	0.5	Pass
NVNT	n20	2412	Ant1	17.201	0.5	Pass
NVNT	n20	2437	Ant1	17.191	0.5	Pass
NVNT	n20	2462	Ant1	17.095	0.5	Pass
NVNT	n40	2422	Ant1	32.614	0.5	Pass
NVNT	n40	2437	Ant1	33.065	0.5	Pass
NVNT	n40	2452	Ant1	33.203	0.5	Pass

Report

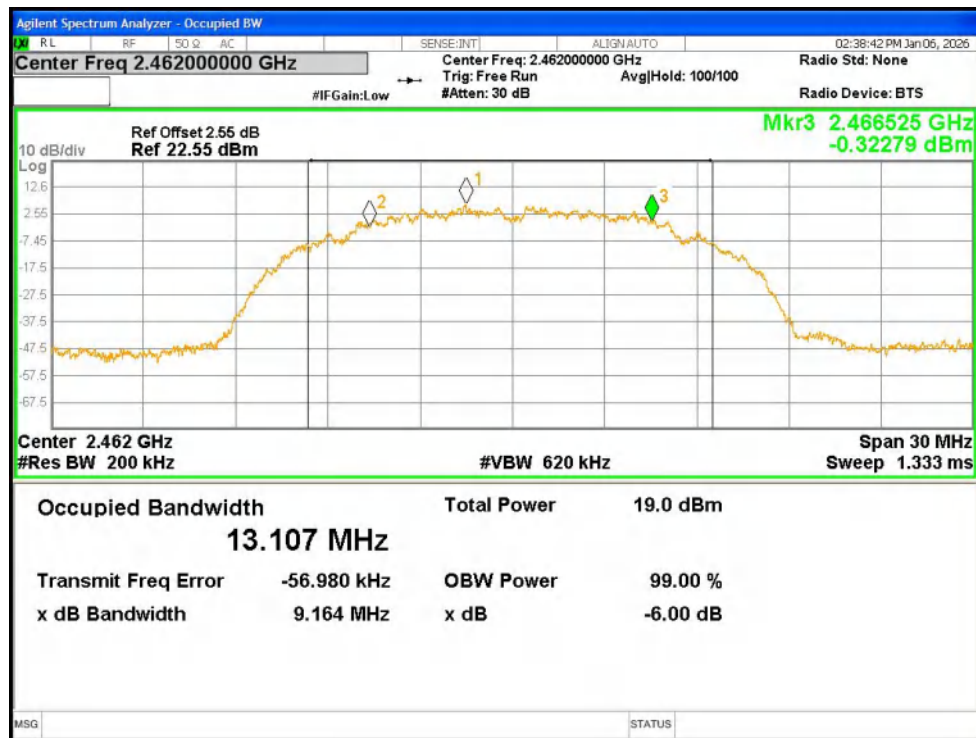


-6dB Bandwidth NVNT b 2412MHz Ant1

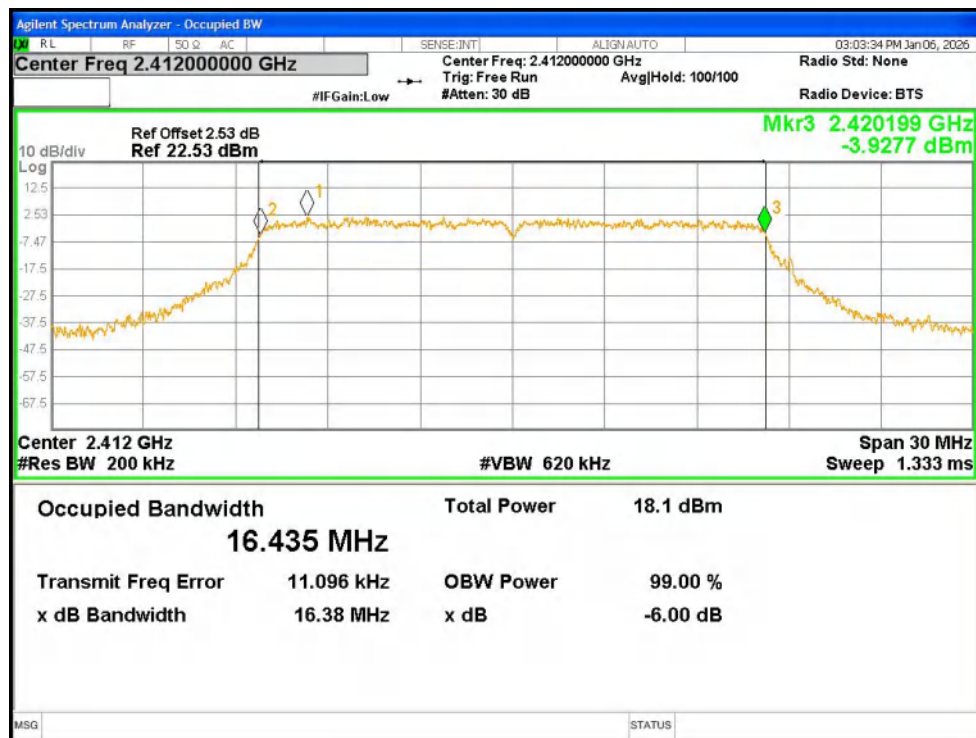


-6dB Bandwidth NVNT b 2437MHz Ant1

Report

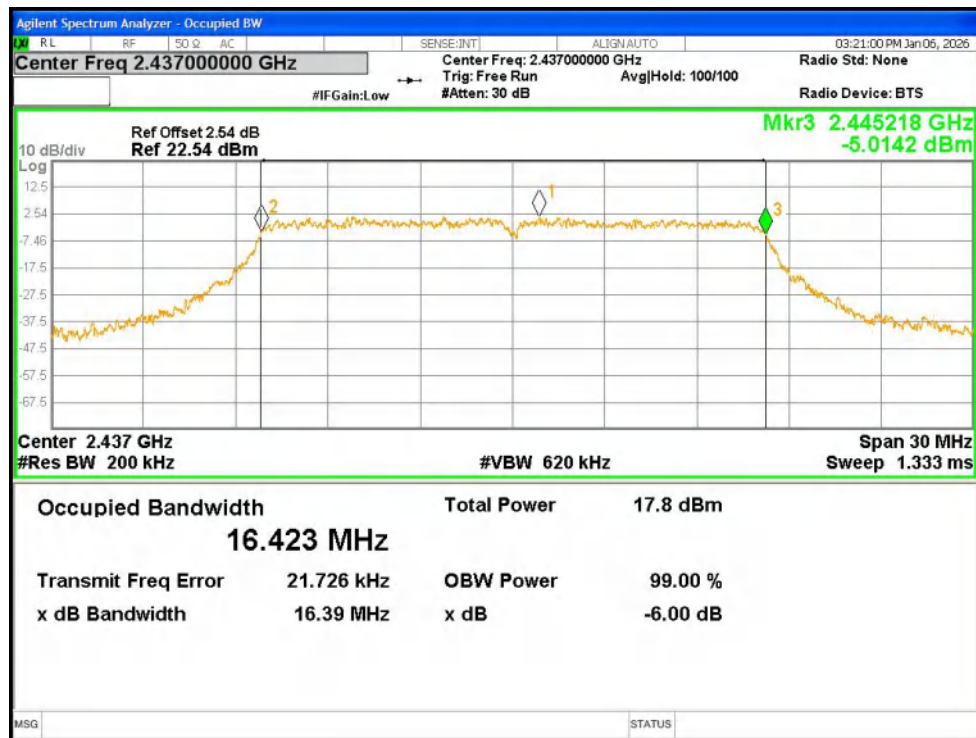


-6dB Bandwidth NVNT b 2462MHz Ant1

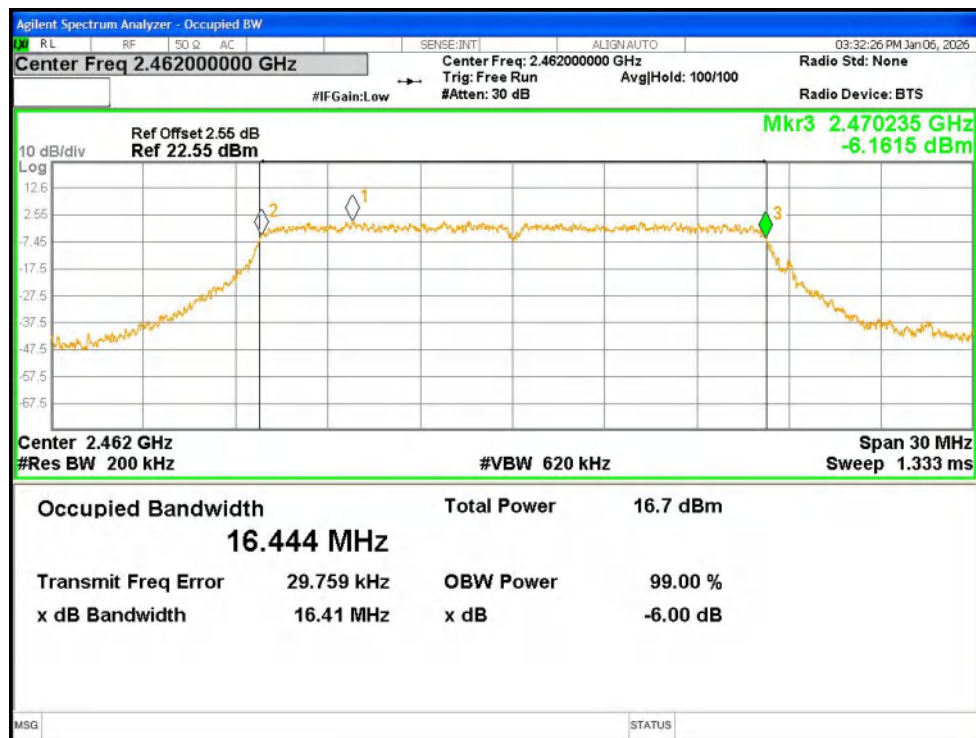


-6dB Bandwidth NVNT g 2412MHz Ant1

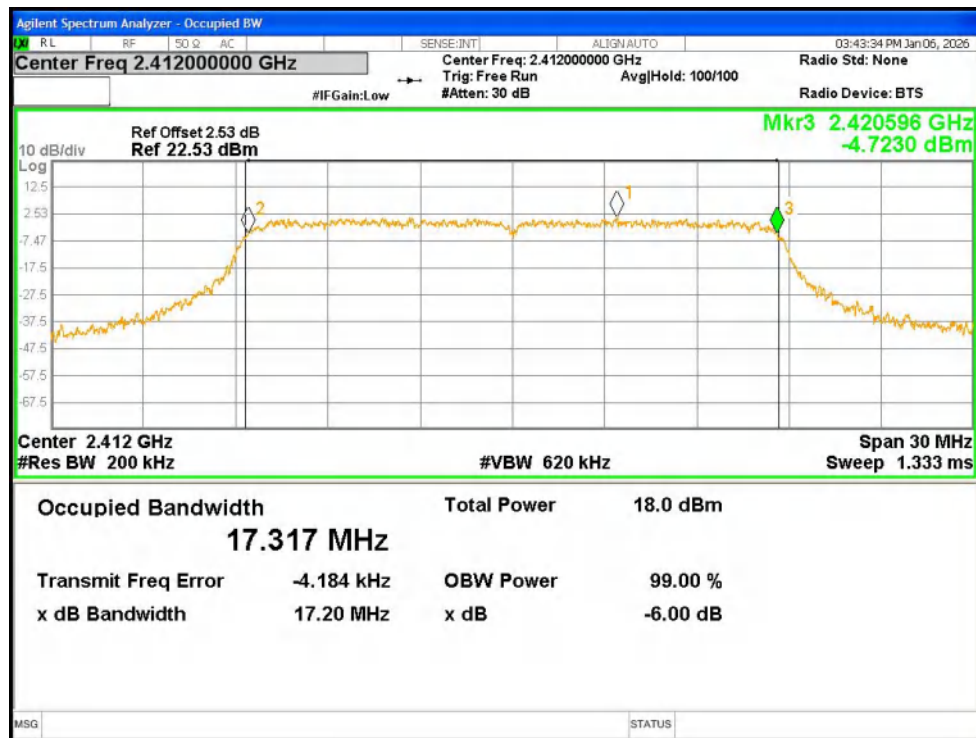
Report



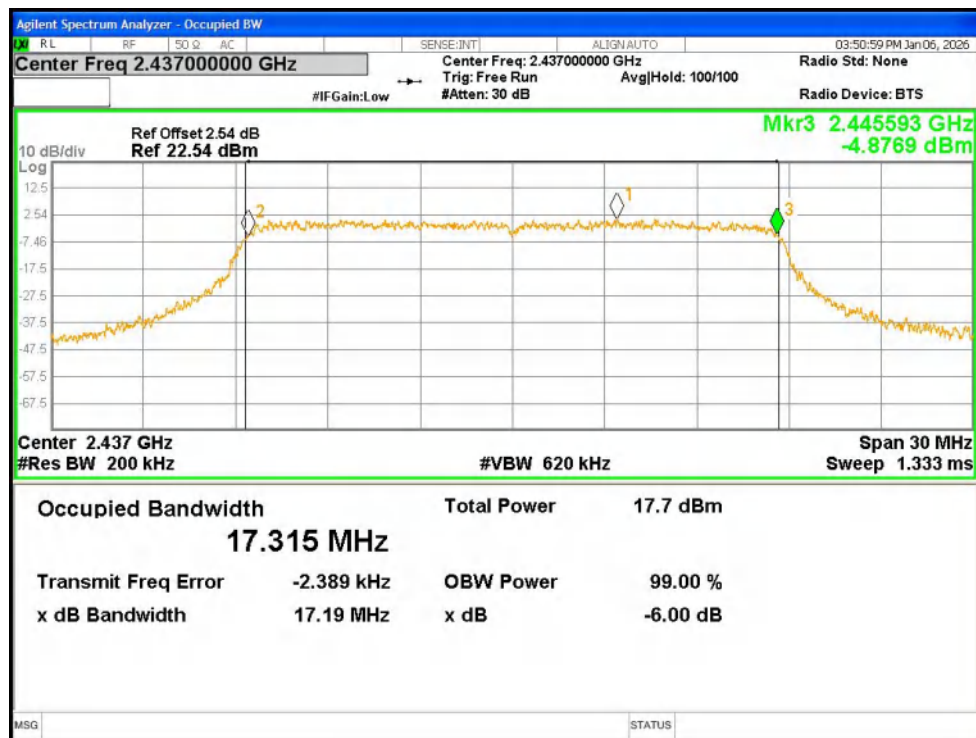
-6dB Bandwidth NVNT g 2437MHz Ant1



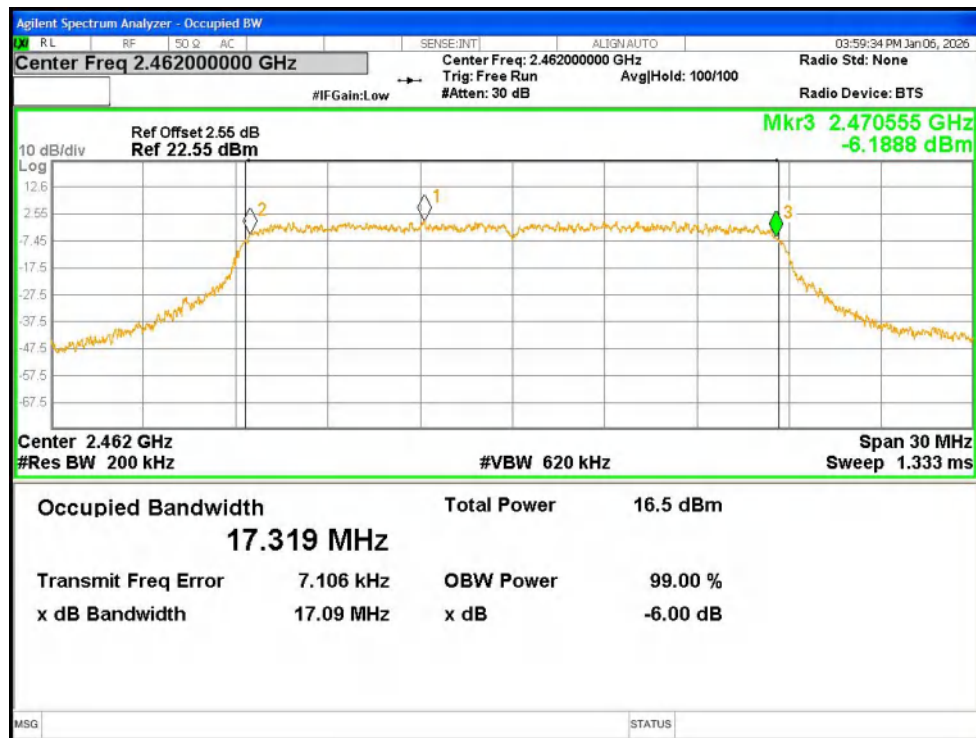
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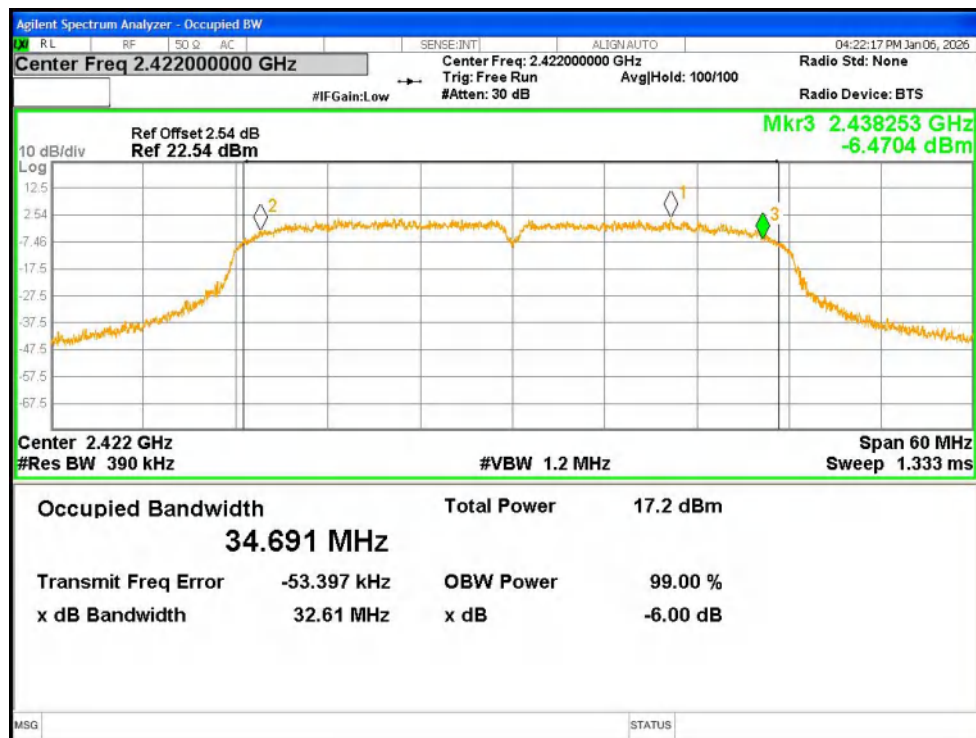
-6dB Bandwidth NVNT n20 2412MHz Ant1



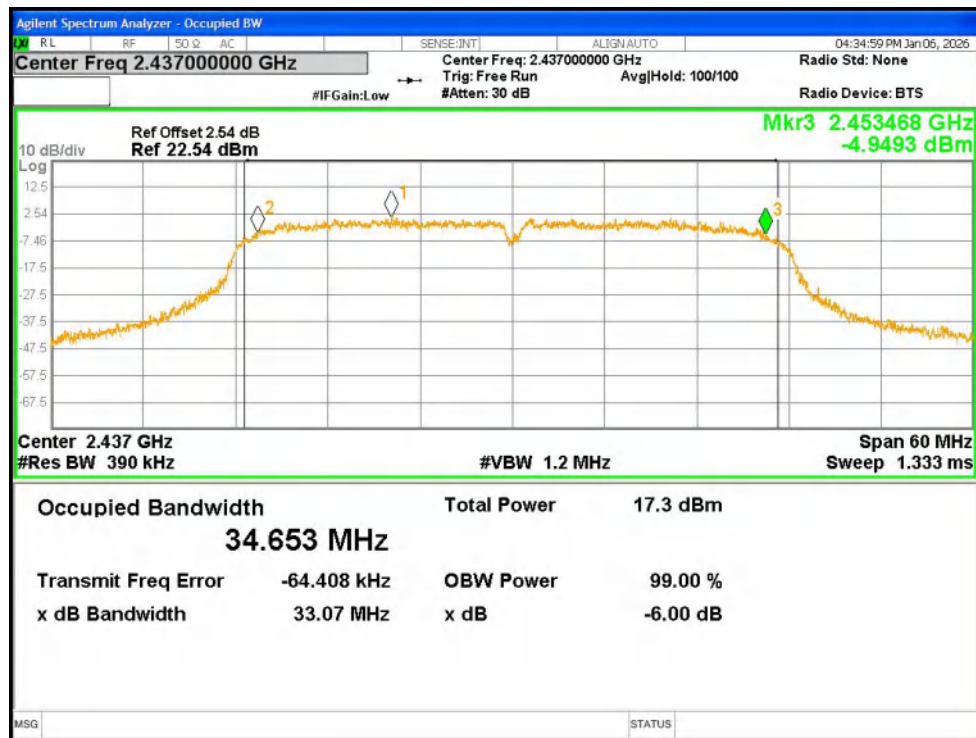
-6dB Bandwidth NVNT n20 2437MHz Ant1



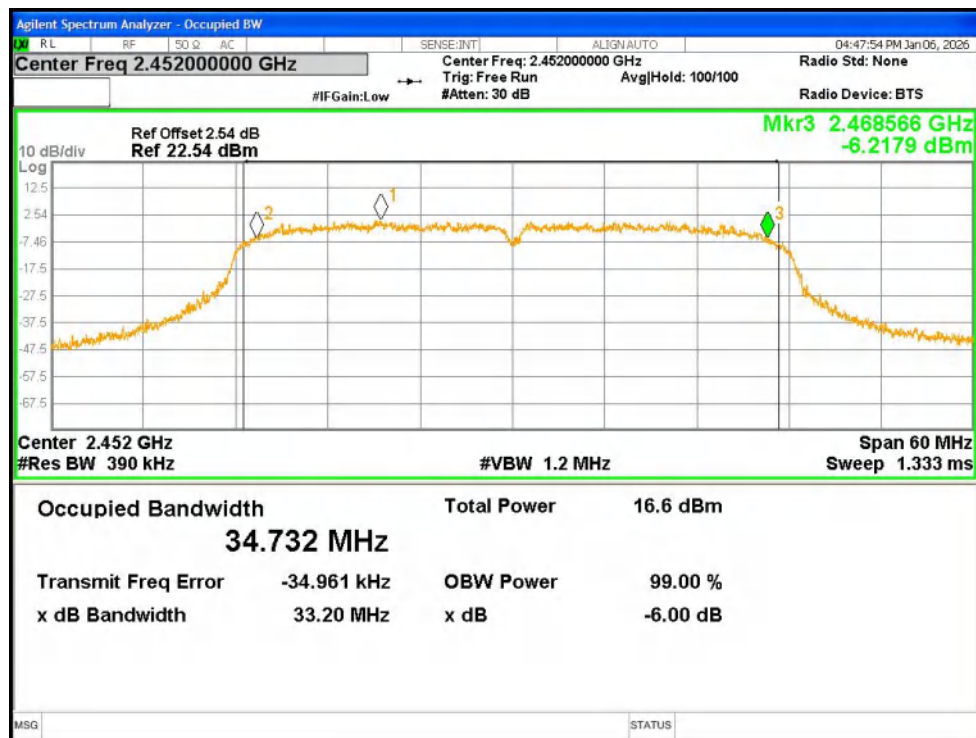
-6dB Bandwidth NVNT n20 2462MHz Ant1



-6dB Bandwidth NVNT n40 2422MHz Ant1



-6dB Bandwidth NVNT n40 2437MHz Ant1

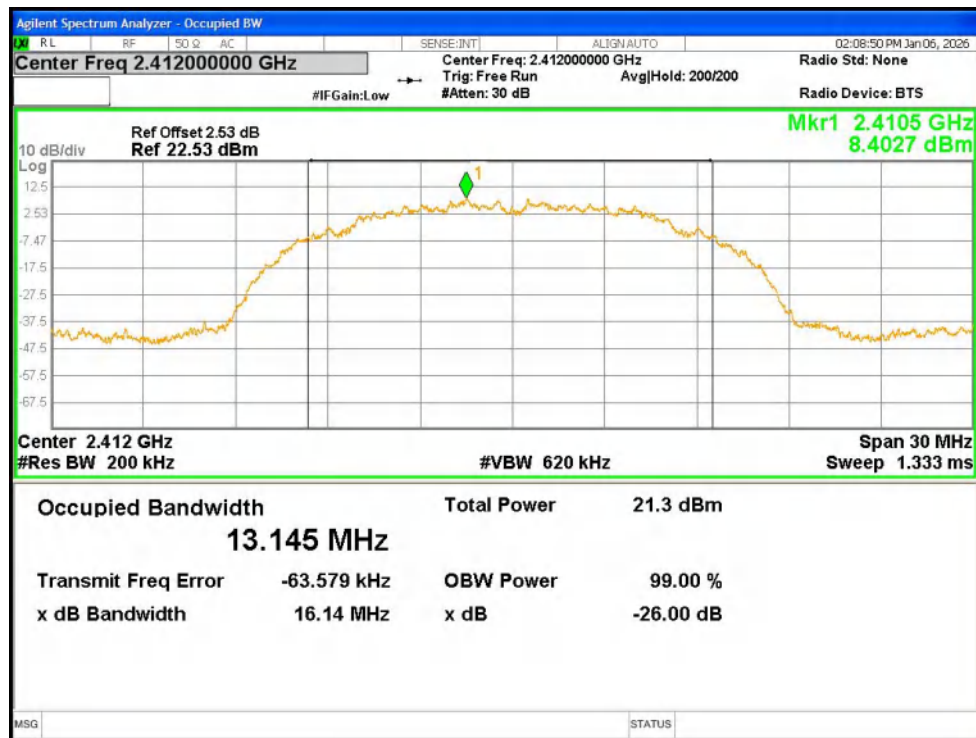


-6dB Bandwidth NVNT n40 2452MHz Ant1

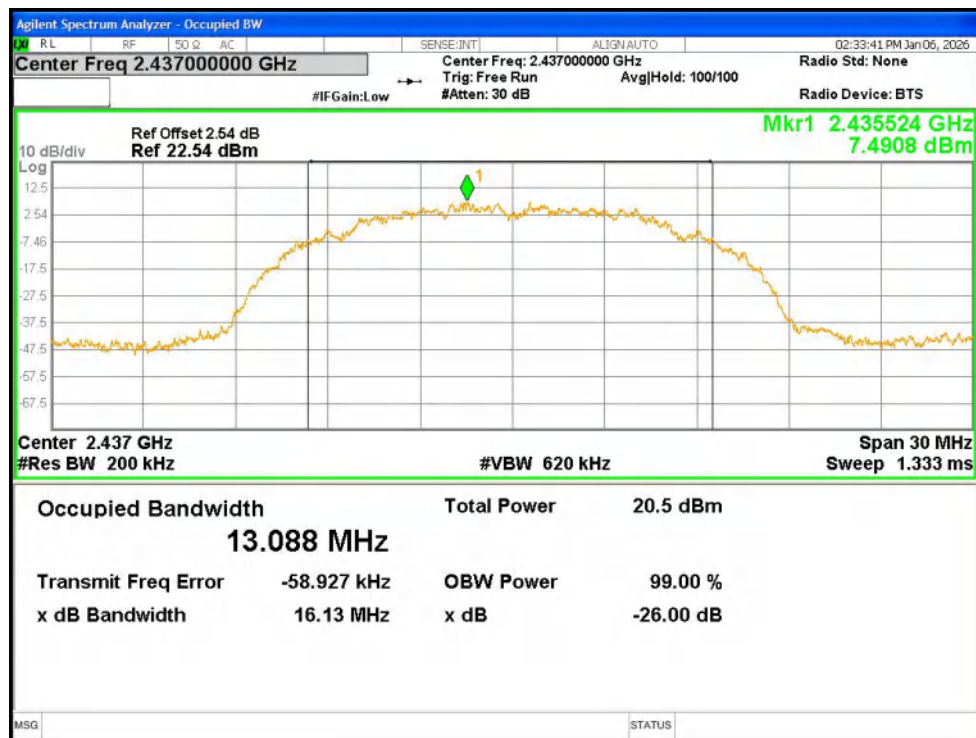
4. Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	b	2412	Ant1	13.145
NVNT	b	2437	Ant1	13.088
NVNT	b	2462	Ant1	13.102
NVNT	g	2412	Ant1	16.441
NVNT	g	2437	Ant1	16.444
NVNT	g	2462	Ant1	16.443
NVNT	n20	2412	Ant1	17.358
NVNT	n20	2437	Ant1	17.338
NVNT	n20	2462	Ant1	17.336
NVNT	n40	2422	Ant1	34.737
NVNT	n40	2437	Ant1	34.676
NVNT	n40	2452	Ant1	34.667

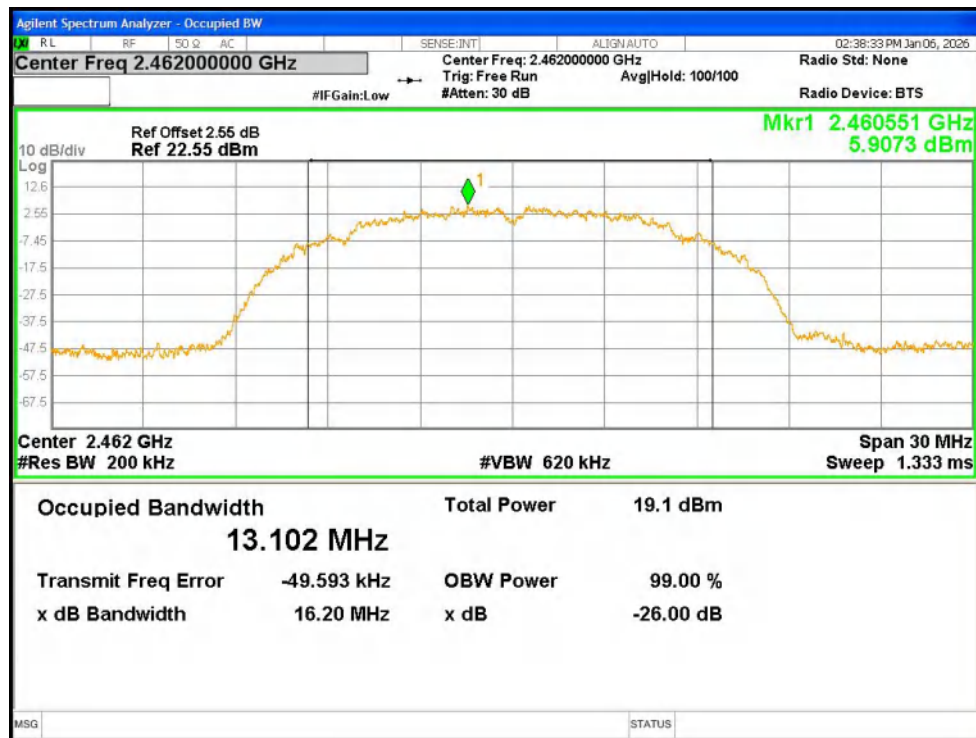
Report



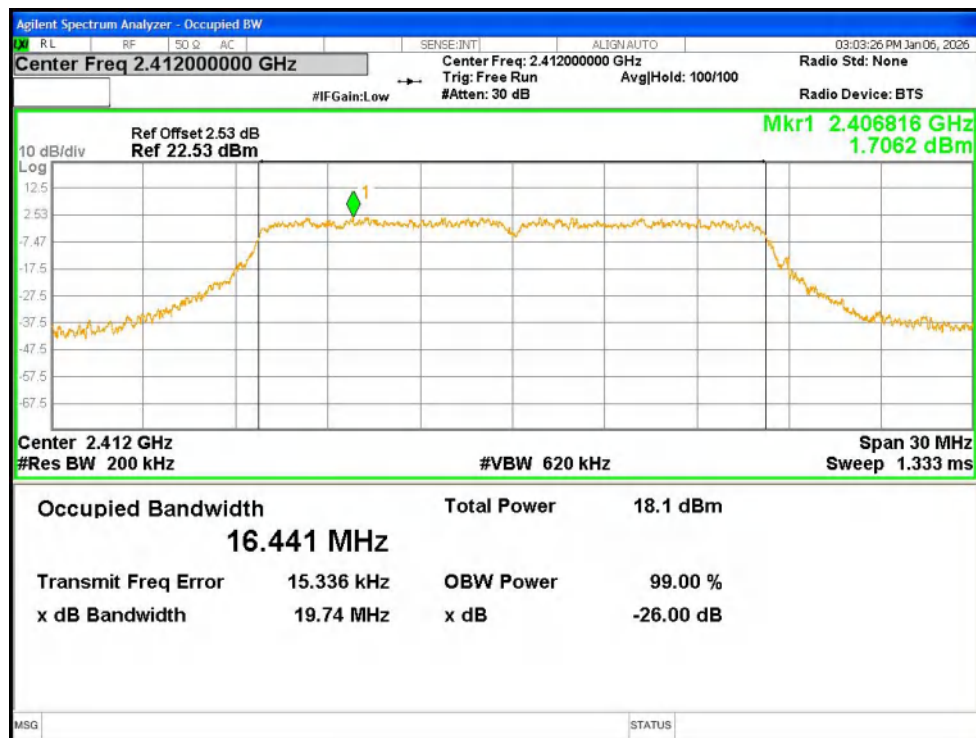
OBW NVNT b 2412MHz Ant1



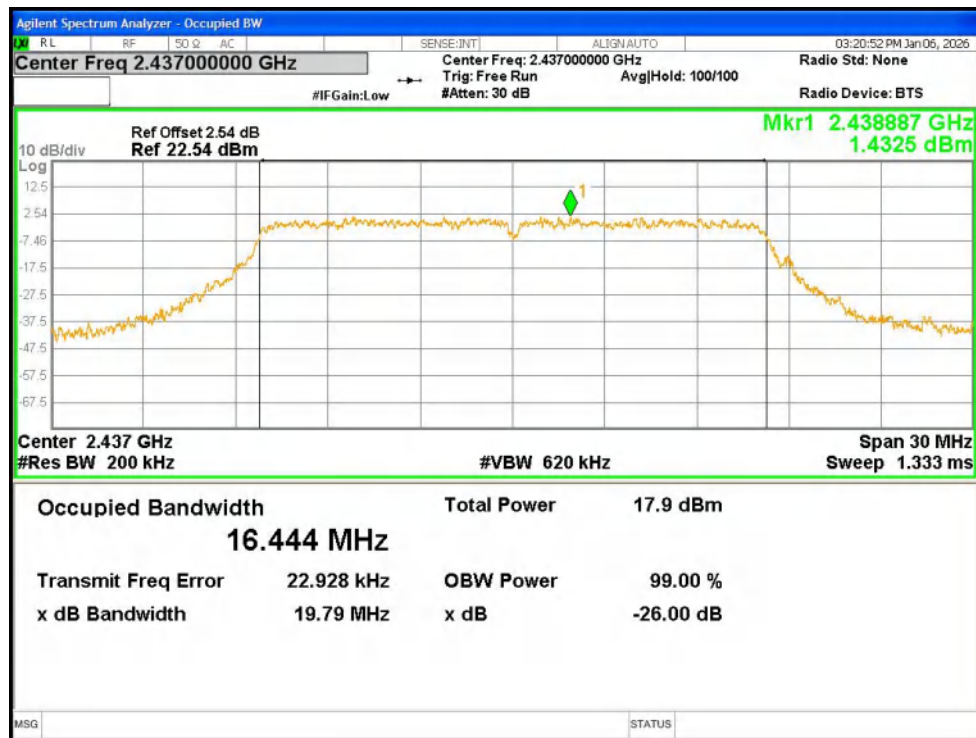
OBW NVNT b 2437MHz Ant1



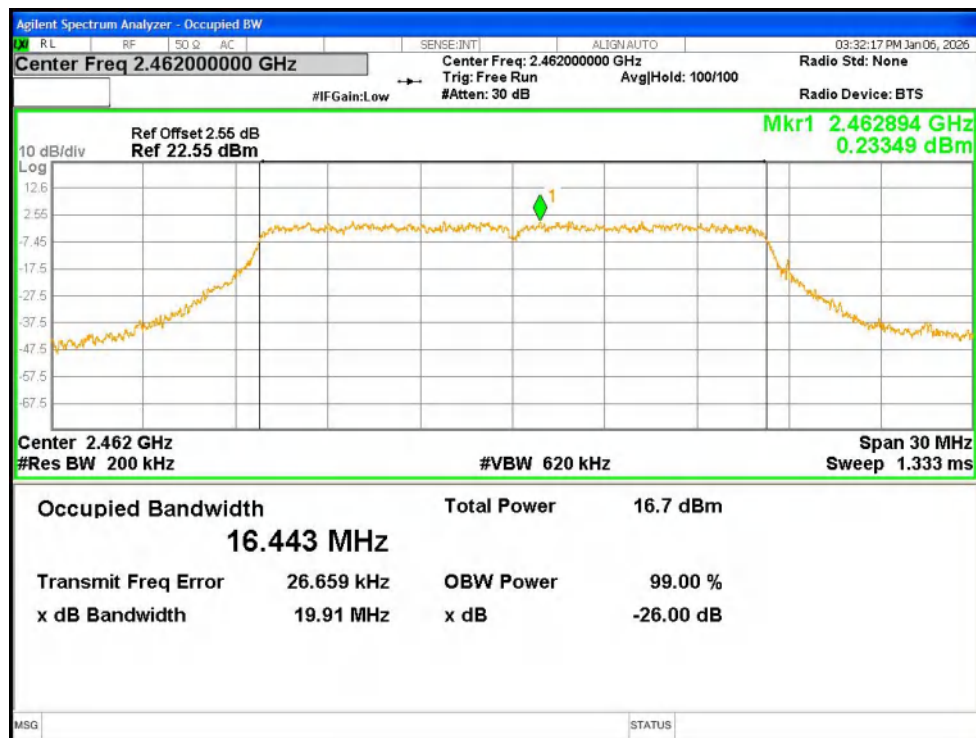
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OBW NVNT g 2412MHz Ant1

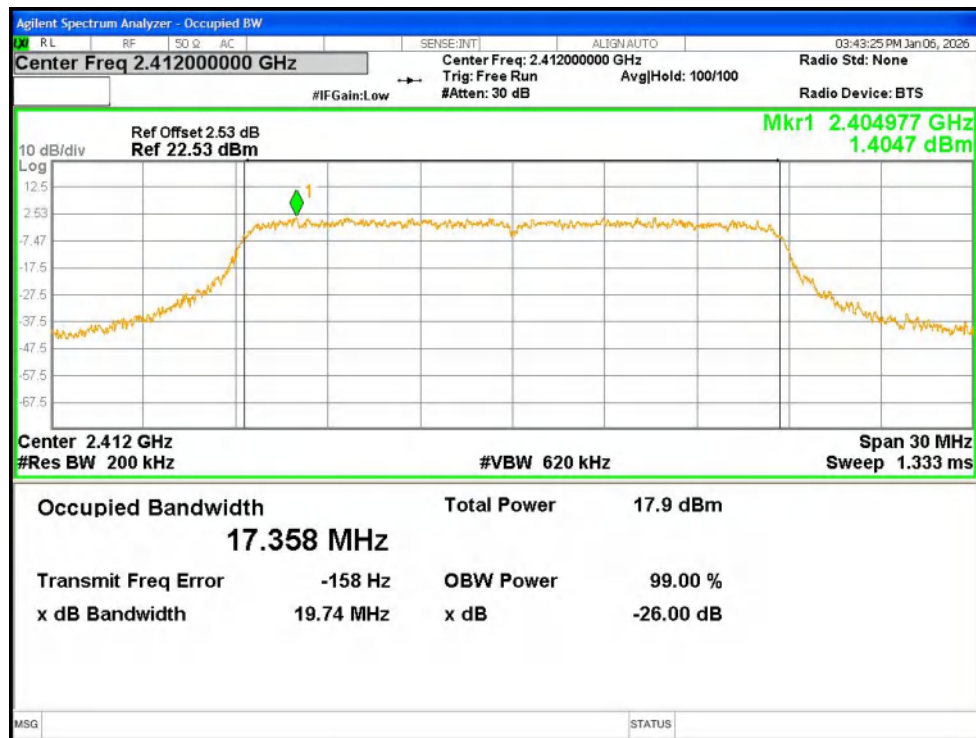


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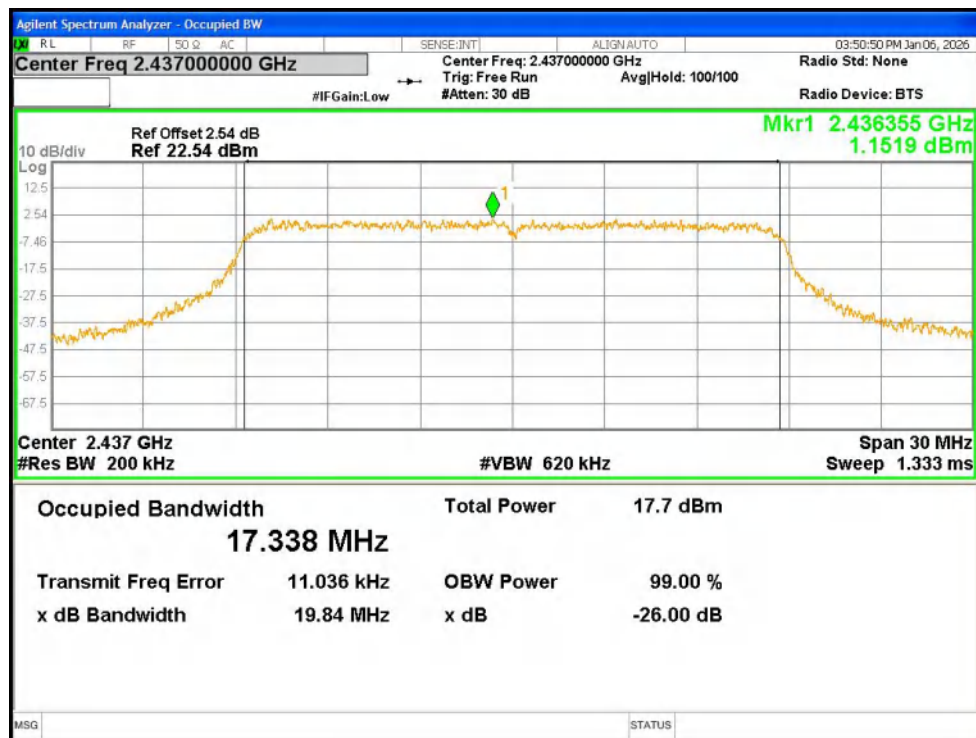


OBW NVNT g 2462MHz Ant1

Report

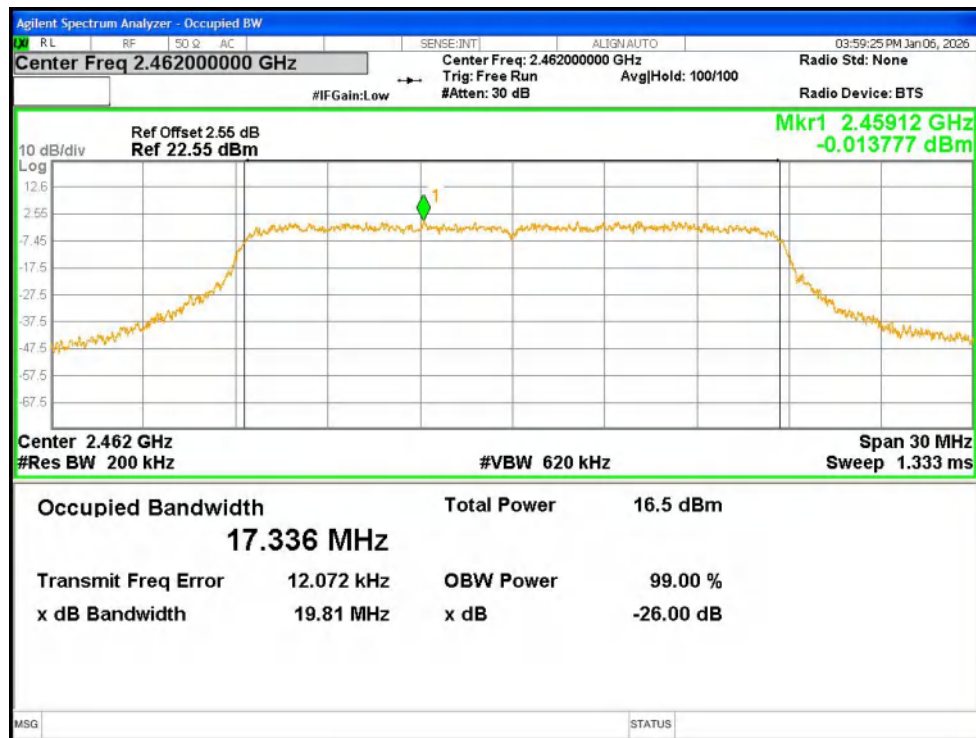


OBW NVNT n20 2412MHz Ant1

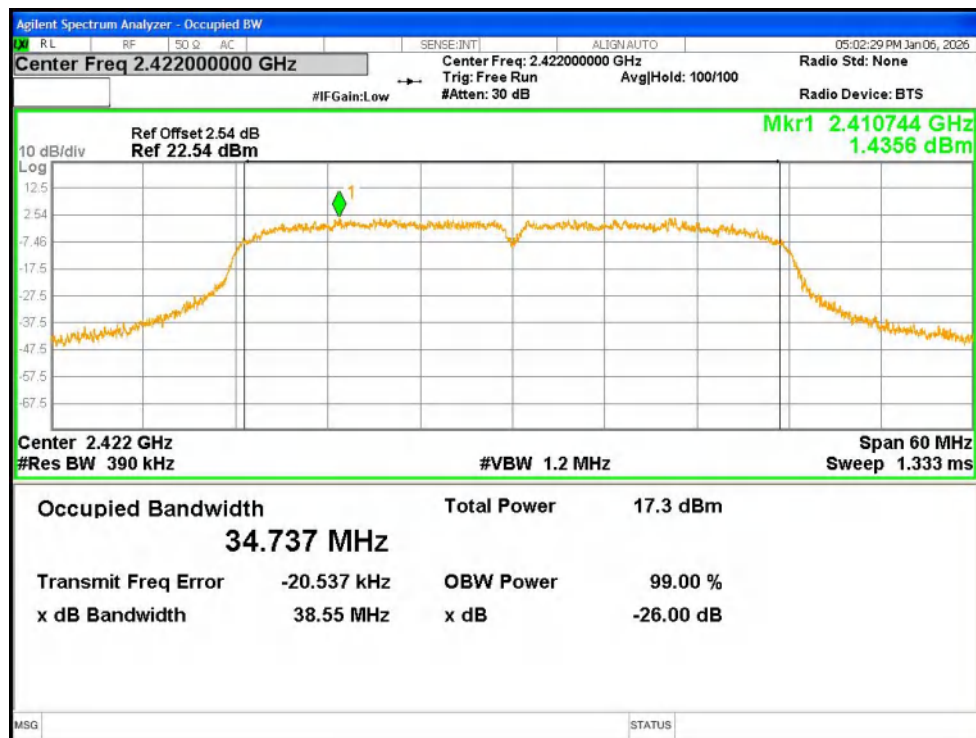


OBW NVNT n20 2437MHz Ant1

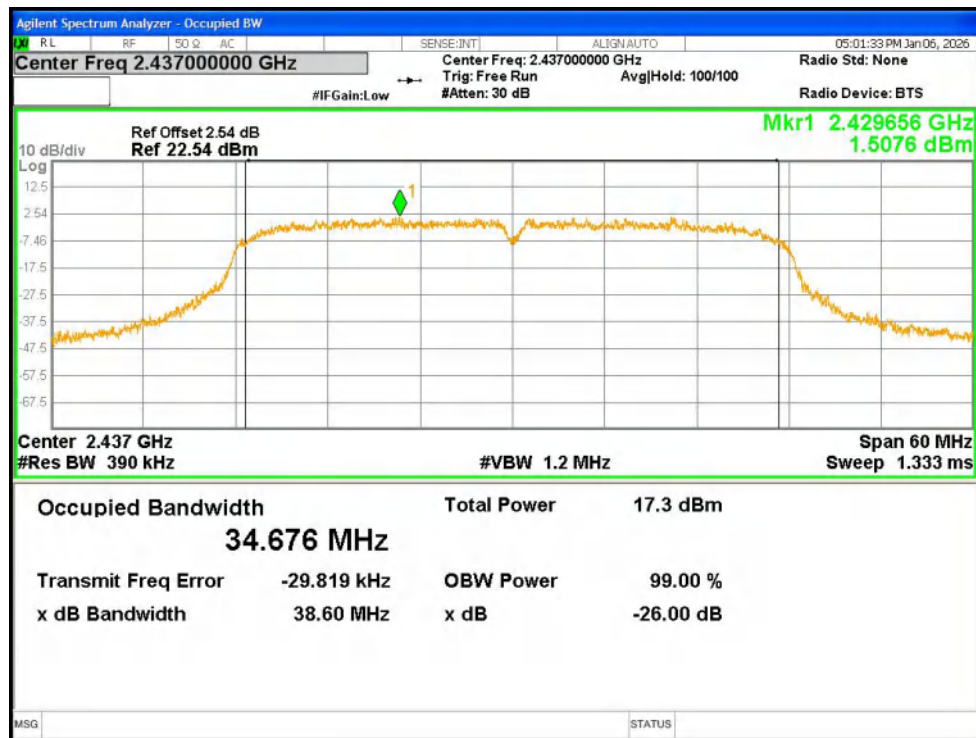
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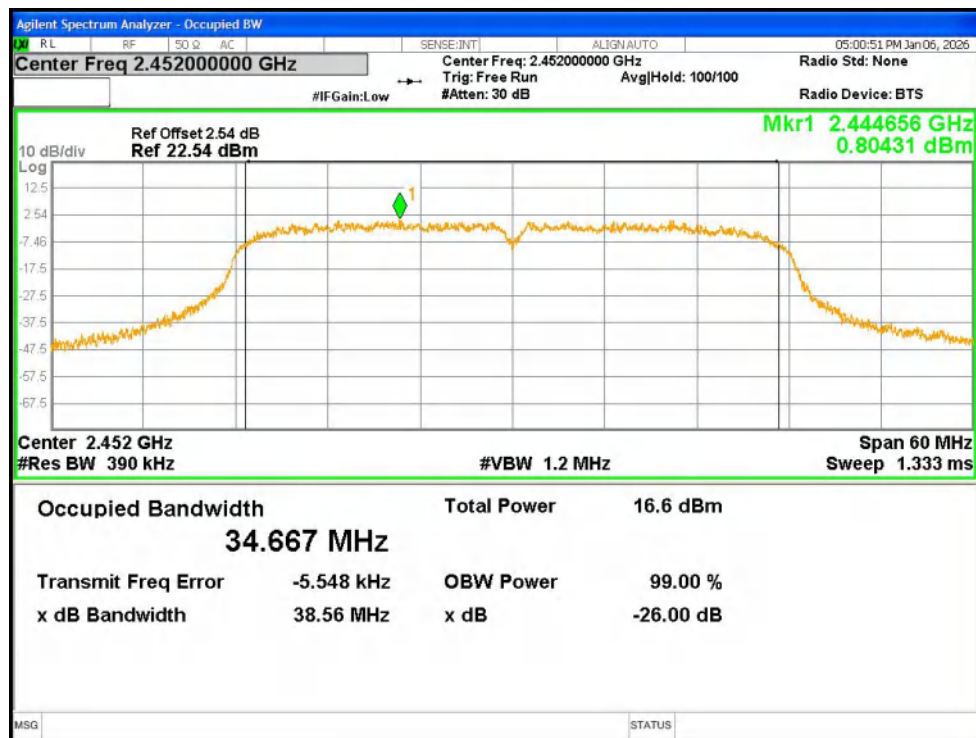
OBW NVNT n20 2462MHz Ant1



OBW NVNT n40 2422MHz Ant1



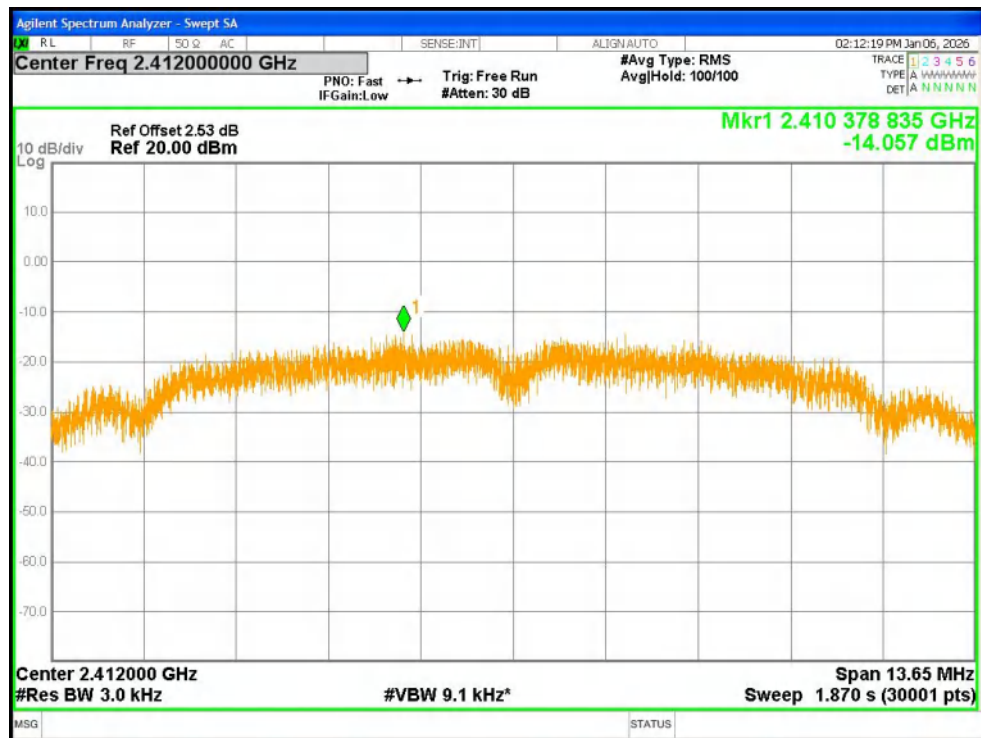
OBW NVNT n40 2437MHz Ant1



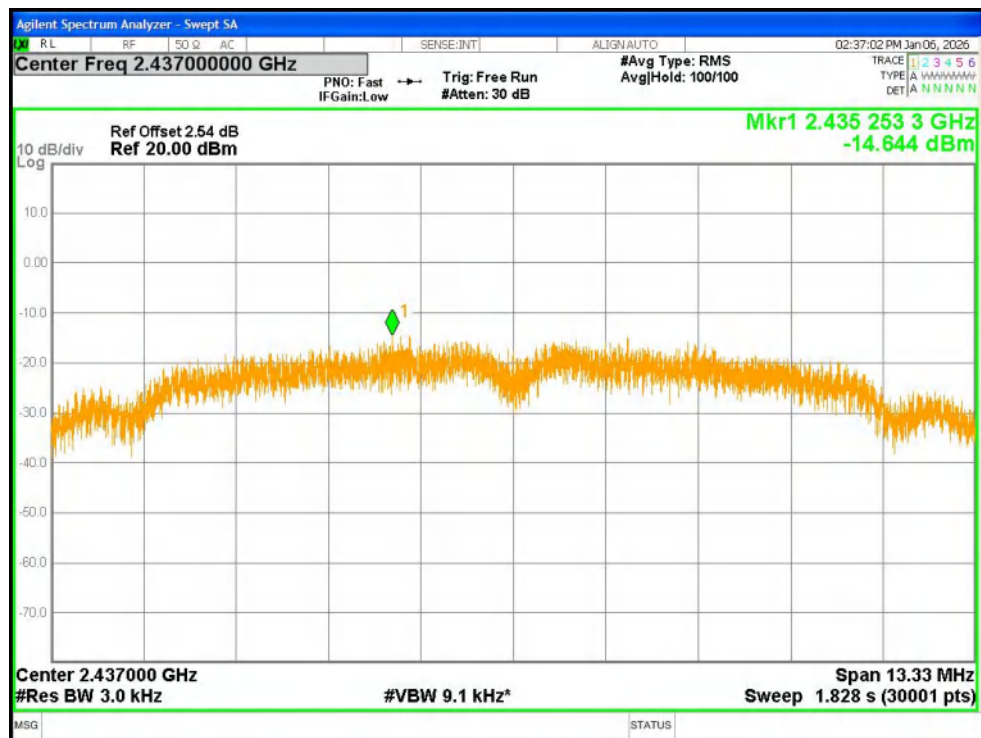
OBW NVNT n40 2452MHz Ant1

5. 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	-14.06	0	-14.06	8	Pass
NVNT	b	2437	Ant1	-14.64	0	-14.64	8	Pass
NVNT	b	2462	Ant1	-15.97	0	-15.97	8	Pass
NVNT	g	2412	Ant1	-17.72	0	-17.72	8	Pass
NVNT	g	2437	Ant1	-18.37	0	-18.37	8	Pass
NVNT	g	2462	Ant1	-18.69	0	-18.69	8	Pass
NVNT	n20	2412	Ant1	-17.67	0	-17.67	8	Pass
NVNT	n20	2437	Ant1	-18.35	0	-18.35	8	Pass
NVNT	n20	2462	Ant1	-18.65	0	-18.65	8	Pass
NVNT	n40	2422	Ant1	-18.49	0	-18.49	8	Pass
NVNT	n40	2437	Ant1	-19.36	0	-19.36	8	Pass
NVNT	n40	2452	Ant1	-20.42	0	-20.42	8	Pass

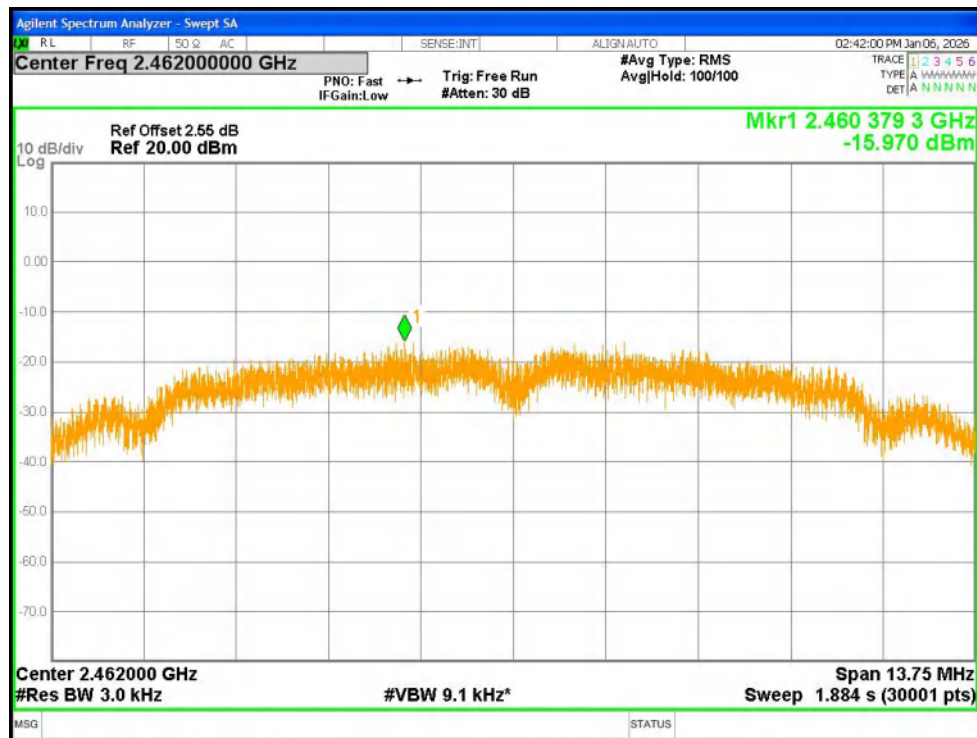


PSD NVNT b 2412MHz Ant1

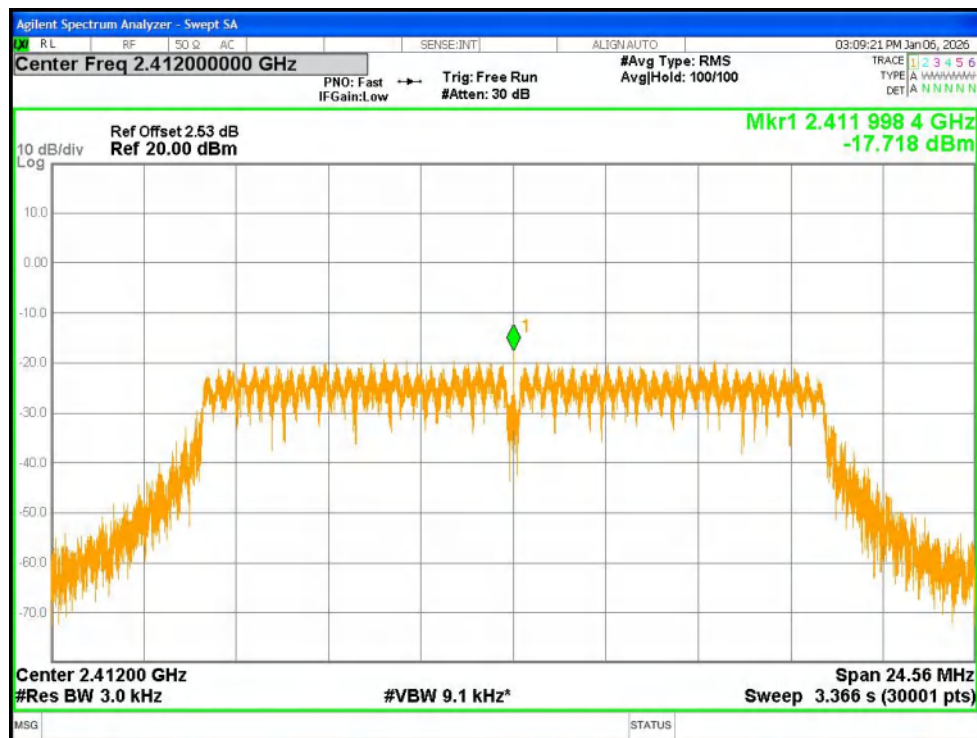


PSD NVNT b 2437MHz Ant1

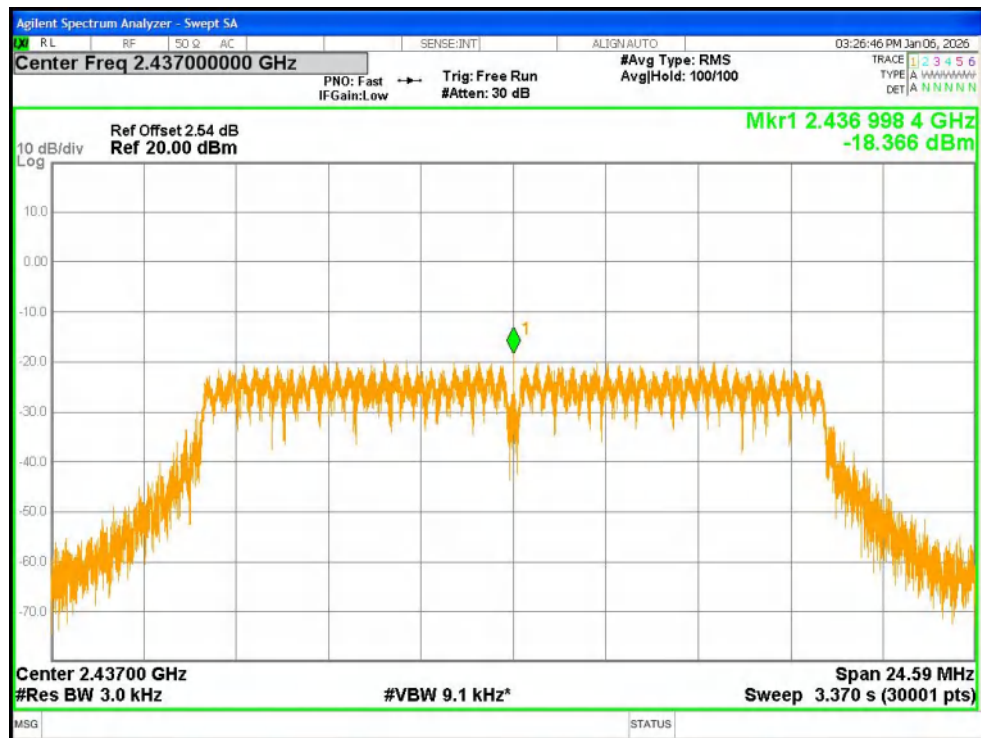
Report



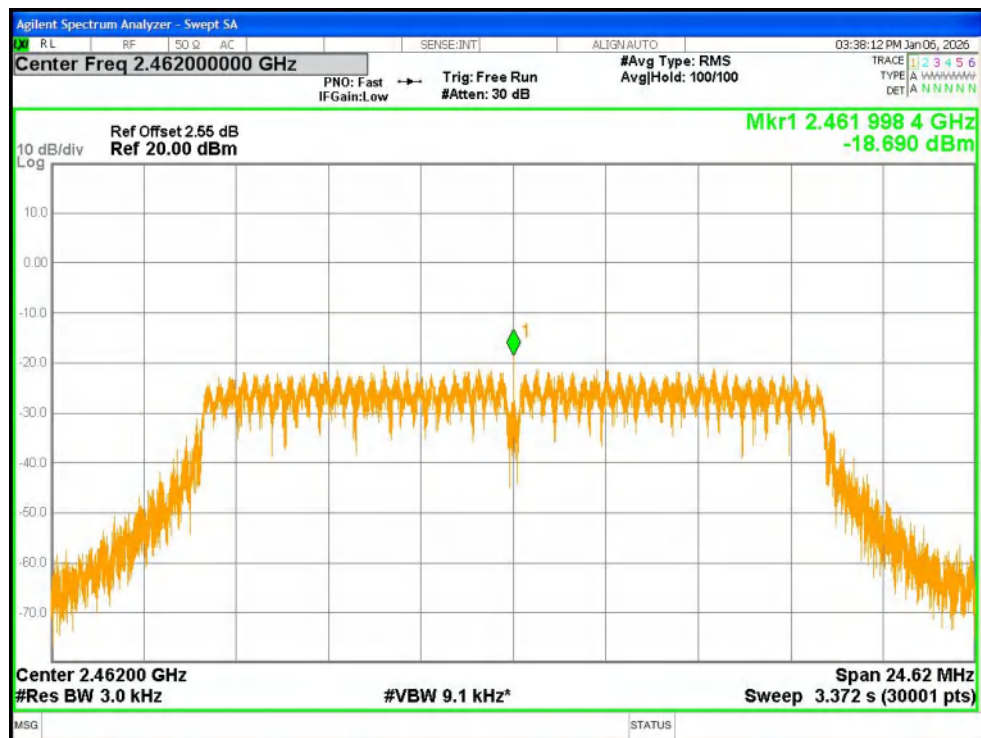
PSD NVNT b 2462MHz Ant1



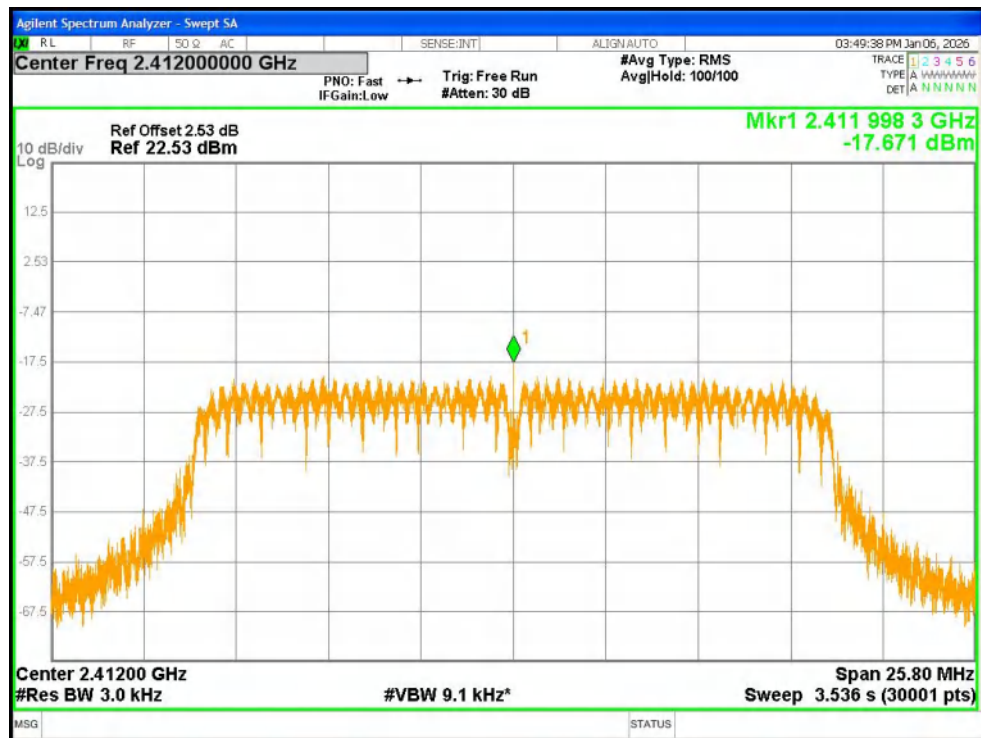
PSD NVNT g 2412MHz Ant1



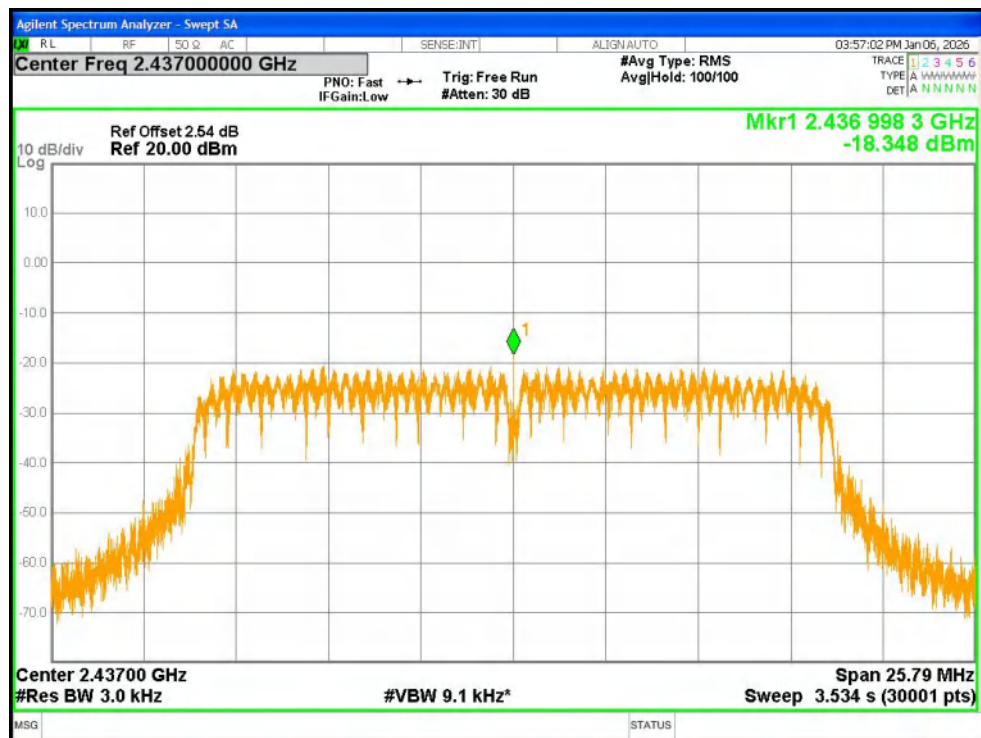
PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1

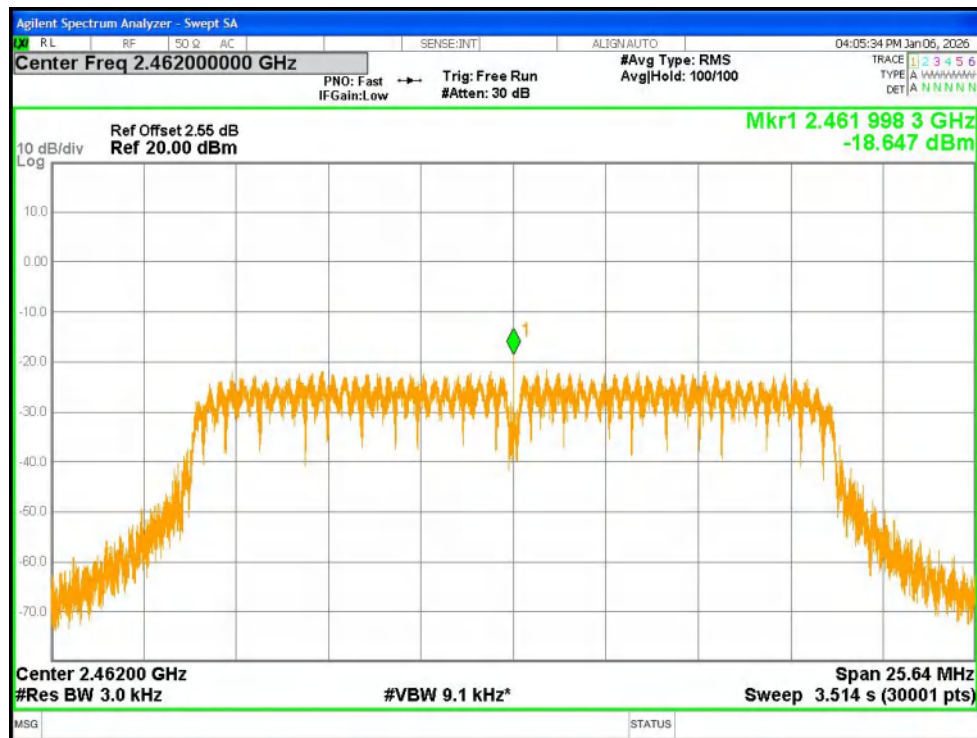


PSD NVNT n20 2412MHz Ant1

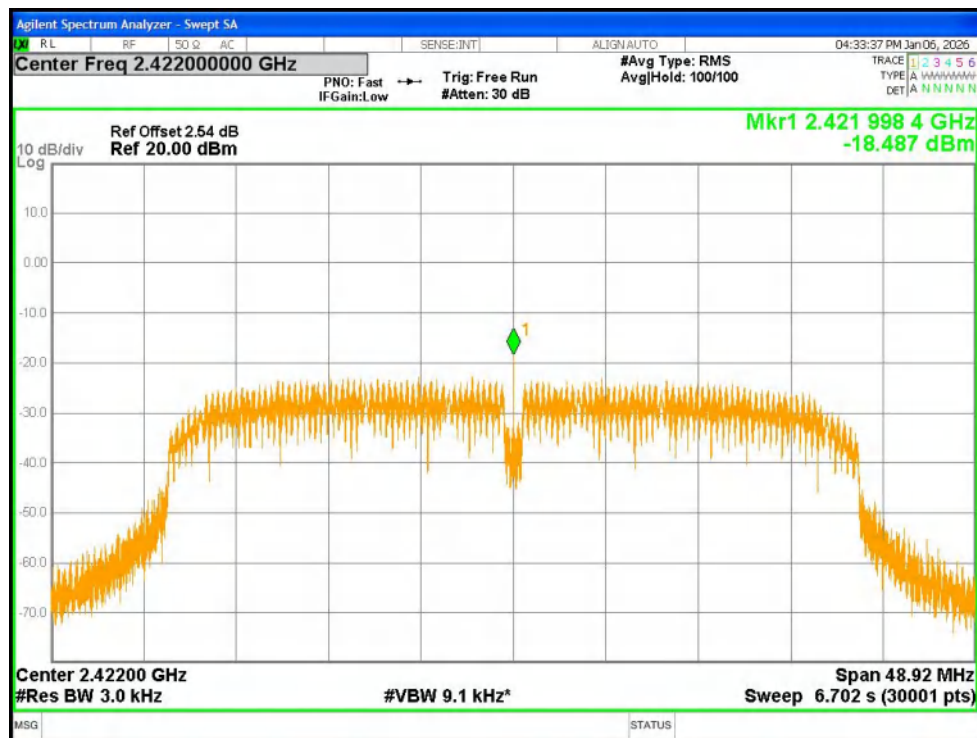


PSD NVNT n20 2437MHz Ant1

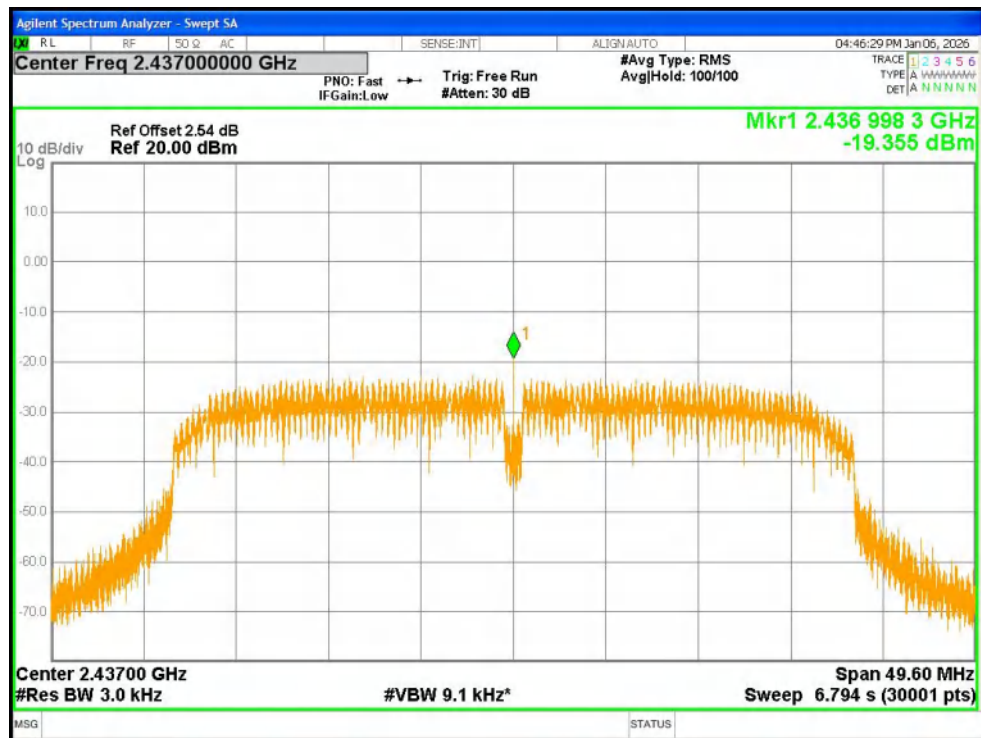
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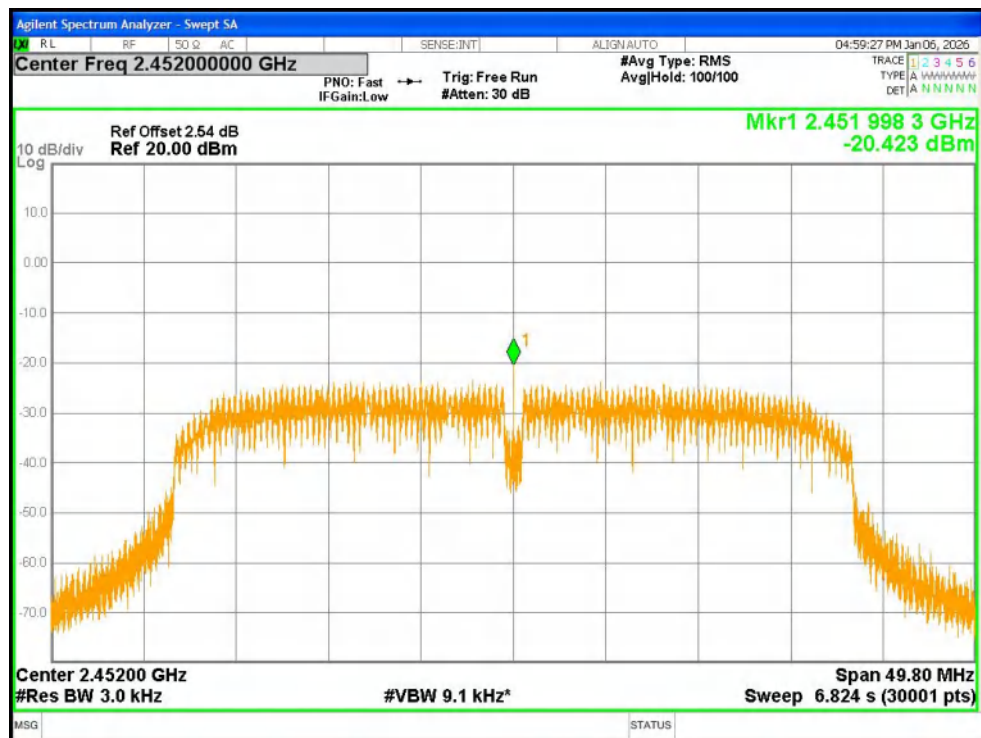
PSD NVNT n20 2462MHz Ant1



PSD NVNT n40 2422MHz Ant1



PSD NVNT n40 2437MHz Ant1

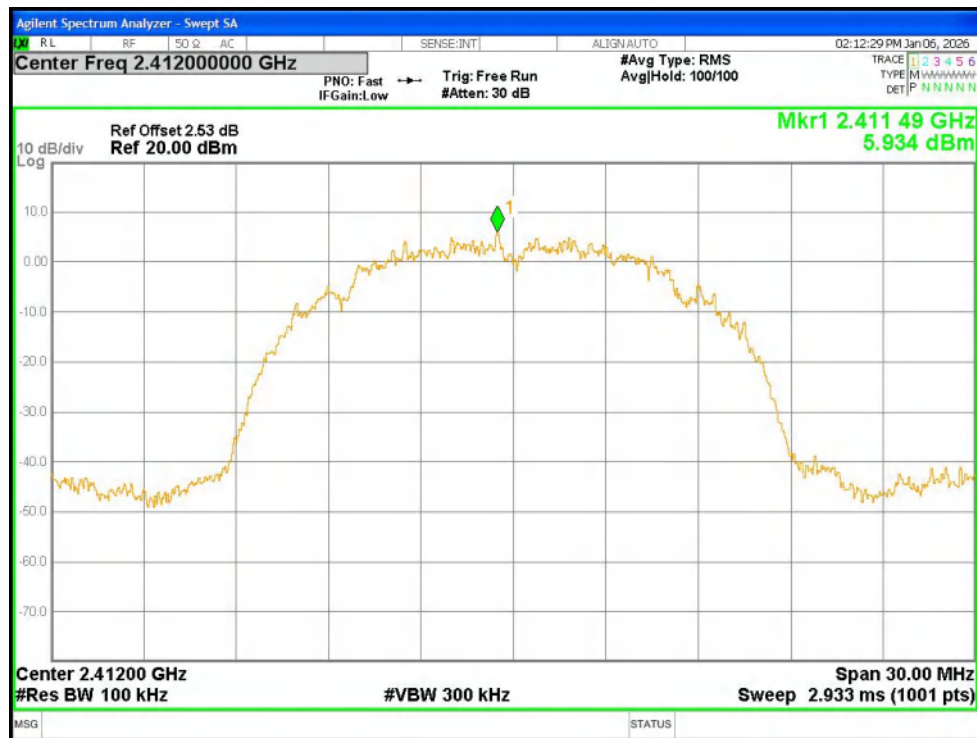


PSD NVNT n40 2452MHz Ant1

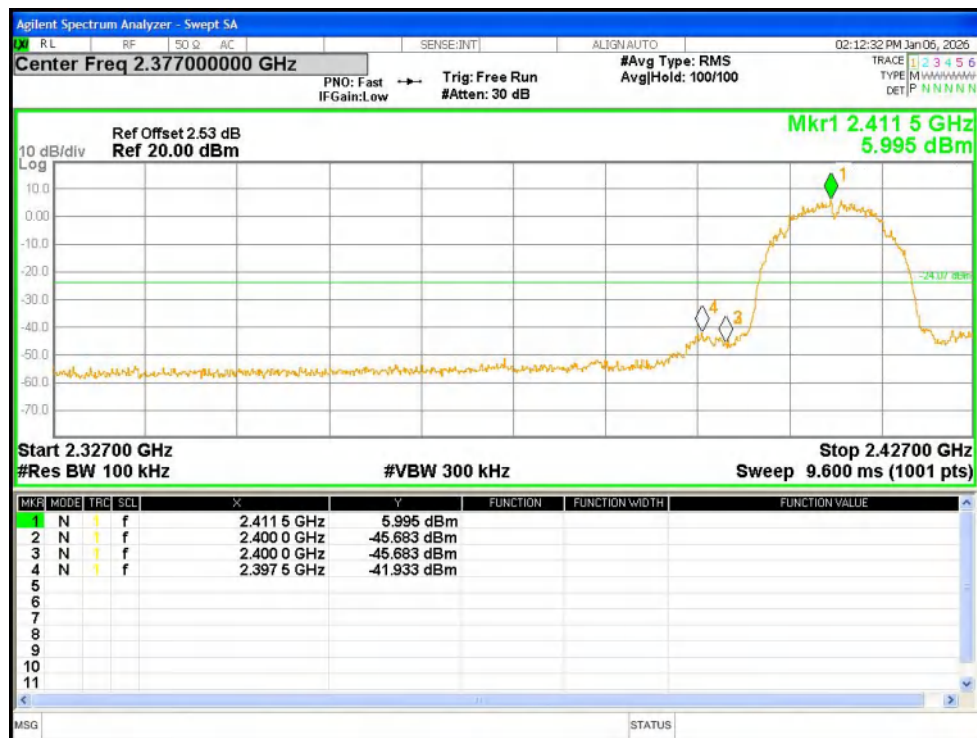
6. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-47.86	-30	Pass
NVNT	b	2462	Ant1	-57.23	-30	Pass
NVNT	g	2412	Ant1	-37.21	-30	Pass
NVNT	g	2462	Ant1	-50.17	-30	Pass
NVNT	n20	2412	Ant1	-35.53	-30	Pass
NVNT	n20	2462	Ant1	-50.05	-30	Pass
NVNT	n40	2422	Ant1	-34.34	-30	Pass
NVNT	n40	2452	Ant1	-42.33	-30	Pass

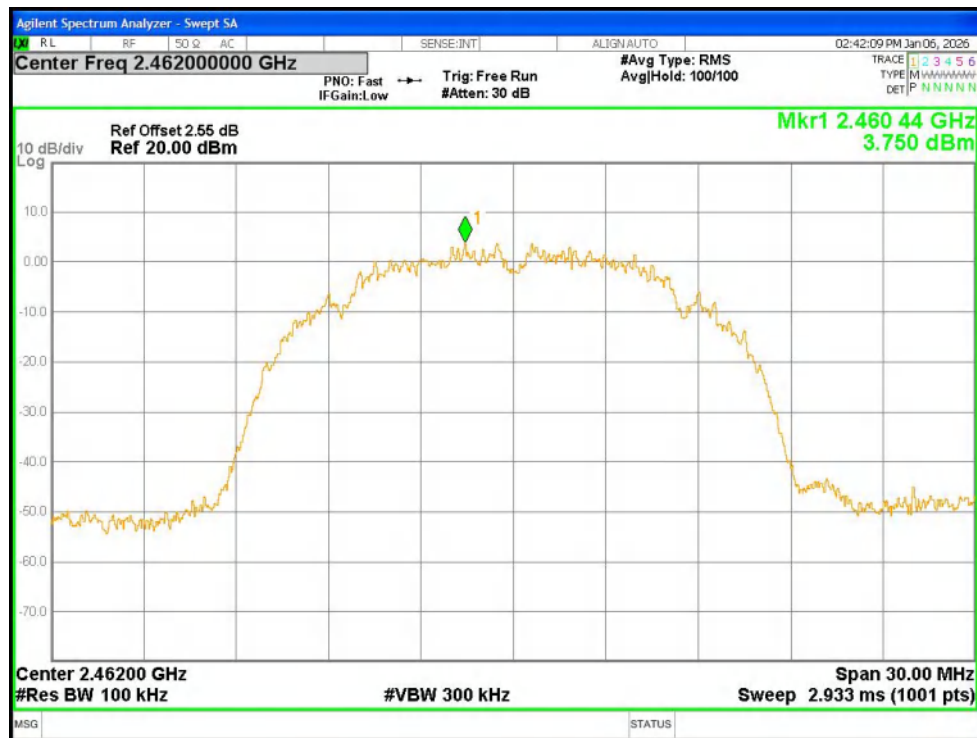
Report



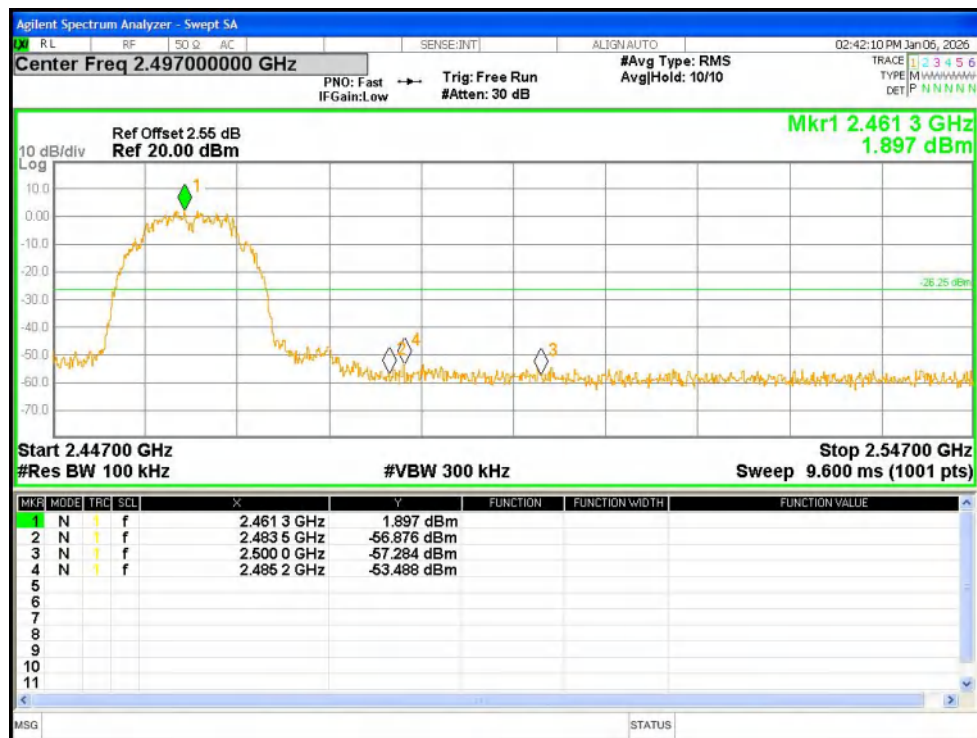
Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission

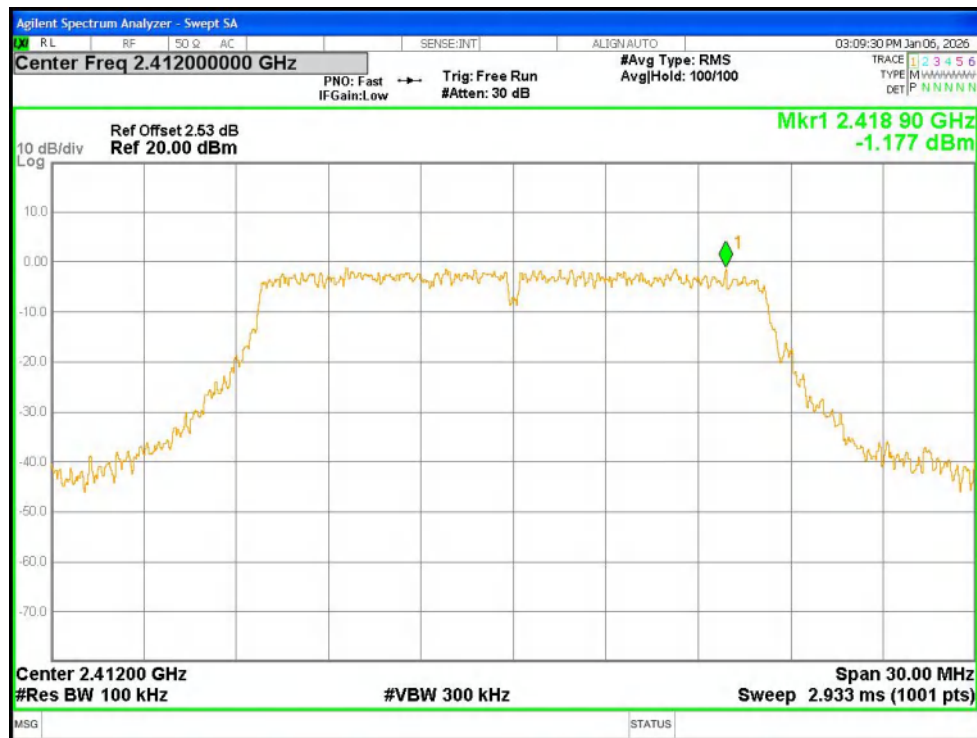


Band Edge NVNT b 2462MHz Ant1 Ref

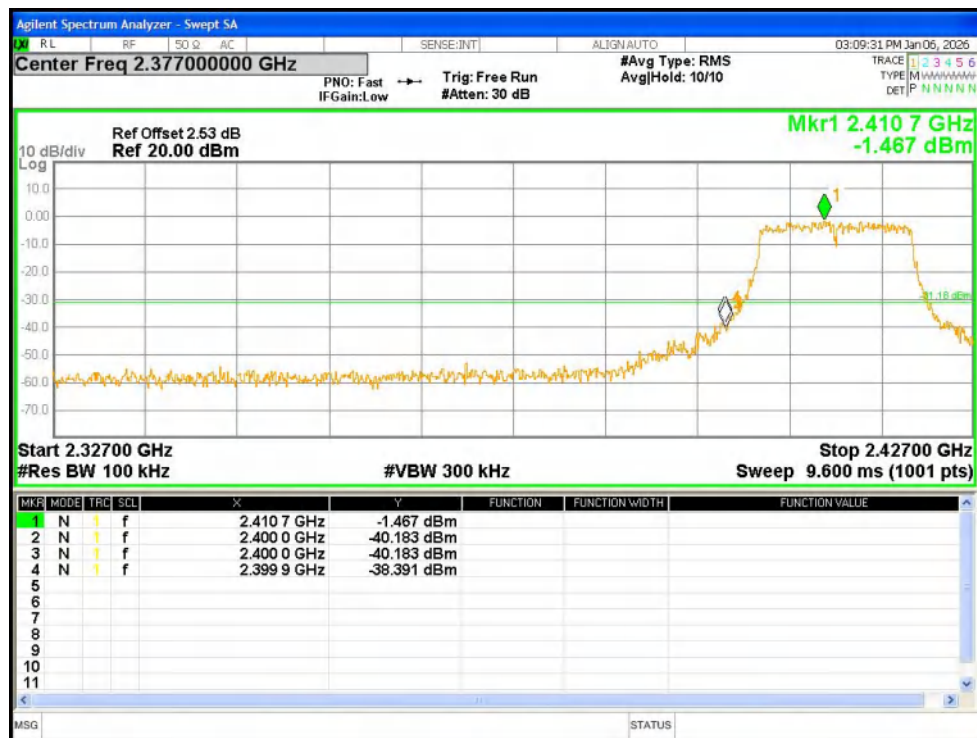


Band Edge NVNT b 2462MHz Ant1 Emission

Report

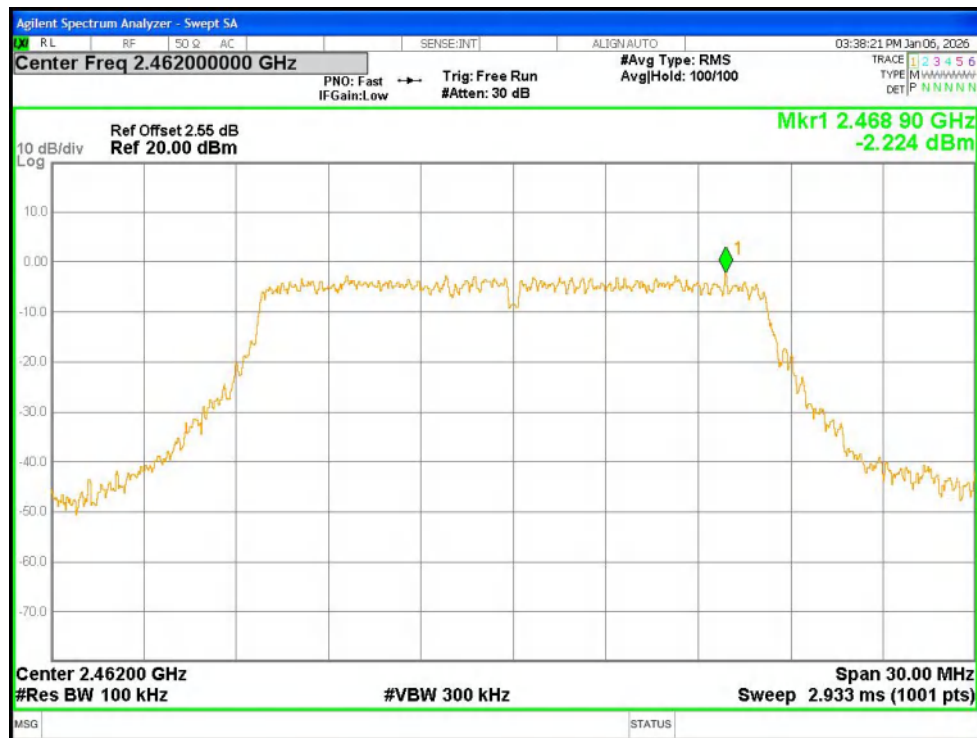


Band Edge NVNT g 2412MHz Ant1 Ref

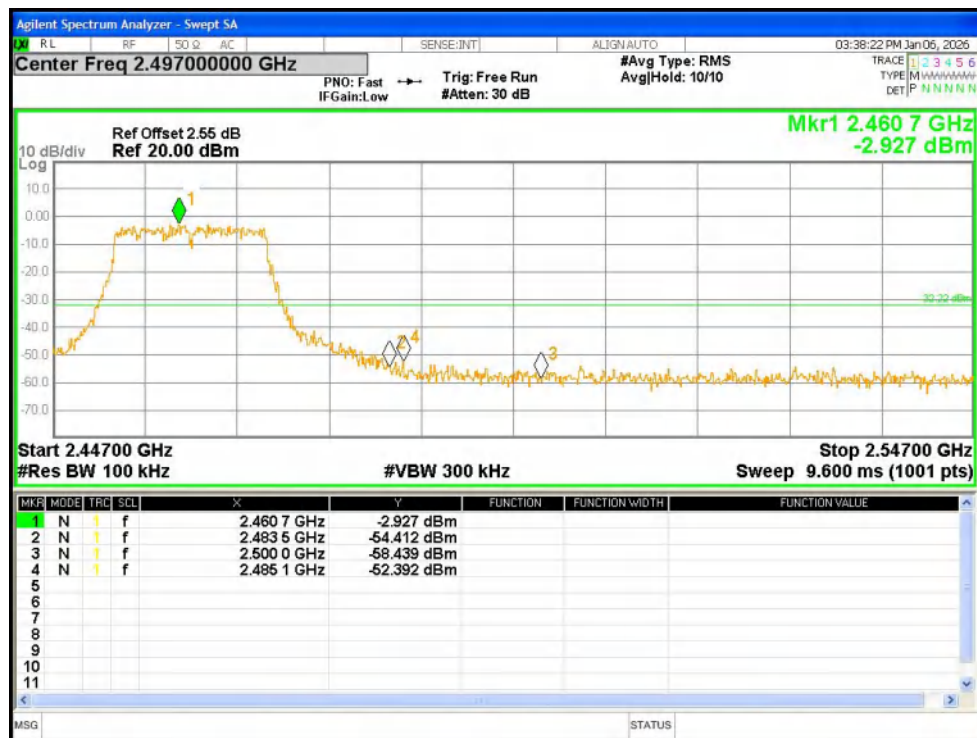


Band Edge NVNT g 2412MHz Ant1 Emission

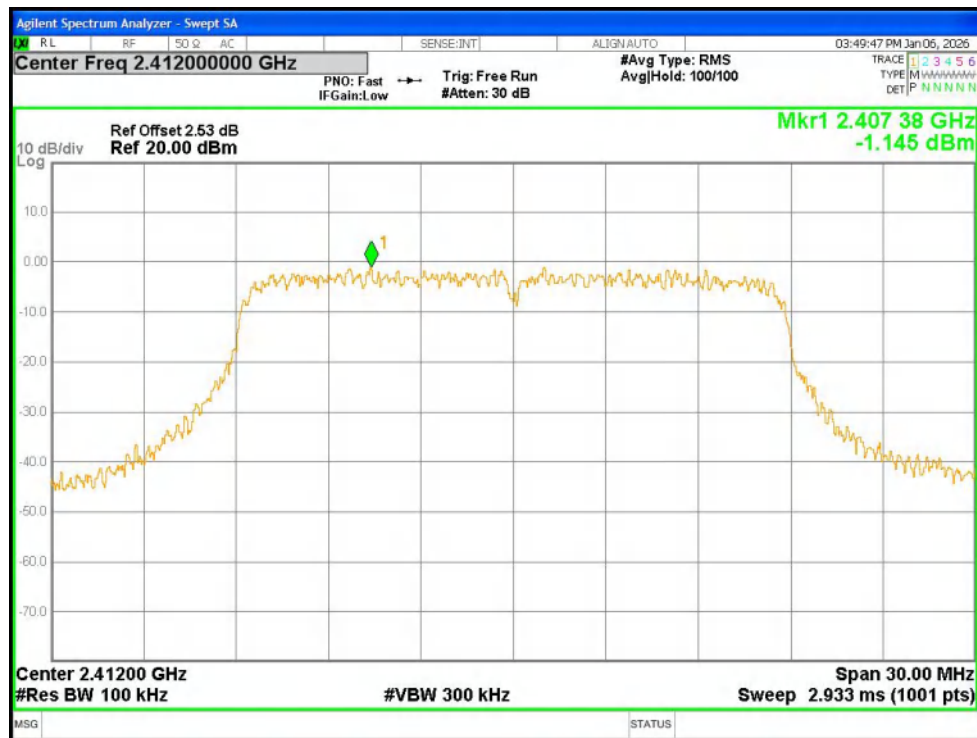
Report



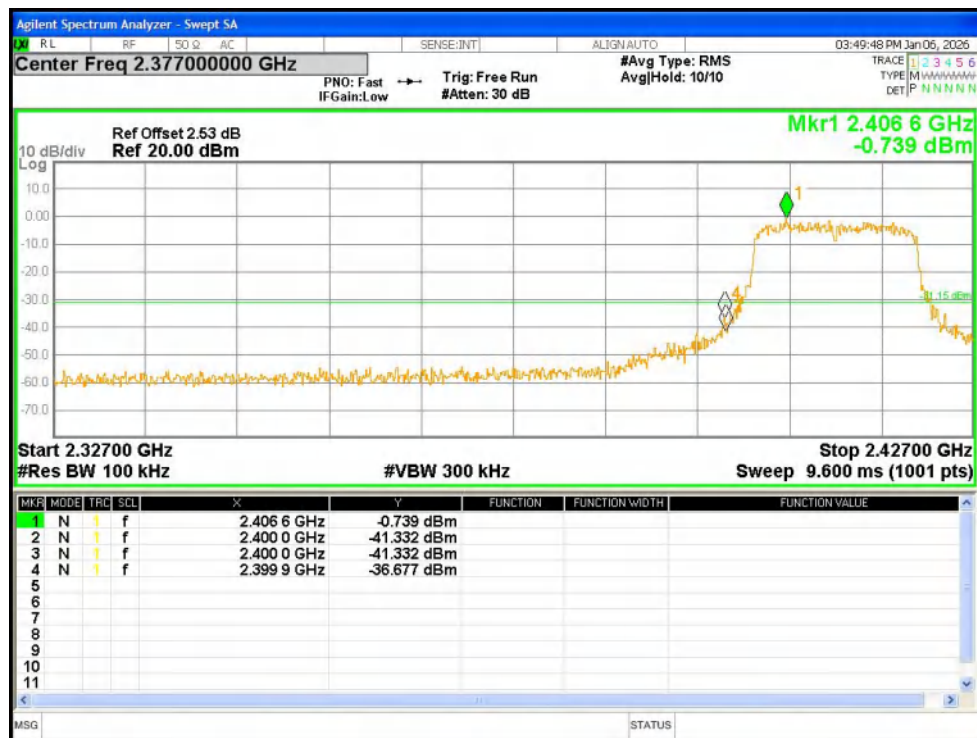
Band Edge NVNT g 2462MHz Ant1 Ref



Band Edge NVNT g 2462MHz Ant1 Emission

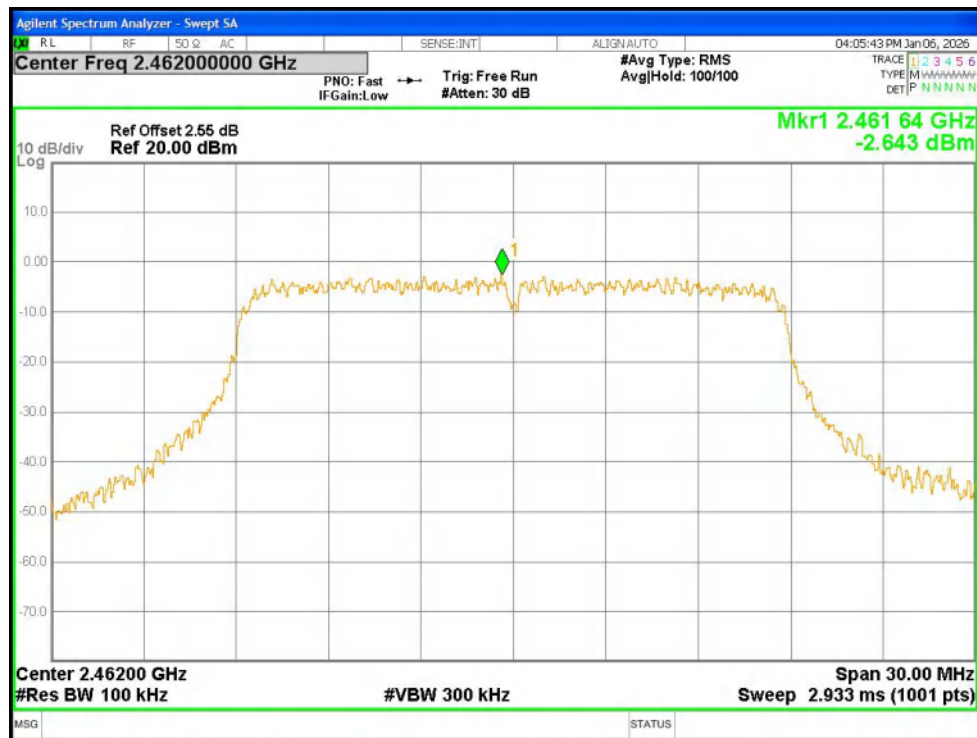


Band Edge NVNT n20 2412MHz Ant1 Ref

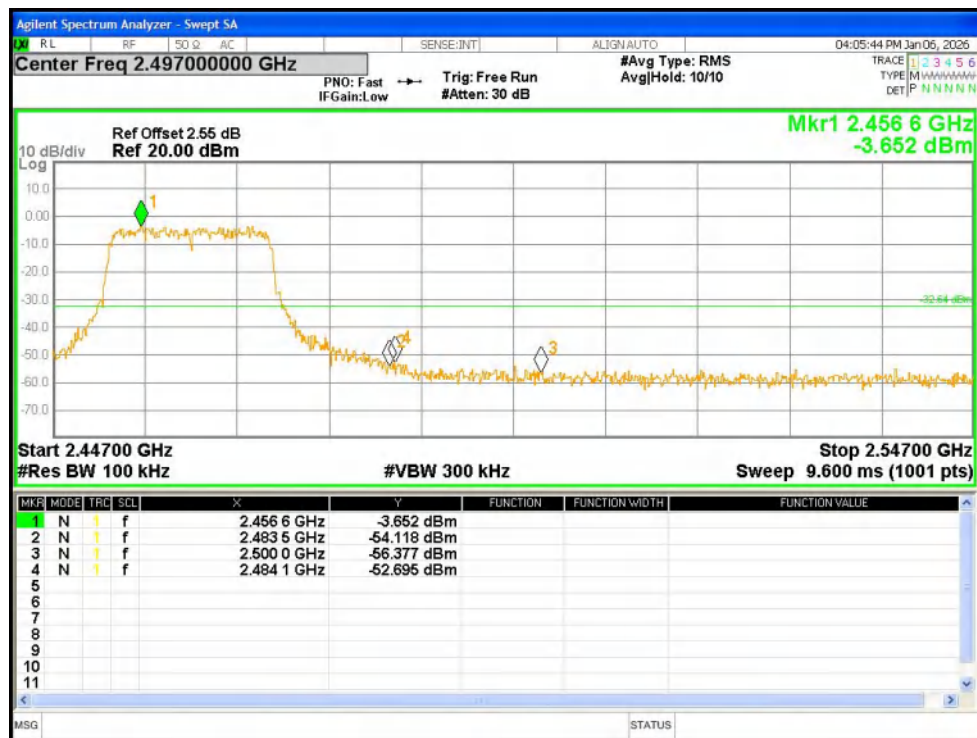


Band Edge NVNT n20 2412MHz Ant1 Emission

Report

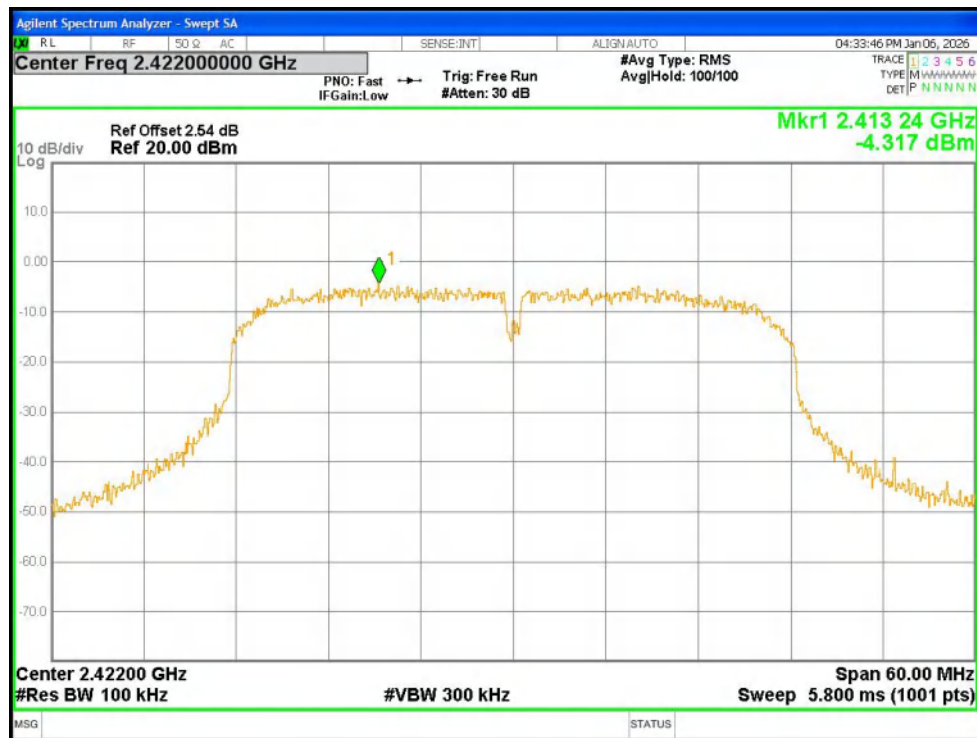


Band Edge NVNT n20 2462MHz Ant1 Ref

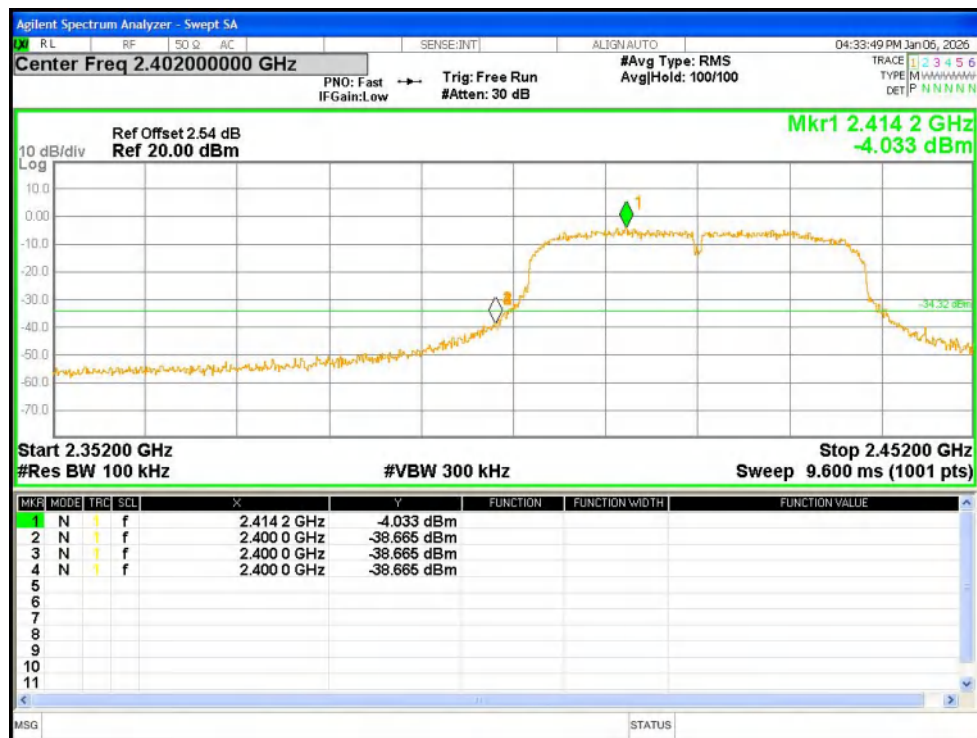


Band Edge NVNT n20 2462MHz Ant1 Emission

Report

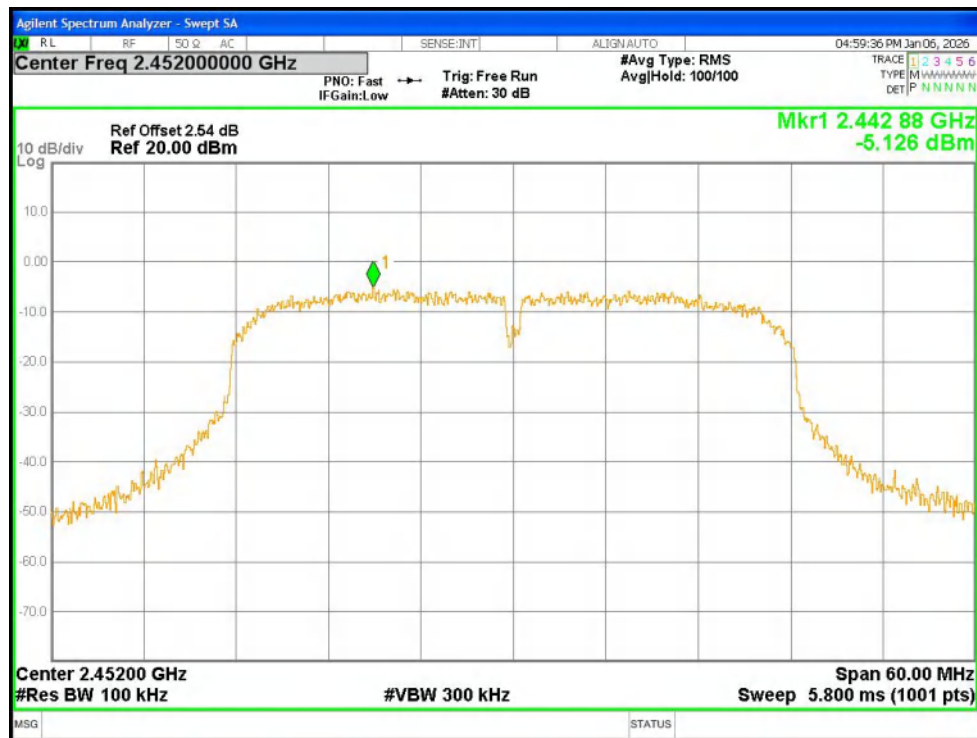


Band Edge NVNT n40 2422MHz Ant1 Ref

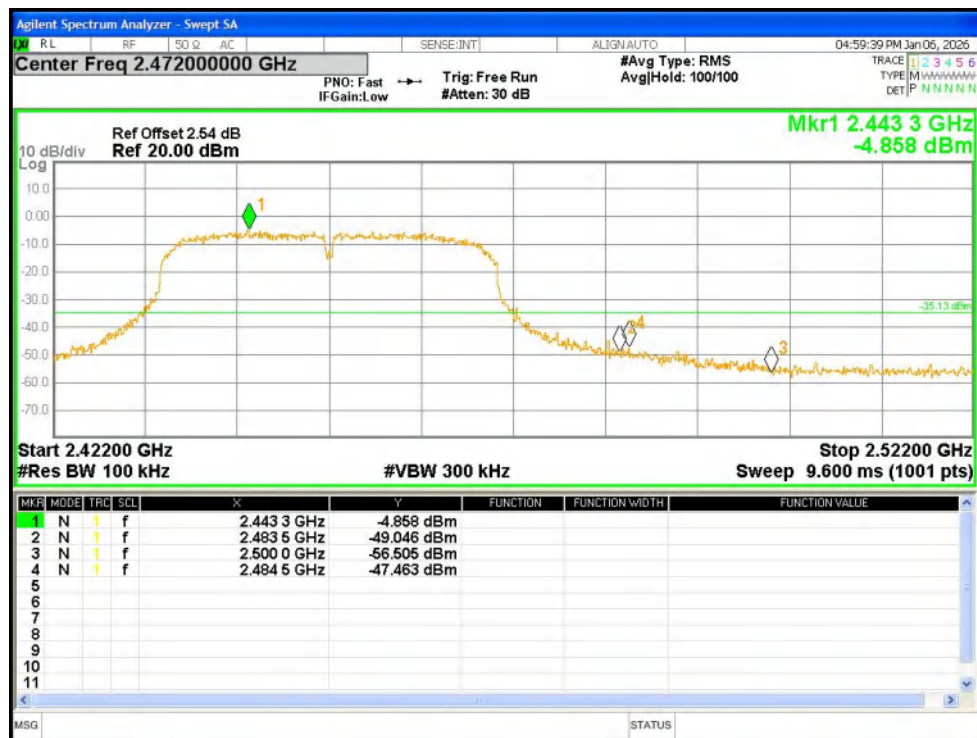


Band Edge NVNT n40 2422MHz Ant1 Emission

Report



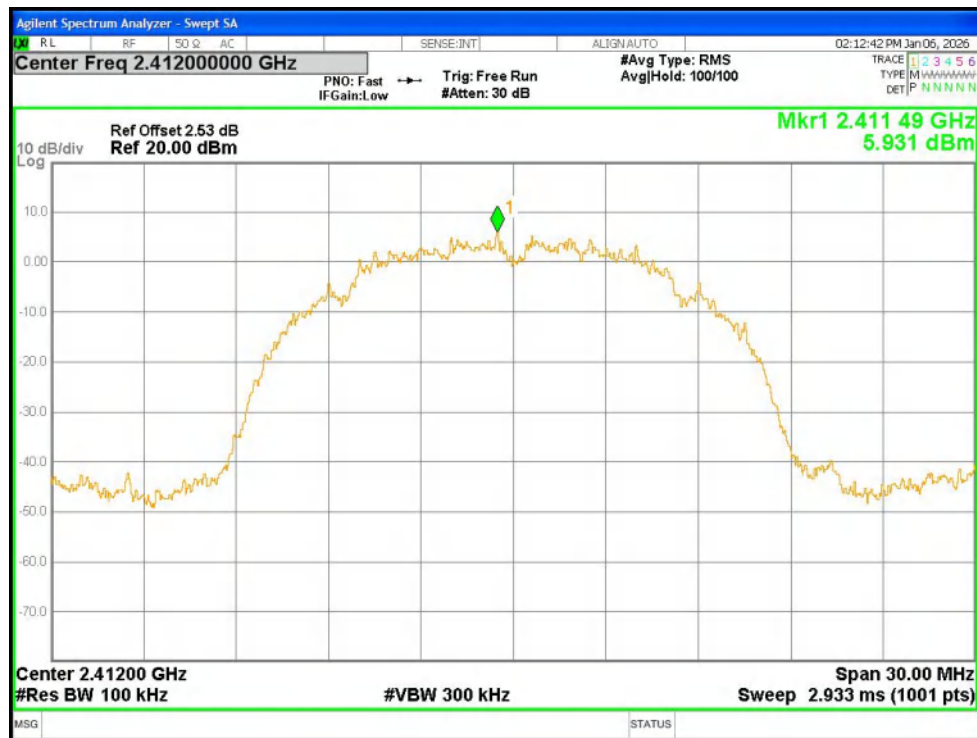
Band Edge NVNT n40 2452MHz Ant1 Ref



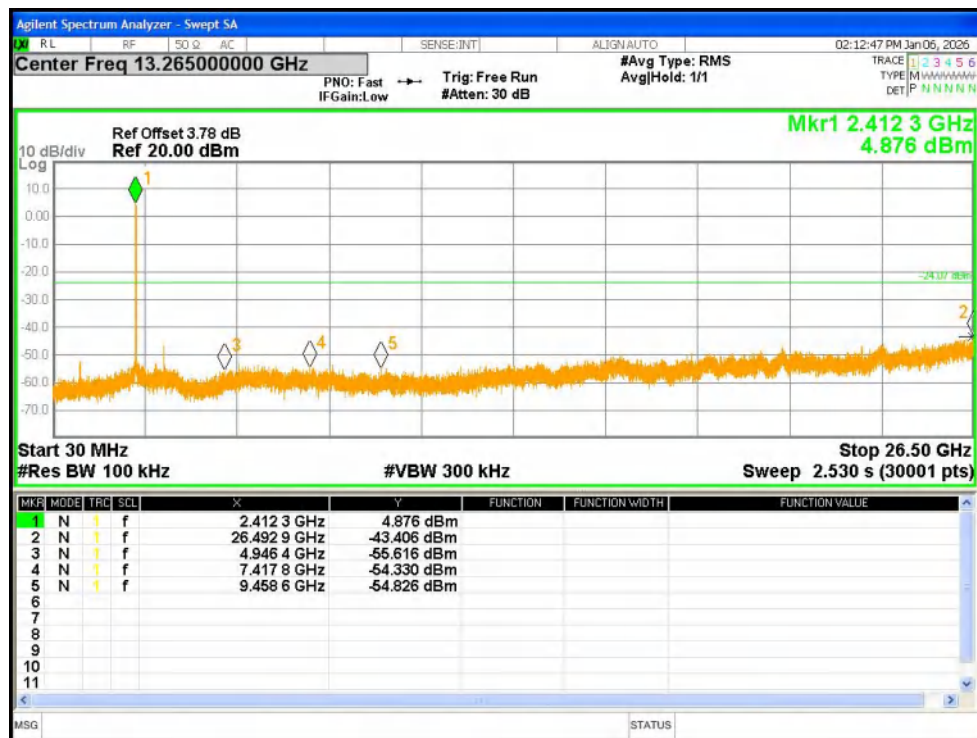
Band Edge NVNT n40 2452MHz Ant1 Emission

7. Conducted RF Spurious Emission

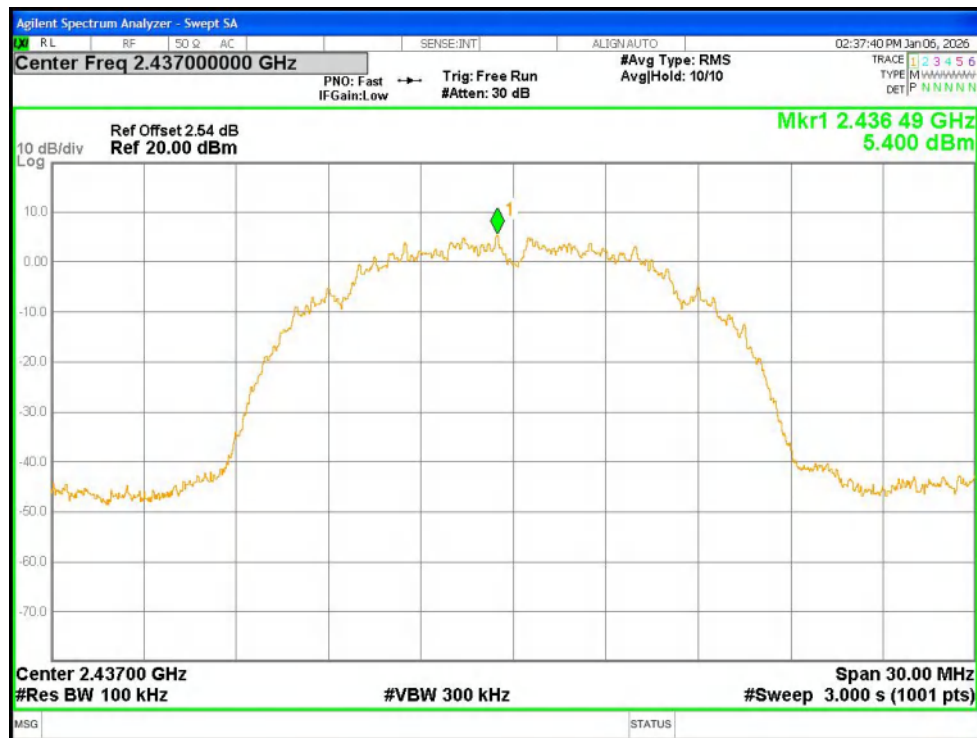
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.33	-30	Pass
NVNT	b	2437	Ant1	-48.56	-30	Pass
NVNT	b	2462	Ant1	-45.93	-30	Pass
NVNT	g	2412	Ant1	-41.5	-30	Pass
NVNT	g	2437	Ant1	-40.95	-30	Pass
NVNT	g	2462	Ant1	-39.16	-30	Pass
NVNT	n20	2412	Ant1	-41.04	-30	Pass
NVNT	n20	2437	Ant1	-39.64	-30	Pass
NVNT	n20	2462	Ant1	-39.9	-30	Pass
NVNT	n40	2422	Ant1	-38.73	-30	Pass
NVNT	n40	2437	Ant1	-37.94	-30	Pass
NVNT	n40	2452	Ant1	-37.05	-30	Pass



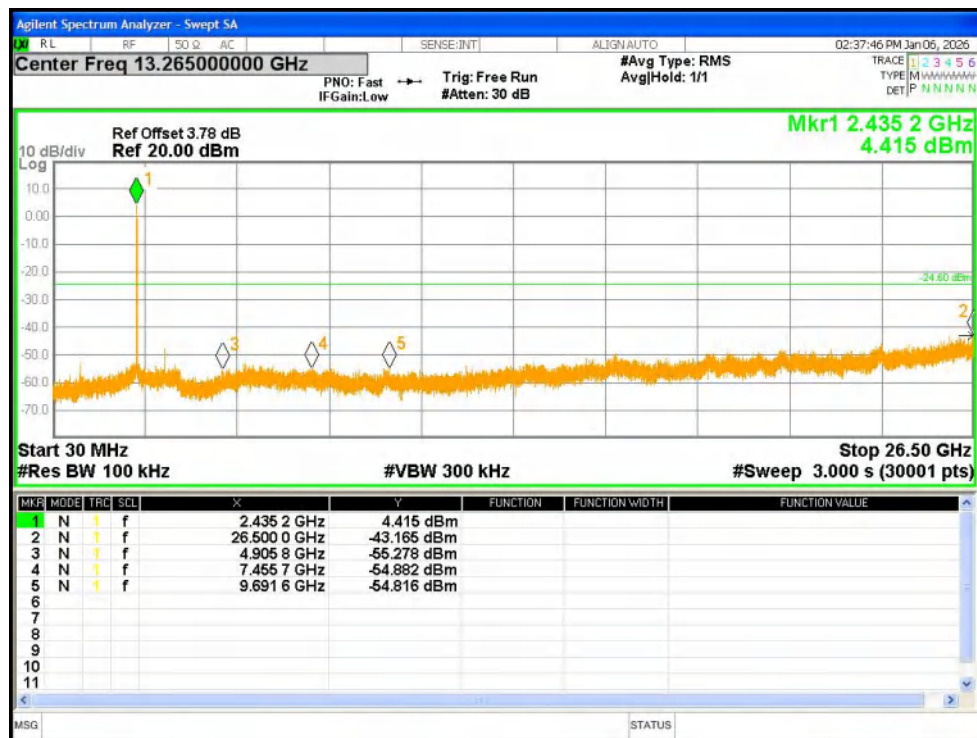
Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission

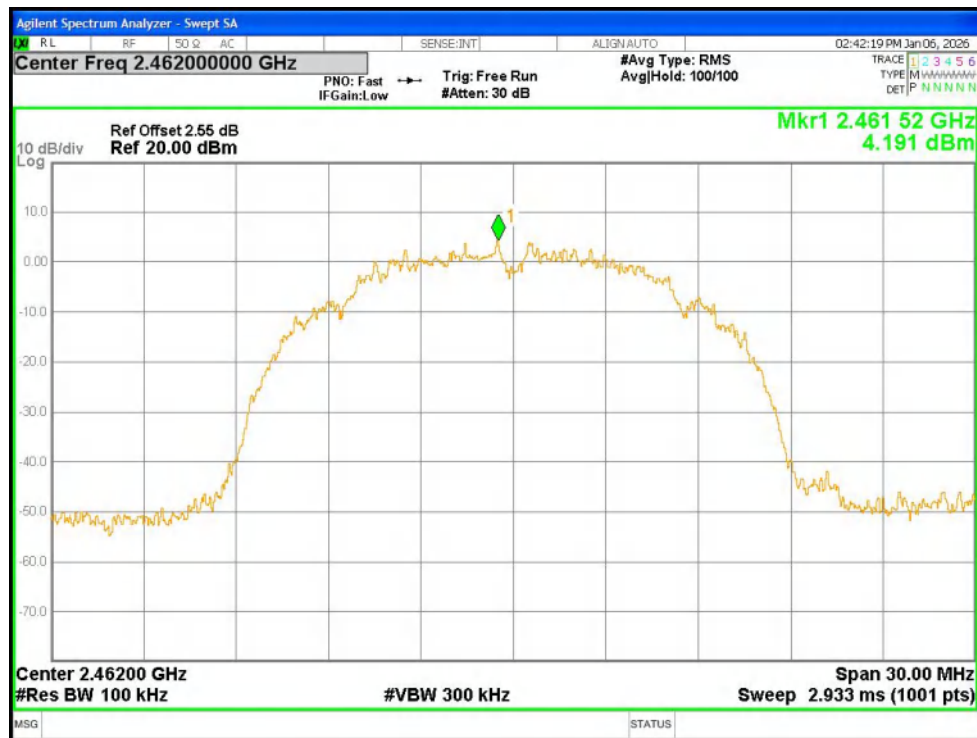


Tx. Spurious NVNT b 2437MHz Ant1 Ref

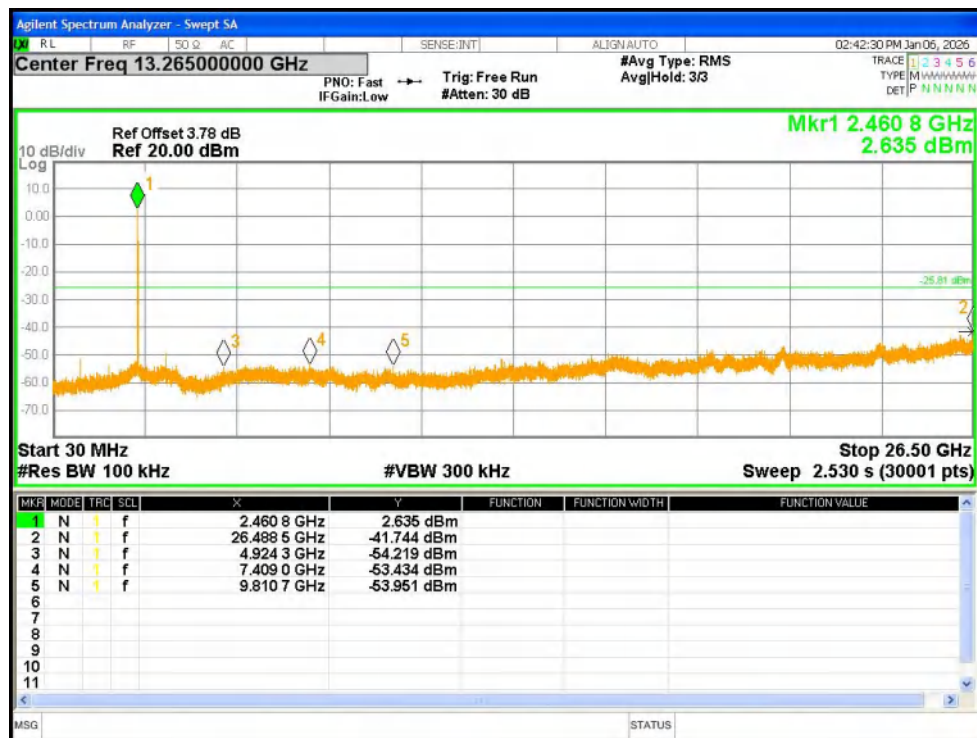


Tx. Spurious NVNT b 2437MHz Ant1 Emission

Report

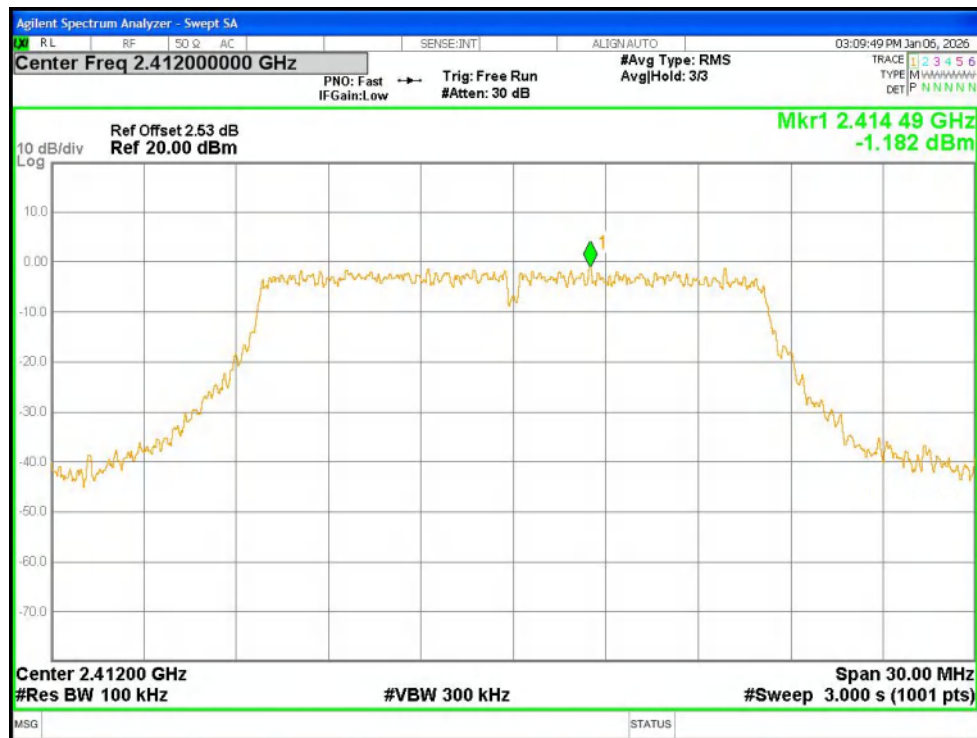


Tx. Spurious NVNT b 2462MHz Ant1 Ref

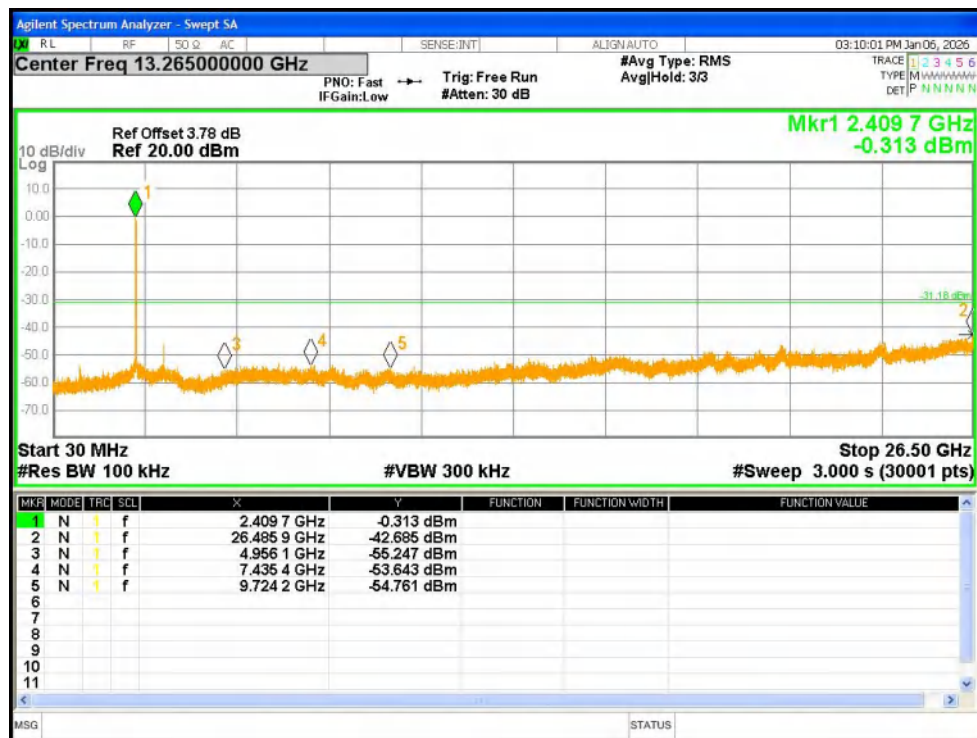


Tx. Spurious NVNT b 2462MHz Ant1 Emission

Report

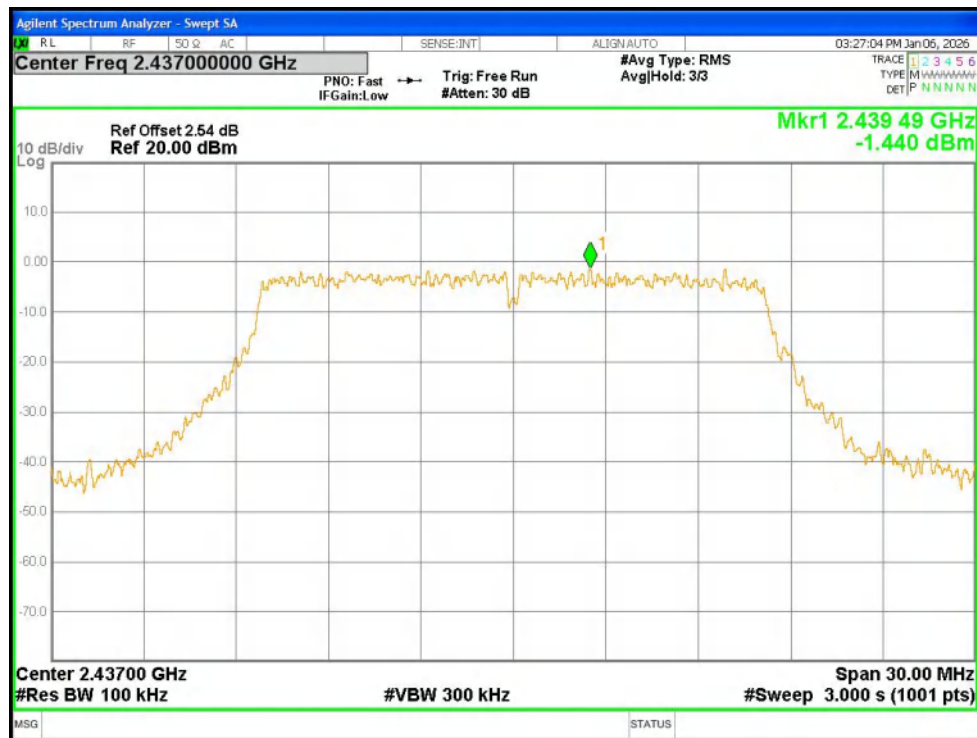


Tx. Spurious NVNT g 2412MHz Ant1 Ref

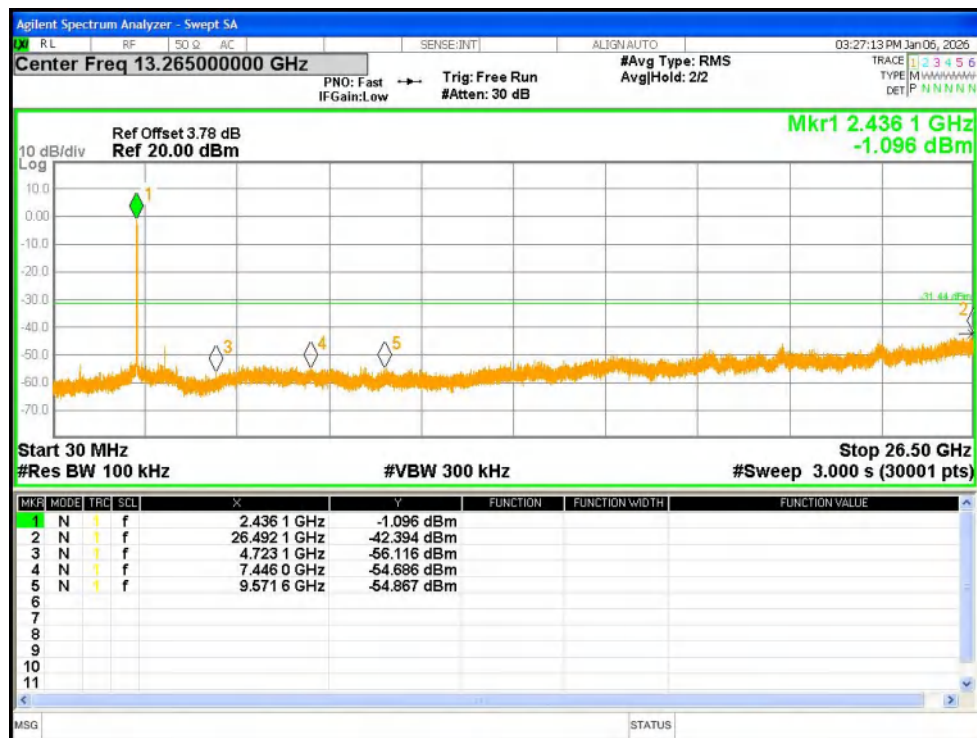


Tx. Spurious NVNT g 2412MHz Ant1 Emission

Report

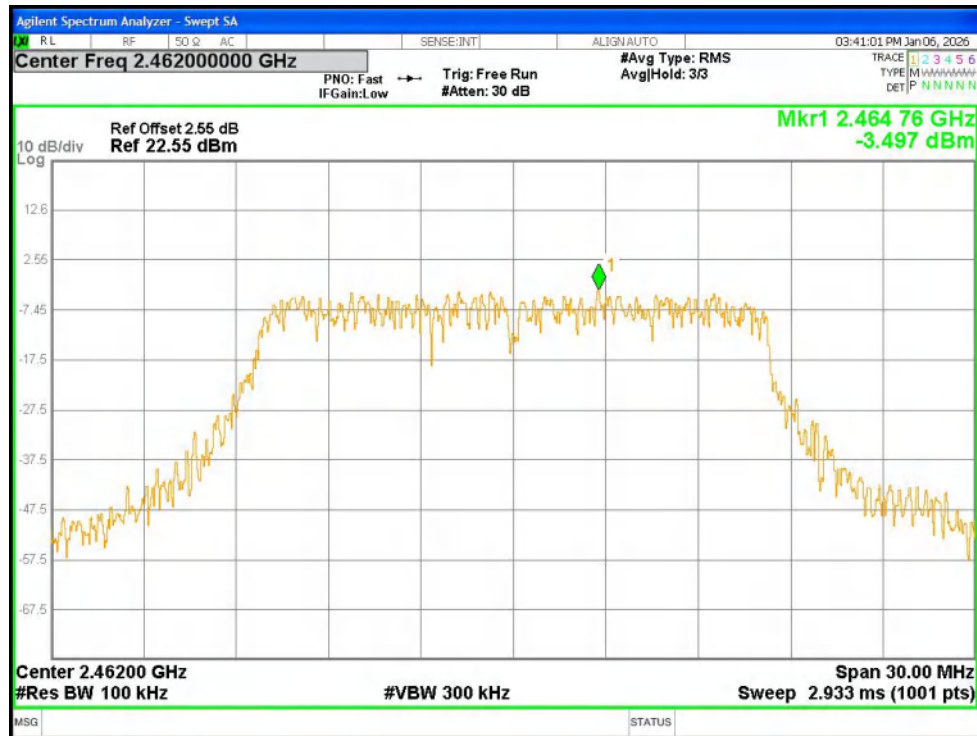


Tx. Spurious NVNT g 2437MHz Ant1 Ref

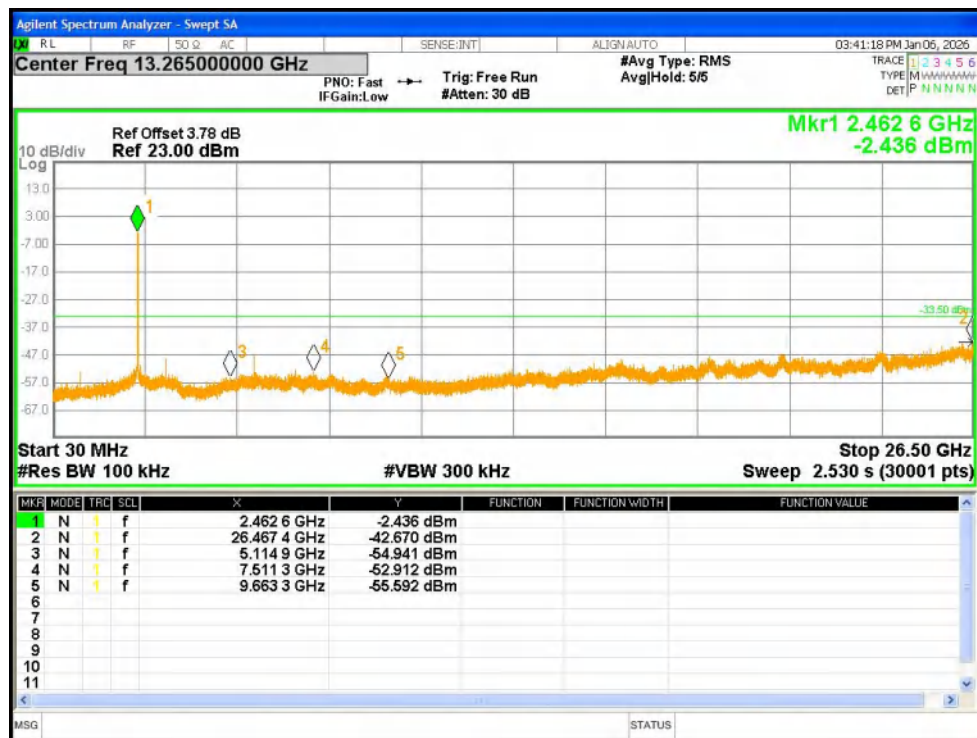


Tx. Spurious NVNT g 2437MHz Ant1 Emission

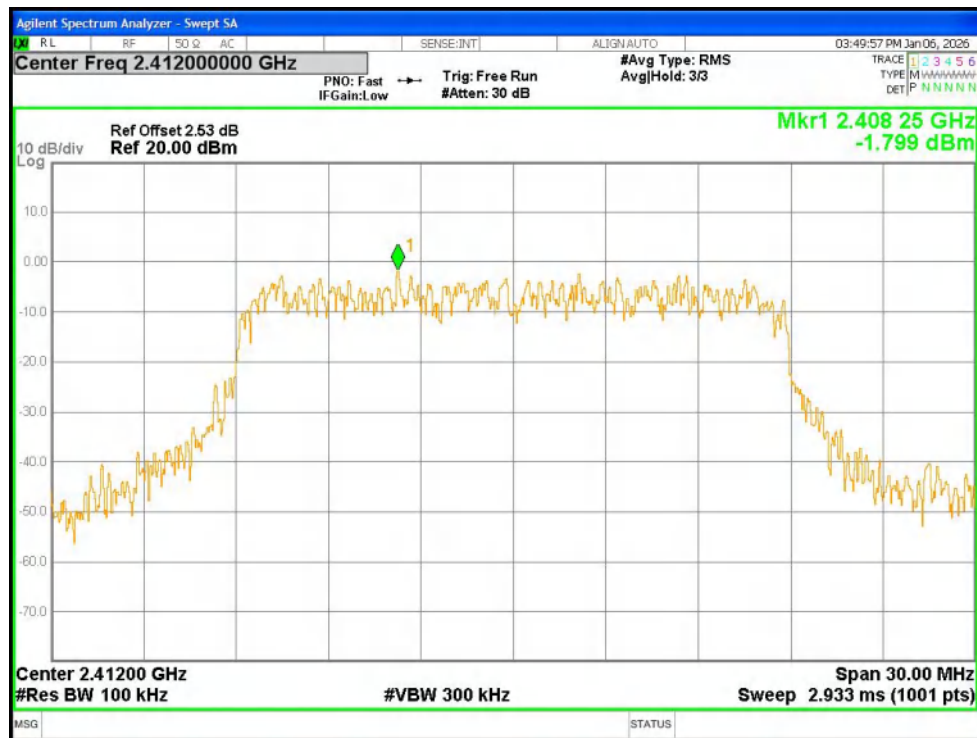
Report



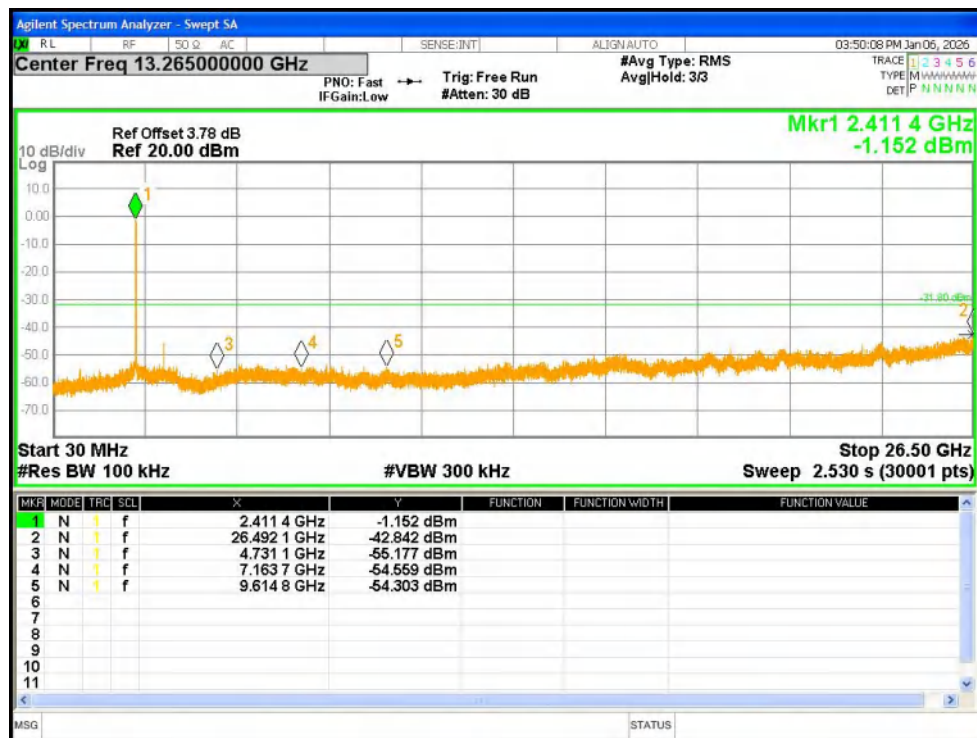
Tx. Spurious NVNT g 2462MHz Ant1 Ref



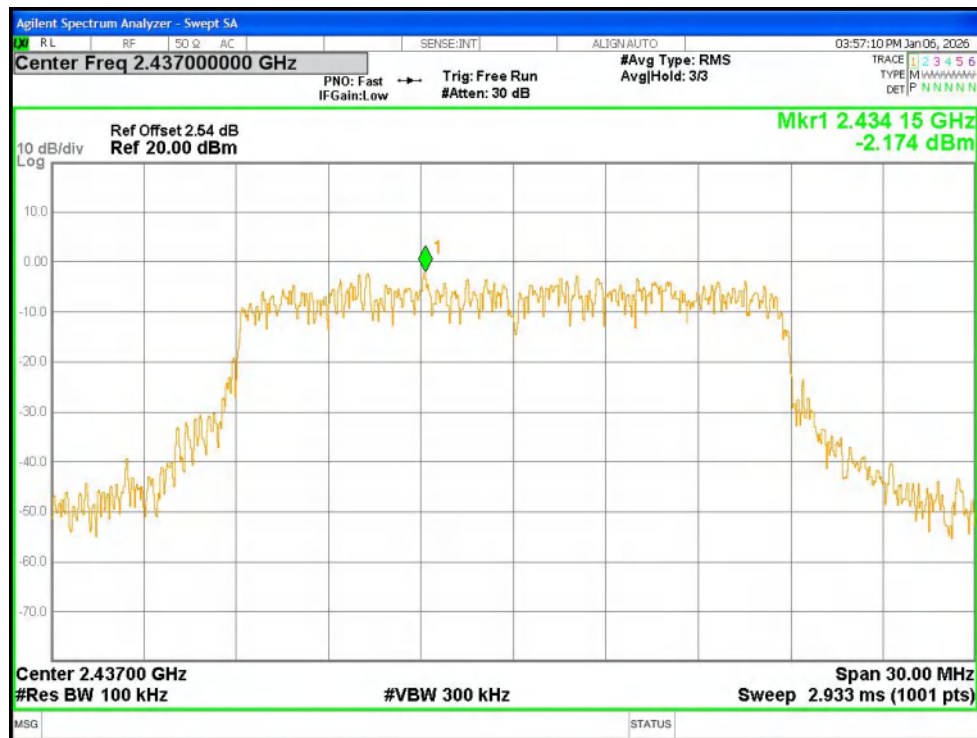
Tx. Spurious NVNT g 2462MHz Ant1 Emission



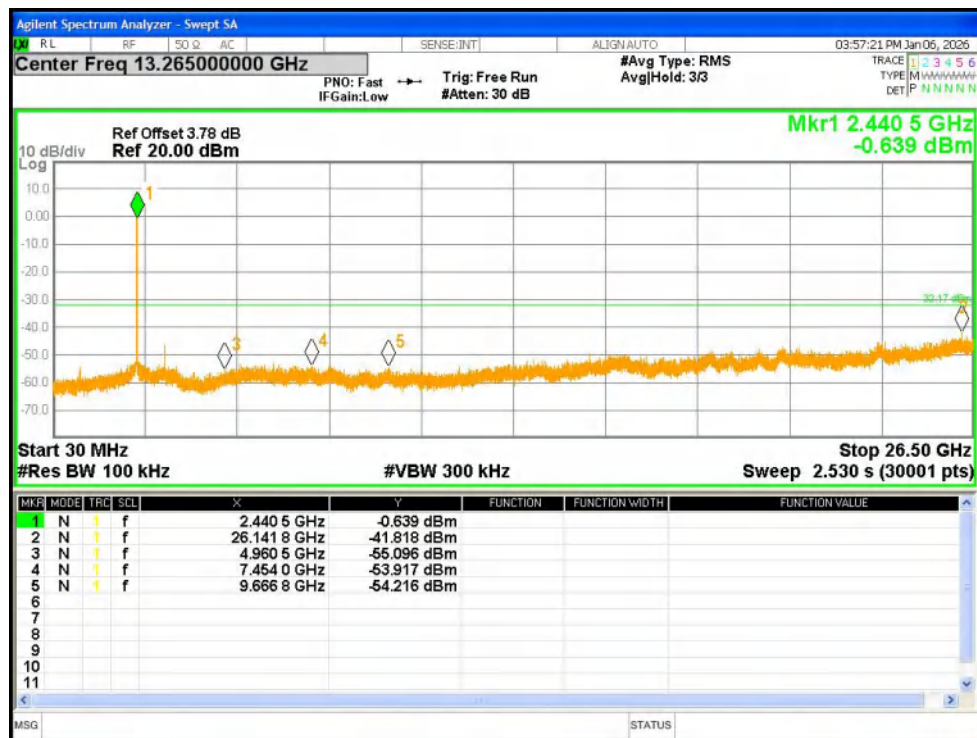
Tx. Spurious NVNT n20 2412MHz Ant1 Ref



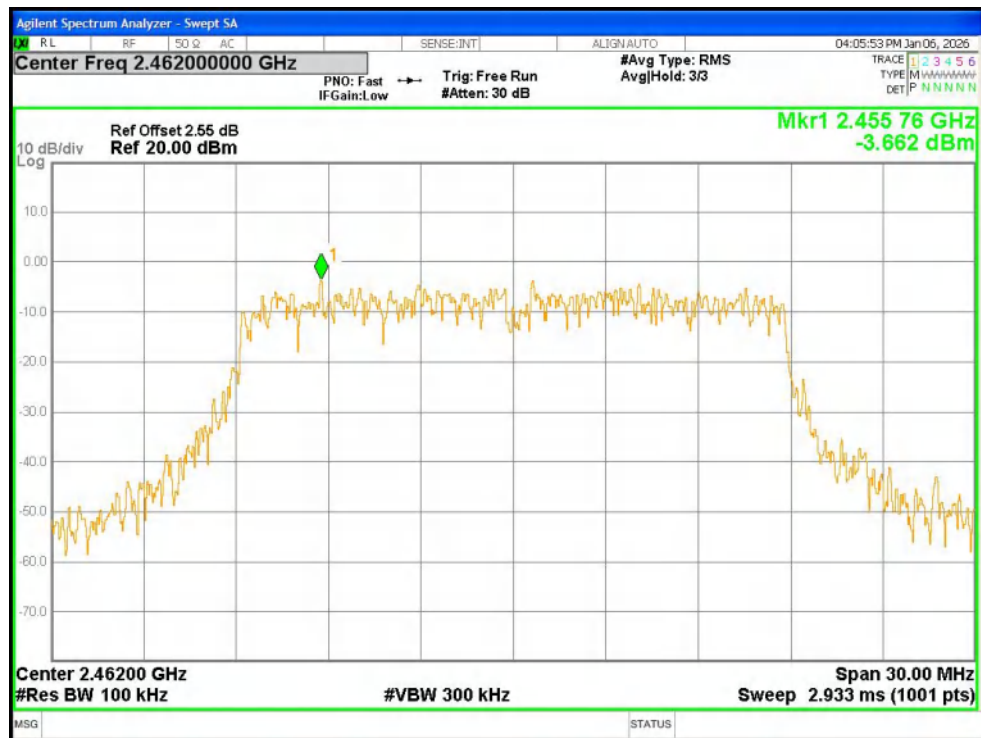
Tx. Spurious NVNT n20 2412MHz Ant1 Emission



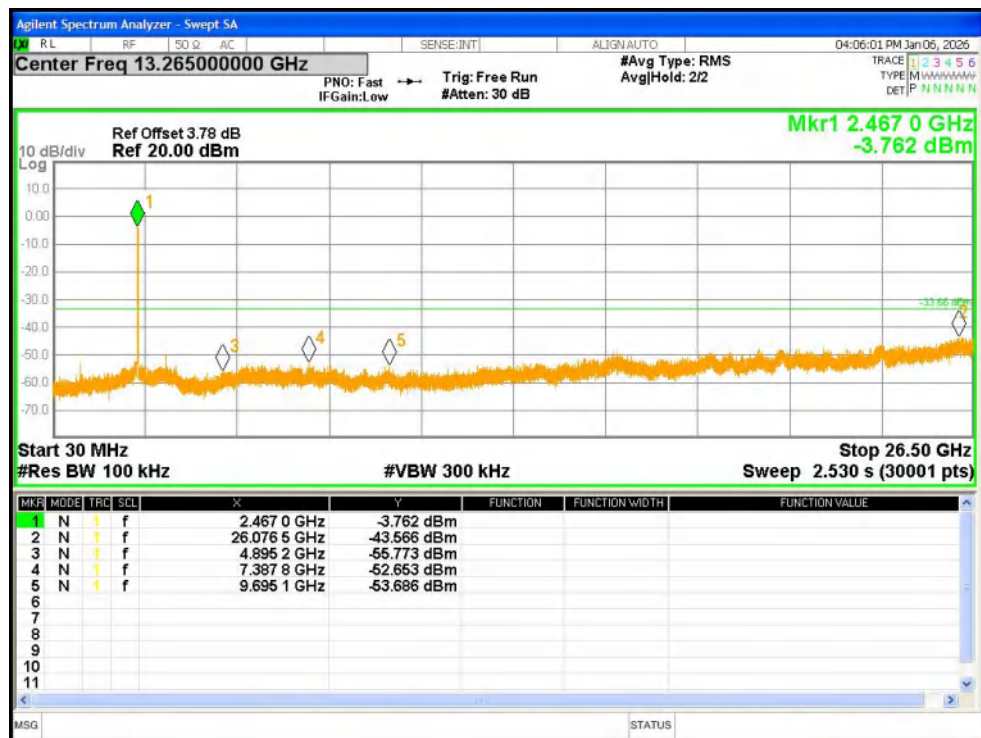
Tx. Spurious NVNT n20 2437MHz Ant1 Ref



Tx. Spurious NVNT n20 2437MHz Ant1 Emission

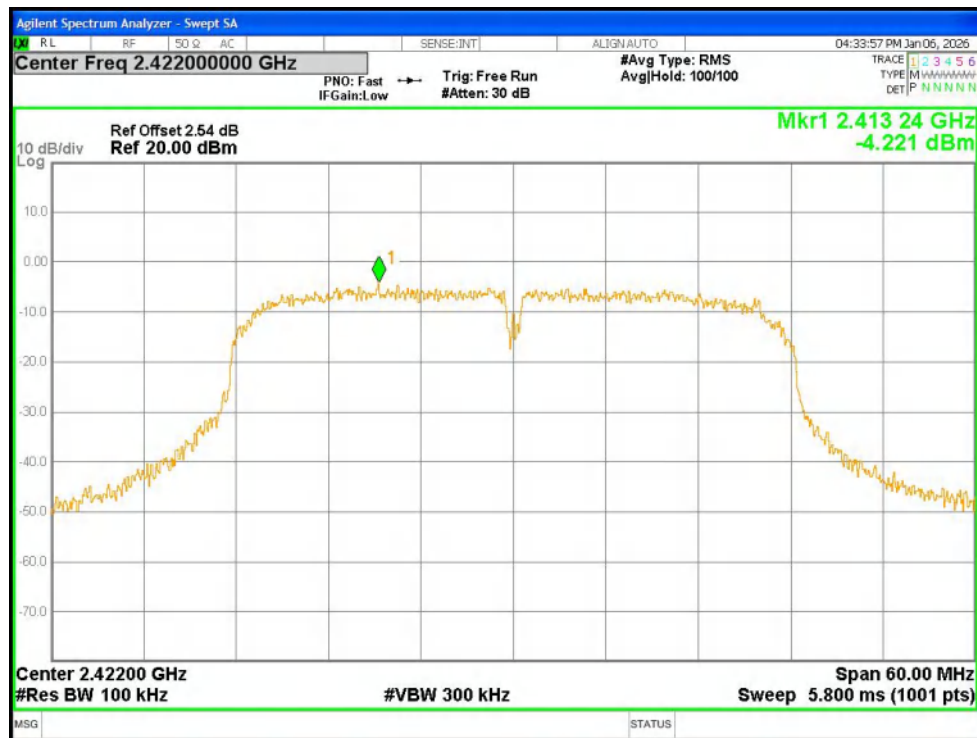


Tx. Spurious NVNT n20 2462MHz Ant1 Ref

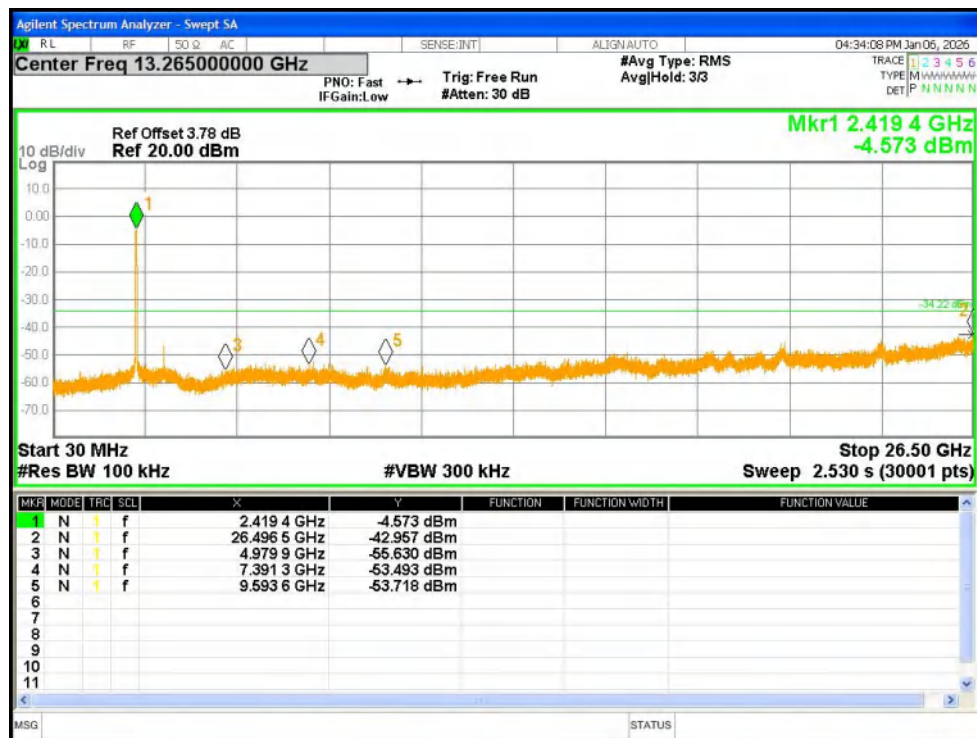


Tx. Spurious NVNT n20 2462MHz Ant1 Emission

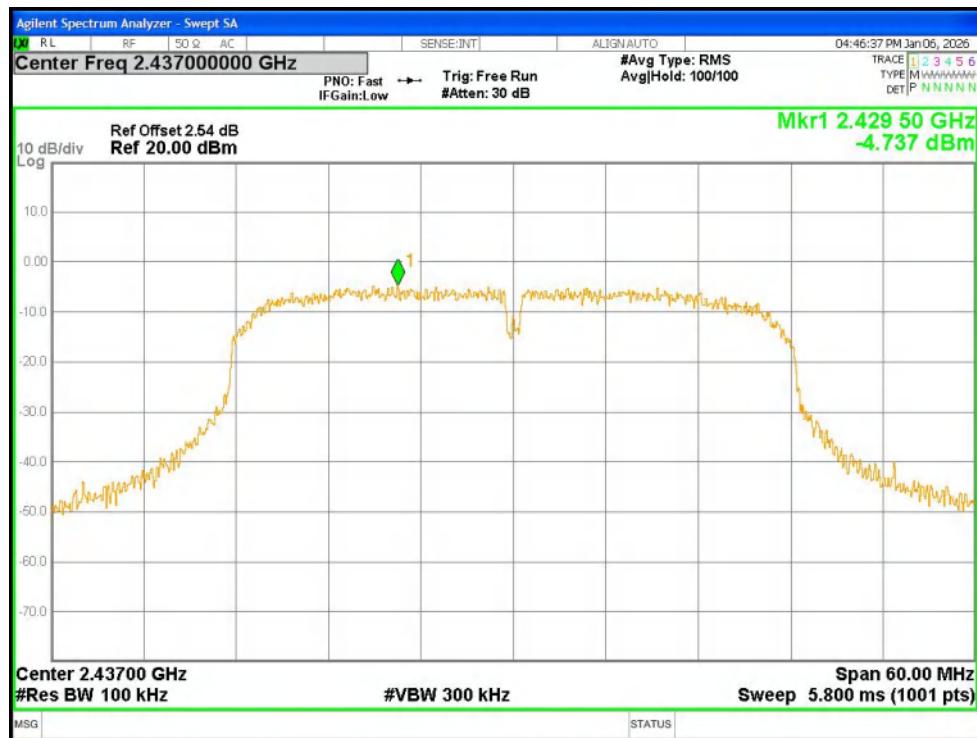
Report



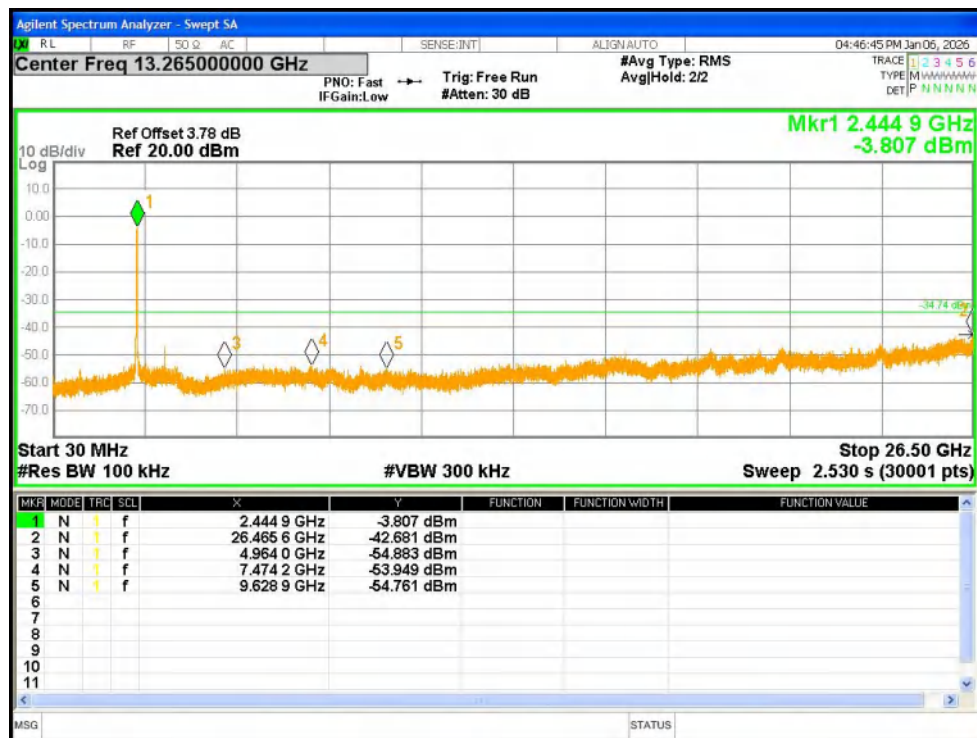
Tx. Spurious NVNT n40 2422MHz Ant1 Ref



Tx. Spurious NVNT n40 2422MHz Ant1 Emission

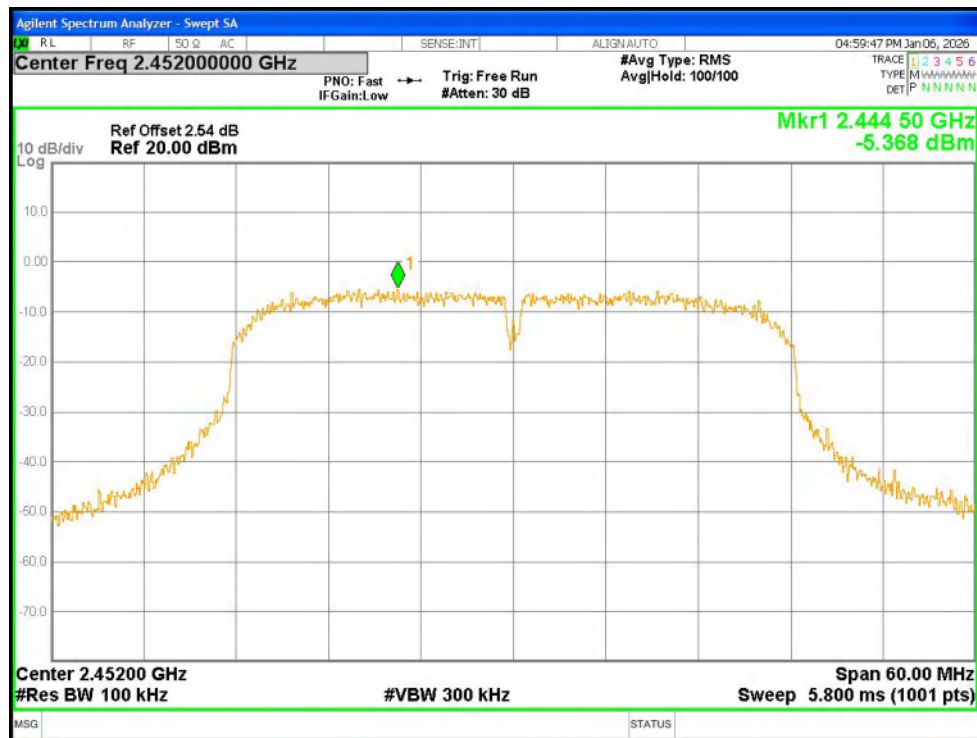


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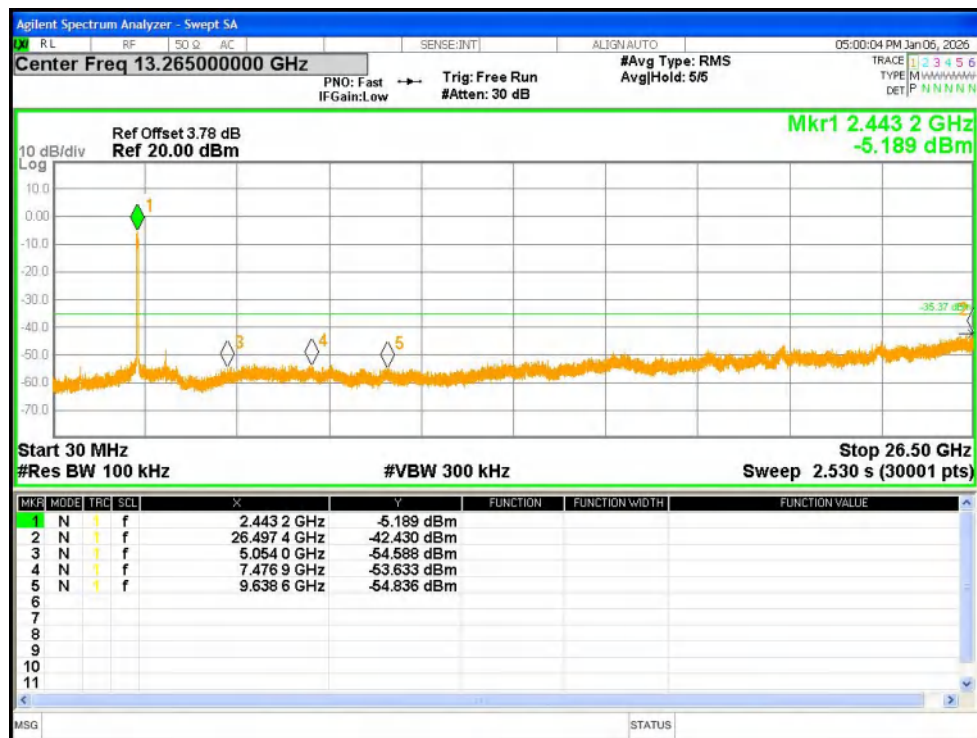


Tx. Spurious NVNT n40 2437MHz Ant1 Emission

Report



Tx. Spurious NVNT n40 2452MHz Ant1 Ref



Tx. Spurious NVNT n40 2452MHz Ant1 Emission