



Appendix B

RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: LED Ceiling Light

Test Model: ZJ-BWCLAL-RGBWW-R12C2

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Taylor Hu
Supervised by:	Ling Zhu



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B.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	9.083	≥ 0.5	Pass
NVNT	b	2437	Ant1	7.13	≥ 0.5	Pass
NVNT	b	2462	Ant1	8.602	≥ 0.5	Pass
NVNT	g	2412	Ant1	16.304	≥ 0.5	Pass
NVNT	g	2437	Ant1	14.466	≥ 0.5	Pass
NVNT	g	2462	Ant1	15.77	≥ 0.5	Pass
NVNT	n20	2412	Ant1	17.567	≥ 0.5	Pass
NVNT	n20	2437	Ant1	17.569	≥ 0.5	Pass
NVNT	n20	2462	Ant1	17.592	≥ 0.5	Pass



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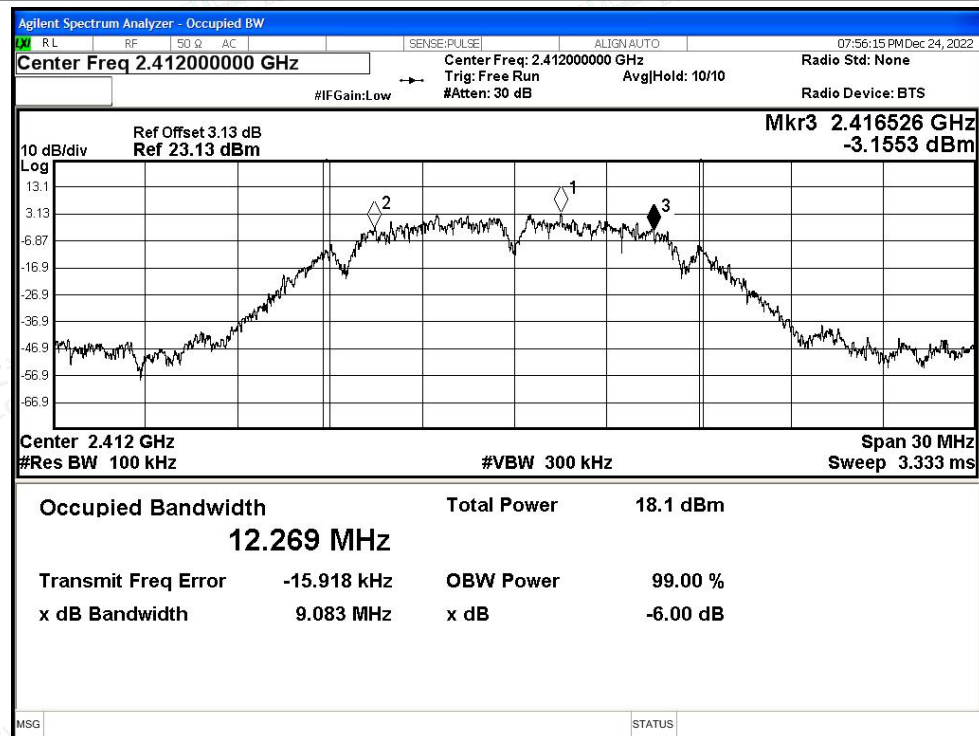
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Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1



-6dB Bandwidth NVNT b 2437MHz Ant1



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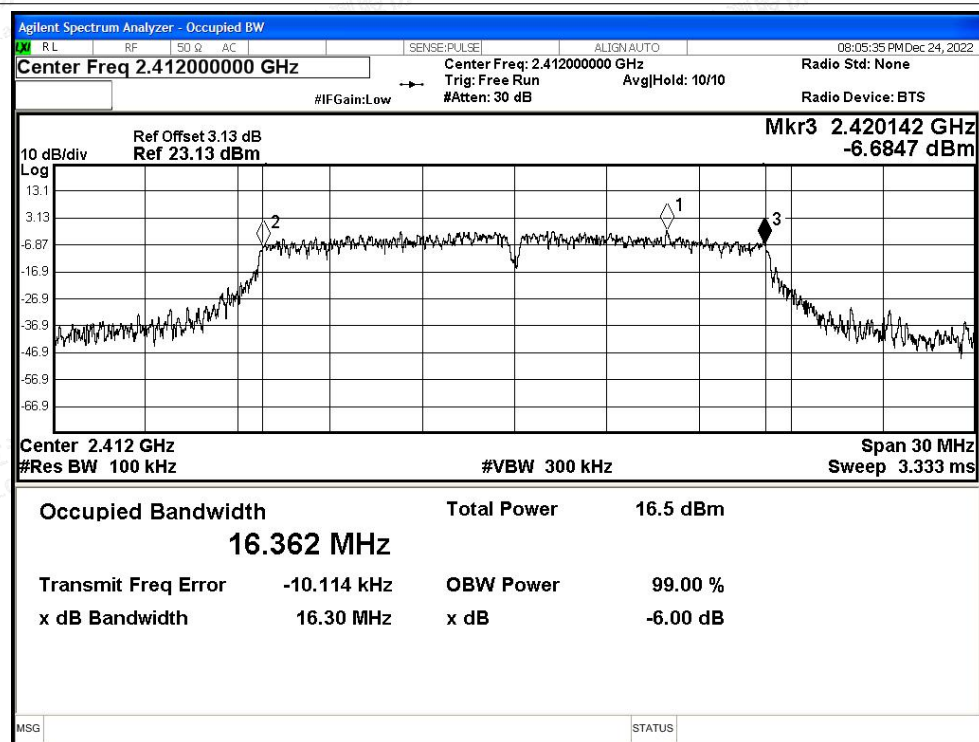
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-6dB Bandwidth NVNT b 2462MHz Ant1



-6dB Bandwidth NVNT g 2412MHz Ant1



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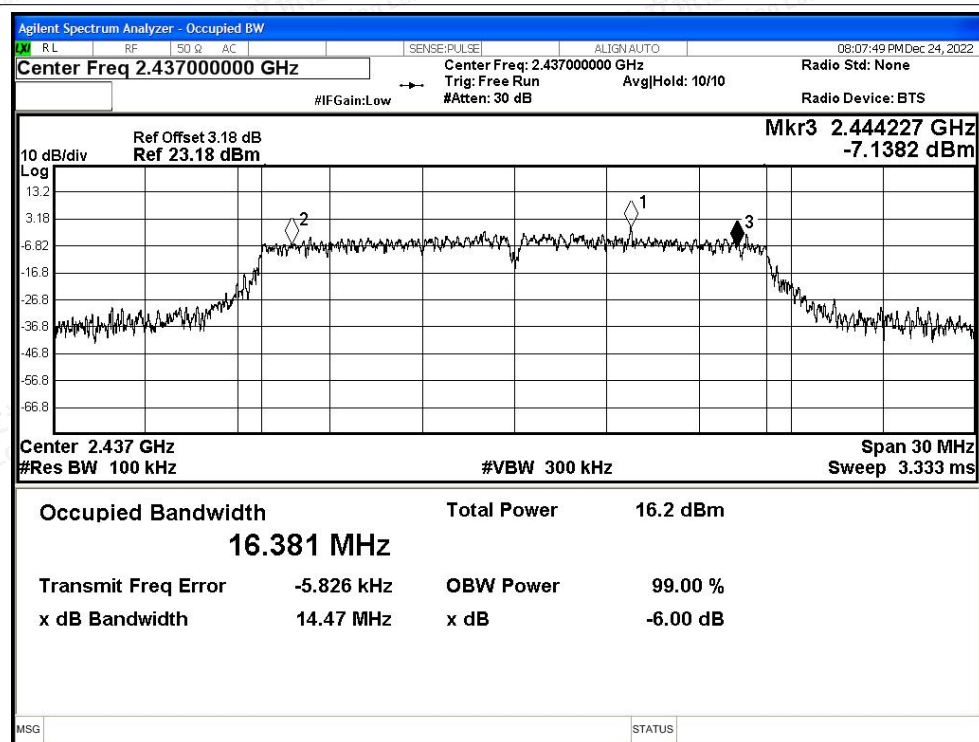
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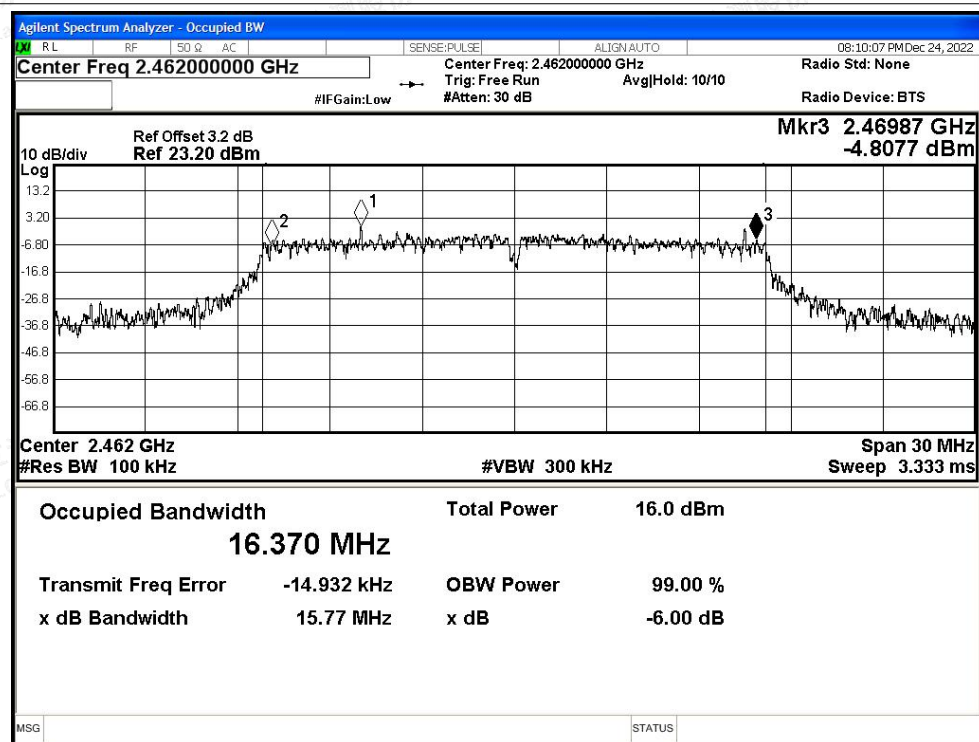
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-6dB Bandwidth NVNT g 2437MHz Ant1



-6dB Bandwidth NVNT g 2462MHz Ant1



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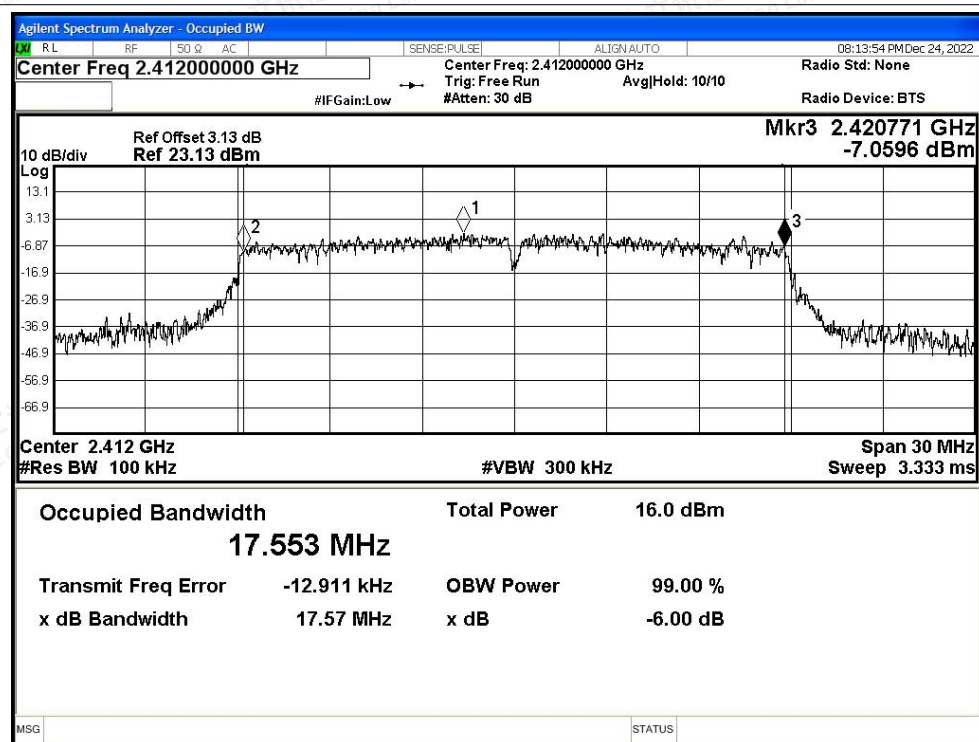
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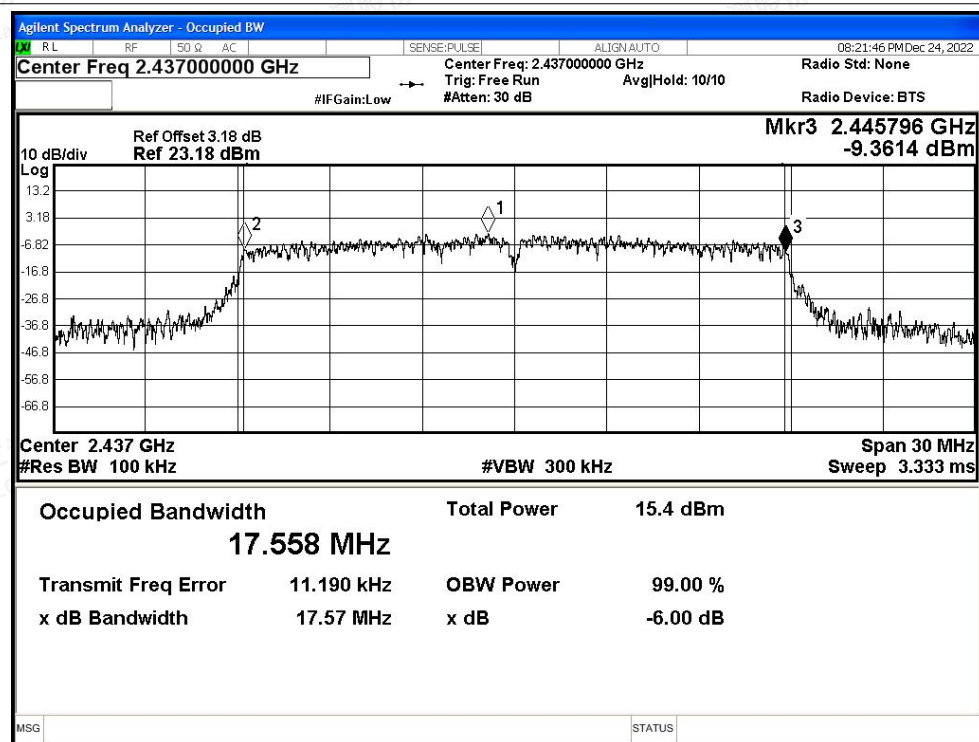
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-6dB Bandwidth NVNT n20 2412MHz Ant1



-6dB Bandwidth NVNT n20 2437MHz Ant1

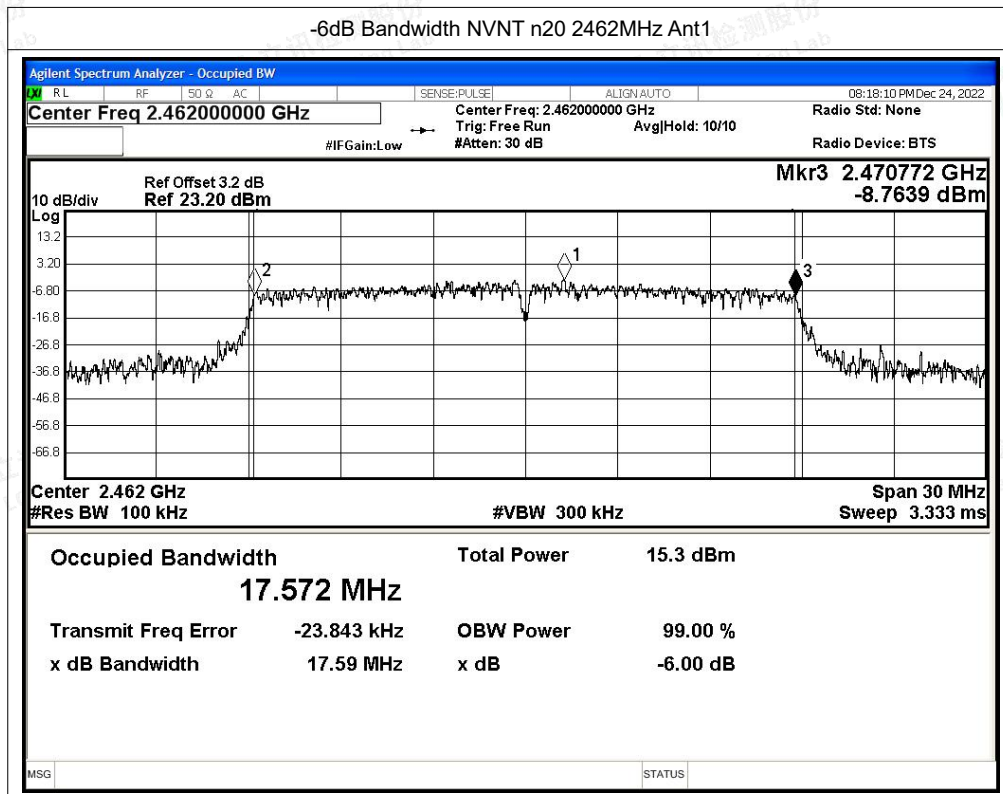


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B.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.43	30	Pass
NVNT	b	2437	Ant1	13.74	30	Pass
NVNT	b	2462	Ant1	13.14	30	Pass
NVNT	g	2412	Ant1	15.14	30	Pass
NVNT	g	2437	Ant1	14.89	30	Pass
NVNT	g	2462	Ant1	14.76	30	Pass
NVNT	n20	2412	Ant1	14.65	30	Pass
NVNT	n20	2437	Ant1	13.95	30	Pass
NVNT	n20	2462	Ant1	15.57	30	Pass



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B.3 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-8.65	8	Pass
NVNT	b	2437	Ant1	-10.51	8	Pass
NVNT	b	2462	Ant1	-10.09	8	Pass
NVNT	g	2412	Ant1	-12.55	8	Pass
NVNT	g	2437	Ant1	-13.23	8	Pass
NVNT	g	2462	Ant1	-12.44	8	Pass
NVNT	n20	2412	Ant1	-12.42	8	Pass
NVNT	n20	2437	Ant1	-13.57	8	Pass
NVNT	n20	2462	Ant1	-14.25	8	Pass



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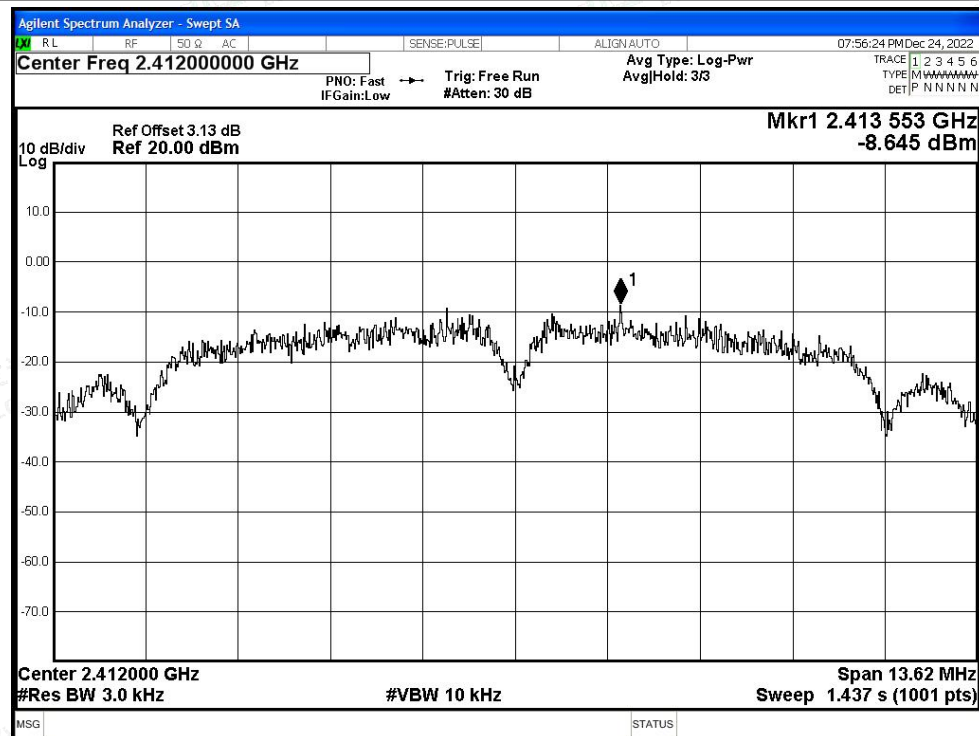
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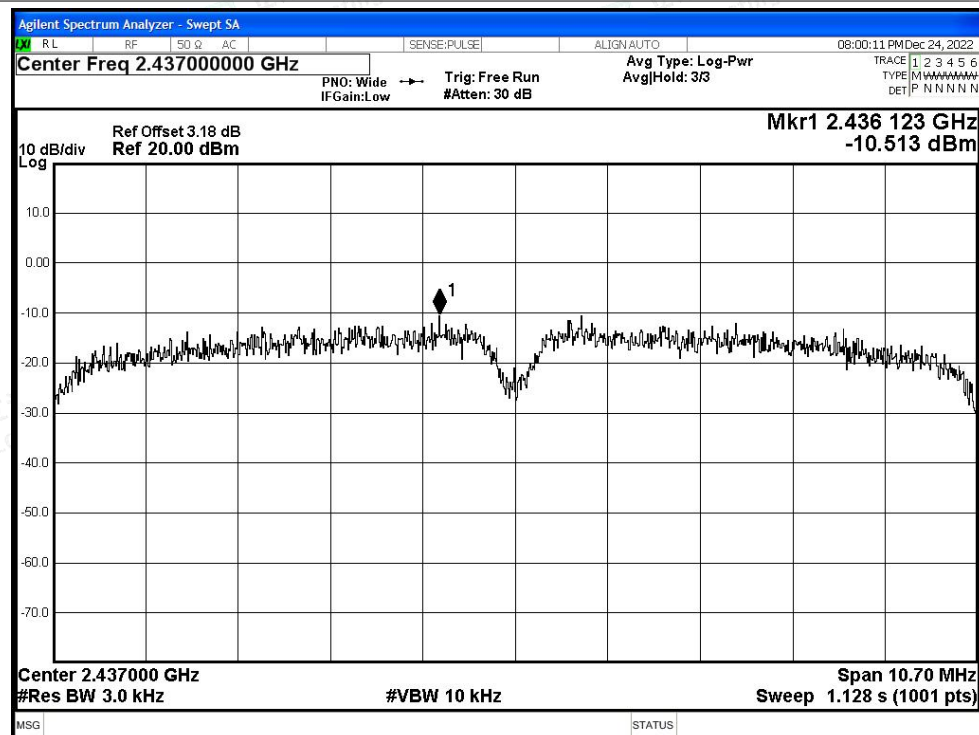


Test Graphs

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1



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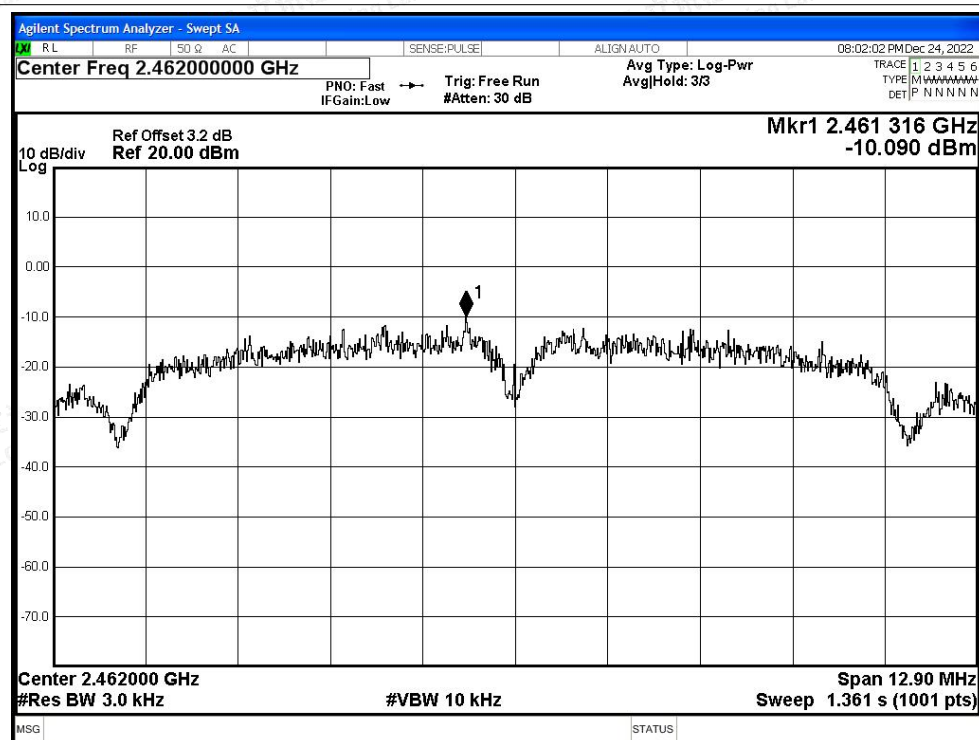
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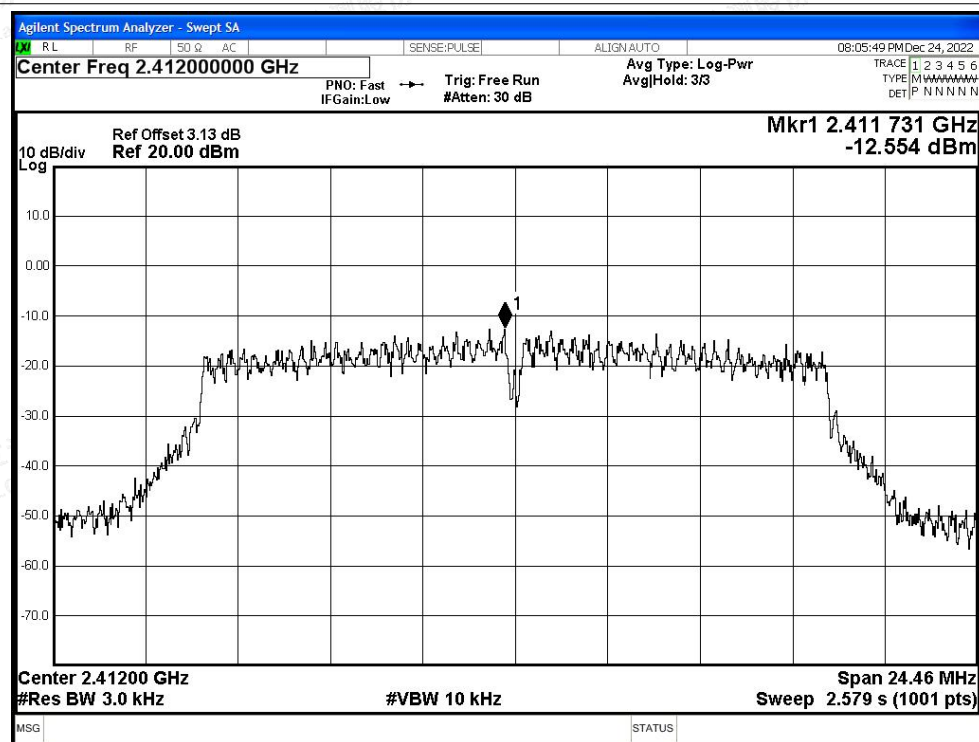
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PSD NVNT b 2462MHz Ant1



PSD NVNT g 2412MHz Ant1



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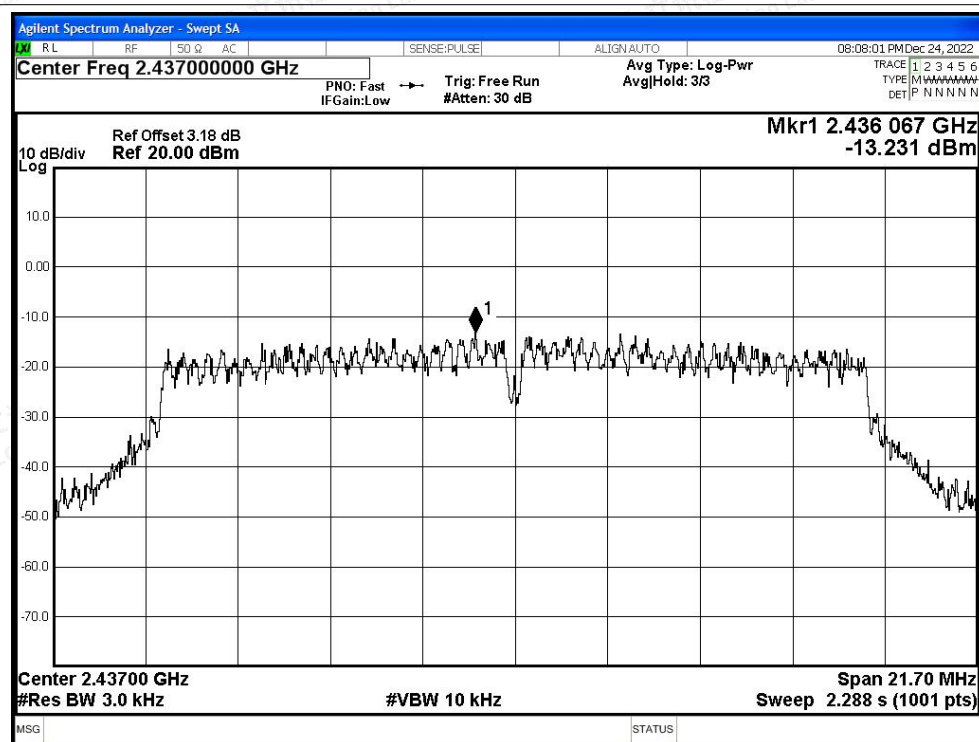
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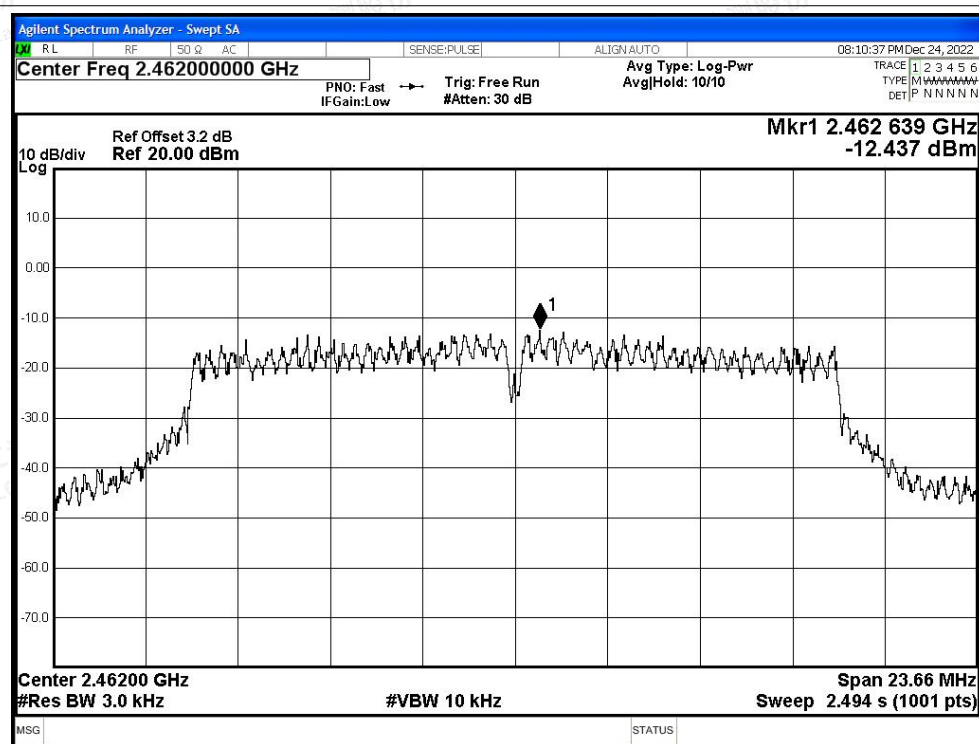
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PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1

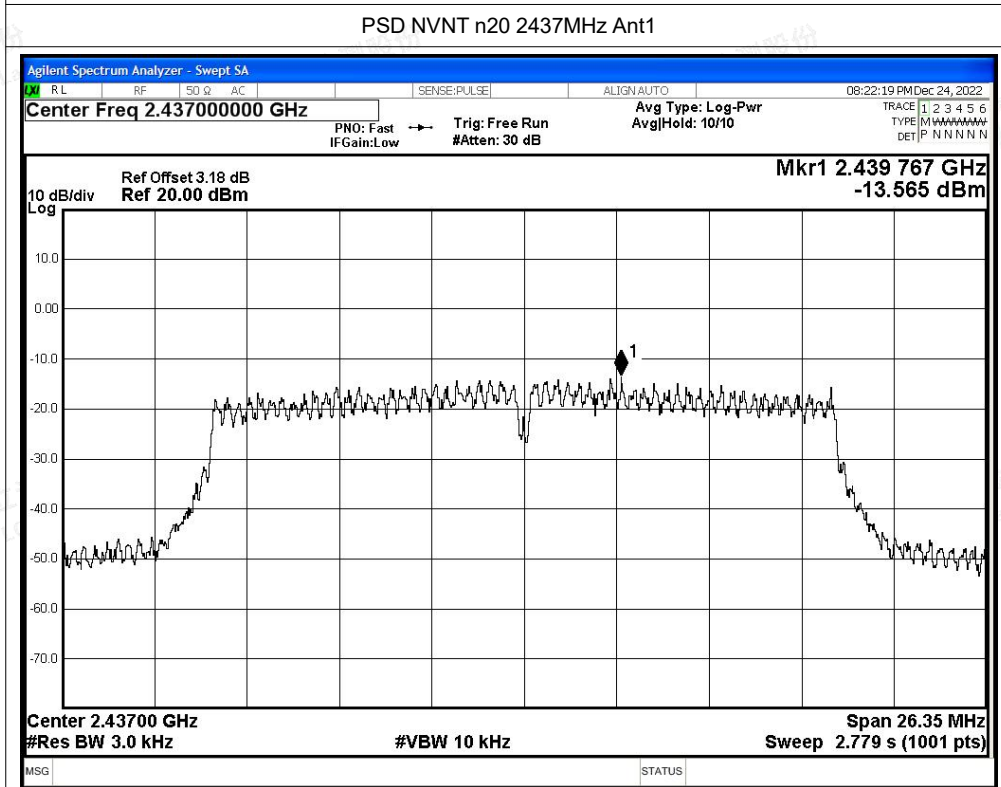
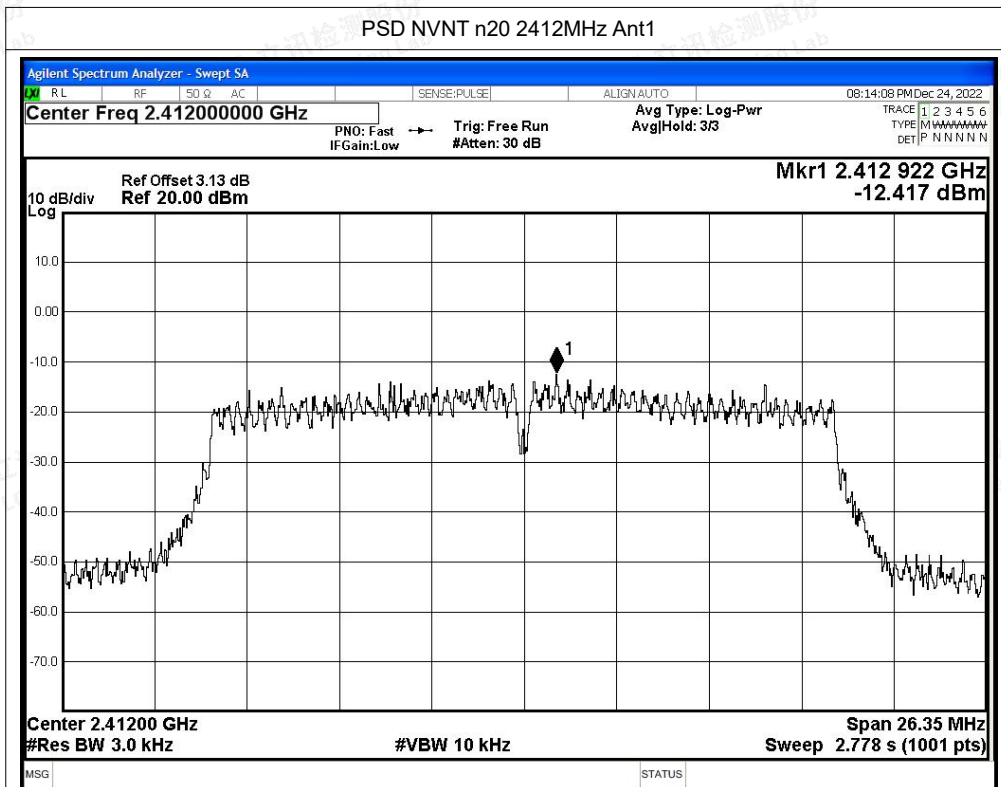


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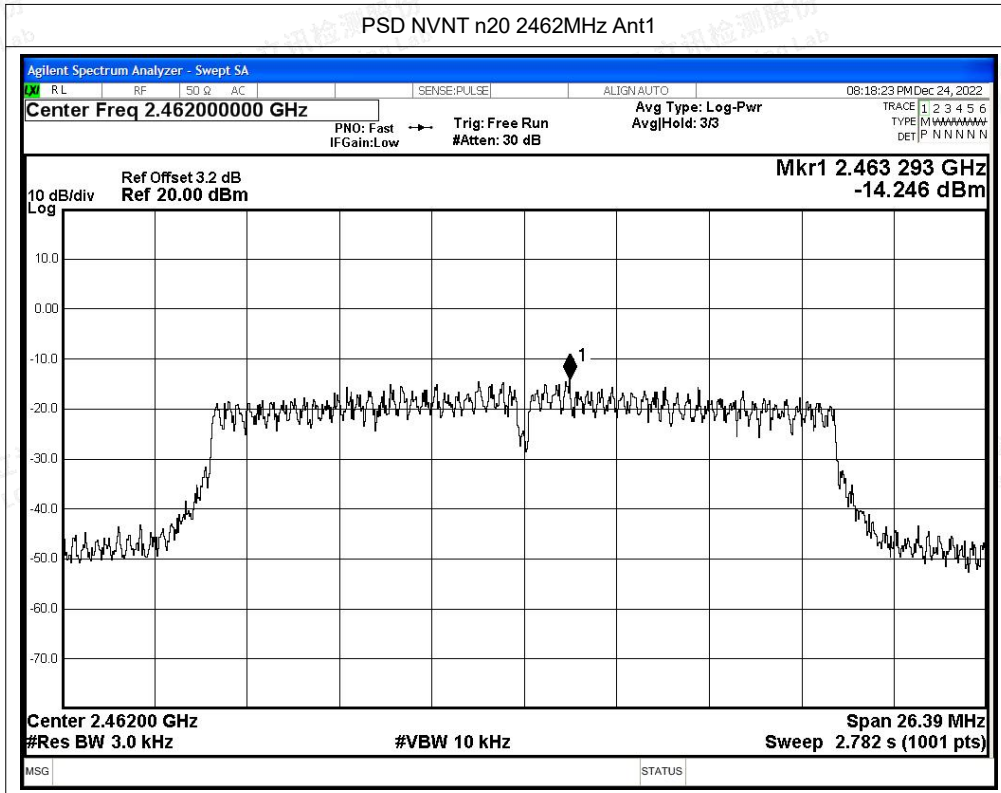


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B.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-47.35	-20	Pass
NVNT	b	2462	Ant1	-56.86	-20	Pass
NVNT	g	2412	Ant1	-36.11	-20	Pass
NVNT	g	2462	Ant1	-43.72	-20	Pass
NVNT	n20	2412	Ant1	-35.53	-20	Pass
NVNT	n20	2462	Ant1	-41.1	-20	Pass



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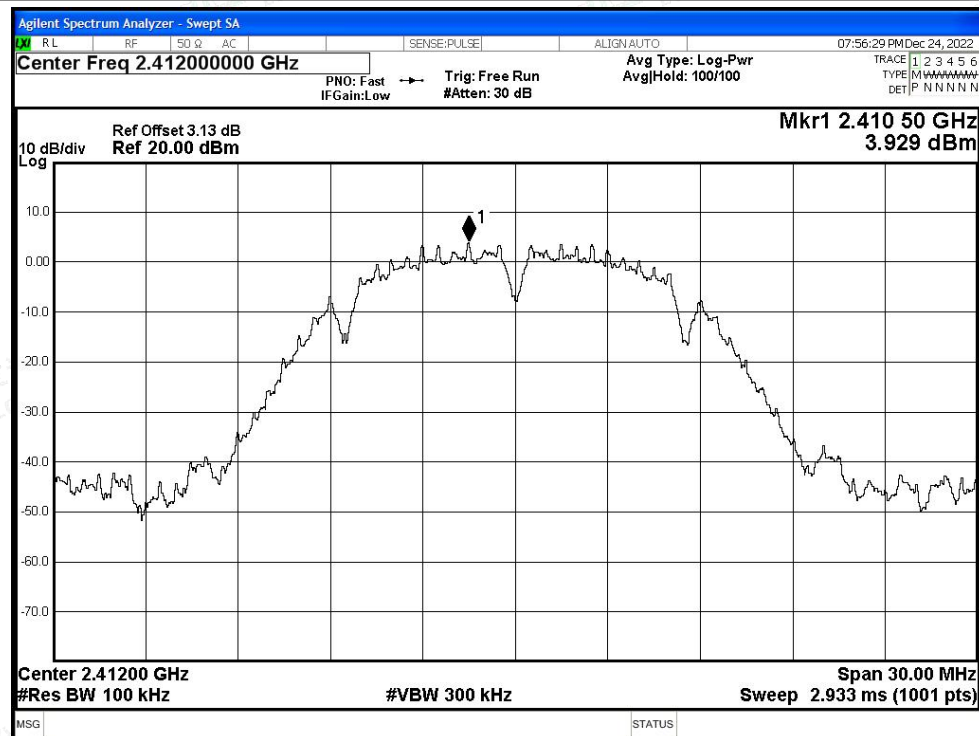
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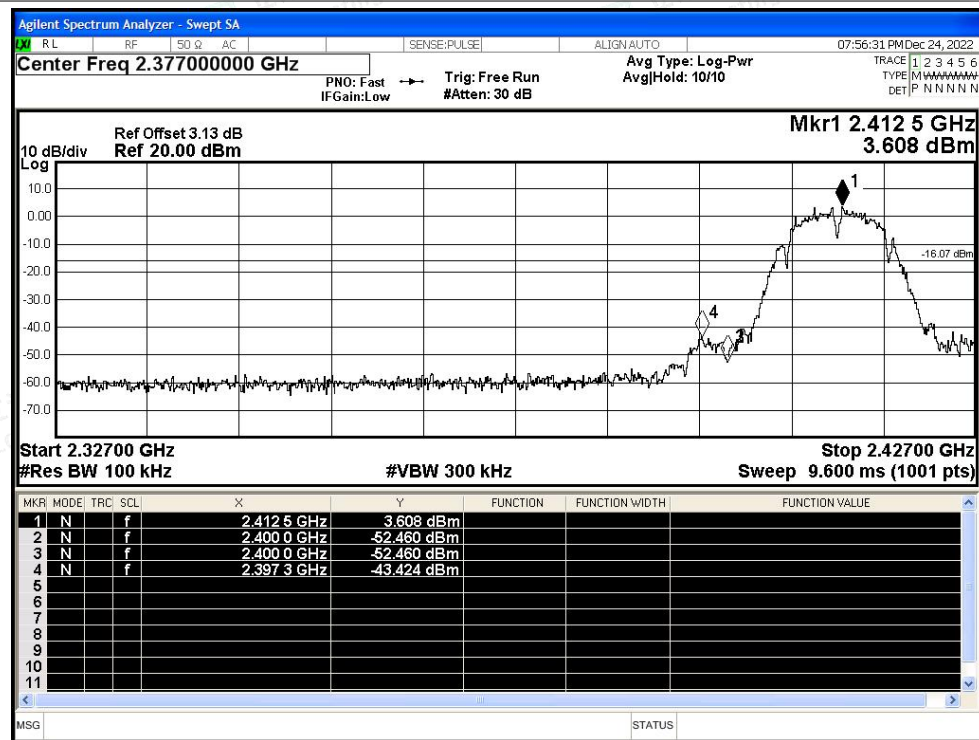


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission



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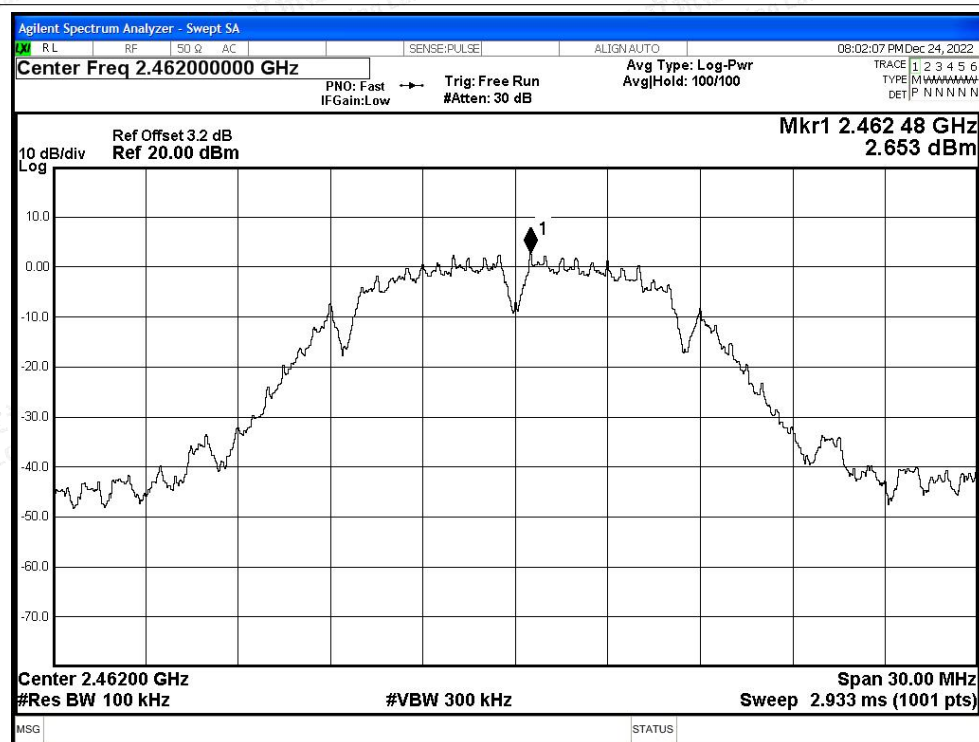
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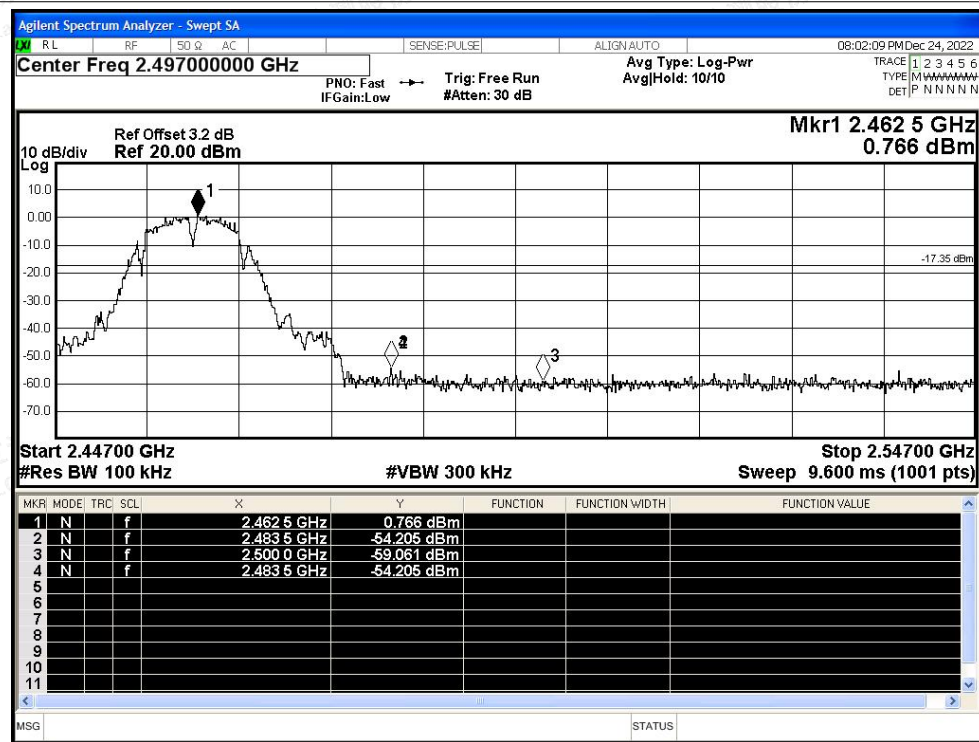
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Band Edge NVNT b 2462MHz Ant1 Ref



Band Edge NVNT b 2462MHz Ant1 Emission



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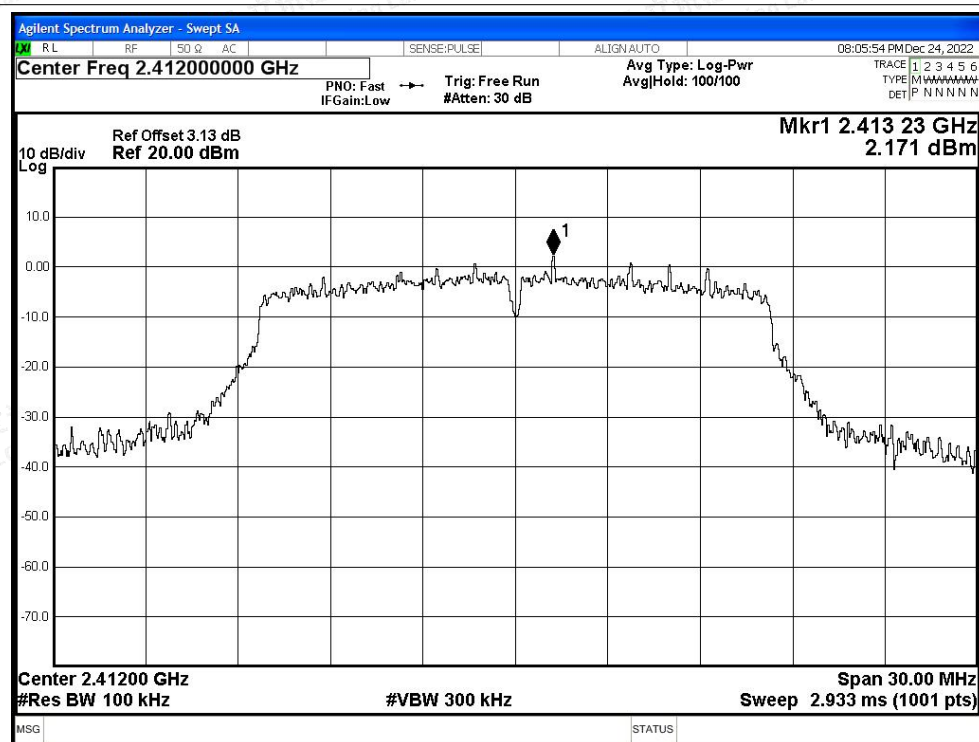
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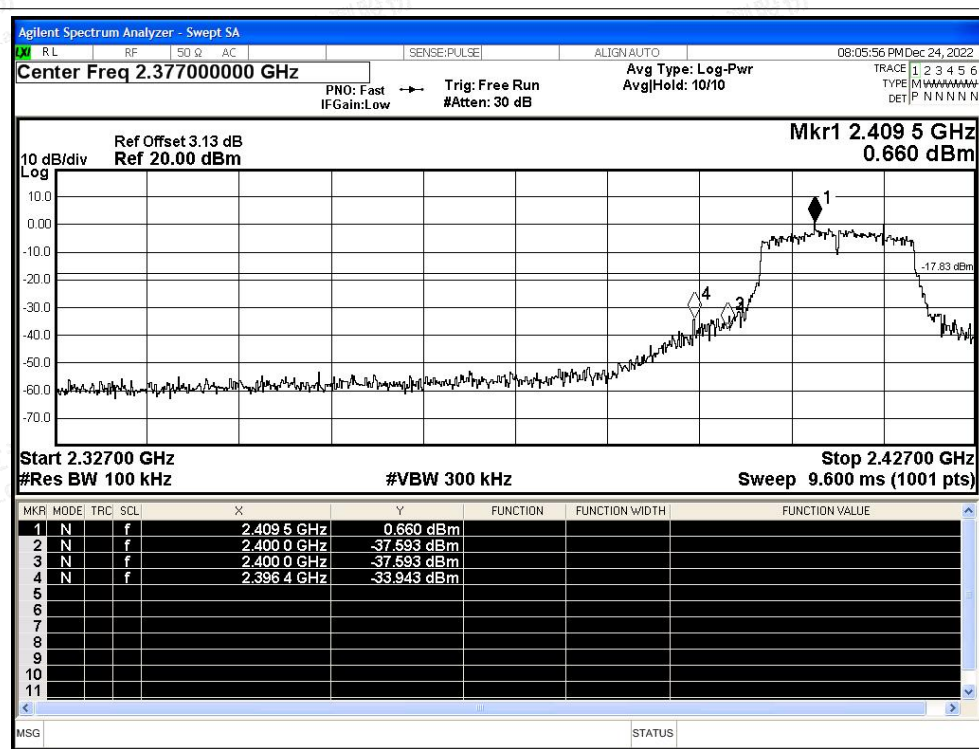
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Band Edge NVNT g 2412MHz Ant1 Ref



Band Edge NVNT g 2412MHz Ant1 Emission



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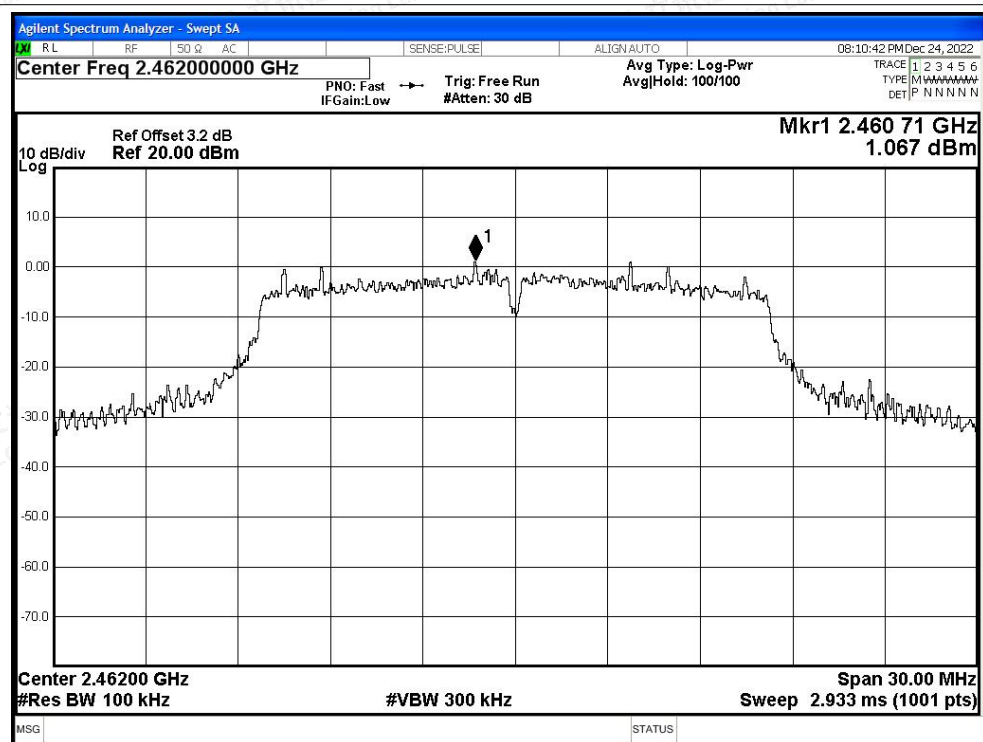
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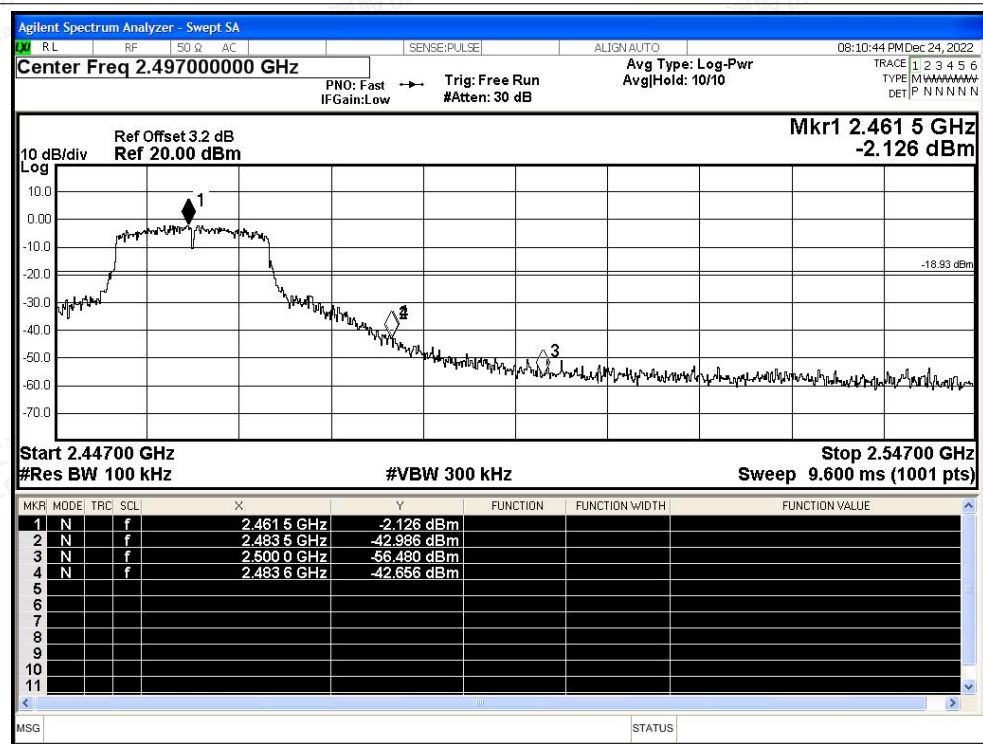
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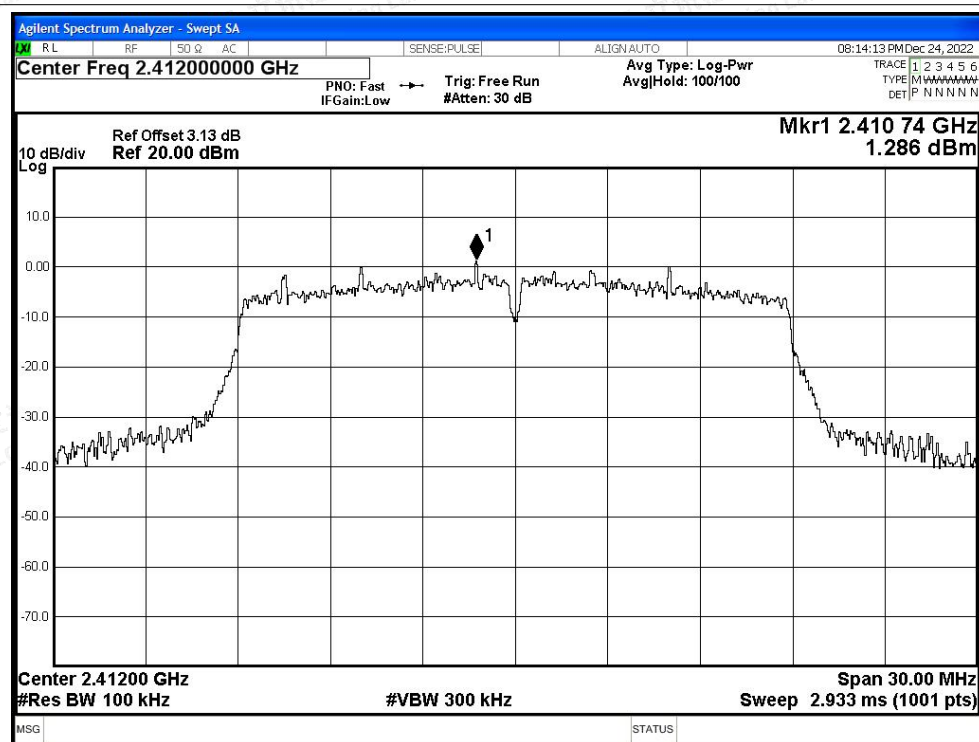
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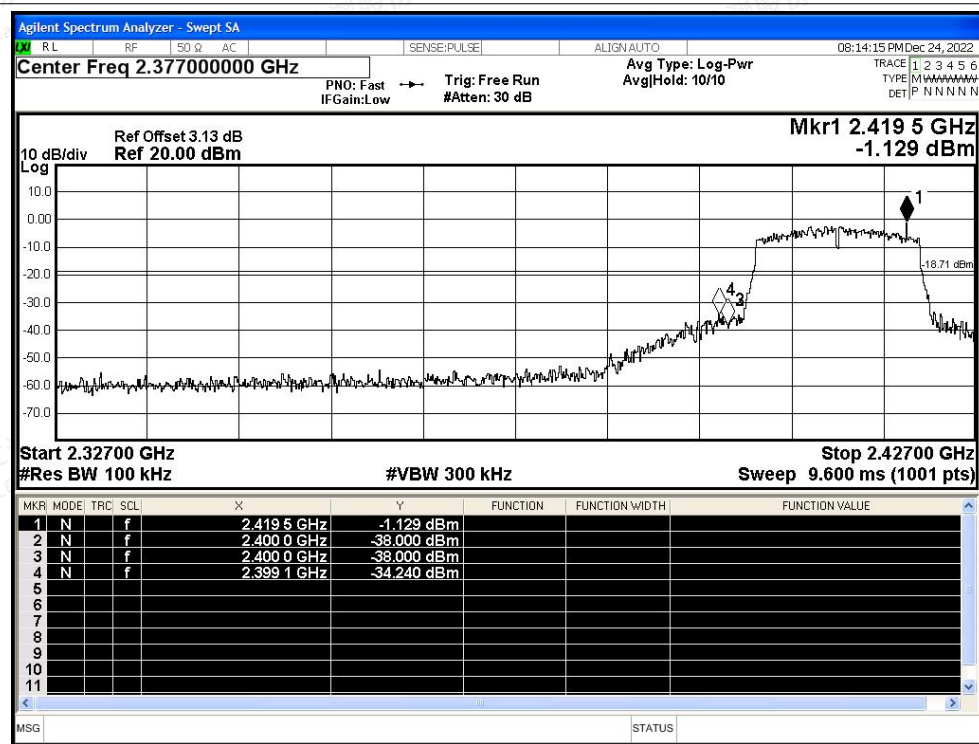
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Band Edge NVNT n20 2412MHz Ant1 Ref



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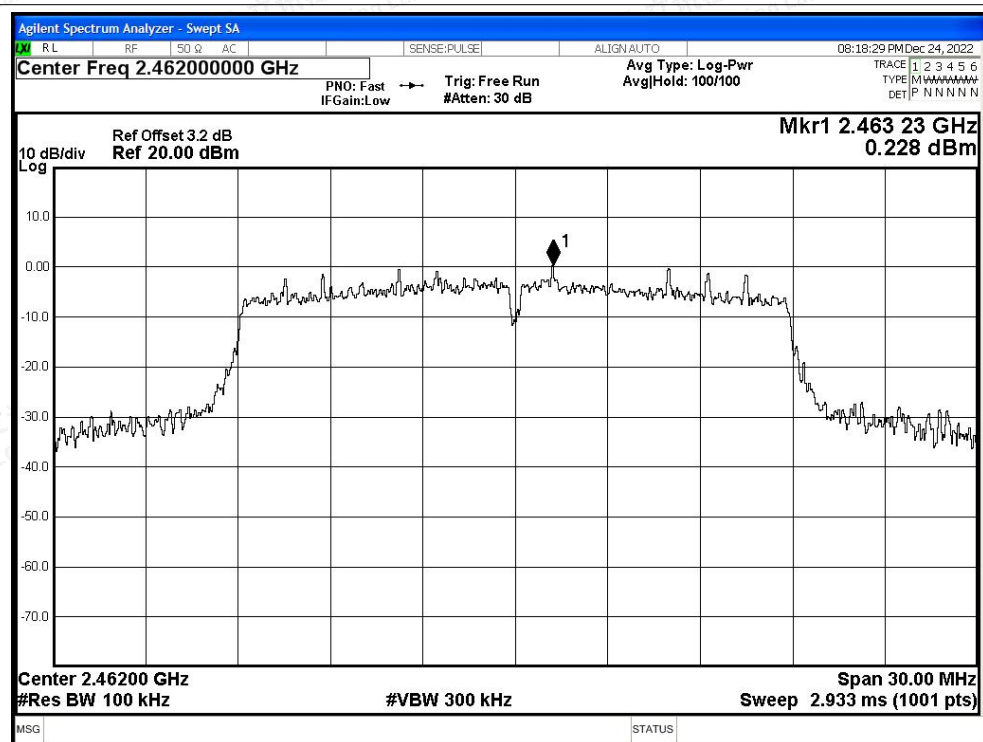
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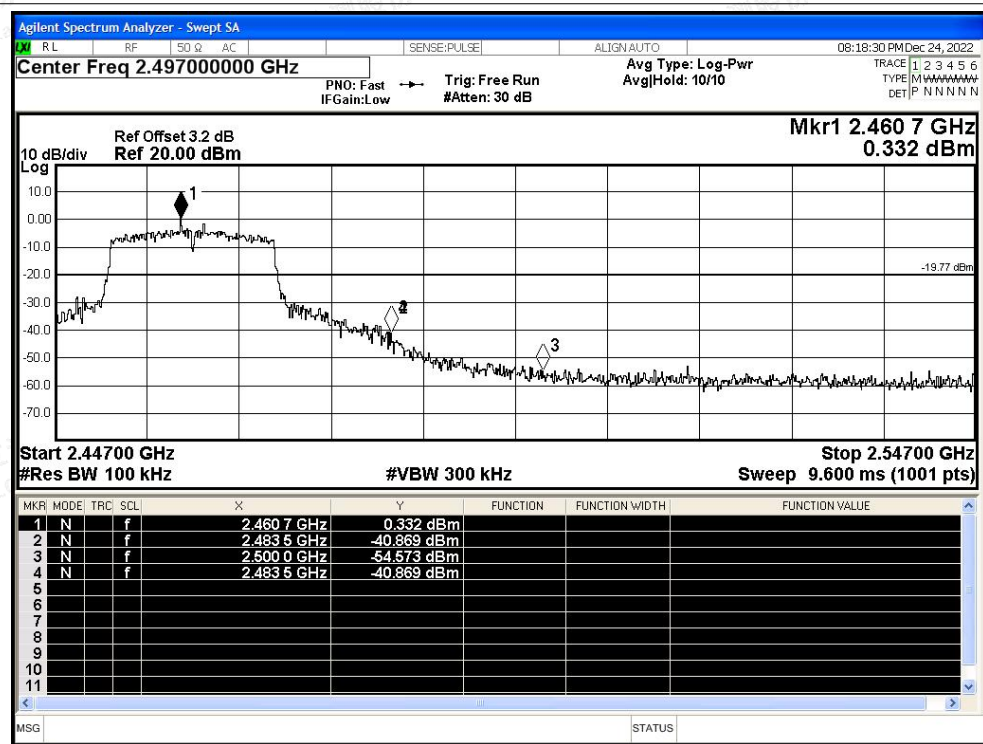
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Band Edge NVNT n20 2462MHz Ant1 Ref



Band Edge NVNT n20 2462MHz Ant1 Emission



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B.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.49	-20	Pass
NVNT	b	2437	Ant1	-48.07	-20	Pass
NVNT	b	2462	Ant1	-47.31	-20	Pass
NVNT	g	2412	Ant1	-44.75	-20	Pass
NVNT	g	2437	Ant1	-46.44	-20	Pass
NVNT	g	2462	Ant1	-45.5	-20	Pass
NVNT	n20	2412	Ant1	-45.67	-20	Pass
NVNT	n20	2437	Ant1	-43.91	-20	Pass
NVNT	n20	2462	Ant1	-47.36	-20	Pass



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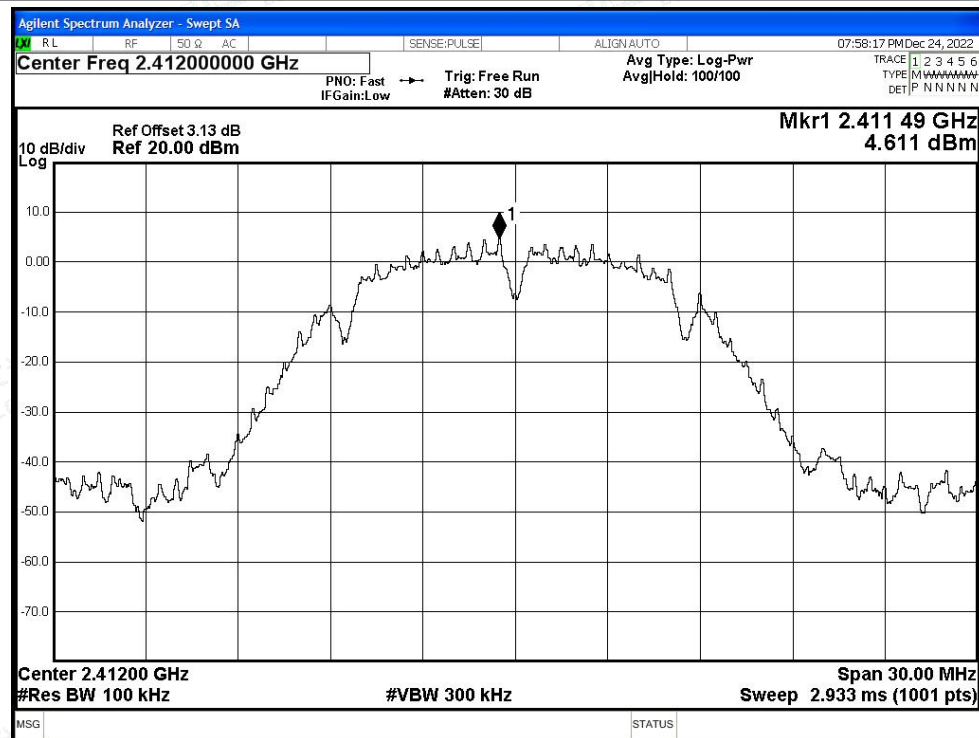
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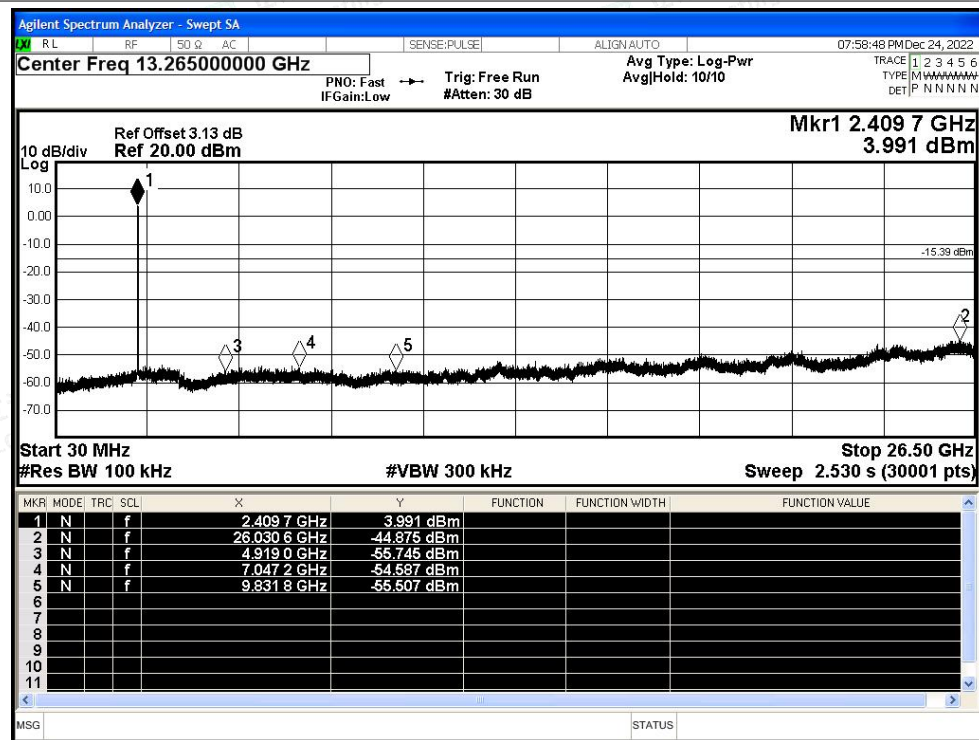


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission



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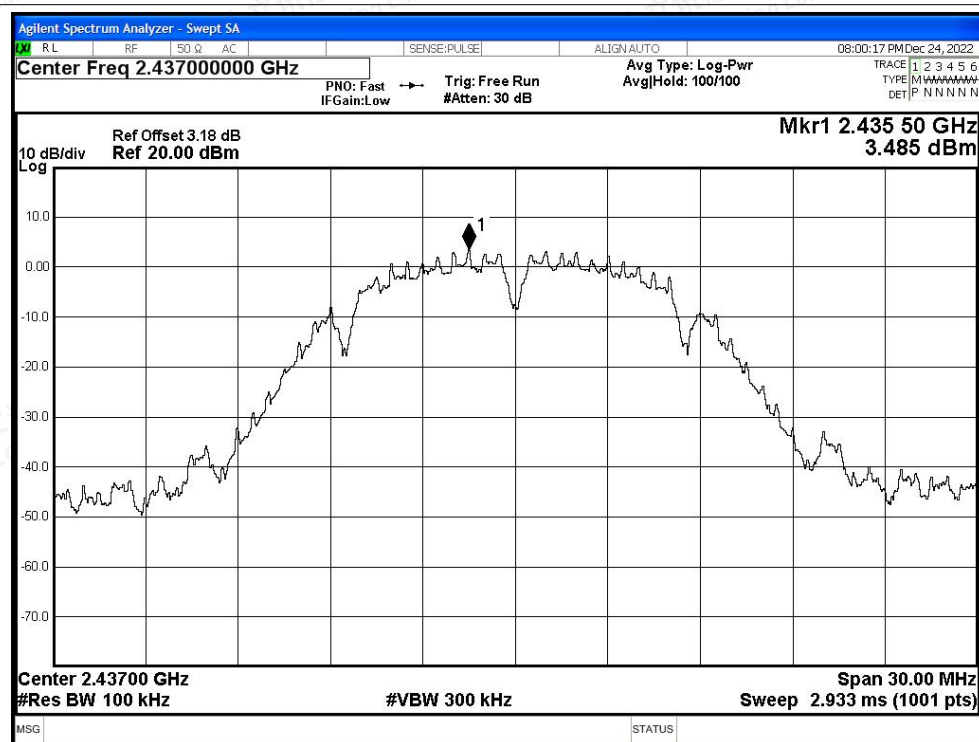
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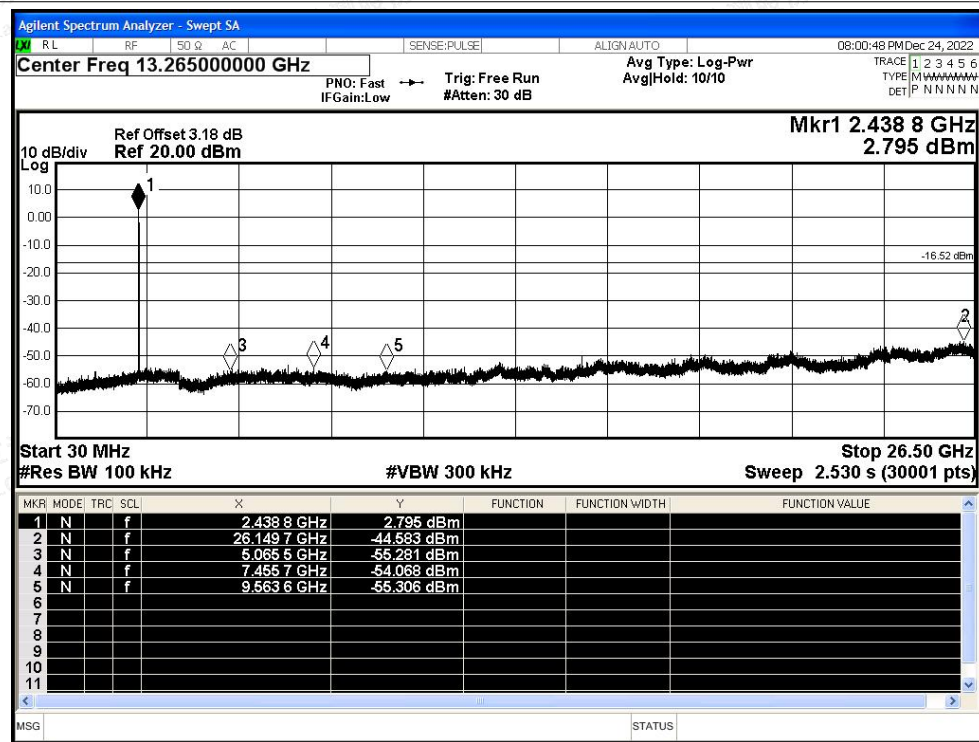
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Tx. Spurious NVNT b 2437MHz Ant1 Emission



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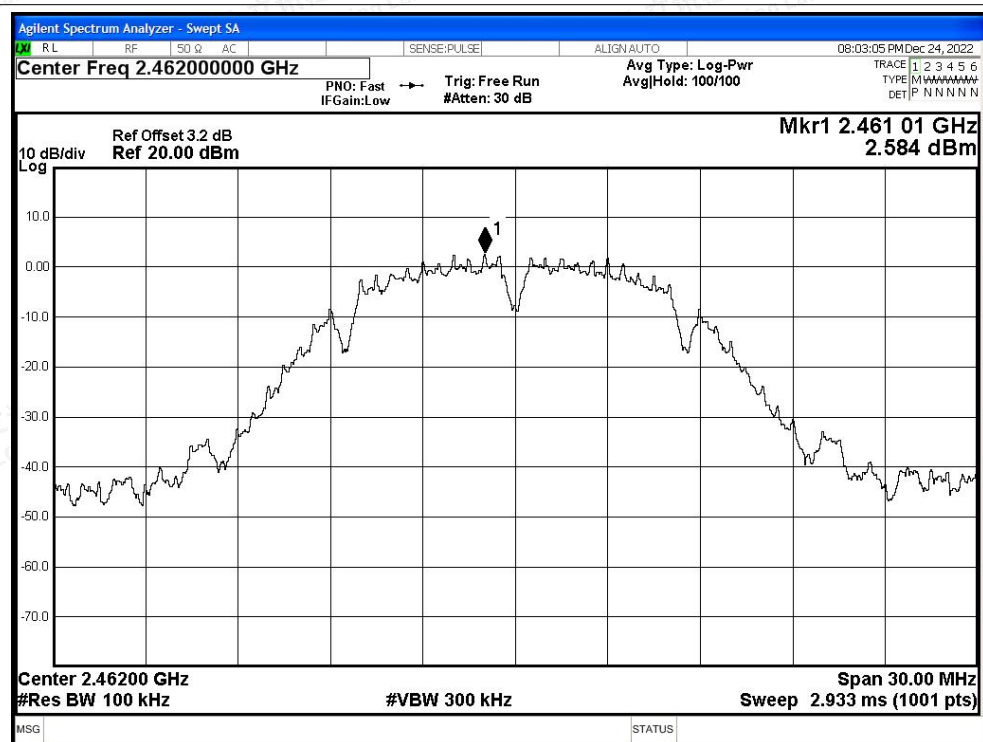
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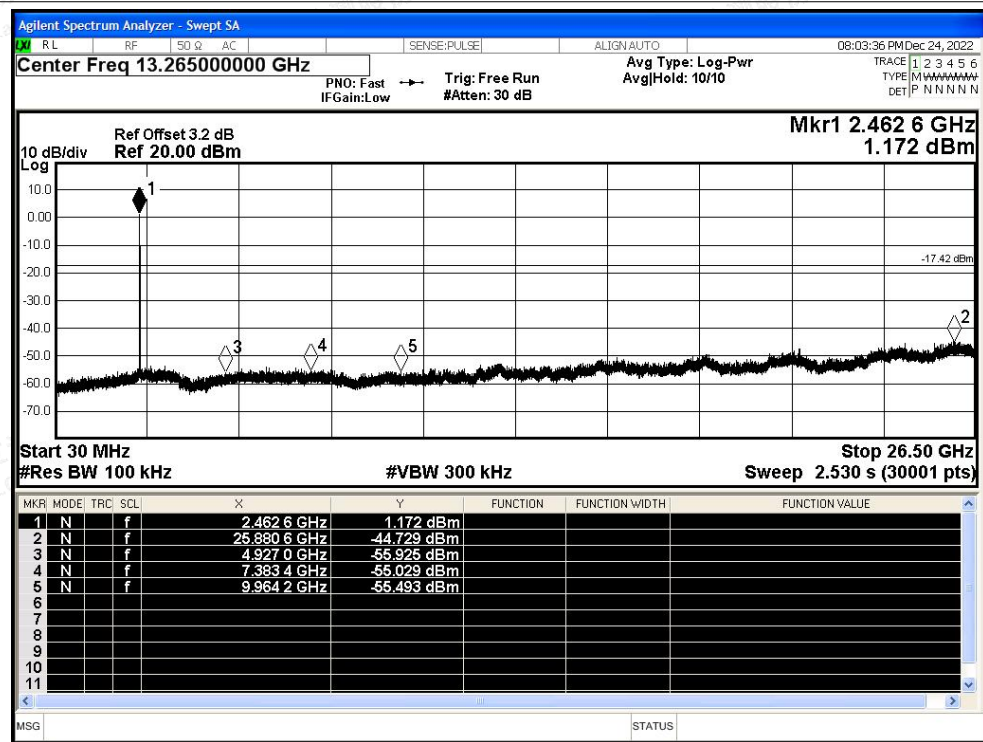
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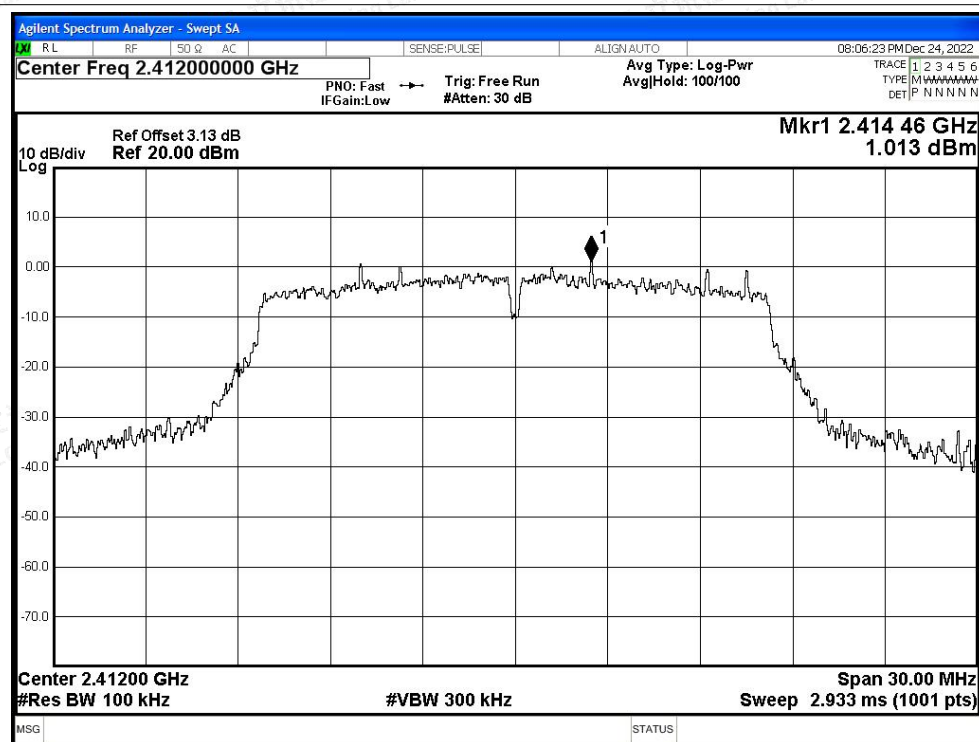
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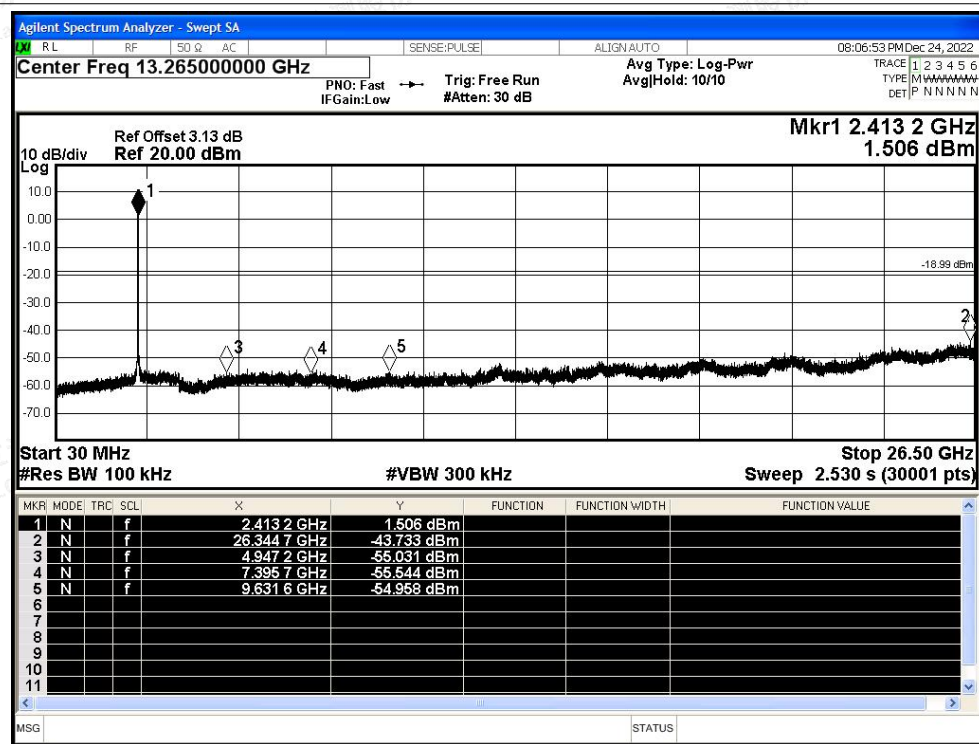
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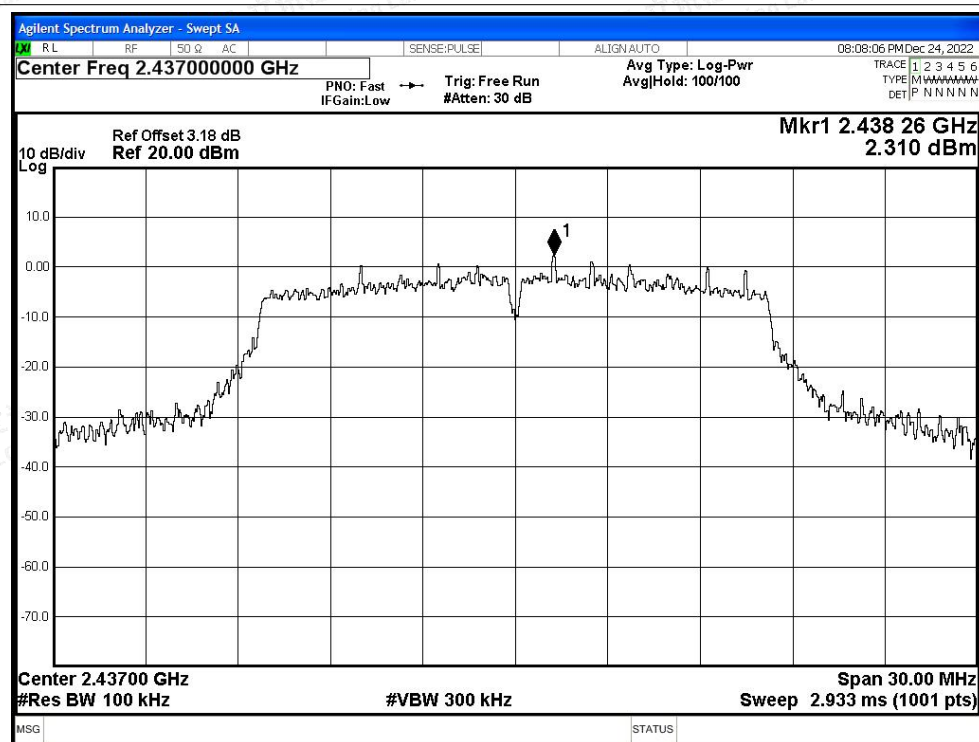
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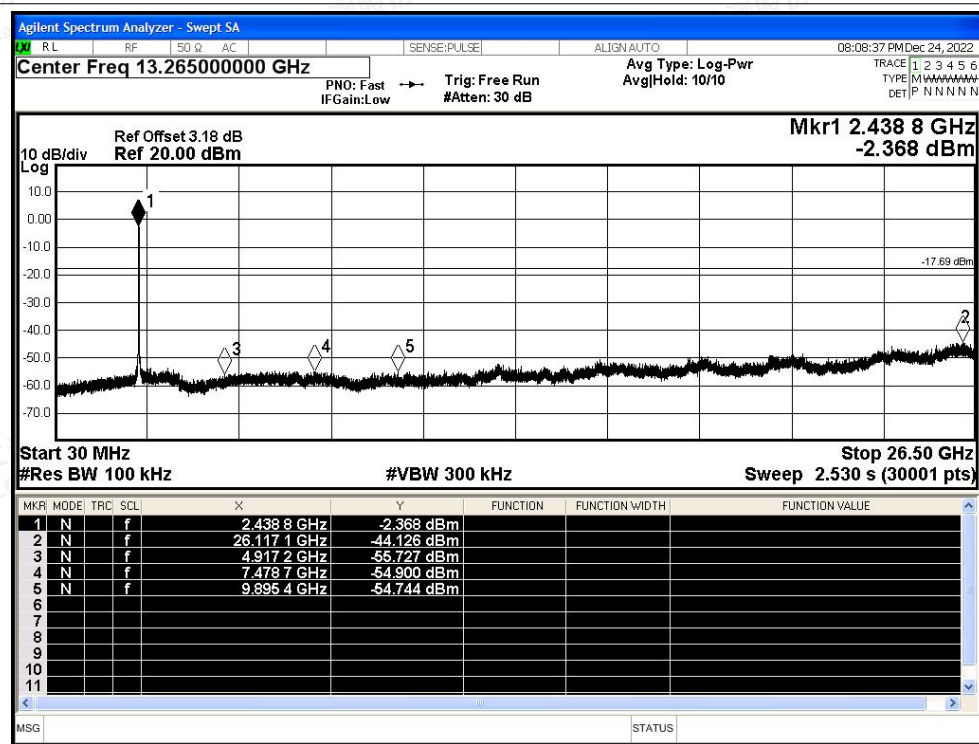
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Tx. Spurious NVNT g 2437MHz Ant1 Ref



Tx. Spurious NVNT g 2437MHz Ant1 Emission



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