



Appendix A

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: LED LAMP

Test Model: QPCA11-PA-WIFILIC-TY RGBCW 5W

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li huan



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A.1 6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	6 dB Bandwidth (MHz)	Limit 6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	10.027	≥ 0.5	Pass
NVNT	b	2437	Ant1	10.111	≥ 0.5	Pass
NVNT	b	2462	Ant1	12.501	≥ 0.5	Pass
NVNT	g	2412	Ant1	13.65	≥ 0.5	Pass
NVNT	g	2437	Ant1	16.088	≥ 0.5	Pass
NVNT	g	2462	Ant1	12.557	≥ 0.5	Pass
NVNT	n20	2412	Ant1	10.414	≥ 0.5	Pass
NVNT	n20	2437	Ant1	15.959	≥ 0.5	Pass
NVNT	n20	2462	Ant1	14.051	≥ 0.5	Pass



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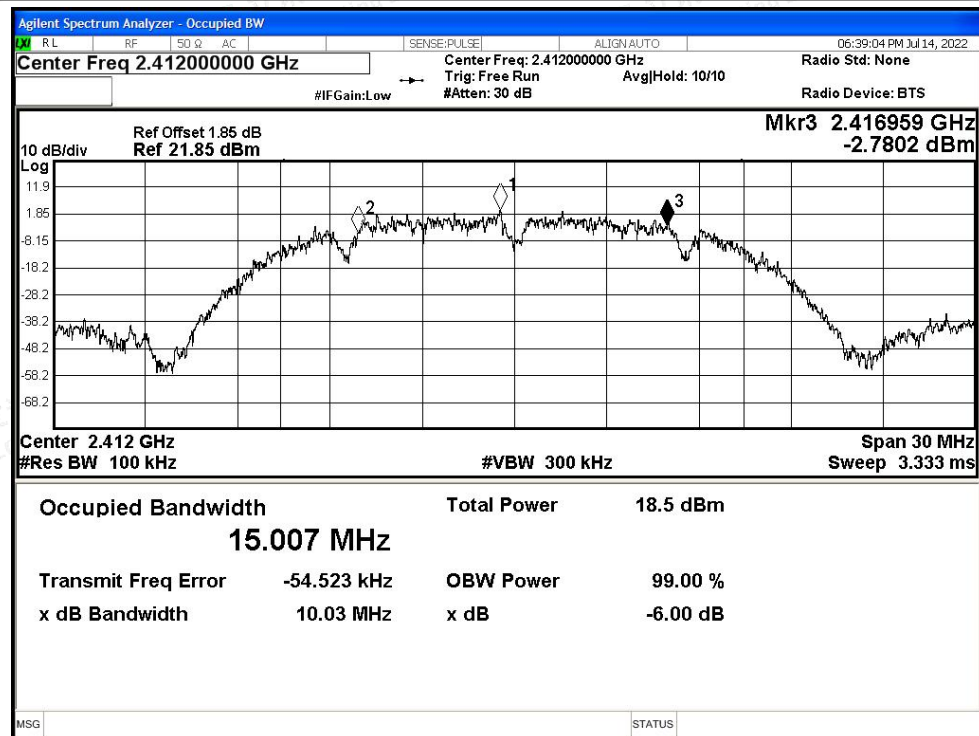
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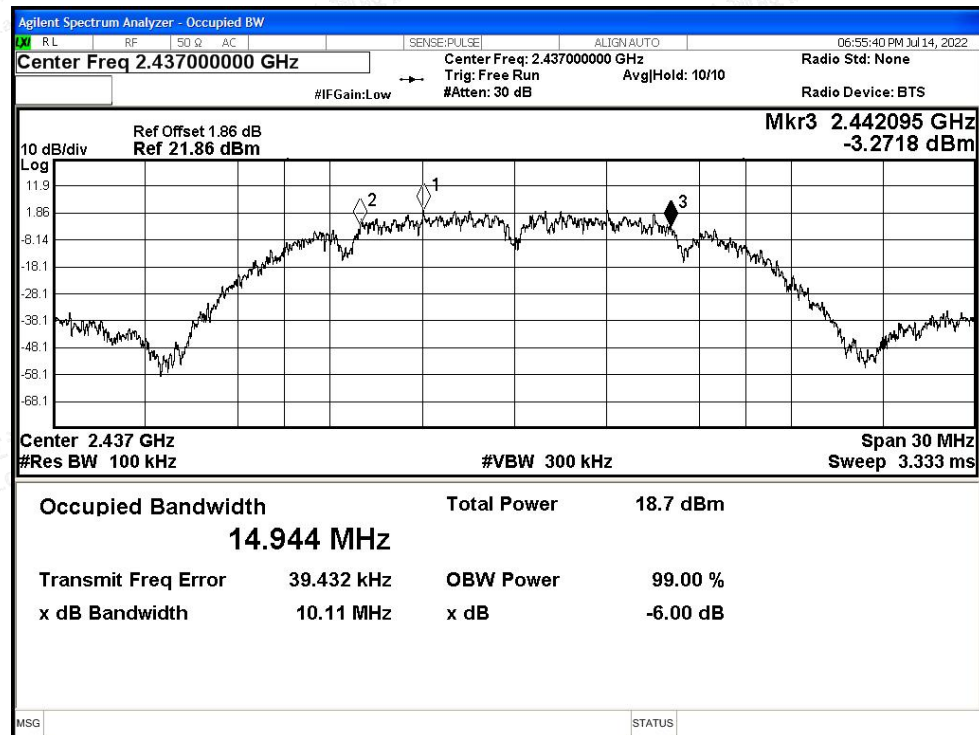


Test Graphs

6dB Bandwidth NVNT b 2412MHz Ant1



6dB Bandwidth NVNT b 2437MHz Ant1



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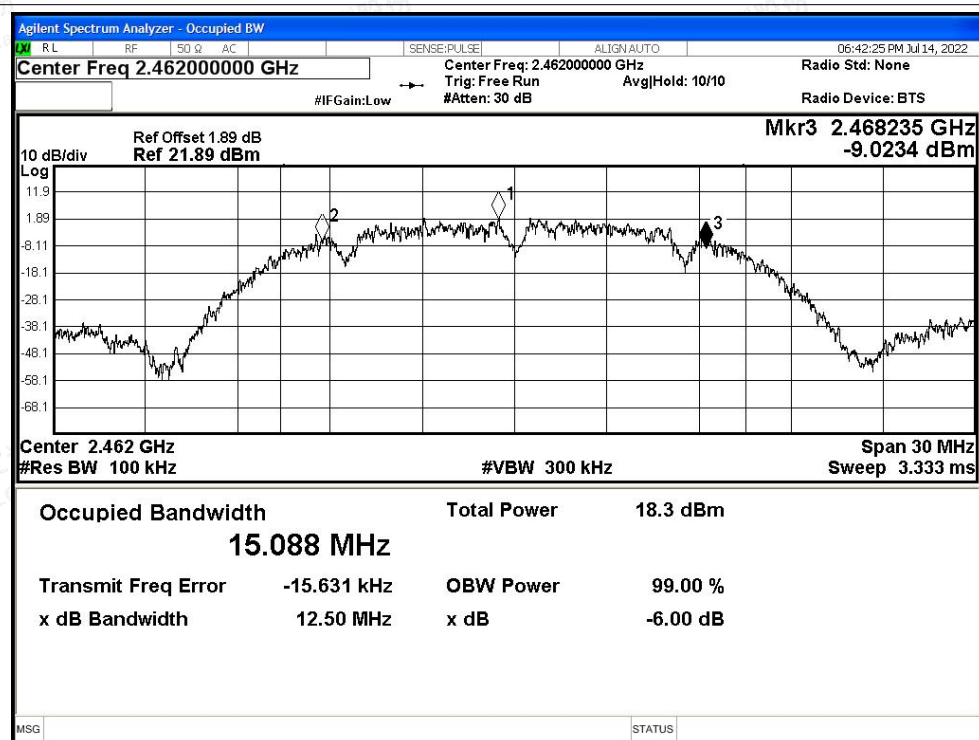
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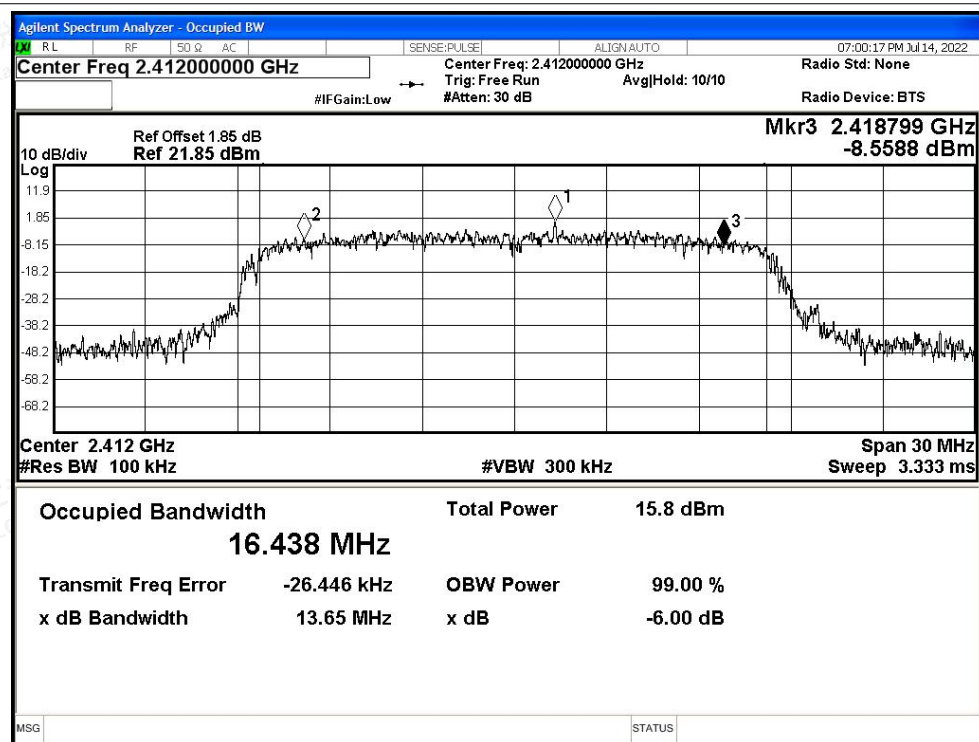
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6dB Bandwidth NVNT b 2462MHz Ant1



6dB Bandwidth NVNT g 2412MHz Ant1



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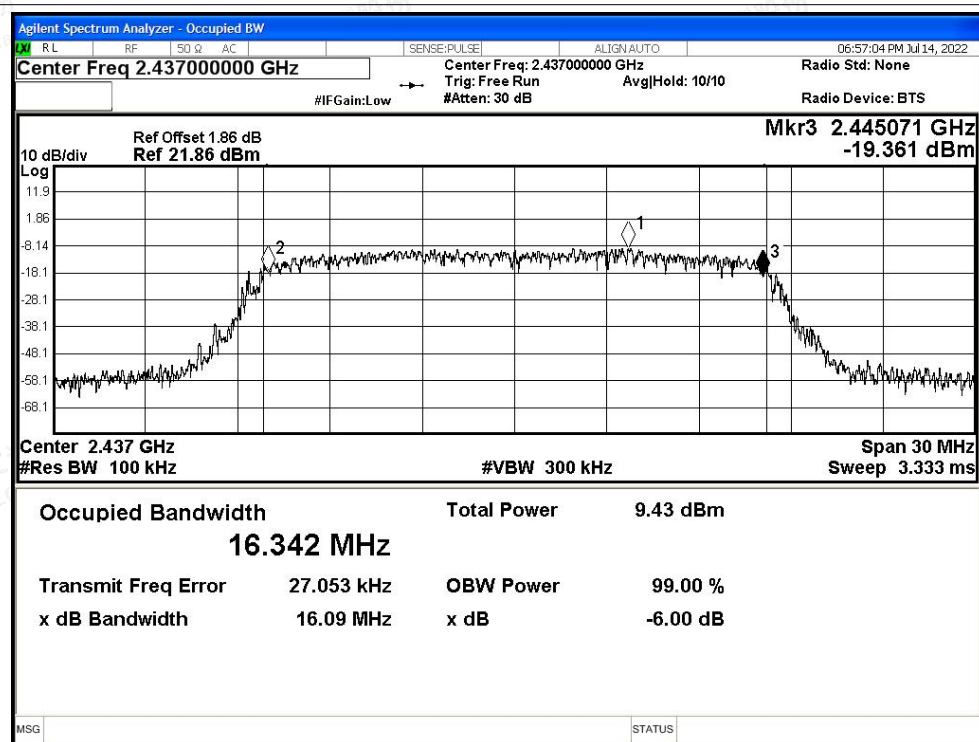
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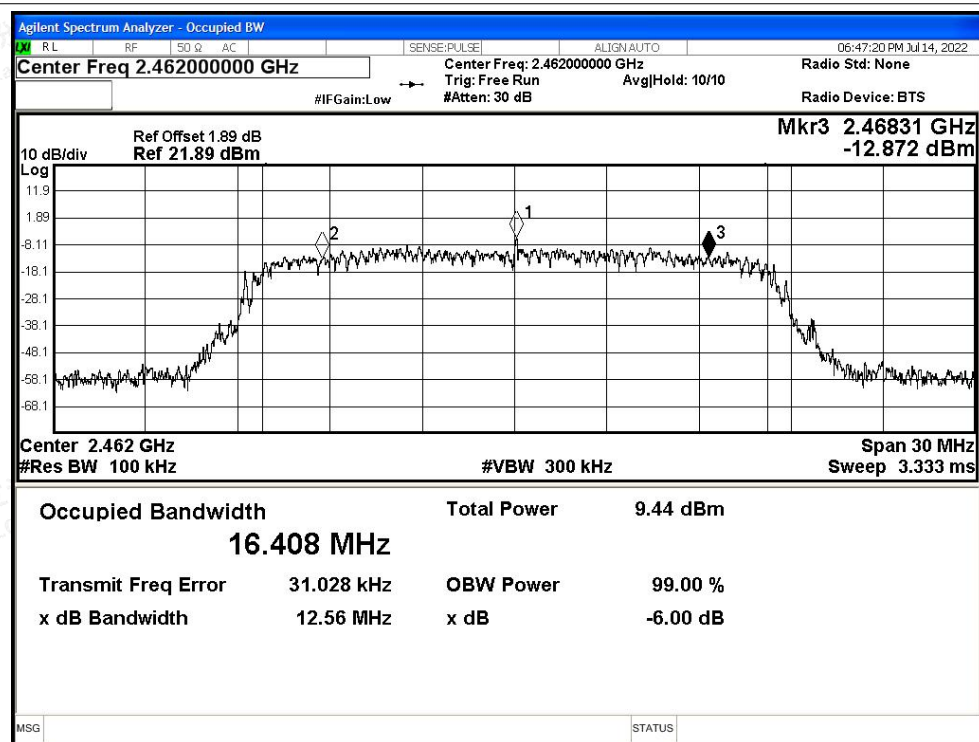
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6dB Bandwidth NVNT g 2437MHz Ant1



6dB Bandwidth NVNT g 2462MHz Ant1



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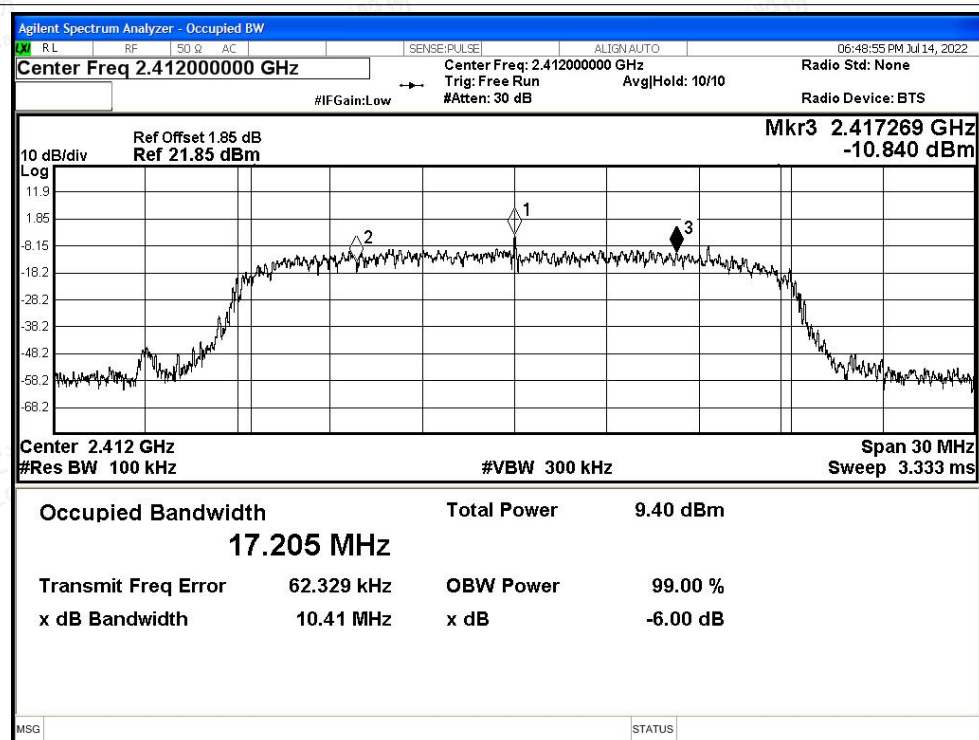
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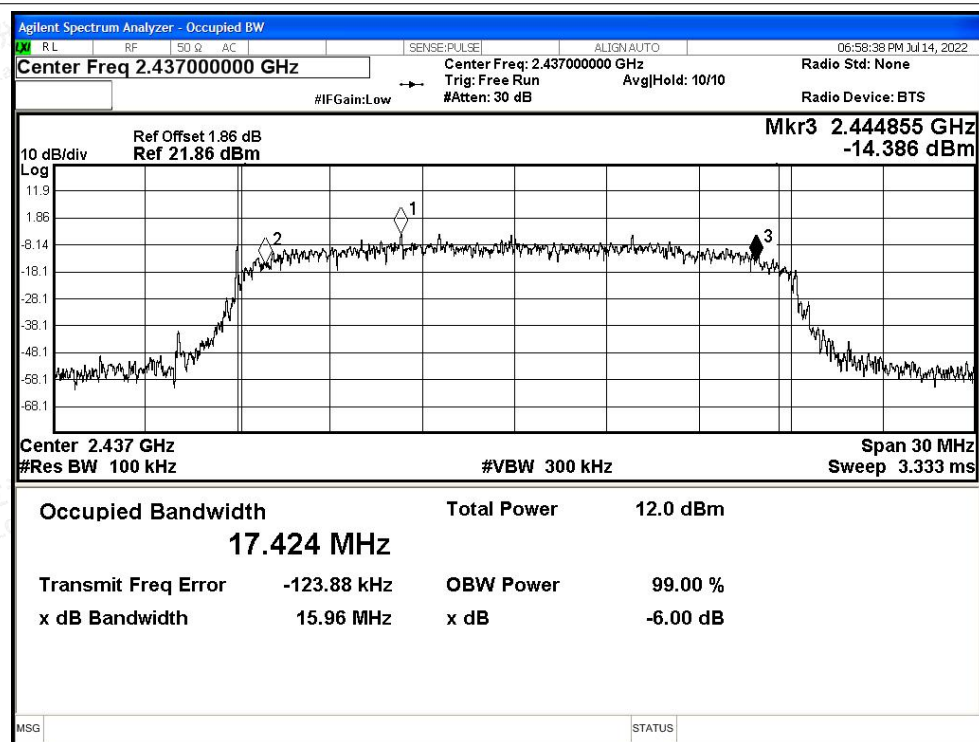
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6dB Bandwidth NVNT n20 2412MHz Ant1



6dB Bandwidth NVNT n20 2437MHz Ant1

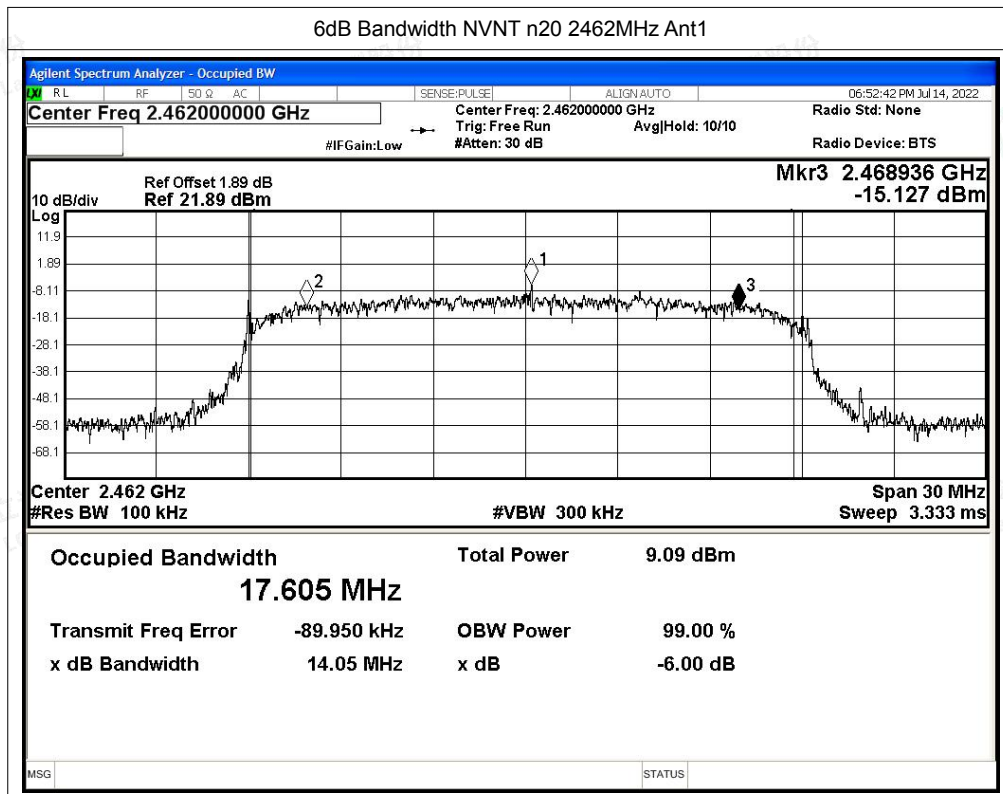


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A.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	15.06	30	Pass
NVNT	b	2437	Ant1	15.11	30	Pass
NVNT	b	2462	Ant1	14.93	30	Pass
NVNT	g	2412	Ant1	14.58	30	Pass
NVNT	g	2437	Ant1	14.44	30	Pass
NVNT	g	2462	Ant1	14.08	30	Pass
NVNT	n20	2412	Ant1	13.15	30	Pass
NVNT	n20	2437	Ant1	13.12	30	Pass
NVNT	n20	2462	Ant1	13.78	30	Pass



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A.3 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	-11	0	-11	8	Pass
NVNT	b	2437	Ant1	-10.37	0	-10.37	8	Pass
NVNT	b	2462	Ant1	-10.94	0	-10.94	8	Pass
NVNT	g	2412	Ant1	-13.78	0	-13.78	8	Pass
NVNT	g	2437	Ant1	-16.32	0	-16.32	8	Pass
NVNT	g	2462	Ant1	-16.46	0	-16.46	8	Pass
NVNT	n20	2412	Ant1	-15.38	0	-15.38	8	Pass
NVNT	n20	2437	Ant1	-15.02	0	-15.02	8	Pass
NVNT	n20	2462	Ant1	-17.02	0	-17.02	8	Pass



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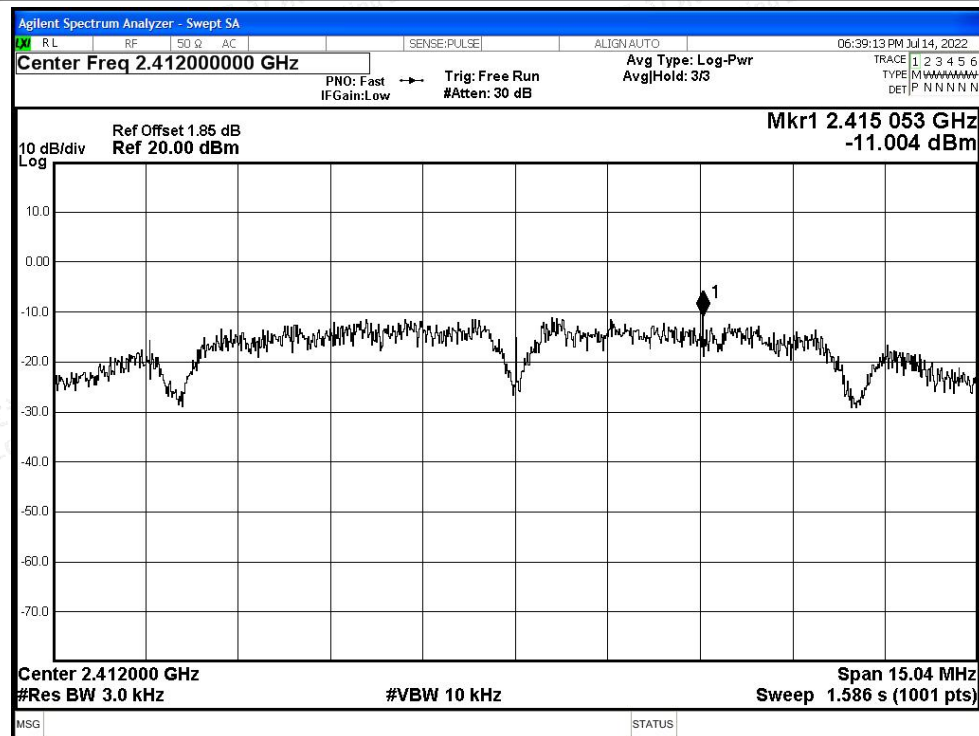
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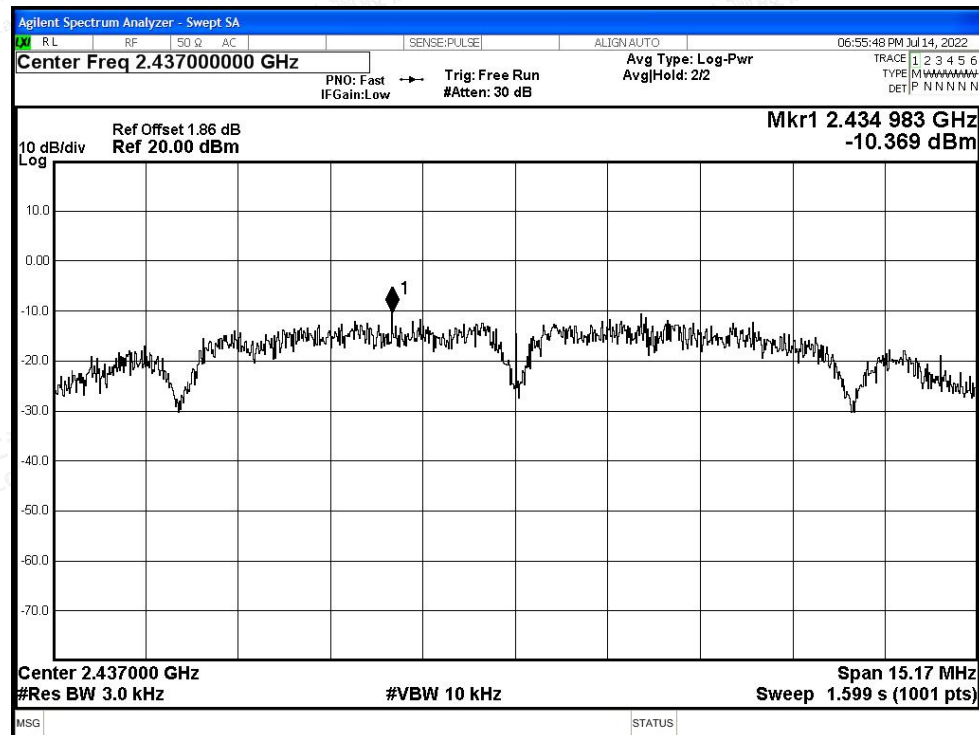


Test Graphs

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1



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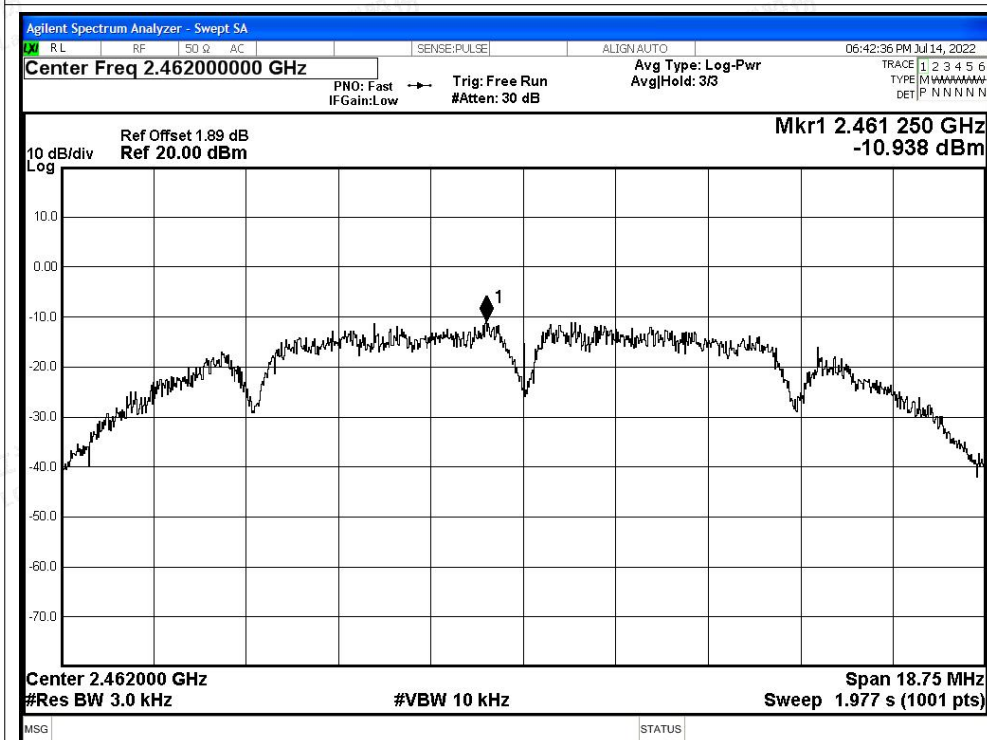
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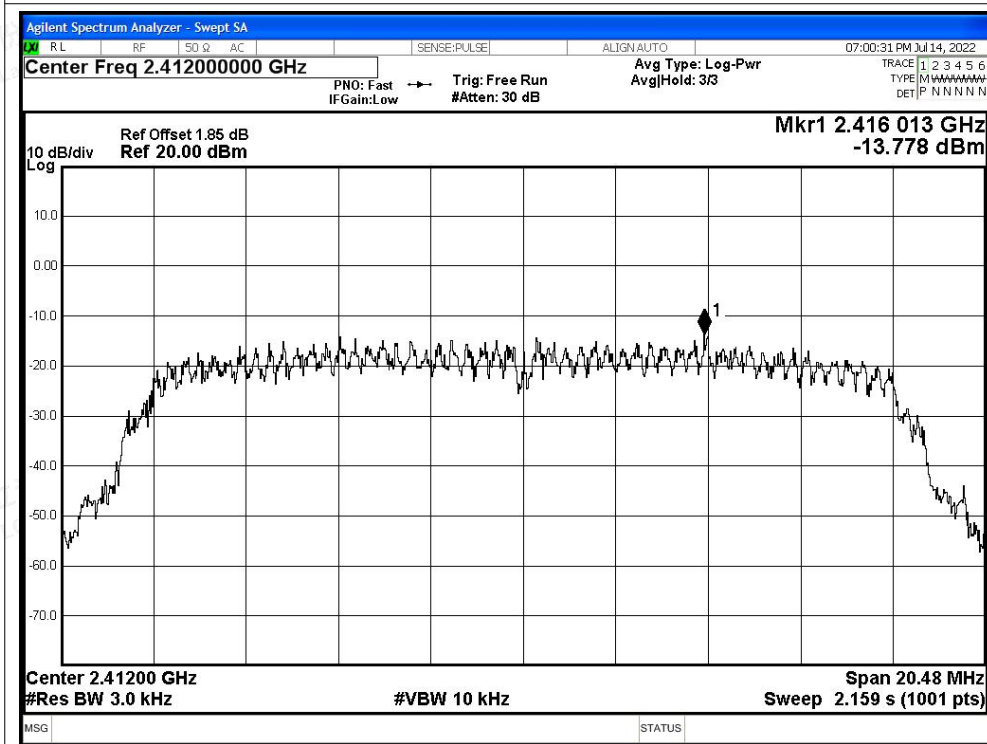
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PSD NVNT b 2462MHz Ant1



PSD NVNT g 2412MHz Ant1



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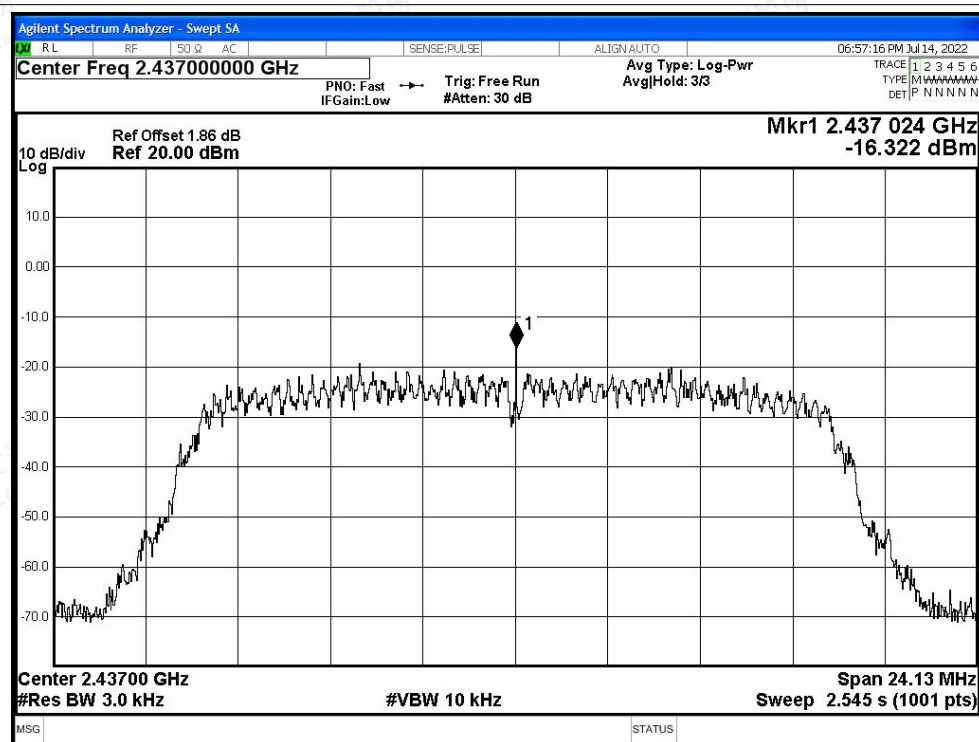
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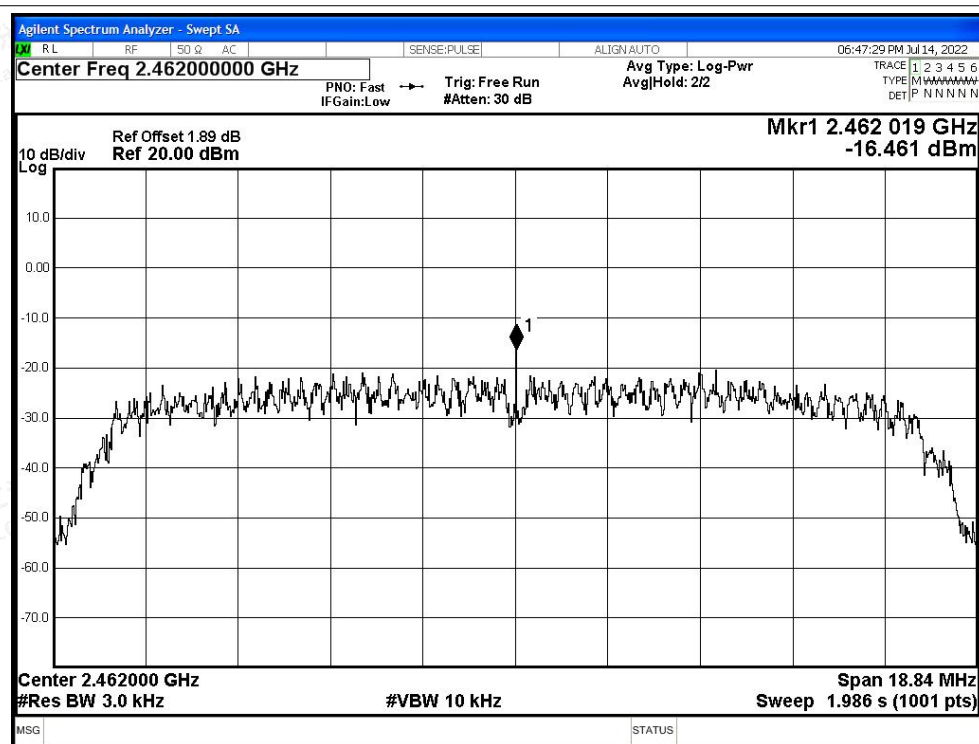
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PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1

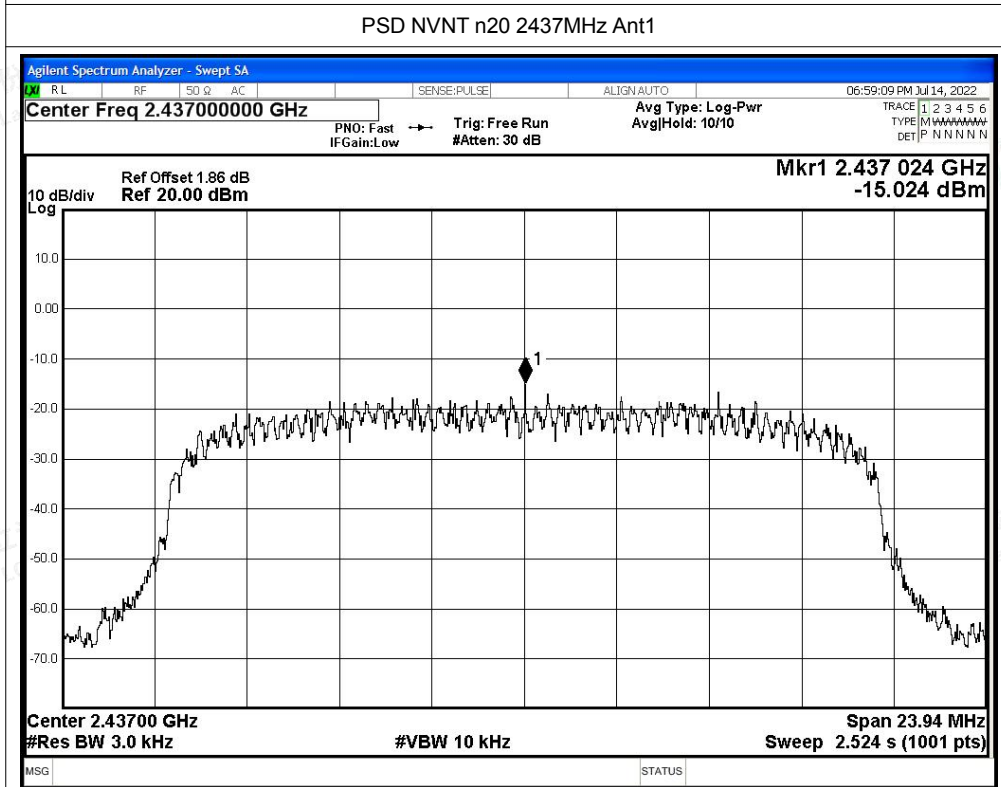
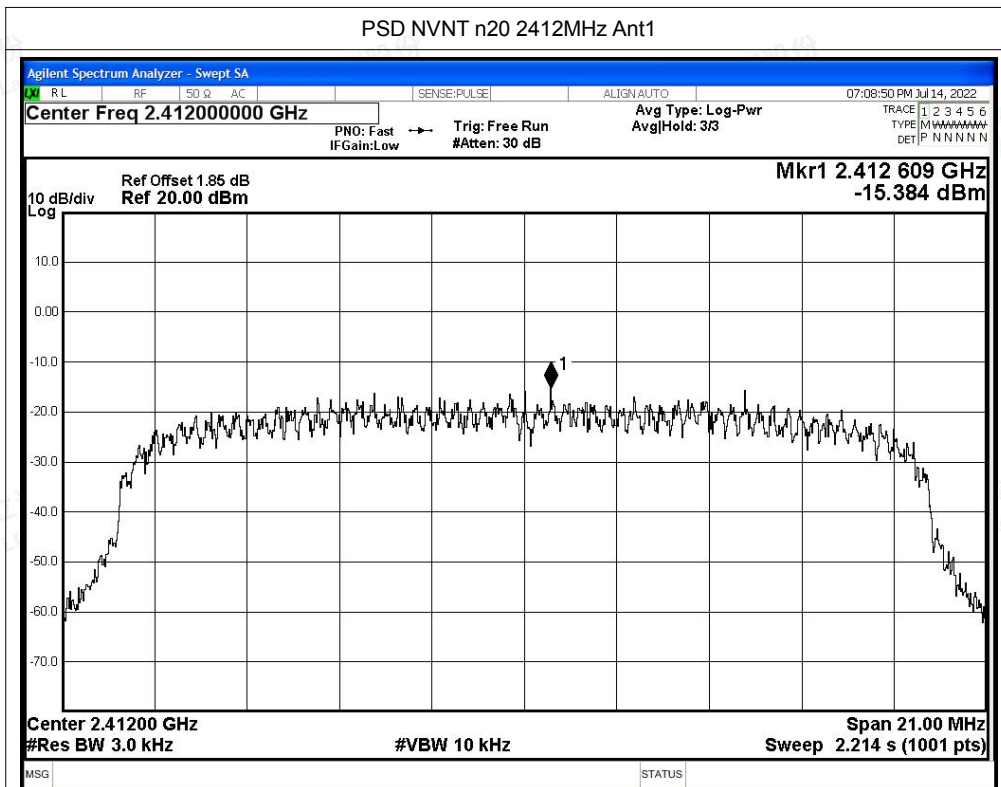


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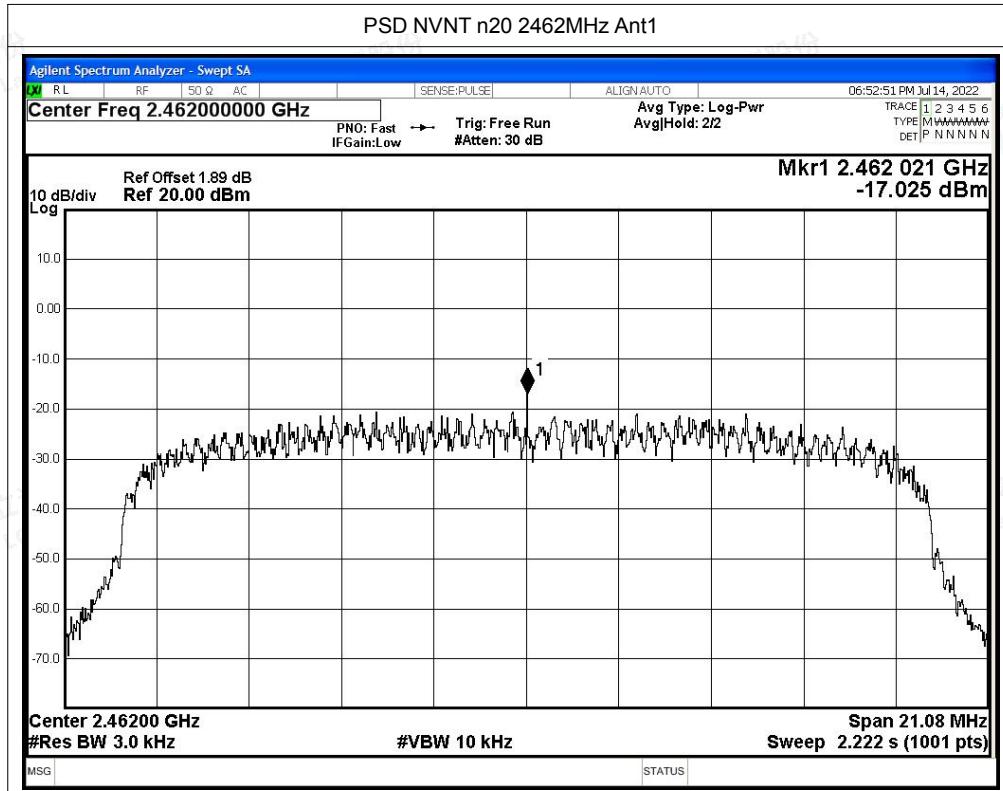


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A.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-41.76	-20	Pass
NVNT	b	2462	Ant1	-56.68	-20	Pass
NVNT	g	2412	Ant1	-42.49	-20	Pass
NVNT	g	2462	Ant1	-50.25	-20	Pass
NVNT	n20	2412	Ant1	-43.62	-20	Pass
NVNT	n20	2462	Ant1	-52.65	-20	Pass



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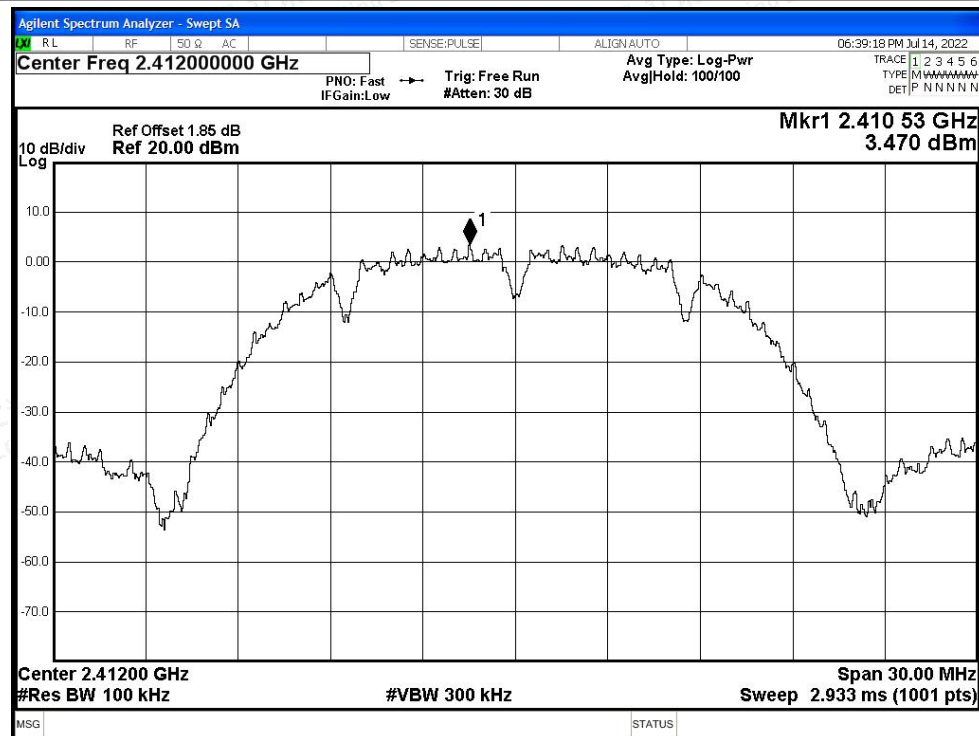
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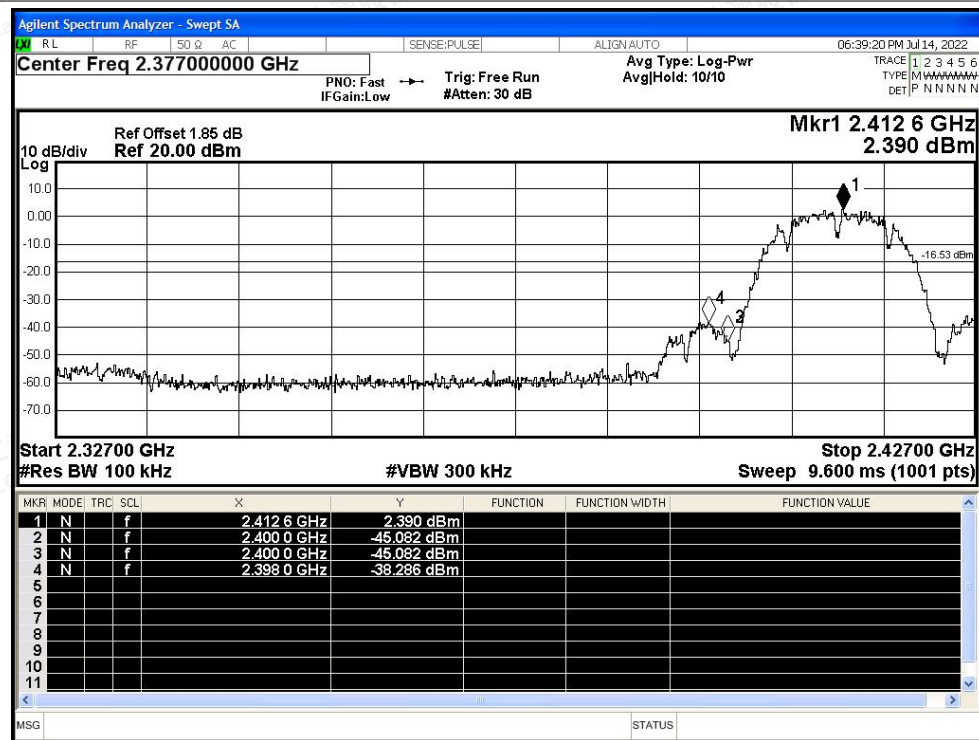


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission



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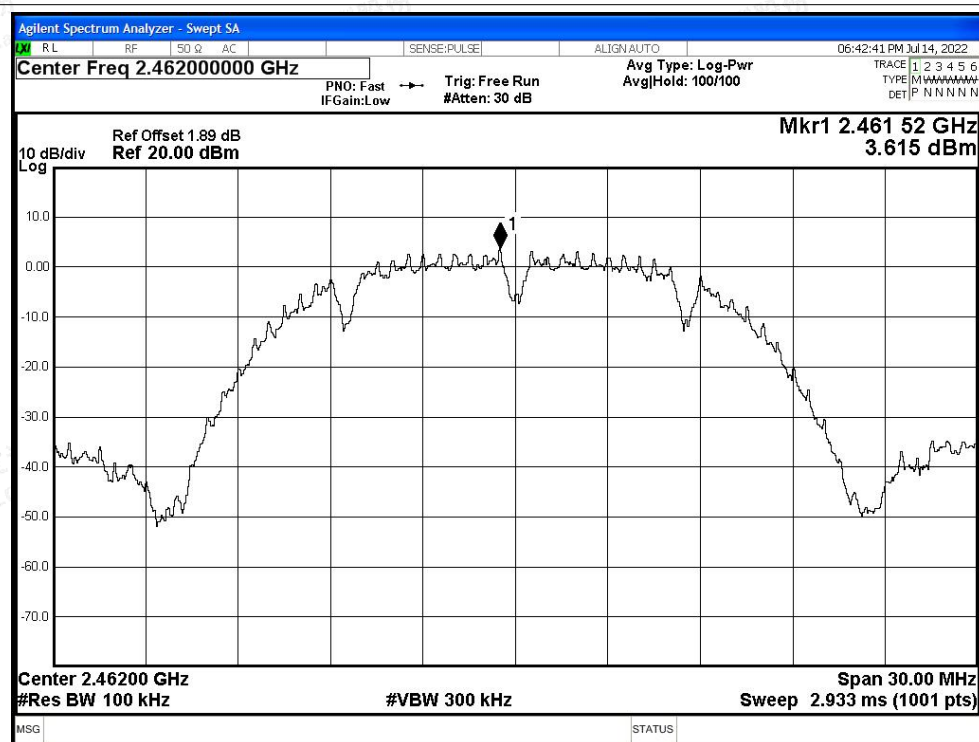
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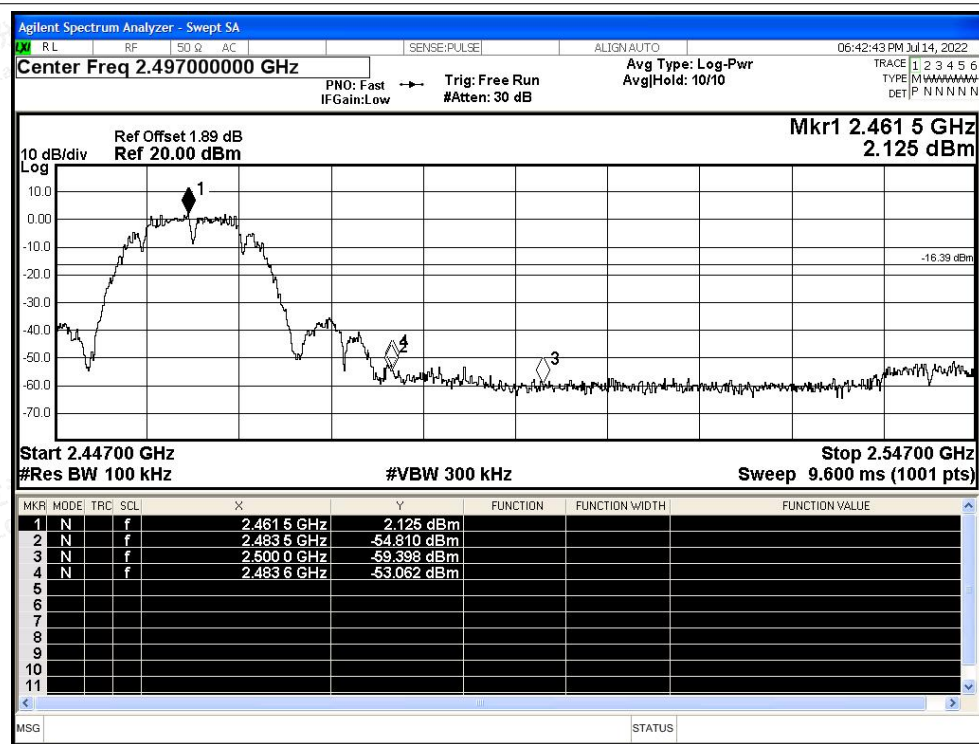
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Band Edge NVNT b 2462MHz Ant1 Ref



Band Edge NVNT b 2462MHz Ant1 Emission



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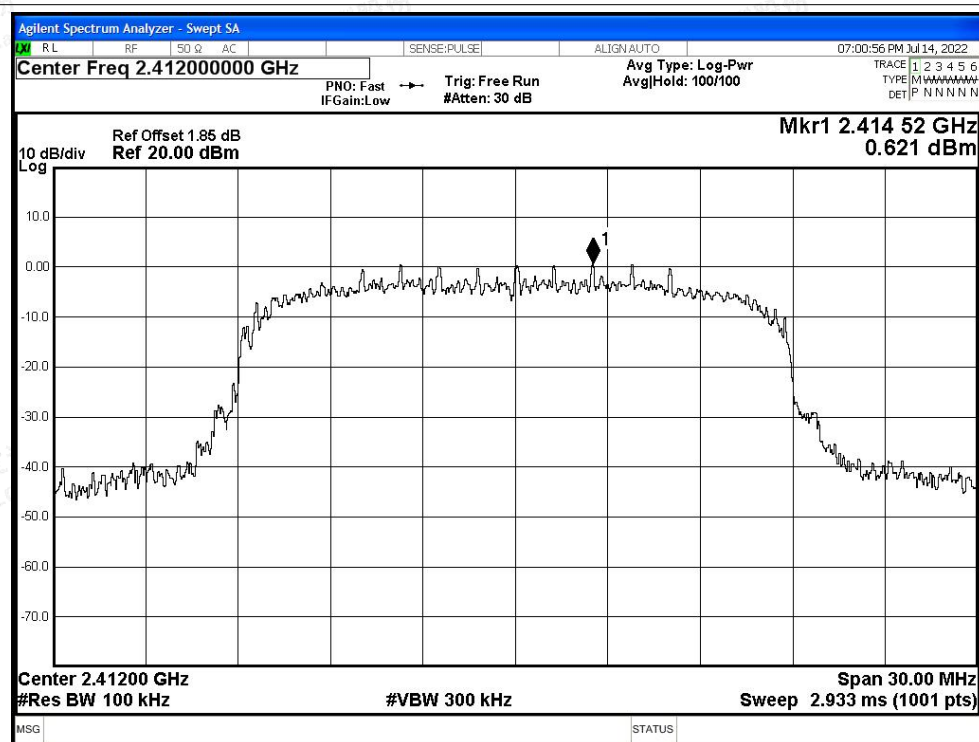
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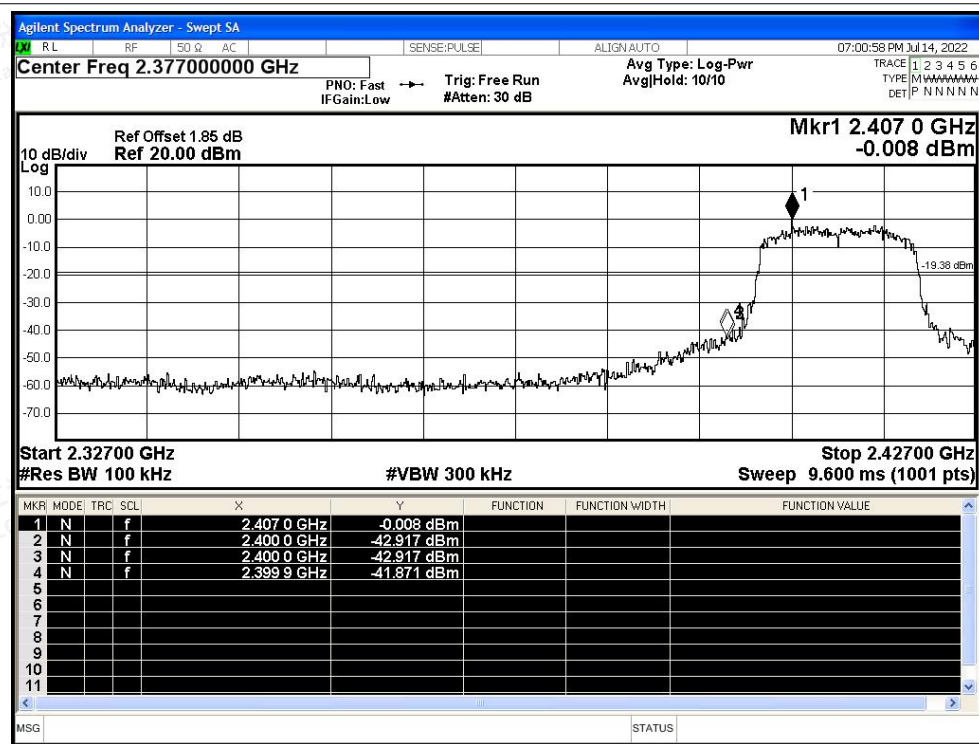
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Band Edge NVNT g 2412MHz Ant1 Ref



Band Edge NVNT g 2412MHz Ant1 Emission



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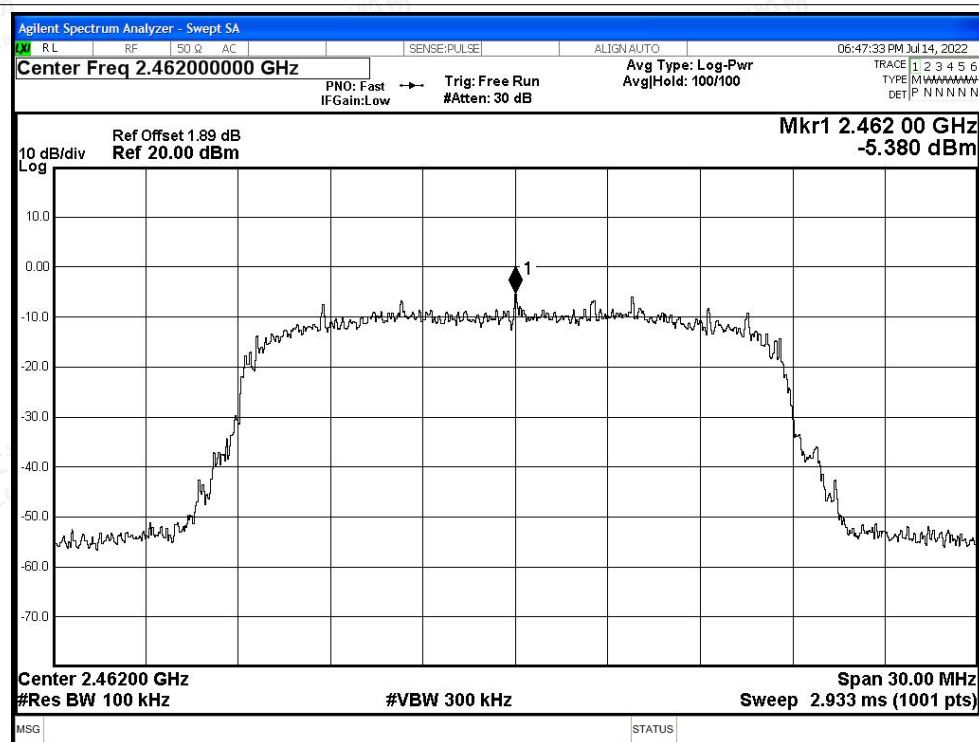
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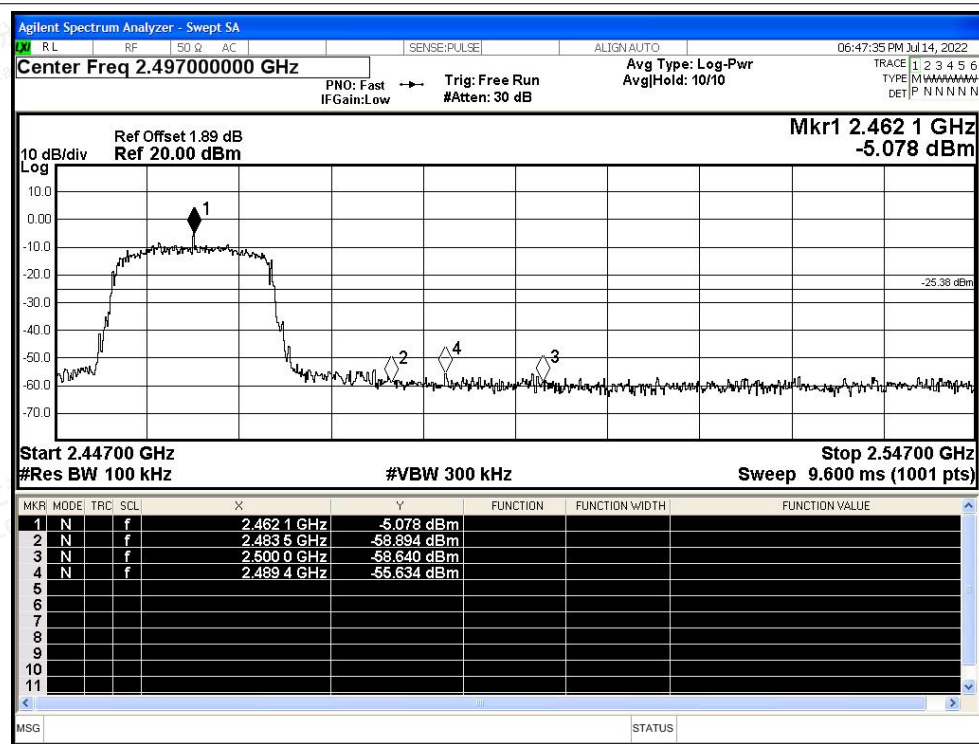
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Band Edge NVNT g 2462MHz Ant1 Ref



Band Edge NVNT g 2462MHz Ant1 Emission

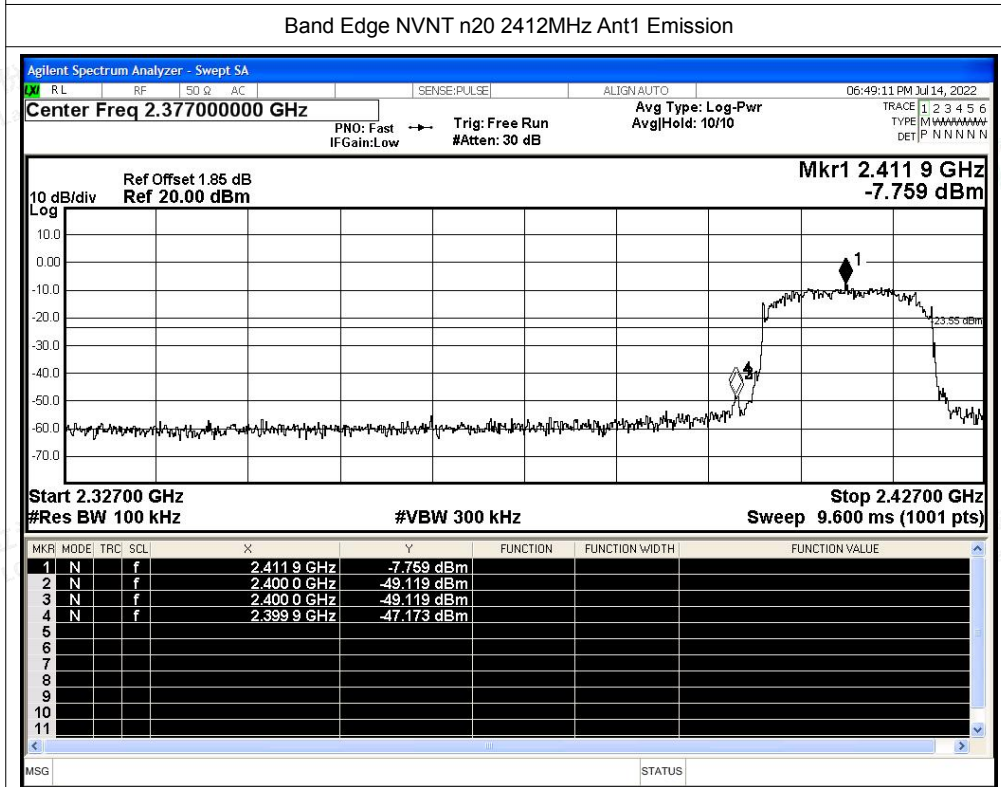
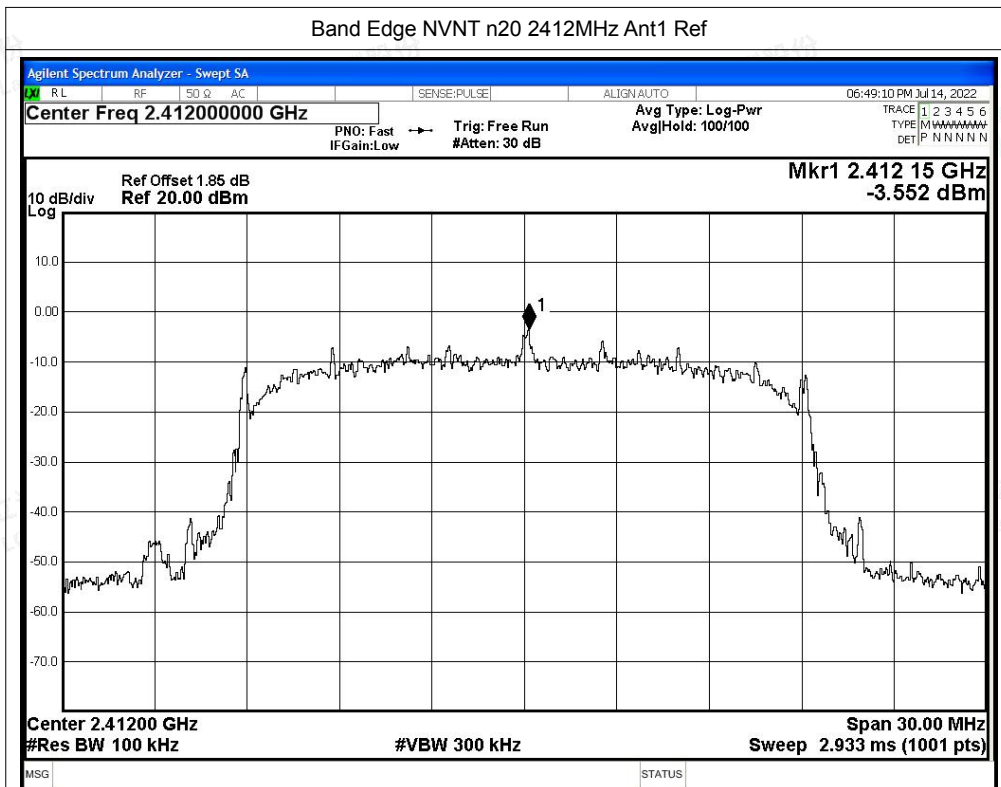


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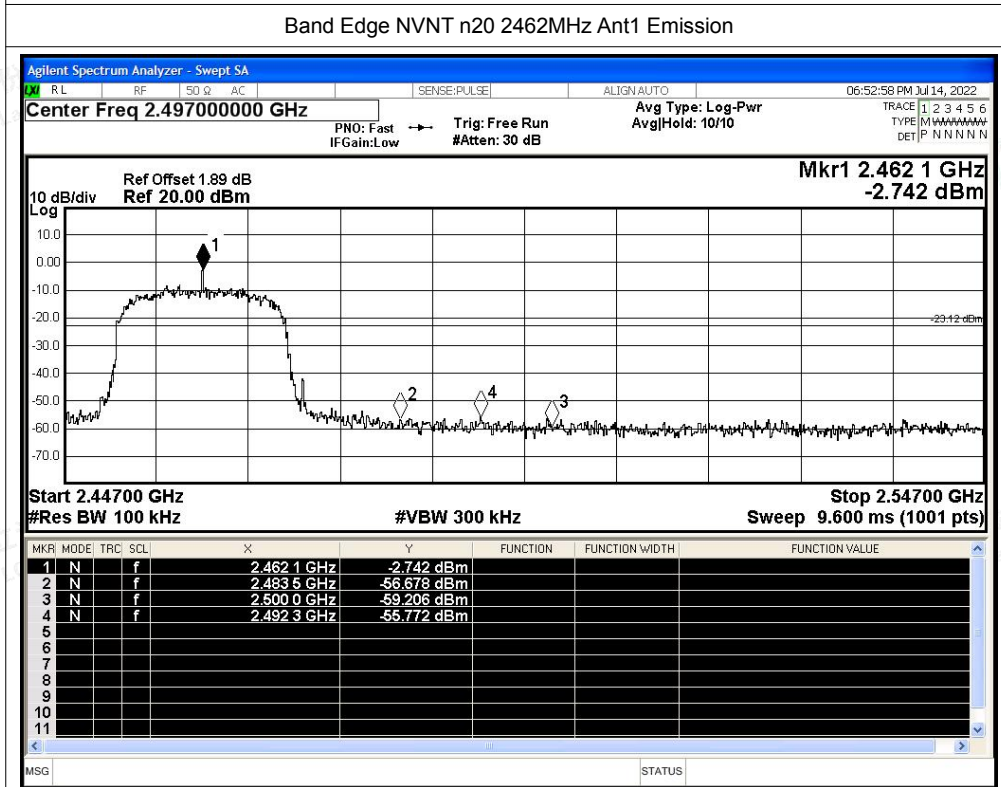
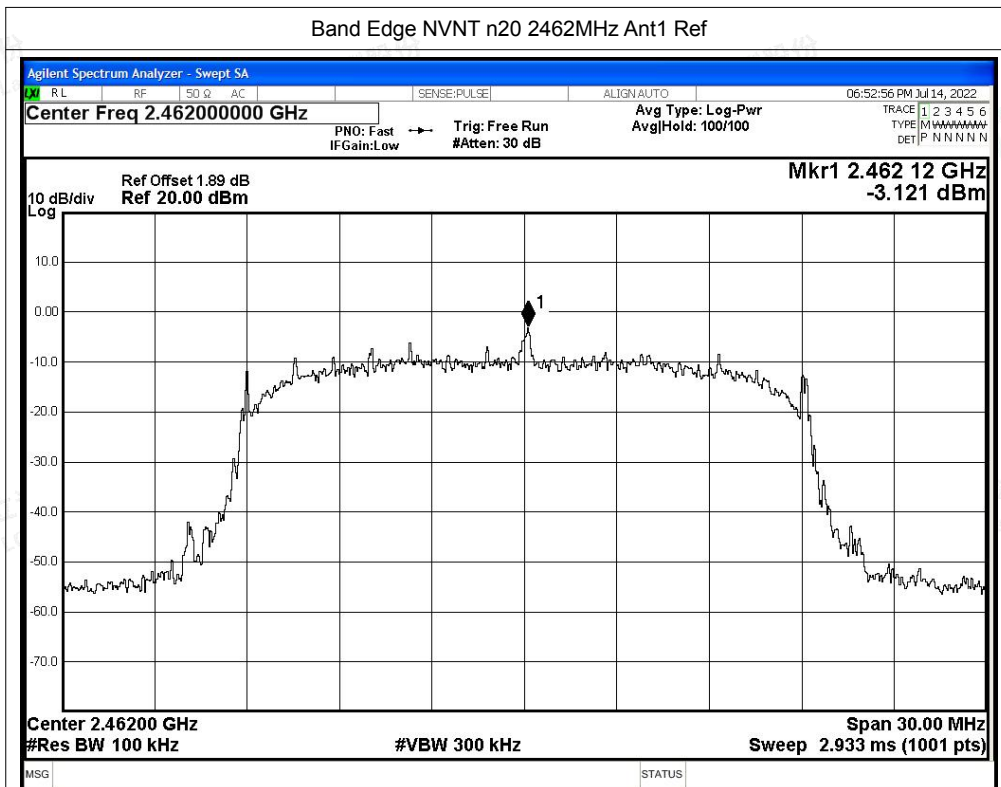


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A.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-49.79	-20	Pass
NVNT	b	2437	Ant1	-49.62	-20	Pass
NVNT	b	2462	Ant1	-49.41	-20	Pass
NVNT	g	2412	Ant1	-40.09	-20	Pass
NVNT	g	2437	Ant1	-39.19	-20	Pass
NVNT	g	2462	Ant1	-39.02	-20	Pass
NVNT	n20	2412	Ant1	-43.86	-20	Pass
NVNT	n20	2437	Ant1	-47.34	-20	Pass
NVNT	n20	2462	Ant1	-42.03	-20	Pass



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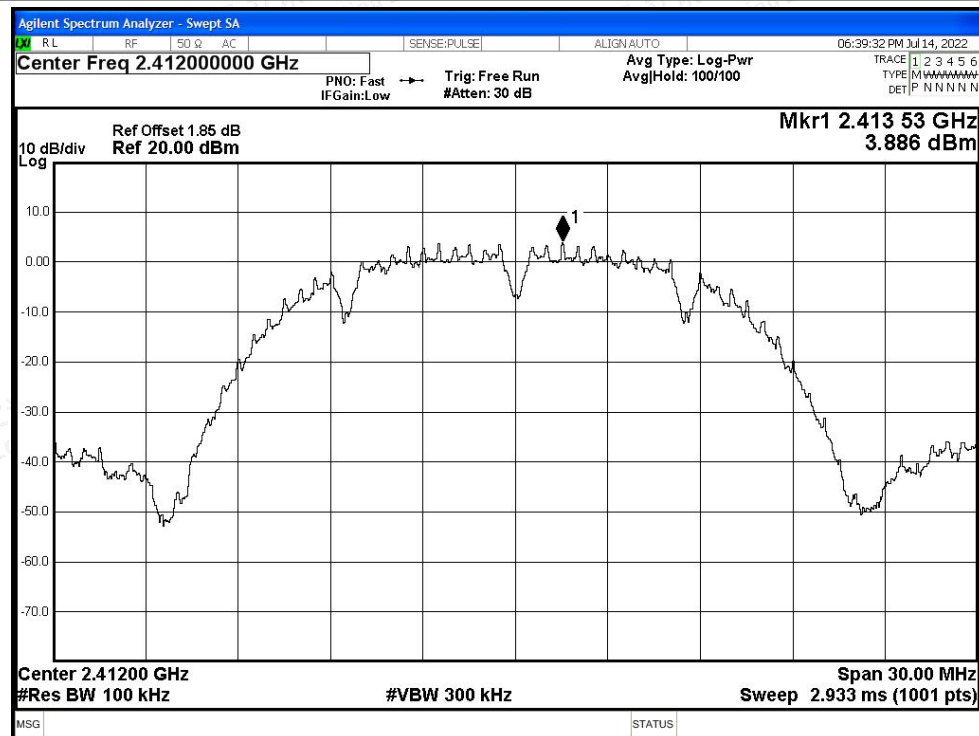
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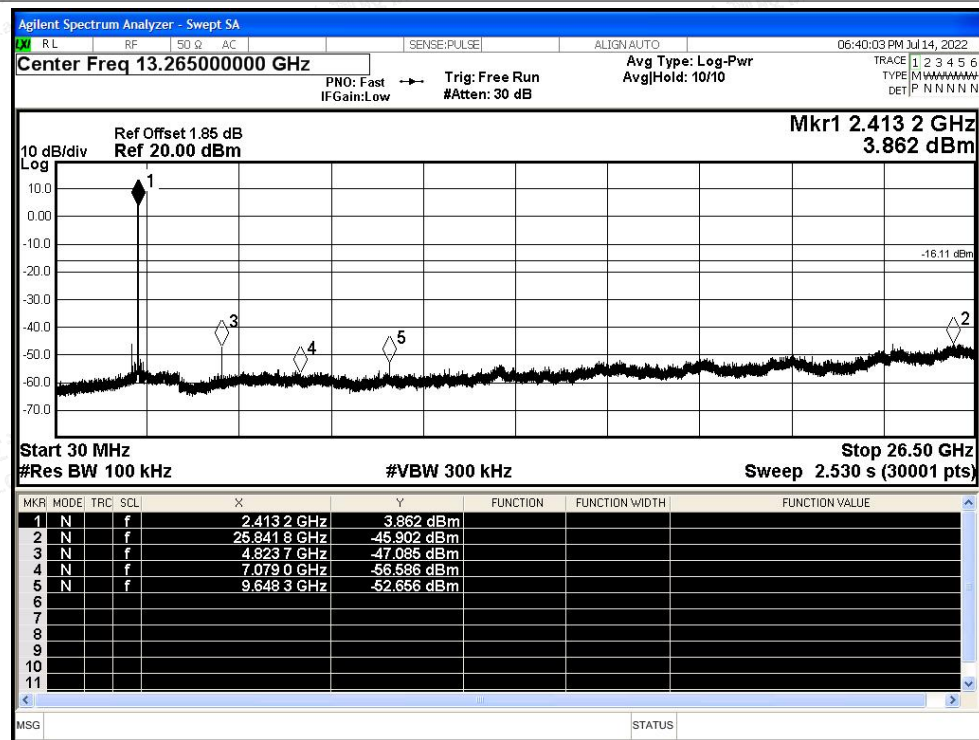


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission



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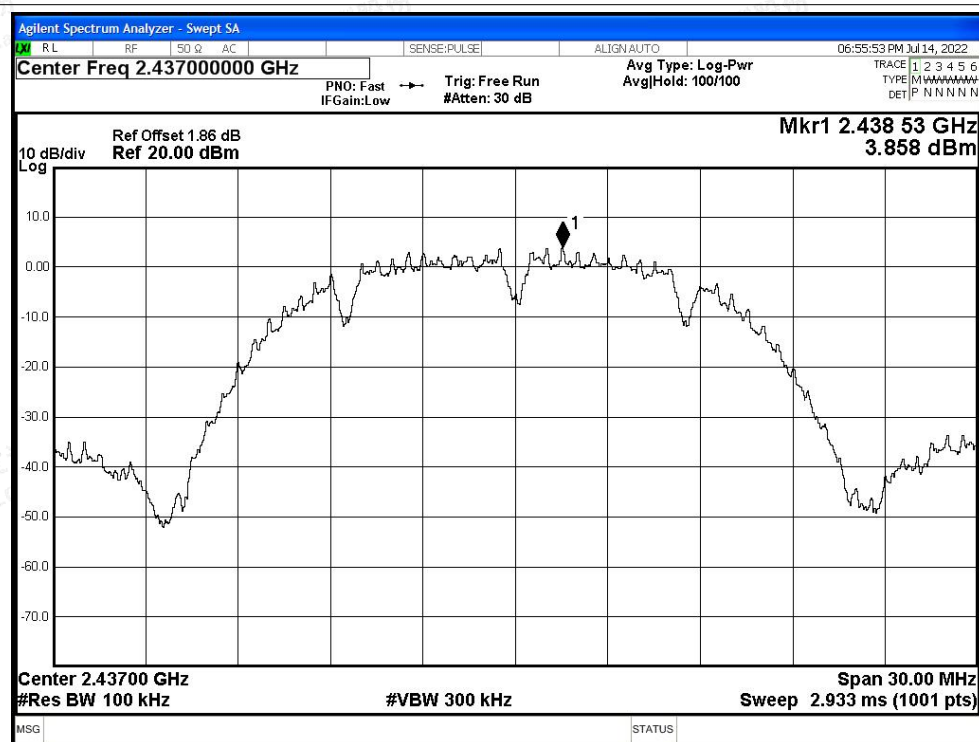
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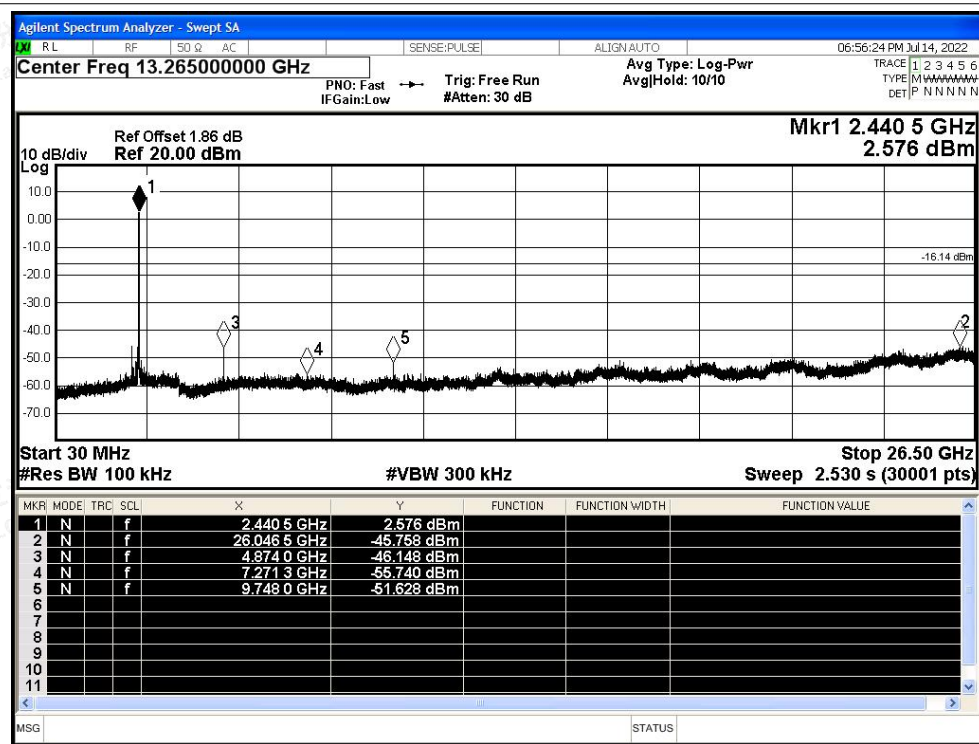
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Tx. Spurious NVNT b 2437MHz Ant1 Emission



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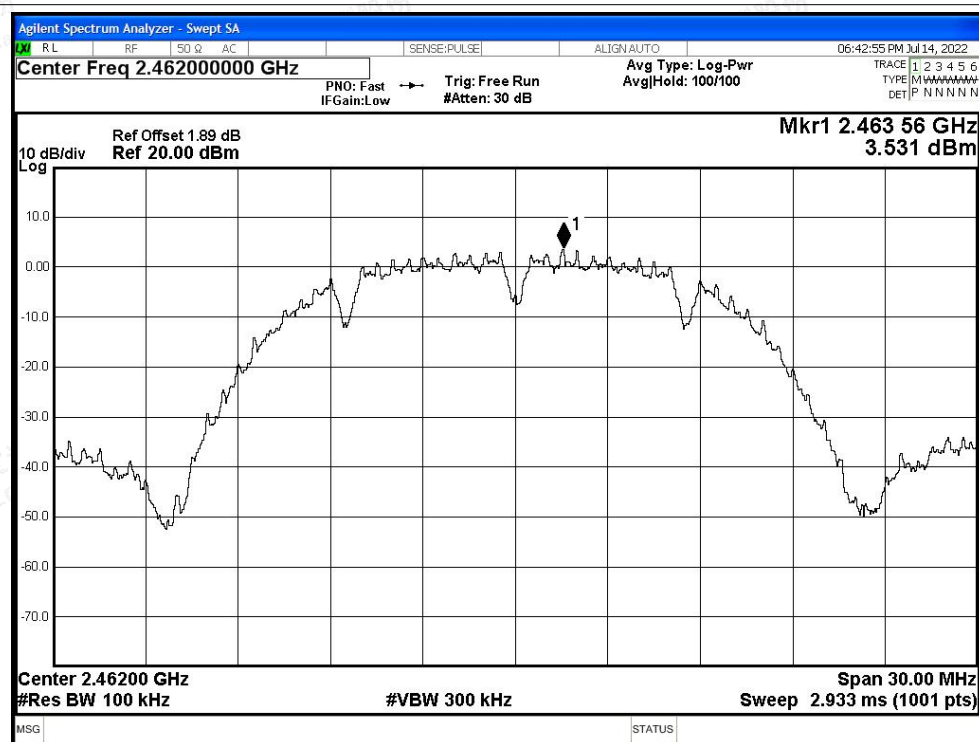
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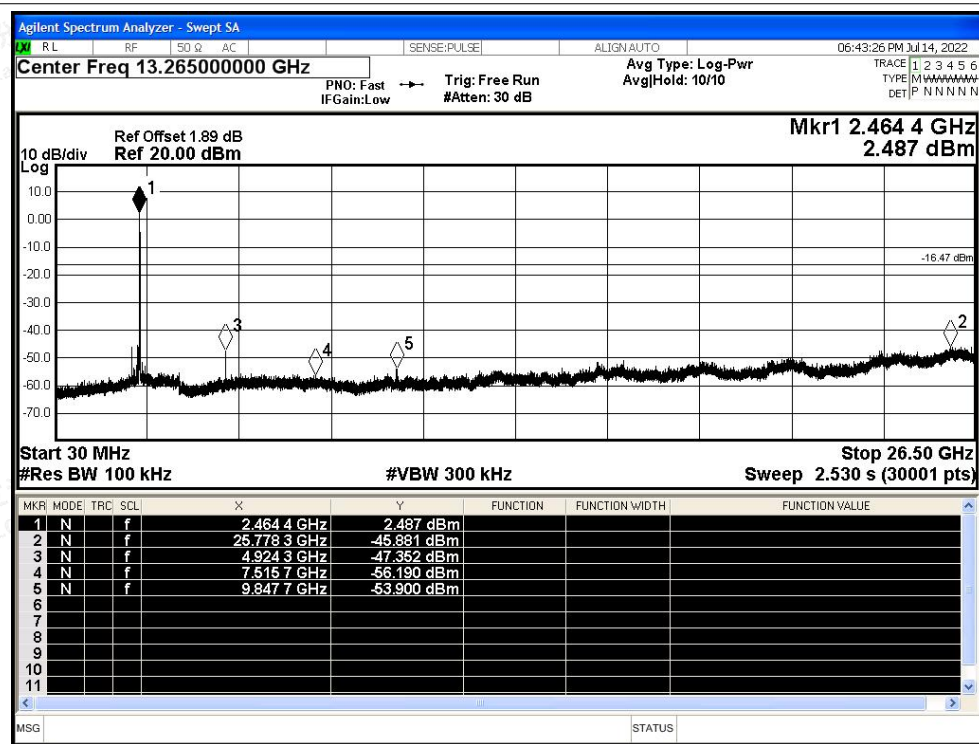
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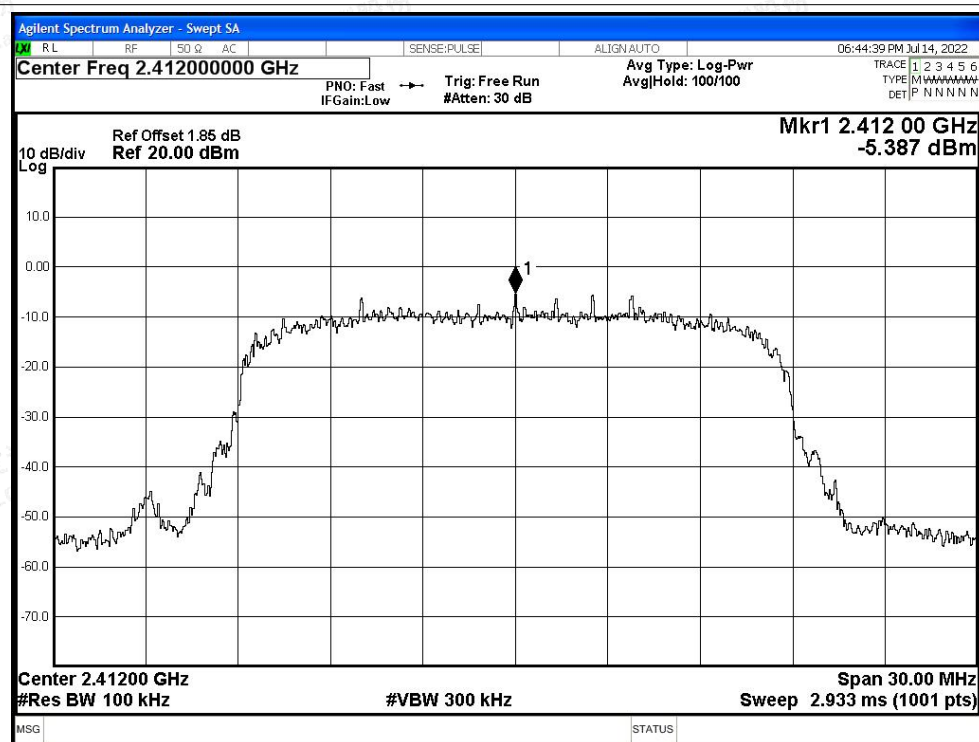
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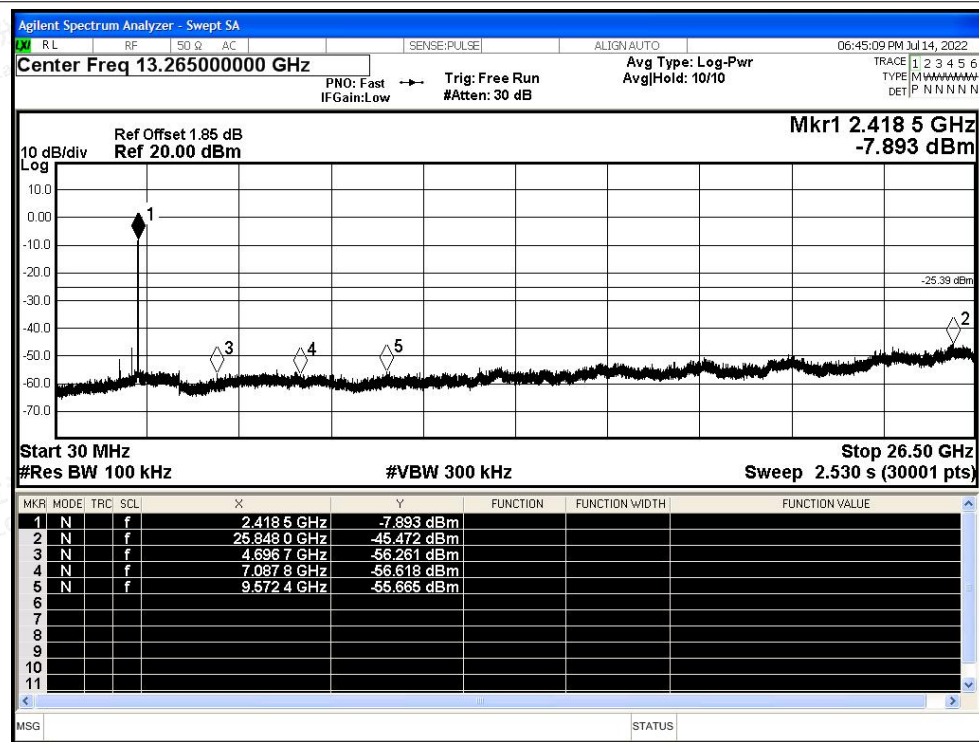
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Tx. Spurious NVNT g 2412MHz Ant1 Emission



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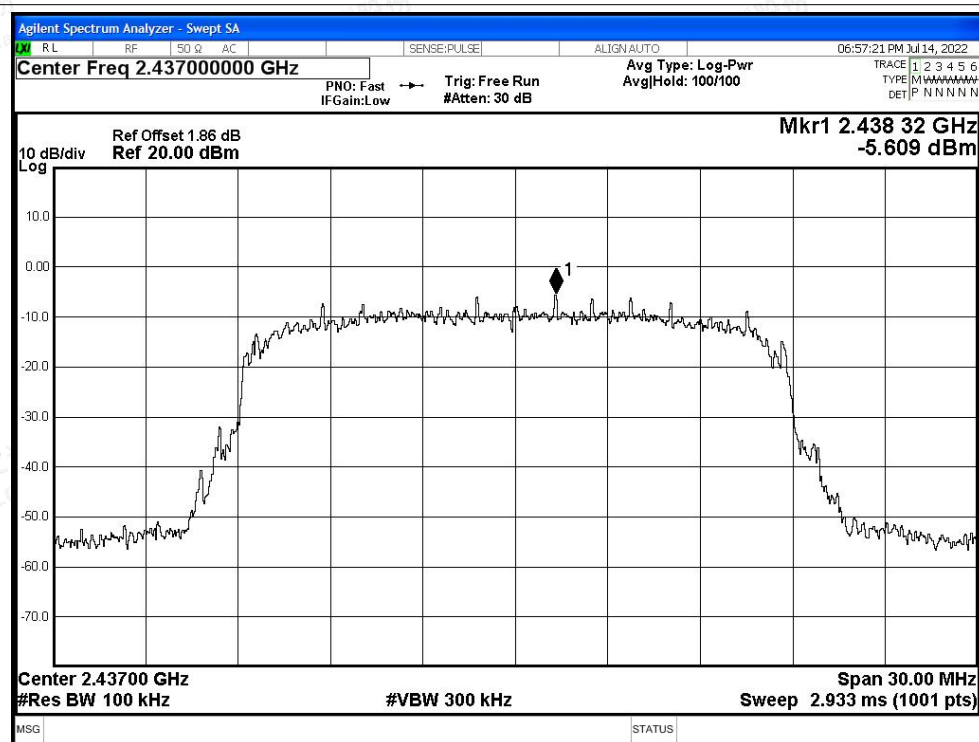
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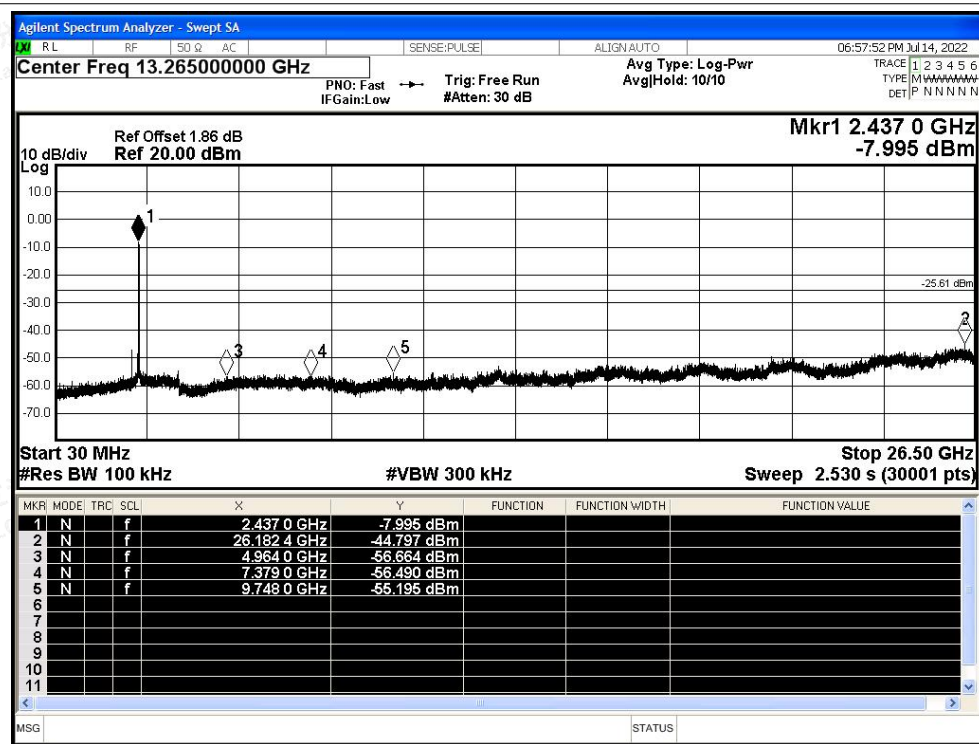
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