



Appendix A

RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Smart Flood Sensor

Test Model: Shelly flood

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	8.344	0.5	Pass
NVNT	b	2437	Ant1	9.372	0.5	Pass
NVNT	b	2462	Ant1	9.01	0.5	Pass
NVNT	g	2412	Ant1	16.354	0.5	Pass
NVNT	g	2437	Ant1	16.355	0.5	Pass
NVNT	g	2462	Ant1	16.376	0.5	Pass
NVNT	n20	2412	Ant1	16.702	0.5	Pass
NVNT	n20	2437	Ant1	17.074	0.5	Pass
NVNT	n20	2462	Ant1	17.256	0.5	Pass



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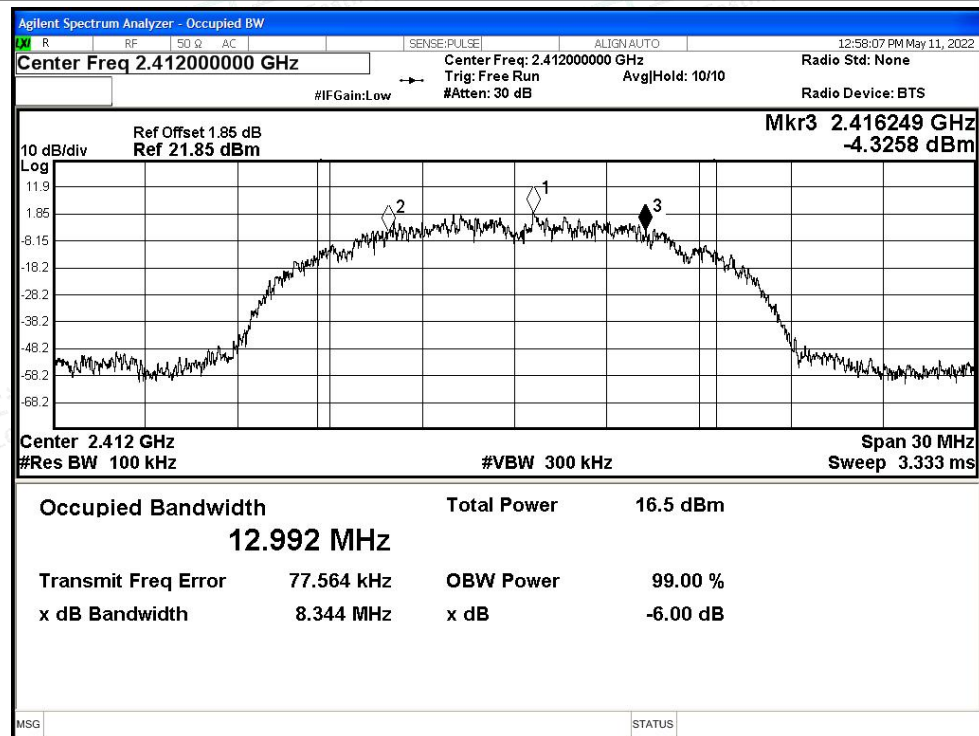
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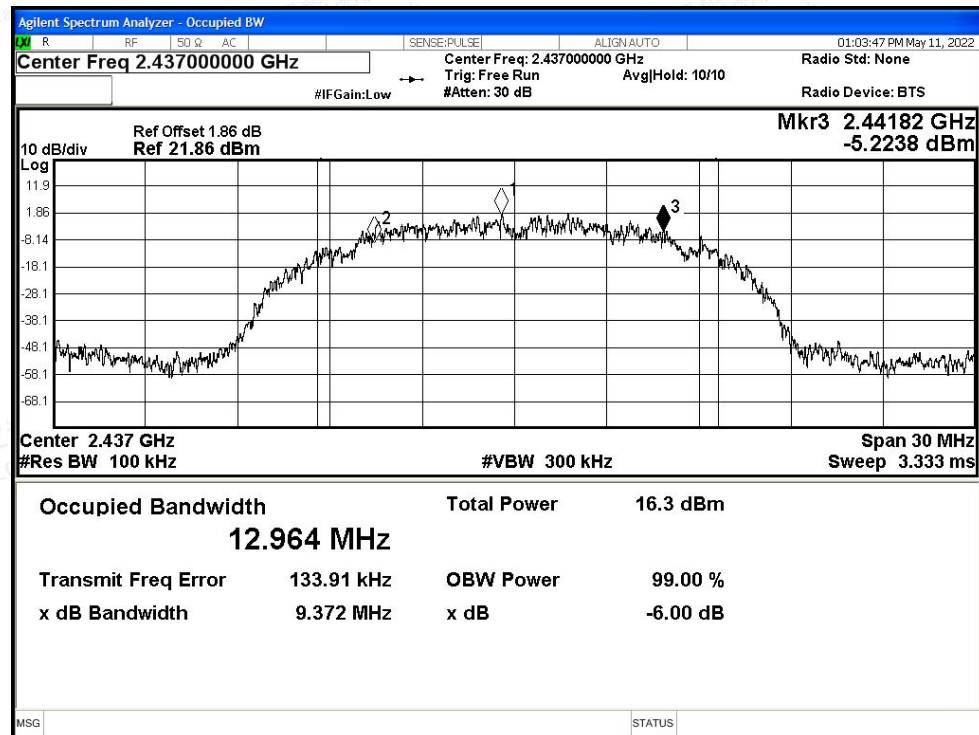


Test Graphs

6dB Bandwidth NVNT b 2412MHz Ant1



6dB Bandwidth NVNT b 2437MHz Ant1



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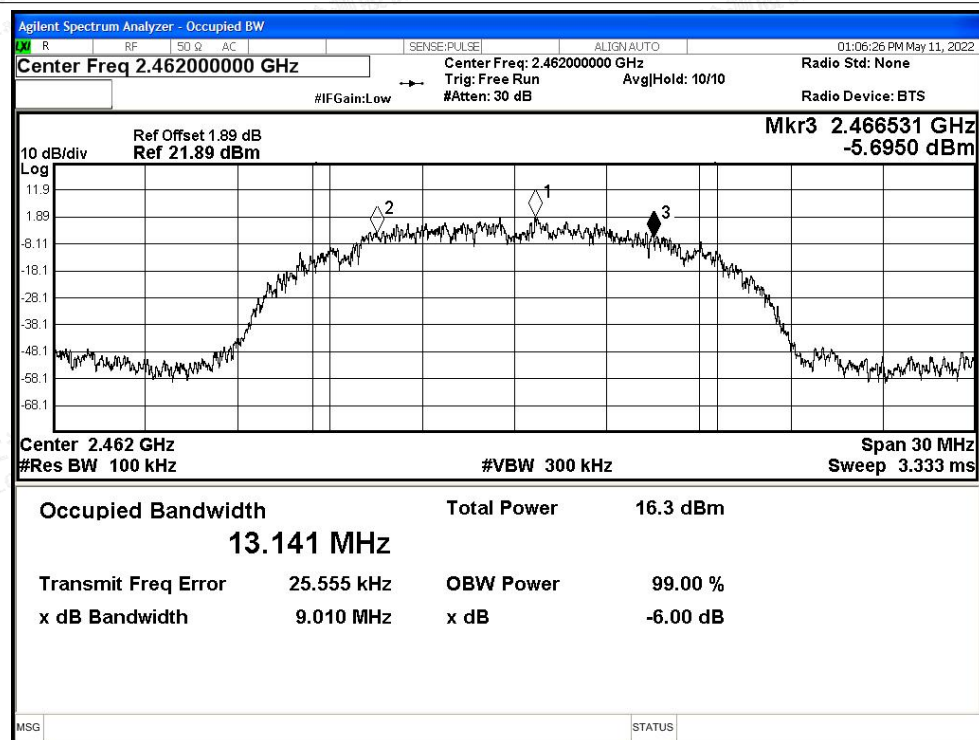
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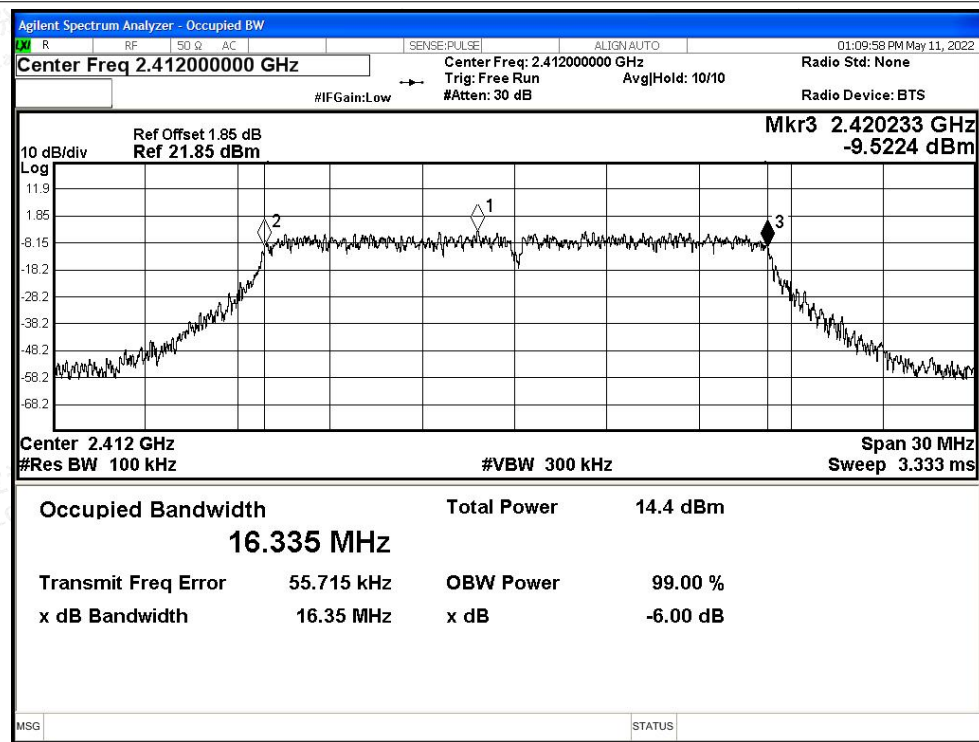
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6dB Bandwidth NVNT b 2462MHz Ant1



6dB Bandwidth NVNT g 2412MHz Ant1



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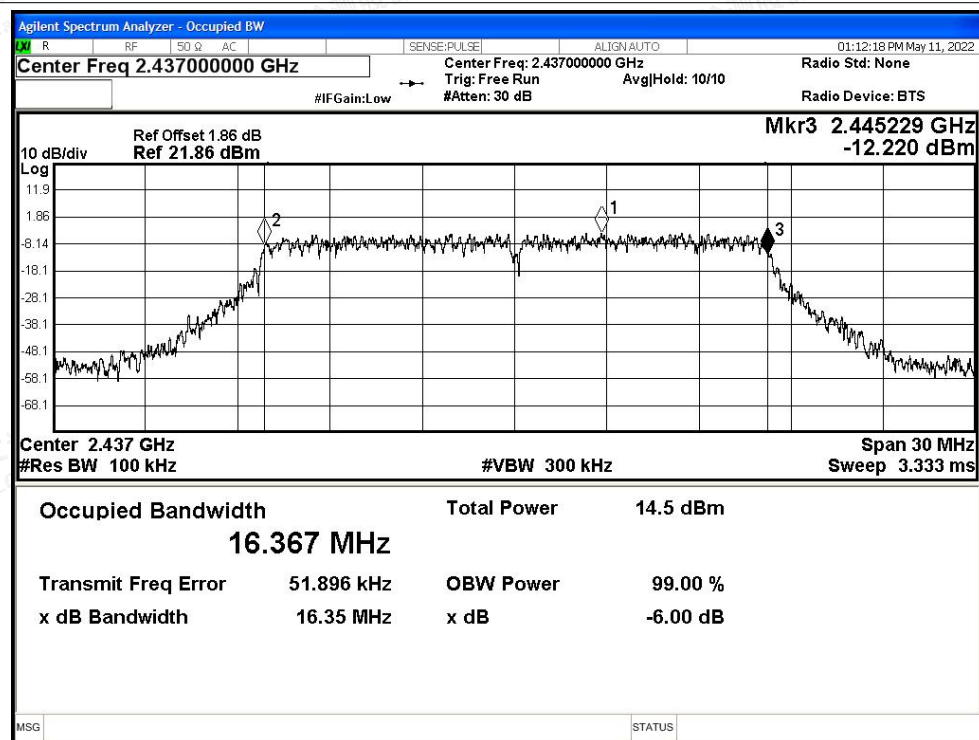
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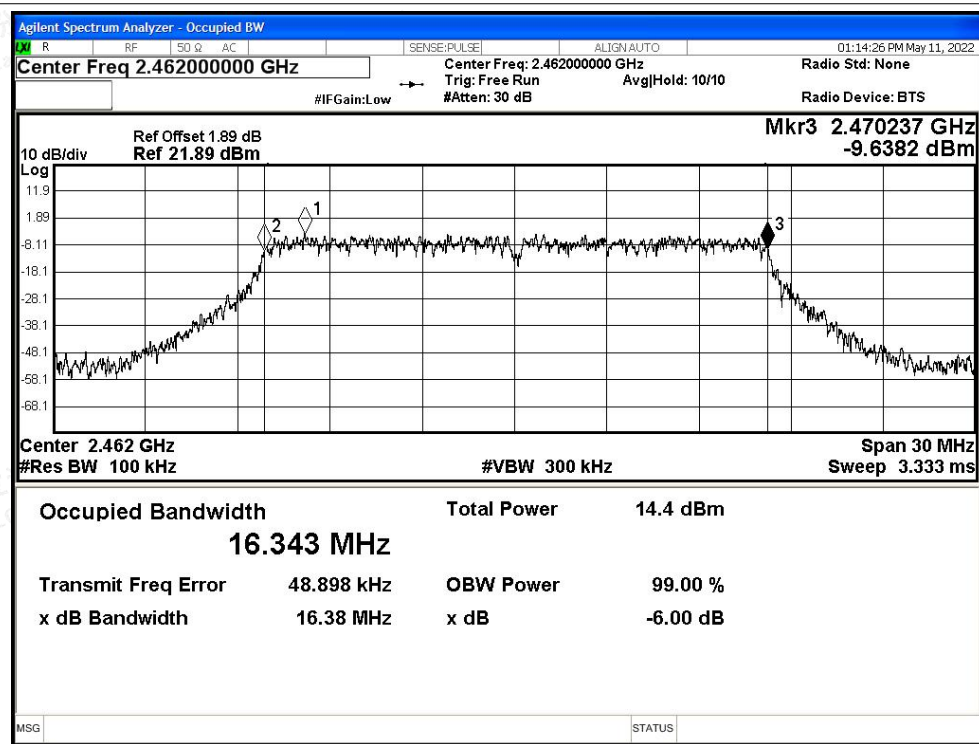
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6dB Bandwidth NVNT g 2437MHz Ant1



6dB Bandwidth NVNT g 2462MHz Ant1



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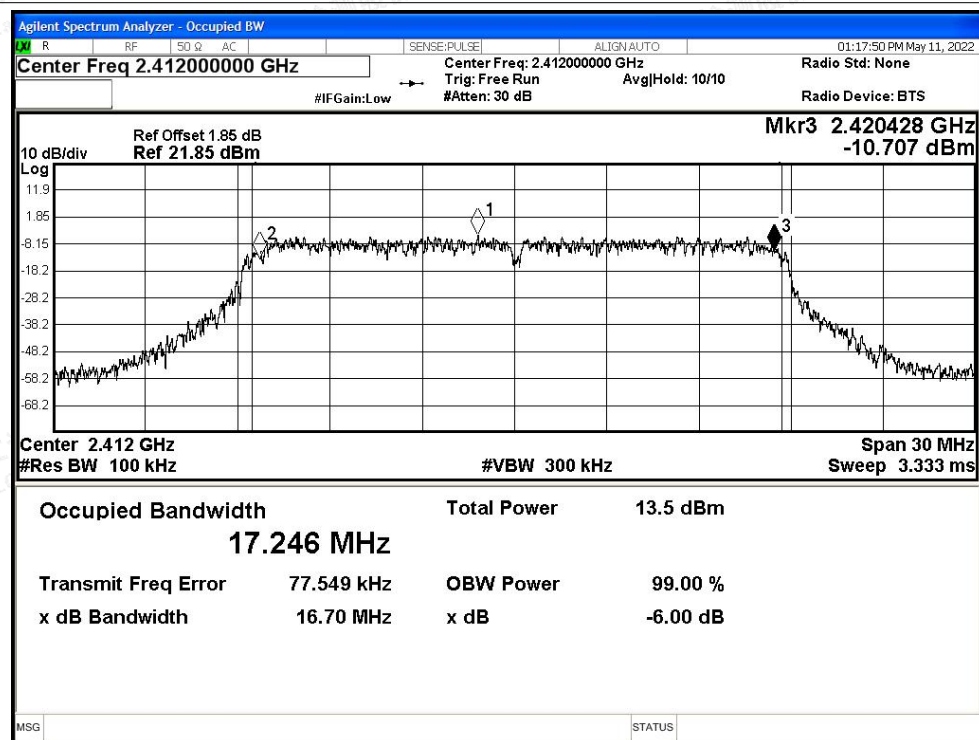
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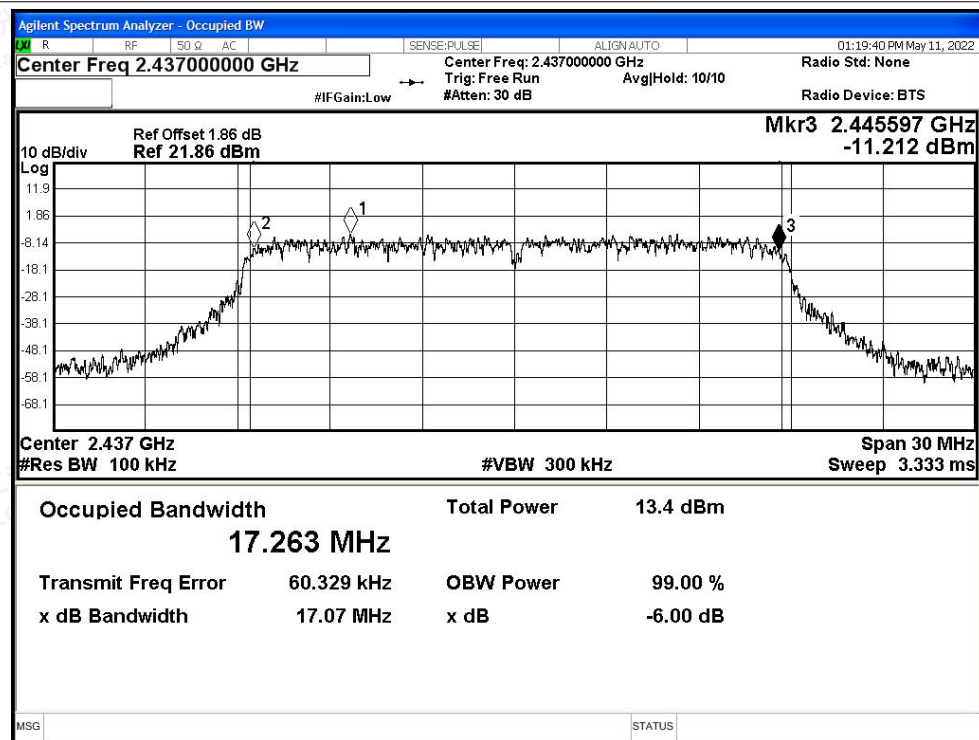
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6dB Bandwidth NVNT n20 2412MHz Ant1



6dB Bandwidth NVNT n20 2437MHz Ant1

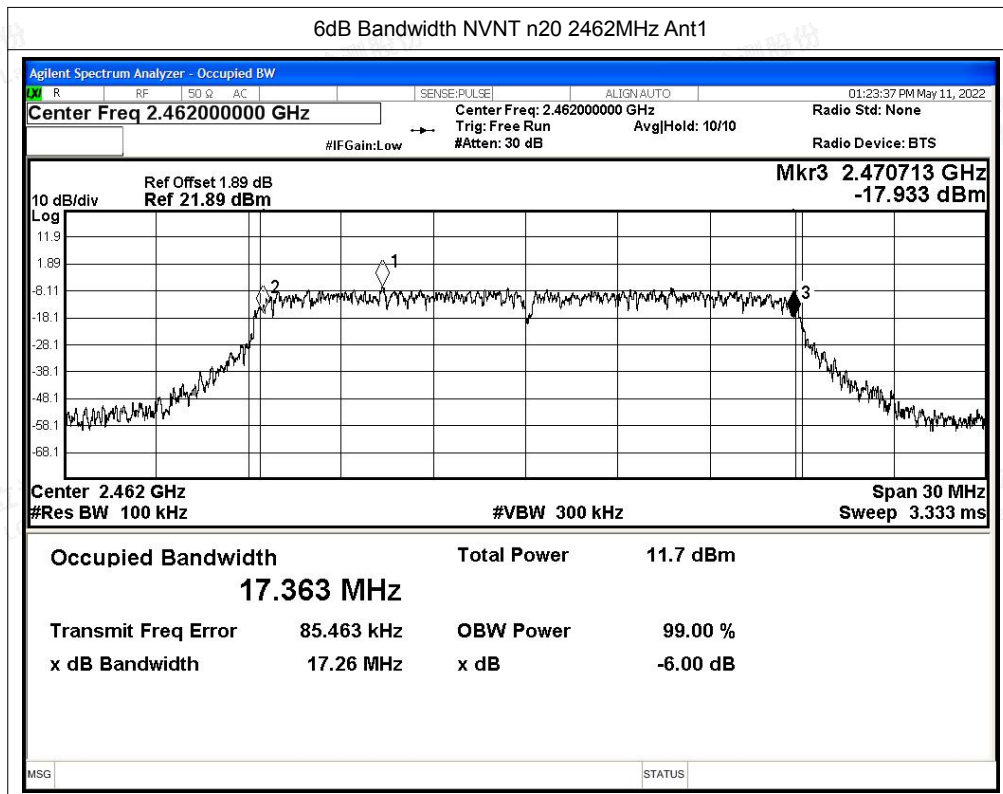


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A.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	14.42	30	Pass
NVNT	b	2437	Ant1	14.48	30	Pass
NVNT	b	2462	Ant1	14.36	30	Pass
NVNT	g	2412	Ant1	13.33	30	Pass
NVNT	g	2437	Ant1	13.22	30	Pass
NVNT	g	2462	Ant1	13.23	30	Pass
NVNT	n20	2412	Ant1	12.23	30	Pass
NVNT	n20	2437	Ant1	12.25	30	Pass
NVNT	n20	2462	Ant1	12.1	30	Pass



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A.3 Maximum Power Spectral Density

Condition	Mode	Frequency (MHz)	Antenna	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-12.24	8	Pass
NVNT	b	2437	Ant1	-12.61	8	Pass
NVNT	b	2462	Ant1	-12.87	8	Pass
NVNT	g	2412	Ant1	-18	8	Pass
NVNT	g	2437	Ant1	-17.51	8	Pass
NVNT	g	2462	Ant1	-17.36	8	Pass
NVNT	n20	2412	Ant1	-18.57	8	Pass
NVNT	n20	2437	Ant1	-18.56	8	Pass
NVNT	n20	2462	Ant1	-20.51	8	Pass



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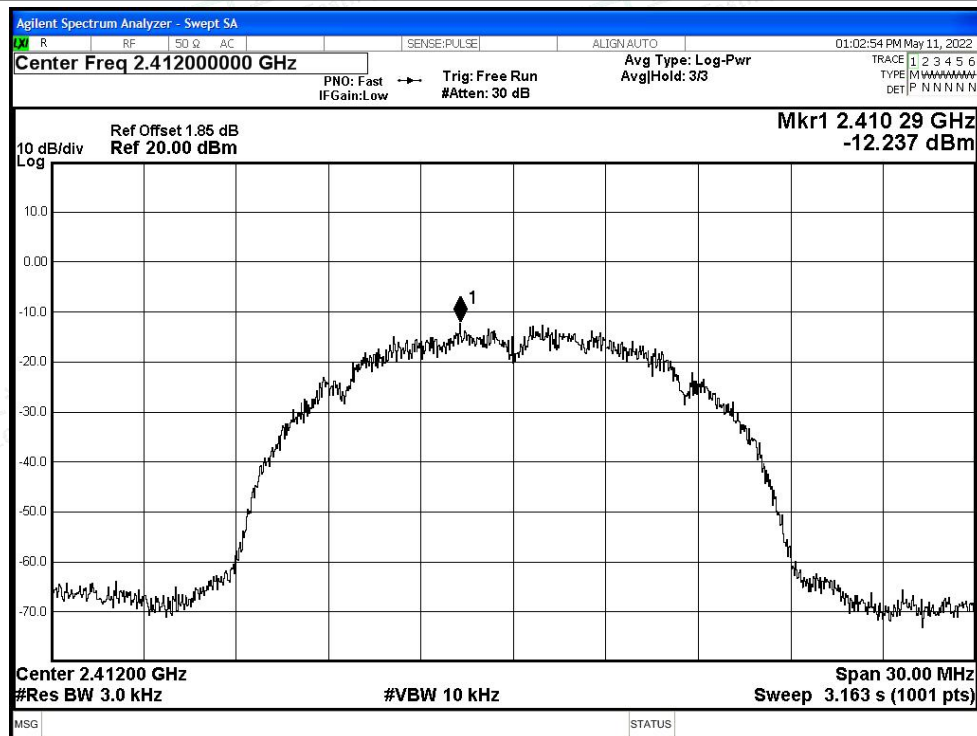
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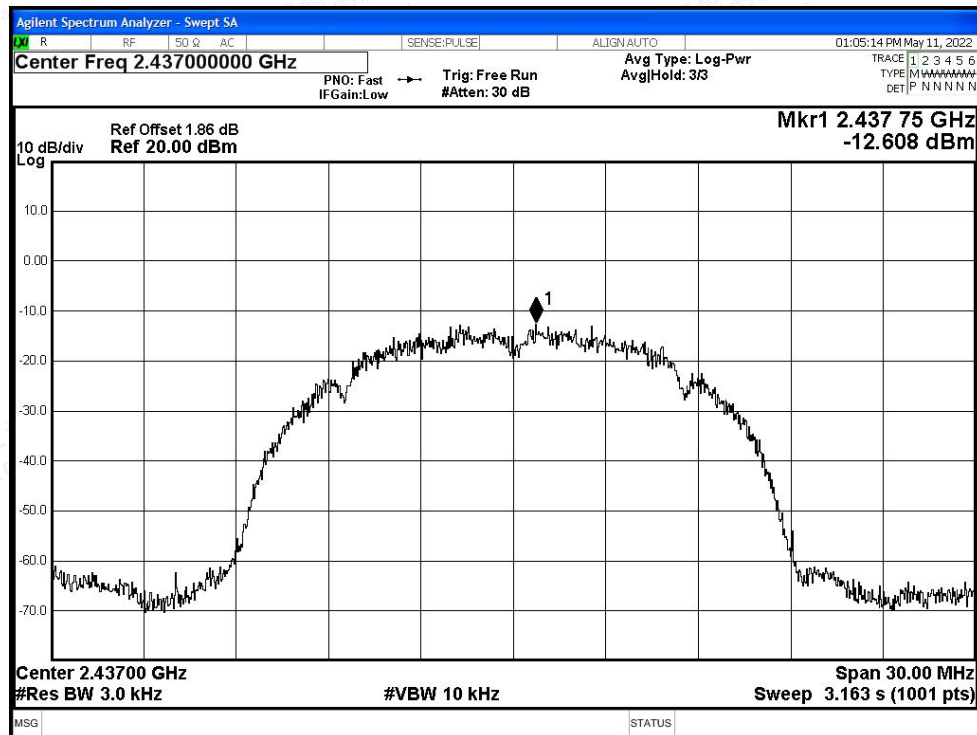


Test Graphs

PSD NVNT b 2412MHz Ant1



PSD NVNT b 2437MHz Ant1

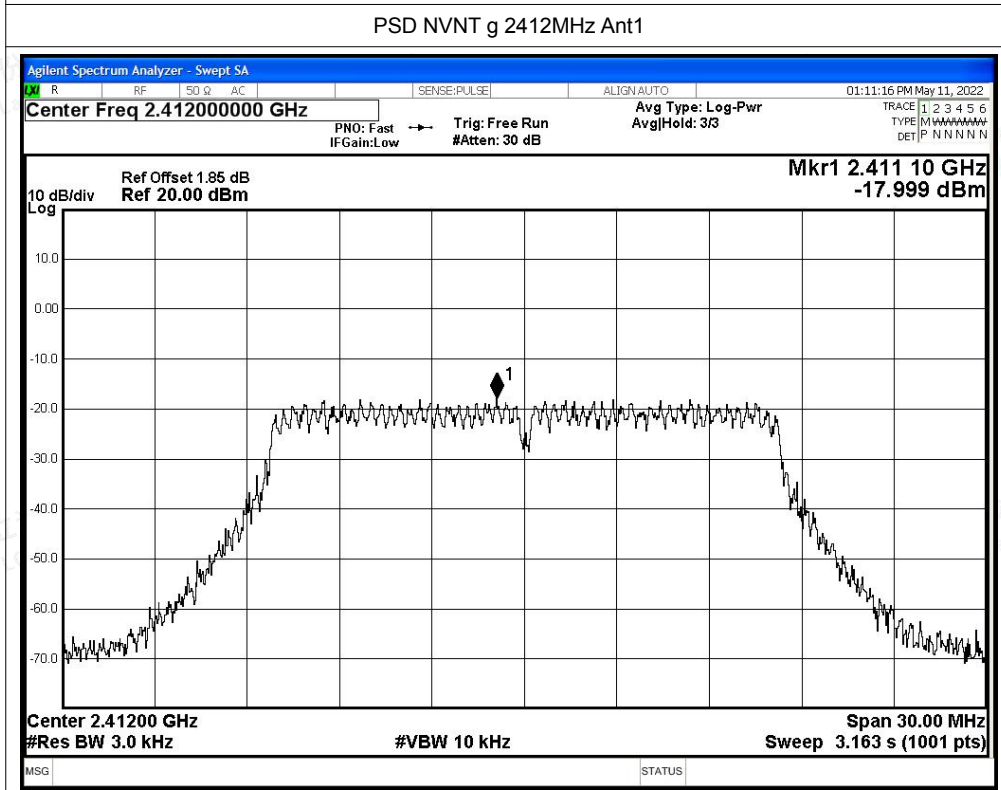
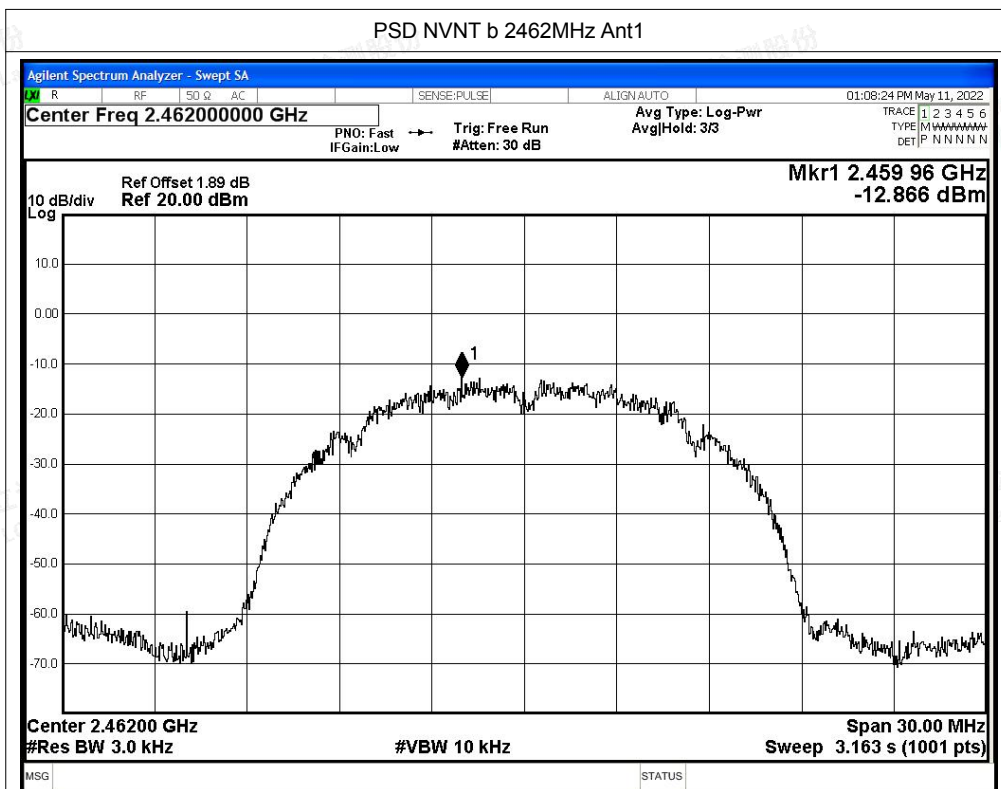


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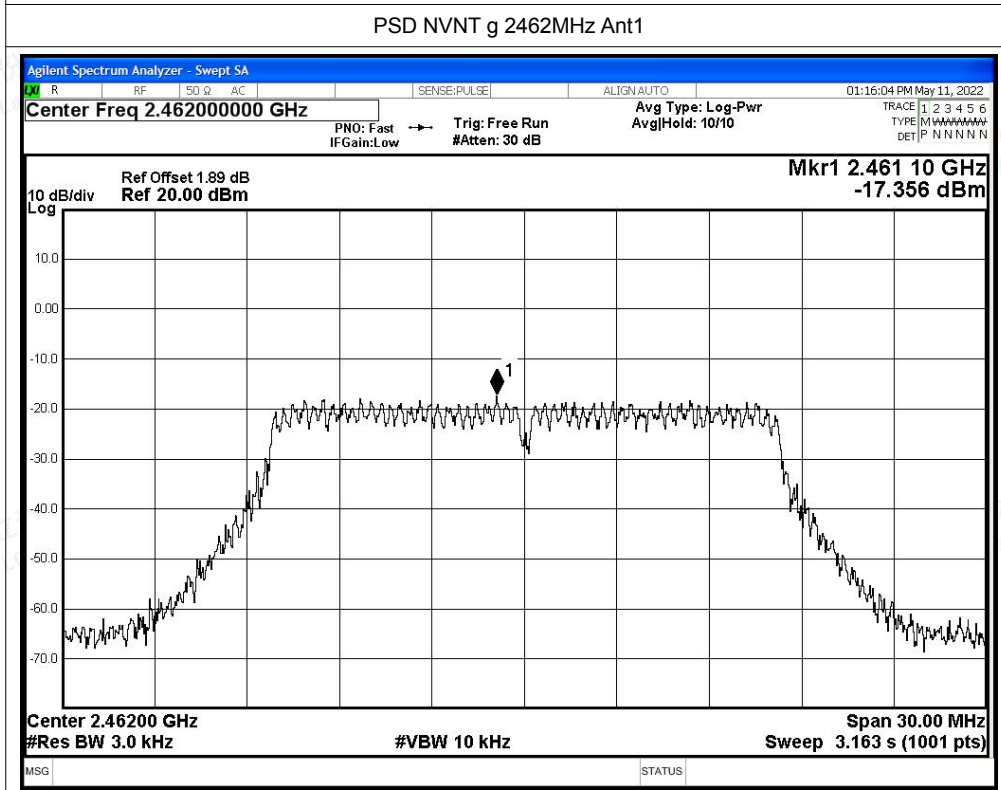
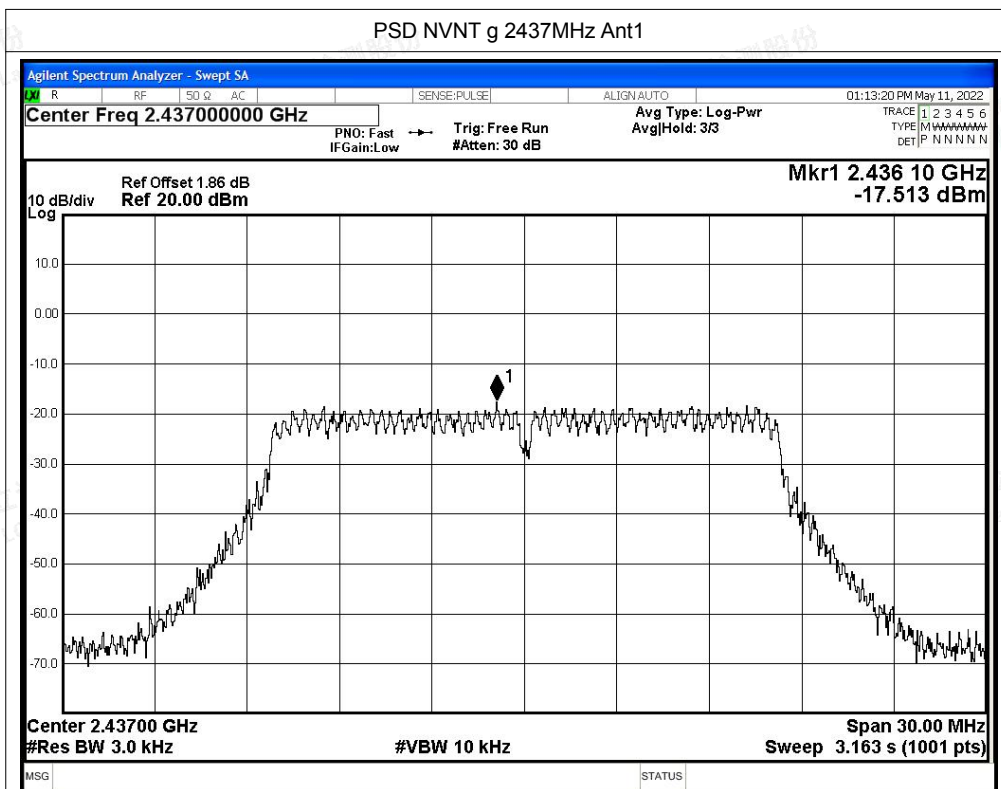


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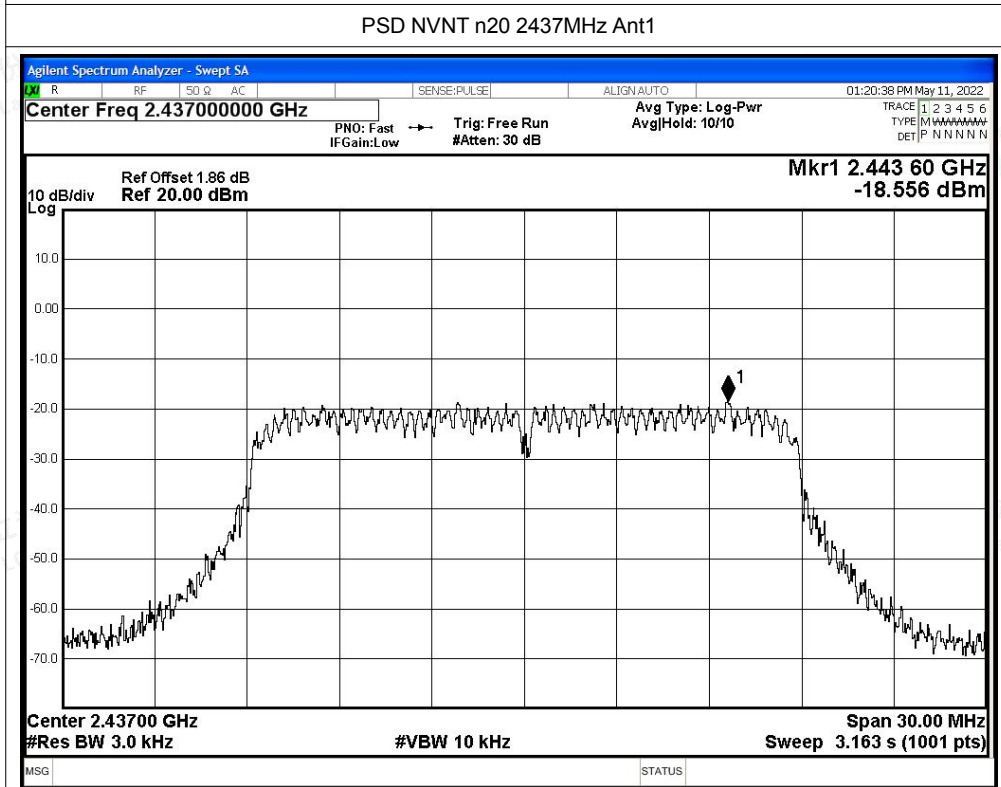
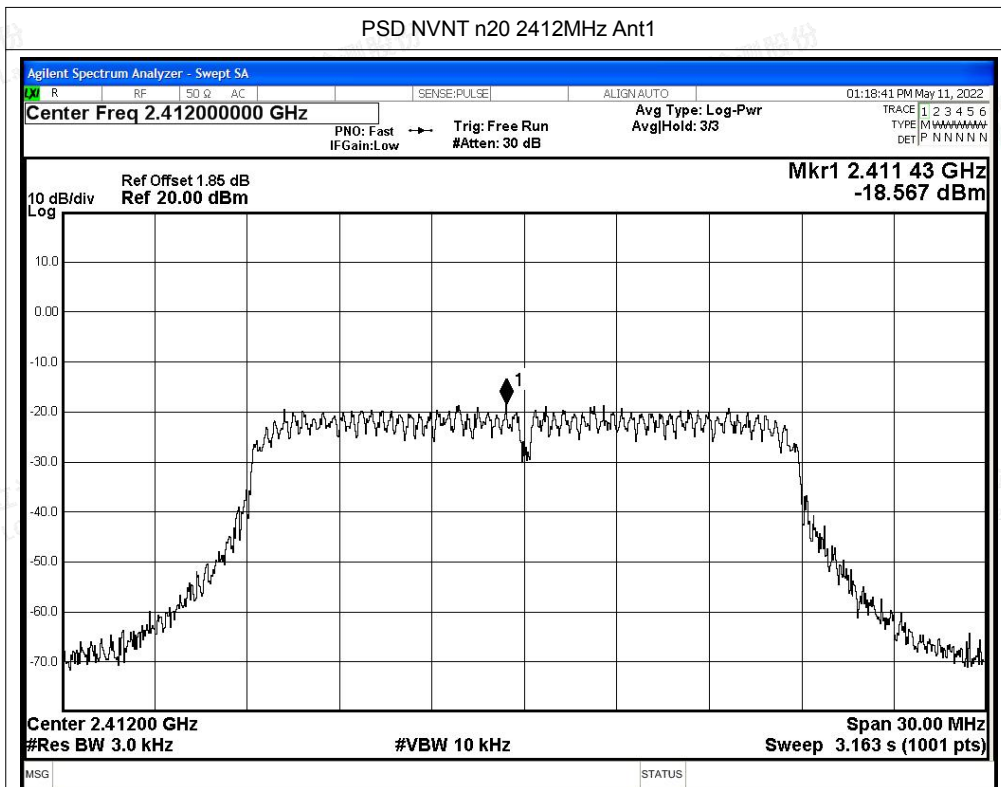


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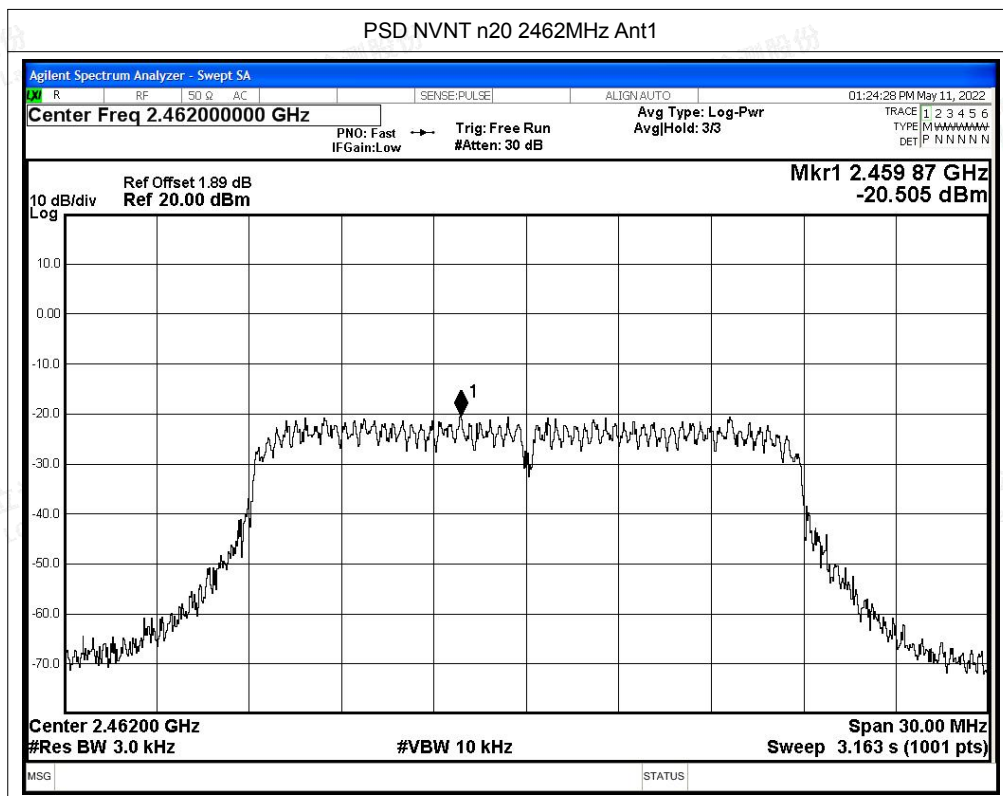


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A.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-52.33	-20	Pass
NVNT	b	2462	Ant1	-58.14	-20	Pass
NVNT	g	2412	Ant1	-45.62	-20	Pass
NVNT	g	2462	Ant1	-49.94	-20	Pass
NVNT	n20	2412	Ant1	-43.98	-20	Pass
NVNT	n20	2462	Ant1	-49.34	-20	Pass



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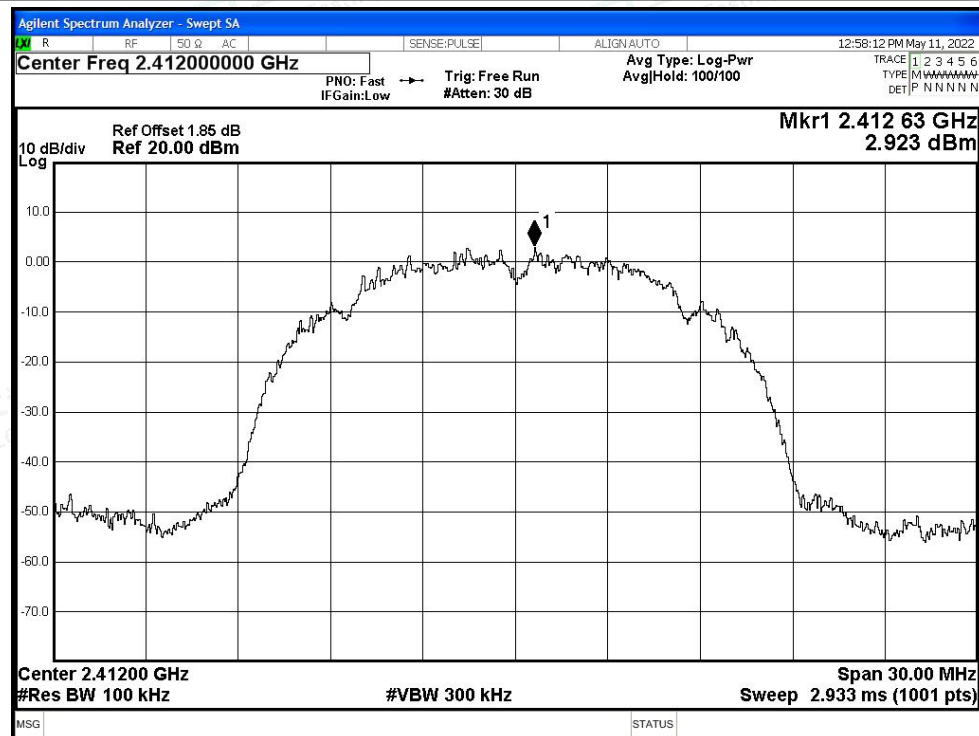
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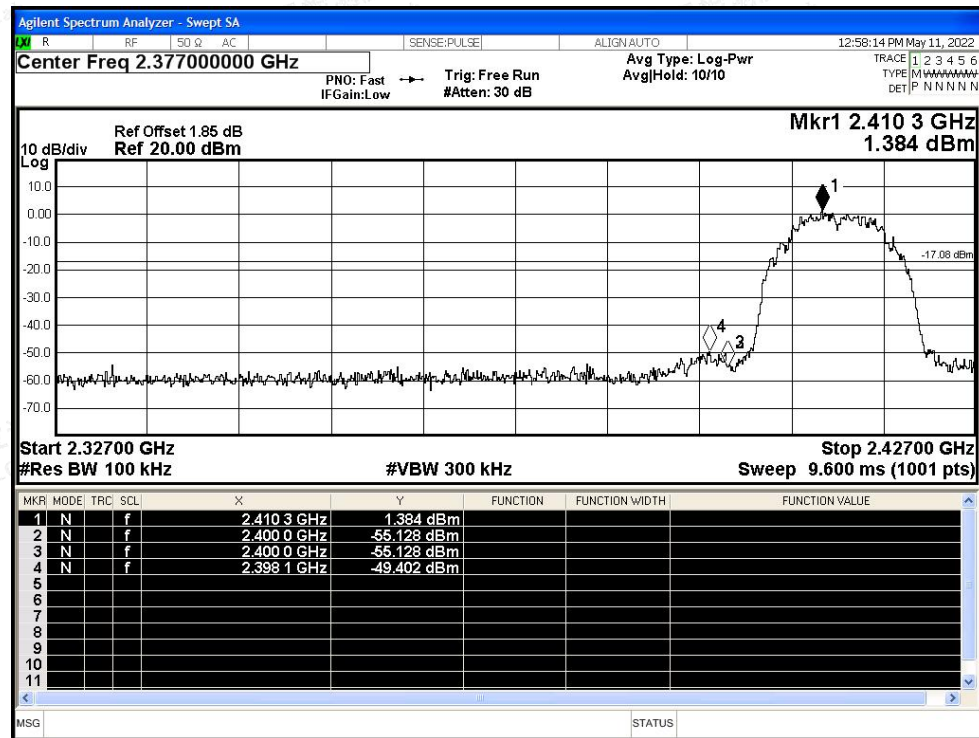


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



Band Edge NVNT b 2412MHz Ant1 Emission

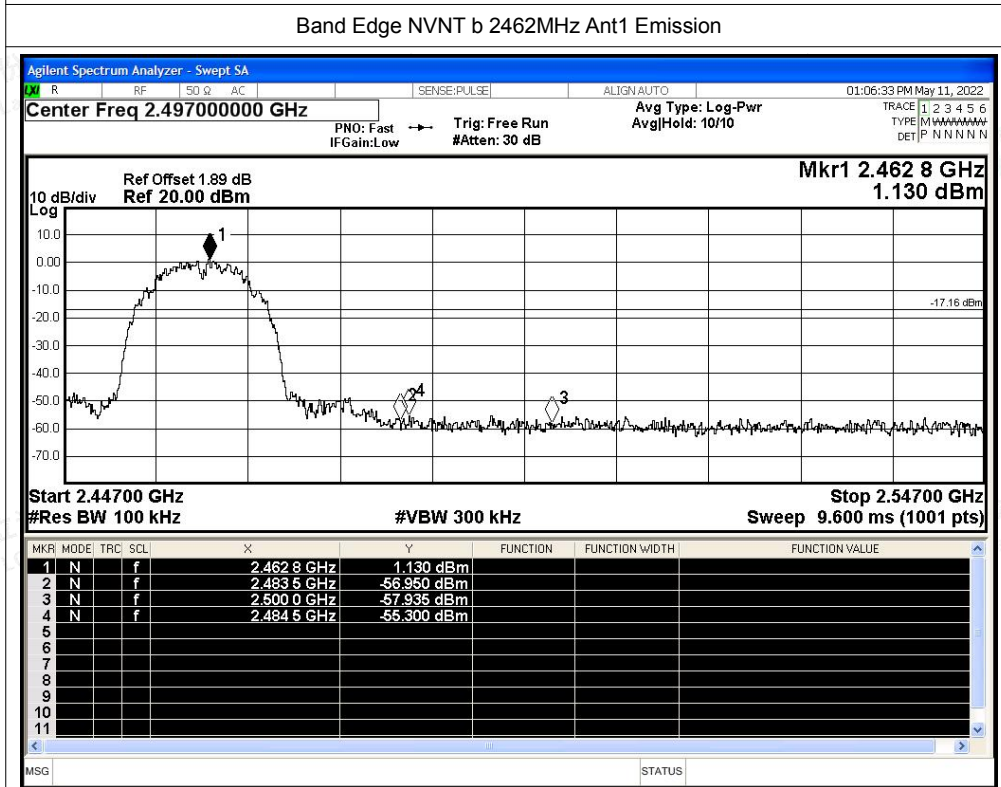
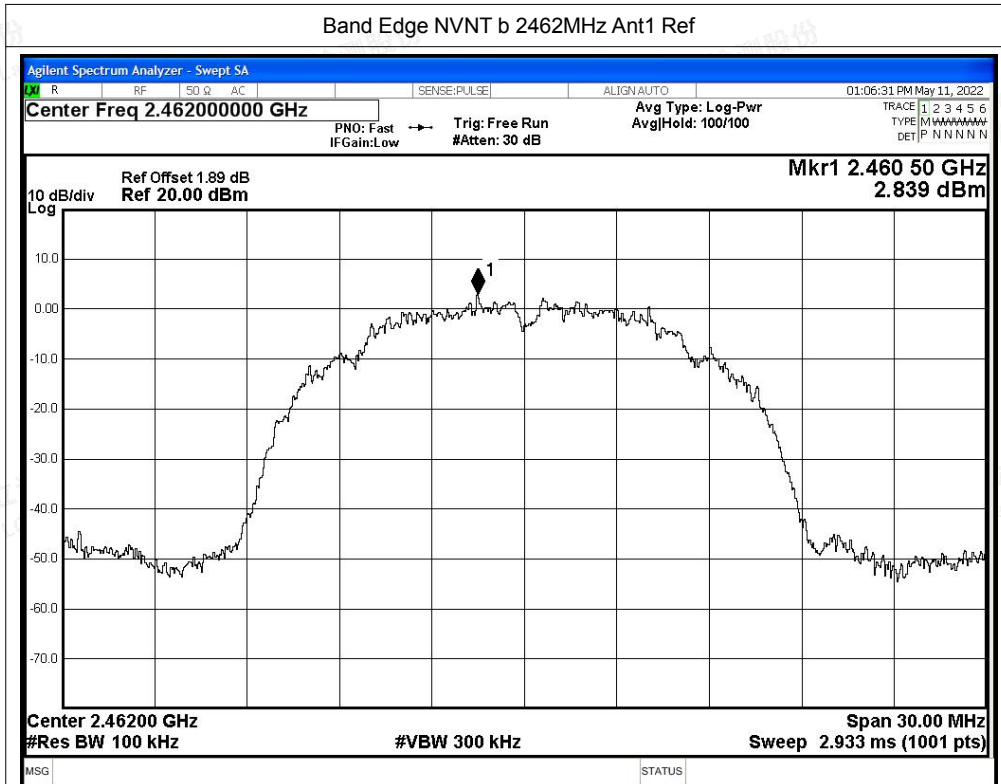


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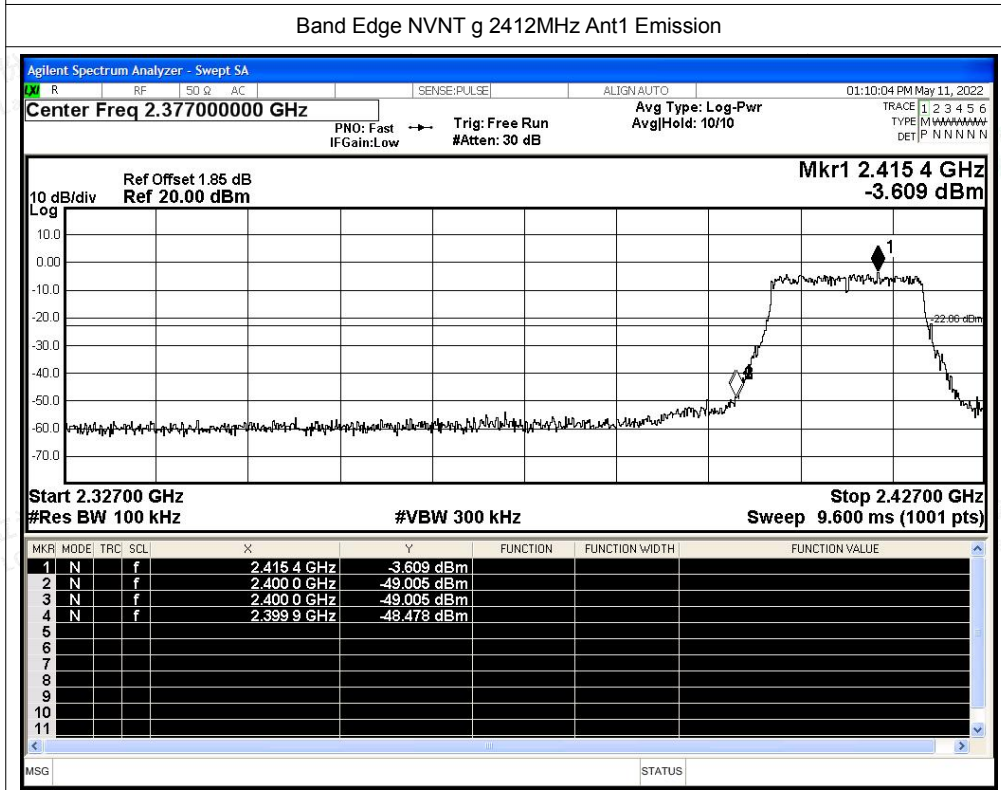
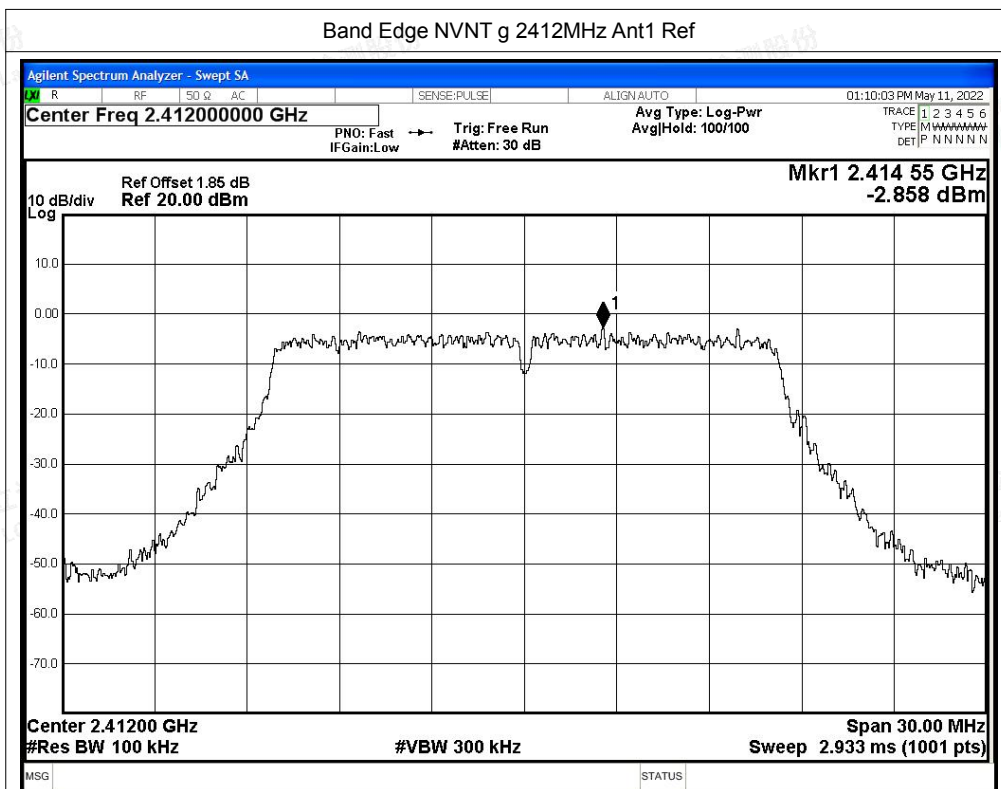


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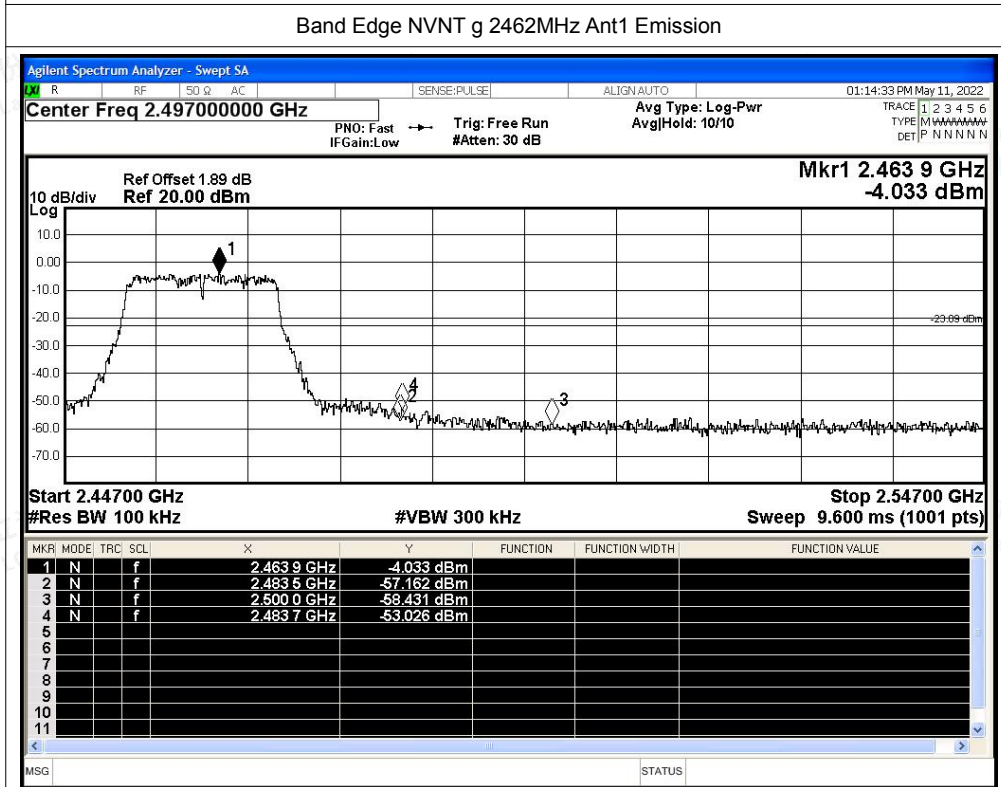
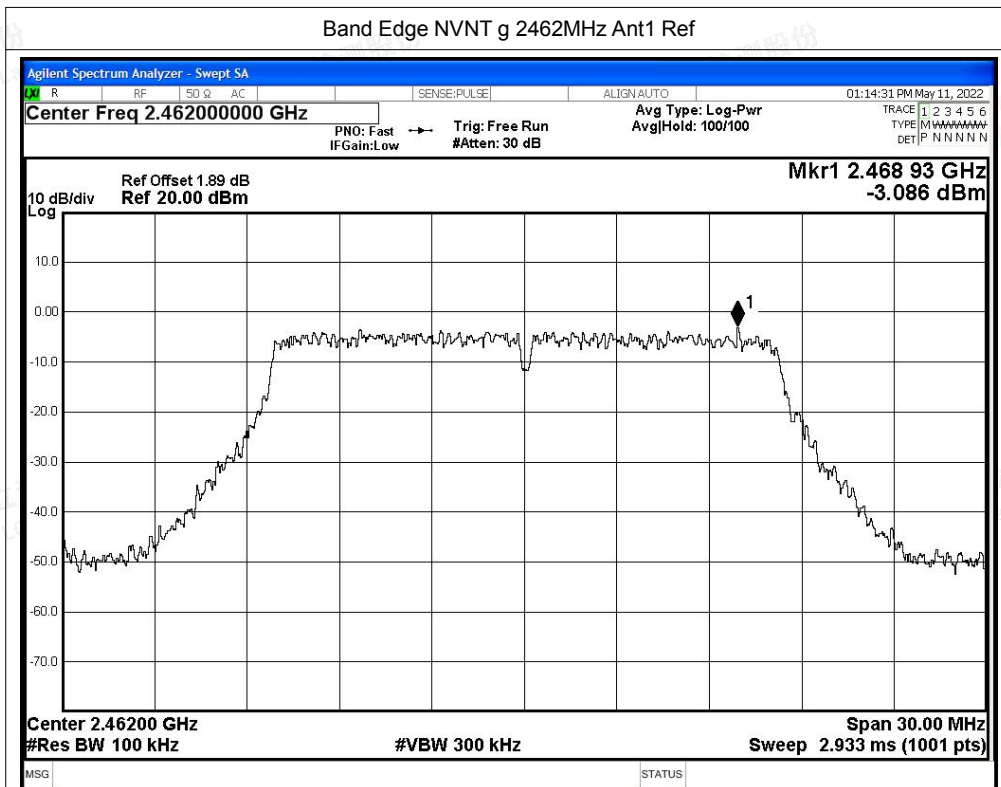


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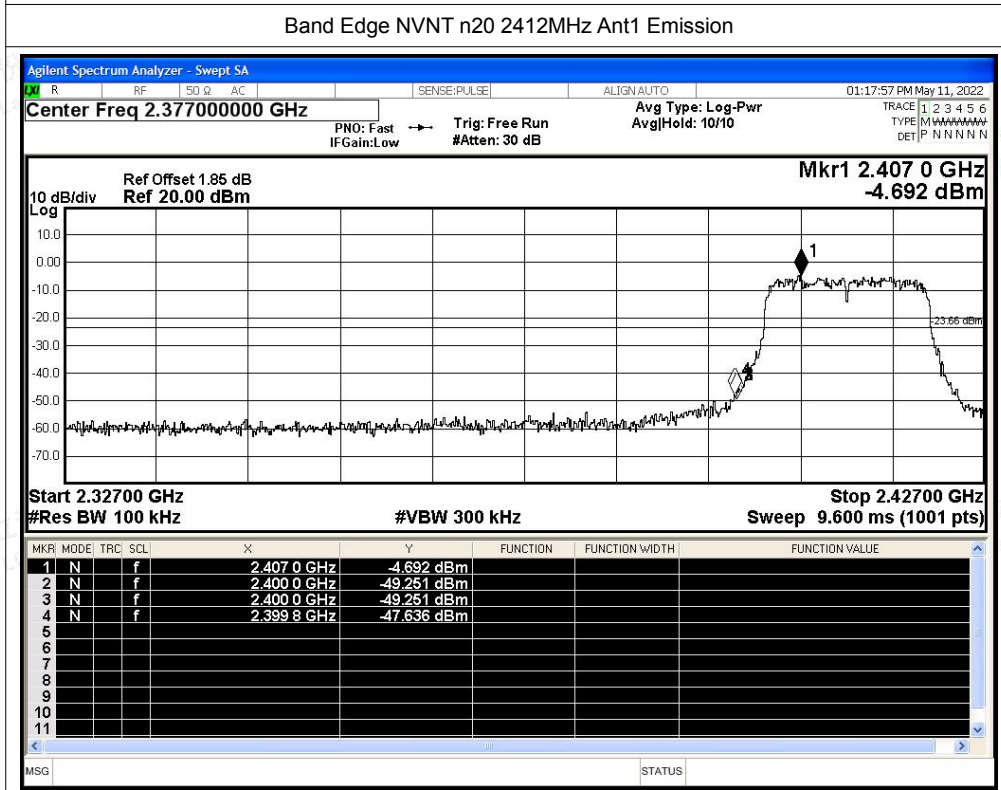
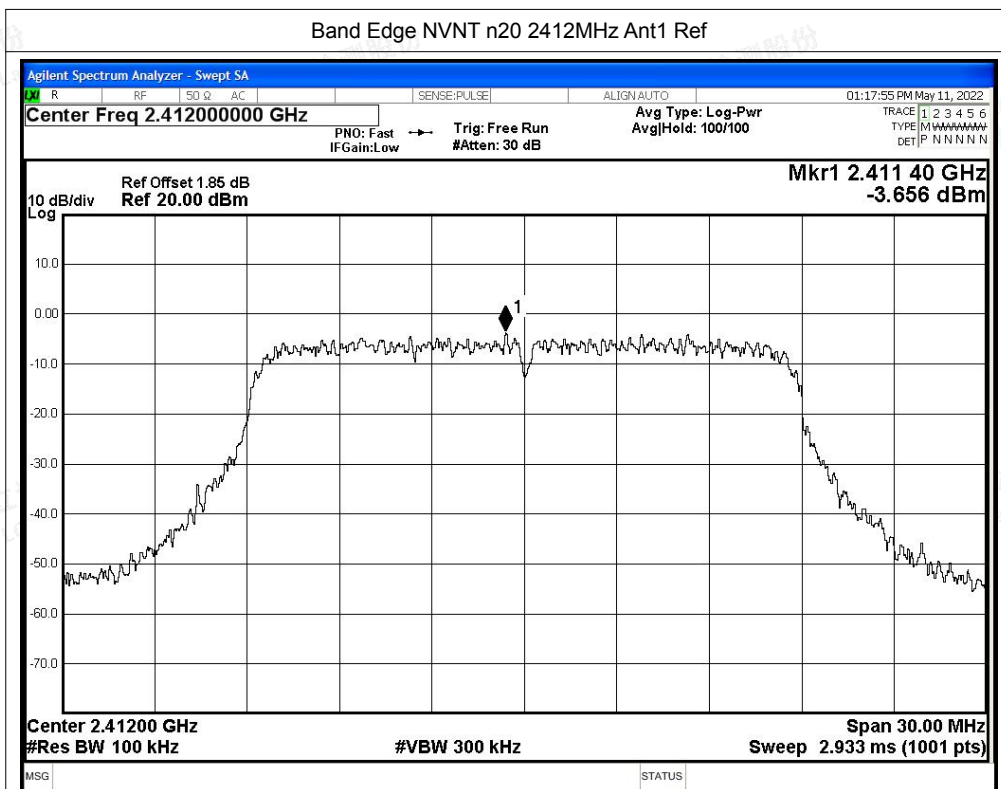


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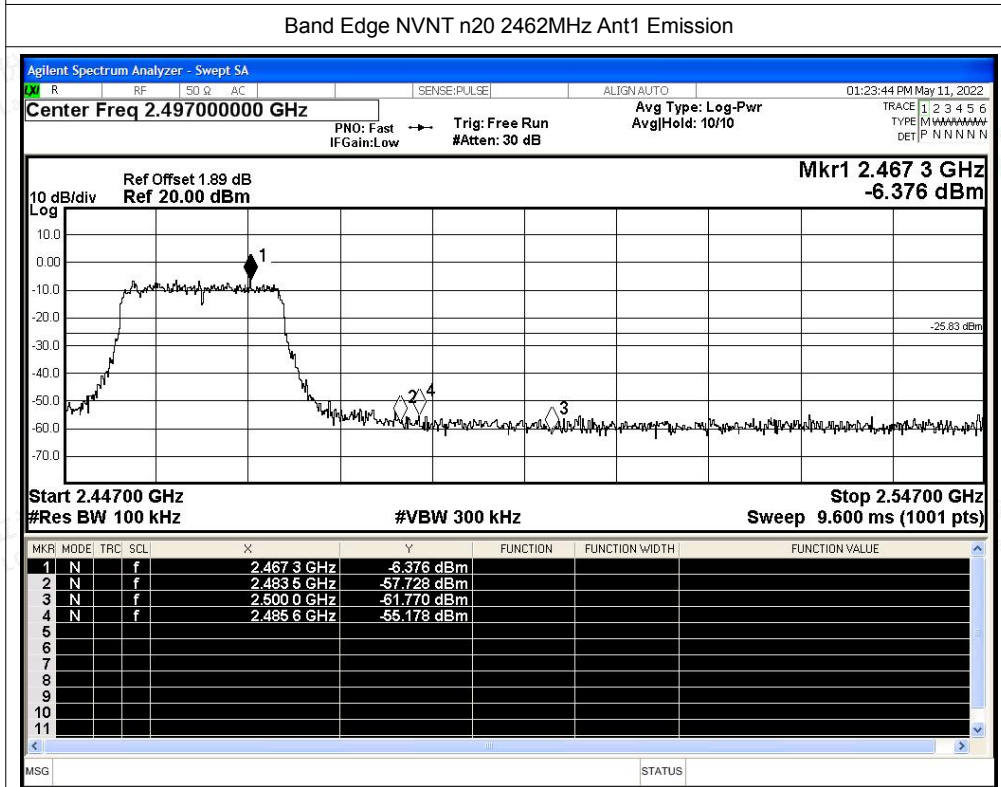
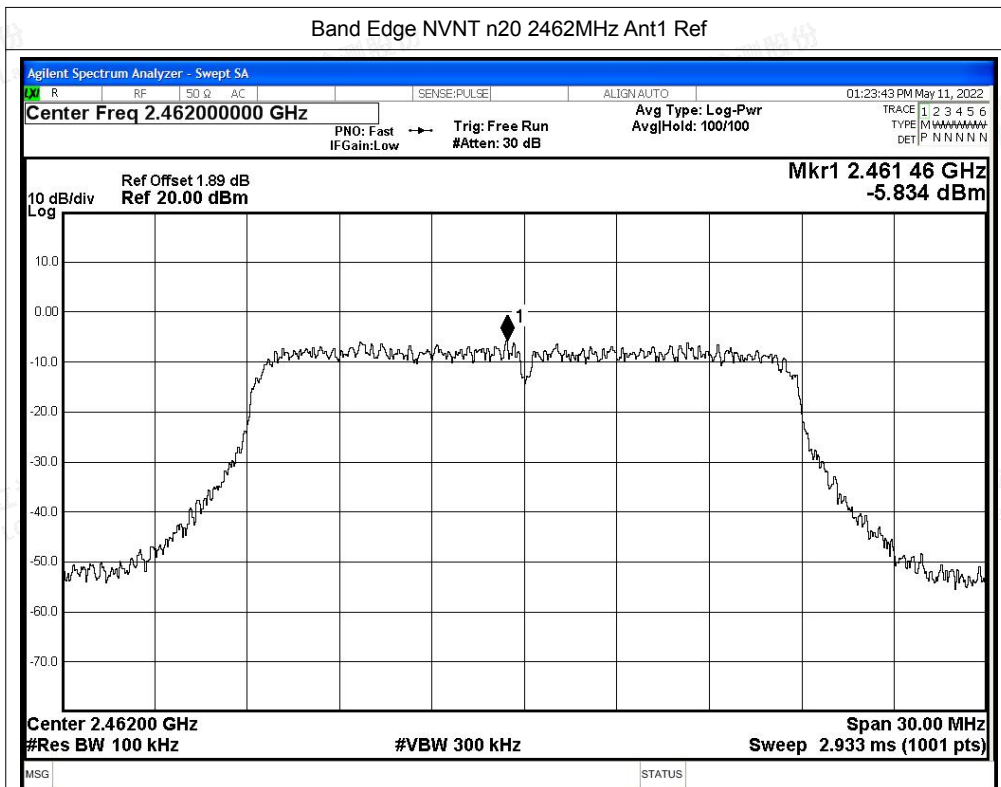


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A.5 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-48.57	-20	Pass
NVNT	b	2437	Ant1	-49.32	-20	Pass
NVNT	b	2462	Ant1	-49.37	-20	Pass
NVNT	g	2412	Ant1	-42.49	-20	Pass
NVNT	g	2437	Ant1	-42.53	-20	Pass
NVNT	g	2462	Ant1	-42.43	-20	Pass
NVNT	n20	2412	Ant1	-42.2	-20	Pass
NVNT	n20	2437	Ant1	-42.37	-20	Pass
NVNT	n20	2462	Ant1	-41	-20	Pass



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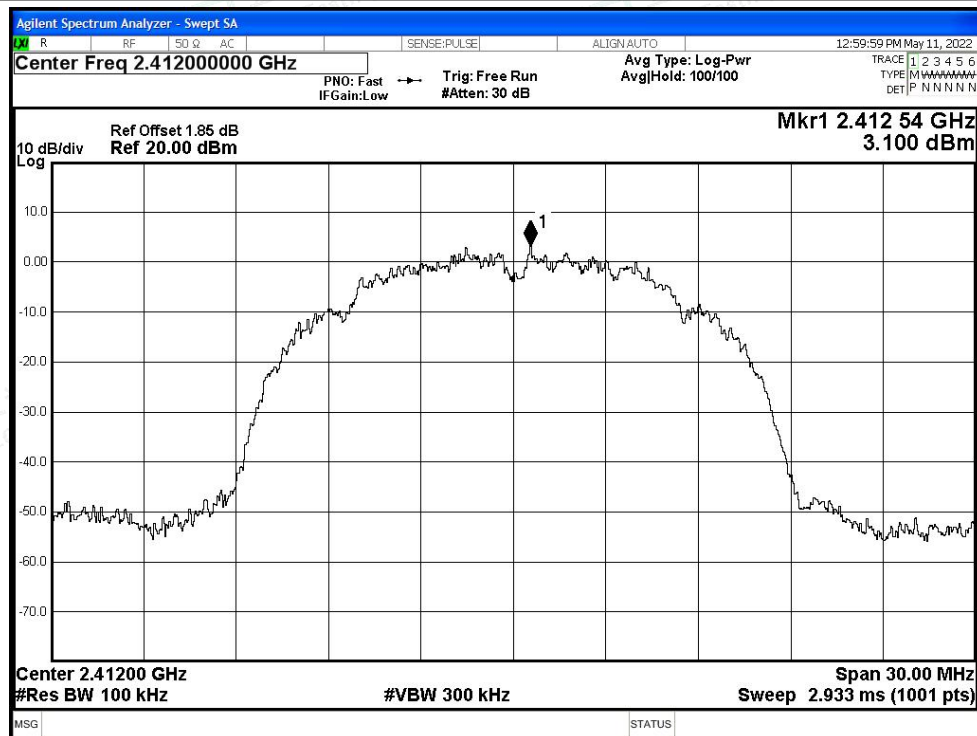
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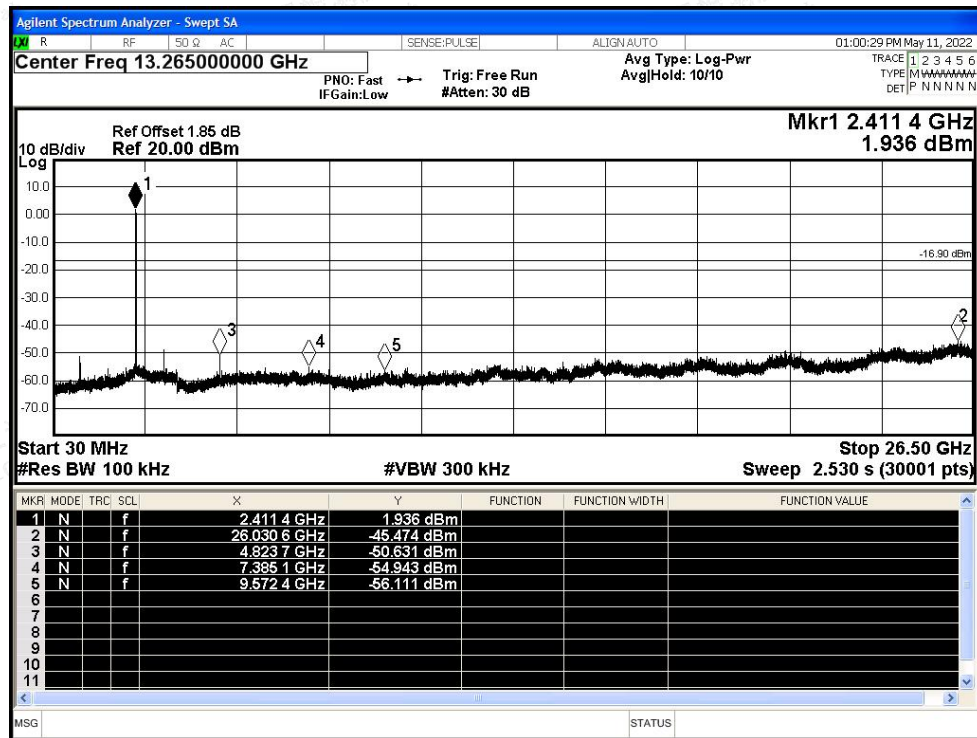


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref



Tx. Spurious NVNT b 2412MHz Ant1 Emission



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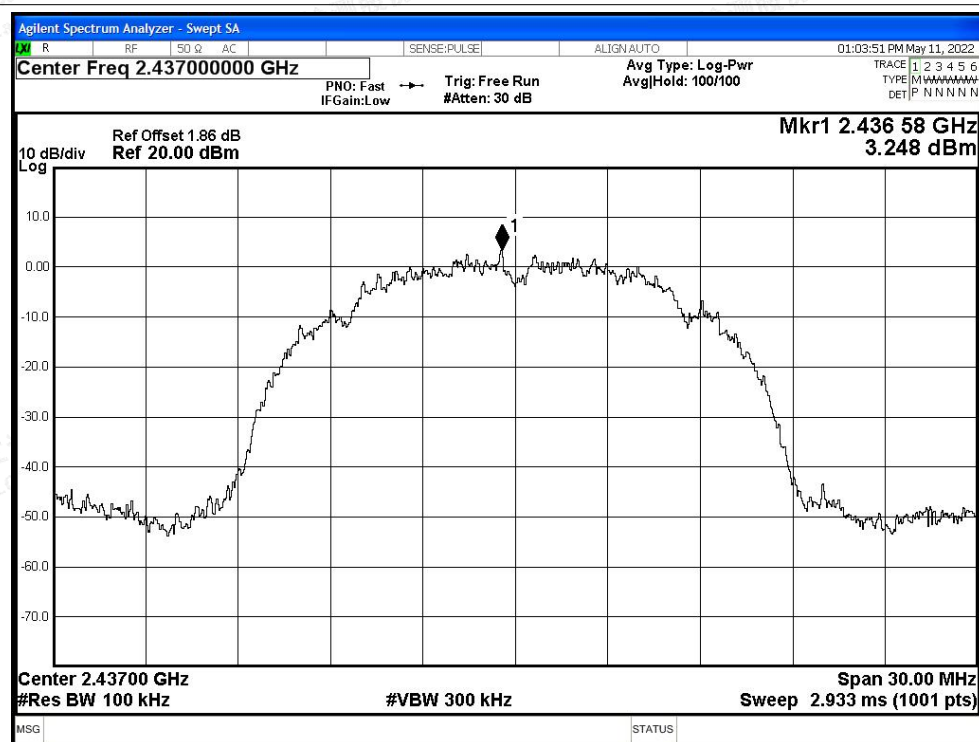
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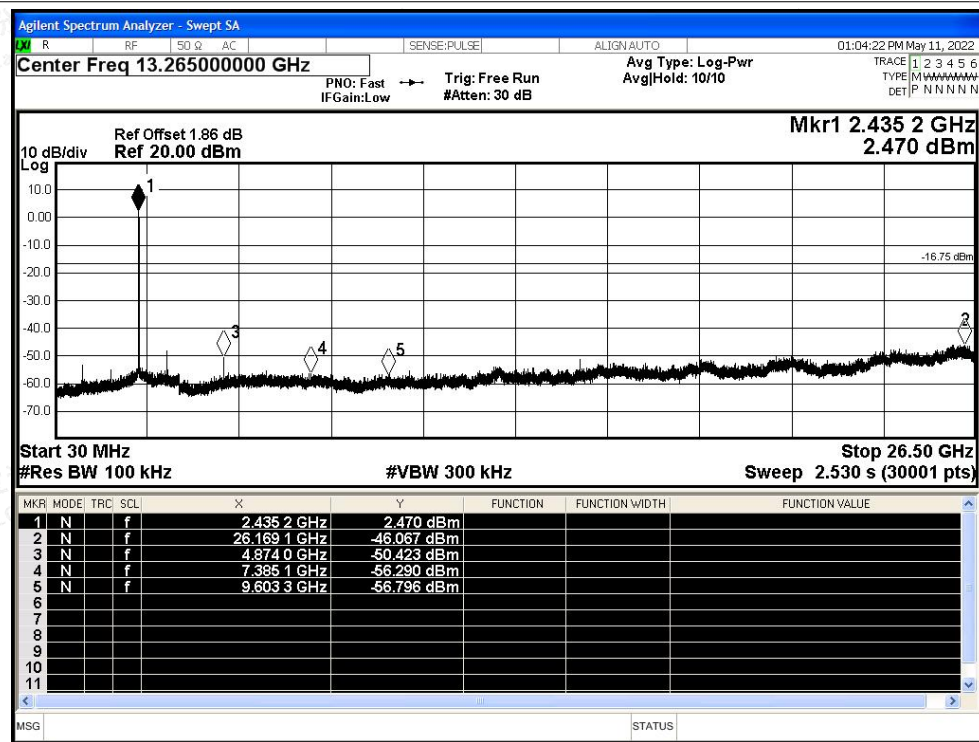
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Tx. Spurious NVNT b 2437MHz Ant1 Ref



Tx. Spurious NVNT b 2437MHz Ant1 Emission



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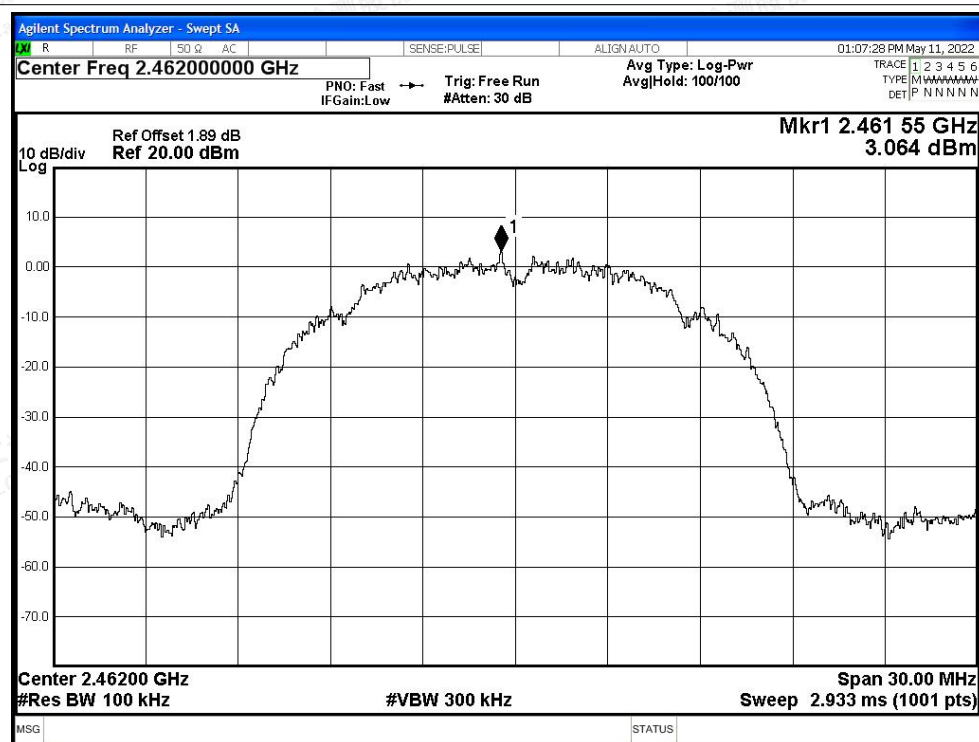
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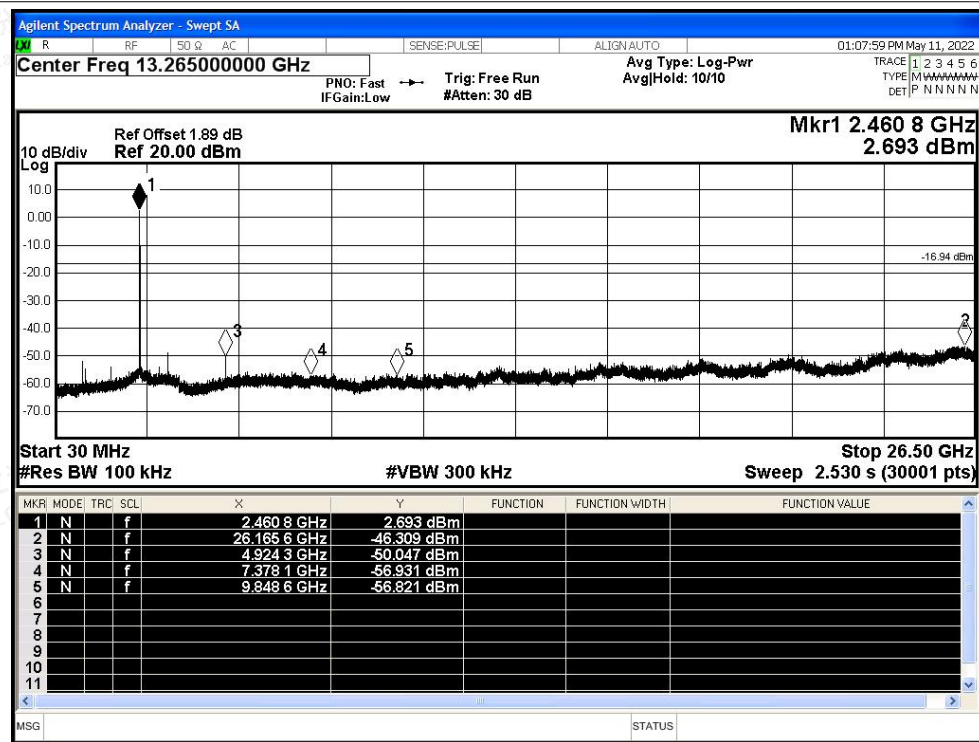
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Tx. Spurious NVNT b 2462MHz Ant1 Ref



Tx. Spurious NVNT b 2462MHz Ant1 Emission



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