



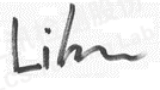
Appendix A

RF Test Data for 2.4G (Conducted Measurement)

Product Name: TTL Li-ion Round Head Camera Flash

Test Model: Z1

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Monkey Li
Supervised by:	 Li Huan





A.1 -6dB Bandwidth

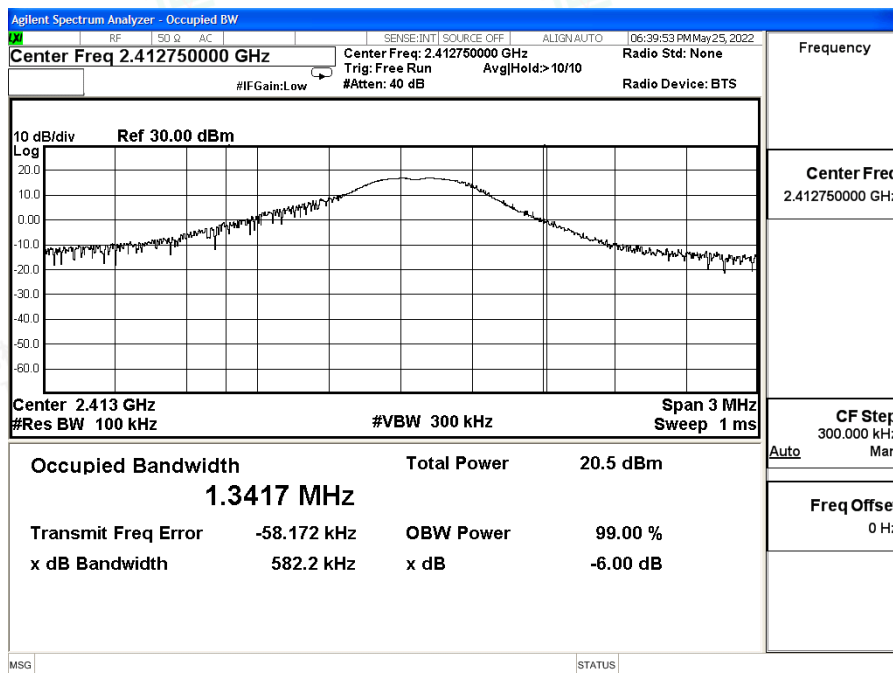
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	2.4G	2412.75	Ant1	0.582	0.5	Pass
NVNT	2.4G	2437.75	Ant1	0.591	0.5	Pass
NVNT	2.4G	2464.25	Ant1	0.574	0.5	Pass



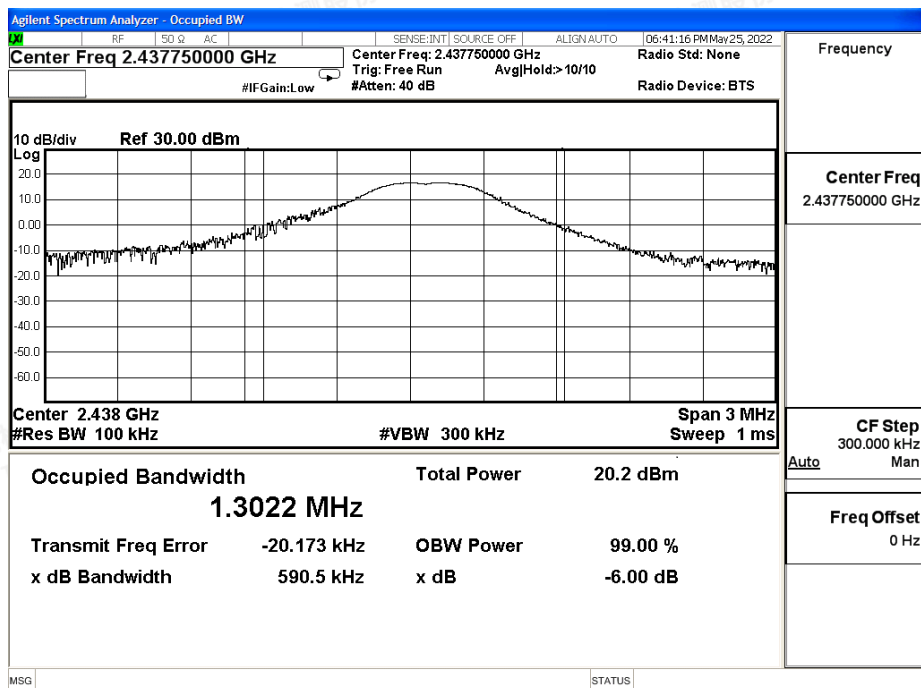


Test Graphs

-6dB Bandwidth NVNT 2.4G 2412.75MHz Ant1



-6dB Bandwidth NVNT 2.4G 2437.75MHz Ant1

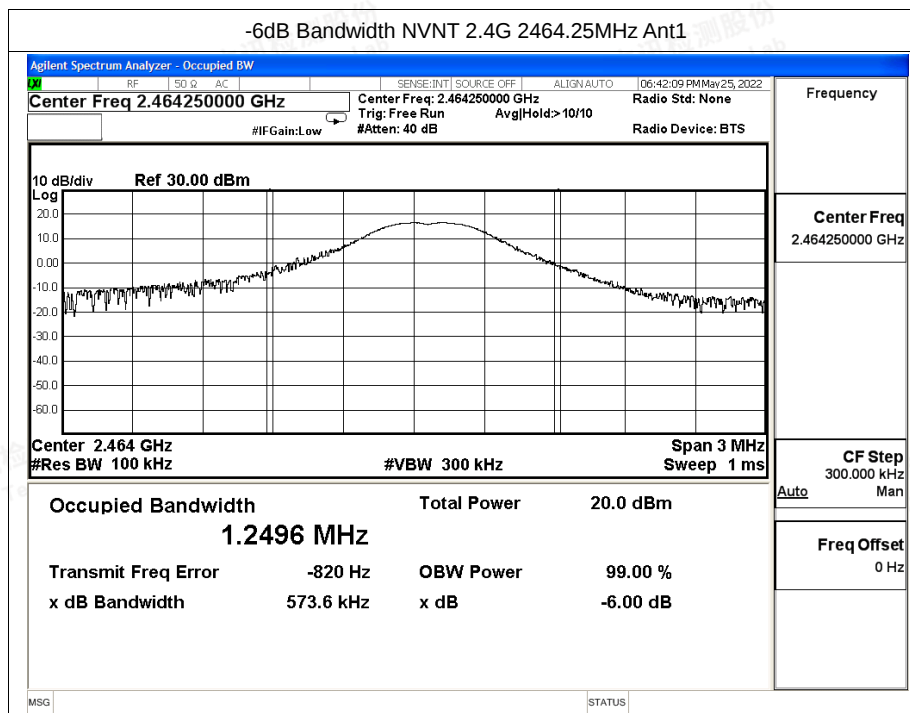


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A.2 Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	2.4G	2412.75	Ant1	0.821
NVNT	2.4G	2437.75	Ant1	0.761
NVNT	2.4G	2464.25	Ant1	0.854

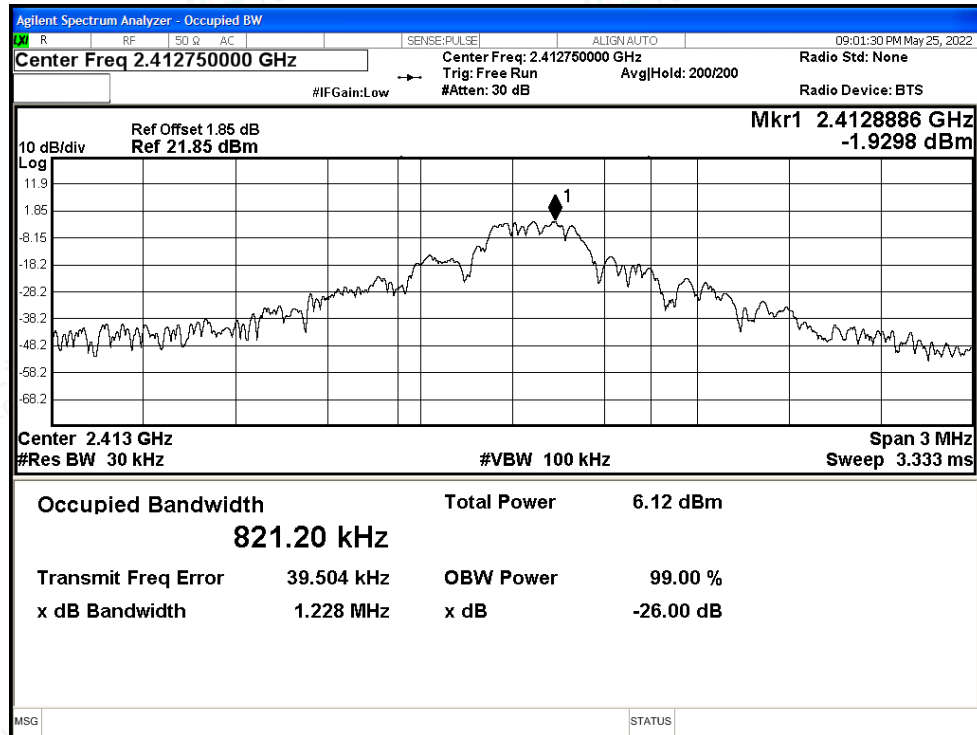


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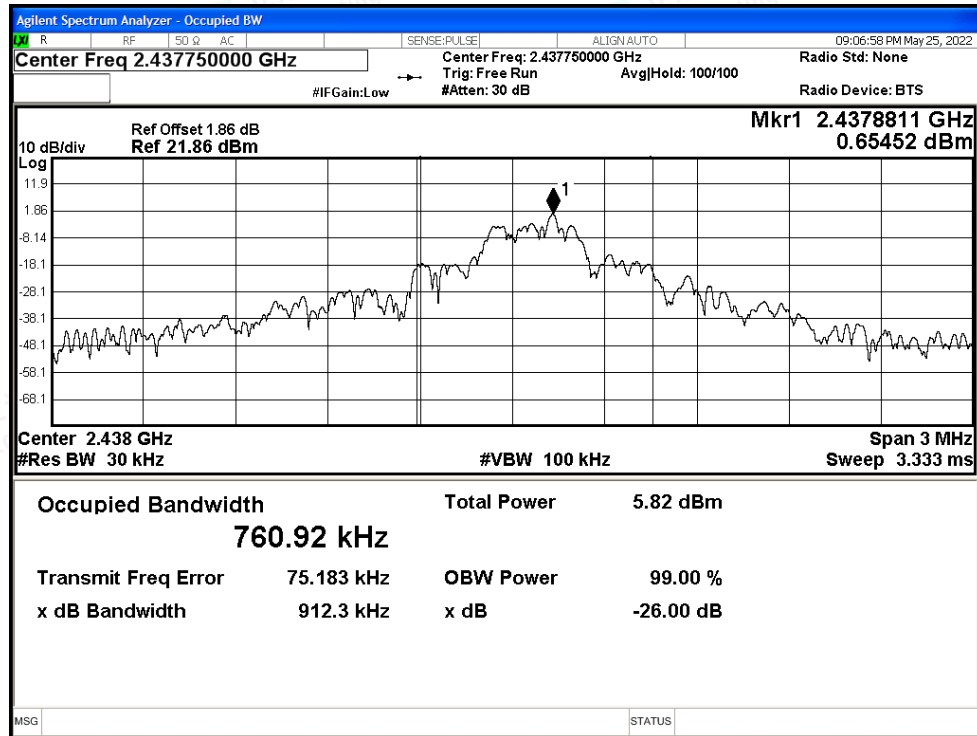


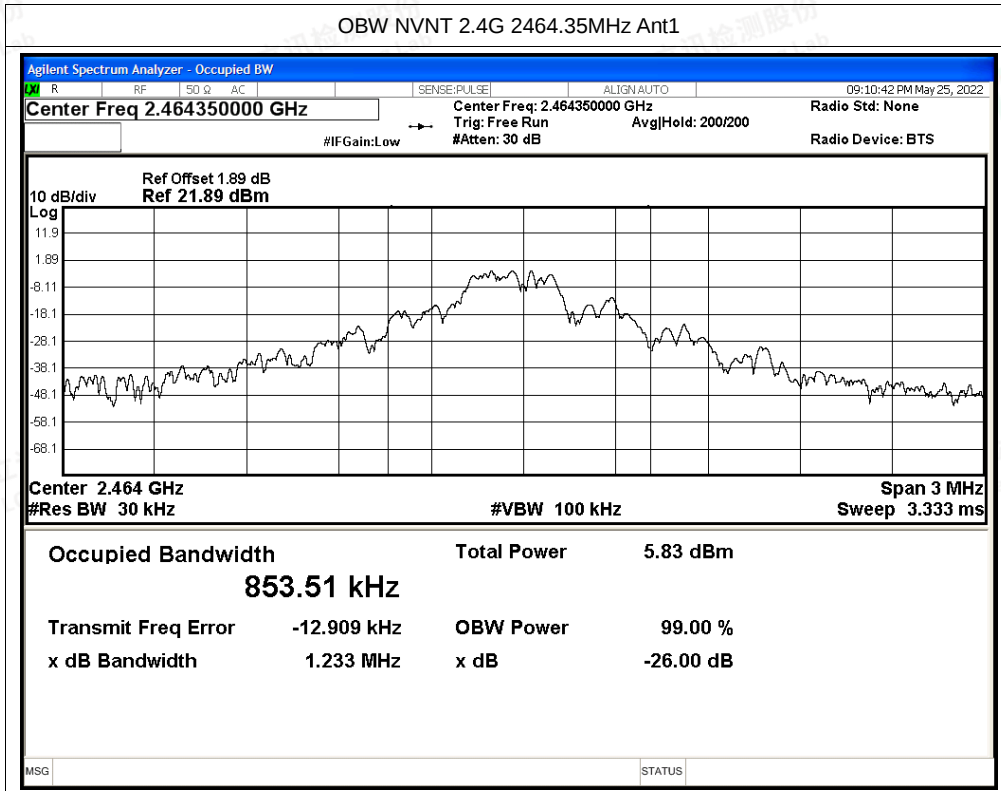
Test Graphs

OBW NVNT 2.4G 2412.75MHz Ant1



OBW NVNT 2.4G 2437.75MHz Ant1







A.3 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	2.4G	2412.75	Ant1	1.44	30	Pass
NVNT	2.4G	2437.75	Ant1	1.5	30	Pass
NVNT	2.4G	2464.25	Ant1	1.61	30	Pass

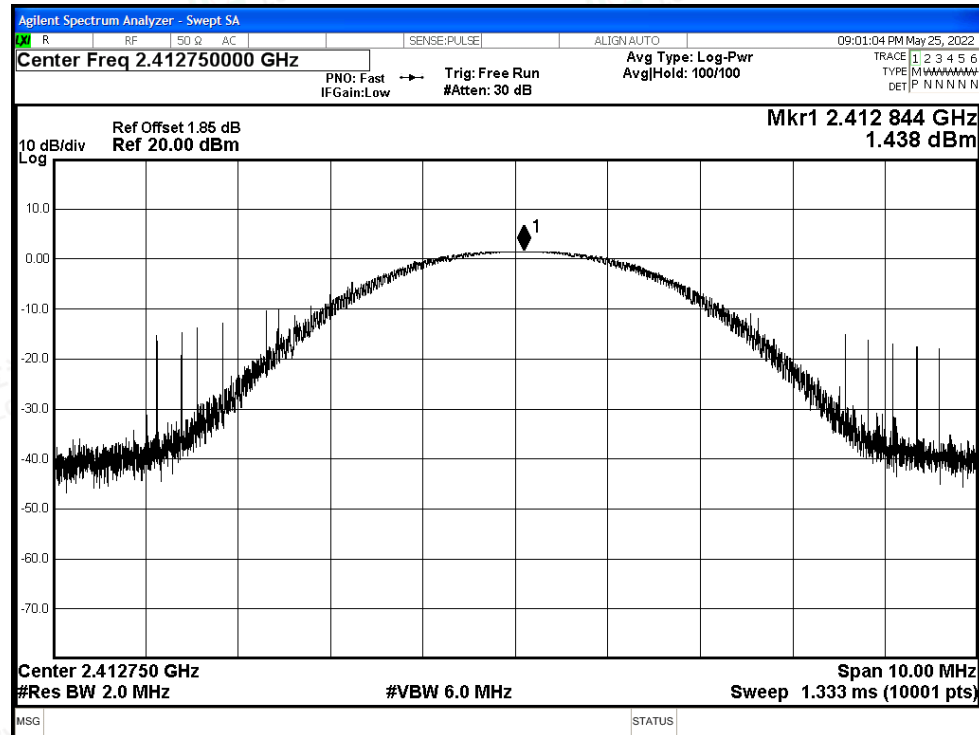


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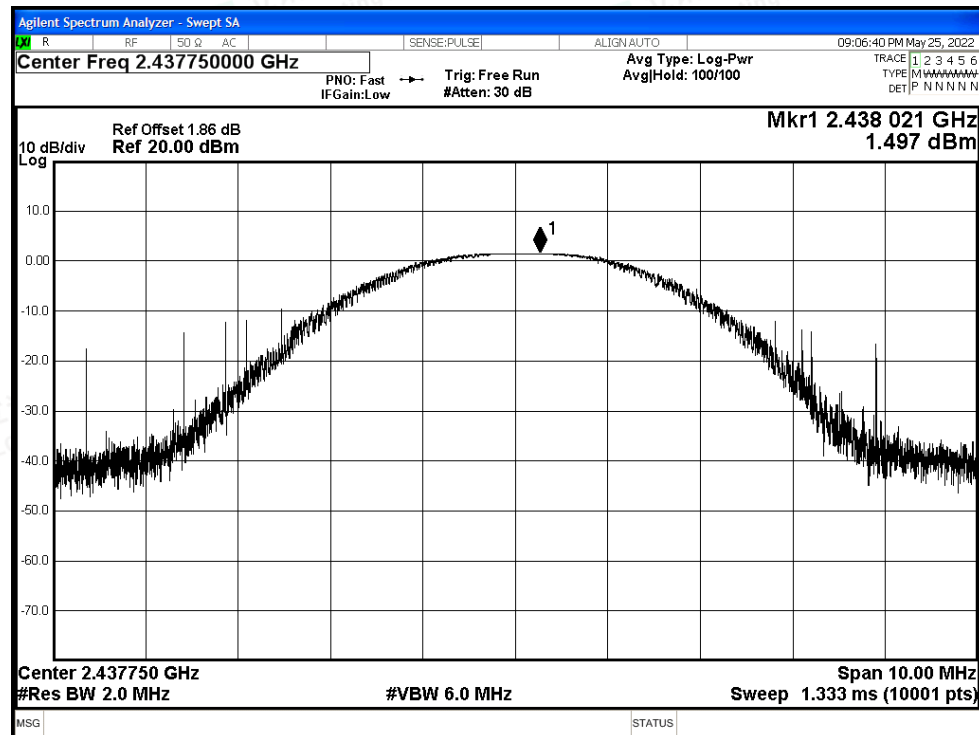


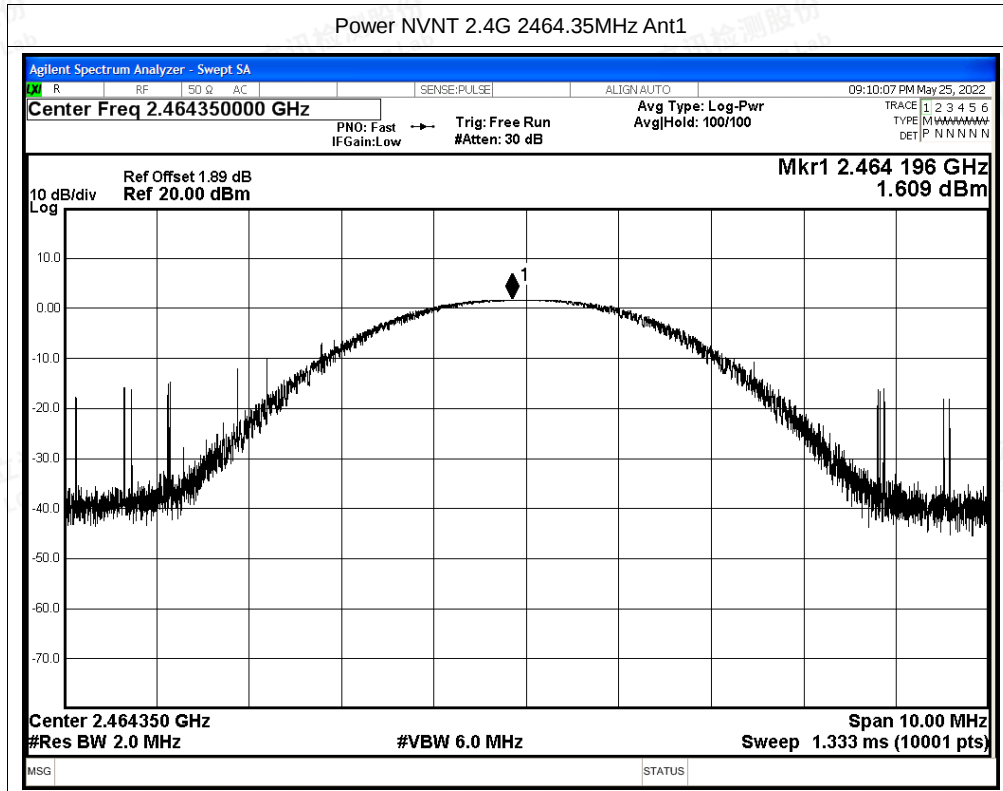
Test Graphs

Power NVNT 2.4G 2412.75MHz Ant1



Power NVNT 2.4G 2437.75MHz Ant1







A.4 Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	2.4G	2412.75	Ant1	-7.45	8	Pass
NVNT	2.4G	2437.75	Ant1	-7.11	8	Pass
NVNT	2.4G	2464.25	Ant1	-7.19	8	Pass



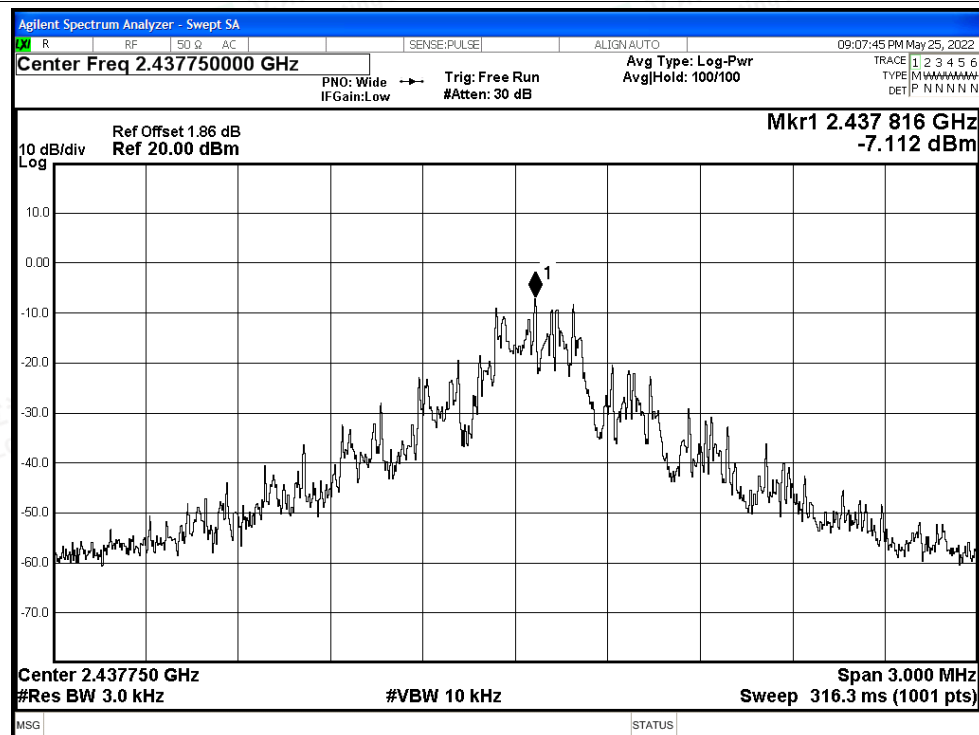


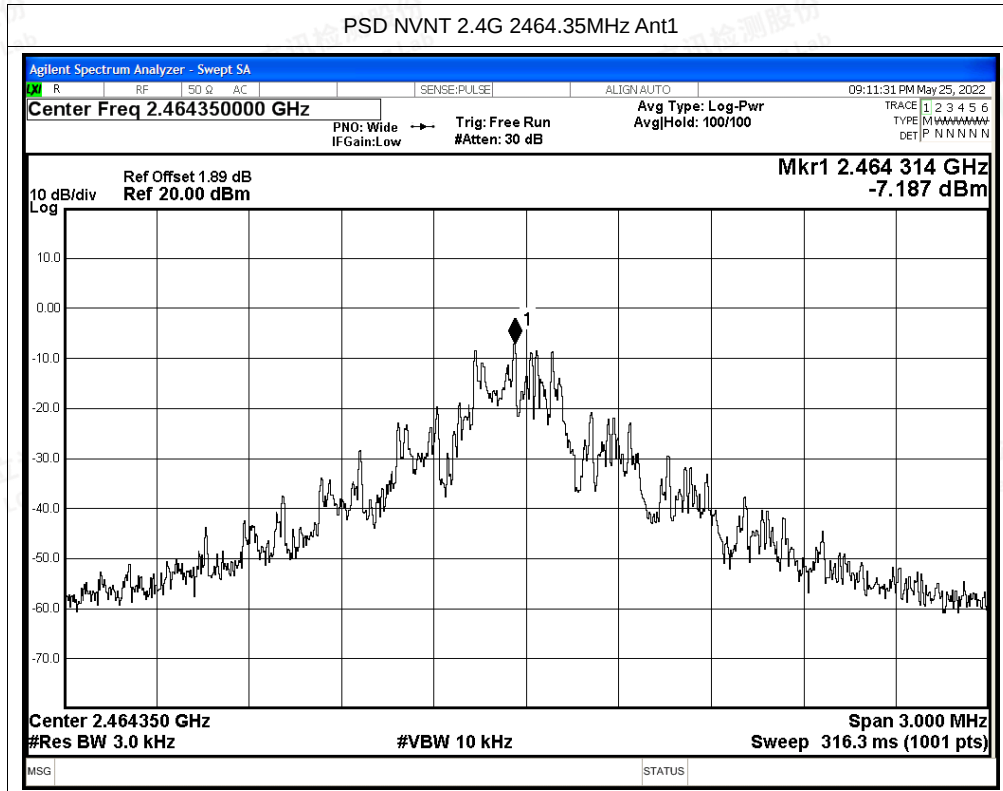
Test Graphs

PSD NVNT 2.4G 2412.75MHz Ant1



PSD NVNT 2.4G 2437.75MHz Ant1







A.5 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	2.4G	2412.75	Ant1	-52.47	-20	Pass
NVNT	2.4G	2464.25	Ant1	-56.04	-20	Pass

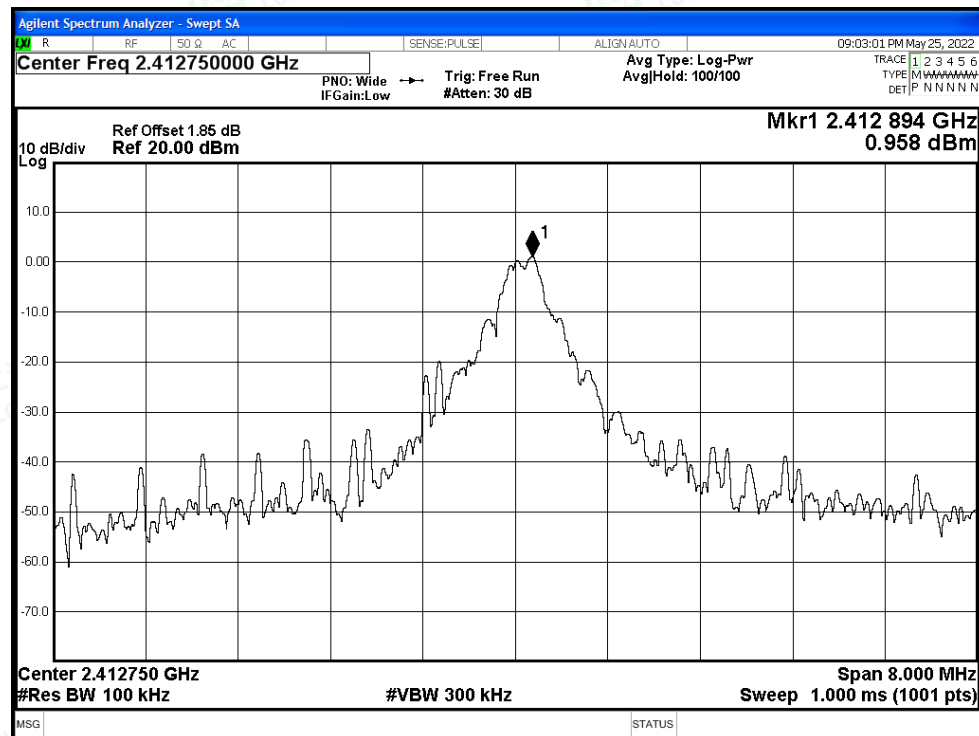


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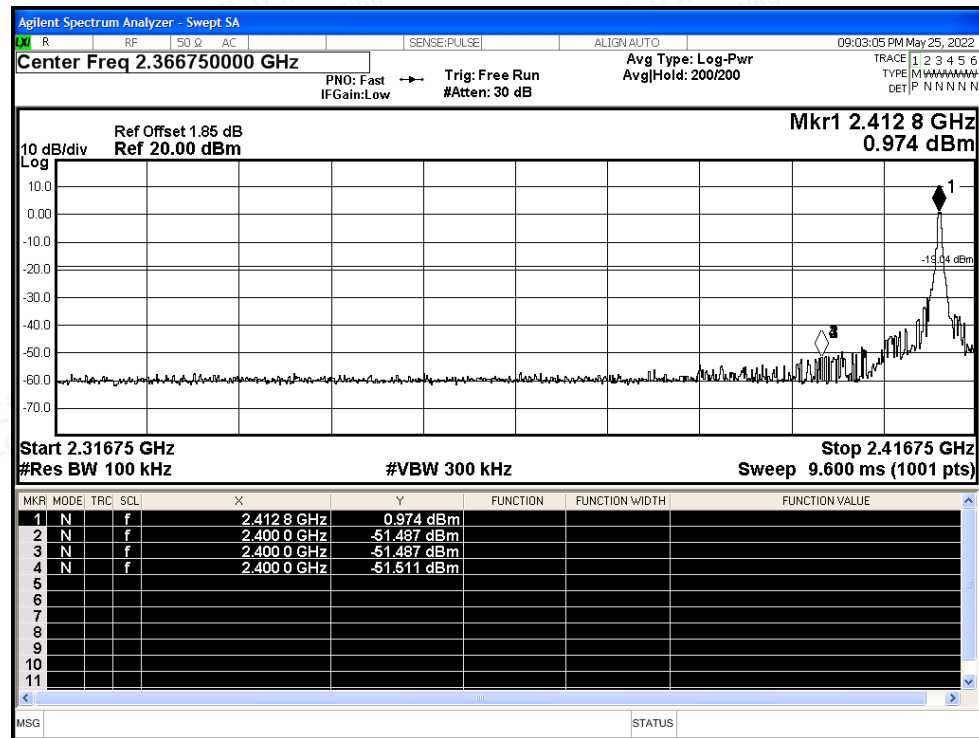


Test Graphs

Band Edge NVNT 2.4G 2412.75MHz Ant1 Ref



Band Edge NVNT 2.4G 2412.75MHz Ant1 Emission



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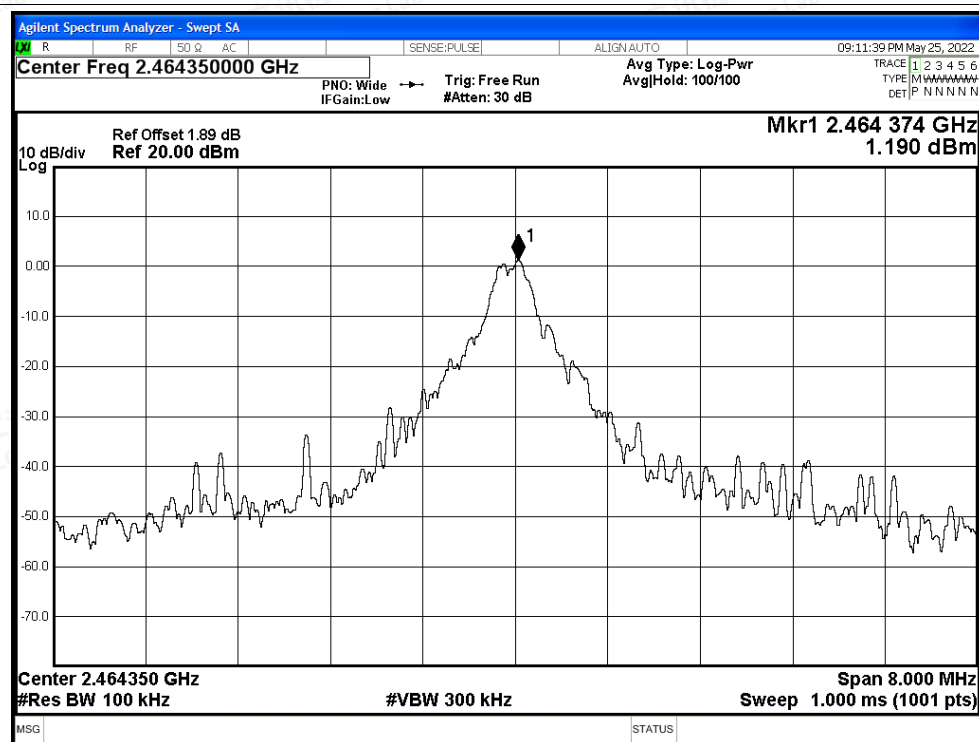
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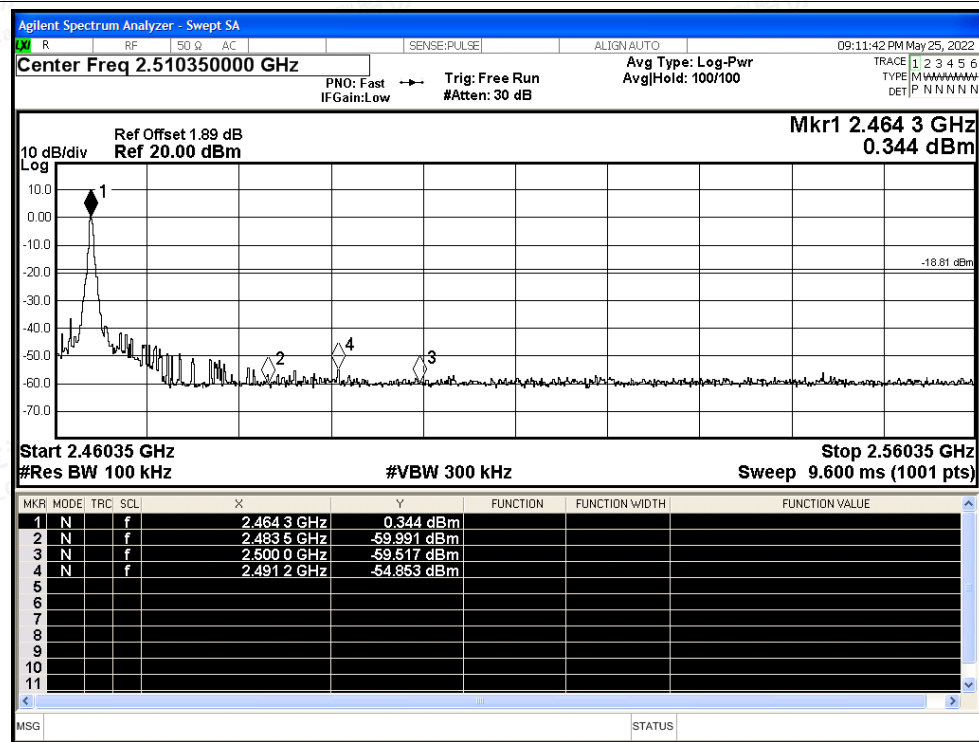
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Band Edge NVNT 2.4G 2464.35MHz Ant1 Ref



Band Edge NVNT 2.4G 2464.35MHz Ant1 Emission





A.6 Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	2.4G	2412.75	Ant1	-24.34	-20	Pass
NVNT	2.4G	2437.75	Ant1	-26.32	-20	Pass
NVNT	2.4G	2464.25	Ant1	-31.68	-20	Pass



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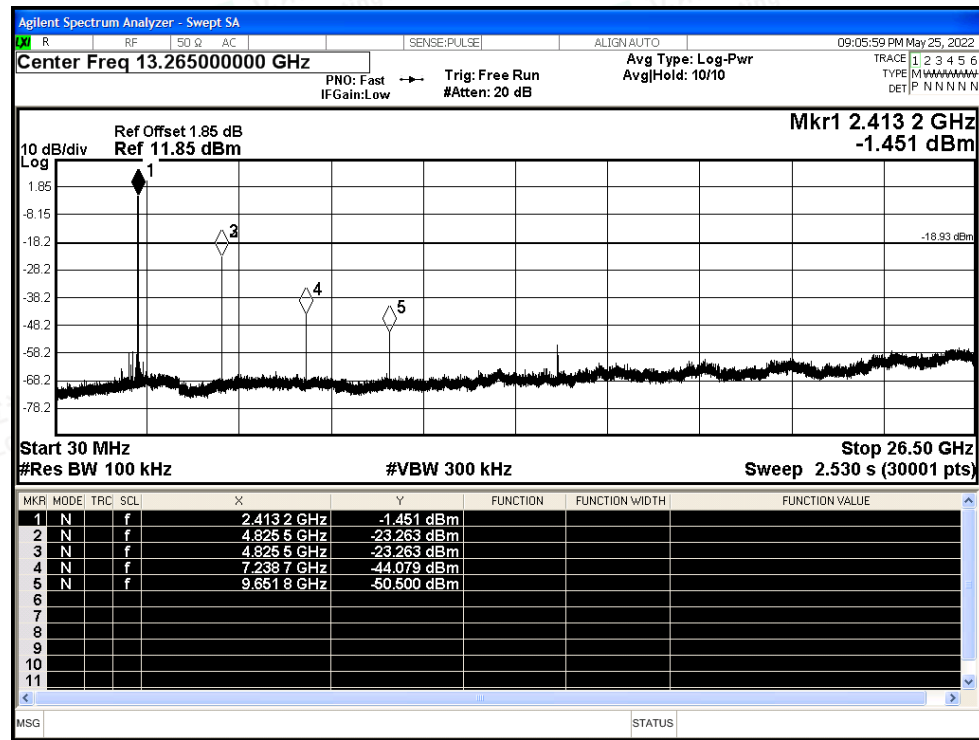


Test Graphs

Tx. Spurious NVNT 2.4G 2412.75MHz Ant1 Ref



Tx. Spurious NVNT 2.4G 2412.75MHz Ant1 Emission

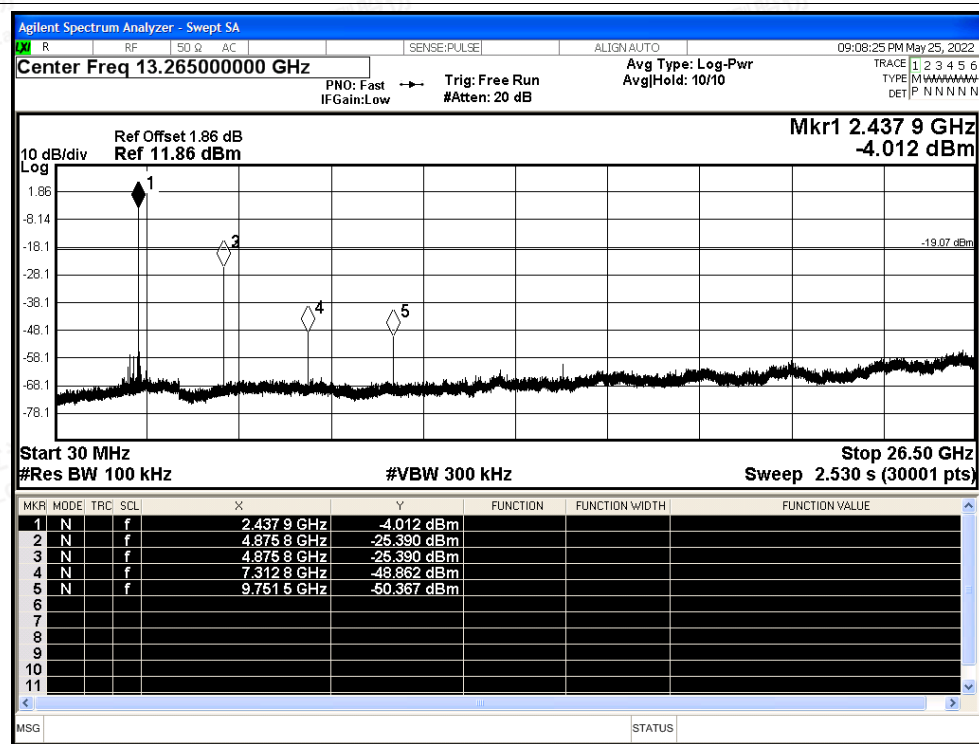




Tx. Spurious NVNT 2.4G 2437.75MHz Ant1 Ref



Tx. Spurious NVNT 2.4G 2437.75MHz Ant1 Emission



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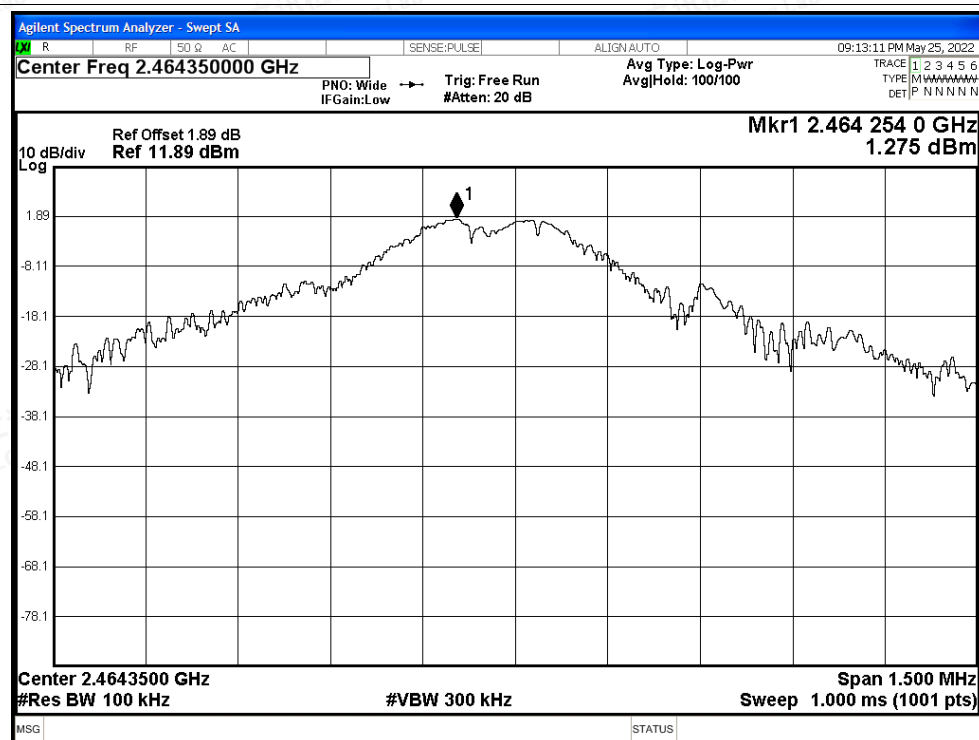
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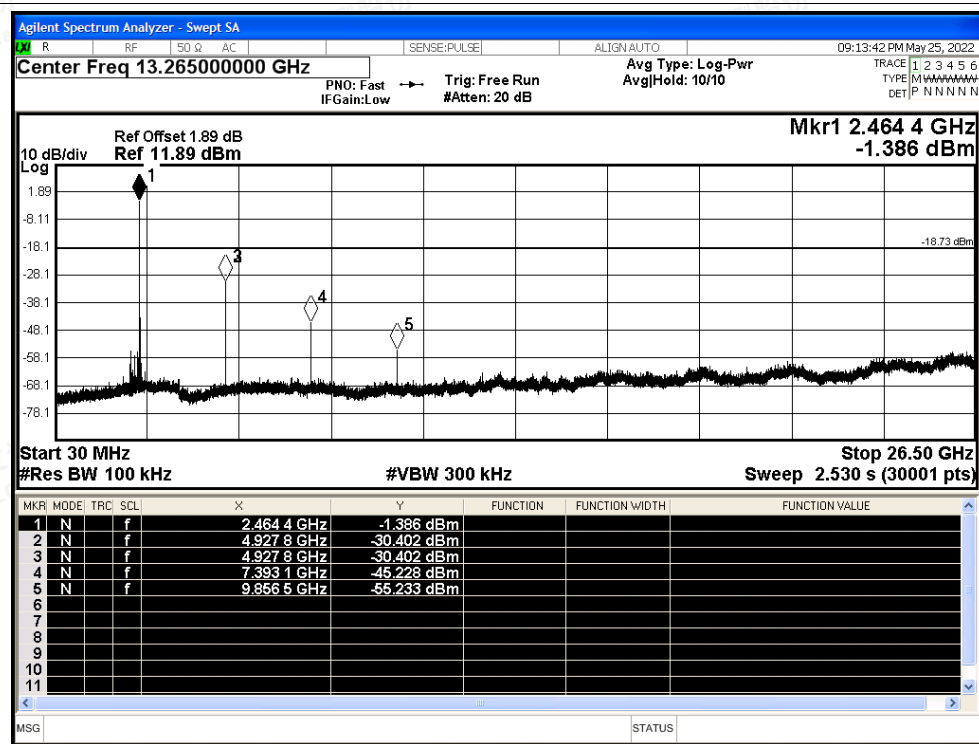
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Tx. Spurious NVNT 2.4G 2464.35MHz Ant1 Ref



Tx. Spurious NVNT 2.4G 2464.35MHz Ant1 Emission



MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N		f	2.464 4 GHz	-1.386 dBm			
2	N		f	4.927 8 GHz	-30.402 dBm			
3	N		f	4.927 8 GHz	-30.402 dBm			
4	N		f	7.393 1 GHz	-45.228 dBm			
5	N		f	9.856 5 GHz	-55.233 dBm			
6								
7								
8								
9								
10								
11								



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A.7 Duty Cycle

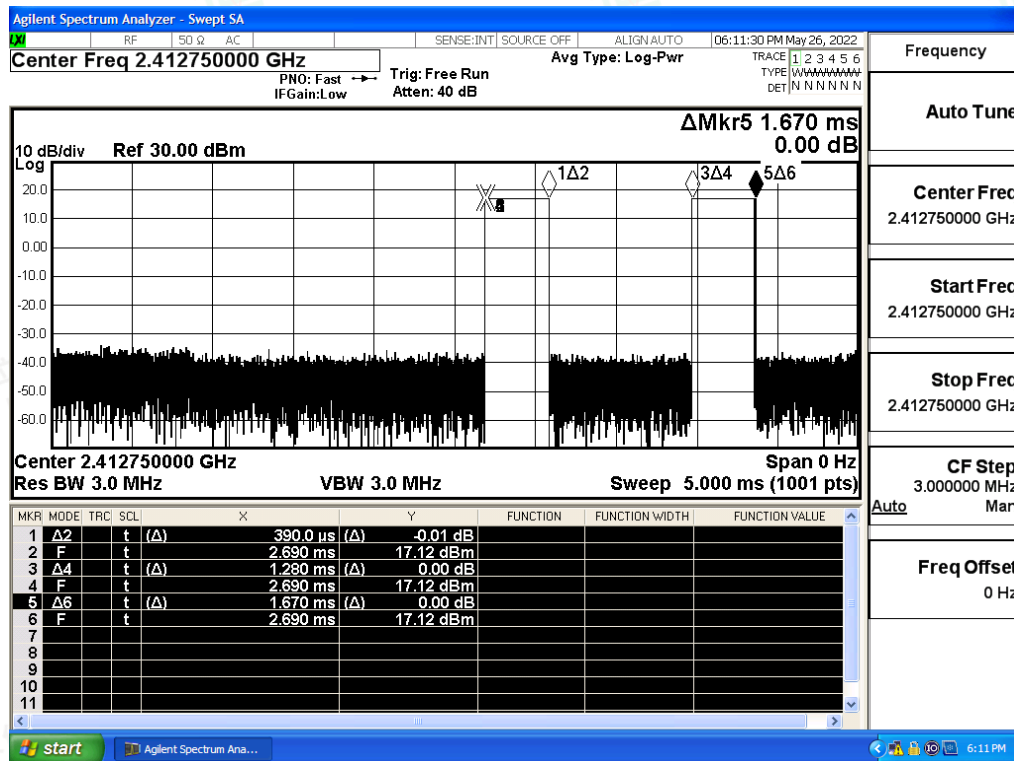
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	2.4G	2412.75	Ant1	15.6	8.07	2.56
NVNT	2.4G	2437.75	Ant1	15.3	8.07	2.67
NVNT	2.4G	2464.25	Ant1	15.6	11.08	2.56



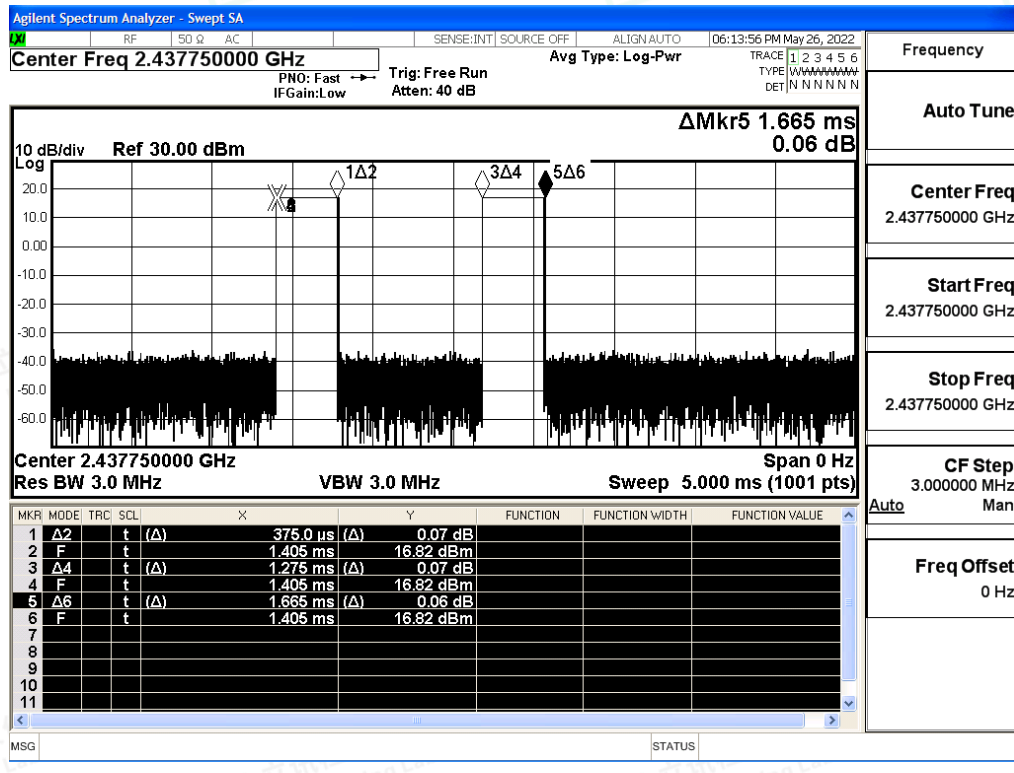


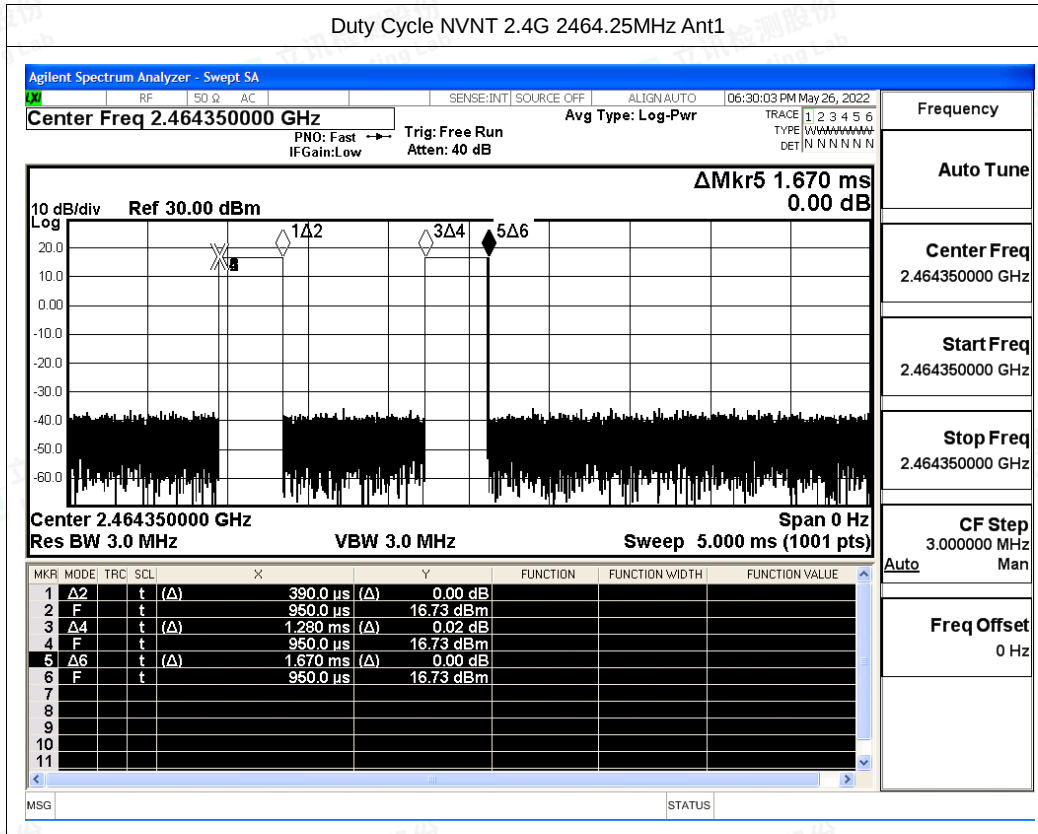
Test Graphs

Duty Cycle NVNT 2.4G 2412.75MHz Ant1



Duty Cycle NVNT 2.4G 2437.75MHz Ant1







A.8 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	2.4G	2412.75	Ant1	2310	-50.85	3.50	47.88	Peak	74	Pass
NVNT	2.4G	2412.75	Ant1	2310	-57.58	3.50	41.15	Average	54	Pass
NVNT	2.4G	2412.75	Ant1	2382.06	-39.69	3.50	59.04	Peak	74	Pass
NVNT	2.4G	2412.75	Ant1	2334.35	-48.28	3.50	50.45	Average	54	Pass
NVNT	2.4G	2412.75	Ant1	2390	-51.4	3.50	47.33	Peak	74	Pass
NVNT	2.4G	2412.75	Ant1	2390	-53.76	3.50	44.97	Average	54	Pass
NVNT	2.4G	2464.35	Ant1	2483.5	-50.17	3.50	48.56	Peak	74	Pass
NVNT	2.4G	2464.35	Ant1	2483.5	-60.21	3.50	38.52	Average	54	Pass
NVNT	2.4G	2464.35	Ant1	2488.18	-38.29	3.50	60.44	Peak	74	Pass
NVNT	2.4G	2464.35	Ant1	2490.56	-59.25	3.50	39.48	Average	54	Pass
NVNT	2.4G	2464.35	Ant1	2500	-48.25	3.50	50.48	Peak	74	Pass
NVNT	2.4G	2464.35	Ant1	2500	-60.02	3.50	38.71	Average	54	Pass

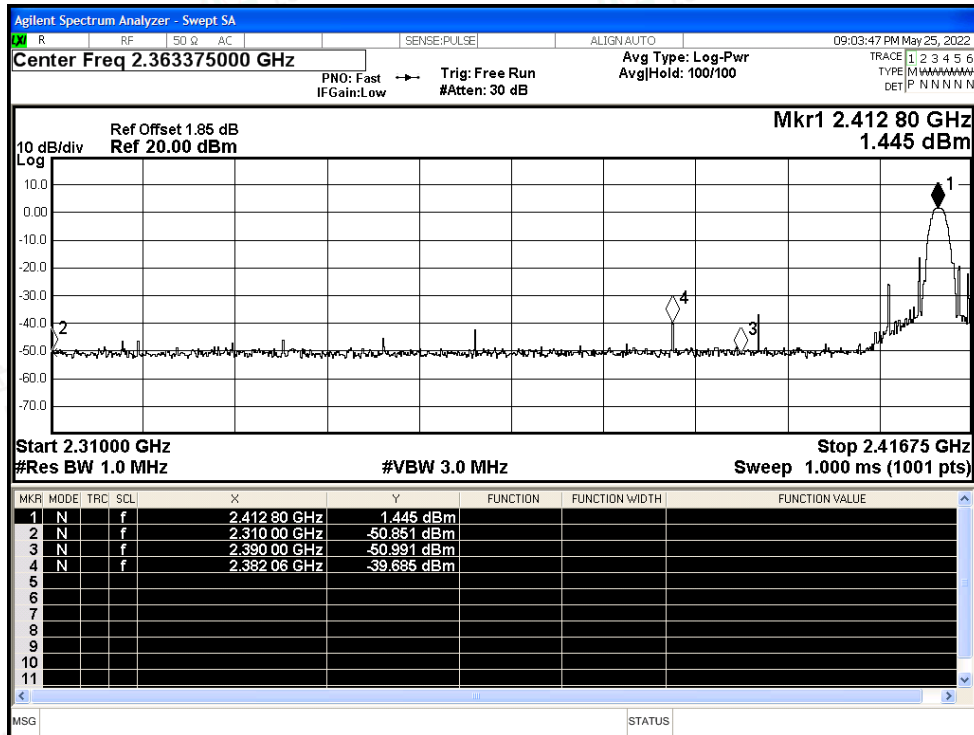


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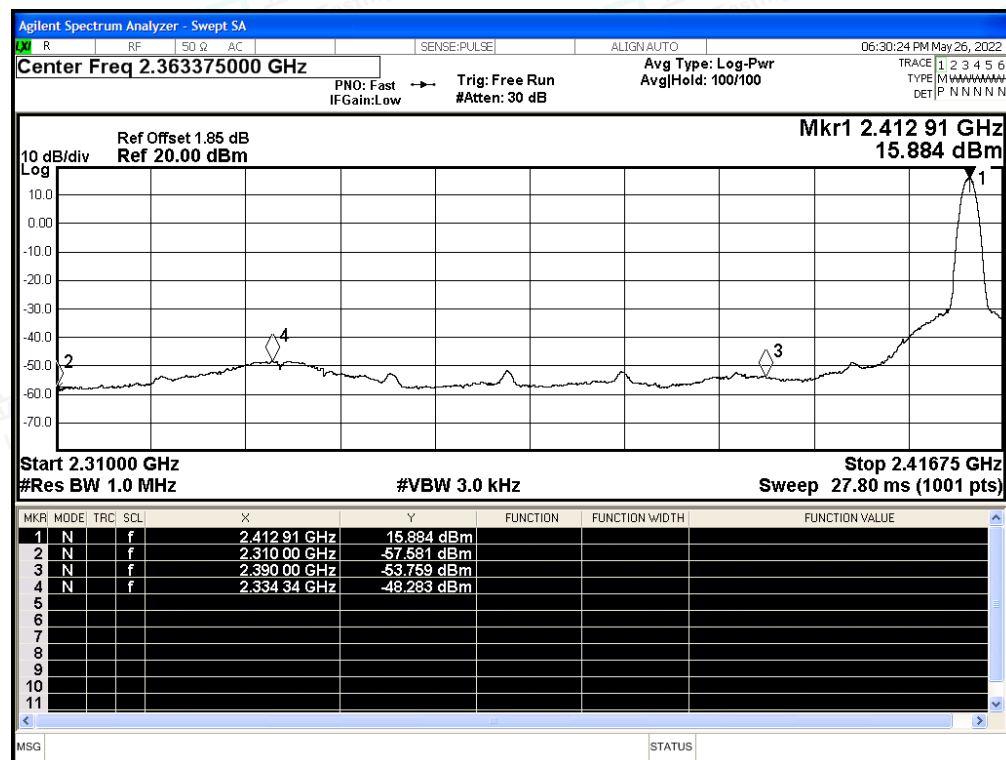


Test Graphs

Restrict Band NVNT 2.4G 2412.75MHz Ant1 Peak

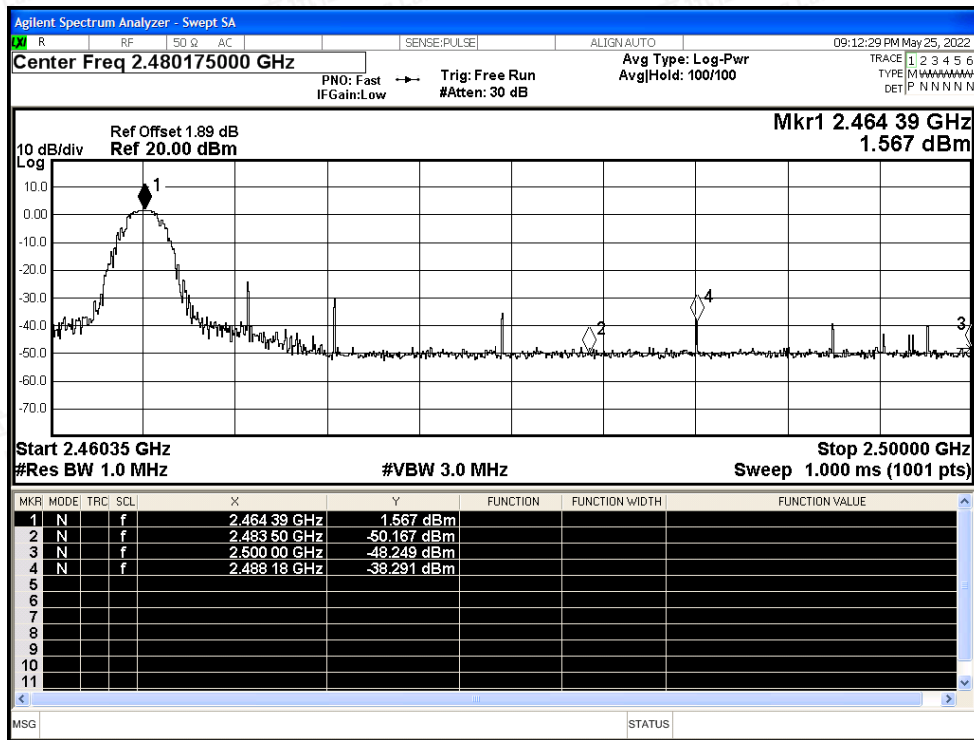


Restrict Band NVNT 2.4G 2412.75MHz Ant1 Average

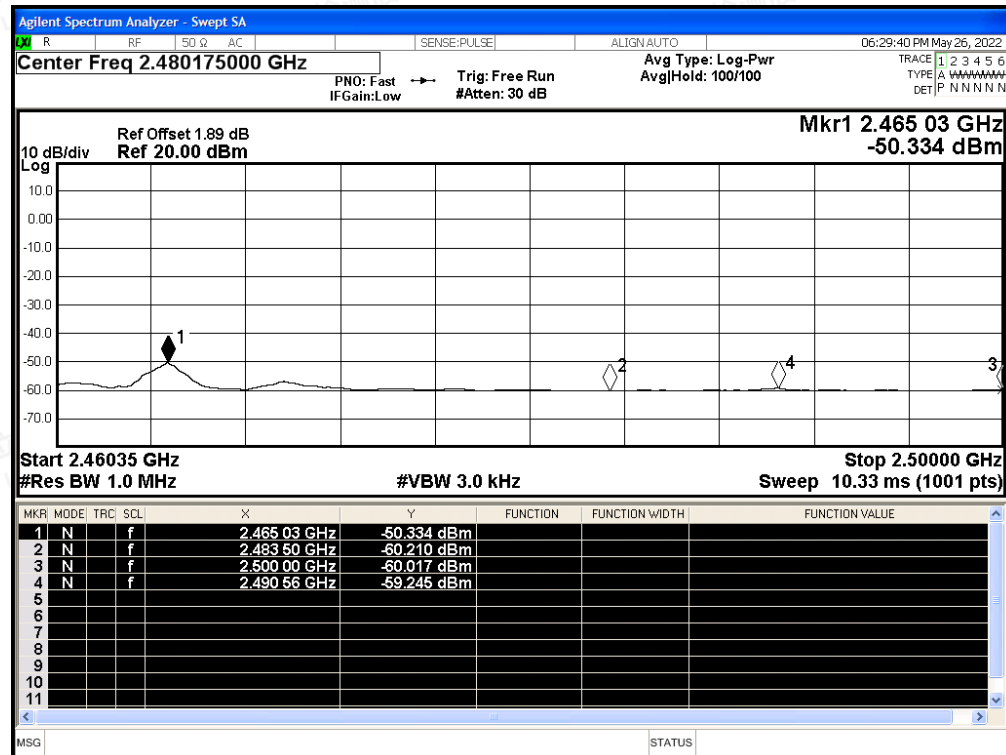




Restrict Band NVNT 2.4G 2464.35MHz Ant1 Peak



Restrict Band NVNT 2.4G 2464.35MHz Ant1 Average



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