



## Appendix C

### RF Test Data for 2.4G WIFI (Conducted Measurement)

Product Name: VIM1S

Test Model: VIM1S

#### Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Wunder Wu
Supervised by:	Li Huan





### C.1 -6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	7.009	$\geq 0.5$	Pass
NVNT	b	2437	Ant1	6.493	$\geq 0.5$	Pass
NVNT	b	2462	Ant1	6.594	$\geq 0.5$	Pass
NVNT	g	2412	Ant1	16.033	$\geq 0.5$	Pass
NVNT	g	2437	Ant1	16.331	$\geq 0.5$	Pass
NVNT	g	2462	Ant1	15.915	$\geq 0.5$	Pass
NVNT	n20	2412	Ant1	17.606	$\geq 0.5$	Pass
NVNT	n20	2437	Ant1	17.323	$\geq 0.5$	Pass
NVNT	n20	2462	Ant1	17.197	$\geq 0.5$	Pass

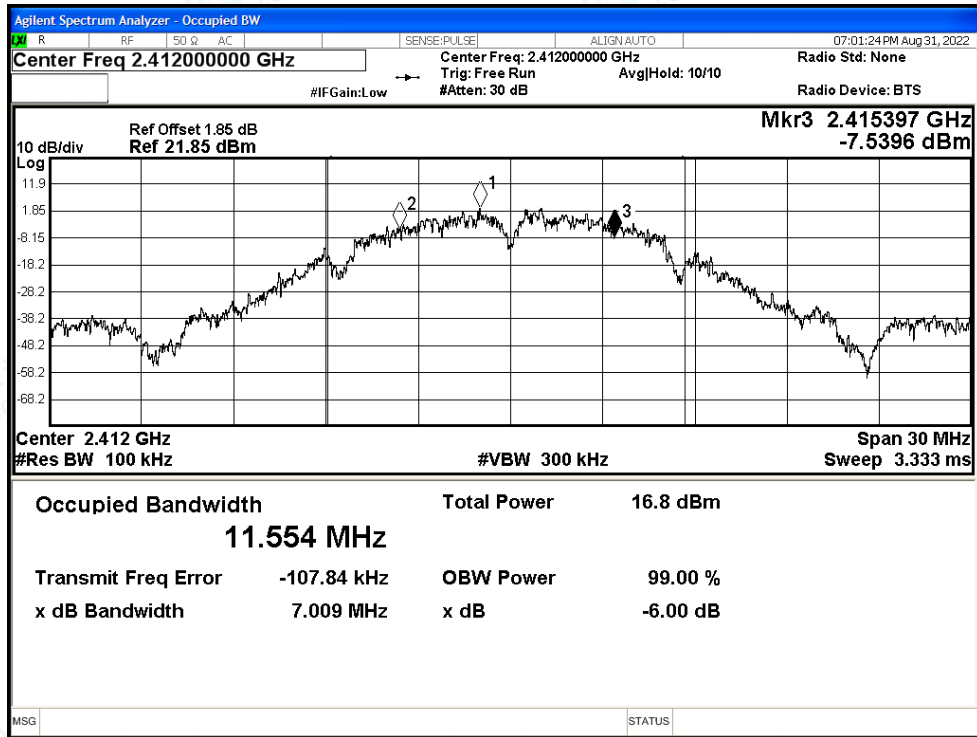


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Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
Scan code to check authenticity

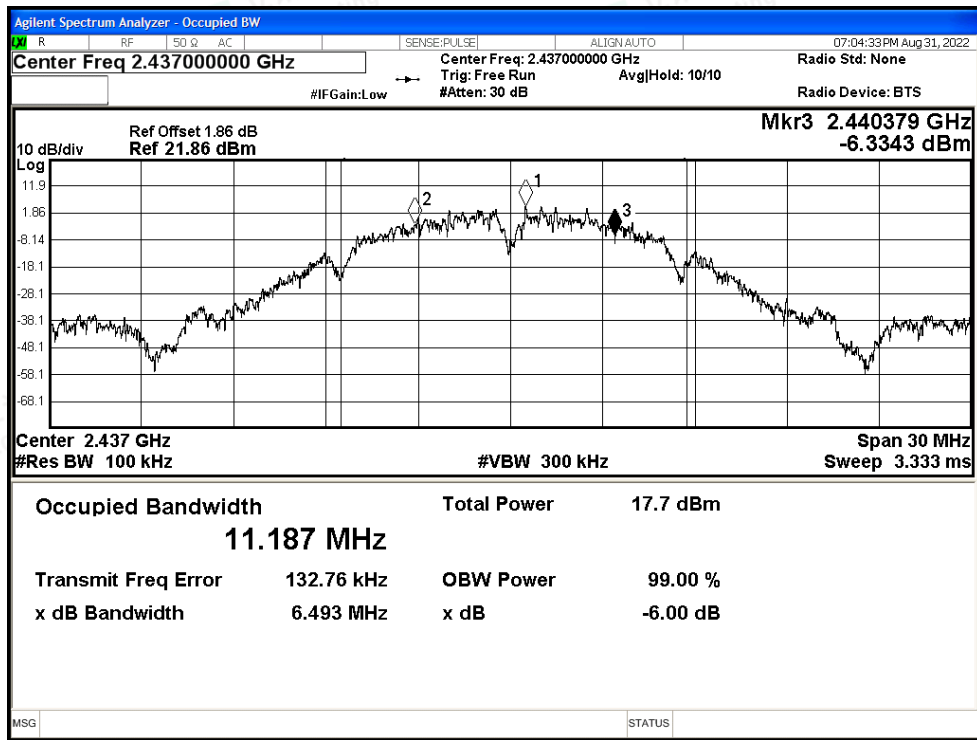


Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant1

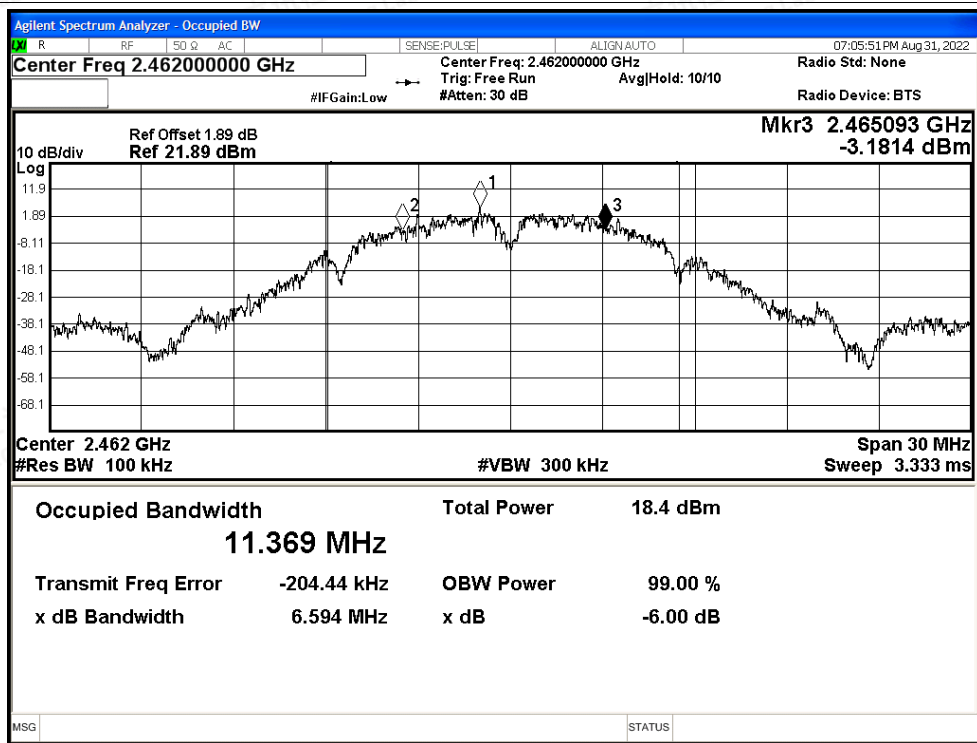


-6dB Bandwidth NVNT b 2437MHz Ant1

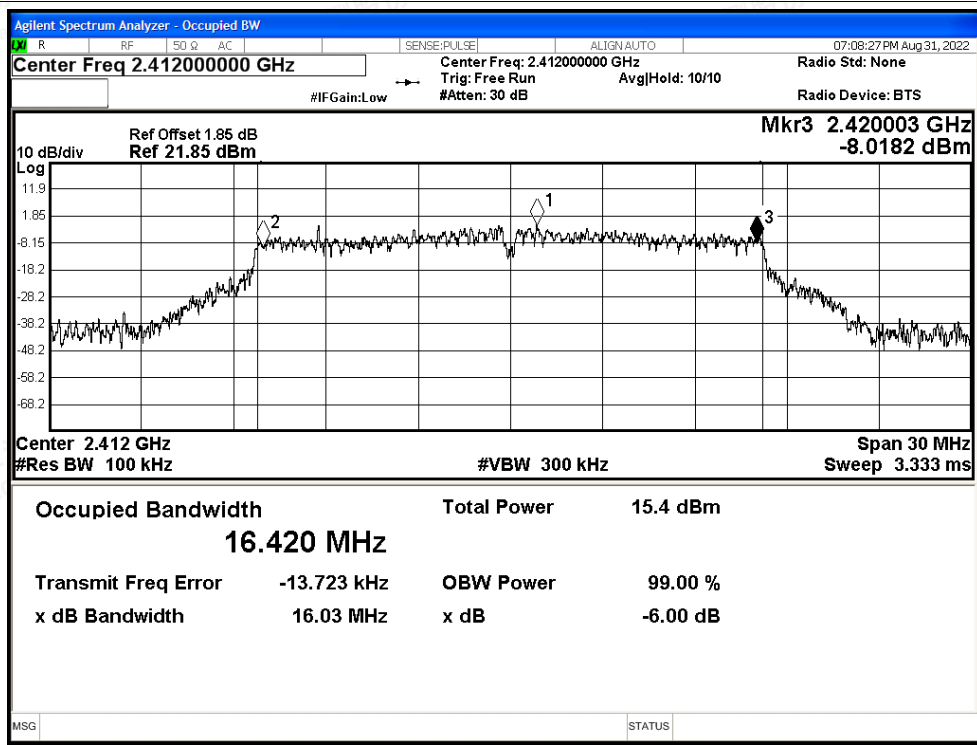




-6dB Bandwidth NVNT b 2462MHz Ant1

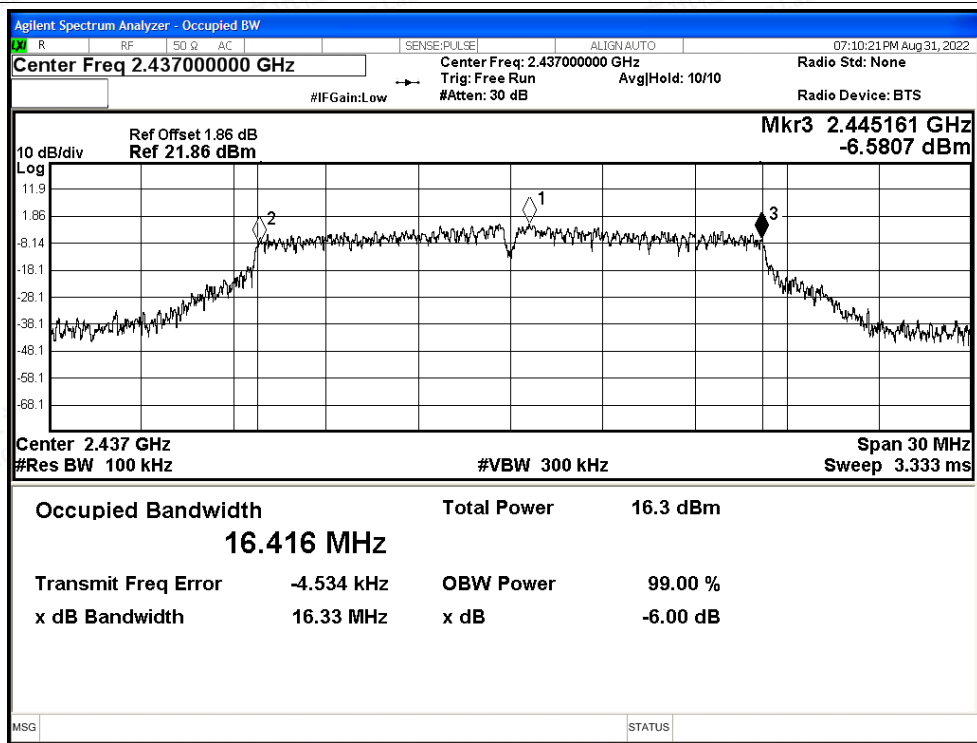


-6dB Bandwidth NVNT g 2412MHz Ant1

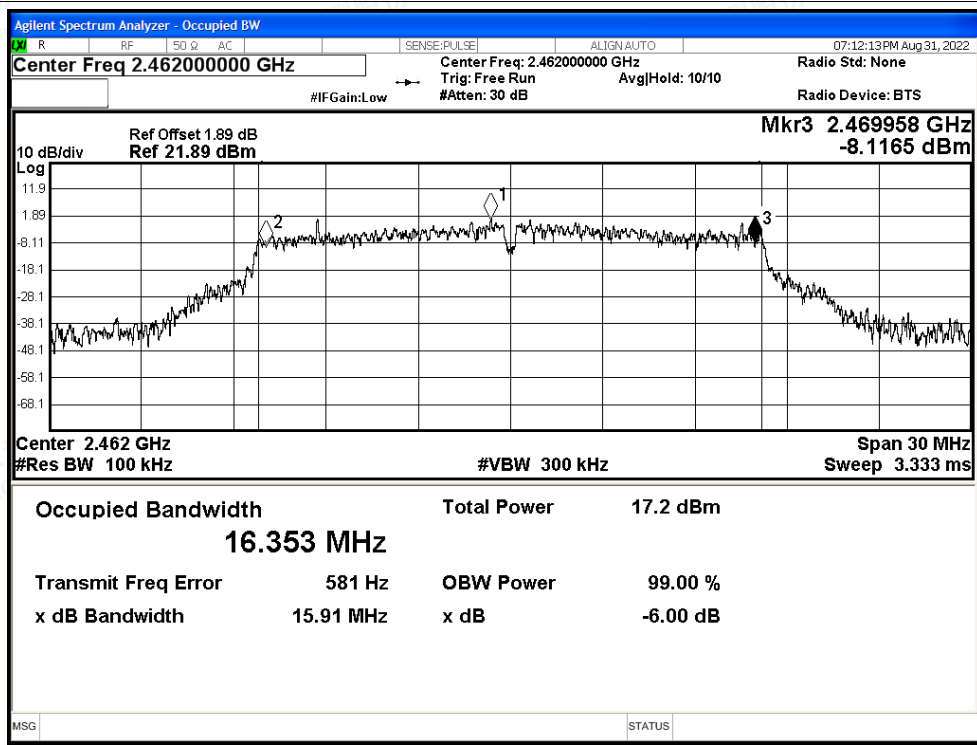




-6dB Bandwidth NVNT g 2437MHz Ant1

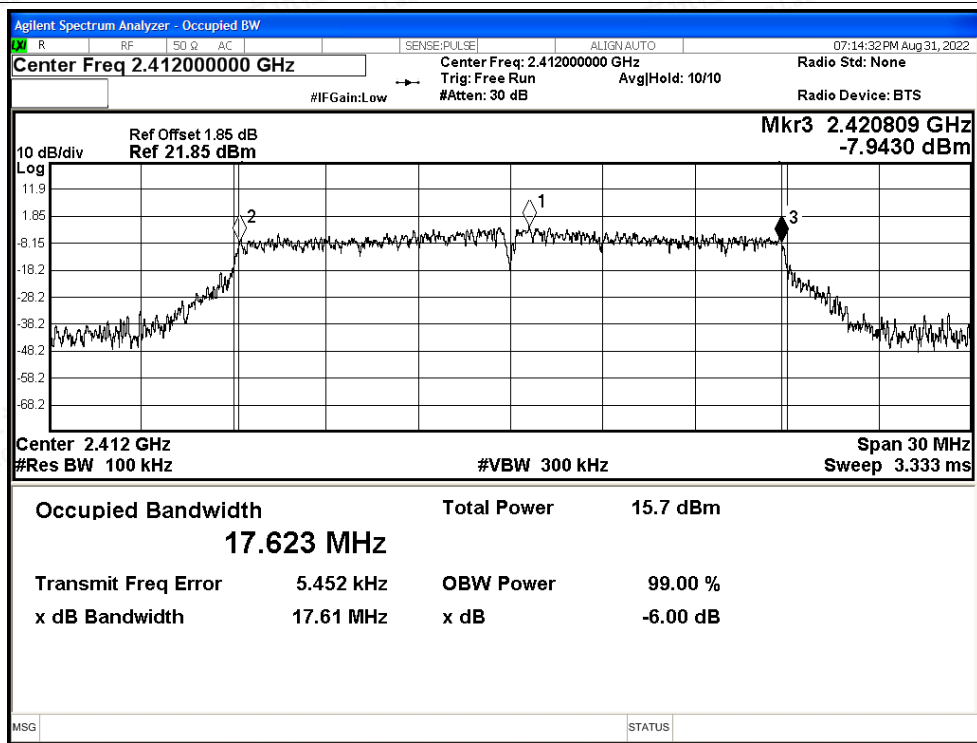


-6dB Bandwidth NVNT g 2462MHz Ant1

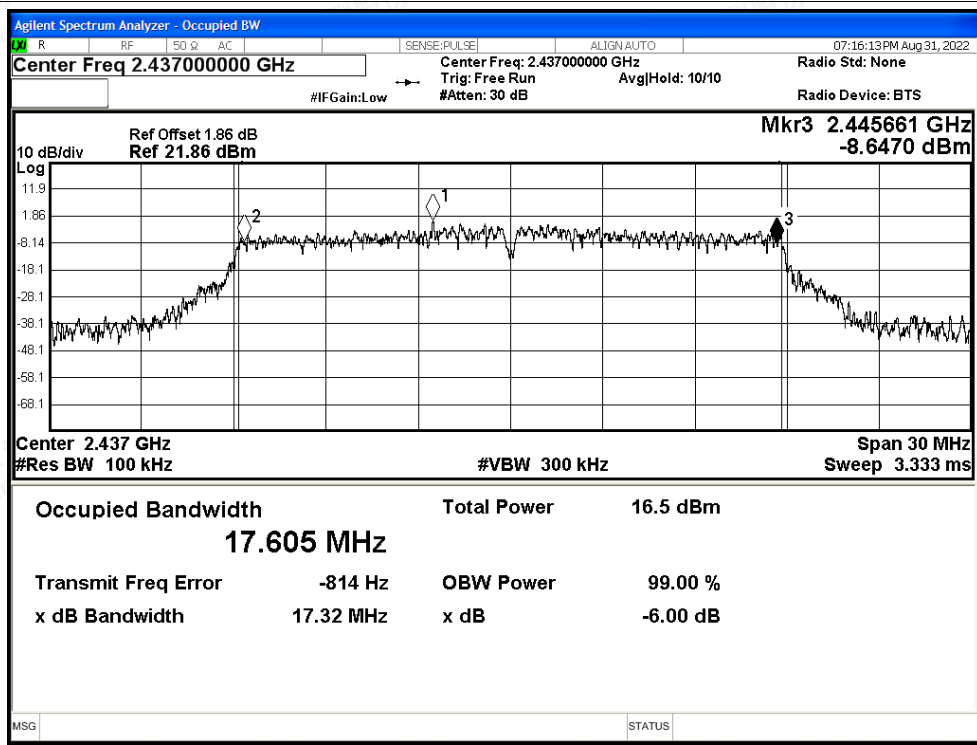


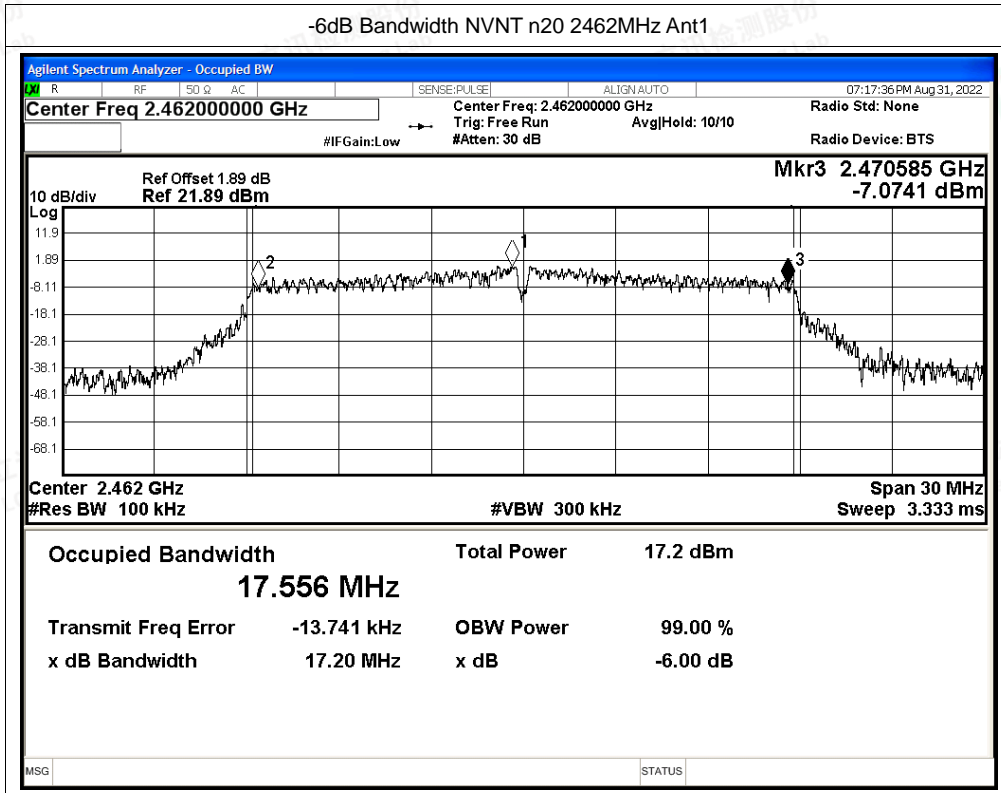


-6dB Bandwidth NVNT n20 2412MHz Ant1



-6dB Bandwidth NVNT n20 2437MHz Ant1







## C.2 Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	13.32	30	Pass
NVNT	b	2437	Ant1	14.19	30	Pass
NVNT	b	2462	Ant1	14.91	30	Pass
NVNT	g	2412	Ant1	14.34	30	Pass
NVNT	g	2437	Ant1	15.12	30	Pass
NVNT	g	2462	Ant1	15.79	30	Pass
NVNT	n20	2412	Ant1	14.42	30	Pass
NVNT	n20	2437	Ant1	12.88	30	Pass
NVNT	n20	2462	Ant1	14.99	30	Pass







### C.3 Maximum Power Spectral Density Level

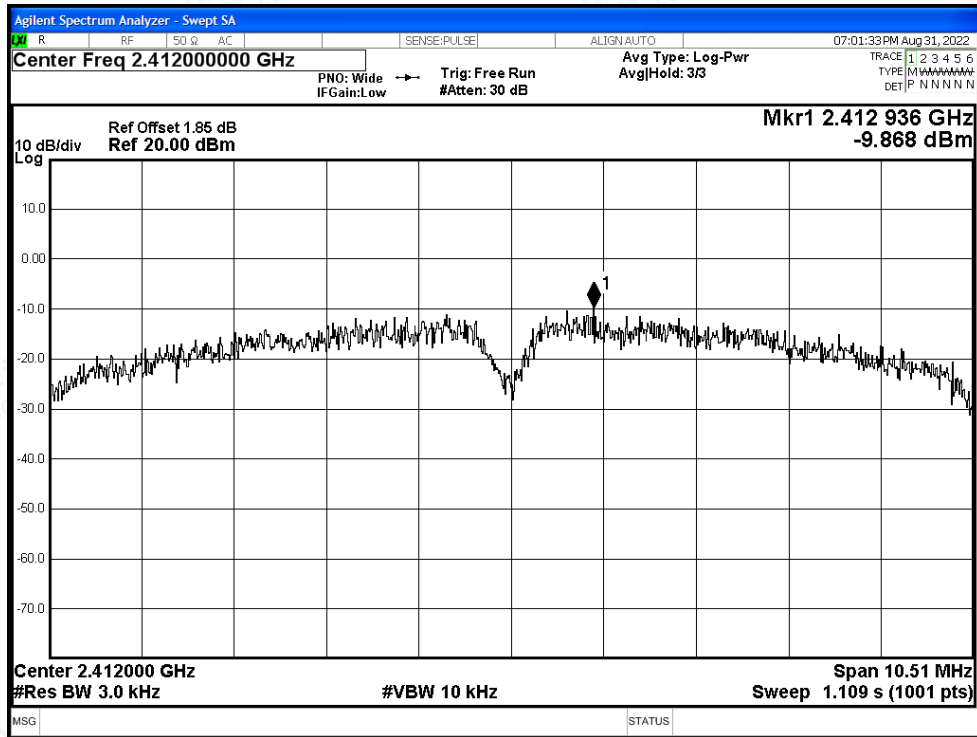
Condition	Mode	Frequency (MHz)	Antenna	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant1	-9.87	8	Pass
NVNT	b	2437	Ant1	-9.79	8	Pass
NVNT	b	2462	Ant1	-7.93	8	Pass
NVNT	g	2412	Ant1	-13.62	8	Pass
NVNT	g	2437	Ant1	-11.78	8	Pass
NVNT	g	2462	Ant1	-9.88	8	Pass
NVNT	n20	2412	Ant1	-12.42	8	Pass
NVNT	n20	2437	Ant1	-10.84	8	Pass
NVNT	n20	2462	Ant1	-10.79	8	Pass



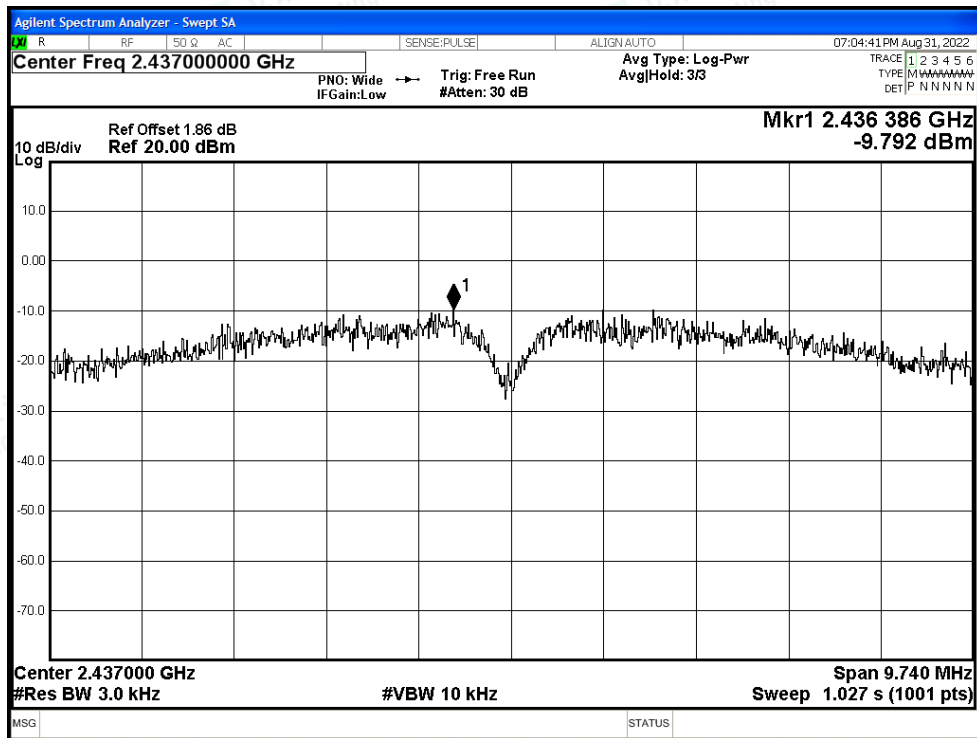


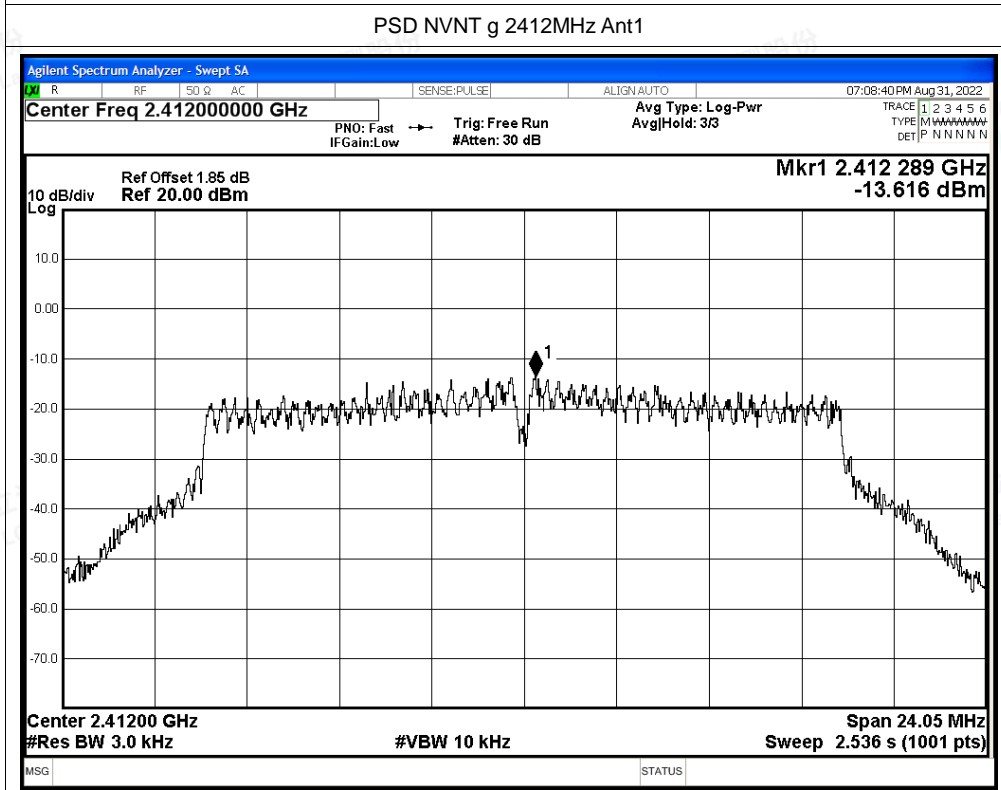
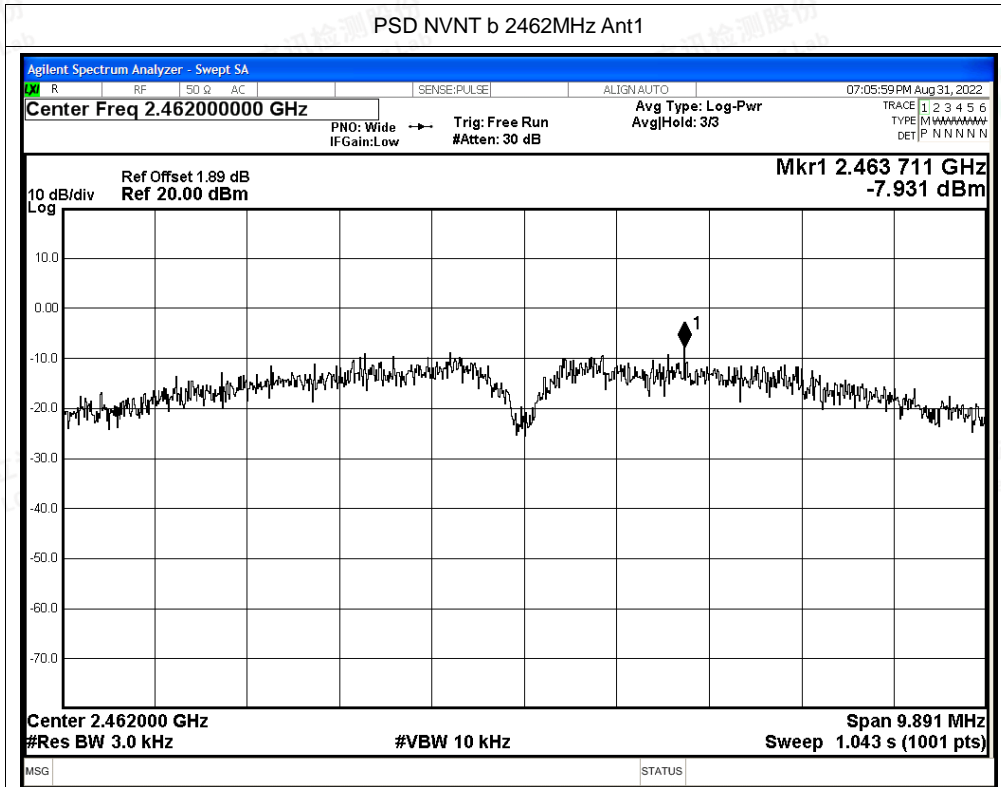
Test Graphs

PSD NVNT b 2412MHz Ant1



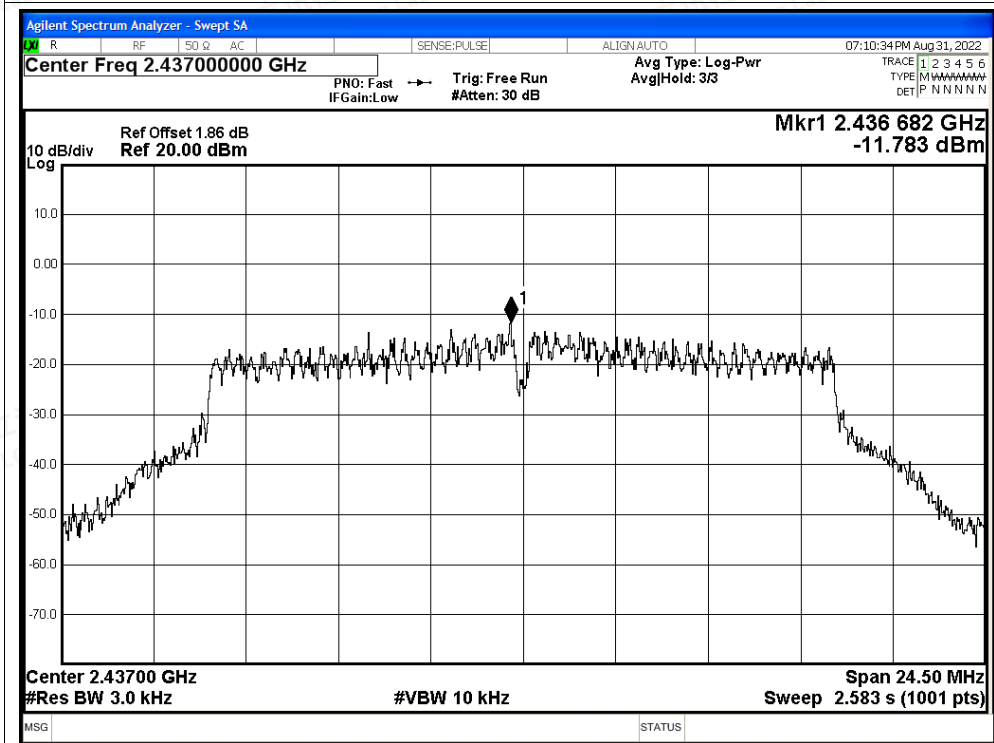
PSD NVNT b 2437MHz Ant1



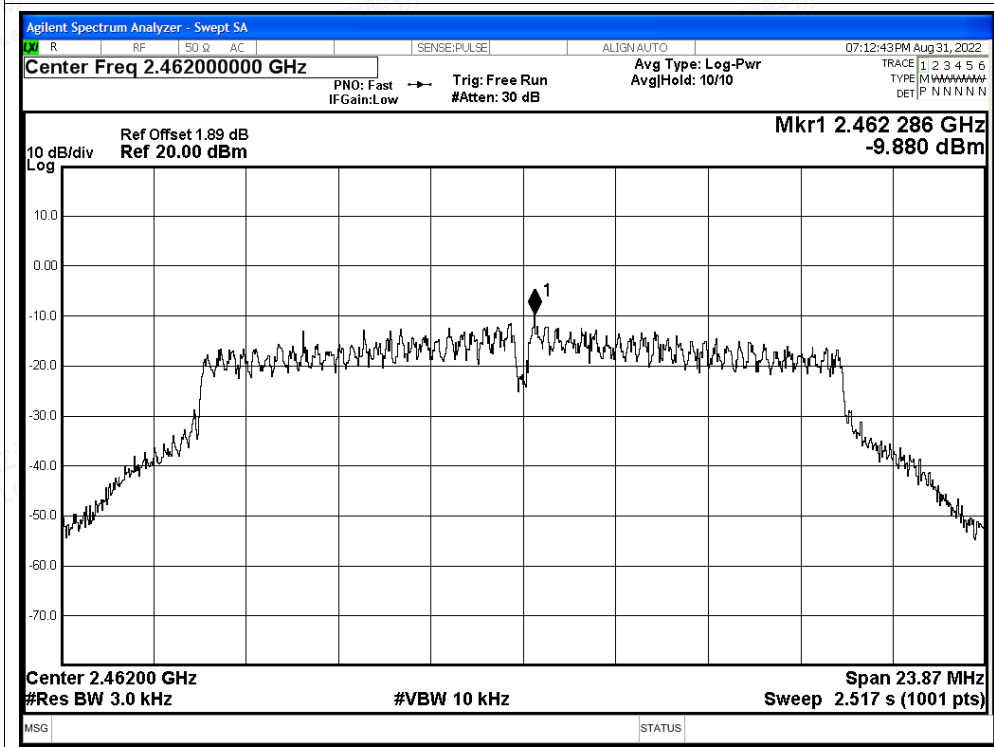


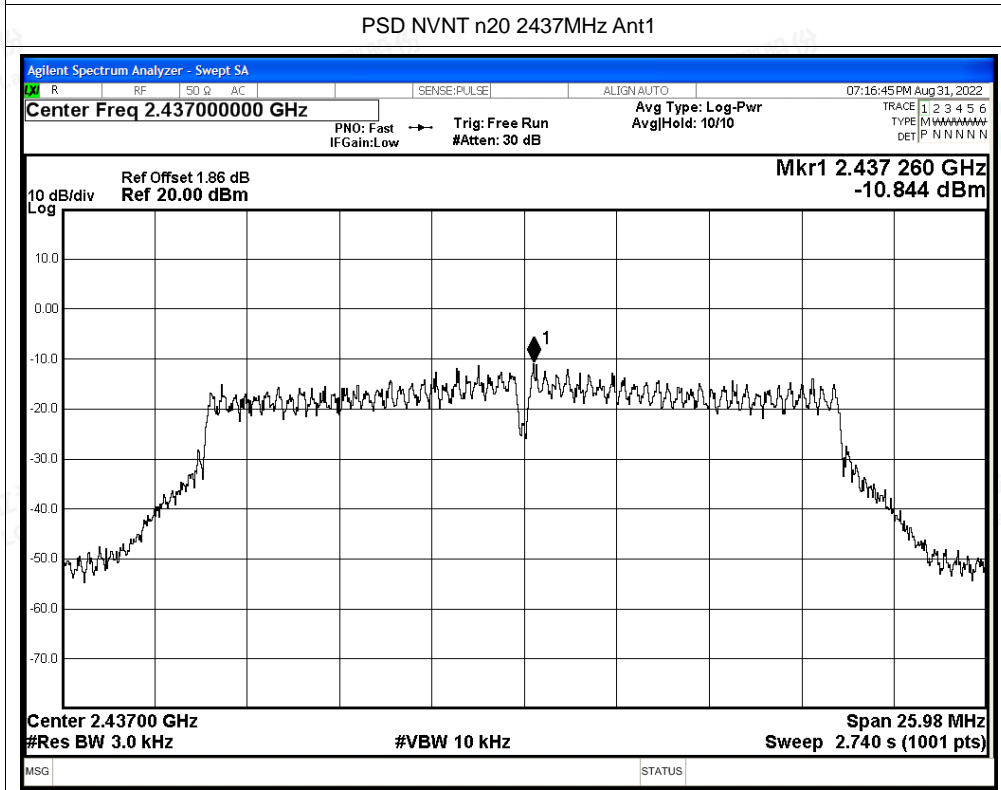
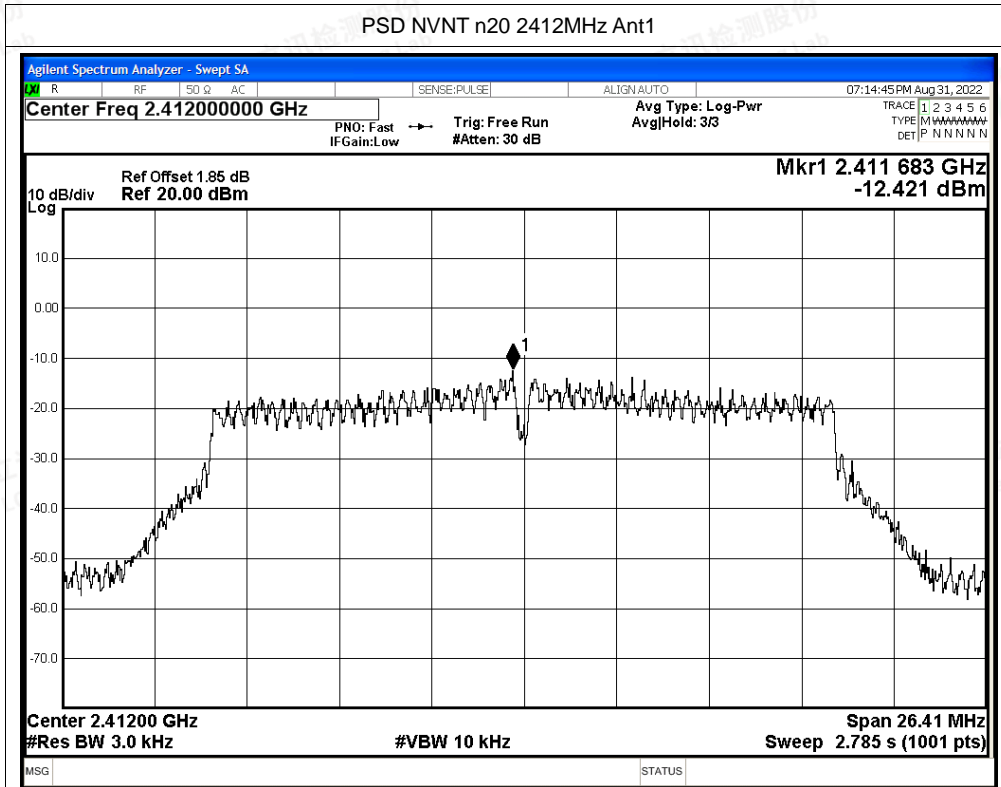


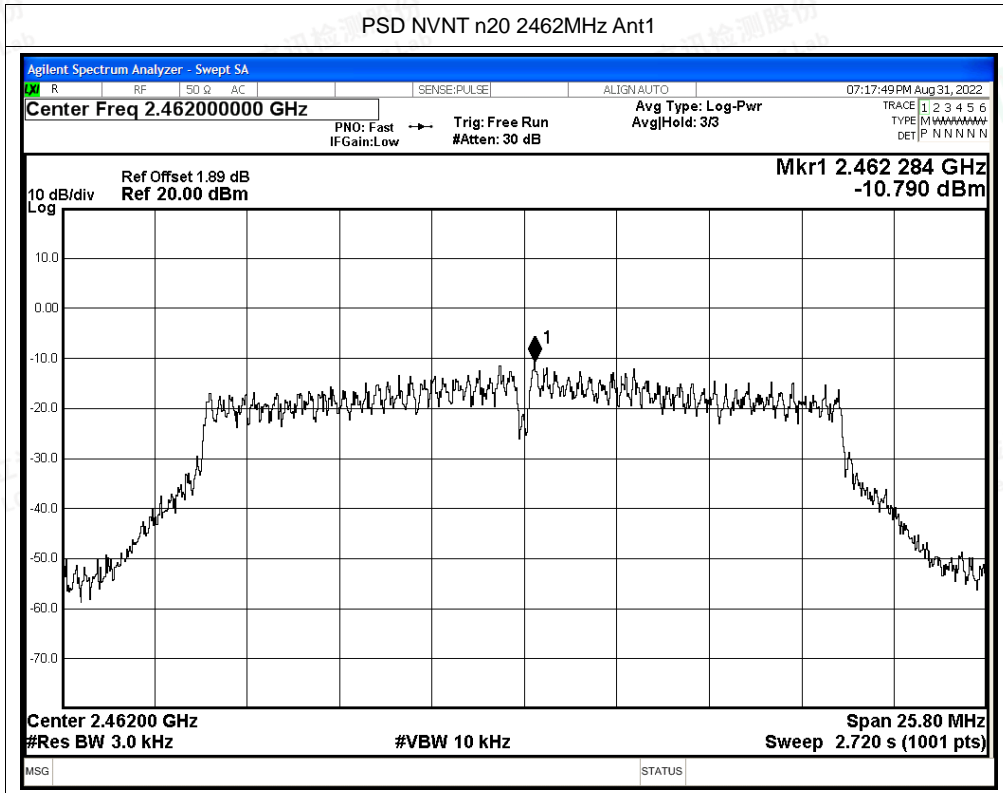
PSD NVNT g 2437MHz Ant1



PSD NVNT g 2462MHz Ant1









### C.4 Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant1	-39.32	-20	Pass
NVNT	b	2462	Ant1	-55.35	-20	Pass
NVNT	g	2412	Ant1	-35.03	-20	Pass
NVNT	g	2462	Ant1	-41.97	-20	Pass
NVNT	n20	2412	Ant1	-36.18	-20	Pass
NVNT	n20	2462	Ant1	-42.56	-20	Pass

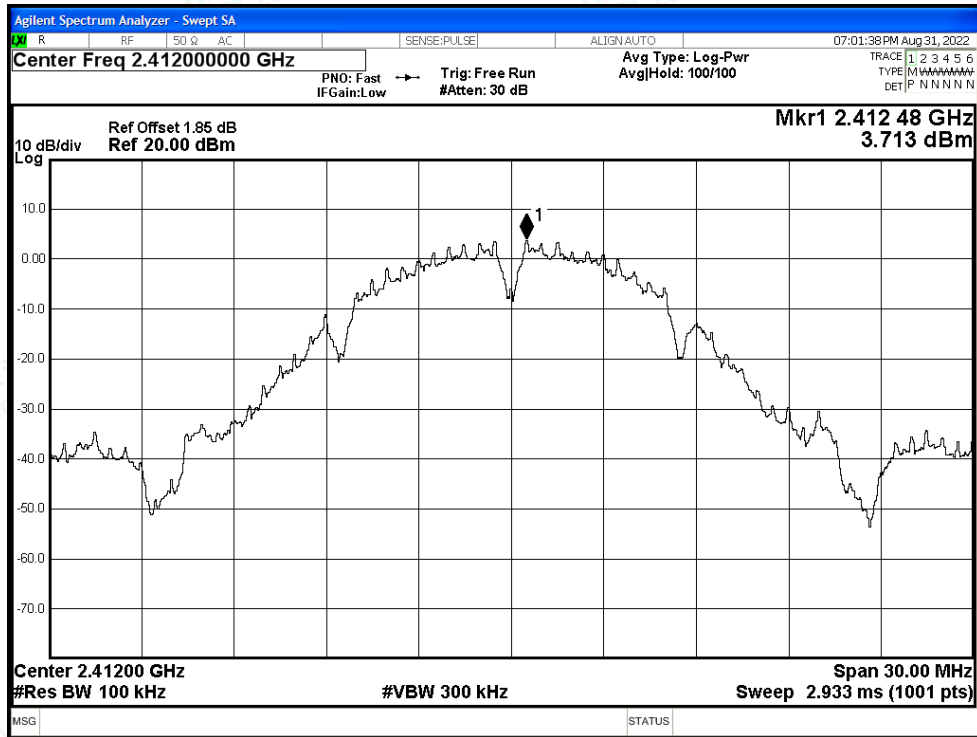


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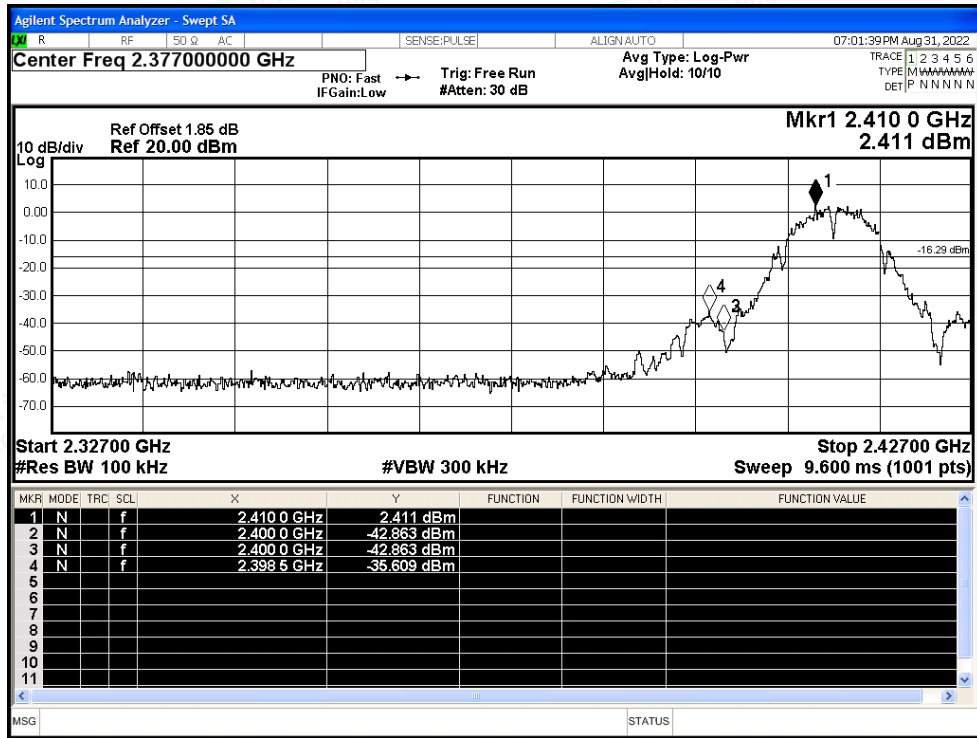


Test Graphs

Band Edge NVNT b 2412MHz Ant1 Ref



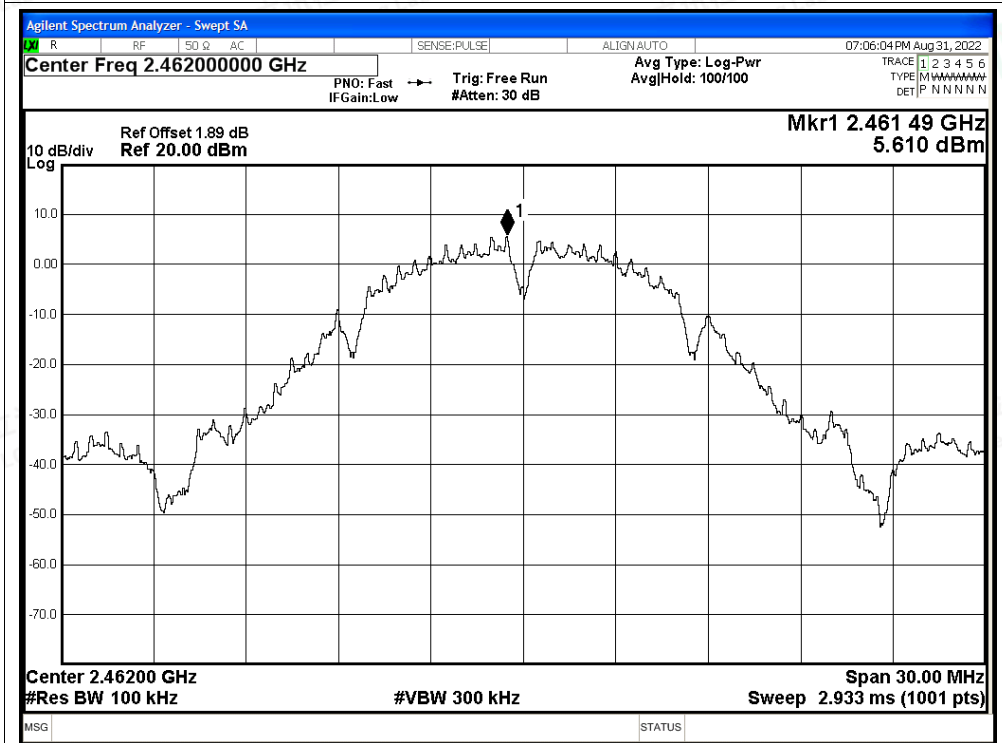
Band Edge NVNT b 2412MHz Ant1 Emission



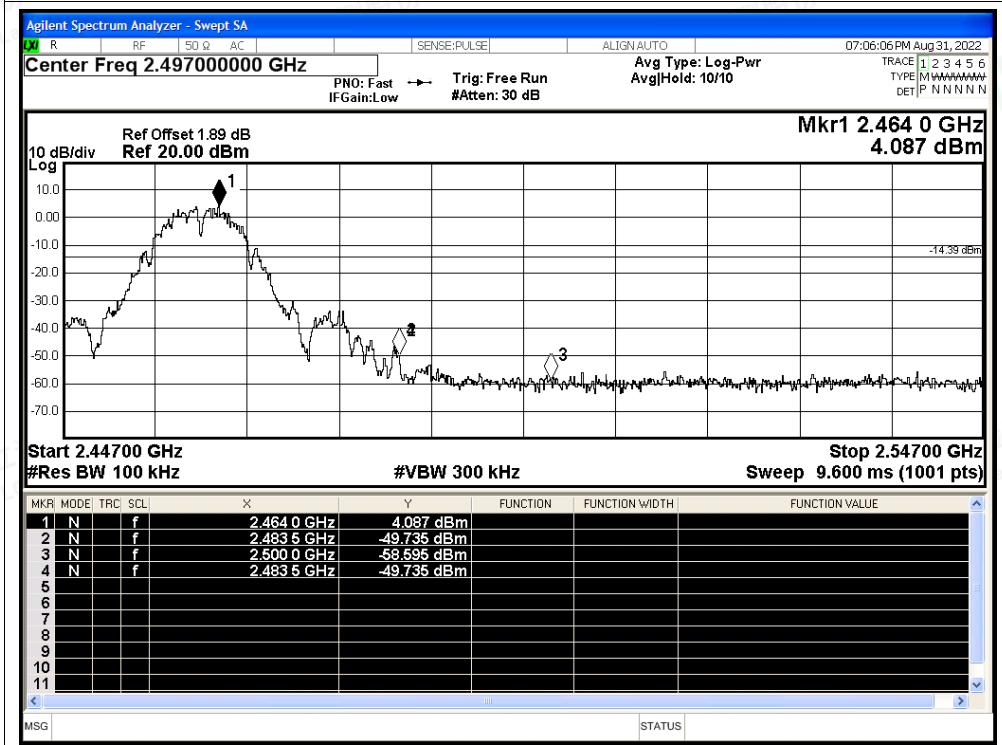




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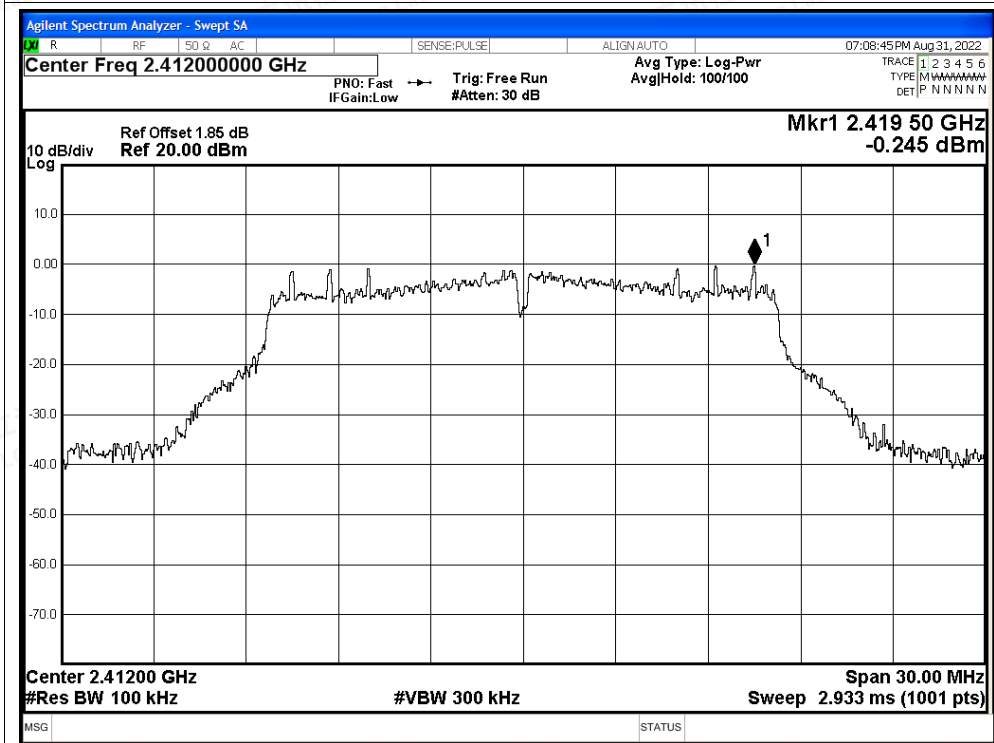


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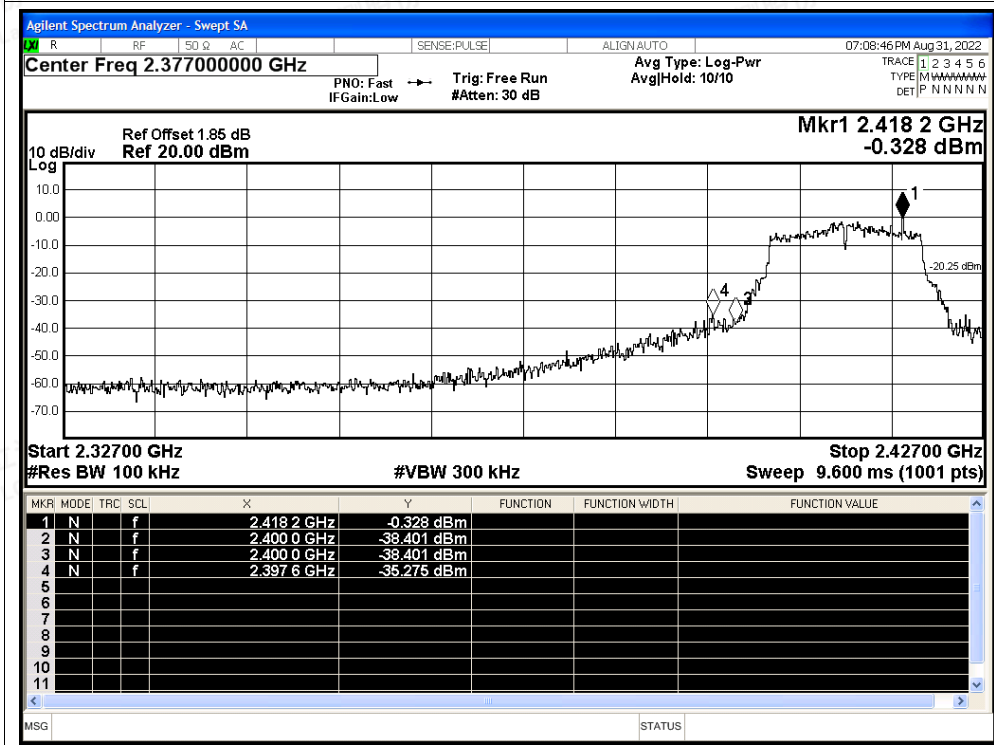




Band Edge NVNT g 2412MHz Ant1 Ref

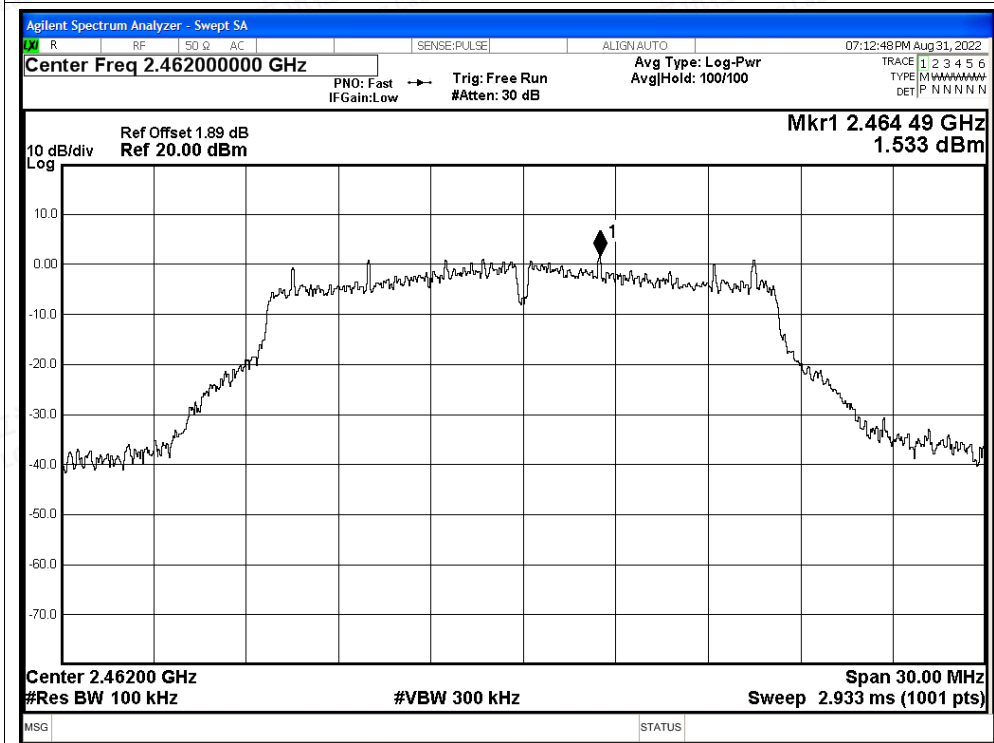


Band Edge NVNT g 2412MHz Ant1 Emission

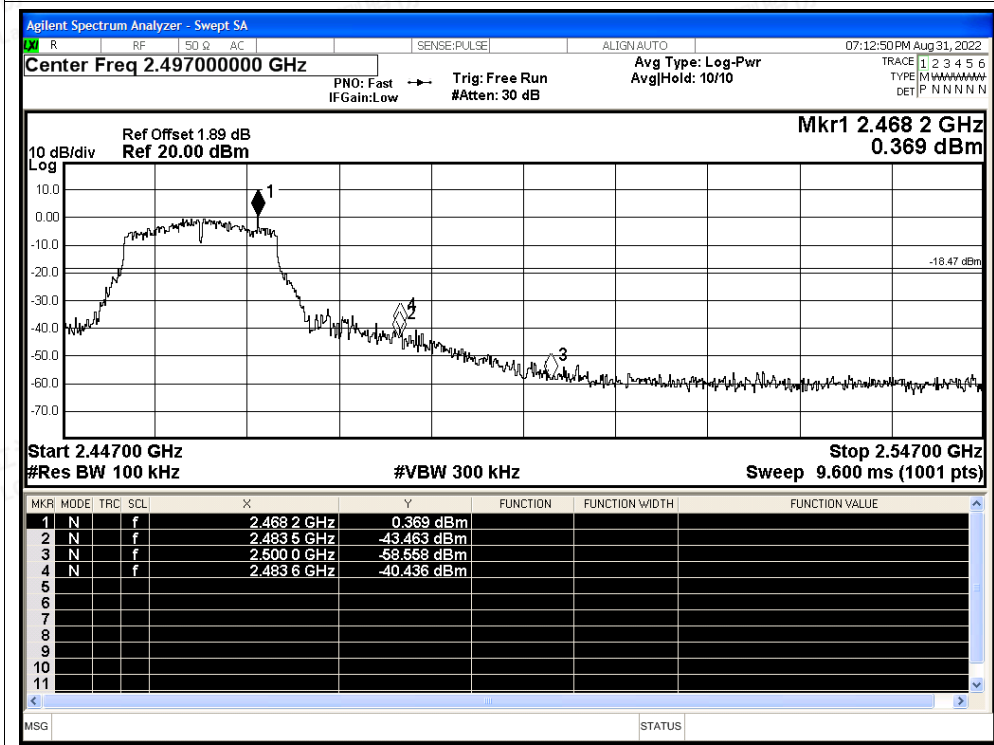


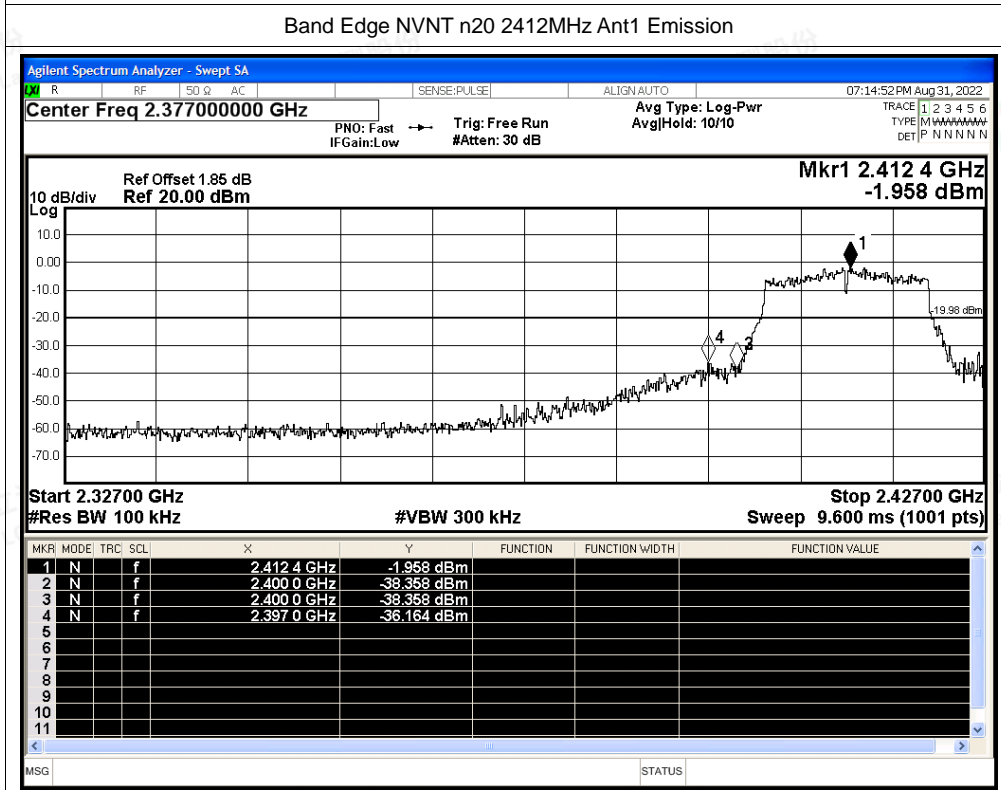
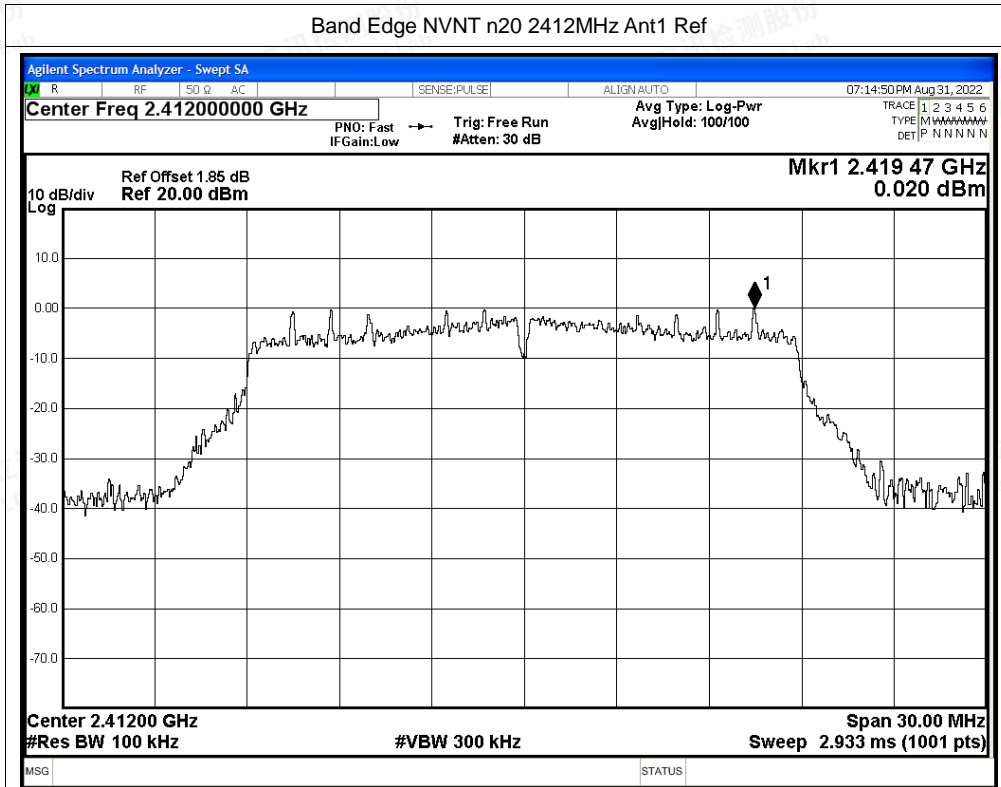


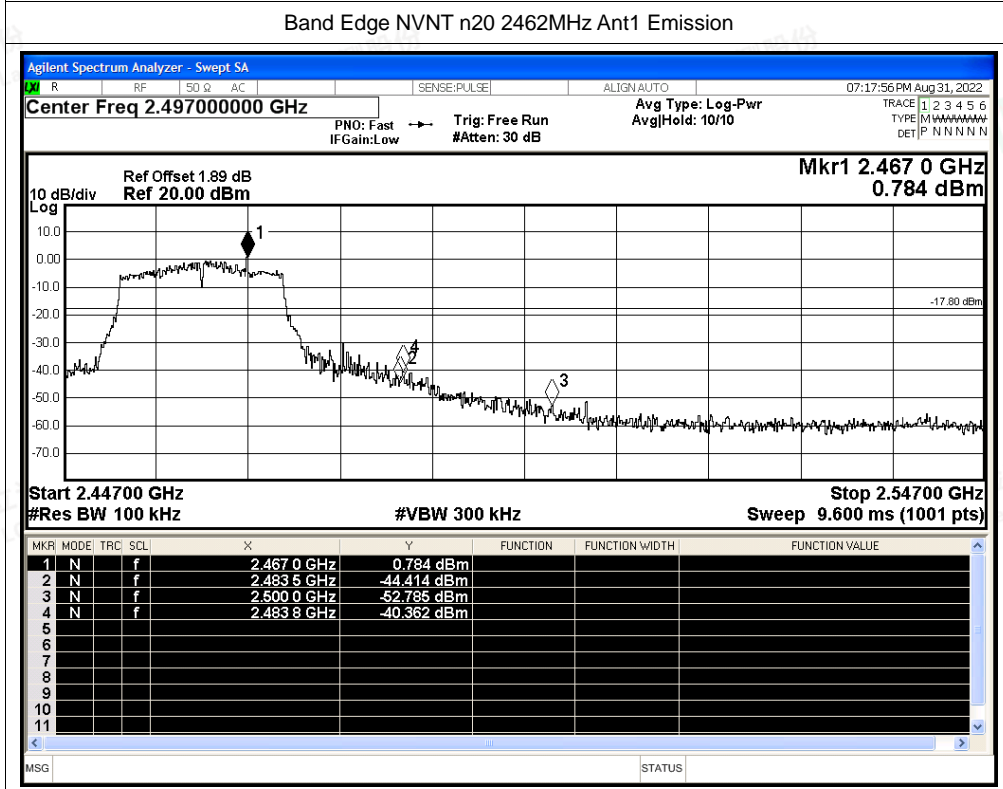
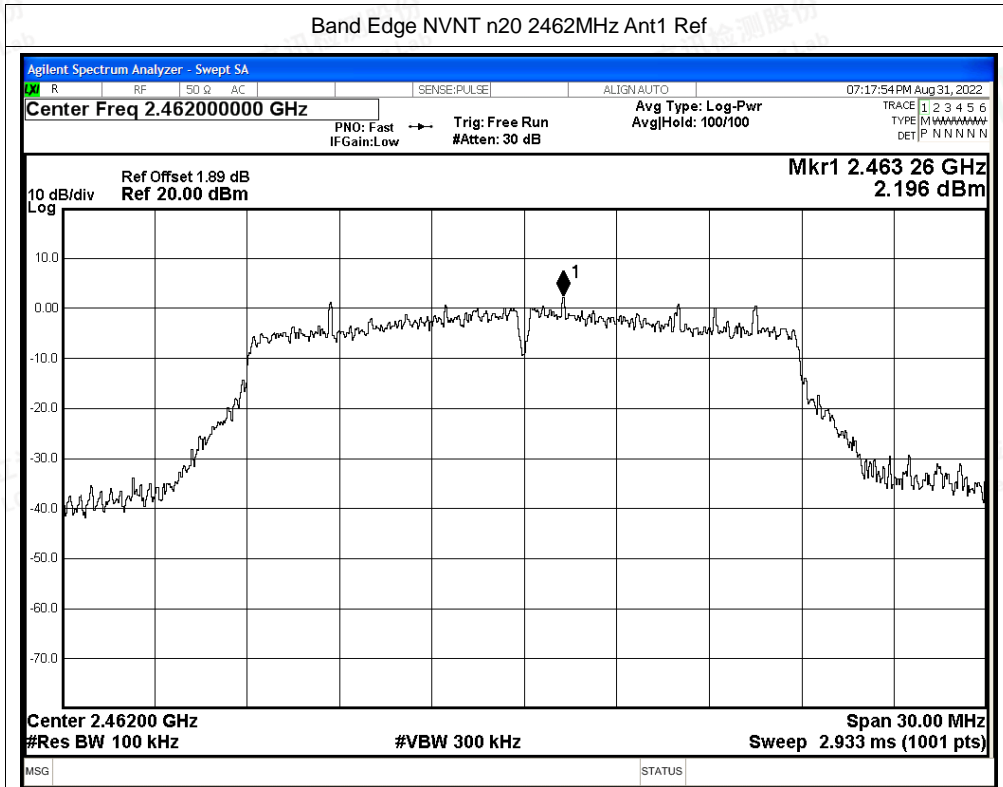
Band Edge NVNT g 2462MHz Ant1 Ref



Band Edge NVNT g 2462MHz Ant1 Emission









### C.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	-50.86	-20	Pass
NVNT	b	2462	Ant1	-51.11	-20	Pass
NVNT	g	2412	Ant1	-43.72	-20	Pass
NVNT	g	2437	Ant1	-45.39	-20	Pass
NVNT	g	2462	Ant1	-47.84	-20	Pass
NVNT	n20	2412	Ant1	-36.33	-20	Pass
NVNT	n20	2437	Ant1	-49.13	-20	Pass
NVNT	n20	2462	Ant1	-46.87	-20	Pass

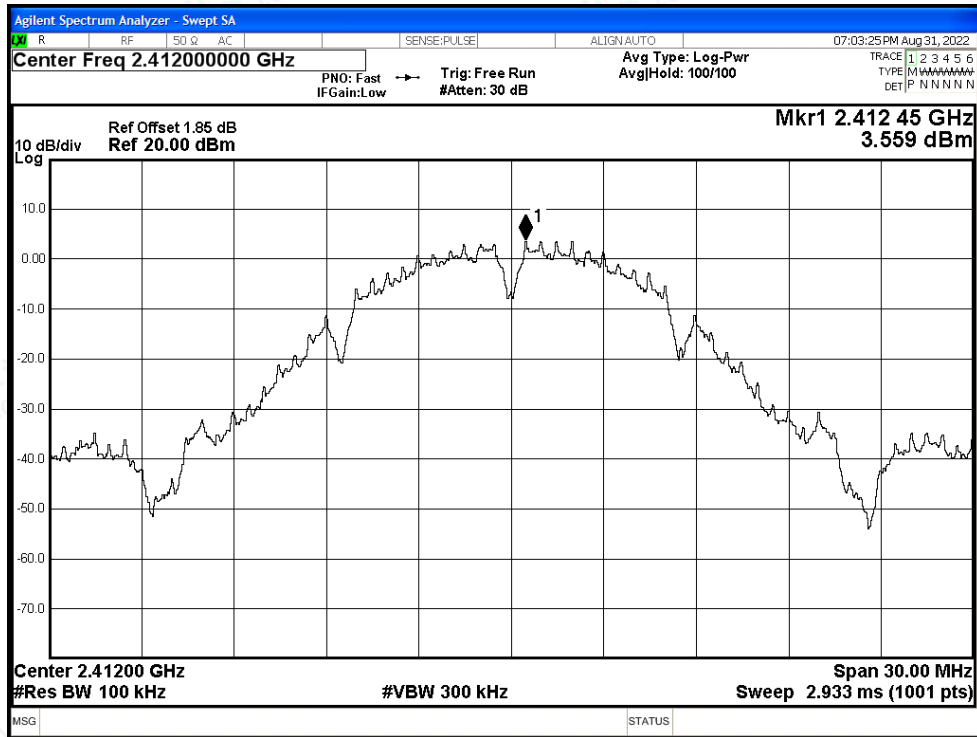


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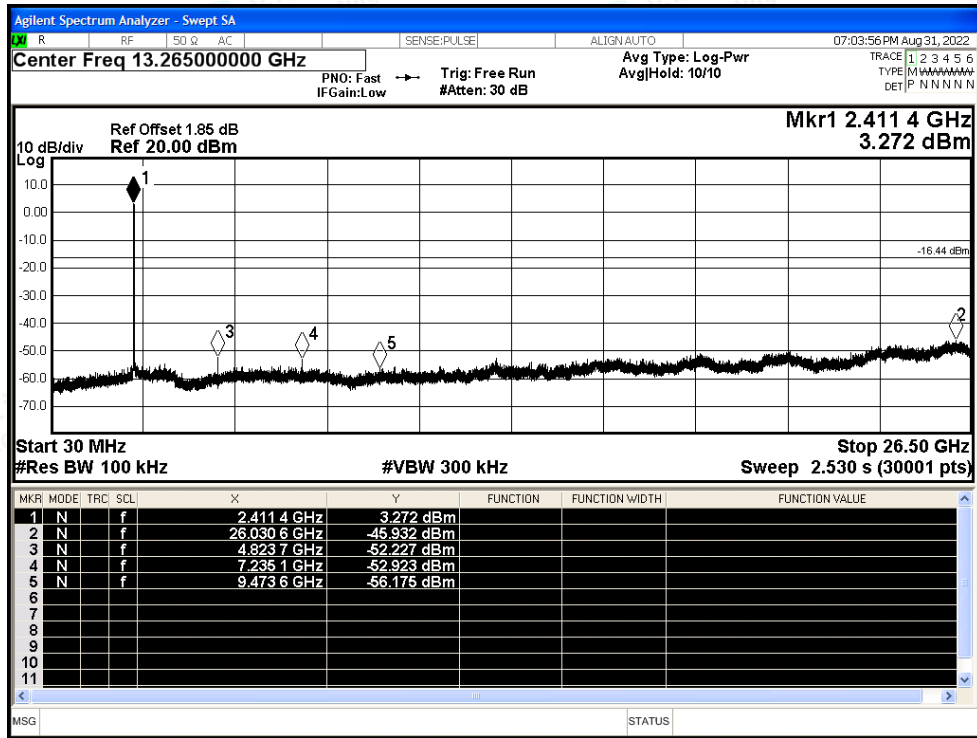


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant1 Ref

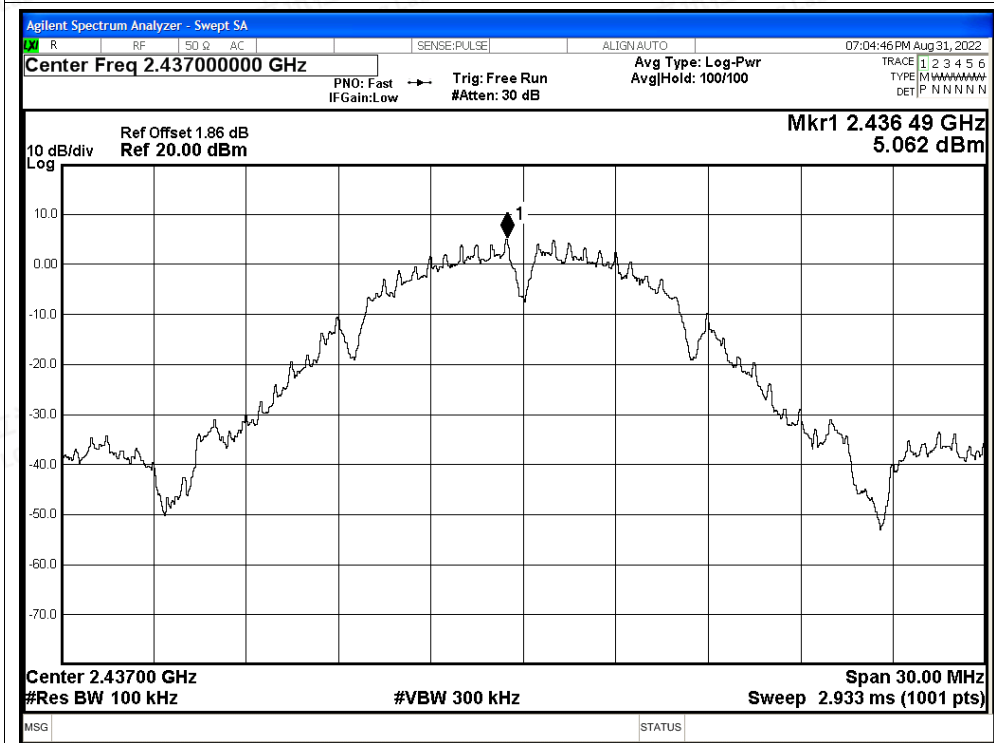


Tx. Spurious NVNT b 2412MHz Ant1 Emission

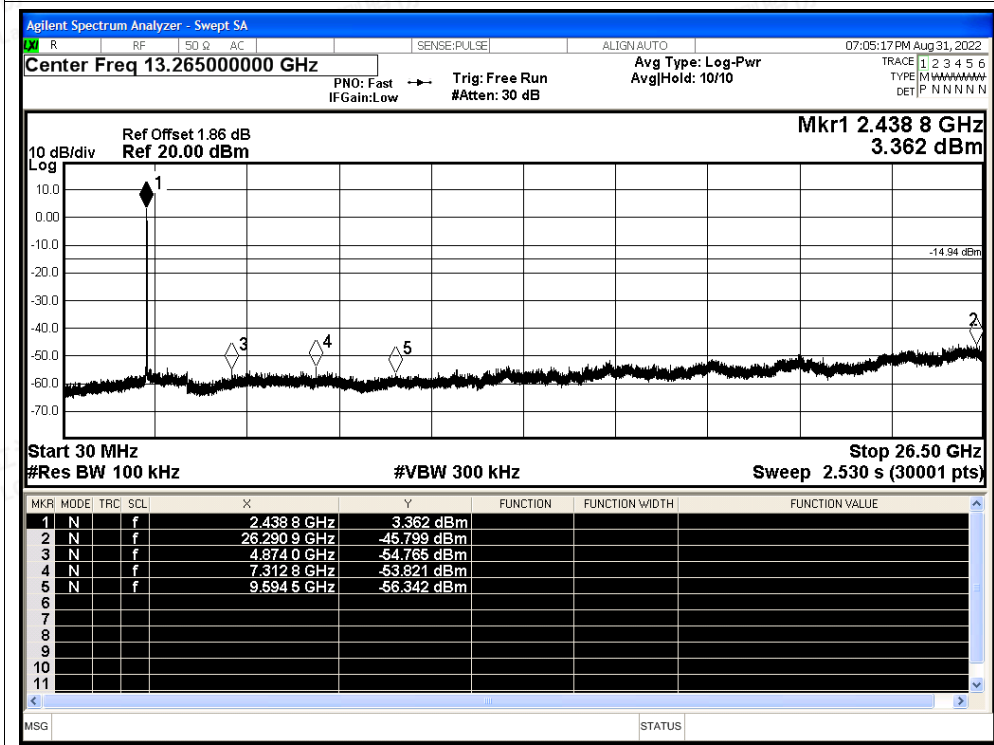




Tx. Spurious NVNT b 2437MHz Ant1 Ref



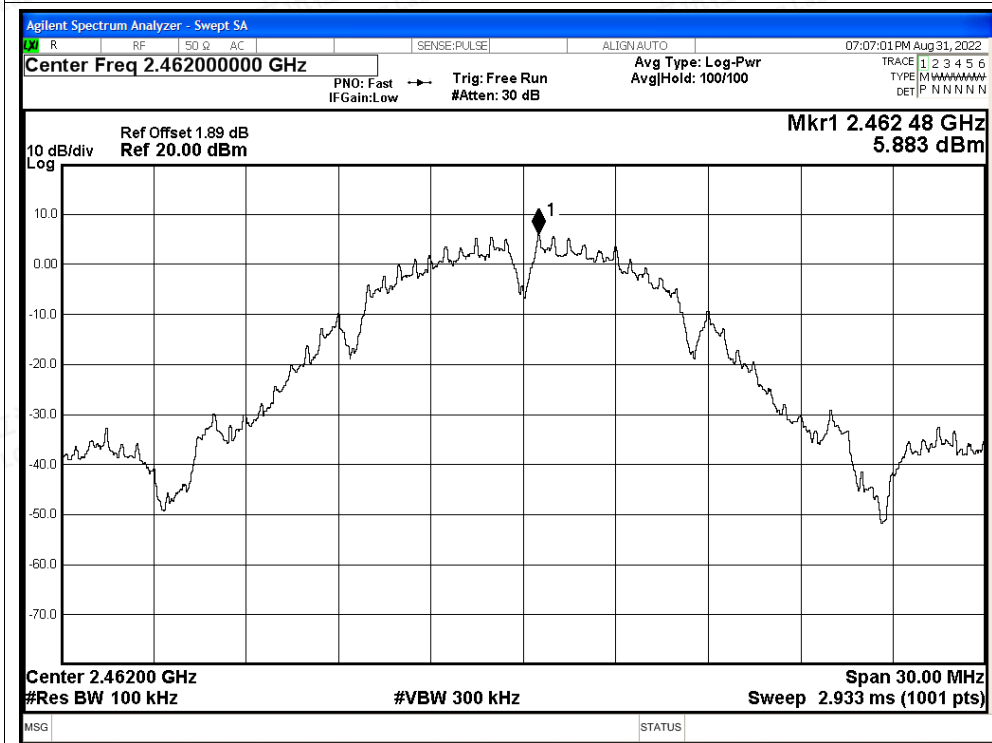
Tx. Spurious NVNT b 2437MHz Ant1 Emission



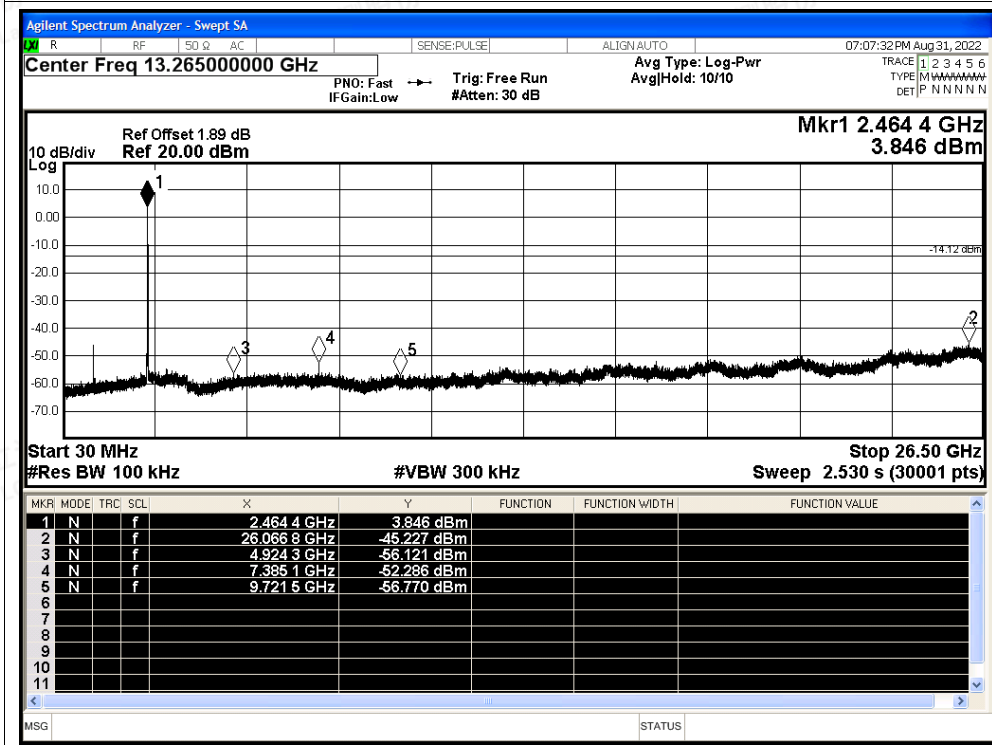




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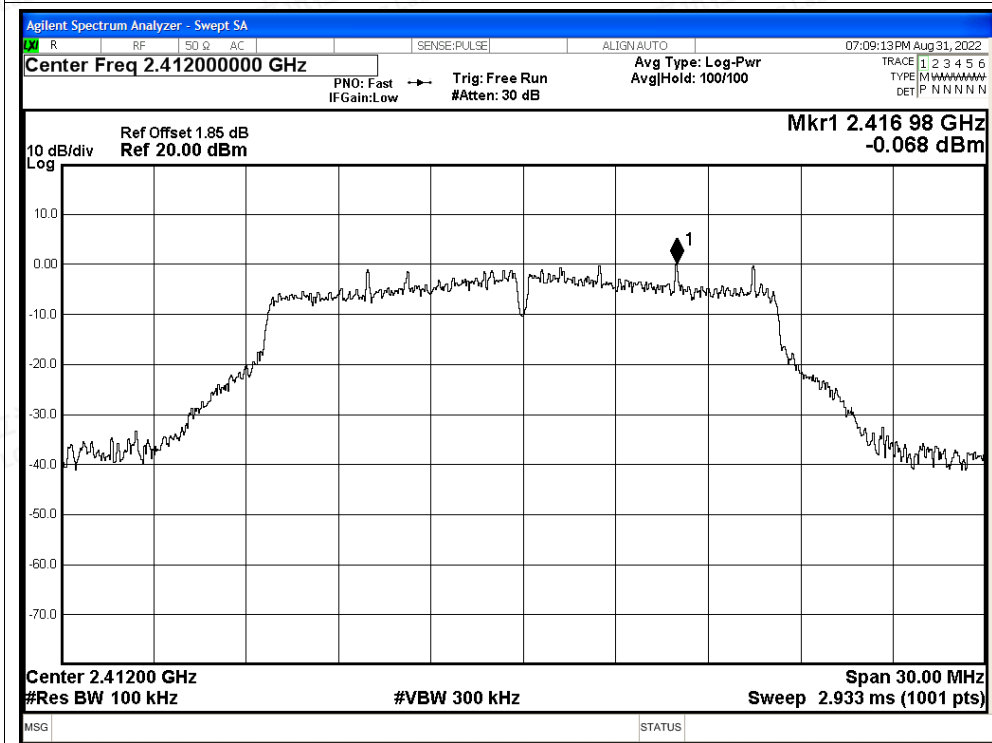


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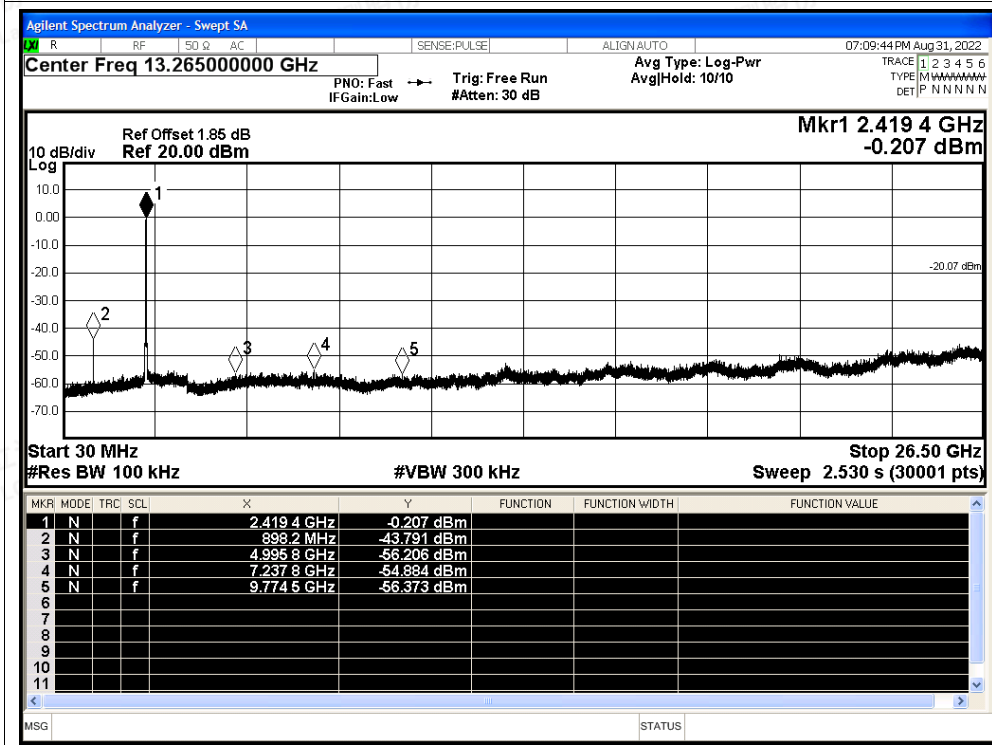




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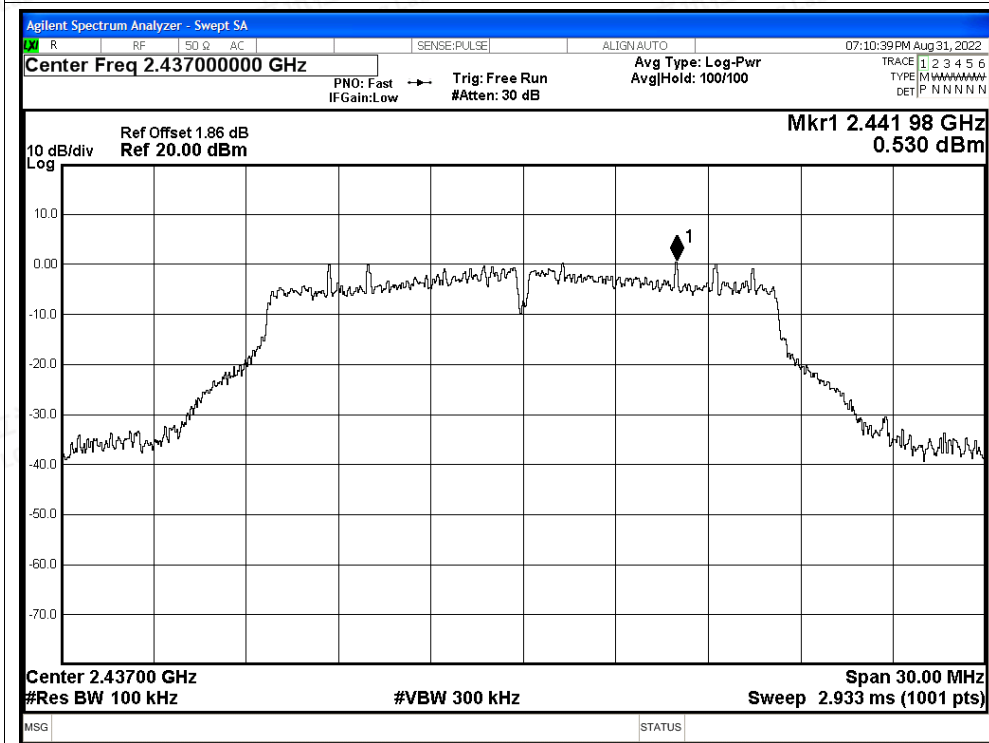


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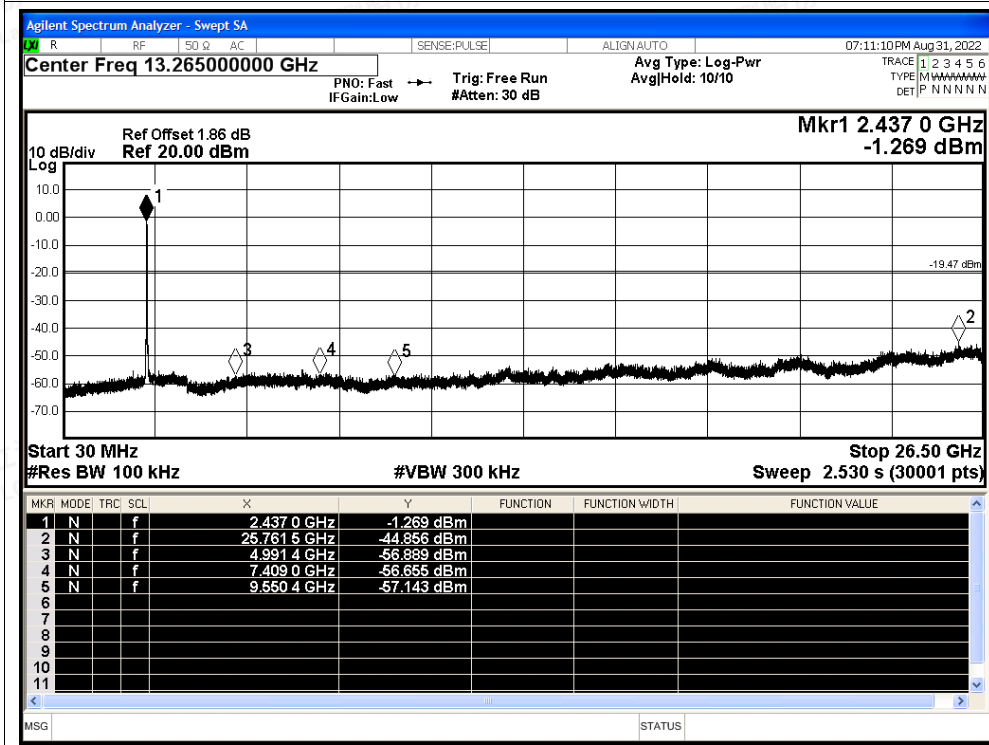




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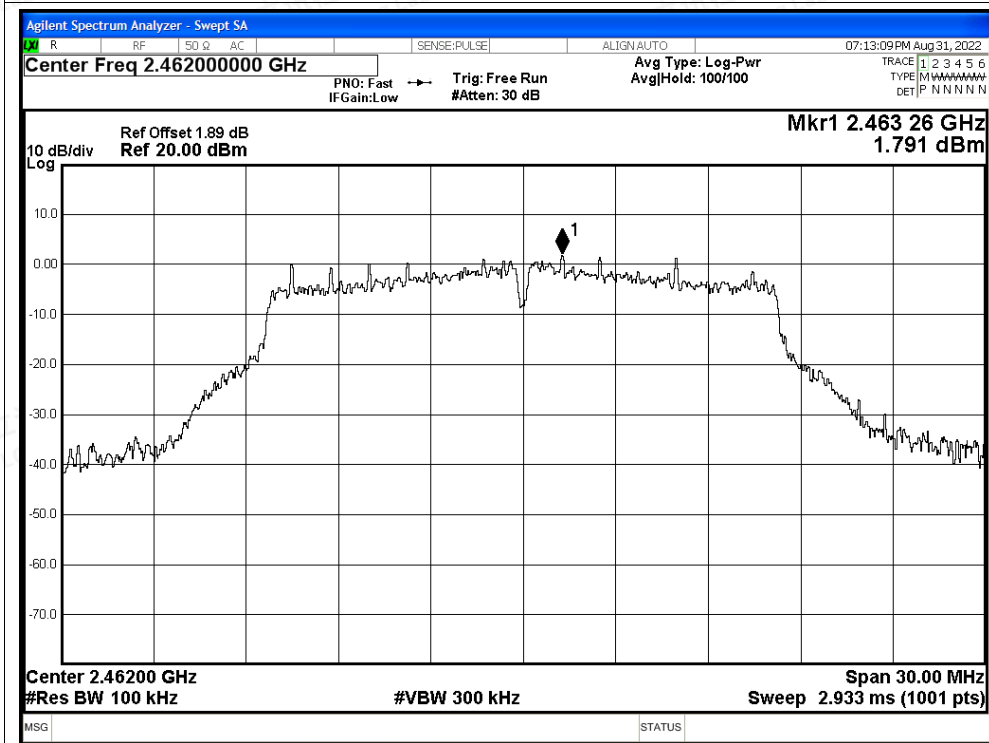


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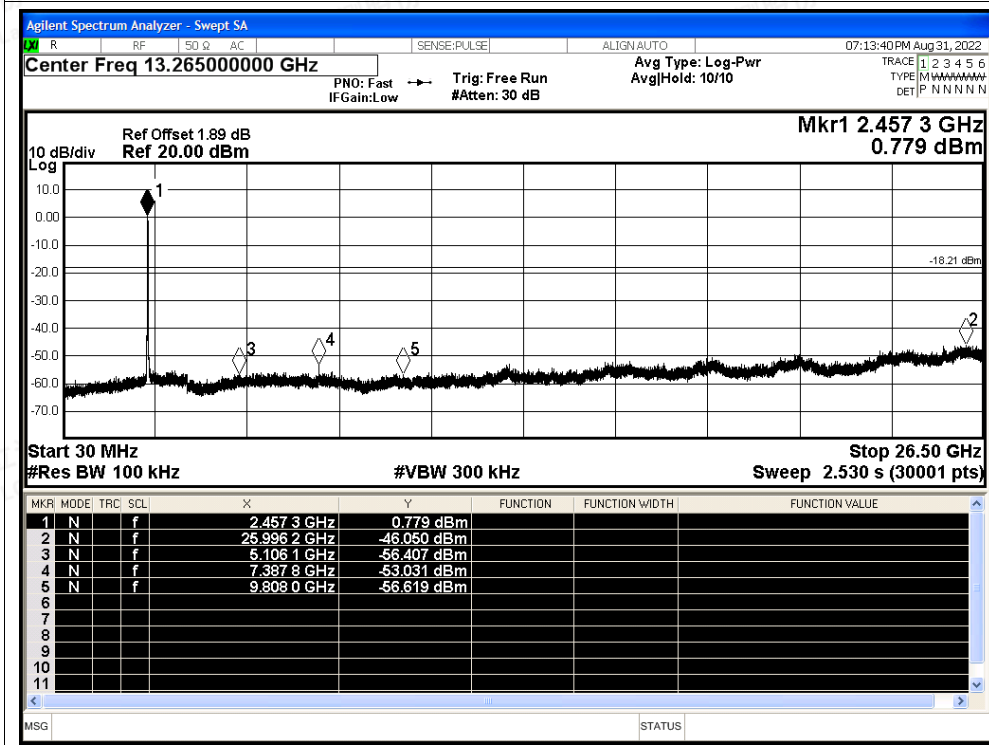




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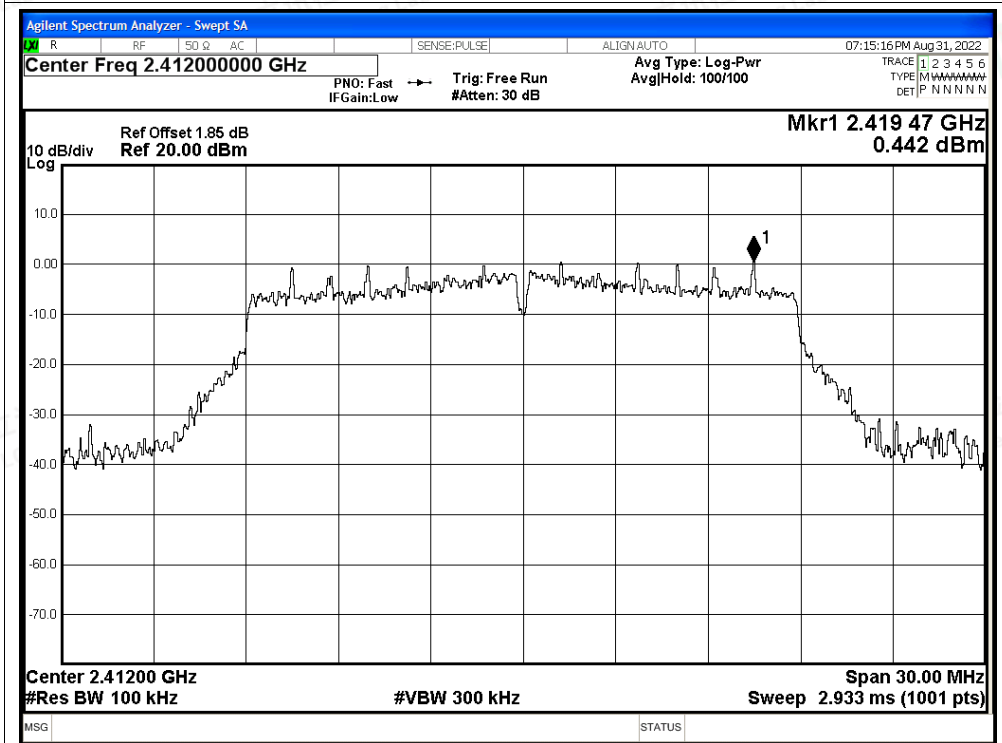


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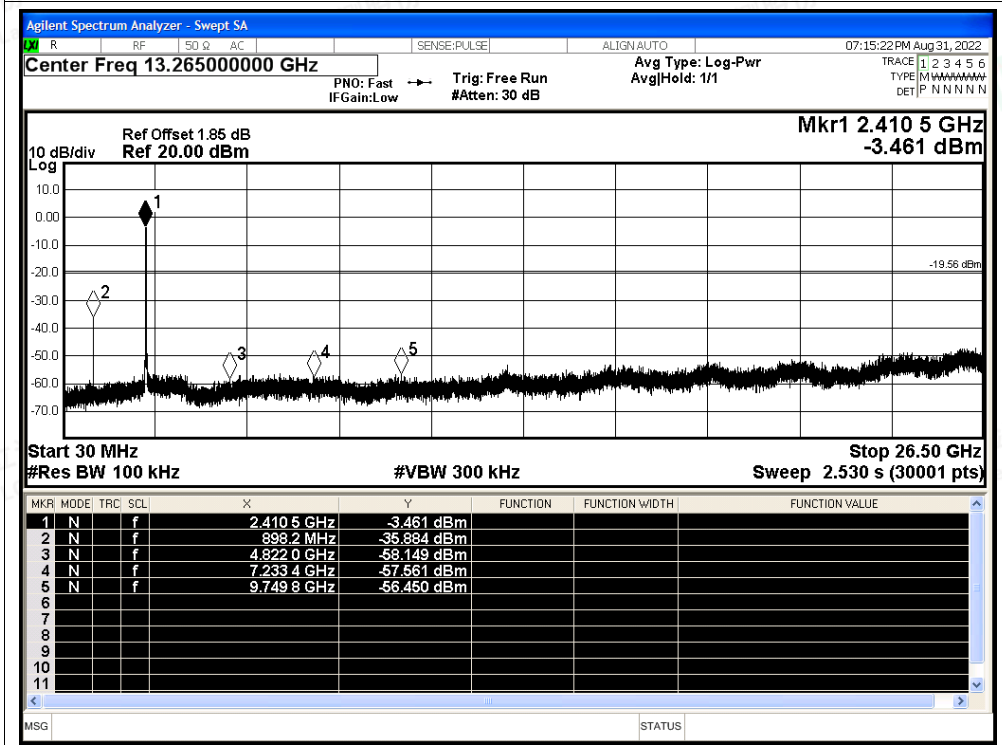




Tx. Spurious NVNT n20 2412MHz Ant1 Ref

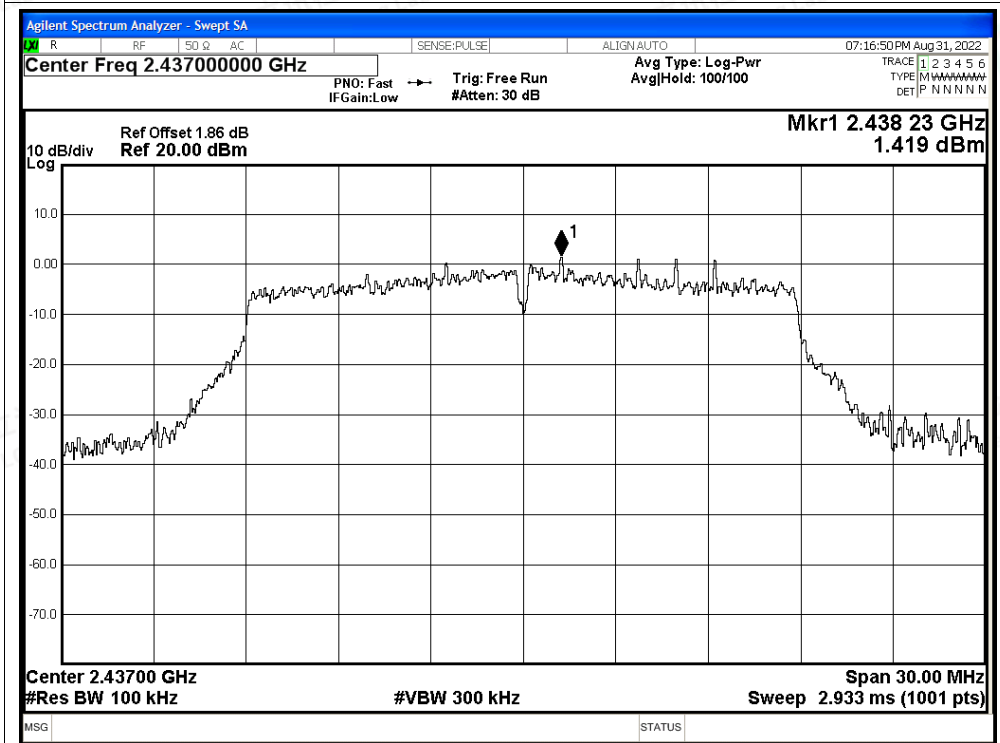


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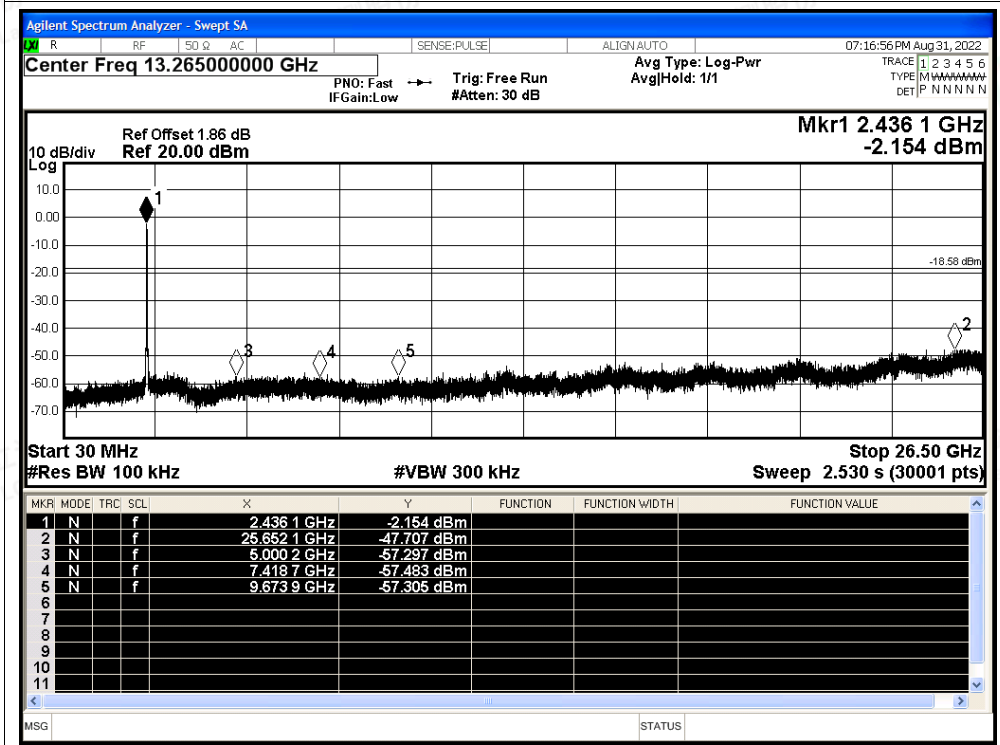




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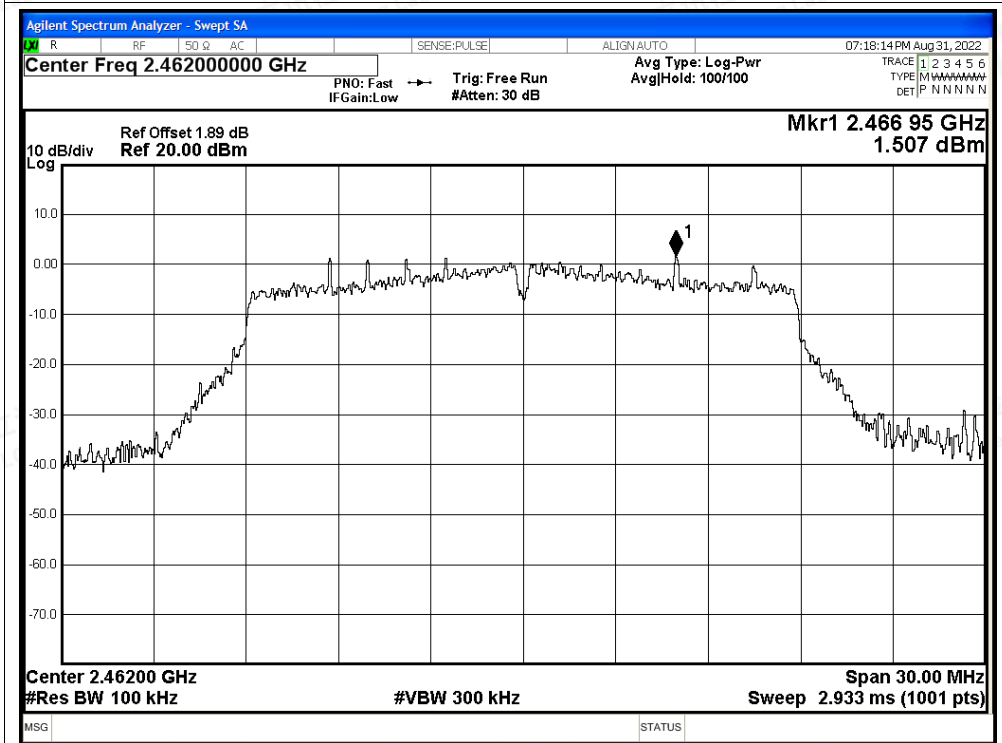


Tx. Spurious NVNT n20 2437MHz Ant1 Emission

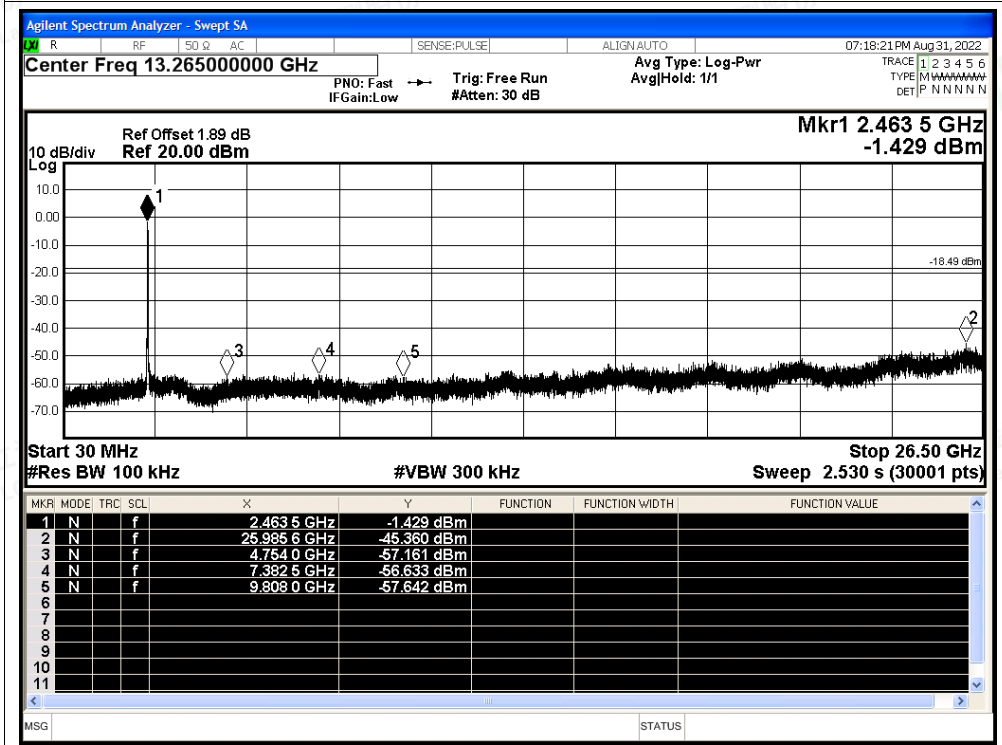




Tx. Spurious NVNT n20 2462MHz Ant1 Ref



Tx. Spurious NVNT n20 2462MHz Ant1 Emission





### C.6 Duty Cycle

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	99.6	0	0.01
NVNT	b	2437	Ant1	99.6	0	0.01
NVNT	b	2462	Ant1	99.6	0	0.01
NVNT	g	2412	Ant1	97.08	0.13	0.72
NVNT	g	2437	Ant1	97.08	0.13	0.72
NVNT	g	2462	Ant1	97.08	0.13	0.72
NVNT	n20	2412	Ant1	96.89	0.14	0.76
NVNT	n20	2437	Ant1	96.89	0.14	0.76
NVNT	n20	2462	Ant1	96.89	0.14	0.76



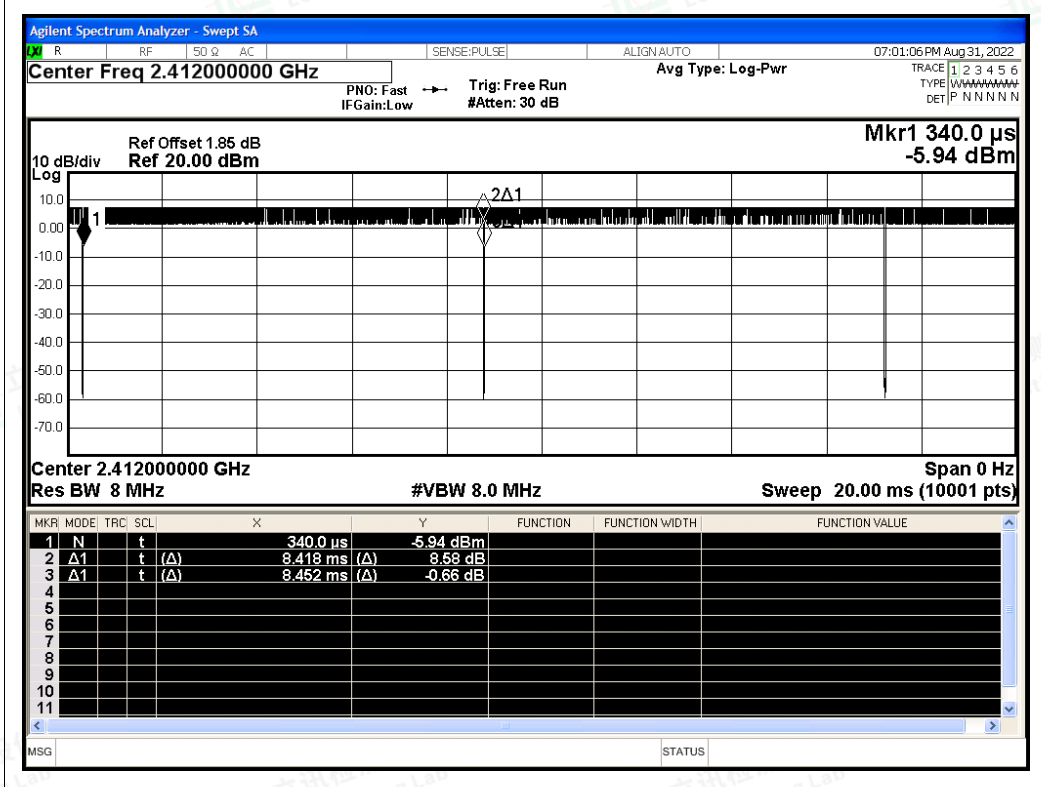
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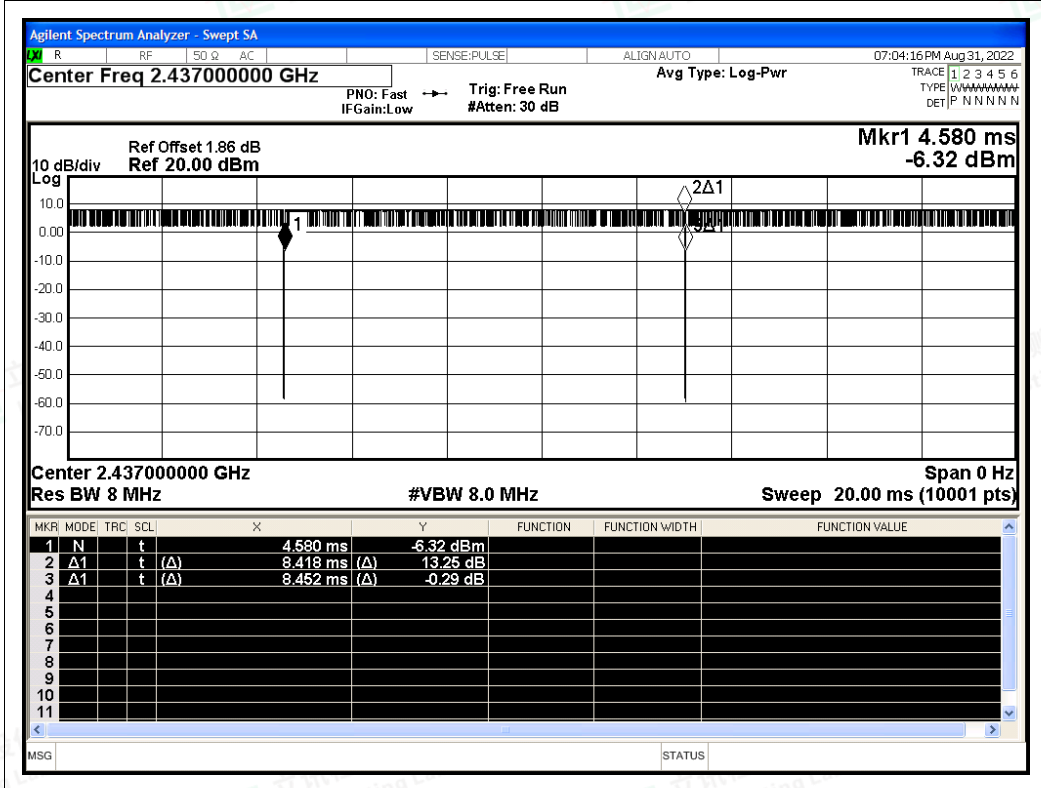


Test Graphs

Duty Cycle NVNT b 2412MHz Ant1

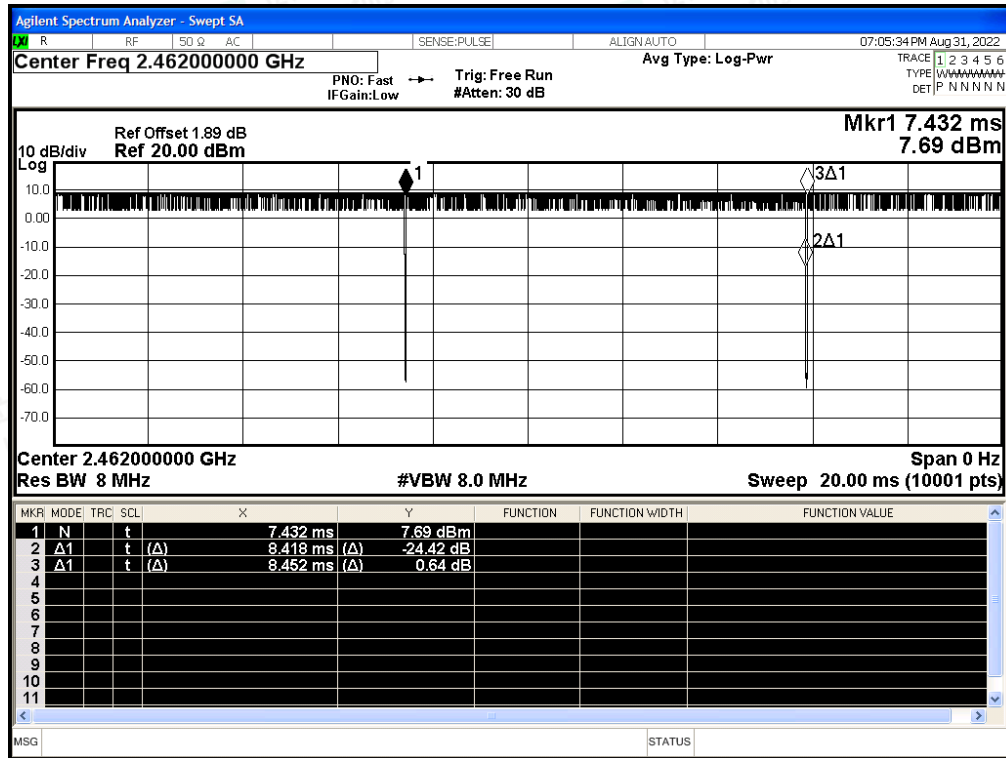


Duty Cycle NVNT b 2437MHz Ant1

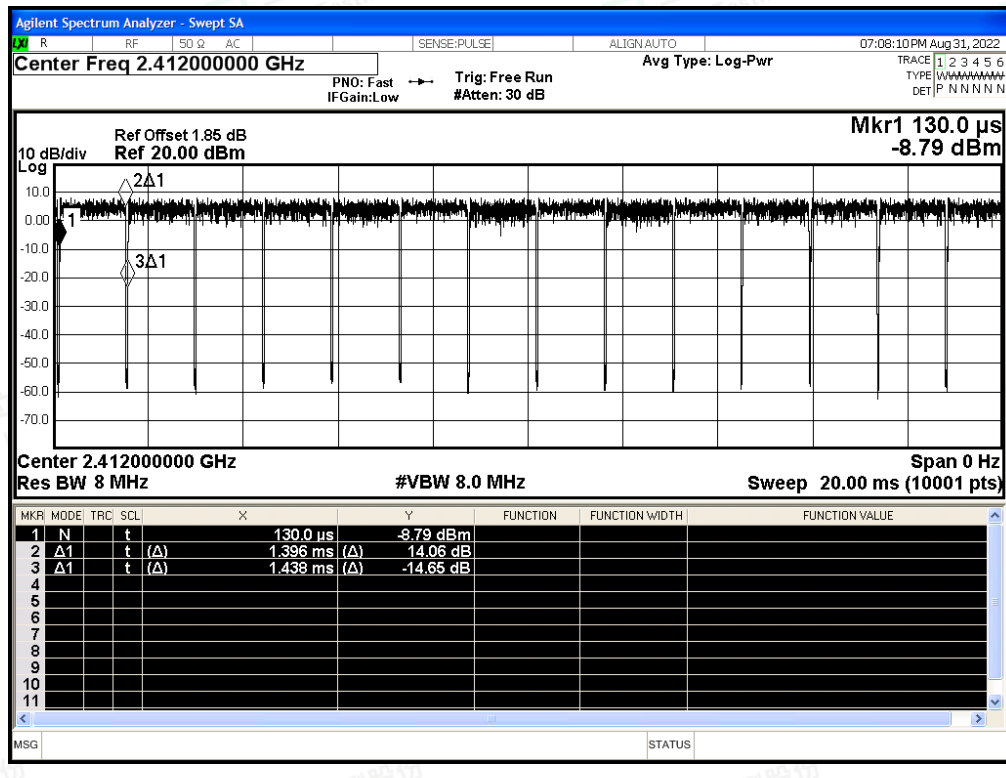




Duty Cycle NVNT b 2462MHz Ant1

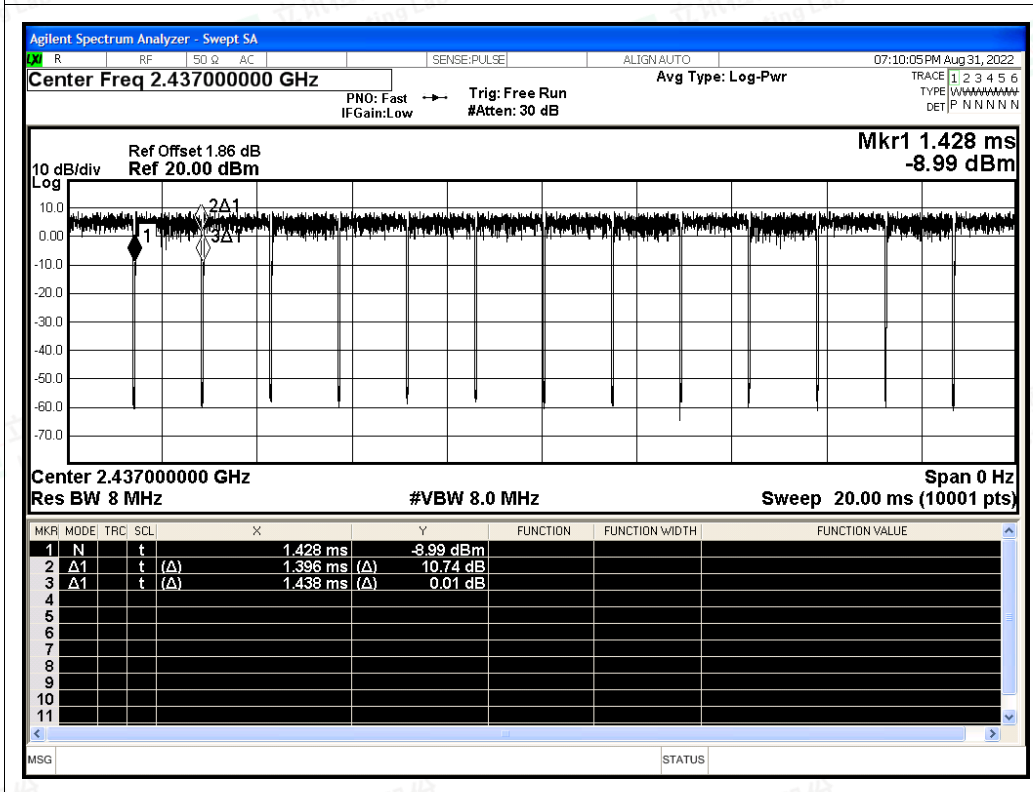


Duty Cycle NVNT g 2412MHz Ant1

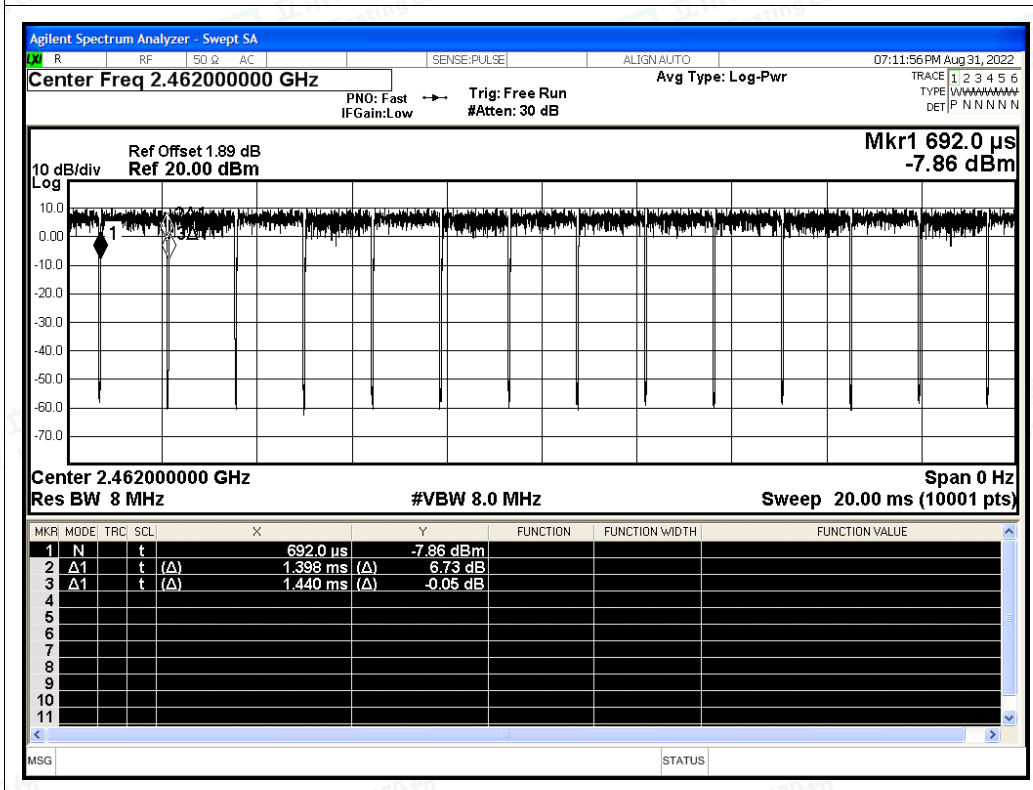




Duty Cycle NVNT g 2437MHz Ant1

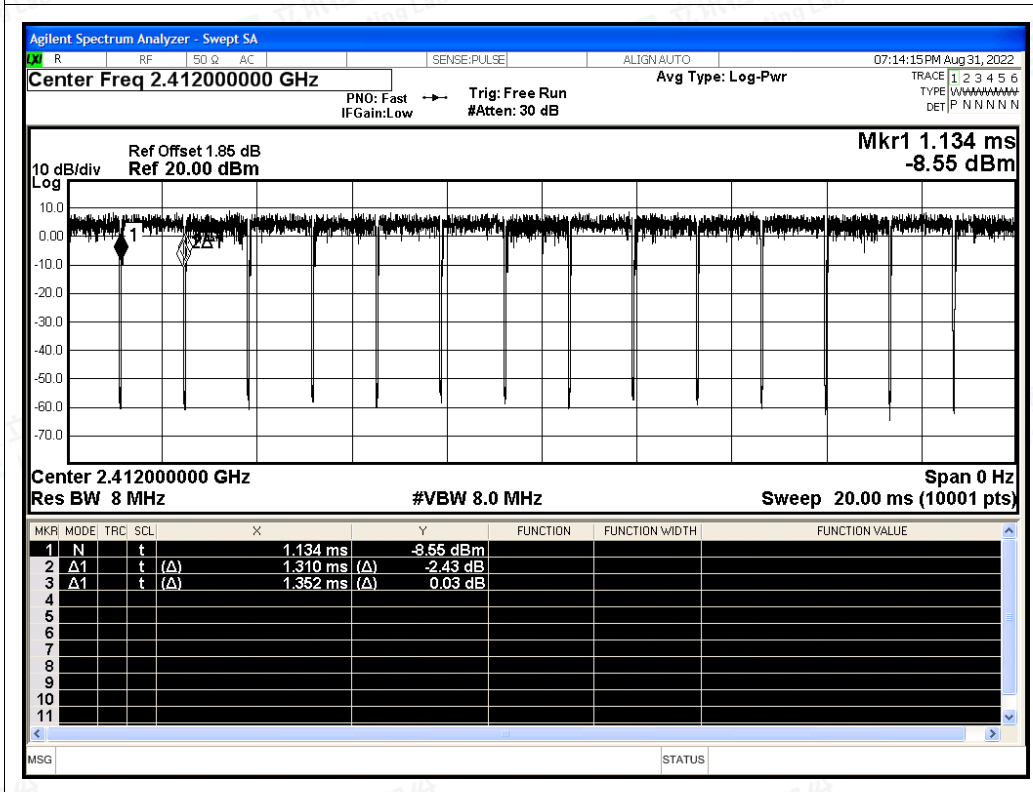


Duty Cycle NVNT g 2462MHz Ant1

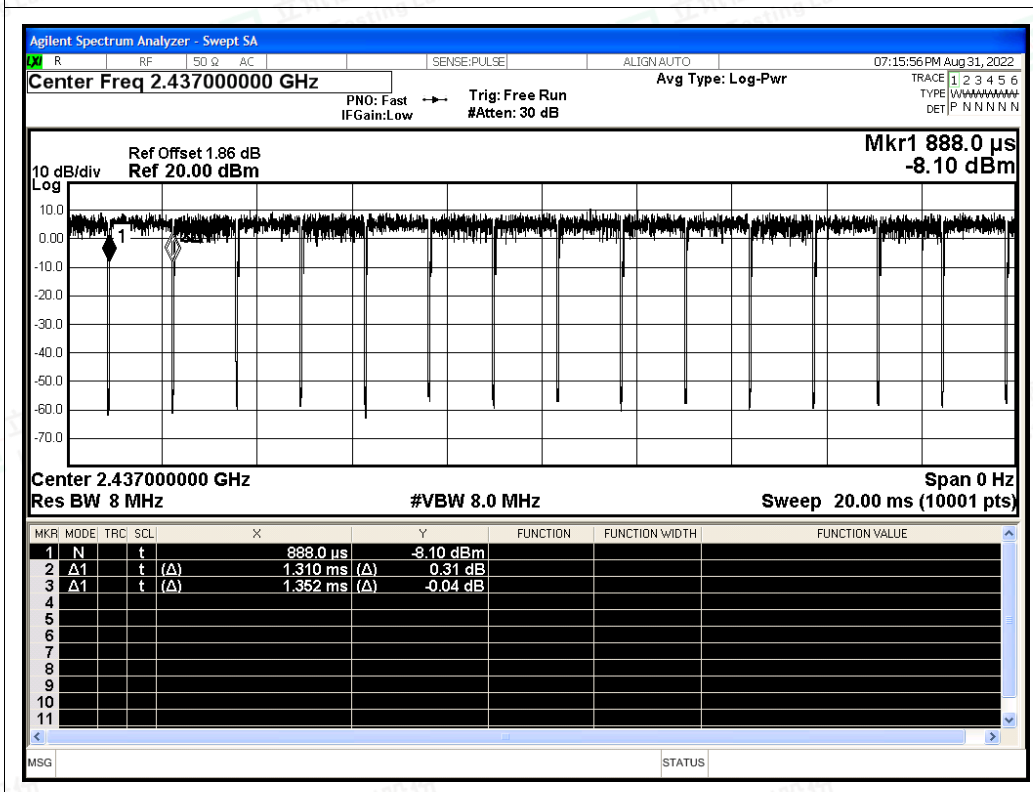


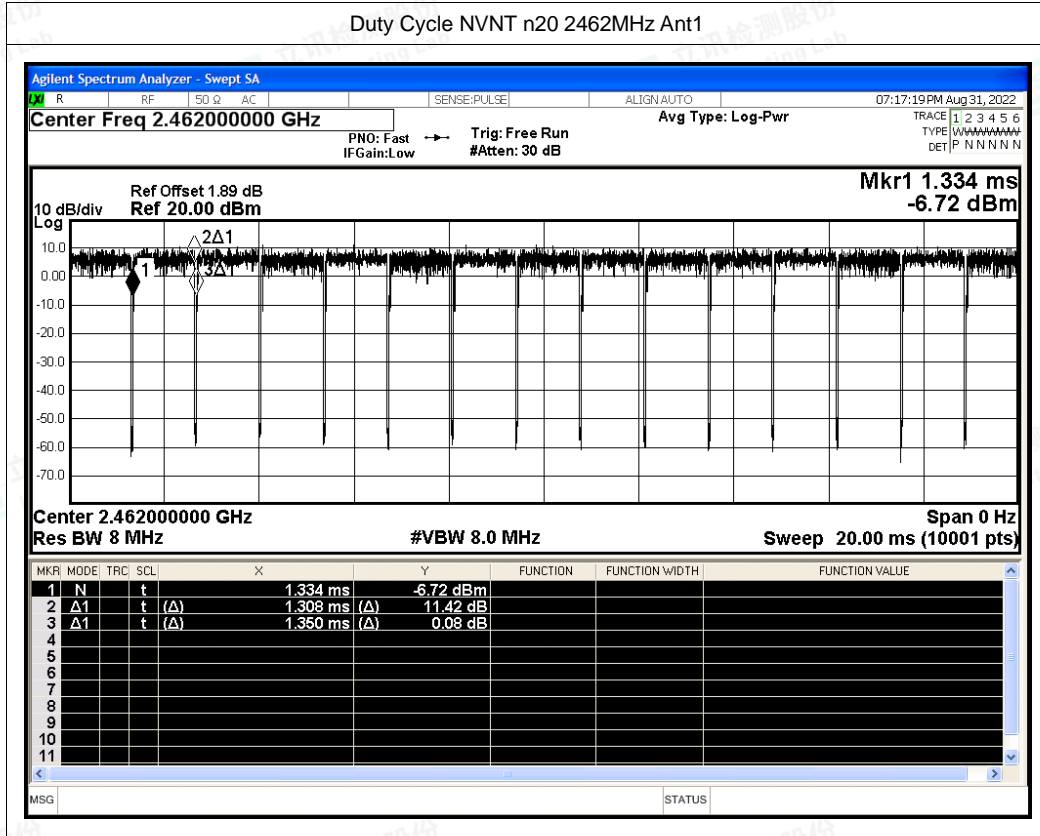


Duty Cycle NVNT n20 2412MHz Ant1



Duty Cycle NVNT n20 2437MHz Ant1







### C.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant1	2310	-49	2.47	48.70	Peak	74	Pass
NVNT	b	2412	Ant1	2310	-60.41	2.47	37.29	Average	54	Pass
NVNT	b	2412	Ant1	2388.858	-44.91	2.47	52.79	Peak	74	Pass
NVNT	b	2412	Ant1	2387.337	-54.8	2.47	42.90	Average	54	Pass
NVNT	b	2412	Ant1	2390	-45.11	2.47	52.59	Peak	74	Pass
NVNT	b	2412	Ant1	2390	-53.98	2.47	43.72	Average	54	Pass
NVNT	b	2462	Ant1	2483.5	-43.11	2.47	54.59	Peak	74	Pass
NVNT	b	2462	Ant1	2483.5	-47.69	2.47	50.01	Average	54	Pass
NVNT	b	2462	Ant1	2483.57	-42.5	2.47	55.20	Peak	74	Pass
NVNT	b	2462	Ant1	2483.517	-47.69	2.47	50.01	Average	54	Pass
NVNT	b	2462	Ant1	2500	-46.81	2.47	50.89	Peak	74	Pass
NVNT	b	2462	Ant1	2500	-57.99	2.47	39.71	Average	54	Pass
NVNT	g	2412	Ant1	2310	-49.98	2.47	47.72	Peak	74	Pass
NVNT	g	2412	Ant1	2310	-59.92	2.47	37.78	Average	54	Pass
NVNT	g	2412	Ant1	2389.794	-27.85	2.47	69.85	Peak	74	Pass
NVNT	g	2412	Ant1	2389.911	-45.87	2.47	51.83	Average	54	Pass
NVNT	g	2412	Ant1	2390	-32.29	2.47	65.41	Peak	74	Pass
NVNT	g	2412	Ant1	2390	-45.68	2.47	52.02	Average	54	Pass
NVNT	g	2462	Ant1	2483.5	-25.14	2.47	72.56	Peak	74	Pass
NVNT	g	2462	Ant1	2483.5	-45.51	2.47	52.19	Average	54	Pass
NVNT	g	2462	Ant1	2483.782	-24.8	2.47	72.90	Peak	74	Pass
NVNT	g	2462	Ant1	2483.57	-45.5	2.47	52.20	Average	54	Pass
NVNT	g	2462	Ant1	2500	-37.51	2.47	60.19	Peak	74	Pass
NVNT	g	2462	Ant1	2500	-55.54	2.47	42.16	Average	54	Pass
NVNT	n20	2412	Ant1	2310	-51.52	2.47	46.18	Peak	74	Pass
NVNT	n20	2412	Ant1	2310	-59.85	2.47	37.85	Average	54	Pass
NVNT	n20	2412	Ant1	2389.911	-29.36	2.47	68.34	Peak	74	Pass
NVNT	n20	2412	Ant1	2389.911	-45.24	2.47	52.46	Average	54	Pass
NVNT	n20	2412	Ant1	2390	-32.07	2.47	65.63	Peak	74	Pass
NVNT	n20	2412	Ant1	2390	-45.2	2.47	52.50	Average	54	Pass
NVNT	n20	2462	Ant1	2483.5	-30.6	2.47	67.10	Peak	74	Pass
NVNT	n20	2462	Ant1	2483.5	-46.86	2.47	50.84	Average	54	Pass
NVNT	n20	2462	Ant1	2484.365	-29.33	2.47	68.37	Peak	74	Pass
NVNT	n20	2462	Ant1	2483.57	-46.83	2.47	50.87	Average	54	Pass
NVNT	n20	2462	Ant1	2500	-46.22	2.47	51.48	Peak	74	Pass
NVNT	n20	2462	Ant1	2500	-57.2	2.47	40.50	Average	54	Pass

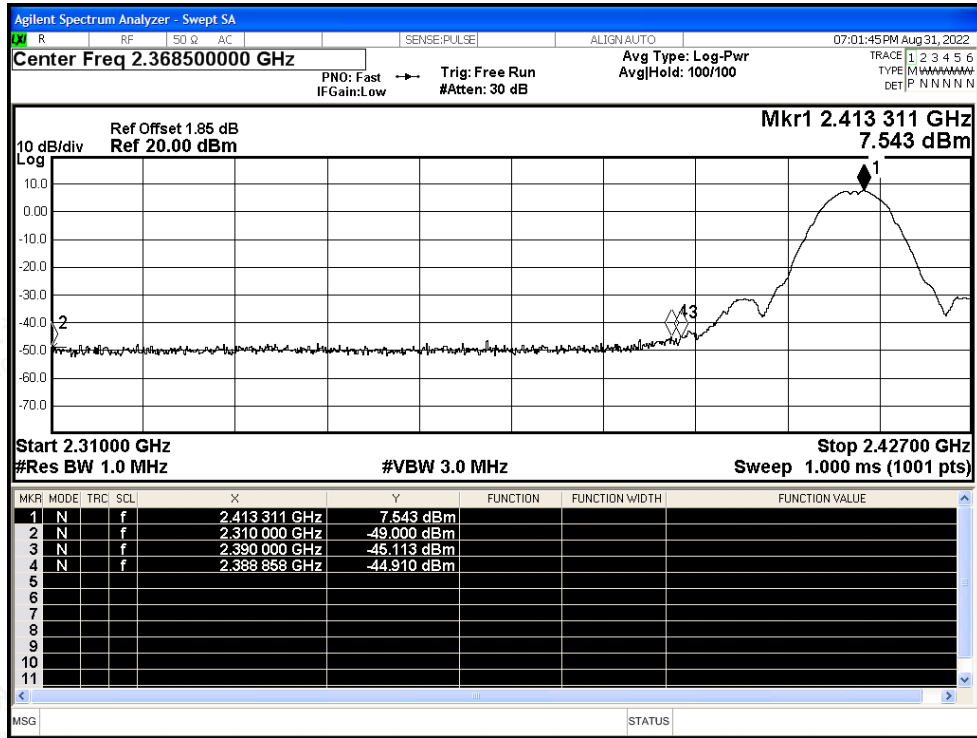


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 Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com  
 Scan code to check authenticity

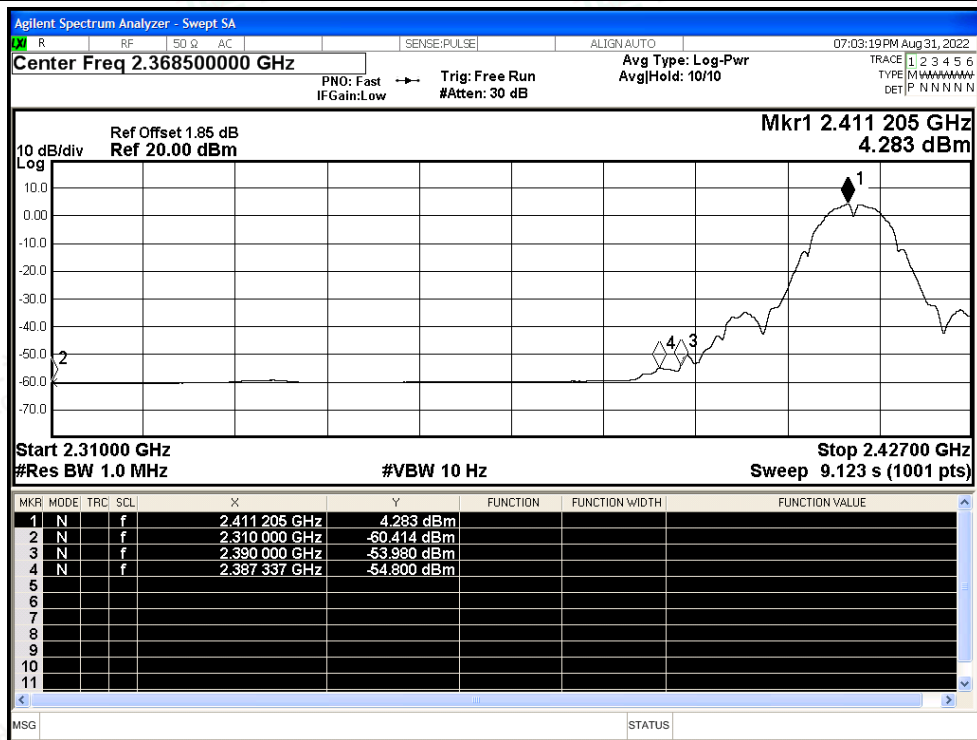


Test Graphs

Restrict Band NVNT b 2412MHz Ant1 Peak

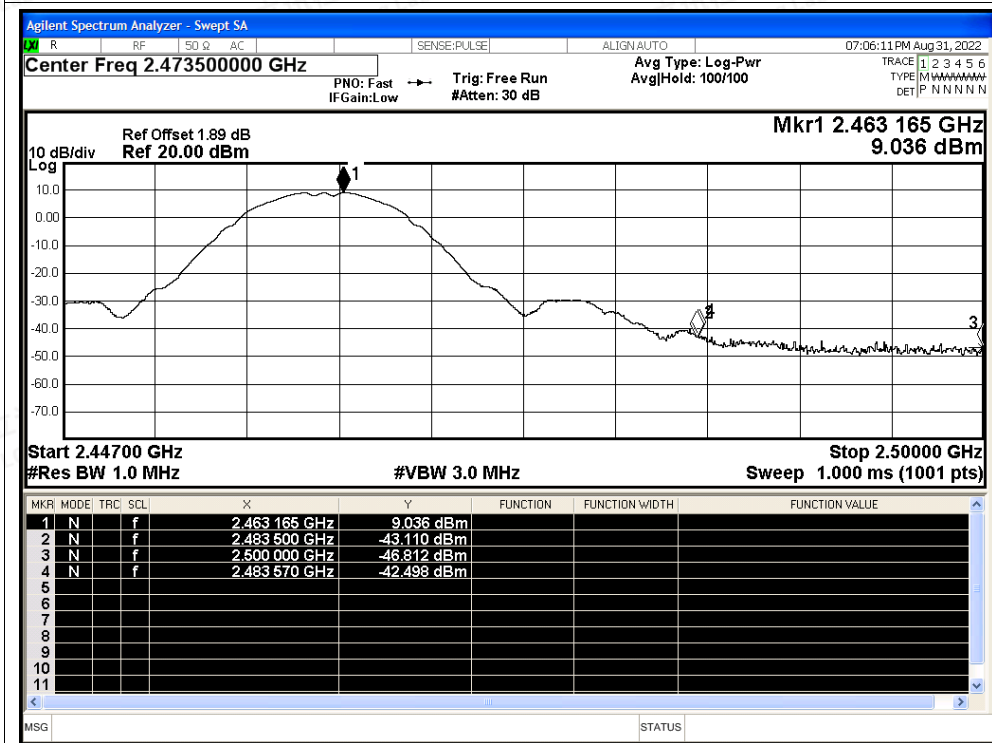


Restrict Band NVNT b 2412MHz Ant1 Average

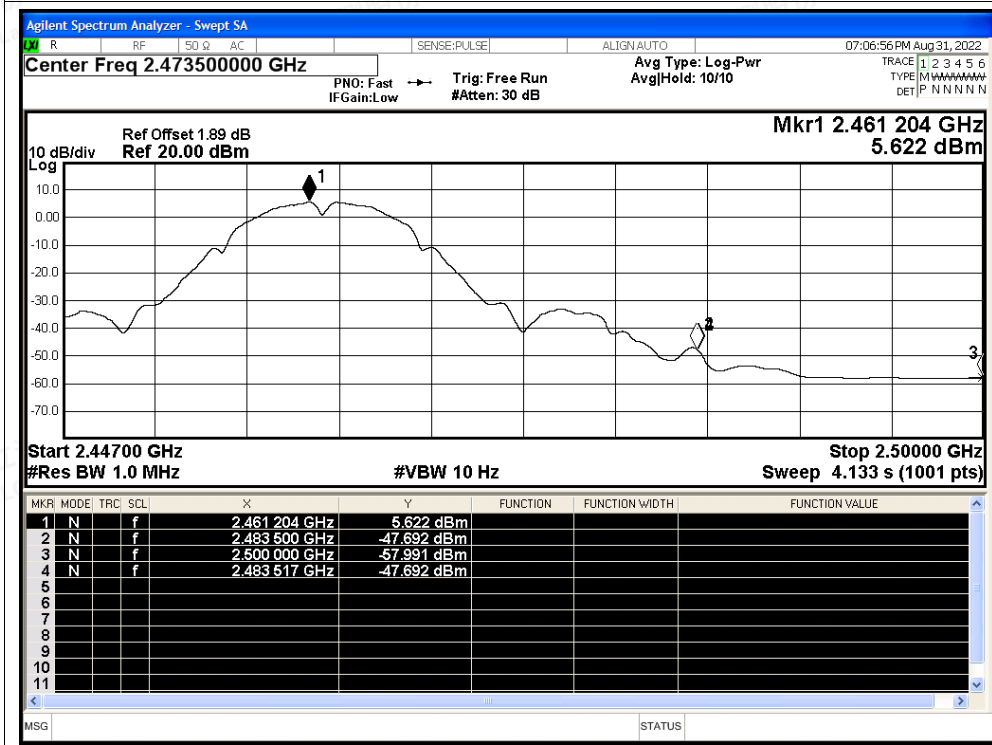




Restrict Band NVNT b 2462MHz Ant1 Peak



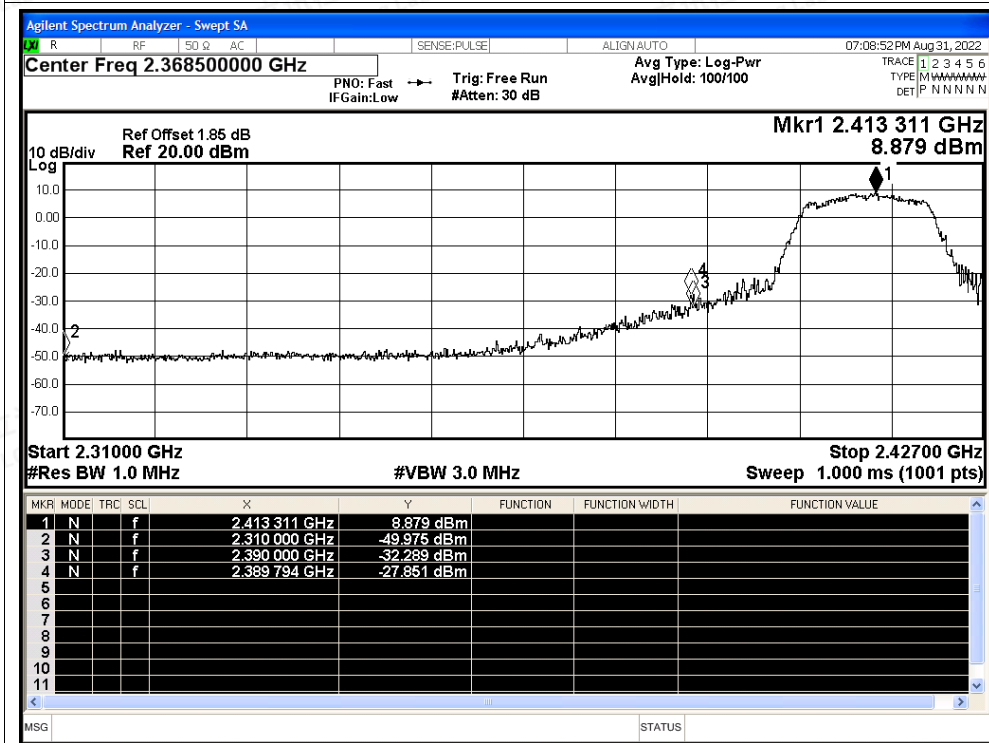
Restrict Band NVNT b 2462MHz Ant1 Average



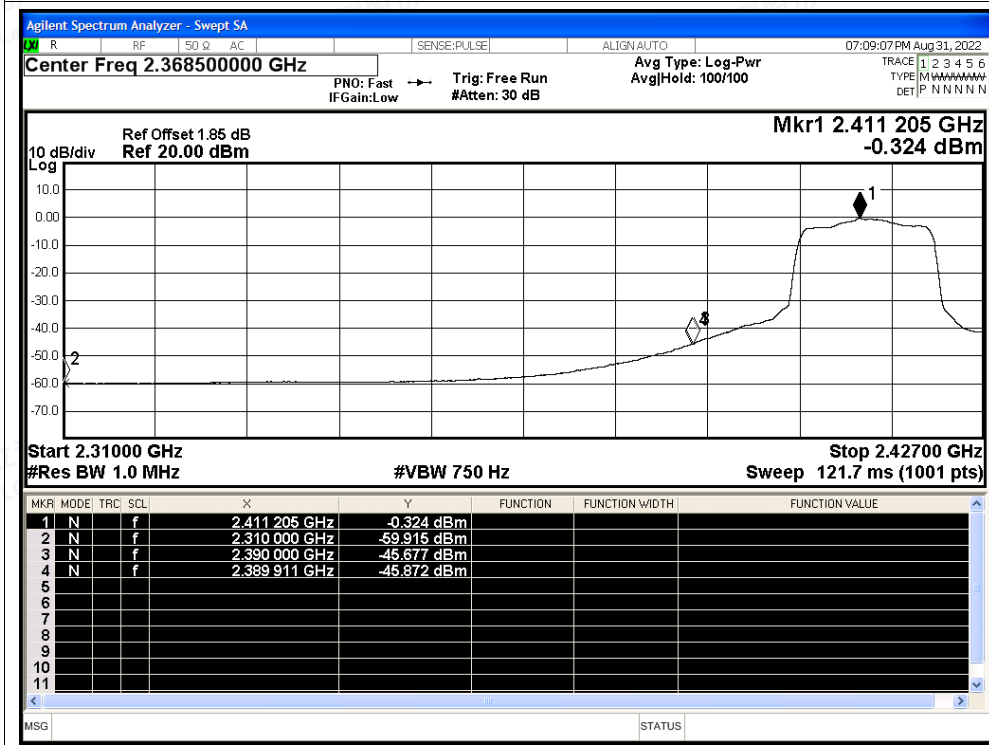




Restrict Band NVNT g 2412MHz Ant1 Peak

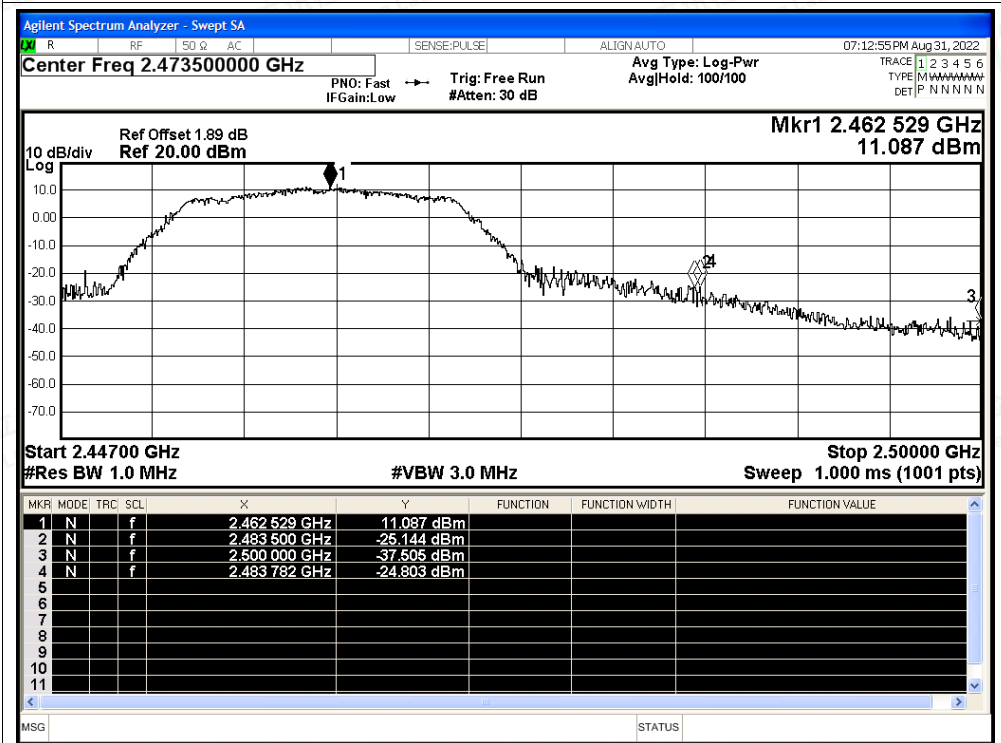


Restrict Band NVNT g 2412MHz Ant1 Average

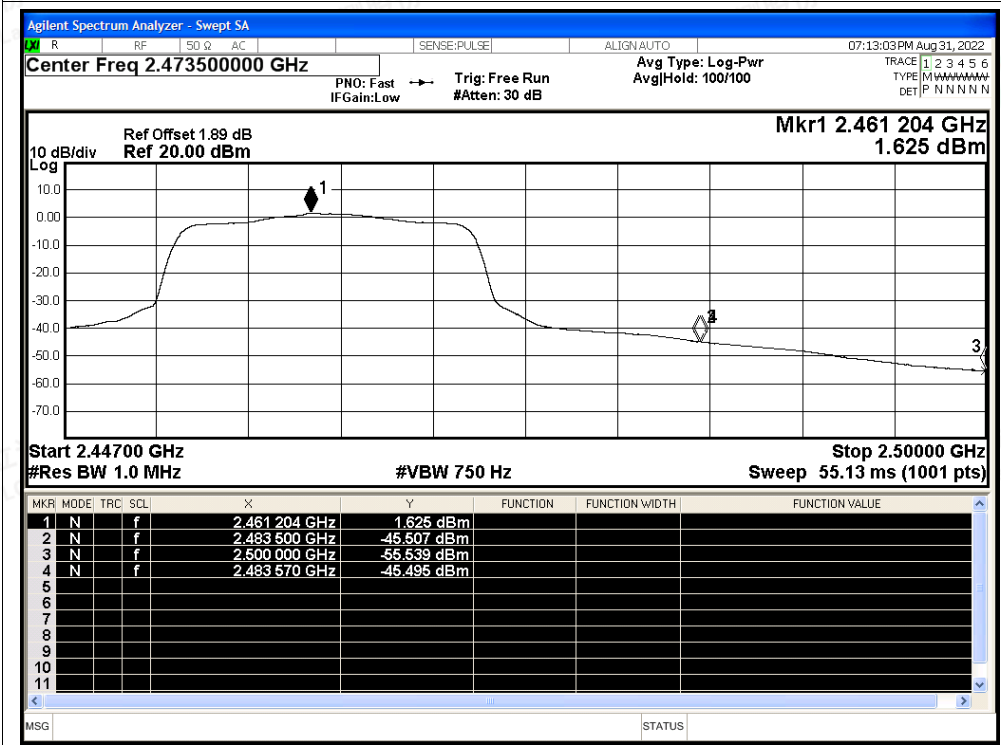




Restrict Band NVNT g 2462MHz Ant1 Peak

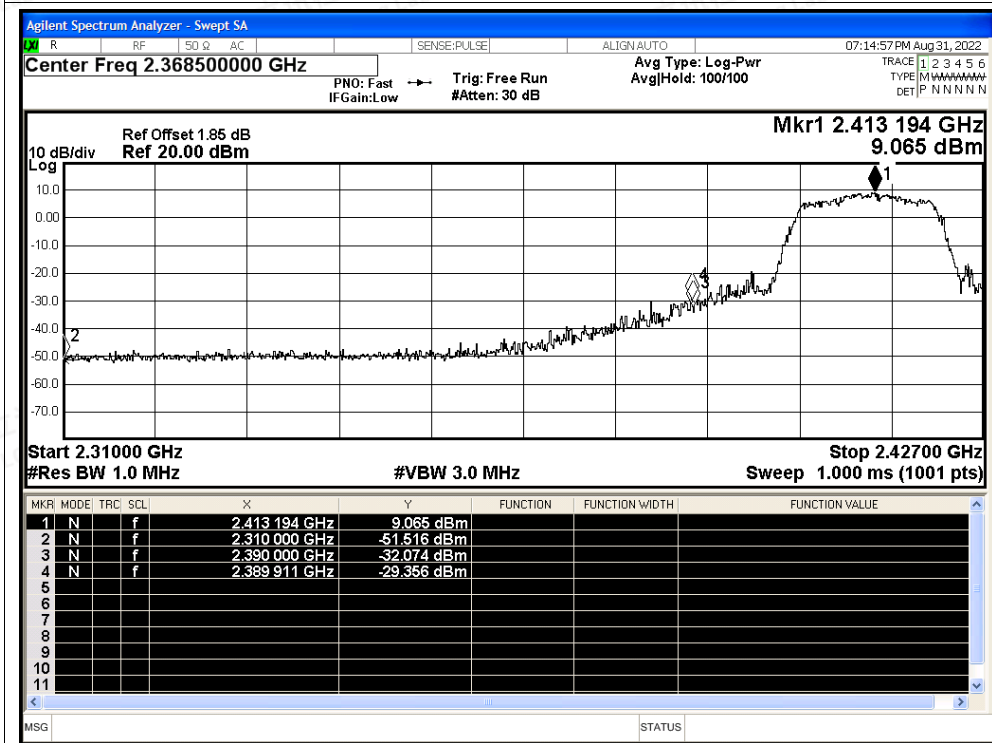


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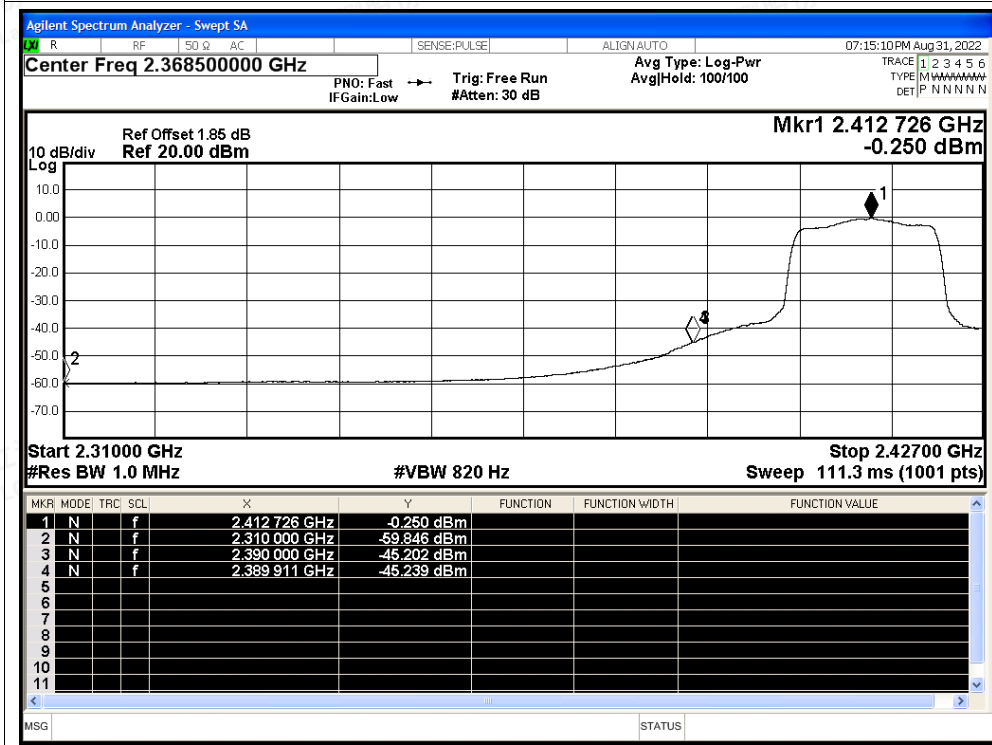




Restrict Band NVNT n20 2412MHz Ant1 Peak

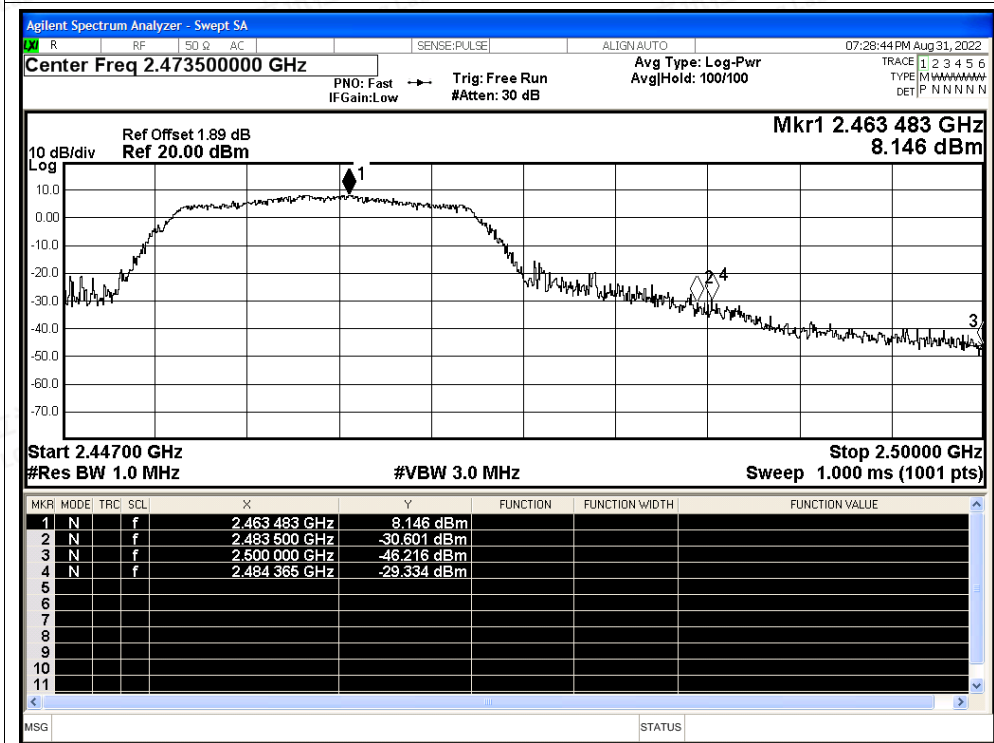


Restrict Band NVNT n20 2412MHz Ant1 Average





Restrict Band NVNT n20 2462MHz Ant1 Peak



Restrict Band NVNT n20 2462MHz Ant1 Average

