



## Appendix A

### RF Test Data for 2.4GWIFI(Conducted Measurement)

Product Name: SFO1

Test Model: SFO1

#### Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng





### A.1 -6dB Bandwidth

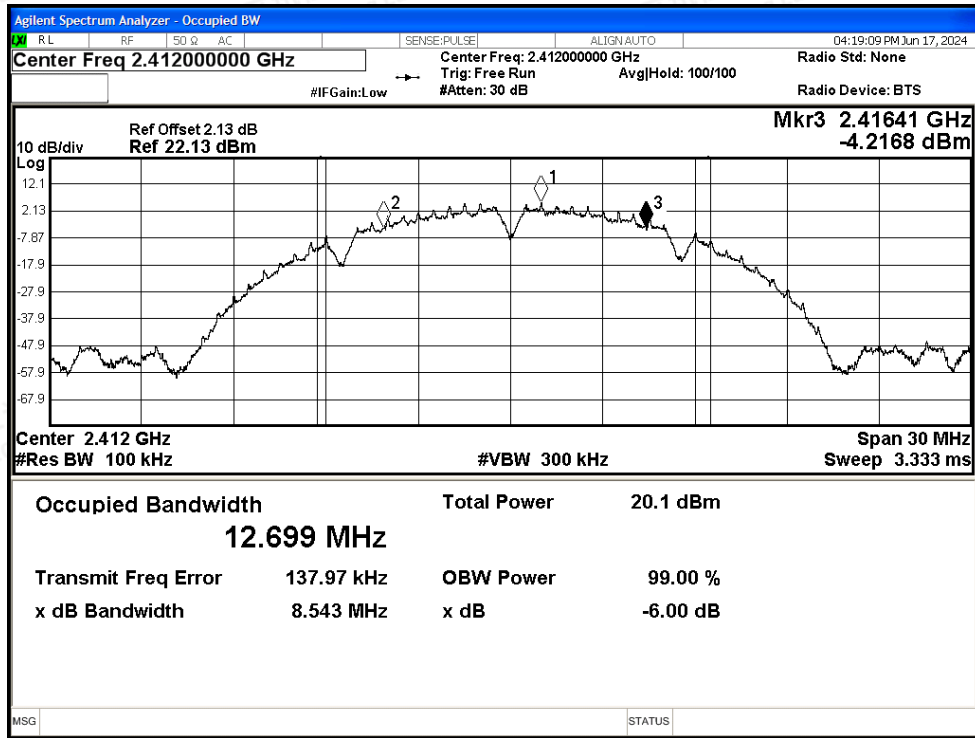
Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant	8.543	>=0.5	Pass
NVNT	b	2437	Ant	8.522	>=0.5	Pass
NVNT	b	2462	Ant	8.014	>=0.5	Pass
NVNT	g	2412	Ant	15.644	>=0.5	Pass
NVNT	g	2437	Ant	14.825	>=0.5	Pass
NVNT	g	2462	Ant	15.115	>=0.5	Pass
NVNT	n20	2412	Ant	15.281	>=0.5	Pass
NVNT	n20	2437	Ant	15.437	>=0.5	Pass
NVNT	n20	2462	Ant	15.027	>=0.5	Pass
NVNT	n40	2422	Ant	34.987	>=0.5	Pass
NVNT	n40	2437	Ant	32.676	>=0.5	Pass
NVNT	n40	2452	Ant	35.045	>=0.5	Pass



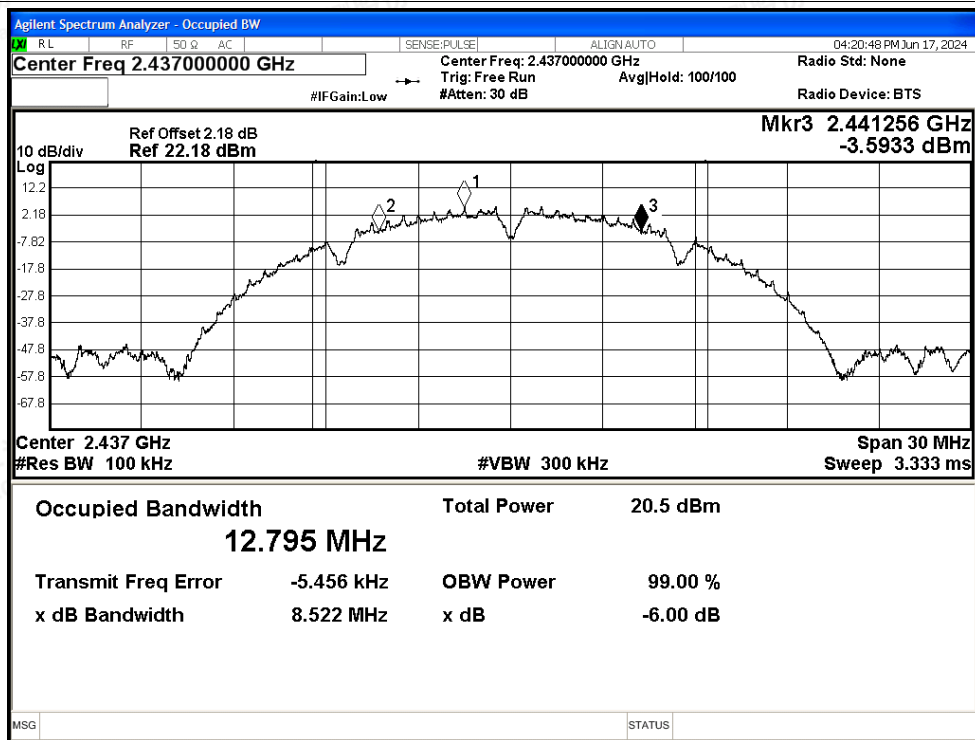


Test Graphs

-6dB Bandwidth NVNT b 2412MHz Ant

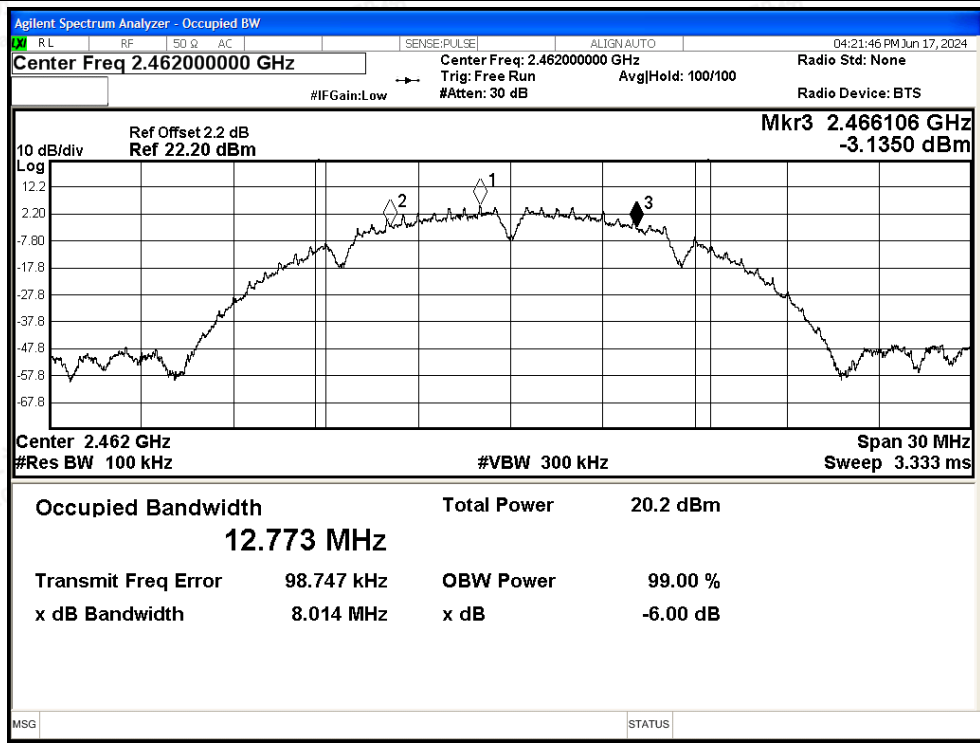


-6dB Bandwidth NVNT b 2437MHz Ant

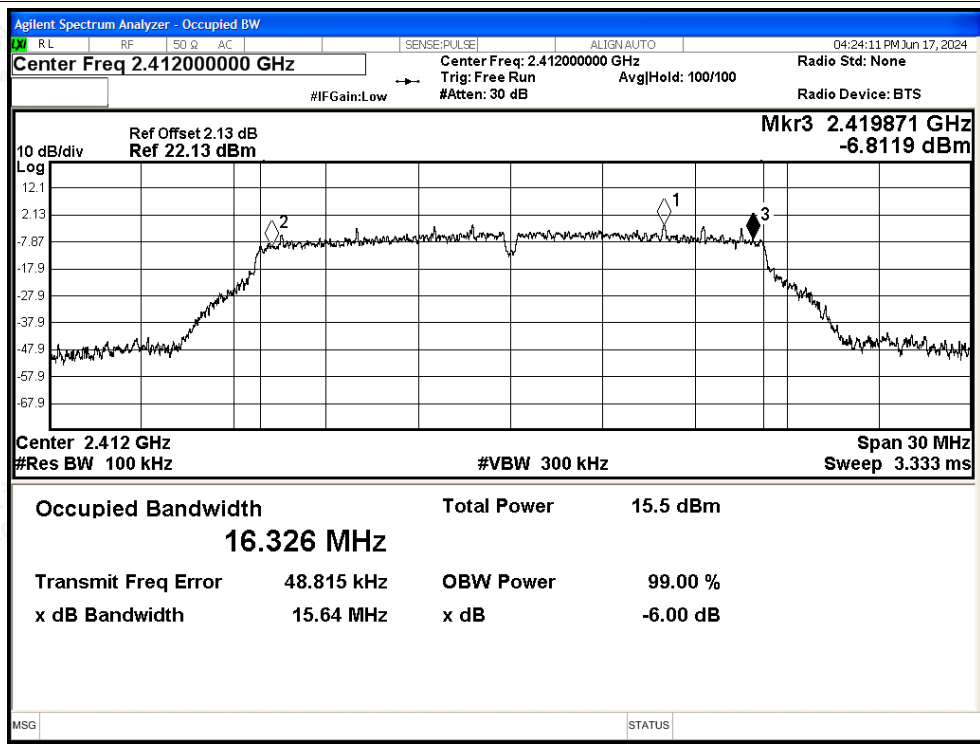




-6dB Bandwidth NVNT b 2462MHz Ant



-6dB Bandwidth NVNT g 2412MHz Ant



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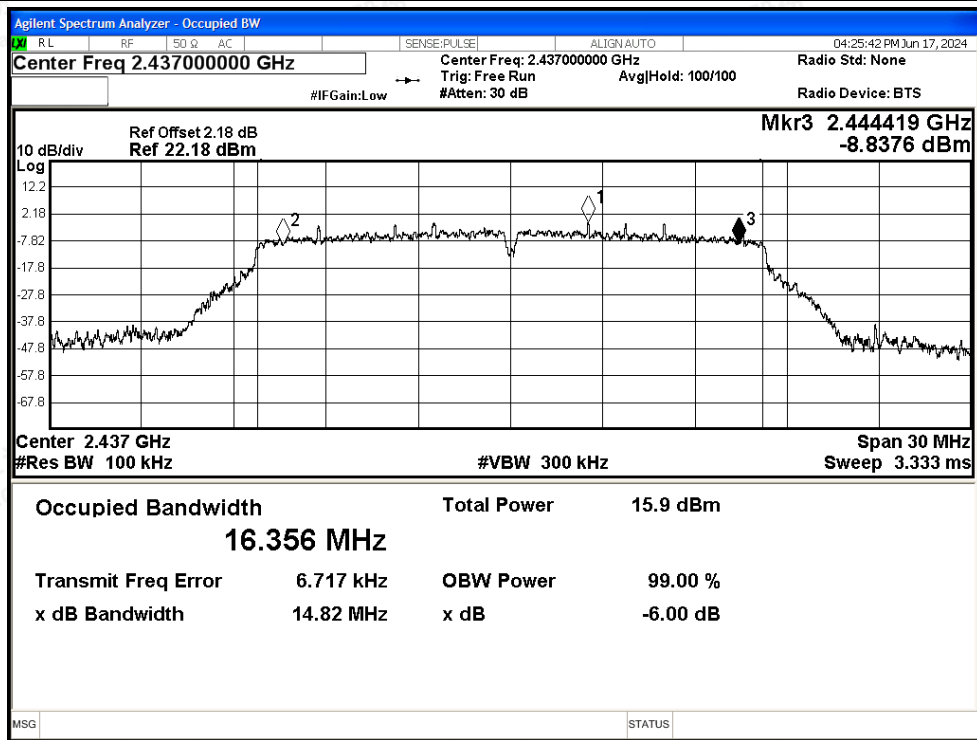
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

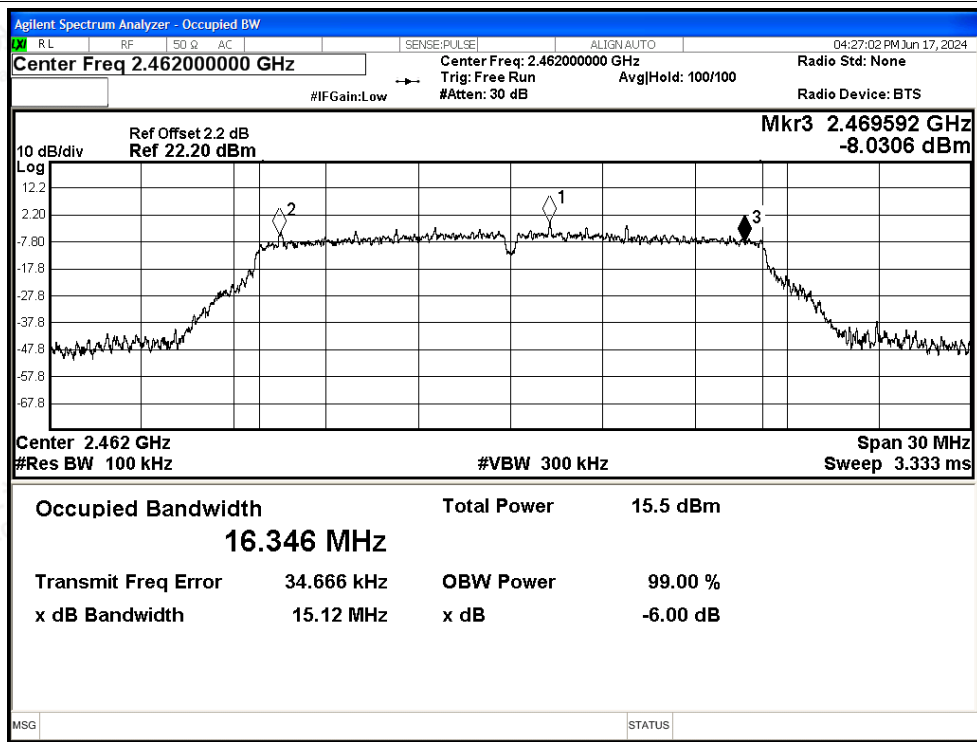
Scan code to check authenticity



-6dB Bandwidth NVNT g 2437MHz Ant



-6dB Bandwidth NVNT g 2462MHz Ant

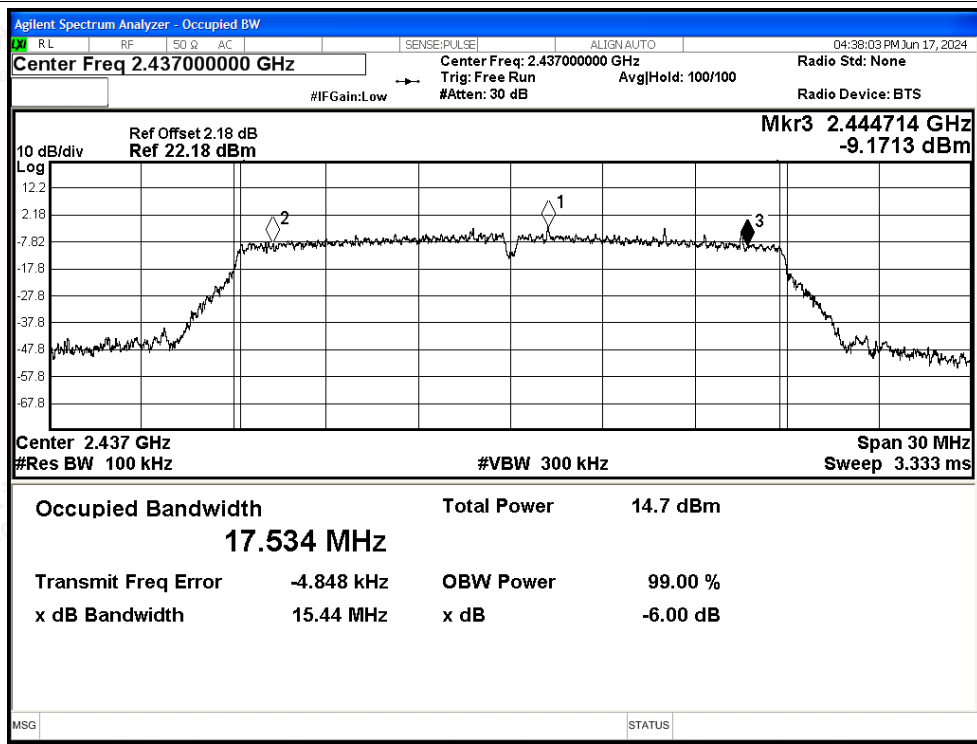




-6dB Bandwidth NVNT n20 2412MHz Ant

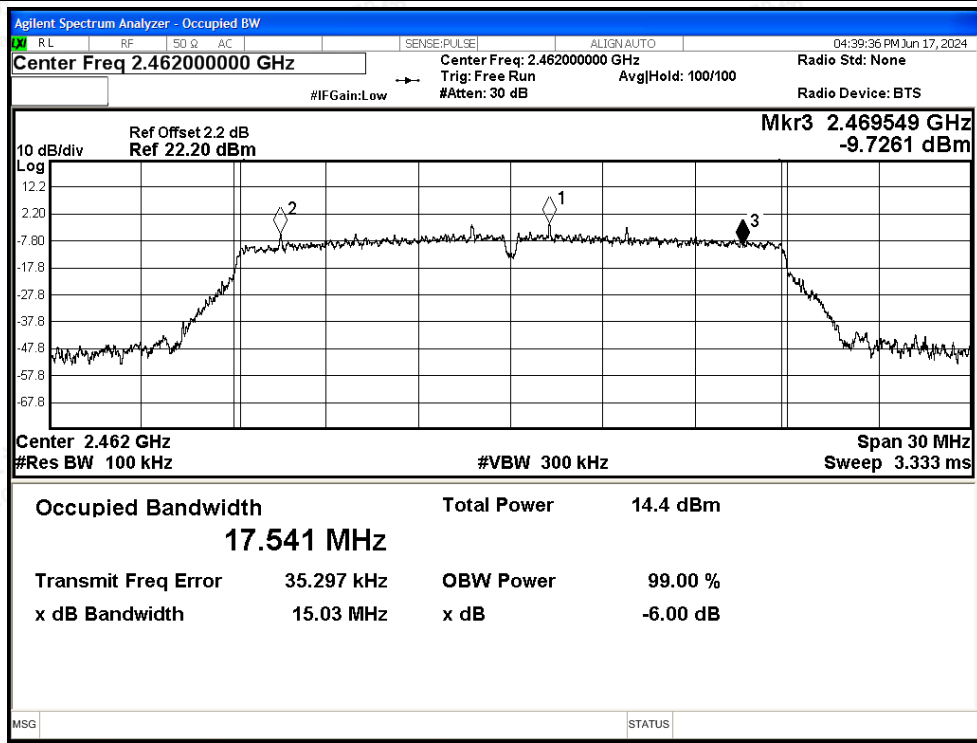


-6dB Bandwidth NVNT n20 2437MHz Ant

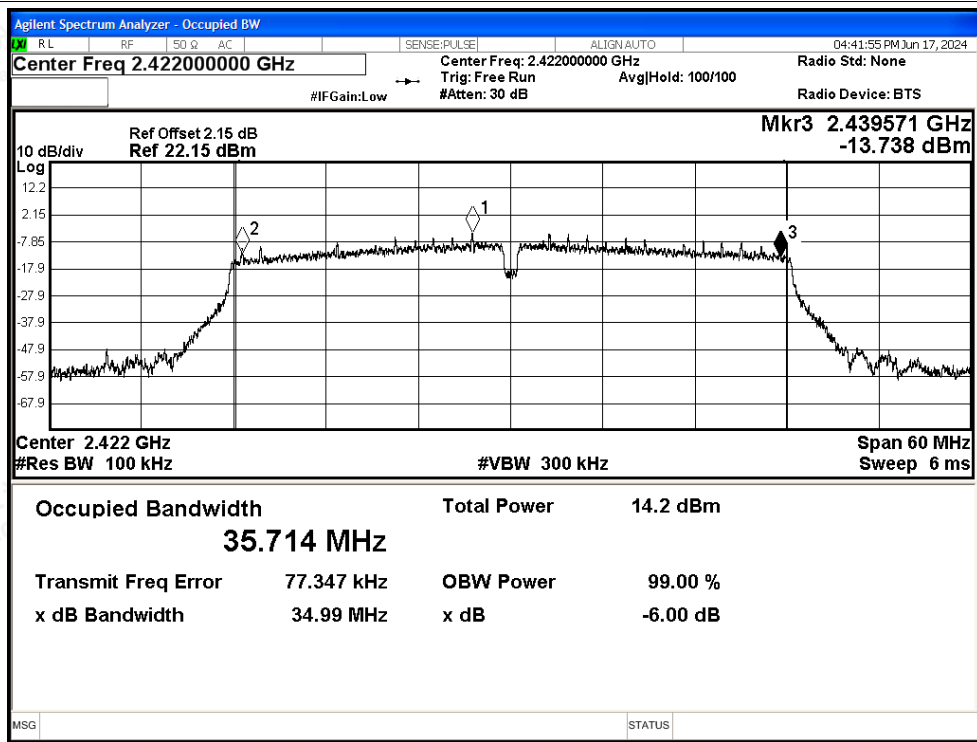




-6dB Bandwidth NVNT n20 2462MHz Ant



-6dB Bandwidth NVNT n40 2422MHz Ant



Shenzhen LCS Compliance Testing Laboratory Ltd.

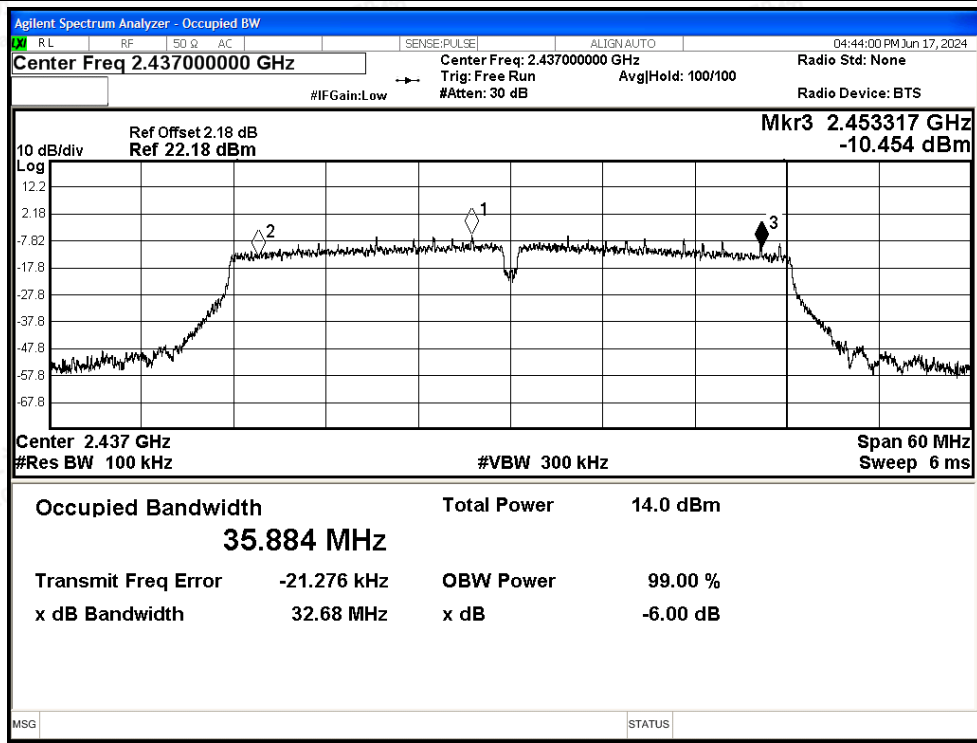
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

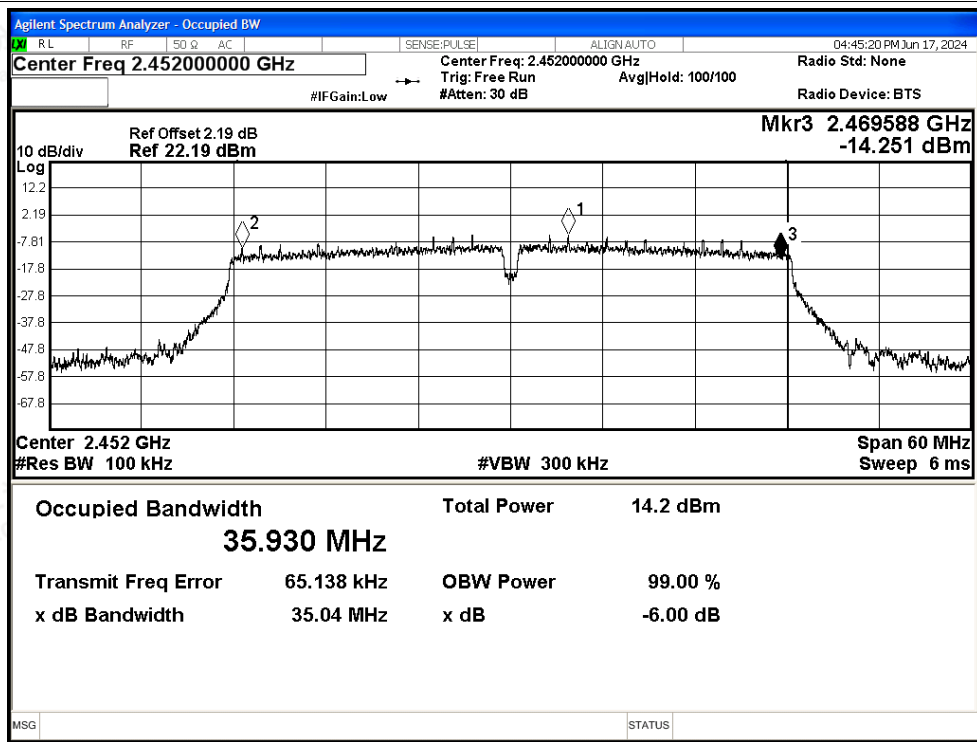
Scan code to check authenticity



-6dB Bandwidth NVNT n40 2437MHz Ant



-6dB Bandwidth NVNT n40 2452MHz Ant







## A.2 Maximum Peak Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant	17.43	30	Pass
NVNT	b	2437	Ant	17.22	30	Pass
NVNT	b	2462	Ant	17.09	30	Pass
NVNT	g	2412	Ant	17.84	30	Pass
NVNT	g	2437	Ant	17.14	30	Pass
NVNT	g	2462	Ant	17.85	30	Pass
NVNT	n20	2412	Ant	17.12	30	Pass
NVNT	n20	2437	Ant	17.85	30	Pass
NVNT	n20	2462	Ant	17.88	30	Pass
NVNT	n40	2422	Ant	17.53	30	Pass
NVNT	n40	2437	Ant	17.54	30	Pass
NVNT	n40	2452	Ant	17.40	30	Pass





### A.3 Maximum Power Spectral Density Level

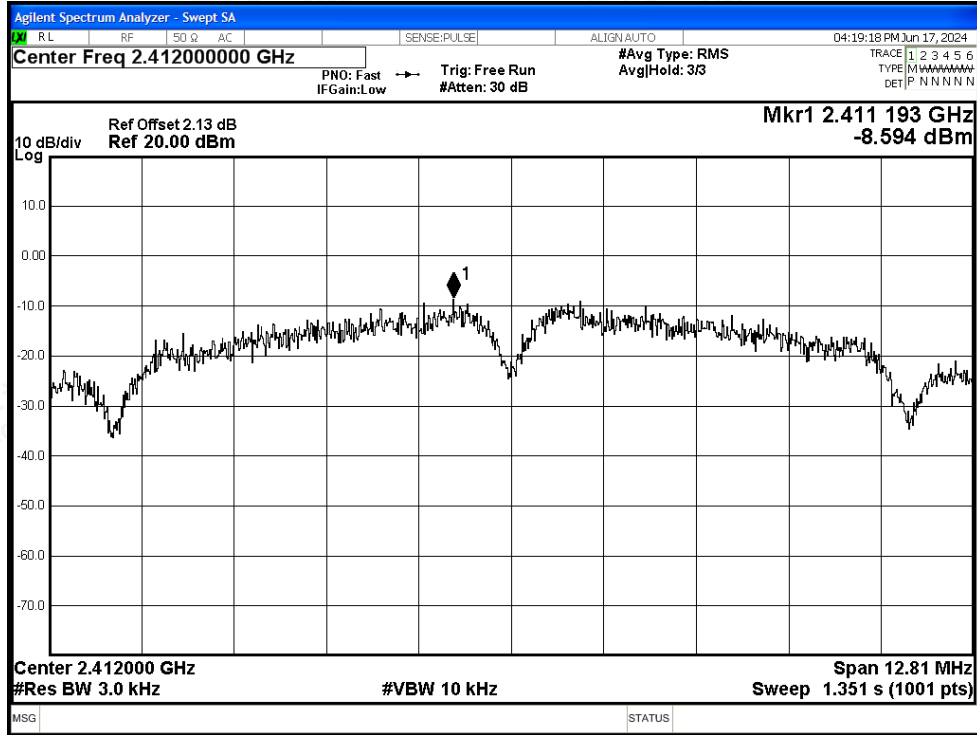
Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/3kHz)	Limit (dBm/3kHz)	Verdict
NVNT	b	2412	Ant	-8.59	8	Pass
NVNT	b	2437	Ant	-8.49	8	Pass
NVNT	b	2462	Ant	-8.82	8	Pass
NVNT	g	2412	Ant	-15.56	8	Pass
NVNT	g	2437	Ant	-14.6	8	Pass
NVNT	g	2462	Ant	-14.16	8	Pass
NVNT	n20	2412	Ant	-16.17	8	Pass
NVNT	n20	2437	Ant	-15.98	8	Pass
NVNT	n20	2462	Ant	-16.07	8	Pass
NVNT	n40	2422	Ant	-18.02	8	Pass
NVNT	n40	2437	Ant	-20.23	8	Pass
NVNT	n40	2452	Ant	-18.9	8	Pass



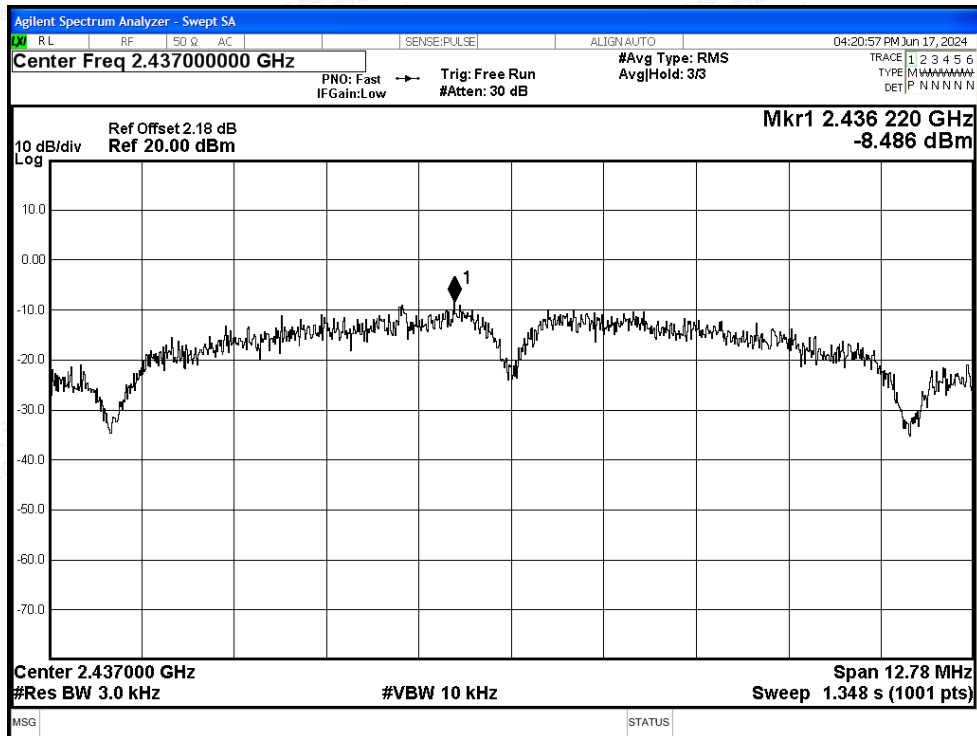


Test Graphs

PSD NVNT b 2412MHz Ant

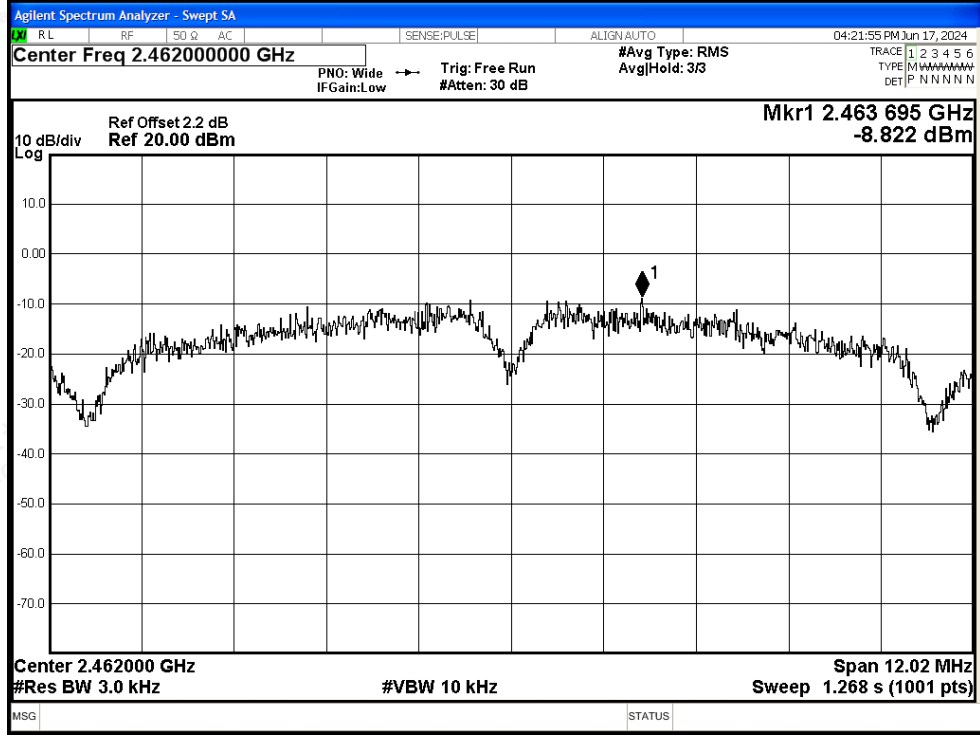


PSD NVNT b 2437MHz Ant

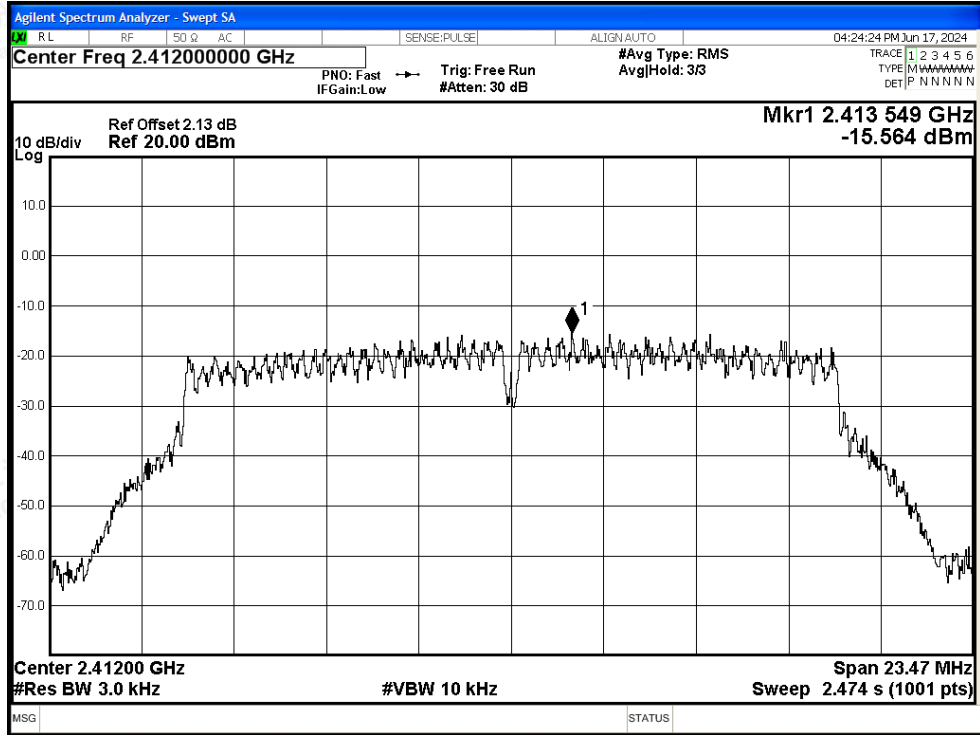




PSD NVNT b 2462MHz Ant

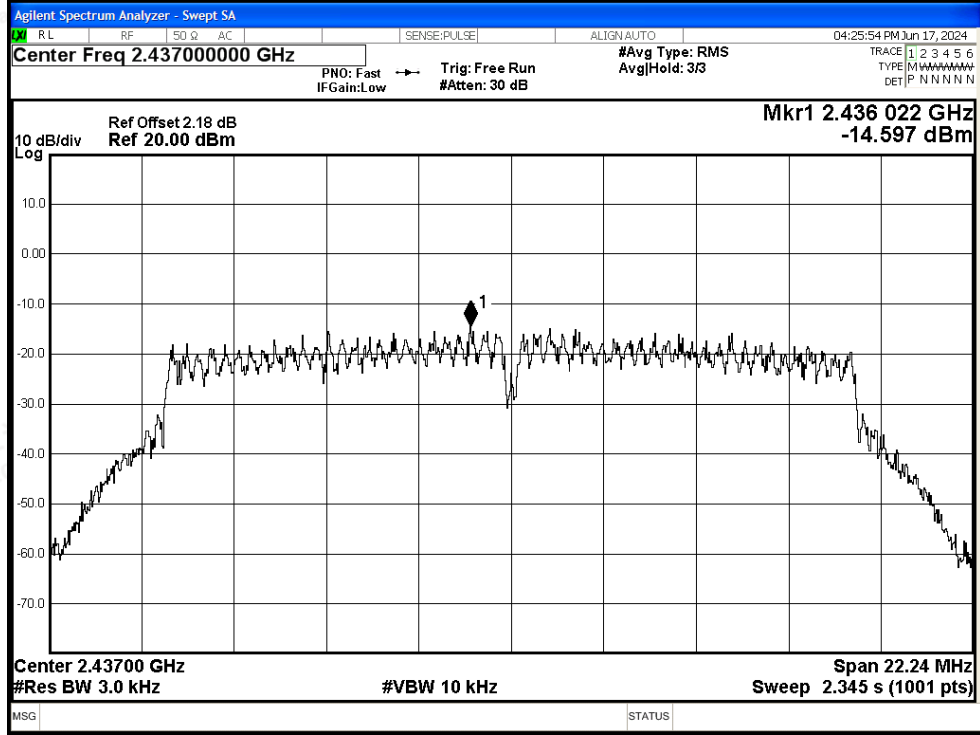


PSD NVNT g 2412MHz Ant

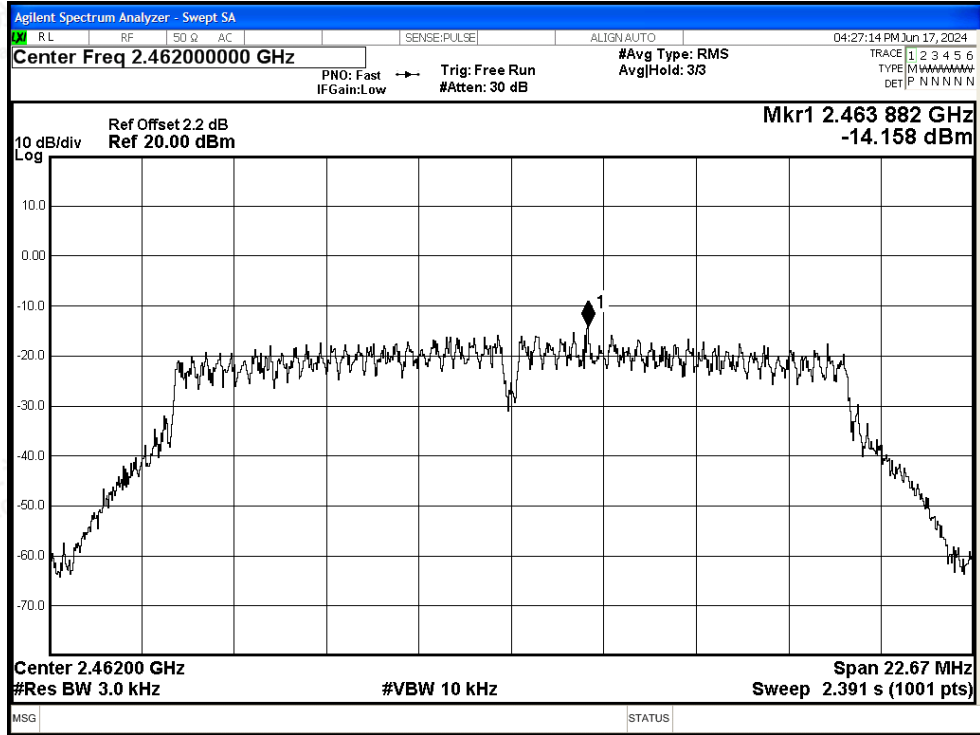


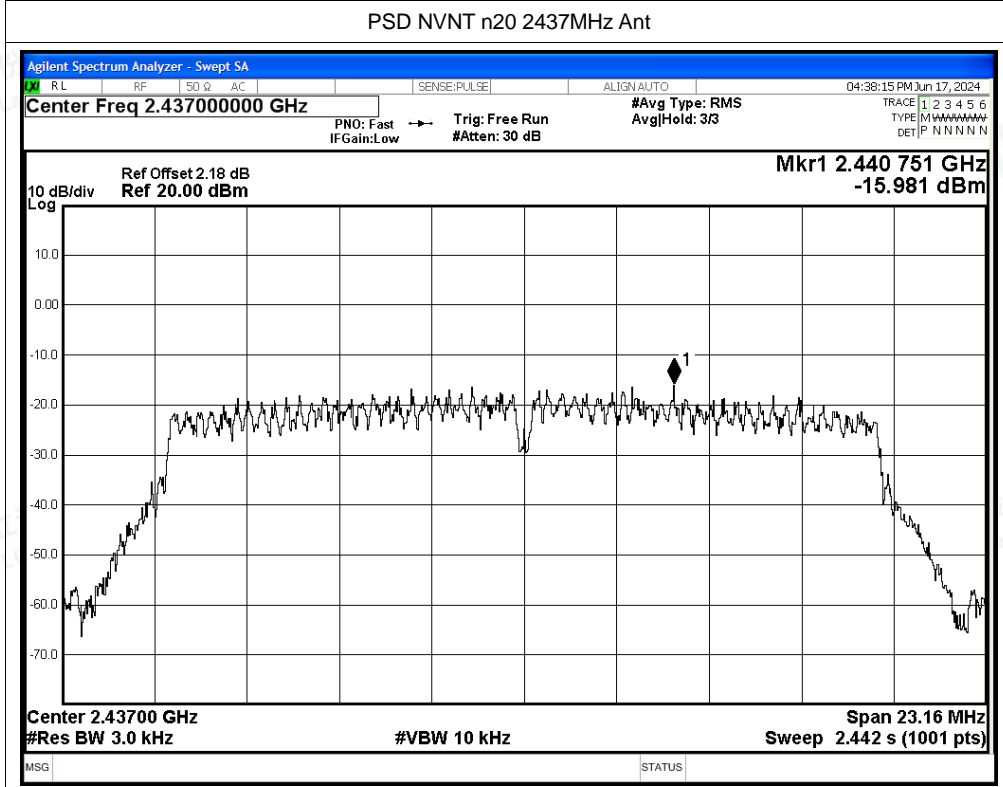
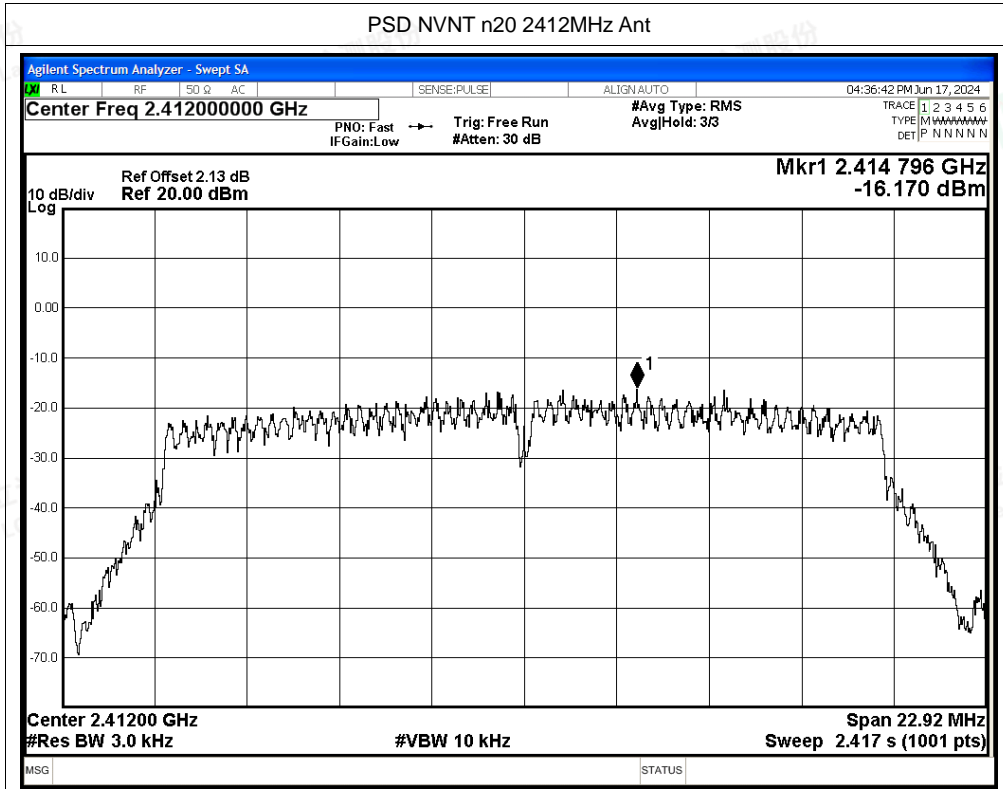


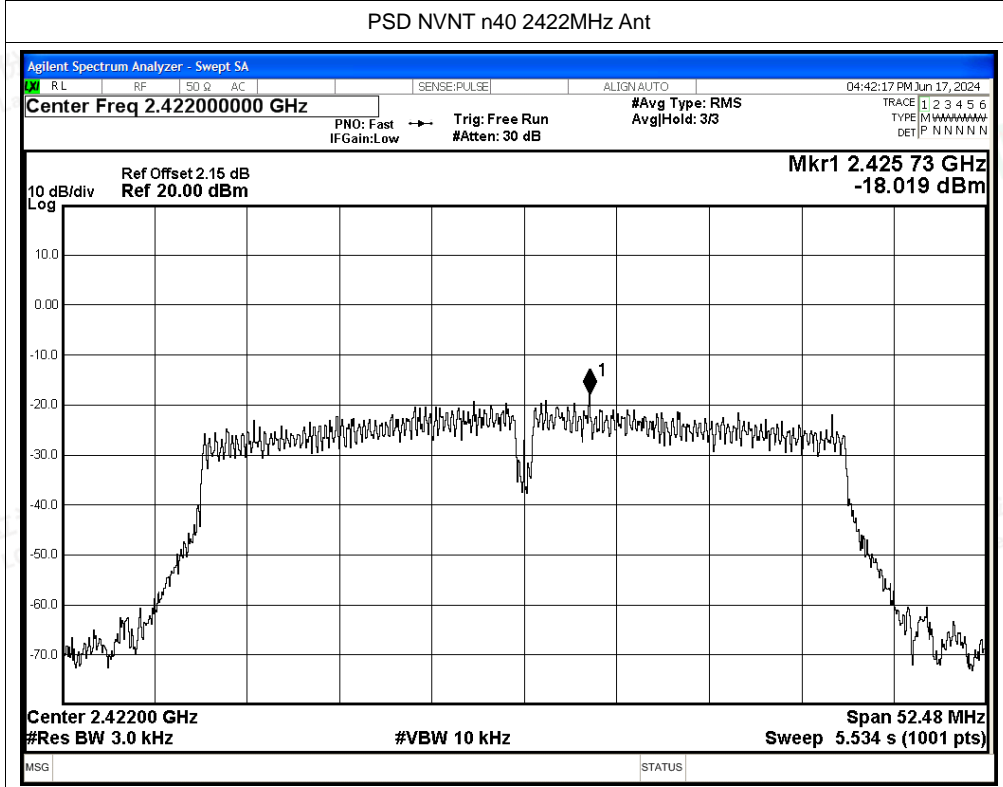
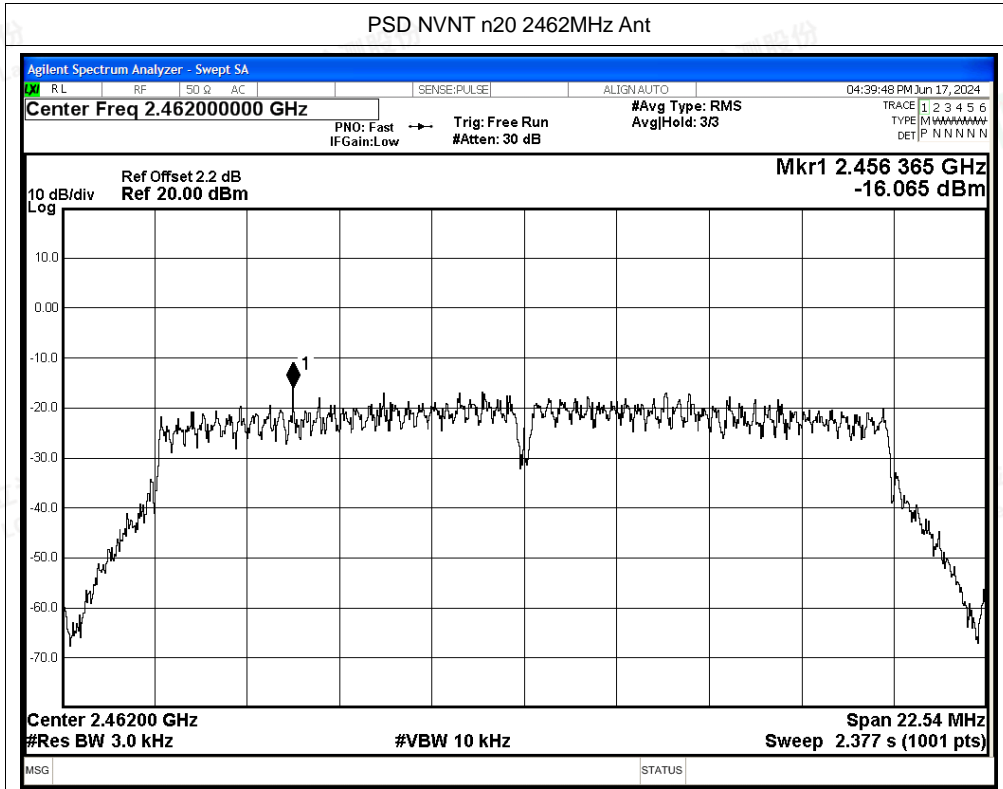
PSD NVNT g 2437MHz Ant

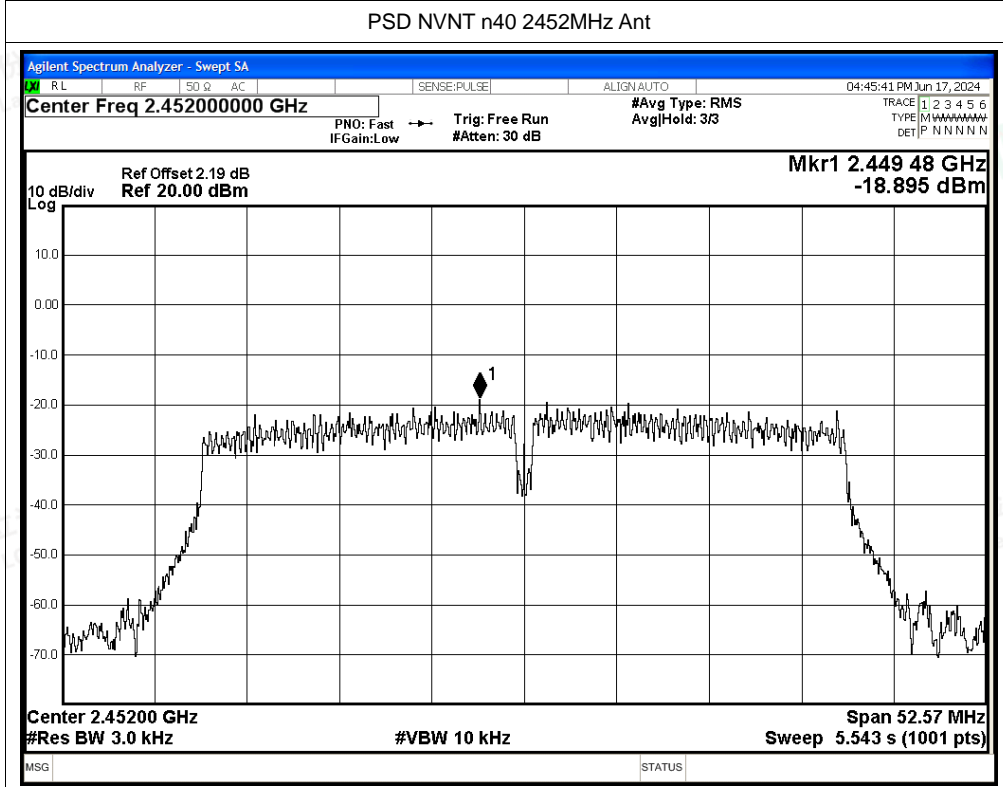
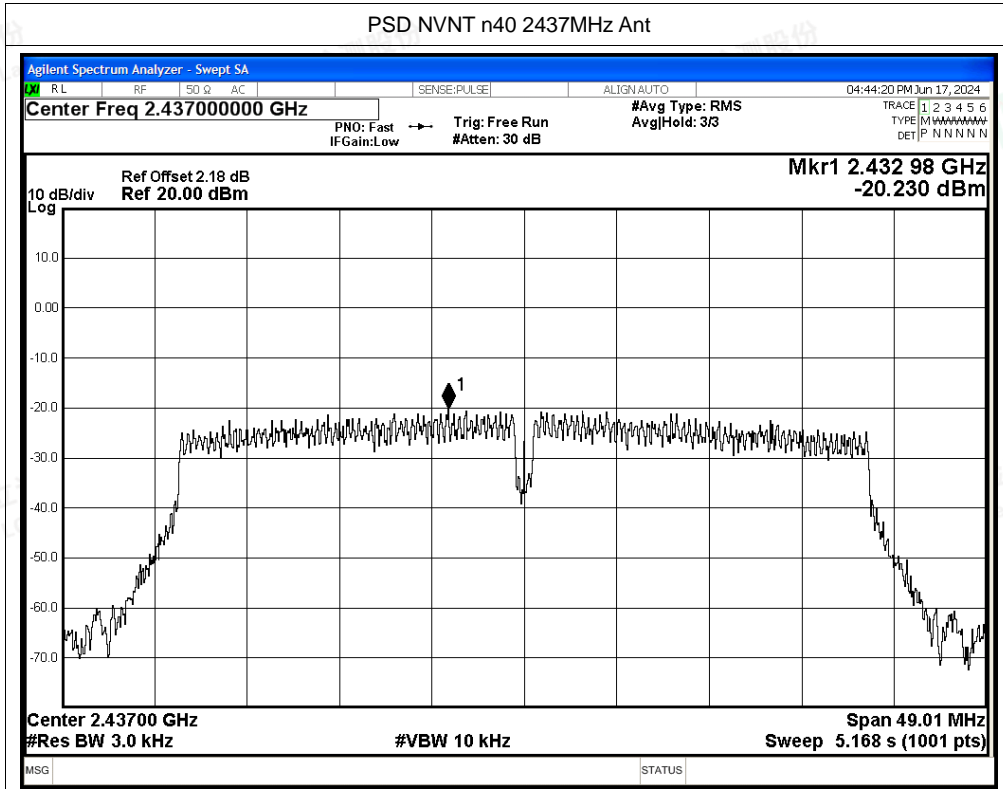


PSD NVNT g 2462MHz Ant









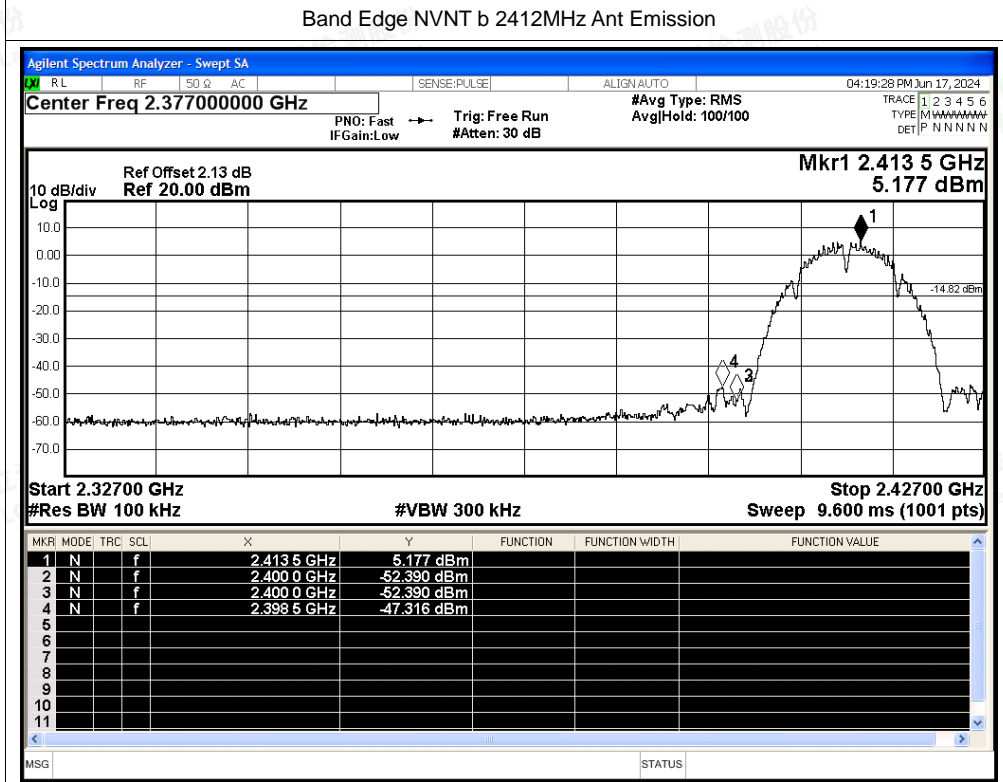
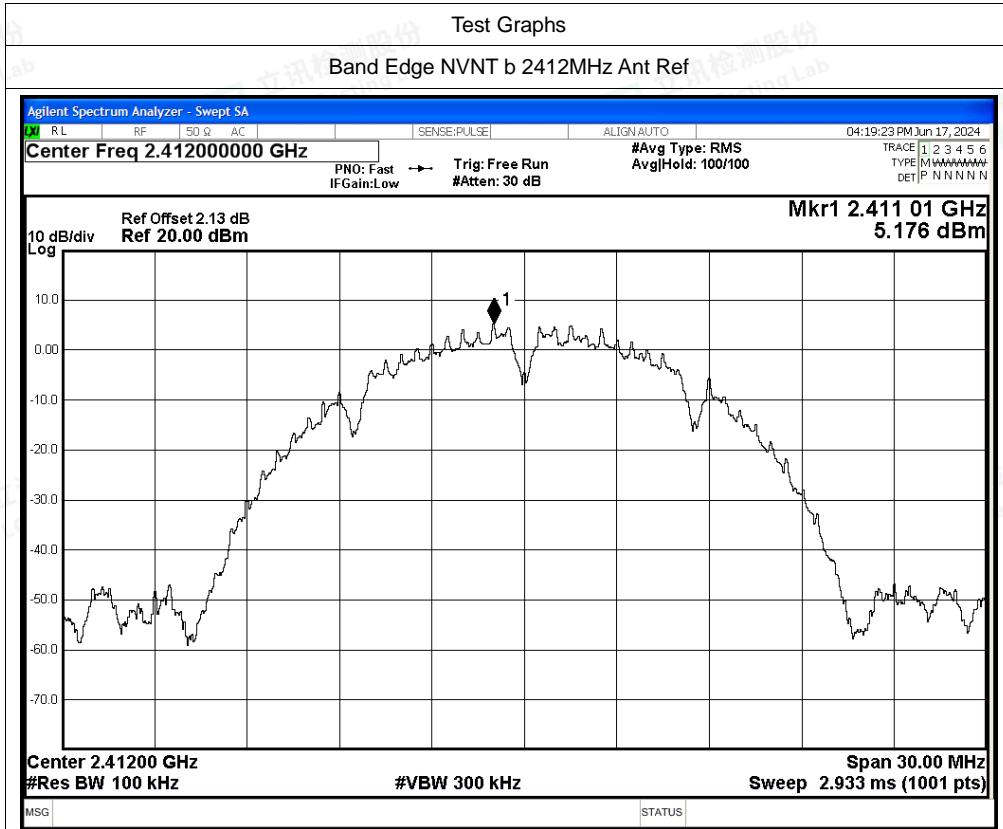


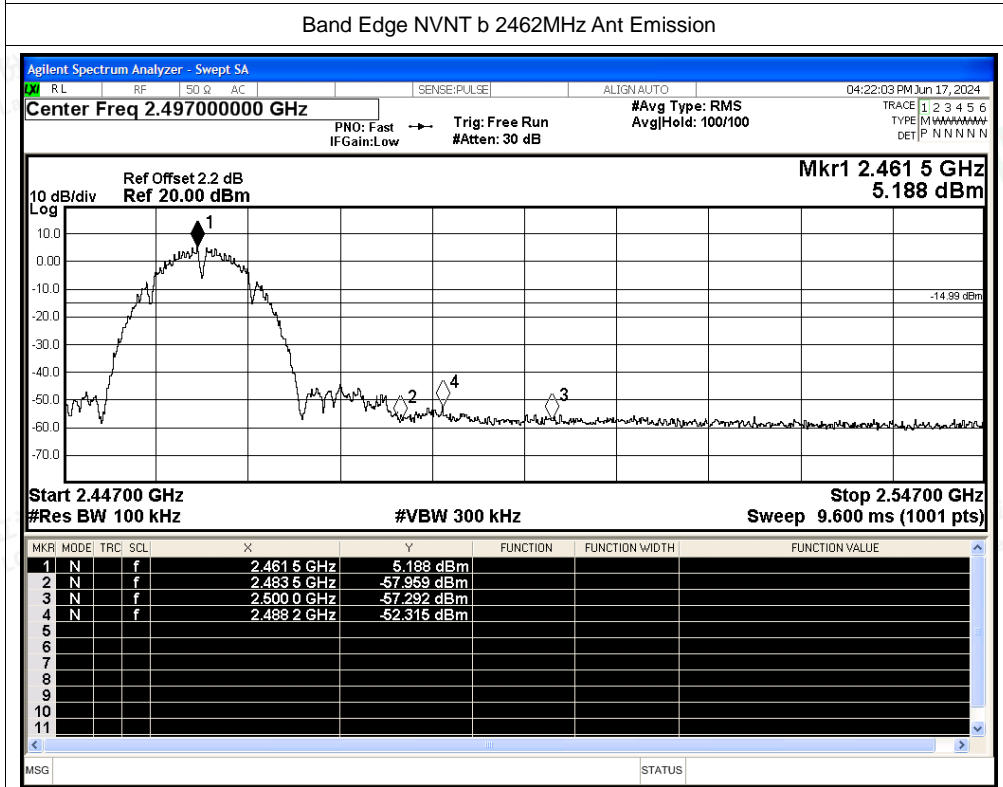
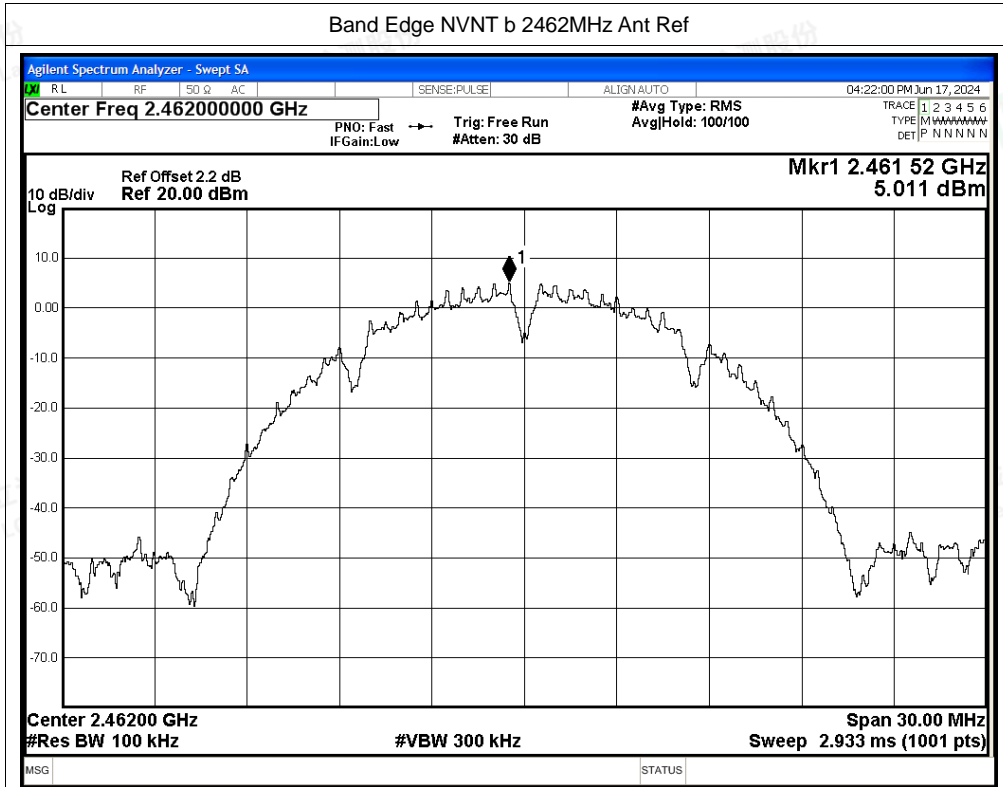


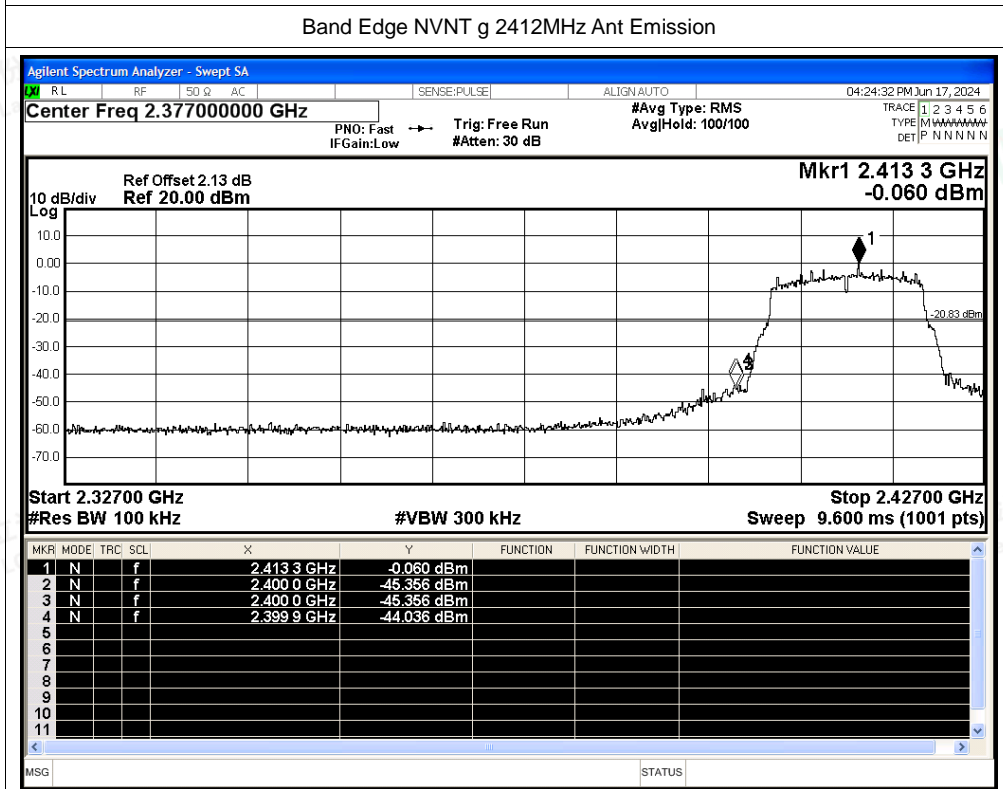
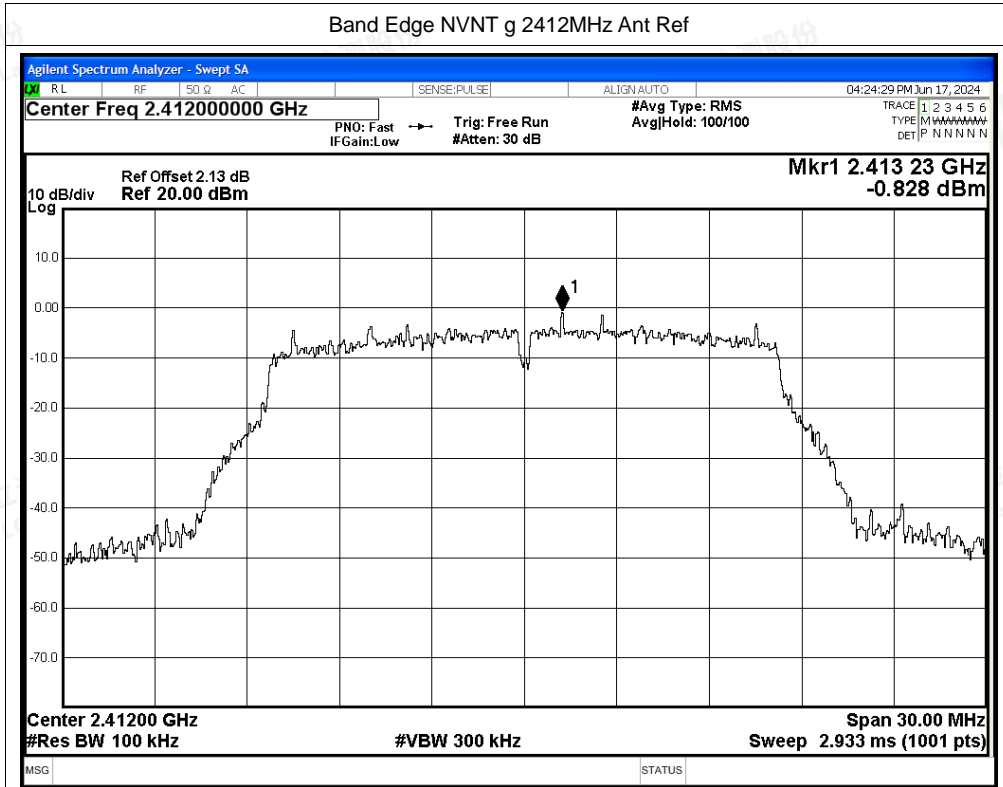
## A.4 Band Edge

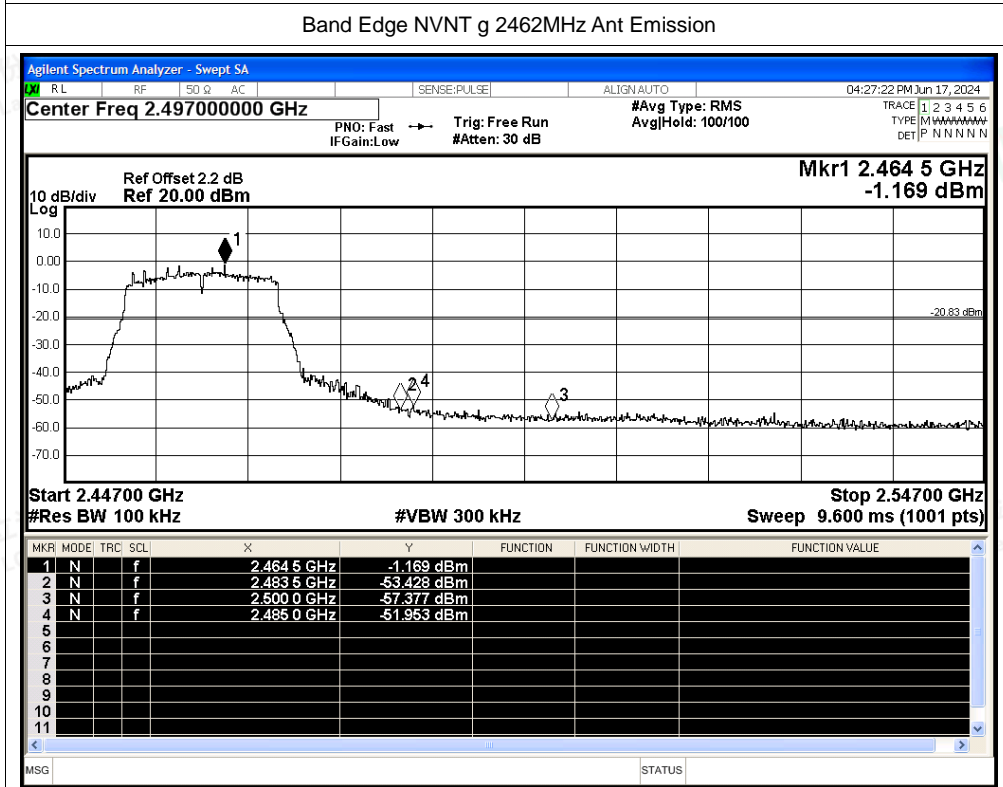
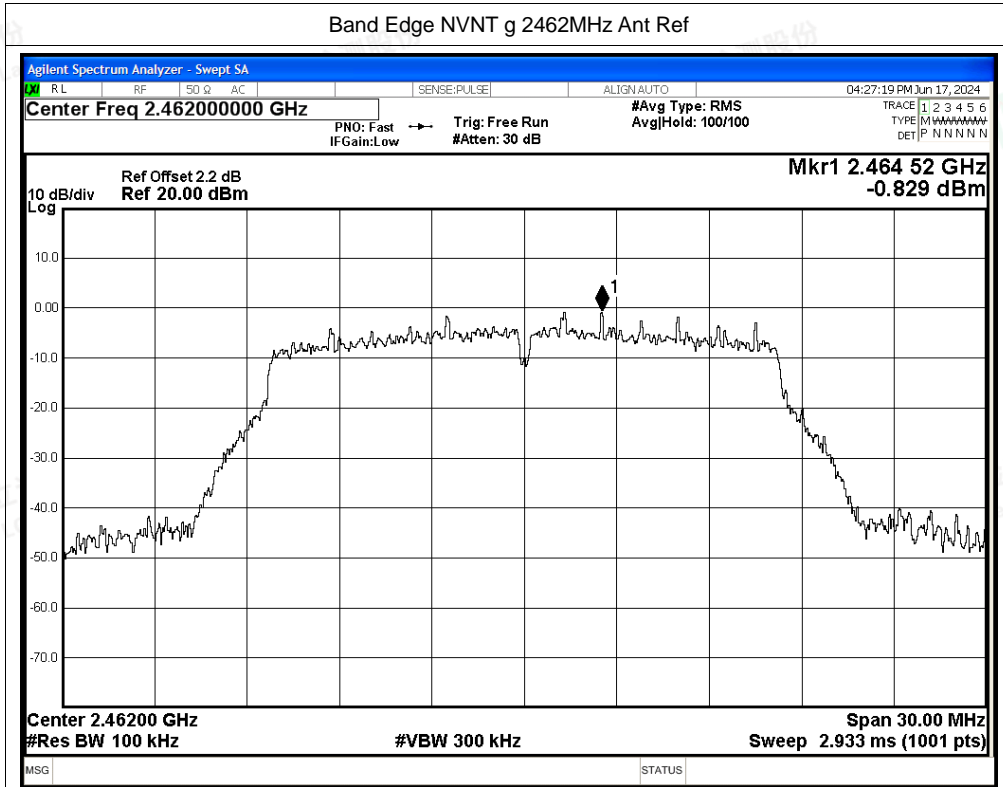
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant	-52.49	-20	Pass
NVNT	b	2462	Ant	-57.33	-20	Pass
NVNT	g	2412	Ant	-43.21	-20	Pass
NVNT	g	2462	Ant	-51.12	-20	Pass
NVNT	n20	2412	Ant	-43.16	-20	Pass
NVNT	n20	2462	Ant	-50.94	-20	Pass
NVNT	n40	2422	Ant	-40.96	-20	Pass
NVNT	n40	2452	Ant	-45.06	-20	Pass

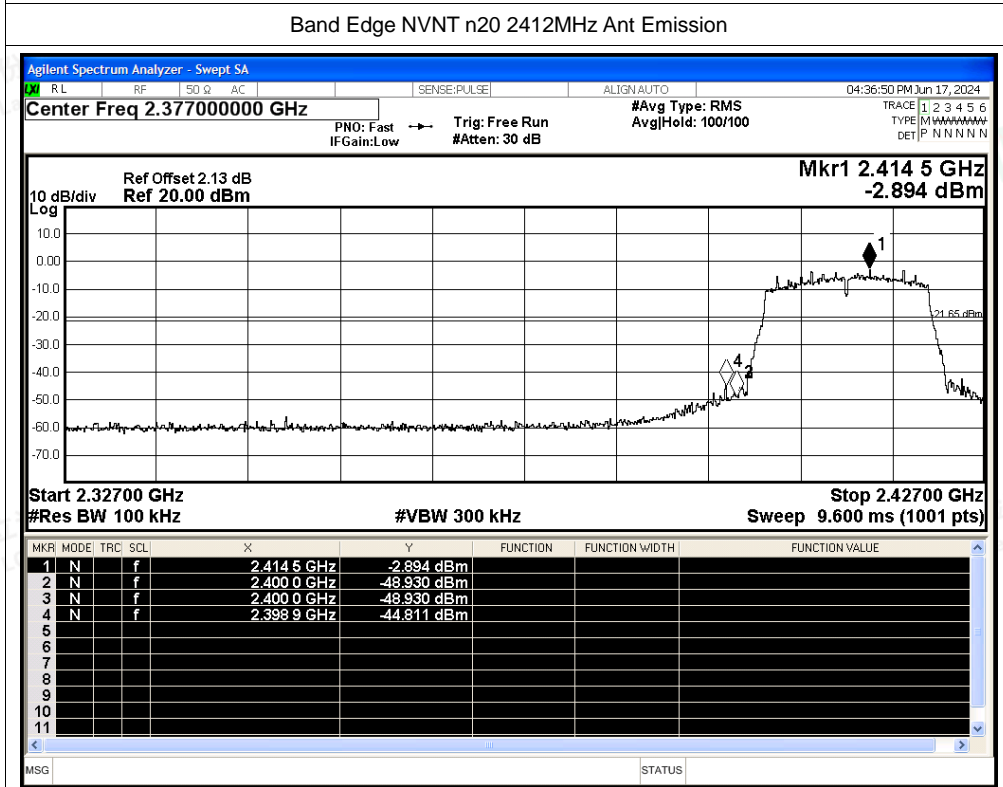
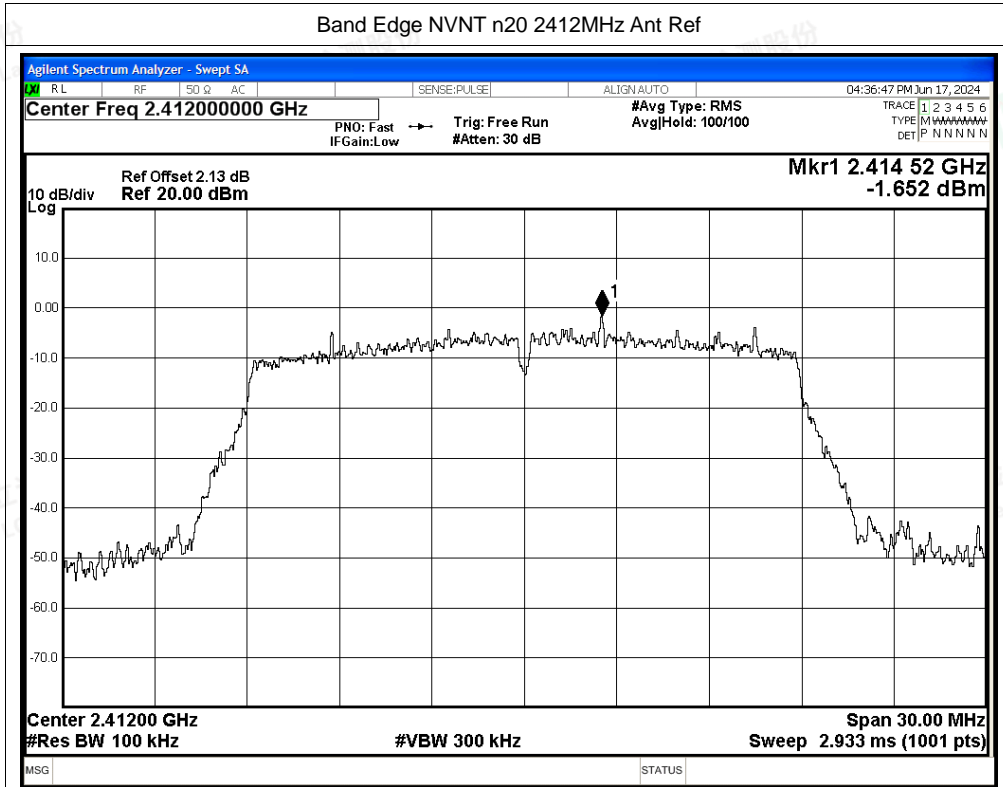


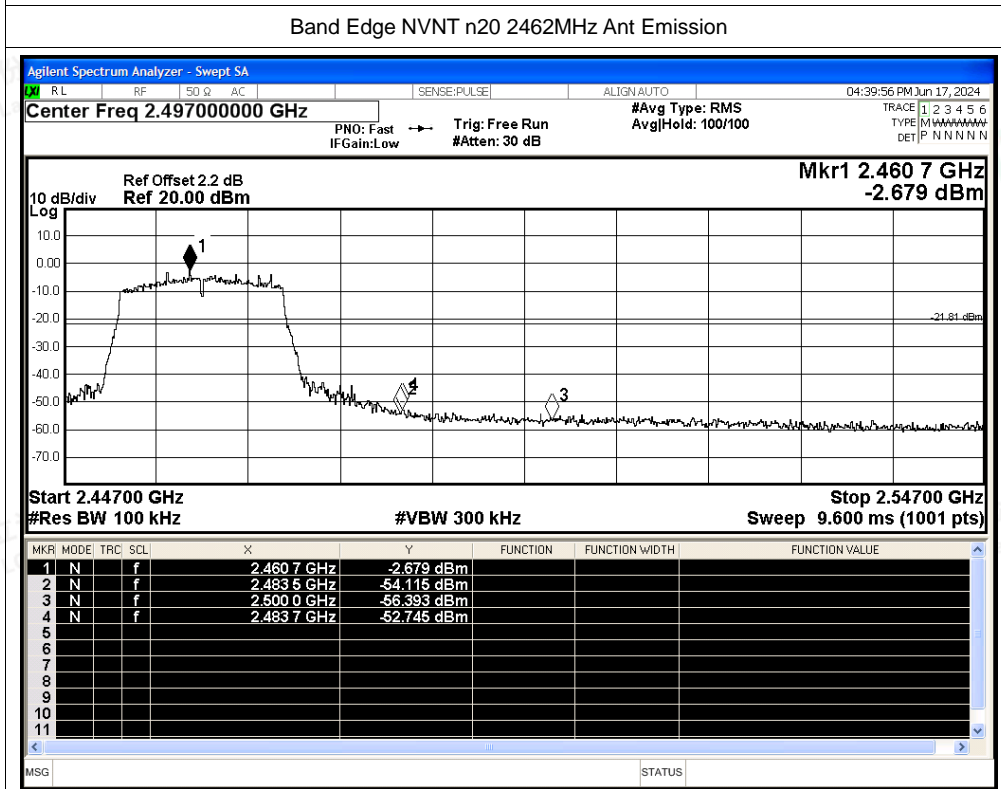
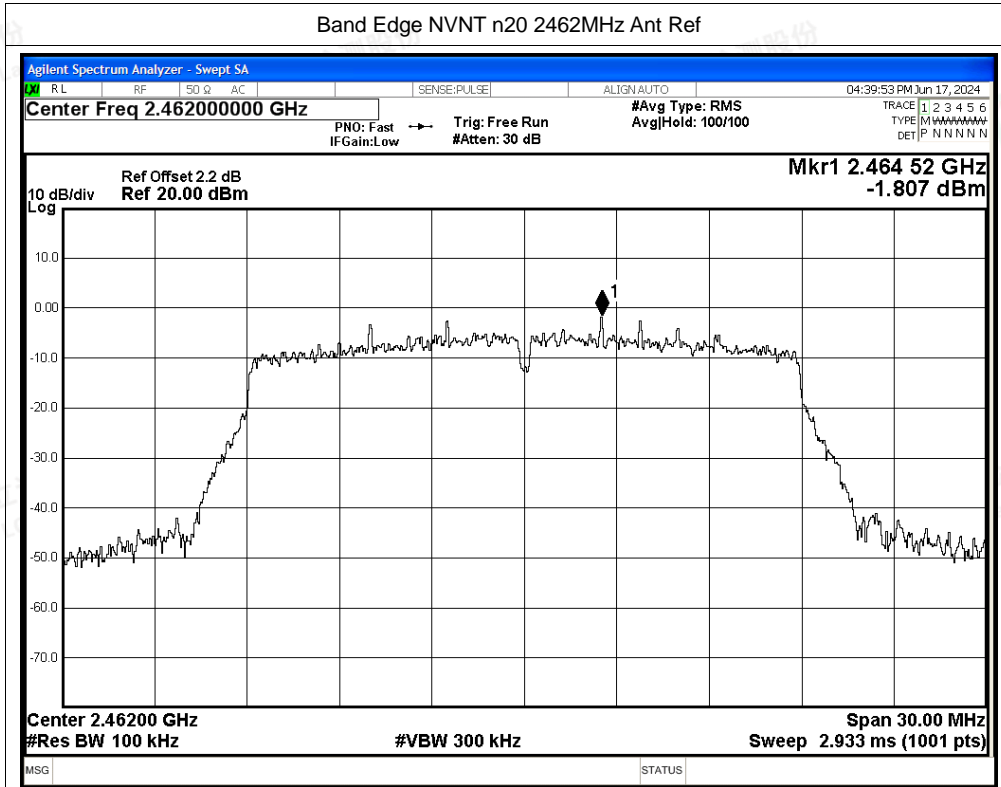


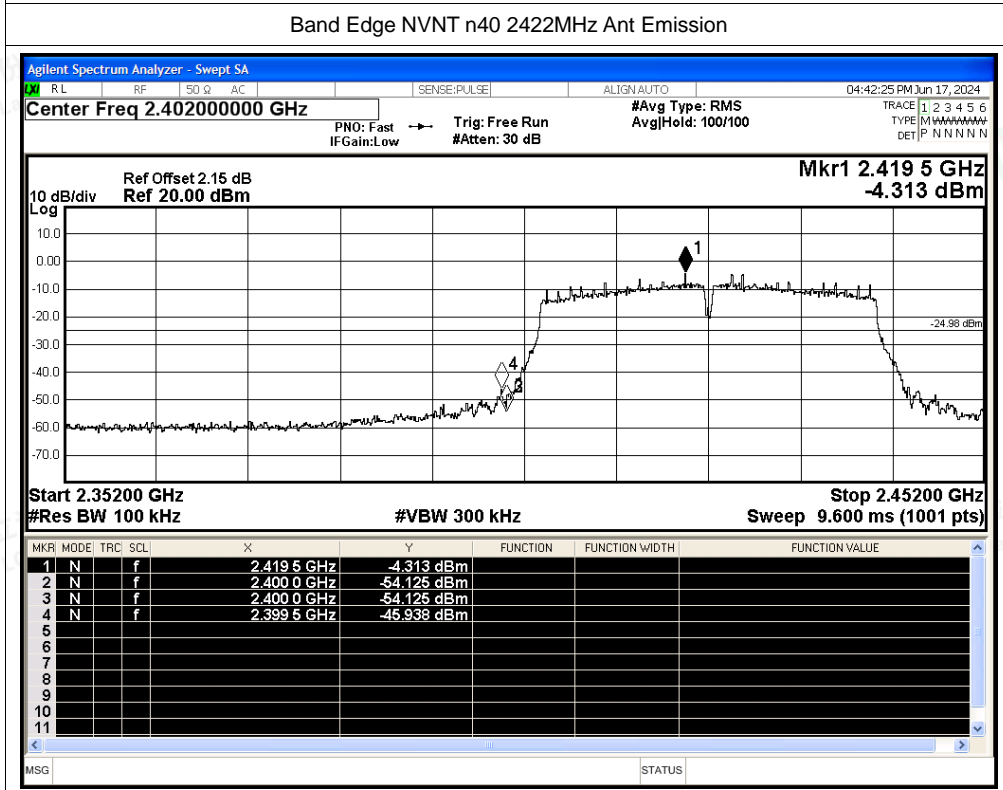
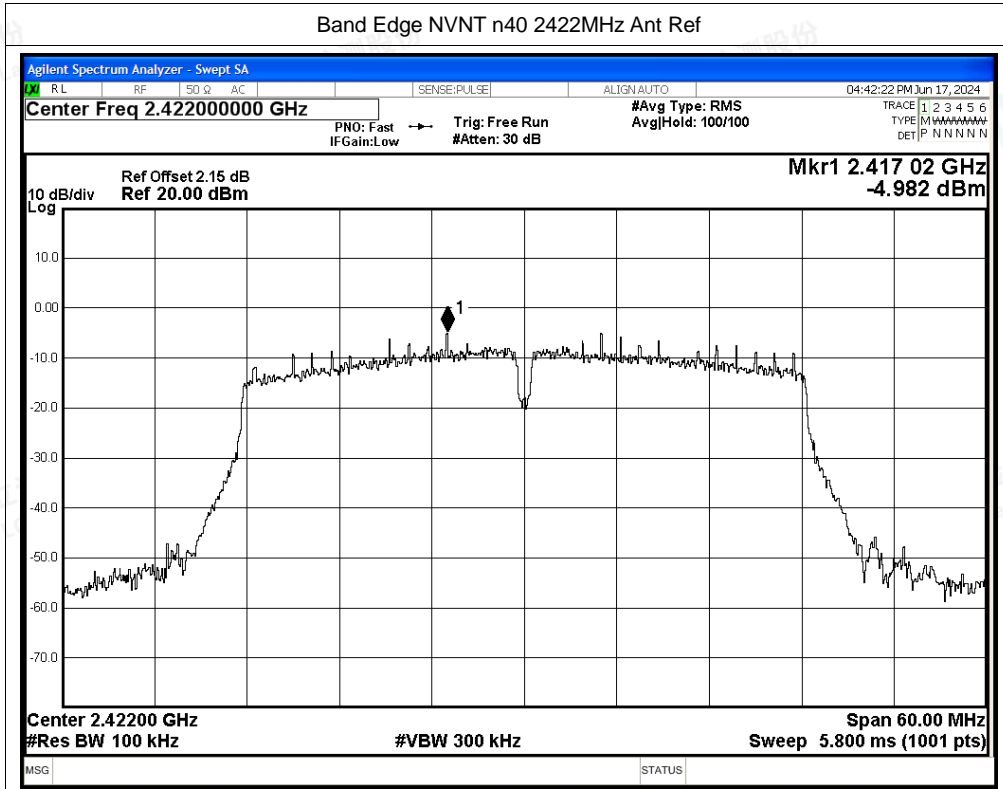








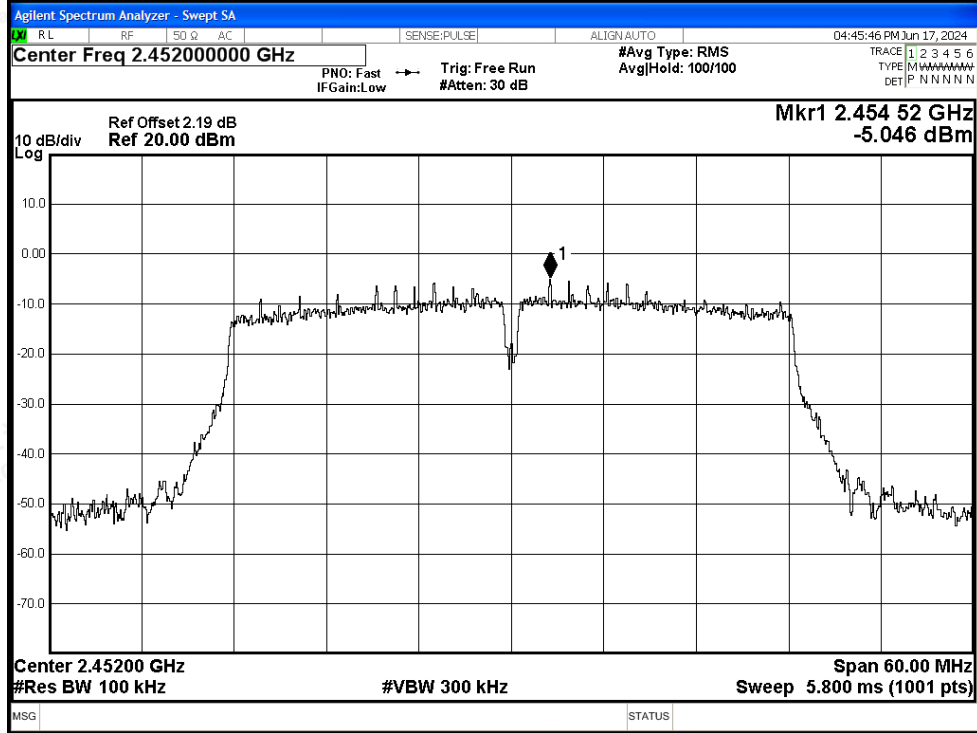




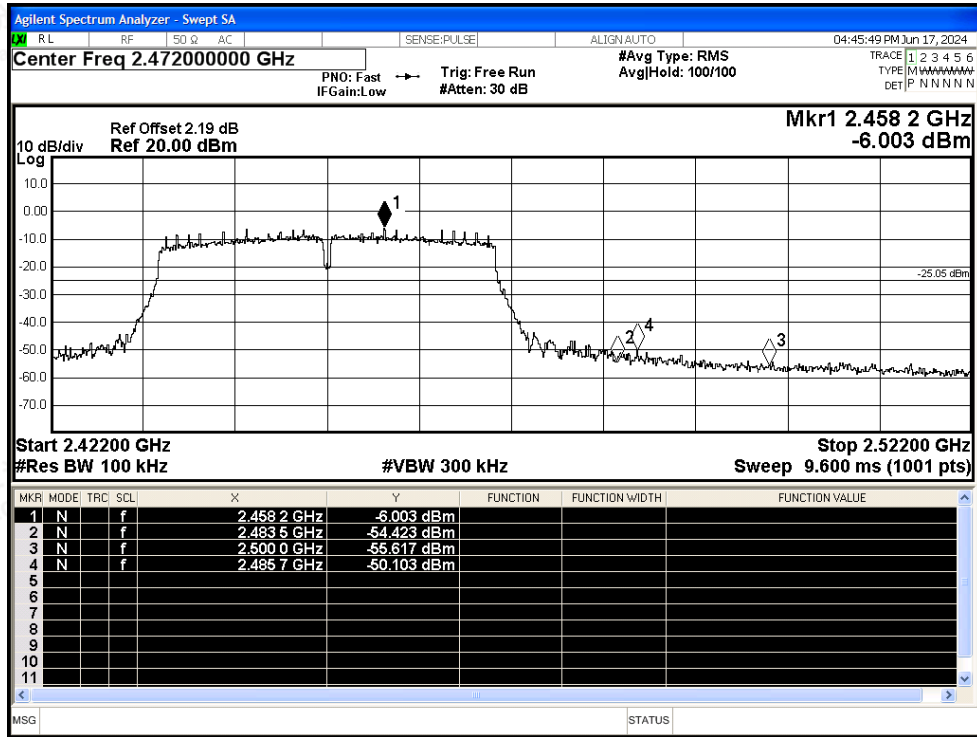




Band Edge NVNT n40 2452MHz Ant Ref



Band Edge NVNT n40 2452MHz Ant Emission





### A.5 Conducted RF Spurious Emission

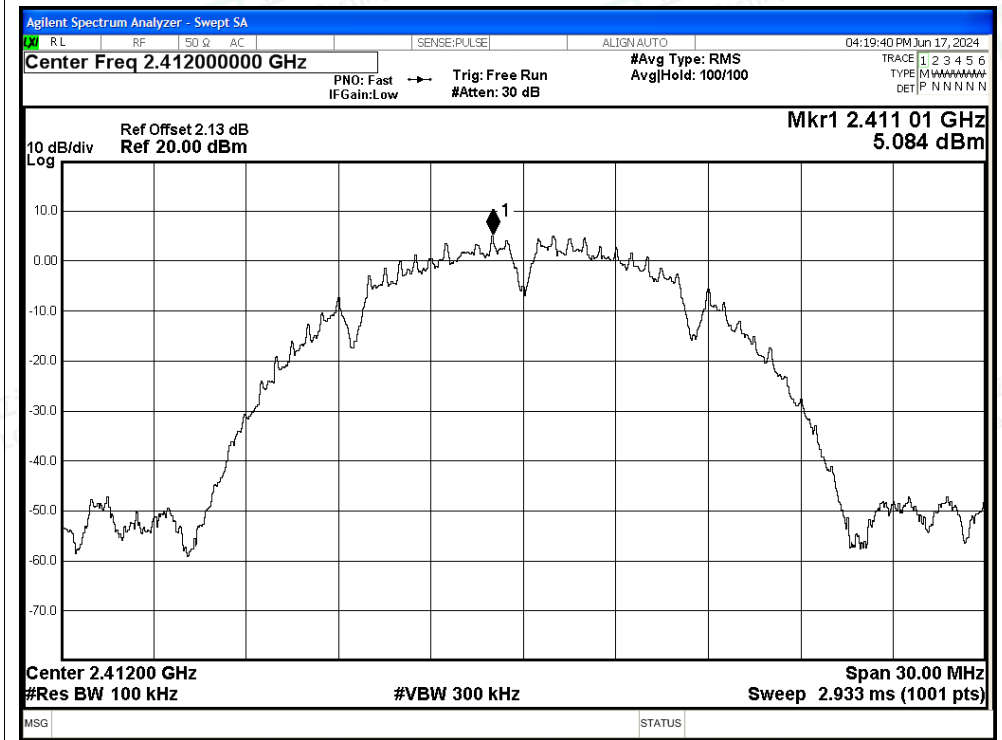
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	b	2412	Ant	-51.31	-20	Pass
NVNT	b	2437	Ant	-51.64	-20	Pass
NVNT	b	2462	Ant	-51.55	-20	Pass
NVNT	g	2412	Ant	-45.49	-20	Pass
NVNT	g	2437	Ant	-46.14	-20	Pass
NVNT	g	2462	Ant	-44.54	-20	Pass
NVNT	n20	2412	Ant	-44.03	-20	Pass
NVNT	n20	2437	Ant	-44.83	-20	Pass
NVNT	n20	2462	Ant	-45.86	-20	Pass
NVNT	n40	2422	Ant	-41.32	-20	Pass
NVNT	n40	2437	Ant	-40.5	-20	Pass
NVNT	n40	2452	Ant	-41.51	-20	Pass



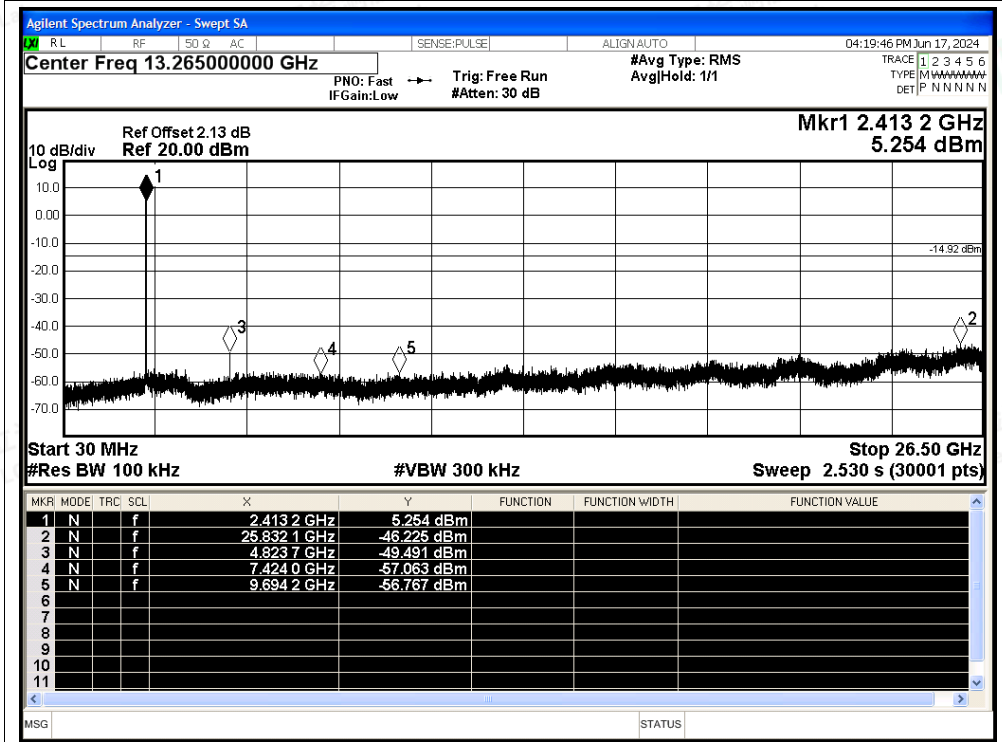


Test Graphs

Tx. Spurious NVNT b 2412MHz Ant Ref

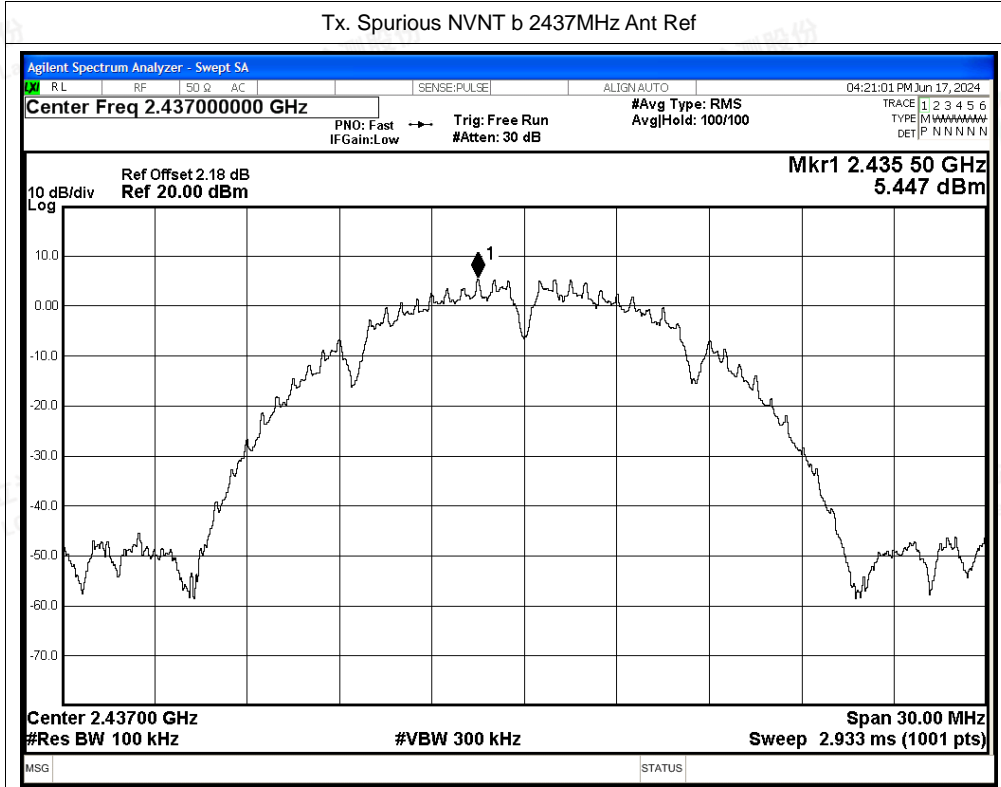


Tx. Spurious NVNT b 2412MHz Ant Emission

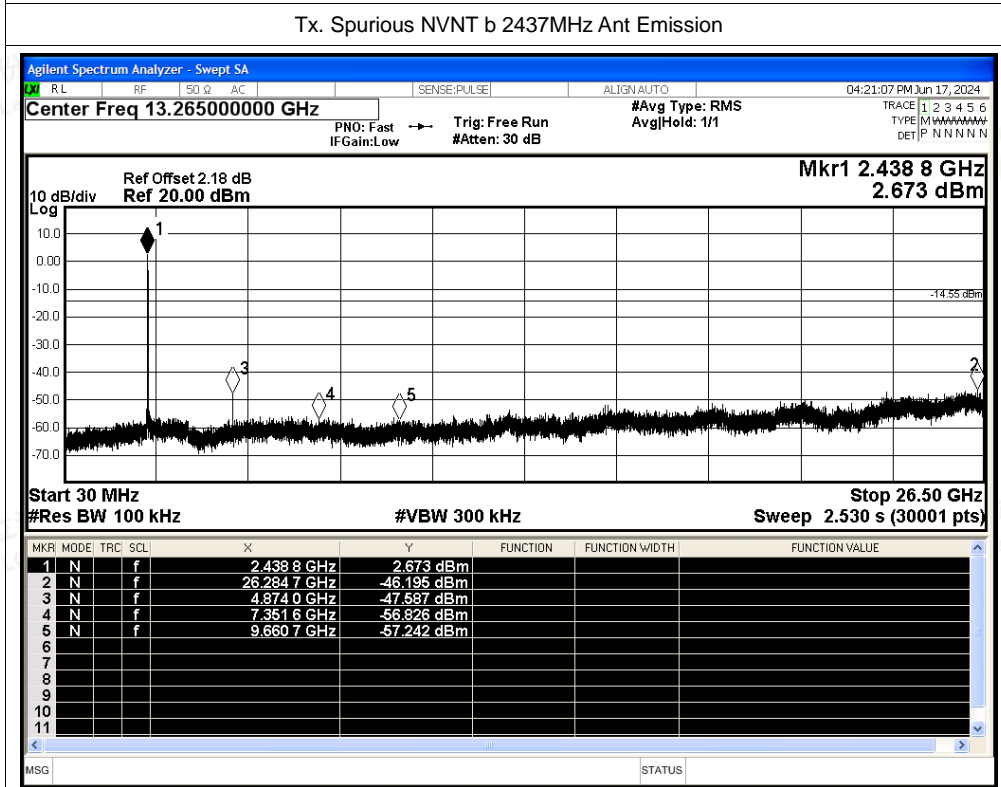




Tx. Spurious NVNT b 2437MHz Ant Ref

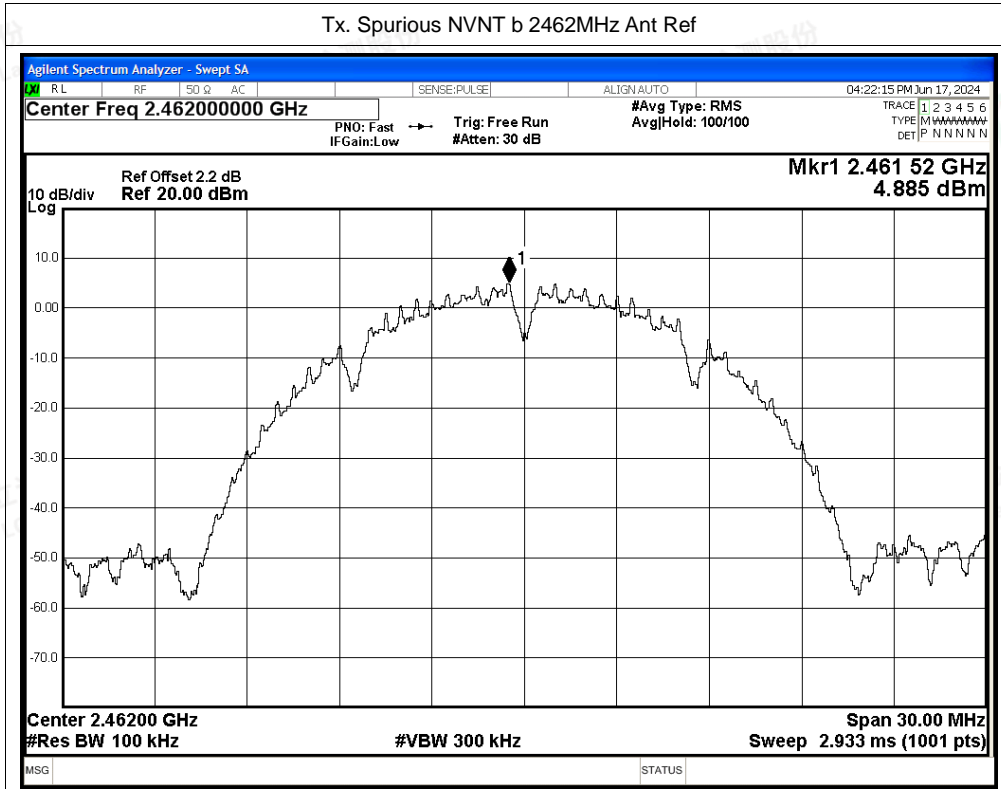


Tx. Spurious NVNT b 2437MHz Ant Emission

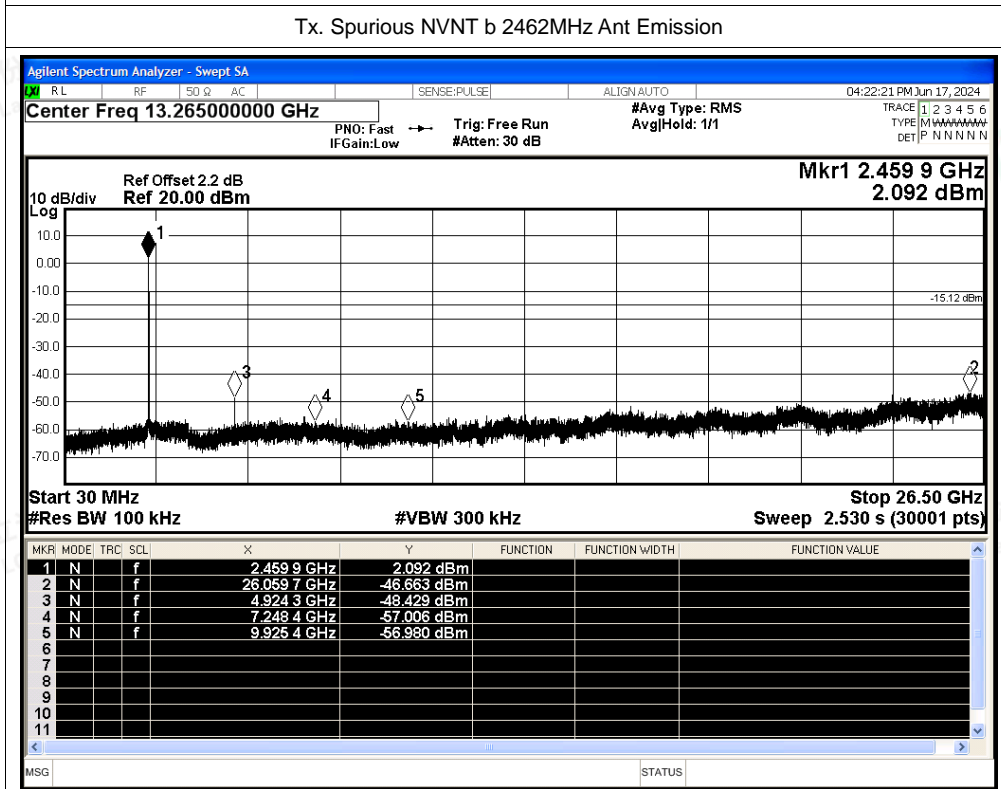




Tx. Spurious NVNT b 2462MHz Ant Ref

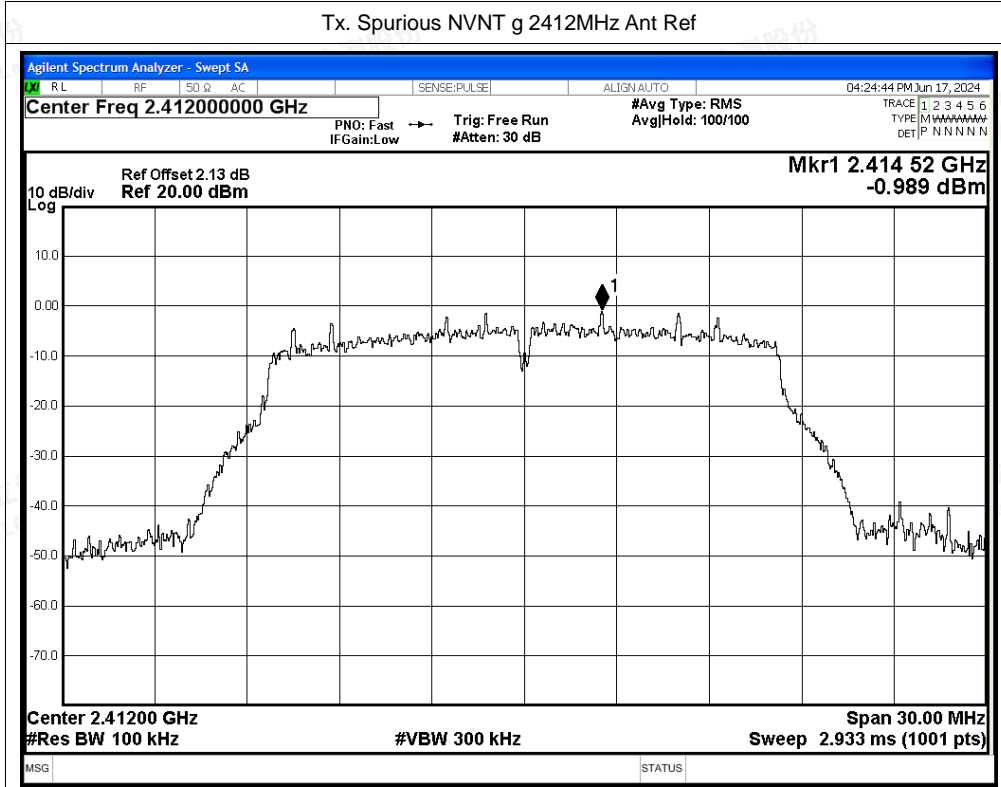


Tx. Spurious NVNT b 2462MHz Ant Emission

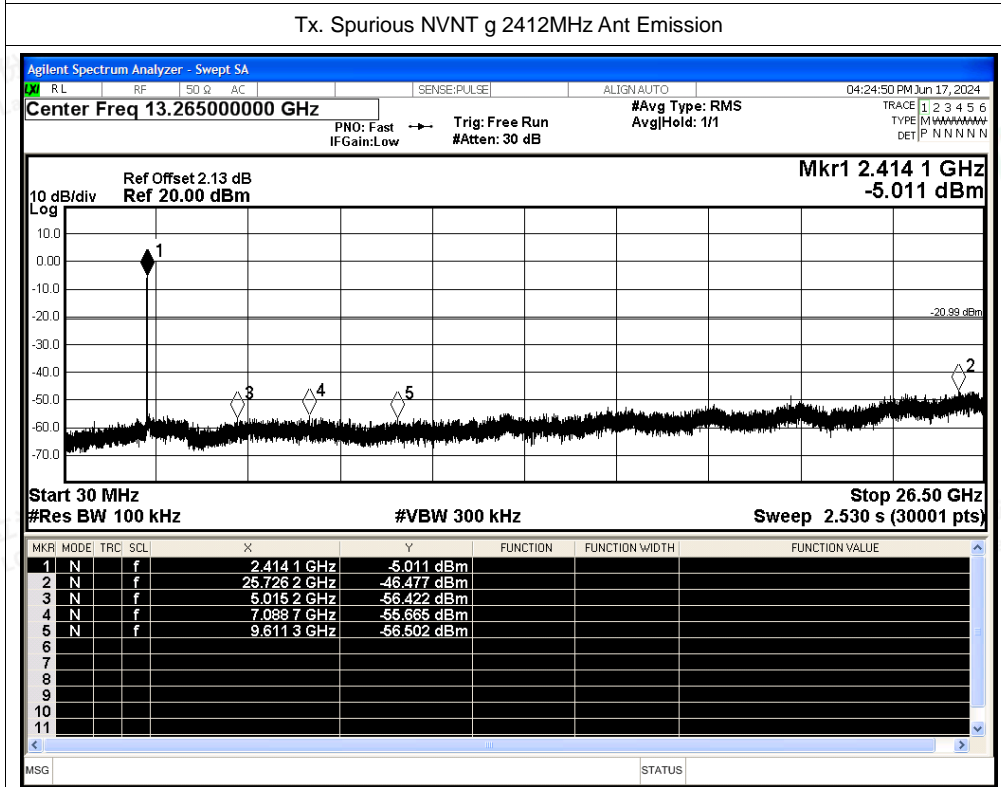




Tx. Spurious NVNT g 2412MHz Ant Ref

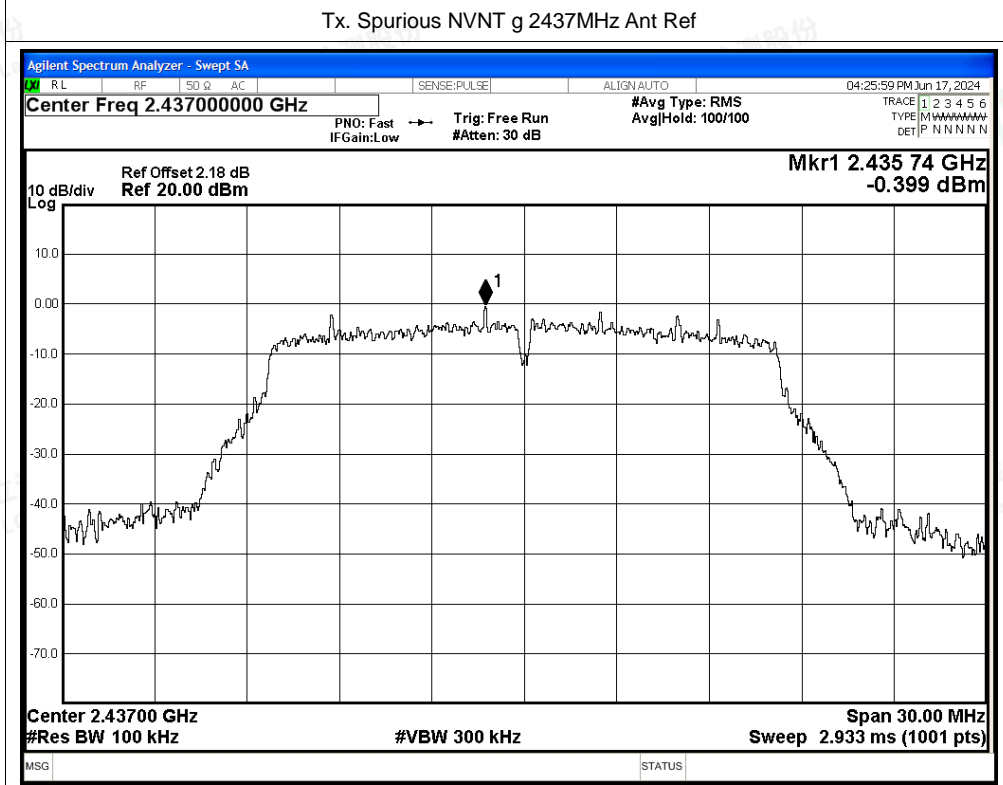


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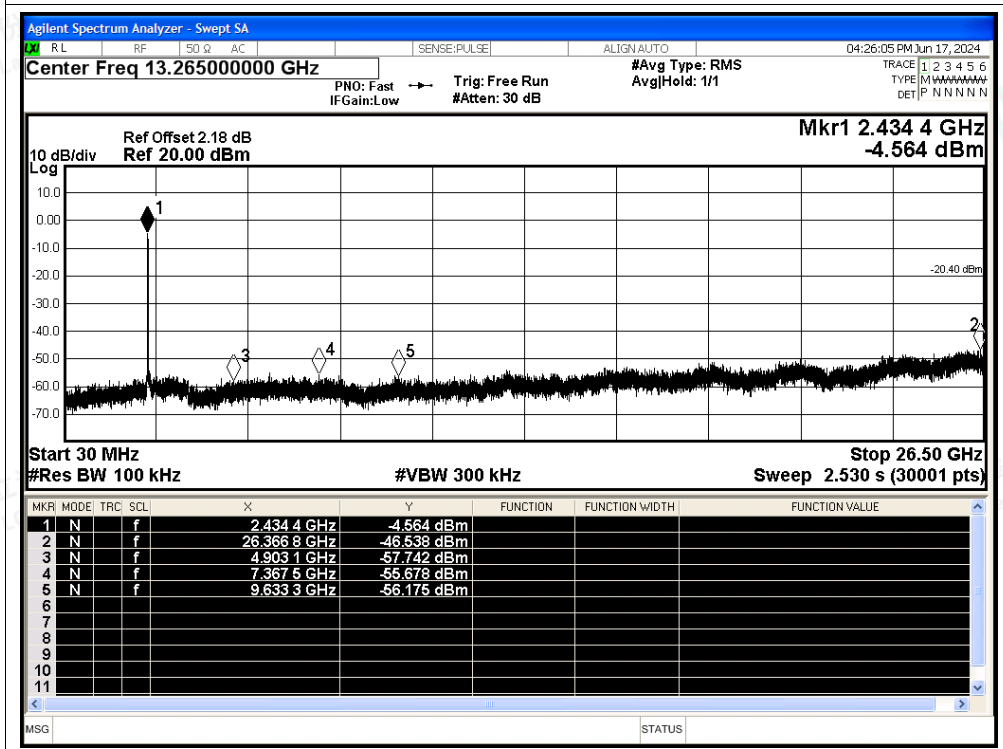




Tx. Spurious NVNT g 2437MHz Ant Ref

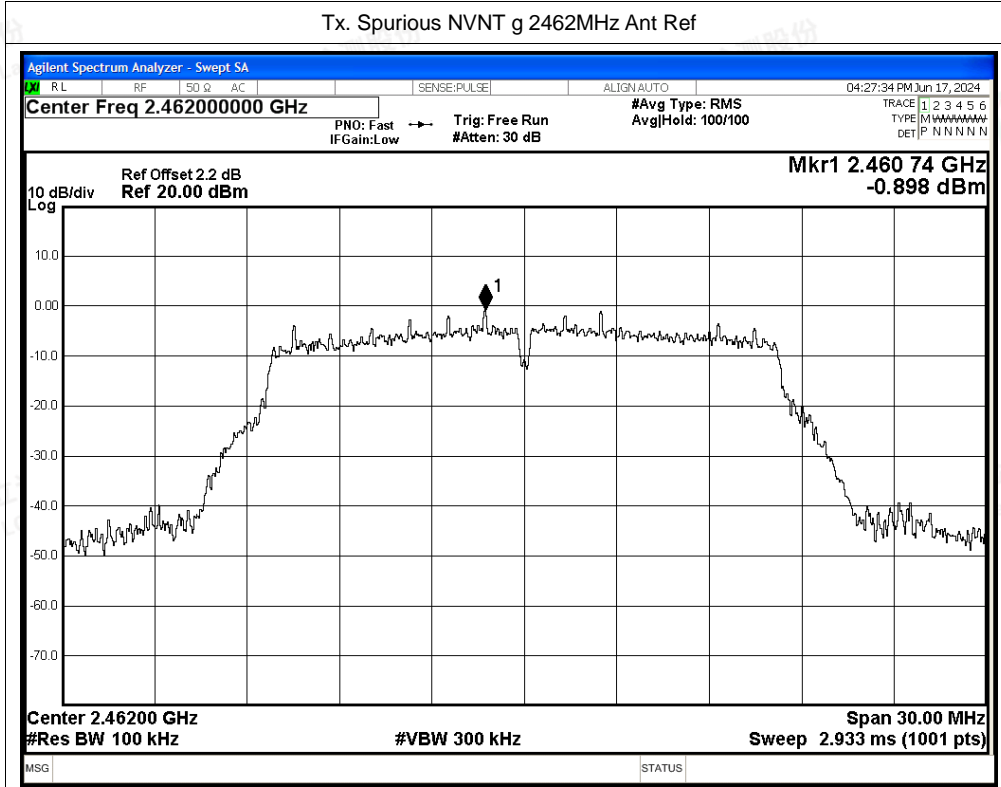


Tx. Spurious NVNT g 2437MHz Ant Emission

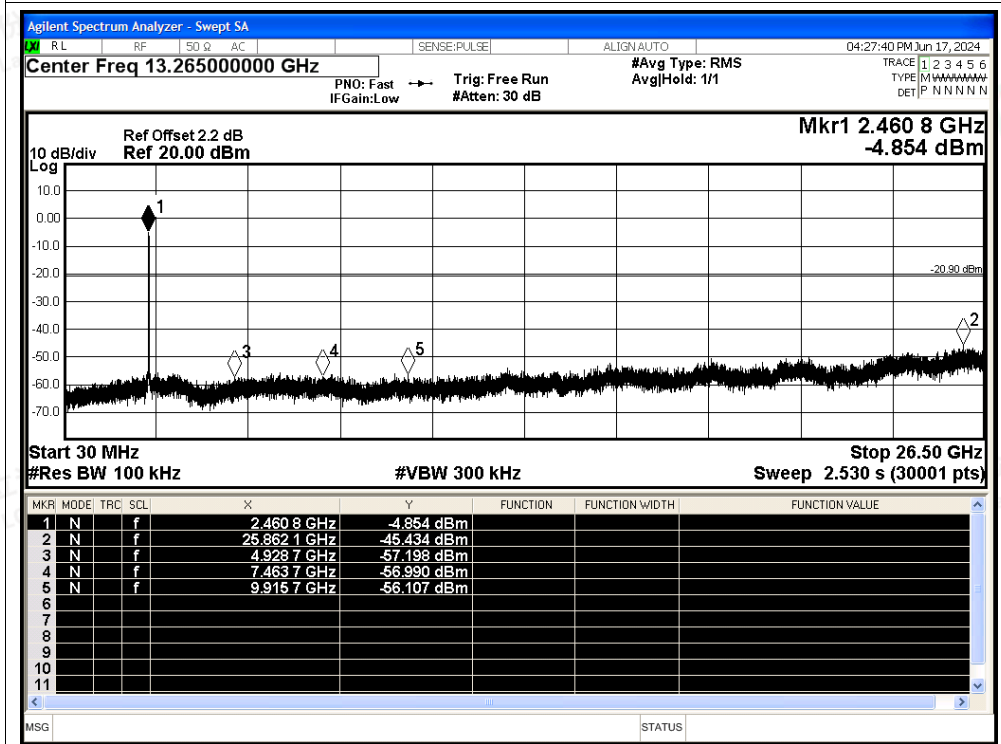




Tx. Spurious NVNT g 2462MHz Ant Ref



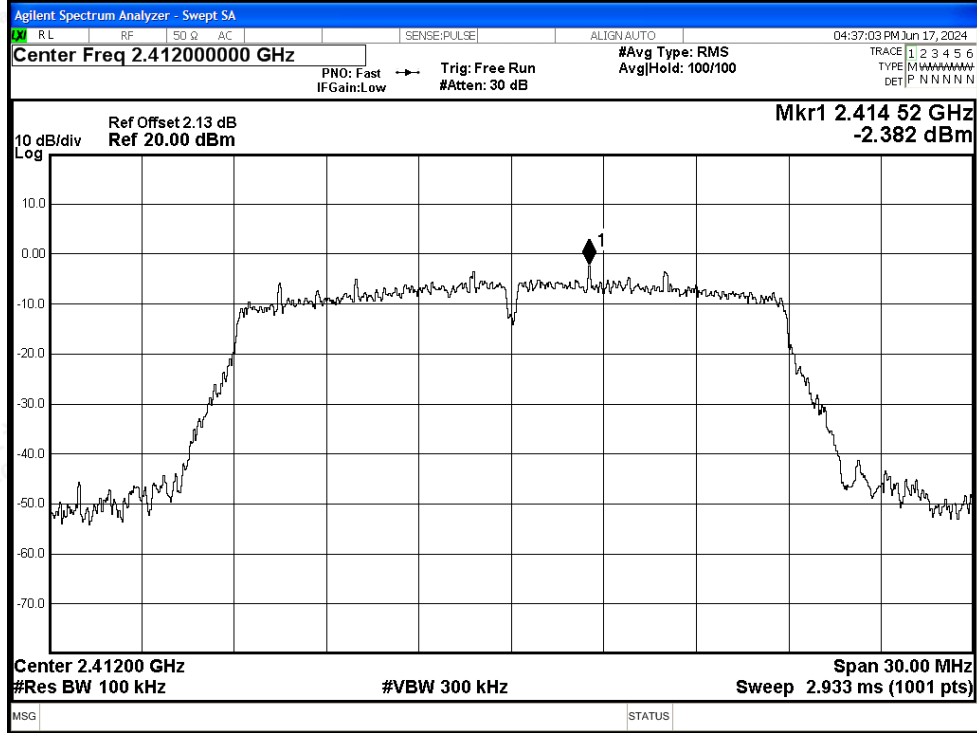
Tx. Spurious NVNT g 2462MHz Ant Emission



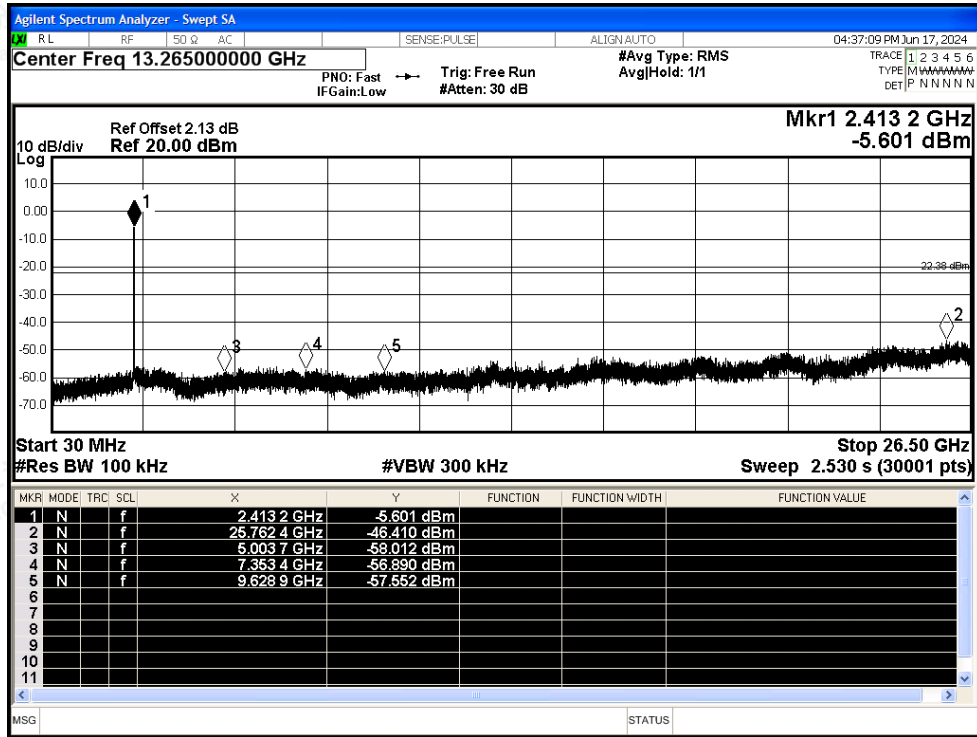




Tx. Spurious NVNT n20 2412MHz Ant Ref

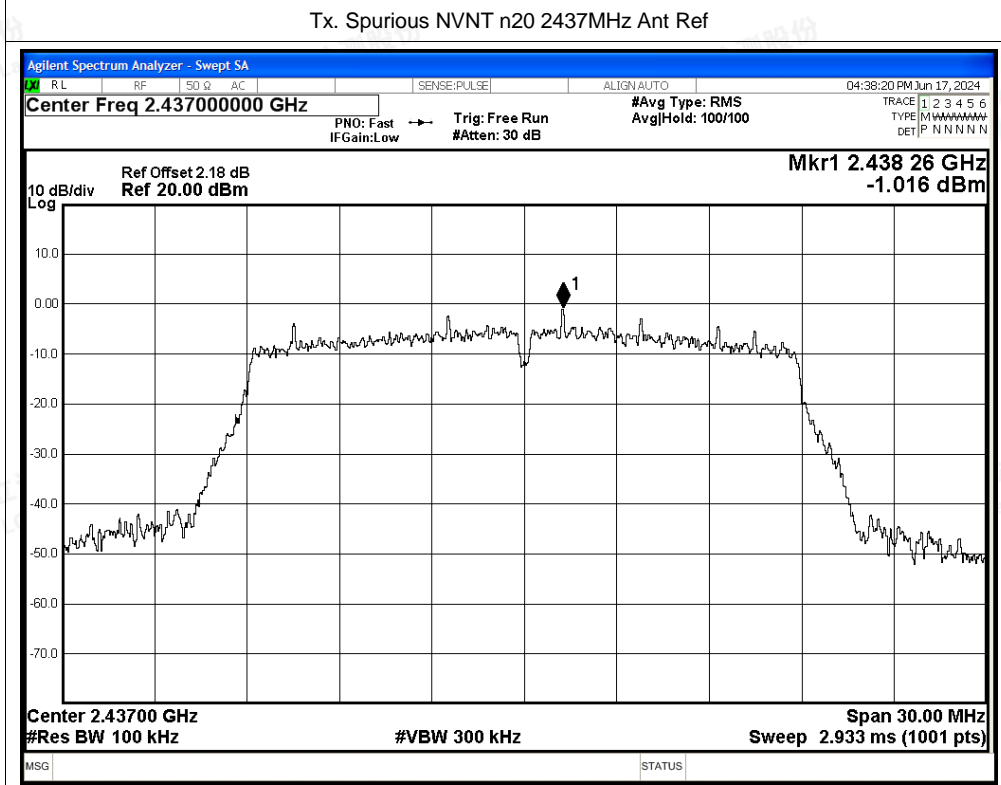


Tx. Spurious NVNT n20 2412MHz Ant Emission

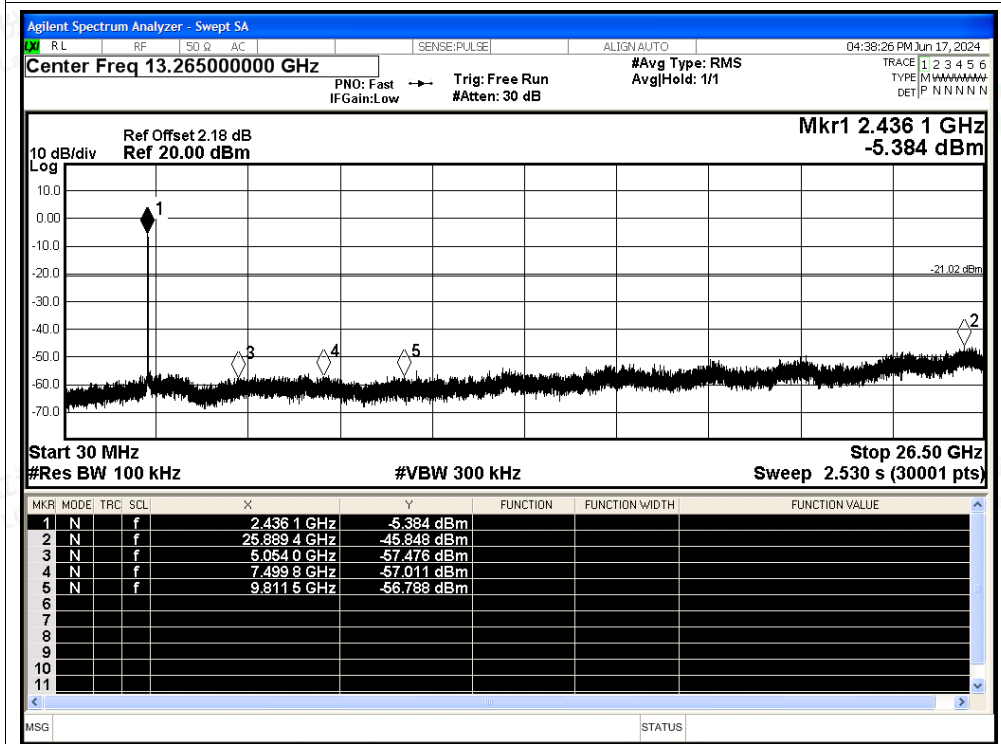




Tx. Spurious NVNT n20 2437MHz Ant Ref

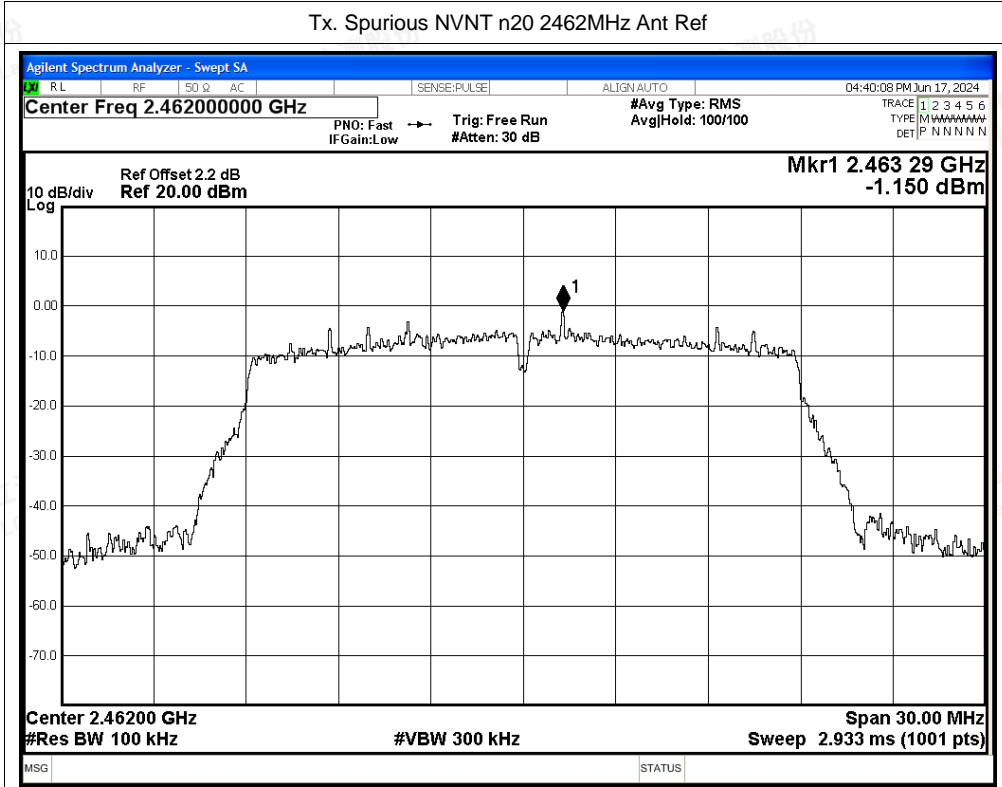


Tx. Spurious NVNT n20 2437MHz Ant Emission

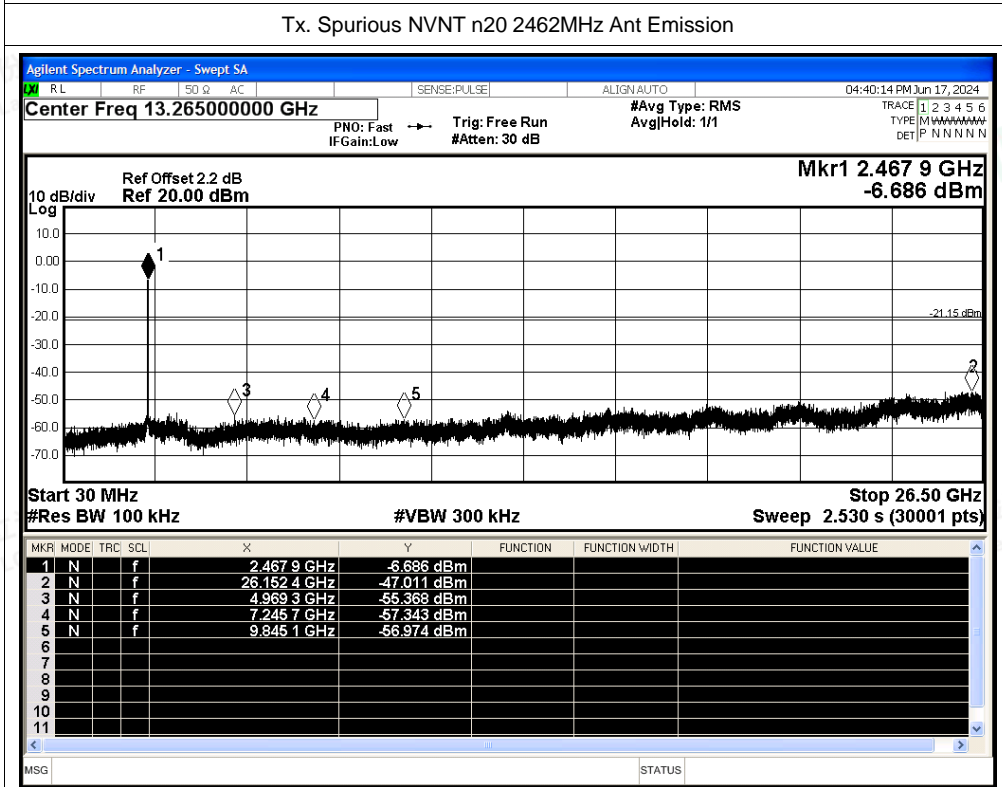




Tx. Spurious NVNT n20 2462MHz Ant Ref

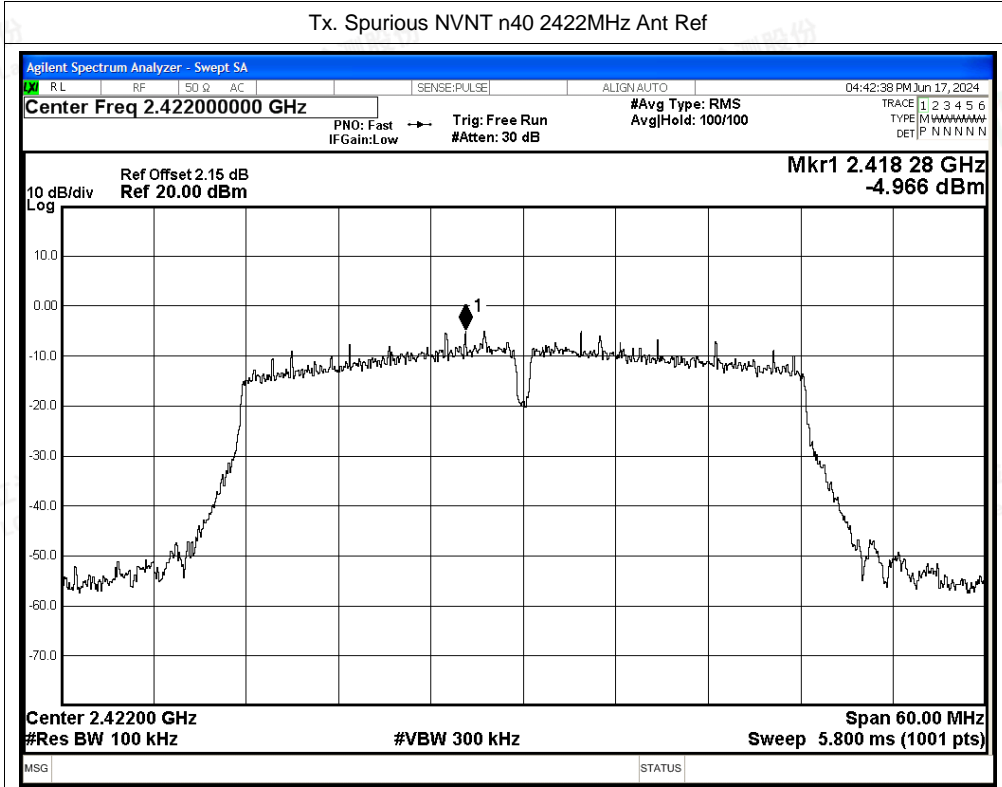


Tx. Spurious NVNT n20 2462MHz Ant Emission

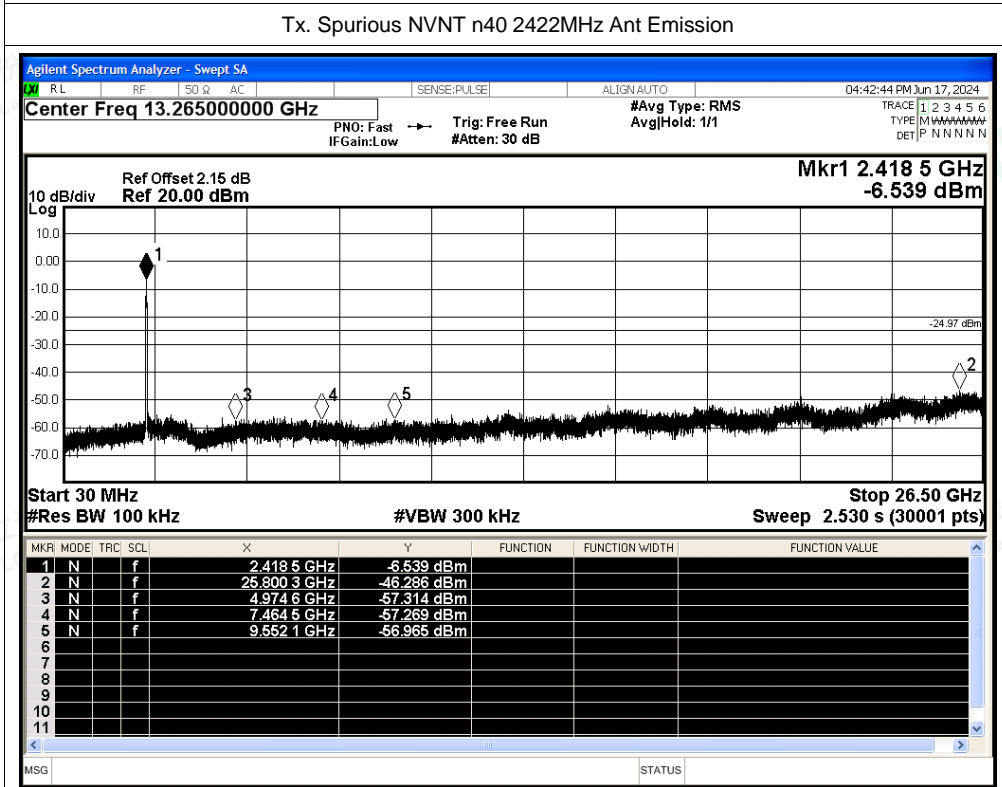




Tx. Spurious NVNT n40 2422MHz Ant Ref

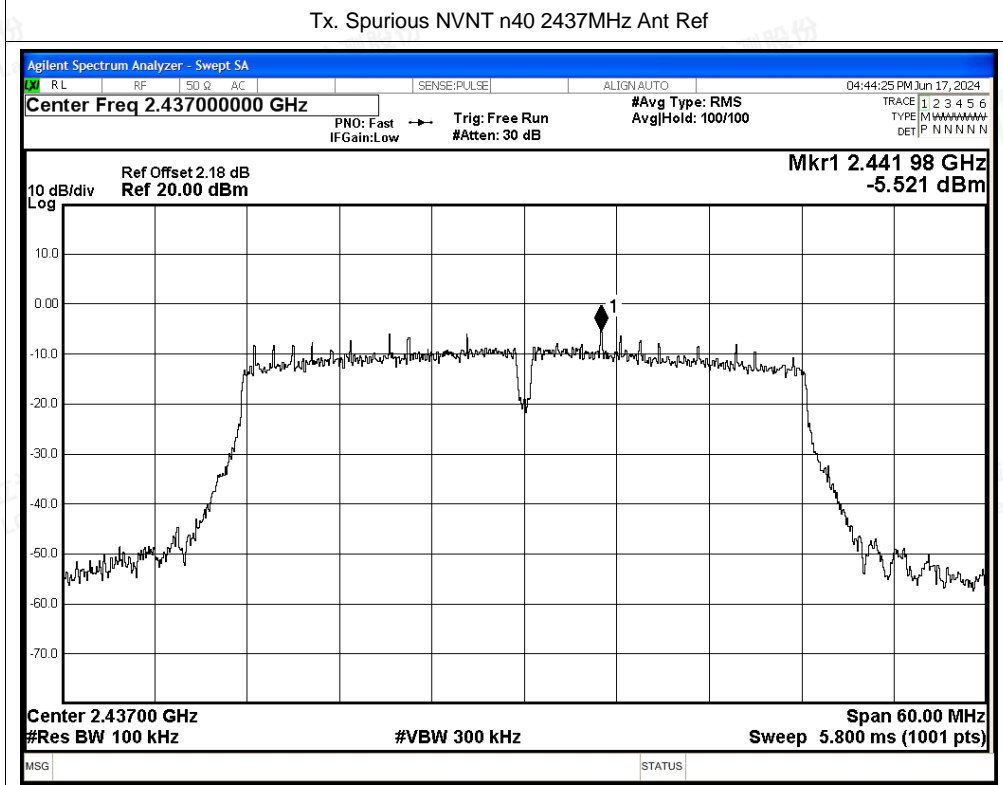


Tx. Spurious NVNT n40 2422MHz Ant Emission

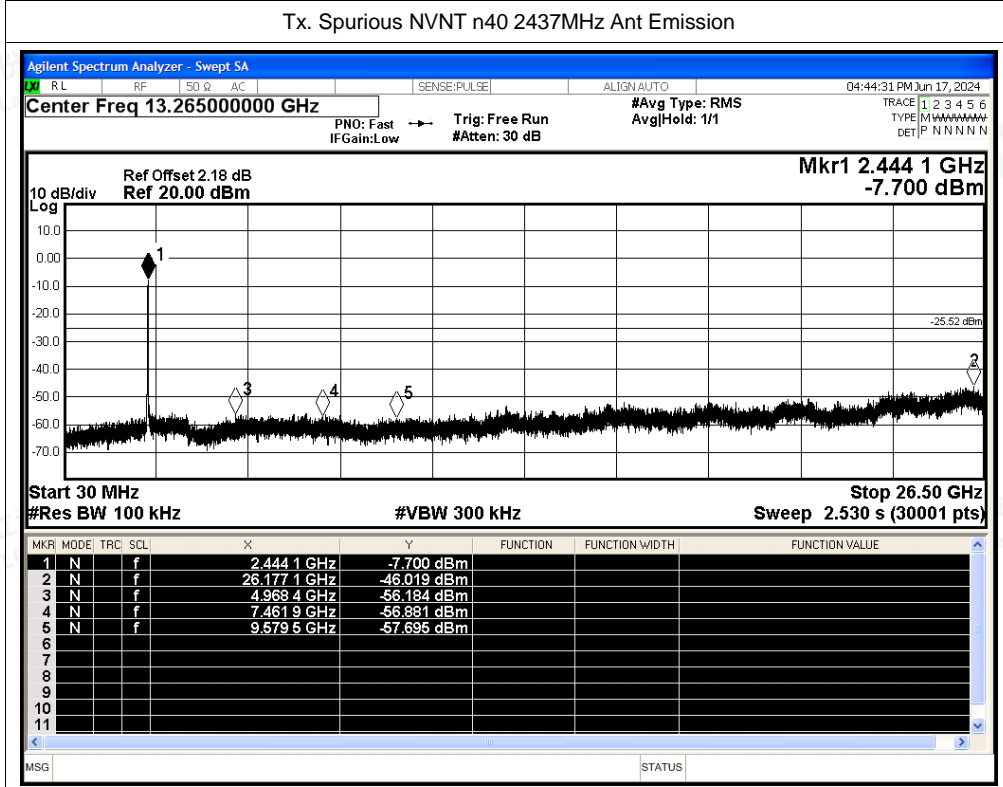




Tx. Spurious NVNT n40 2437MHz Ant Ref



Tx. Spurious NVNT n40 2437MHz Ant Emission



Shenzhen LCS Compliance Testing Laboratory Ltd.

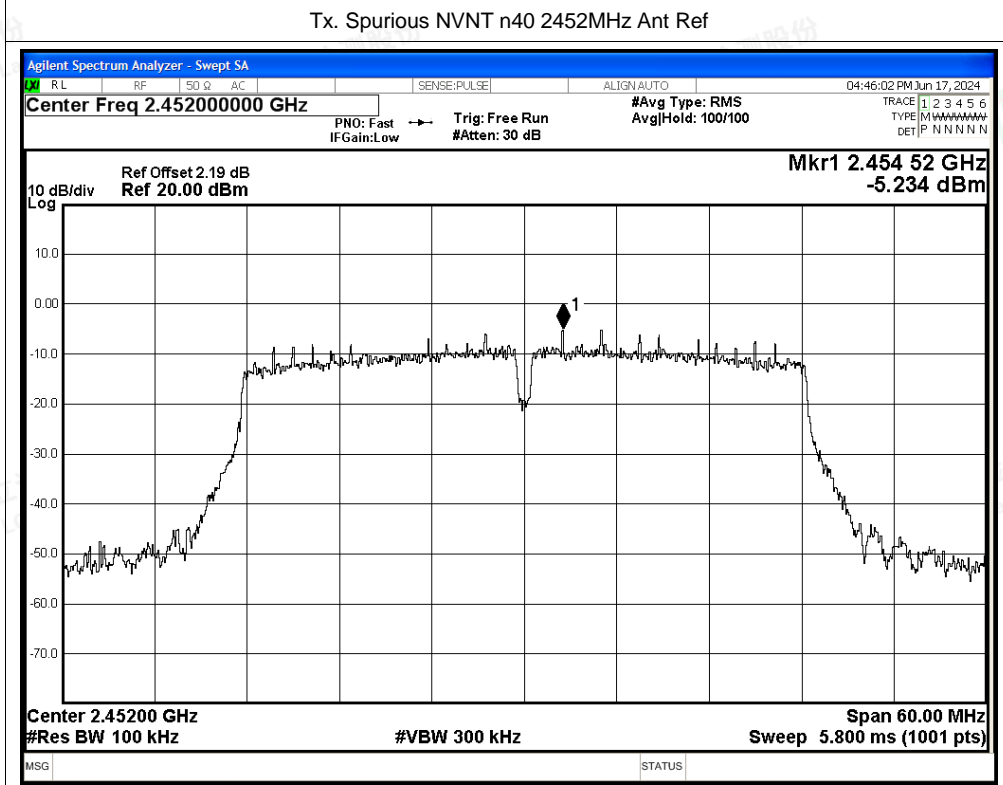
Add: 101, 201 Bldg A & 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

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

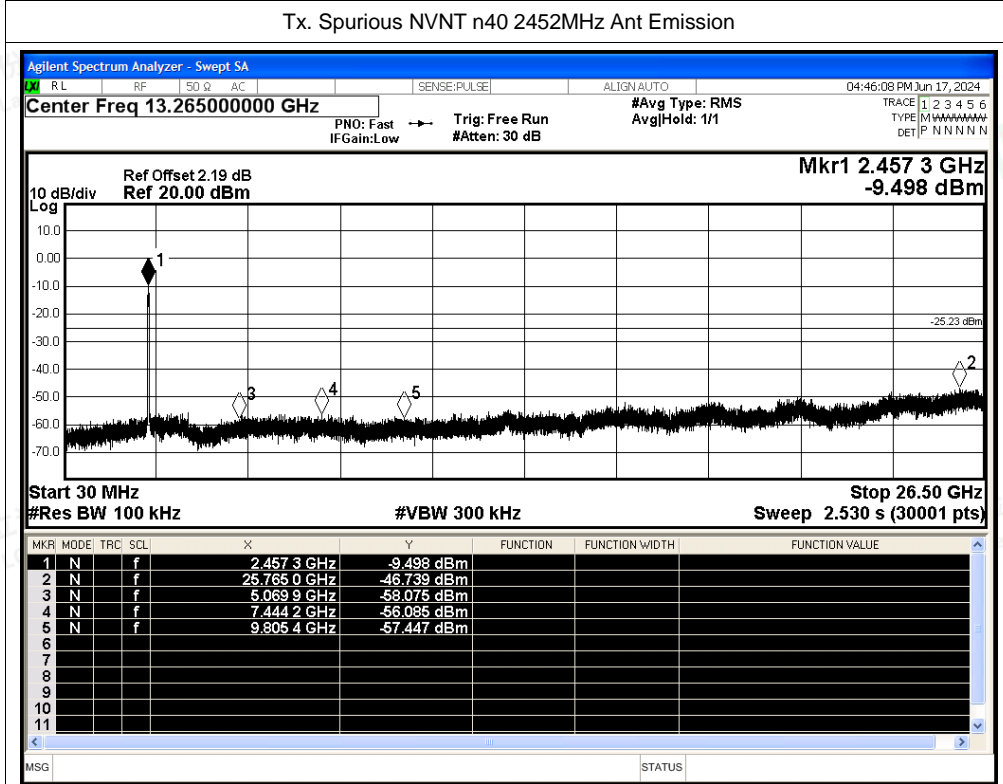
Scan code to check authenticity



Tx. Spurious NVNT n40 2452MHz Ant Ref



Tx. Spurious NVNT n40 2452MHz Ant Emission

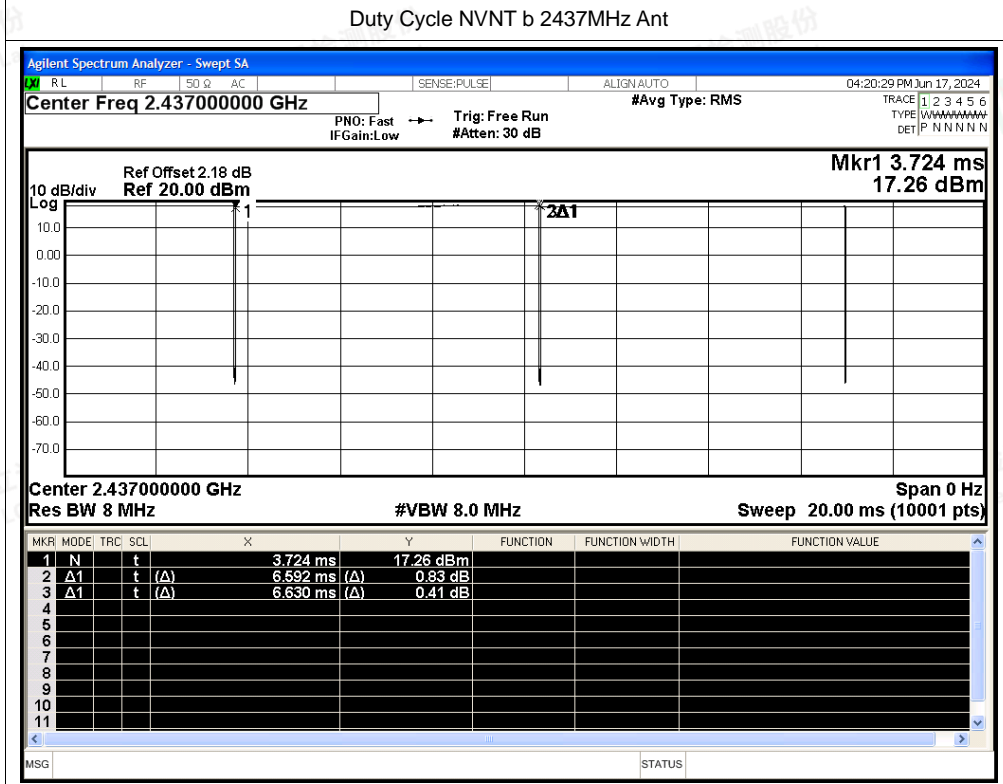
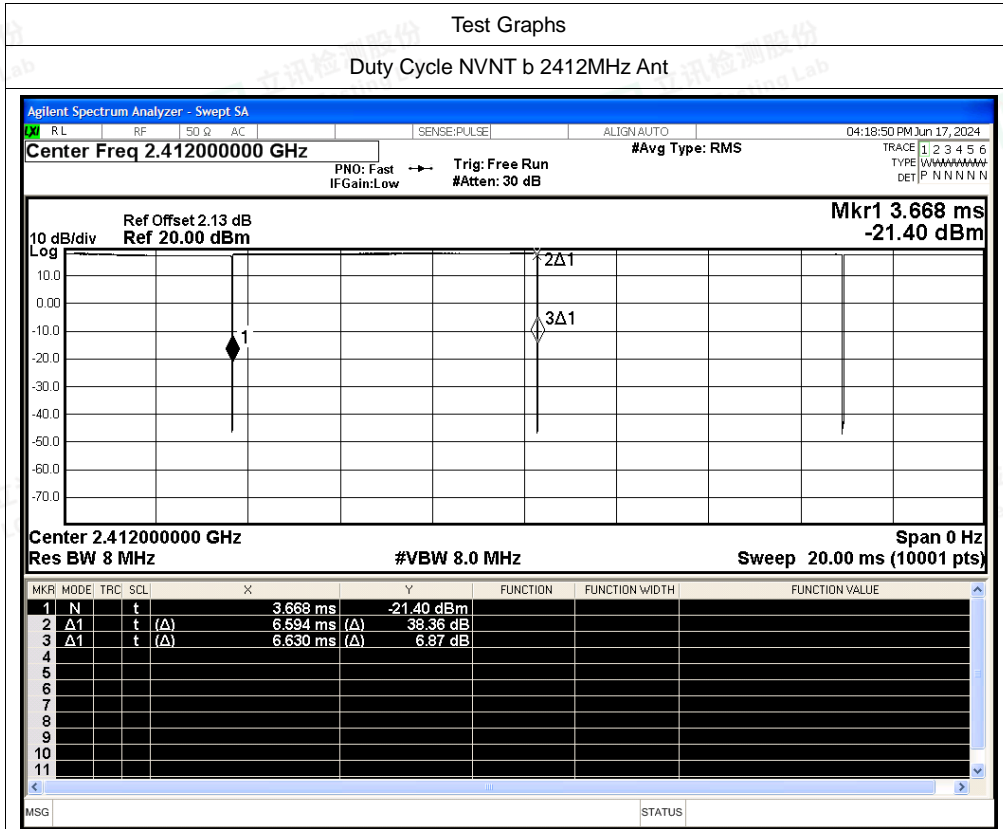




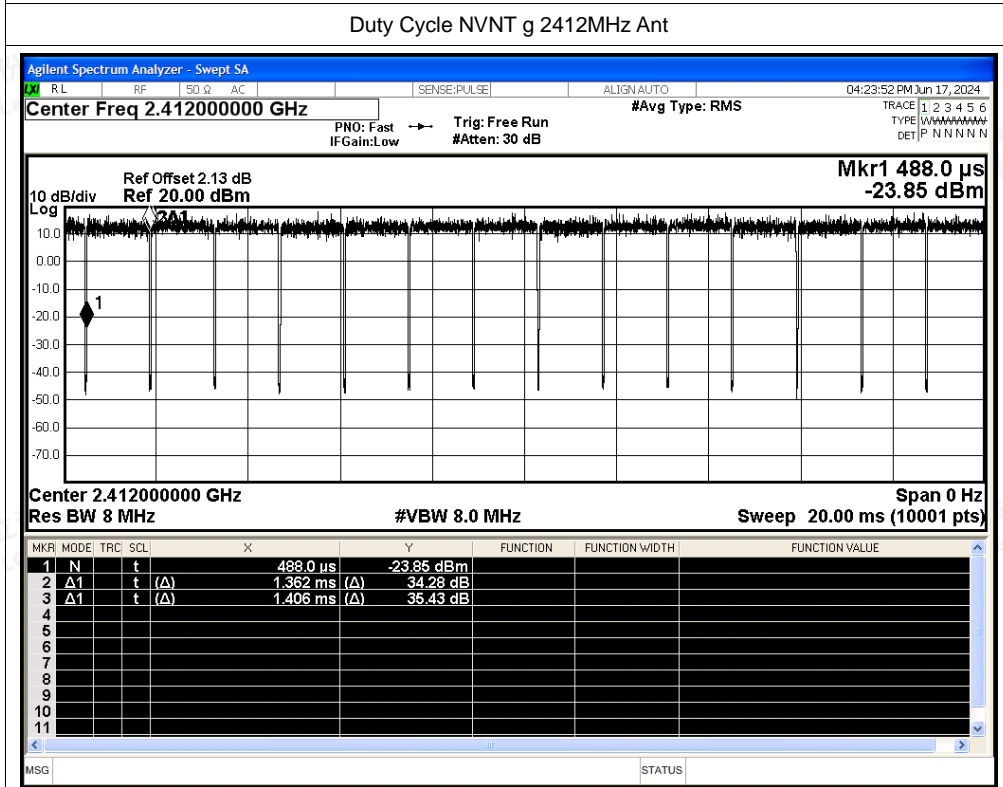
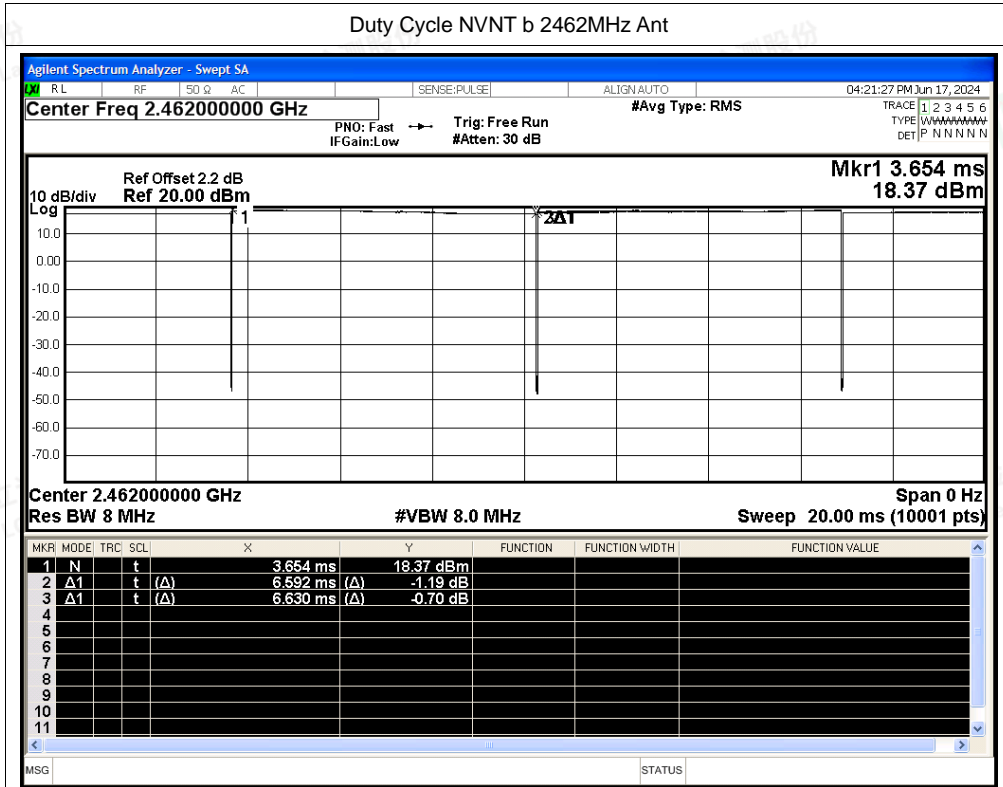
### A.6 Duty Cycle

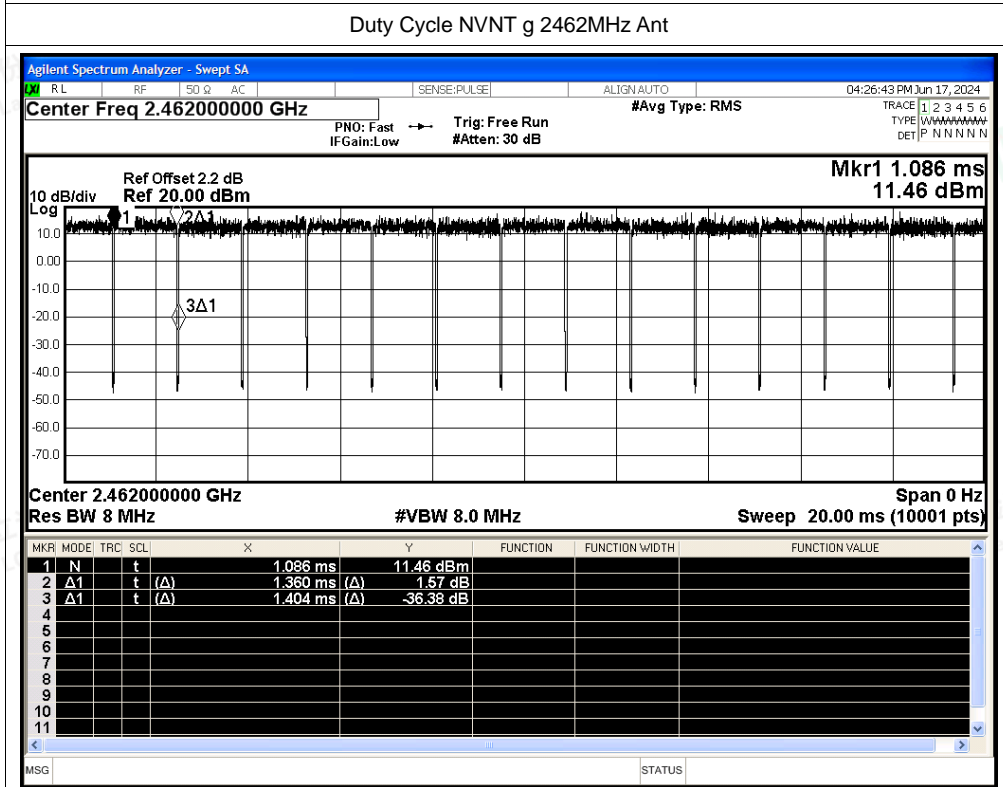
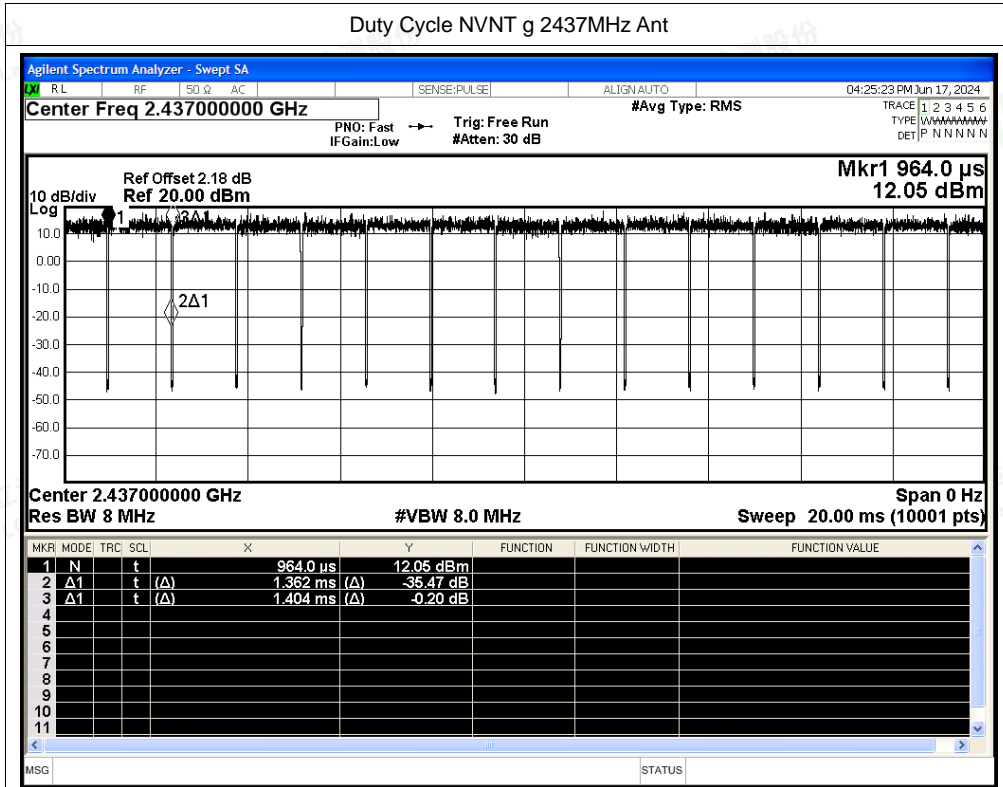
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant	99.46	0	0.15
NVNT	b	2437	Ant	99.43	0	0.15
NVNT	b	2462	Ant	99.43	0	0.15
NVNT	g	2412	Ant	96.87	0.14	0.73
NVNT	g	2437	Ant	97.01	0.13	0.73
NVNT	g	2462	Ant	96.87	0.14	0.74
NVNT	n20	2412	Ant	97.57	0.11	0.57
NVNT	n20	2437	Ant	97.57	0.11	0.57
NVNT	n20	2462	Ant	97.68	0.1	0.57
NVNT	n40	2422	Ant	95.93	0.18	1.01
NVNT	n40	2437	Ant	95.93	0.18	1.01
NVNT	n40	2452	Ant	95.93	0.18	1.01

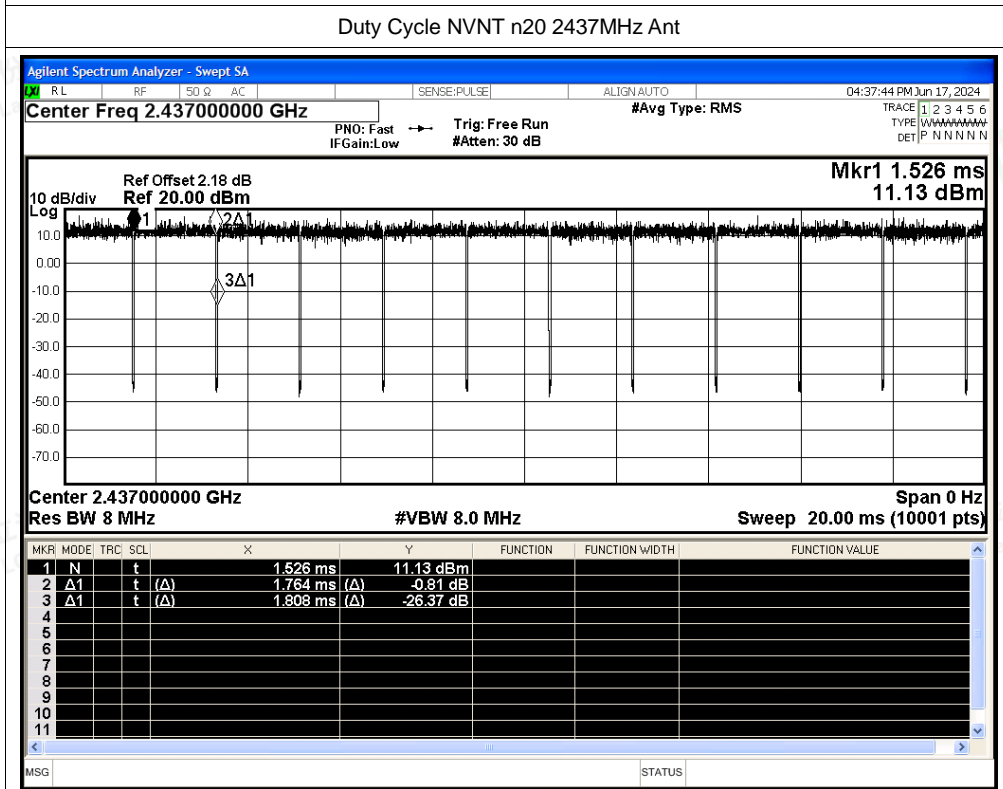
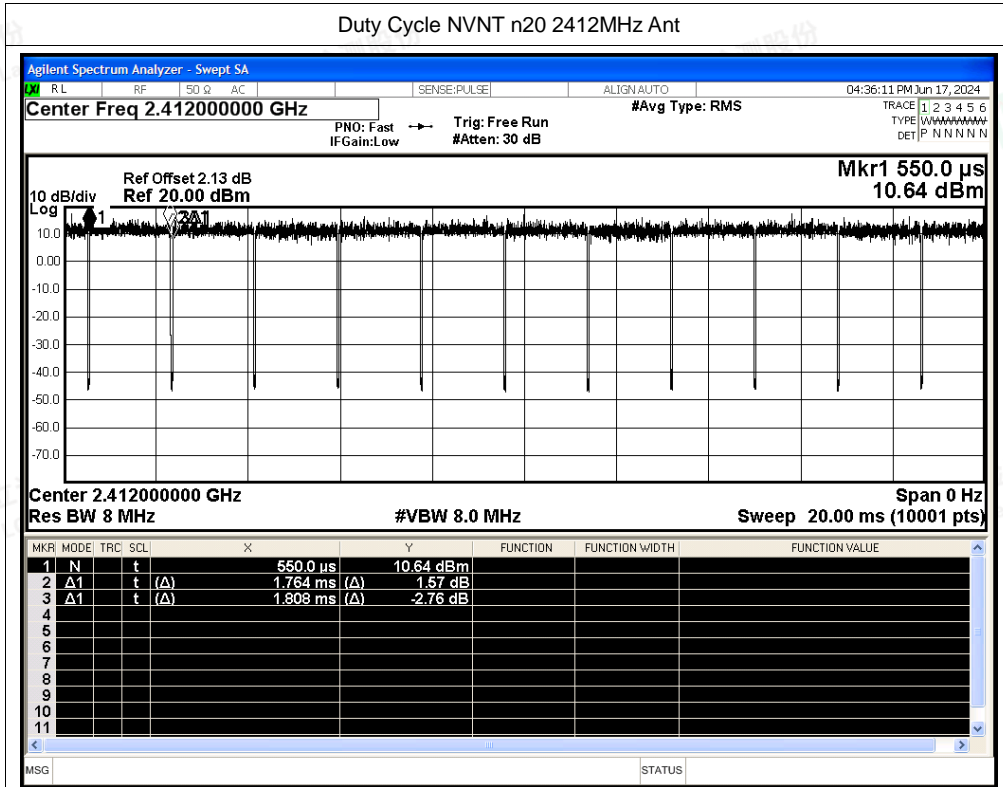


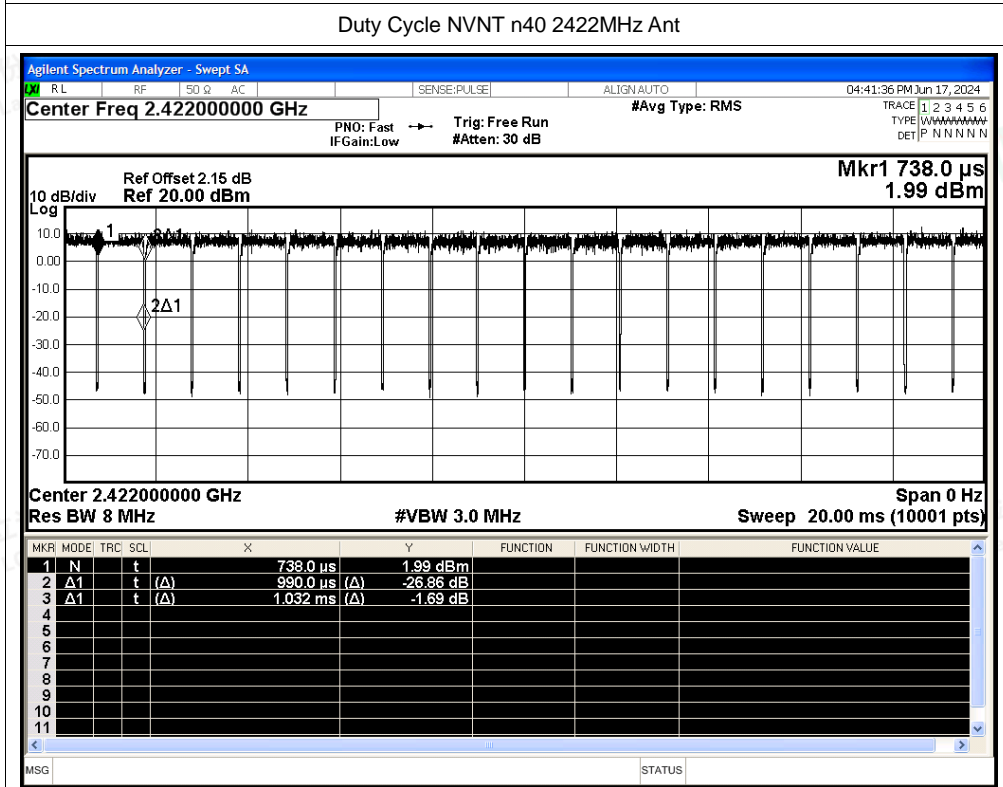
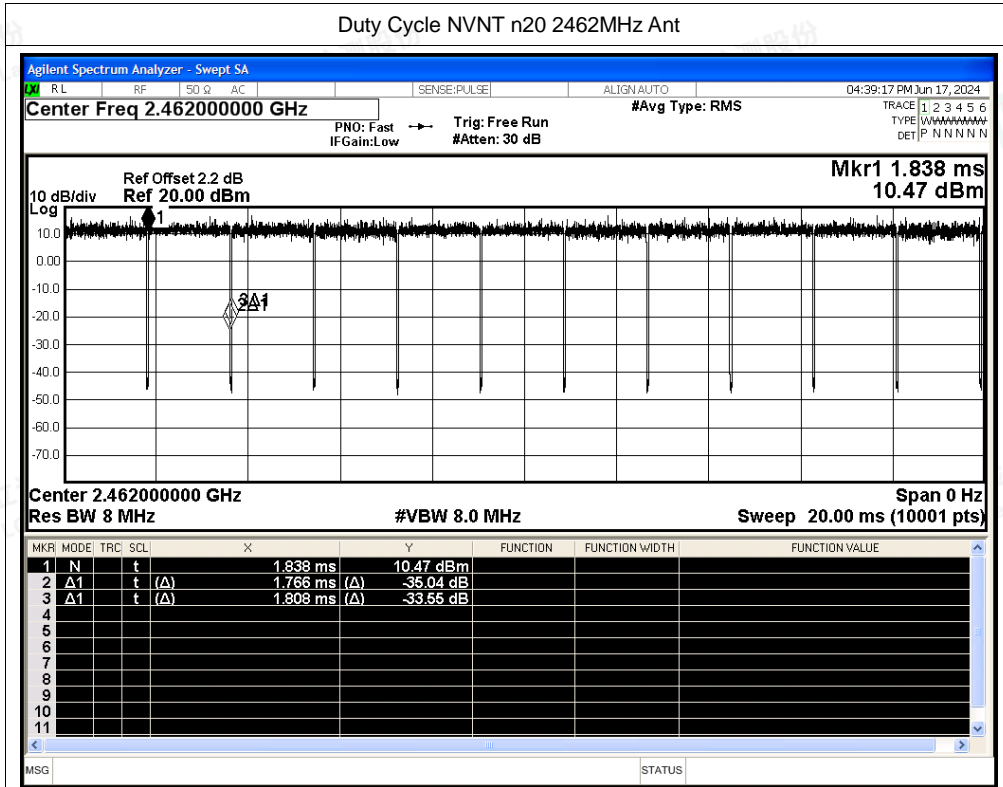


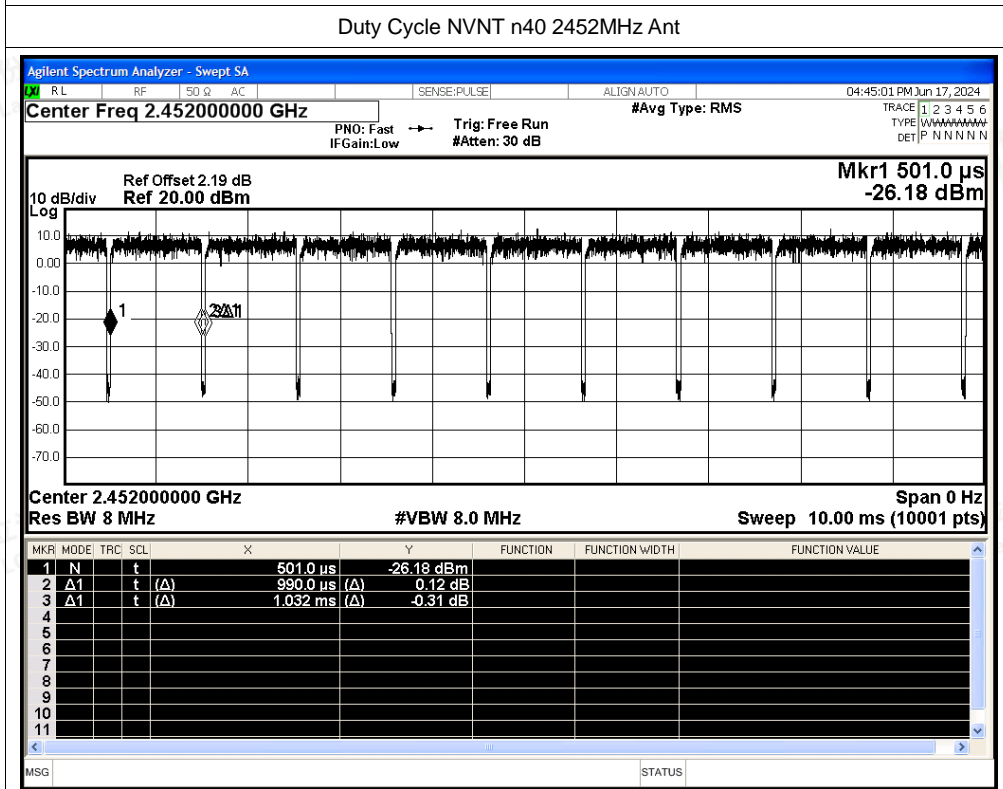
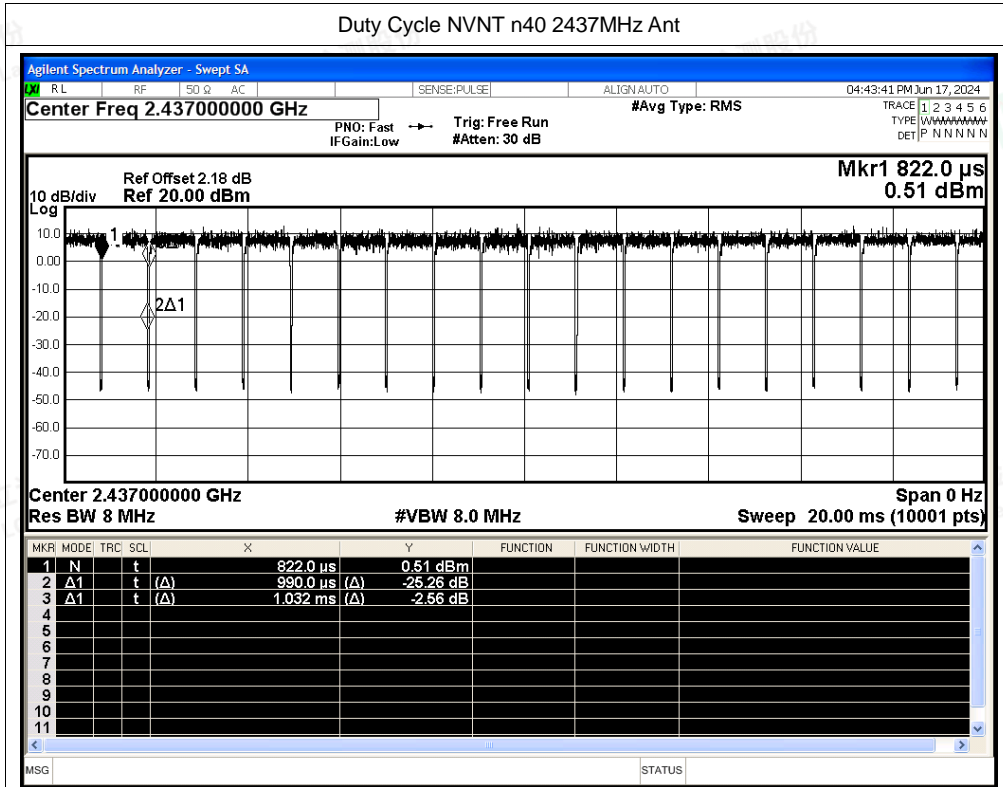














## A.7 Restrict Band

Condition	Mode	Frequency (MHz)	Antenna	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	b	2412	Ant	2310	-51.4	2.00	-	45.86	Peak	74	Pass
NVNT	b	2412	Ant	2310	-58.41	2.00	0	38.85	Average	54	Pass
NVNT	b	2412	Ant	2339.601	-47.51	2.00	-	49.75	Peak	74	Pass
NVNT	b	2412	Ant	2356.215	-57.45	2.00	0	39.81	Average	54	Pass
NVNT	b	2412	Ant	2390	-49.94	2.00	-	47.32	Peak	74	Pass
NVNT	b	2412	Ant	2390	-57.9	2.00	0	39.36	Average	54	Pass
NVNT	b	2462	Ant	2483.5	-48.81	2.00	-	48.45	Peak	74	Pass
NVNT	b	2462	Ant	2483.5	-57.6	2.00	0	39.66	Average	54	Pass
NVNT	b	2462	Ant	2495.389	-45.95	2.00	-	51.31	Peak	74	Pass
NVNT	b	2462	Ant	2496.555	-56.81	2.00	0	40.45	Average	54	Pass
NVNT	b	2462	Ant	2500	-48.59	2.00	-	48.67	Peak	74	Pass
NVNT	b	2462	Ant	2500	-58.04	2.00	0	39.22	Average	54	Pass
NVNT	g	2412	Ant	2310	-52.26	2.00	-	45.00	Peak	74	Pass
NVNT	g	2412	Ant	2310	-58.6	2.00	0.14	38.80	Average	54	Pass
NVNT	g	2412	Ant	2387.571	-47.3	2.00	-	49.96	Peak	74	Pass
NVNT	g	2412	Ant	2389.911	-57.19	2.00	0.14	40.21	Average	54	Pass
NVNT	g	2412	Ant	2390	-50.8	2.00	-	46.46	Peak	74	Pass
NVNT	g	2412	Ant	2390	-57.58	2.00	0.14	39.82	Average	54	Pass
NVNT	g	2462	Ant	2483.5	-48.01	2.00	-	49.25	Peak	74	Pass
NVNT	g	2462	Ant	2483.5	-56.38	2.00	0.14	41.02	Average	54	Pass
NVNT	g	2462	Ant	2494.117	-46.12	2.00	-	51.14	Peak	74	Pass
NVNT	g	2462	Ant	2483.835	-55.76	2.00	0.14	41.64	Average	54	Pass
NVNT	g	2462	Ant	2500	-49.37	2.00	-	47.89	Peak	74	Pass
NVNT	g	2462	Ant	2500	-57.6	2.00	0.14	39.80	Average	54	Pass
NVNT	n20	2412	Ant	2310	-51.41	2.00	-	45.85	Peak	74	Pass
NVNT	n20	2412	Ant	2310	-58.6	2.00	0.11	38.77	Average	54	Pass
NVNT	n20	2412	Ant	2389.911	-47.11	2.00	-	50.15	Peak	74	Pass
NVNT	n20	2412	Ant	2389.443	-56.87	2.00	0.11	40.50	Average	54	Pass
NVNT	n20	2412	Ant	2390	-51.15	2.00	-	46.11	Peak	74	Pass
NVNT	n20	2412	Ant	2390	-57.39	2.00	0.11	39.98	Average	54	Pass
NVNT	n20	2462	Ant	2483.5	-49.77	2.00	-	47.49	Peak	74	Pass
NVNT	n20	2462	Ant	2483.5	-55.97	2.00	0.1	41.39	Average	54	Pass
NVNT	n20	2462	Ant	2487.704	-46.19	2.00	-	51.07	Peak	74	Pass
NVNT	n20	2462	Ant	2483.57	-55.72	2.00	0.1	41.64	Average	54	Pass
NVNT	n20	2462	Ant	2500	-49.39	2.00	-	47.87	Peak	74	Pass
NVNT	n20	2462	Ant	2500	-56.72	2.00	0.1	40.64	Average	54	Pass
NVNT	n40	2422	Ant	2310	-47.8	2.00	-	49.46	Peak	74	Pass



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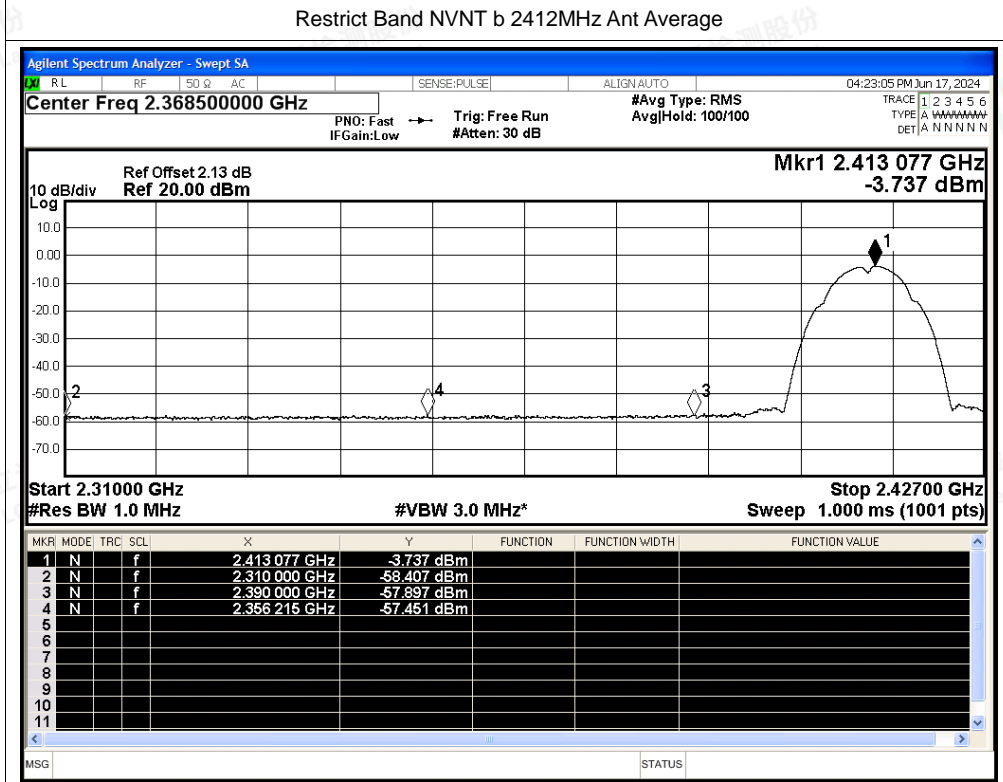
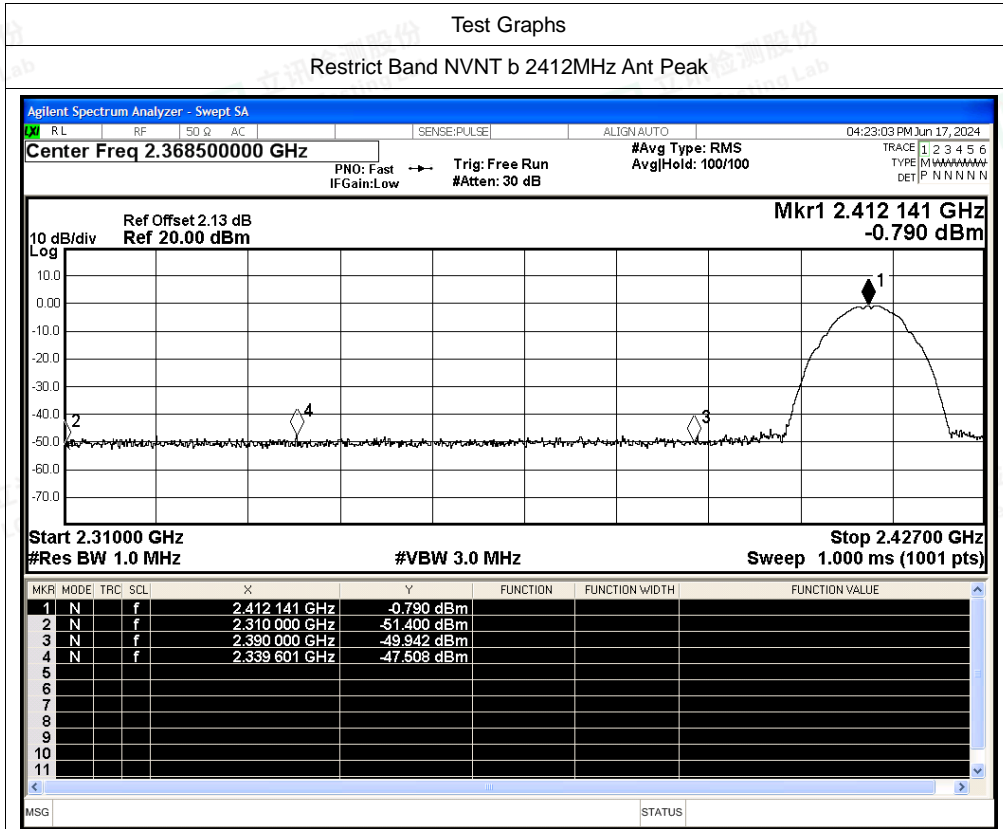
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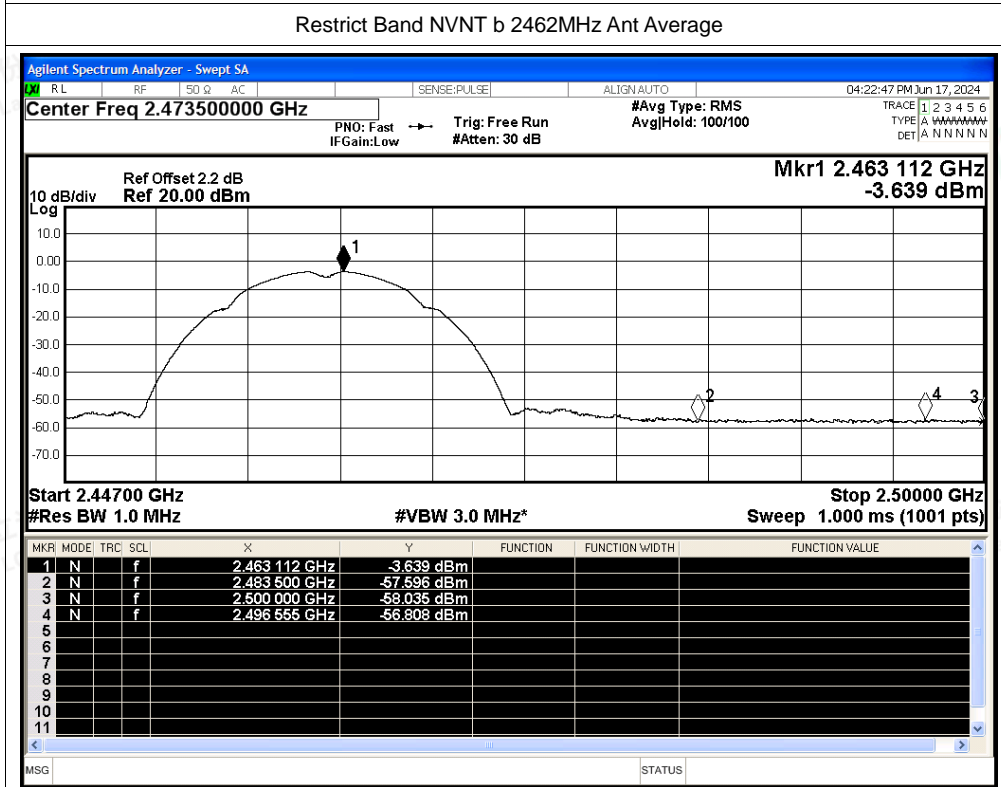
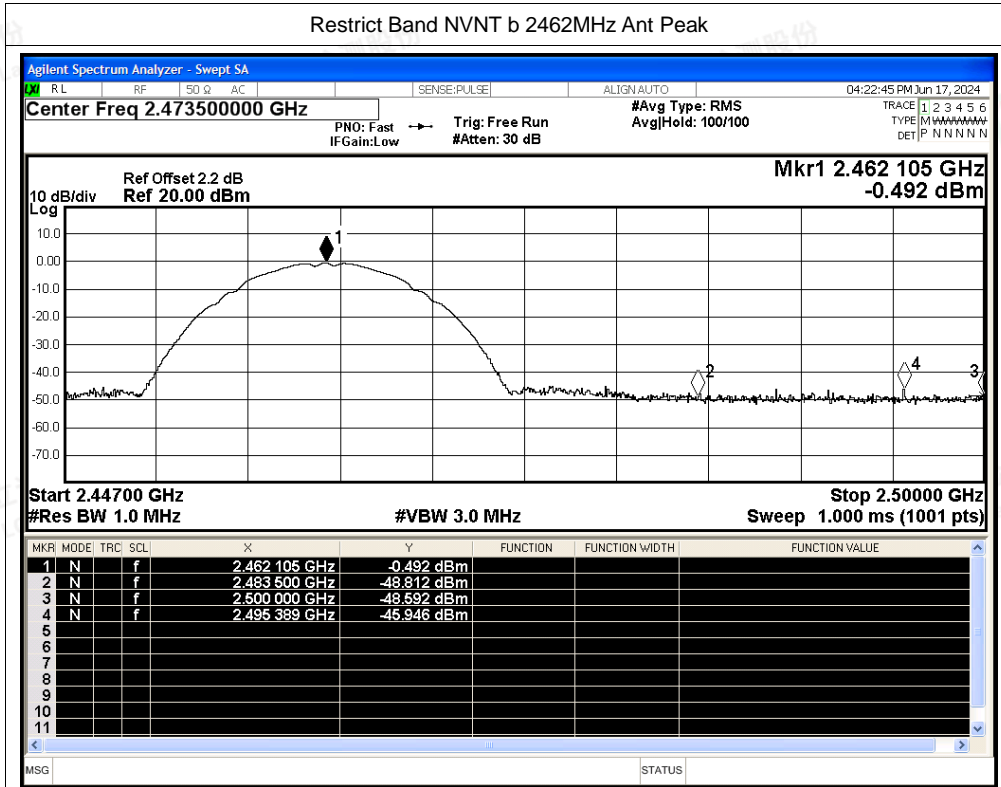
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NVNT	n40	2422	Ant	2389.378	-57.1	2.00	0.18	40.34	Average	54	Pass
NVNT	n40	2422	Ant	2390	-50.37	2.00	-	46.89	Peak	74	Pass
NVNT	n40	2422	Ant	2390	-57.24	2.00	0.18	40.20	Average	54	Pass
NVNT	n40	2452	Ant	2483.5	-48.73	2.00	-	48.53	Peak	74	Pass
NVNT	n40	2452	Ant	2483.5	-55.71	2.00	0.18	41.73	Average	54	Pass
NVNT	n40	2452	Ant	2484.244	-45.3	2.00	-	51.96	Peak	74	Pass
NVNT	n40	2452	Ant	2483.776	-54.92	2.00	0.18	42.52	Average	54	Pass
NVNT	n40	2452	Ant	2500	-48.79	2.00	-	48.47	Peak	74	Pass
NVNT	n40	2452	Ant	2500	-57.26	2.00	0.18	40.18	Average	54	Pass

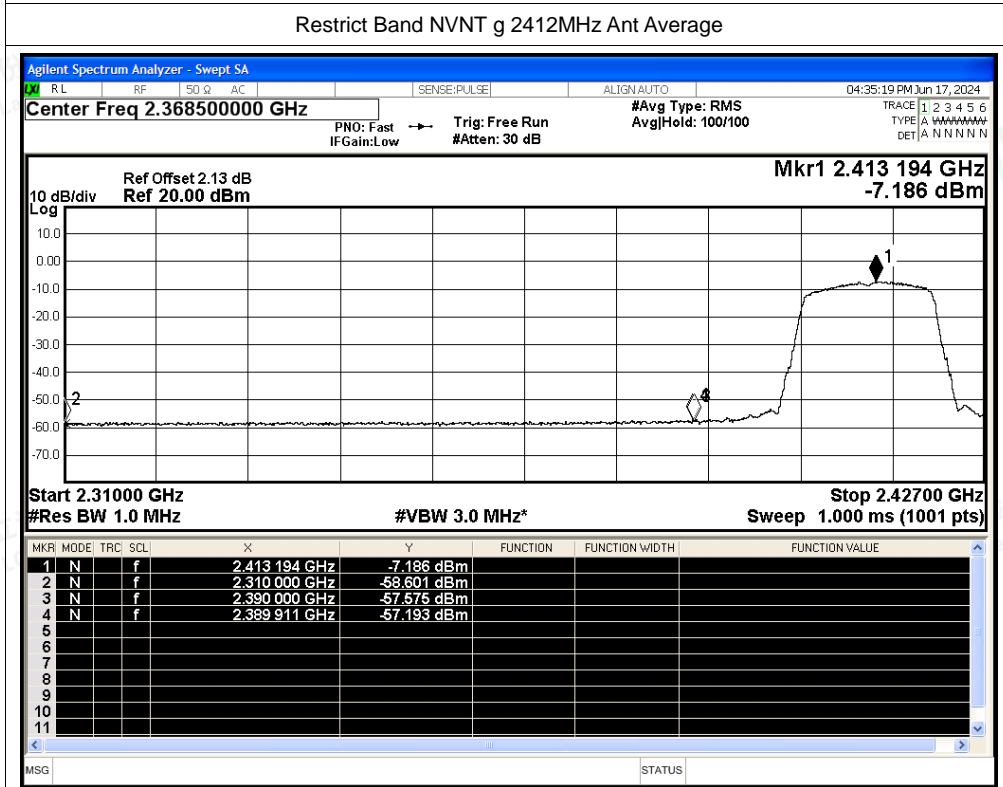
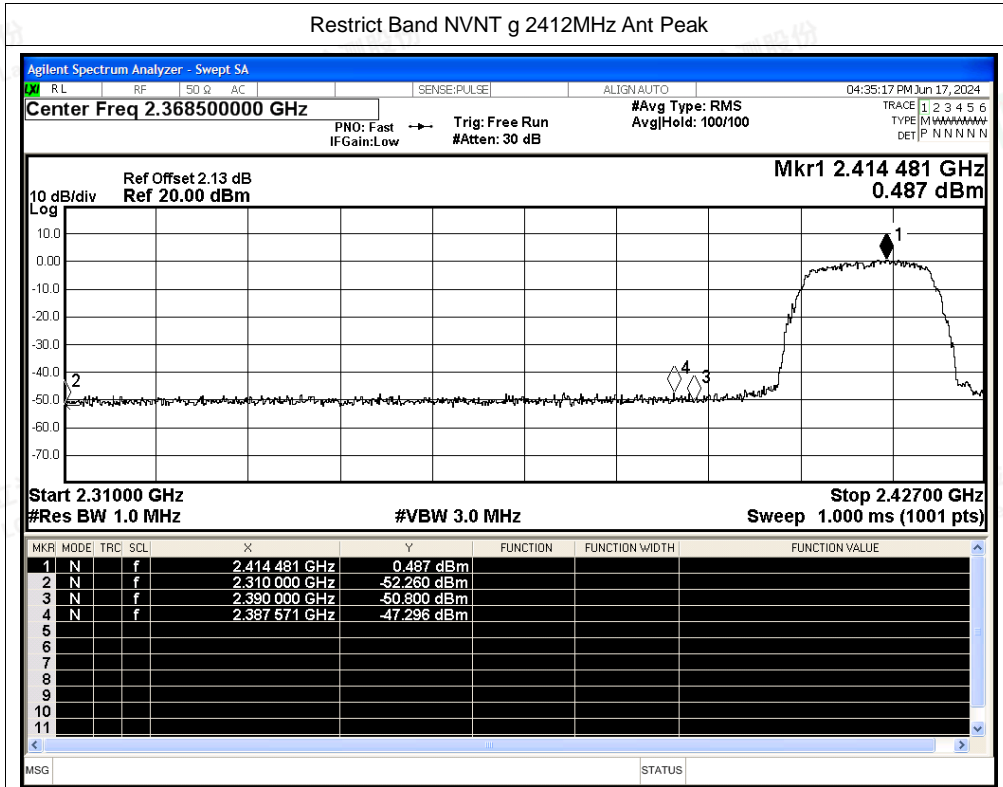


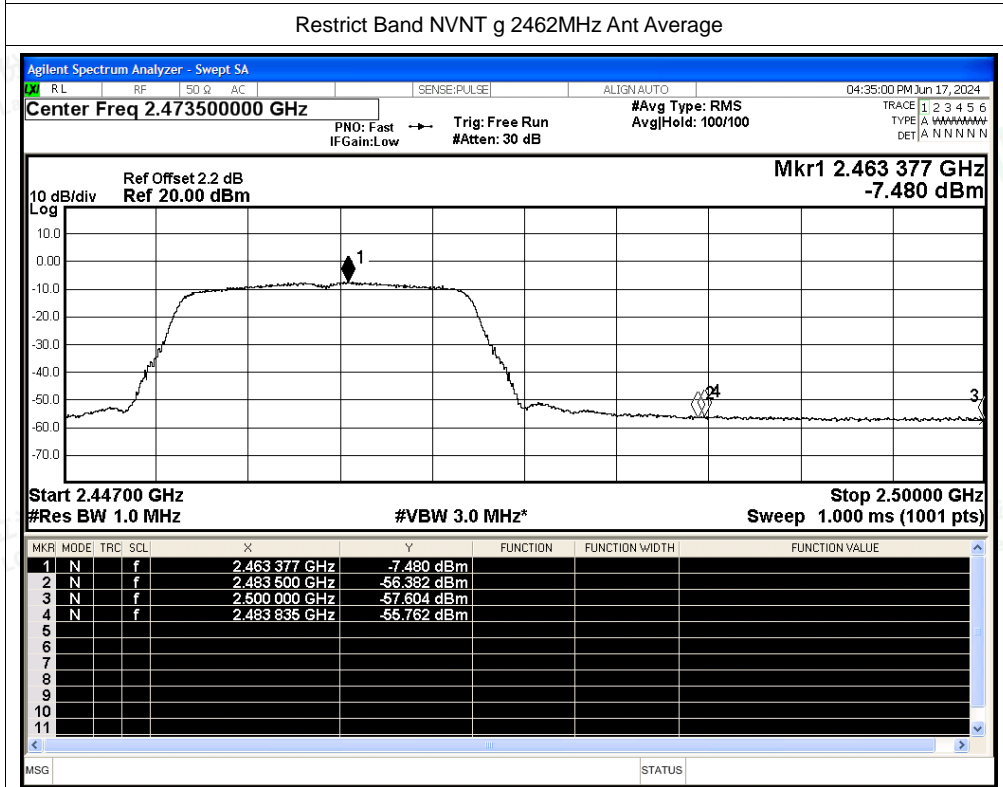
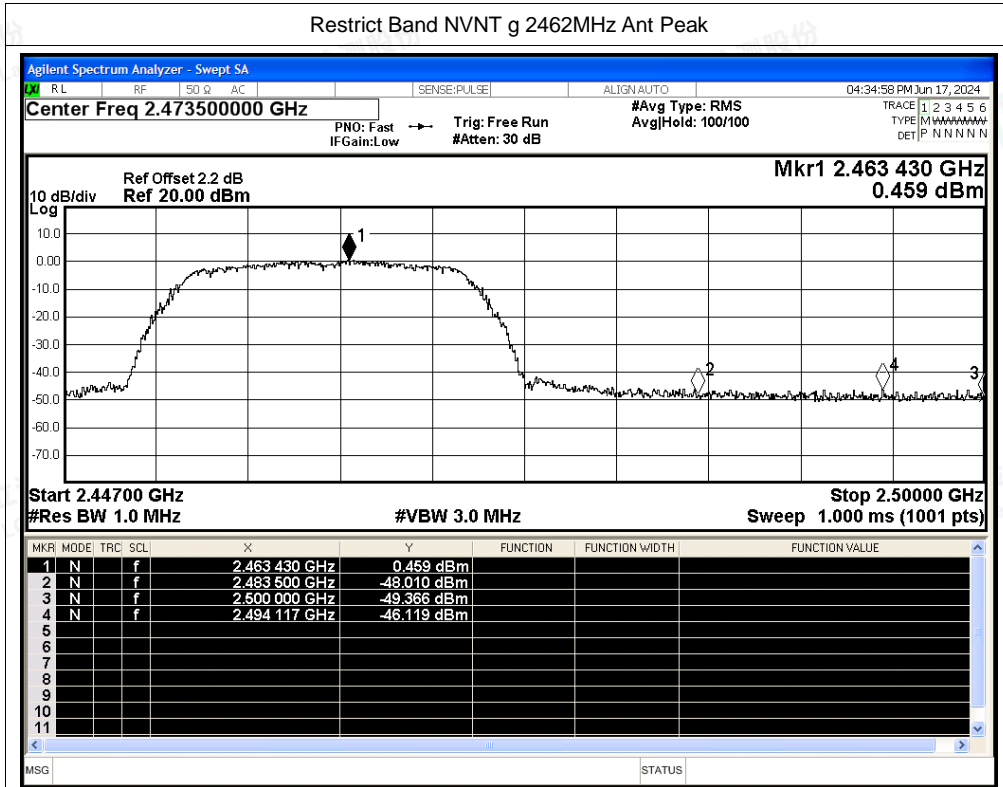


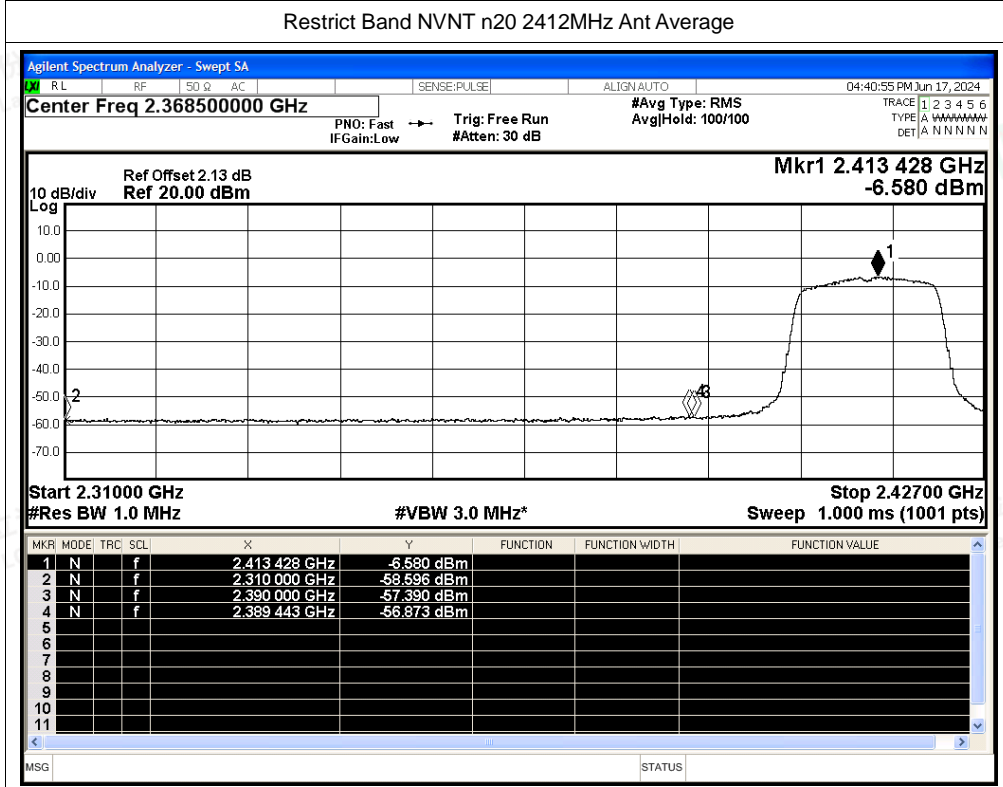
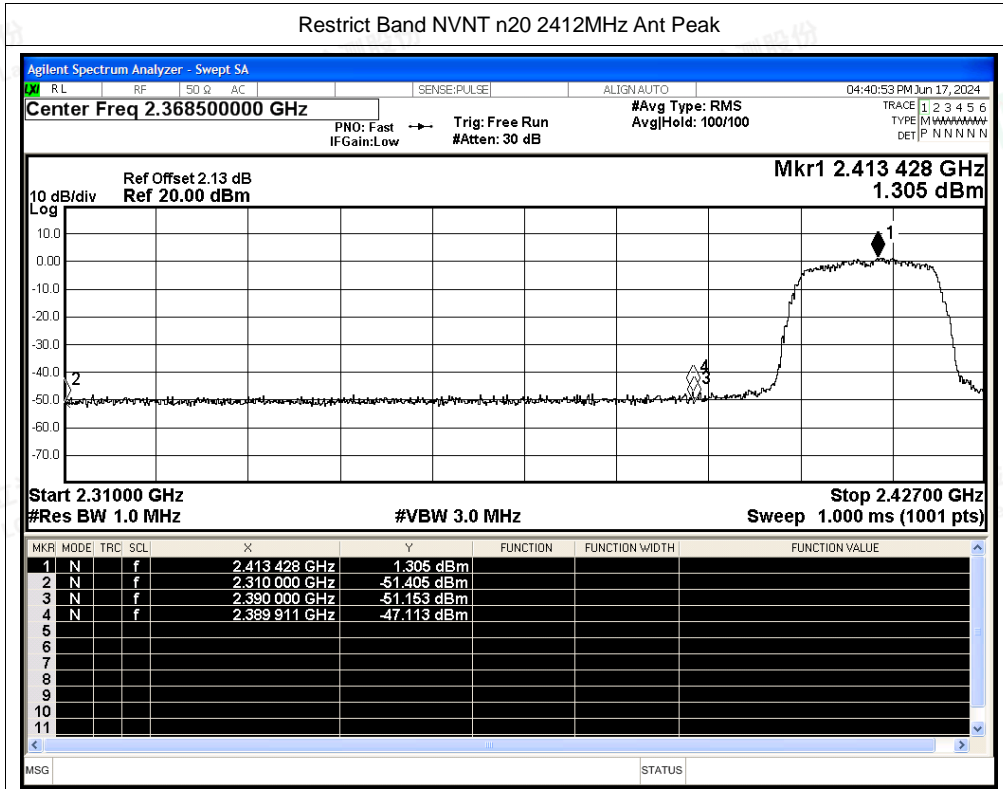






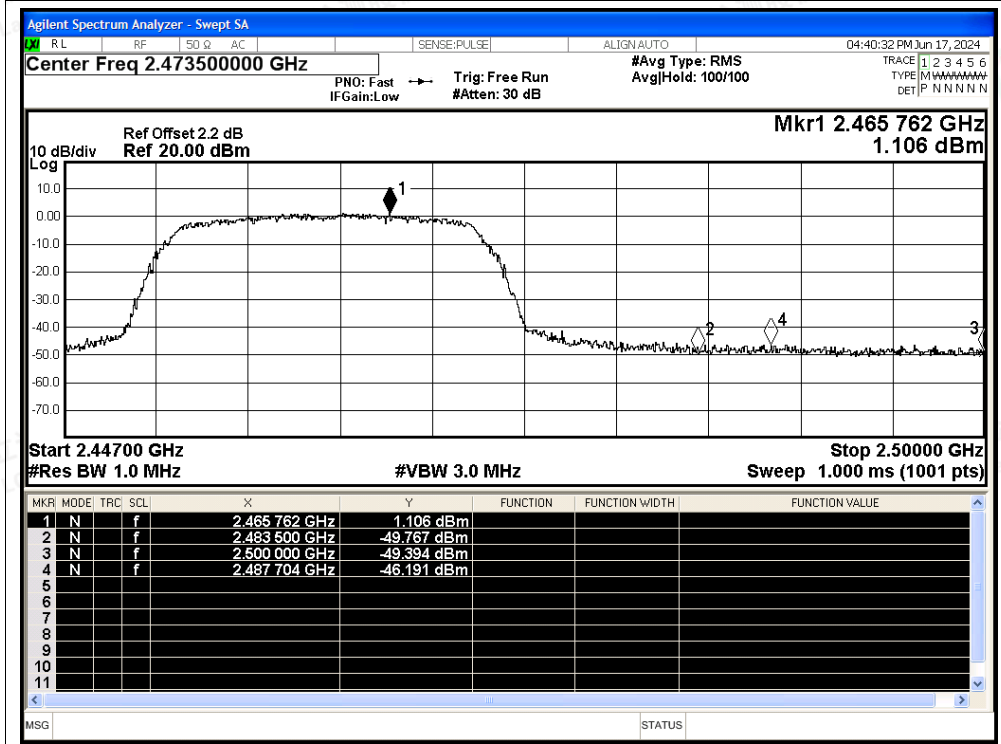




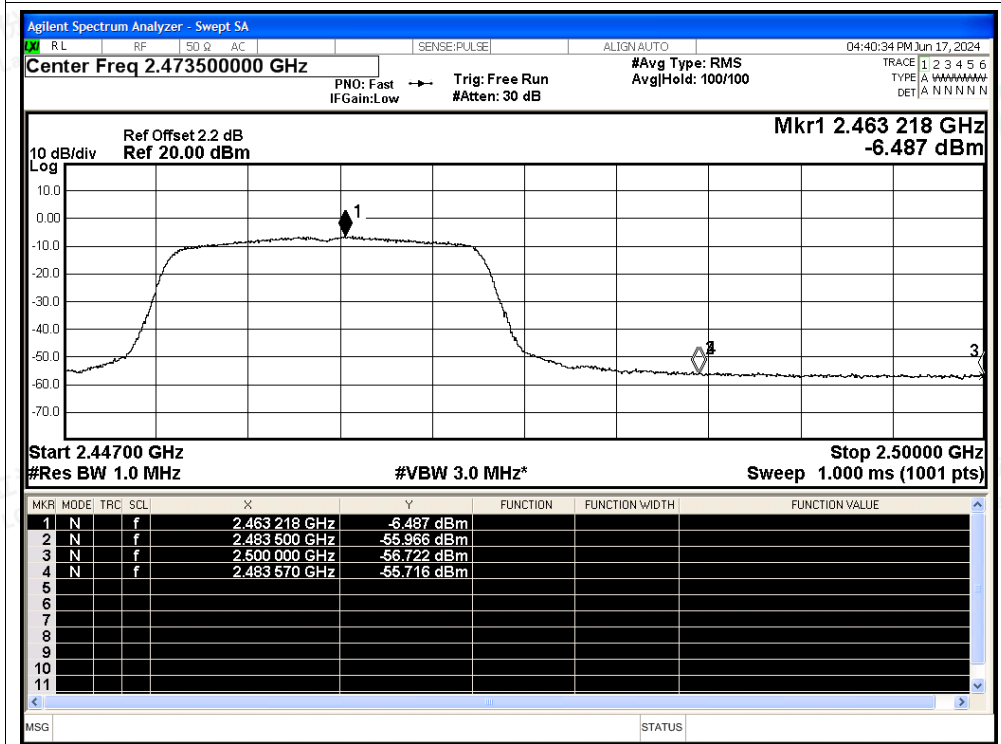




Restrict Band NVNT n20 2462MHz Ant Peak



Restrict Band NVNT n20 2462MHz Ant Average



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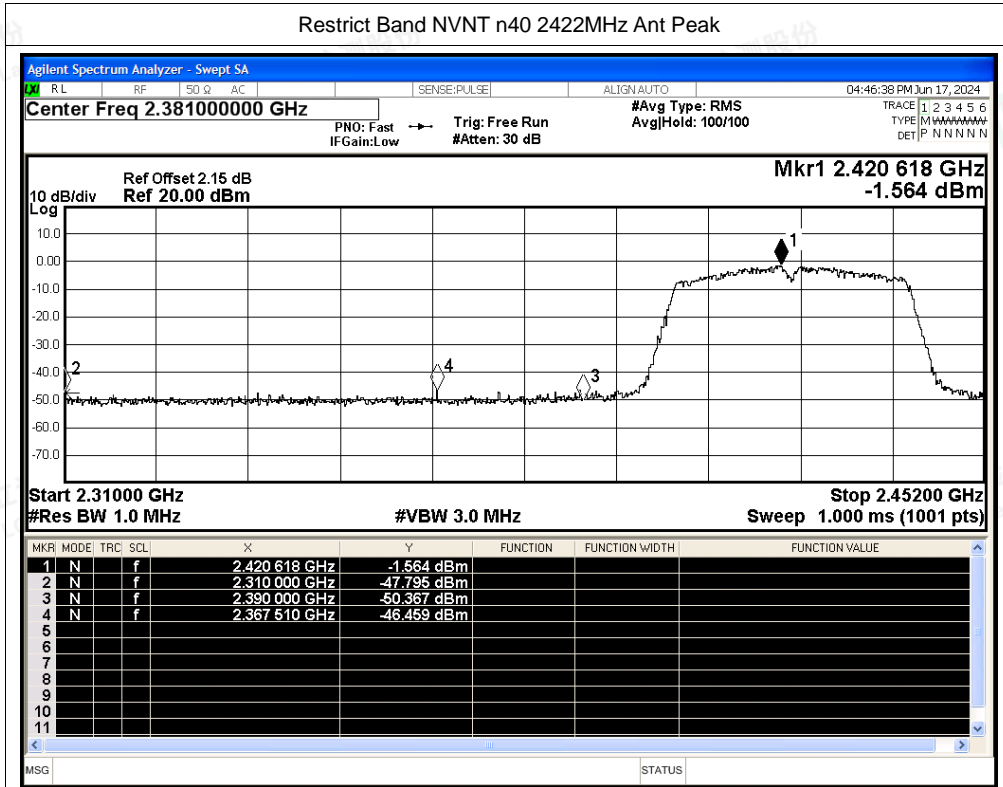
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Restrict Band NVNT n40 2422MHz Ant Peak



Restrict Band NVNT n40 2422MHz Ant Average

