



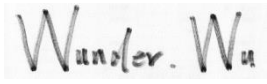
Appendix A

RF Test Data for BT V5.0 (DSS) (Conducted Measurement)

Product Name: Bluetooth game controller

Test Model: ps4

Environmental Conditions

Temperature:	23.5℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	 Wunder Wu
Supervised by:	 Li Huan



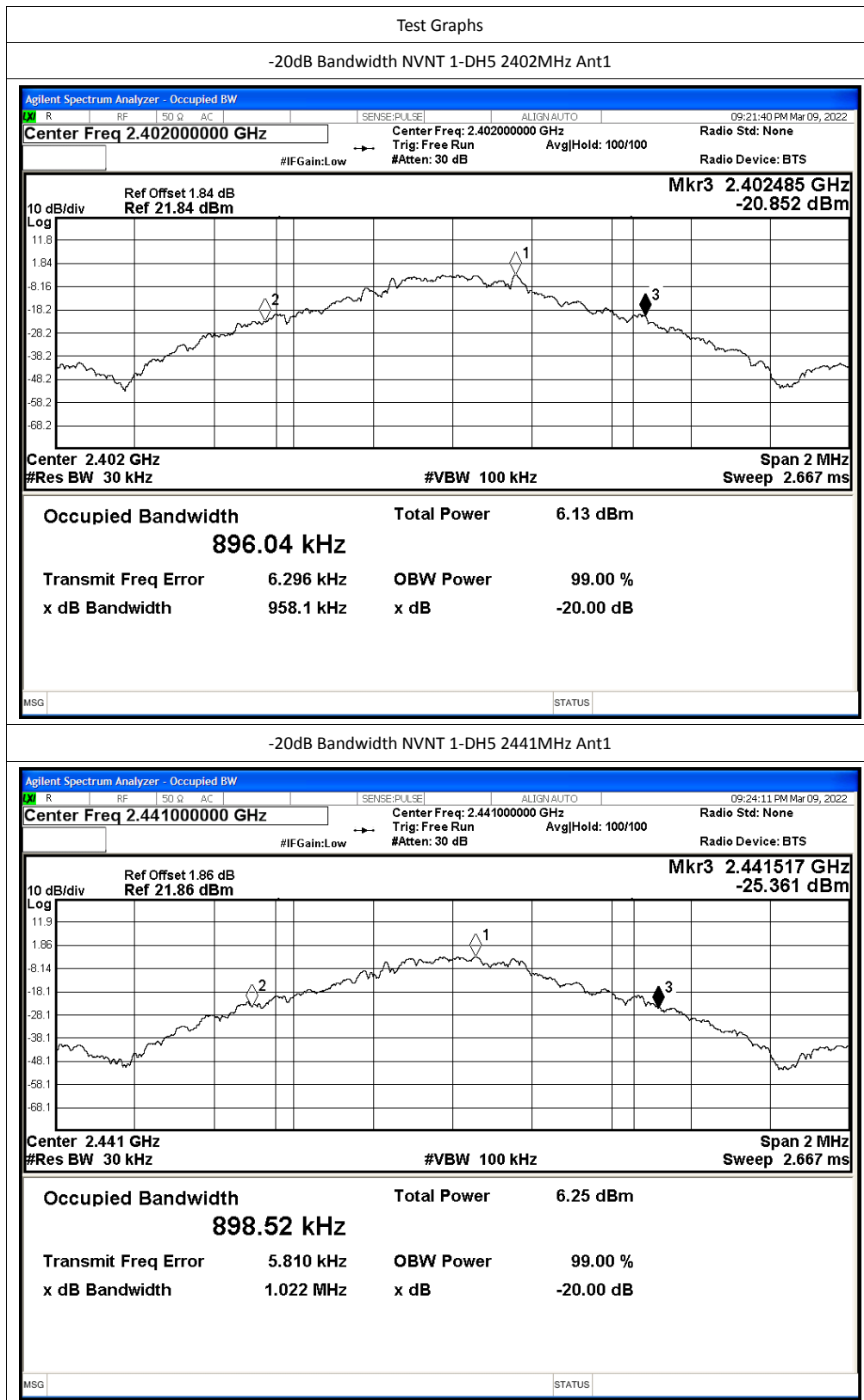
A.1 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.958	---	---
		2441	1.022	---	---
		2480	1.01	---	---
2DH5	Ant1	2402	1.282	---	---
		2441	1.316	---	---
		2480	1.278	---	---
3DH5	Ant1	2402	1.308	---	---
		2441	1.294	---	---
		2480	1.301	---	---

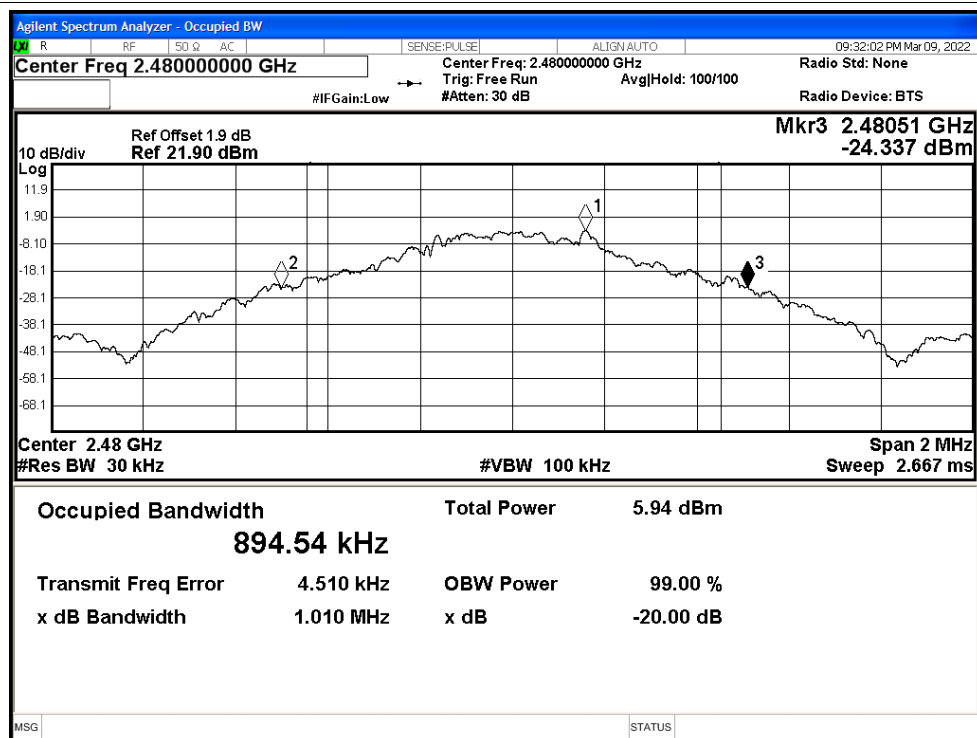


Test Graphs

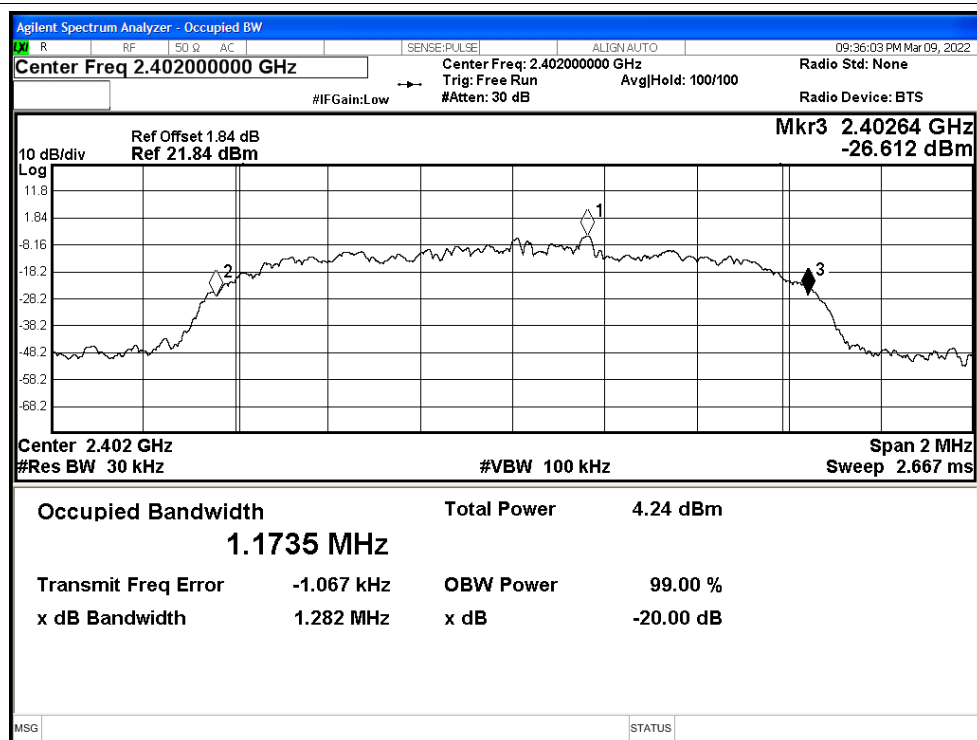




-20dB Bandwidth NVNT 1-DH5 2480MHz Ant1

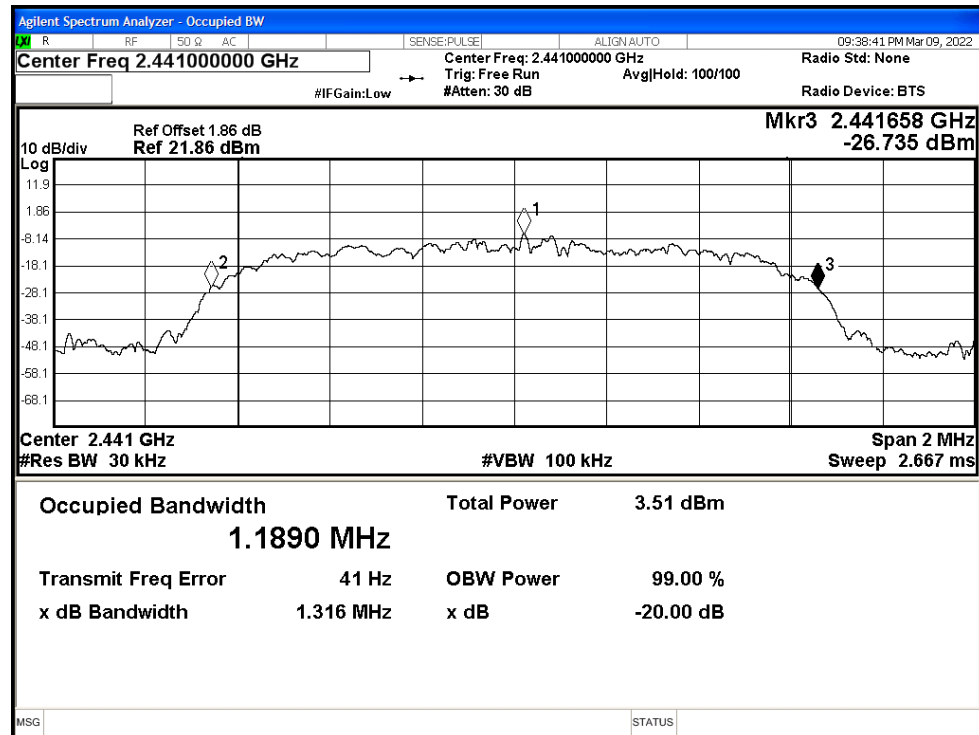


-20dB Bandwidth NVNT 2-DH5 2402MHz Ant1

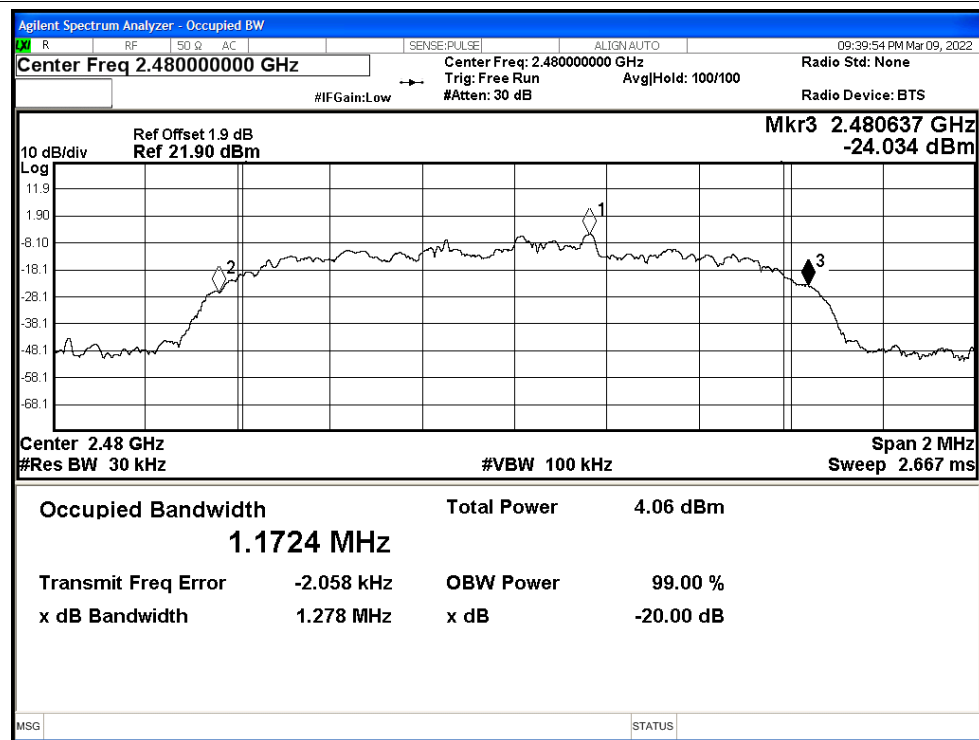




-20dB Bandwidth NVNT 2-DH5 2441MHz Ant1

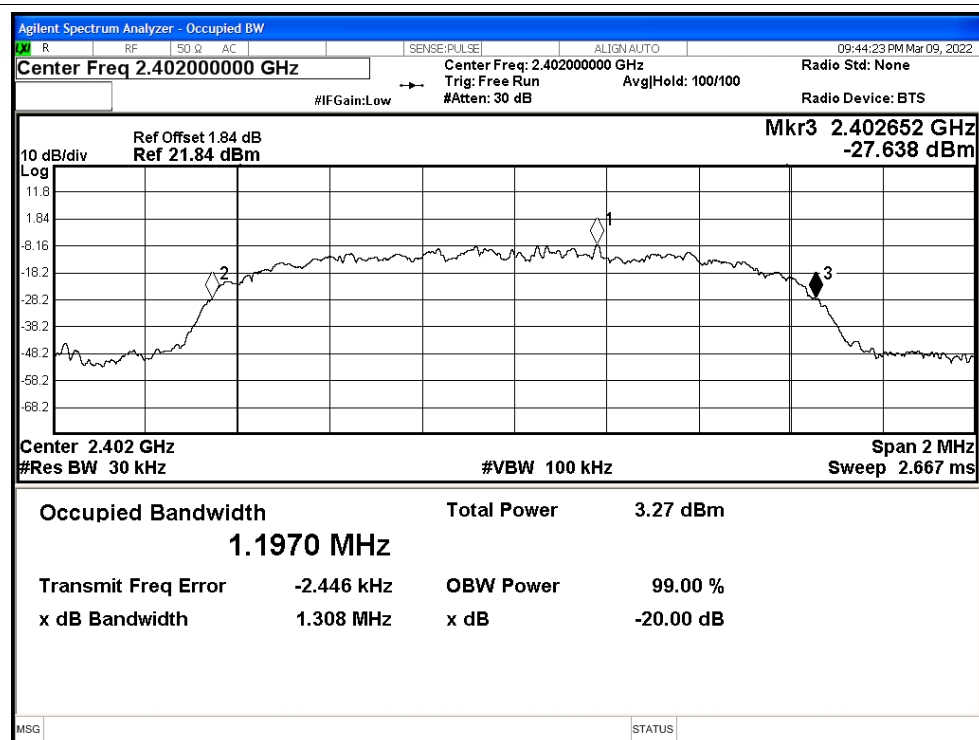


-20dB Bandwidth NVNT 2-DH5 2480MHz Ant1

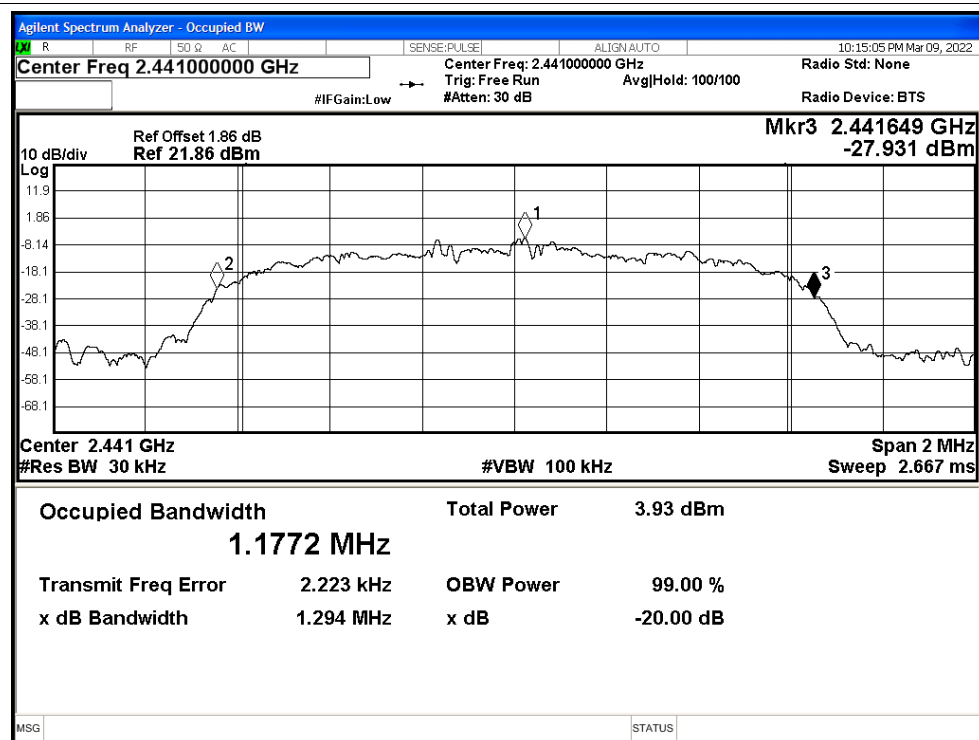


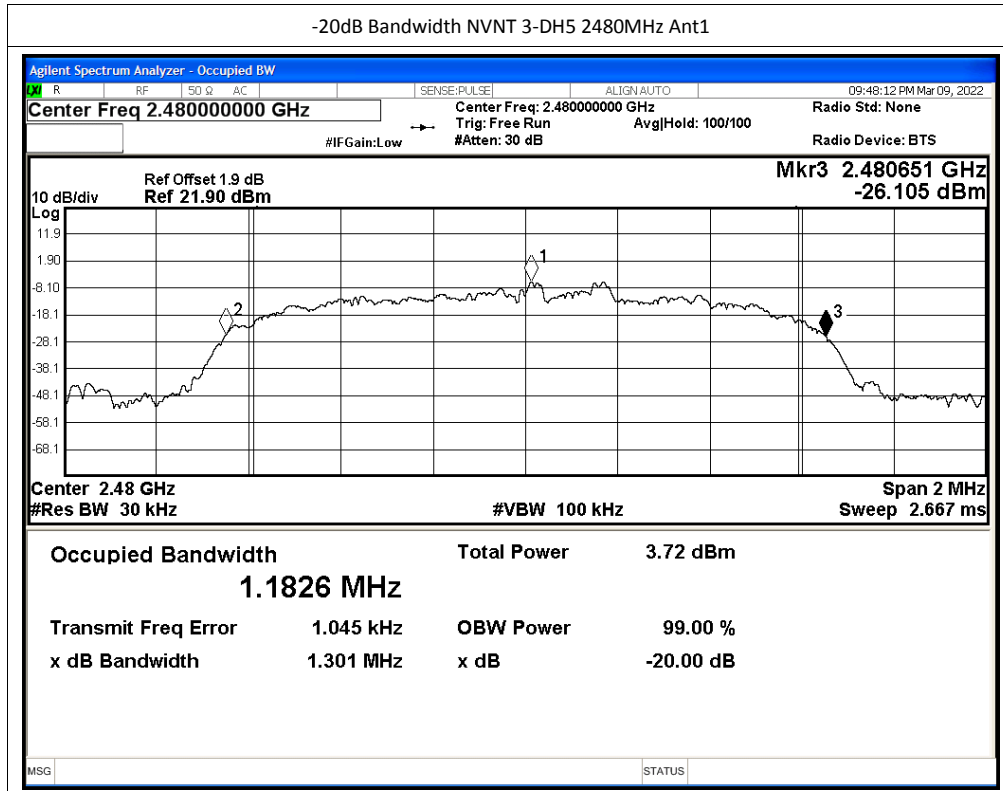


-20dB Bandwidth NVNT 3-DH5 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH5 2441MHz Ant1







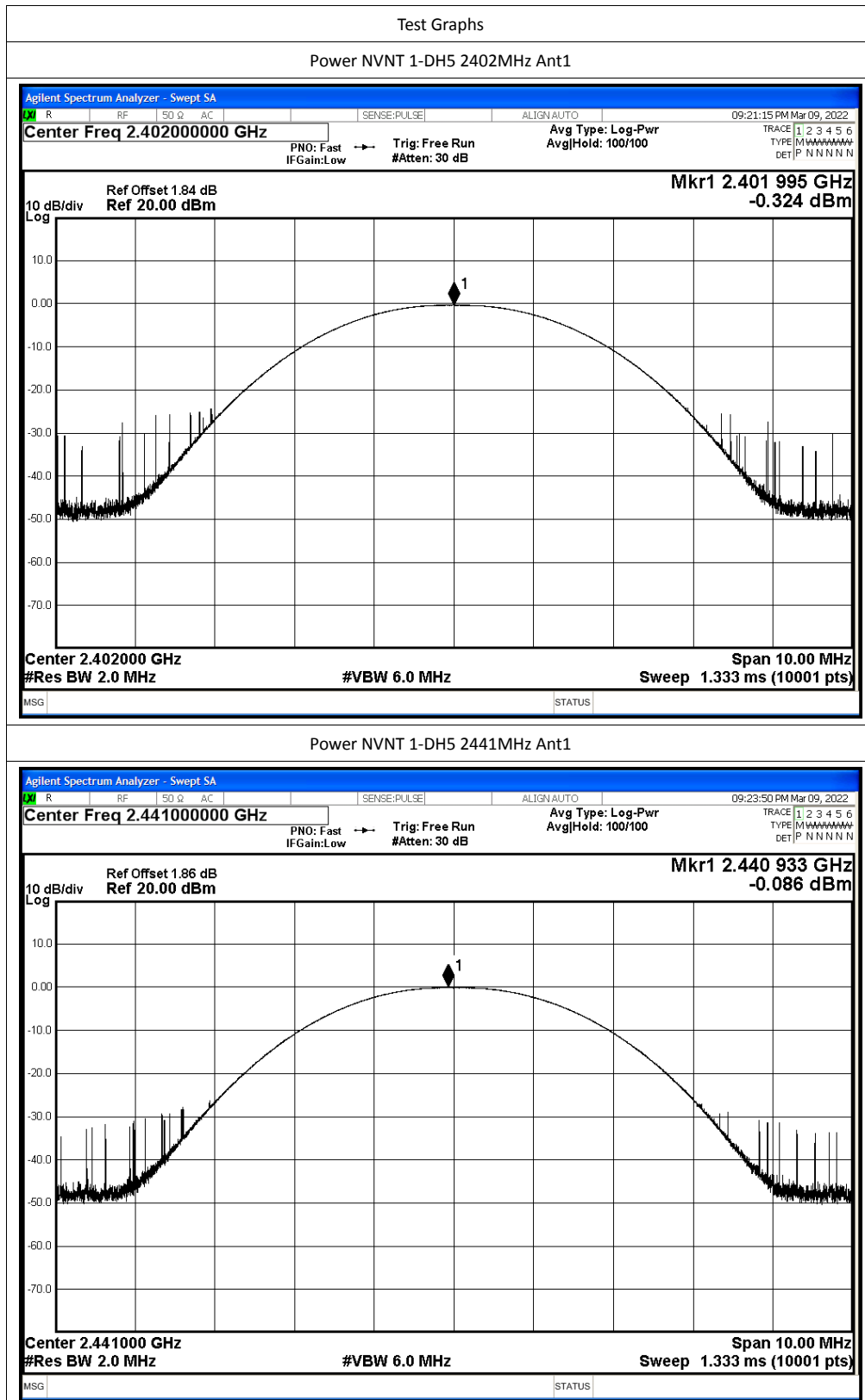
A.2 Maximum peak conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-0.32	≤20.97	PASS
		2441	-0.09	≤20.97	PASS
		2480	-0.56	≤20.97	PASS
2DH5	Ant1	2402	-0.62	≤20.97	PASS
		2441	-0.36	≤20.97	PASS
		2480	-0.8	≤20.97	PASS
3DH5	Ant1	2402	-0.55	≤20.97	PASS
		2441	-0.33	≤20.97	PASS
		2480	-0.76	≤20.97	PASS

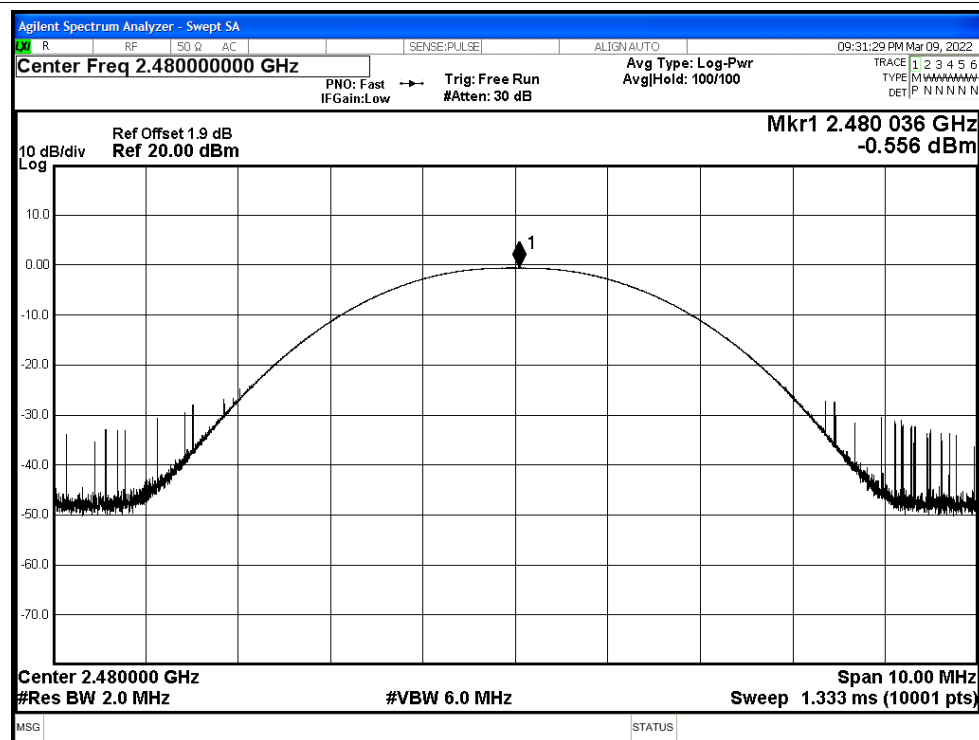


Test Graphs

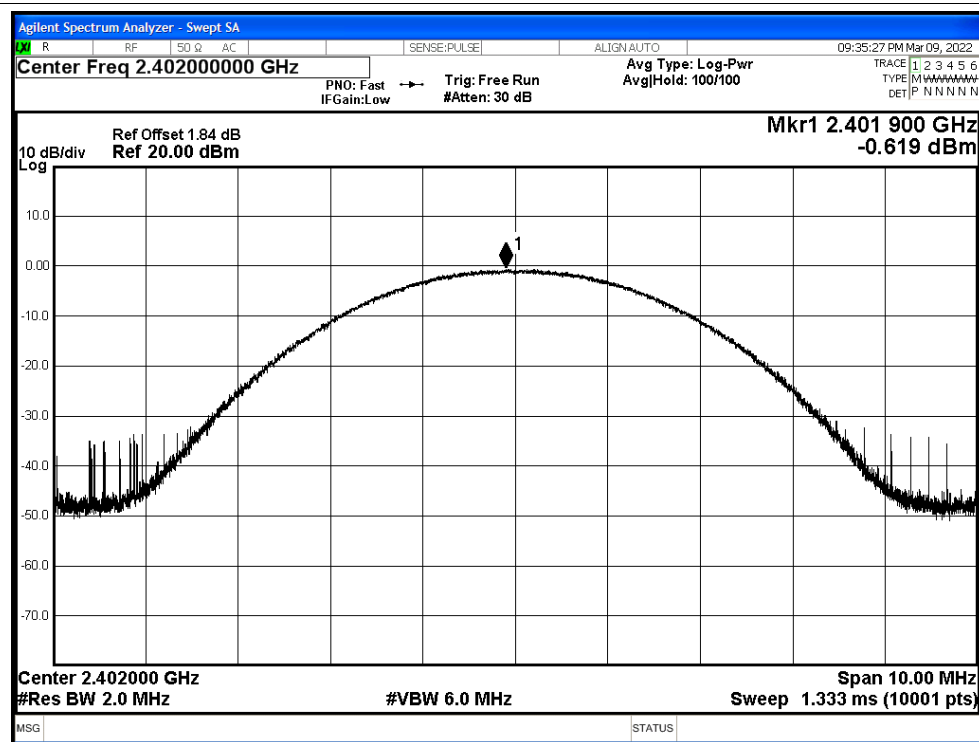




Power NVNT 1-DH5 2480MHz Ant1

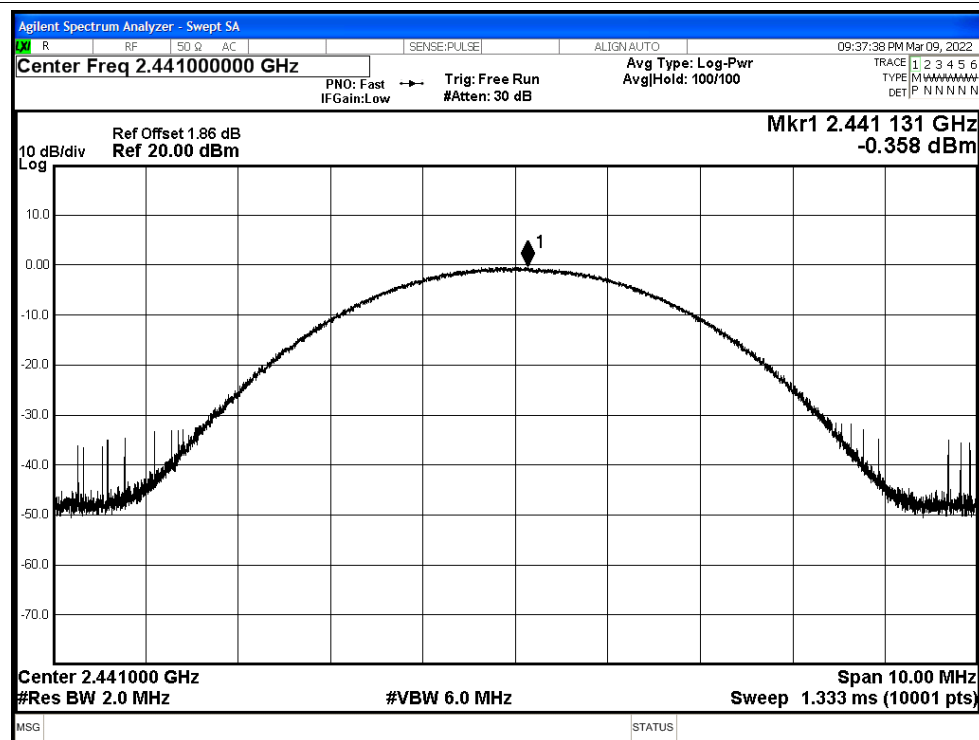


Power NVNT 2-DH5 2402MHz Ant1

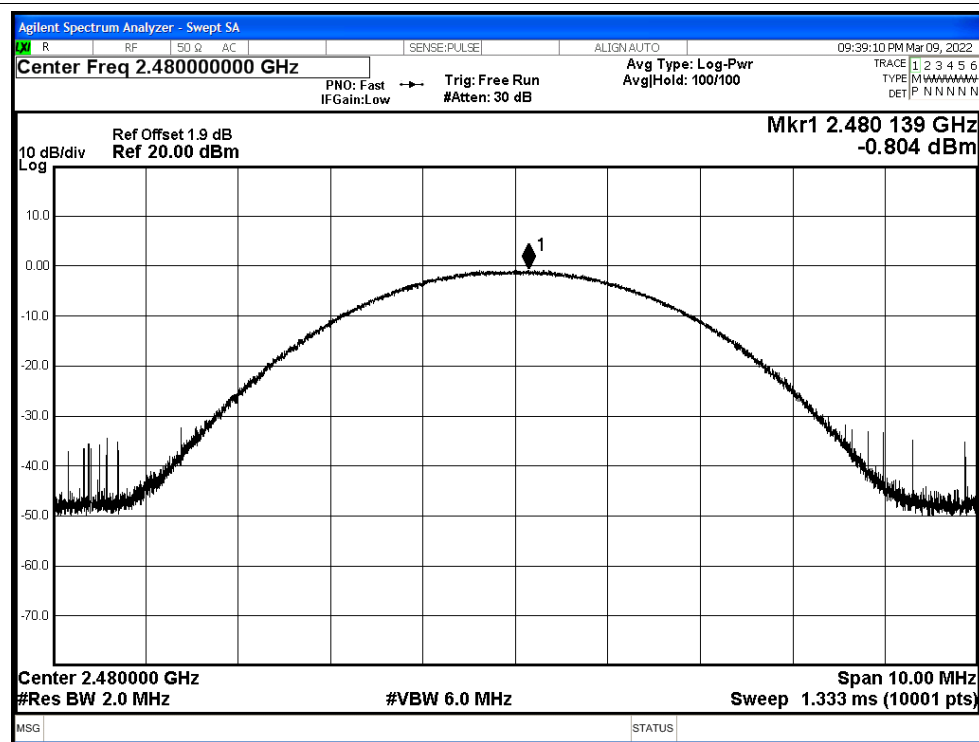




Power NVNT 2-DH5 2441MHz Ant1

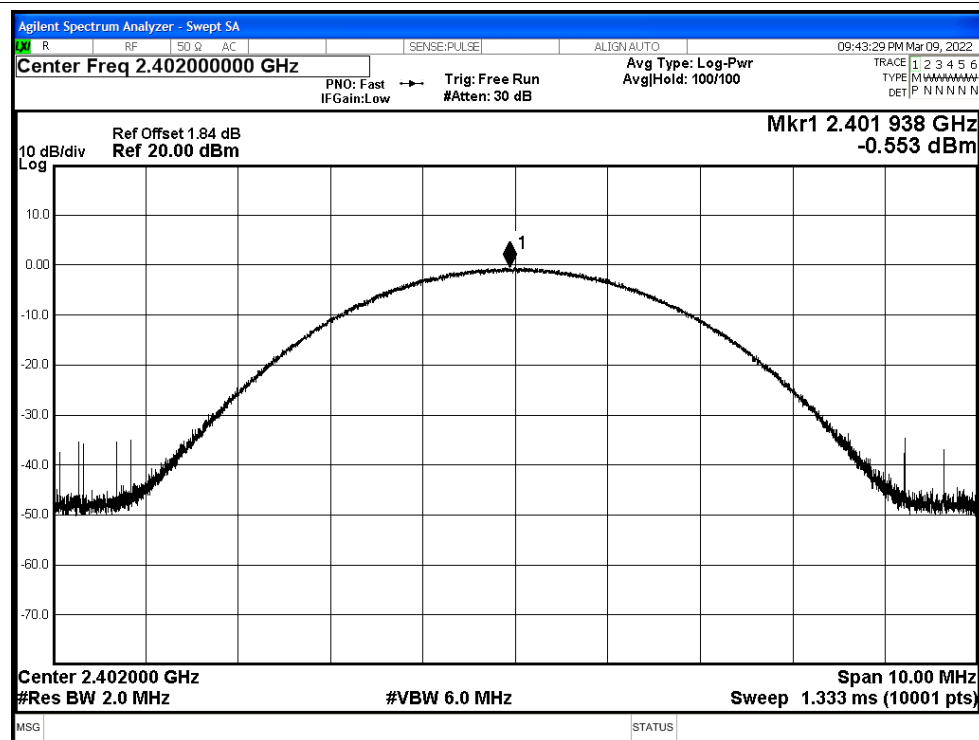


Power NVNT 2-DH5 2480MHz Ant1

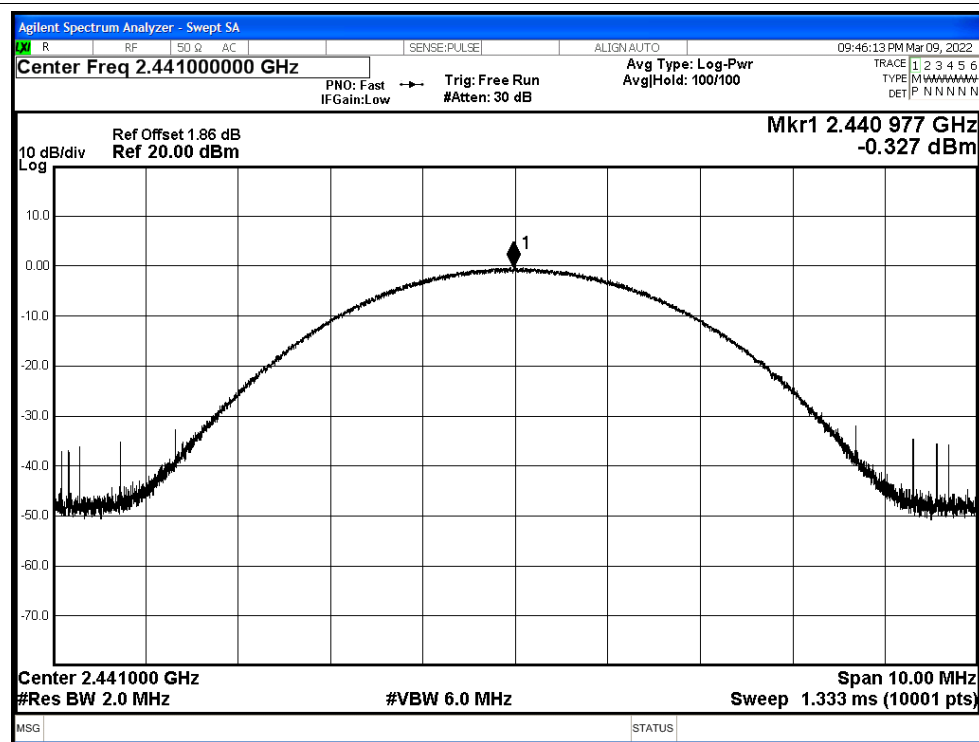


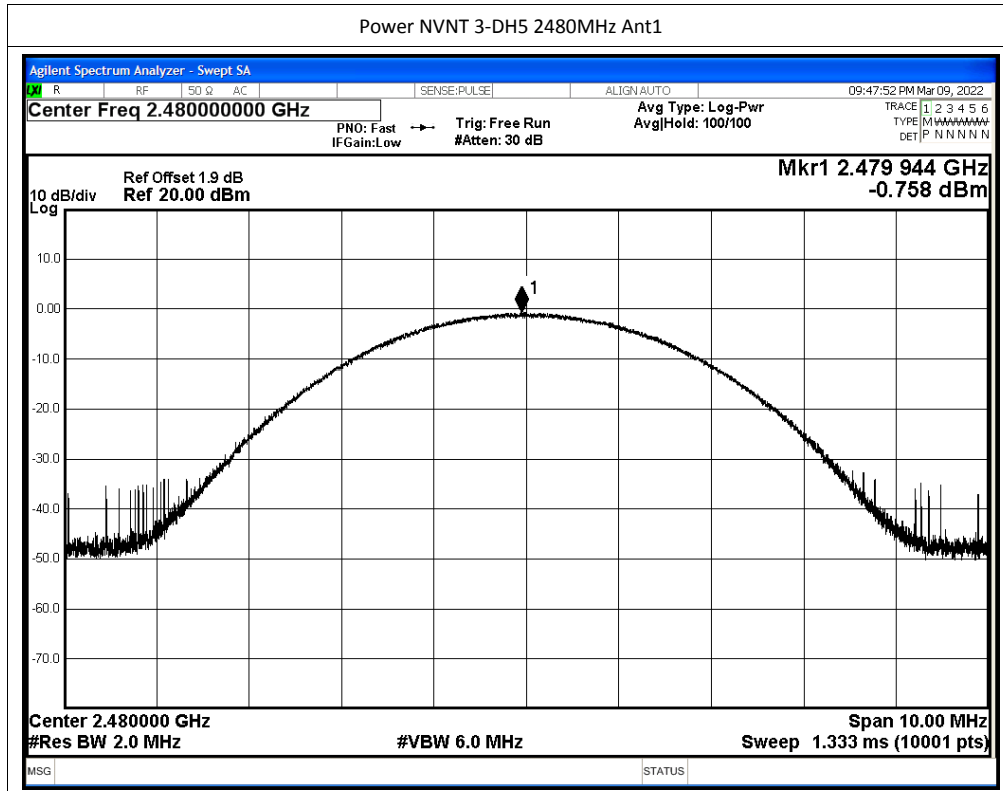


Power NVNT 3-DH5 2402MHz Ant1



Power NVNT 3-DH5 2441MHz Ant1







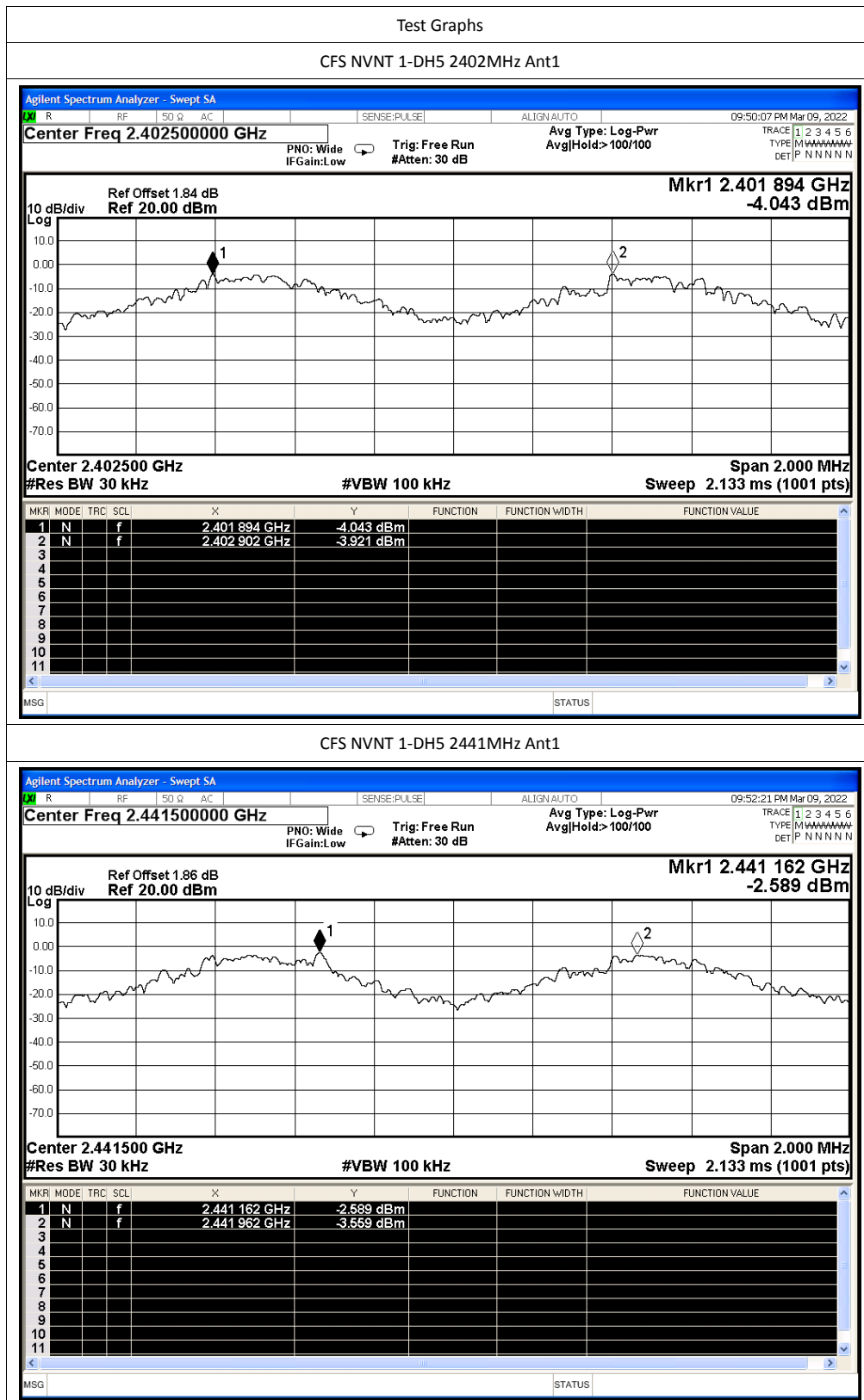
A.3 Carrier frequency separation

Test Result

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH5	Ant1	2401.894	2402.902	1.008	0.639	Pass
NVNT	1-DH5	Ant1	2441.162	2441.962	0.8	0.681	Pass
NVNT	1-DH5	Ant1	2478.974	2479.972	0.998	0.673	Pass
NVNT	2-DH5	Ant1	2402.024	2403.002	0.978	0.855	Pass
NVNT	2-DH5	Ant1	2441.006	2442.428	1.422	0.877	Pass
NVNT	2-DH5	Ant1	2479.164	2480.164	1	0.852	Pass
NVNT	3-DH5	Ant1	2401.838	2402.996	1.158	0.872	Pass
NVNT	3-DH5	Ant1	2440.944	2442.174	1.23	1.139	Pass
NVNT	3-DH5	Ant1	2478.994	2480.156	1.162	0.867	Pass

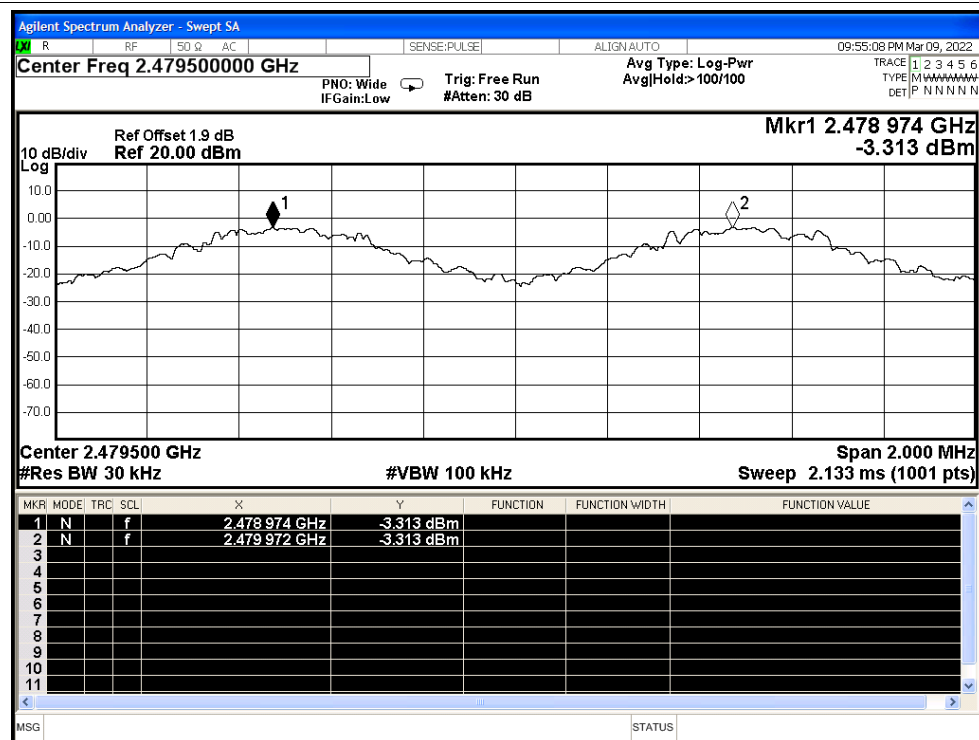


Test Graphs

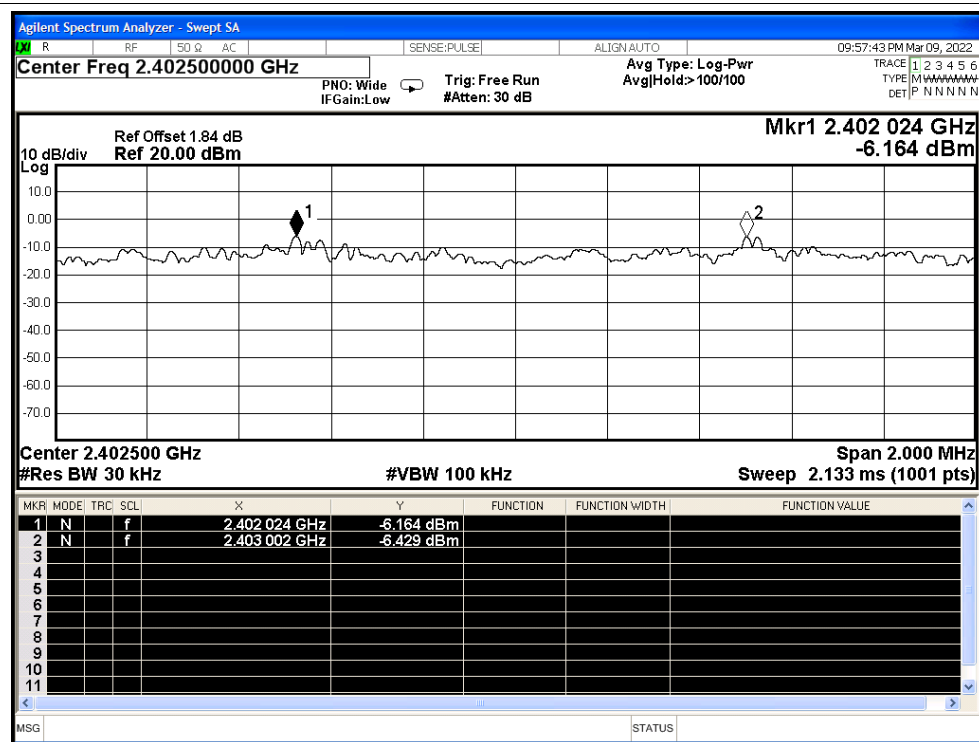




CFS NVNT 1-DH5 2480MHz Ant1

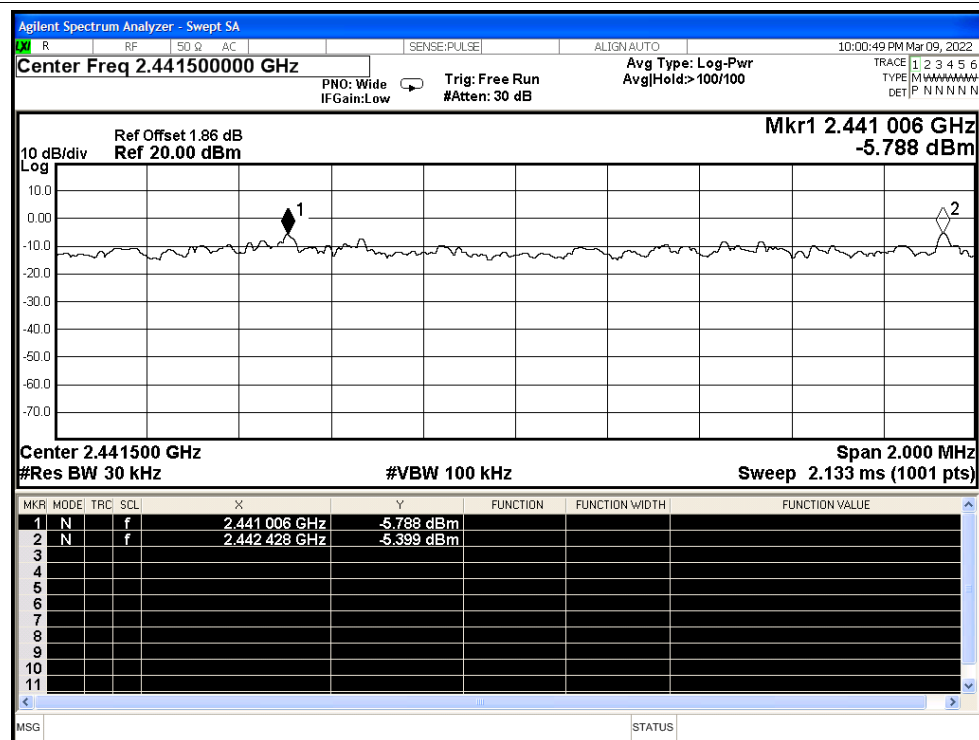


CFS NVNT 2-DH5 2402MHz Ant1

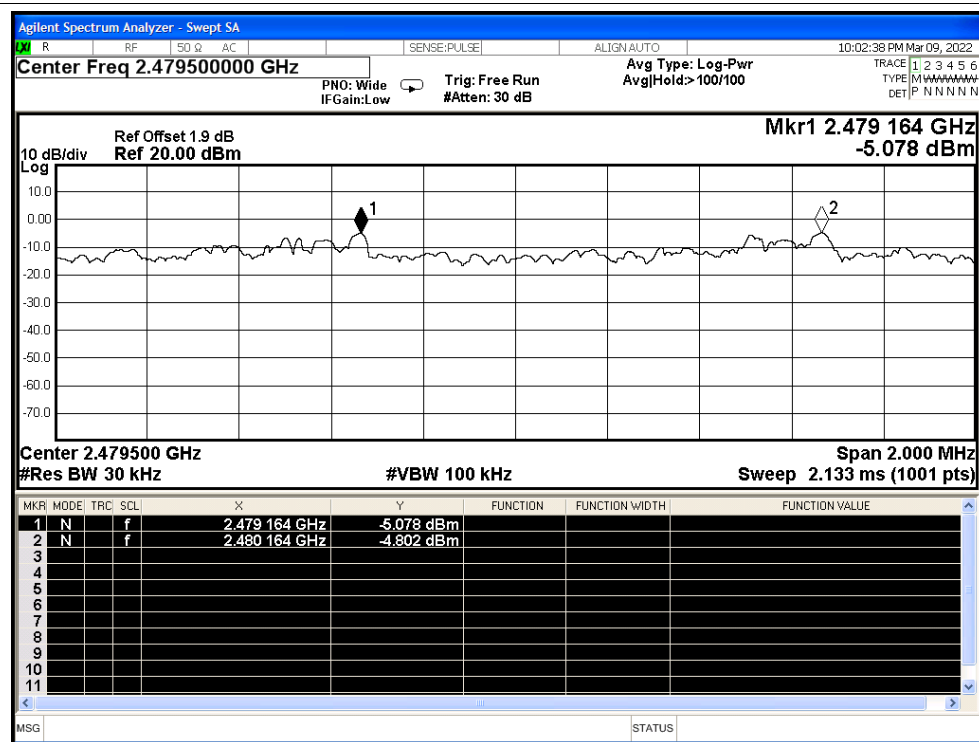


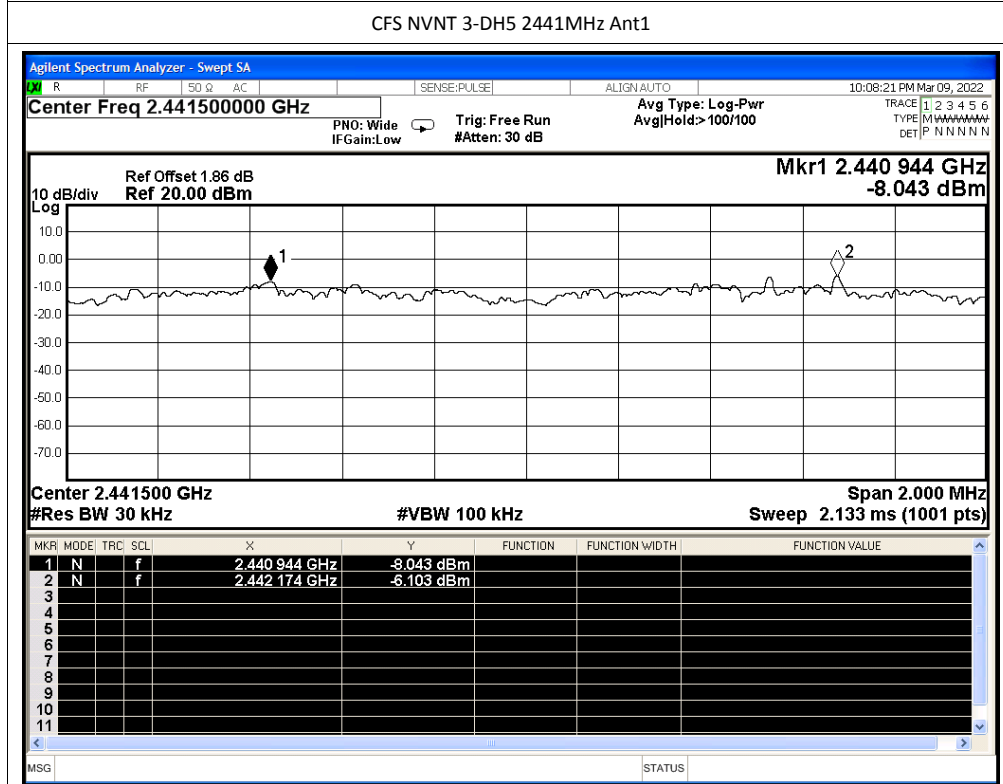
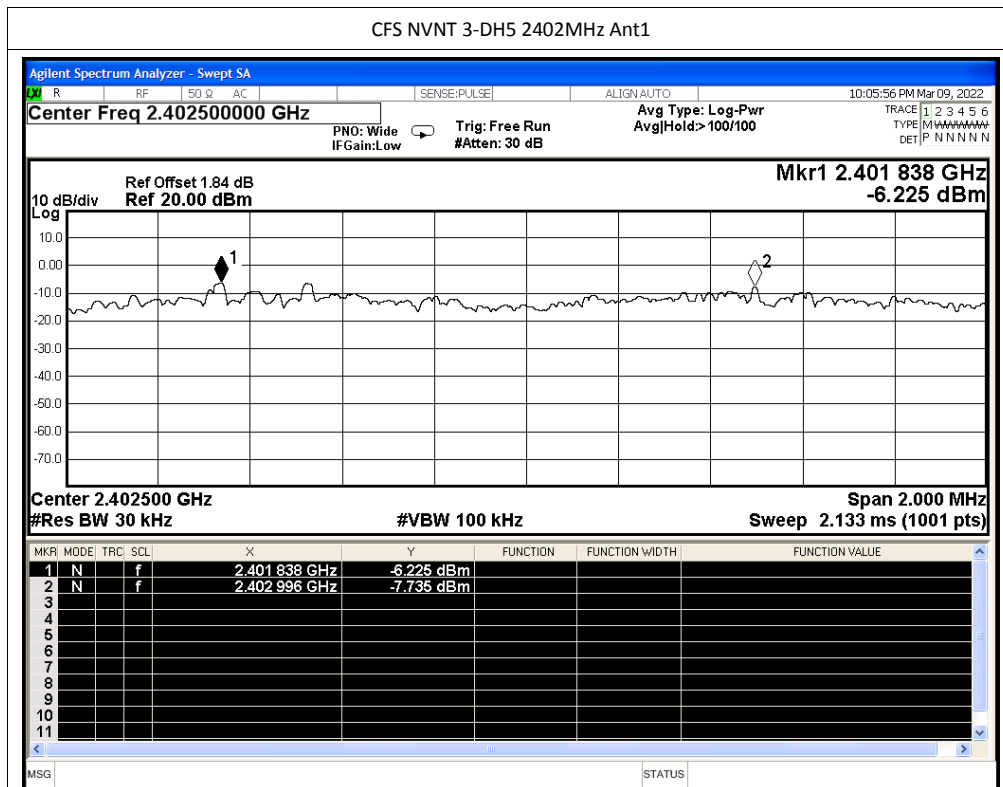


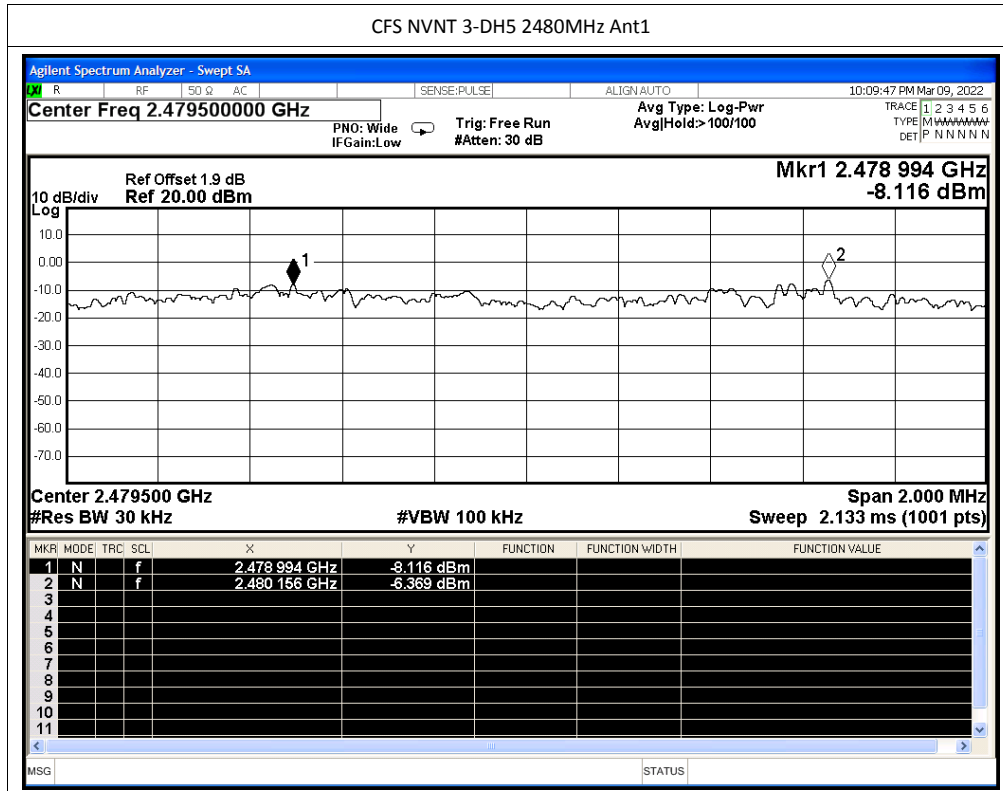
CFS NVNT 2-DH5 2441MHz Ant1



CFS NVNT 2-DH5 2480MHz Ant1









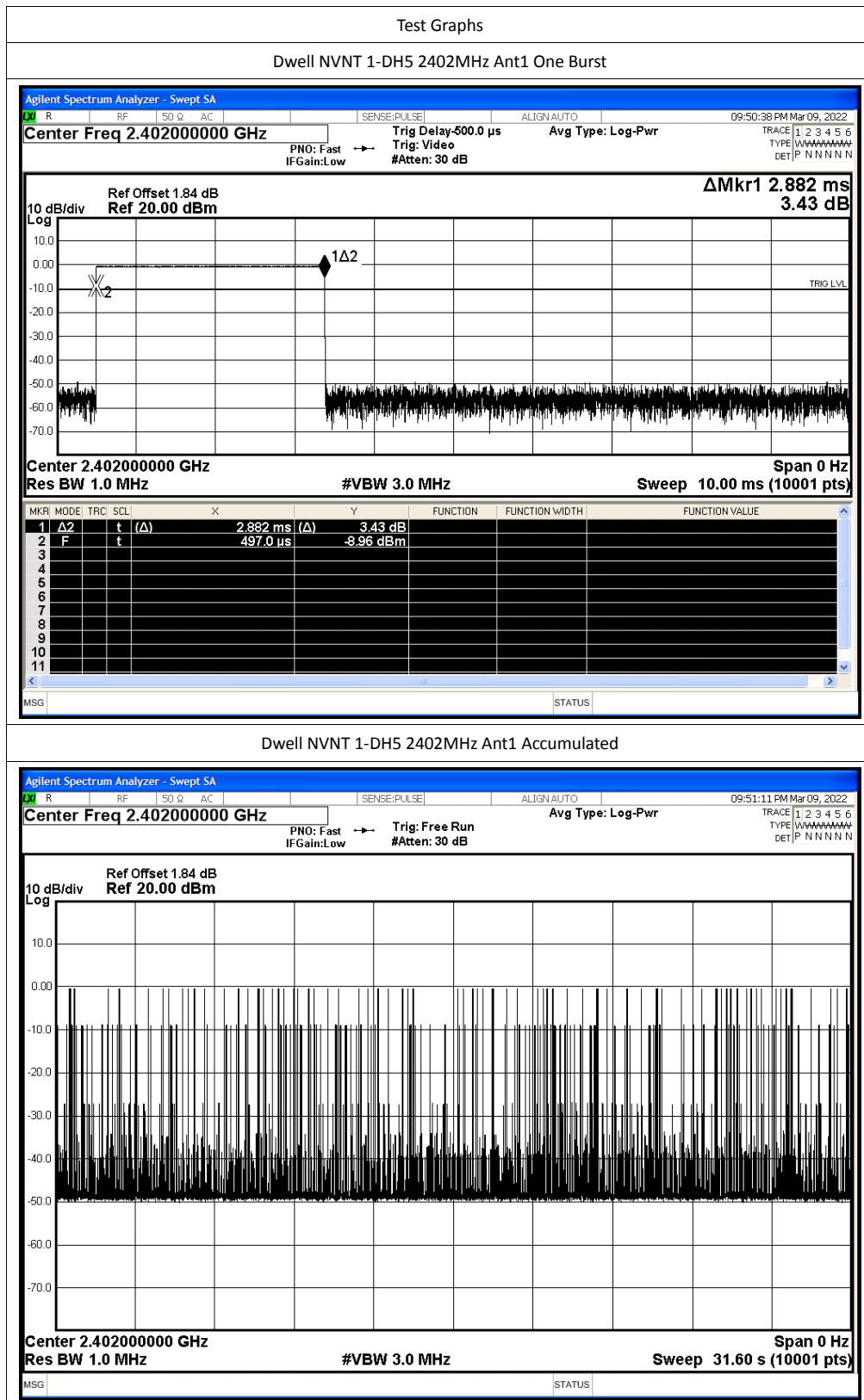
A.4 Time of occupancy

Test Result

Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Burst Count	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH5	2402	Ant1	2.882	291.082	101	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.881	325.553	113	31600	400	Pass
NVNT	1-DH5	2480	Ant1	2.881	259.29	90	31600	400	Pass
NVNT	2-DH5	2402	Ant1	2.881	296.743	103	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.883	308.481	107	31600	400	Pass
NVNT	2-DH5	2480	Ant1	2.882	322.784	112	31600	400	Pass
NVNT	3-DH5	2402	Ant1	2.887	303.135	105	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.885	282.73	98	31600	400	Pass
NVNT	3-DH5	2480	Ant1	2.887	282.926	98	31600	400	Pass

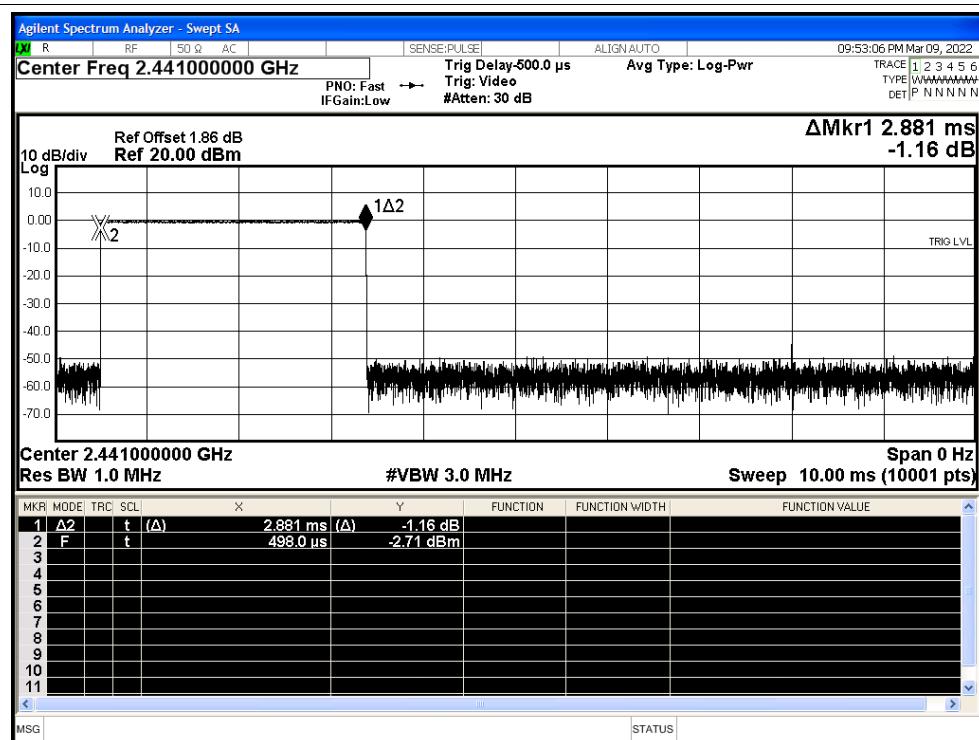


Test Graphs

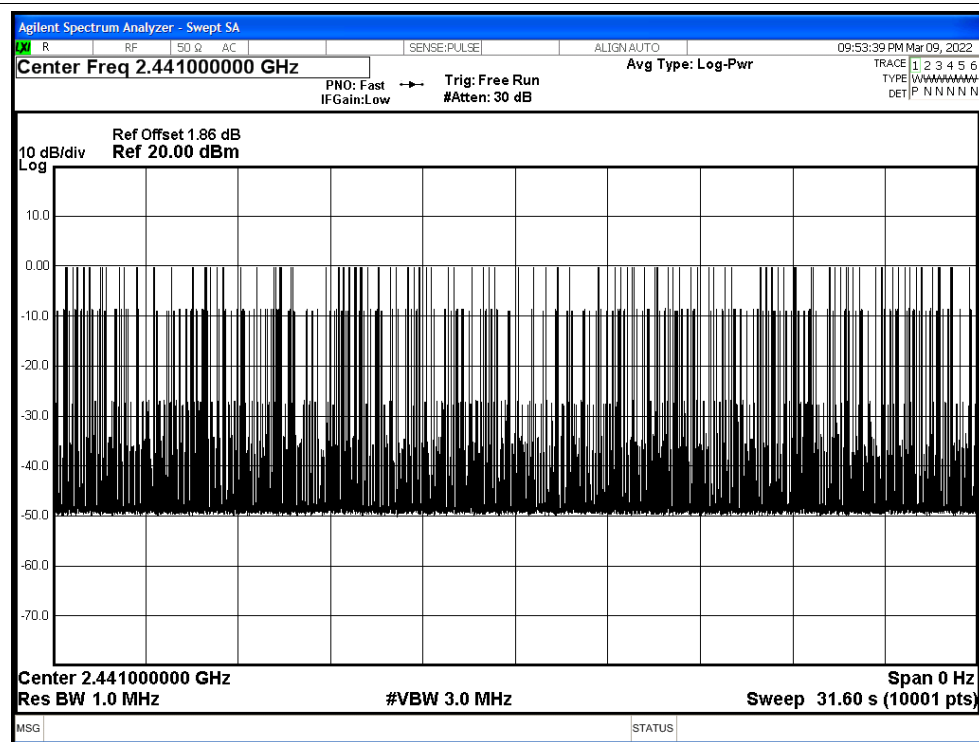




Dwell NVNT 1-DH5 2441MHz Ant1 One Burst

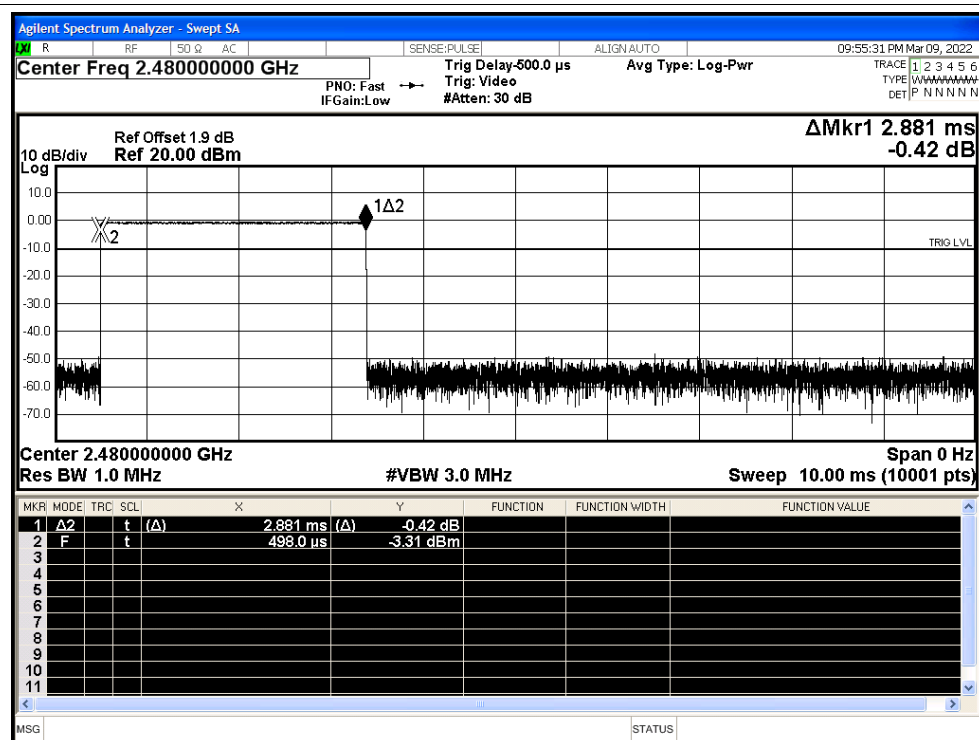


Dwell NVNT 1-DH5 2441MHz Ant1 Accumulated

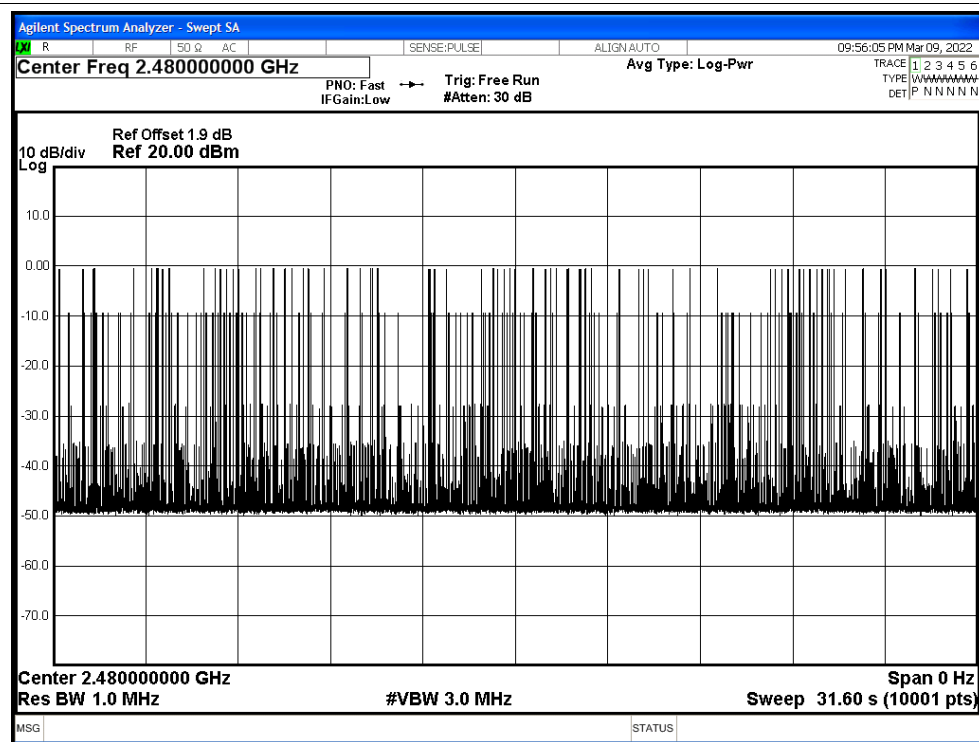




Dwell NVNT 1-DH5 2480MHz Ant1 One Burst

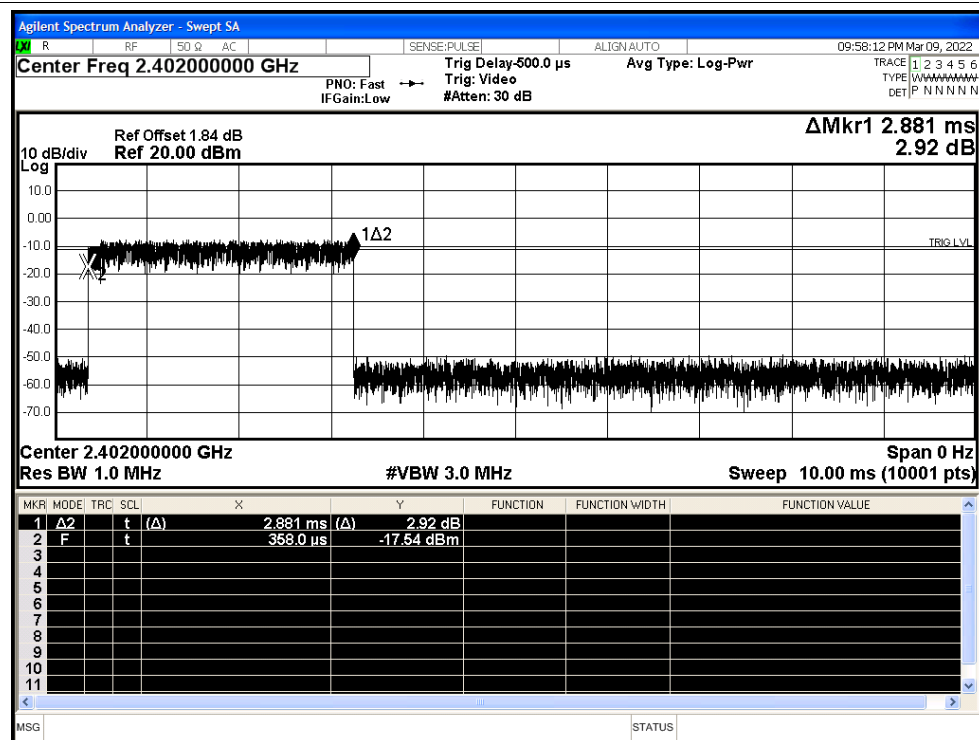


Dwell NVNT 1-DH5 2480MHz Ant1 Accumulated

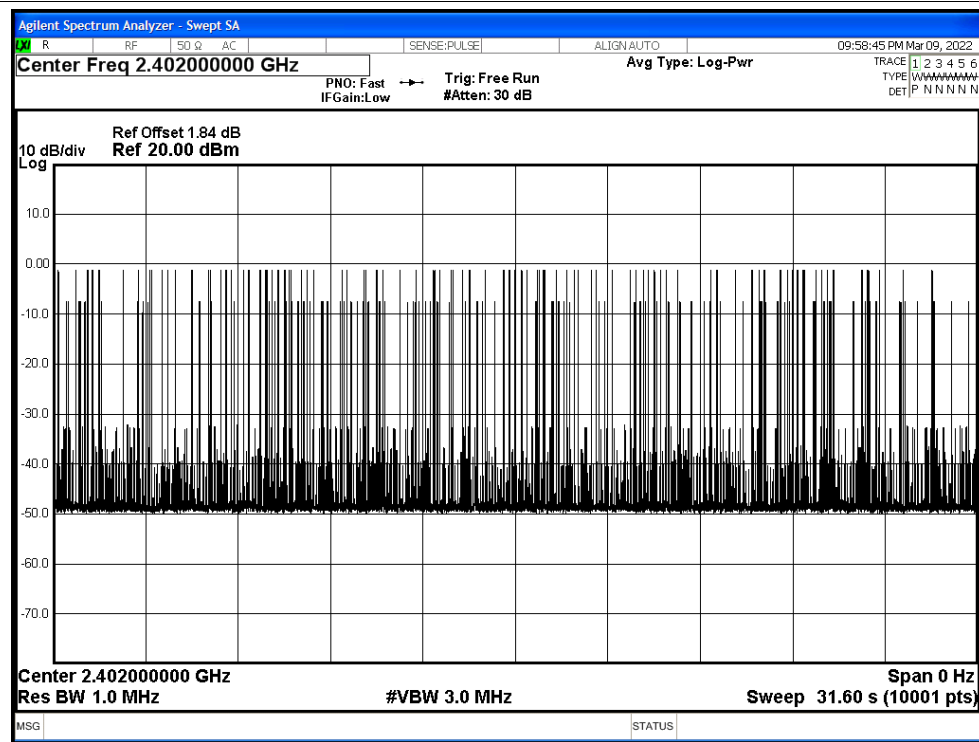




Dwell NVNT 2-DH5 2402MHz Ant1 One Burst

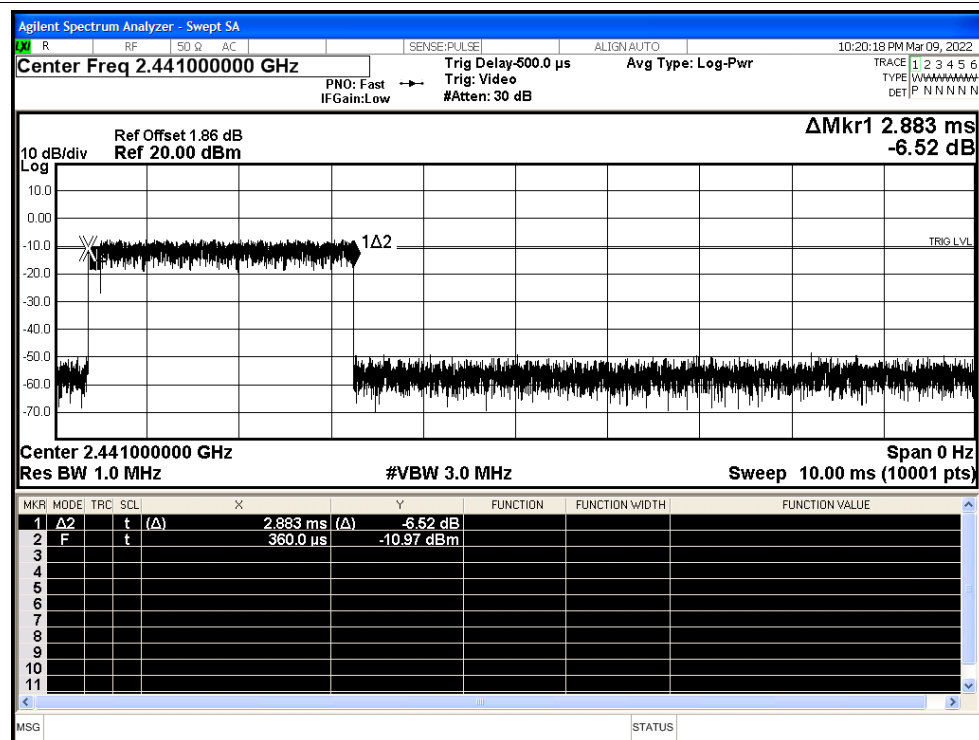


Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated

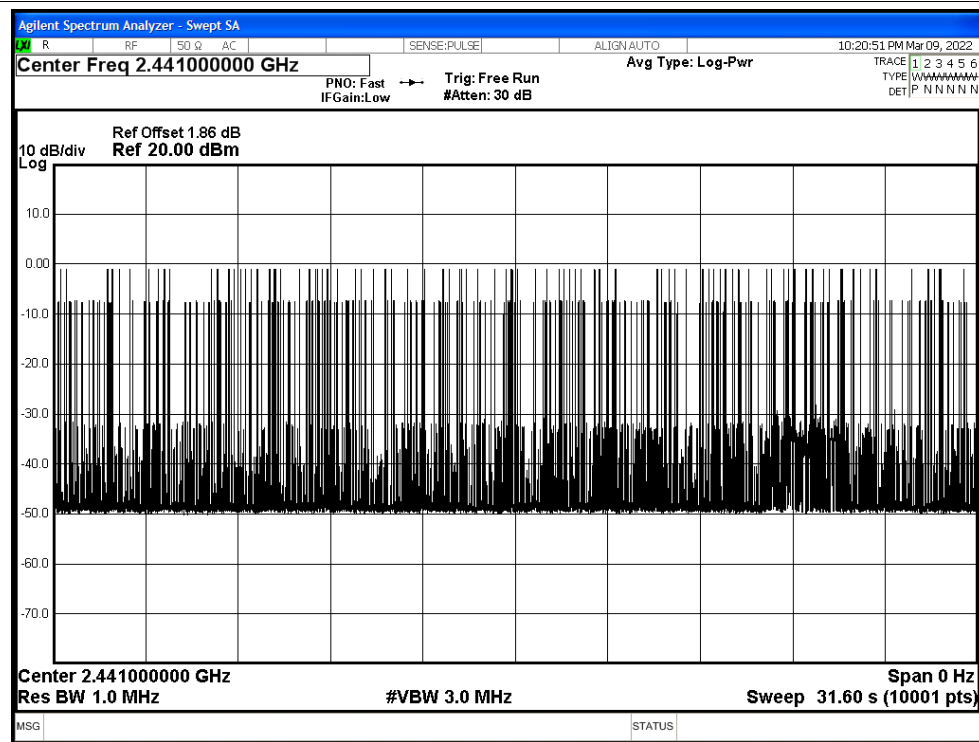




Dwell NVNT 2-DH5 2441MHz Ant1 One Burst

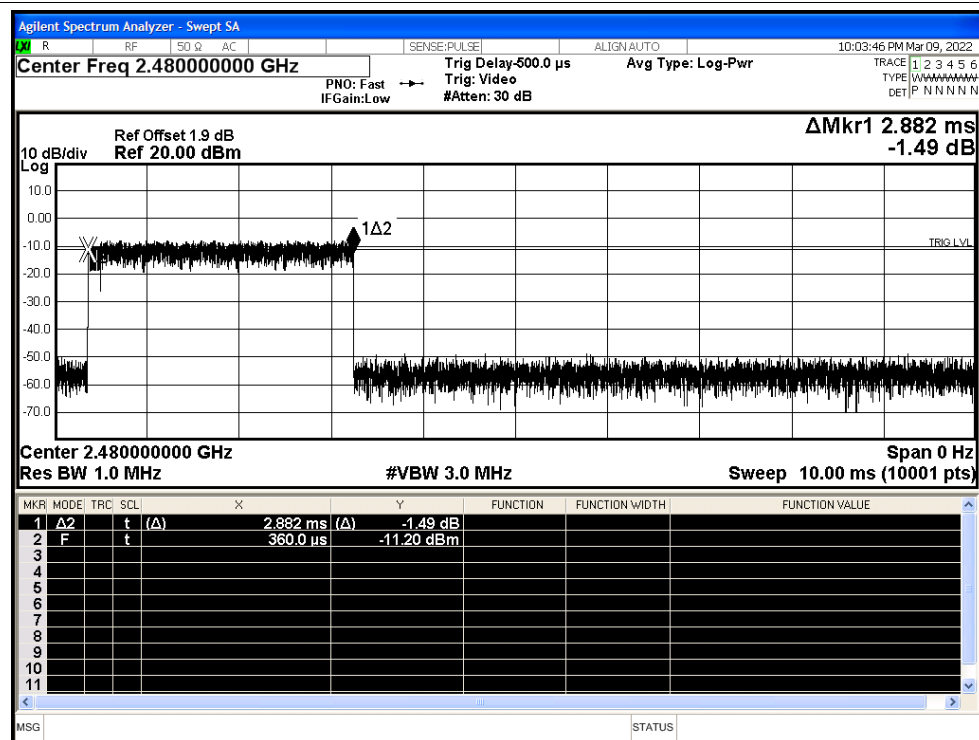


Dwell NVNT 2-DH5 2441MHz Ant1 Accumulated

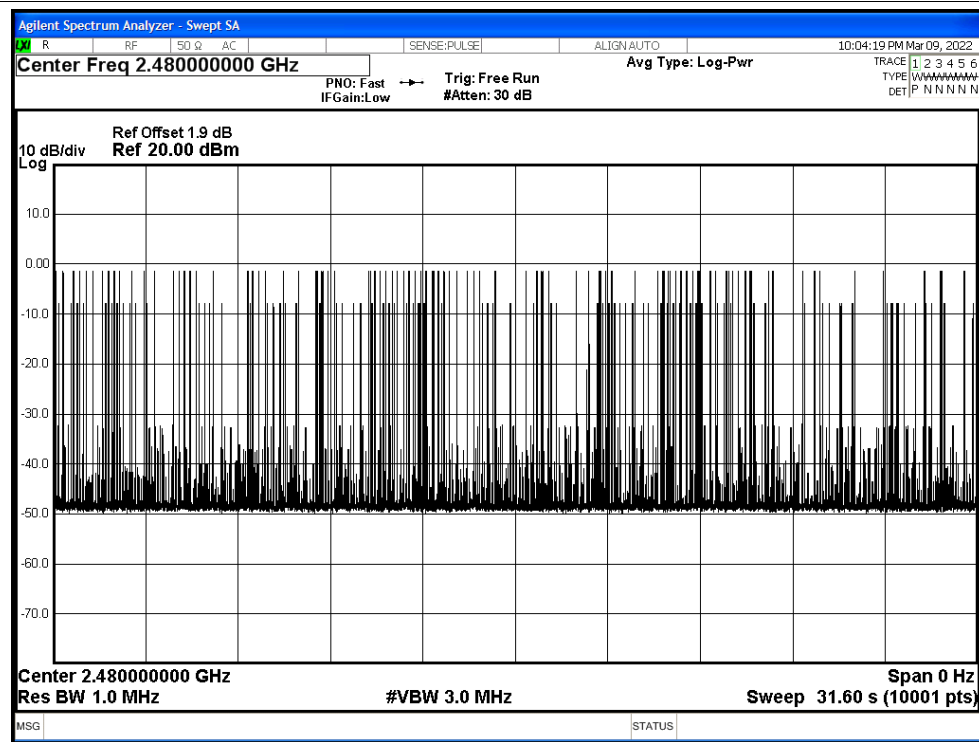




Dwell NVNT 2-DH5 2480MHz Ant1 One Burst

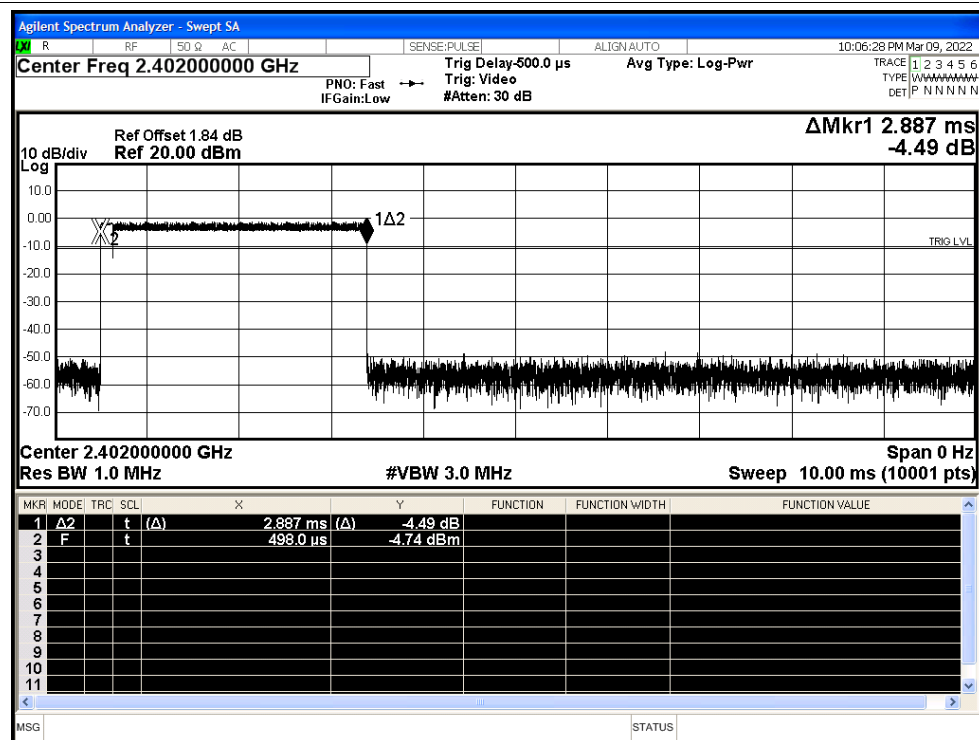


Dwell NVNT 2-DH5 2480MHz Ant1 Accumulated

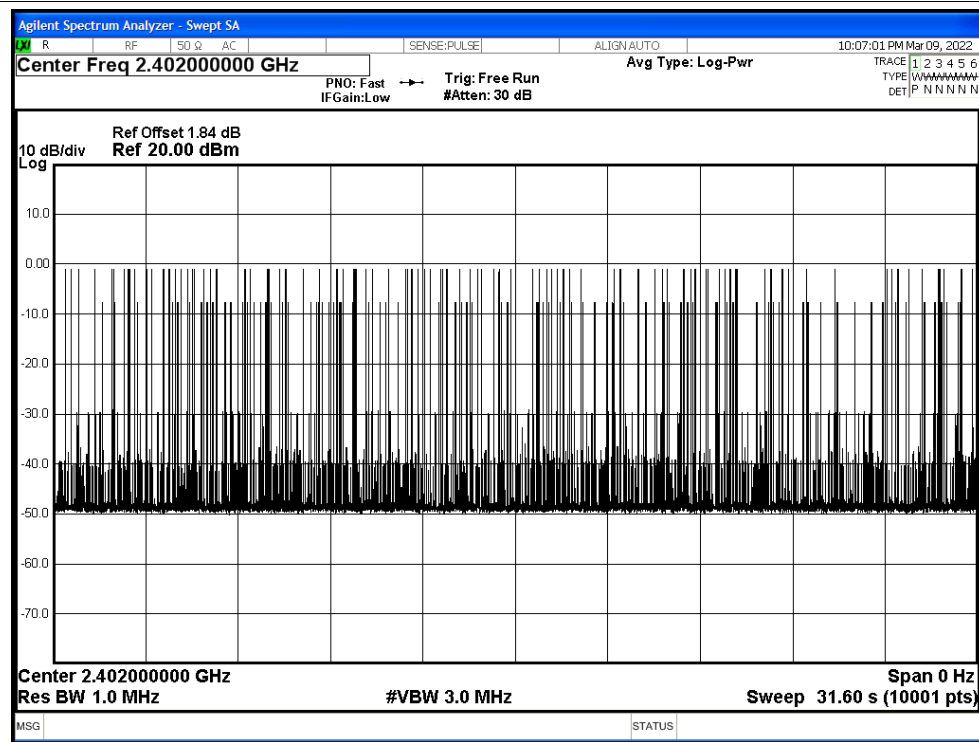




Dwell NVNT 3-DH5 2402MHz Ant1 One Burst

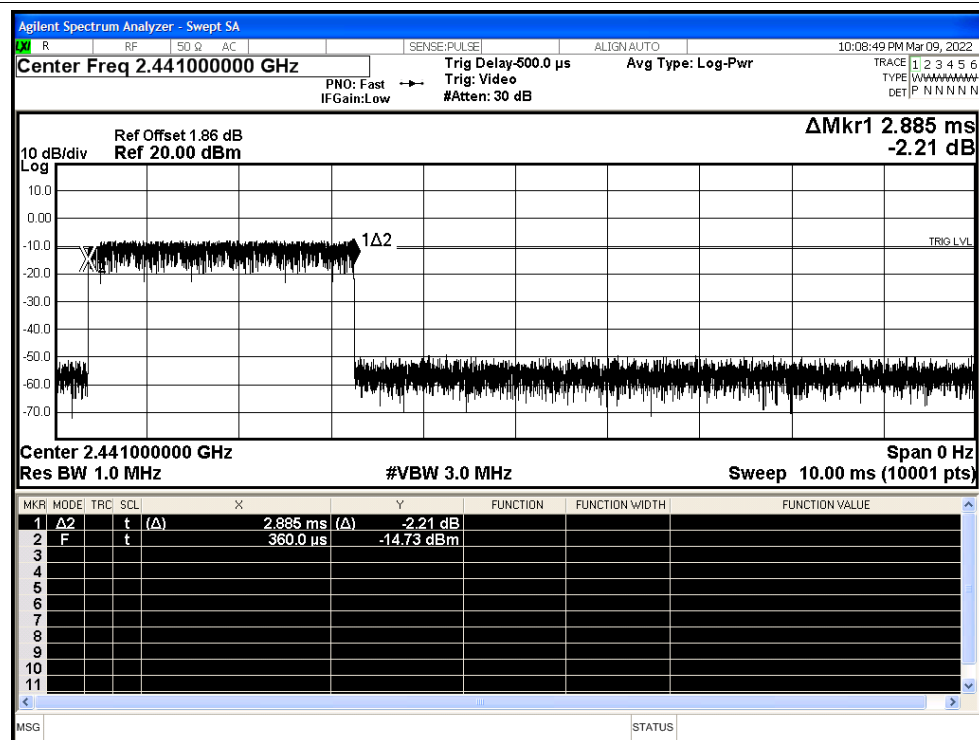


Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated

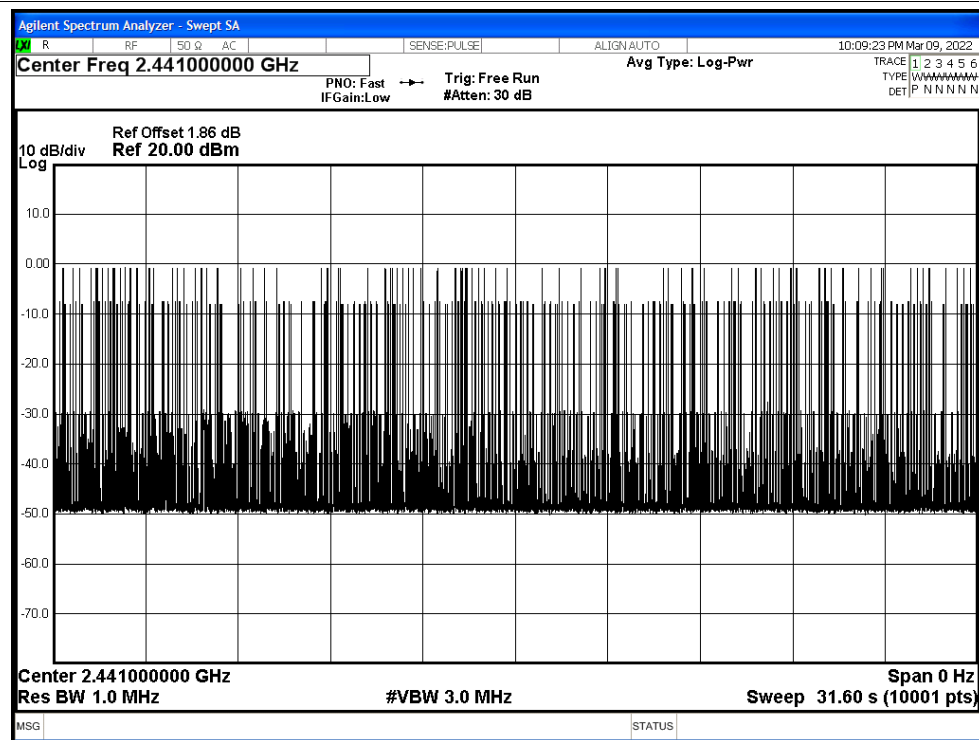




Dwell NVNT 3-DH5 2441MHz Ant1 One Burst

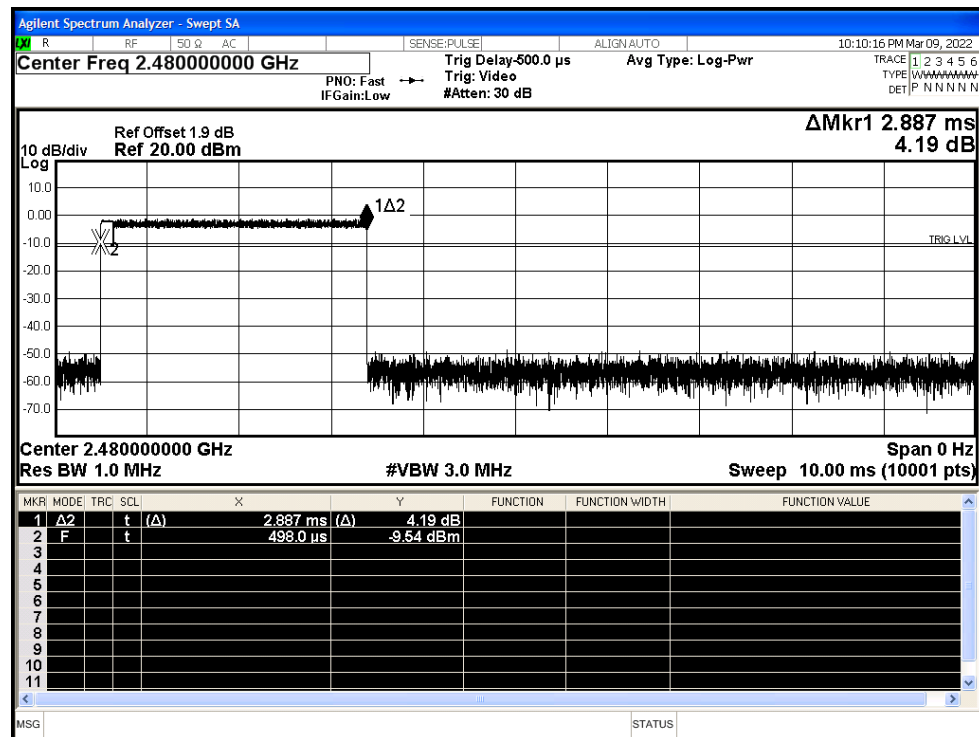


Dwell NVNT 3-DH5 2441MHz Ant1 Accumulated

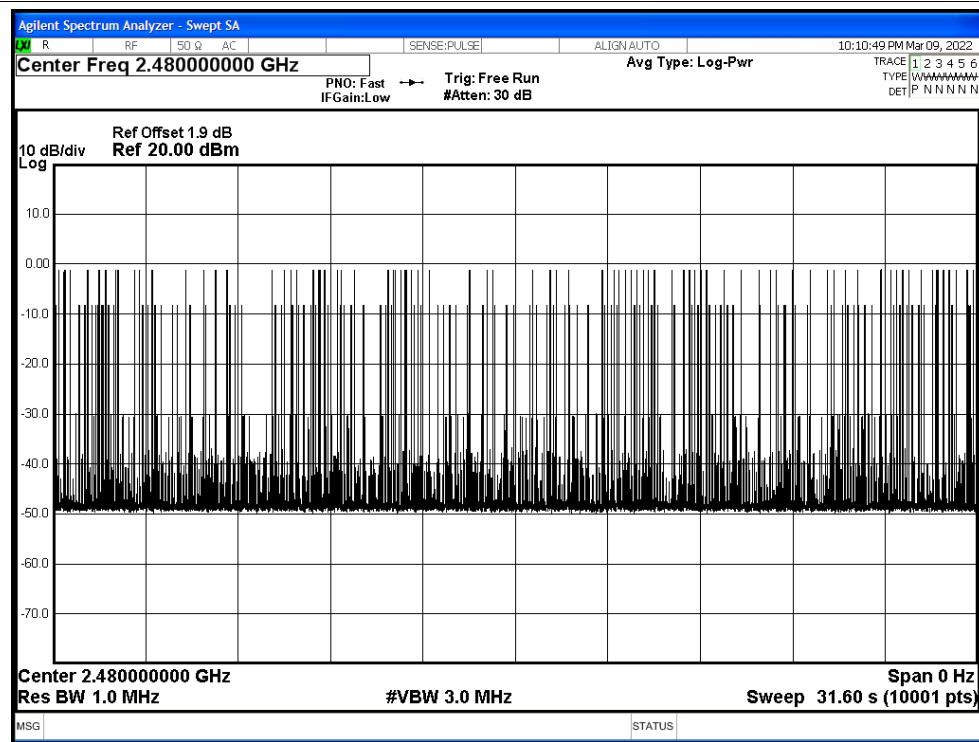




Dwell NVNT 3-DH5 2480MHz Ant1 One Burst



Dwell NVNT 3-DH5 2480MHz Ant1 Accumulated





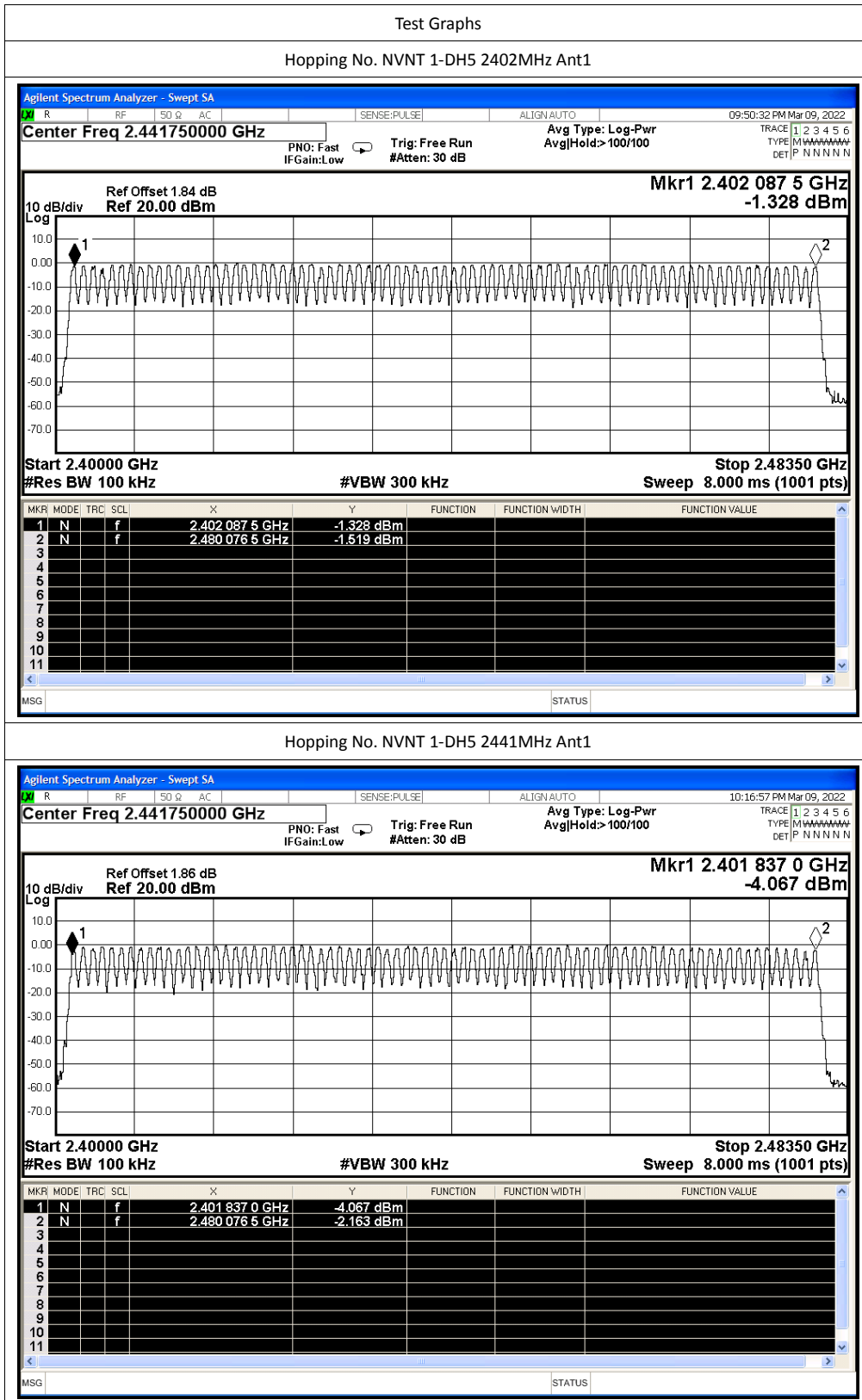
A.5 Number of hopping channels

Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥ 15	PASS
2DH5	Ant1	Hop	79	≥ 15	PASS
3DH5	Ant1	Hop	79	≥ 15	PASS

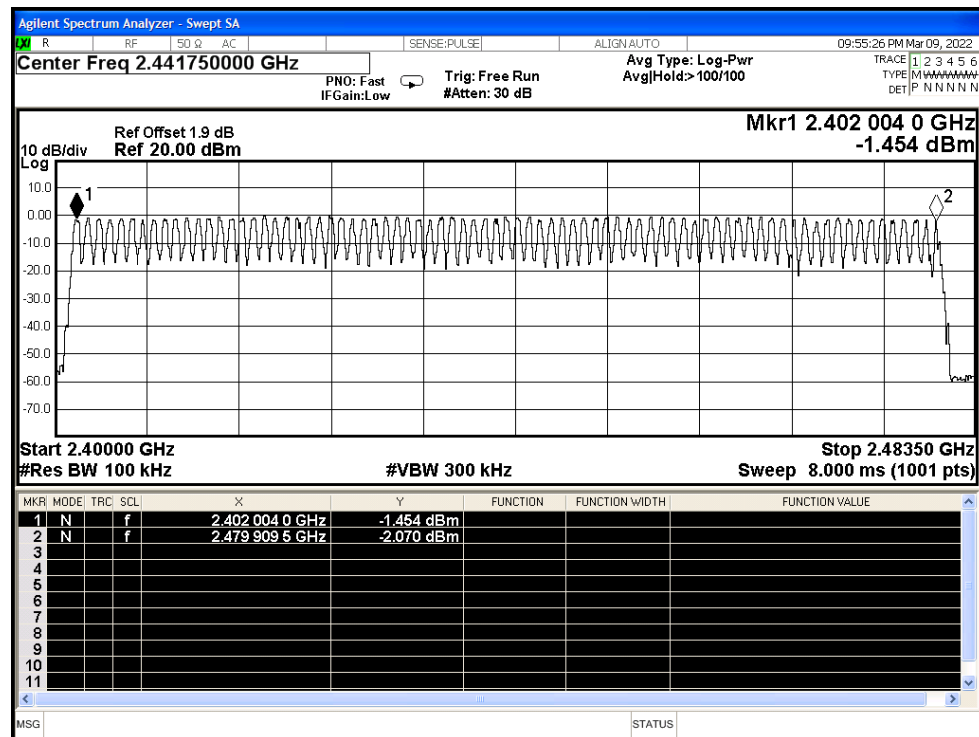


Test Graphs

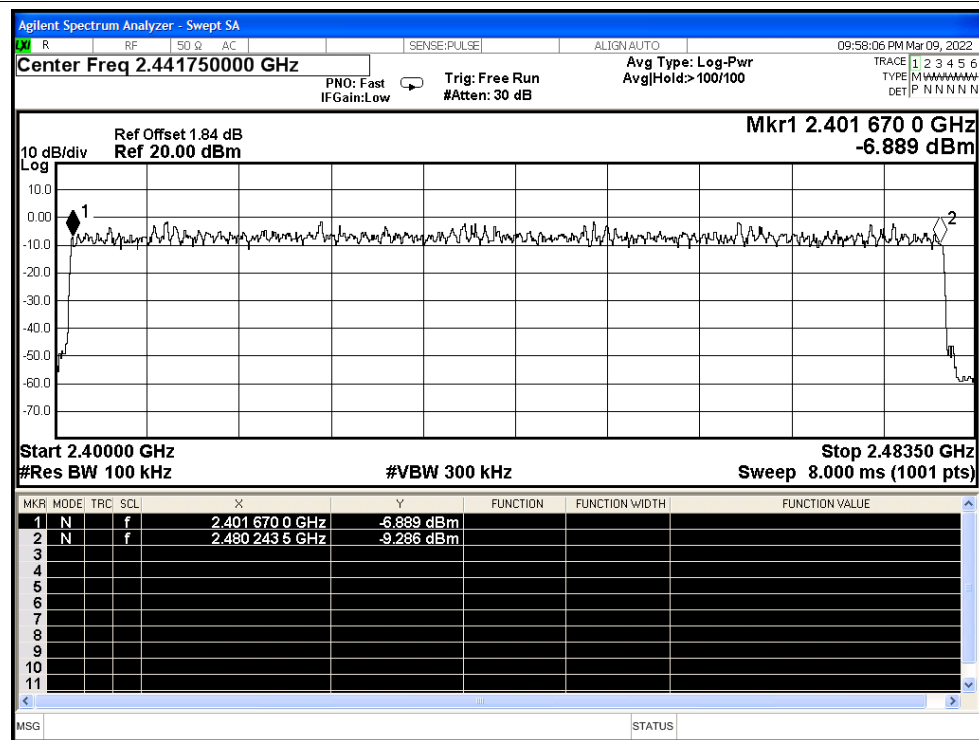




Hopping No. NVNT 1-DH5 2480MHz Ant1

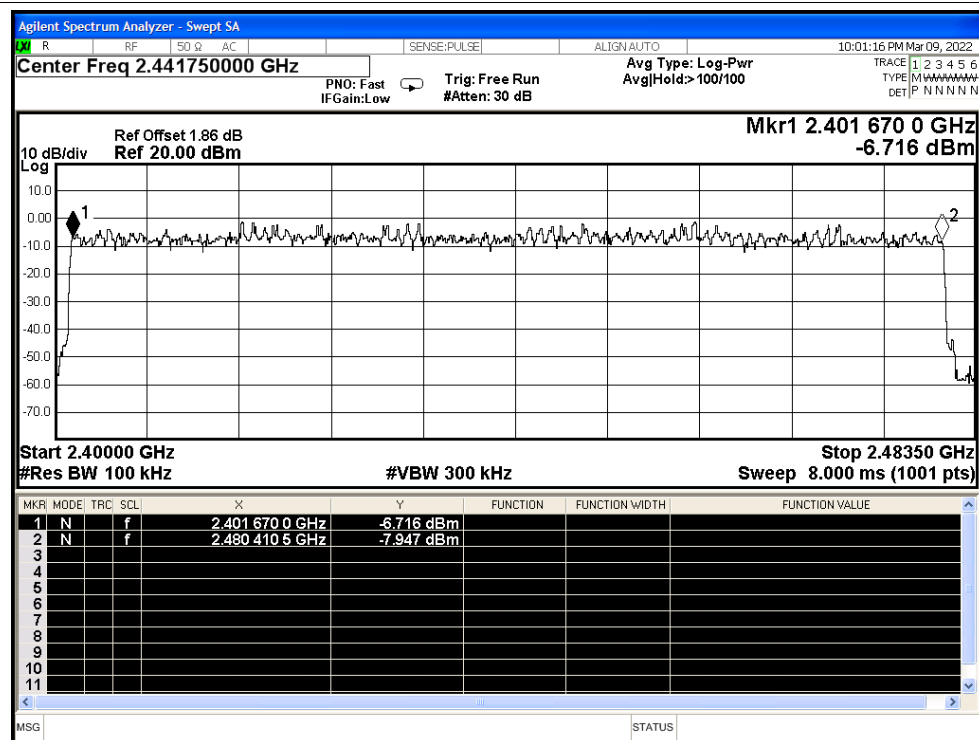


Hopping No. NVNT 2-DH5 2402MHz Ant1

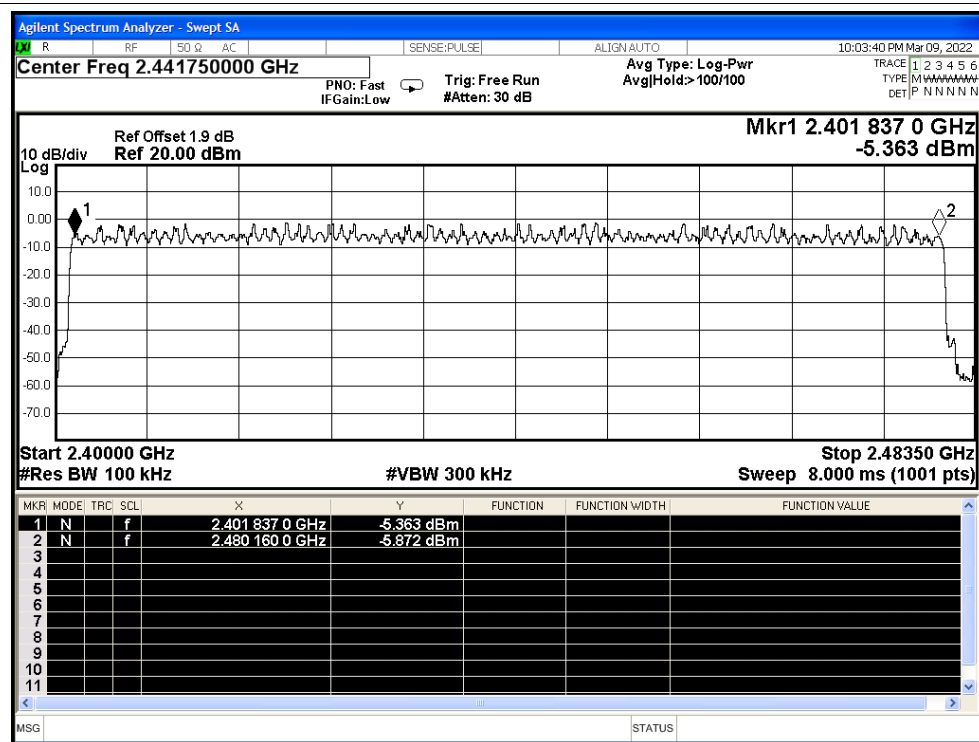




Hopping No. NVNT 2-DH5 2441MHz Ant1

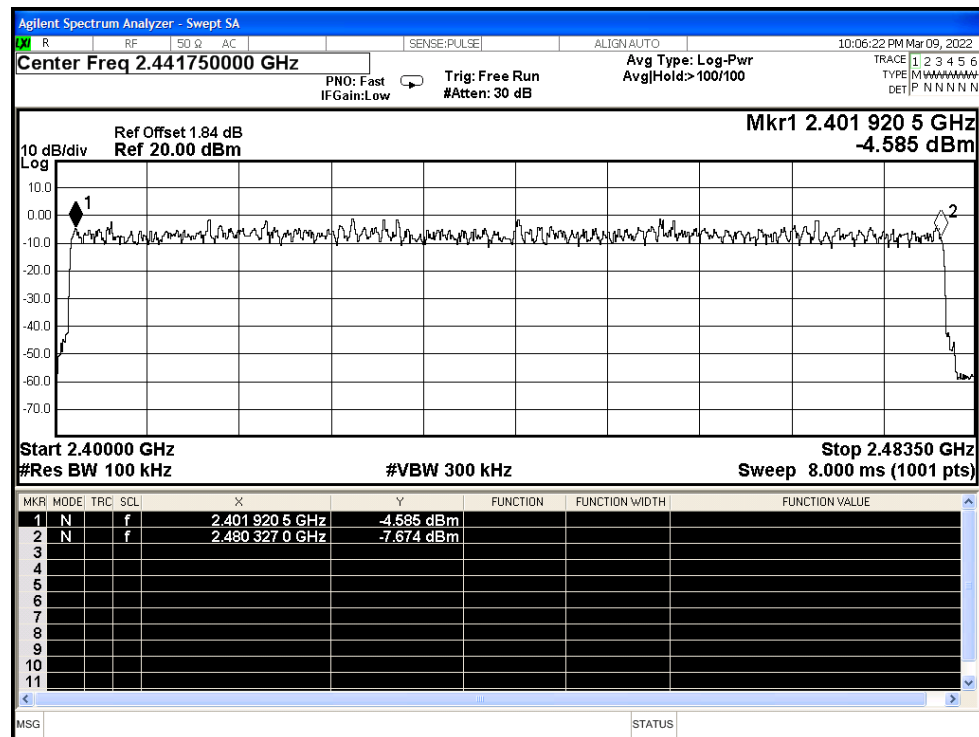


Hopping No. NVNT 2-DH5 2480MHz Ant1

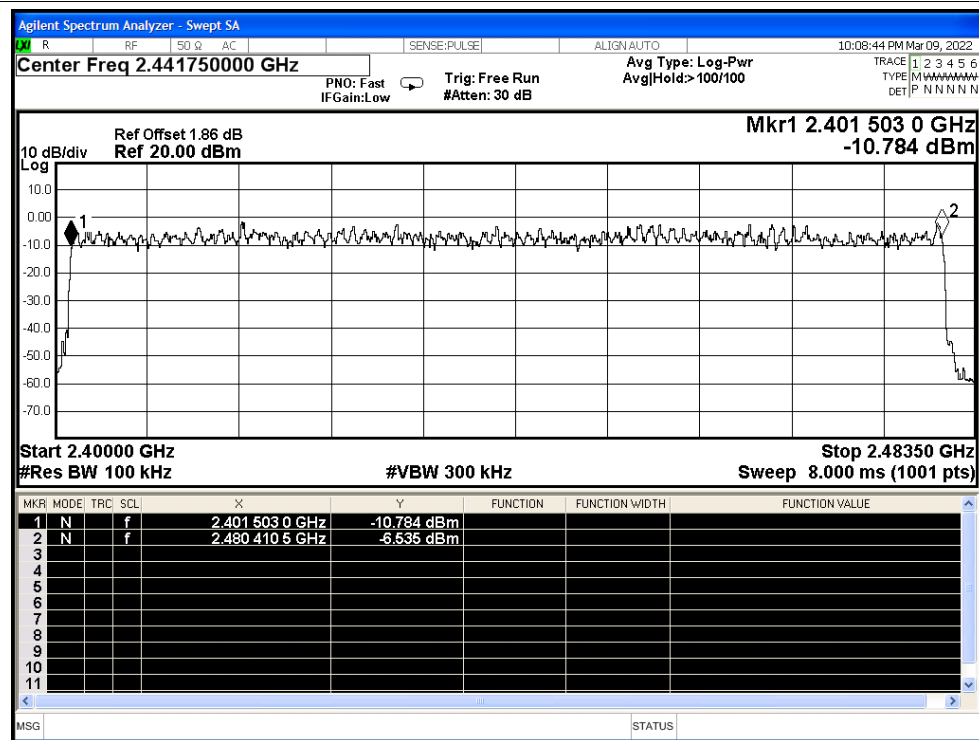


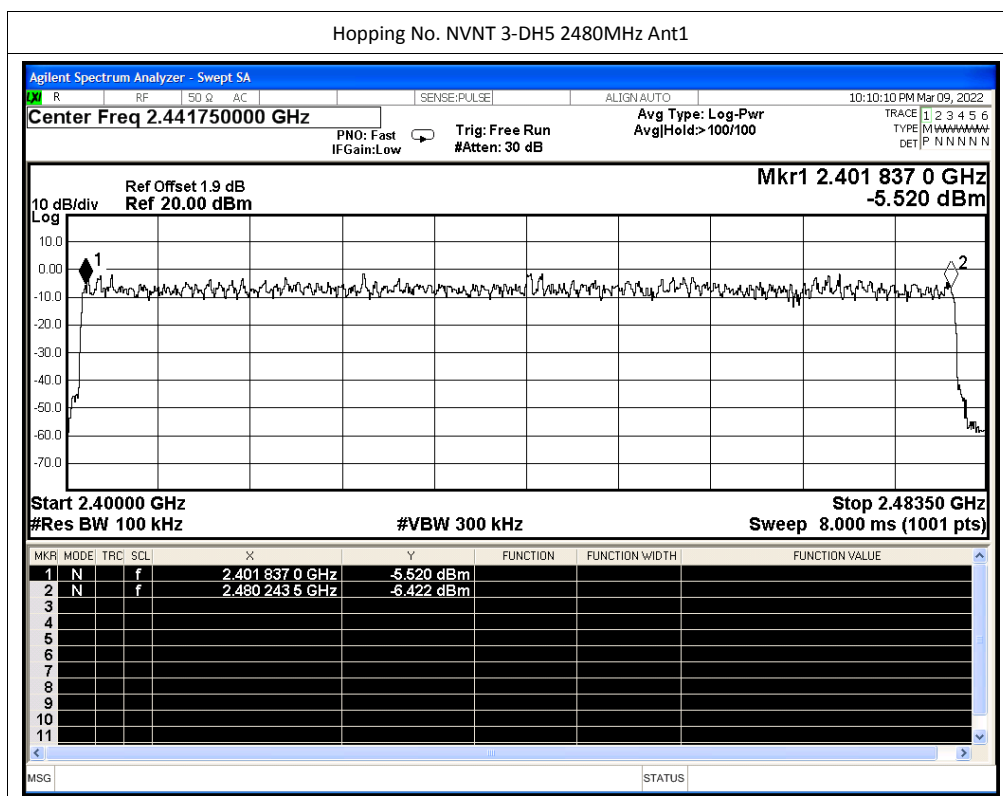


Hopping No. NVNT 3-DH5 2402MHz Ant1



Hopping No. NVNT 3-DH5 2441MHz Ant1







A.6 Band edge measurements

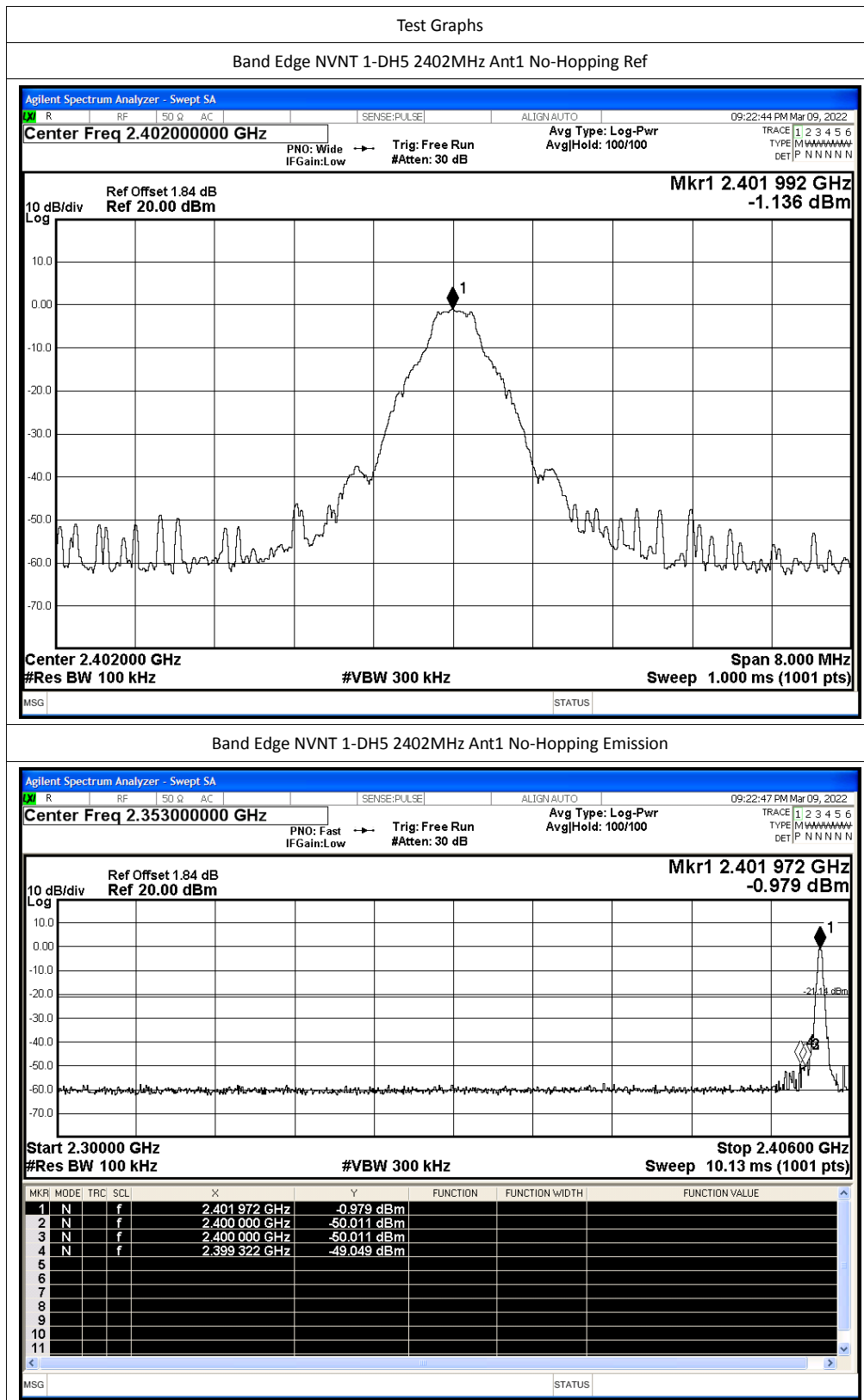
Test Result

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-47.9	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-53.63	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-49.36	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-52.78	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-52.26	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-53.74	-20	Pass

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	Hopping	-54.61	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-54.18	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-54.21	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-54.58	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-53.76	-20	Pass

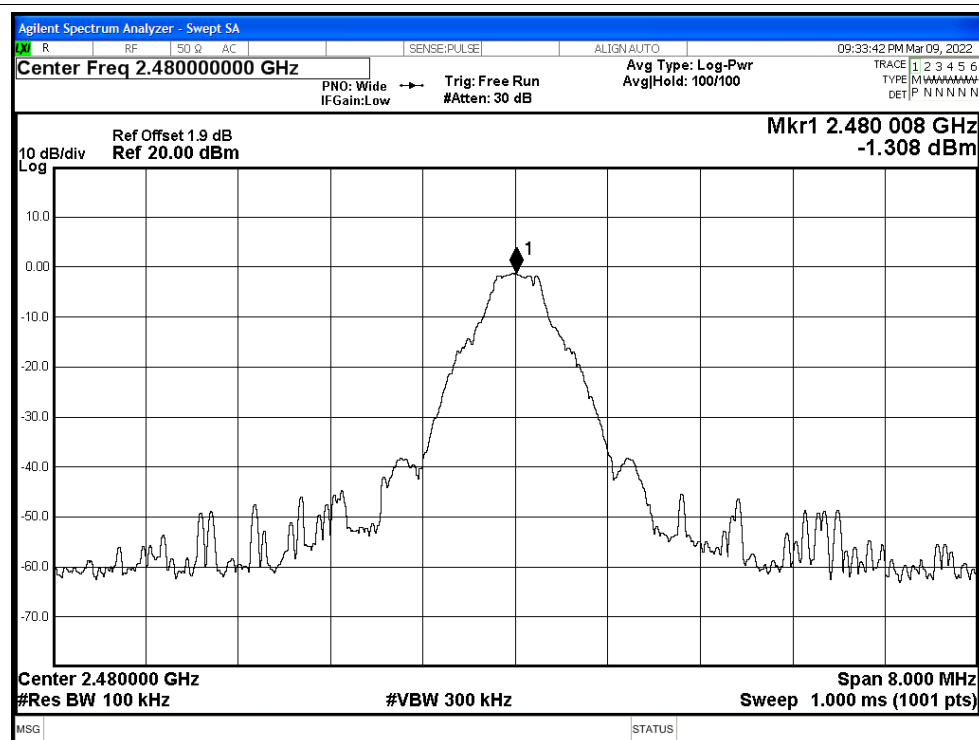


Test Graphs

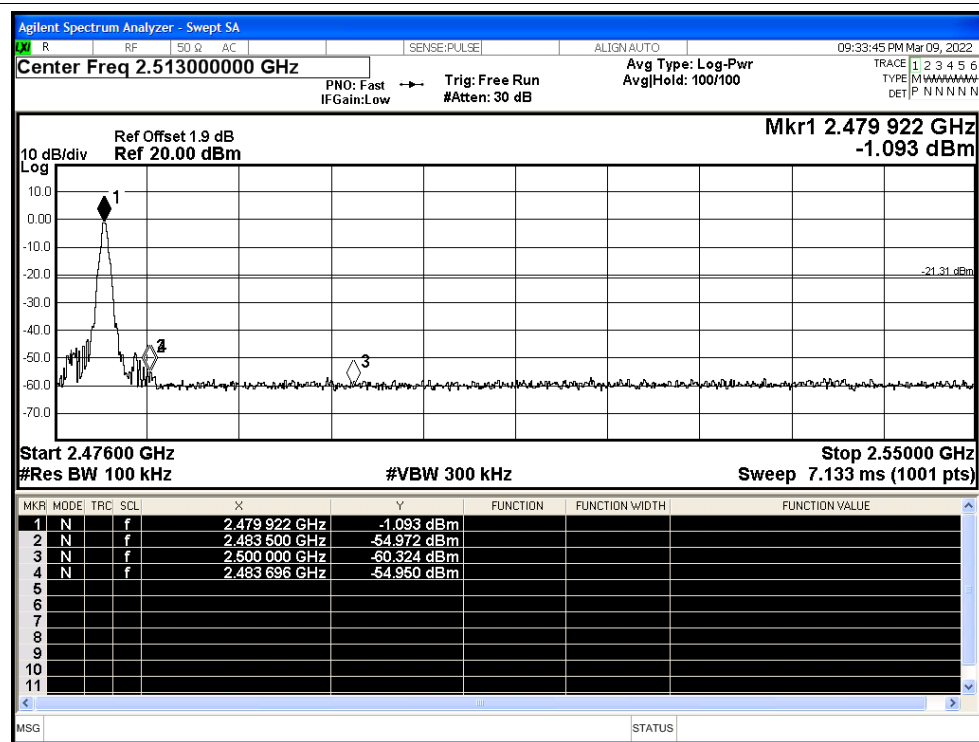




Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

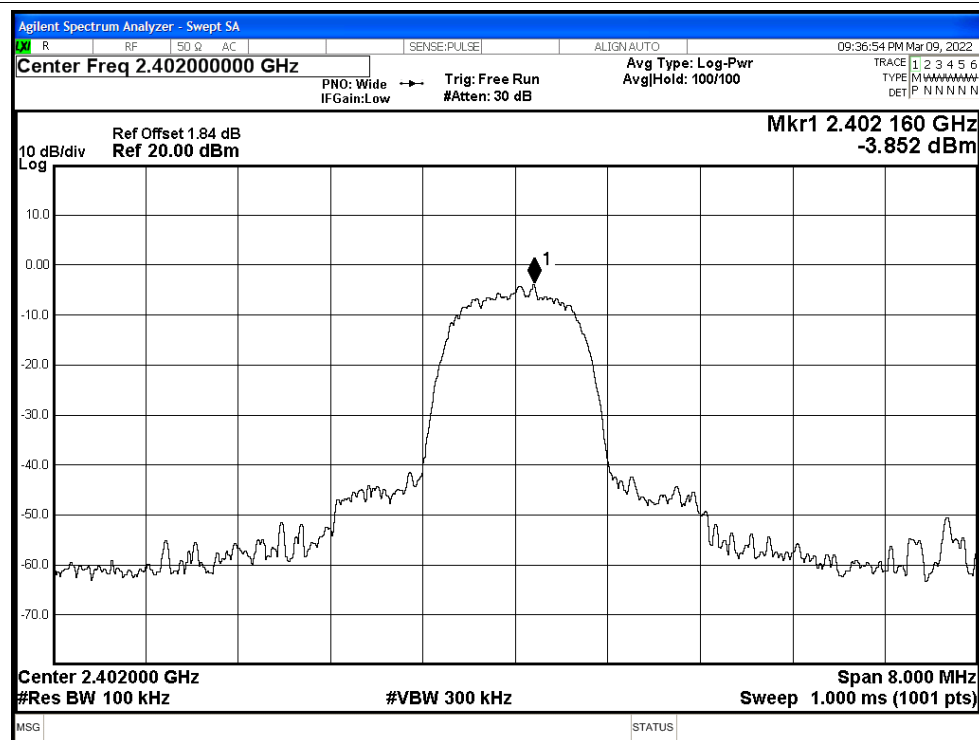


Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission

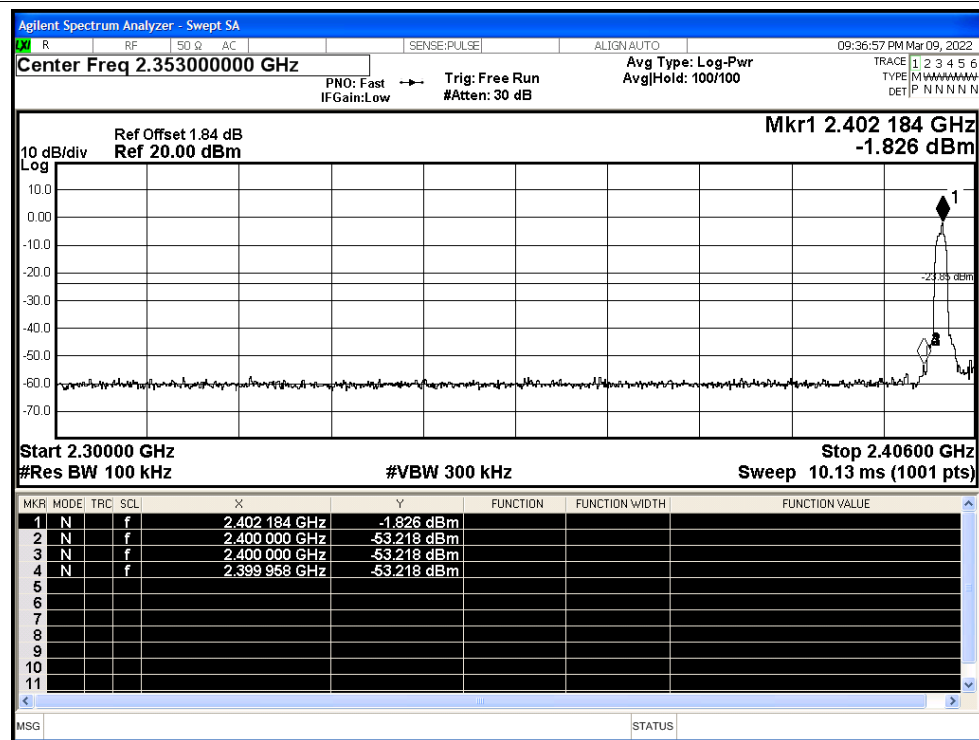




Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

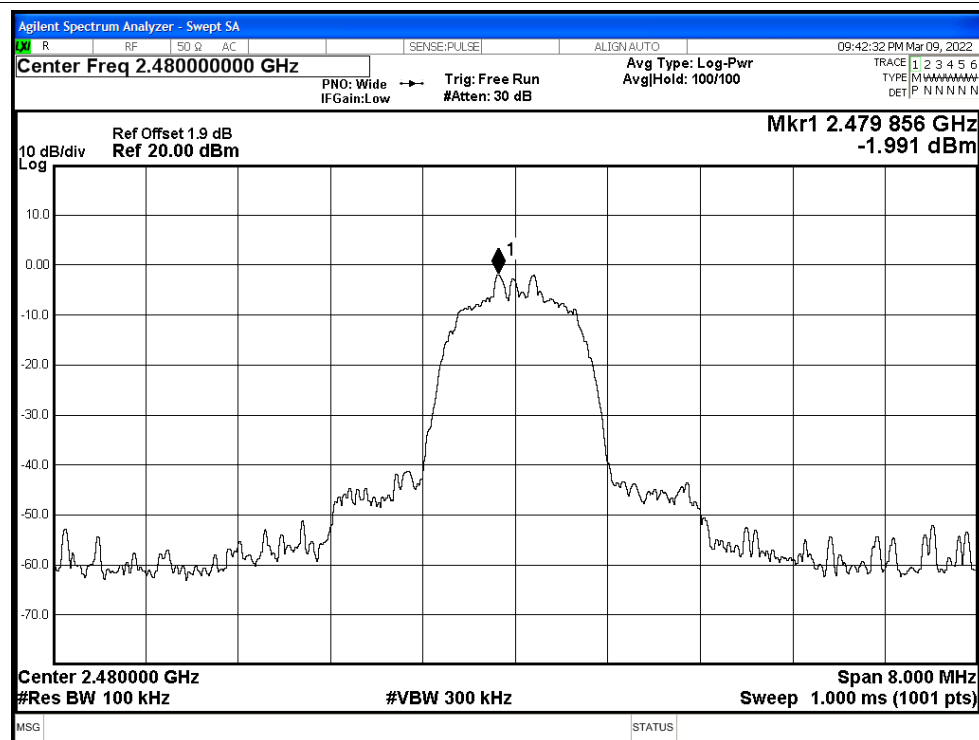


Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission

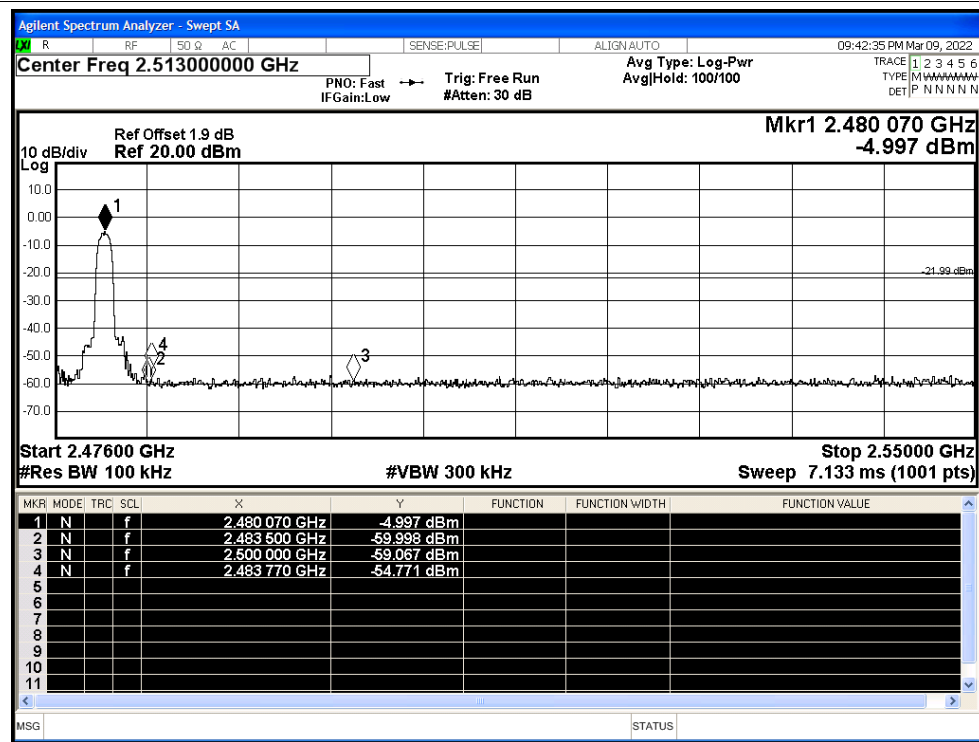




Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

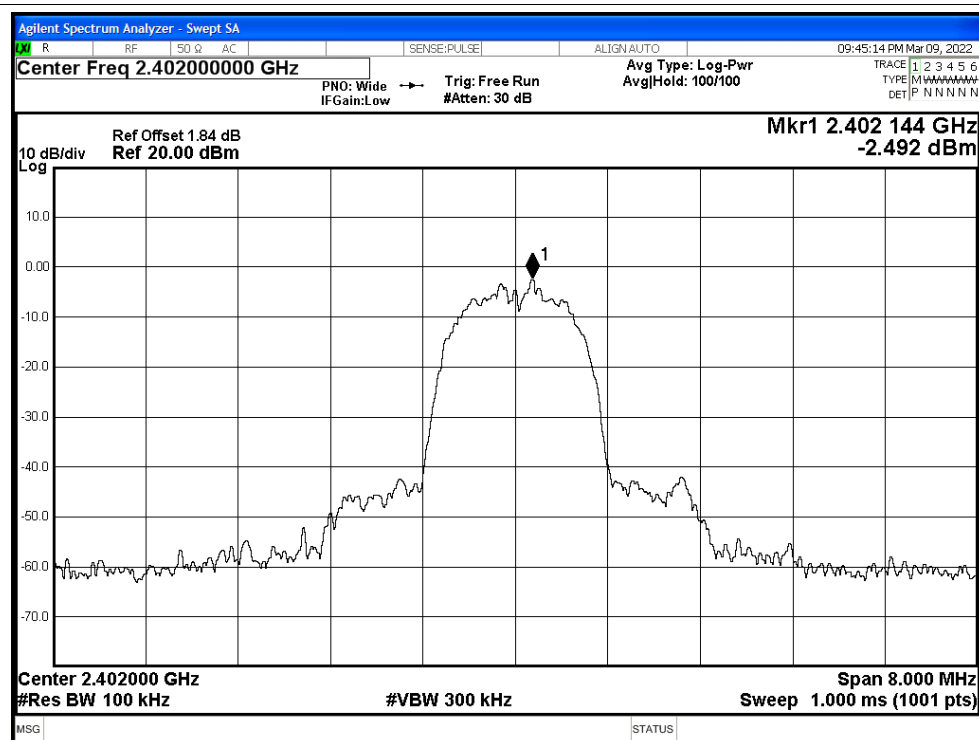


Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission

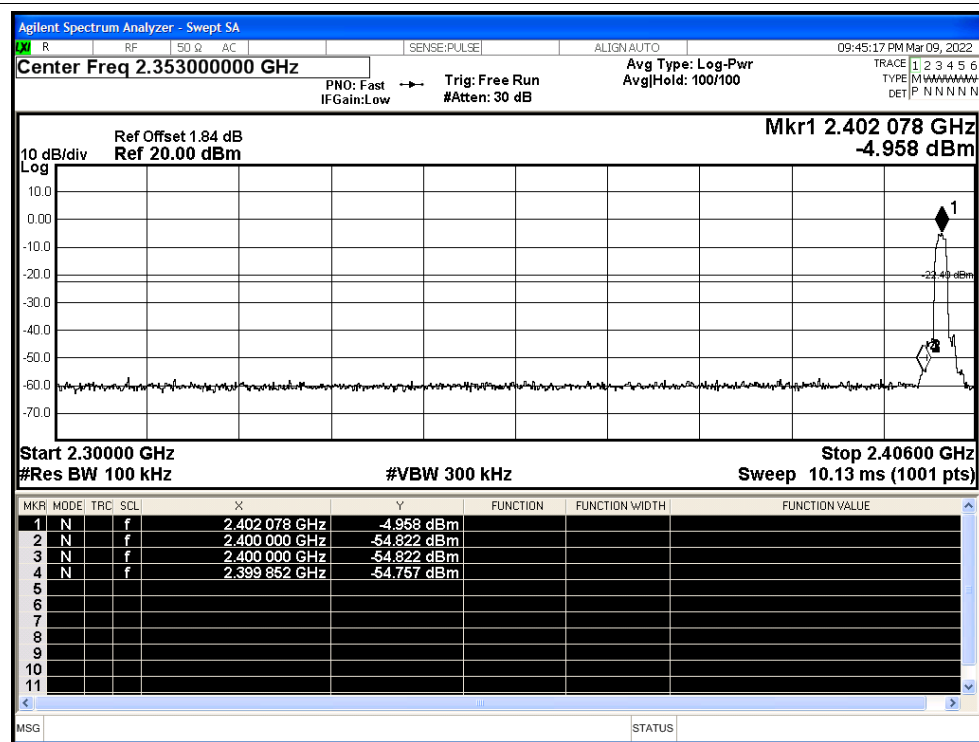




Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

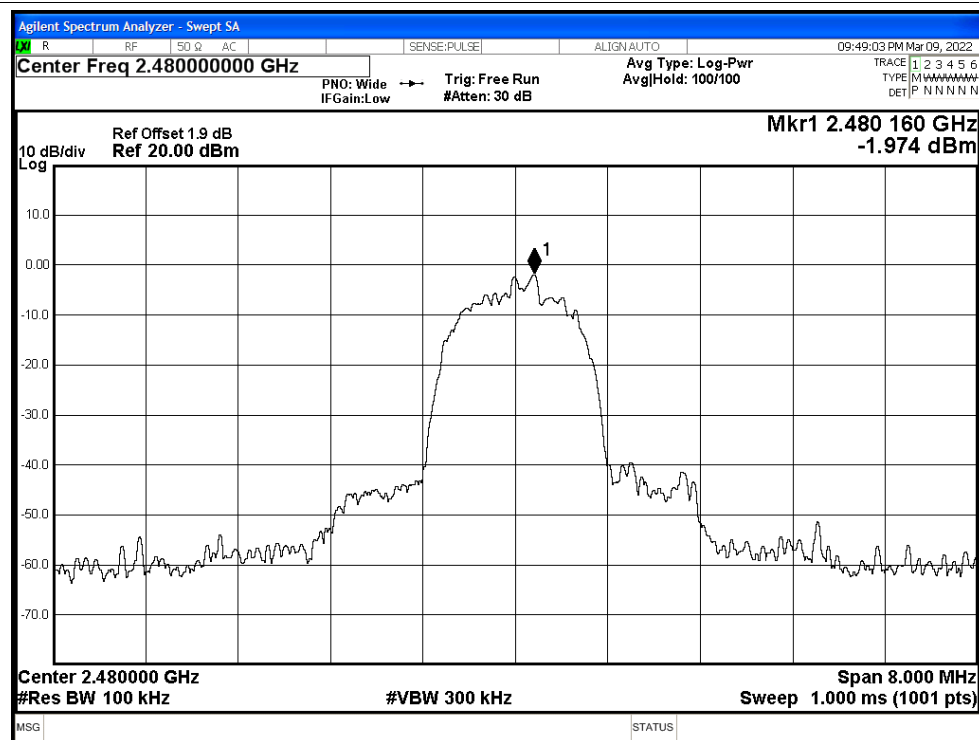


Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission

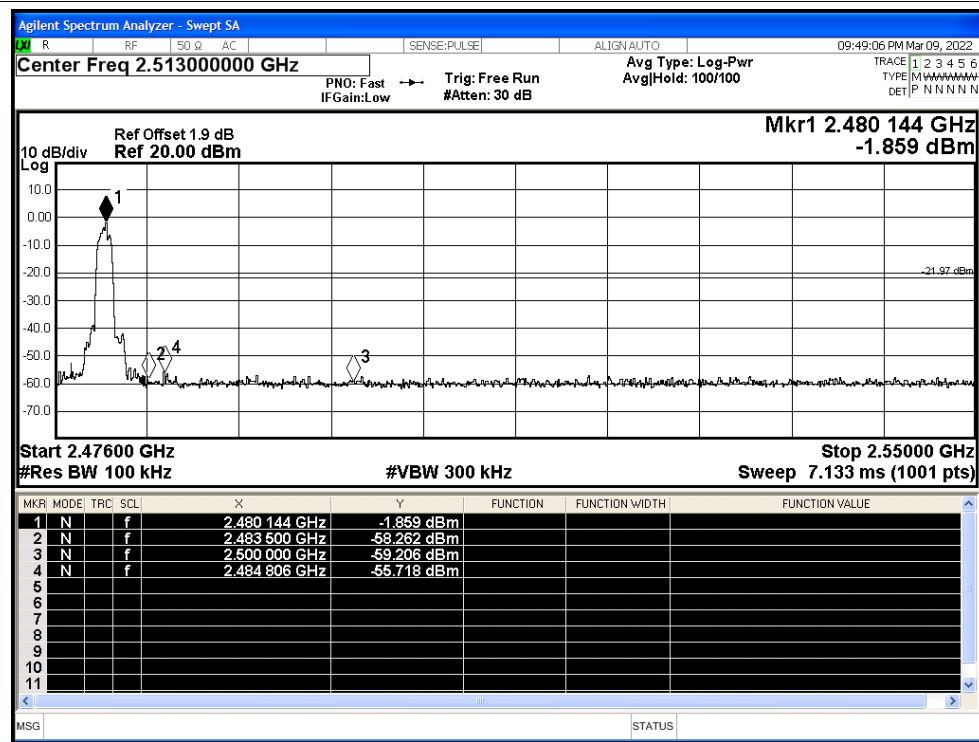




Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref



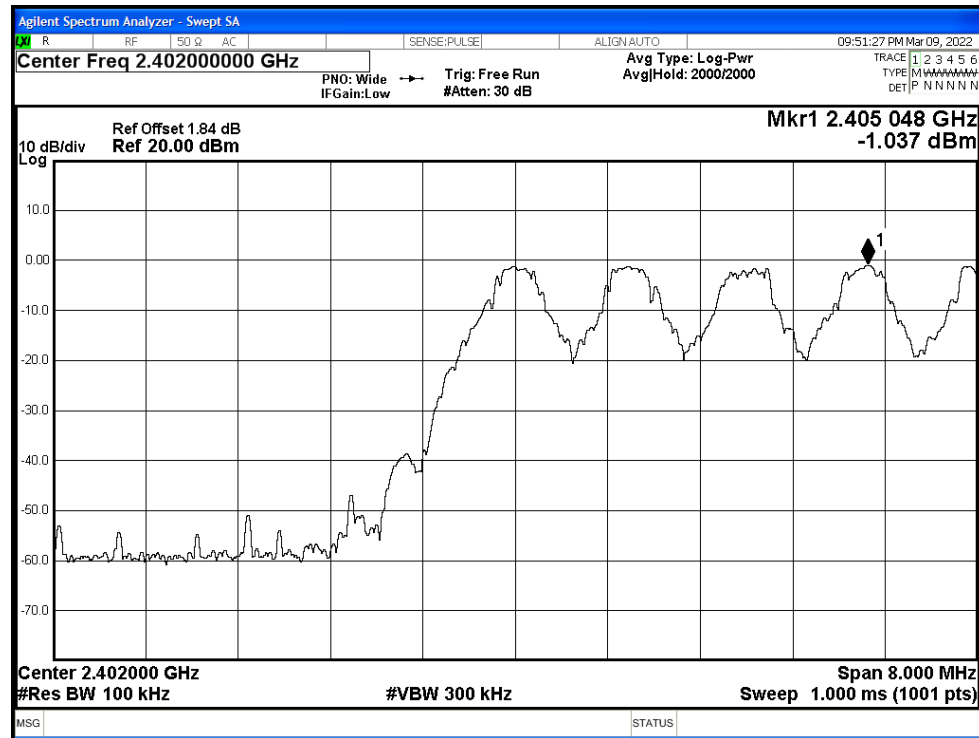
Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission



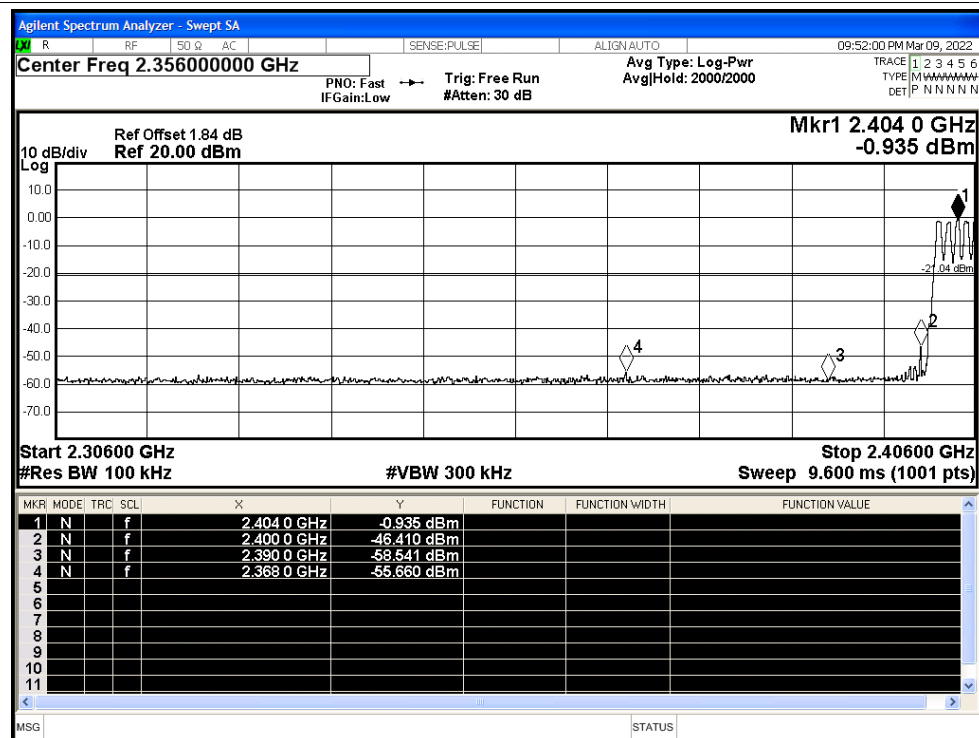


Test Graphs

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

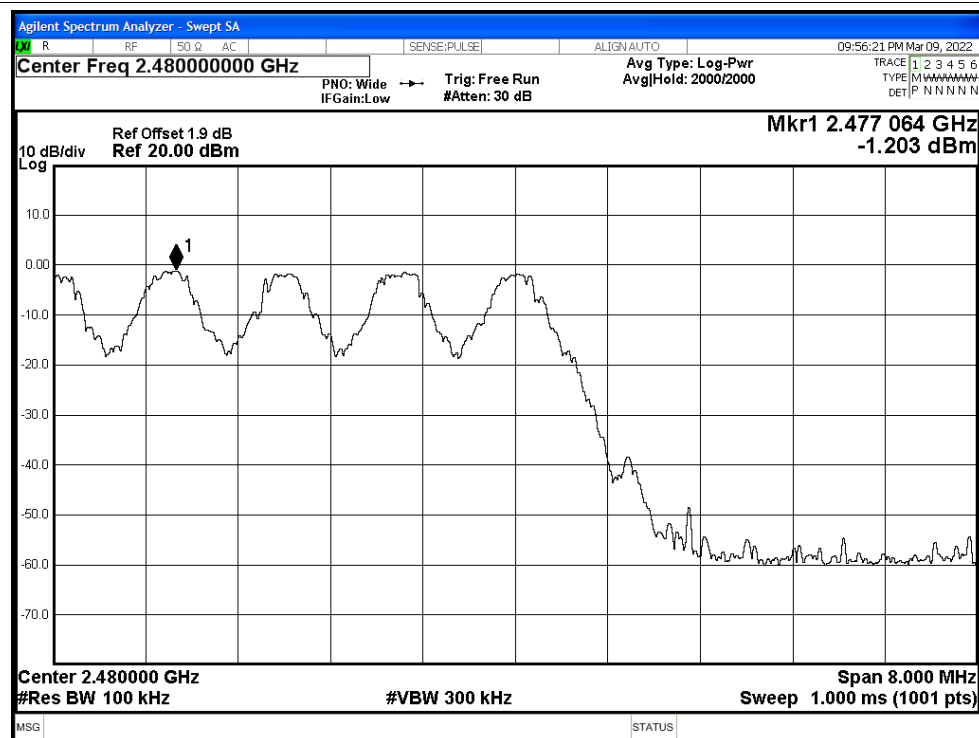


Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission

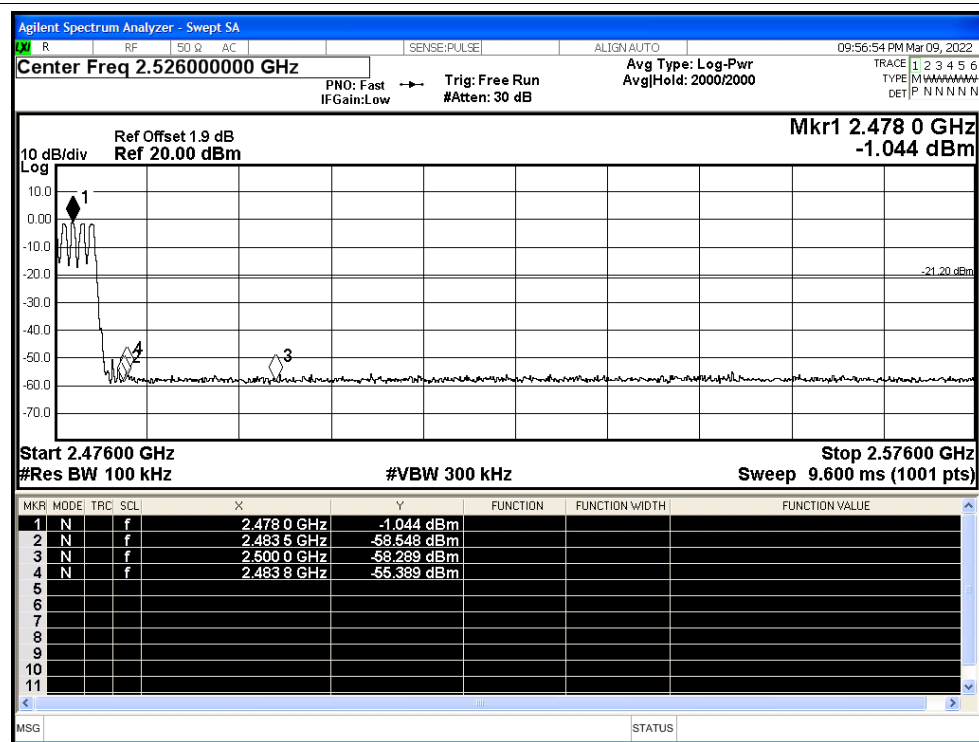




Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

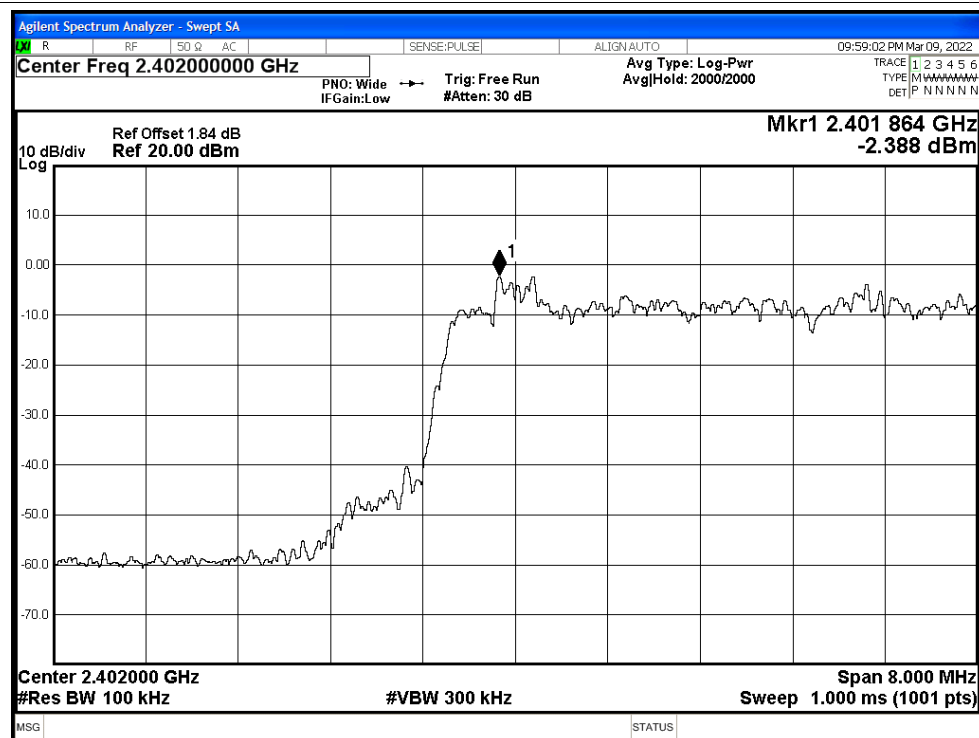


Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission

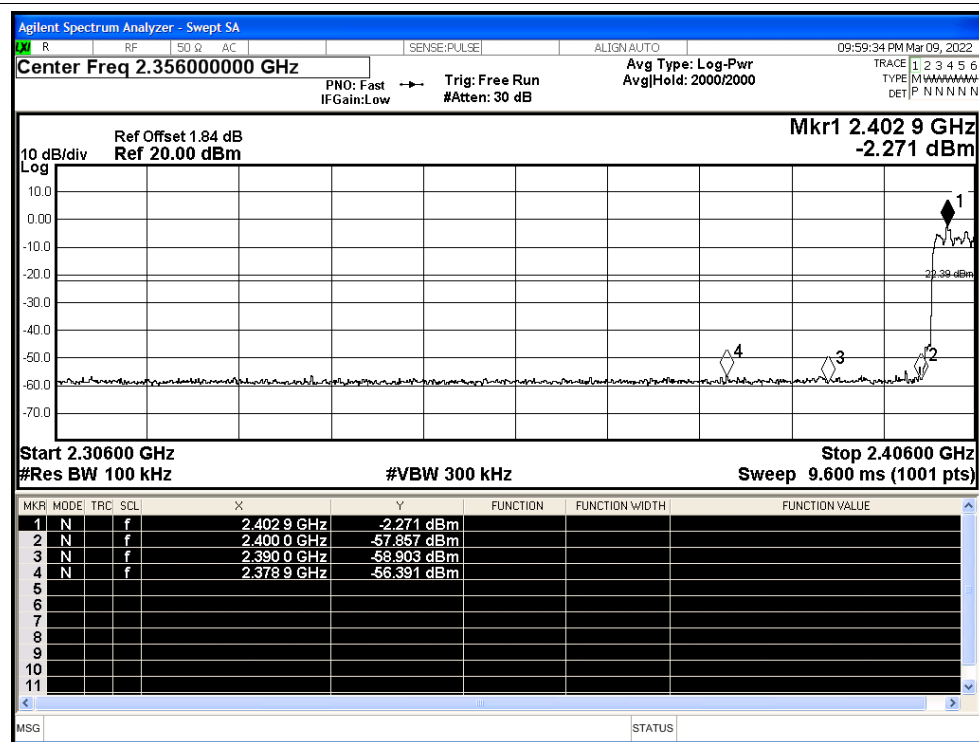




Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

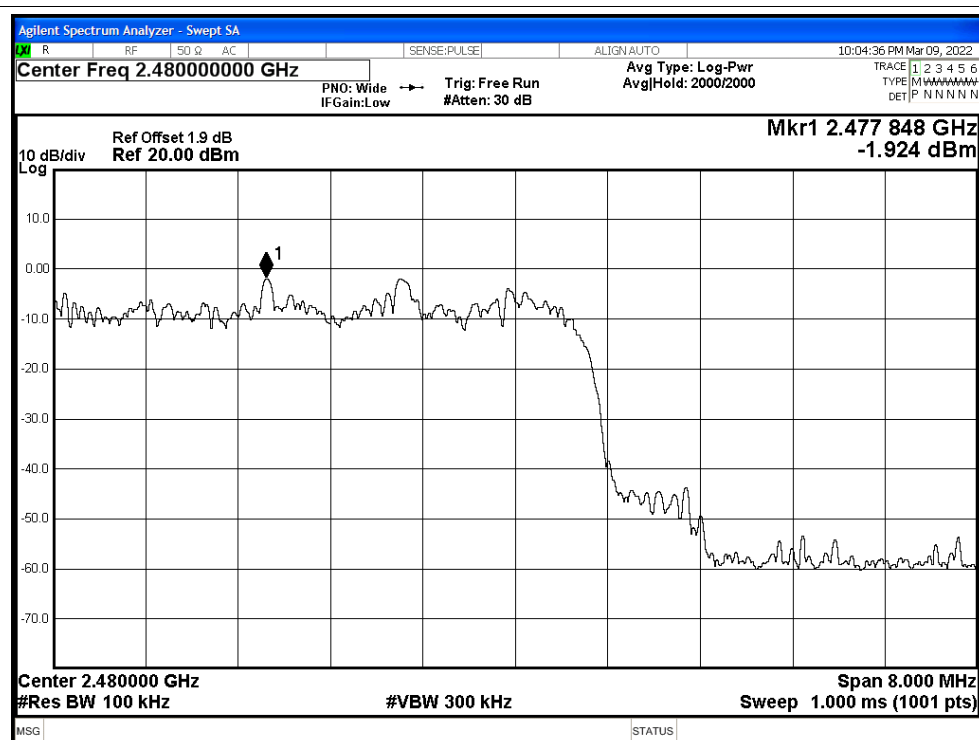


Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission

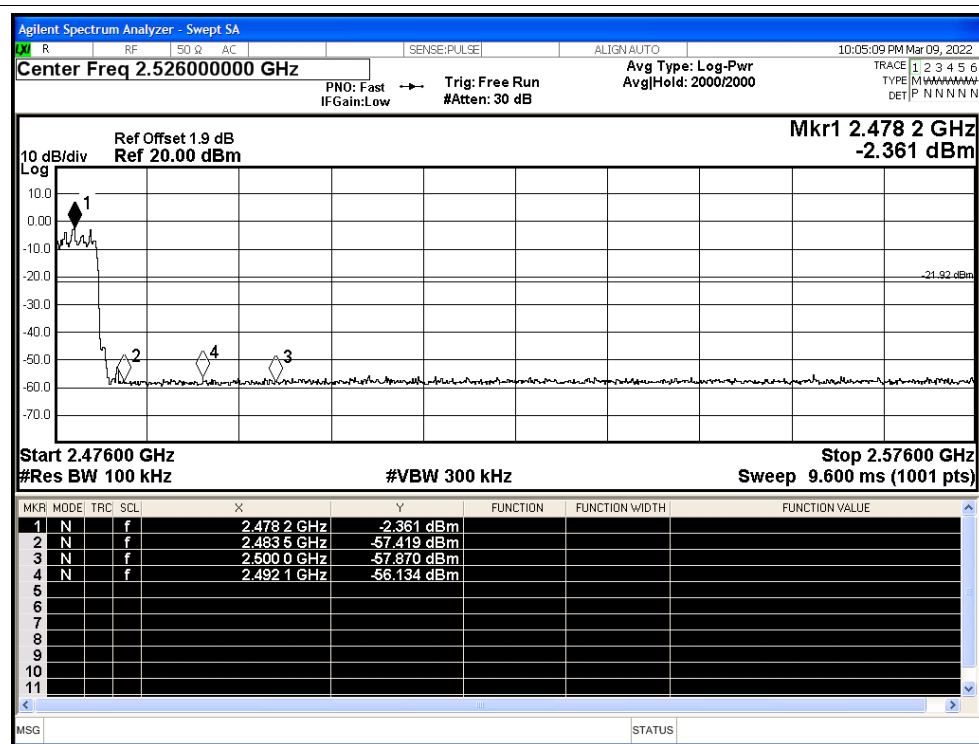




Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission

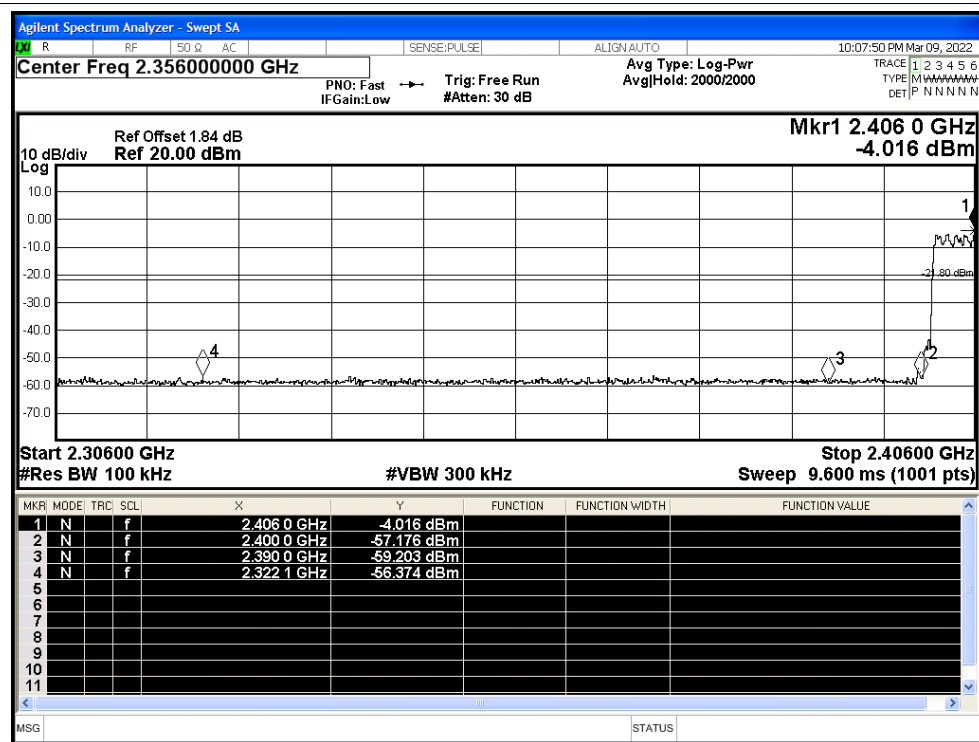




Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

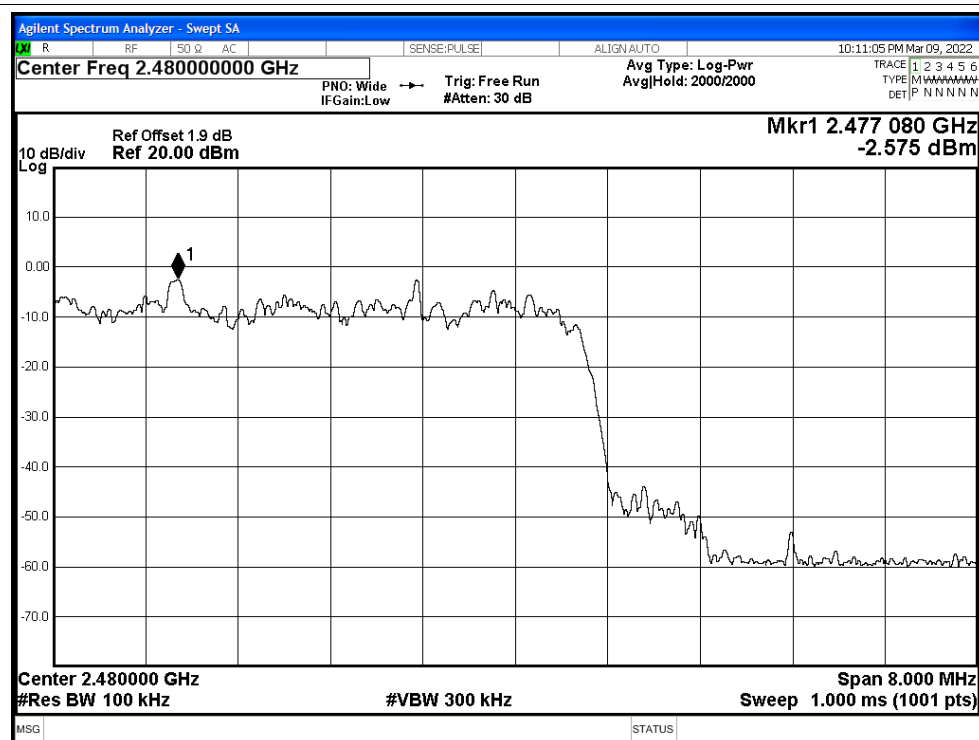


Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission

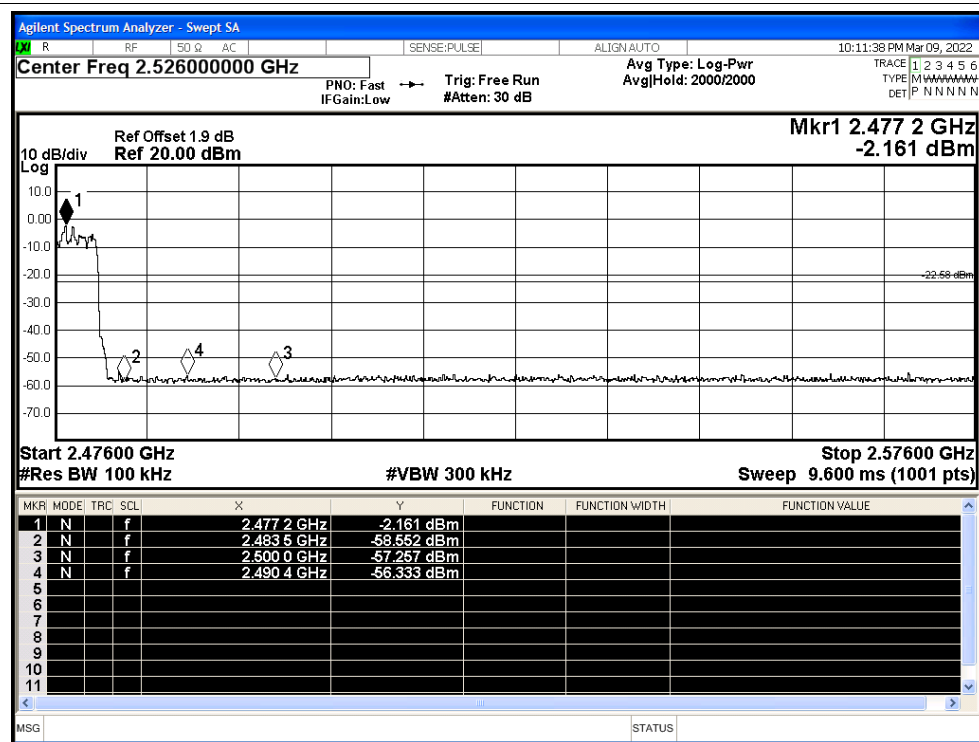




Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission





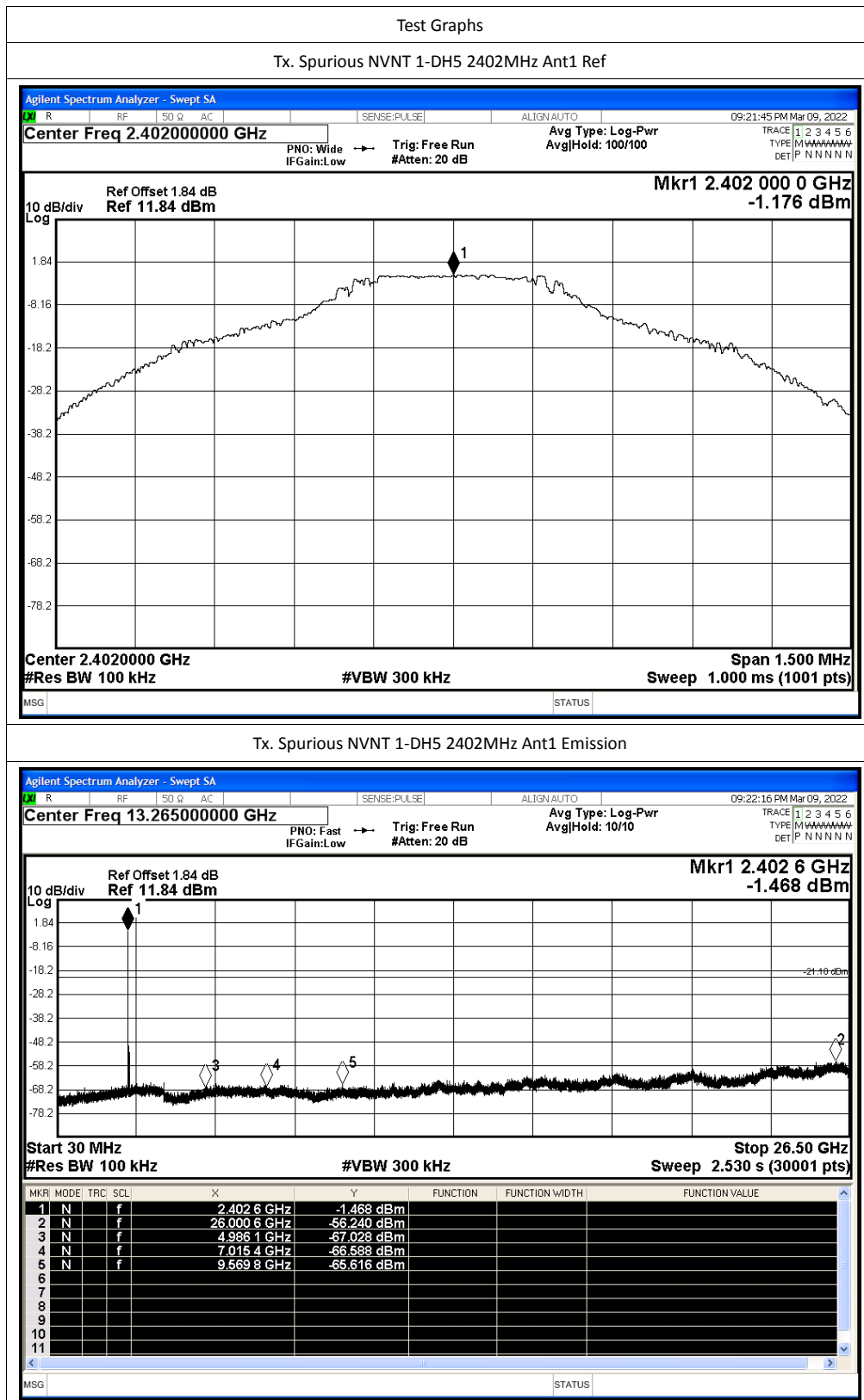
A.7 Conducted Spurious Emission

Test Result

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-55.05	-20	Pass
NVNT	1-DH5	2441	Ant1	-52.29	-20	Pass
NVNT	1-DH5	2480	Ant1	-50.51	-20	Pass
NVNT	2-DH5	2402	Ant1	-54	-20	Pass
NVNT	2-DH5	2441	Ant1	-53.29	-20	Pass
NVNT	2-DH5	2480	Ant1	-53.73	-20	Pass
NVNT	3-DH5	2402	Ant1	-42.89	-20	Pass
NVNT	3-DH5	2441	Ant1	-50.66	-20	Pass
NVNT	3-DH5	2480	Ant1	-53.76	-20	Pass



Test Graphs

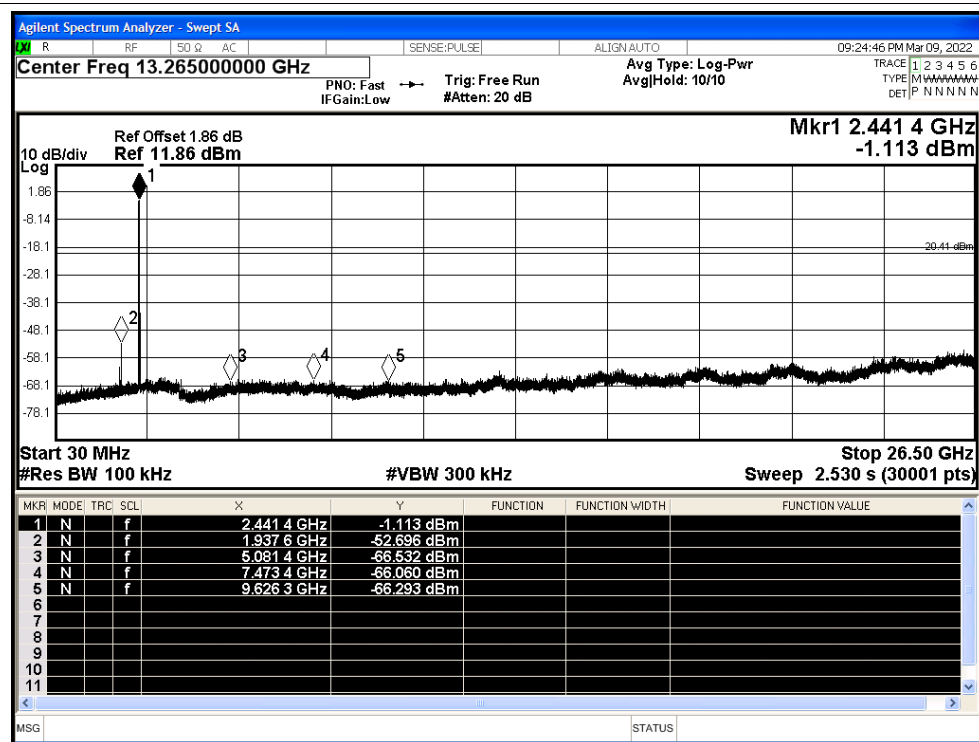




Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

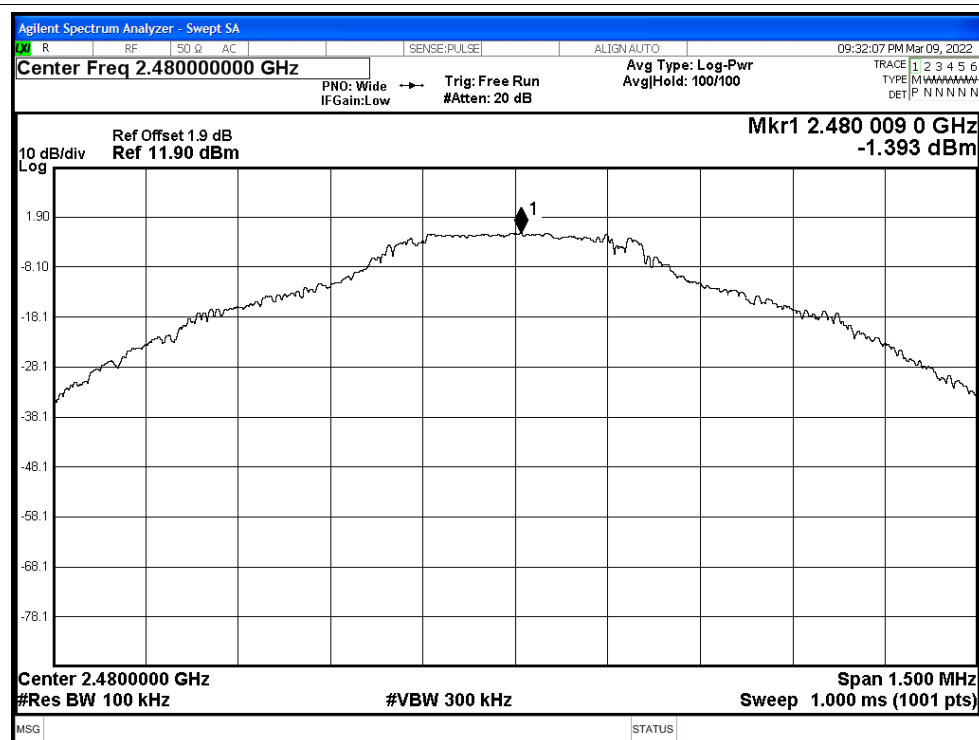


Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission

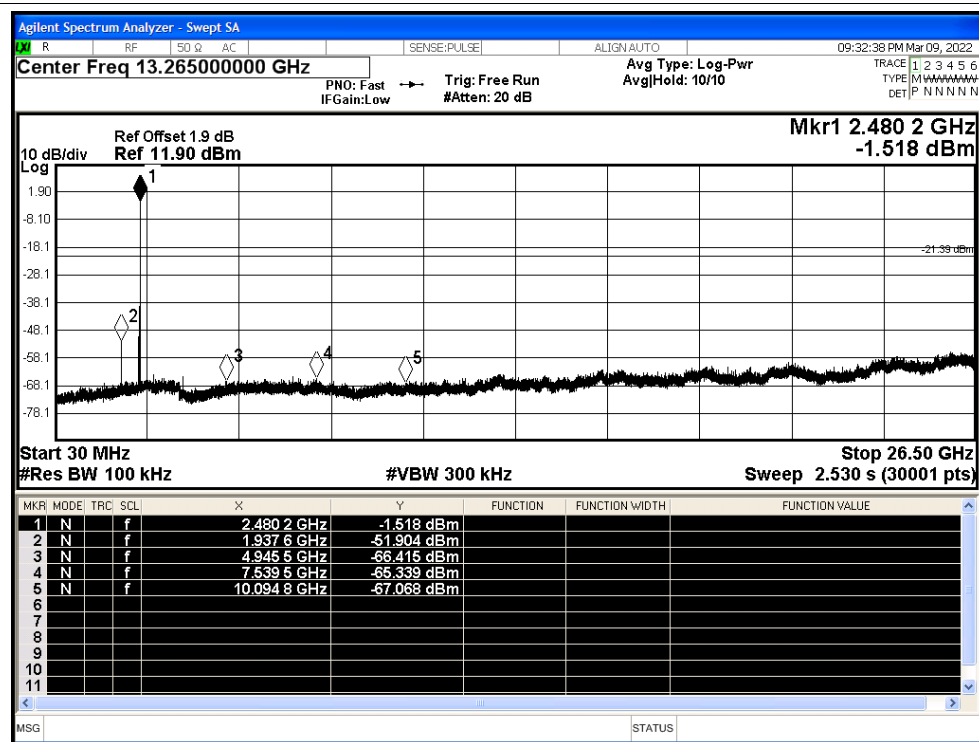




Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

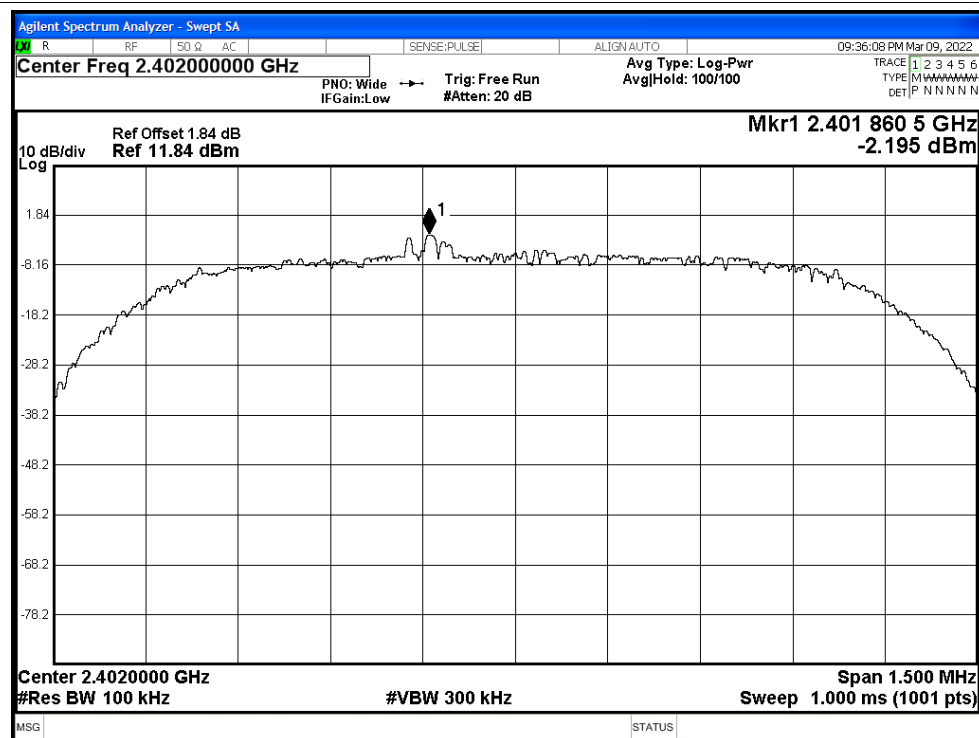


Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission

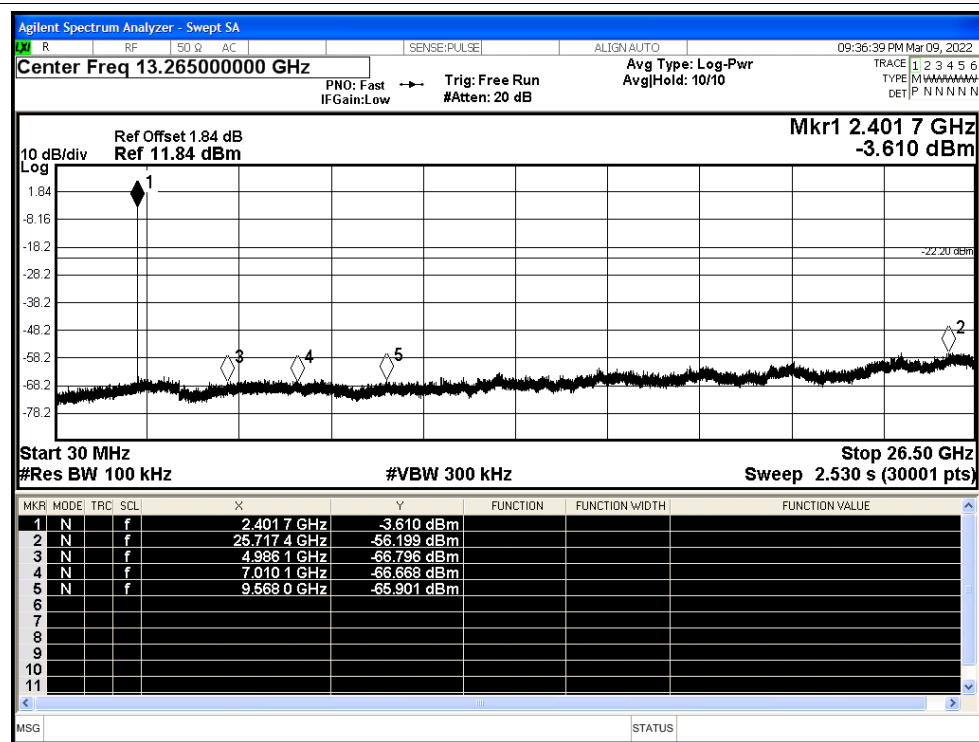




Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

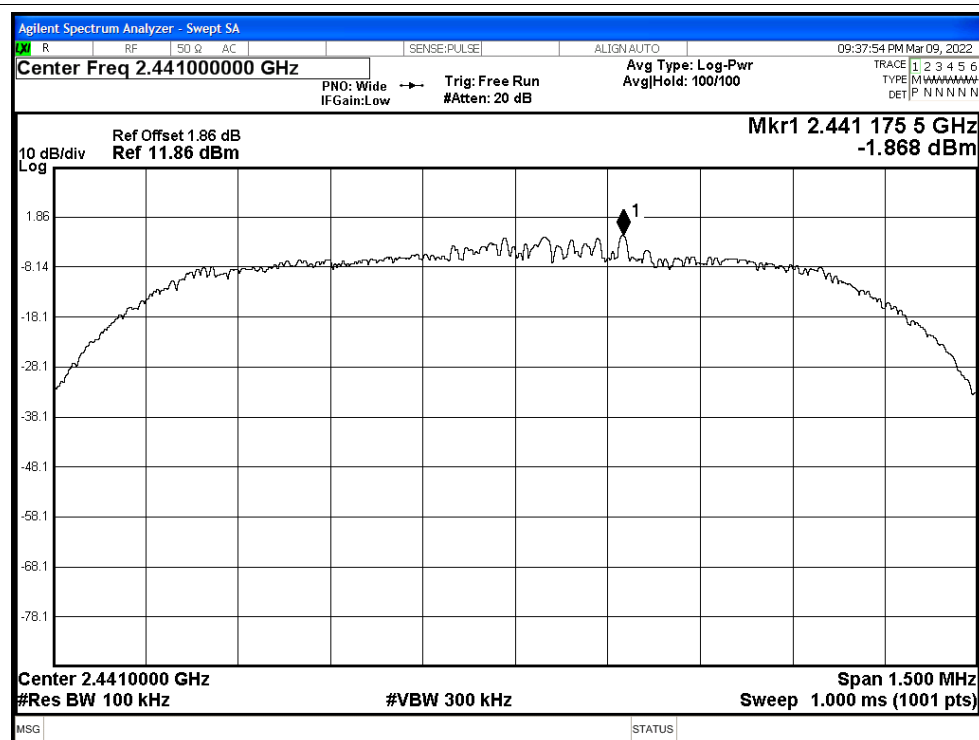


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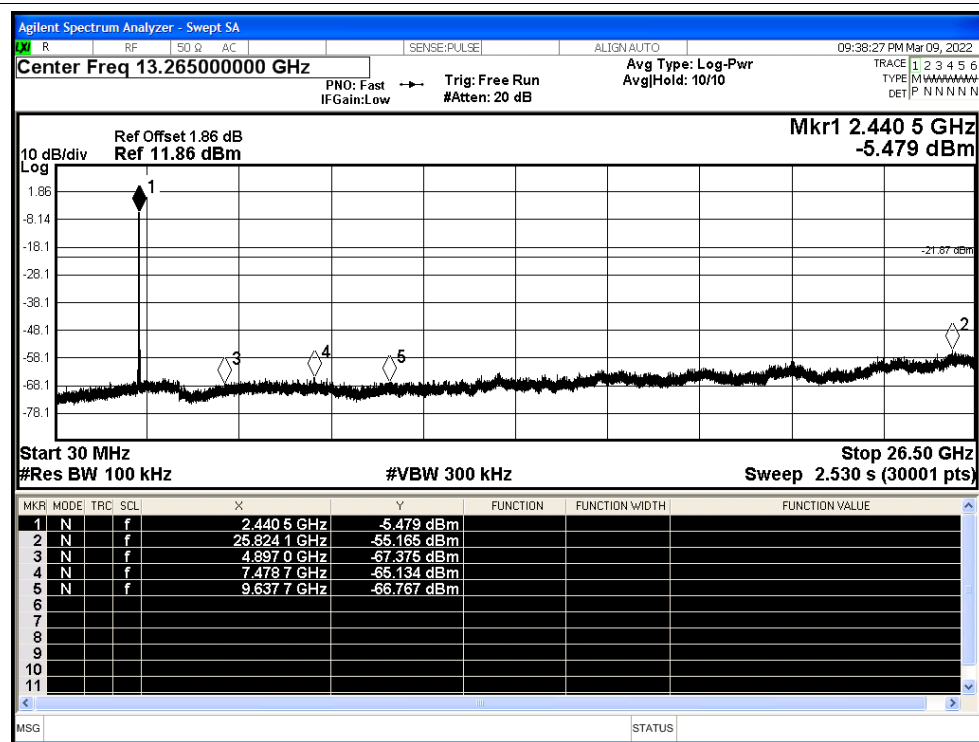




Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

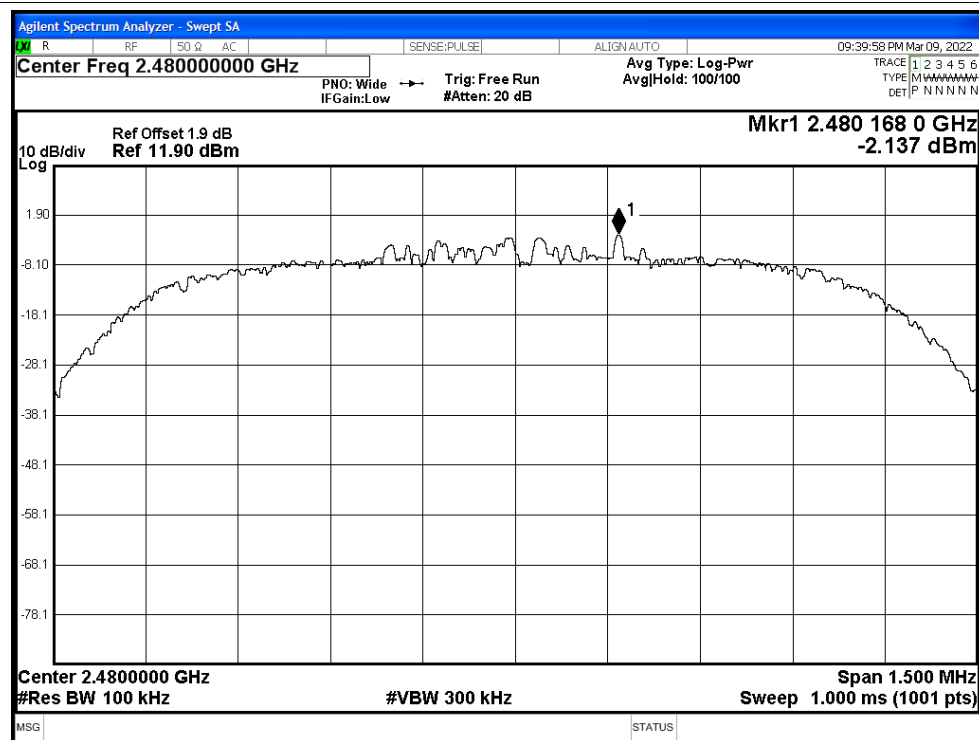


Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

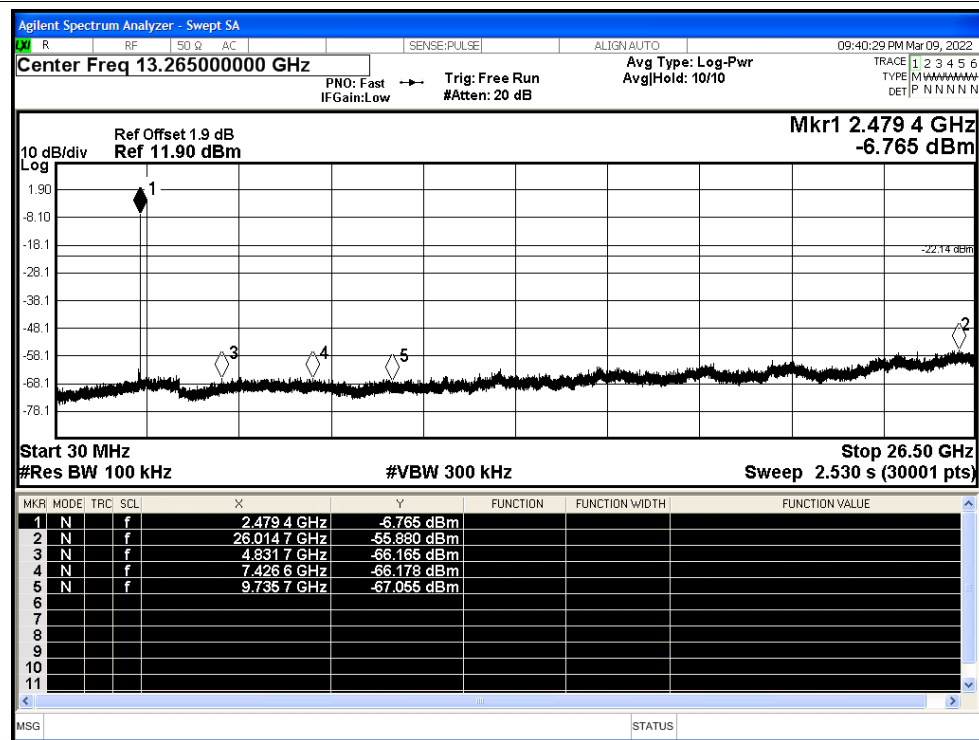




Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

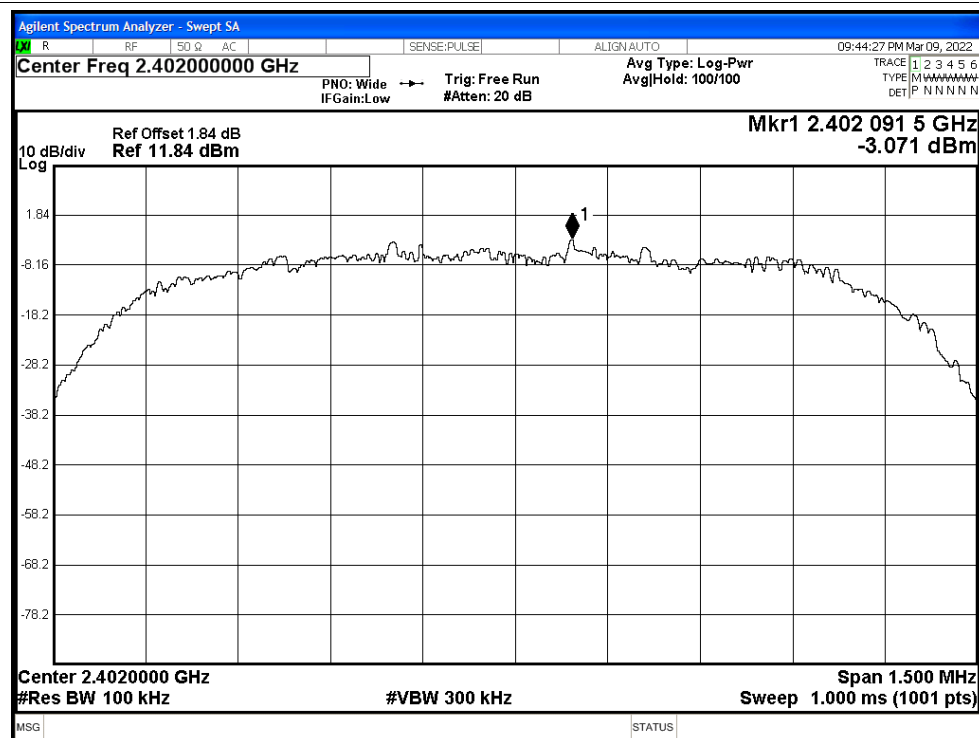


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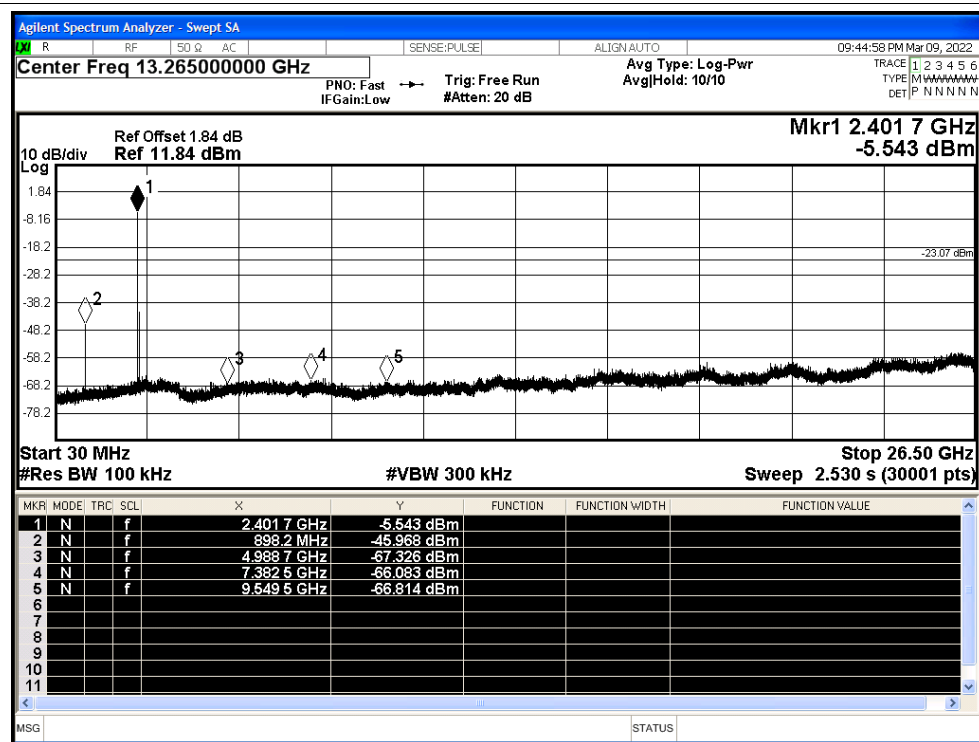




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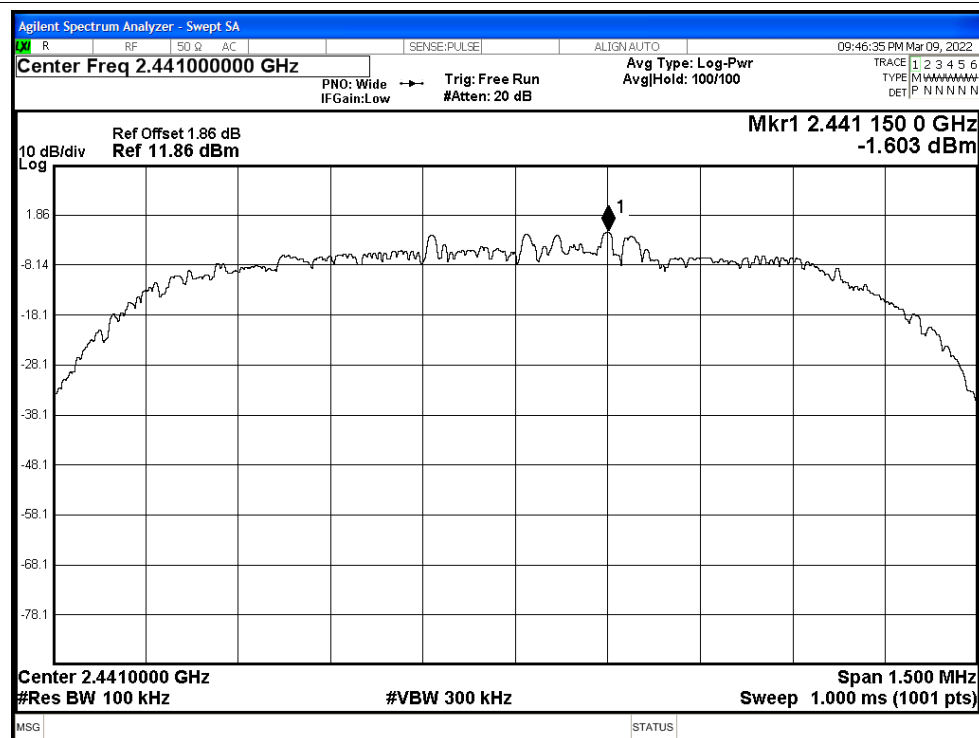


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission

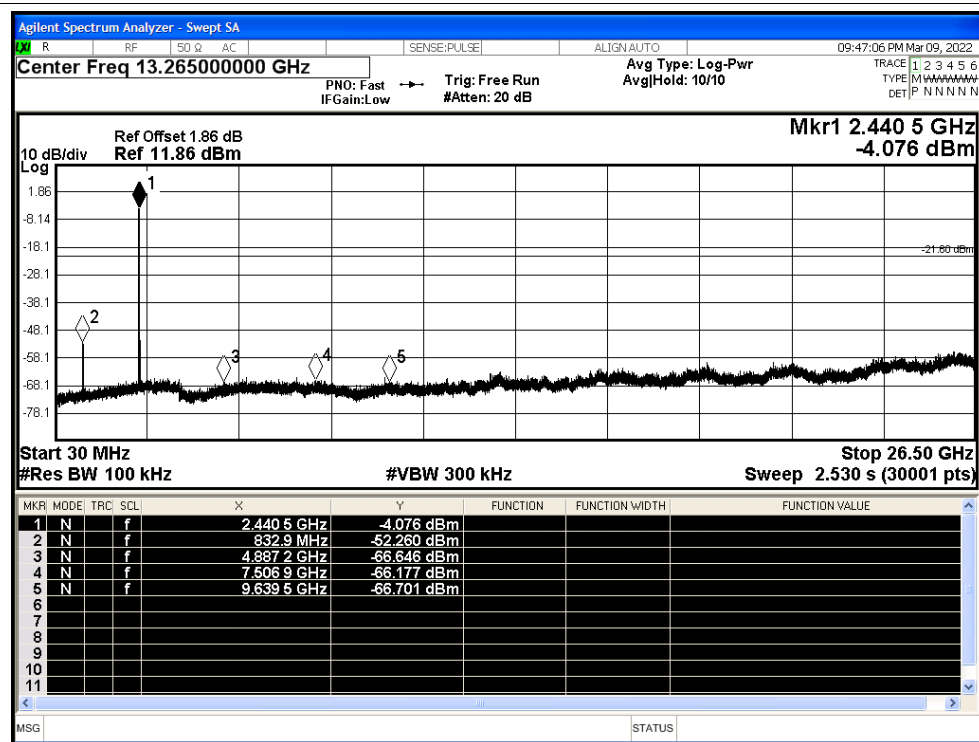




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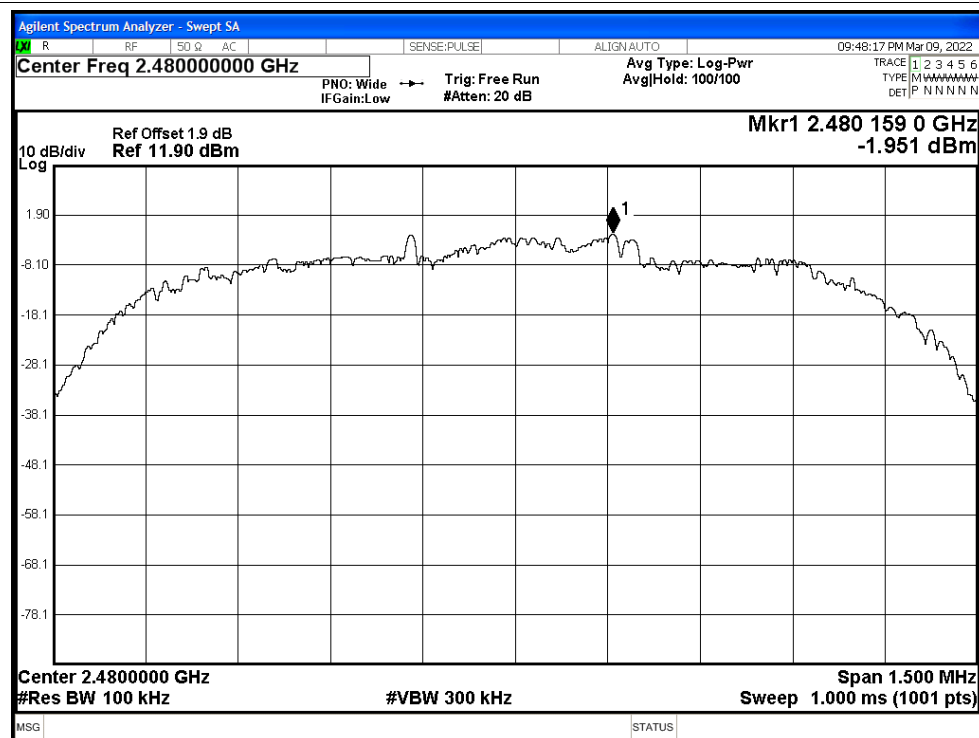


Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission

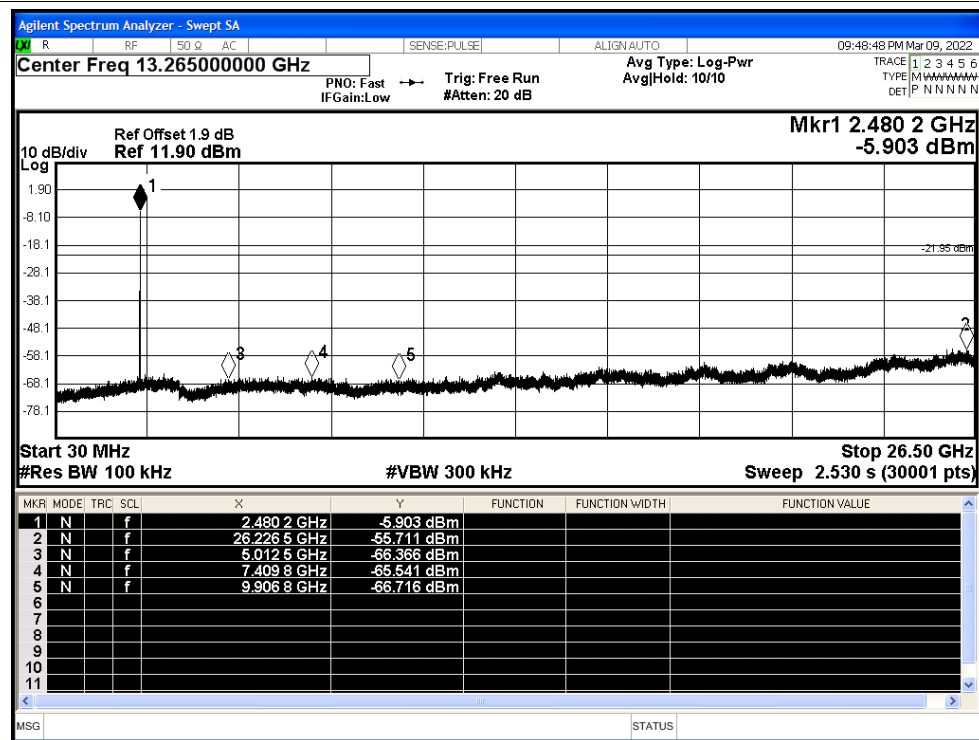




Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission





A.8 Emissions in Restricted Bands

Test Result

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-51.9	2	45.36	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2310	-60.61	2	36.65	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2345.686	-46.5	2	50.76	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2382.68	-60.21	2	37.05	Average	54	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-50.99	2	46.27	Peak	74	Pass
NVNT	1-DH5	2402	Ant1	No-Hopping	2390	-60.31	2	36.95	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-48.95	2	48.31	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.5	-59.62	2	37.64	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2484.658	-42.44	2	54.82	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2483.622	-59.58	2	37.68	Average	54	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-48.03	2	49.23	Peak	74	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	2500	-60.08	2	37.18	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-50.99	2	46.27	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2310	-60.64	2	36.62	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2345.58	-48.01	2	49.25	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2387.238	-60.11	2	37.15	Average	54	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-50.89	2	46.37	Peak	74	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	2390	-60.24	2	37.02	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-50.61	2	46.65	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.5	-59.86	2	37.4	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2484.732	-41.73	2	55.53	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2483.992	-59.77	2	37.49	Average	54	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-48.51	2	48.75	Peak	74	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	2500	-59.97	2	37.29	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-50.1	2	47.16	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2310	-60.73	2	36.53	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2379.712	-47.56	2	49.7	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2386.602	-60	2	37.26	Average	54	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-48.97	2	48.29	Peak	74	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	2390	-60.28	2	36.98	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-50.69	2	46.57	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.5	-59.69	2	37.57	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2483.622	-40.02	2	57.24	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2485.25	-59.67	2	37.59	Average	54	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-49.91	2	47.35	Peak	74	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	2500	-60.05	2	37.21	Average	54	Pass

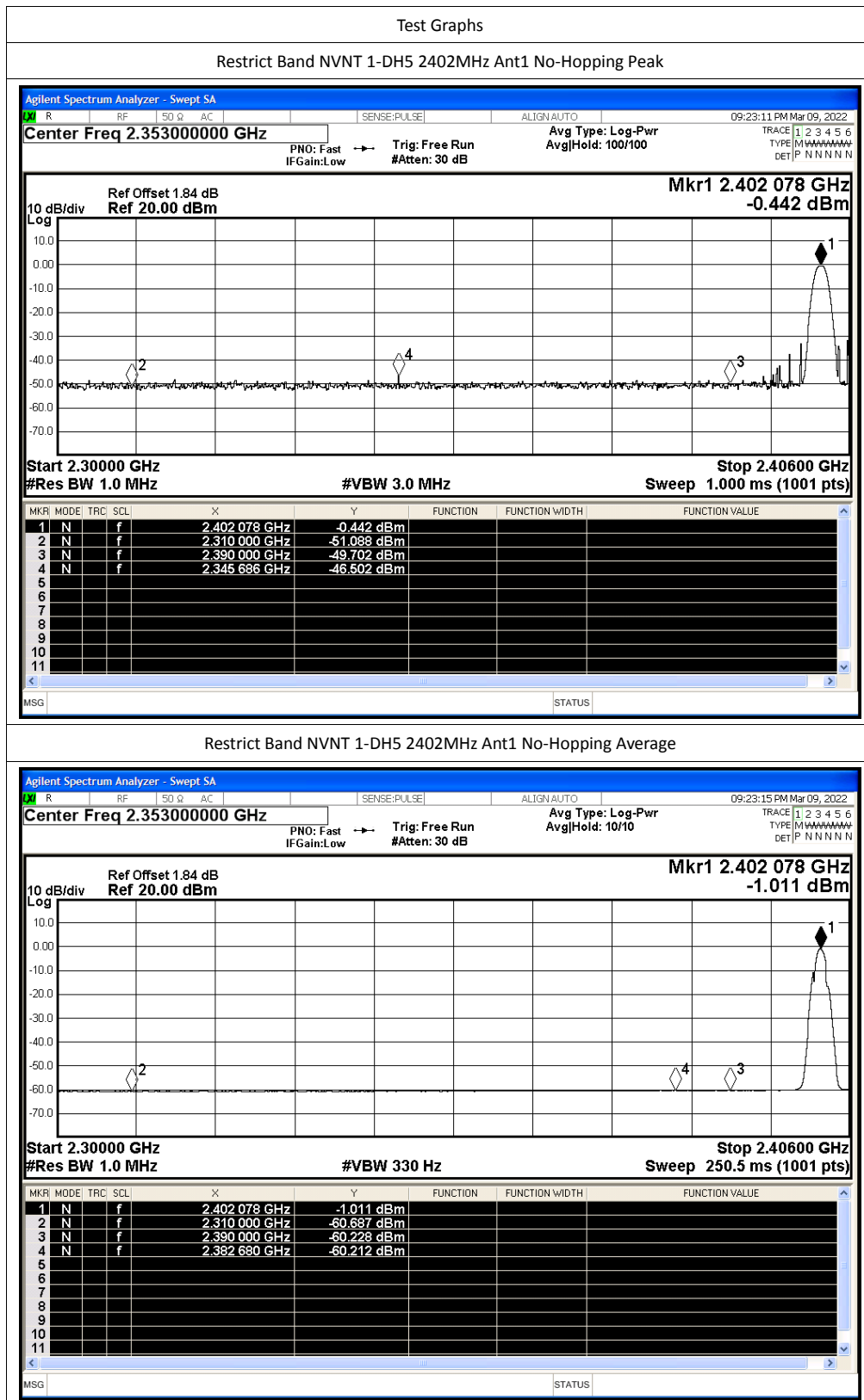


Note:

1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

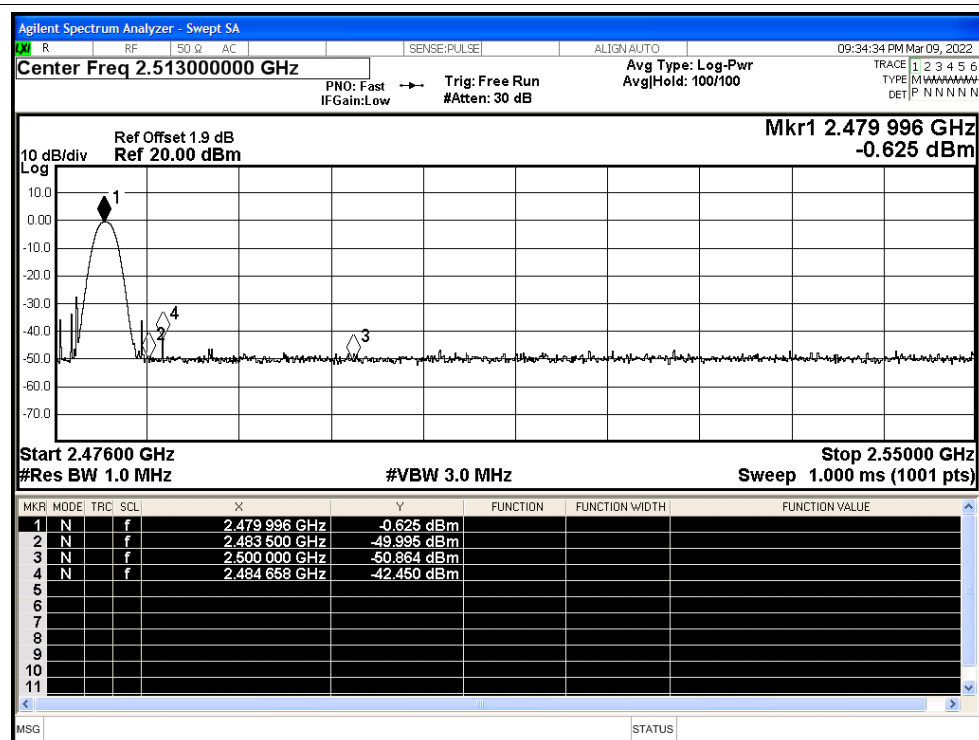


Test Graphs

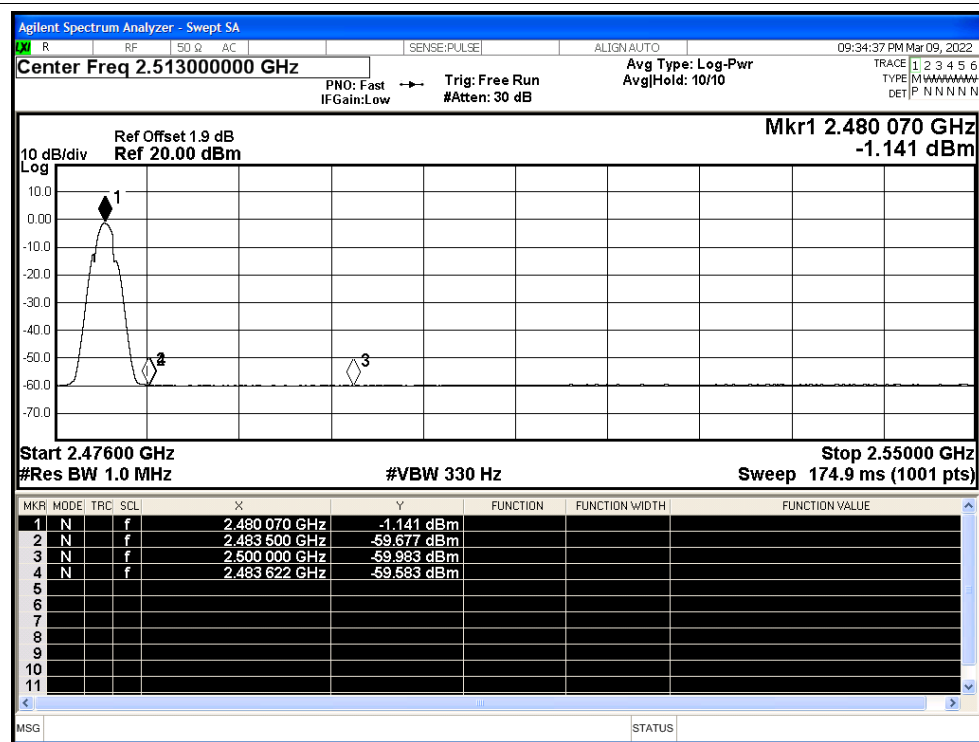




Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Peak

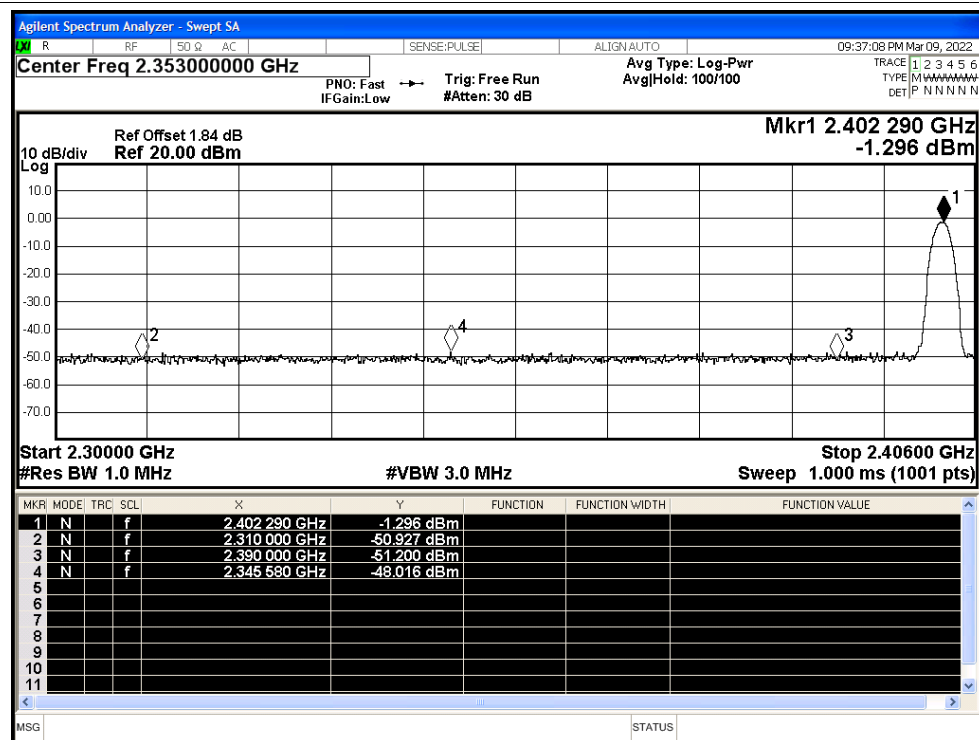


Restrict Band NVNT 1-DH5 2480MHz Ant1 No-Hopping Average

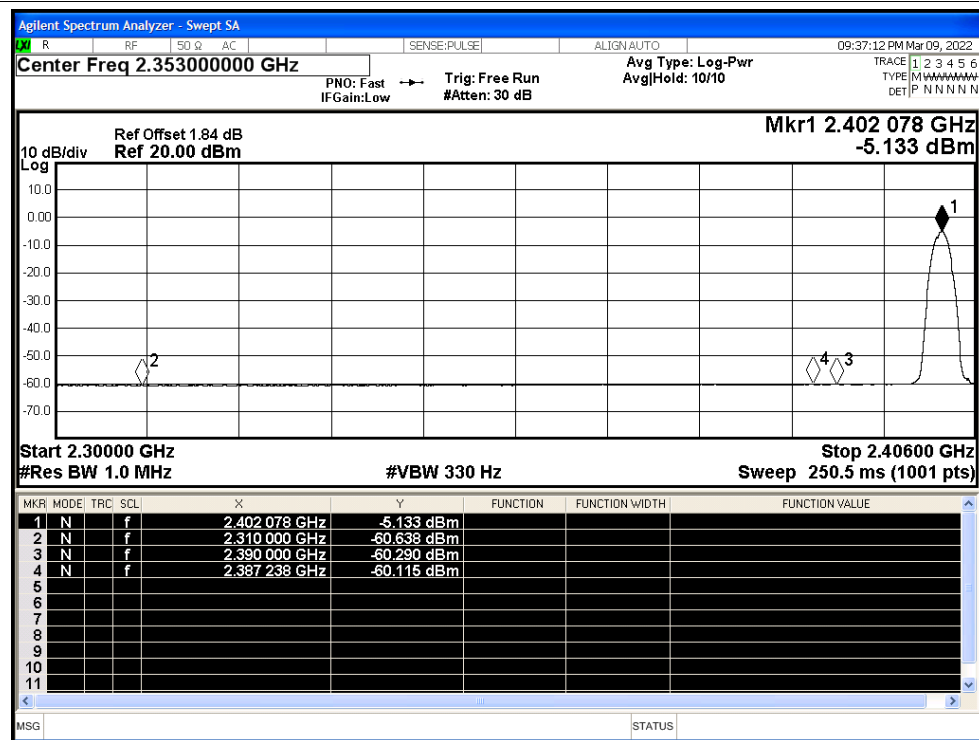




Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Peak

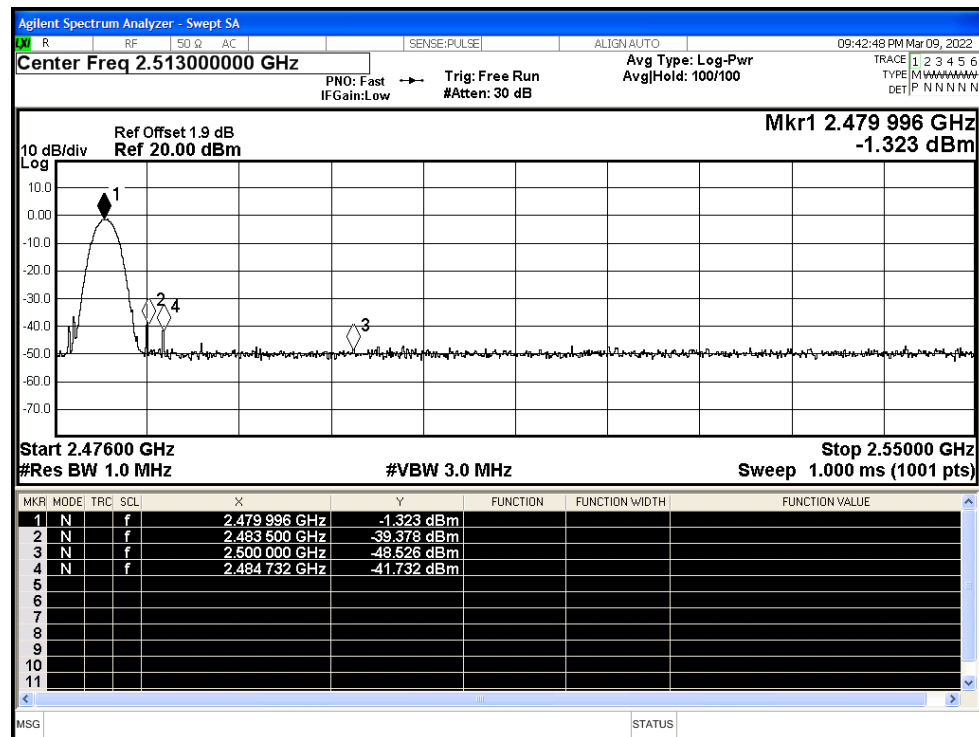


Restrict Band NVNT 2-DH5 2402MHz Ant1 No-Hopping Average

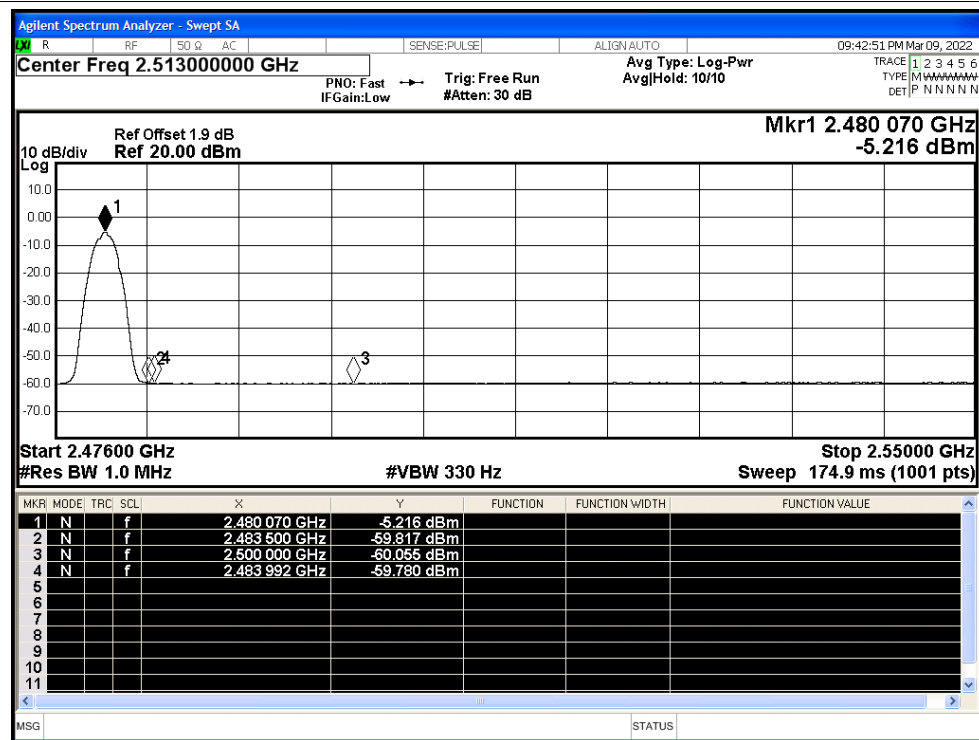




Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Peak

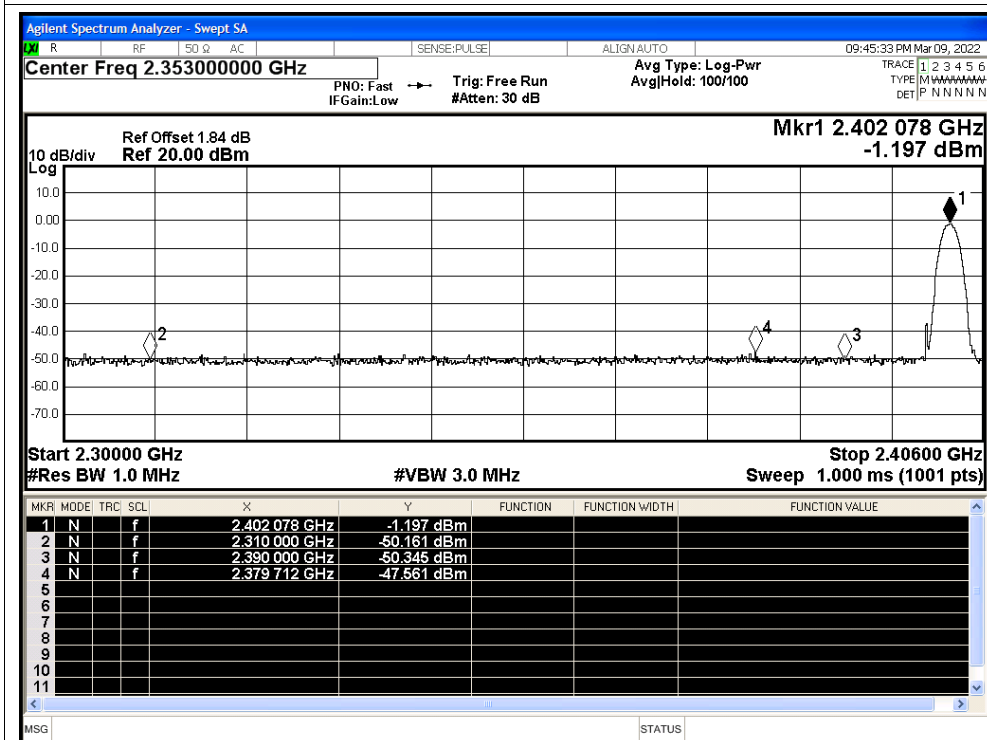


Restrict Band NVNT 2-DH5 2480MHz Ant1 No-Hopping Average

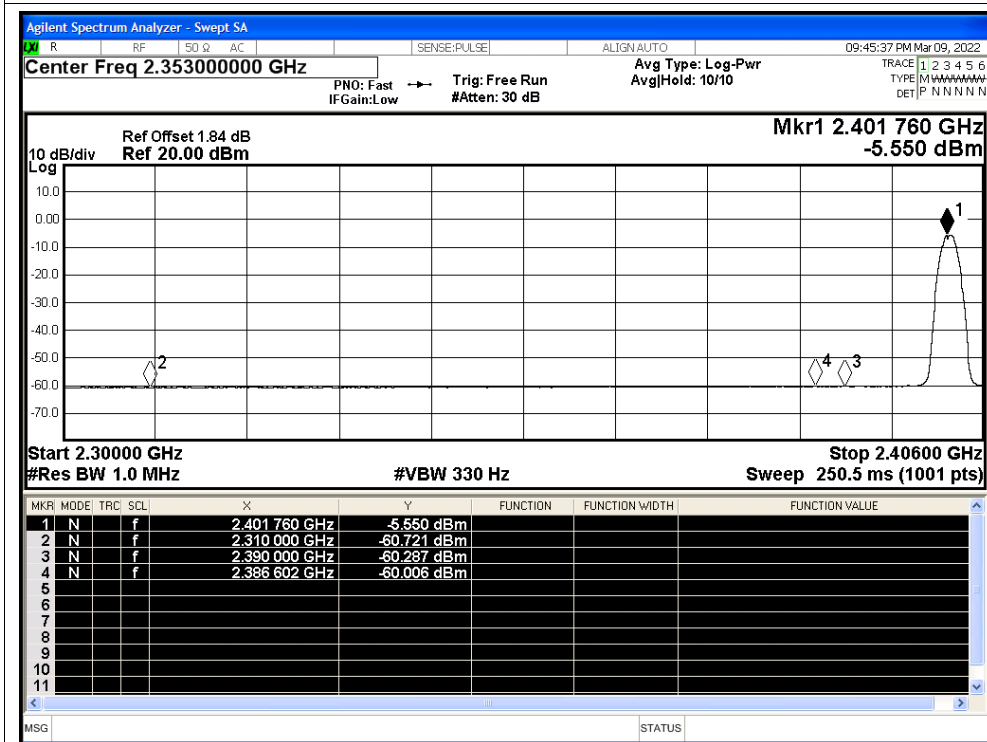




Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Peak

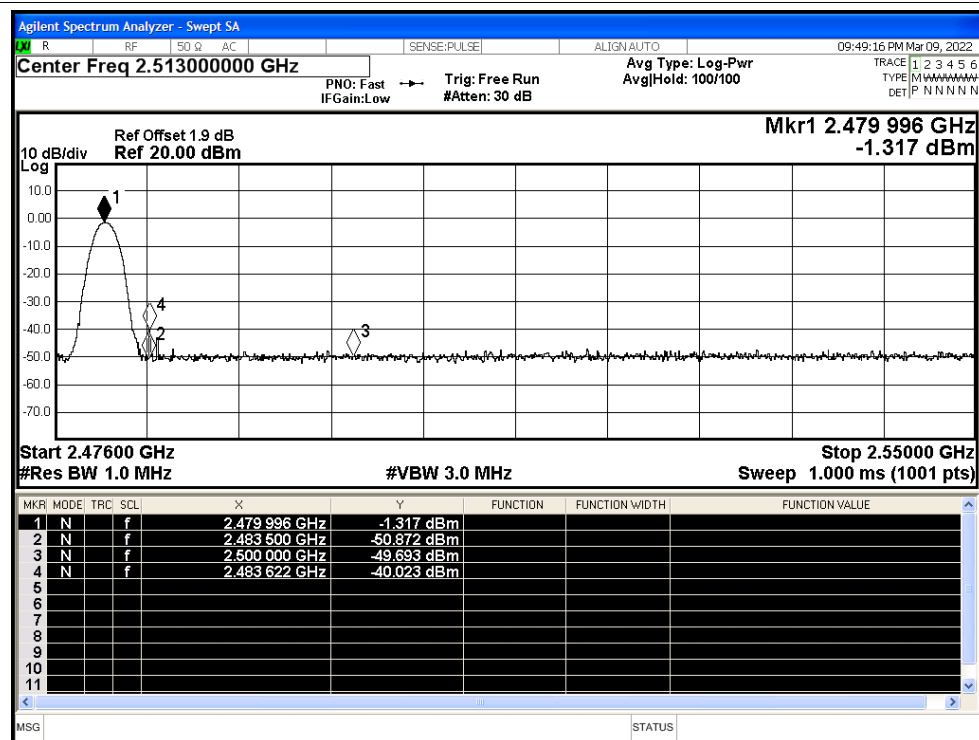


Restrict Band NVNT 3-DH5 2402MHz Ant1 No-Hopping Average





Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH5 2480MHz Ant1 No-Hopping Average

