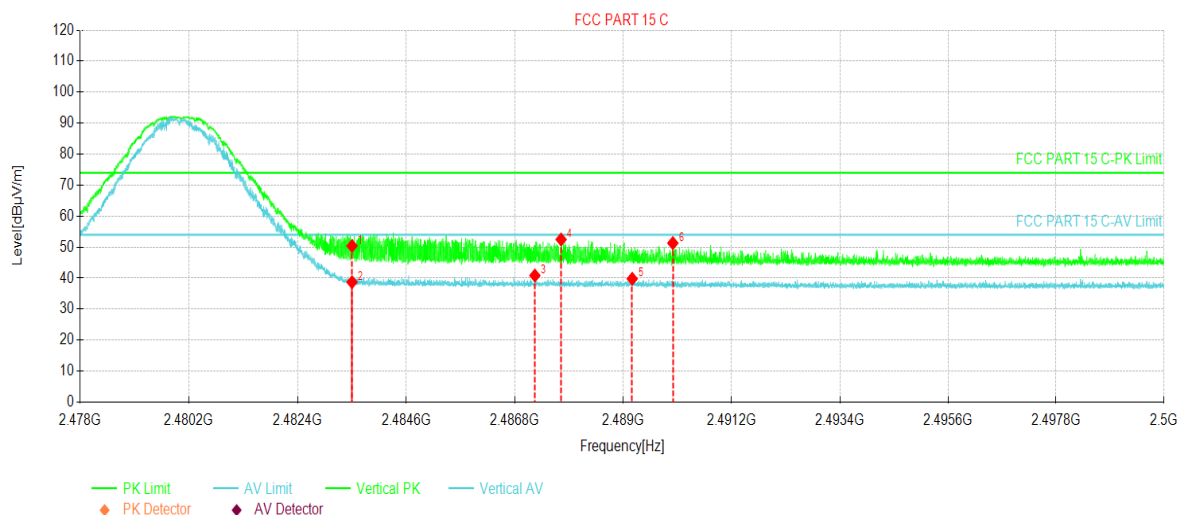


Product Name:	Countertop Payment Terminal	Product Model:	A80
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%

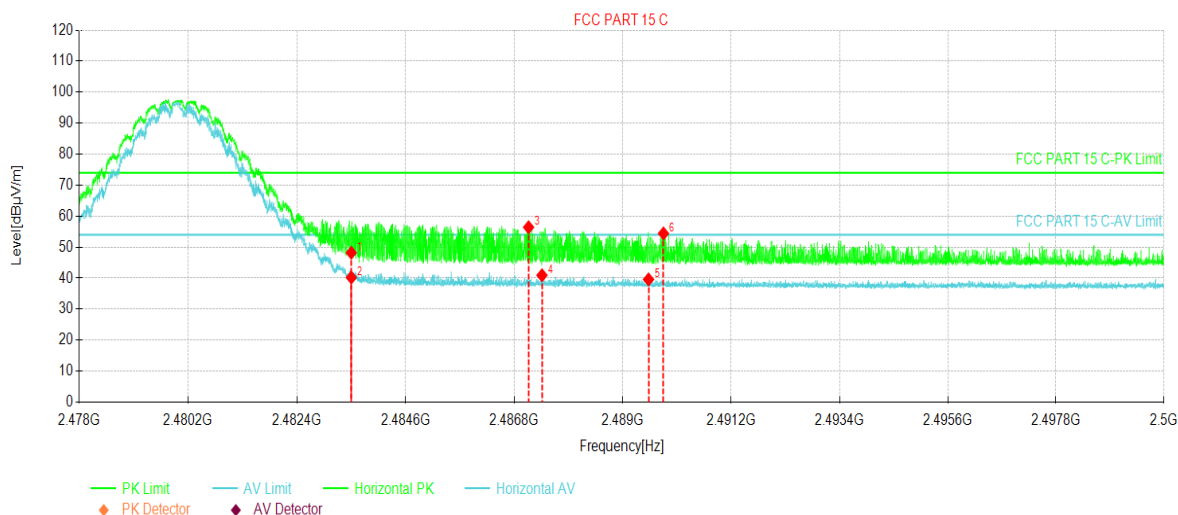


NO.	Freq. [MHz]	Reading [dBuV/m]	Level [dBuV/m]	Factor [dB]	Limit [dBuV/m]	Margin [dB]	Trace	Polarity
1	2483.50	42.70	50.39	7.69	74.00	23.61	PK	Vertical
2	2483.50	31.02	38.71	7.69	54.00	15.29	AV	Vertical
3	2487.20	33.13	40.84	7.71	54.00	13.16	AV	Vertical
4	2487.73	44.75	52.47	7.72	74.00	21.53	PK	Vertical
5	2489.18	32.07	39.80	7.73	54.00	14.20	AV	Vertical
6	2490.00	43.58	51.31	7.73	74.00	22.69	PK	Vertical

Remark:

- Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
- The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

Product Name:	Countertop Payment Terminal	Product Model:	A80
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



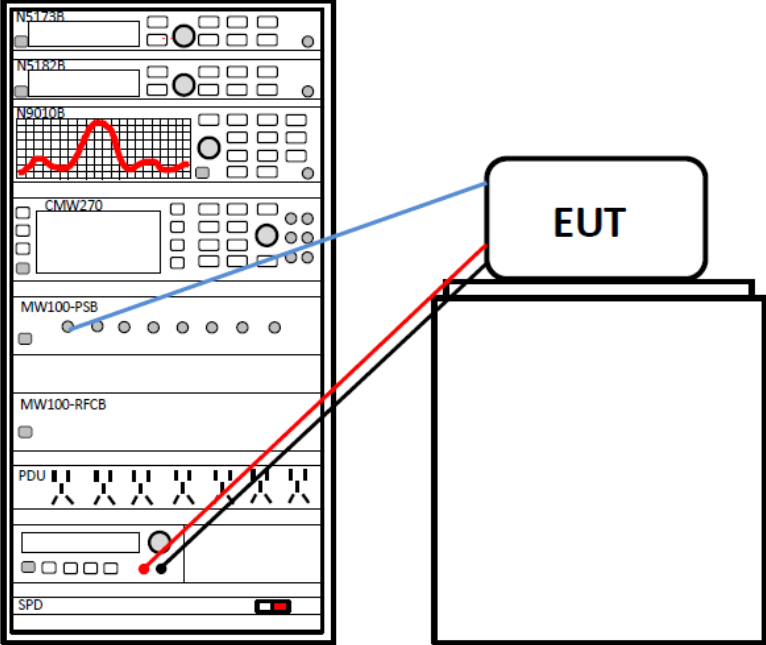
NO.	Freq. [MHz]	Reading [dBuV/m]	Level [dBuV/m]	Factor [dB]	Limit [dBuV/m]	Margin [dB]	Trace	Polarity
1	2483.50	40.51	48.20	7.69	74.00	25.80	PK	Horizontal
2	2483.50	32.52	40.21	7.69	54.00	13.79	AV	Horizontal
3	2487.08	48.70	56.41	7.71	74.00	17.59	PK	Horizontal
4	2487.36	33.21	40.92	7.71	54.00	13.08	AV	Horizontal
5	2489.52	31.85	39.58	7.73	54.00	14.42	AV	Horizontal
6	2489.82	46.69	54.42	7.73	74.00	19.58	PK	Horizontal

Remark:

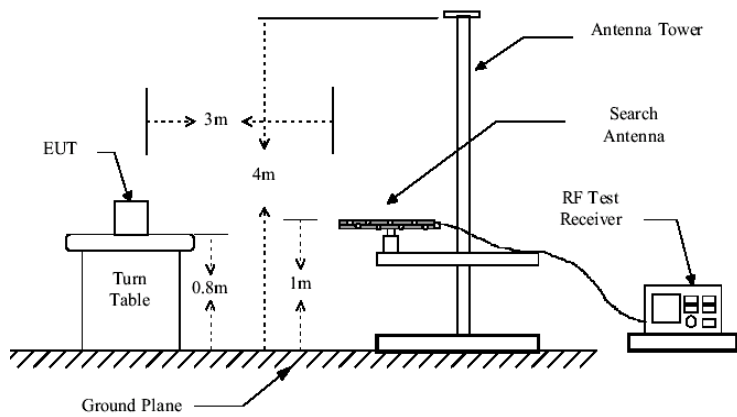
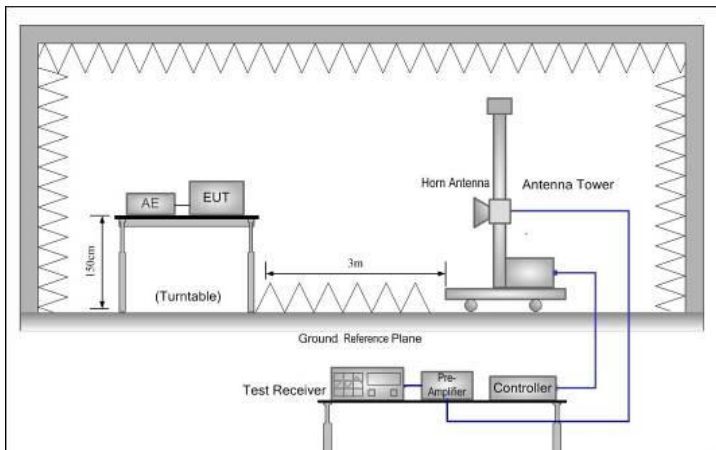
- Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
- The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

6.10 Spurious Emission

6.10.1 Conducted Emission Method

Test Requirement:	FCC Part 15 C Section 15.247 (d)
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Non-hopping mode
Test results:	Pass
Measurement Data:	Refer to Appendix A - BT

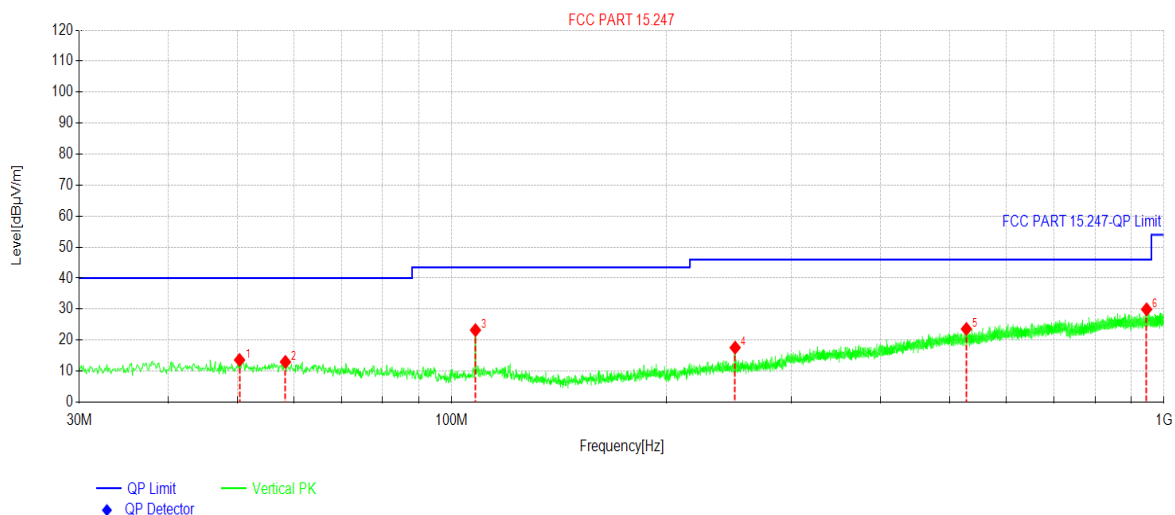
6.10.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.209				
Test Frequency Range:	9 kHz to 25 GHz				
Test Distance:	3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		RMS	1MHz	3MHz	Average Value
Limit:	Frequency		Limit (dBuV/m @3m)		Remark
	30MHz-88MHz		40.0		Quasi-peak Value
	88MHz-216MHz		43.5		Quasi-peak Value
	216MHz-960MHz		46.0		Quasi-peak Value
	960MHz-1GHz		54.0		Quasi-peak Value
	Above 1GHz	54.0		Average Value	
74.0		Peak Value			
Test setup:	Below 1GHz				
					
	Above 1GHz				
					
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz) /1.5m(above 1GHz) above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna				

	tower. - The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. - For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. - The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. - If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Non-hopping mode
Test results:	Pass
Remark:	- Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case. 9 kHz to 30 MHz is noise floor and lower than the limit 20dB, so only shows the data of above 30MHz in this report. - Pre-scan adapter 1, adapter 2 and adapter 3, found adapter 1 was worse case mode, only reflects the worst mode

Measurement Data (worst case):
Below 1GHz:
Adapter 1:

Product Name:	Countertop Payment Terminal	Product Model:	A80
Test By:	Mike	Test mode:	BT Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Humi: 57%

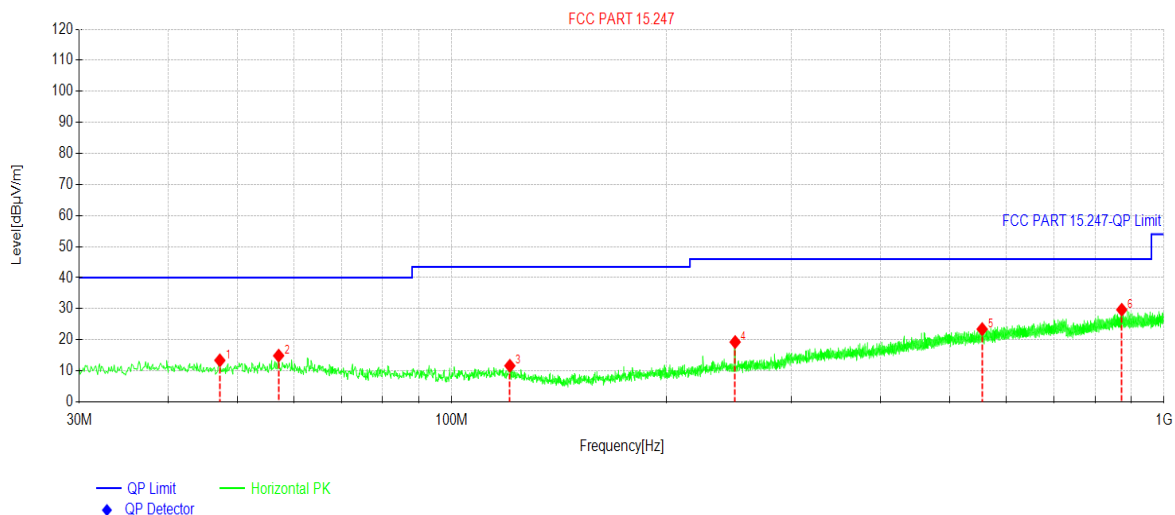


NO.	Freq. [MHz]	Reading[d BμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	50.3720	28.30	13.60	-14.70	40.00	26.40	PK	Vertical
2	58.4238	27.86	12.97	-14.89	40.00	27.03	PK	Vertical
3	107.995	39.17	23.23	-15.94	43.50	20.27	PK	Vertical
4	250.018	31.38	17.59	-13.79	46.00	28.41	PK	Vertical
5	527.950	30.49	23.61	-6.88	46.00	22.39	PK	Vertical
6	945.286	31.03	29.93	-1.10	46.00	16.07	PK	Vertical

Remark:

- Final Level = Receiver Read level + Factor (Antenna Factor + Cable Loss – Preamplifier Factor).
- The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

Product Name:	Countertop Payment Terminal	Product Model:	A80
Test By:	Mike	Test mode:	BT Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Humi: 57%



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Trace	Polarity
1	47.2677	28.25	13.36	-14.89	40.00	26.64	PK	Horizontal
2	57.1627	29.67	14.88	-14.79	40.00	25.12	PK	Horizontal
3	120.704	27.74	11.62	-16.12	43.50	31.88	PK	Horizontal
4	250.018	33.06	19.27	-13.79	46.00	26.73	PK	Horizontal
5	555.598	30.10	23.41	-6.69	46.00	22.59	PK	Horizontal
6	872.335	31.12	29.67	-1.45	46.00	16.33	PK	Horizontal

Remark:

- Final Level = Receiver Read level + Factor (Antenna Factor + Cable Loss – Preamplifier Factor).
- The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

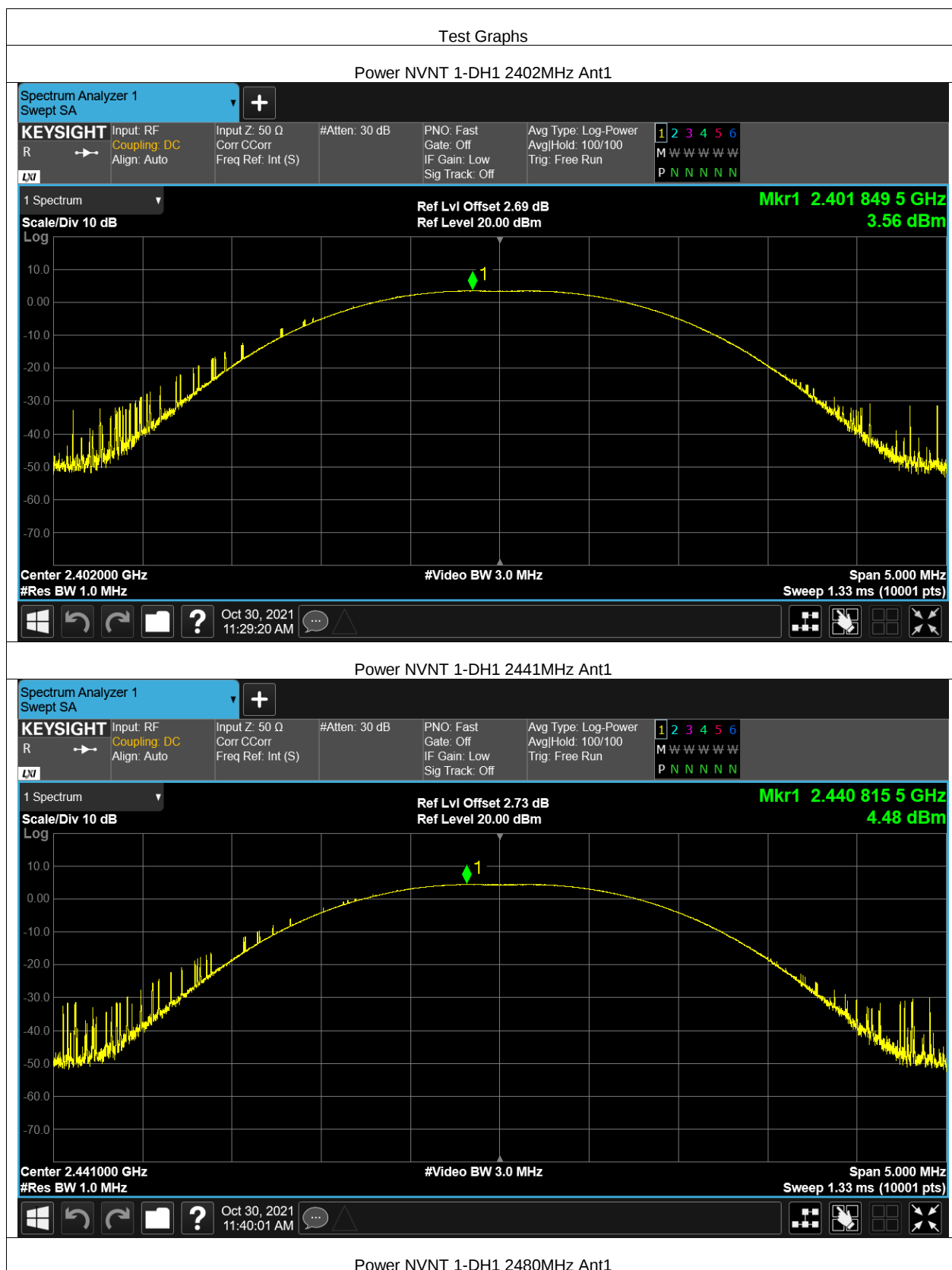
Above 1GHz:

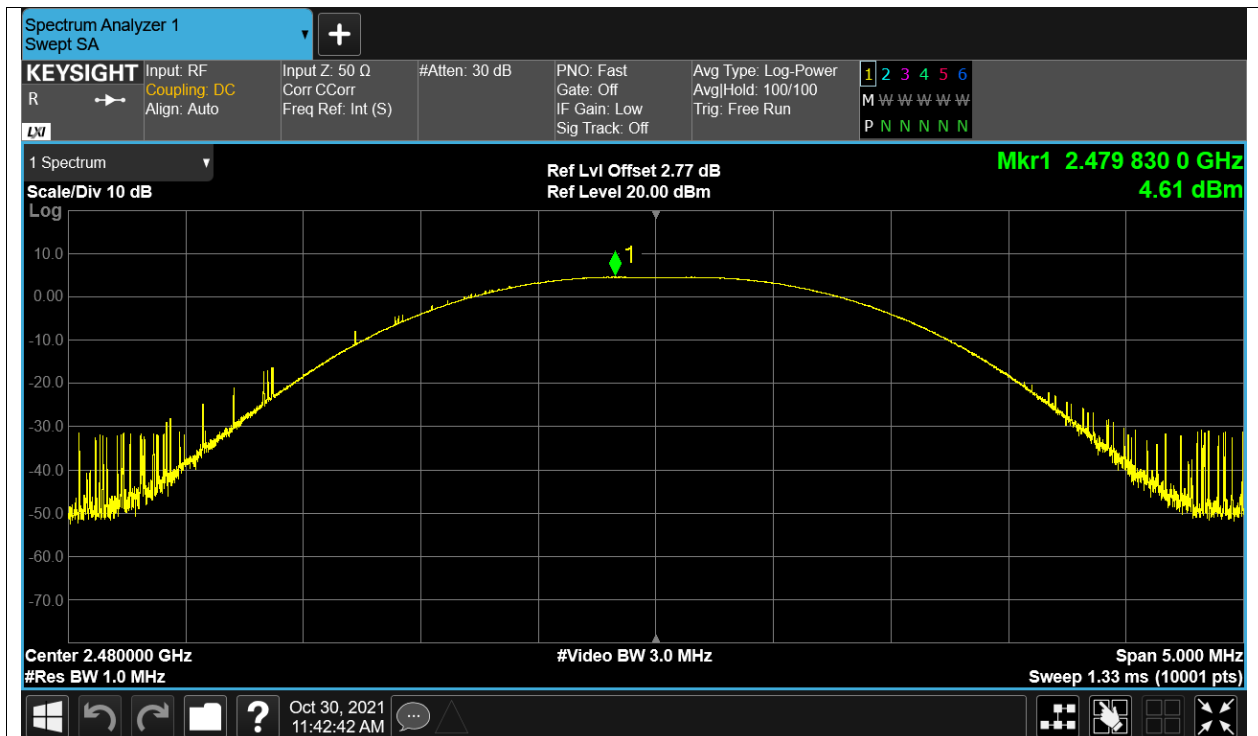
Test channel: Lowest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4804.00	55.49	-9.60	45.89	74.00	28.11	Vertical
4804.00	56.02	-9.60	46.42	74.00	27.58	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4804.00	48.32	-9.60	38.72	54.00	15.28	Vertical
4804.00	48.42	-9.60	38.82	54.00	15.18	Horizontal
Test channel: Middle channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4882.00	48.43	-9.05	39.38	74.00	34.62	Vertical
4882.00	55.52	-9.05	46.47	74.00	27.53	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4882.00	47.87	-9.05	38.82	54.00	15.18	Vertical
4882.00	48.37	-9.05	39.32	54.00	14.68	Horizontal
Test channel: Highest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4960.00	48.82	-8.45	40.37	74.00	33.63	Vertical
4960.00	55.72	-8.45	47.27	74.00	26.73	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4960.00	47.63	-8.45	39.18	54.00	14.82	Vertical
4960.00	48.05	-8.45	39.60	54.00	14.40	Horizontal
Remark: 1. Final Level =Receiver Read level + Factor. 2. The emission levels of other frequencies are lower than the limit 20dB and not show in test report.						

Test Data

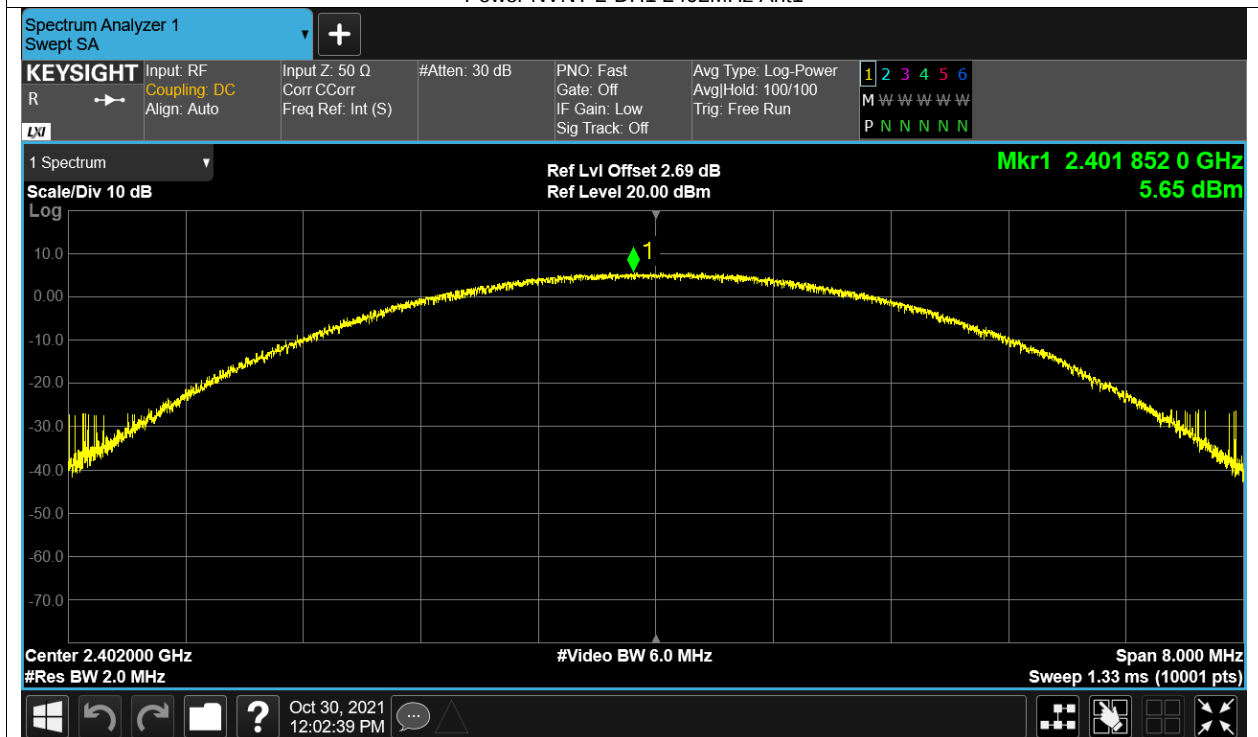
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	3.556	30	Pass
NVNT	1-DH1	2441	Ant1	4.475	30	Pass
NVNT	1-DH1	2480	Ant1	4.61	30	Pass
NVNT	2-DH1	2402	Ant1	5.654	21	Pass
NVNT	2-DH1	2441	Ant1	6.26	21	Pass
NVNT	2-DH1	2480	Ant1	6.48	21	Pass
NVNT	3-DH1	2402	Ant1	6.162	21	Pass
NVNT	3-DH1	2441	Ant1	6.914	21	Pass
NVNT	3-DH1	2480	Ant1	7.024	21	Pass

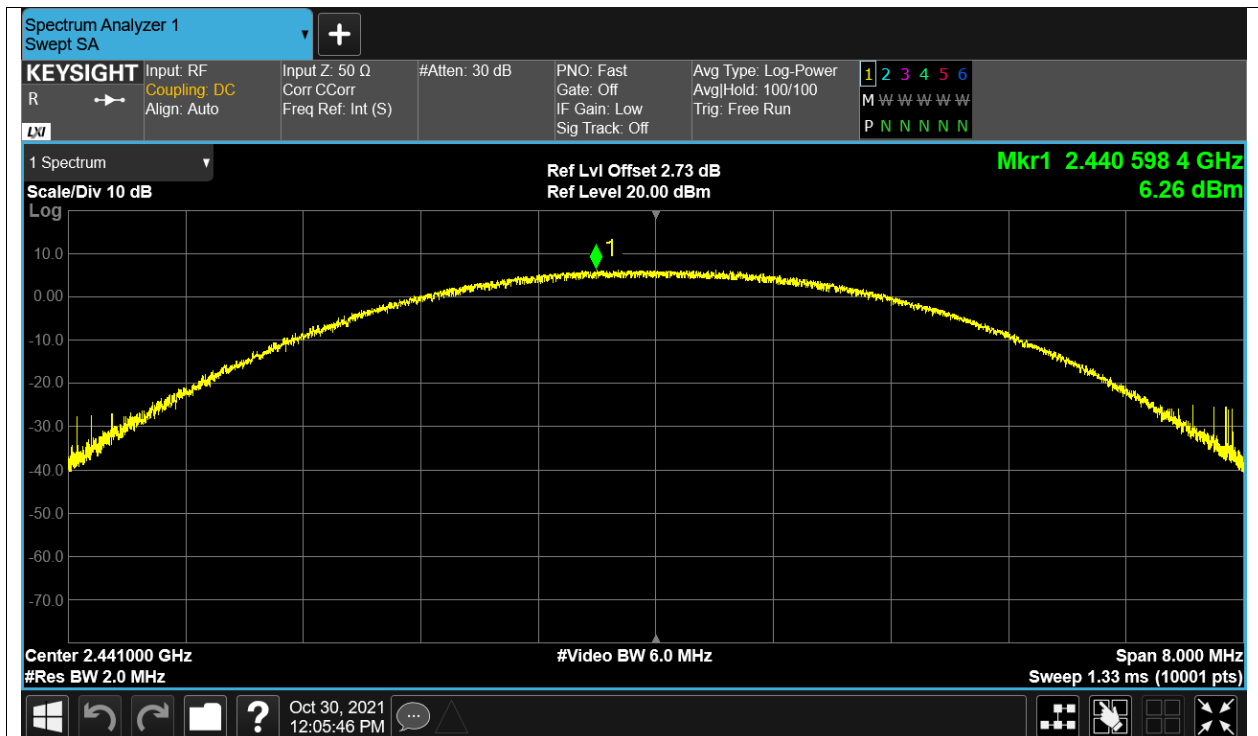




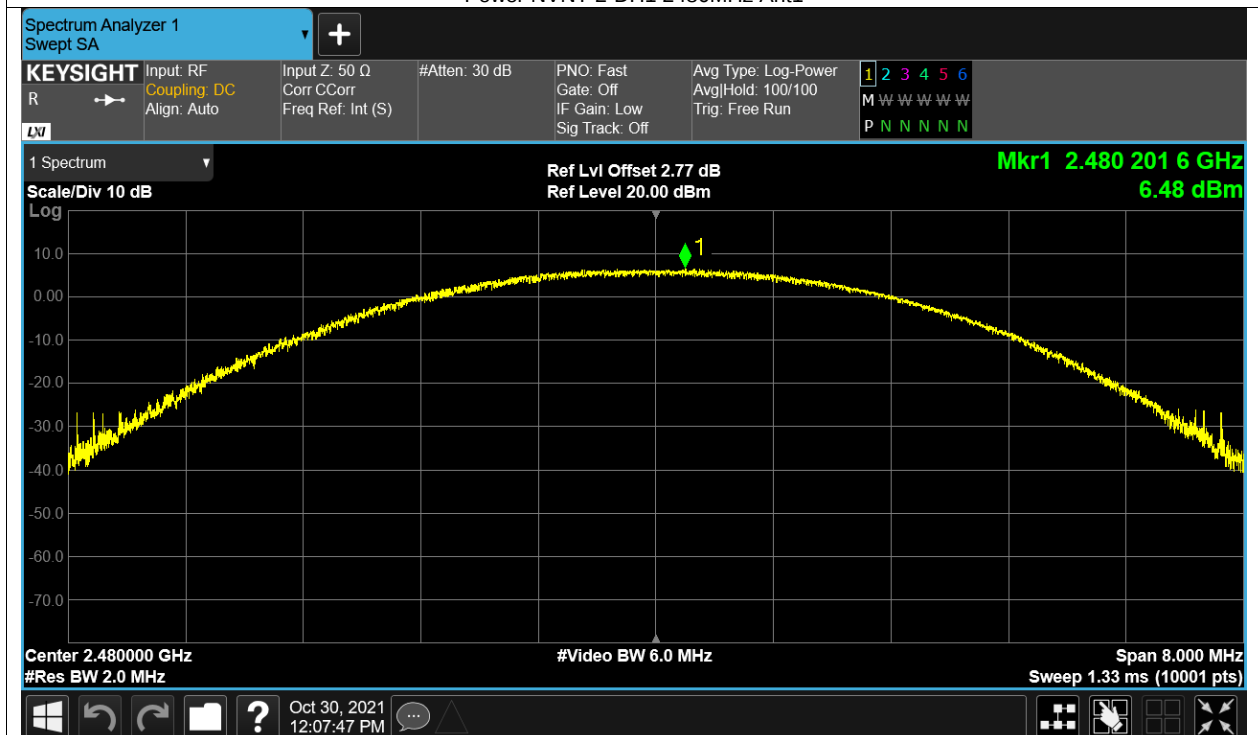
Power NVNT 2-DH1 2402MHz Ant1



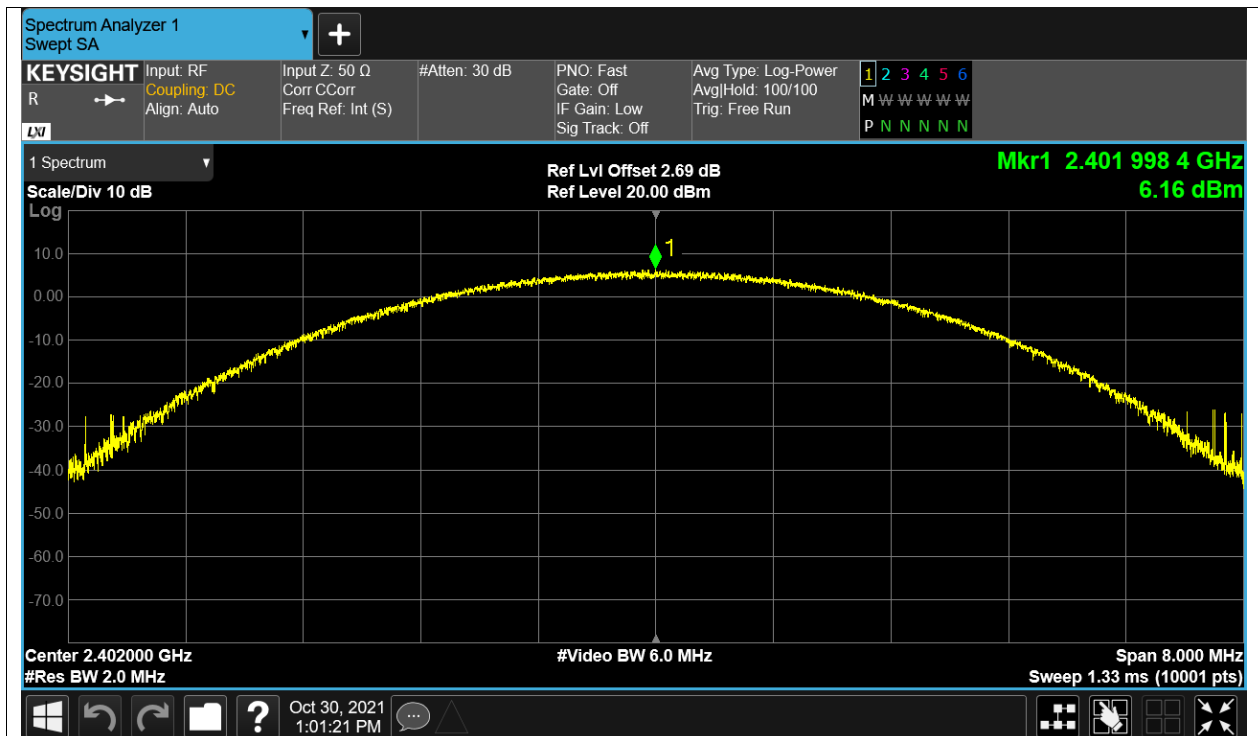
Power NVNT 2-DH1 2441MHz Ant1



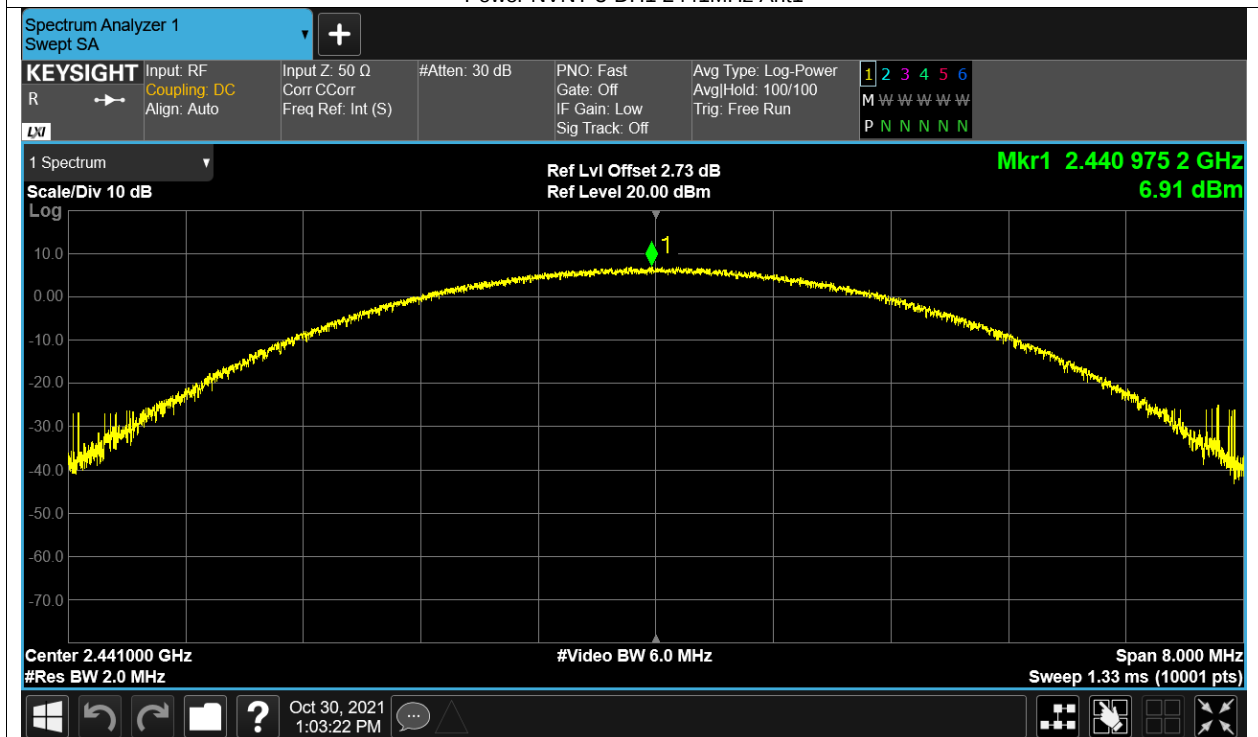
Power NVNT 2-DH1 2480MHz Ant1



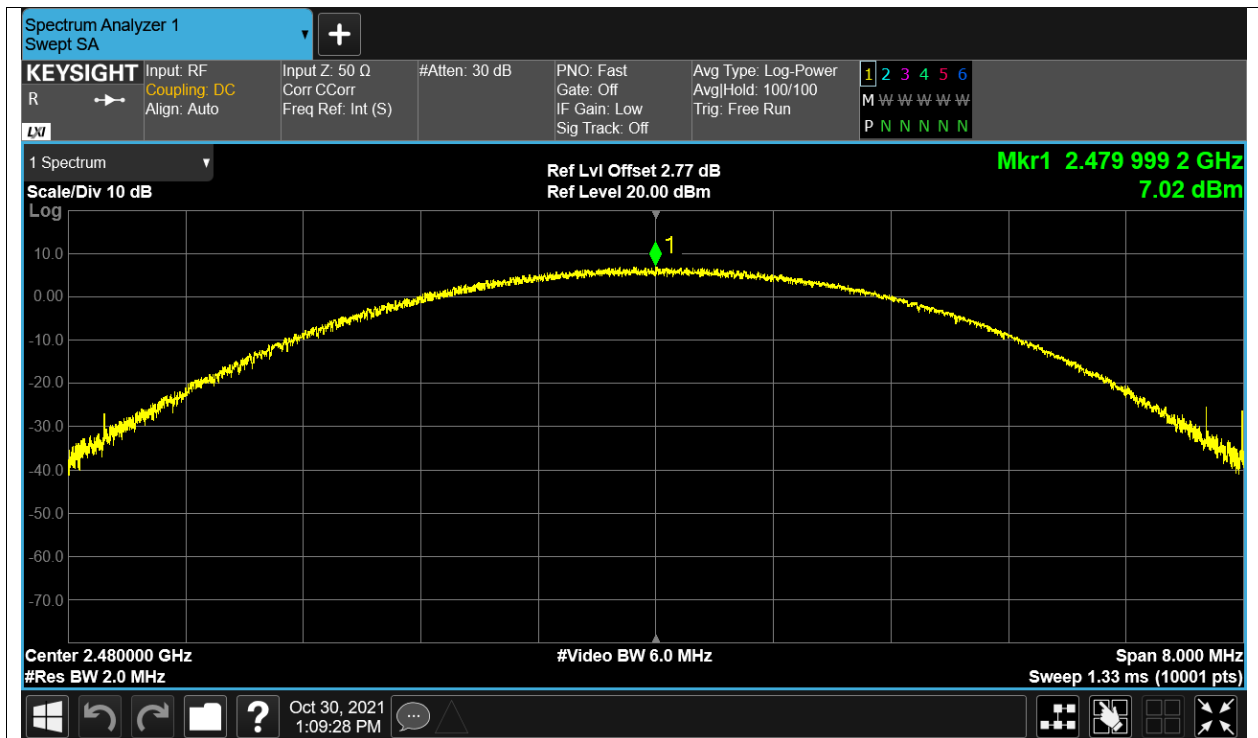
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



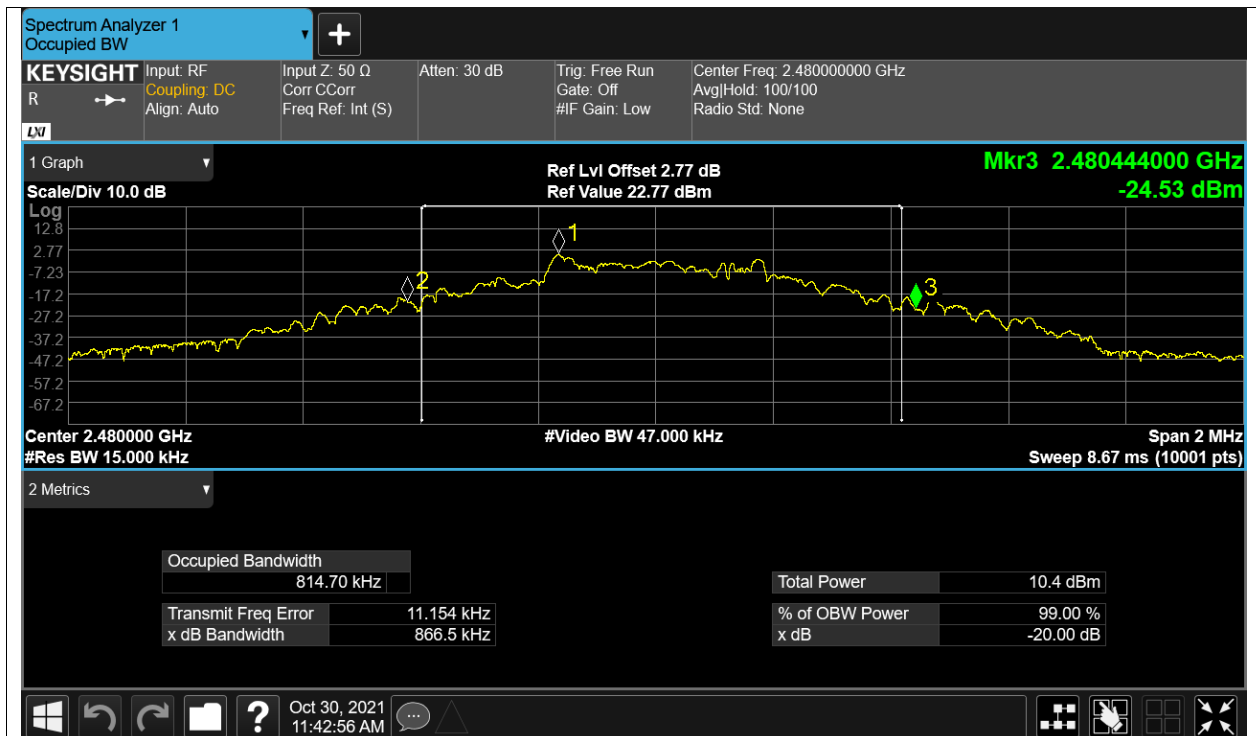
Power NVNT 3-DH1 2480MHz Ant1



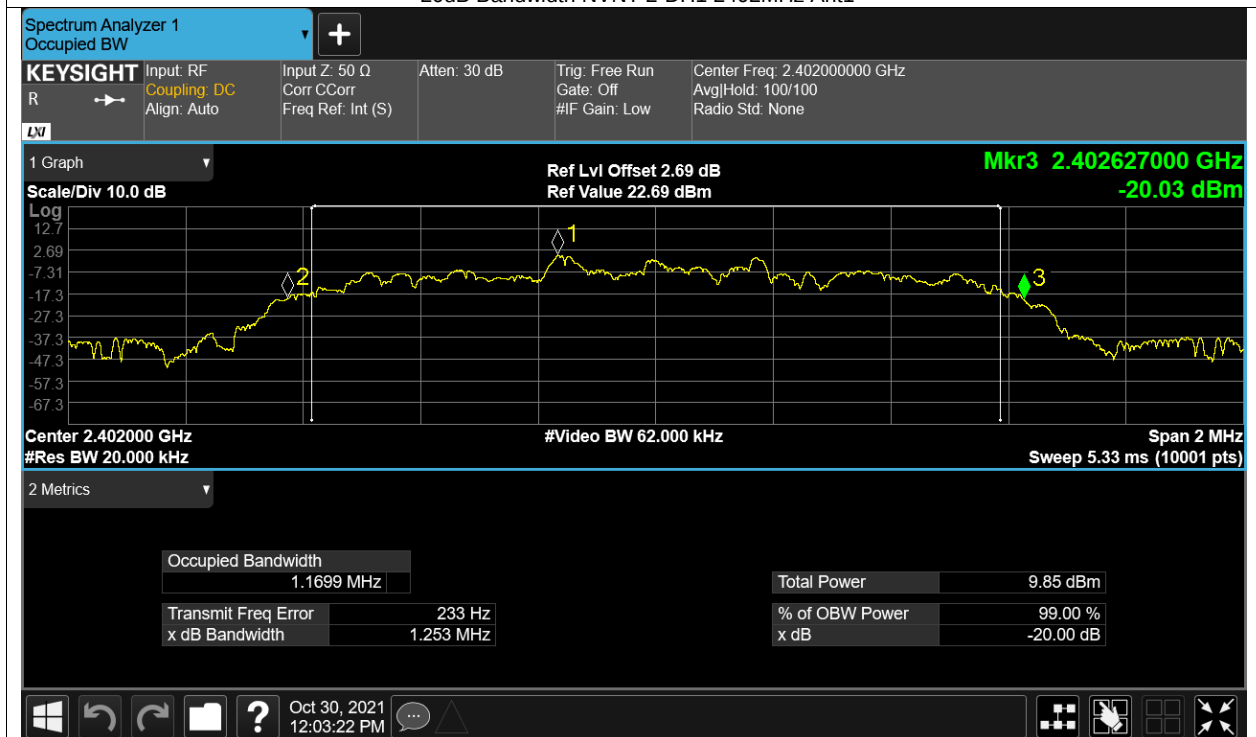
-20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)
NVNT	1-DH1	2402	Ant1	0.872
NVNT	1-DH1	2441	Ant1	0.785
NVNT	1-DH1	2480	Ant1	0.867
NVNT	2-DH1	2402	Ant1	1.253
NVNT	2-DH1	2441	Ant1	1.251
NVNT	2-DH1	2480	Ant1	1.248
NVNT	3-DH1	2402	Ant1	1.217
NVNT	3-DH1	2441	Ant1	1.212
NVNT	3-DH1	2480	Ant1	1.216

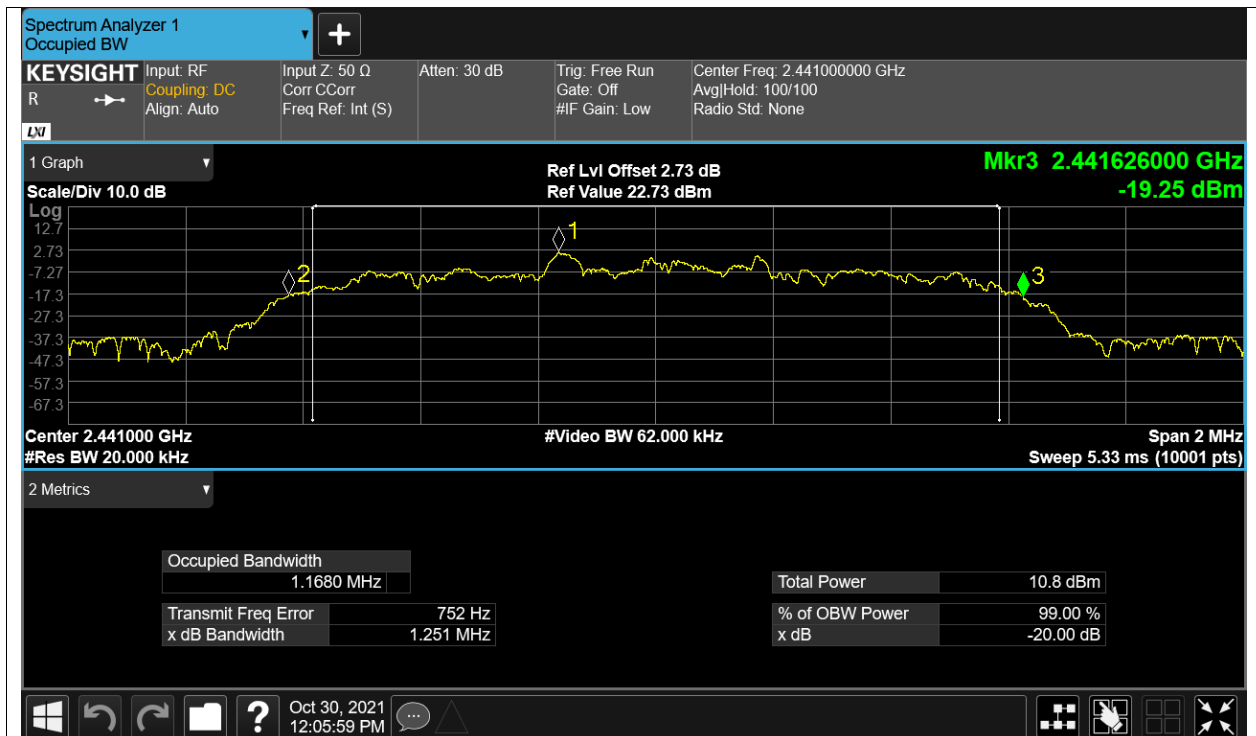




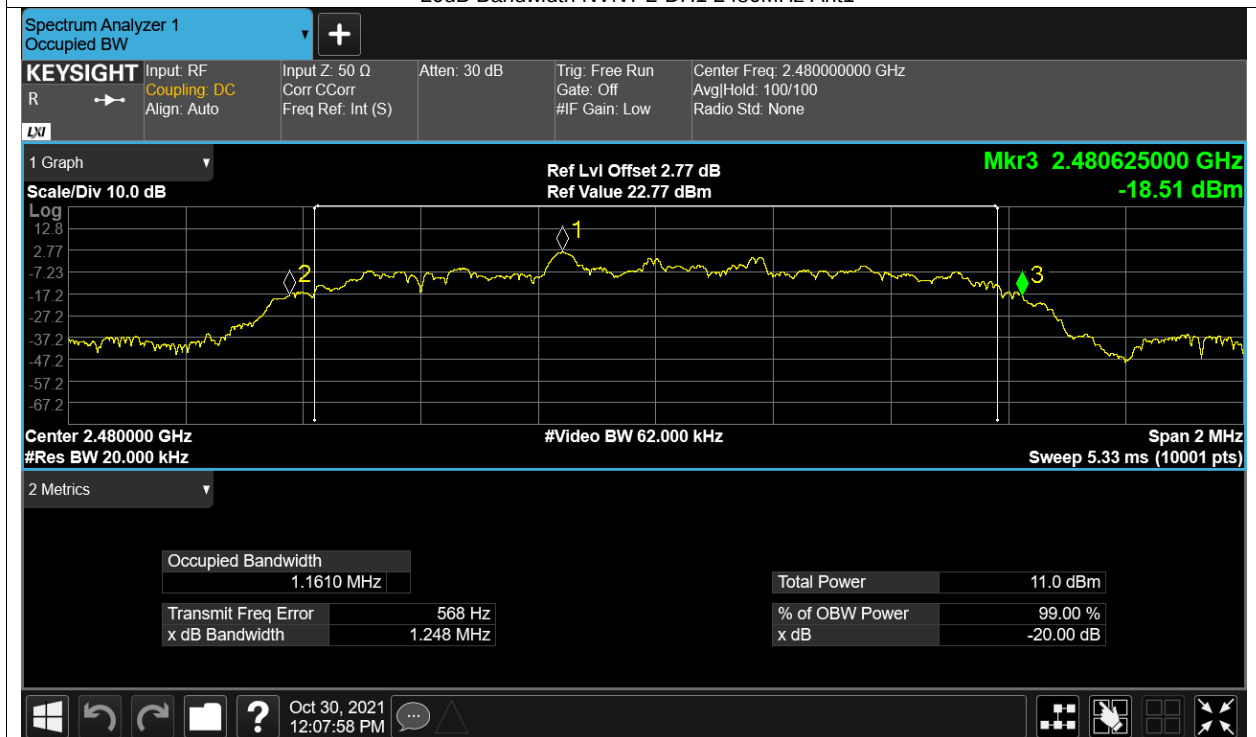
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



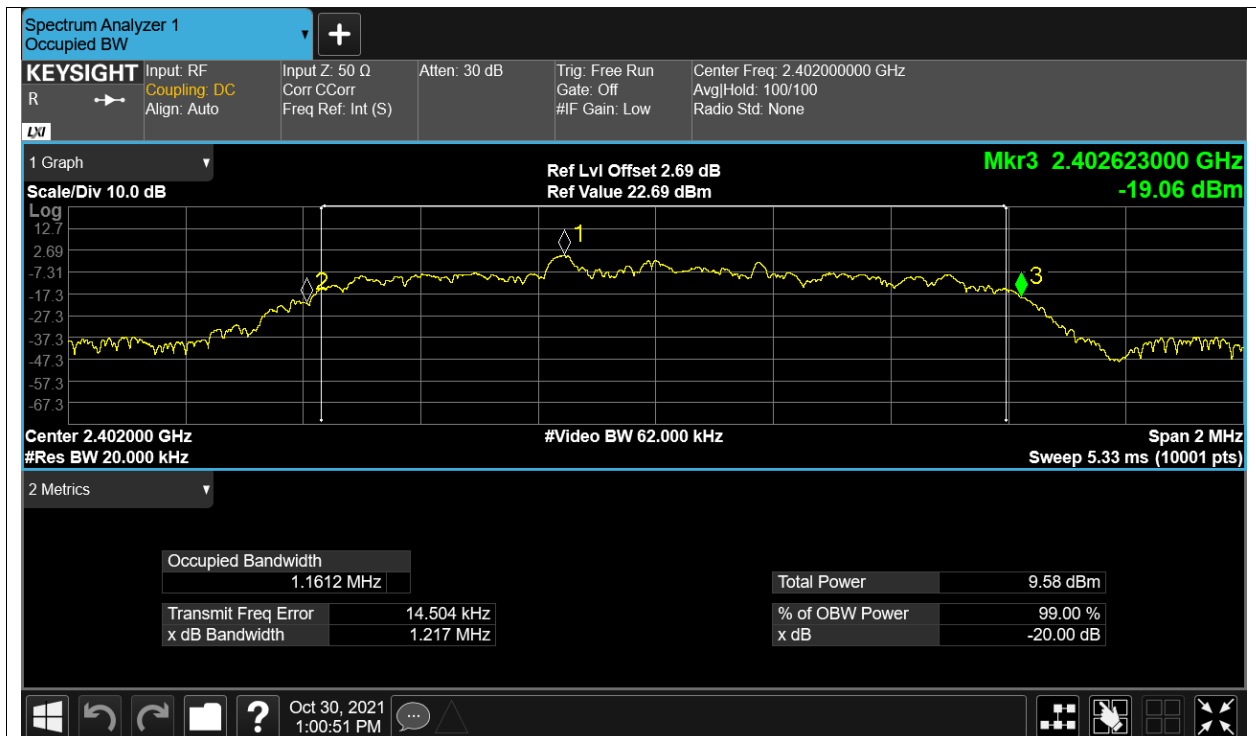
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



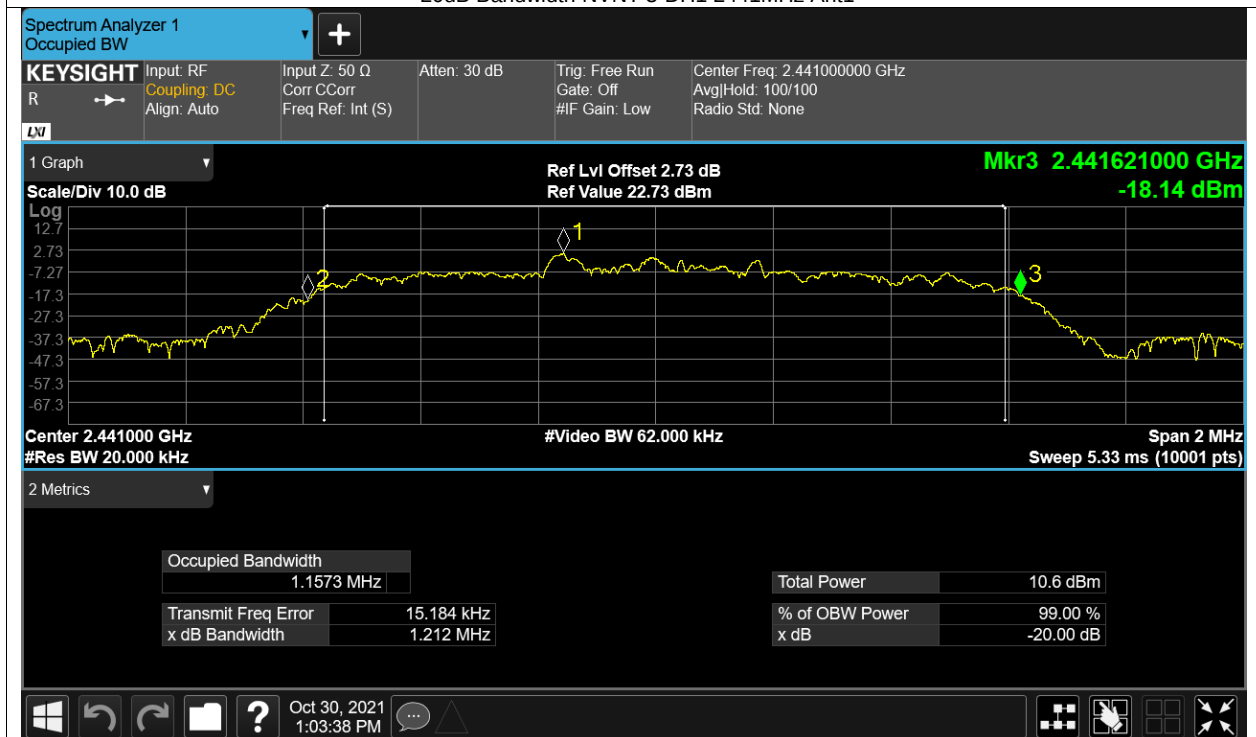
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



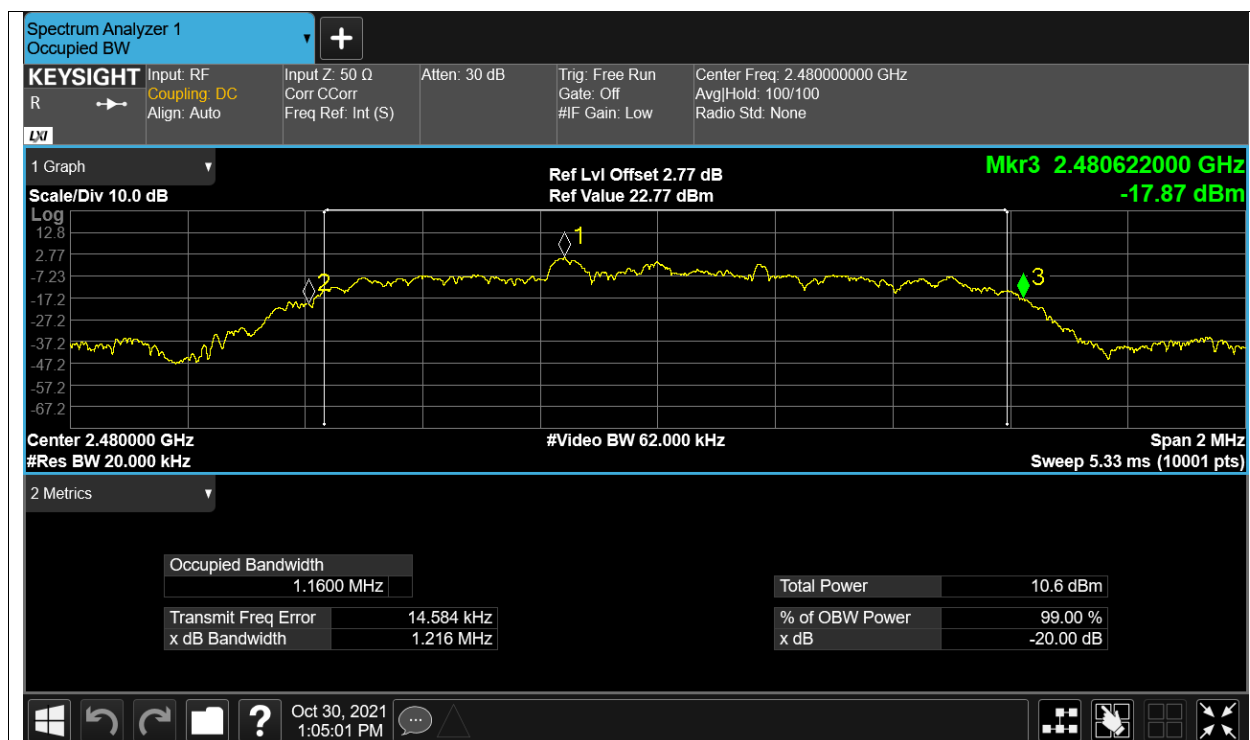
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



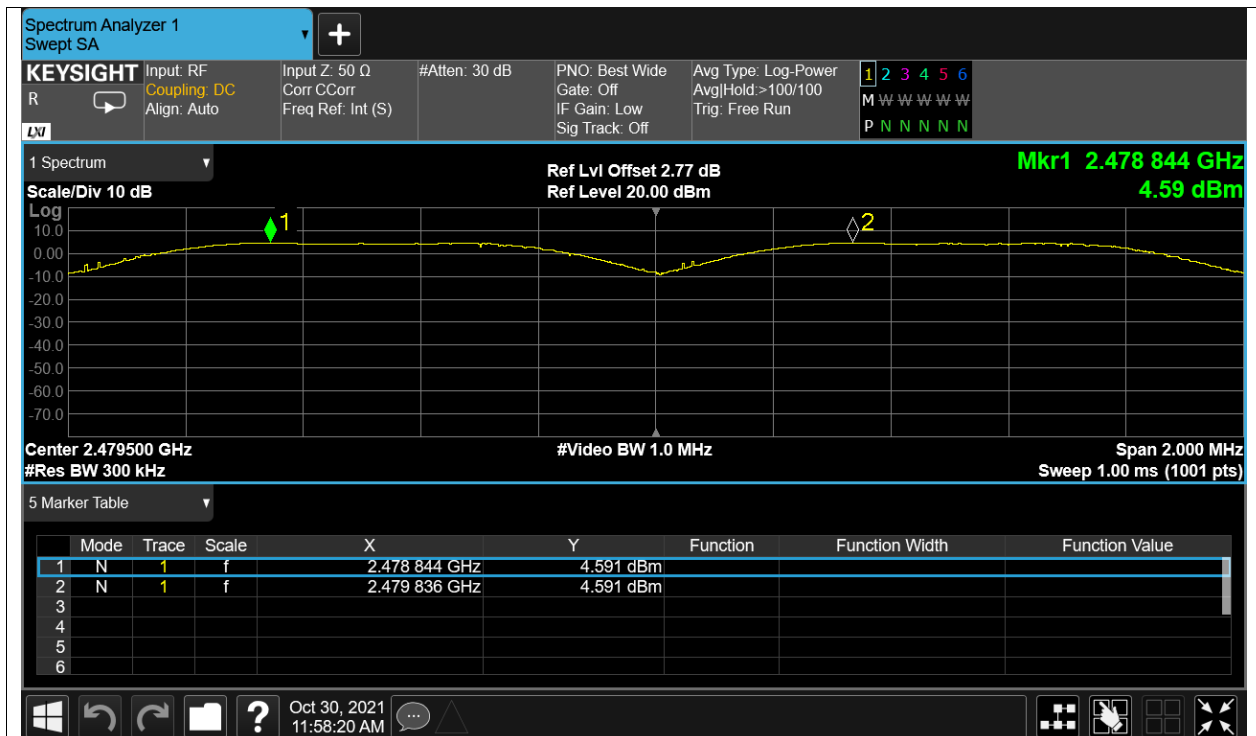
-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1



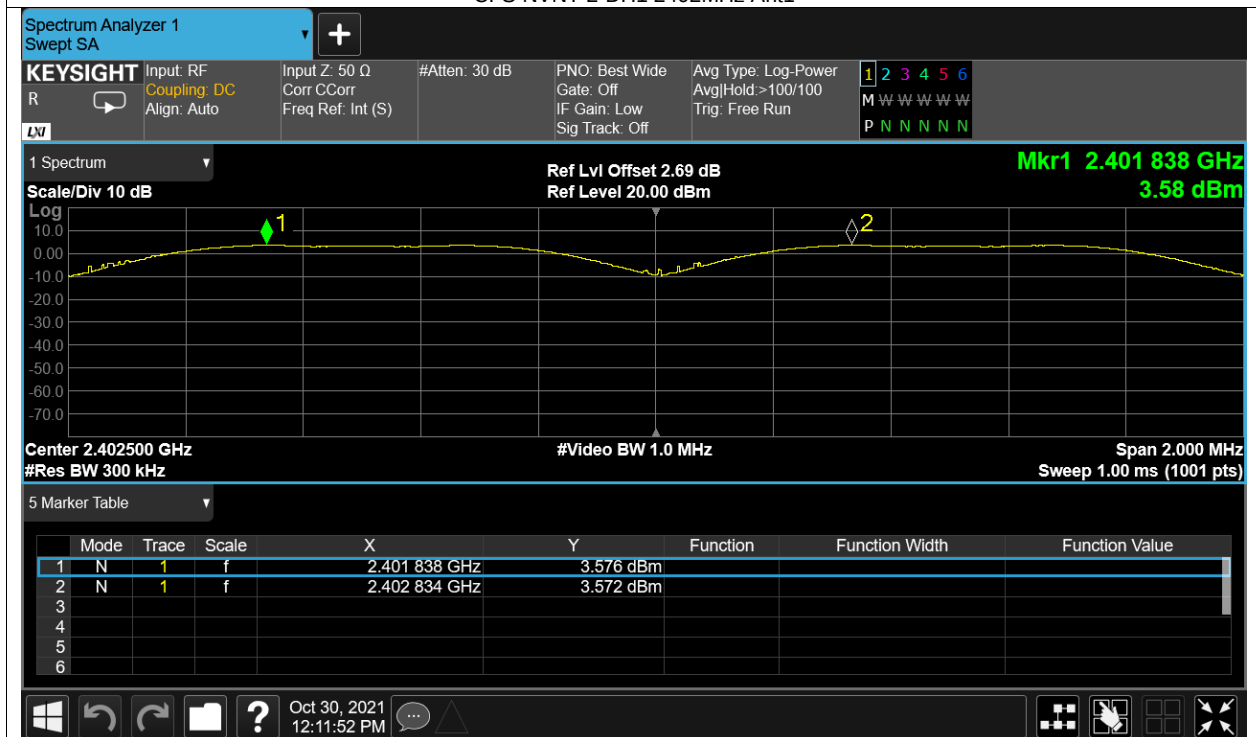
Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2401.834	2402.84	1.006	0.872	Pass
NVNT	1-DH1	Ant1	2440.84	2441.842	1.002	0.785	Pass
NVNT	1-DH1	Ant1	2478.844	2479.836	0.992	0.867	Pass
NVNT	2-DH1	Ant1	2401.838	2402.834	0.996	0.835	Pass
NVNT	2-DH1	Ant1	2440.834	2441.844	1.01	0.834	Pass
NVNT	2-DH1	Ant1	2478.846	2479.834	0.988	0.832	Pass
NVNT	3-DH1	Ant1	2401.836	2402.84	1.004	0.811	Pass
NVNT	3-DH1	Ant1	2440.85	2441.834	0.984	0.808	Pass
NVNT	3-DH1	Ant1	2478.844	2479.842	0.998	0.811	Pass

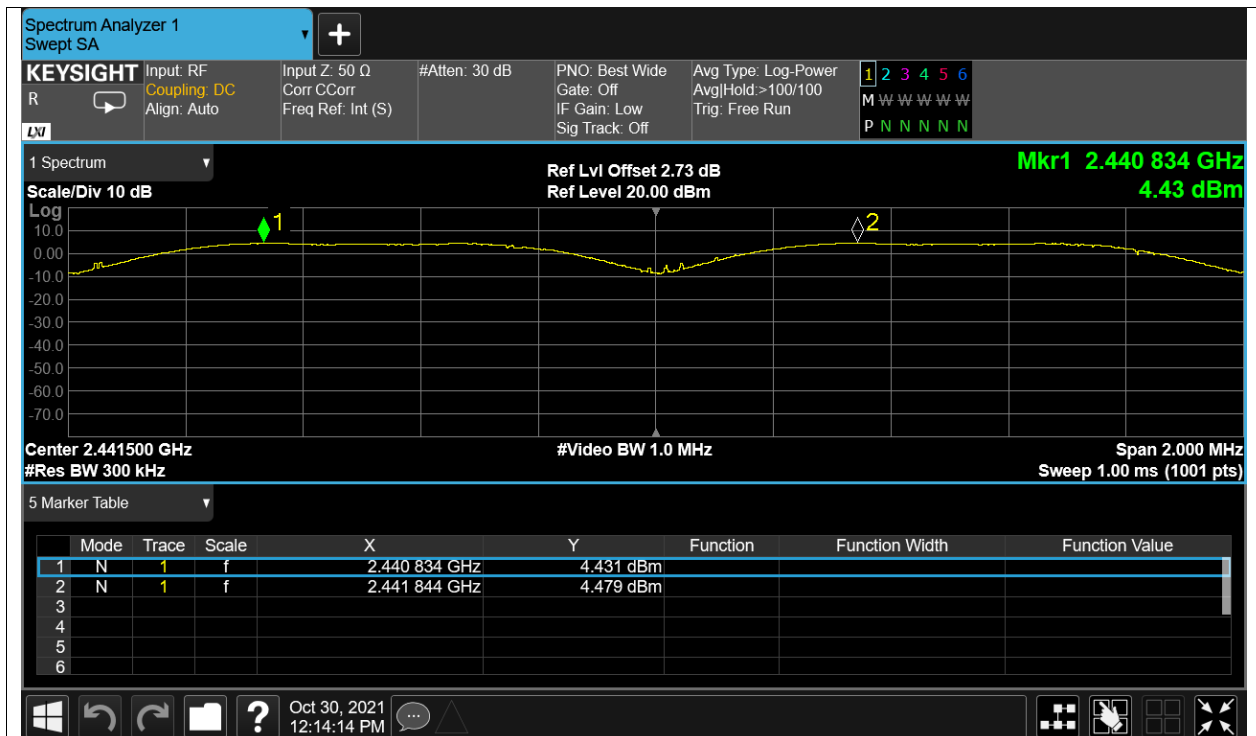




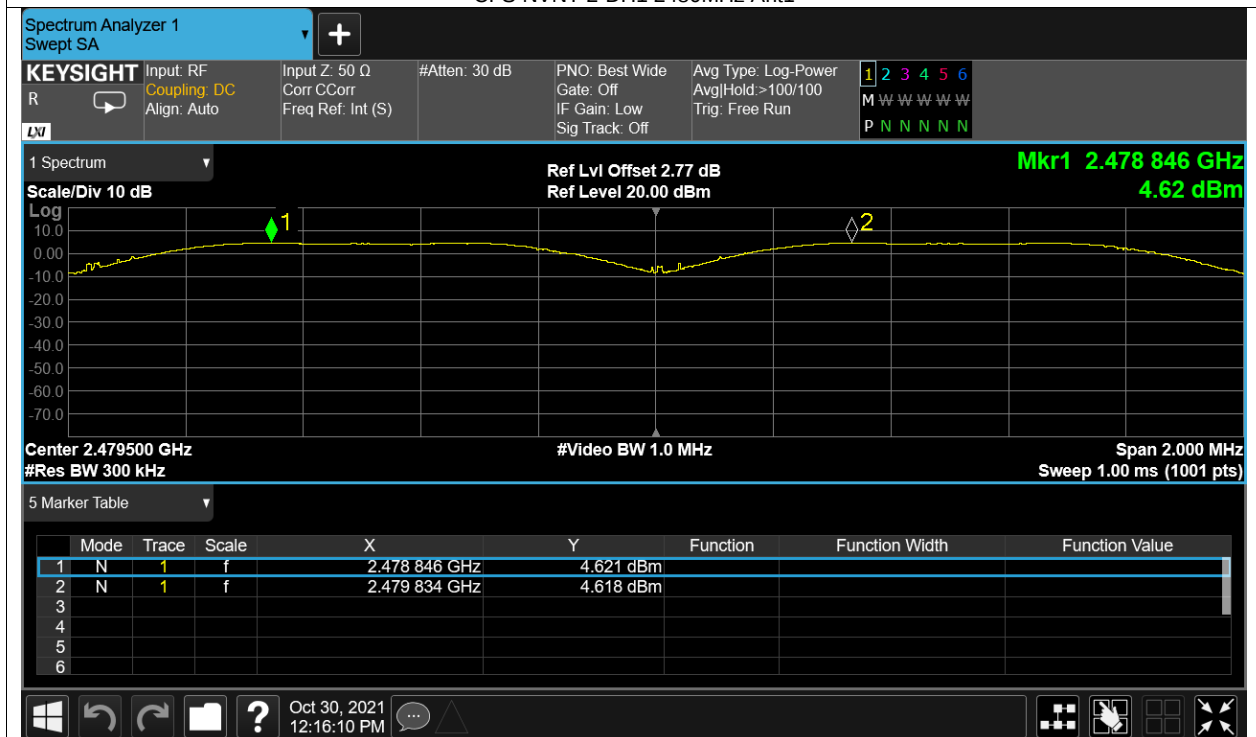
CFS NVNT 2-DH1 2402MHz Ant1



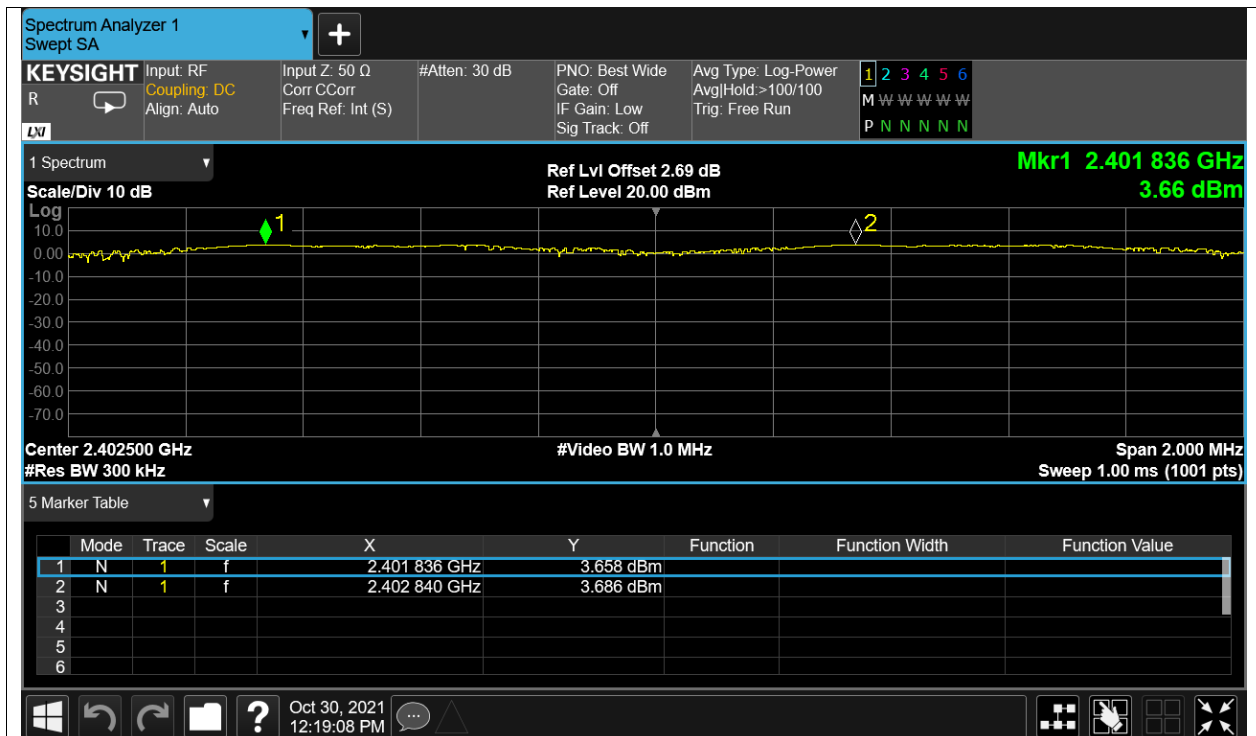
CFS NVNT 2-DH1 2441MHz Ant1



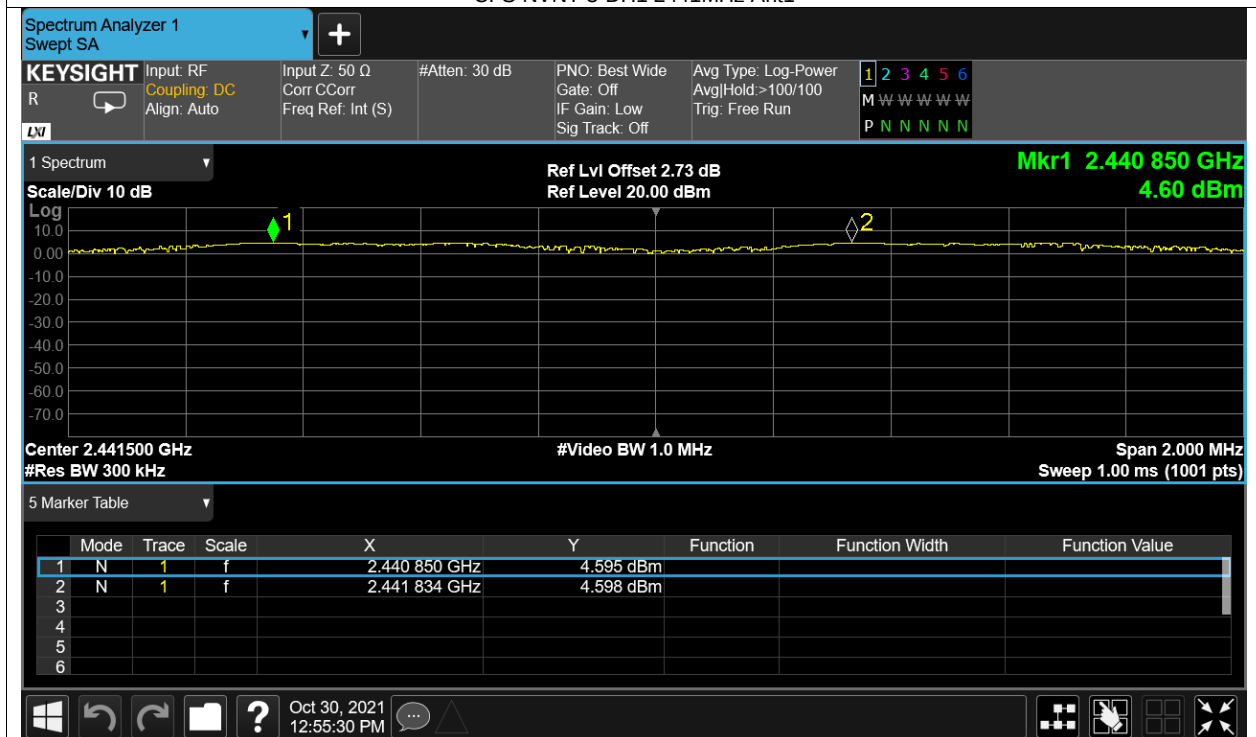
CFS NVNT 2-DH1 2480MHz Ant1



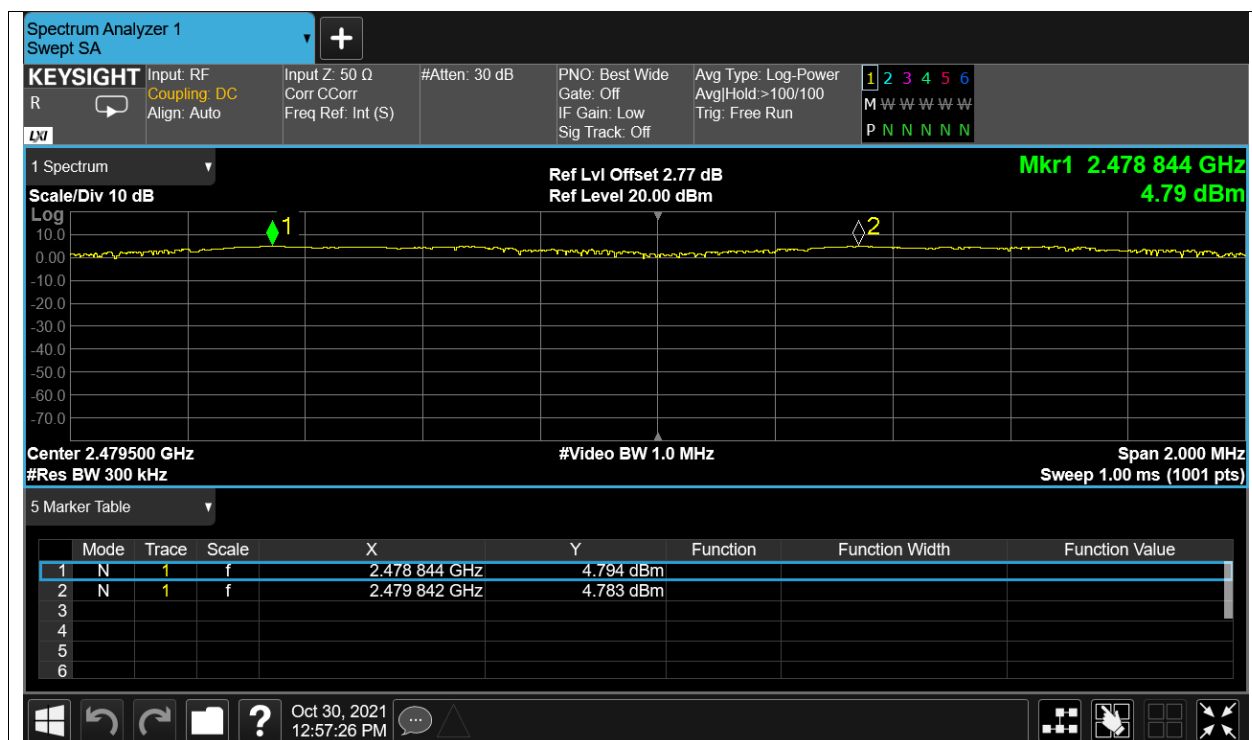
CFS NVNT 3-DH1 2402MHz Ant1



CFS NVNT 3-DH1 2441MHz Ant1

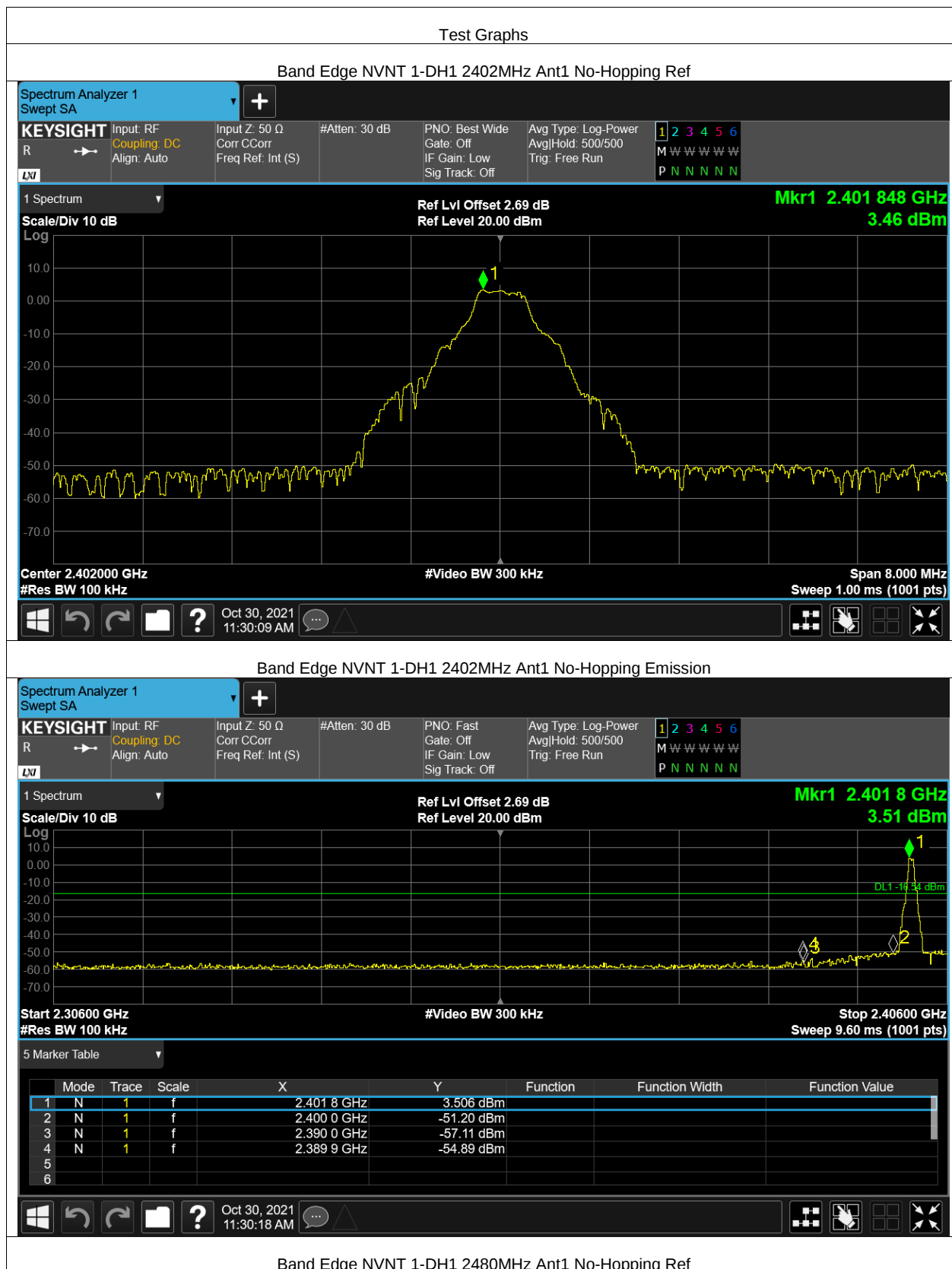


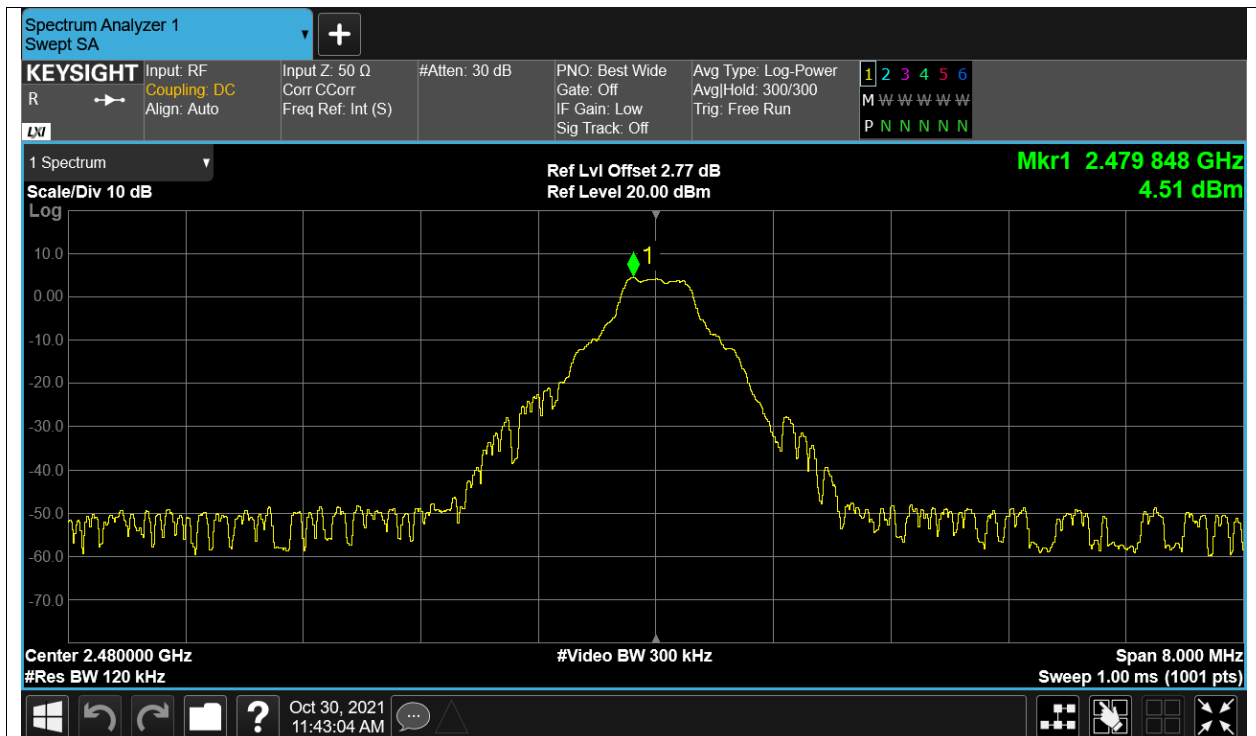
CFS NVNT 3-DH1 2480MHz Ant1



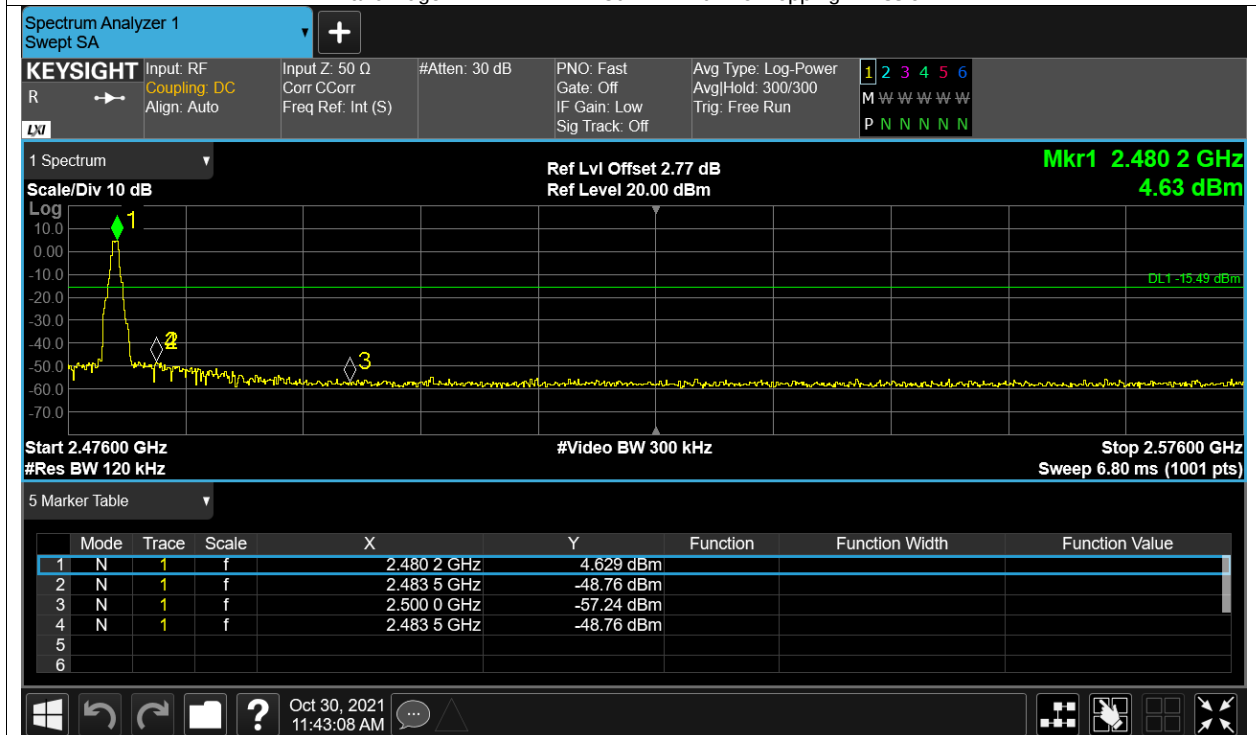
Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-58.35	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-53.26	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-58.97	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-54.62	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-59.39	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-54.8	-20	Pass

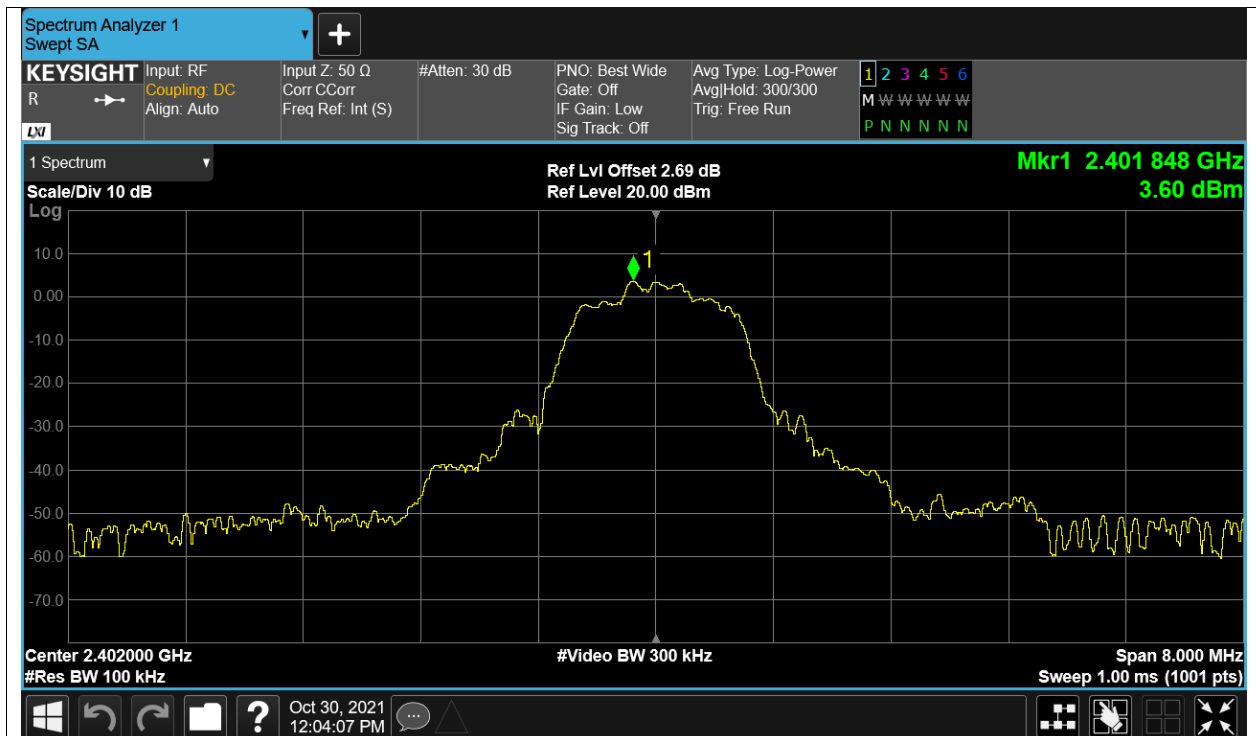




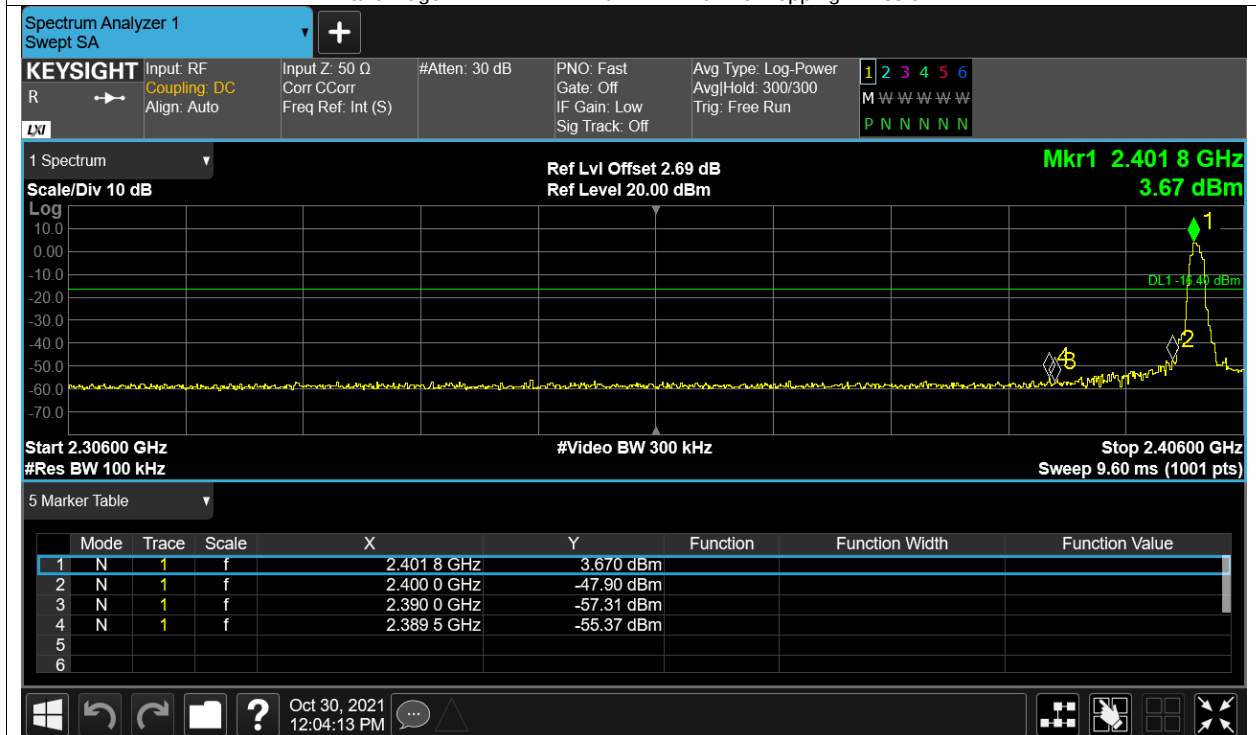
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



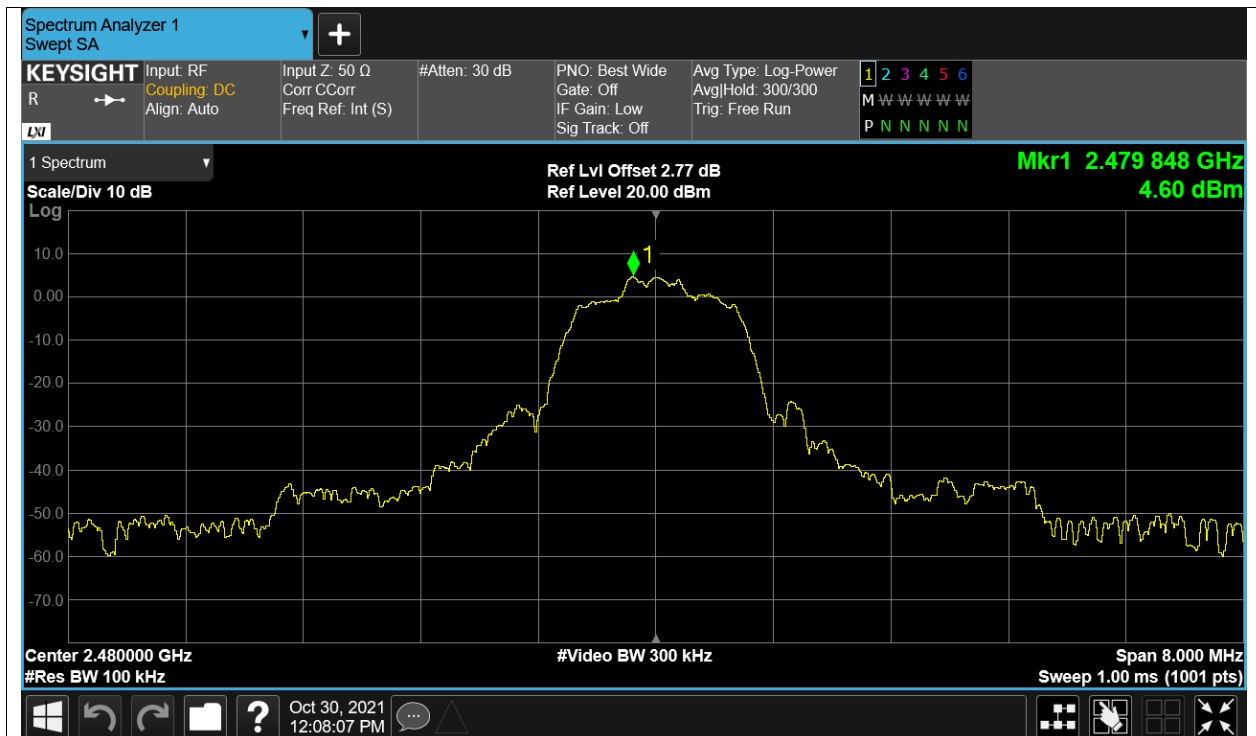
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



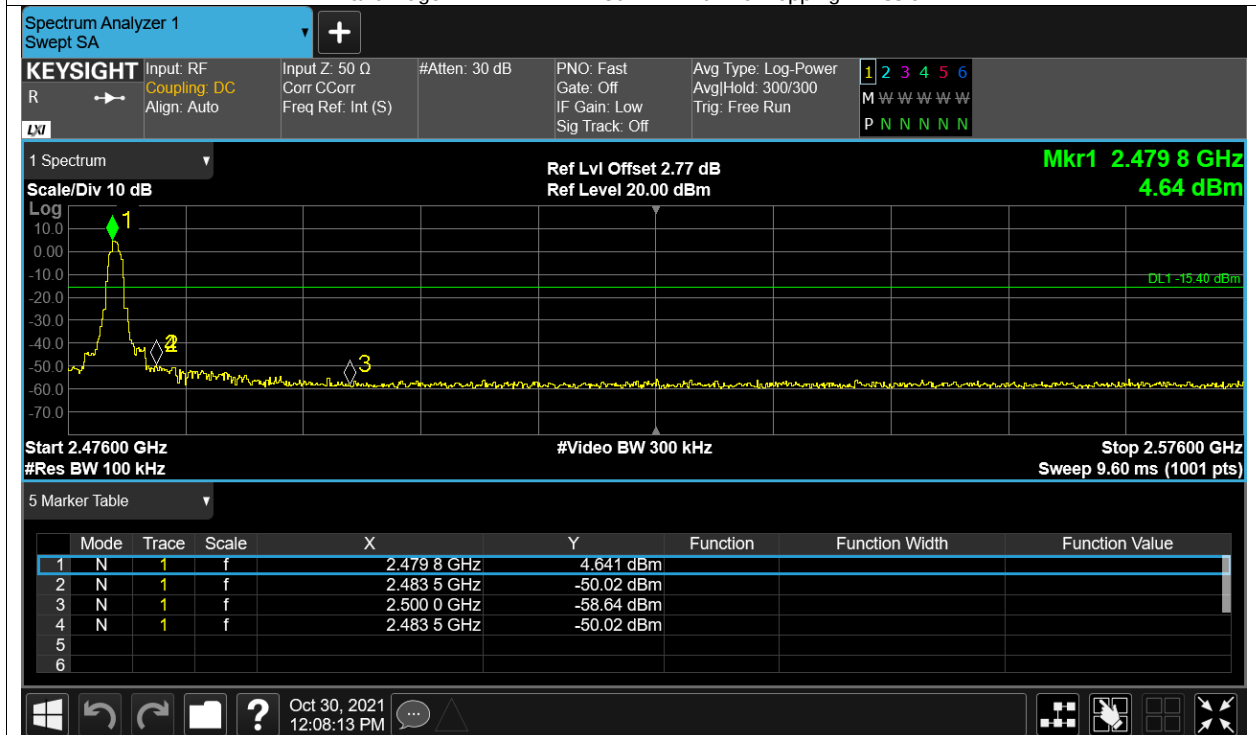
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



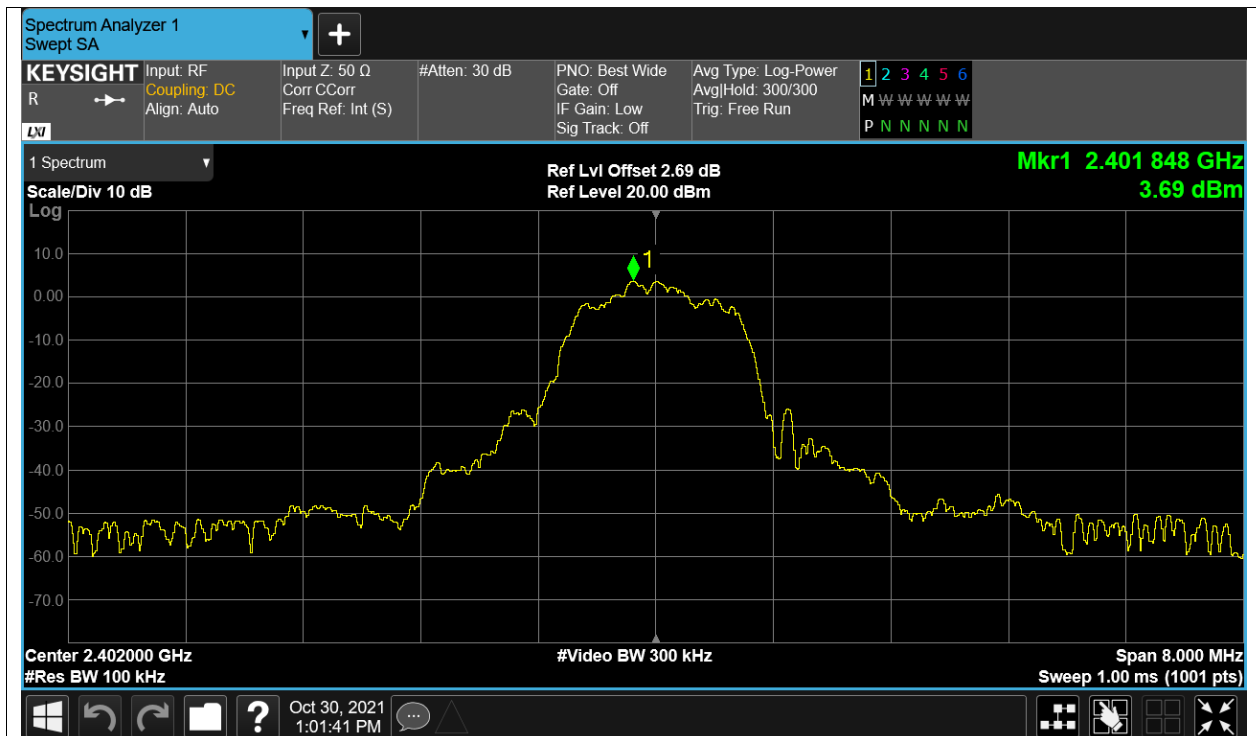
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



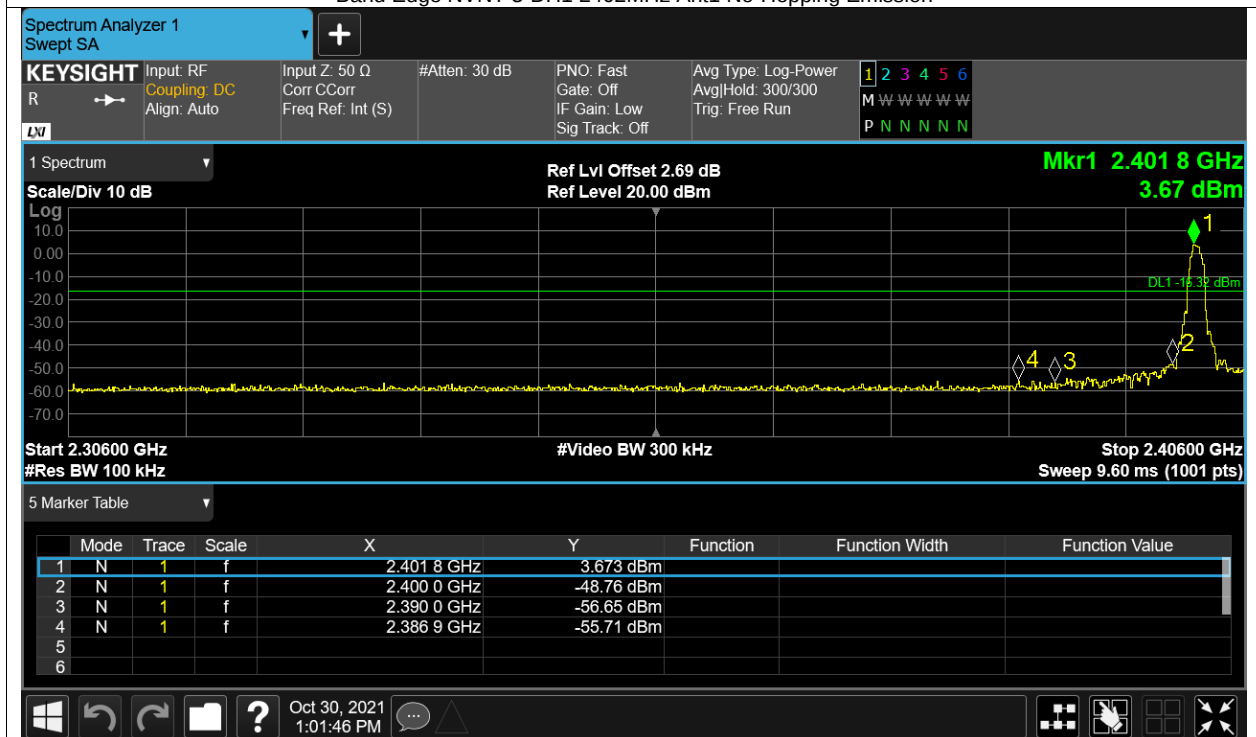
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



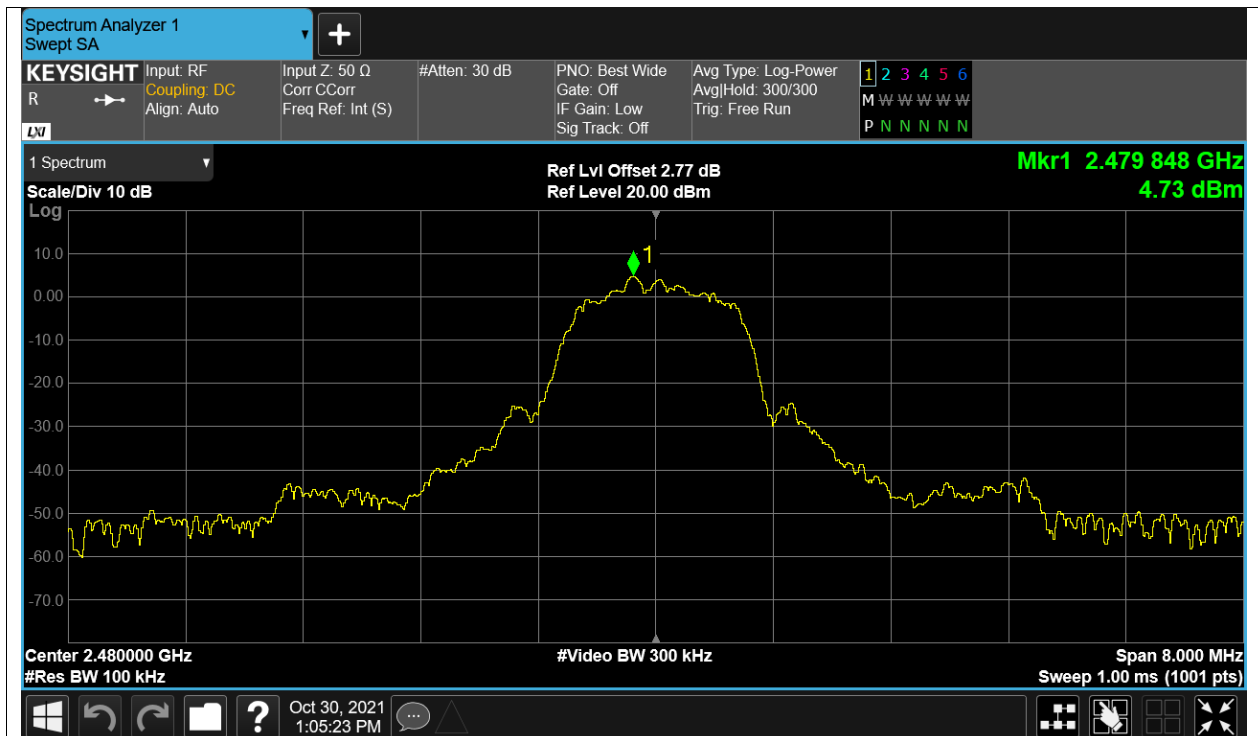
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



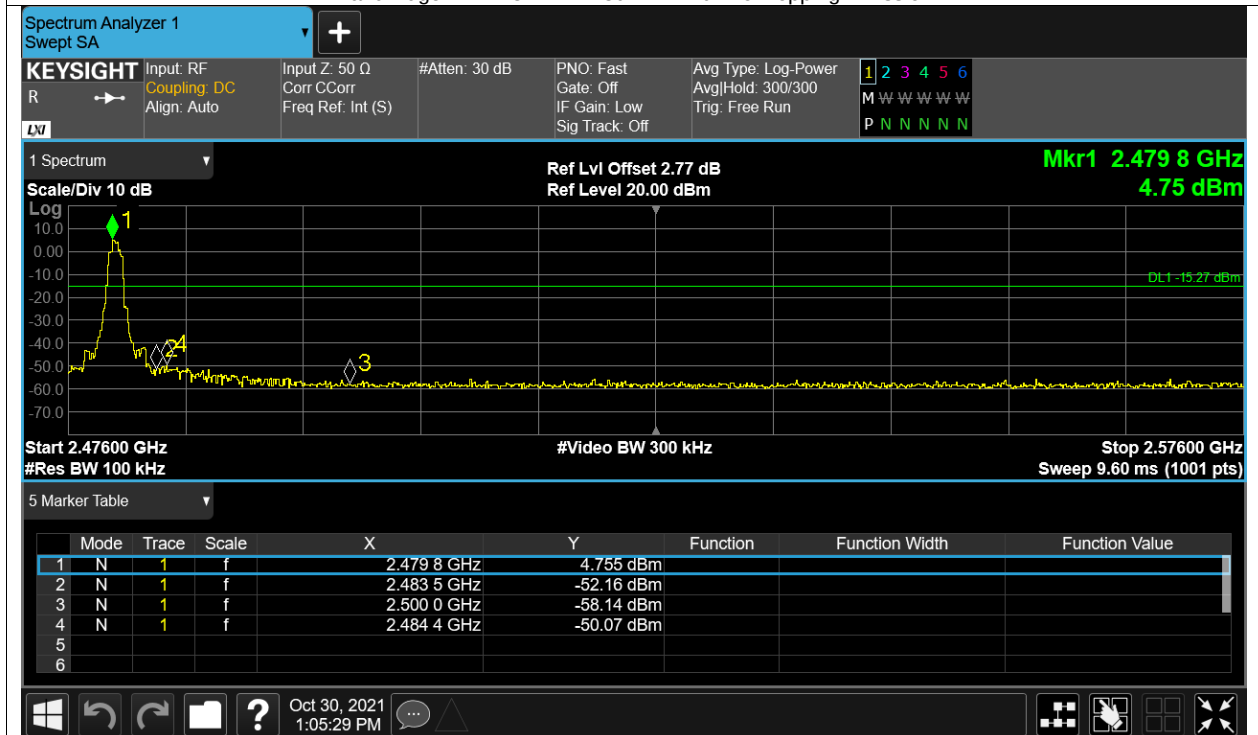
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



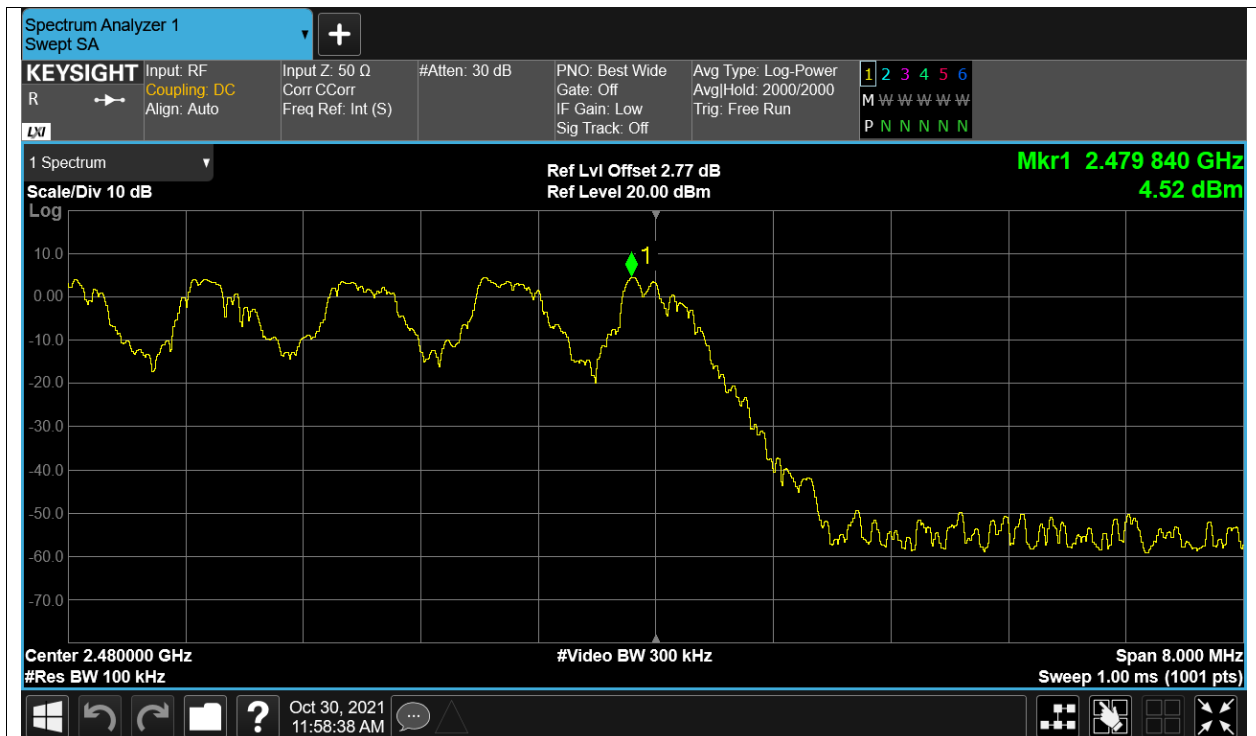
Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Emission



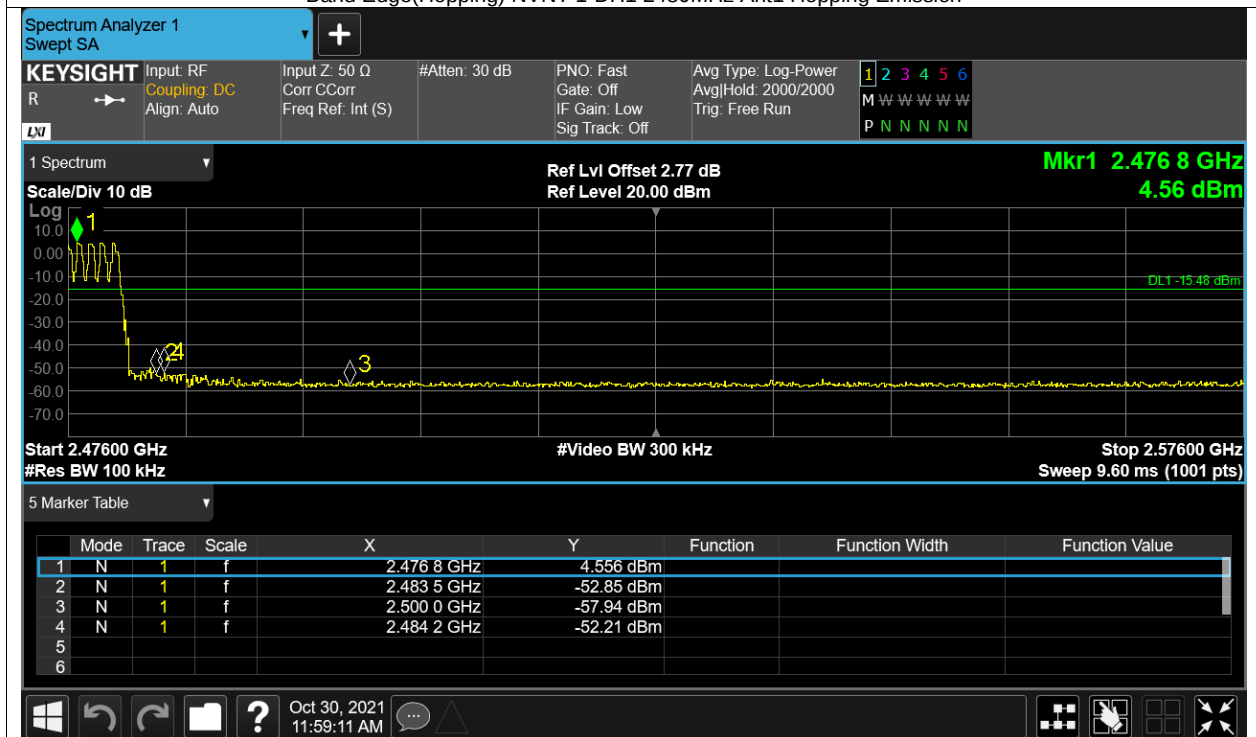
Band Edge(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-63.79	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-56.72	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-58.76	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-56.71	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-59.22	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-55.33	-20	Pass

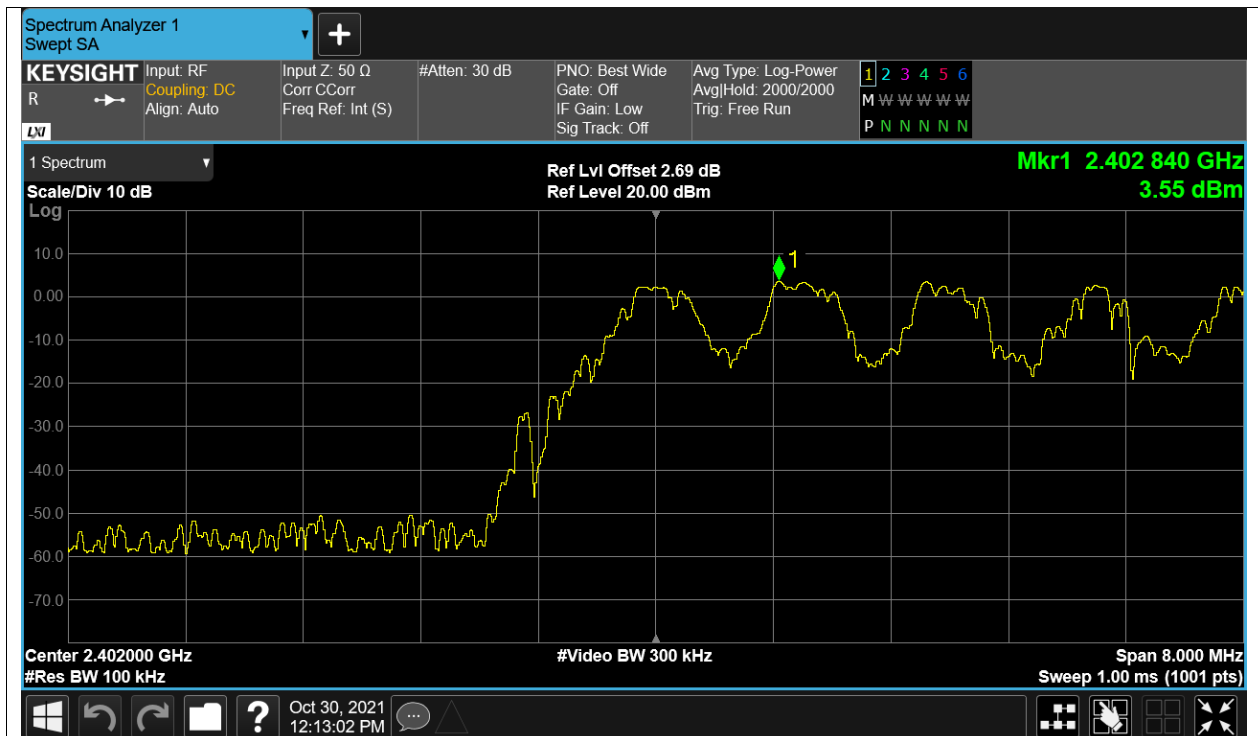




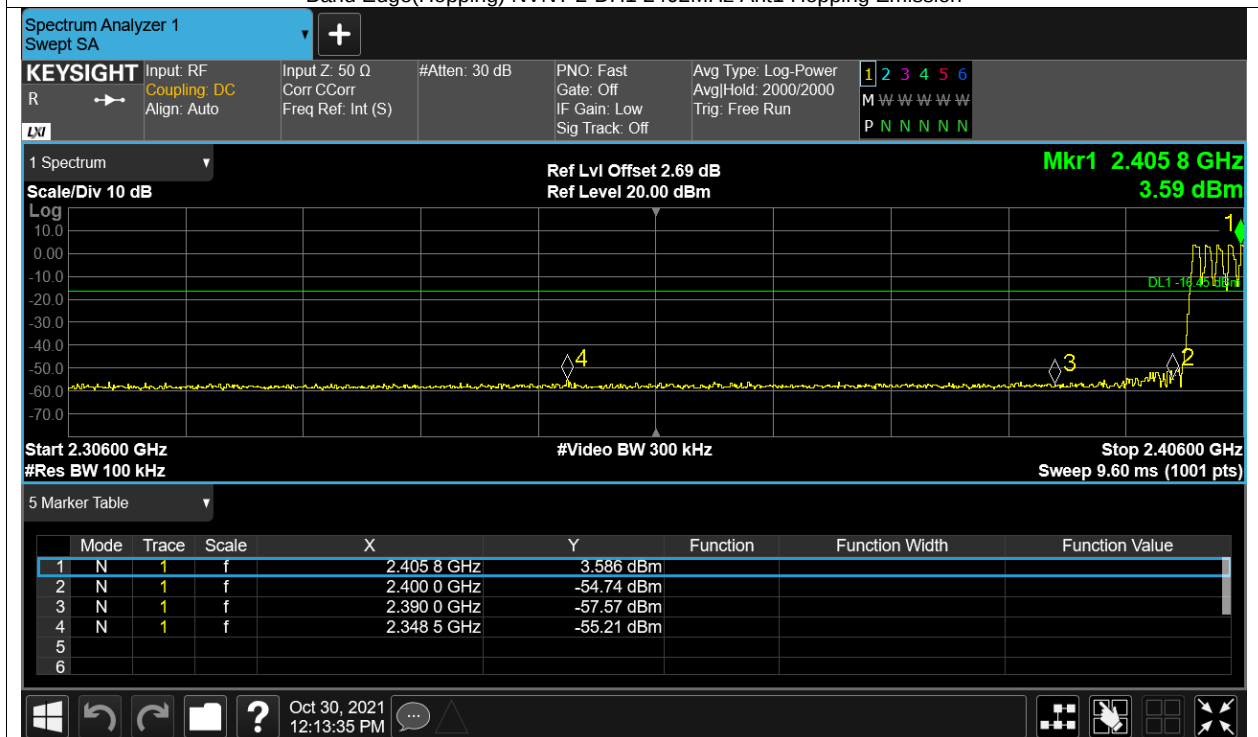
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



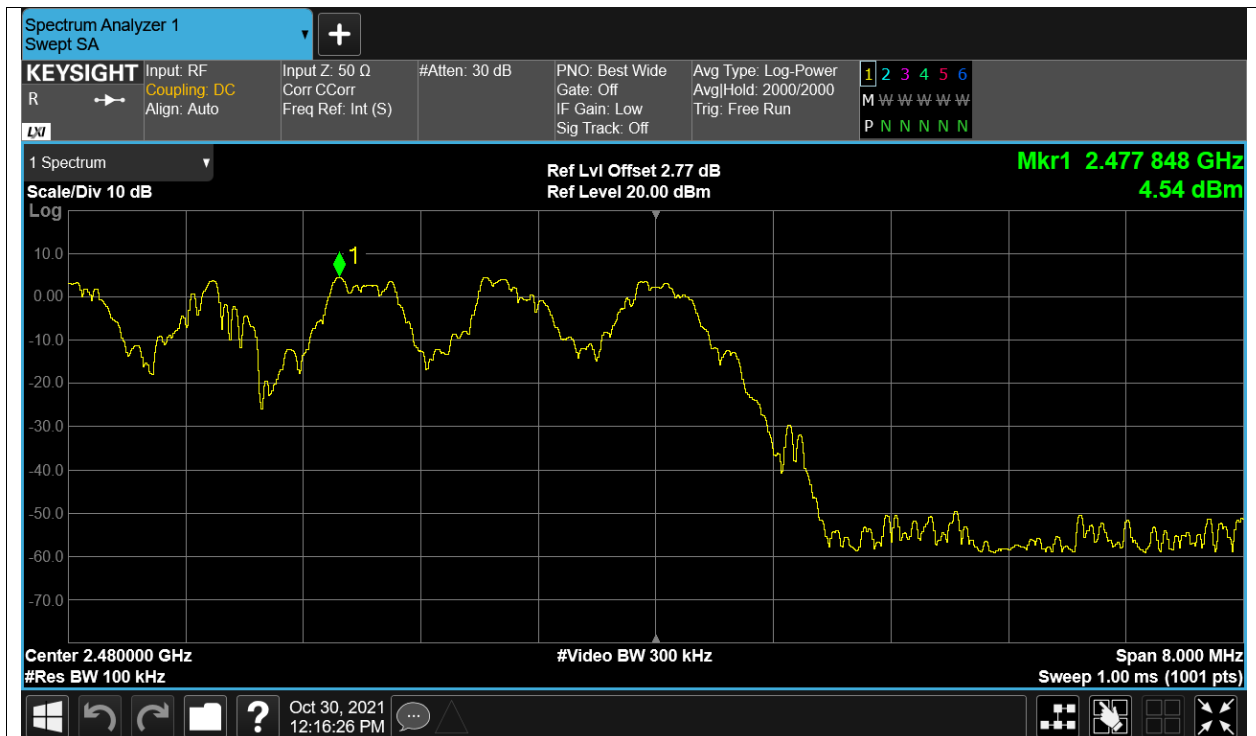
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



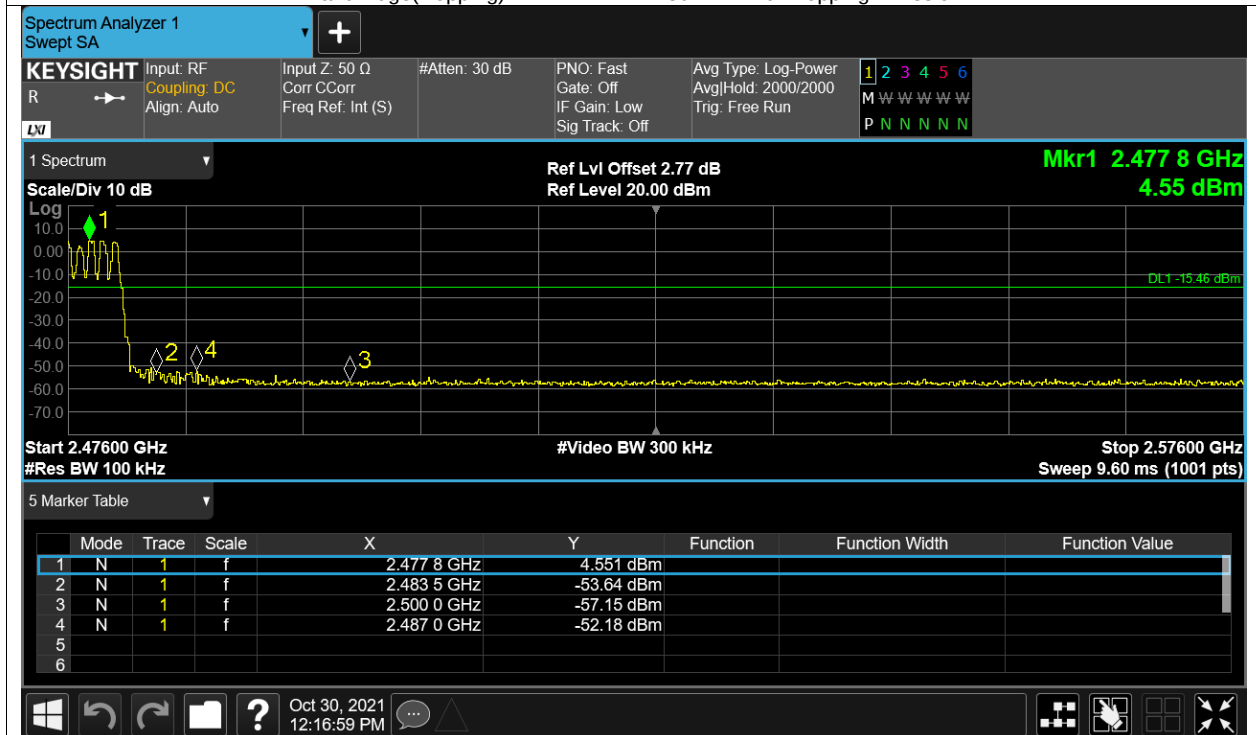
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



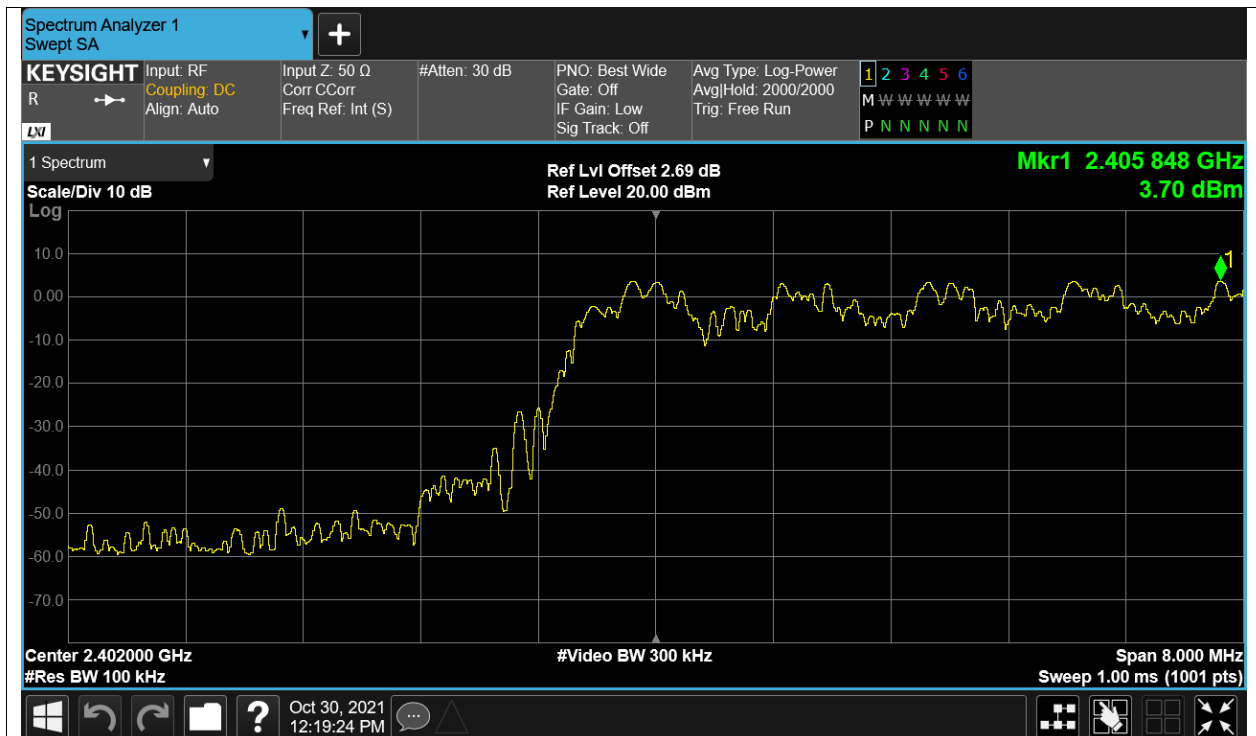
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



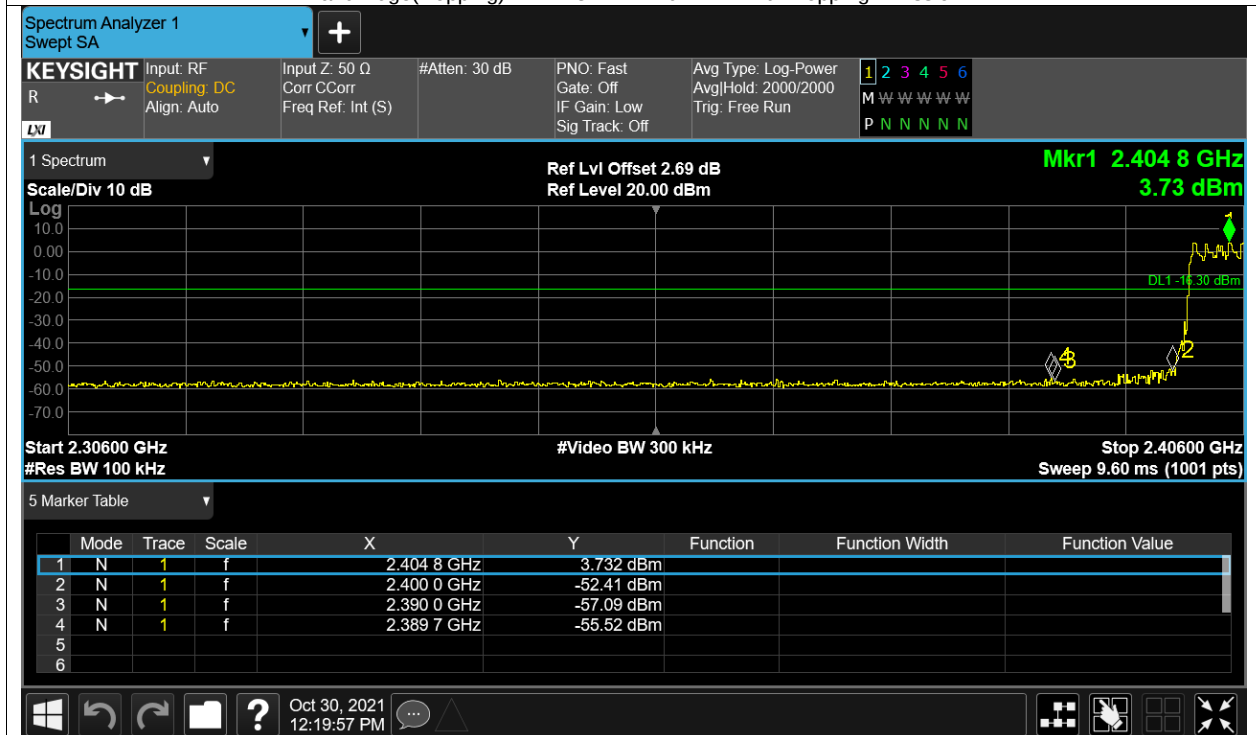
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



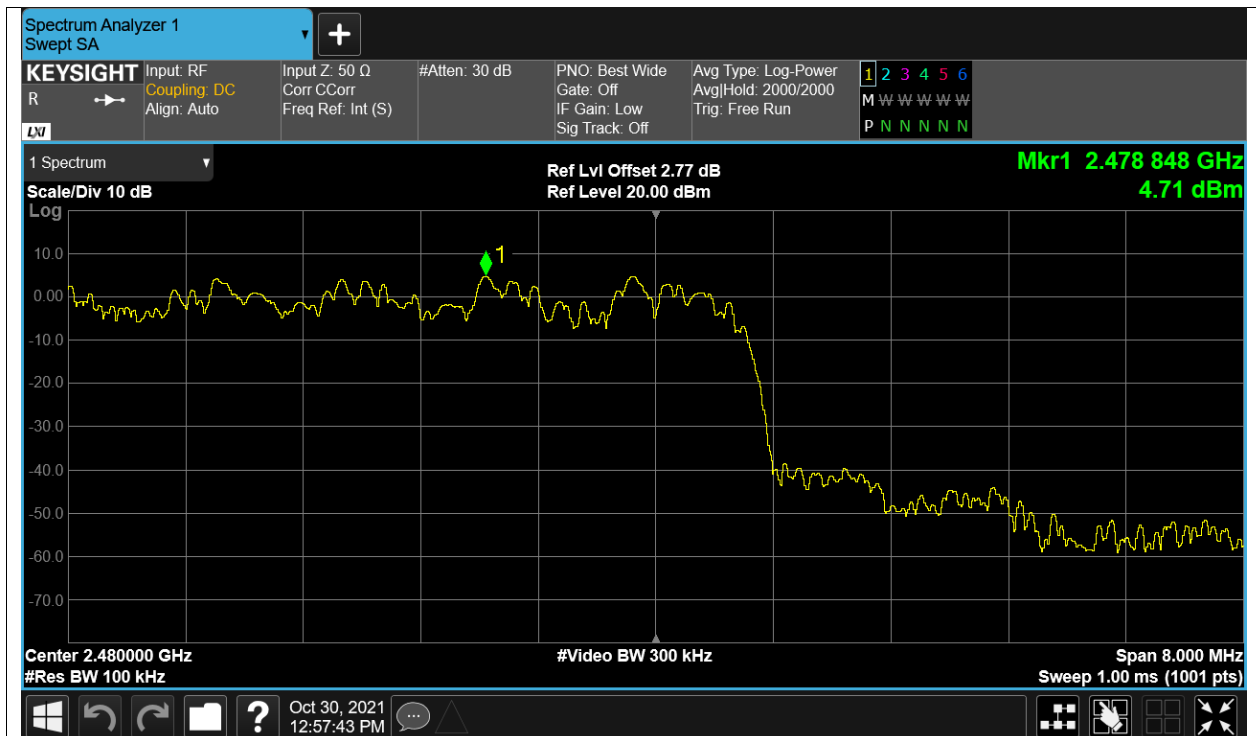
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



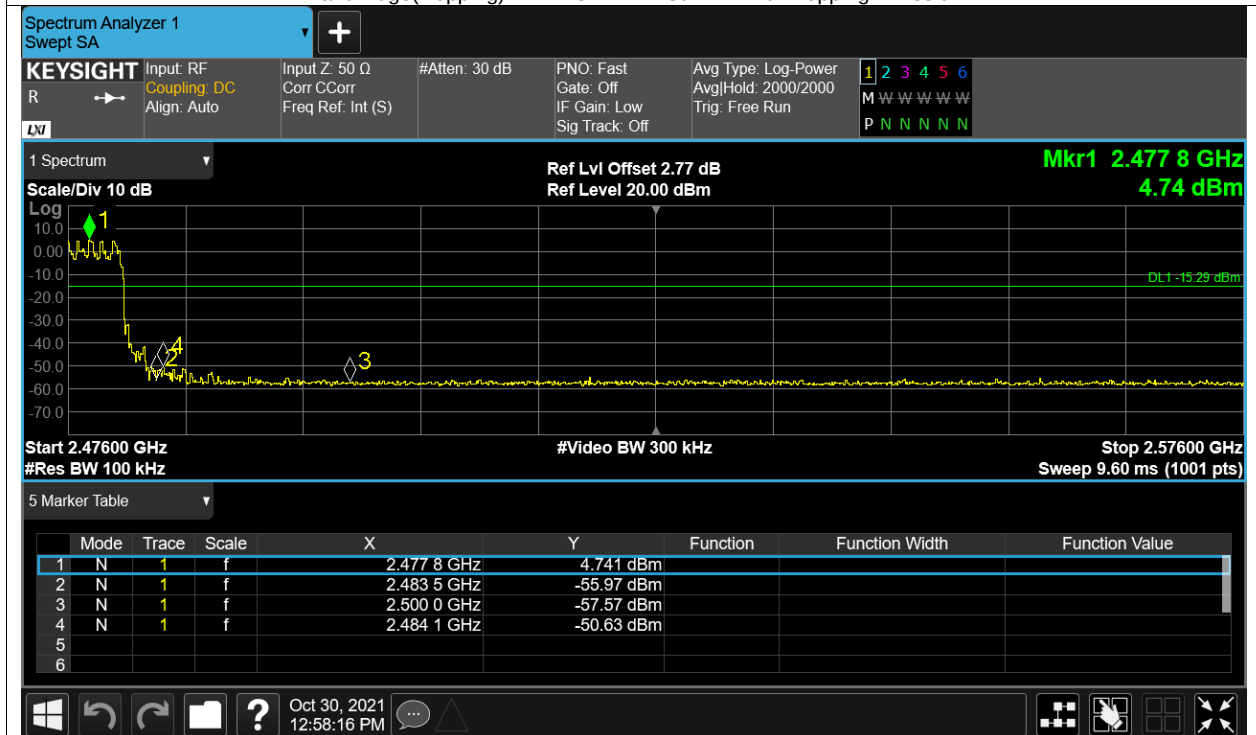
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Ref



Band Edge(Hopping) NVNT 3-DH1 2480MHz Ant1 Hopping Emission

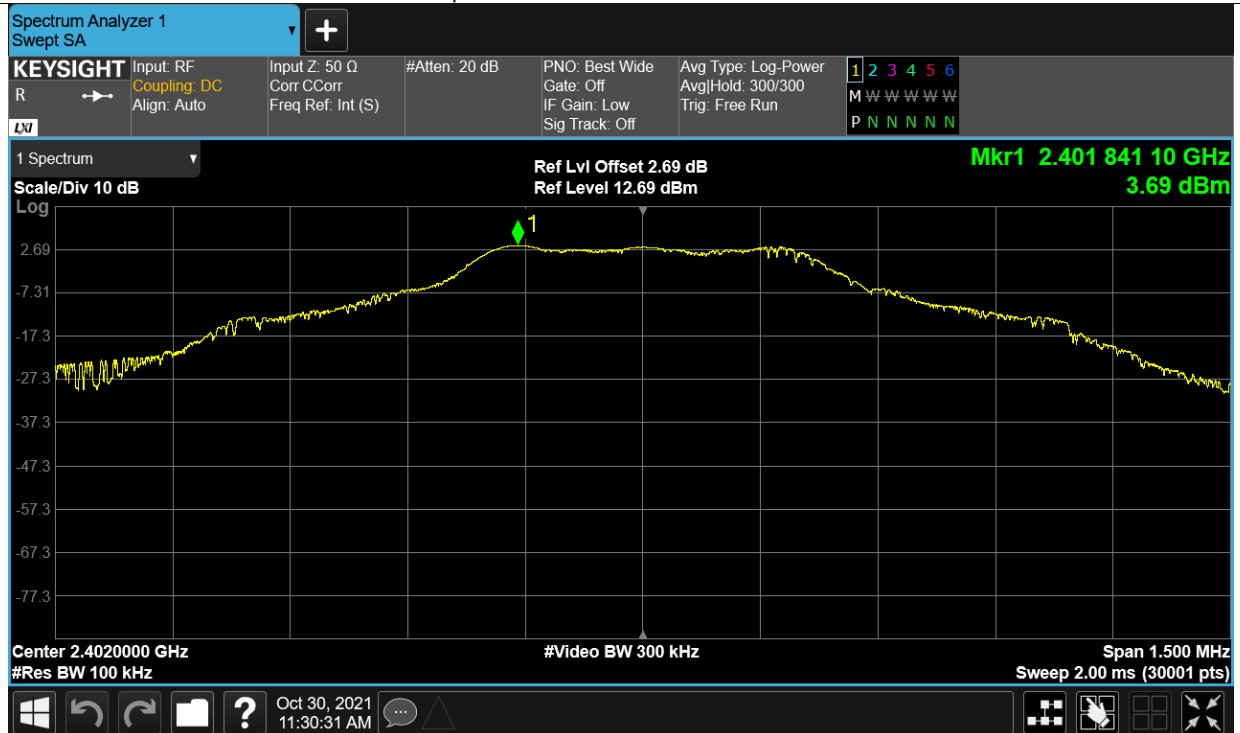


Conducted RF Spurious Emission

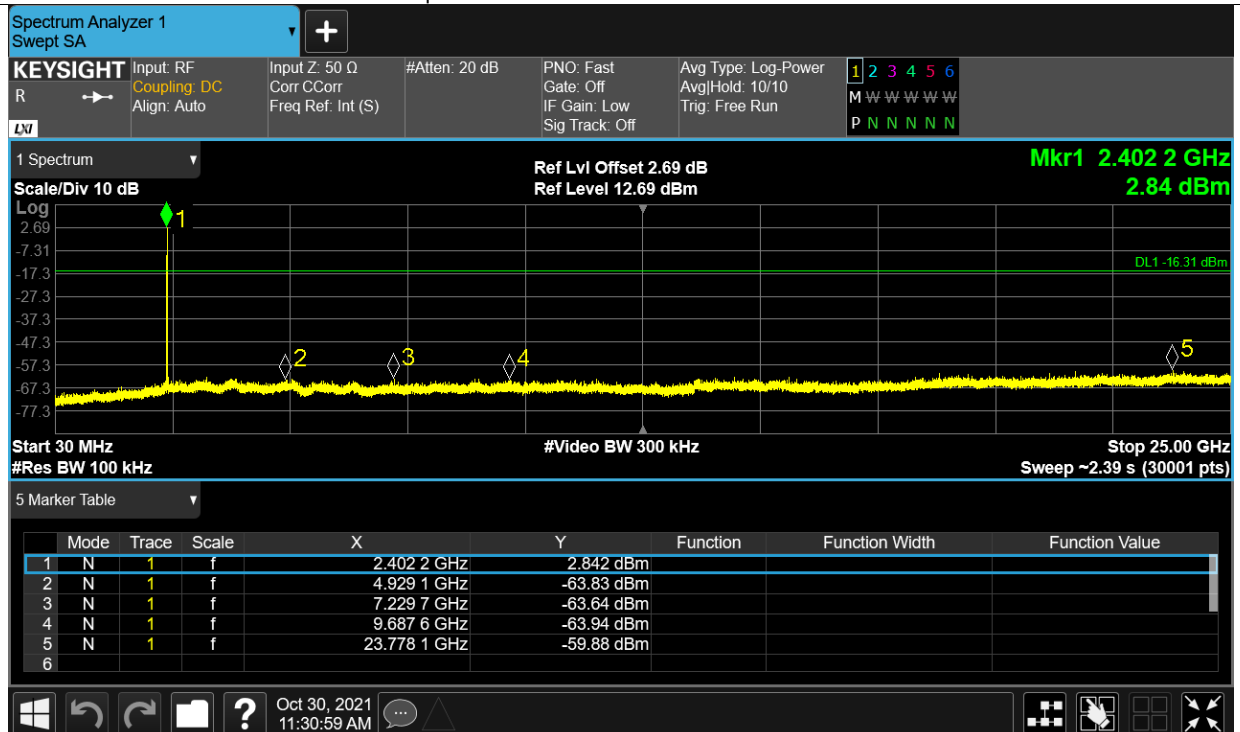
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-63.57	-20	Pass
NVNT	1-DH1	2441	Ant1	-64.62	-20	Pass
NVNT	1-DH1	2480	Ant1	-64.93	-20	Pass
NVNT	2-DH1	2402	Ant1	-63.97	-20	Pass
NVNT	2-DH1	2441	Ant1	-64.68	-20	Pass
NVNT	2-DH1	2480	Ant1	-63.84	-20	Pass
NVNT	3-DH1	2402	Ant1	-63.9	-20	Pass
NVNT	3-DH1	2441	Ant1	-63.44	-20	Pass
NVNT	3-DH1	2480	Ant1	-63.44	-20	Pass

Test Graphs

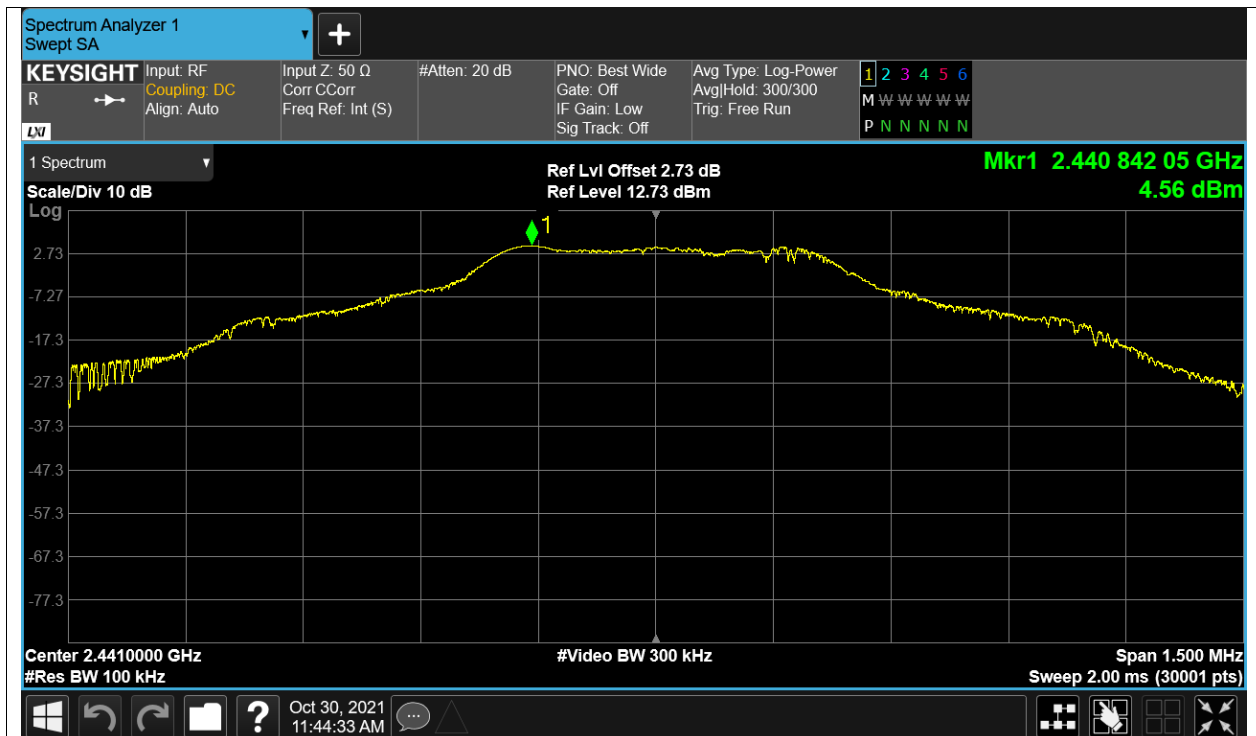
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



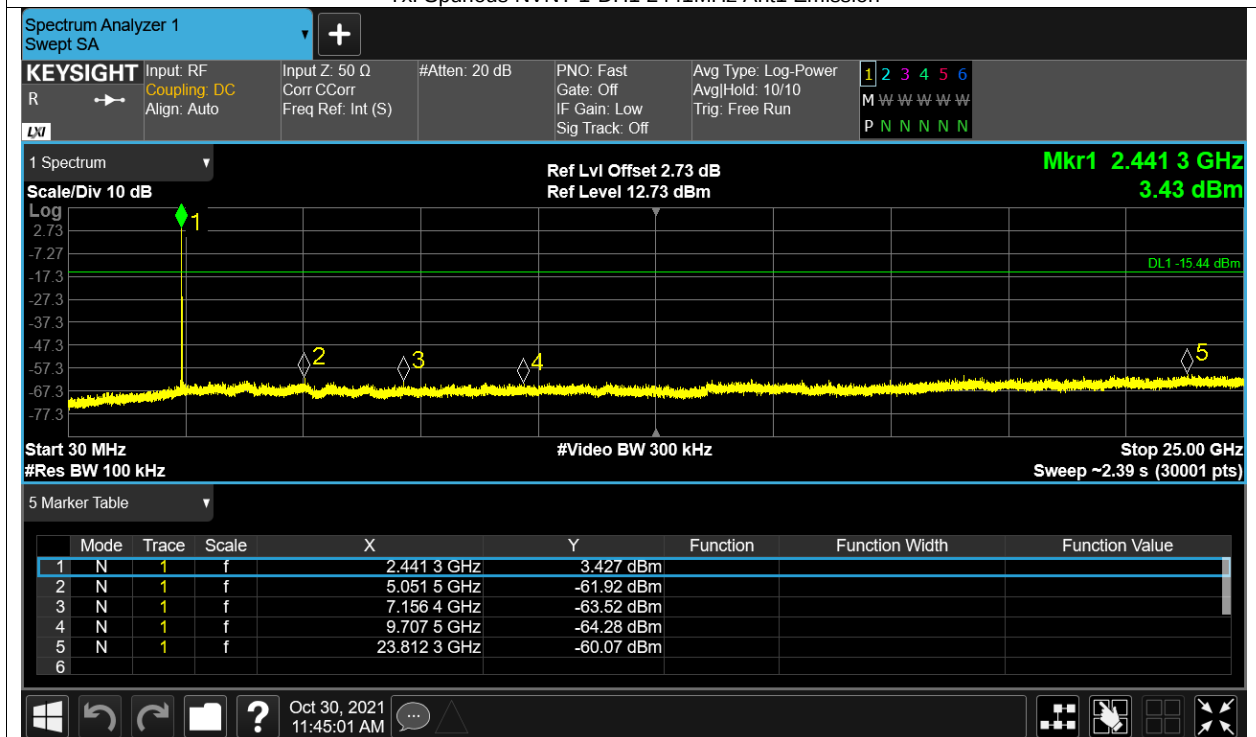
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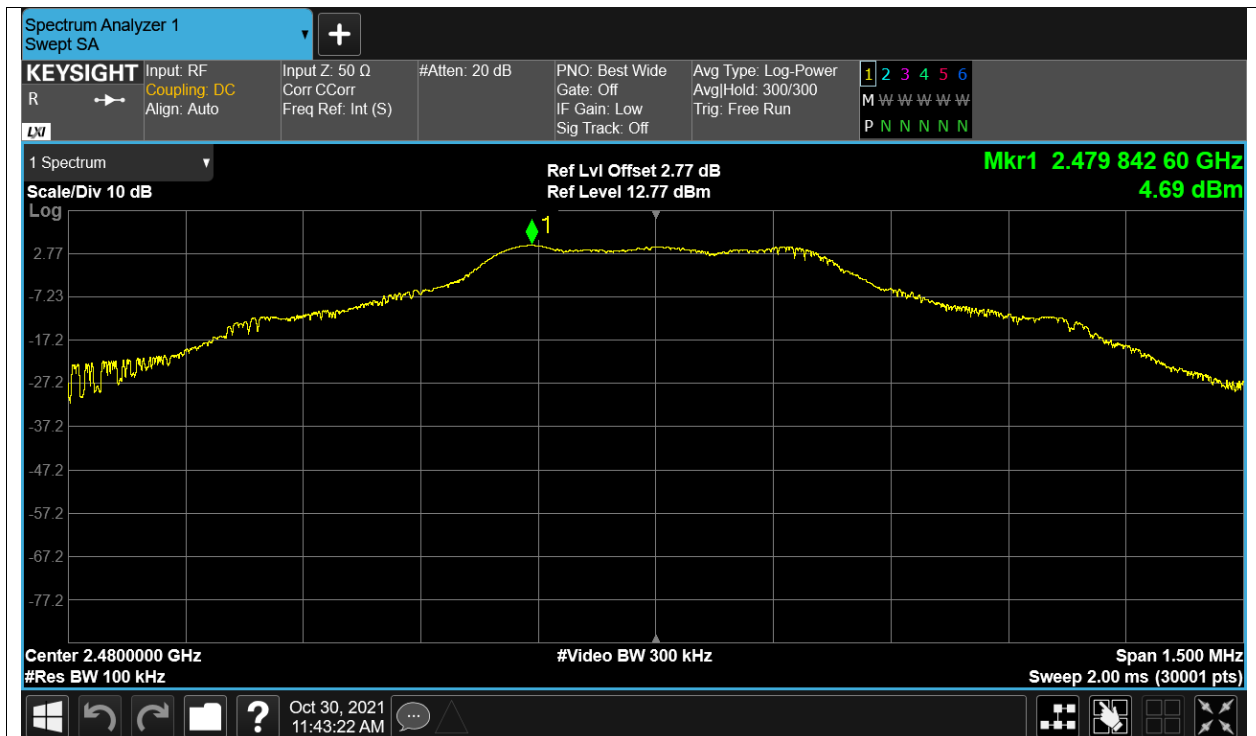
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



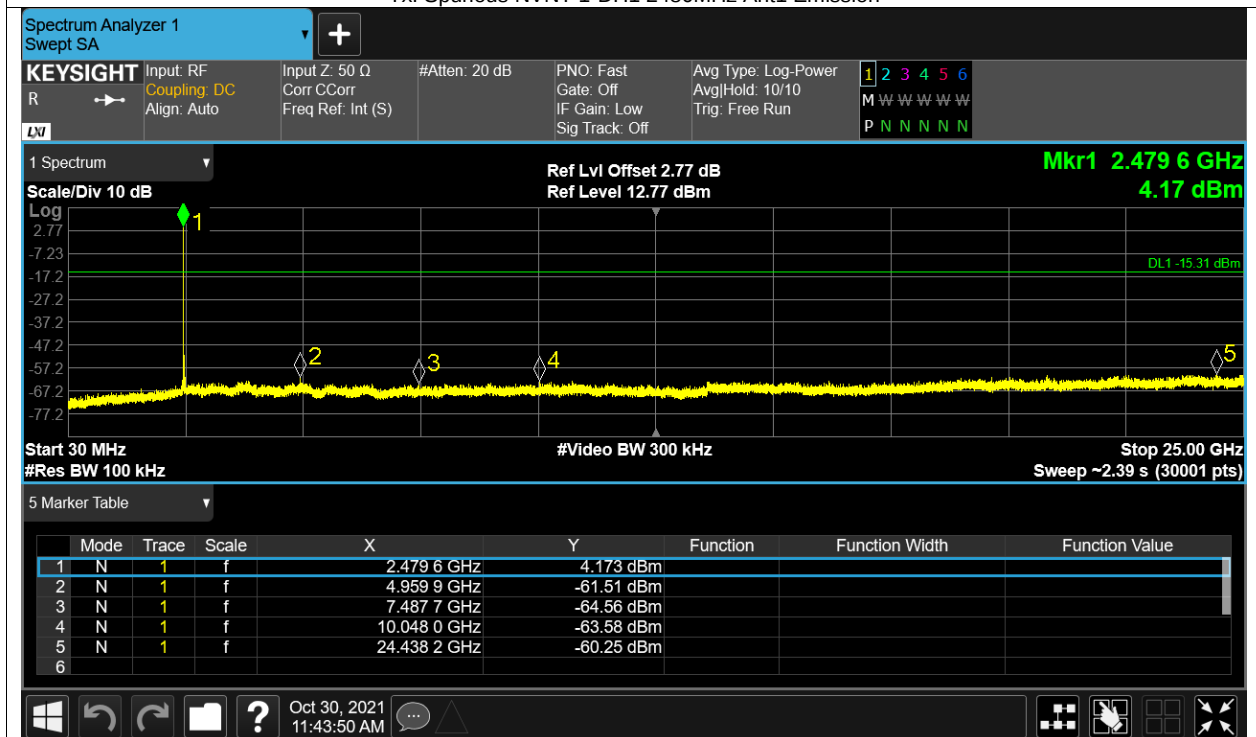
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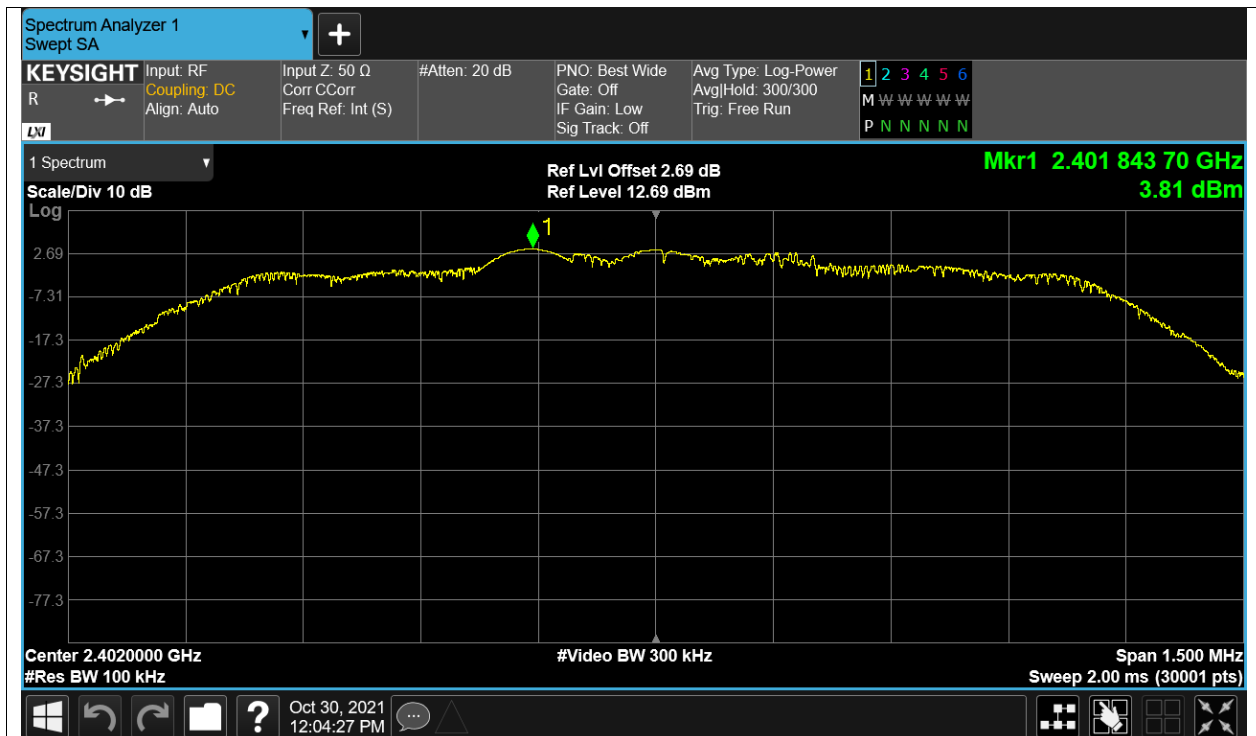
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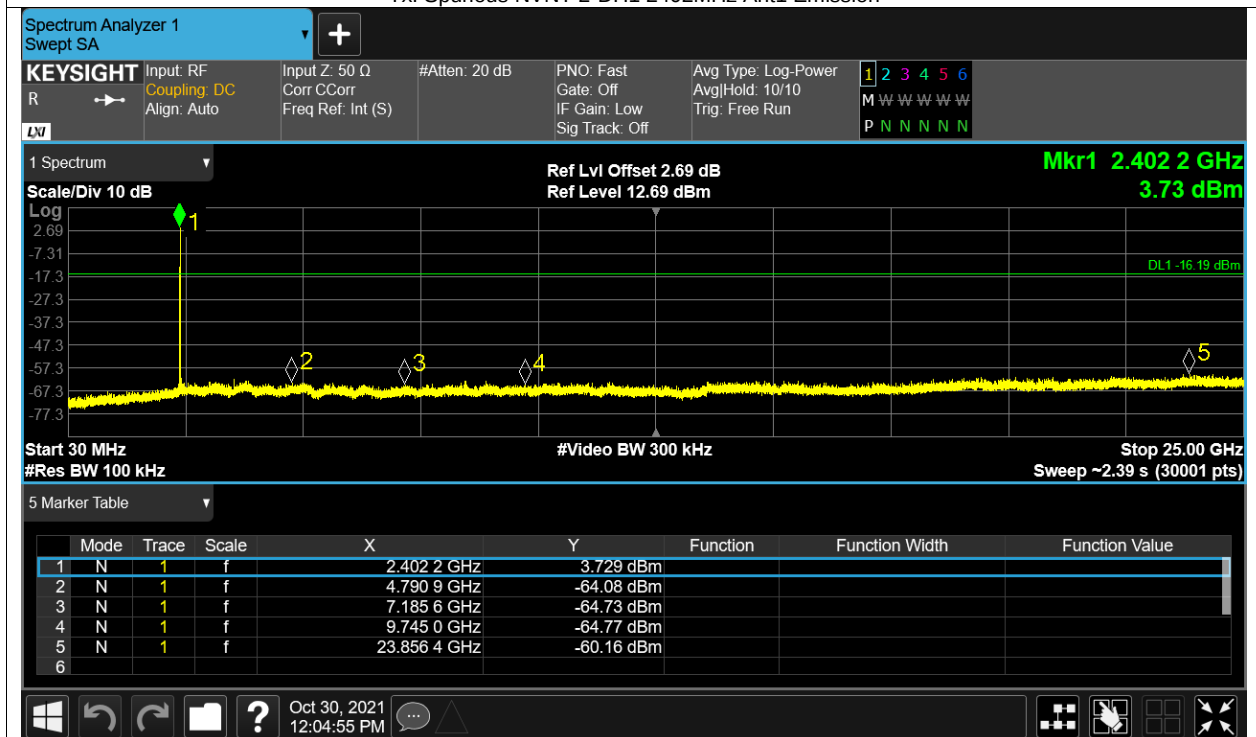
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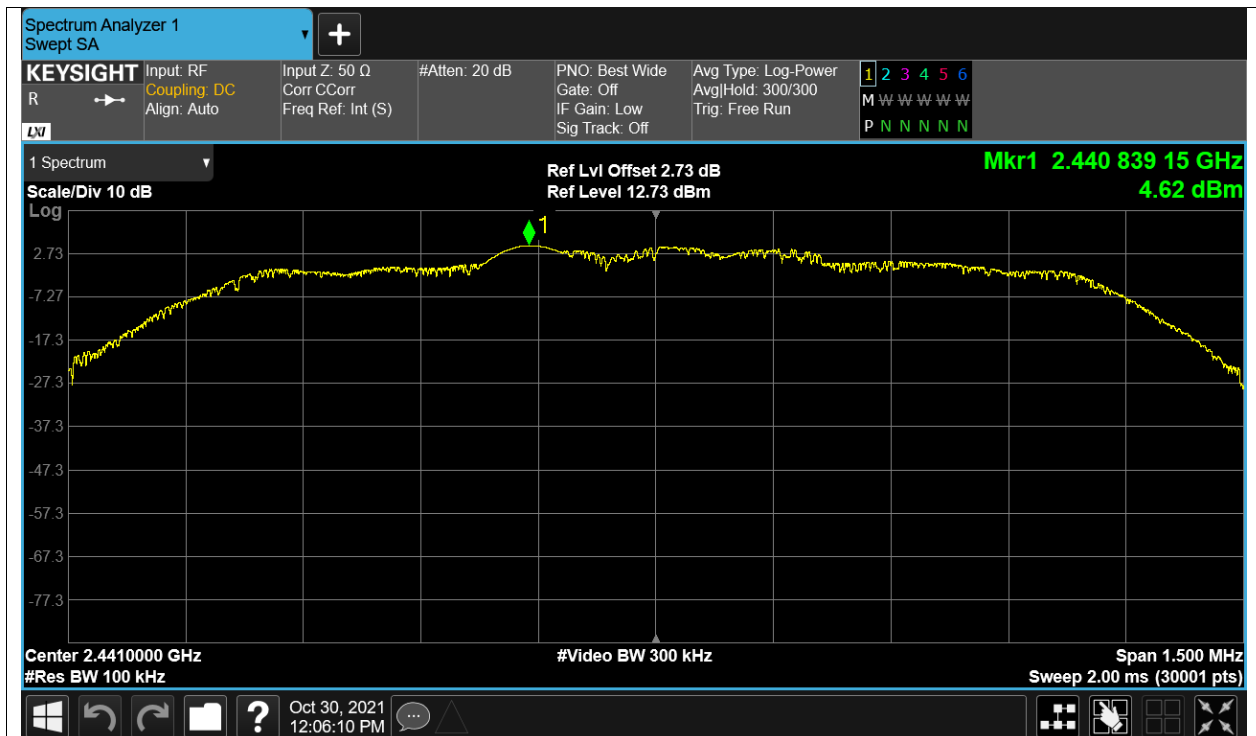
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



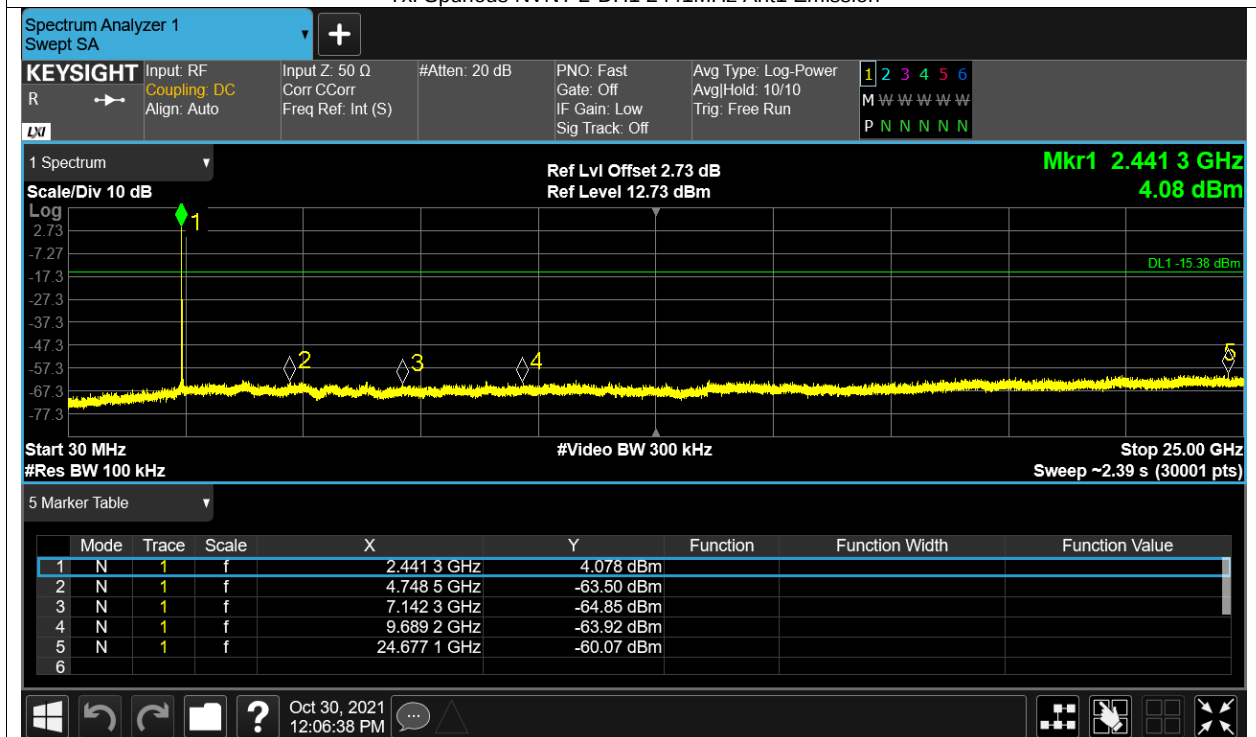
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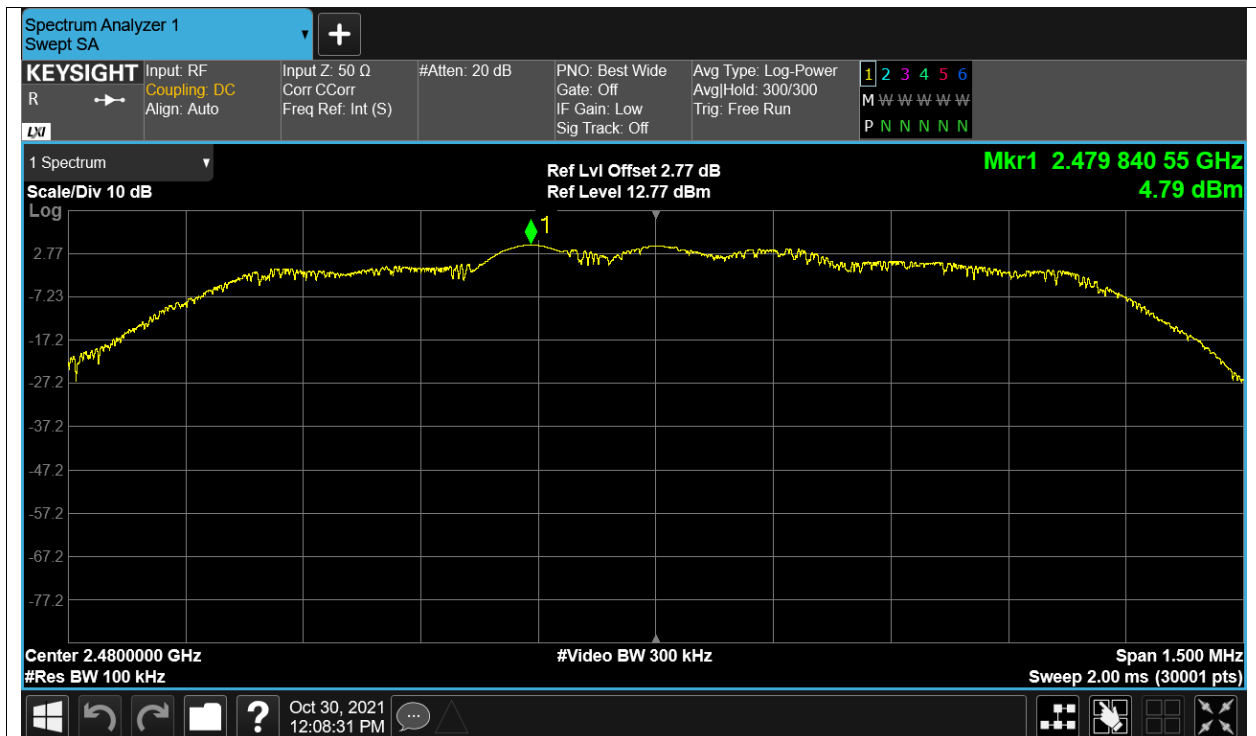
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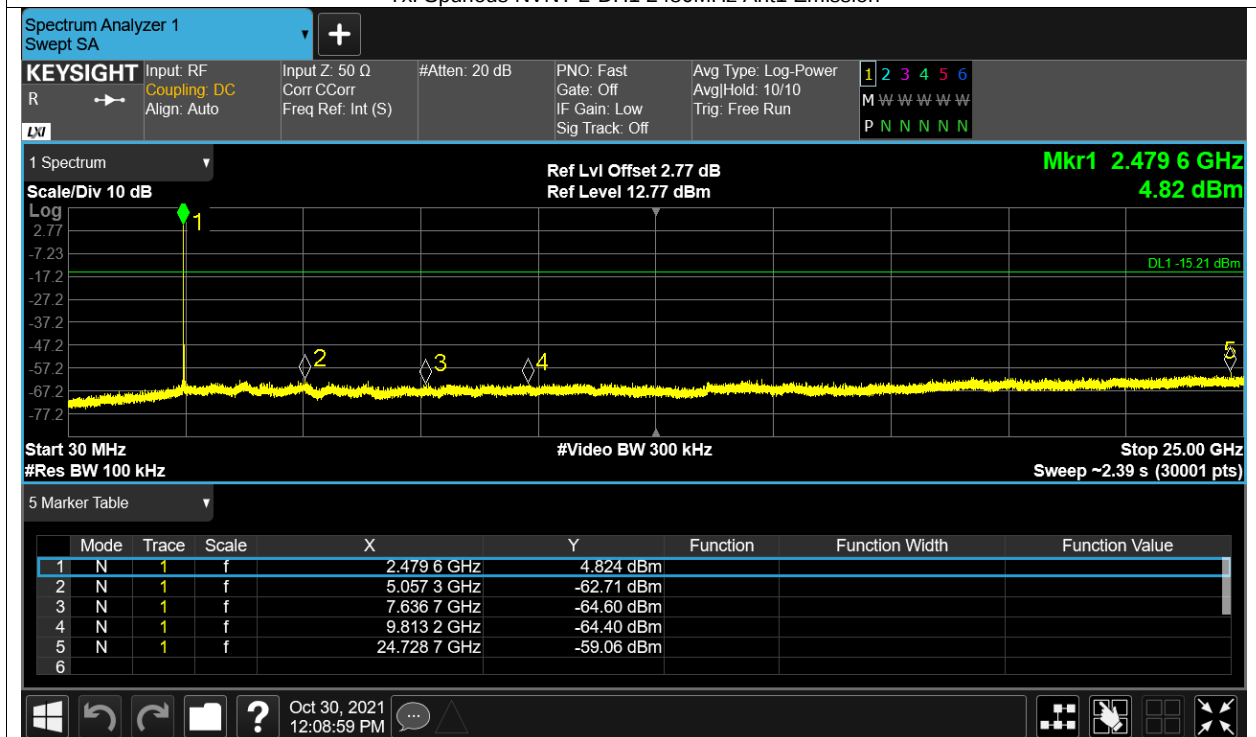
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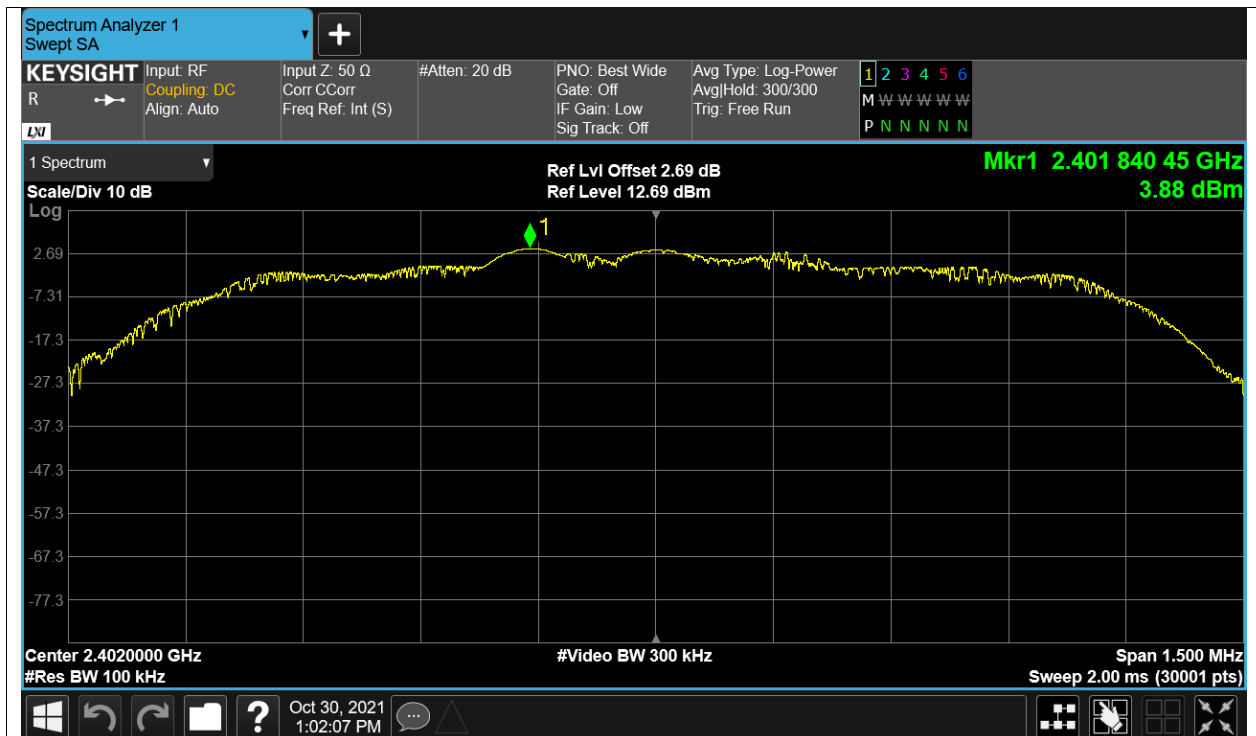
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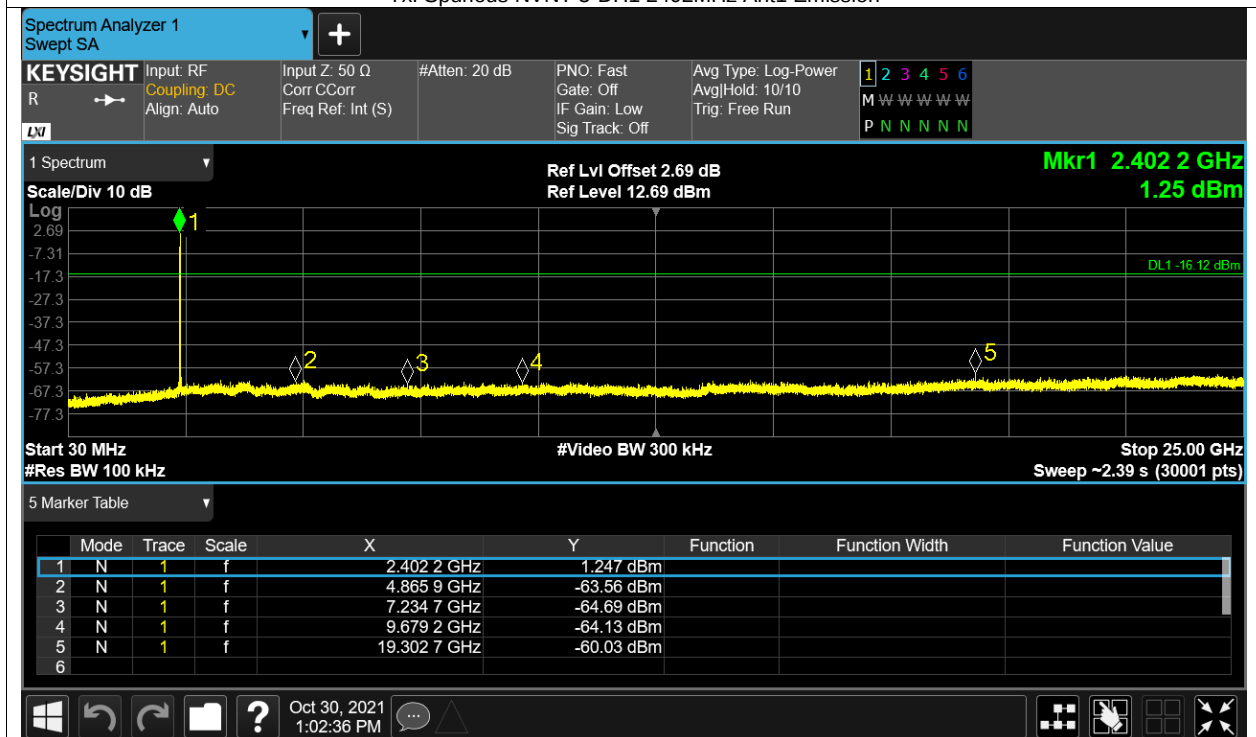
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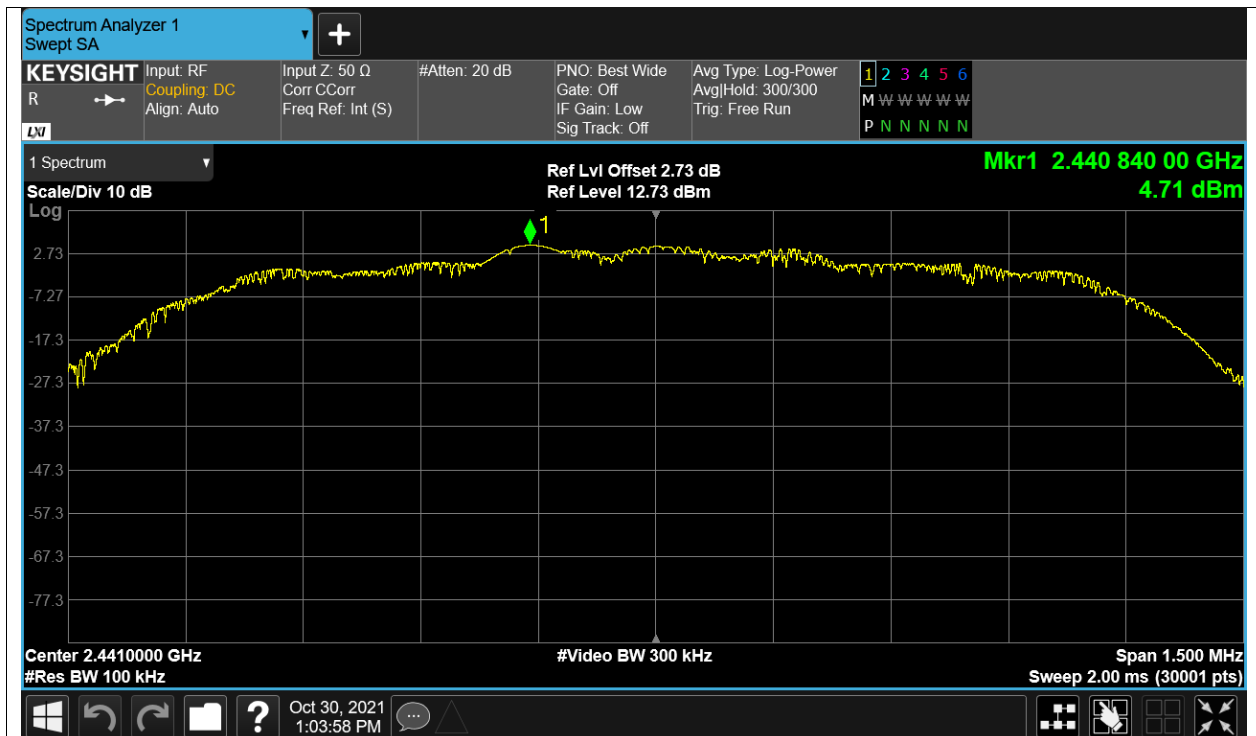
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



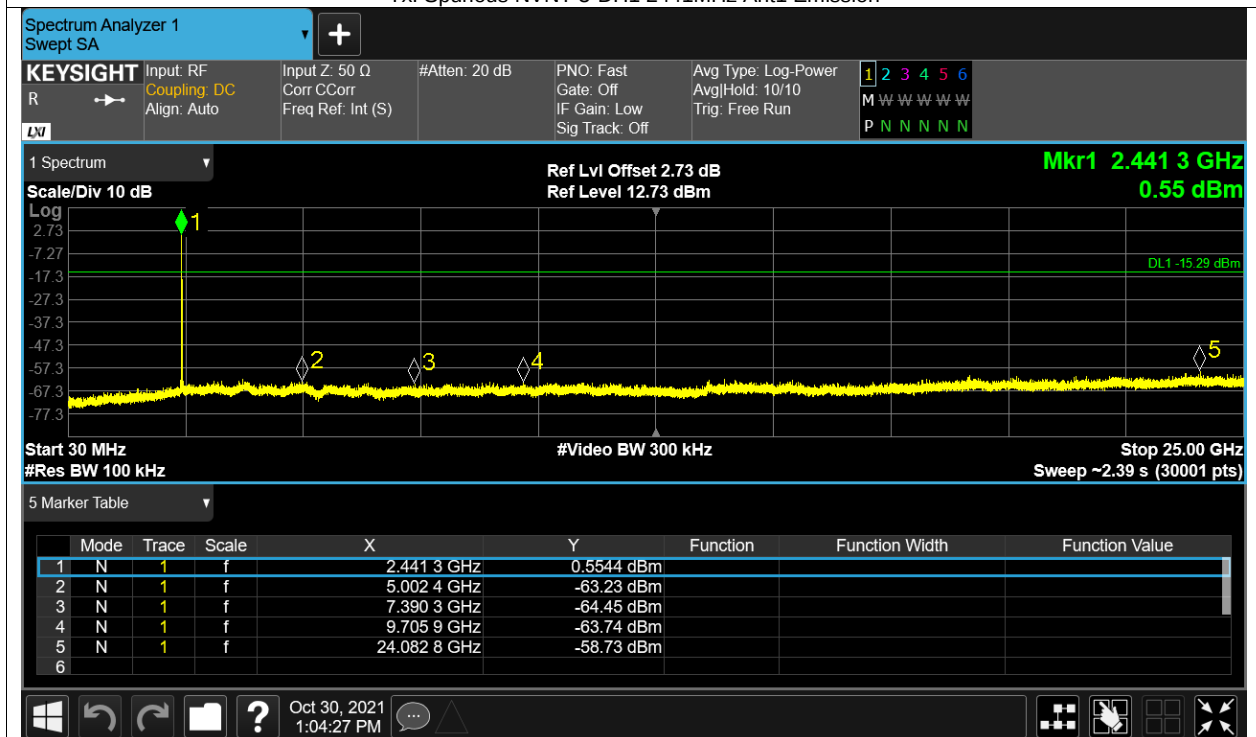
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



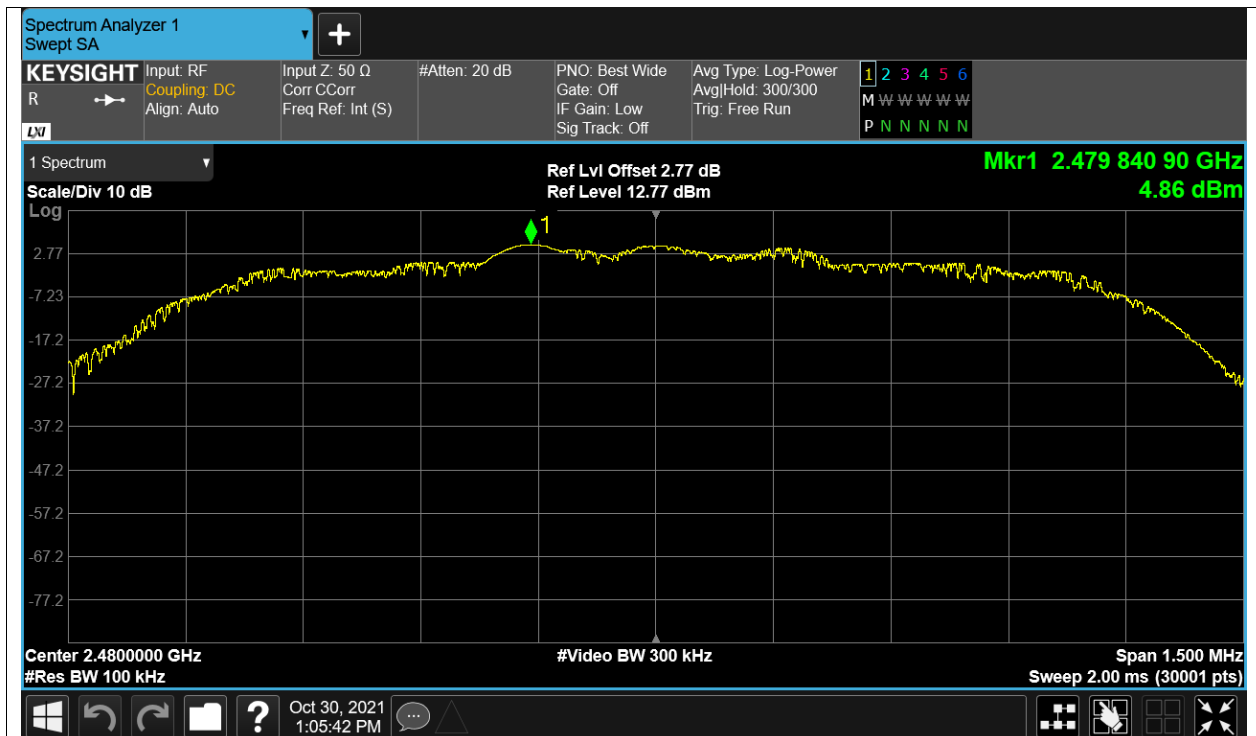
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



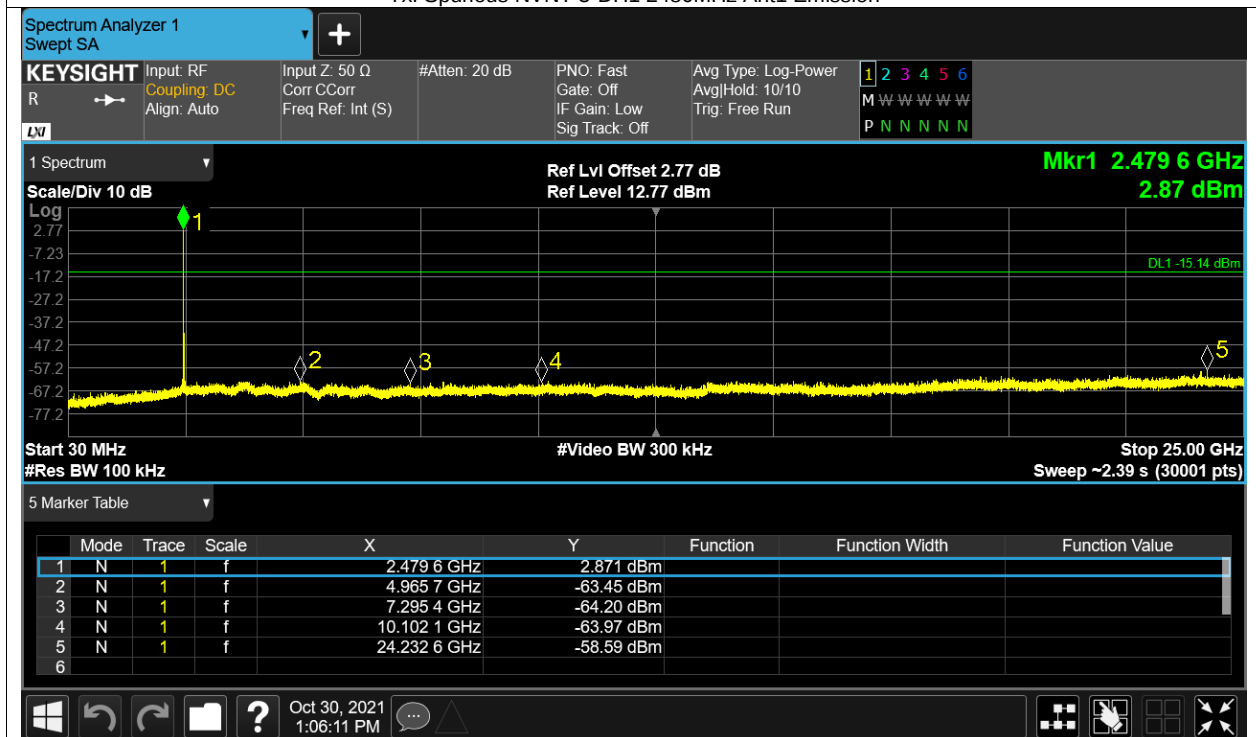
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref

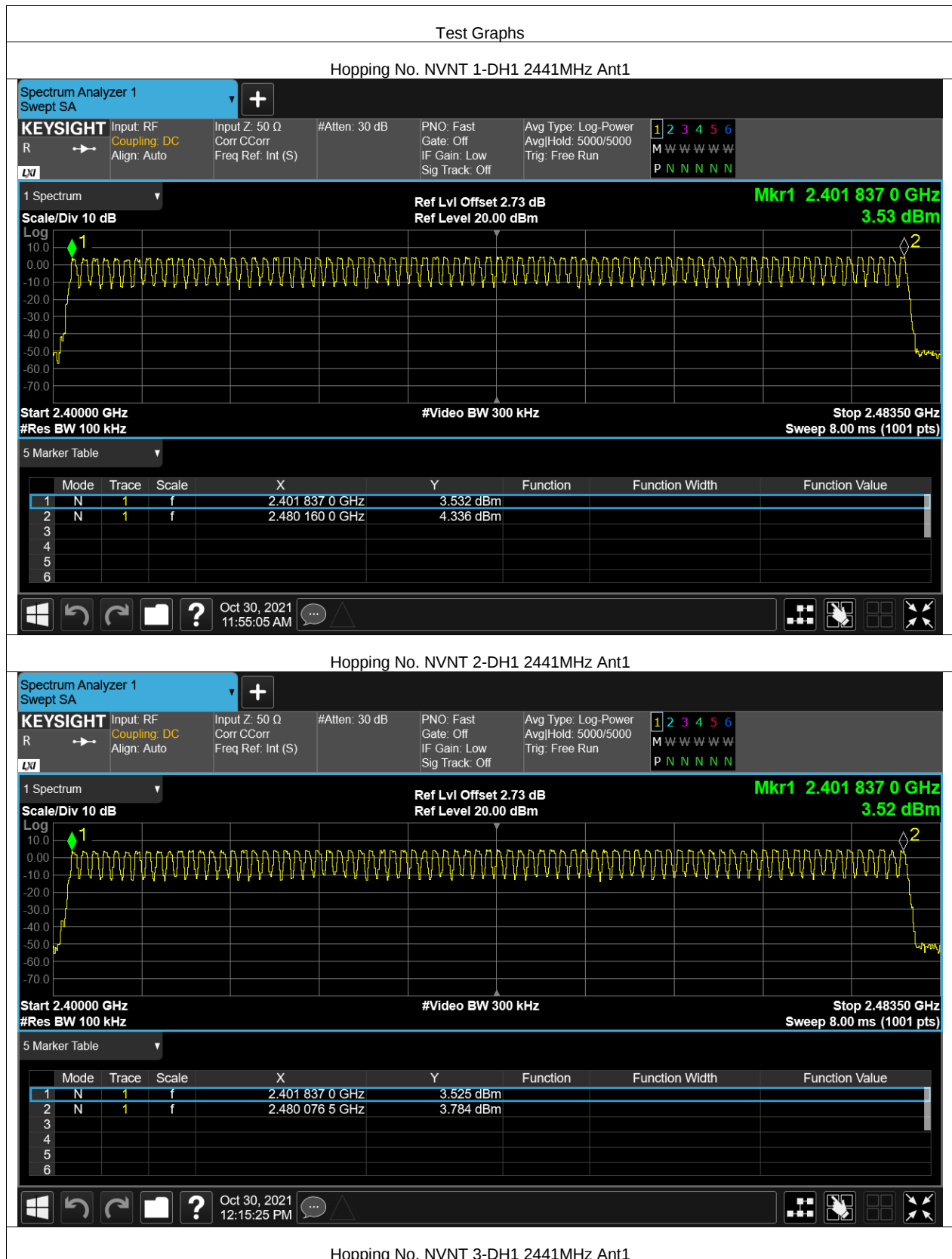


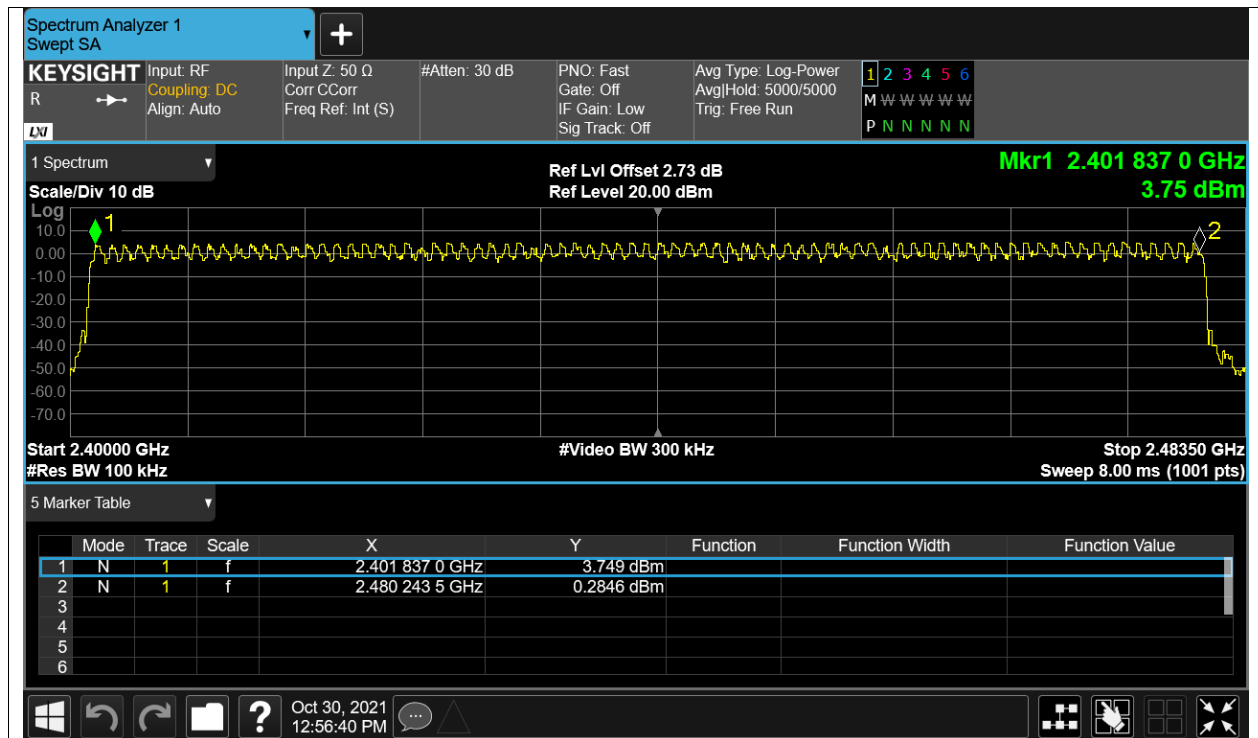
Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission



Number of Hopping Channel

Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass



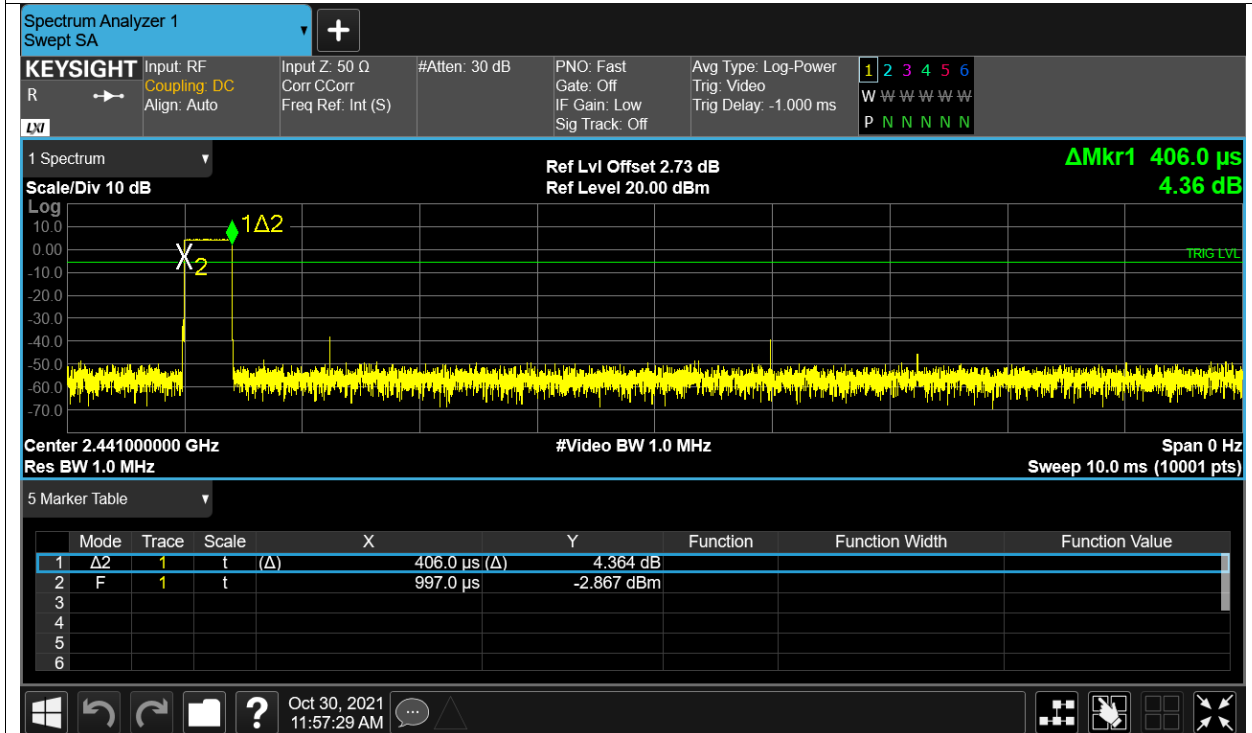


Dwell Time

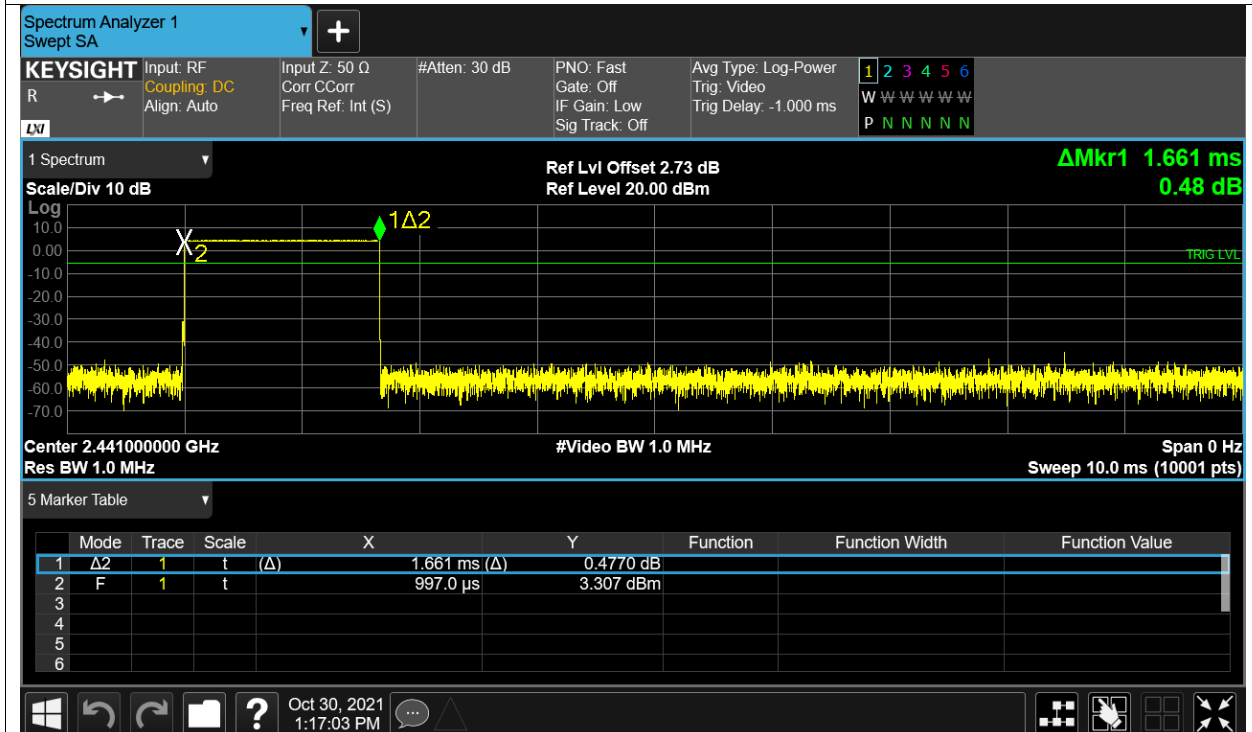
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.406	129.92	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.661	265.76	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.753	293.653	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.405	129.6	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.65	264	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.898	309.12	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.395	126.4	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.646	263.36	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.896	308.907	31600	400	Pass

Test Graphs

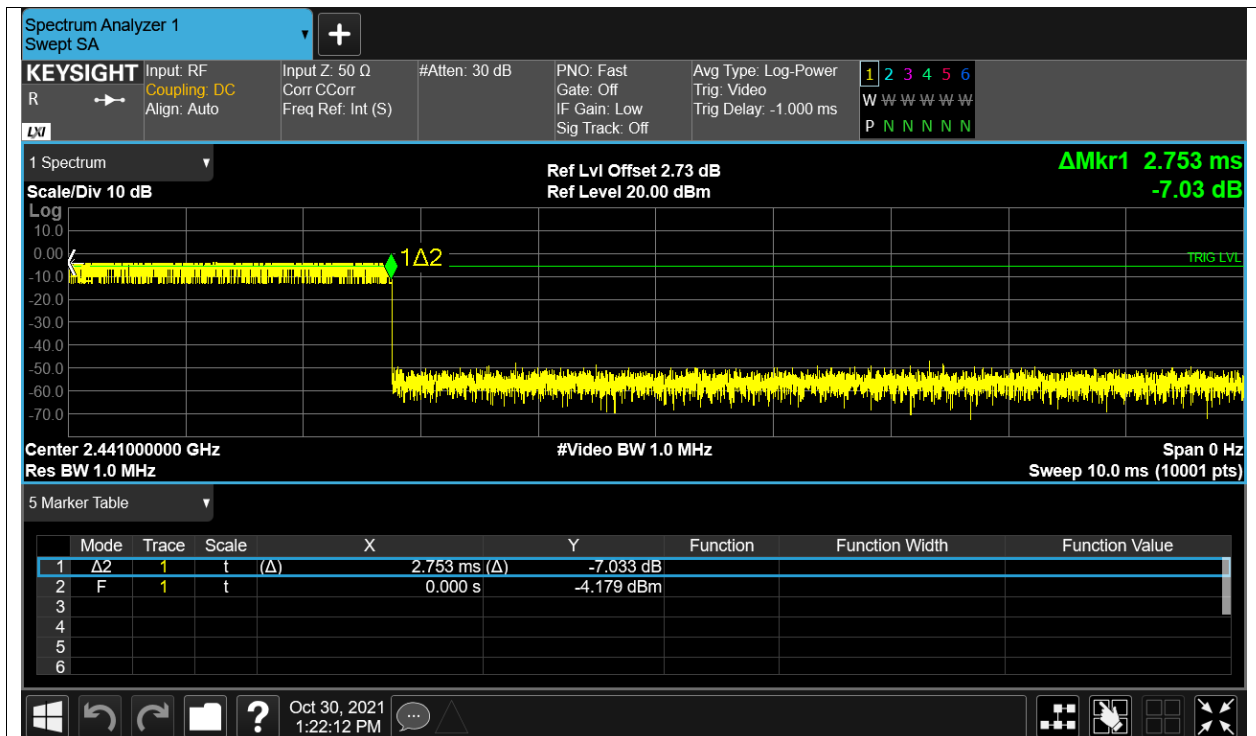
Dwell NVNT 1-DH1 2441MHz Ant1



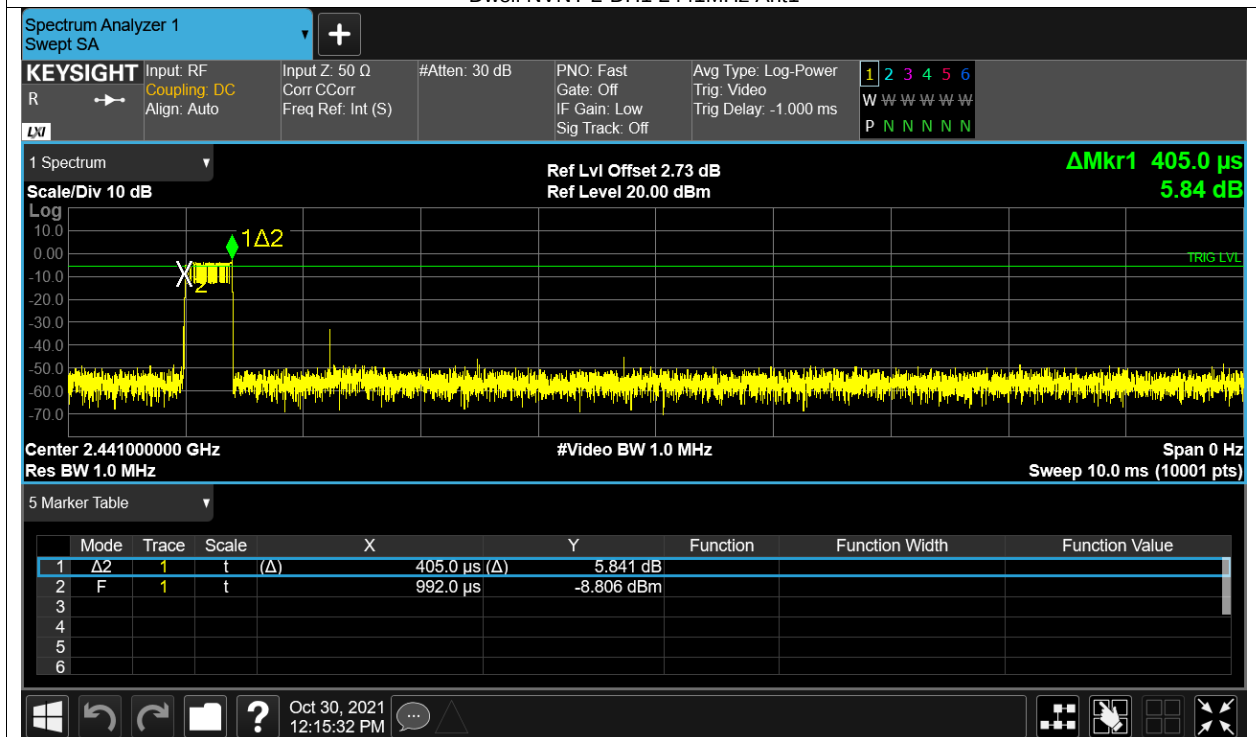
Dwell NVNT 1-DH3 2441MHz Ant1



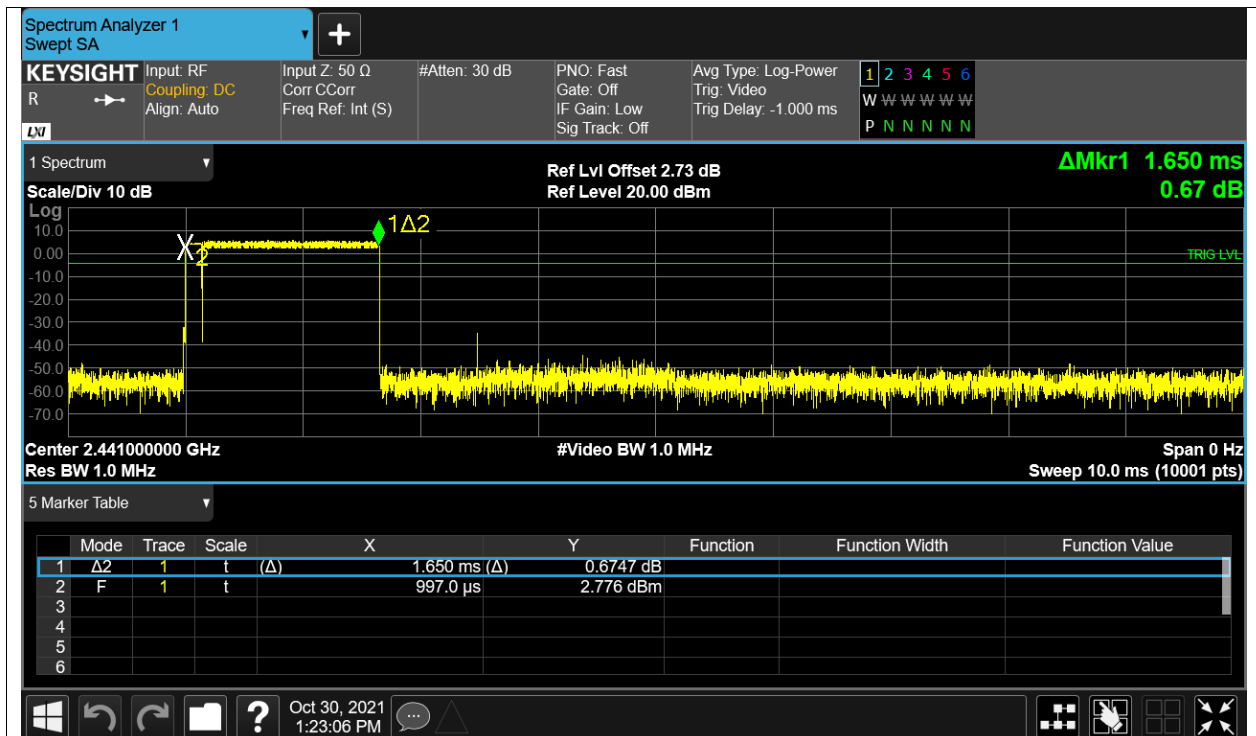
Dwell NVNT 1-DH5 2441MHz Ant1



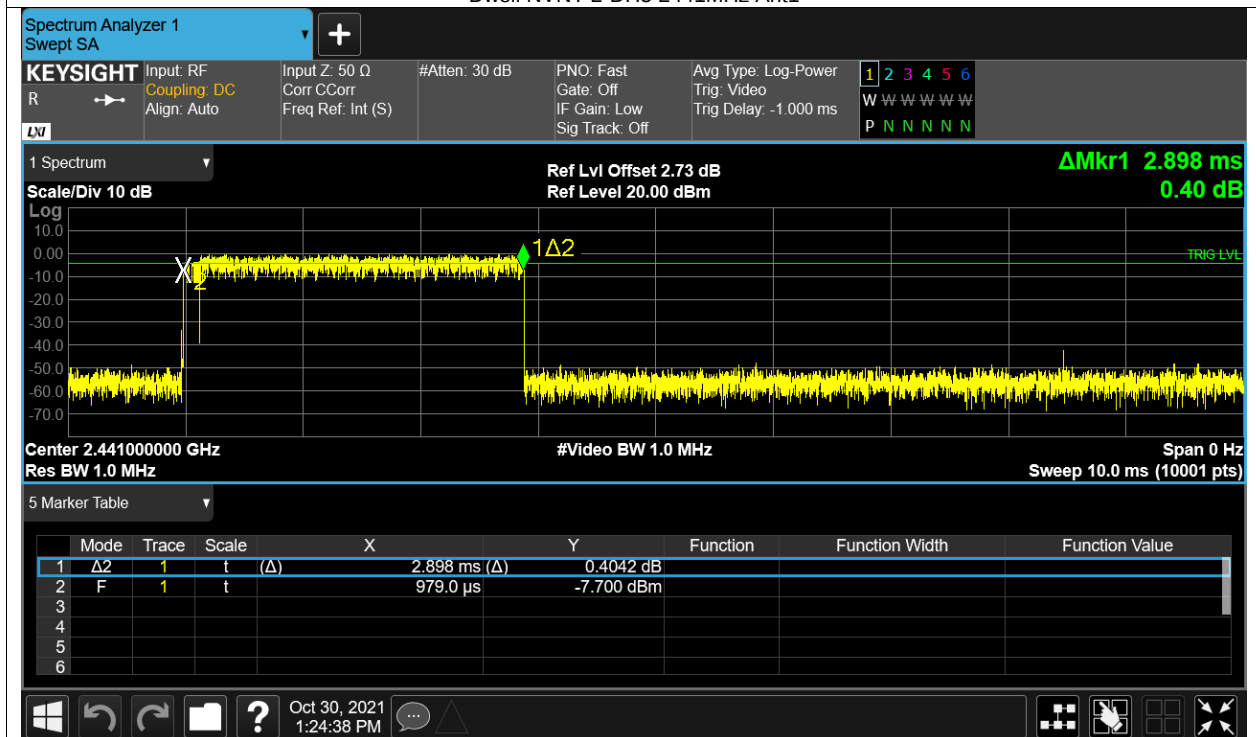
Dwell NVNT 2-DH1 2441MHz Ant1



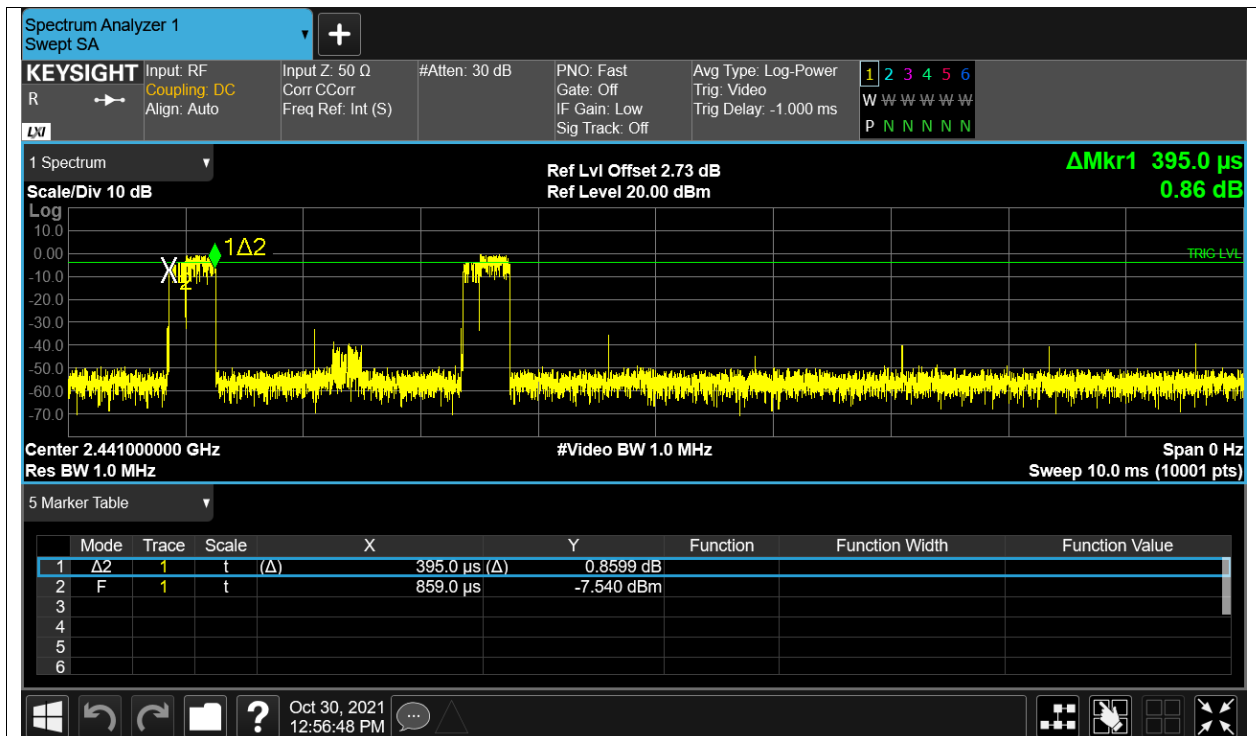
Dwell NVNT 2-DH3 2441MHz Ant1



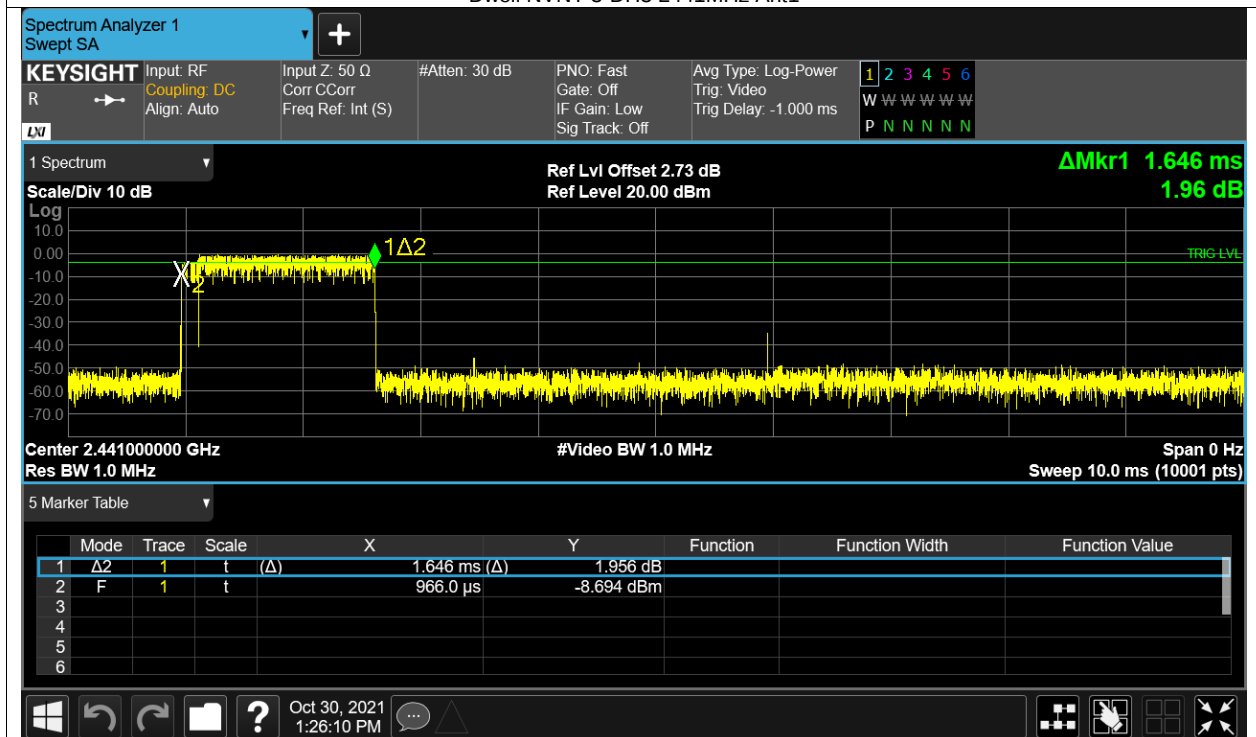
Dwell NVNT 2-DH5 2441MHz Ant1



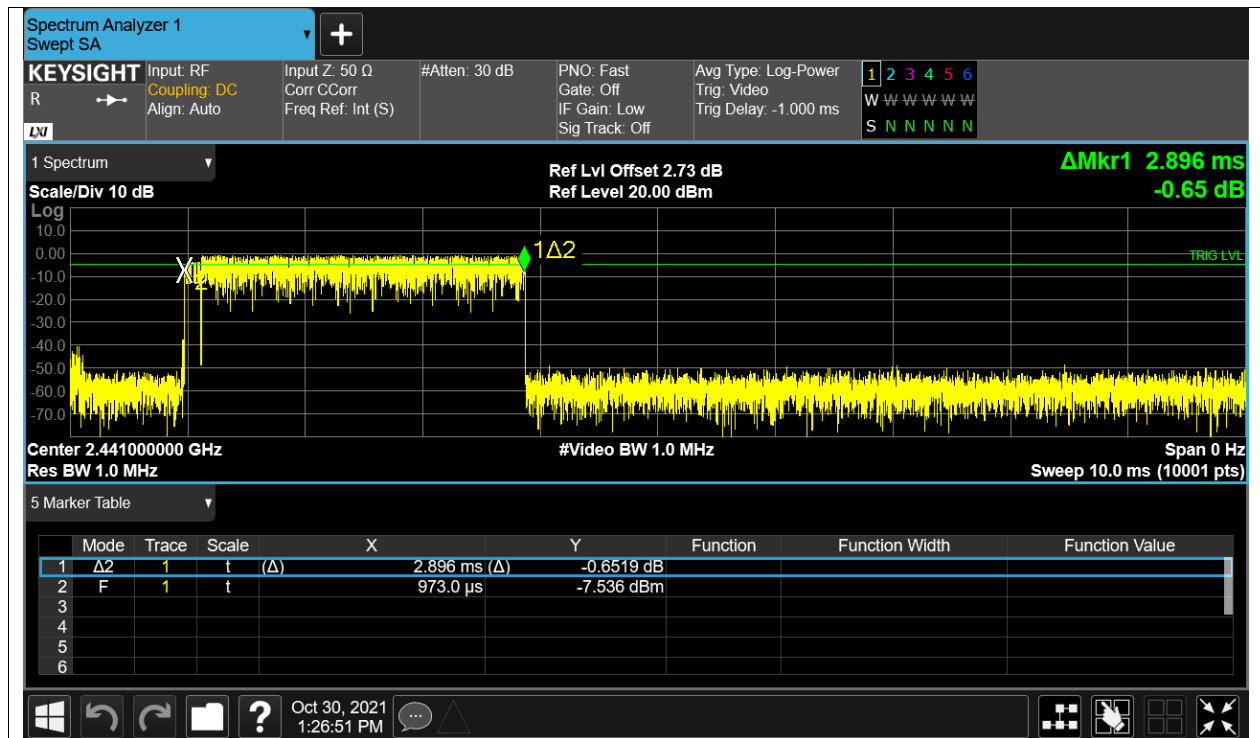
Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



Dwell NVNT 3-DH5 2441MHz Ant1



-----End of report-----