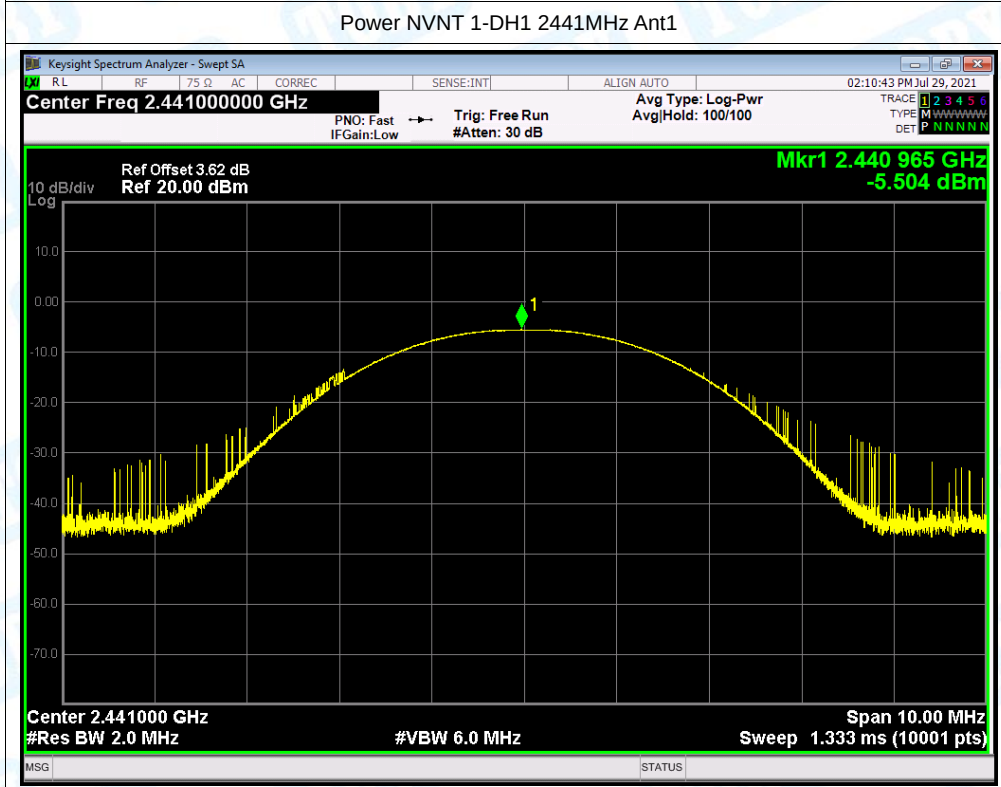
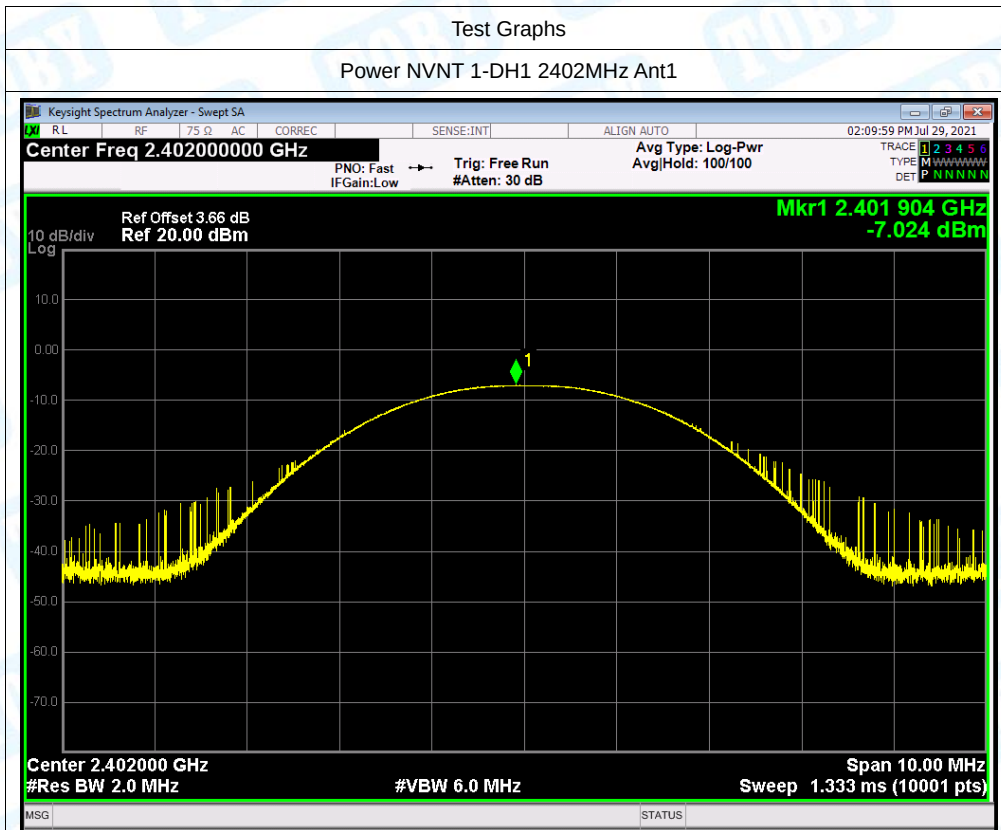


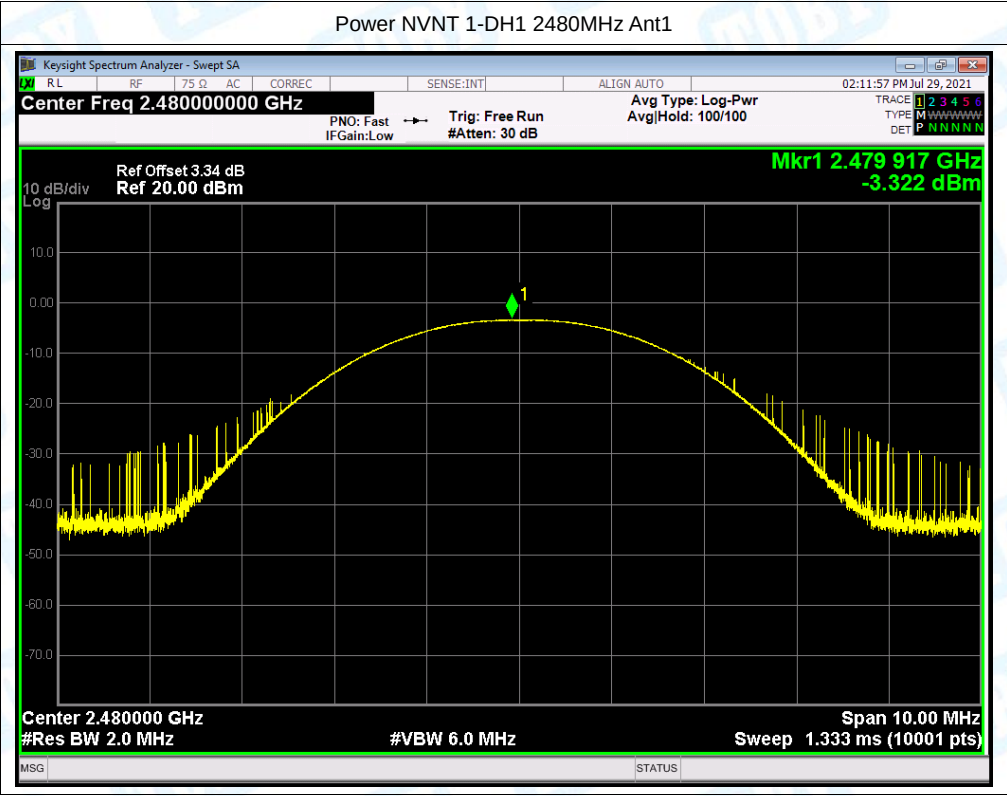
RF Test Data for Bluetooth(BDR+EDR) (Conducted Measurements)

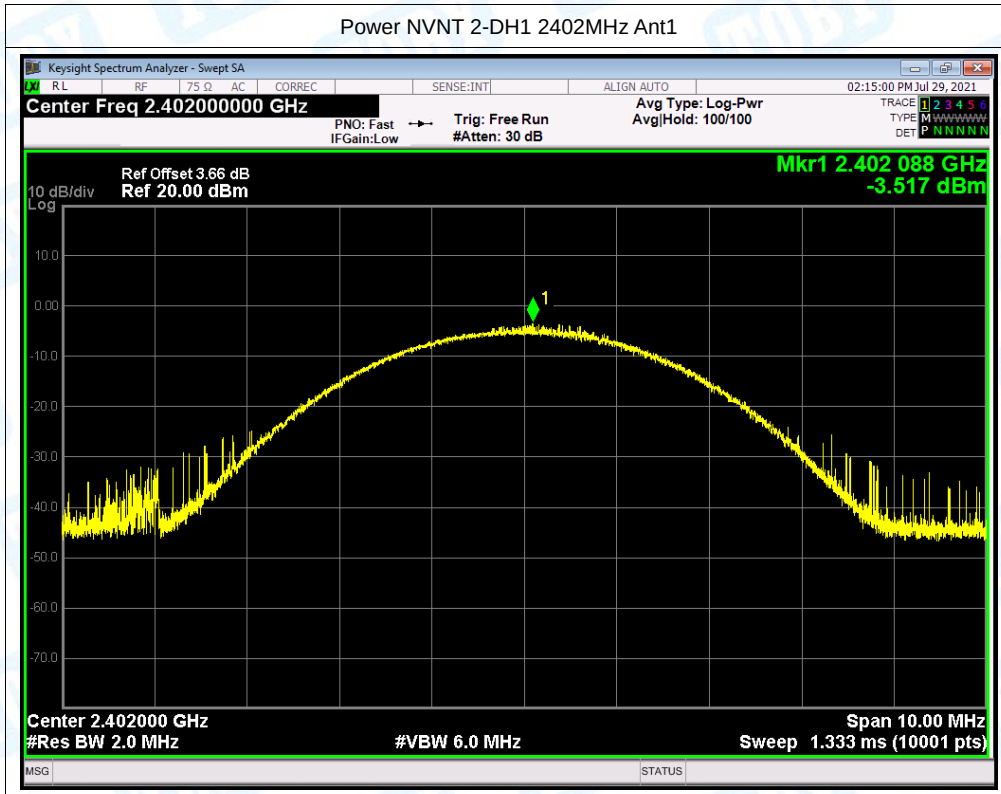
General Description of EUT	
Product Name:	SleepUp
Test Model:	SleepUp
Sample ID:	20210609-17-2#
Environmental Conditions	
Temperature:	23.8℃
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	HeJingchang
Note: For a more detailed features description, please refer to the report TB-RF-182746.	

1.Maximum Conducted Output Power

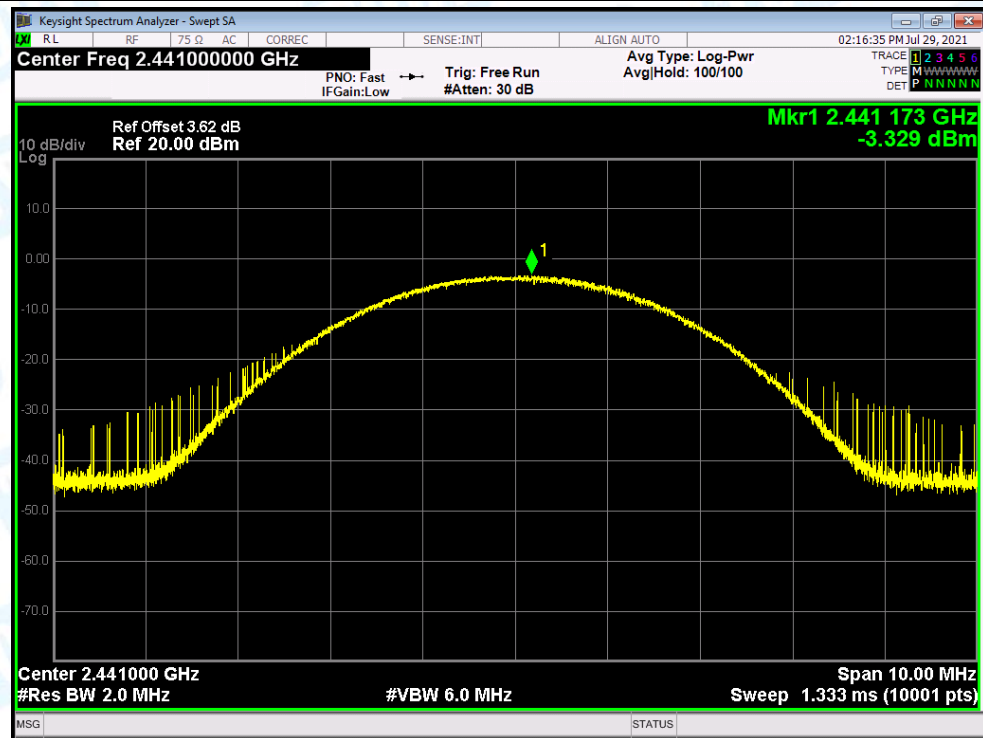
Condition	Mode	Frequency (MHz)	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	-7.024	0	-7.024	21	Pass
NVNT	1-DH1	2441	-5.504	0	-5.504	21	Pass
NVNT	1-DH1	2480	-3.322	0	-3.322	21	Pass
NVNT	2-DH1	2402	-3.517	0	-3.517	21	Pass
NVNT	2-DH1	2441	-3.329	0	-3.329	21	Pass
NVNT	2-DH1	2480	-1.146	0	-1.146	21	Pass
NVNT	3-DH1	2402	-4.561	0	-4.561	21	Pass
NVNT	3-DH1	2441	-2.982	0	-2.982	21	Pass
NVNT	3-DH1	2480	-0.904	0	-0.904	21	Pass



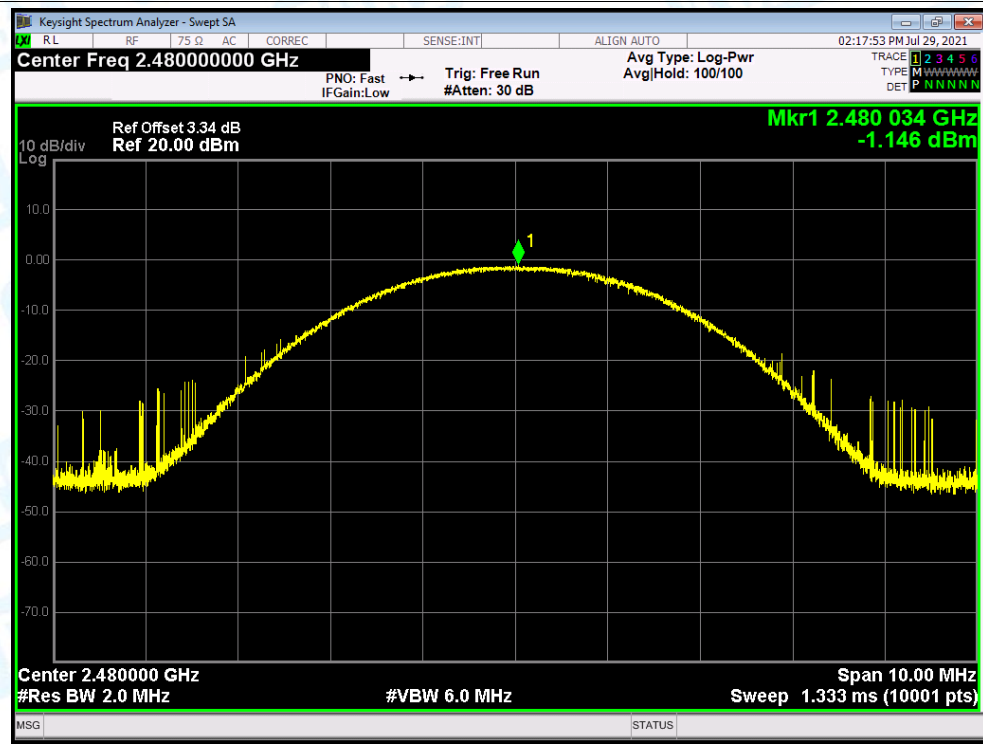




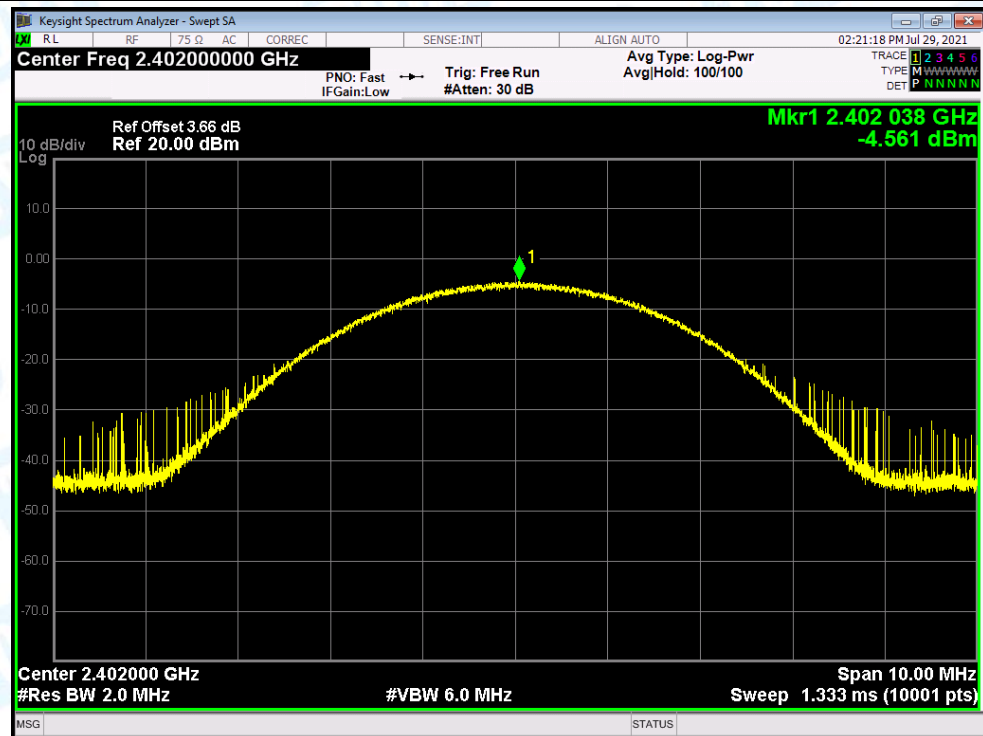
Power NVNT 2-DH1 2441MHz Ant1



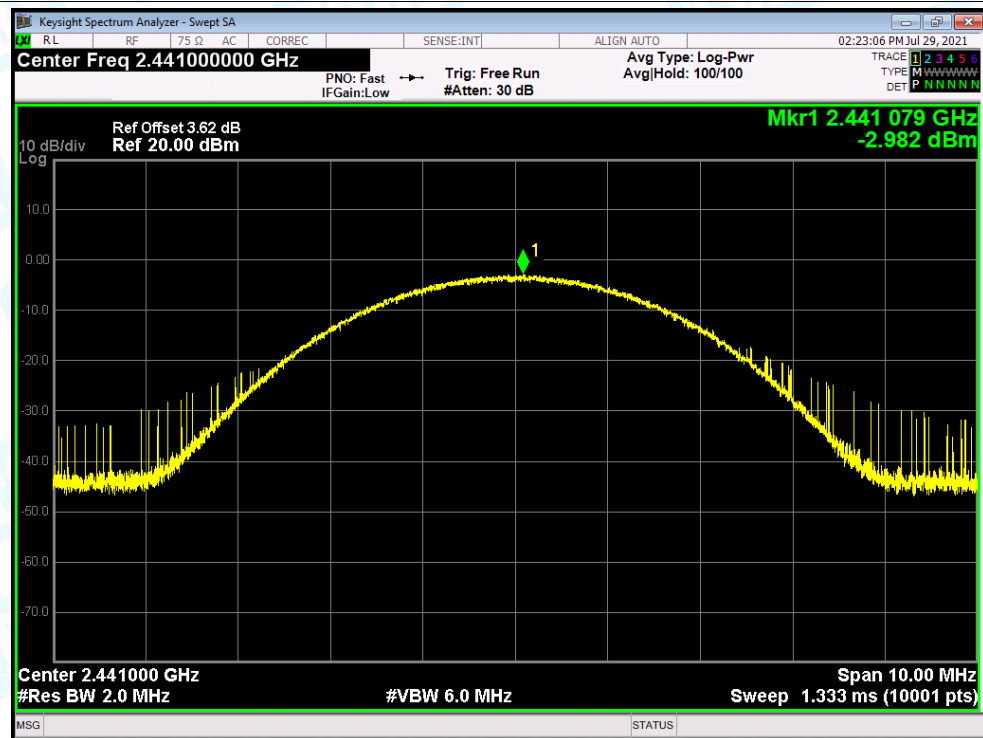
Power NVNT 2-DH1 2480MHz Ant1

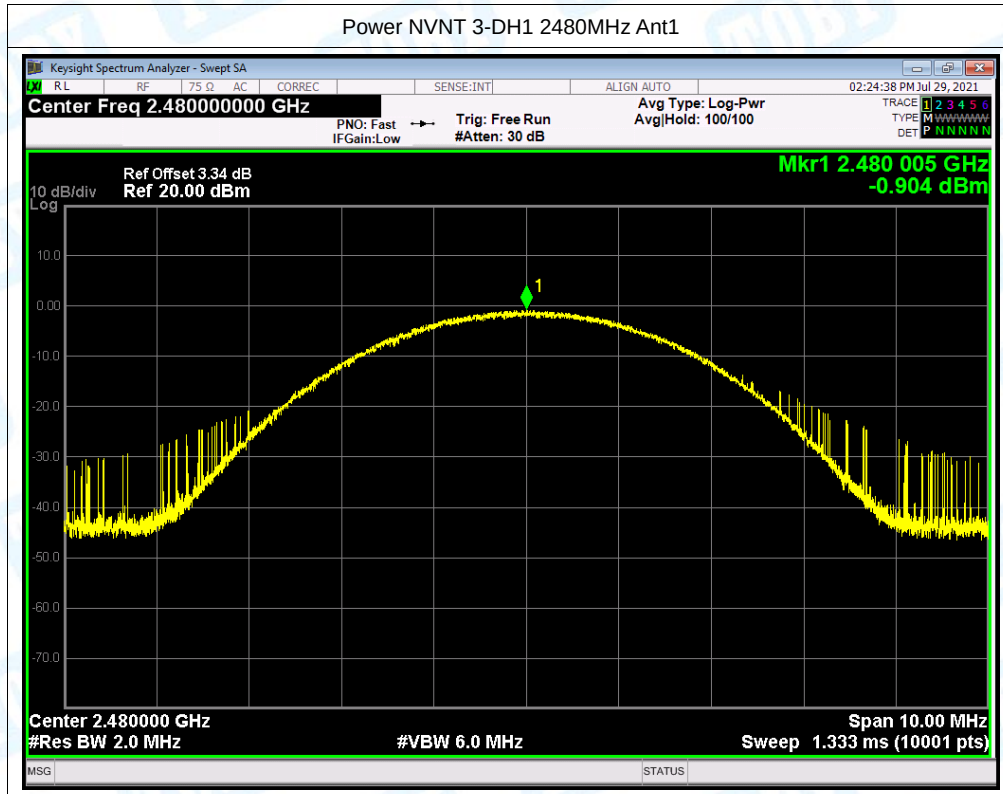


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



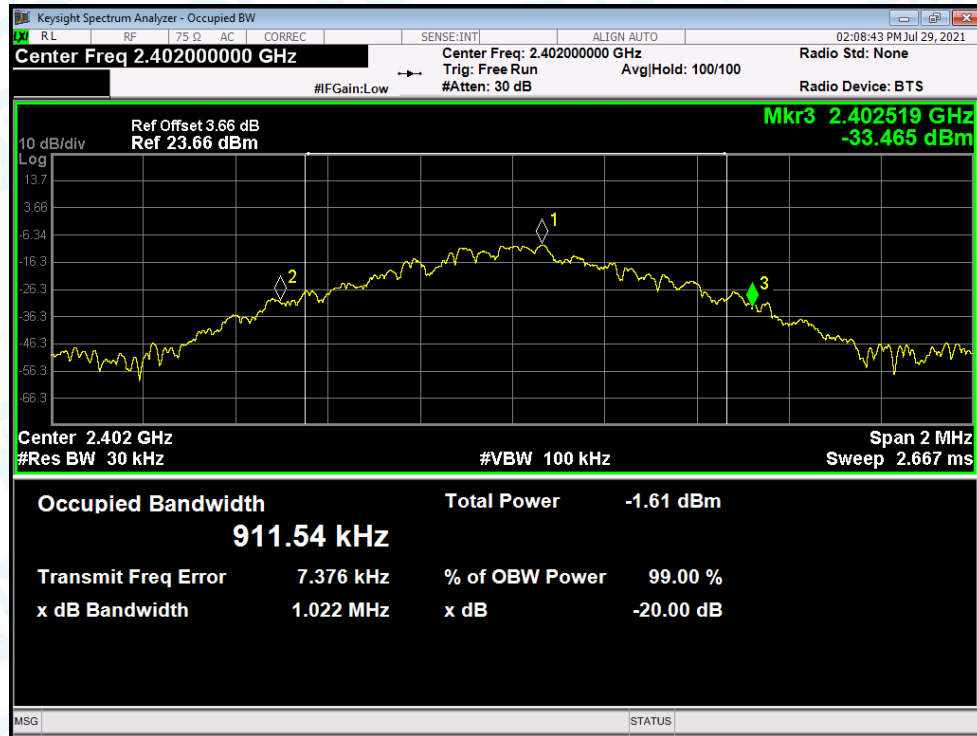


2.-20dB Bandwidth

Condition	Mode	Frequency (MHz)	-20 dB Bandwidth (MHz)	99% OBW (MHz)	2/3 *20dB BW (MHz)
NVNT	1-DH1	2402	1.022	0.91154	0.681
NVNT	1-DH1	2441	1.014	0.90904	0.676
NVNT	1-DH1	2480	1.028	0.90706	0.685
NVNT	2-DH1	2402	1.352	1.1978	0.901
NVNT	2-DH1	2441	1.352	1.1887	0.901
NVNT	2-DH1	2480	1.351	1.1887	0.900
NVNT	3-DH1	2402	1.343	1.1835	0.895
NVNT	3-DH1	2441	1.326	1.1872	0.884
NVNT	3-DH1	2480	1.34	1.1843	0.893

Test Graphs

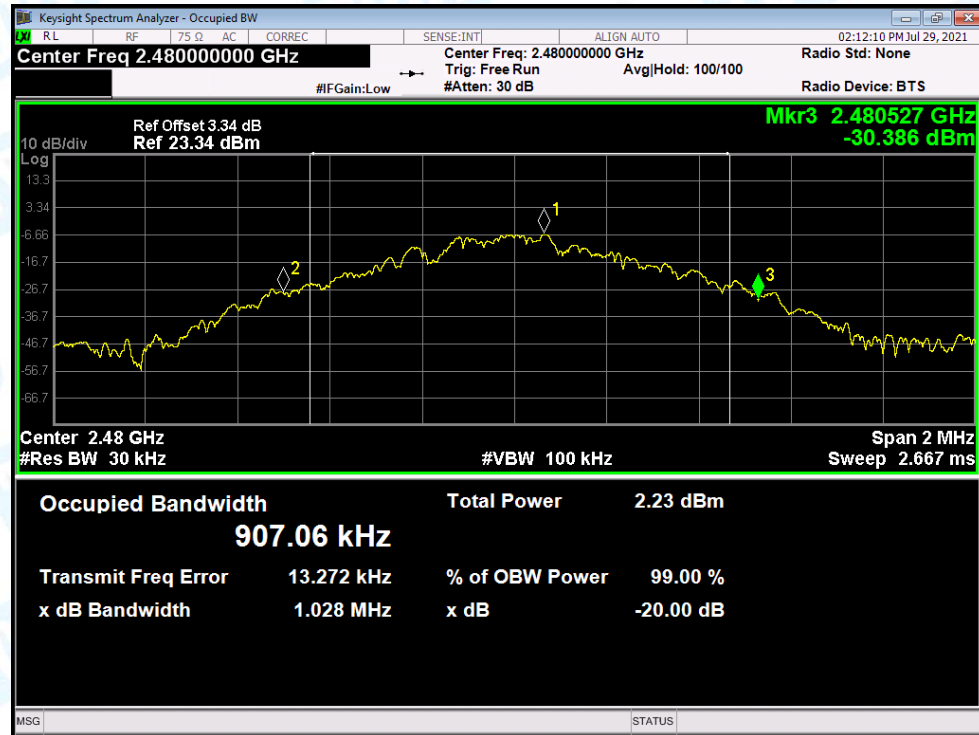
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



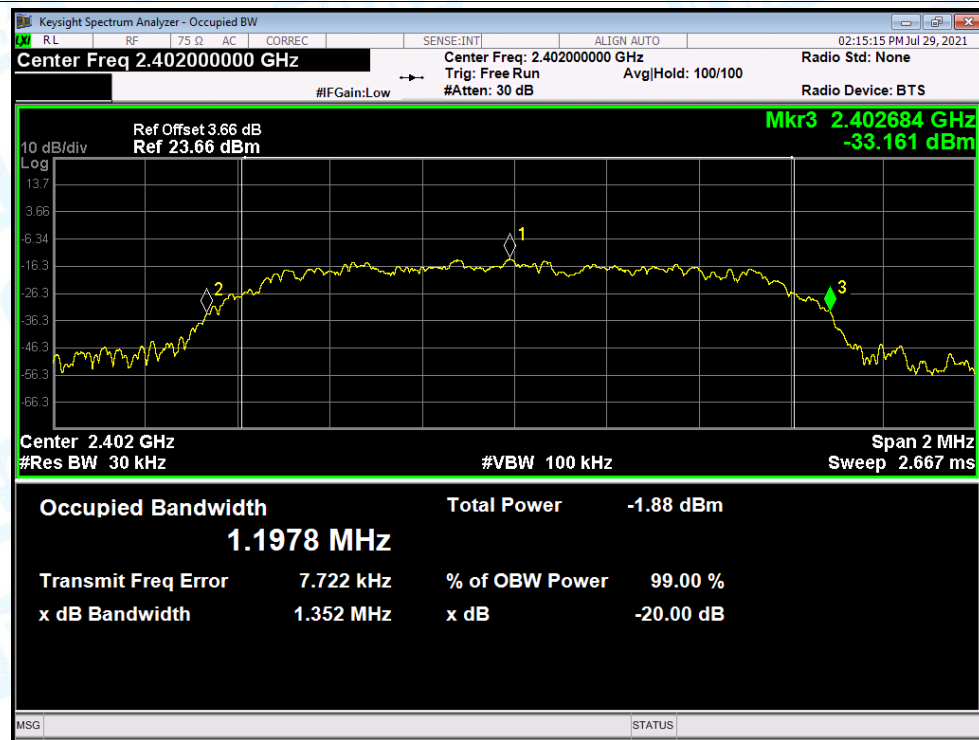
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



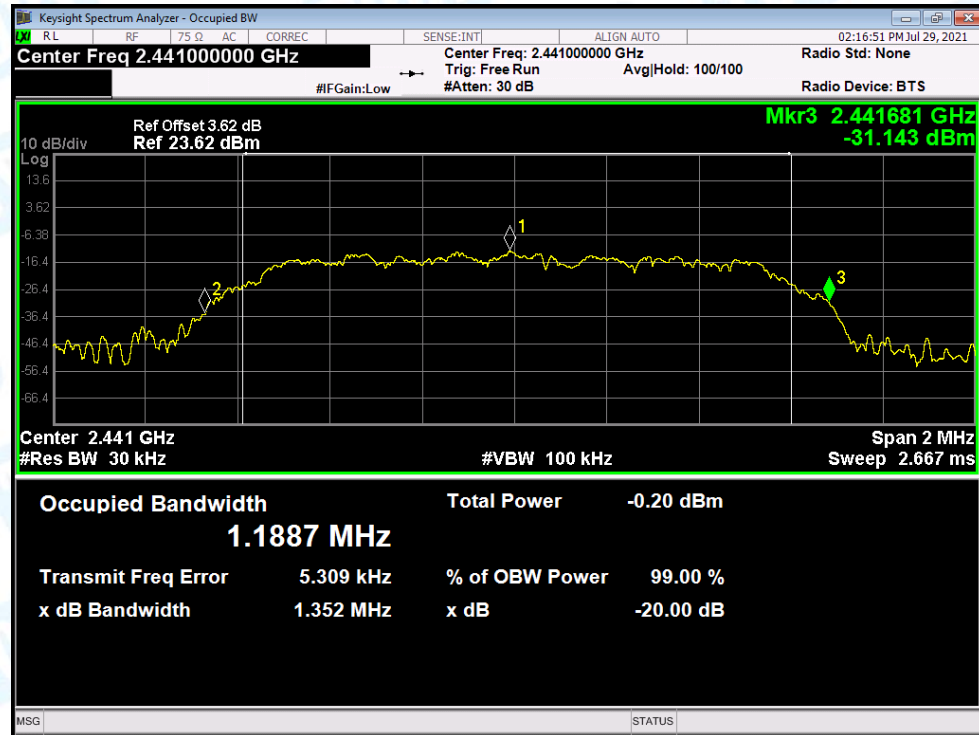
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



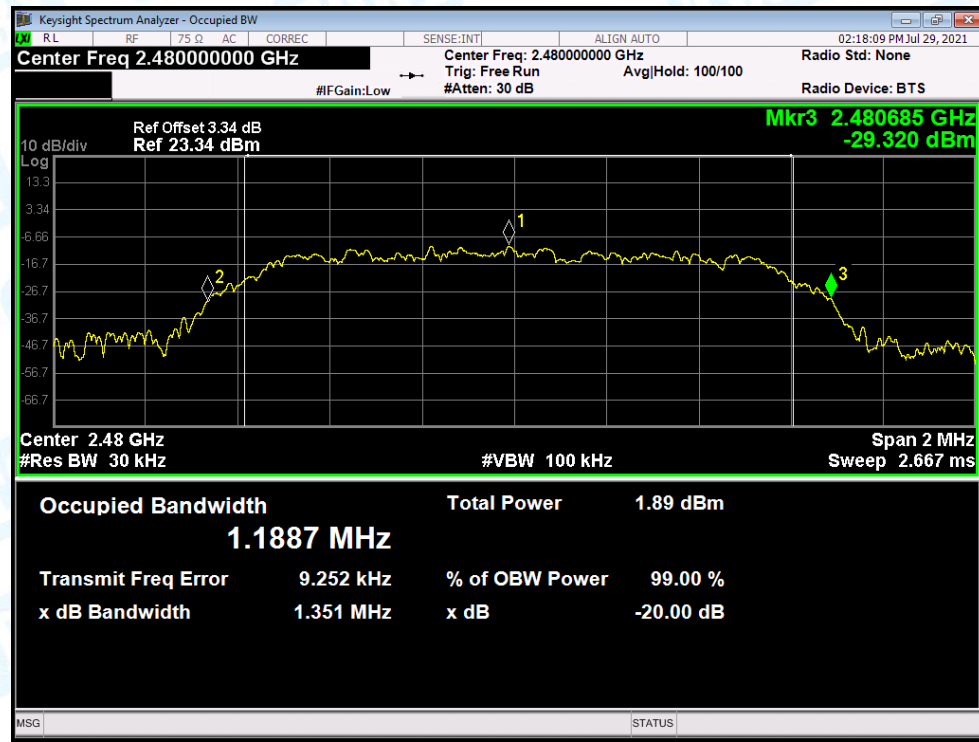
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



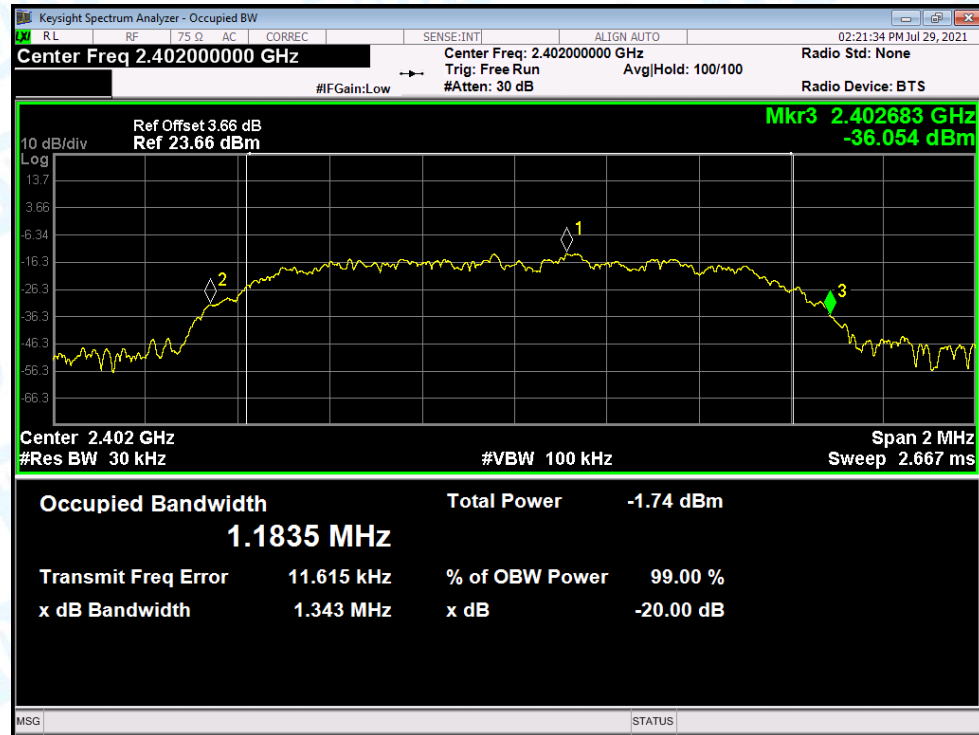
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



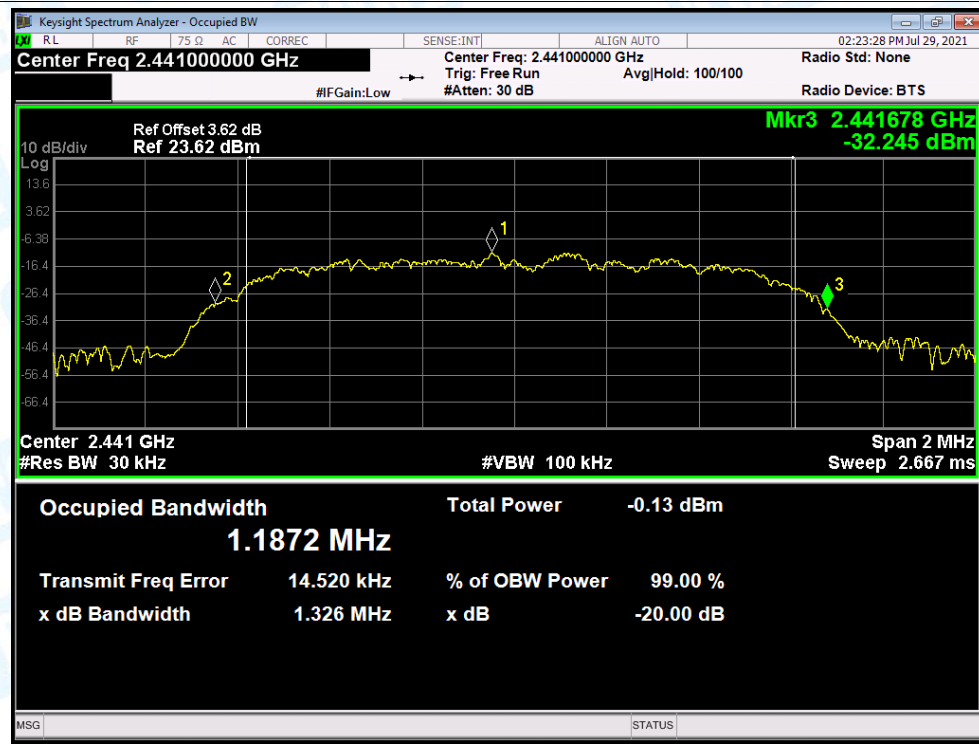
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

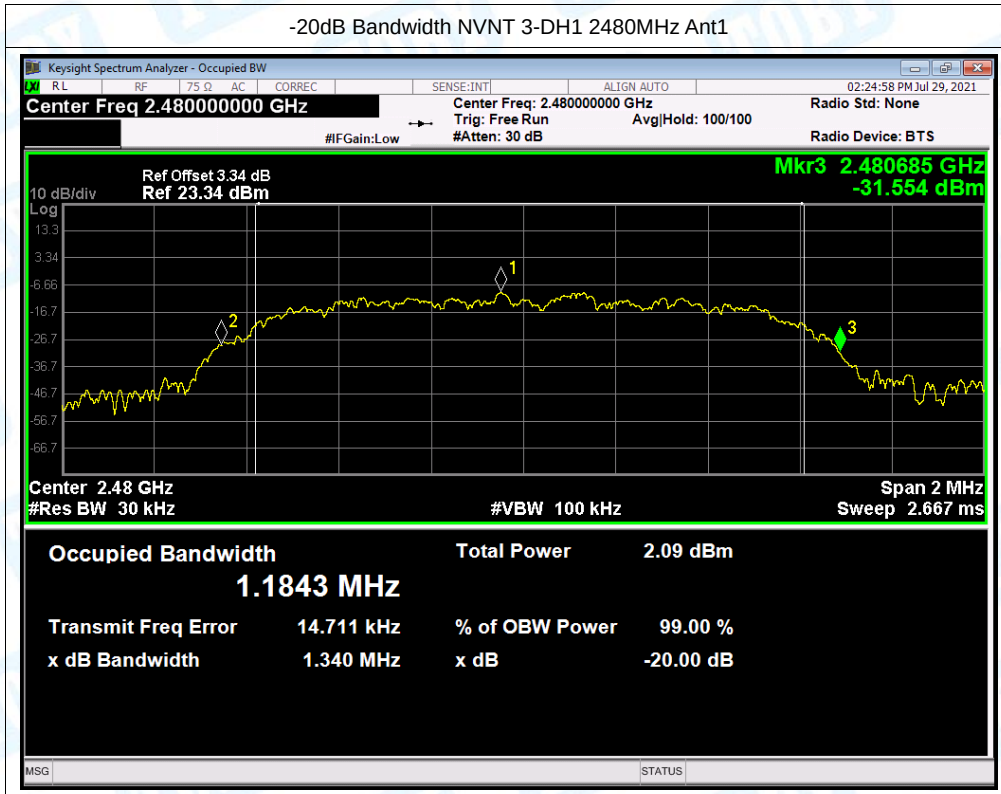


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



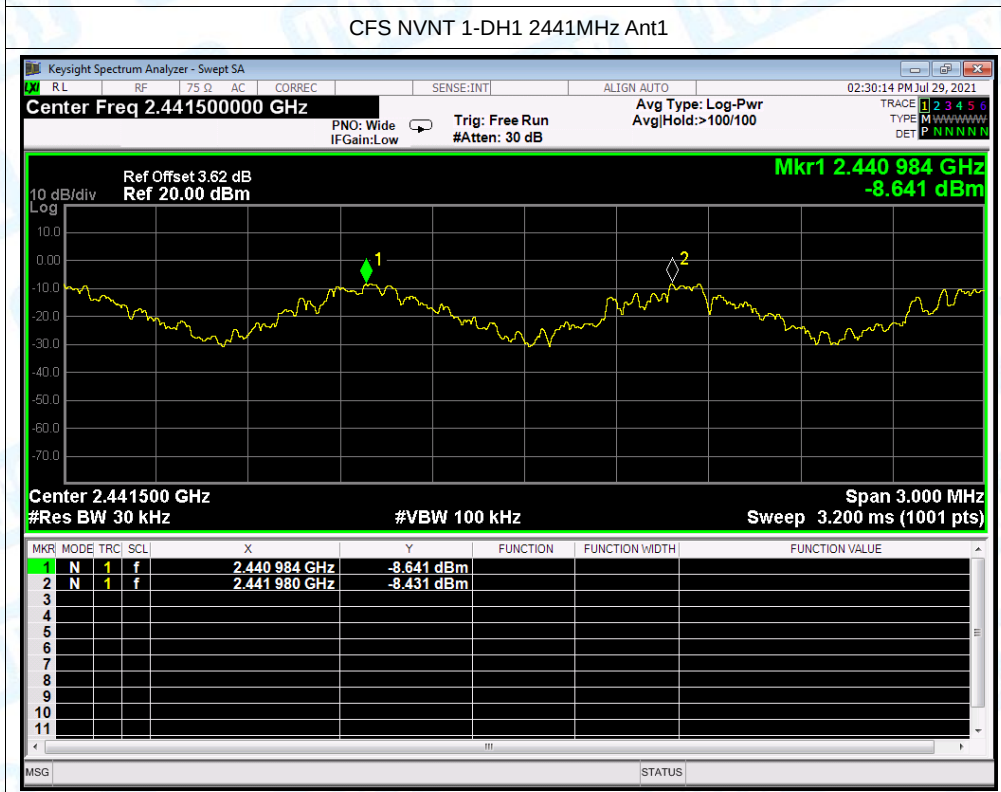
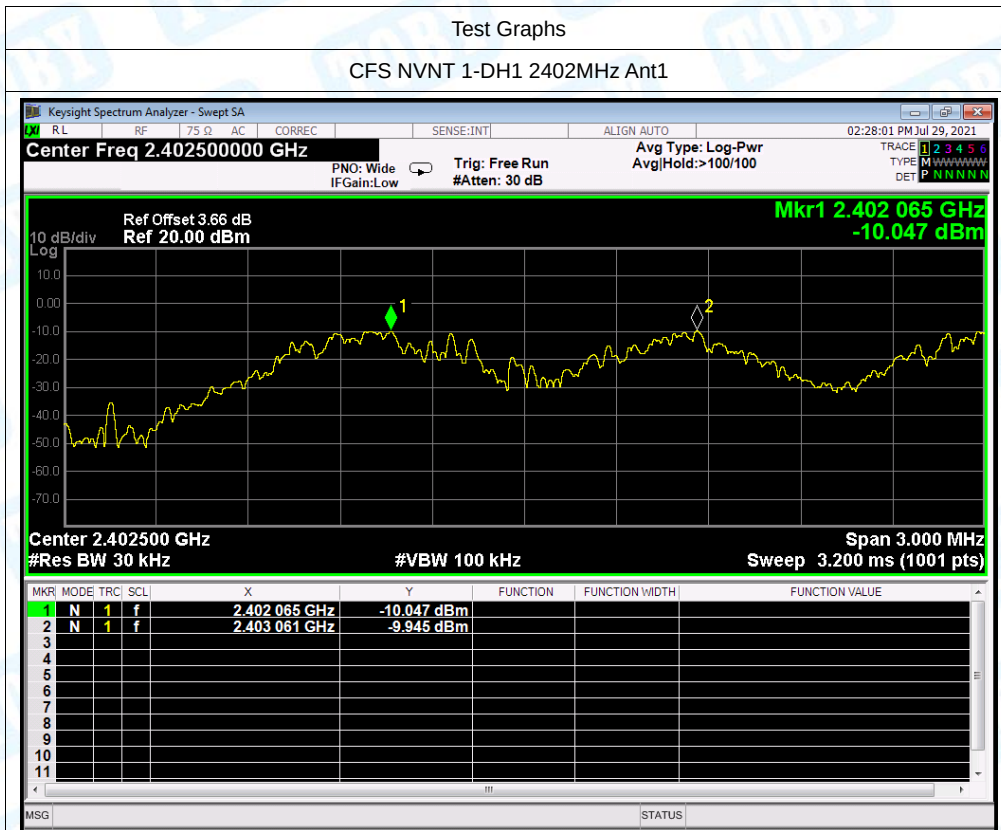
-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1

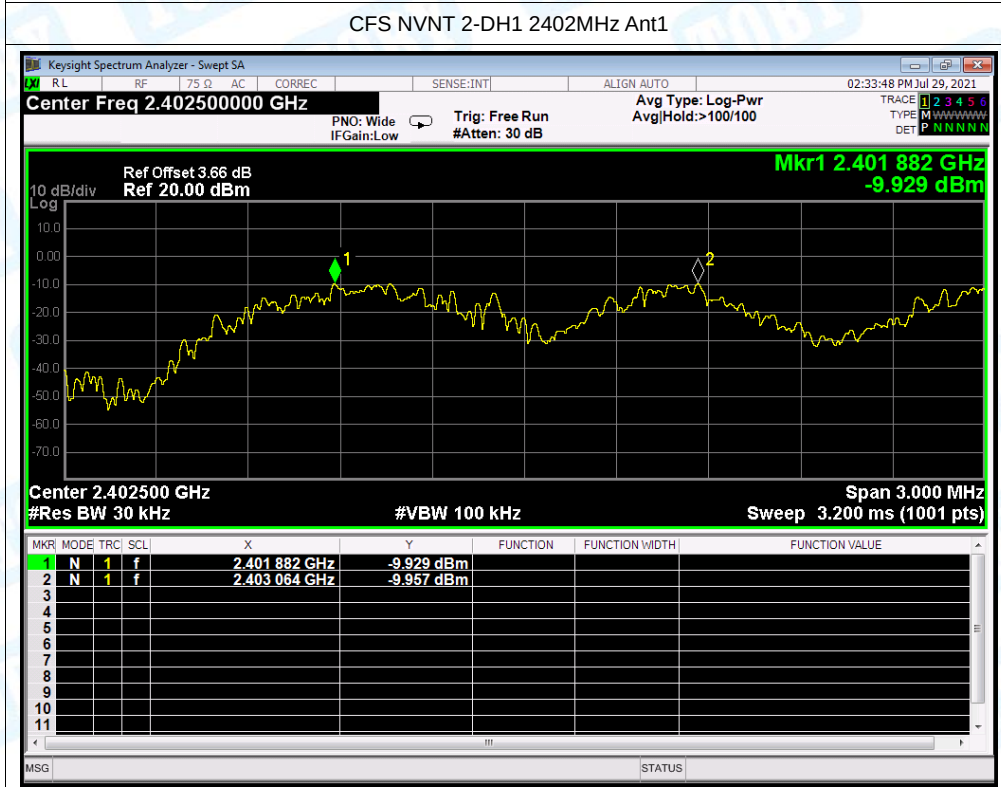
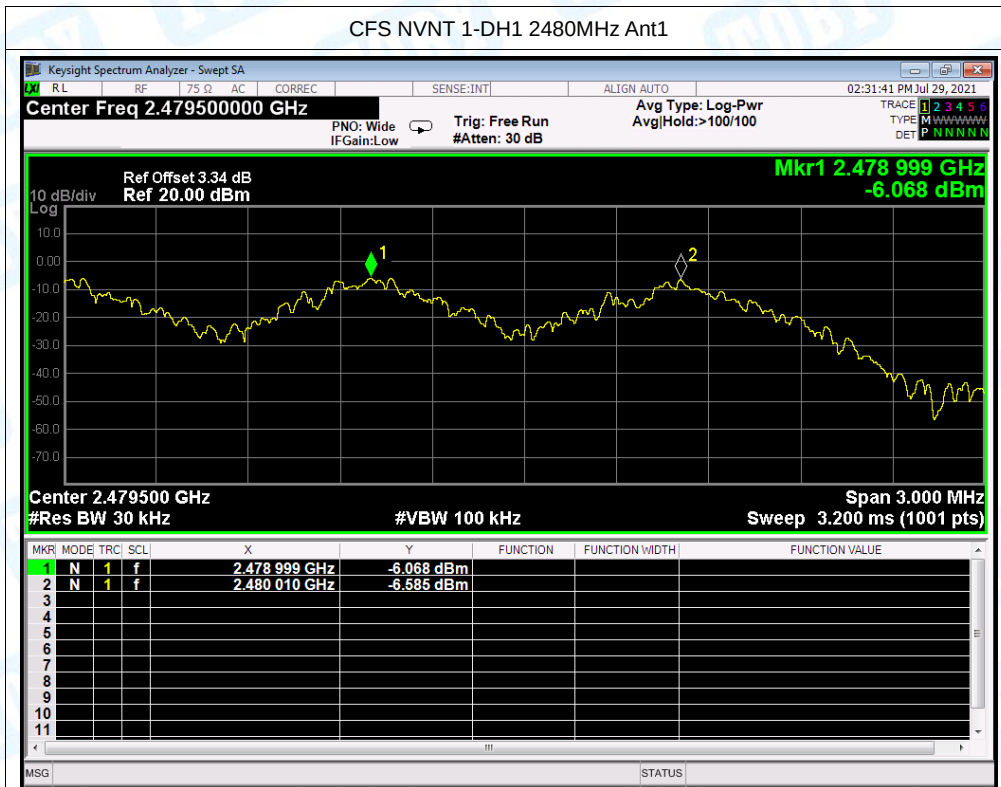


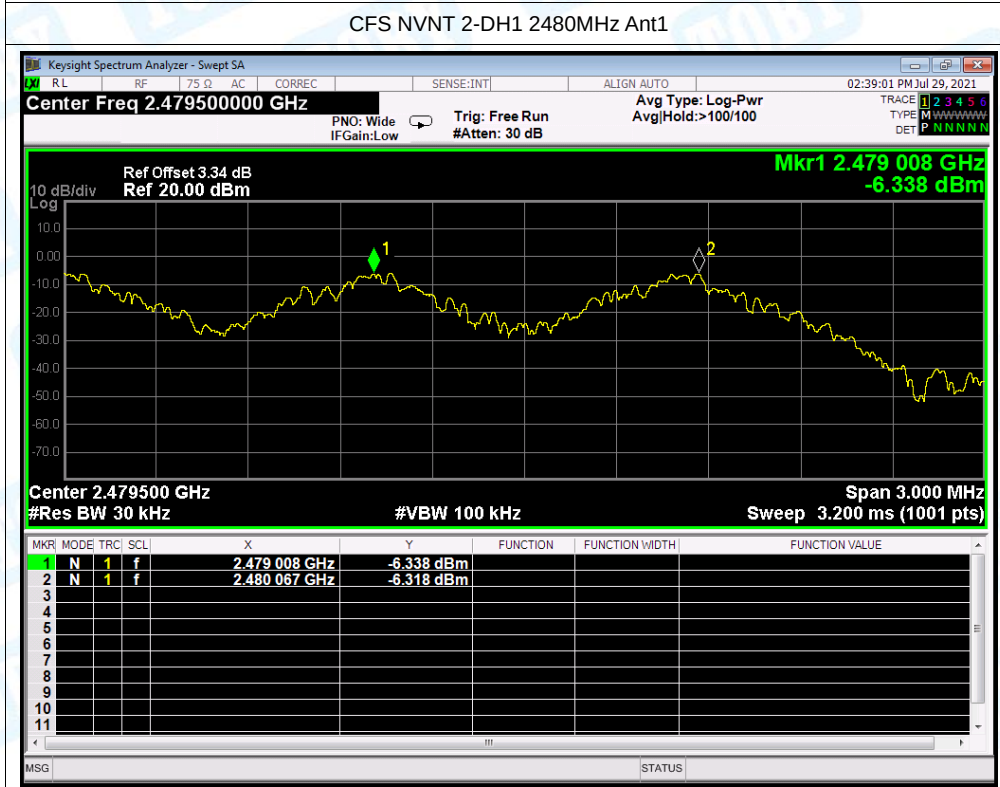
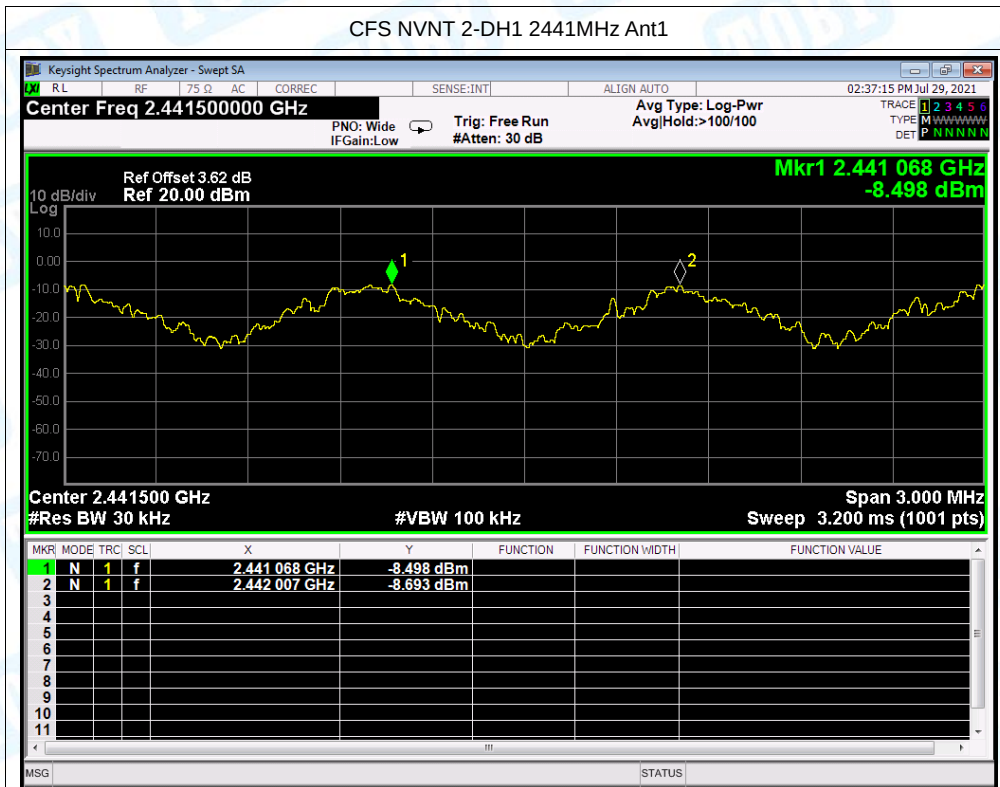


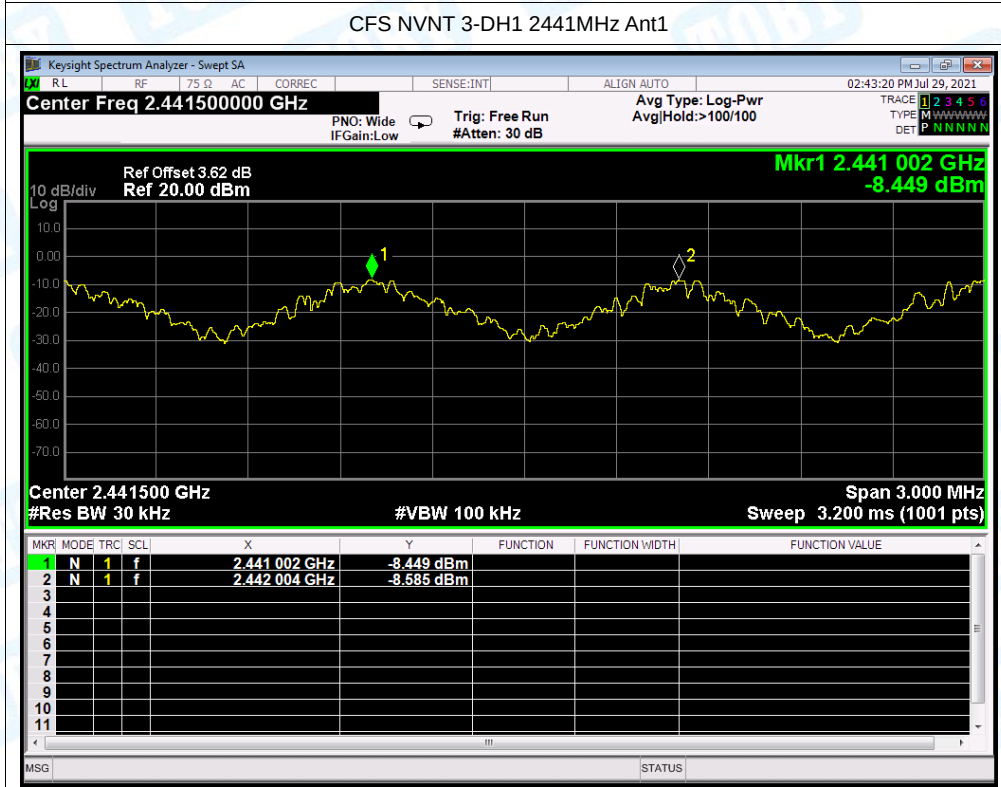
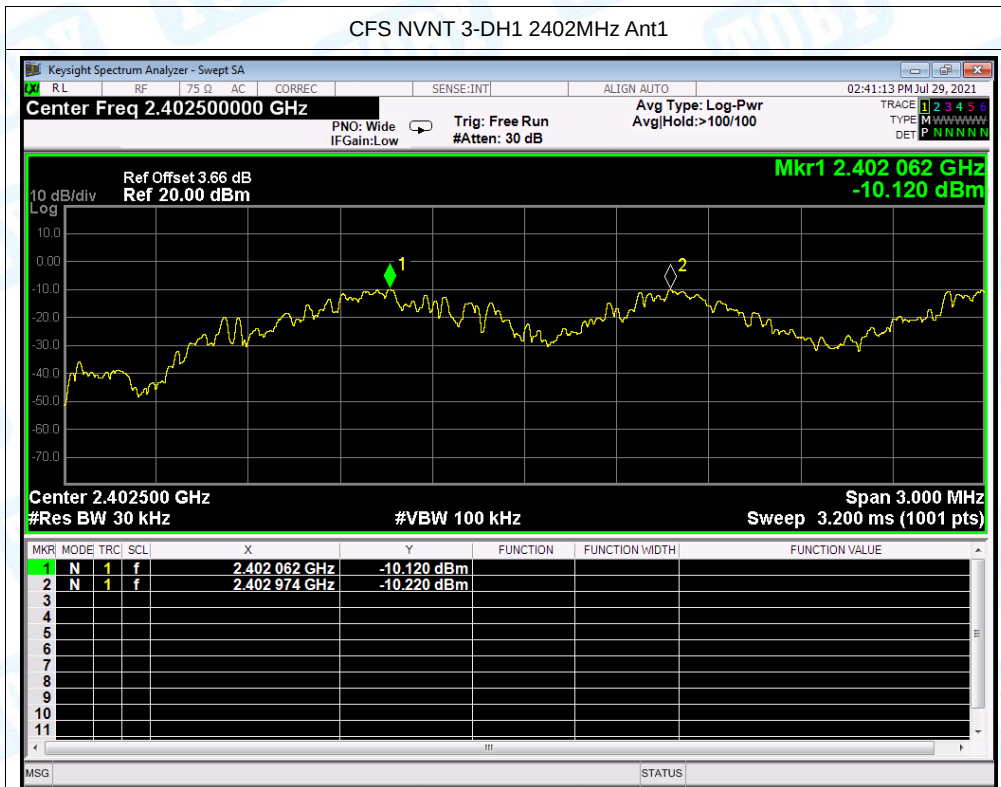
3.Carrier Frequencies Separation

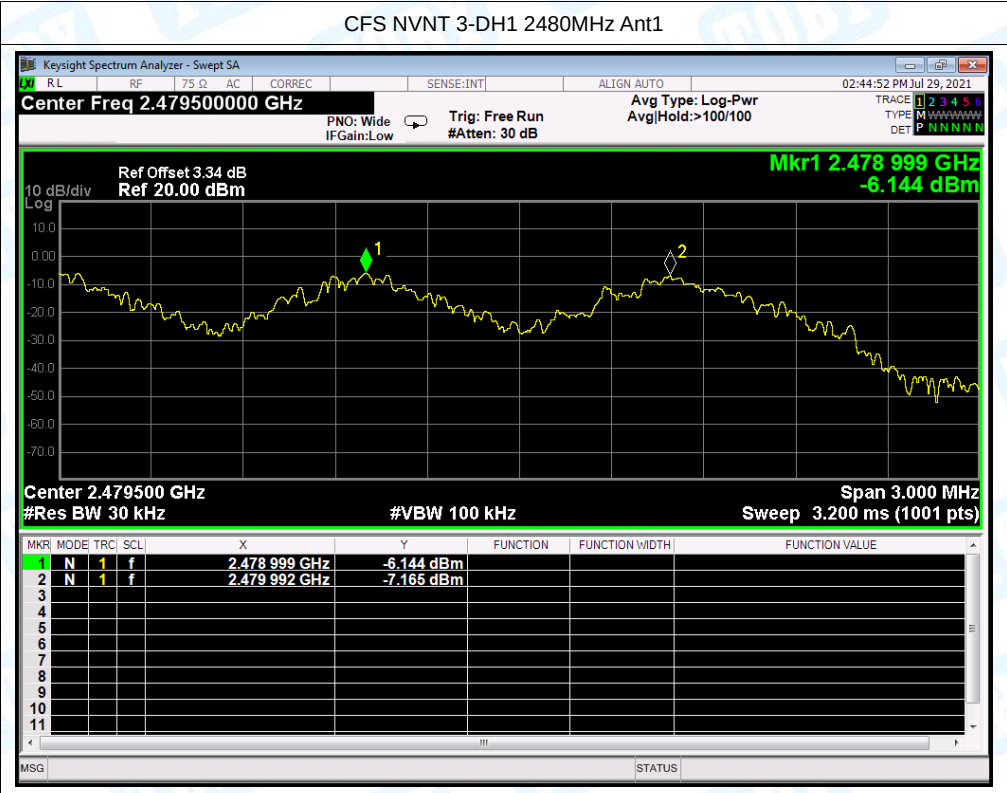
Condition	Mode	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	2402.065	2403.061	0.996	0.681	Pass
NVNT	1-DH1	2440.984	2441.98	0.996	0.676	Pass
NVNT	1-DH1	2478.999	2480.01	1.011	0.685	Pass
NVNT	2-DH1	2401.882	2403.064	1.182	0.901	Pass
NVNT	2-DH1	2441.068	2442.007	0.939	0.901	Pass
NVNT	2-DH1	2479.008	2480.067	1.059	0.901	Pass
NVNT	3-DH1	2402.062	2402.974	0.912	0.895	Pass
NVNT	3-DH1	2441.002	2442.004	1.002	0.884	Pass
NVNT	3-DH1	2478.999	2479.992	0.993	0.893	Pass





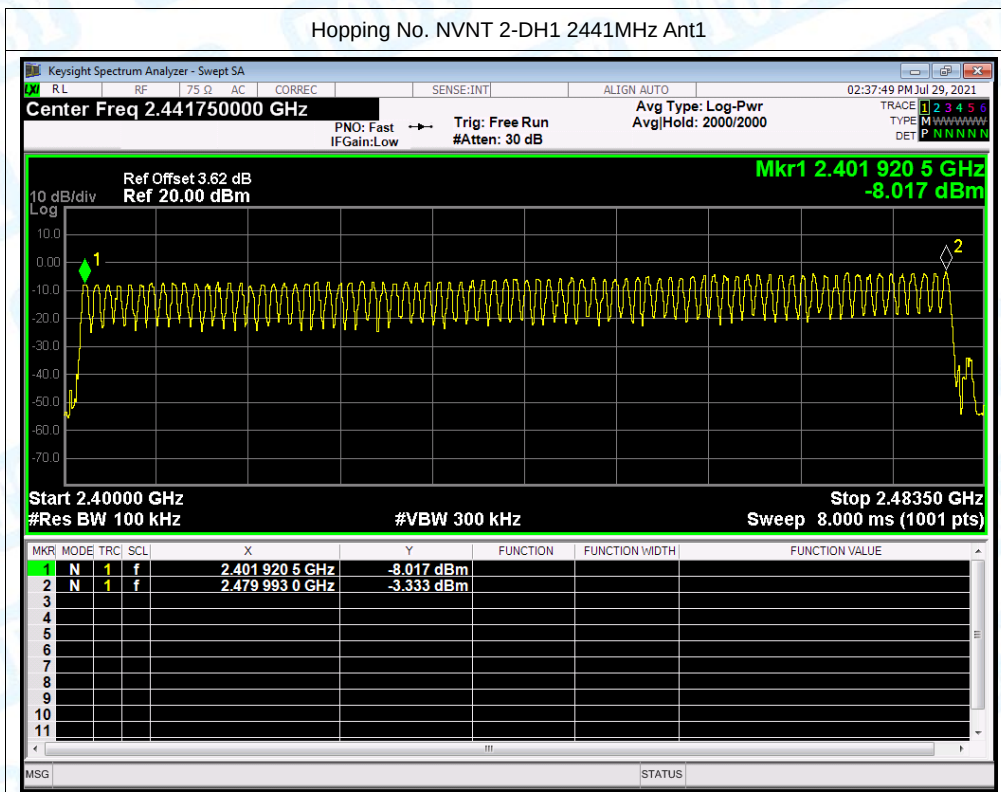
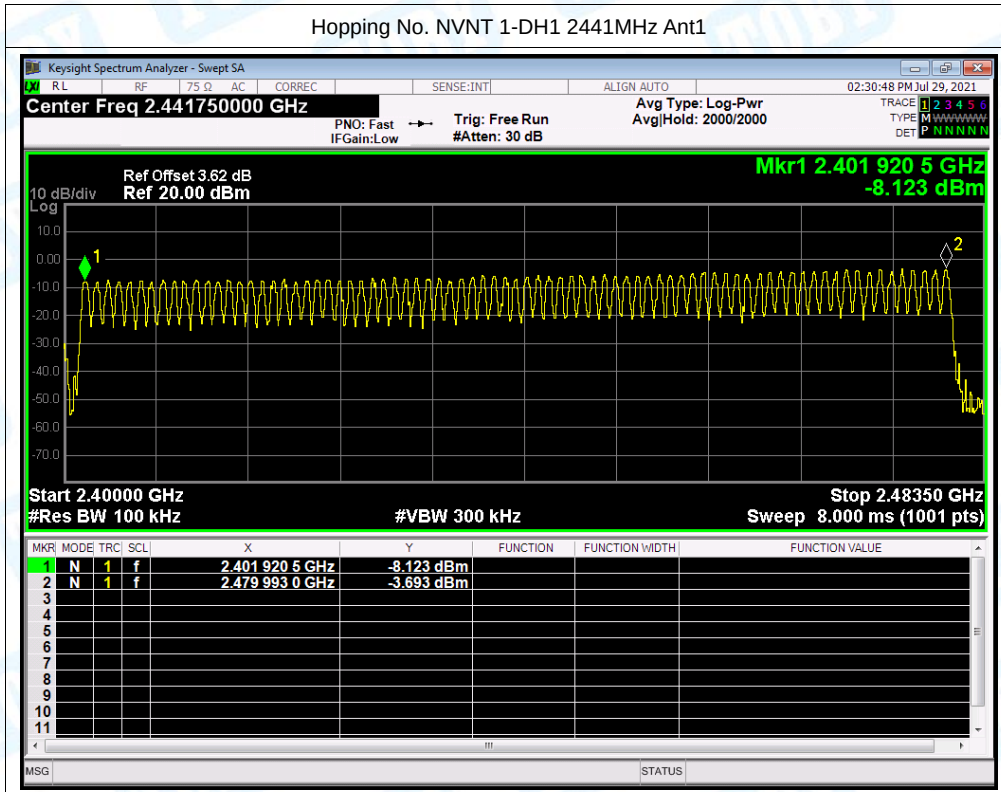


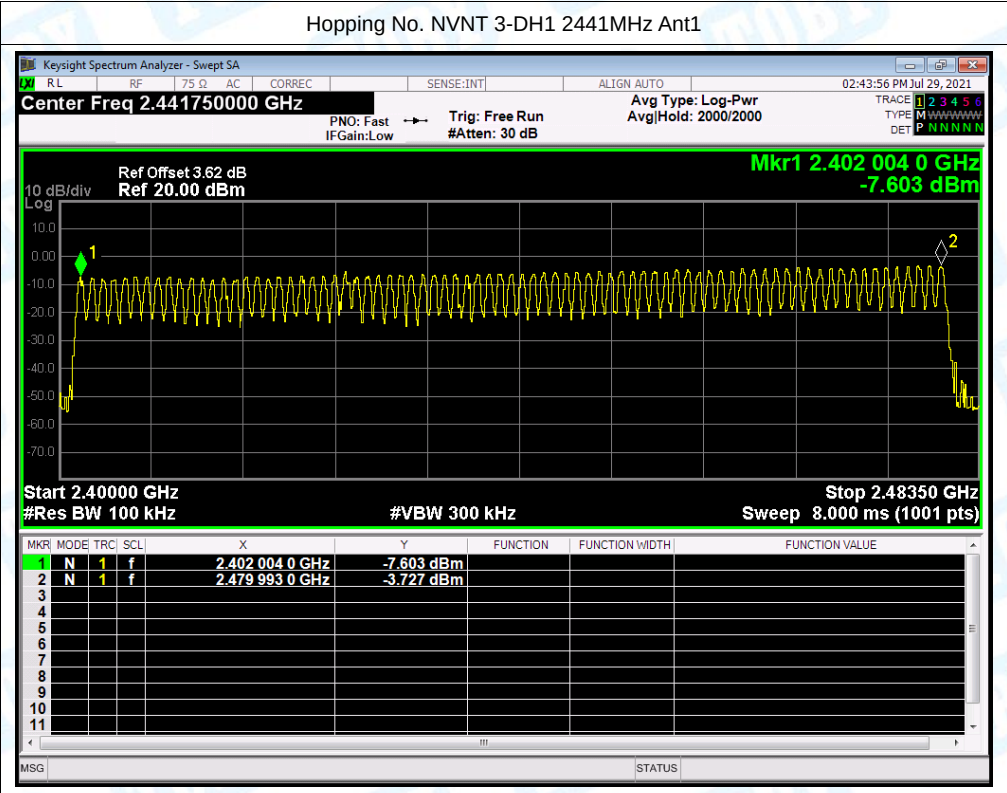




4.Number of Hopping Channel

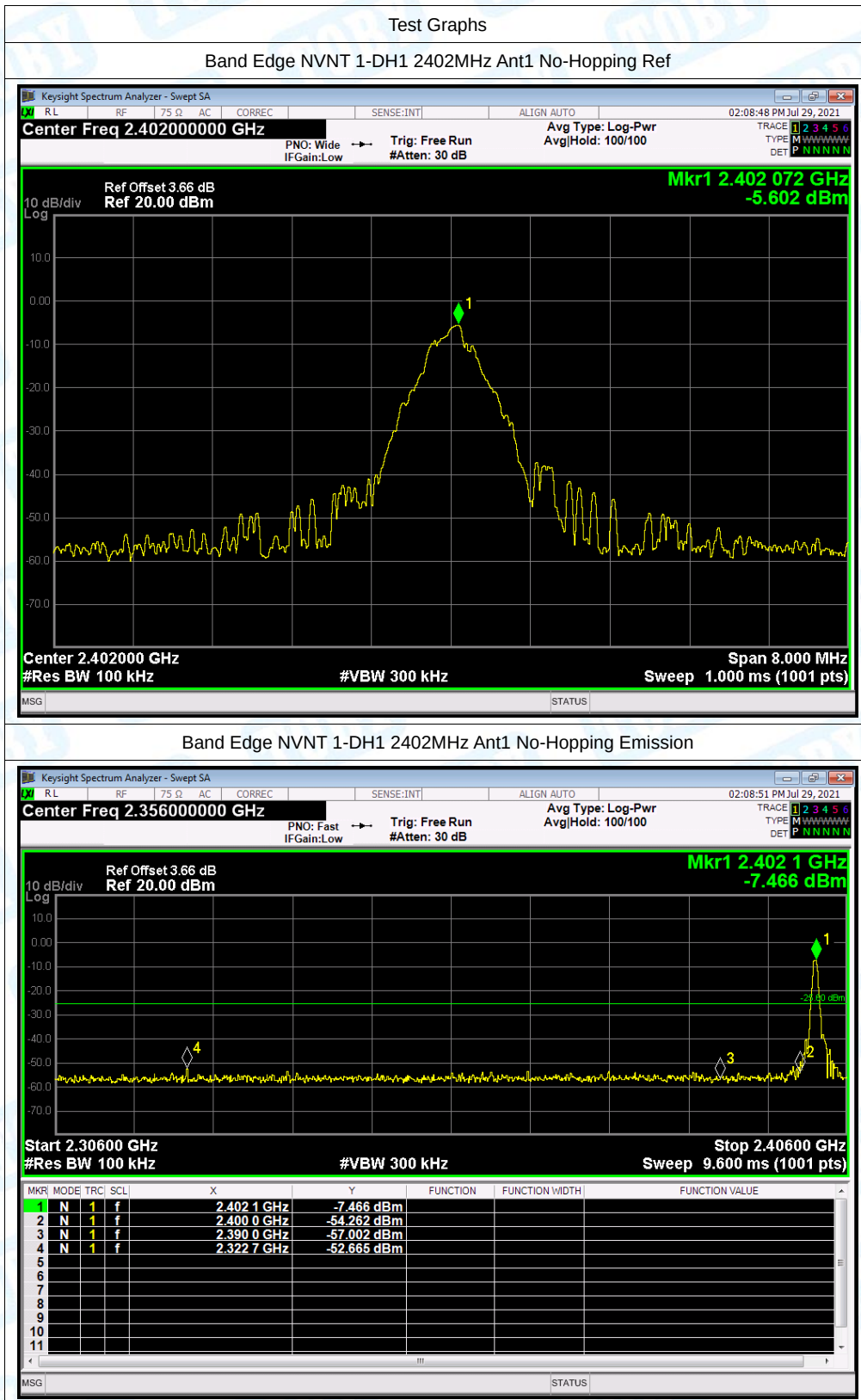
Condition	Mode	Hopping Number	Limit	Verdict
NVNT	1-DH1	79	15	Pass
NVNT	2-DH1	79	15	Pass
NVNT	3-DH1	79	15	Pass



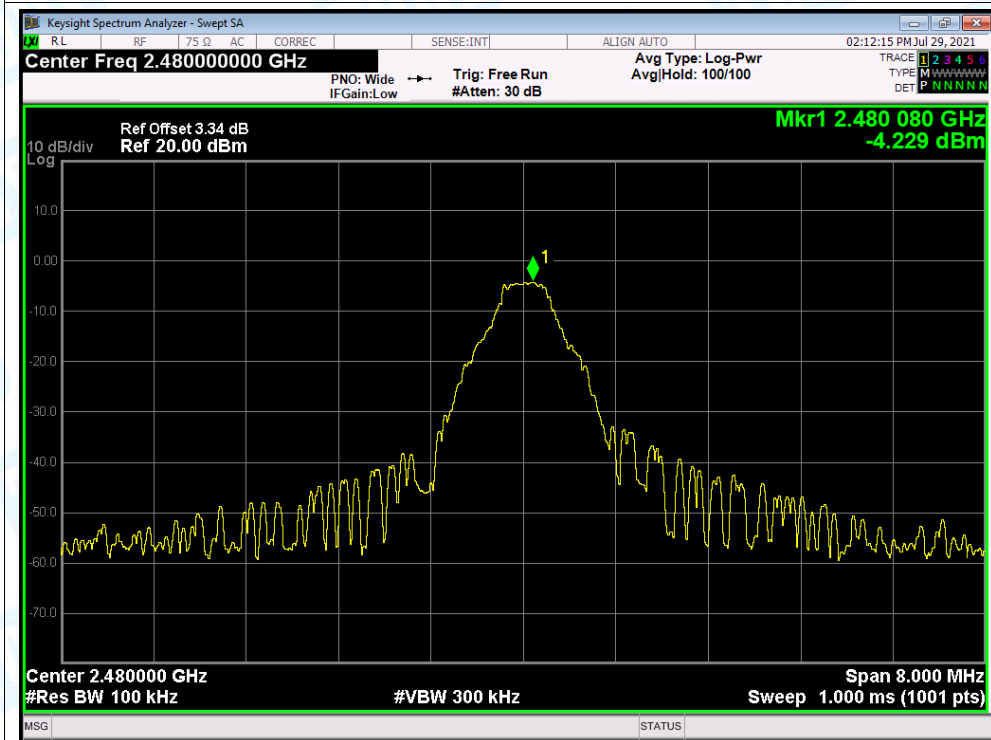


5.Band Edge

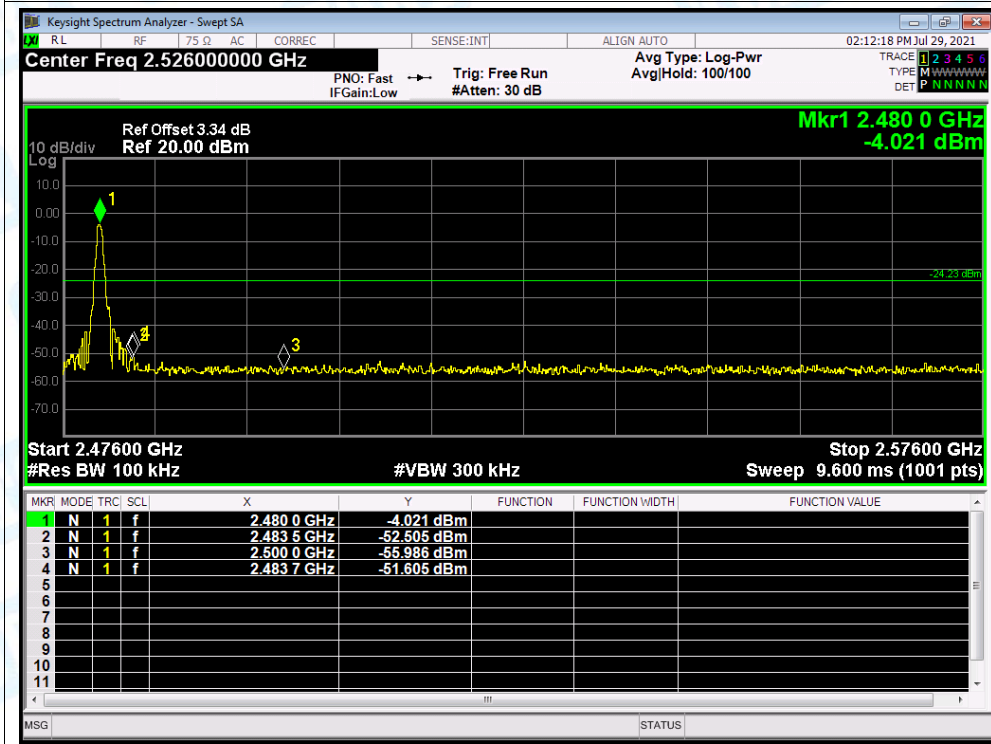
Condition	Mode	Frequency (MHz)	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	No-Hopping	-47.06	-20	Pass
NVNT	1-DH1	2480	No-Hopping	-47.37	-20	Pass
NVNT	2-DH1	2402	No-Hopping	-44.92	-20	Pass
NVNT	2-DH1	2480	No-Hopping	-46.29	-20	Pass
NVNT	3-DH1	2402	No-Hopping	-44.82	-20	Pass
NVNT	3-DH1	2480	No-Hopping	-44.73	-20	Pass

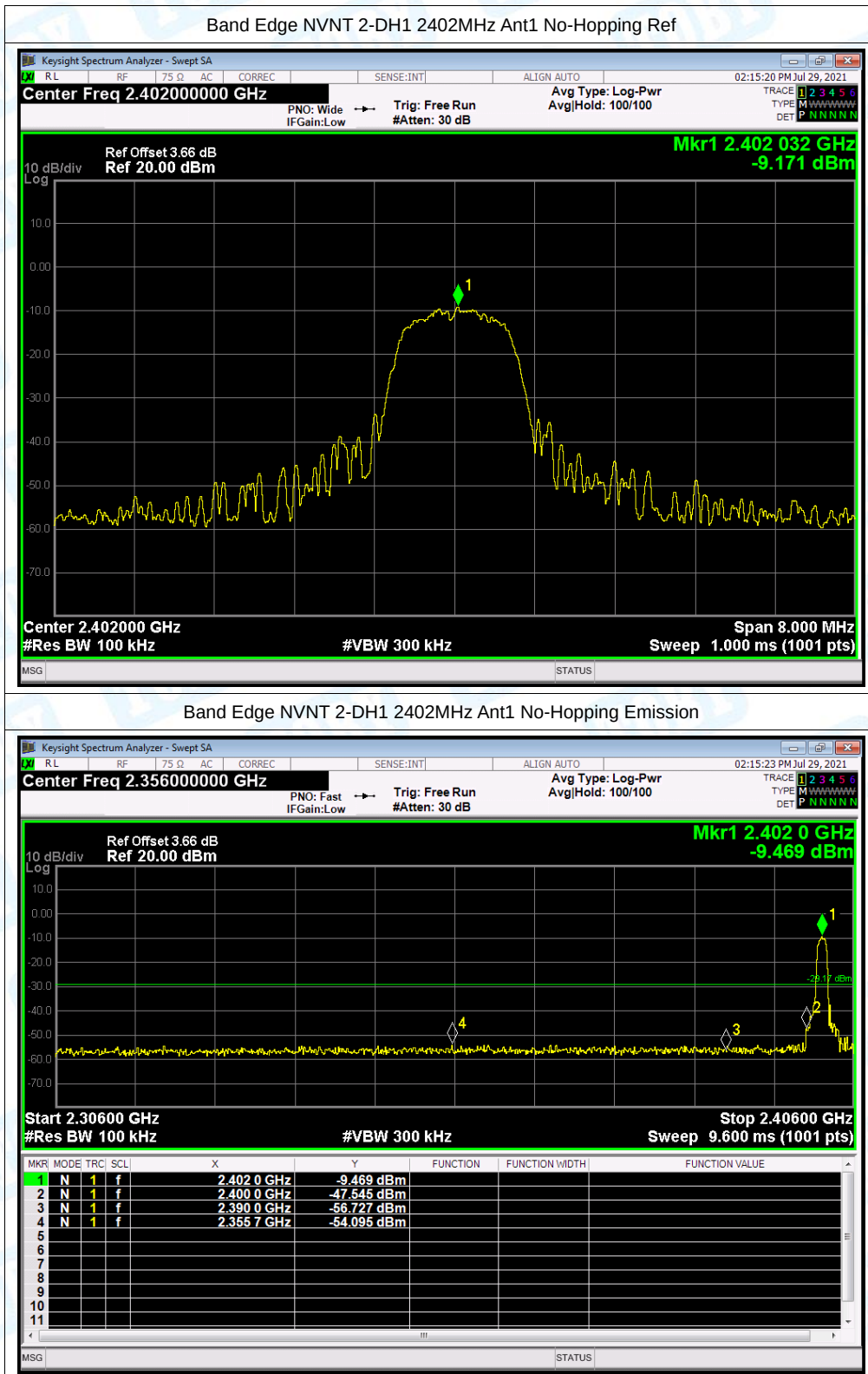


Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref

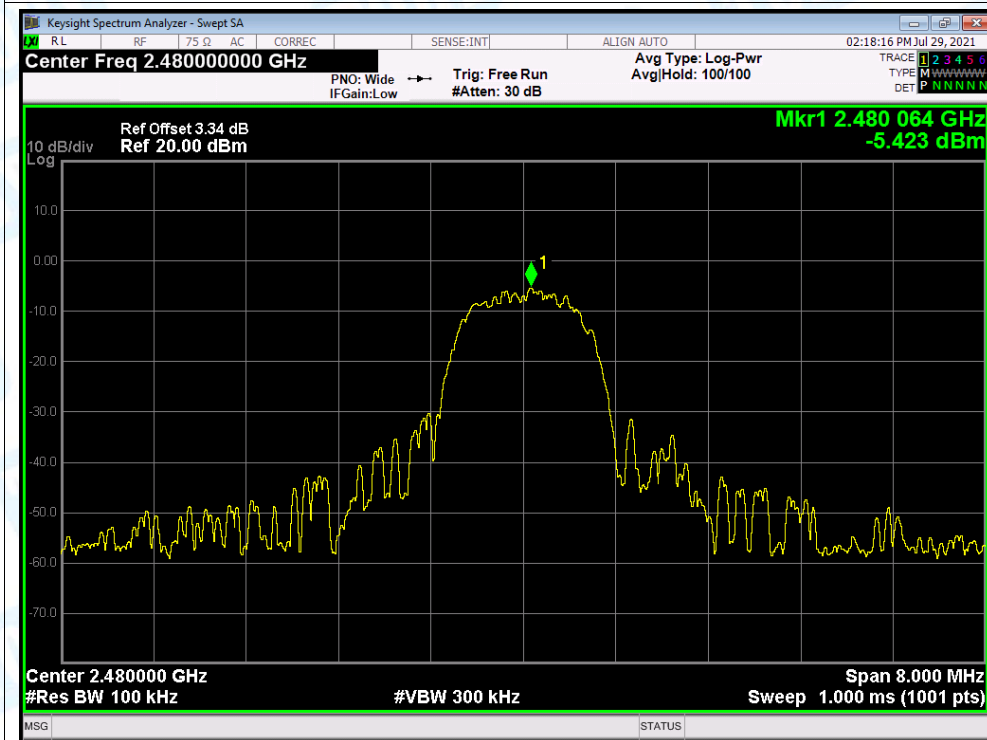


Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission

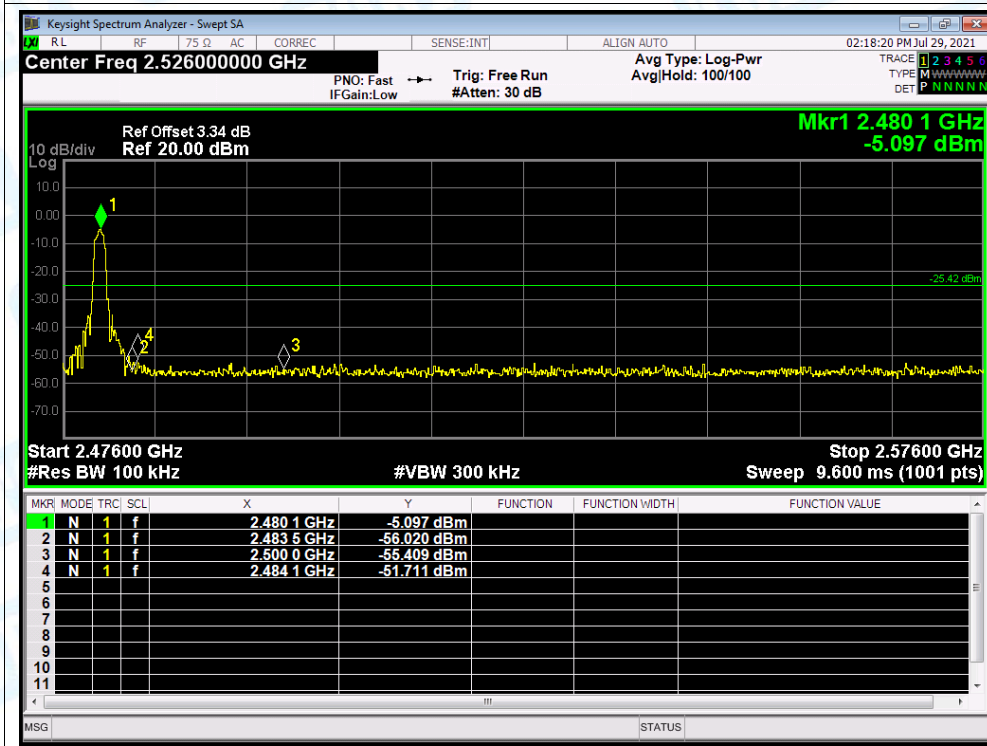


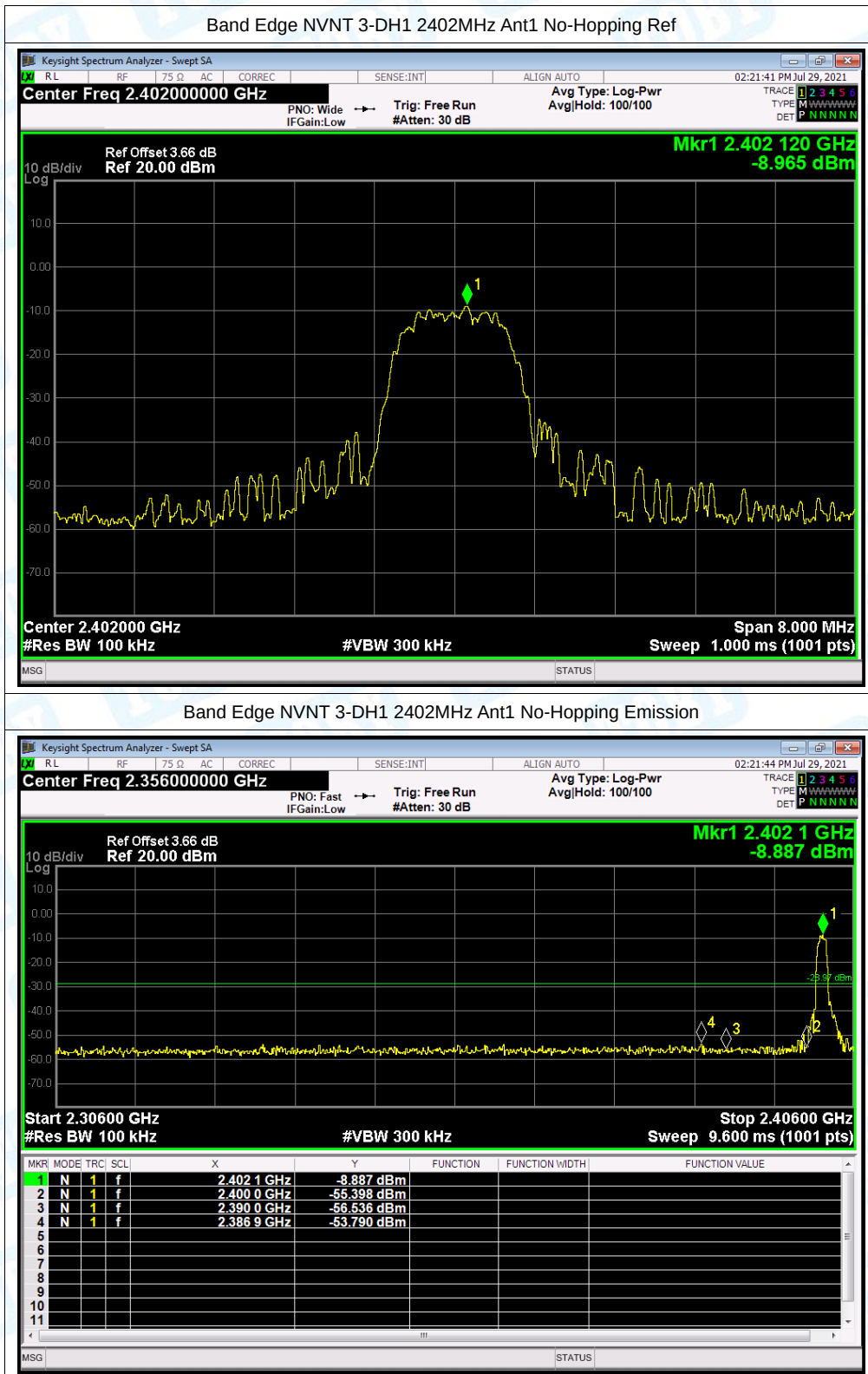


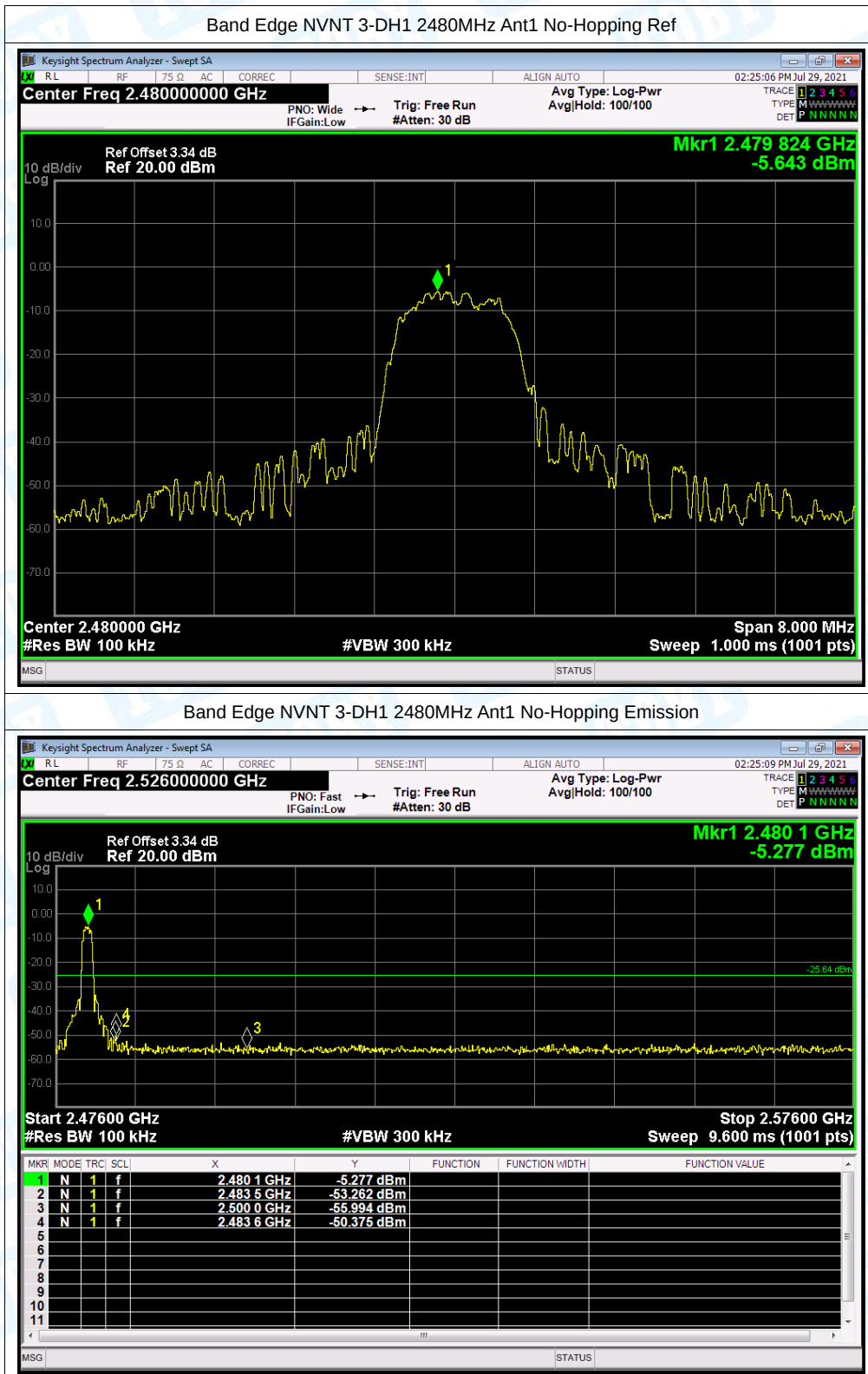
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



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

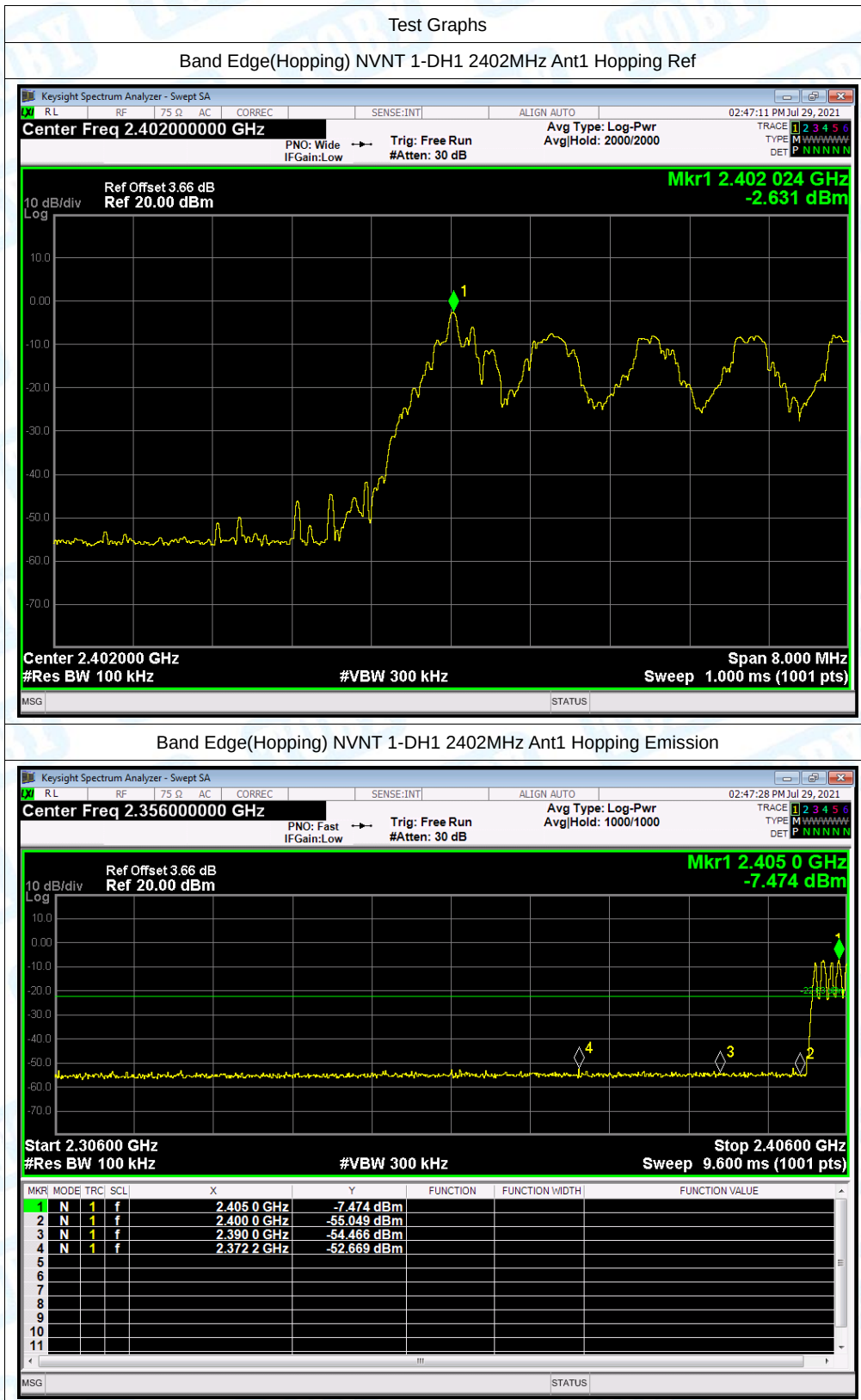


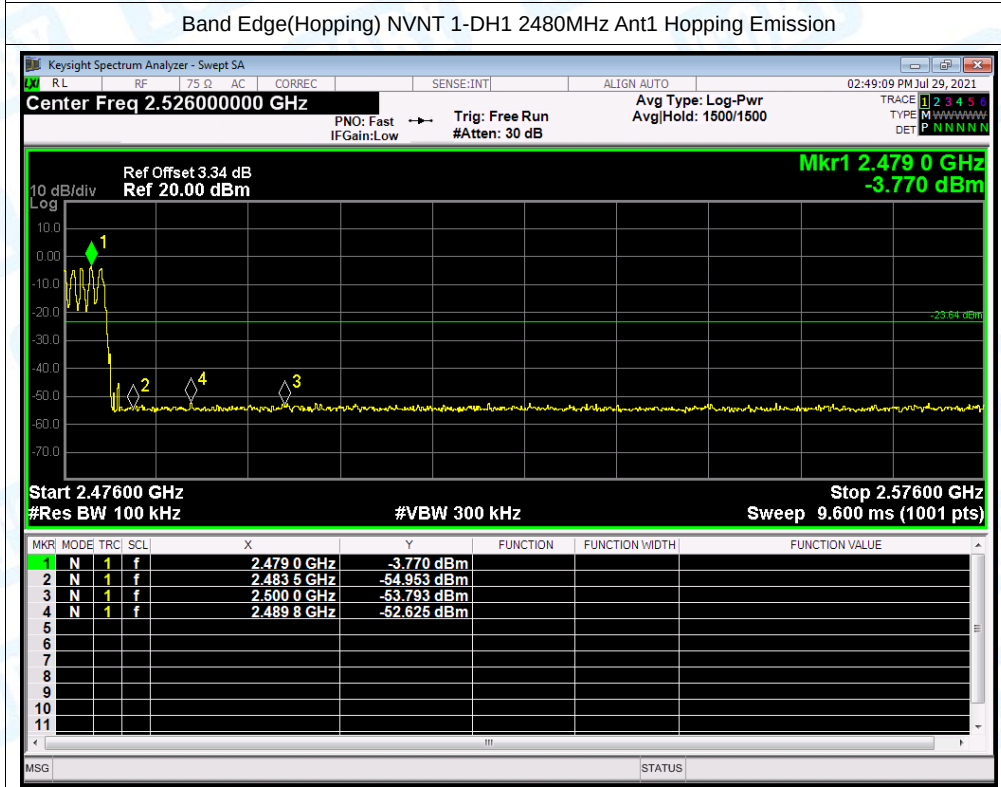
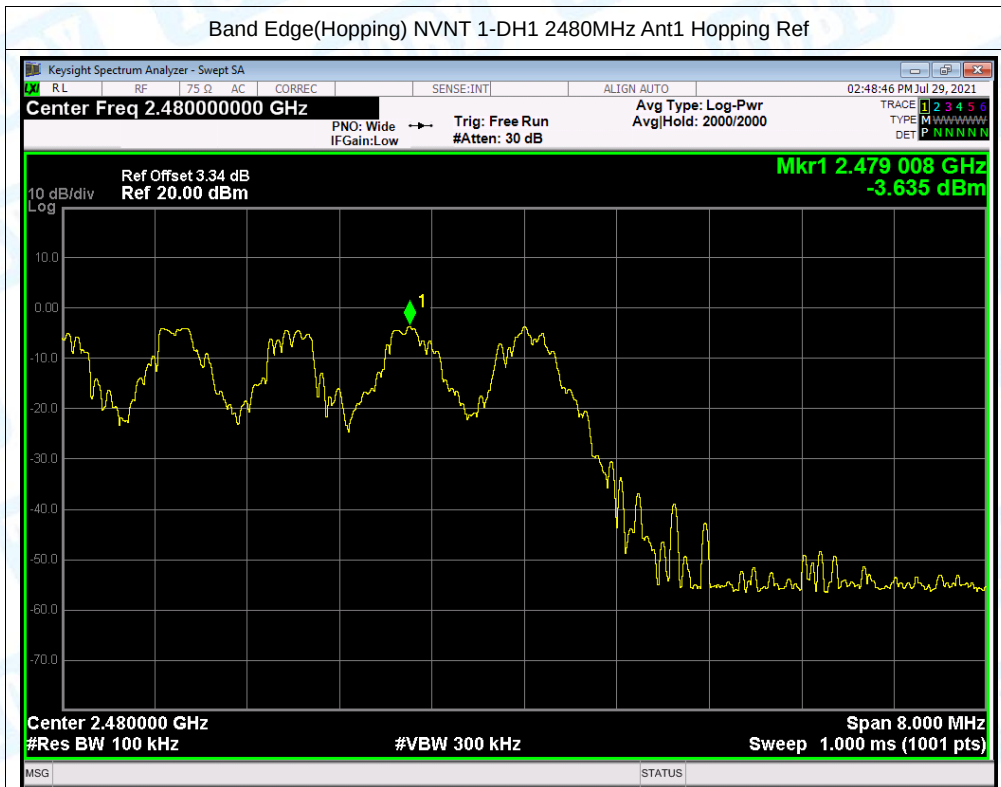


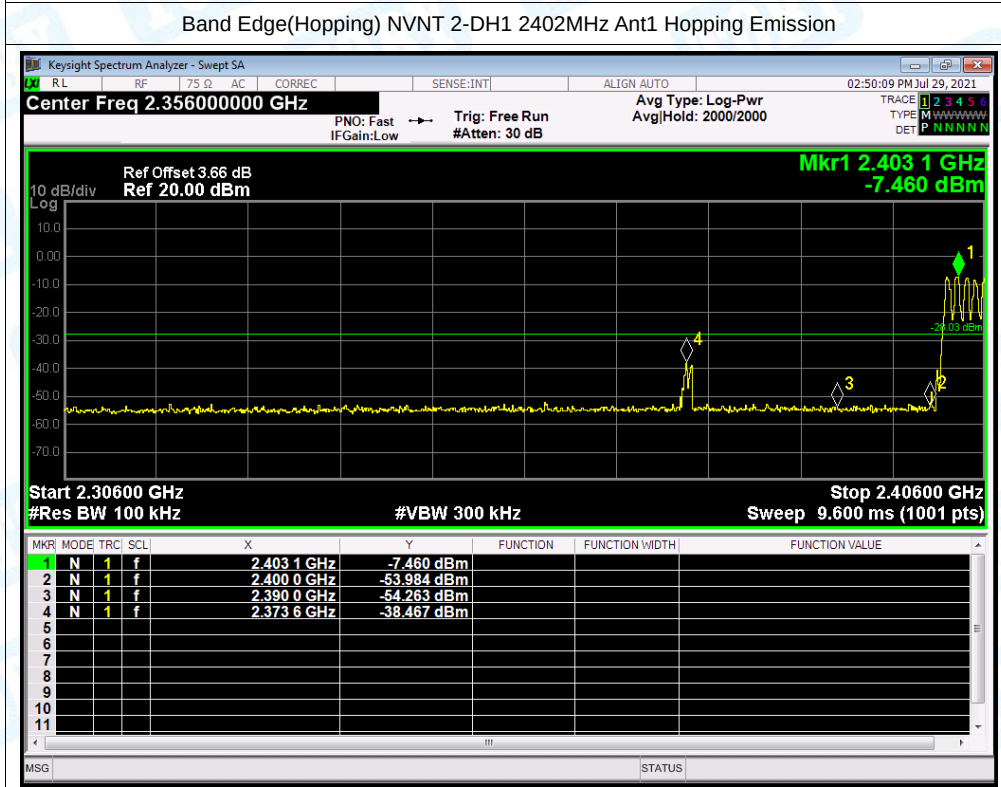


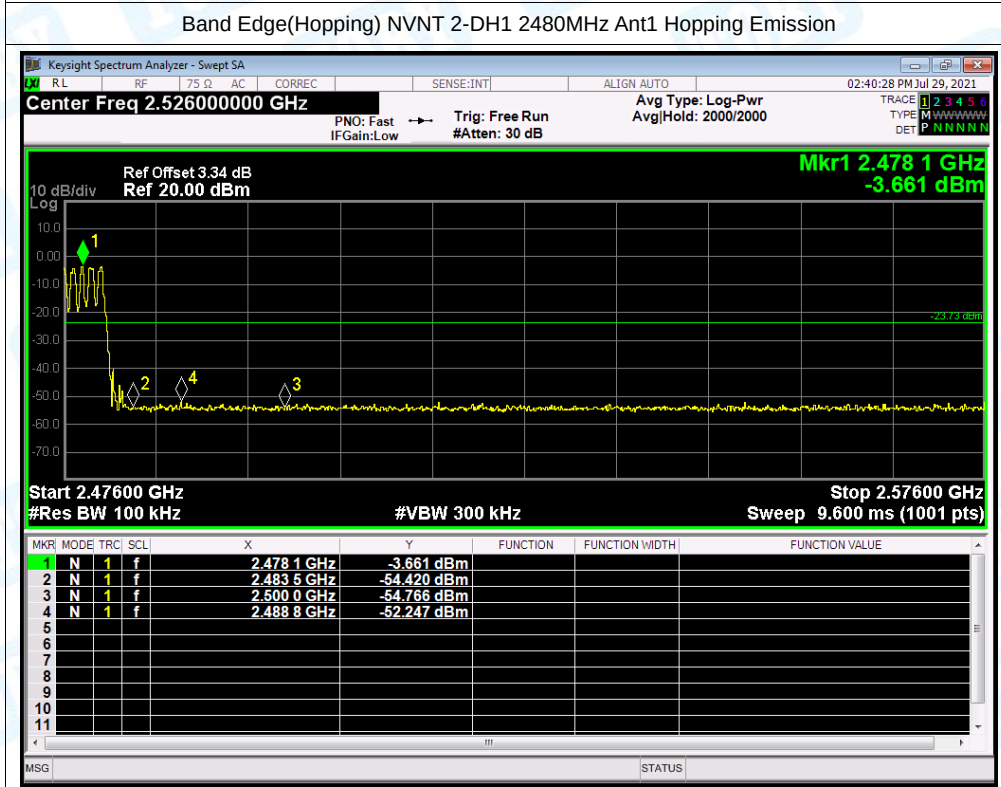
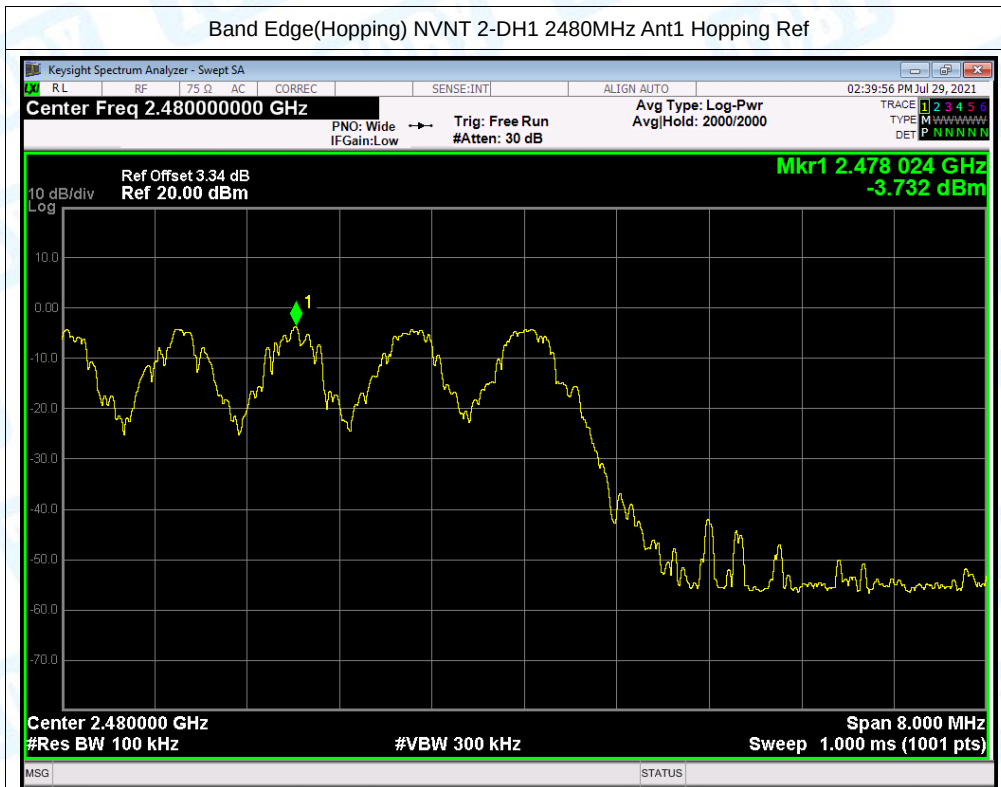
6.Band Edge(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-50.03	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-48.99	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-30.44	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-48.51	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-45.58	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-49.19	-20	Pass

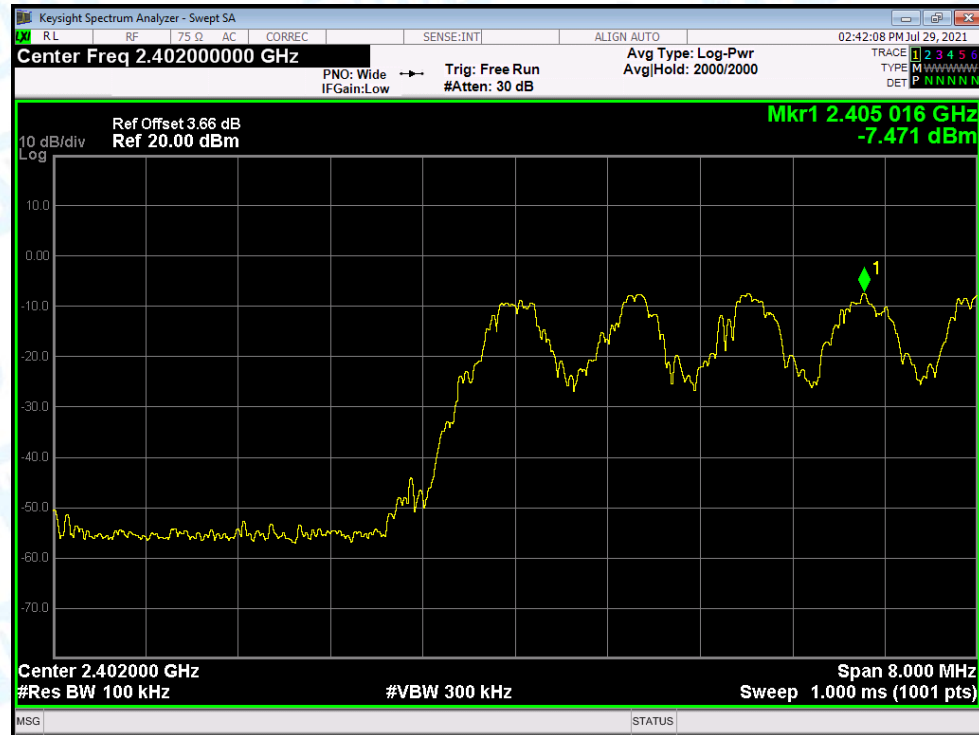




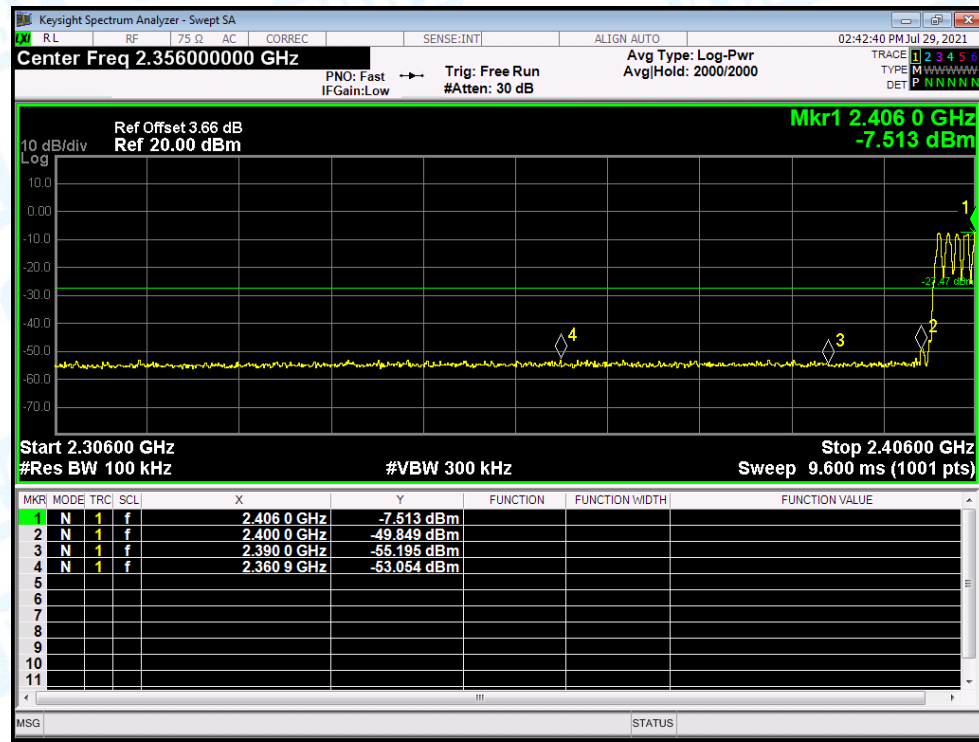


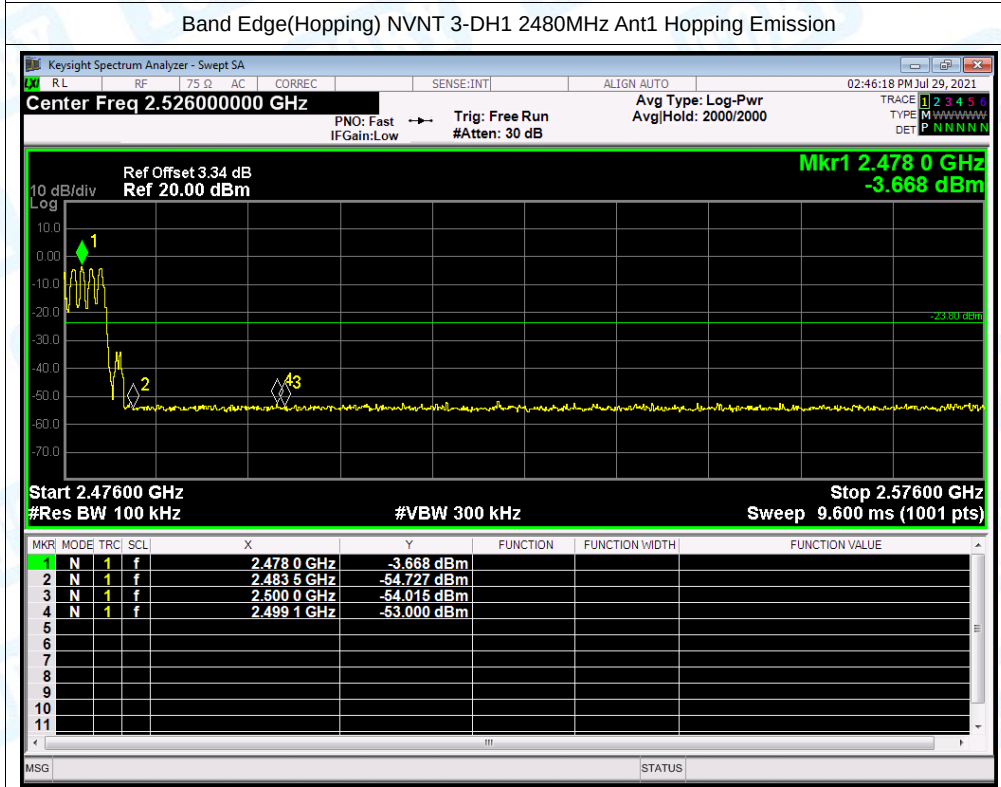
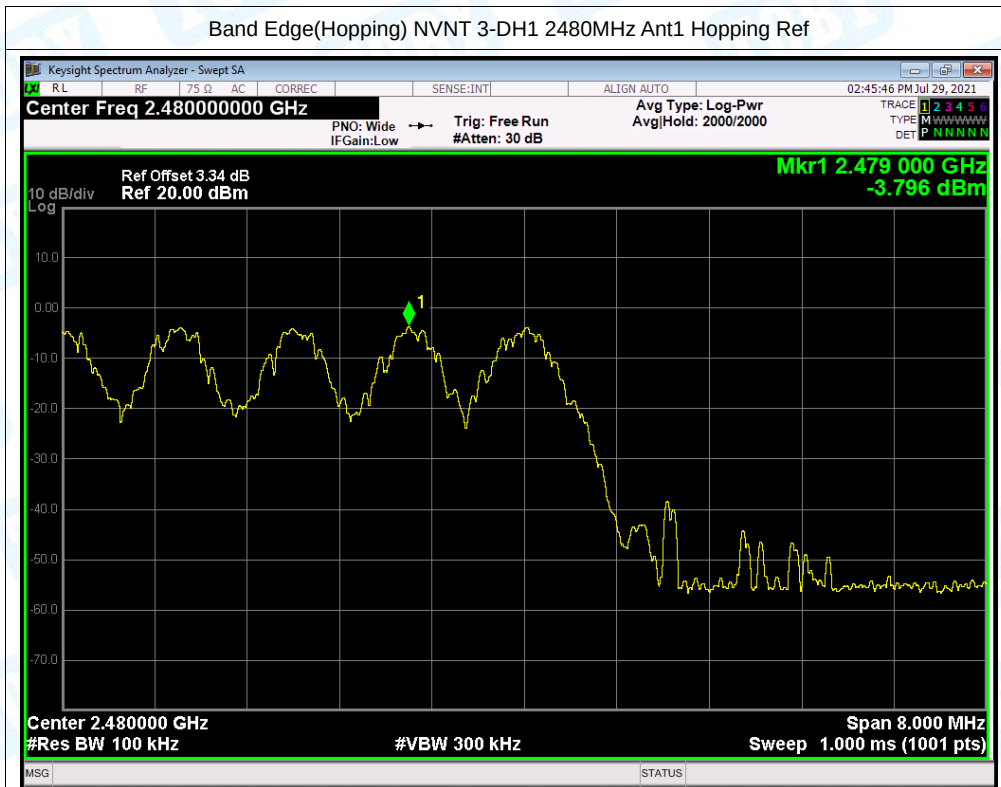


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



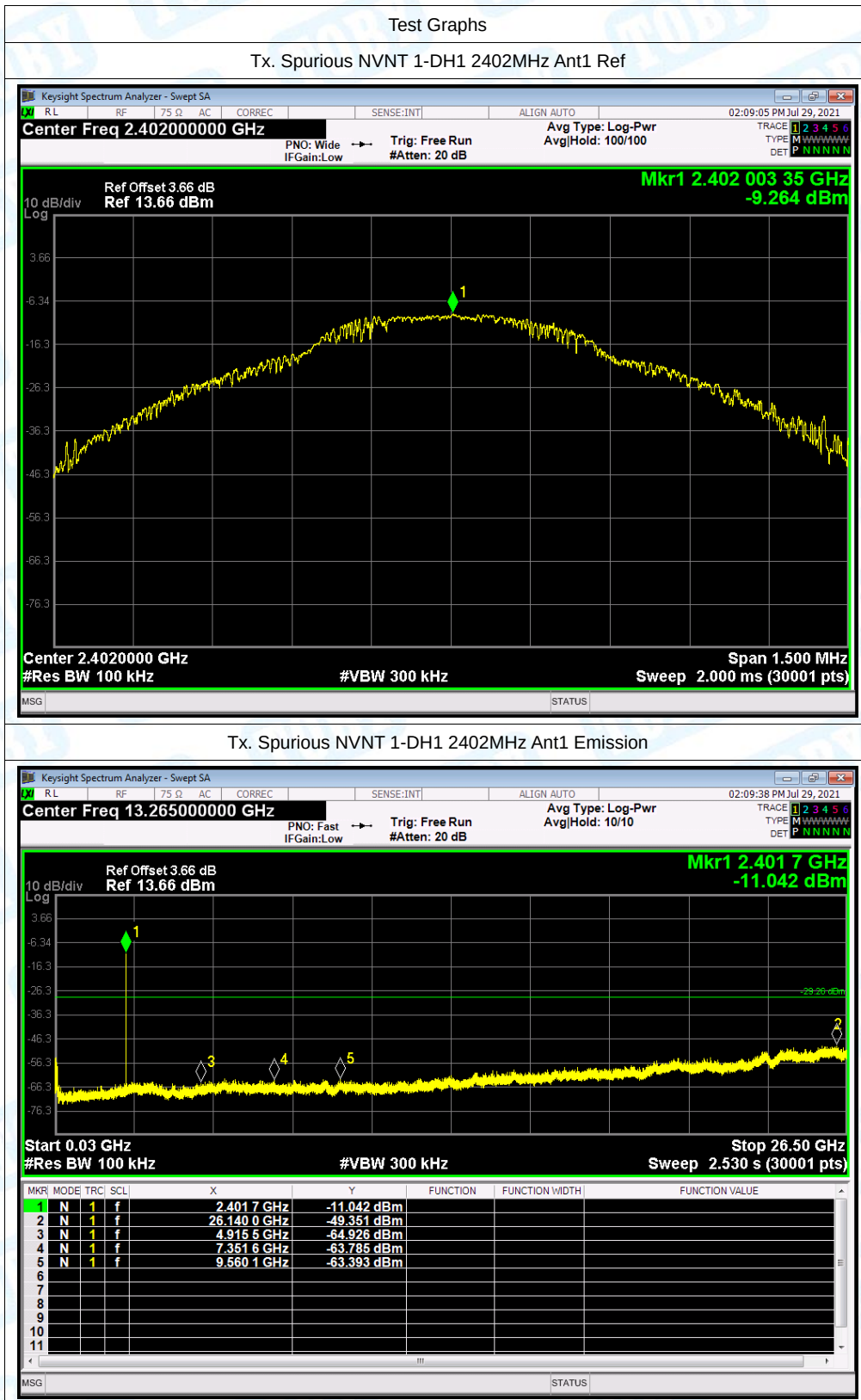
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission

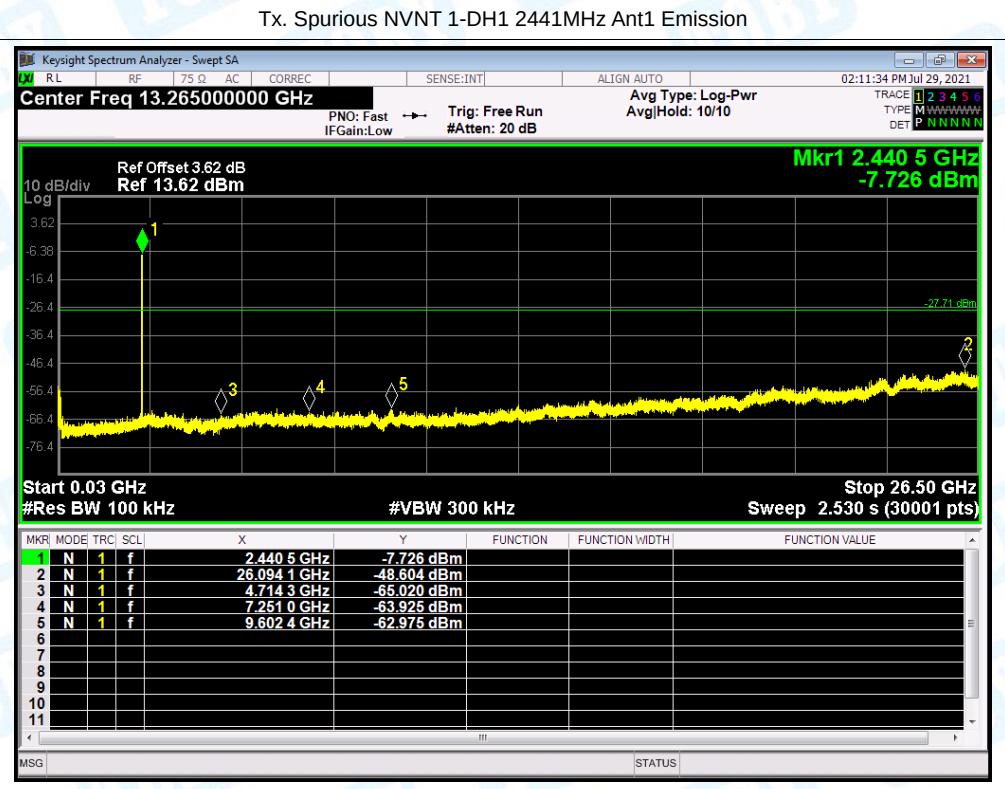
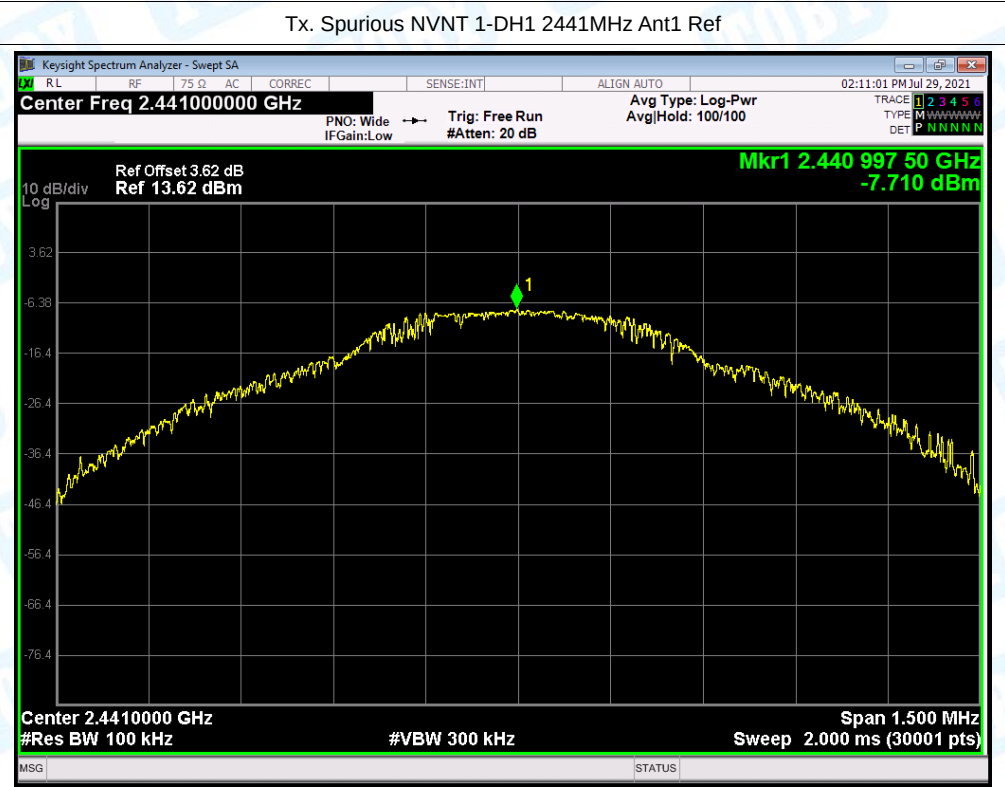




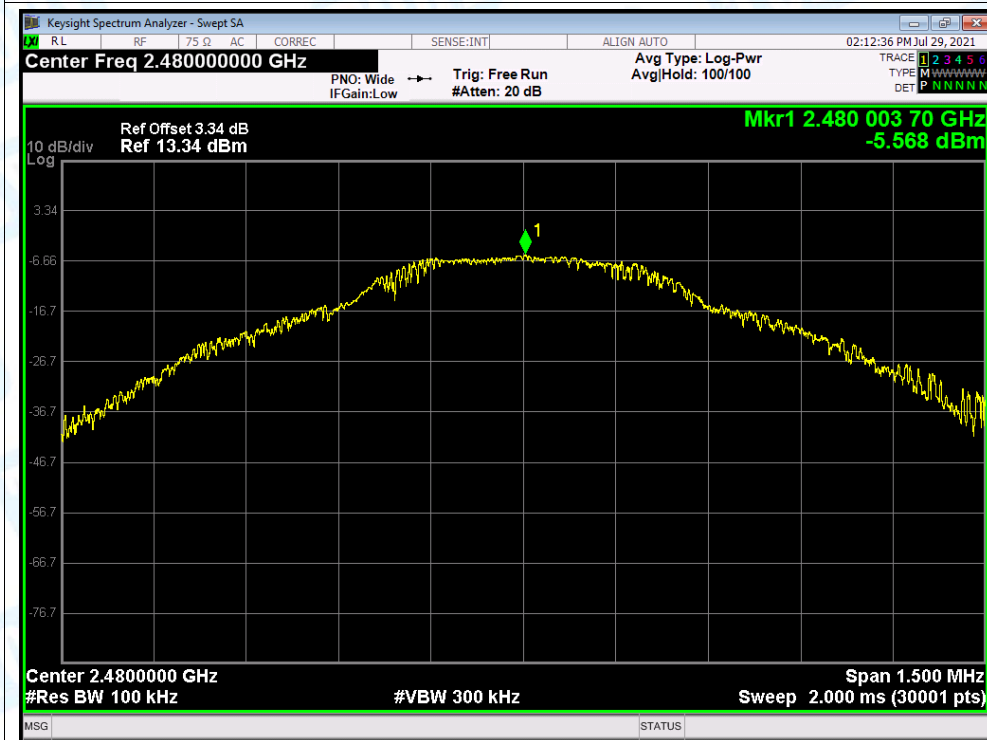
7.Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	-40.09	-20	Pass
NVNT	1-DH1	2441	-40.89	-20	Pass
NVNT	1-DH1	2480	-43.78	-20	Pass
NVNT	2-DH1	2402	-26.5	-20	Pass
NVNT	2-DH1	2441	-39.48	-20	Pass
NVNT	2-DH1	2480	-42.03	-20	Pass
NVNT	3-DH1	2402	-37.17	-20	Pass
NVNT	3-DH1	2441	-40.53	-20	Pass
NVNT	3-DH1	2480	-42.49	-20	Pass

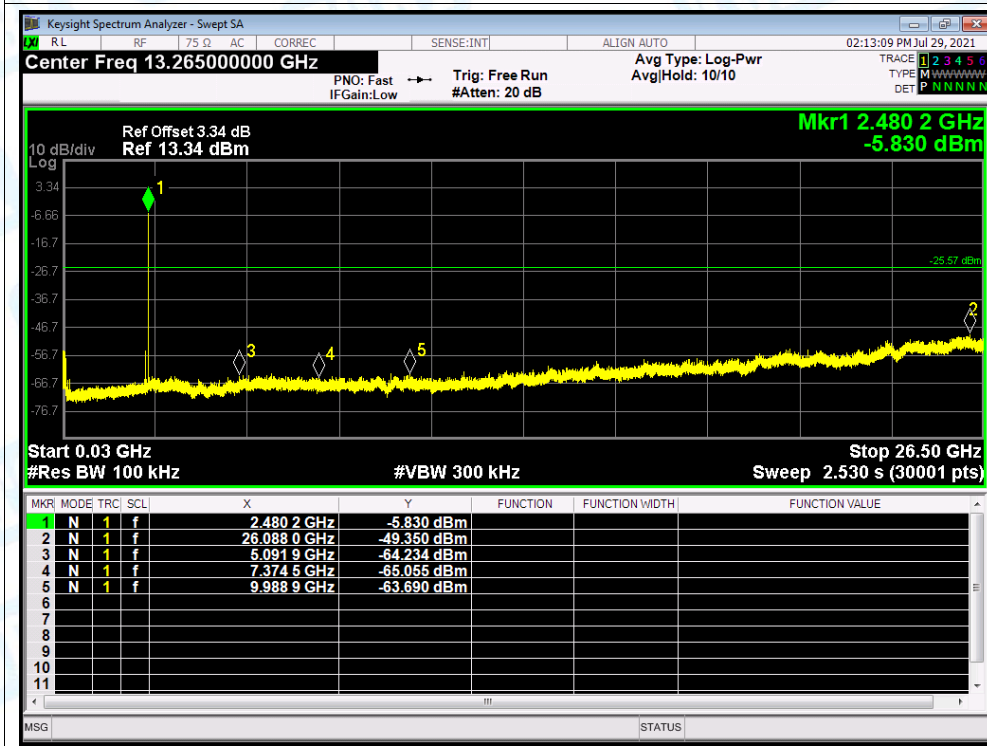


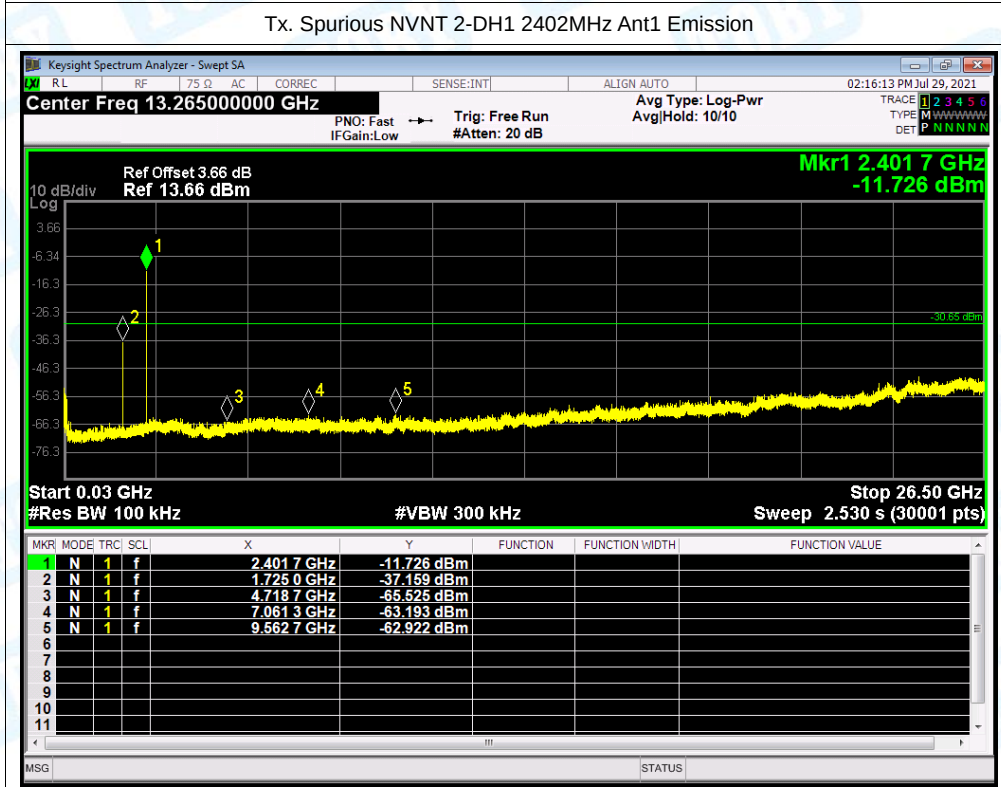
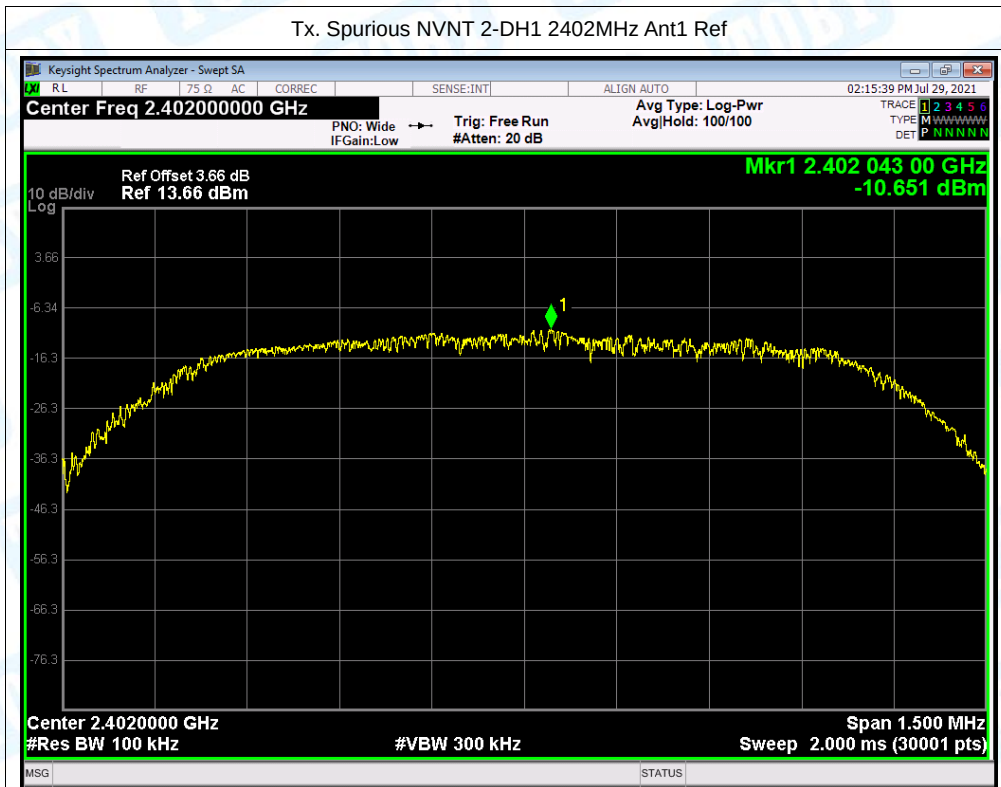


Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref

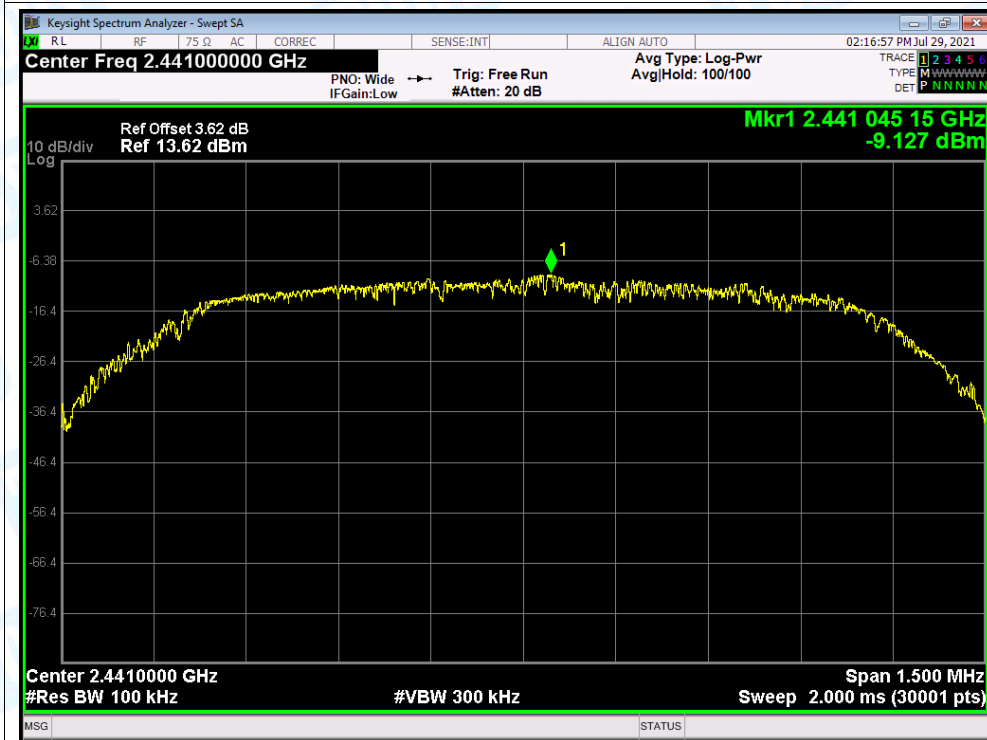


Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission

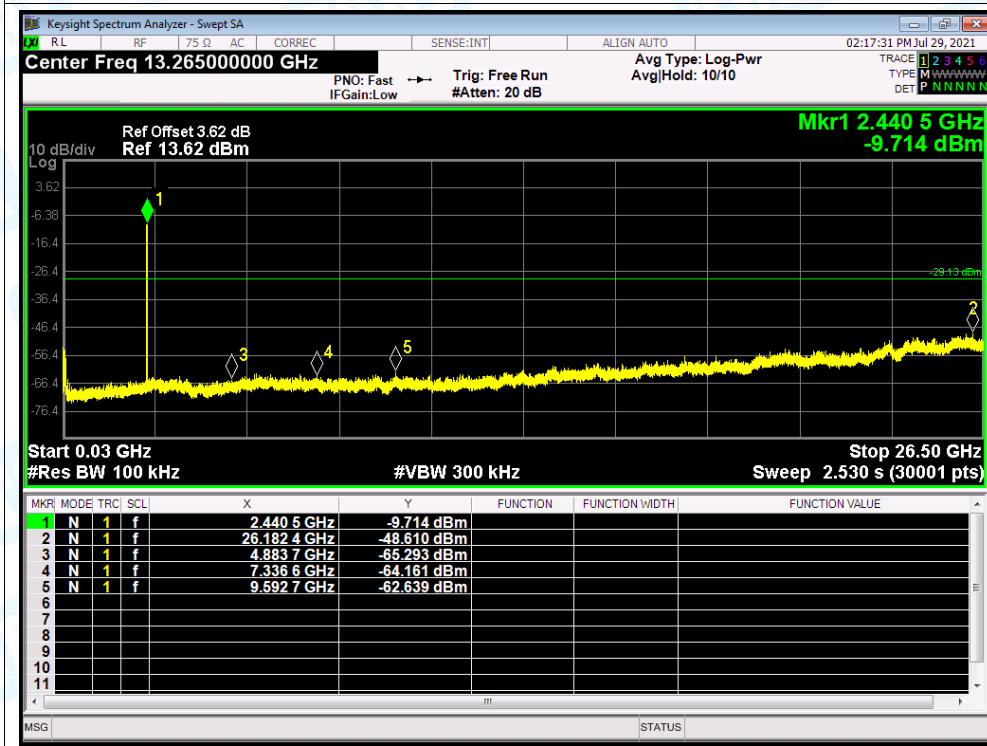




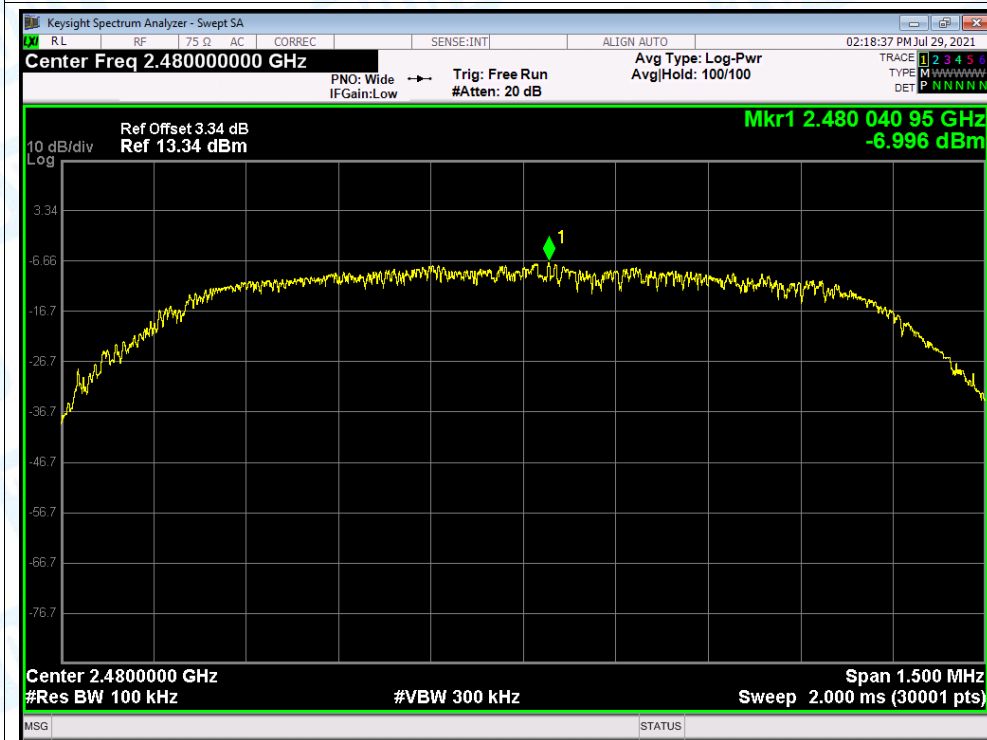
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



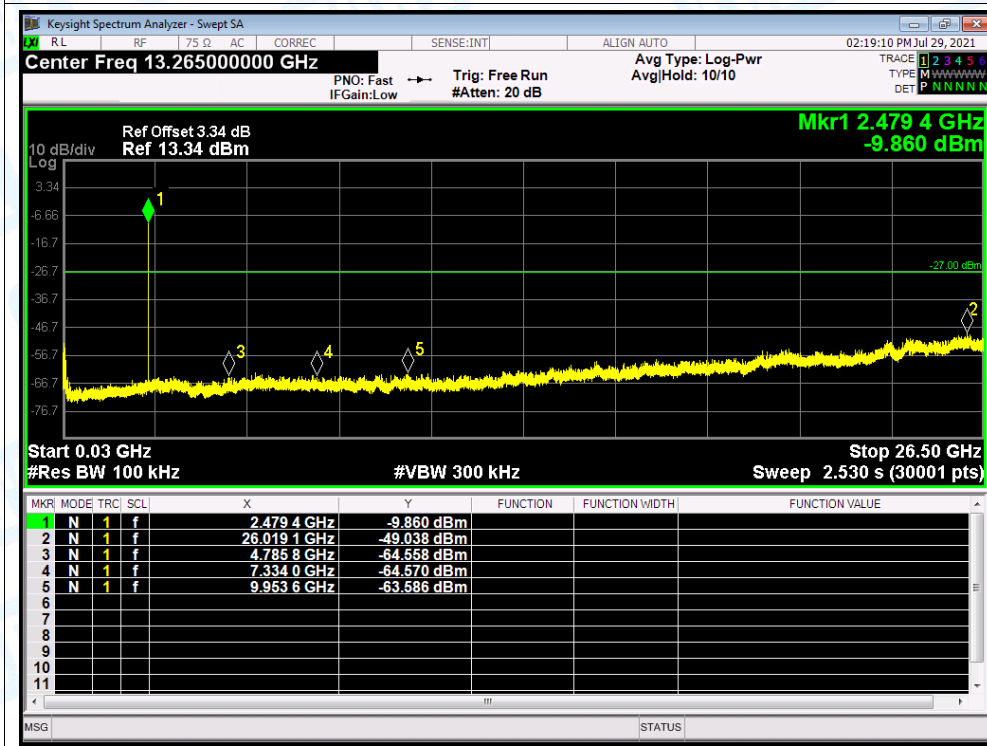
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission

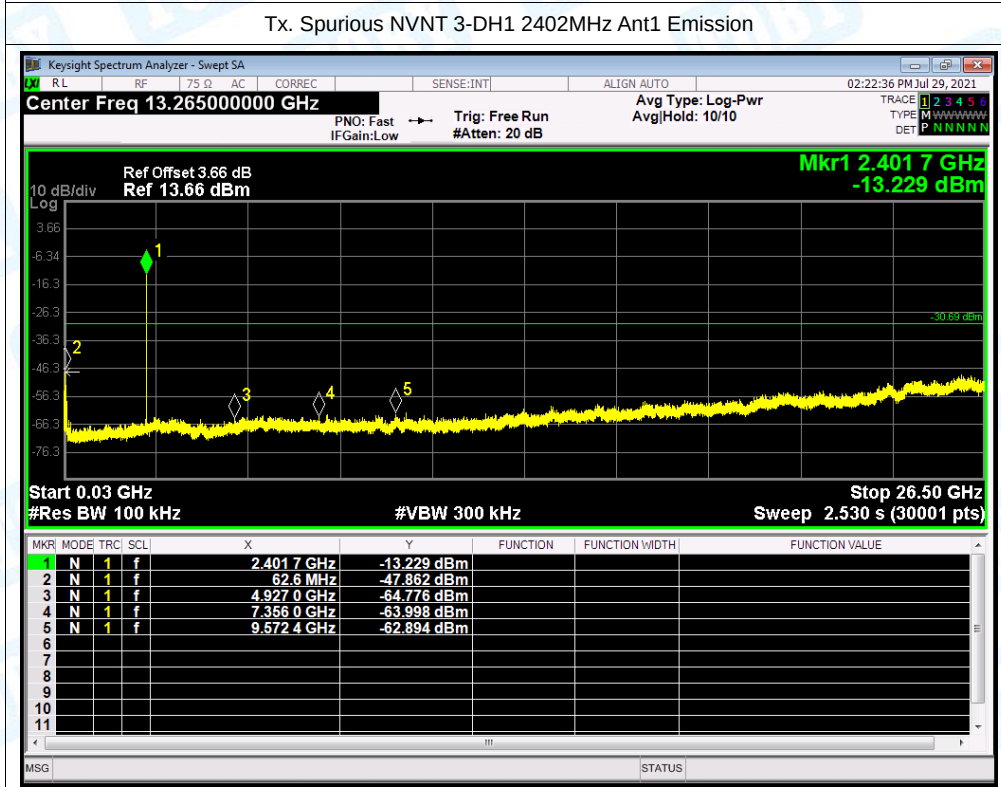
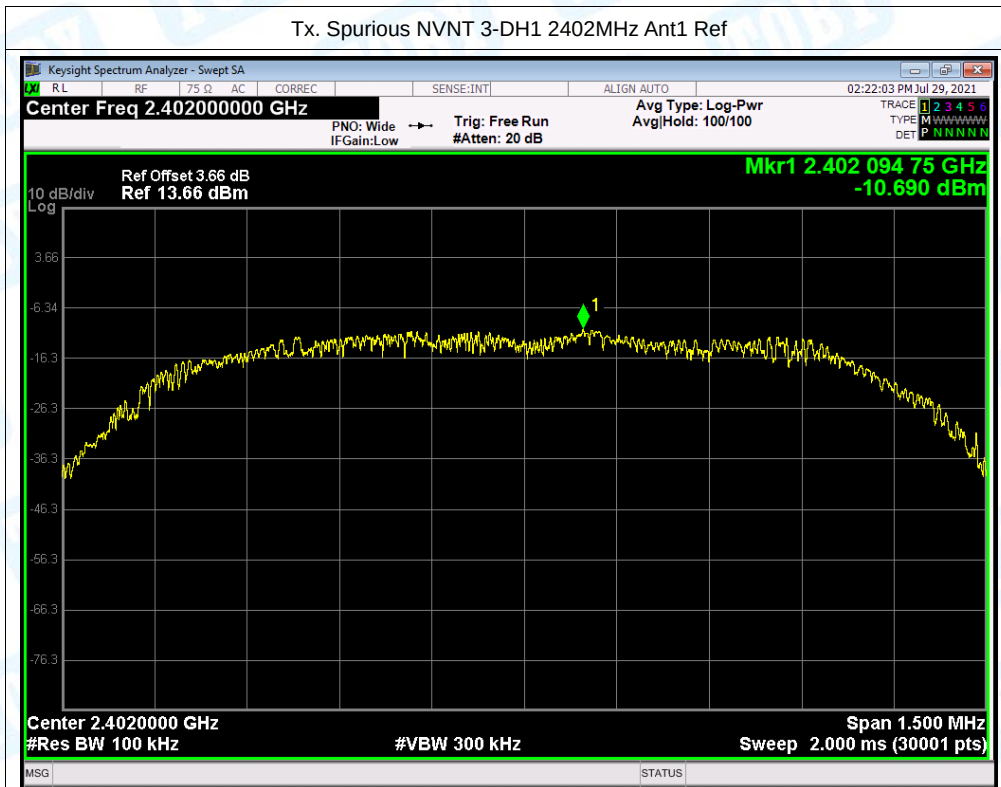


Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref

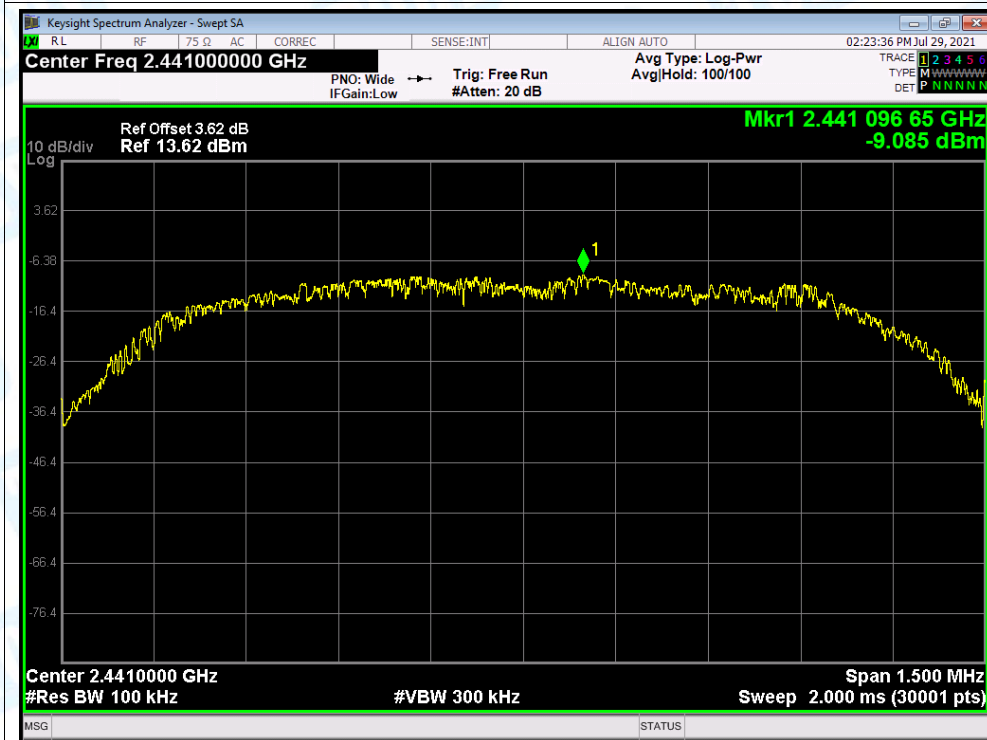


Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

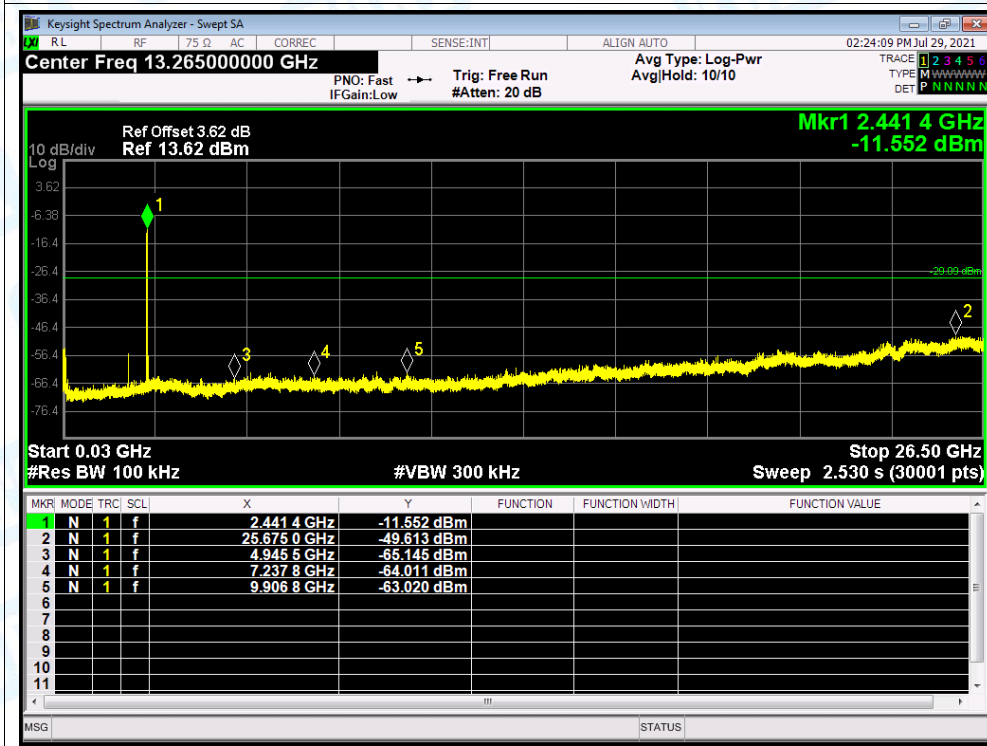




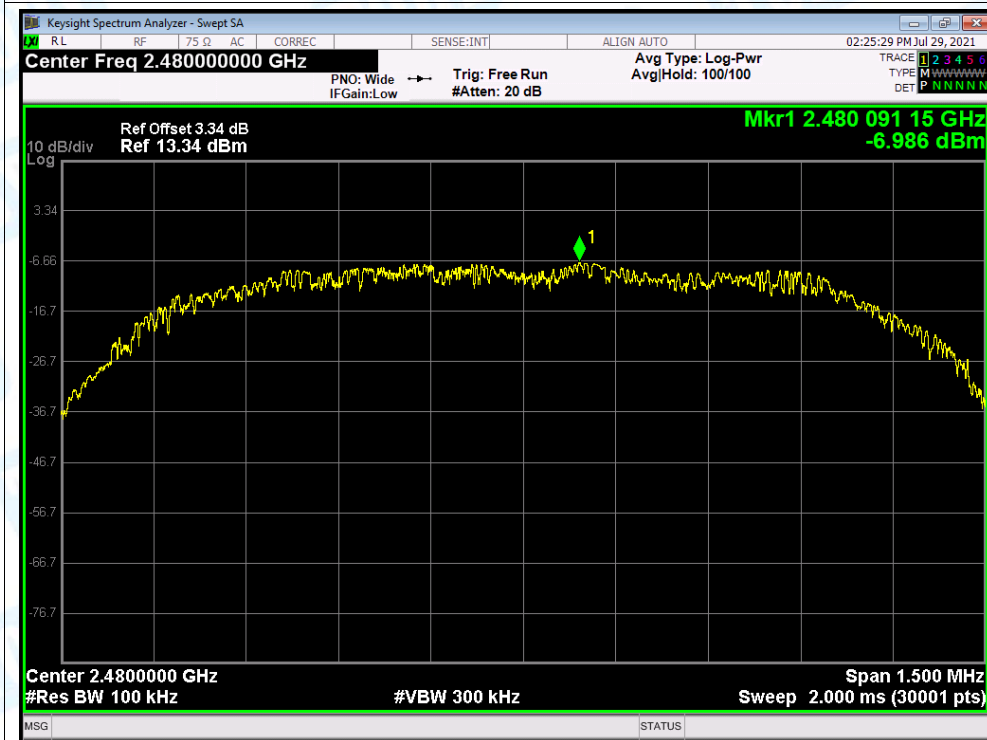
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



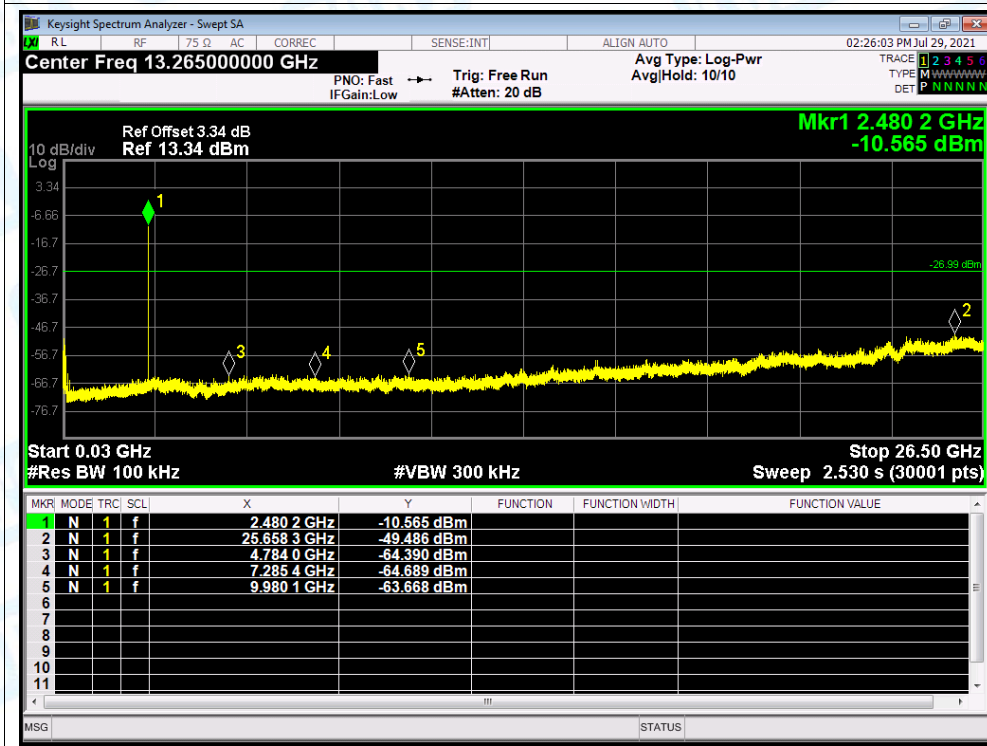
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref

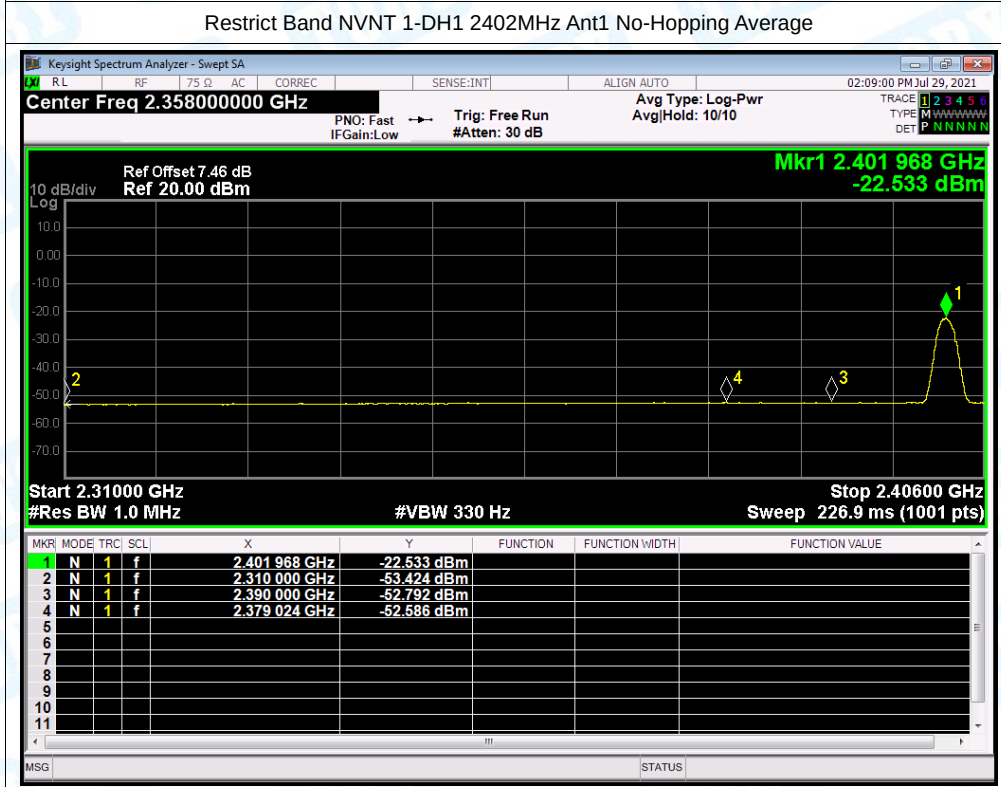
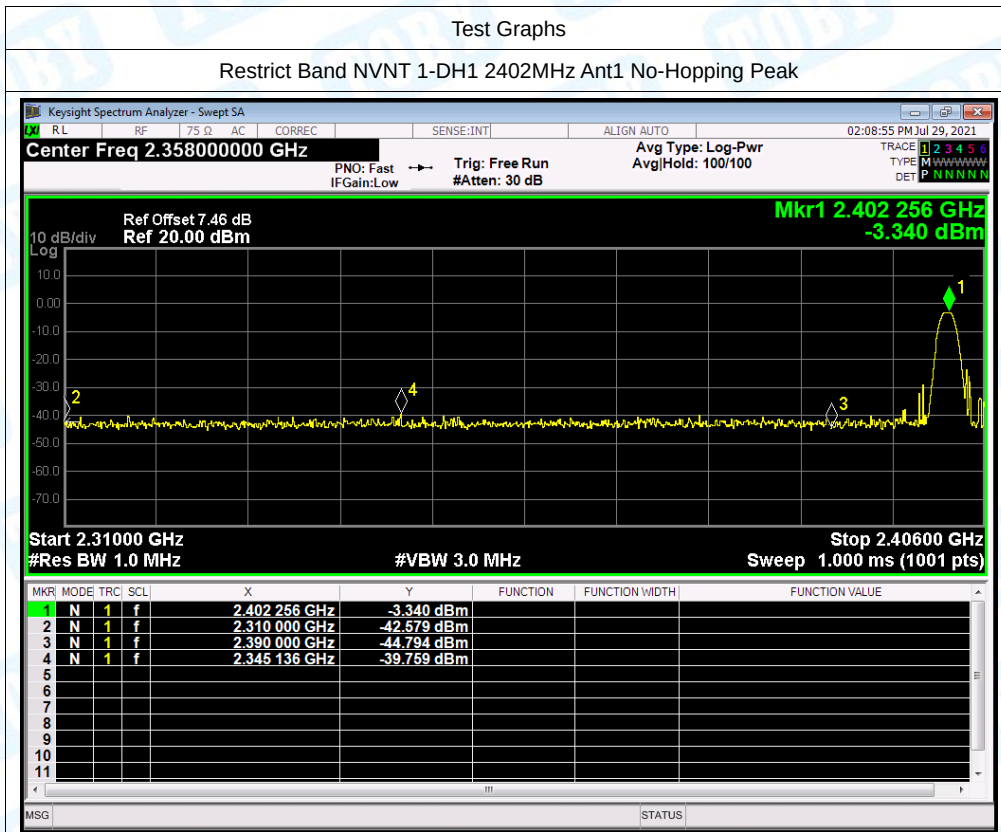


Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

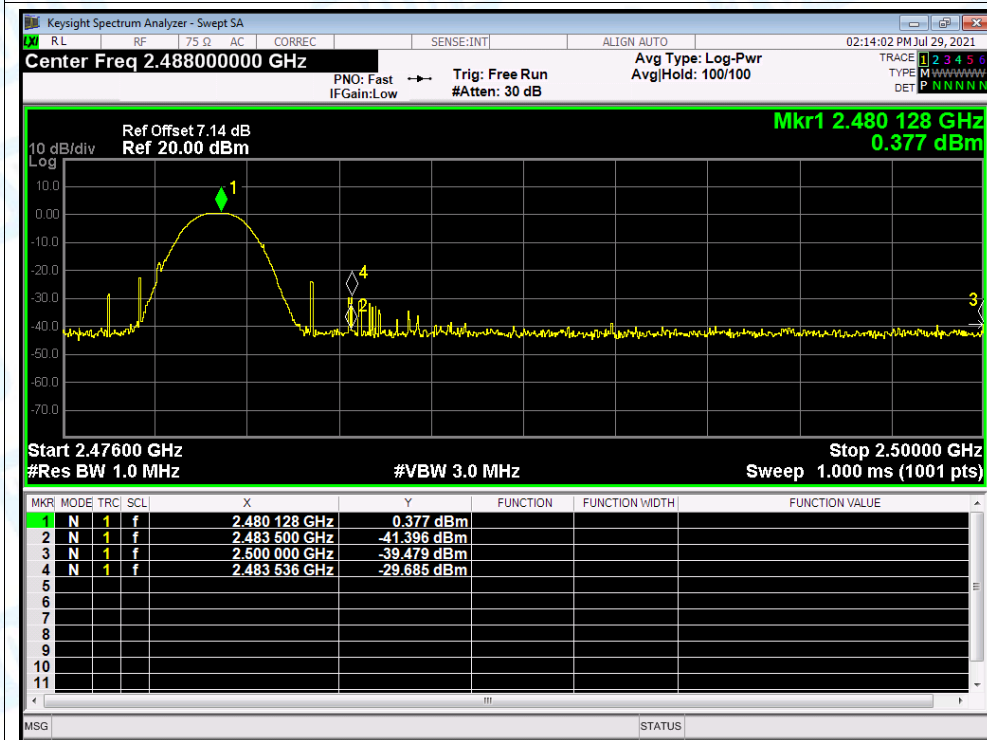


8.Restrict Band

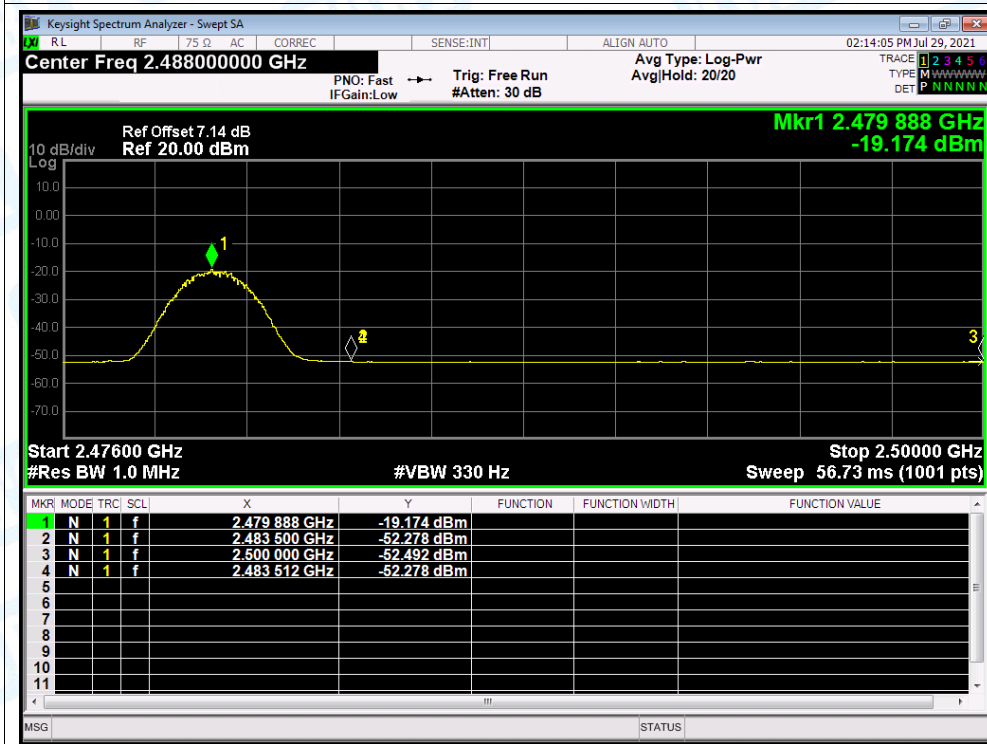
Condition	Mode	Frequency (MHz)	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	No-Hopping	2310	-42.6	3.8	56.46	Peak	74	Pass
NVNT	1-DH1	2402	No-Hopping	2310	-53.38	3.8	45.68	Average	54	Pass
NVNT	1-DH1	2402	No-Hopping	2345.136	-39.75	3.8	59.31	Peak	74	Pass
NVNT	1-DH1	2402	No-Hopping	2379.024	-52.58	3.8	46.48	Average	54	Pass
NVNT	1-DH1	2402	No-Hopping	2390	-42.45	3.8	56.61	Peak	74	Pass
NVNT	1-DH1	2402	No-Hopping	2390	-52.81	3.8	46.25	Average	54	Pass
NVNT	1-DH1	2480	No-Hopping	2483.5	-41.39	3.8	57.67	Peak	74	Pass
NVNT	1-DH1	2480	No-Hopping	2483.5	-52.27	3.8	46.79	Average	54	Pass
NVNT	1-DH1	2480	No-Hopping	2483.536	-29.68	3.8	69.38	Peak	74	Pass
NVNT	1-DH1	2480	No-Hopping	2483.512	-52.27	3.8	46.79	Average	54	Pass
NVNT	1-DH1	2480	No-Hopping	2500	-39.47	3.8	59.59	Peak	74	Pass
NVNT	1-DH1	2480	No-Hopping	2500	-52.49	3.8	46.57	Average	54	Pass
NVNT	2-DH1	2402	No-Hopping	2310	-44.02	3.8	55.04	Peak	74	Pass
NVNT	2-DH1	2402	No-Hopping	2310	-53.3	3.8	45.76	Average	54	Pass
NVNT	2-DH1	2402	No-Hopping	2331.792	-39.47	3.8	59.59	Peak	74	Pass
NVNT	2-DH1	2402	No-Hopping	2384.88	-52.62	3.8	46.44	Average	54	Pass
NVNT	2-DH1	2402	No-Hopping	2390	-43.65	3.8	55.41	Peak	74	Pass
NVNT	2-DH1	2402	No-Hopping	2390	-52.9	3.8	46.16	Average	54	Pass
NVNT	2-DH1	2480	No-Hopping	2483.5	-42.55	3.8	56.51	Peak	74	Pass
NVNT	2-DH1	2480	No-Hopping	2483.5	-52.36	3.8	46.7	Average	54	Pass
NVNT	2-DH1	2480	No-Hopping	2483.536	-30.26	3.8	68.8	Peak	74	Pass
NVNT	2-DH1	2480	No-Hopping	2499.544	-52.27	3.8	46.79	Average	54	Pass
NVNT	2-DH1	2480	No-Hopping	2500	-41.5	3.8	57.56	Peak	74	Pass
NVNT	2-DH1	2480	No-Hopping	2500	-52.34	3.8	46.72	Average	54	Pass
NVNT	3-DH1	2402	No-Hopping	2310	-43.85	3.8	55.21	Peak	74	Pass
NVNT	3-DH1	2402	No-Hopping	2310	-53.38	3.8	45.68	Average	54	Pass
NVNT	3-DH1	2402	No-Hopping	2384.688	-40.16	3.8	58.9	Peak	74	Pass
NVNT	3-DH1	2402	No-Hopping	2387.664	-52.66	3.8	46.4	Average	54	Pass
NVNT	3-DH1	2402	No-Hopping	2390	-42.26	3.8	56.8	Peak	74	Pass
NVNT	3-DH1	2402	No-Hopping	2390	-52.87	3.8	46.19	Average	54	Pass
NVNT	3-DH1	2480	No-Hopping	2483.5	-42.3	3.8	56.76	Peak	74	Pass
NVNT	3-DH1	2480	No-Hopping	2483.5	-52.38	3.8	46.68	Average	54	Pass
NVNT	3-DH1	2480	No-Hopping	2484.664	-33.13	3.8	65.93	Peak	74	Pass
NVNT	3-DH1	2480	No-Hopping	2497.336	-52.26	3.8	46.8	Average	54	Pass
NVNT	3-DH1	2480	No-Hopping	2500	-42.61	3.8	56.45	Peak	74	Pass
NVNT	3-DH1	2480	No-Hopping	2500	-52.51	3.8	46.55	Average	54	Pass



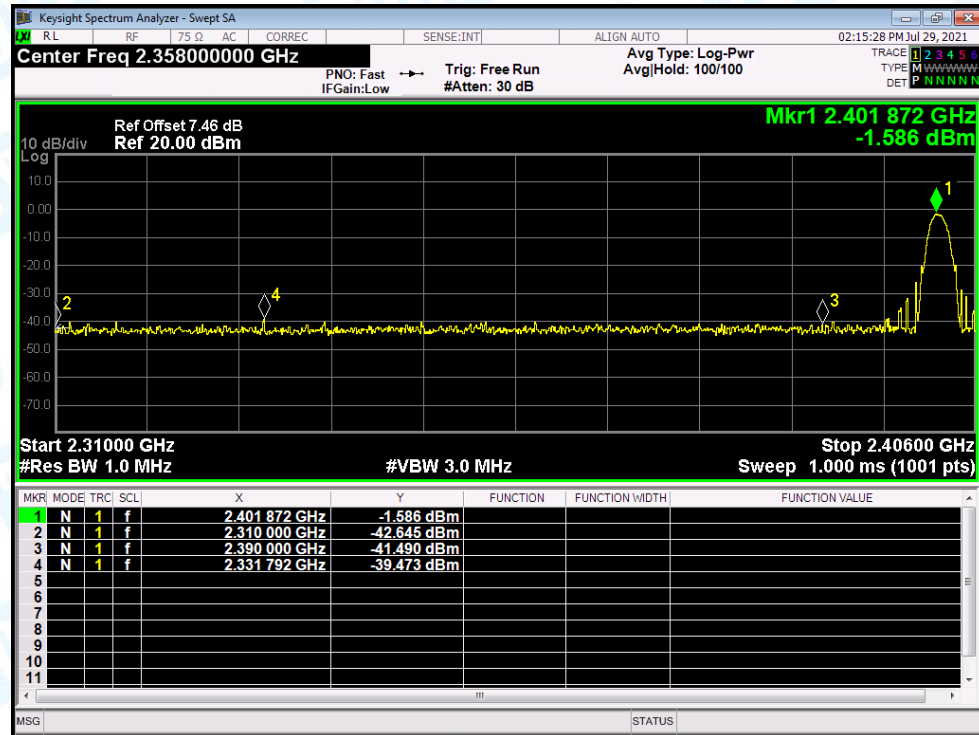
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



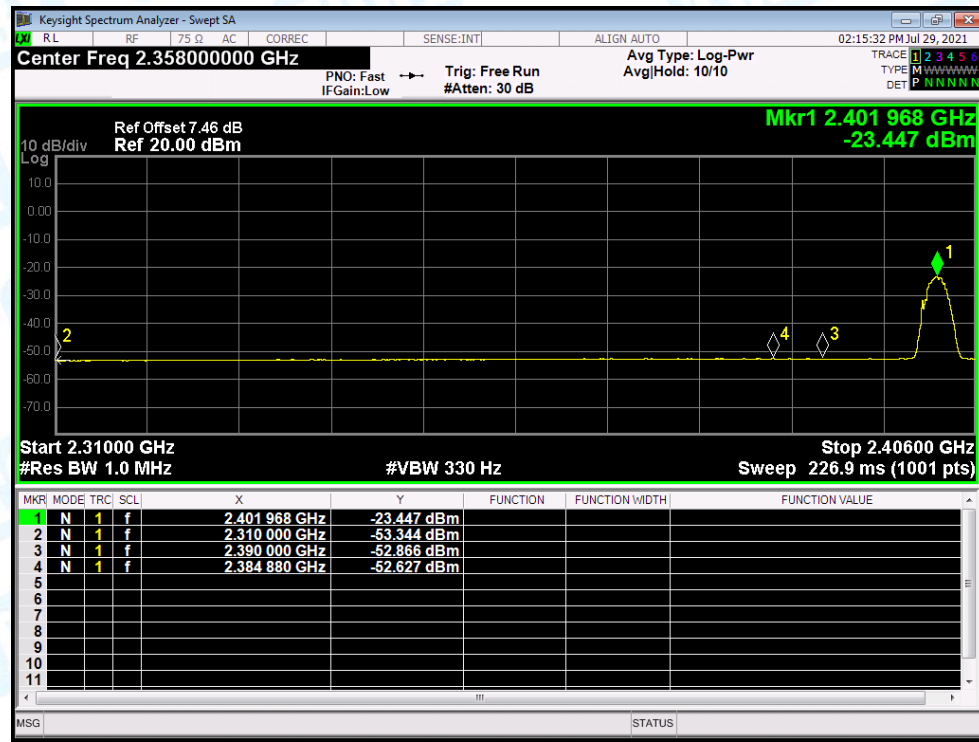
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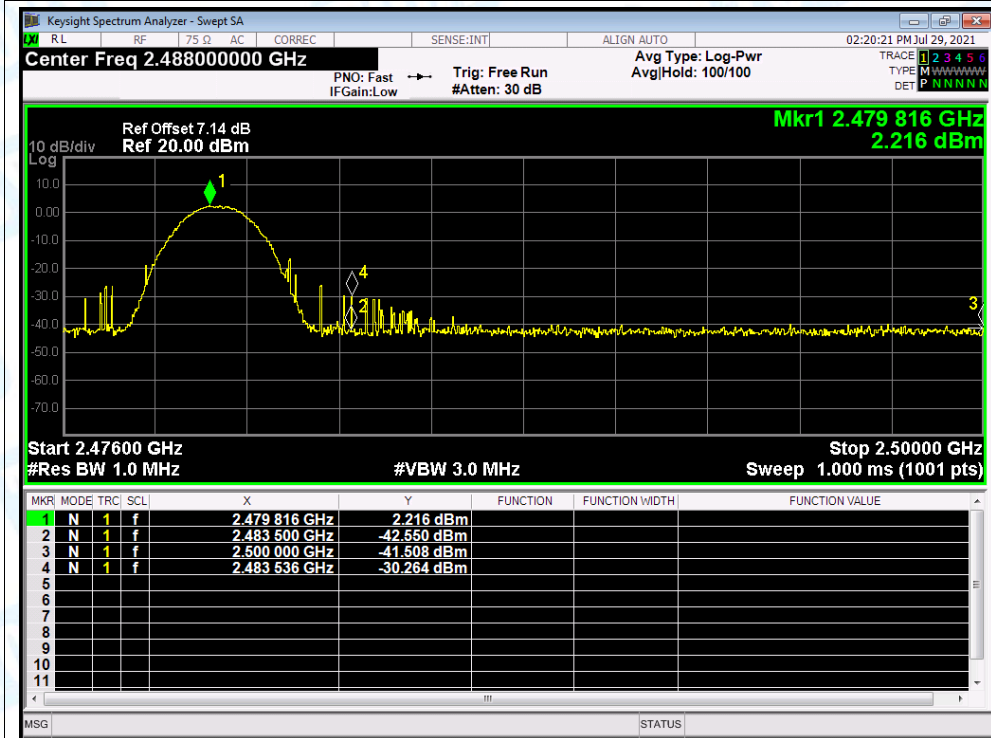
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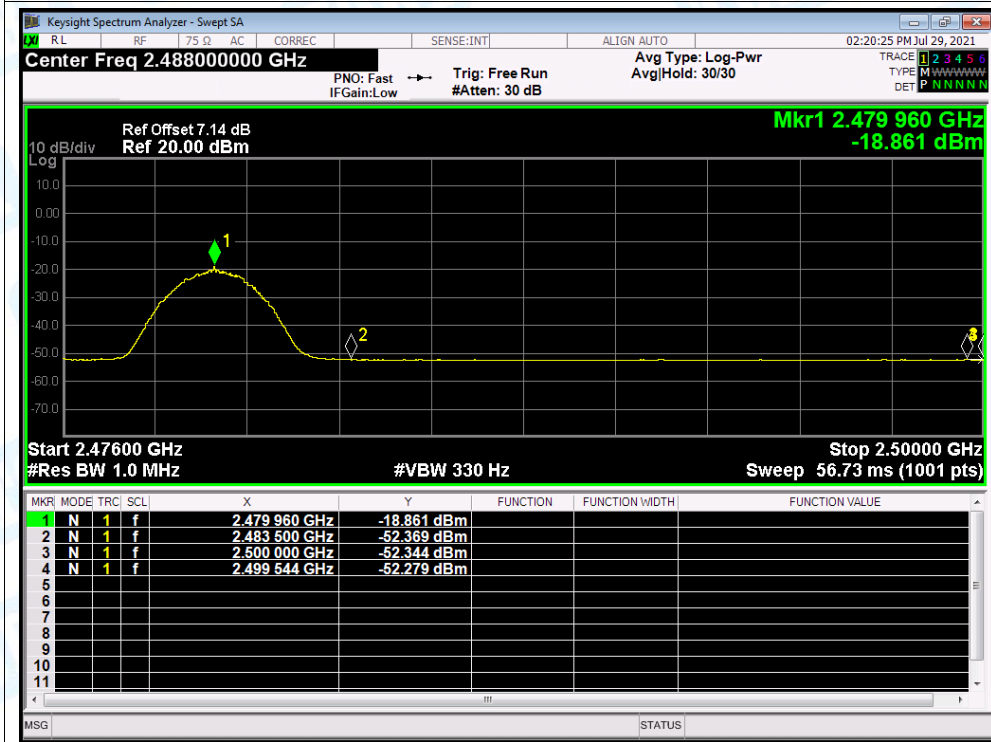
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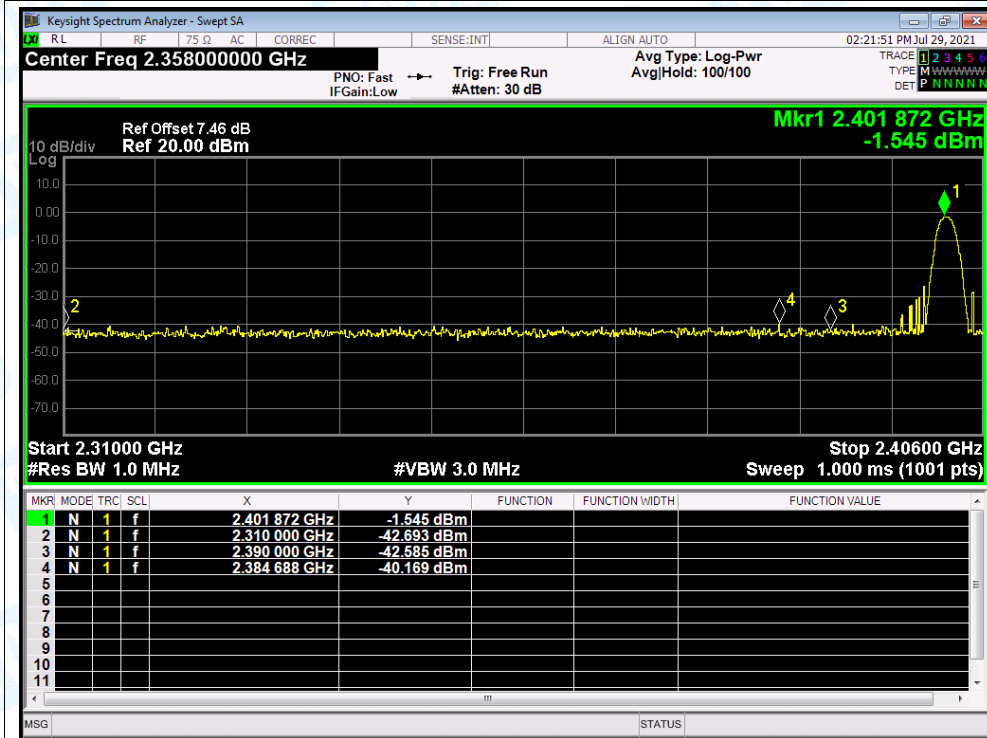
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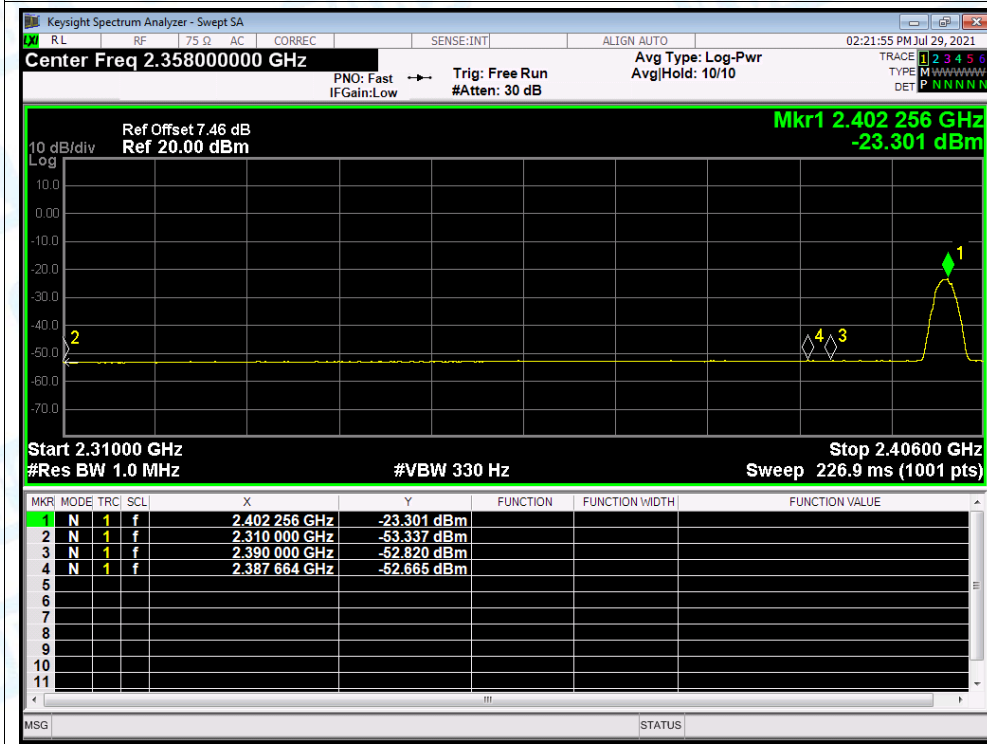
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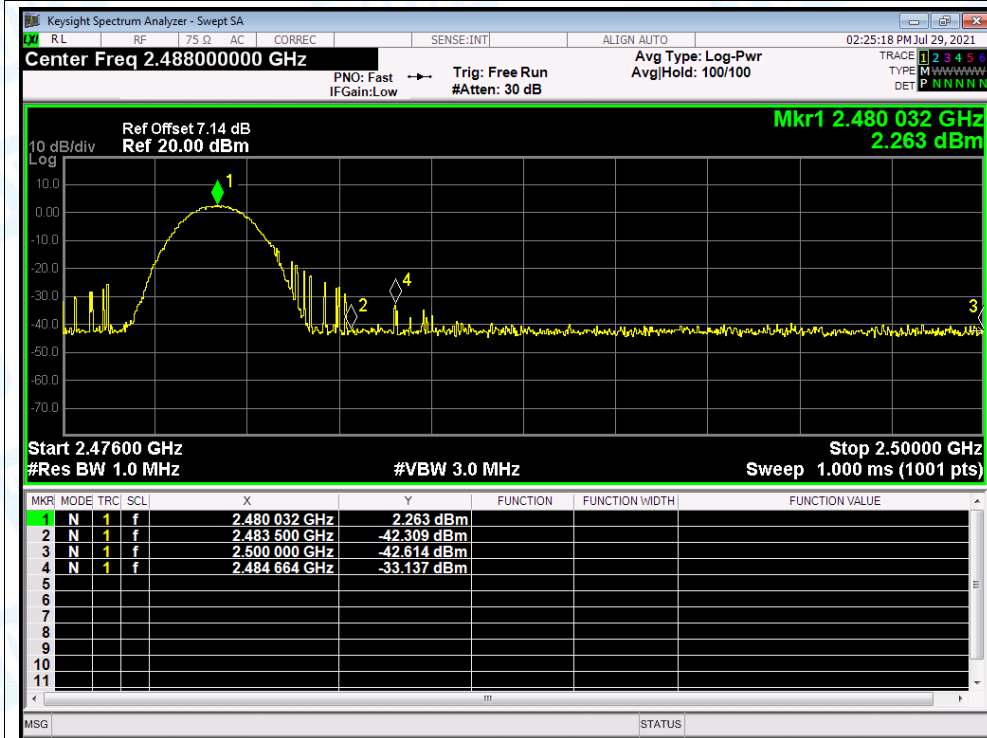
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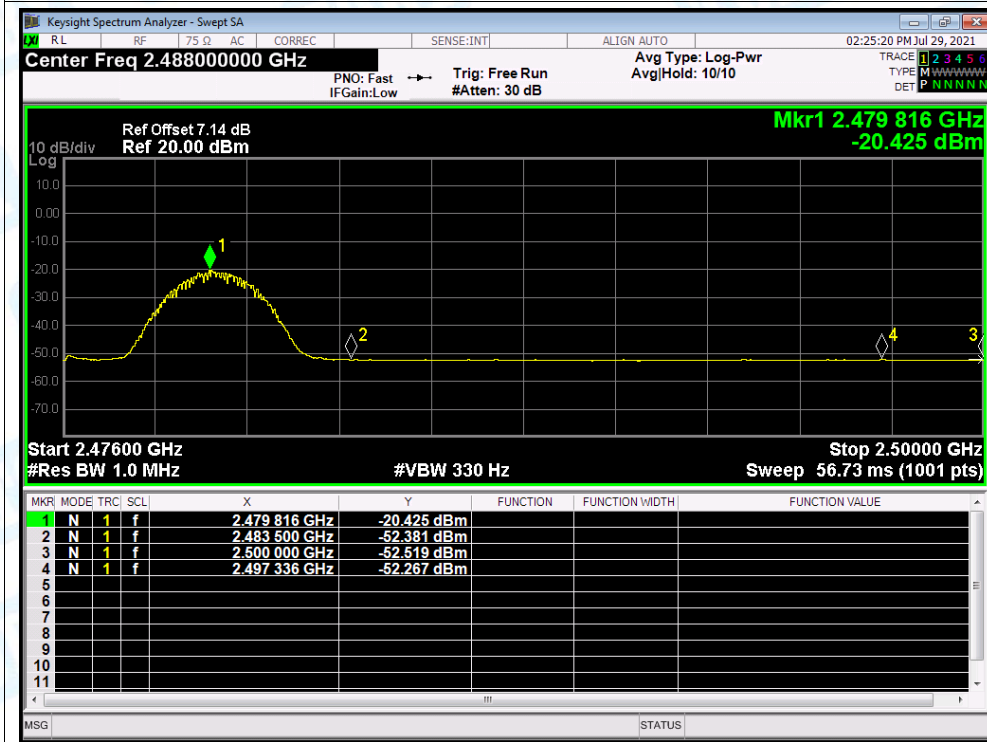
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 3-DH1 2480MHz Ant1 No-Hopping Average



9.Dwell Time

Condition	Mode	Frequency (MHz)	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	0.38	121.6	31600	400	Pass
NVNT	1-DH3	2441	1.648	263.68	31600	400	Pass
NVNT	1-DH5	2441	2.927	312.213	31600	400	Pass
NVNT	2-DH1	2441	0.38	121.6	31600	400	Pass
NVNT	2-DH3	2441	1.658	265.28	31600	400	Pass
NVNT	2-DH5	2441	2.925	312	31600	400	Pass
NVNT	3-DH1	2441	0.38	121.6	31600	400	Pass
NVNT	3-DH3	2441	1.668	266.88	31600	400	Pass
NVNT	3-DH5	2441	2.936	313.173	31600	400	Pass

