

RF Test Data for Bluetooth LE (Conducted Measurements)

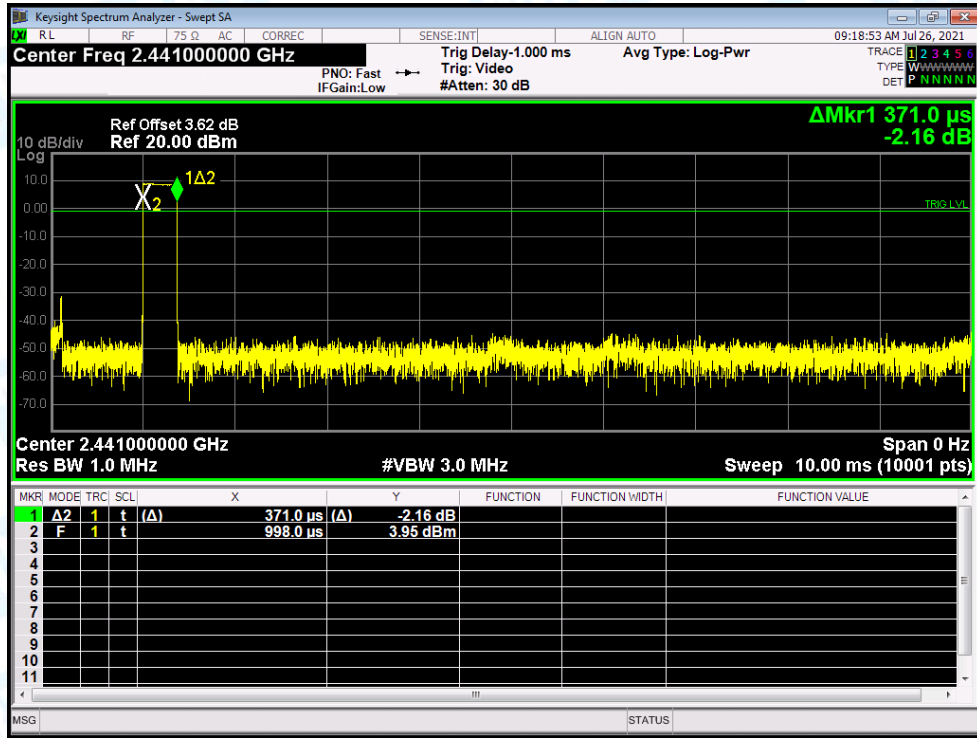
General Description of EUT	
Product Name:	Bluetooth headset
Test Model:	F1
Sample ID:	20210524-19-2#
Environmental Conditions	
Temperature:	23.8°C
Relative Humidity:	48%
Test Voltage:	DC 5V
Test Engineer:	HeJingchang
Note: For a more detailed features description, please refer to the report TB-FCC181221.	

1. Dwell Time

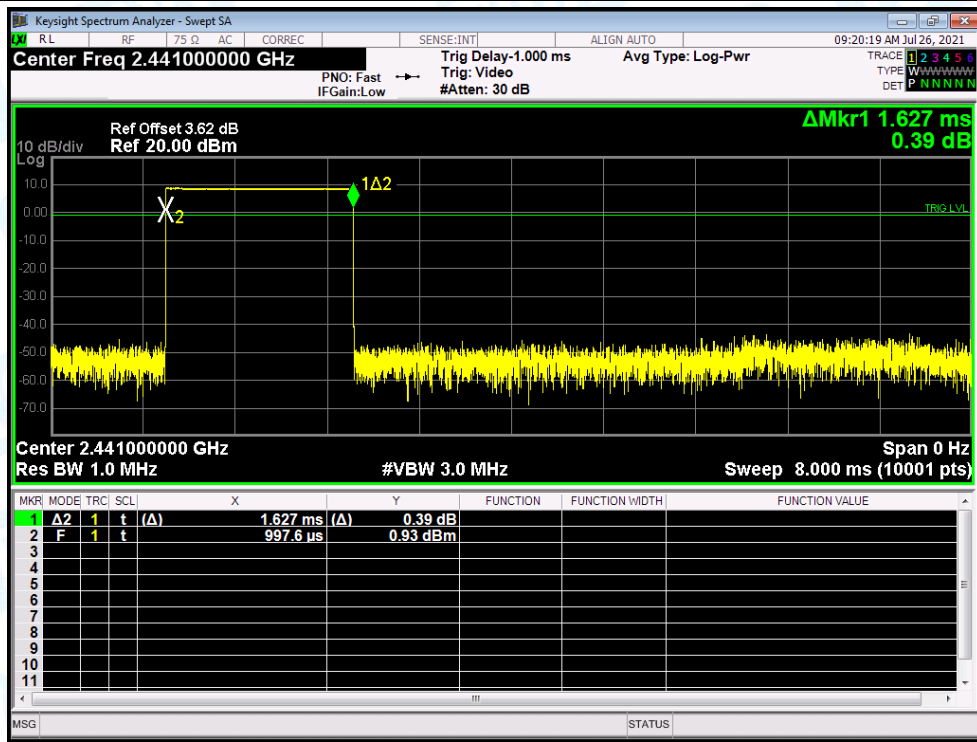
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.371	118.72	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.627	260.32	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.875	306.667	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.378	120.96	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.63	260.8	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.878	306.987	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.379	121.28	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.629	260.64	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.88	307.2	31600	400	Pass

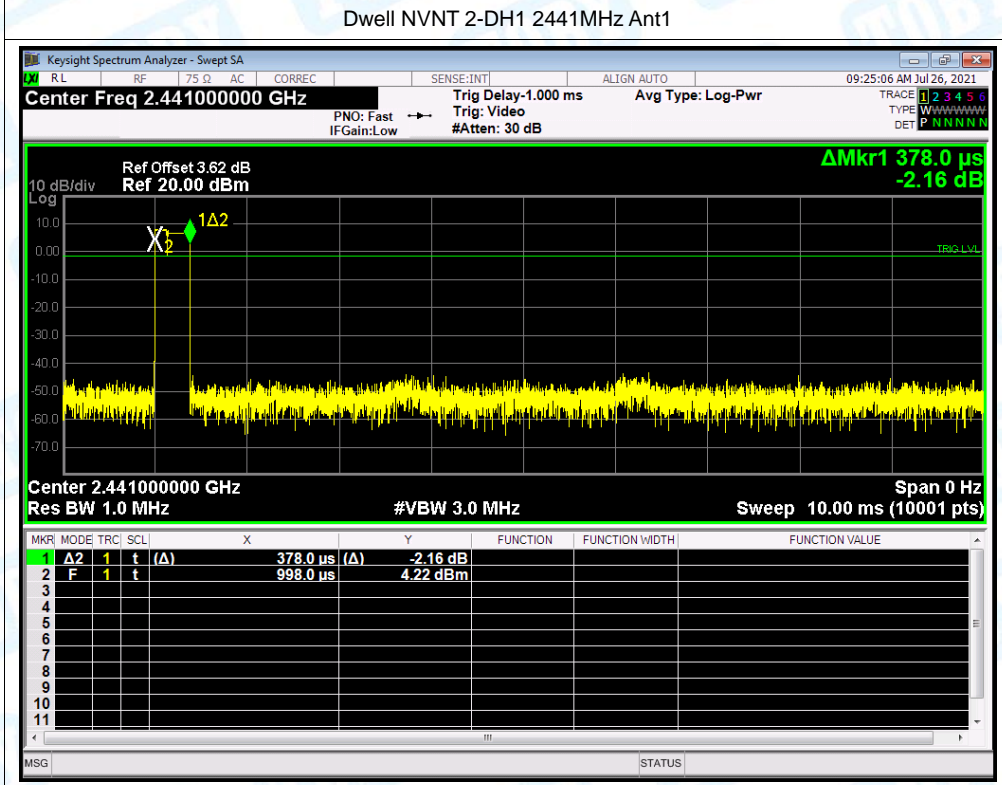
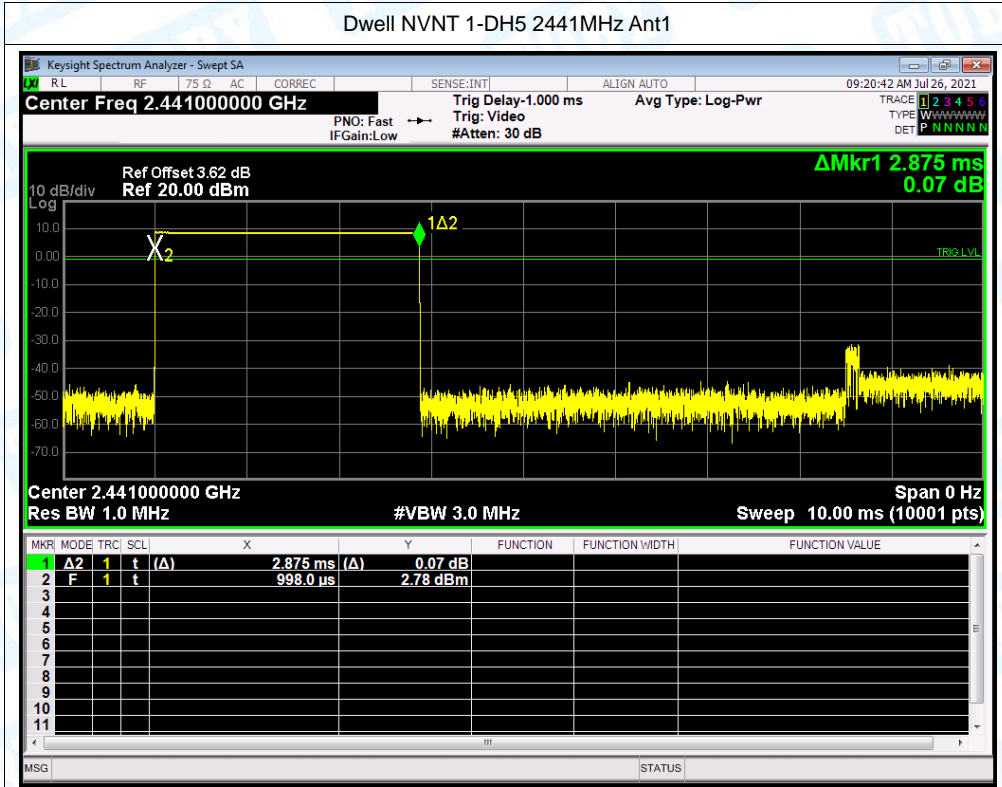
Test Graphs

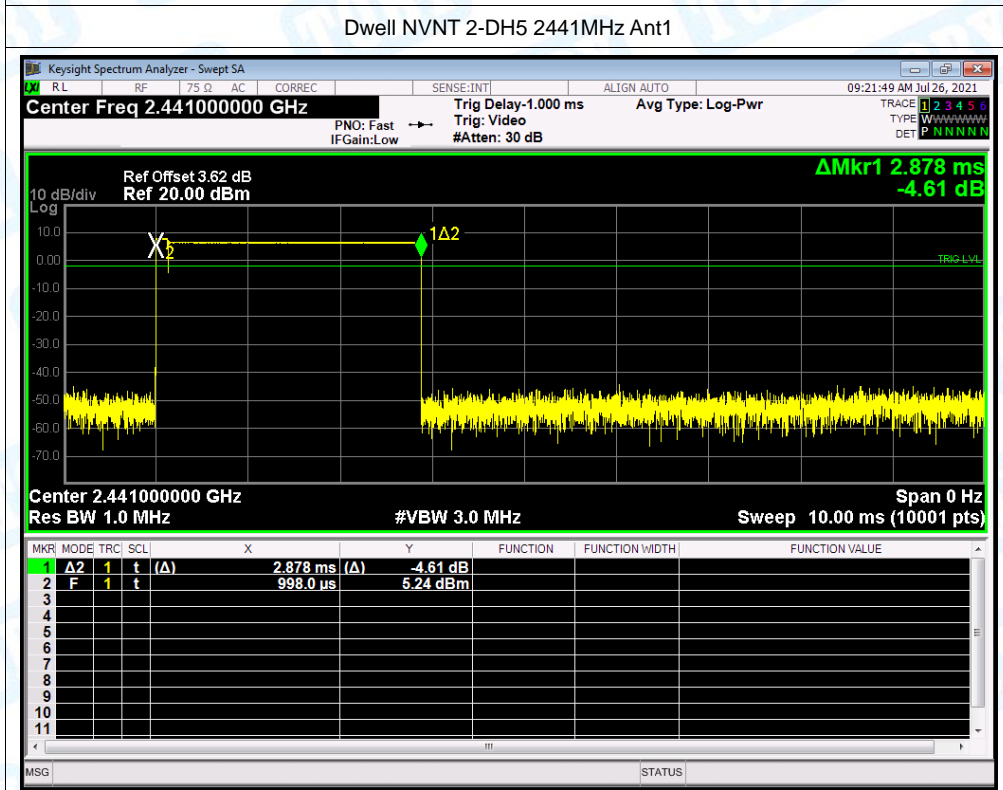
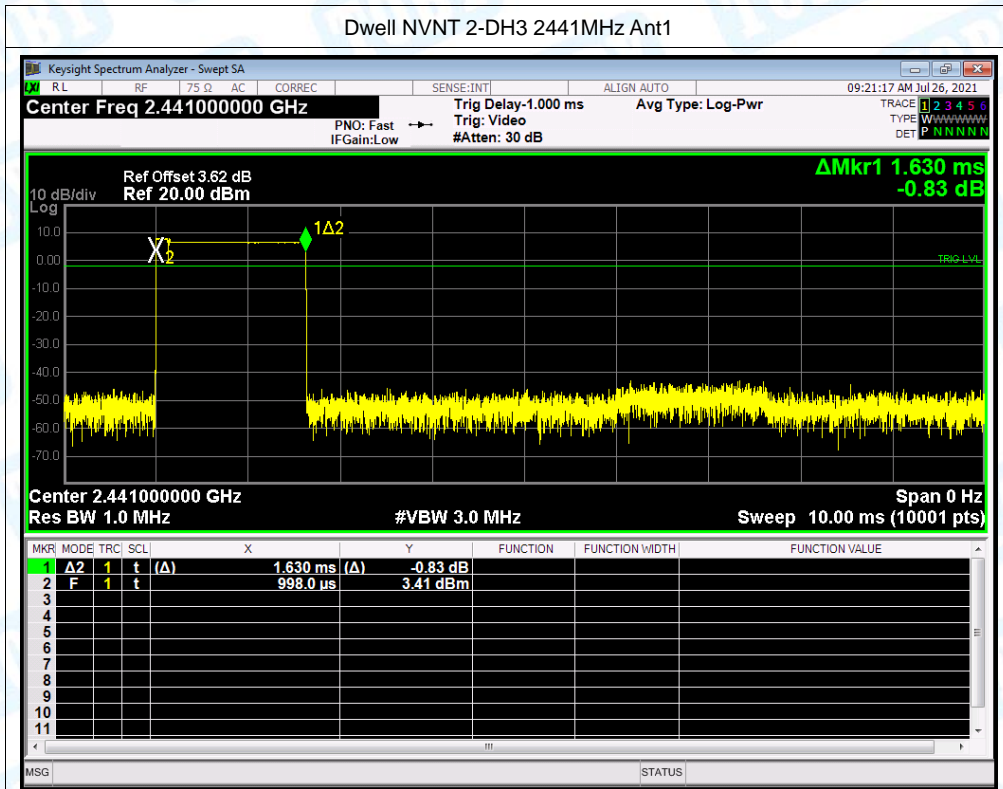
Dwell NVNT 1-DH1 2441MHz Ant1

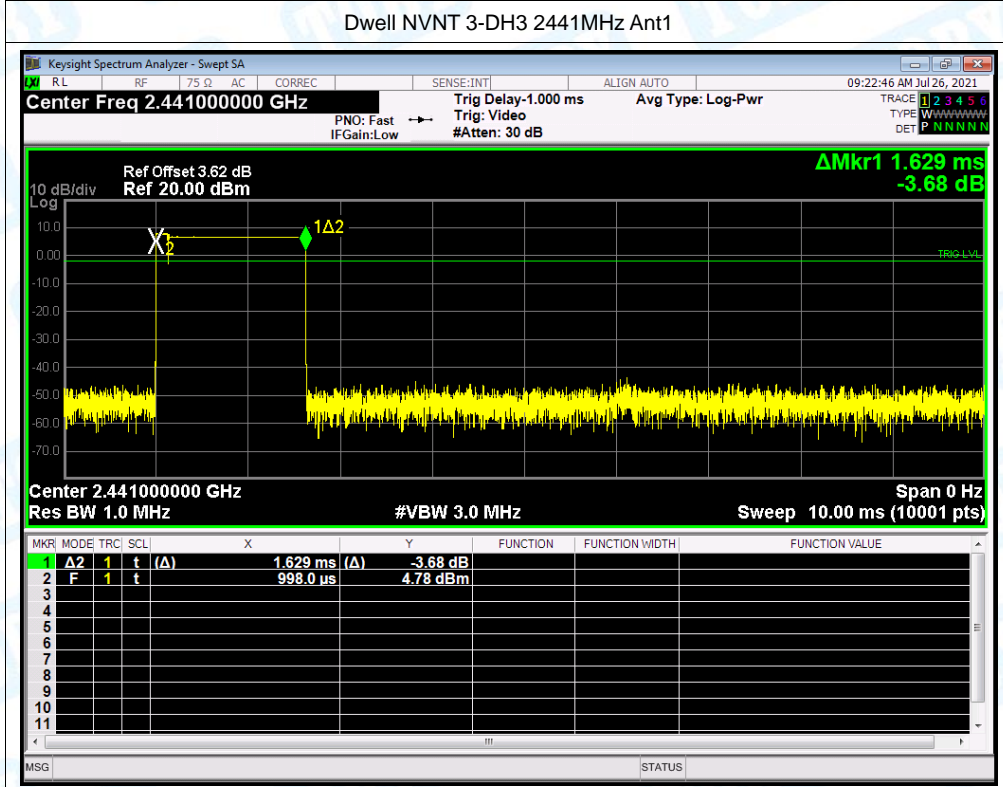
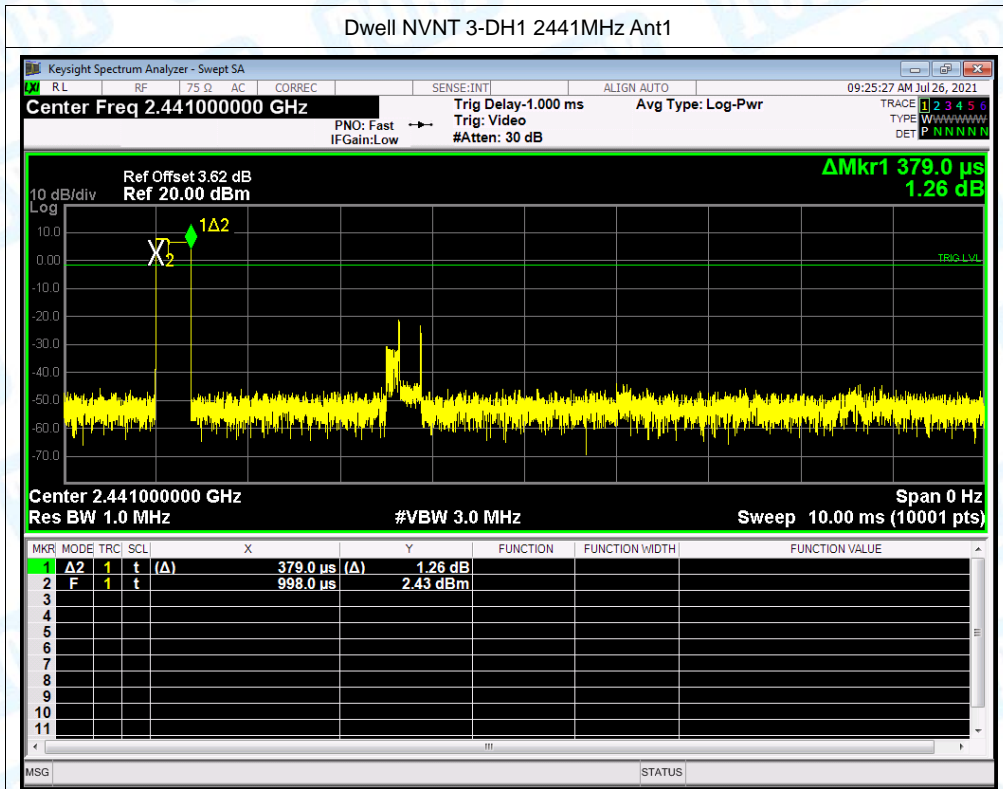


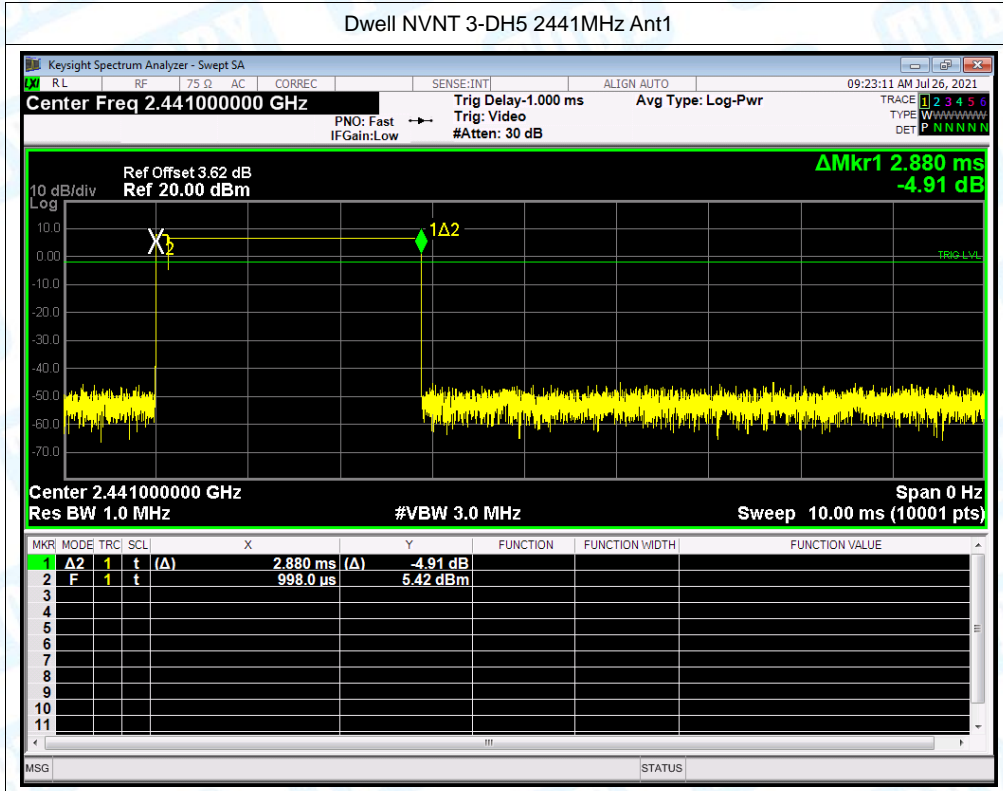
Dwell NVNT 1-DH3 2441MHz Ant1





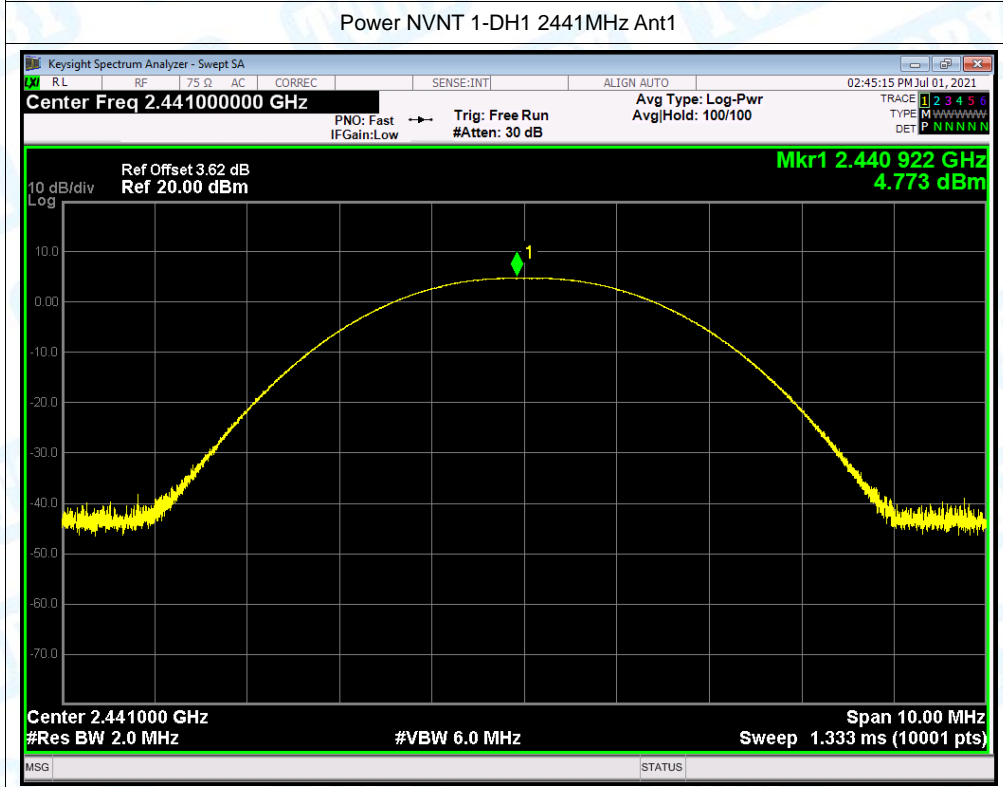
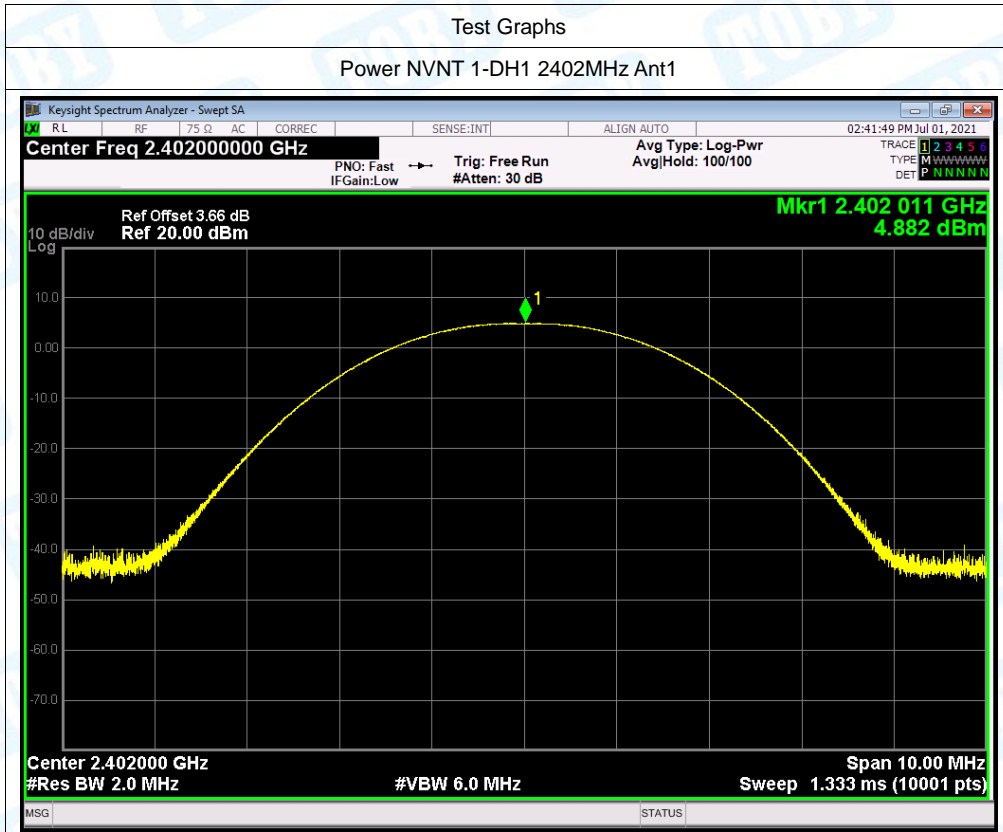


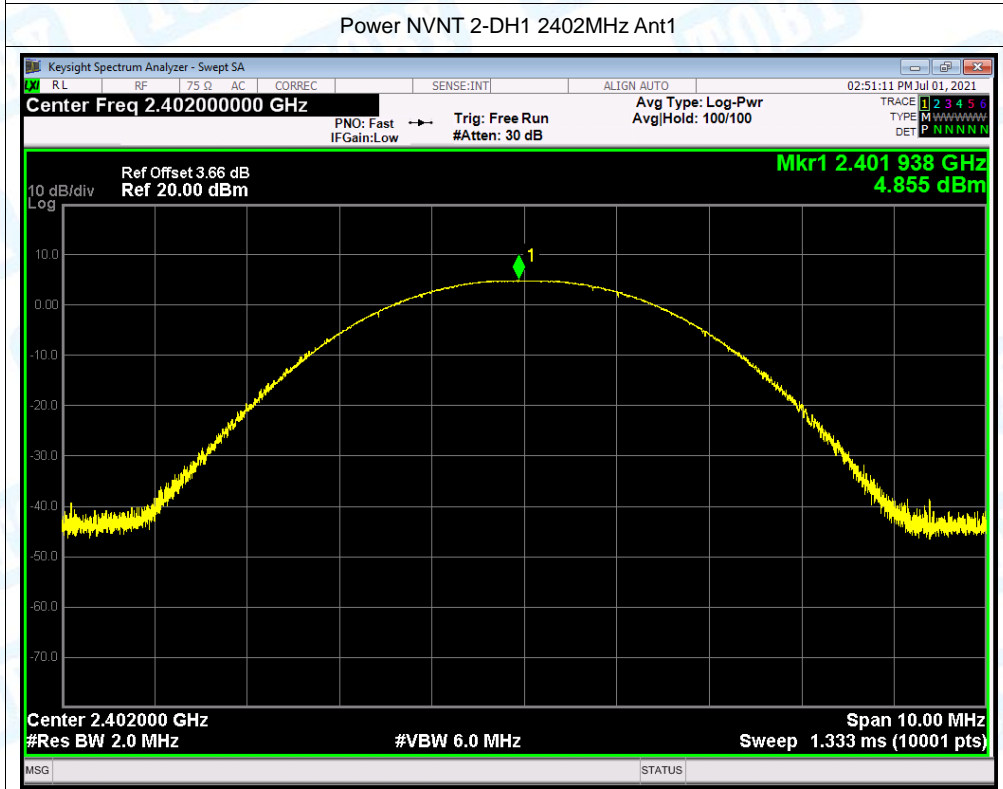
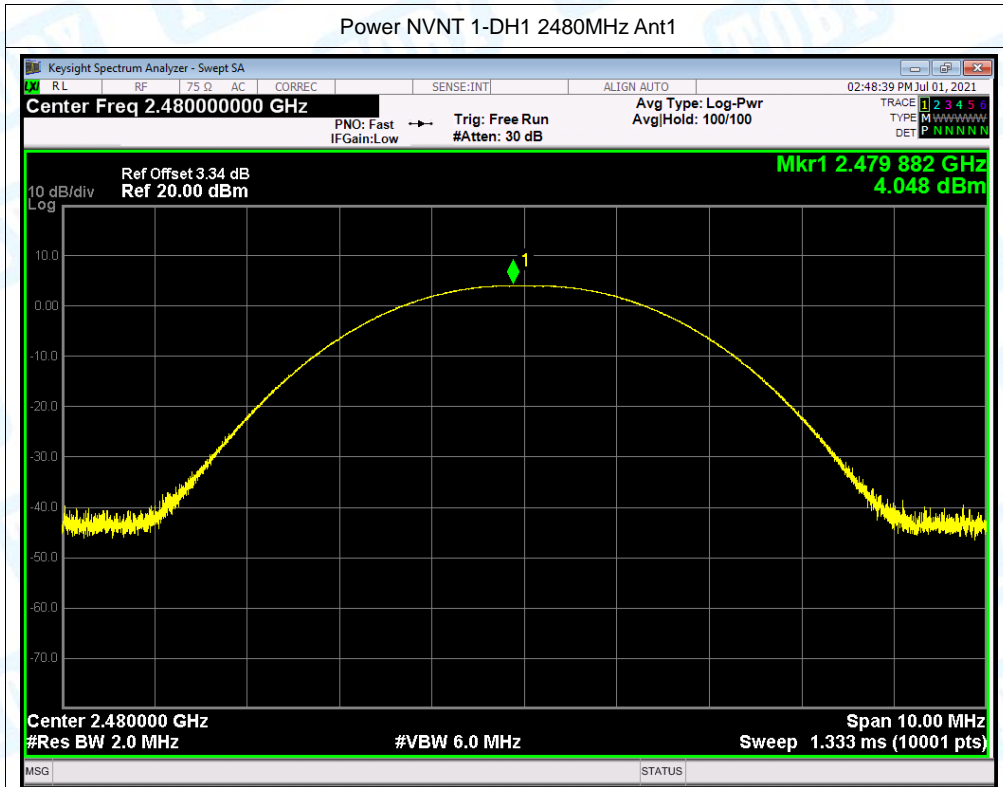


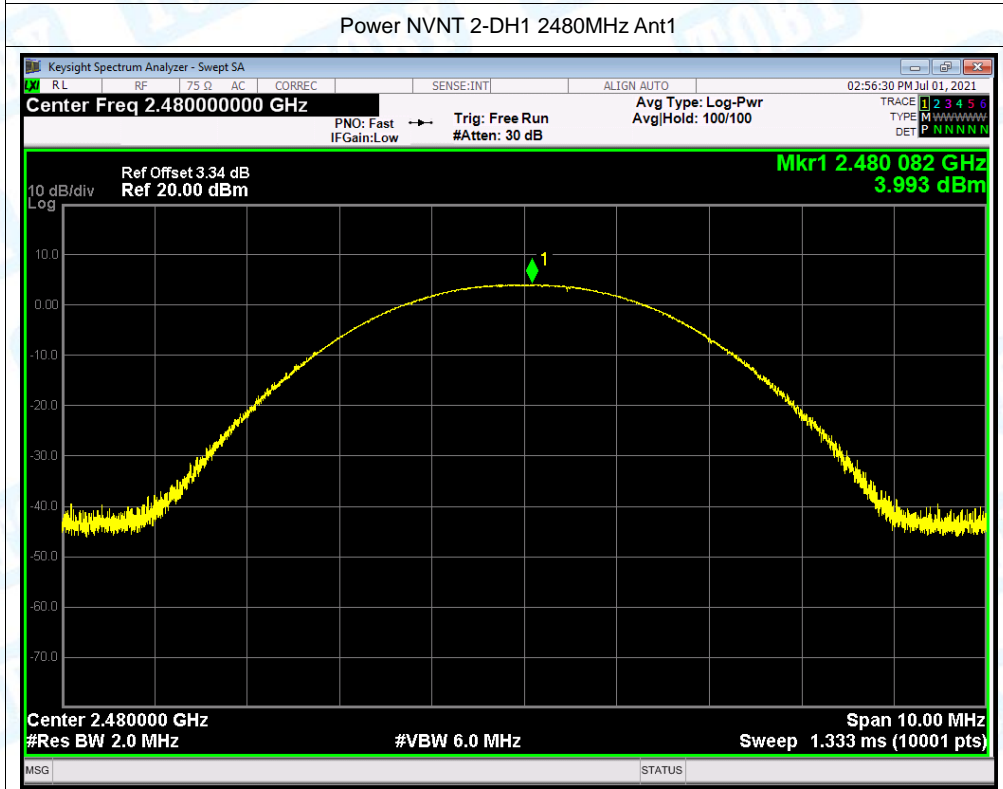
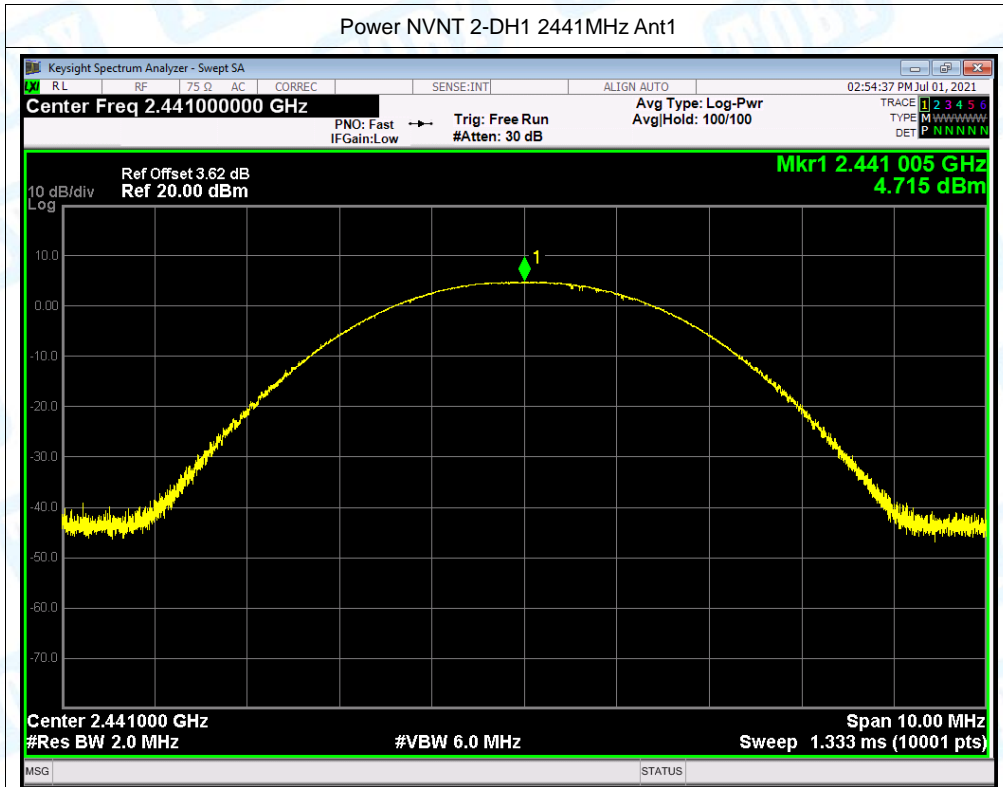


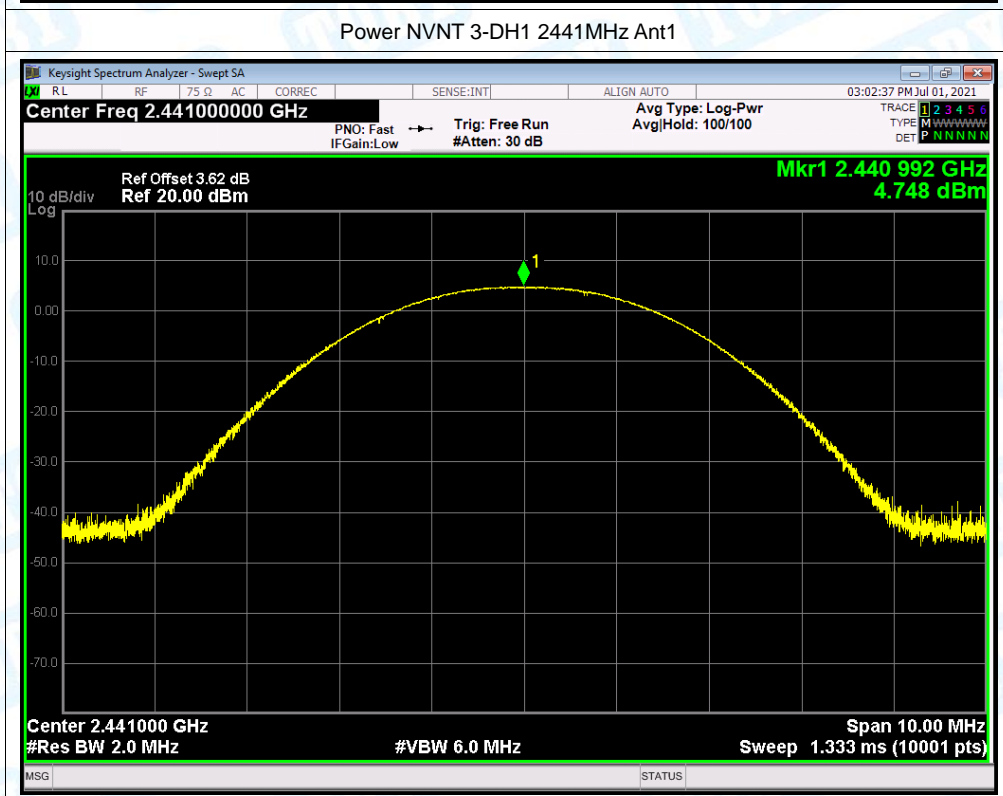
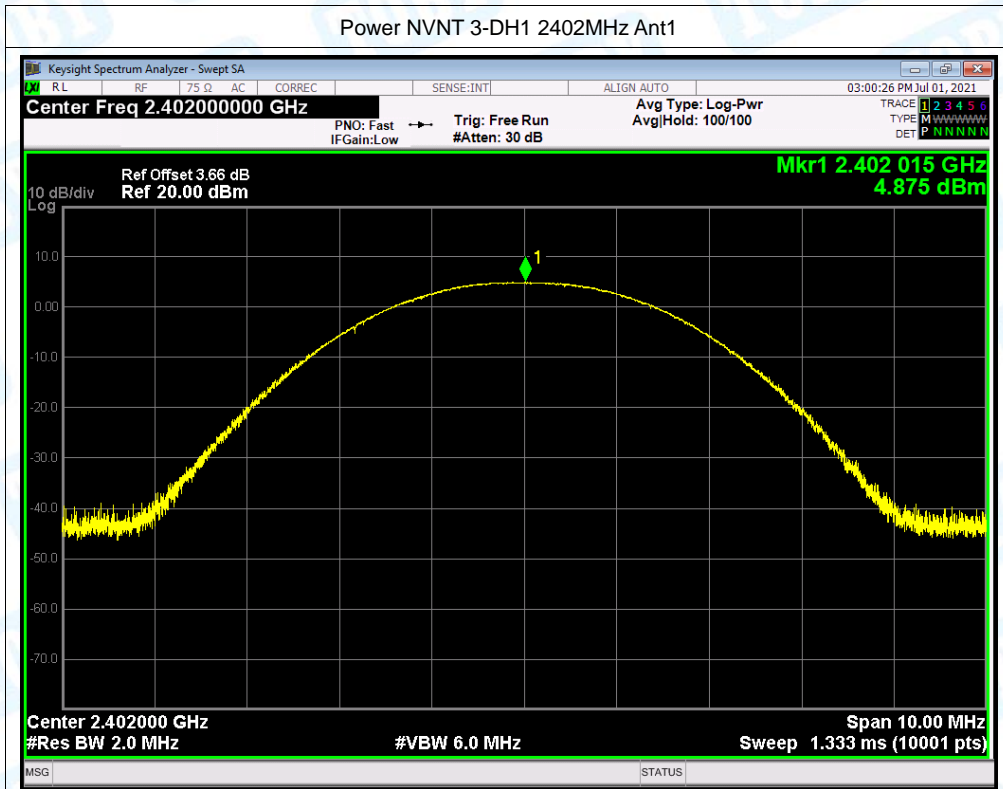
2.Maximum Conducted Output Power

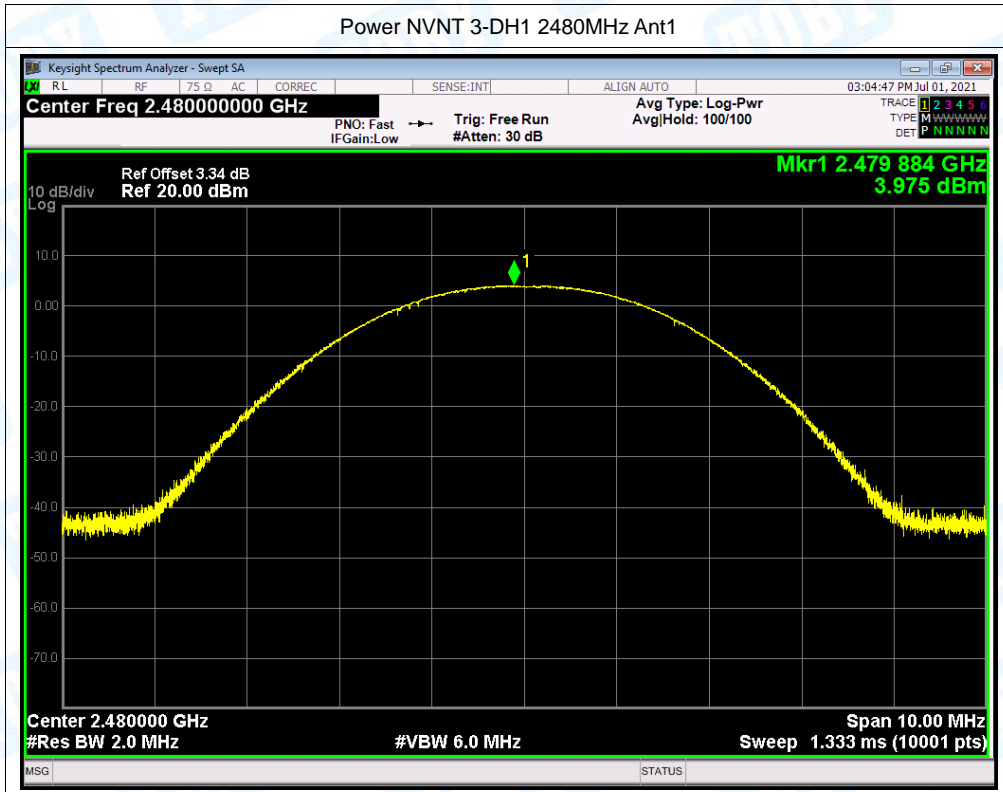
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	4.882	21	Pass
NVNT	1-DH1	2441	Ant1	4.773	21	Pass
NVNT	1-DH1	2480	Ant1	4.048	21	Pass
NVNT	2-DH1	2402	Ant1	4.855	21	Pass
NVNT	2-DH1	2441	Ant1	4.715	21	Pass
NVNT	2-DH1	2480	Ant1	3.993	21	Pass
NVNT	3-DH1	2402	Ant1	4.875	21	Pass
NVNT	3-DH1	2441	Ant1	4.748	21	Pass
NVNT	3-DH1	2480	Ant1	3.975	21	Pass





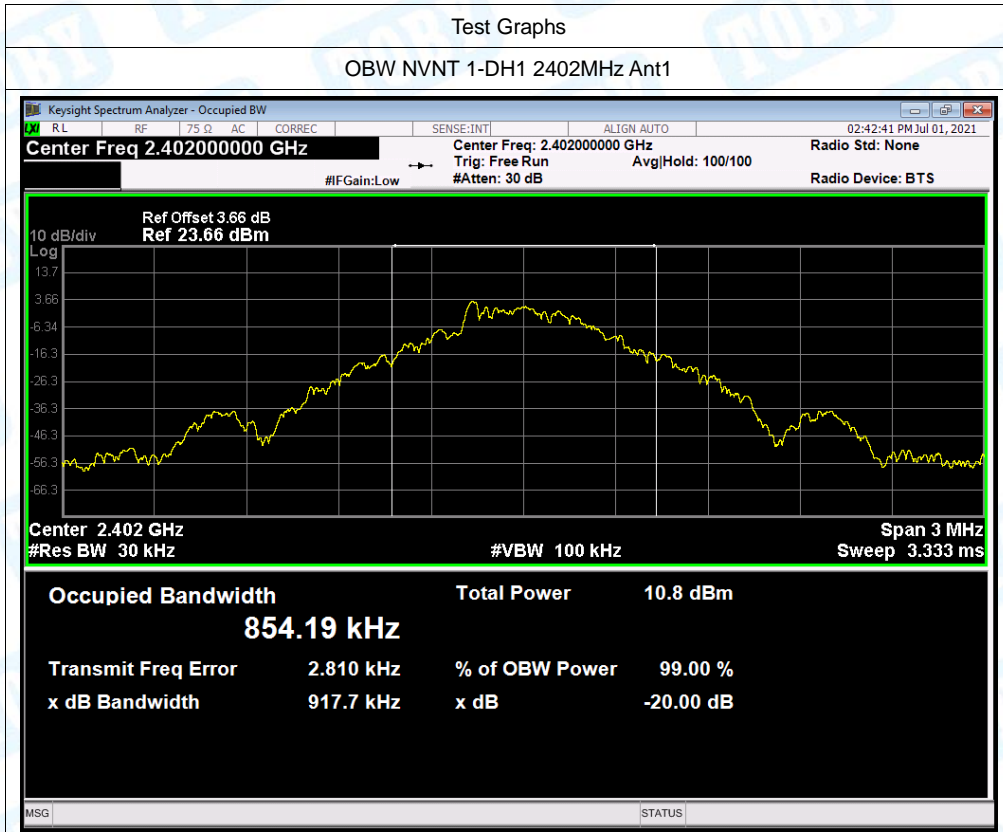




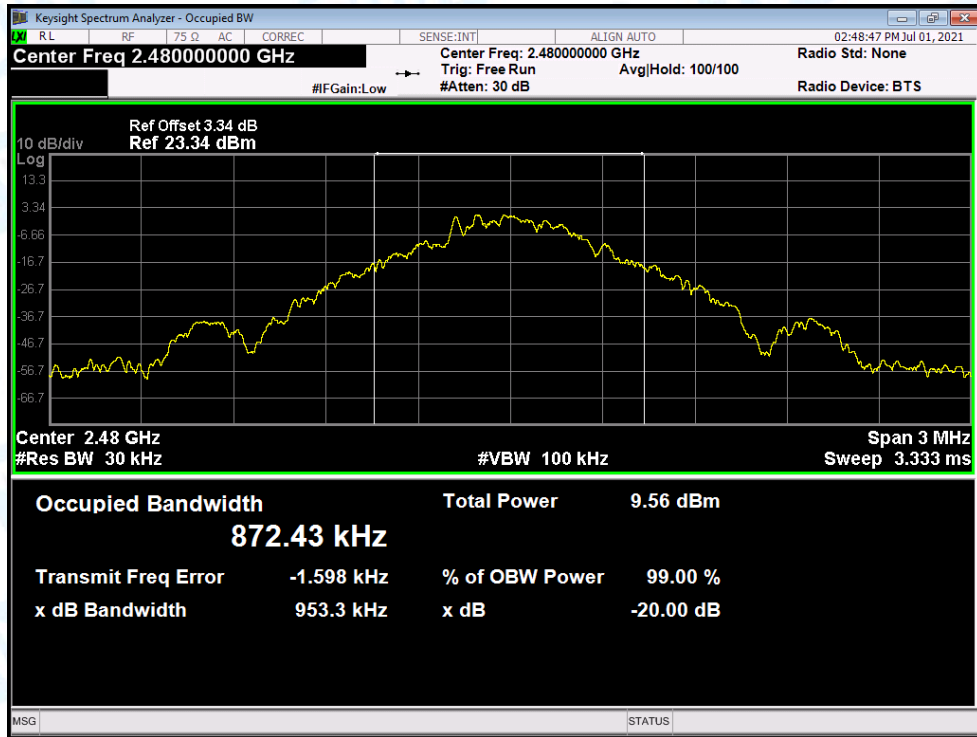


3.Occupied Channel Bandwidth

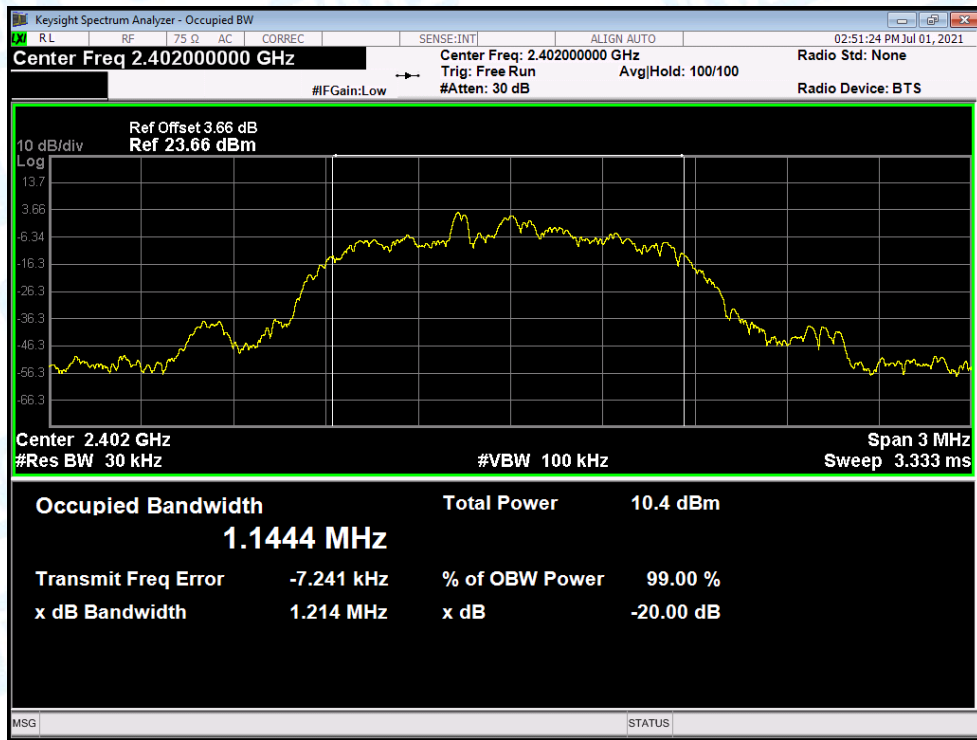
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (KHz)	20dB Bandwidth (kHz)	20dB Bandwidth *2/3 (kHz)
NVNT	1-DH1	2402	Ant1	854.1921358	917.7	611.8
NVNT	1-DH1	2441	Ant1	848.7265584	922.1	614.73
NVNT	1-DH1	2480	Ant1	872.4293963	953.3	635.53
NVNT	2-DH1	2402	Ant1	1144.38853	1214	809.33
NVNT	2-DH1	2441	Ant1	1145.667416	1211	807.33
NVNT	2-DH1	2480	Ant1	1139.717773	1208	805.33
NVNT	3-DH1	2402	Ant1	1129.548408	1222	814.67
NVNT	3-DH1	2441	Ant1	1137.054766	1210	806.67
NVNT	3-DH1	2480	Ant1	1138.111823	1223	815.33

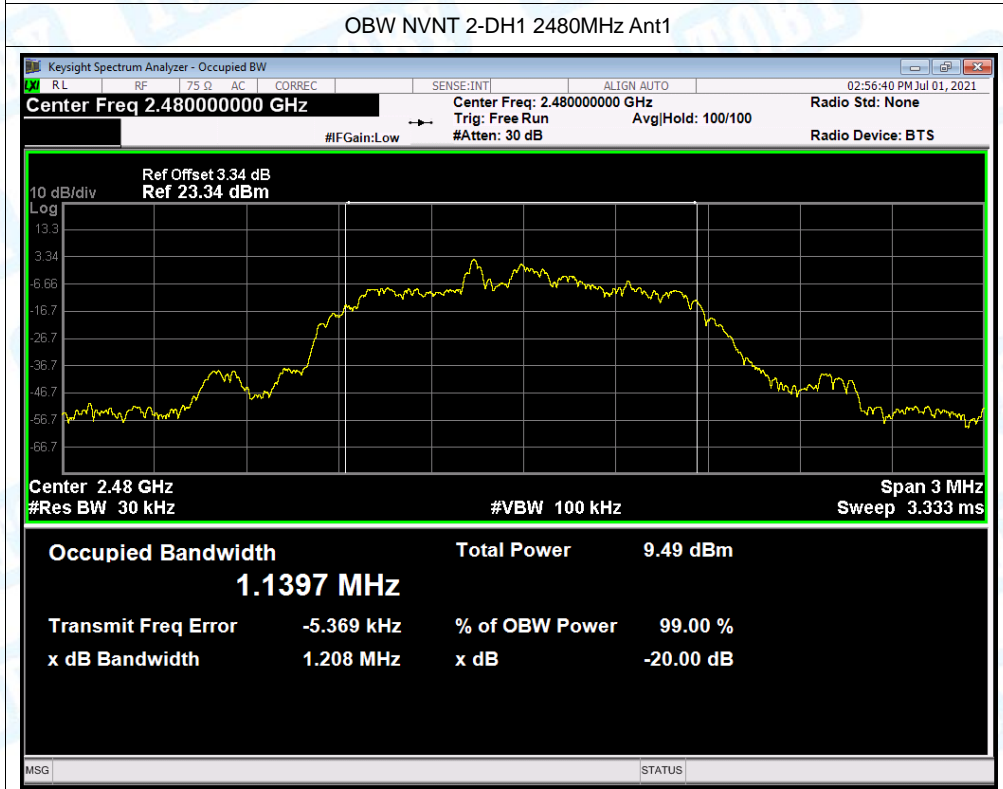
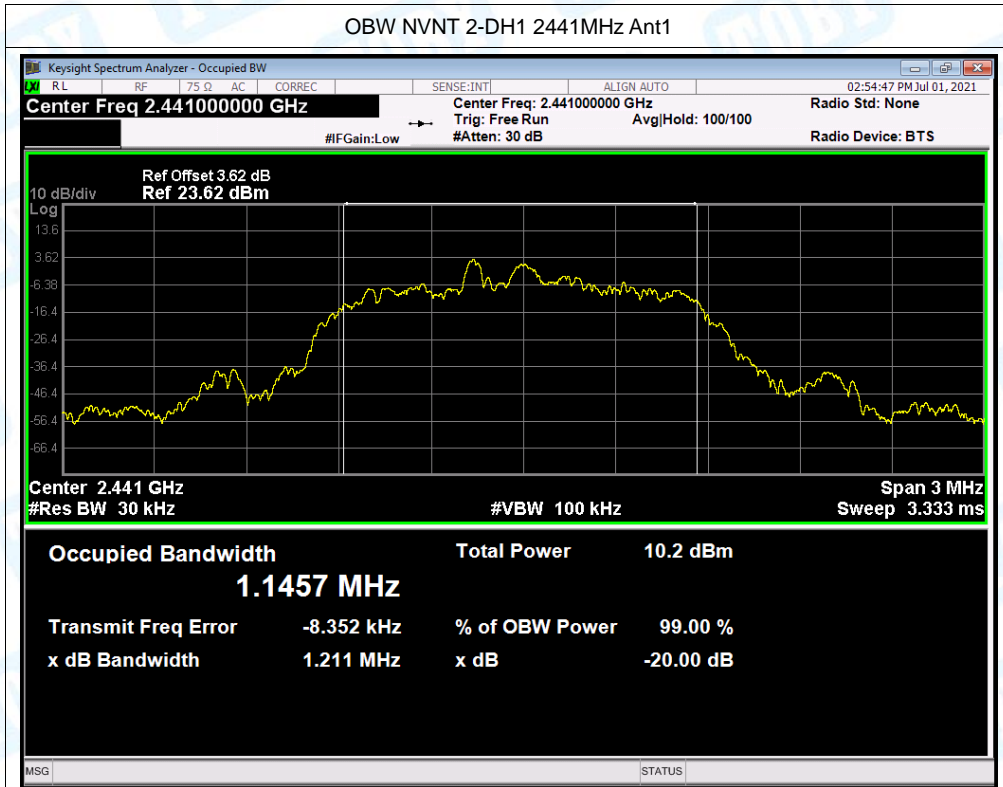


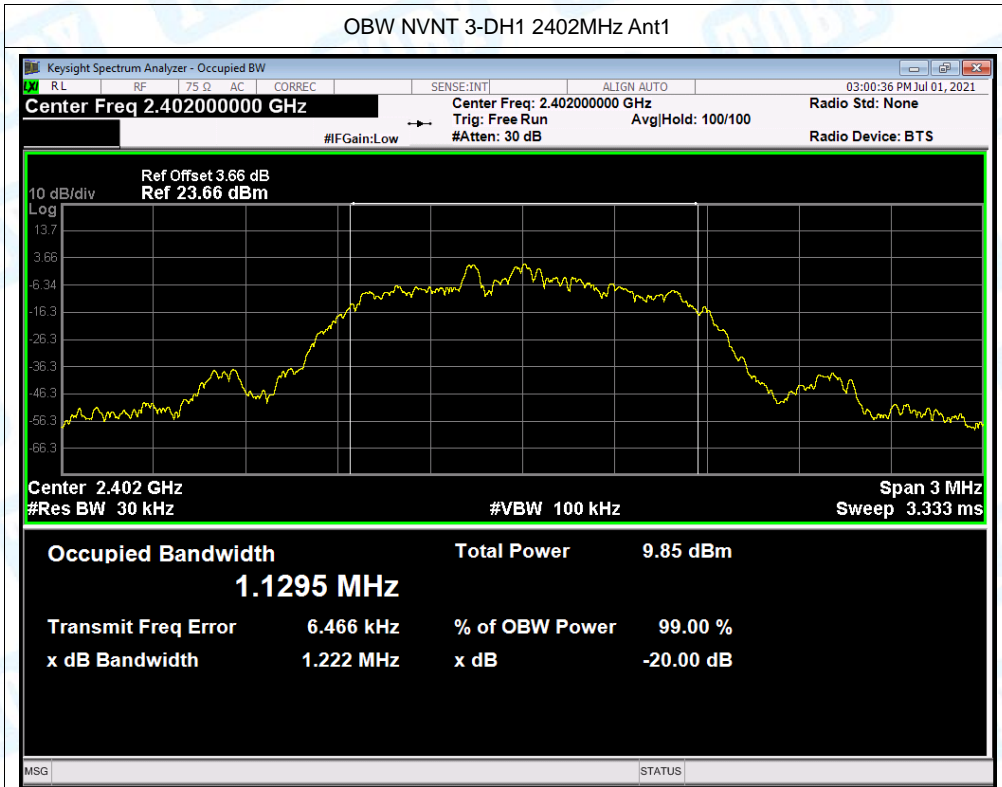
OBW NVNT 1-DH1 2480MHz Ant1

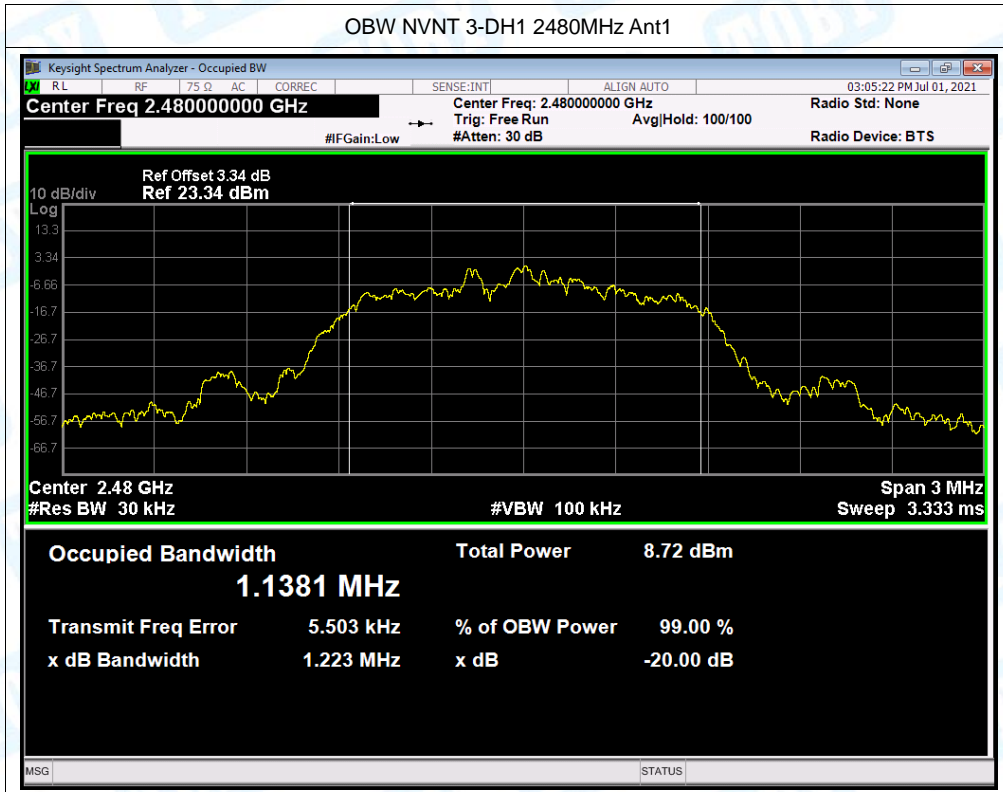


OBW NVNT 2-DH1 2402MHz Ant1



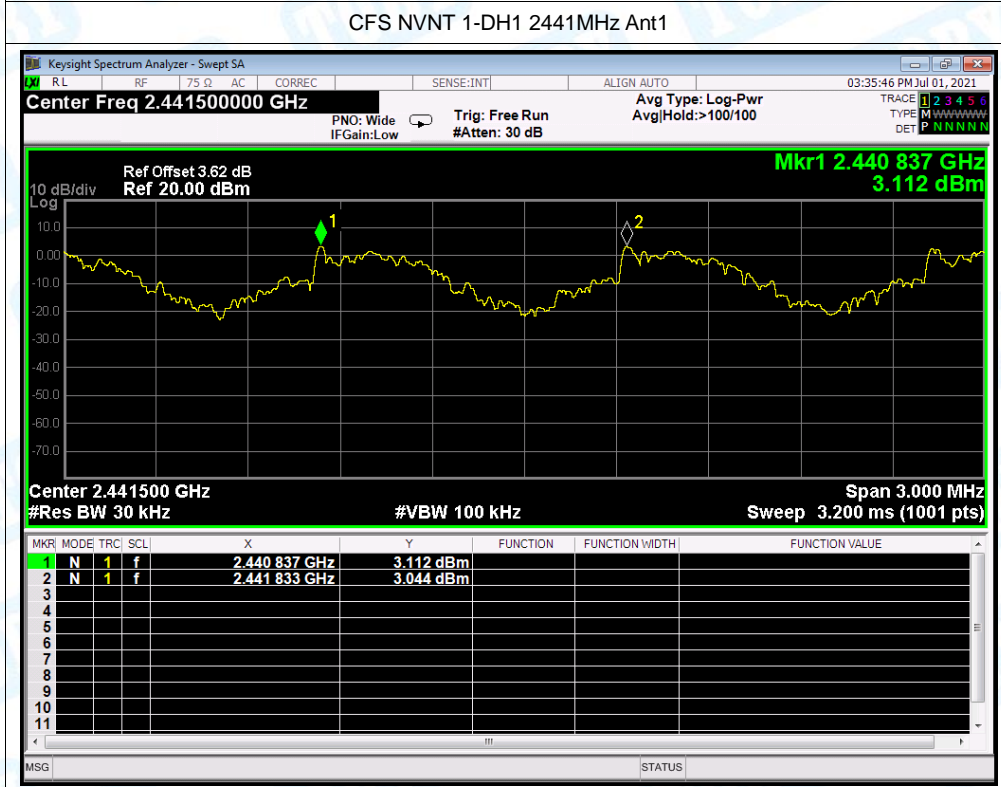
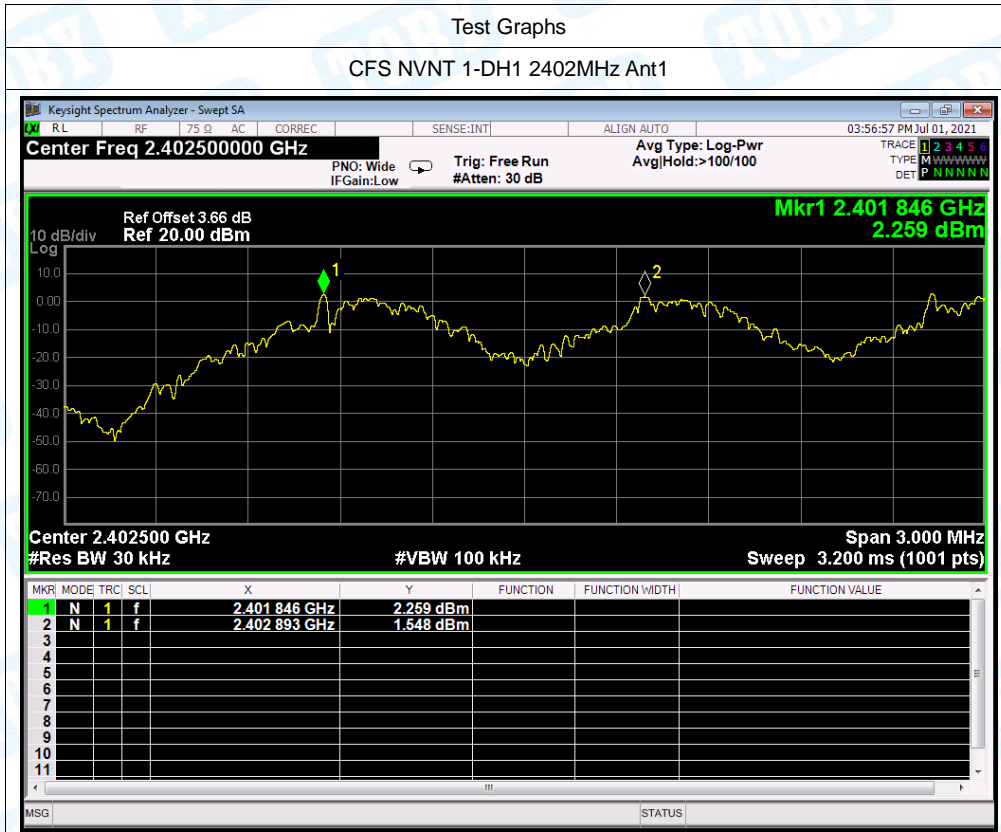


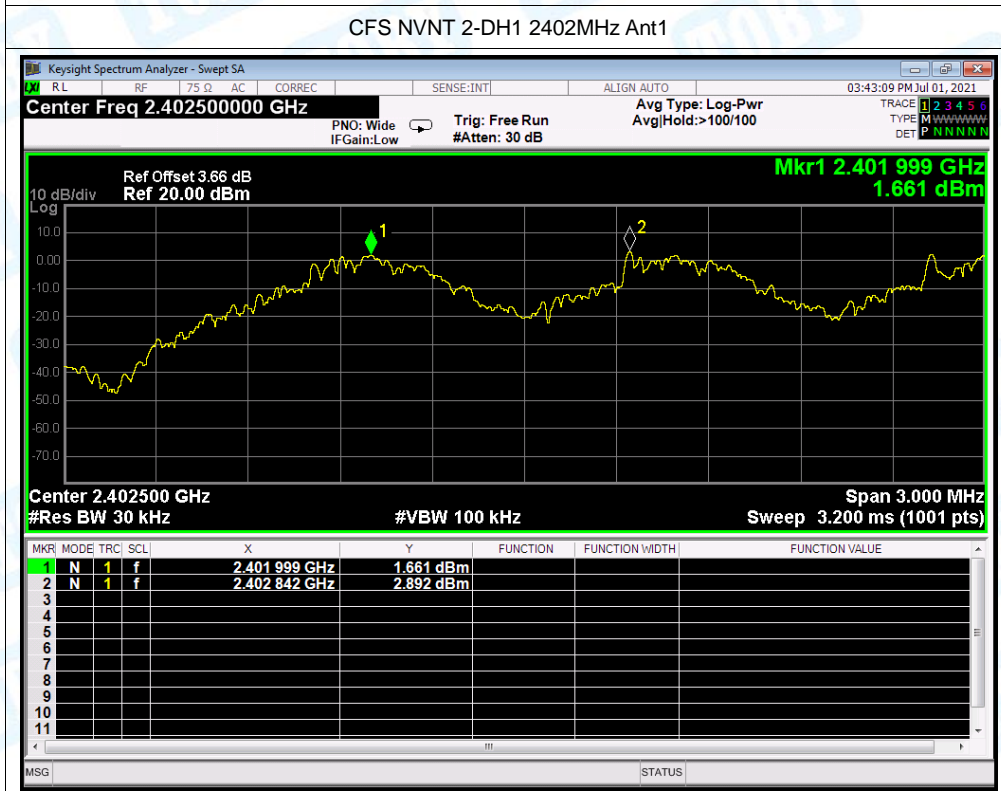
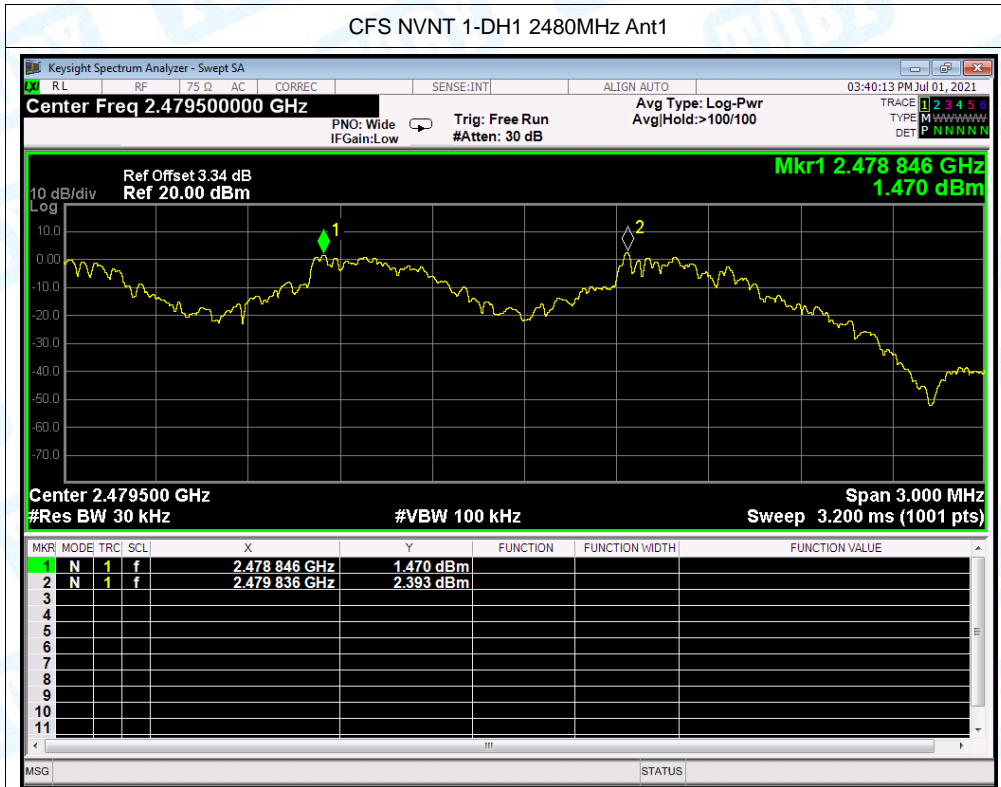


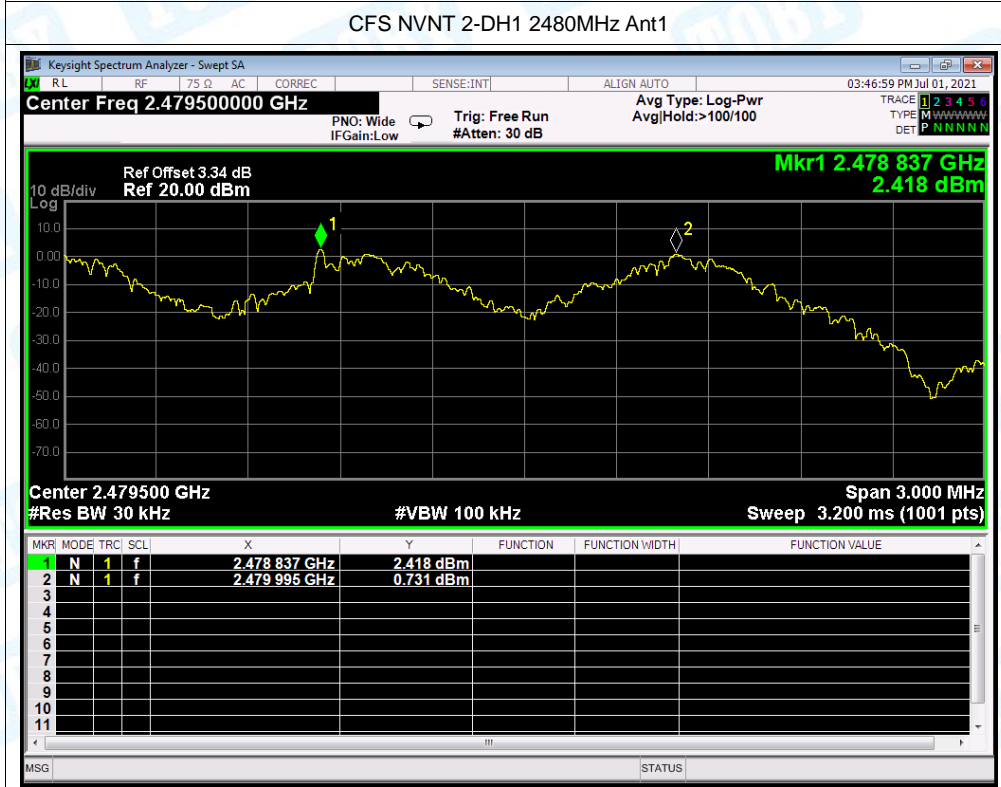
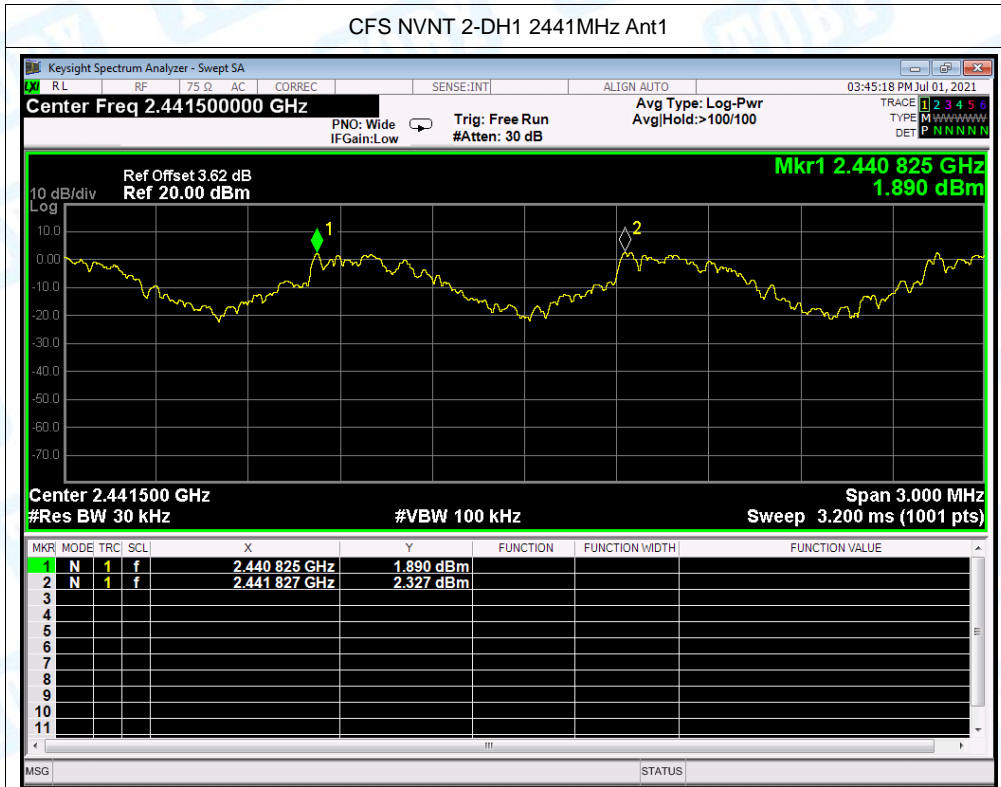


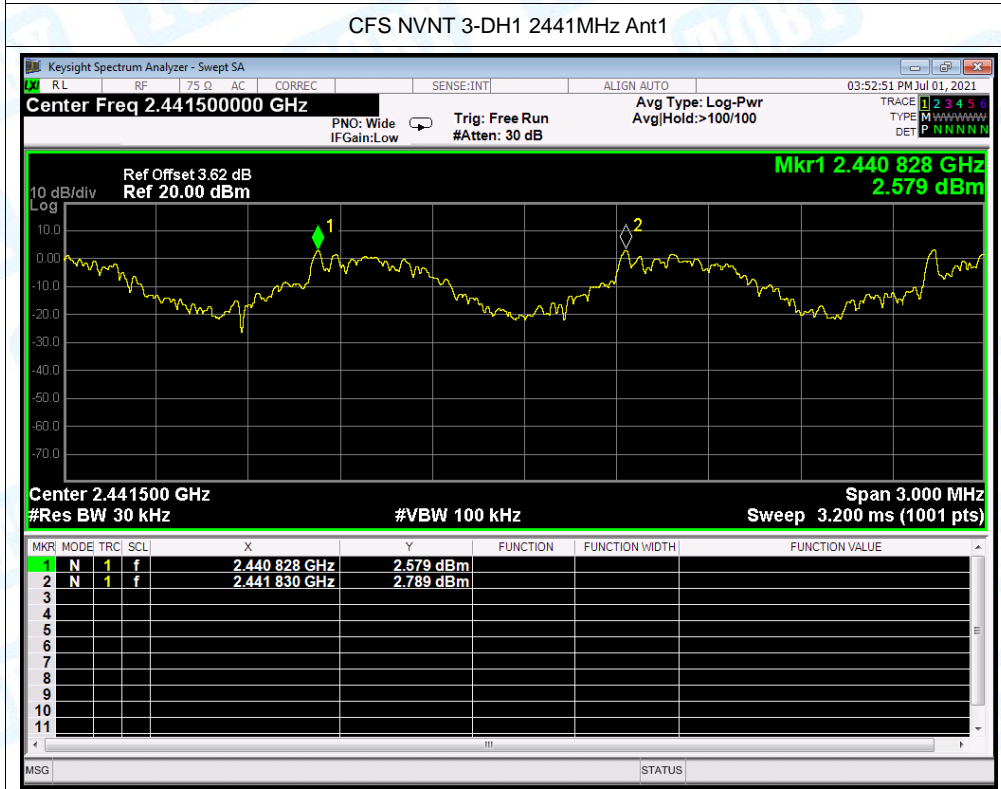
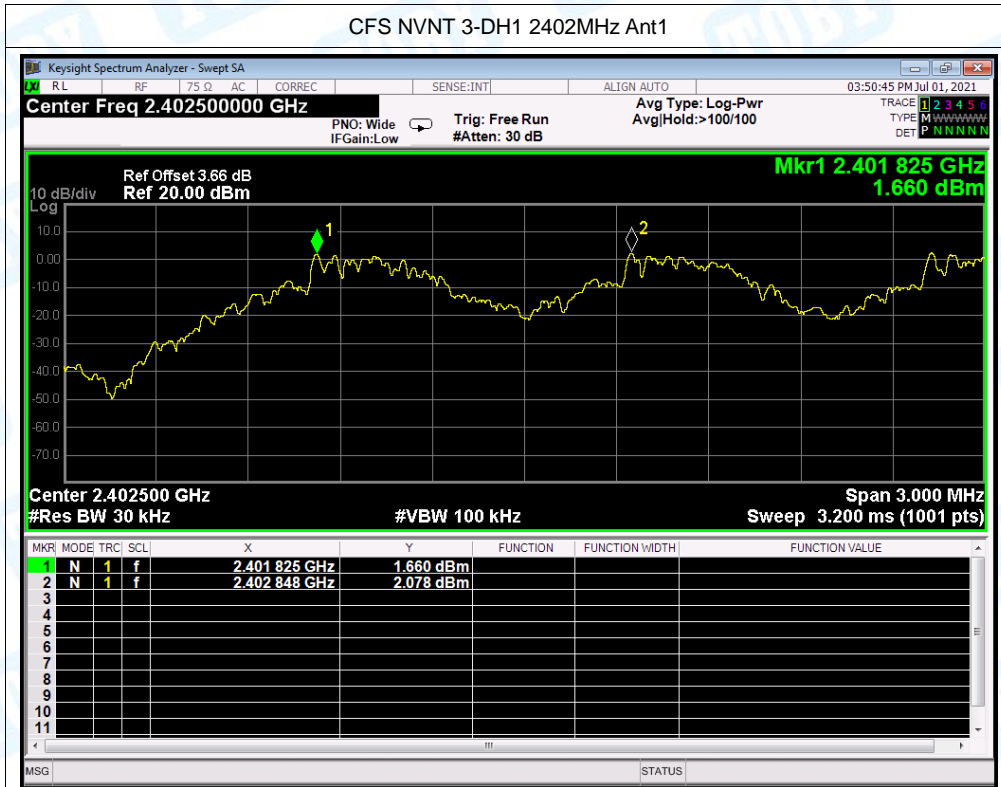
4. Carrier Frequencies Separation

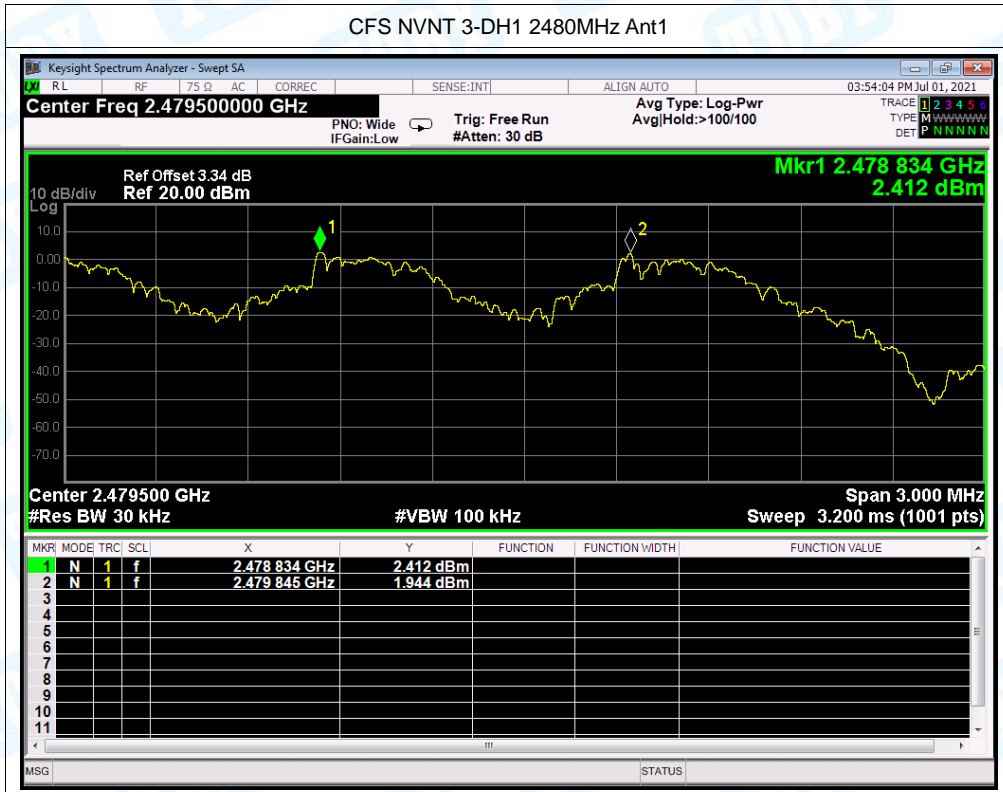
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2401.846	2402.893	1.047	0.6118	Pass
NVNT	1-DH1	Ant1	2440.837	2441.833	0.996	0.61473	Pass
NVNT	1-DH1	Ant1	2478.846	2479.836	0.99	0.63553	Pass
NVNT	2-DH1	Ant1	2401.999	2402.842	0.843	0.80933	Pass
NVNT	2-DH1	Ant1	2440.825	2441.827	1.002	0.80733	Pass
NVNT	2-DH1	Ant1	2478.837	2479.995	1.158	0.80533	Pass
NVNT	3-DH1	Ant1	2401.825	2402.848	1.023	0.81467	Pass
NVNT	3-DH1	Ant1	2440.828	2441.83	1.002	0.80667	Pass
NVNT	3-DH1	Ant1	2478.834	2479.845	1.011	0.81533	Pass





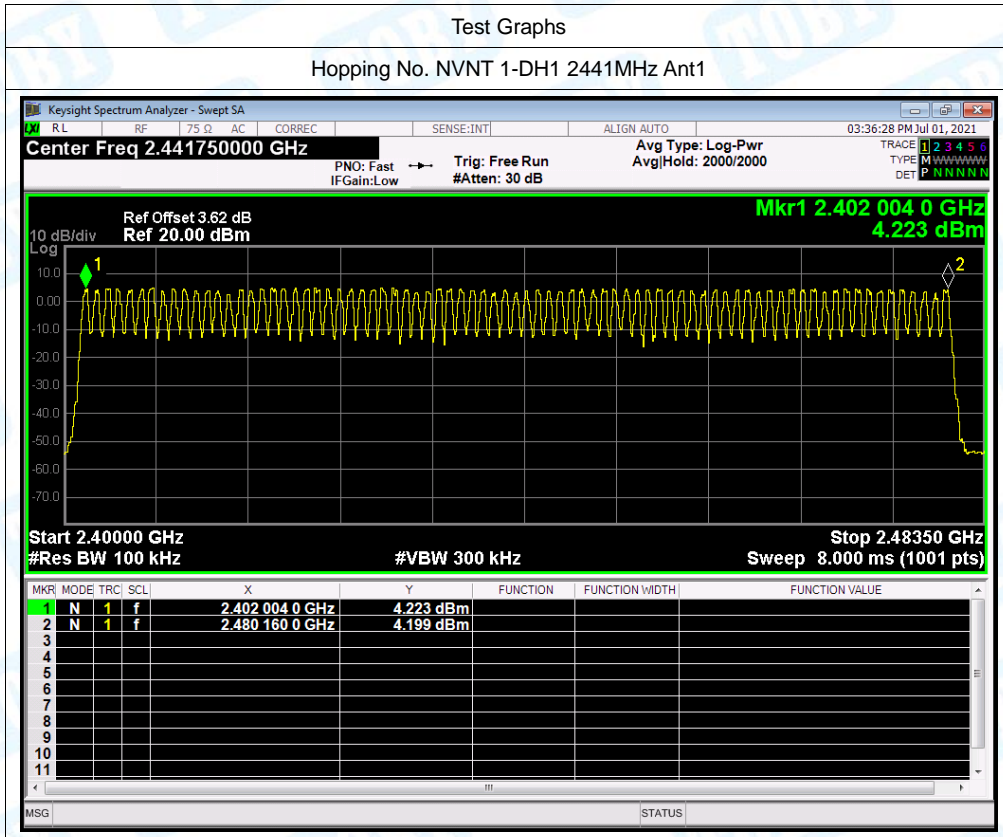


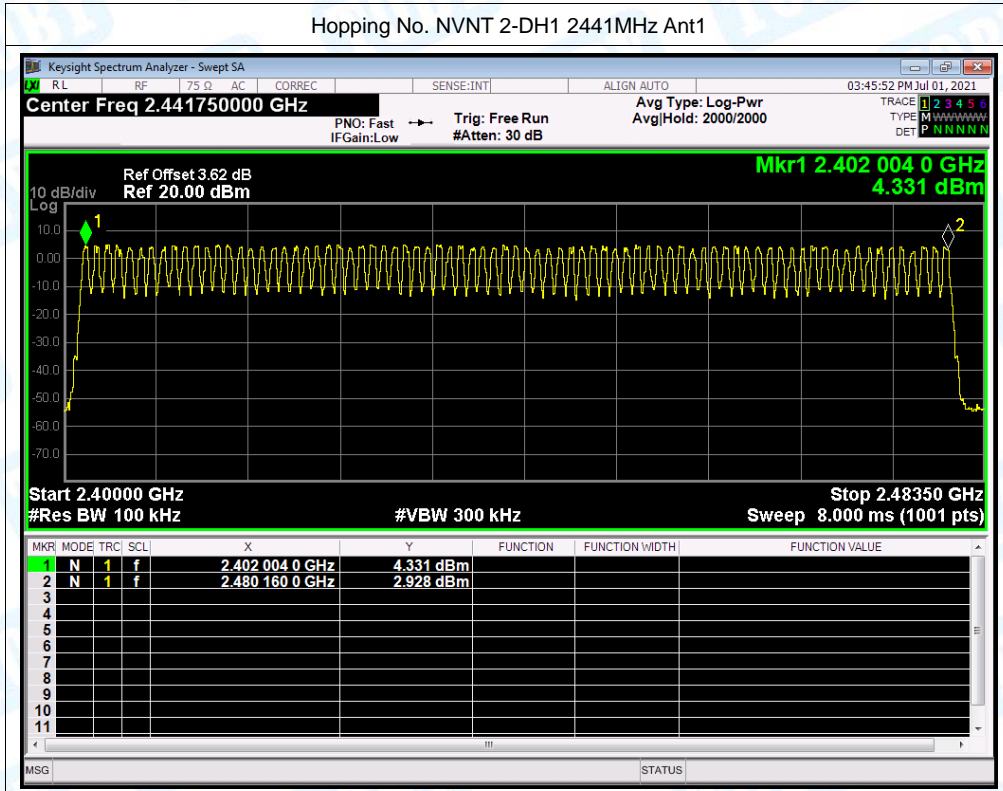


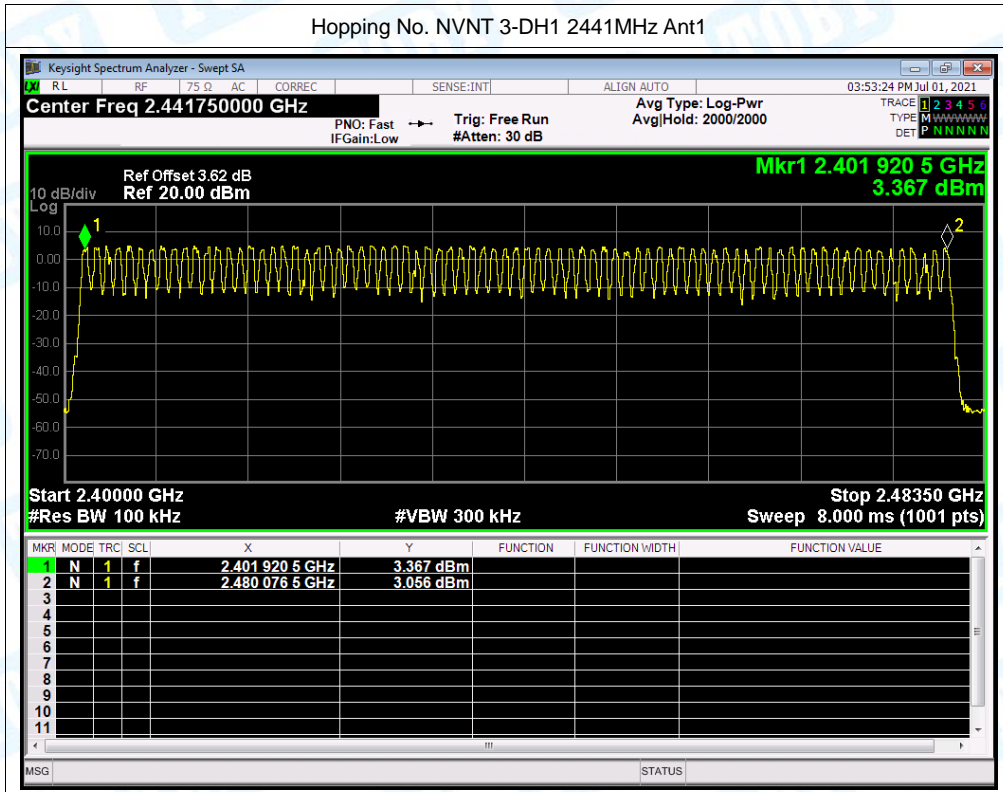


5. Number of Hopping Channel

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

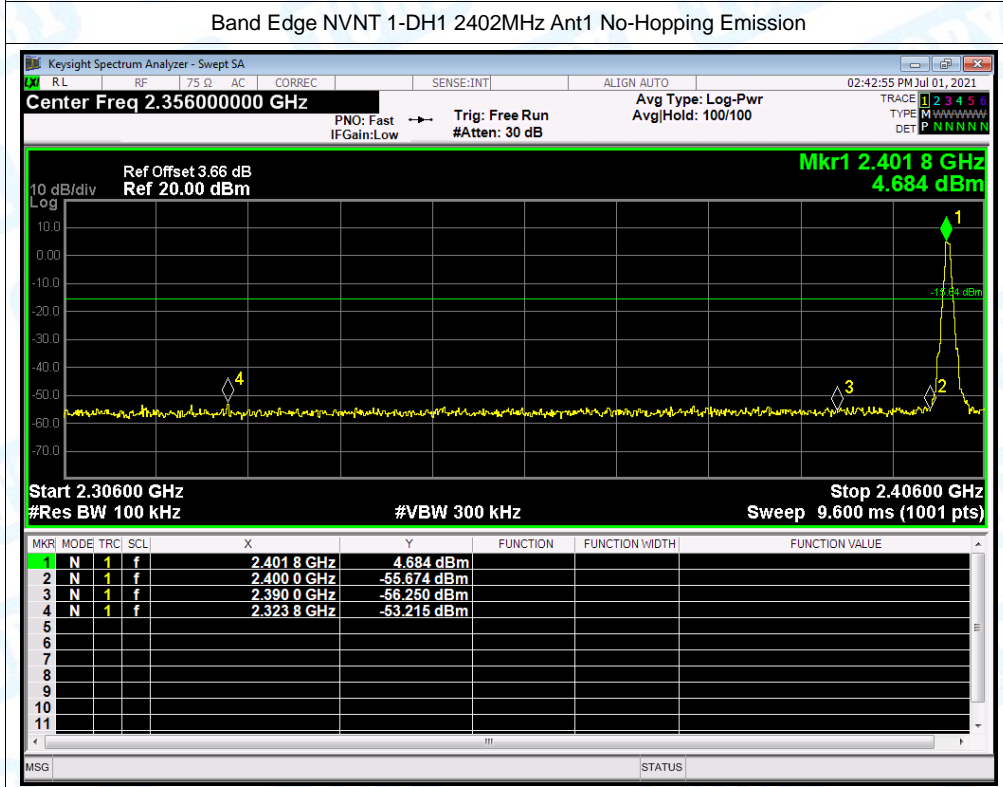
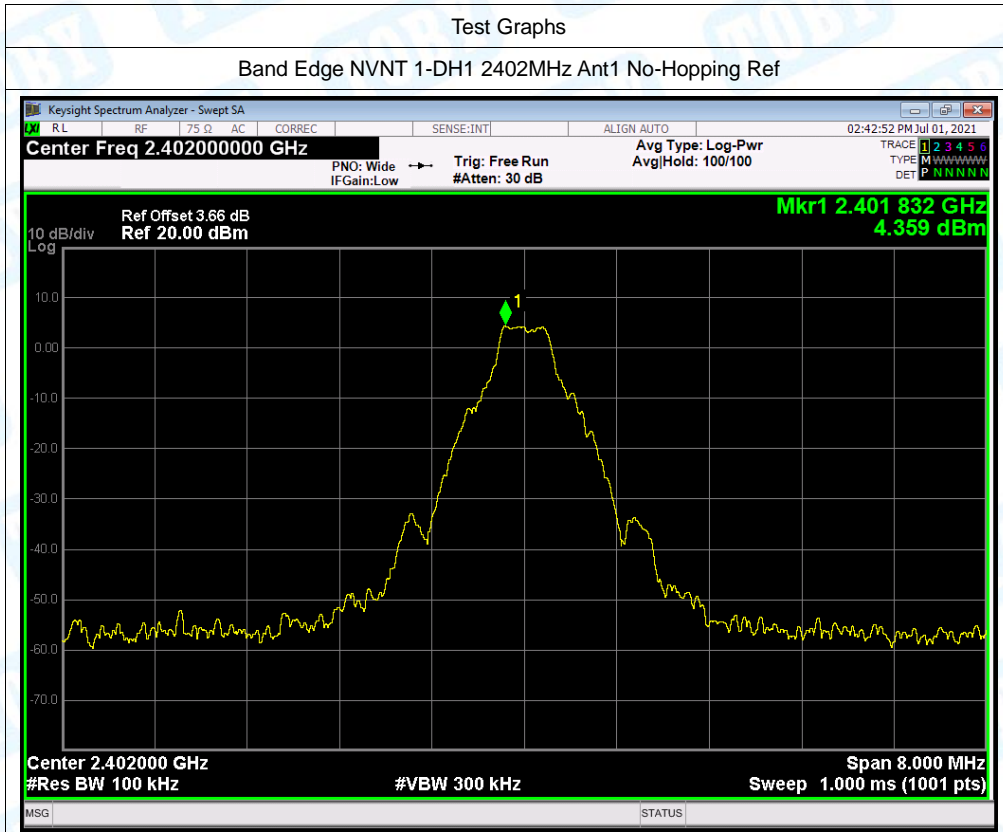


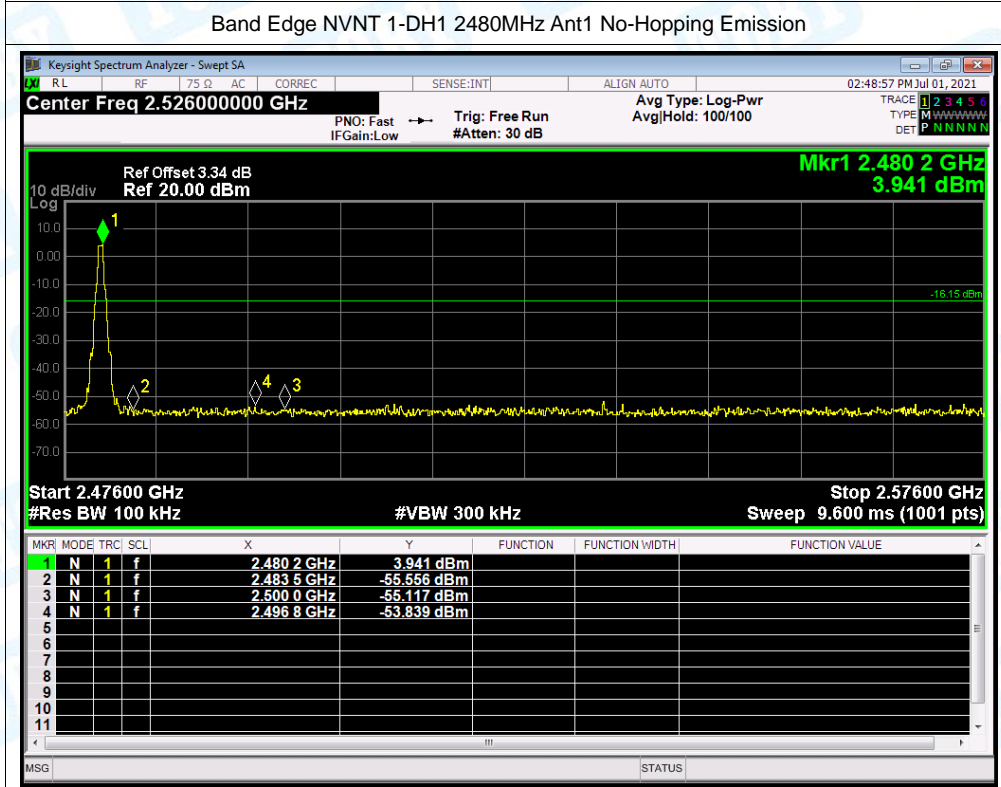
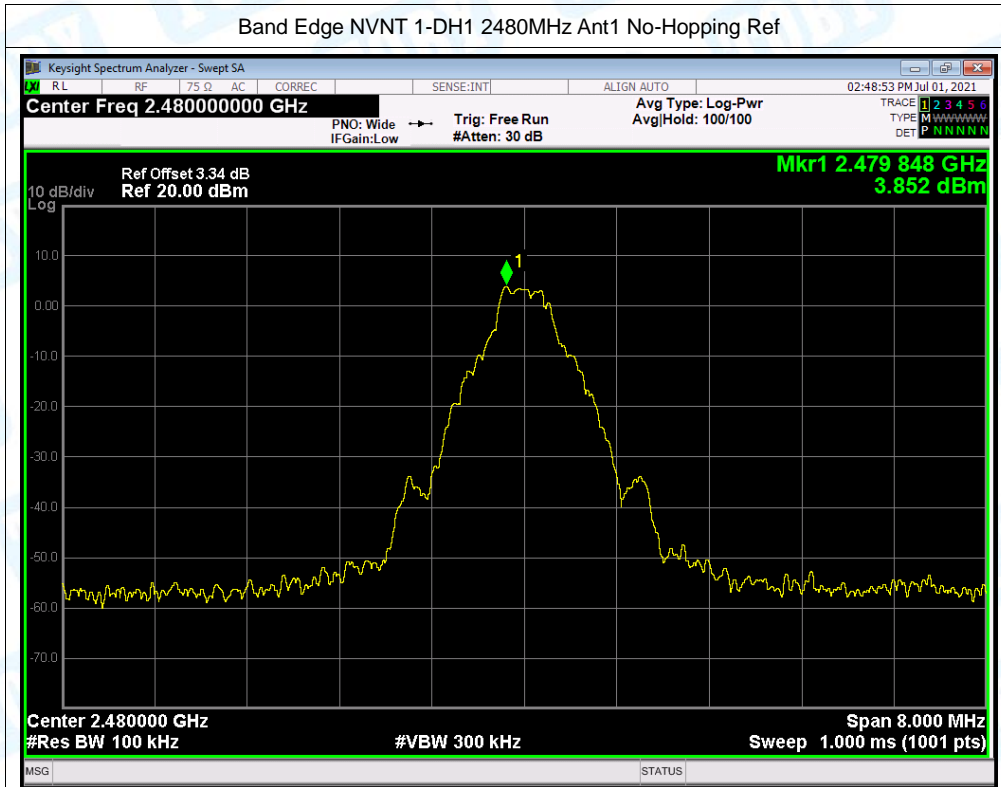


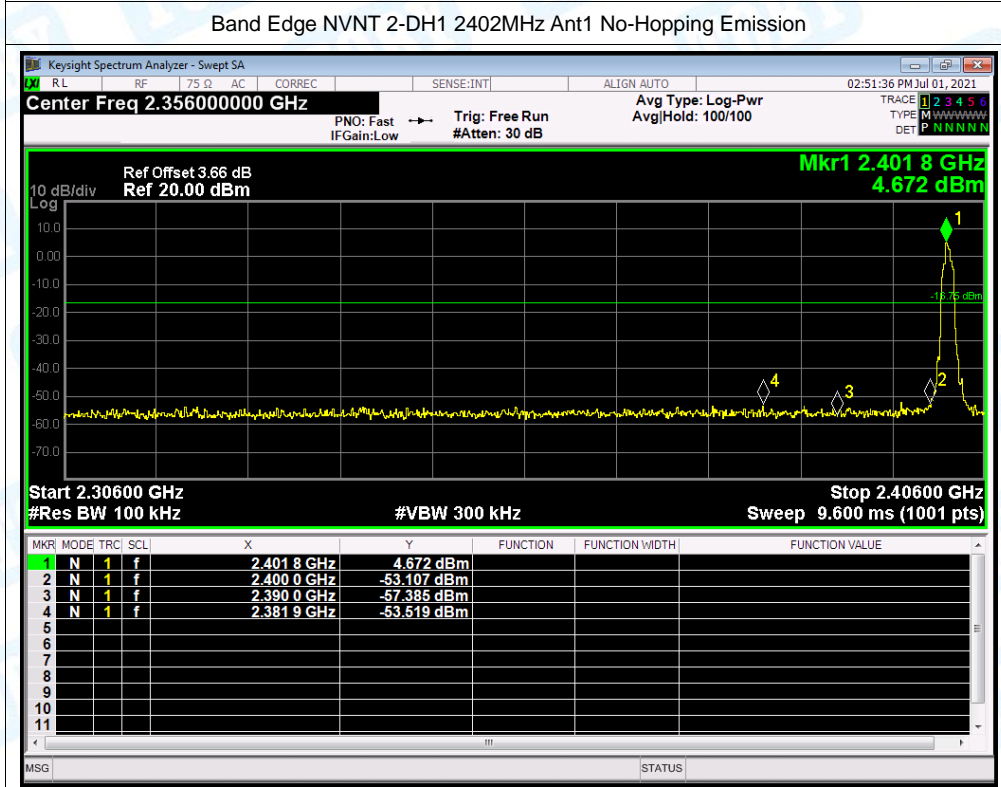
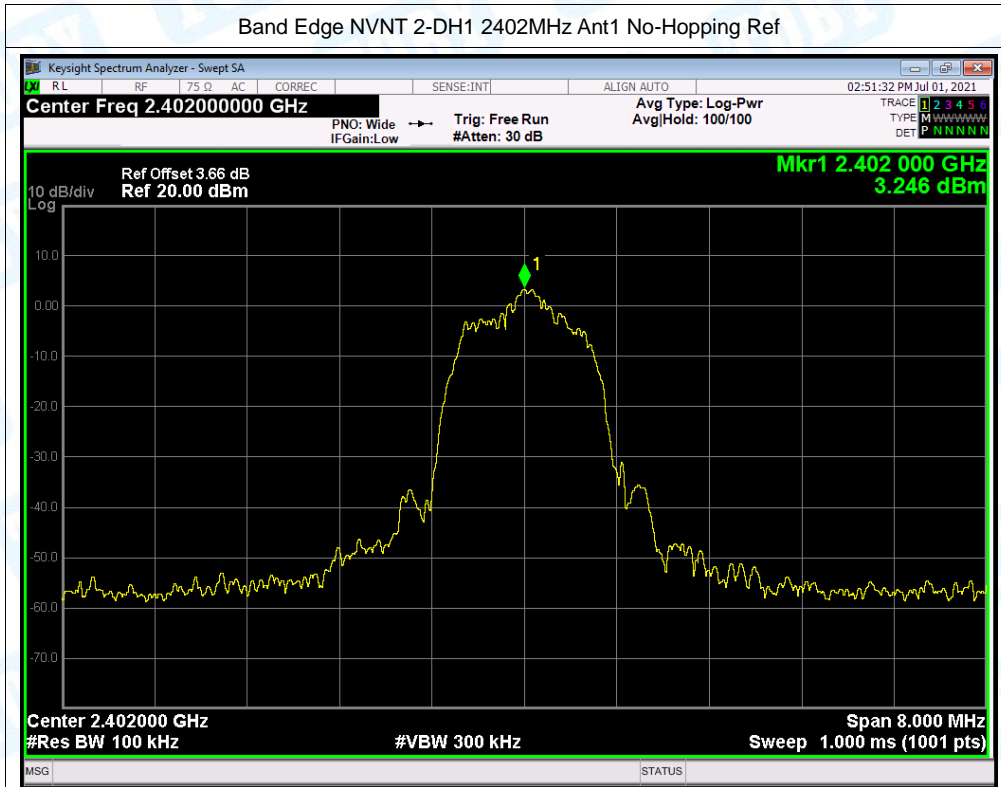


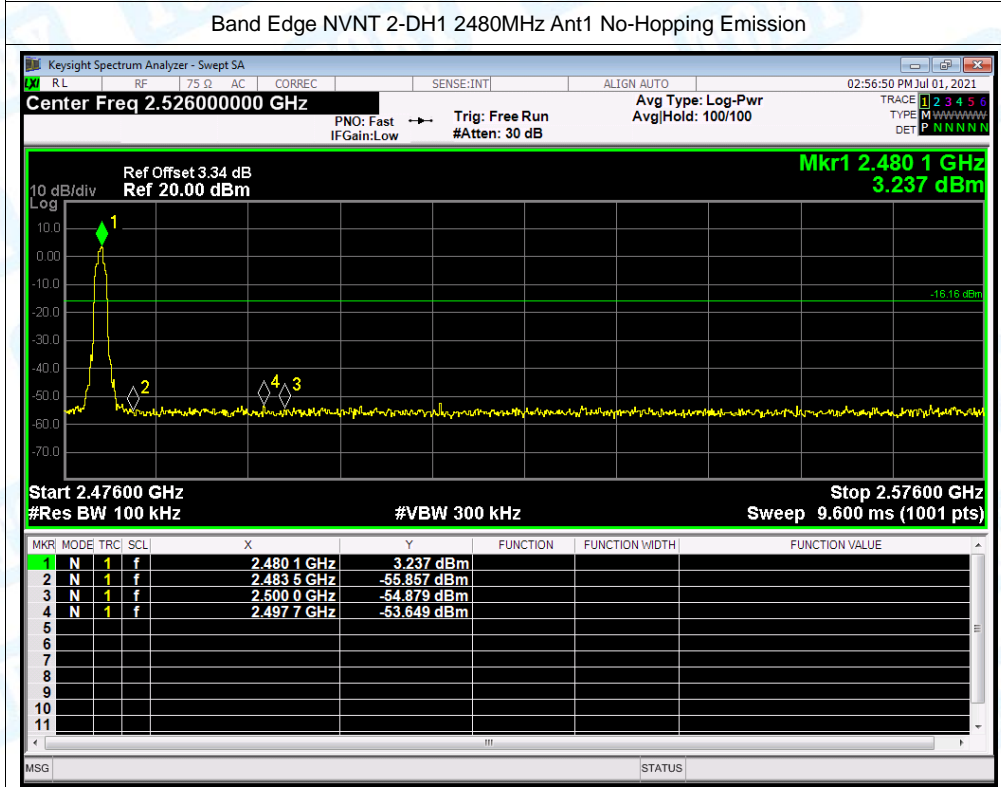
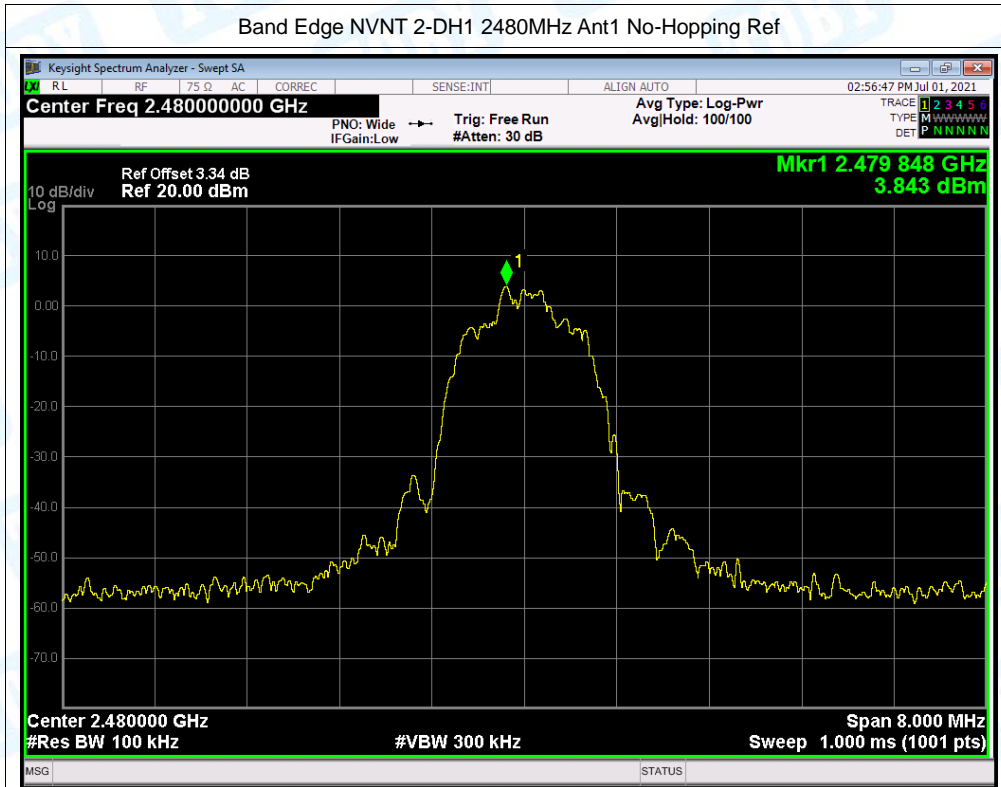
6.Band Edge

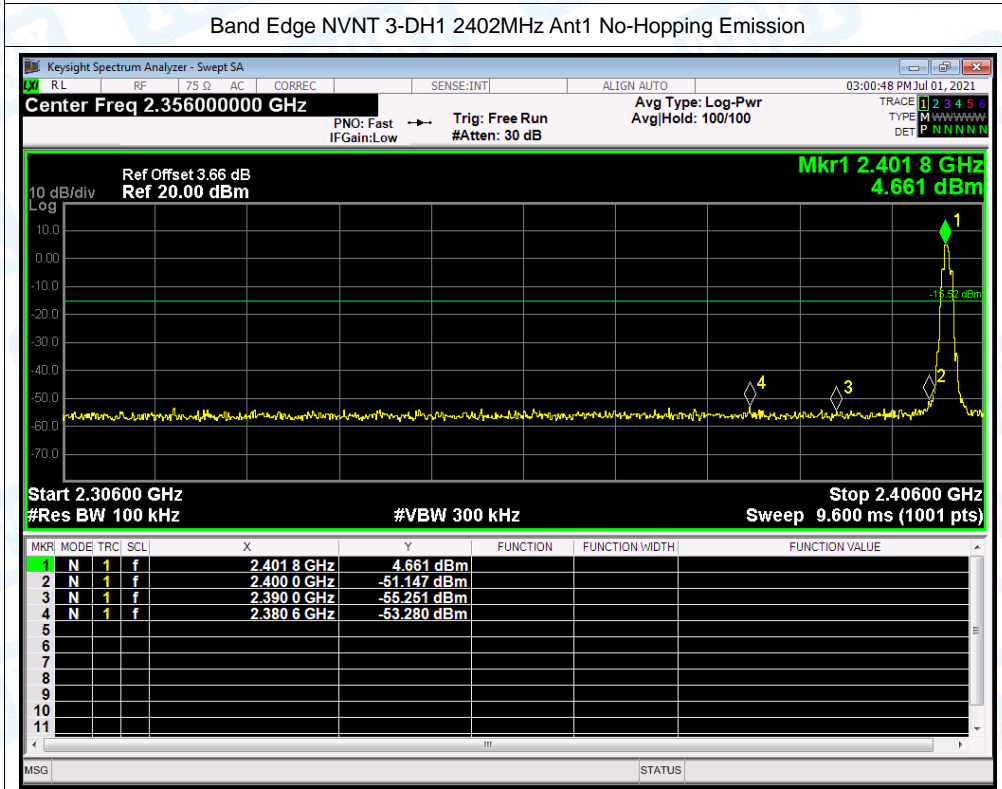
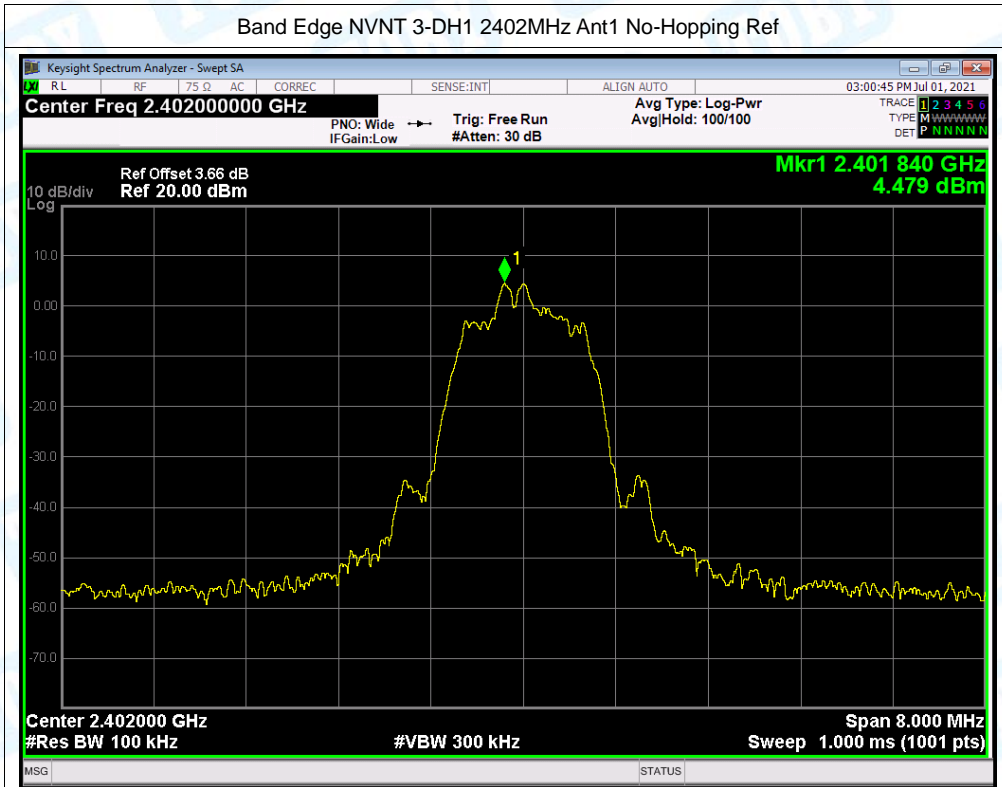
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-57.57	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-57.68	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-56.76	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-57.48	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-57.75	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-56.67	-20	Pass

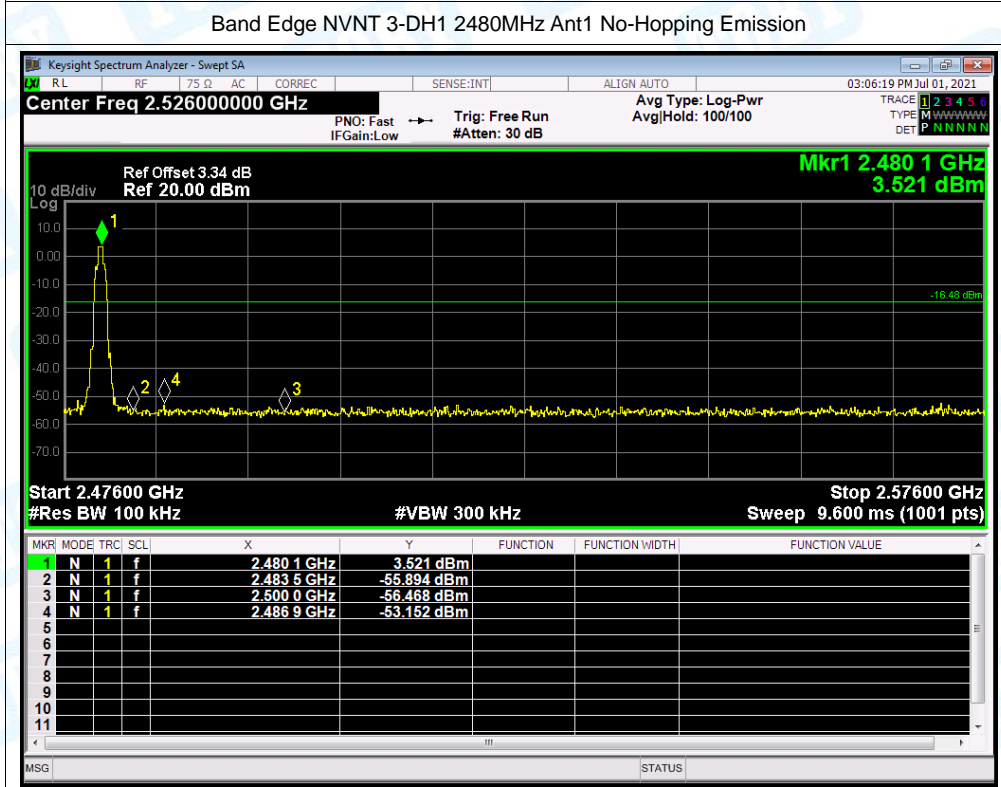
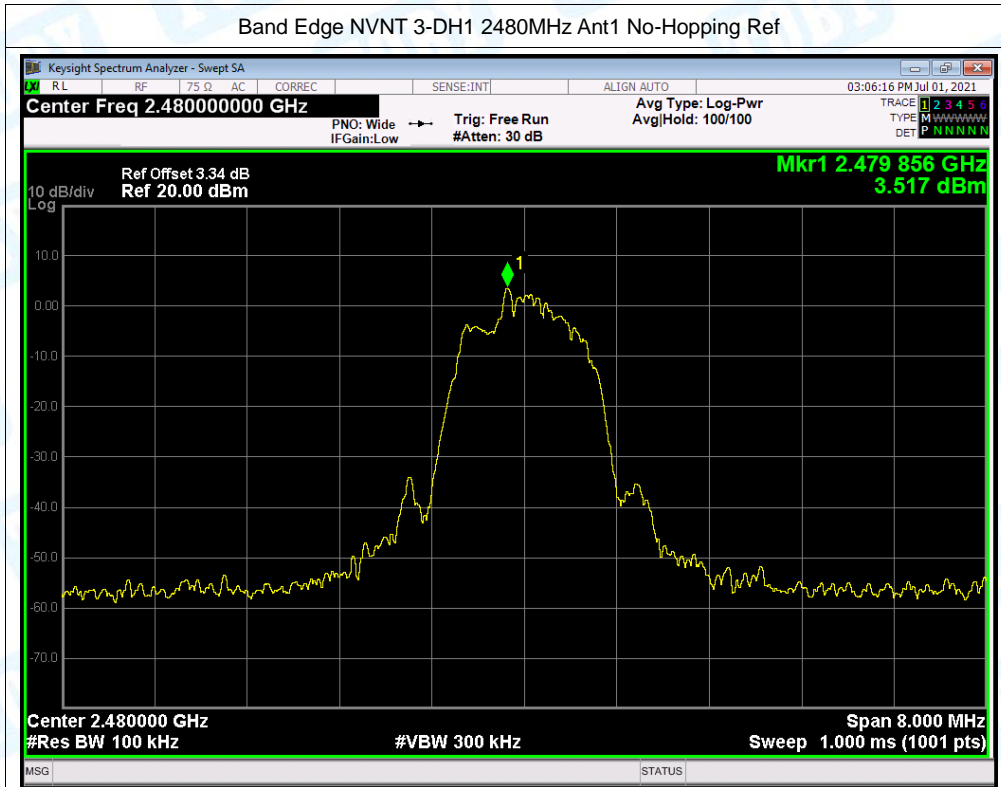






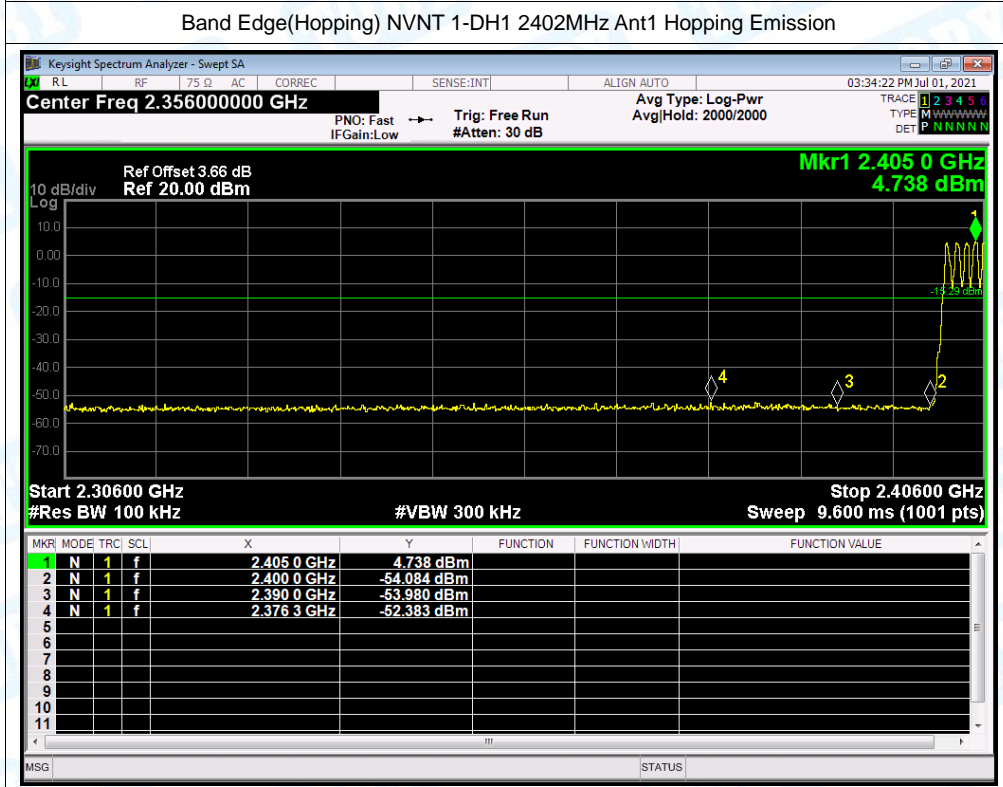


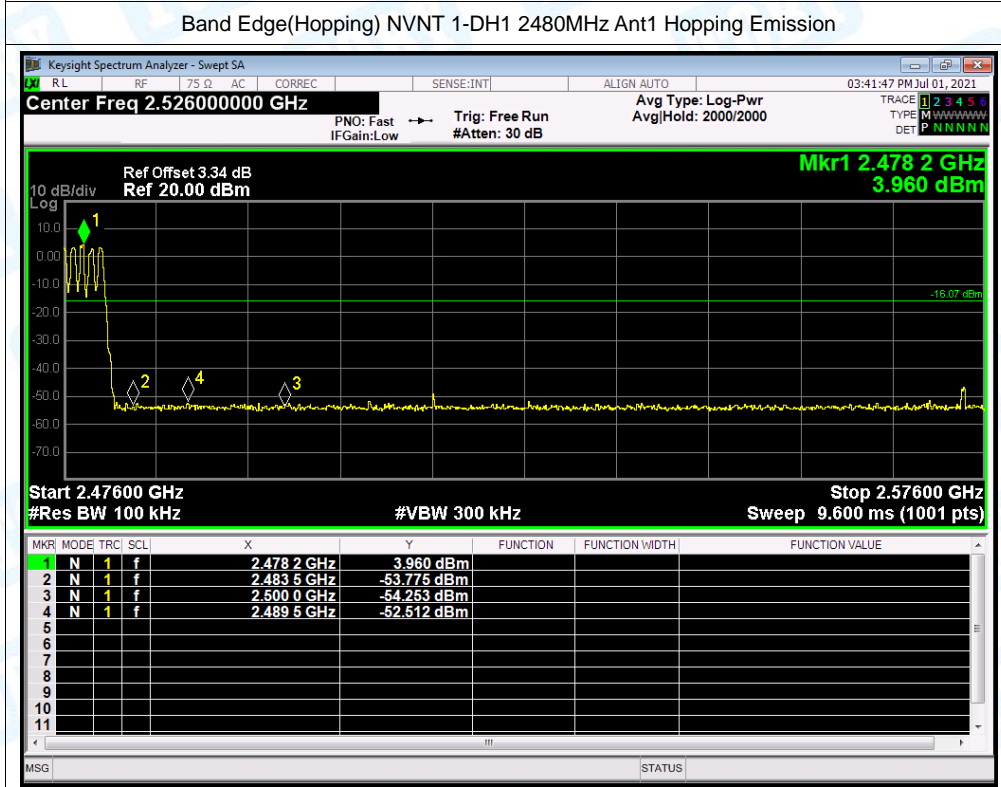
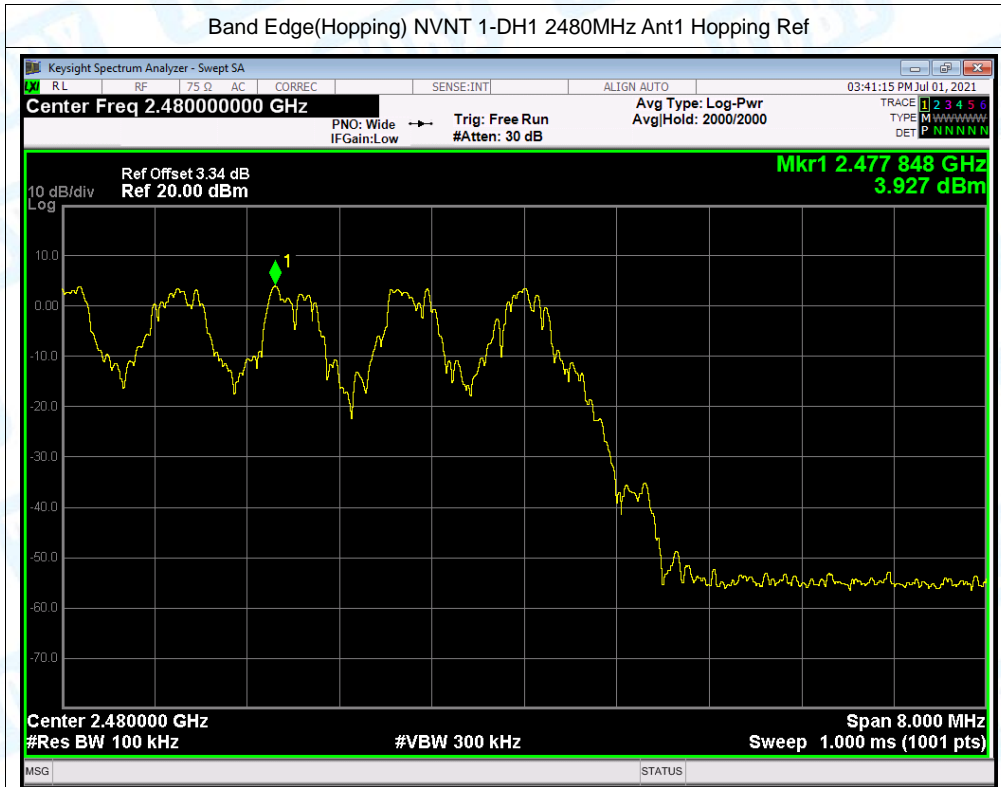


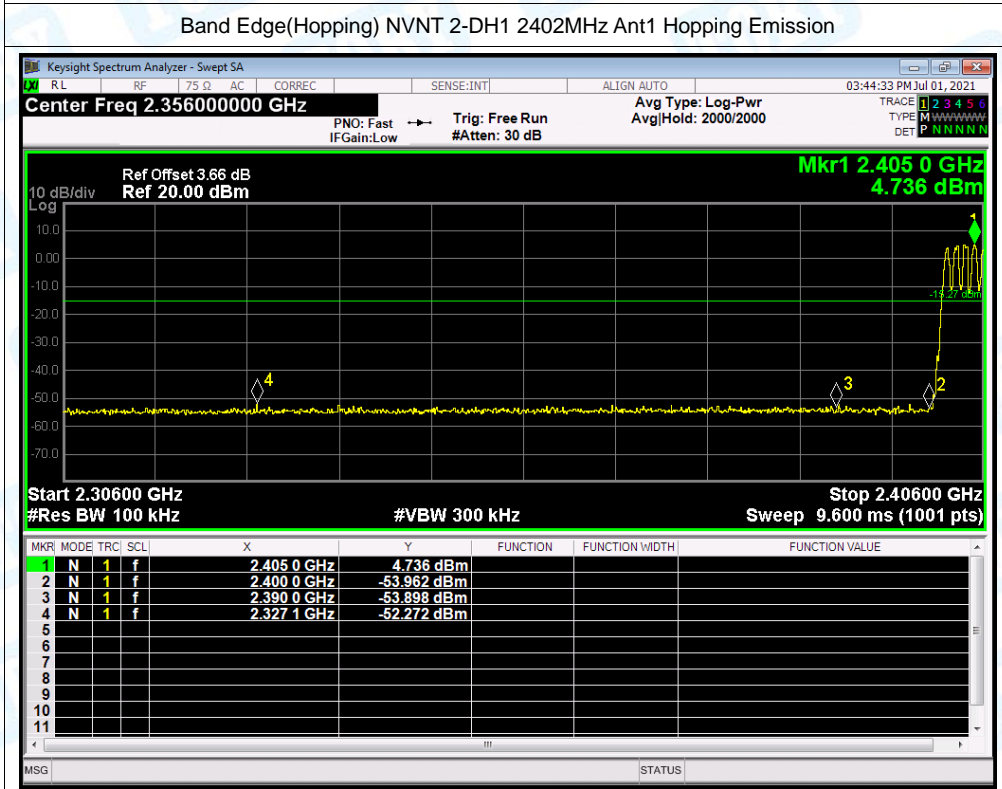
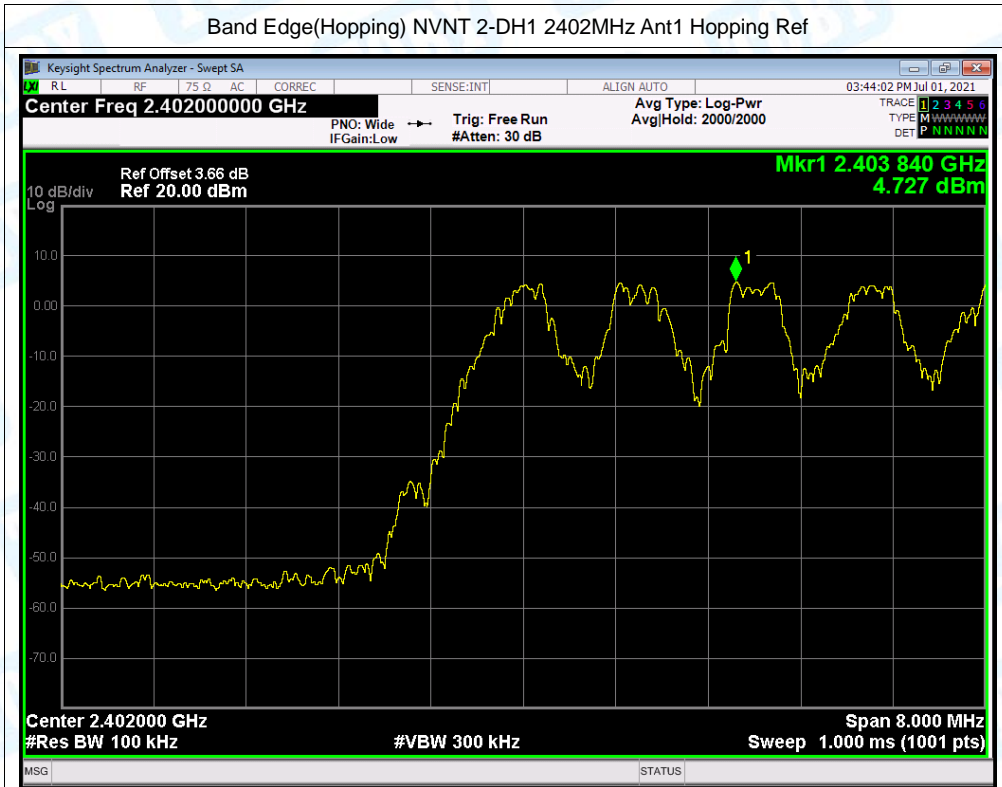


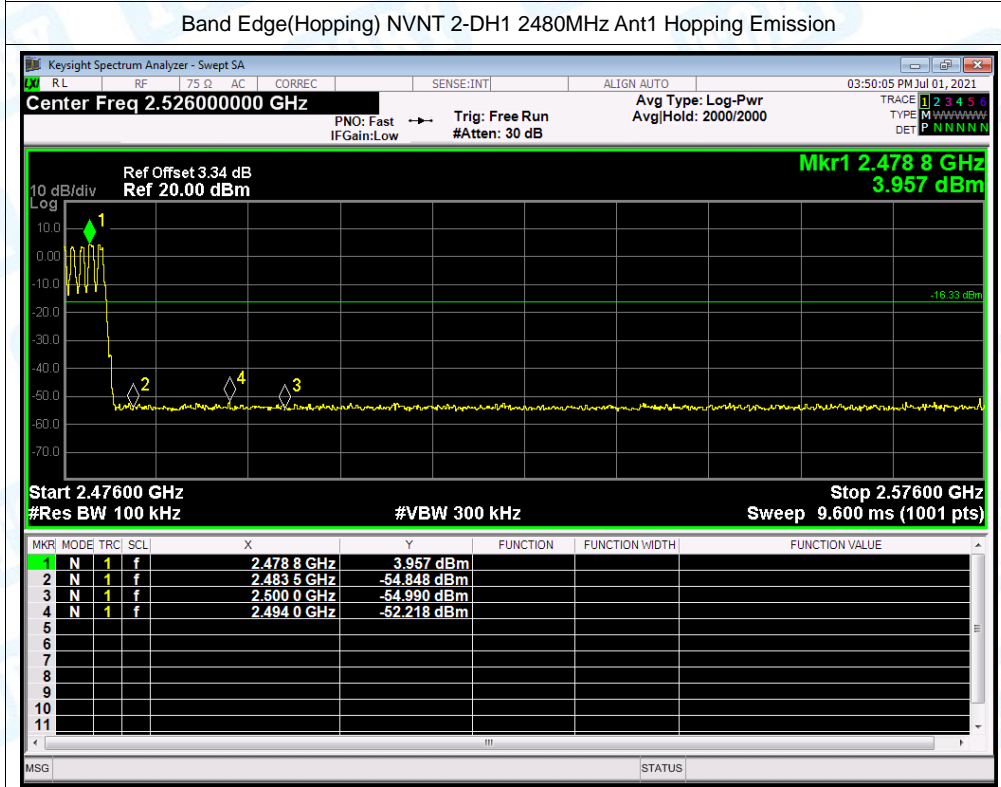
7. Band Edge(Hopping)

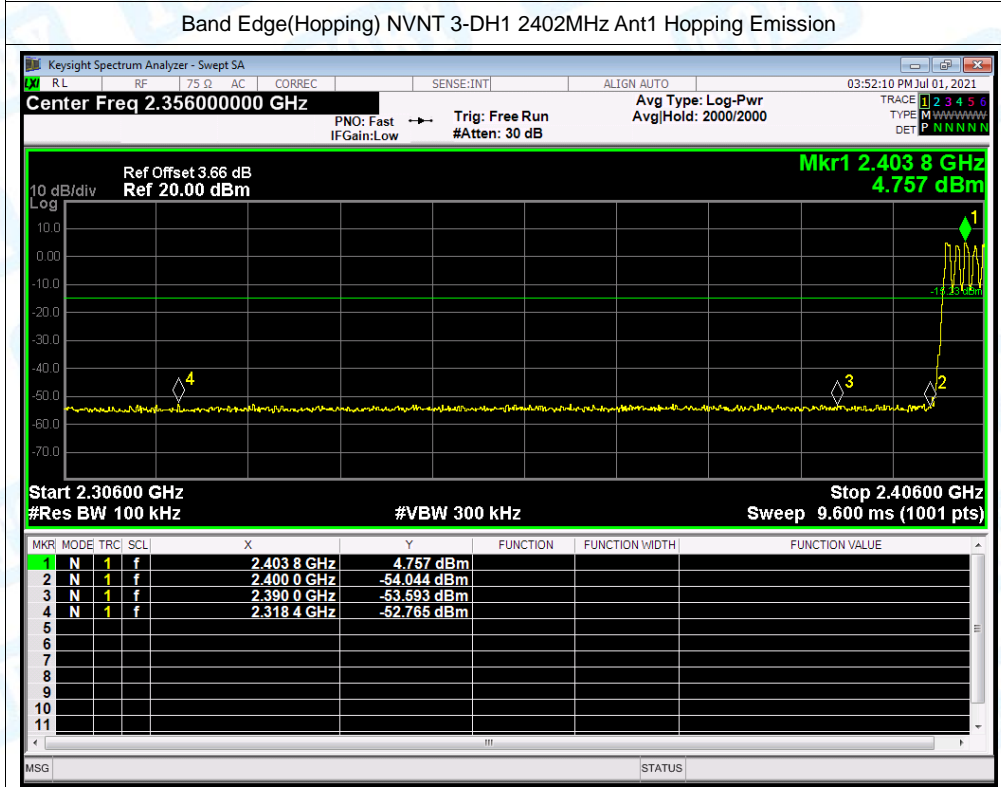
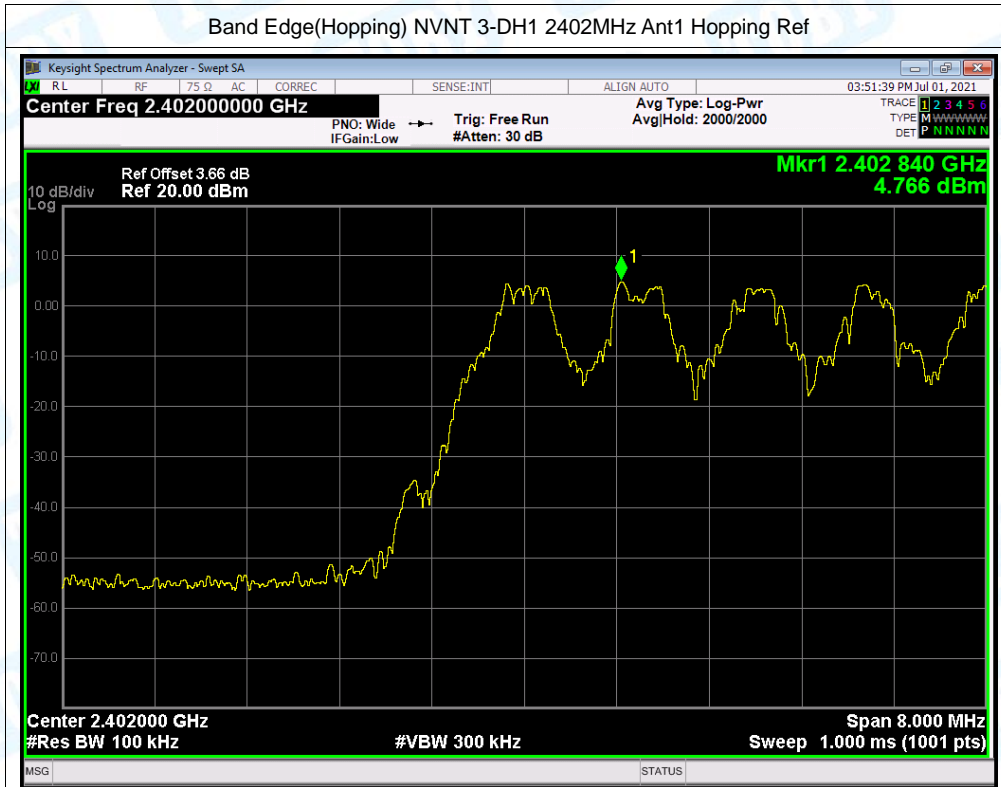
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-57.09	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-56.44	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-57	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-55.89	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-57.53	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-56.31	-20	Pass

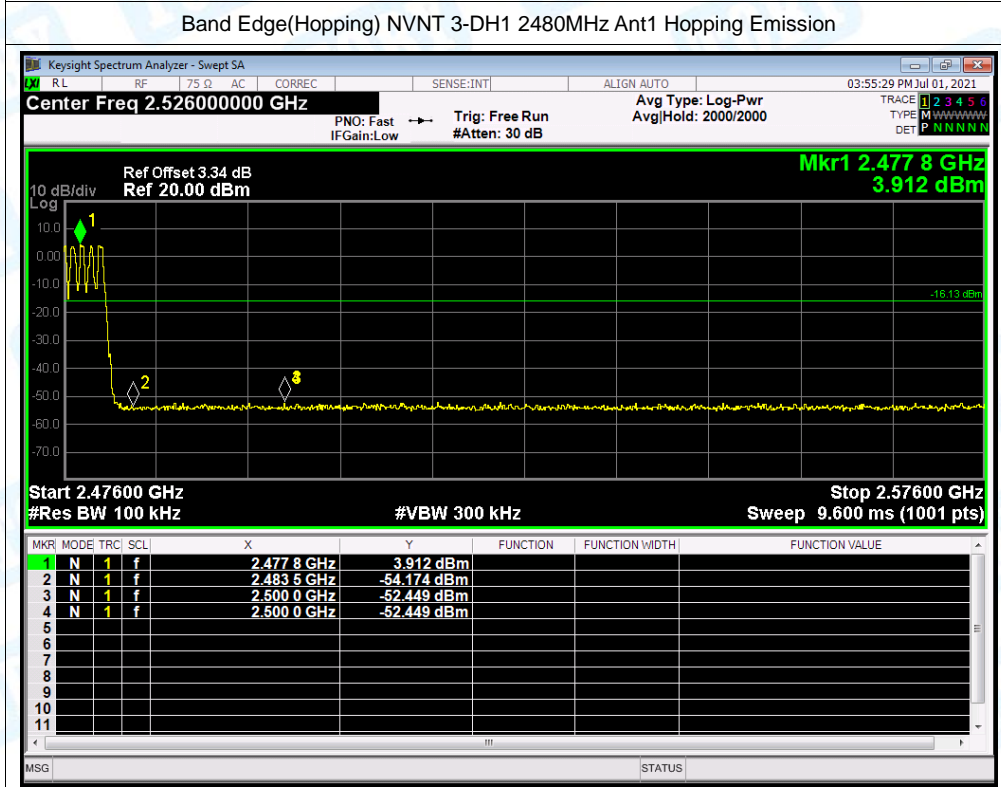






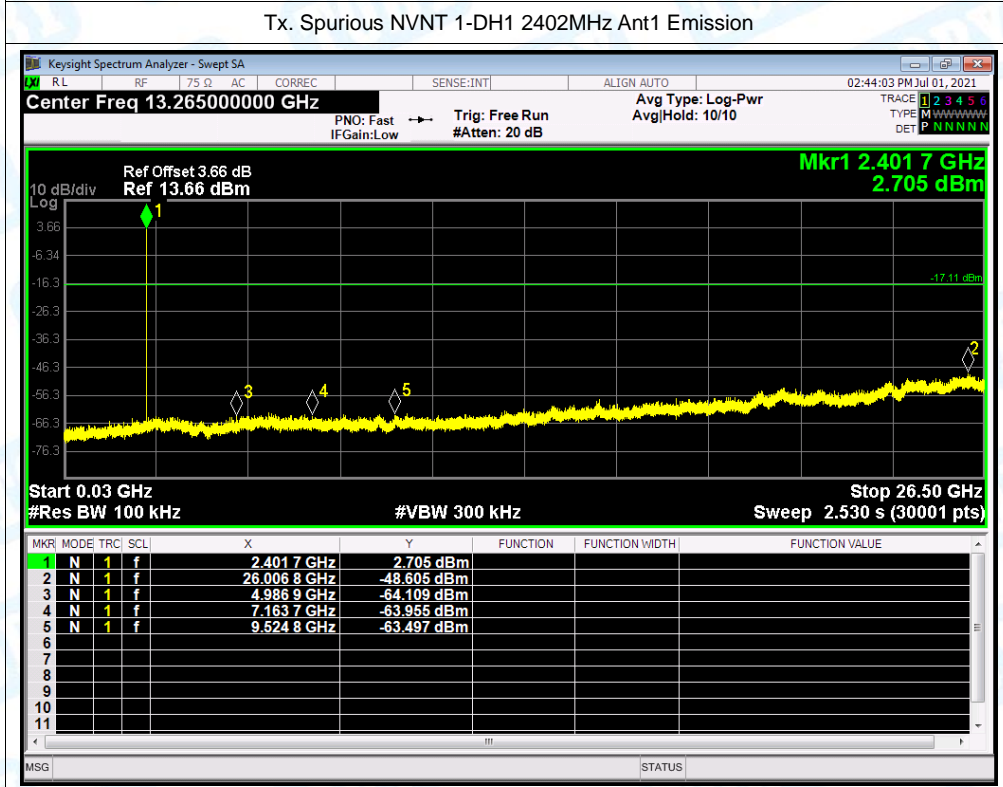
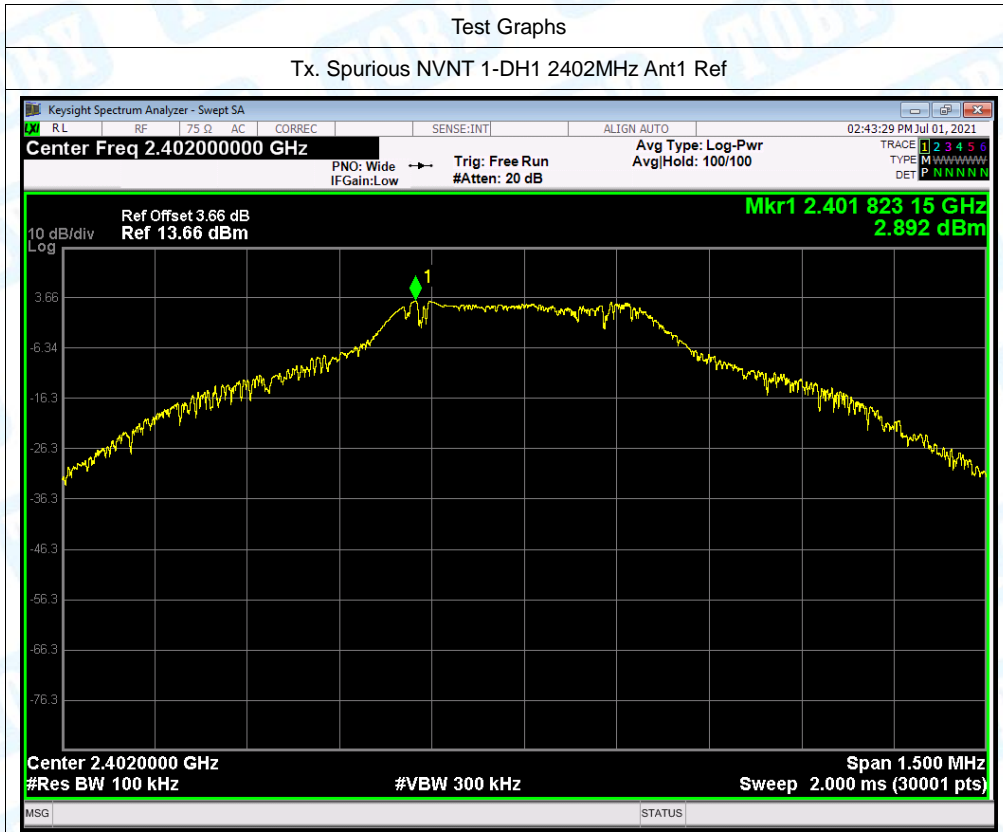


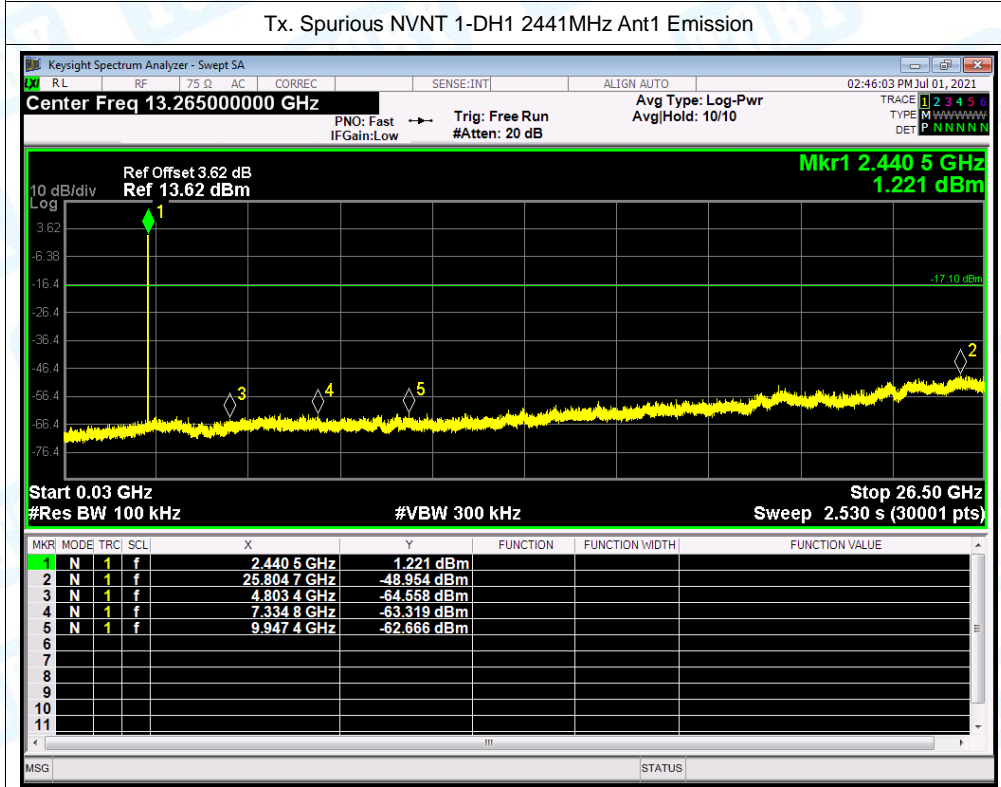
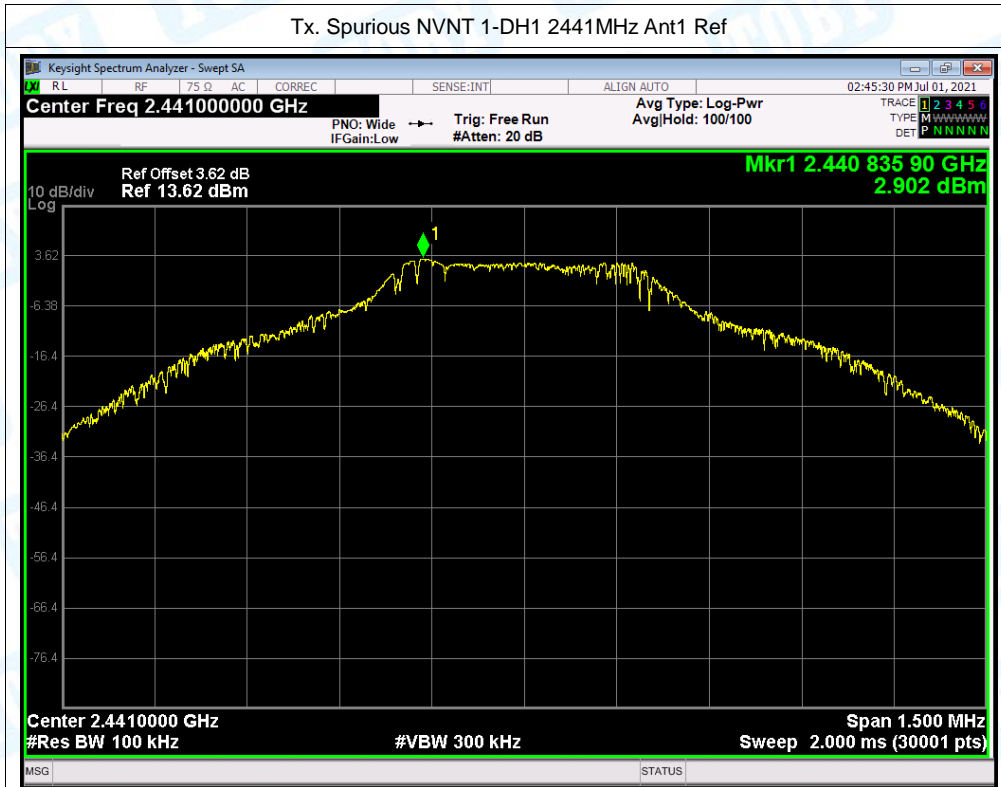


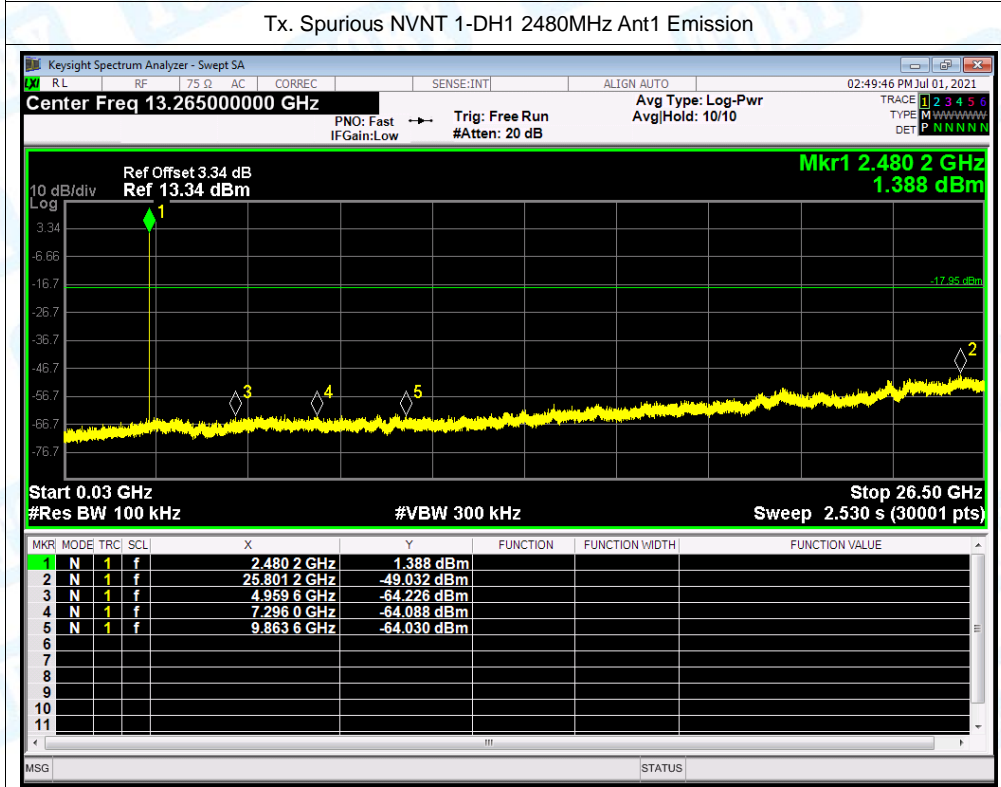
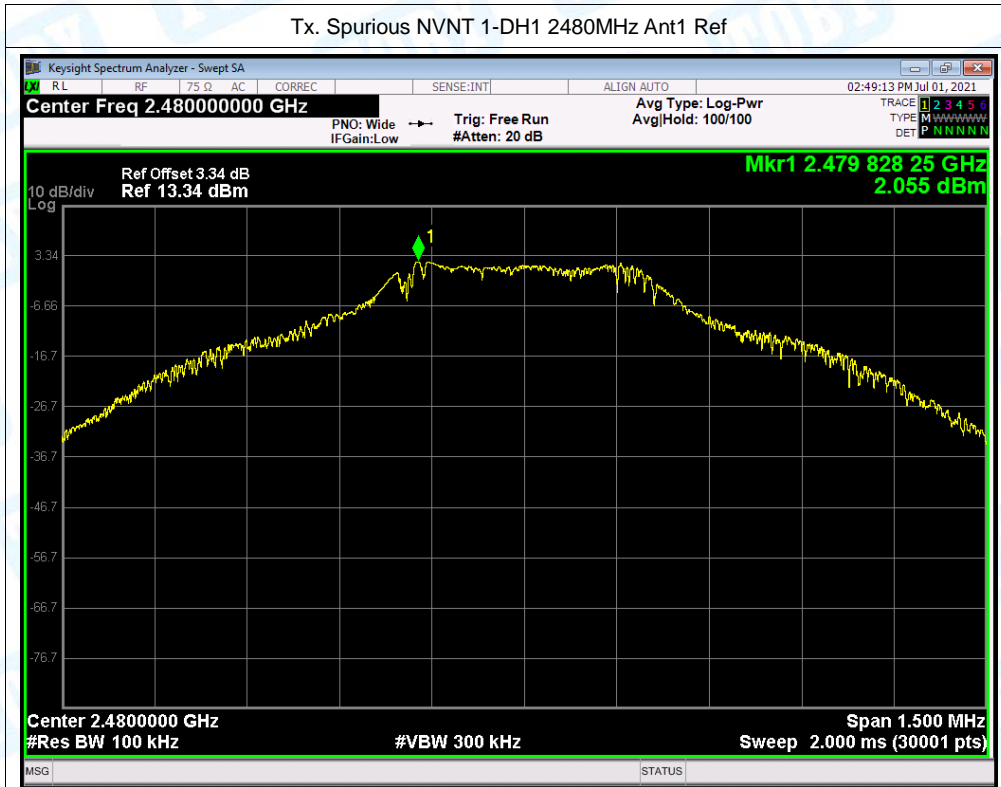


8. Conducted RF Spurious Emission

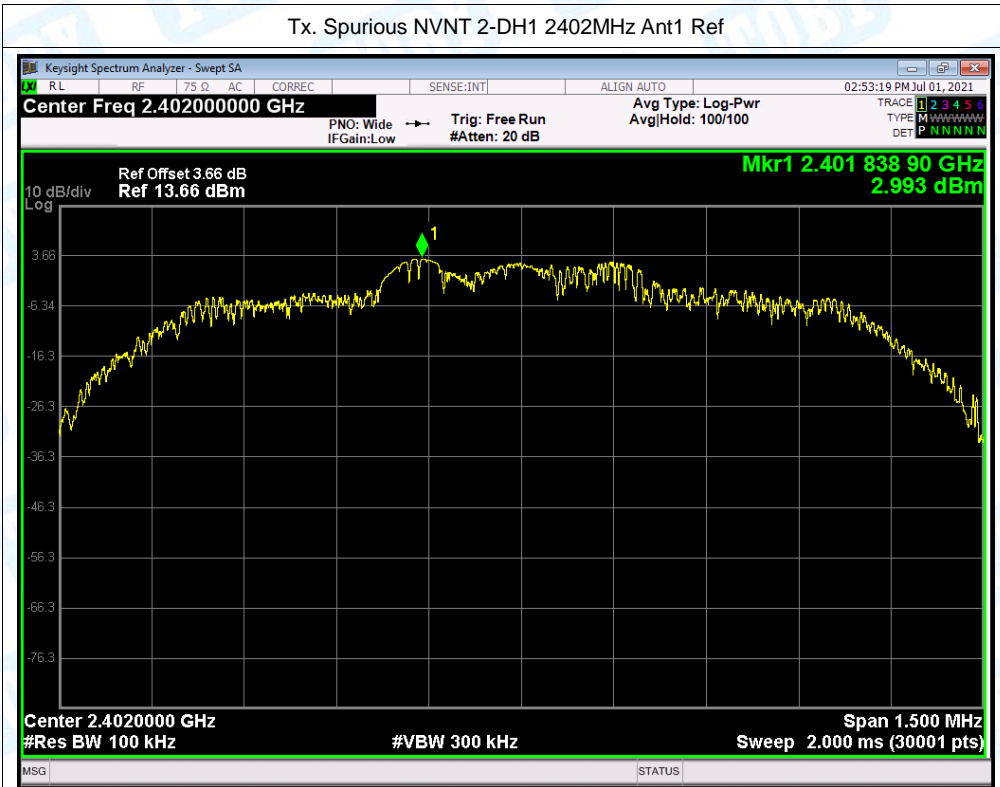
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-51.49	-20	Pass
NVNT	1-DH1	2441	Ant1	-51.85	-20	Pass
NVNT	1-DH1	2480	Ant1	-51.09	-20	Pass
NVNT	2-DH1	2402	Ant1	-51.26	-20	Pass
NVNT	2-DH1	2441	Ant1	-51.23	-20	Pass
NVNT	2-DH1	2480	Ant1	-50.57	-20	Pass
NVNT	3-DH1	2402	Ant1	-51.09	-20	Pass
NVNT	3-DH1	2441	Ant1	-51.75	-20	Pass
NVNT	3-DH1	2480	Ant1	-50.52	-20	Pass



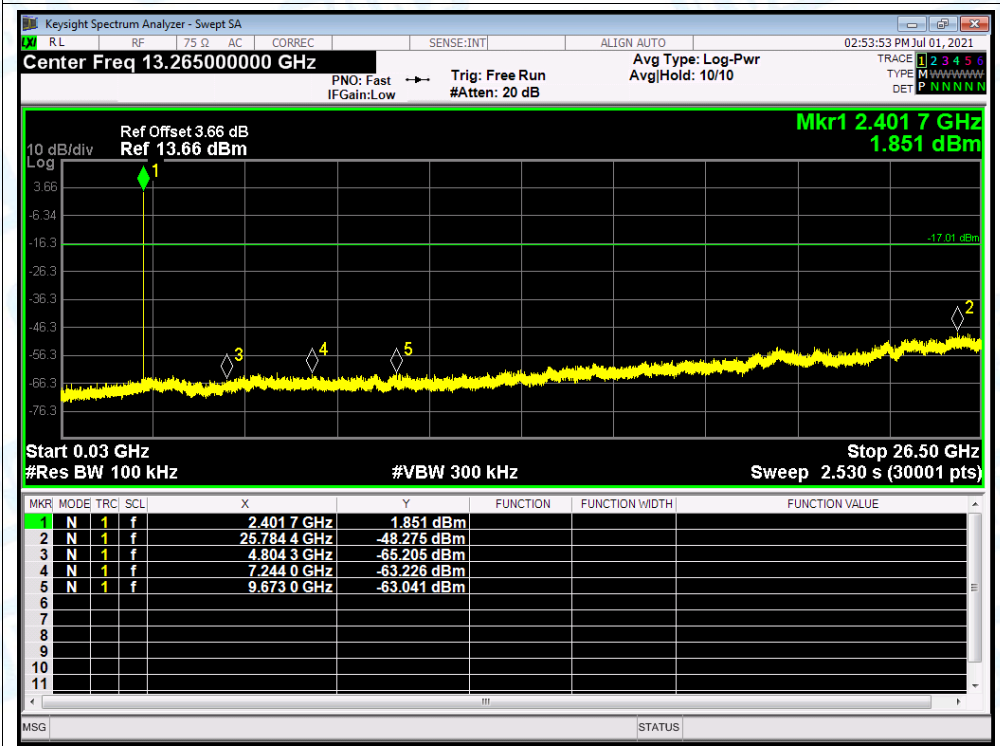


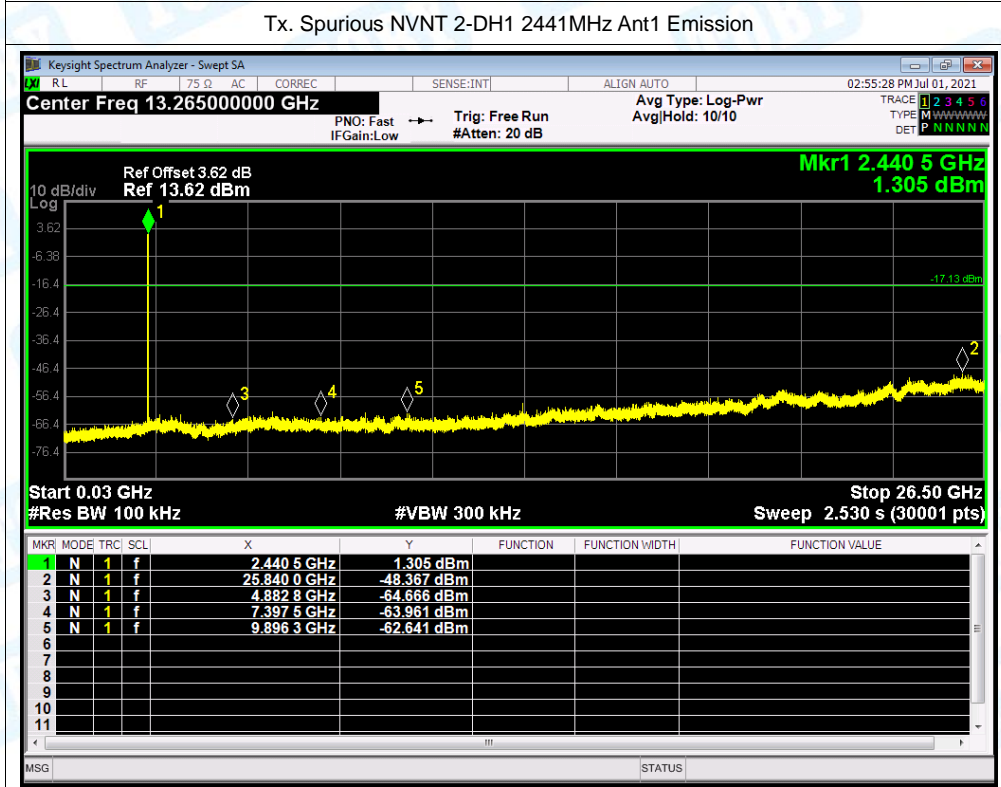
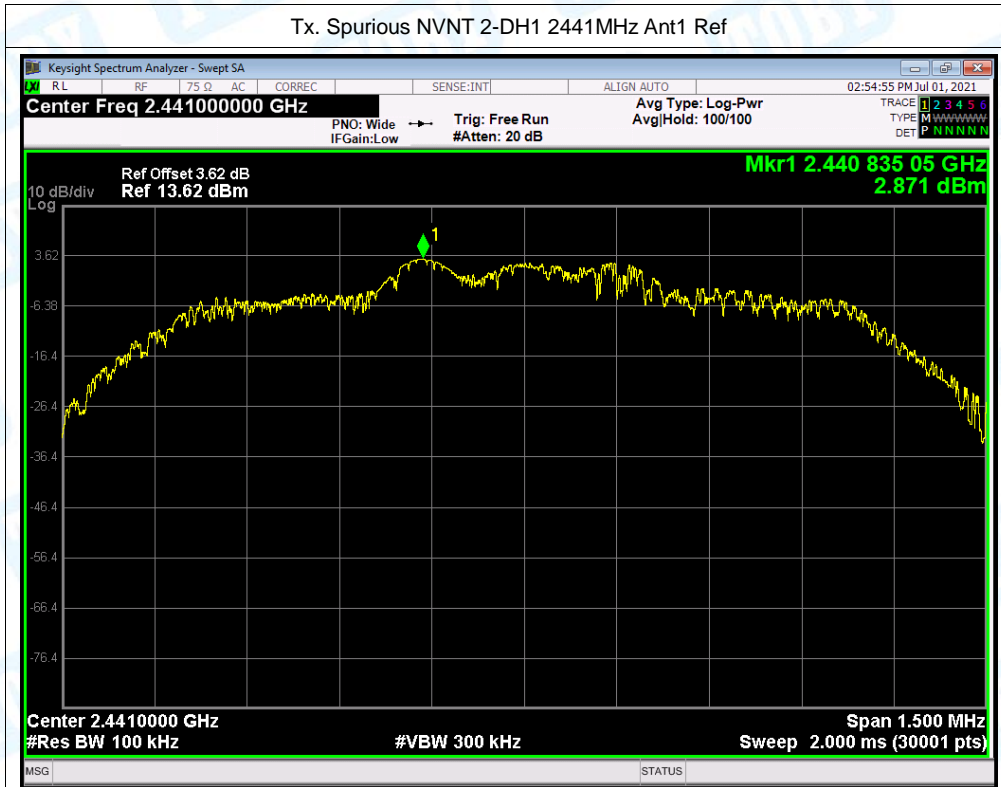


Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref

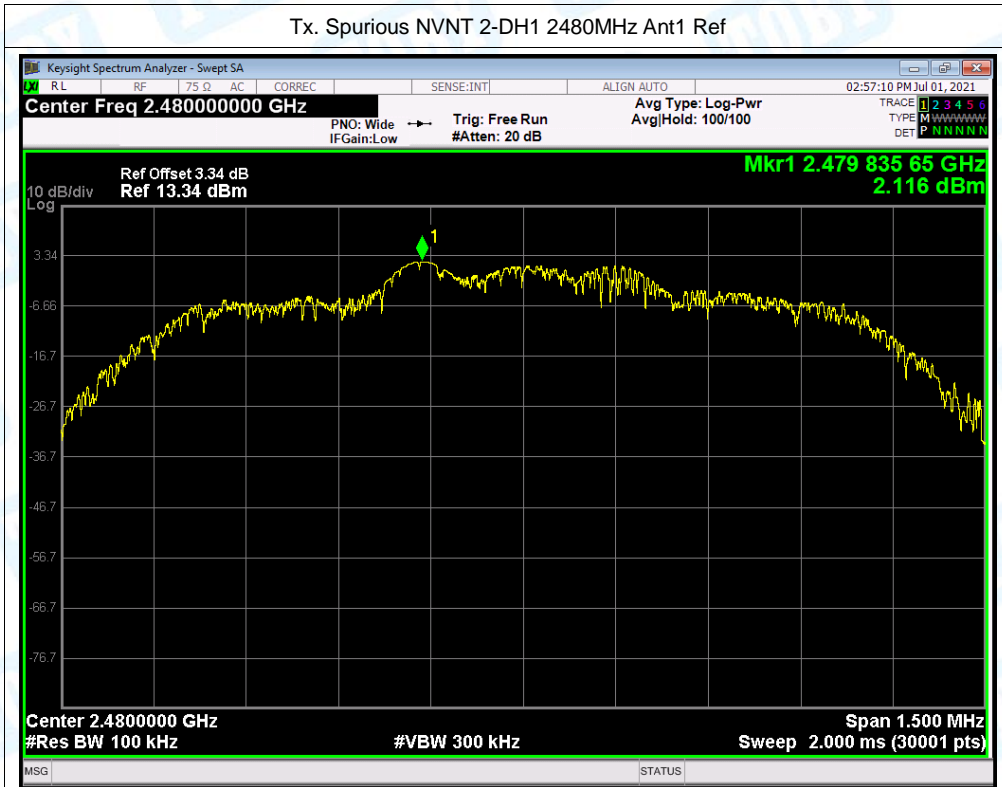


Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission

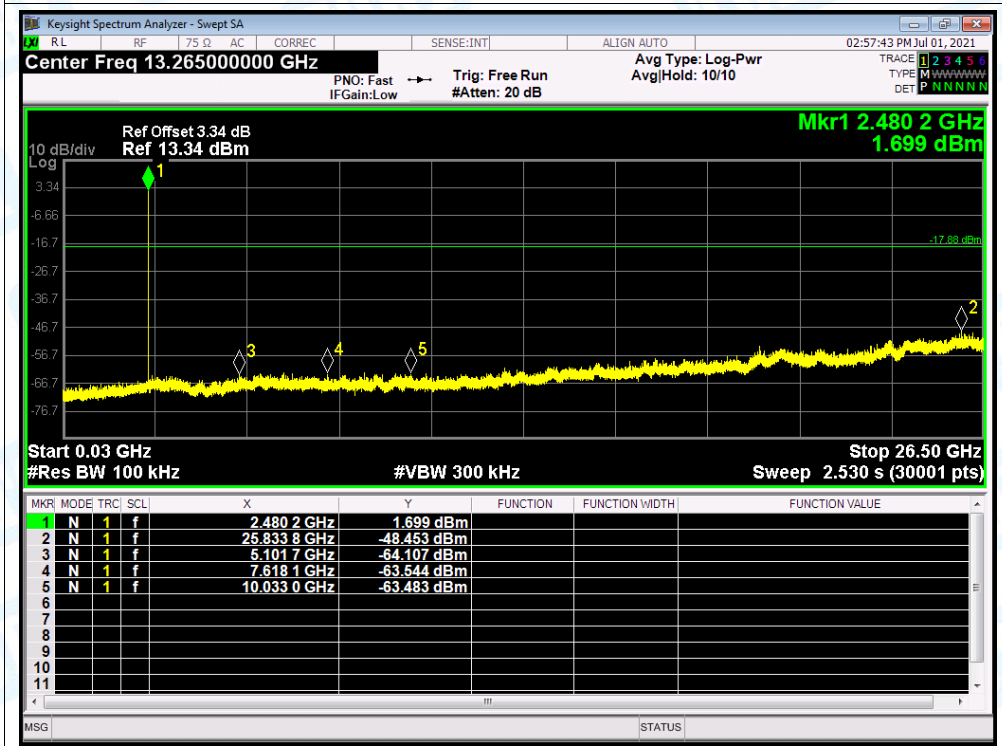




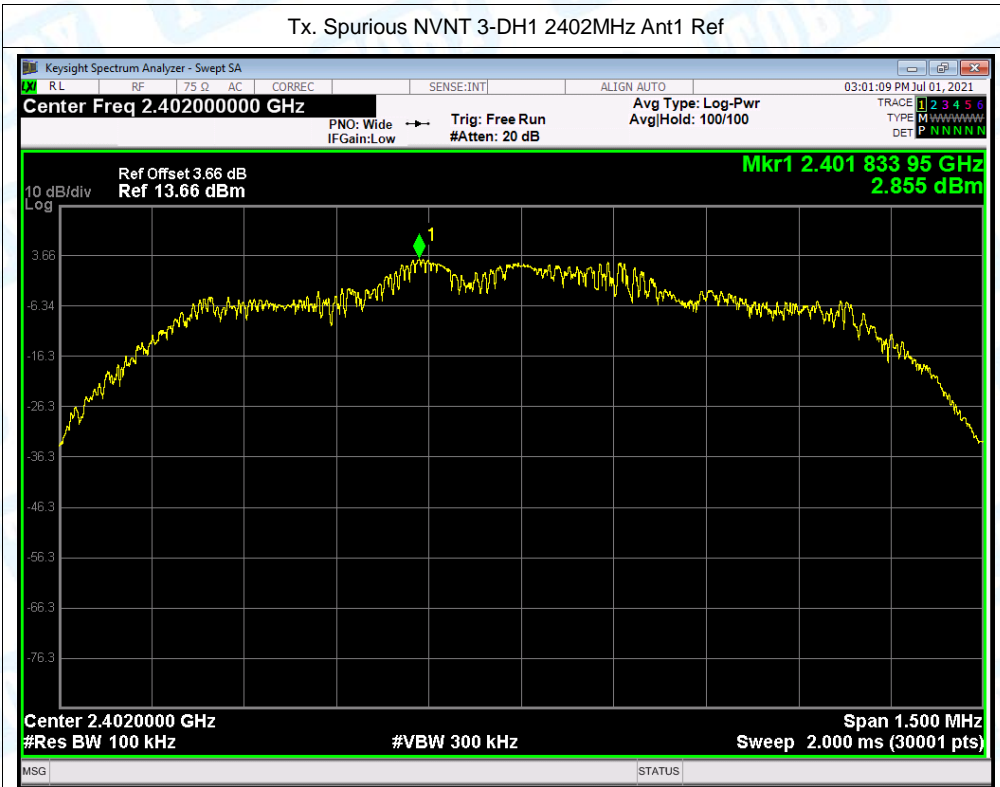
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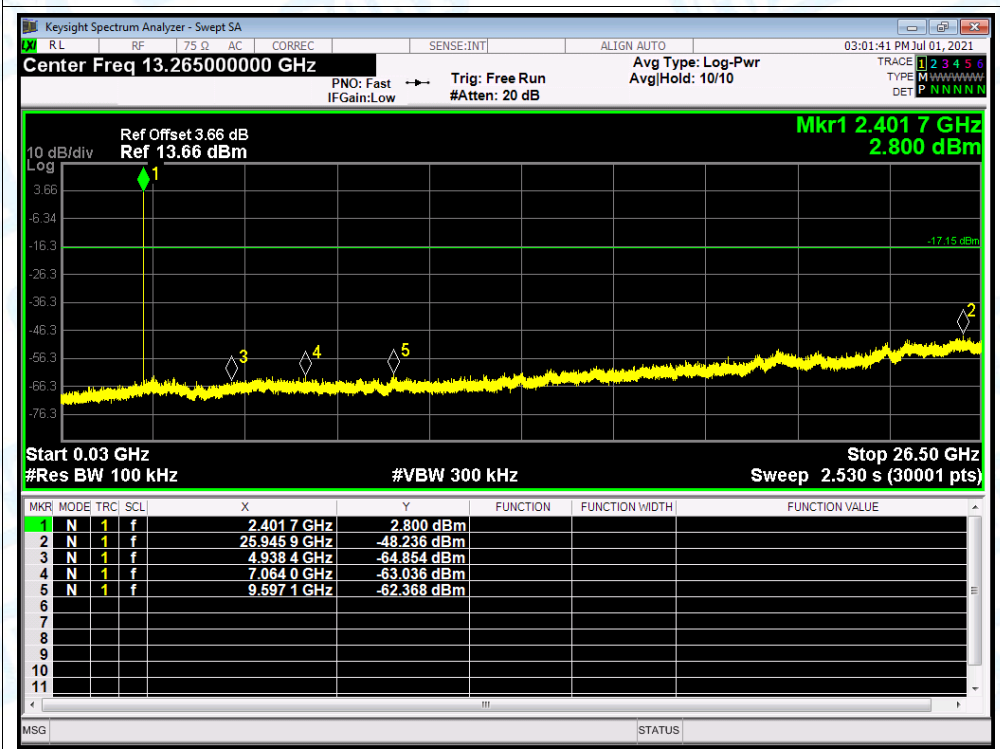
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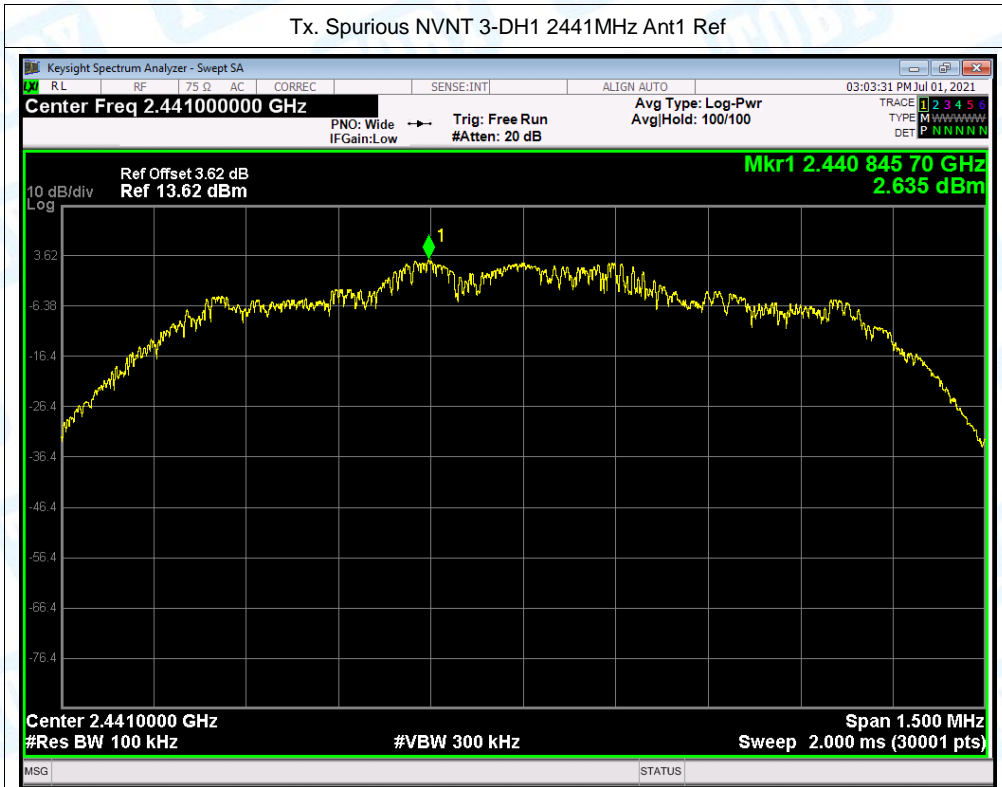
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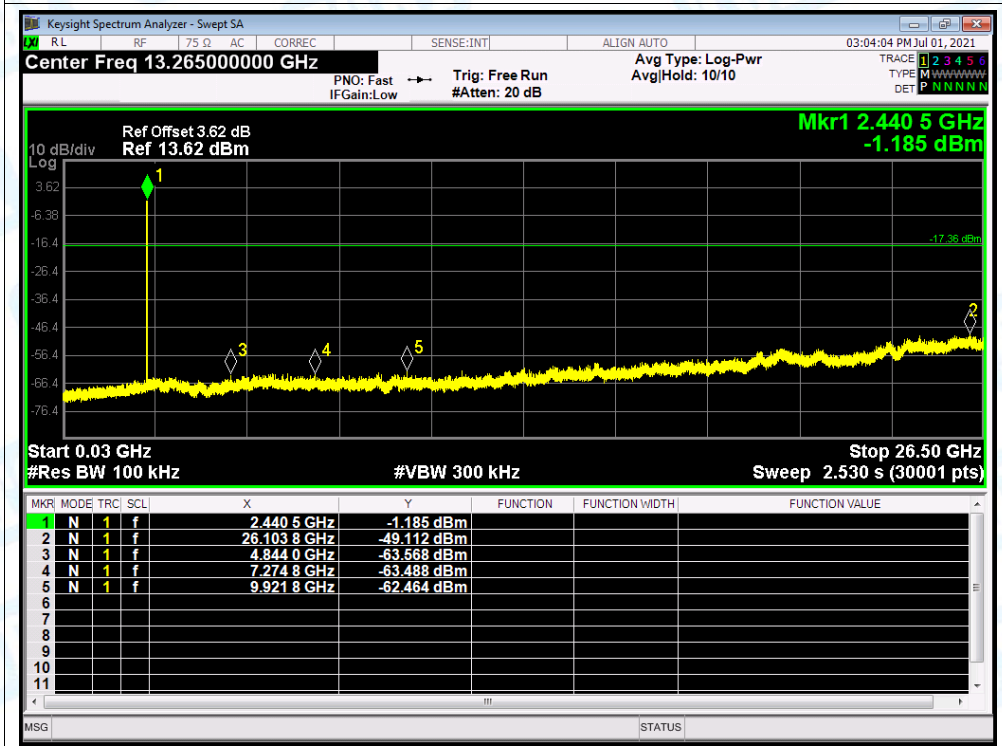
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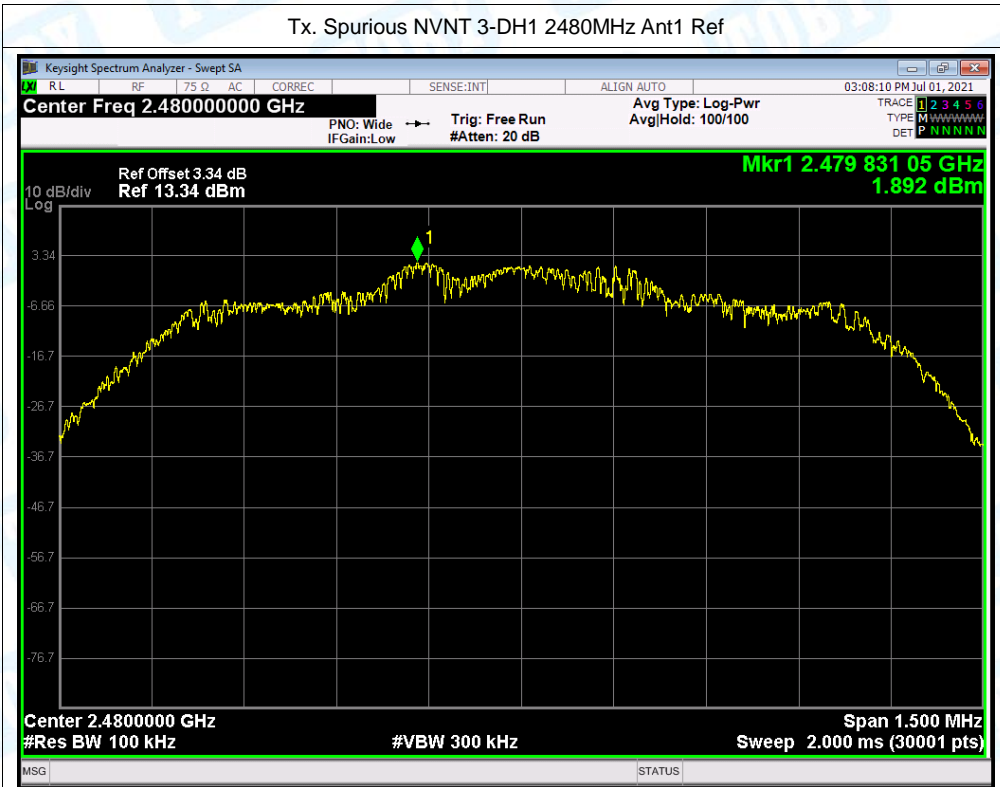
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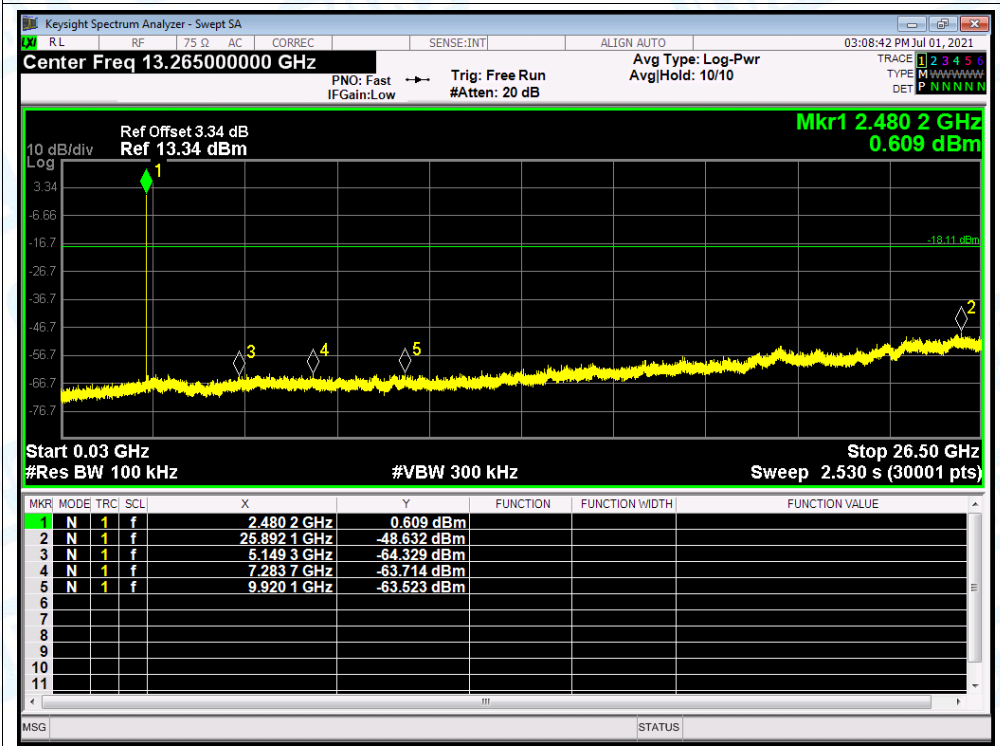
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Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref

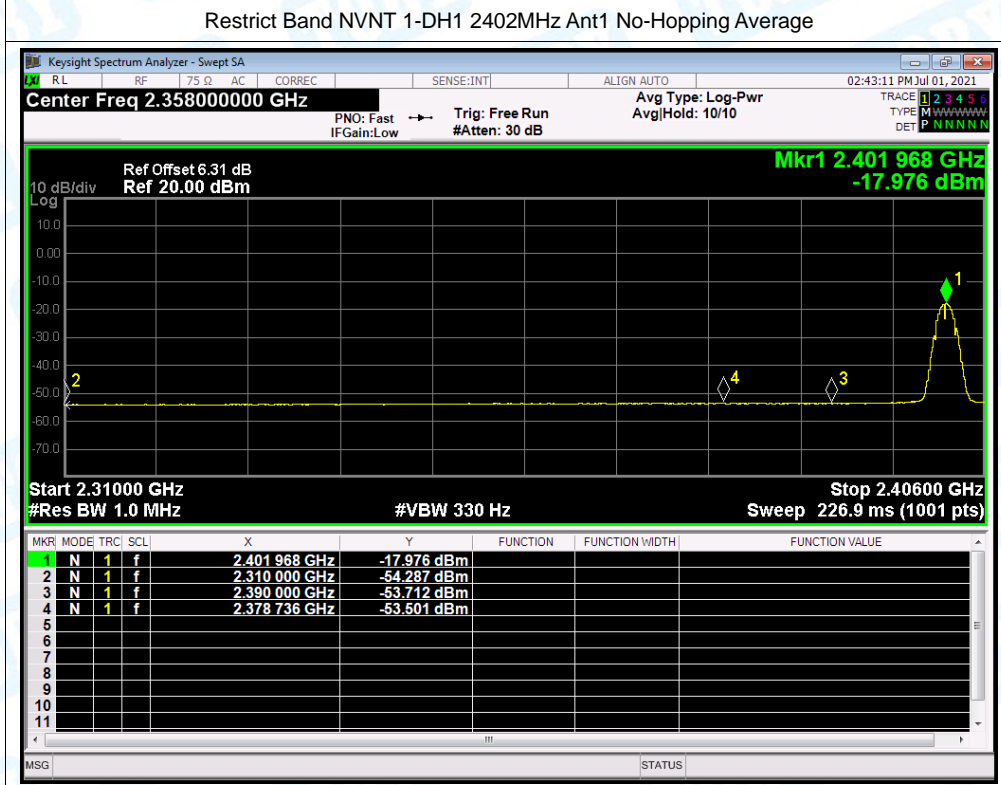
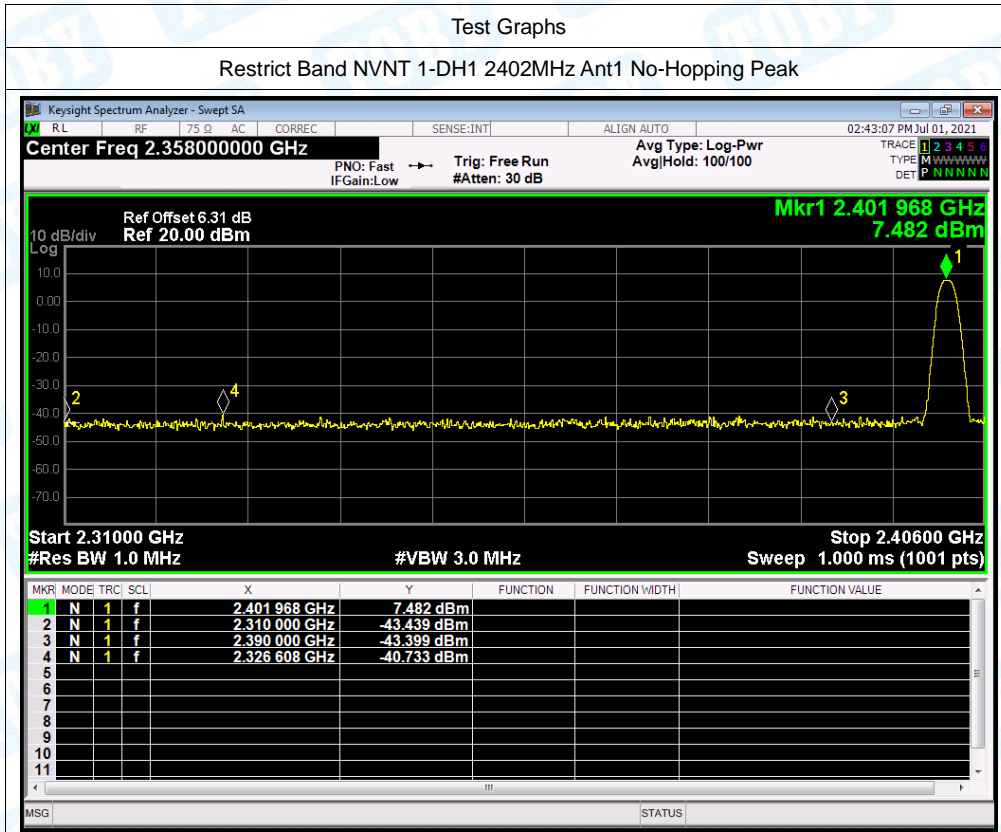


Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

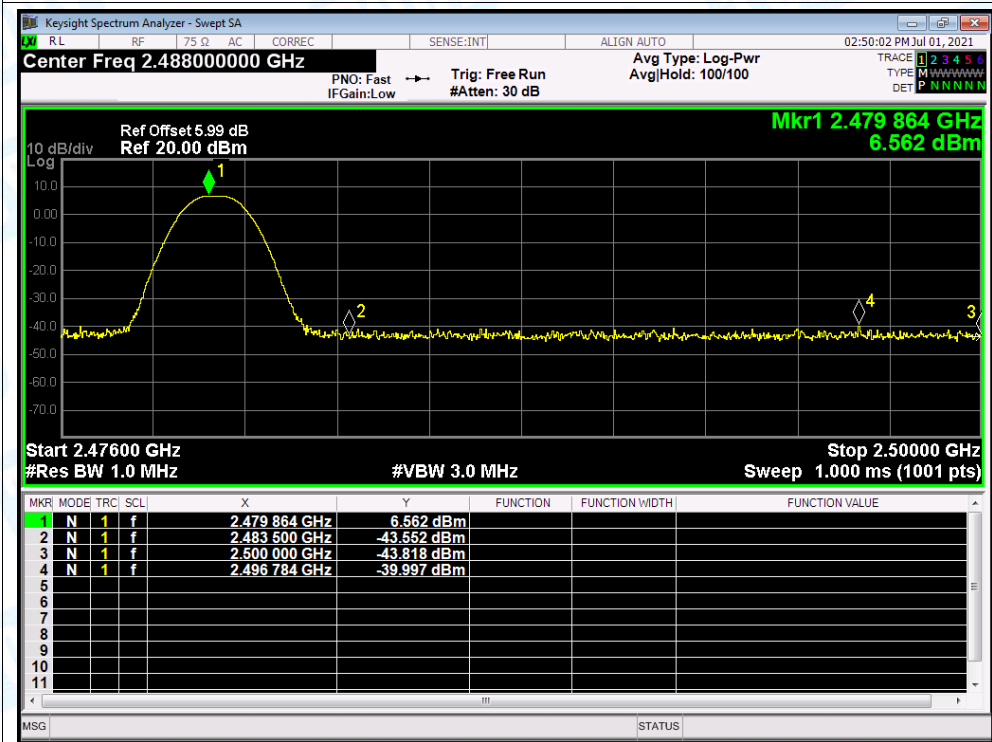


9.Restrict Band

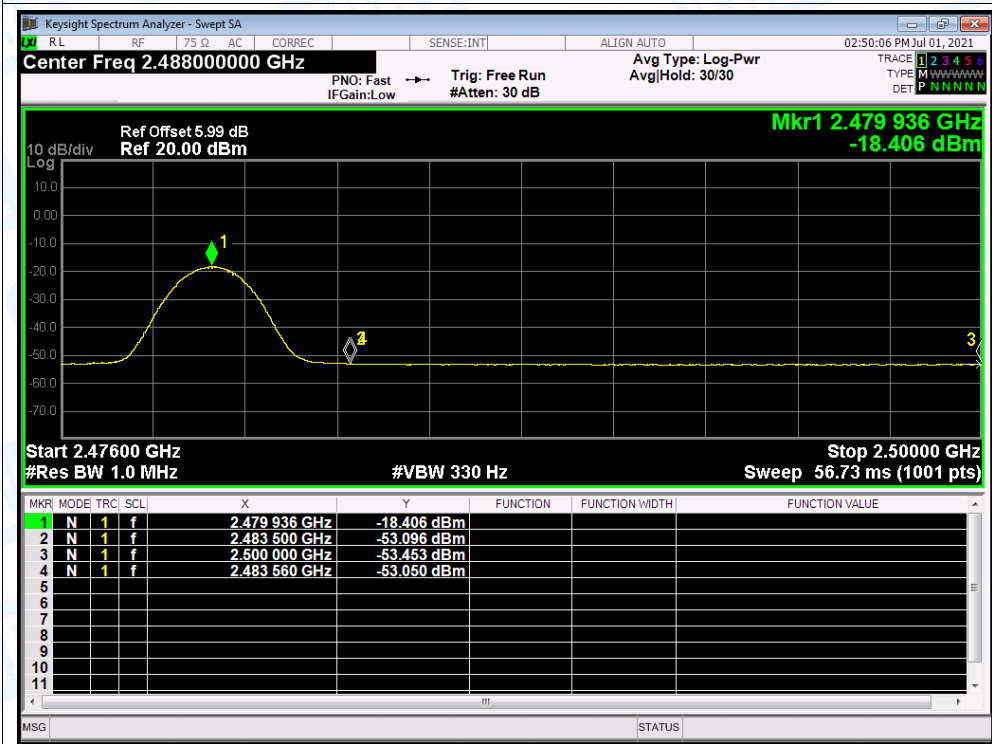
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-43.49	2.65	54.42	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-54.29	2.65	43.62	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2326.608	-40.73	2.65	57.18	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2378.736	-53.5	2.65	44.41	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-43.52	2.65	54.39	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-53.77	2.65	44.14	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-43.55	2.65	54.36	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-53.09	2.65	44.82	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2496.784	-39.99	2.65	57.92	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.56	-53.04	2.65	44.87	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-43.81	2.65	54.1	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-53.45	2.65	44.46	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-44.15	2.65	53.76	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-54.21	2.65	43.7	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2381.136	-40.67	2.65	57.24	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2389.392	-53.51	2.65	44.4	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-43.46	2.65	54.45	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-53.71	2.65	44.2	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-43.24	2.65	54.67	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-53.06	2.65	44.85	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2494.384	-40.77	2.65	57.14	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.944	-53.02	2.65	44.89	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-44.02	2.65	53.89	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-53.4	2.65	44.51	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-43.22	2.65	54.69	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-54.25	2.65	43.66	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2355.888	-41.34	2.65	56.57	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2375.376	-53.54	2.65	44.37	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-44.3	2.65	53.61	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-53.79	2.65	44.12	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-43.31	2.65	54.6	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-52.96	2.65	44.95	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2489.776	-40.43	2.65	57.48	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.8	-52.93	2.65	44.98	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-43.65	2.65	54.26	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-53.36	2.65	44.55	Average	54	Pass

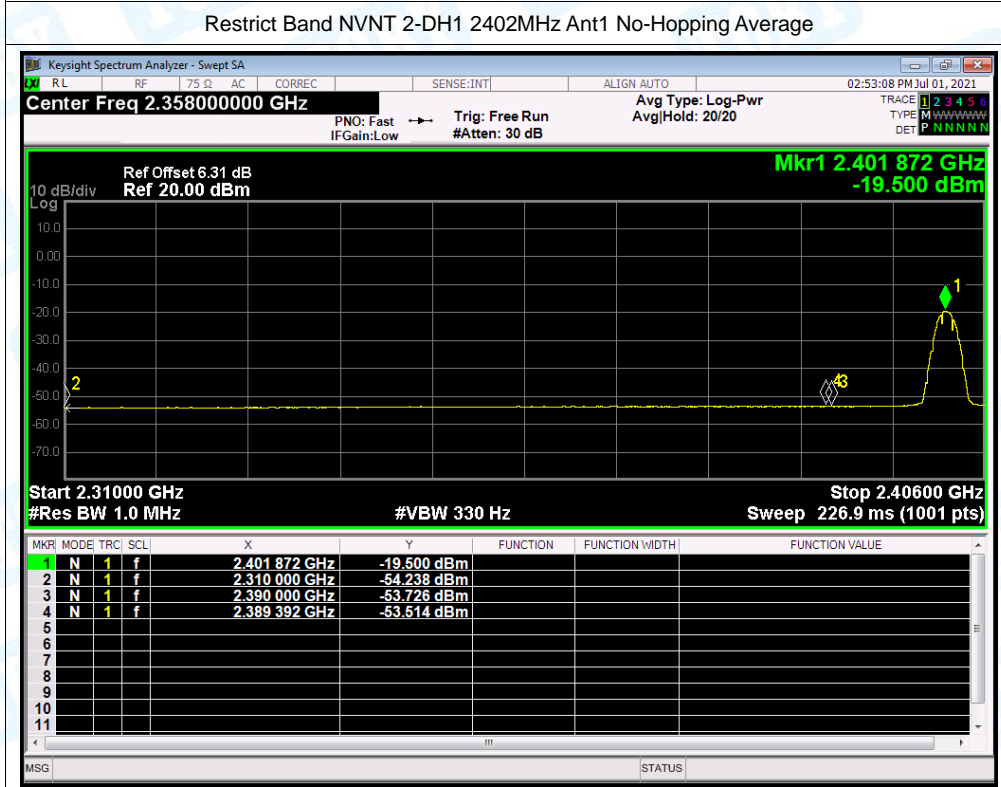
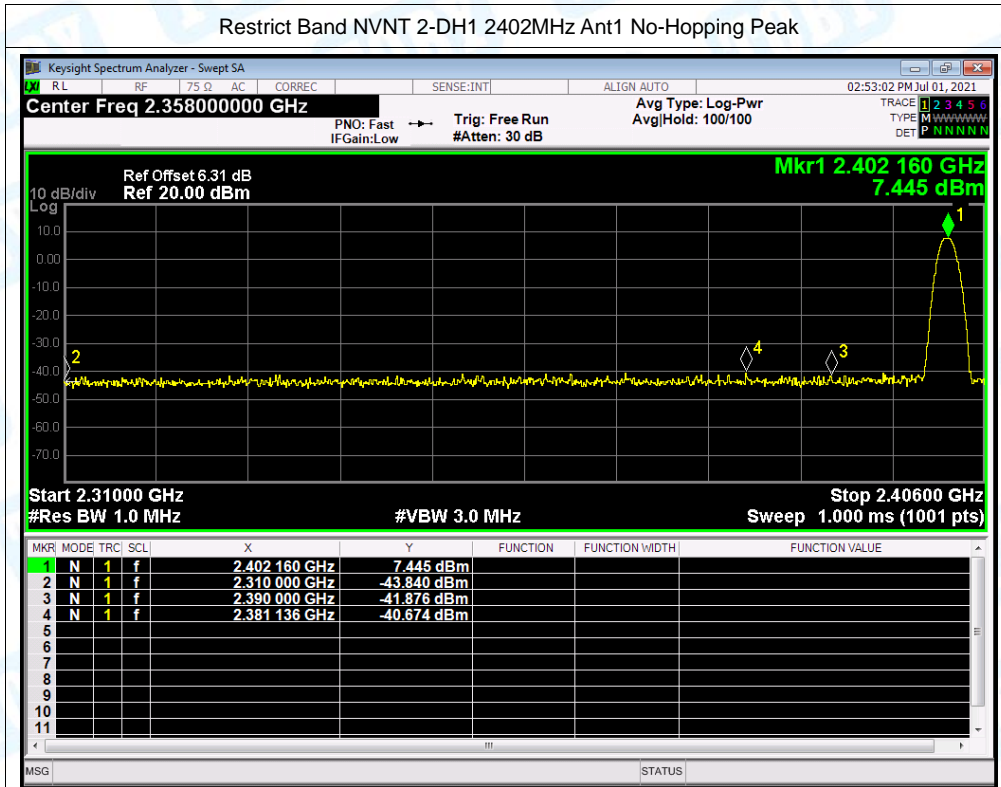


Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak

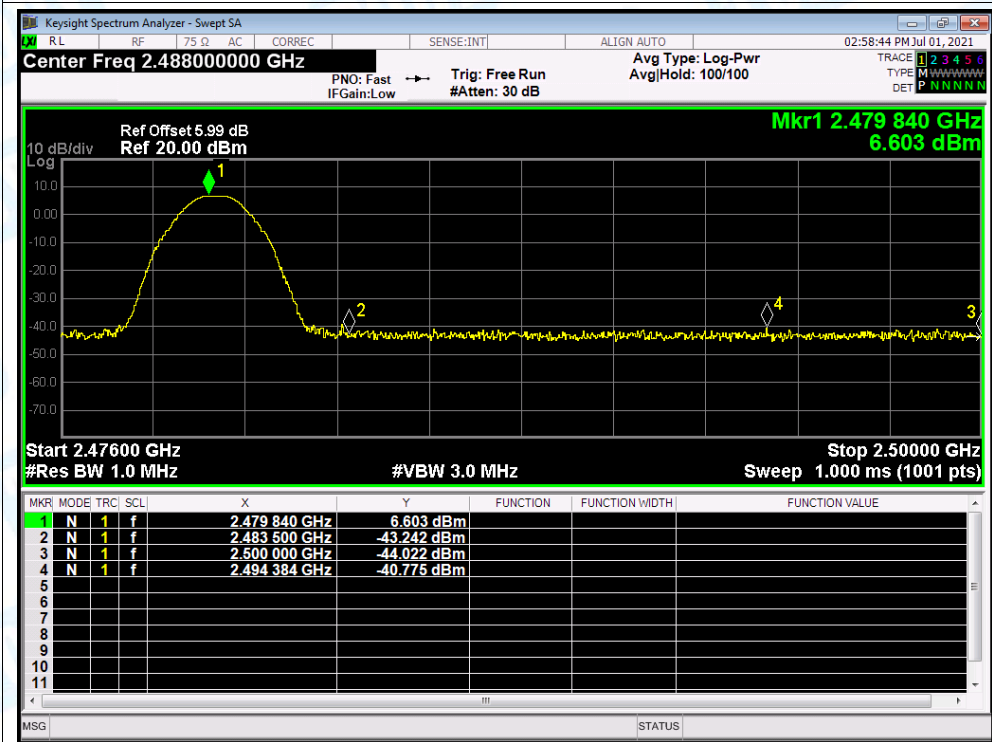


Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average





Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average

