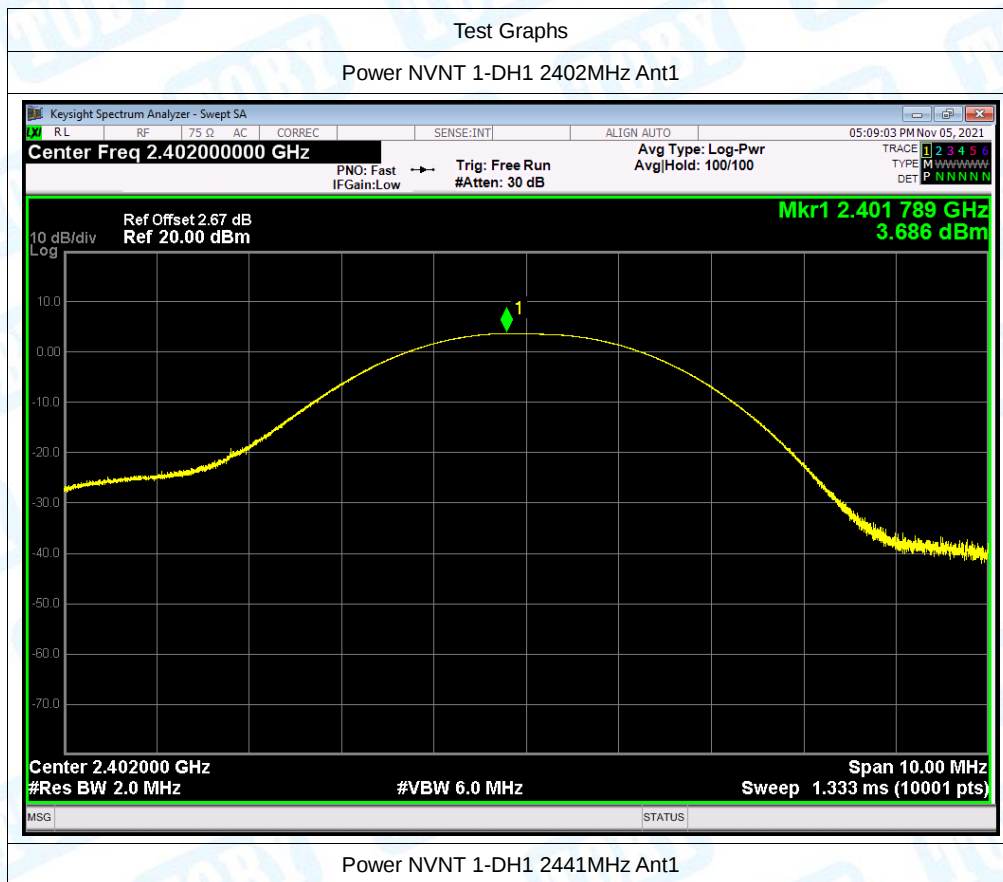


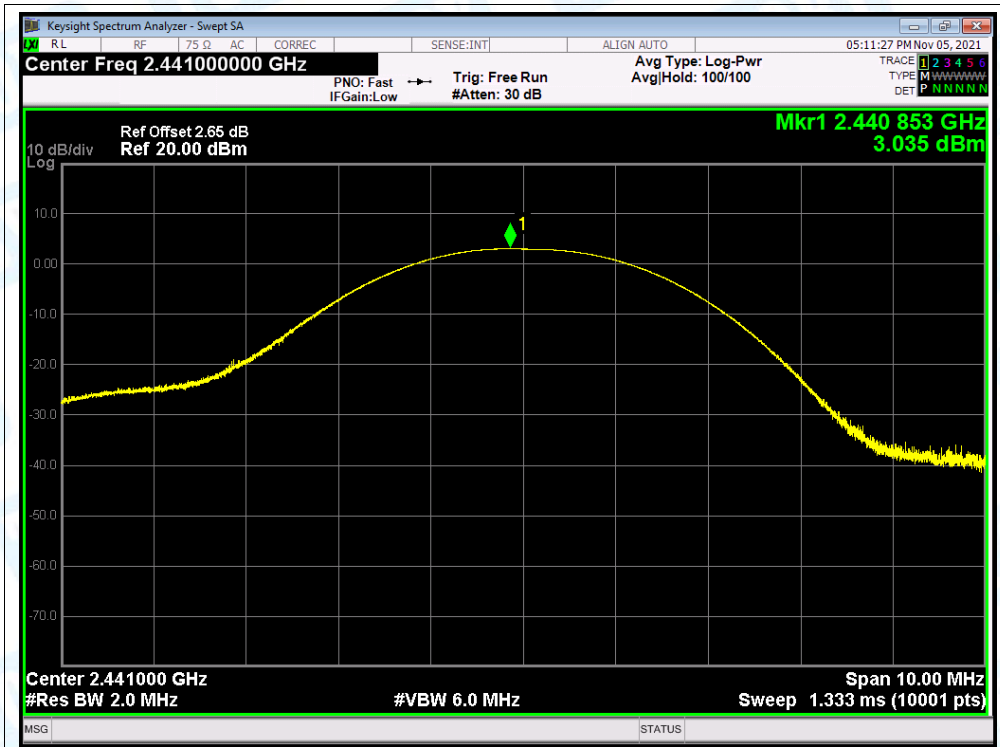
RF Test Data for Bluetooth(BDR+EDR) (Conducted Measurements)

General Description of EUT	
Product Name:	DIGITAL PIANO
Test Model:	MP-100
Sample ID:	20211025-01_01-2#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	HEJINGCHANG
Note: For a more detailed features description, please refer to the report TB-RF184856	

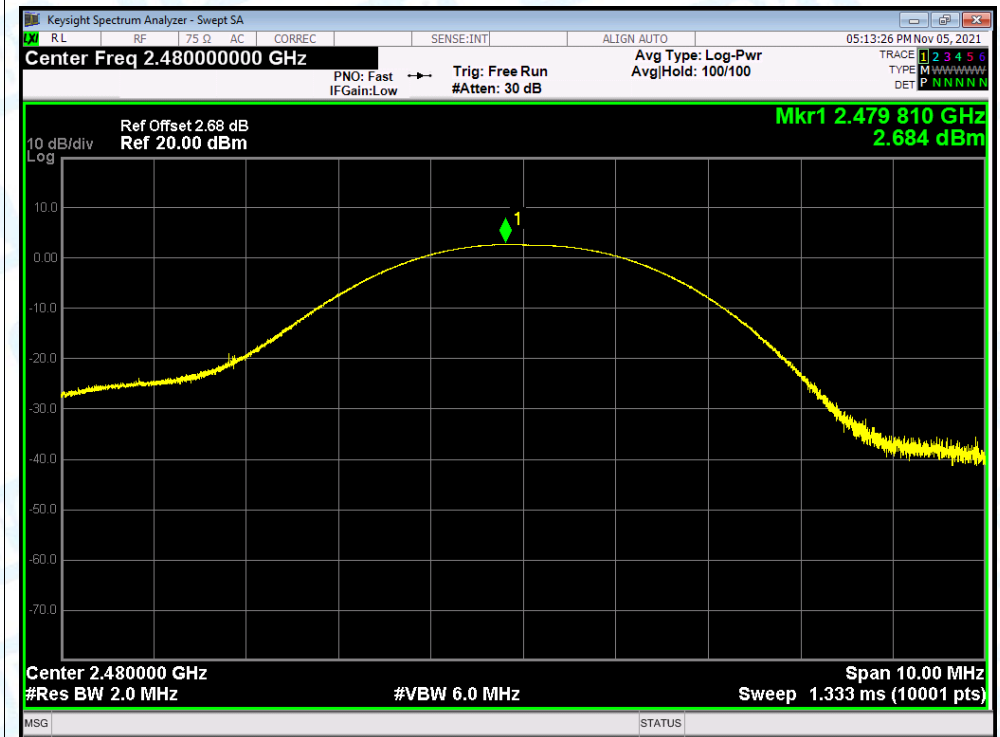
Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Duty Factor (dB)	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	3.686	0	3.686	21	Pass
NVNT	1-DH1	2441	Ant1	3.035	0	3.035	21	Pass
NVNT	1-DH1	2480	Ant1	2.684	0	2.684	21	Pass
NVNT	2-DH1	2402	Ant1	4.312	0	4.312	21	Pass
NVNT	2-DH1	2441	Ant1	3.705	0	3.705	21	Pass
NVNT	2-DH1	2480	Ant1	3.315	0	3.315	21	Pass

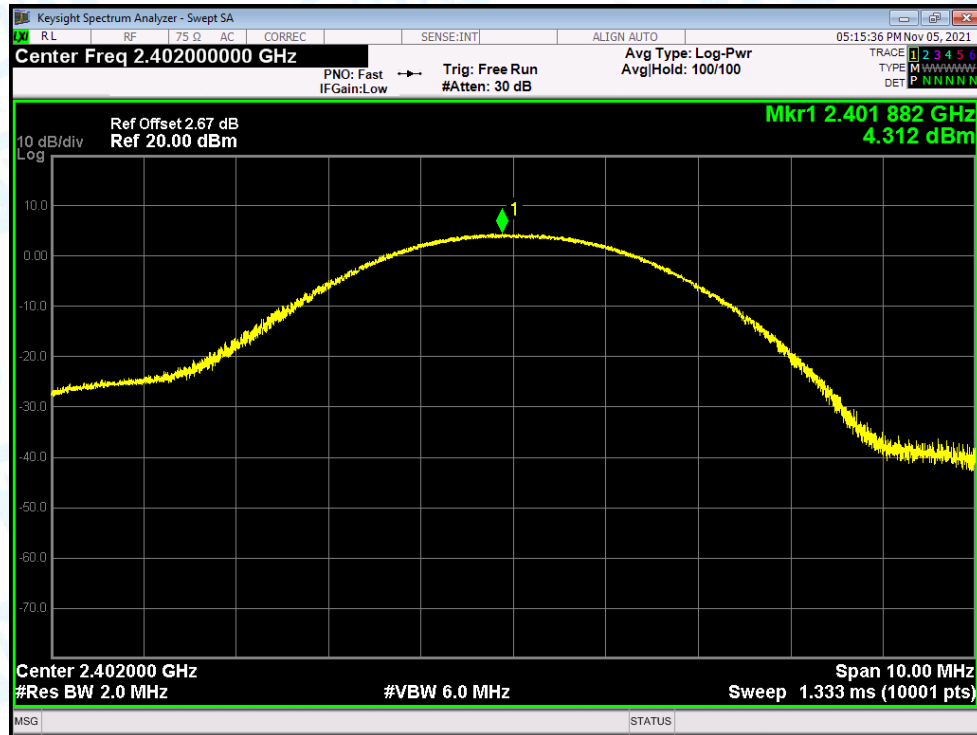




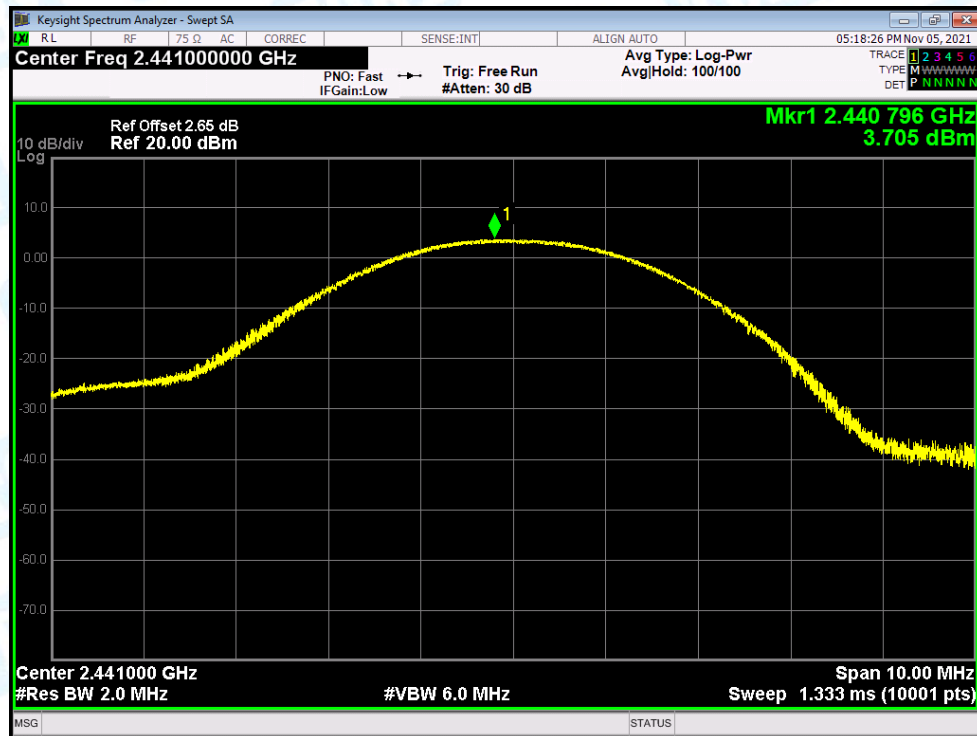
Power NVNT 1-DH1 2480MHz Ant1



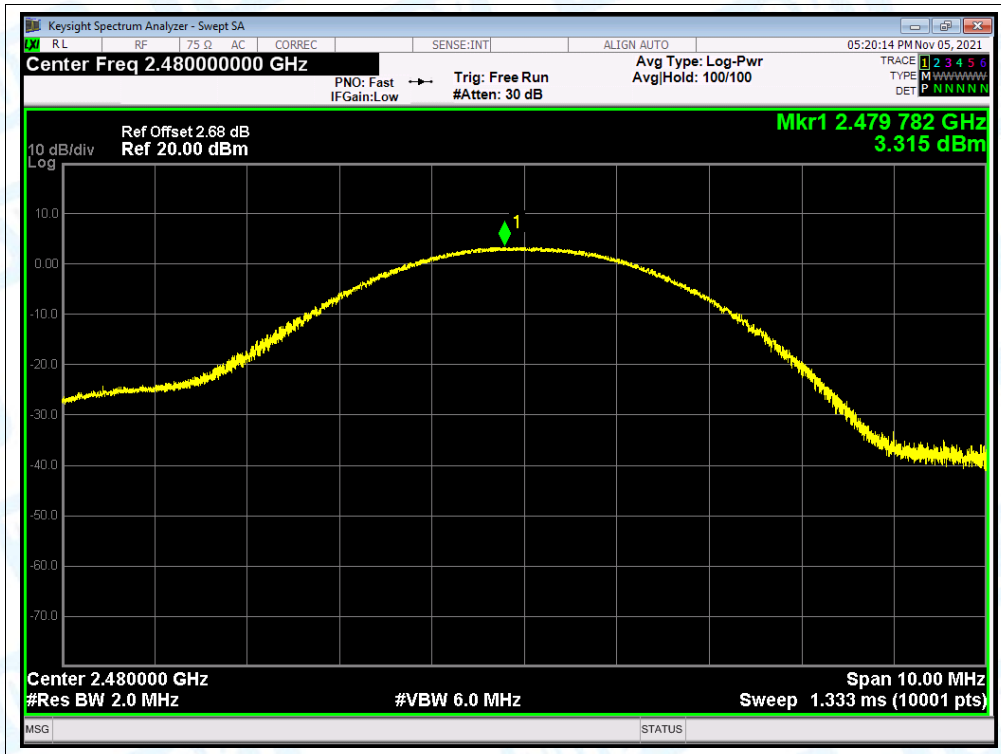
Power NVNT 2-DH1 2402MHz Ant1



Power NVNT 2-DH1 2441MHz Ant1



Power NVNT 2-DH1 2480MHz Ant1

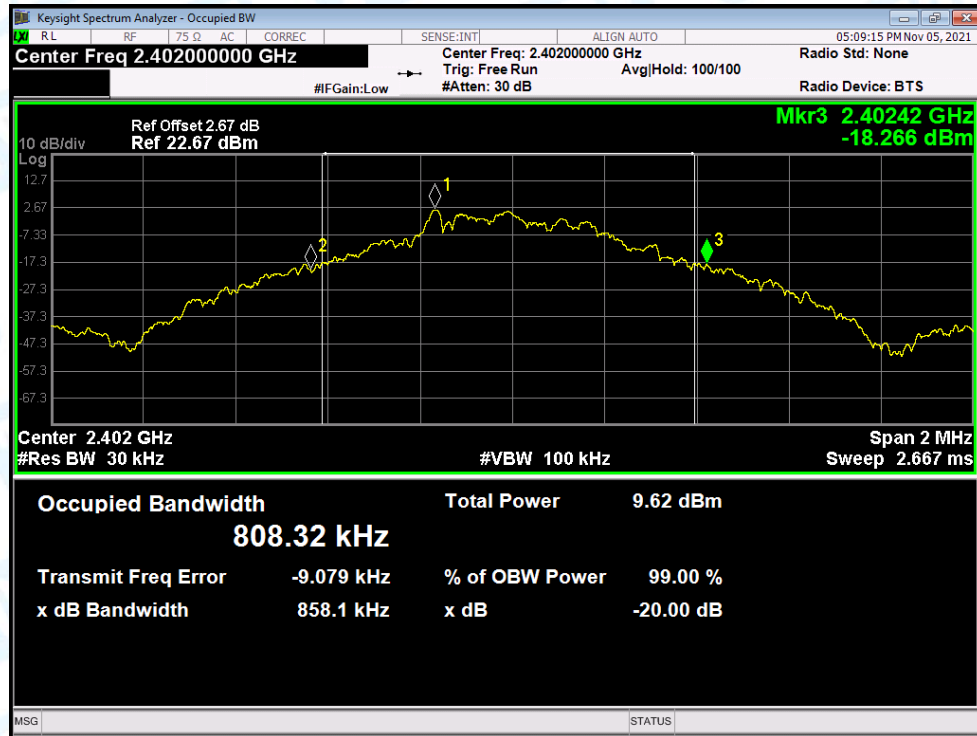


-20dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.858	0	Pass
NVNT	1-DH1	2441	Ant1	0.874	0	Pass
NVNT	1-DH1	2480	Ant1	0.859	0	Pass
NVNT	2-DH1	2402	Ant1	1.206	0	Pass
NVNT	2-DH1	2441	Ant1	1.19	0	Pass
NVNT	2-DH1	2480	Ant1	1.252	0	Pass

Test Graphs

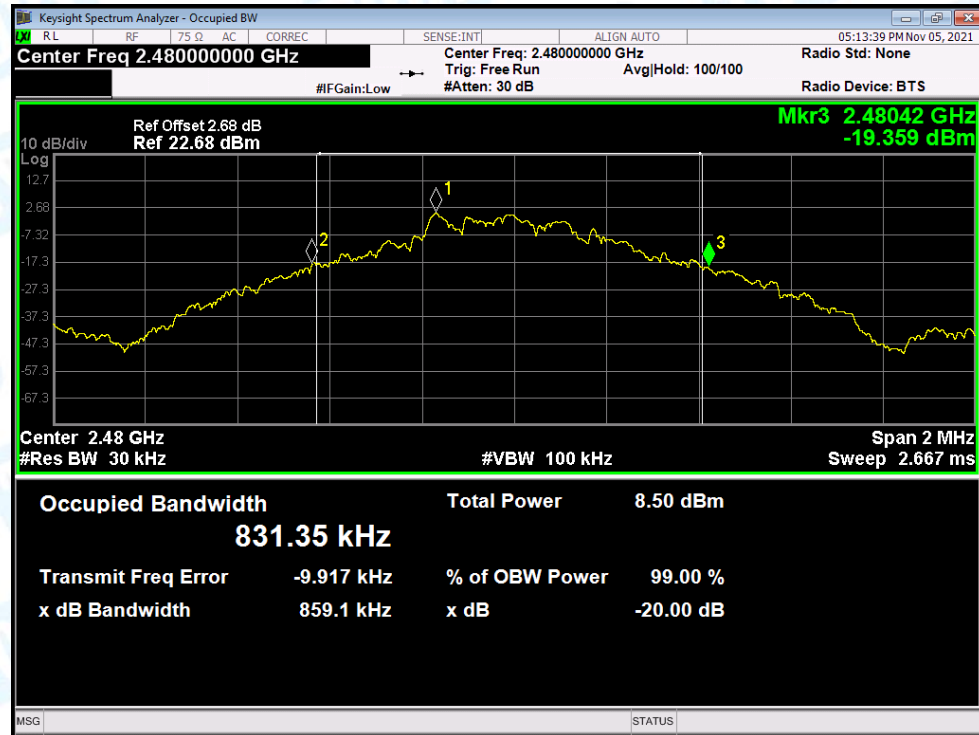
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



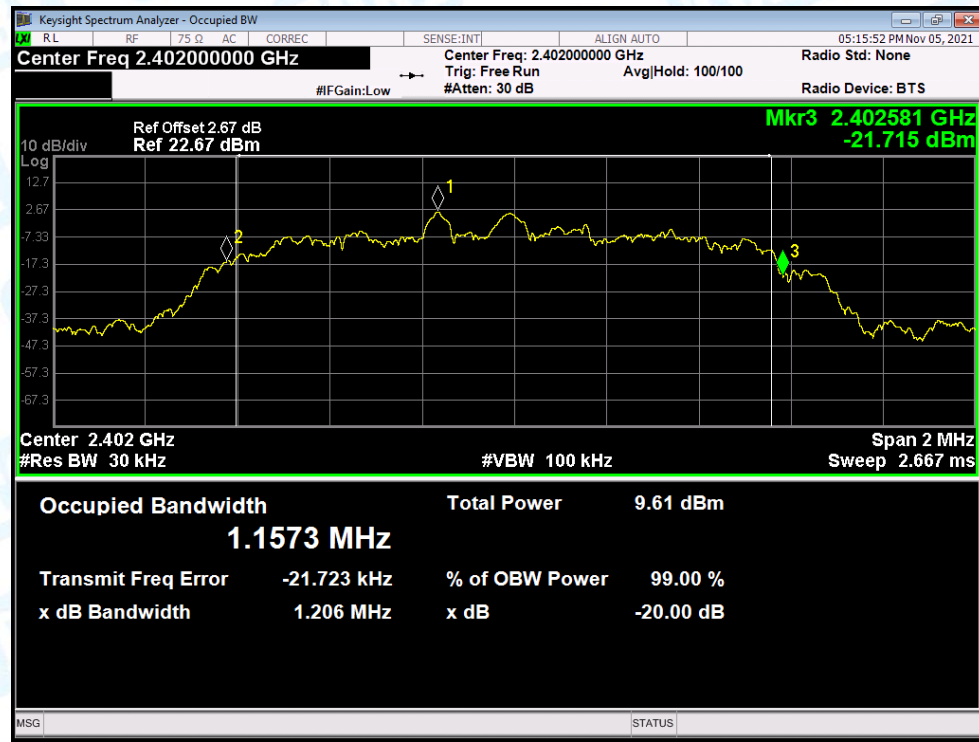
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



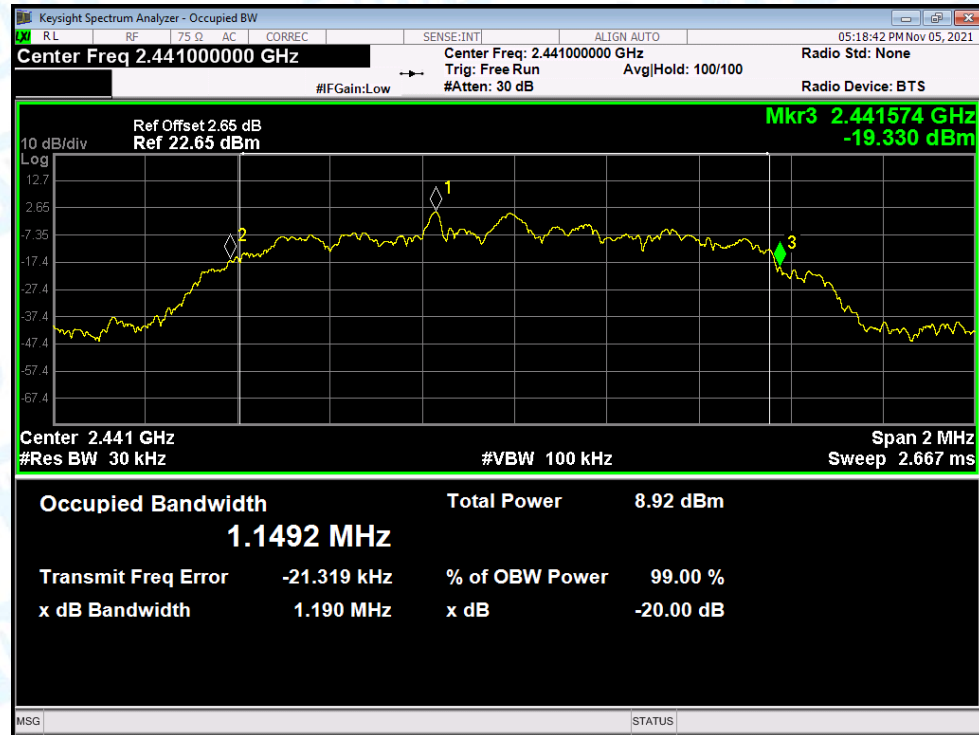
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



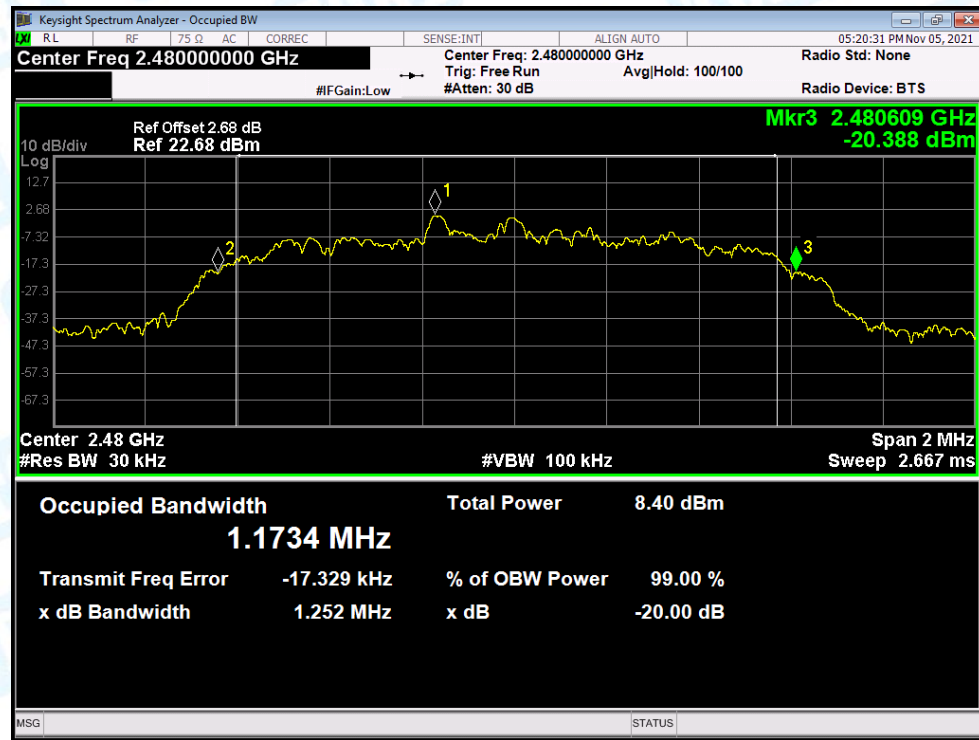
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1

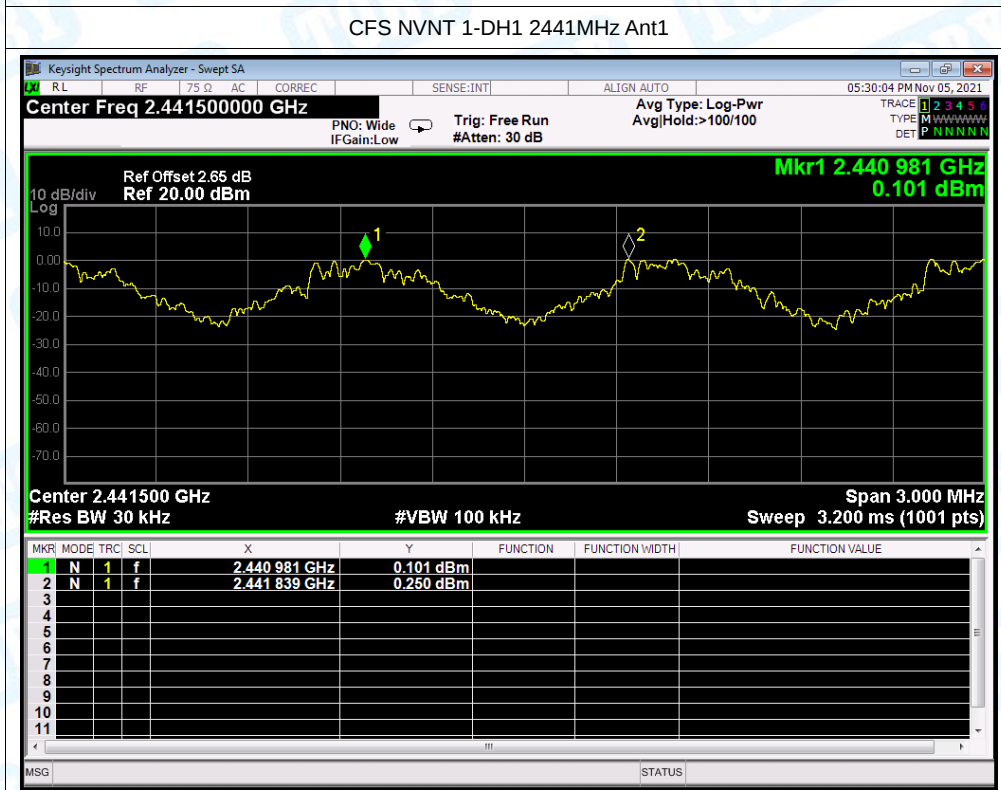
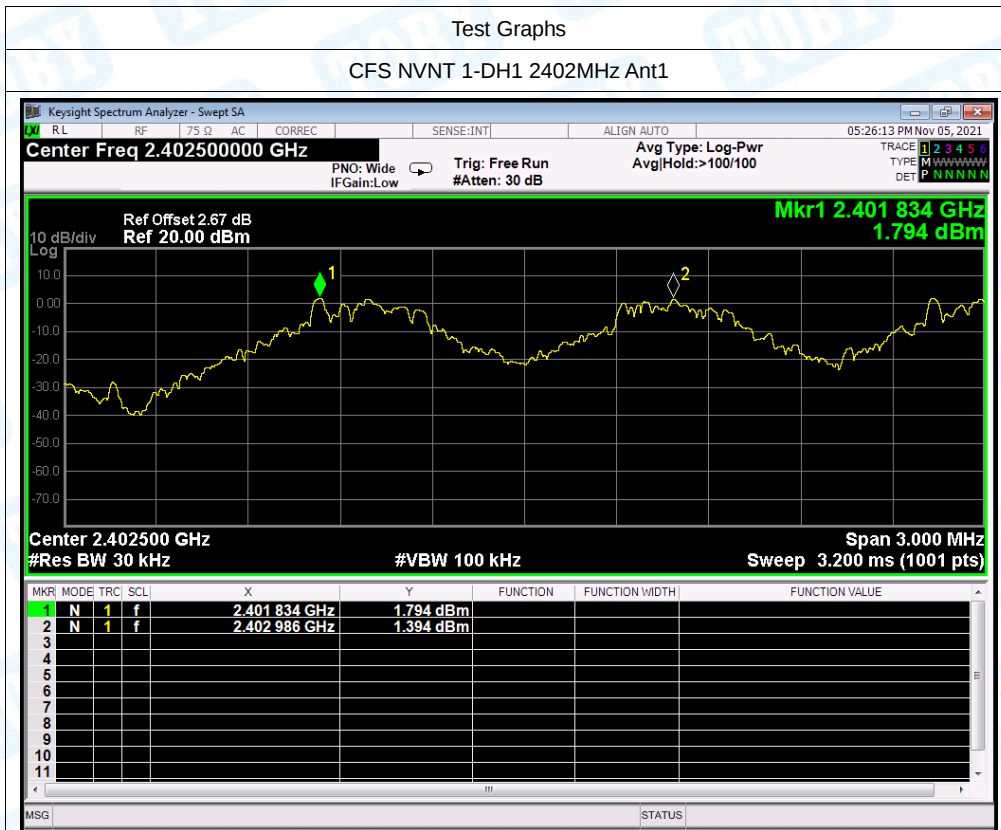


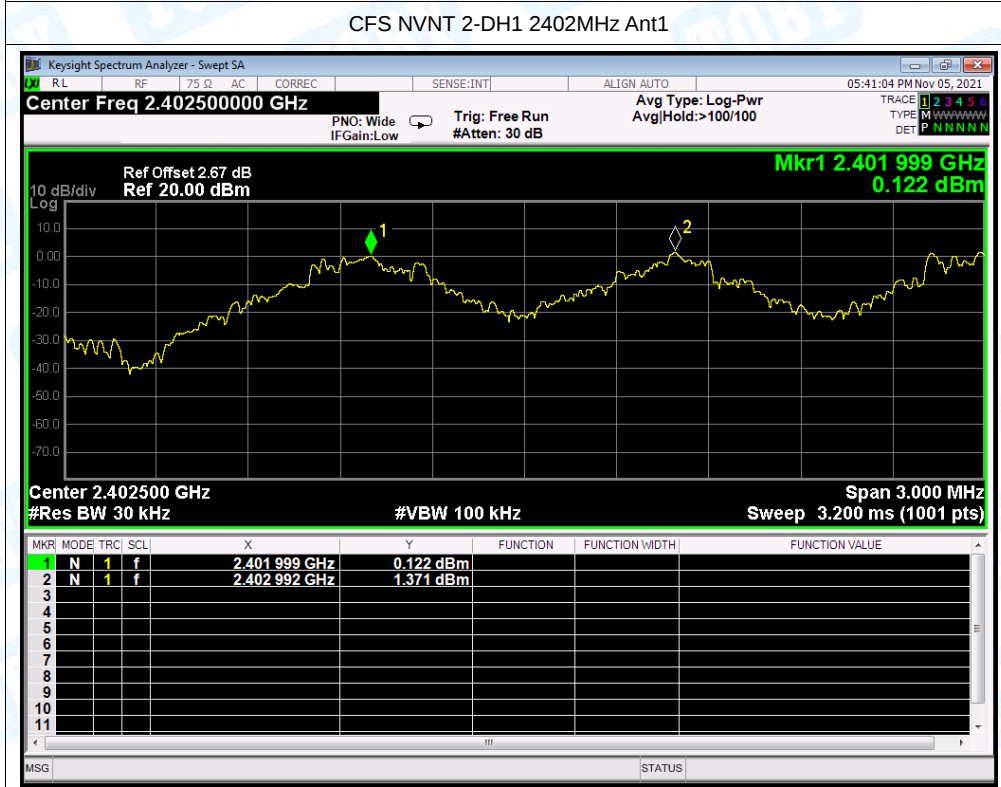
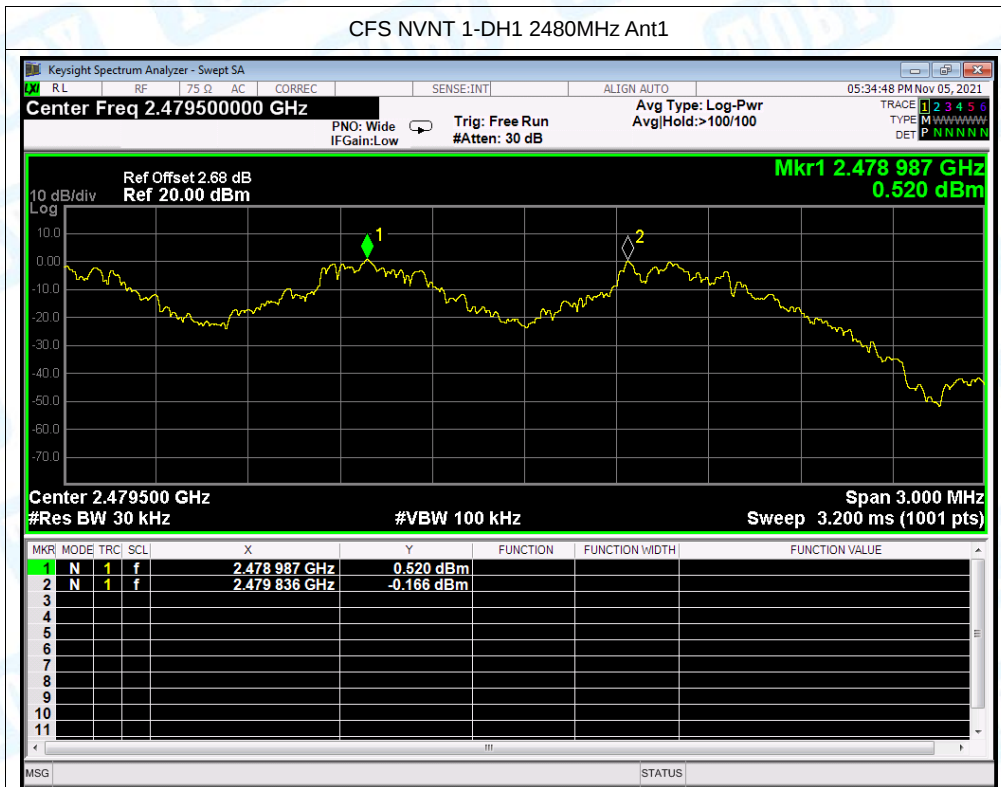
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

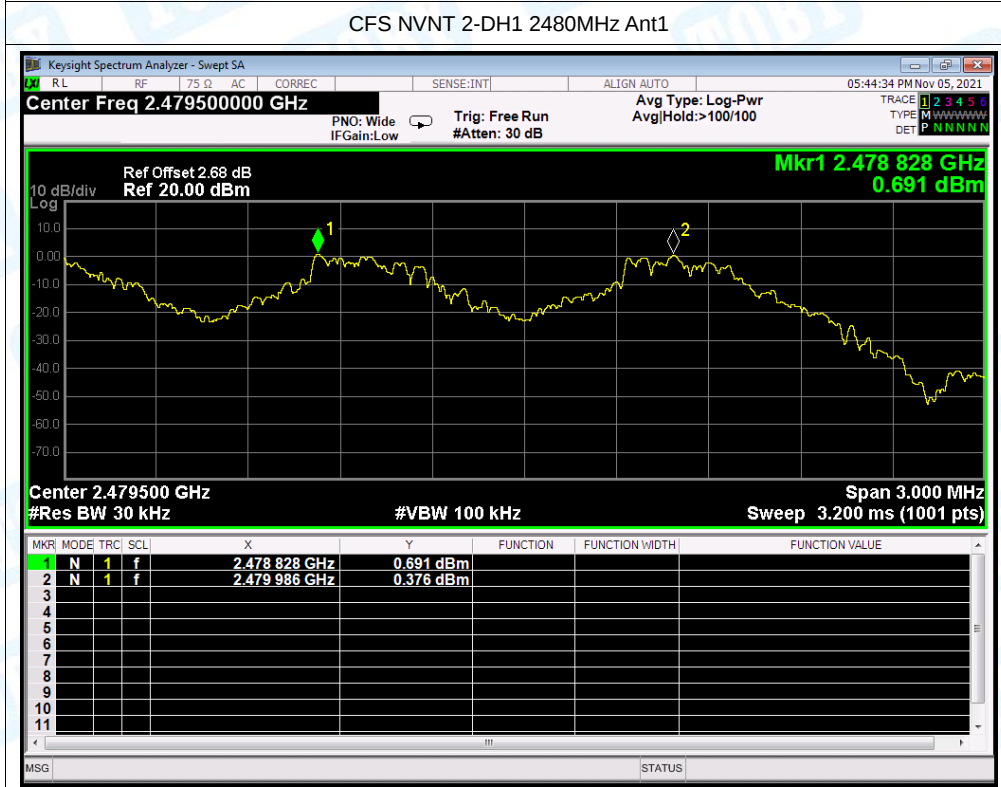
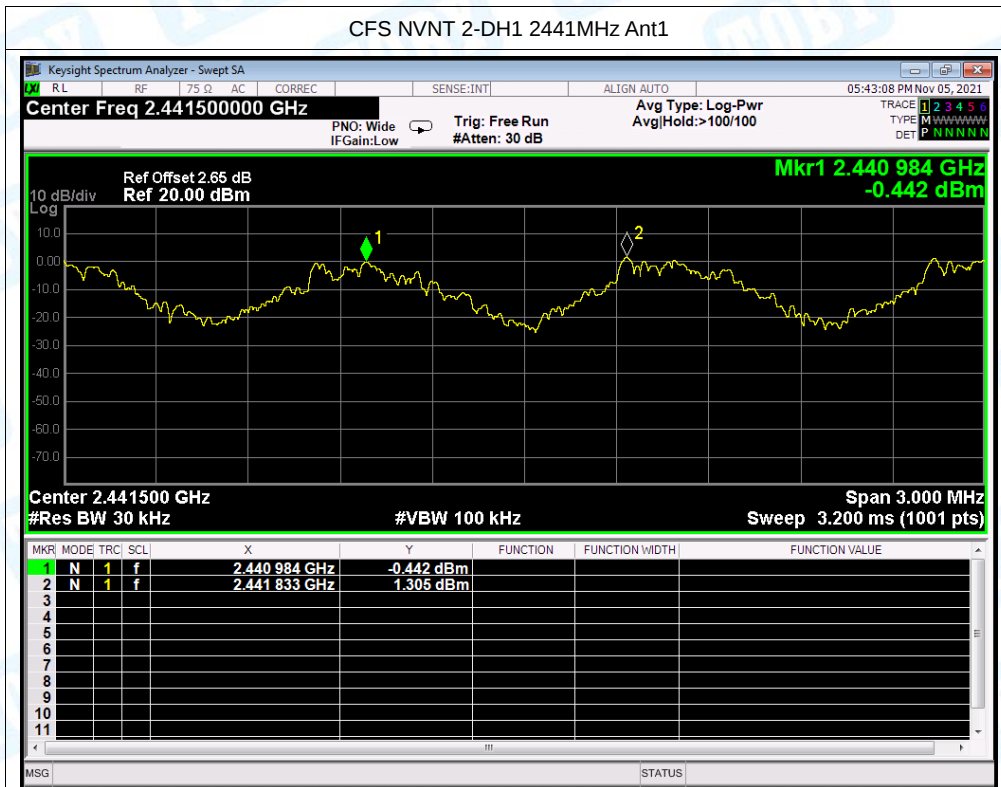


Carrier Frequencies Separation

Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2401.834	2402.986	1.152	0.572	Pass
NVNT	1-DH1	Ant1	2440.981	2441.839	0.858	0.583	Pass
NVNT	1-DH1	Ant1	2478.987	2479.836	0.849	0.573	Pass
NVNT	2-DH1	Ant1	2401.999	2402.992	0.993	0.804	Pass
NVNT	2-DH1	Ant1	2440.984	2441.833	0.849	0.793	Pass
NVNT	2-DH1	Ant1	2478.828	2479.986	1.158	0.835	Pass

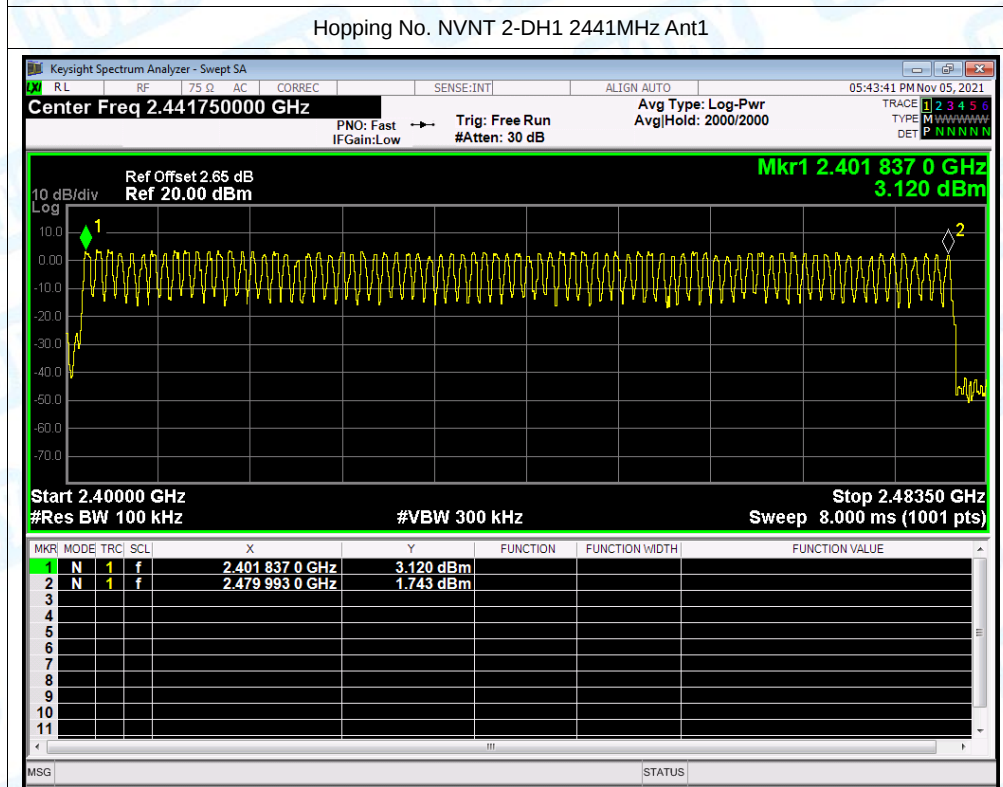
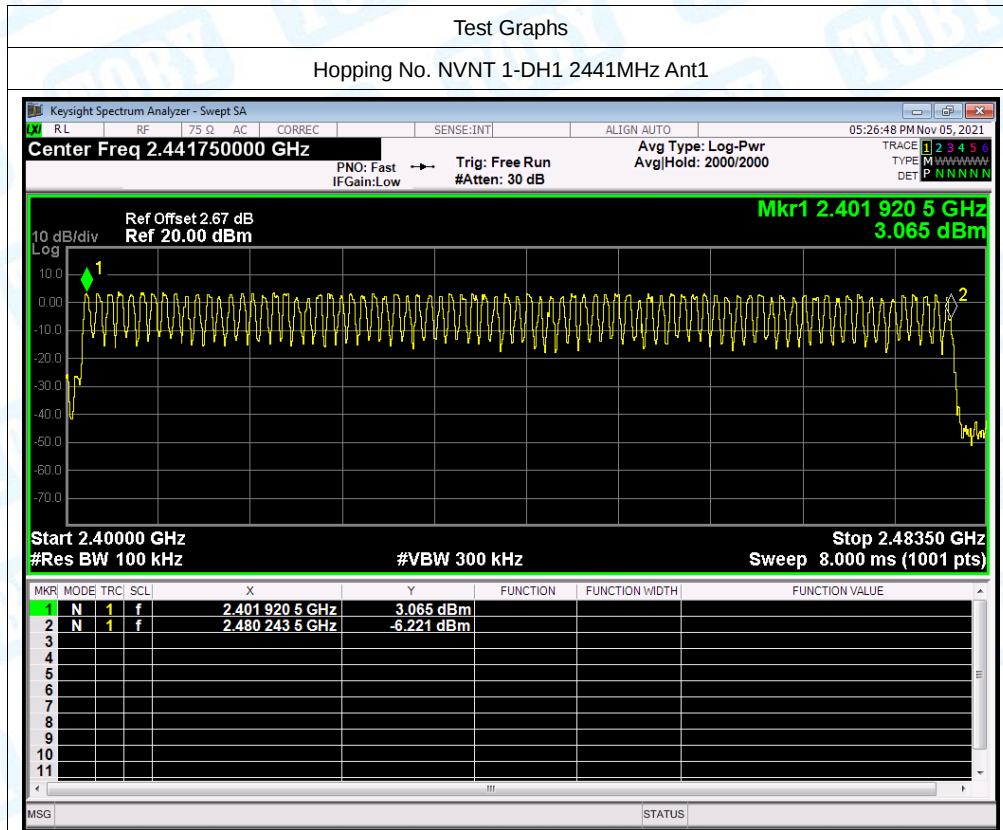






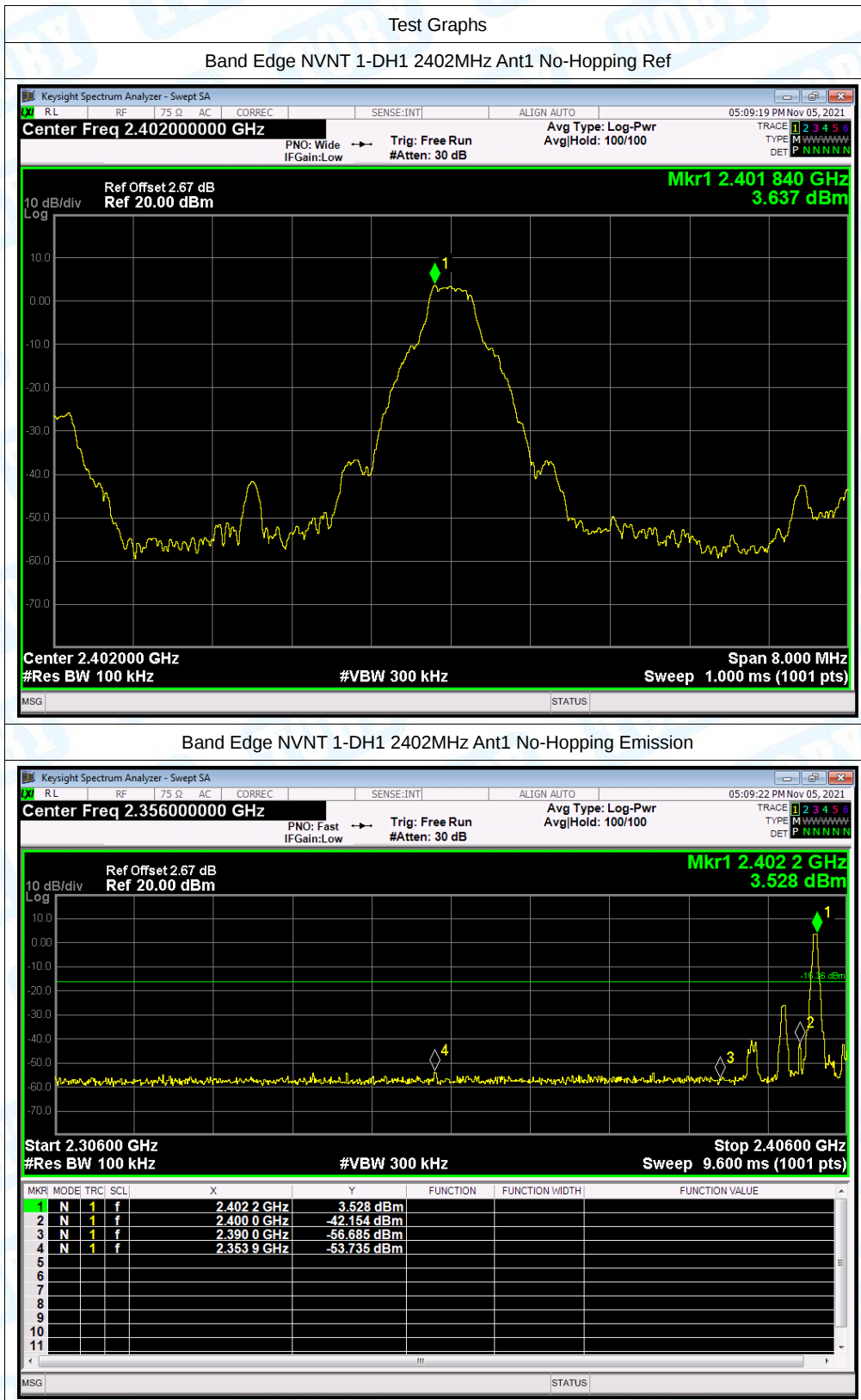
Number of Hopping Channel

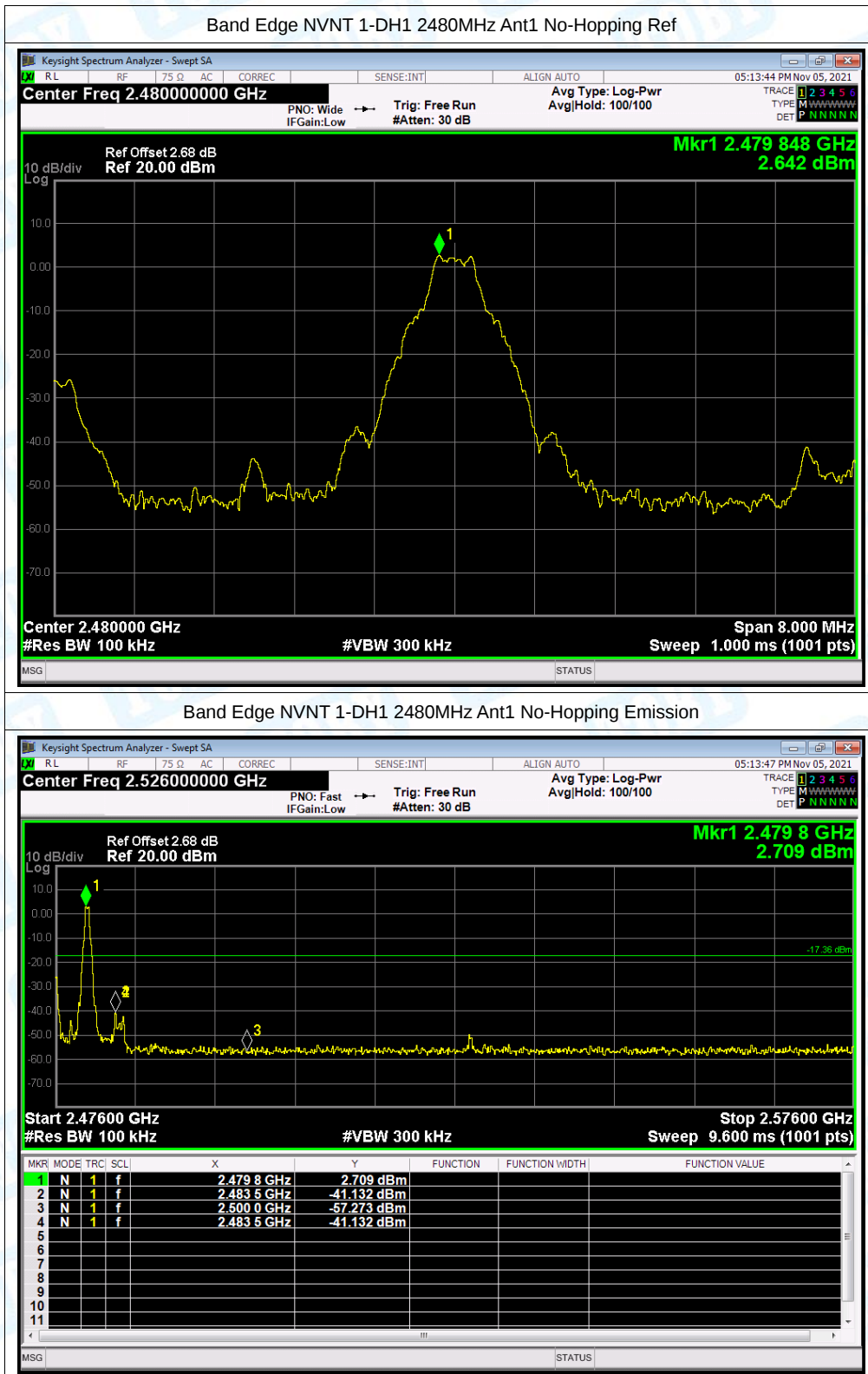
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass



Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-57.37	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-43.77	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-57.57	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-43.12	-20	Pass



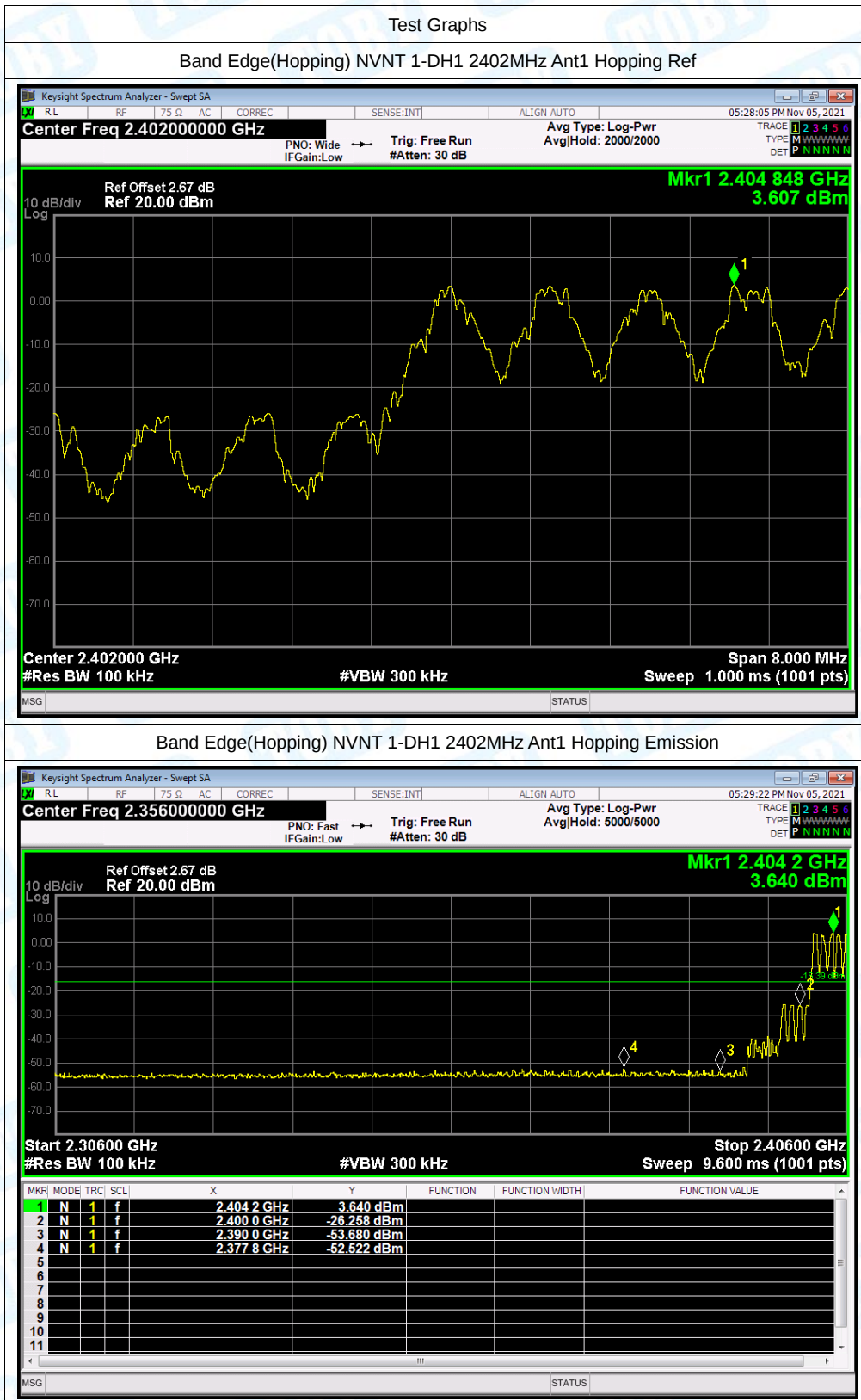


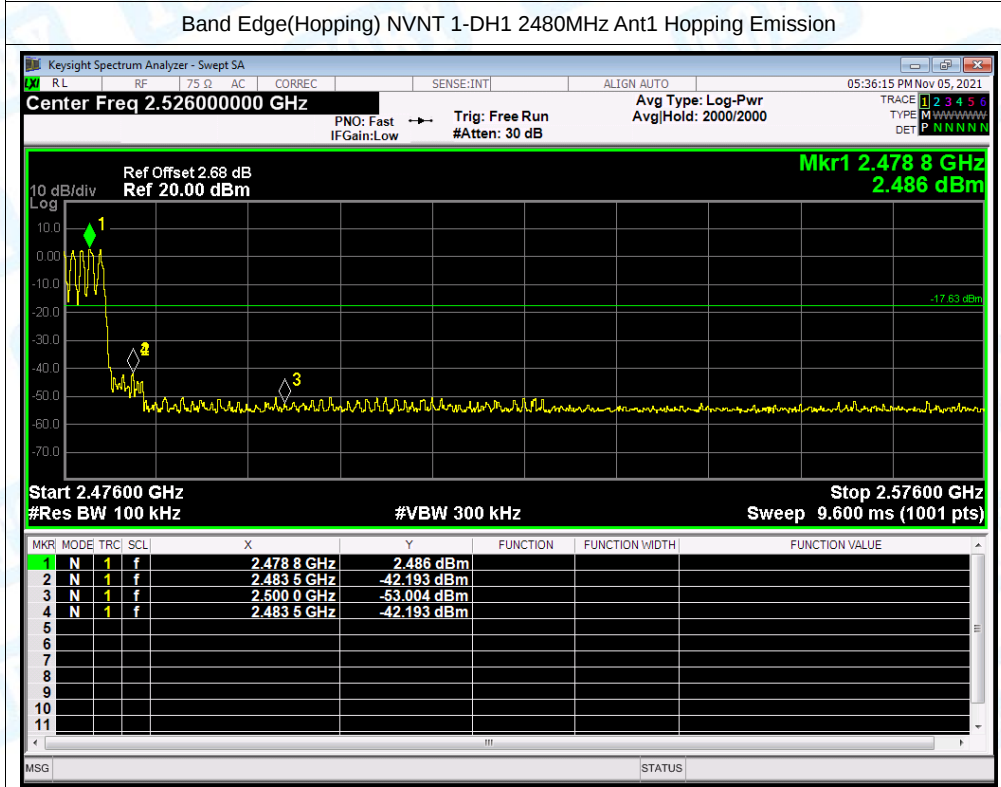




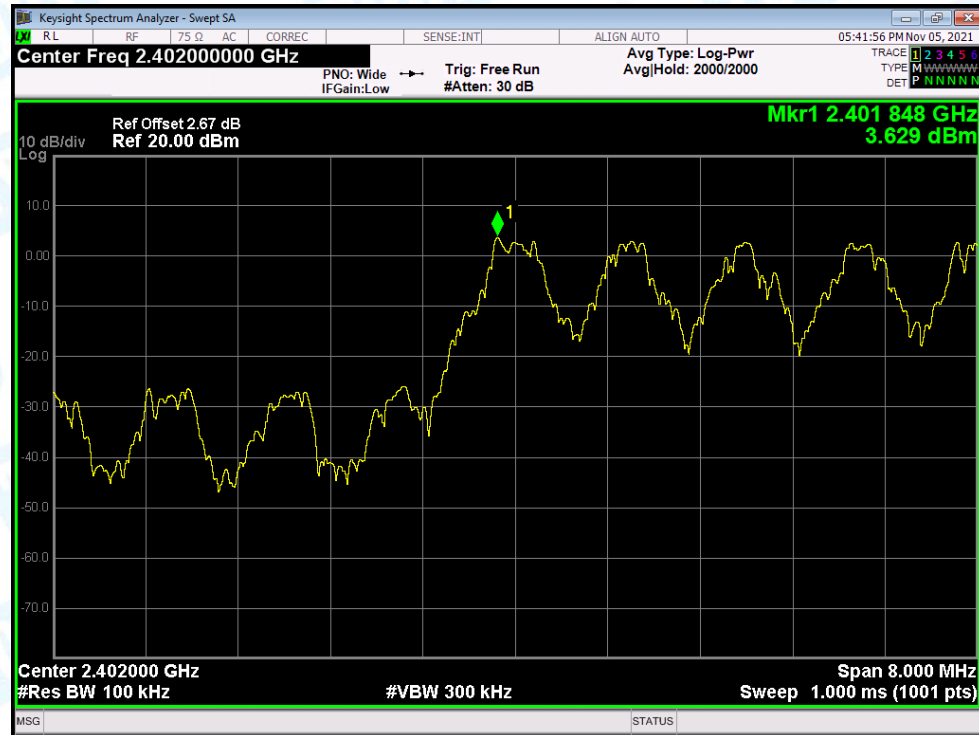
Band Edge(Hopping)

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-56.13	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-44.56	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-55.5	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-45.19	-20	Pass

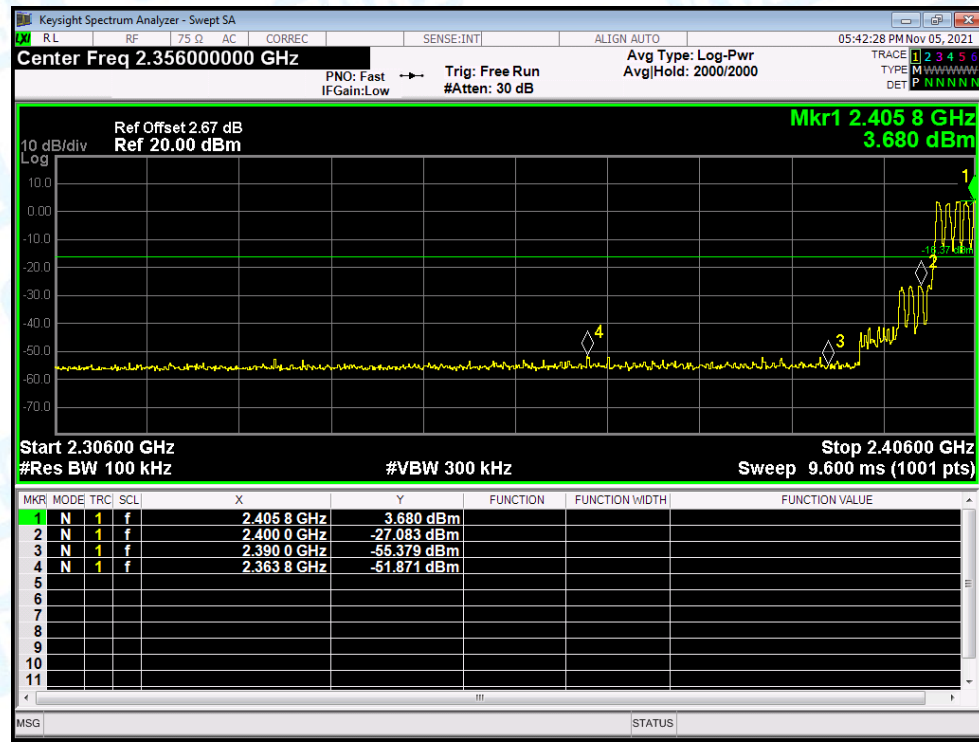


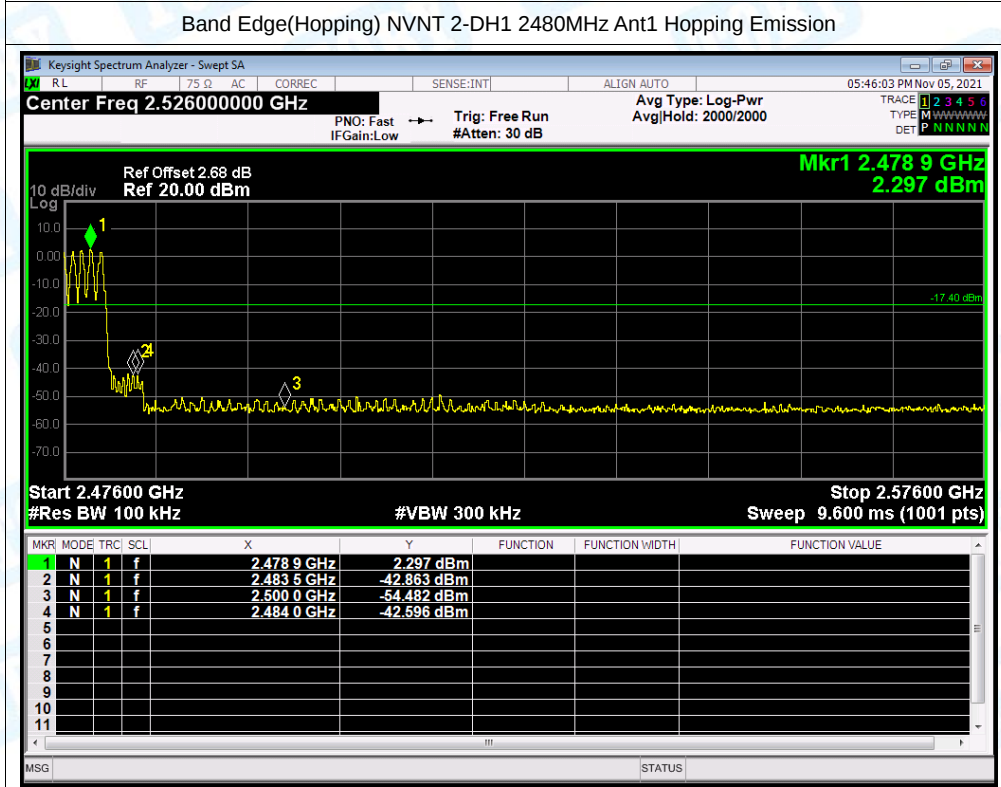
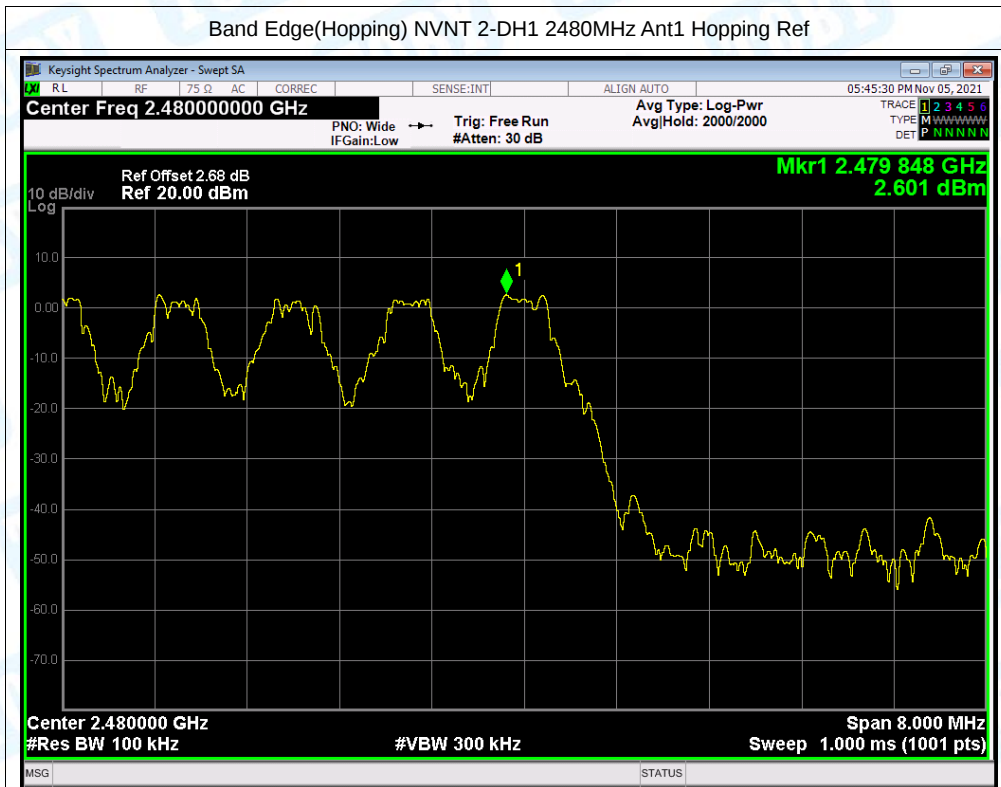


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



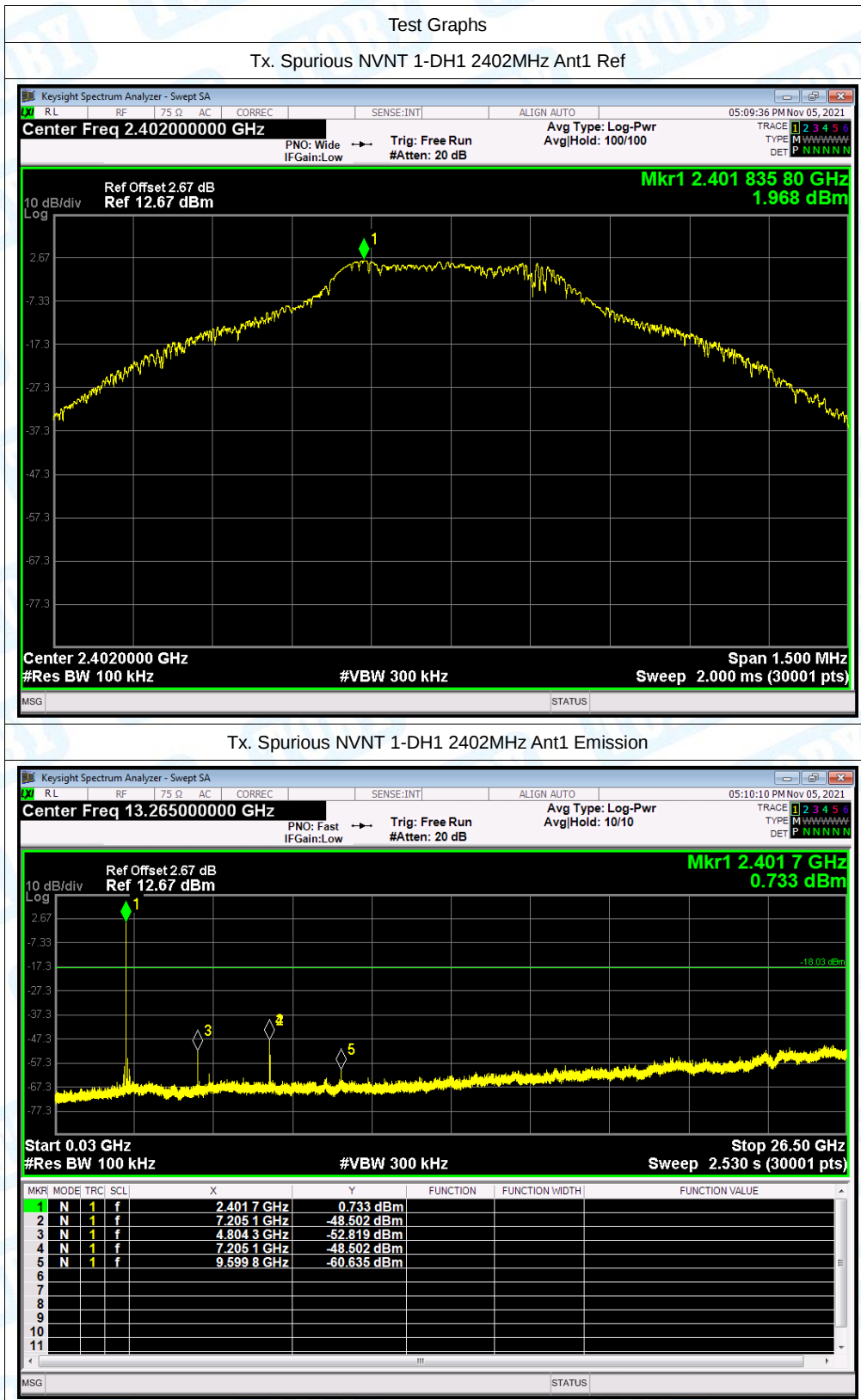
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission





Conducted RF Spurious Emission

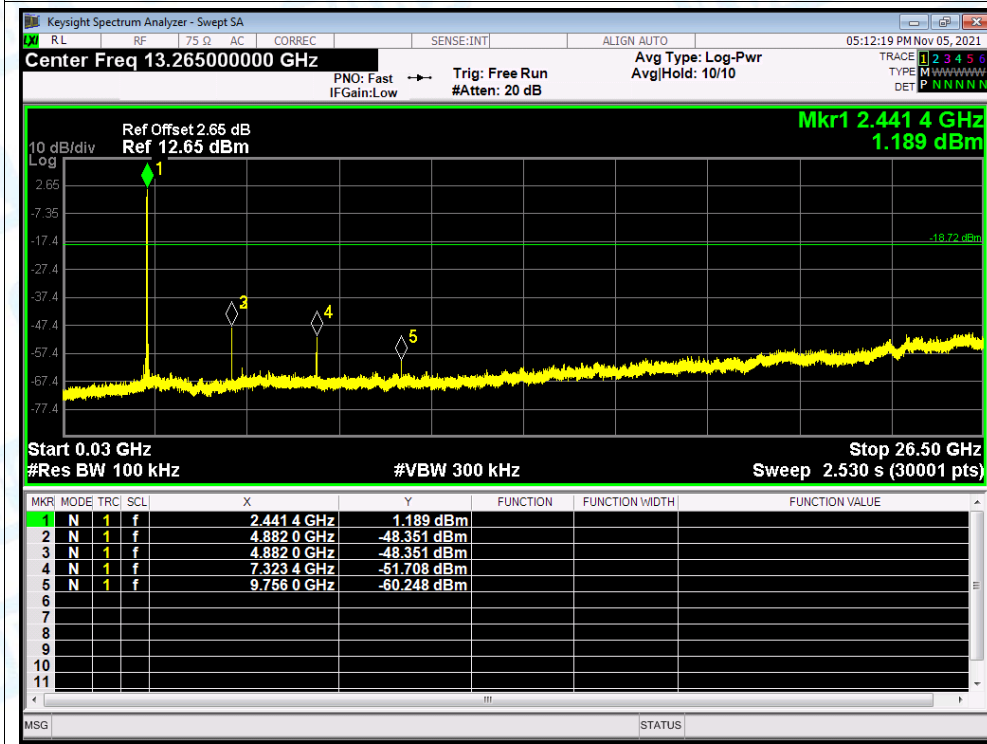
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-50.47	-20	Pass
NVNT	1-DH1	2441	Ant1	-49.63	-20	Pass
NVNT	1-DH1	2480	Ant1	-42.72	-20	Pass
NVNT	2-DH1	2402	Ant1	-51.34	-20	Pass
NVNT	2-DH1	2441	Ant1	-46.95	-20	Pass
NVNT	2-DH1	2480	Ant1	-49.52	-20	Pass



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



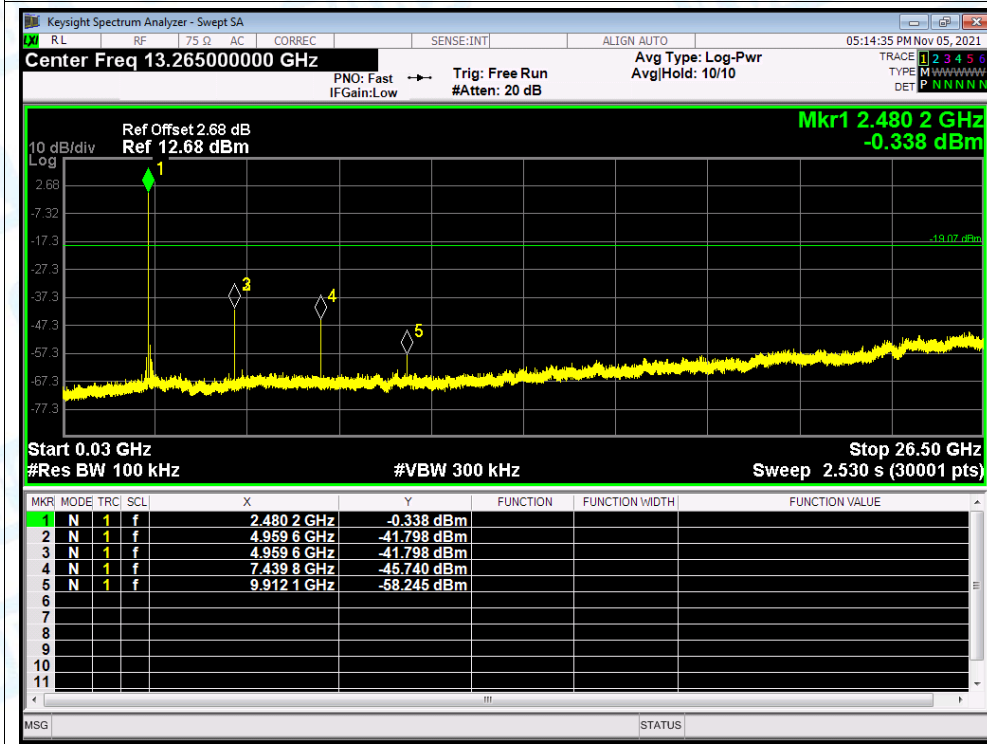
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



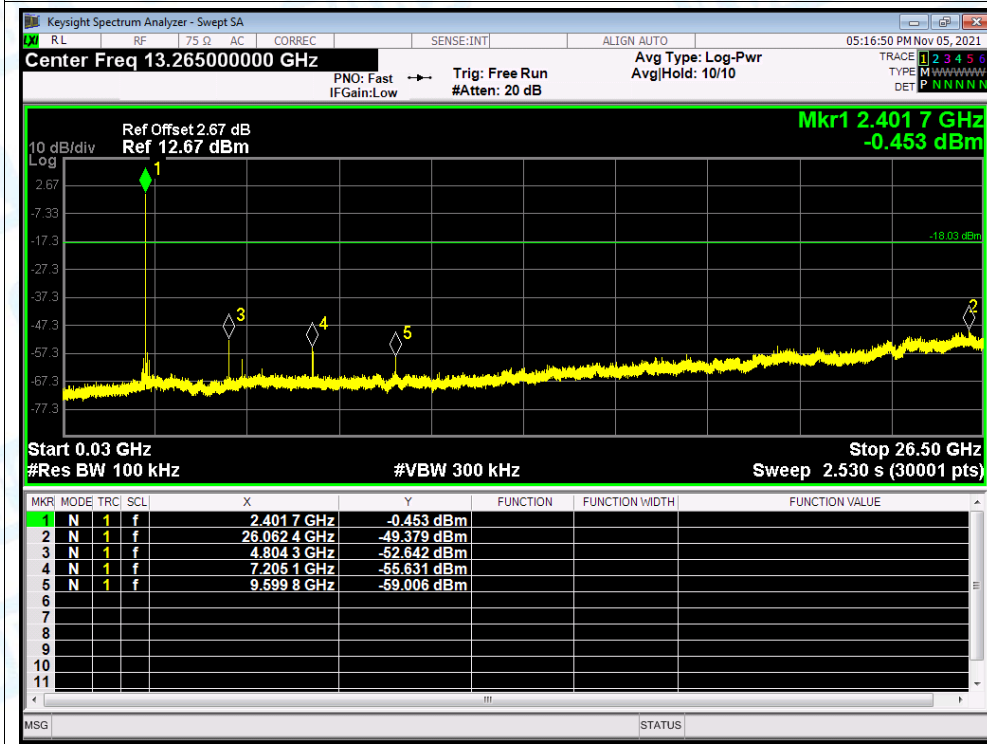
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



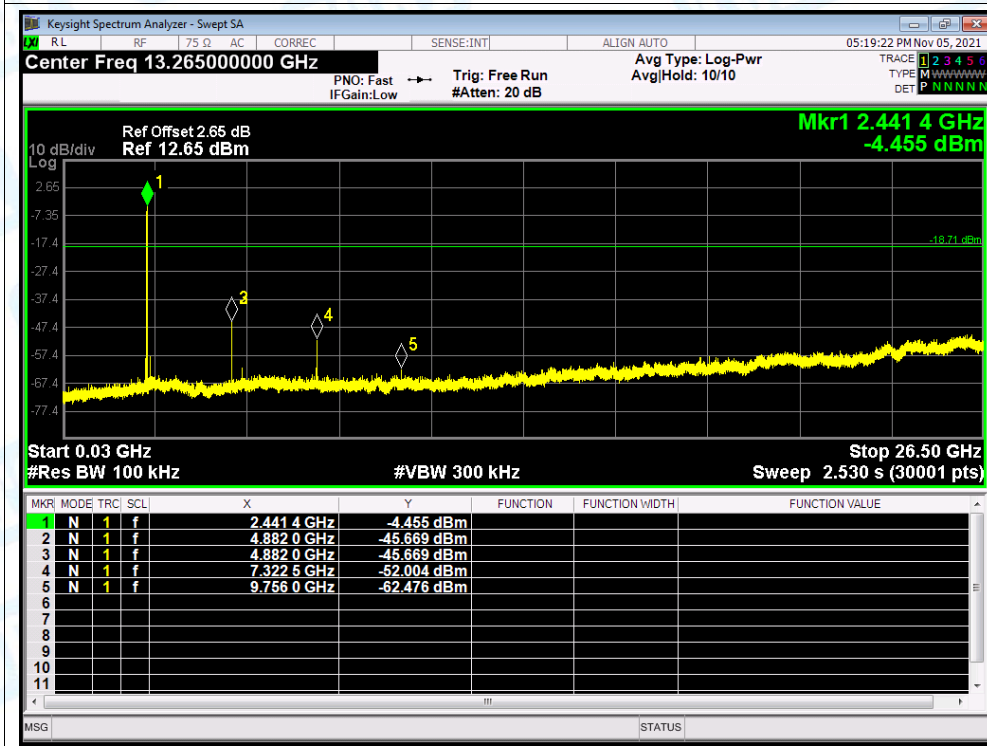
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Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



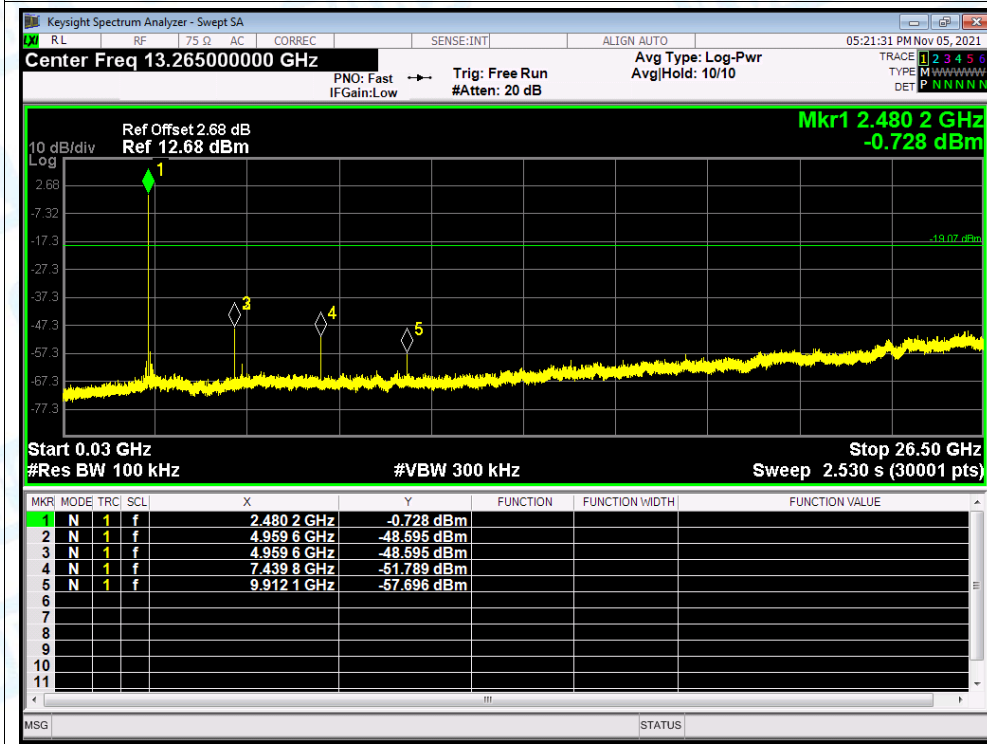
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref

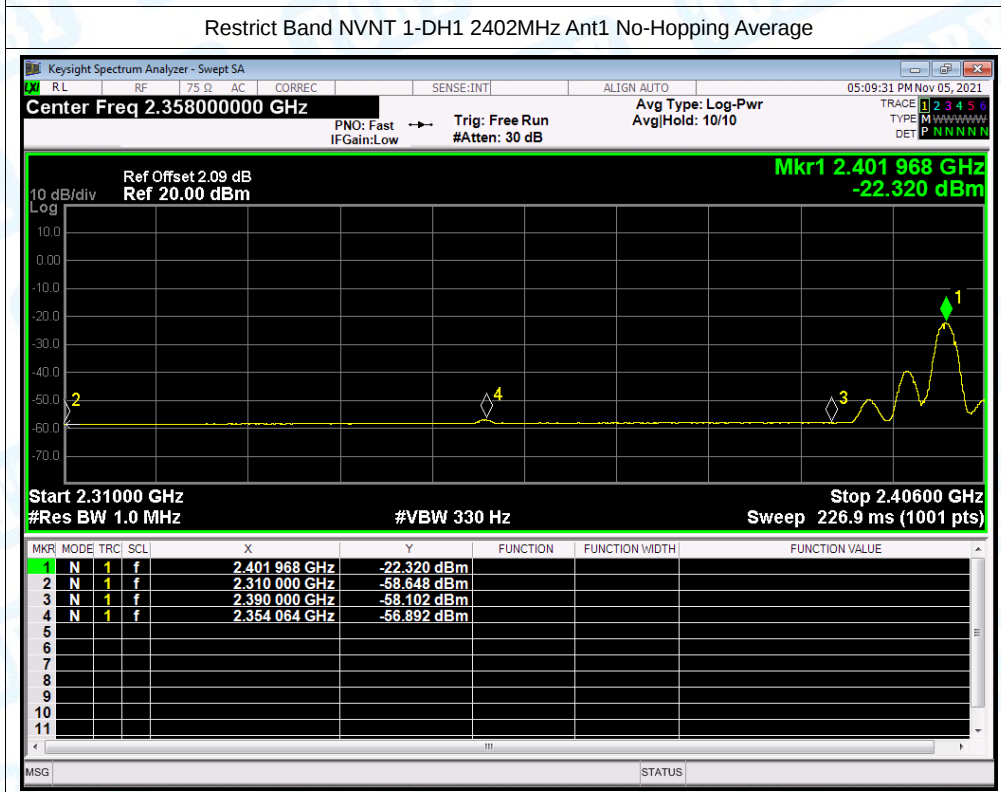
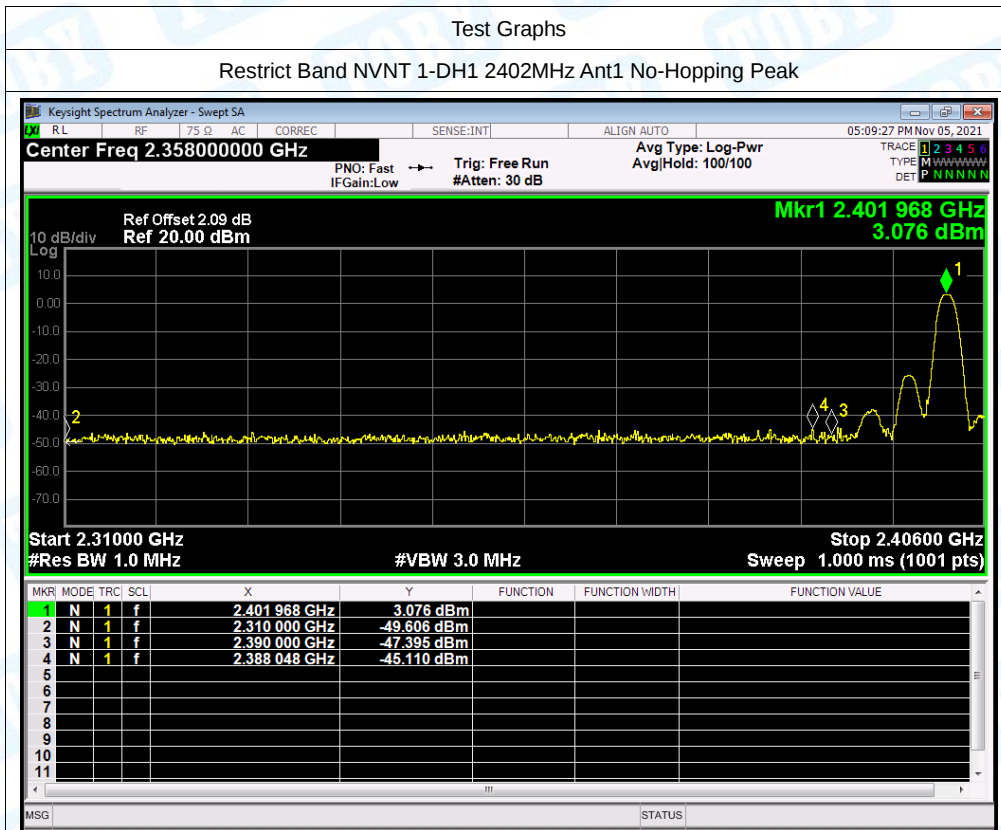


Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

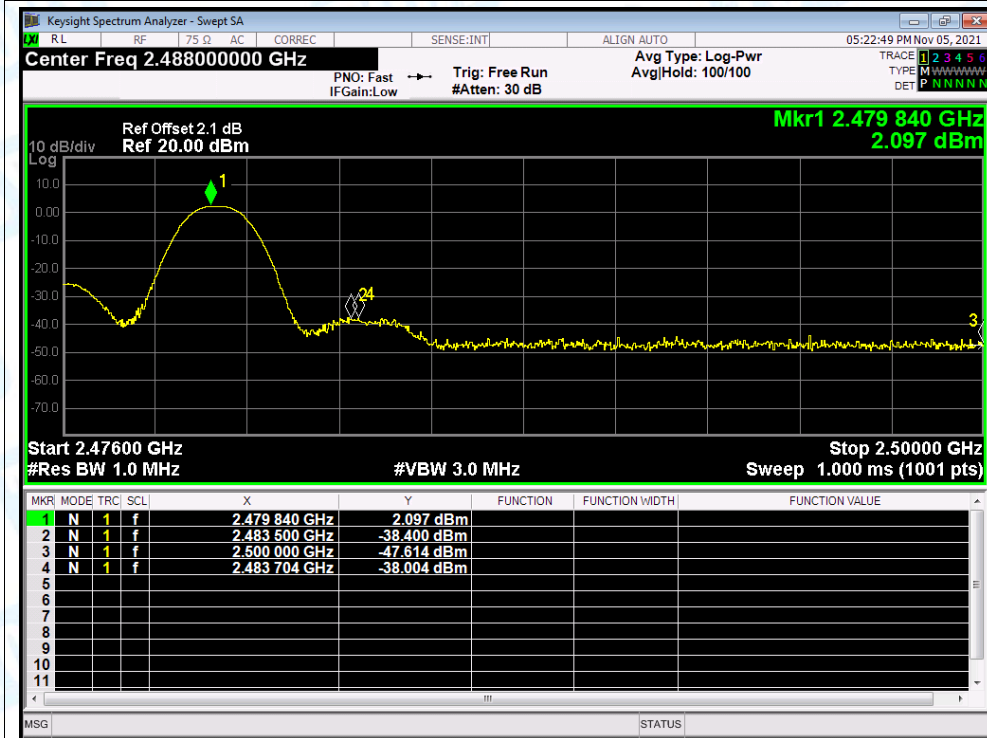


Restrict Band

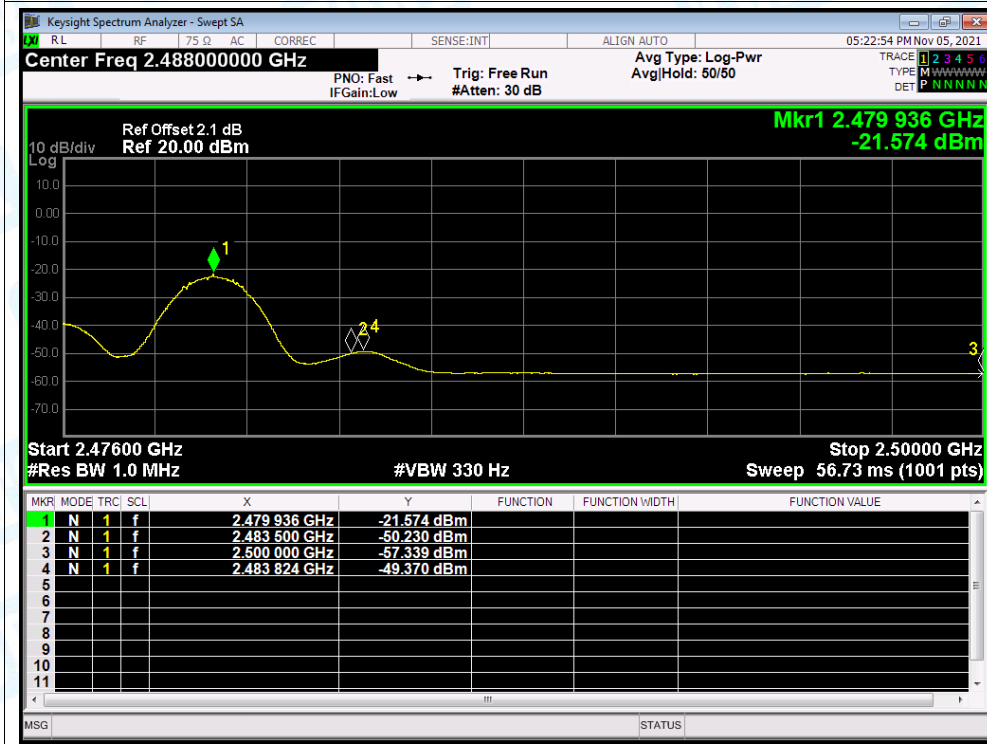
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.7	2	48.56	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-58.64	2	38.62	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2388.048	-45.1	2	52.16	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2354.064	-56.89	2	40.37	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-47.65	2	49.61	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-58.14	2	39.12	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-38.39	2	58.87	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-50.22	2	47.04	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.704	-38	2	59.26	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.824	-49.36	2	47.9	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-47.61	2	49.65	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-57.33	2	39.93	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.37	2	48.89	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-58.61	2	38.65	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2327.28	-45.21	2	52.05	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2353.968	-57.08	2	40.18	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.68	2	48.58	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-58.04	2	39.22	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-37.89	2	59.37	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-51.78	2	45.48	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.56	-37.44	2	59.82	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.872	-50.87	2	46.39	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.44	2	49.82	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-57.41	2	39.85	Average	54	Pass



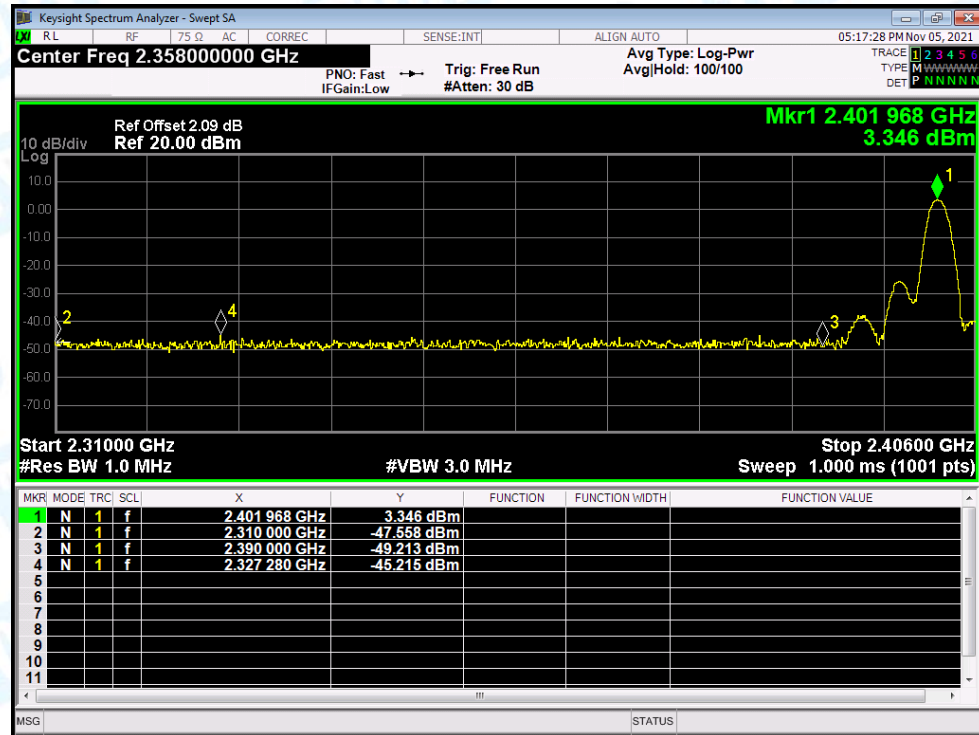
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



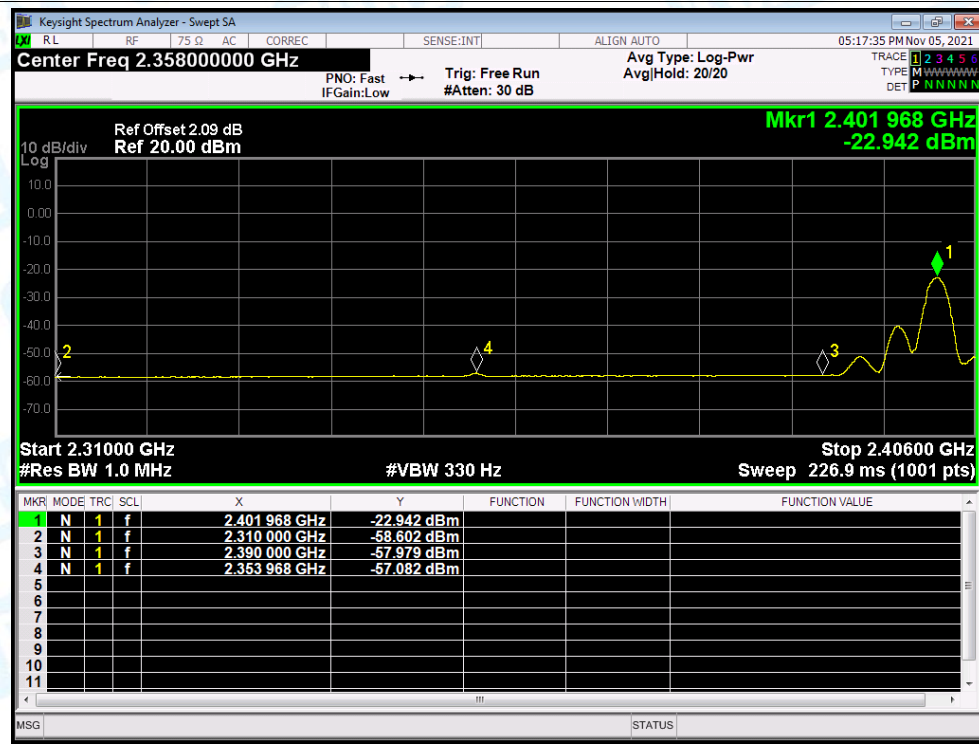
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



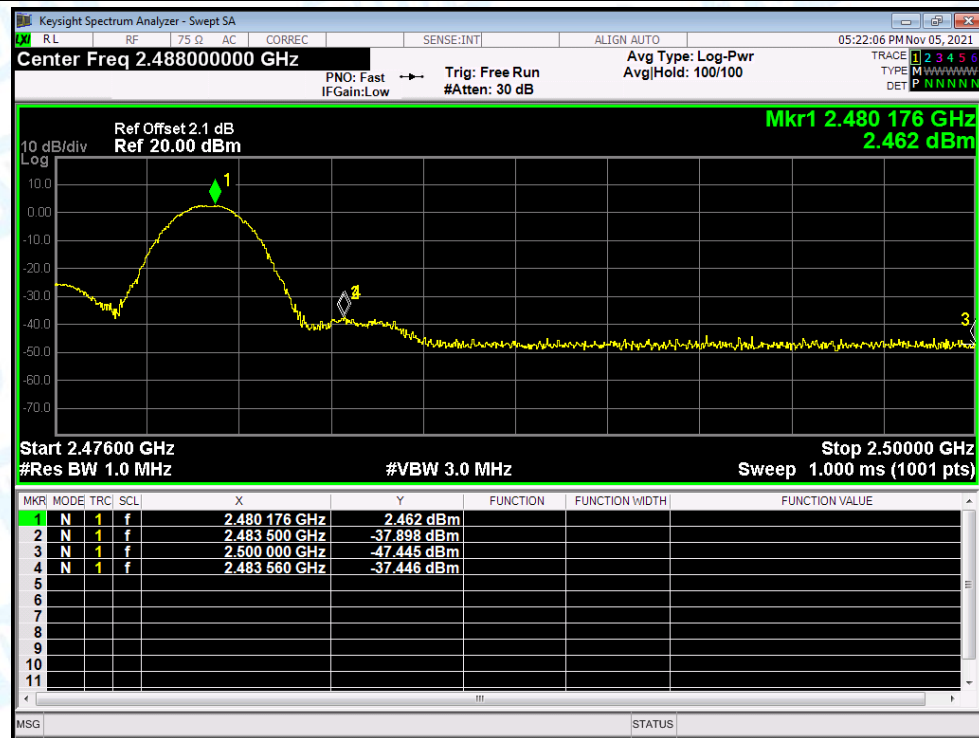
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



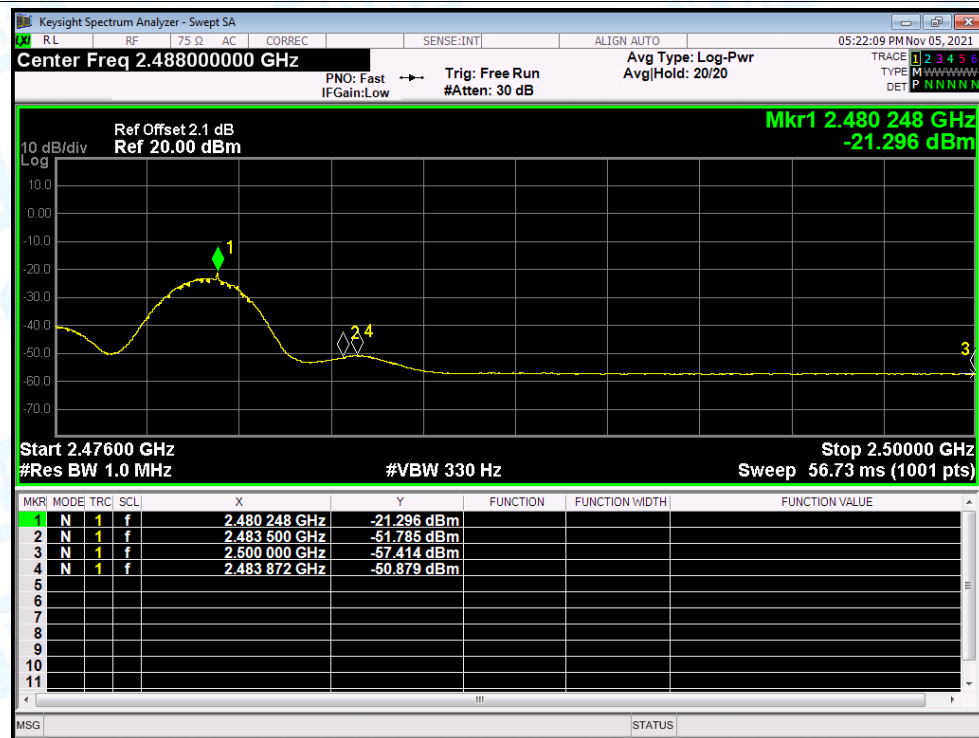
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



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



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



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	0.377	120.64	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.633	261.28	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.376	120.32	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.638	262.08	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.885	307.733	31600	400	Pass

