

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	Jobsite wireless speaker
Test Model:	GMB300
Sample ID:	HC-C-202411-0077-01-02#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 20V
Test Engineer:	Rick Chen
Note: For a more detailed features description, please refer to the report TBR-C-202411-0077-7 The report only show the worst case data.	

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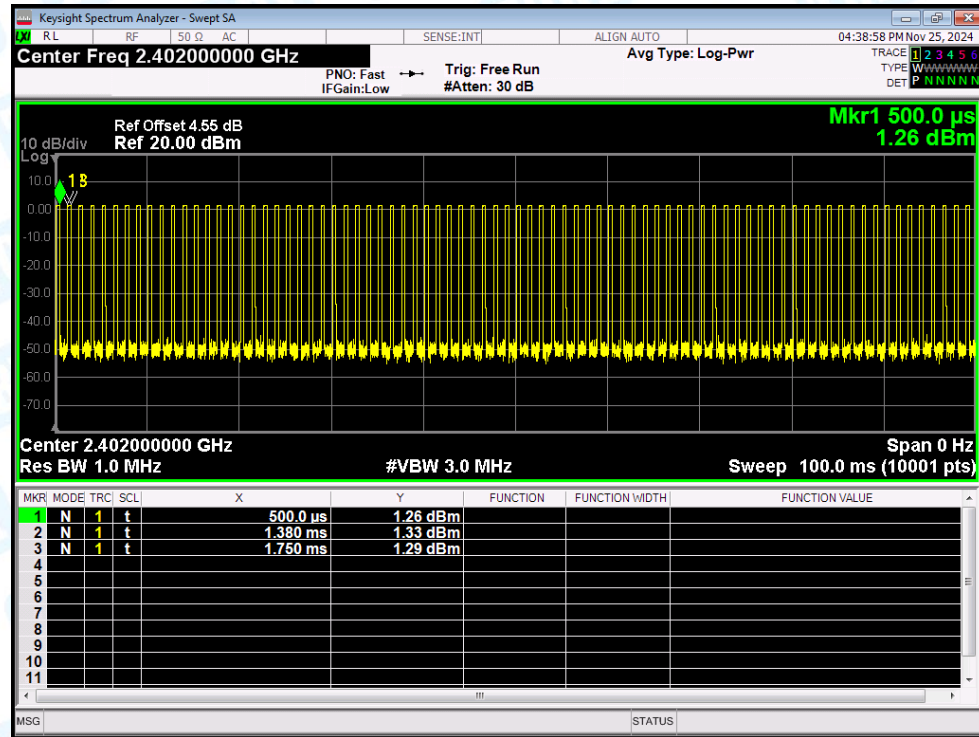
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1.Duty Cycle

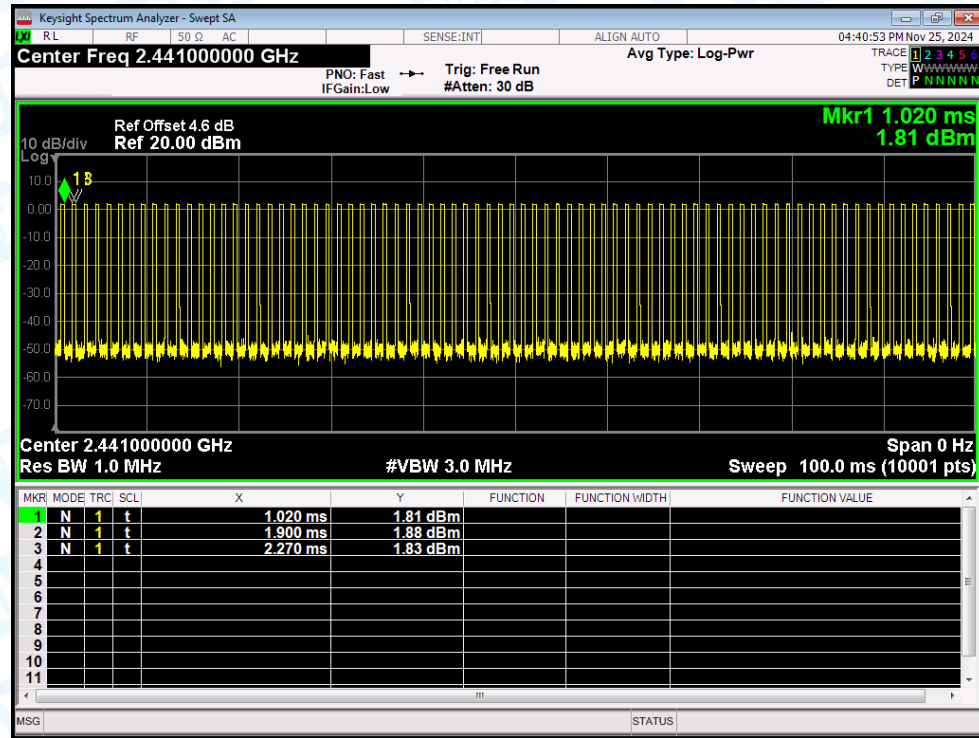
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2441	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	3-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	3-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	3-DH1	2480	Ant1	31.2	5.06	2.56

Test Graphs

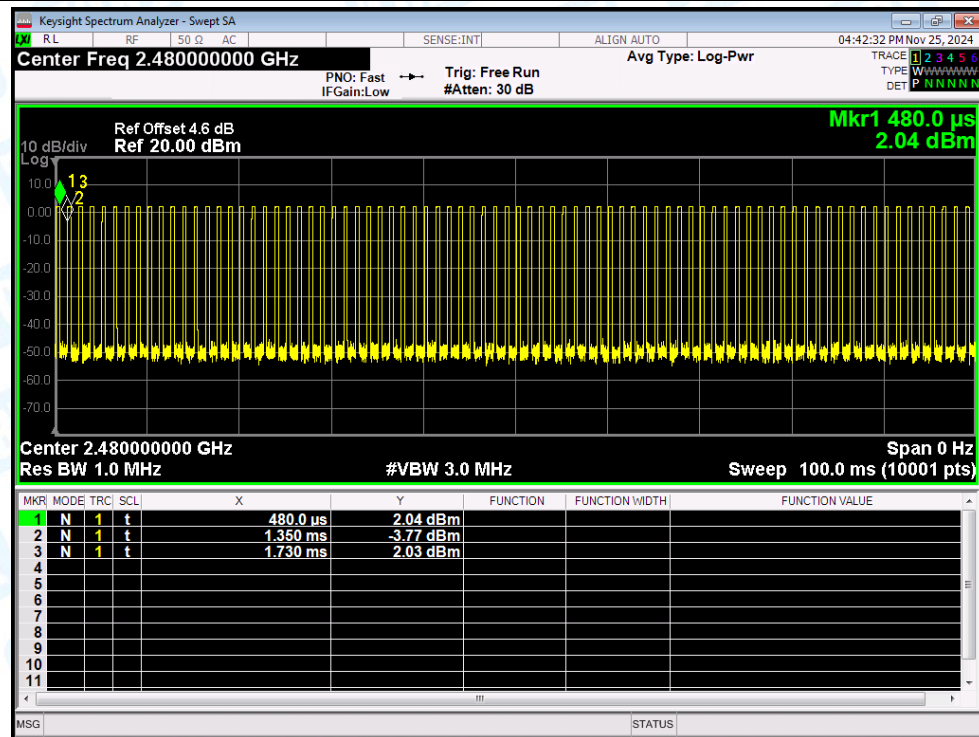
Duty Cycle NVNT 1-DH1 2402MHz Ant1



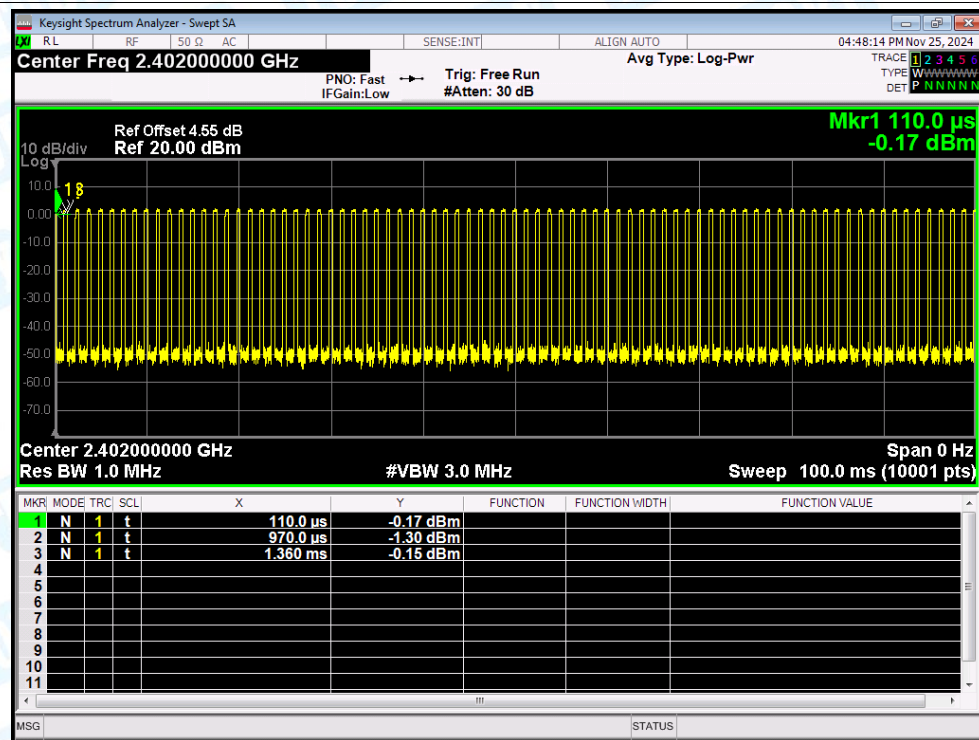
Duty Cycle NVNT 1-DH1 2441MHz Ant1



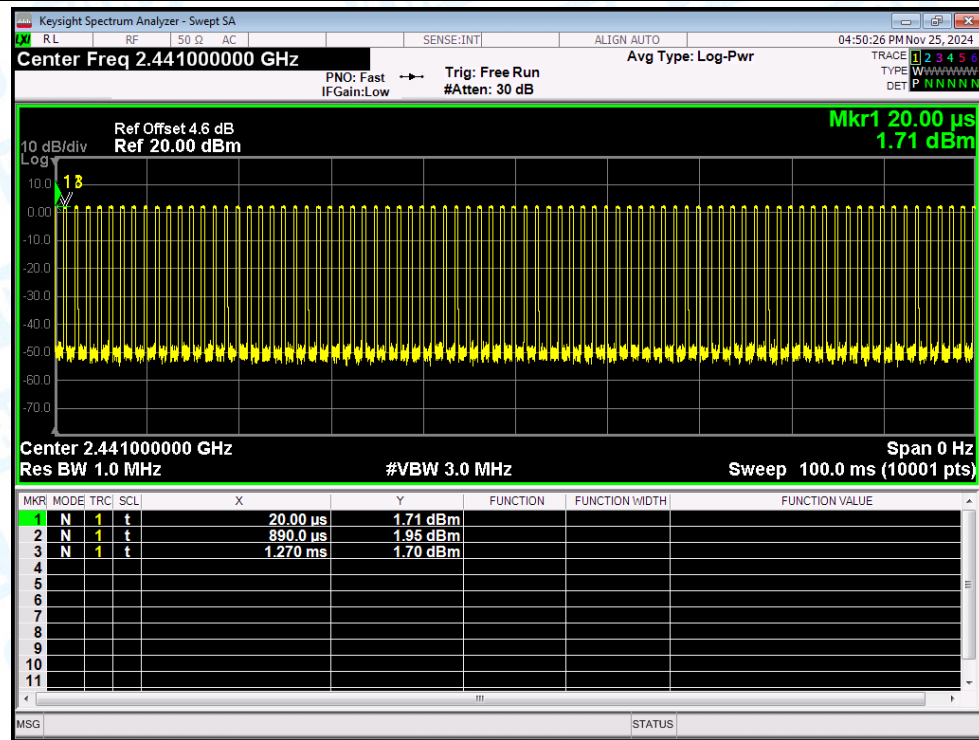
Duty Cycle NVNT 1-DH1 2480MHz Ant1



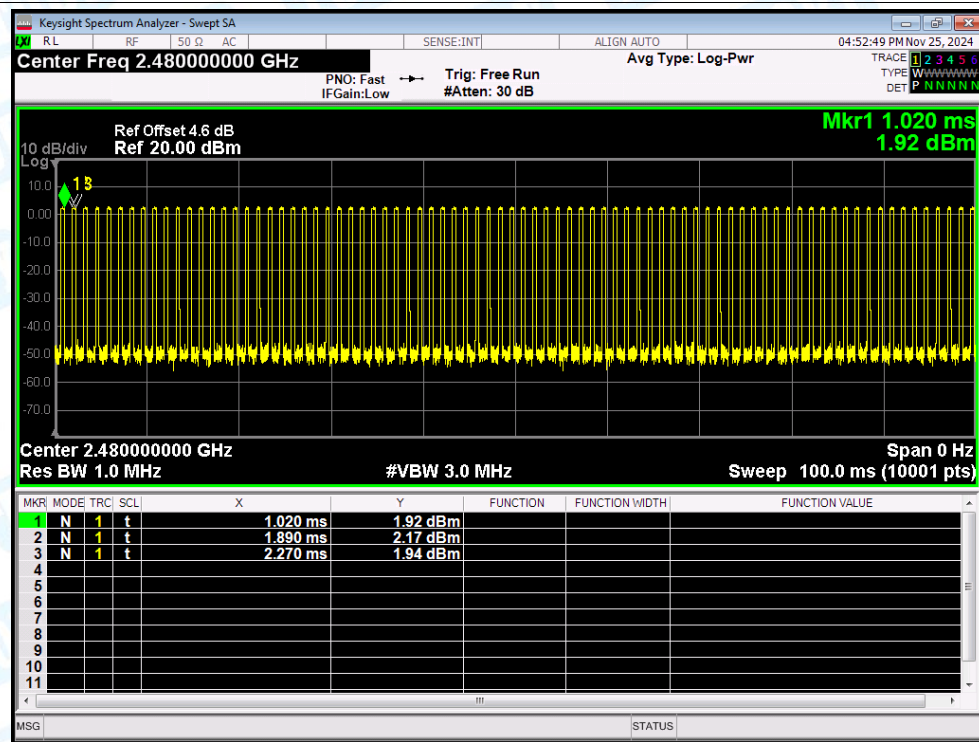
Duty Cycle NVNT 2-DH1 2402MHz Ant1



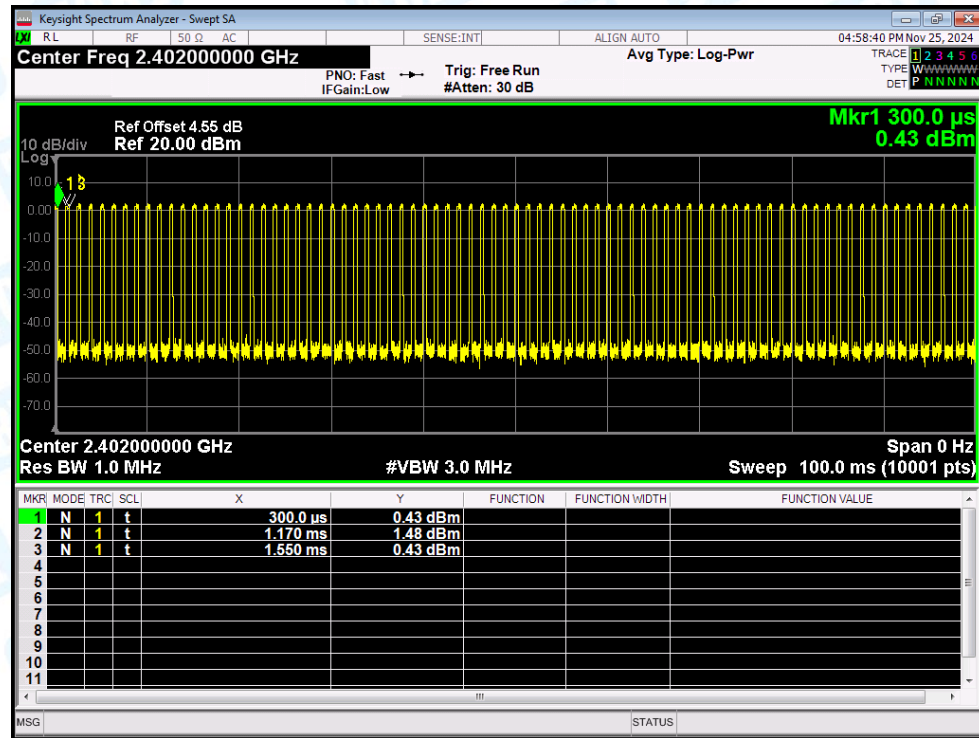
Duty Cycle NVNT 2-DH1 2441MHz Ant1



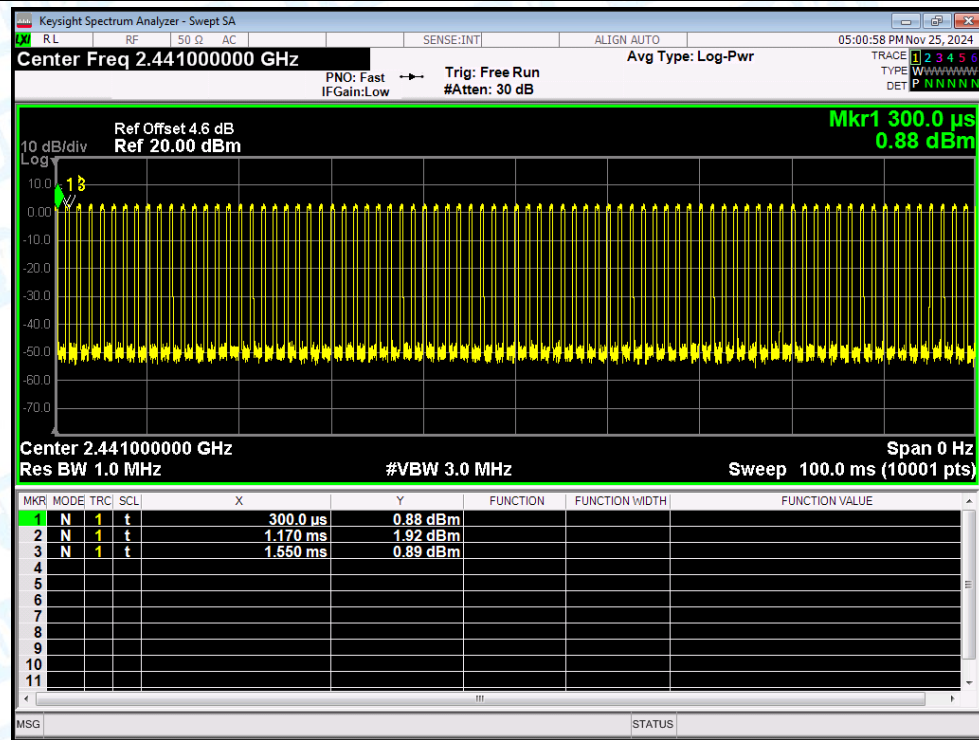
Duty Cycle NVNT 2-DH1 2480MHz Ant1

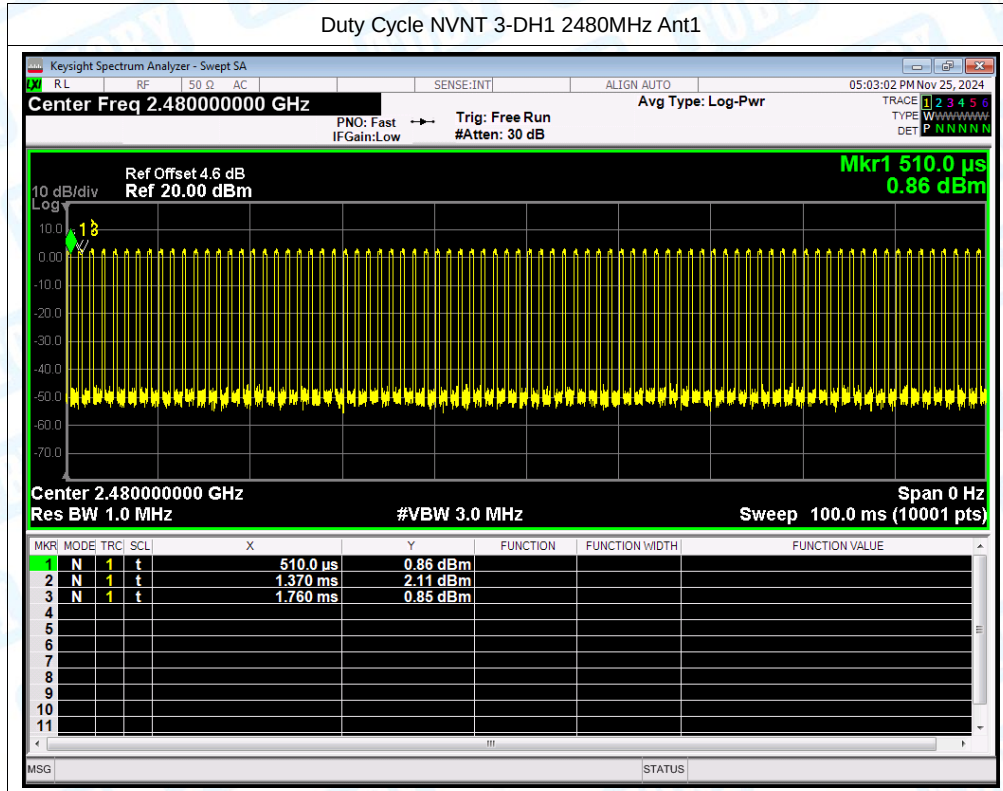


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



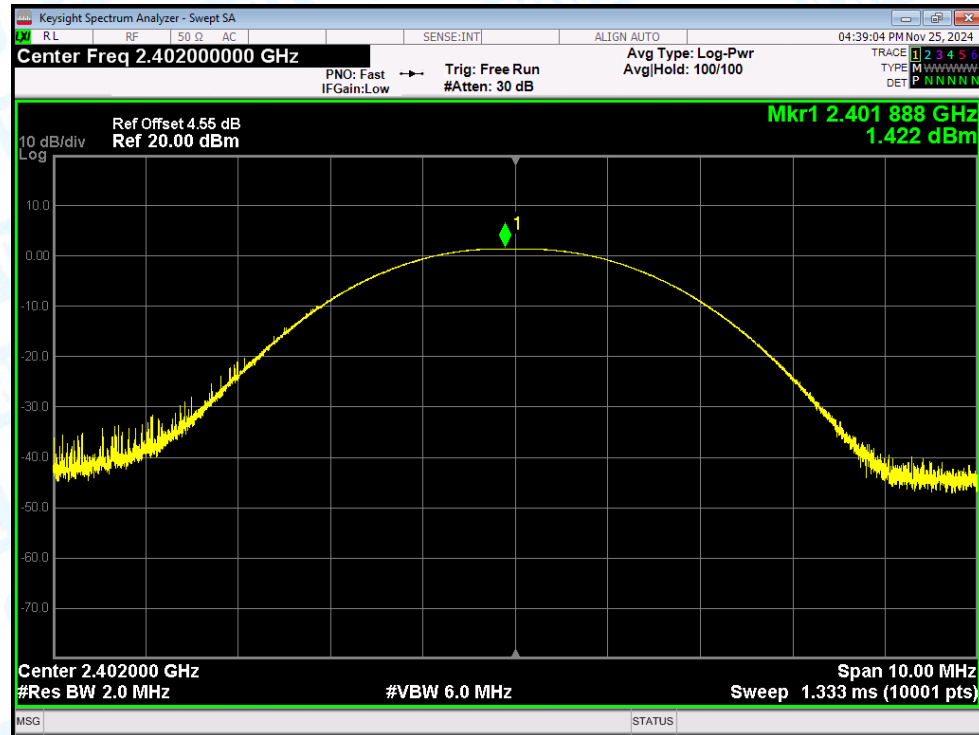


2.Maximum Conducted Output Power

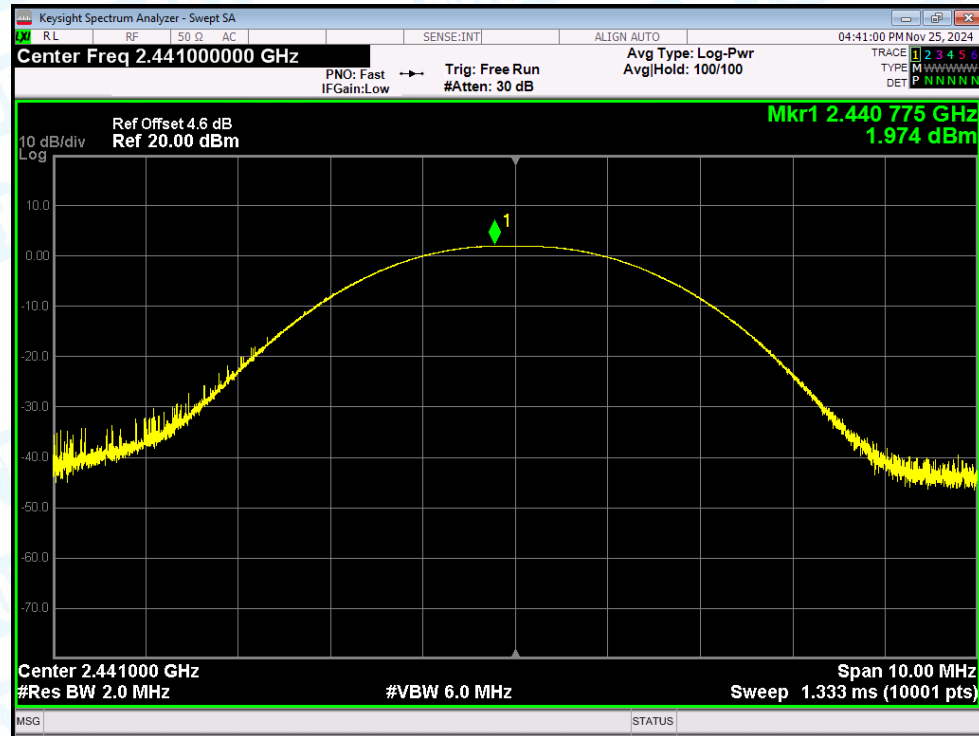
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	1.422	21	Pass
NVNT	1-DH1	2441	Ant1	1.974	21	Pass
NVNT	1-DH1	2480	Ant1	2.191	21	Pass
NVNT	2-DH1	2402	Ant1	2.394	21	Pass
NVNT	2-DH1	2441	Ant1	2.912	21	Pass
NVNT	2-DH1	2480	Ant1	3.114	21	Pass
NVNT	3-DH1	2402	Ant1	2.937	21	Pass
NVNT	3-DH1	2441	Ant1	3.403	21	Pass
NVNT	3-DH1	2480	Ant1	3.612	21	Pass

Test Graphs

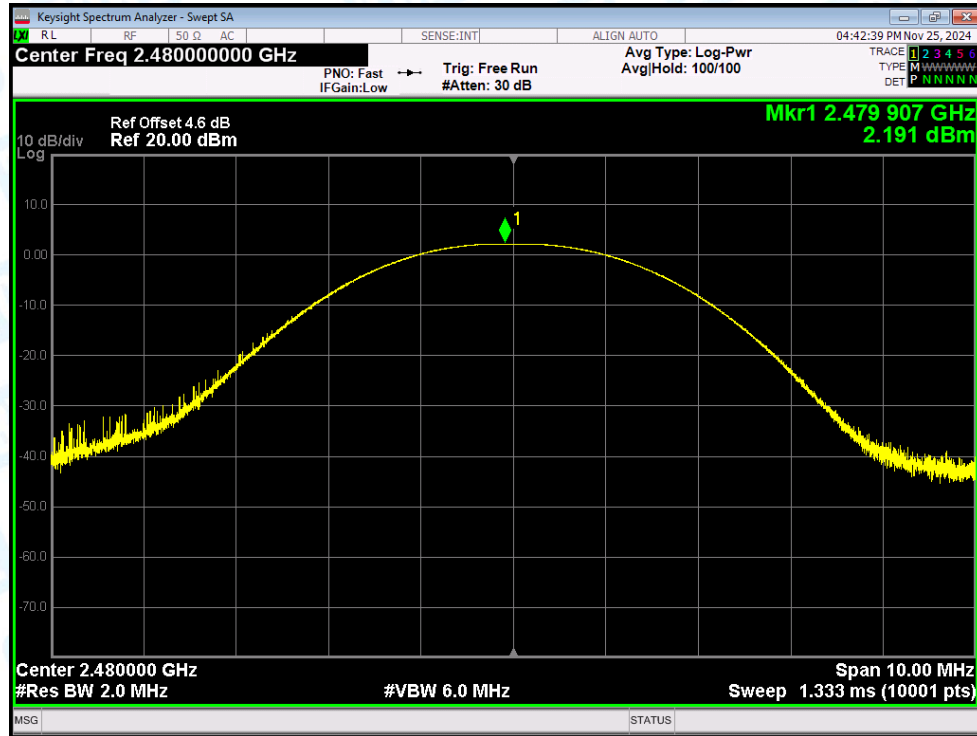
Power NVNT 1-DH1 2402MHz Ant1



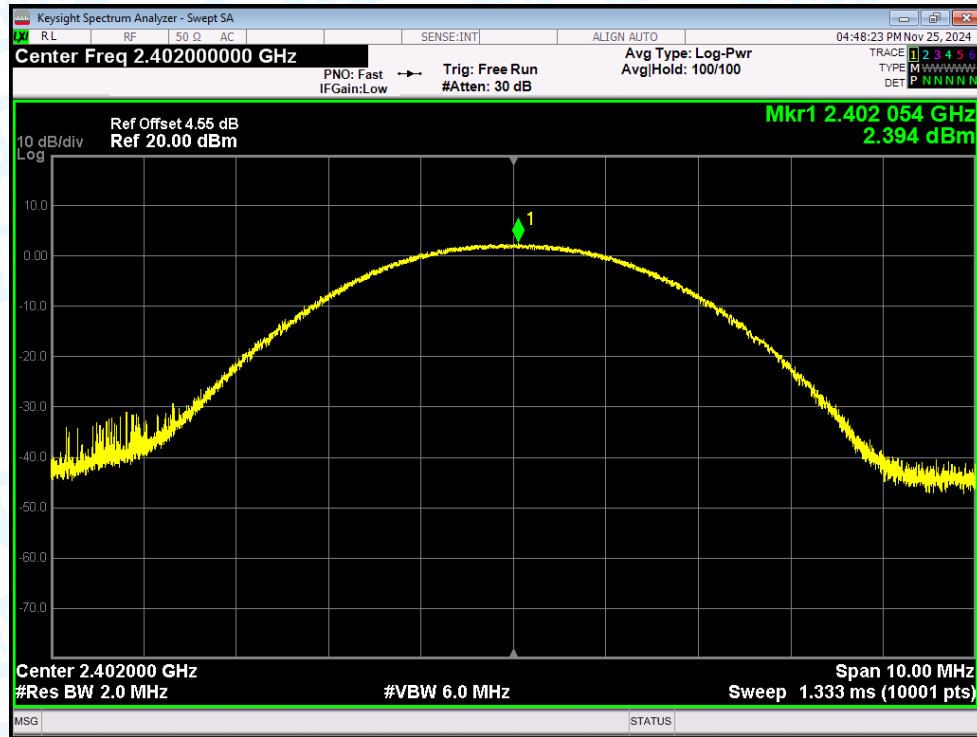
Power NVNT 1-DH1 2441MHz Ant1



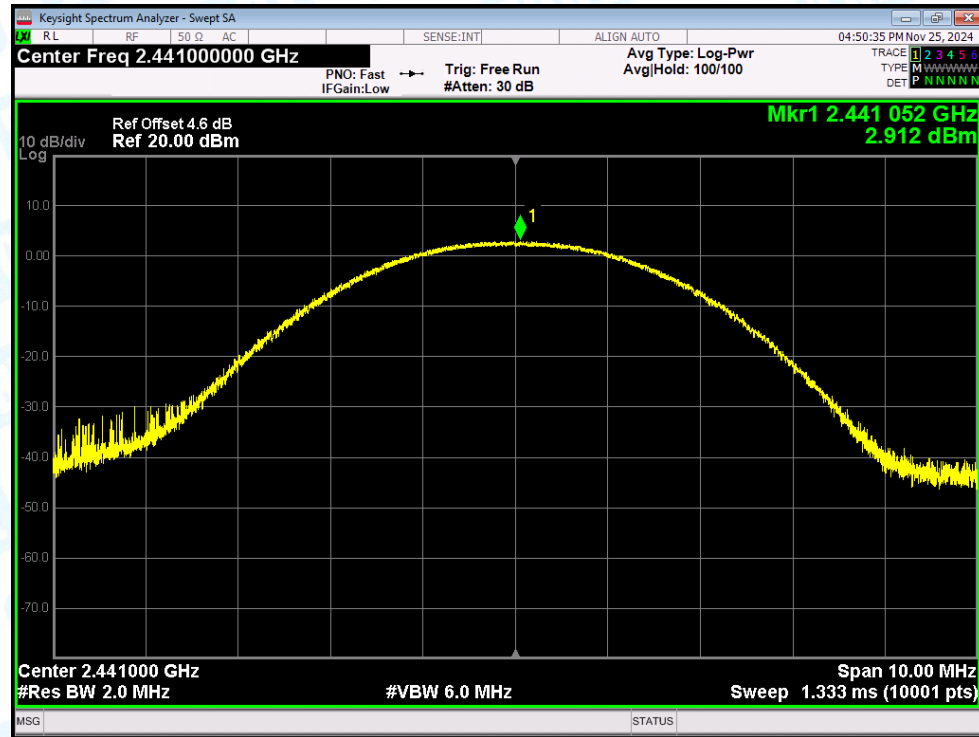
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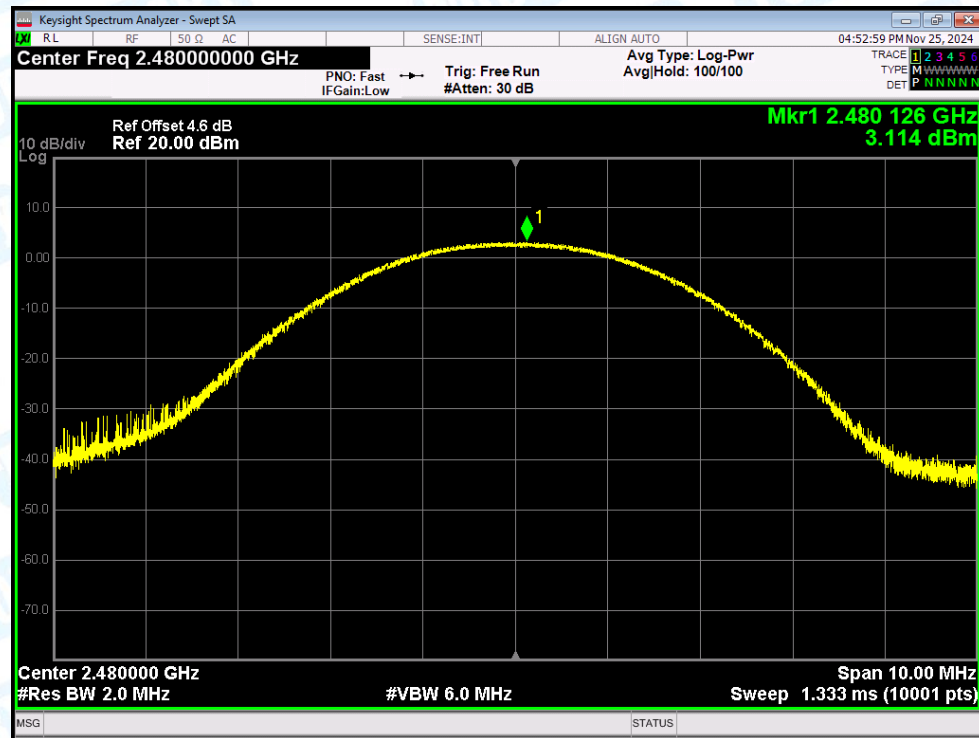
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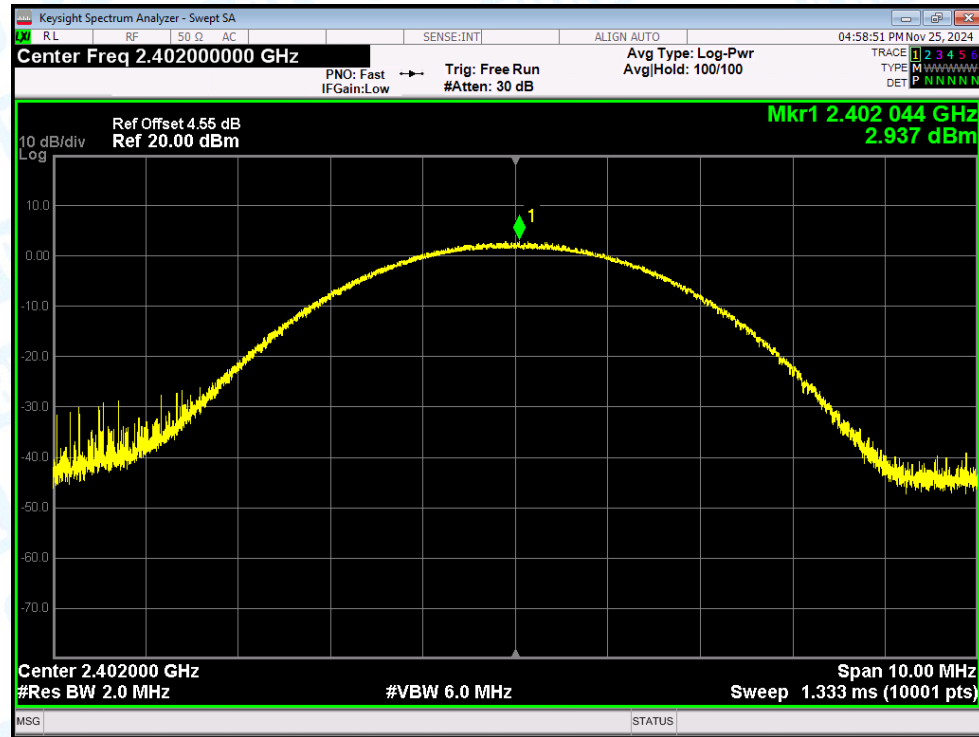
Power NVNT 2-DH1 2441MHz Ant1



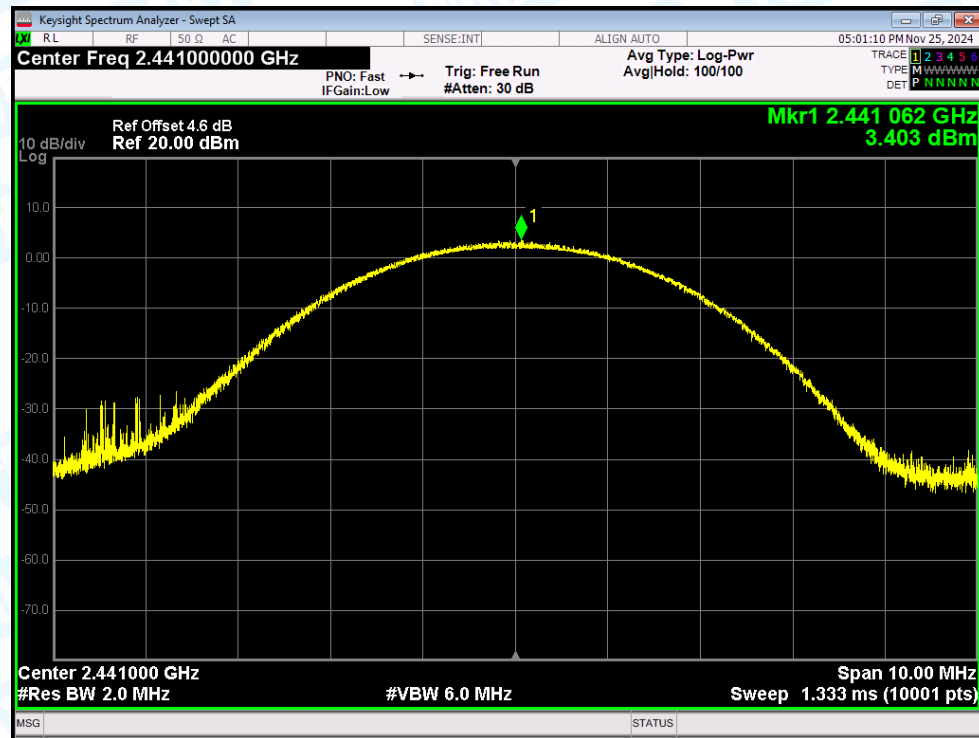
Power NVNT 2-DH1 2480MHz Ant1

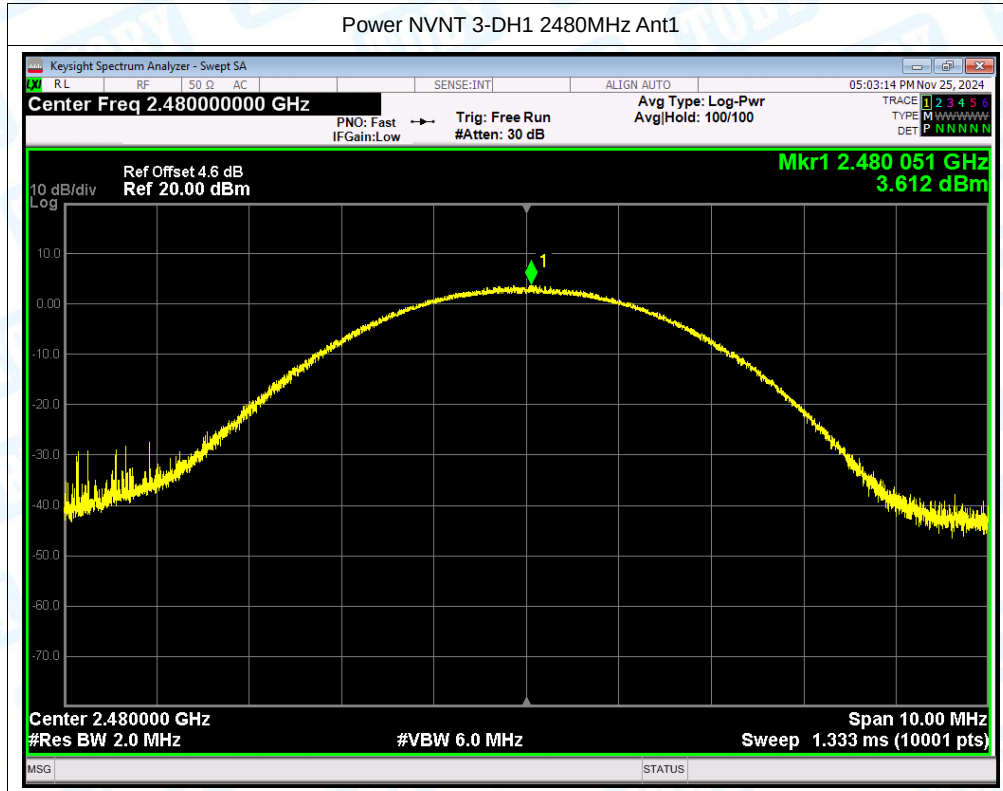


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



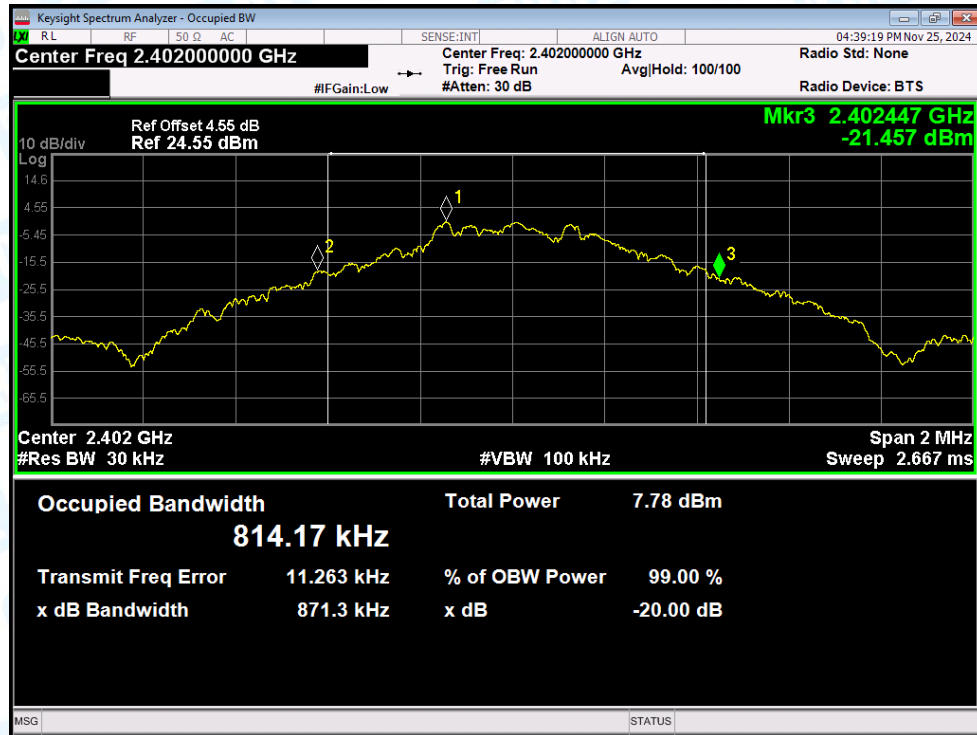


3.-20dB Bandwidth

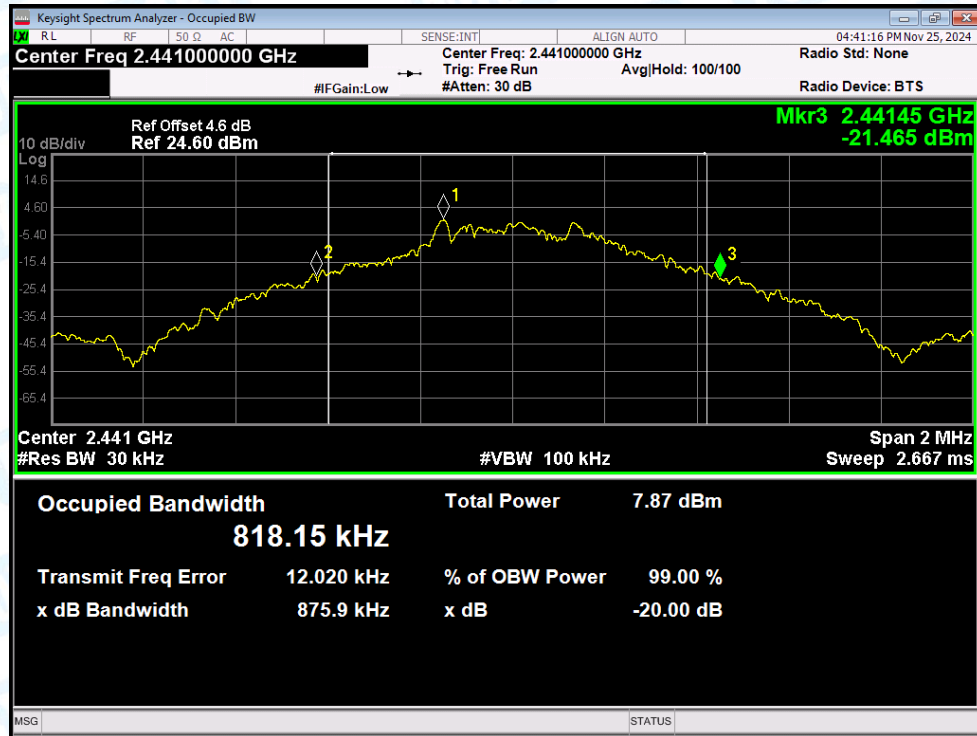
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.88	0	Pass
NVNT	1-DH1	2480	Ant1	0.86	0	Pass
NVNT	2-DH1	2402	Ant1	1.28	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.26	0	Pass
NVNT	3-DH1	2402	Ant1	1.21	0	Pass
NVNT	3-DH1	2441	Ant1	1.22	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

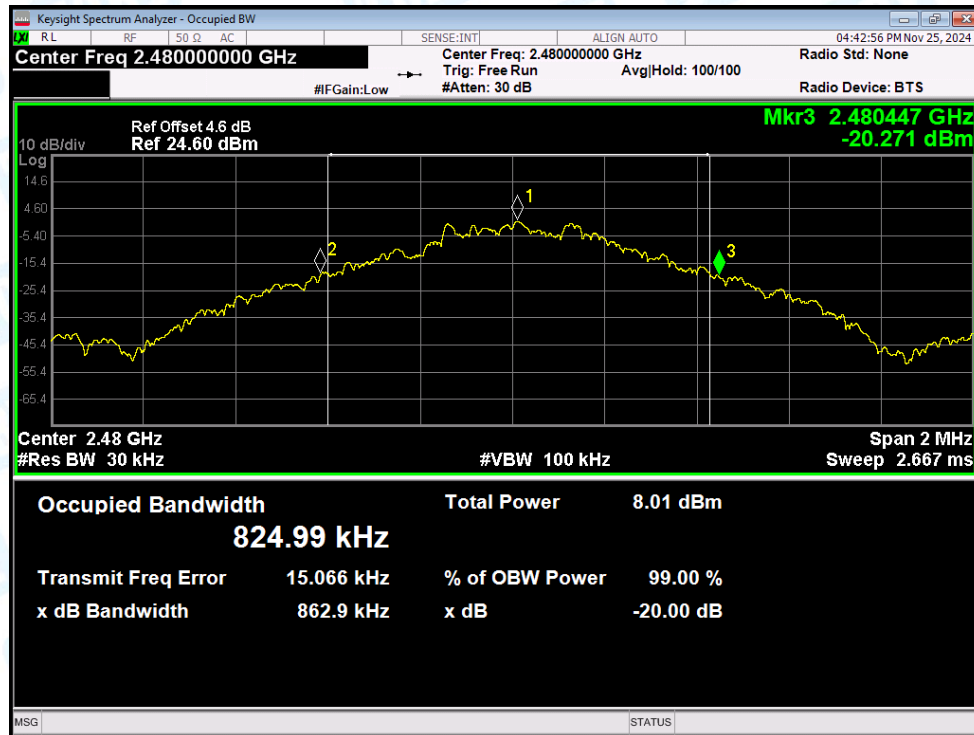
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



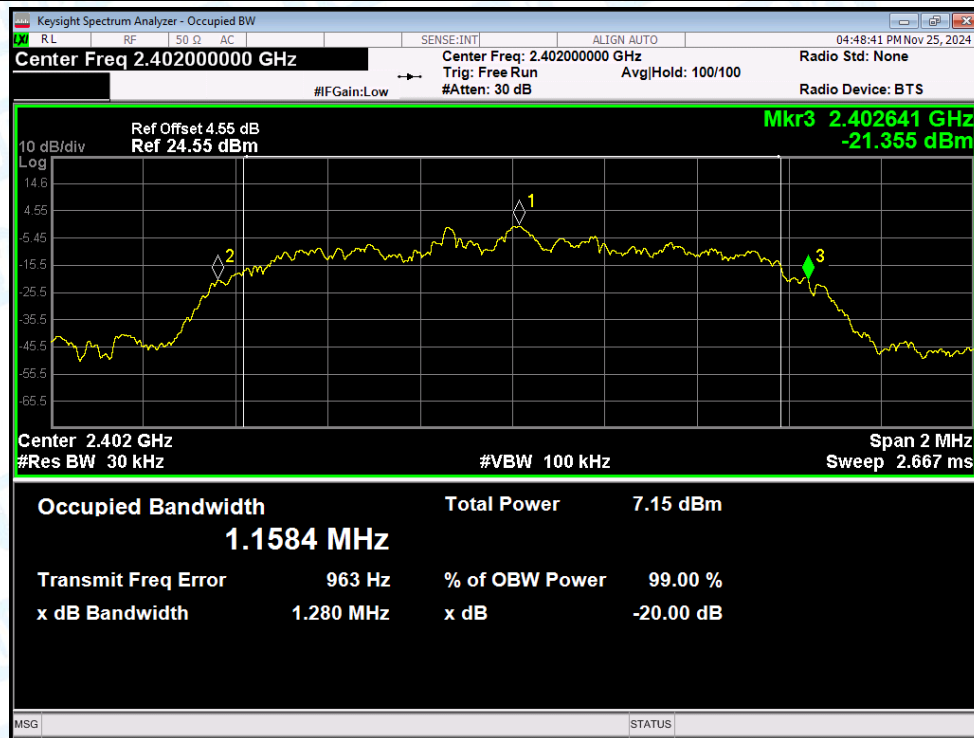
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



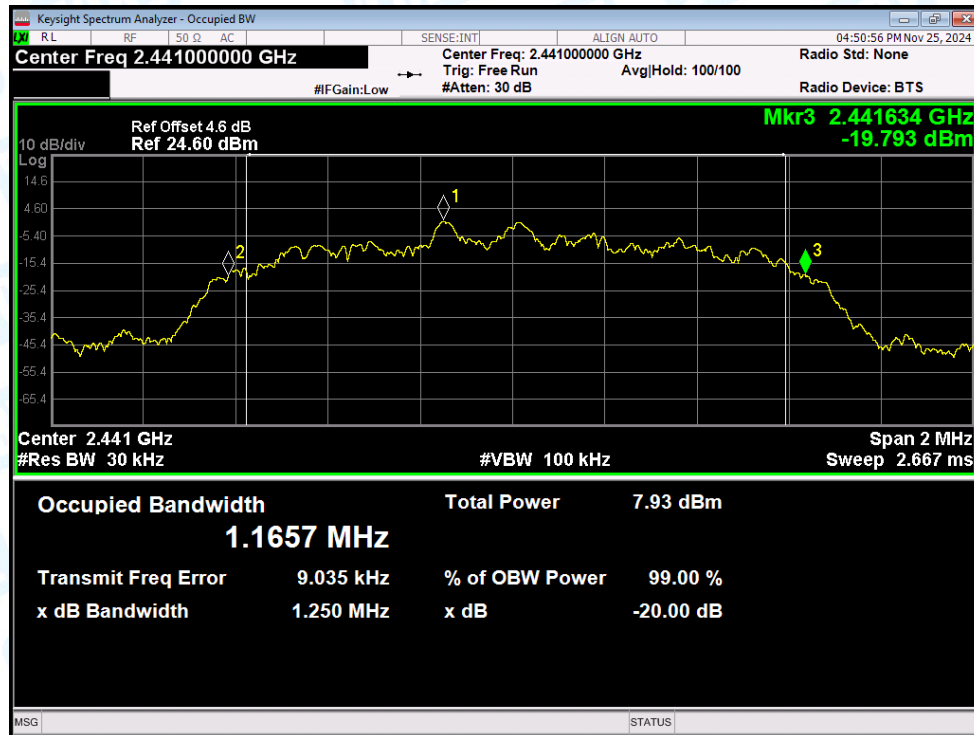
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



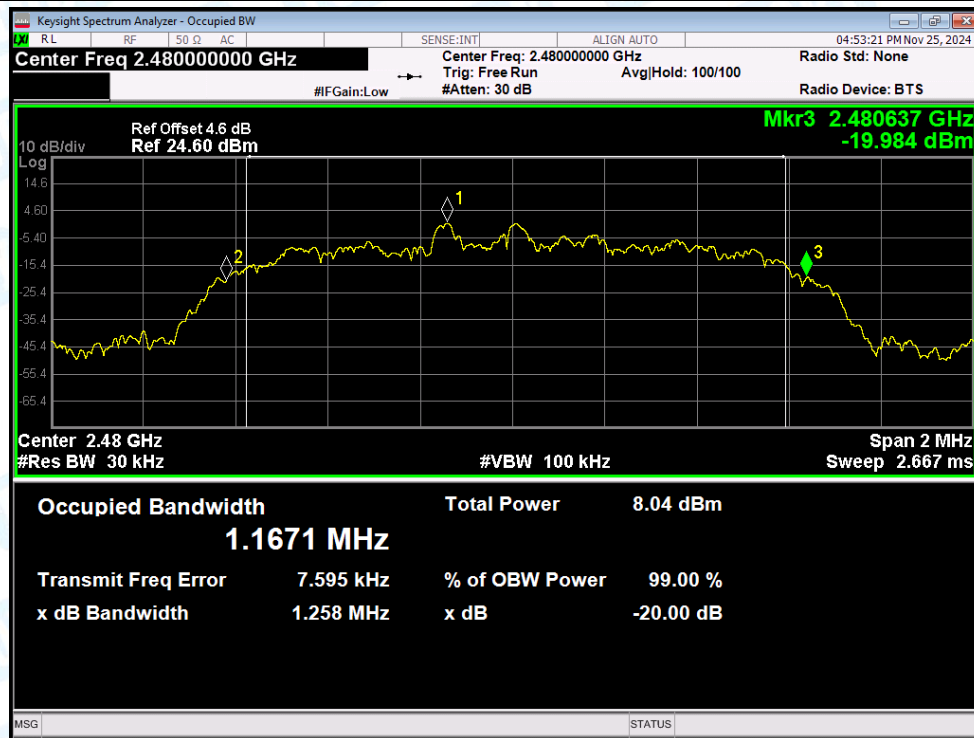
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



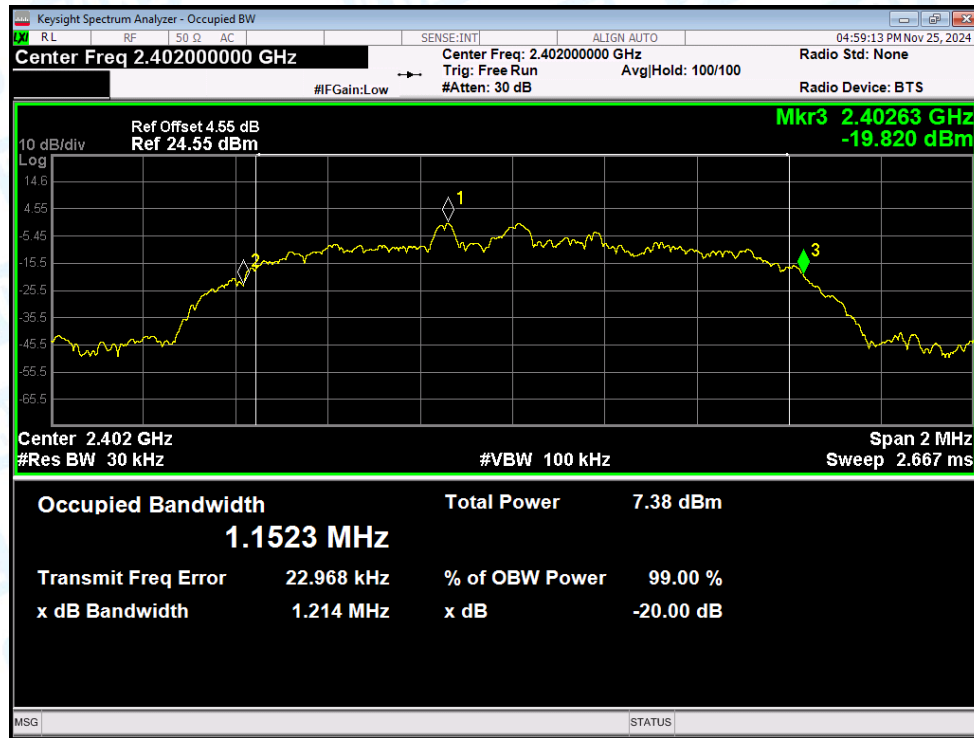
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



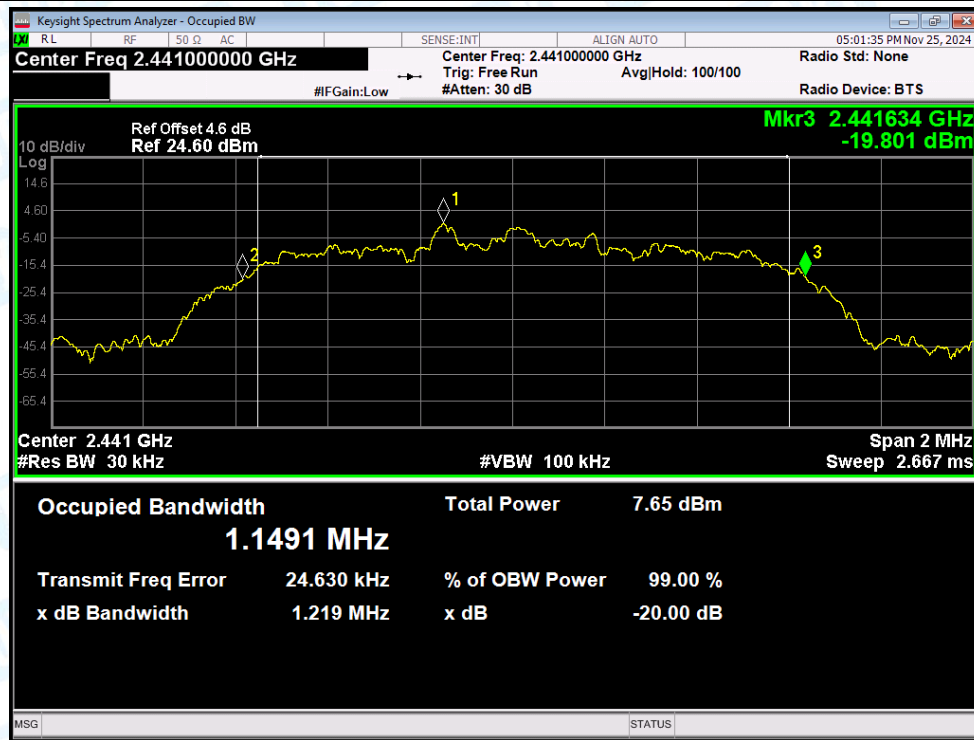
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

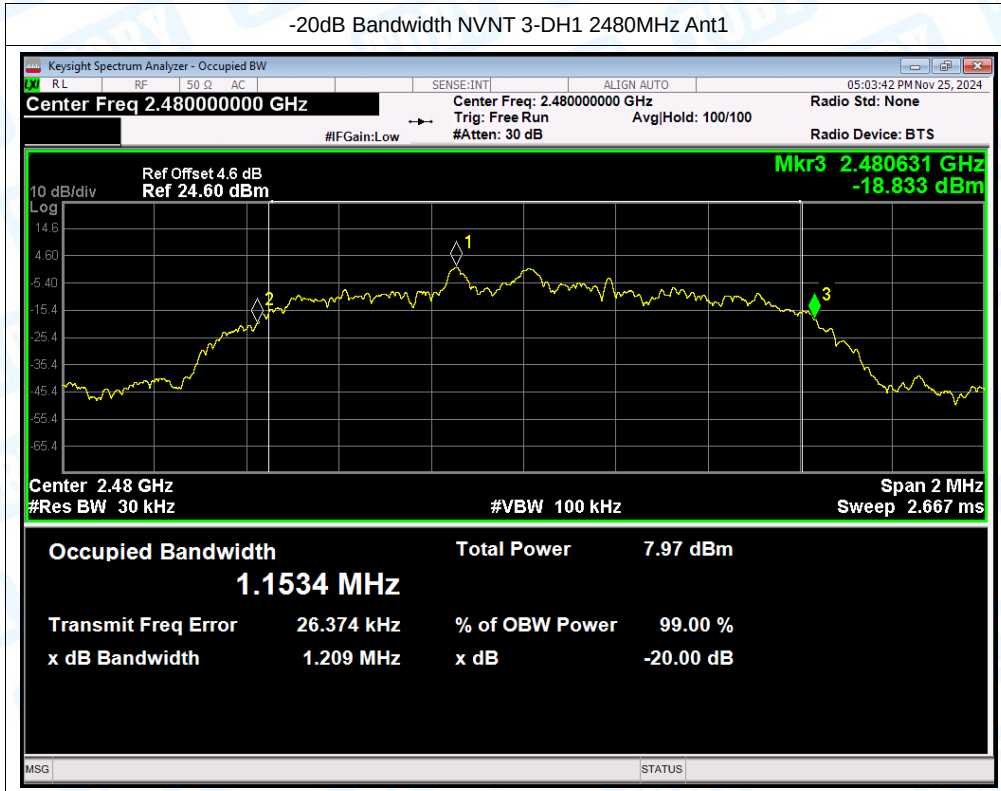


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



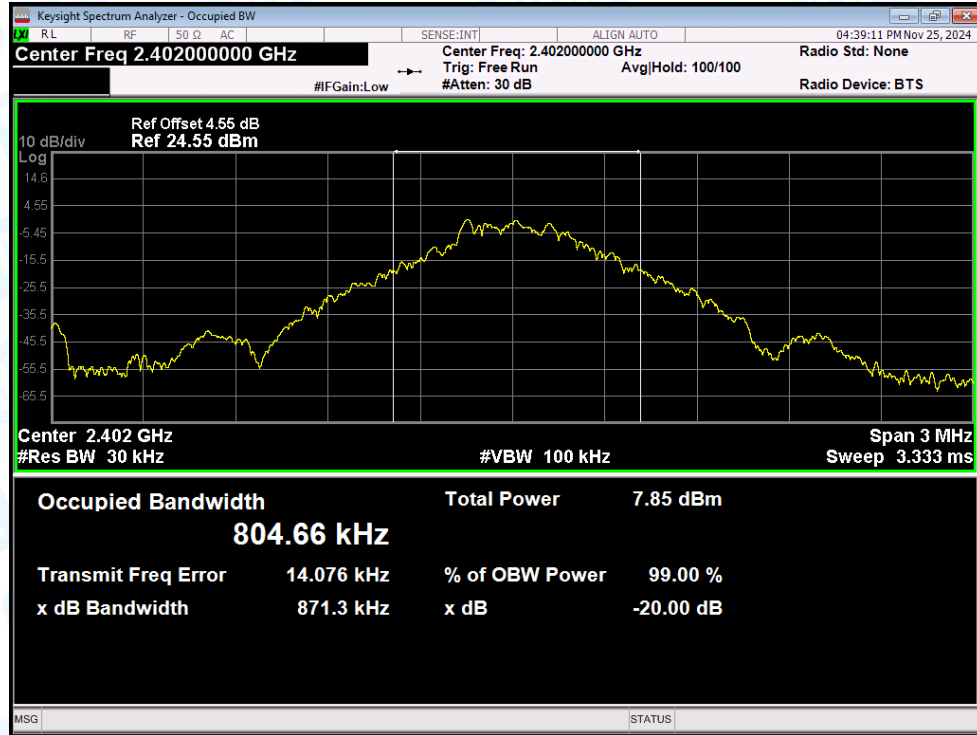


4.Occupied Channel Bandwidth

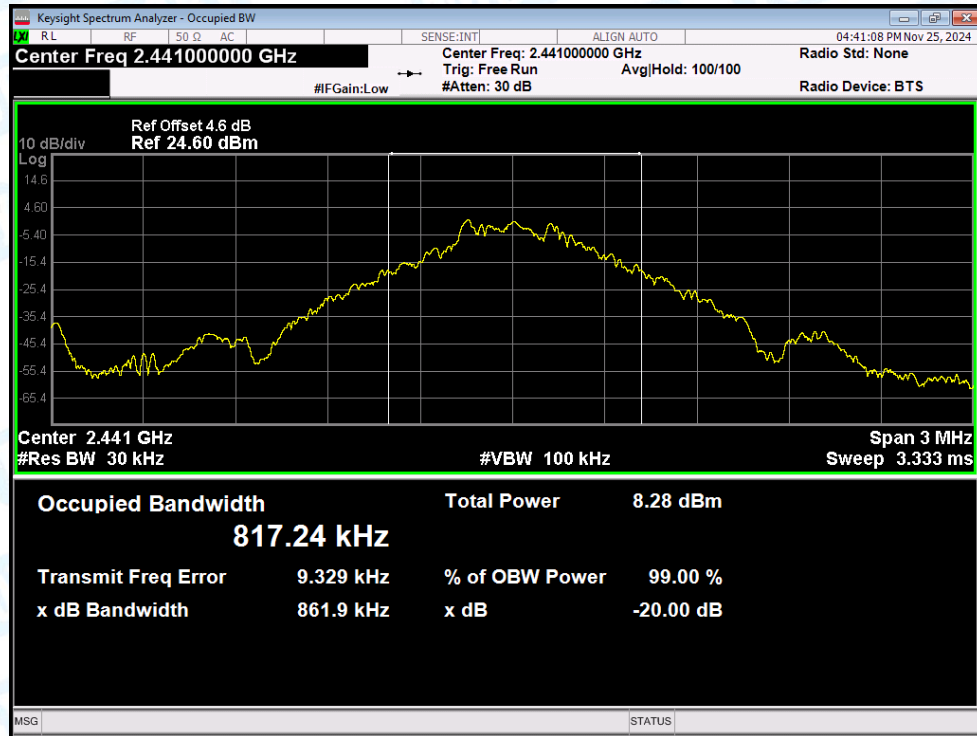
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.805
NVNT	1-DH1	2441	Ant1	0.817
NVNT	1-DH1	2480	Ant1	0.812
NVNT	2-DH1	2402	Ant1	1.162
NVNT	2-DH1	2441	Ant1	1.166
NVNT	2-DH1	2480	Ant1	1.157
NVNT	3-DH1	2402	Ant1	1.14
NVNT	3-DH1	2441	Ant1	1.148
NVNT	3-DH1	2480	Ant1	1.157

Test Graphs

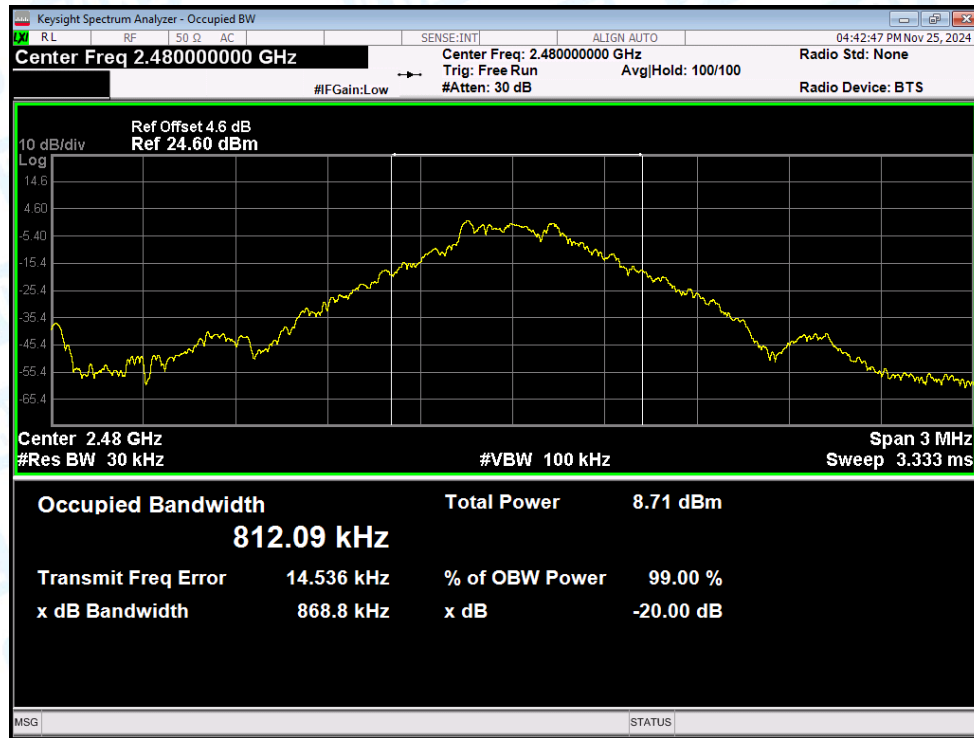
OBW NVNT 1-DH1 2402MHz Ant1



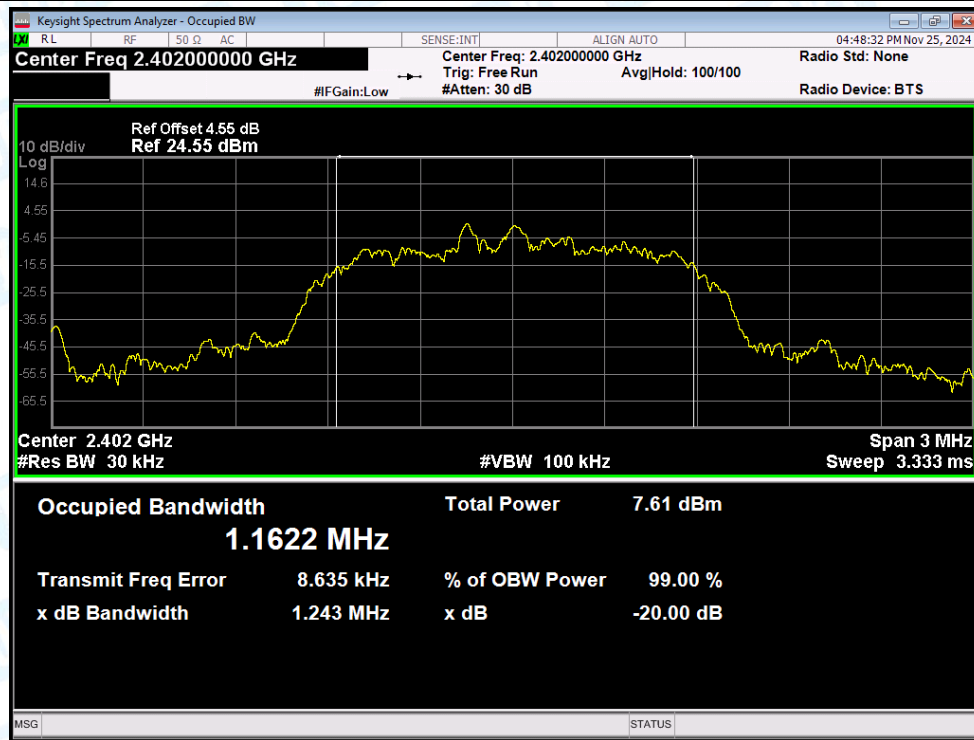
OBW NVNT 1-DH1 2441MHz Ant1



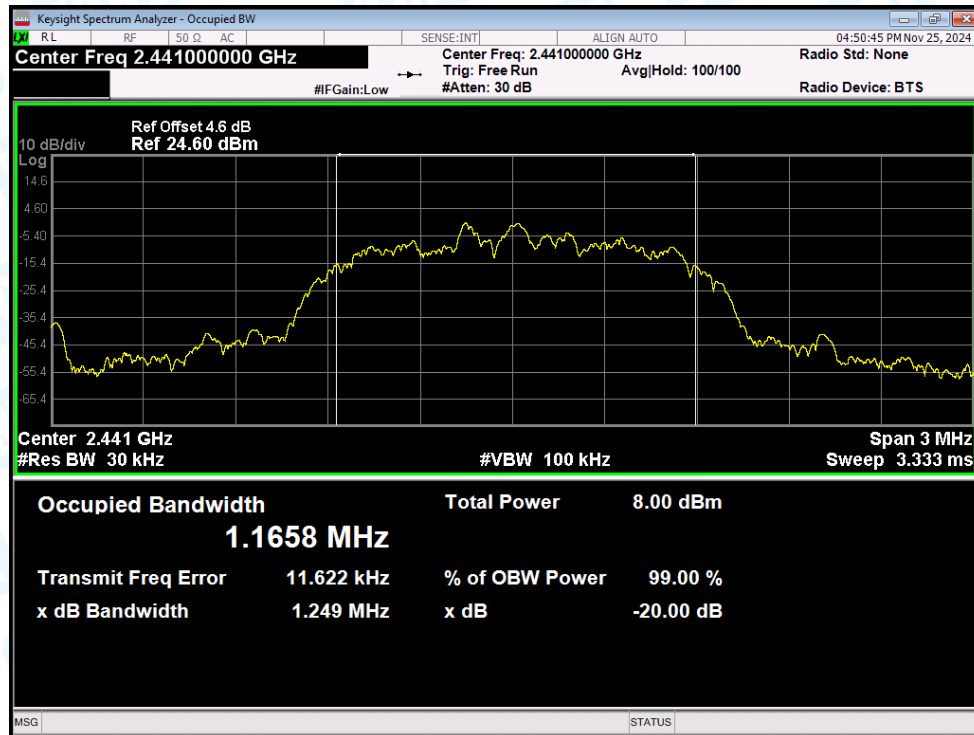
OBW NVNT 1-DH1 2480MHz Ant1



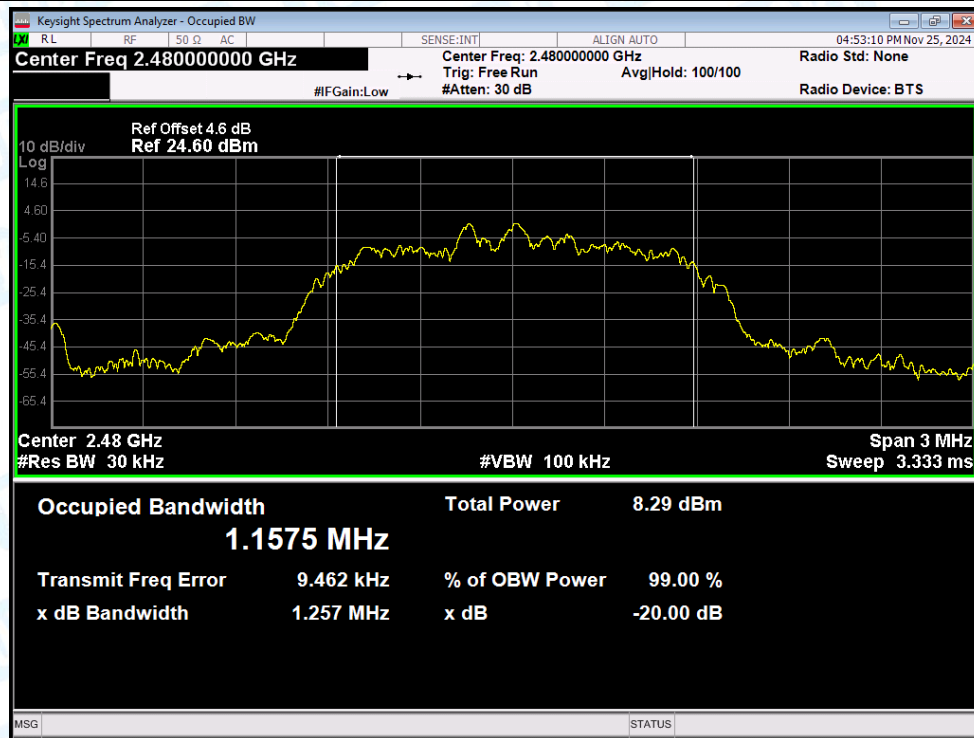
OBW NVNT 2-DH1 2402MHz Ant1



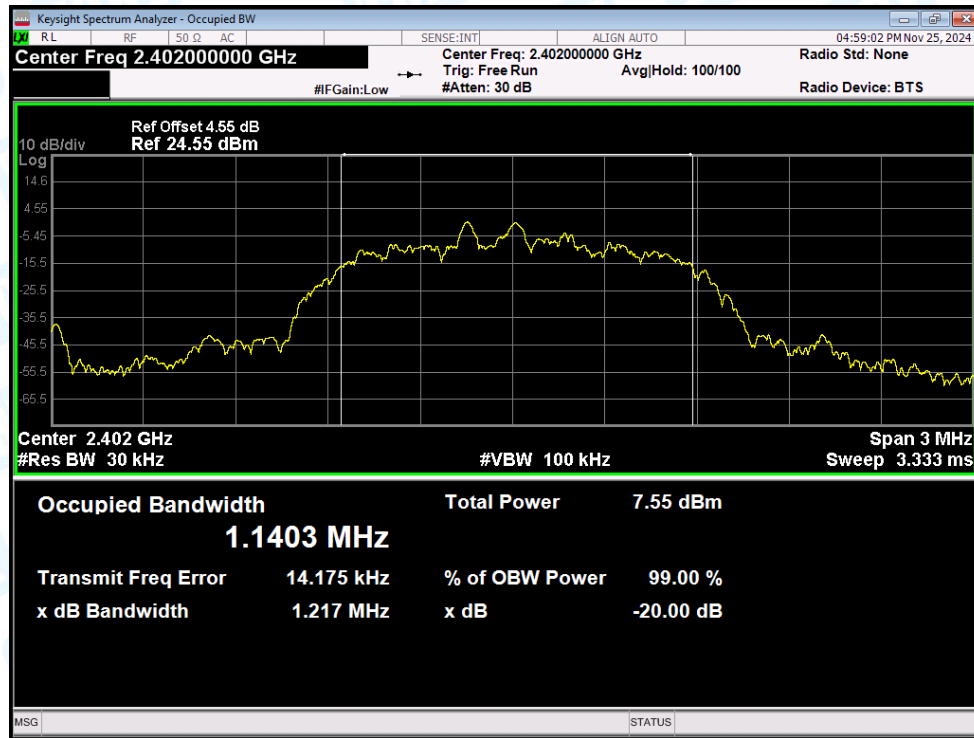
OBW NVNT 2-DH1 2441MHz Ant1



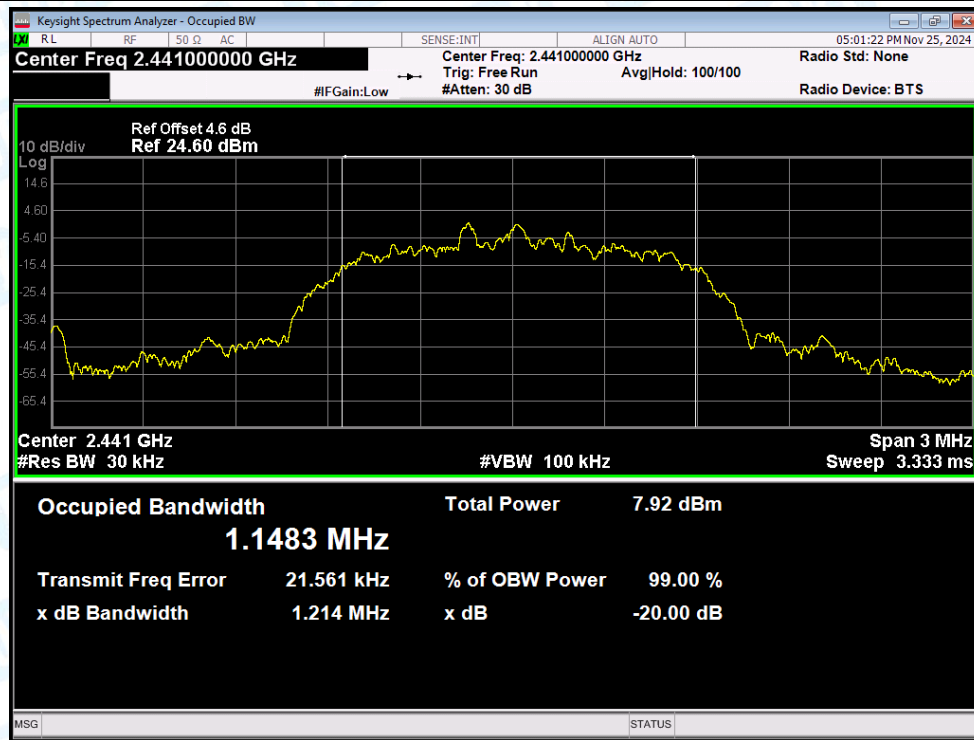
OBW NVNT 2-DH1 2480MHz Ant1

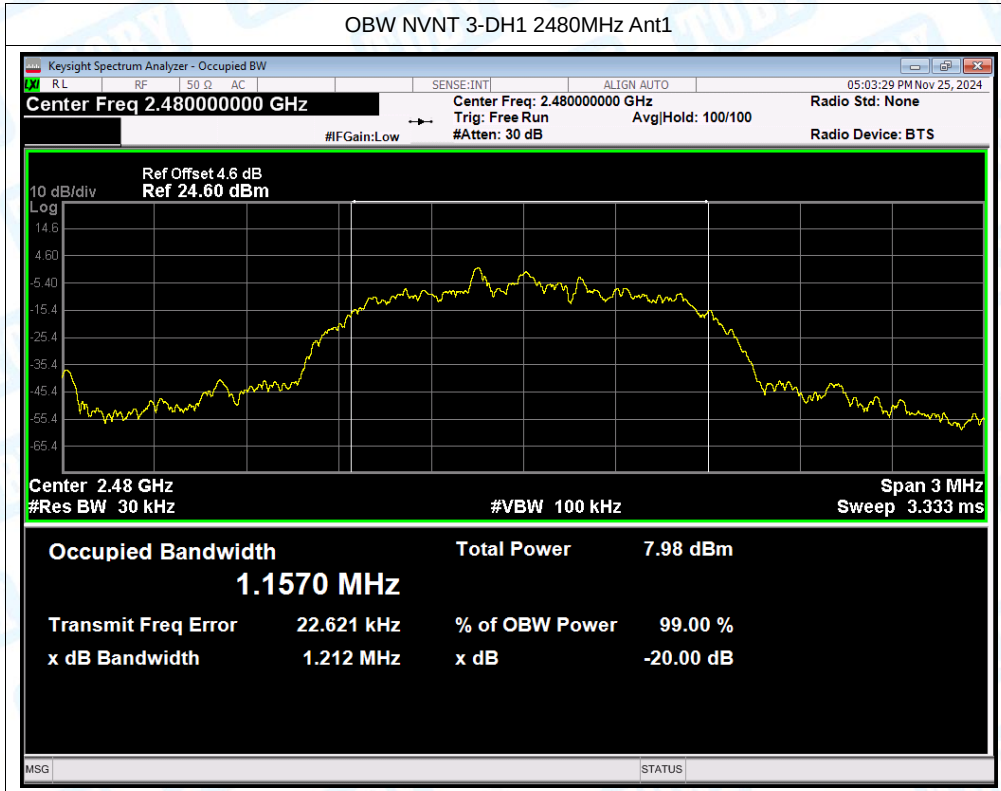


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



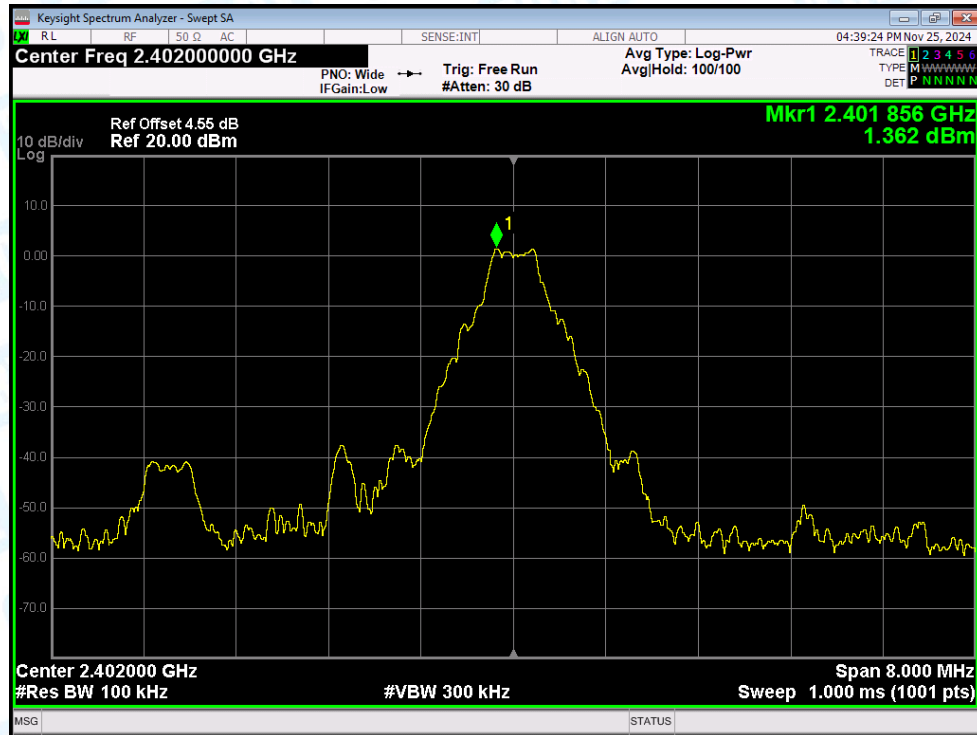


5.Band Edge

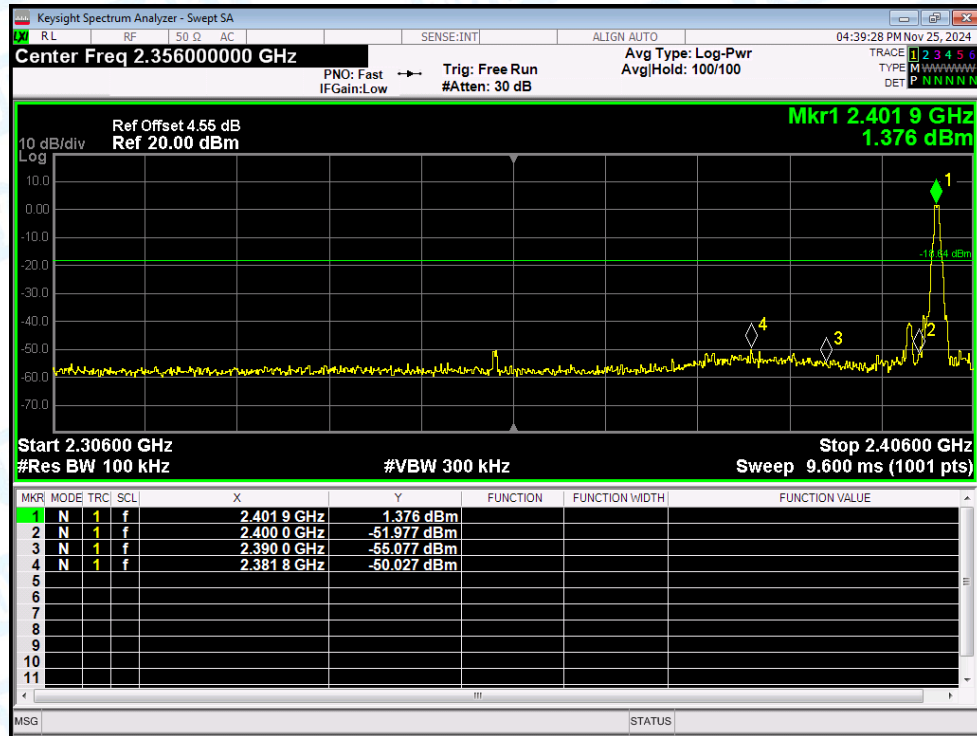
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-51.39	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-47.79	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-52.64	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-49.39	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-51.89	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-50.12	-20	Pass

Test Graphs

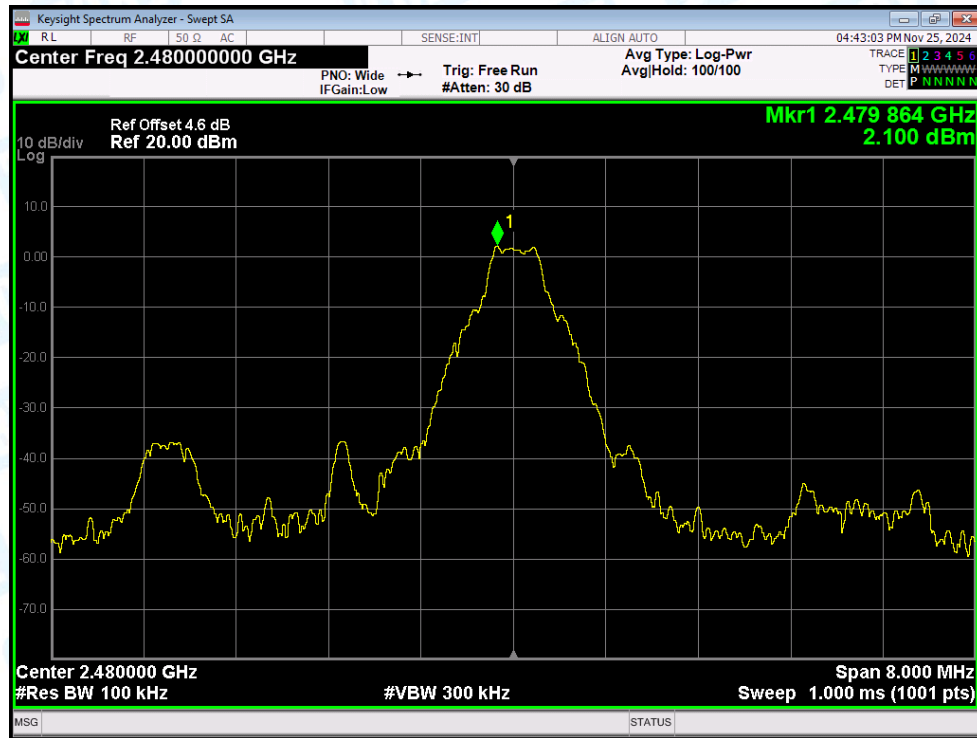
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



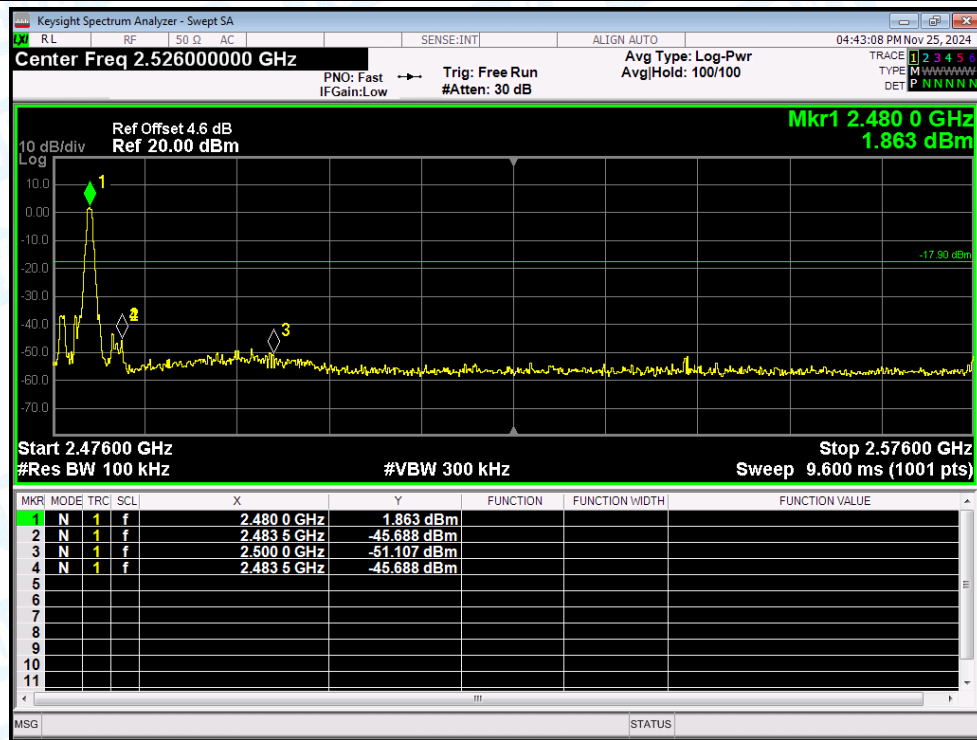
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission

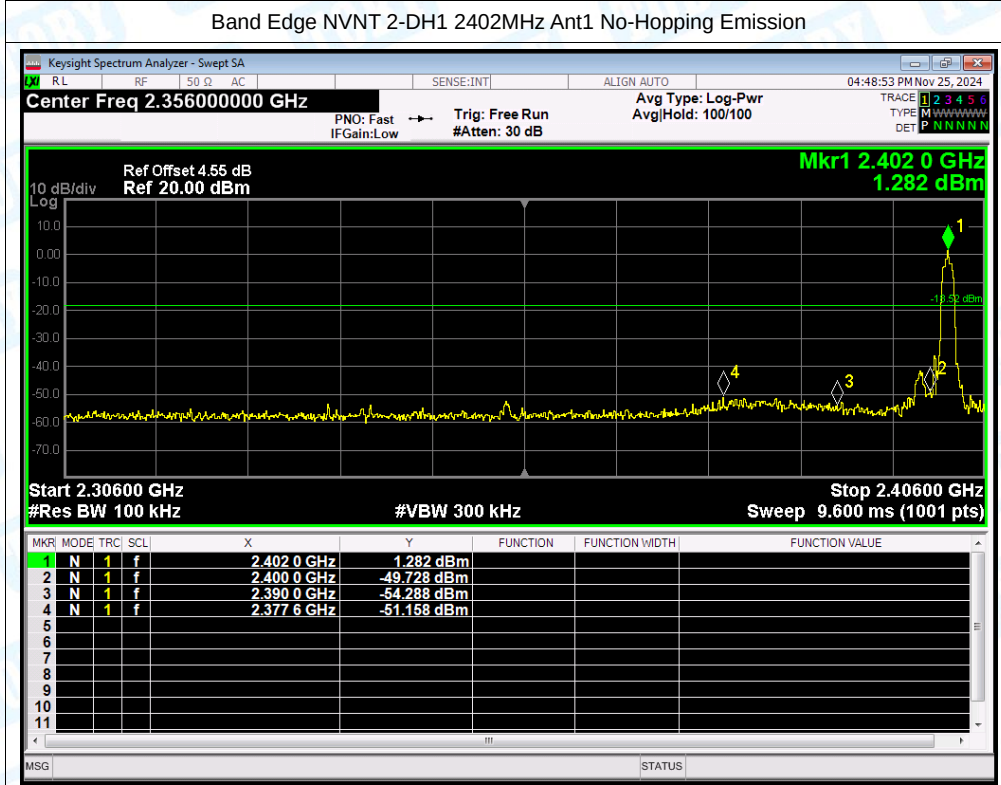


Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



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

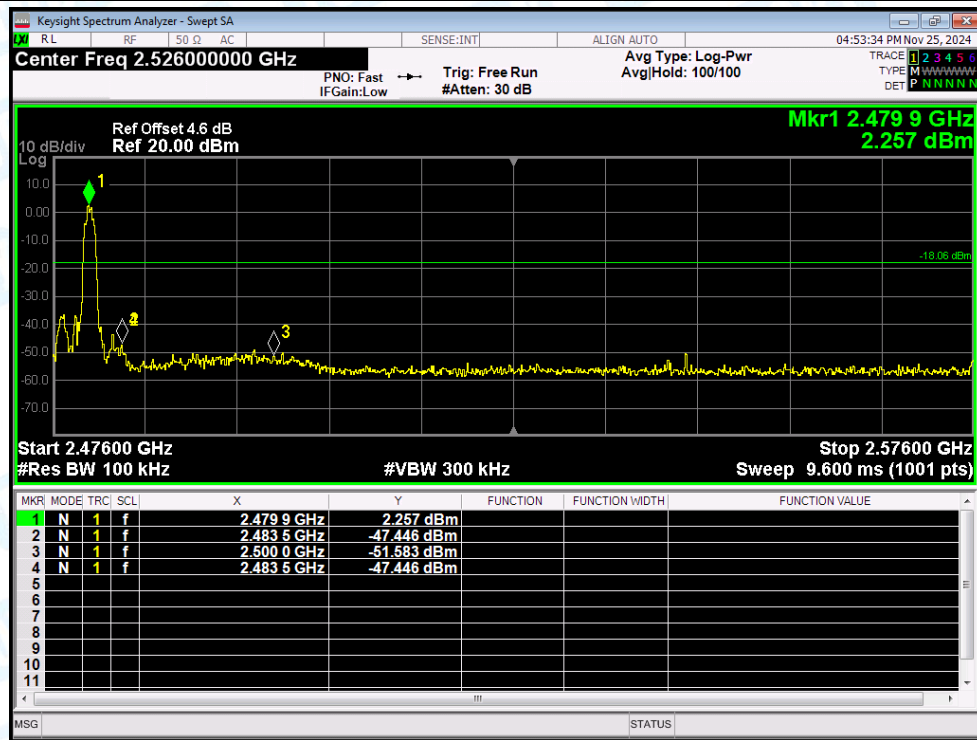


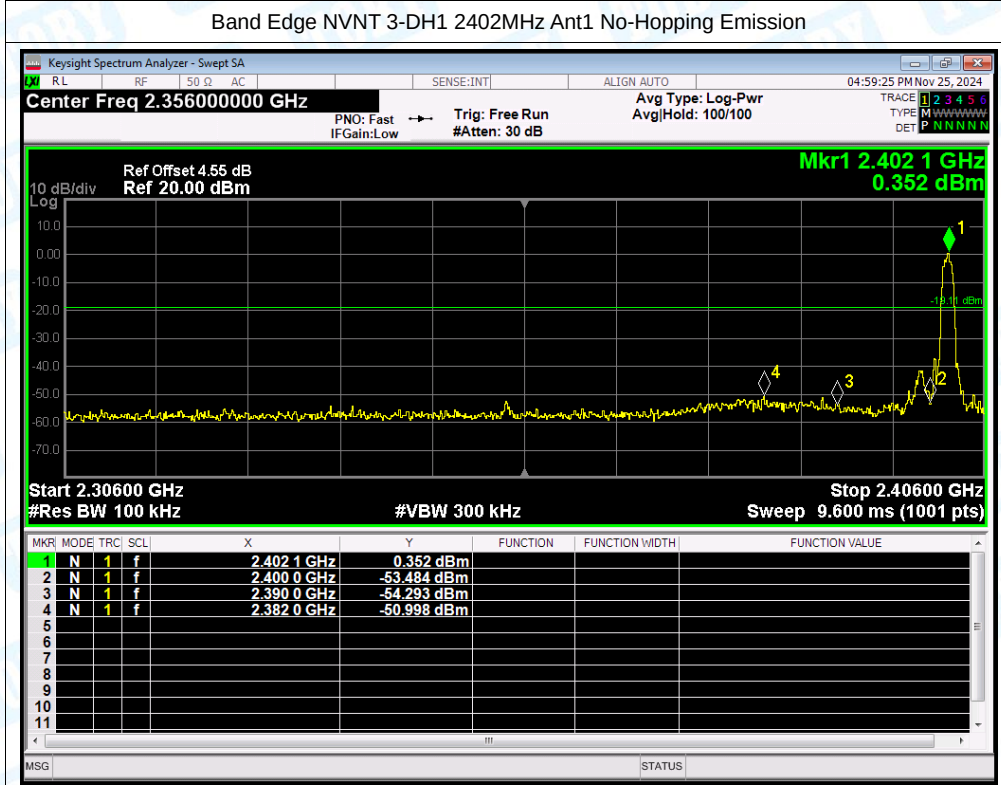
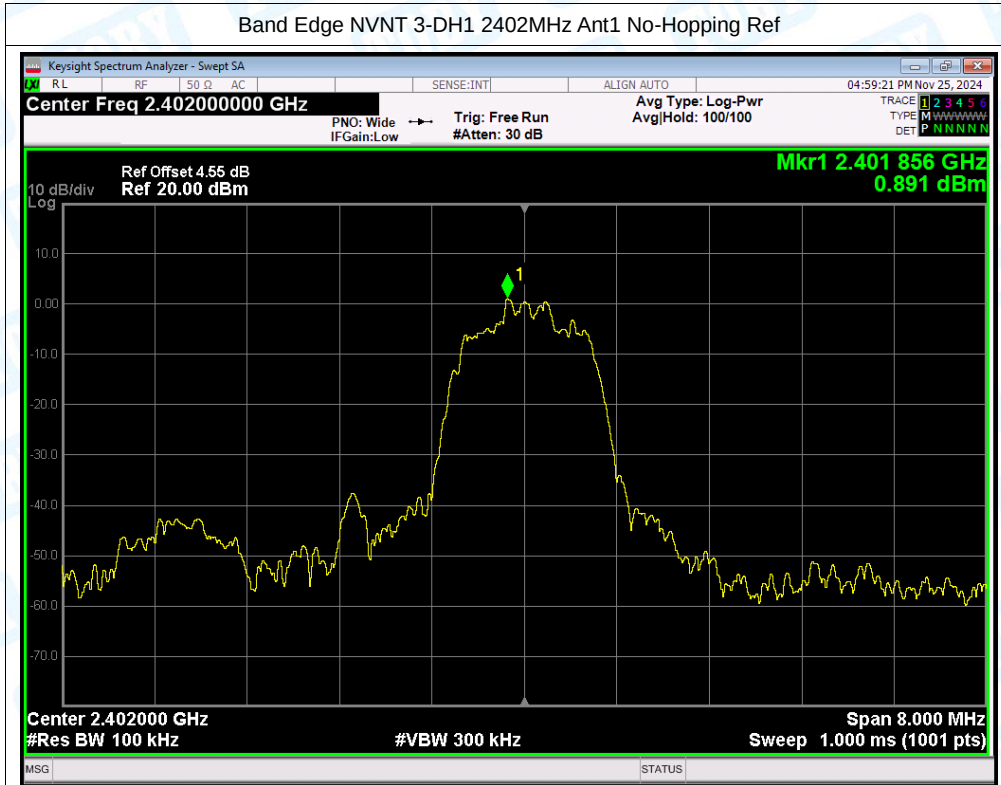


Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref

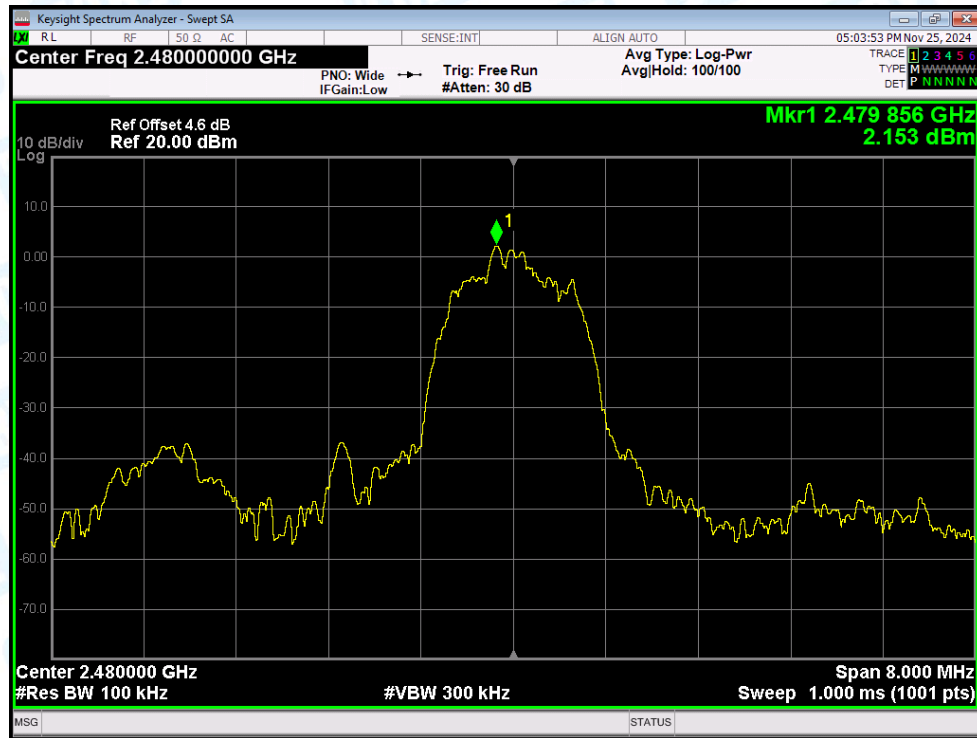


Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission

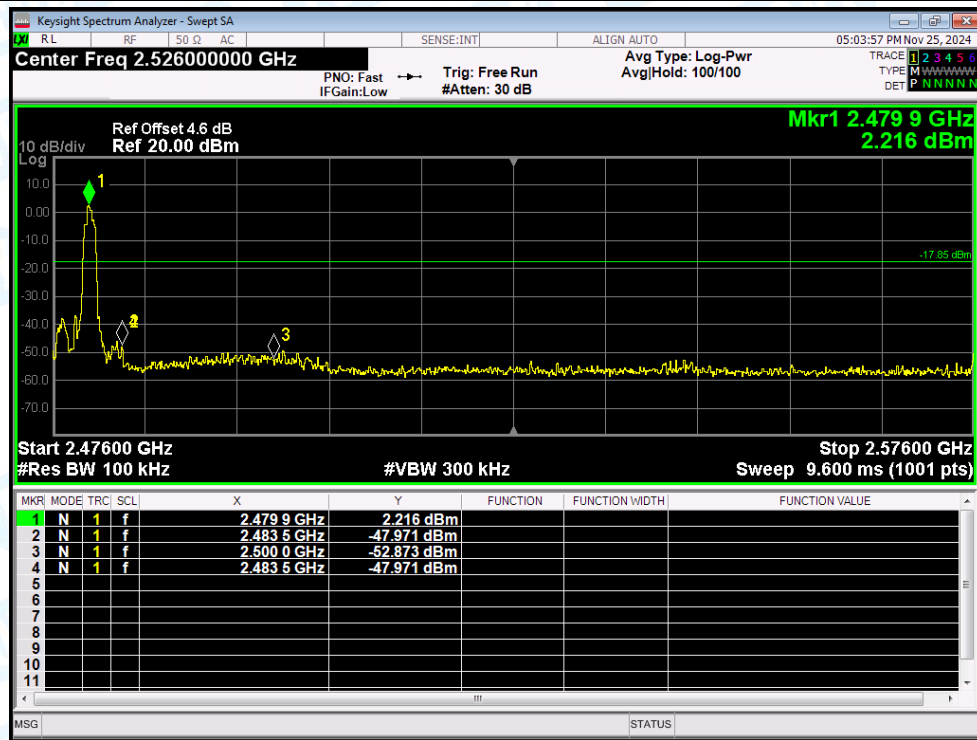




Band Edge NVNT 3-DH1 2480MHz Ant1 No-Hopping Ref



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

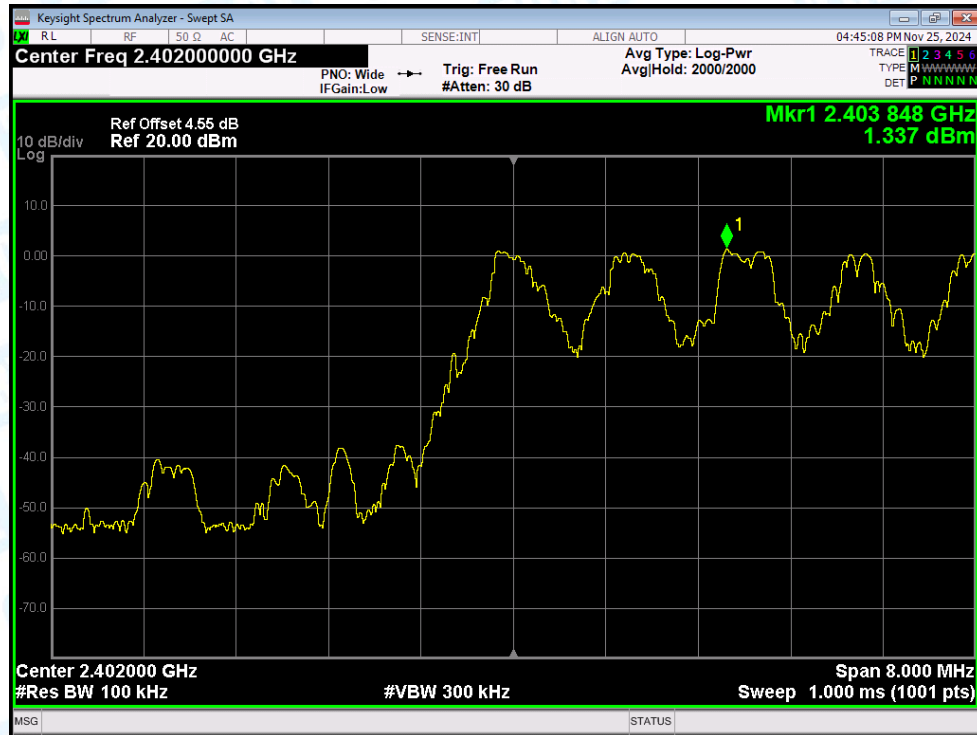


6.Band Edge(Hopping)

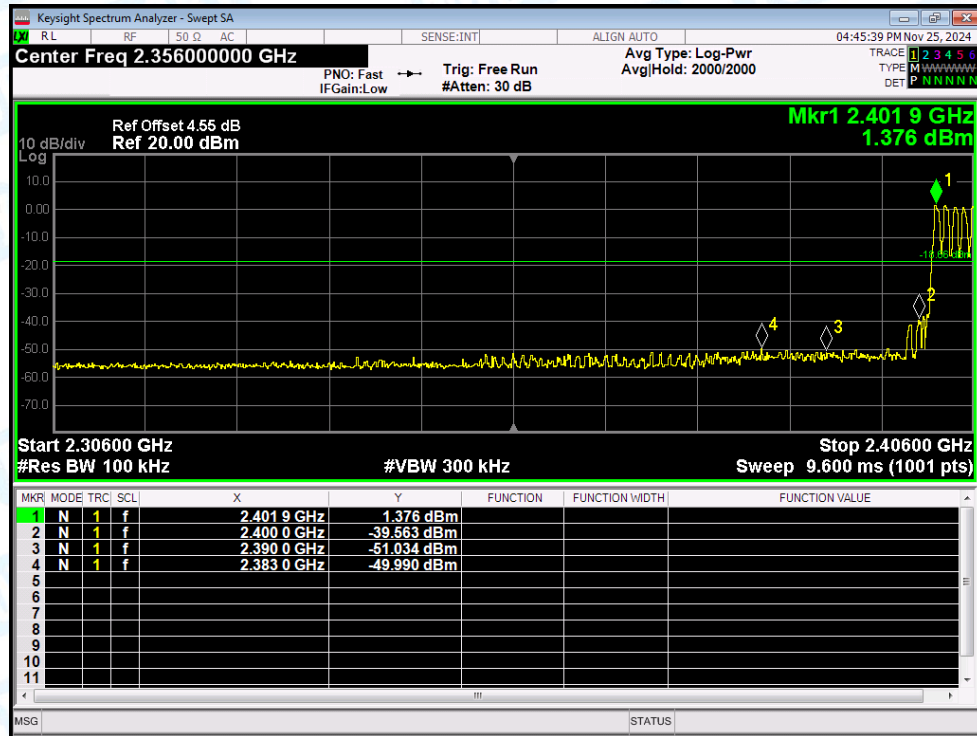
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-51.33	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-48.22	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-51.74	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-51.28	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-51.75	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-51.68	-20	Pass

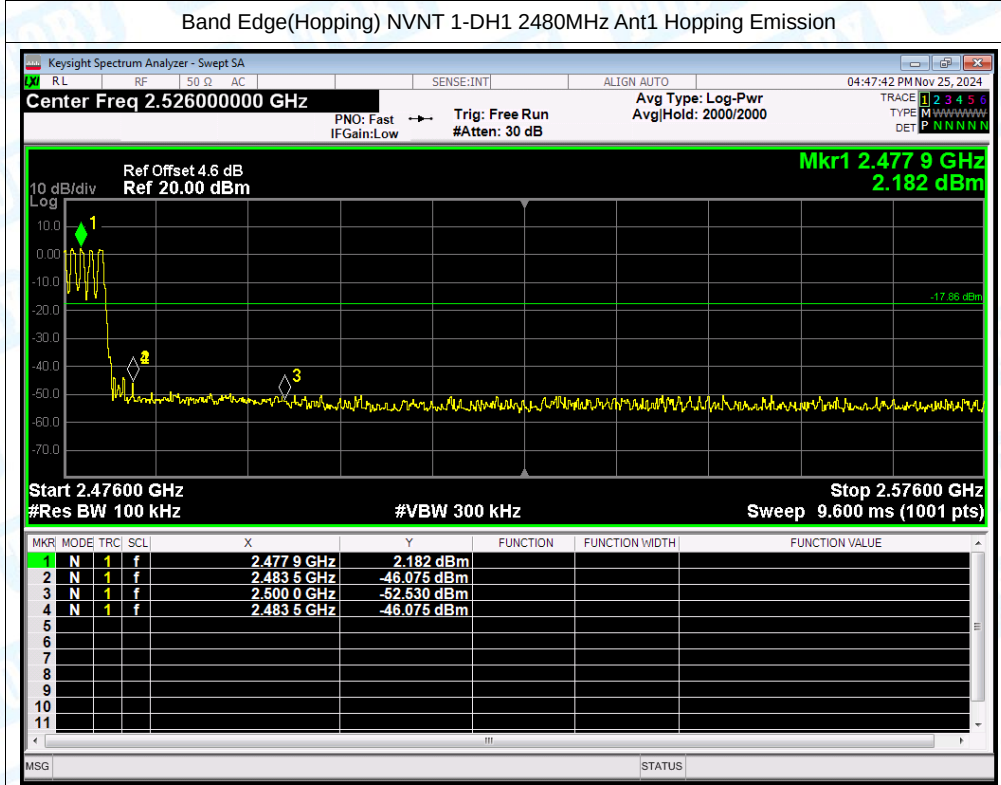
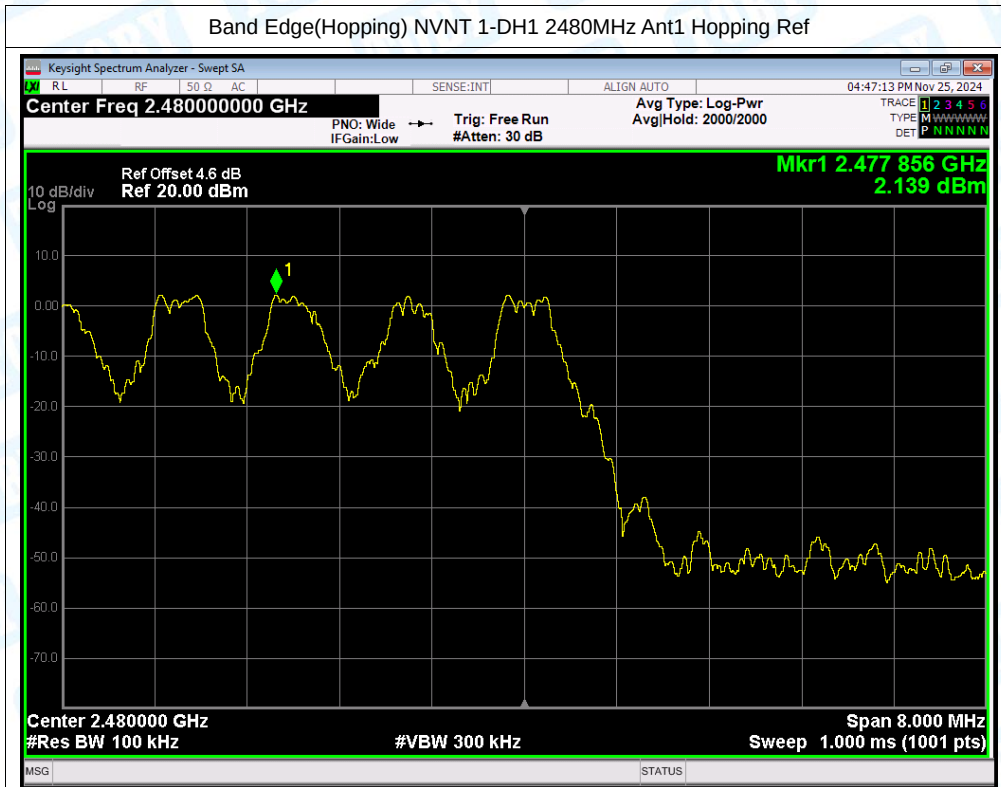
Test Graphs

Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref

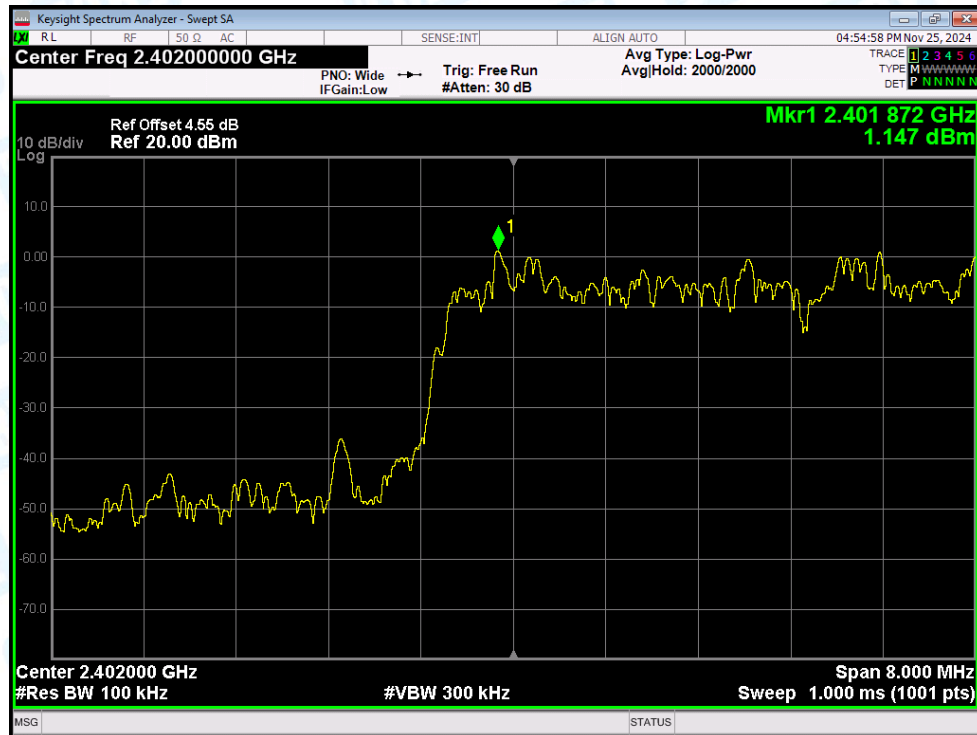


Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission

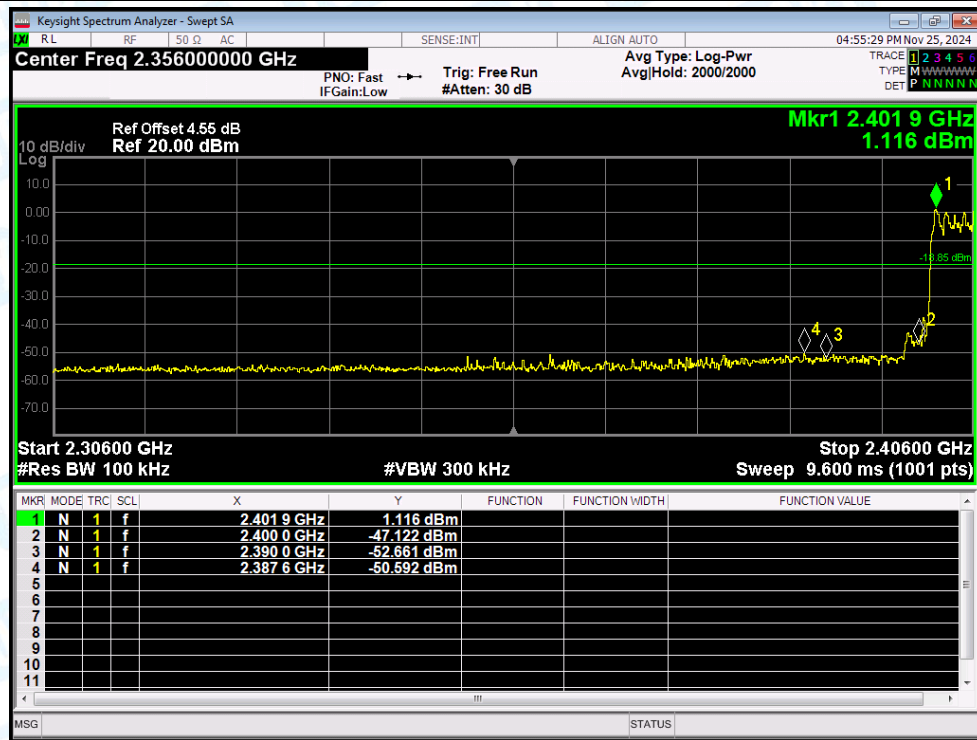


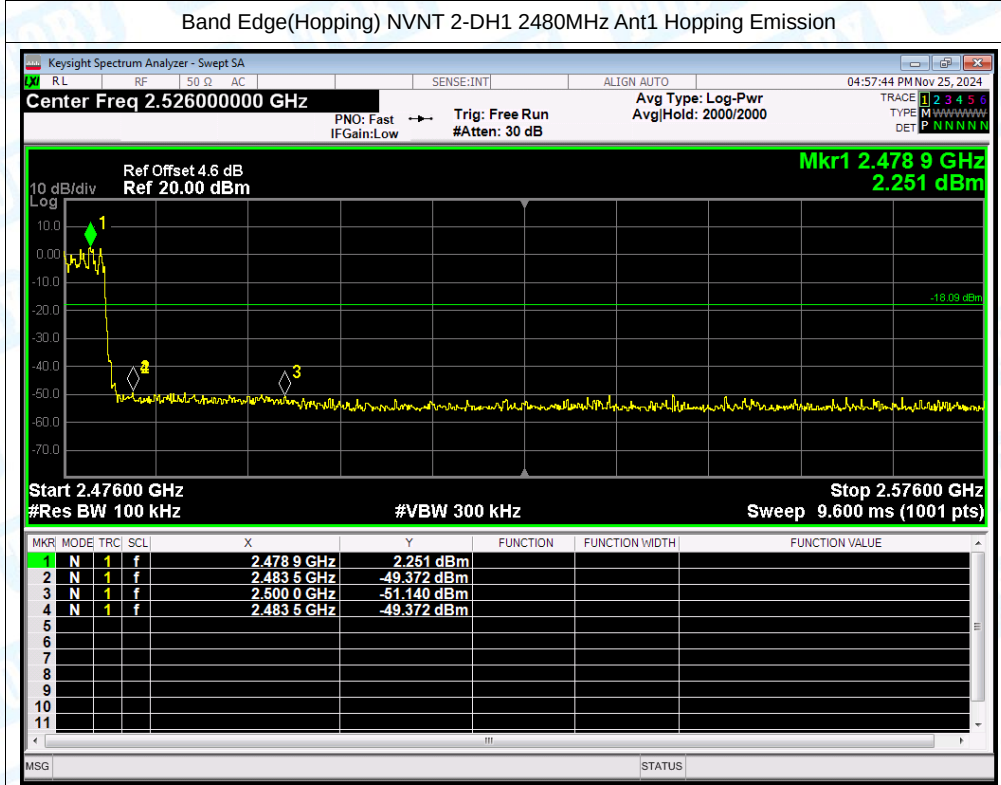


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



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

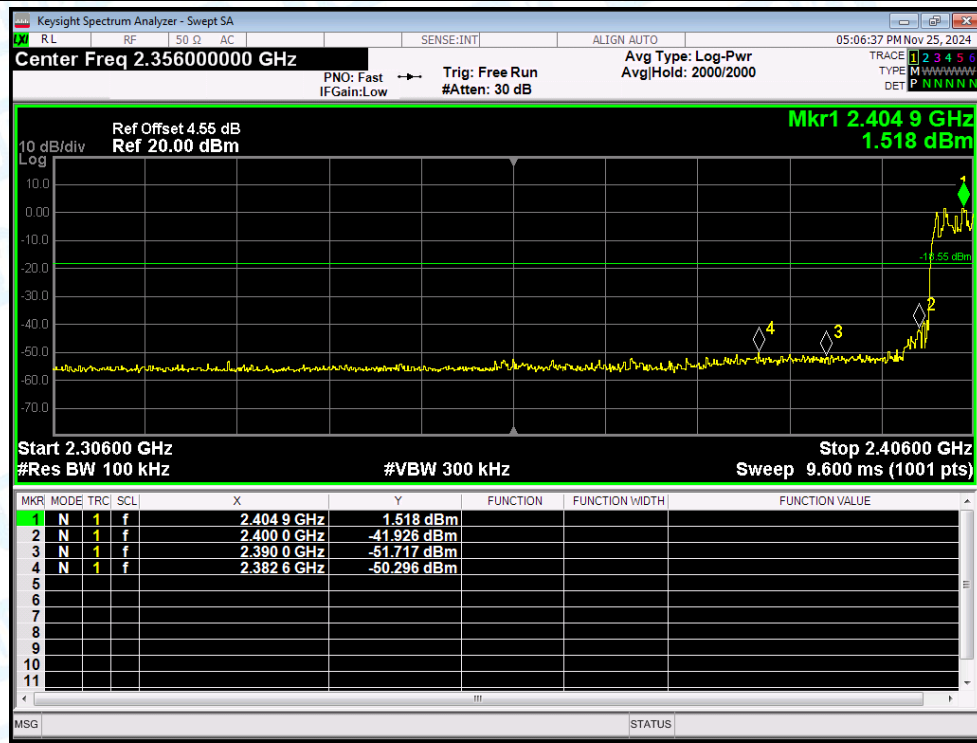


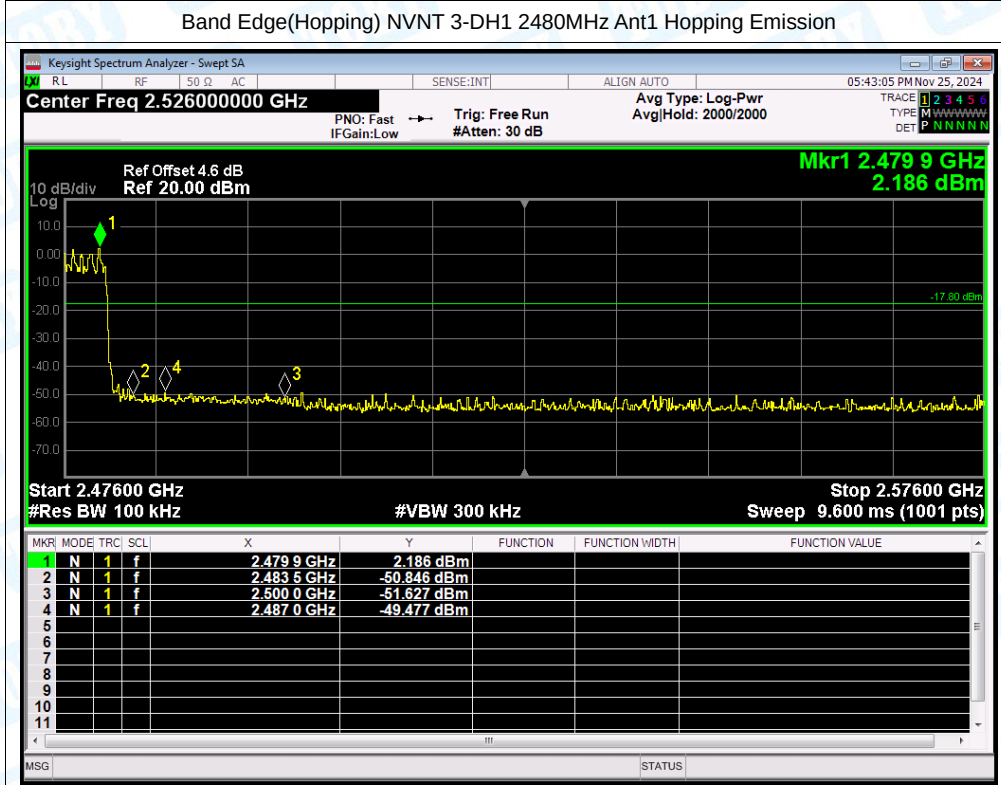


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Ref



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



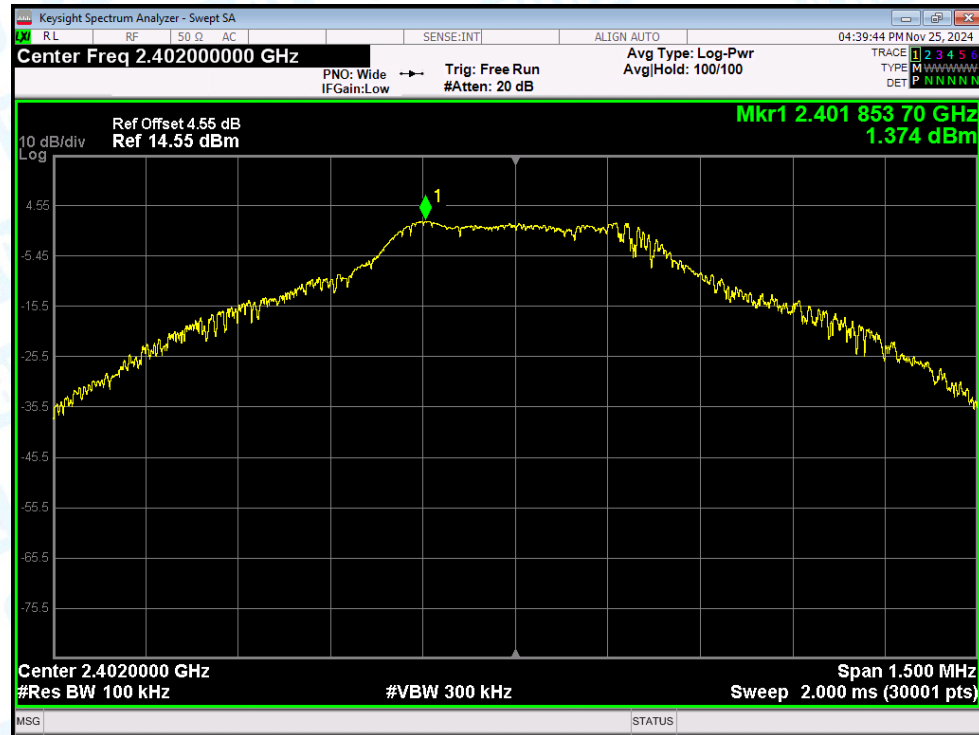


7. Conducted RF Spurious Emission

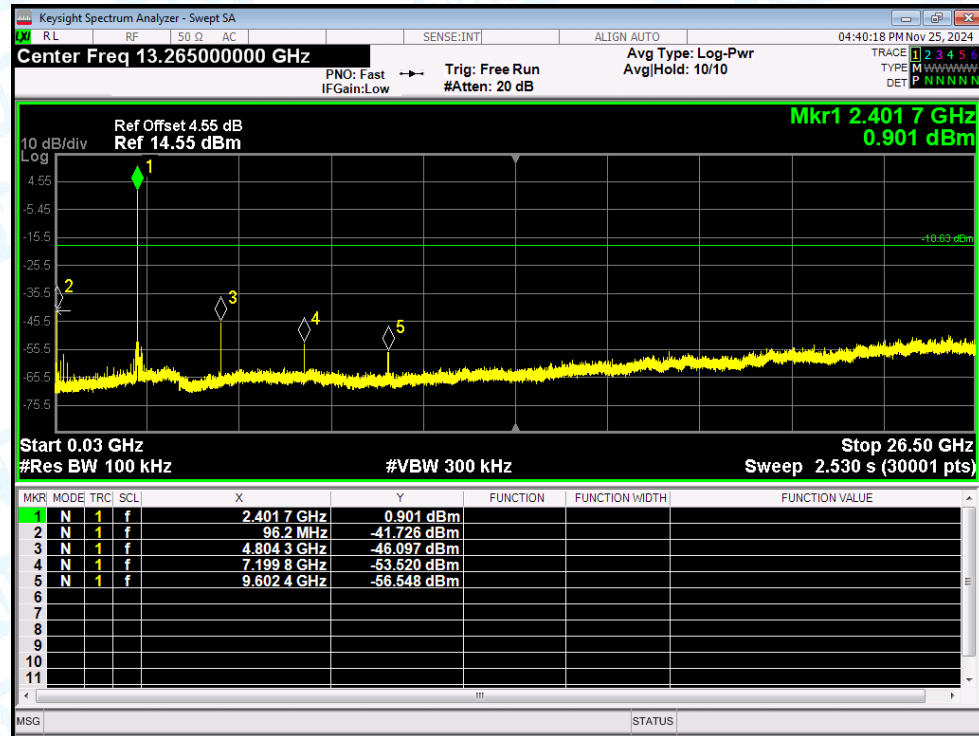
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-43.1	-20	Pass
NVNT	1-DH1	2441	Ant1	-48.97	-20	Pass
NVNT	1-DH1	2480	Ant1	-43.17	-20	Pass
NVNT	2-DH1	2402	Ant1	-43.45	-20	Pass
NVNT	2-DH1	2441	Ant1	-47.43	-20	Pass
NVNT	2-DH1	2480	Ant1	-42.78	-20	Pass
NVNT	3-DH1	2402	Ant1	-42.18	-20	Pass
NVNT	3-DH1	2441	Ant1	-49.07	-20	Pass
NVNT	3-DH1	2480	Ant1	-43.61	-20	Pass

Test Graphs

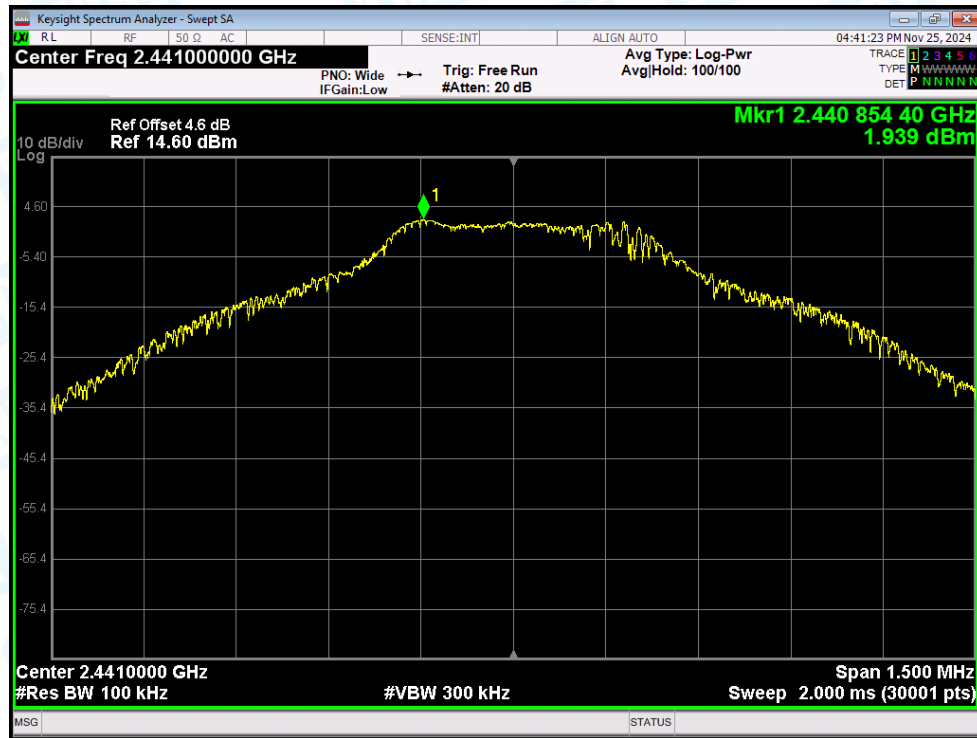
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



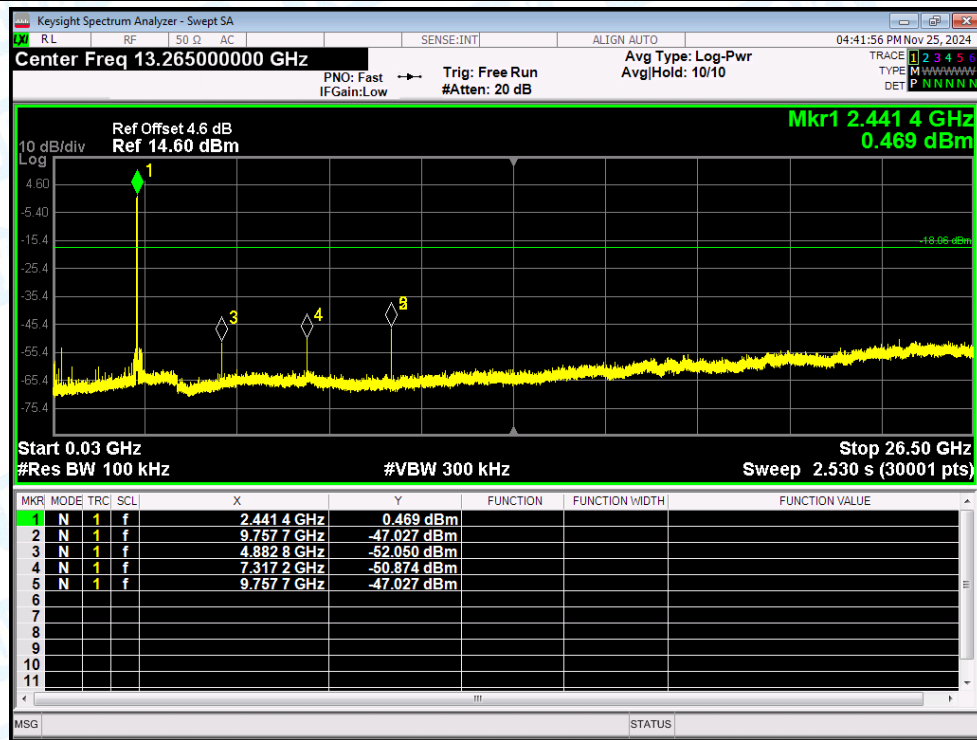
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



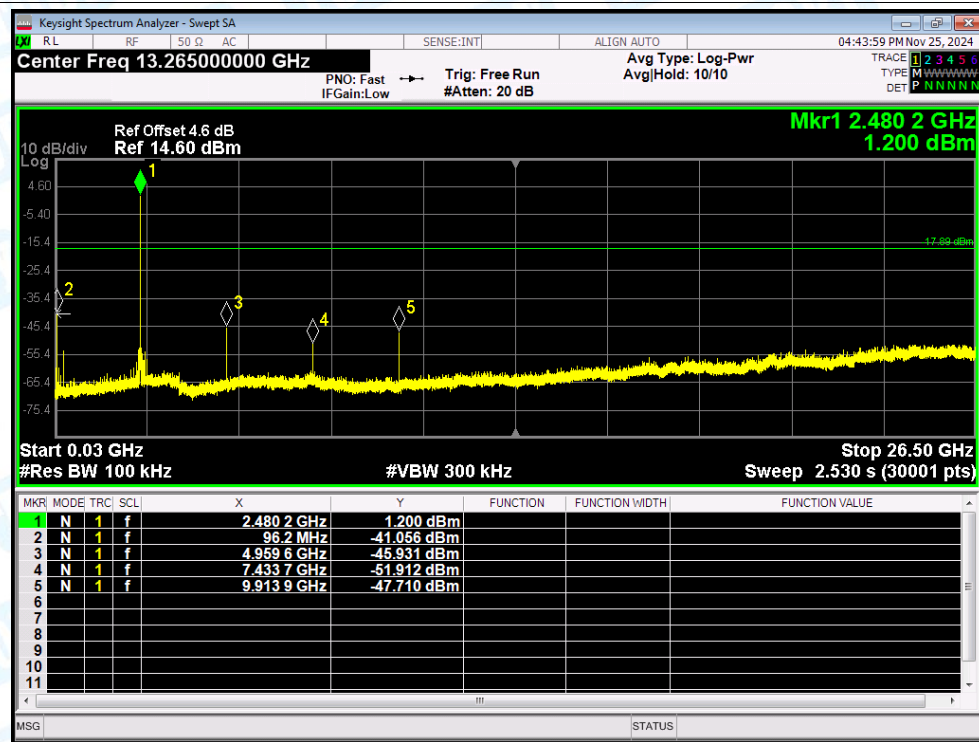
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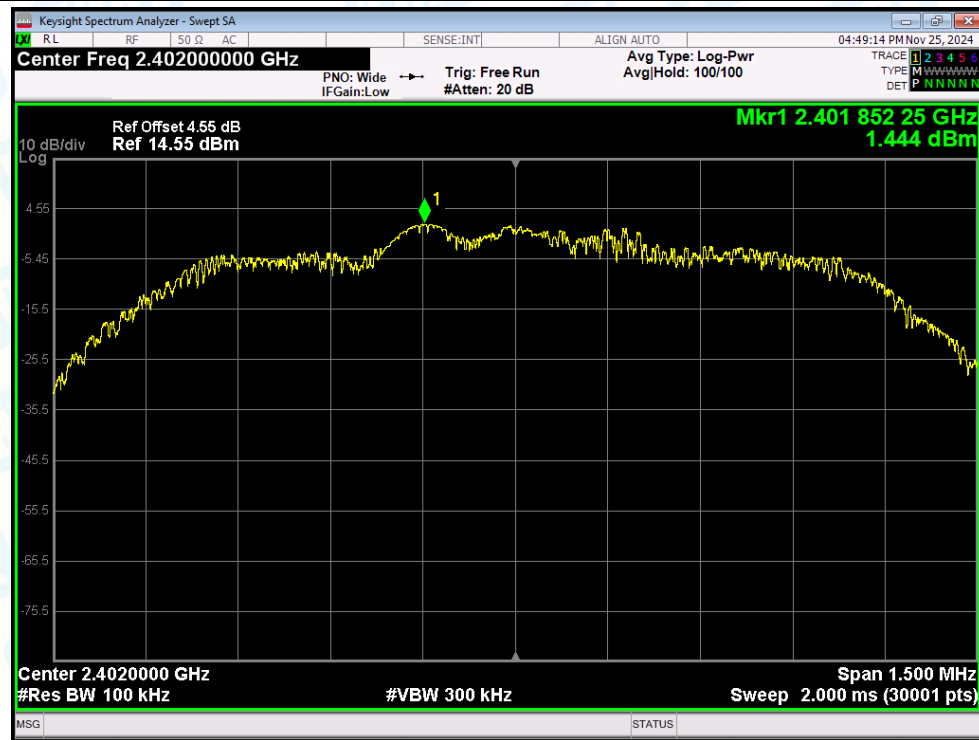
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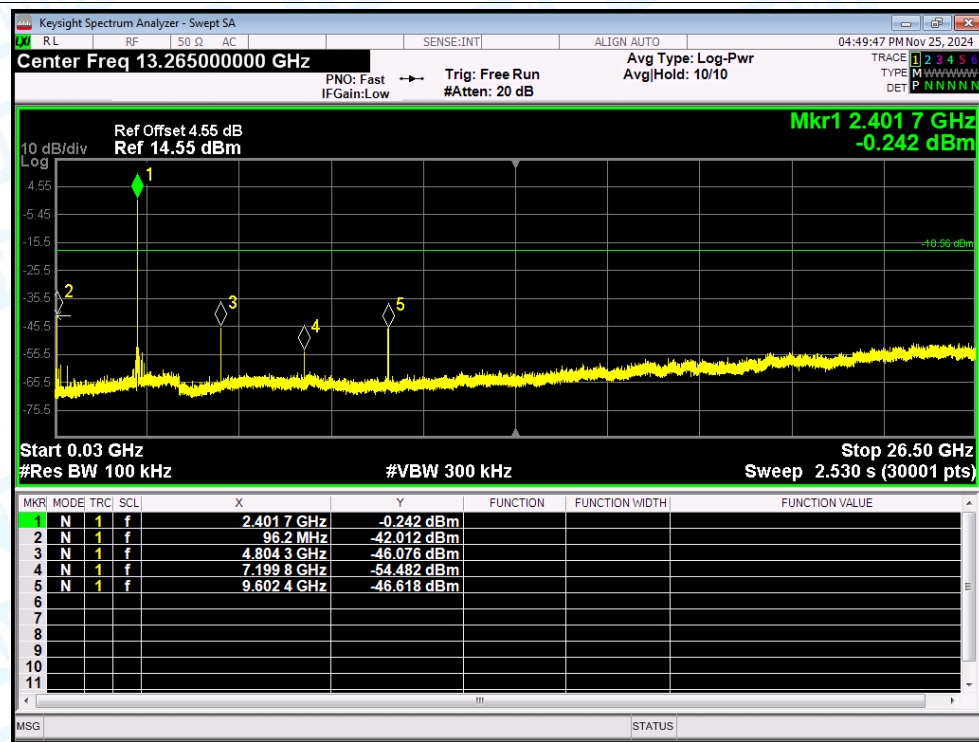
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



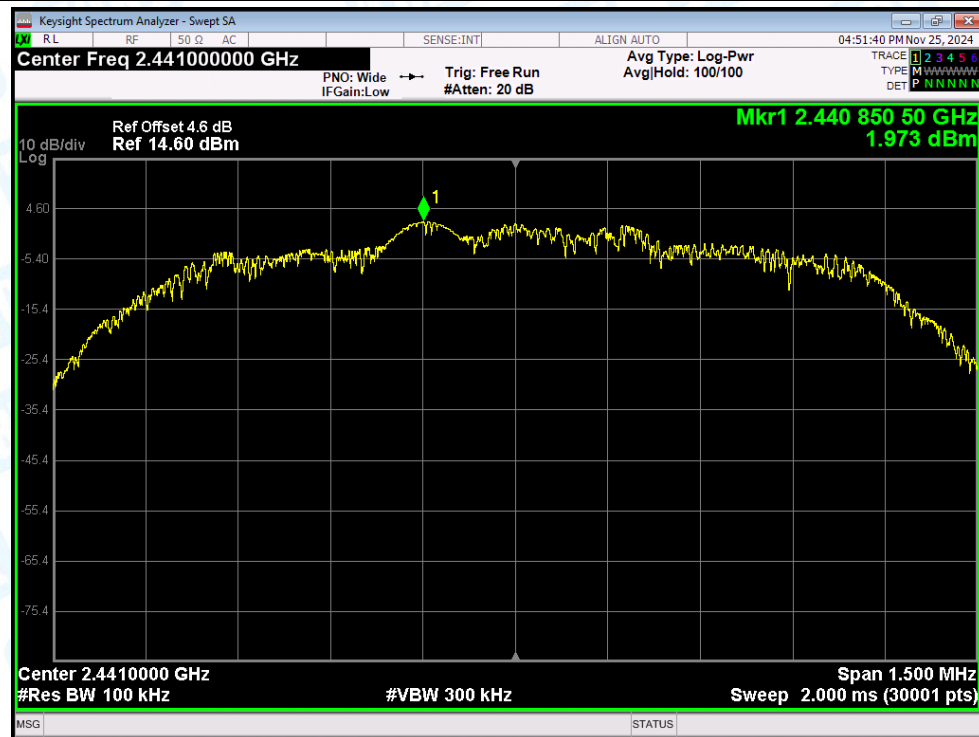
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



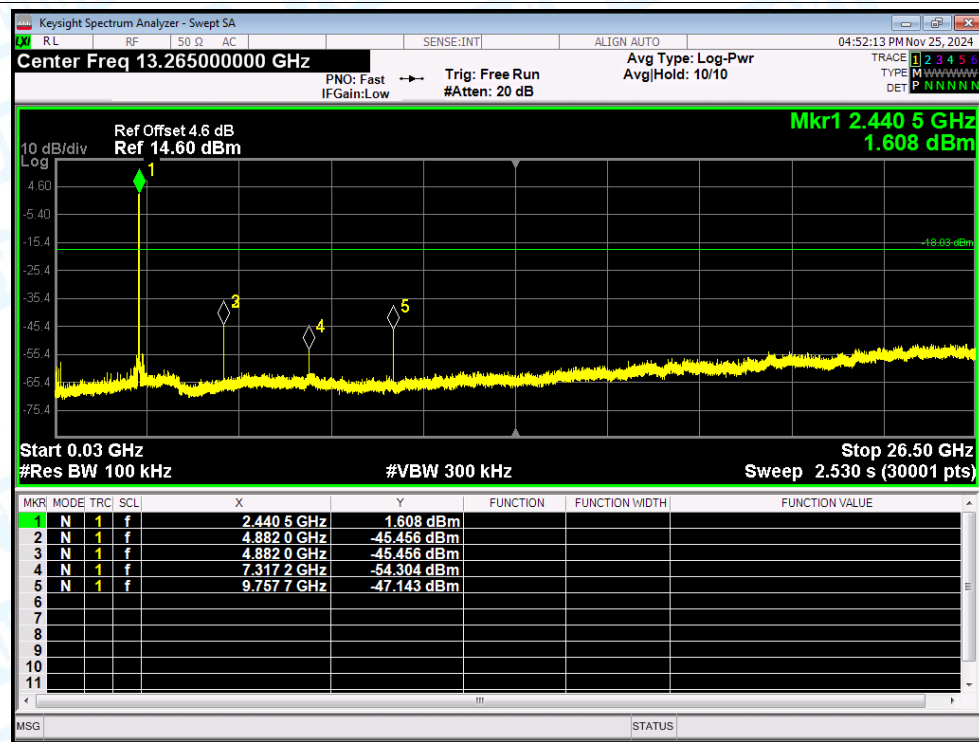
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



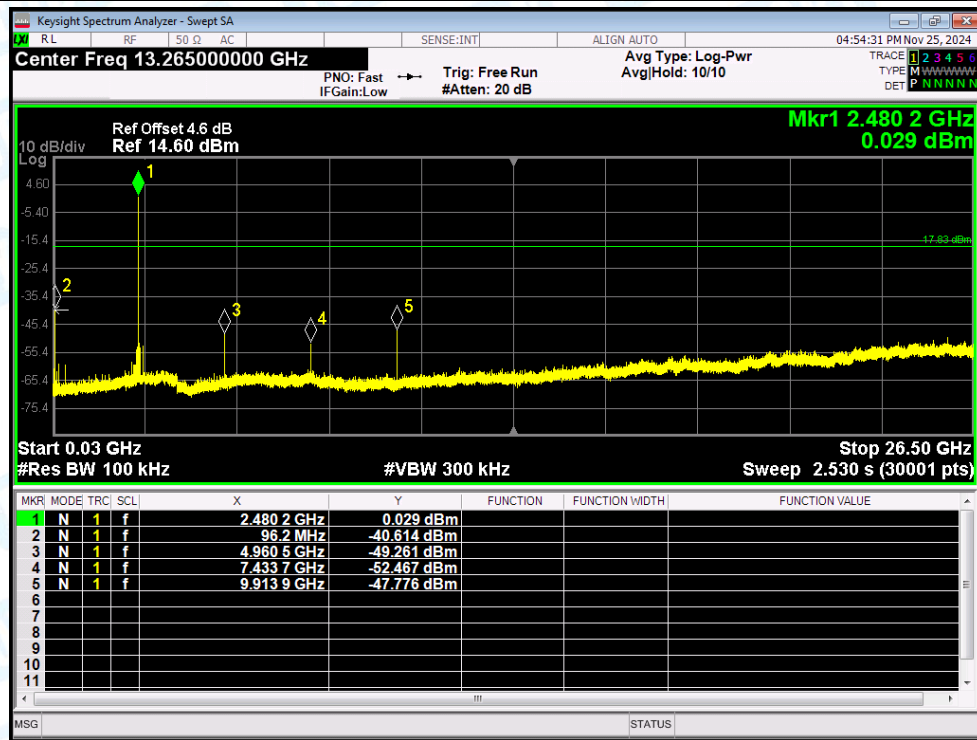
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



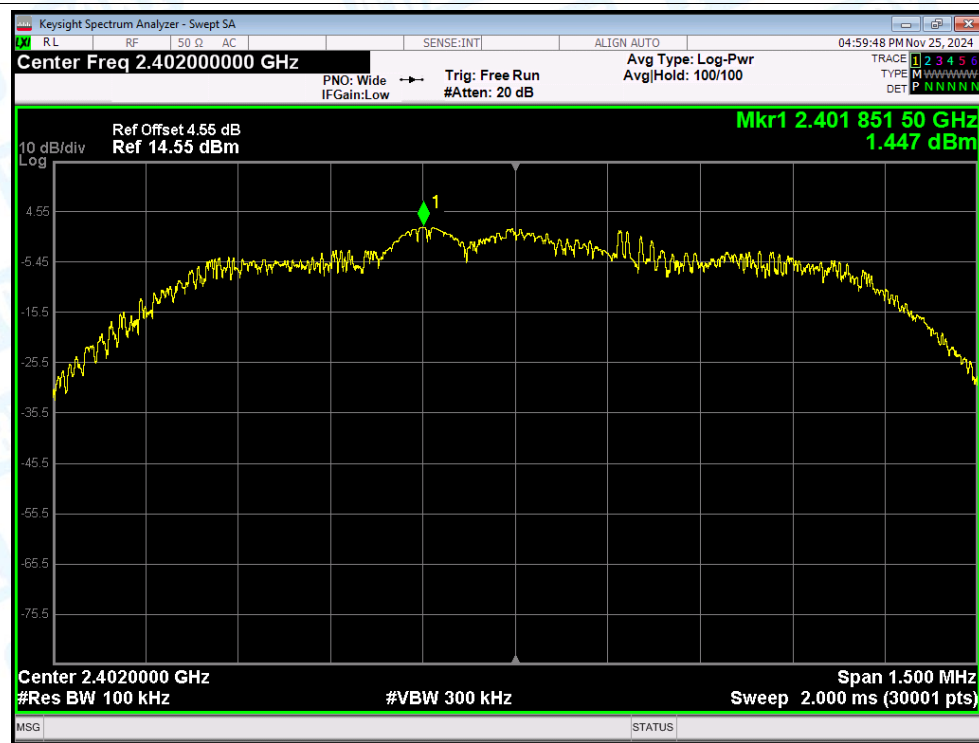
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



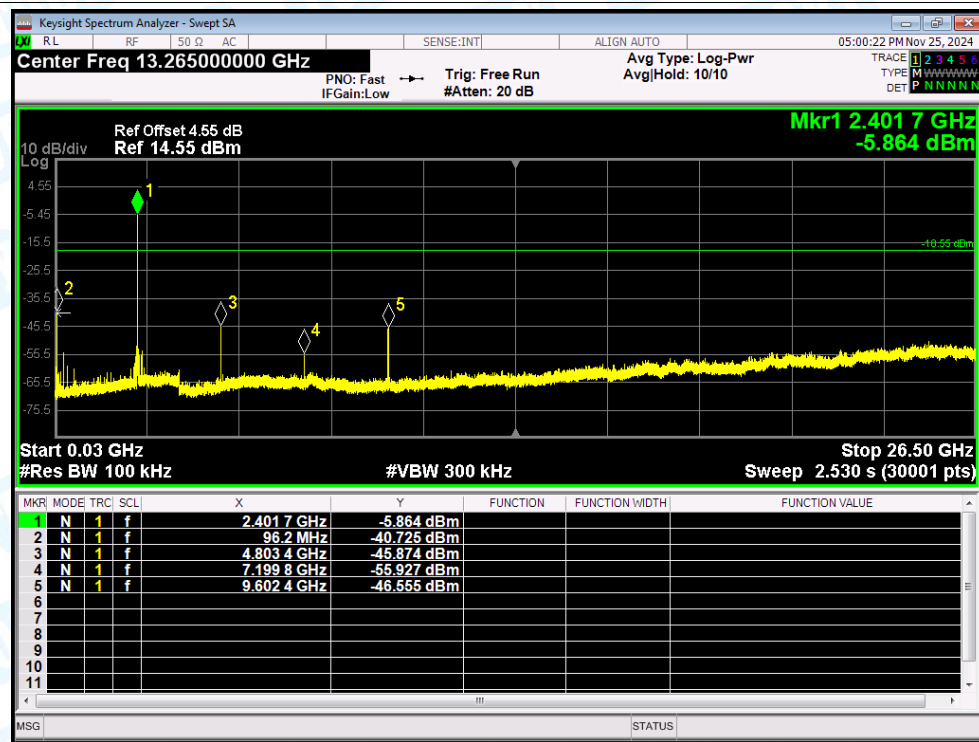
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



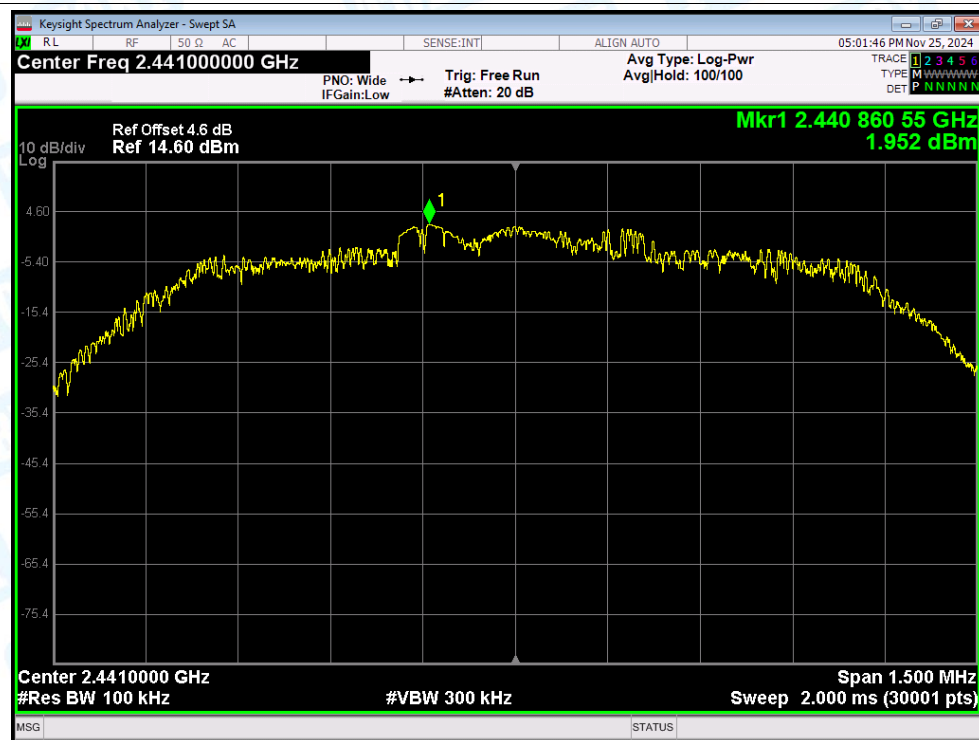
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



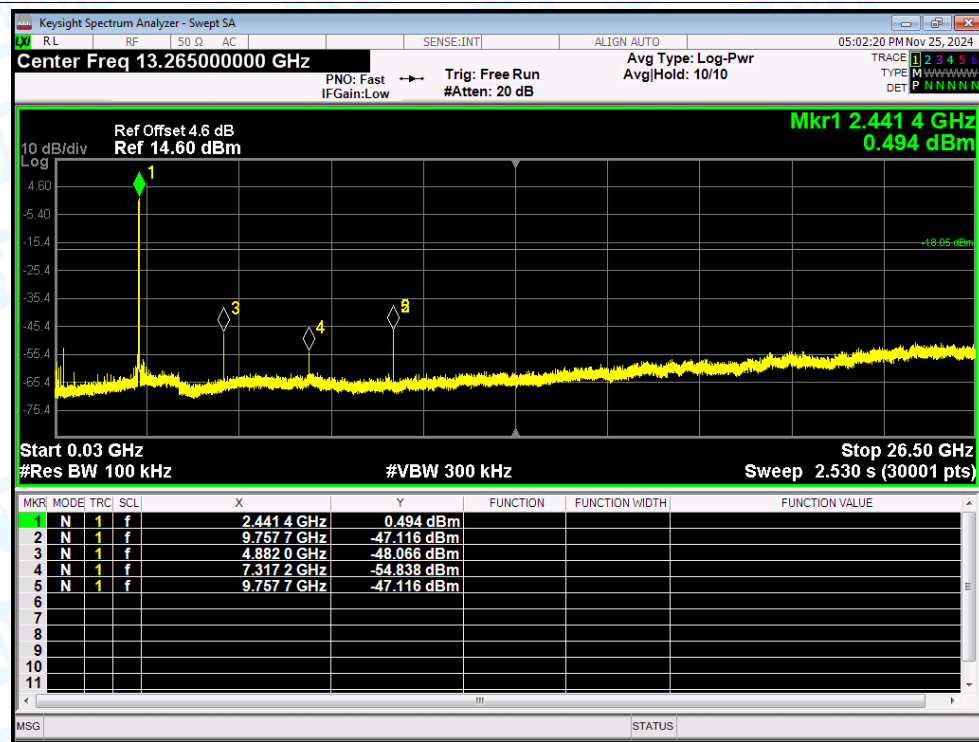
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



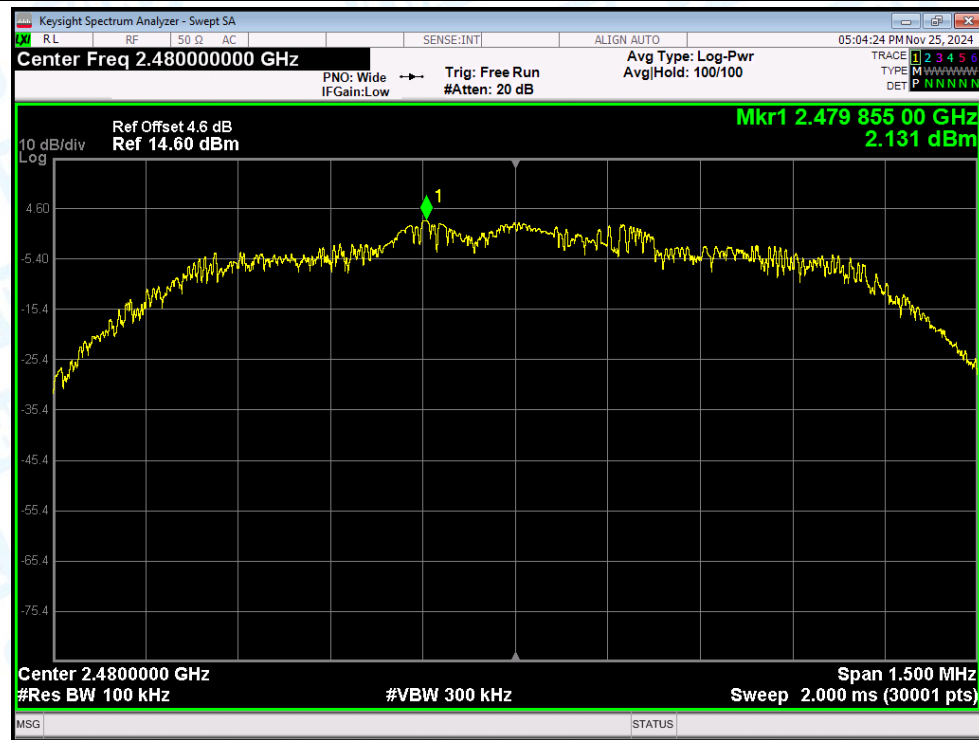
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



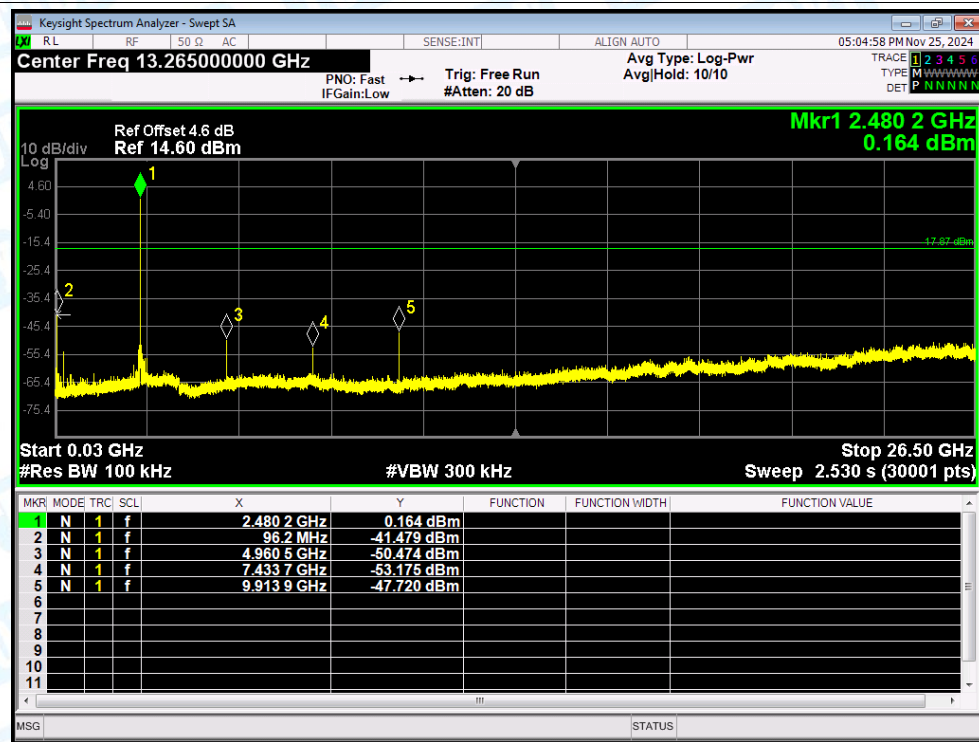
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

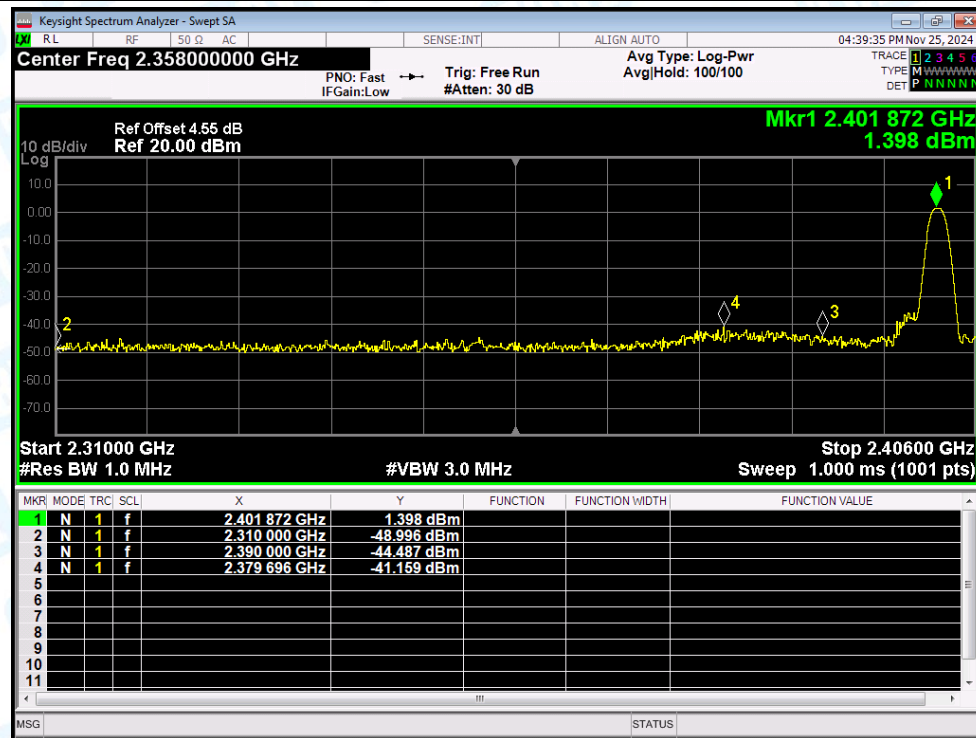


8.Restrict Band

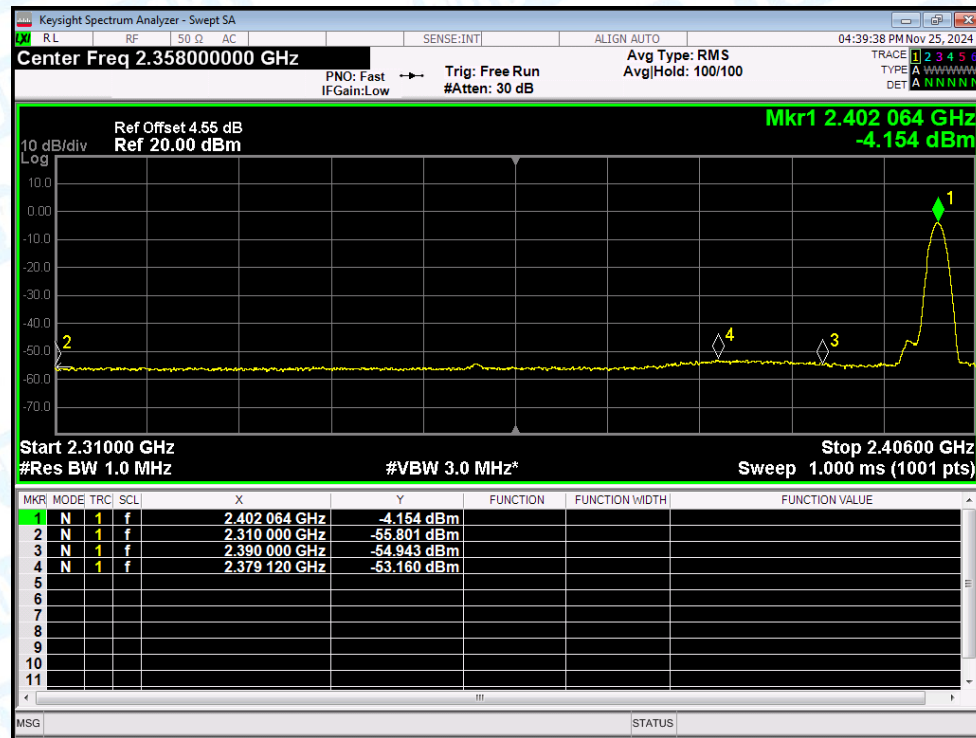
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-49	2	-	48.26	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-55.8	2	5.29	46.75	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2379.696	-41.16	2	-	56.1	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2379.12	-53.16	2	5.29	49.39	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-44.49	2	-	52.77	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-54.94	2	5.29	47.61	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-40.87	2	-	56.39	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-50.63	2	5.17	51.8	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.56	-40.08	2	-	57.18	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.512	-50.62	2	5.17	51.81	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-44.93	2	-	52.33	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-52.58	2	5.17	49.85	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-47.1	2	-	50.16	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.62	2	5.06	45.7	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2379.216	-41.47	2	-	55.79	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2381.616	-52.8	2	5.06	49.52	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-44.93	2	-	52.33	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-54.26	2	5.06	48.06	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-42.5	2	-	54.76	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-52.15	2	5.17	50.28	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2496.592	-39.9	2	-	57.36	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.56	-51.71	2	5.17	50.72	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-45.36	2	-	51.9	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-52.86	2	5.17	49.57	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-49.45	2	-	47.81	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.54	2	5.17	45.89	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2381.808	-41.3	2	-	55.96	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2378.736	-52.86	2	5.17	49.57	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-46.87	2	-	50.39	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-54.86	2	5.17	47.57	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-41.06	2	-	56.2	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-52.16	2	5.06	50.16	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2497.192	-39.66	2	-	57.6	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.584	-51.42	2	5.06	50.9	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-43.14	2	-	54.12	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-53.52	2	5.06	48.8	Average	54	Pass

Test Graphs

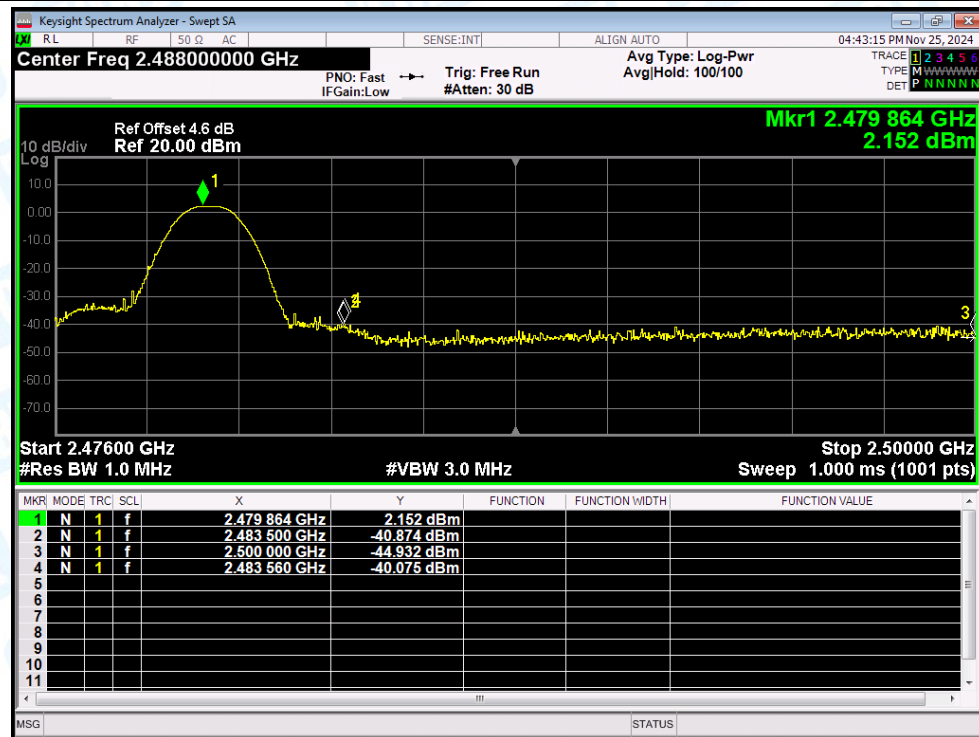
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



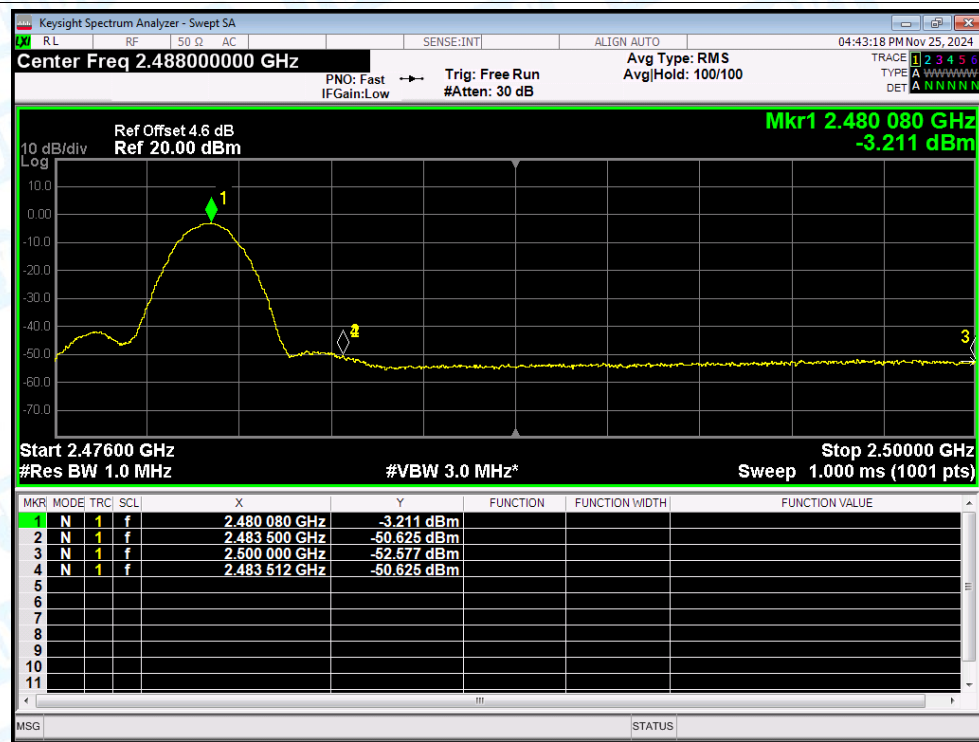
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



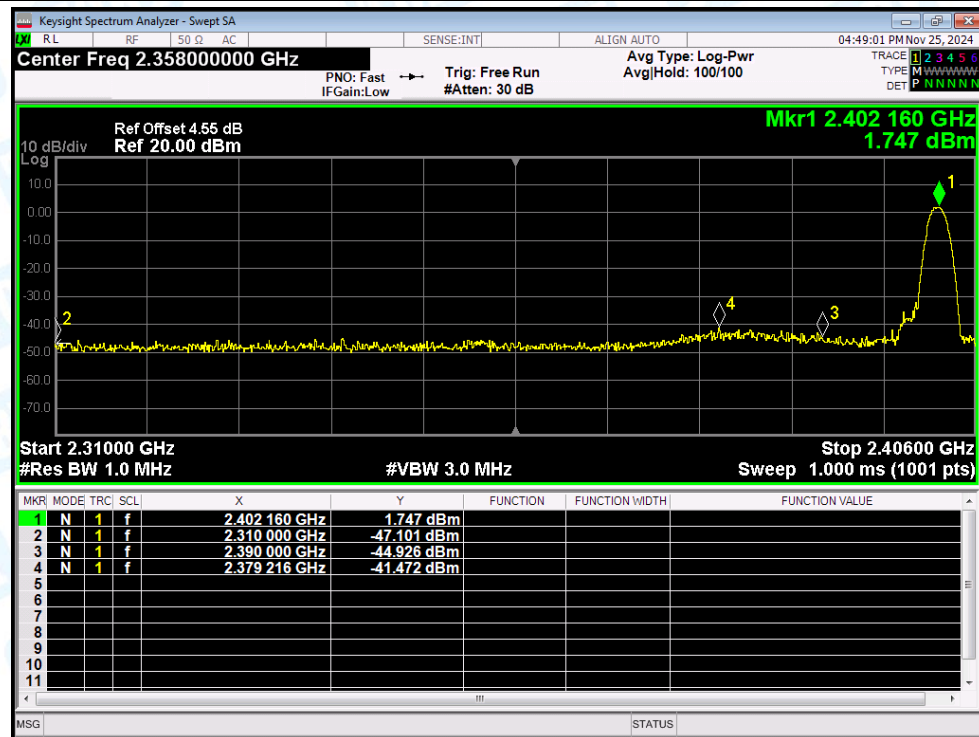
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



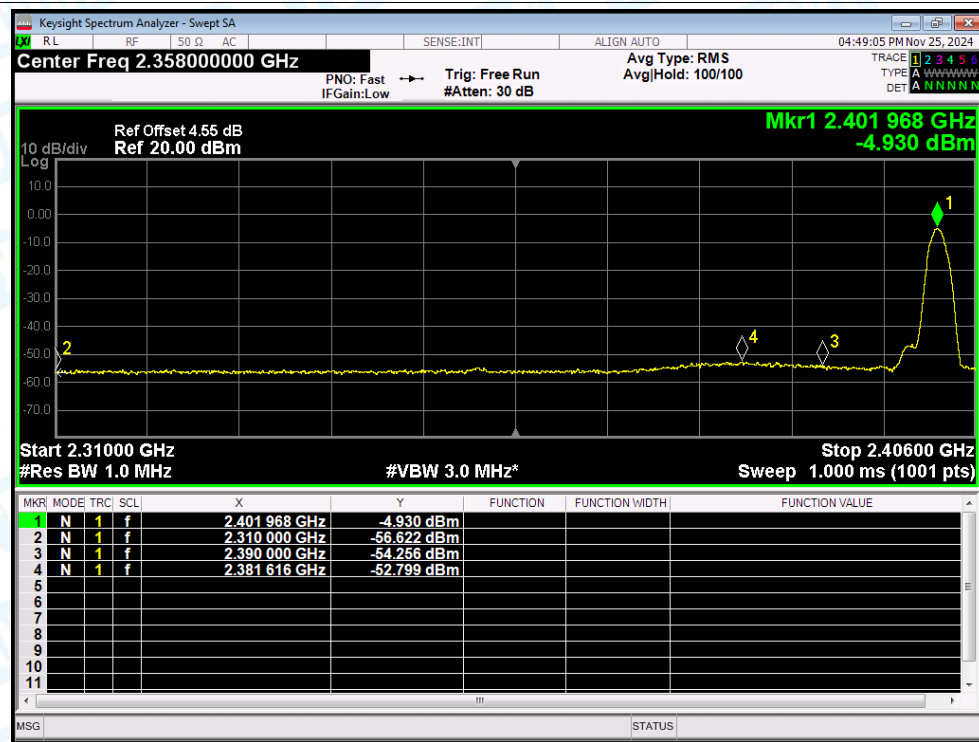
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



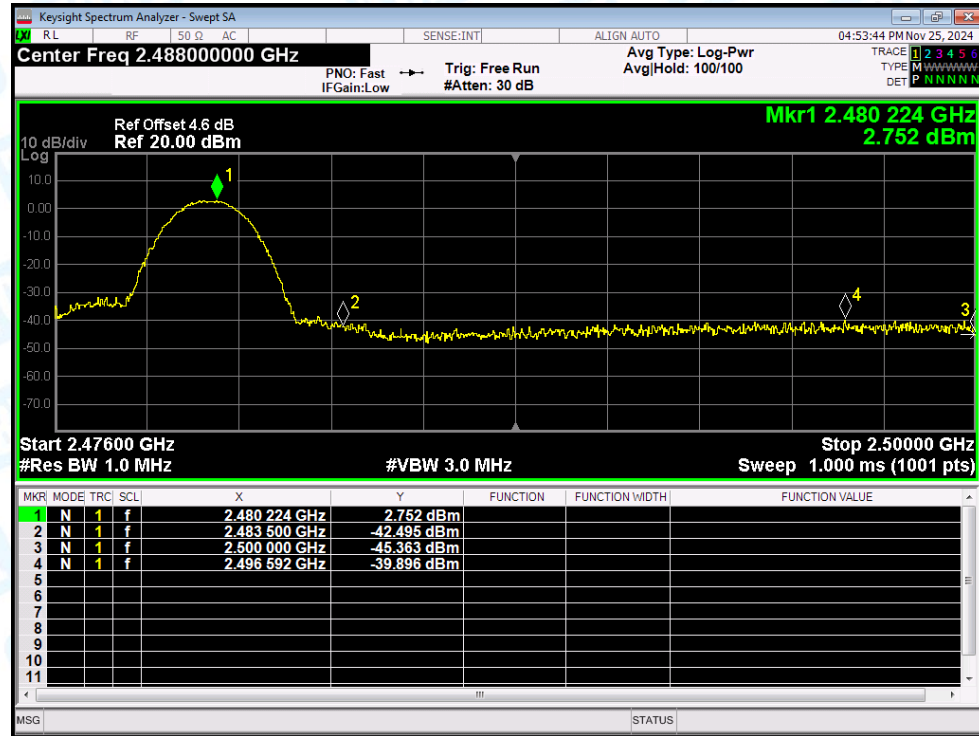
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



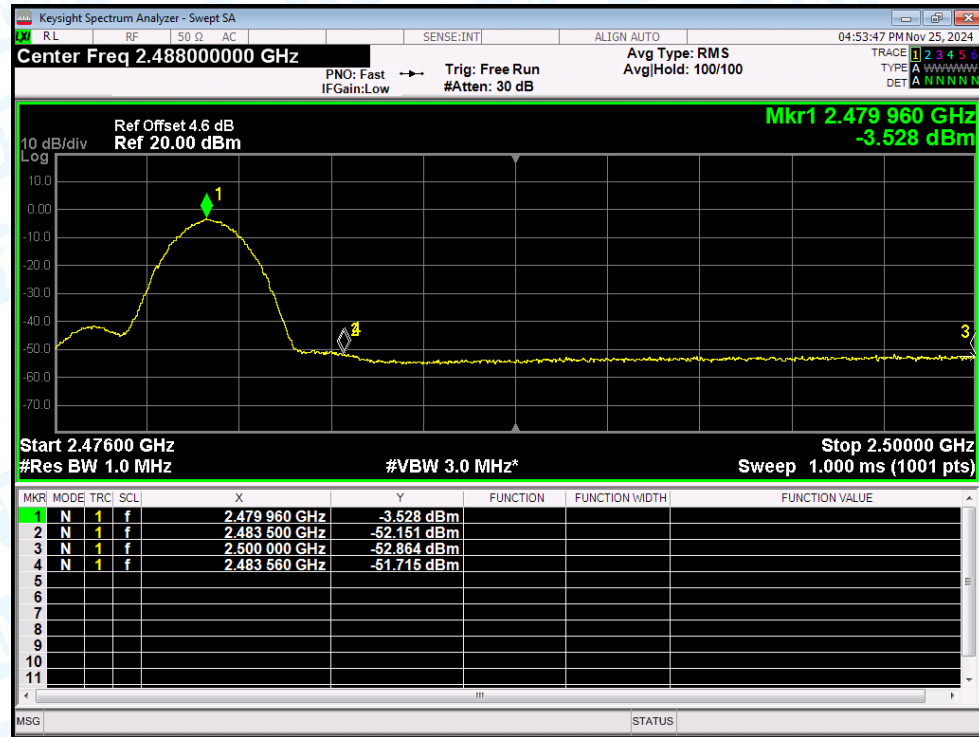
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



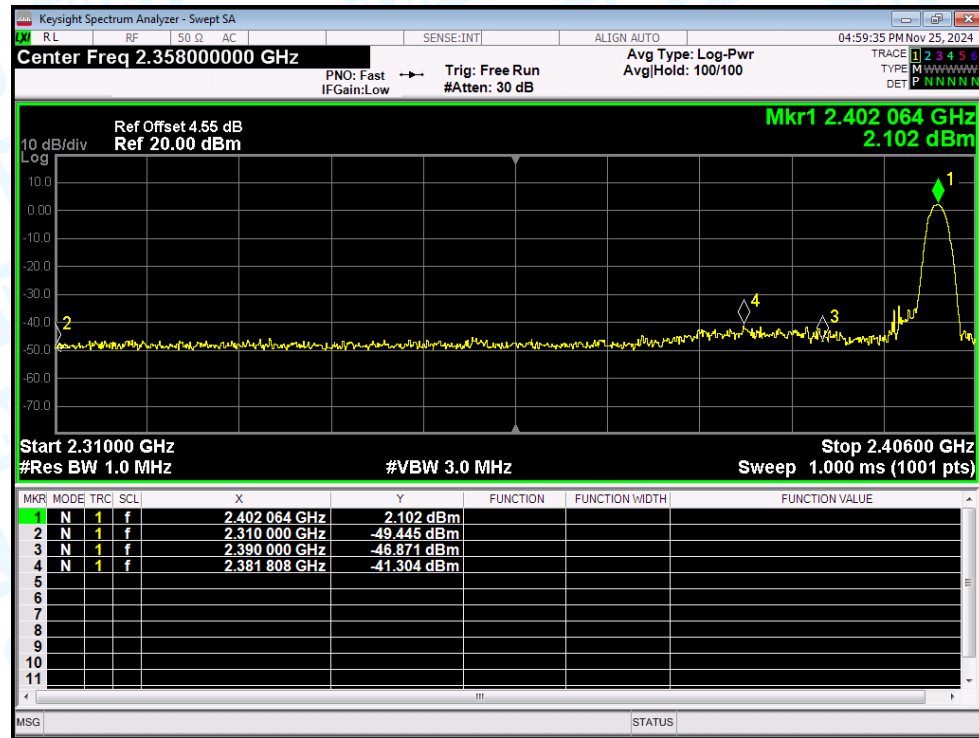
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



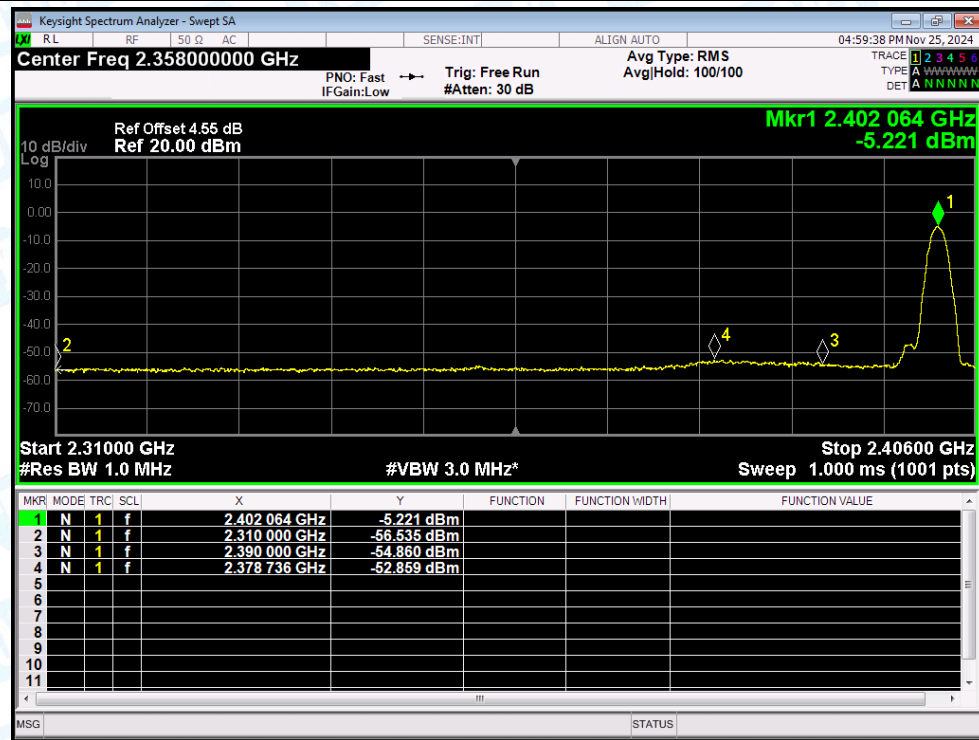
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



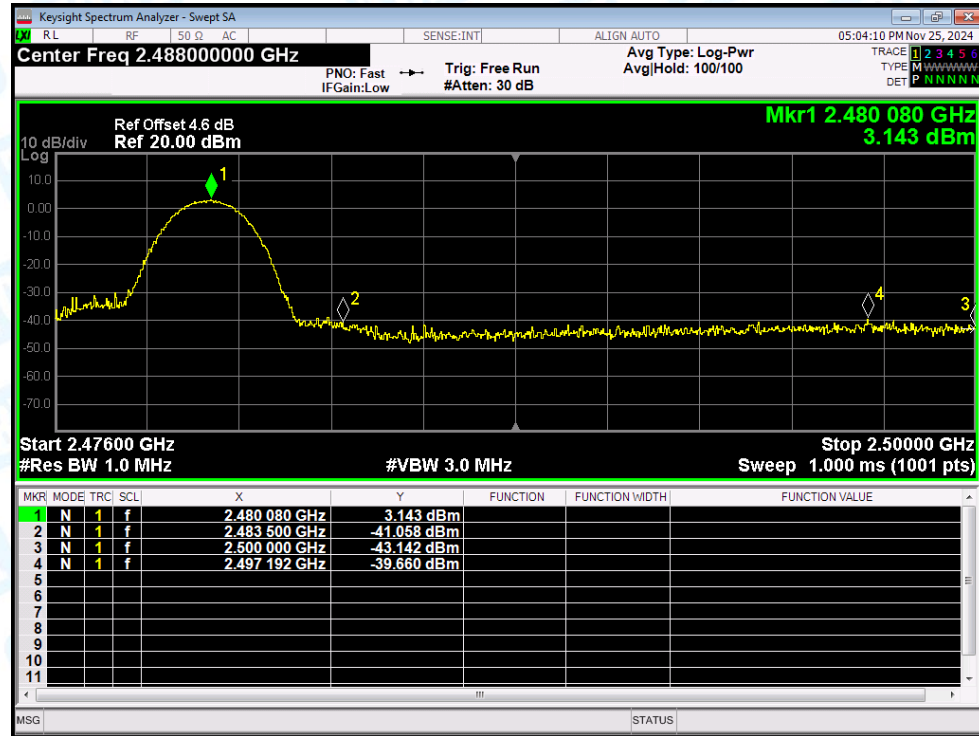
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



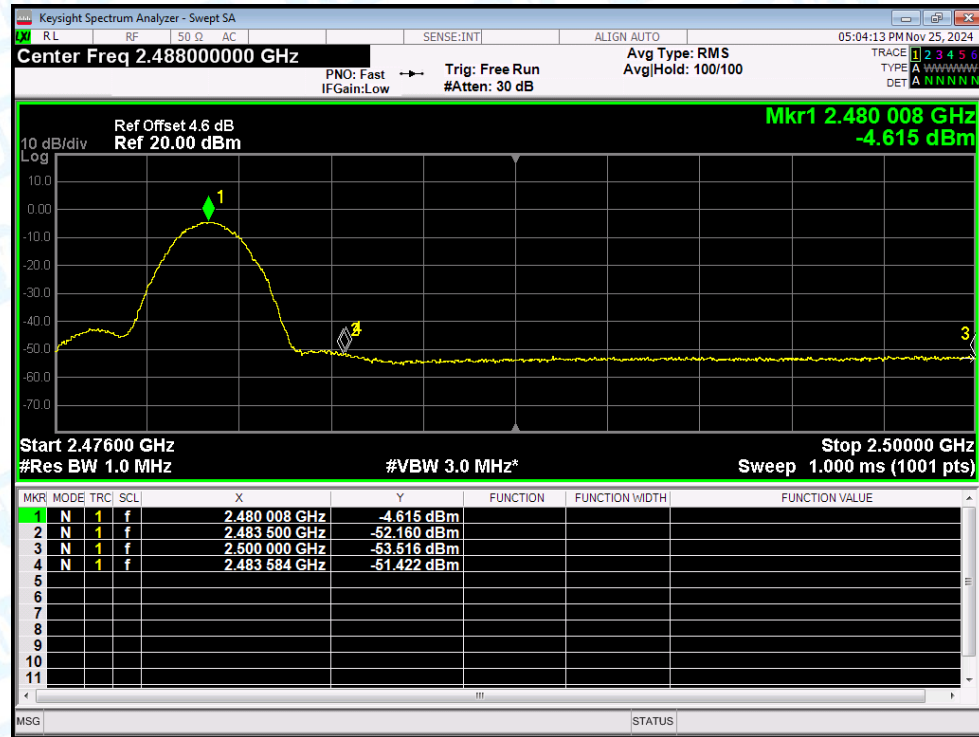
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

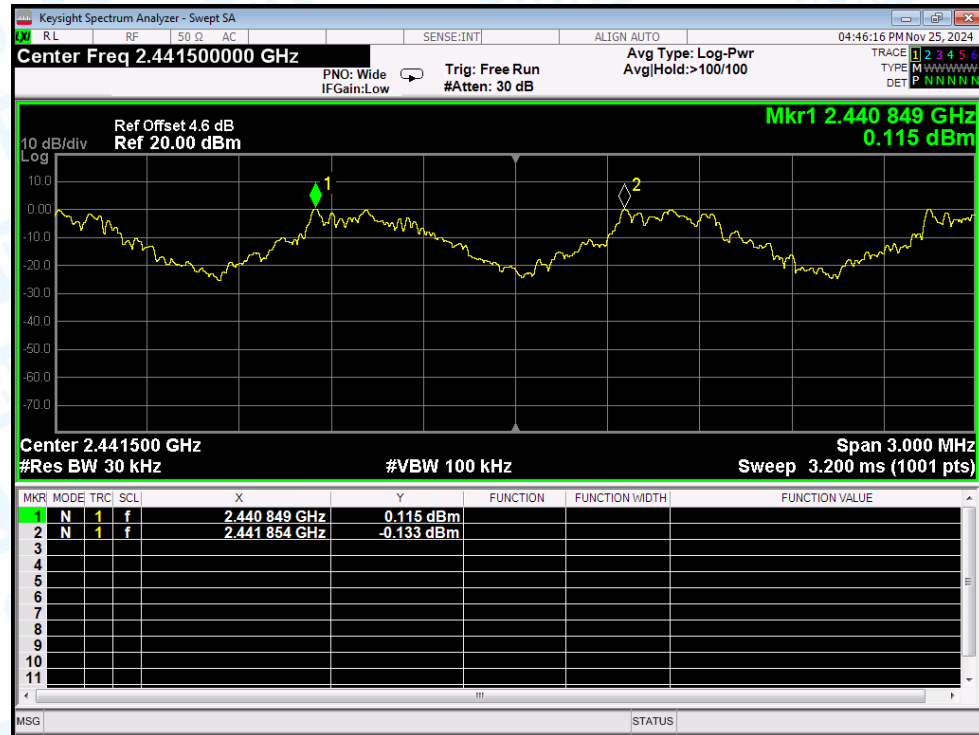


9.Carrier Frequencies Separation

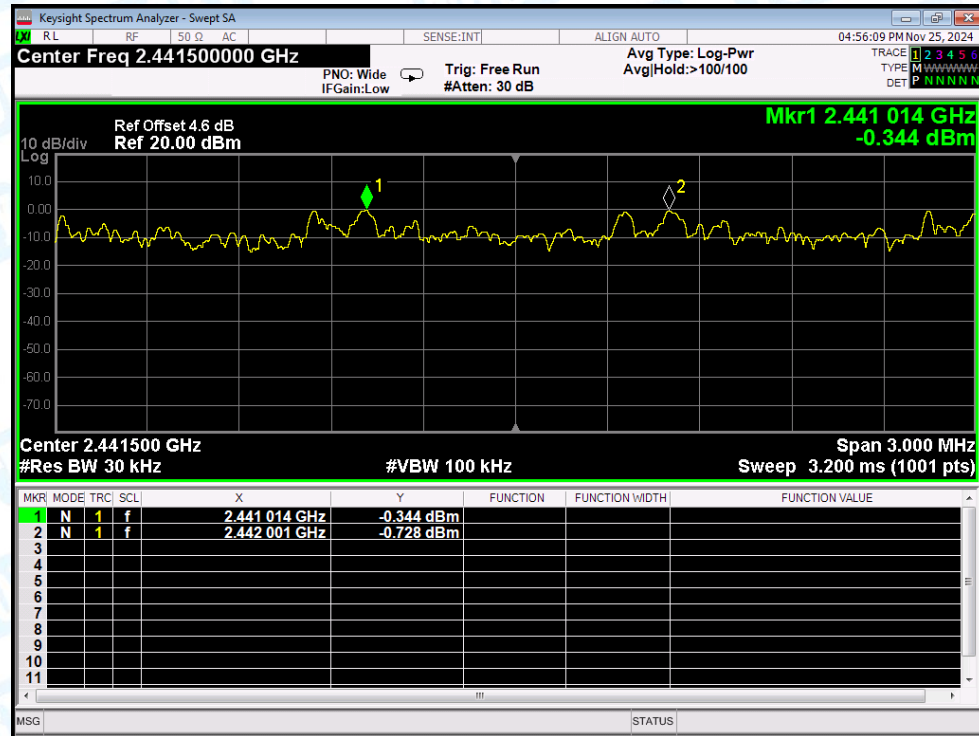
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.849	2441.854	1.005	0.587	Pass
NVNT	2-DH1	Ant1	2441.014	2442.001	0.987	0.833	Pass
NVNT	3-DH1	Ant1	2441.008	2442.007	0.999	0.813	Pass

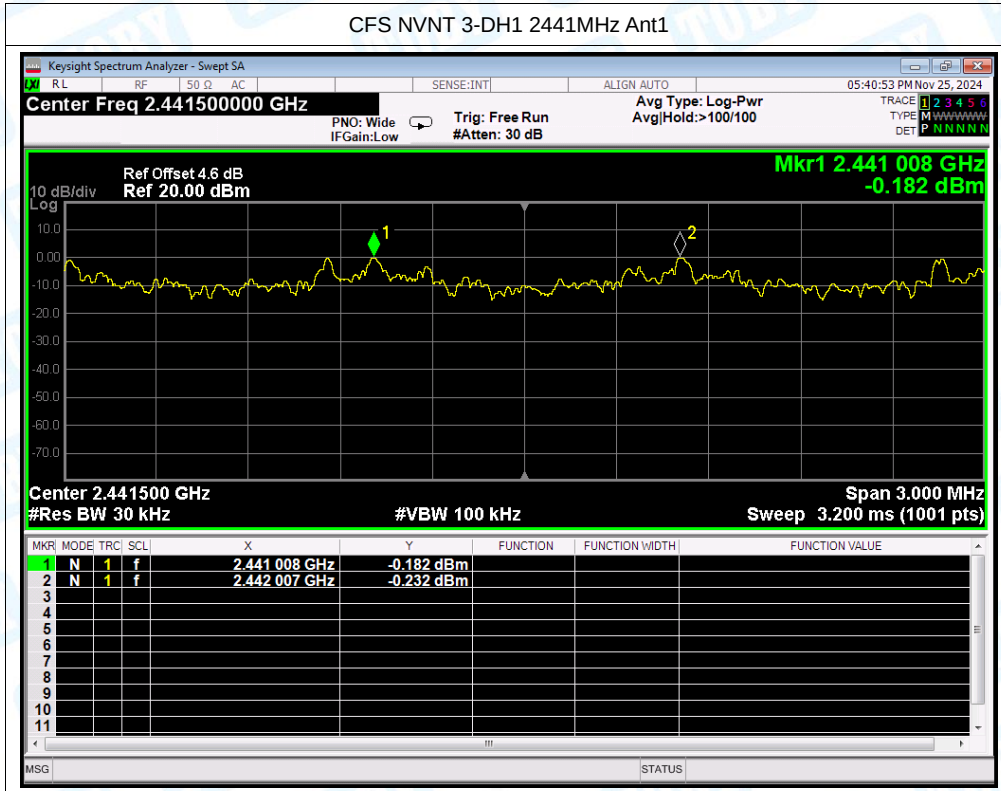
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



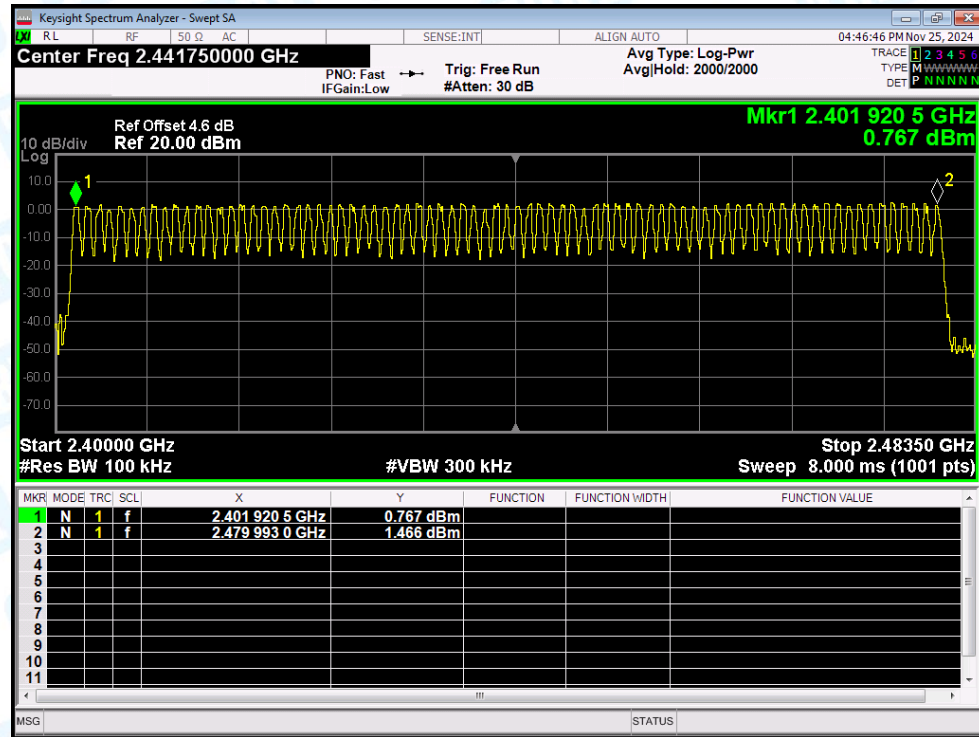


10.Number of Hopping Channel

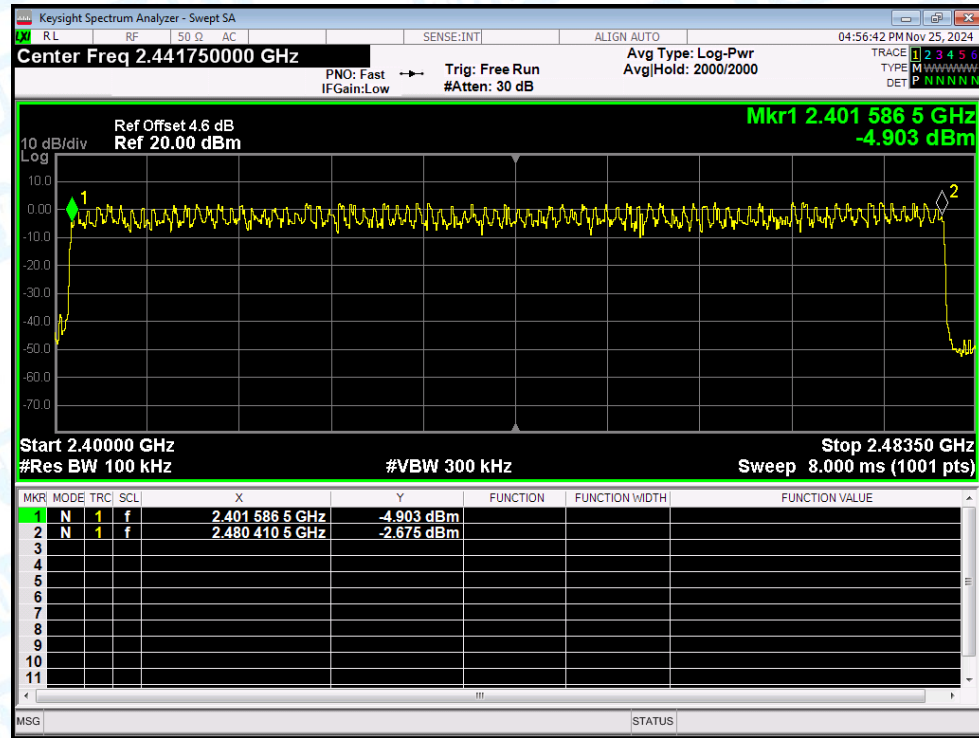
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

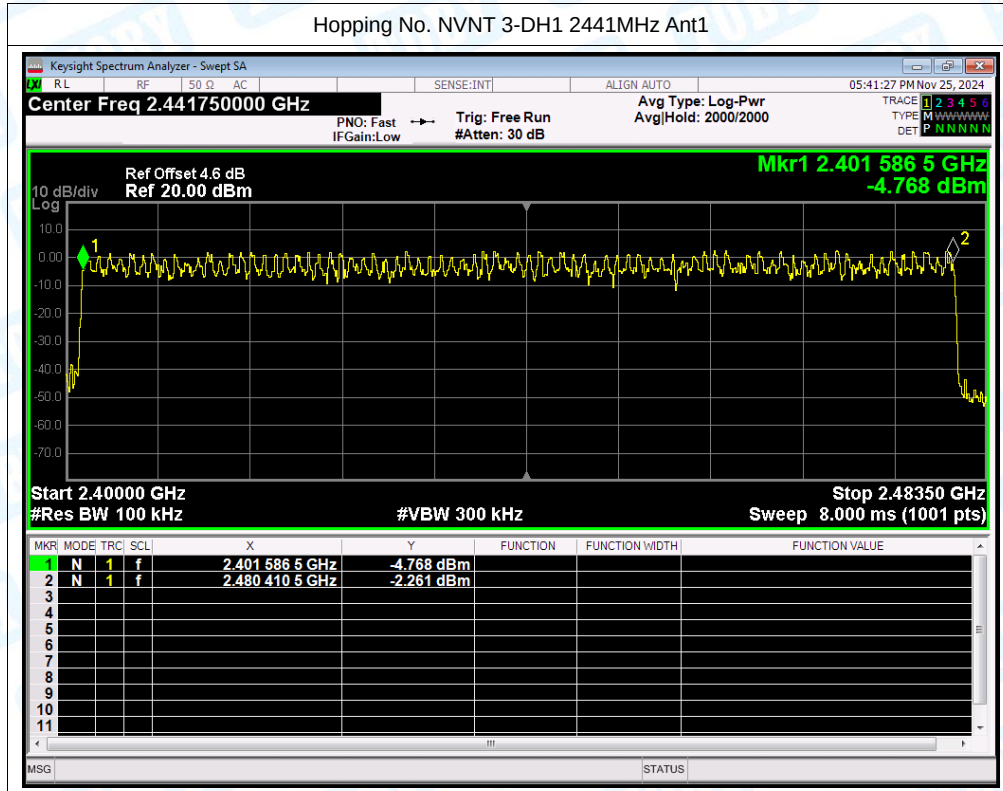
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



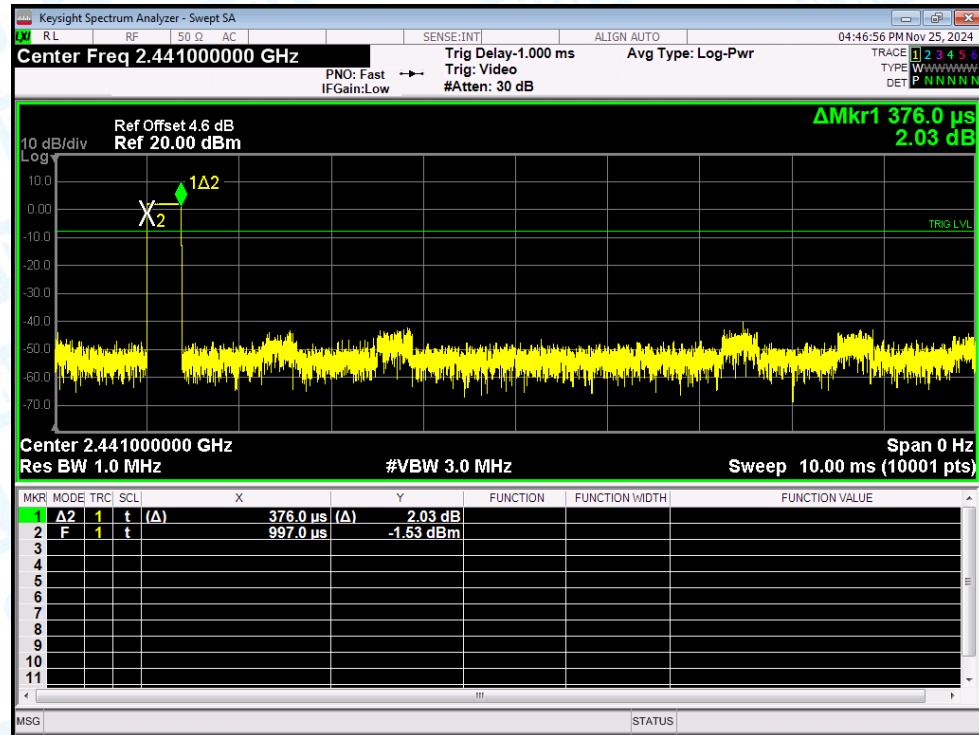


11.Dwell Time

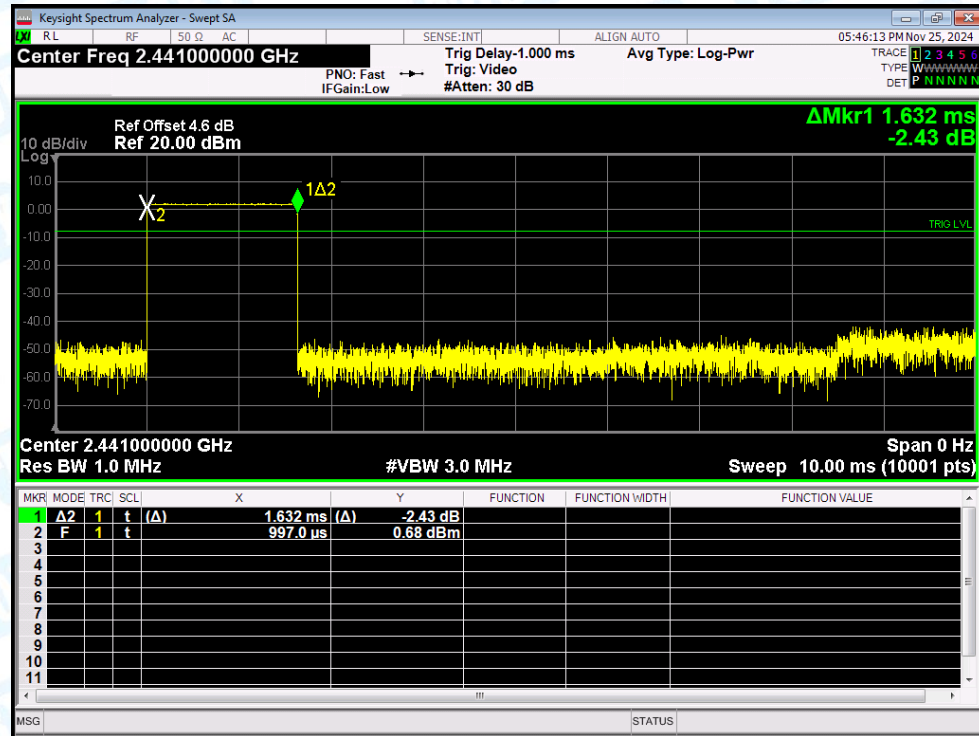
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.376	120.32	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.632	261.12	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.638	262.08	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.886	307.84	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.387	123.84	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.888	308.053	31600	400	Pass

Test Graphs

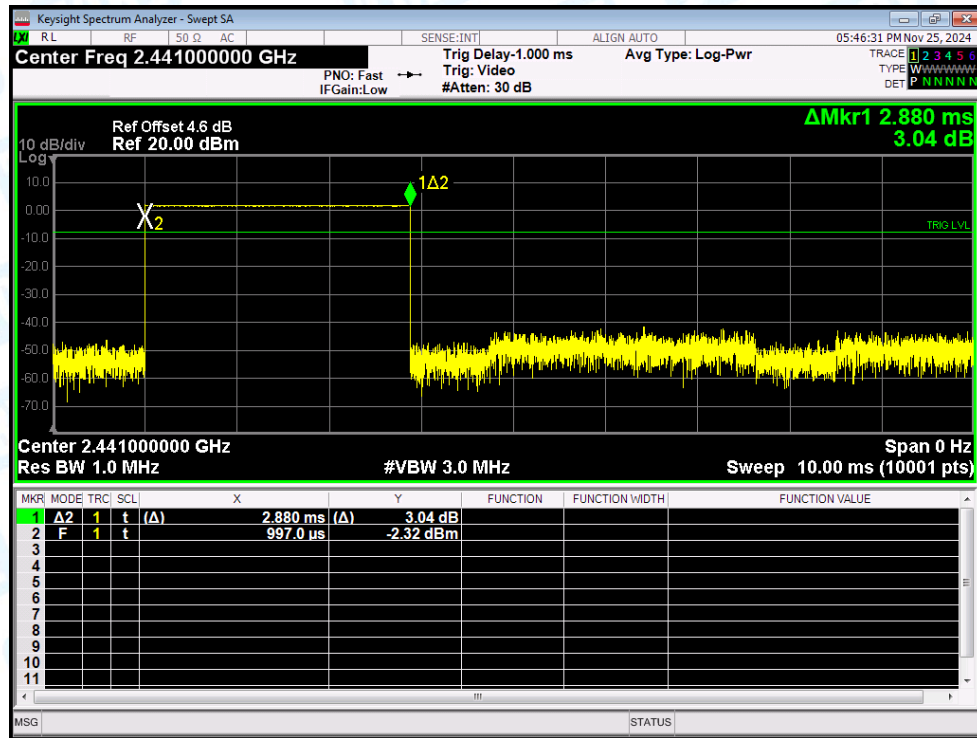
Dwell NVNT 1-DH1 2441MHz Ant1



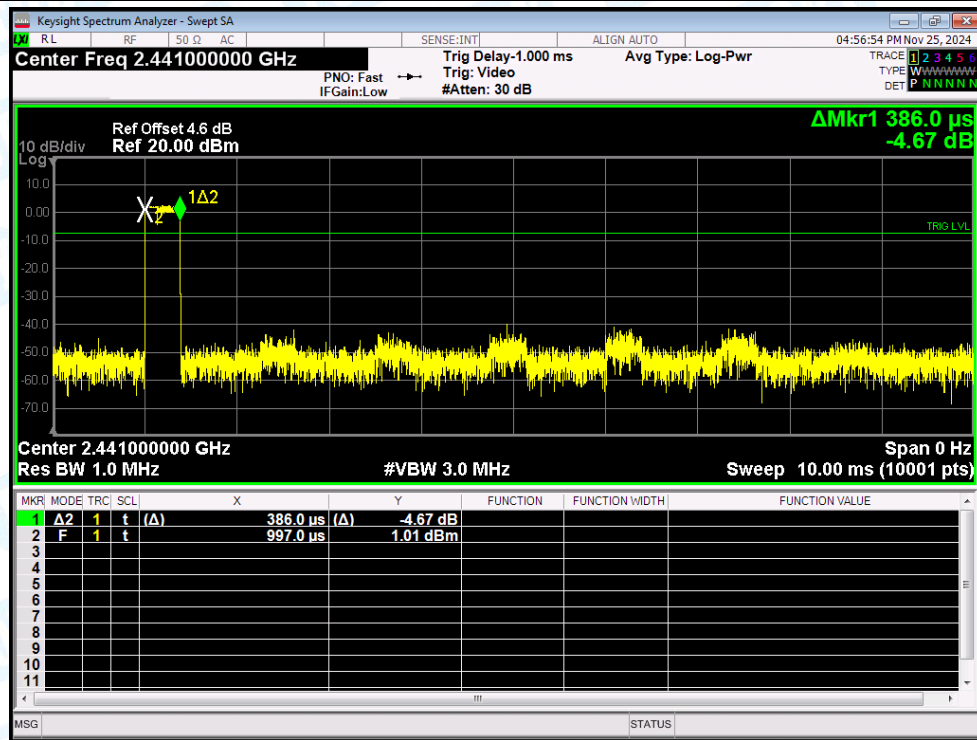
Dwell NVNT 1-DH3 2441MHz Ant1



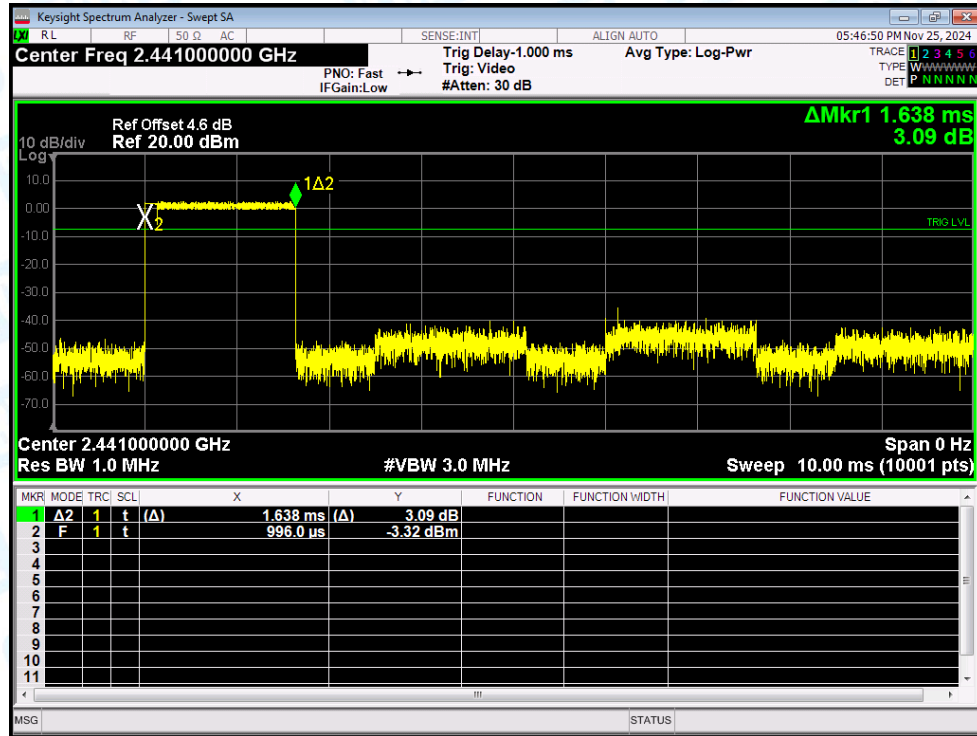
Dwell NVNT 1-DH5 2441MHz Ant1



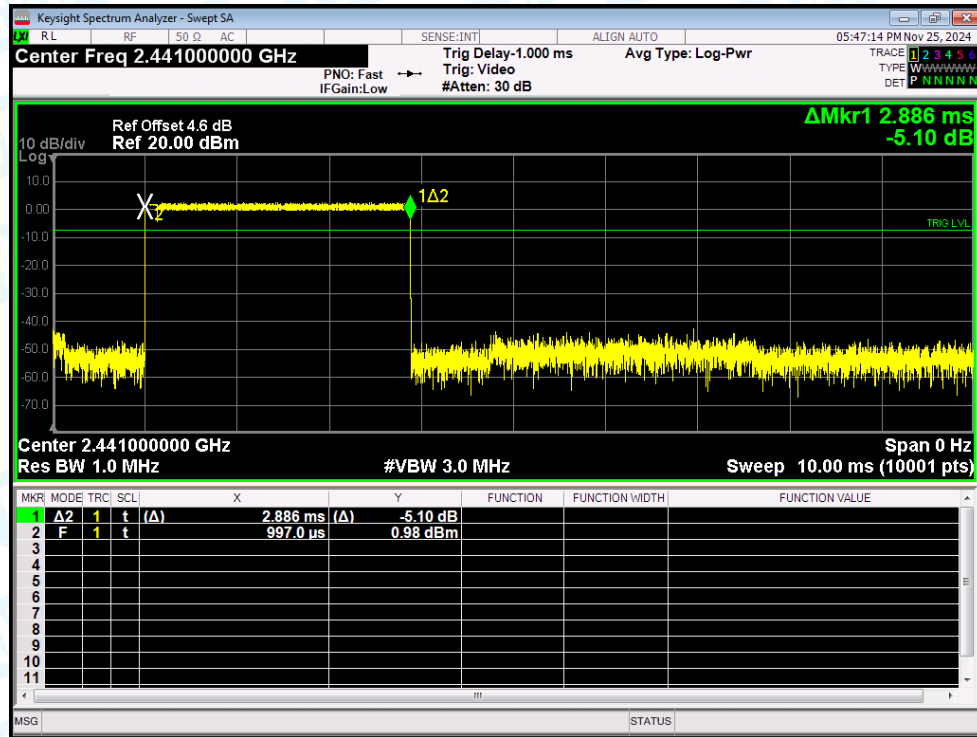
Dwell NVNT 2-DH1 2441MHz Ant1



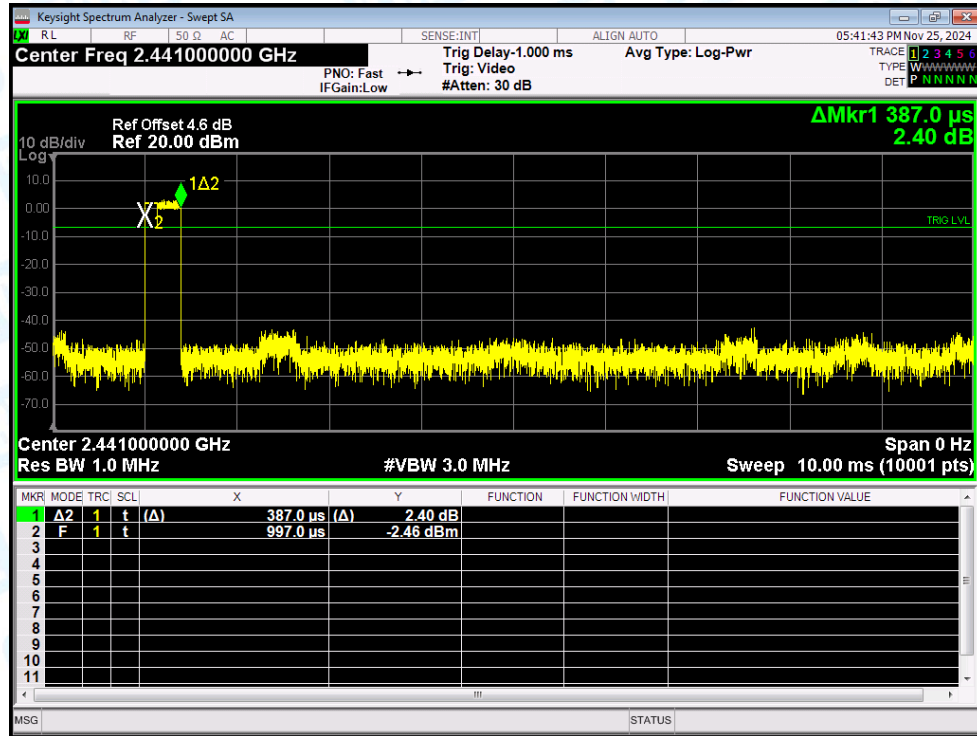
Dwell NVNT 2-DH3 2441MHz Ant1



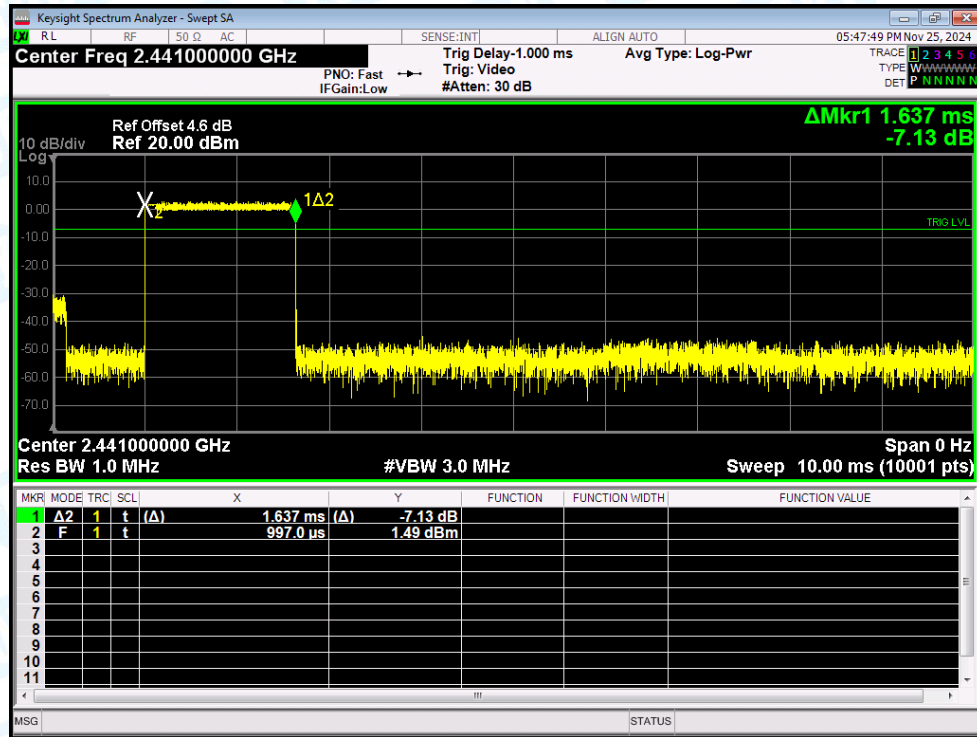
Dwell NVNT 2-DH5 2441MHz Ant1

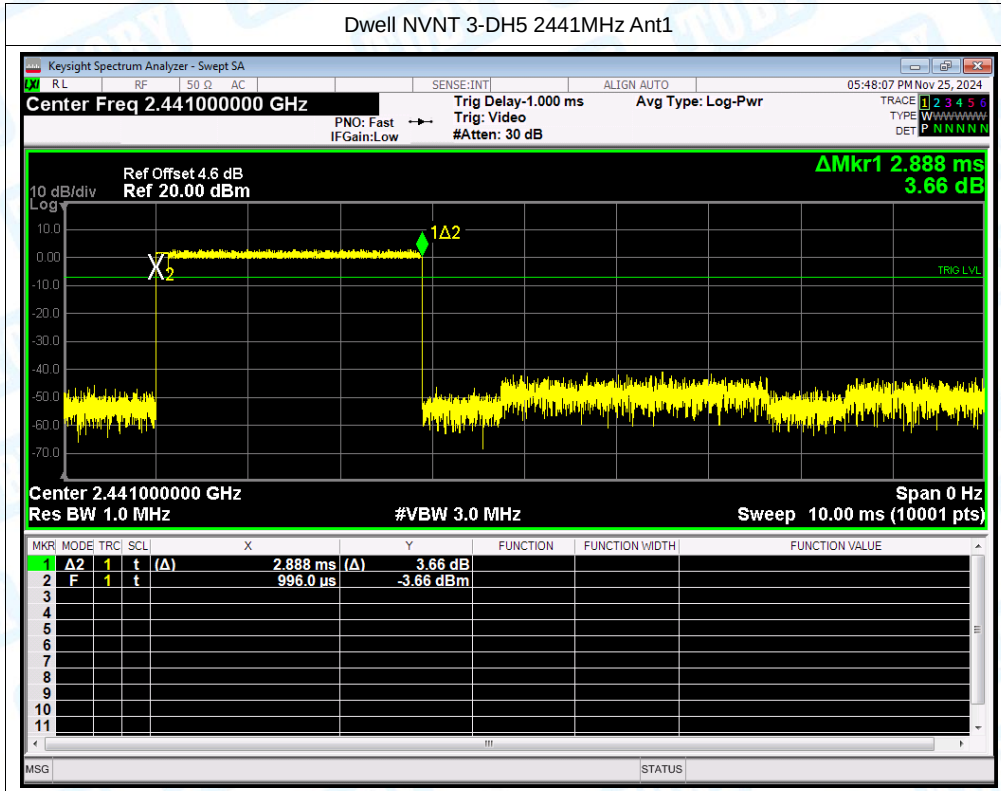


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





-----END OF REPORT-----