

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

General Description of EUT	
Product Name:	Bluetooth FM Transmitter
Test Model:	BT84B
Sample ID:	202305-0117-01-02#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 24V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202305-0117-3 The report only show the worst case data.	

Contents

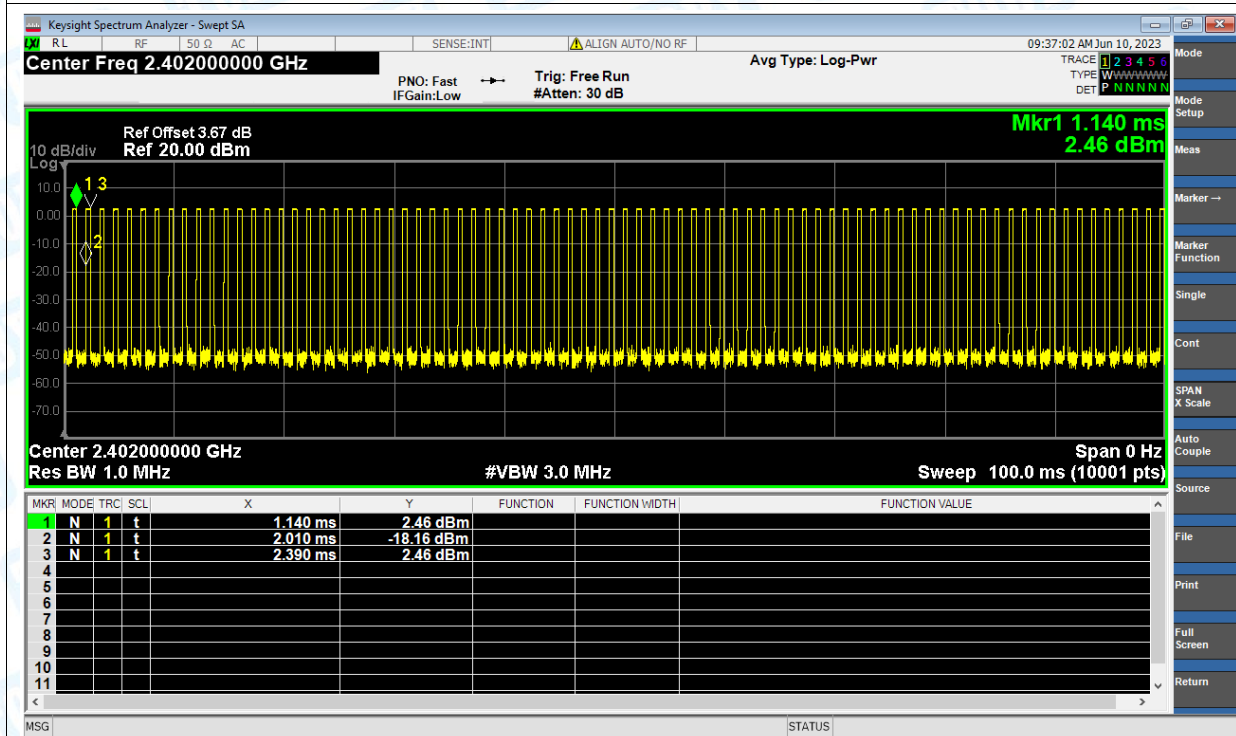
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1. Duty Cycle

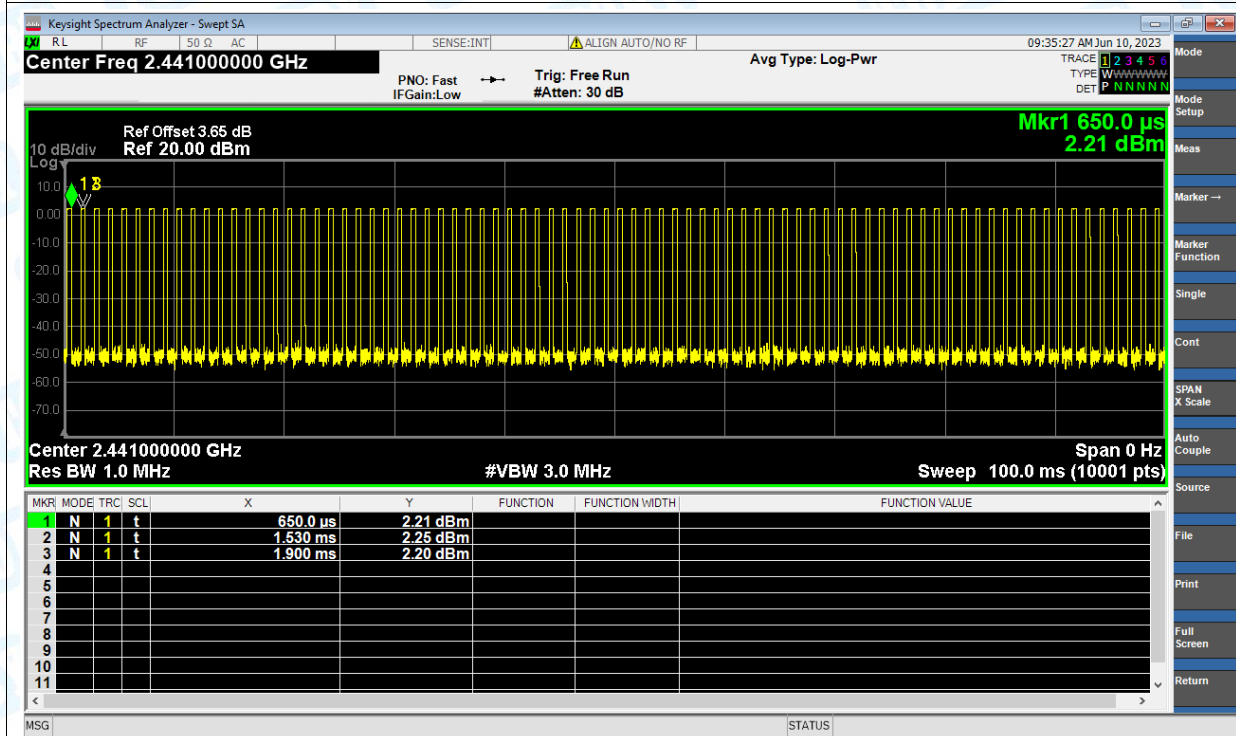
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56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

Test Graphs

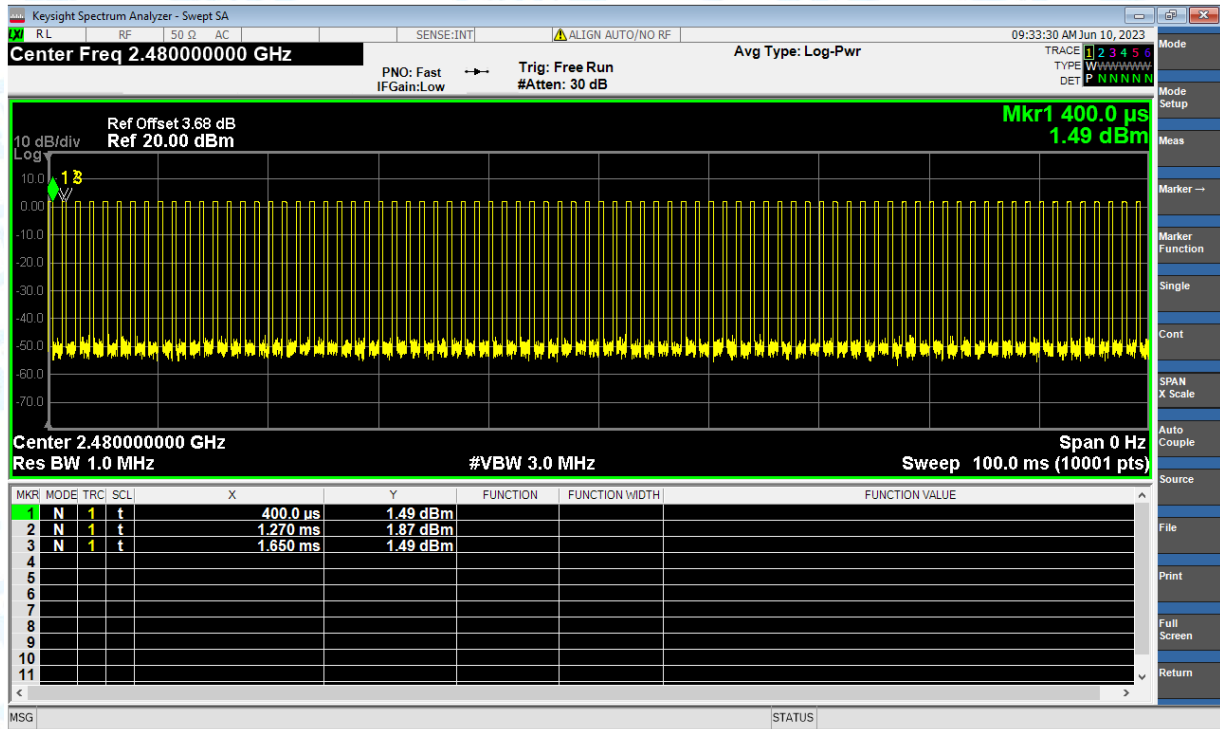
Duty Cycle NVNT 1-DH1 2402MHz Ant1



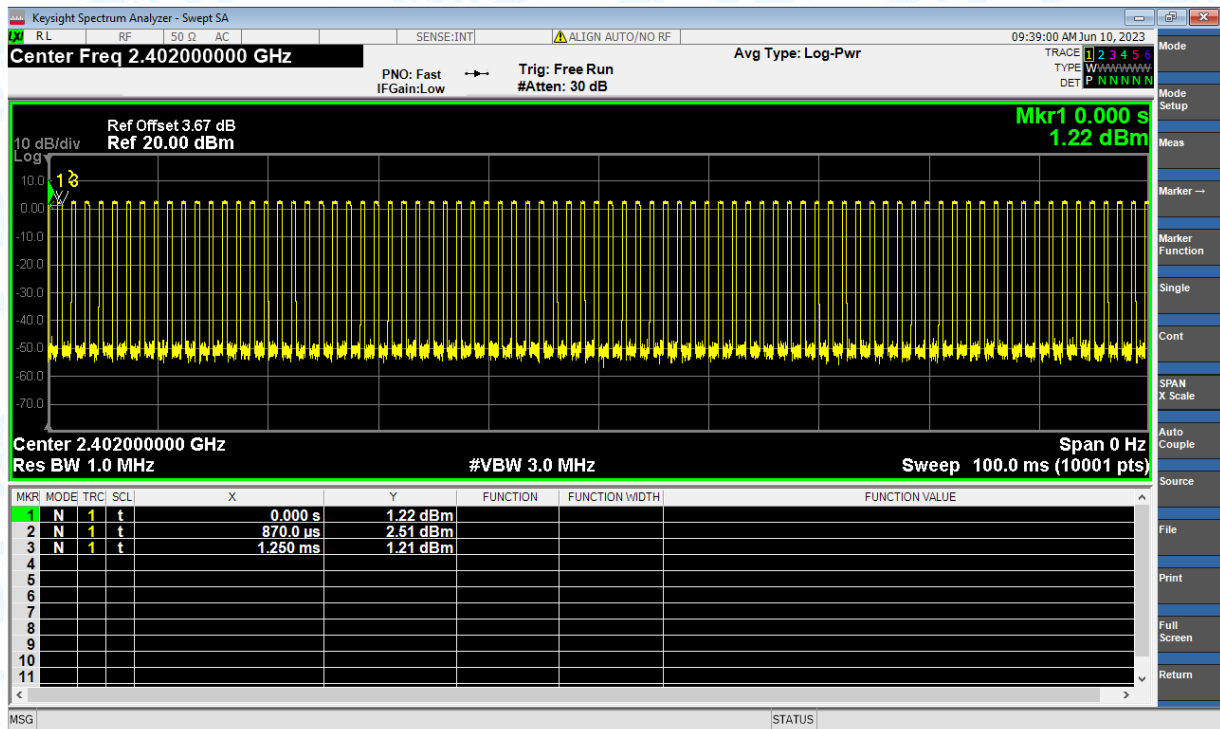
Duty Cycle NVNT 1-DH1 2441MHz Ant1



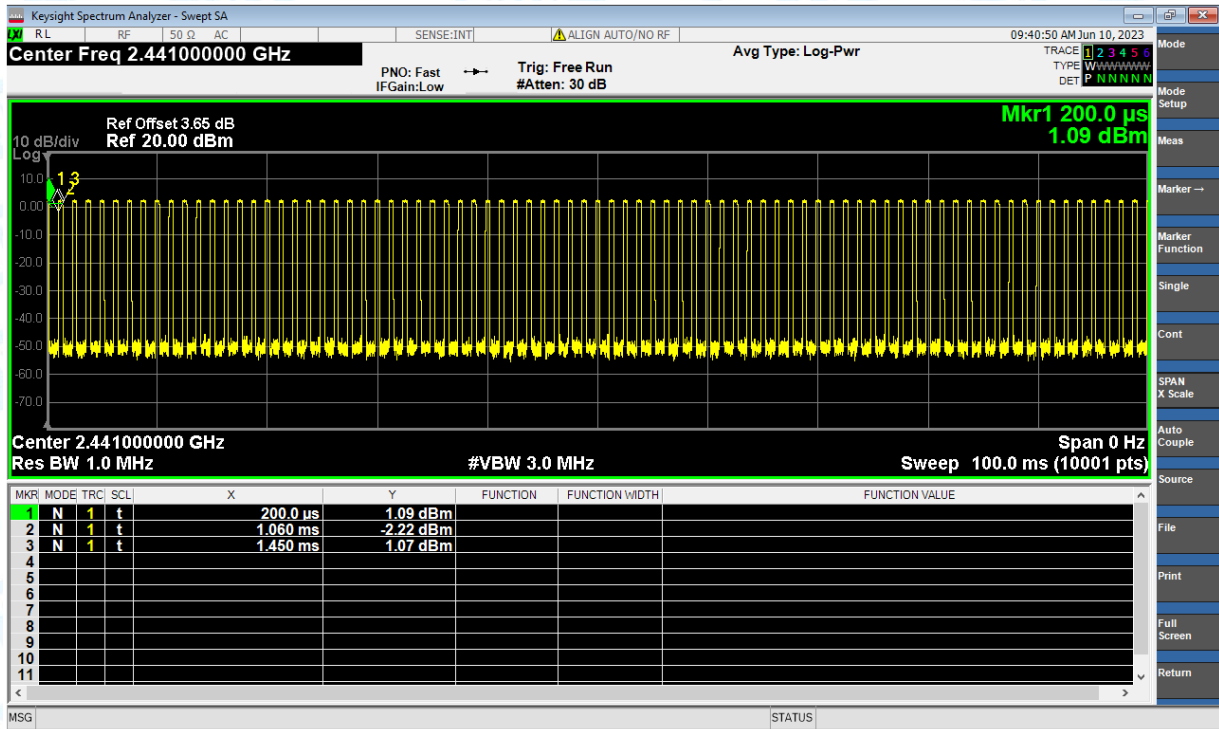
Duty Cycle NVNT 1-DH1 2480MHz Ant1



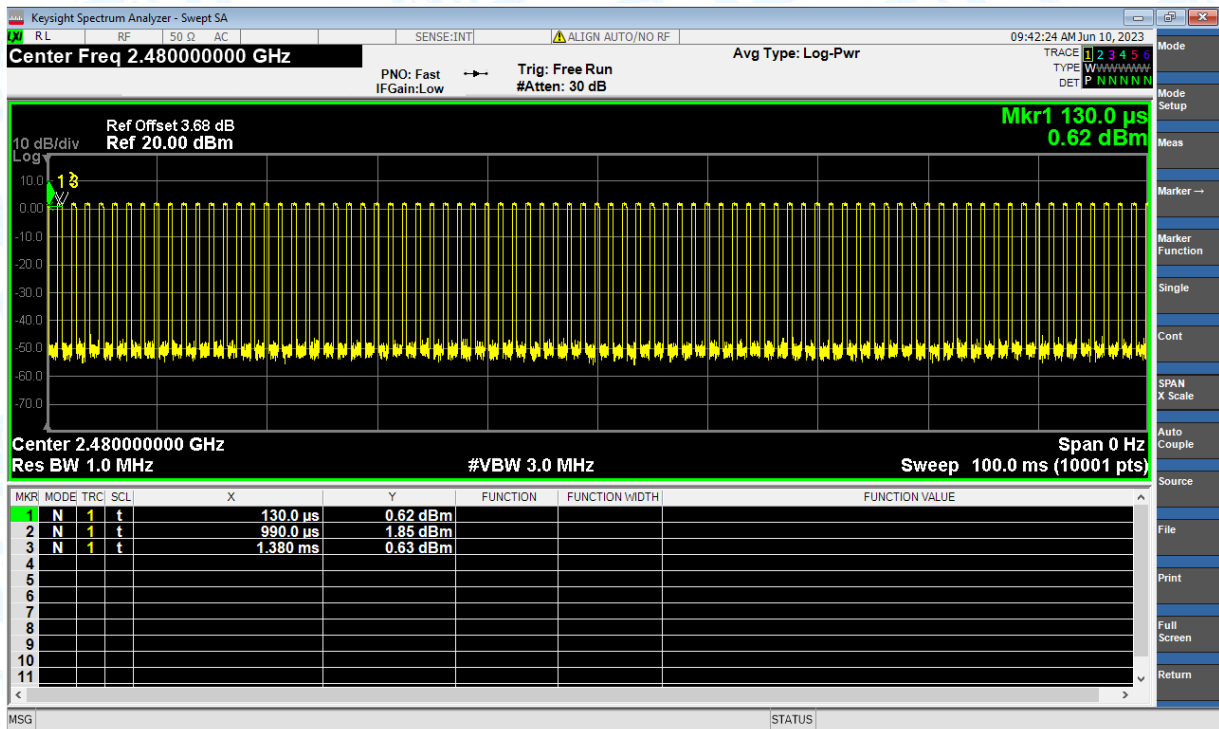
Duty Cycle NVNT 2-DH1 2402MHz Ant1



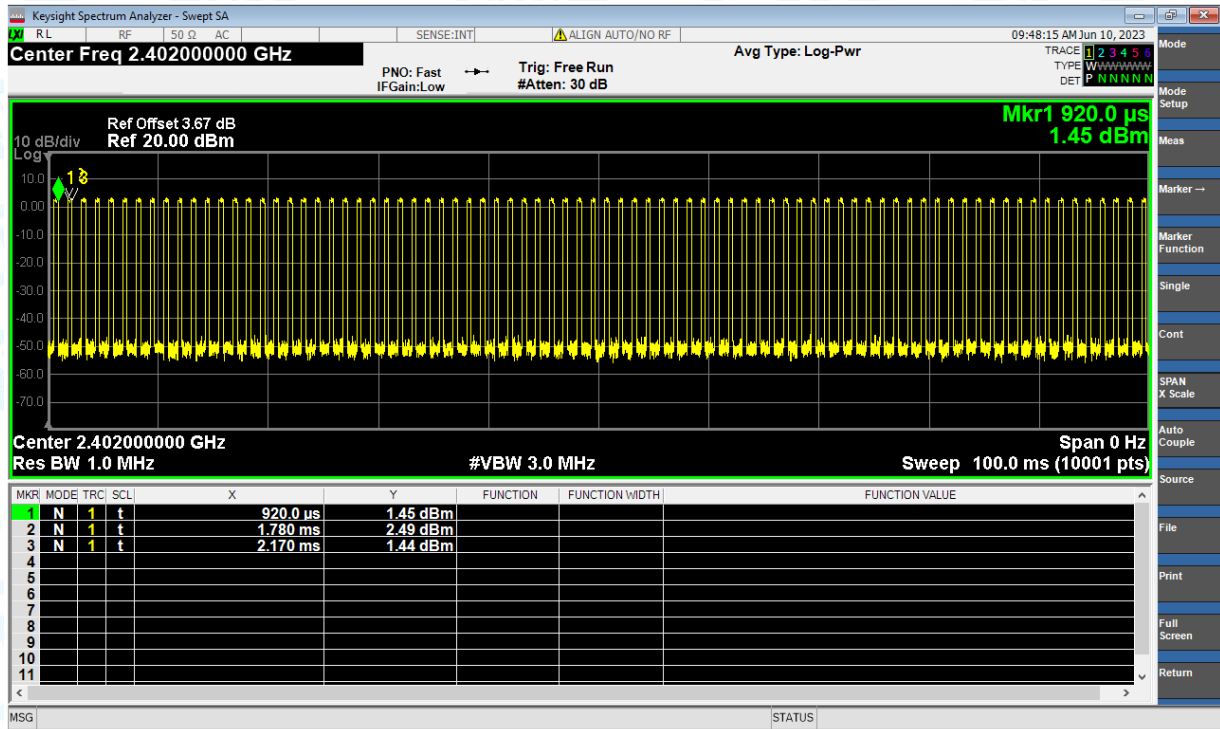
Duty Cycle NVNT 2-DH1 2441MHz Ant1



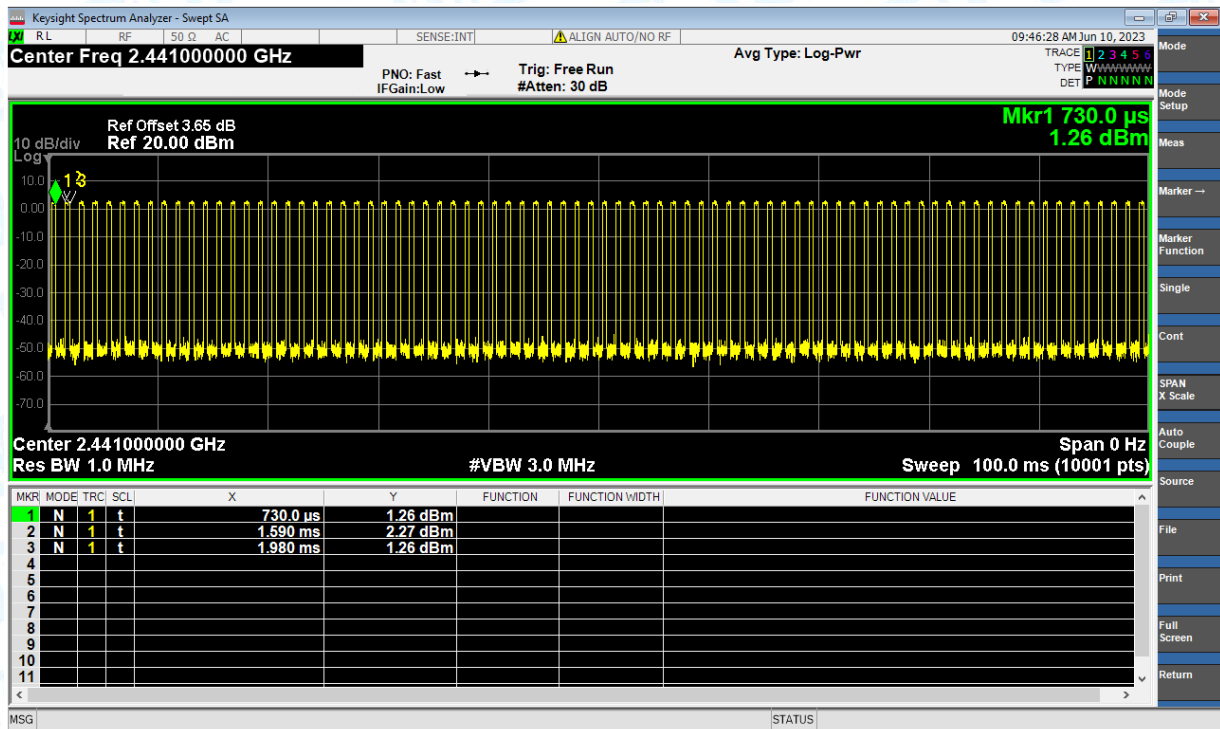
Duty Cycle NVNT 2-DH1 2480MHz Ant1

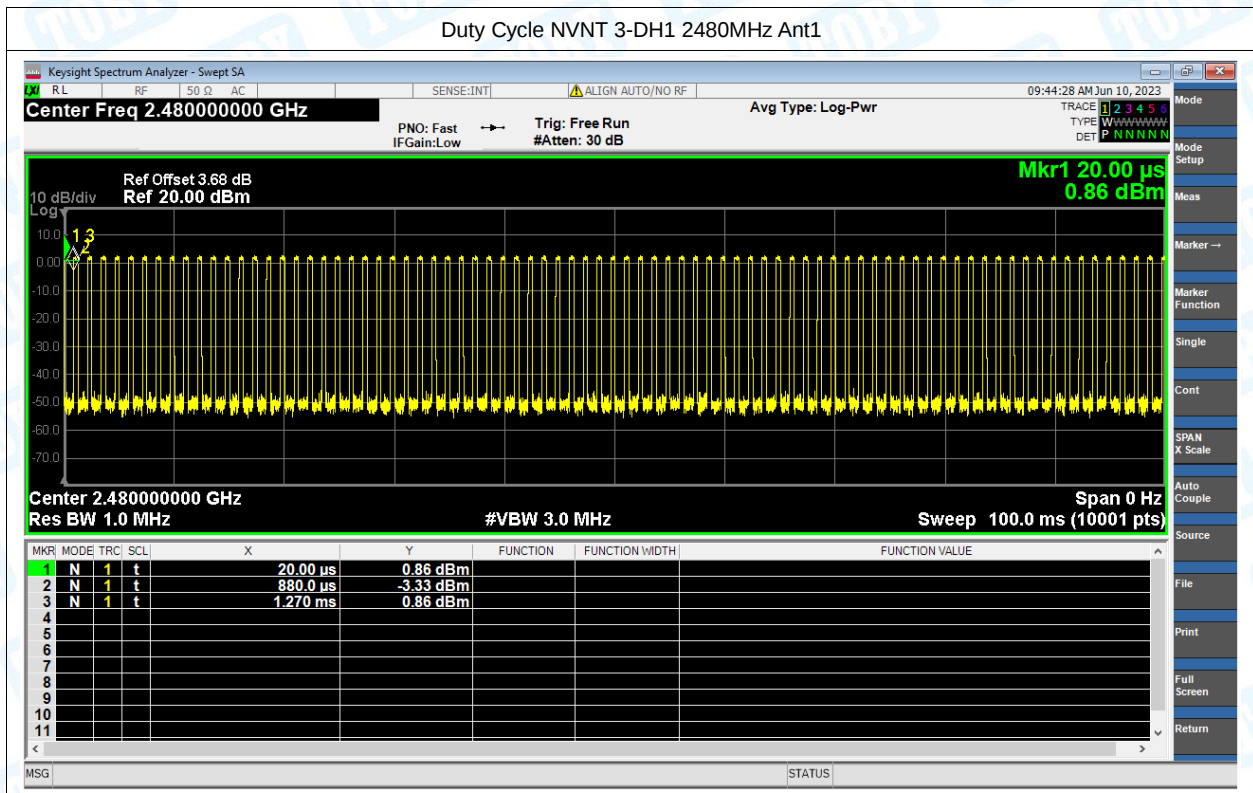


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



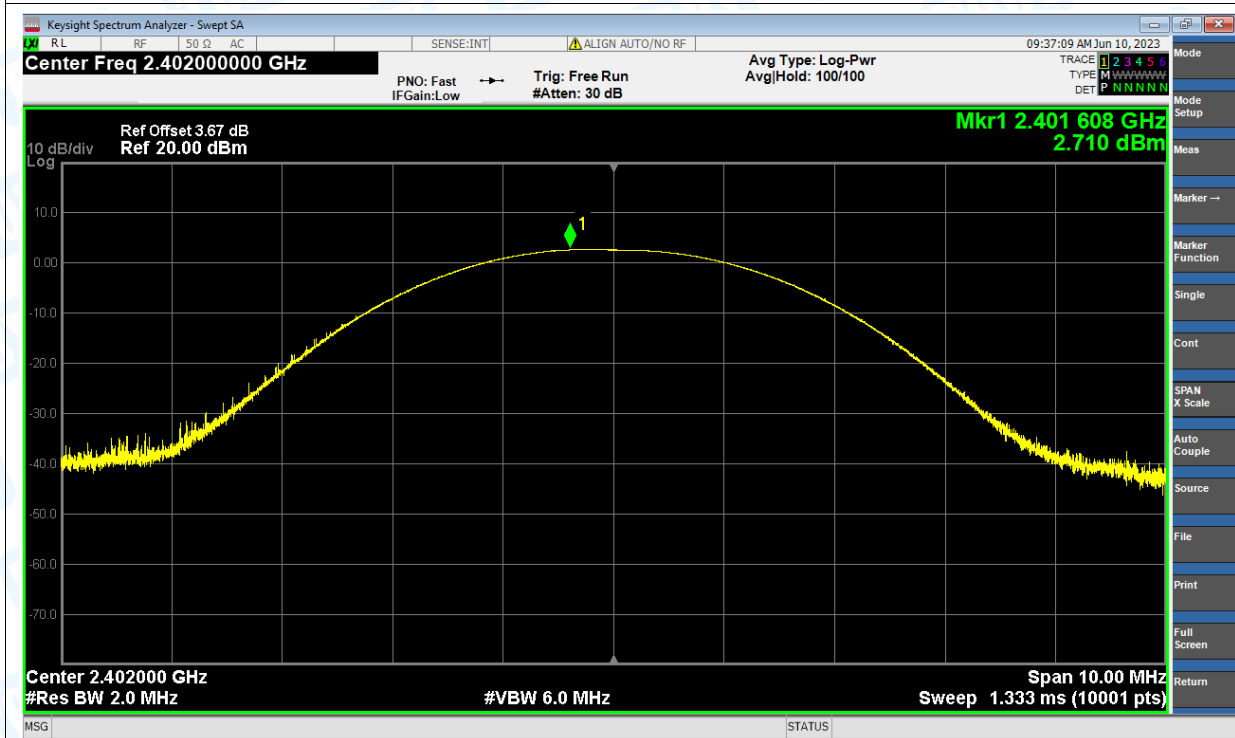


2. Maximum Conducted Output Power

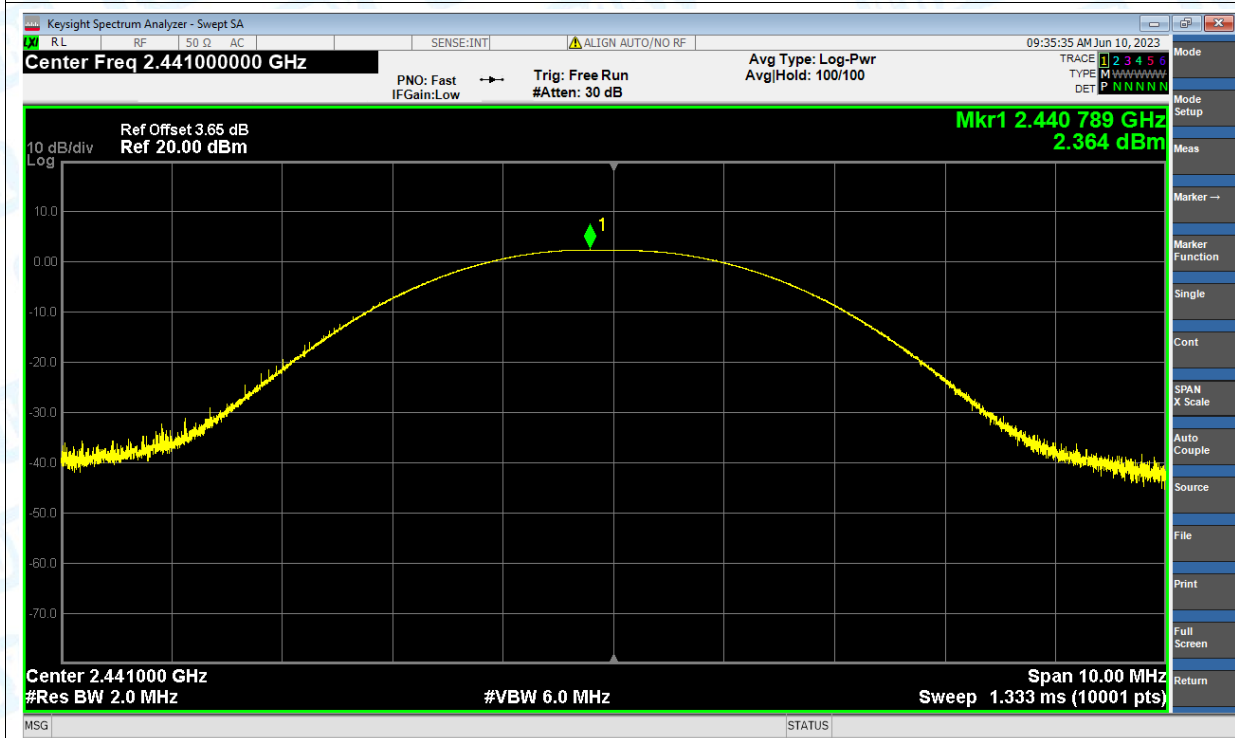
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	2.71	21	Pass
NVNT	1-DH1	2441	Ant1	2.364	21	Pass
NVNT	1-DH1	2480	Ant1	1.995	21	Pass
NVNT	2-DH1	2402	Ant1	3.224	21	Pass
NVNT	2-DH1	2441	Ant1	2.948	21	Pass
NVNT	2-DH1	2480	Ant1	2.556	21	Pass
NVNT	3-DH1	2402	Ant1	3.628	21	Pass
NVNT	3-DH1	2441	Ant1	3.305	21	Pass
NVNT	3-DH1	2480	Ant1	2.861	21	Pass

Test Graphs

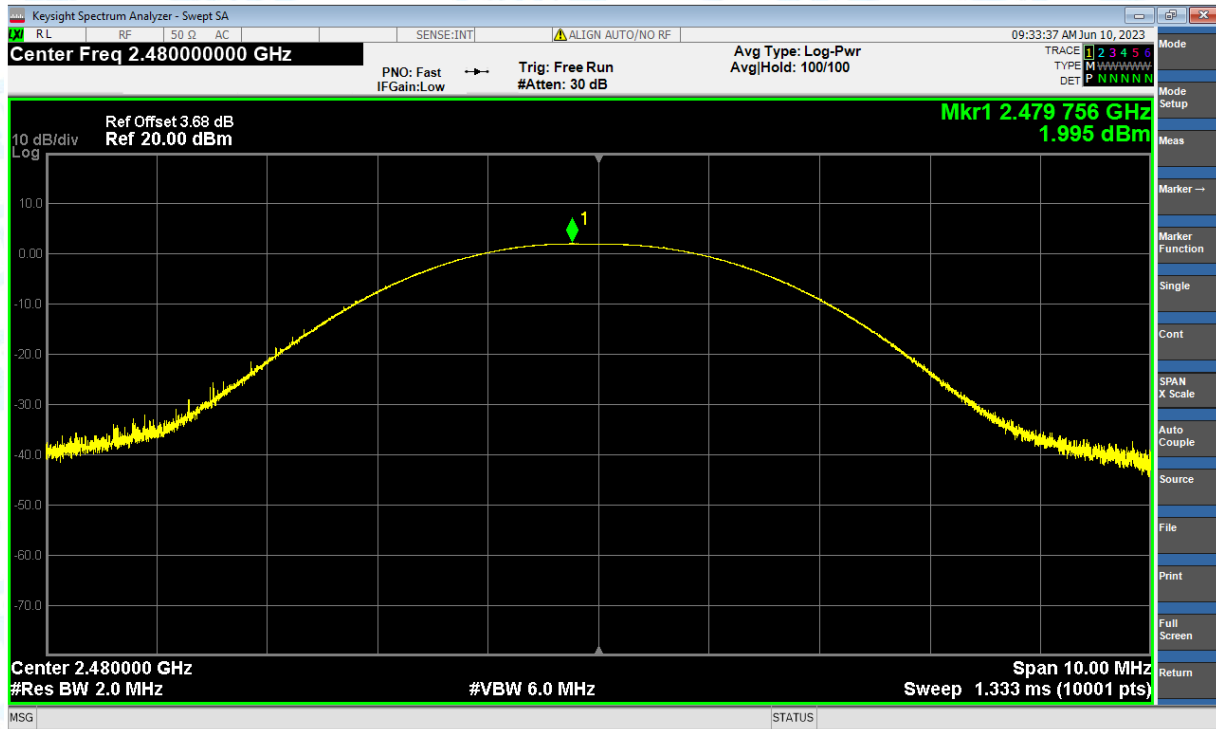
Power NVNT 1-DH1 2402MHz Ant1



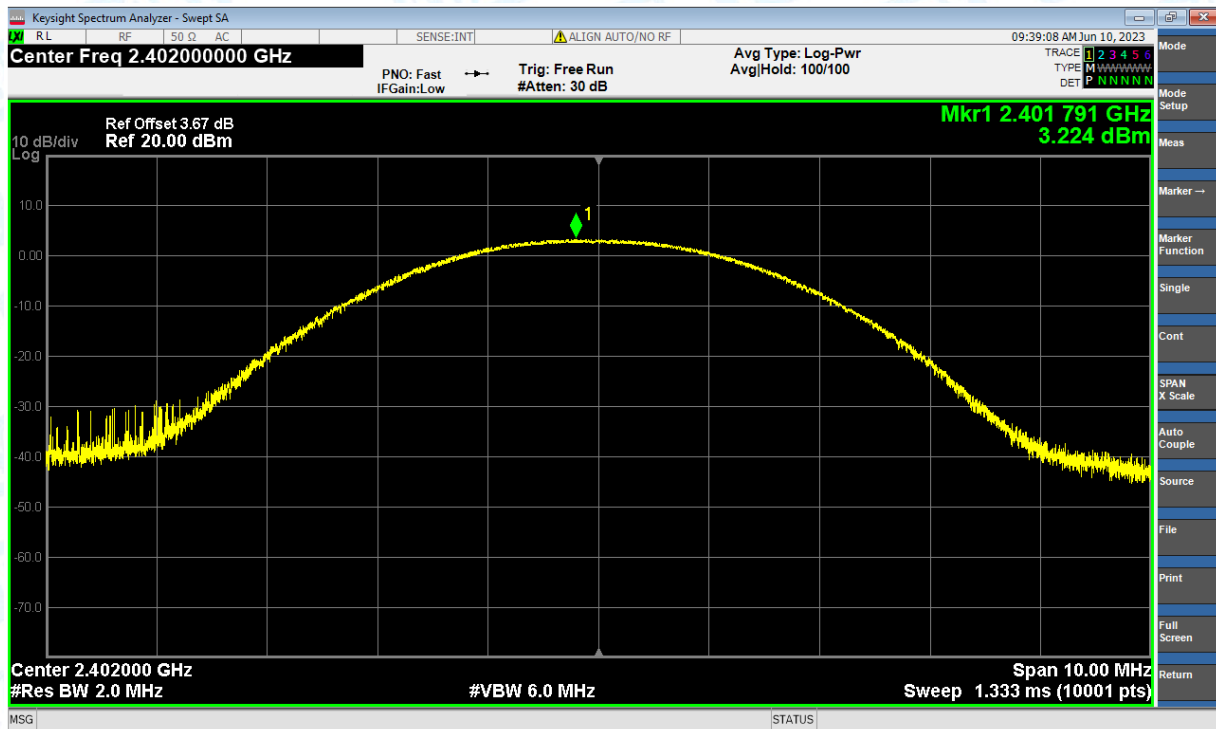
Power NVNT 1-DH1 2441MHz Ant1



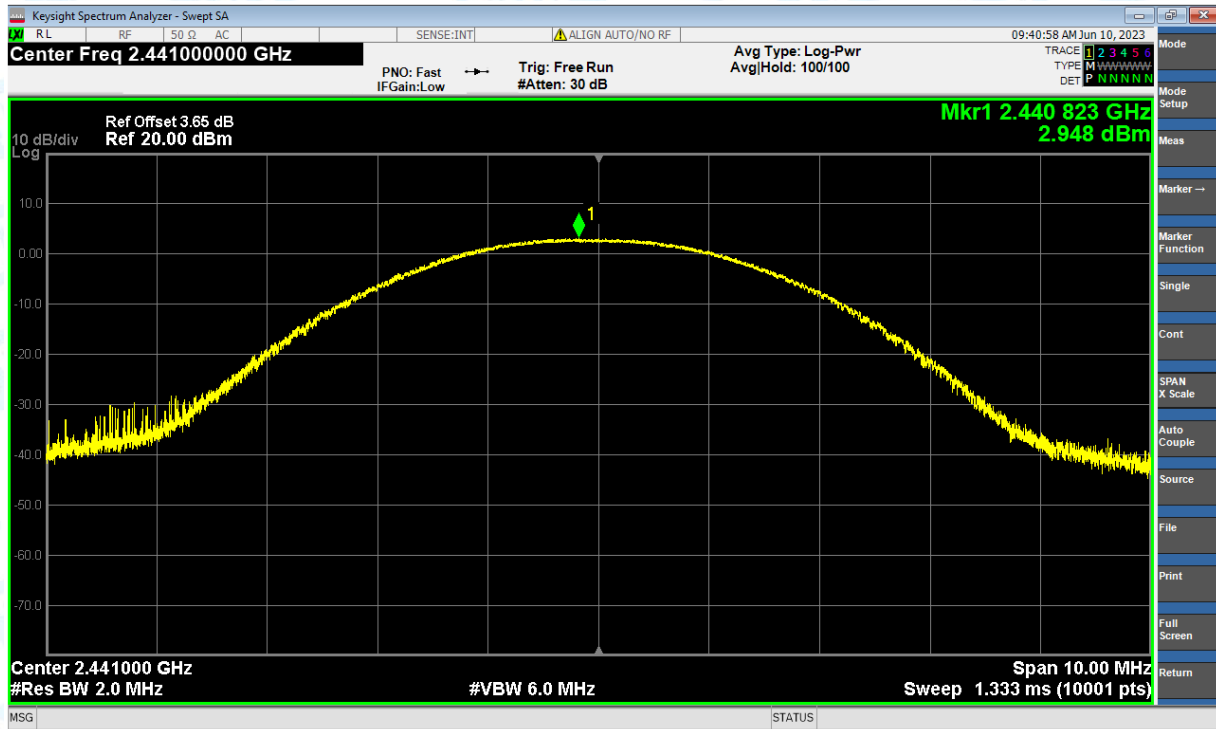
Power NVNT 1-DH1 2480MHz Ant1



Power NVNT 2-DH1 2402MHz Ant1



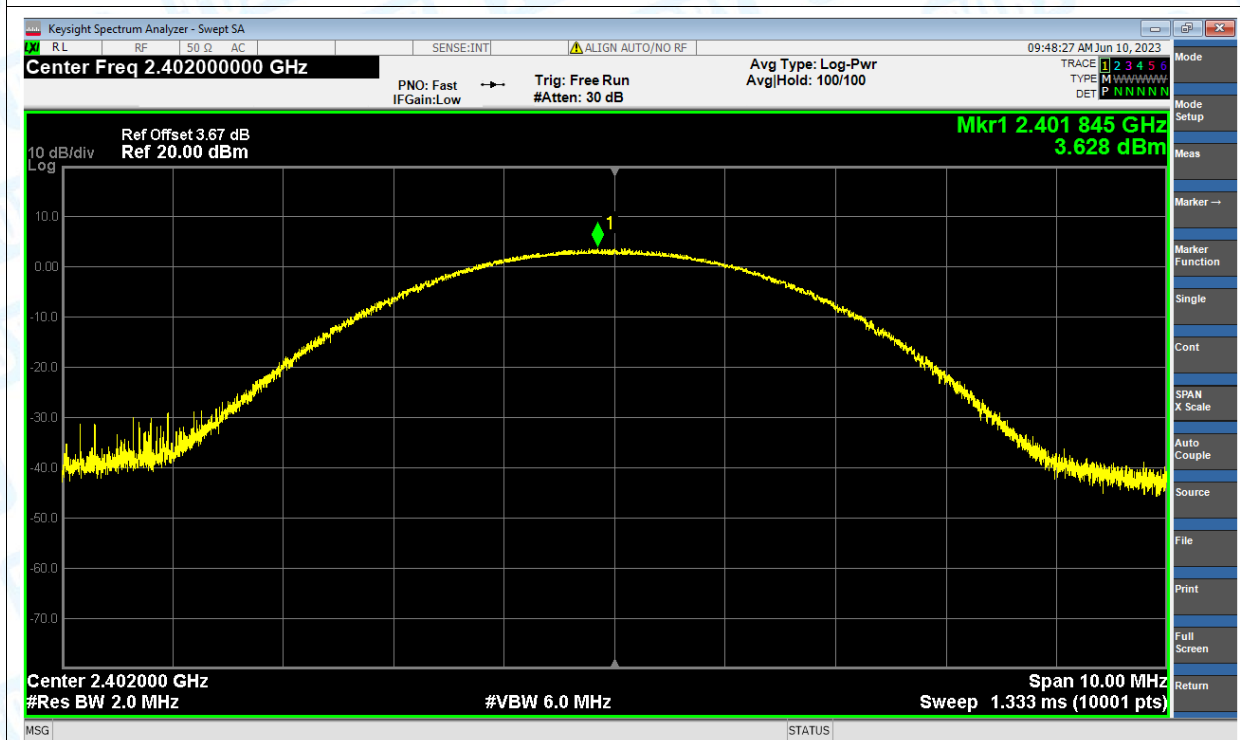
Power NVNT 2-DH1 2441MHz Ant1



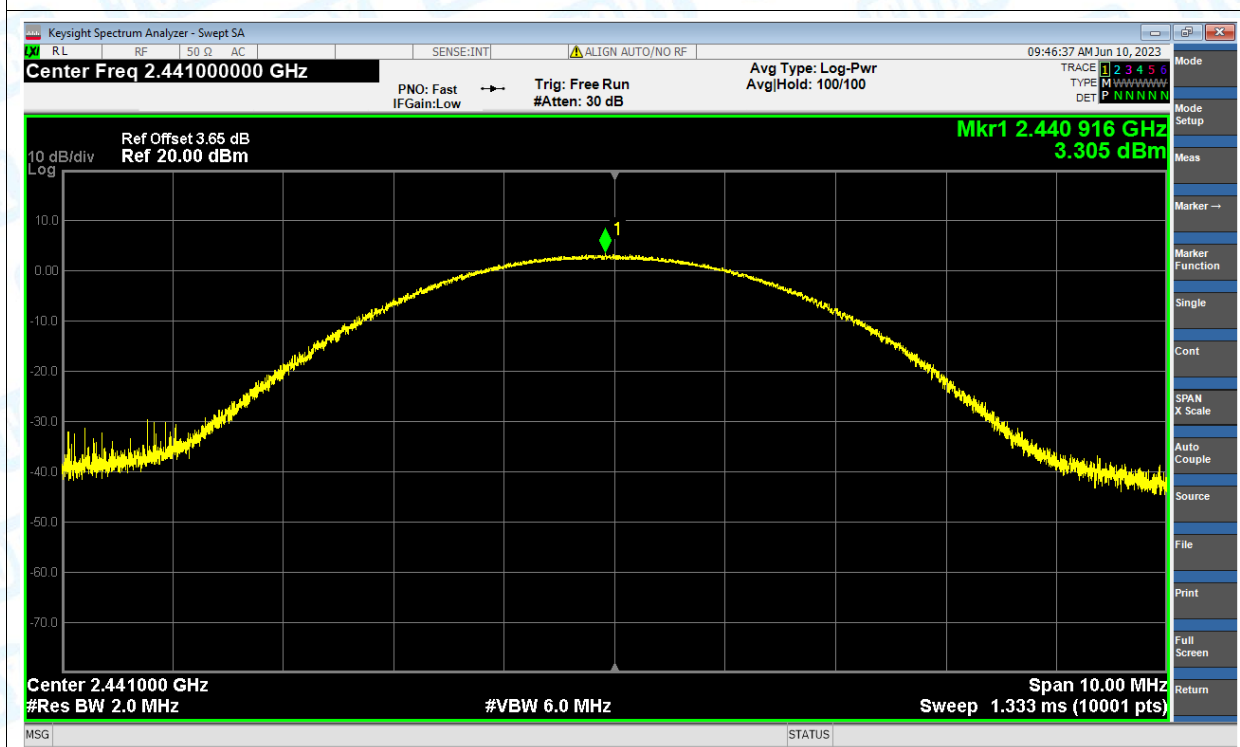
Power NVNT 2-DH1 2480MHz Ant1



Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



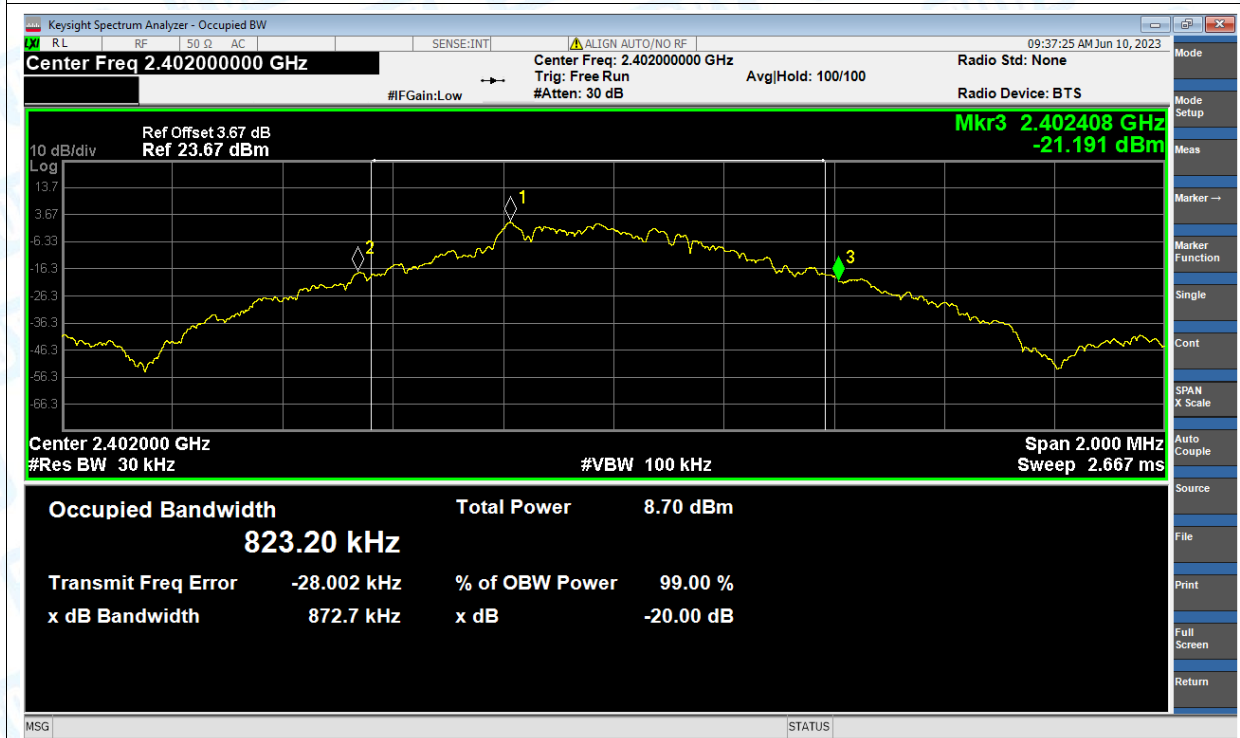


3. -20dB Bandwidth

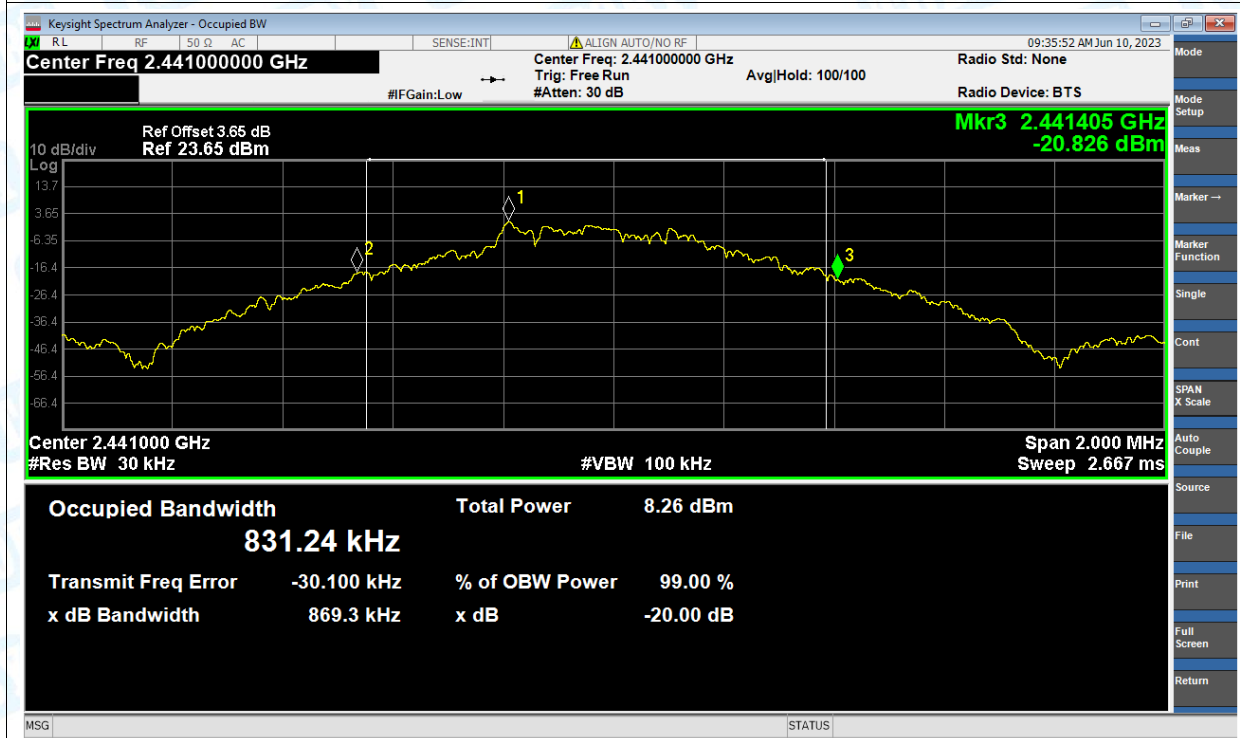
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.87	0	Pass
NVNT	1-DH1	2480	Ant1	0.87	0	Pass
NVNT	2-DH1	2402	Ant1	1.23	0	Pass
NVNT	2-DH1	2441	Ant1	1.22	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.22	0	Pass
NVNT	3-DH1	2480	Ant1	1.21	0	Pass

Test Graphs

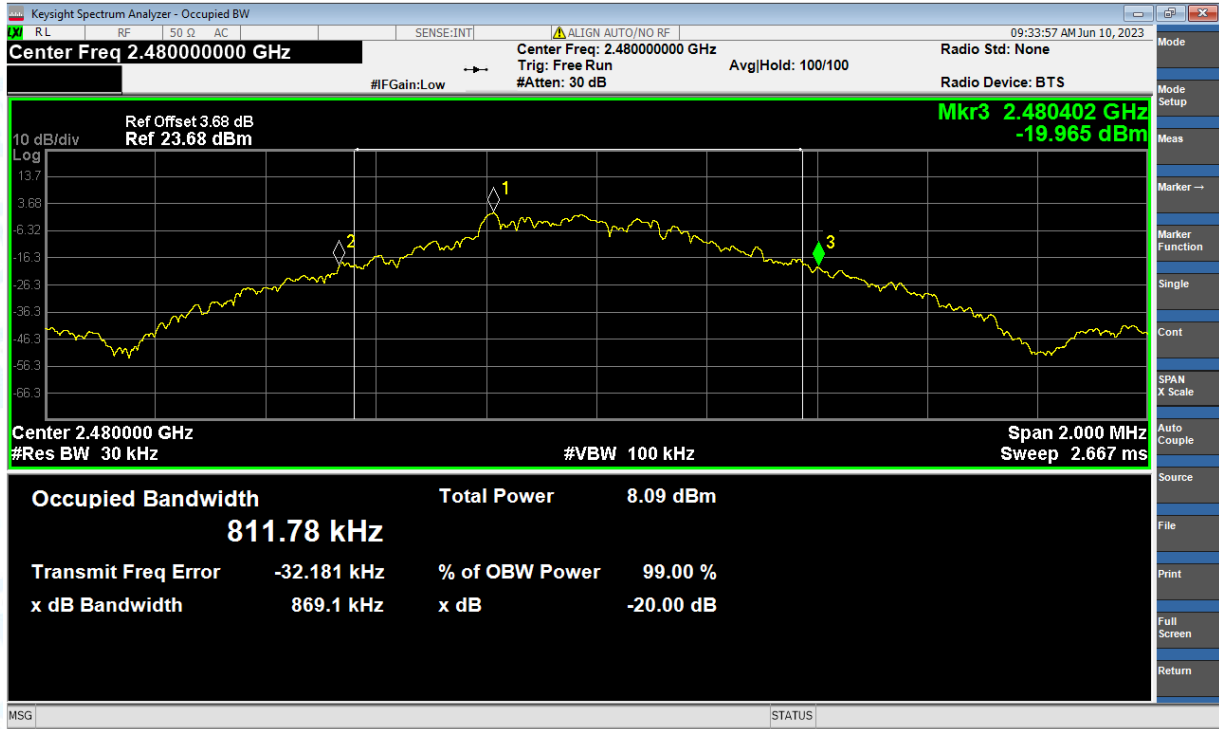
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



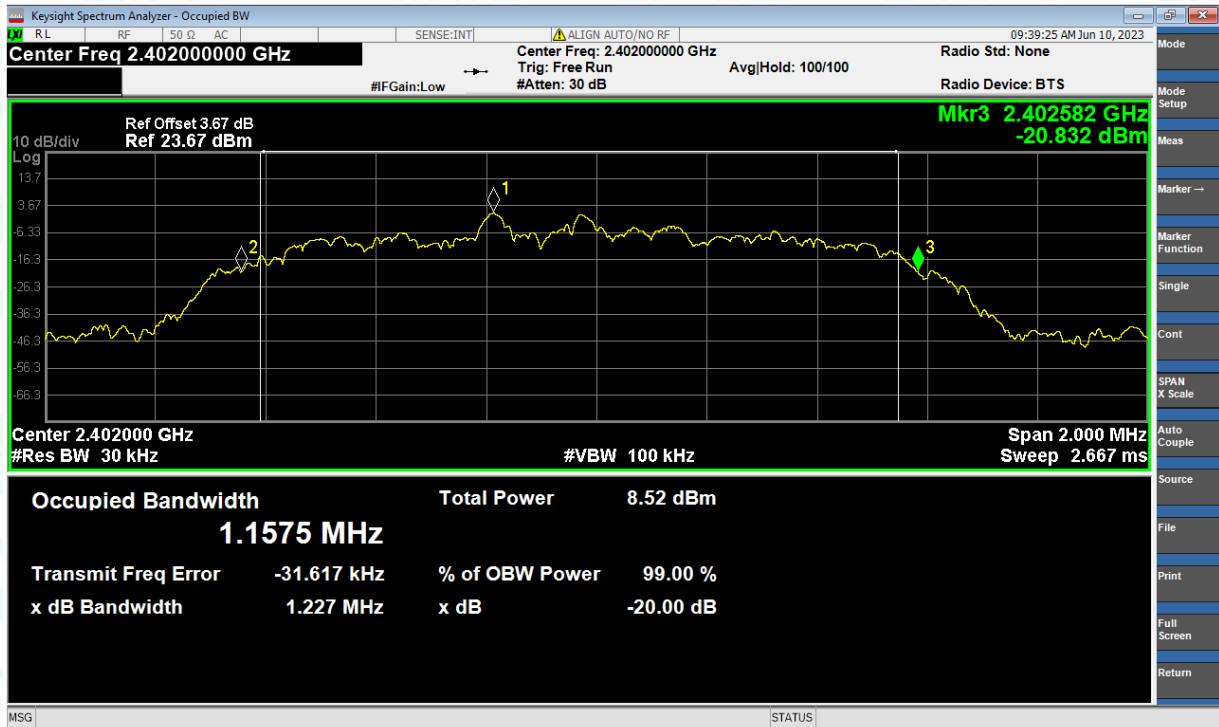
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



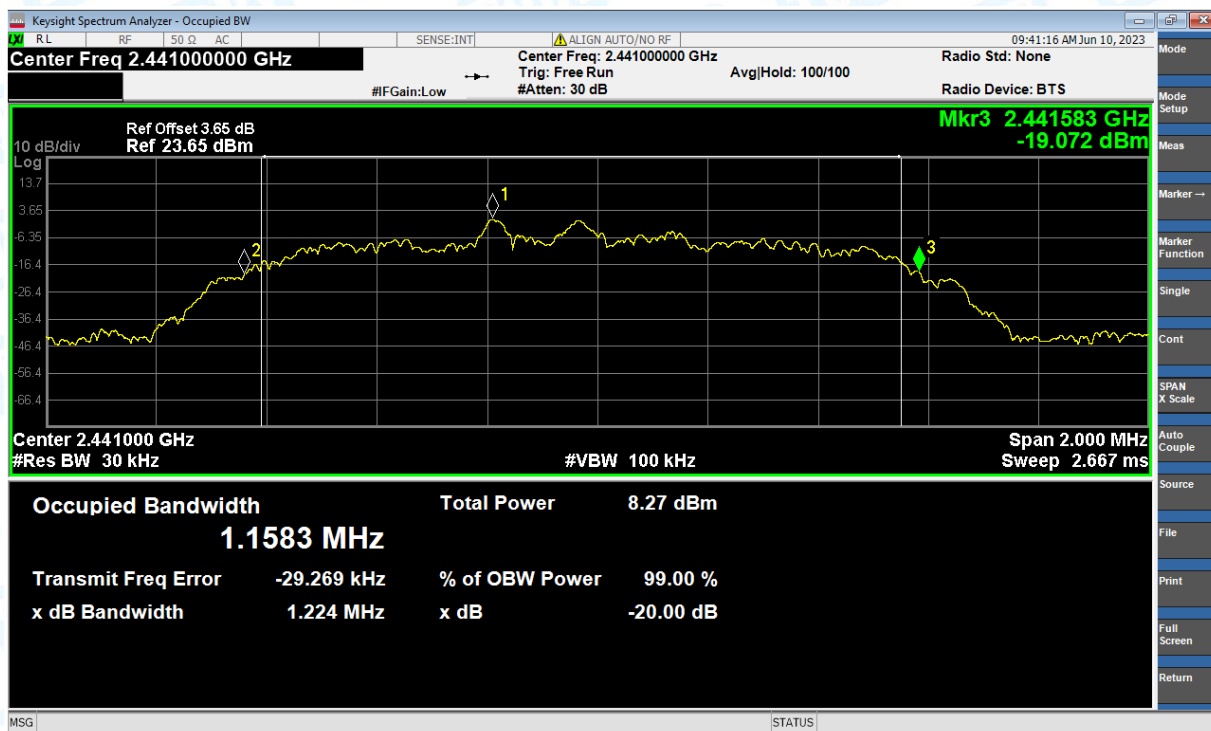
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



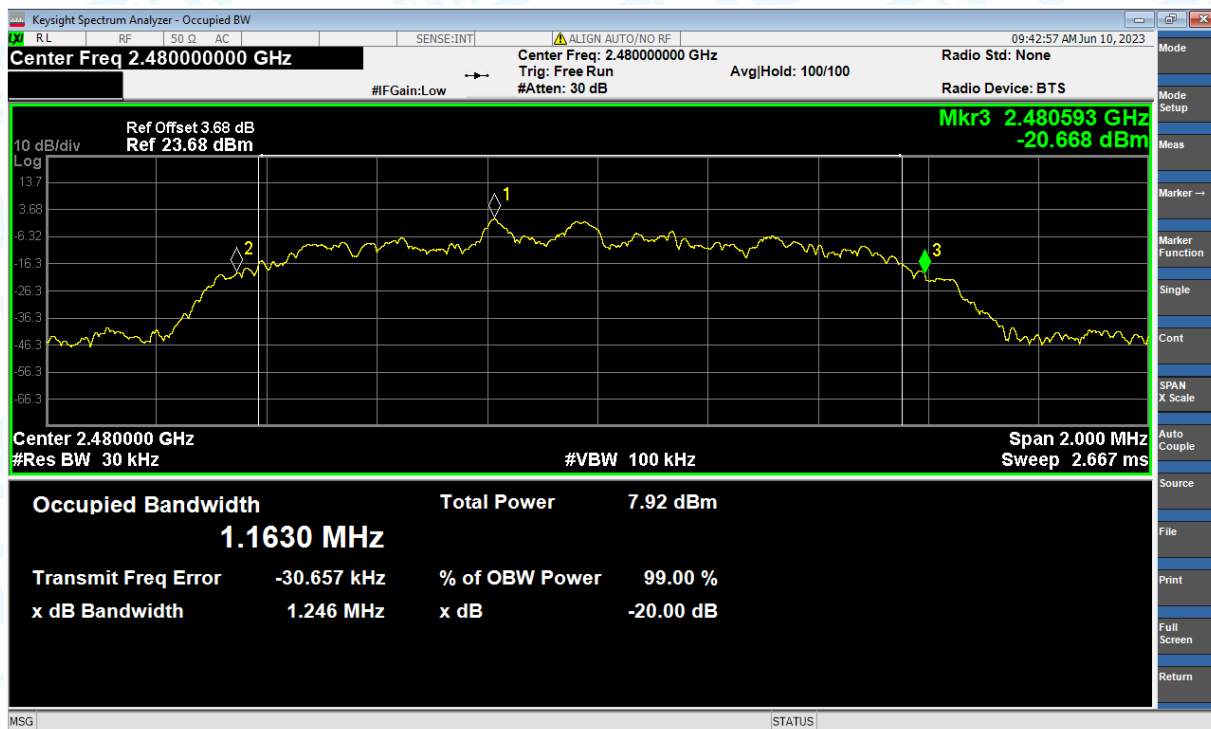
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



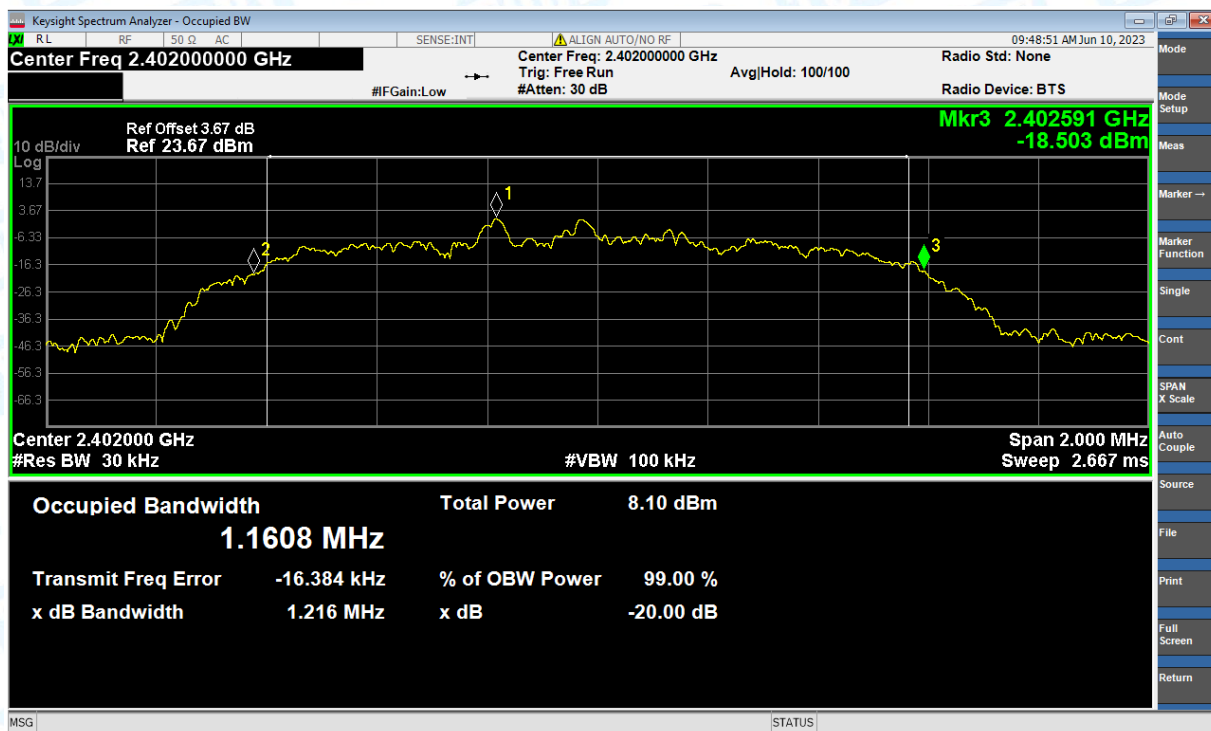
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



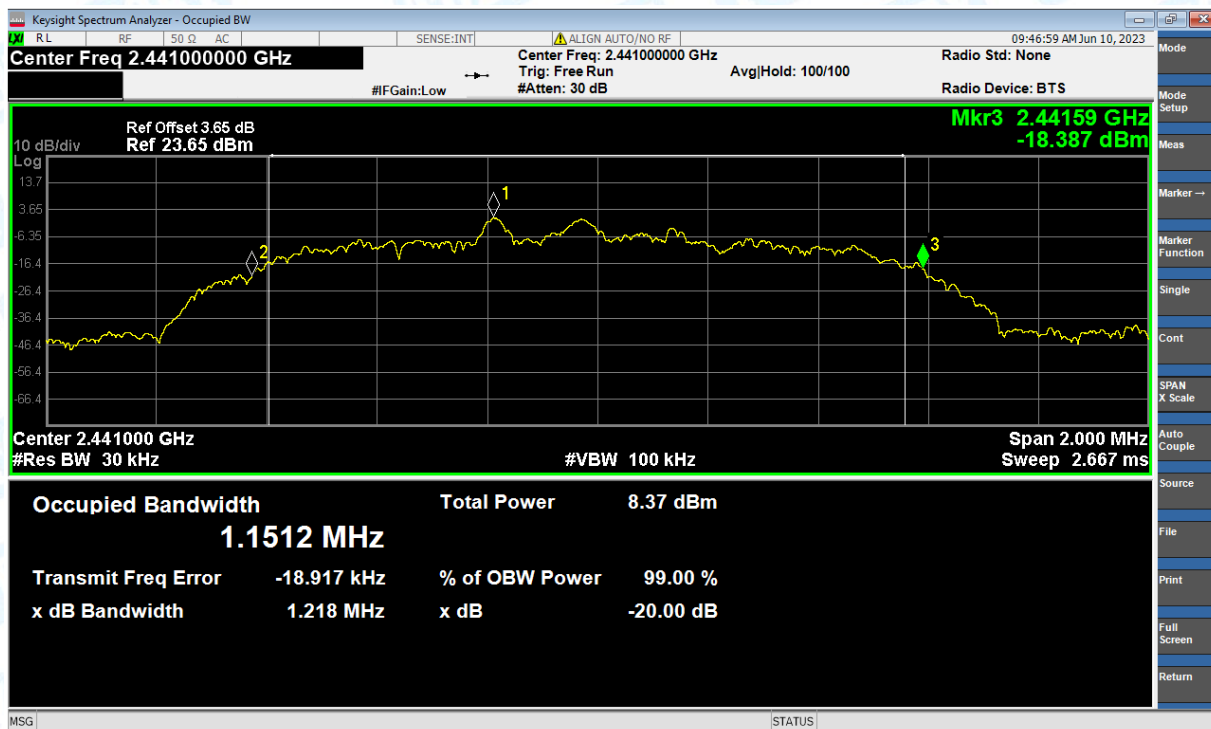
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

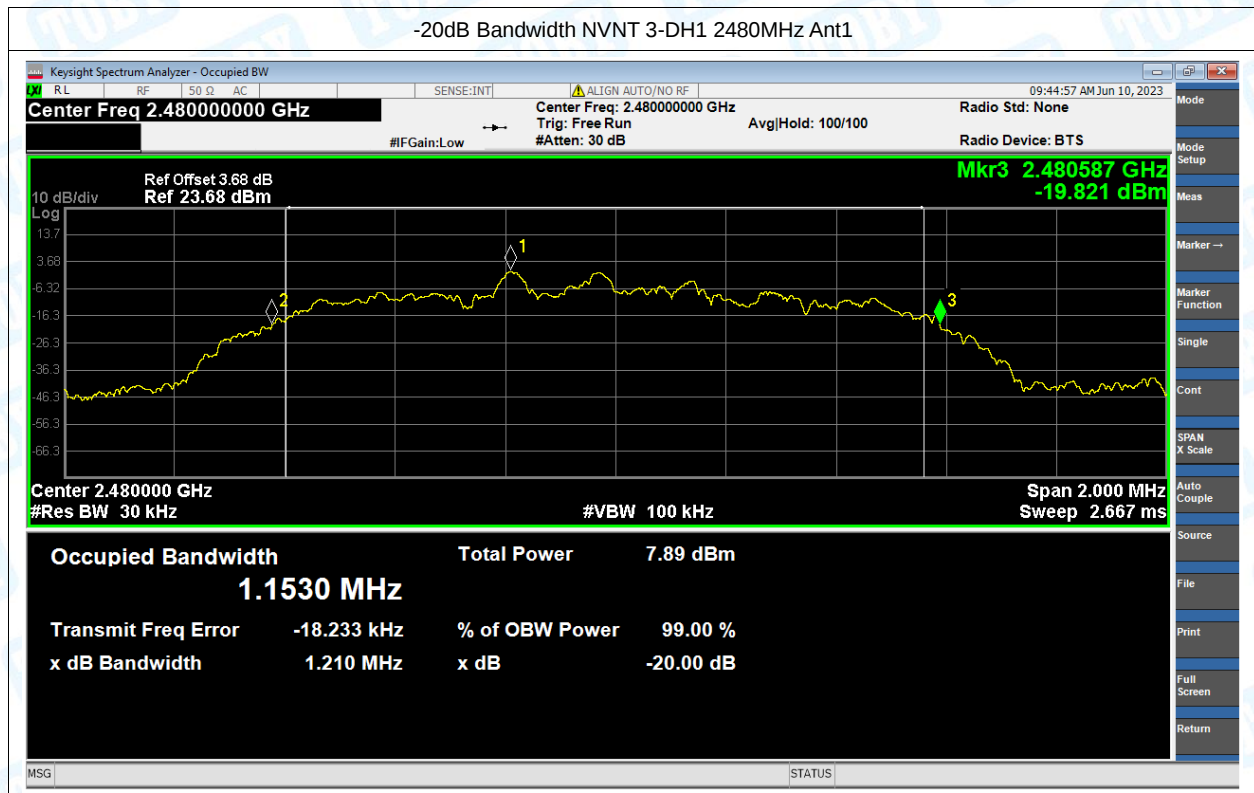


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



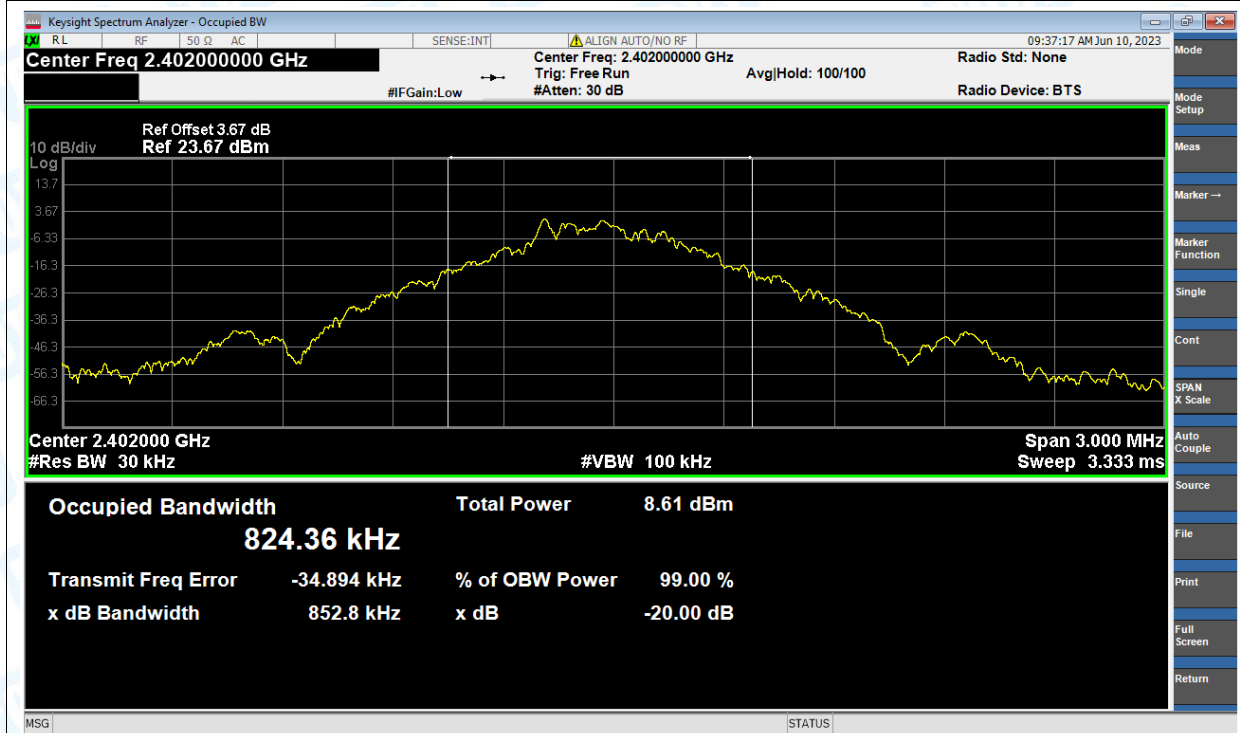


4. Occupied Channel Bandwidth

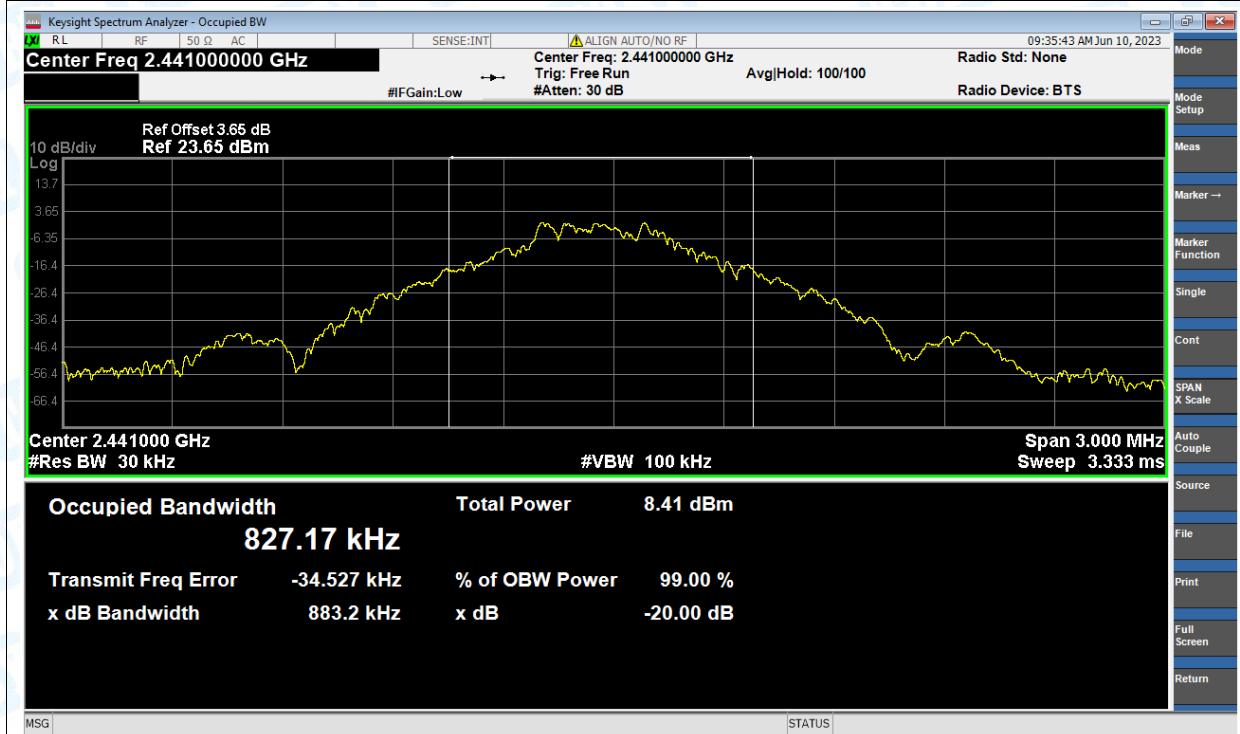
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.824
NVNT	1-DH1	2441	Ant1	0.827
NVNT	1-DH1	2480	Ant1	0.819
NVNT	2-DH1	2402	Ant1	1.163
NVNT	2-DH1	2441	Ant1	1.169
NVNT	2-DH1	2480	Ant1	1.16
NVNT	3-DH1	2402	Ant1	1.161
NVNT	3-DH1	2441	Ant1	1.168
NVNT	3-DH1	2480	Ant1	1.163

Test Graphs

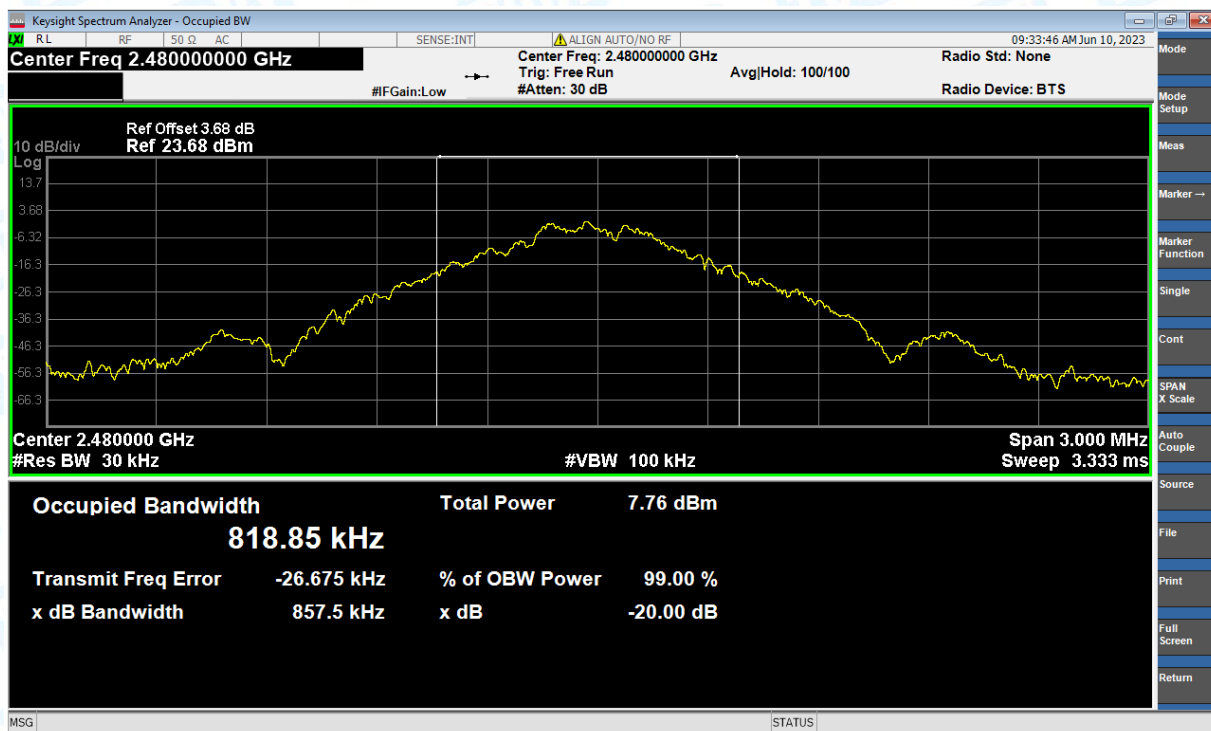
OBW NVNT 1-DH1 2402MHz Ant1



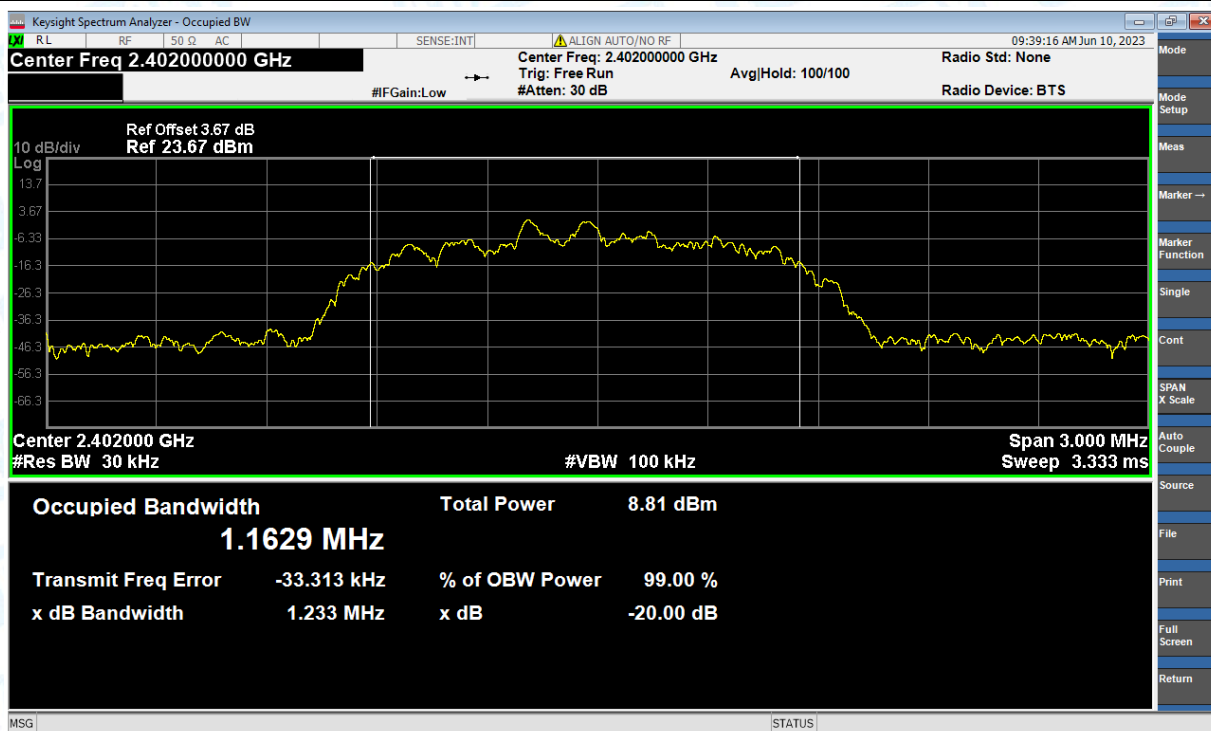
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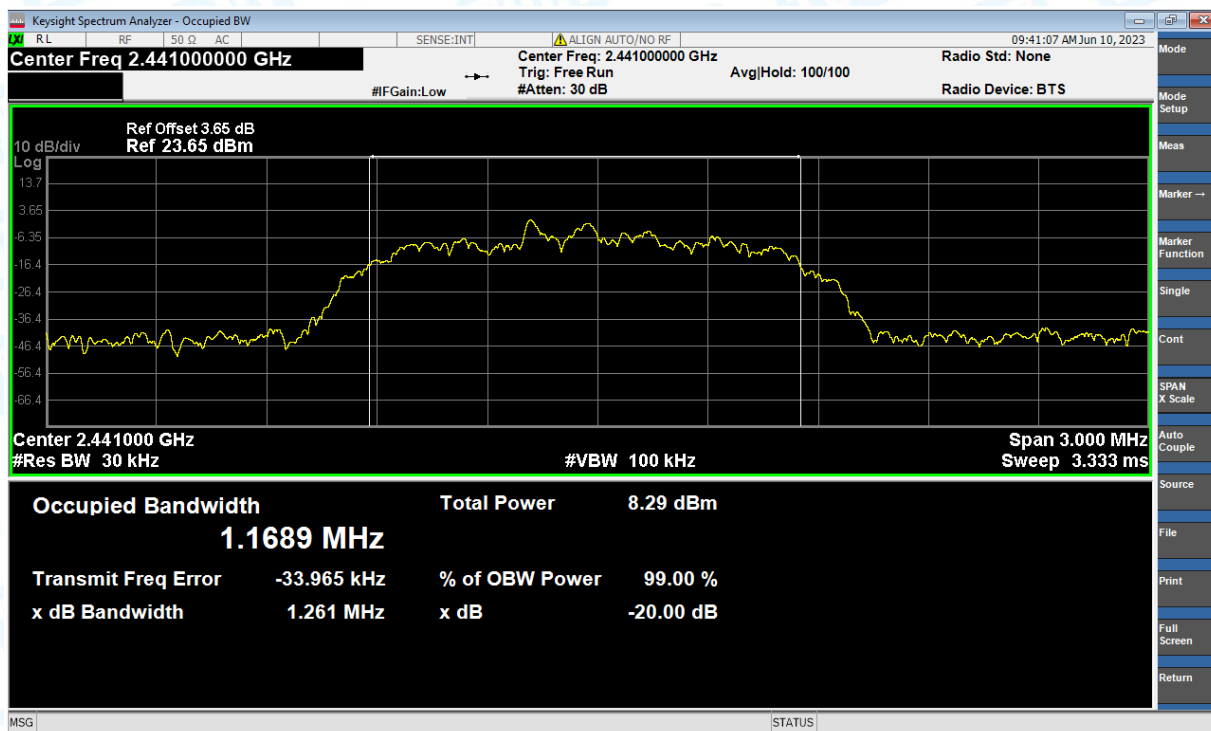
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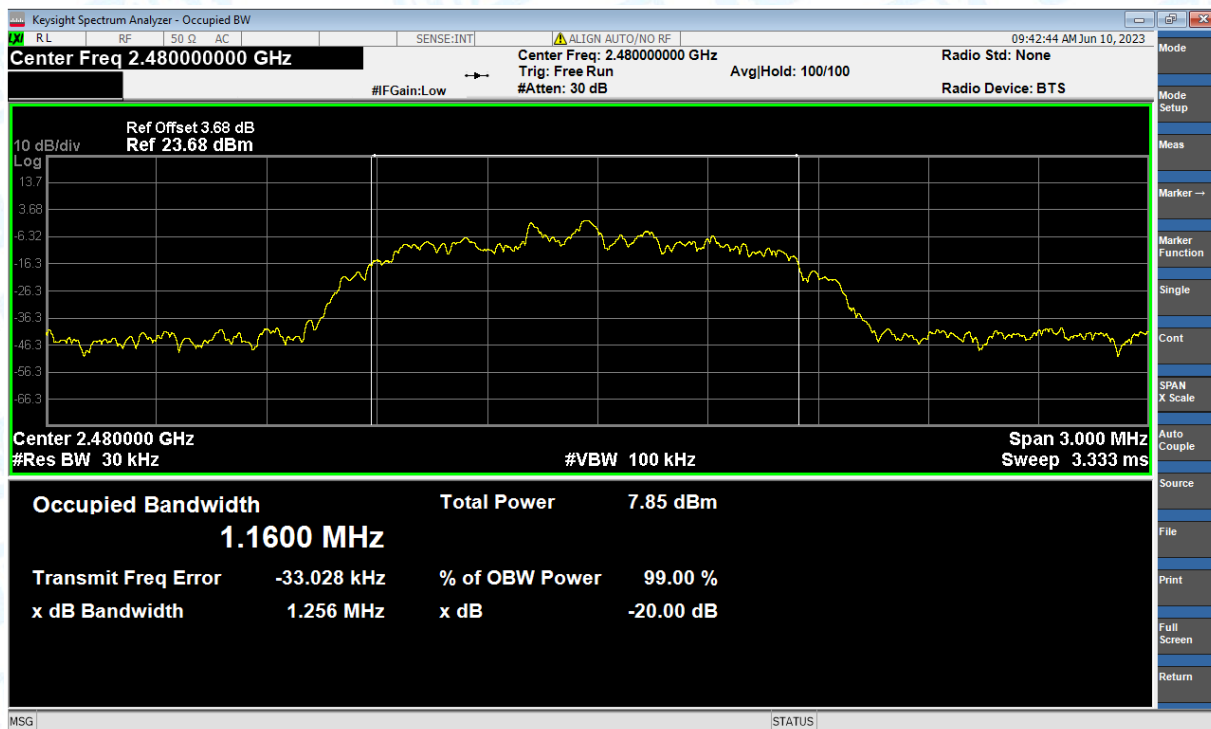
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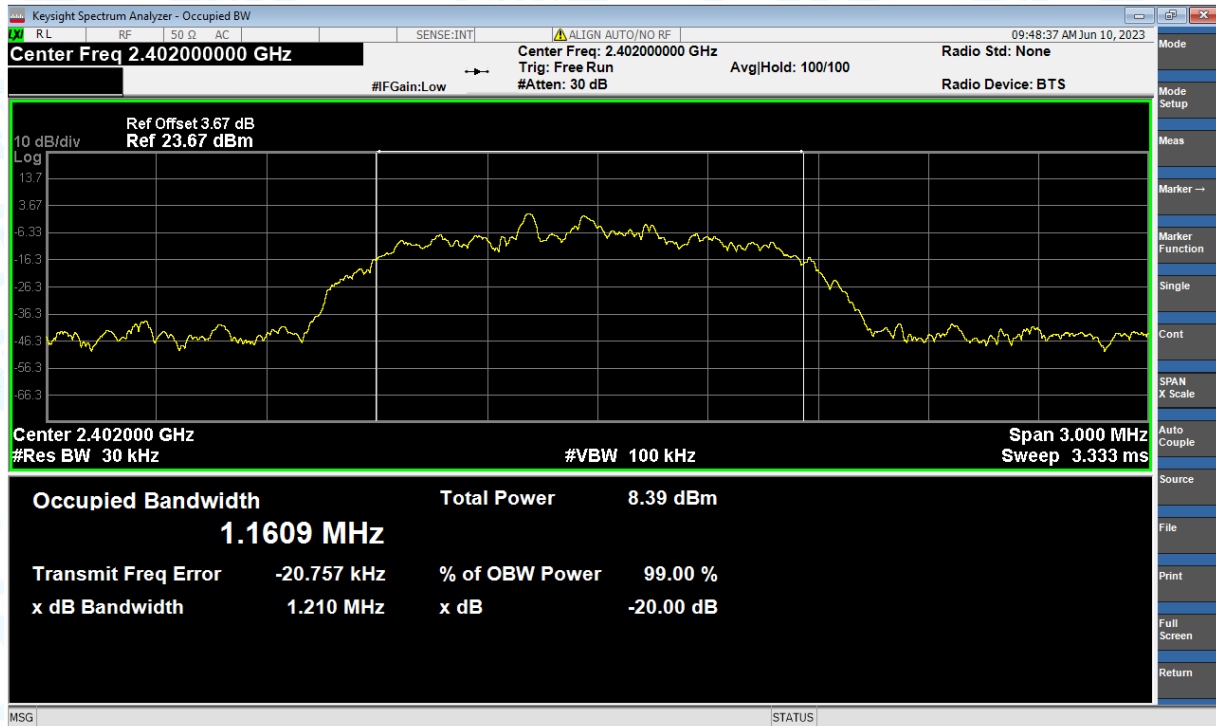
OBW NVNT 2-DH1 2441MHz Ant1



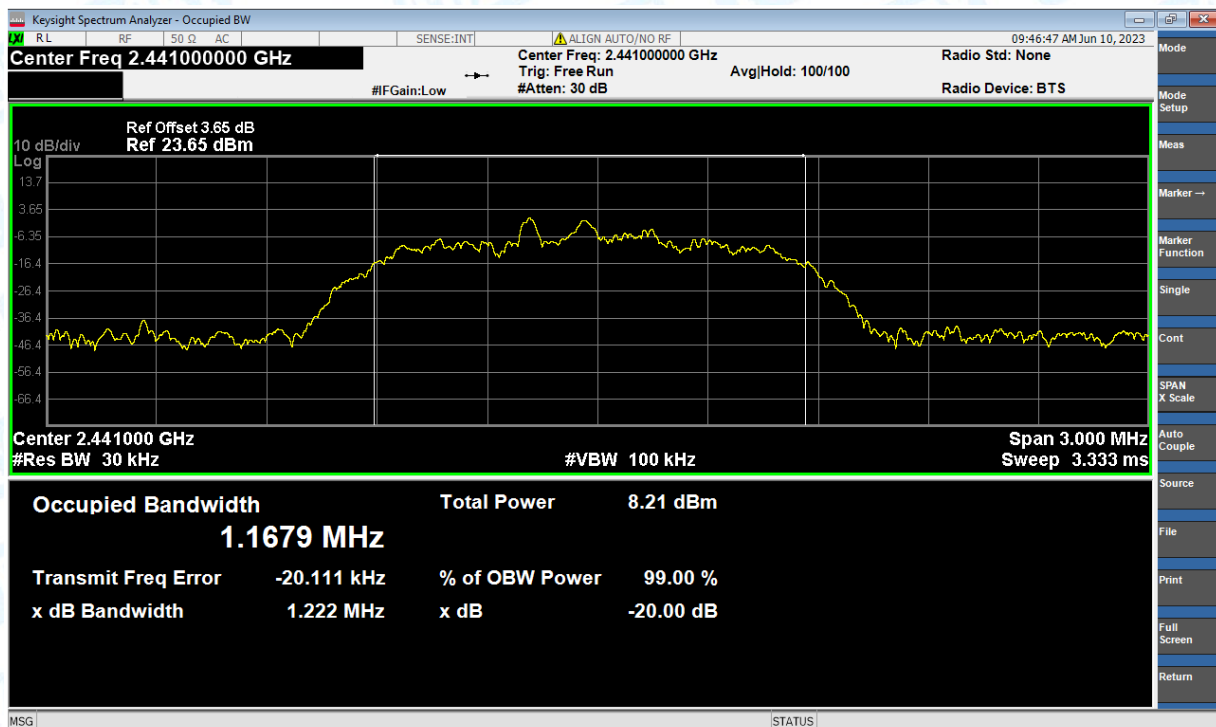
OBW NVNT 2-DH1 2480MHz Ant1

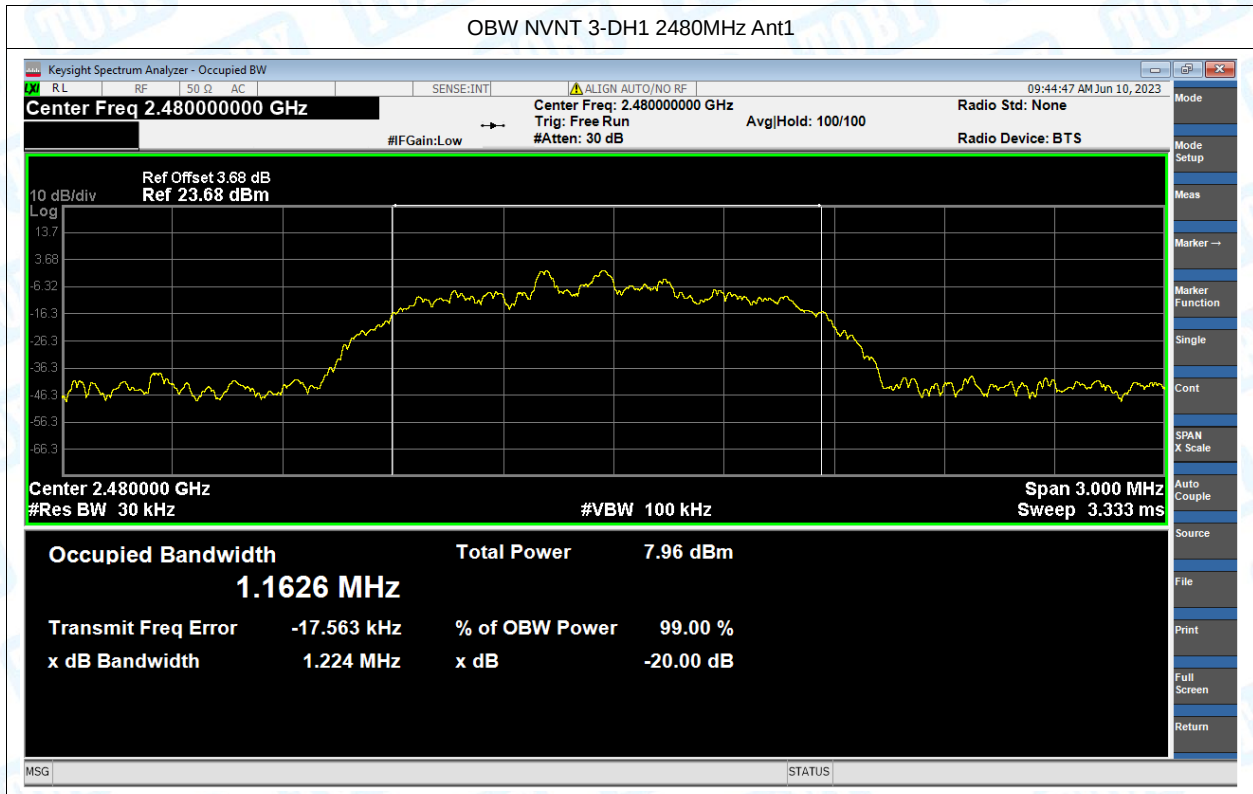


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



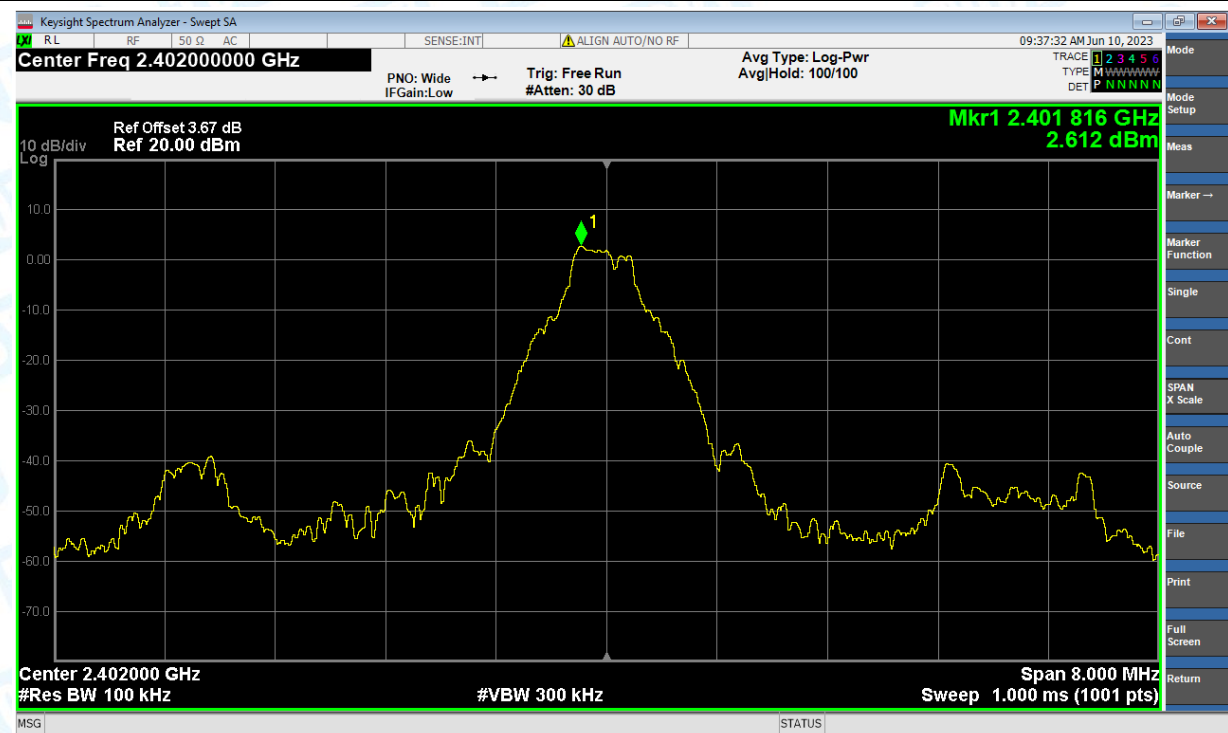


5. Band Edge

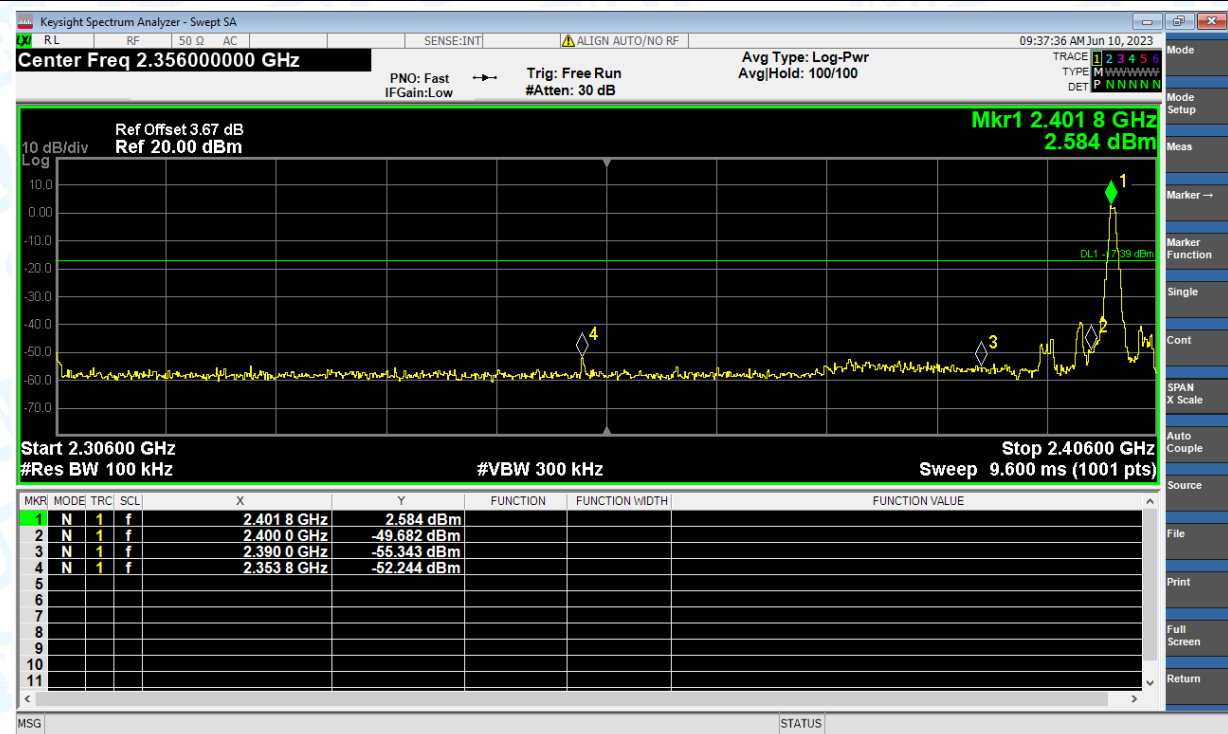
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-54.85	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-42.86	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-54.62	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-43.54	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-52.86	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-45.95	-20	Pass

Test Graphs

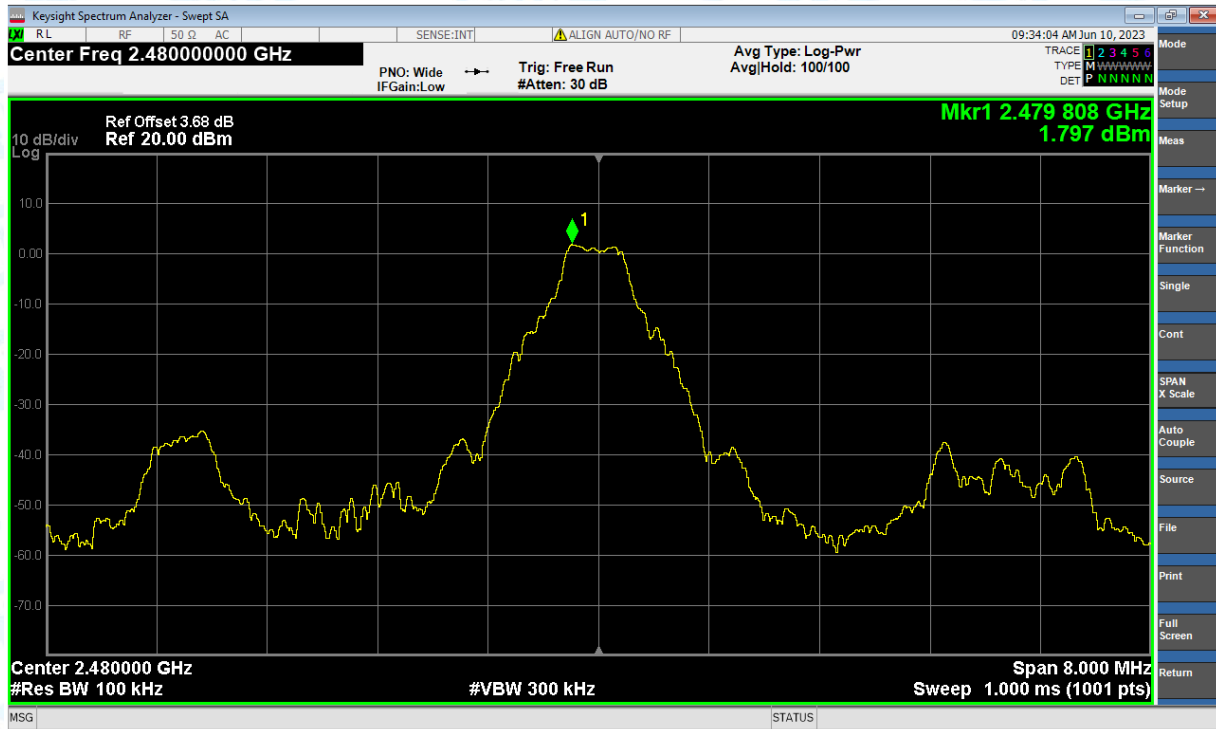
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



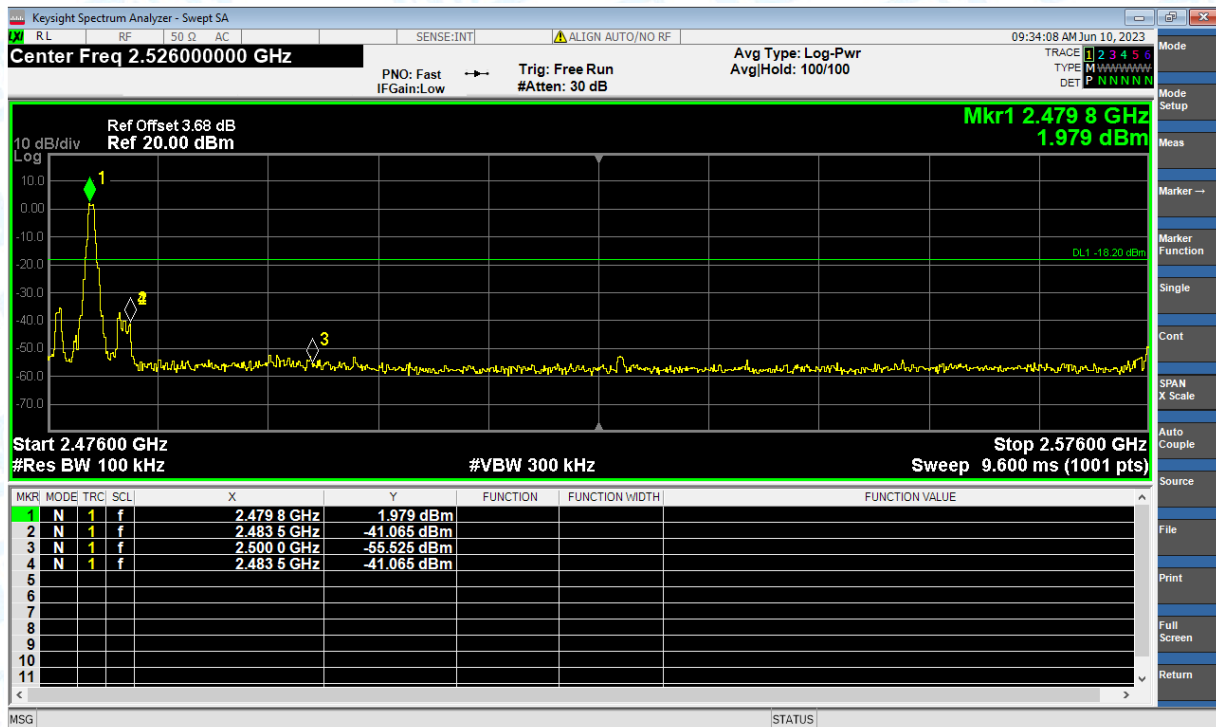
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



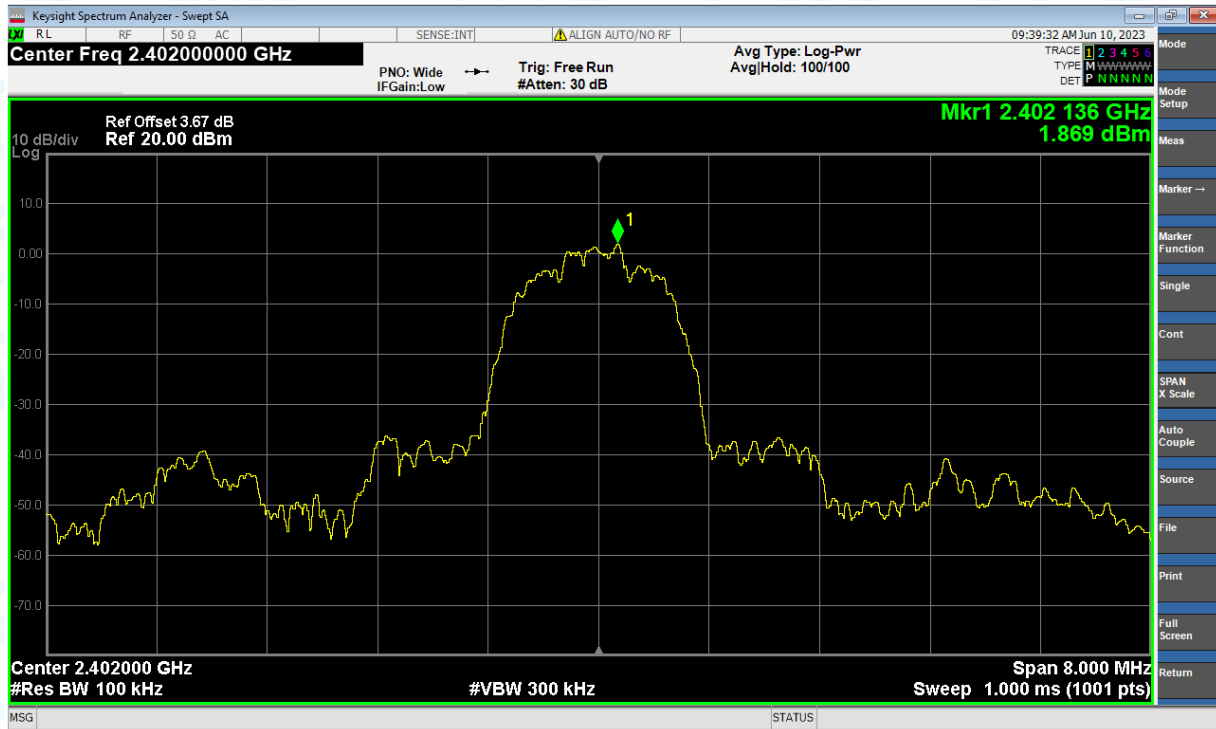
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



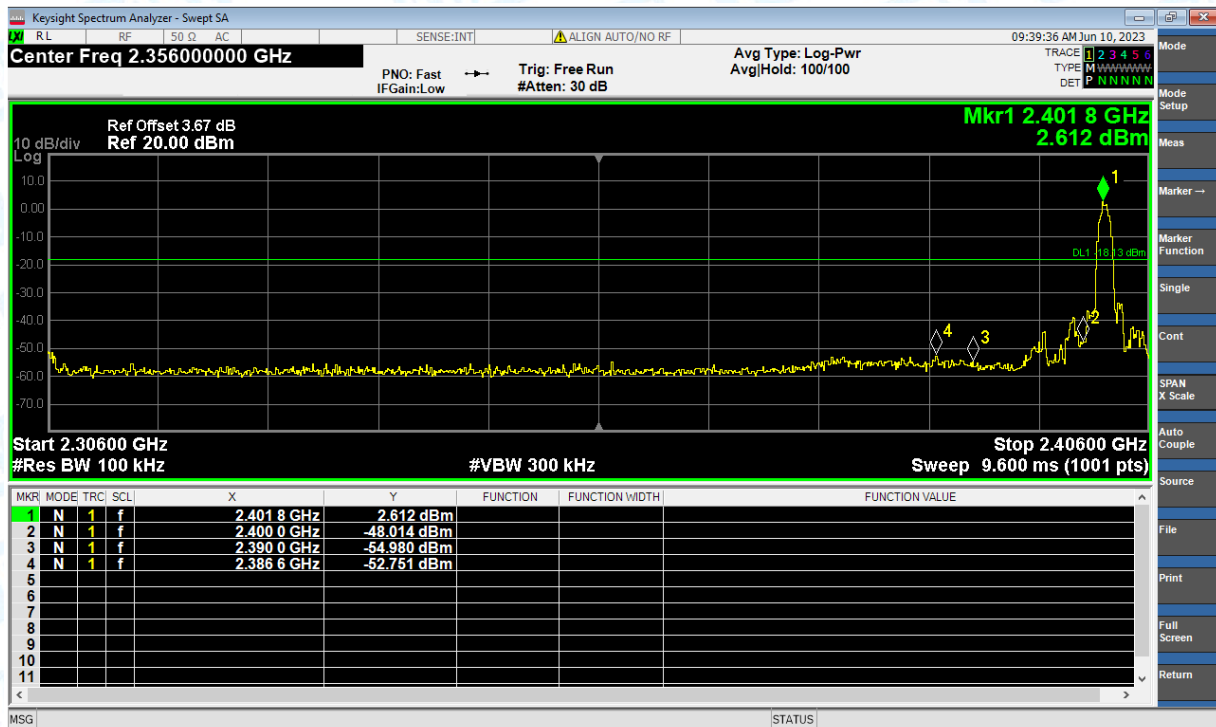
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



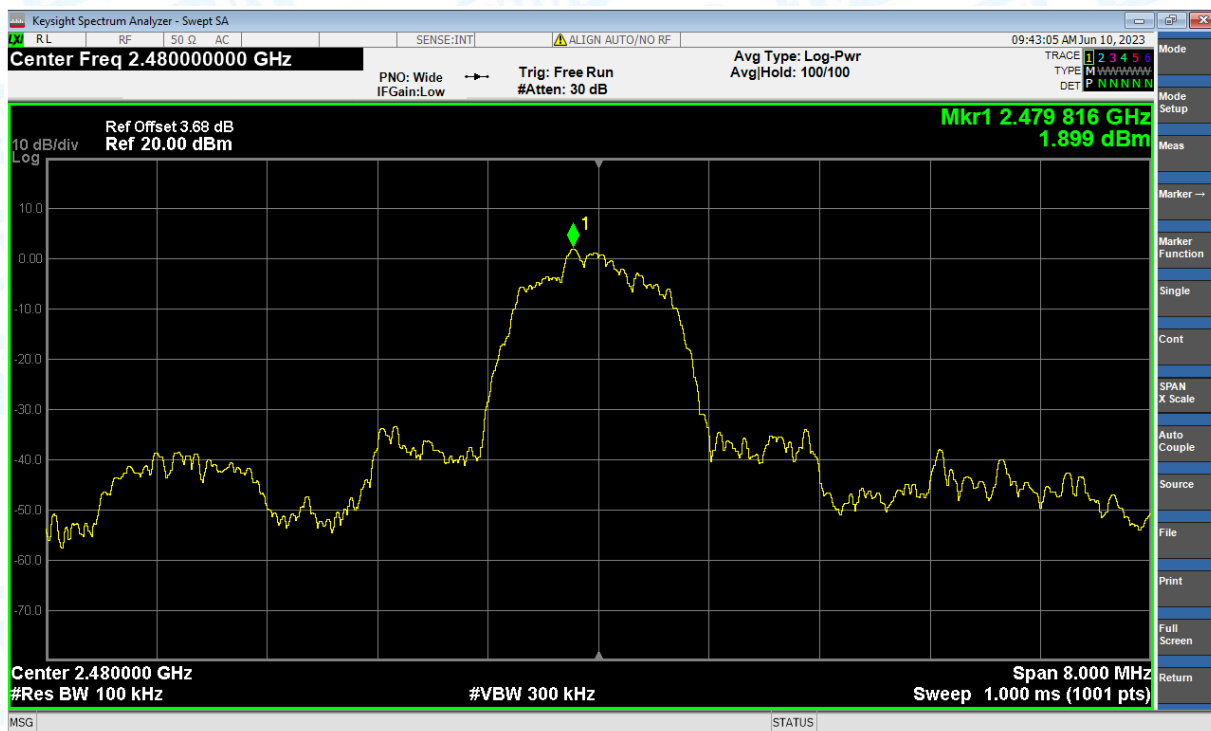
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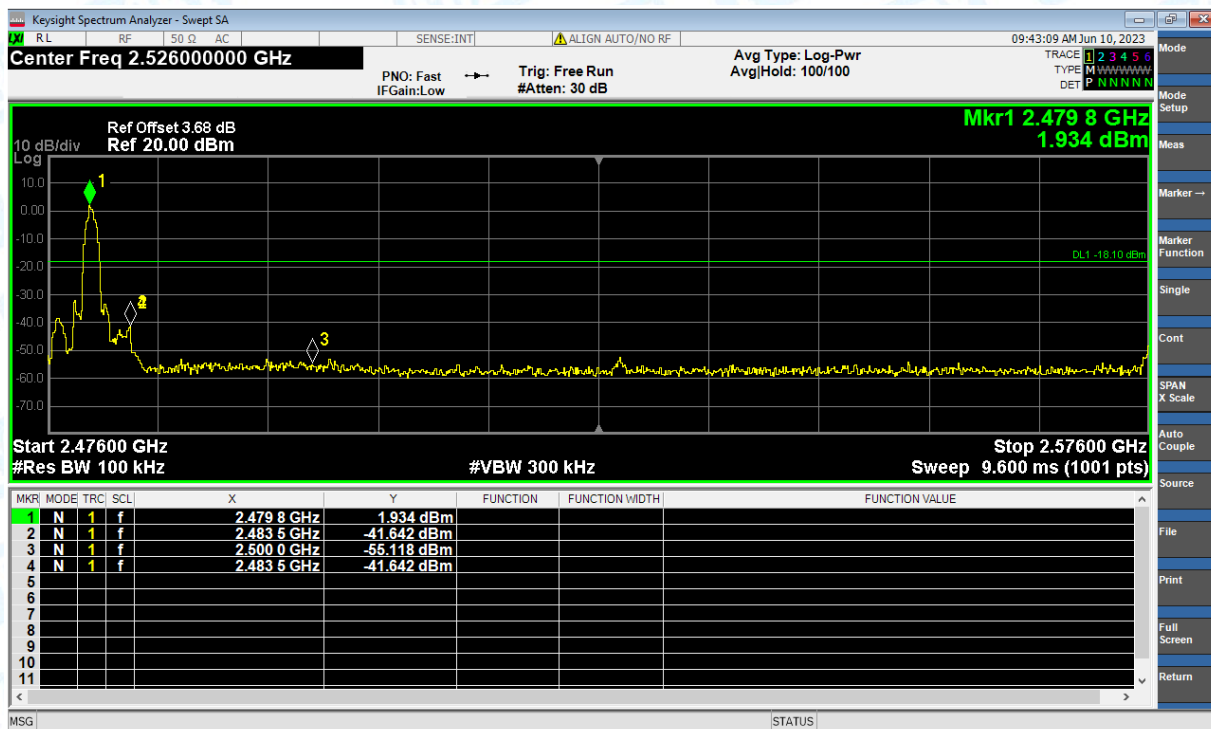
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



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



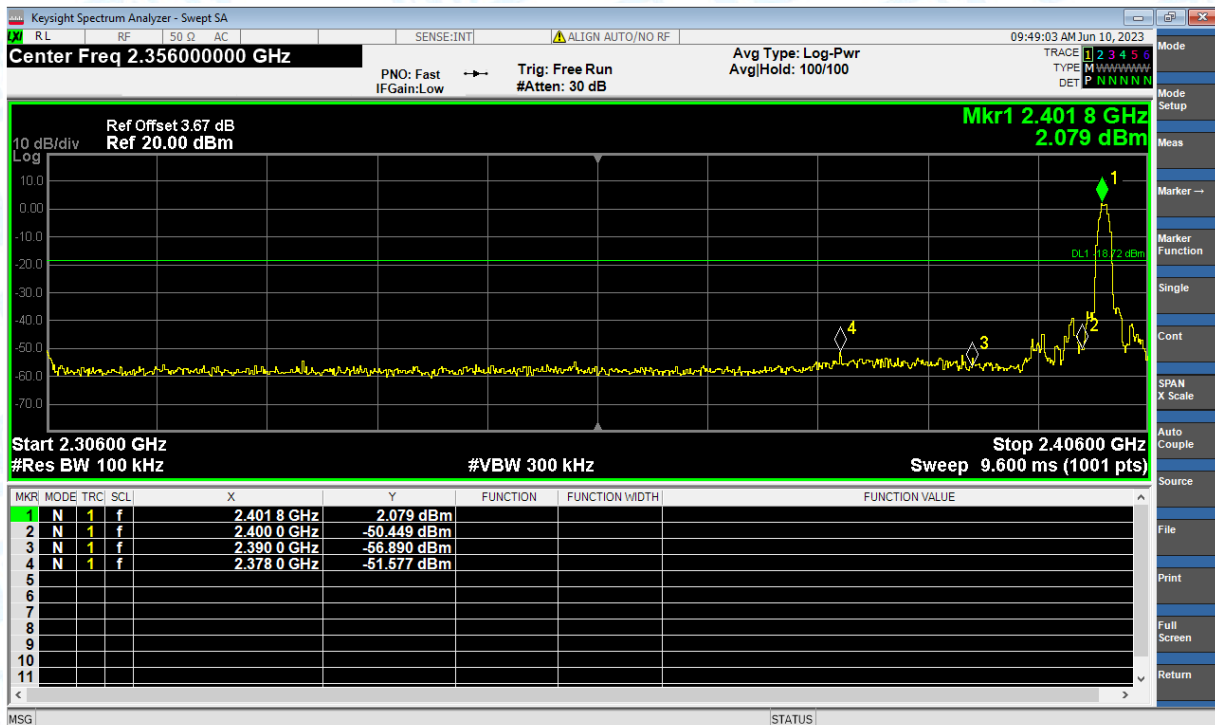
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



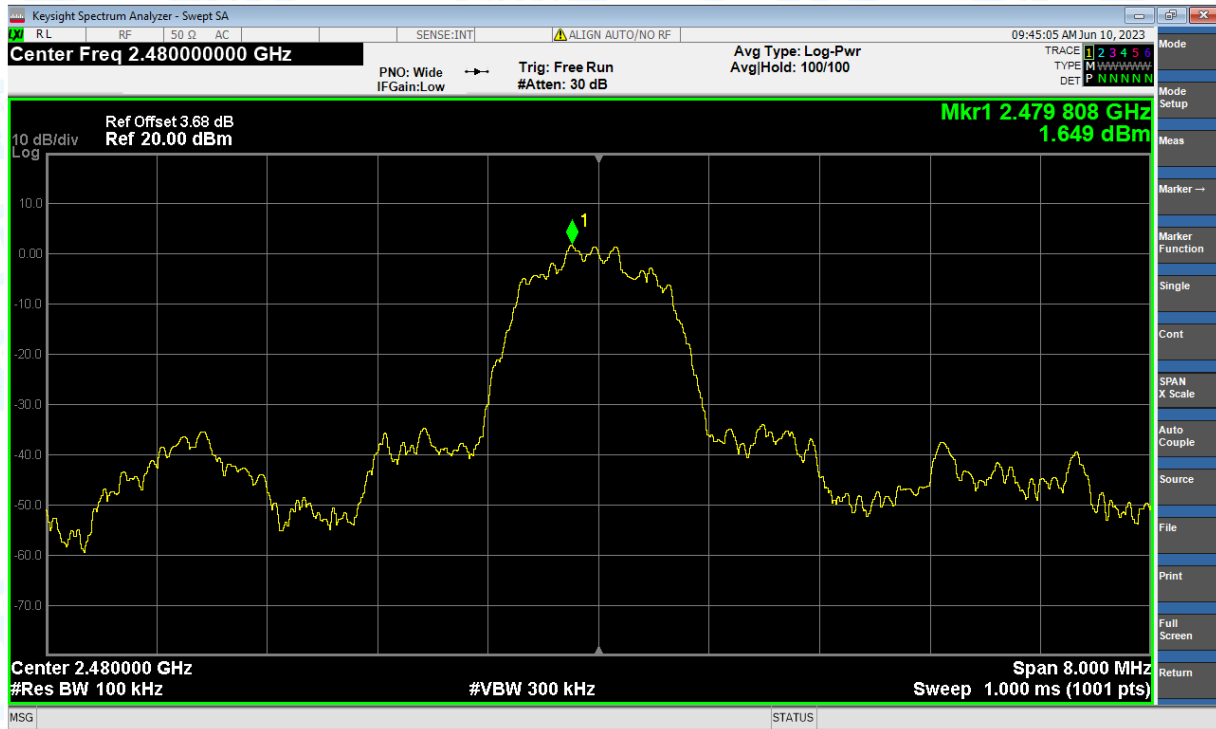
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



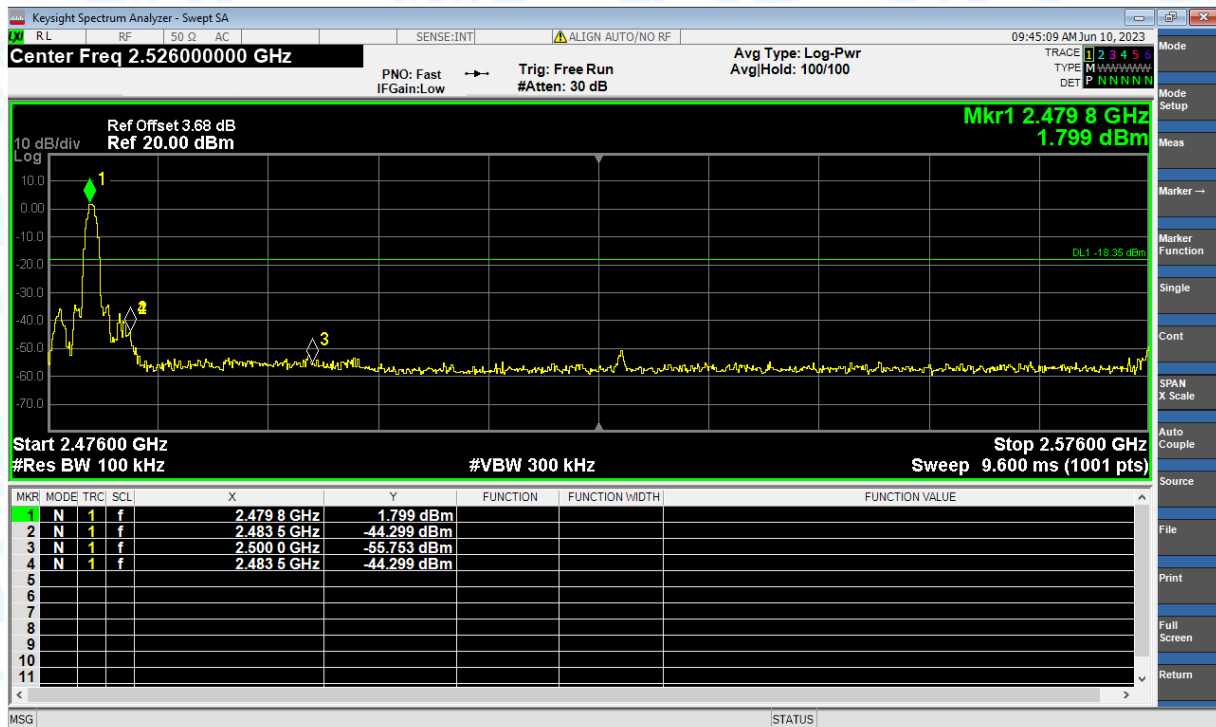
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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



6. Band Edge(Hopping)

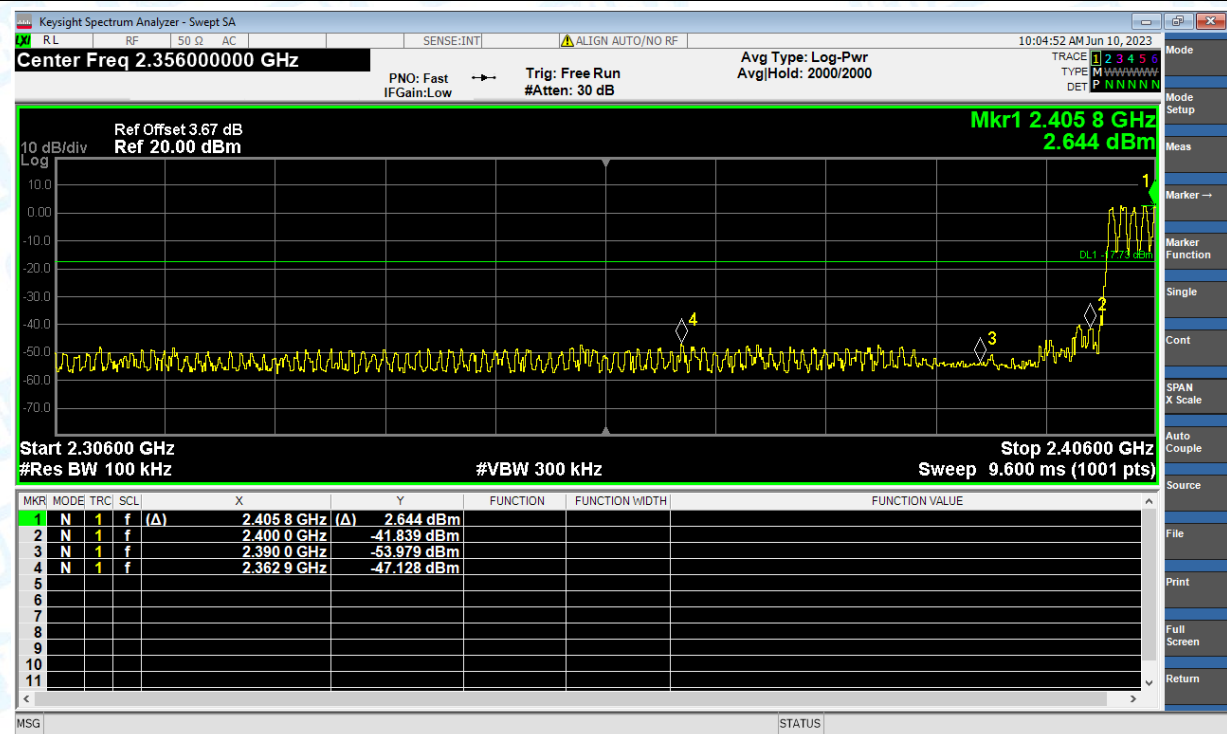
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-49.4	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-41.53	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-50.32	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-46.18	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-49.81	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-43.93	-20	Pass

Test Graphs

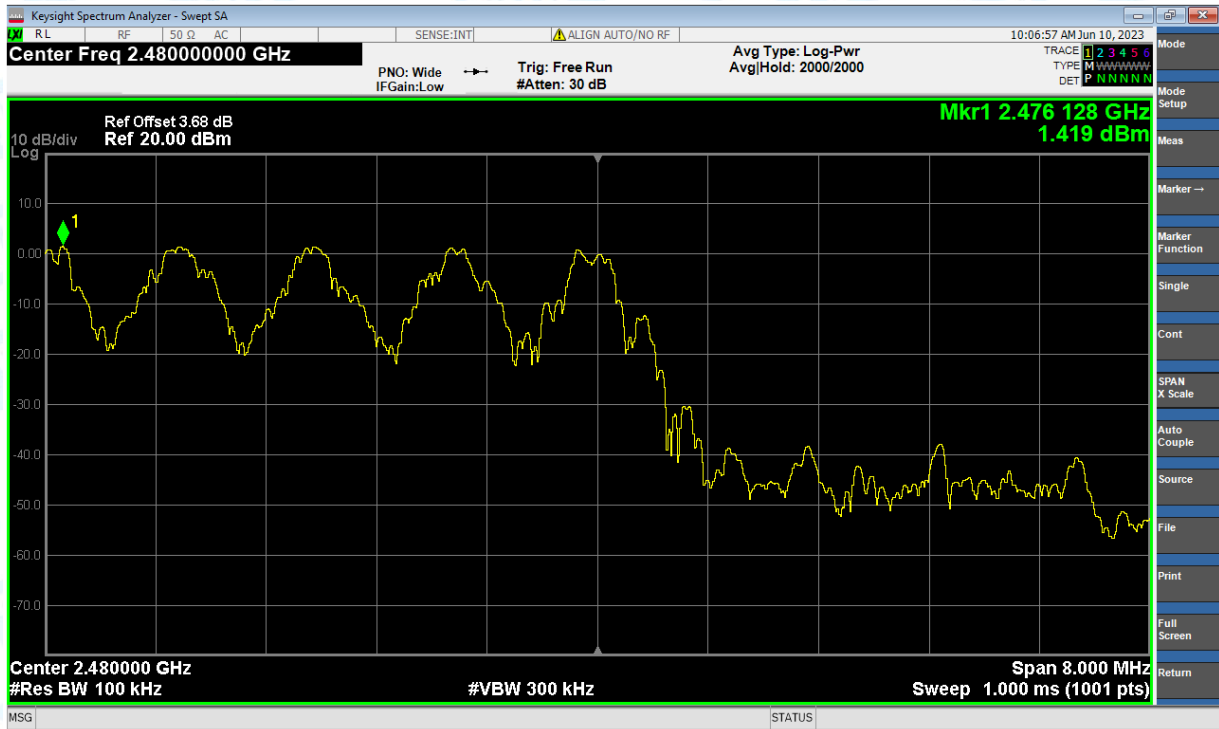
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



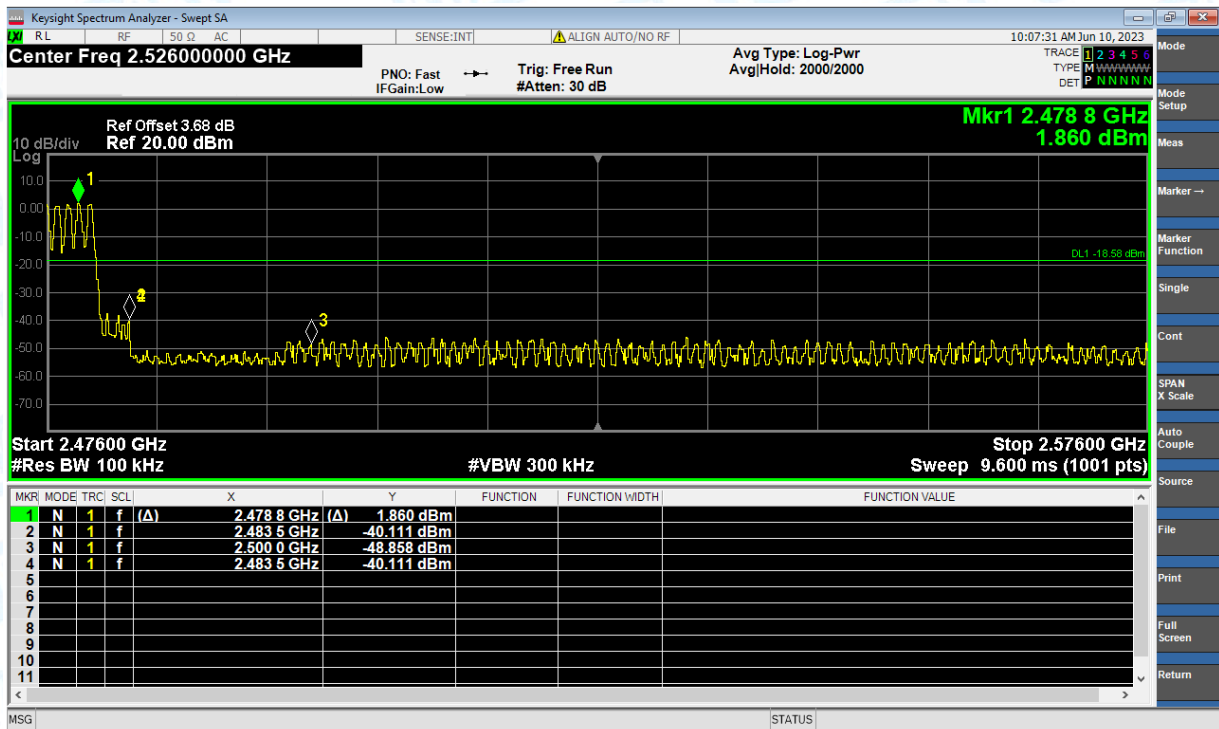
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



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



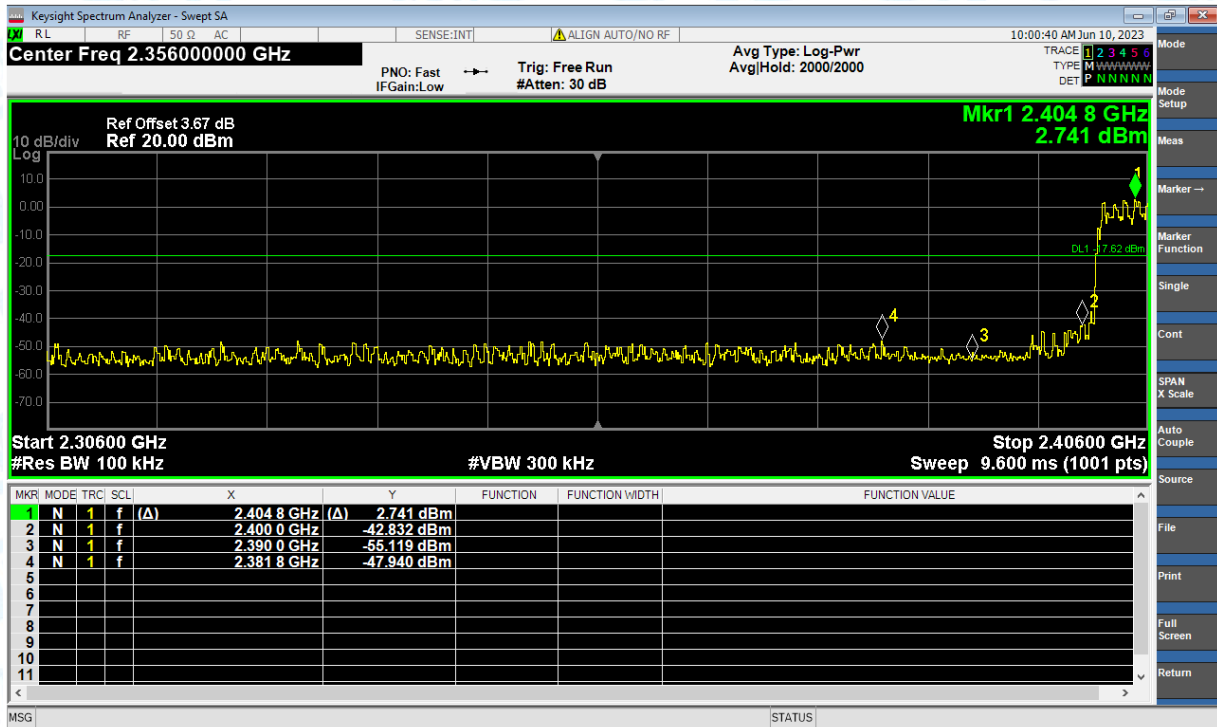
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



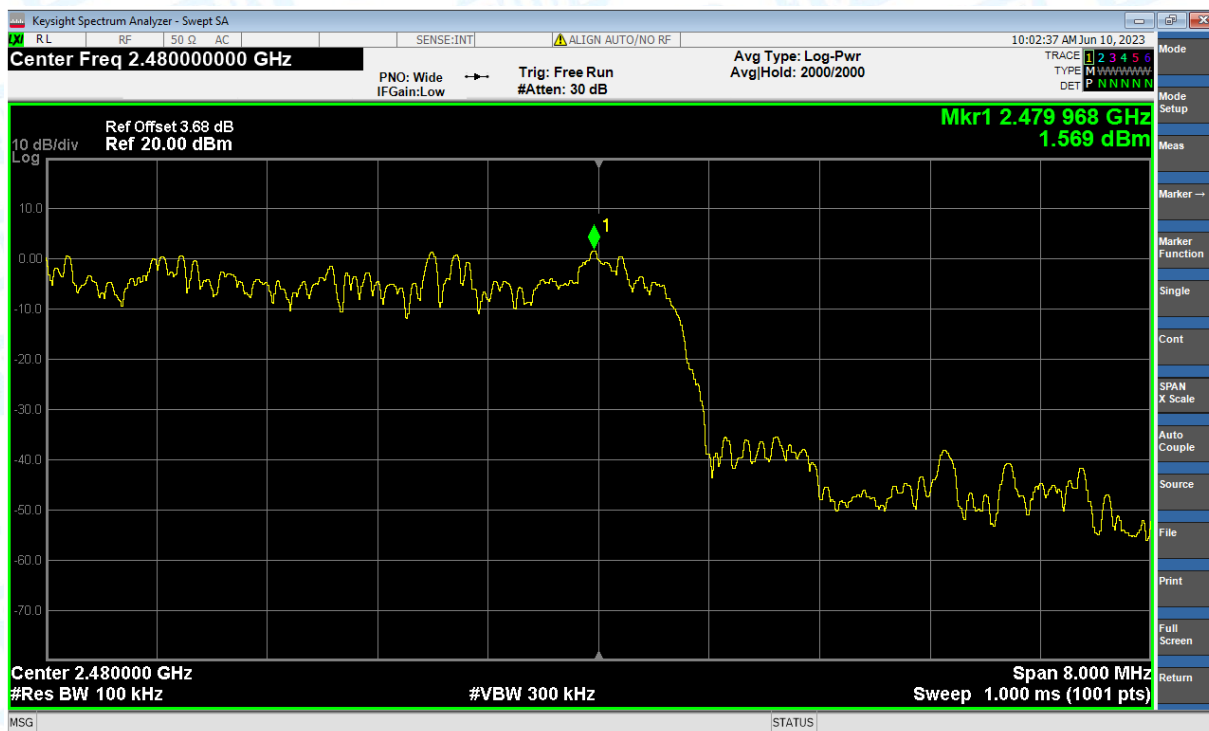
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Ref



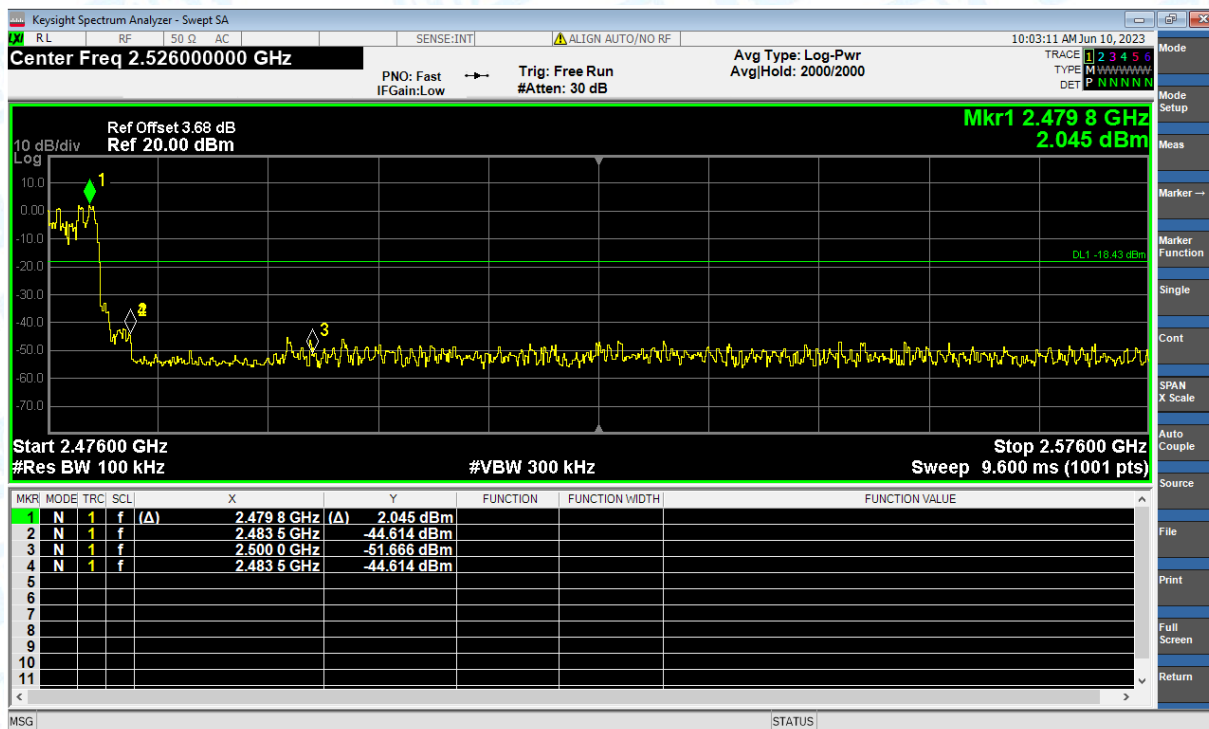
Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission



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



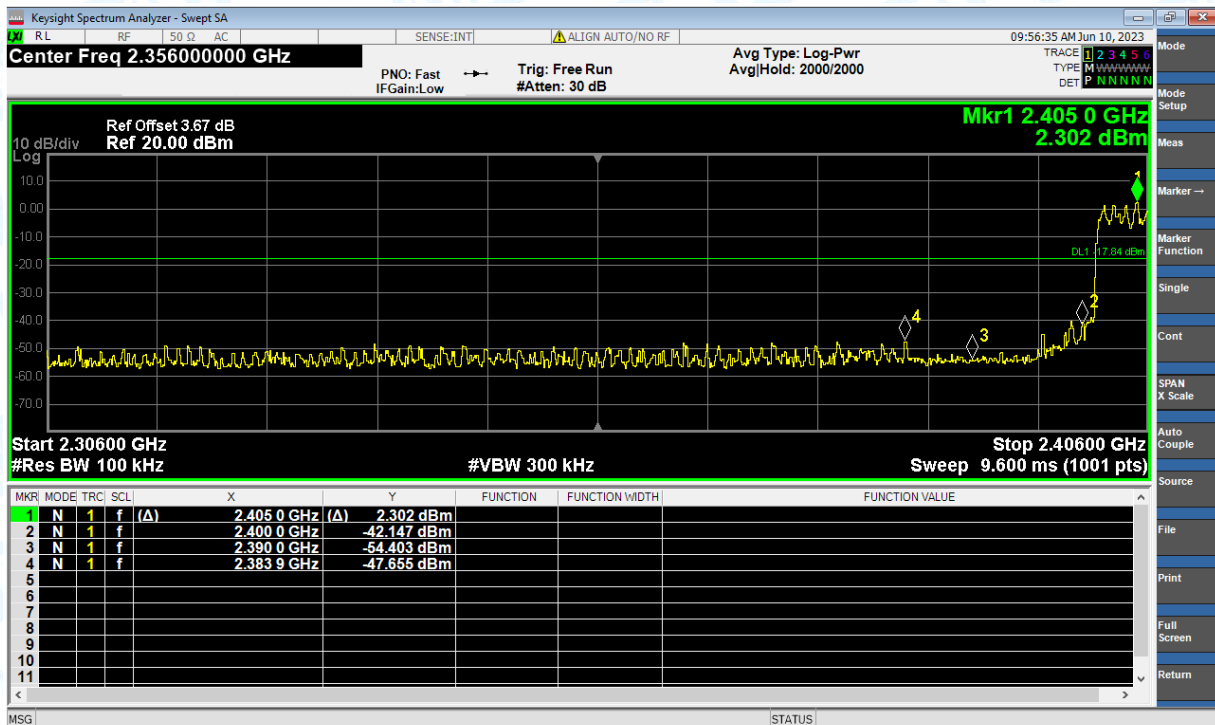
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



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



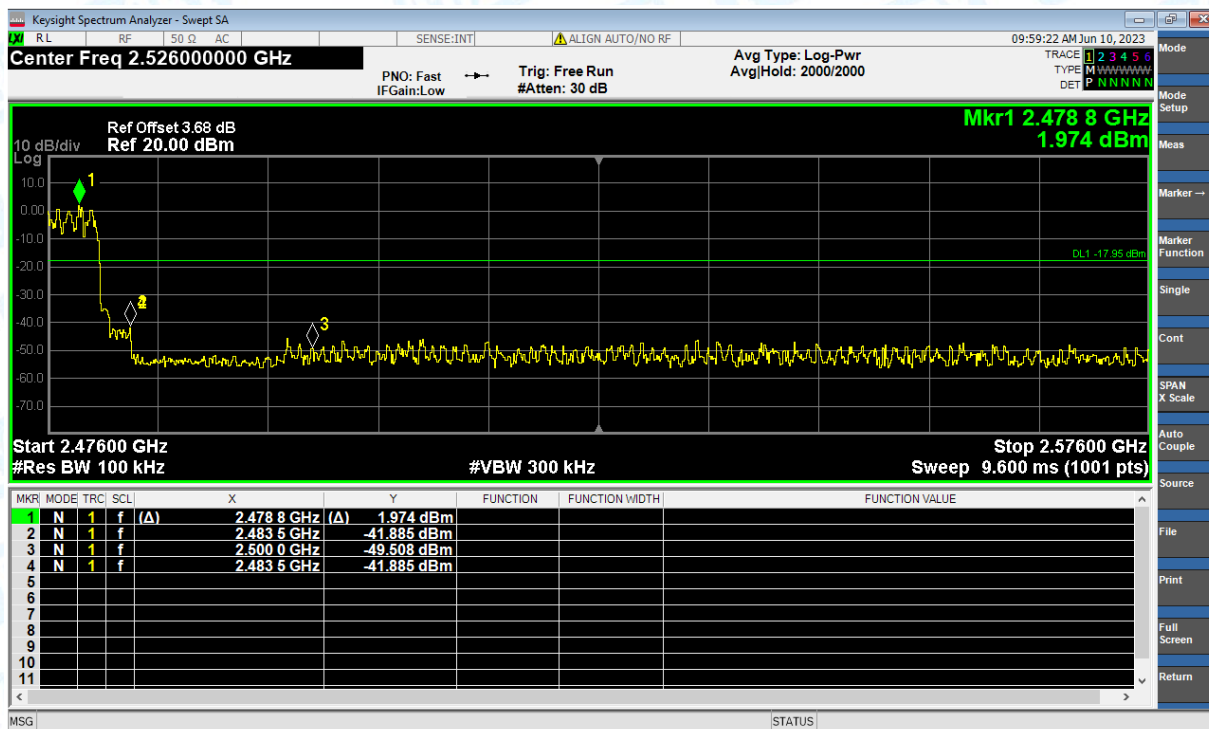
Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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



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

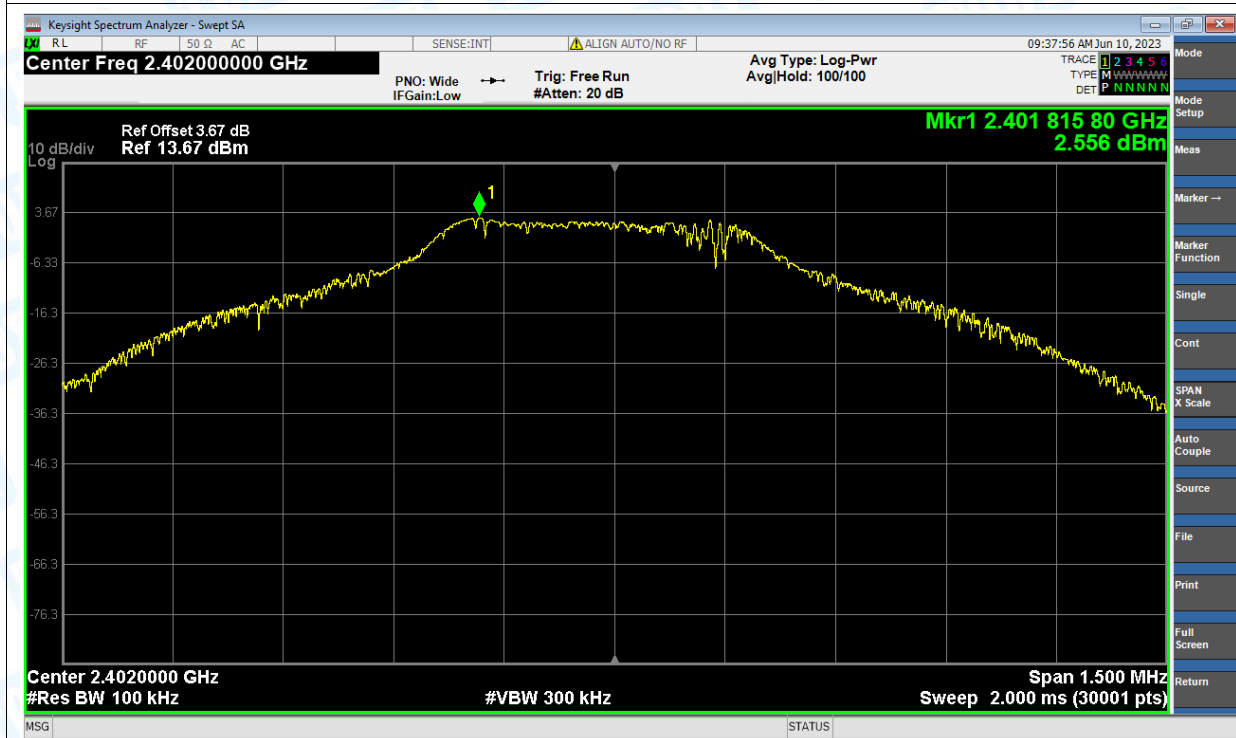


7. Conducted RF Spurious Emission

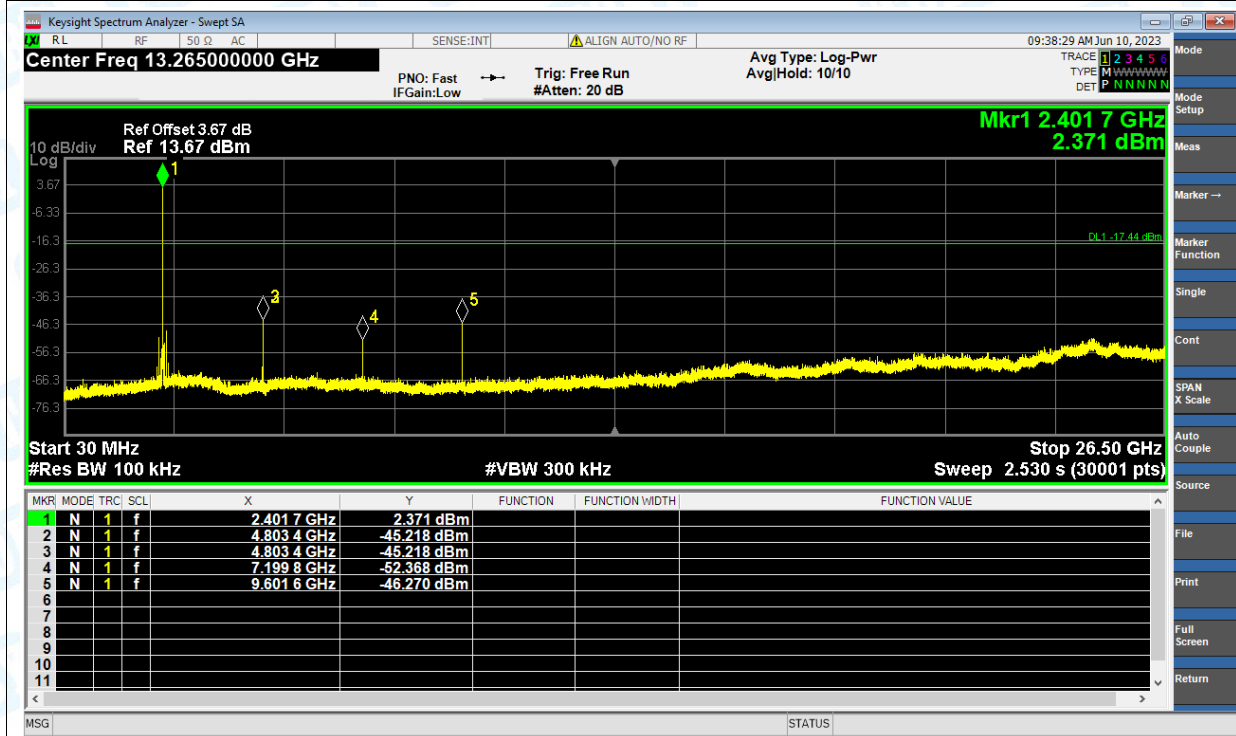
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-47.78	-20	Pass
NVNT	1-DH1	2441	Ant1	-49.39	-20	Pass
NVNT	1-DH1	2480	Ant1	-47.68	-20	Pass
NVNT	2-DH1	2402	Ant1	-47.86	-20	Pass
NVNT	2-DH1	2441	Ant1	-49	-20	Pass
NVNT	2-DH1	2480	Ant1	-42.24	-20	Pass
NVNT	3-DH1	2402	Ant1	-48.55	-20	Pass
NVNT	3-DH1	2441	Ant1	-47.59	-20	Pass
NVNT	3-DH1	2480	Ant1	-48.67	-20	Pass

Test Graphs

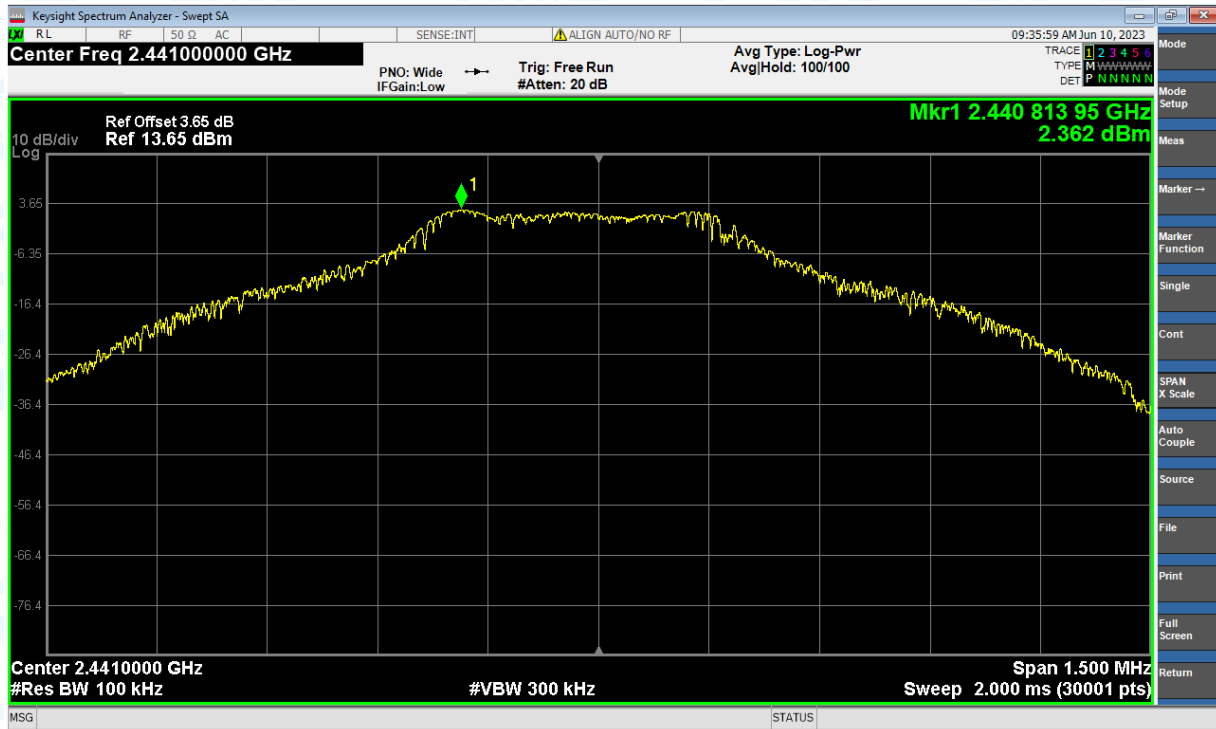
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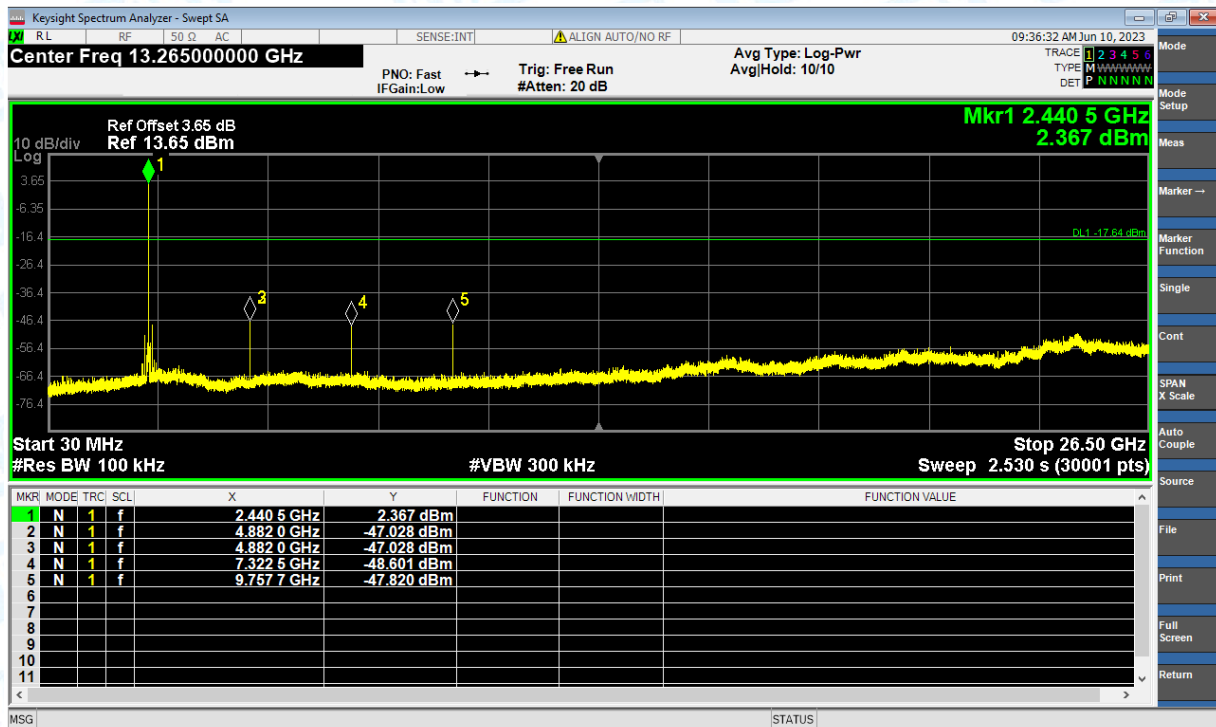
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



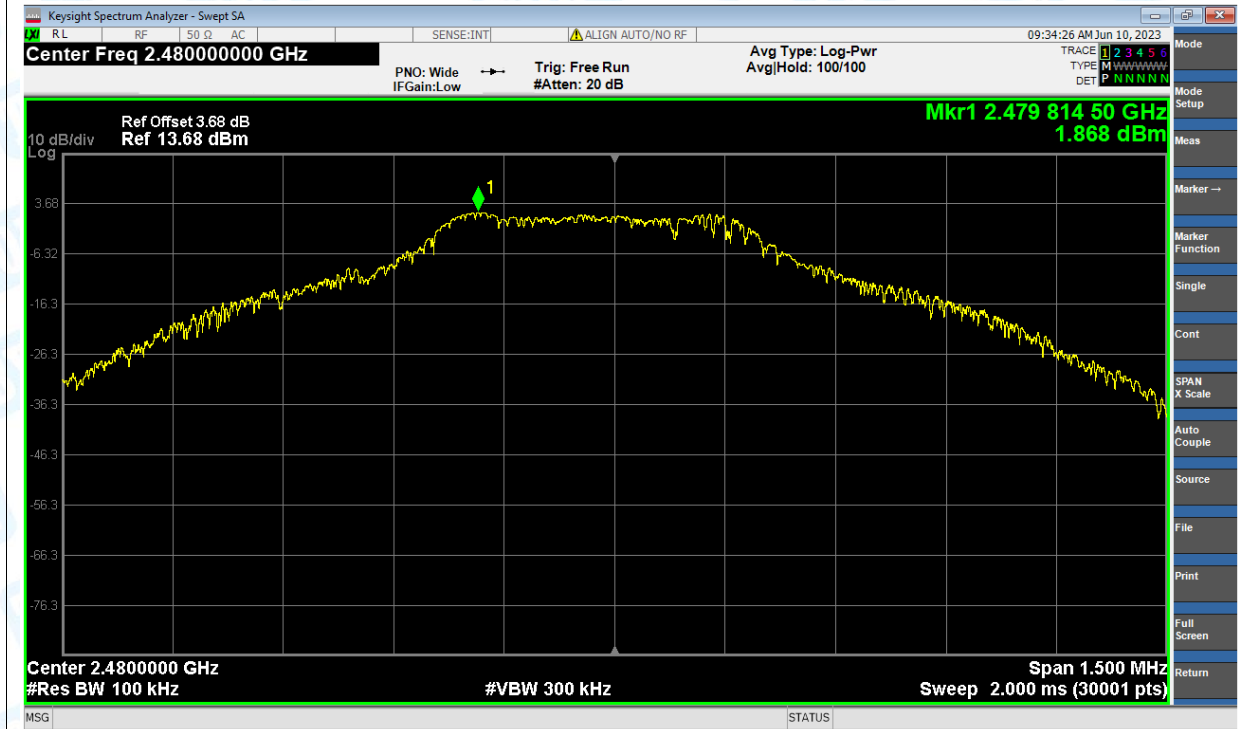
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



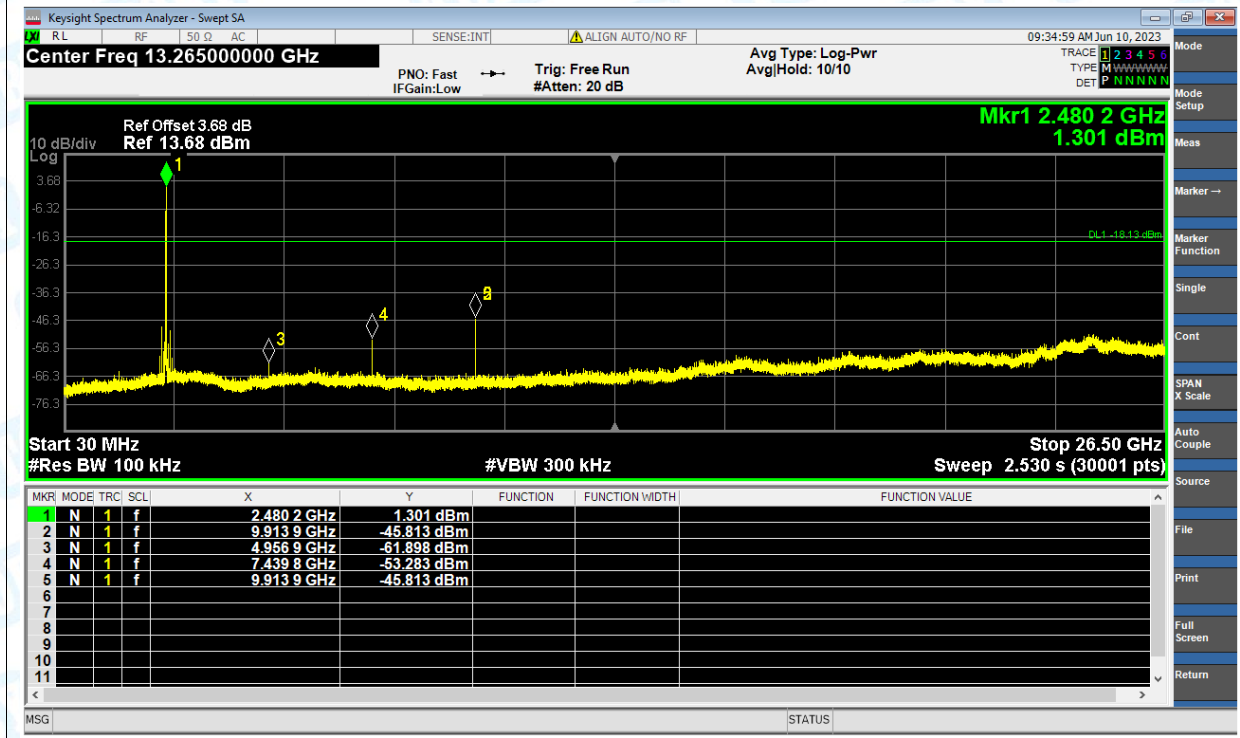
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



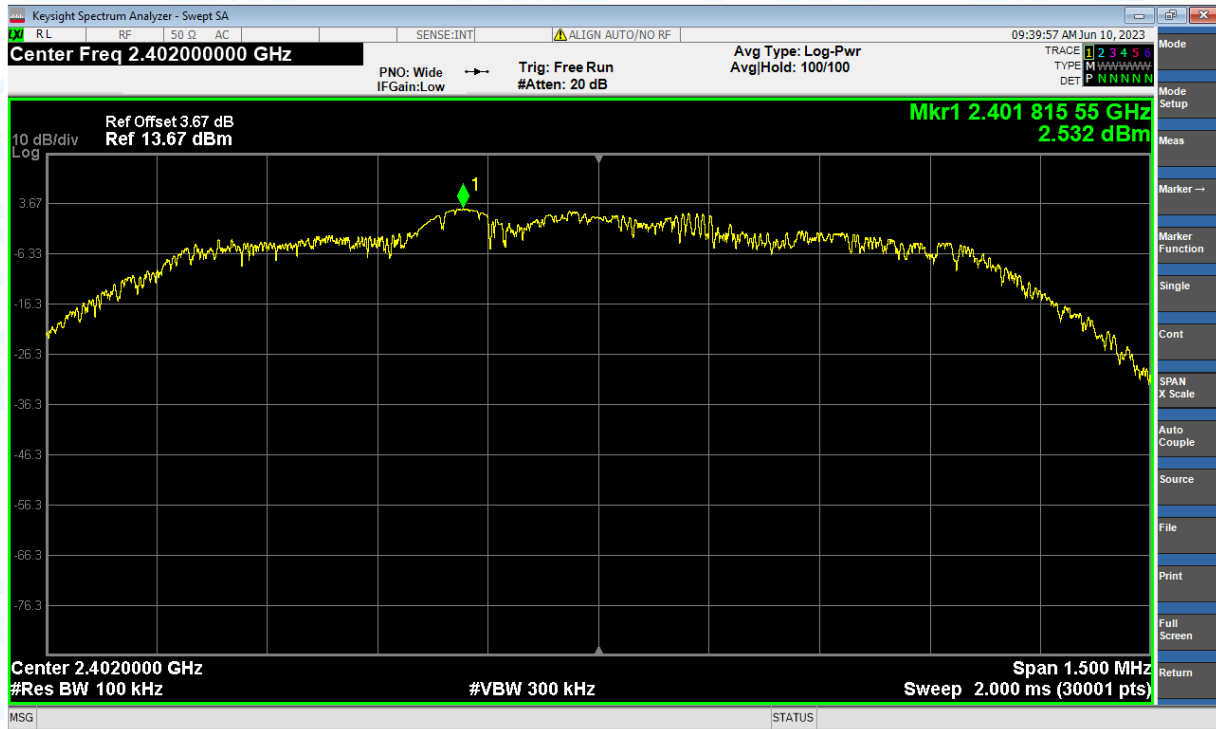
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



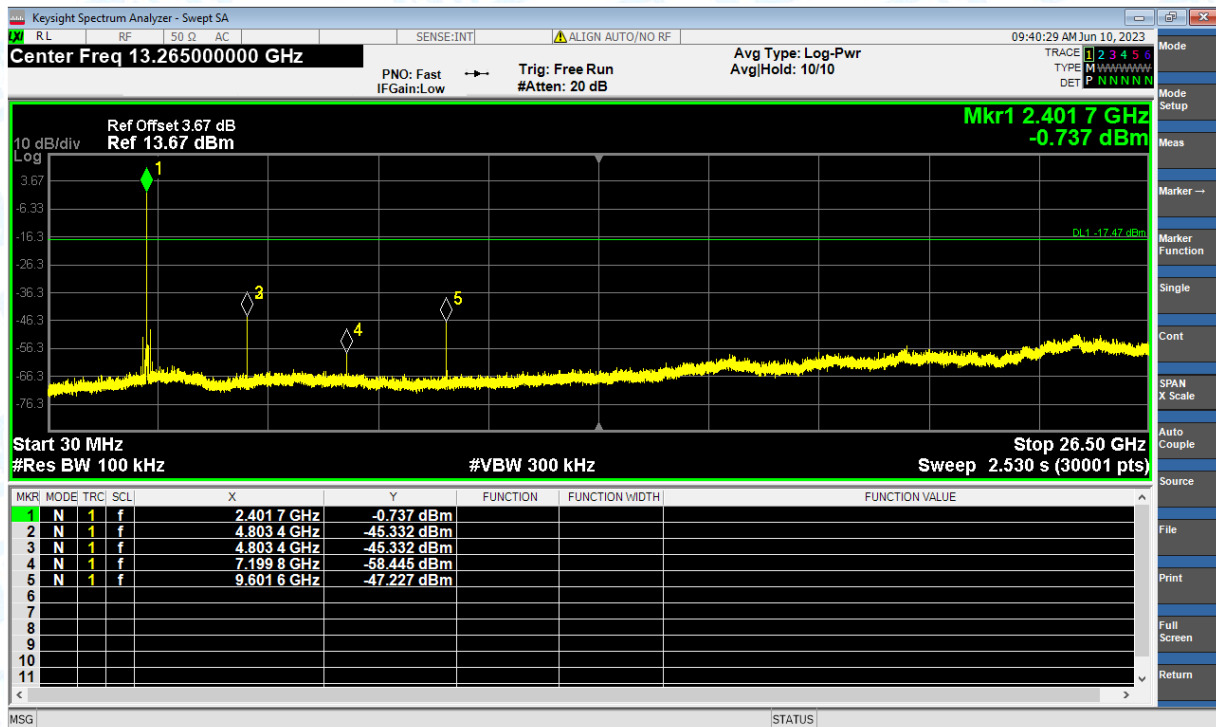
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



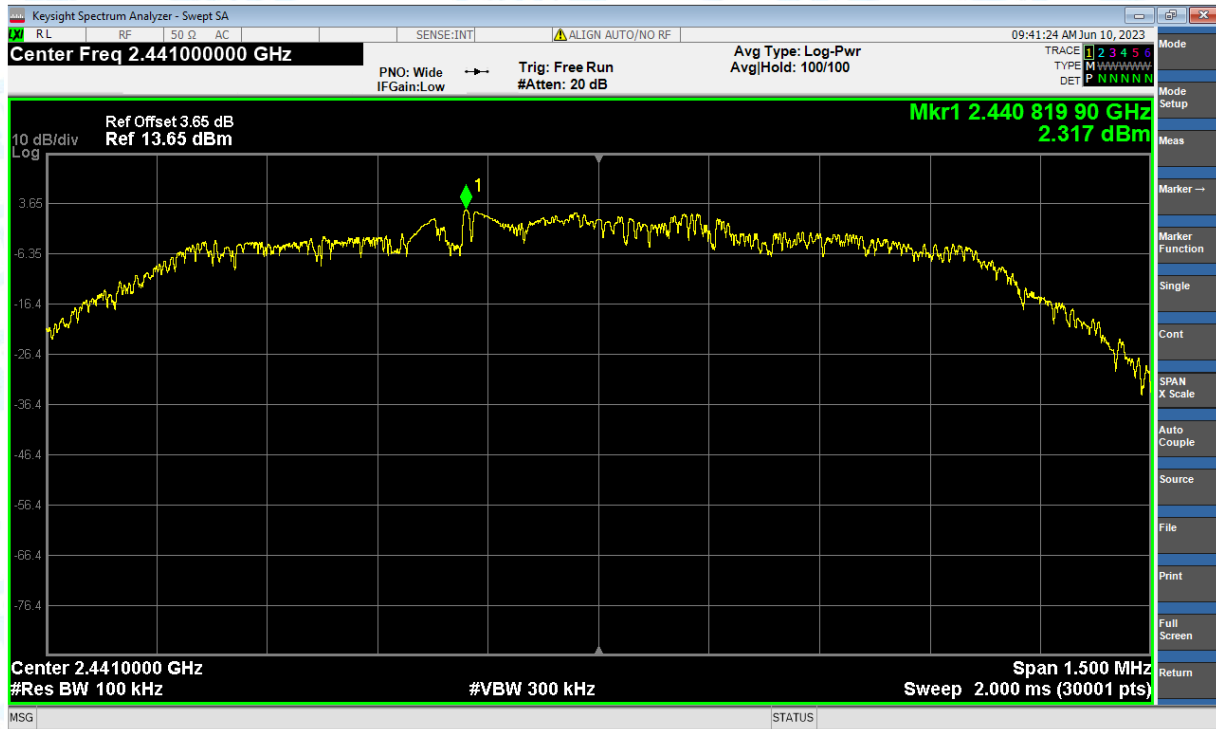
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



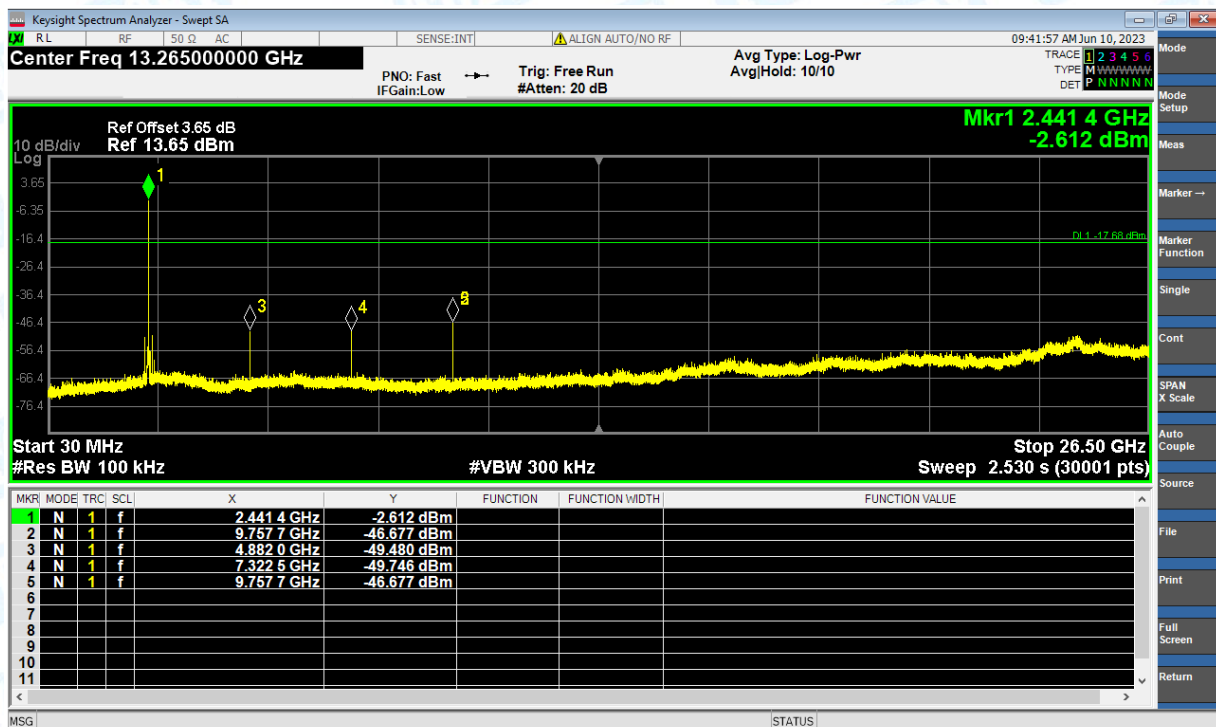
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



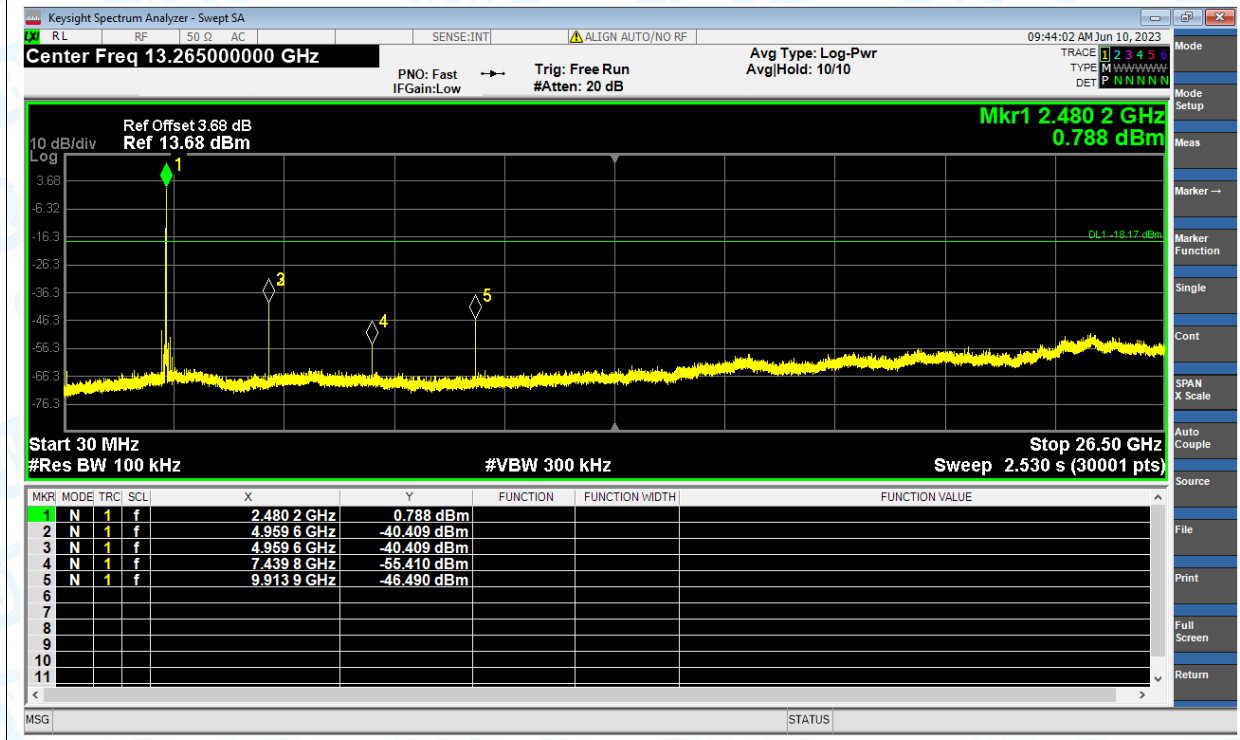
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



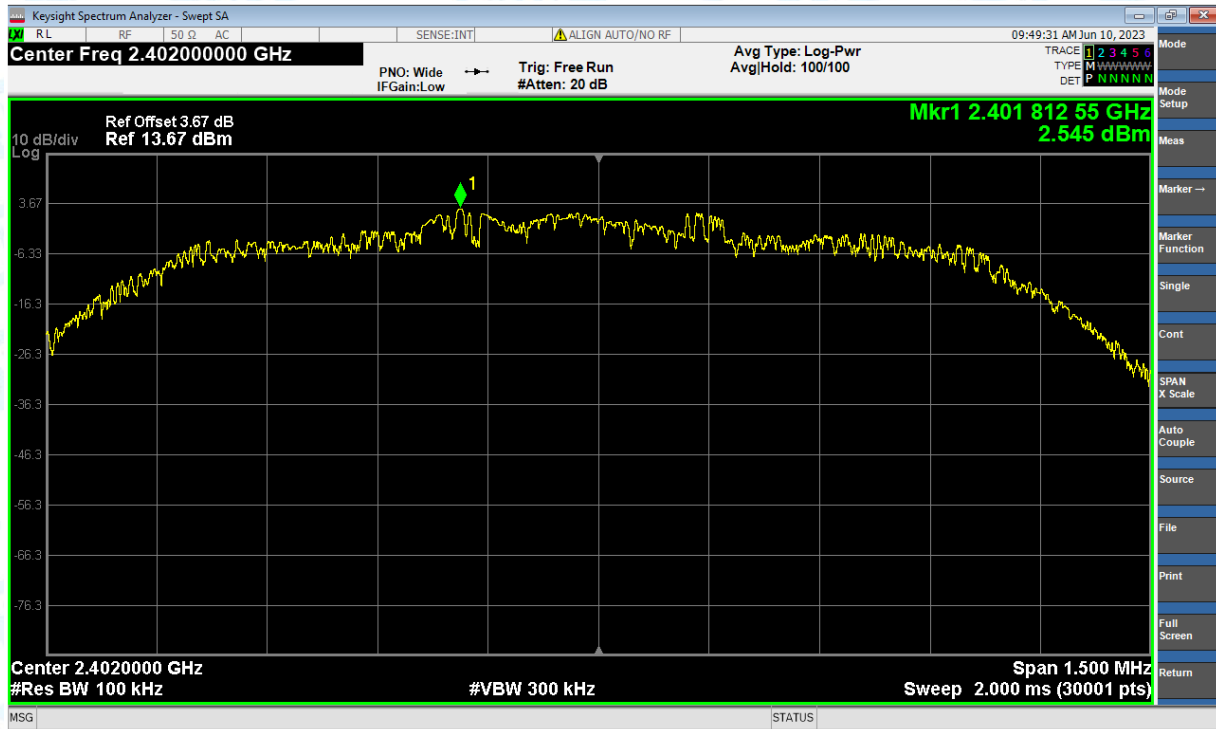
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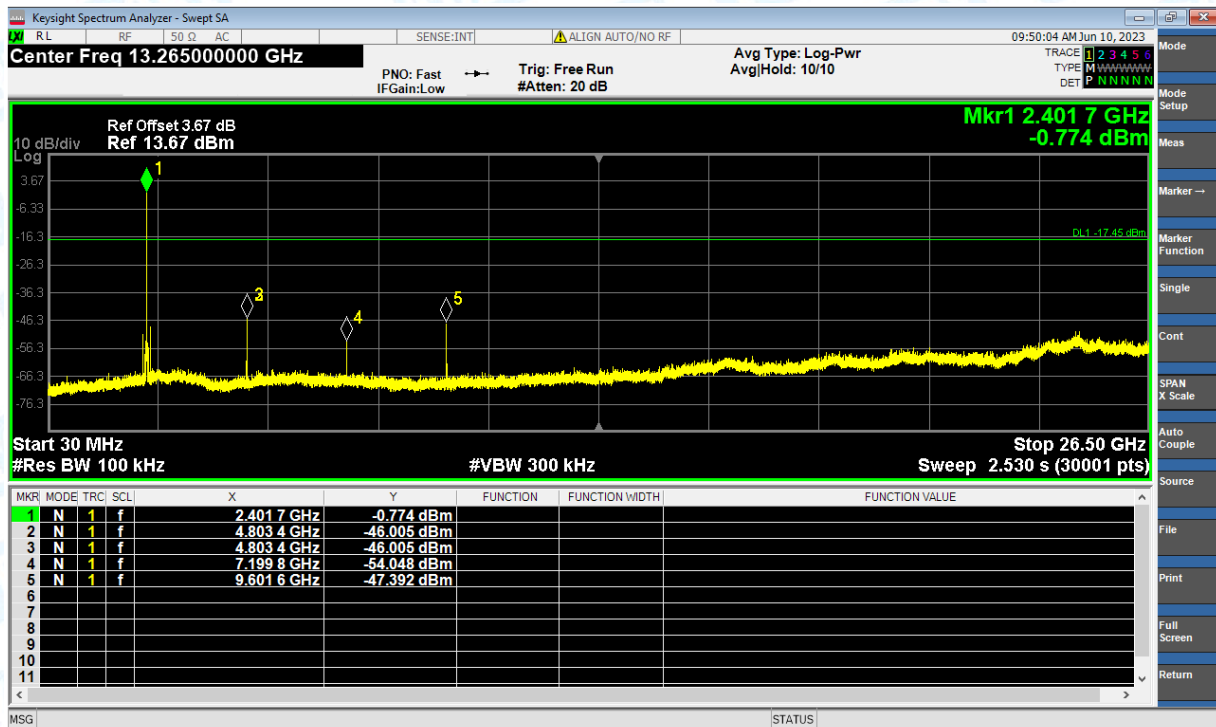
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



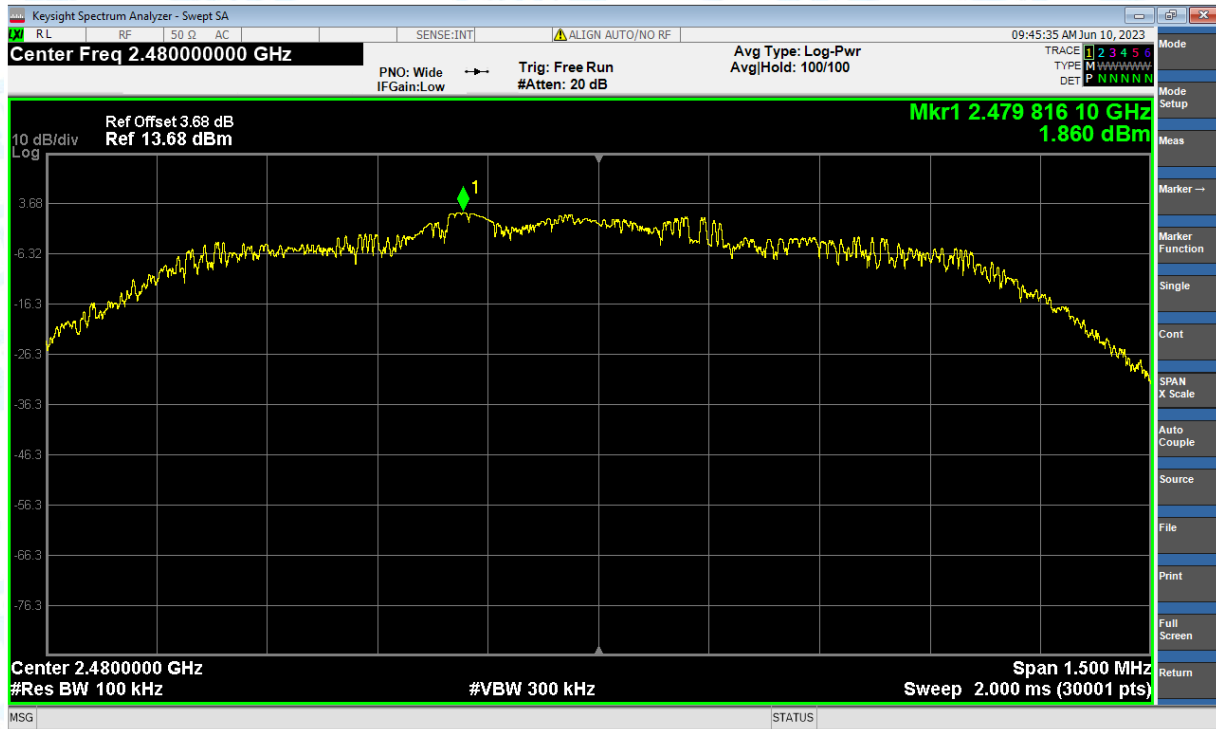
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



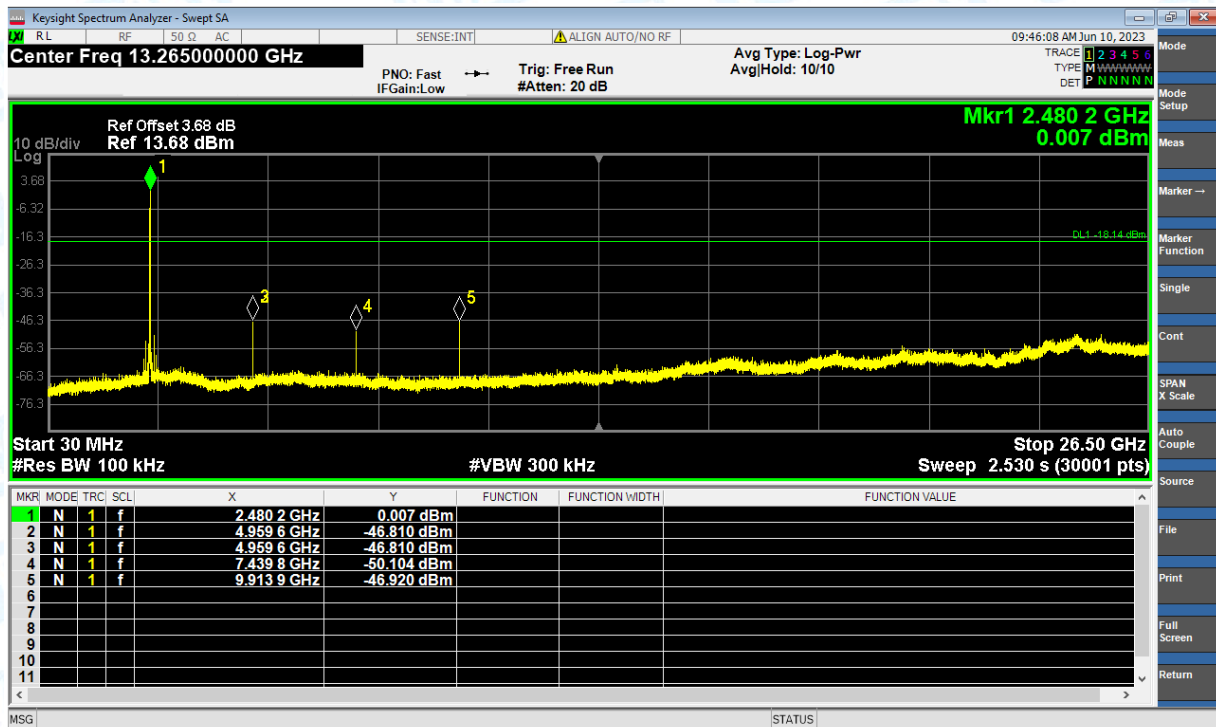
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

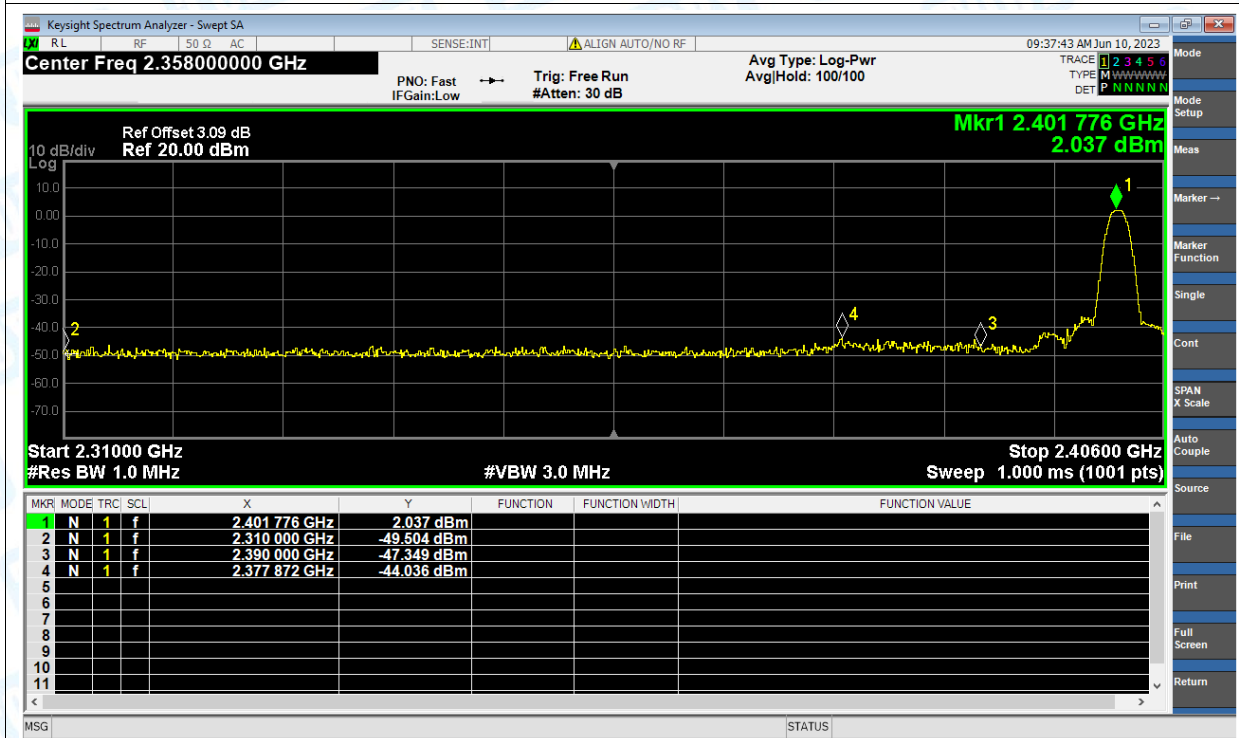


8. Restrict Band

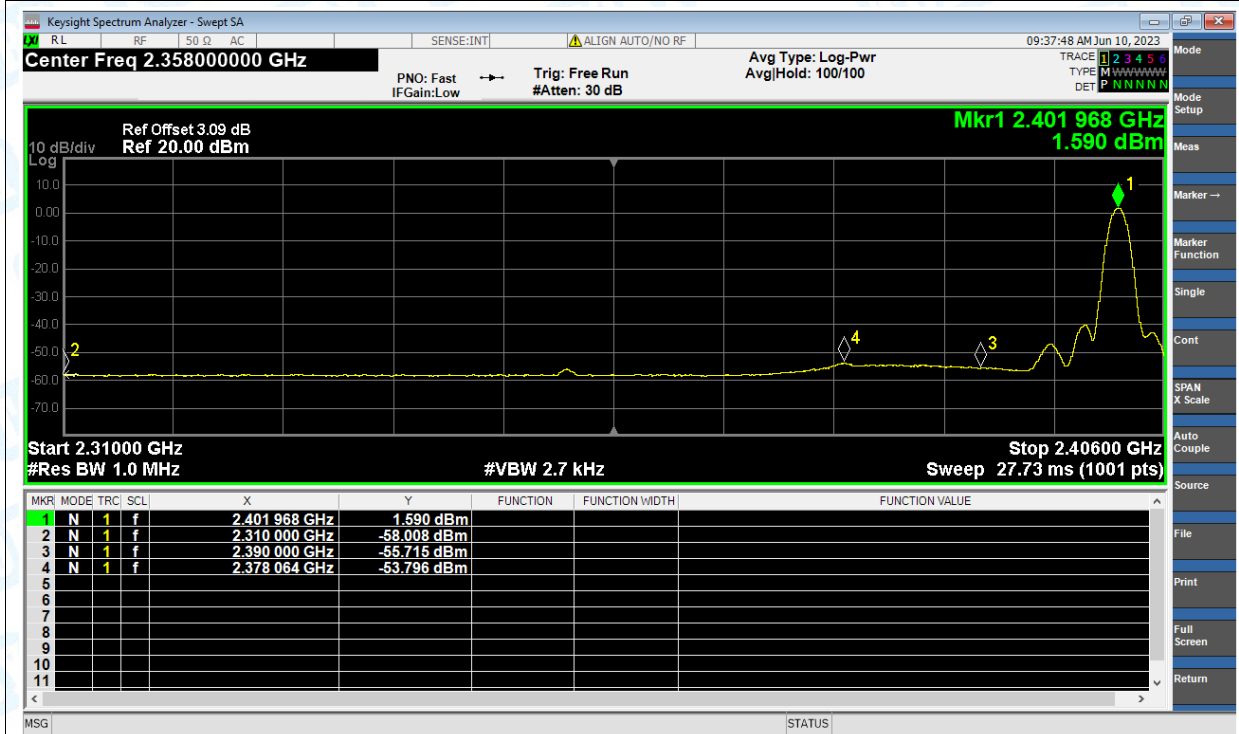
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-49.5	2	47.76	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-58.01	2	39.25	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2377.872	-44.04	2	53.22	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2378.064	-53.8	2	43.46	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-45.87	2	51.39	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.64	2	41.62	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-38.16	2	59.1	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-43.53	2	53.73	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.704	-38.09	2	59.17	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.512	-43.53	2	53.73	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.89	2	51.37	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.37	2	41.89	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-50.33	2	46.93	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-58.52	2	38.74	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2384.016	-43.94	2	53.32	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2377.68	-53.57	2	43.69	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-46.33	2	50.93	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.38	2	41.88	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-38.26	2	59	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-45.77	2	51.49	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.656	-38.15	2	59.11	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.512	-45.77	2	51.49	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.89	2	49.37	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-54.69	2	42.57	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-49.3	2	47.96	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-58.24	2	39.02	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2382.288	-43.16	2	54.1	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2377.968	-53.45	2	43.81	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.21	2	49.05	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.2	2	42.06	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-38.02	2	59.24	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-46.21	2	51.05	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.656	-37.86	2	59.4	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.512	-46.21	2	51.05	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-45.01	2	52.25	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.11	2	42.15	Average	54	Pass

Test Graphs

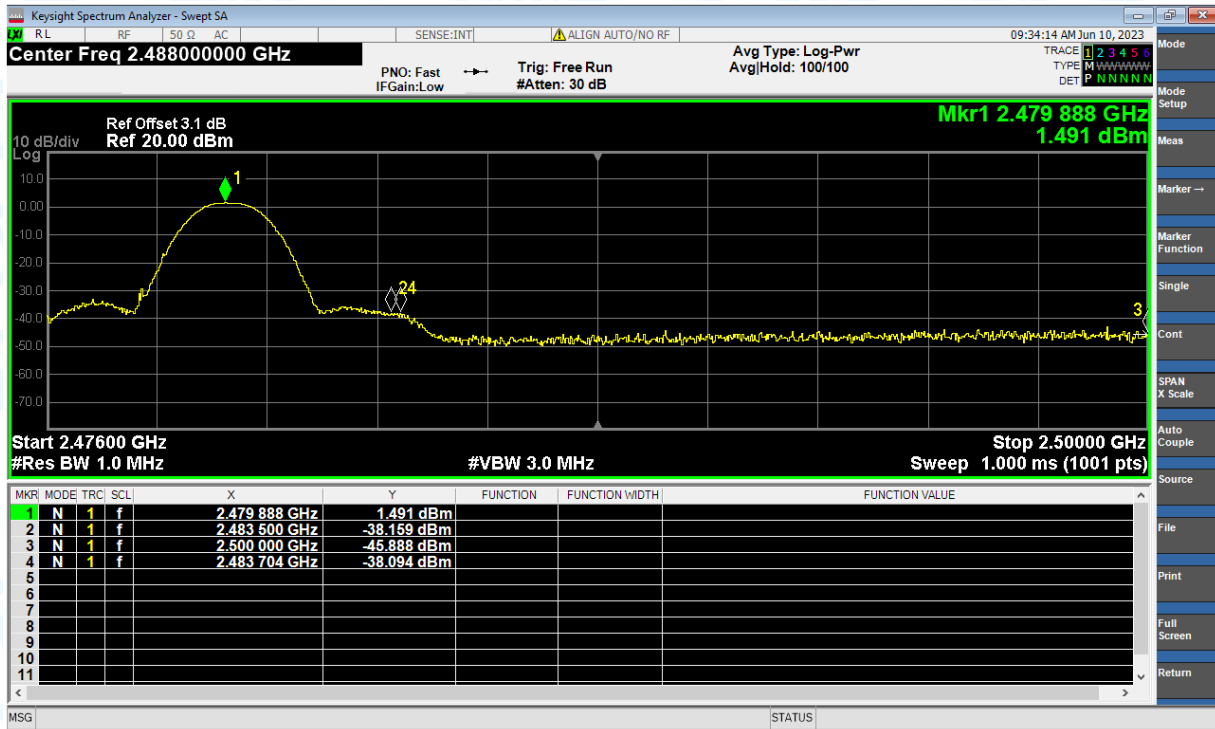
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



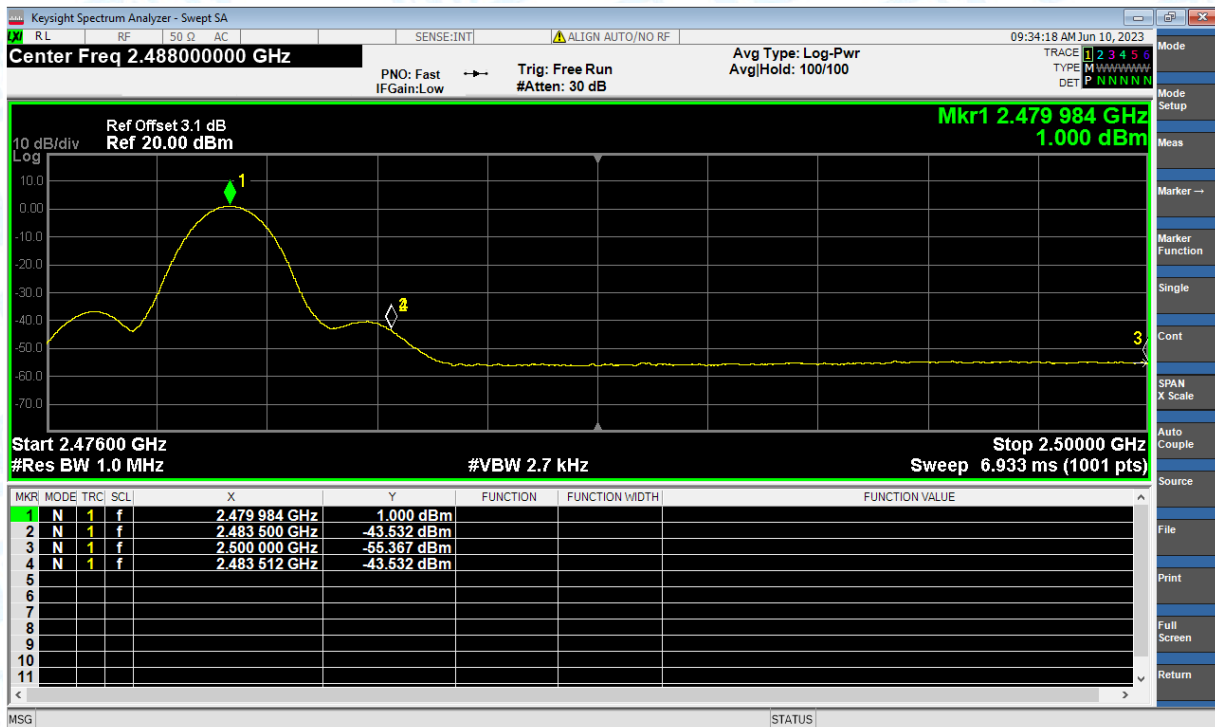
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



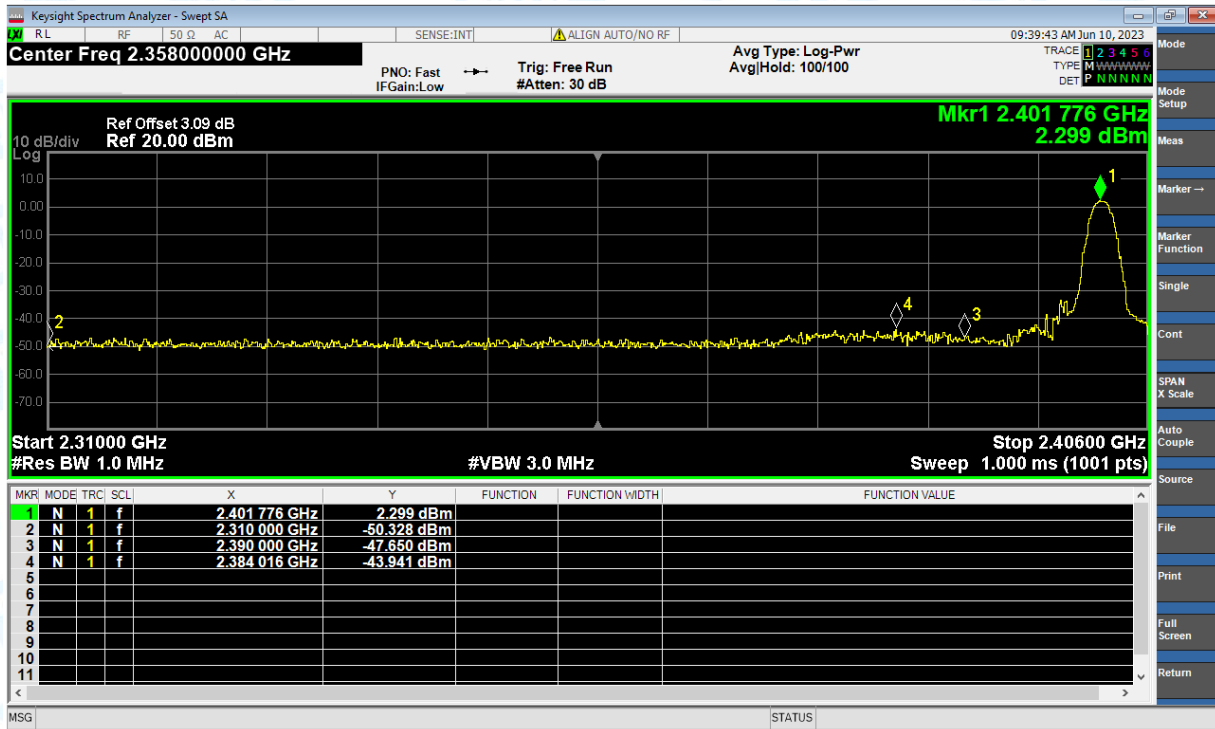
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



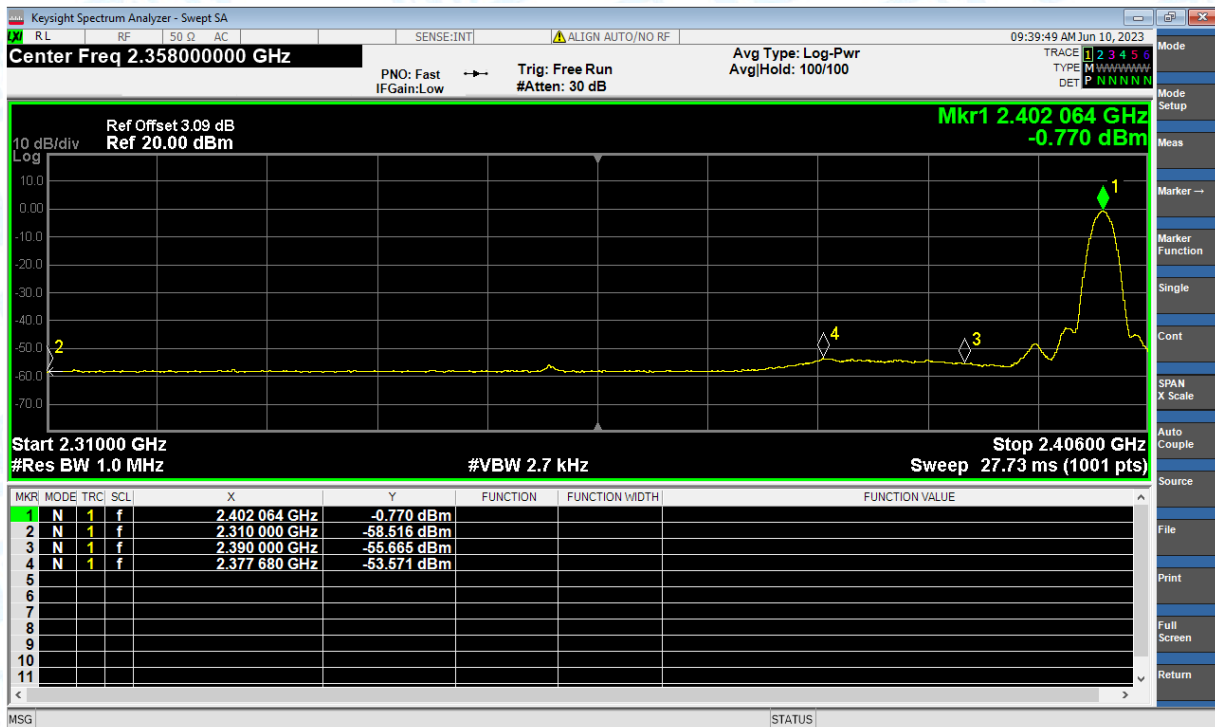
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



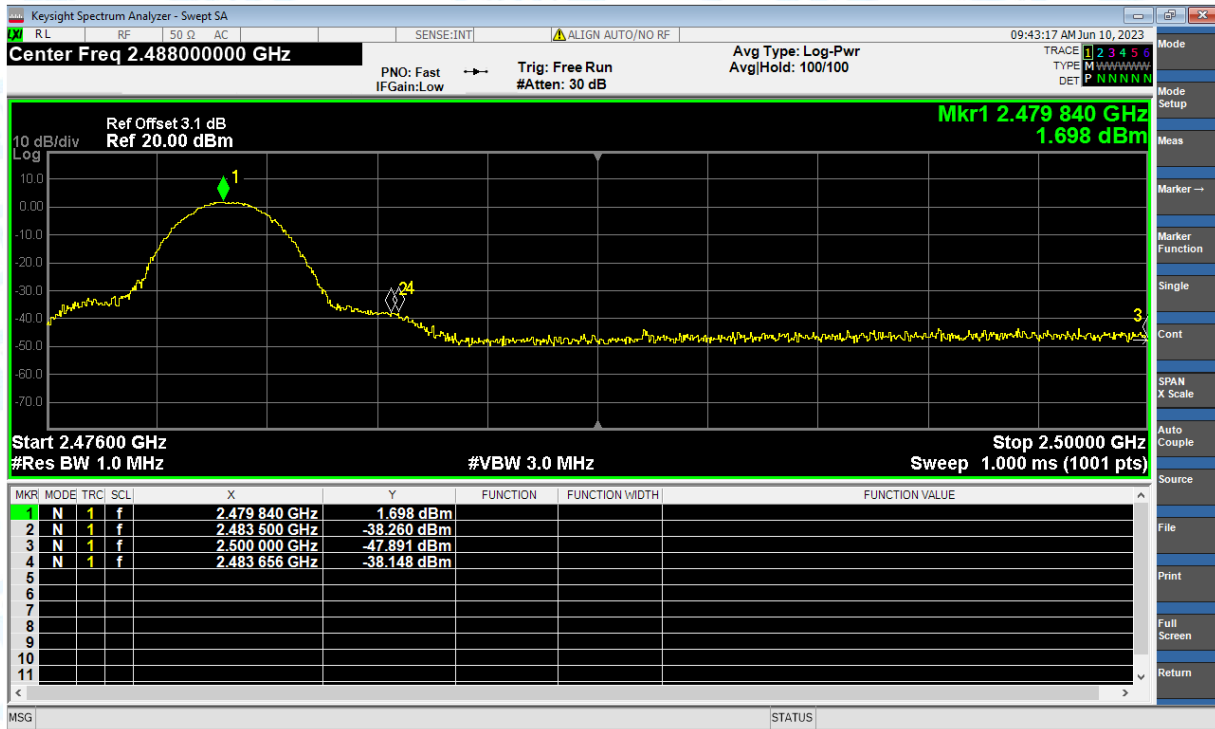
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



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



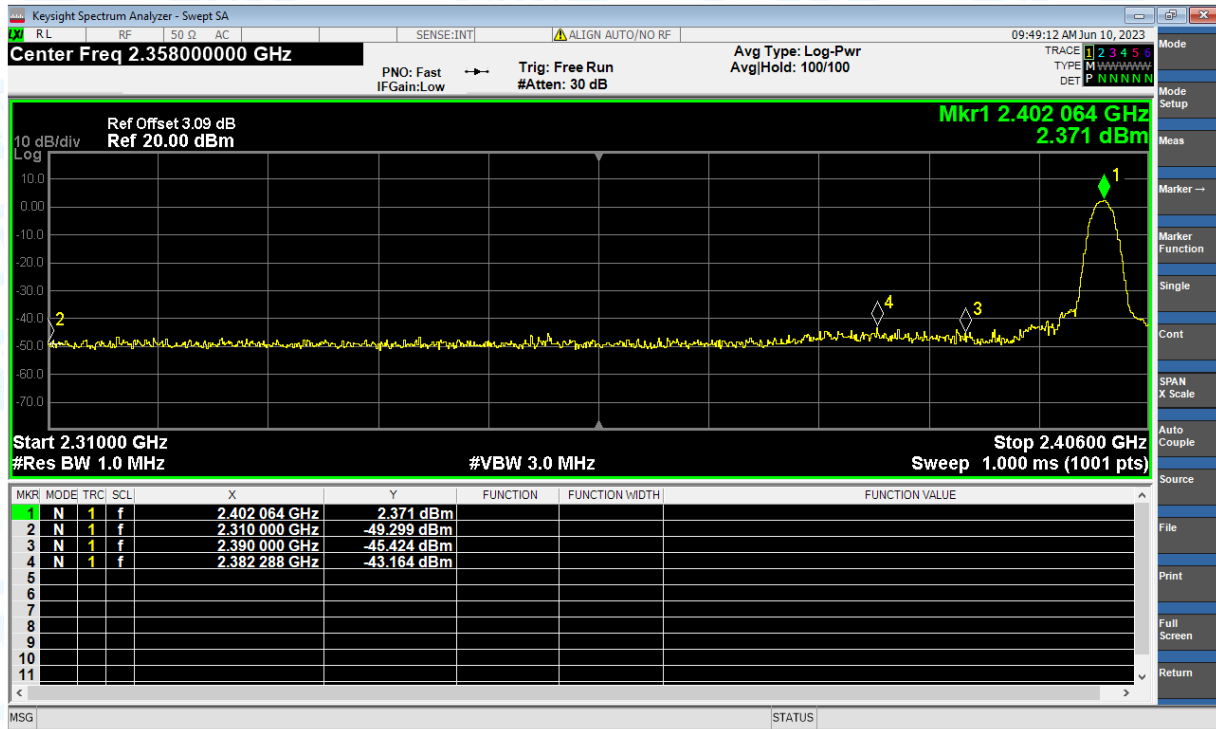
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



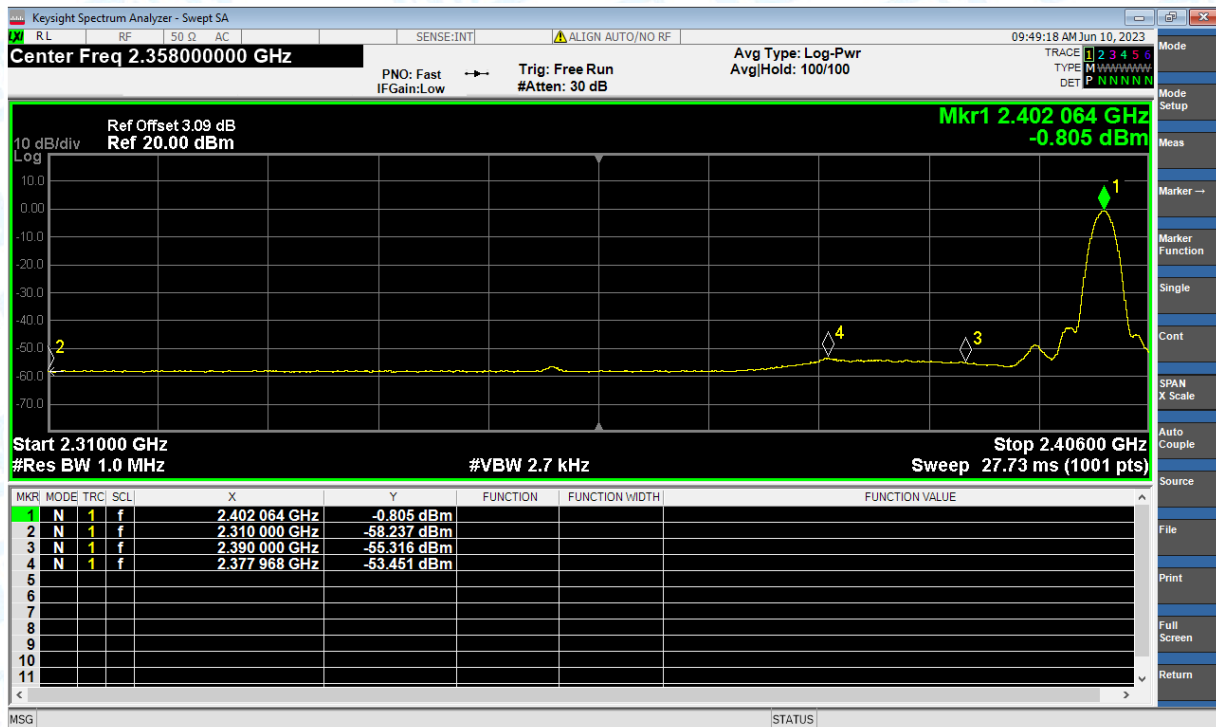
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



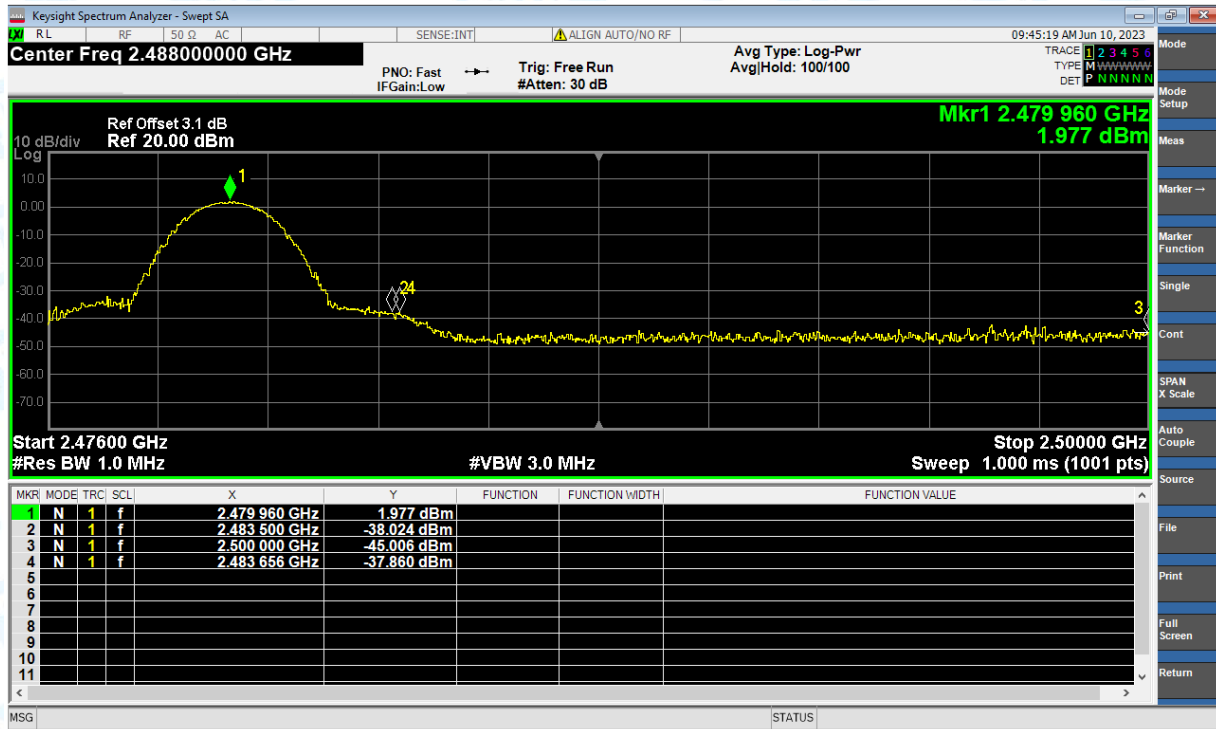
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



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

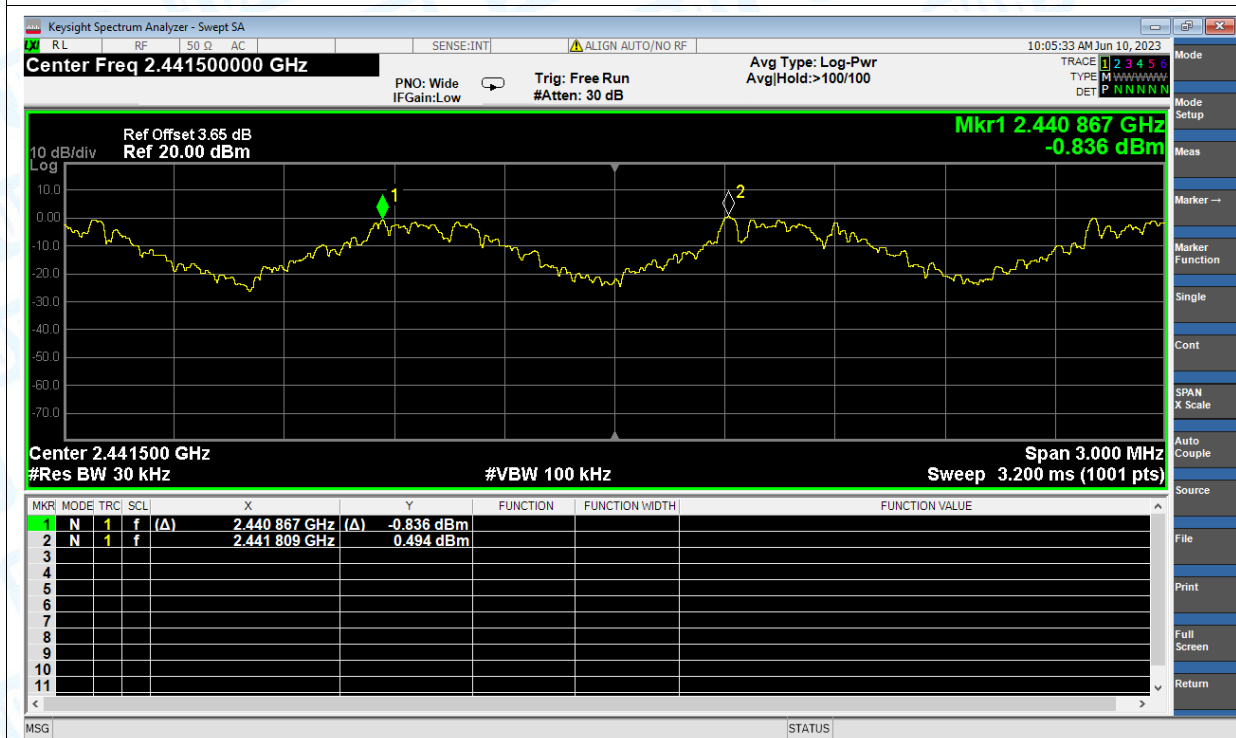


9. Carrier Frequencies Separation

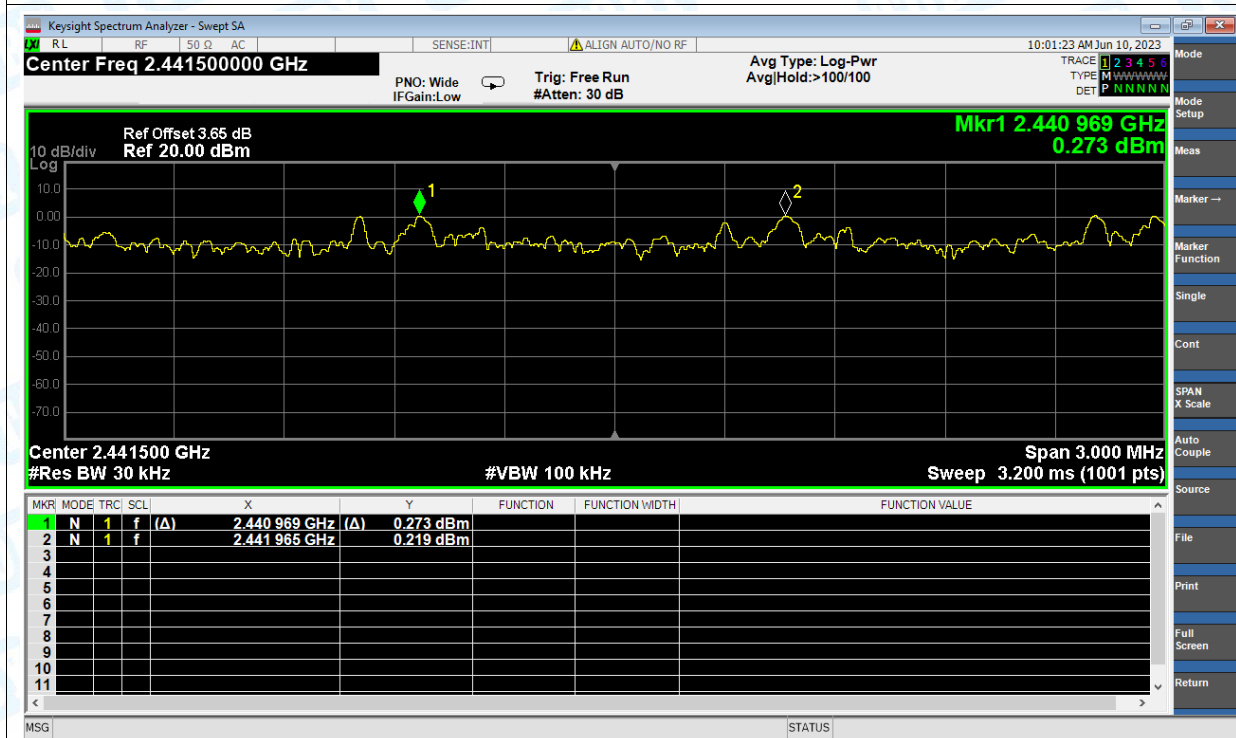
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.867	2441.809	0.942	0.58	Pass
NVNT	2-DH1	Ant1	2440.969	2441.965	0.996	0.813	Pass
NVNT	3-DH1	Ant1	2440.813	2441.797	0.984	0.813	Pass

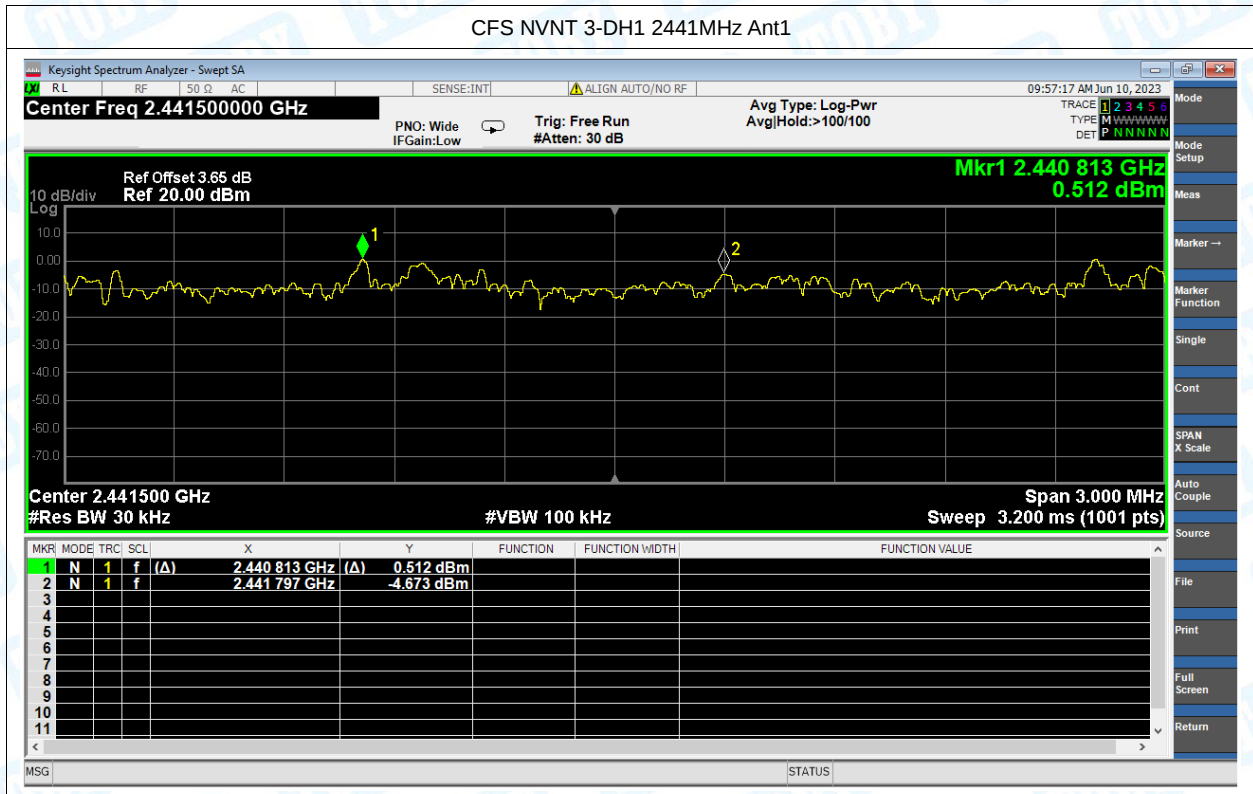
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



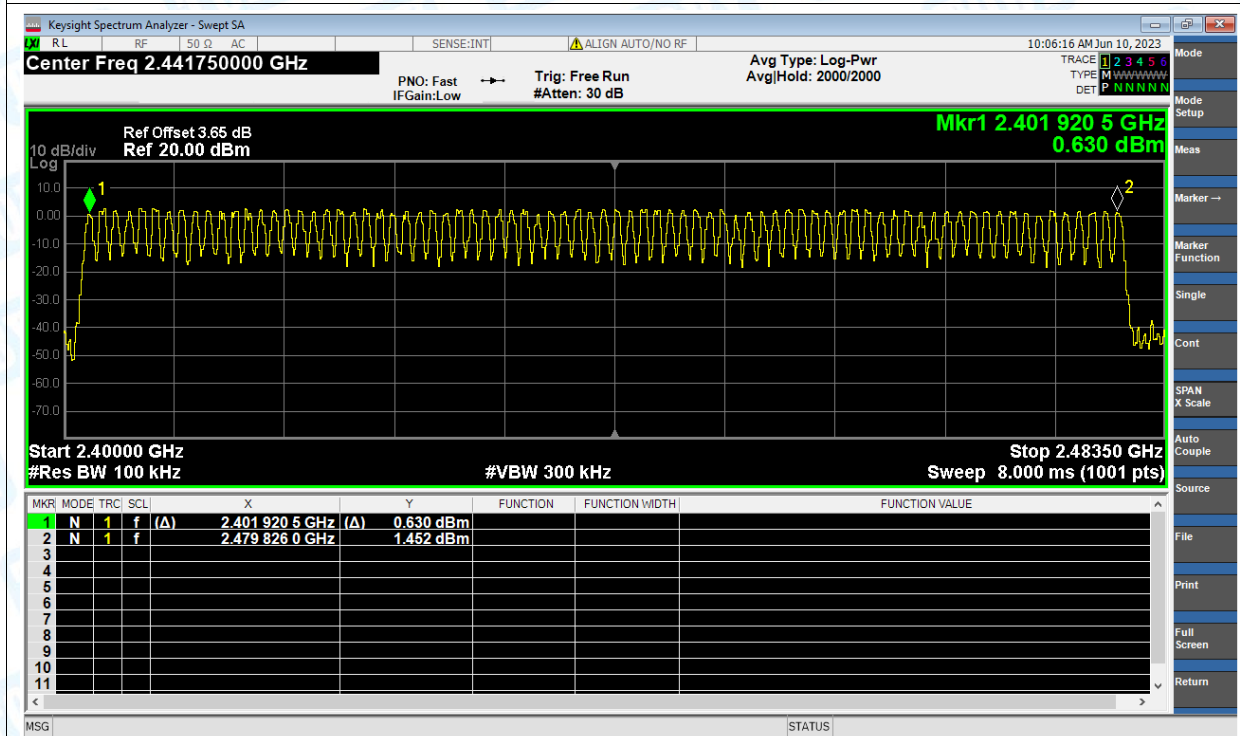


10. Number of Hopping Channel

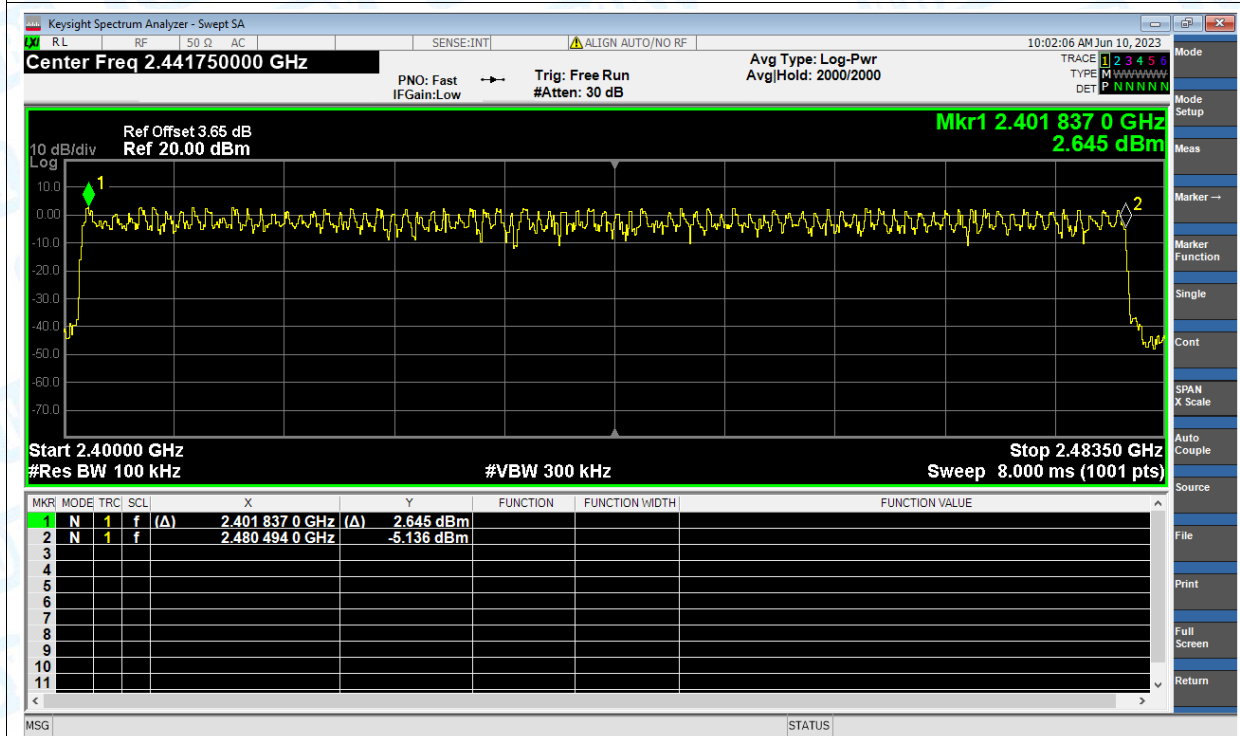
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

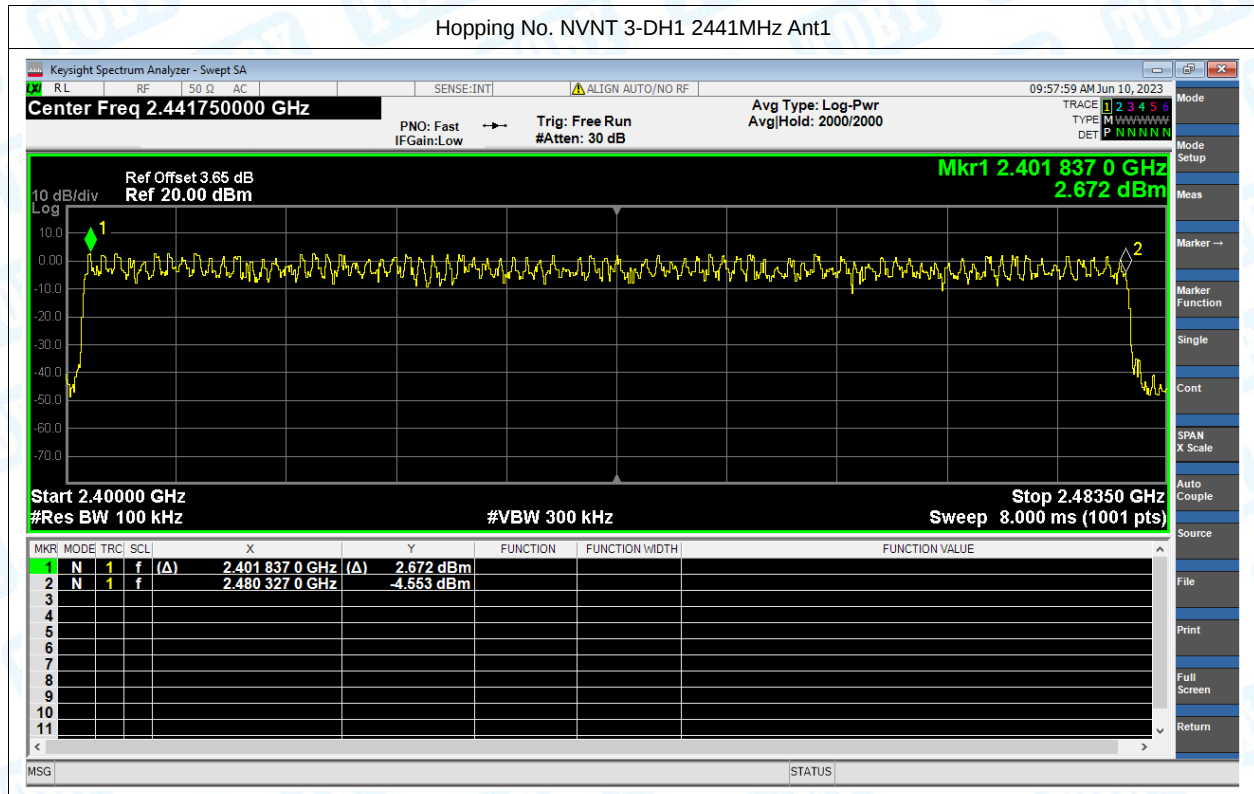
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



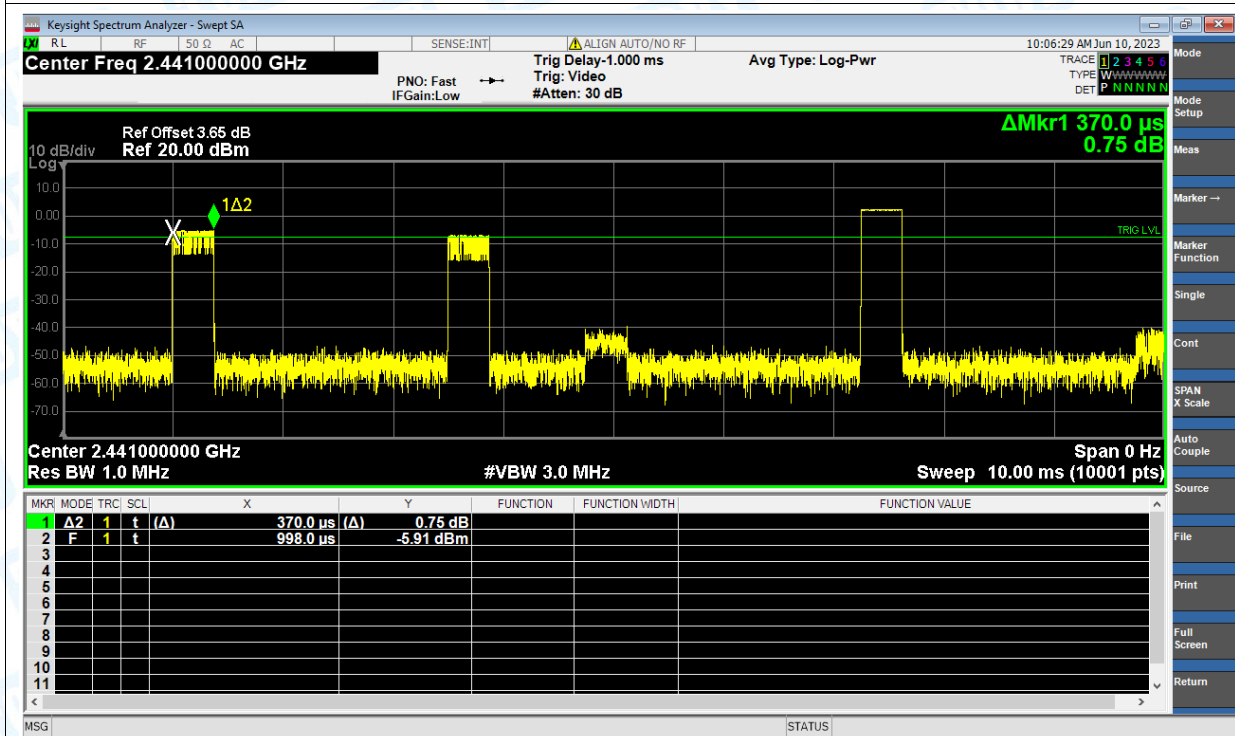


11. Dwell Time

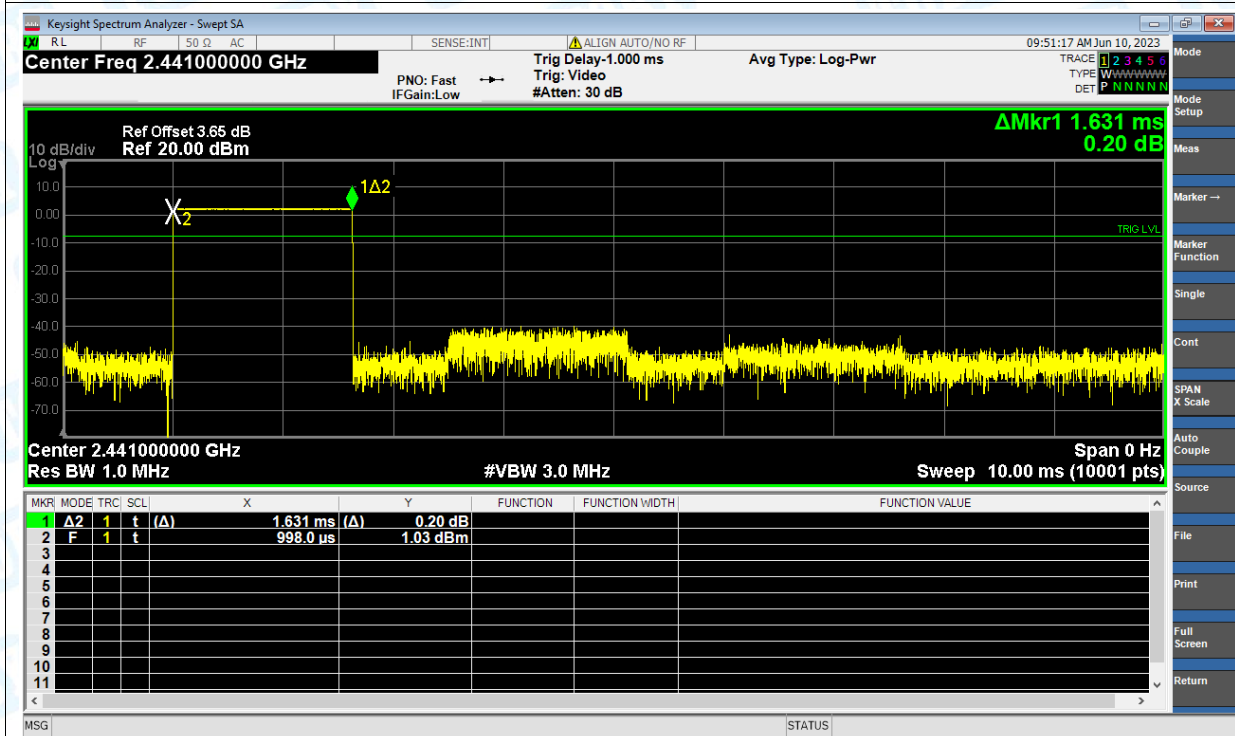
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.37	118.4	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.631	260.96	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.385	123.2	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.884	307.627	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.386	123.52	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.636	261.76	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.887	307.947	31600	400	Pass

Test Graphs

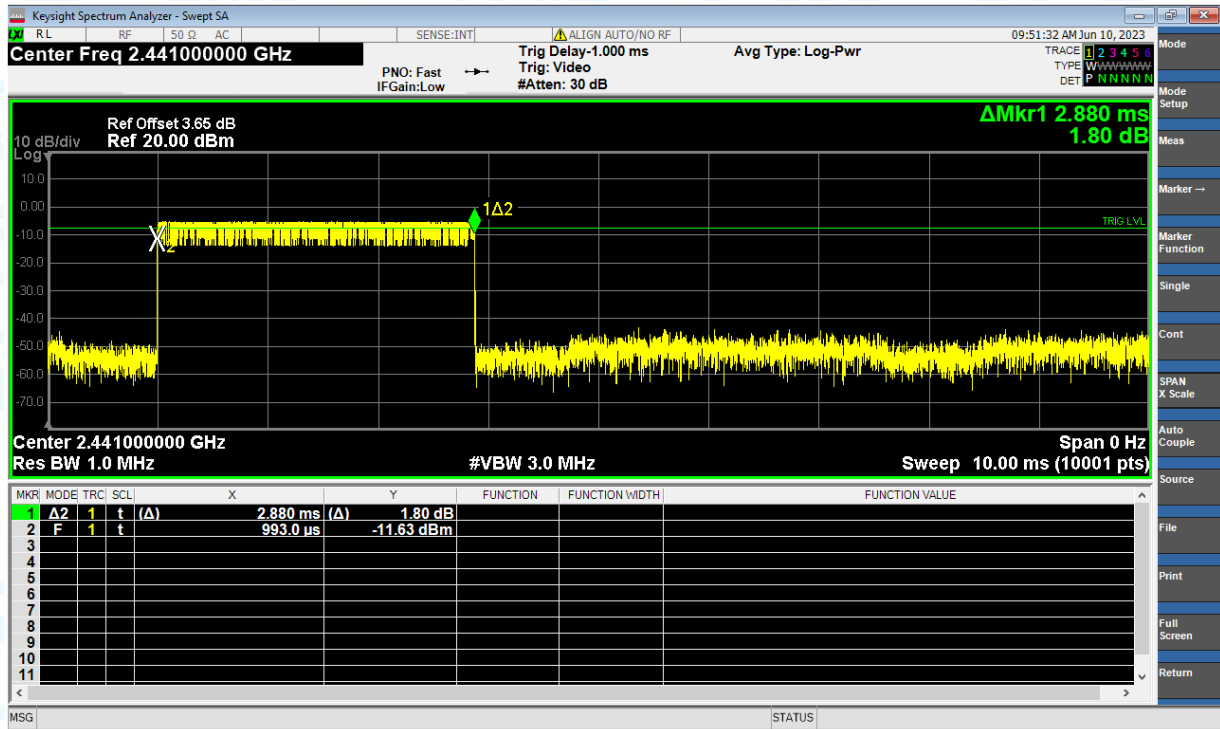
Dwell NVNT 1-DH1 2441MHz Ant1



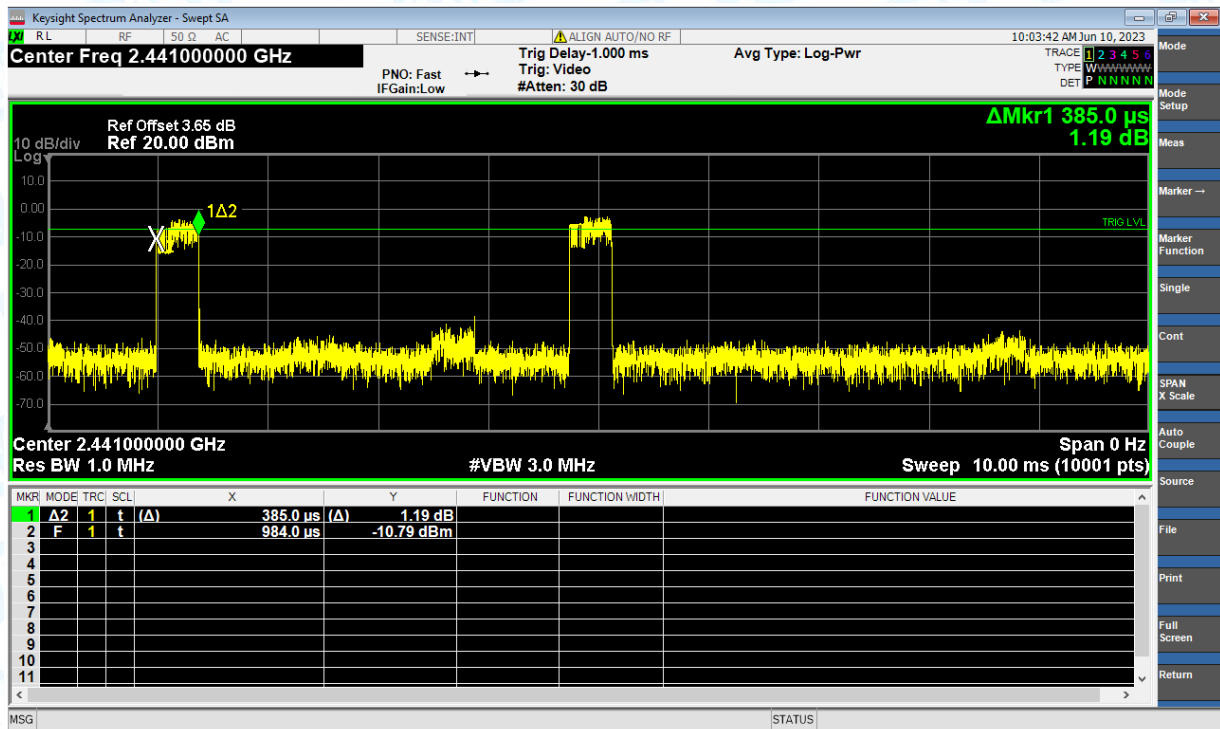
Dwell NVNT 1-DH3 2441MHz Ant1



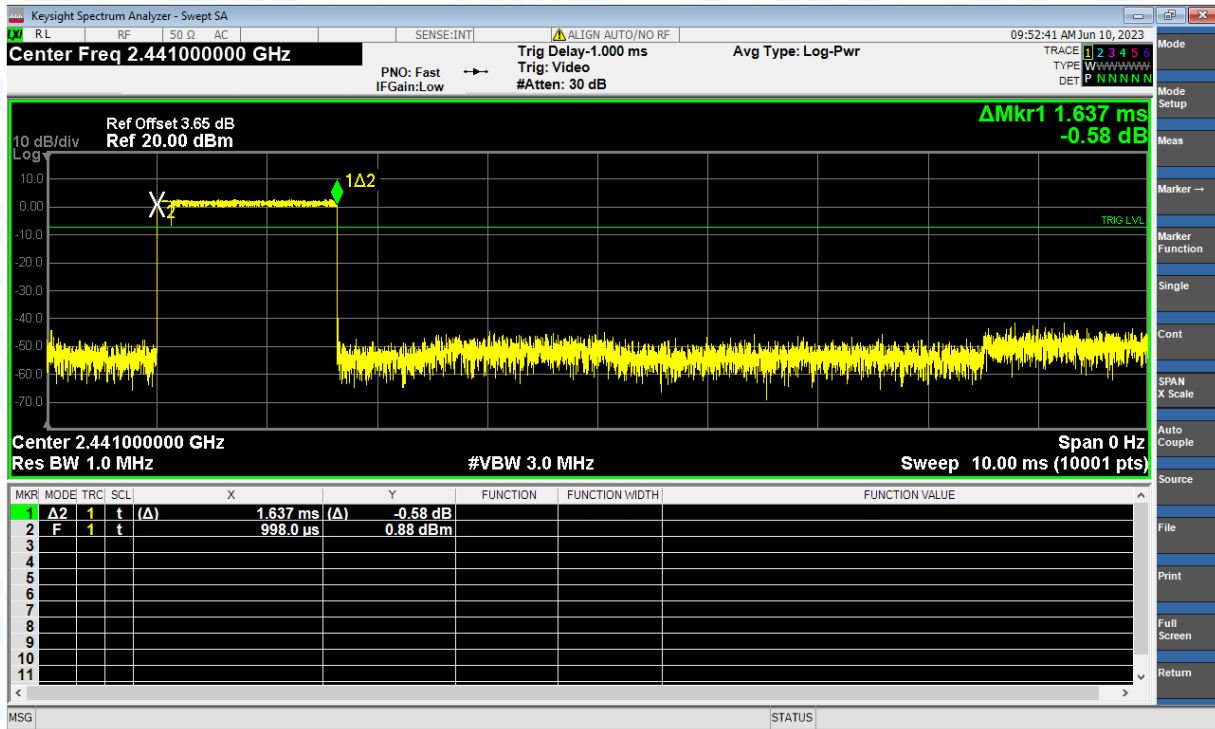
Dwell NVNT 1-DH5 2441MHz Ant1



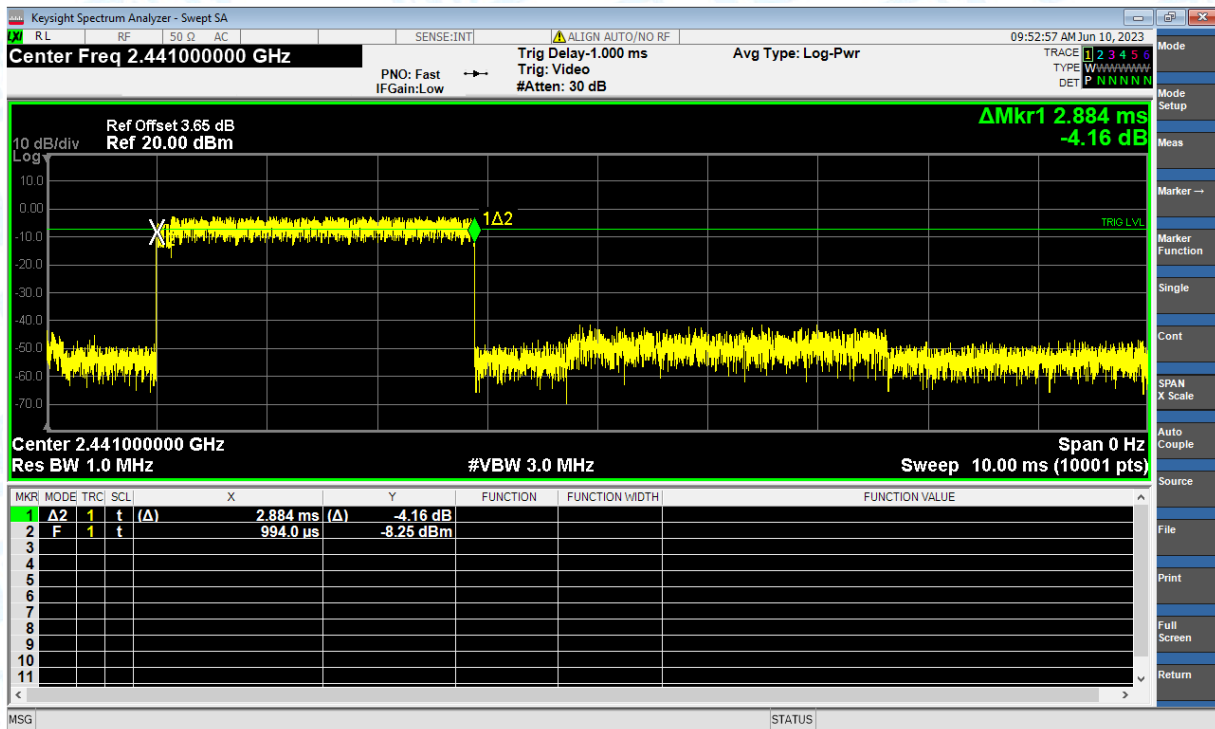
Dwell NVNT 2-DH1 2441MHz Ant1



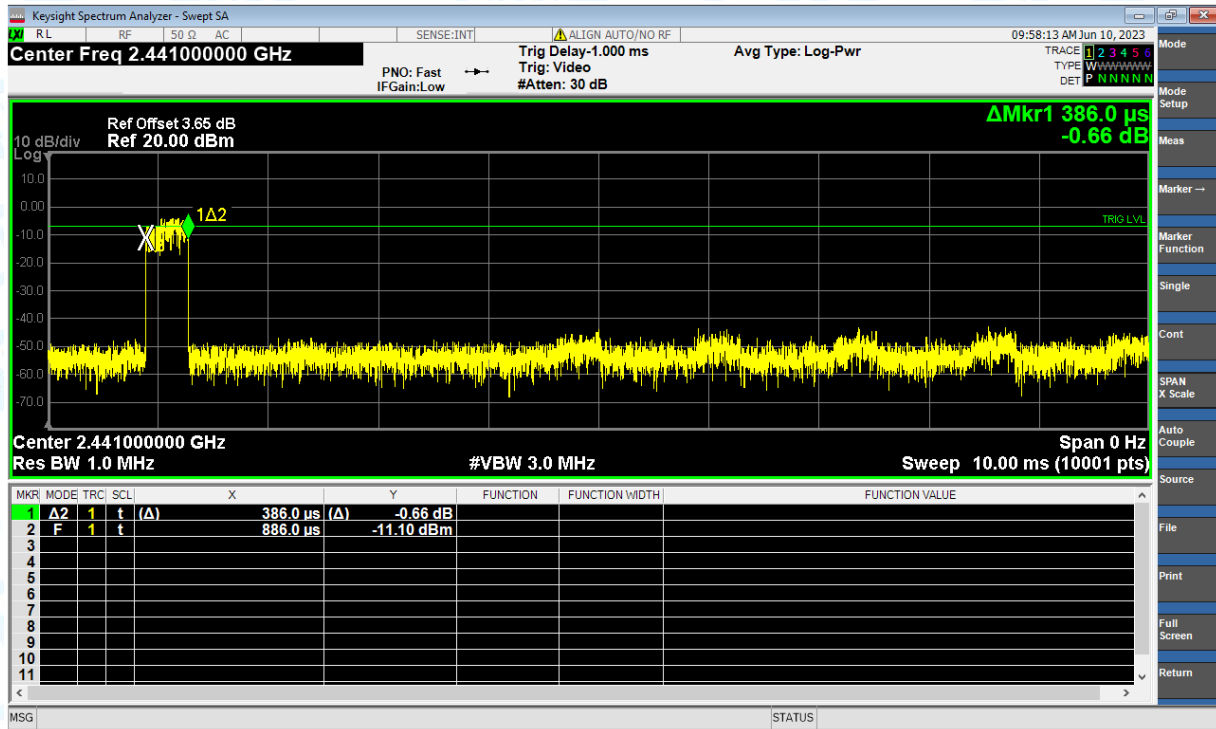
Dwell NVNT 2-DH3 2441MHz Ant1



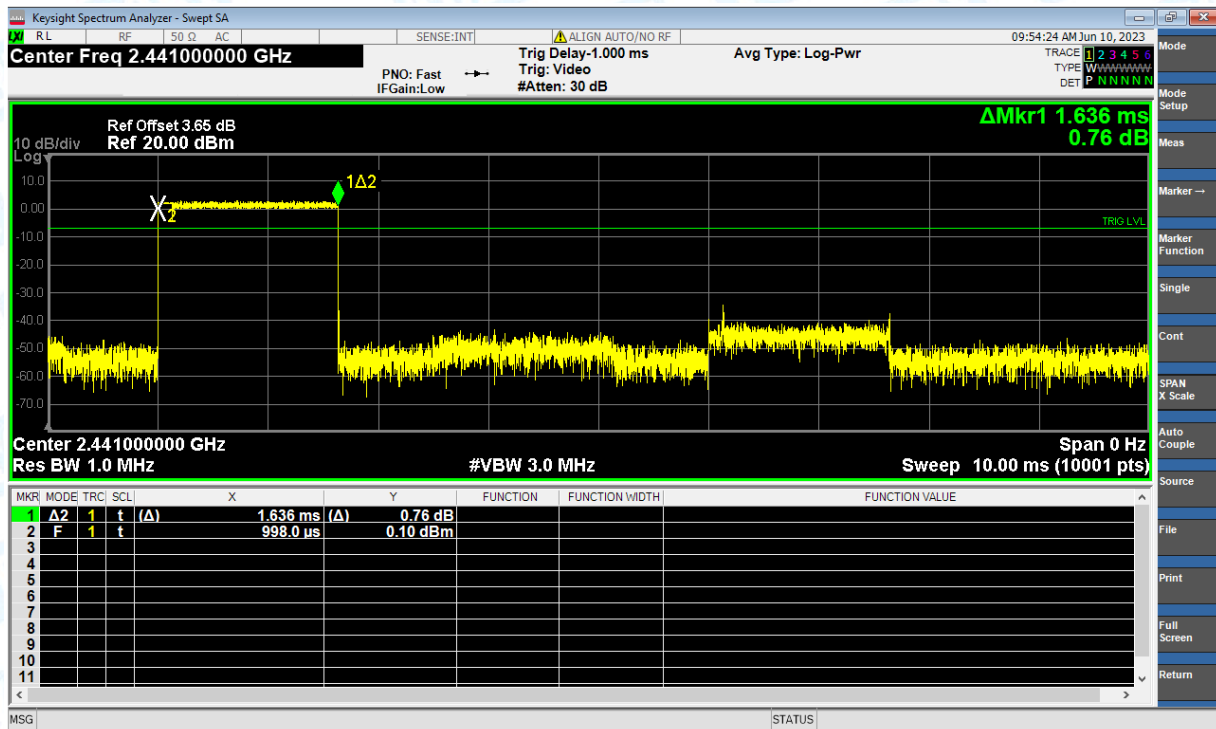
Dwell NVNT 2-DH5 2441MHz Ant1

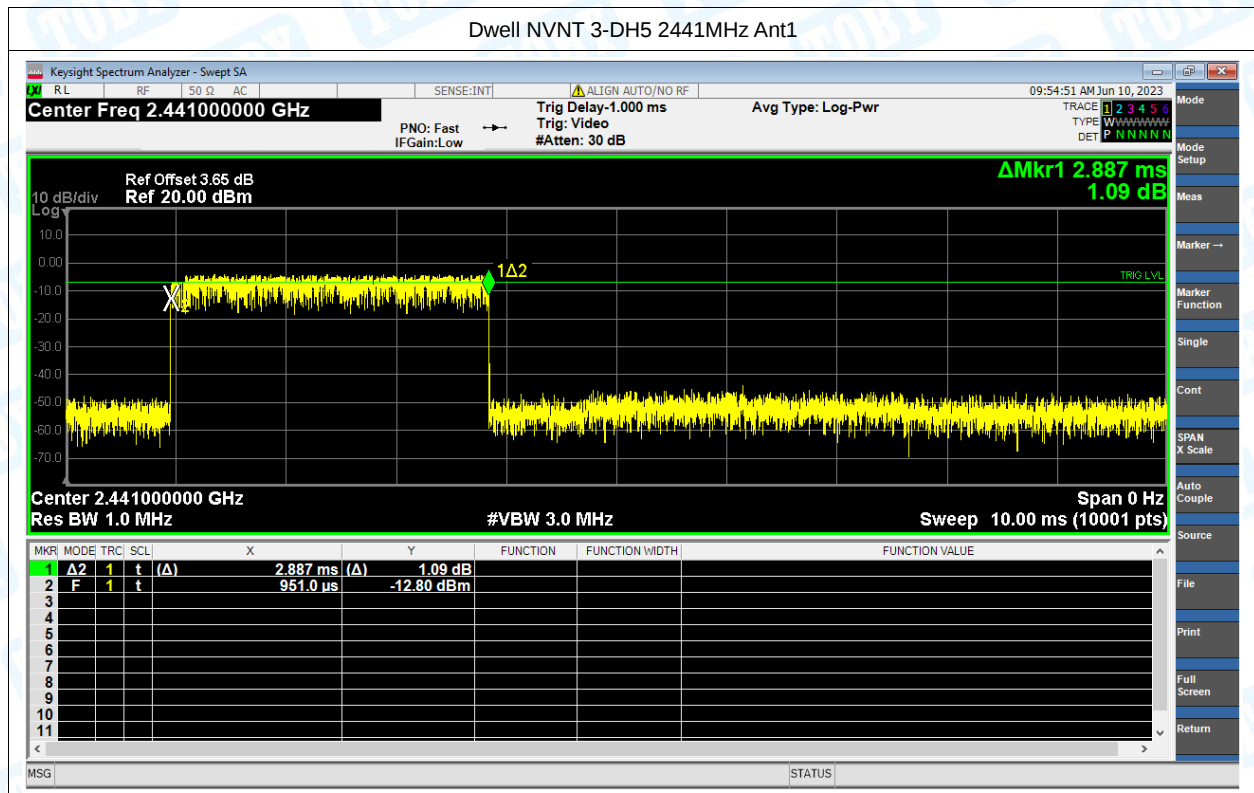


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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