

RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	POS Terminal Pro
Test Model:	VOC-V-SDTS-A4G-I511TH16G128
Sample ID:	HC-C-202504-0028-01-01#
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	Rick Chen
Note: For a more detailed features description, please refer to the report TBR-C-202504-0028-11 The report only show the worst case data.	

Contents

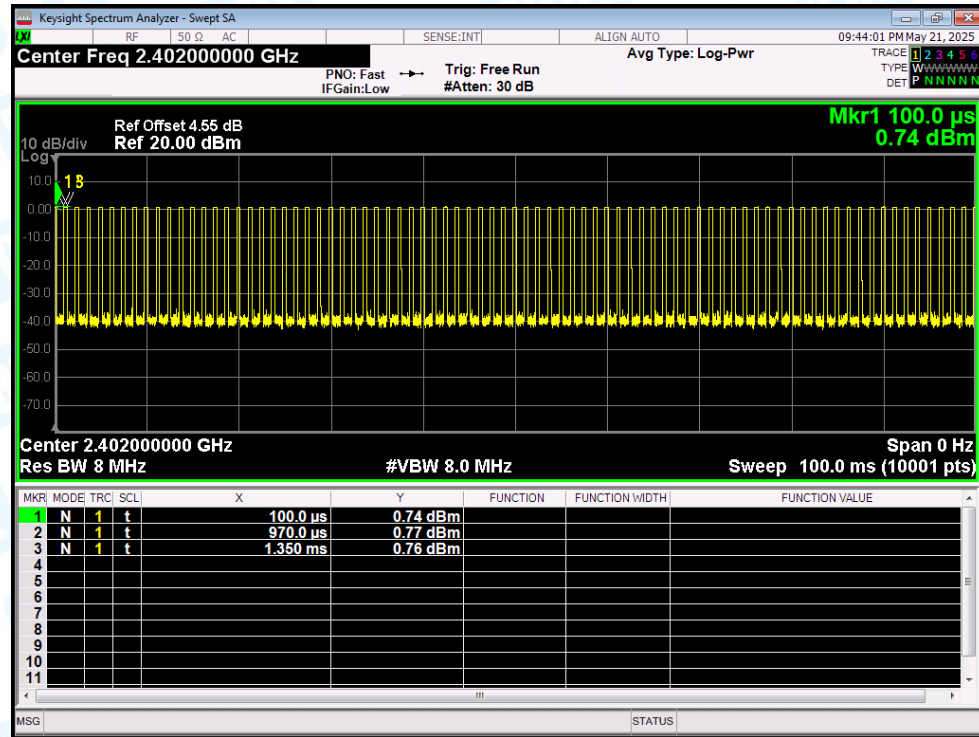
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1.Duty Cycle

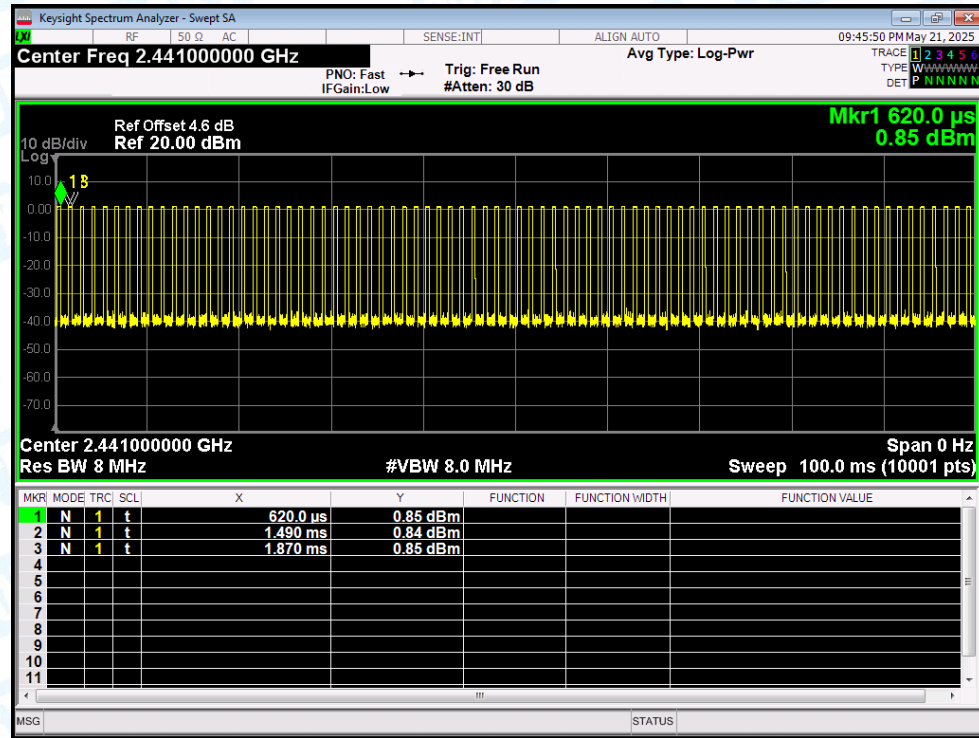
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2402	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	31.2	5.06	2.56
NVNT	3-DH1	2402	Ant1	32	4.95	2.5
NVNT	3-DH1	2441	Ant1	32	4.95	2.5
NVNT	3-DH1	2480	Ant1	32	4.95	2.5

Test Graphs

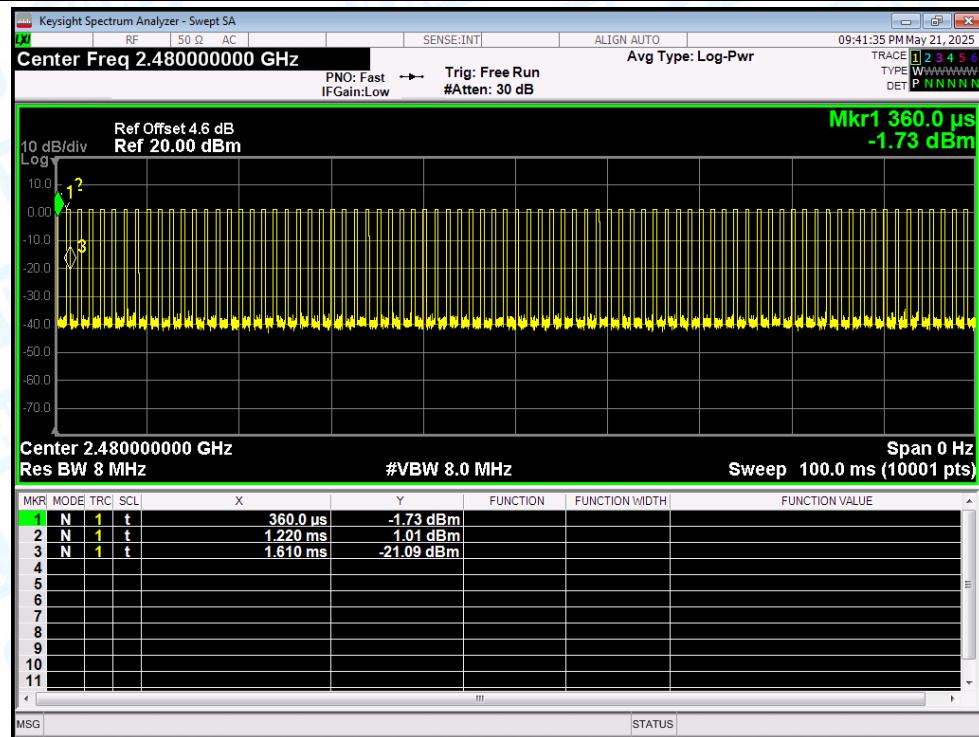
Duty Cycle NVNT 1-DH1 2402MHz Ant1



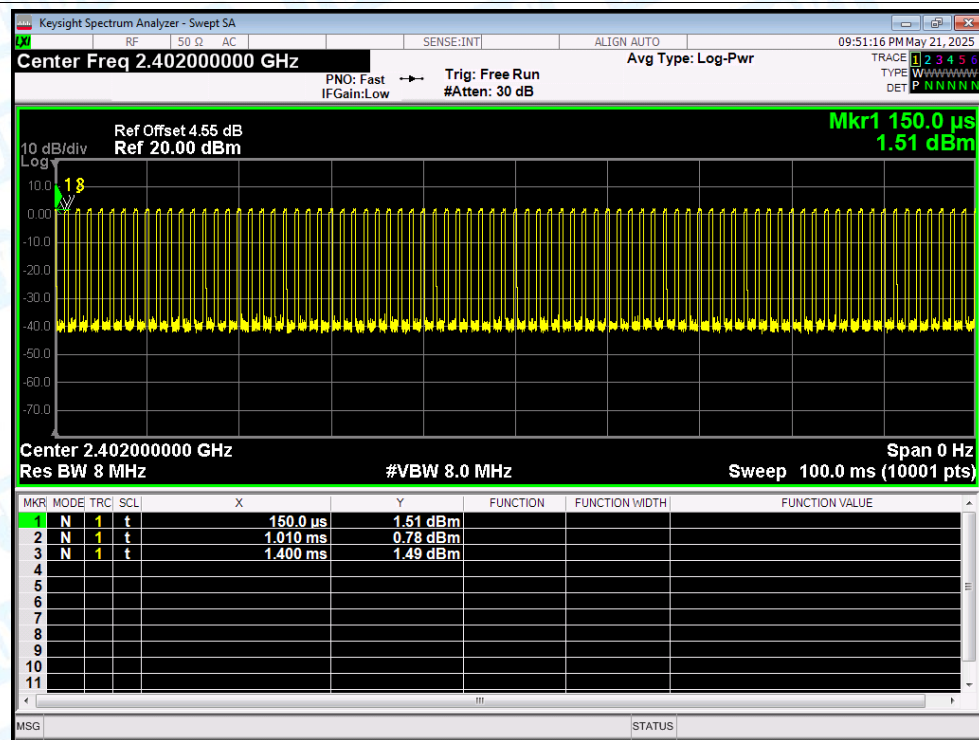
Duty Cycle NVNT 1-DH1 2441MHz Ant1



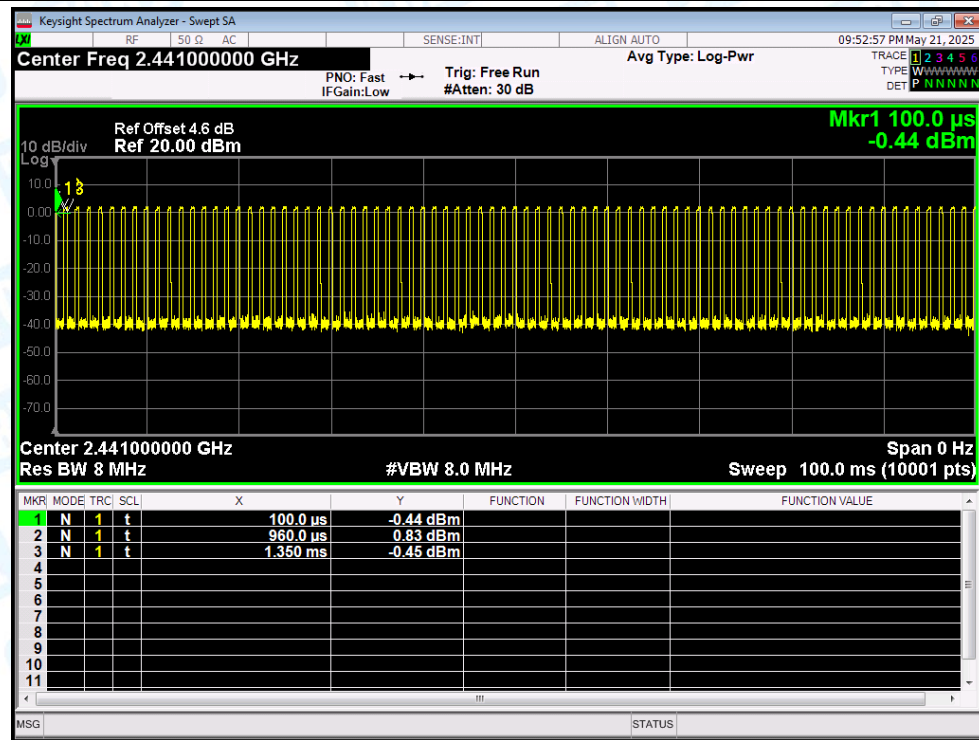
Duty Cycle NVNT 1-DH1 2480MHz Ant1



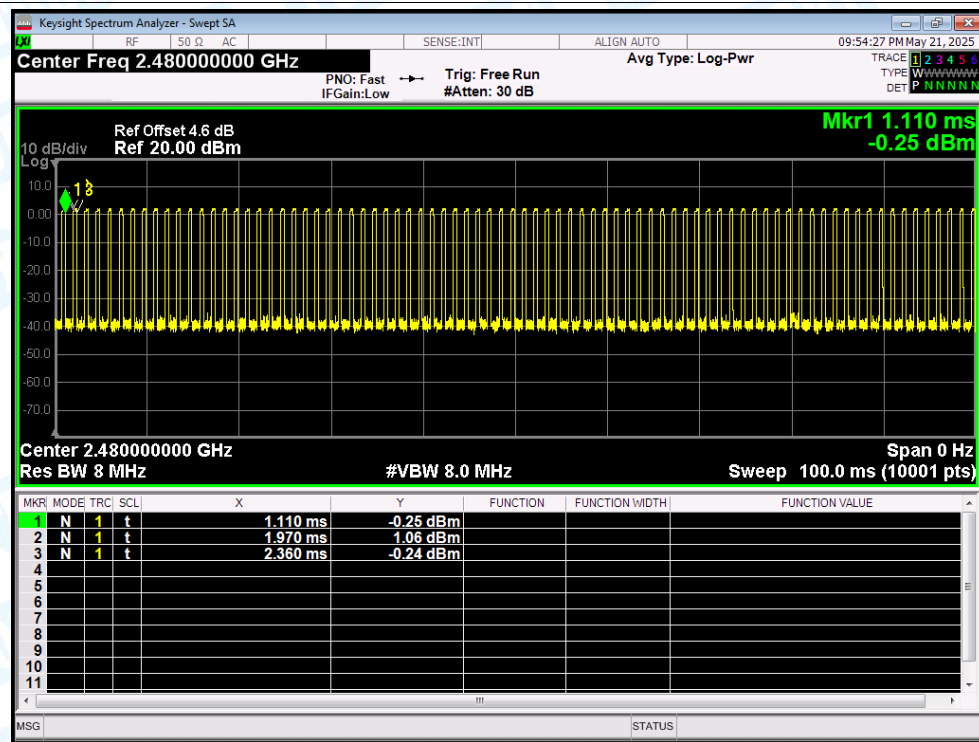
Duty Cycle NVNT 2-DH1 2402MHz Ant1



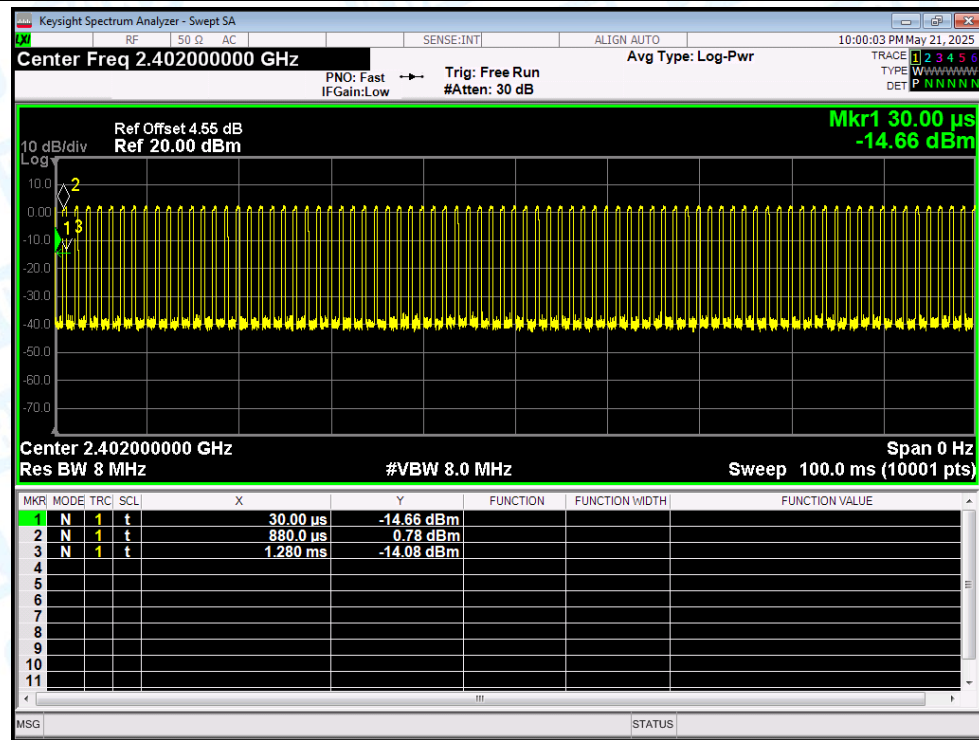
Duty Cycle NVNT 2-DH1 2441MHz Ant1



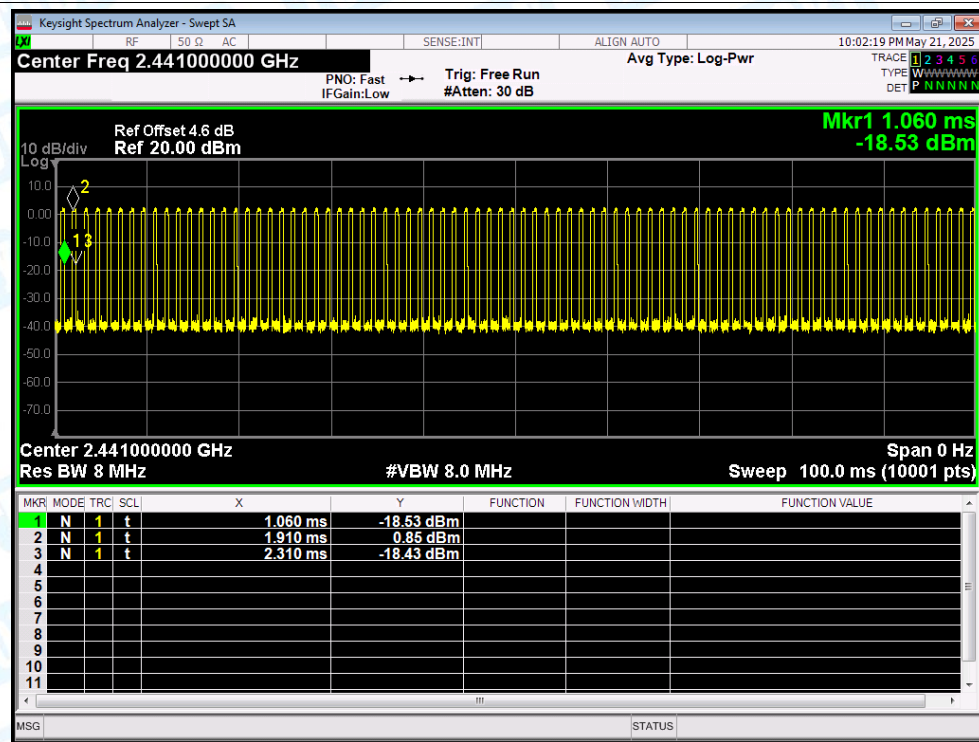
Duty Cycle NVNT 2-DH1 2480MHz Ant1

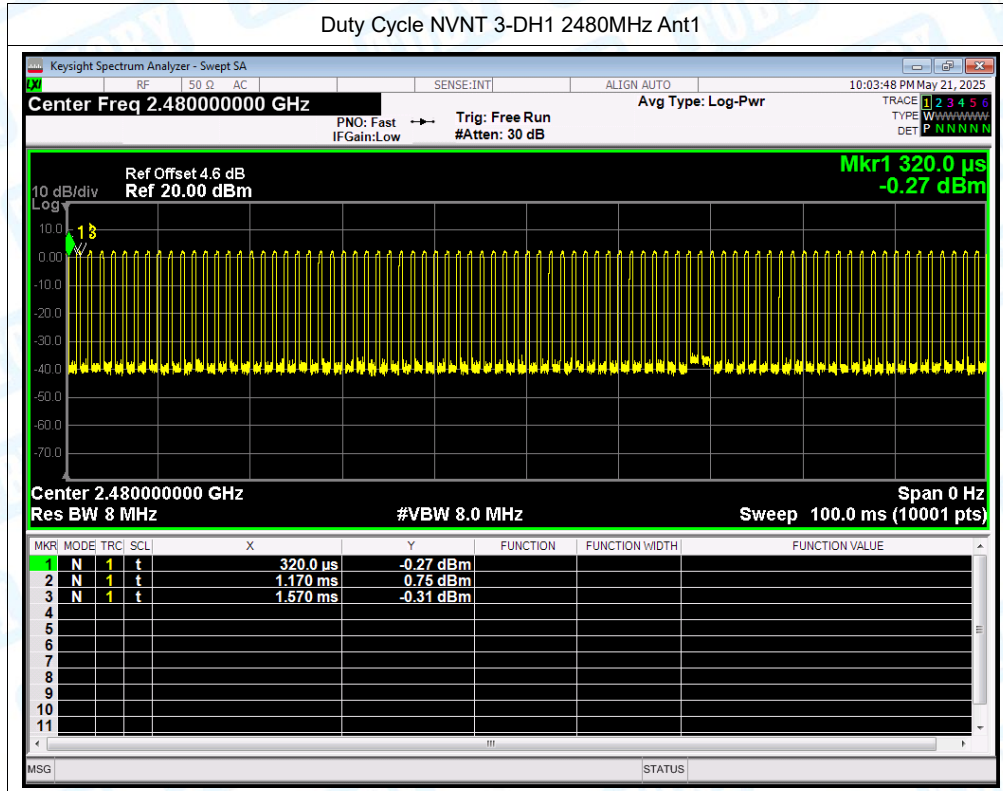


Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



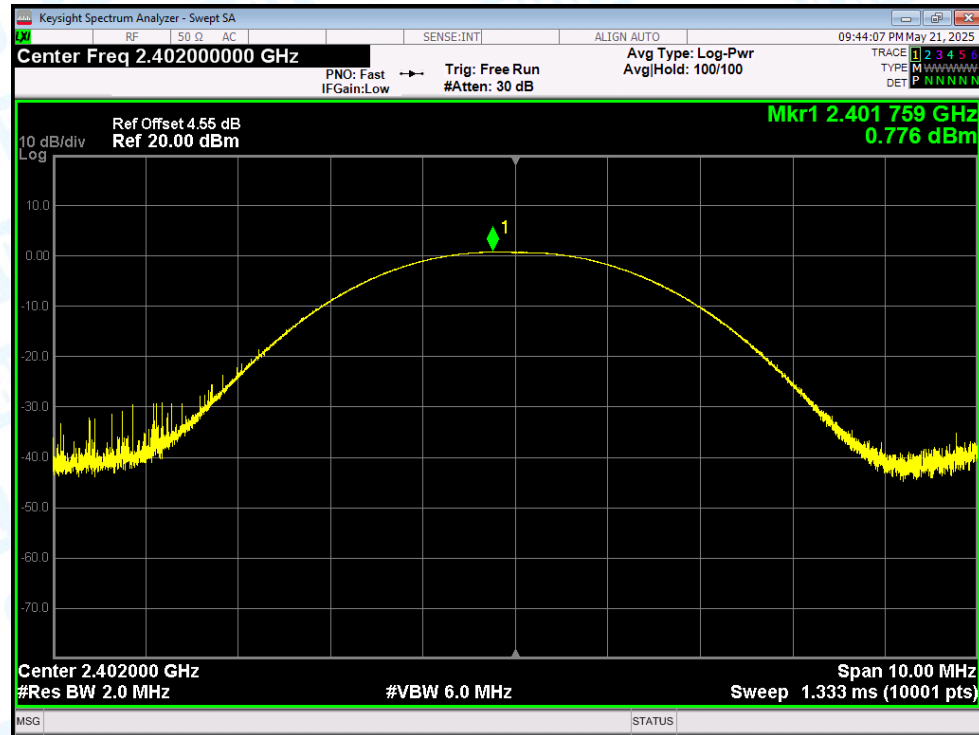


2.Maximum Conducted Output Power

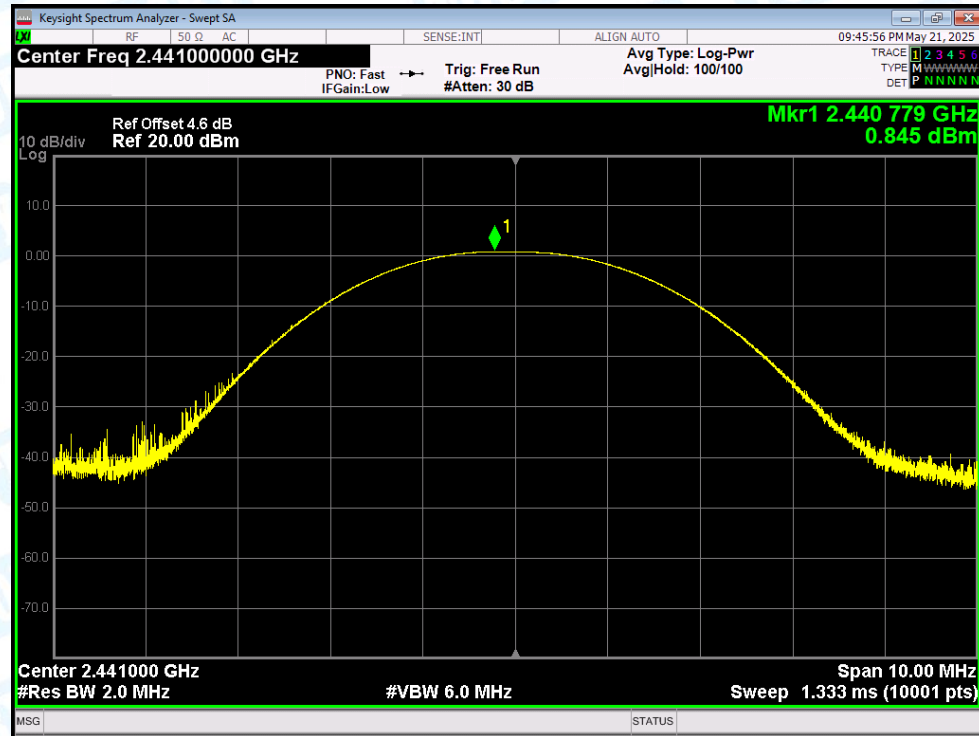
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	0.776	21	Pass
NVNT	1-DH1	2441	Ant1	0.845	21	Pass
NVNT	1-DH1	2480	Ant1	0.998	21	Pass
NVNT	2-DH1	2402	Ant1	1.641	21	Pass
NVNT	2-DH1	2441	Ant1	1.689	21	Pass
NVNT	2-DH1	2480	Ant1	1.858	21	Pass
NVNT	3-DH1	2402	Ant1	2.191	21	Pass
NVNT	3-DH1	2441	Ant1	2.254	21	Pass
NVNT	3-DH1	2480	Ant1	2.383	21	Pass

Test Graphs

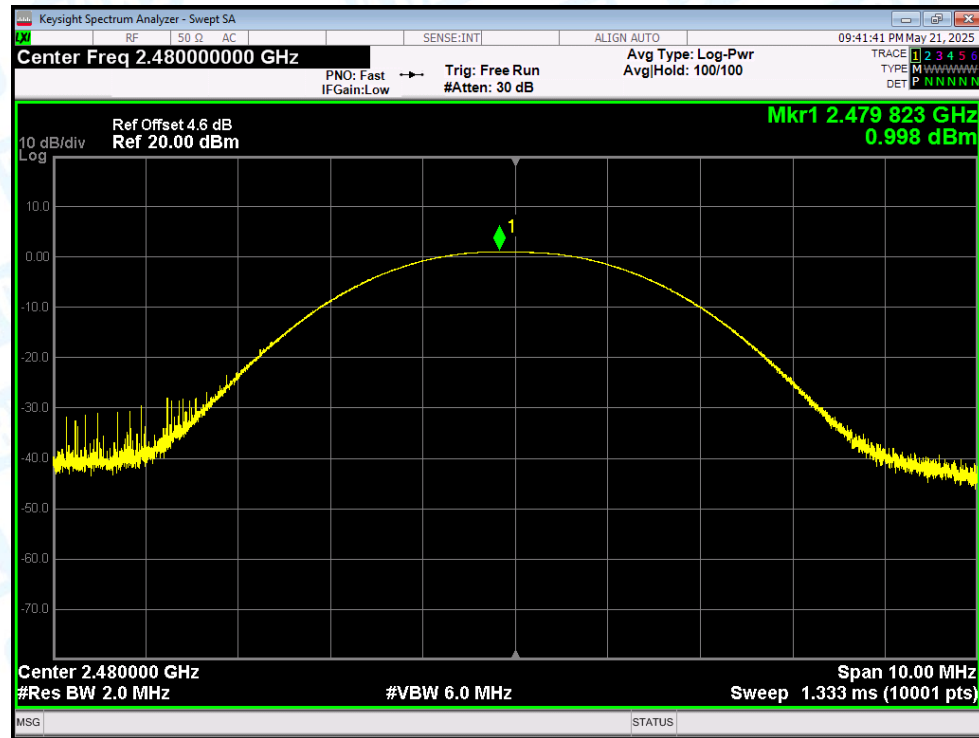
Power NVNT 1-DH1 2402MHz Ant1



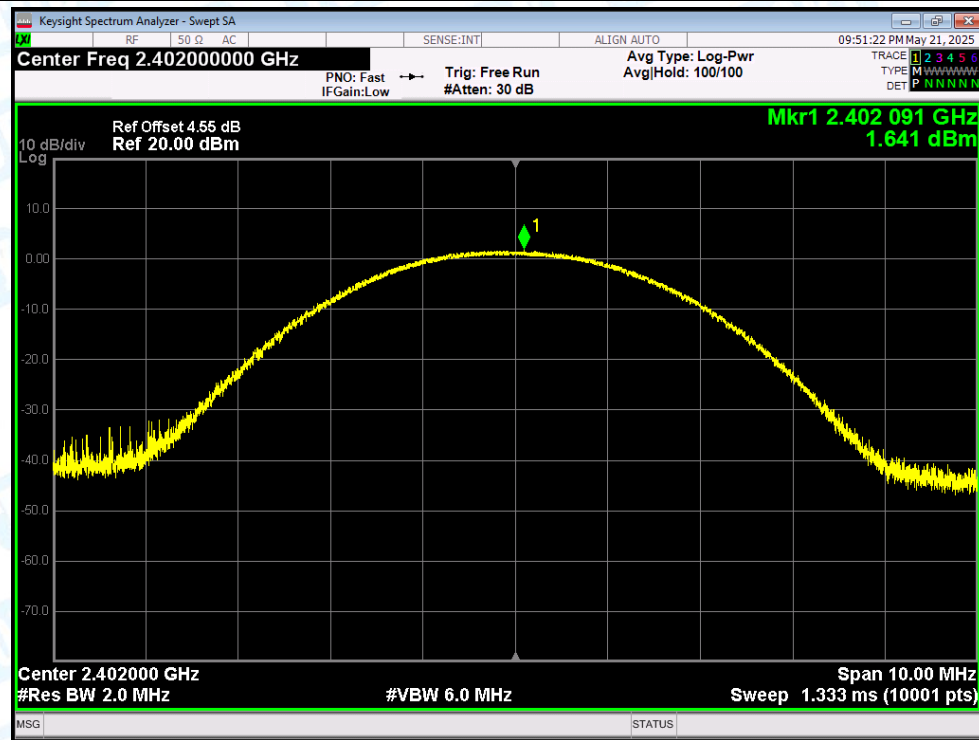
Power NVNT 1-DH1 2441MHz Ant1



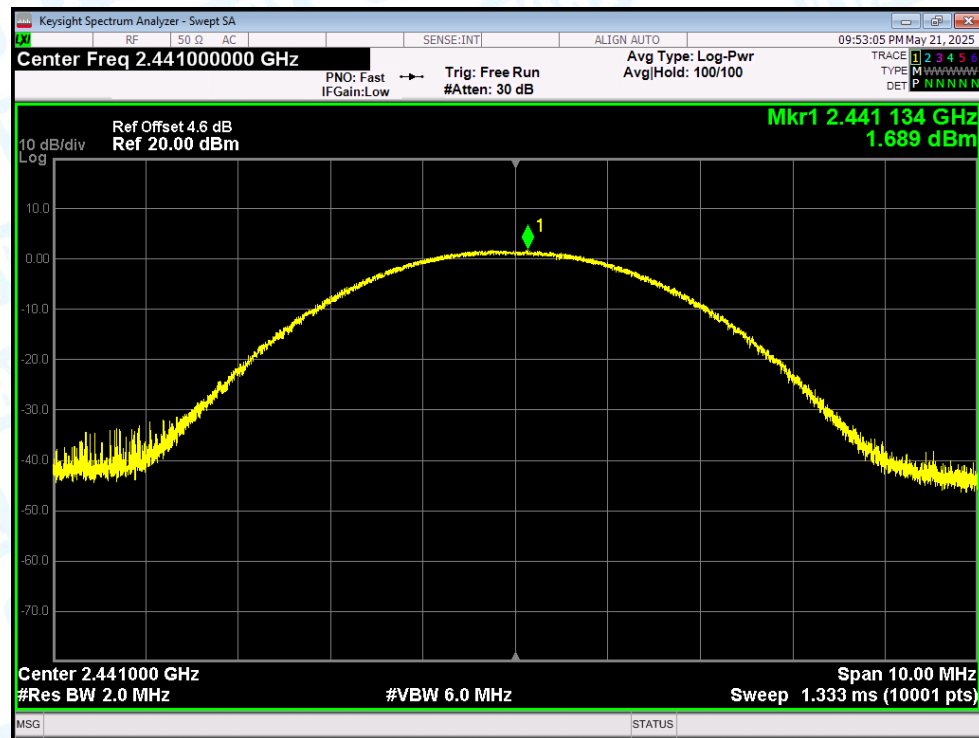
Power NVNT 1-DH1 2480MHz Ant1



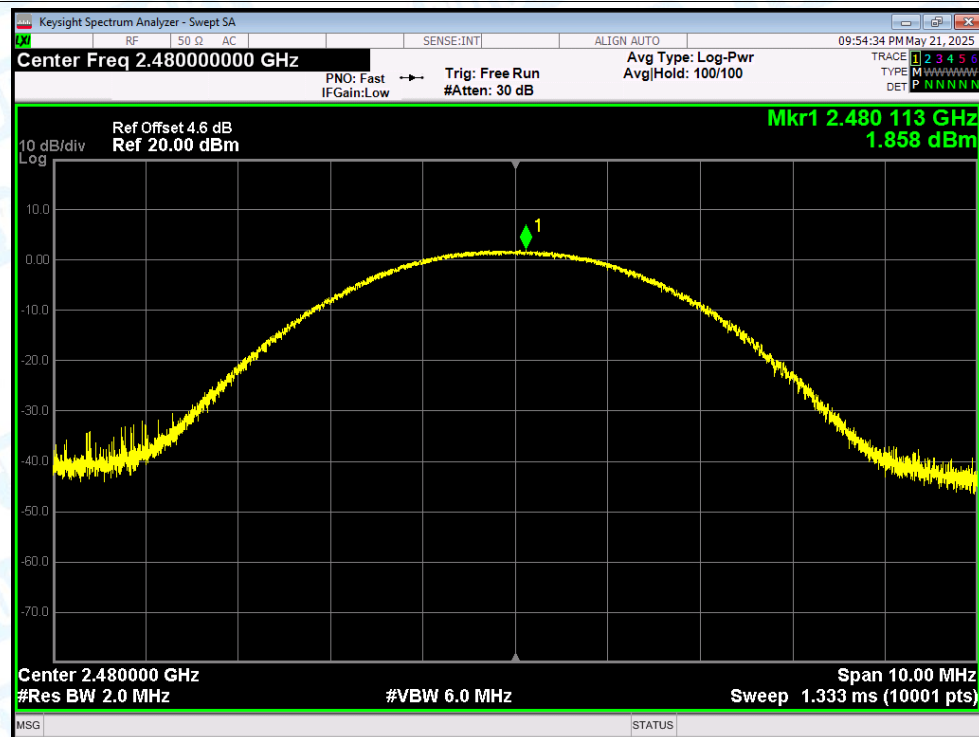
Power NVNT 2-DH1 2402MHz Ant1



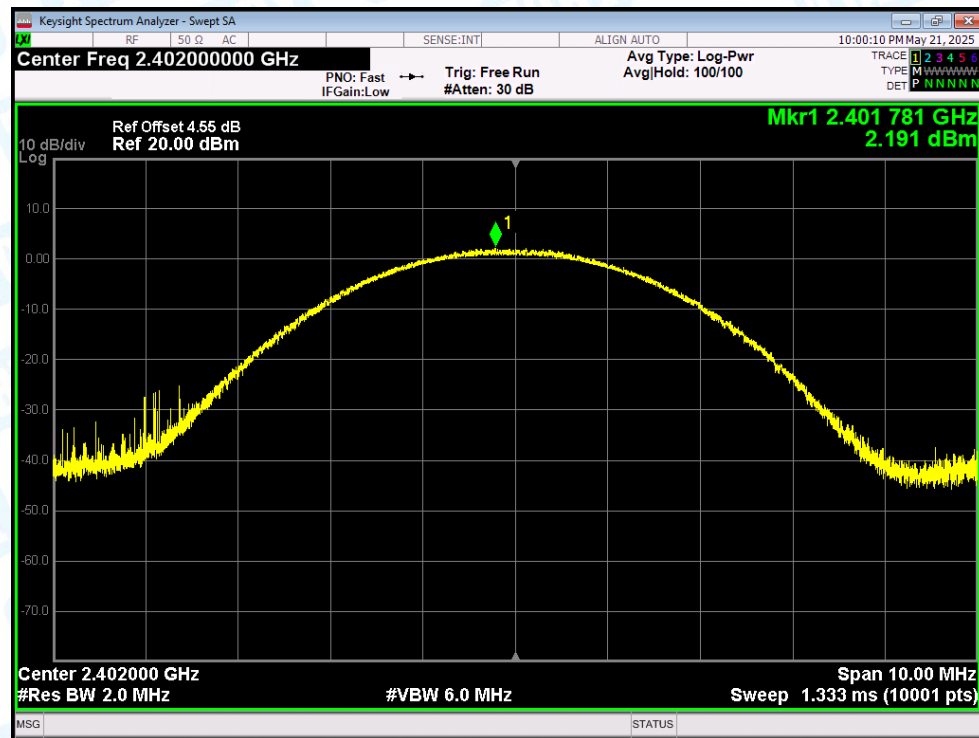
Power NVNT 2-DH1 2441MHz Ant1



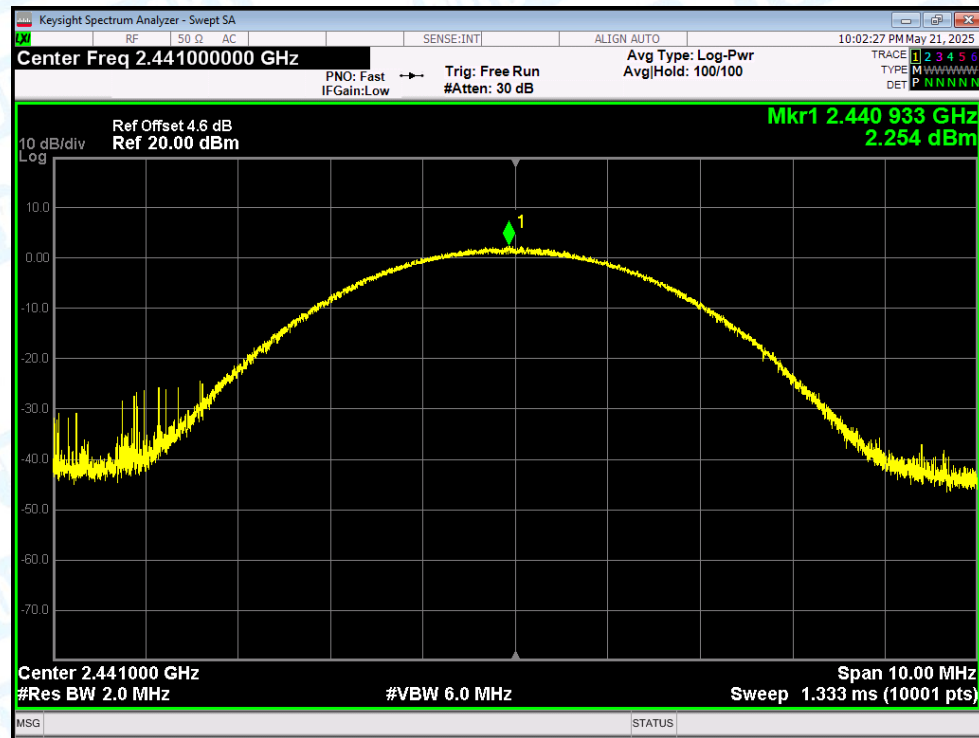
Power NVNT 2-DH1 2480MHz Ant1

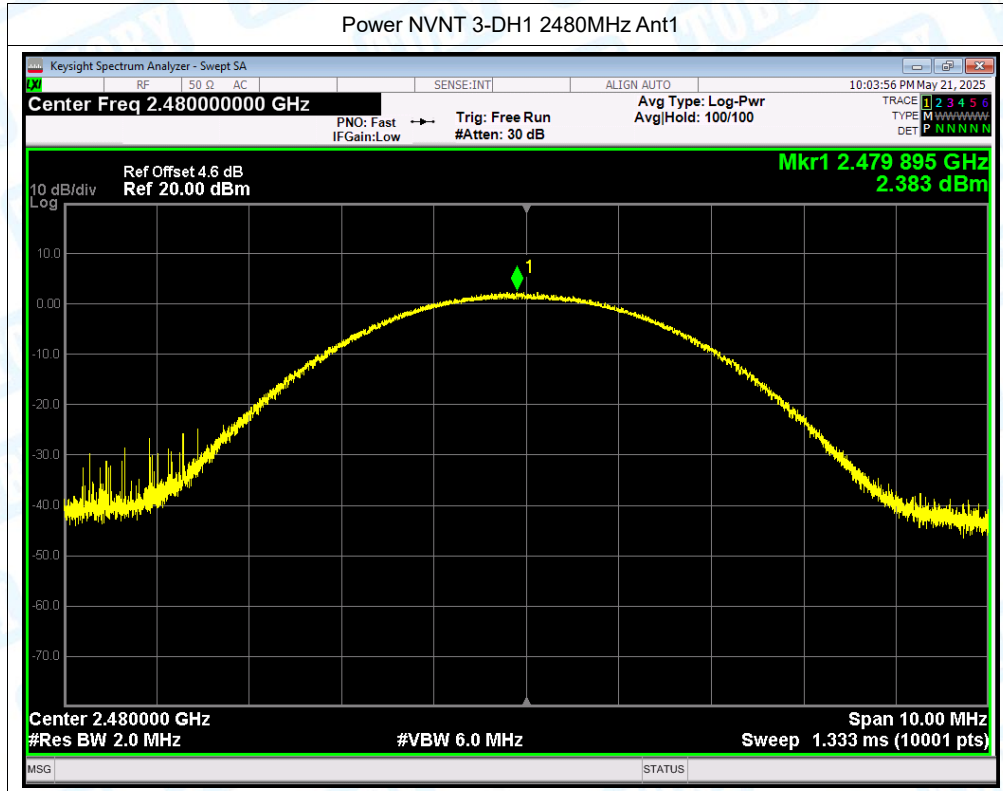


Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



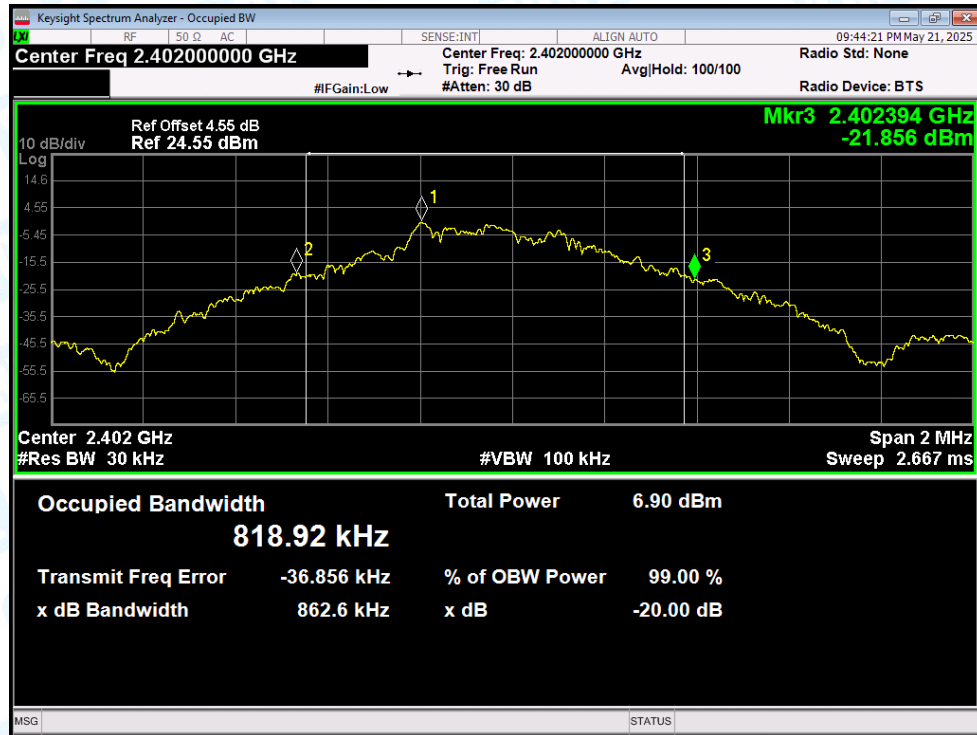


3.-20dB Bandwidth

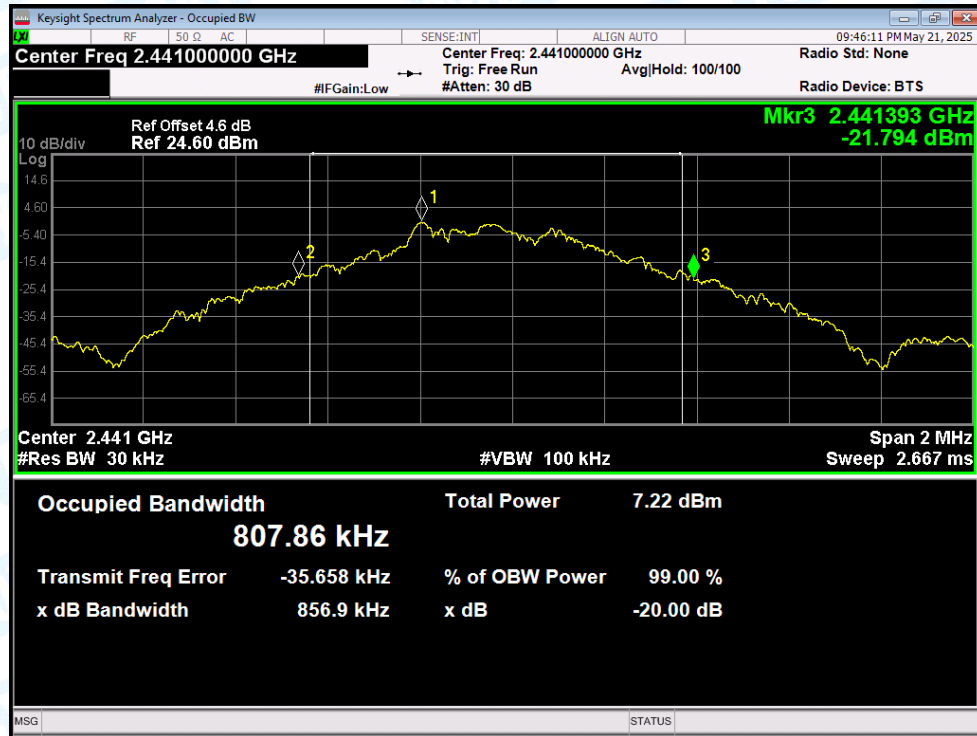
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.86	0	Pass
NVNT	1-DH1	2441	Ant1	0.86	0	Pass
NVNT	1-DH1	2480	Ant1	0.87	0	Pass
NVNT	2-DH1	2402	Ant1	1.26	0	Pass
NVNT	2-DH1	2441	Ant1	1.23	0	Pass
NVNT	2-DH1	2480	Ant1	1.23	0	Pass
NVNT	3-DH1	2402	Ant1	1.22	0	Pass
NVNT	3-DH1	2441	Ant1	1.24	0	Pass
NVNT	3-DH1	2480	Ant1	1.22	0	Pass

Test Graphs

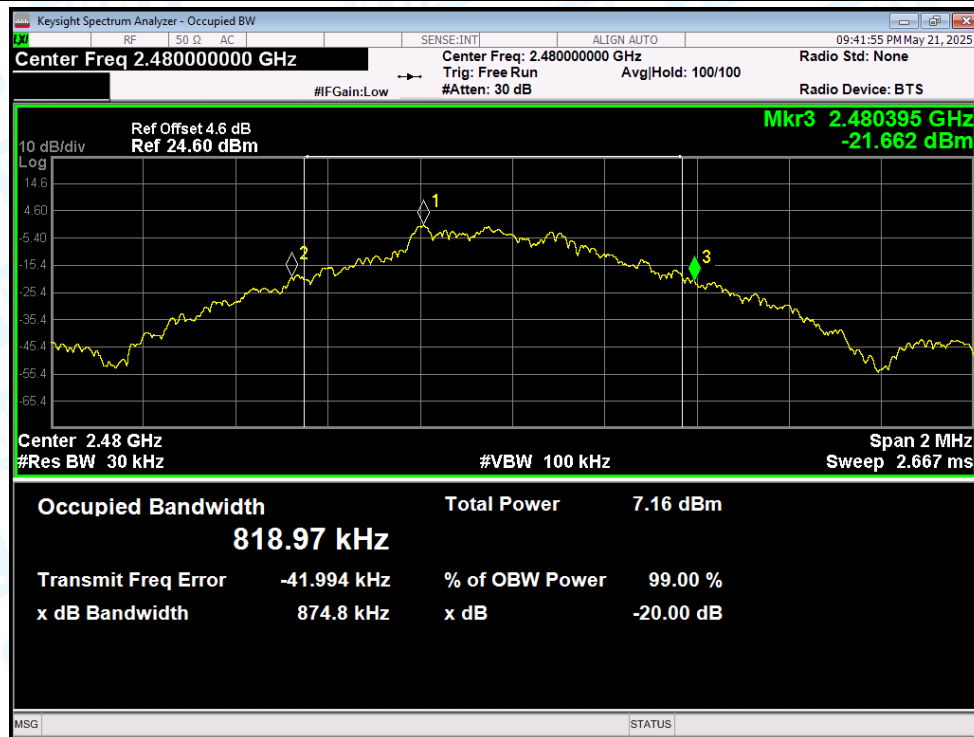
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



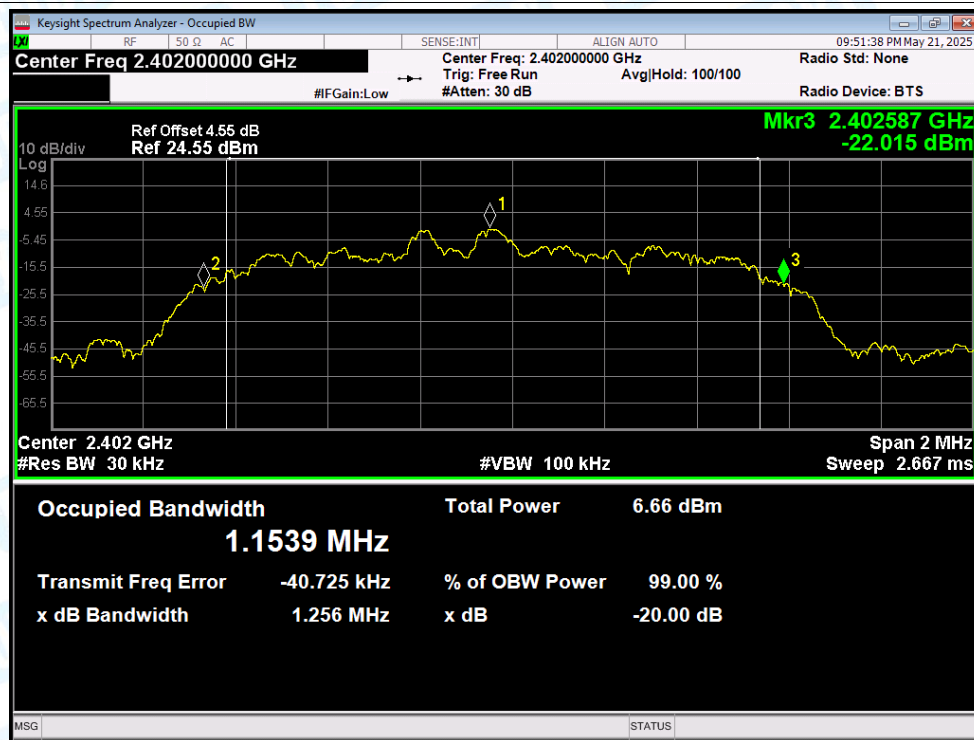
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



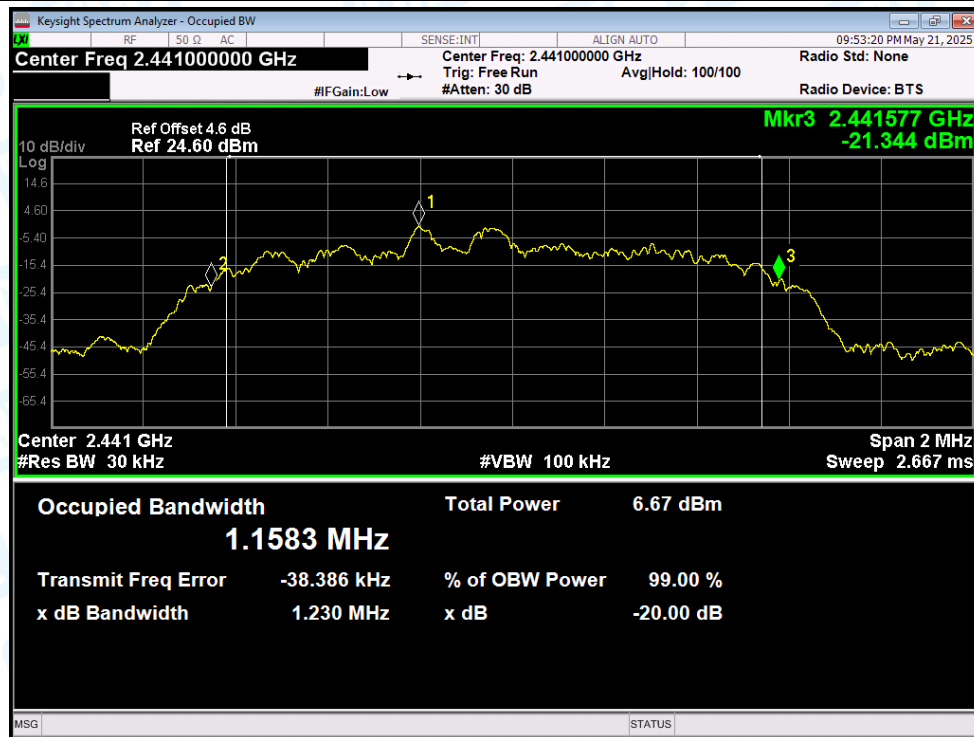
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



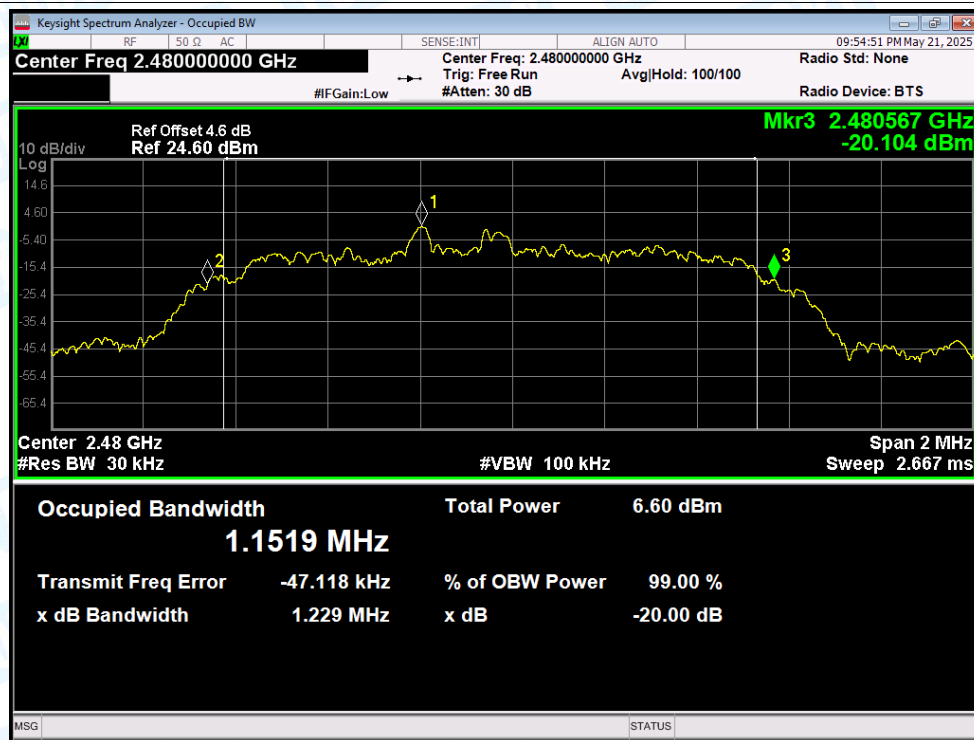
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



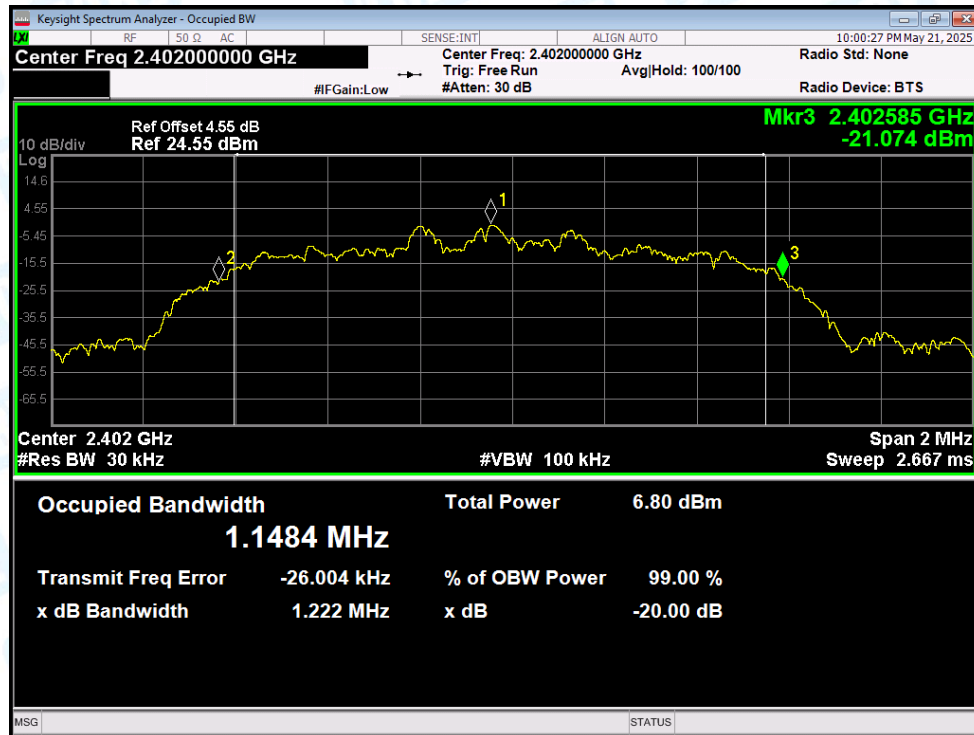
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



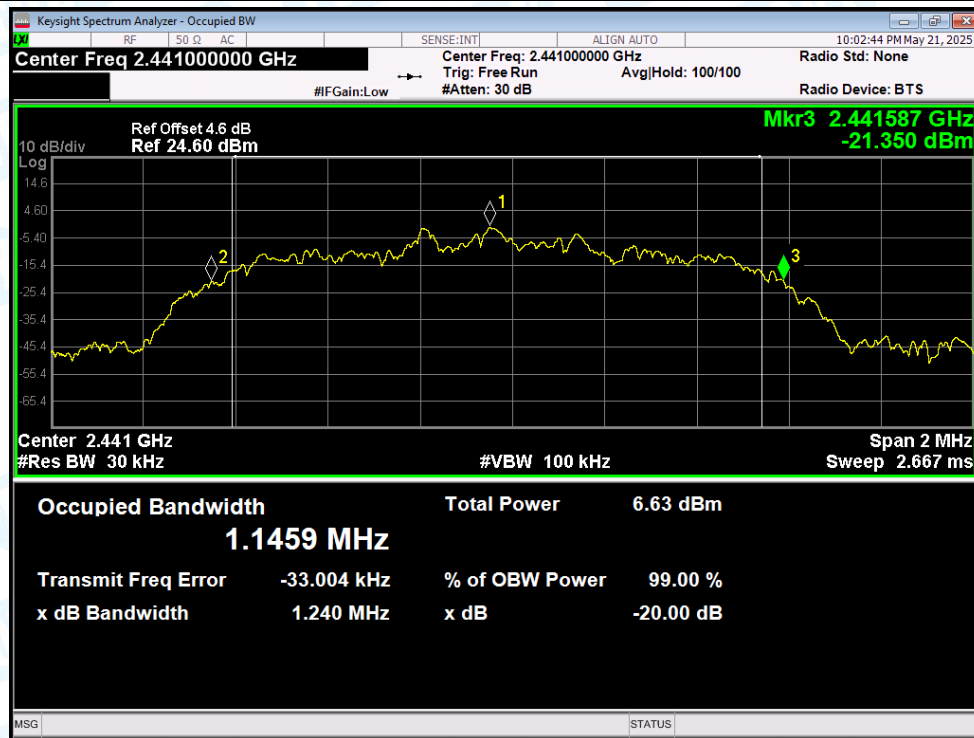
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1

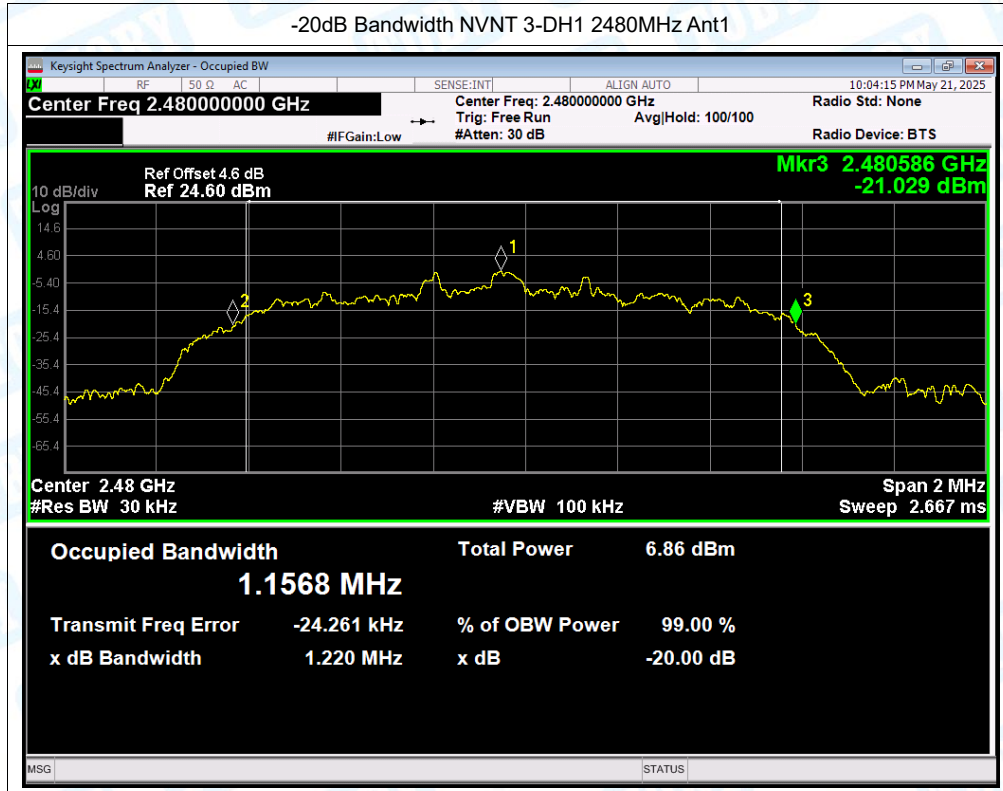


-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



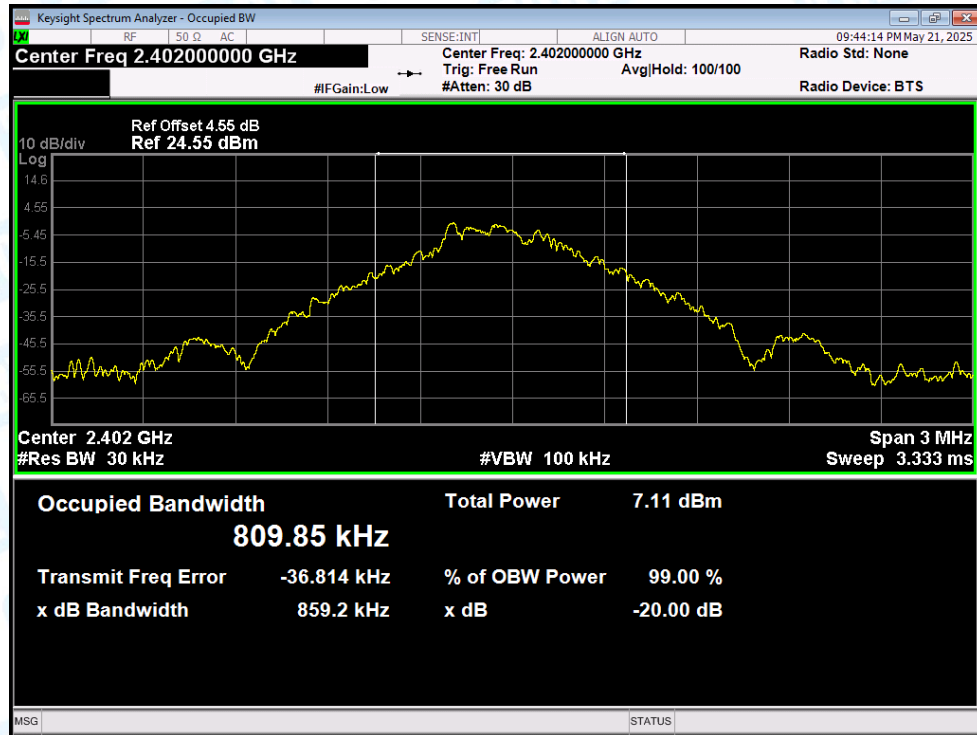


4.Occupied Channel Bandwidth

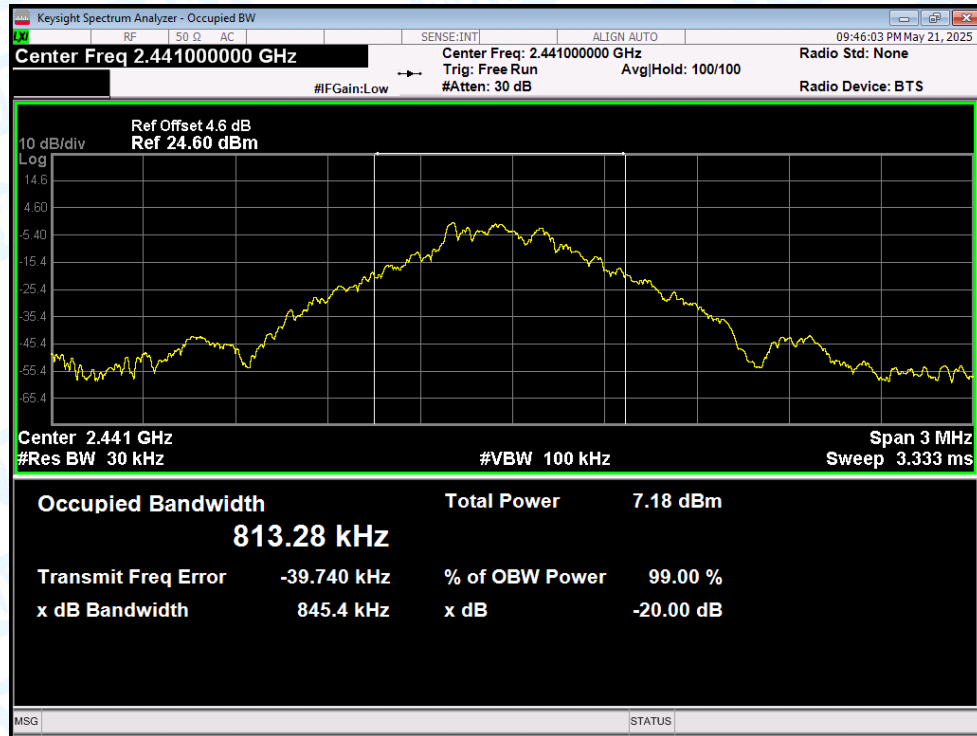
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.81
NVNT	1-DH1	2441	Ant1	0.813
NVNT	1-DH1	2480	Ant1	0.826
NVNT	2-DH1	2402	Ant1	1.167
NVNT	2-DH1	2441	Ant1	1.169
NVNT	2-DH1	2480	Ant1	1.162
NVNT	3-DH1	2402	Ant1	1.158
NVNT	3-DH1	2441	Ant1	1.149
NVNT	3-DH1	2480	Ant1	1.146

Test Graphs

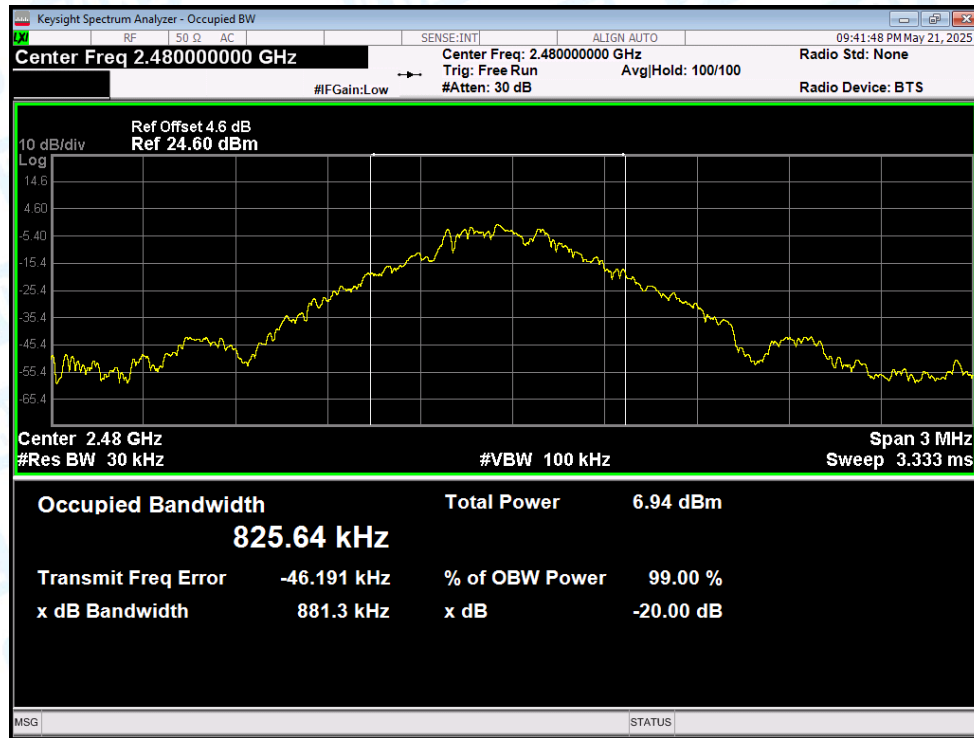
OBW NVNT 1-DH1 2402MHz Ant1



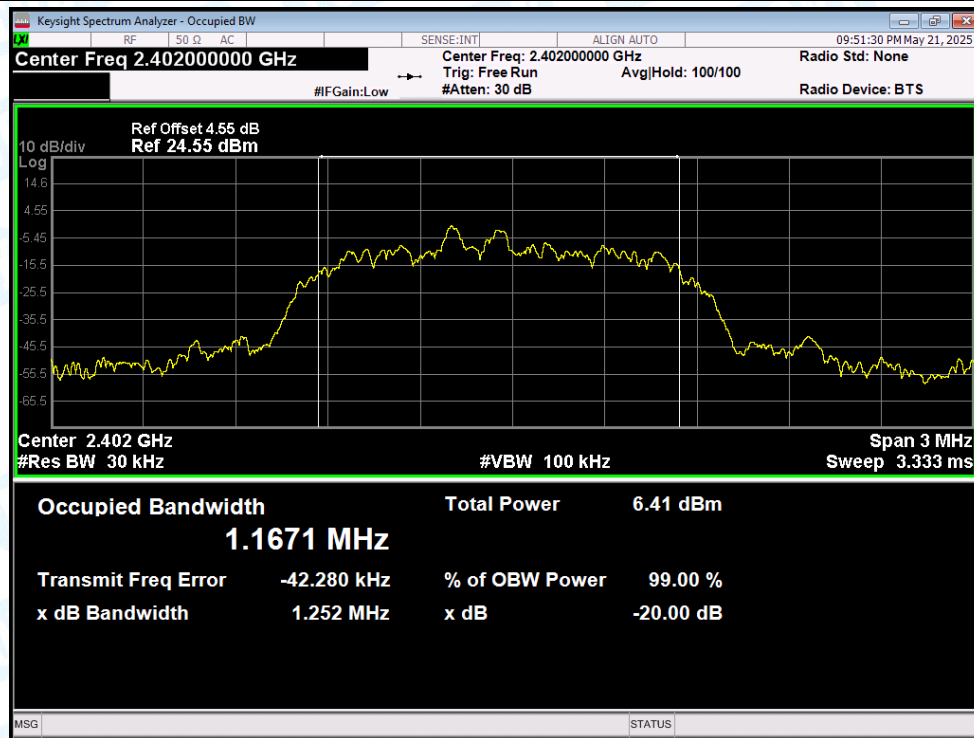
OBW NVNT 1-DH1 2441MHz Ant1



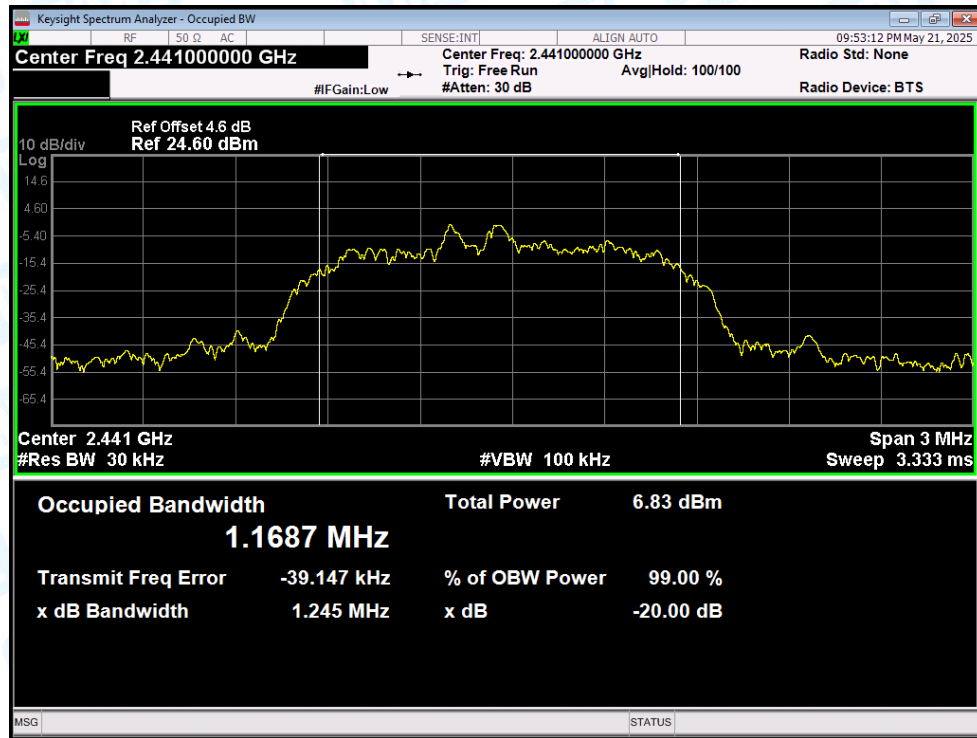
OBW NVNT 1-DH1 2480MHz Ant1



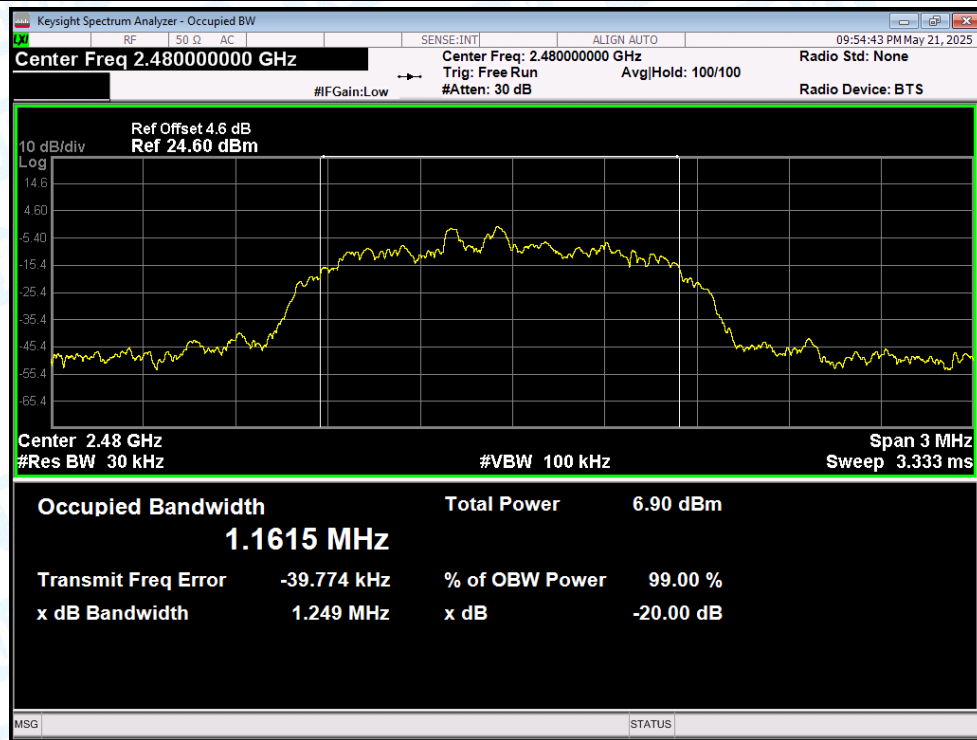
OBW NVNT 2-DH1 2402MHz Ant1



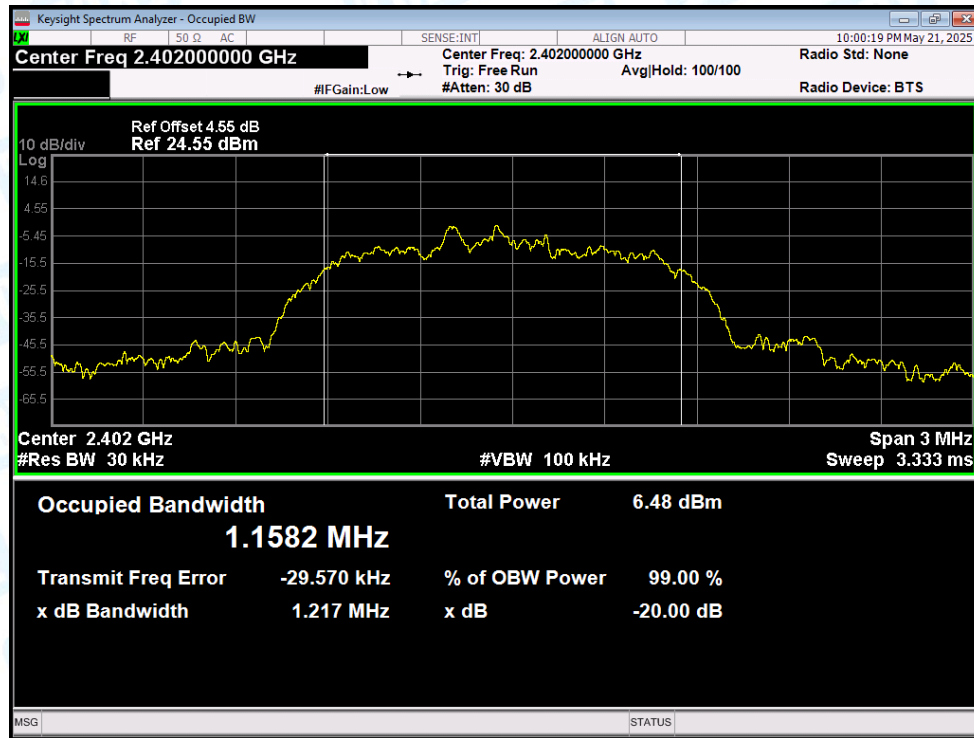
OBW NVNT 2-DH1 2441MHz Ant1



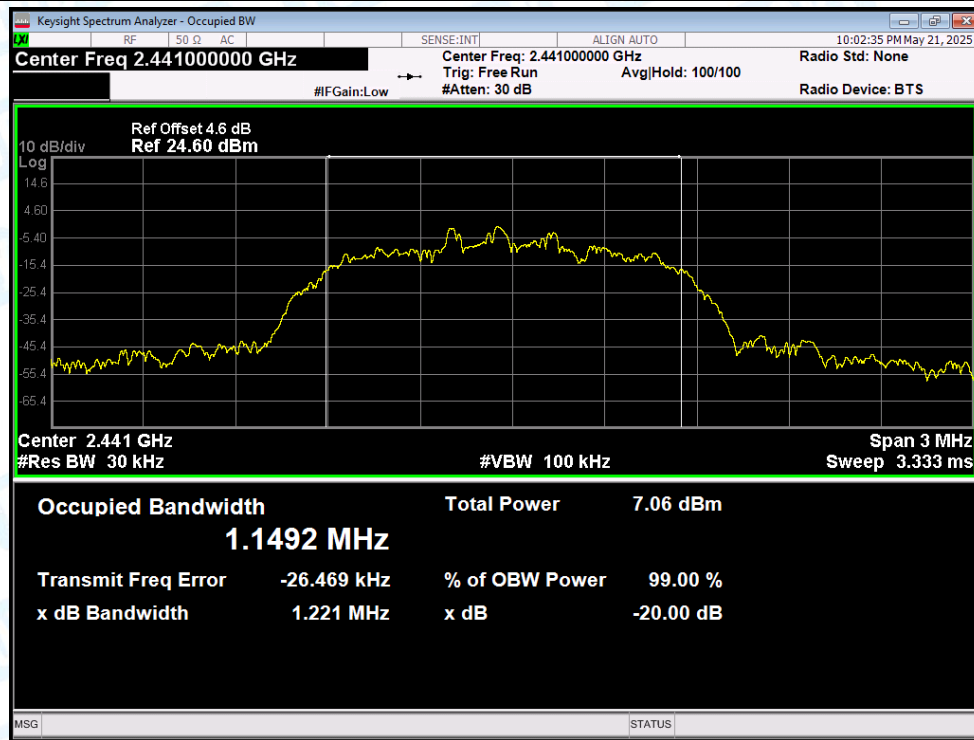
OBW NVNT 2-DH1 2480MHz Ant1

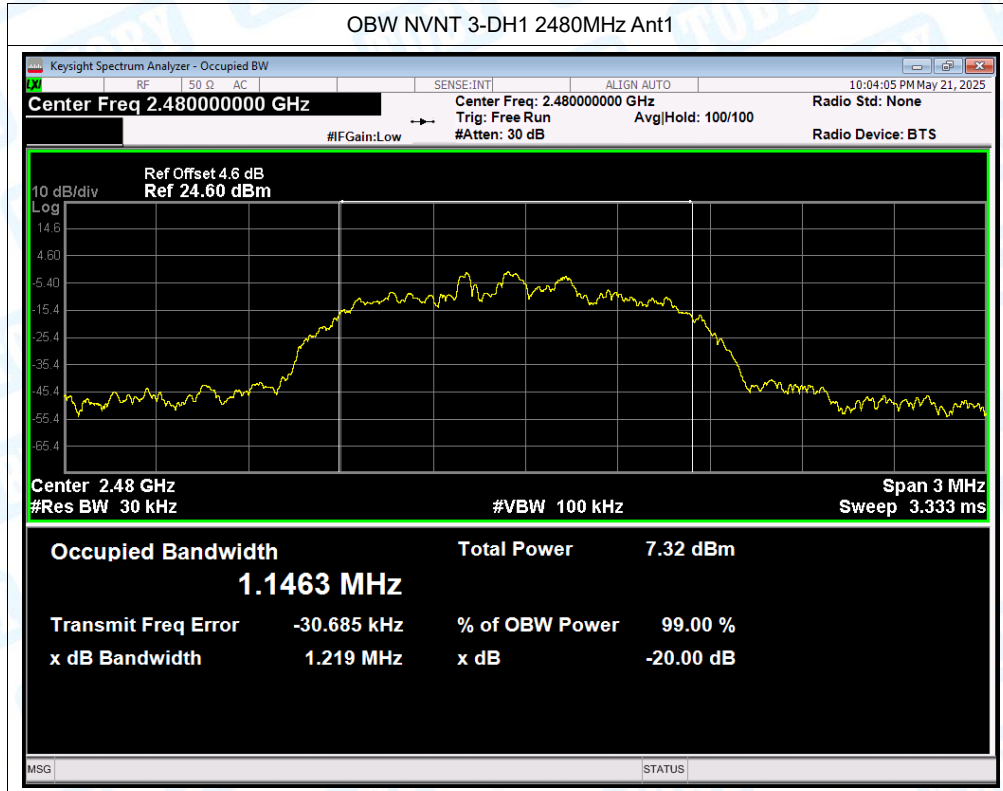


OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1





5.Band Edge

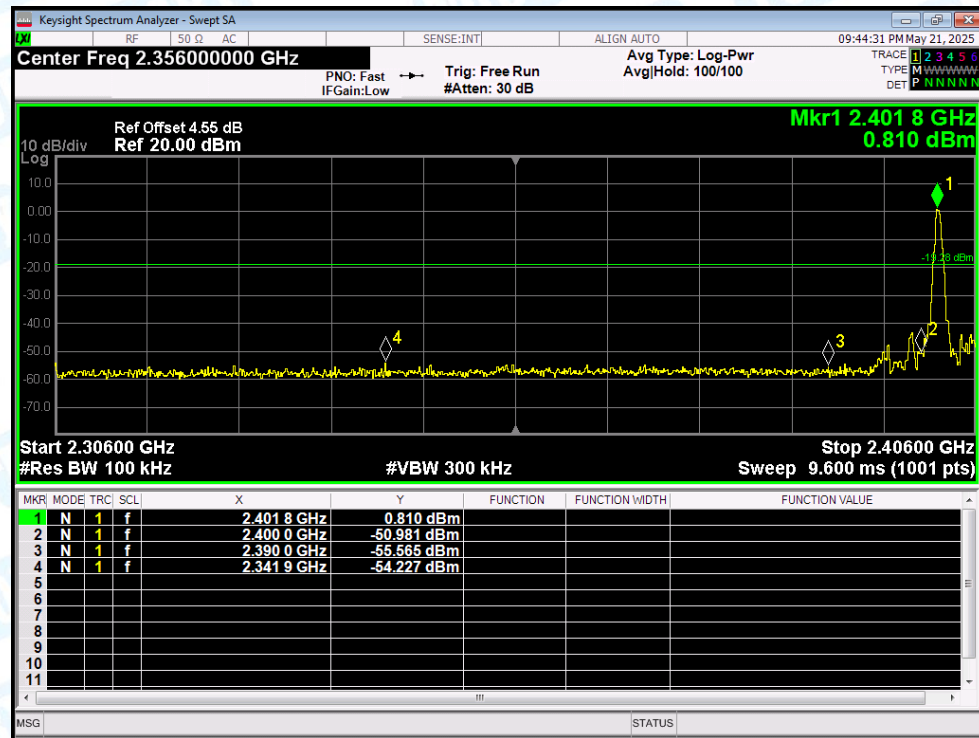
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-54.95	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-45.32	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-55.26	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-49.84	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-54.52	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-45.01	-20	Pass

Test Graphs

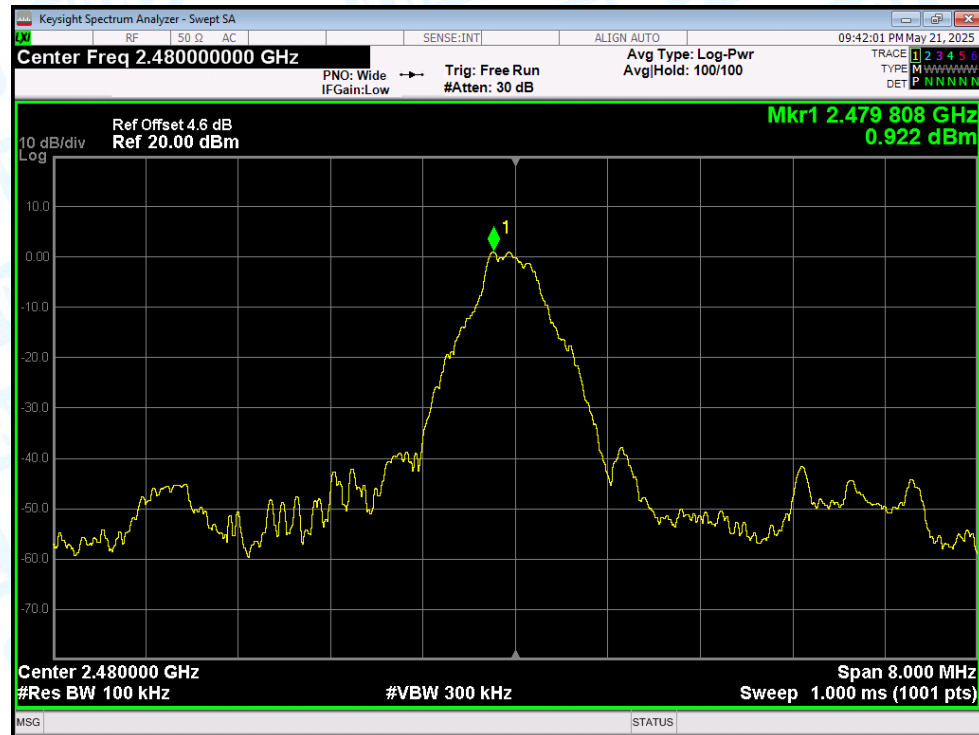
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



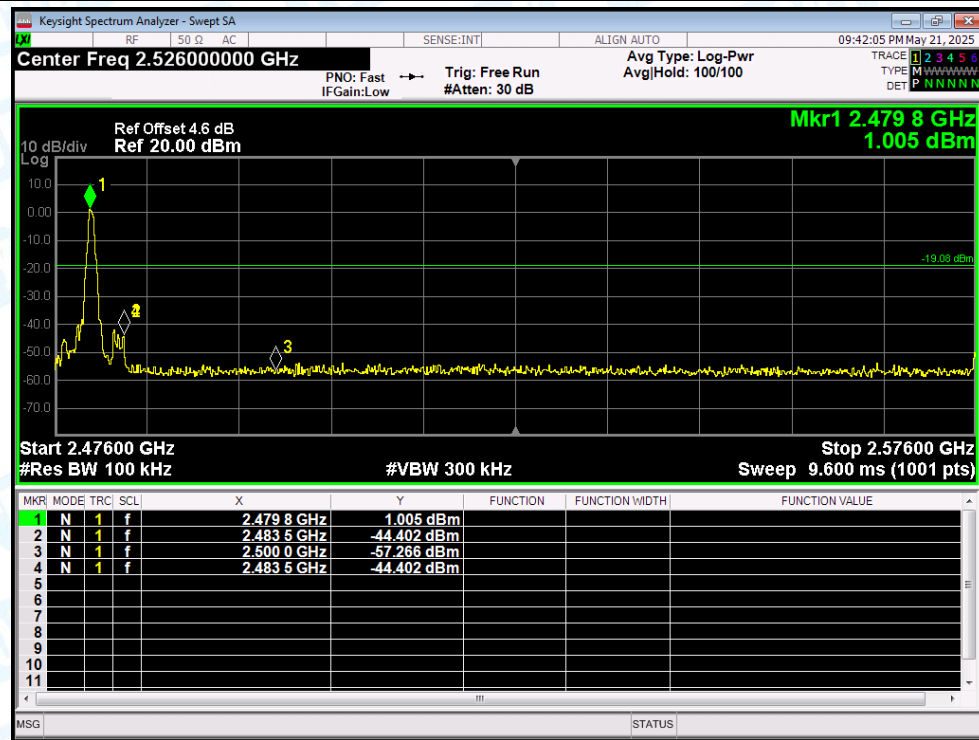
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



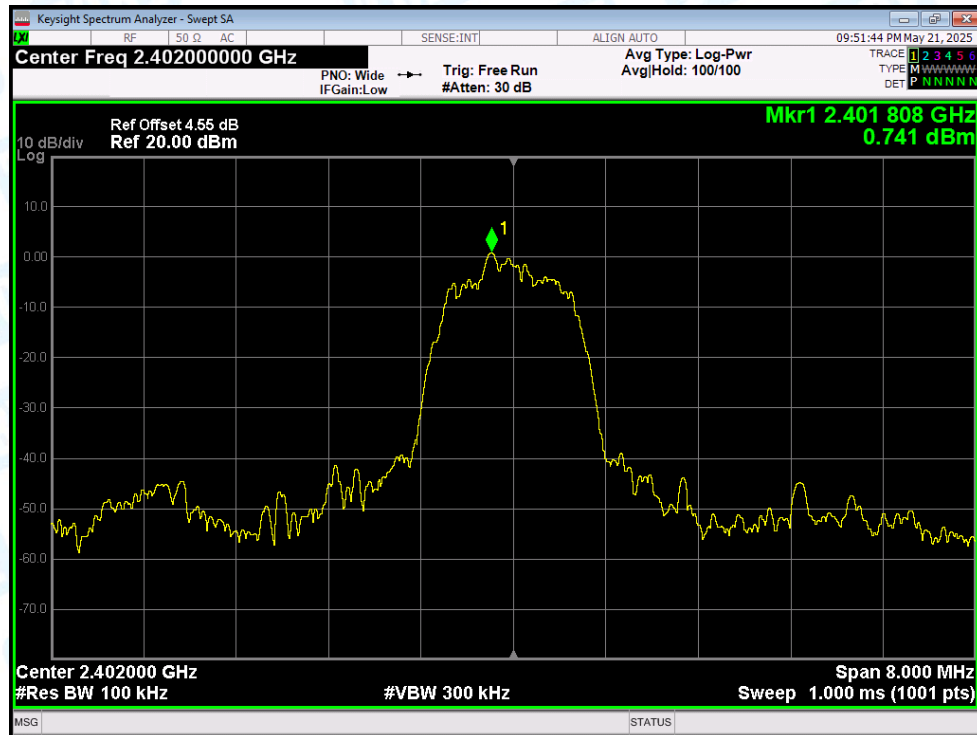
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



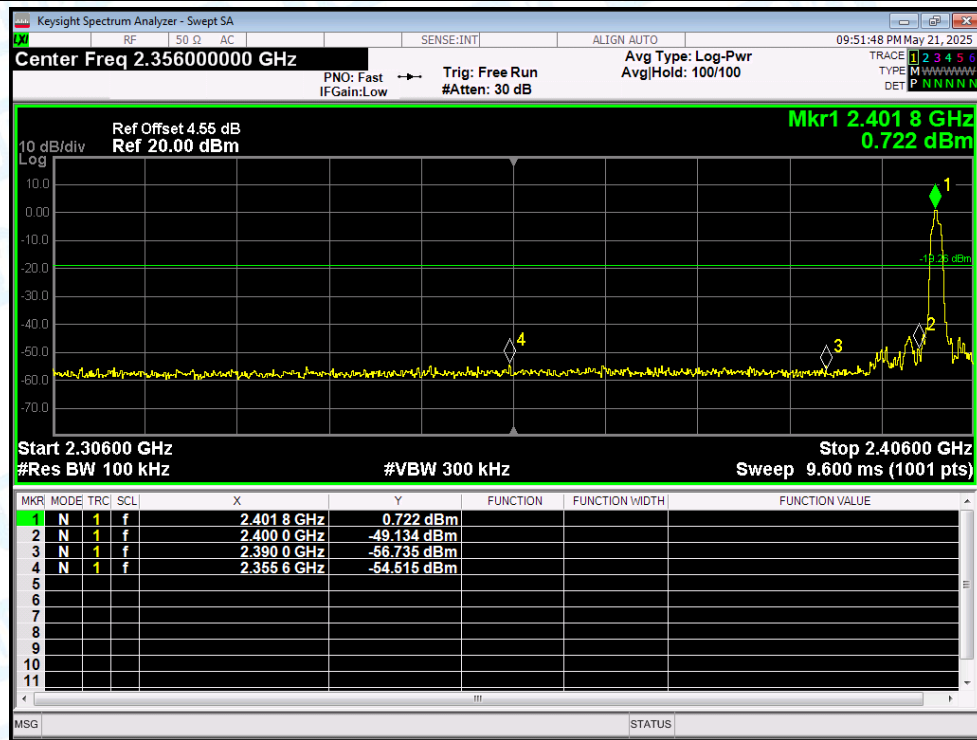
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



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



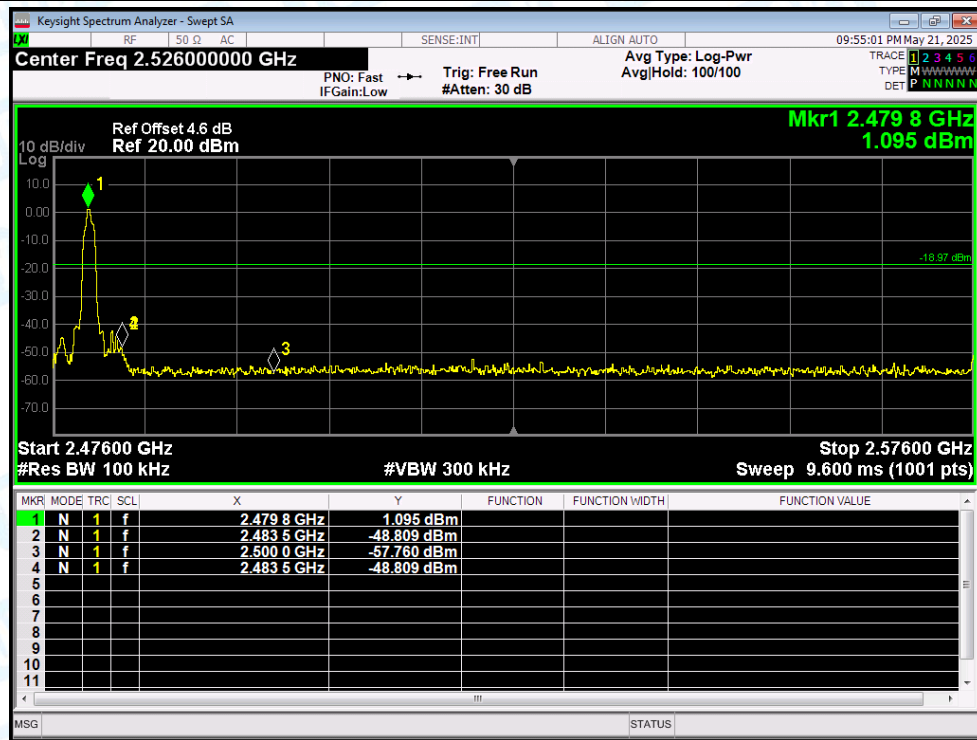
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



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



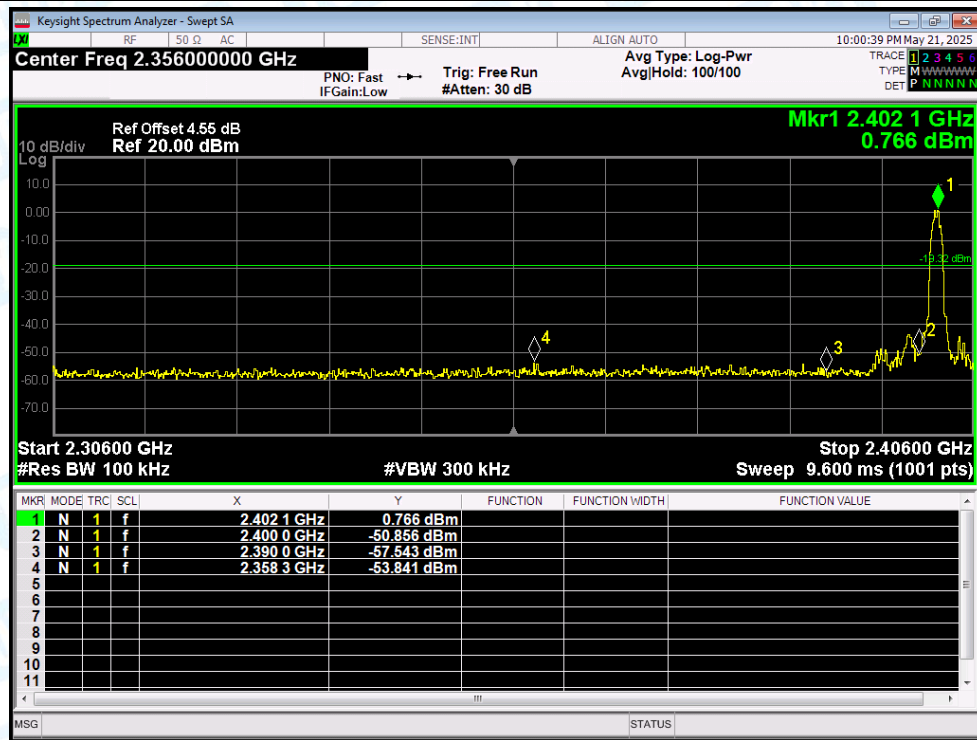
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



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



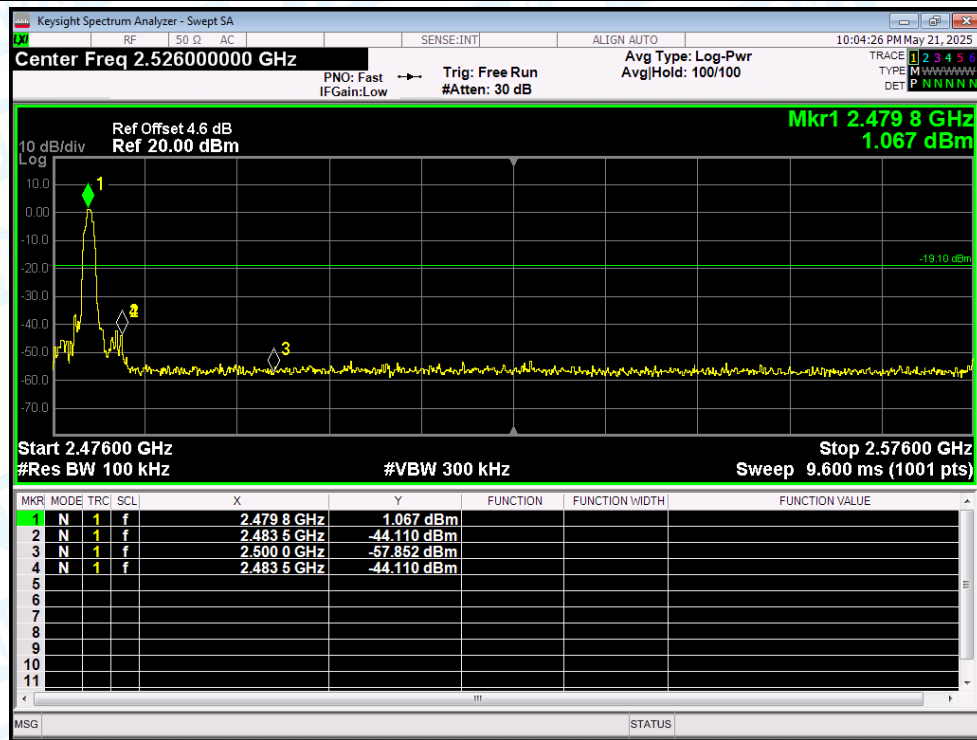
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

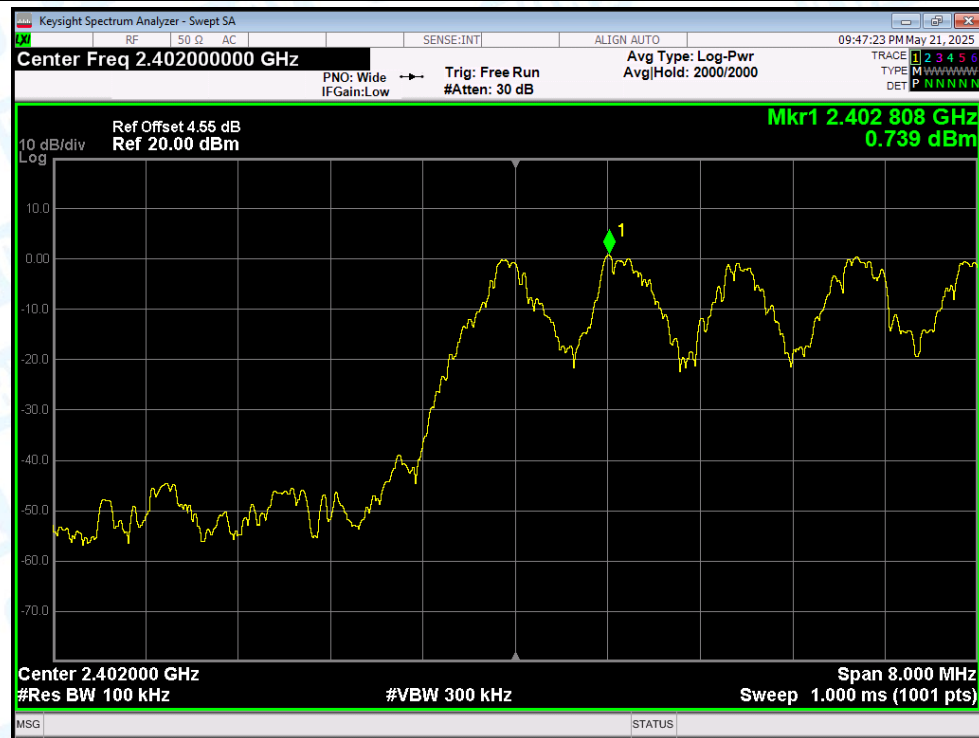


6. Band Edge(Hopping)

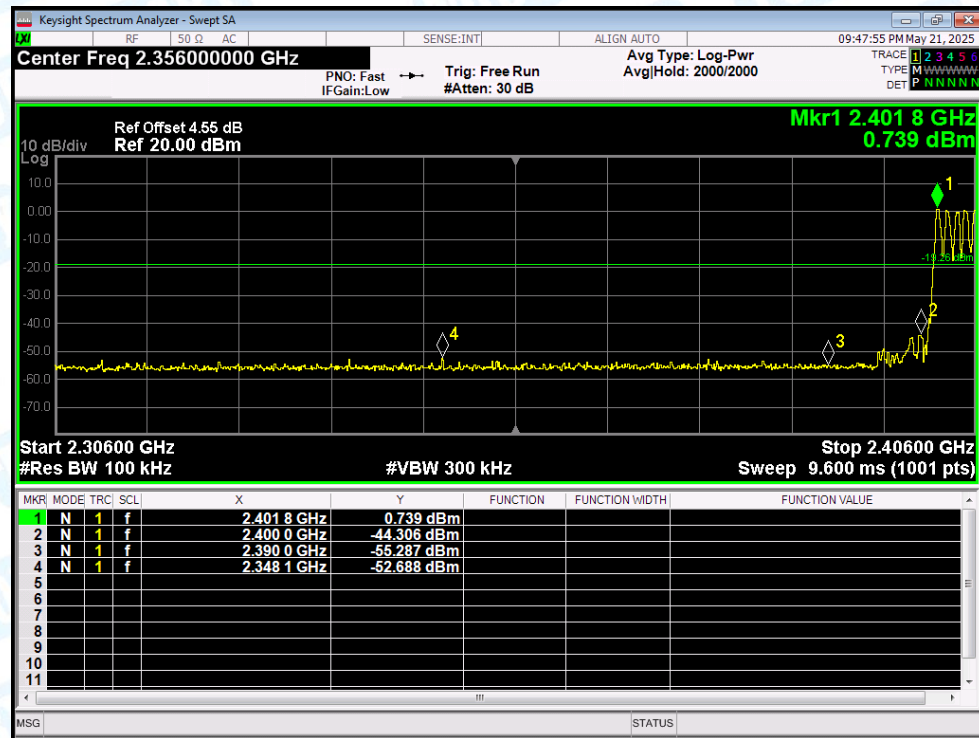
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-53.43	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-48.88	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-53.25	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-49.98	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-53.26	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-47.44	-20	Pass

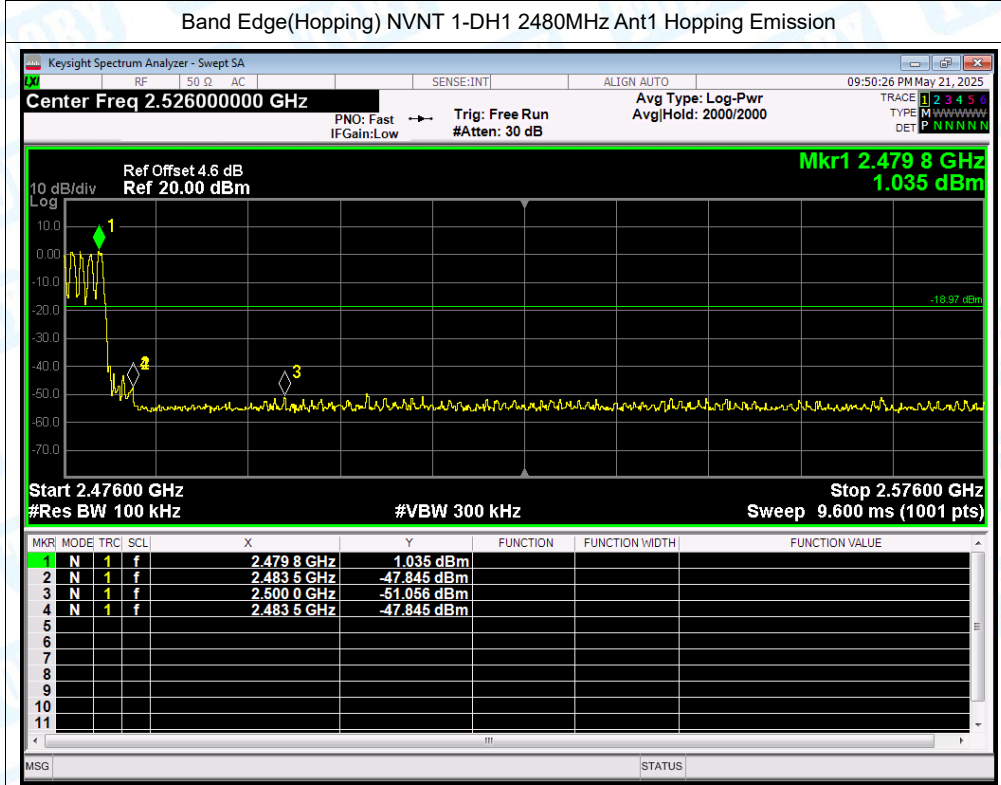
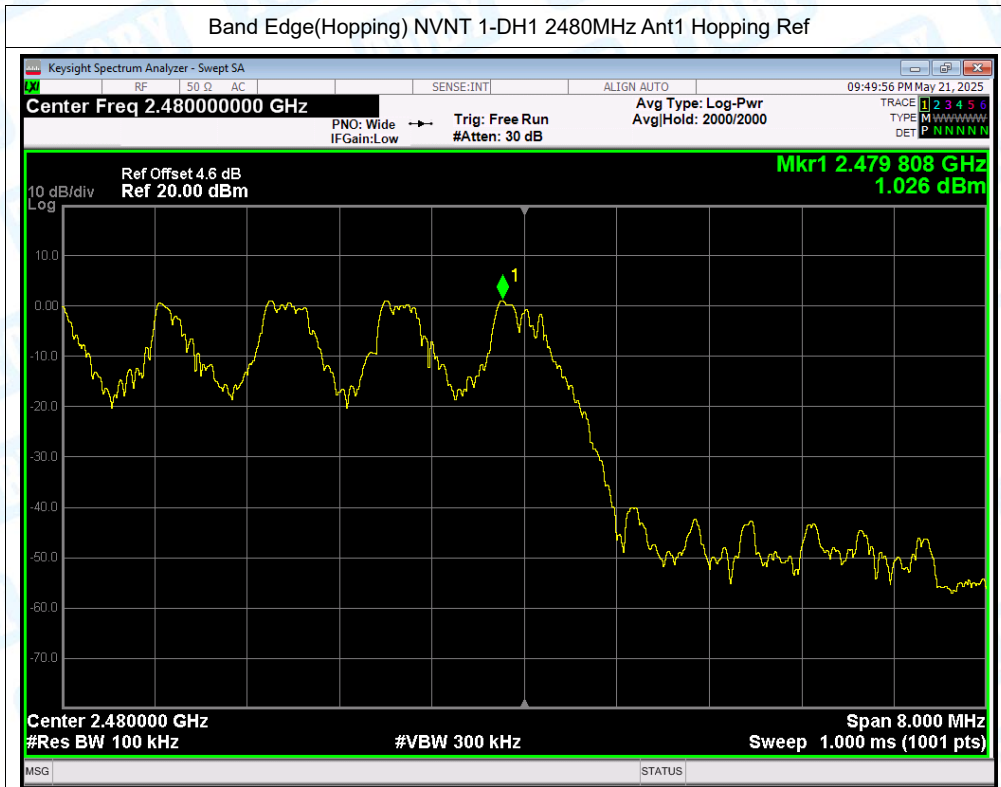
Test Graphs

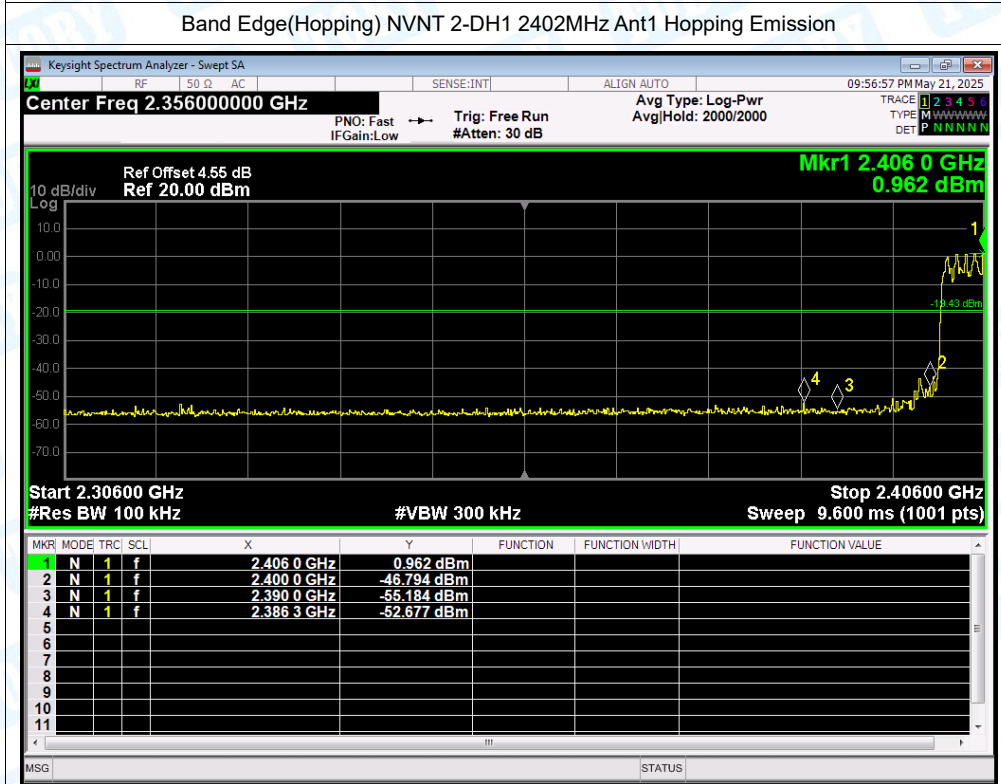
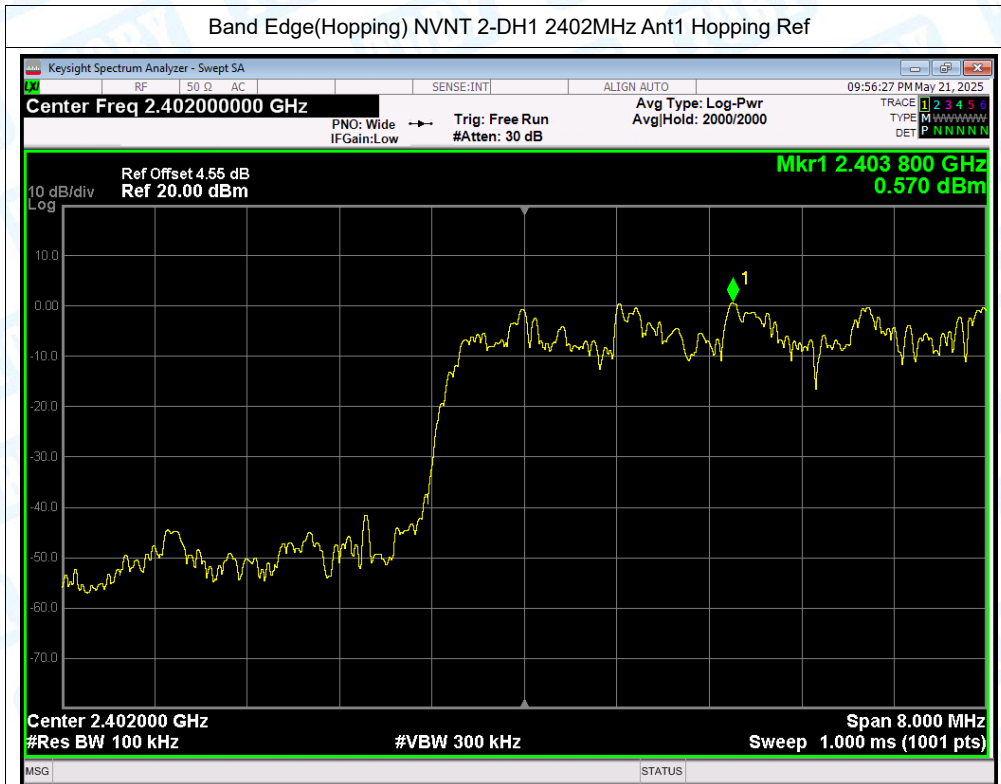
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



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



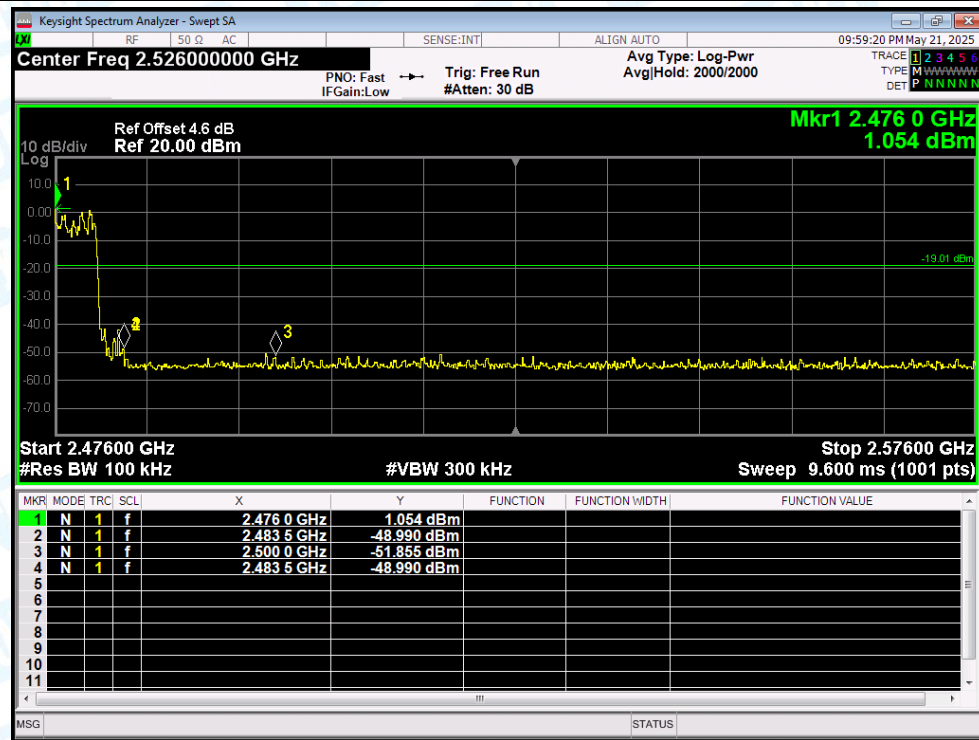


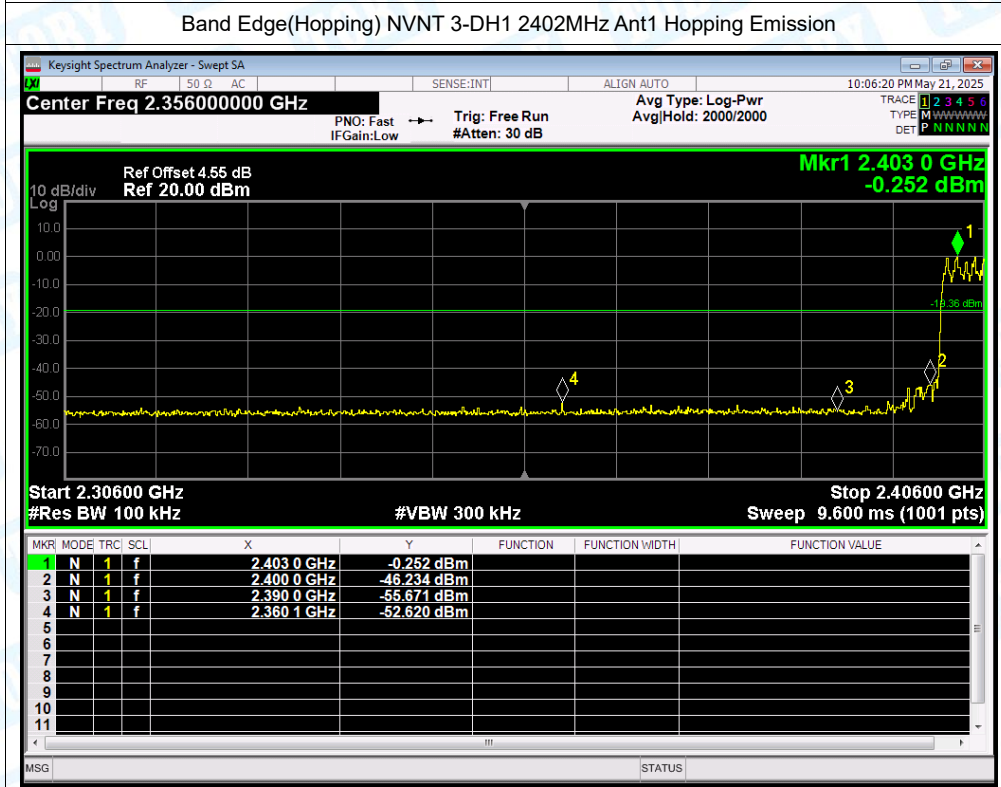
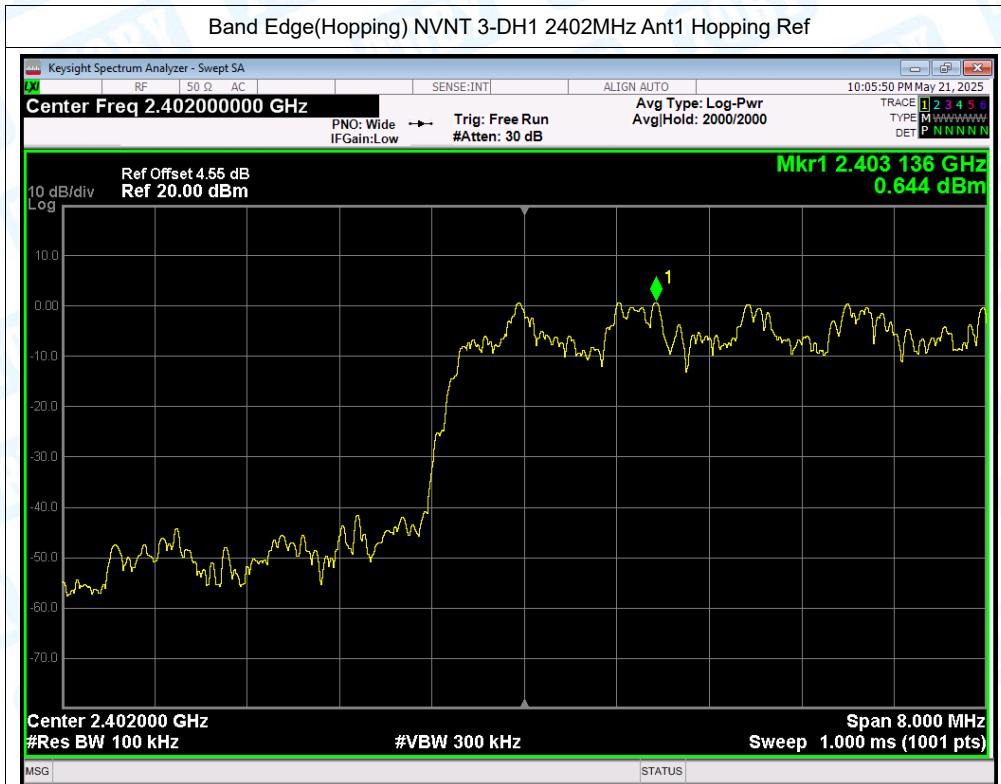


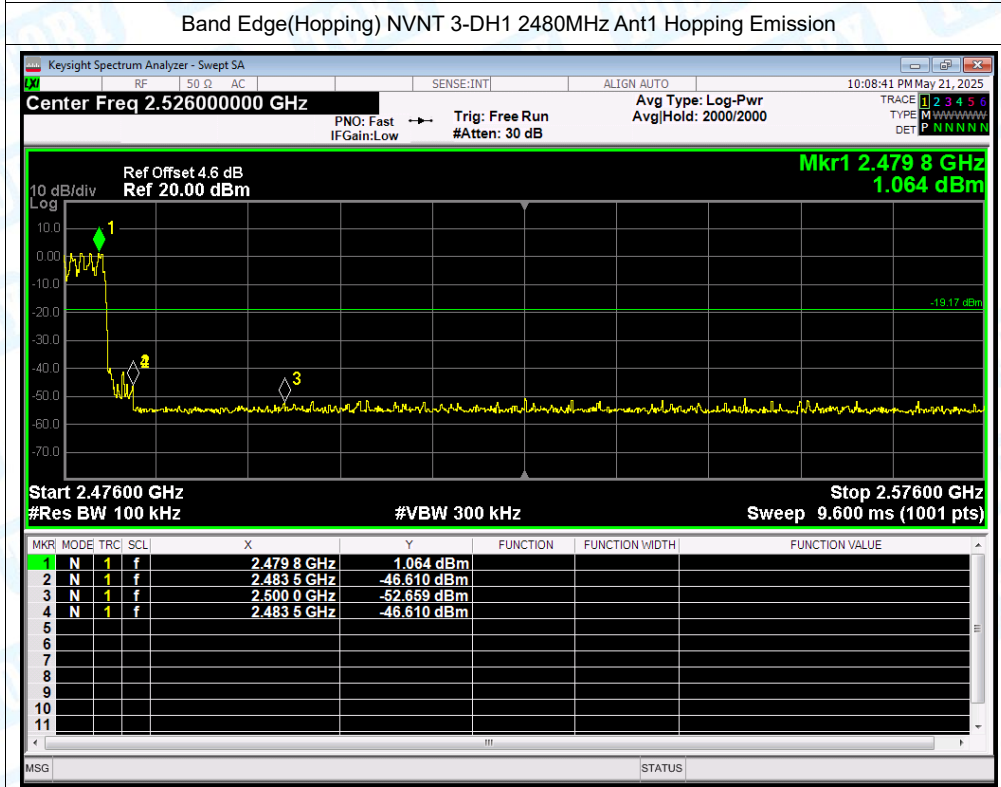
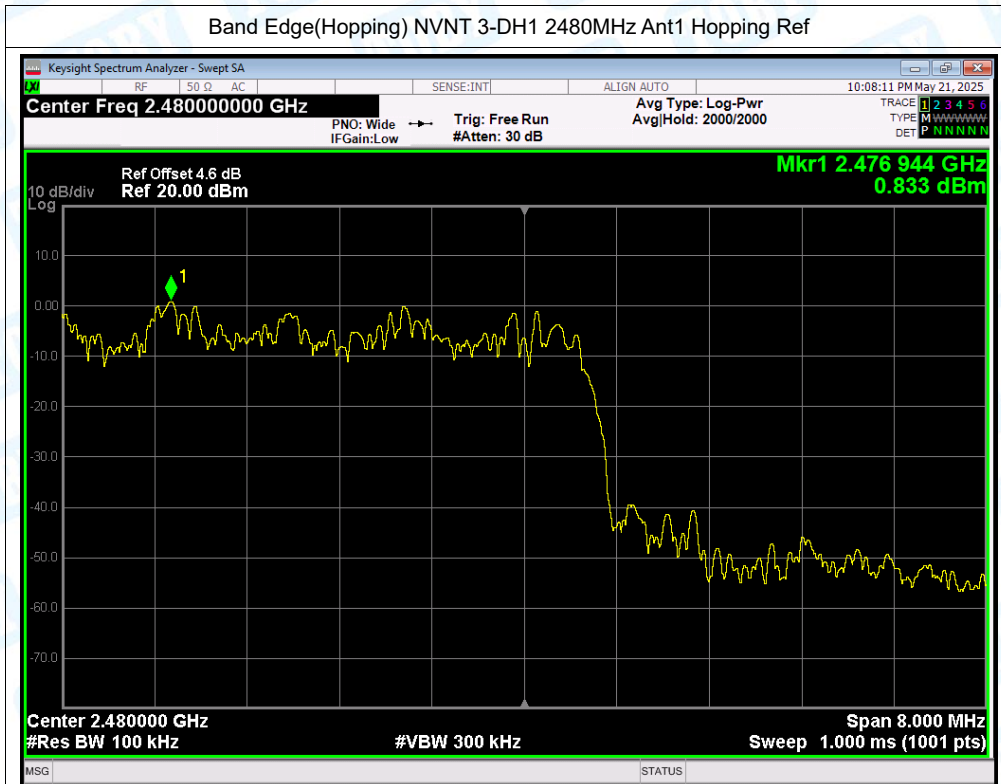
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref



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







7. Conducted RF Spurious Emission

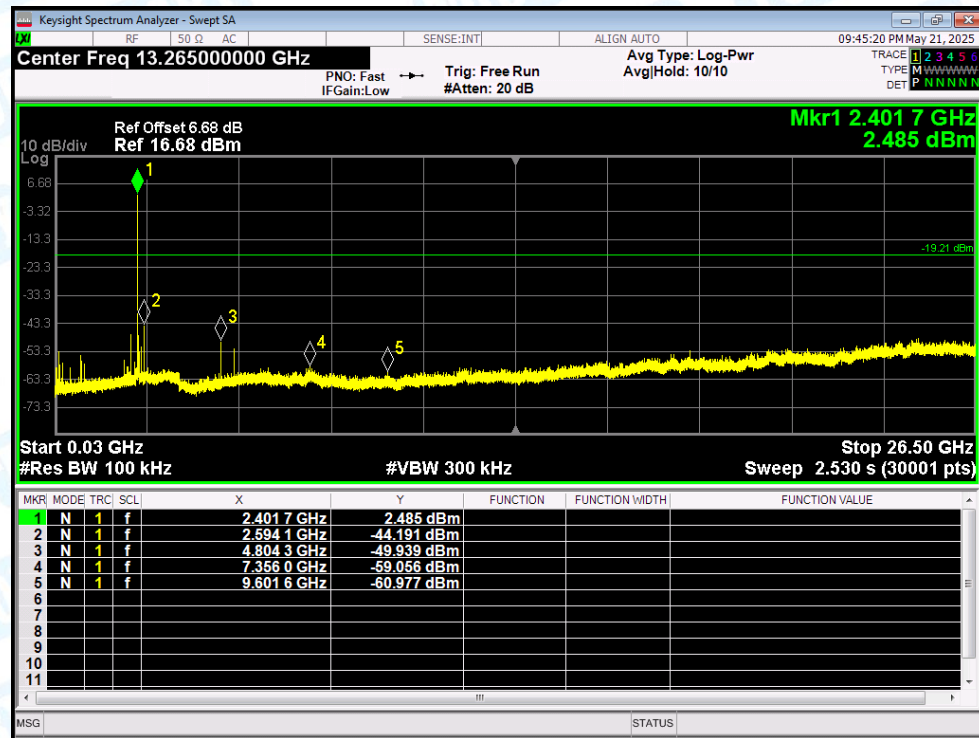
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-44.98	-20	Pass
NVNT	1-DH1	2441	Ant1	-47.24	-20	Pass
NVNT	1-DH1	2480	Ant1	-45.38	-20	Pass
NVNT	2-DH1	2402	Ant1	-48.42	-20	Pass
NVNT	2-DH1	2441	Ant1	-46.61	-20	Pass
NVNT	2-DH1	2480	Ant1	-41.23	-20	Pass
NVNT	3-DH1	2402	Ant1	-48.92	-20	Pass
NVNT	3-DH1	2441	Ant1	-47.97	-20	Pass
NVNT	3-DH1	2480	Ant1	-46.42	-20	Pass

Test Graphs

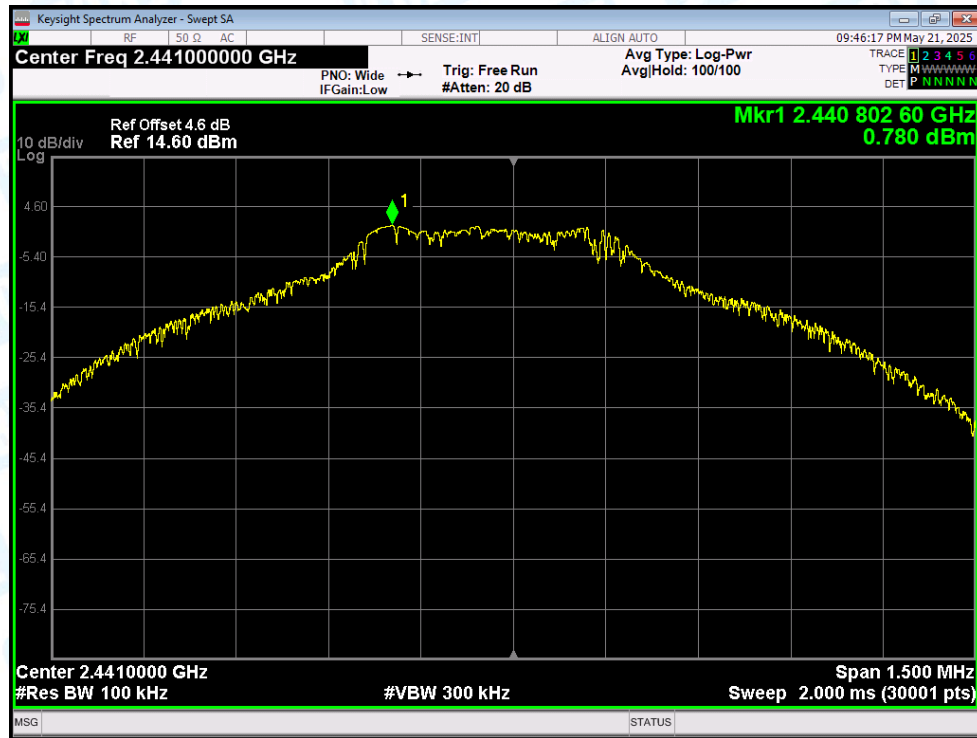
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



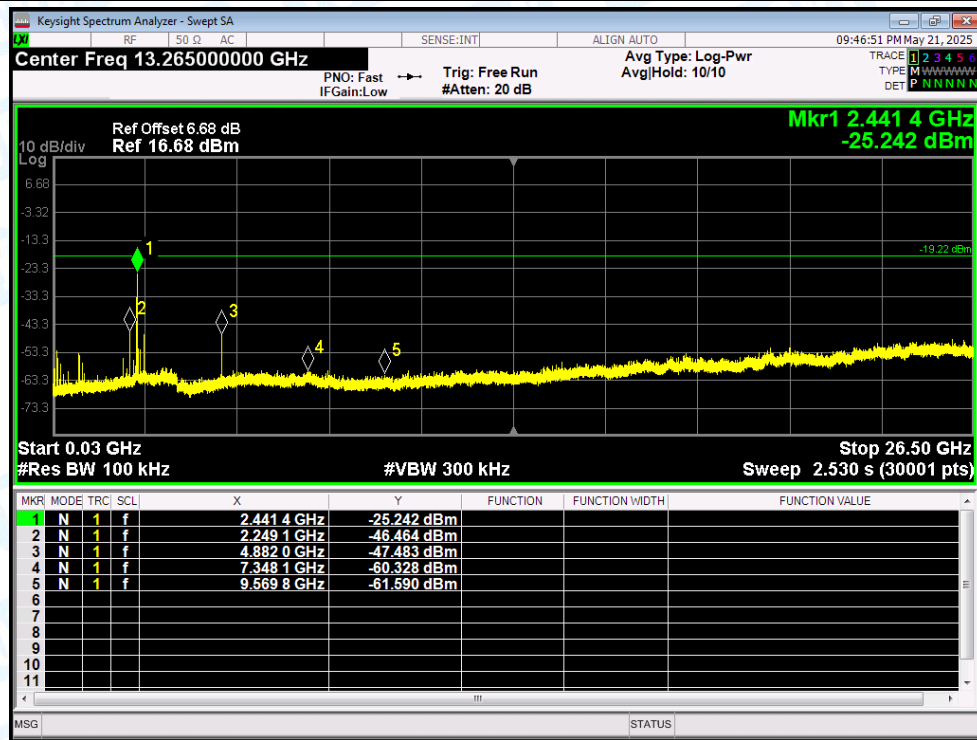
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



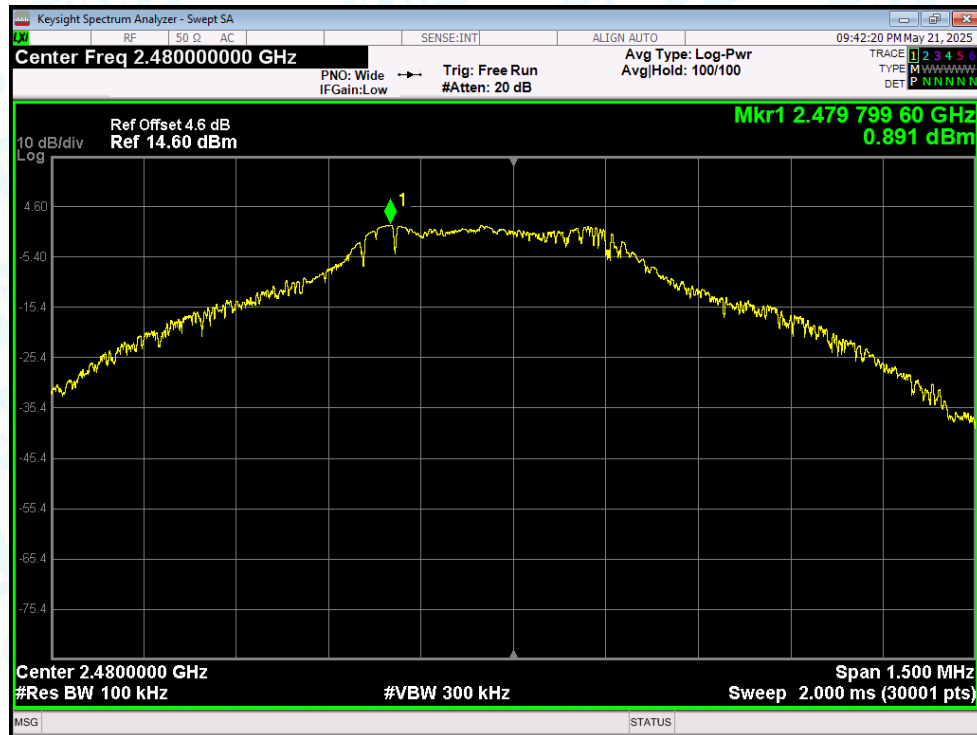
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



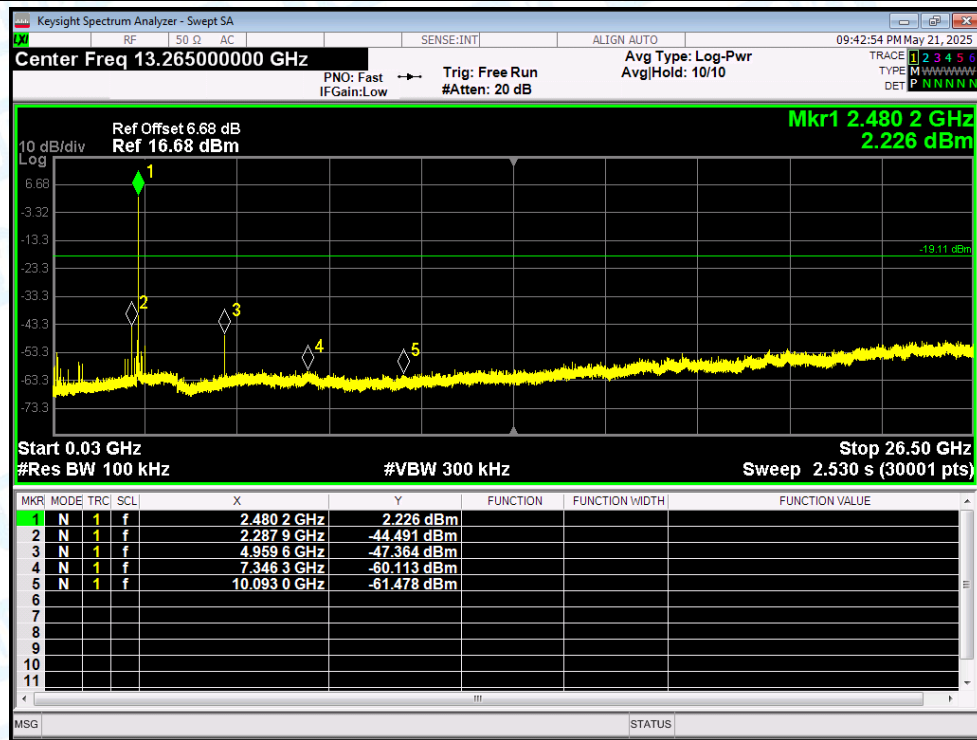
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



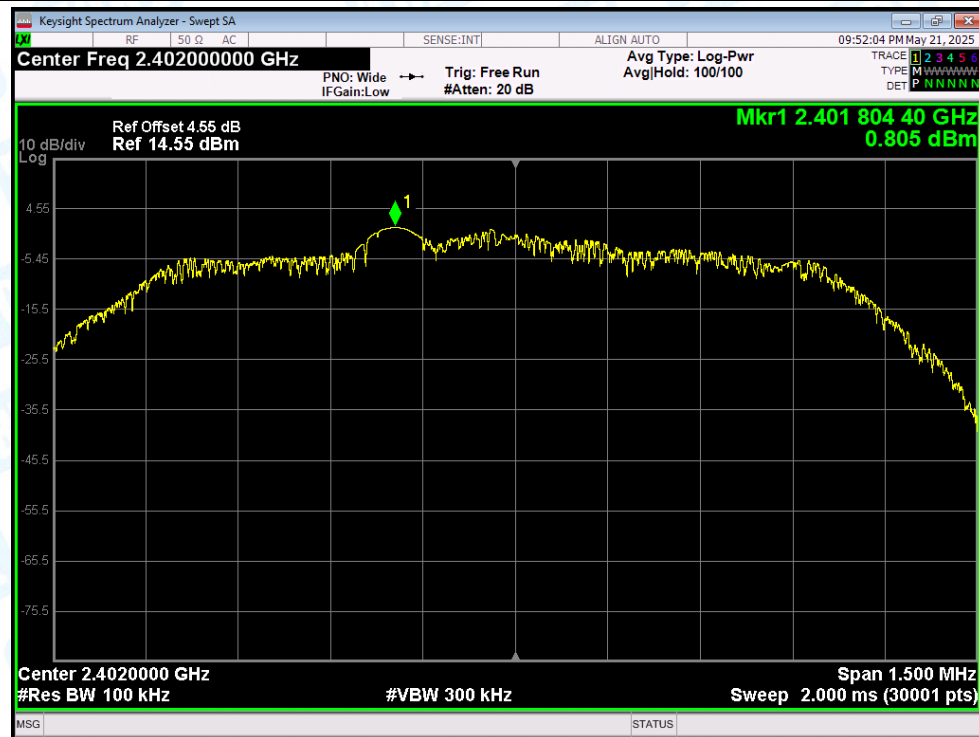
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



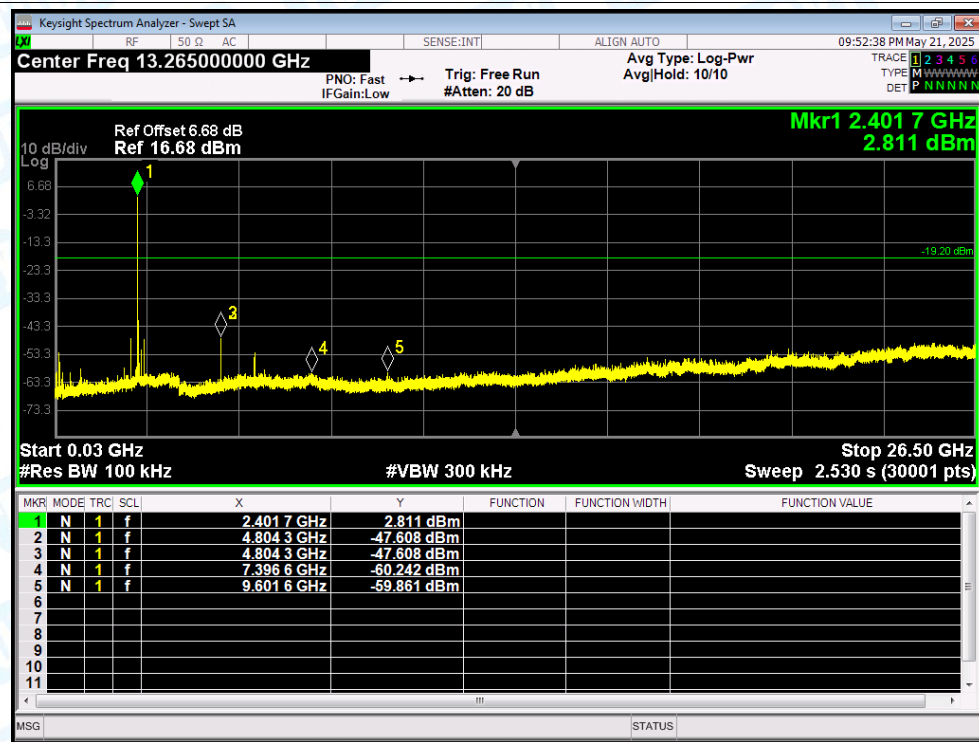
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



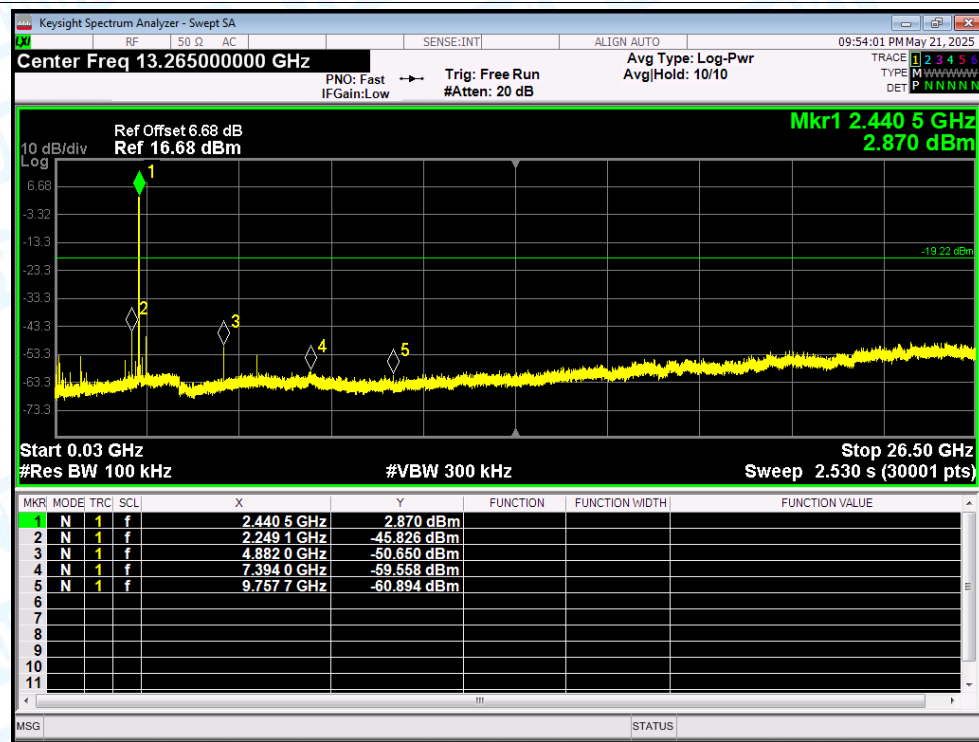
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



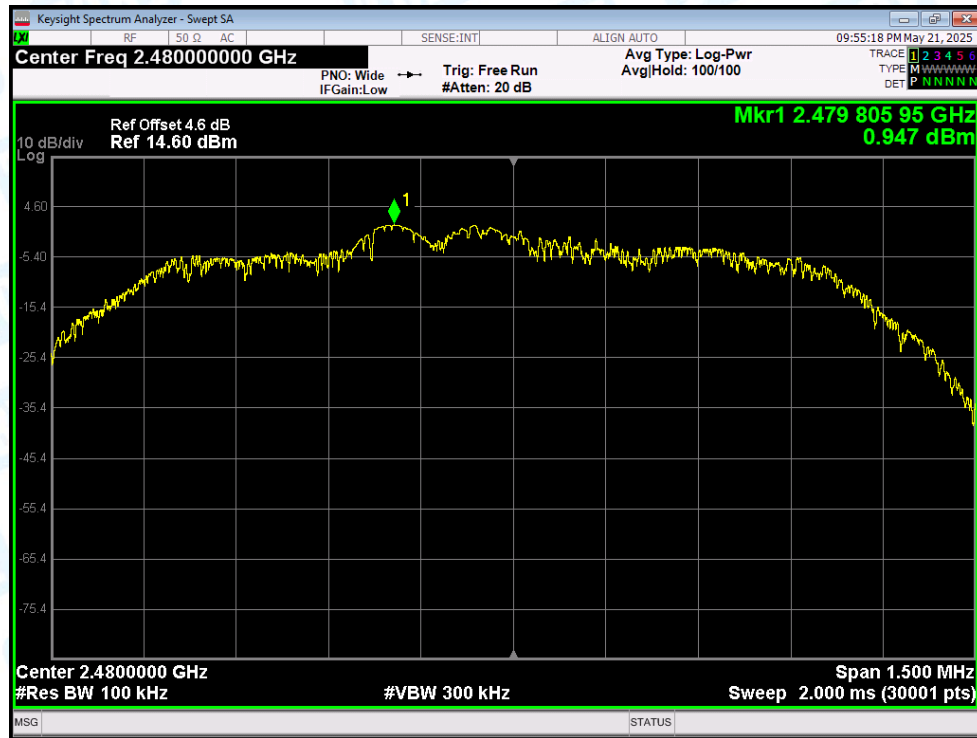
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref



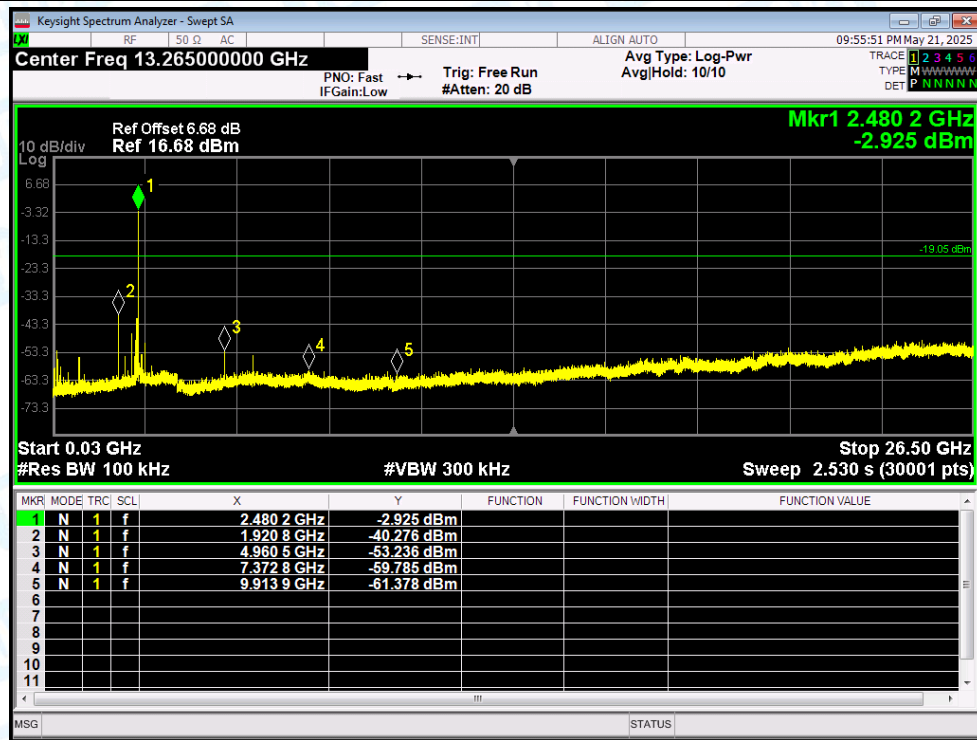
Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission



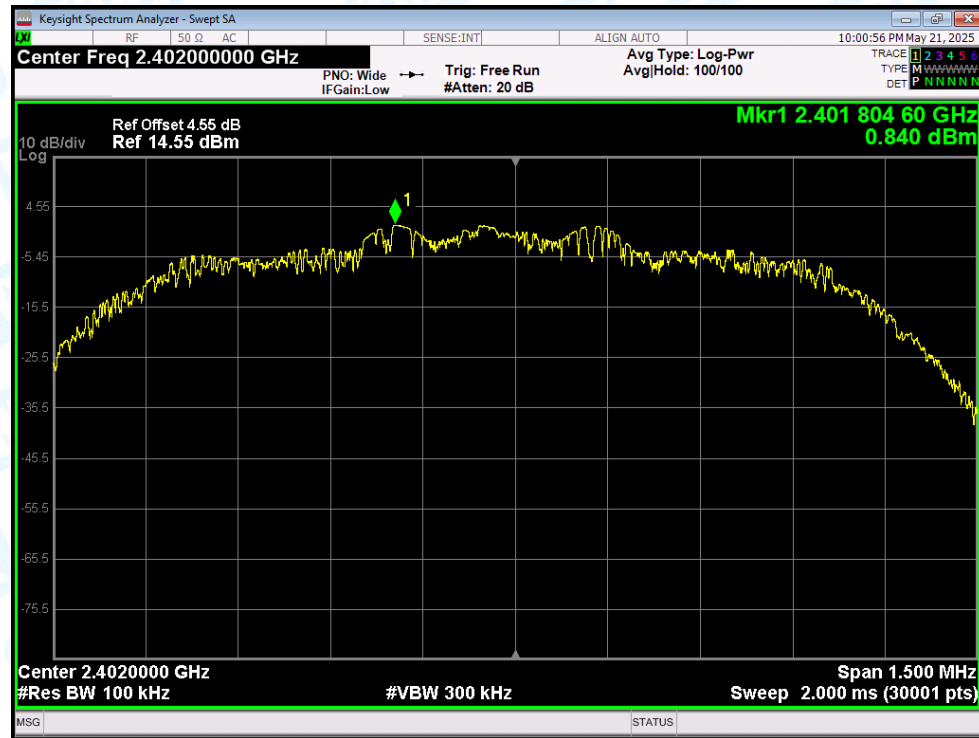
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref



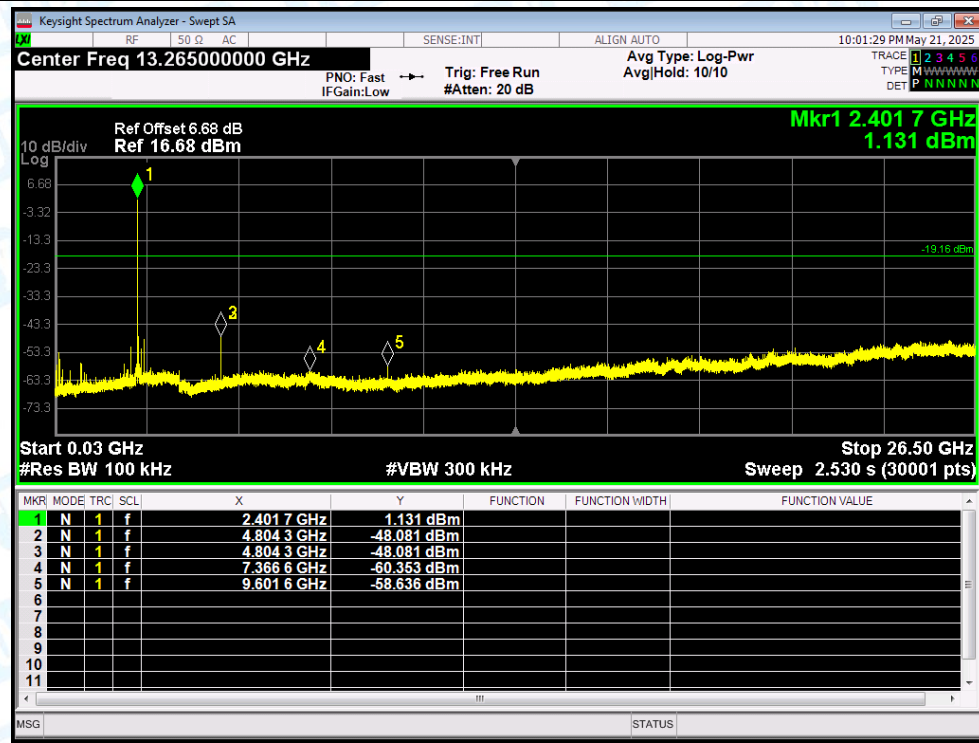
Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission



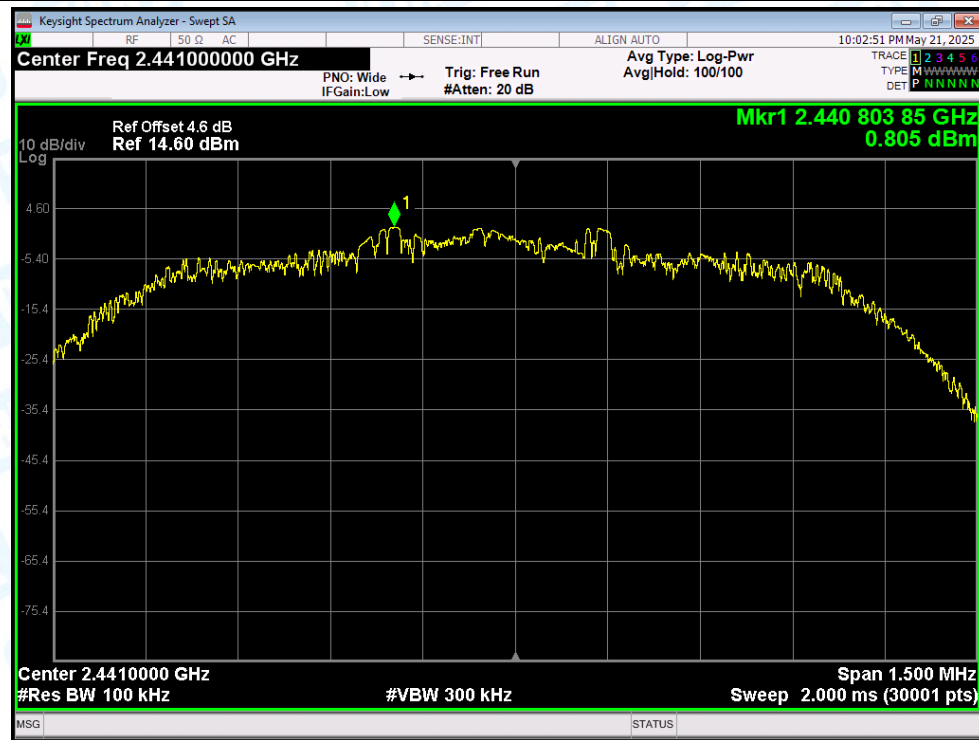
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



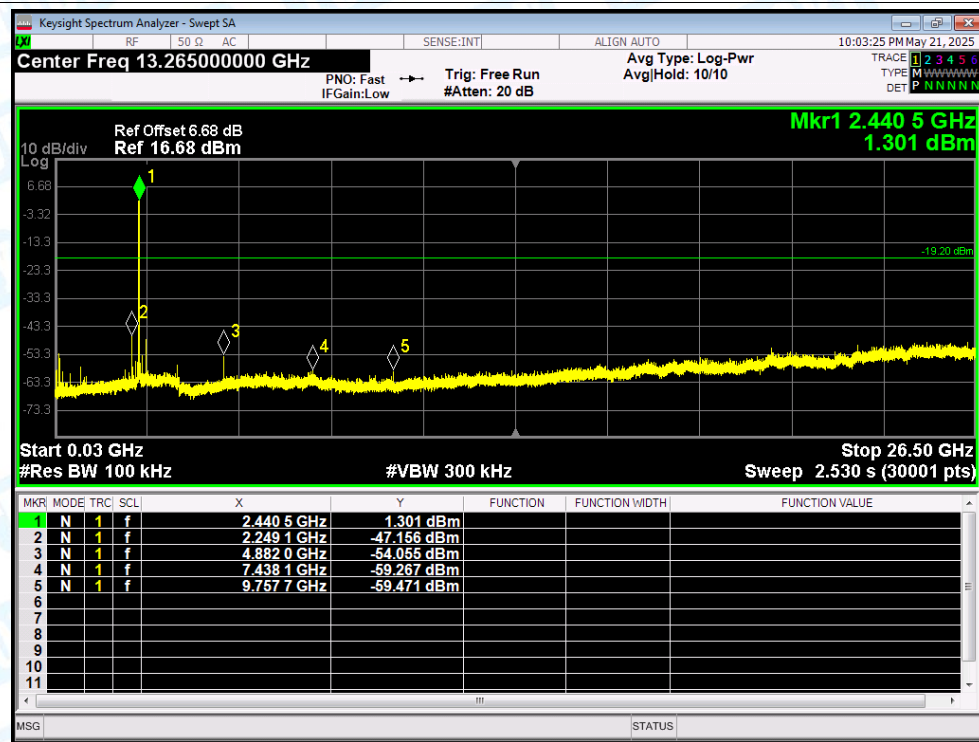
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



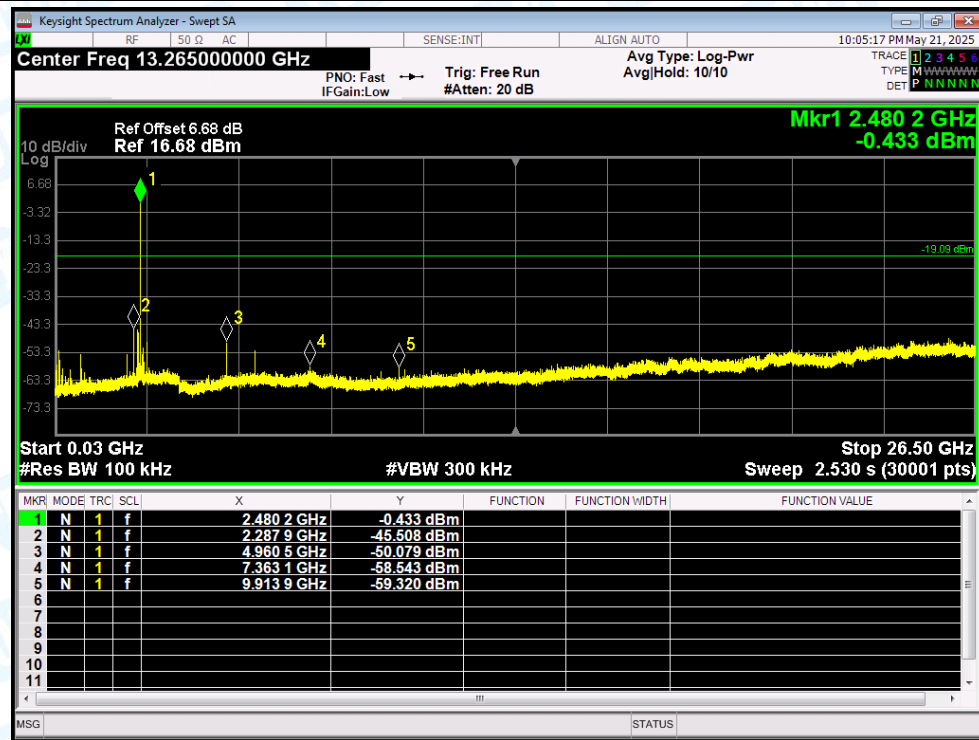
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

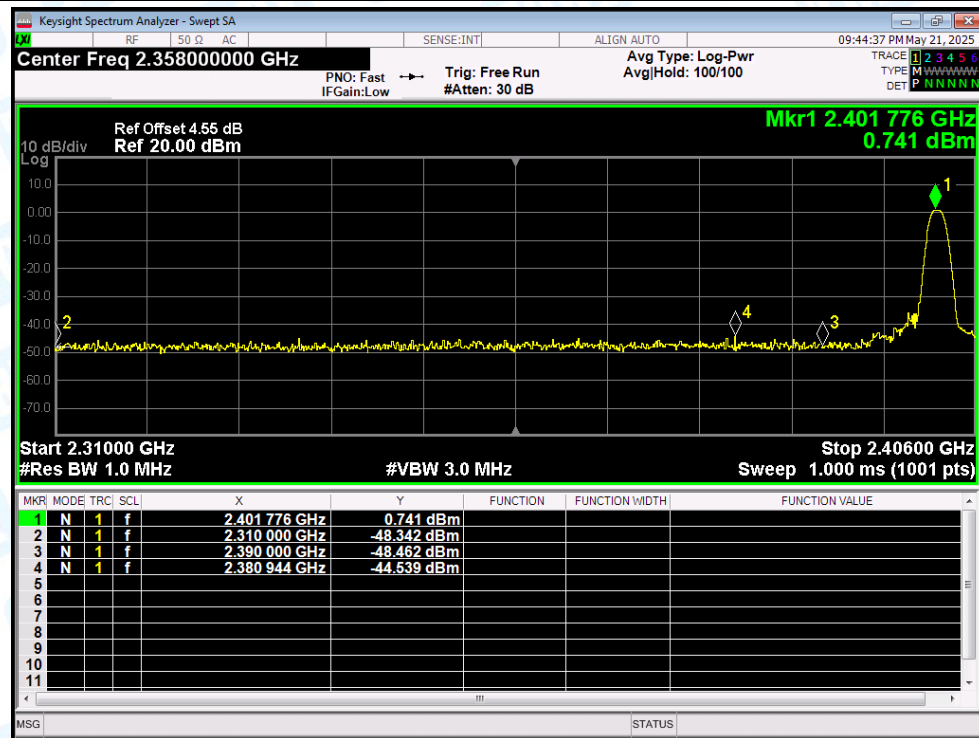


8.Restrict Band

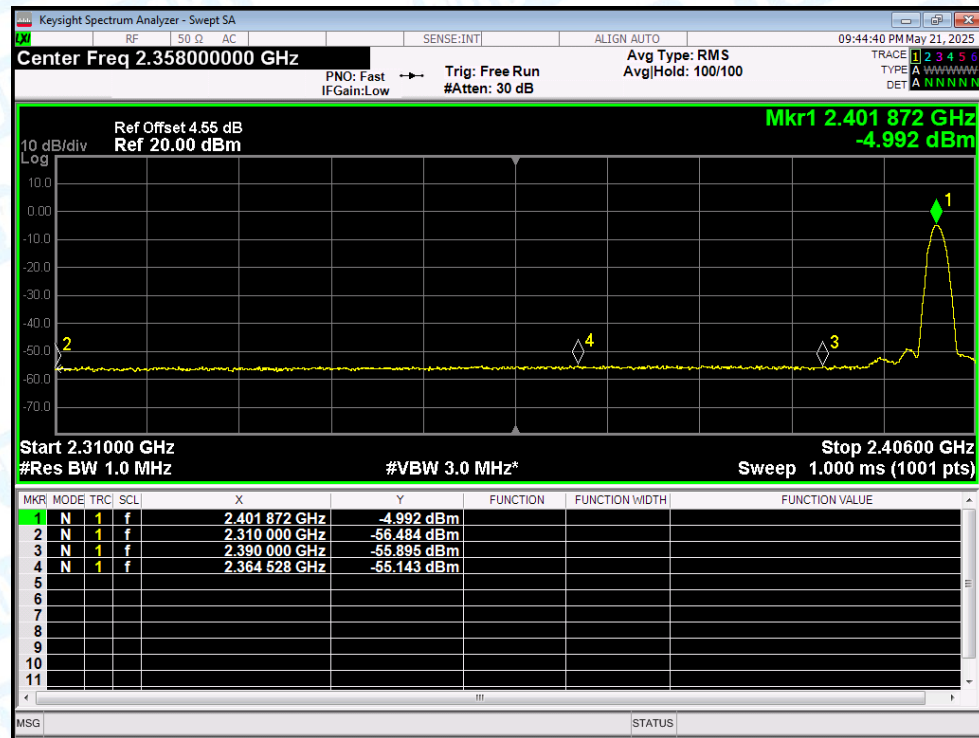
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-48.34	2	-	48.92	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.48	2	5.17	45.95	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2380.944	-44.54	2	-	52.72	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2364.528	-55.14	2	5.17	47.29	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-48.46	2	-	48.8	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-55.9	2	5.17	46.53	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-40.25	2	-	57.01	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-50.57	2	5.06	51.75	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.56	-40.17	2	-	57.09	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.608	-50.24	2	5.06	52.08	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-48.08	2	-	49.18	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.29	2	5.06	47.03	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-49.14	2	-	48.12	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.58	2	5.06	45.74	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2370.288	-44.84	2	-	52.42	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2371.344	-55.06	2	5.06	47.26	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-48.07	2	-	49.19	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-55.78	2	5.06	46.54	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-40.52	2	-	56.74	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-51.67	2	5.06	50.65	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.512	-40.52	2	-	56.74	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.536	-51.36	2	5.06	50.96	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-47.9	2	-	49.36	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-55.16	2	5.06	47.16	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-48.58	2	-	48.68	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.25	2	4.95	45.96	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2386.32	-44.23	2	-	53.03	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2370	-55.05	2	4.95	47.16	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-48.19	2	-	49.07	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-56.12	2	4.95	46.09	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-41.61	2	-	55.65	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-51.7	2	4.95	50.51	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.848	-40.99	2	-	56.27	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.512	-51.7	2	4.95	50.51	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-47.31	2	-	49.95	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-55.13	2	4.95	47.08	Average	54	Pass

Test Graphs

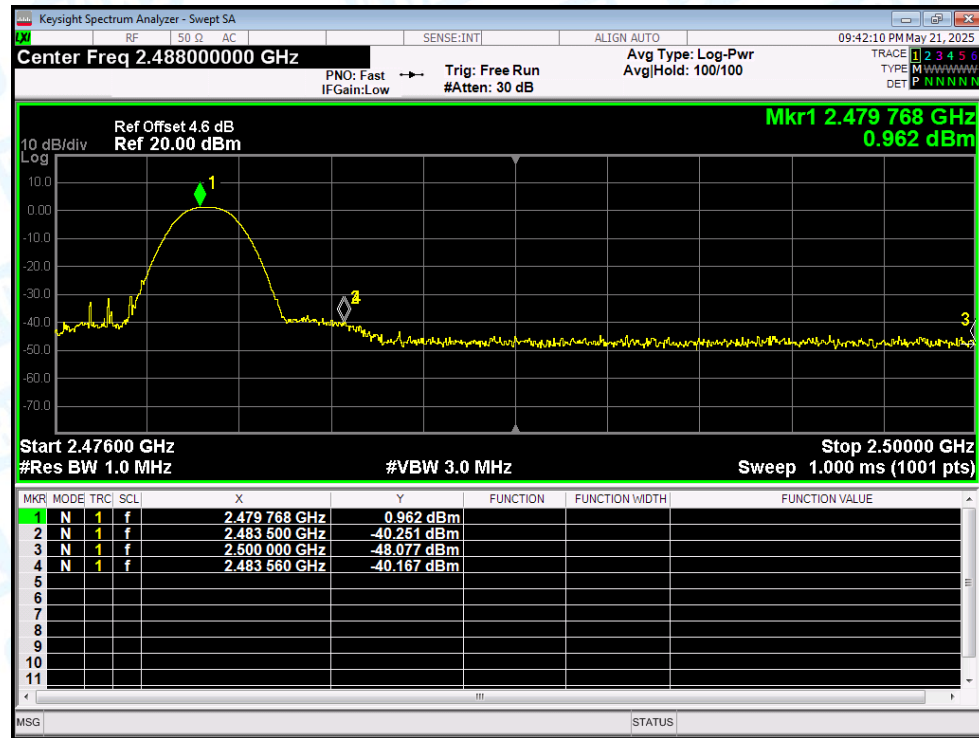
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



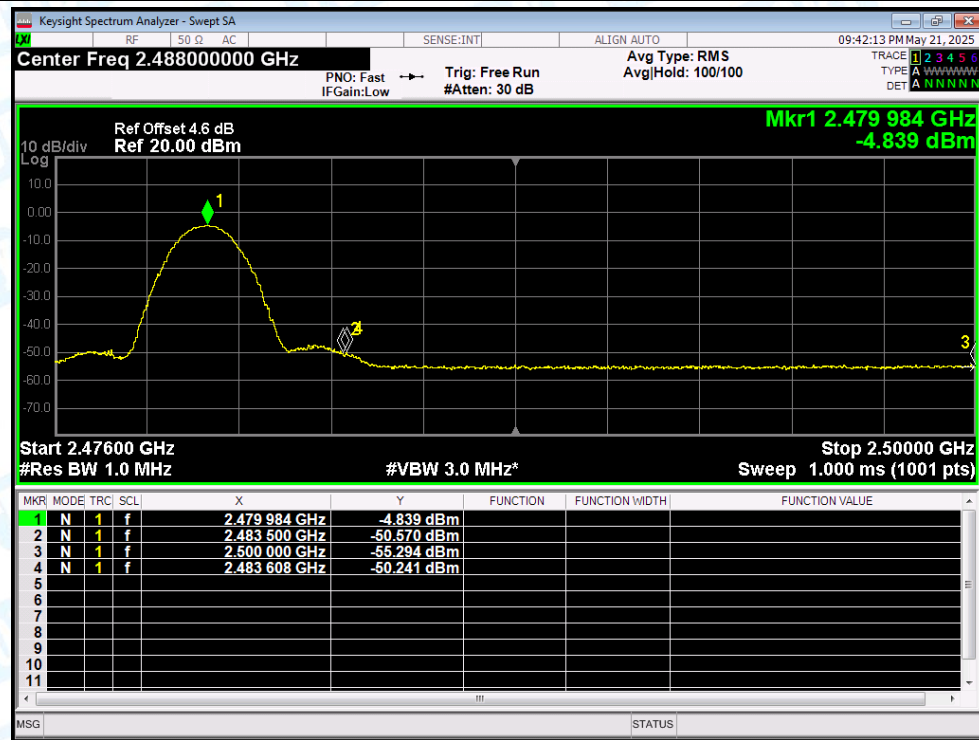
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



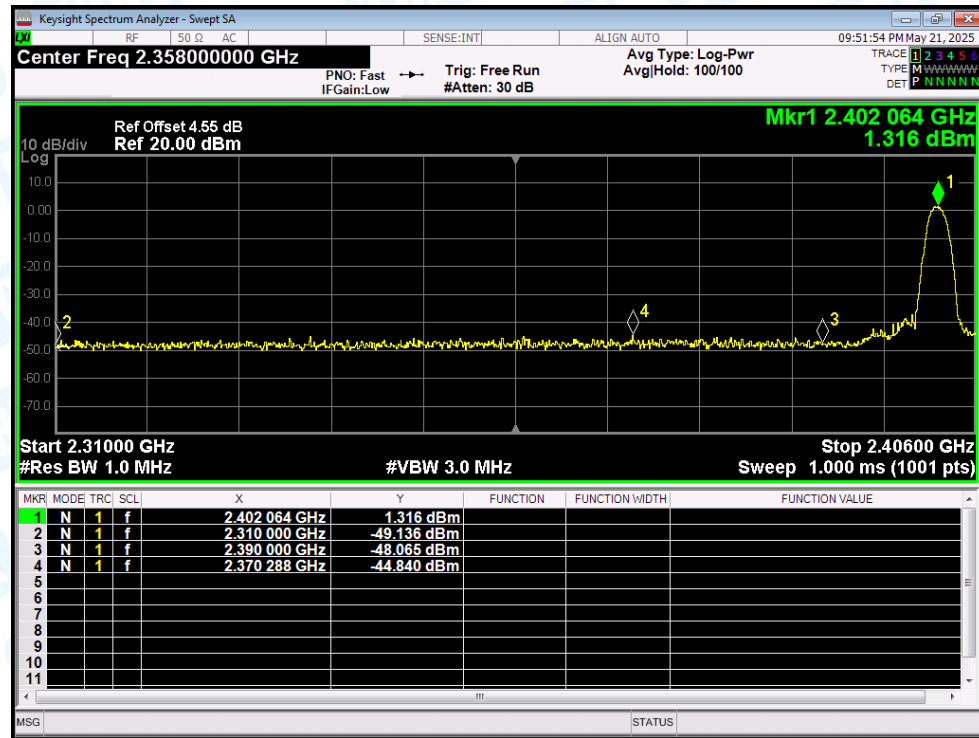
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



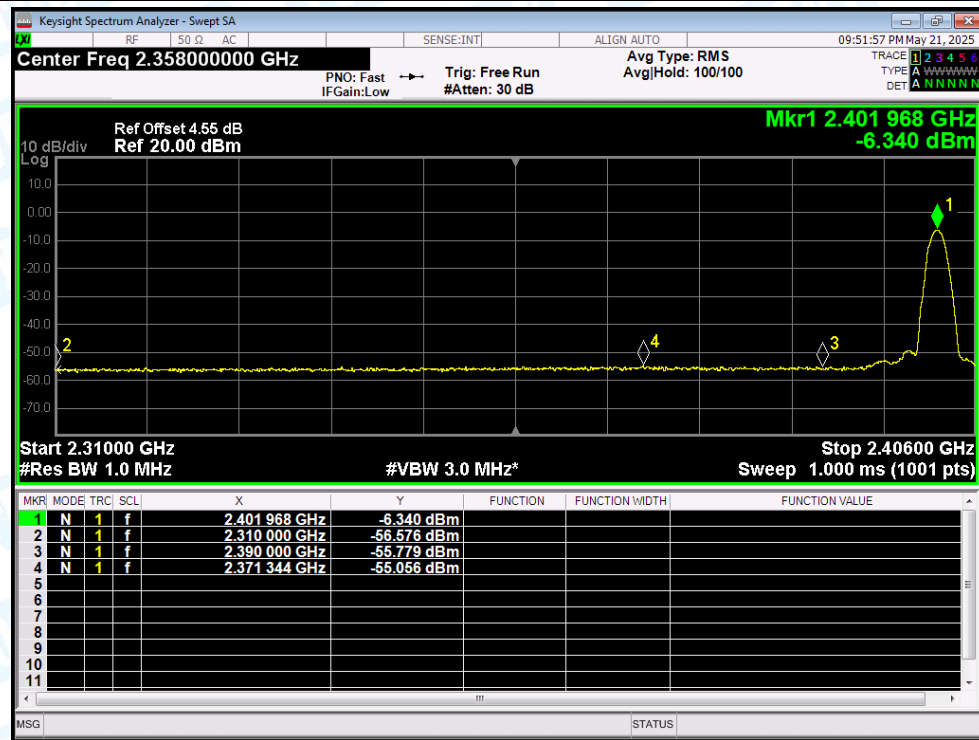
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



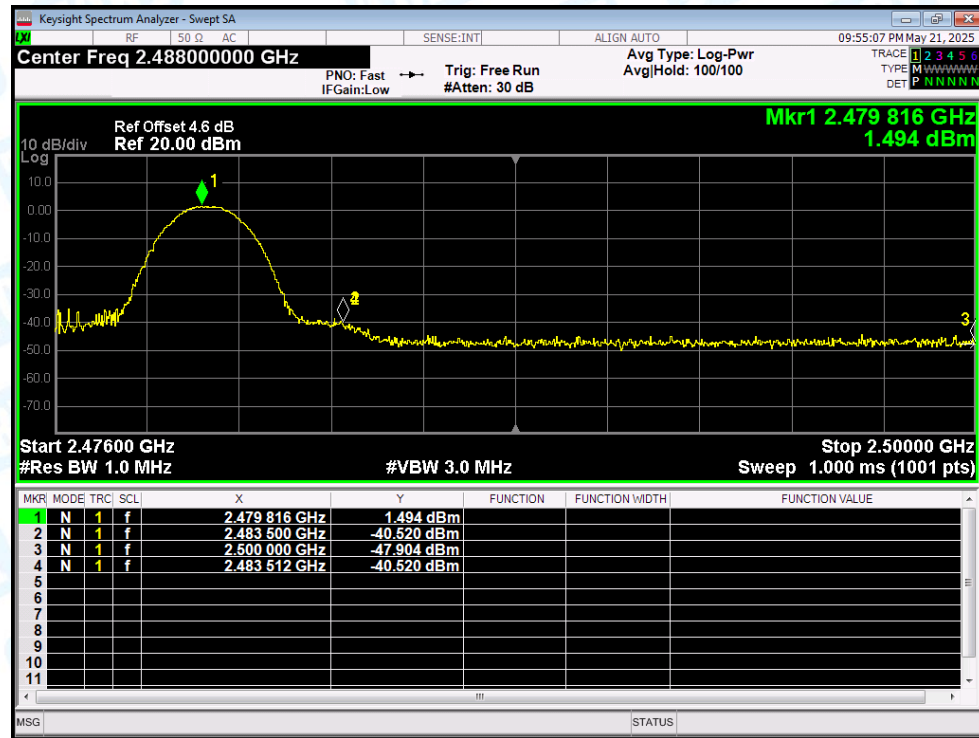
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



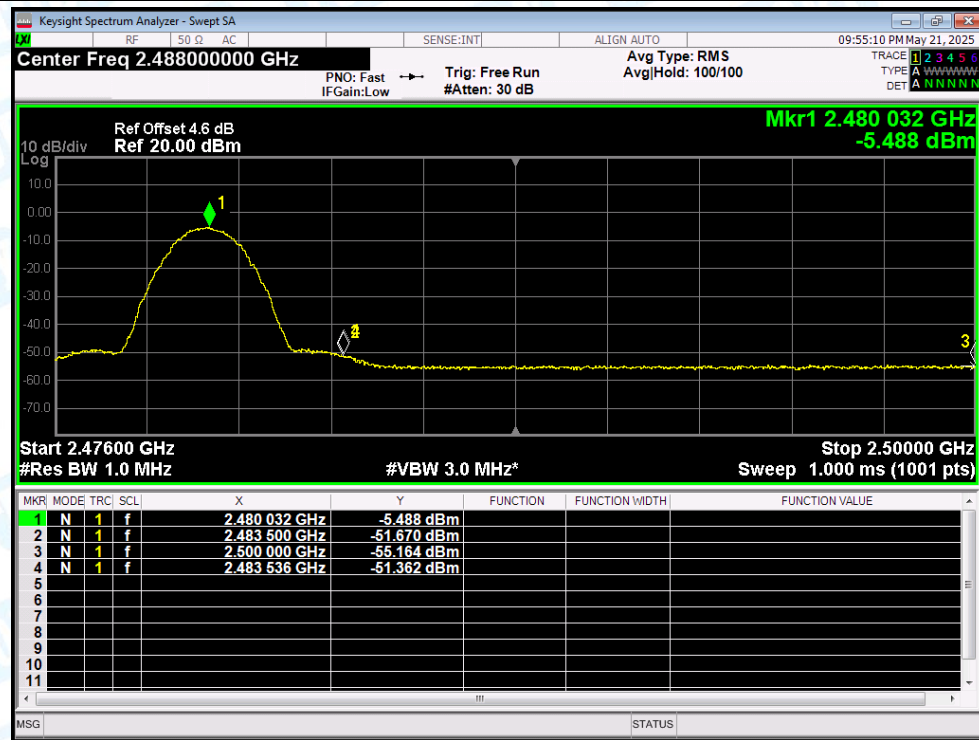
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



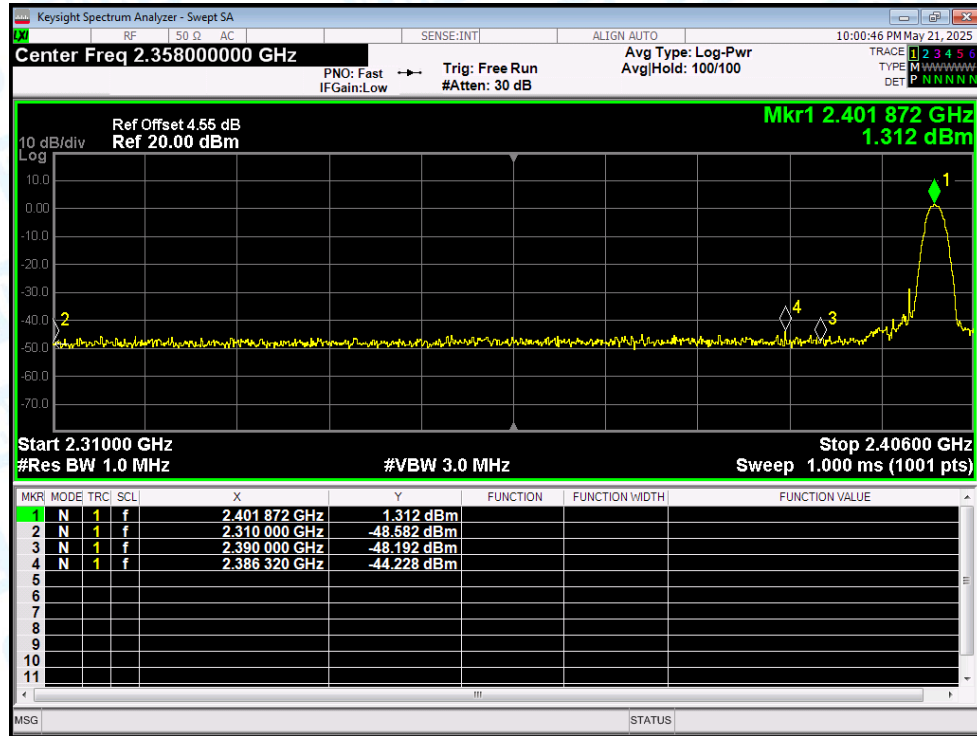
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



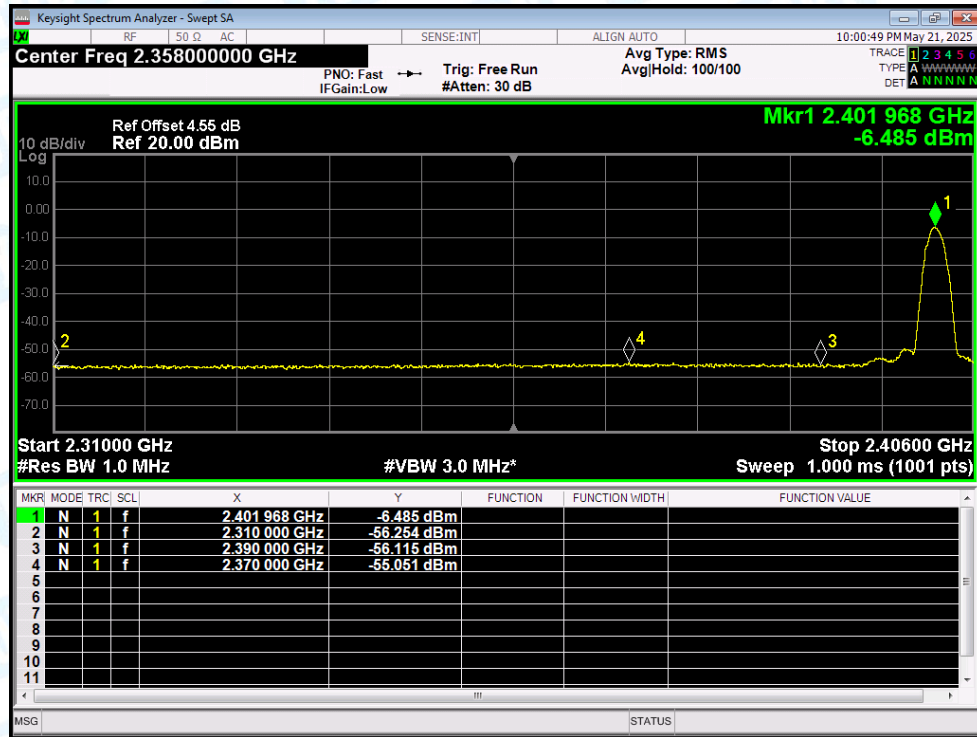
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



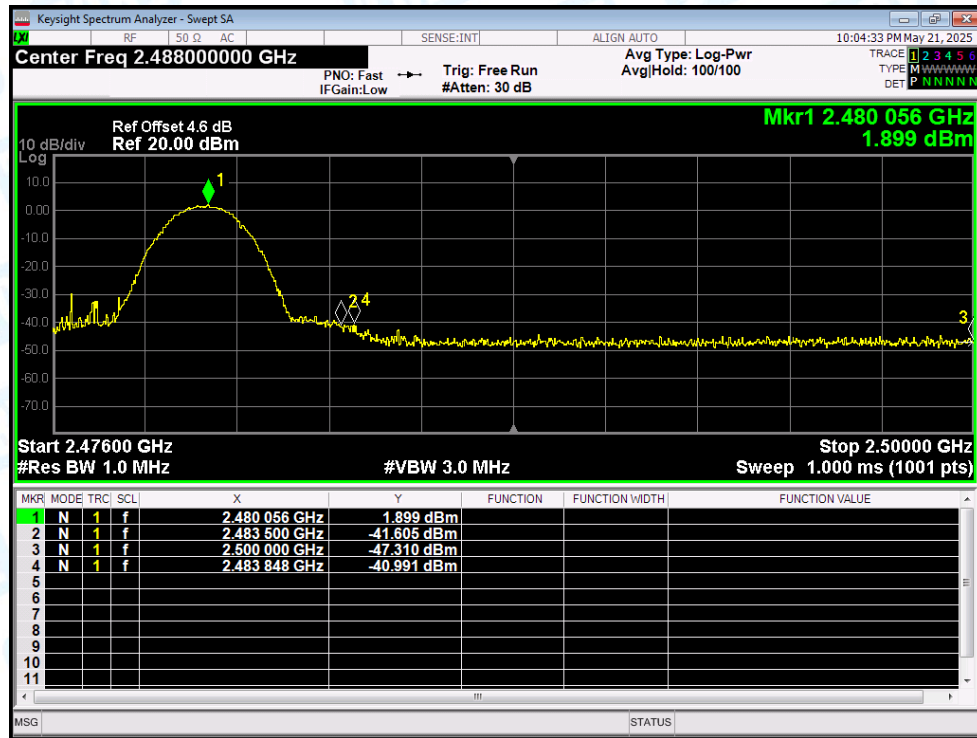
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



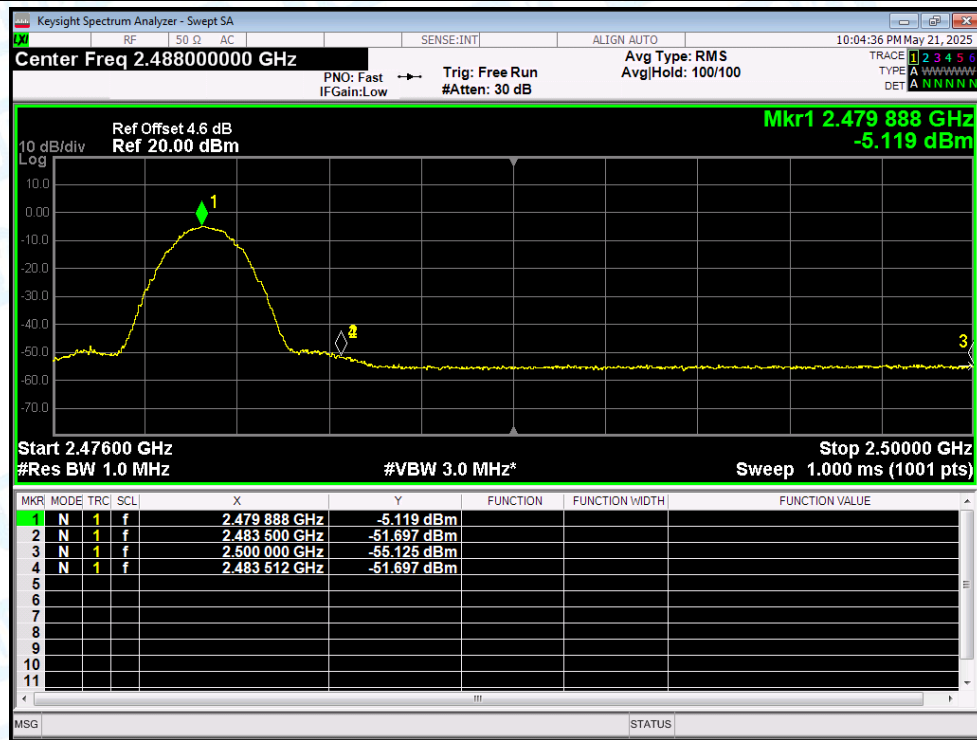
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

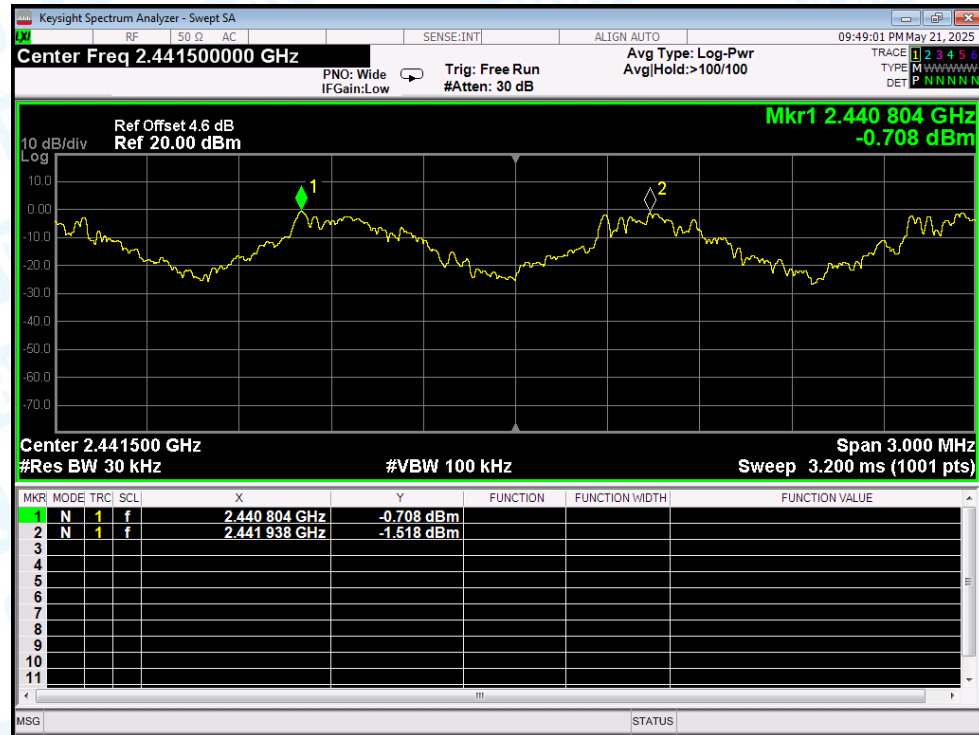


9. Carrier Frequencies Separation

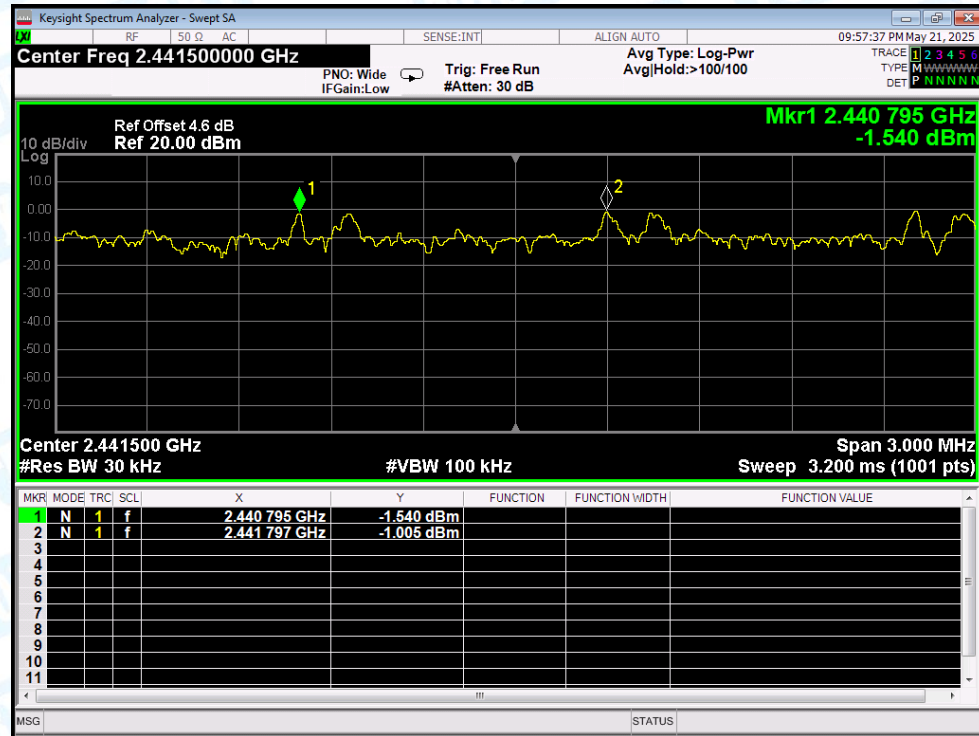
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.804	2441.938	1.134	0.573	Pass
NVNT	2-DH1	Ant1	2440.795	2441.797	1.002	0.82	Pass
NVNT	3-DH1	Ant1	2440.942	2441.947	1.005	0.827	Pass

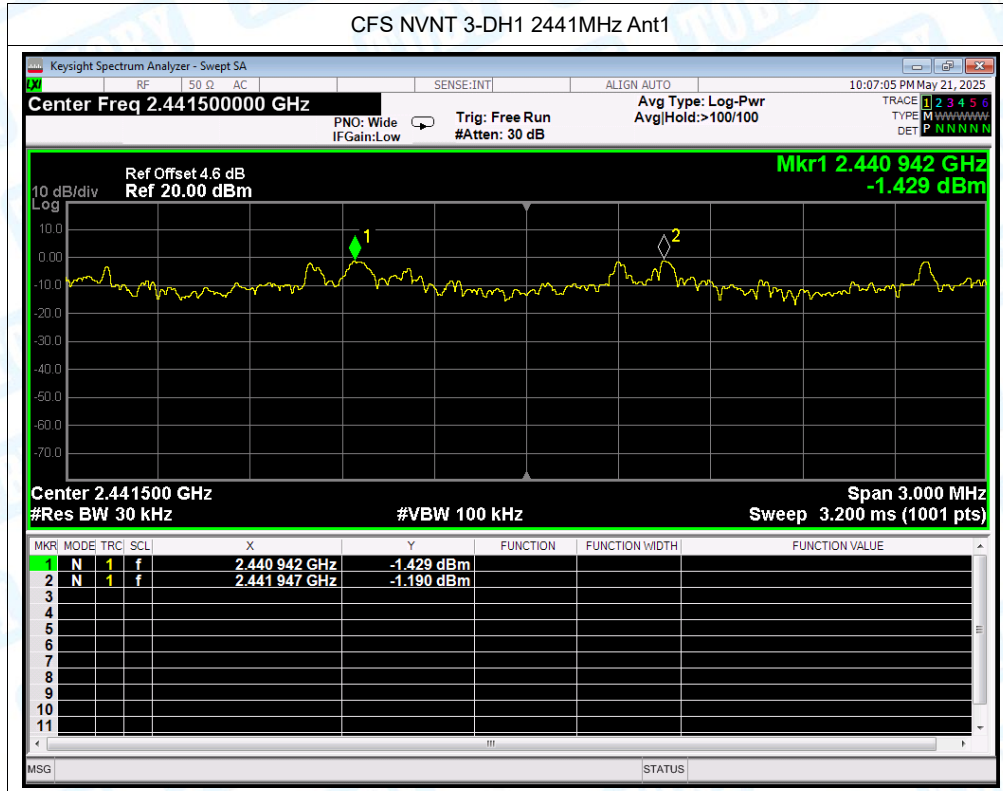
Test Graphs

CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



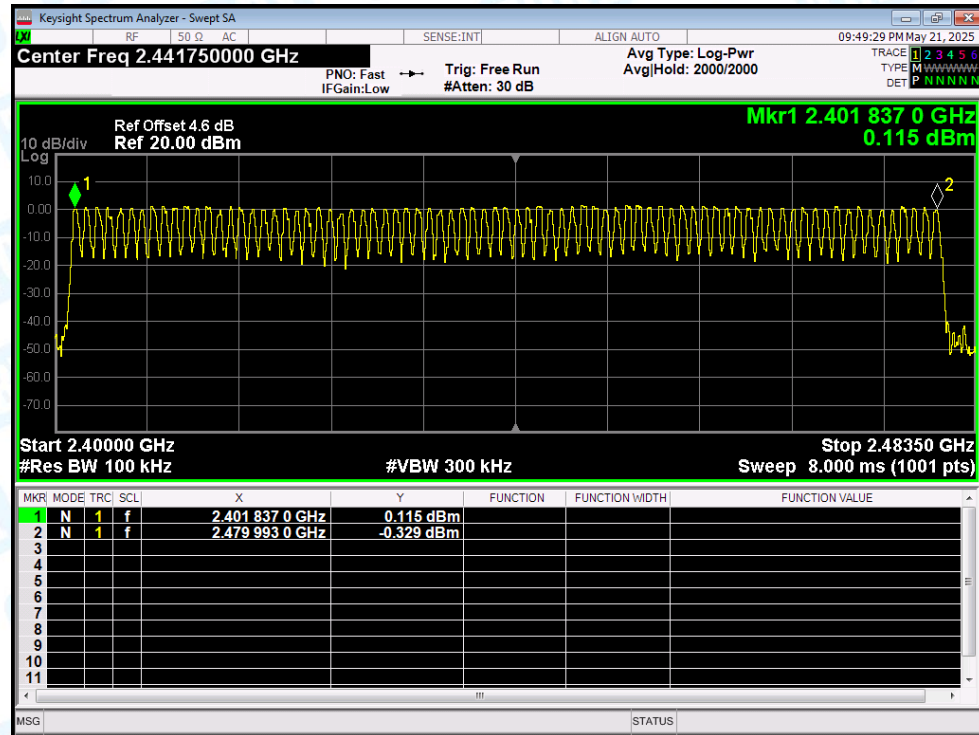


10.Number of Hopping Channel

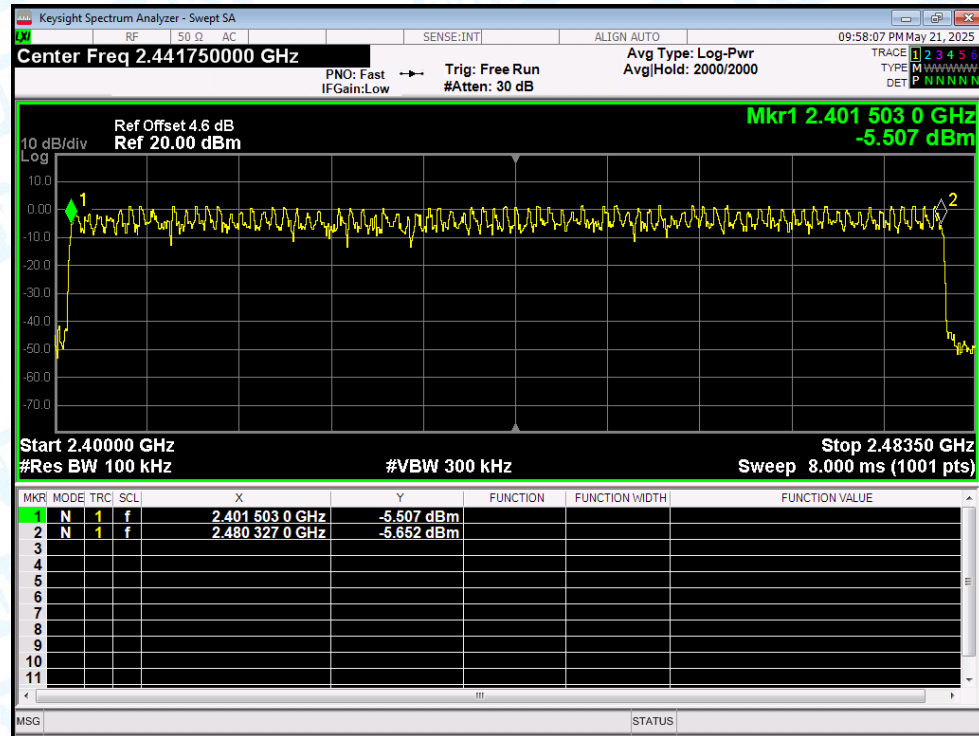
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

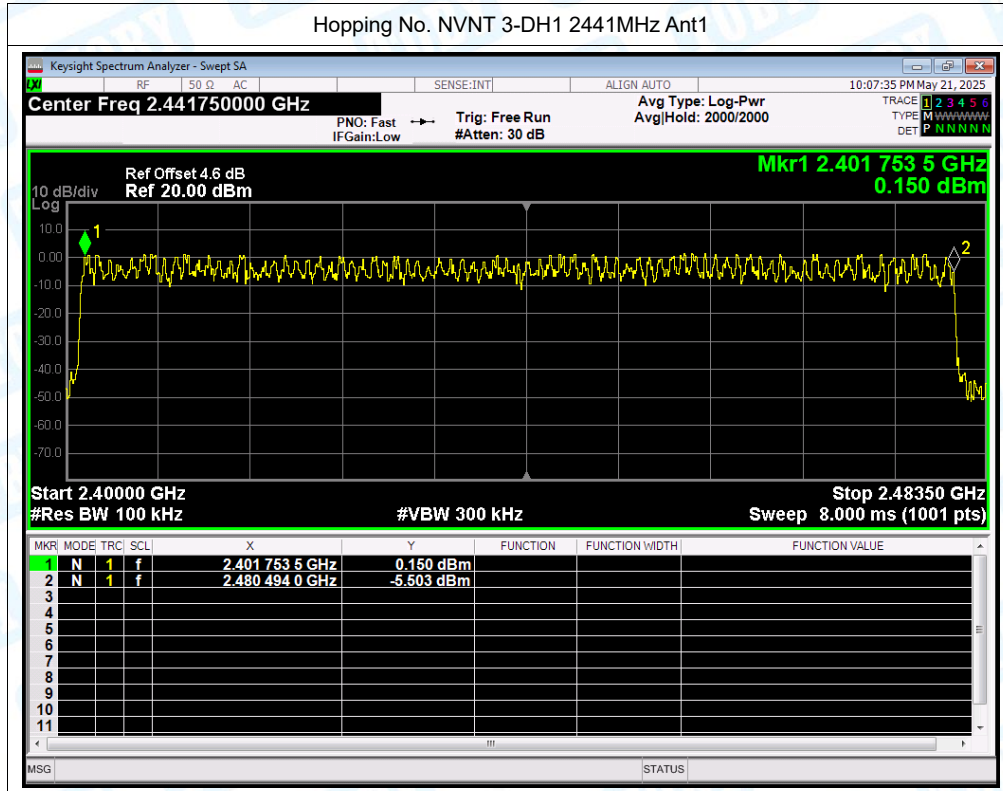
Test Graphs

Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



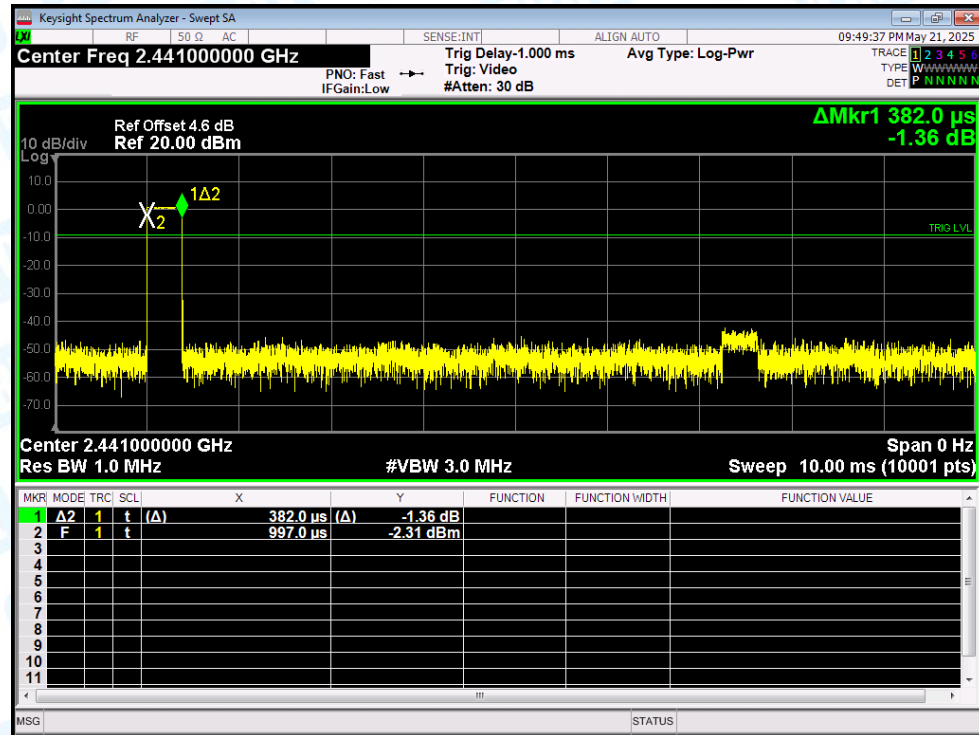


11.Dwell Time

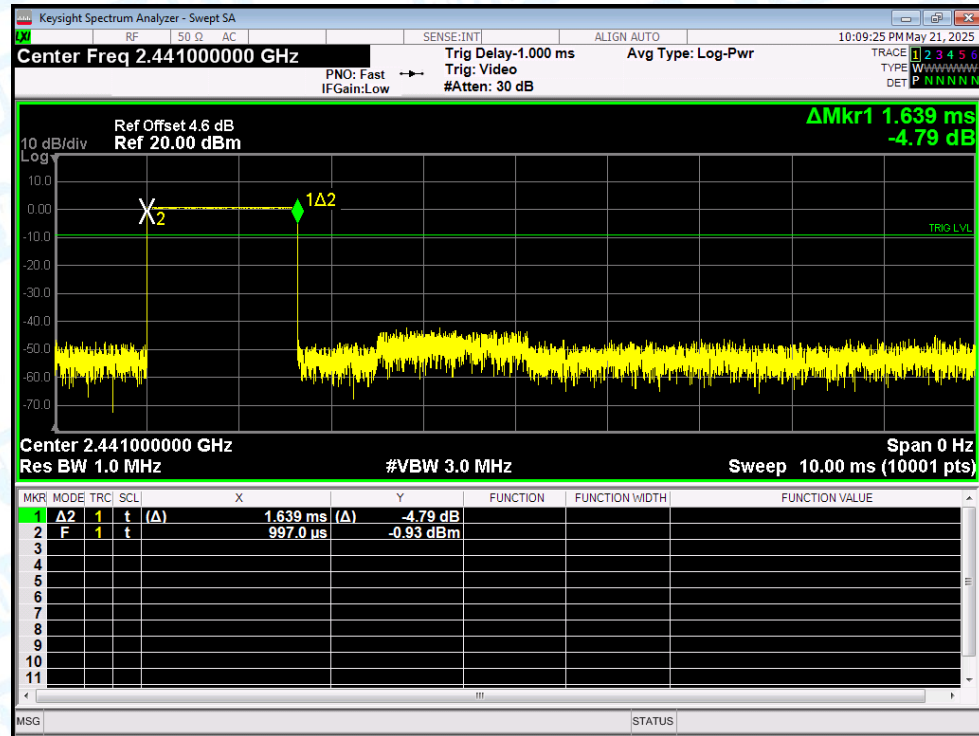
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.382	122.24	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.639	262.24	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.887	307.947	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.644	263.04	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.892	308.48	31600	400	Pass
NVNT	3-DH1	2441	Ant1	0.392	125.44	31600	400	Pass
NVNT	3-DH3	2441	Ant1	1.643	262.88	31600	400	Pass
NVNT	3-DH5	2441	Ant1	2.894	308.693	31600	400	Pass

Test Graphs

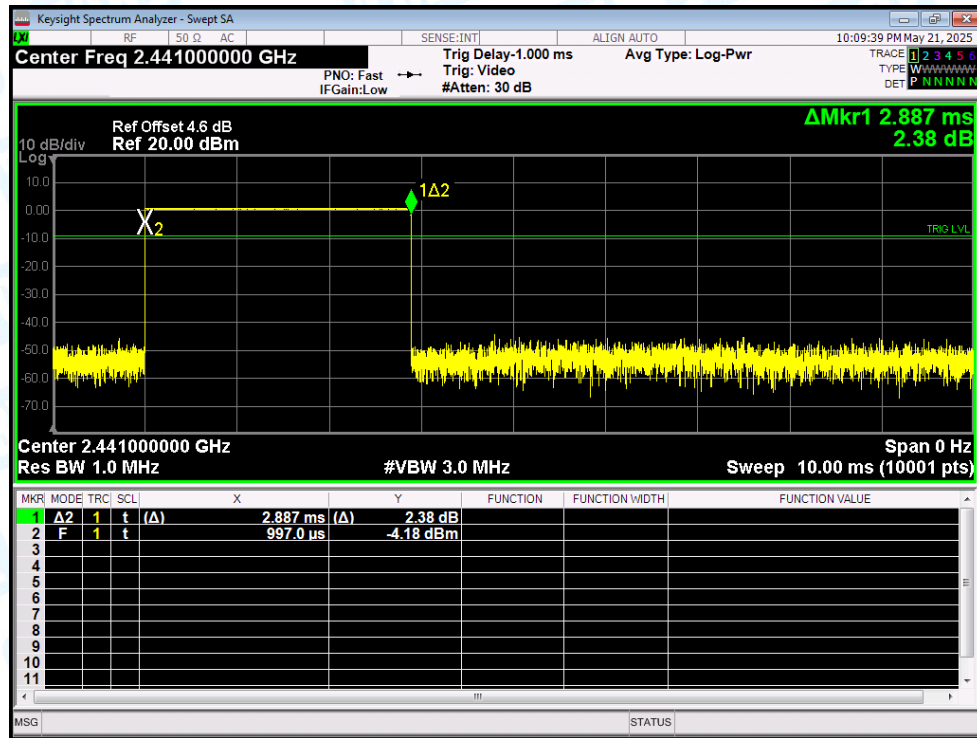
Dwell NVNT 1-DH1 2441MHz Ant1



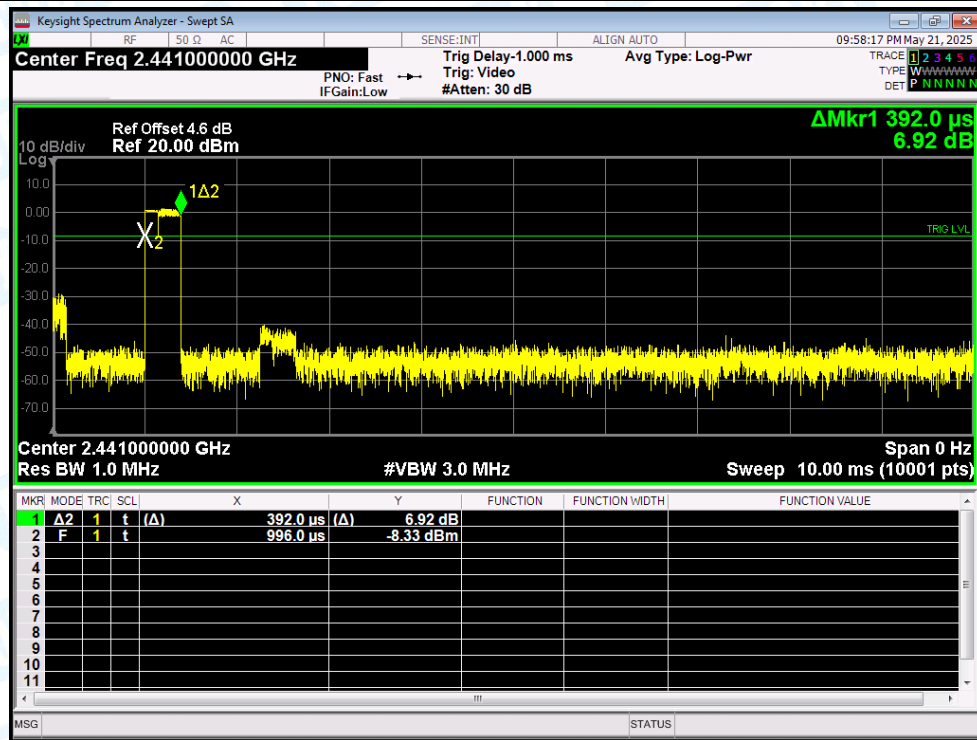
Dwell NVNT 1-DH3 2441MHz Ant1



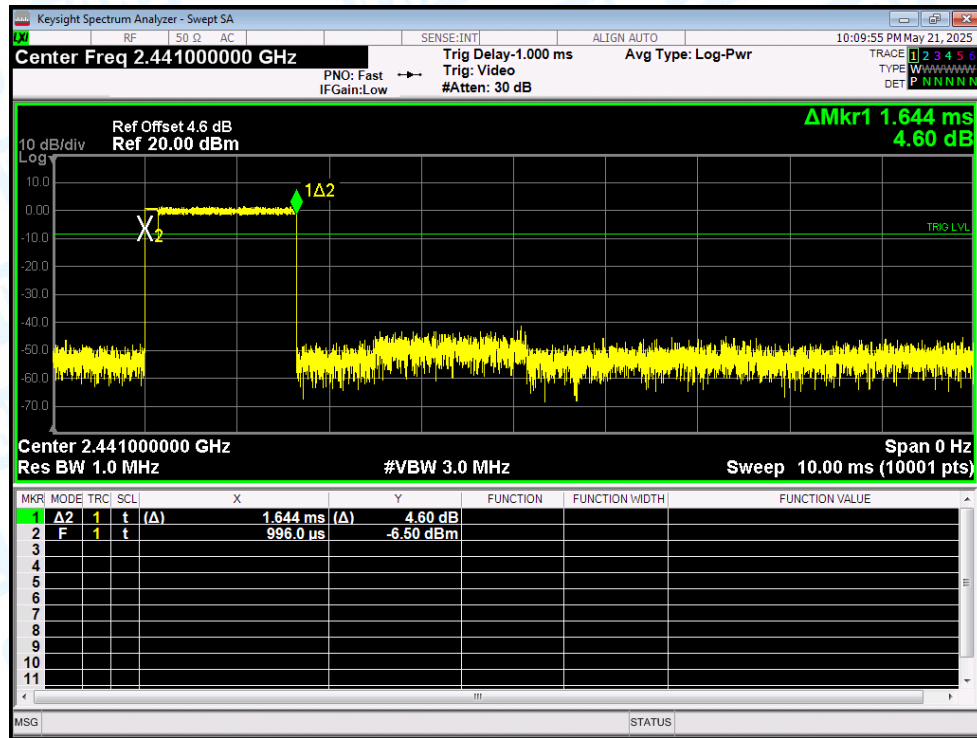
Dwell NVNT 1-DH5 2441MHz Ant1



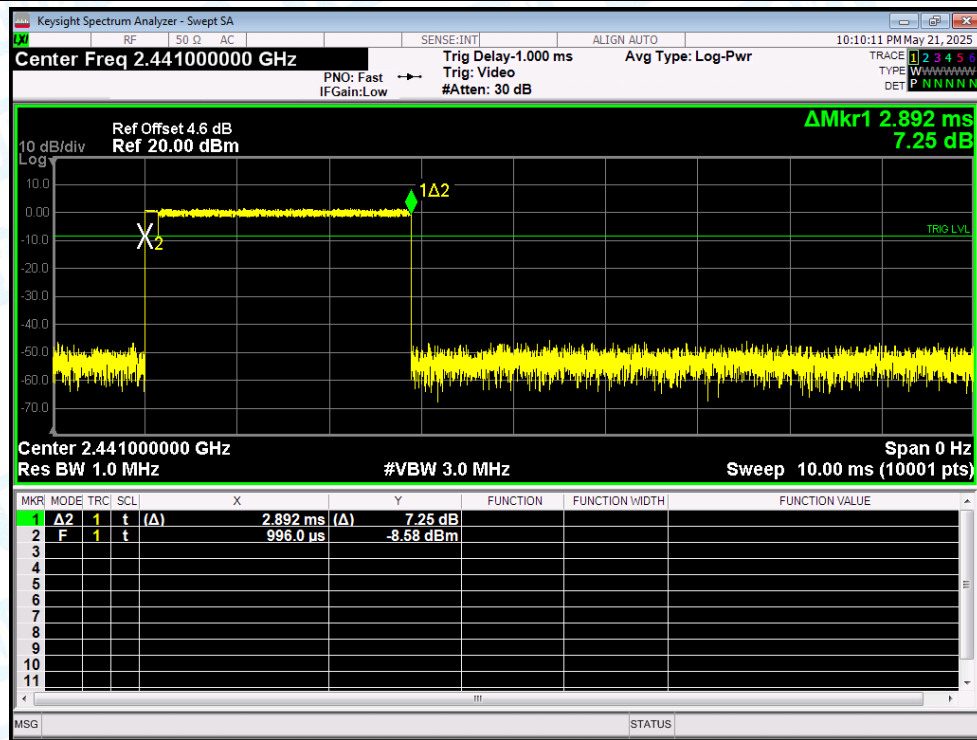
Dwell NVNT 2-DH1 2441MHz Ant1



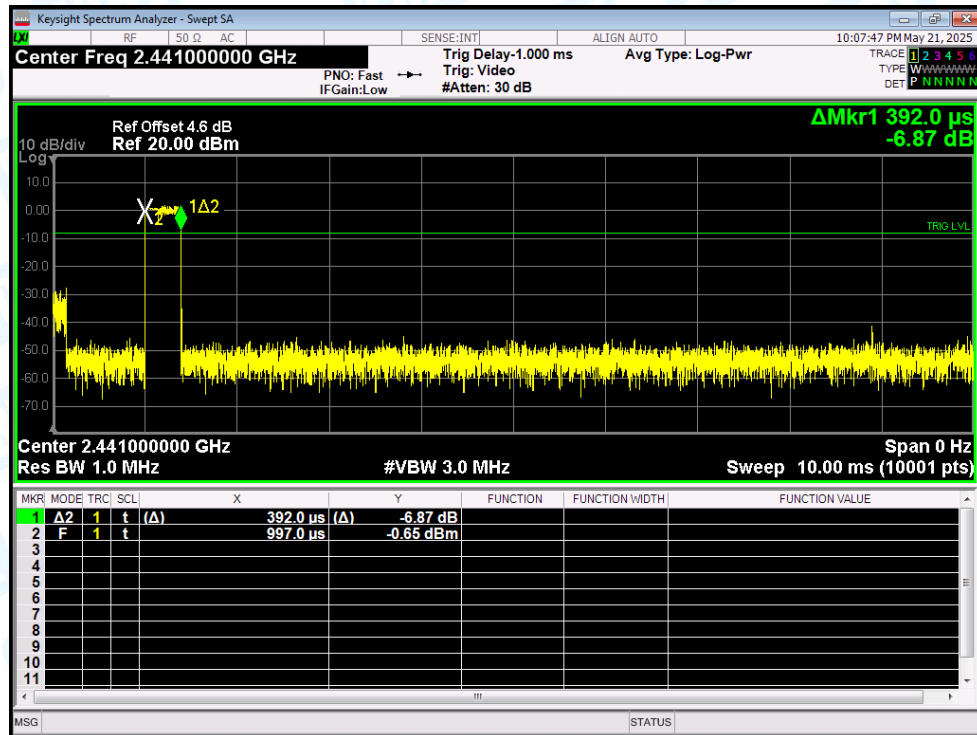
Dwell NVNT 2-DH3 2441MHz Ant1



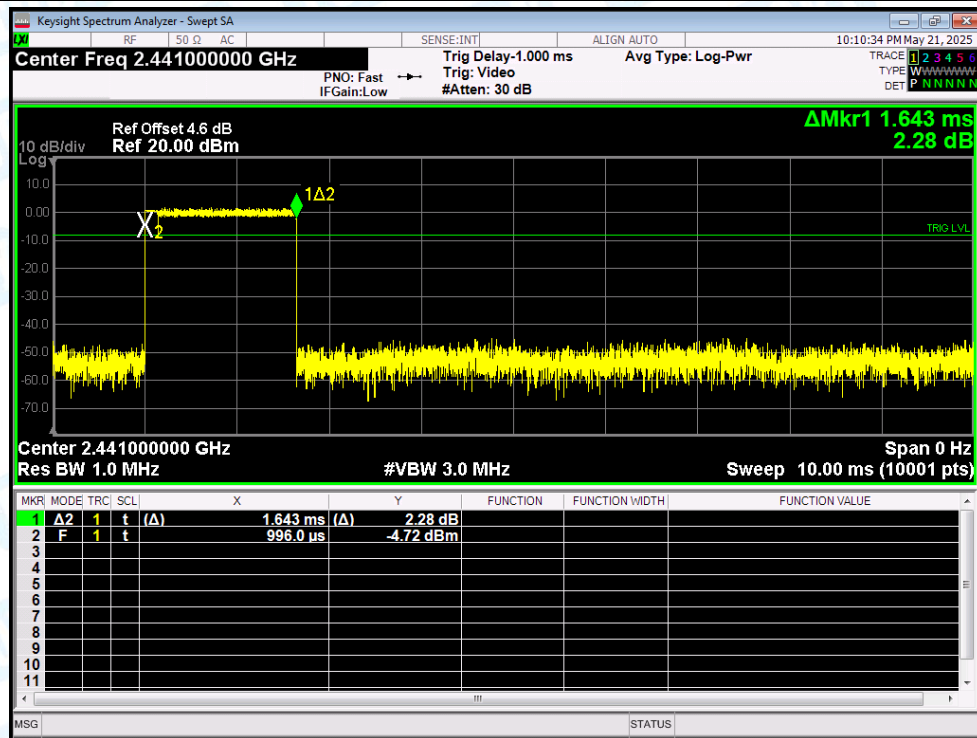
Dwell NVNT 2-DH5 2441MHz Ant1

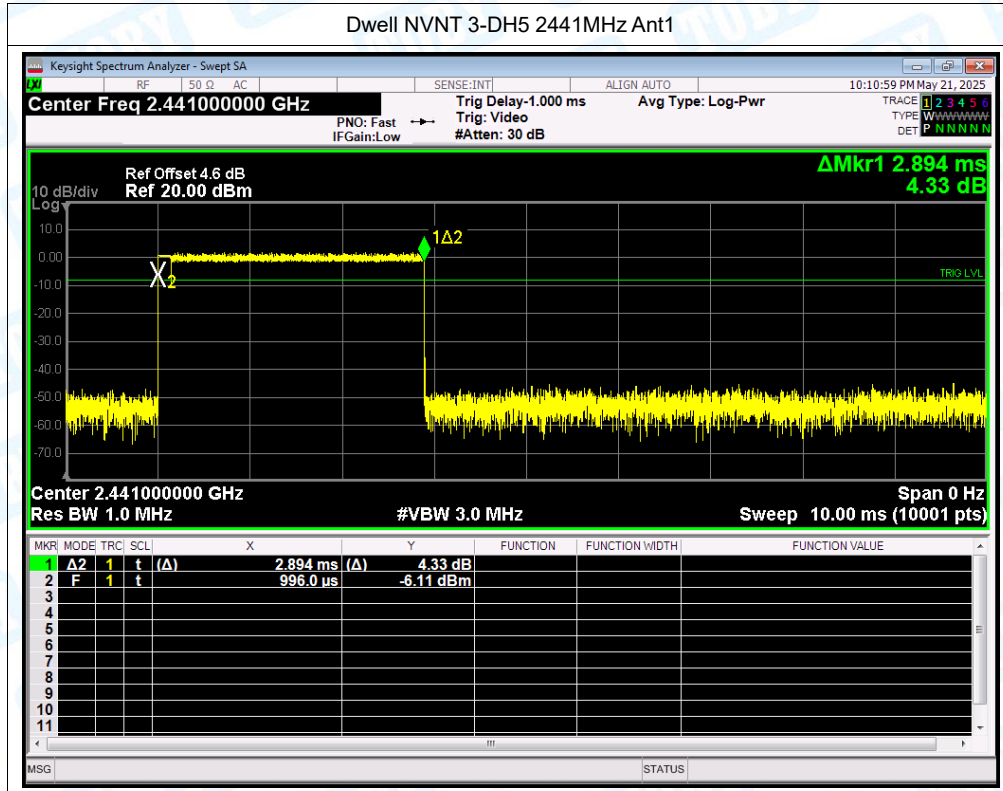


Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1





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