RF Test Data for Bluetooth (Conducted Measurements)

General Description of EUT	
Product Name:	**All-in-one CD Player**
Test Model:	**E300**
Sample ID:	**HC-C-202408-0099-01-02#**
Environmental Conditions	
Temperature:	**22.0℃-25℃**
Relative Humidity:	**43%-55%**
Test Voltage:	**DC 5V**
Test Engineer:	**Mike Yan**
Note: For a more detailed features description, please refer to the report TBR-C-202408-0099-21 The report only show the worst case data.	

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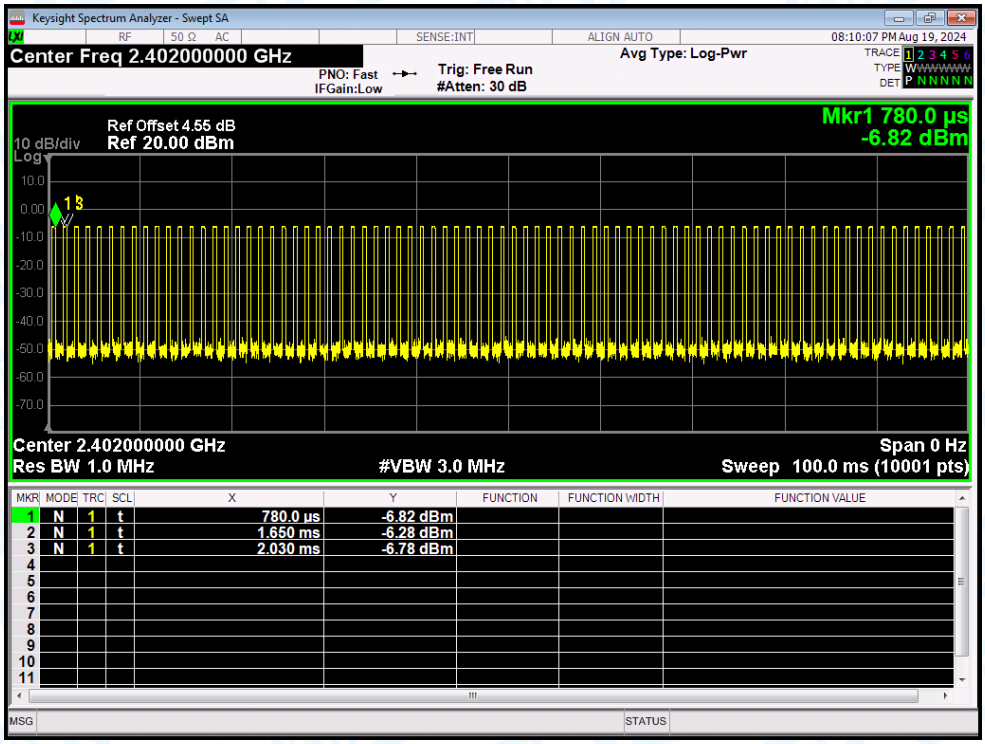
1.Duty Cycle

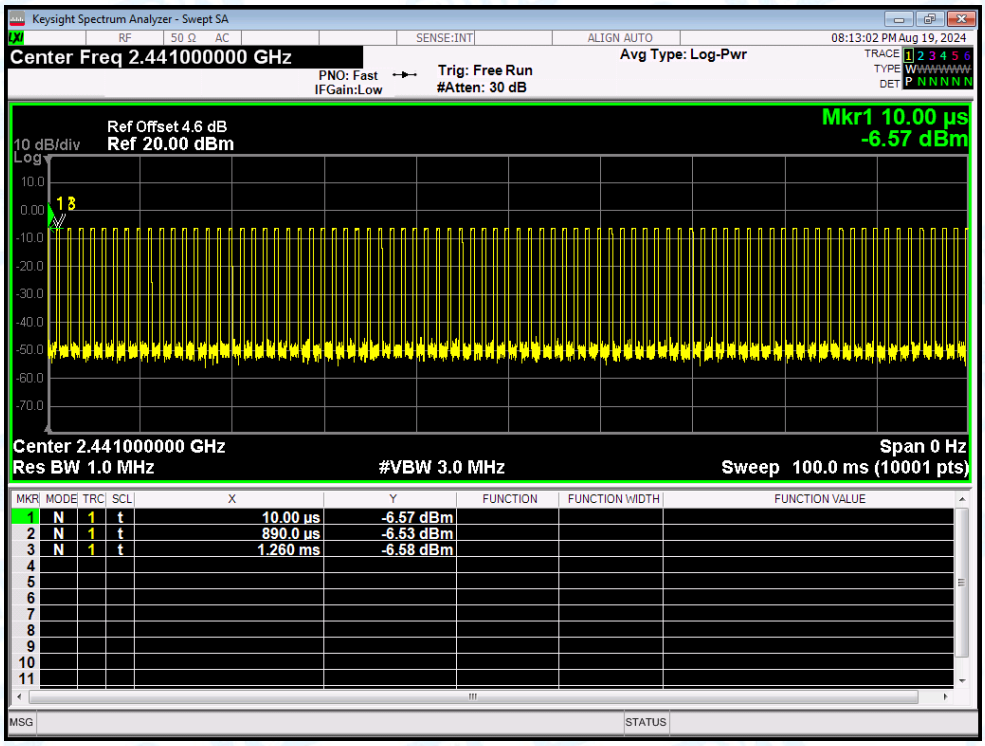
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	1-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	1-DH1	2441	Ant1	29.6	5.29	2.7
NVNT	1-DH1	2480	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2402	Ant1	30.4	5.17	2.63
NVNT	2-DH1	2441	Ant1	31.2	5.06	2.56
NVNT	2-DH1	2480	Ant1	30.4	5.17	2.63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

Test Graphs

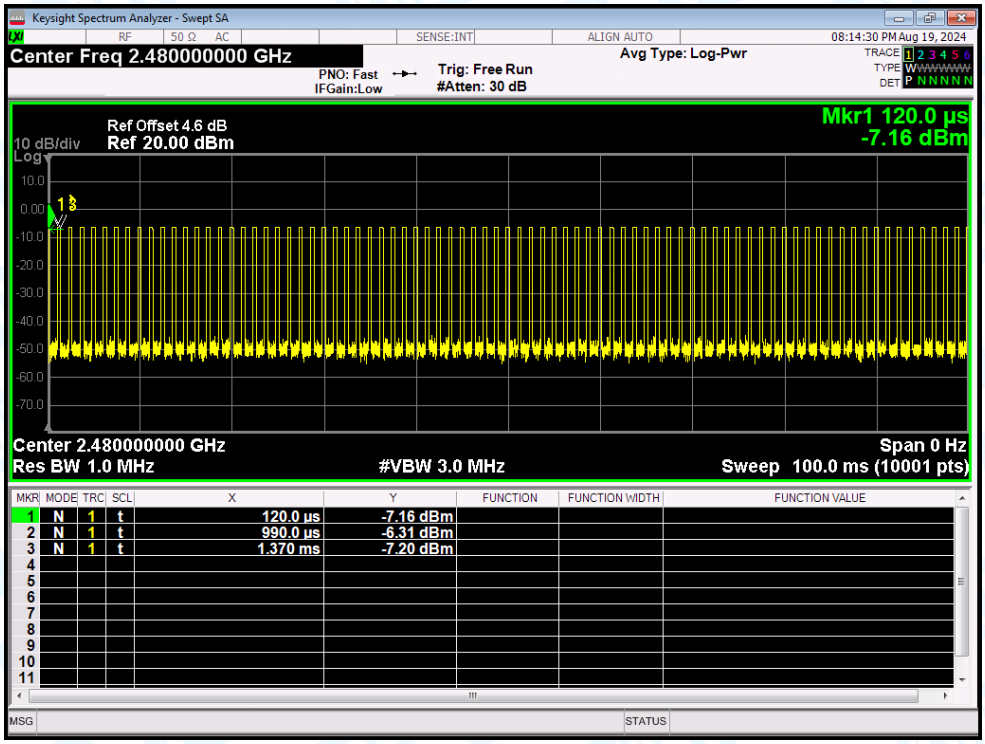
Duty Cycle NVNT 1-DH1 2402MHz Ant1



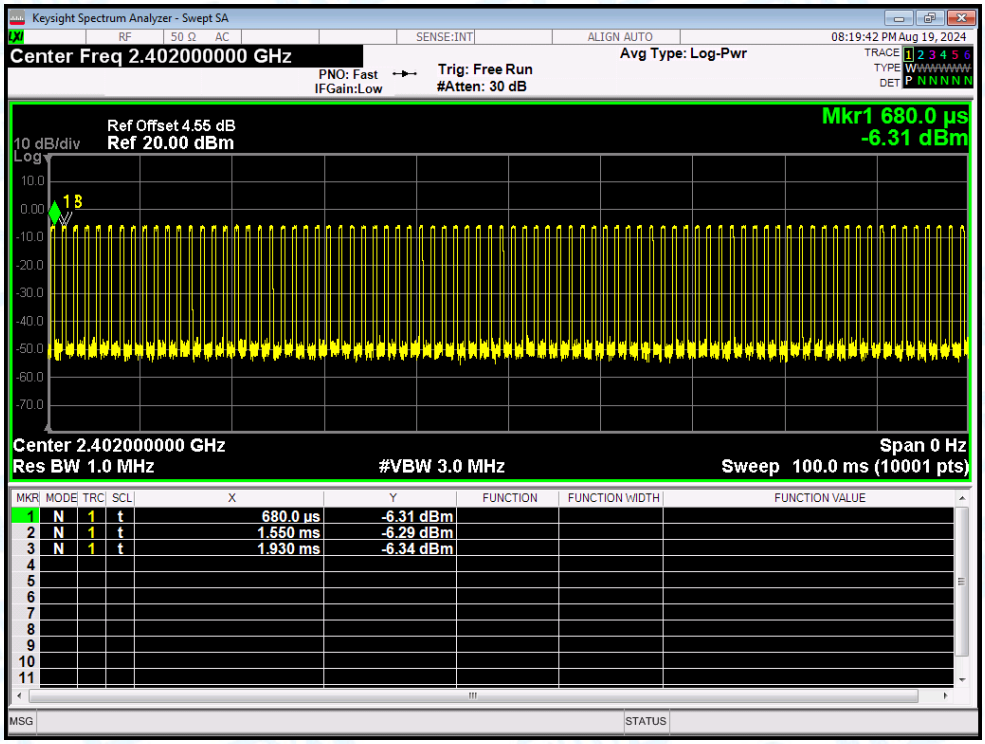
Duty Cycle NVNT 1-DH1 2441MHz Ant1



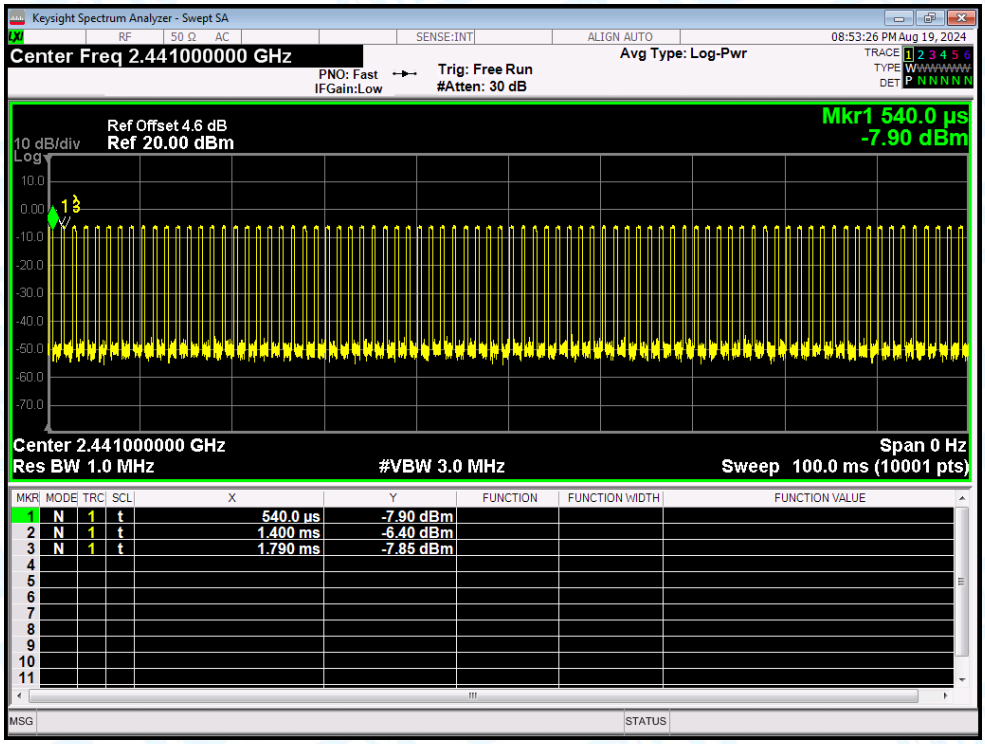
Duty Cycle NVNT 1-DH1 2480MHz Ant1



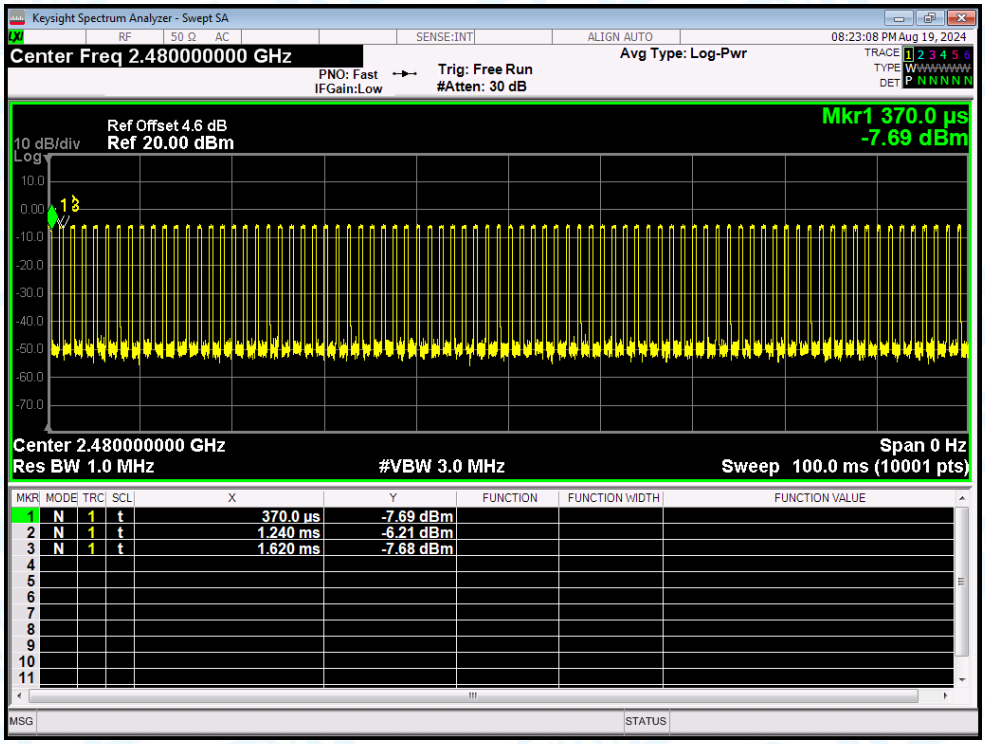
Duty Cycle NVNT 2-DH1 2402MHz Ant1



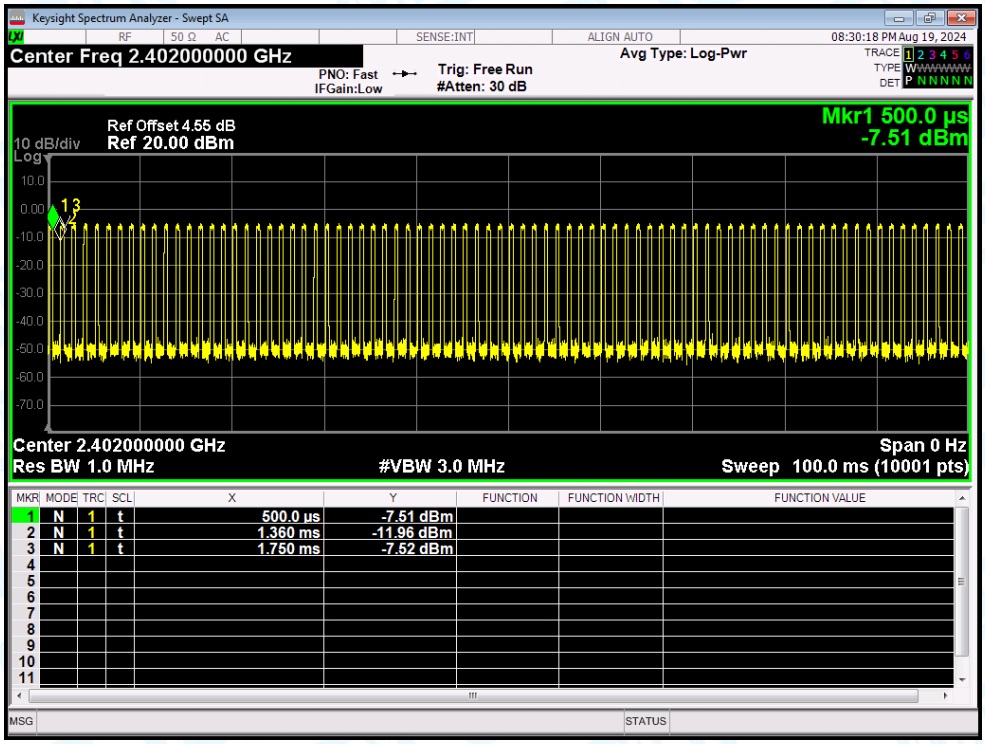
Duty Cycle NVNT 2-DH1 2441MHz Ant1



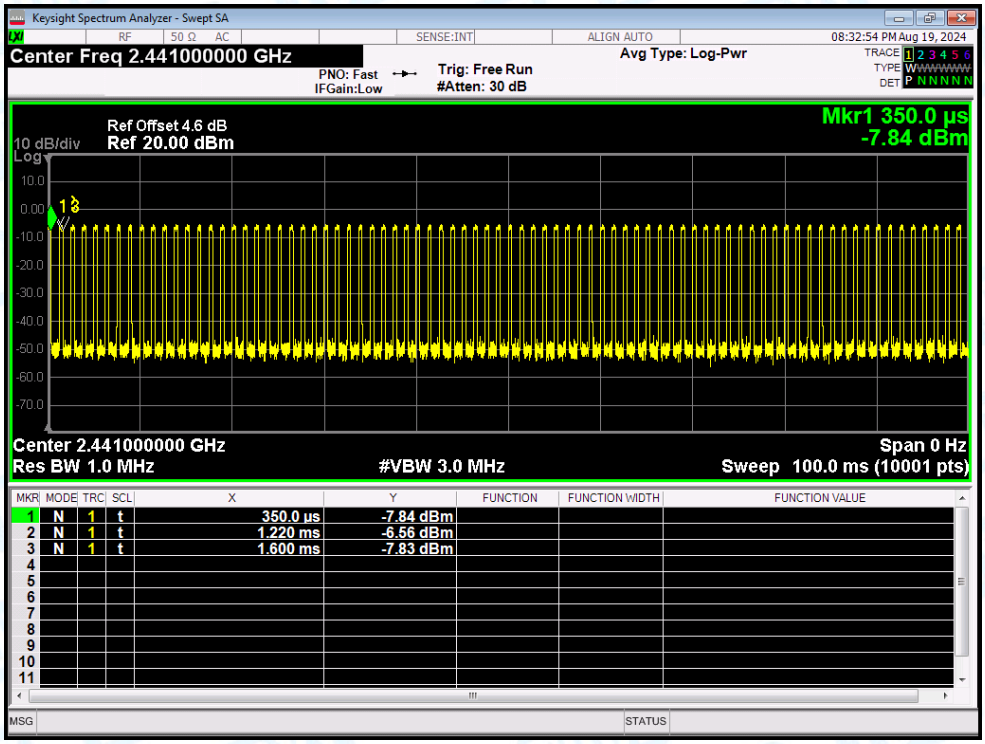
Duty Cycle NVNT 2-DH1 2480MHz Ant1



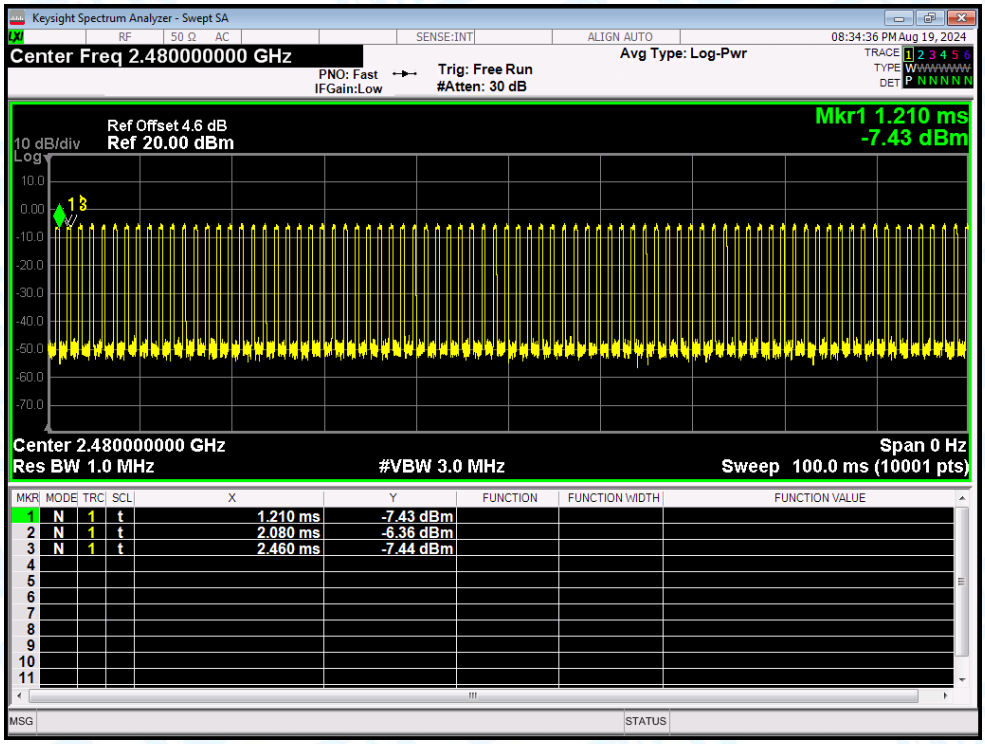
Duty Cycle NVNT 3-DH1 2402MHz Ant1



Duty Cycle NVNT 3-DH1 2441MHz Ant1



Duty Cycle NVNT 3-DH1 2480MHz Ant1

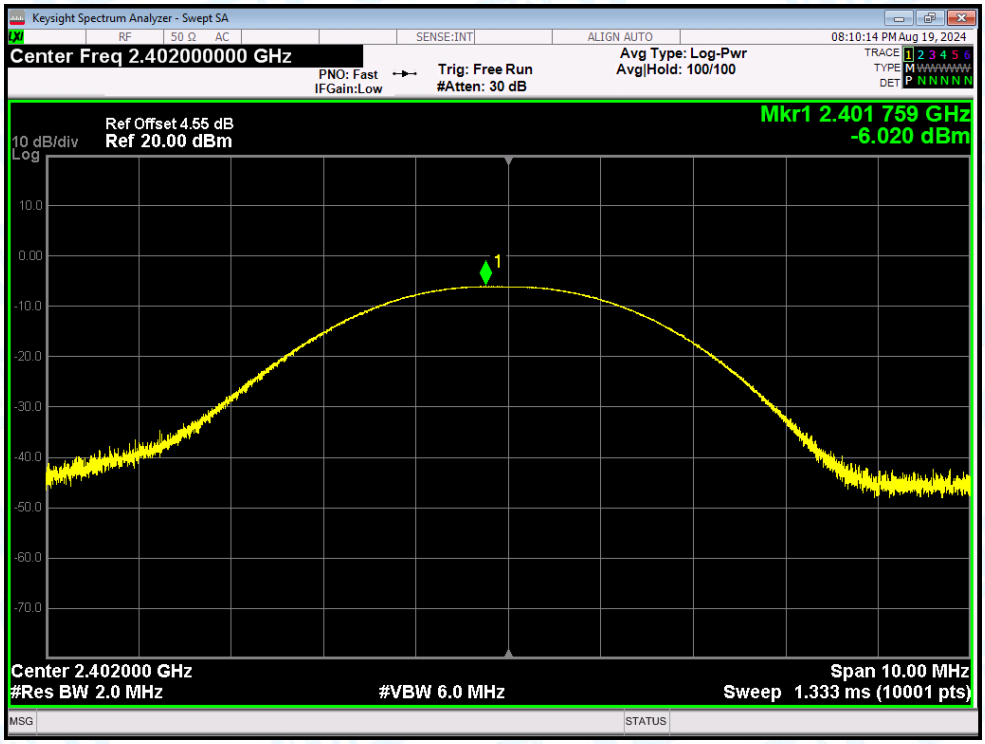


2.Maximum Conducted Output Power

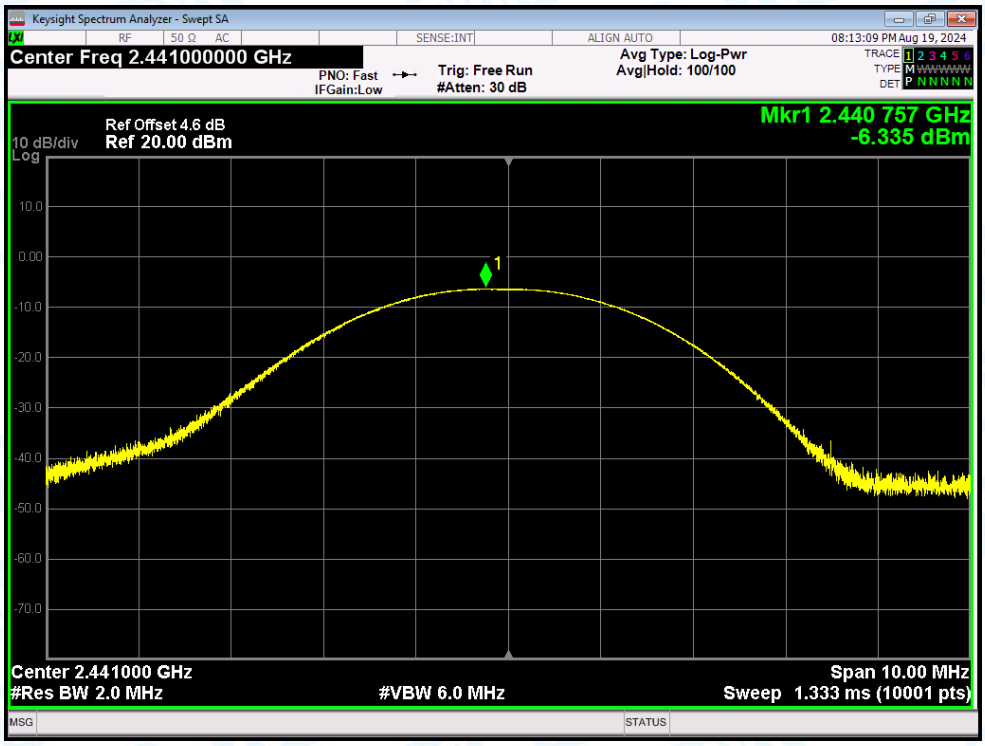
Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	1-DH1	2402	Ant1	-6.02	21	Pass
NVNT	1-DH1	2441	Ant1	-6.335	21	Pass
NVNT	1-DH1	2480	Ant1	-6.121	21	Pass
NVNT	2-DH1	2402	Ant1	-5.279	21	Pass
NVNT	2-DH1	2441	Ant1	-5.324	21	Pass
NVNT	2-DH1	2480	Ant1	-5.164	21	Pass
NVNT	3-DH1	2402	Ant1	-4.635	21	Pass
NVNT	3-DH1	2441	Ant1	-4.882	21	Pass
NVNT	3-DH1	2480	Ant1	-4.724	21	Pass

Test Graphs

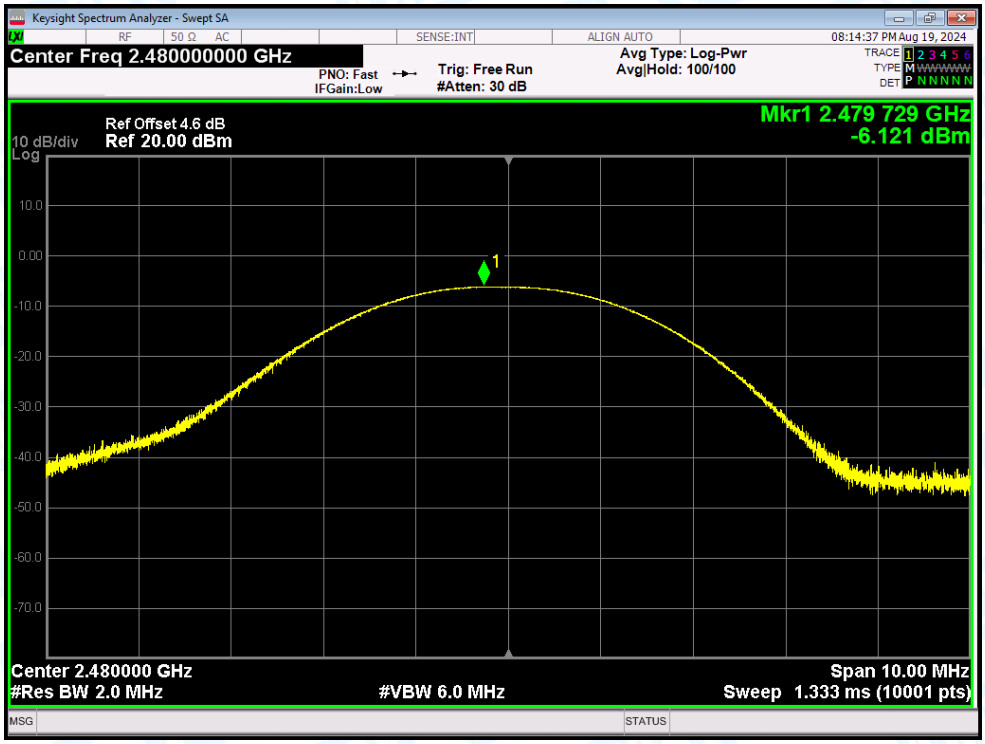
Power NVNT 1-DH1 2402MHz Ant1



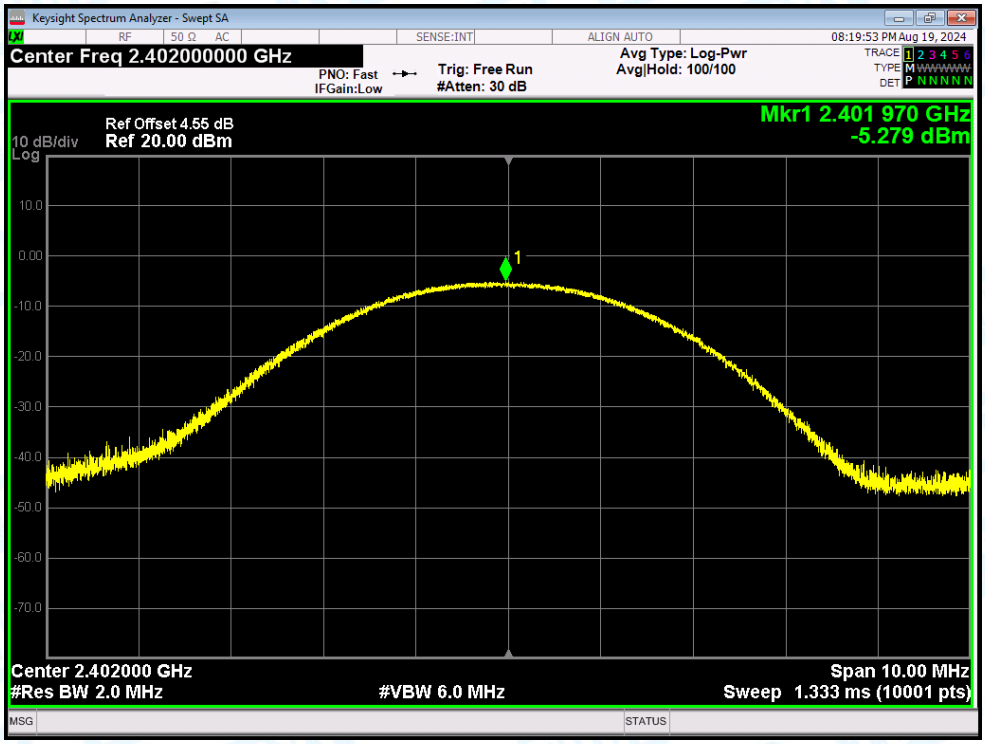
Power NVNT 1-DH1 2441MHz Ant1



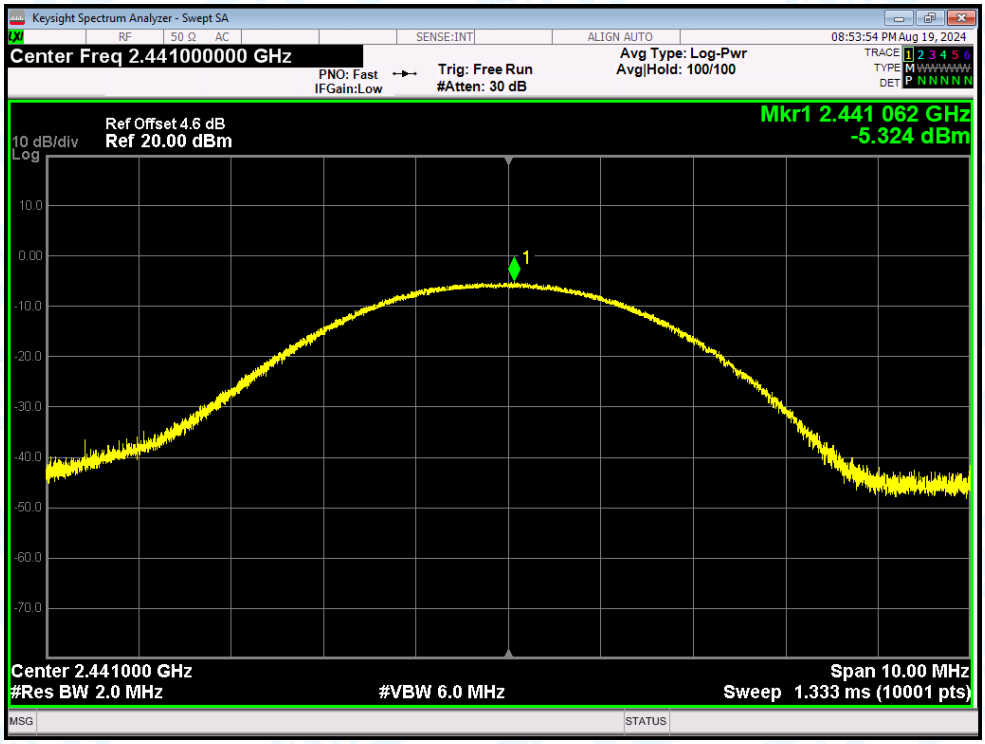
Power NVNT 1-DH1 2480MHz Ant1



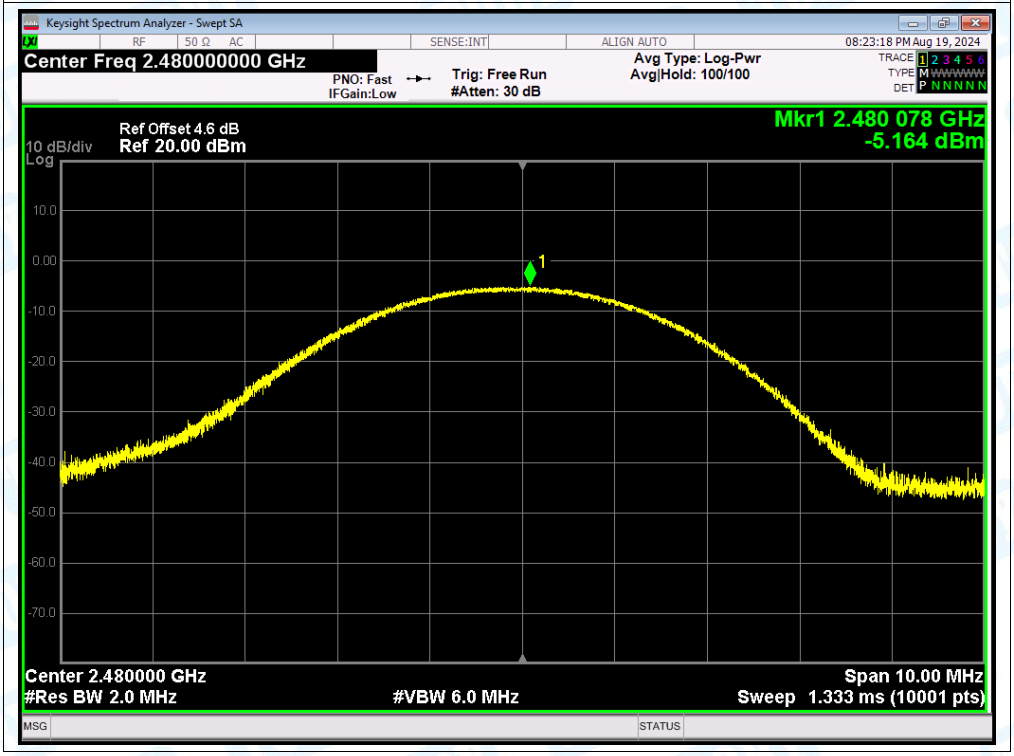
Power NVNT 2-DH1 2402MHz Ant1



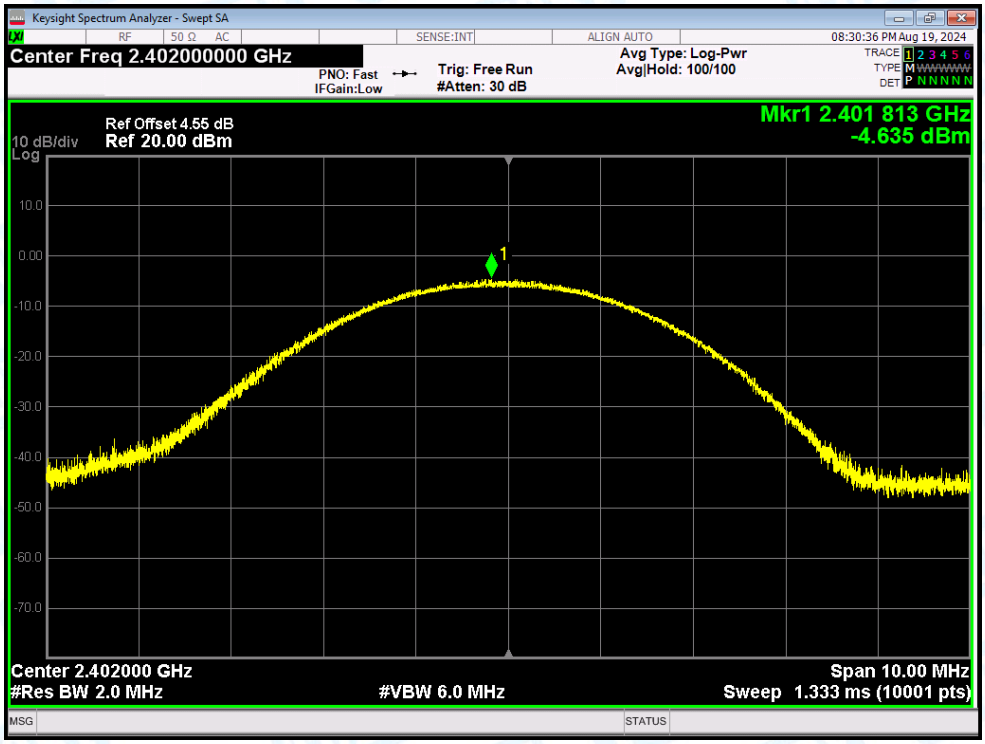
Power NVNT 2-DH1 2441MHz Ant1



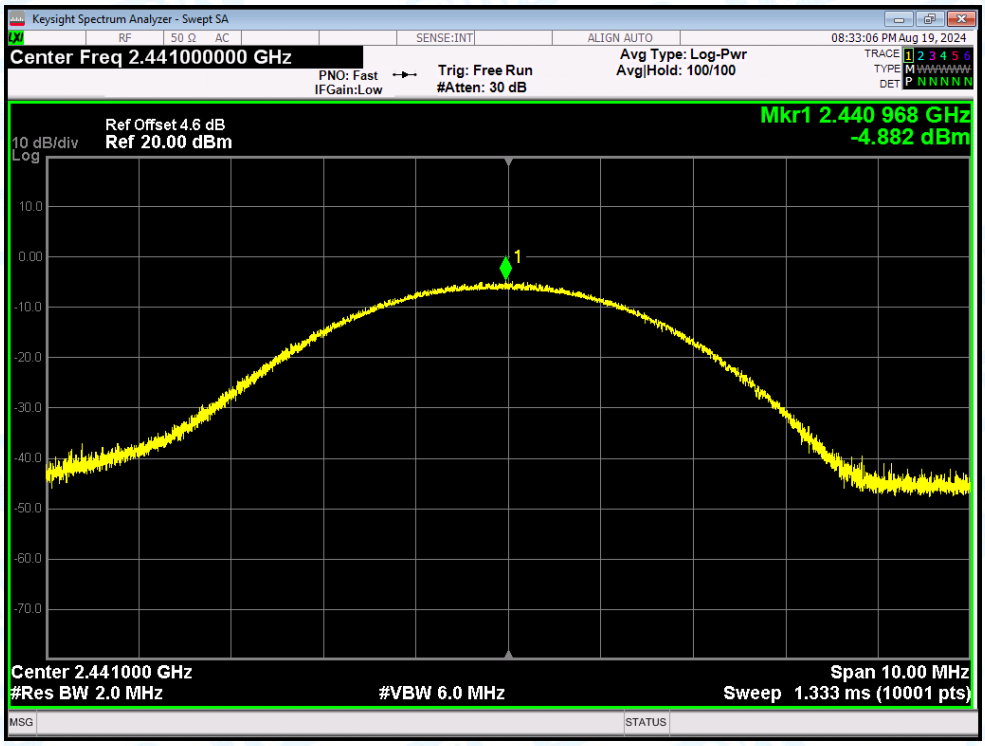
Power NVNT 2-DH1 2480MHz Ant1



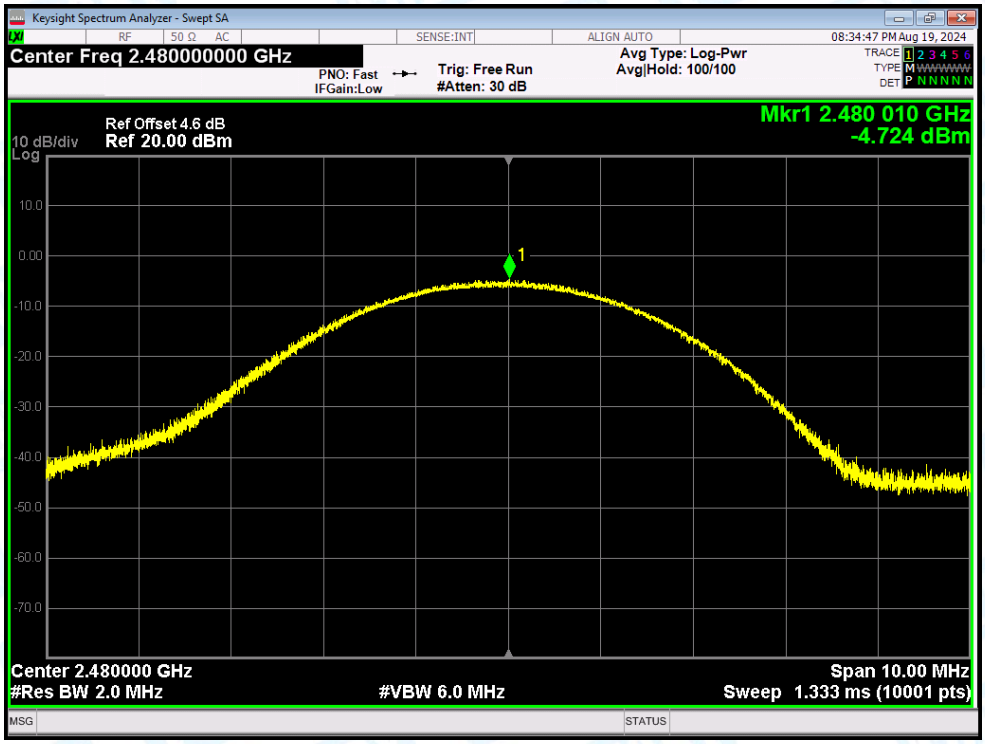
Power NVNT 3-DH1 2402MHz Ant1



Power NVNT 3-DH1 2441MHz Ant1



Power NVNT 3-DH1 2480MHz Ant1

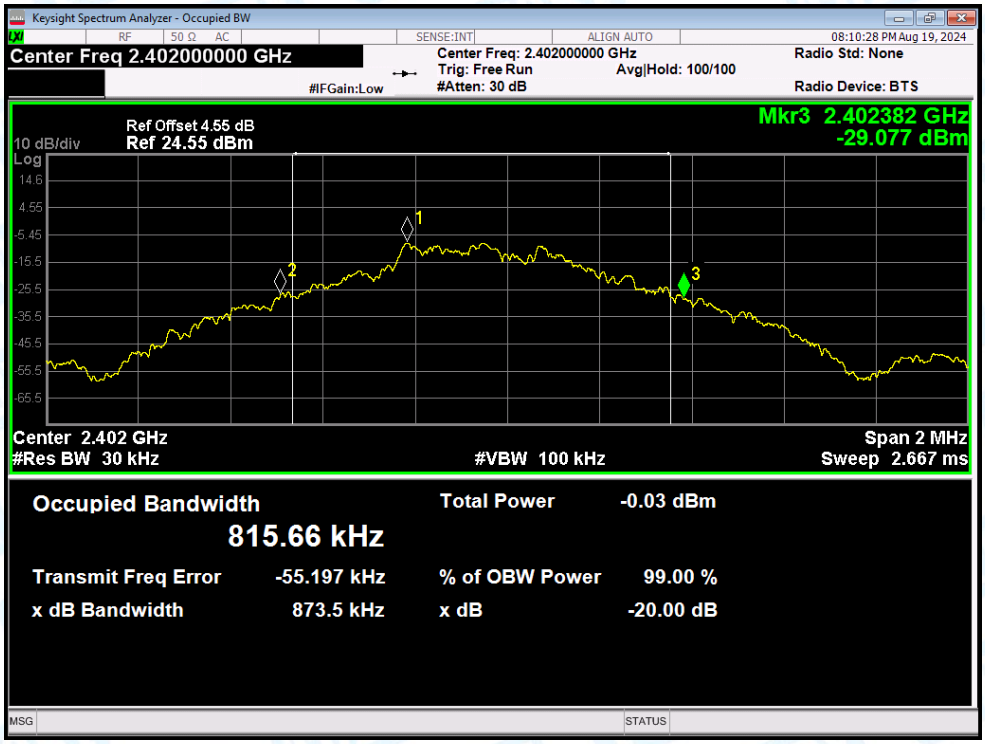


3.-20dB Bandwidth

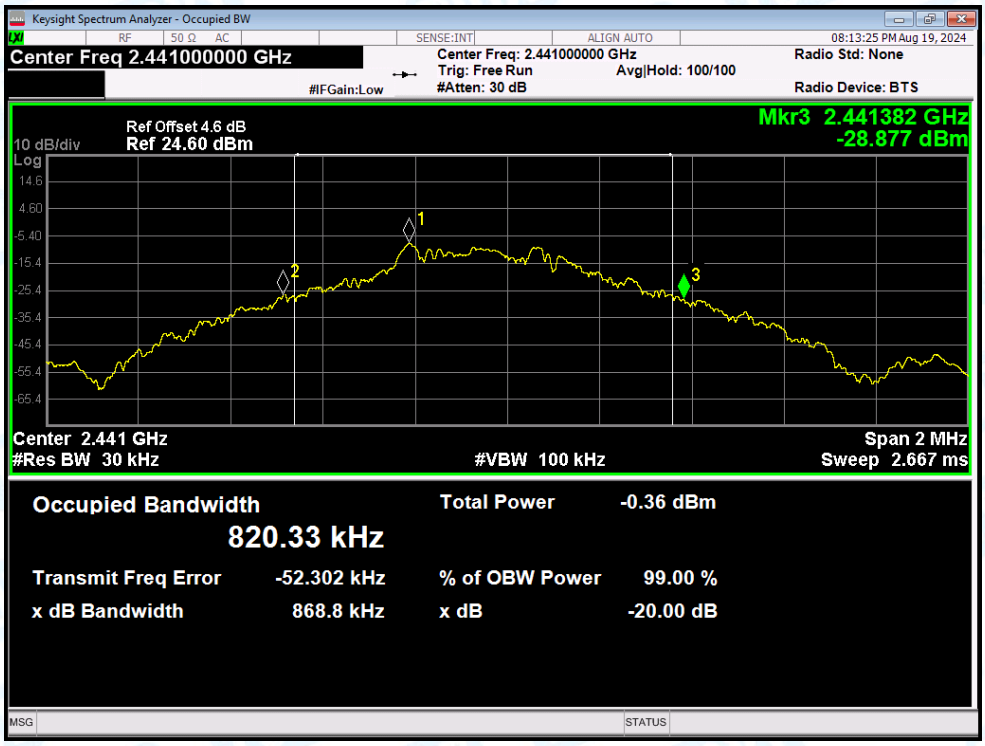
Condition	Mode	Frequency (MHz)	Antenna	-20 dB Bandwidth (MHz)	Limit -20 dB Bandwidth (MHz)	Verdict
NVNT	1-DH1	2402	Ant1	0.87	0	Pass
NVNT	1-DH1	2441	Ant1	0.87	0	Pass
NVNT	1-DH1	2480	Ant1	0.85	0	Pass
NVNT	2-DH1	2402	Ant1	1.27	0	Pass
NVNT	2-DH1	2441	Ant1	1.25	0	Pass
NVNT	2-DH1	2480	Ant1	1.25	0	Pass
NVNT	3-DH1	2402	Ant1	1.21	0	Pass
NVNT	3-DH1	2441	Ant1	1.2	0	Pass
NVNT	3-DH1	2480	Ant1	1.22	0	Pass

Test Graphs

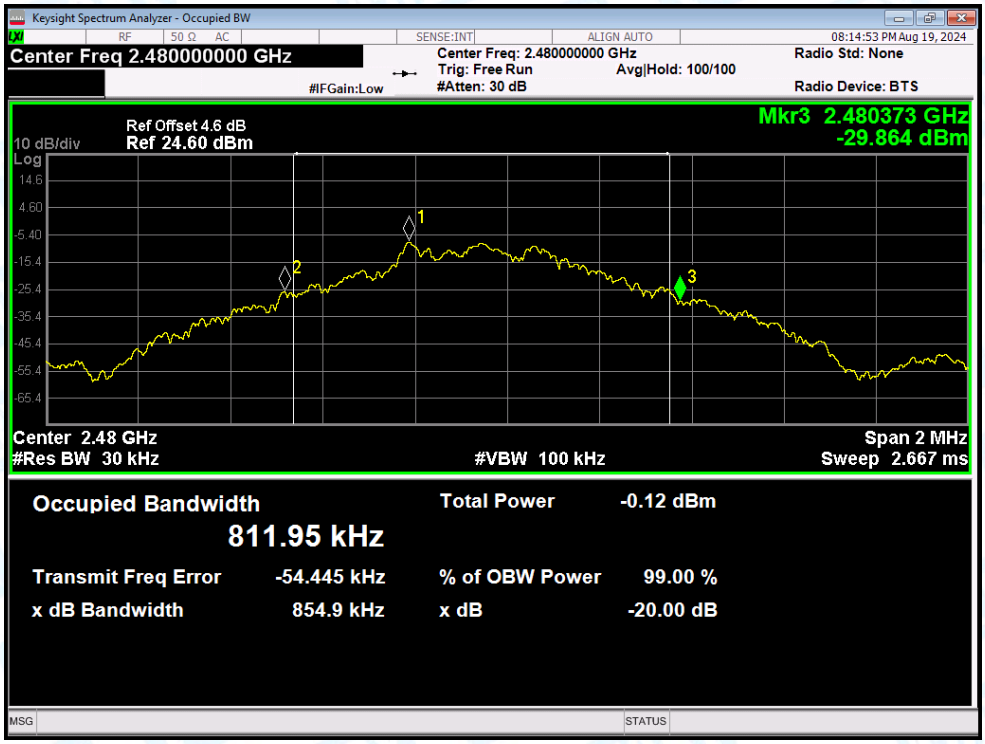
-20dB Bandwidth NVNT 1-DH1 2402MHz Ant1



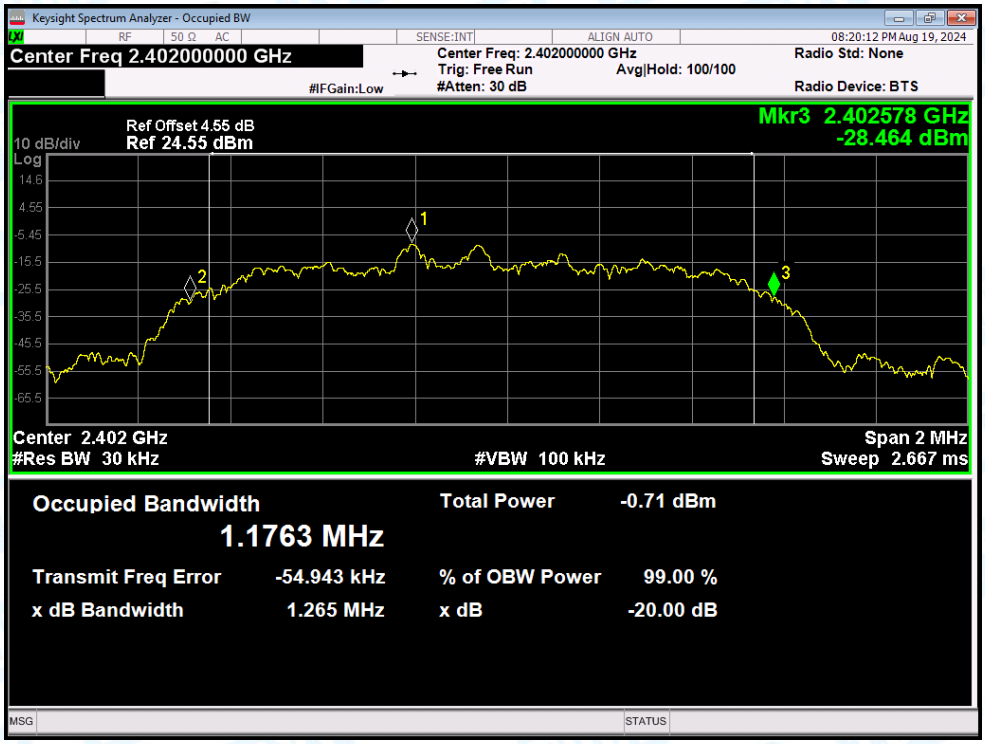
-20dB Bandwidth NVNT 1-DH1 2441MHz Ant1



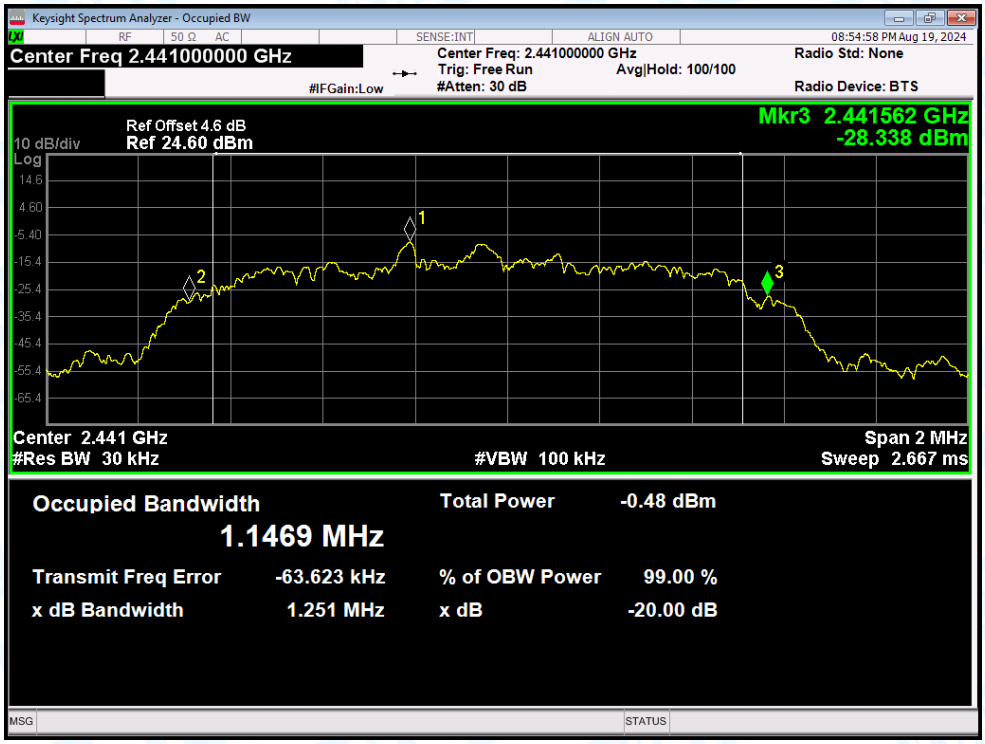
-20dB Bandwidth NVNT 1-DH1 2480MHz Ant1



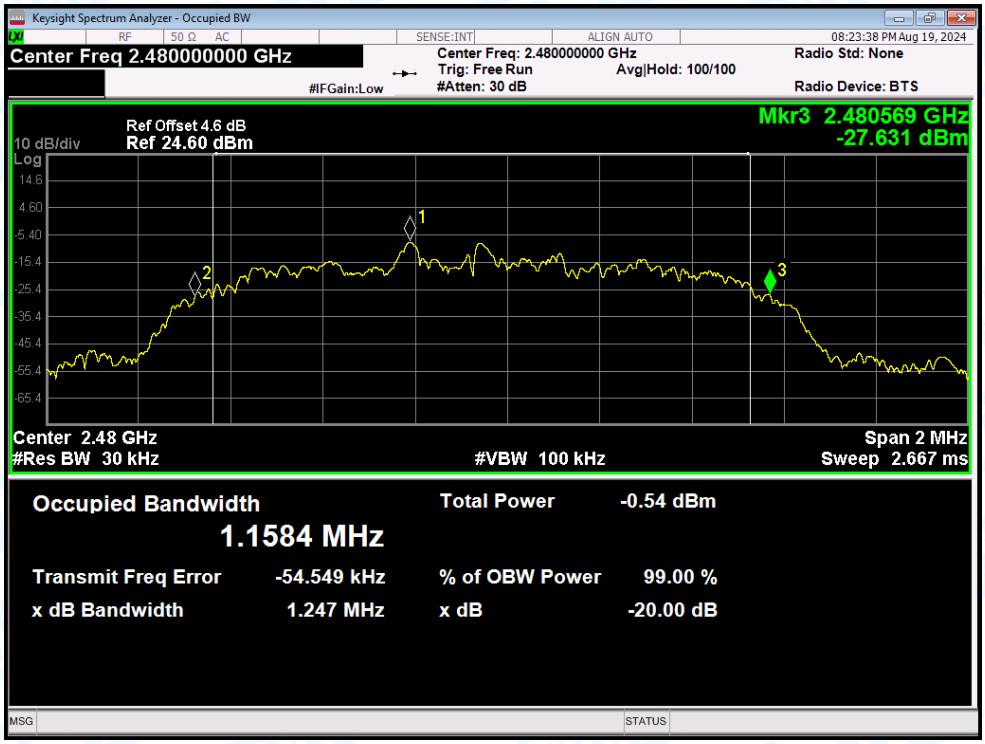
-20dB Bandwidth NVNT 2-DH1 2402MHz Ant1



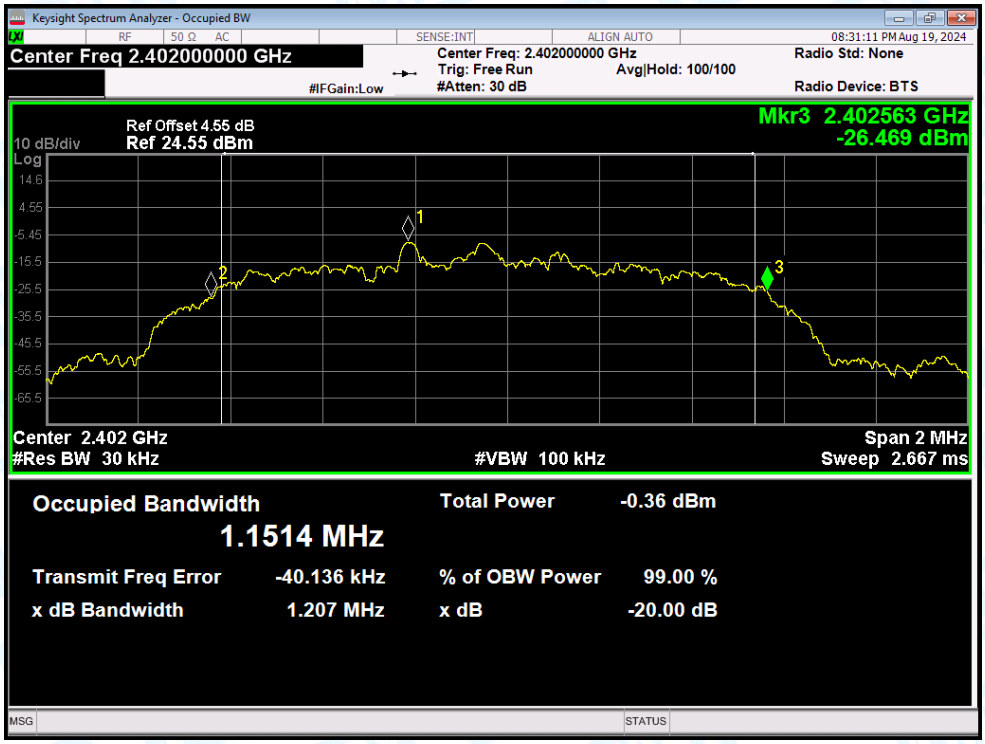
-20dB Bandwidth NVNT 2-DH1 2441MHz Ant1



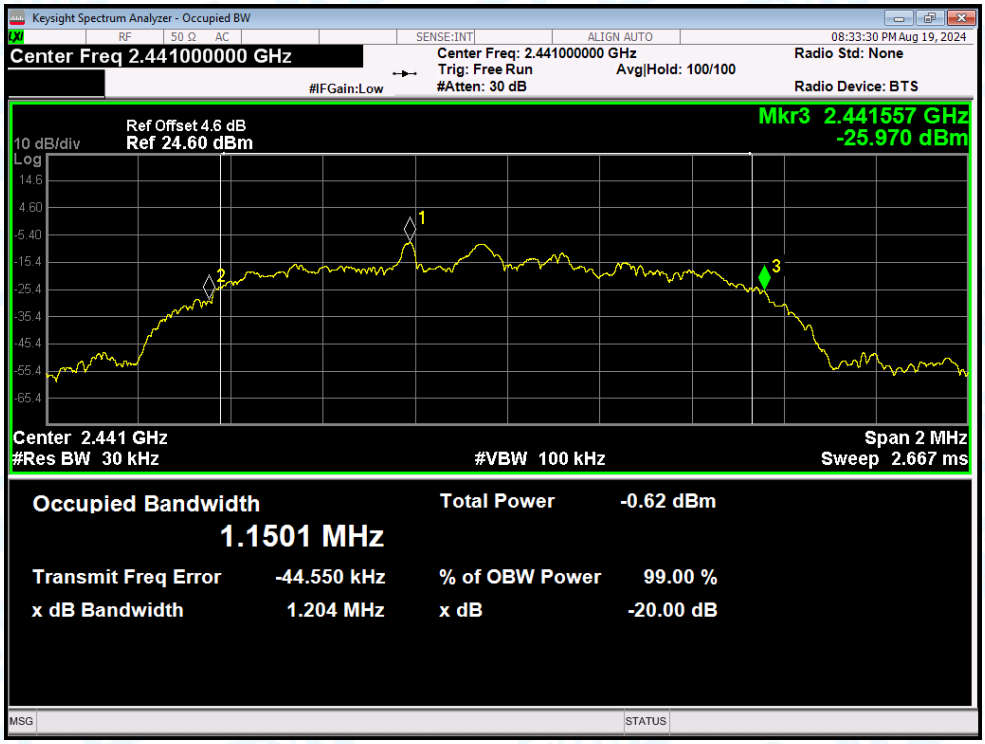
-20dB Bandwidth NVNT 2-DH1 2480MHz Ant1



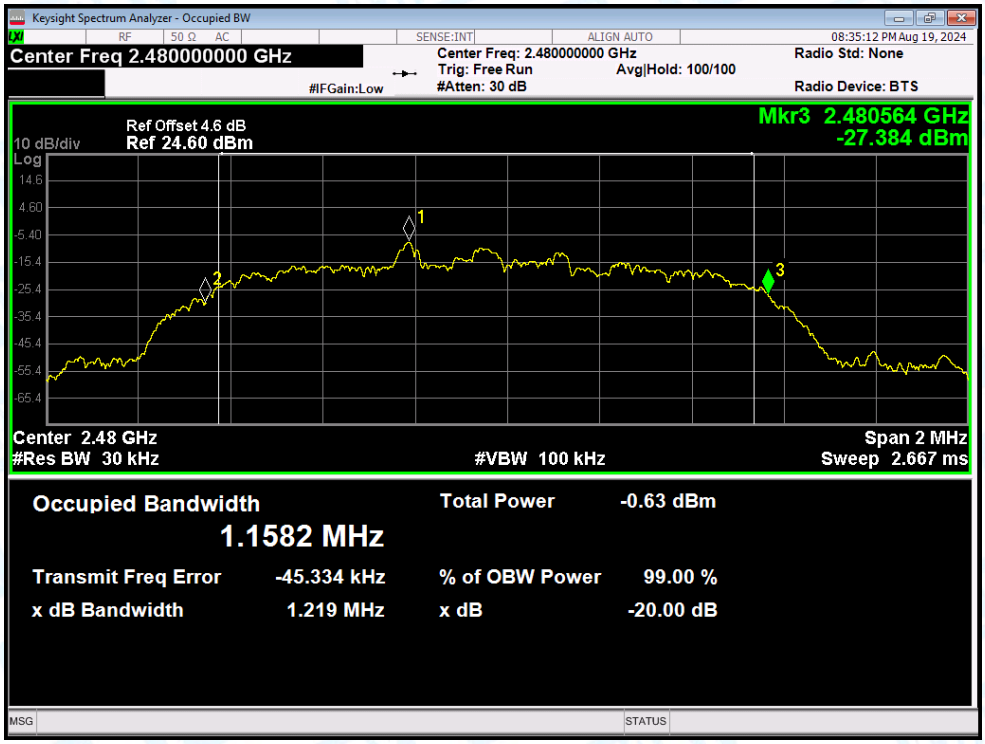
-20dB Bandwidth NVNT 3-DH1 2402MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2441MHz Ant1



-20dB Bandwidth NVNT 3-DH1 2480MHz Ant1

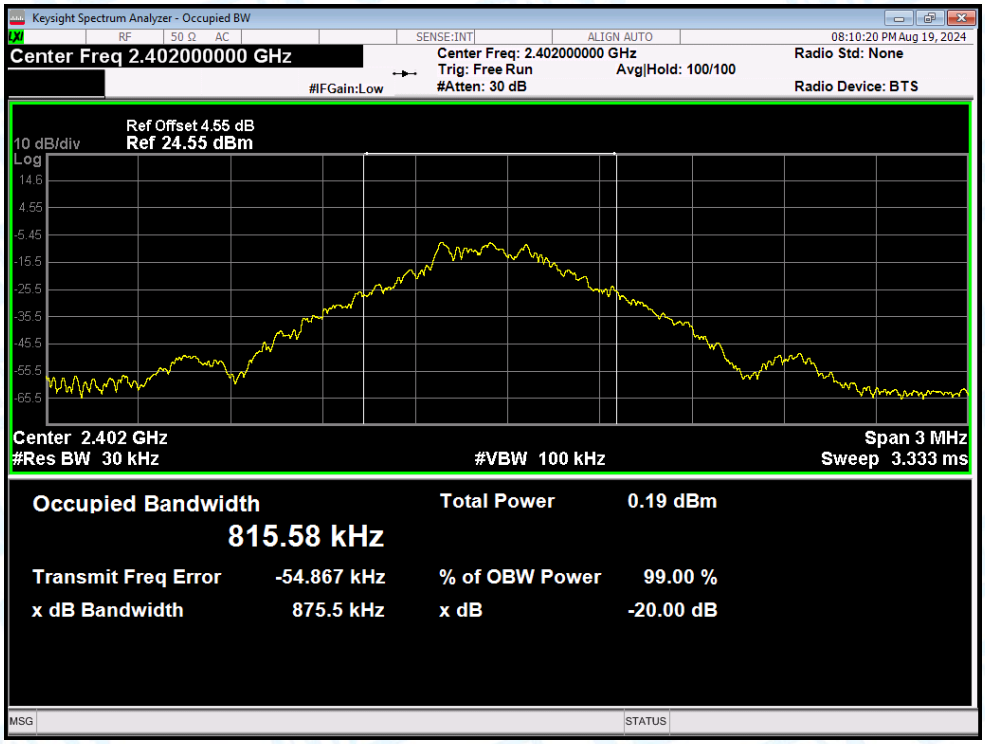


4.Occupied Channel Bandwidth

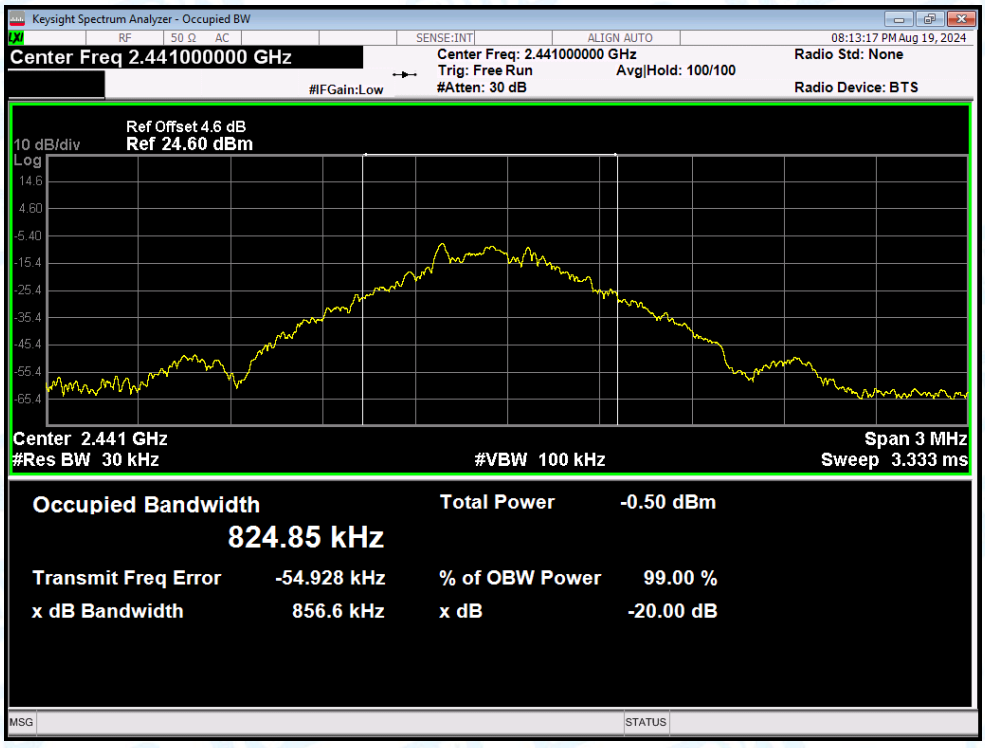
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	1-DH1	2402	Ant1	0.816
NVNT	1-DH1	2441	Ant1	0.825
NVNT	1-DH1	2480	Ant1	0.82
NVNT	2-DH1	2402	Ant1	1.156
NVNT	2-DH1	2441	Ant1	1.173
NVNT	2-DH1	2480	Ant1	1.167
NVNT	3-DH1	2402	Ant1	1.156
NVNT	3-DH1	2441	Ant1	1.146
NVNT	3-DH1	2480	Ant1	1.163

Test Graphs

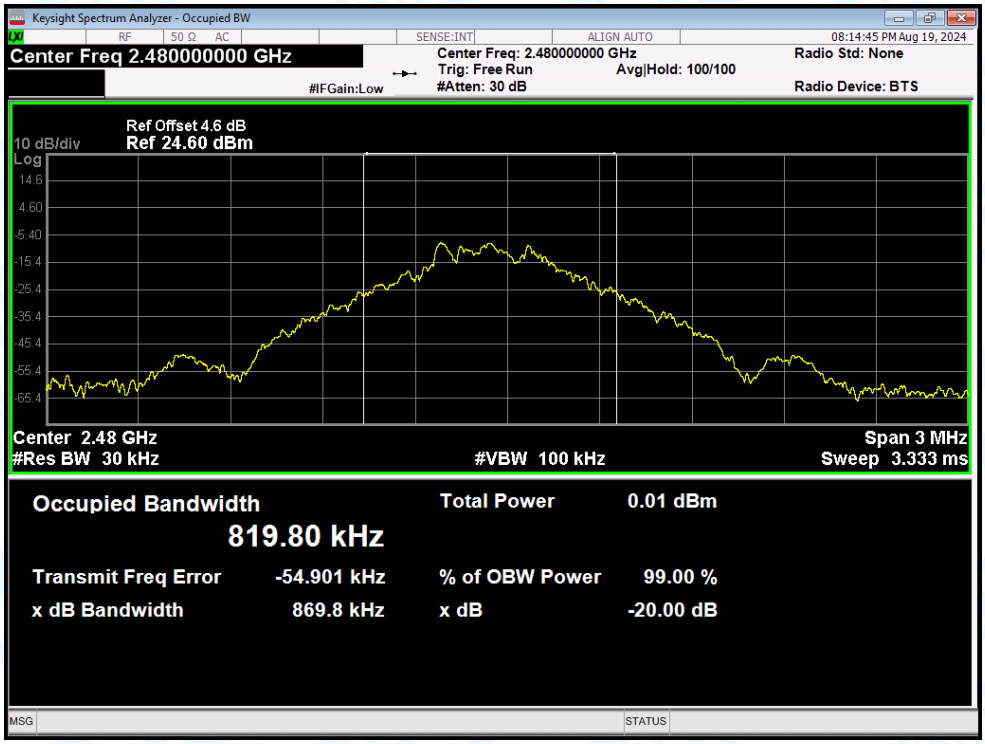
OBW NVNT 1-DH1 2402MHz Ant1



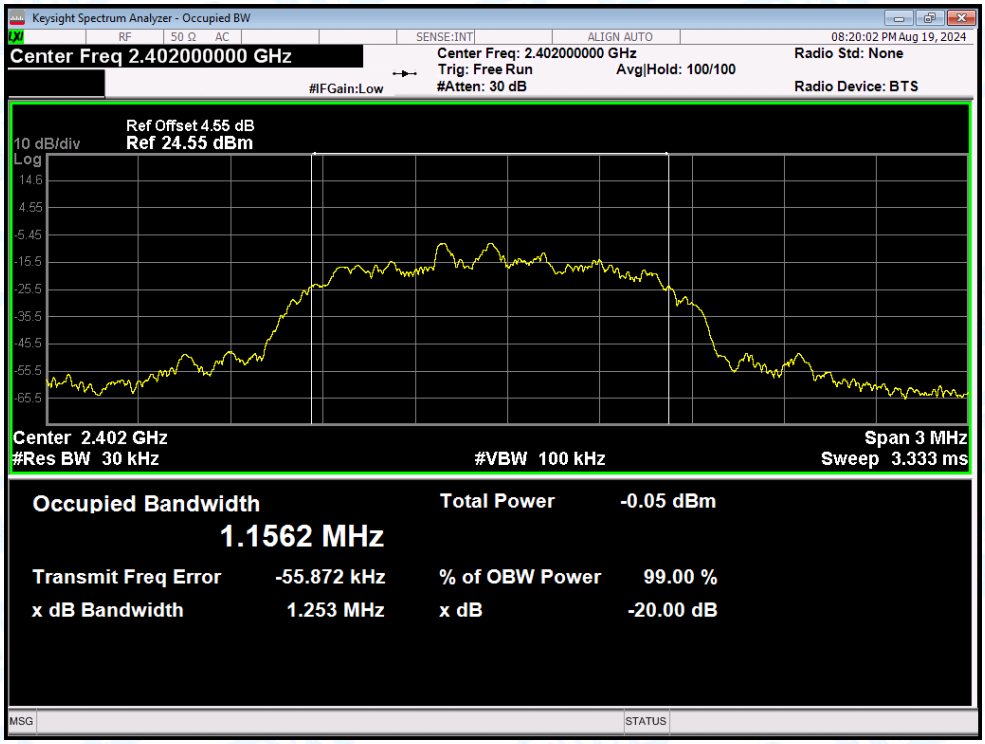
OBW NVNT 1-DH1 2441MHz Ant1



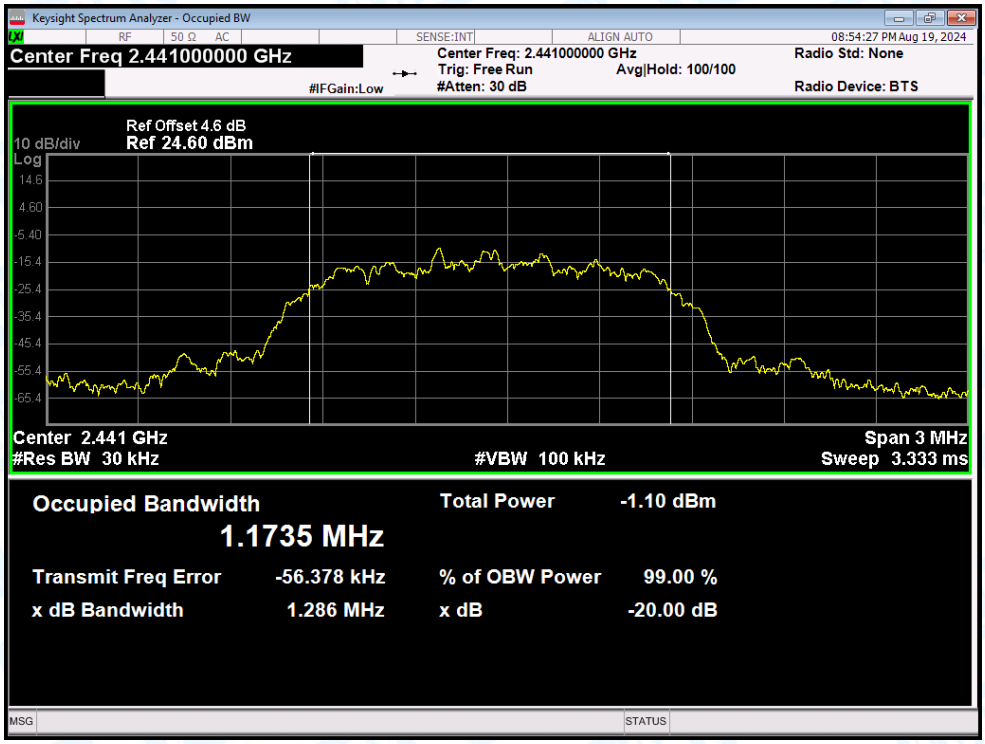
OBW NVNT 1-DH1 2480MHz Ant1



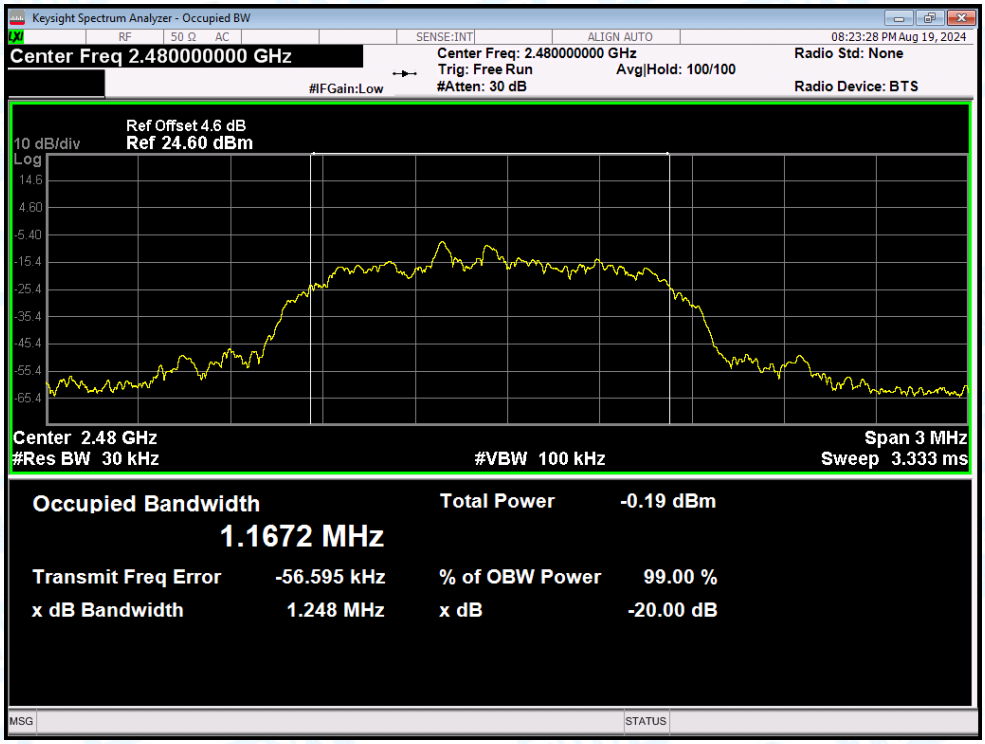
OBW NVNT 2-DH1 2402MHz Ant1



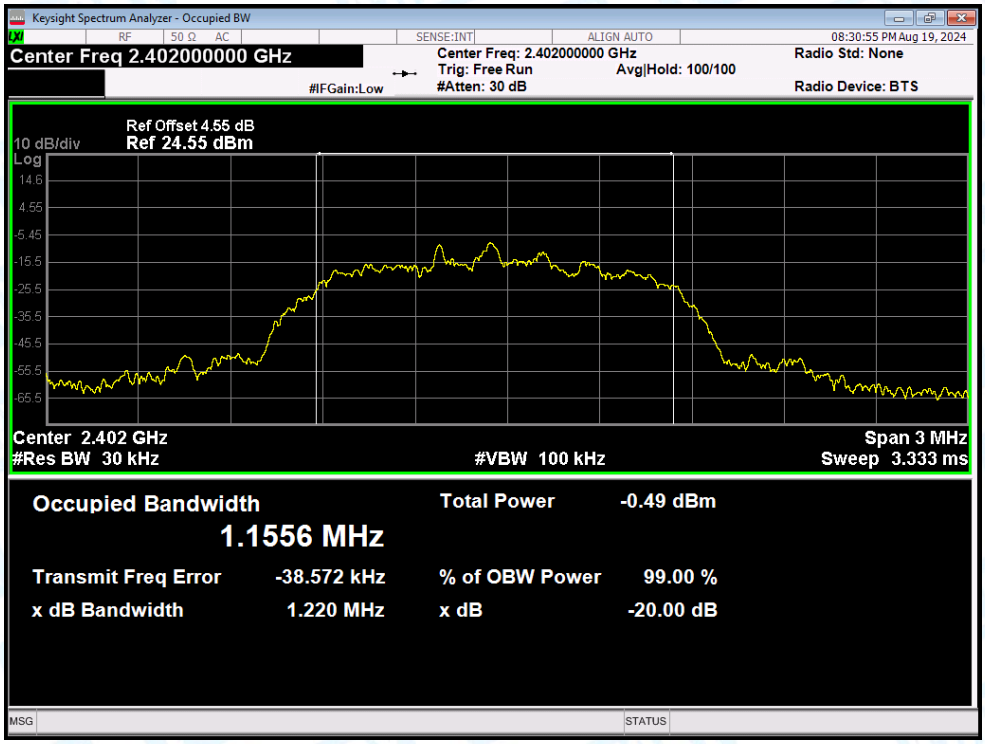
OBW NVNT 2-DH1 2441MHz Ant1



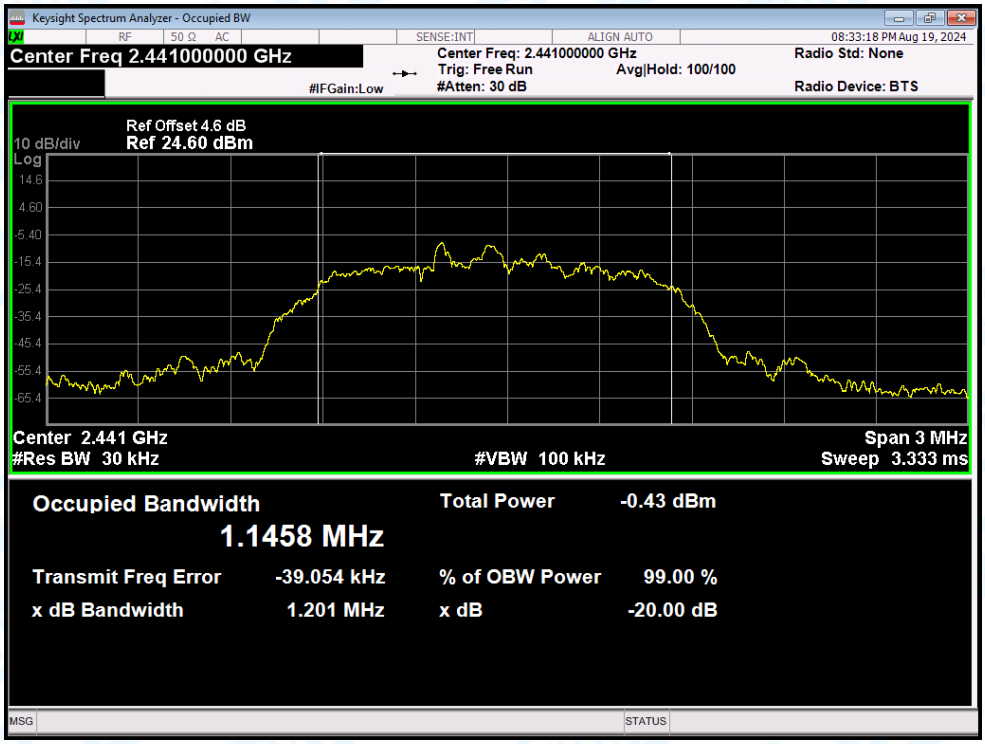
OBW NVNT 2-DH1 2480MHz Ant1



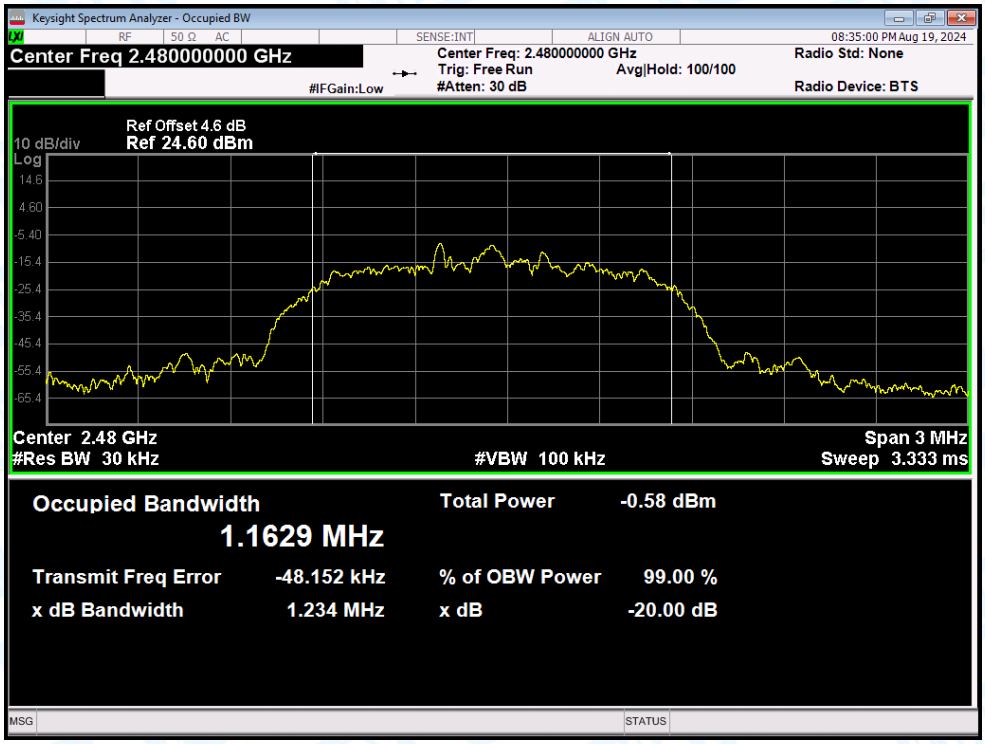
OBW NVNT 3-DH1 2402MHz Ant1



OBW NVNT 3-DH1 2441MHz Ant1



OBW NVNT 3-DH1 2480MHz Ant1

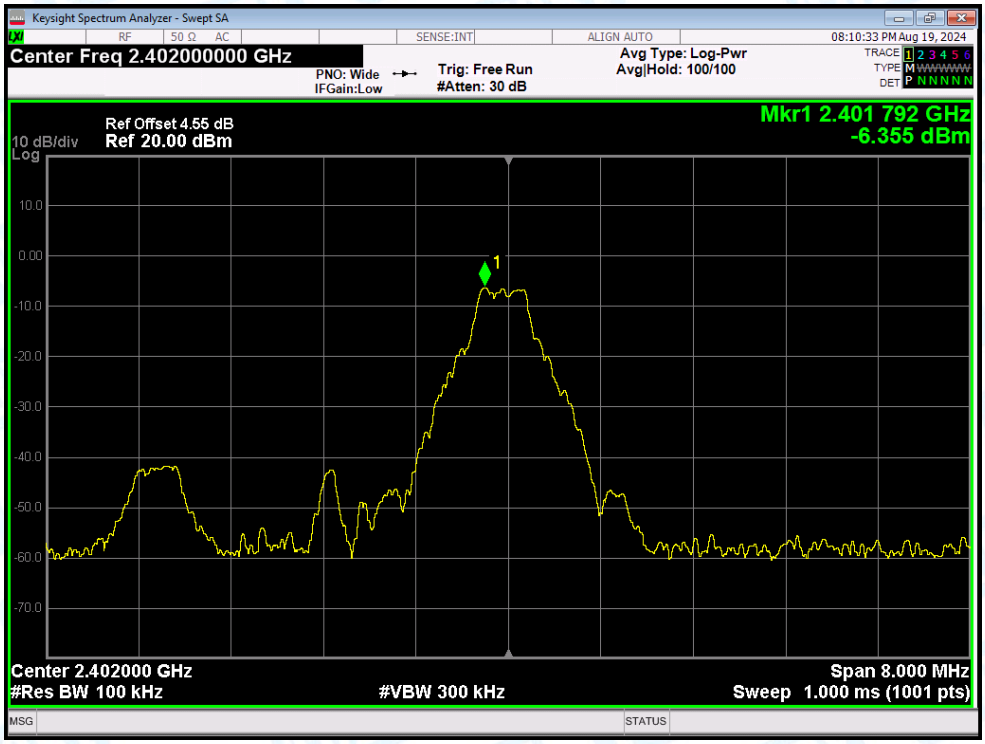


5.Band Edge

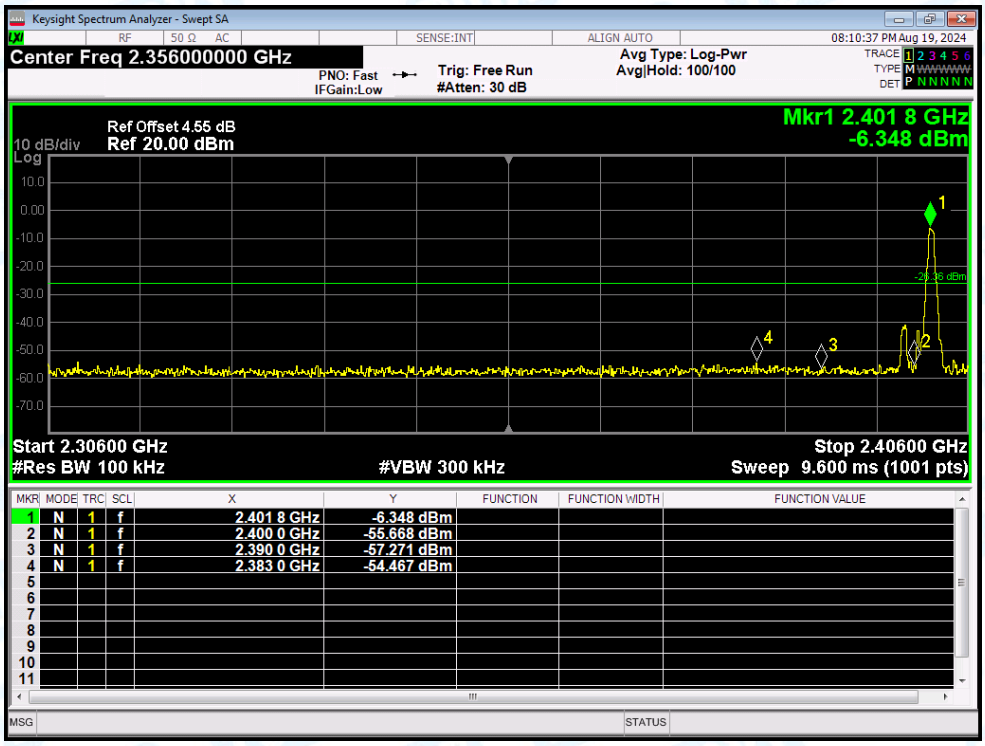
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	-48.11	-20	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	-48.08	-20	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	-46.56	-20	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	-46.07	-20	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	-47.41	-20	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	-47.34	-20	Pass

Test Graphs

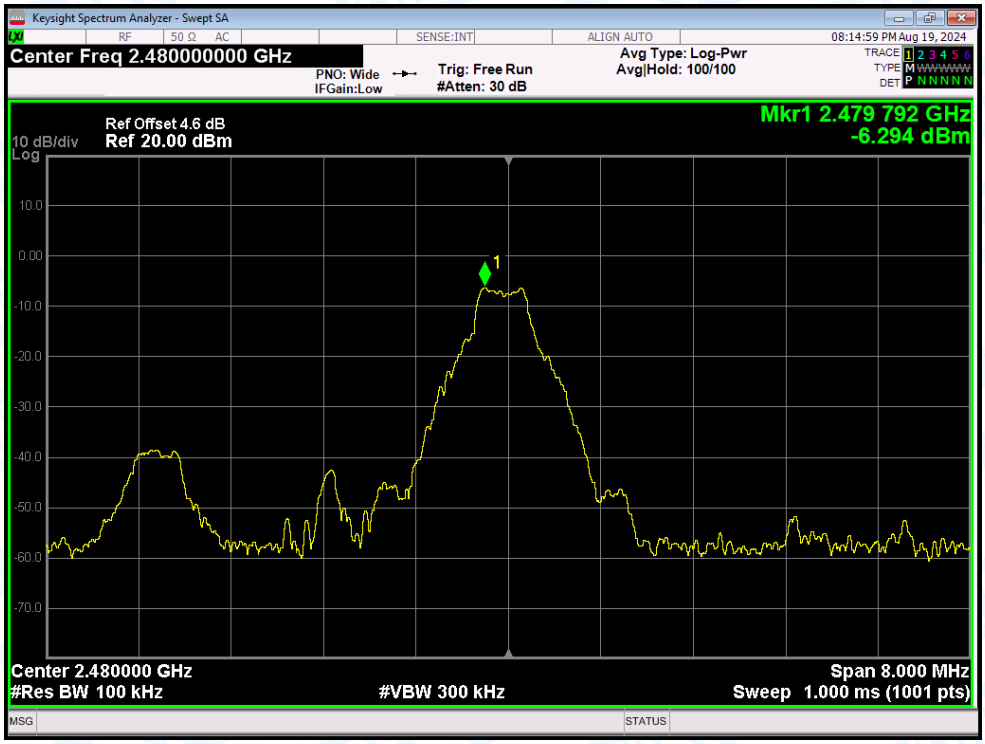
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Ref



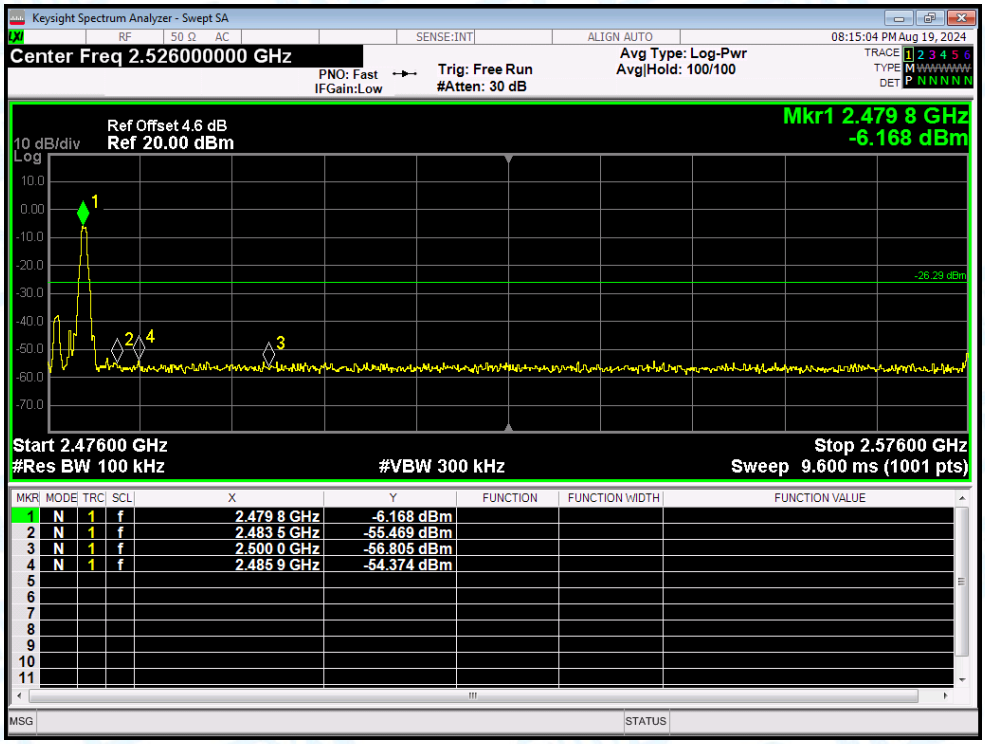
Band Edge NVNT 1-DH1 2402MHz Ant1 No-Hopping Emission



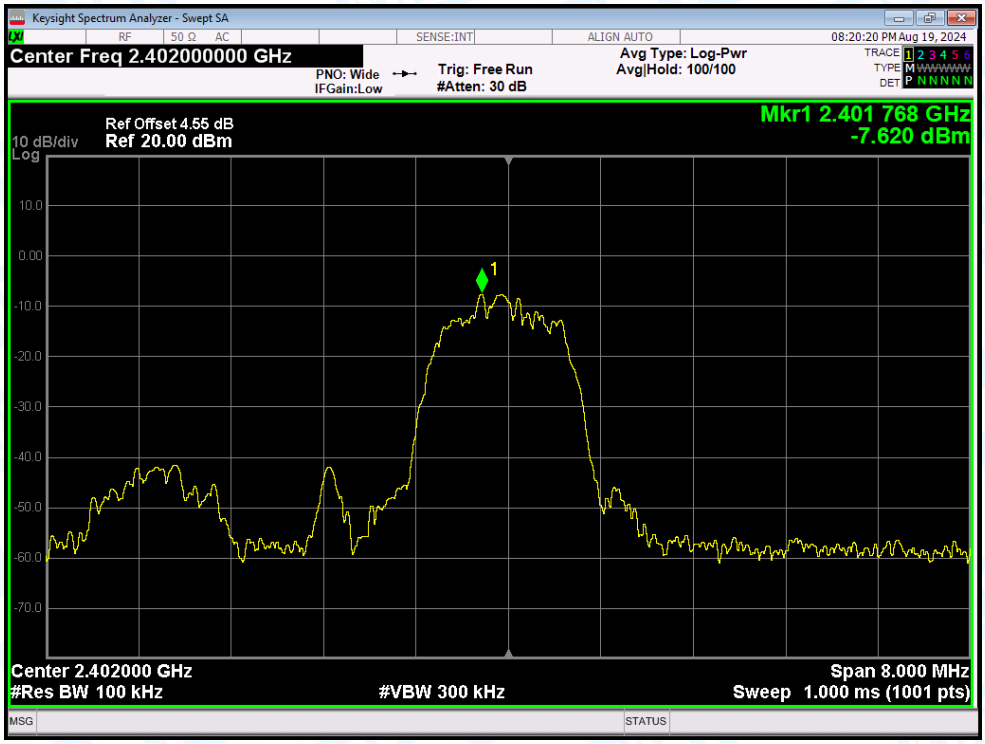
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Ref



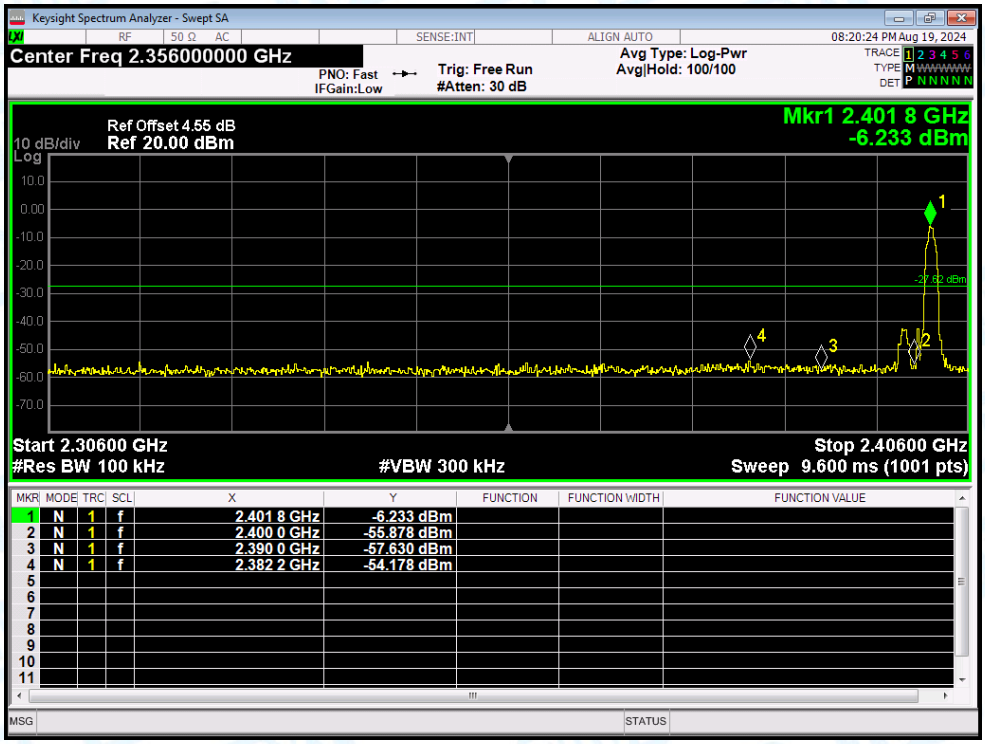
Band Edge NVNT 1-DH1 2480MHz Ant1 No-Hopping Emission



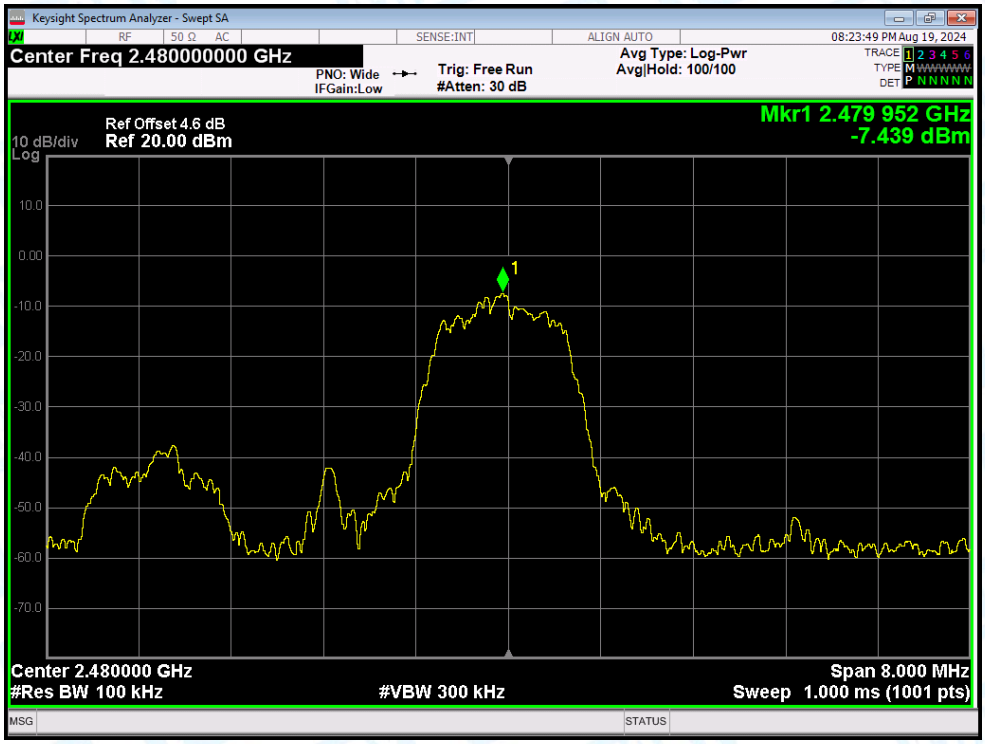
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Ref



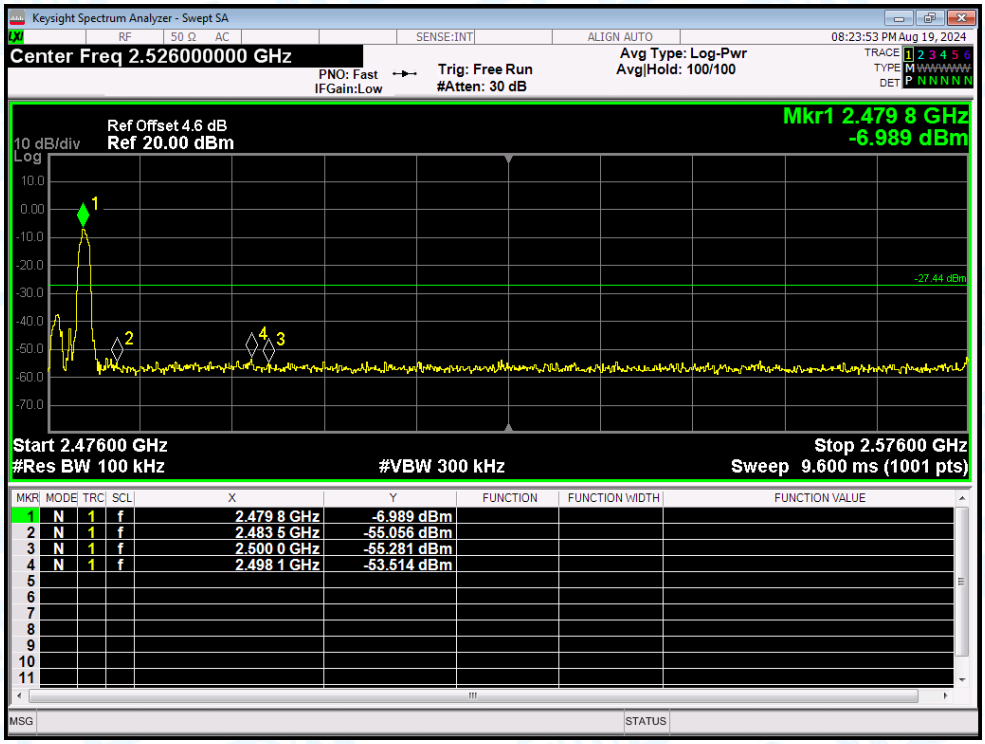
Band Edge NVNT 2-DH1 2402MHz Ant1 No-Hopping Emission



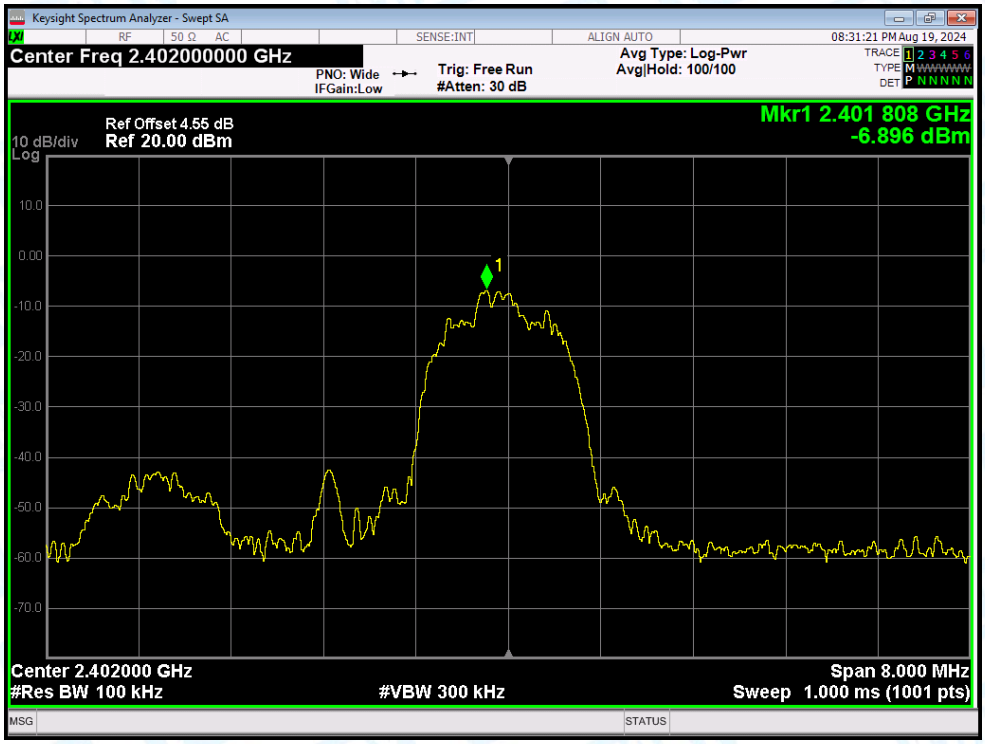
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Ref



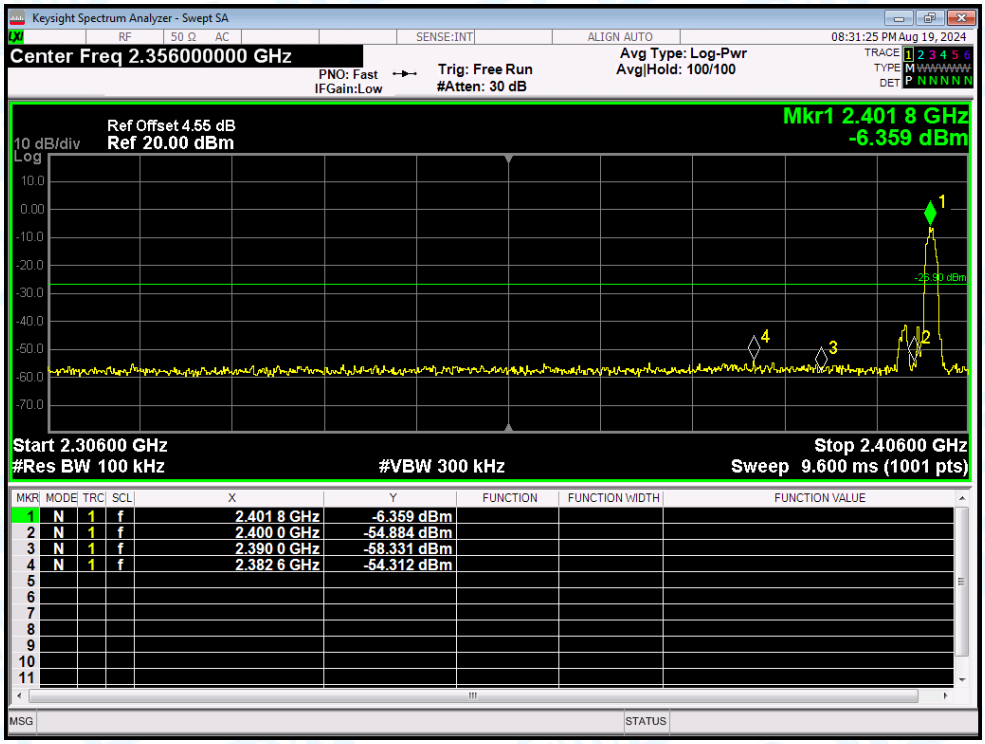
Band Edge NVNT 2-DH1 2480MHz Ant1 No-Hopping Emission



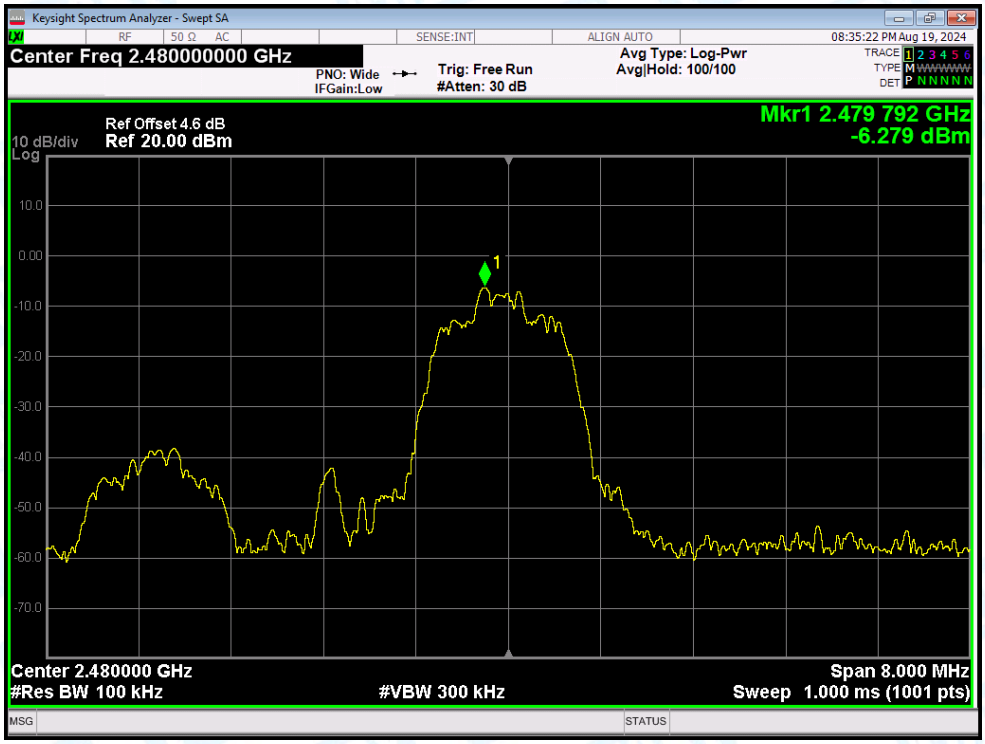
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Ref



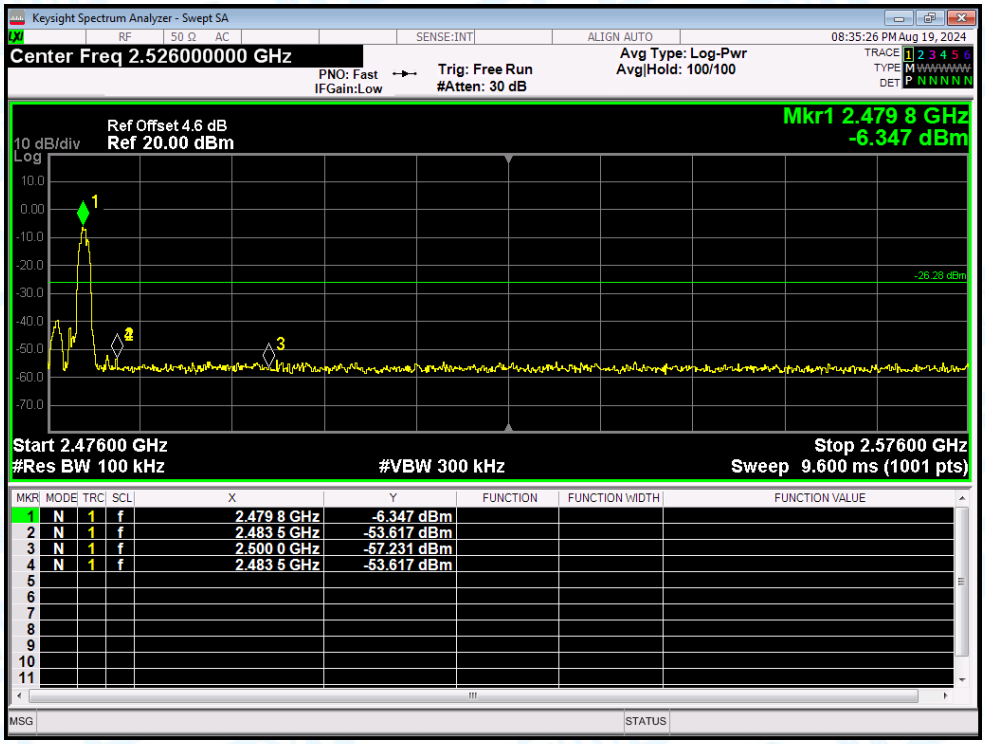
Band Edge NVNT 3-DH1 2402MHz Ant1 No-Hopping Emission



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



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

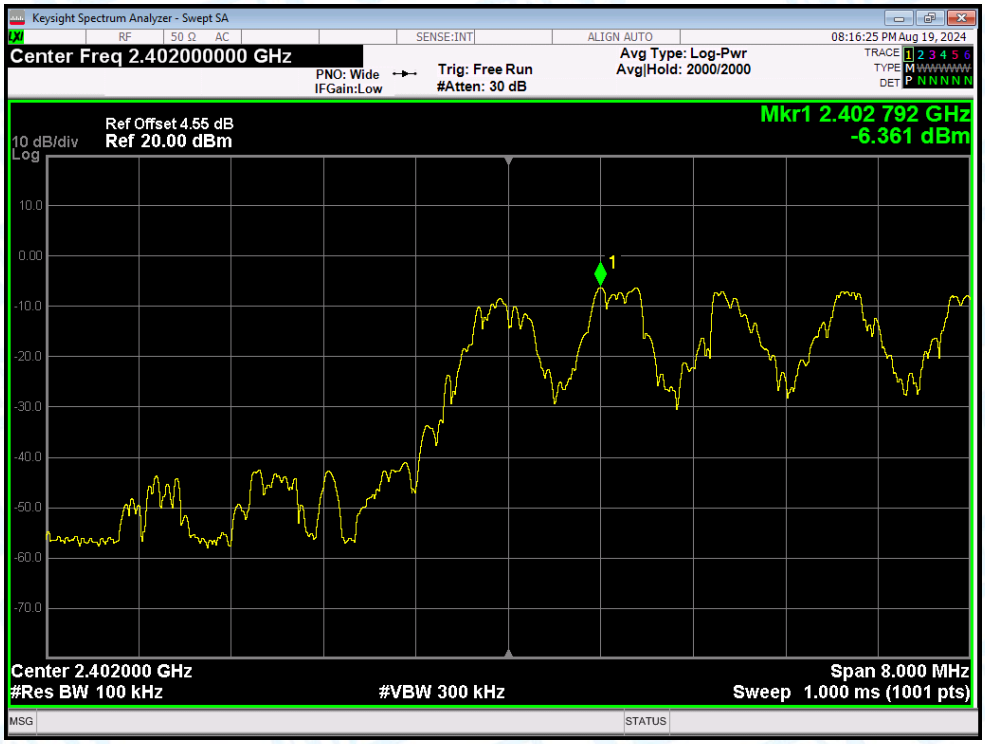


6.Band Edge(Hopping)

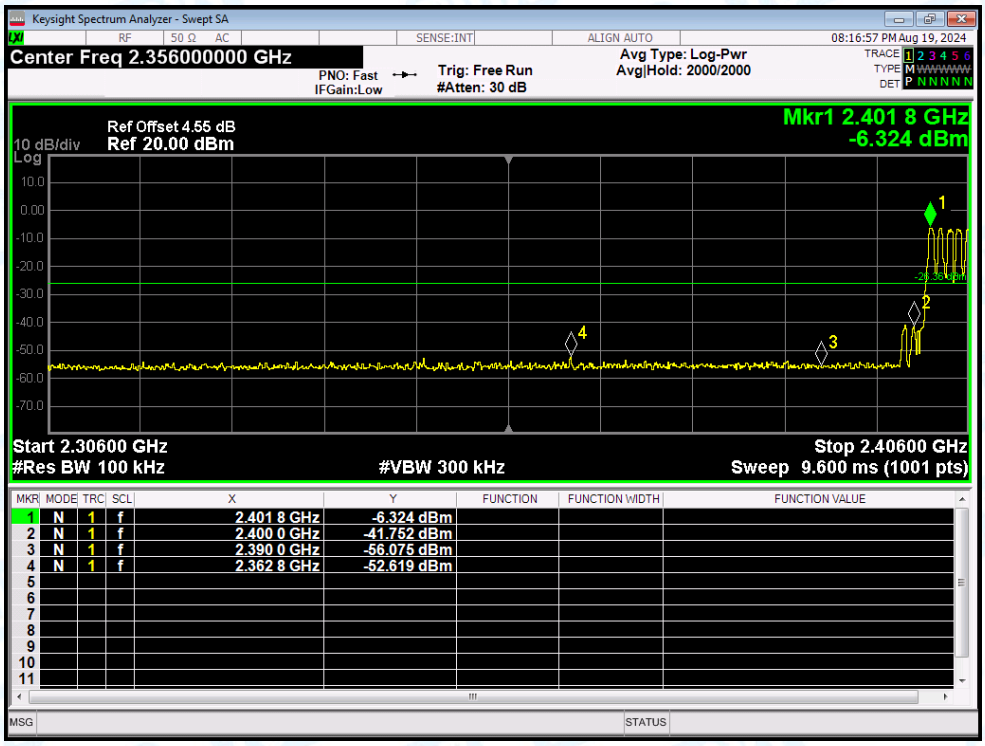
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	Hopping	-46.26	-20	Pass
NVNT	1-DH1	2480	Ant1	Hopping	-45.26	-20	Pass
NVNT	2-DH1	2402	Ant1	Hopping	-47.24	-20	Pass
NVNT	2-DH1	2480	Ant1	Hopping	-45.98	-20	Pass
NVNT	3-DH1	2402	Ant1	Hopping	-46.49	-20	Pass
NVNT	3-DH1	2480	Ant1	Hopping	-46.01	-20	Pass

Test Graphs

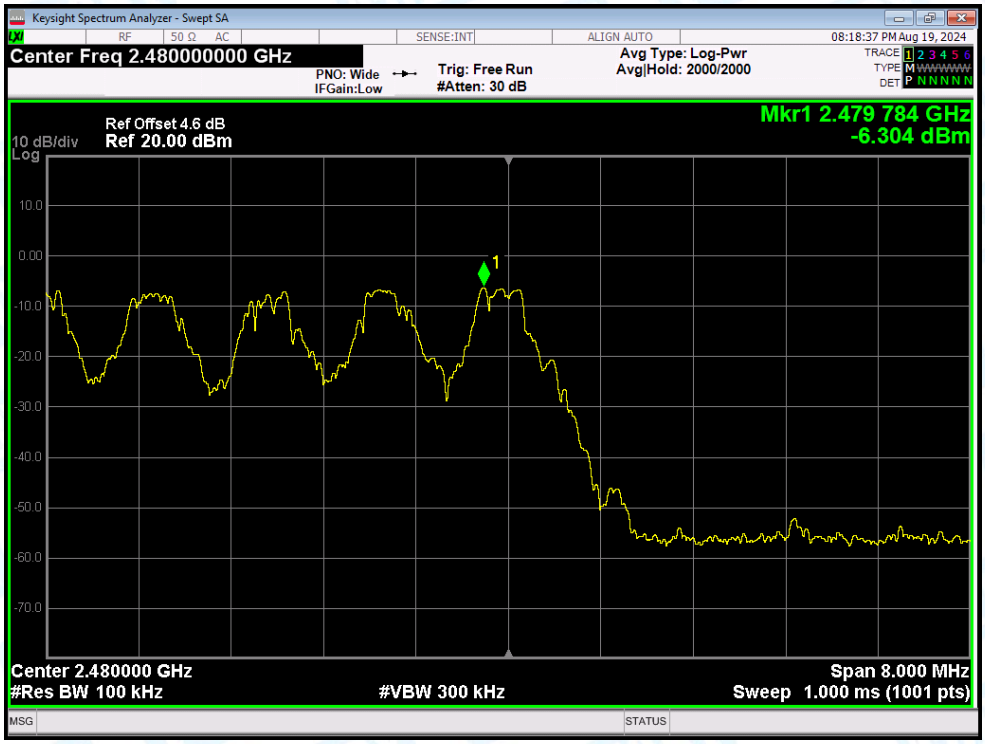
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Ref



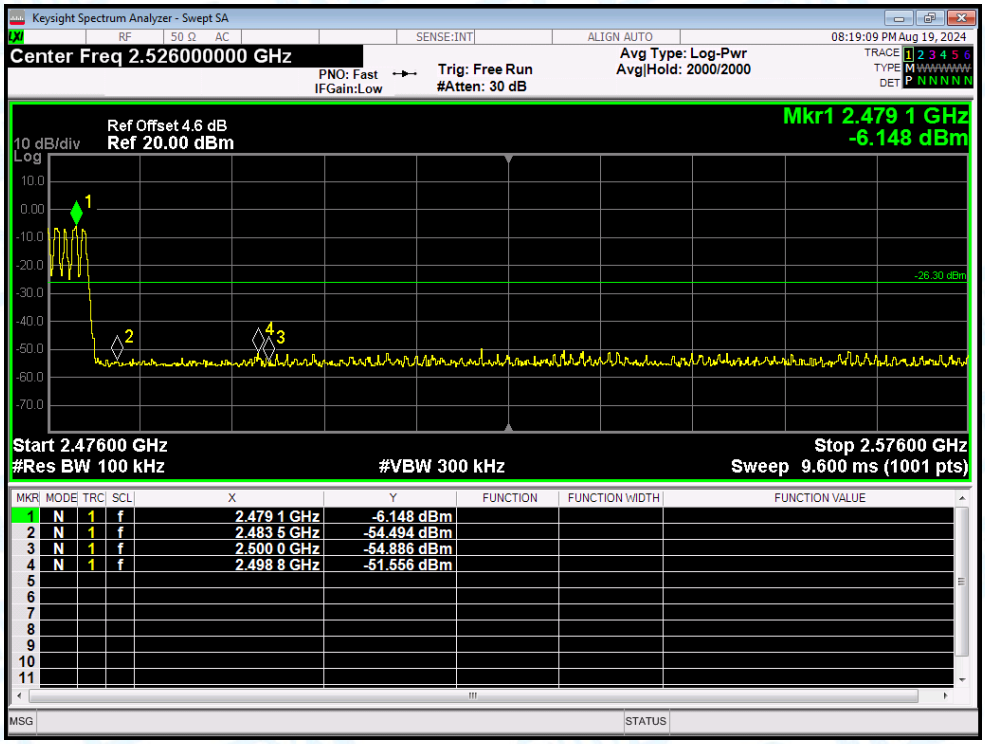
Band Edge(Hopping) NVNT 1-DH1 2402MHz Ant1 Hopping Emission



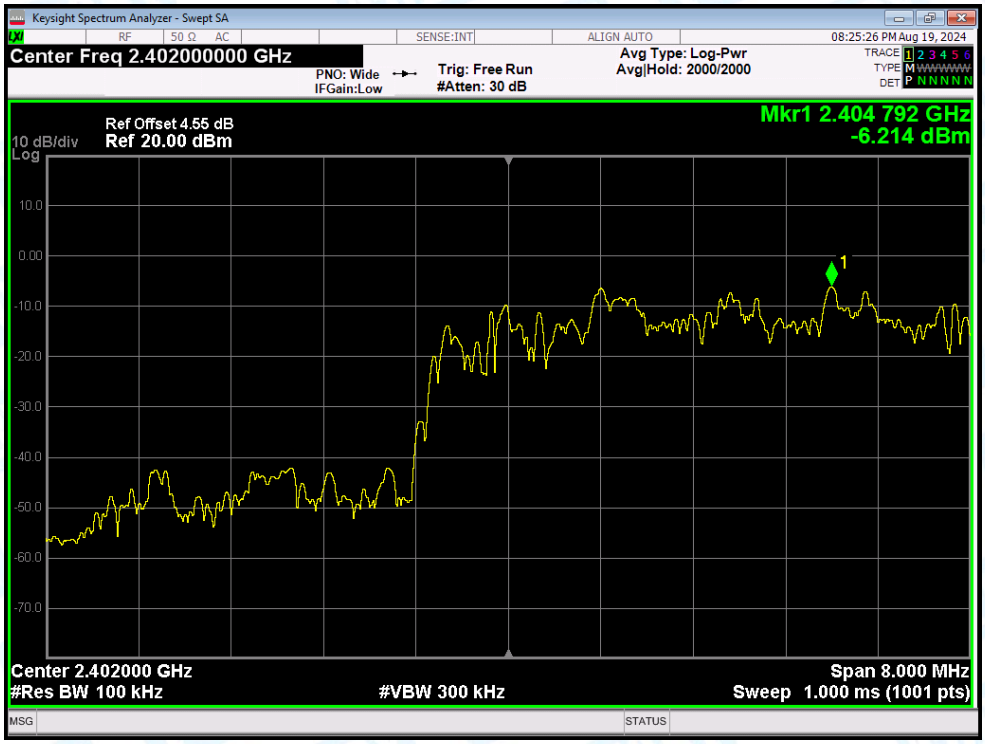
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Ref



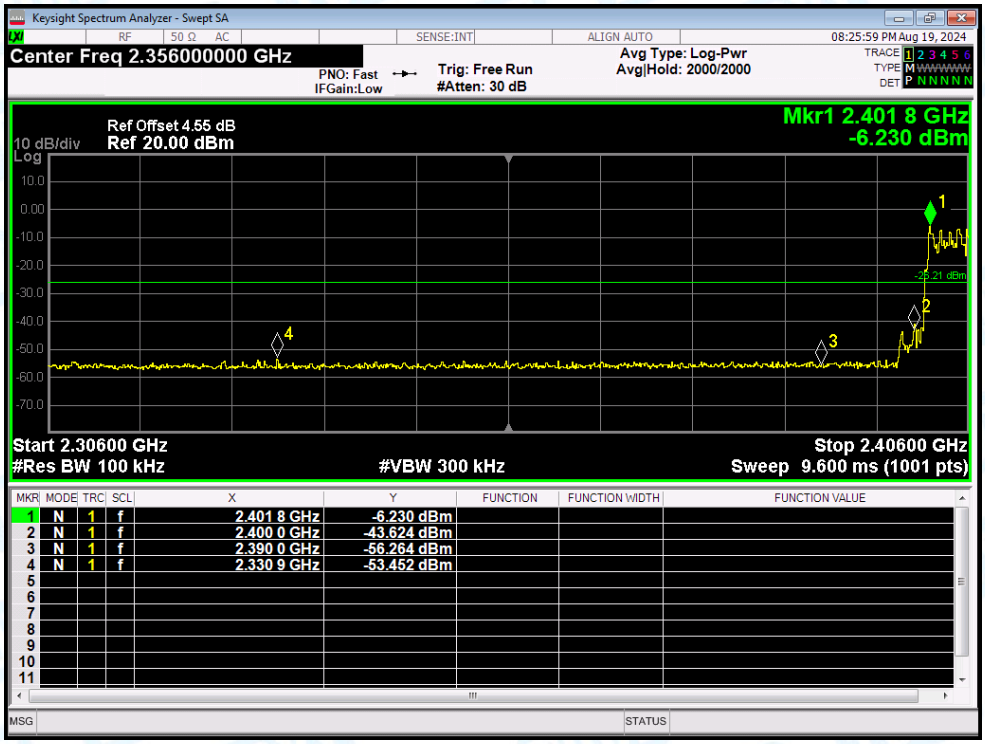
Band Edge(Hopping) NVNT 1-DH1 2480MHz Ant1 Hopping Emission



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

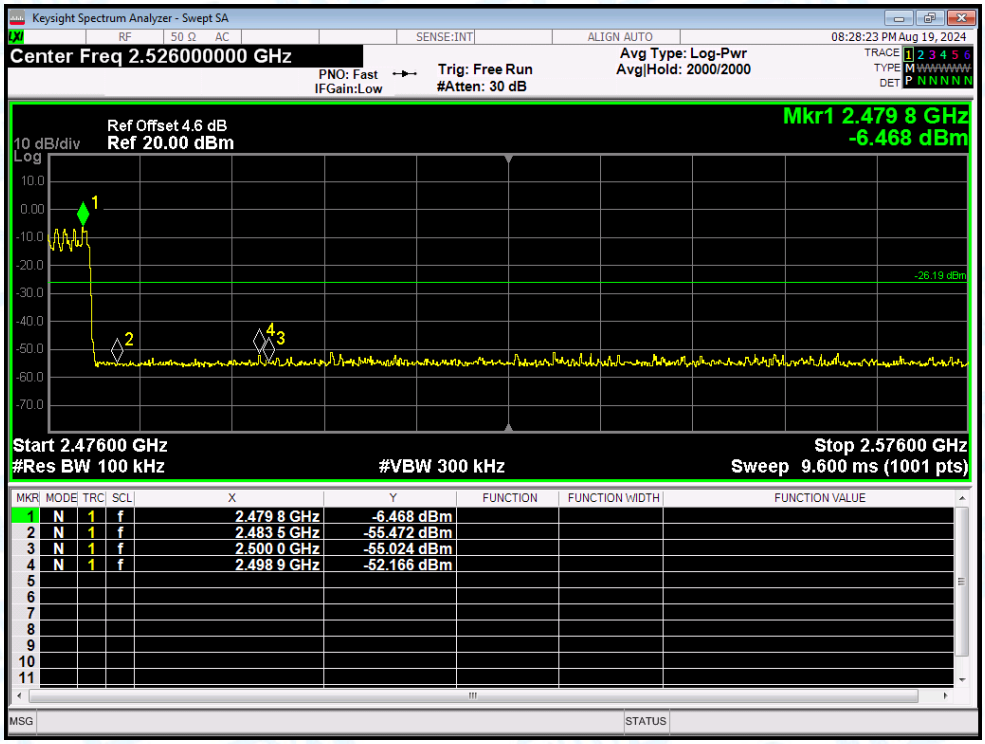


Band Edge(Hopping) NVNT 2-DH1 2402MHz Ant1 Hopping Emission

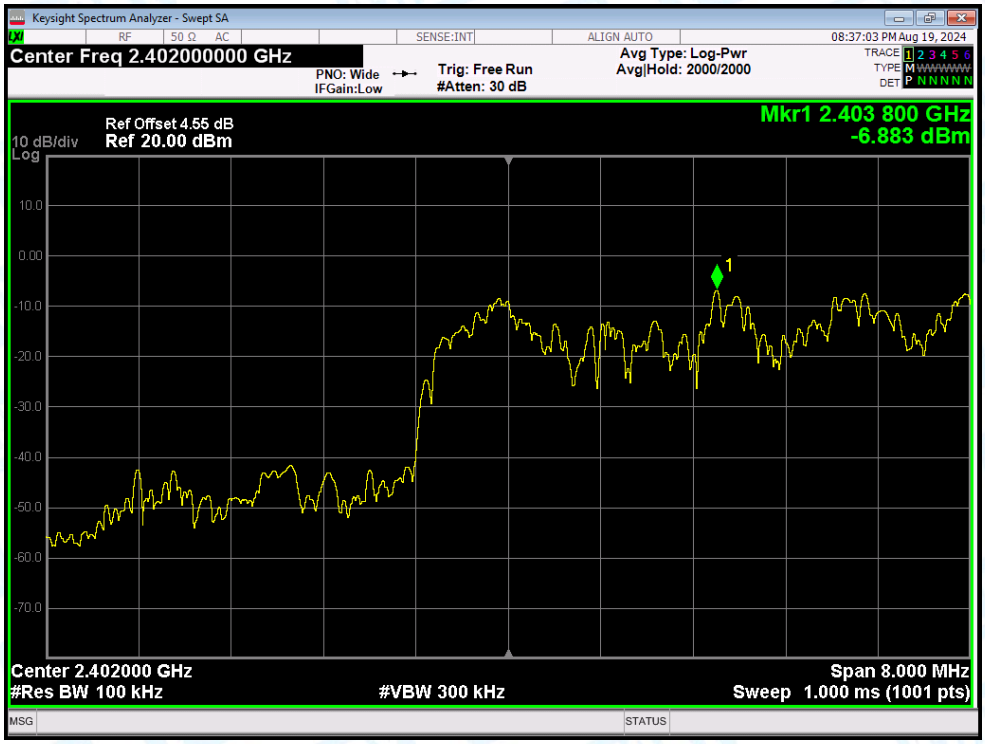


Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Ref

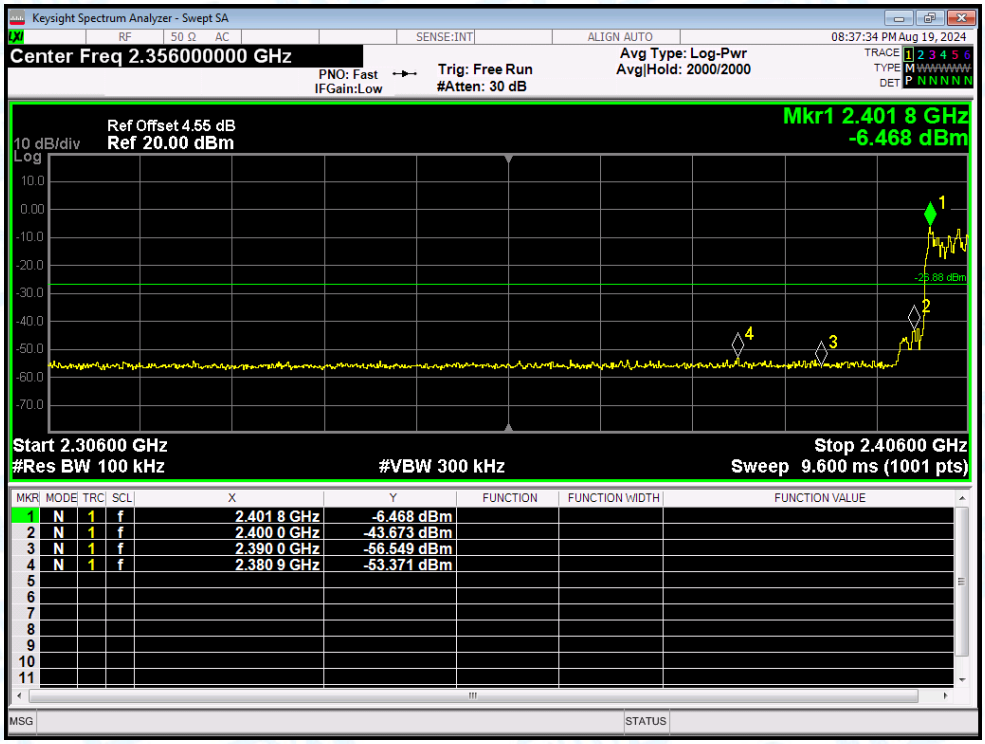
Band Edge(Hopping) NVNT 2-DH1 2480MHz Ant1 Hopping Emission



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

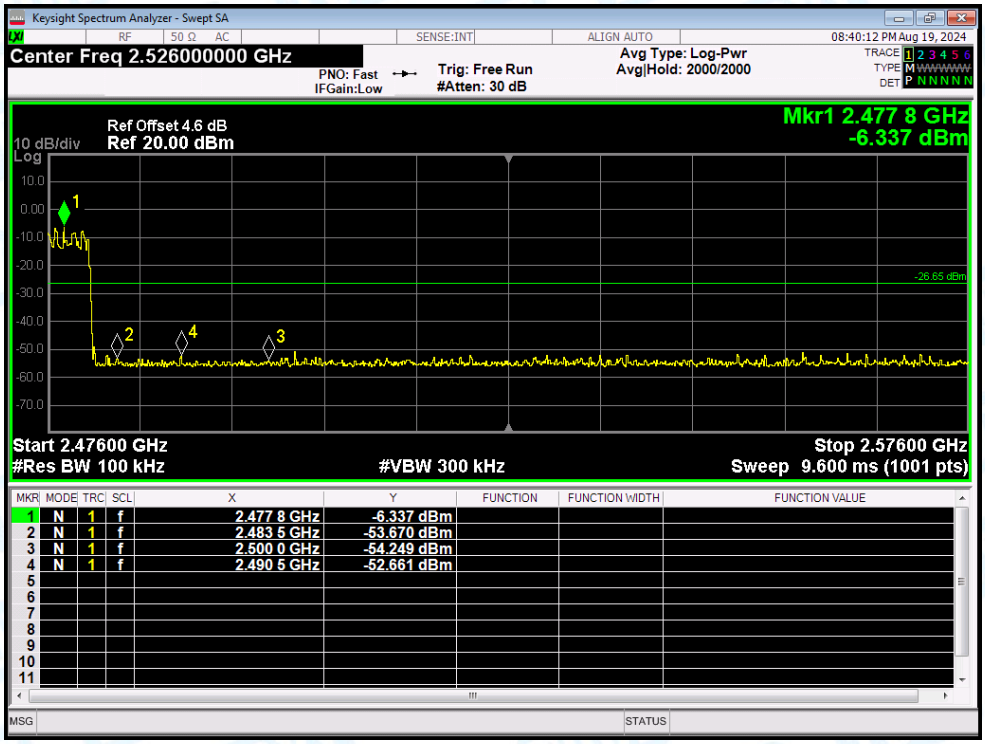


Band Edge(Hopping) NVNT 3-DH1 2402MHz Ant1 Hopping Emission



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

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

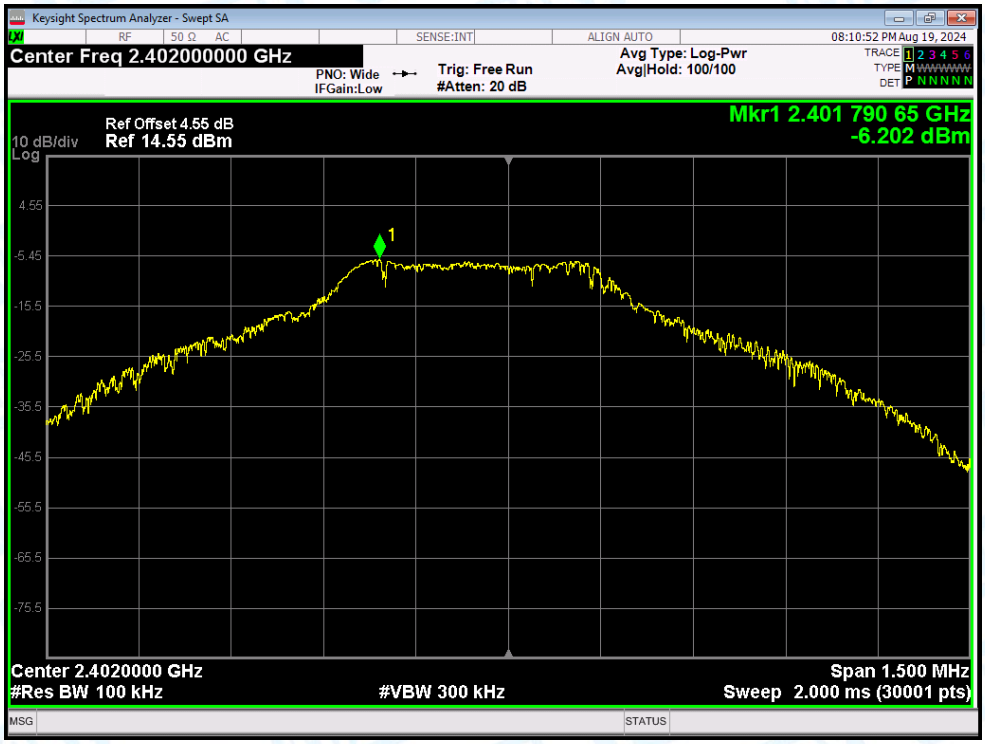


7.Conducted RF Spurious Emission

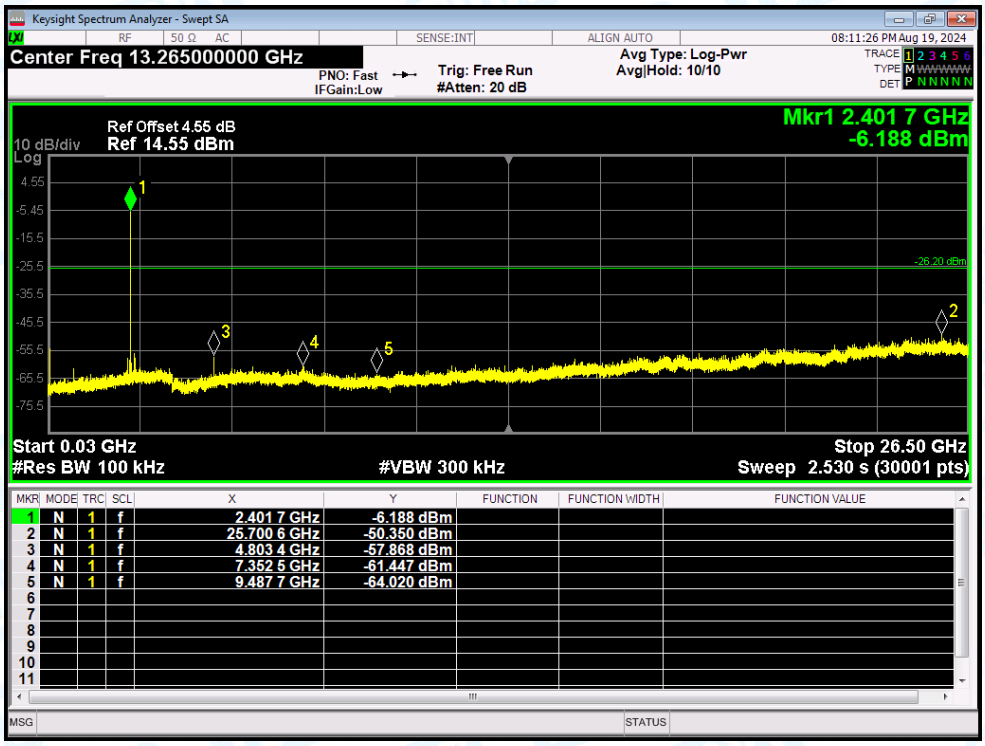
Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH1	2402	Ant1	-44.15	-20	Pass
NVNT	1-DH1	2441	Ant1	-44.66	-20	Pass
NVNT	1-DH1	2480	Ant1	-44.3	-20	Pass
NVNT	2-DH1	2402	Ant1	-44.74	-20	Pass
NVNT	2-DH1	2441	Ant1	-43.48	-20	Pass
NVNT	2-DH1	2480	Ant1	-44.69	-20	Pass
NVNT	3-DH1	2402	Ant1	-45.51	-20	Pass
NVNT	3-DH1	2441	Ant1	-44.82	-20	Pass
NVNT	3-DH1	2480	Ant1	-45.22	-20	Pass

Test Graphs

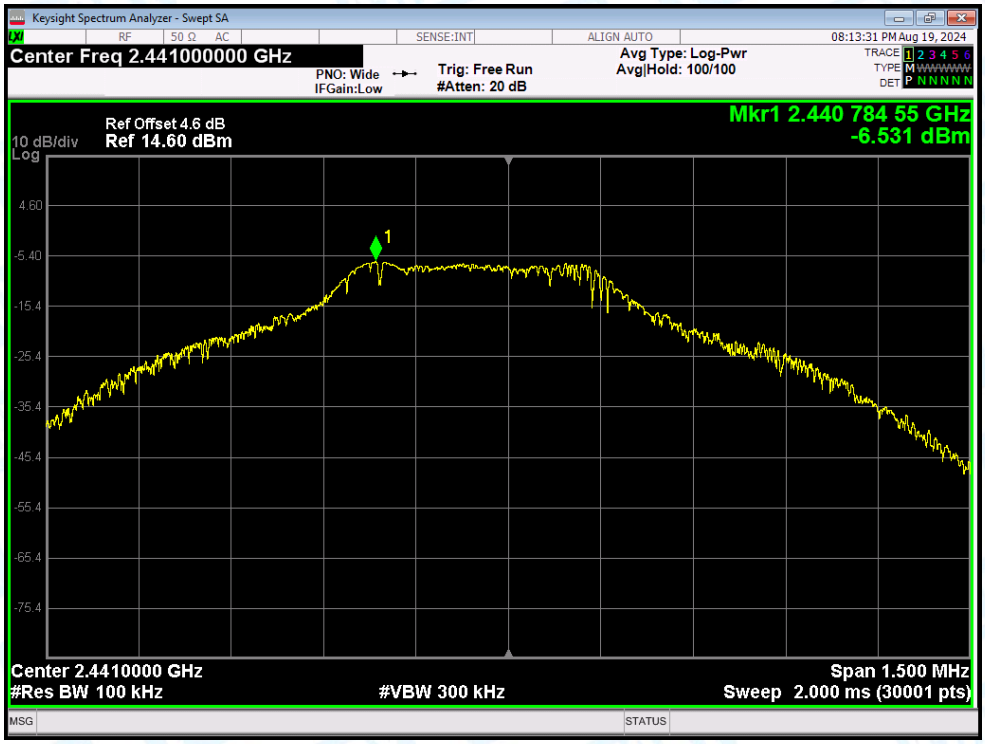
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Ref



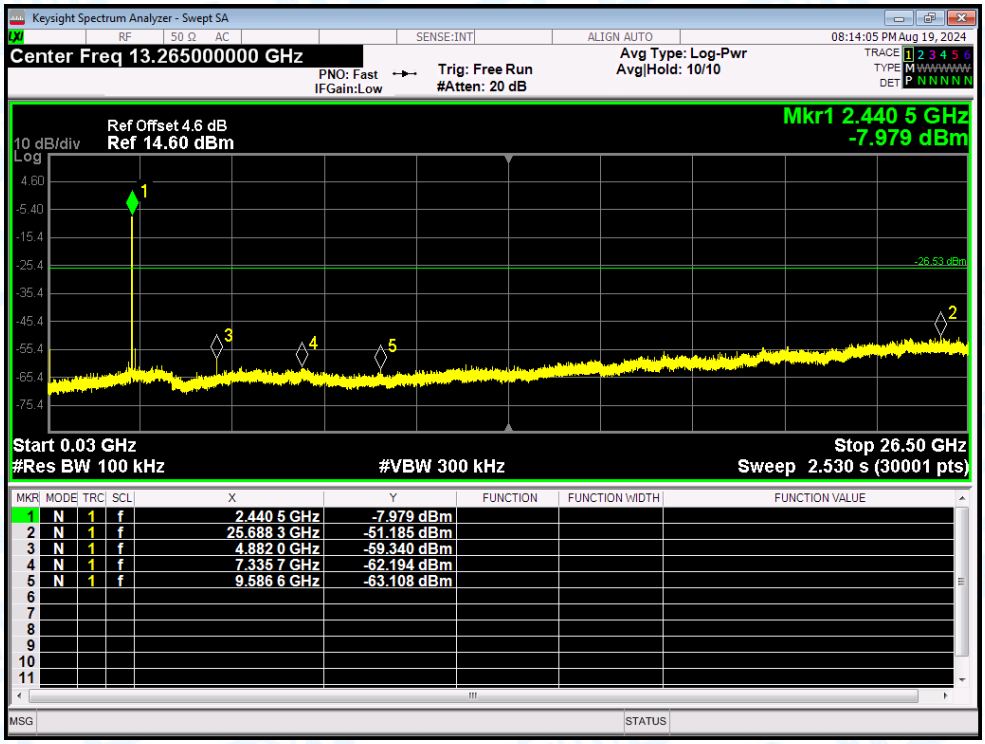
Tx. Spurious NVNT 1-DH1 2402MHz Ant1 Emission



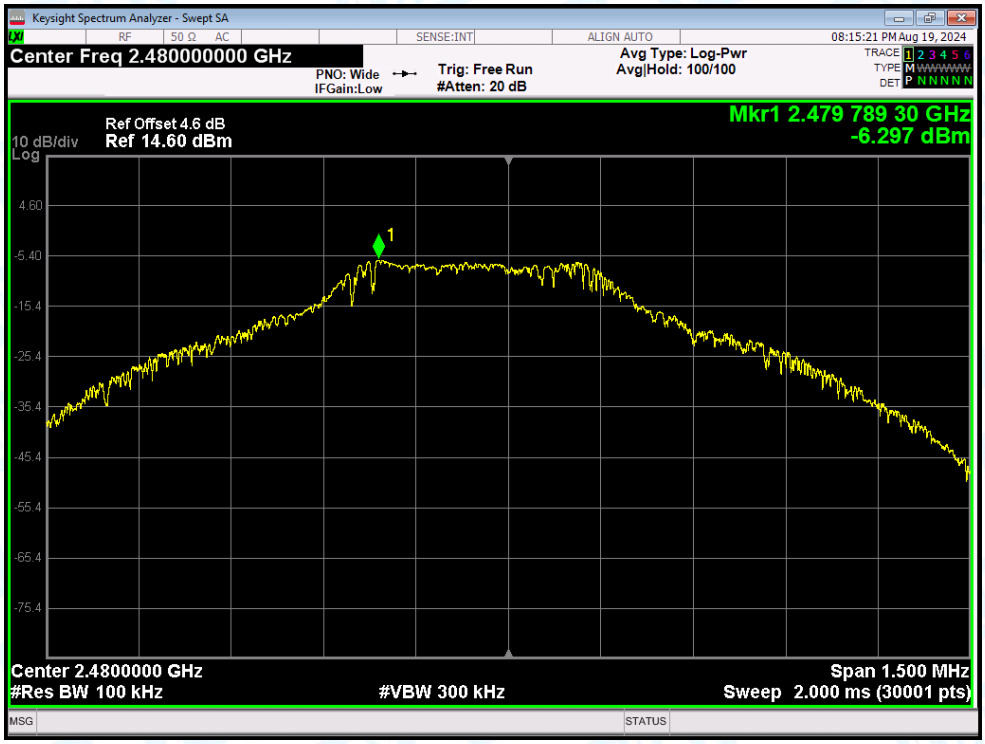
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Ref



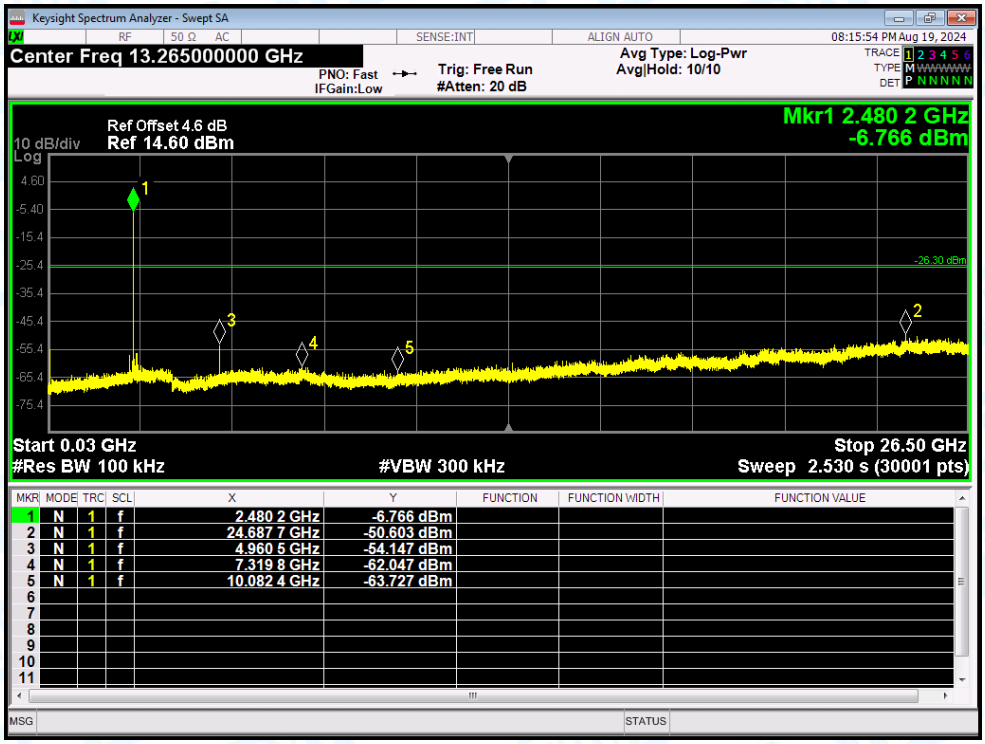
Tx. Spurious NVNT 1-DH1 2441MHz Ant1 Emission



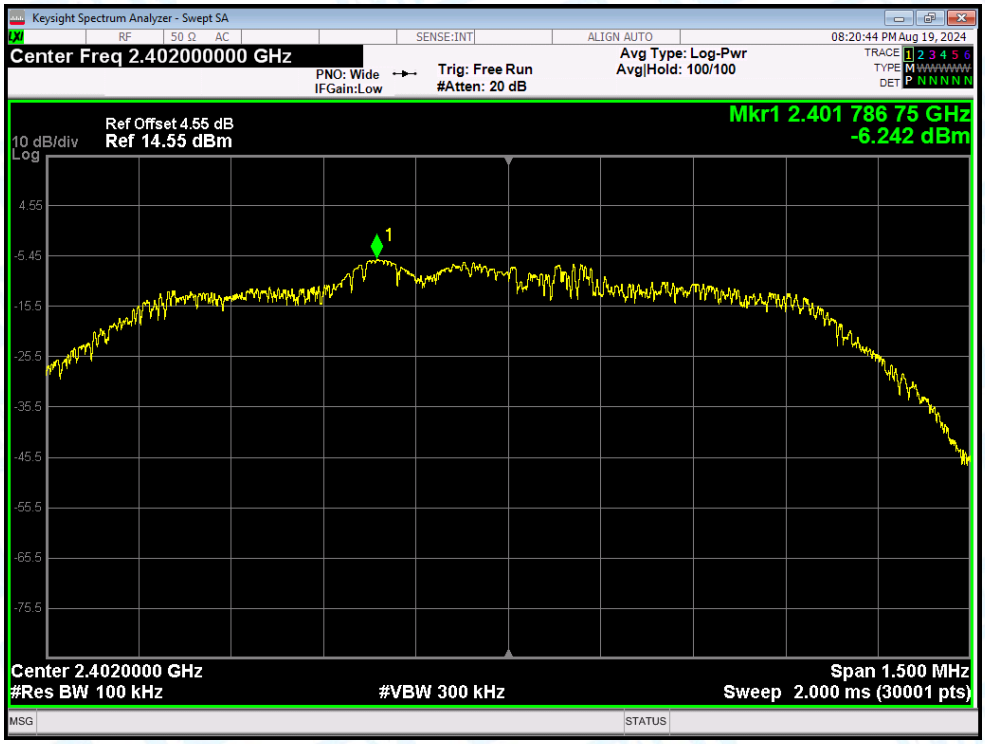
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Ref



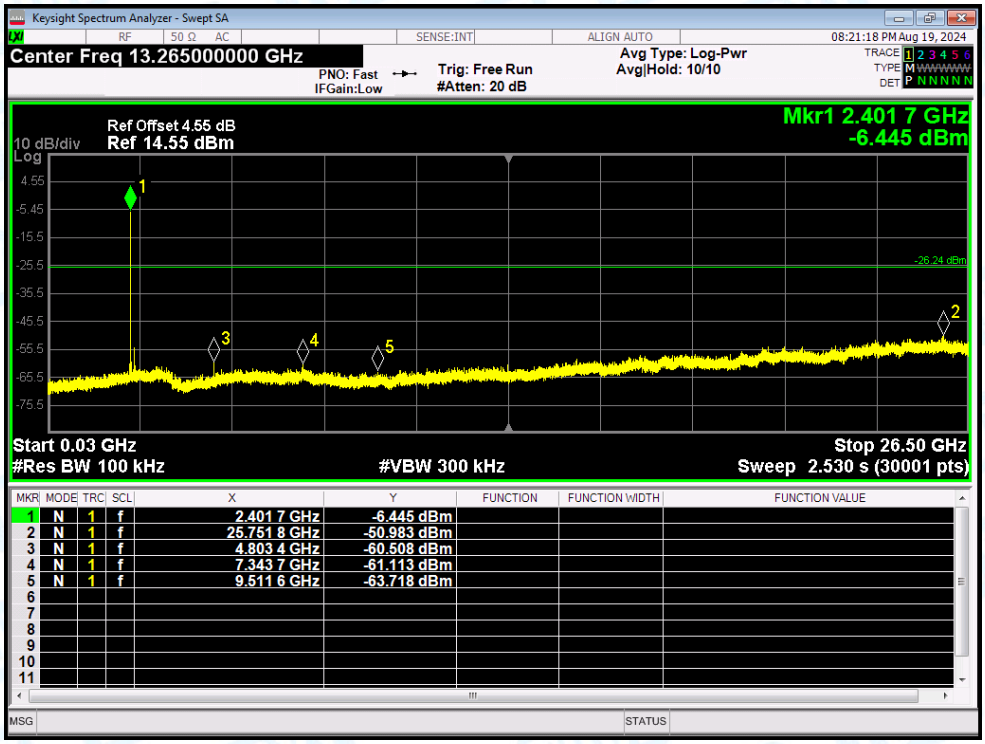
Tx. Spurious NVNT 1-DH1 2480MHz Ant1 Emission



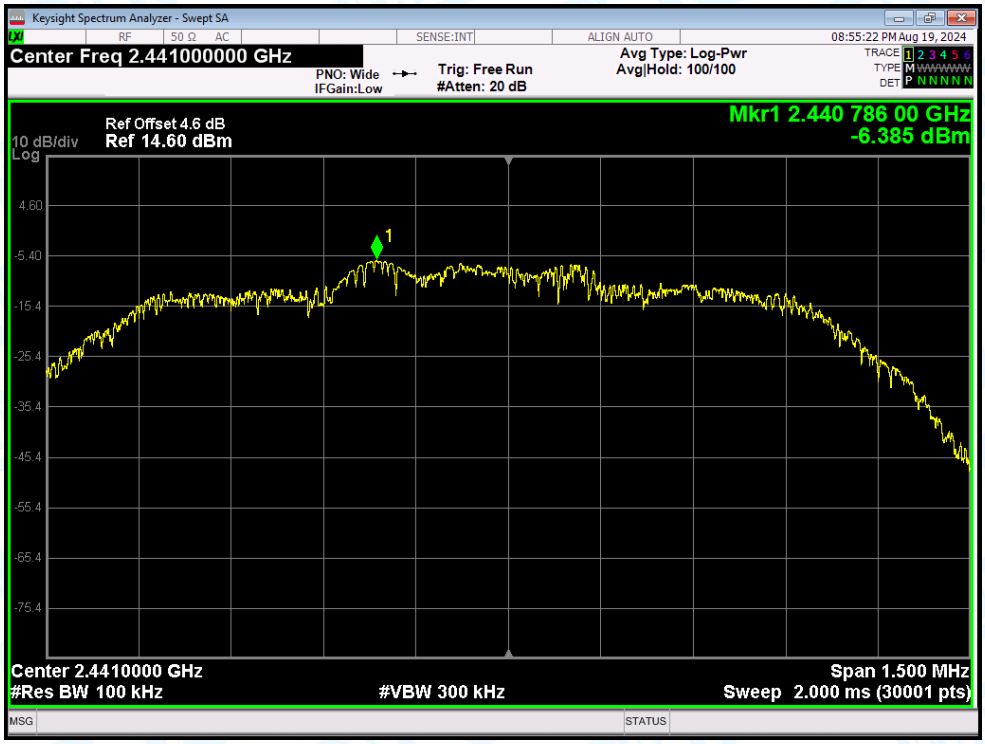
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Ref



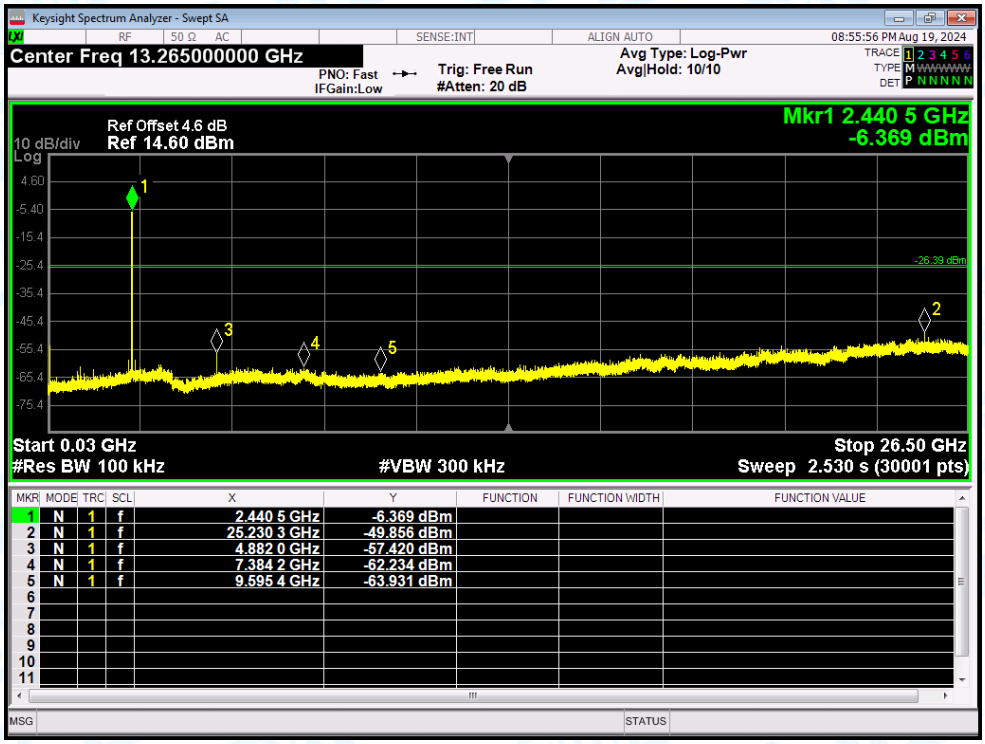
Tx. Spurious NVNT 2-DH1 2402MHz Ant1 Emission



Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Ref

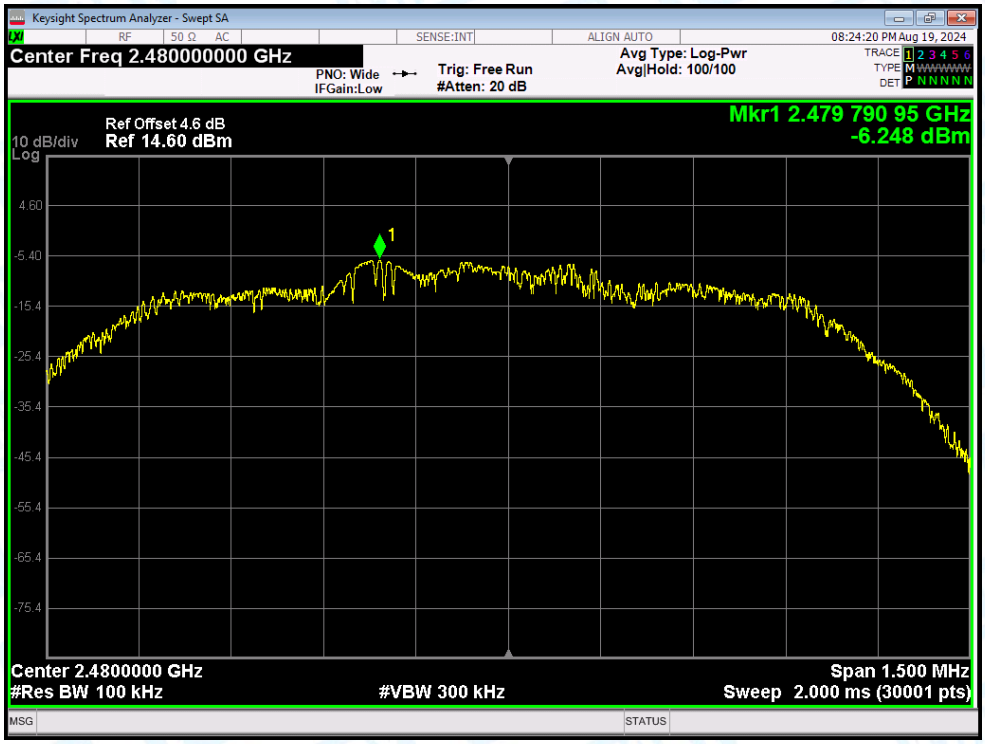


Tx. Spurious NVNT 2-DH1 2441MHz Ant1 Emission

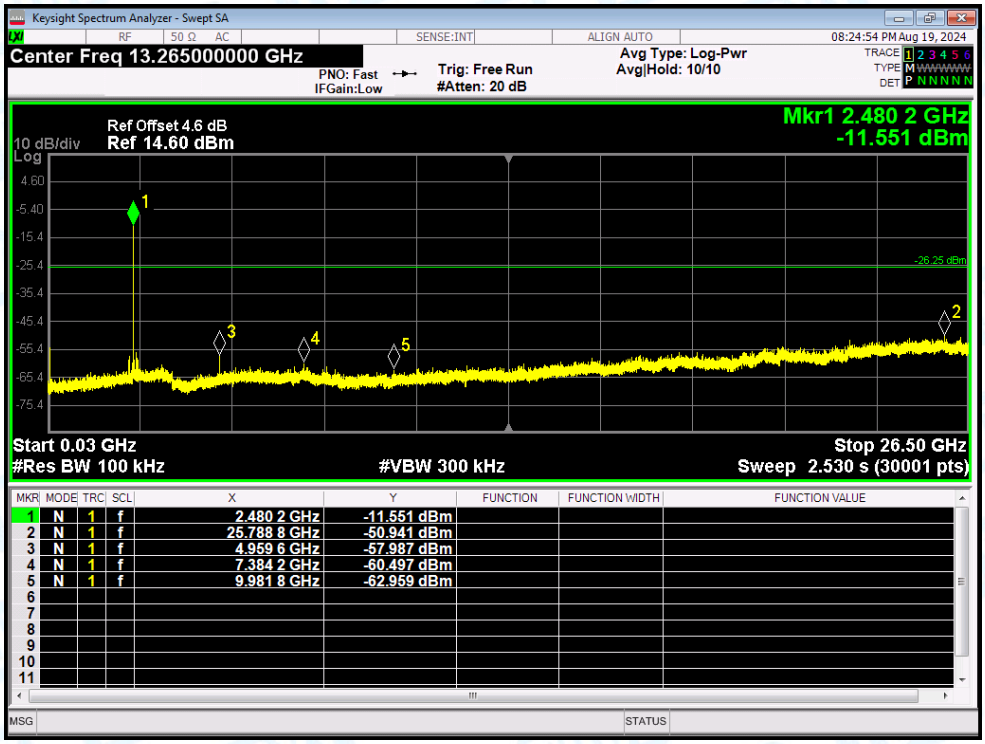


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.440 5 GHz	-6.369 dBm			
2	N	1	f	25.230 3 GHz	-49.856 dBm			
3	N	1	f	4.882 0 GHz	-57.420 dBm			
4	N	1	f	7.384 2 GHz	-62.234 dBm			
5	N	1	f	9.595 4 GHz	-63.931 dBm			
6								
7								
8								
9								
10								
11								

Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Ref

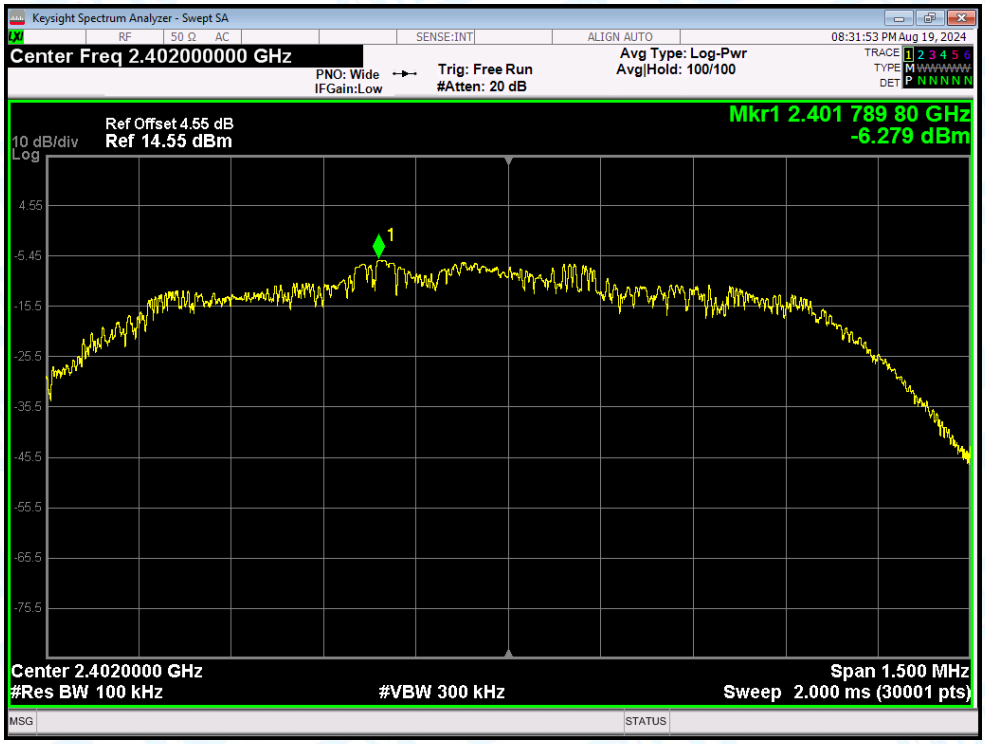


Tx. Spurious NVNT 2-DH1 2480MHz Ant1 Emission

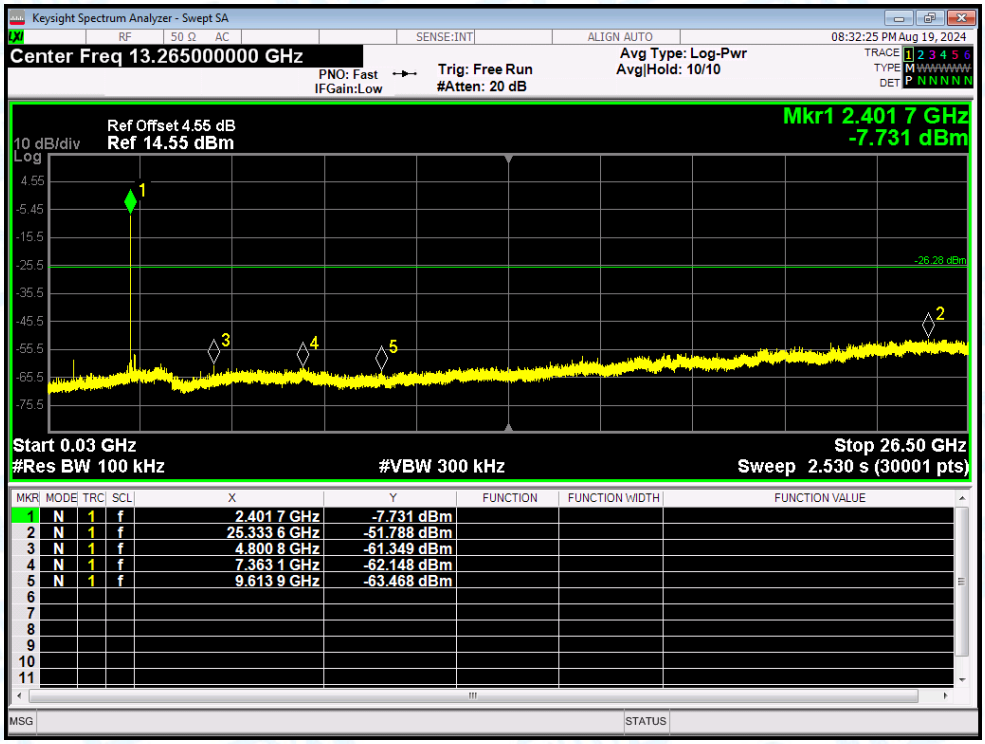


MKR	MODE	TRC	SCL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE
1	N	1	f	2.480 2 GHz	-11.551 dBm			
2	N	1	f	25.788 8 GHz	-50.941 dBm			
3	N	1	f	4.959 6 GHz	-57.987 dBm			
4	N	1	f	7.384 2 GHz	-60.497 dBm			
5	N	1	f	9.981 8 GHz	-62.959 dBm			
6								
7								
8								
9								
10								
11								

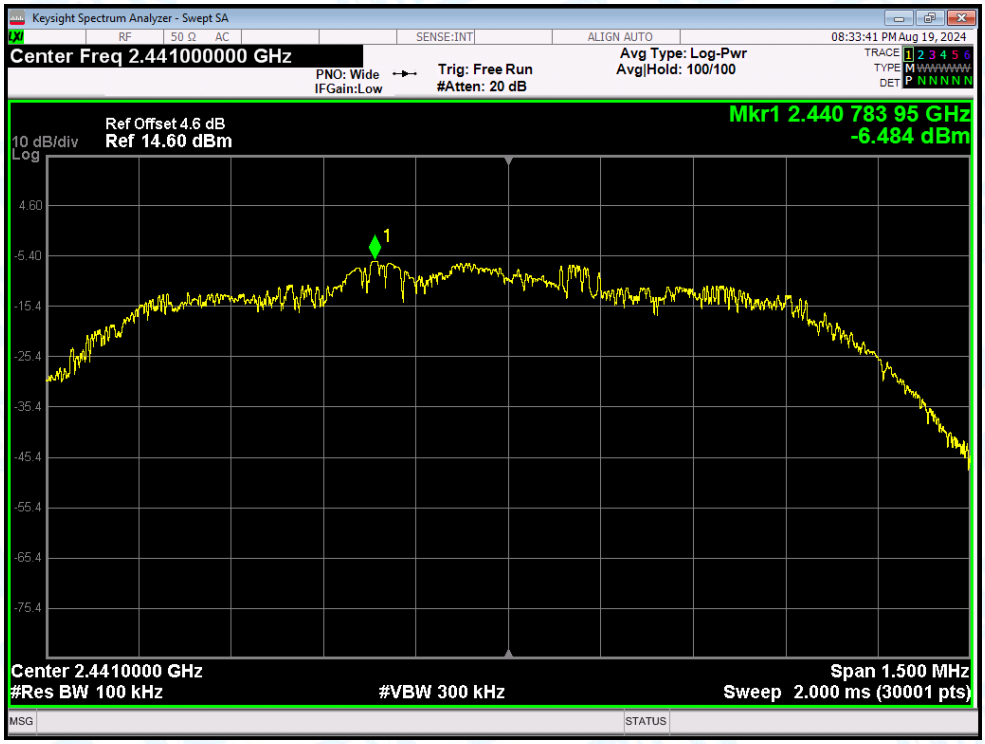
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Ref



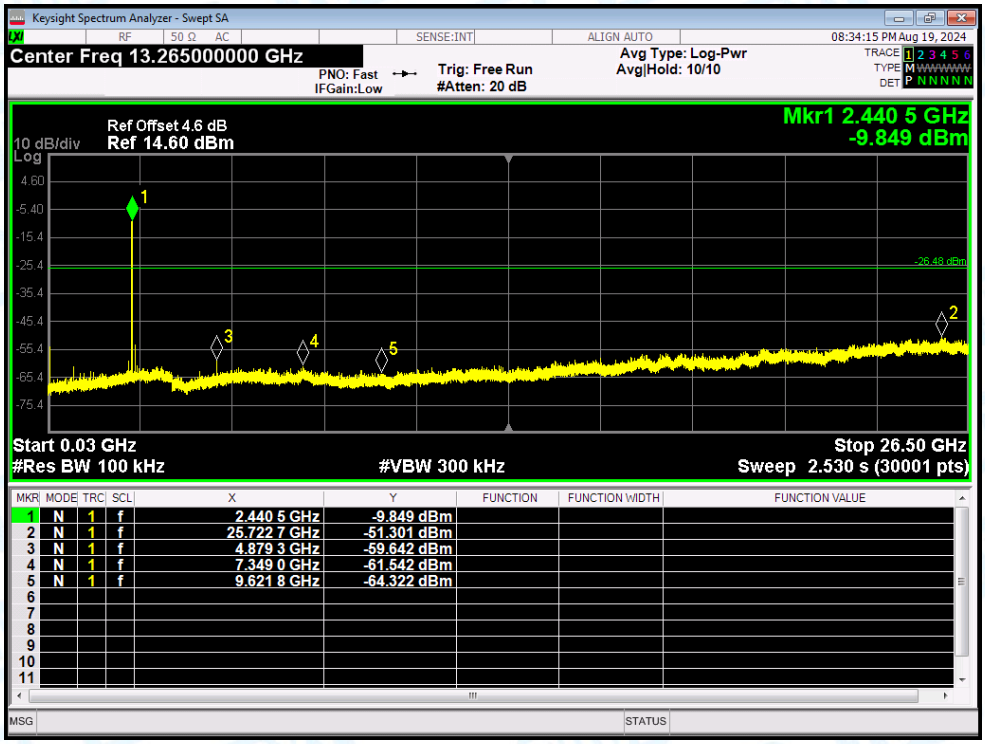
Tx. Spurious NVNT 3-DH1 2402MHz Ant1 Emission



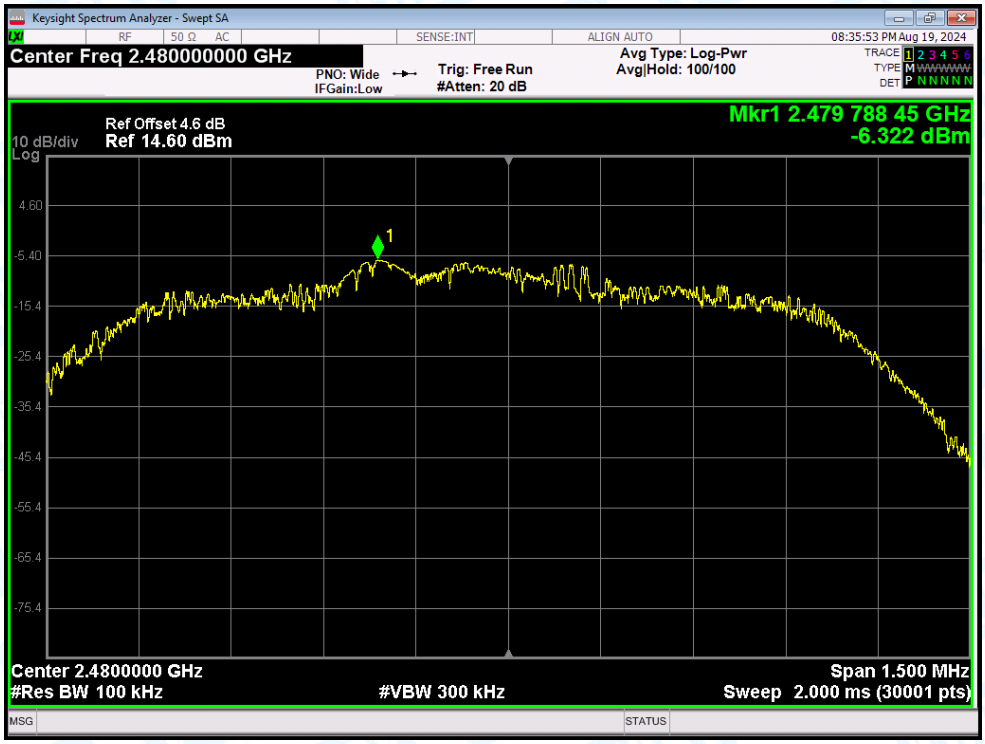
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Ref



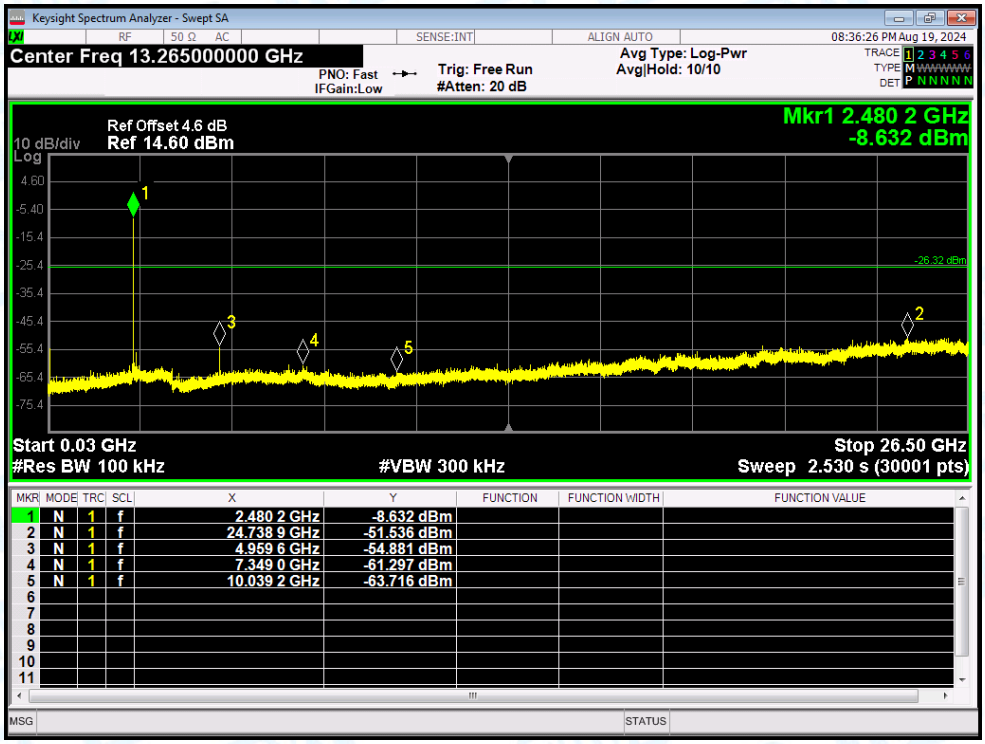
Tx. Spurious NVNT 3-DH1 2441MHz Ant1 Emission



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Ref



Tx. Spurious NVNT 3-DH1 2480MHz Ant1 Emission

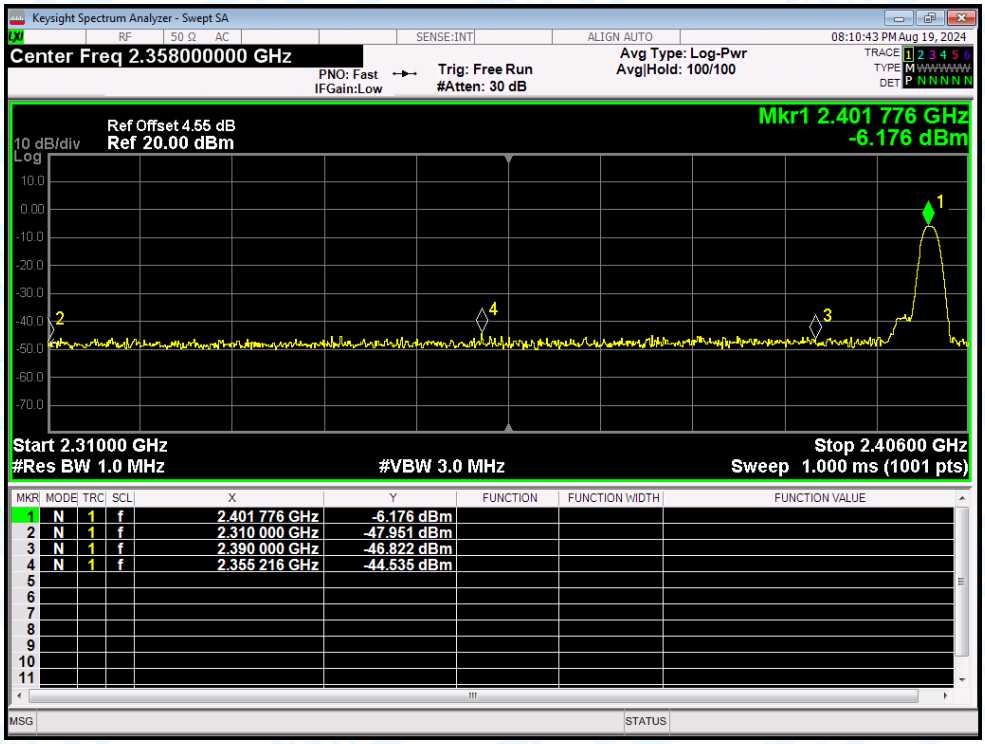


8.Restrict Band

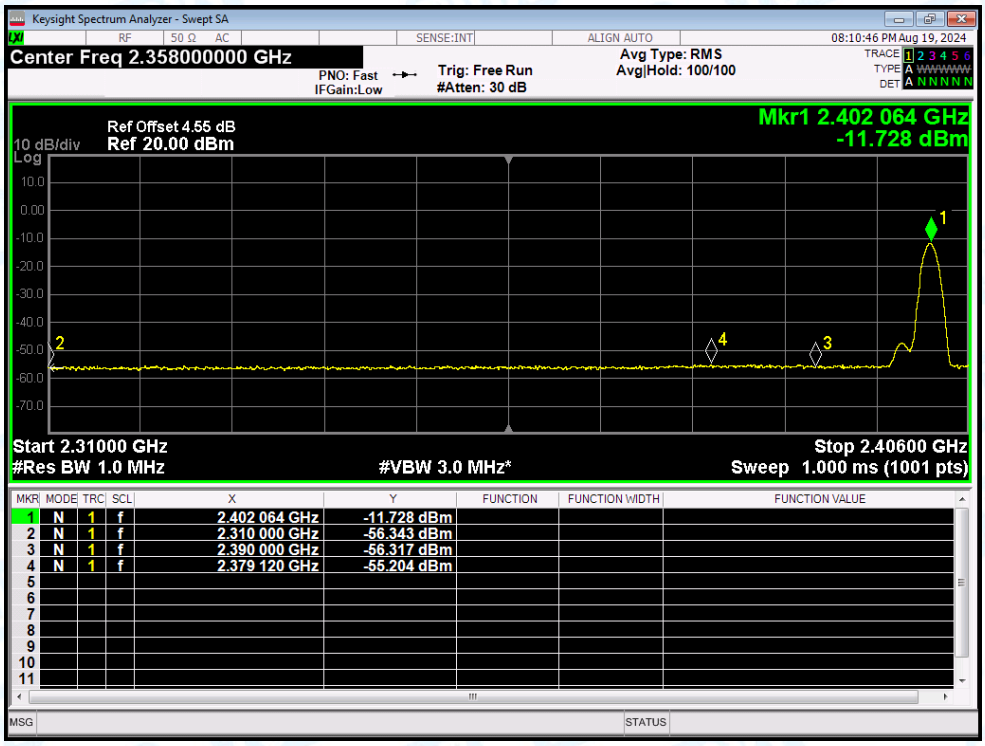
Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Spur Freq (MHz)	Power (dBm)	Gain (dBi)	Duty Factor (dB)	E (dBuV/m)	Detector	Limit (dBuV/m)	Verdict
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-47.95	2	-	49.31	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2310	-56.34	2	5.17	46.09	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2355.216	-44.53	2	-	52.73	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2379.12	-55.2	2	5.17	47.23	Average	54	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-46.82	2	-	50.44	Peak	74	Pass
NVNT	1-DH1	2402	Ant1	No-Hopping	2390	-56.32	2	5.17	46.11	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-46.87	2	-	50.39	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2483.5	-55.07	2	5.17	47.36	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2499.808	-44	2	-	53.26	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2495.896	-54.53	2	5.17	47.9	Average	54	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-45.97	2	-	51.29	Peak	74	Pass
NVNT	1-DH1	2480	Ant1	No-Hopping	2500	-55.04	2	5.17	47.39	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-48.91	2	-	48.35	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2310	-56.72	2	5.17	45.71	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2383.248	-44.23	2	-	53.03	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2389.104	-55.19	2	5.17	47.24	Average	54	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-47.06	2	-	50.2	Peak	74	Pass
NVNT	2-DH1	2402	Ant1	No-Hopping	2390	-56.12	2	5.17	46.31	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-46.35	2	-	50.91	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2483.5	-56.49	2	5.17	45.94	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2492.032	-43.51	2	-	53.75	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2494.648	-54.34	2	5.17	48.09	Average	54	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-46.74	2	-	50.52	Peak	74	Pass
NVNT	2-DH1	2480	Ant1	No-Hopping	2500	-54.85	2	5.17	47.58	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-47.38	2	-	49.88	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2310	-56.61	2	5.06	45.71	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2326.32	-44.98	2	-	52.28	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2388.912	-55.21	2	5.06	47.11	Average	54	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-47.59	2	-	49.67	Peak	74	Pass
NVNT	3-DH1	2402	Ant1	No-Hopping	2390	-55.56	2	5.06	46.76	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-46.83	2	-	50.43	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2483.5	-55.68	2	5.17	46.75	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2496.76	-44.27	2	-	52.99	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2495.872	-54.43	2	5.17	48	Average	54	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-46.85	2	-	50.41	Peak	74	Pass
NVNT	3-DH1	2480	Ant1	No-Hopping	2500	-54.94	2	5.17	47.49	Average	54	Pass

Test Graphs

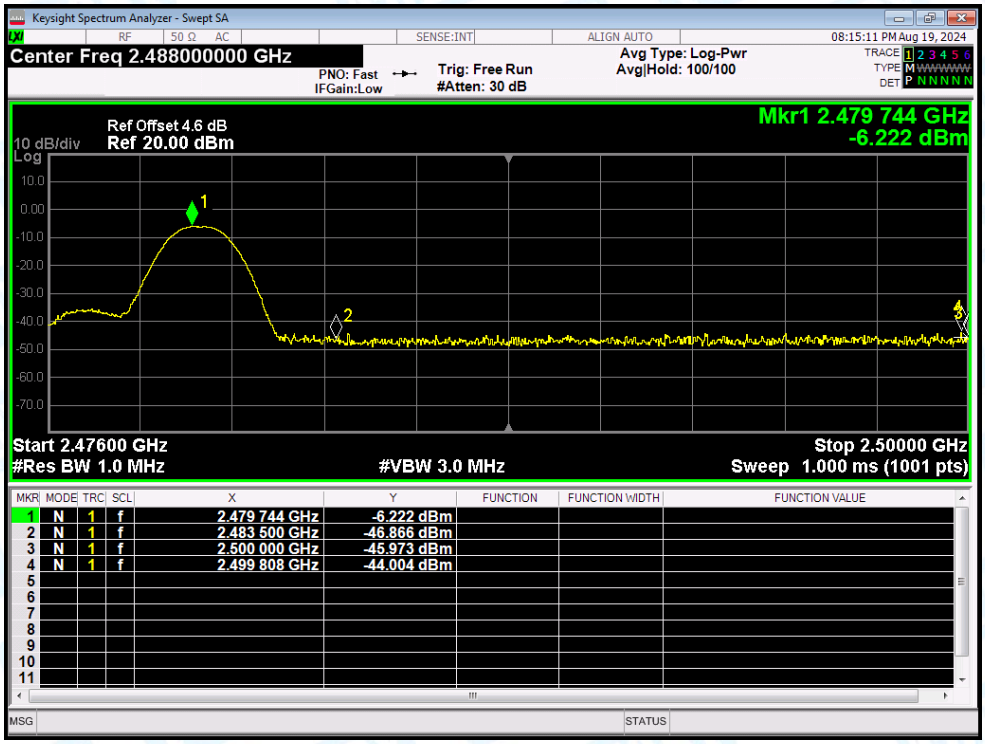
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Peak



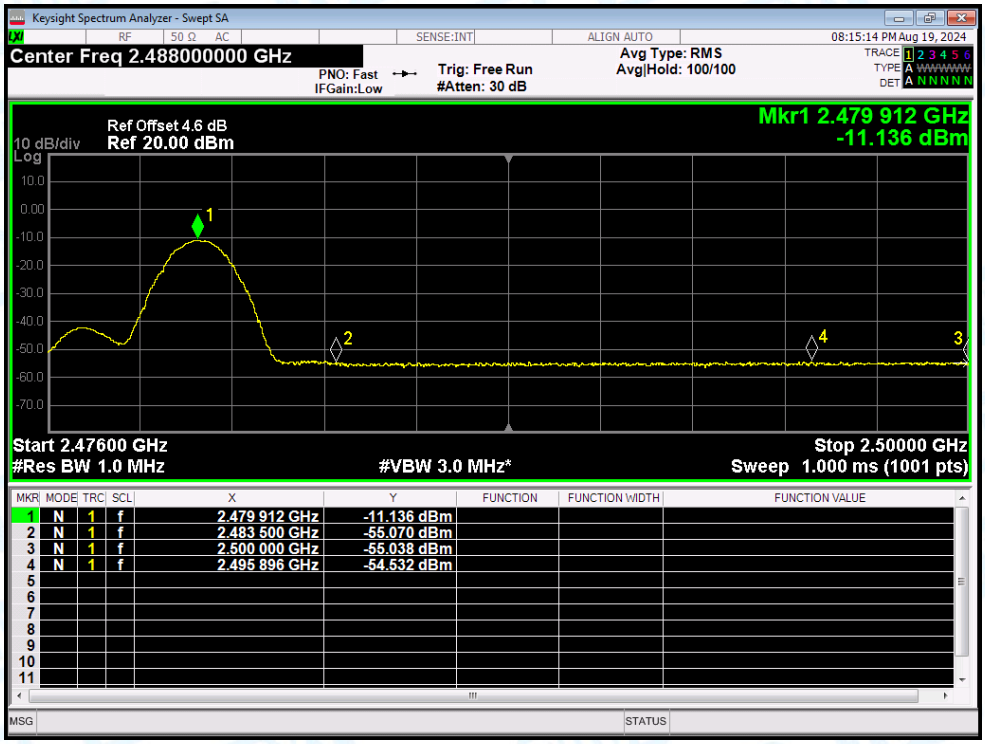
Restrict Band NVNT 1-DH1 2402MHz Ant1 No-Hopping Average



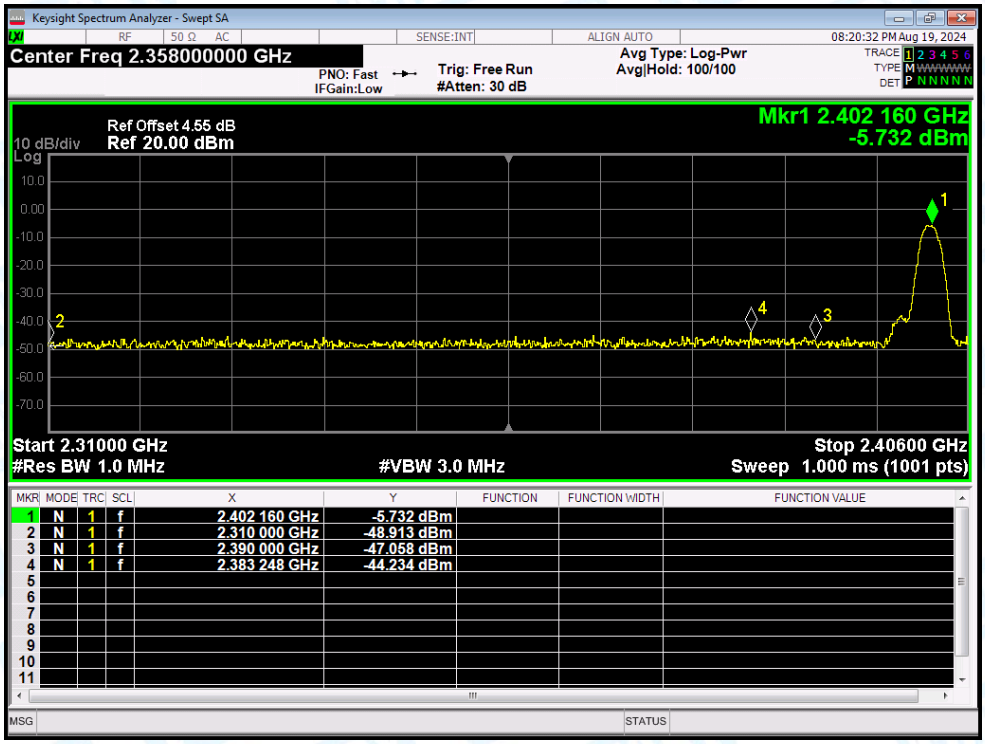
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Peak



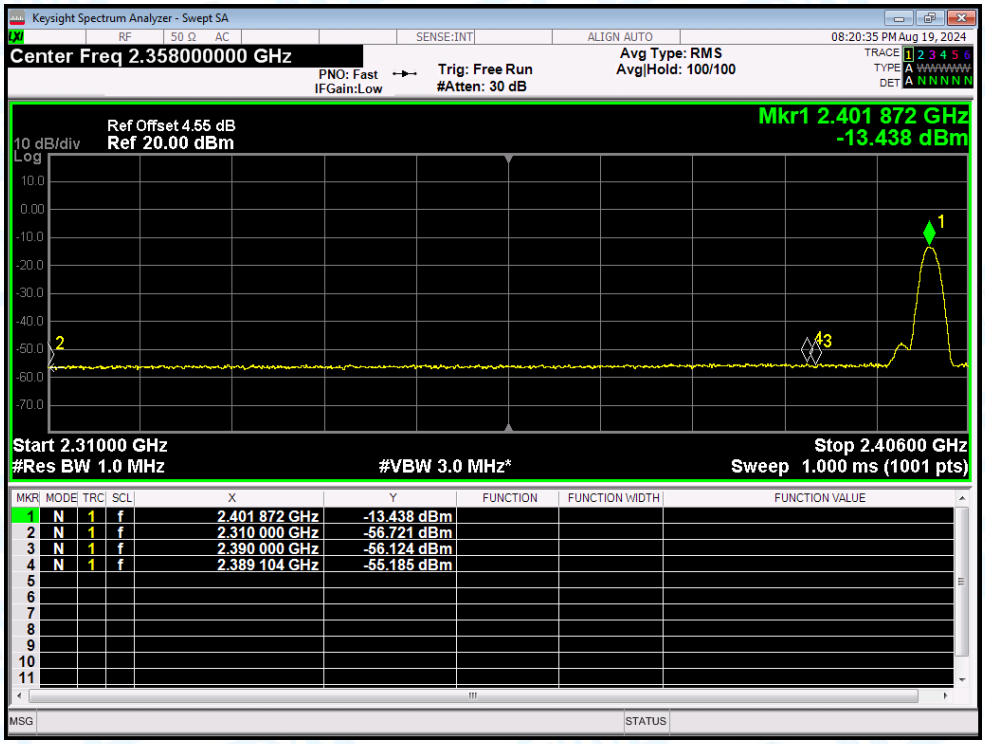
Restrict Band NVNT 1-DH1 2480MHz Ant1 No-Hopping Average



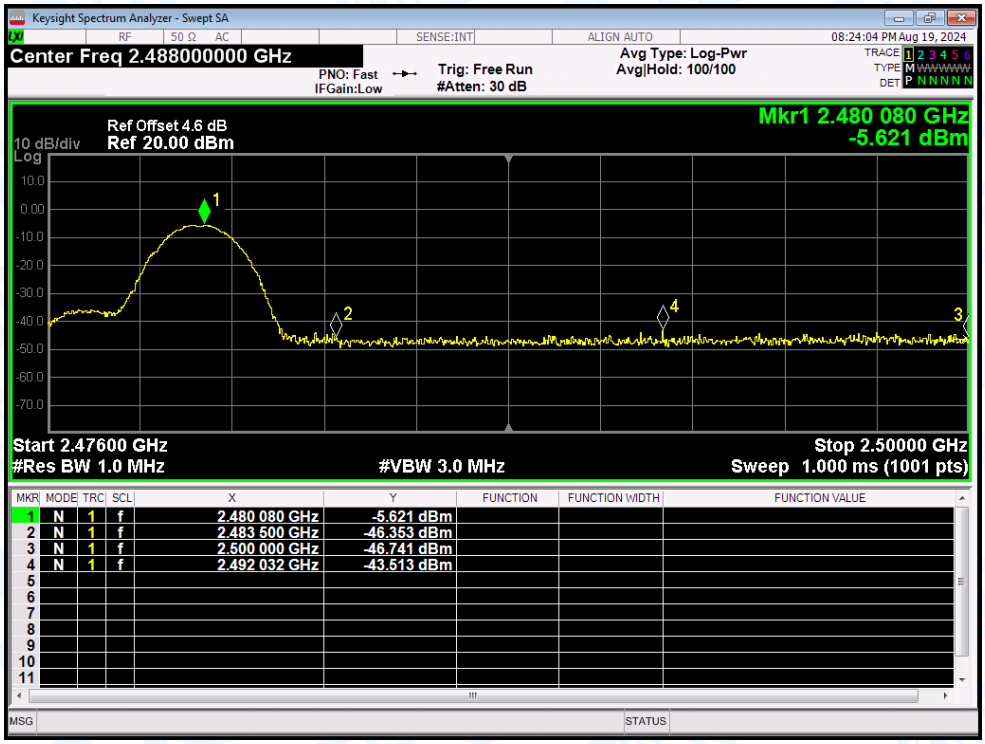
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Peak



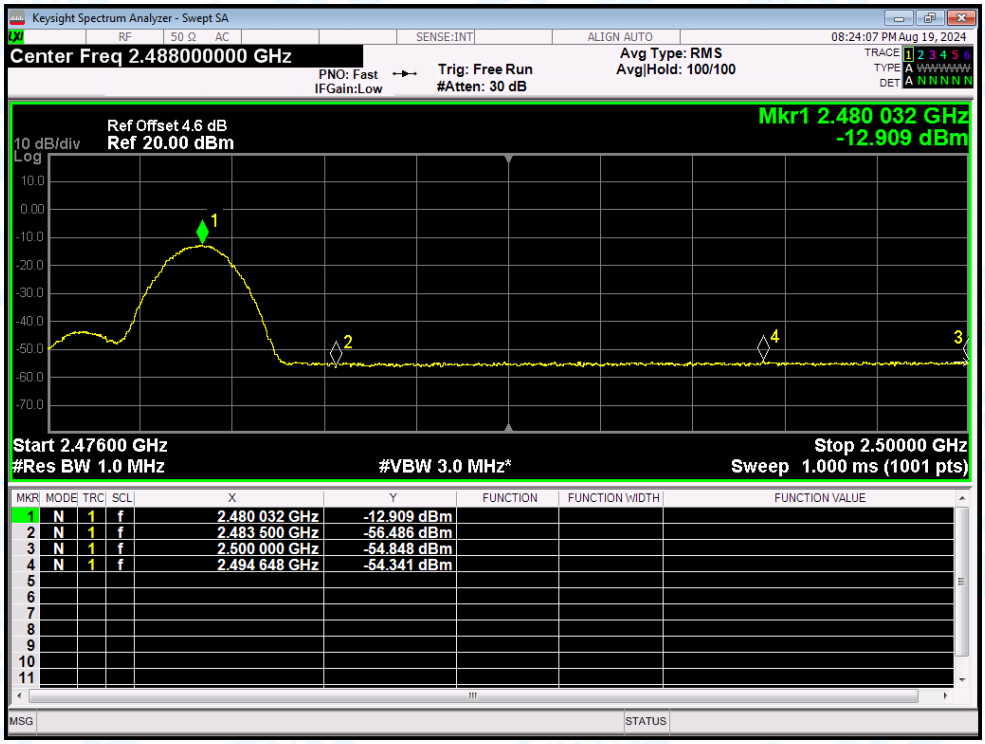
Restrict Band NVNT 2-DH1 2402MHz Ant1 No-Hopping Average



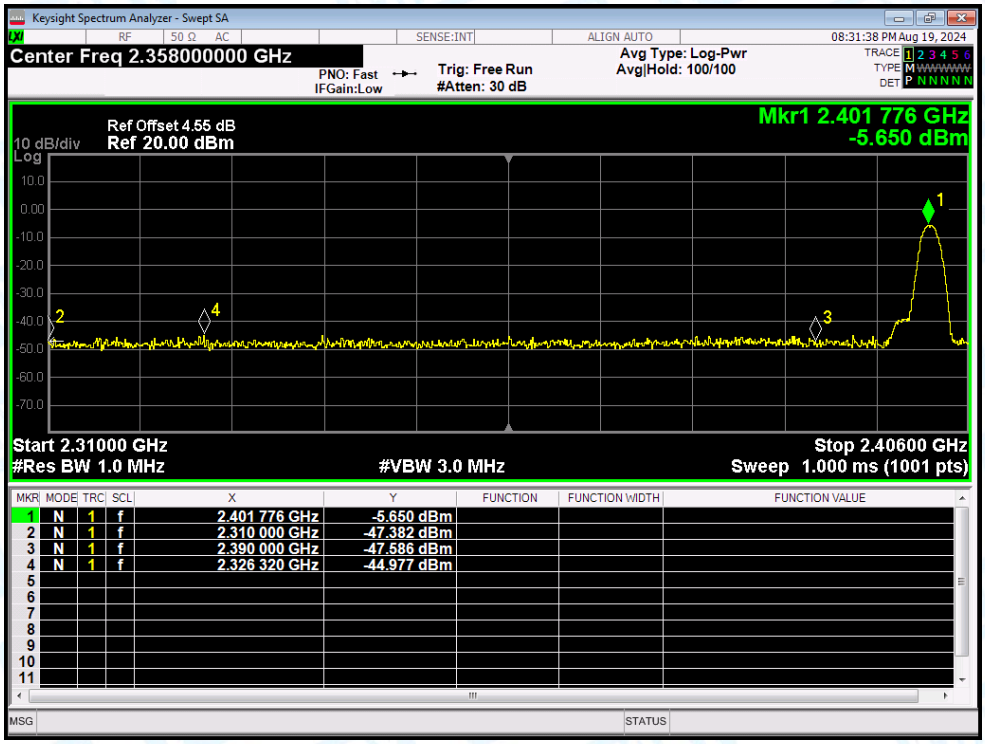
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Peak



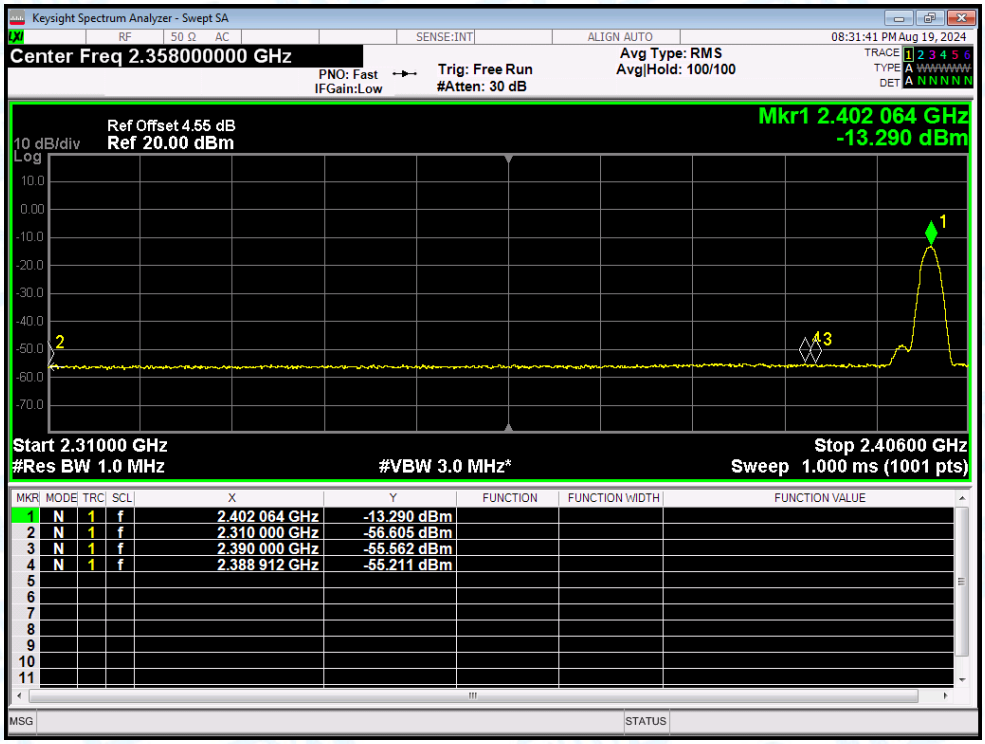
Restrict Band NVNT 2-DH1 2480MHz Ant1 No-Hopping Average



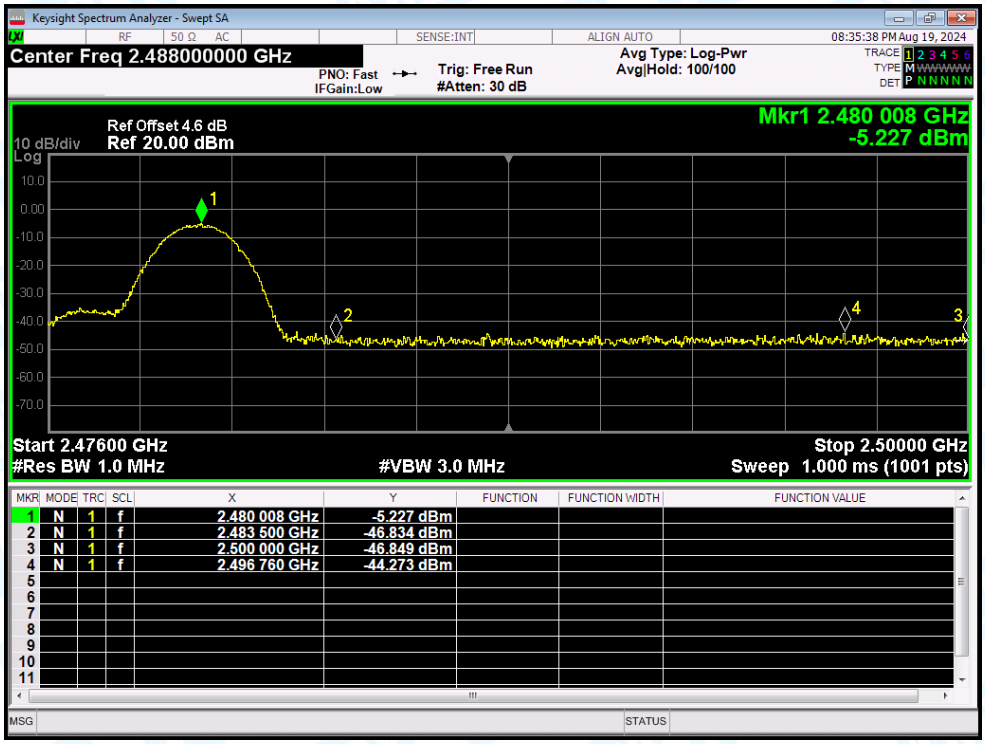
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Peak



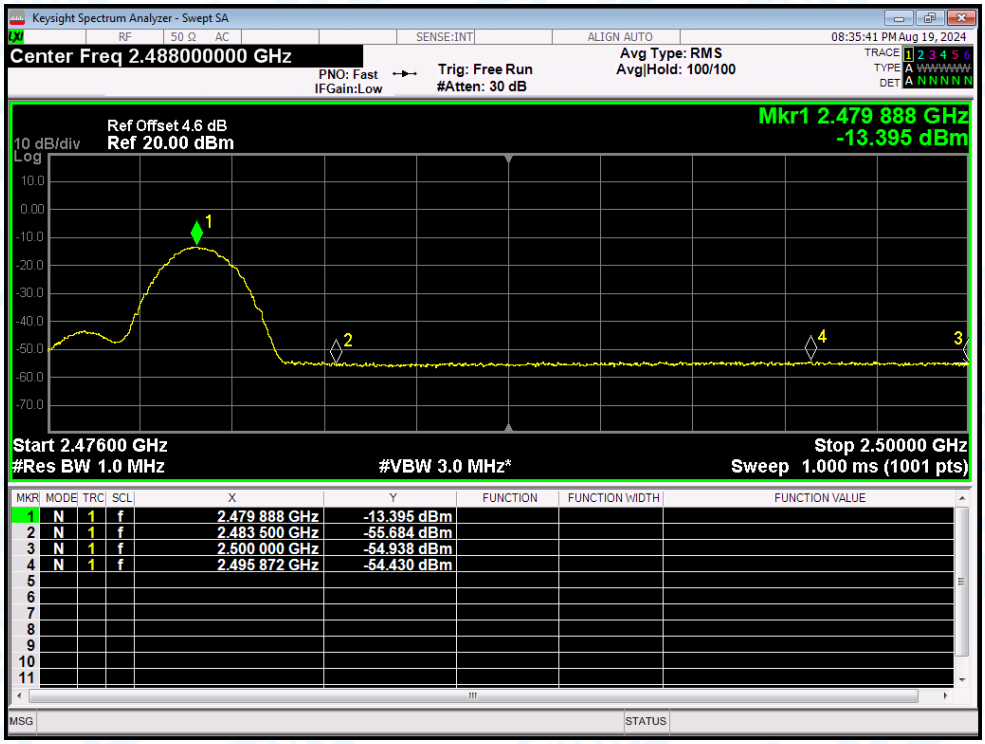
Restrict Band NVNT 3-DH1 2402MHz Ant1 No-Hopping Average



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



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

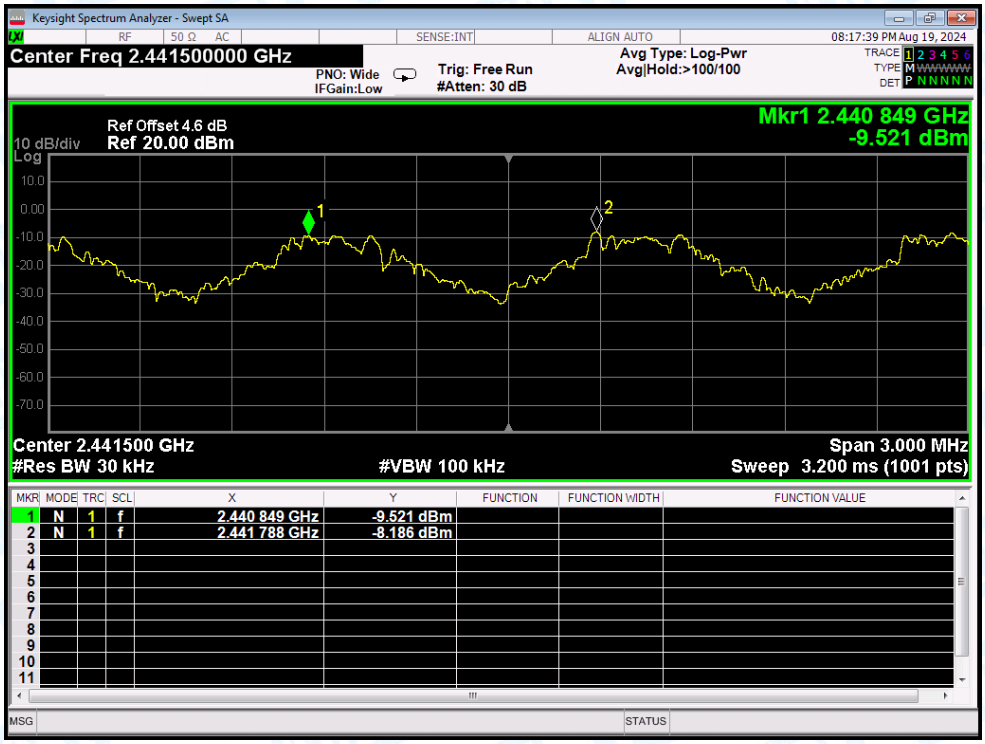


9.Carrier Frequencies Separation

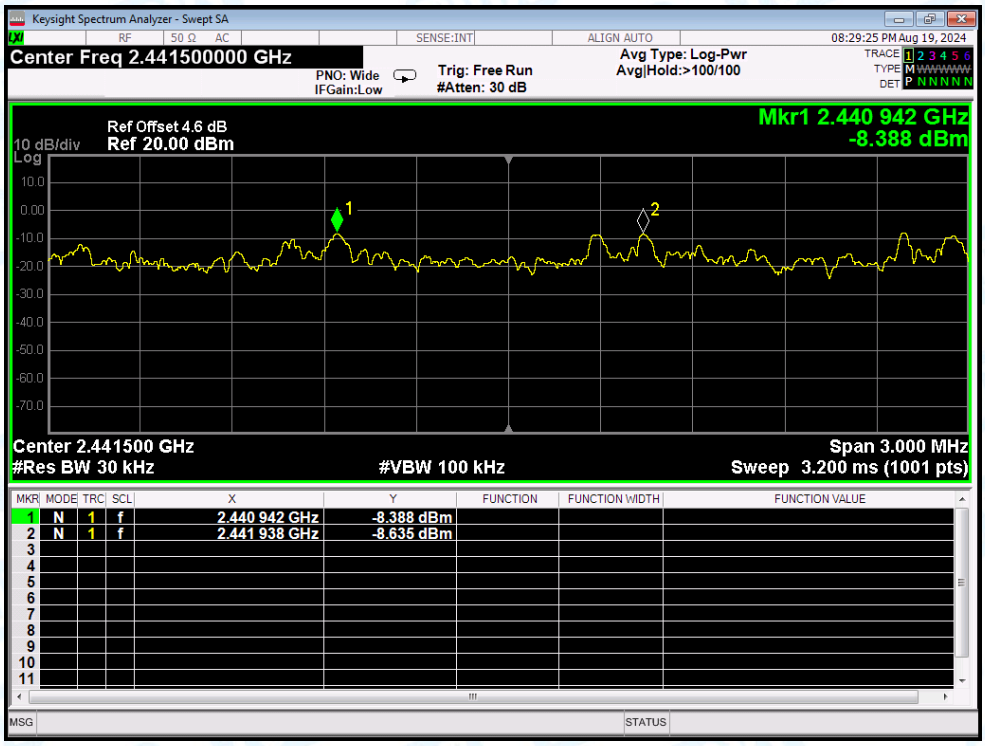
Condition	Mode	Antenna	Hopping Freq1 (MHz)	Hopping Freq2 (MHz)	HFS (MHz)	Limit (MHz)	Verdict
NVNT	1-DH1	Ant1	2440.849	2441.788	0.939	0.58	Pass
NVNT	2-DH1	Ant1	2440.942	2441.938	0.996	0.82	Pass
NVNT	3-DH1	Ant1	2440.783	2441.947	1.164	0.8	Pass

Test Graphs

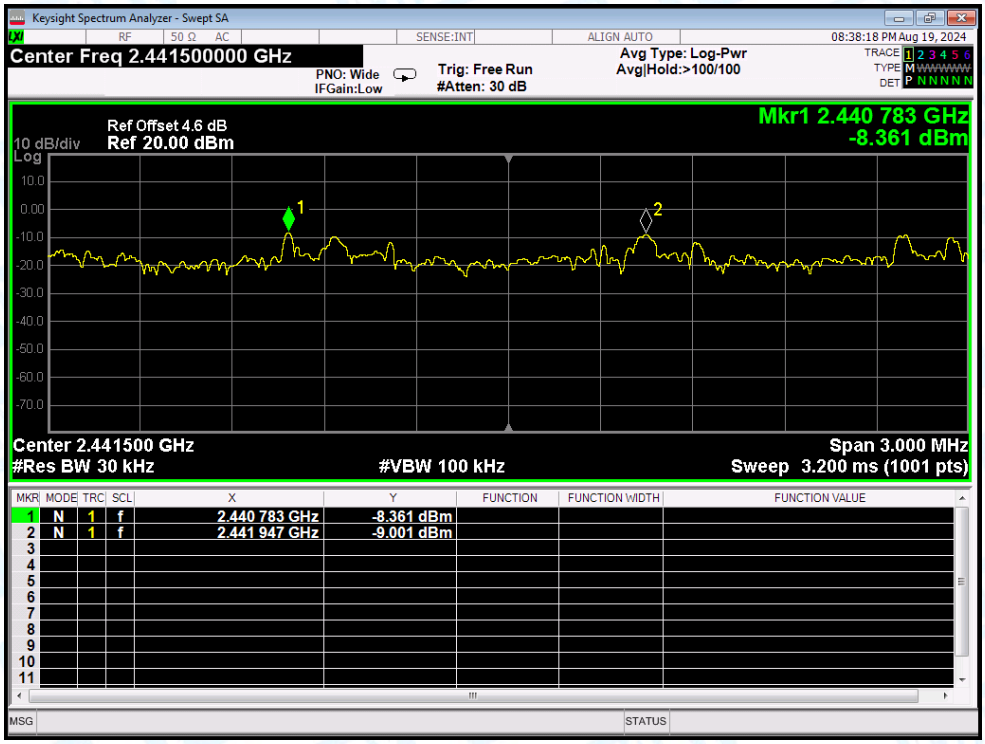
CFS NVNT 1-DH1 2441MHz Ant1



CFS NVNT 2-DH1 2441MHz Ant1



CFS NVNT 3-DH1 2441MHz Ant1

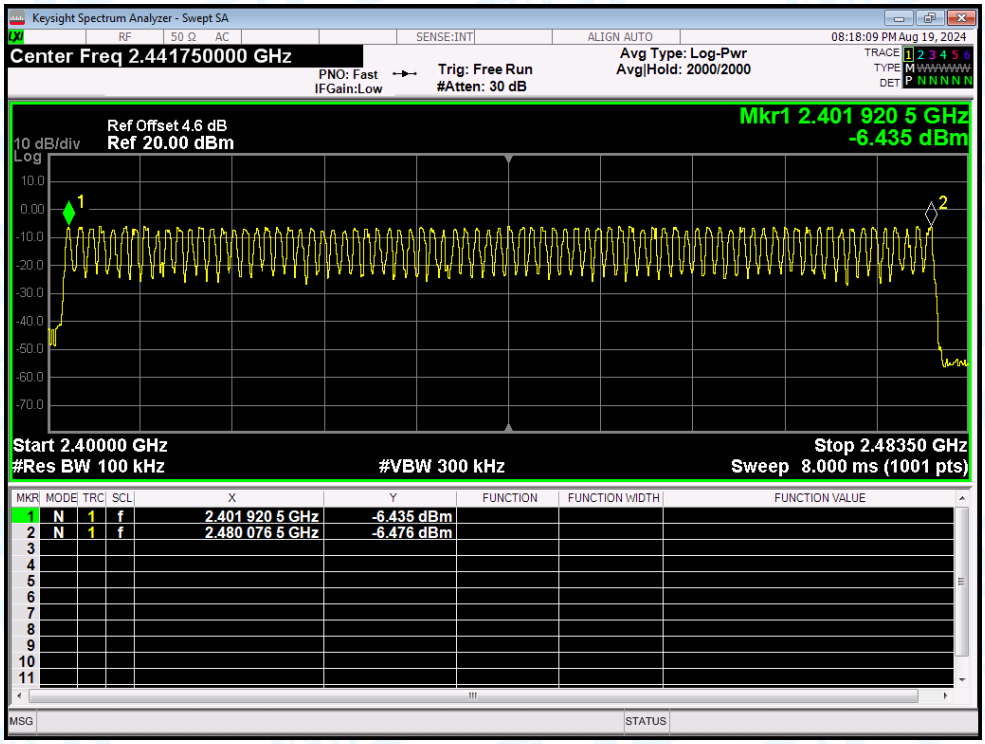


10.Number of Hopping Channel

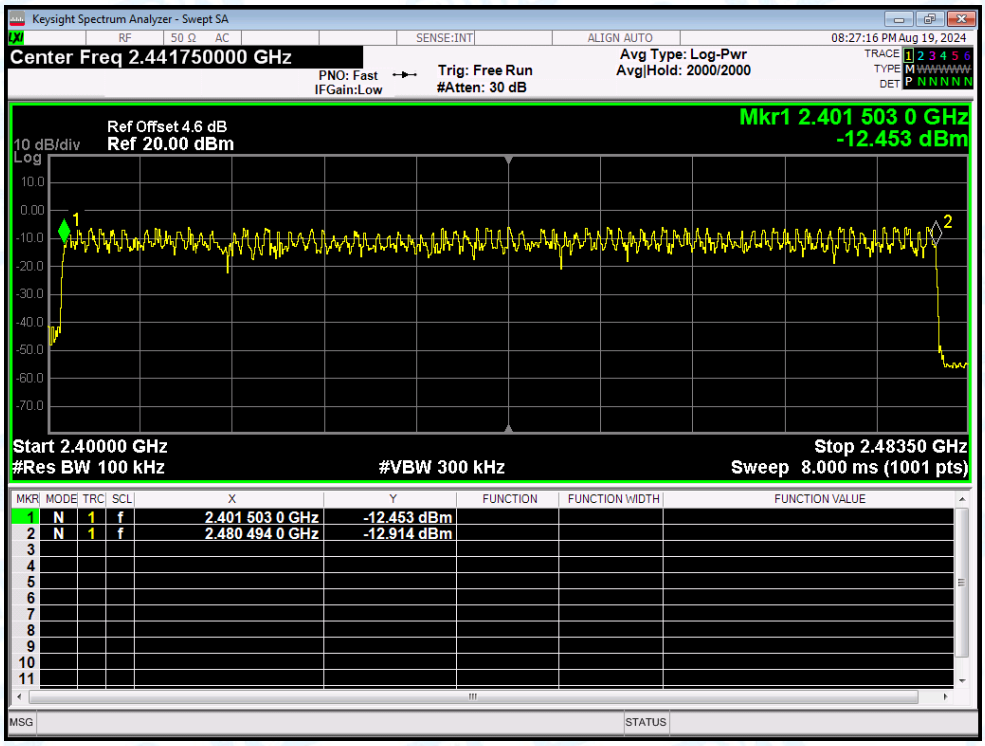
Condition	Mode	Antenna	Hopping Number	Limit	Verdict
NVNT	1-DH1	Ant1	79	15	Pass
NVNT	2-DH1	Ant1	79	15	Pass
NVNT	3-DH1	Ant1	79	15	Pass

Test Graphs

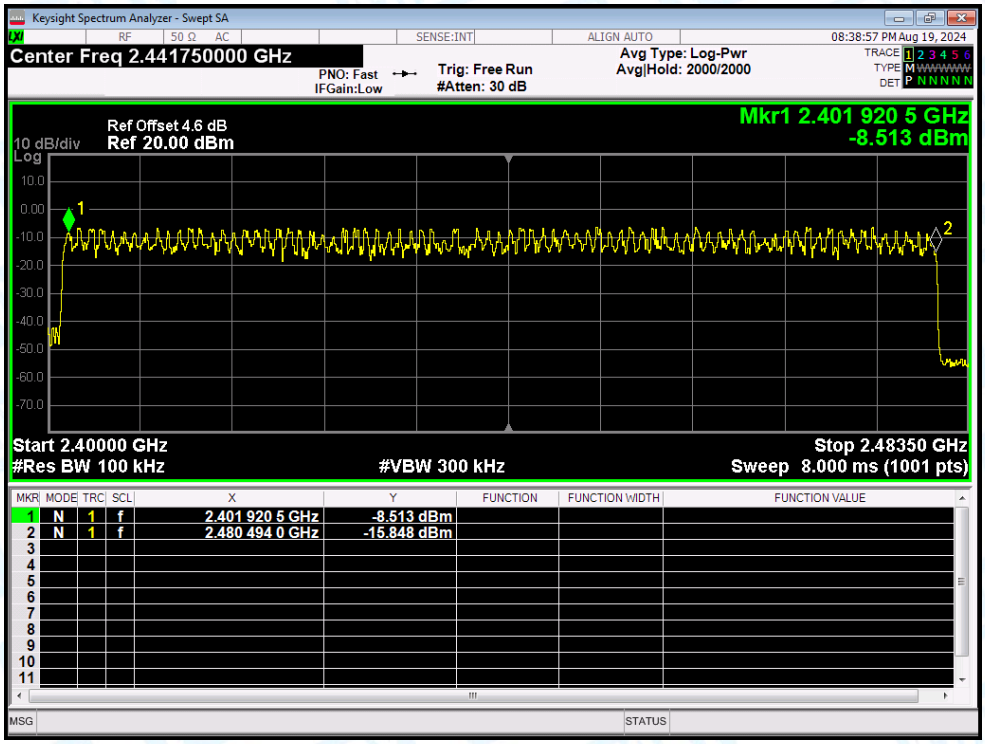
Hopping No. NVNT 1-DH1 2441MHz Ant1



Hopping No. NVNT 2-DH1 2441MHz Ant1



Hopping No. NVNT 3-DH1 2441MHz Ant1

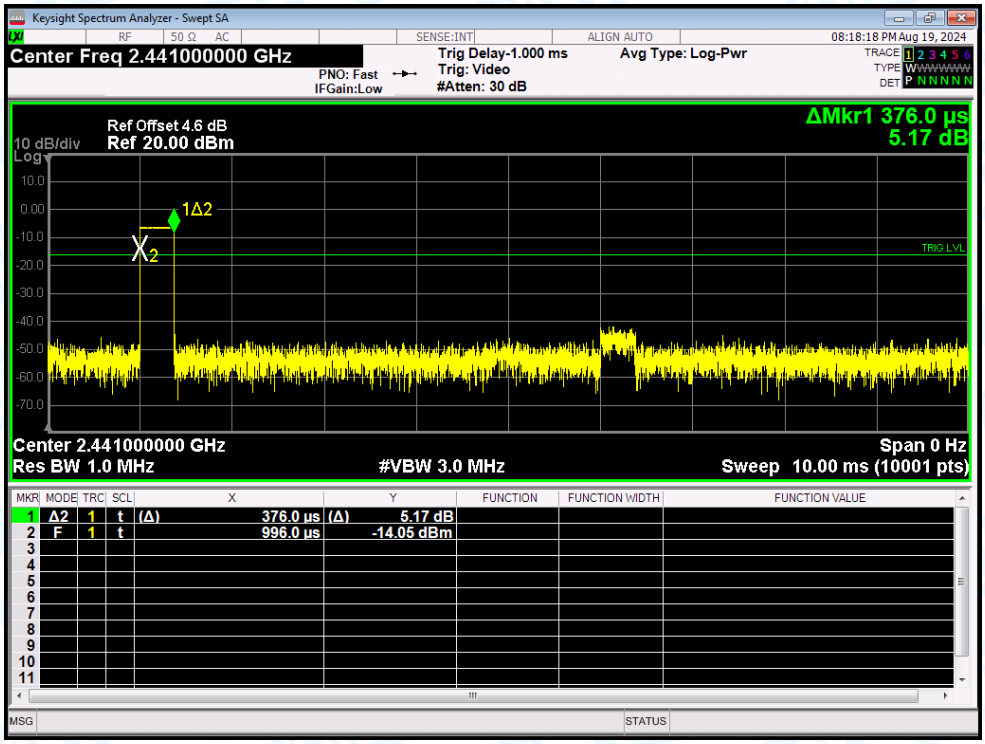


11.Dwell Time

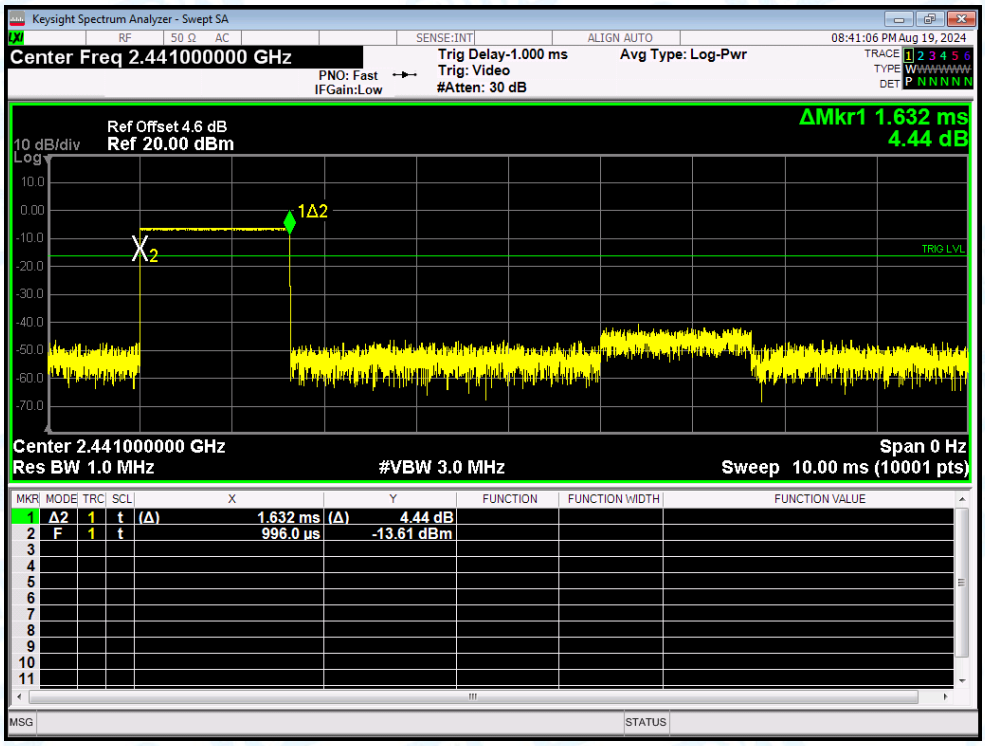
Condition	Mode	Frequency (MHz)	Antenna	Pulse Time (ms)	Total Dwell Time (ms)	Period Time (ms)	Limit (ms)	Verdict
NVNT	1-DH1	2441	Ant1	0.376	120.32	31600	400	Pass
NVNT	1-DH3	2441	Ant1	1.632	261.12	31600	400	Pass
NVNT	1-DH5	2441	Ant1	2.88	307.2	31600	400	Pass
NVNT	2-DH1	2441	Ant1	0.385	123.2	31600	400	Pass
NVNT	2-DH3	2441	Ant1	1.637	261.92	31600	400	Pass
NVNT	2-DH5	2441	Ant1	2.886	307.84	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	2.888	308.053	31600	400	Pass

Test Graphs

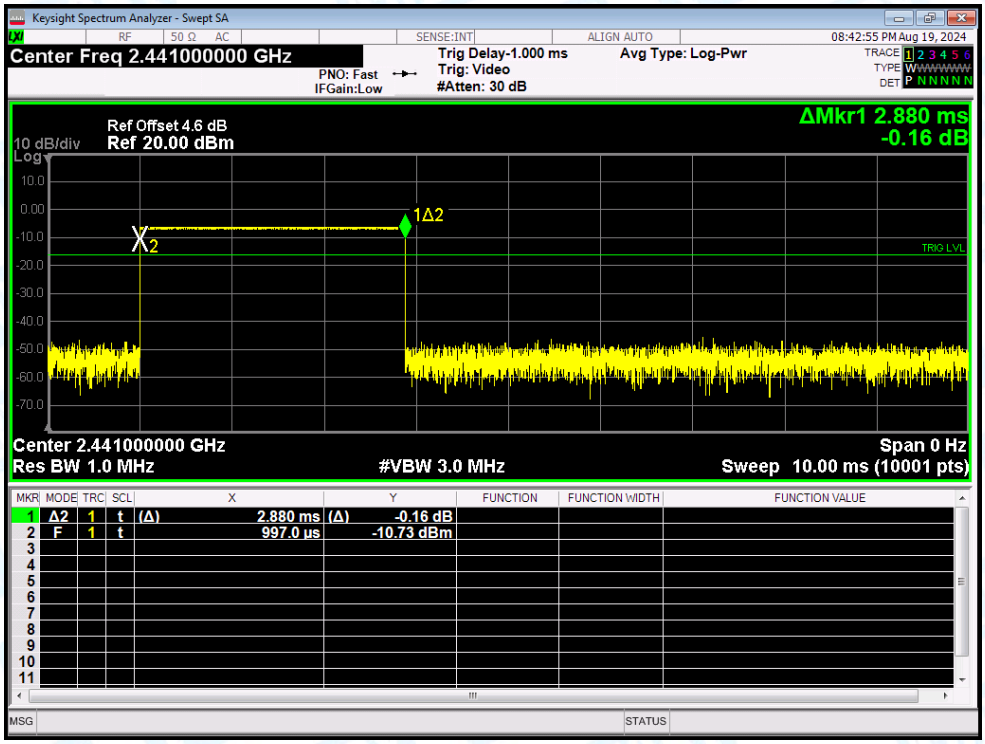
Dwell NVNT 1-DH1 2441MHz Ant1



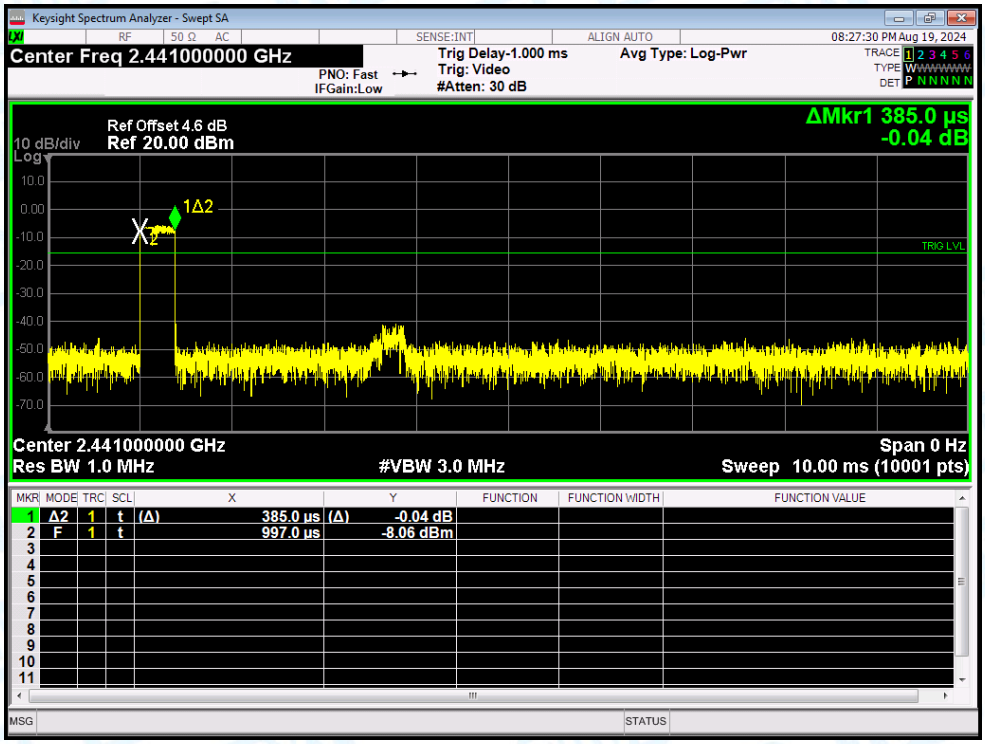
Dwell NVNT 1-DH3 2441MHz Ant1



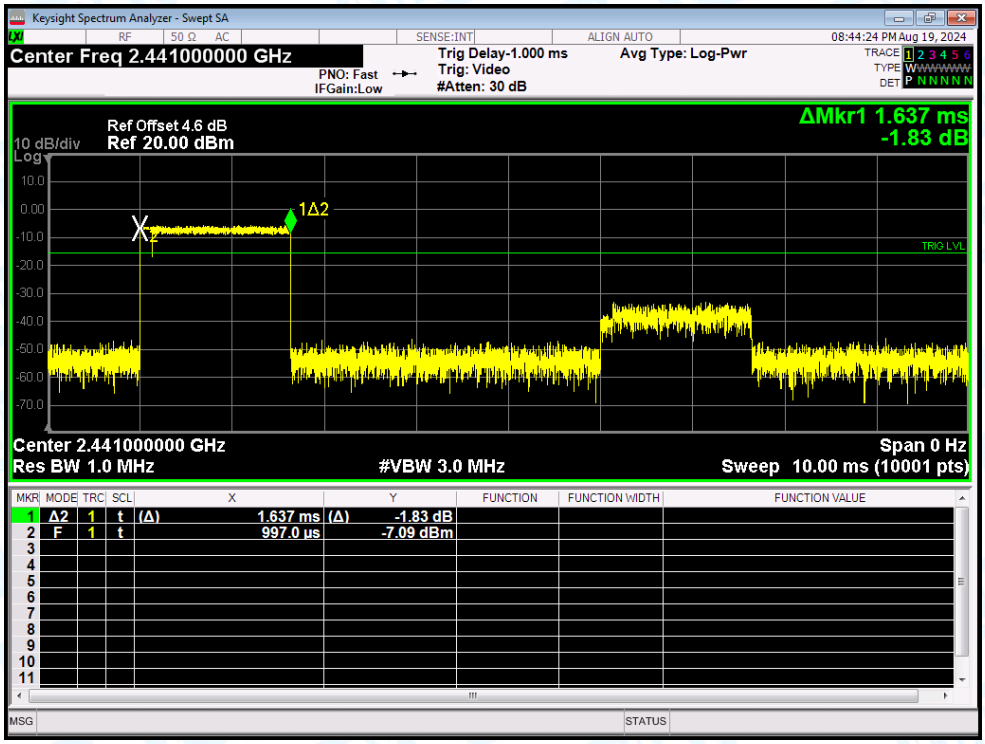
Dwell NVNT 1-DH5 2441MHz Ant1



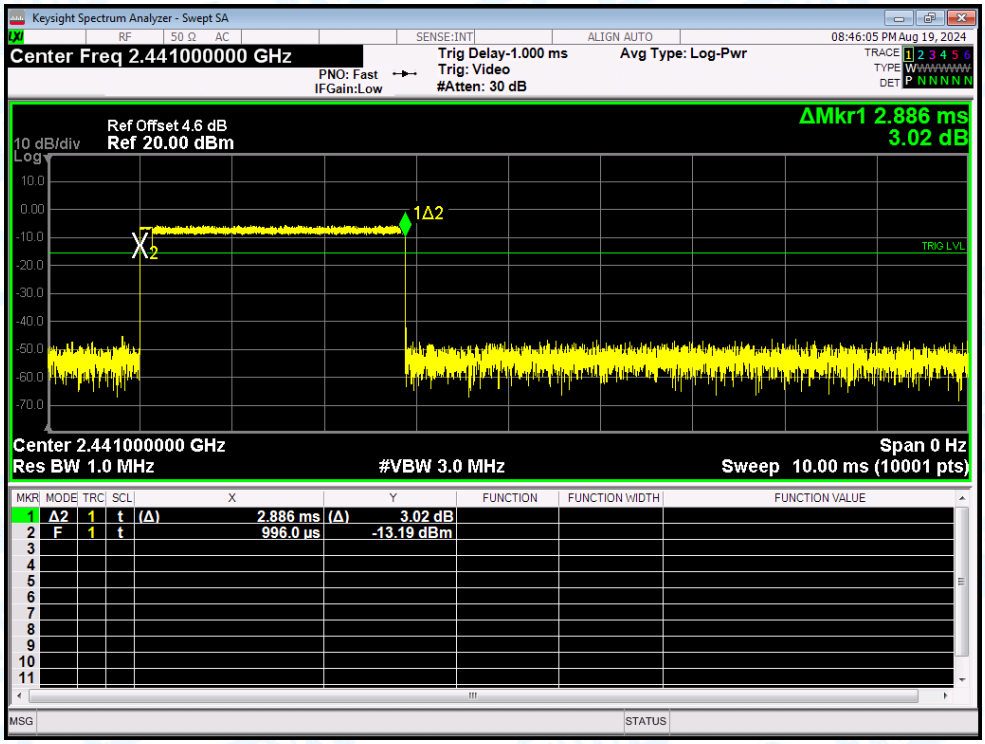
Dwell NVNT 2-DH1 2441MHz Ant1



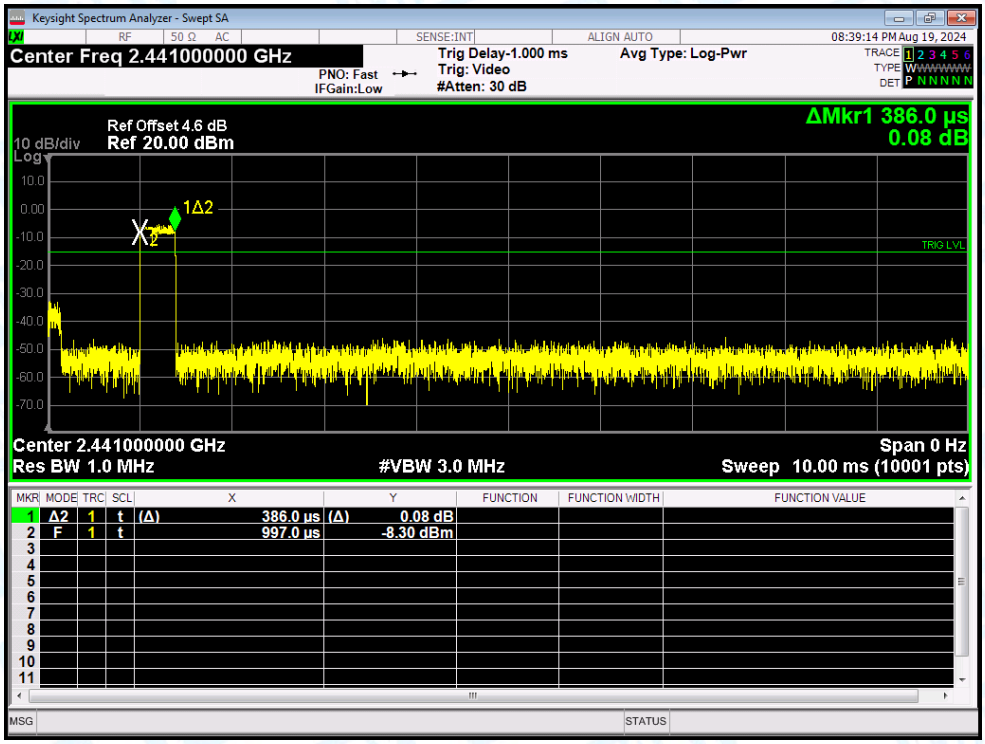
Dwell NVNT 2-DH3 2441MHz Ant1



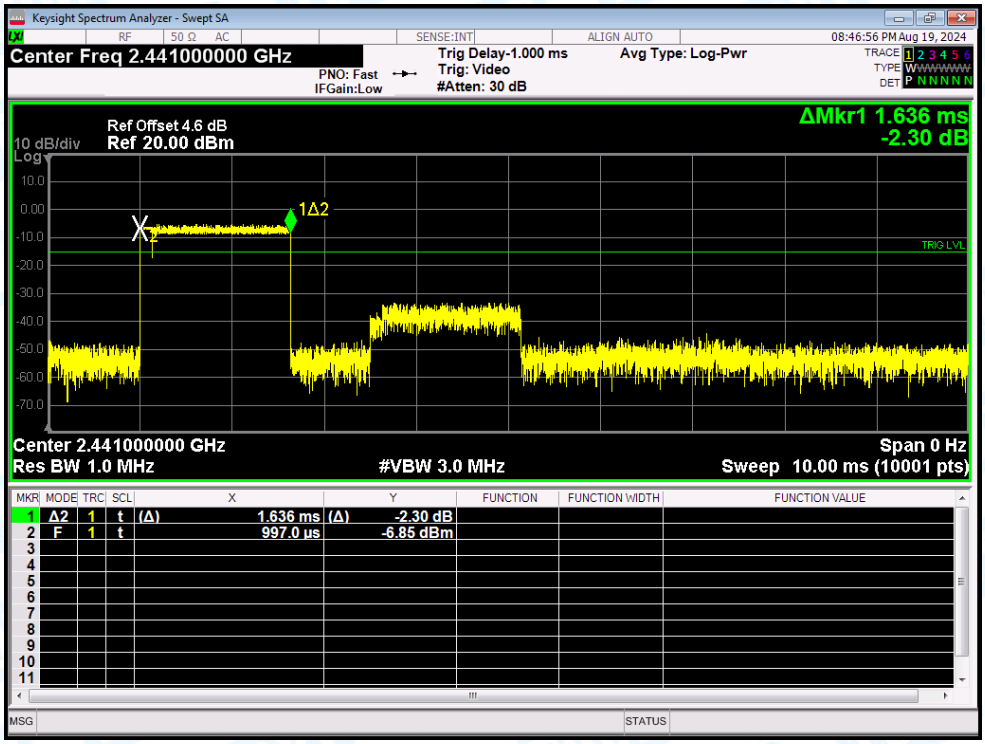
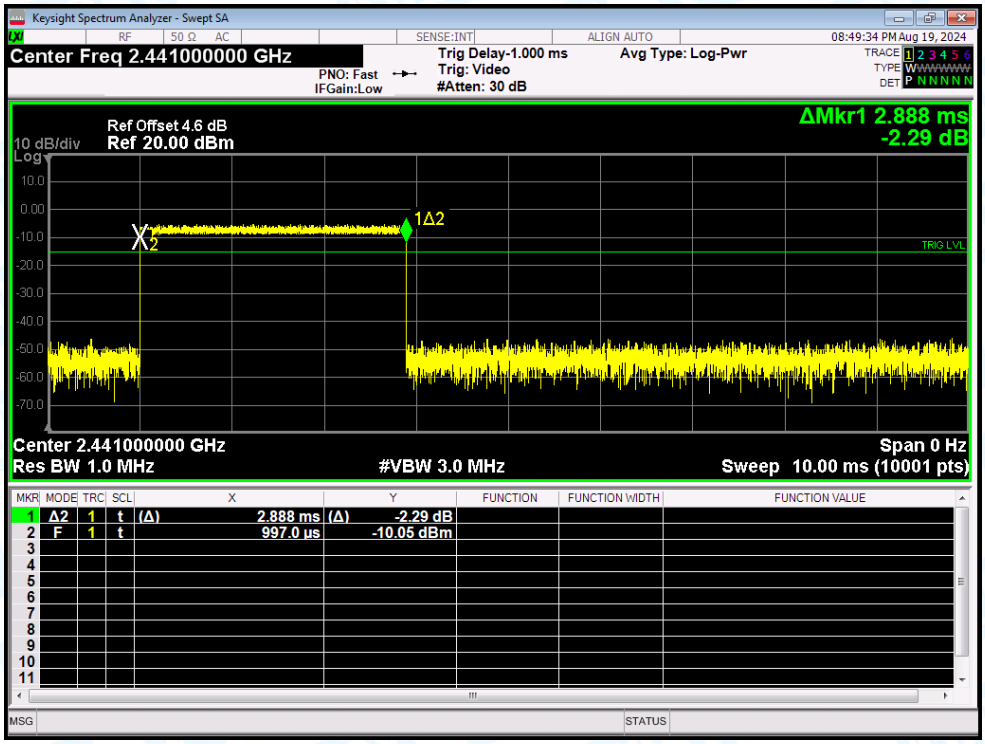
Dwell NVNT 2-DH5 2441MHz Ant1



Dwell NVNT 3-DH1 2441MHz Ant1



Dwell NVNT 3-DH3 2441MHz Ant1



Dwell NVNT 3-DH5 2441MHz Ant1