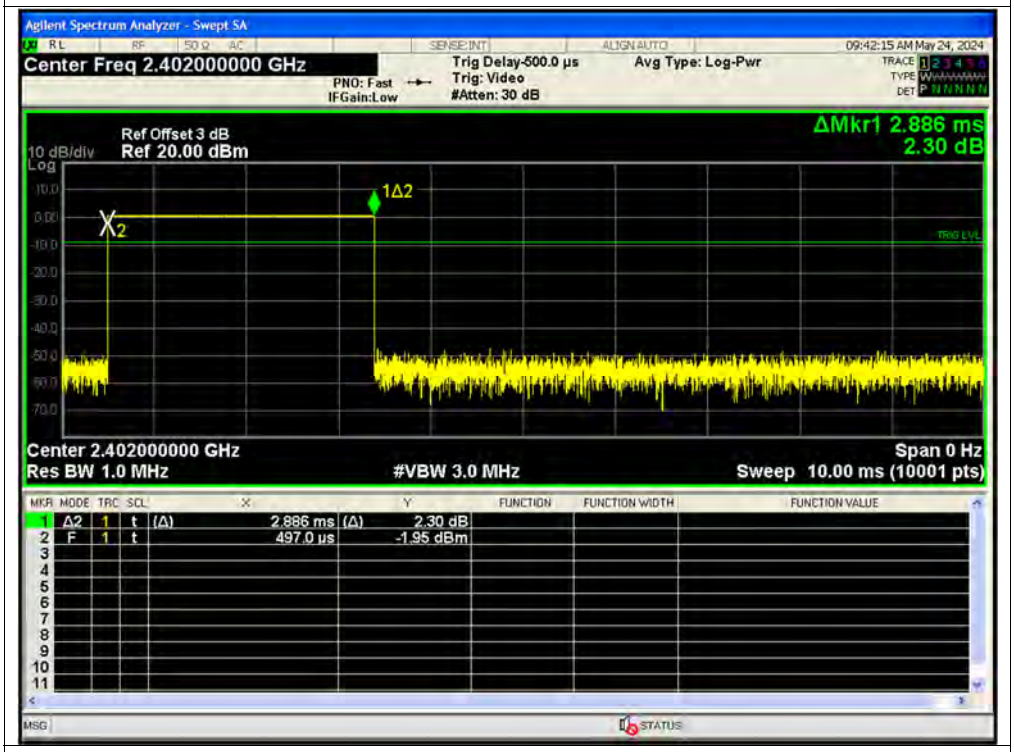
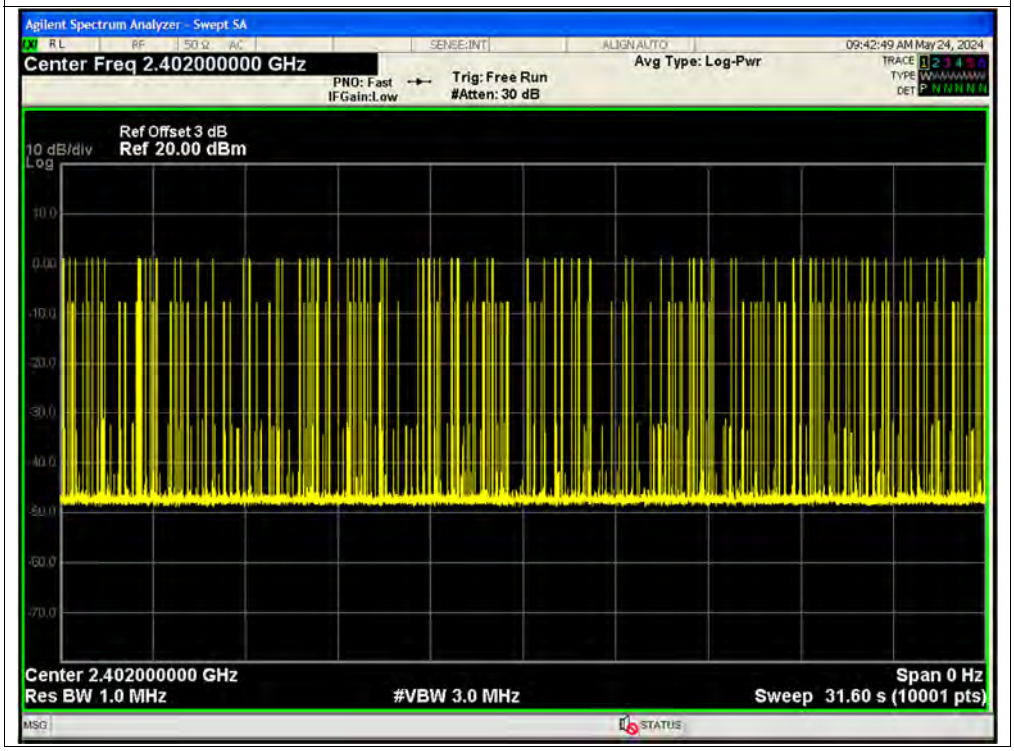
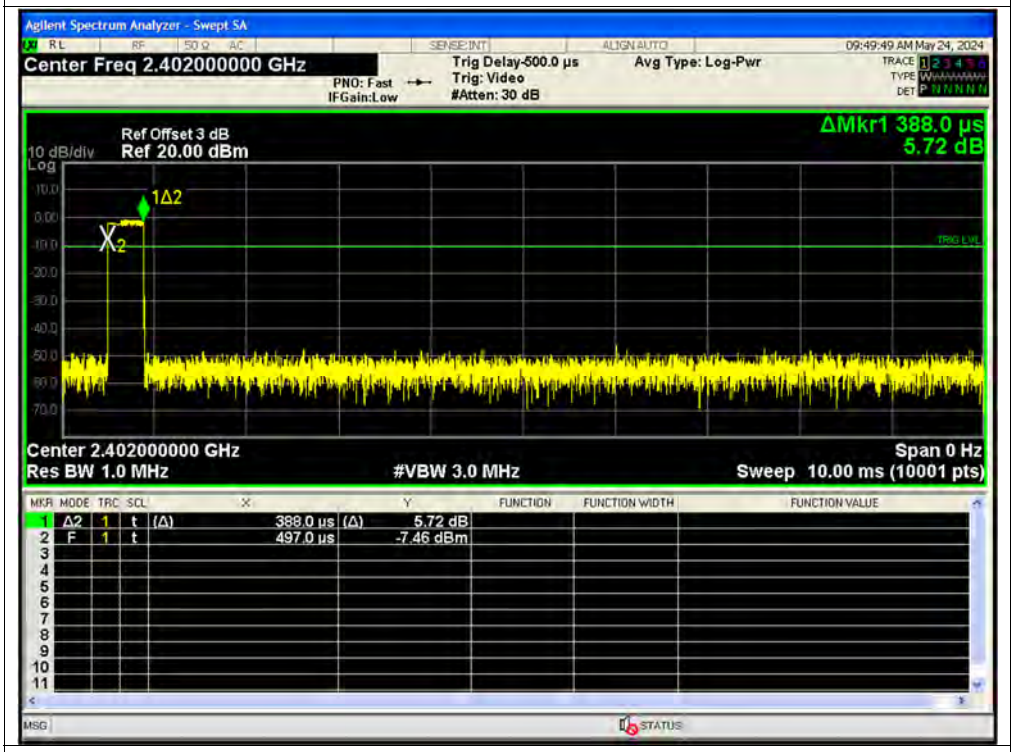
Dwell NVNT 1-DH5 2402MHz Ant1 One Burst



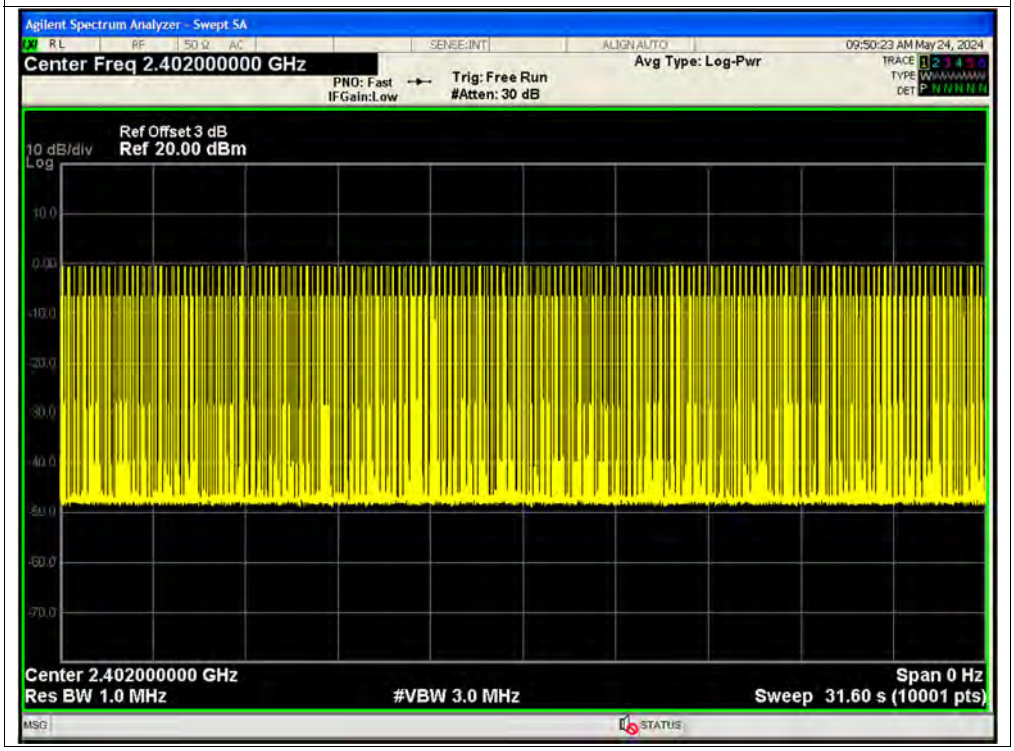
Dwell NVNT 1-DH5 2402MHz Ant1 Accumulated



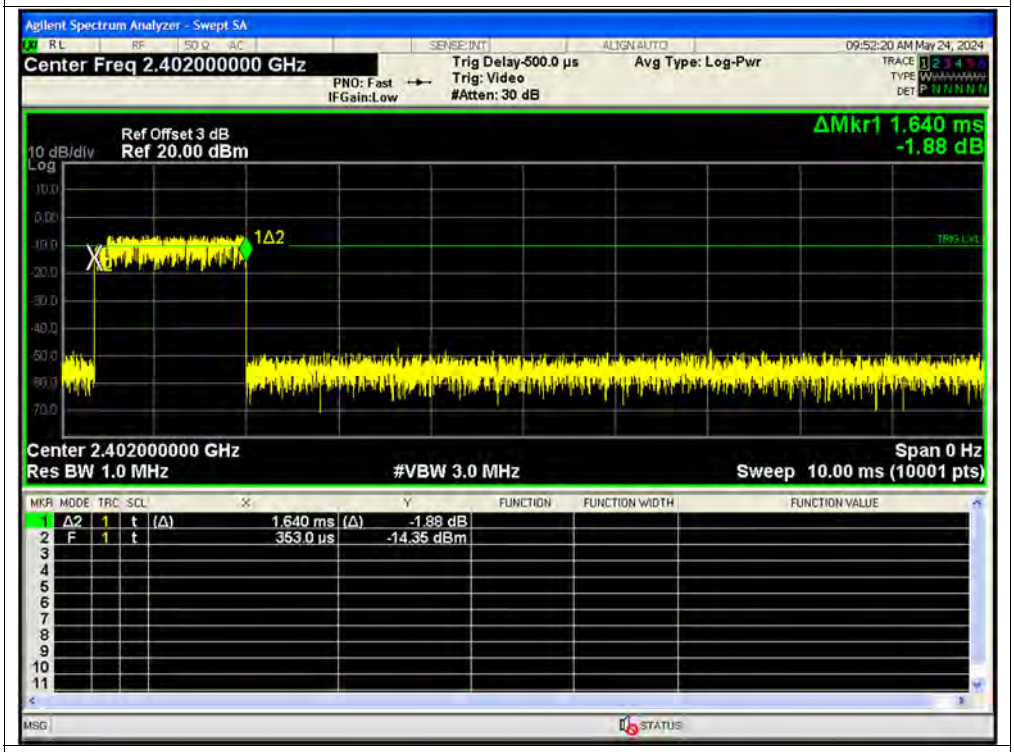
Dwell NVNT 2-DH1 2402MHz Ant1 One Burst



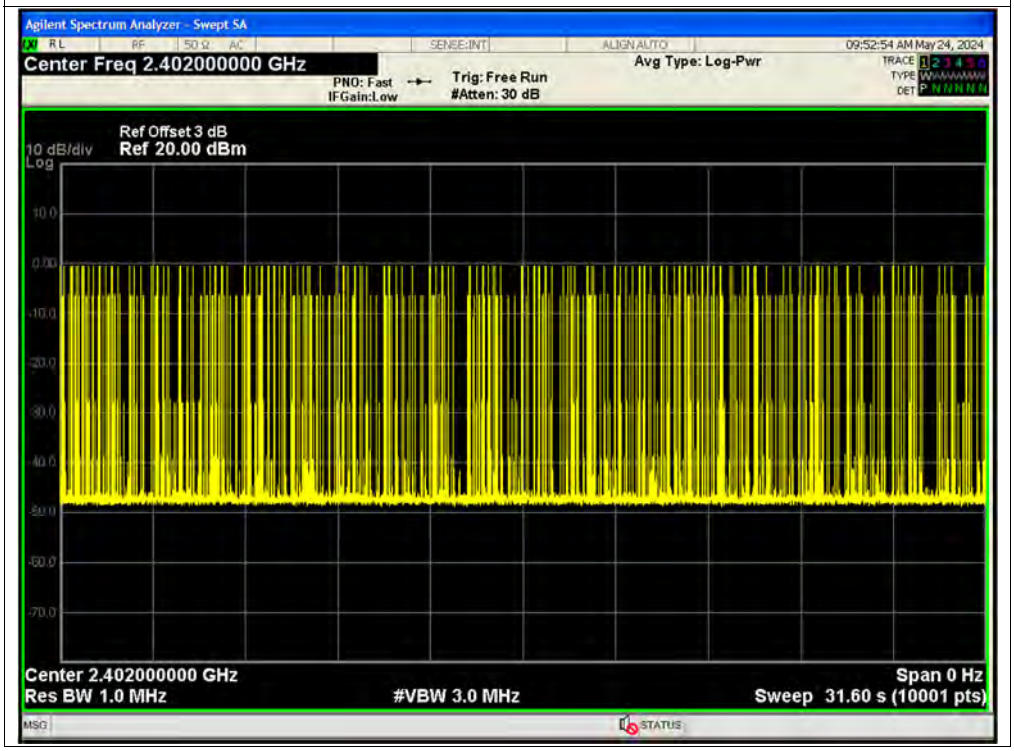
Dwell NVNT 2-DH1 2402MHz Ant1 Accumulated



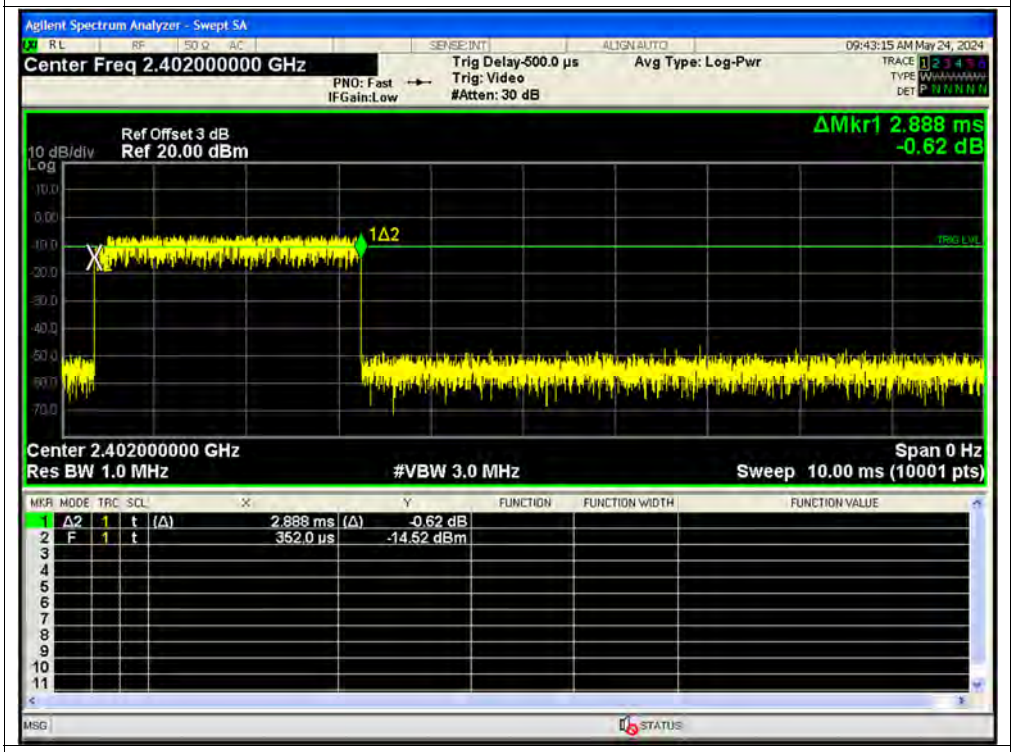
Dwell NVNT 2-DH3 2402MHz Ant1 One Burst



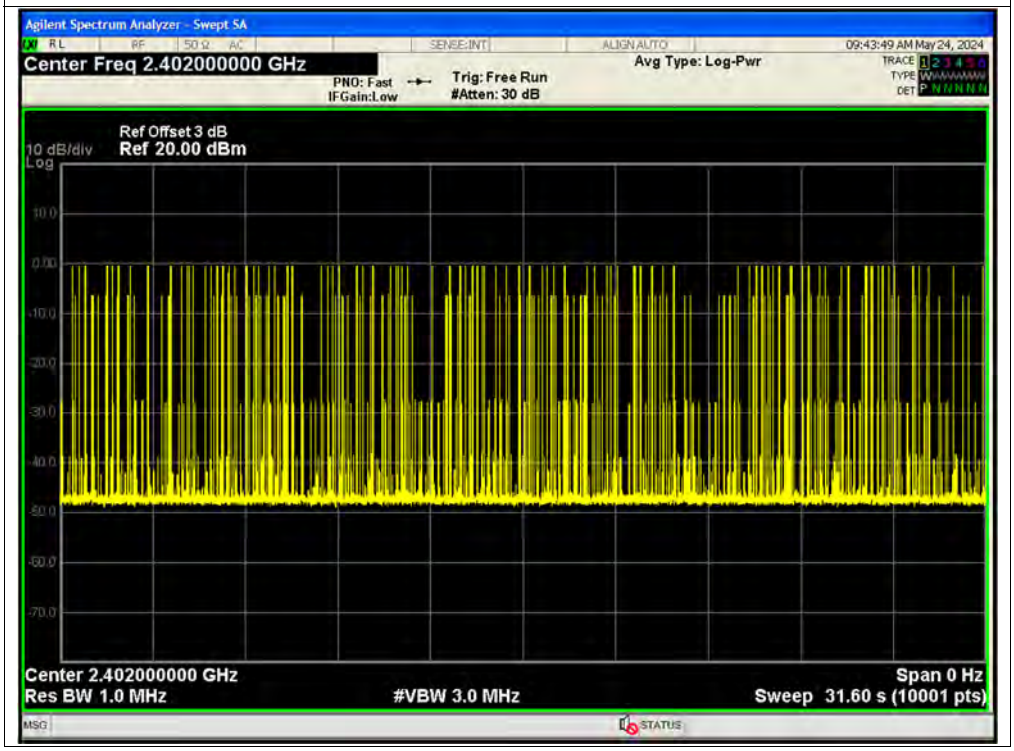
Dwell NVNT 2-DH3 2402MHz Ant1 Accumulated



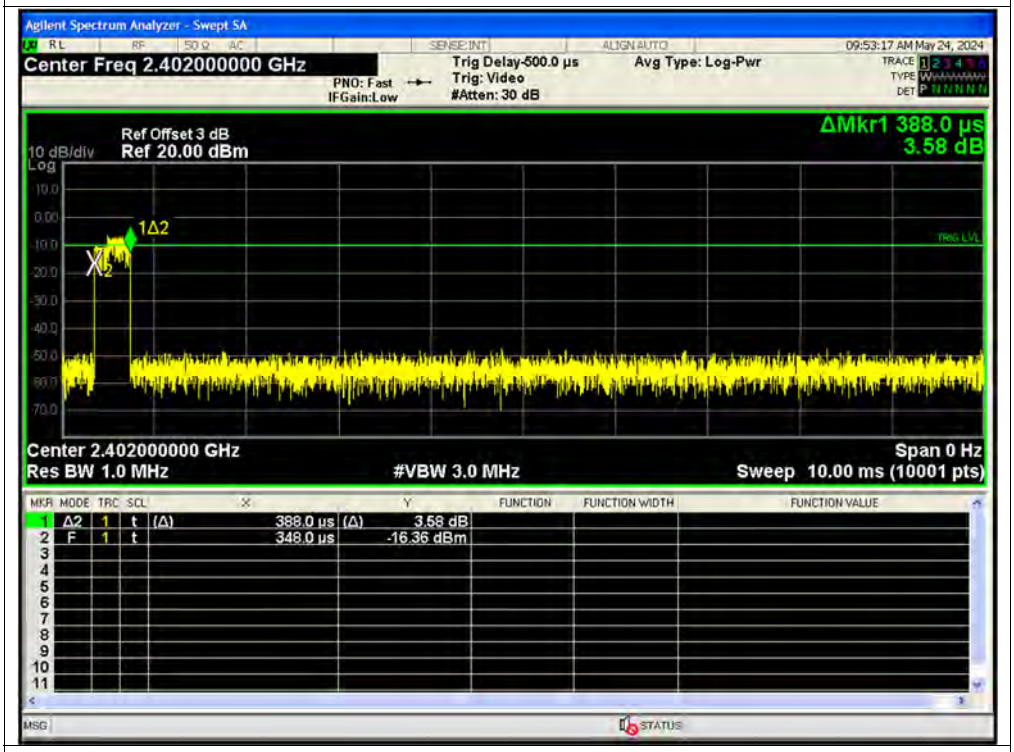
Dwell NVNT 2-DH5 2402MHz Ant1 One Burst



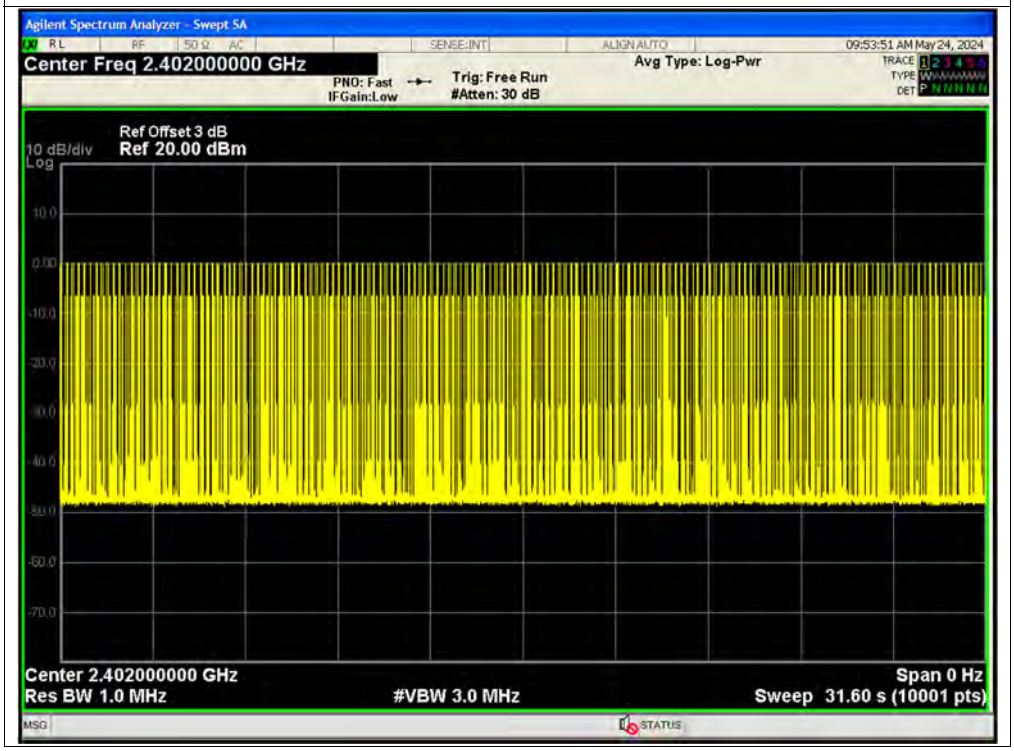
Dwell NVNT 2-DH5 2402MHz Ant1 Accumulated



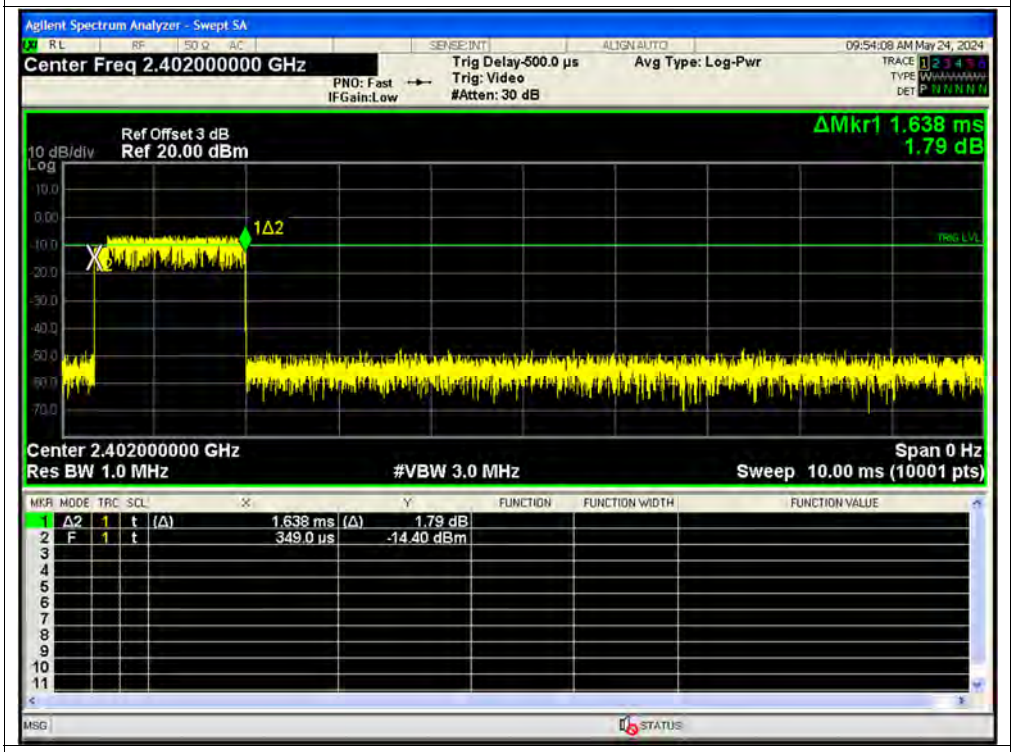
Dwell NVNT 3-DH1 2402MHz Ant1 One Burst



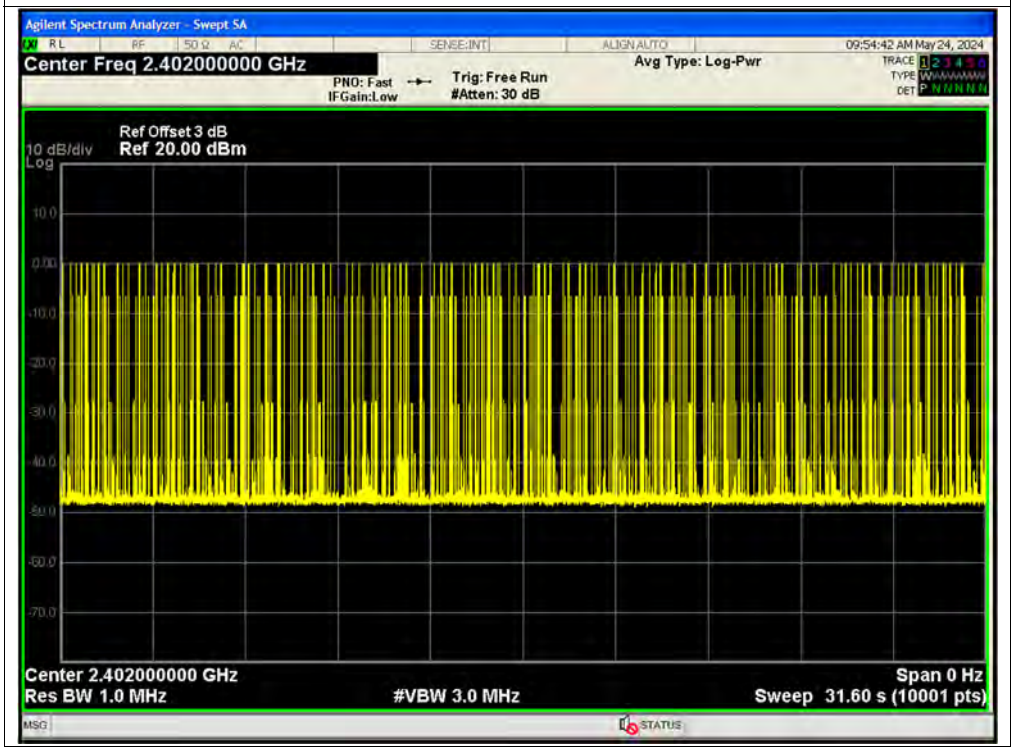
Dwell NVNT 3-DH1 2402MHz Ant1 Accumulated



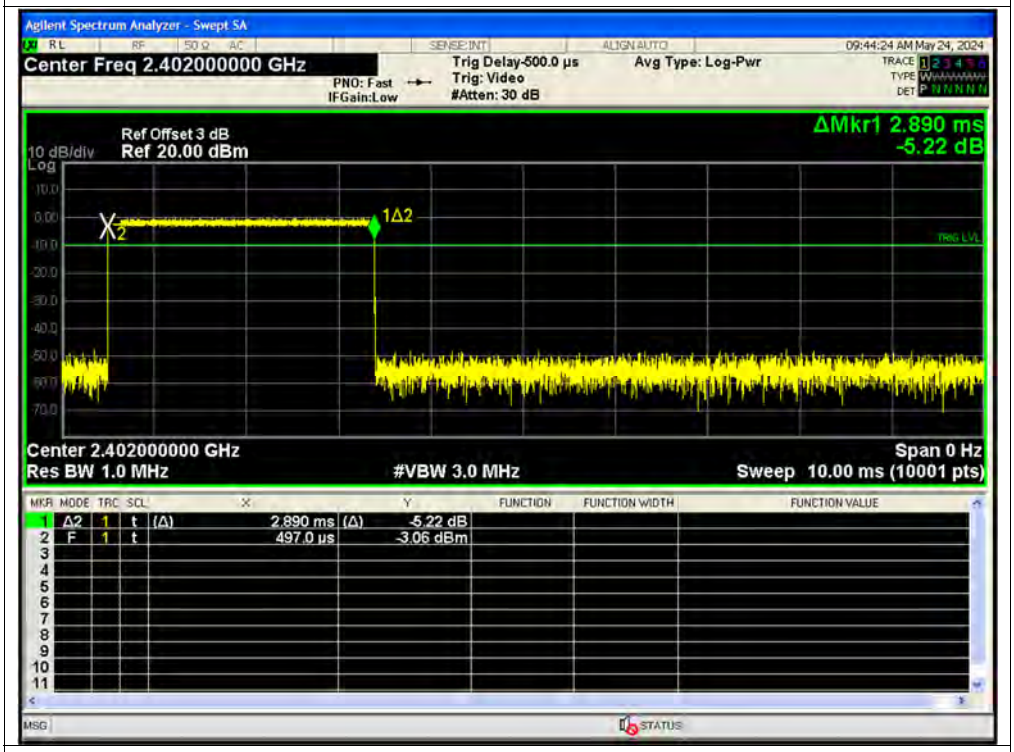
Dwell NVNT 3-DH3 2402MHz Ant1 One Burst



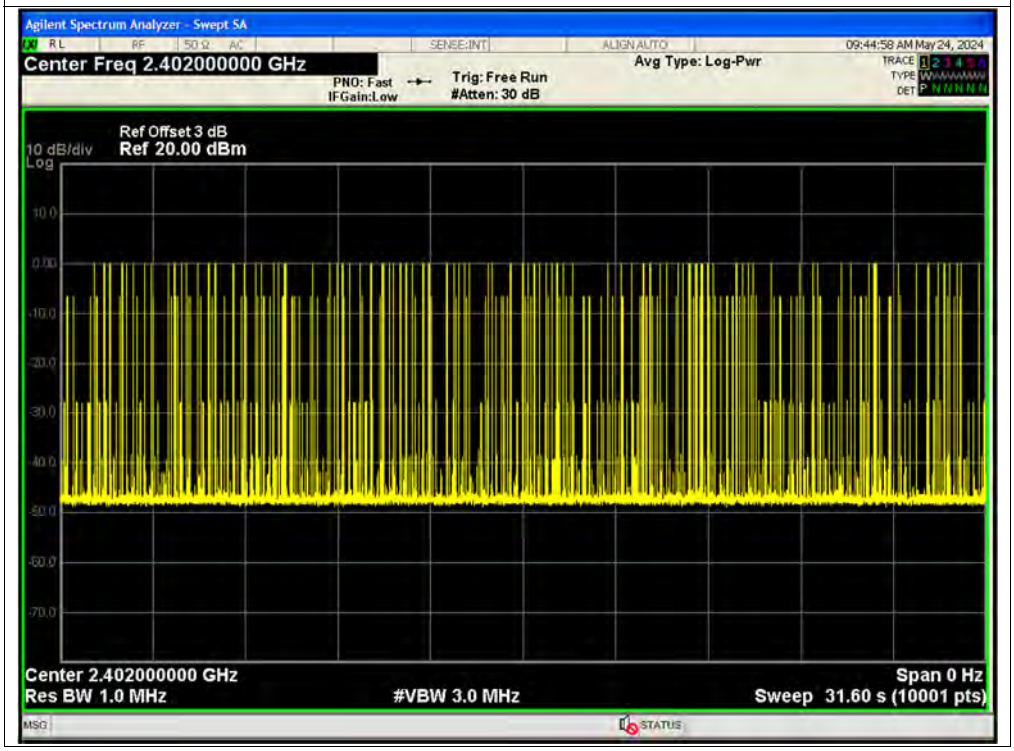
Dwell NVNT 3-DH3 2402MHz Ant1 Accumulated



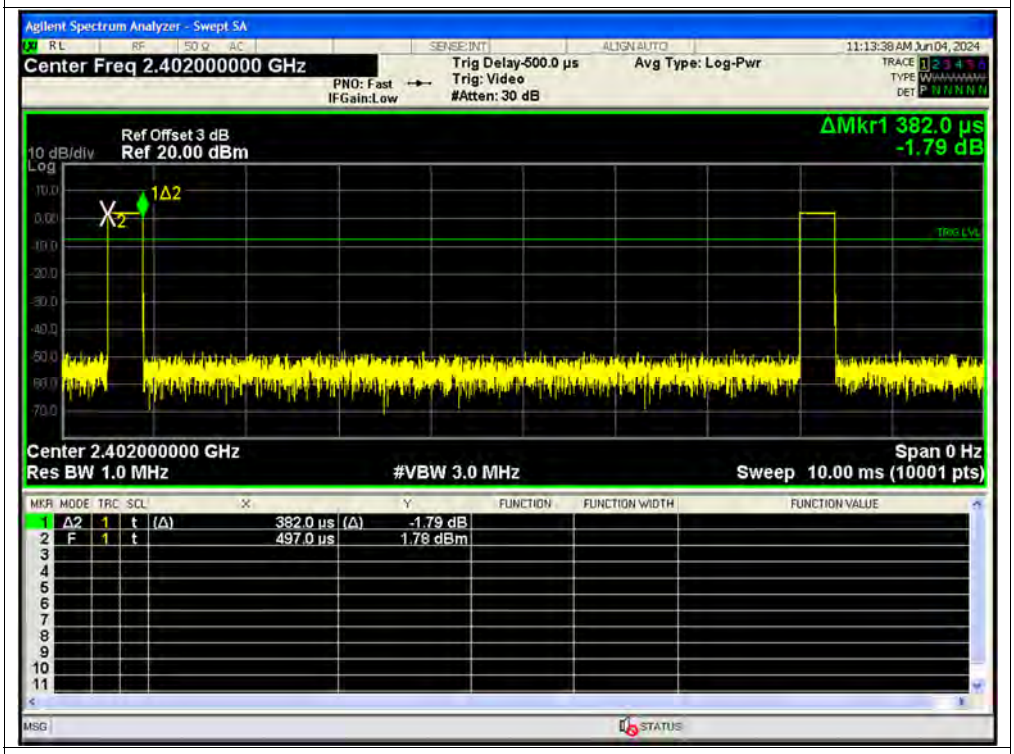
Dwell NVNT 3-DH5 2402MHz Ant1 One Burst



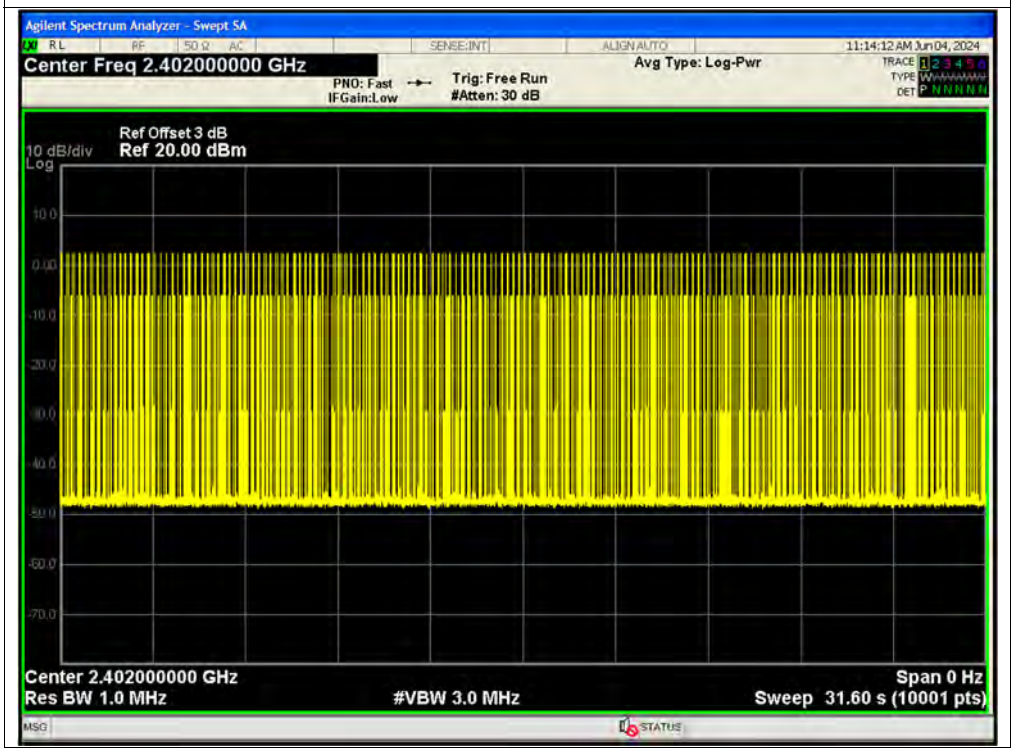
Dwell NVNT 3-DH5 2402MHz Ant1 Accumulated



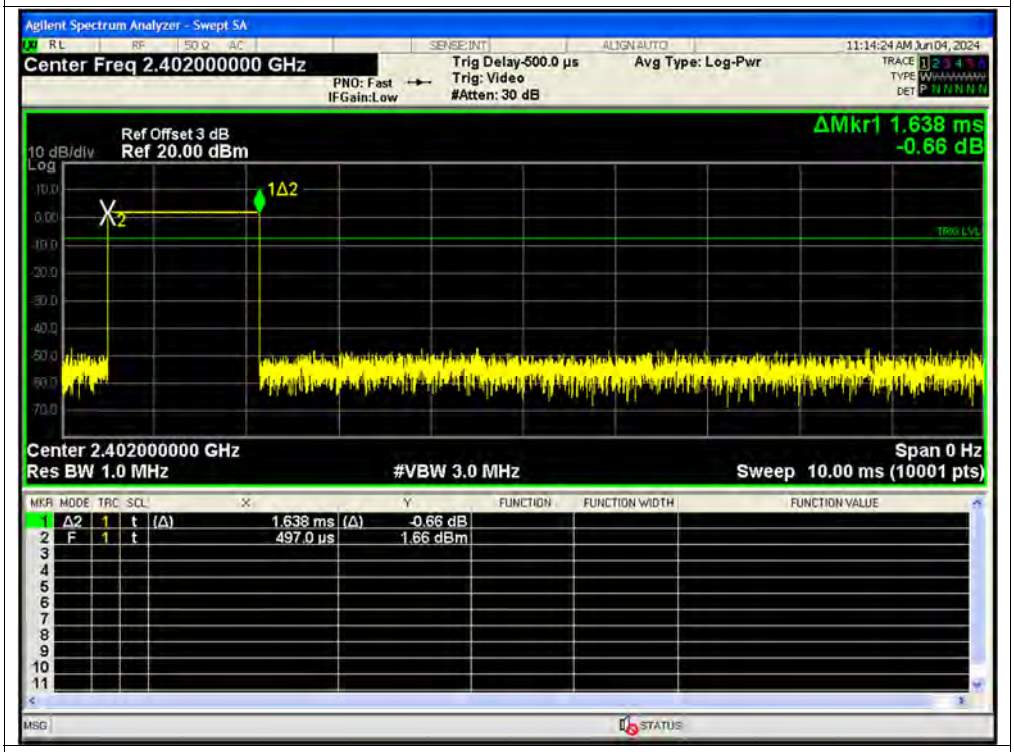
Test Graphs
Dwell NVNT 1-DH1 2402MHz Ant2 One Burst



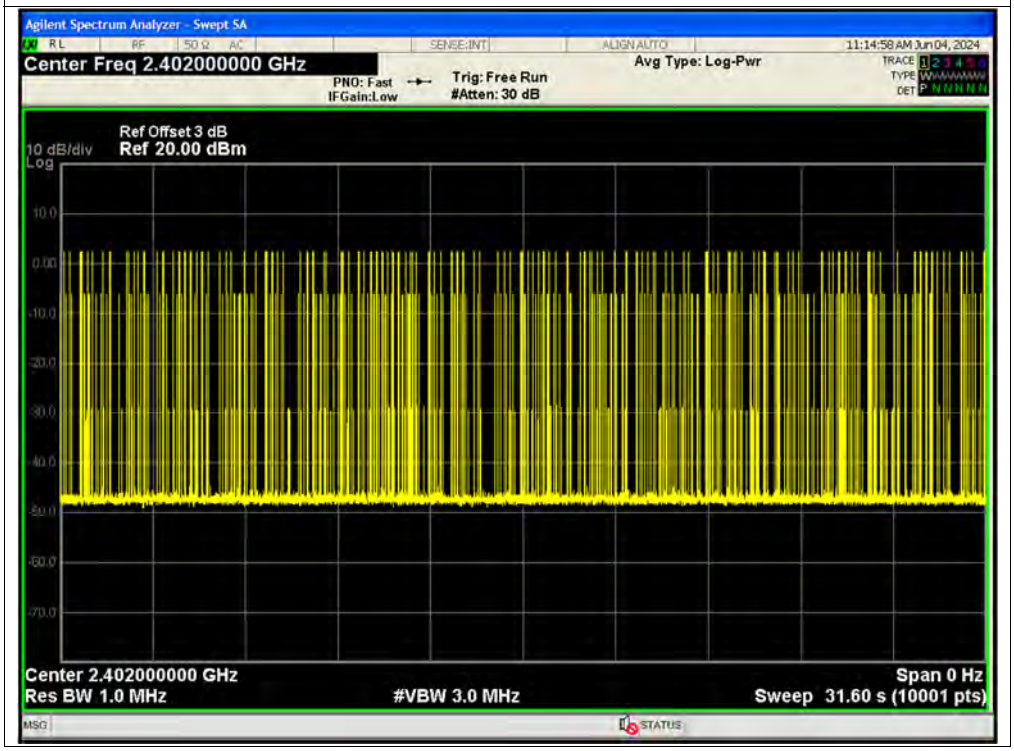
Dwell NVNT 1-DH1 2402MHz Ant2 Accumulated



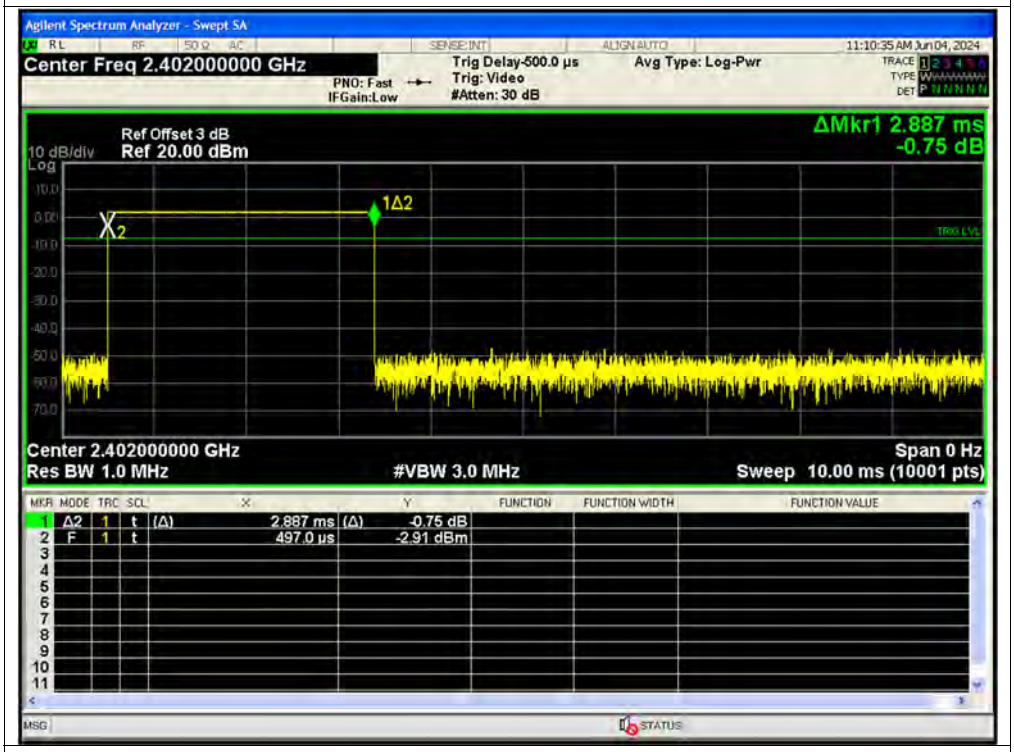
Dwell NVNT 1-DH3 2402MHz Ant2 One Burst



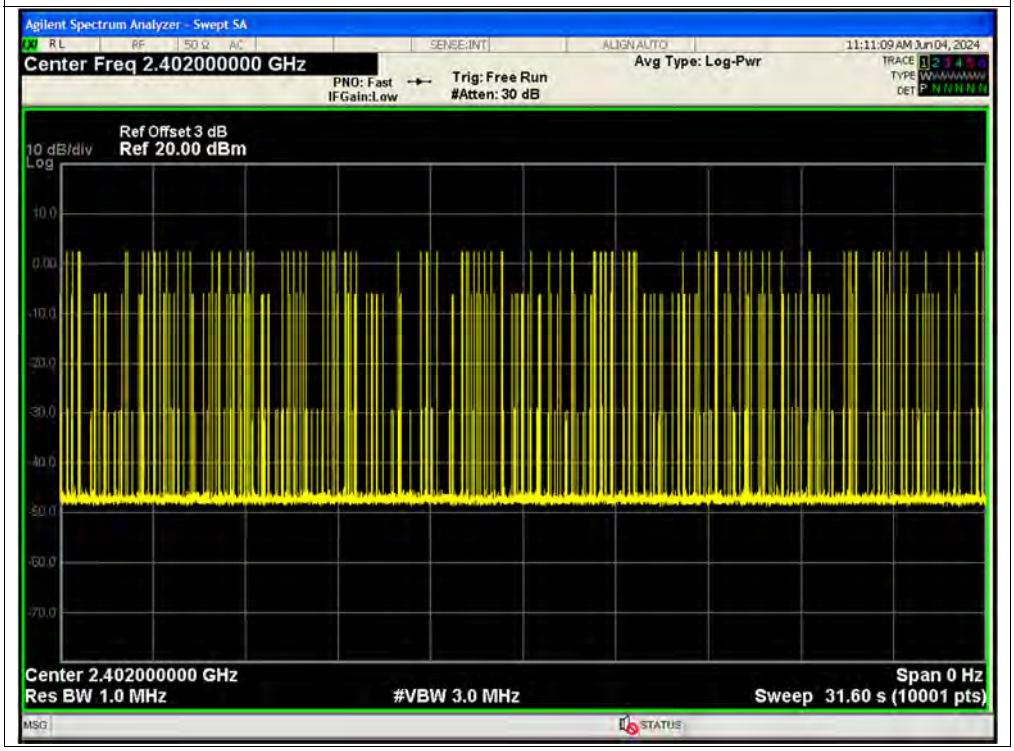
Dwell NVNT 1-DH3 2402MHz Ant2 Accumulated



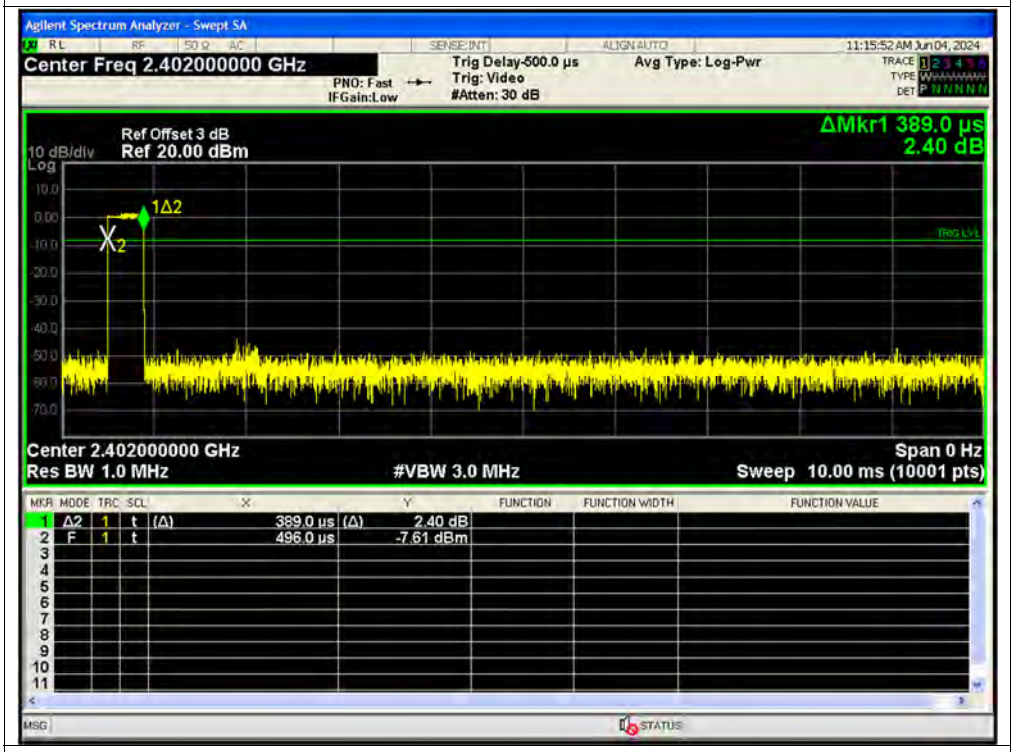
Dwell NVNT 1-DH5 2402MHz Ant2 One Burst



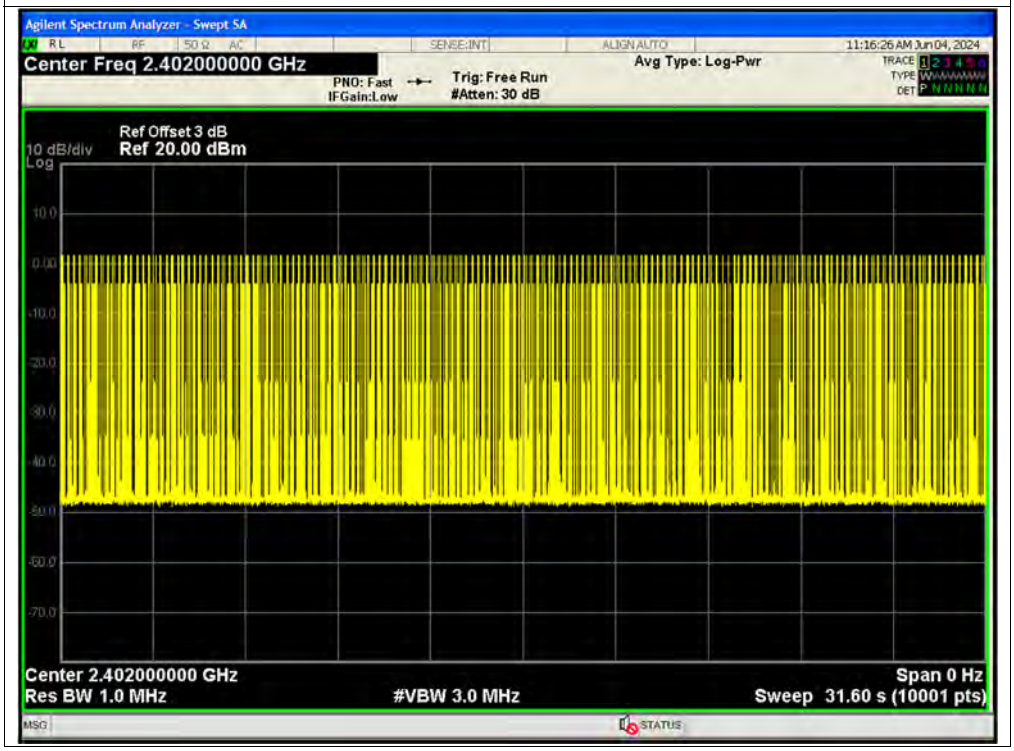
Dwell NVNT 1-DH5 2402MHz Ant2 Accumulated



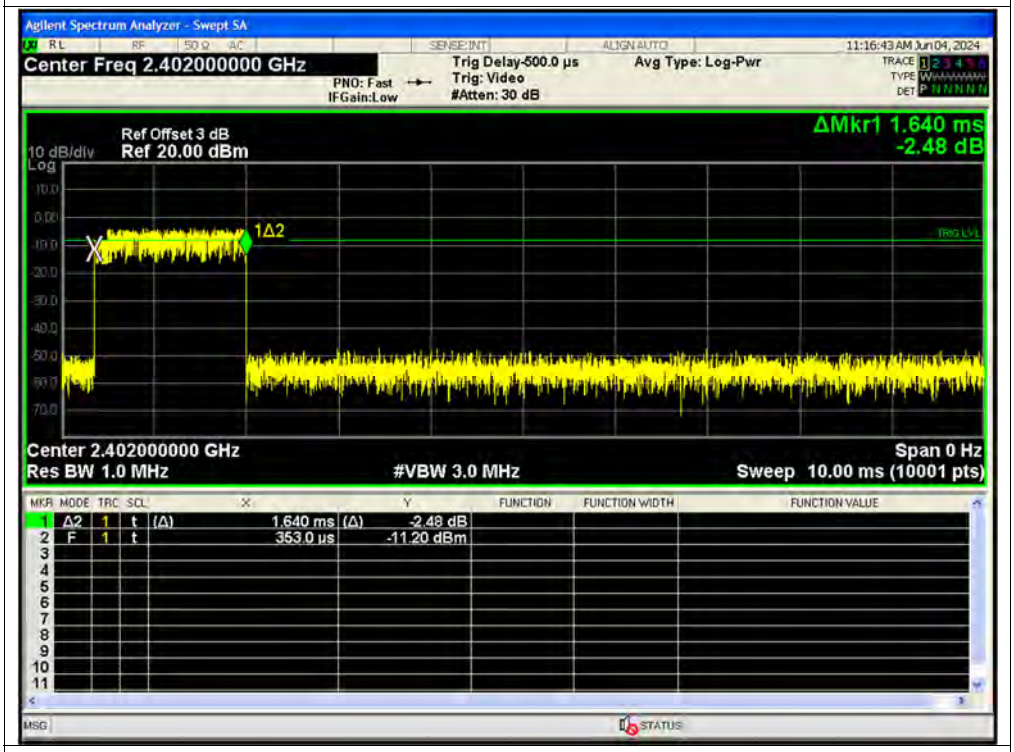
Dwell NVNT 2-DH1 2402MHz Ant2 One Burst



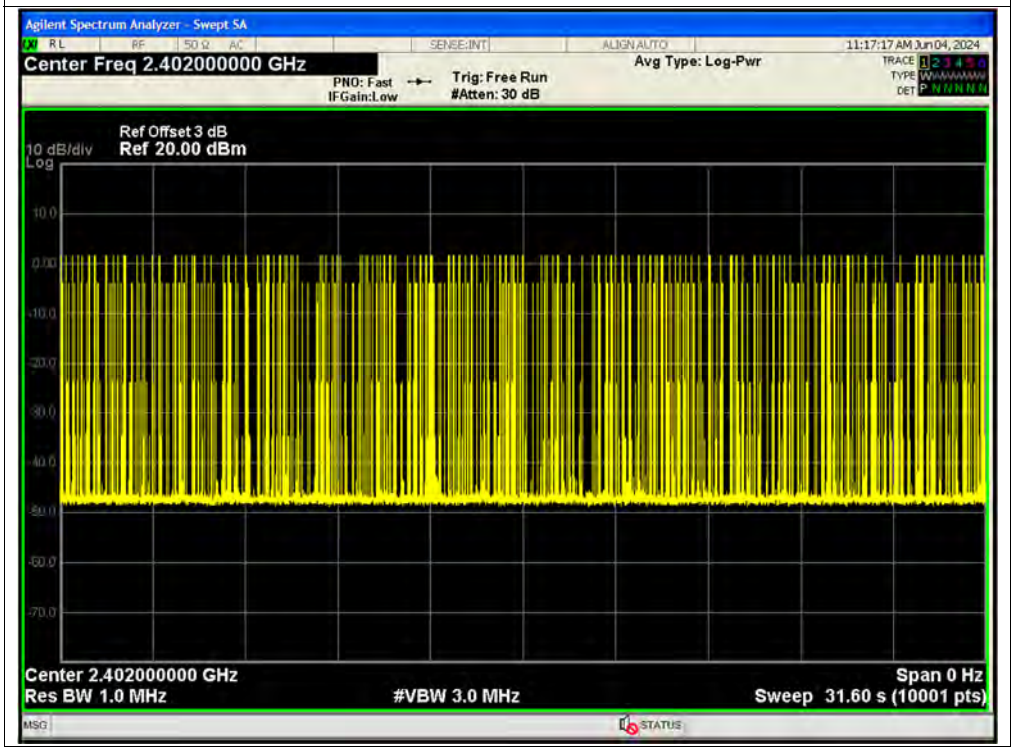
Dwell NVNT 2-DH1 2402MHz Ant2 Accumulated



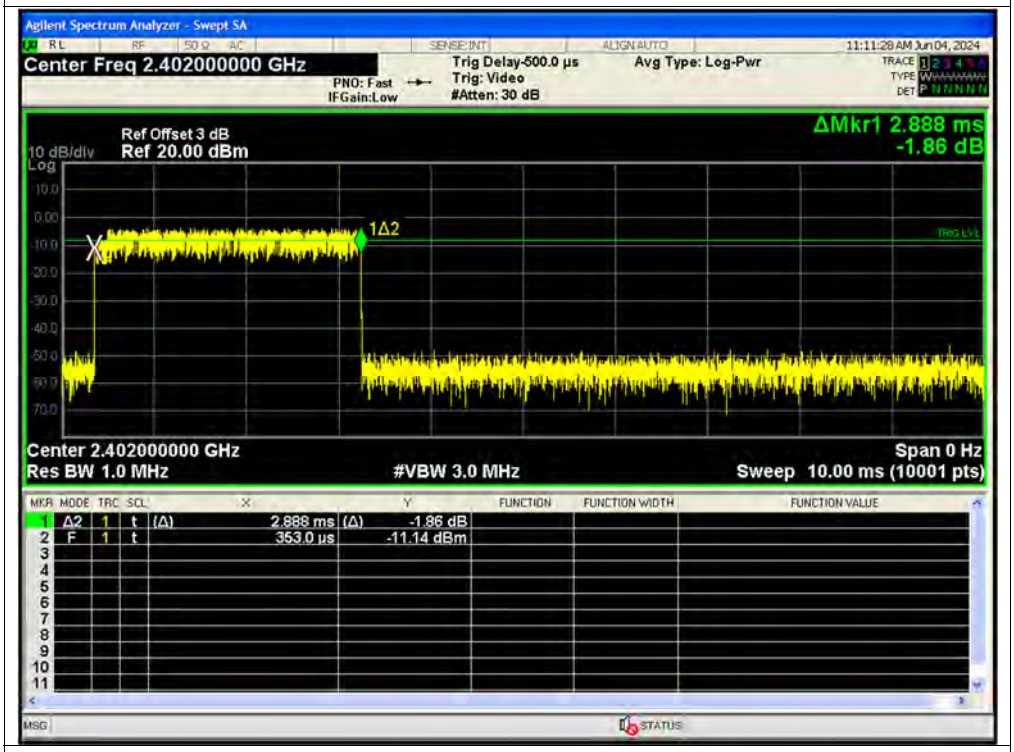
Dwell NVNT 2-DH3 2402MHz Ant2 One Burst



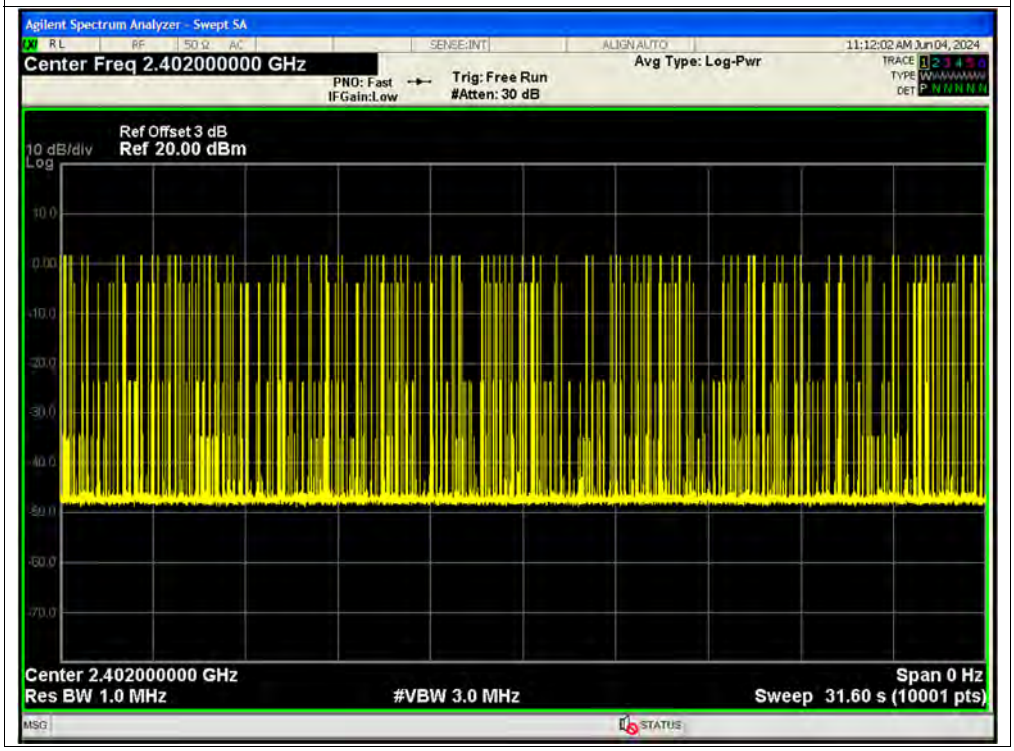
Dwell NVNT 2-DH3 2402MHz Ant2 Accumulated



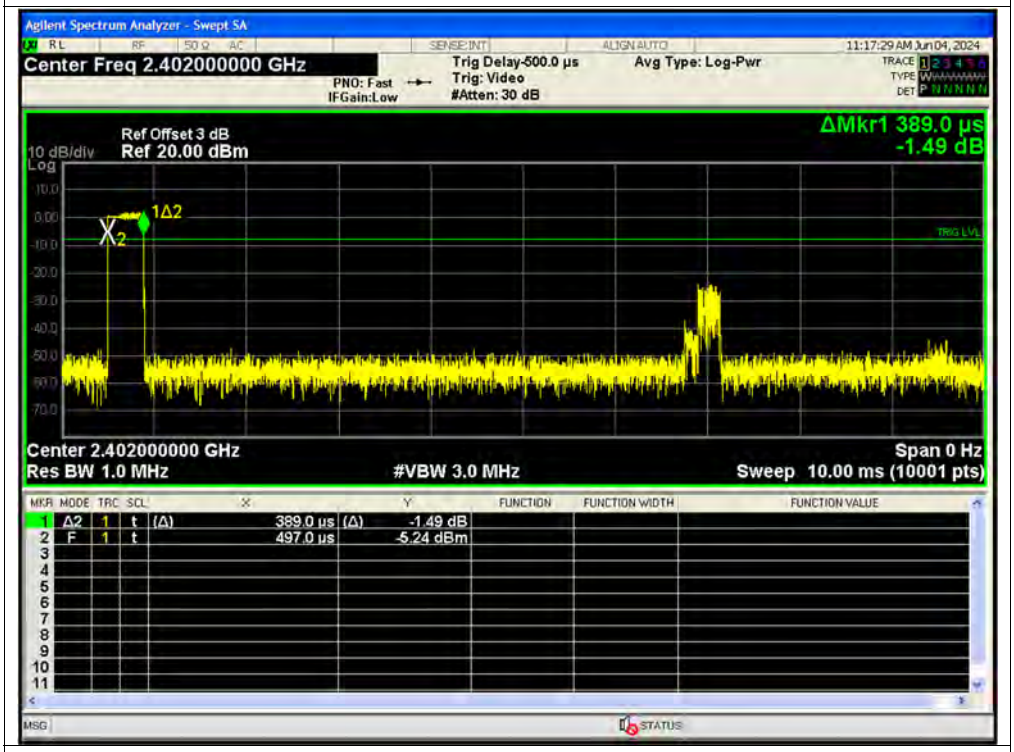
Dwell NVNT 2-DH5 2402MHz Ant2 One Burst



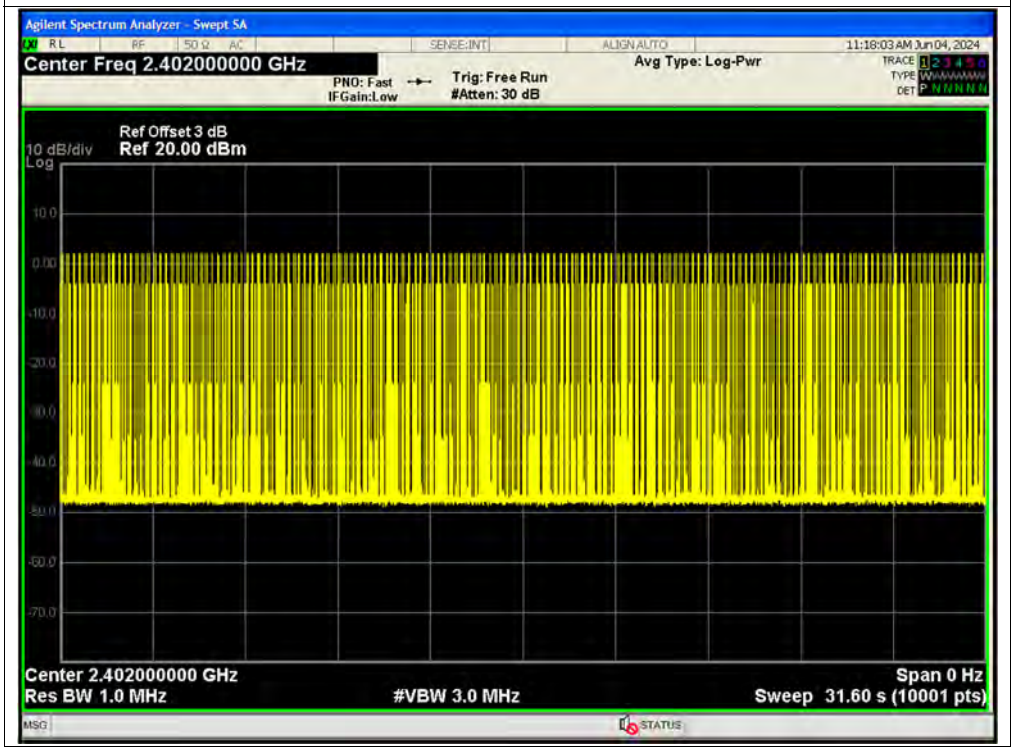
Dwell NVNT 2-DH5 2402MHz Ant2 Accumulated



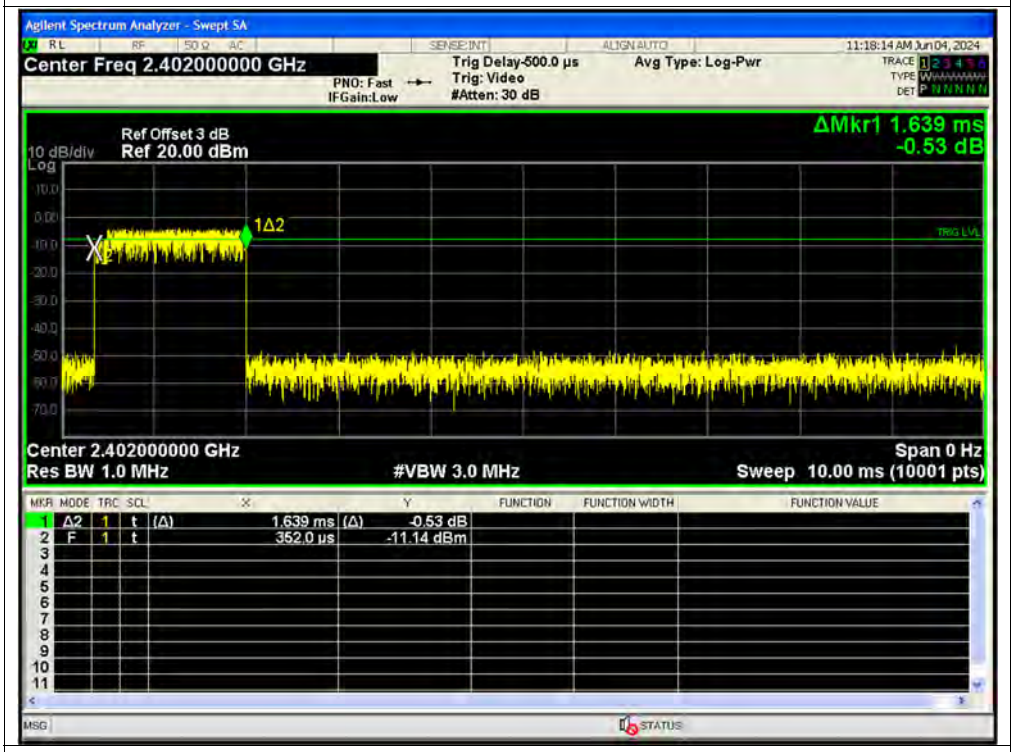
Dwell NVNT 3-DH1 2402MHz Ant2 One Burst



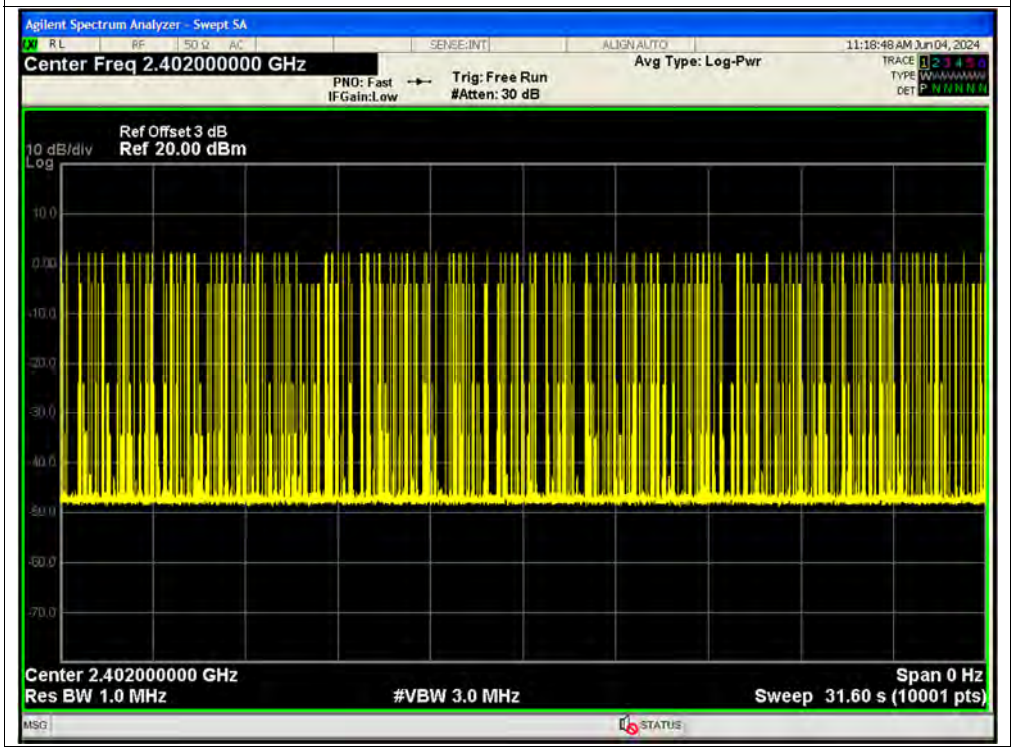
Dwell NVNT 3-DH1 2402MHz Ant2 Accumulated



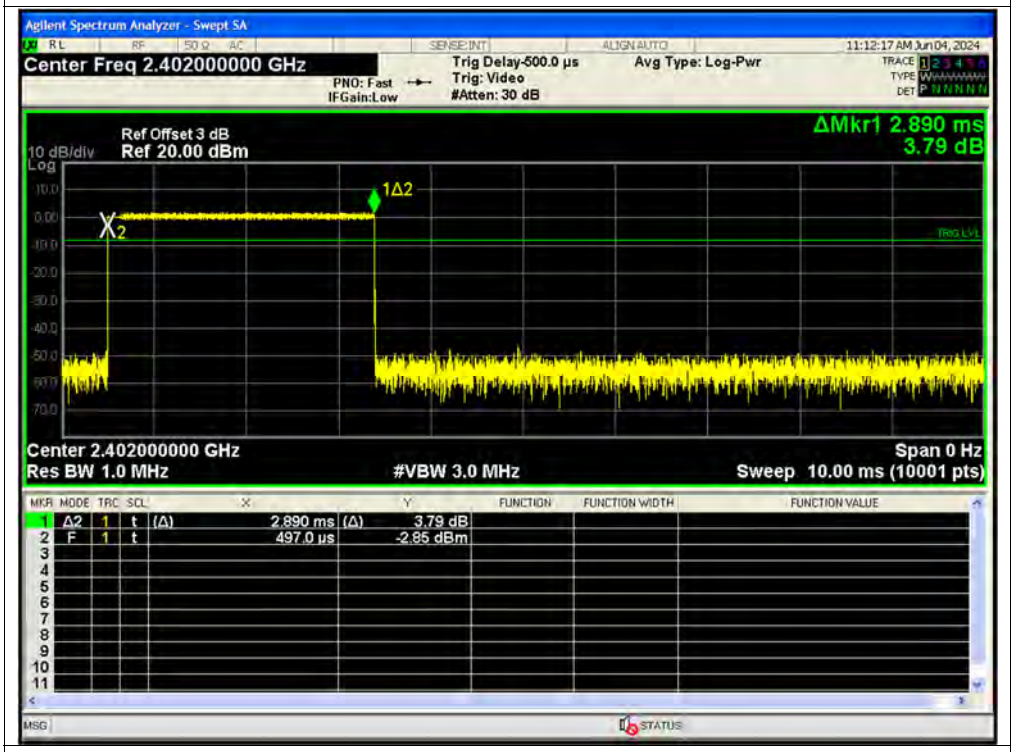
Dwell NVNT 3-DH3 2402MHz Ant2 One Burst



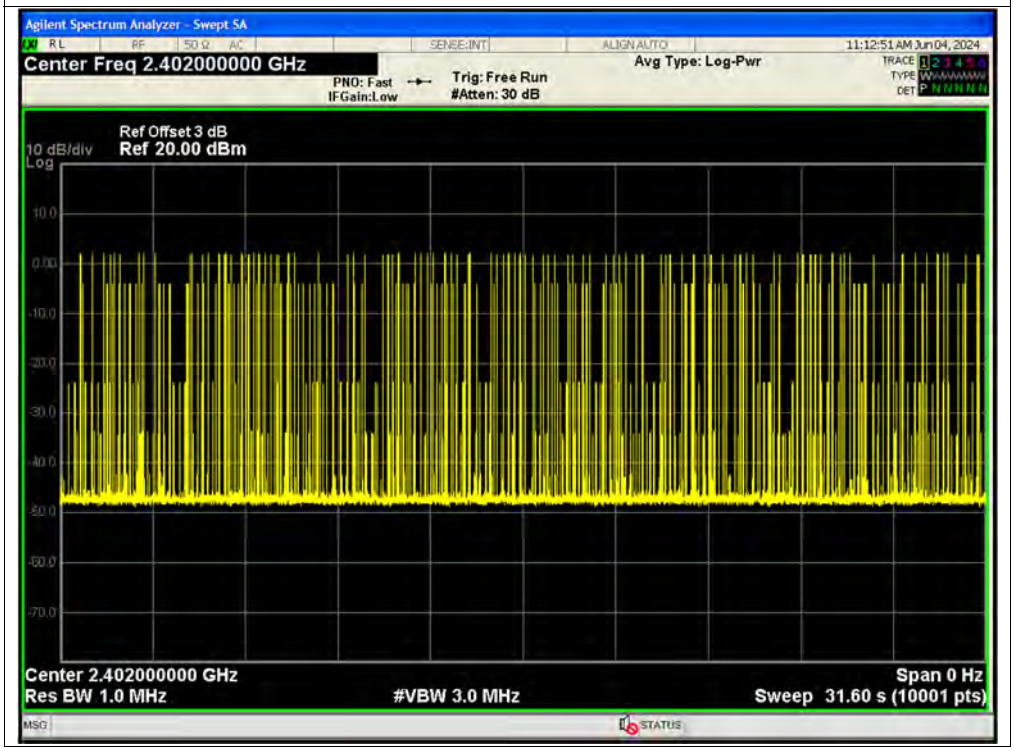
Dwell NVNT 3-DH3 2402MHz Ant2 Accumulated



Dwell NVNT 3-DH5 2402MHz Ant2 One Burst



Dwell NVNT 3-DH5 2402MHz Ant2 Accumulated

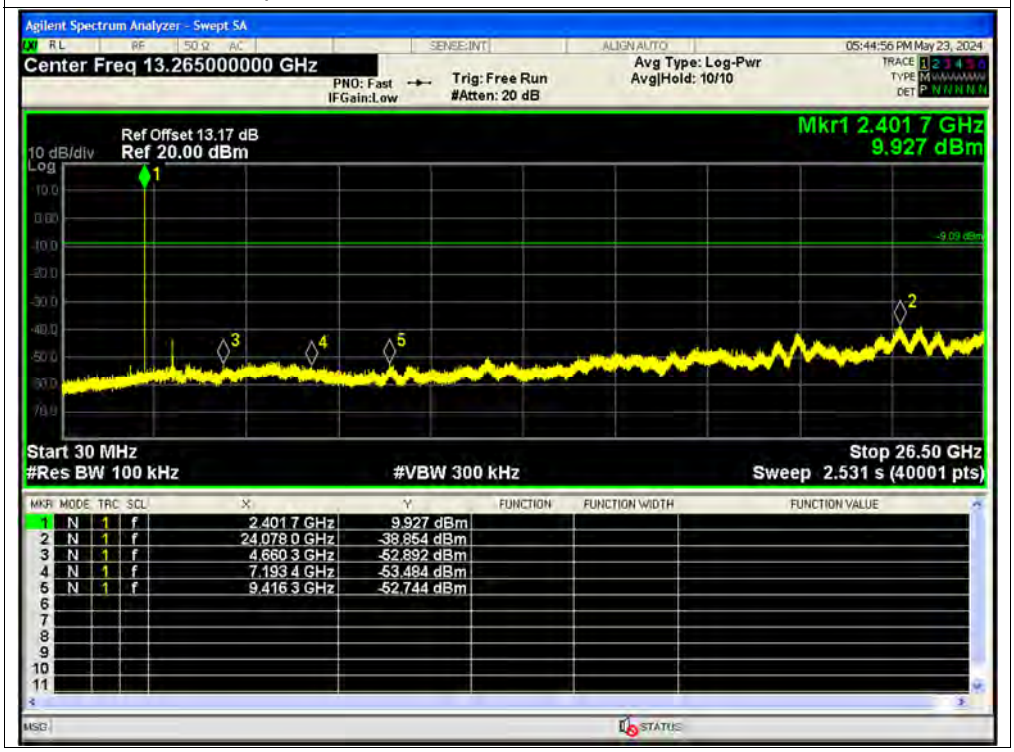


A.8. Conducted Spurious Emissions

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	-49.76	-20	Pass
NVNT	1-DH5	2441	Ant1	-50.57	-20	Pass
NVNT	1-DH5	2480	Ant1	-49.49	-20	Pass
NVNT	2-DH5	2402	Ant1	-46.83	-20	Pass
NVNT	2-DH5	2441	Ant1	-49.03	-20	Pass
NVNT	2-DH5	2480	Ant1	-48.65	-20	Pass
NVNT	3-DH5	2402	Ant1	-47.7	-20	Pass
NVNT	3-DH5	2441	Ant1	-48.95	-20	Pass
NVNT	3-DH5	2480	Ant1	-48.68	-20	Pass
NVNT	1-DH5	2402	Ant2	-50.91	-20	Pass
NVNT	1-DH5	2441	Ant2	-49.91	-20	Pass
NVNT	1-DH5	2480	Ant2	-49.24	-20	Pass
NVNT	2-DH5	2402	Ant2	-49.43	-20	Pass
NVNT	2-DH5	2441	Ant2	-47.83	-20	Pass
NVNT	2-DH5	2480	Ant2	-46.56	-20	Pass
NVNT	3-DH5	2402	Ant2	-49.05	-20	Pass
NVNT	3-DH5	2441	Ant2	-47.67	-20	Pass
NVNT	3-DH5	2480	Ant2	-45.97	-20	Pass

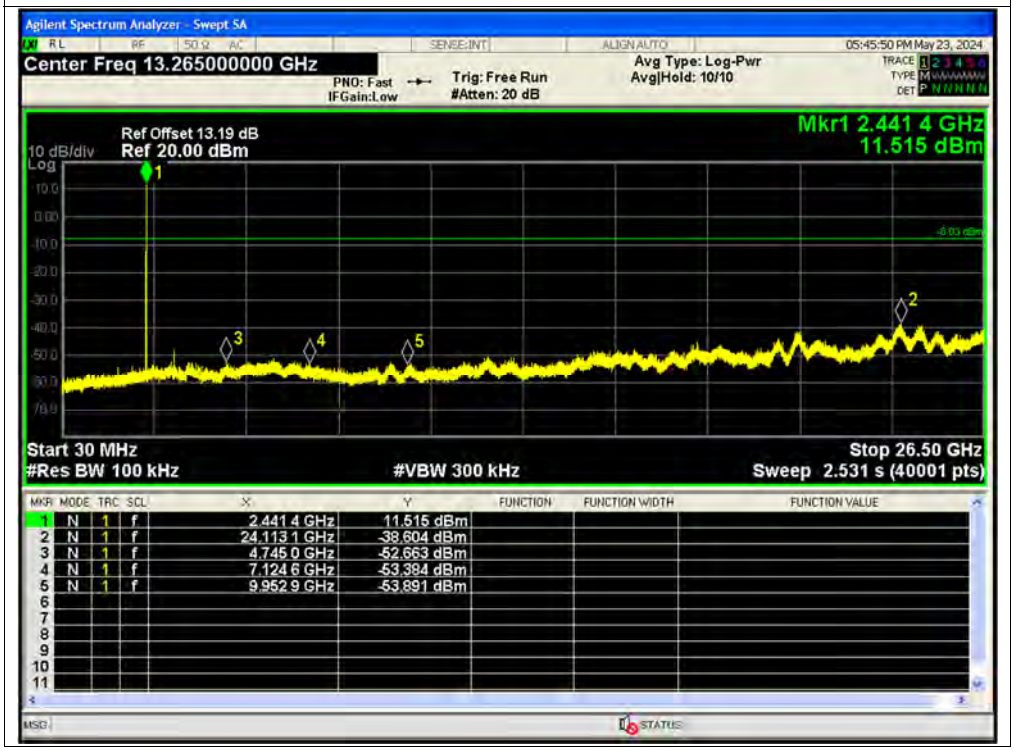
Test Graphs
Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Ref

Tx. Spurious NVNT 1-DH5 2402MHz Ant1 Emission



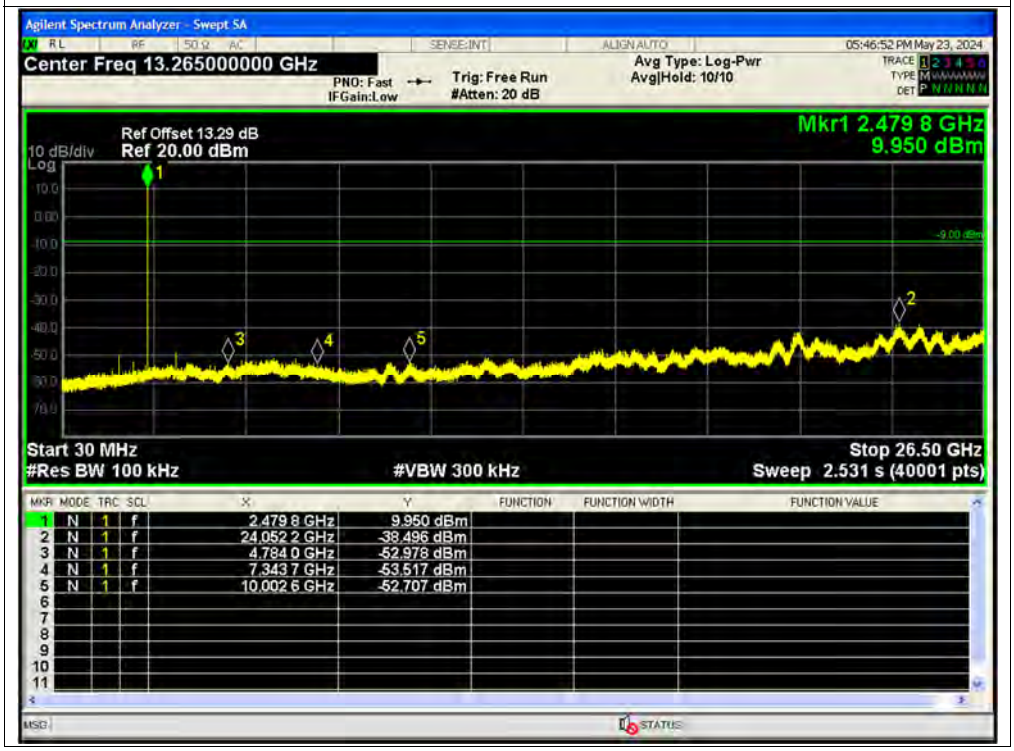
Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Ref

Tx. Spurious NVNT 1-DH5 2441MHz Ant1 Emission



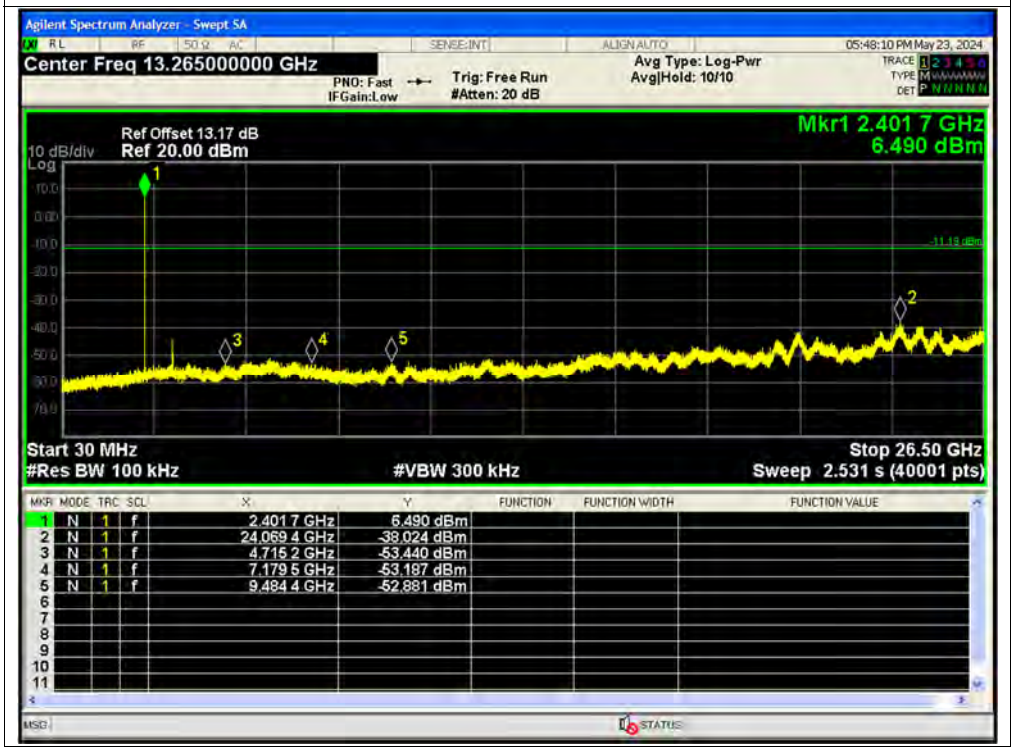
Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 1-DH5 2480MHz Ant1 Emission



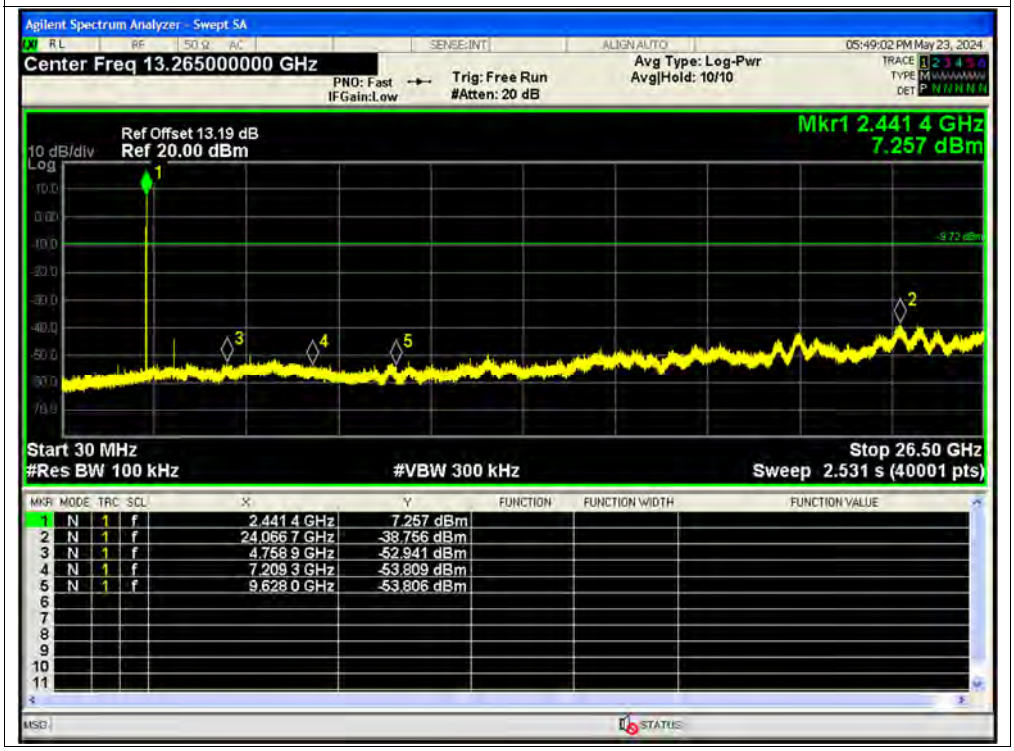
Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2402MHz Ant1 Emission



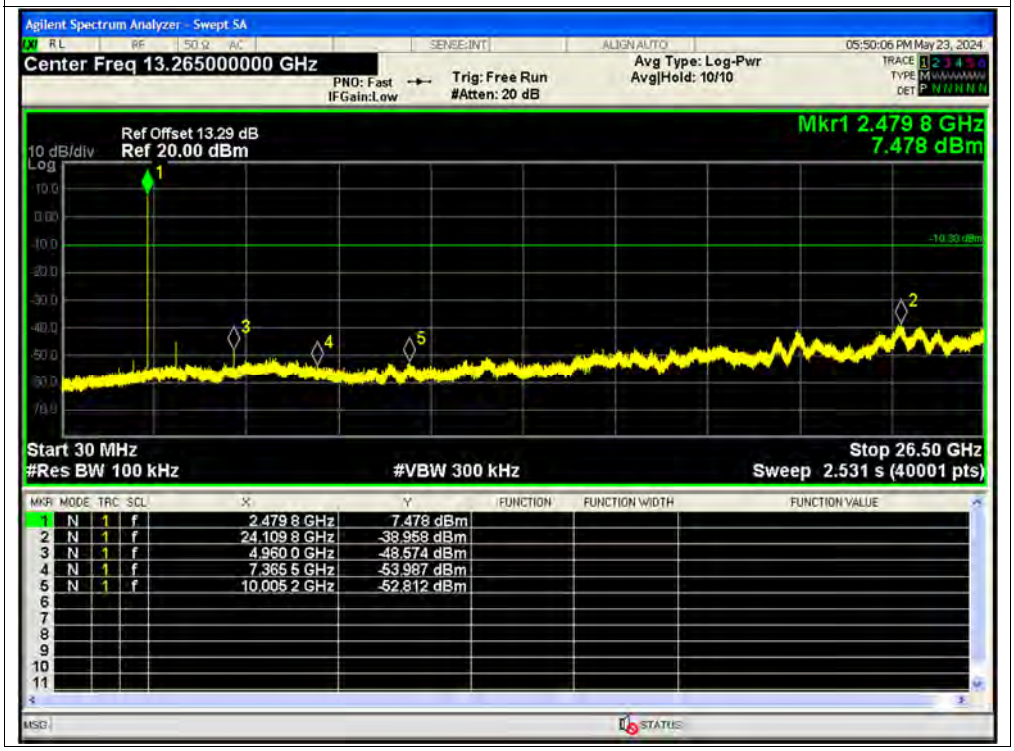
Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Ref

Tx. Spurious NVNT 2-DH5 2441MHz Ant1 Emission

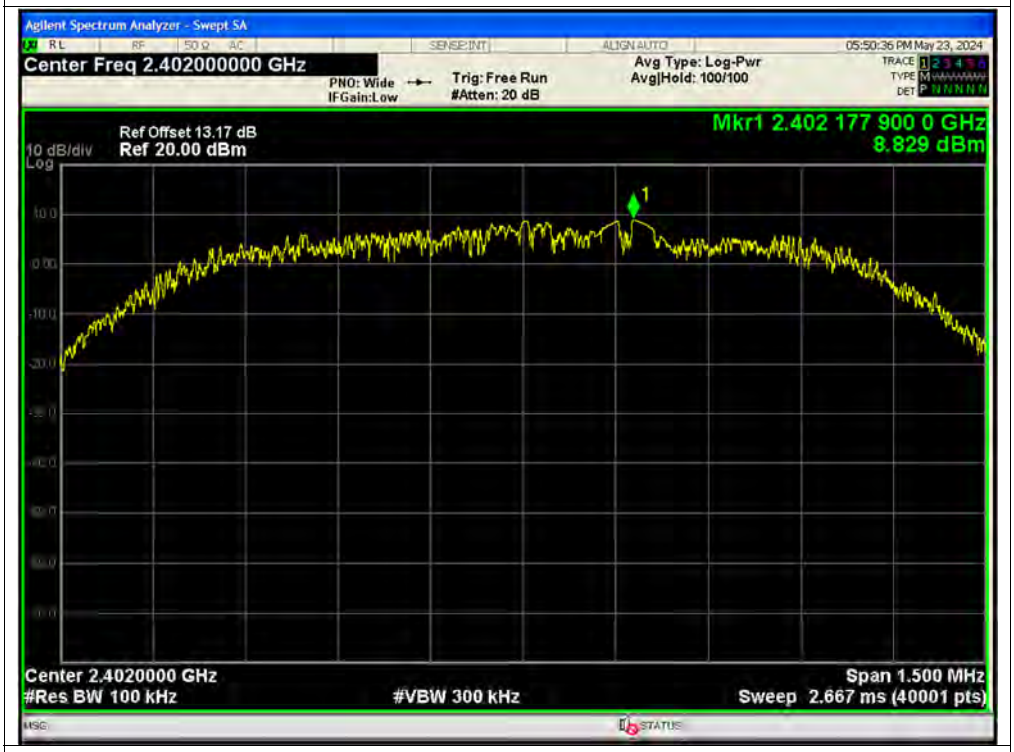


Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Ref

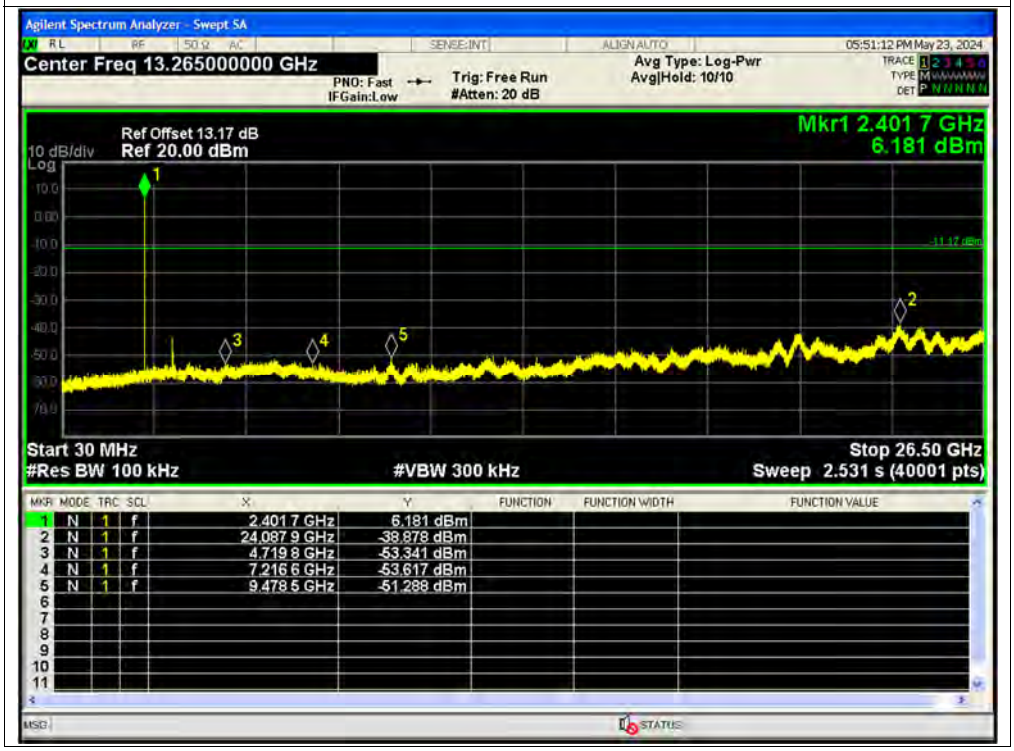
Tx. Spurious NVNT 2-DH5 2480MHz Ant1 Emission



Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Ref

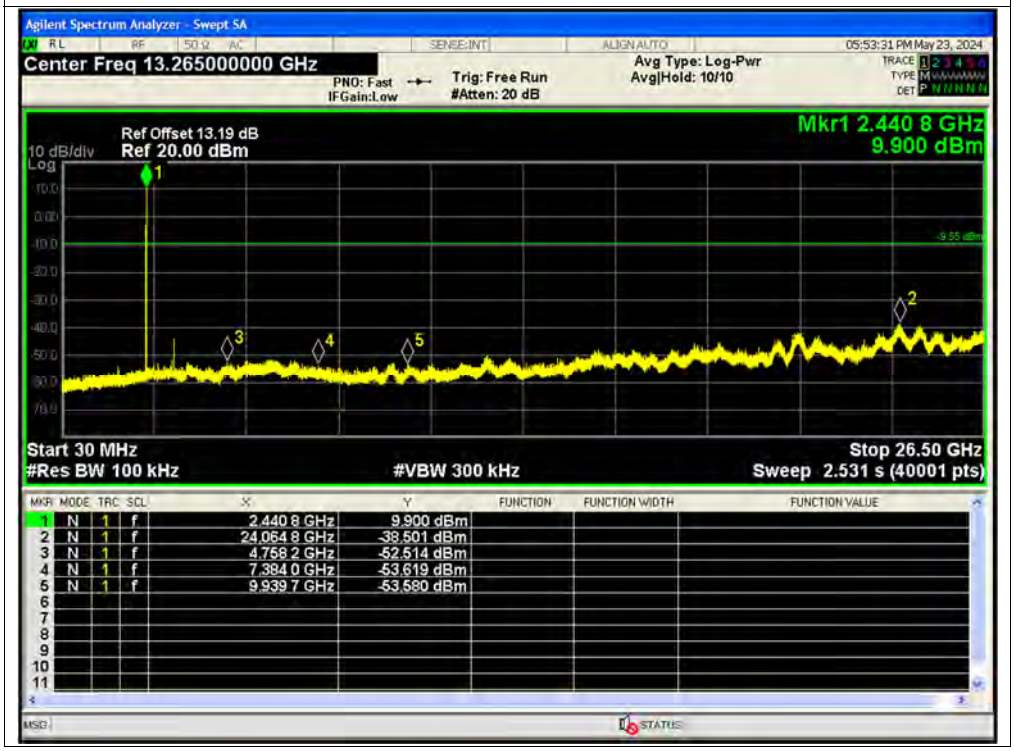


Tx. Spurious NVNT 3-DH5 2402MHz Ant1 Emission



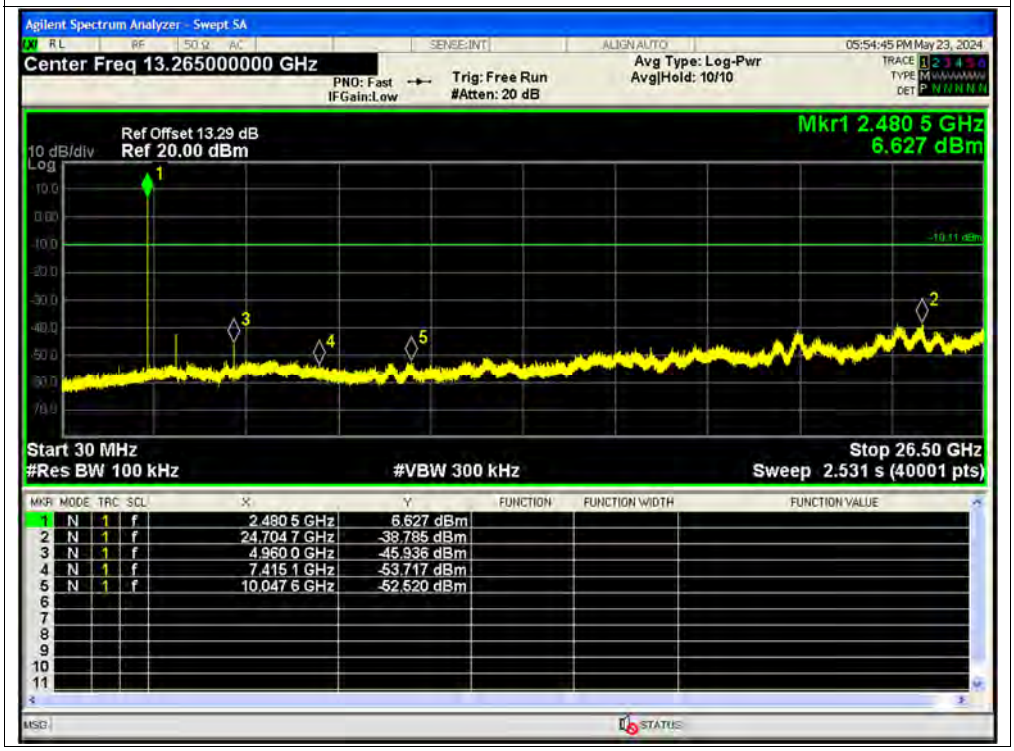
Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Ref

Tx. Spurious NVNT 3-DH5 2441MHz Ant1 Emission



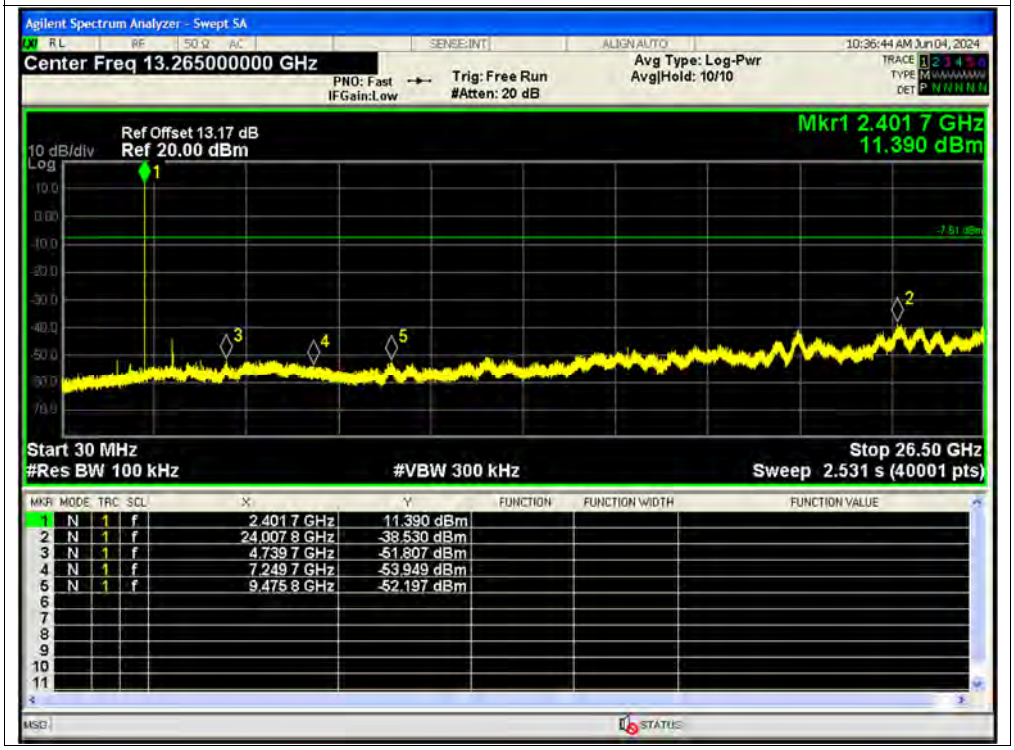
Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Ref

Tx. Spurious NVNT 3-DH5 2480MHz Ant1 Emission



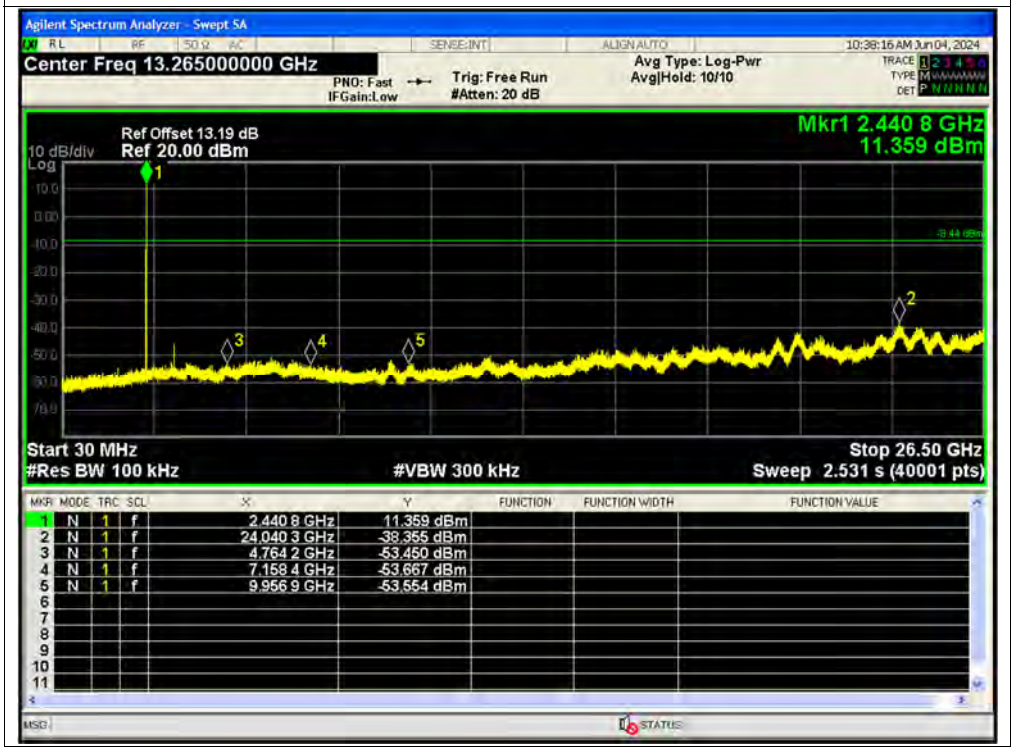
Test Graphs
Tx. Spurious NVNT 1-DH5 2402MHz Ant2 Ref

Tx. Spurious NVNT 1-DH5 2402MHz Ant2 Emission



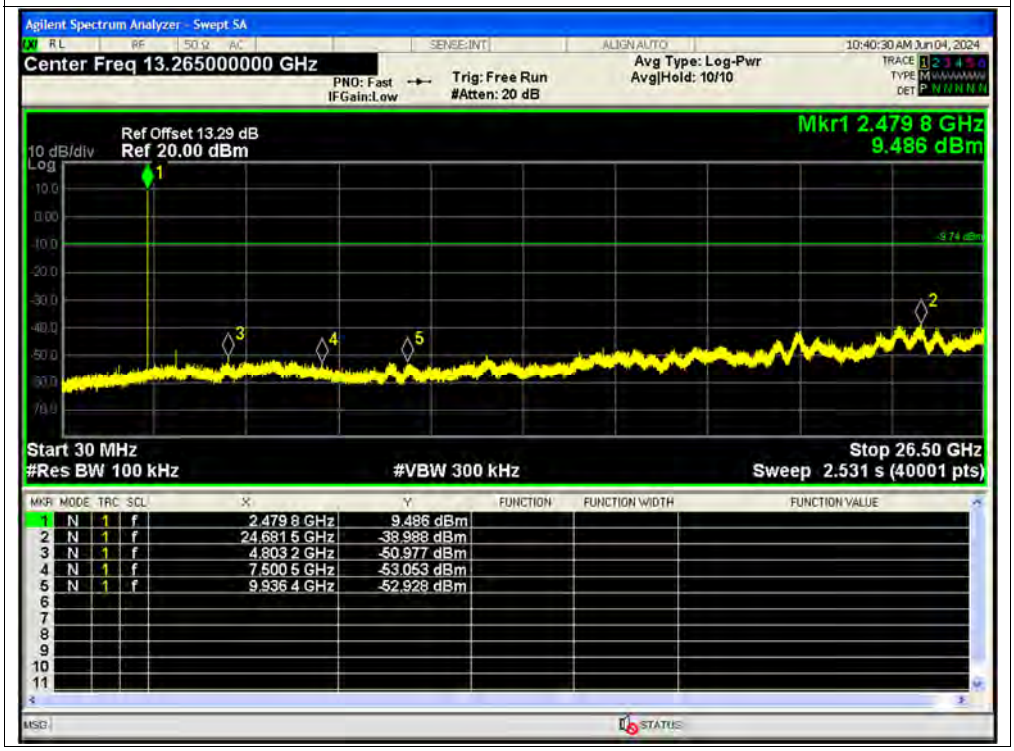
Tx. Spurious NVNT 1-DH5 2441MHz Ant2 Ref

Tx. Spurious NVNT 1-DH5 2441MHz Ant2 Emission



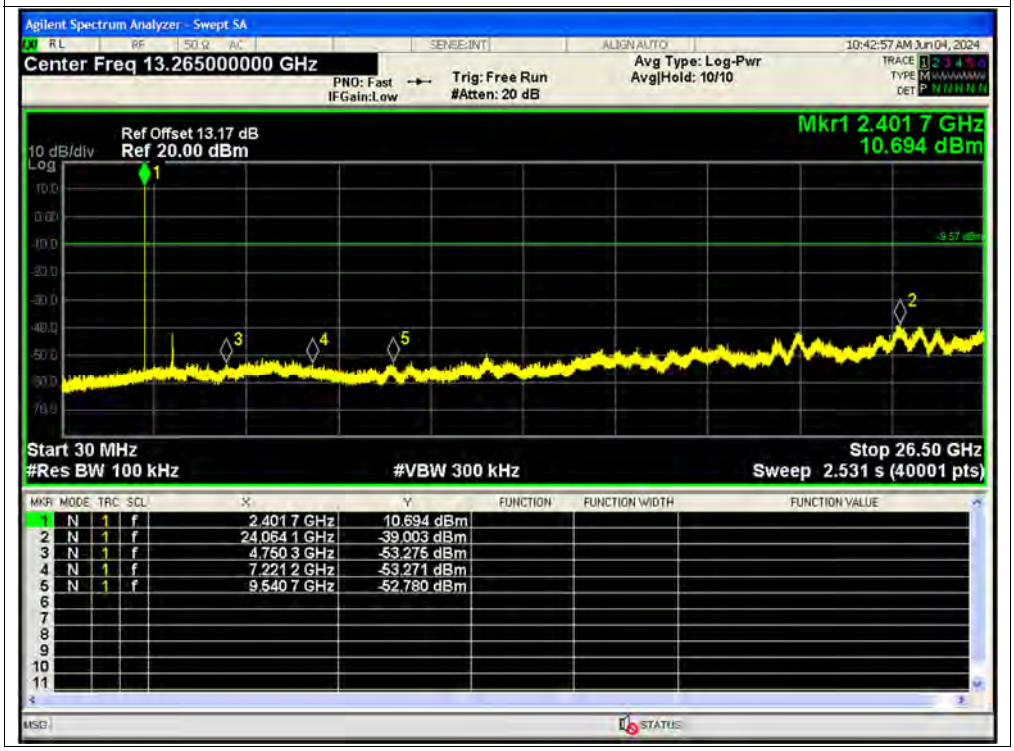
Tx. Spurious NVNT 1-DH5 2480MHz Ant2 Ref

Tx. Spurious NVNT 1-DH5 2480MHz Ant2 Emission



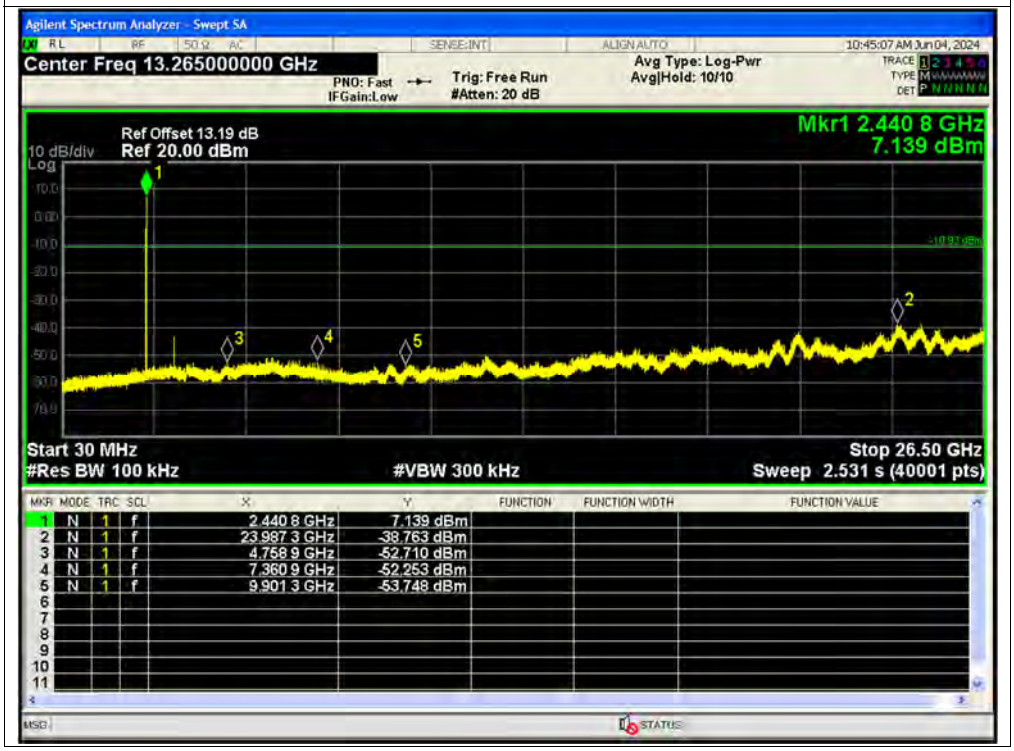
Tx. Spurious NVNT 2-DH5 2402MHz Ant2 Ref

Tx. Spurious NVNT 2-DH5 2402MHz Ant2 Emission



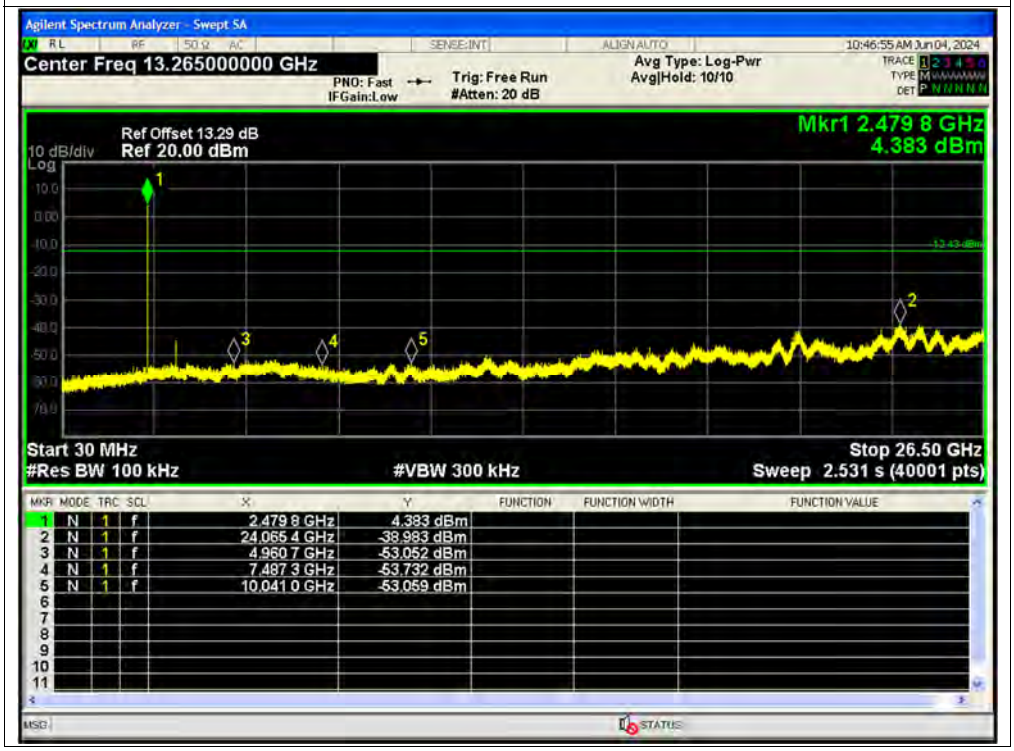
Tx. Spurious NVNT 2-DH5 2441MHz Ant2 Ref

Tx. Spurious NVNT 2-DH5 2441MHz Ant2 Emission



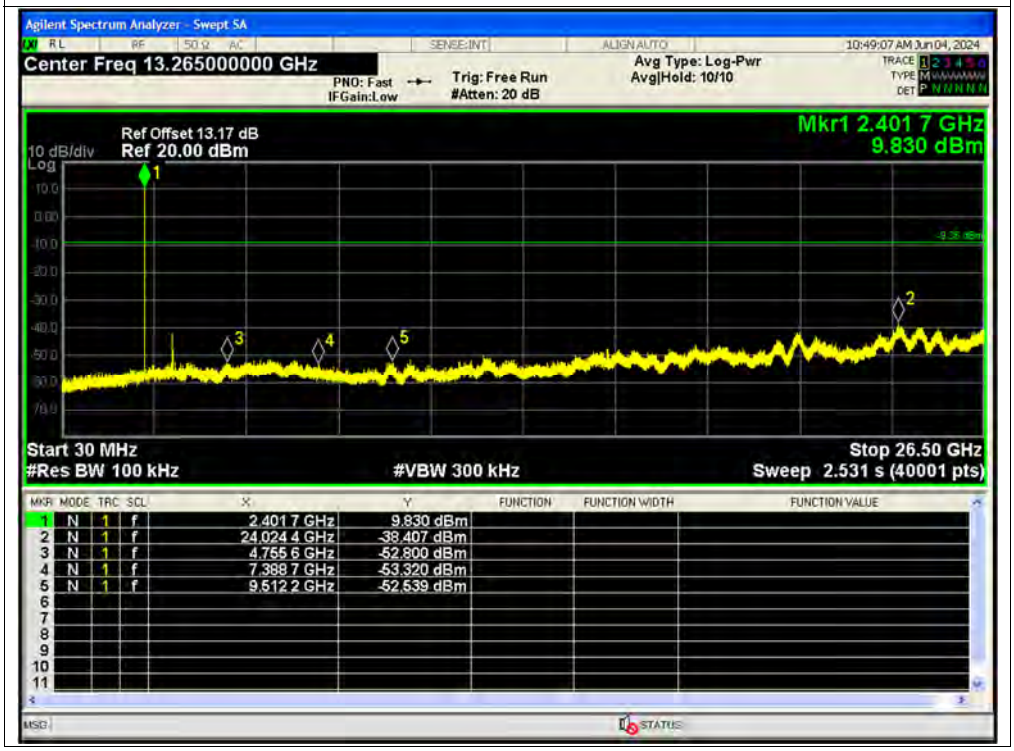
Tx. Spurious NVNT 2-DH5 2480MHz Ant2 Ref

Tx. Spurious NVNT 2-DH5 2480MHz Ant2 Emission



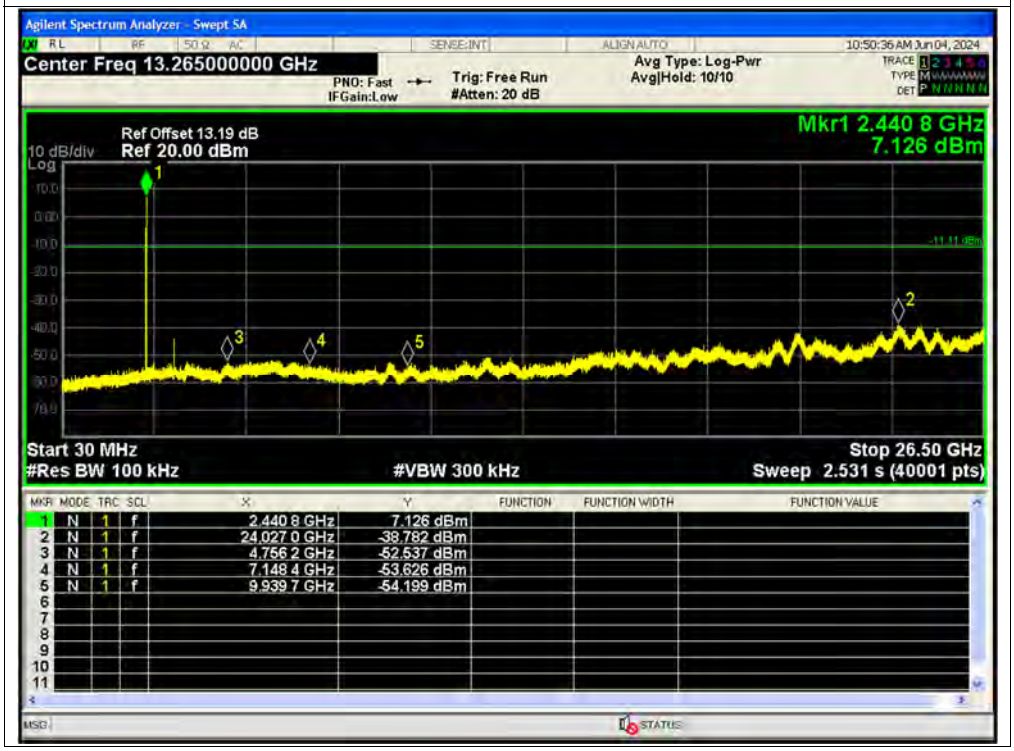
Tx. Spurious NVNT 3-DH5 2402MHz Ant2 Ref

Tx. Spurious NVNT 3-DH5 2402MHz Ant2 Emission



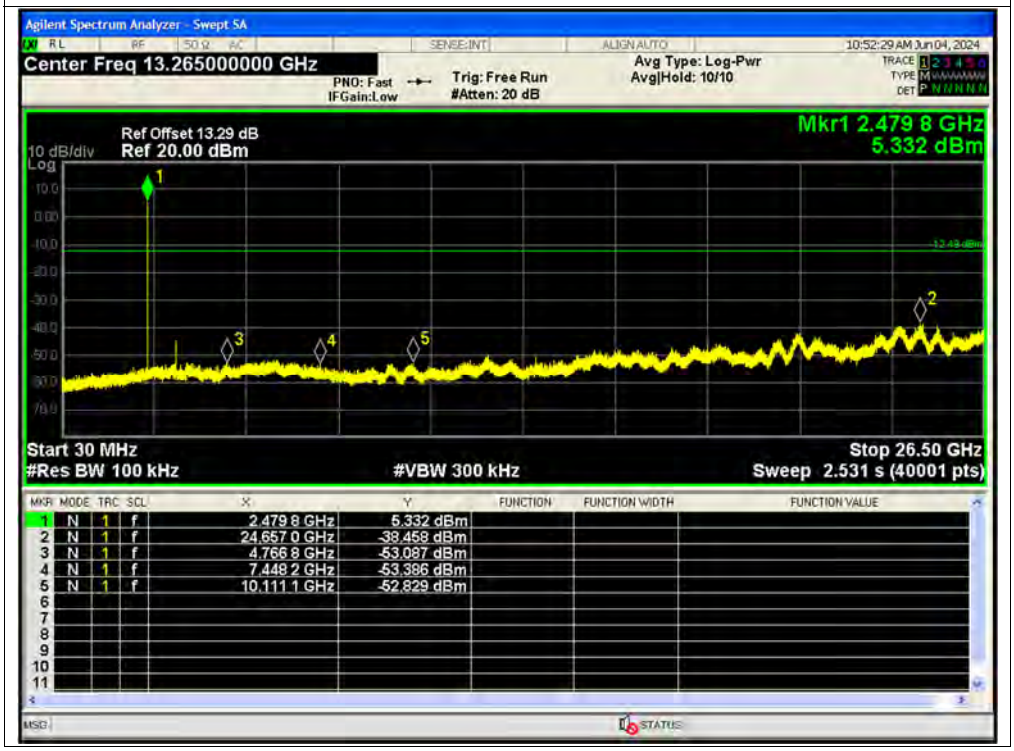
Tx. Spurious NVNT 3-DH5 2441MHz Ant2 Ref

Tx. Spurious NVNT 3-DH5 2441MHz Ant2 Emission



Tx. Spurious NVNT 3-DH5 2480MHz Ant2 Ref

Tx. Spurious NVNT 3-DH5 2480MHz Ant2 Emission

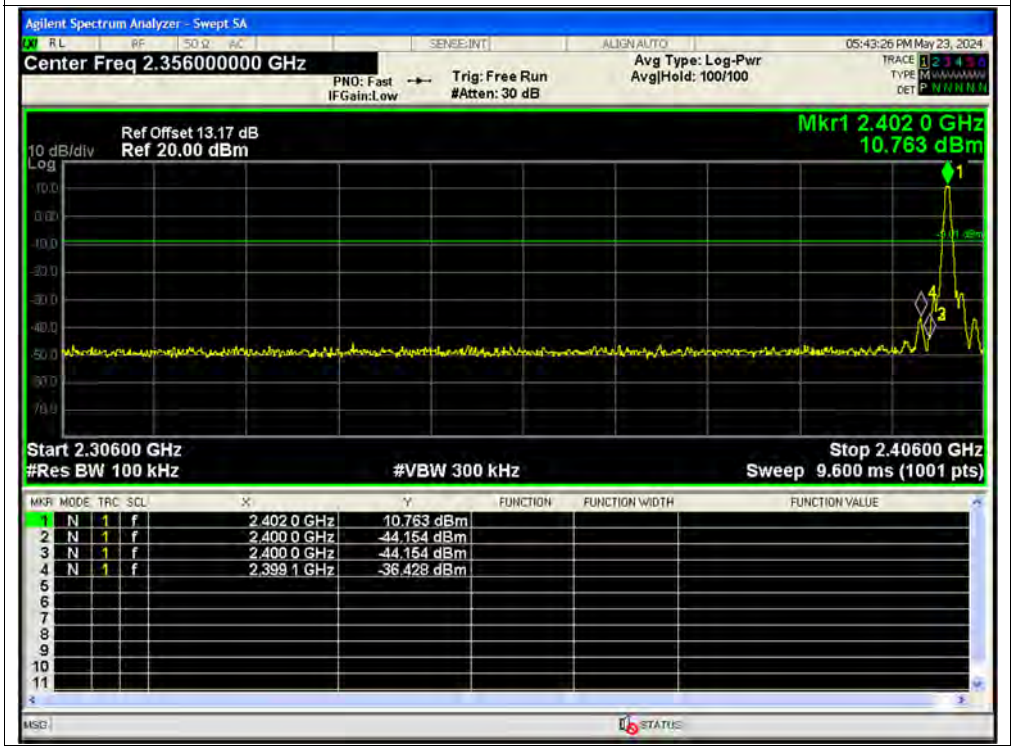


A.9. Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Hopping Mode	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	1-DH5	2402	Ant1	No-Hopping	-47.41	-20	Pass
NVNT	1-DH5	2480	Ant1	No-Hopping	-56.54	-20	Pass
NVNT	2-DH5	2402	Ant1	No-Hopping	-42.83	-20	Pass
NVNT	2-DH5	2480	Ant1	No-Hopping	-52.47	-20	Pass
NVNT	3-DH5	2402	Ant1	No-Hopping	-45.56	-20	Pass
NVNT	3-DH5	2480	Ant1	No-Hopping	-51.53	-20	Pass
NVNT	1-DH5	2402	Ant1	Hopping	-55.45	-20	Pass
NVNT	1-DH5	2480	Ant1	Hopping	-55.93	-20	Pass
NVNT	2-DH5	2402	Ant1	Hopping	-54.00	-20	Pass
NVNT	2-DH5	2480	Ant1	Hopping	-53.00	-20	Pass
NVNT	3-DH5	2402	Ant1	Hopping	-53.84	-20	Pass
NVNT	3-DH5	2480	Ant1	Hopping	-54.60	-20	Pass
NVNT	1-DH5	2402	Ant2	No-Hopping	-57.89	-20	Pass
NVNT	1-DH5	2480	Ant2	No-Hopping	-56.55	-20	Pass
NVNT	2-DH5	2402	Ant2	No-Hopping	-40.08	-20	Pass
NVNT	2-DH5	2480	Ant2	No-Hopping	-52.99	-20	Pass
NVNT	3-DH5	2402	Ant2	No-Hopping	-40.61	-20	Pass
NVNT	3-DH5	2480	Ant2	No-Hopping	-53.03	-20	Pass
NVNT	1-DH5	2402	Ant2	Hopping	-56.41	-20	Pass
NVNT	1-DH5	2480	Ant2	Hopping	-55.23	-20	Pass
NVNT	2-DH5	2402	Ant2	Hopping	-54.32	-20	Pass
NVNT	2-DH5	2480	Ant2	Hopping	-51.68	-20	Pass
NVNT	3-DH5	2402	Ant2	Hopping	-54.79	-20	Pass
NVNT	3-DH5	2480	Ant2	Hopping	-51.91	-20	Pass

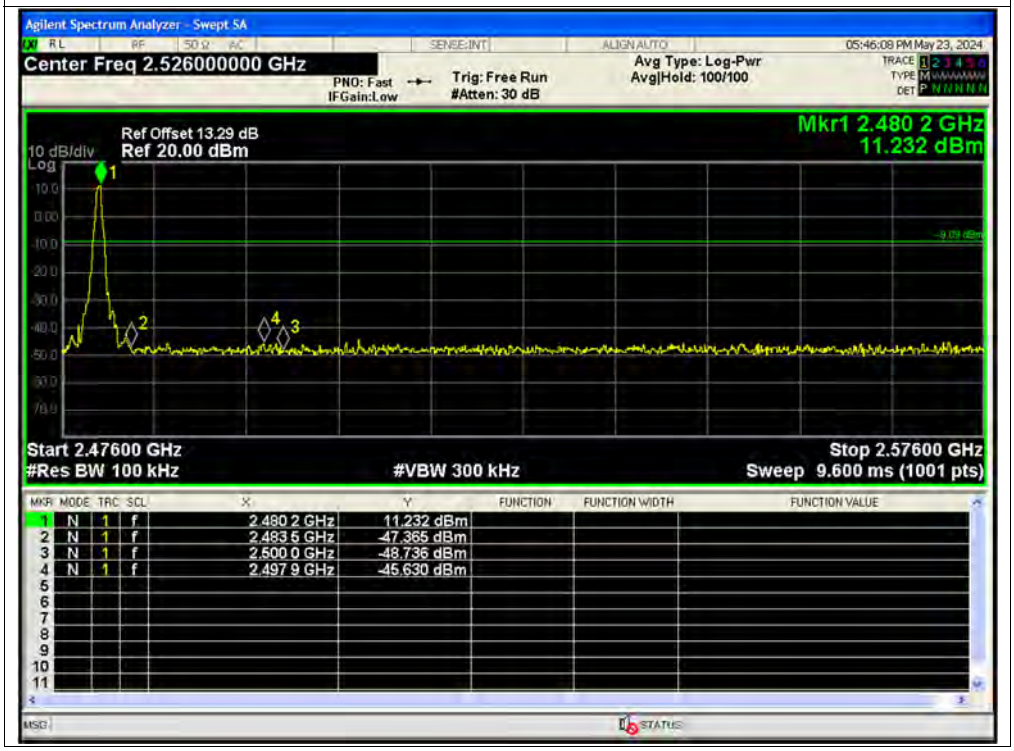
Test Graphs
Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Ref

Band Edge NVNT 1-DH5 2402MHz Ant1 No-Hopping Emission



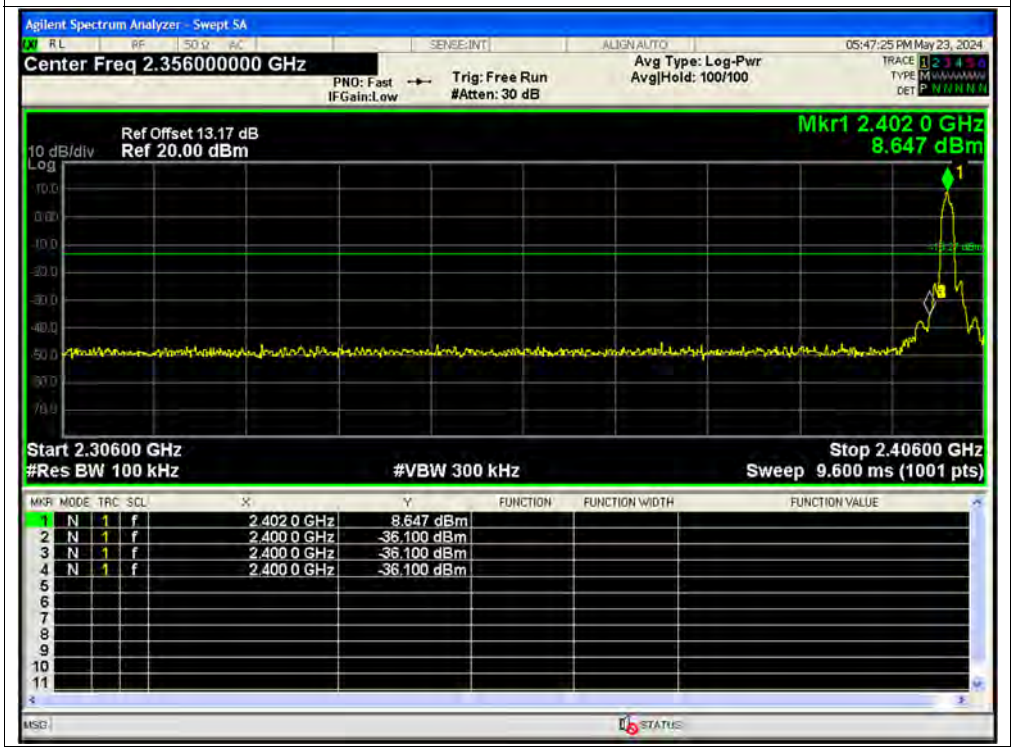
Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Ref

Band Edge NVNT 1-DH5 2480MHz Ant1 No-Hopping Emission



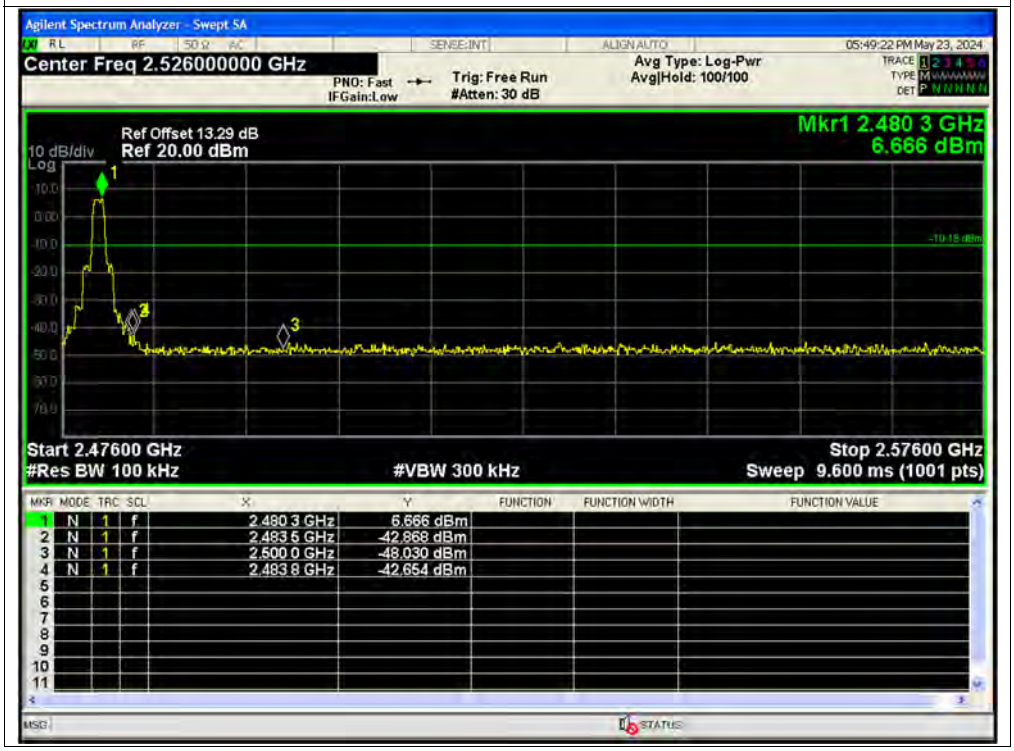
Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Ref

Band Edge NVNT 2-DH5 2402MHz Ant1 No-Hopping Emission



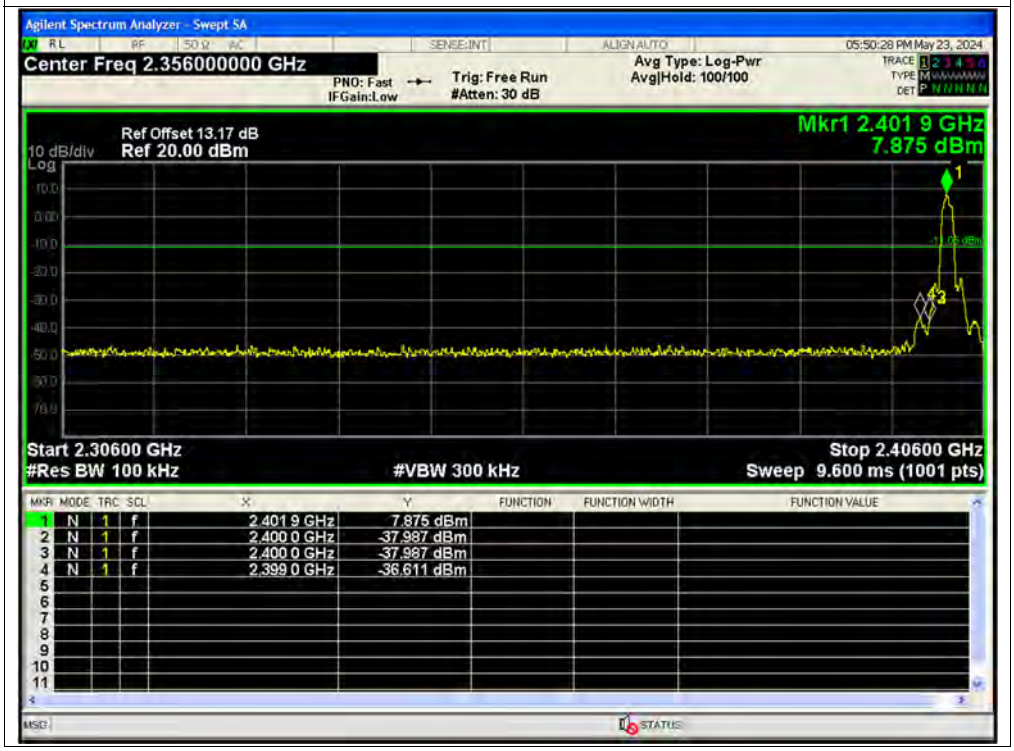
Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Ref

Band Edge NVNT 2-DH5 2480MHz Ant1 No-Hopping Emission



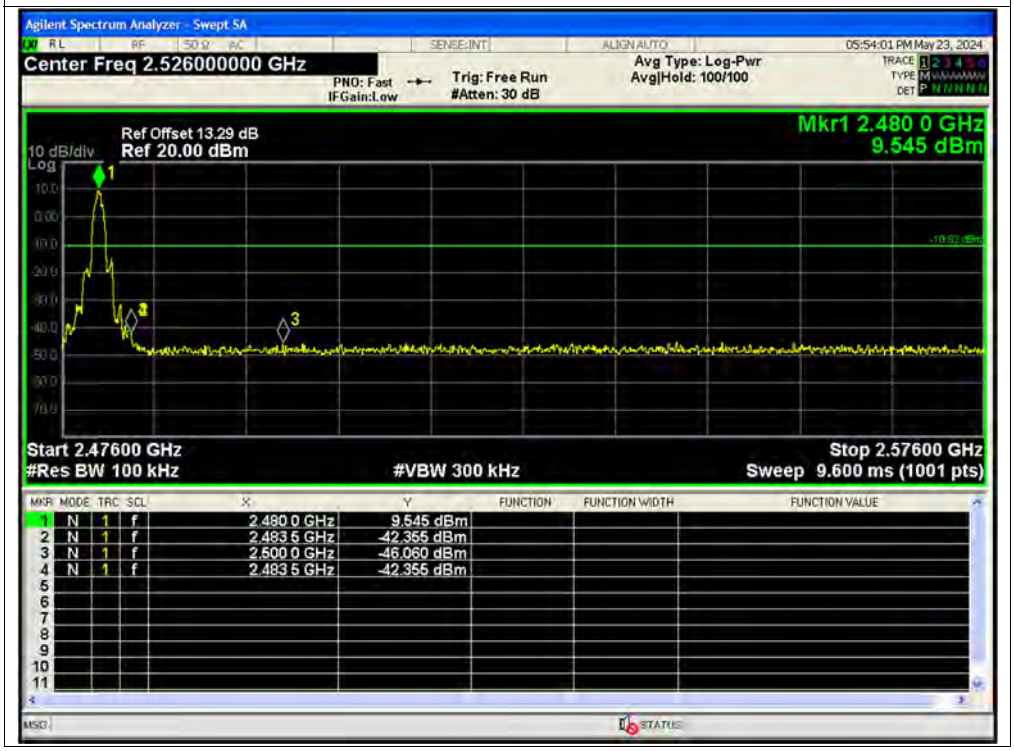
Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Ref

Band Edge NVNT 3-DH5 2402MHz Ant1 No-Hopping Emission



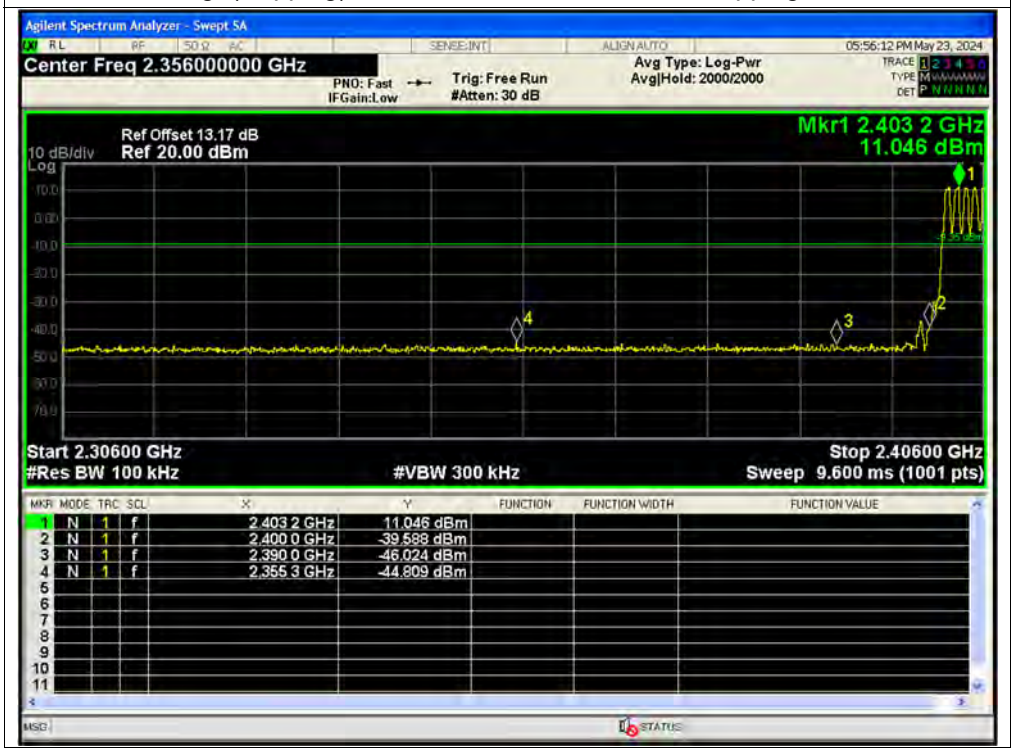
Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Ref

Band Edge NVNT 3-DH5 2480MHz Ant1 No-Hopping Emission



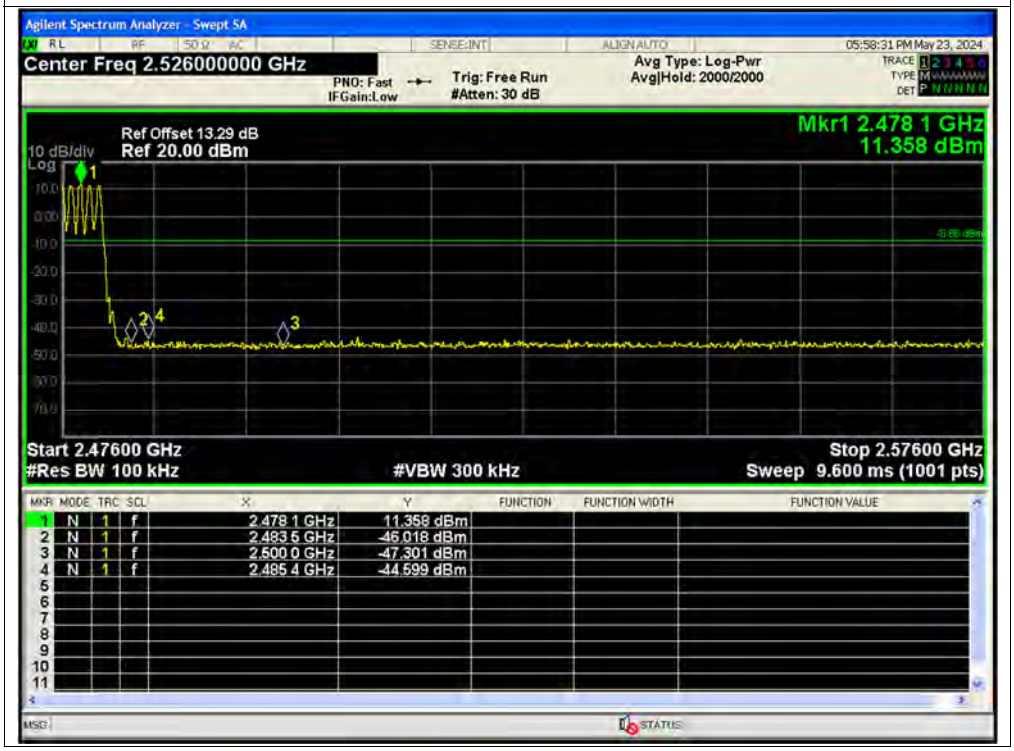
Test Graphs
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant1 Hopping Emission



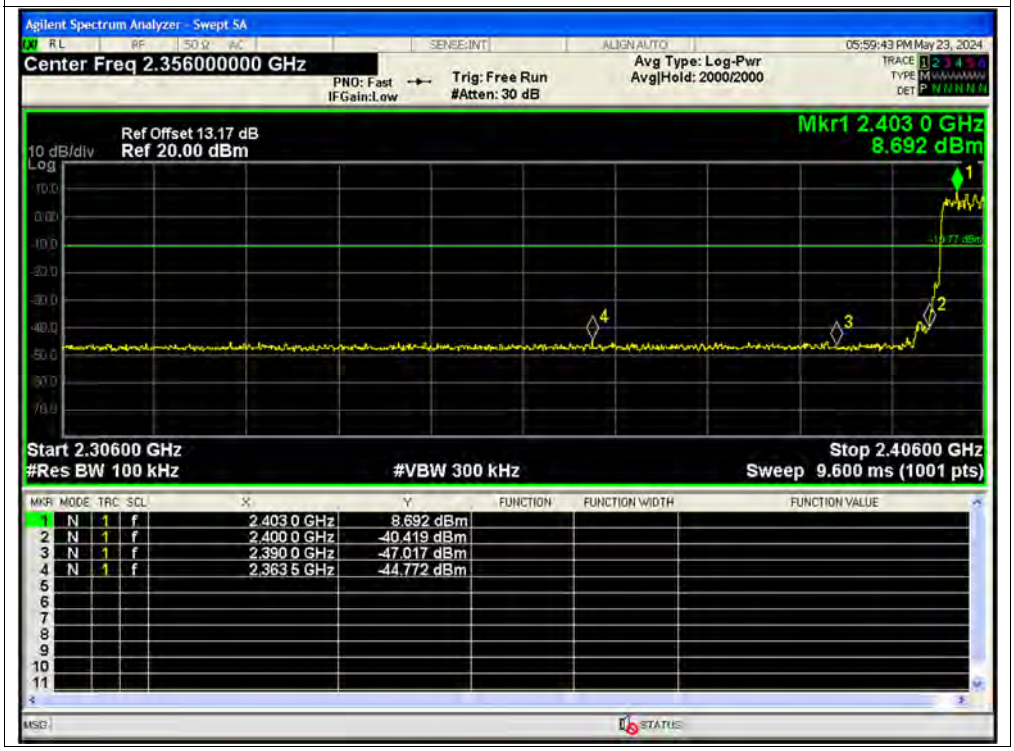
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant1 Hopping Emission



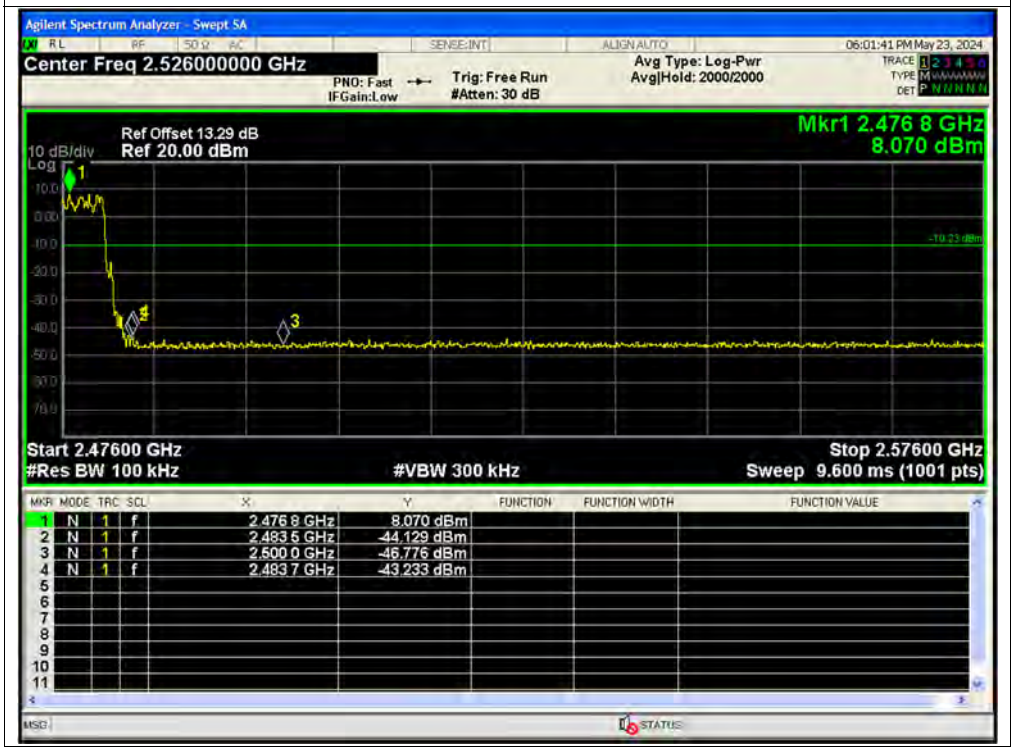
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant1 Hopping Emission



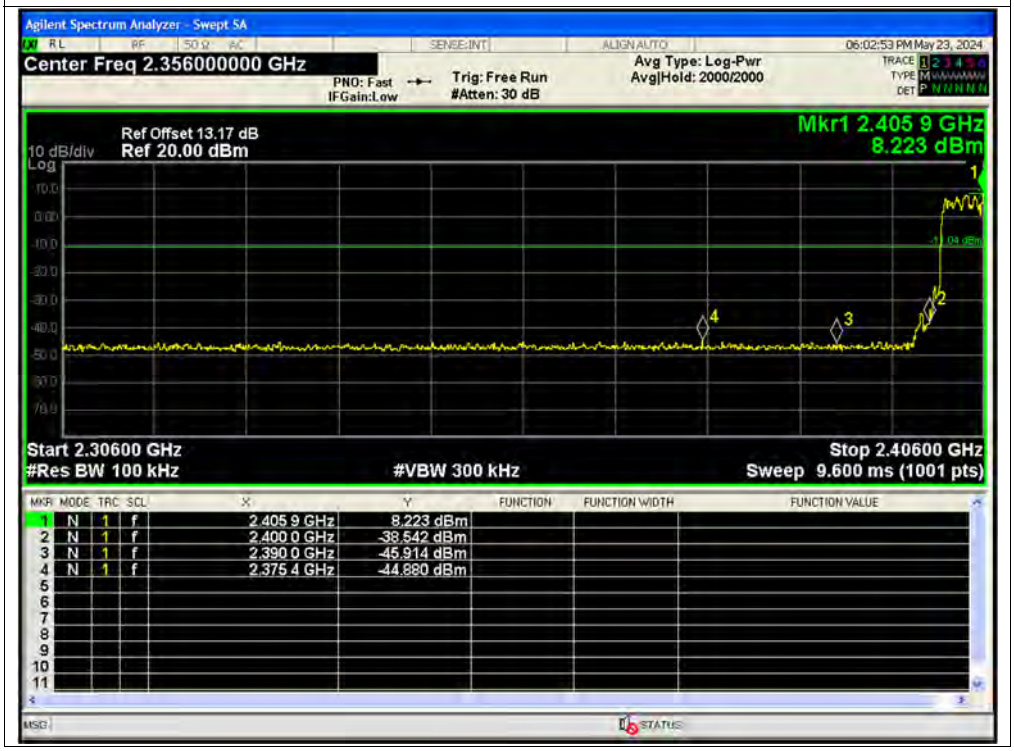
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant1 Hopping Emission



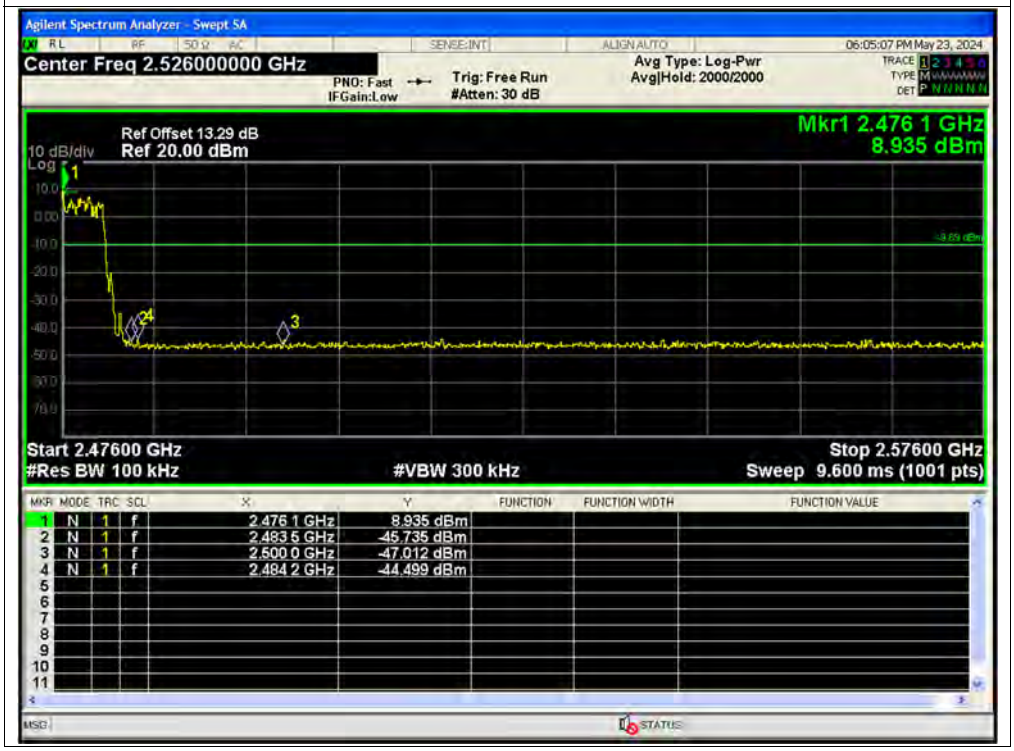
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant1 Hopping Emission



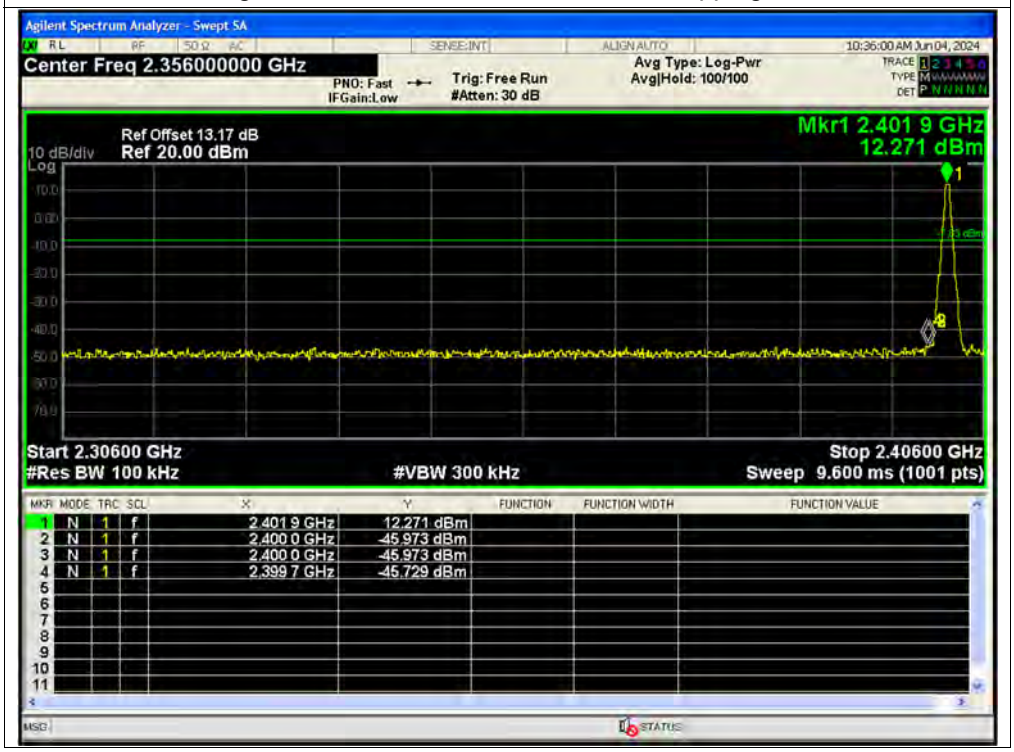
Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Ref

Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant1 Hopping Emission



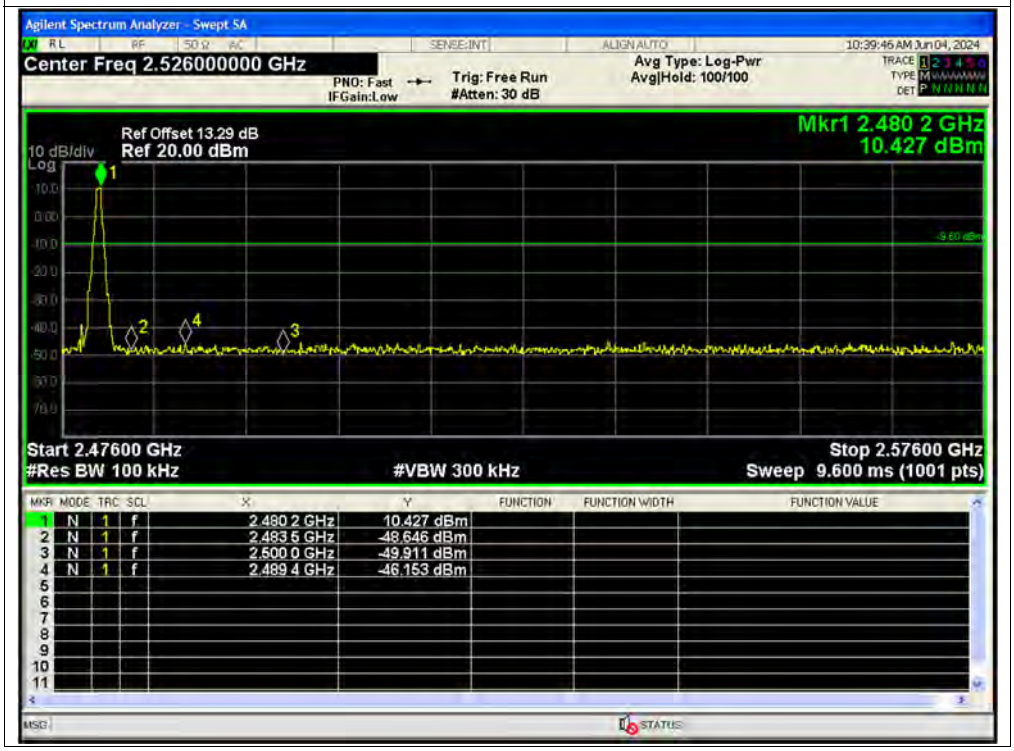
Test Graphs
Band Edge NVNT 1-DH5 2402MHz Ant2 No-Hopping Ref

Band Edge NVNT 1-DH5 2402MHz Ant2 No-Hopping Emission



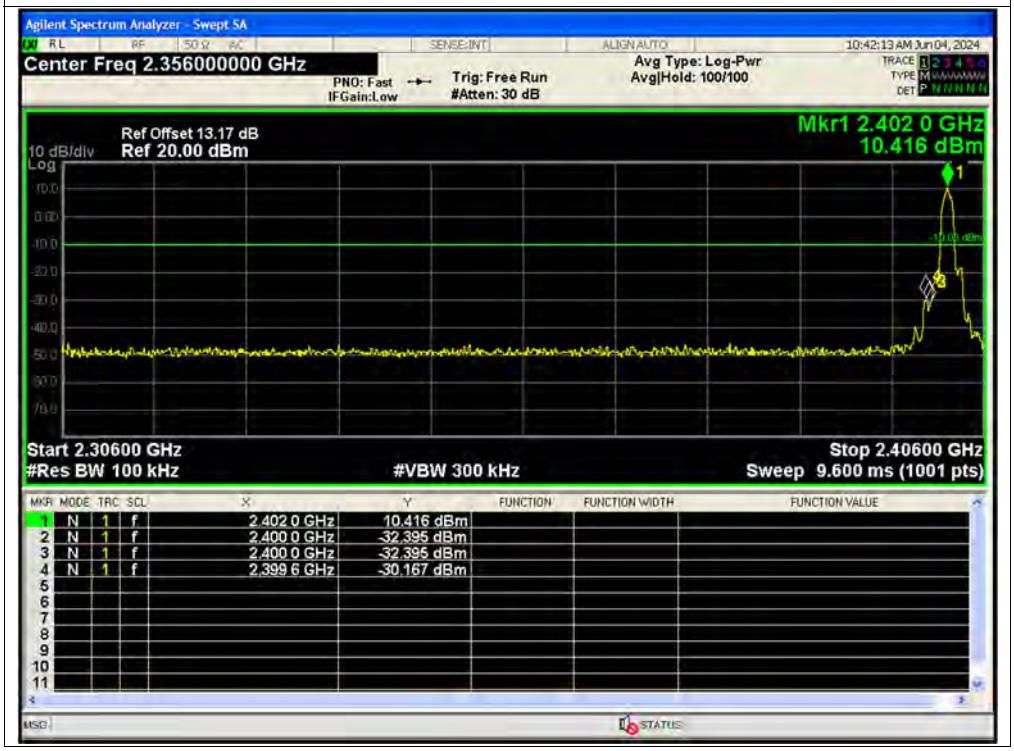
Band Edge NVNT 1-DH5 2480MHz Ant2 No-Hopping Ref

Band Edge NVNT 1-DH5 2480MHz Ant2 No-Hopping Emission



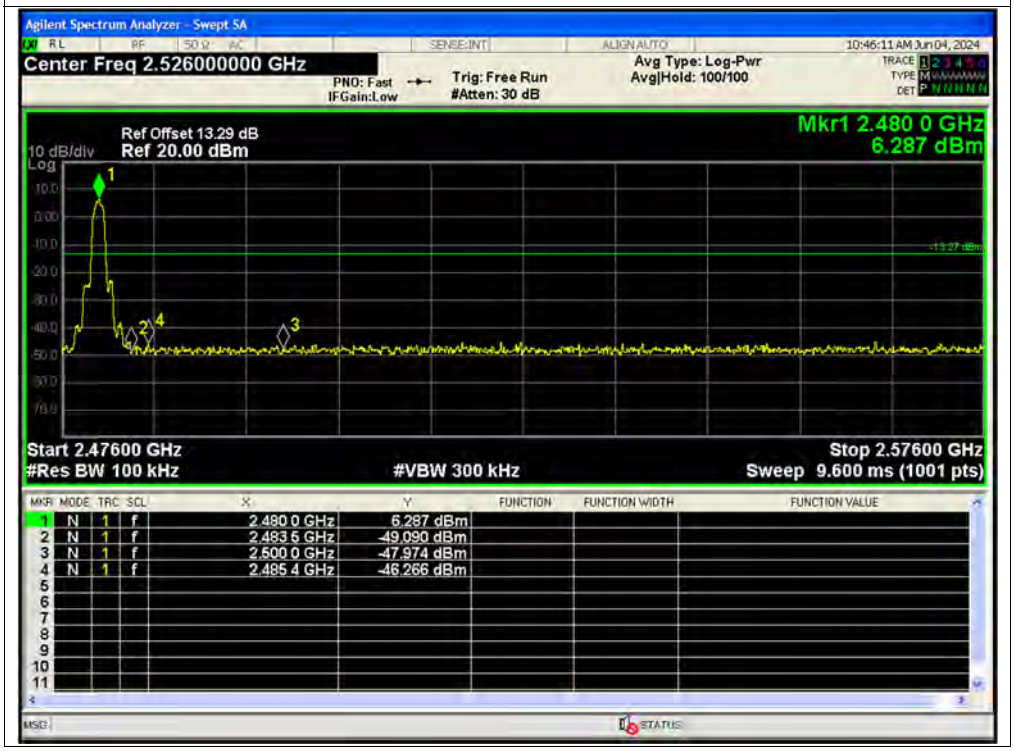
Band Edge NVNT 2-DH5 2402MHz Ant2 No-Hopping Ref

Band Edge NVNT 2-DH5 2402MHz Ant2 No-Hopping Emission



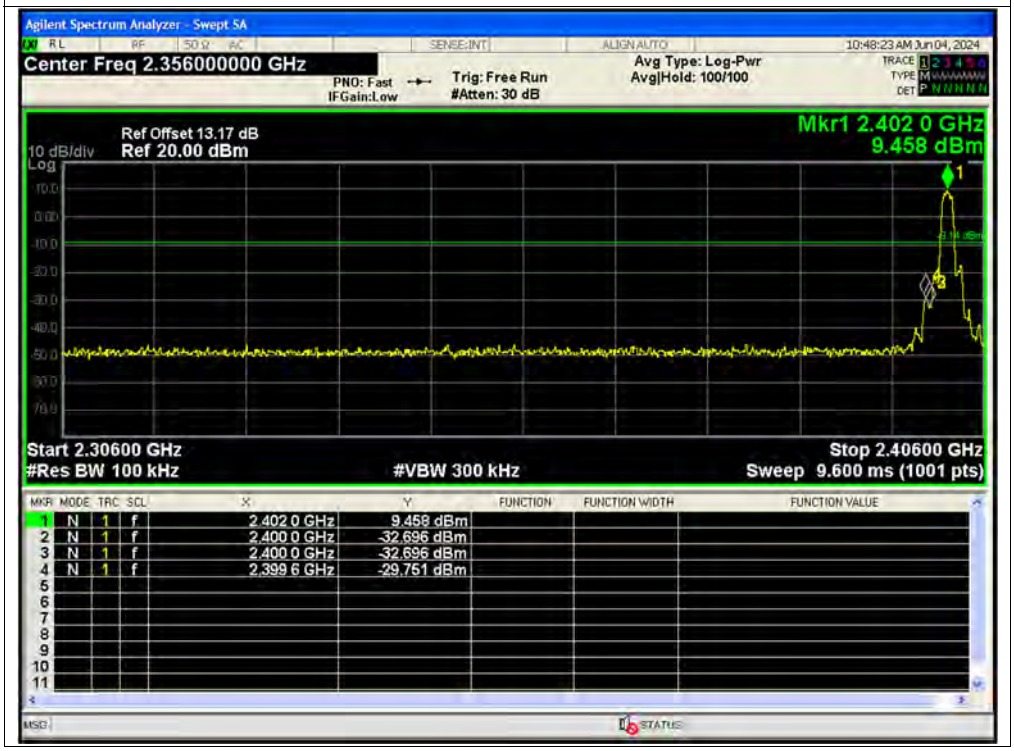
Band Edge NVNT 2-DH5 2480MHz Ant2 No-Hopping Ref

Band Edge NVNT 2-DH5 2480MHz Ant2 No-Hopping Emission



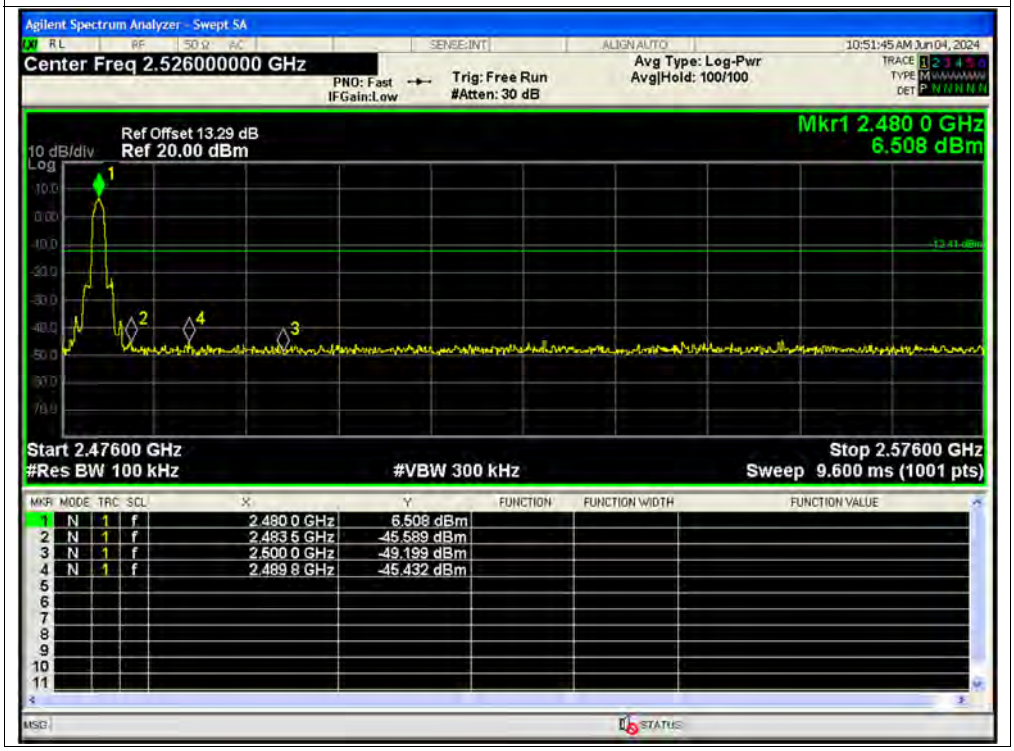
Band Edge NVNT 3-DH5 2402MHz Ant2 No-Hopping Ref

Band Edge NVNT 3-DH5 2402MHz Ant2 No-Hopping Emission



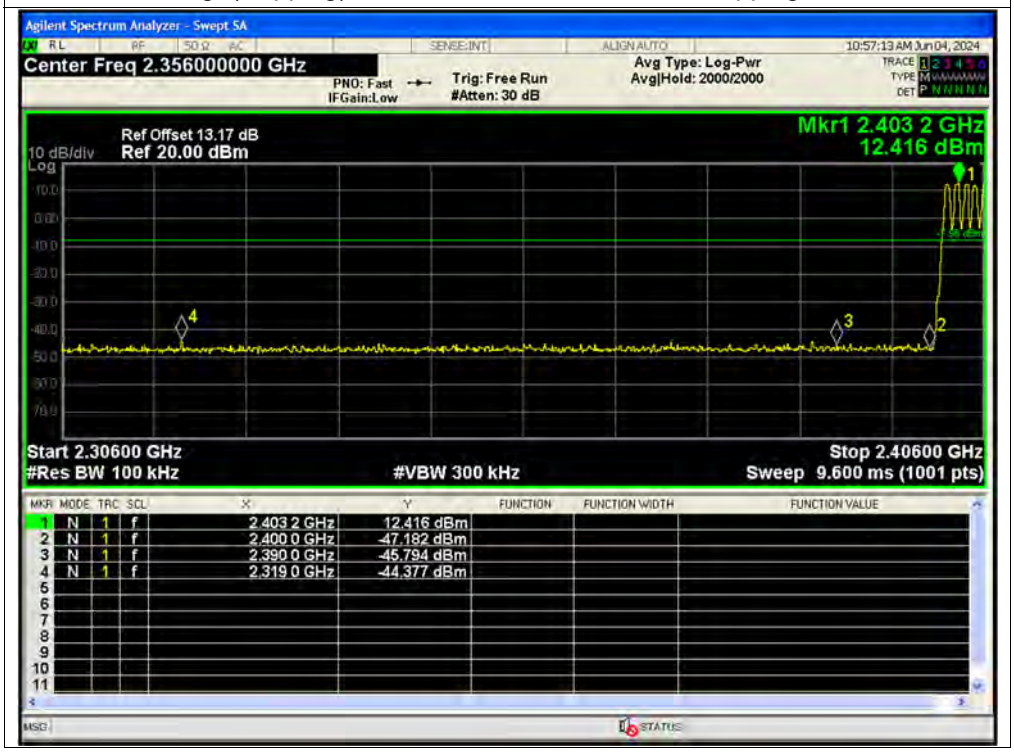
Band Edge NVNT 3-DH5 2480MHz Ant2 No-Hopping Ref

Band Edge NVNT 3-DH5 2480MHz Ant2 No-Hopping Emission



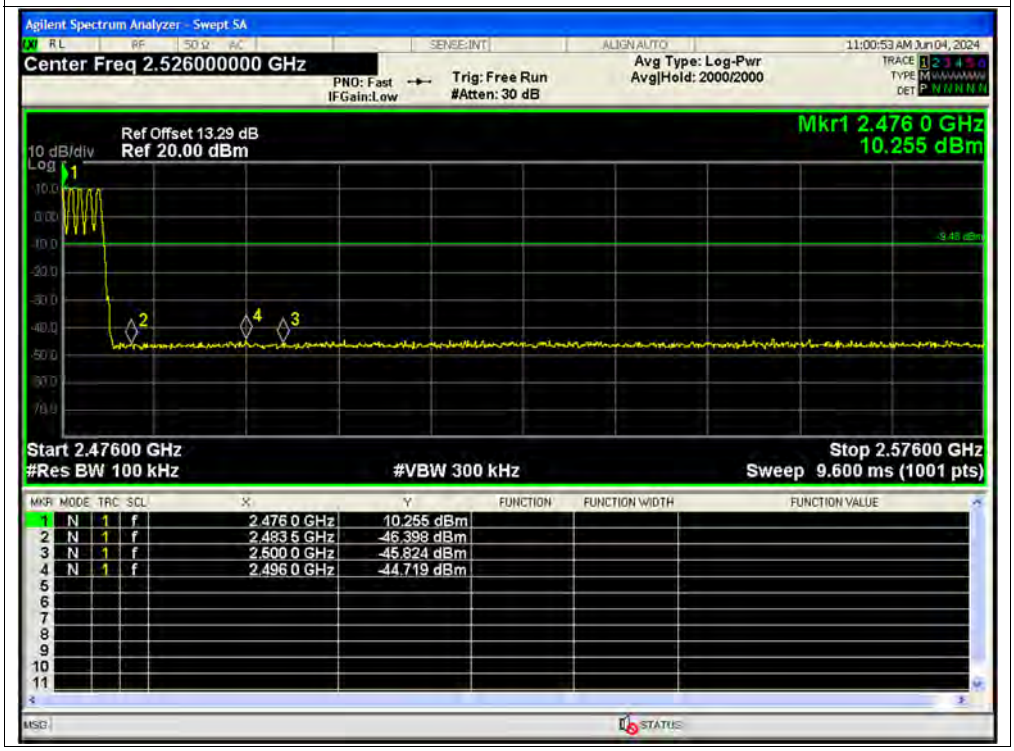
Test Graphs
Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant2 Hopping Ref

Band Edge(Hopping) NVNT 1-DH5 2402MHz Ant2 Hopping Emission



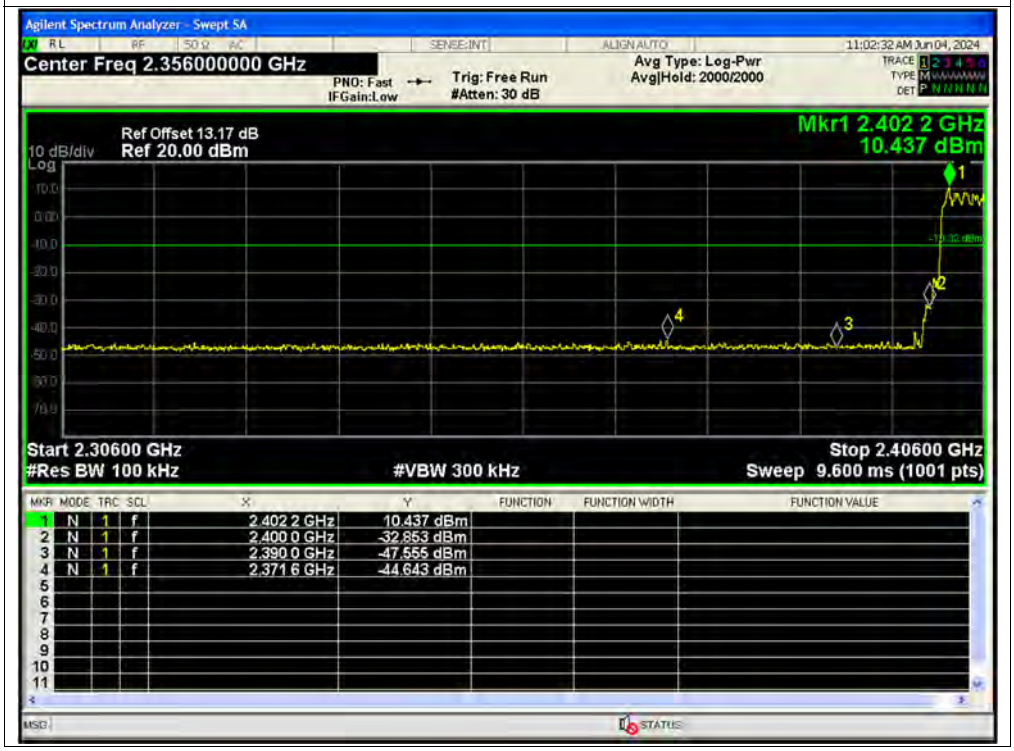
Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant2 Hopping Ref

Band Edge(Hopping) NVNT 1-DH5 2480MHz Ant2 Hopping Emission



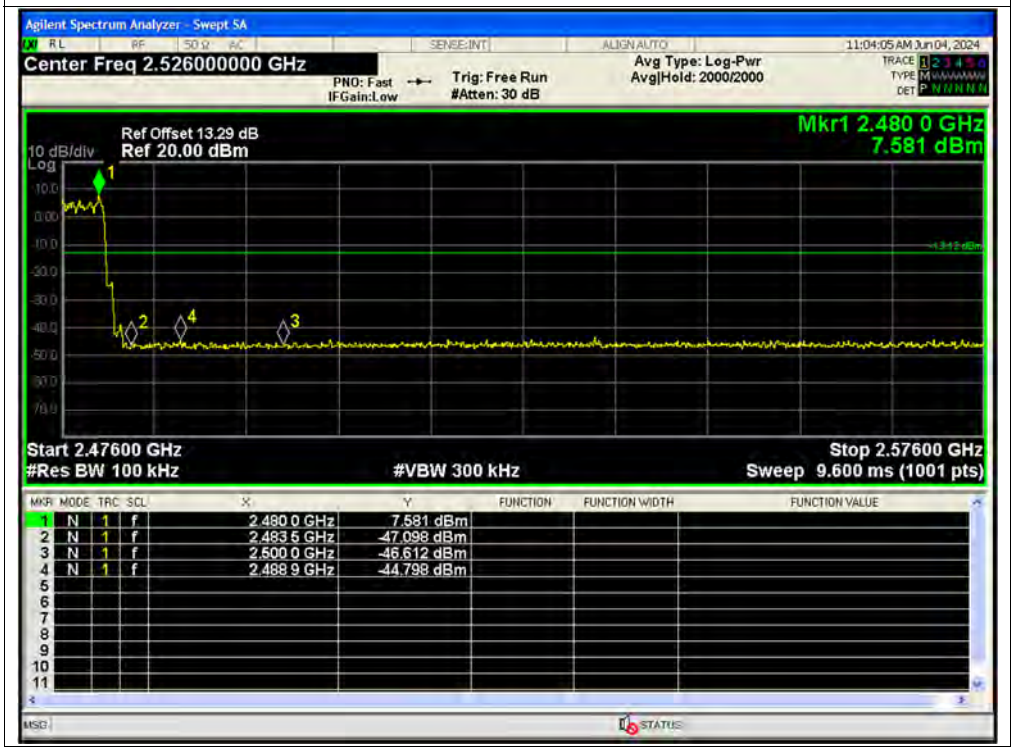
Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant2 Hopping Ref

Band Edge(Hopping) NVNT 2-DH5 2402MHz Ant2 Hopping Emission



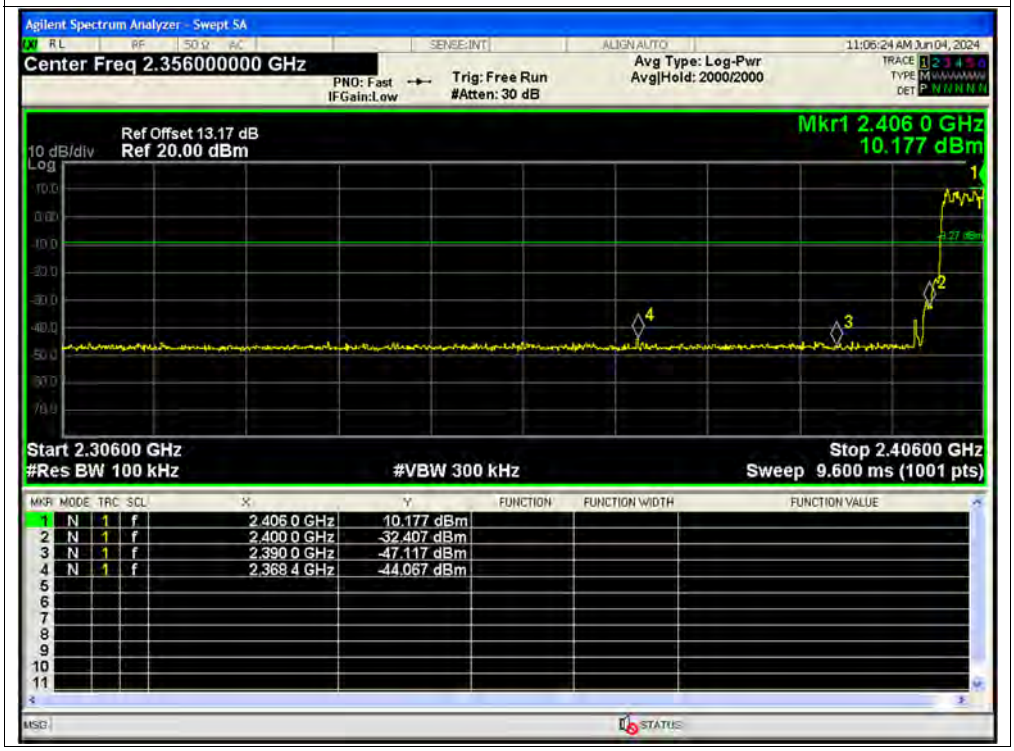
Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant2 Hopping Ref

Band Edge(Hopping) NVNT 2-DH5 2480MHz Ant2 Hopping Emission



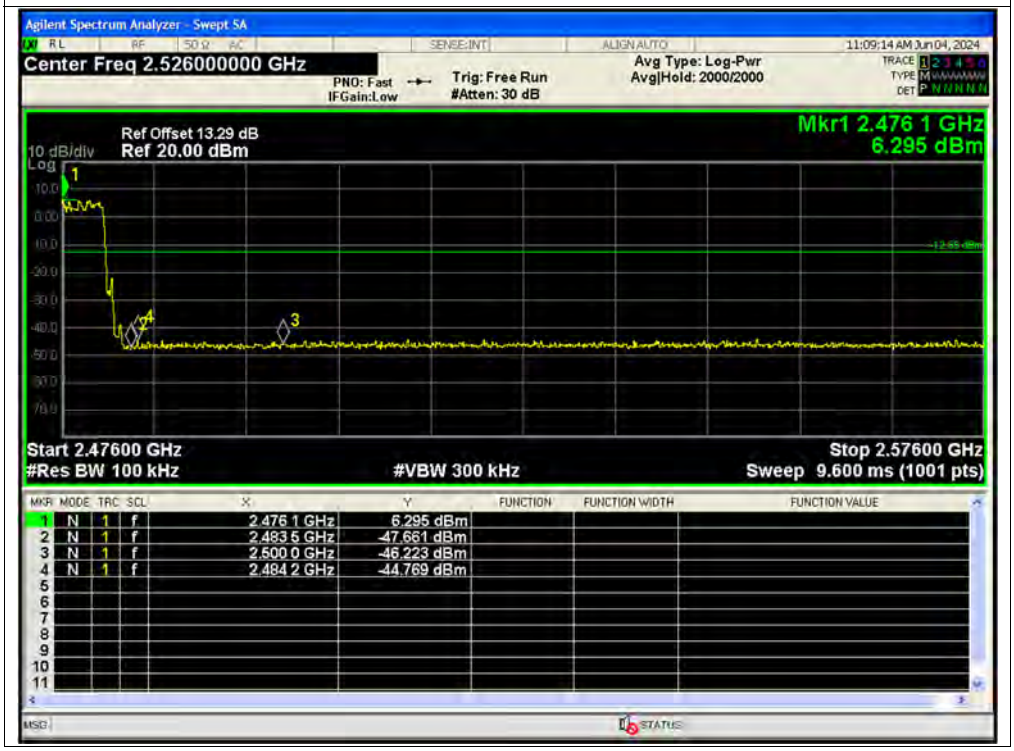
Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant2 Hopping Ref

Band Edge(Hopping) NVNT 3-DH5 2402MHz Ant2 Hopping Emission



Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant2 Hopping Ref

Band Edge(Hopping) NVNT 3-DH5 2480MHz Ant2 Hopping Emission



A.10. Conducted Emission

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test Setup:

Test Mode: EUT + Test Plate + Adapter + RJ45 Cable + PC + BT TX

Test voltage: AC 120V/60Hz

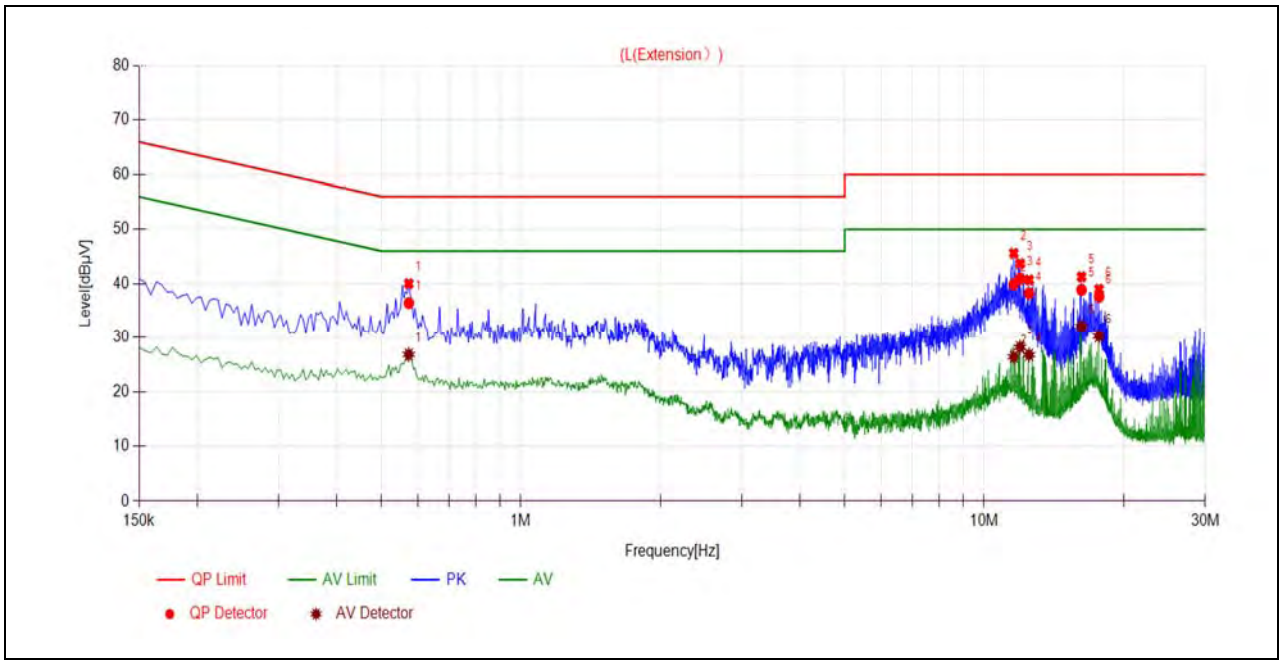
The measurement results are obtained as below:

$E\ [dB\mu V] = U_R + L_{Cable\ loss}\ [dB] + A_{Factor}$

U_R: Receiver Reading

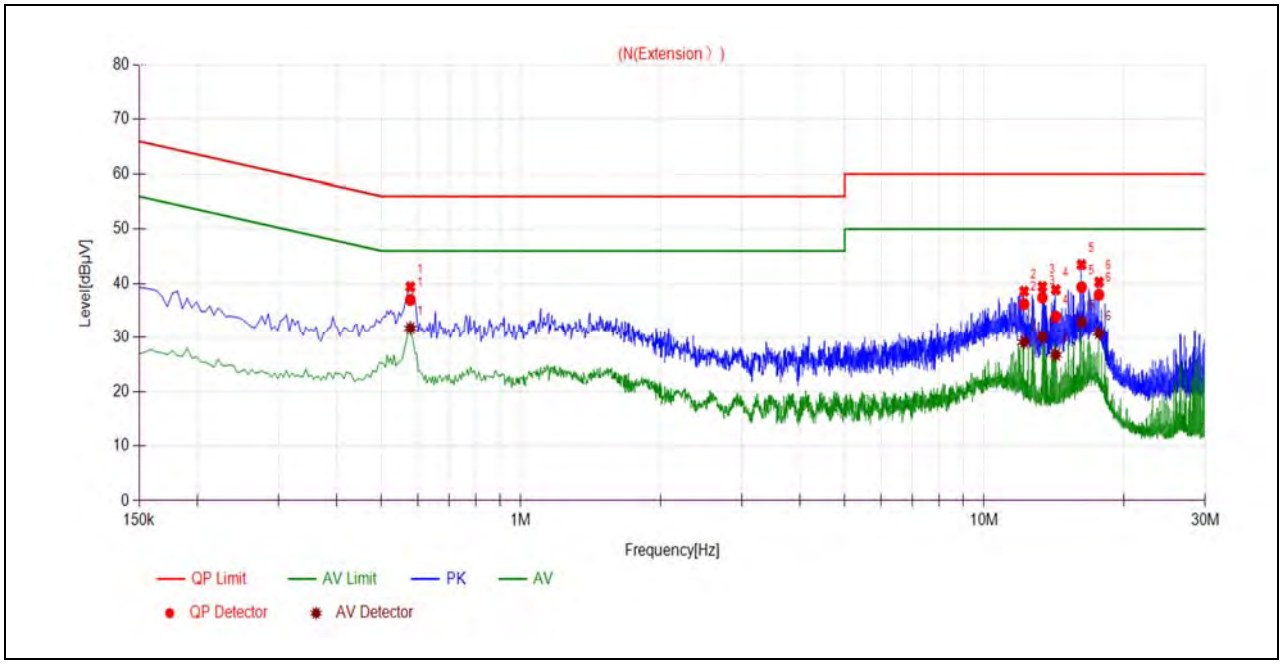
A_{Factor}: Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.5730	36.42	26.82	56.00	46.00	Line	PASS
2	11.5893	39.91	26.40	60.00	50.00		PASS
3	11.9533	40.95	28.17	60.00	50.00		PASS
4	12.5033	38.25	26.77	60.00	50.00		PASS
5	16.2277	38.85	32.06	60.00	50.00		PASS
6	17.6950	37.63	30.22	60.00	50.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.5775	37.01	31.77	56.00	46.00	Neutral	PASS
2	12.1974	36.23	29.08	60.00	50.00		PASS
3	13.3582	37.44	30.12	60.00	50.00		PASS
4	14.2767	33.93	26.77	60.00	50.00		PASS
5	16.2287	39.35	32.90	60.00	50.00		PASS
6	17.6939	37.95	30.81	60.00	50.00		PASS

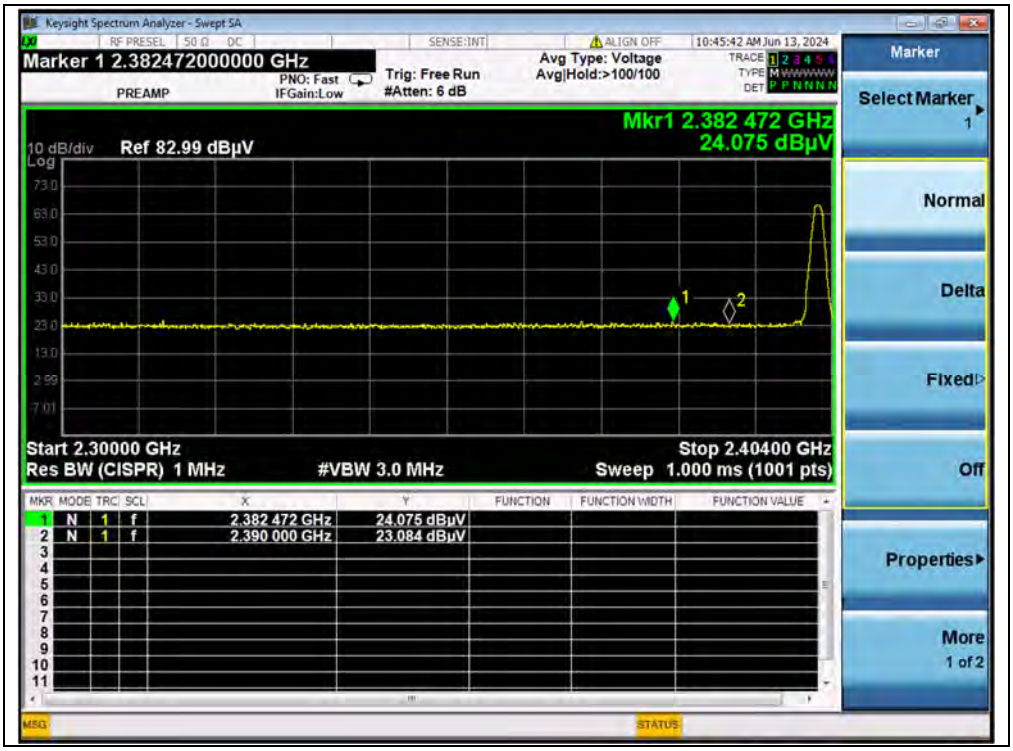
A.11. Restricted Frequency Bands

The lowest and highest channels are tested to verify the Restricted Frequency Bands.
The measurement results are obtained as below:
$E\ [dB\mu V/m] = U_R + A_T + A_{Factor}\ [dB]$; $A_T = L_{Cable\ loss}\ [dB] - G_{preamp}\ [dB]$
A_T: Total correction Factor except Antenna
U_R: Receiver Reading
G_{preamp}: Preamplifier Gain
A_{Factor}: Antenna Factor at 3m

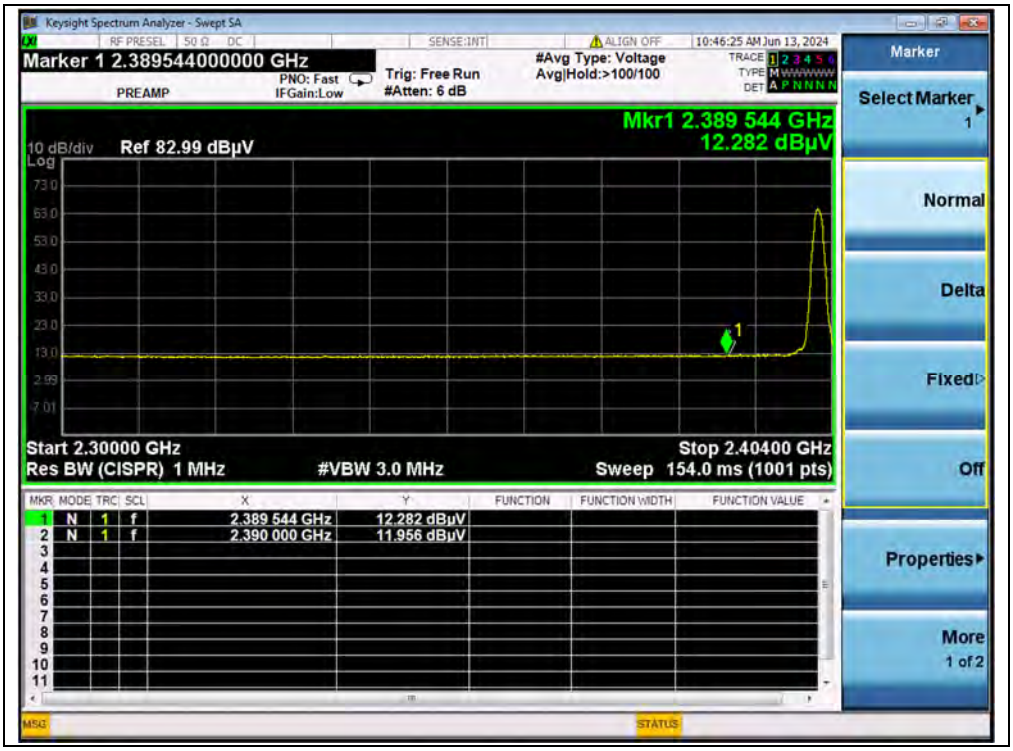
Note: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (horizontal) was recorded in this test report.

GFSK Mode

Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
0	2382.47	PK	24.08	6.74	27.20	36.71	74	PASS
0	2389.54	AV	12.28	6.74	27.20	24.91	54	PASS
78	2483.98	PK	23.92	6.74	27.20	38.28	74	PASS
78	2483.59	AV	13.71	6.74	27.20	28.07	54	PASS

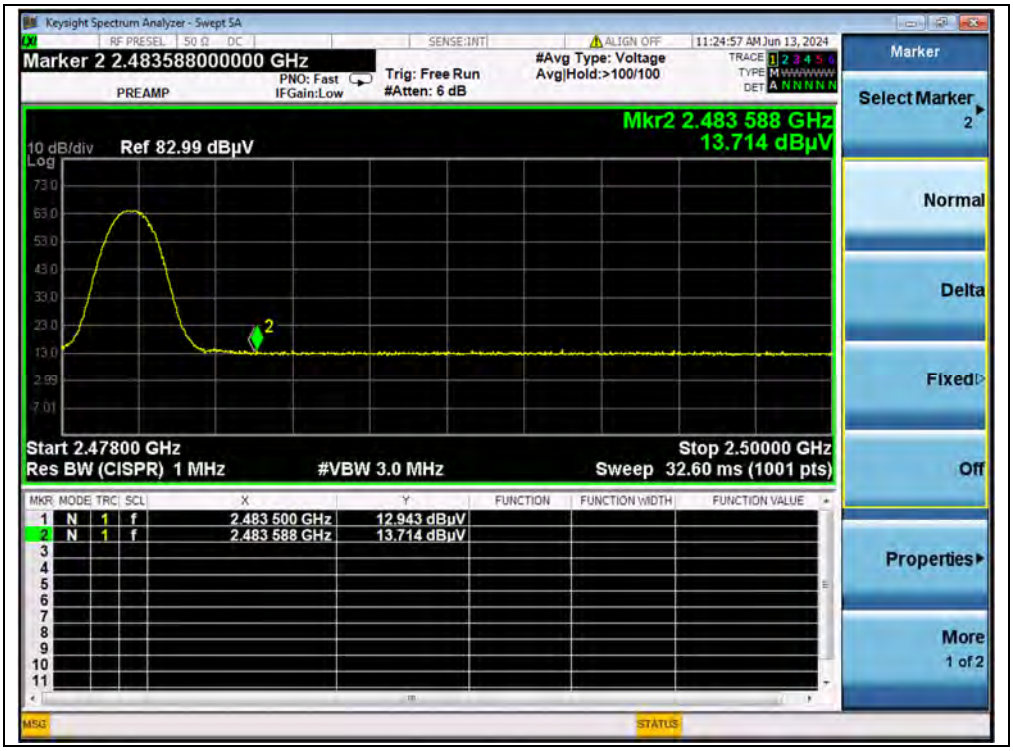


(PEAK, Channel 0, GFSK)



(AVERAGE, Channel 0, GFSK)

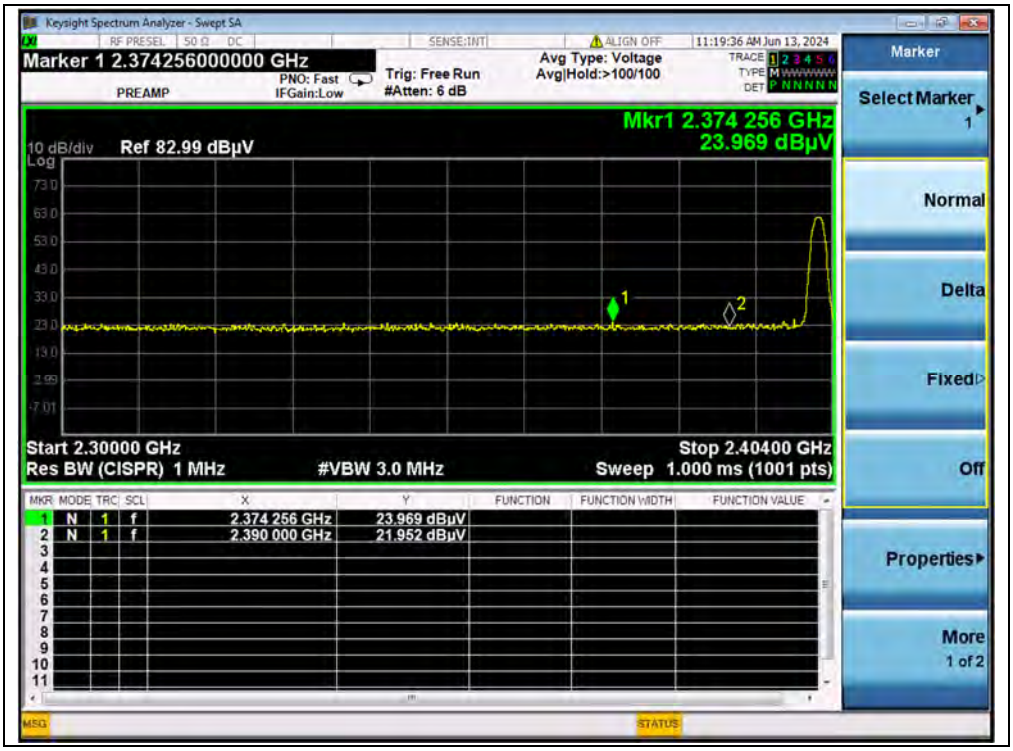
(PEAK, Channel 78, GFSK)



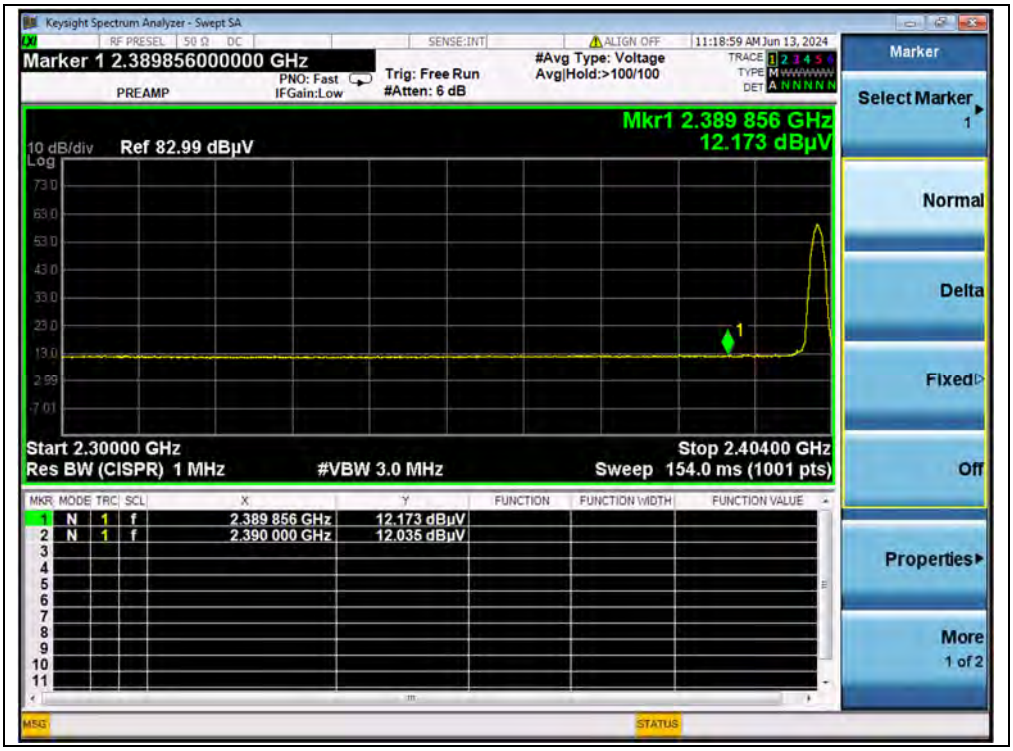
(AVERAGE, Channel 78, GFSK)

π/4-DQPSK Mode

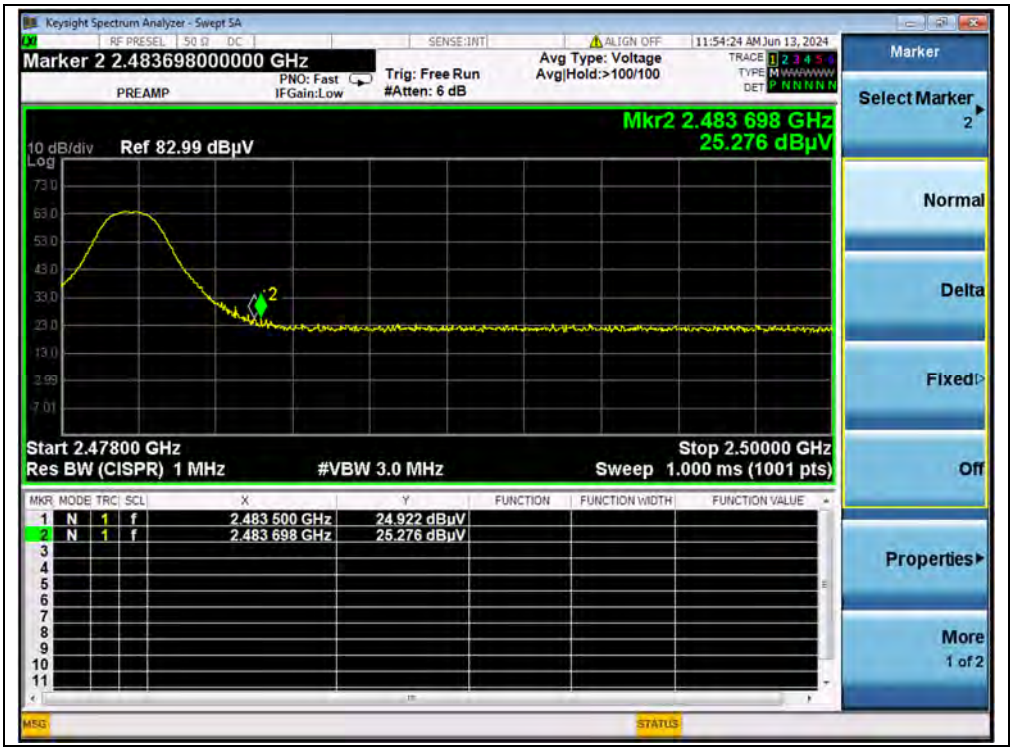
Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV						
0	2374.26	PK	23.97	6.74	27.20	36.60	74	PASS
0	2389.86	AV	12.17	6.74	27.20	24.80	54	PASS
78	2483.70	PK	25.28	6.74	27.20	39.64	74	PASS
78	2483.83	AV	15.34	6.74	27.20	29.70	54	PASS



(PEAK, Channel 0,π/4-DQPSK)



(AVERAGE, Channel 0, π/4-DQPSK)

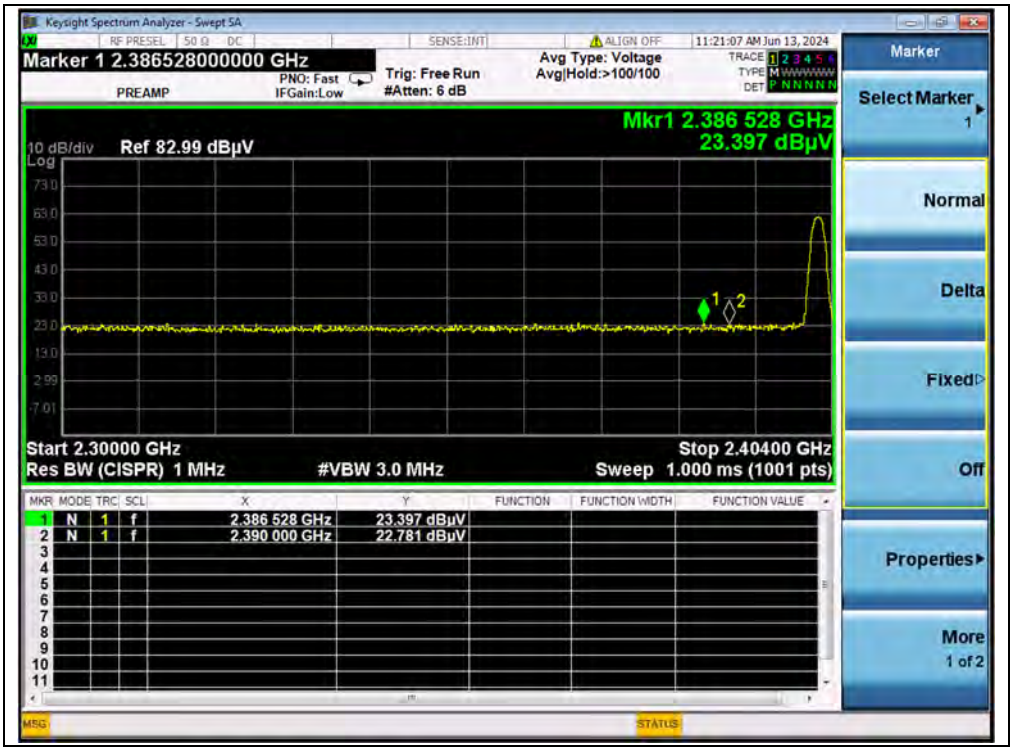


(PEAK, Channel 78, π/4-DQPSK)

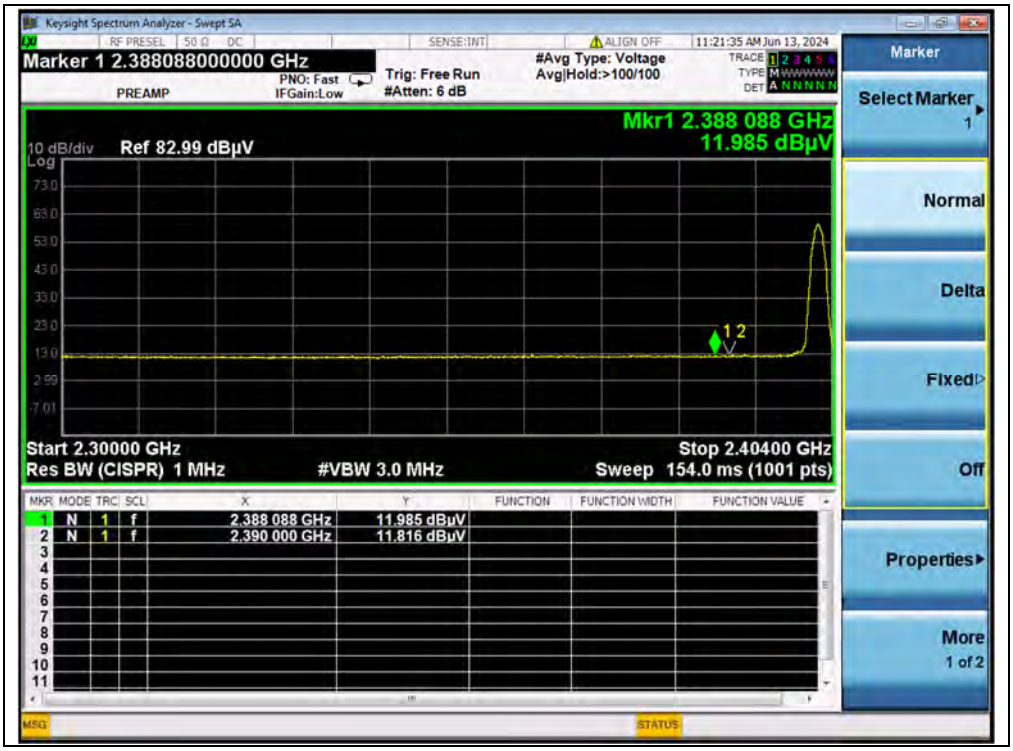
(AVERAGE, Channel 78, π/4-DQPSK)

8-DPSK Mode

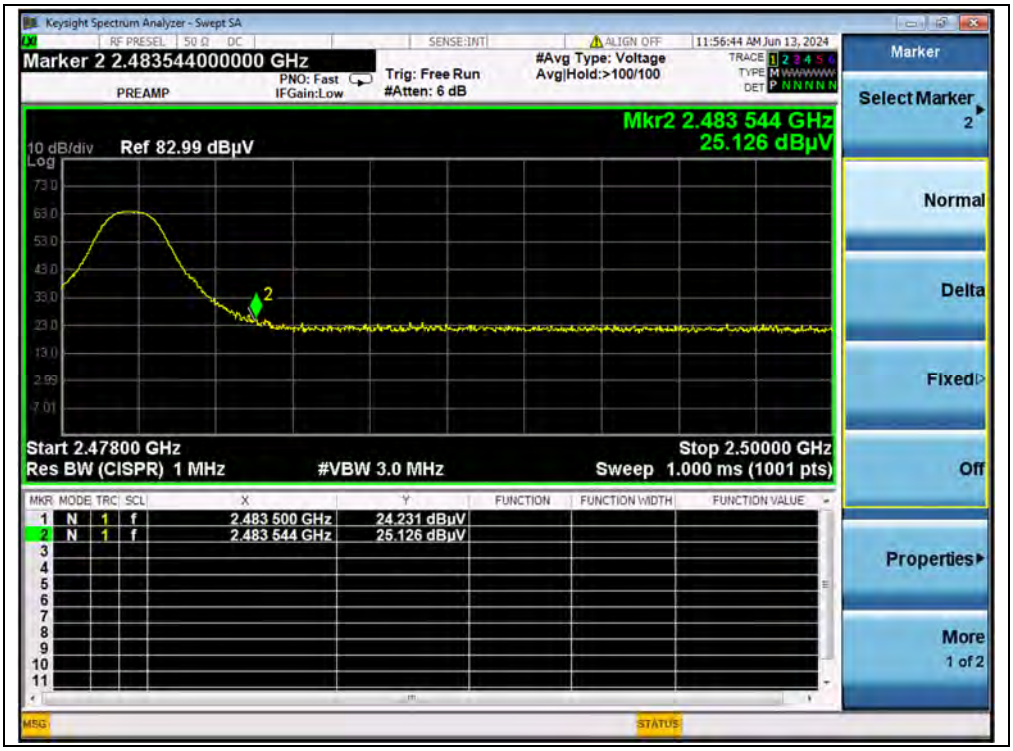
Channel	Frequency (MHz)	Detector PK/ AV	Receiver Reading U_R (dBμV)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
0	2386.53	PK	23.40	6.74	27.20	36.03	74	PASS
0	2388.09	AV	11.99	6.74	27.20	24.62	54	PASS
78	2483.54	PK	25.13	6.74	27.20	39.49	74	PASS
78	2483.54	AV	14.61	6.74	27.20	28.97	54	PASS



(PEAK, Channel 0, 8-DPSK)



(AVERAGE, Channel 0, 8-DPSK)



(PEAK, Channel 78, 8-DPSK)

(AVERAGE, Channel 78, 8-DPSK)

A.12. Radiated Emission

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

$E\ [dB\mu V/m] = U_R + A_T + A_{Factor}\ [dB]$; $A_T = L_{Cable\ loss}\ [dB] - G_{preamp}\ [dB]$

A_T: Total correction Factor except Antenna

U_R: Receiver Reading

G_{preamp}: Preamplifier Gain

A_{Factor}: Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{Factor} were built in test software.

Note1: All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note3: For the frequency, which started from 18GHz to 10th harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

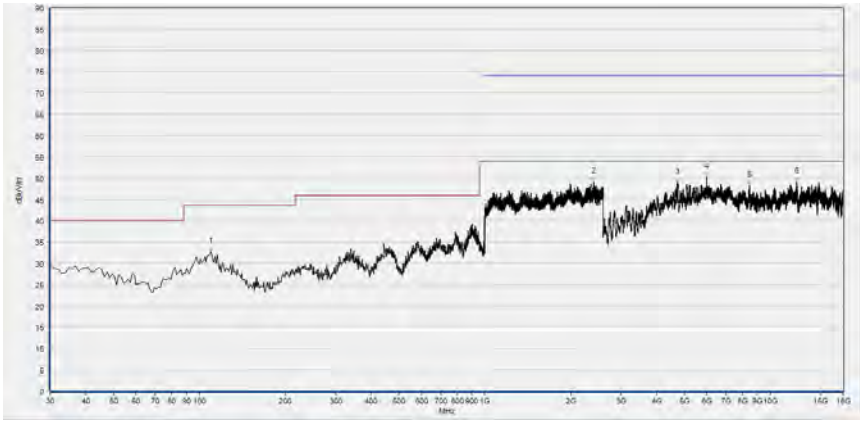
Field strength of fundamental:

Frequency (MHz)	Reading_Peak (dBμV/m)	Antenna Factor (dB)	Path Loss (dB)	Final_Peak (dBμV/m)	Antenna Polarity
2479.85	64.21	27.20	6.74	98.15	Horizontal

The field strength (the lowest) of fundamenta is more than 20dB higher than the unwanted emissions, in accordance with FCC part 15.215(b).

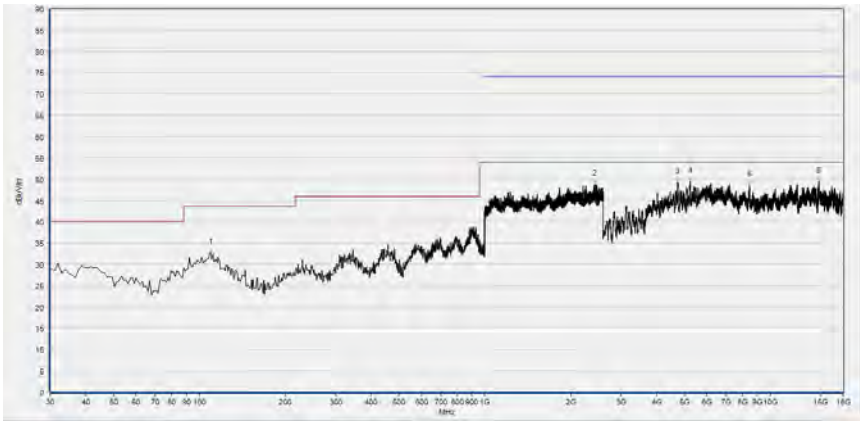
GFSK Mode

Plots for Channel 0



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	32.73	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2411.200	49.05	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4740.600	49.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5994.160	50.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8455.080	48.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12388.240	49.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

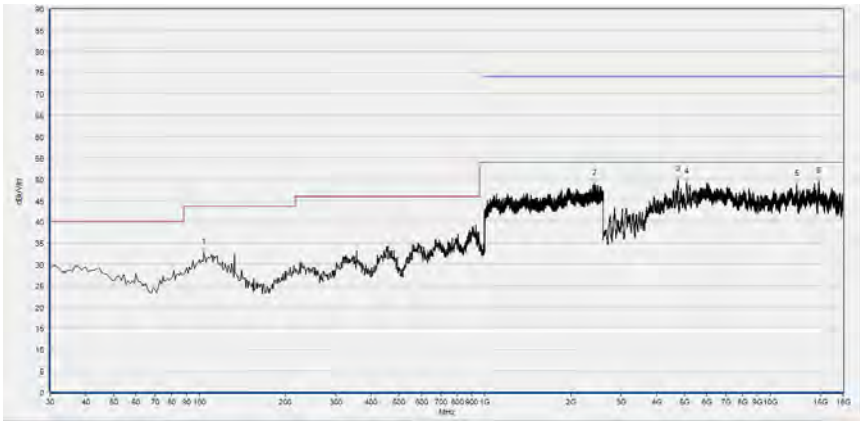
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	32.67	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2416.000	48.71	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4740.600	49.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5233.400	49.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8452.000	48.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14821.440	49.50	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

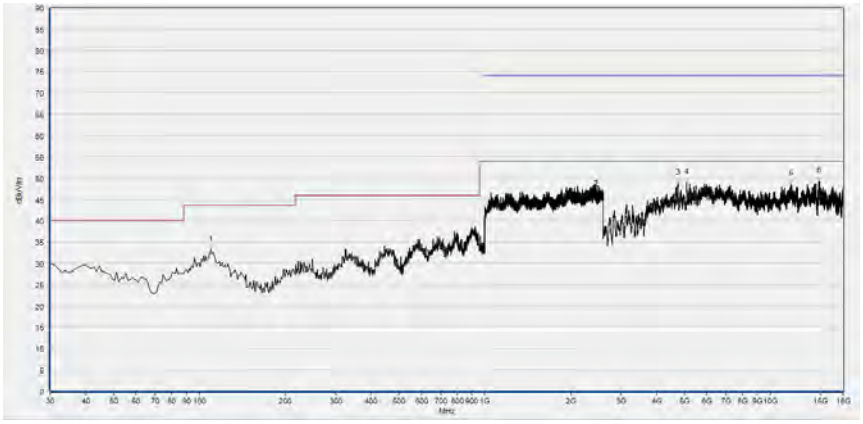
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 39



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.720	32.70	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2418.667	48.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4759.080	49.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5100.960	49.25	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12403.640	48.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14815.280	49.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

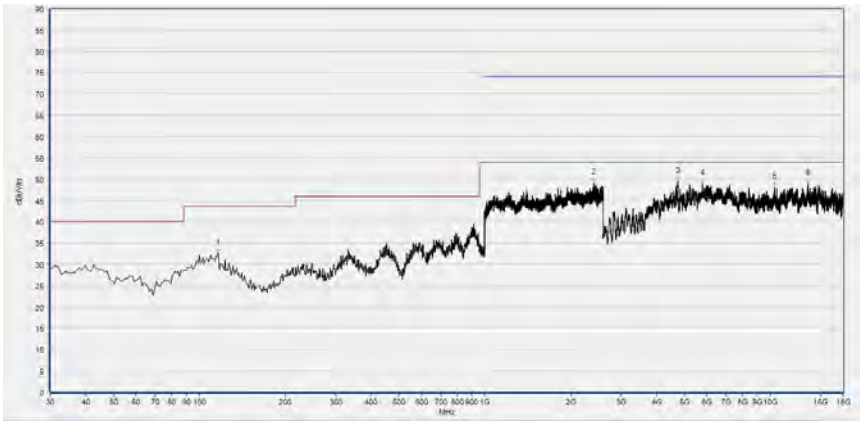
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	33.22	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2451.733	48.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4743.680	48.84	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5100.960	48.93	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11812.280	48.54	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14827.600	49.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

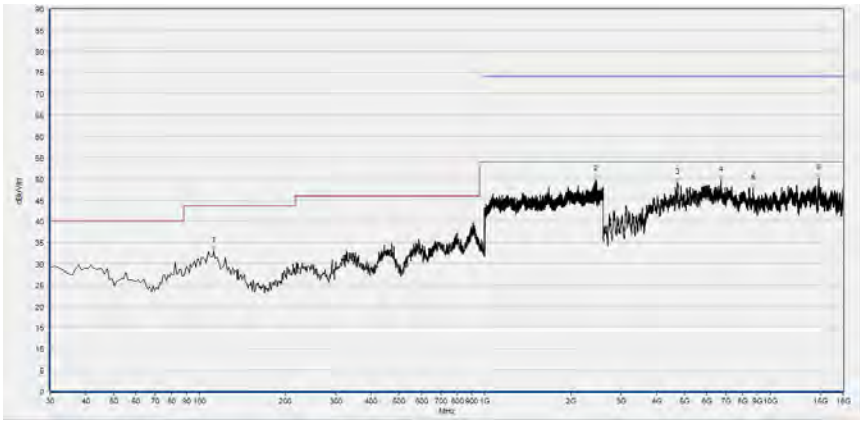
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 78



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
116.330	32.53	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2410.133	49.16	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4743.680	49.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5793.960	49.00	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10349.280	48.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13558.640	48.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

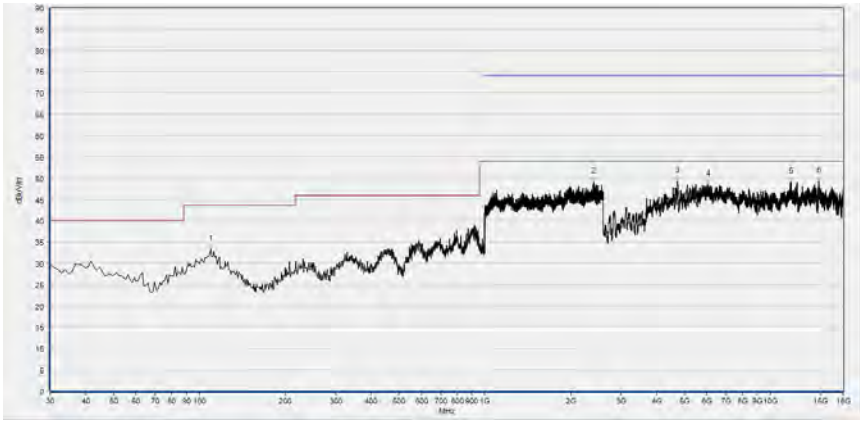


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
112.450	32.94	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2457.067	49.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4737.520	49.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6714.880	49.66	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8701.480	47.69	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14781.400	50.13	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

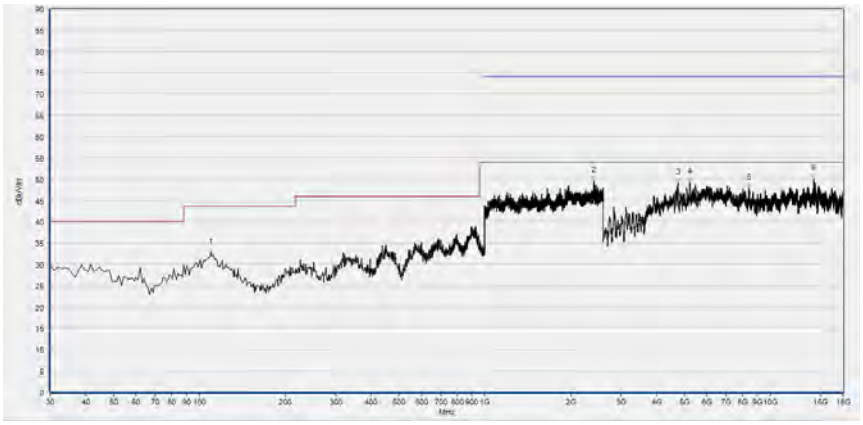
π/4-DQPSK Mode

Plots for Channel 0



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	33.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2413.867	49.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4740.600	49.25	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6049.600	48.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11790.720	49.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14824.520	49.32	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

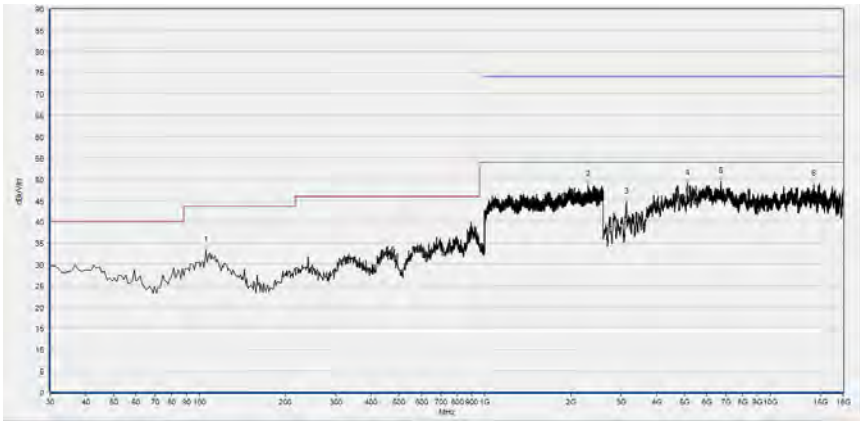
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	32.71	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2414.933	49.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4743.680	49.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5227.240	49.34	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8430.440	47.95	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14239.320	50.04	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

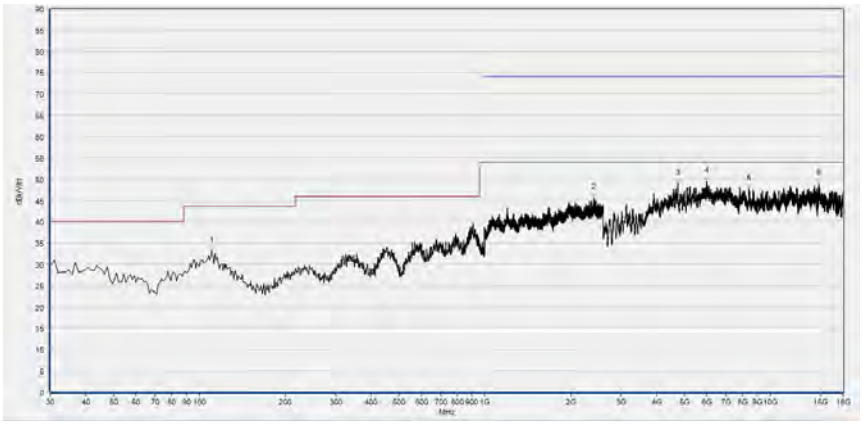
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 39



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
105.660	33.35	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2302.400	48.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3132.840	44.55	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5110.200	48.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6733.360	49.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14193.120	48.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

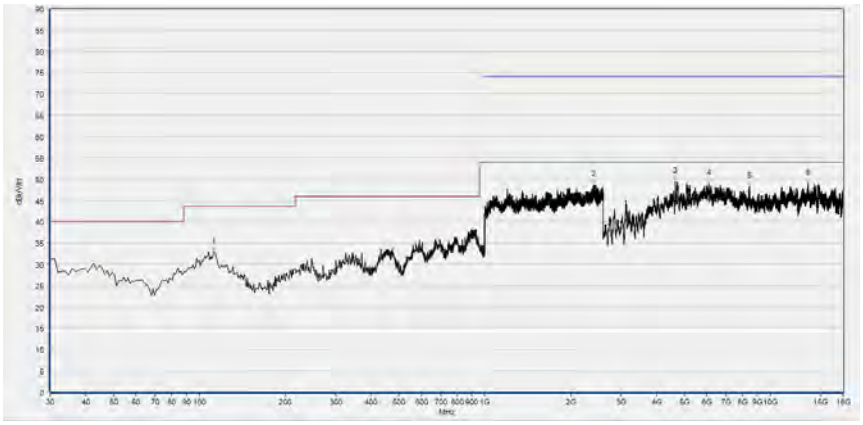
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
110.510	33.22	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2415.467	45.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4743.680	49.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	49.38	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8433.520	47.80	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14781.400	48.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

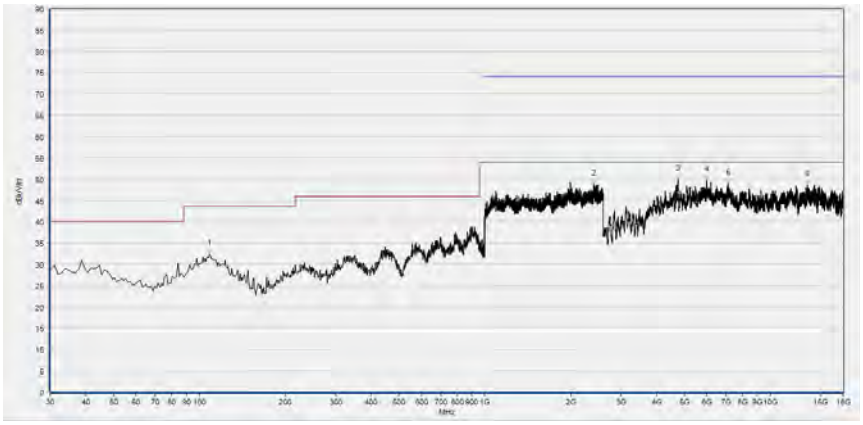
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 78



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
112.450	32.80	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2409.067	48.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4657.440	49.52	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6098.880	48.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8439.680	48.30	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13574.040	48.96	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

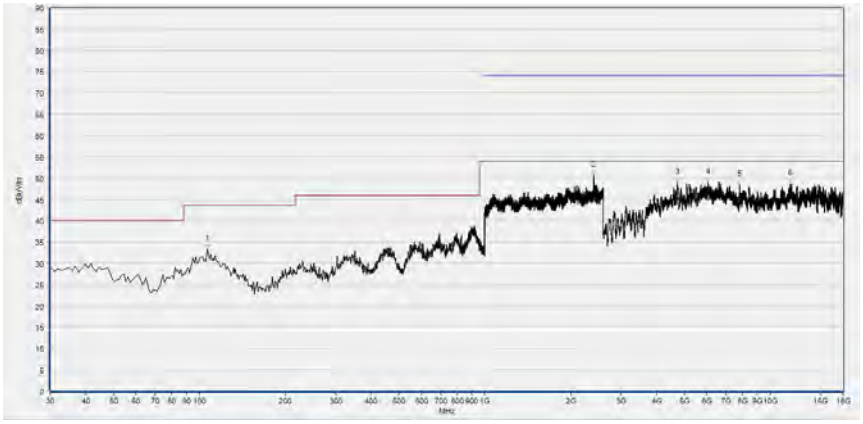


Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
108.570	32.40	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2406.400	48.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4746.760	49.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5997.240	49.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7106.040	48.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13478.560	48.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

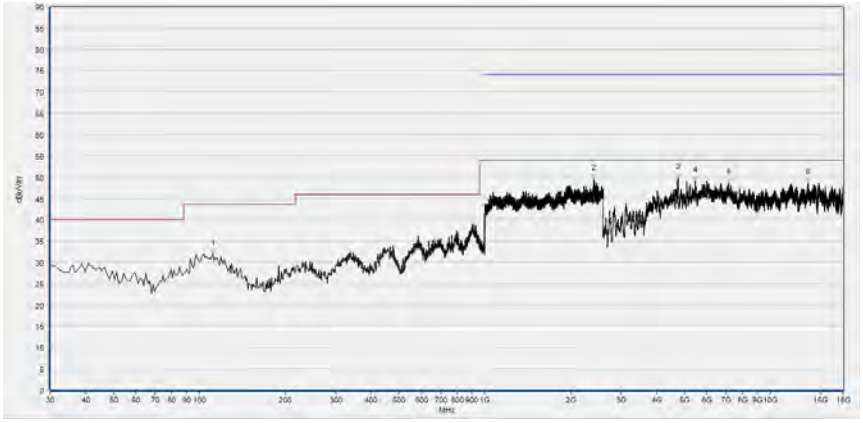
8-DPSK Mode

Plots for Channel 0



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	33.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2402.133	50.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4737.520	48.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6049.600	48.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7826.760	48.48	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11781.480	48.67	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

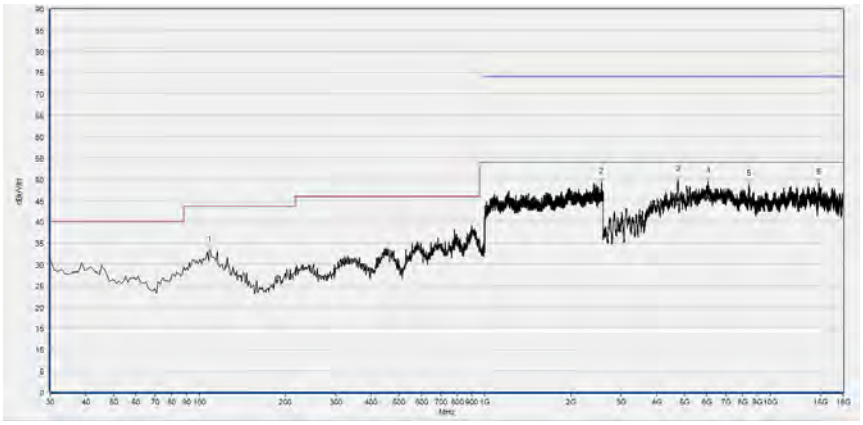
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
111.480	32.01	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2408.533	49.66	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4746.760	49.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5470.560	49.10	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7170.720	48.53	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13583.280	48.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

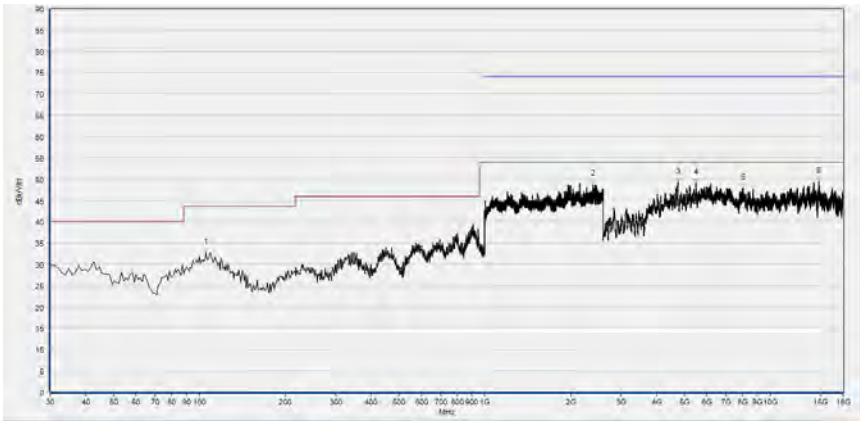
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 39



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
108.570	33.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2566.400	49.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4749.840	49.84	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6049.600	49.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8424.280	48.72	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14790.640	49.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

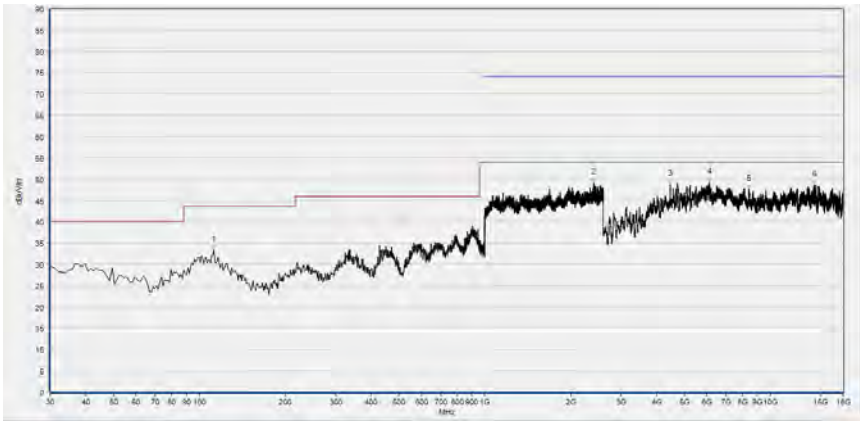
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
105.660	32.67	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2388.267	48.71	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4746.760	49.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5479.800	49.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8023.880	47.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14809.120	49.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

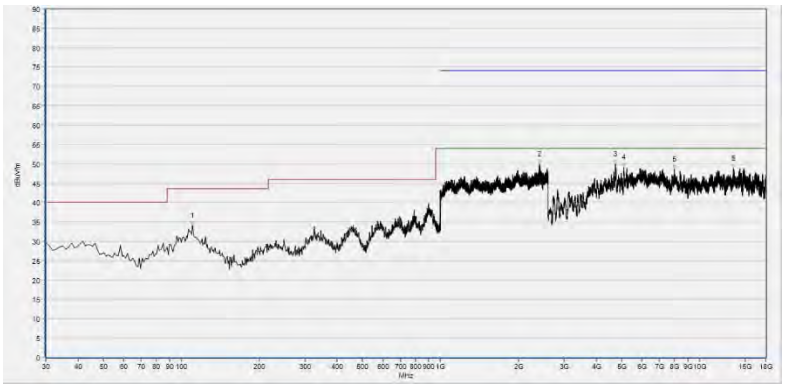
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 78



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
112.450	33.36	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2409.067	49.11	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4460.320	48.69	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6111.200	49.27	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8424.280	47.53	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14270.120	48.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
110.510	34.04	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
2409.600	50.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4740.600	49.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5097.880	49.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7999.240	48.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13497.040	48.69	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

END OF REPORT