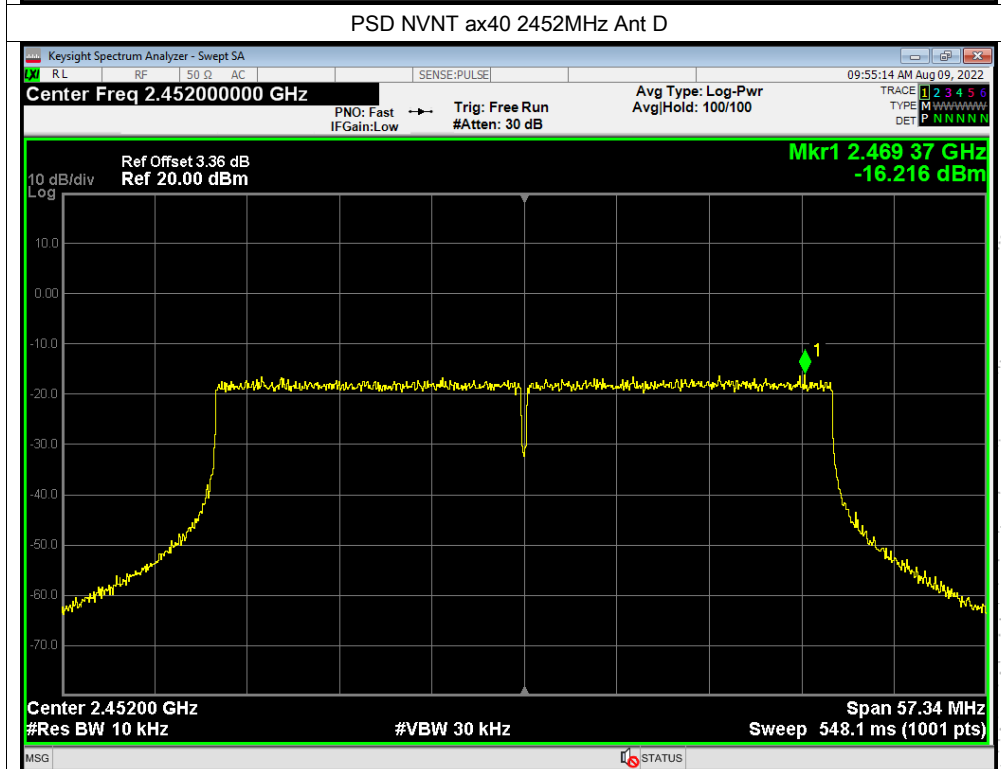
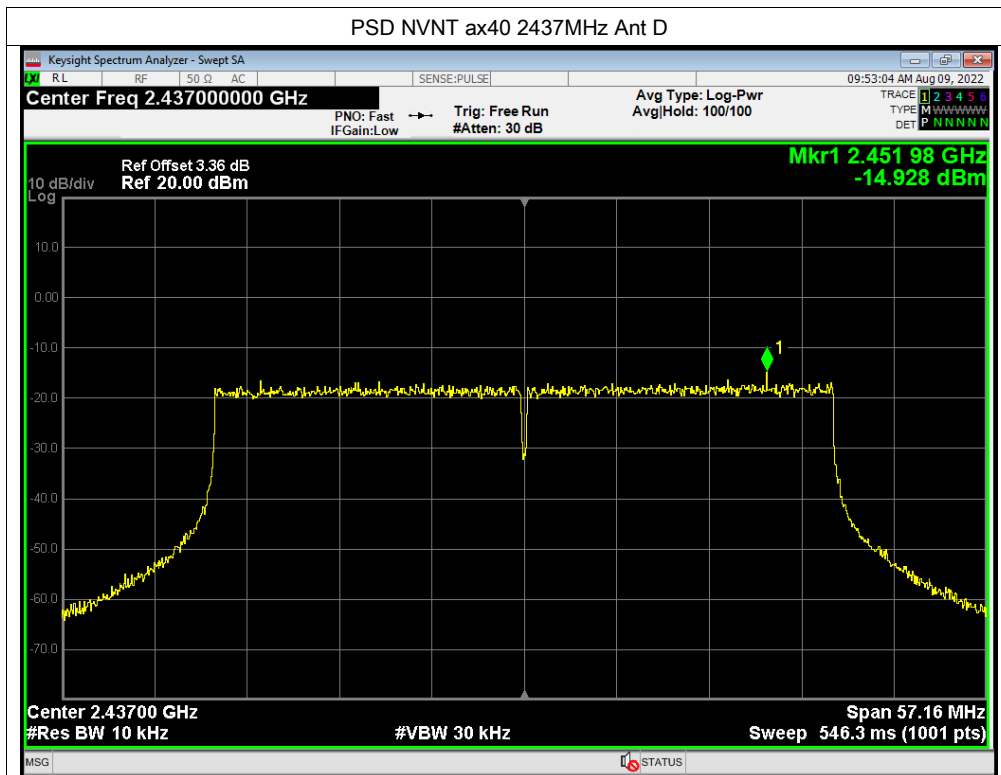




For 2T2R

Antenna A +antenna B

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna A Power Spectral Density (dBm/3kHz)	Antenna B Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-14.45	-14.41	-11.42	5.8	PASS
	2437 MHz	-13.35	-13.19	-10.26	5.8	PASS
	2462 MHz	-13.51	-13.43	-10.46	5.8	PASS
TX n Mode(40M)	2422 MHz	-19.42	-19.37	-16.38	5.8	PASS
	2437 MHz	-19.57	-18.92	-16.22	5.8	PASS
	2452 MHz	-18.22	-18.43	-15.31	5.8	PASS
TX ax Mode(20M)	2412 MHz	-18.53	-18.13	-15.32	5.8	PASS
	2437 MHz	-18.24	-17.4	-14.79	5.8	PASS
	2462 MHz	-16.9	-17.45	-14.16	5.8	PASS
TX ax Mode(40M)	2422 MHz	-22.11	-22.24	-19.16	5.8	PASS
	2437 MHz	-21.38	-21.61	-18.48	5.8	PASS
	2452 MHz	-20.35	-20.68	-17.50	5.8	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna A +antenna C

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna A Power Spectral Density (dBm/3kHz)	Antenna C Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-14.45	-15.22	-11.81	5.8	PASS
	2437 MHz	-13.35	-13.54	-10.43	5.8	PASS
	2462 MHz	-13.51	-13.74	-10.61	5.8	PASS
TX n Mode(40M)	2422 MHz	-19.42	-19.74	-16.57	5.8	PASS
	2437 MHz	-19.57	-19.23	-16.39	5.8	PASS
	2452 MHz	-18.22	-19.28	-15.71	5.8	PASS
TX ax Mode(20M)	2412 MHz	-18.53	-18.65	-15.58	5.8	PASS
	2437 MHz	-18.24	-17.75	-14.98	5.8	PASS
	2462 MHz	-16.9	-17.36	-14.11	5.8	PASS
TX ax Mode(40M)	2422 MHz	-22.11	-22.25	-19.17	5.8	PASS
	2437 MHz	-21.38	-22.2	-18.76	5.8	PASS
	2452 MHz	-20.35	-21.78	-18.00	5.8	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna A +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna A Power Spectral Density (dBm/3kHz)	Antenna D Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-14.45	-14.71	-11.57	5.8	PASS
	2437 MHz	-13.35	-13.48	-10.40	5.8	PASS
	2462 MHz	-13.51	-12.64	-10.04	5.8	PASS
TX n Mode(40M)	2422 MHz	-19.42	-18.85	-16.12	5.8	PASS
	2437 MHz	-19.57	-19.01	-16.27	5.8	PASS
	2452 MHz	-18.22	-18.44	-15.32	5.8	PASS
TX ax Mode(20M)	2412 MHz	-18.53	-18.3	-15.40	5.8	PASS
	2437 MHz	-18.24	-17.56	-14.88	5.8	PASS
	2462 MHz	-16.9	-17.78	-14.31	5.8	PASS
TX ax Mode(40M)	2422 MHz	-22.11	-22.28	-19.18	5.8	PASS
	2437 MHz	-21.38	-20.16	-17.72	5.8	PASS
	2452 MHz	-20.35	-21.45	-17.85	5.8	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna B +antenna C

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna B Power Spectral Density (dBm/3kHz)	Antenna C Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-14.41	-15.22	-11.79	5.8	PASS
	2437 MHz	-13.19	-13.54	-10.35	5.8	PASS
	2462 MHz	-13.43	-13.74	-10.57	5.8	PASS
TX n Mode(40M)	2422 MHz	-19.37	-19.74	-16.54	5.8	PASS
	2437 MHz	-18.92	-19.23	-16.06	5.8	PASS
	2452 MHz	-18.43	-19.28	-15.82	5.8	PASS
TX ax Mode(20M)	2412 MHz	-18.13	-18.65	-15.37	5.8	PASS
	2437 MHz	-17.4	-17.75	-14.56	5.8	PASS
	2462 MHz	-17.45	-17.36	-14.39	5.8	PASS
TX ax Mode(40M)	2422 MHz	-22.24	-22.25	-19.23	5.8	PASS
	2437 MHz	-21.61	-22.2	-18.88	5.8	PASS
	2452 MHz	-20.68	-21.78	-18.18	5.8	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna B +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna B Power Spectral Density (dBm/3kHz)	Antenna C Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-14.41	-14.71	-11.55	5.8	PASS
	2437 MHz	-13.19	-13.48	-10.32	5.8	PASS
	2462 MHz	-13.43	-12.64	-10.01	5.8	PASS
TX n Mode(40M)	2422 MHz	-19.37	-18.85	-16.09	5.8	PASS
	2437 MHz	-18.92	-19.01	-15.95	5.8	PASS
	2452 MHz	-18.43	-18.44	-15.42	5.8	PASS
TX ax Mode(20M)	2412 MHz	-18.13	-18.3	-15.20	5.8	PASS
	2437 MHz	-17.4	-17.56	-14.47	5.8	PASS
	2462 MHz	-17.45	-17.78	-14.60	5.8	PASS
TX ax Mode(40M)	2422 MHz	-22.24	-22.28	-19.25	5.8	PASS
	2437 MHz	-21.61	-20.16	-17.81	5.8	PASS
	2452 MHz	-20.68	-21.45	-18.04	5.8	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna C +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna C Power Spectral Density (dBm/3kHz)	Antenna C Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-15.22	-14.71	-11.95	5.8	PASS
	2437 MHz	-13.54	-13.48	-10.50	5.8	PASS
	2462 MHz	-13.74	-12.64	-10.14	5.8	PASS
TX n Mode(40M)	2422 MHz	-19.74	-18.85	-16.26	5.8	PASS
	2437 MHz	-19.23	-19.01	-16.11	5.8	PASS
	2452 MHz	-19.28	-18.44	-15.83	5.8	PASS
TX ax Mode(20M)	2412 MHz	-18.65	-18.3	-15.46	5.8	PASS
	2437 MHz	-17.75	-17.56	-14.64	5.8	PASS
	2462 MHz	-17.36	-17.78	-14.55	5.8	PASS
TX ax Mode(40M)	2422 MHz	-22.25	-22.28	-19.25	5.8	PASS
	2437 MHz	-22.2	-20.16	-18.05	5.8	PASS
	2452 MHz	-21.78	-21.45	-18.60	5.8	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

For 3T3R

Antenna A +Antenna B +antenna C

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna A Power Spectral Density (dBm/3kHz)	Antenna B Power Spectral Density (dBm/3kHz)	Antenna C Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-14.45	-14.41	-15.22	-9.91	4.0	PASS
	2437 MHz	-13.35	-13.19	-13.54	-8.59	4.0	PASS
	2462 MHz	-13.51	-13.43	-13.74	-8.79	4.0	PASS
TX n Mode(40M)	2422 MHz	-19.42	-19.37	-19.74	-14.74	4.0	PASS
	2437 MHz	-19.57	-18.92	-19.23	-14.46	4.0	PASS
	2452 MHz	-18.22	-18.43	-19.28	-13.85	4.0	PASS
TX ax Mode(20M)	2412 MHz	-18.53	-18.13	-18.65	-13.66	4.0	PASS
	2437 MHz	-18.24	-17.4	-17.75	-13.01	4.0	PASS
	2462 MHz	-16.9	-17.45	-17.36	-12.46	4.0	PASS
TX ax Mode(40M)	2422 MHz	-22.11	-22.24	-22.25	-17.43	4.0	PASS
	2437 MHz	-21.38	-21.61	-22.2	-16.95	4.0	PASS
	2452 MHz	-20.35	-20.68	-21.78	-16.12	4.0	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna A +Antenna B +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna A Power Spectral Density (dBm/3kHz)	Antenna B Power Spectral Density (dBm/3kHz)	Antenna D Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-14.45	-14.41	-14.71	-9.75	4.0	PASS
	2437 MHz	-13.35	-13.19	-13.48	-8.57	4.0	PASS
	2462 MHz	-13.51	-13.43	-12.64	-8.40	4.0	PASS
TX n Mode(40M)	2422 MHz	-19.42	-19.37	-18.85	-14.43	4.0	PASS
	2437 MHz	-19.57	-18.92	-19.01	-14.39	4.0	PASS
	2452 MHz	-18.22	-18.43	-18.44	-13.59	4.0	PASS
TX ax Mode(20M)	2412 MHz	-18.53	-18.13	-18.3	-13.55	4.0	PASS
	2437 MHz	-18.24	-17.4	-17.56	-12.95	4.0	PASS
	2462 MHz	-16.9	-17.45	-17.78	-12.59	4.0	PASS
TX ax Mode(40M)	2422 MHz	-22.11	-22.24	-22.28	-17.44	4.0	PASS
	2437 MHz	-21.38	-21.61	-20.16	-16.23	4.0	PASS
	2452 MHz	-20.35	-20.68	-21.45	-16.03	4.0	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna B +Antenna C +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Antenna B Power Spectral Density (dBm/3kHz)	Antenna C Power Spectral Density (dBm/3kHz)	Antenna D Power Spectral Density (dBm/3kHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-14.41	-15.22	-14.71	-10.00	4.0	PASS
	2437 MHz	-13.19	-13.54	-13.48	-8.63	4.0	PASS
	2462 MHz	-13.43	-13.74	-12.64	-8.47	4.0	PASS
TX n Mode(40M)	2422 MHz	-19.37	-19.74	-18.85	-14.53	4.0	PASS
	2437 MHz	-18.92	-19.23	-19.01	-14.28	4.0	PASS
	2452 MHz	-18.43	-19.28	-18.44	-13.93	4.0	PASS
TX ax Mode(20M)	2412 MHz	-18.13	-18.65	-18.3	-13.58	4.0	PASS
	2437 MHz	-17.4	-17.75	-17.56	-12.80	4.0	PASS
	2462 MHz	-17.45	-17.36	-17.78	-12.76	4.0	PASS
TX ax Mode(40M)	2422 MHz	-22.24	-22.25	-22.28	-17.49	4.0	PASS
	2437 MHz	-21.61	-22.2	-20.16	-16.47	4.0	PASS
	2452 MHz	-20.68	-21.78	-21.45	-16.51	4.0	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

For 4T4R

Antenna A +Antenna B+ Antenna C +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result
TX n Mode(20M)	2412 MHz	-8.67	2.8	PASS
	2437 MHz	-7.37	2.8	PASS
	2462 MHz	-7.29	2.8	PASS
TX n Mode(40M)	2422 MHz	-13.31	2.8	PASS
	2437 MHz	-13.15	2.8	PASS
	2452 MHz	-12.55	2.8	PASS
TX ax Mode(20M)	2412 MHz	-12.38	2.8	PASS
	2437 MHz	-11.71	2.8	PASS
	2462 MHz	-11.34	2.8	PASS
TX ax Mode(40M)	2422 MHz	-16.20	2.8	PASS
	2437 MHz	-15.25	2.8	PASS
	2452 MHz	-15.01	2.8	PASS

For those cases where the rule specifies that the Power Spectral Density be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

10. Bandwidth Test

10.1 Block Diagram Of Test Setup



10.2 Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (-6dB bandwidth)	2400-2483.5	PASS

10.3 Test procedure

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

10.4 EUT Operating Conditions

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Note: Power Spectral Density(dBm)=Reading+Cable Loss

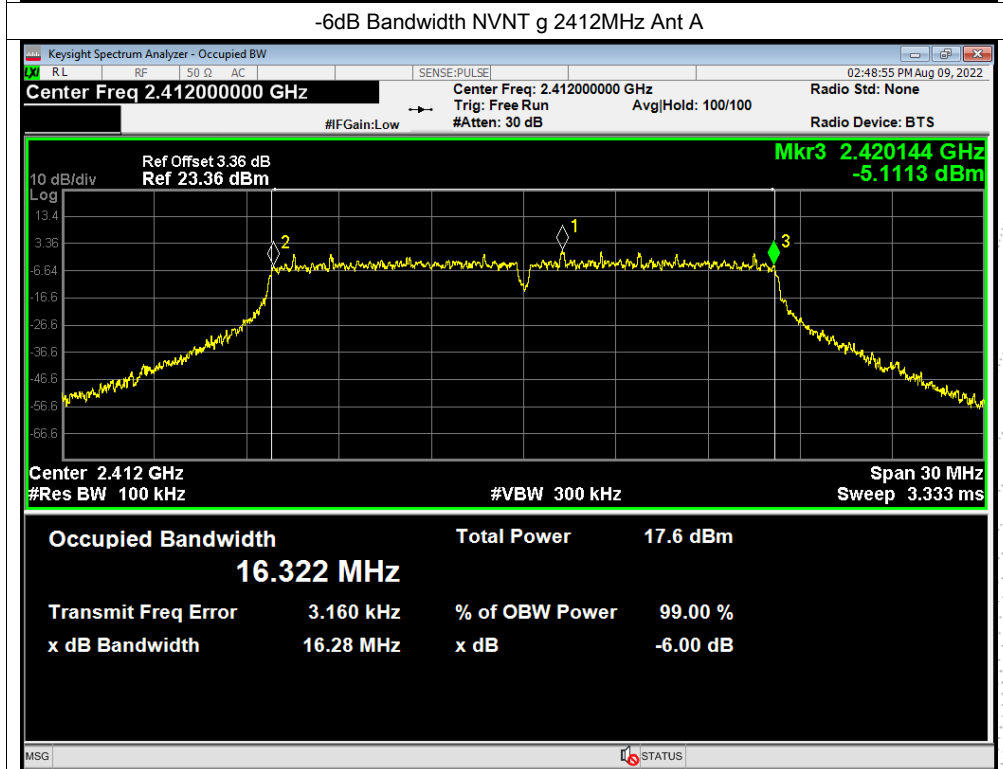
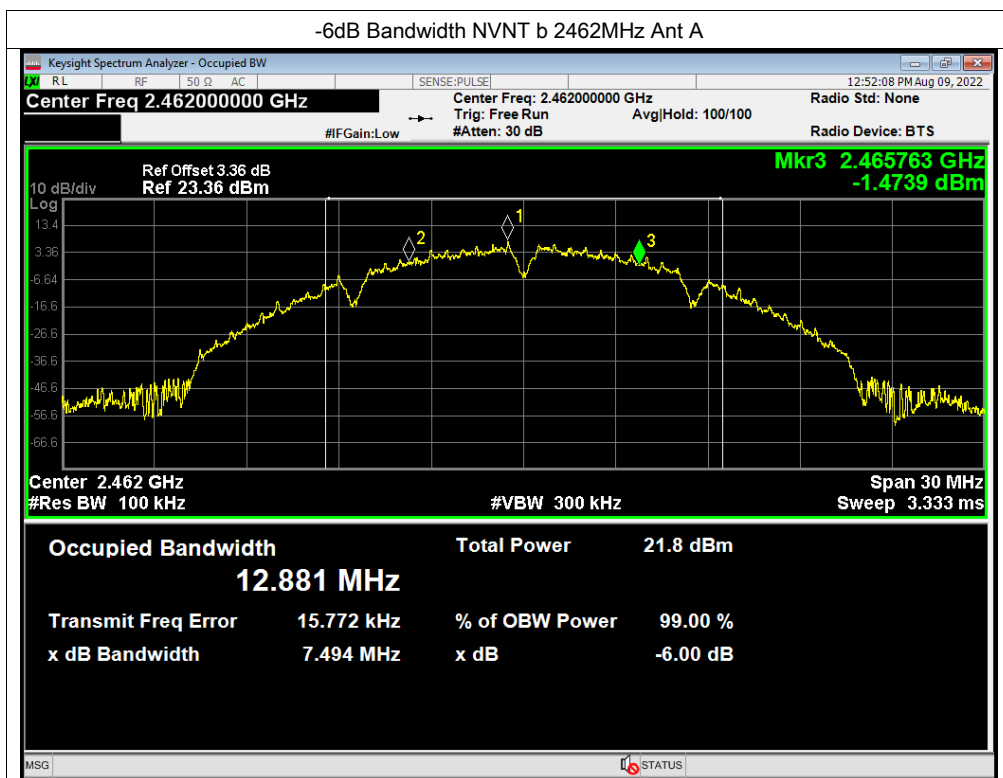
10.5 Test Result

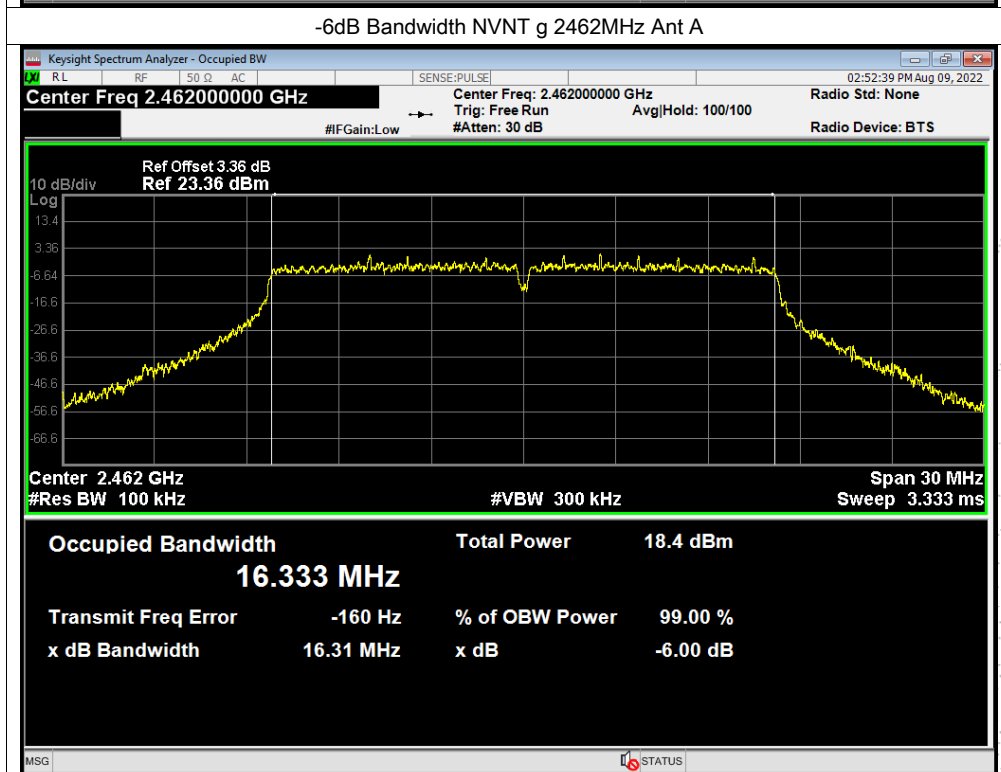
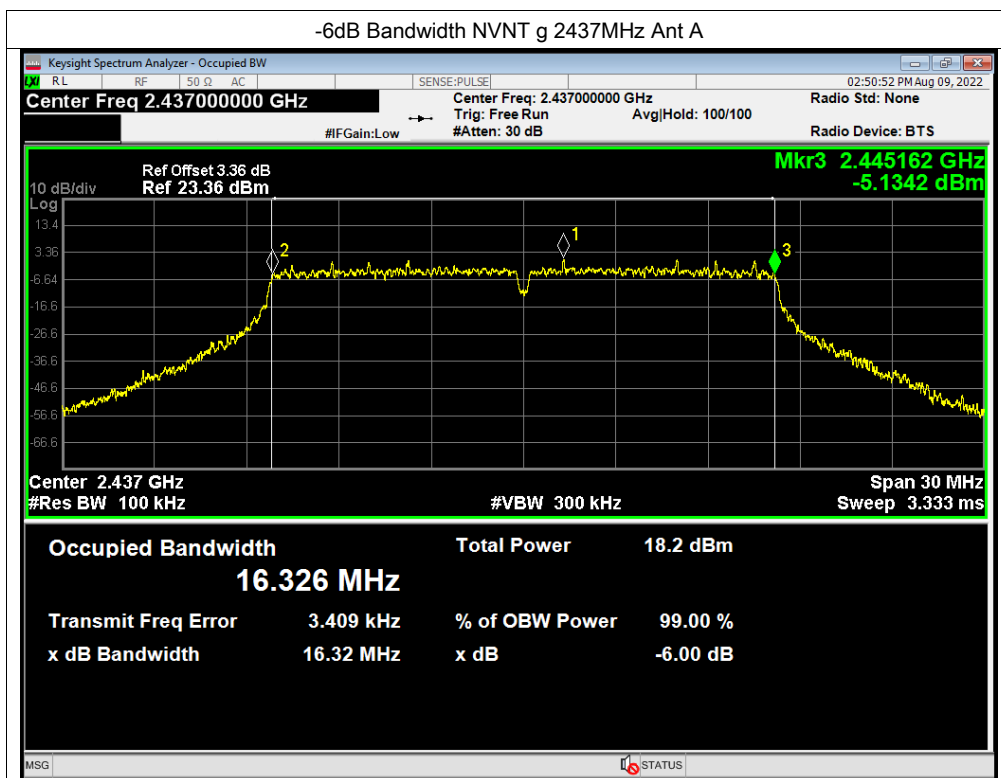
Note: A(B/C/D) Represent the value of antenna A and B/C/D, The worst data is Antenna A, only shown Antenna A Plot.

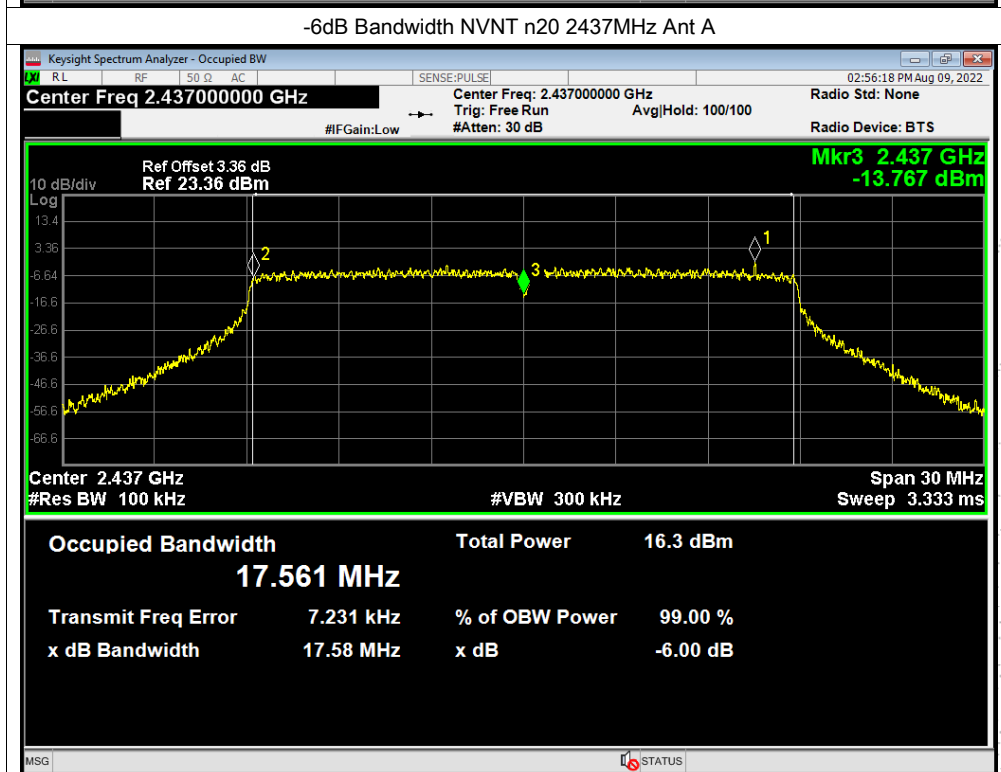
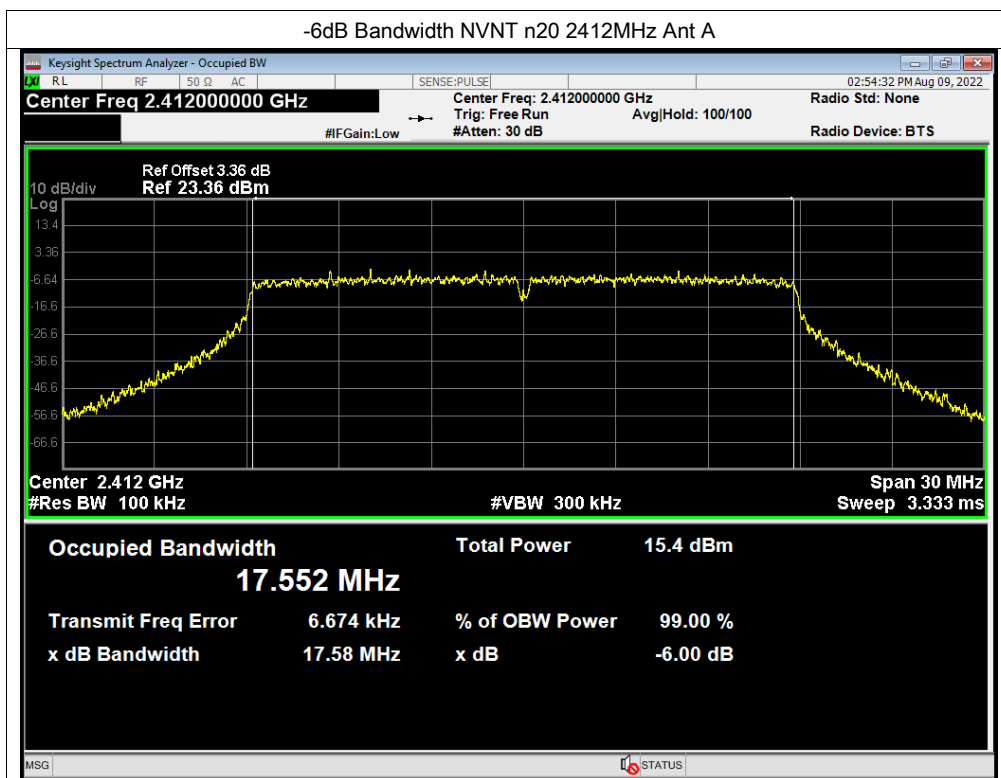
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

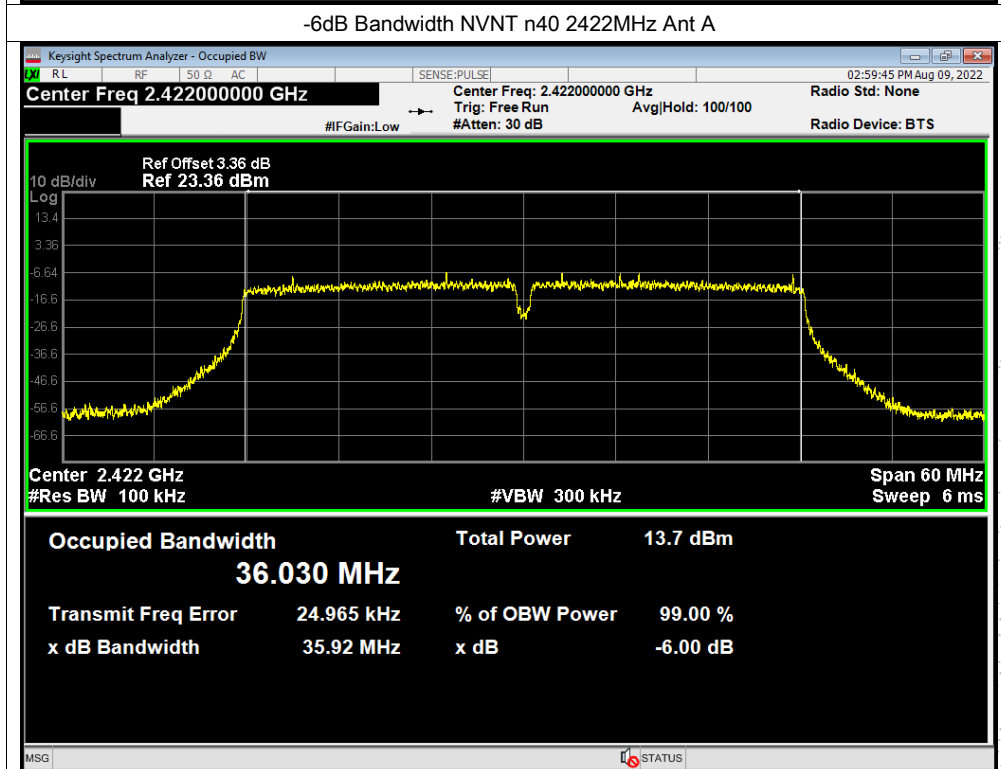
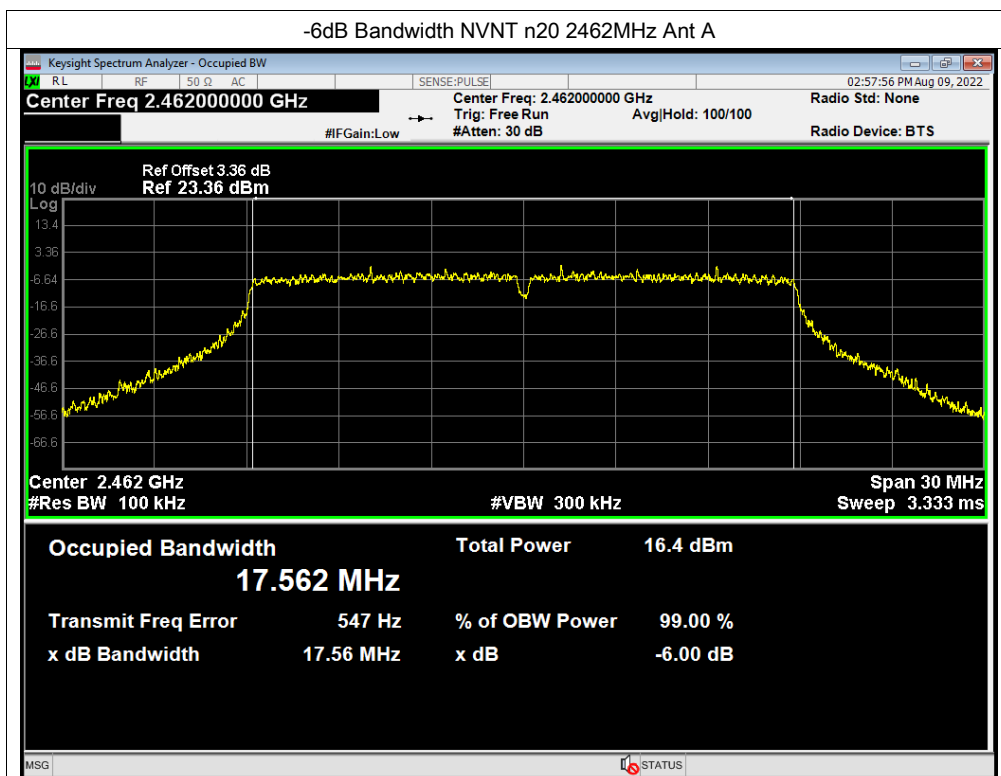
Test Mode	Frequency (MHz)	-6dB bandwidth (MHz)	Limit (kHz)	Result
TX b Mode	2412	8.537	500	Pass
	2437	7.081	500	Pass
	2462	7.494	500	Pass
TX g Mode	2412	16.283	500	Pass
	2437	16.317	500	Pass
	2462	16.309	500	Pass
TX n Mode(20M)	2412	17.582	500	Pass
	2437	17.581	500	Pass
	2462	17.565	500	Pass
TX n Mode(40M)	2422	35.921	500	Pass
	2437	35.799	500	Pass
	2452	35.337	500	Pass
TX ax Mode(20M)	2412	19.082	500	Pass
	2437	19.093	500	Pass
	2462	19.140	500	Pass
TX ax Mode(40M)	2422	38.135	500	Pass
	2437	38.167	500	Pass
	2452	38.151	500	Pass

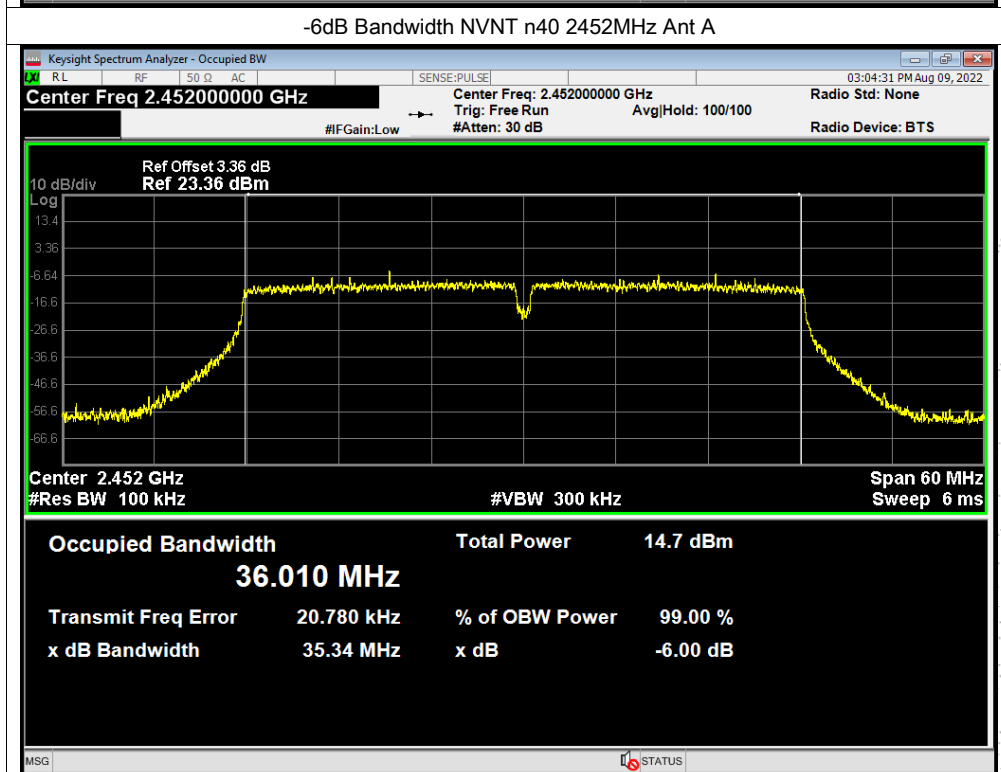
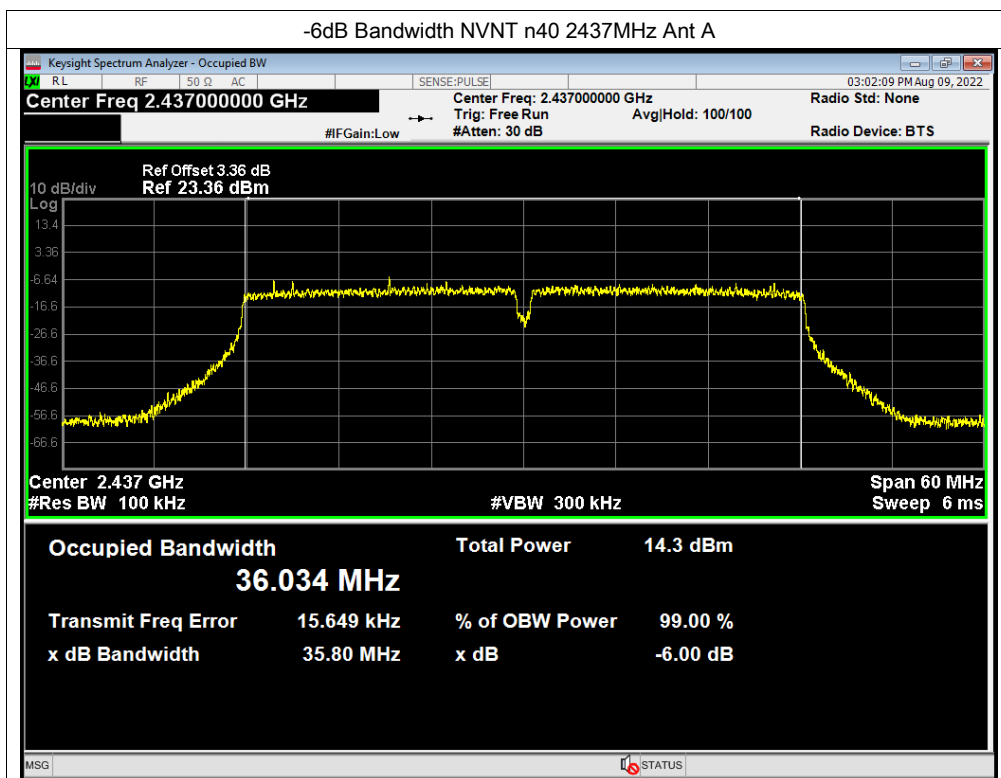


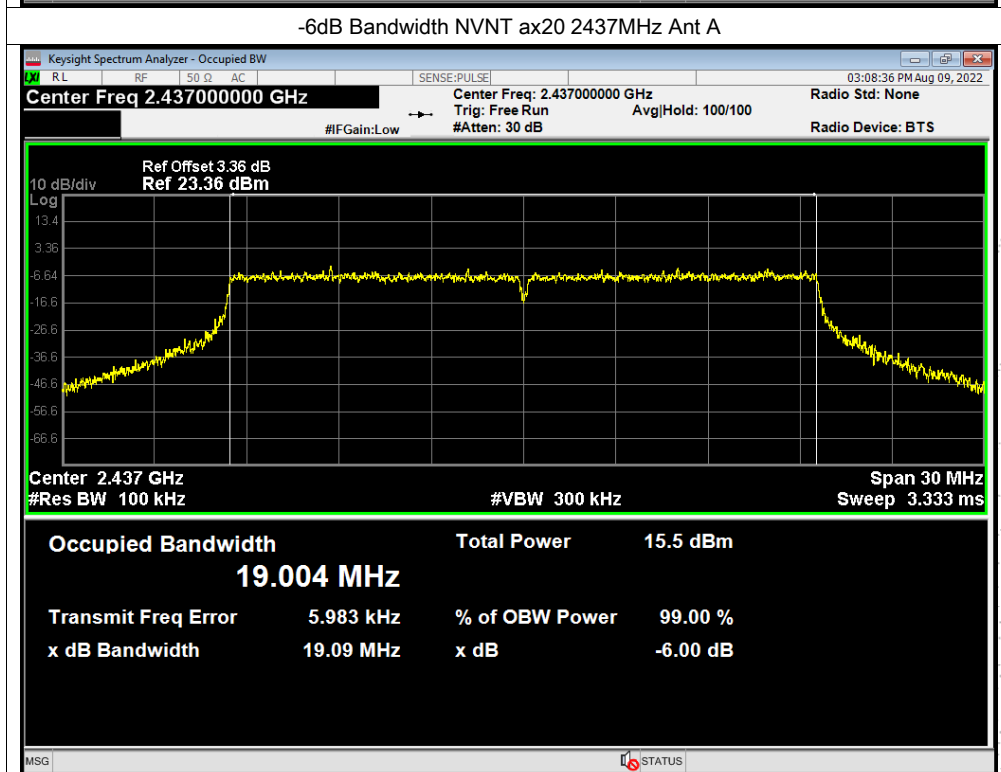
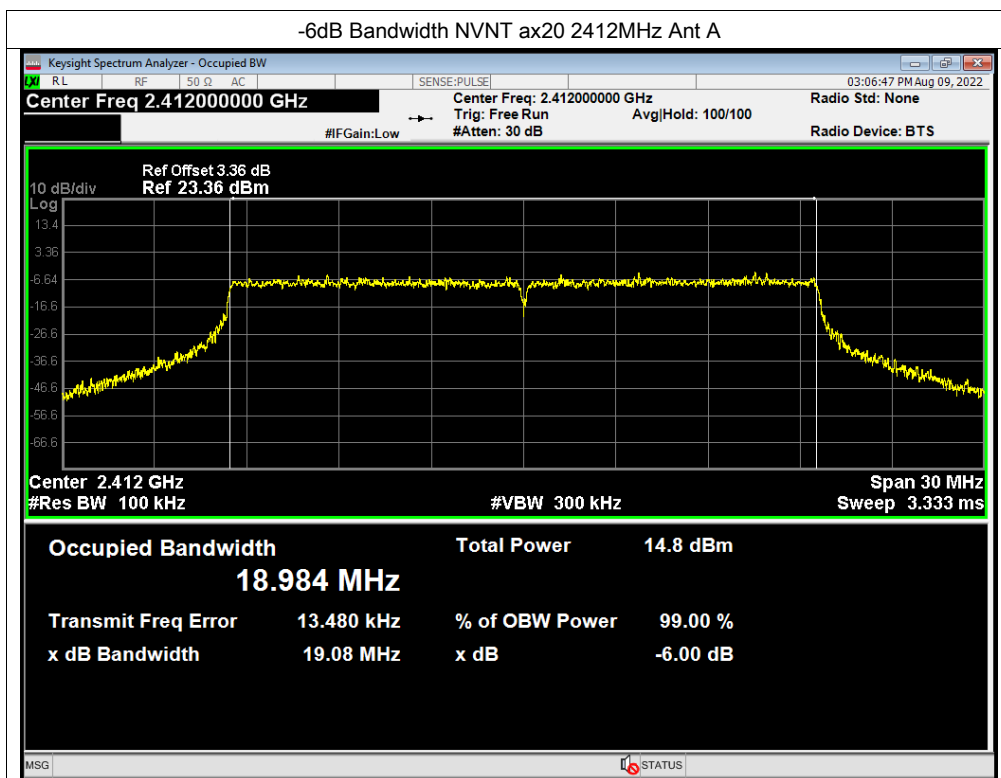


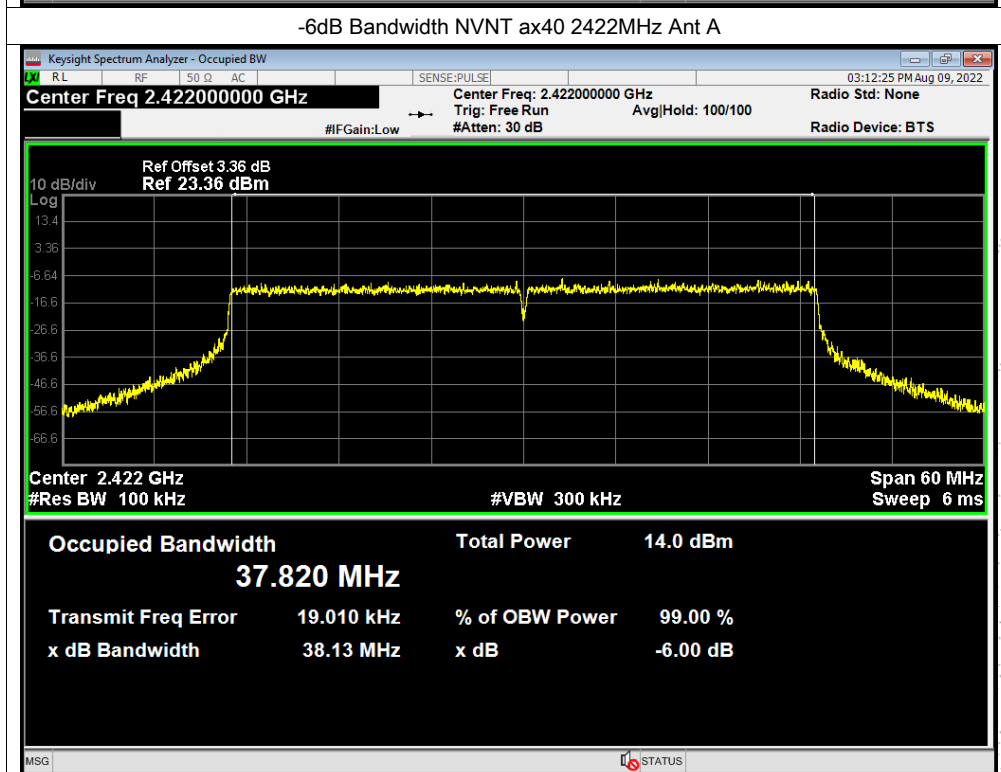
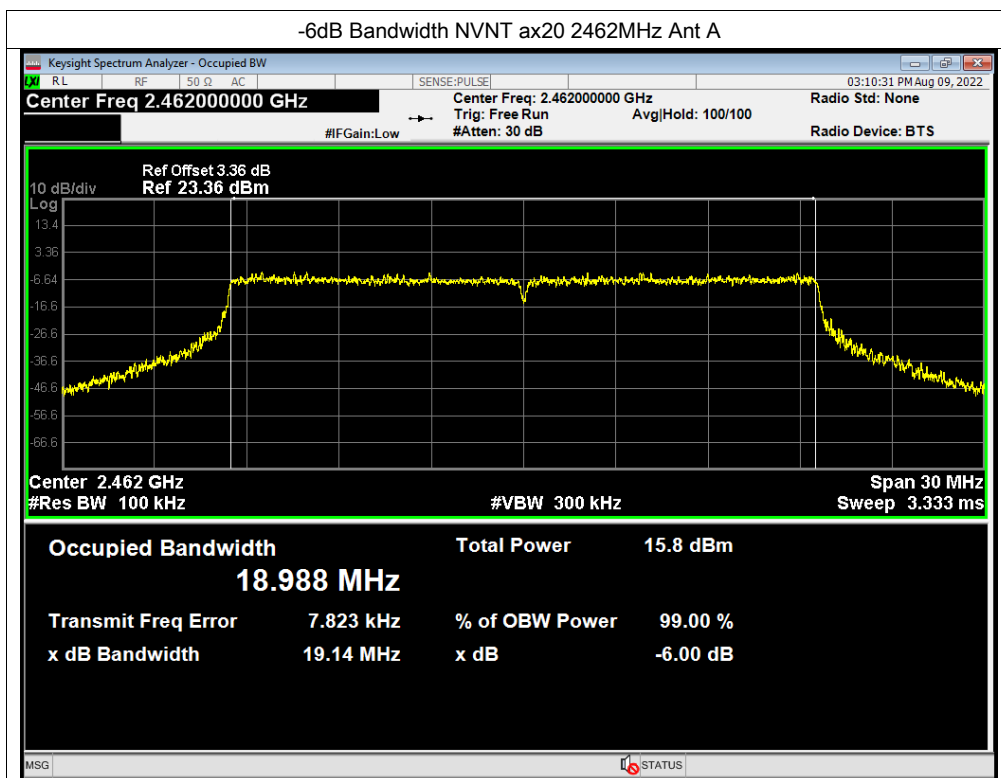


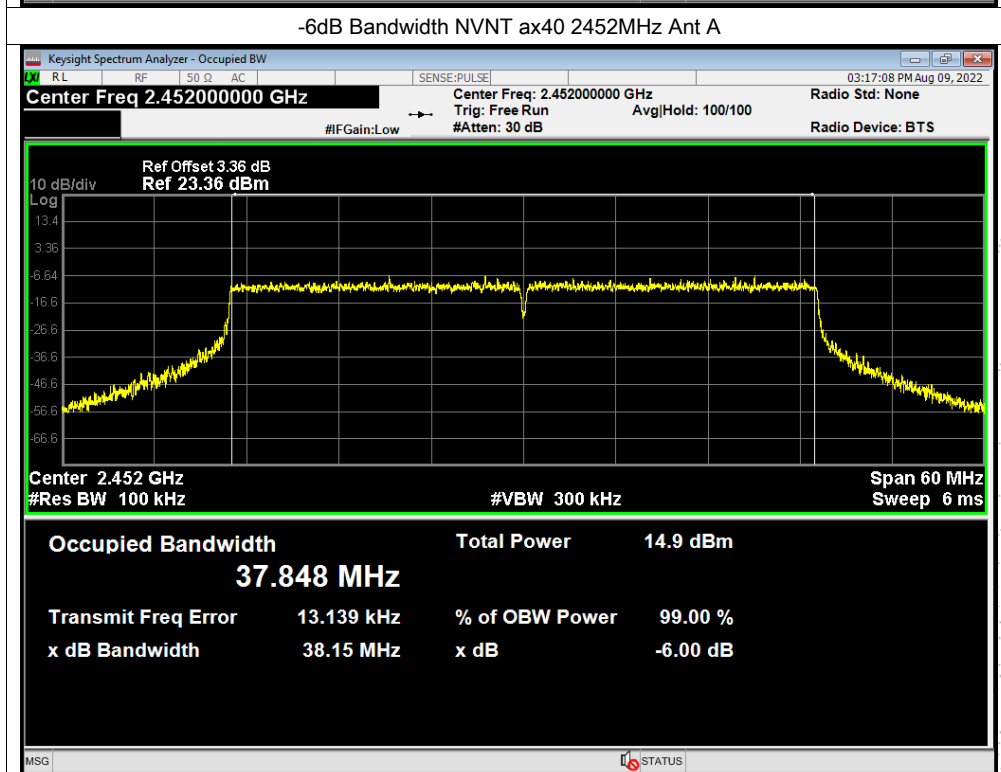
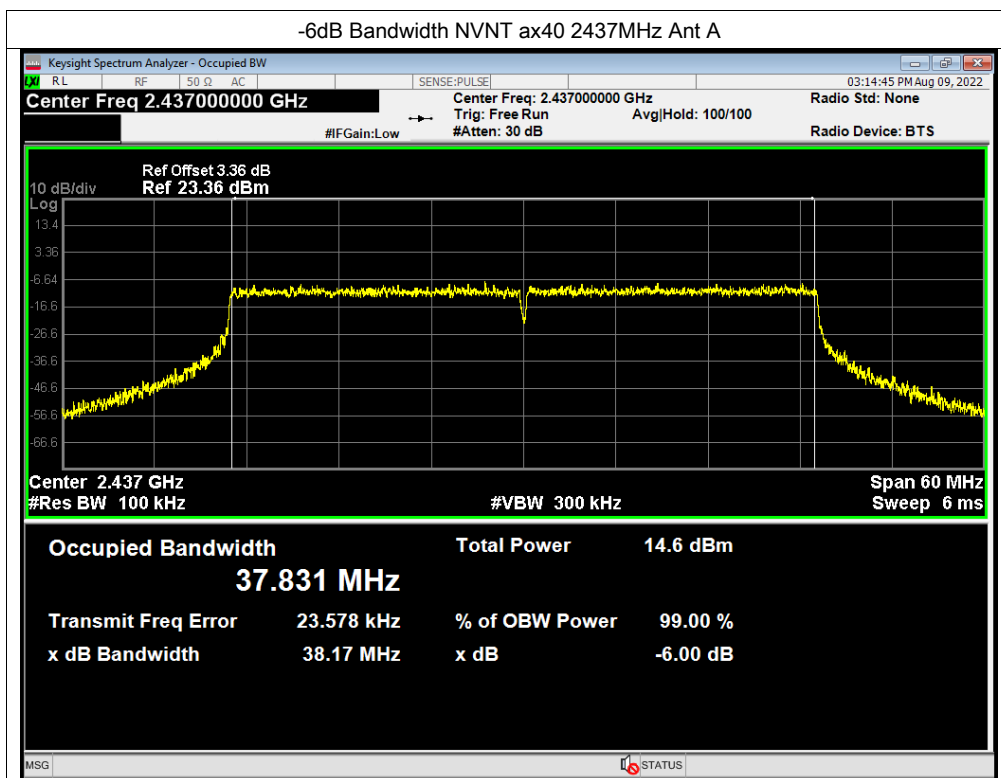












11. Peak Output Power Test

11.1 Block Diagram Of Test Setup



11.2 Limit

FCC Part15 (15.247) , Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Peak Output Power	1 watt or 30dBm	2400-2483.5	PASS

11.3 Test Procedure

- a. The EUT was directly connected to the Power meter

11.4 EUT Operating Conditions

The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

Note: Power Spectral Density(dBm)=Reading+Cable Loss

11.5 Test Result

For 1T1R

Antenna A

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency(MHz)	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)
802.11b	2412	16.17	30
	2437	16.78	30
	2462	17.09	30
802.11g	2412	16.17	30
	2437	16.87	30
	2462	17.09	30
802.11n20	2412	14.06	30
	2437	15.09	30
	2462	15.16	30
802.11n40	2422	12.34	30
	2437	12.98	30
	2452	13.29	30
802.11ax20	2412	13.77	30
	2437	14.36	30
	2462	14.64	30
802.11ax40	2422	12.78	30
	2437	13.45	30
	2452	13.68	30

Antenna B

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency(MHz)	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)
802.11b	2412	16.27	30
	2437	16.95	30
	2462	17.47	30
802.11g	2412	16.24	30
	2437	17.17	30
	2462	17.36	30
802.11n20	2412	14.4	30
	2437	15.07	30
	2462	15.23	30
802.11n40	2422	12.91	30
	2437	13.34	30
	2452	13.64	30
802.11ax20	2412	13.84	30
	2437	14.77	30
	2462	14.97	30
802.11ax40	2422	12.85	30
	2437	13.67	30
	2452	13.96	30

Antenna C

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency(MHz)	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)
802.11b	2412	15.94	30
	2437	16.84	30
	2462	17.17	30
802.11g	2412	15.93	30
	2437	16.71	30
	2462	17.08	30
802.11n20	2412	13.80	30
	2437	14.75	30
	2462	15.28	30
802.11n40	2422	12.24	30
	2437	12.87	30
	2452	13.34	30
802.11ax20	2412	13.43	30
	2437	14.24	30
	2462	14.89	30
802.11ax40	2422	12.64	30
	2437	13.30	30
	2452	13.73	30

Antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency(MHz)	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)
802.11b	2412	16.42	30
	2437	17.27	30
	2462	17.41	30
802.11g	2412	16.45	30
	2437	17.36	30
	2462	17.43	30
802.11n20	2412	14.60	30
	2437	14.91	30
	2462	15.04	30
802.11n40	2422	13.05	30
	2437	13.58	30
	2452	13.78	30
802.11ax20	2412	13.63	30
	2437	14.50	30
	2462	14.70	30
802.11ax40	2422	13.15	30
	2437	13.51	30
	2452	13.82	30

For 2T2R

Antenna A +antenna B

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	17.24	27.8	PASS
	2437 MHz	18.09	27.8	PASS
	2462 MHz	18.21	27.8	PASS
TX n Mode(40M)	2422 MHz	15.64	27.8	PASS
	2437 MHz	16.17	27.8	PASS
	2452 MHz	16.48	27.8	PASS
TX ax Mode(20M)	2412 MHz	16.82	27.8	PASS
	2437 MHz	17.58	27.8	PASS
	2462 MHz	17.82	27.8	PASS
TX ax Mode(40M)	2422 MHz	15.83	27.8	PASS
	2437 MHz	16.57	27.8	PASS
	2452 MHz	16.83	27.8	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna A +antenna C

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	16.94	27.8	PASS
	2437 MHz	17.93	27.8	PASS
	2462 MHz	18.23	27.8	PASS
TX n Mode(40M)	2422 MHz	15.30	27.8	PASS
	2437 MHz	15.94	27.8	PASS
	2452 MHz	16.33	27.8	PASS
TX ax Mode(20M)	2412 MHz	16.61	27.8	PASS
	2437 MHz	17.31	27.8	PASS
	2462 MHz	17.78	27.8	PASS
TX ax Mode(40M)	2422 MHz	15.72	27.8	PASS
	2437 MHz	16.39	27.8	PASS
	2452 MHz	16.72	27.8	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna A +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	17.35	27.8	PASS
	2437 MHz	18.01	27.8	PASS
	2462 MHz	18.11	27.8	PASS
TX n Mode(40M)	2422 MHz	15.72	27.8	PASS
	2437 MHz	16.30	27.8	PASS
	2452 MHz	16.55	27.8	PASS
TX ax Mode(20M)	2412 MHz	16.71	27.8	PASS
	2437 MHz	17.44	27.8	PASS
	2462 MHz	17.68	27.8	PASS
TX ax Mode(40M)	2422 MHz	15.98	27.8	PASS
	2437 MHz	16.49	27.8	PASS
	2452 MHz	16.76	27.8	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna B +antenna C

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	17.12	27.8	PASS
	2437 MHz	17.92	27.8	PASS
	2462 MHz	18.27	27.8	PASS
TX n Mode(40M)	2422 MHz	15.60	27.8	PASS
	2437 MHz	16.12	27.8	PASS
	2452 MHz	16.50	27.8	PASS
TX ax Mode(20M)	2412 MHz	16.65	27.8	PASS
	2437 MHz	17.52	27.8	PASS
	2462 MHz	17.94	27.8	PASS
TX ax Mode(40M)	2422 MHz	15.76	27.8	PASS
	2437 MHz	16.50	27.8	PASS
	2452 MHz	16.86	27.8	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna B +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	17.51	27.8	PASS
	2437 MHz	18.00	27.8	PASS
	2462 MHz	18.15	27.8	PASS
TX n Mode(40M)	2422 MHz	15.99	27.8	PASS
	2437 MHz	16.47	27.8	PASS
	2452 MHz	16.72	27.8	PASS
TX ax Mode(20M)	2412 MHz	16.75	27.8	PASS
	2437 MHz	17.65	27.8	PASS
	2462 MHz	17.85	27.8	PASS
TX ax Mode(40M)	2422 MHz	16.01	27.8	PASS
	2437 MHz	16.60	27.8	PASS
	2452 MHz	16.90	27.8	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna C +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	17.23	27.8	PASS
	2437 MHz	17.84	27.8	PASS
	2462 MHz	18.17	27.8	PASS
TX n Mode(40M)	2422 MHz	15.67	27.8	PASS
	2437 MHz	16.25	27.8	PASS
	2452 MHz	16.58	27.8	PASS
TX ax Mode(20M)	2412 MHz	16.54	27.8	PASS
	2437 MHz	17.38	27.8	PASS
	2462 MHz	17.81	27.8	PASS
TX ax Mode(40M)	2422 MHz	15.91	27.8	PASS
	2437 MHz	16.42	27.8	PASS
	2452 MHz	16.79	27.8	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

For 3T3R

Antenna A +Antenna B +antenna C

temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	18.86	26.0	PASS
	2437 MHz	19.74	26.0	PASS
	2462 MHz	19.99	26.0	PASS
TX n Mode(40M)	2422 MHz	17.28	26.0	PASS
	2437 MHz	17.84	26.0	PASS
	2452 MHz	18.20	26.0	PASS
TX ax Mode(20M)	2412 MHz	18.45	26.0	PASS
	2437 MHz	19.23	26.0	PASS
	2462 MHz	19.61	26.0	PASS
TX ax Mode(40M)	2422 MHz	17.53	26.0	PASS
	2437 MHz	18.25	26.0	PASS
	2452 MHz	18.56	26.0	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna A +Antenna B +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	19.13	26.0	PASS
	2437 MHz	19.80	26.0	PASS
	2462 MHz	19.92	26.0	PASS
TX n Mode(40M)	2422 MHz	17.55	26.0	PASS
	2437 MHz	18.08	26.0	PASS
	2452 MHz	18.35	26.0	PASS
TX ax Mode(20M)	2412 MHz	18.52	26.0	PASS
	2437 MHz	19.32	26.0	PASS
	2462 MHz	19.54	26.0	PASS
TX ax Mode(40M)	2422 MHz	17.70	26.0	PASS
	2437 MHz	18.32	26.0	PASS
	2452 MHz	18.59	26.0	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

Antenna B+ Antenna C +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	19.05	26.0	PASS
	2437 MHz	19.68	26.0	PASS
	2462 MHz	19.96	26.0	PASS
TX n Mode(40M)	2422 MHz	17.52	26.0	PASS
	2437 MHz	18.04	26.0	PASS
	2452 MHz	18.36	26.0	PASS
TX ax Mode(20M)	2412 MHz	18.41	26.0	PASS
	2437 MHz	19.28	26.0	PASS
	2462 MHz	19.63	26.0	PASS
TX ax Mode(40M)	2422 MHz	17.66	26.0	PASS
	2437 MHz	18.27	26.0	PASS
	2452 MHz	18.61	26.0	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

For 4T4R
Antenna A +Antenna B+ Antenna C +antenna D

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC120V/60Hz

Test Mode	Frequency	Maximum Conducted Output Power(PK) (dBm)	Limit (dBm)	Result
TX n Mode(20M)	2412 MHz	20.25	24.8	PASS
	2437 MHz	20.98	24.8	PASS
	2462 MHz	21.20	24.8	PASS
TX n Mode(40M)	2422 MHz	18.67	24.8	PASS
	2437 MHz	19.22	24.8	PASS
	2452 MHz	19.54	24.8	PASS
TX ax Mode(20M)	2412 MHz	19.69	24.8	PASS
	2437 MHz	20.49	24.8	PASS
	2462 MHz	20.82	24.8	PASS
TX ax Mode(40M)	2422 MHz	18.88	24.8	PASS
	2437 MHz	19.51	24.8	PASS
	2452 MHz	19.82	24.8	PASS

For those cases where the rule specifies that the conduction Output Power be reduced by the amount in dB that the directional gain of the transmitting antenna exceeds 6 dBi, the applicable output power limit shall be calculated as follows: $\text{Limit} = P_{\text{limit}} - (\text{Gain} - 6)$

12. 100 kHz Bandwidth Of Frequency Band Edge

12.1 Block Diagram Of Test Setup



12.2 Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

12.3 Test Procedure

Using the following spectrum analyzer setting:

- a) Set the RBW = 100KHz.
- b) Set the VBW = 300KHz.
- c) Sweep time = auto couple.
- d) Detector function = peak.
- e) Trace mode = max hold.
- f) Allow trace to fully stabilize..

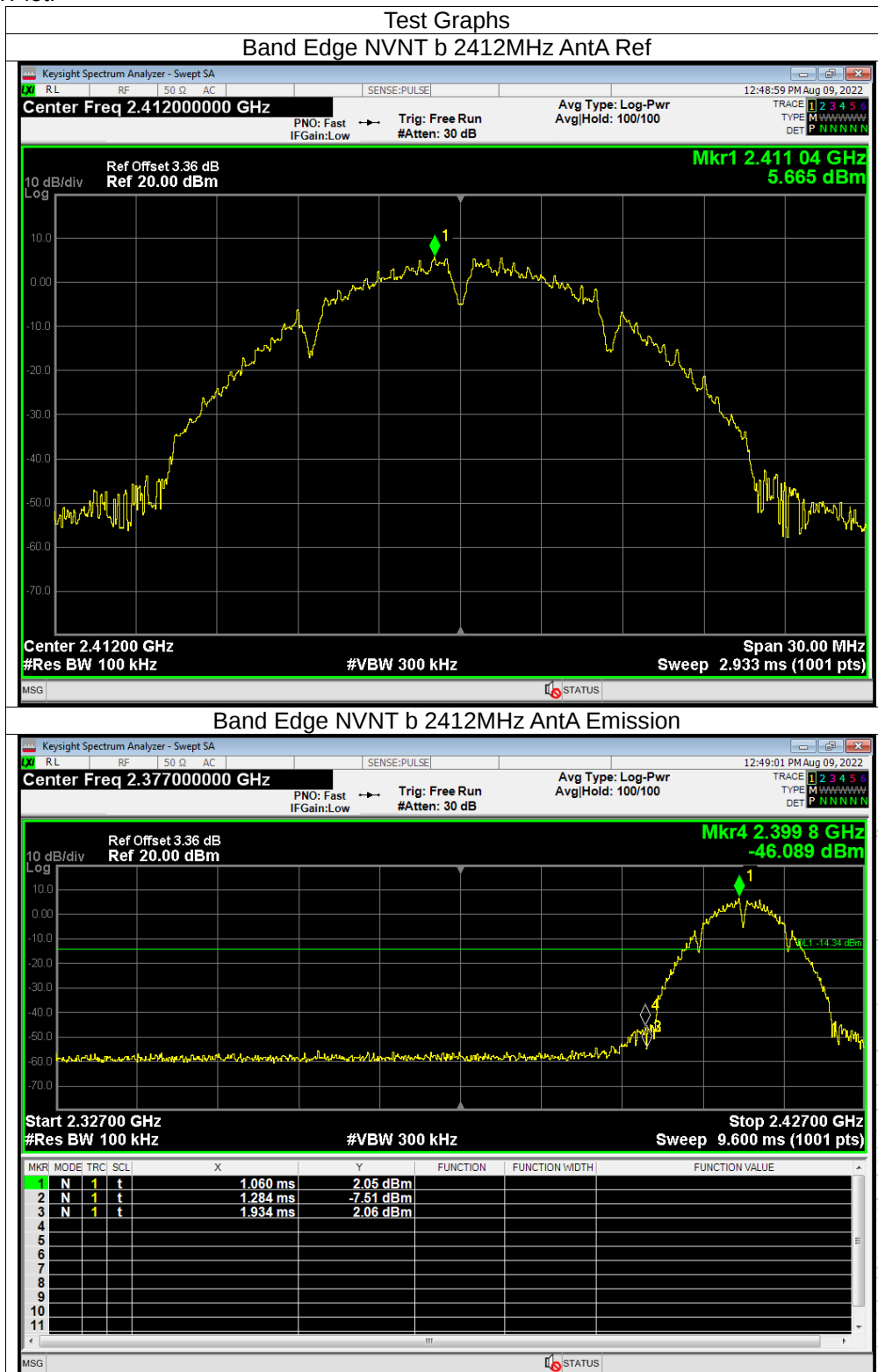
12.4 EUT Operating Conditions

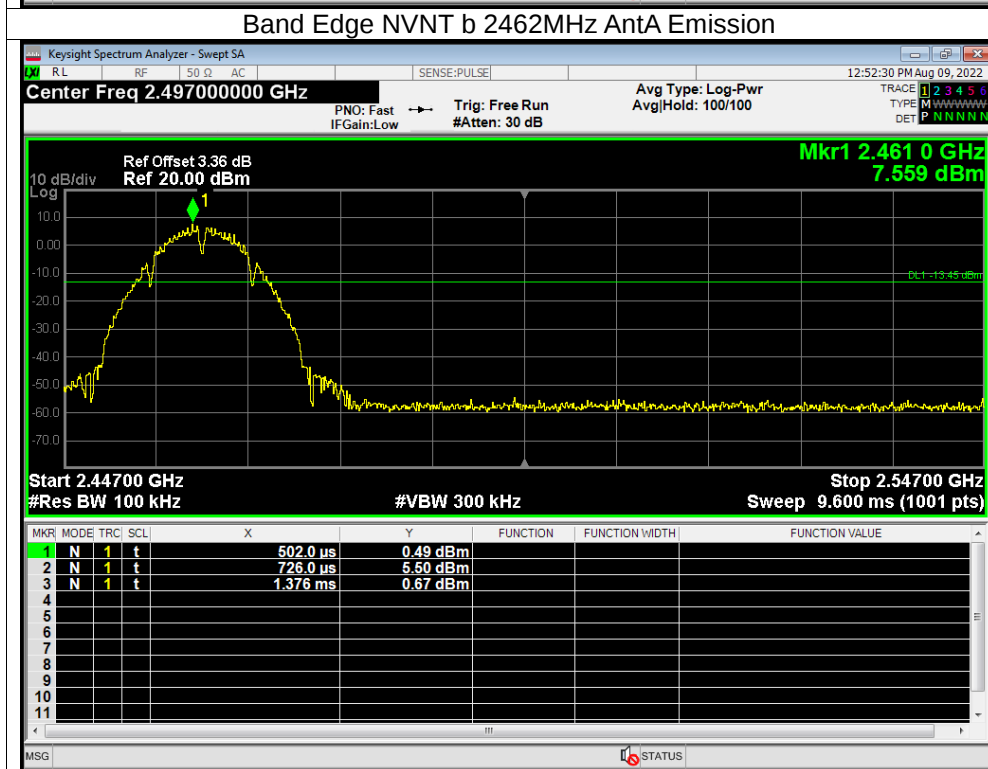
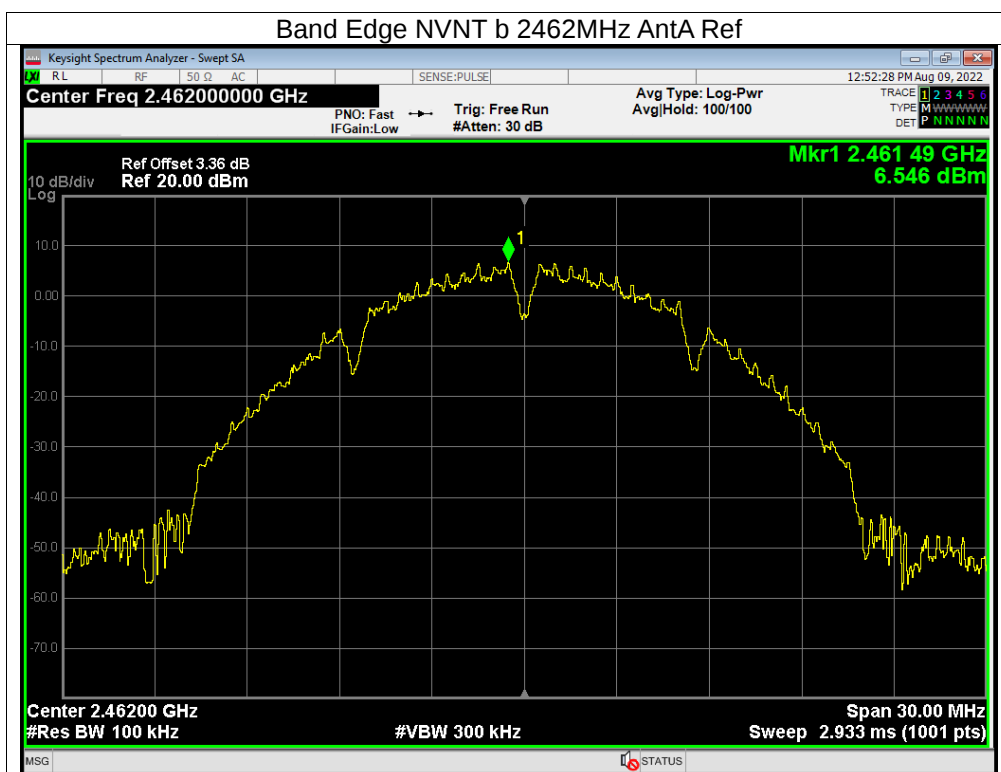
The EUT tested system was configured as the statements of 4.6 Unless otherwise a special operating condition is specified in the follows during the testing.

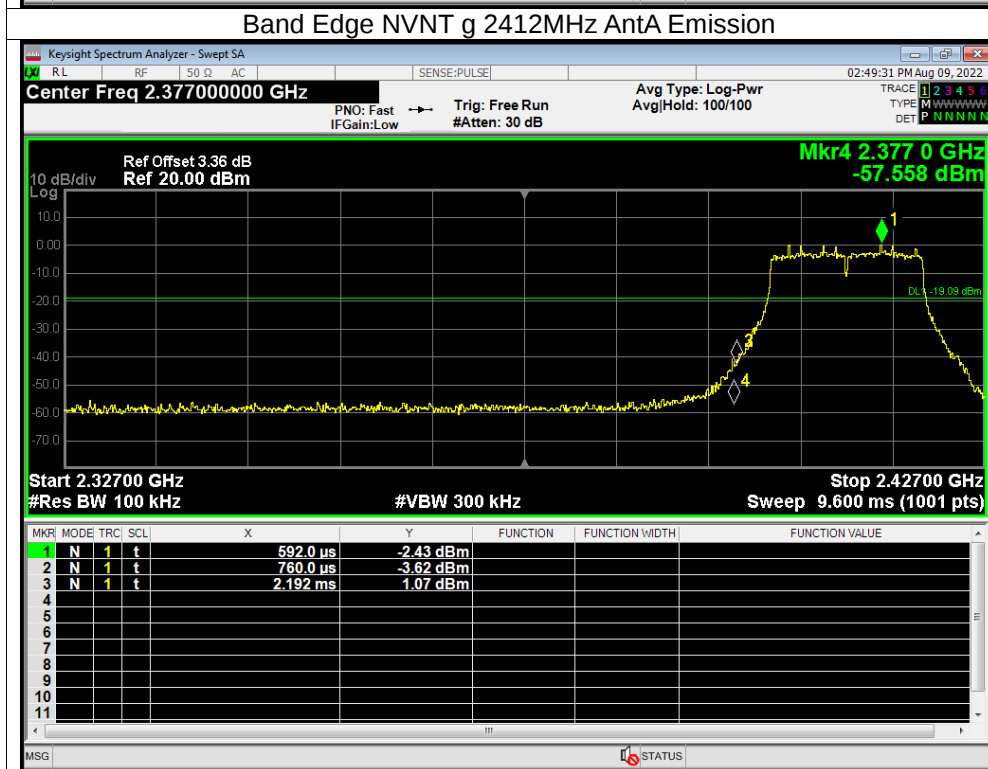
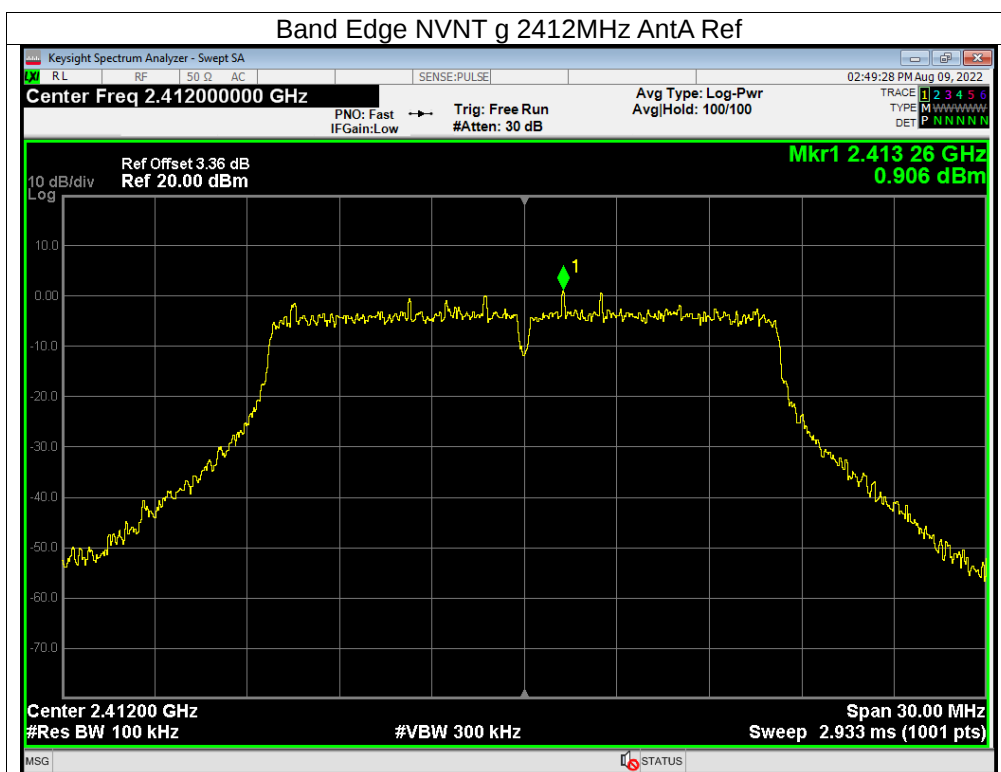
Note: Power Spectral Density(dBm)=Reading+Cable Loss

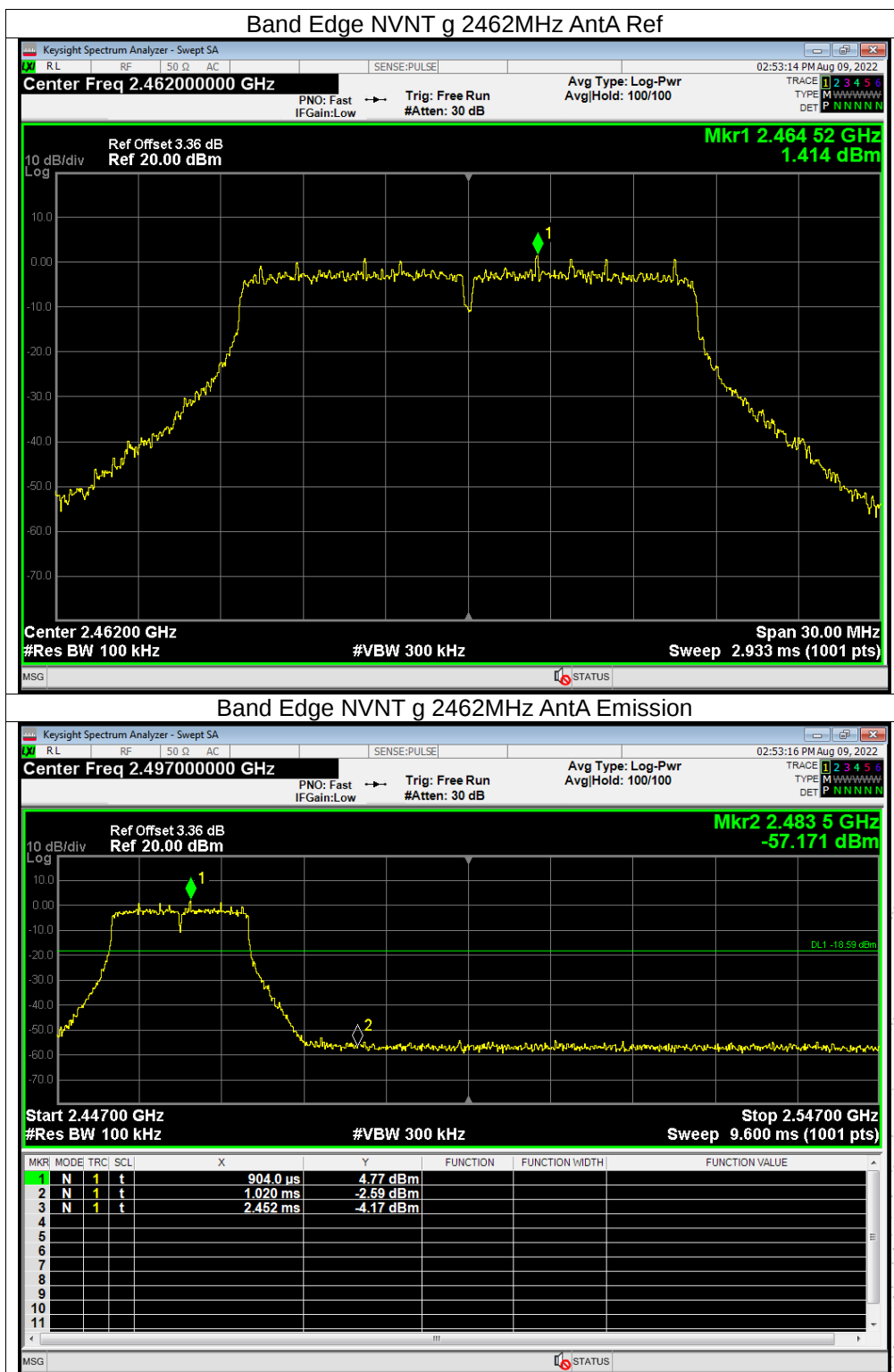
12.5 Test Result

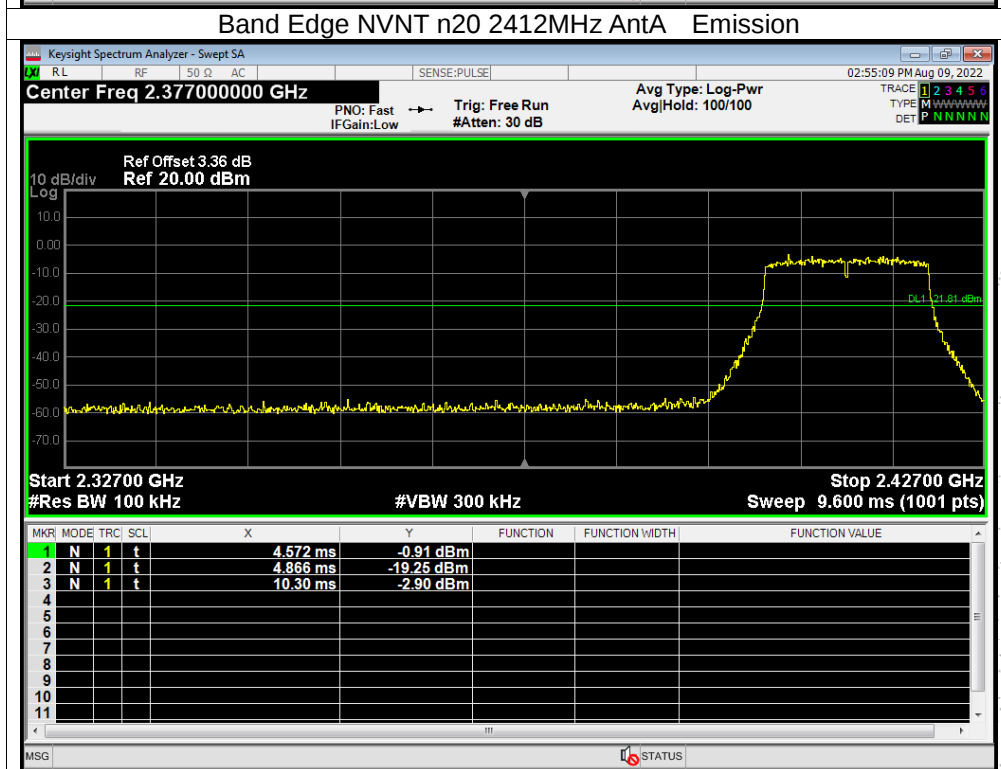
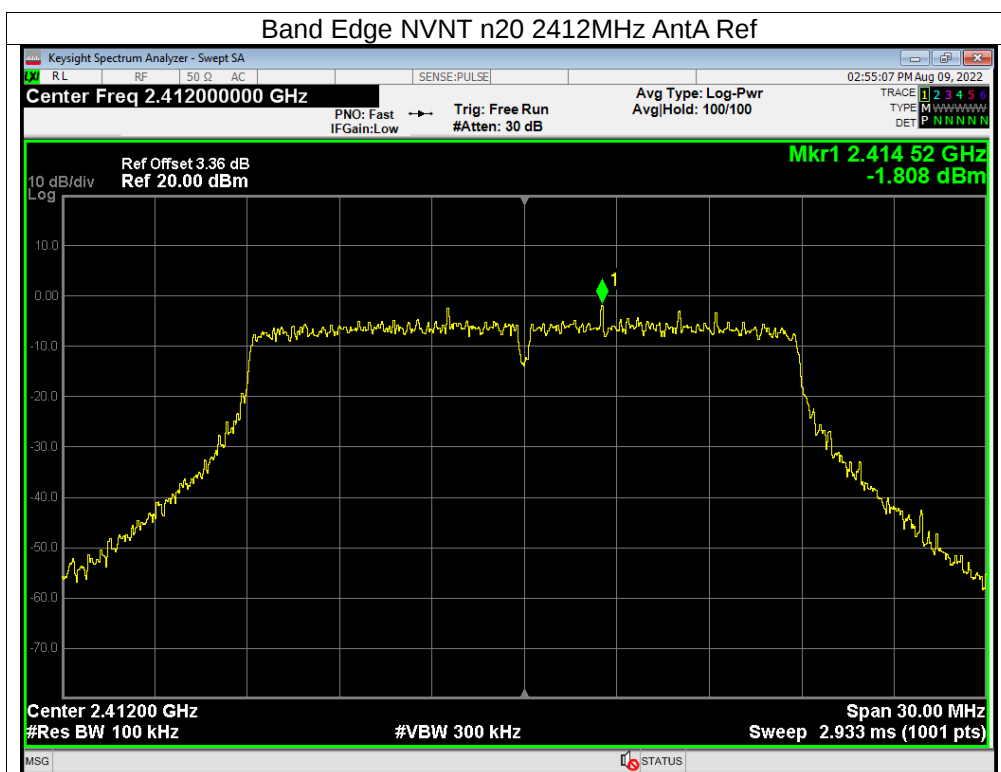
Note: A(B/C/D) Represent the value of antenna A and B/C/D, The worst data is Antenna A, only shown Antenna A Plot.

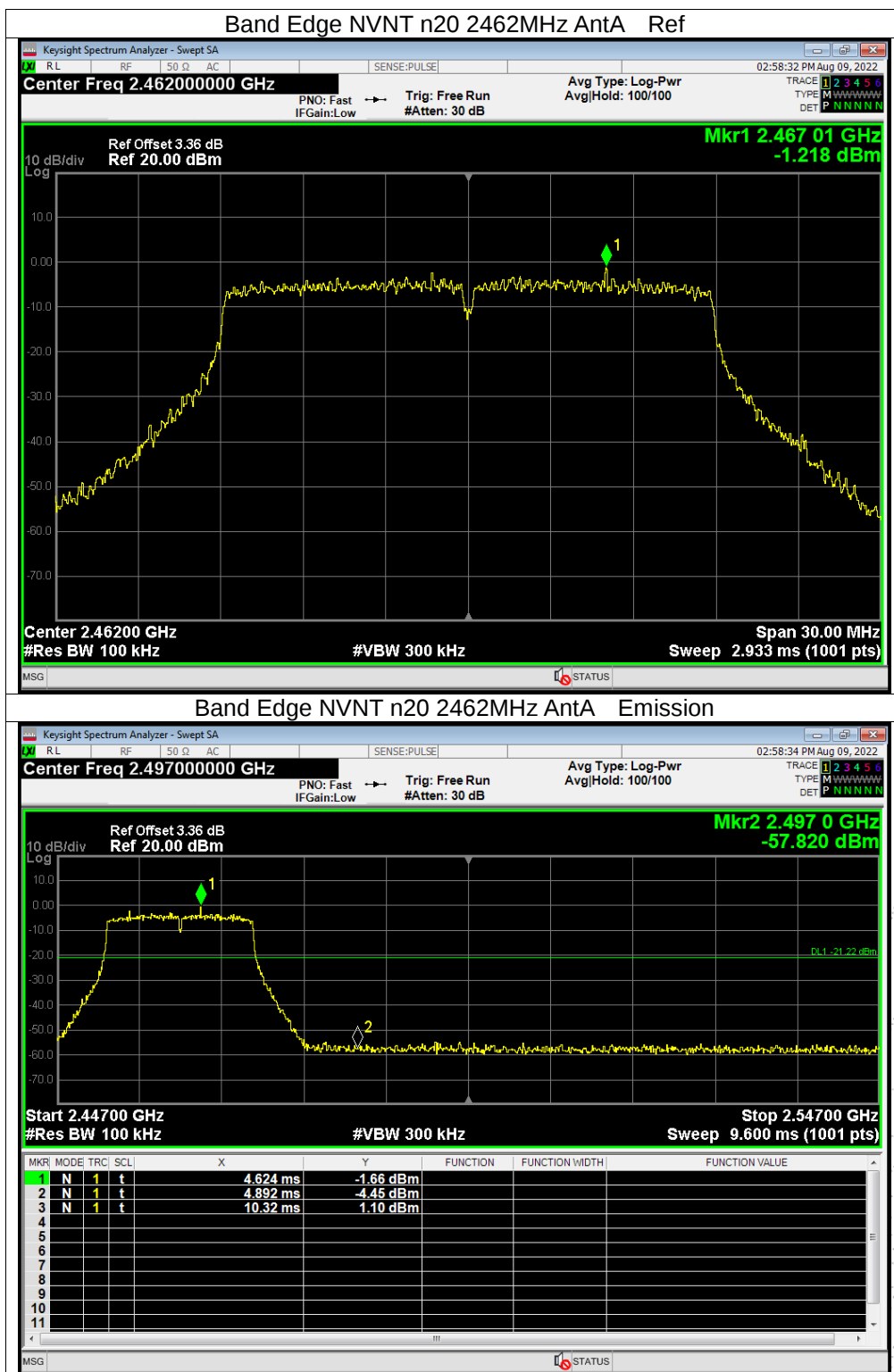


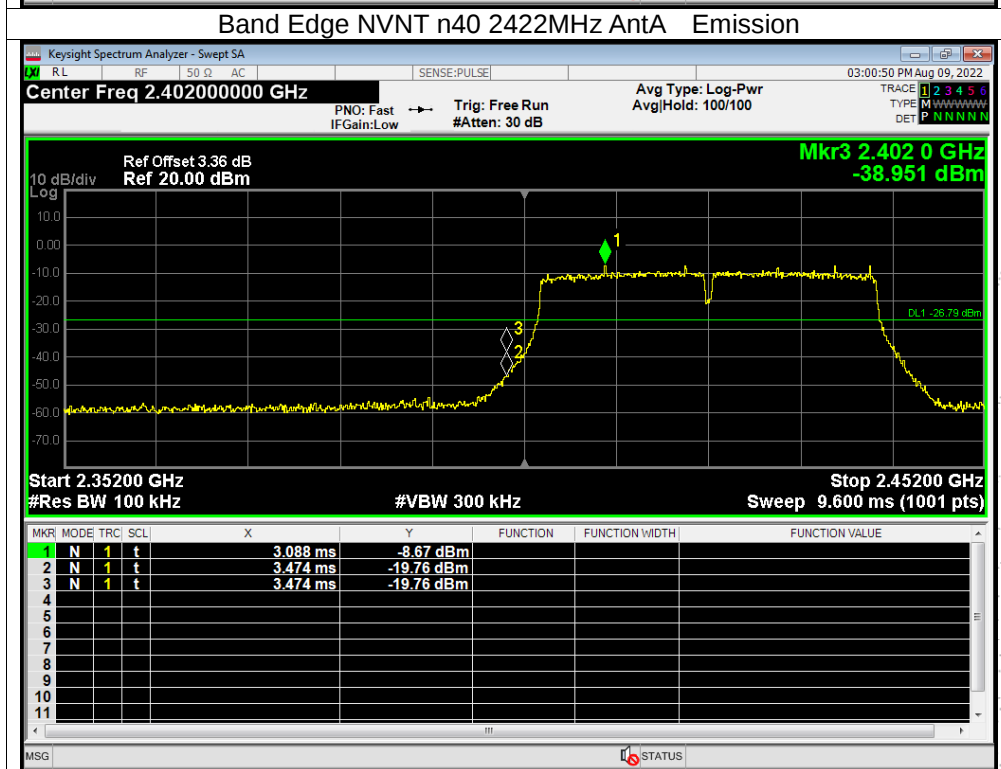
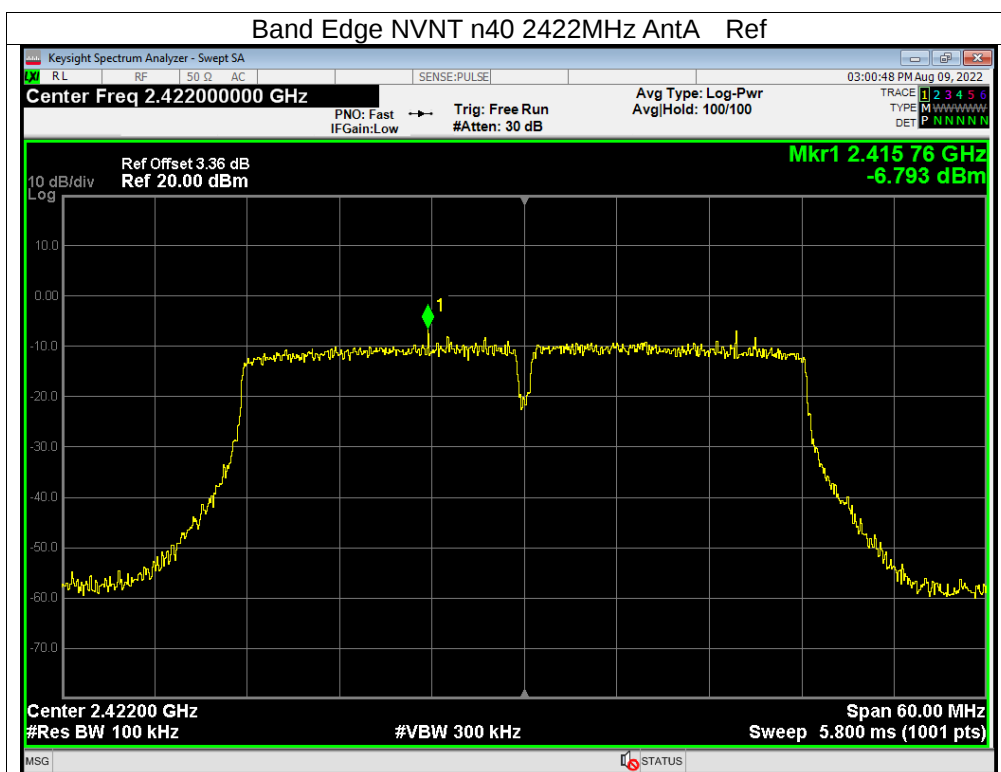


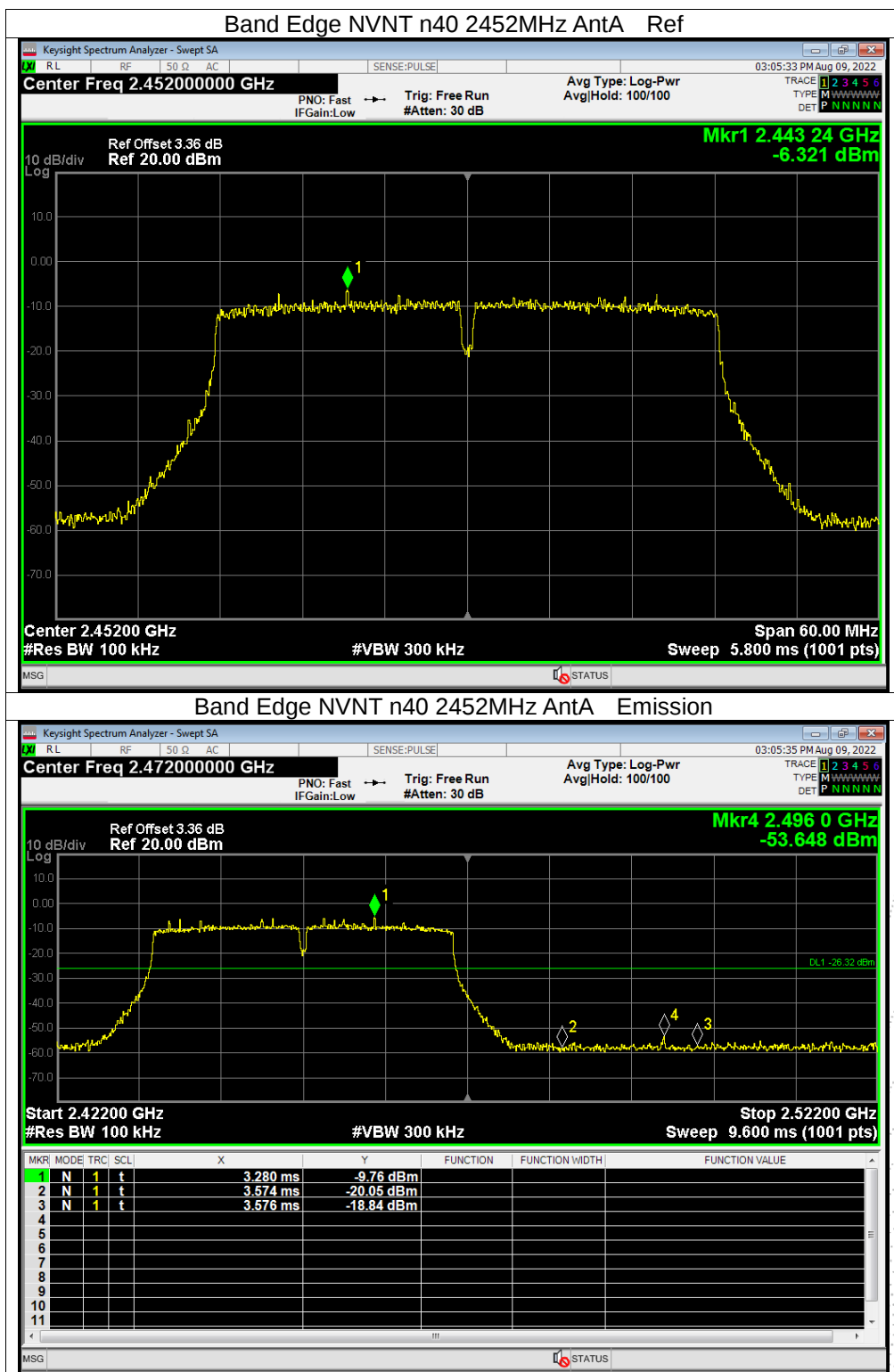


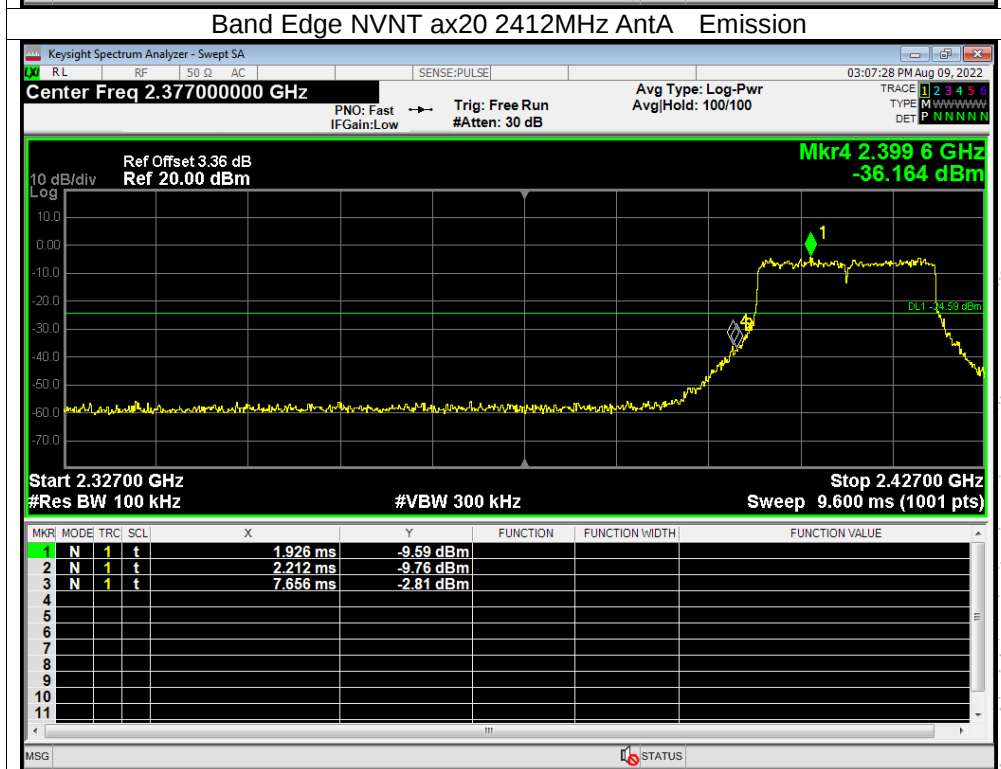
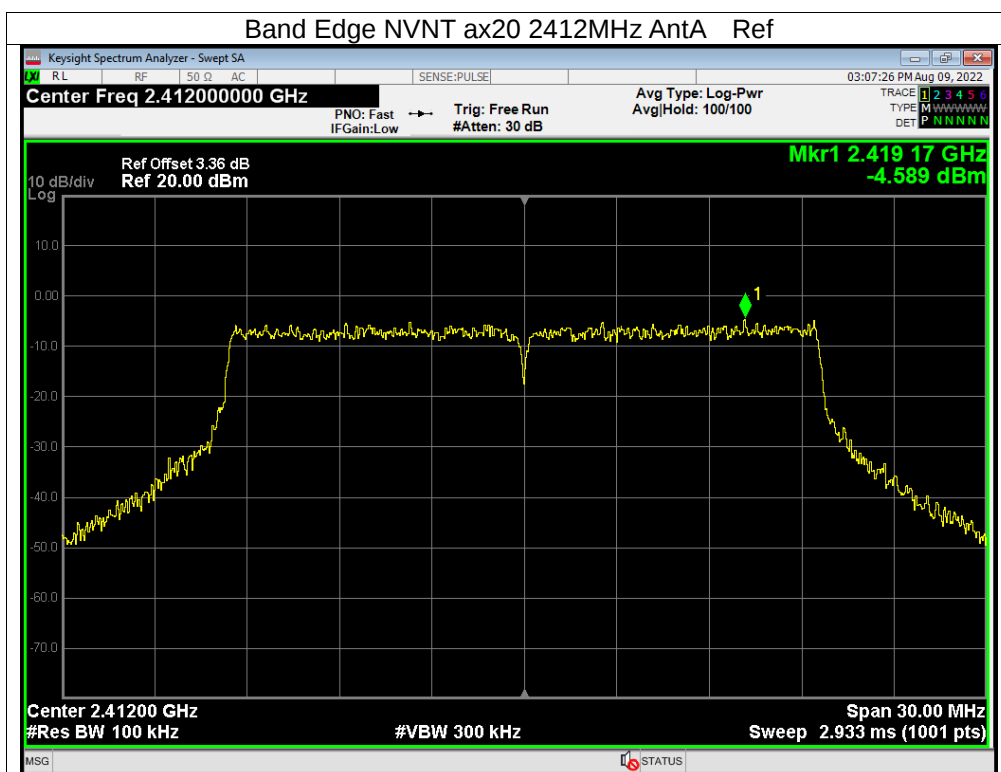


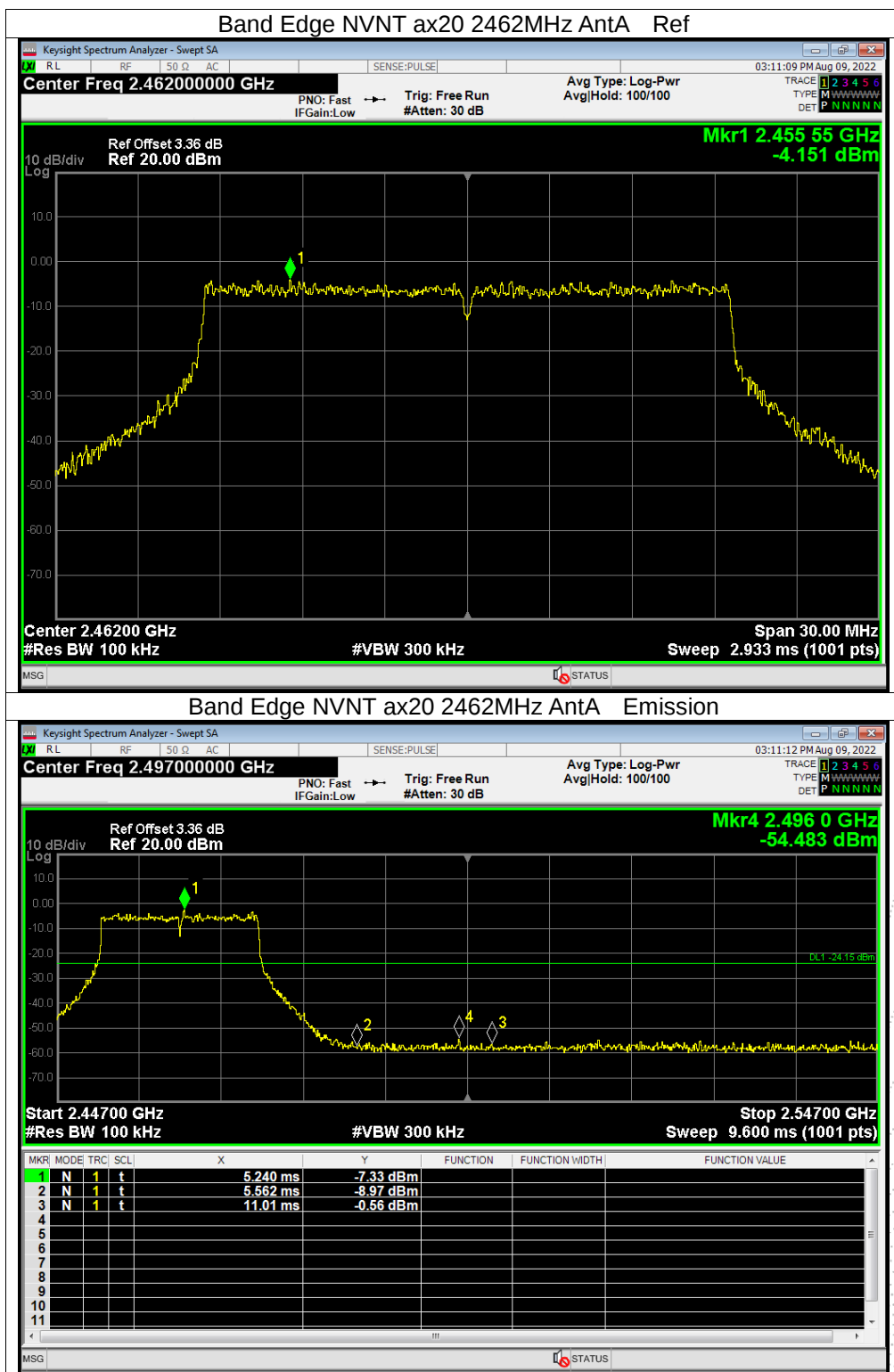


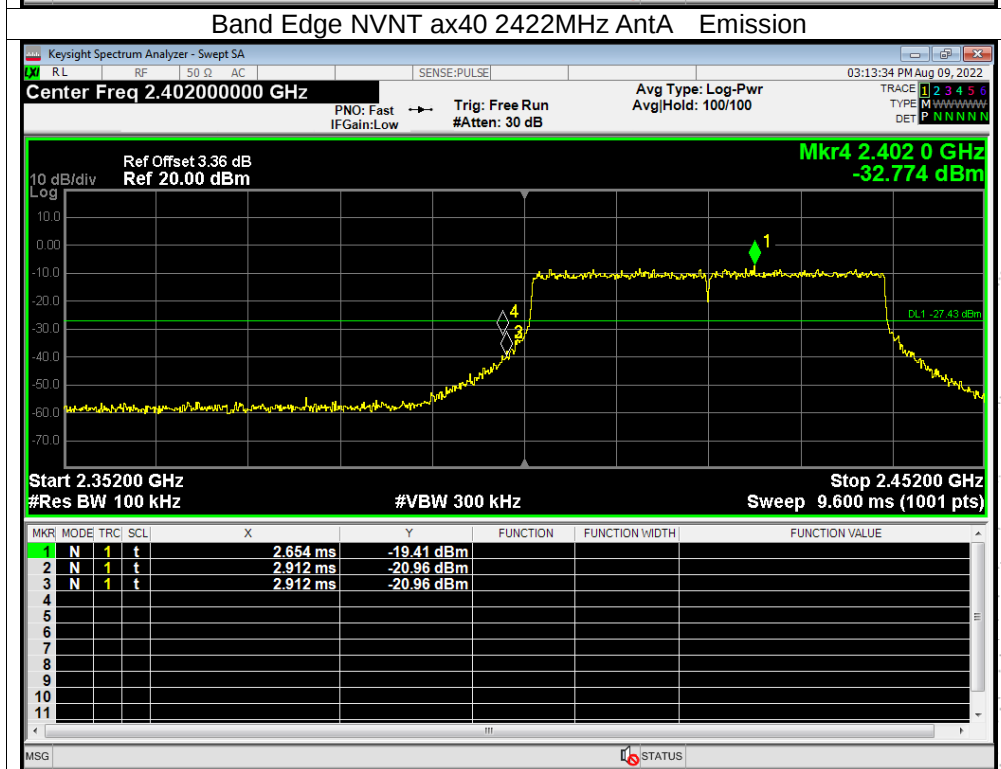
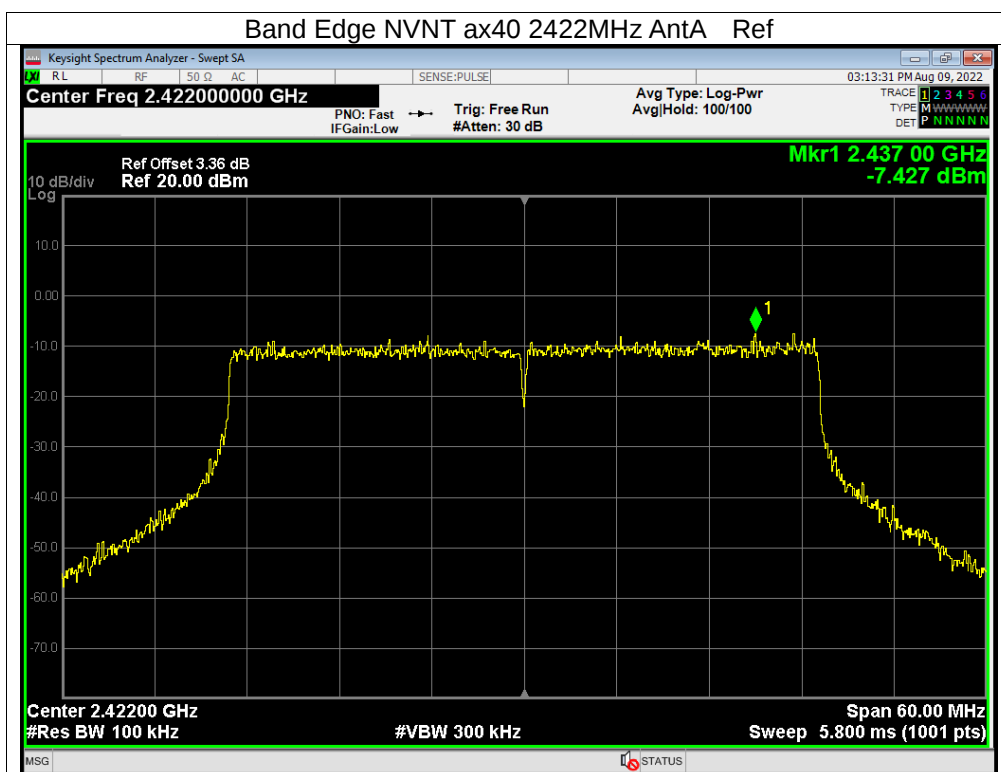


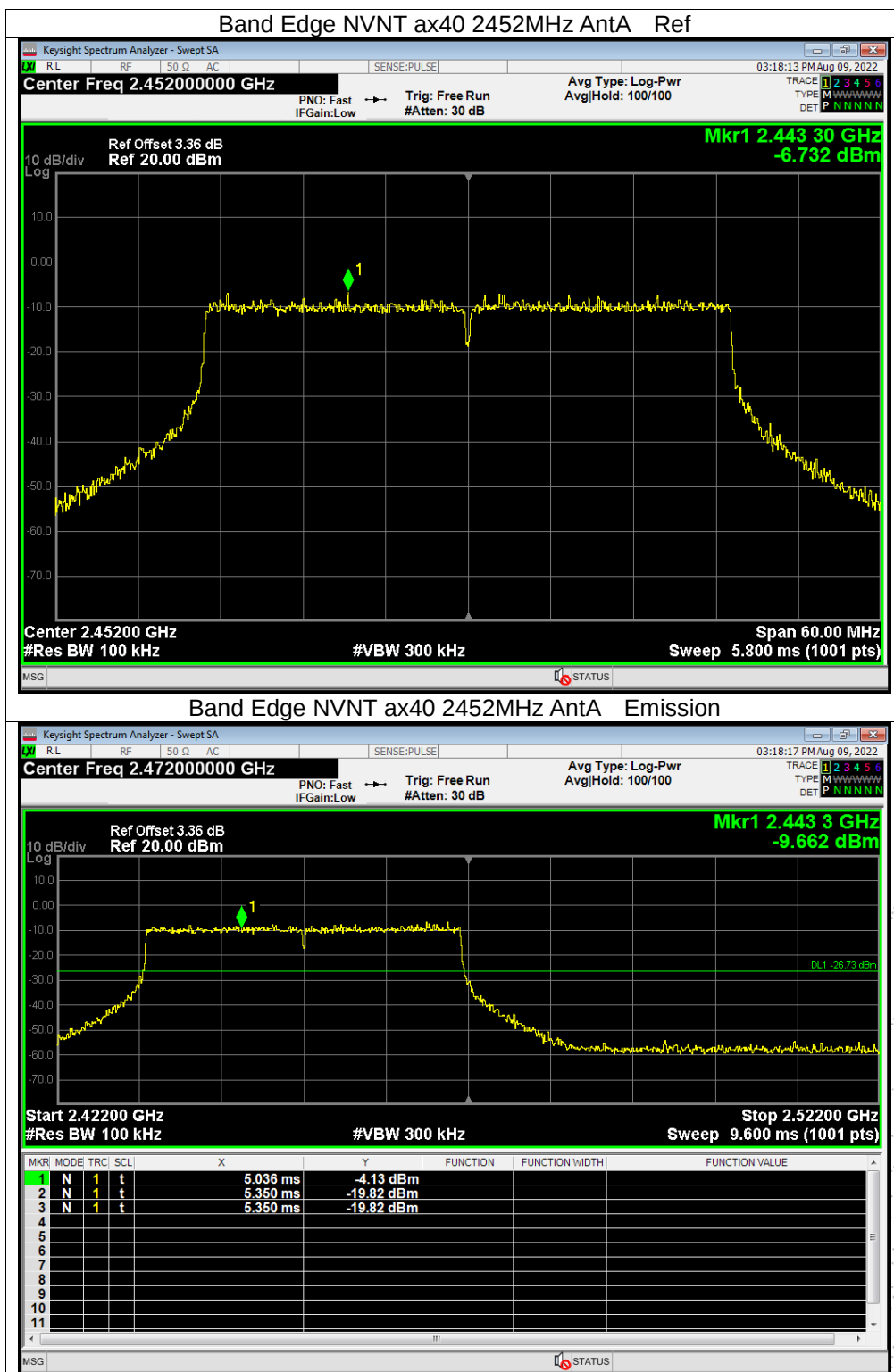


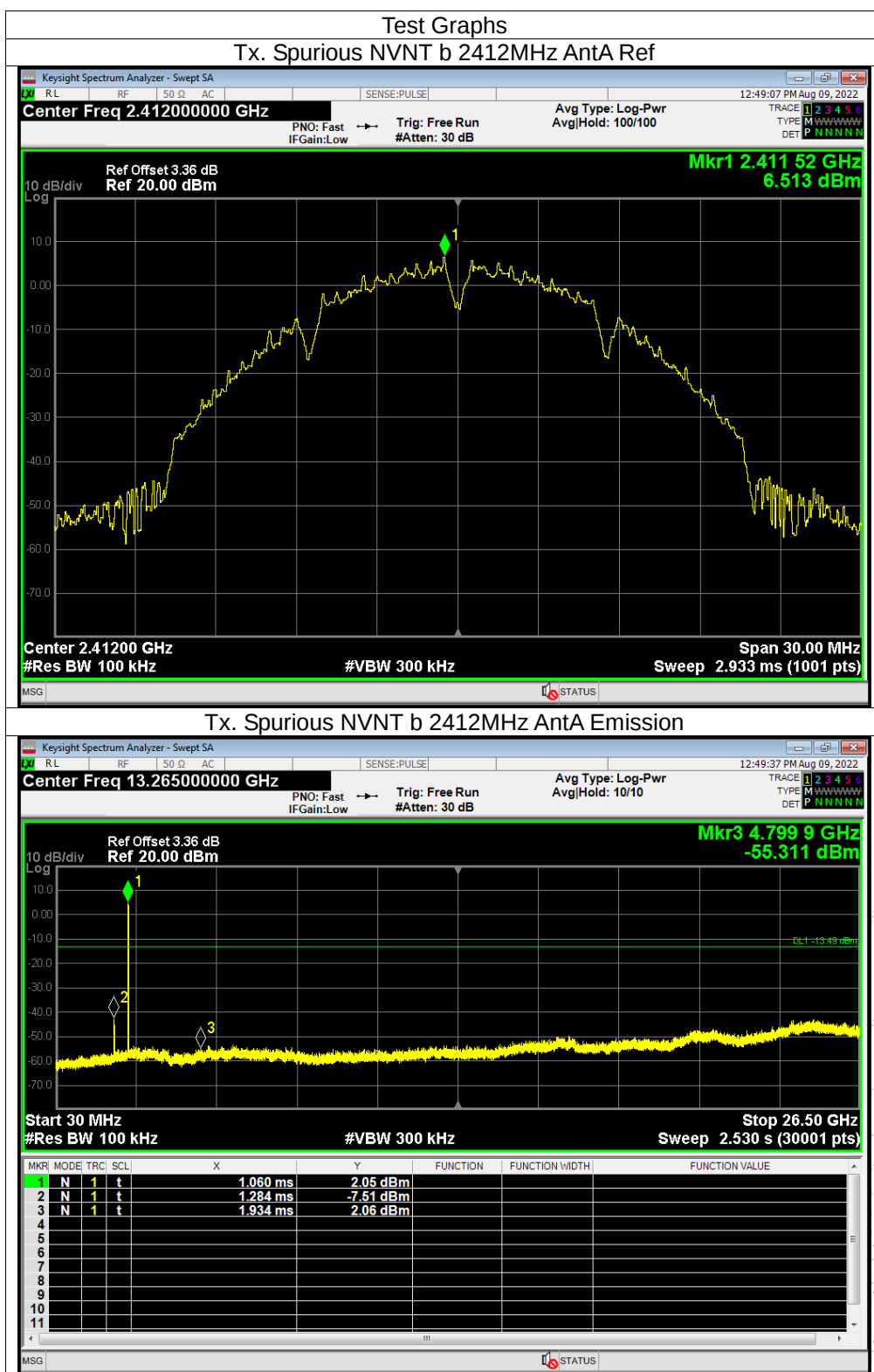


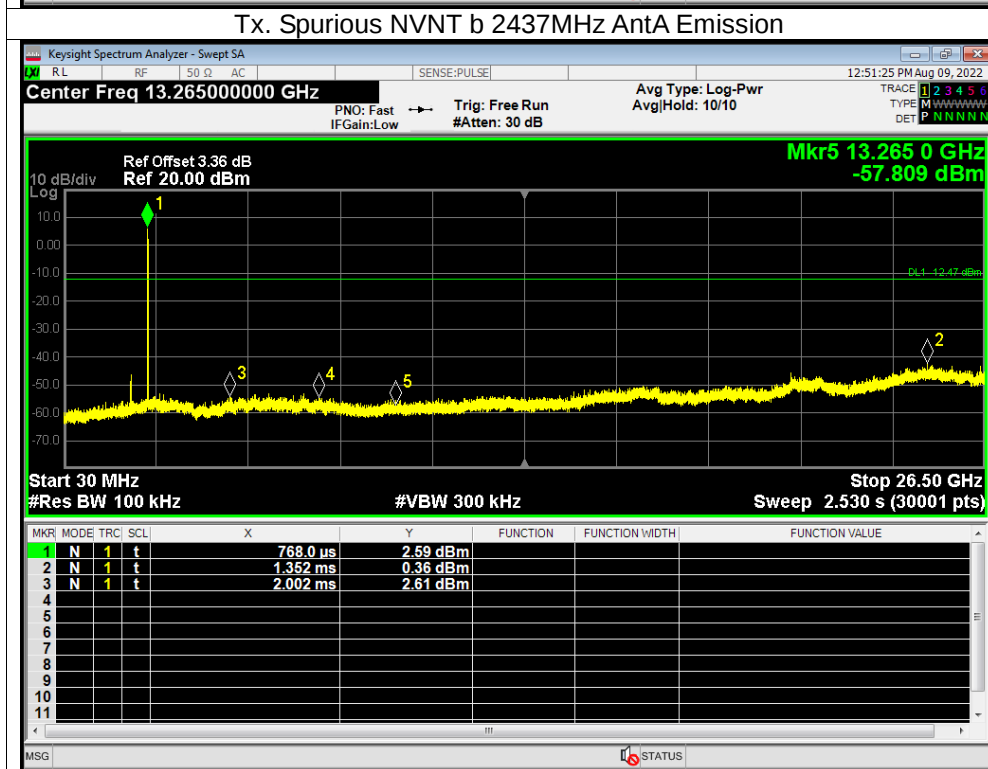
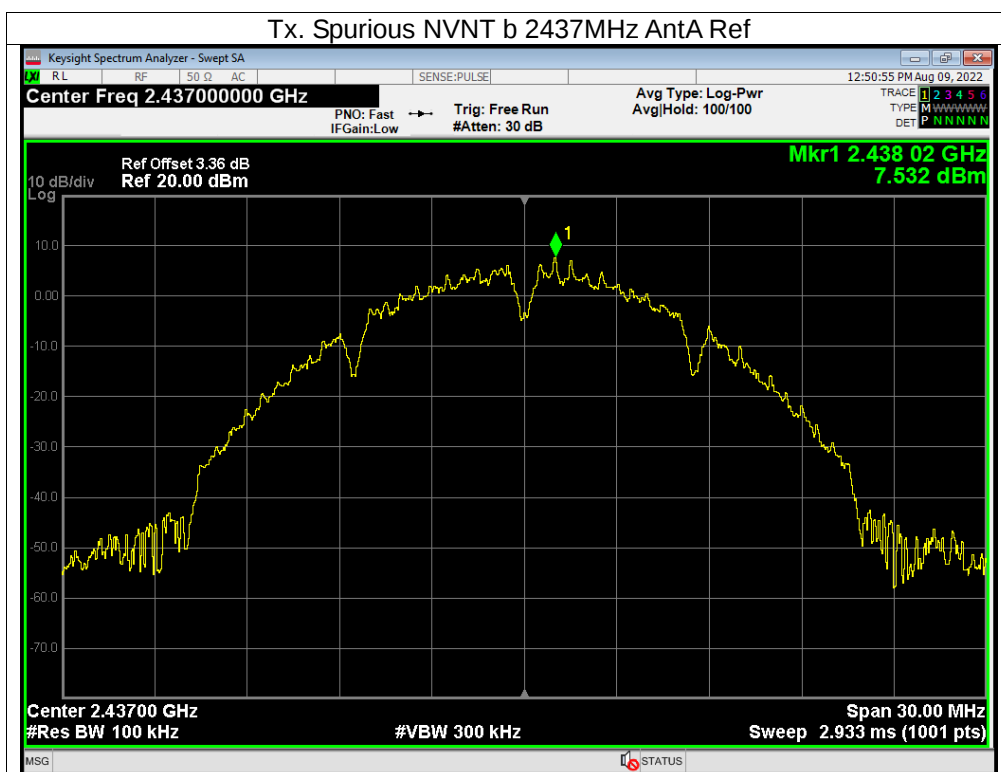


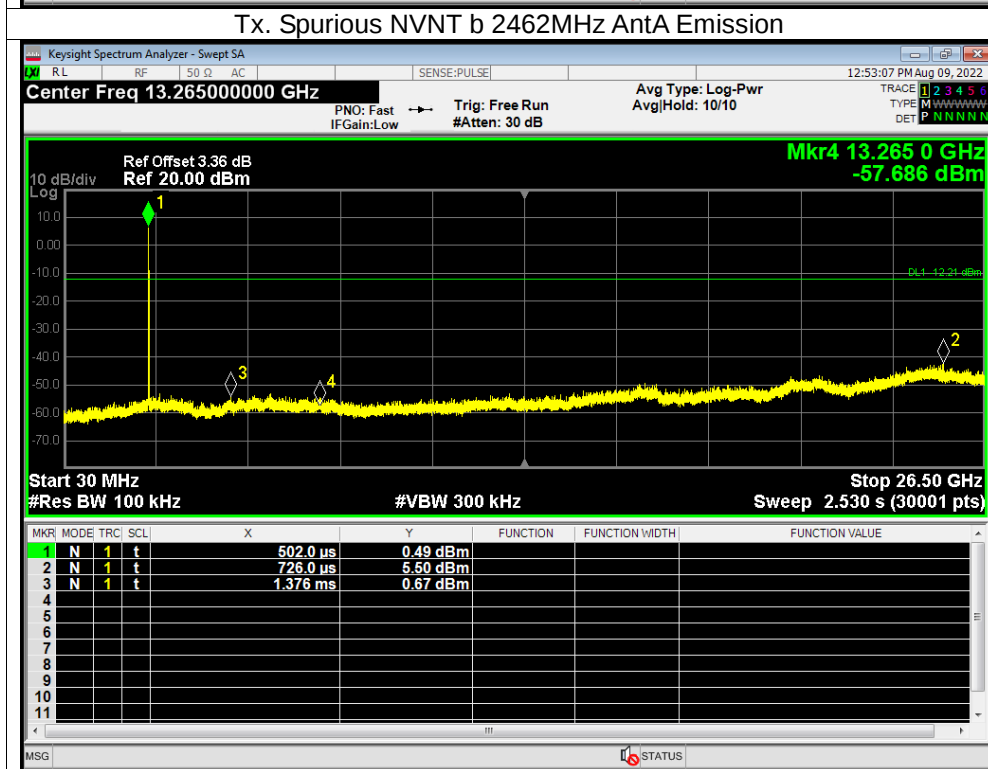
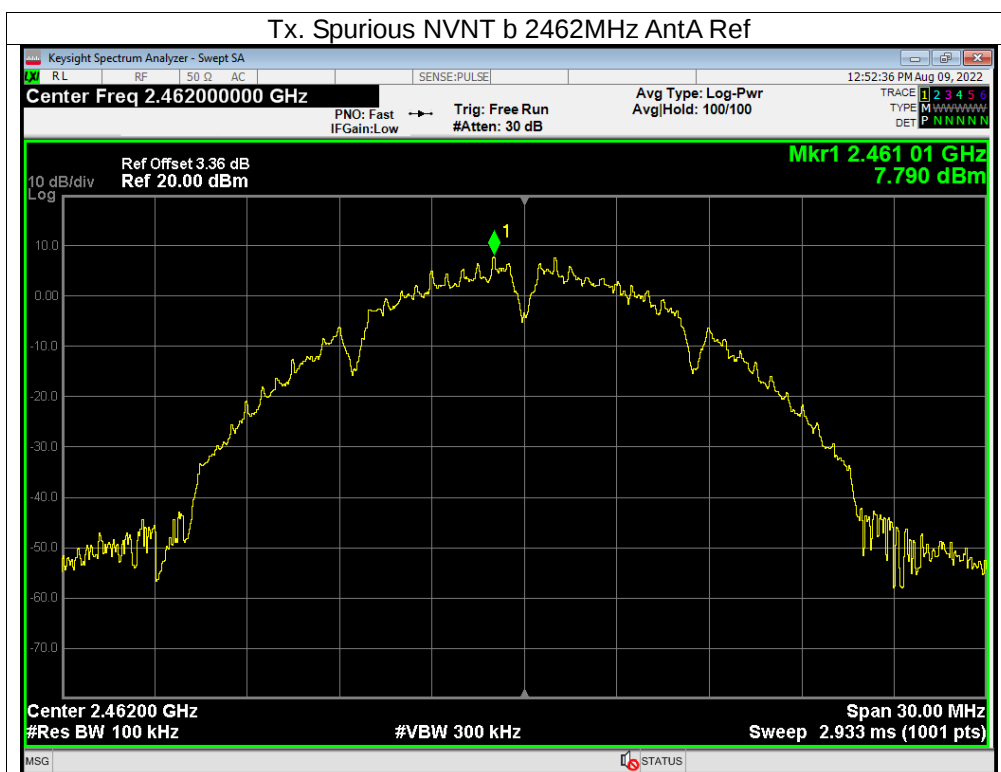


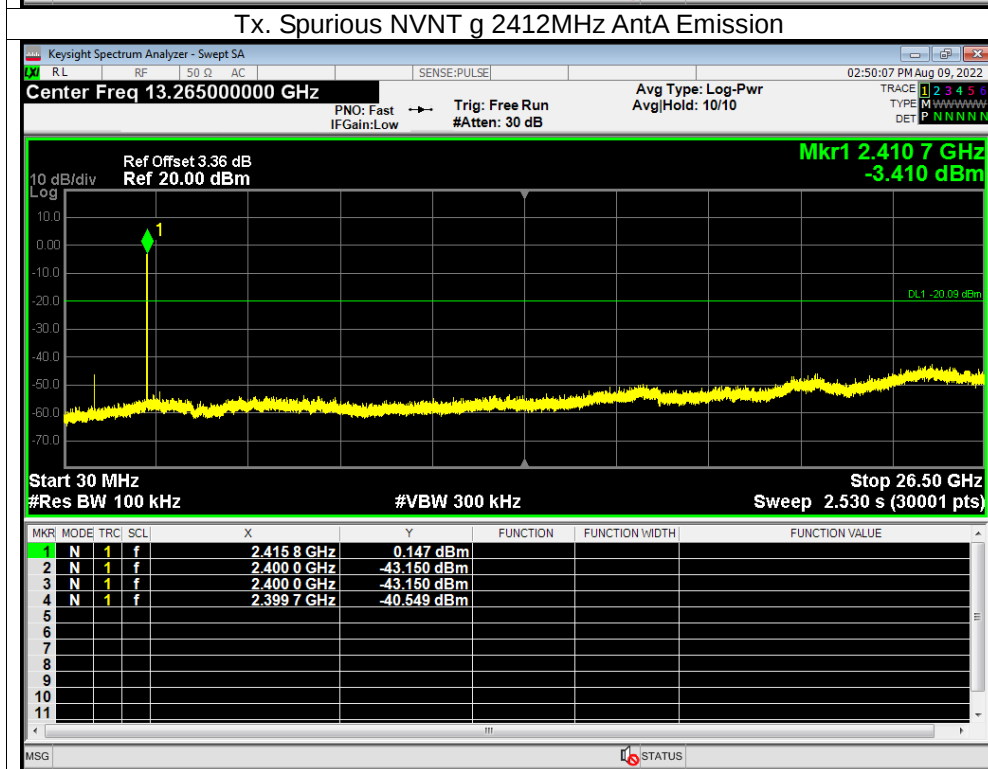
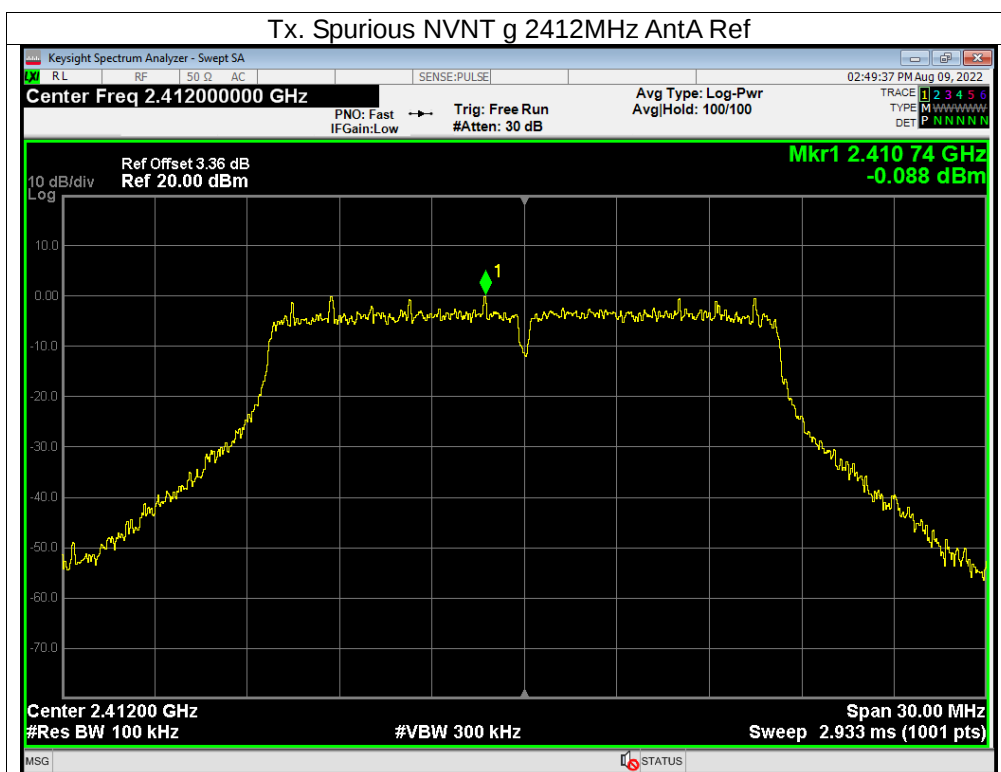


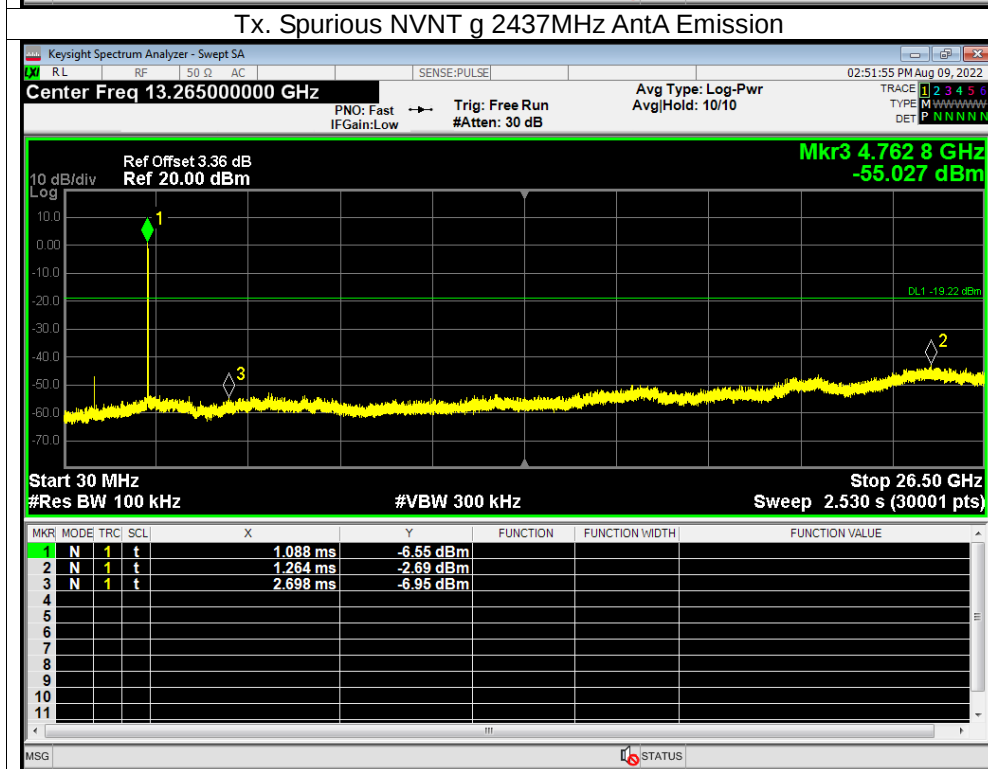
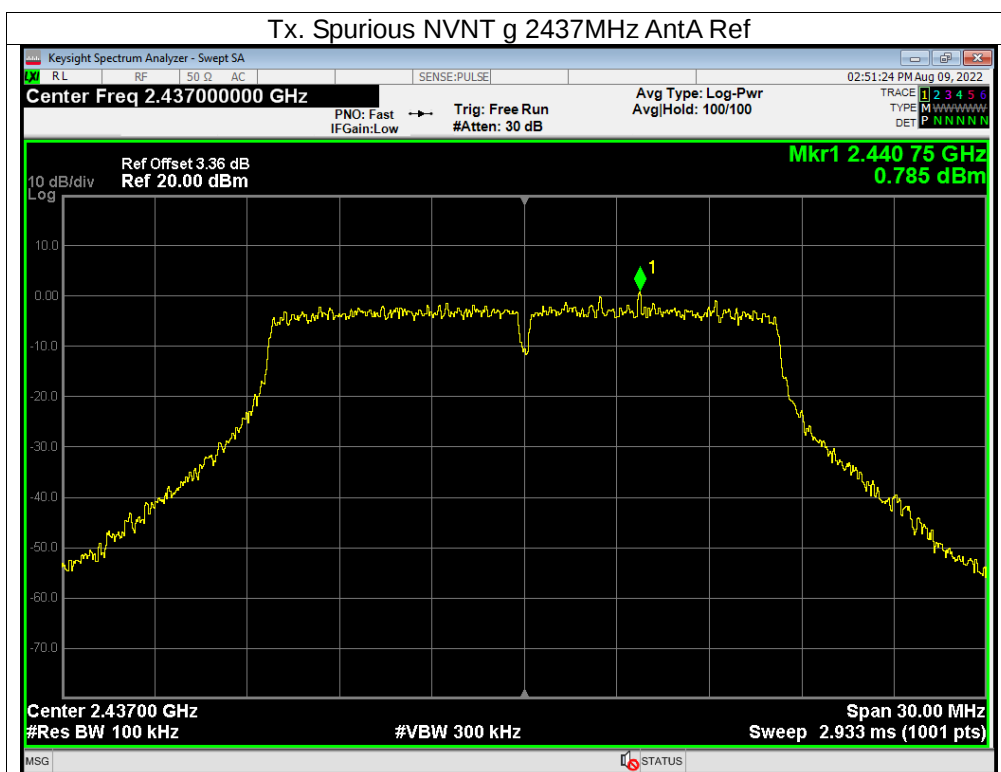


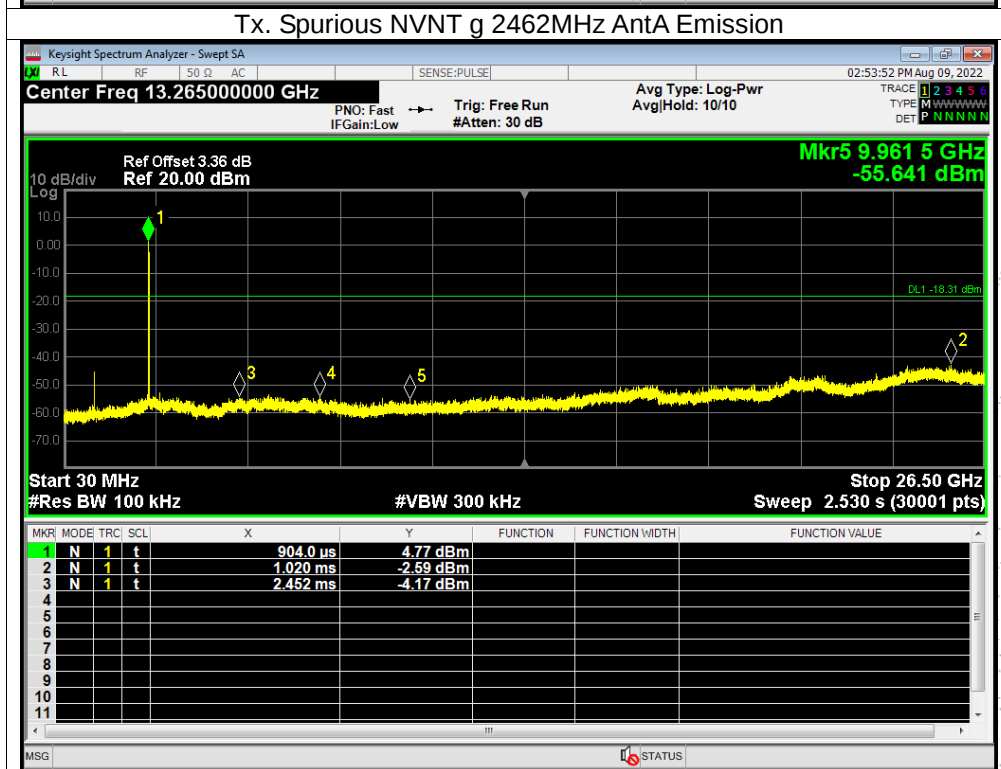
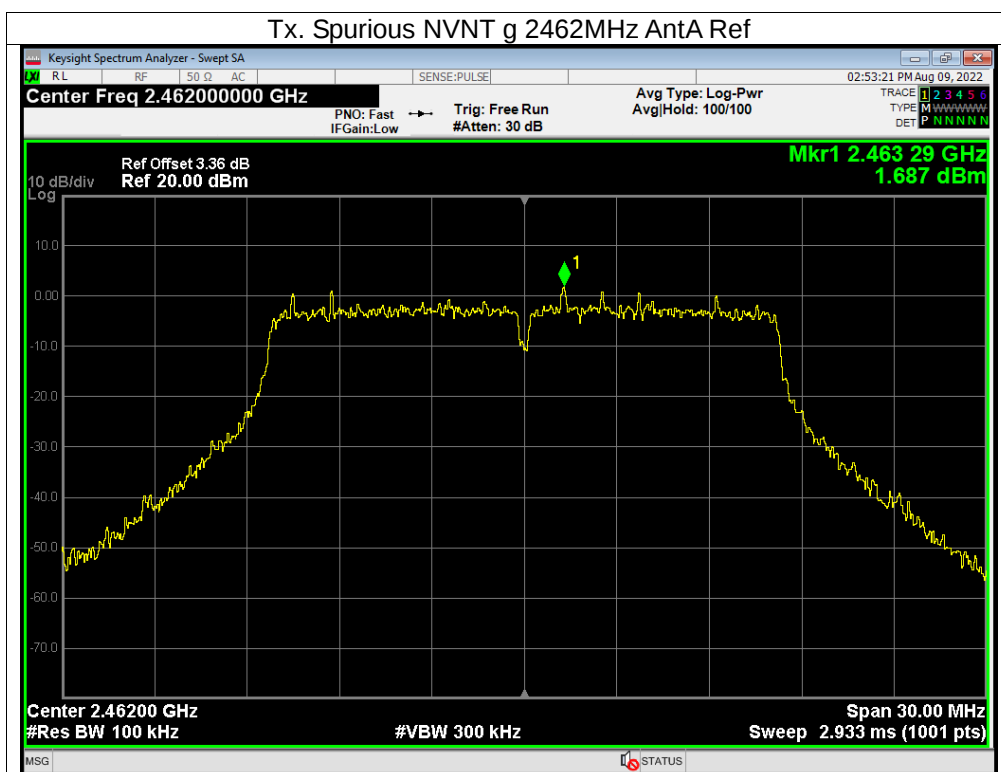


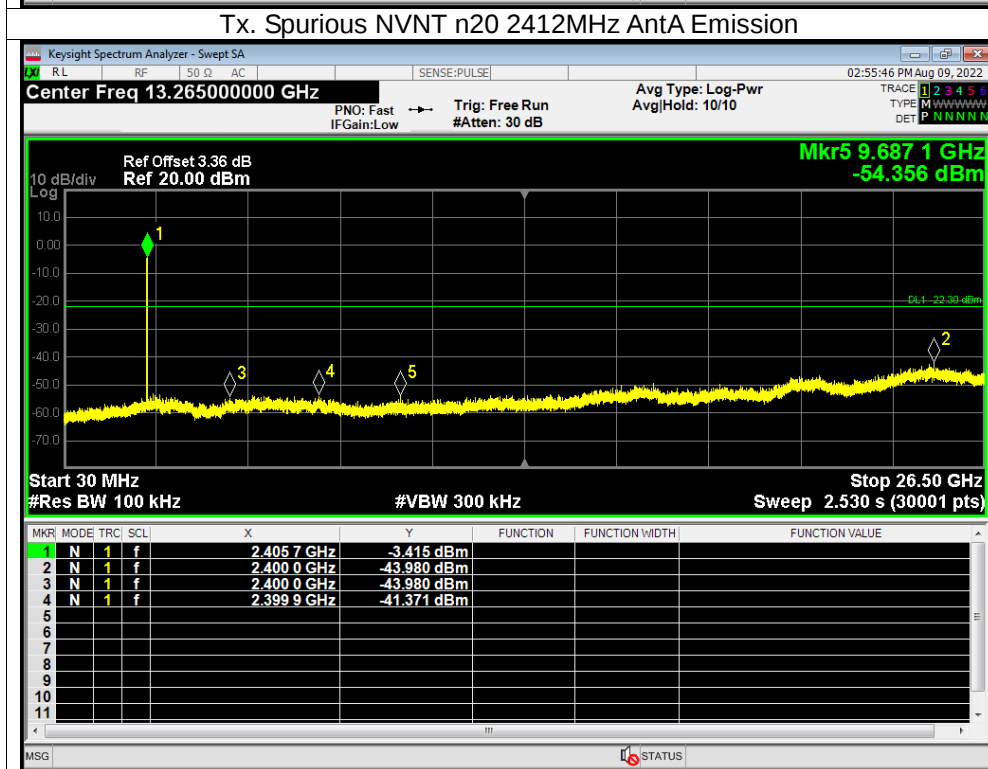
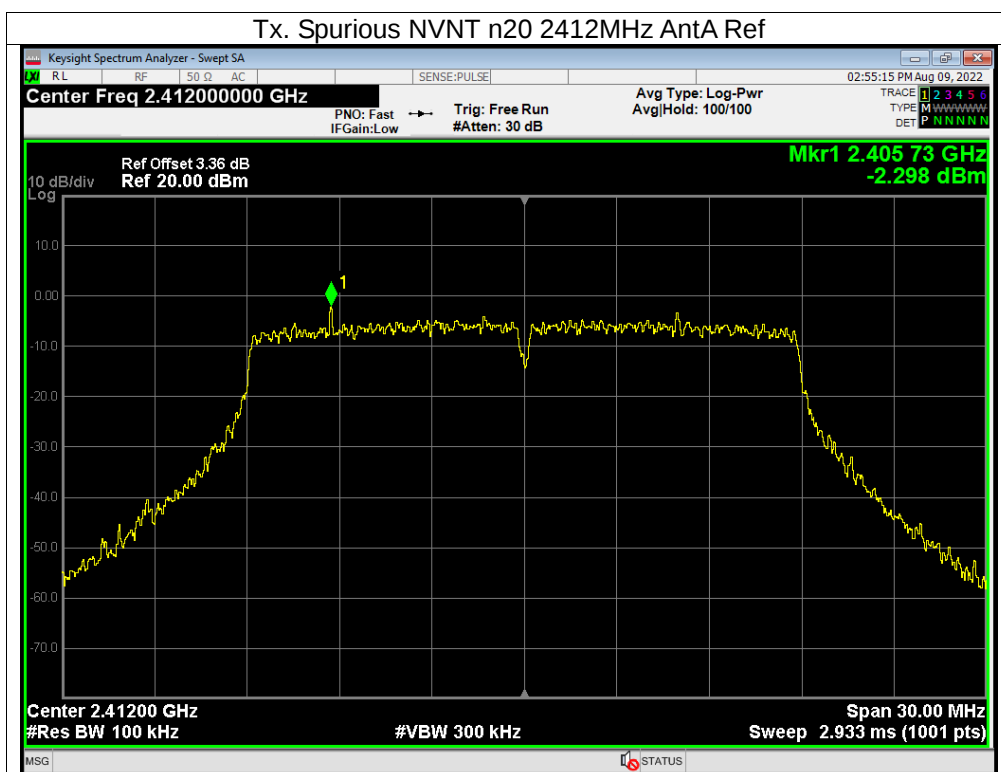




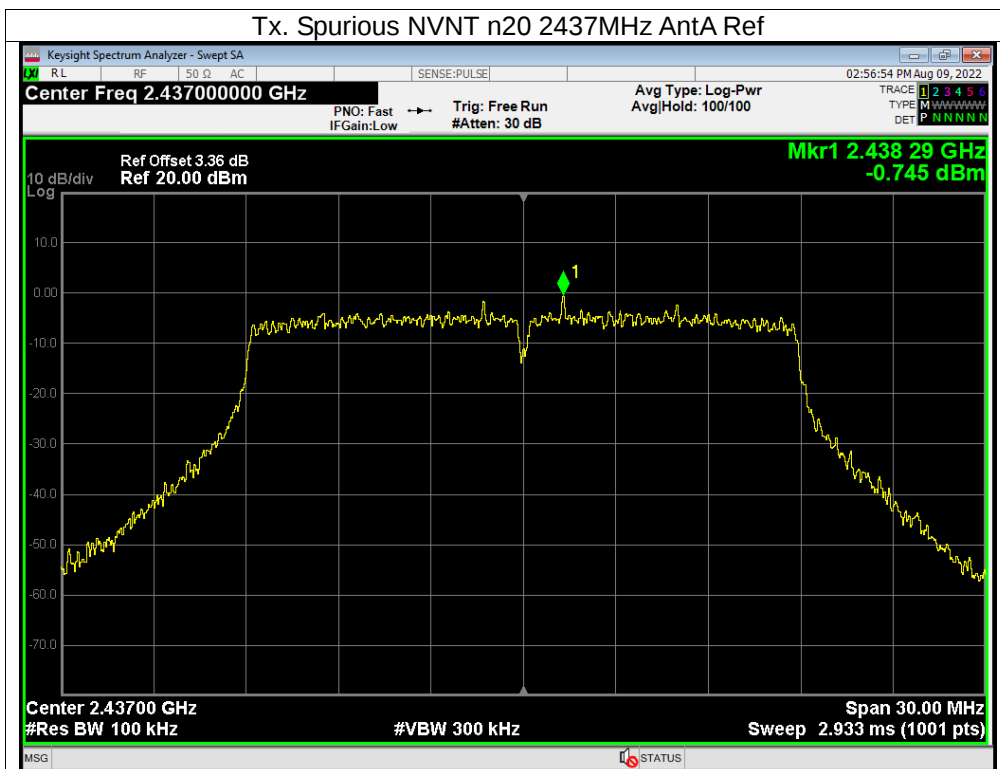




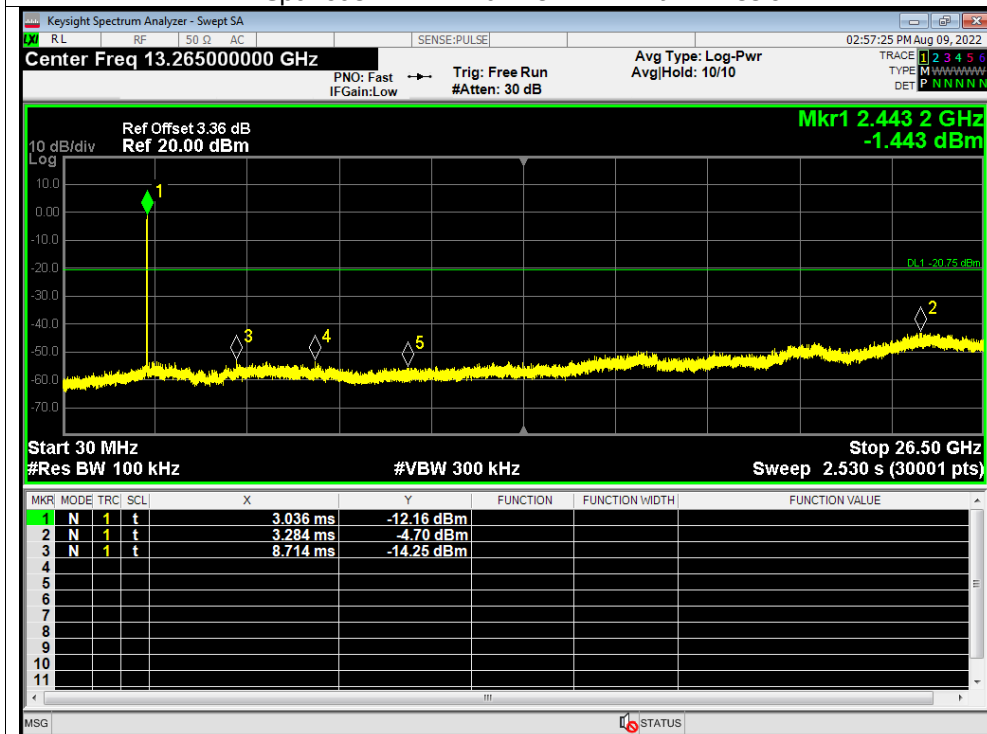


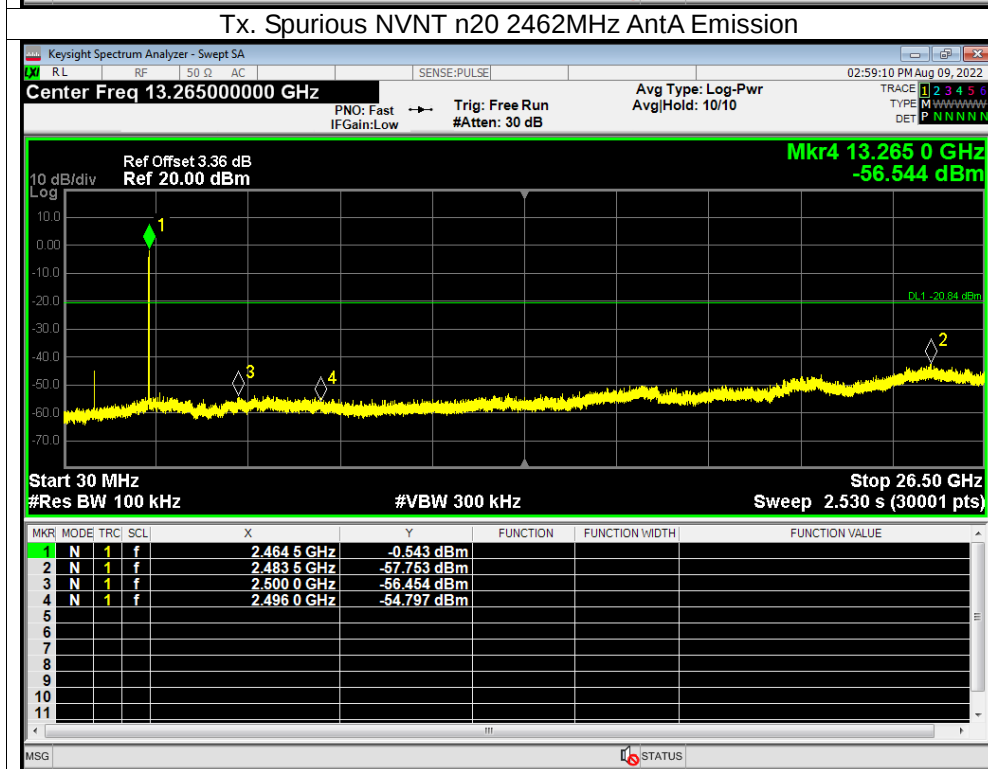
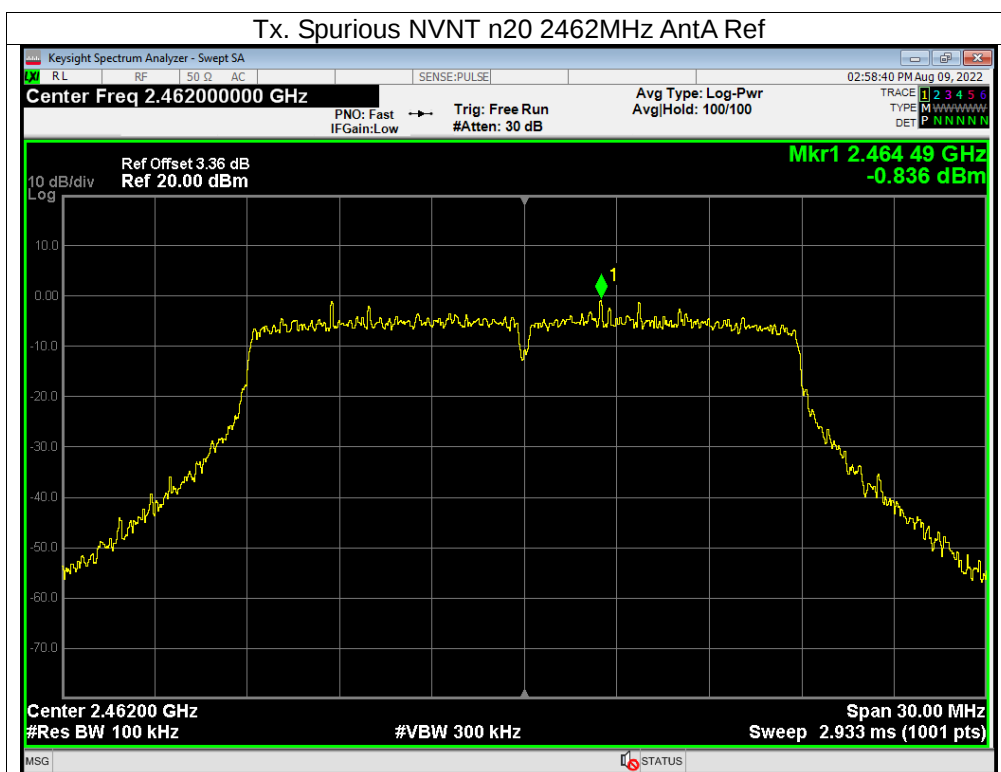


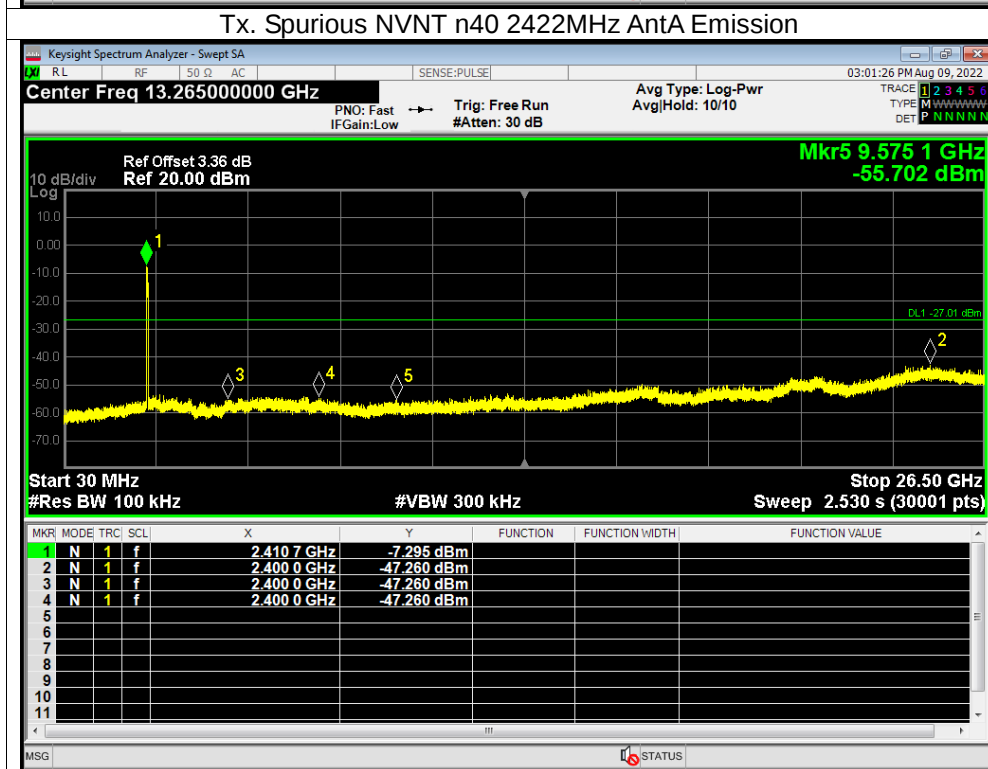
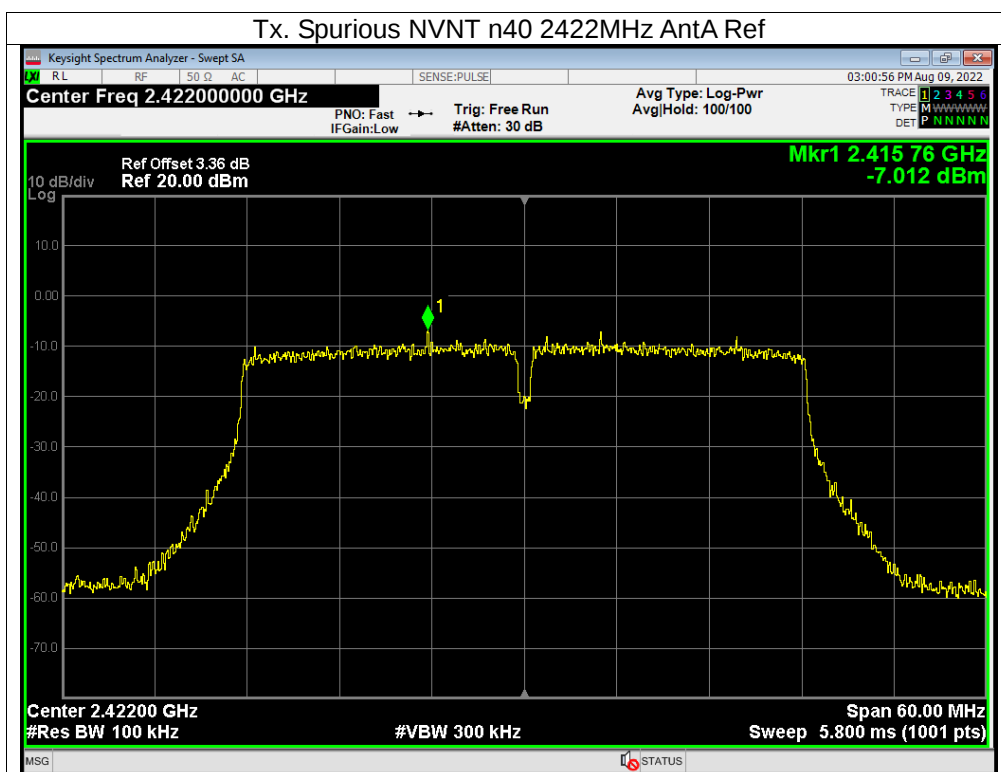
Tx. Spurious NVNT n20 2437MHz AntA Ref



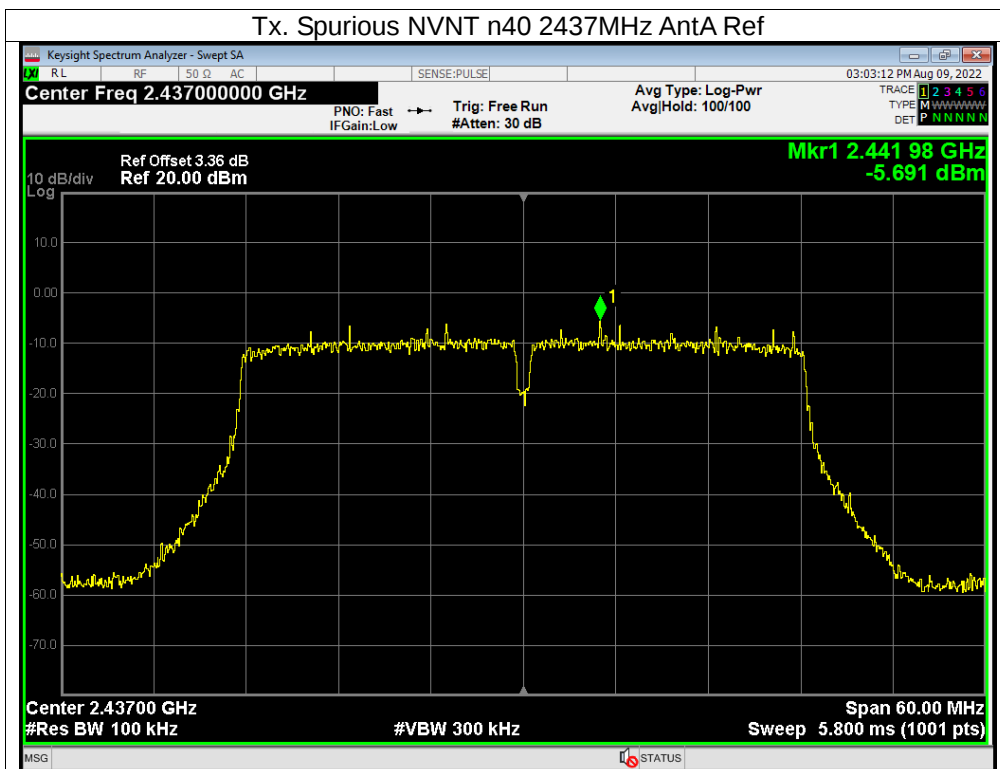
Tx. Spurious NVNT n20 2437MHz AntA Emission



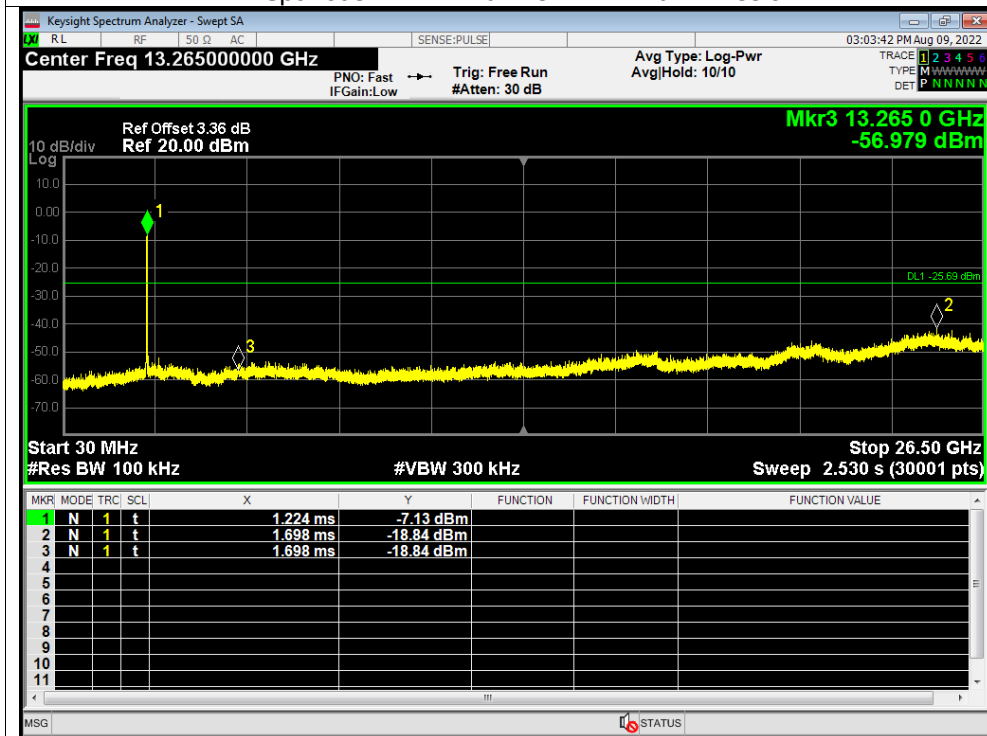




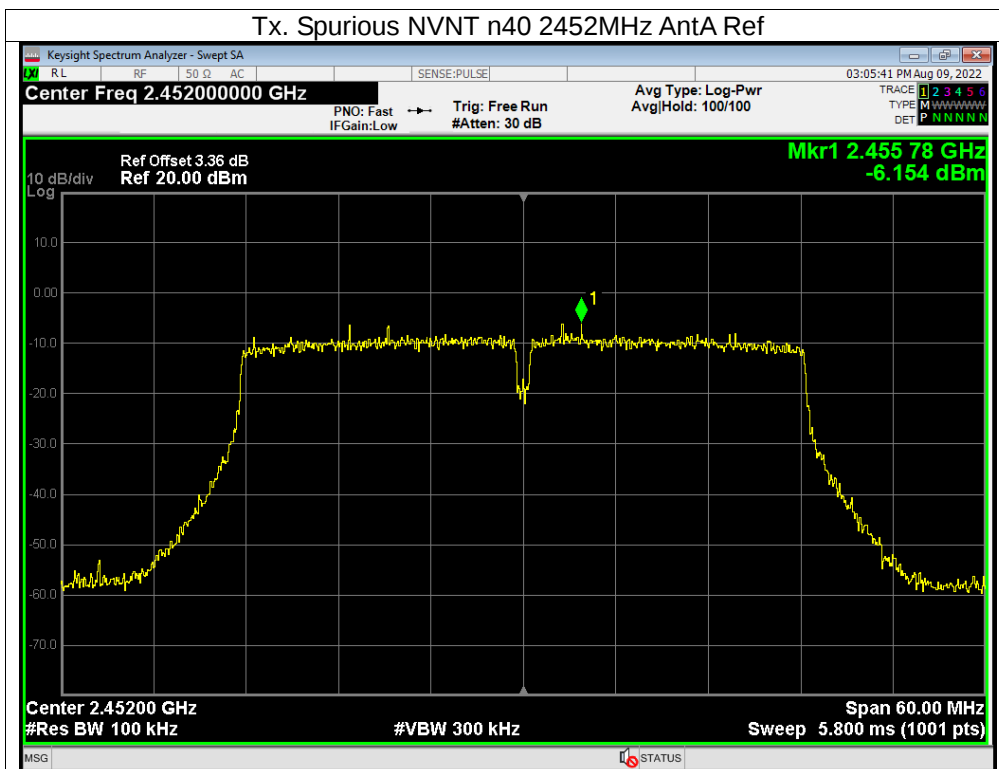
Tx. Spurious NVNT n40 2437MHz AntA Ref



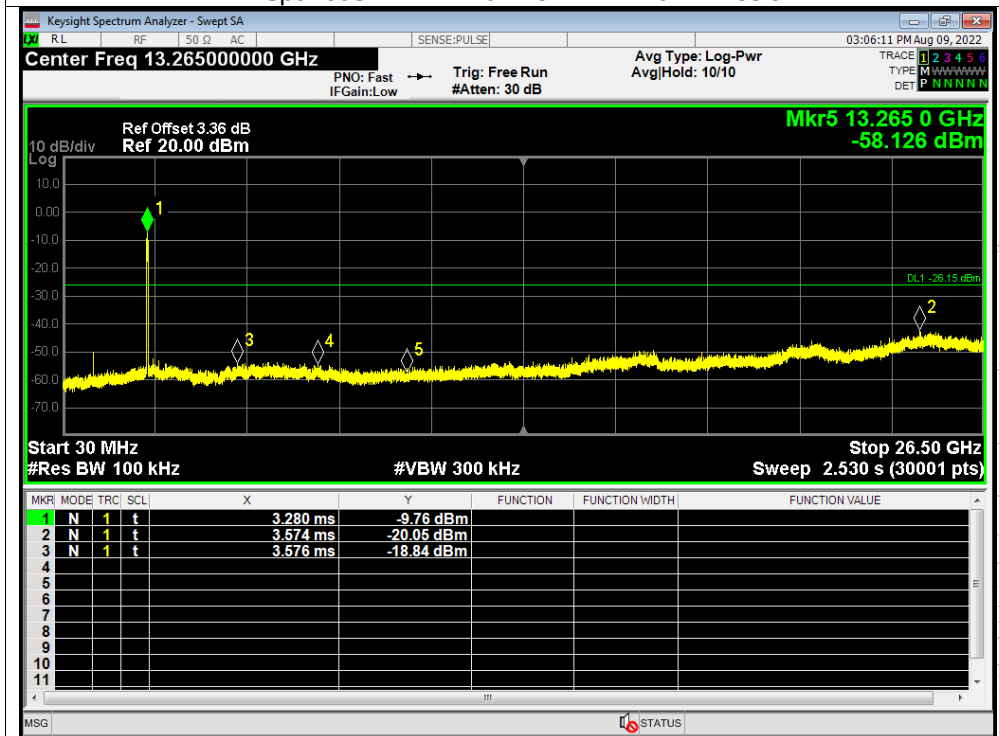
Tx. Spurious NVNT n40 2437MHz AntA Emission

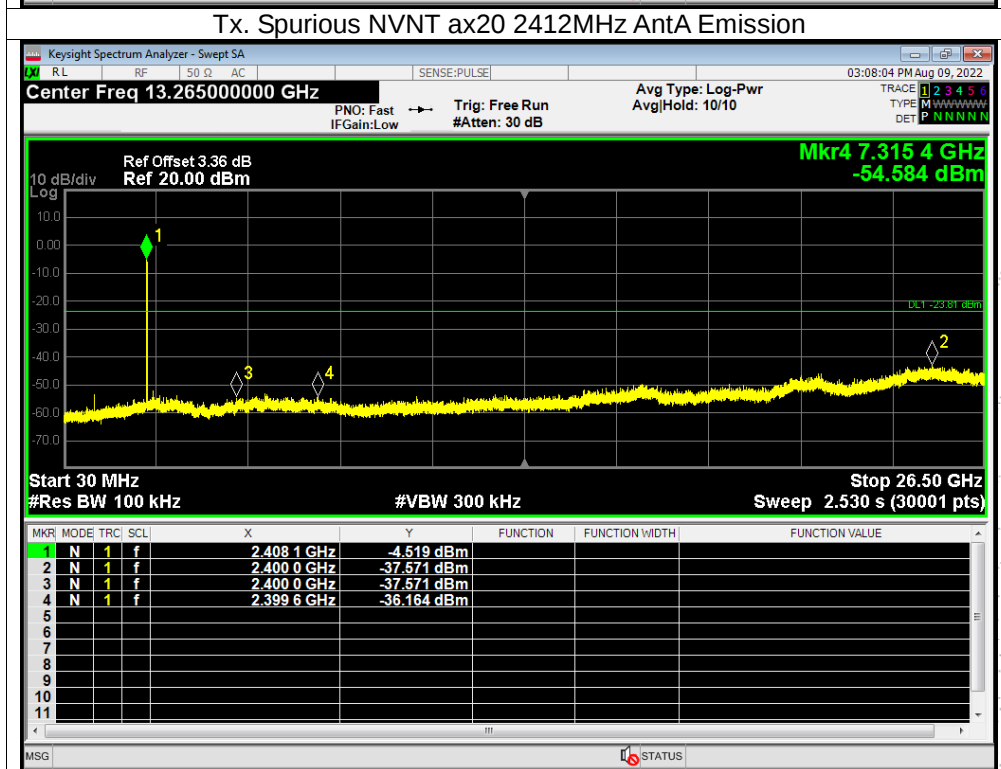
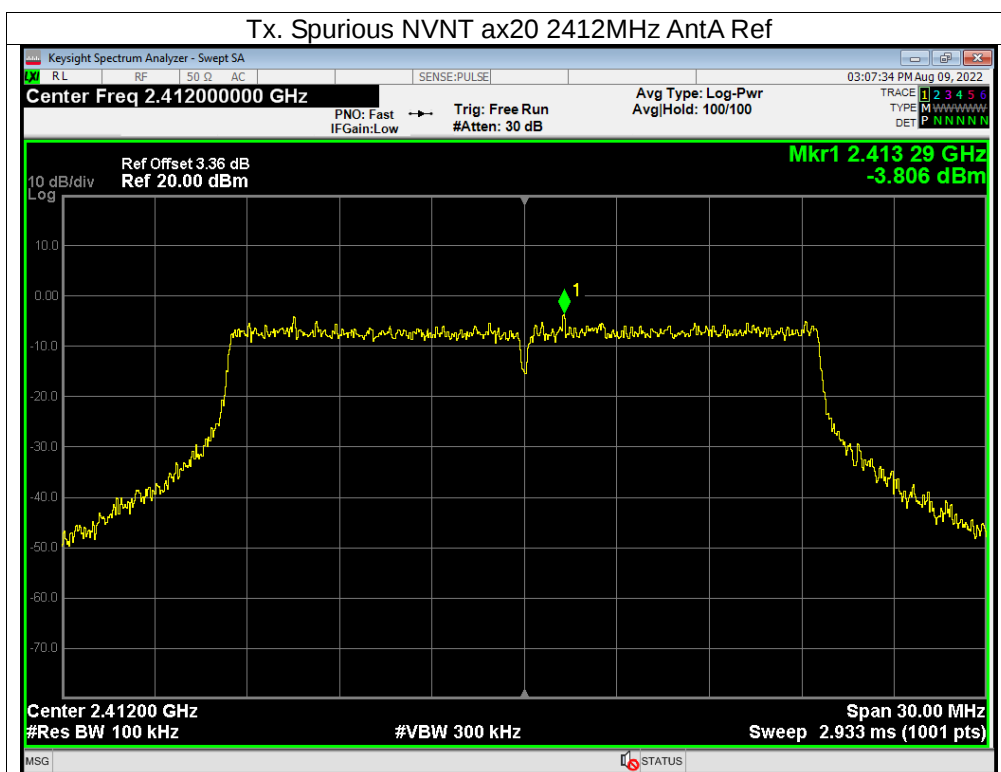


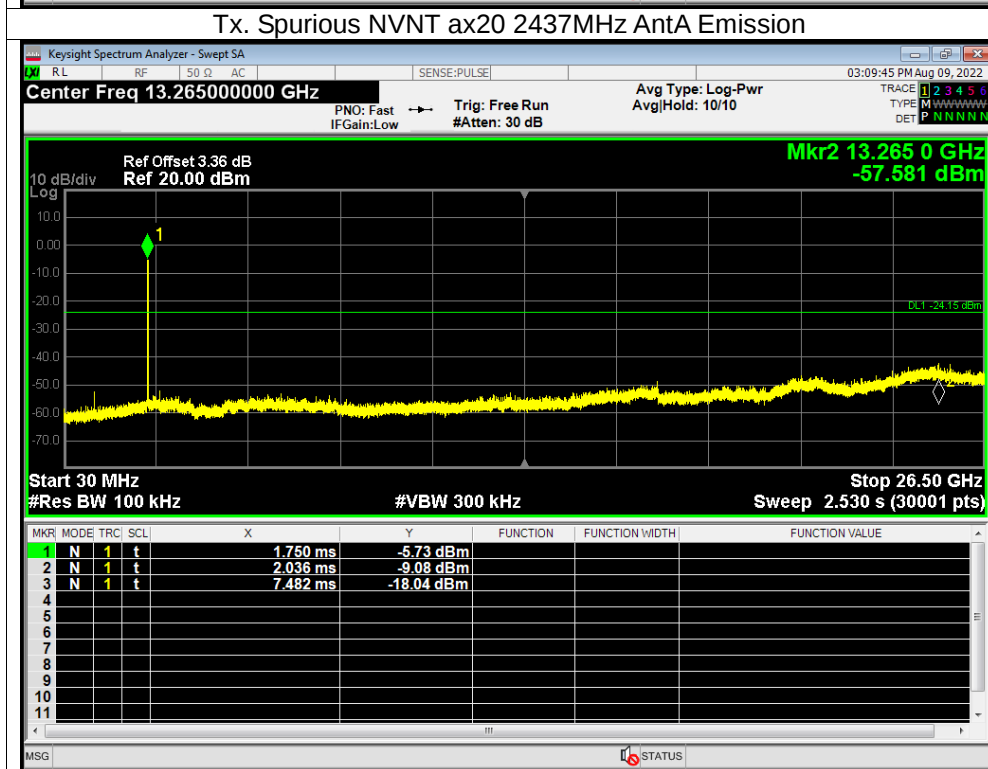
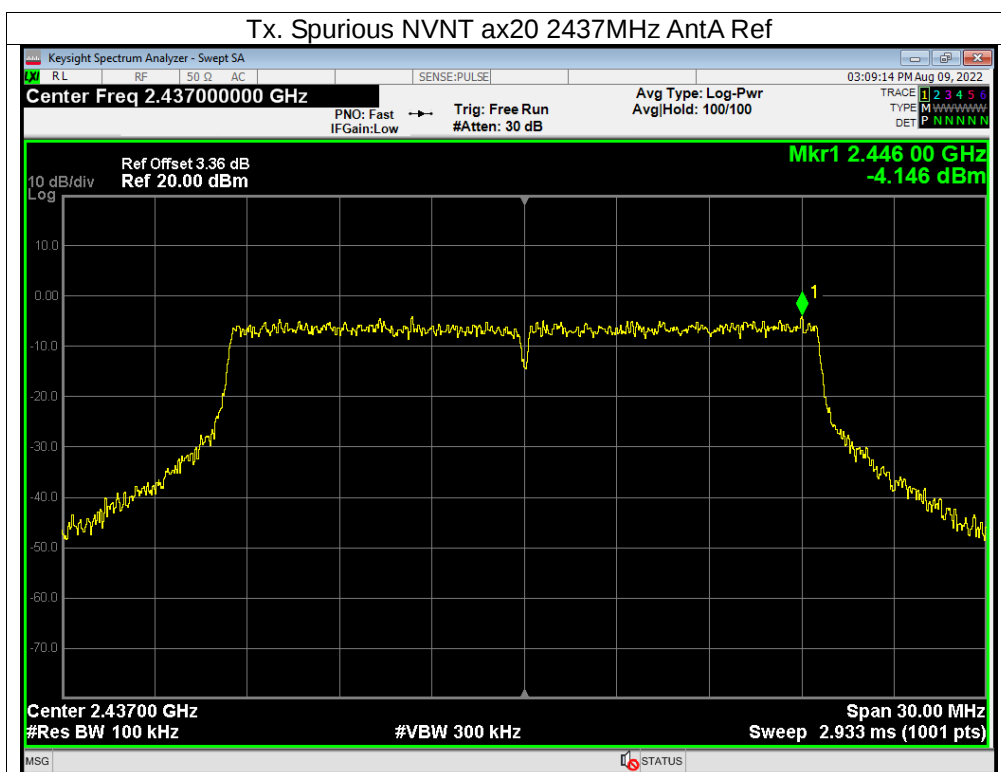
Tx. Spurious NVNT n40 2452MHz AntA Ref

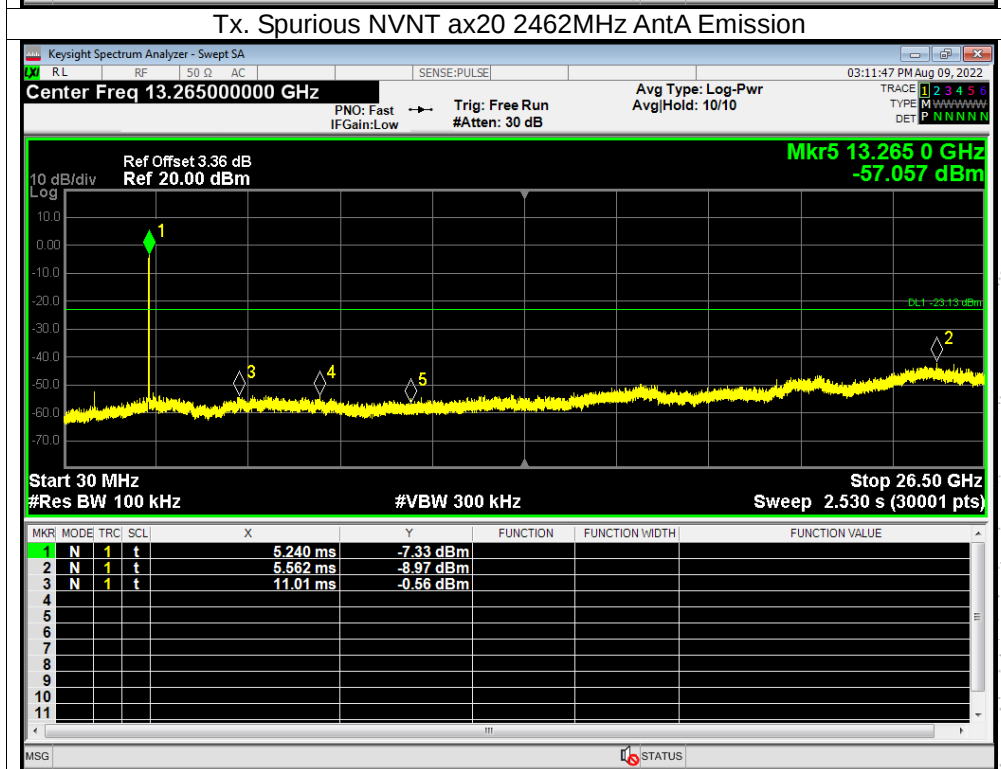
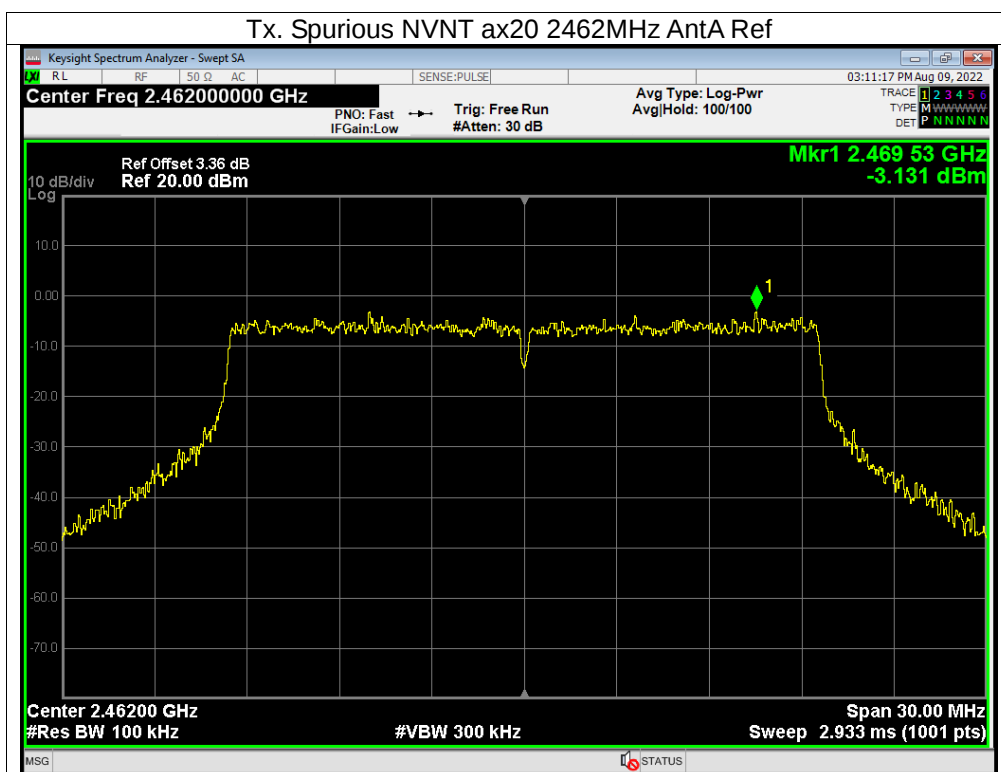


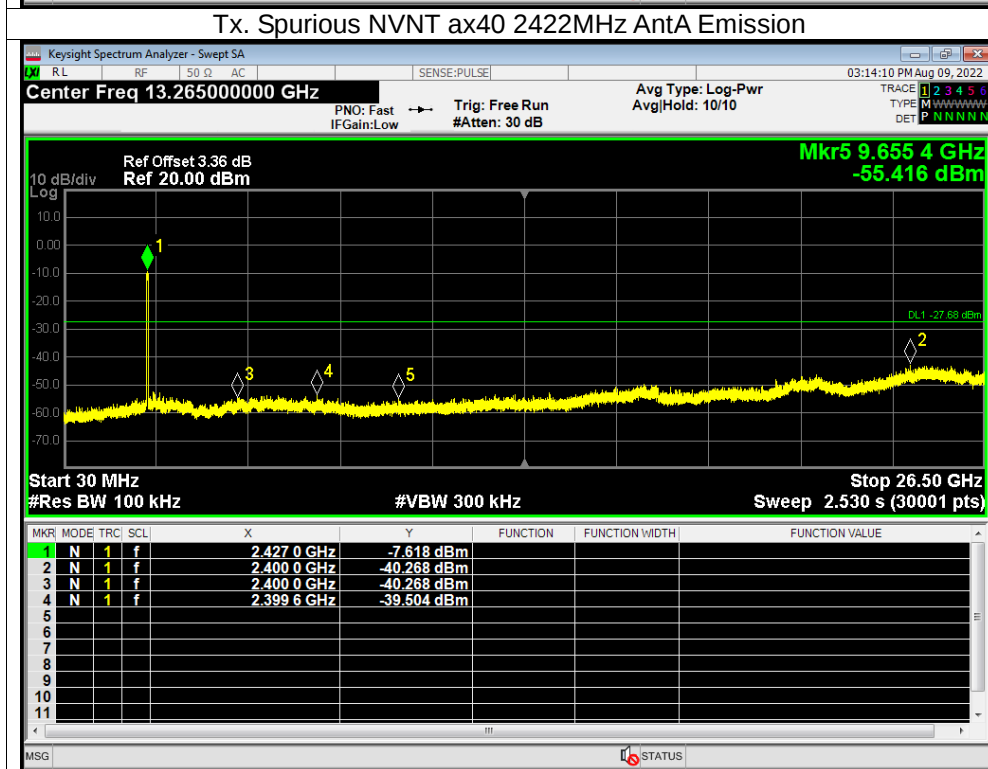
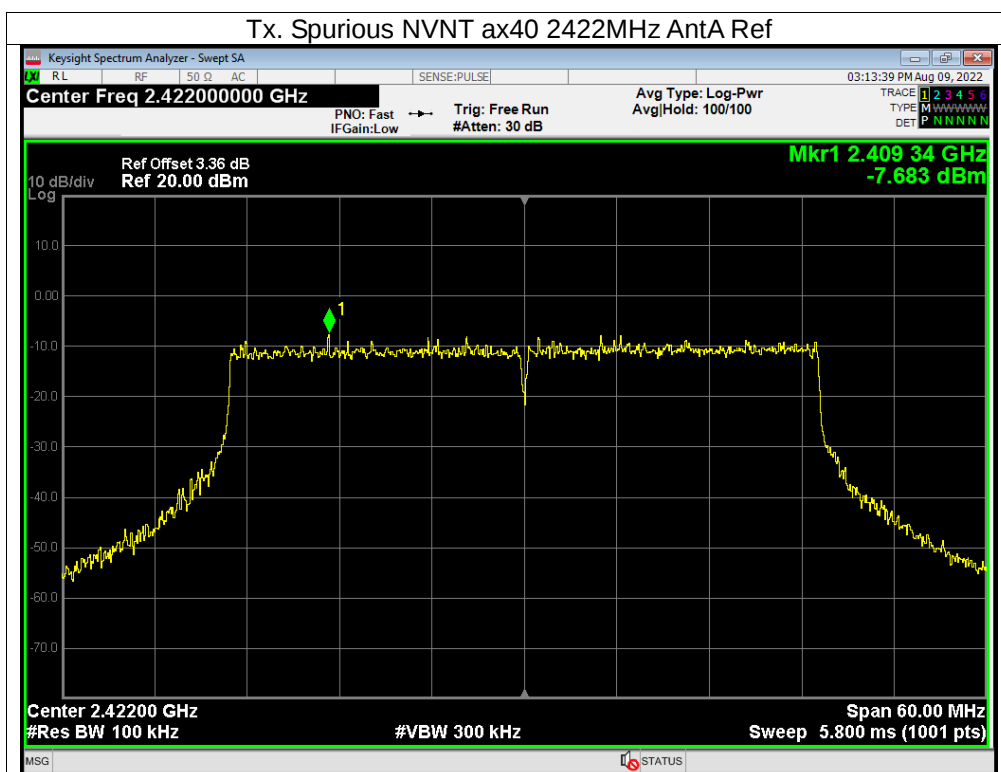
Tx. Spurious NVNT n40 2452MHz AntA Emission

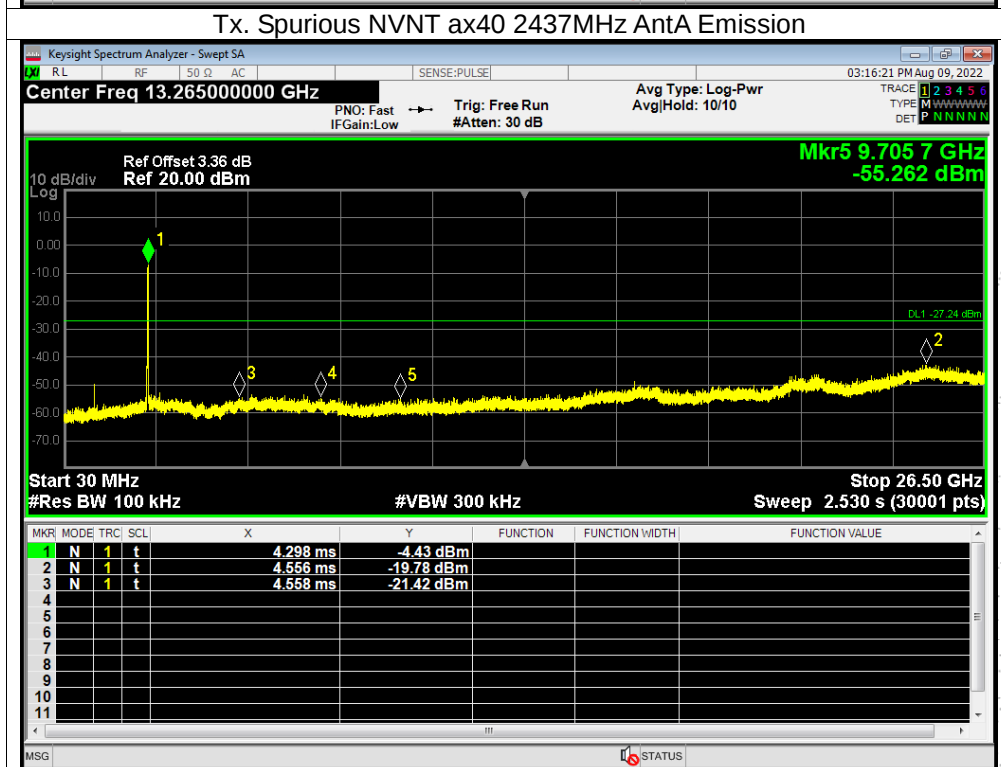
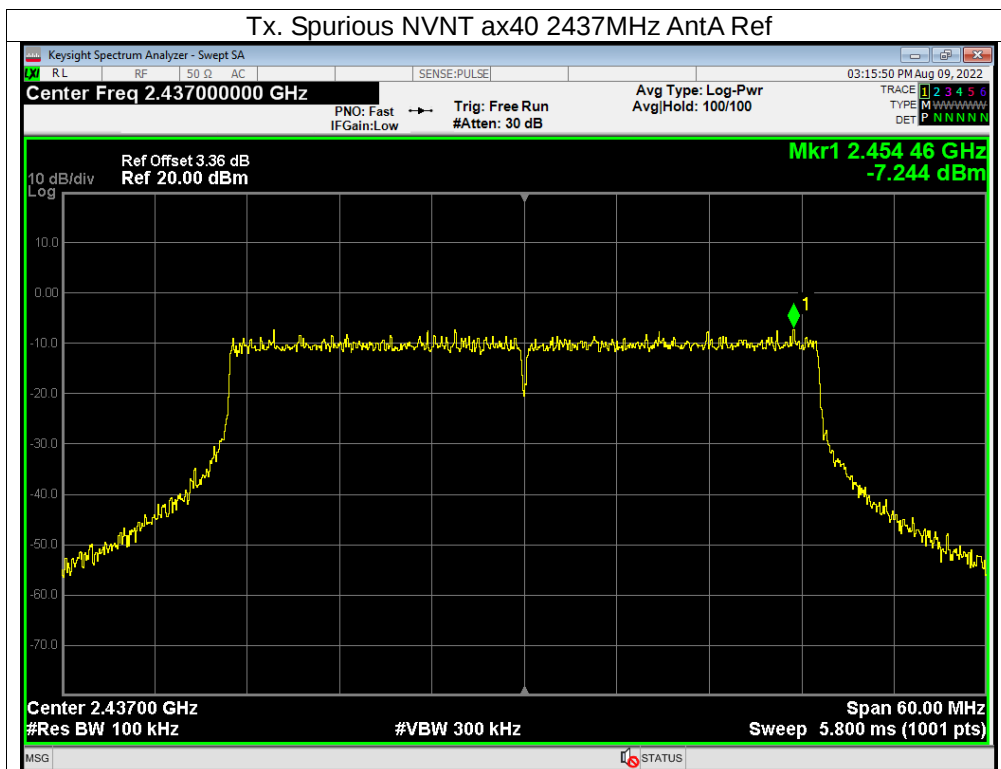


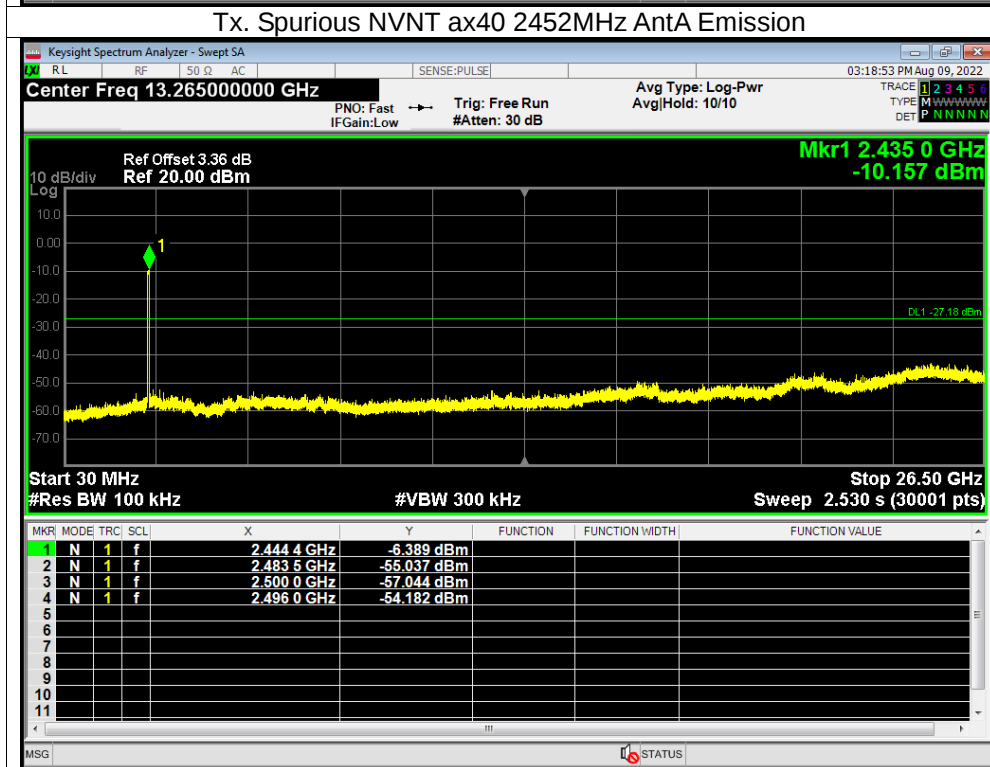
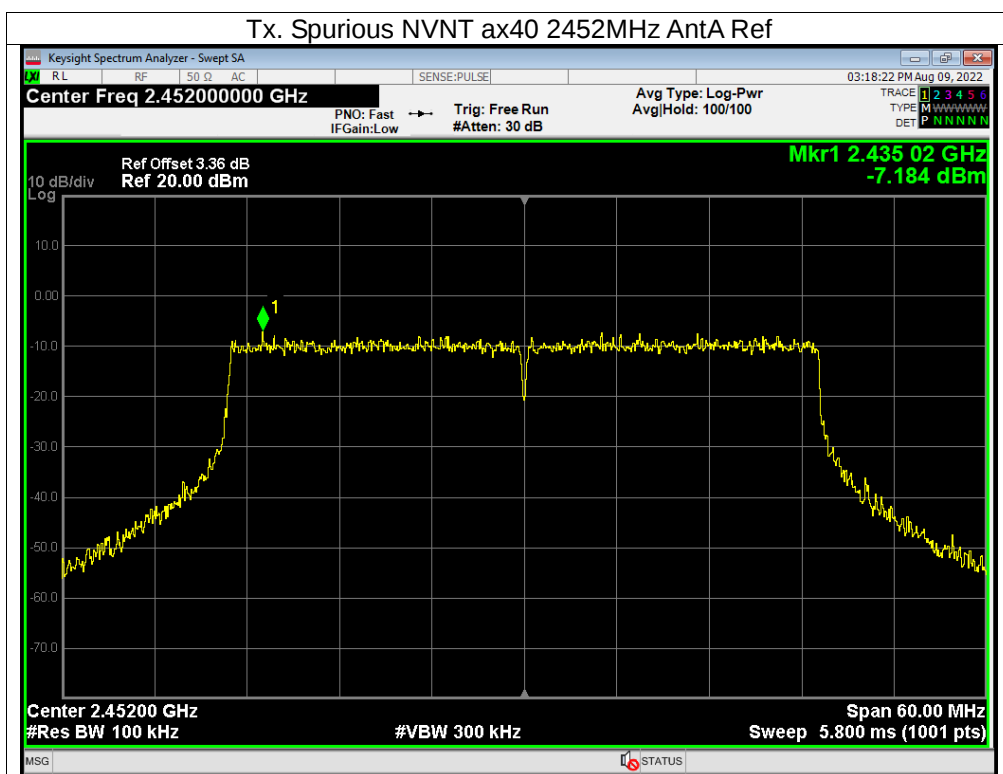












13. Duty Cycle Of Test Signal

13.1 Standard Requirement

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

13.2 Formula

Duty Cycle = $T_{on} / (T_{on} + T_{off})$

13.3 Test Procedure

1. Set span = Zero
2. RBW = 8MHz
3. VBW = 8MHz,
4. Detector = Peak

13.4 Test Result

Condition	Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	100	0	0
NVNT	b	2462	100	0	0
NVNT	g	2412	100	0	0
NVNT	g	2462	100	0	0
NVNT	n20	2412	100	0	0
NVNT	n20	2462	100	0	0
NVNT	n40	2422	100	0	0
NVNT	n40	2452	100	0	0
NVNT	ax20	2412	100	0	0
NVNT	ax20	2462	100	0	0
NVNT	ax40	2422	100	0	0
NVNT	ax40	2452	100	0	0

14. Antenna Requirement

14.1 Limit

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

14.1 Test Result

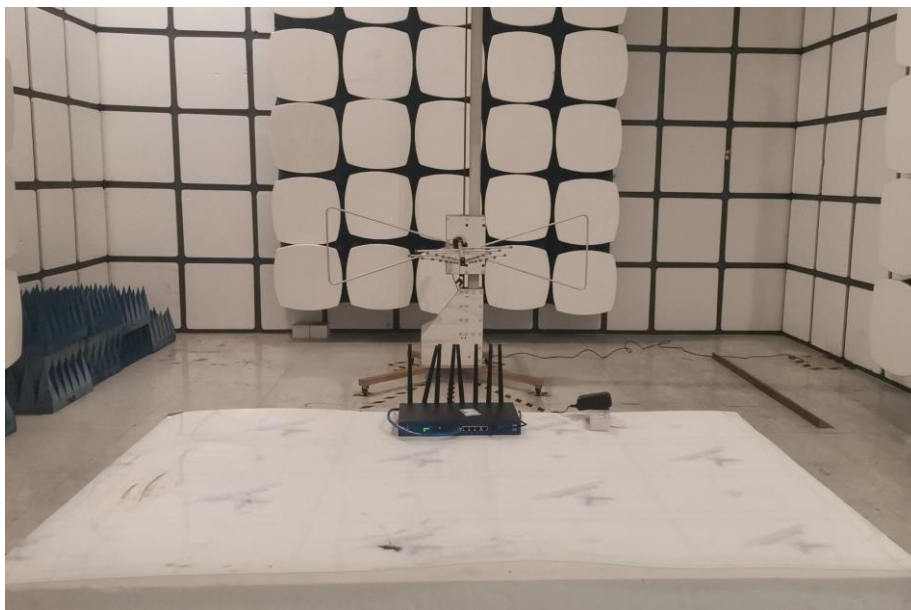
The EUT antenna is External antenna; fulfill the requirement of this section.

15. EUT Test Setup Photographs

Conducted emissions Photo



Radiated Measurement Photos



STATEMENT

- 1.The equipment lists are traceable to the national reference standards.
- 2.The test report can not be partially copied unless prior written approval is issued from our lab.
- 3.The test report is invalid without stamp of laboratory.
- 4.The test report is invalid without signature of person(s) testing and authorizing.
- 5.The test process and test result is only related to the Unit Under Test.
- 6.The quality system of our laboratory is in accordance with ISO/IEC17025.
- 7.If there is any objection to report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

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***** END *****