
	Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.
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DESCRIPTION

Pass

10. AC POWER LINE CONDUCTED EMISSION

LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

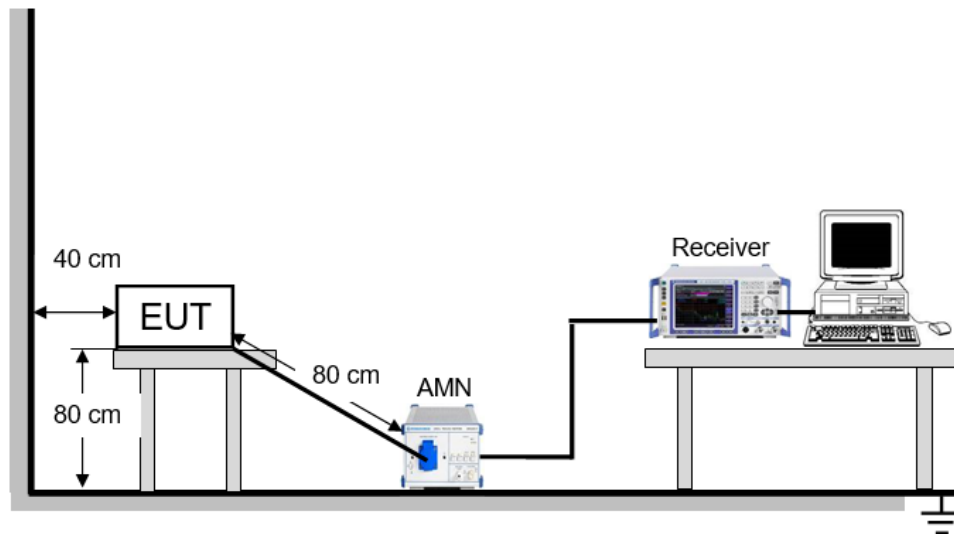
FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST PROCEDURE

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

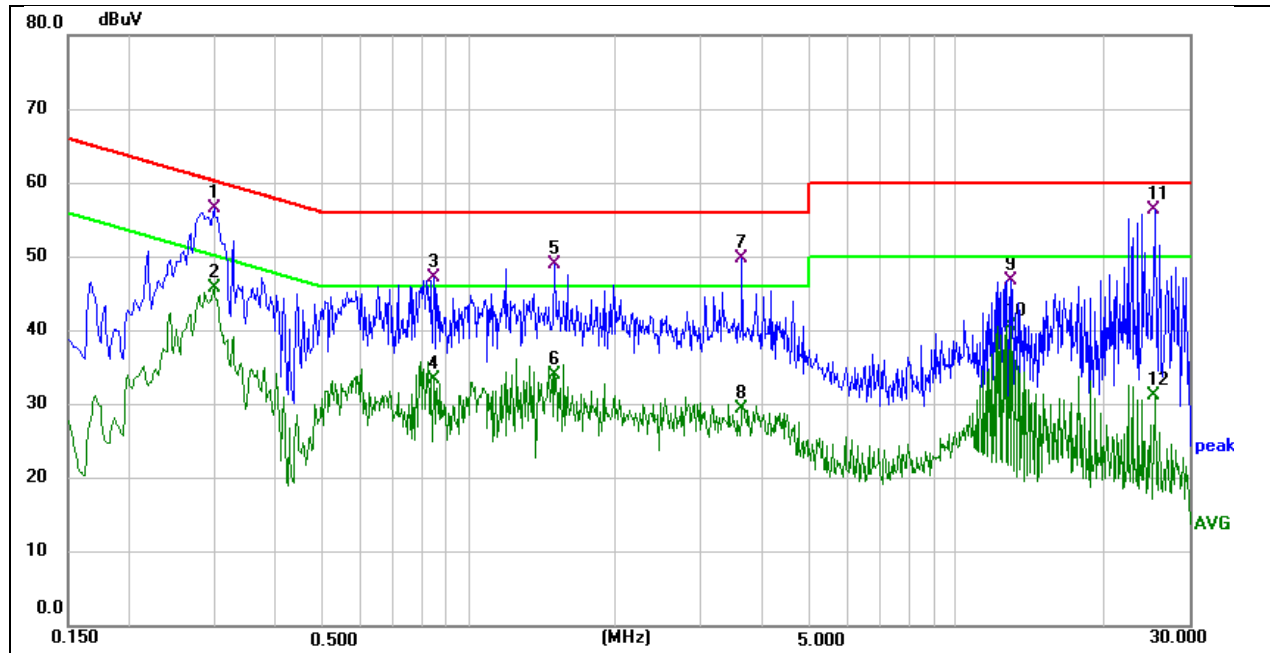
The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST SETUP



TEST ENVIRONMENT

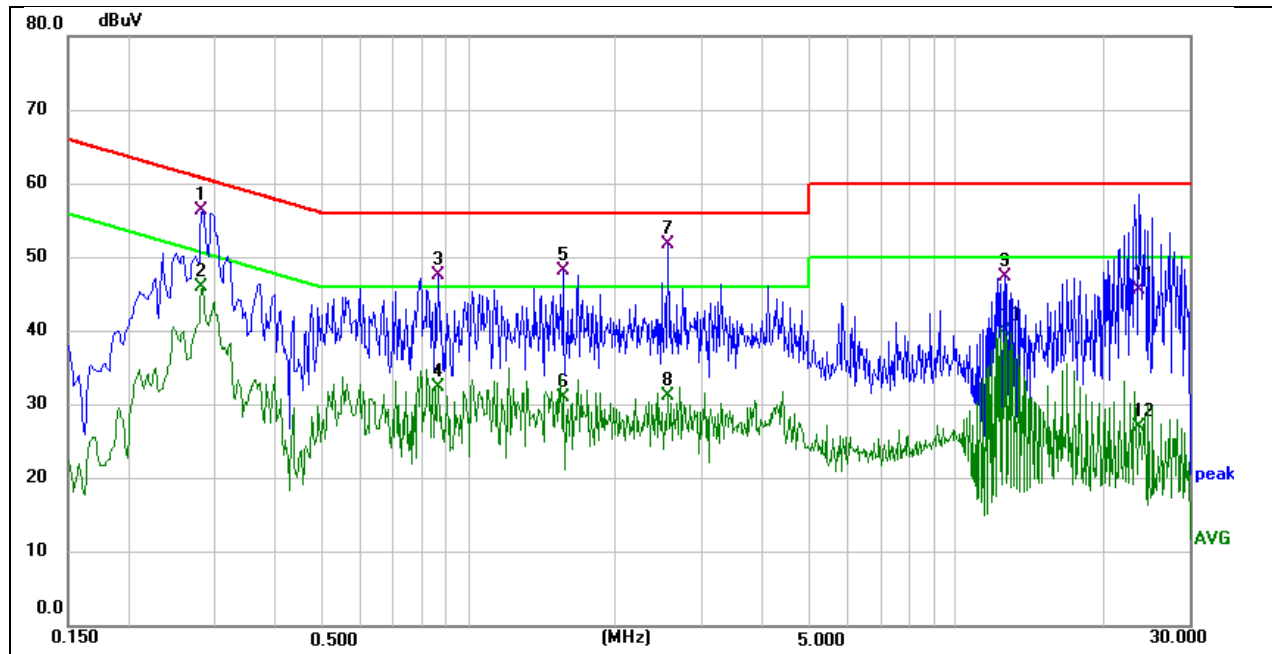
Temperature	24.5°C	Relative Humidity	53%
Atmosphere Pressure	101kPa		

TEST RESULTS

Phase: L1

Mode: 802.11n HT40 2422MHz

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2980	45.55	10.99	56.54	60.30	-3.76	QP
2	0.2980	34.70	10.99	45.69	50.30	-4.61	AVG
3	0.8460	36.68	10.41	47.09	56.00	-8.91	QP
4	0.8460	22.94	10.41	33.35	46.00	-12.65	AVG
5	1.5020	38.53	10.43	48.96	56.00	-7.04	QP
6	1.5020	23.49	10.43	33.92	46.00	-12.08	AVG
7	3.6340	39.33	10.45	49.78	56.00	-6.22	QP
8	3.6340	18.99	10.45	29.44	46.00	-16.56	AVG
9	12.8580	35.92	10.80	46.72	60.00	-13.28	QP
10	12.8580	29.87	10.80	40.67	50.00	-9.33	AVG
11 *	25.5419	44.99	11.38	56.37	60.00	-3.63	QP
12	25.5419	19.76	11.38	31.14	50.00	-18.86	AVG



Phase: N

Mode: 802.11n HT40 2422MHz

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Remark
1	0.2819	45.49	10.88	56.37	60.76	-4.39	QP
2	0.2819	35.11	10.88	45.99	50.76	-4.77	AVG
3	0.8660	37.17	10.35	47.52	56.00	-8.48	QP
4	0.8660	22.03	10.35	32.38	46.00	-13.62	AVG
5	1.5580	37.85	10.36	48.21	56.00	-7.79	QP
6	1.5580	20.74	10.36	31.10	46.00	-14.90	AVG
7 *	2.5540	41.43	10.37	51.80	56.00	-4.20	QP
8	2.5540	20.77	10.37	31.14	46.00	-14.86	AVG
9	12.5180	36.58	10.71	47.29	60.00	-12.71	QP
10	12.5180	29.27	10.71	39.98	50.00	-10.02	AVG
11	23.6780	34.40	11.10	45.50	60.00	-14.50	QP
12	23.6780	15.84	11.10	26.94	50.00	-23.06	AVG

Note: 1. Result = Reading + Correct Factor.

2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.

3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).

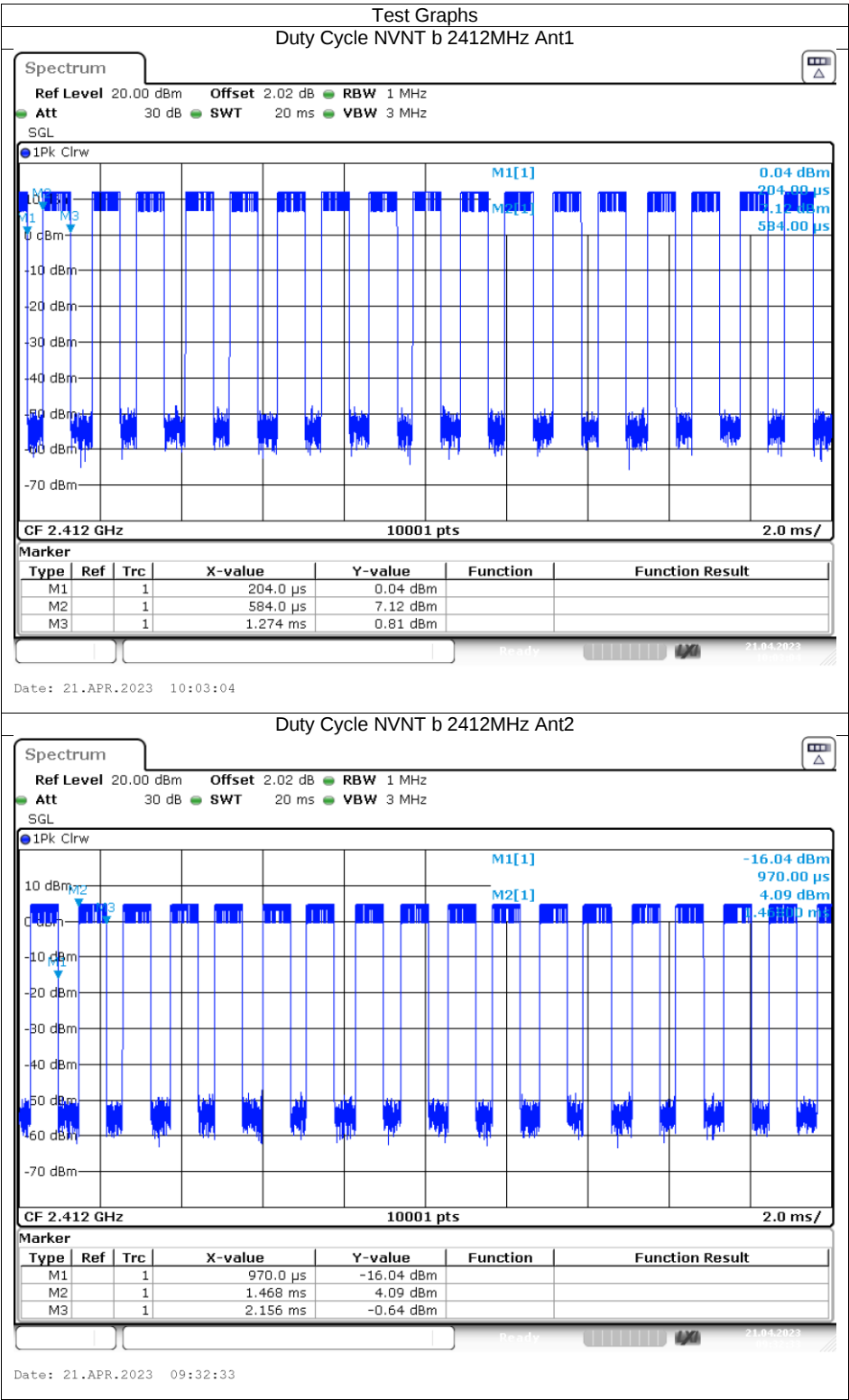
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

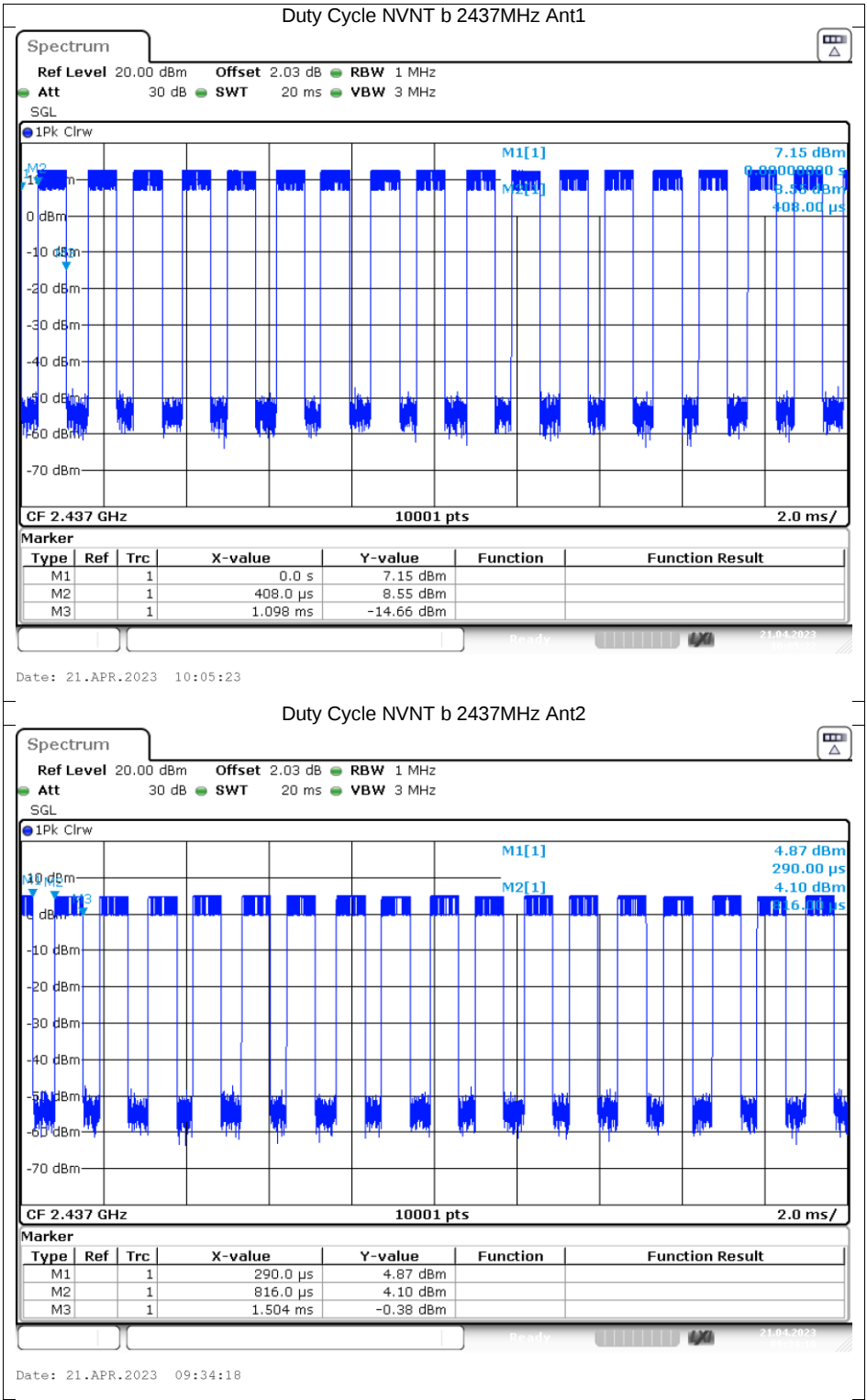
Note: All the modes have been tested, only the worst data was recorded in the report.

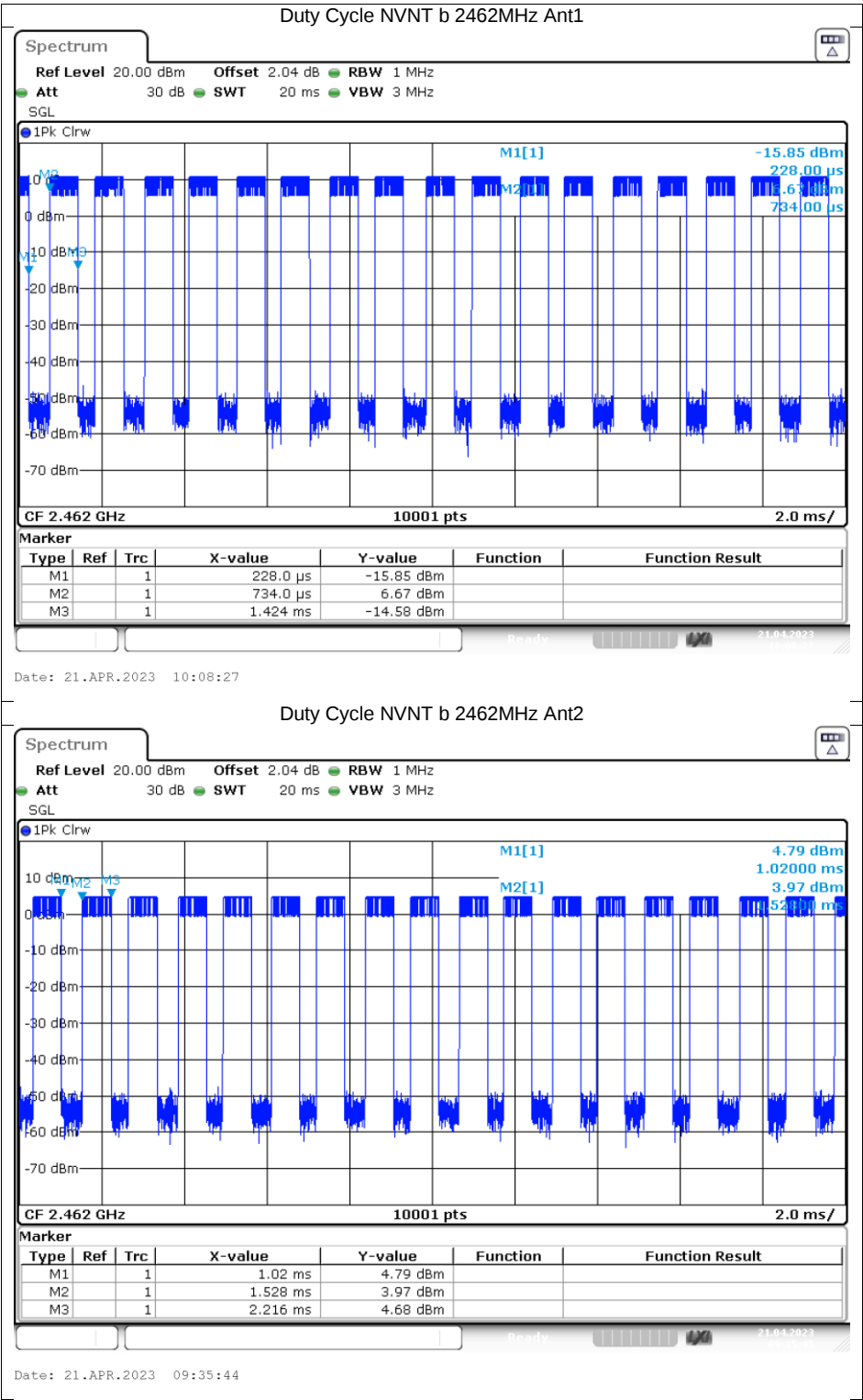
11. TEST DATA - Appendix A

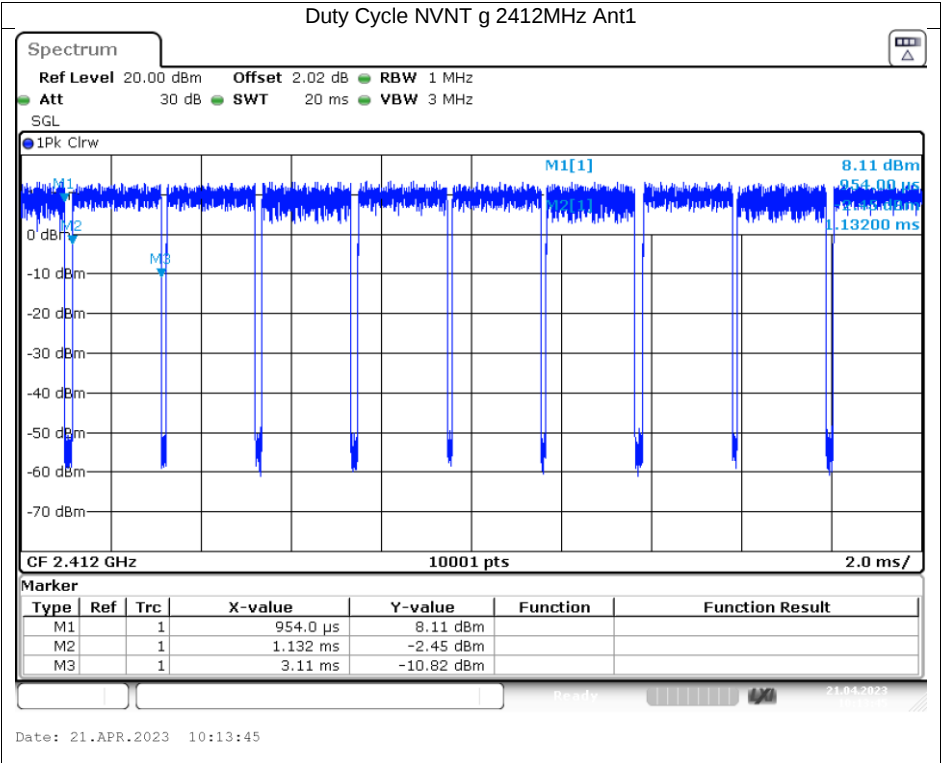
Duty Cycle

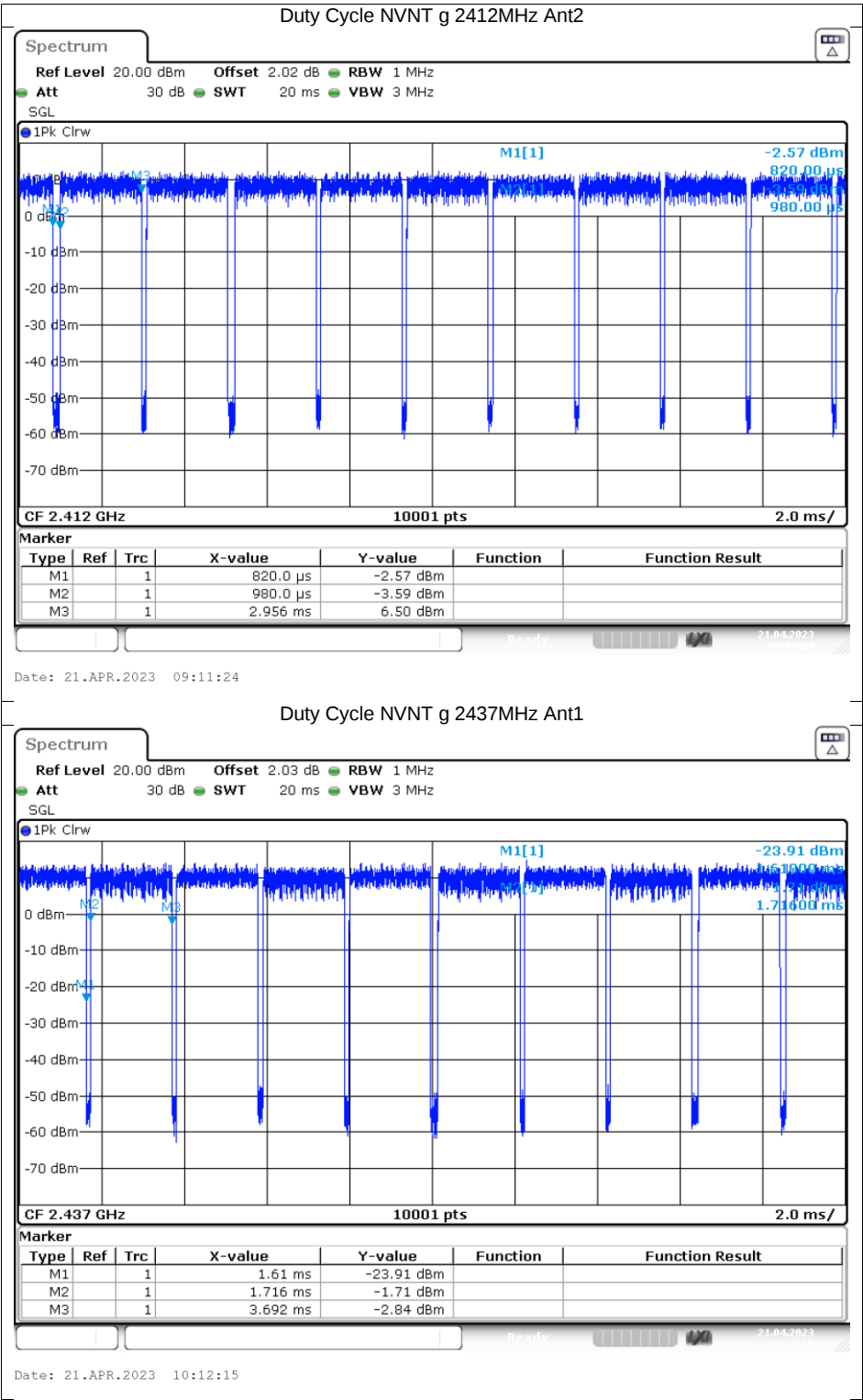
Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	b	2412	Ant1	64.49	1.91	1.45
NVNT	b	2412	Ant2	58.01	2.36	1.45
NVNT	b	2437	Ant1	62.84	2.02	1.45
NVNT	b	2437	Ant2	56.67	2.47	1.45
NVNT	b	2462	Ant1	57.69	2.39	1.45
NVNT	b	2462	Ant2	57.53	2.4	1.45
NVNT	g	2412	Ant1	91.74	0.37	0.51
NVNT	g	2412	Ant2	92.51	0.34	0.51
NVNT	g	2437	Ant1	94.91	0.23	0.51
NVNT	g	2437	Ant2	94.91	0.23	0.51
NVNT	g	2462	Ant1	92.17	0.35	0.51
NVNT	g	2462	Ant2	94.46	0.25	0.51
NVNT	n20	2412	Ant1	91.38	0.39	0.18
NVNT	n20	2412	Ant2	92.38	0.34	0.18
NVNT	n20	2437	Ant1	91.53	0.38	0.18
NVNT	n20	2437	Ant2	91.66	0.38	0.18
NVNT	n20	2462	Ant1	92.1	0.36	0.18
NVNT	n20	2462	Ant2	92.25	0.35	0.18
NVNT	n40	2422	Ant1	92.1	0.36	0.18
NVNT	n40	2422	Ant2	92.09	0.36	0.18
NVNT	n40	2437	Ant1	91.82	0.37	0.18
NVNT	n40	2437	Ant2	91.54	0.38	0.18
NVNT	n40	2452	Ant1	91.14	0.4	0.18
NVNT	n40	2452	Ant2	91.54	0.38	0.18
NVNT	ax20	2412	Ant1	97.89	0.09	0.67
NVNT	ax20	2412	Ant2	98.02	0	0.67
NVNT	ax20	2437	Ant1	97.89	0.09	0.67
NVNT	ax20	2437	Ant2	97.89	0.09	0.67
NVNT	ax20	2462	Ant1	97.89	0.09	0.67
NVNT	ax20	2462	Ant2	97.89	0.09	0.67
NVNT	ax40	2422	Ant1	96.31	0.16	1.28
NVNT	ax40	2422	Ant2	96.06	0.17	1.28
NVNT	ax40	2437	Ant1	96.31	0.16	1.28
NVNT	ax40	2437	Ant2	96.31	0.16	1.28
NVNT	ax40	2452	Ant1	96.55	0.15	1.28
NVNT	ax40	2452	Ant2	96.31	0.16	1.28

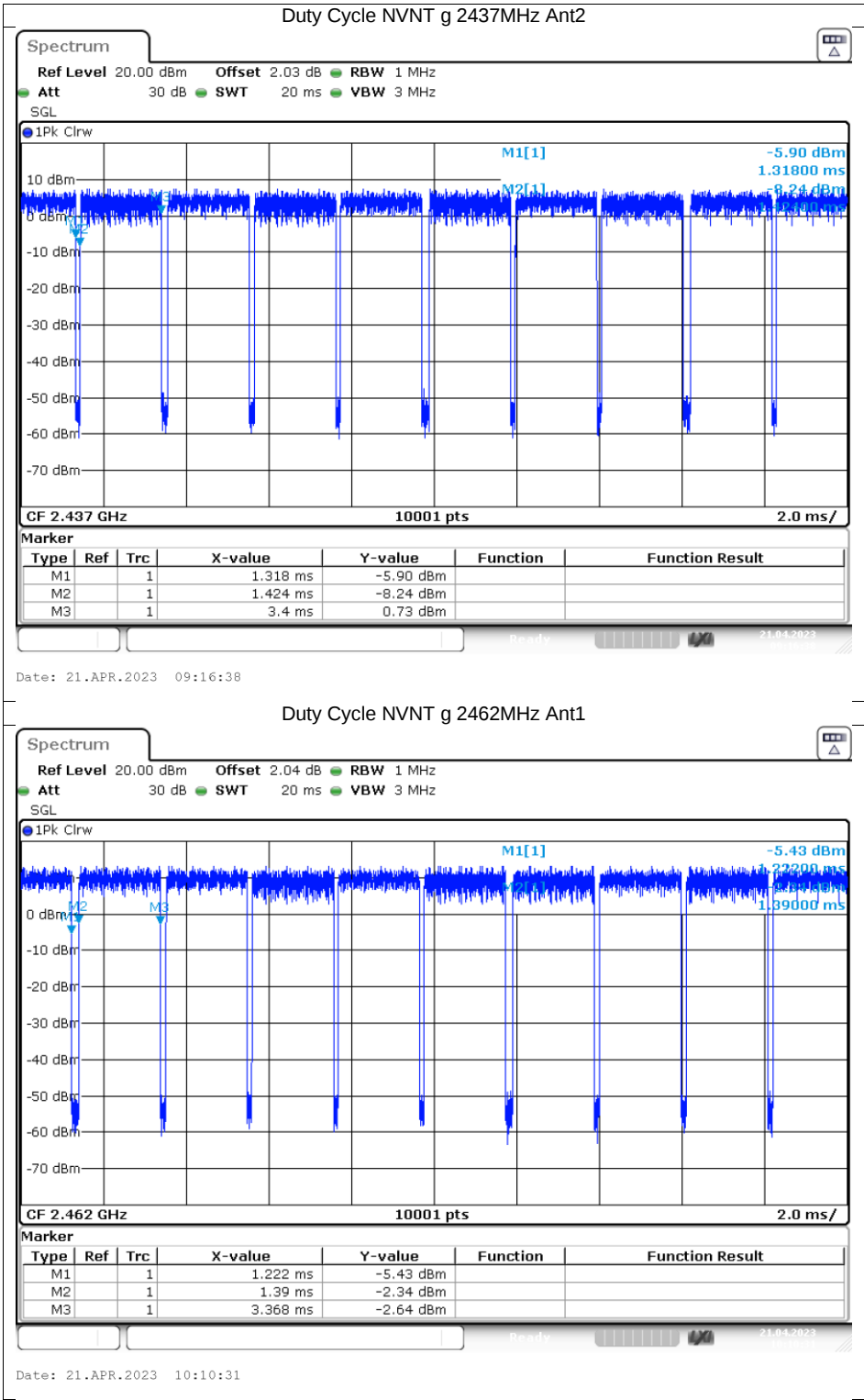


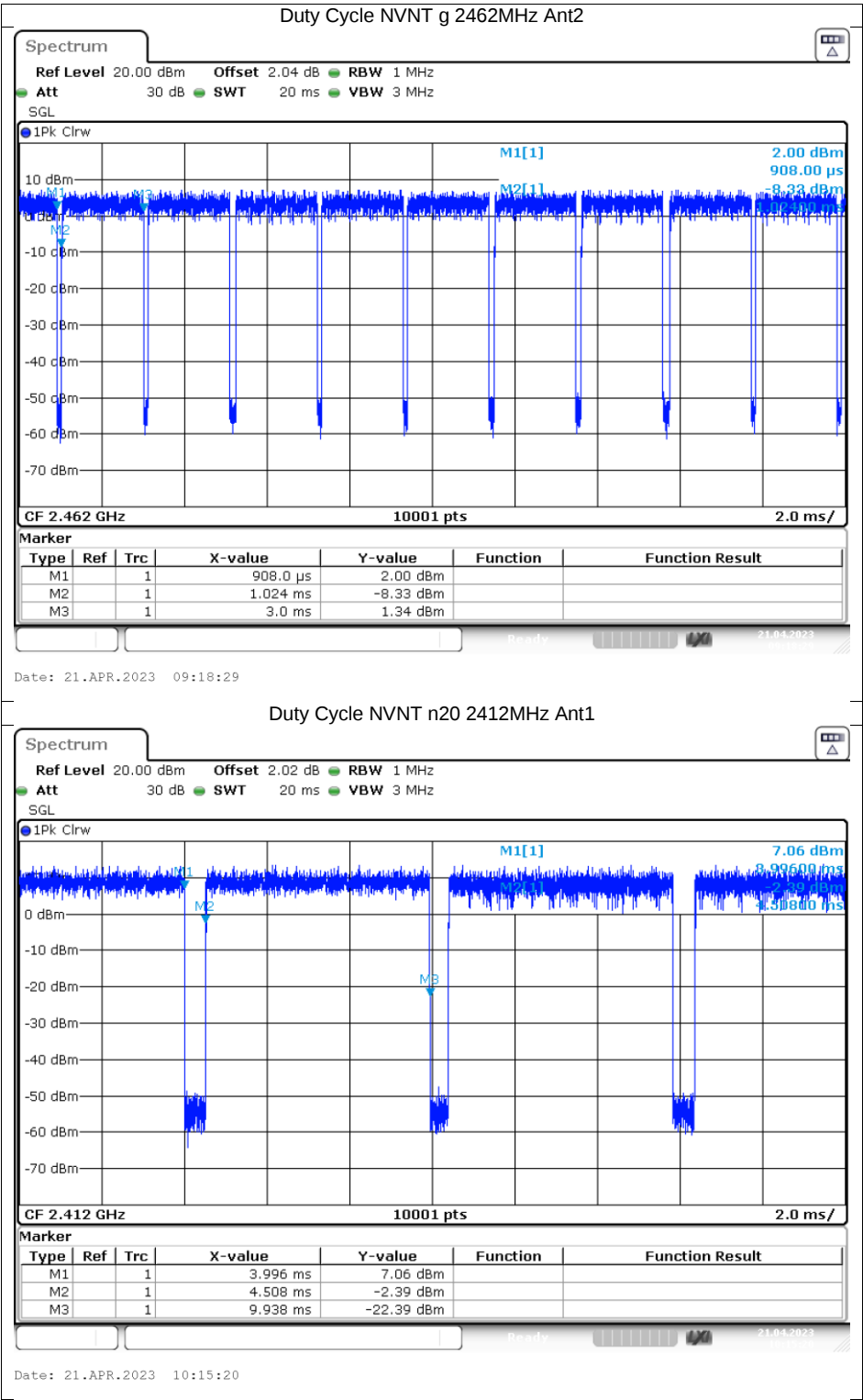


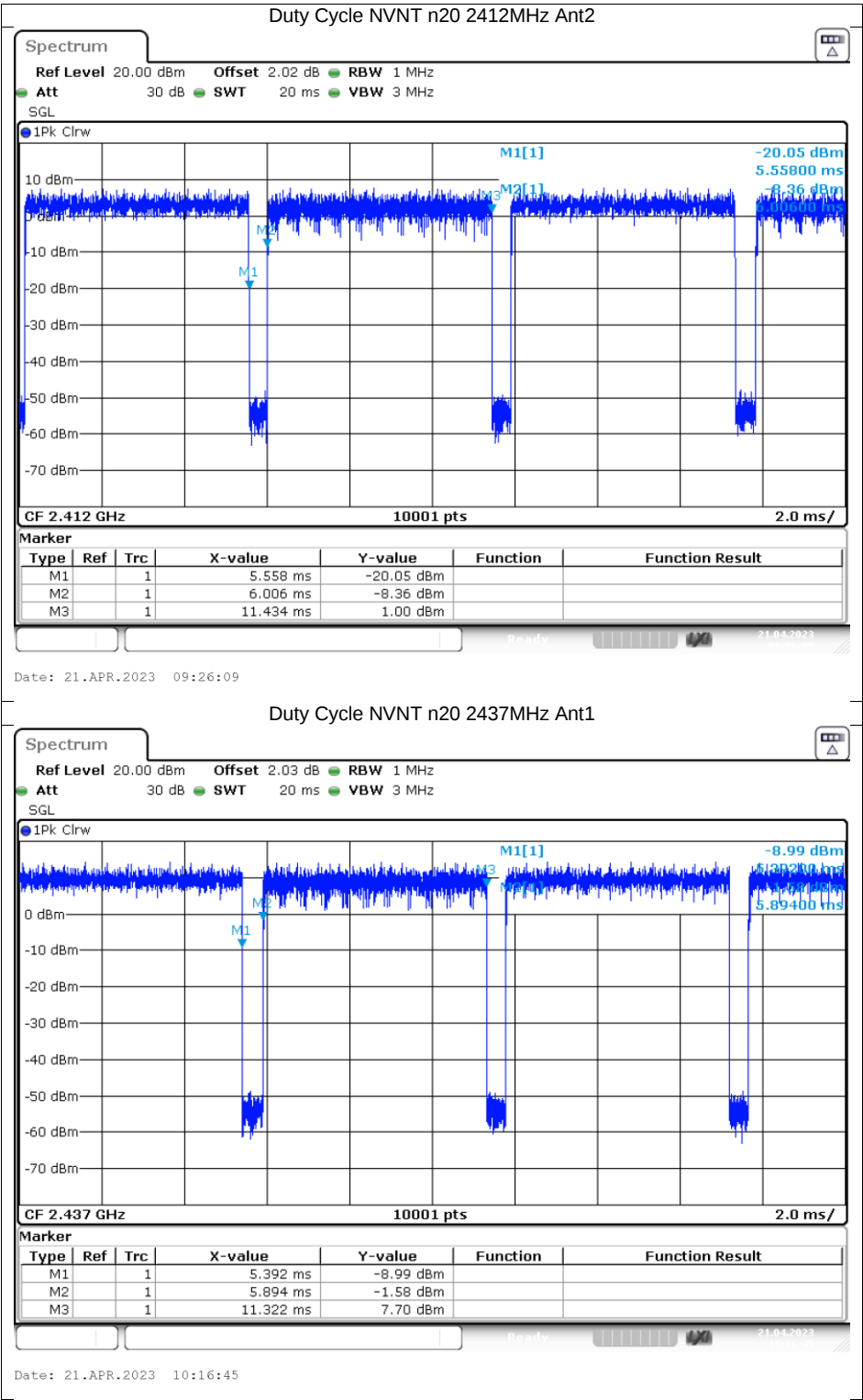


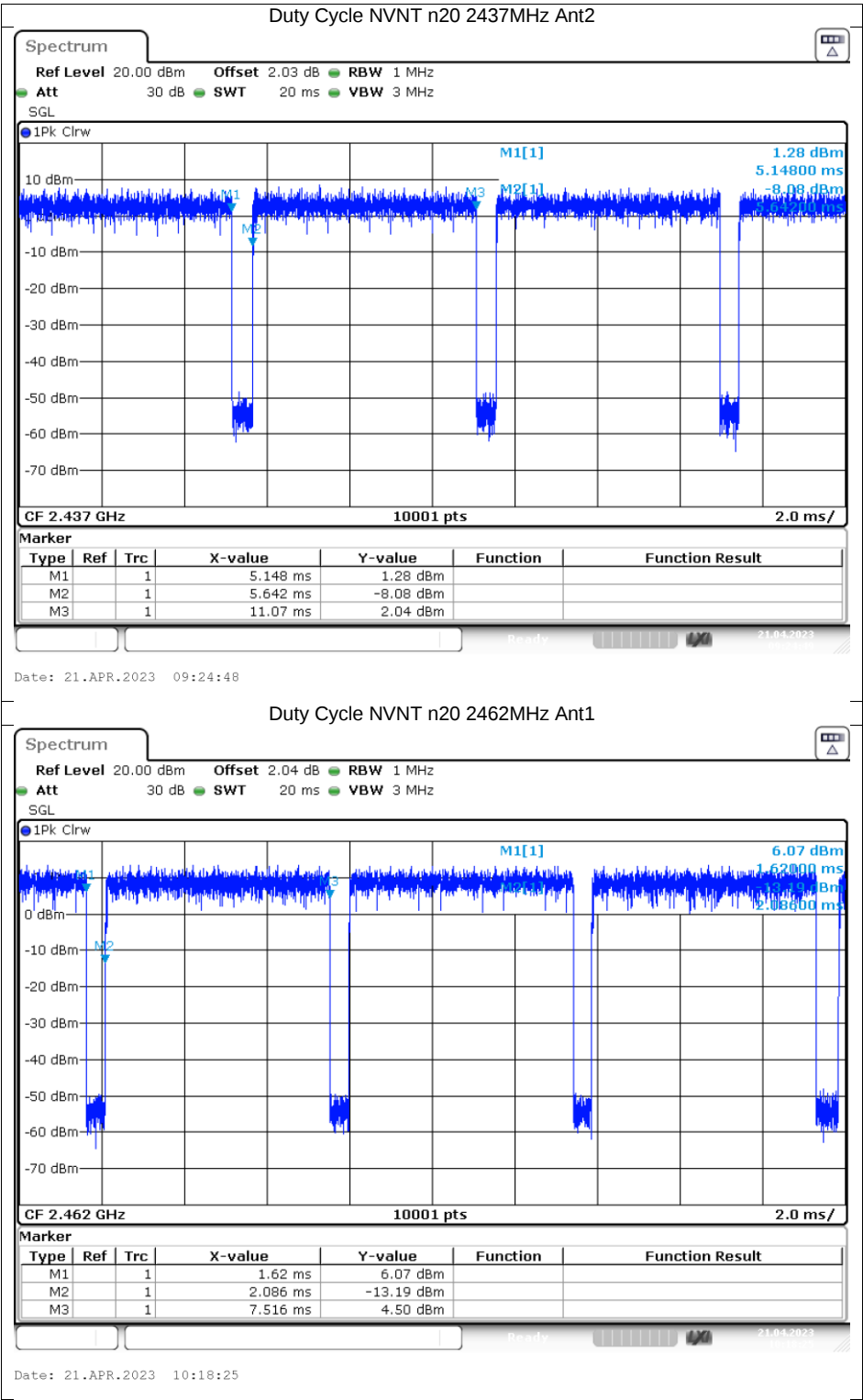


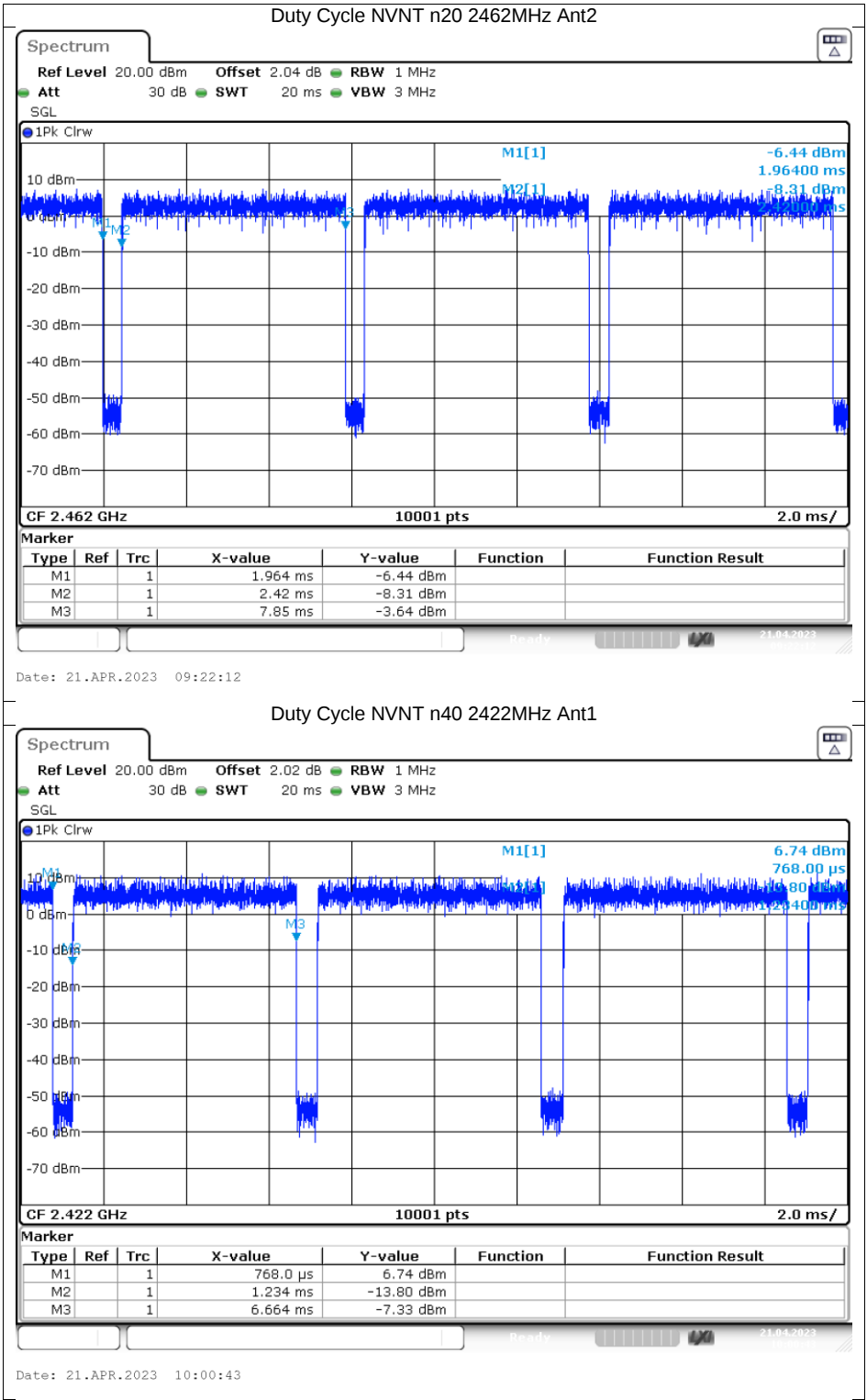


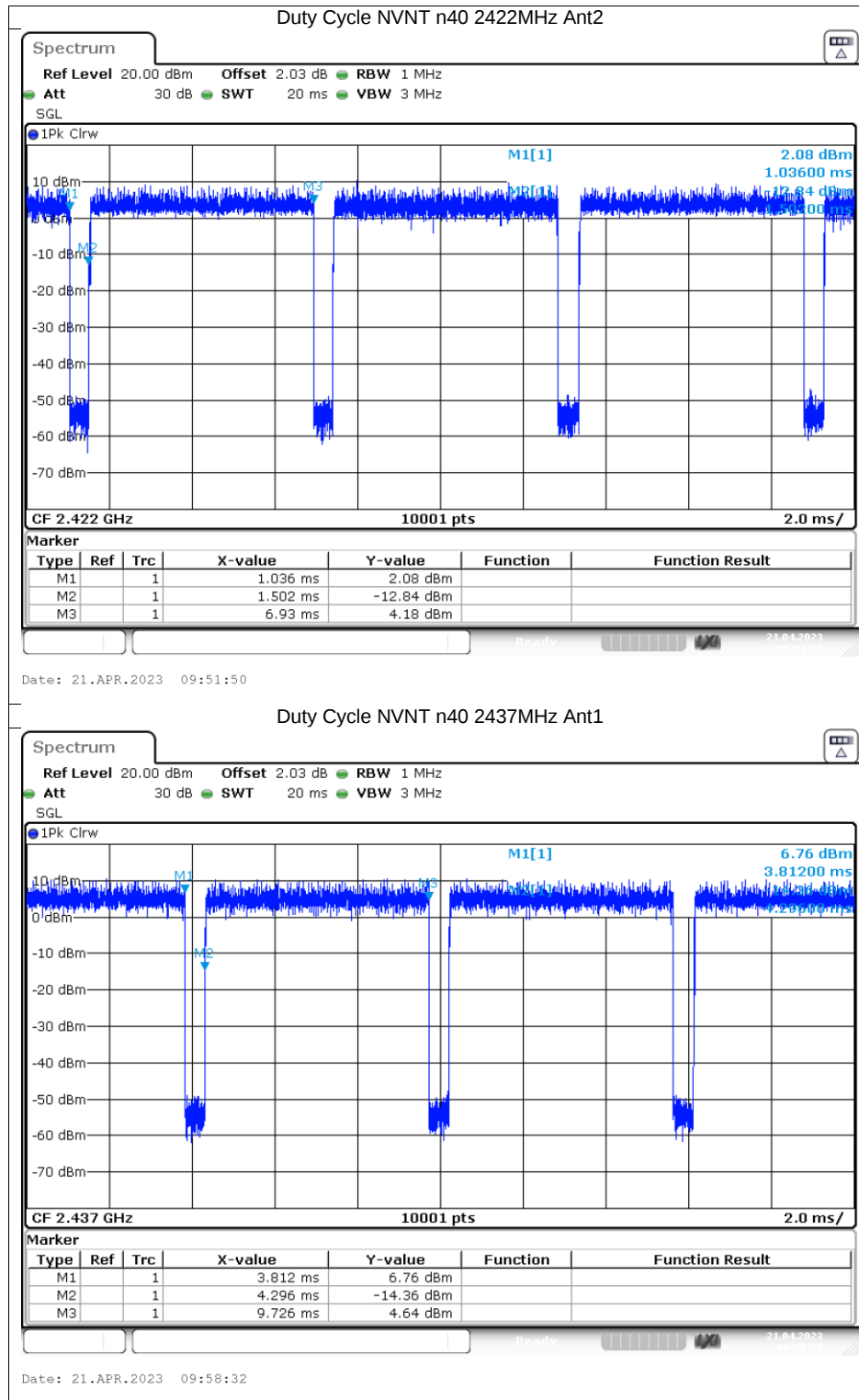


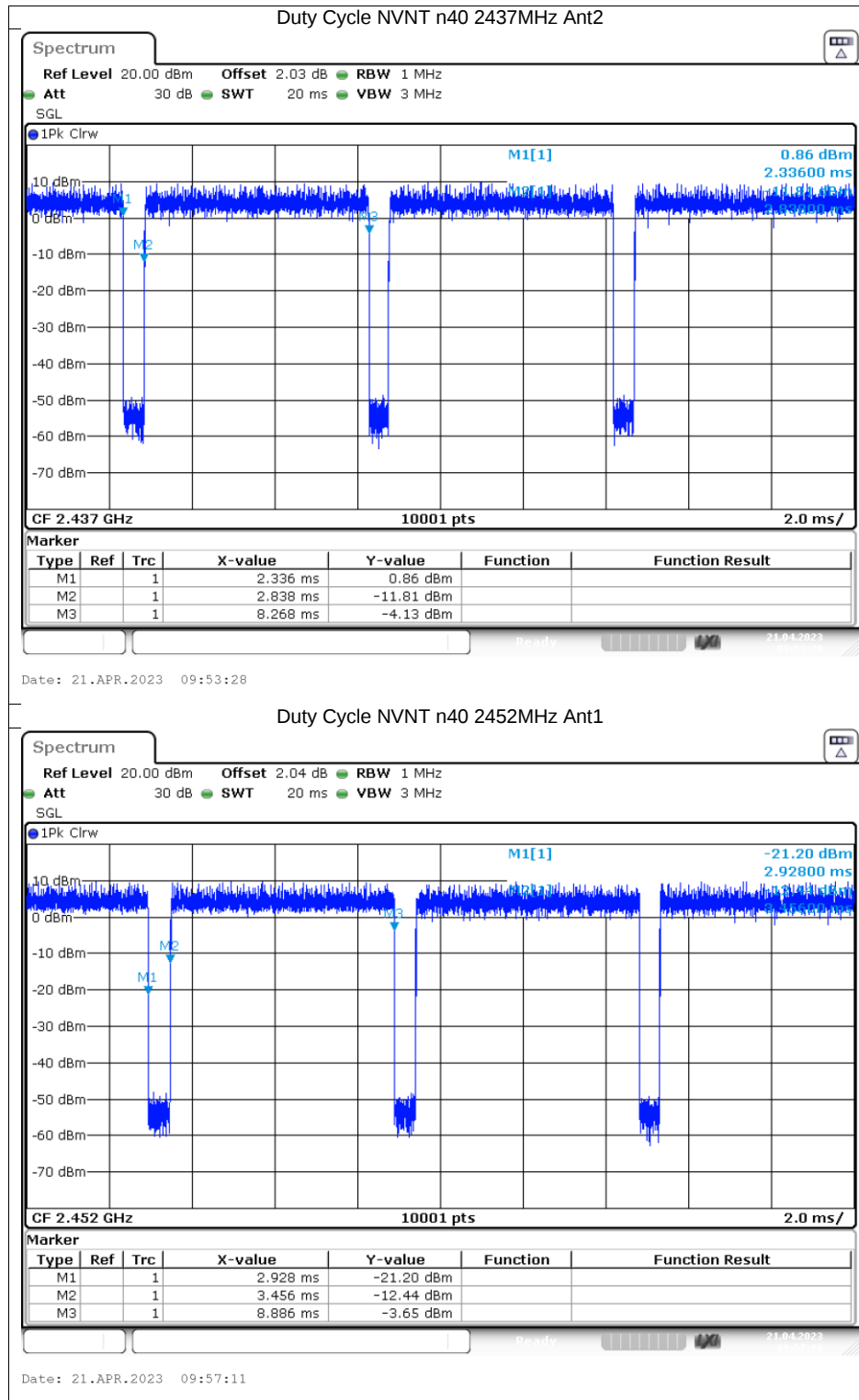


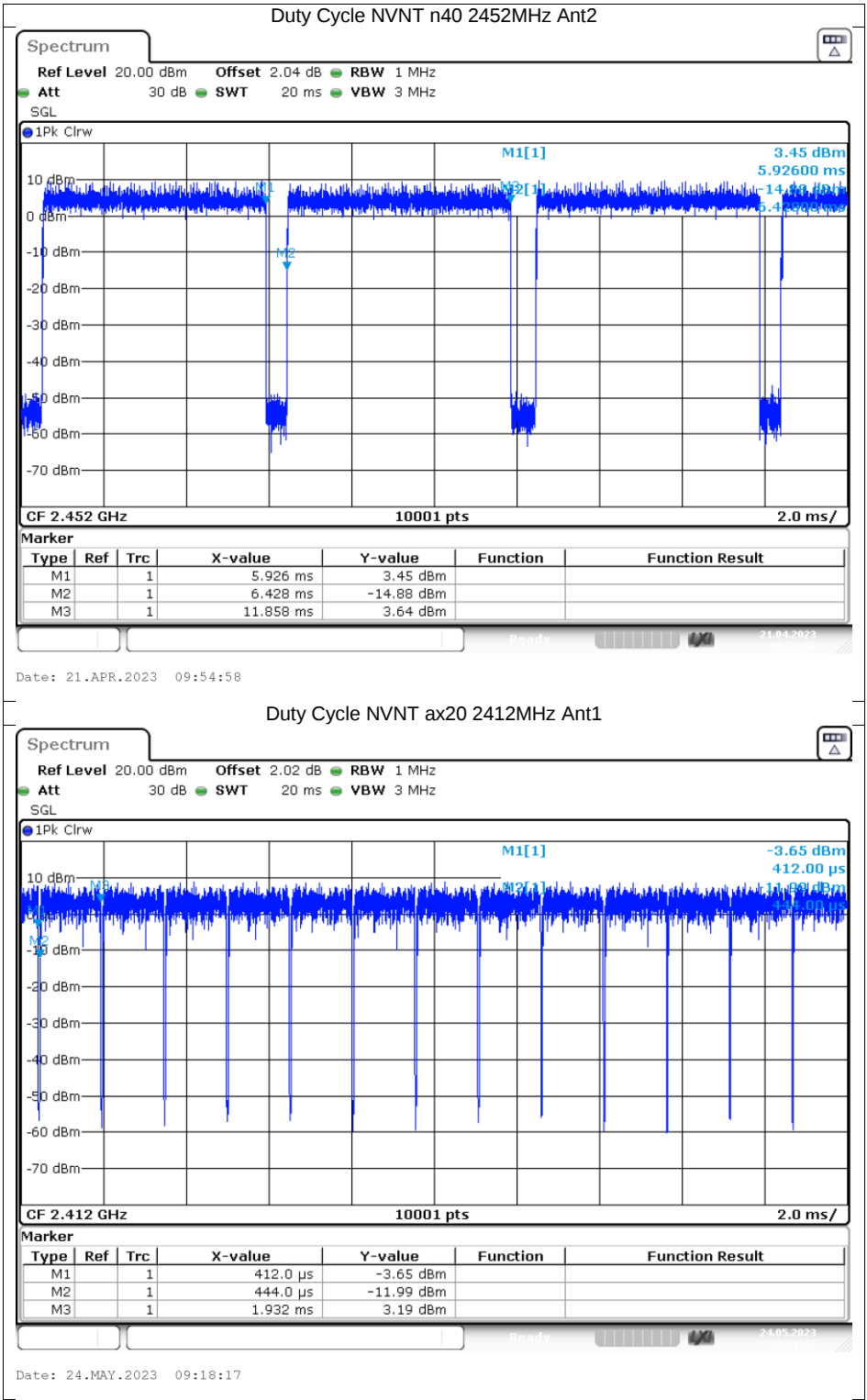


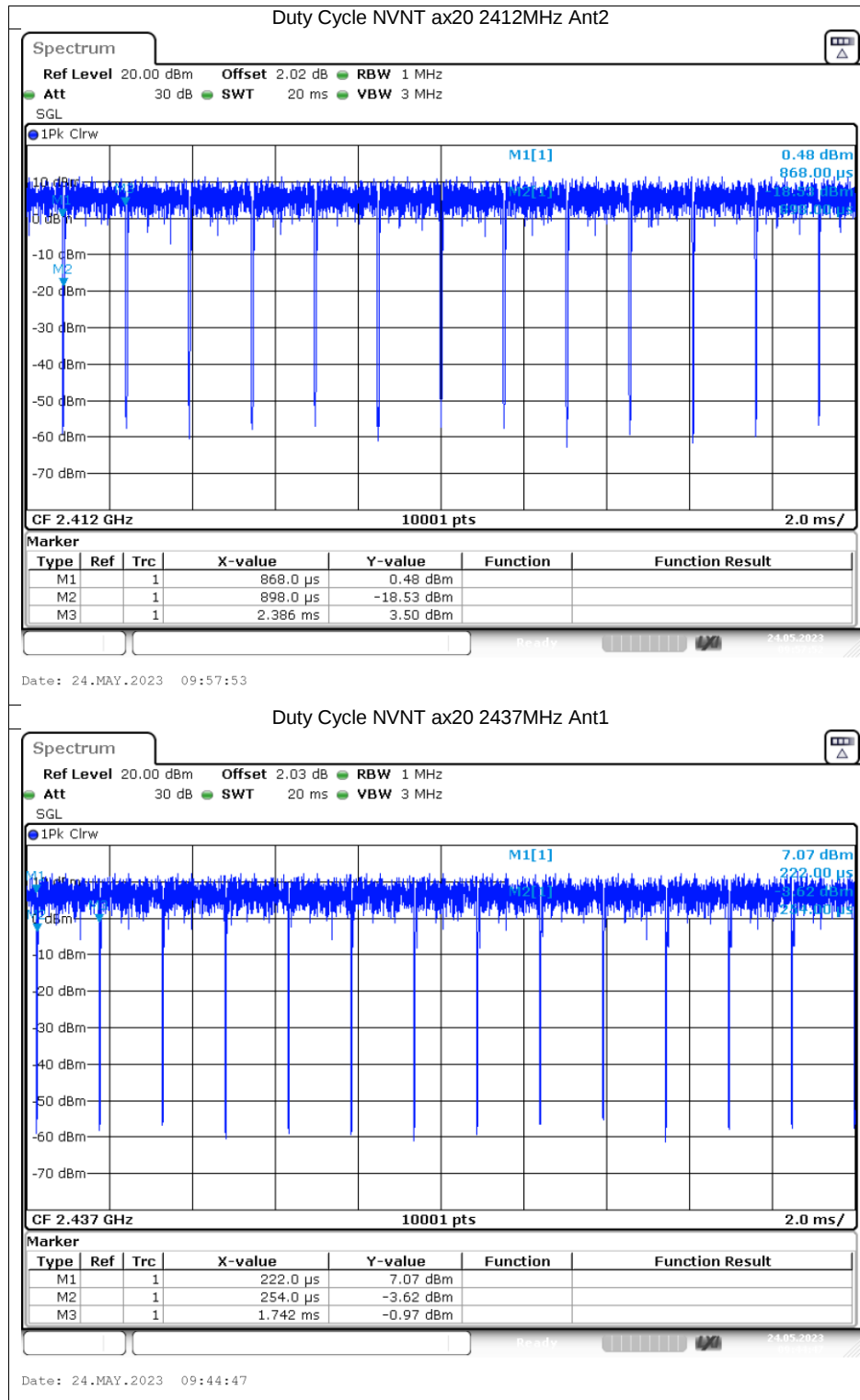


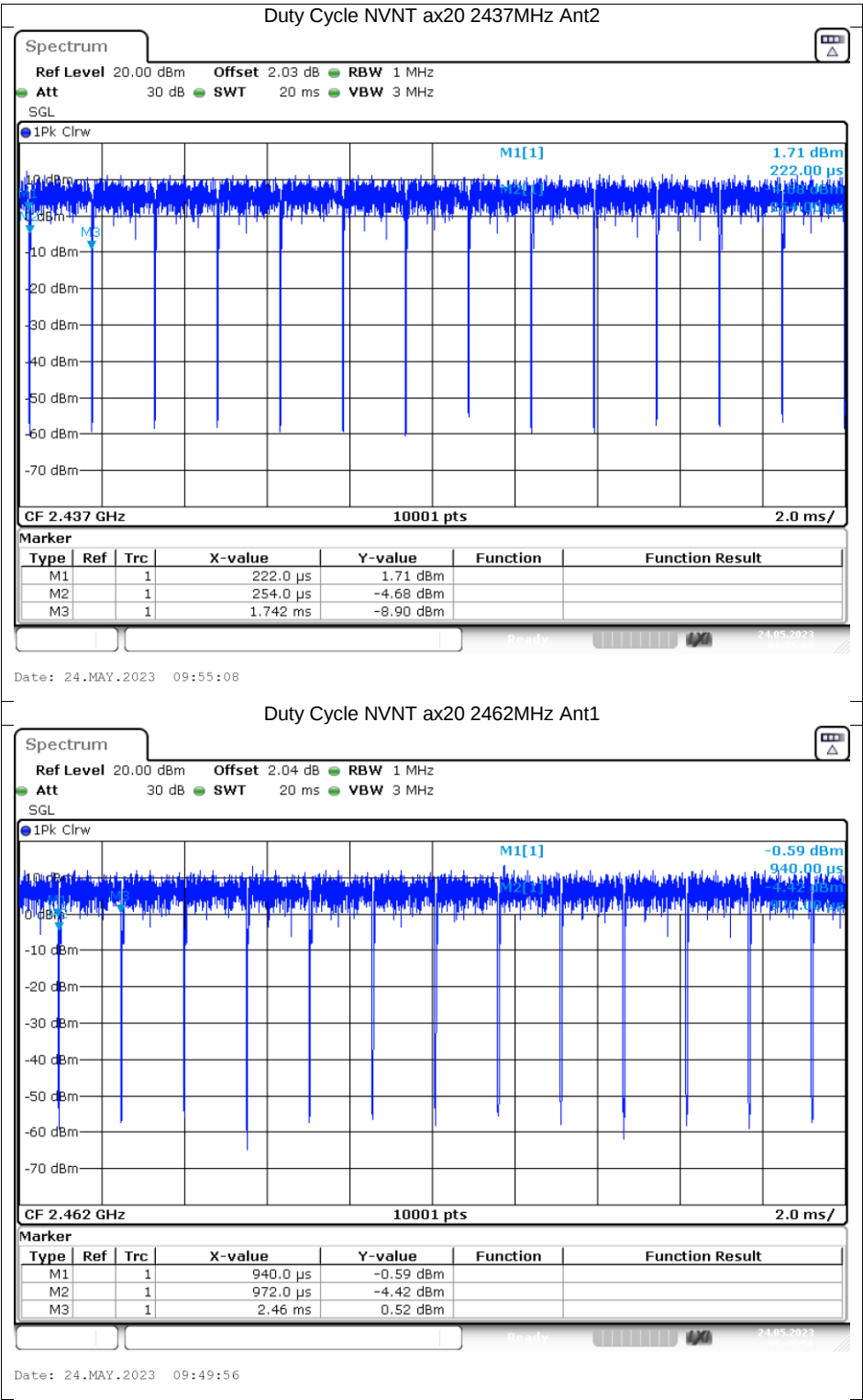


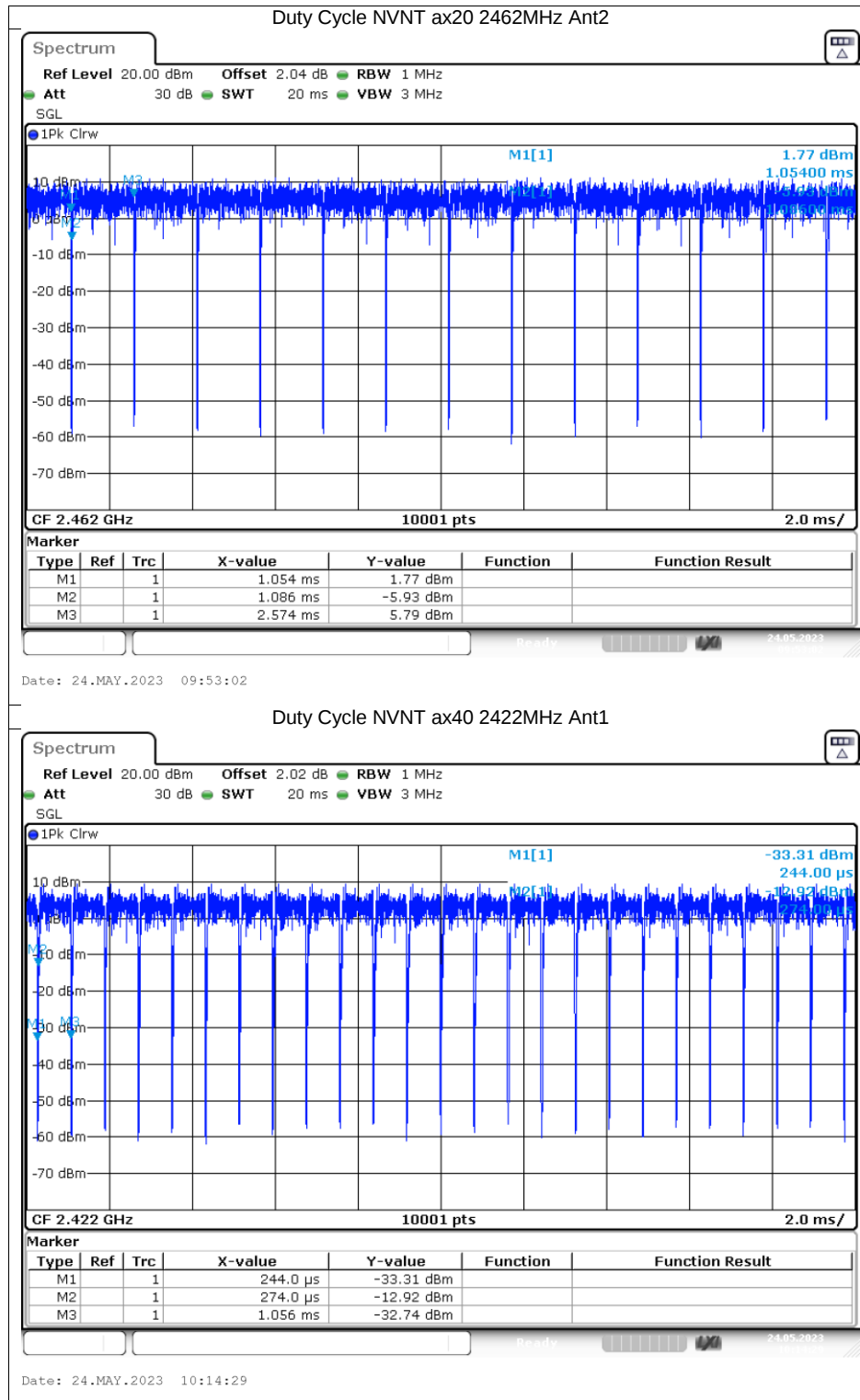


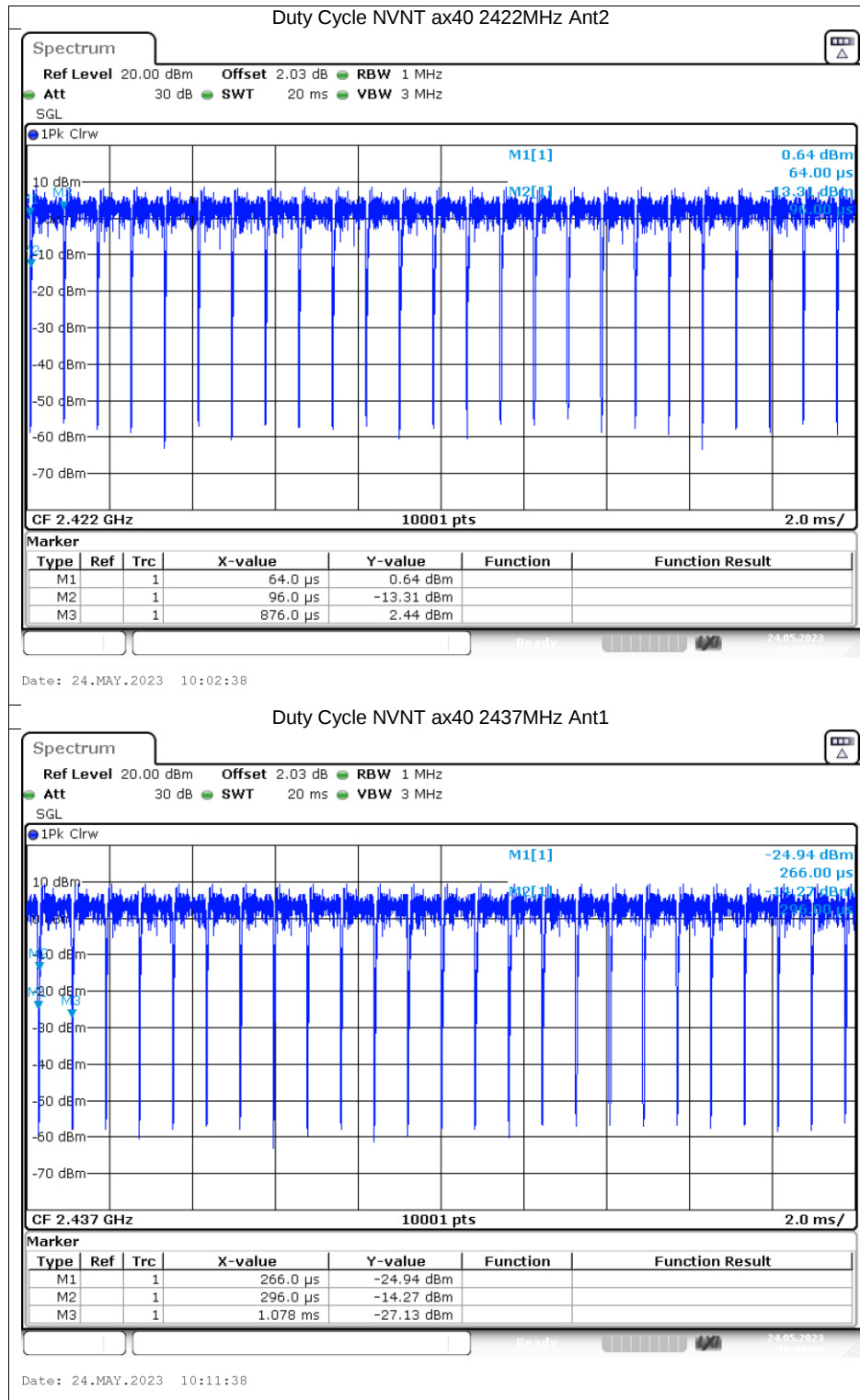


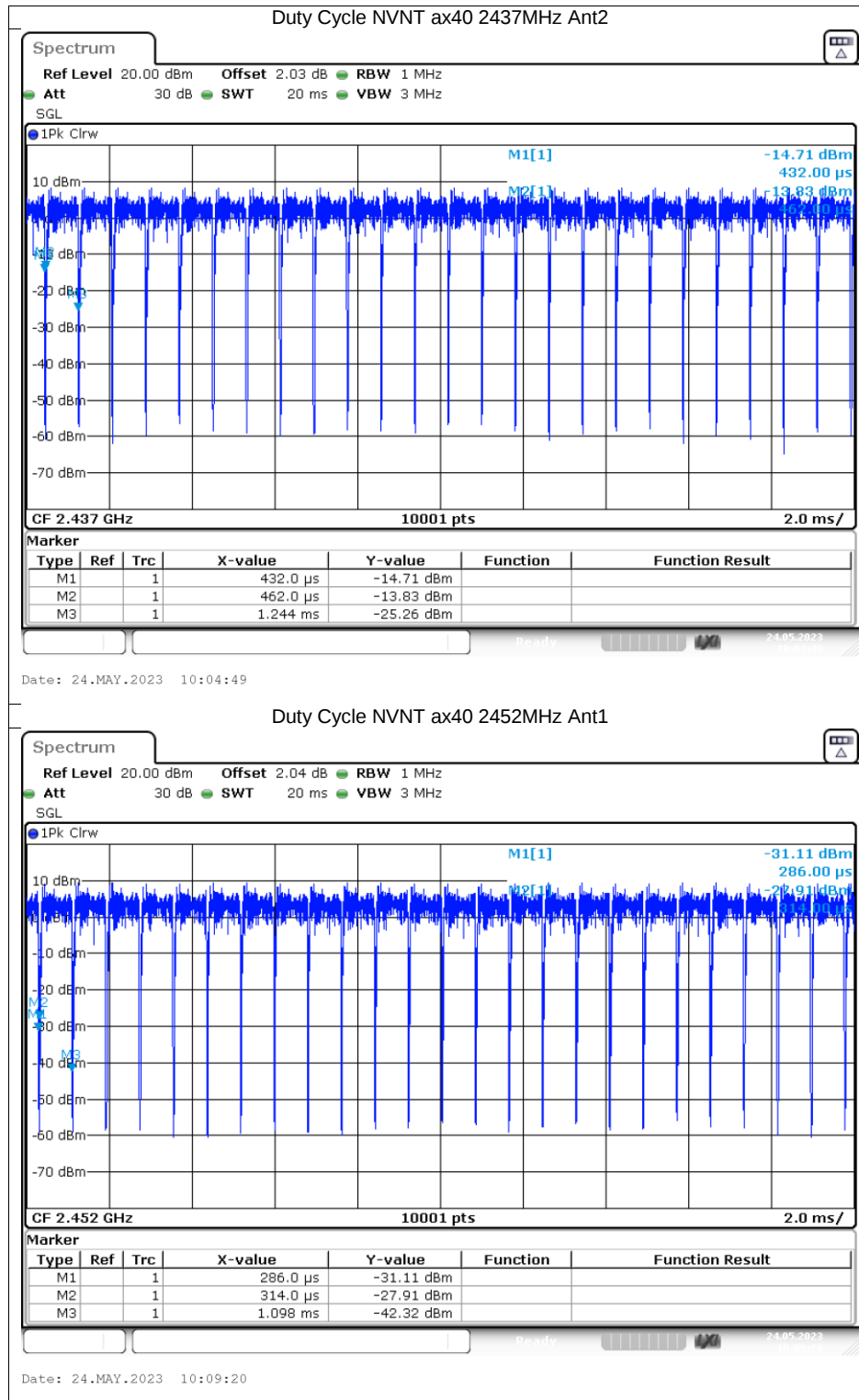


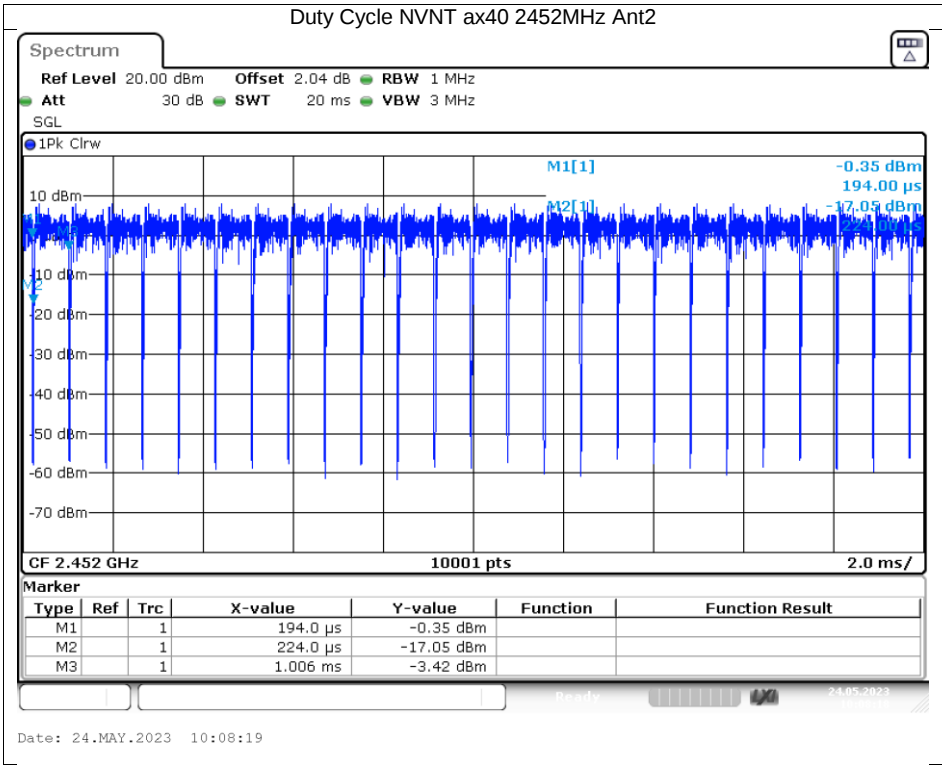












Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	17.1	30	Pass
NVNT	b	2412	Ant2	16.55	30	Pass
NVNT	b	2437	Ant1	16.34	30	Pass
NVNT	b	2437	Ant2	16.81	30	Pass
NVNT	b	2462	Ant1	15.87	30	Pass
NVNT	b	2462	Ant2	16.74	30	Pass
NVNT	g	2412	Ant1	16.14	30	Pass
NVNT	g	2412	Ant2	16.67	30	Pass
NVNT	g	2437	Ant1	16.64	30	Pass
NVNT	g	2437	Ant2	16.98	30	Pass
NVNT	g	2462	Ant1	16.08	30	Pass
NVNT	g	2462	Ant2	16.89	30	Pass
NVNT	n20	2412	Ant1	15.74	30	Pass
NVNT	n20	2412	Ant2	16.34	30	Pass
NVNT	n20	2412	Sum	19.06	29.38	Pass
NVNT	n20	2437	Ant1	16.13	30	Pass
NVNT	n20	2437	Ant2	16.65	30	Pass
NVNT	n20	2437	Sum	19.41	29.38	Pass
NVNT	n20	2462	Ant1	15.61	30	Pass
NVNT	n20	2462	Ant2	16.5	30	Pass
NVNT	n20	2462	Sum	19.09	29.38	Pass
NVNT	n40	2422	Ant1	18.32	30	Pass
NVNT	n40	2422	Ant2	16.72	30	Pass
NVNT	n40	2422	Sum	20.6	29.38	Pass
NVNT	n40	2437	Ant1	17.9	30	Pass
NVNT	n40	2437	Ant2	17.16	30	Pass
NVNT	n40	2437	Sum	20.56	29.38	Pass
NVNT	n40	2452	Ant1	17.15	30	Pass
NVNT	n40	2452	Ant2	17.16	30	Pass
NVNT	n40	2452	Sum	20.17	29.38	Pass
NVNT	ax20	2412	Ant1	16.41	30	Pass
NVNT	ax20	2412	Ant2	15.46	30	Pass
NVNT	ax20	2412	Sum	18.97	29.38	Pass
NVNT	ax20	2437	Ant1	16.45	30	Pass
NVNT	ax20	2437	Ant2	15.42	30	Pass
NVNT	ax20	2437	Sum	18.98	29.38	Pass
NVNT	ax20	2462	Ant1	16.13	30	Pass
NVNT	ax20	2462	Ant2	15.19	30	Pass
NVNT	ax20	2462	Sum	18.7	29.38	Pass
NVNT	ax40	2422	Ant1	16.36	30	Pass
NVNT	ax40	2422	Ant2	15.56	30	Pass
NVNT	ax40	2422	Sum	18.99	29.38	Pass
NVNT	ax40	2437	Ant1	16.26	30	Pass
NVNT	ax40	2437	Ant2	15.58	30	Pass
NVNT	ax40	2437	Sum	18.94	29.38	Pass
NVNT	ax40	2452	Ant1	16.31	30	Pass
NVNT	ax40	2452	Ant2	15.46	30	Pass
NVNT	ax40	2452	Sum	18.92	29.38	Pass

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Antenna Gain(dBi)	E.i.r.p (dBm)	Limit (dBm)	Verdict
NVNT	b	2412	Ant1	17.1	4.39	21.49	36.02	Pass
NVNT	b	2412	Ant2	16.55	2.75	19.30	36.02	Pass
NVNT	b	2437	Ant1	16.34	4.39	20.73	36.02	Pass
NVNT	b	2437	Ant2	16.81	2.75	19.56	36.02	Pass
NVNT	b	2462	Ant1	15.87	4.39	20.26	36.02	Pass
NVNT	b	2462	Ant2	16.74	2.75	19.49	36.02	Pass
NVNT	g	2412	Ant1	16.14	4.39	20.53	36.02	Pass
NVNT	g	2412	Ant2	16.67	2.75	19.42	36.02	Pass
NVNT	g	2437	Ant1	16.64	4.39	21.03	36.02	Pass
NVNT	g	2437	Ant2	16.98	2.75	19.73	36.02	Pass
NVNT	g	2462	Ant1	16.08	4.39	20.47	36.02	Pass
NVNT	g	2462	Ant2	16.89	2.75	19.64	36.02	Pass
NVNT	n20	2412	Ant1	15.74	4.39	20.13	36.02	Pass
NVNT	n20	2412	Ant2	16.34	2.75	19.09	36.02	Pass
NVNT	n20	2412	Sum	19.06	-	22.65	35.4	Pass
NVNT	n20	2437	Ant1	16.13	4.39	20.52	36.02	Pass
NVNT	n20	2437	Ant2	16.65	2.75	19.4	36.02	Pass
NVNT	n20	2437	Sum	19.41	-	23.01	35.4	Pass
NVNT	n20	2462	Ant1	15.61	4.39	20	36.02	Pass
NVNT	n20	2462	Ant2	16.5	2.75	19.25	36.02	Pass
NVNT	n20	2462	Sum	19.09	-	22.65	35.4	Pass
NVNT	n40	2422	Ant1	18.32	4.39	22.71	36.02	Pass
NVNT	n40	2422	Ant2	16.72	2.75	19.47	36.02	Pass
NVNT	n40	2422	Sum	20.6	-	24.40	35.4	Pass
NVNT	n40	2437	Ant1	17.9	4.39	22.29	36.02	Pass
NVNT	n40	2437	Ant2	17.16	2.75	19.91	36.02	Pass
NVNT	n40	2437	Sum	20.56	-	24.27	35.4	Pass
NVNT	n40	2452	Ant1	17.15	4.39	21.54	36.02	Pass
NVNT	n40	2452	Ant2	17.16	2.75	19.91	36.02	Pass
NVNT	n40	2452	Sum	20.17	-	23.81	35.4	Pass
NVNT	ax20	2412	Ant1	16.41	4.39	20.8	36.02	Pass
NVNT	ax20	2412	Ant2	15.46	2.75	18.21	36.02	Pass
NVNT	ax20	2412	Sum	18.97	-	22.71	35.4	Pass
NVNT	ax20	2437	Ant1	16.45	4.39	20.84	36.02	Pass
NVNT	ax20	2437	Ant2	15.42	2.75	18.17	36.02	Pass
NVNT	ax20	2437	Sum	18.98	-	22.72	35.4	Pass
NVNT	ax20	2462	Ant1	16.13	4.39	20.52	36.02	Pass
NVNT	ax20	2462	Ant2	15.19	2.75	17.94	36.02	Pass
NVNT	ax20	2462	Sum	18.7	-	22.43	35.4	Pass
NVNT	ax40	2422	Ant1	16.36	4.39	20.75	36.02	Pass
NVNT	ax40	2422	Ant2	15.56	2.75	18.31	36.02	Pass
NVNT	ax40	2422	Sum	18.99	-	22.71	35.4	Pass
NVNT	ax40	2437	Ant1	16.26	4.39	20.65	36.02	Pass
NVNT	ax40	2437	Ant2	15.58	2.75	18.33	36.02	Pass
NVNT	ax40	2437	Sum	18.94	-	22.65	35.4	Pass
NVNT	ax40	2452	Ant1	16.31	4.39	20.7	36.02	Pass
NVNT	ax40	2452	Ant2	15.46	2.75	18.21	36.02	Pass
NVNT	ax40	2452	Sum	18.92	-	22.64	35.4	Pass

-6dB Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	b	2412	Ant1	8.043	0.5	Pass
NVNT	b	2412	Ant2	7.056	0.5	Pass
NVNT	b	2437	Ant1	7.506	0.5	Pass
NVNT	b	2437	Ant2	7.068	0.5	Pass
NVNT	b	2462	Ant1	7.551	0.5	Pass
NVNT	b	2462	Ant2	7.596	0.5	Pass
NVNT	g	2412	Ant1	12.804	0.5	Pass
NVNT	g	2412	Ant2	15.054	0.5	Pass
NVNT	g	2437	Ant1	15.087	0.5	Pass
NVNT	g	2437	Ant2	13.779	0.5	Pass
NVNT	g	2462	Ant1	14.997	0.5	Pass
NVNT	g	2462	Ant2	15.042	0.5	Pass
NVNT	n20	2412	Ant1	14.997	0.5	Pass
NVNT	n20	2412	Ant2	12.492	0.5	Pass
NVNT	n20	2437	Ant1	11.295	0.5	Pass
NVNT	n20	2437	Ant2	15.042	0.5	Pass
NVNT	n20	2462	Ant1	13.797	0.5	Pass
NVNT	n20	2462	Ant2	9.651	0.5	Pass
NVNT	n40	2422	Ant1	36.294	0.5	Pass
NVNT	n40	2422	Ant2	31.26	0.5	Pass
NVNT	n40	2437	Ant1	31.92	0.5	Pass
NVNT	n40	2437	Ant2	33.768	0.5	Pass
NVNT	n40	2452	Ant1	33.78	0.5	Pass
NVNT	n40	2452	Ant2	31.218	0.5	Pass
NVNT	ax20	2412	Ant1	18.987	0.5	Pass
NVNT	ax20	2412	Ant2	18.957	0.5	Pass
NVNT	ax20	2437	Ant1	18.972	0.5	Pass
NVNT	ax20	2437	Ant2	18.99	0.5	Pass
NVNT	ax20	2462	Ant1	18.972	0.5	Pass
NVNT	ax20	2462	Ant2	18.951	0.5	Pass
NVNT	ax40	2422	Ant1	37.23	0.5	Pass
NVNT	ax40	2422	Ant2	37.59	0.5	Pass
NVNT	ax40	2437	Ant1	37.542	0.5	Pass
NVNT	ax40	2437	Ant2	37.56	0.5	Pass
NVNT	ax40	2452	Ant1	37.578	0.5	Pass
NVNT	ax40	2452	Ant2	37.608	0.5	Pass

