

Appendix: 2.4G Wi-Fi

Contents

Contents	2
1. Duty Cycle	4
1.1 Test Result	4
1.1.1 Ant1	4
1.1.2 Ant2	4
1.2 Test Graph	5
1.2.1 Ant1	5
1.2.2 Ant2	12
2. Bandwidth	19
2.1 Test Result	19
2.1.1 OBW	19
2.1.2 6dB BW	19
2.2 Test Graph	21
2.2.1 OBW	21
2.2.2 6dB BW	34
3. Maximum Conducted Output Power	47
3.1 Test Result	47
3.1.1 Power	47
4. Maximum Power Spectral Density	48
4.1 Test Result	48
4.1.1 PSD	48
4.2 Test Graph	49
4.2.1 PSD	49
5. Unwanted Emissions In Non-restricted Frequency Bands	65

5.1 Test Result 65

 5.1.1 Ref 65

 5.1.2 CSE 65

5.2 Test Graph 67

 5.2.1 Ref 67

 5.2.2 CSE 80

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

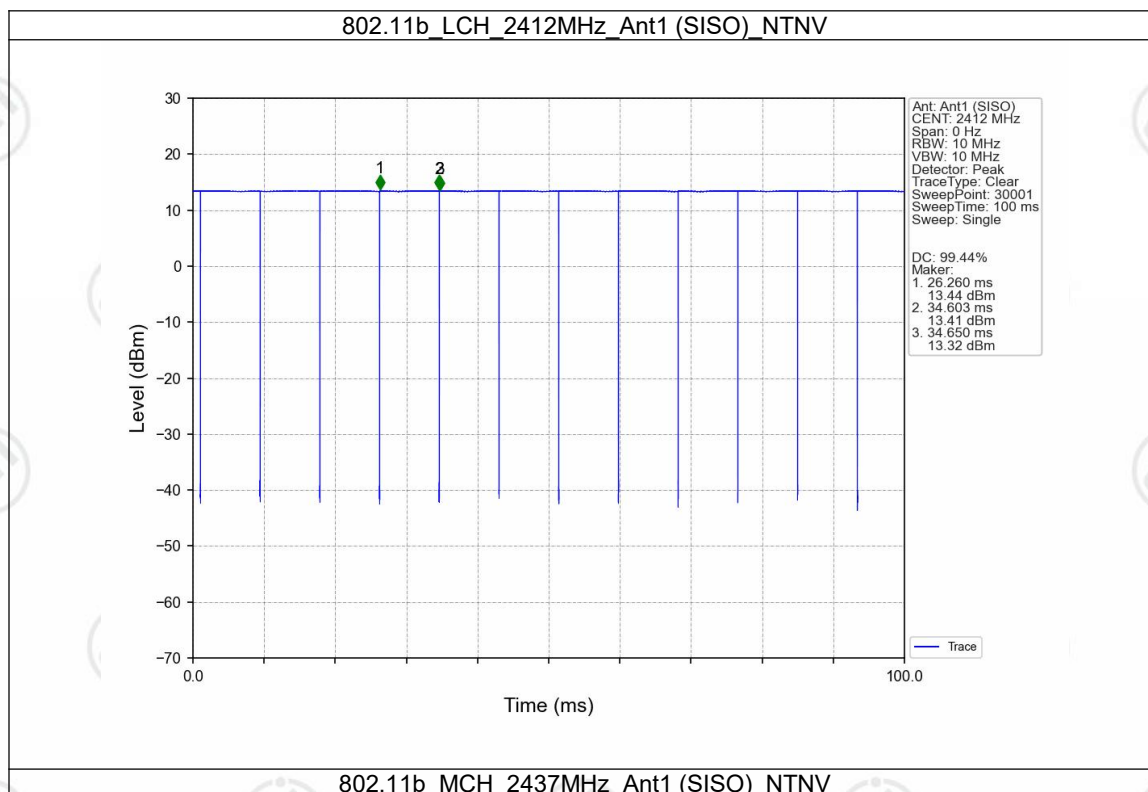
Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.343	8.390	99.44	0.02	0.04
		2437	8.343	8.390	99.44	0.02	0.04
		2462	8.347	8.394	99.44	0.02	0.00
802.11g	SISO	2412	2.085	2.137	97.57	0.11	0.10
		2437	2.085	2.134	97.70	0.10	0.07
		2462	2.085	2.137	97.57	0.11	0.10
802.11n (HT20)	MIMO	2412	7.893	7.946	99.33	0.03	0.03
		2437	7.894	7.943	99.38	0.03	0.03
		2462	7.891	7.944	99.33	0.03	0.03
802.11n (HT40)	MIMO	2422	7.896	7.949	99.33	0.03	0.03
		2437	7.910	7.964	99.32	0.03	0.04
		2452	7.910	7.963	99.33	0.03	0.04

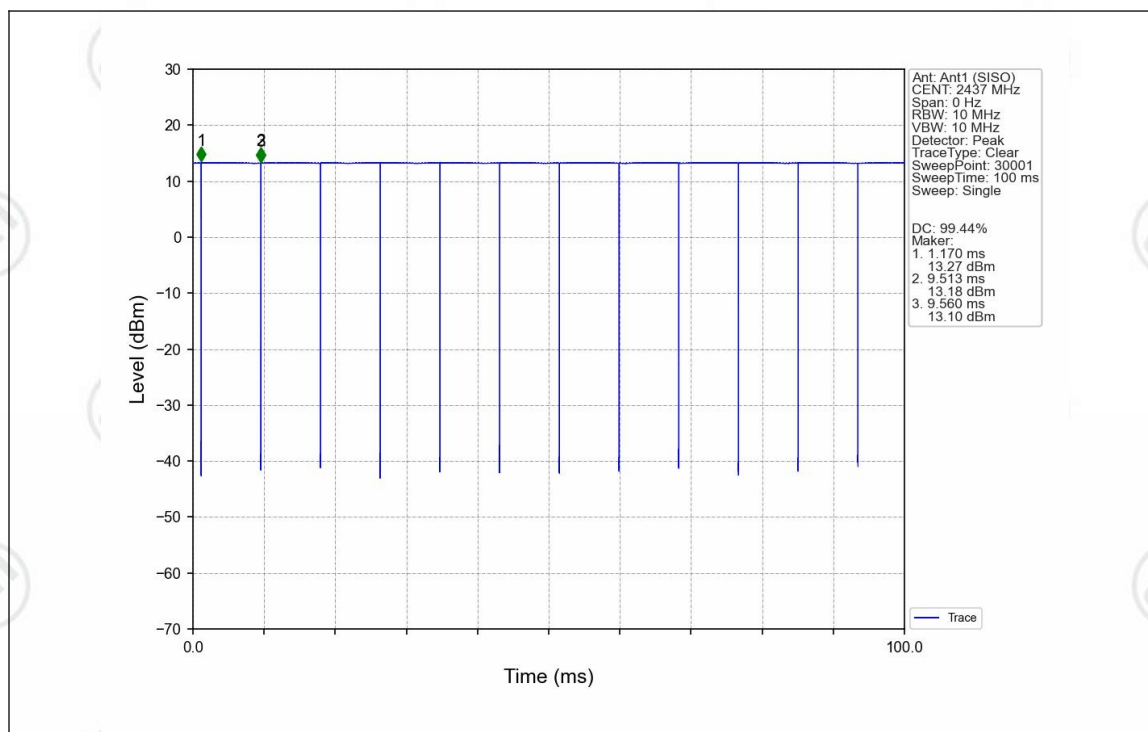
1.1.2 Ant2

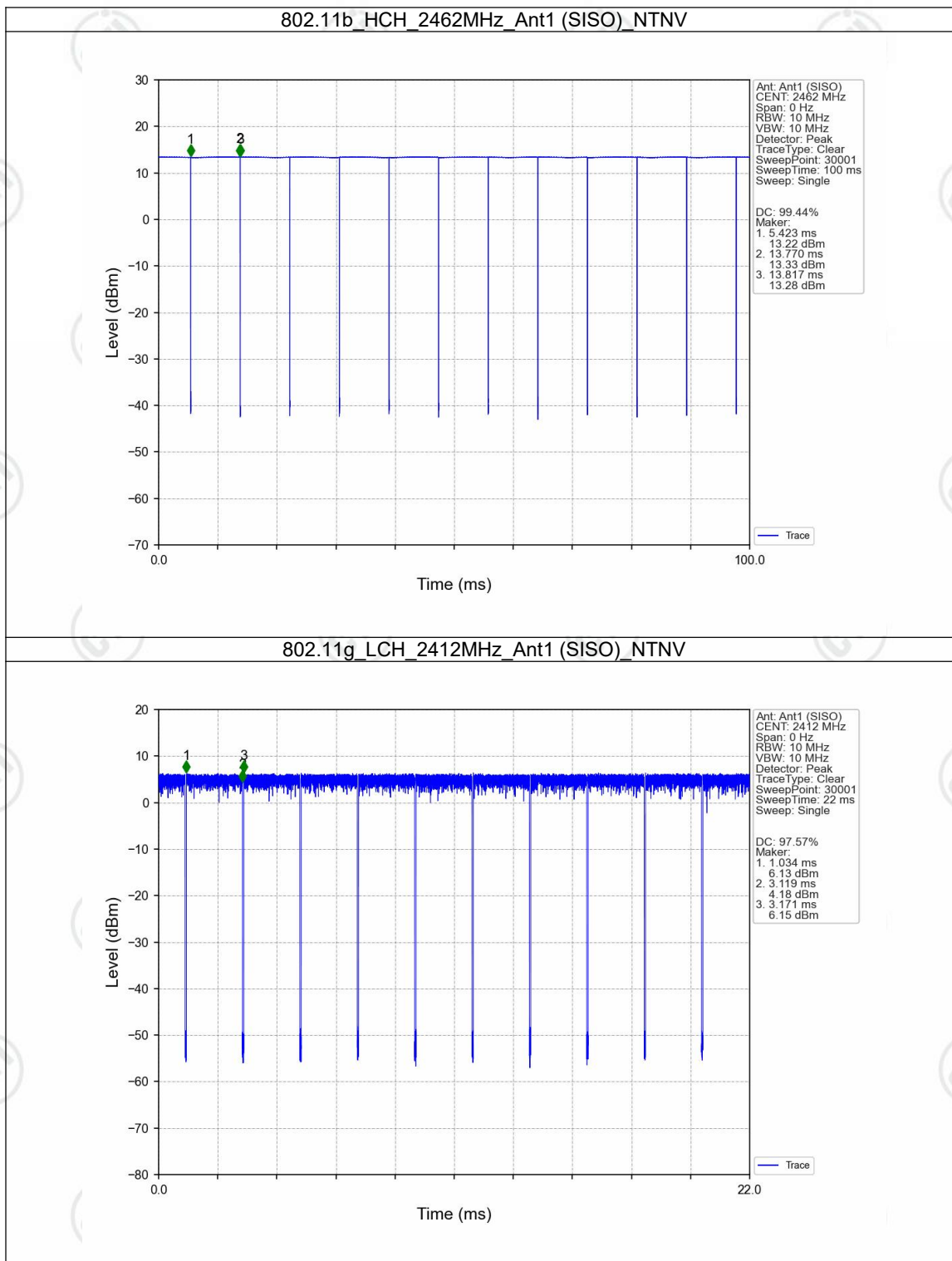
Ant2							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	8.343	8.390	99.44	0.02	0.04
		2437	8.343	8.390	99.44	0.02	0.04
		2462	8.344	8.390	99.45	0.02	0.04
802.11g	SISO	2412	2.085	2.137	97.57	0.11	0.13
		2437	2.085	2.133	97.75	0.10	0.03
		2462	2.085	2.137	97.57	0.11	0.07
802.11n (HT20)	MIMO	2412	7.891	7.944	99.33	0.03	0.03
		2437	7.904	7.954	99.37	0.03	0.04
		2462	7.890	7.943	99.33	0.03	0.03
802.11n (HT40)	MIMO	2422	7.910	7.964	99.32	0.03	0.04
		2437	7.897	7.949	99.35	0.03	0.03
		2452	7.910	7.963	99.33	0.03	0.04

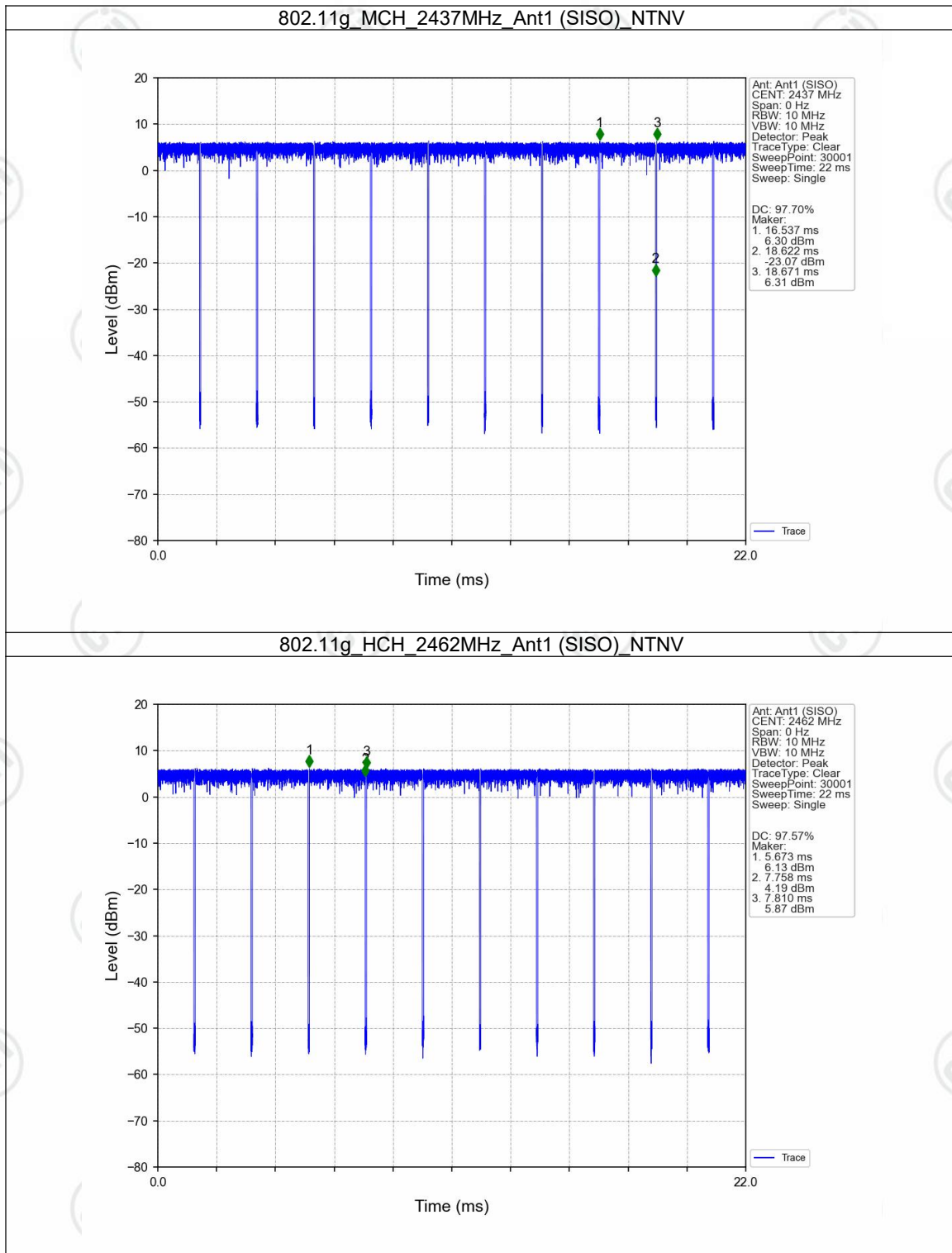
1.2 Test Graph

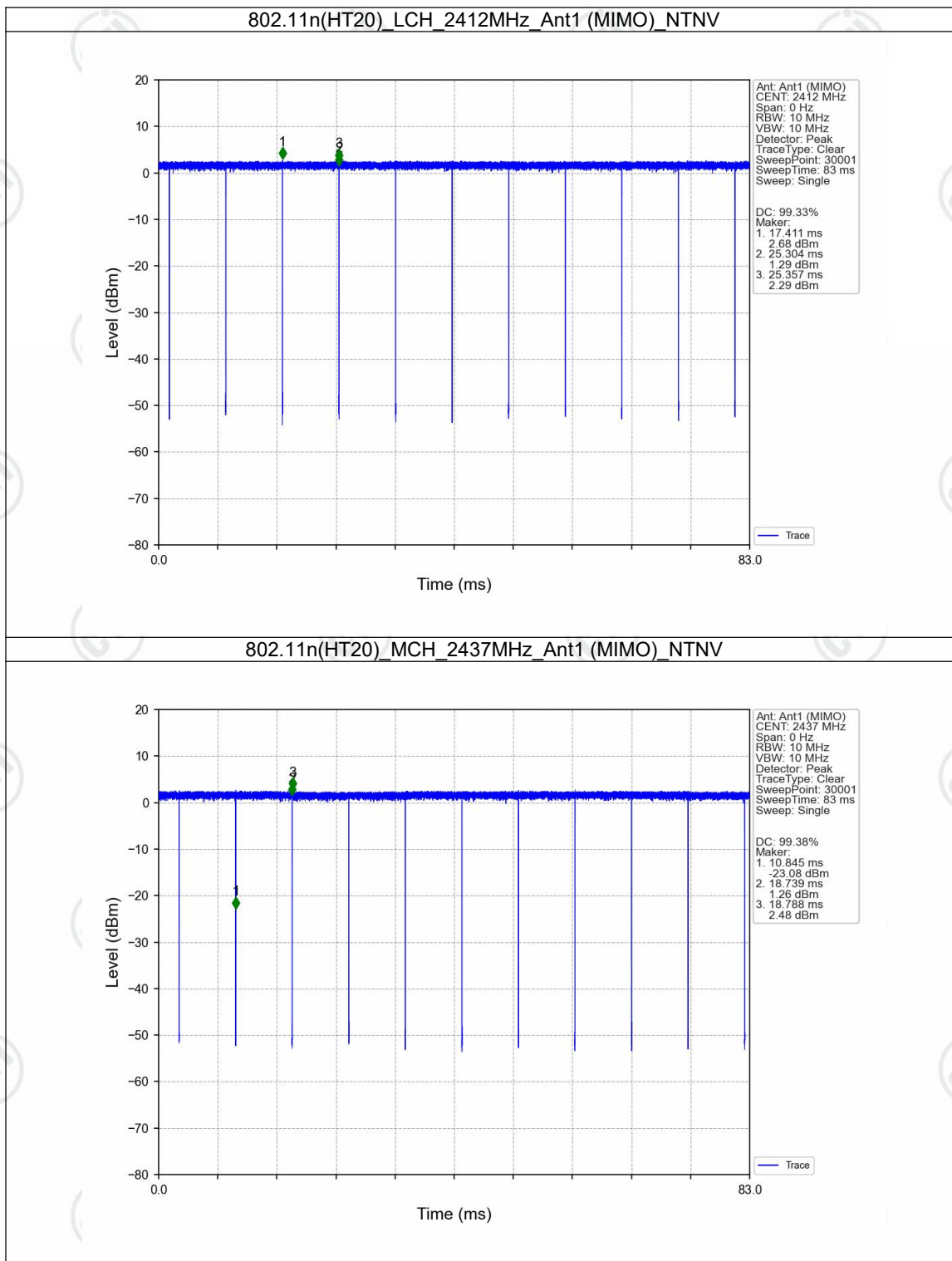
1.2.1 Ant1

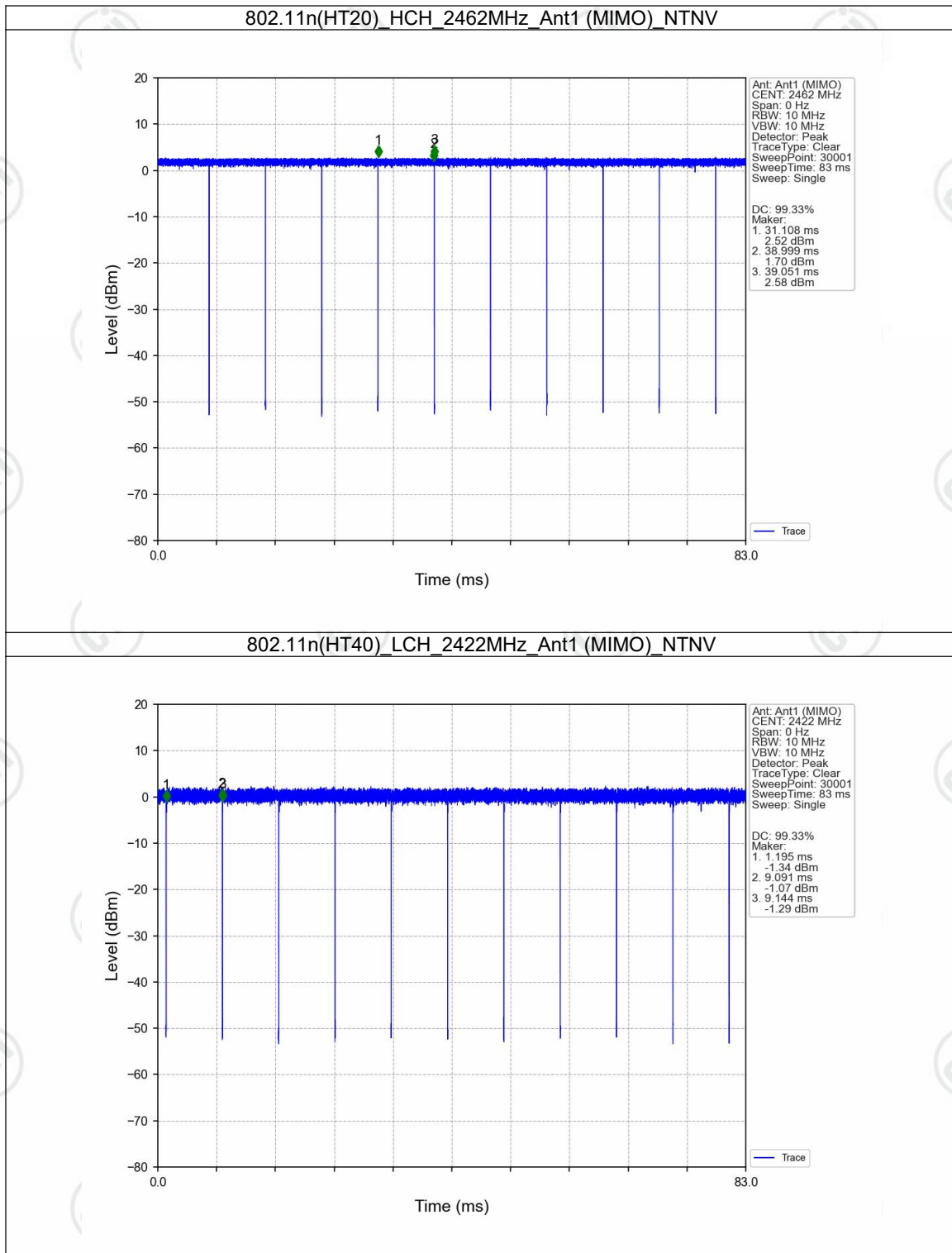


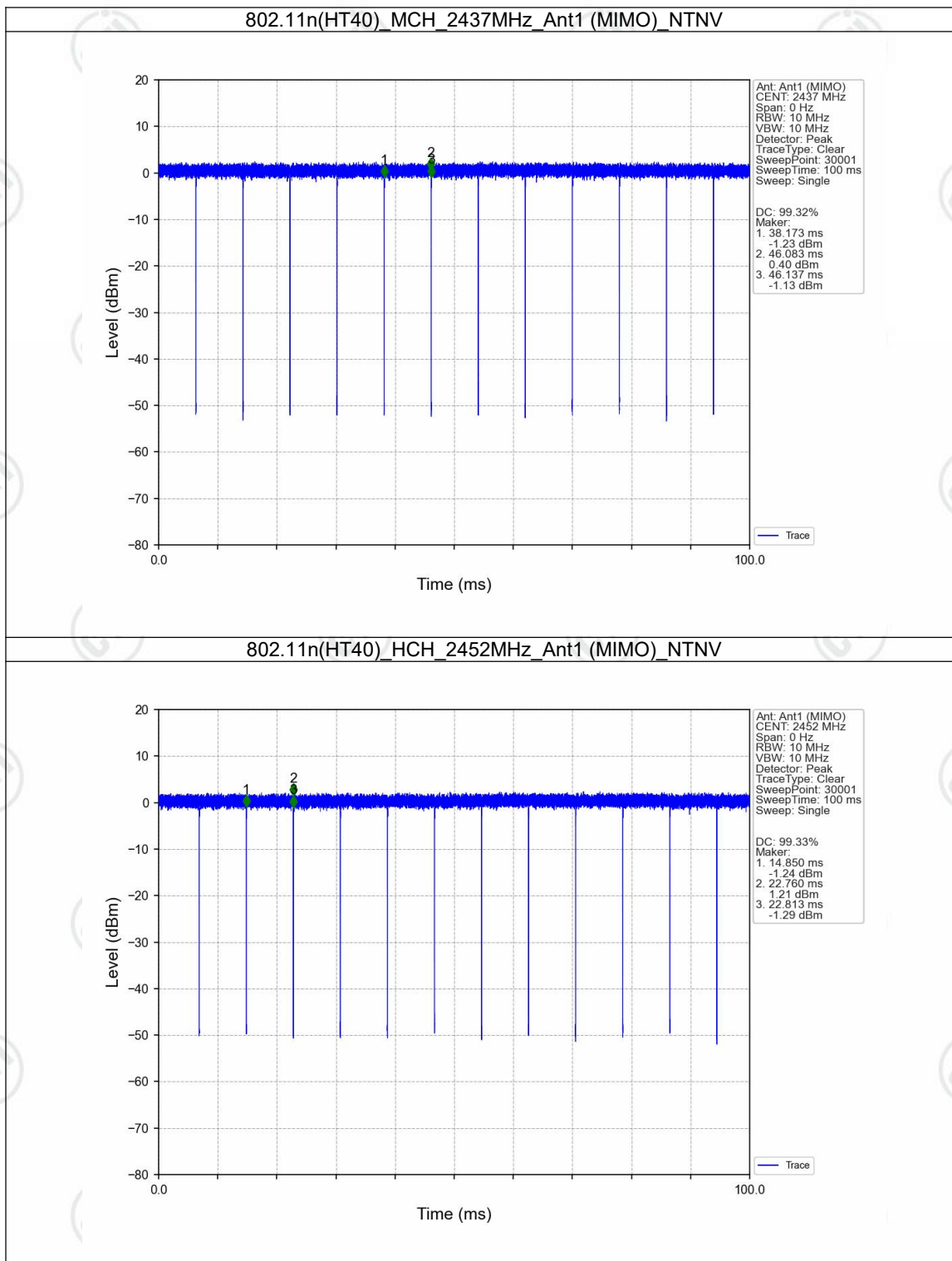




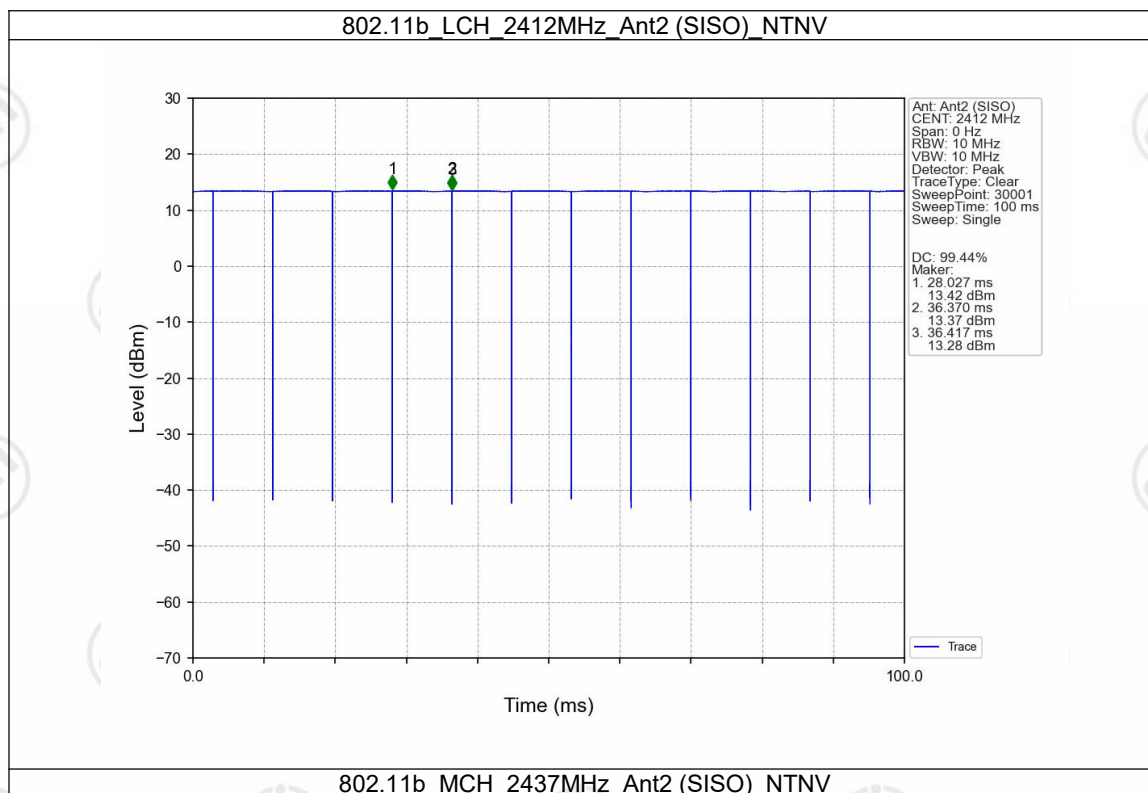


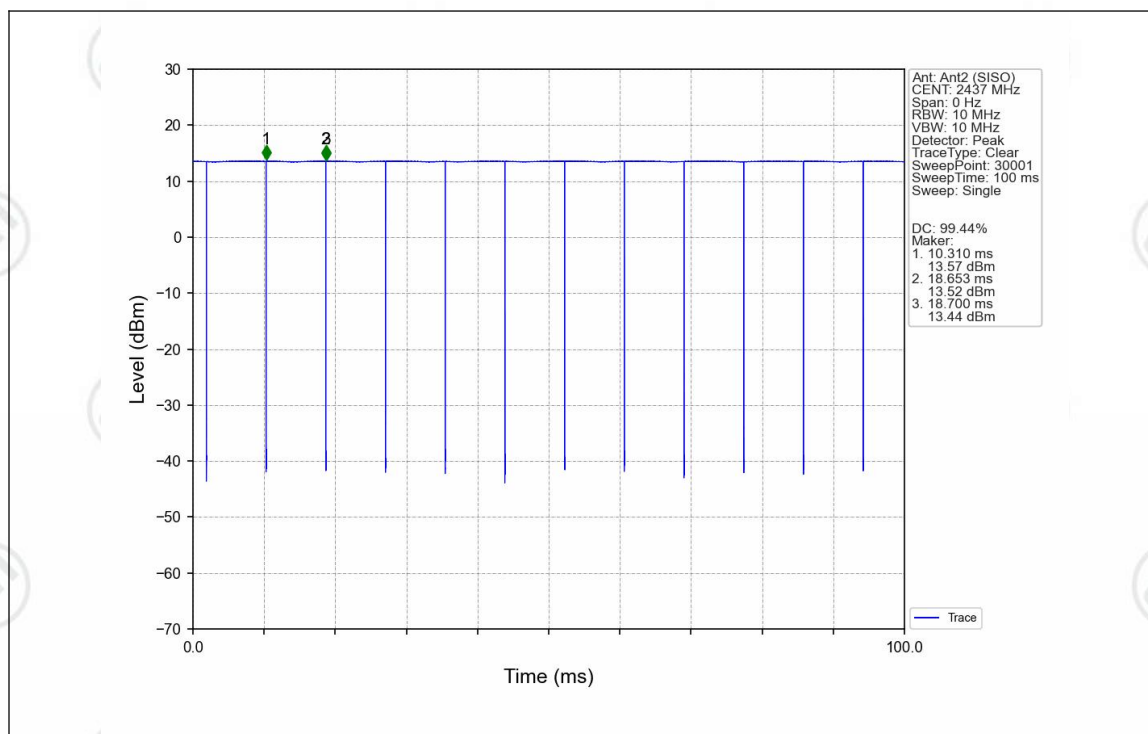


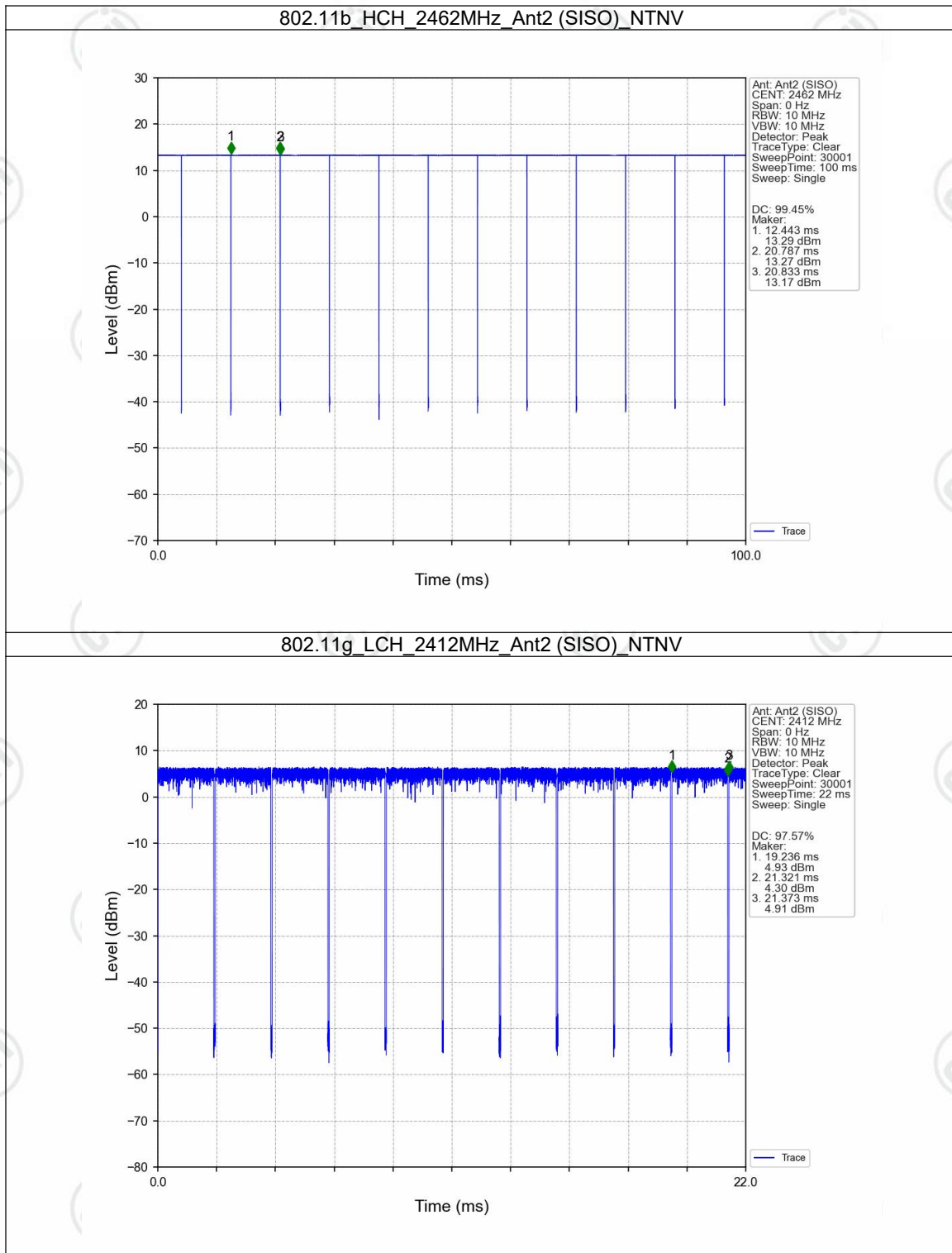


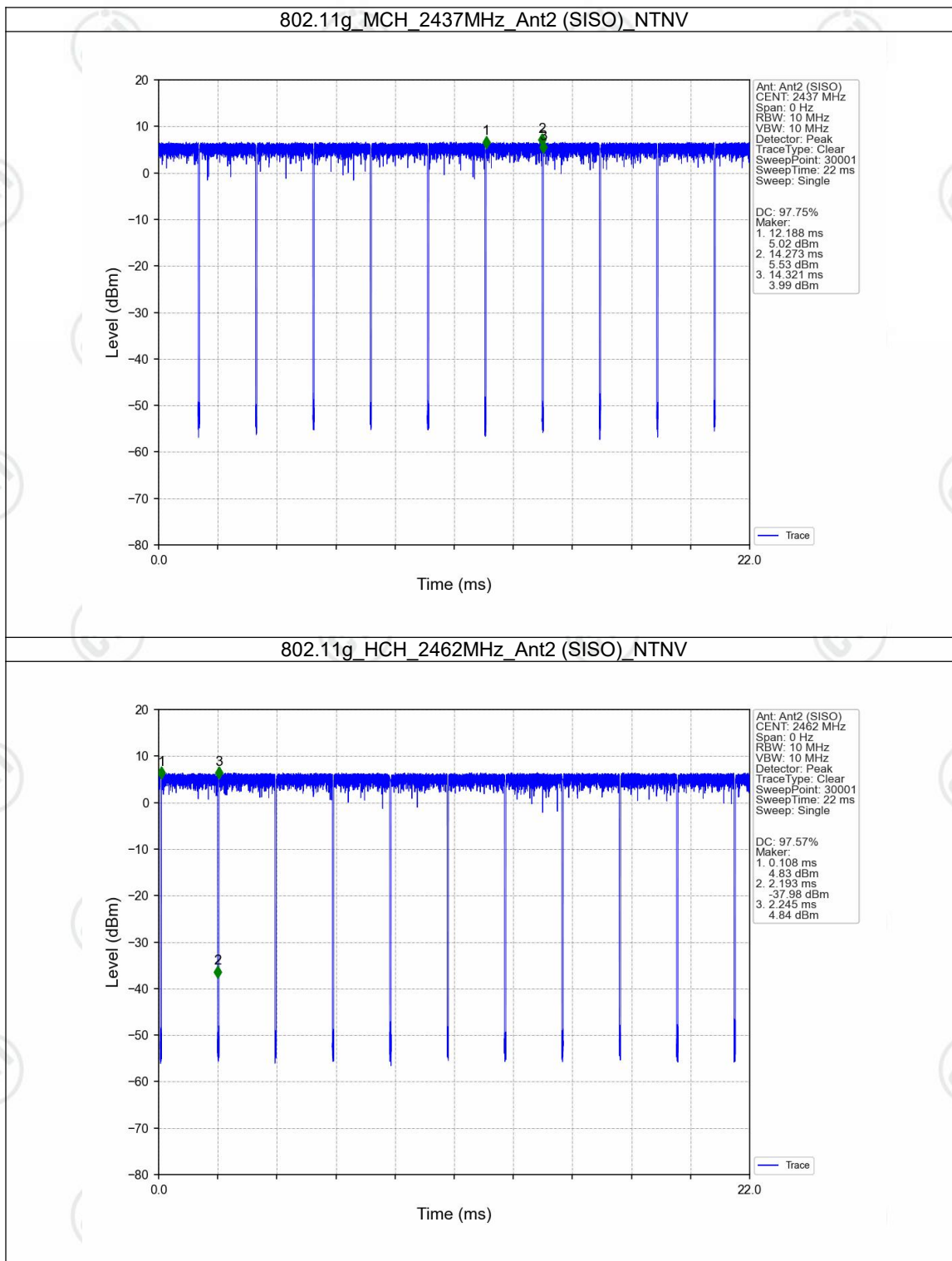


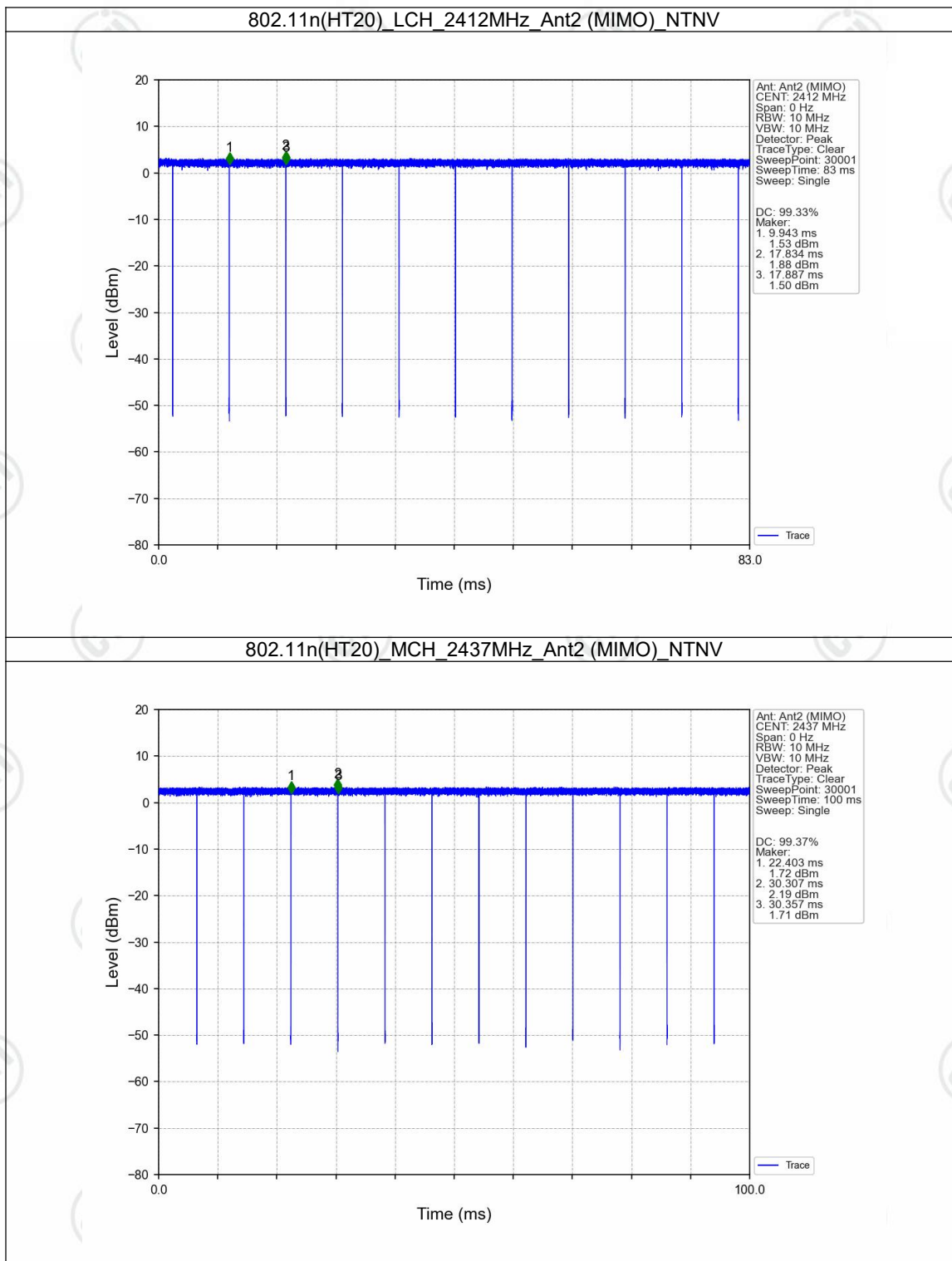
1.2.2 Ant2

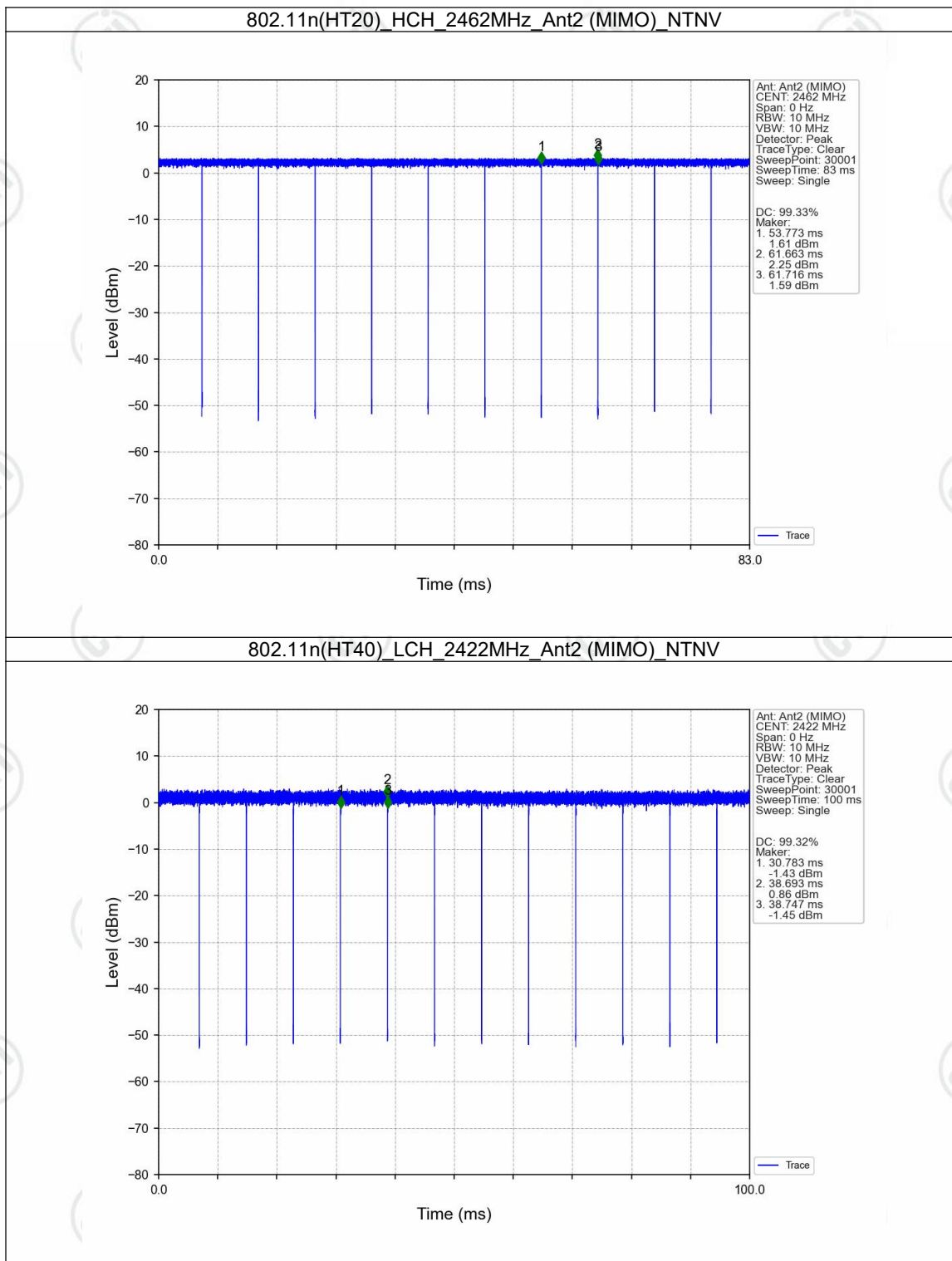


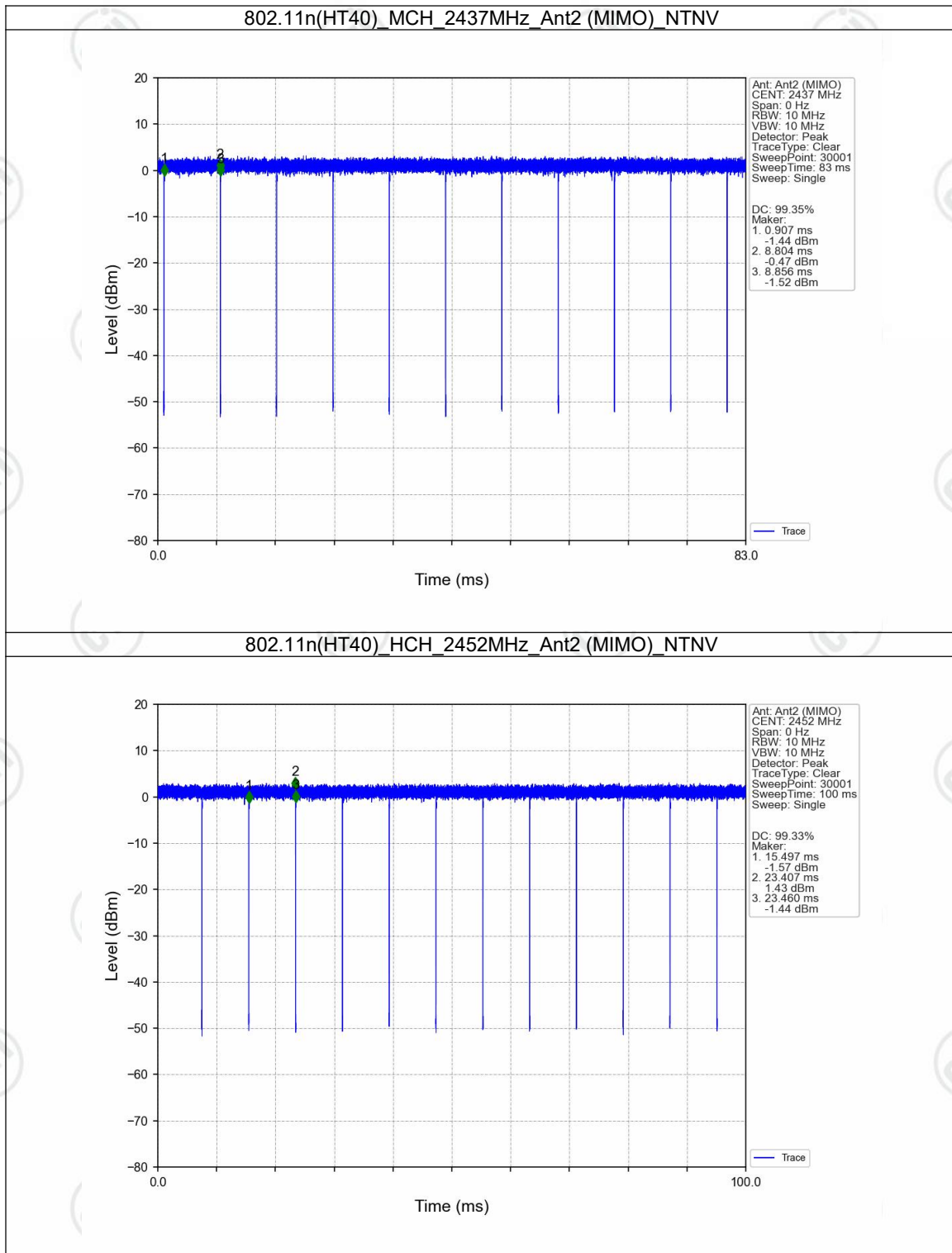












2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	13.354	/	Pass
			2	13.398	/	Pass
		2437	1	13.389	/	Pass
			2	13.417	/	Pass
		2462	1	13.391	/	Pass
			2	13.415	/	Pass
802.11g	SISO	2412	1	17.197	/	Pass
			2	17.242	/	Pass
		2437	1	17.191	/	Pass
			2	17.250	/	Pass
		2462	1	17.245	/	Pass
			2	17.233	/	Pass
802.11n (HT20)	MIMO	2412	1	18.222	/	Pass
			2	18.203	/	Pass
		2437	1	18.194	/	Pass
			2	18.229	/	Pass
		2462	1	18.258	/	Pass
			2	18.200	/	Pass
802.11n (HT40)	MIMO	2422	1	36.513	/	Pass
			2	36.517	/	Pass
		2437	1	36.555	/	Pass
			2	36.505	/	Pass
		2452	1	36.550	/	Pass
			2	36.548	/	Pass

2.1.2 6dB BW

Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11b	SISO	2412	1	10.313	≥ 0.5	Pass
			2	10.315	≥ 0.5	Pass
		2437	1	10.312	≥ 0.5	Pass
			2	10.313	≥ 0.5	Pass
		2462	1	10.308	≥ 0.5	Pass
			2	10.312	≥ 0.5	Pass
802.11g	SISO	2412	1	16.510	≥ 0.5	Pass
			2	16.506	≥ 0.5	Pass
		2437	1	16.508	≥ 0.5	Pass
			2	16.558	≥ 0.5	Pass
		2462	1	16.491	≥ 0.5	Pass
			2	16.562	≥ 0.5	Pass
802.11n	MIMO	2412	1	17.762	≥ 0.5	Pass

(HT20)			2	17.788	>=0.5	Pass
		2437	1	17.750	>=0.5	Pass
			2	17.744	>=0.5	Pass
		2462	1	17.797	>=0.5	Pass
			2	17.728	>=0.5	Pass
802.11n (HT40)	MIMO	2422	1	36.479	>=0.5	Pass
			2	36.485	>=0.5	Pass
		2437	1	36.619	>=0.5	Pass
			2	36.490	>=0.5	Pass
		2452	1	36.562	>=0.5	Pass
			2	36.582	>=0.5	Pass