



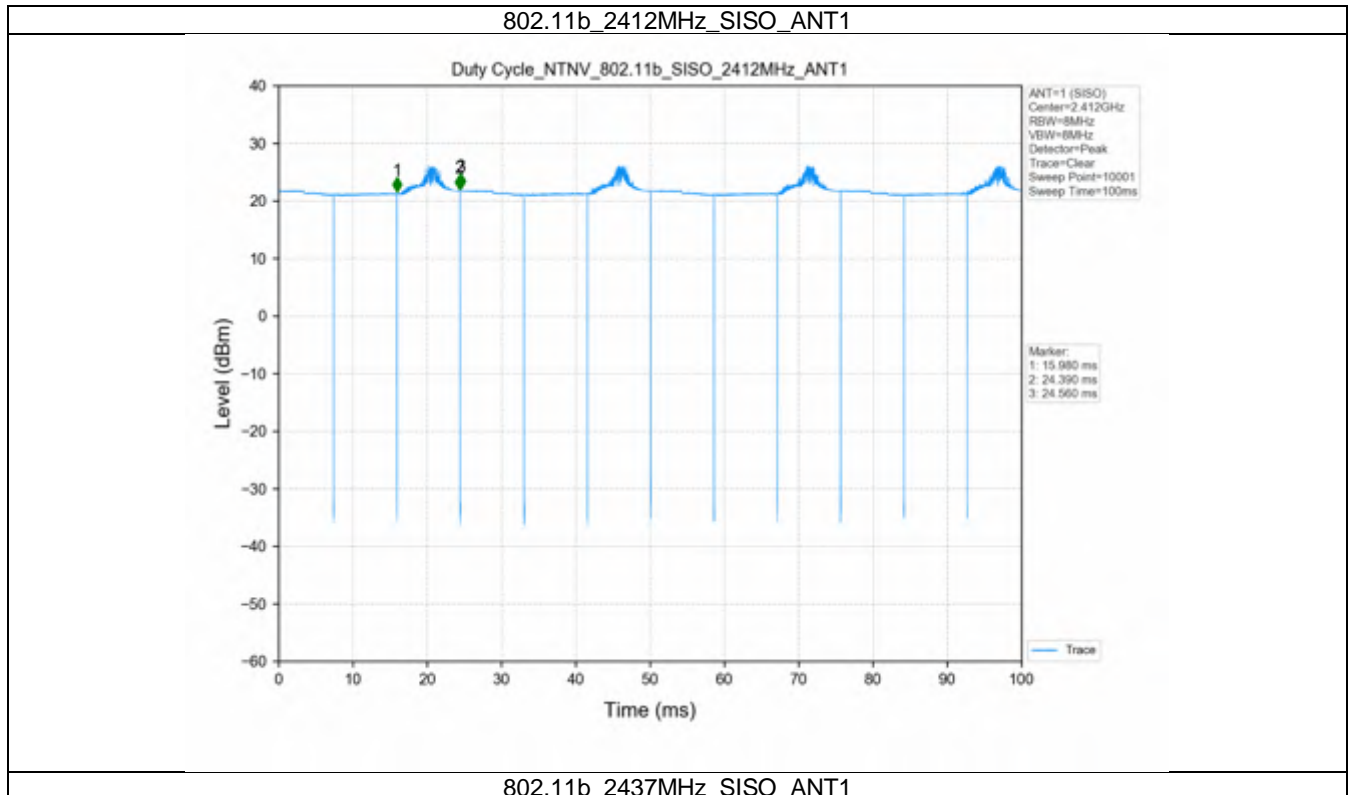
Appendix A for SHEM200100016901

1. Duty Cycle

1.1 Test Result

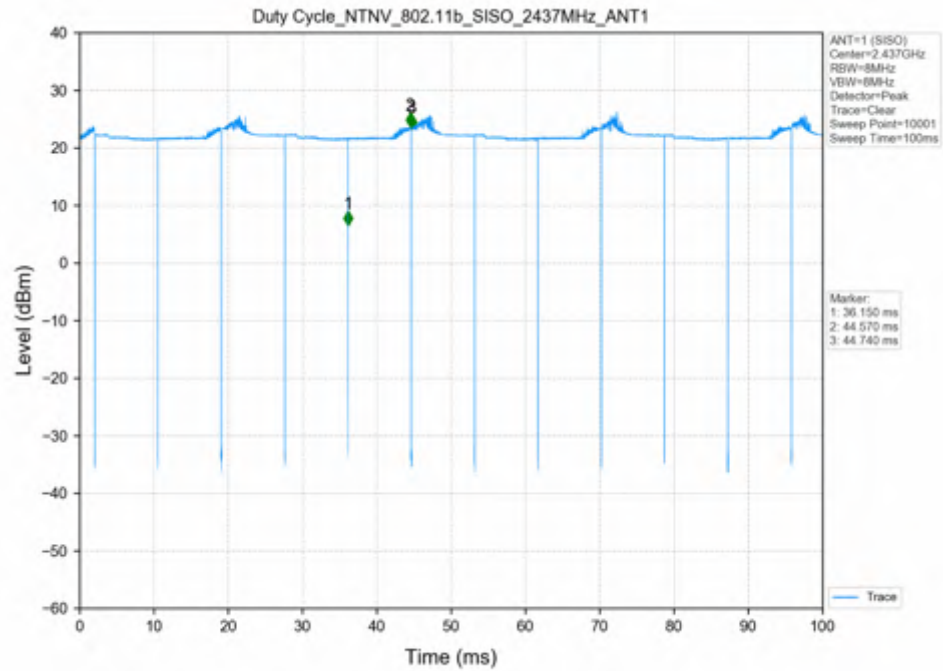
Test Mode	Channel Frequency(MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11b	2412	SISO	1	8.410	8.580	98.02	0.09
	2437	SISO	1	8.420	8.590	98.02	0.09
	2462	SISO	1	8.410	9.780	85.99	0.66
802.11g	2412	SISO	1	1.366	1.533	89.11	0.50
	2437	SISO	1	1.367	1.533	89.17	0.50
	2462	SISO	1	1.365	2.306	59.19	2.28
802.11n(HT20)	2412	SISO	1	1.308	1.452	90.08	0.45
	2437	SISO	1	1.308	1.460	89.59	0.48
	2462	SISO	1	1.309	1.461	89.60	0.48
802.11n(HT40)	2422	SISO	1	0.648	0.819	79.12	1.02
	2437	SISO	1	0.648	0.765	84.71	0.72
	2452	SISO	1	0.648	0.819	79.12	1.02

1.2 Test Graph

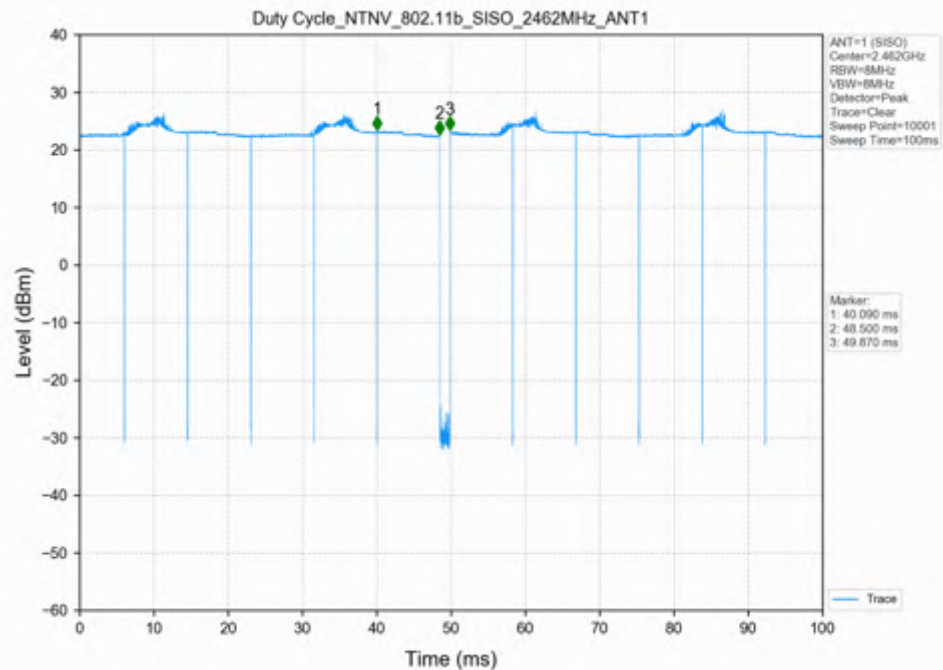




SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



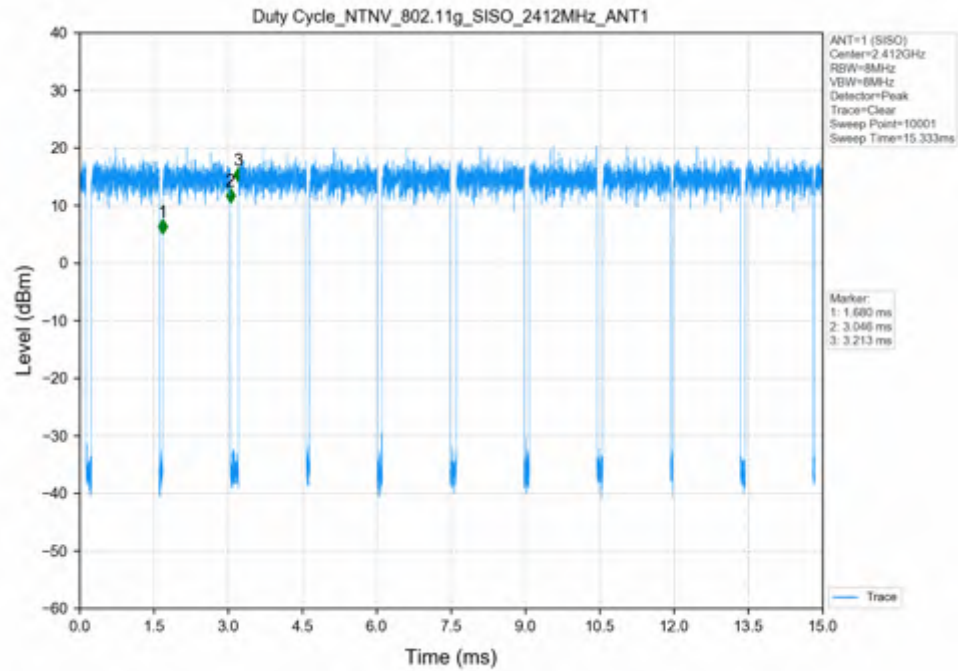
802.11b_2462MHz_SISO_ANT1



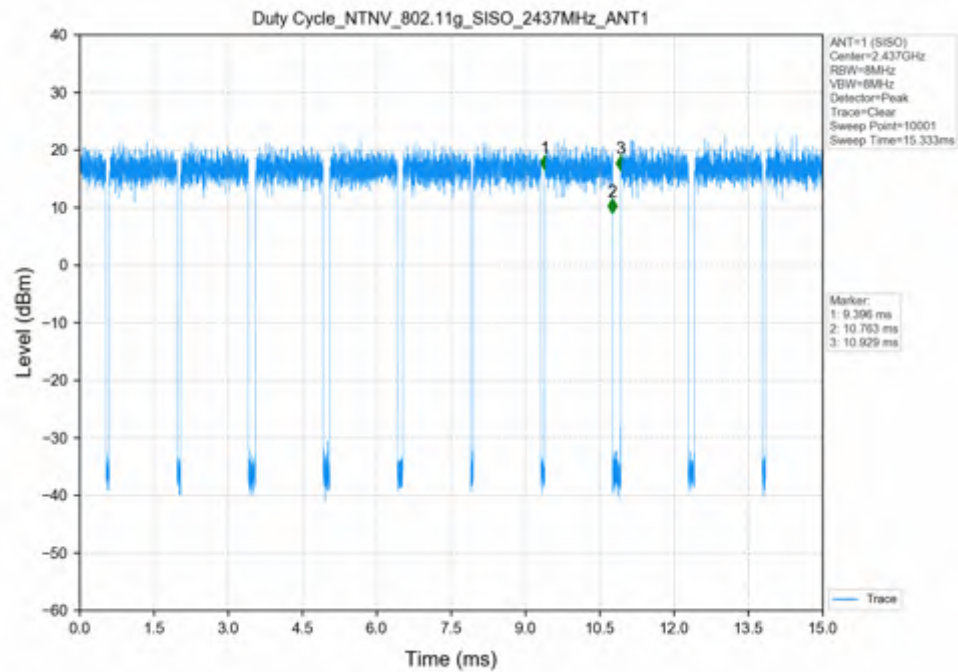
802.11g_2412MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



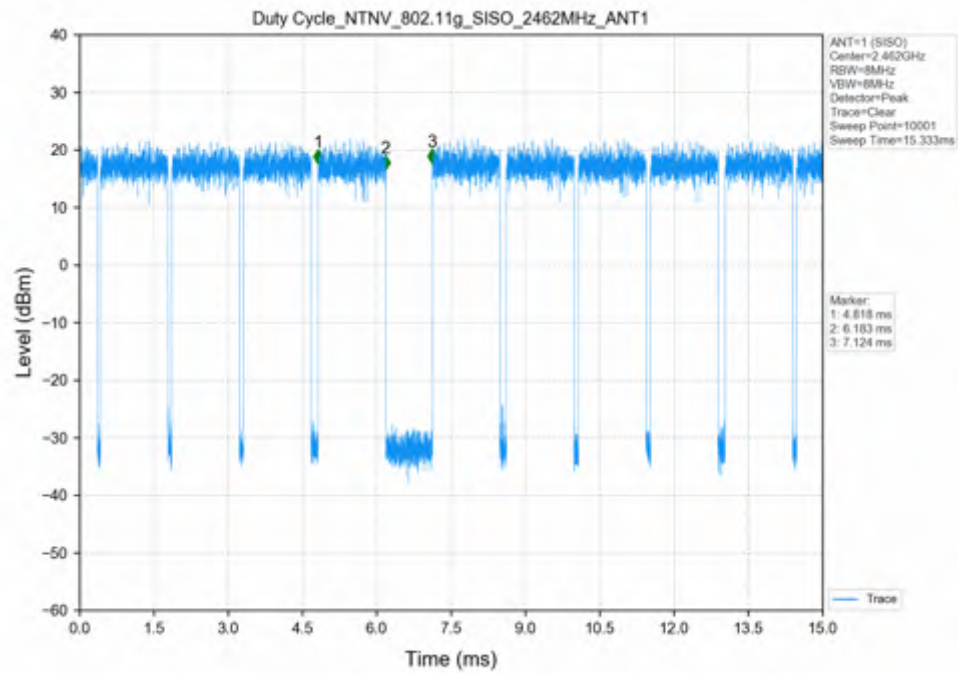
802.11g_2437MHz_SISO_ANT1



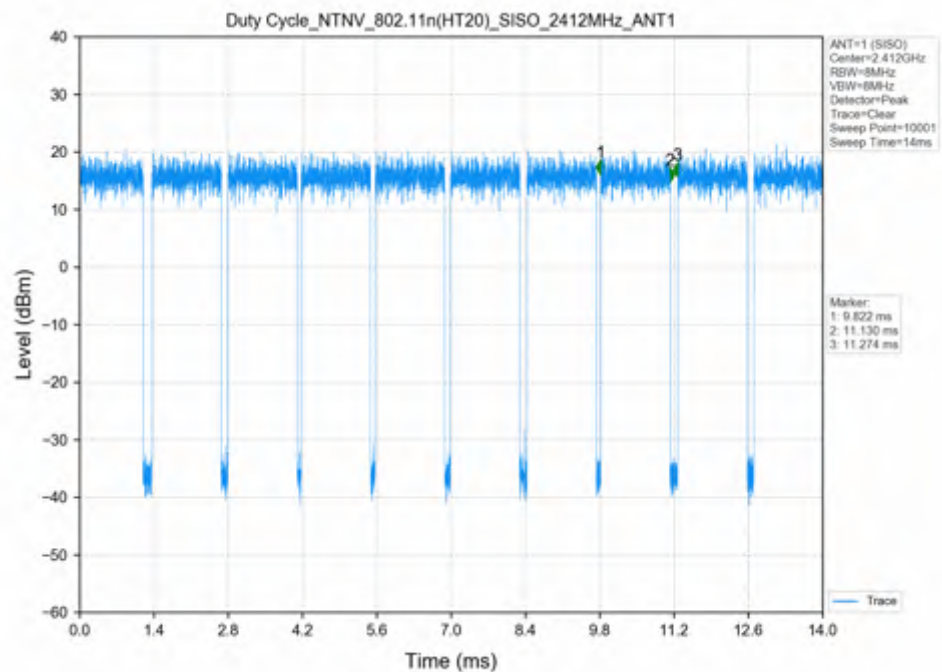
802.11g_2462MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



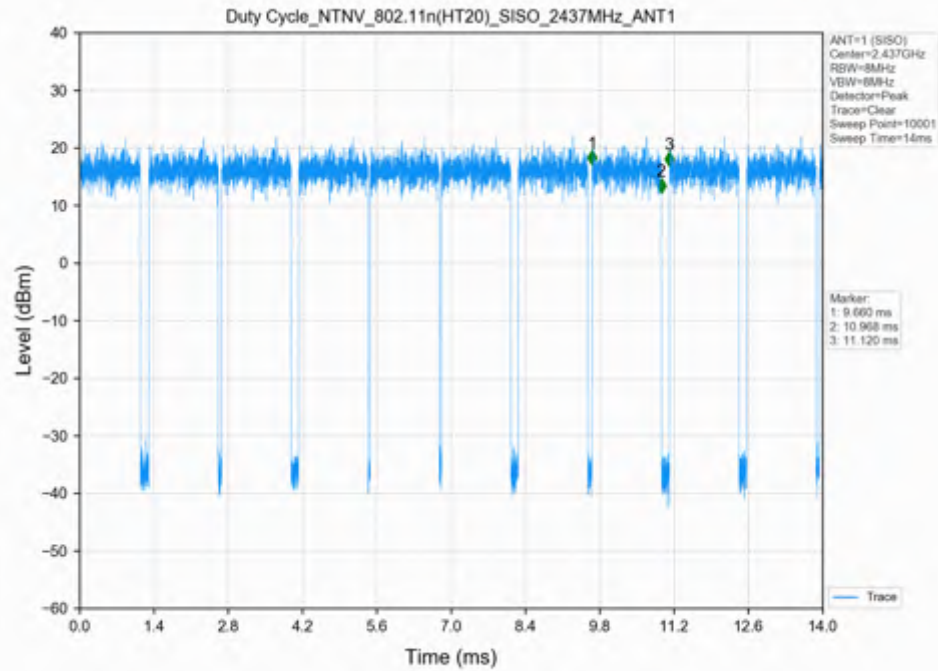
802.11n(HT20)_2412MHz_SISO_ANT1



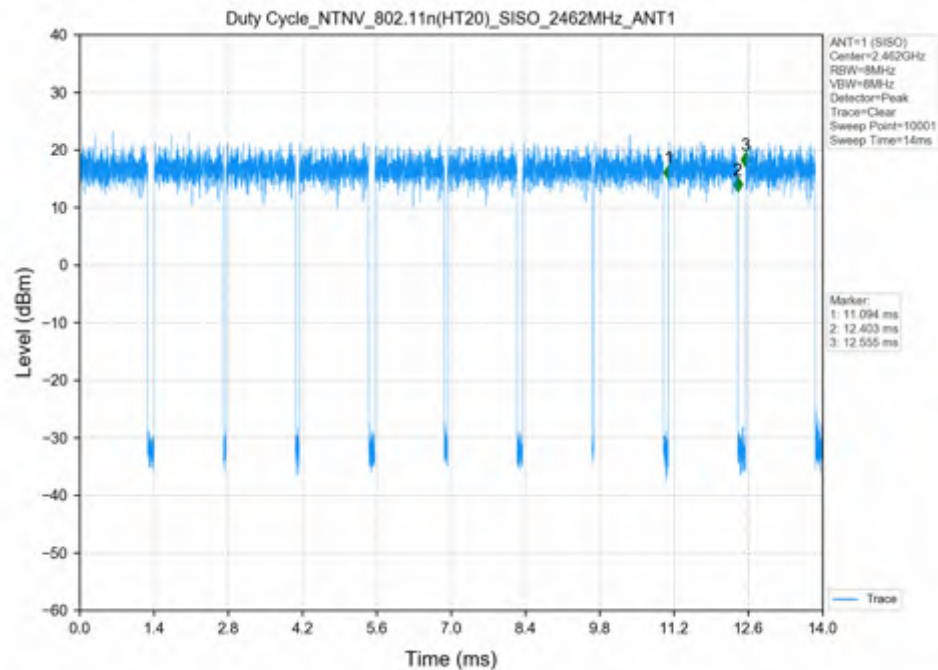
802.11n(HT20)_2437MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



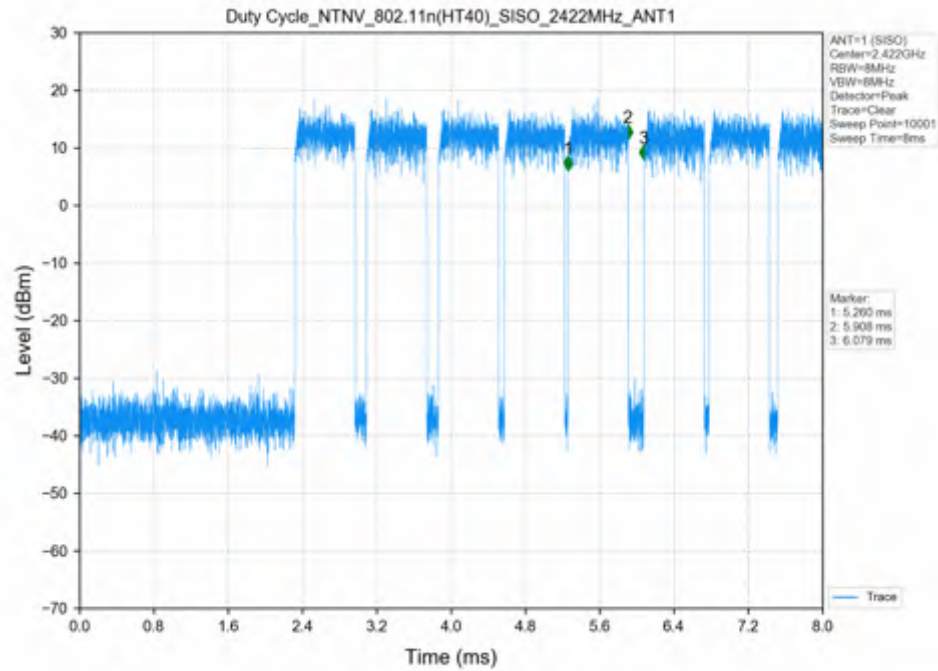
802.11n(HT20)_2462MHz_SISO_ANT1



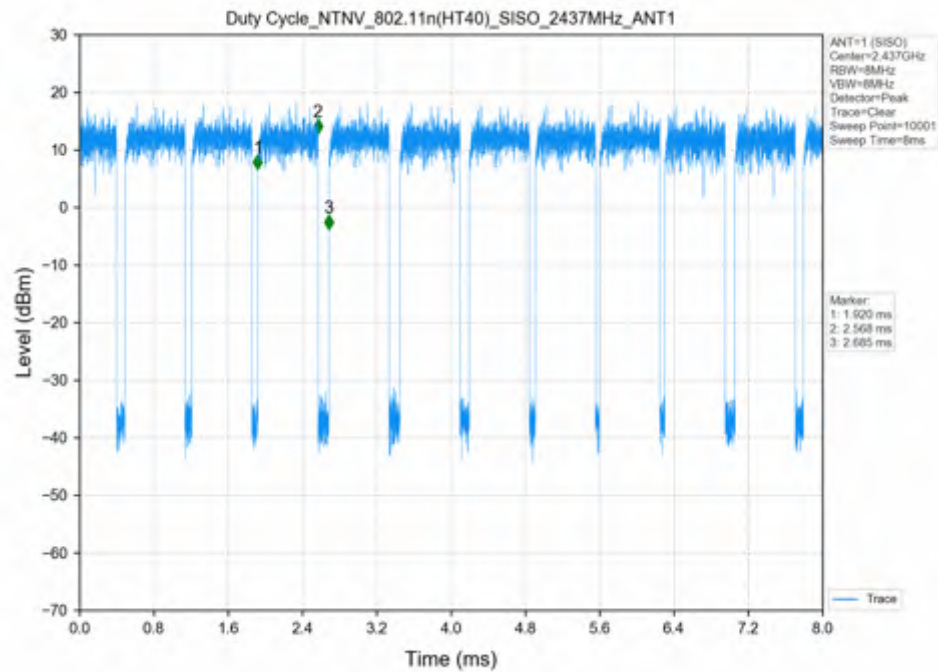
802.11n(HT40)_2422MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



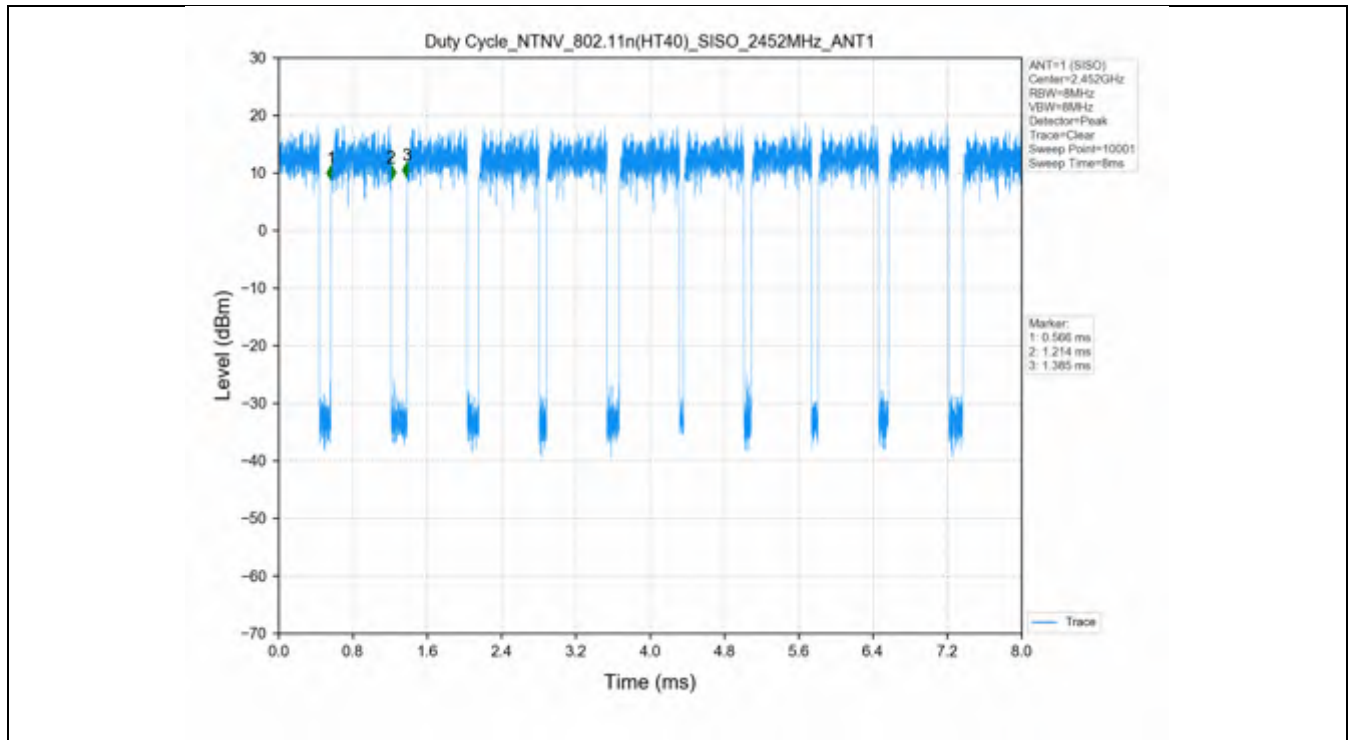
802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



2. Bandwidth

2.1 Test Result

Test Mode	Frequency (MHz)	TX Type	ANT No.	6dB Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11b	2412	SISO	1	10.086	≥0.5	PASS
	2437	SISO	1	9.576	≥0.5	PASS
	2462	SISO	1	10.050	≥0.5	PASS
802.11g	2412	SISO	1	16.385	≥0.5	PASS
	2437	SISO	1	16.354	≥0.5	PASS
	2462	SISO	1	16.366	≥0.5	PASS
802.11n(HT20)	2412	SISO	1	17.197	≥0.5	PASS
	2437	SISO	1	17.559	≥0.5	PASS
	2462	SISO	1	17.588	≥0.5	PASS
802.11n(HT40)	2422	SISO	1	35.199	≥0.5	PASS
	2437	SISO	1	35.224	≥0.5	PASS
	2452	SISO	1	35.218	≥0.5	PASS

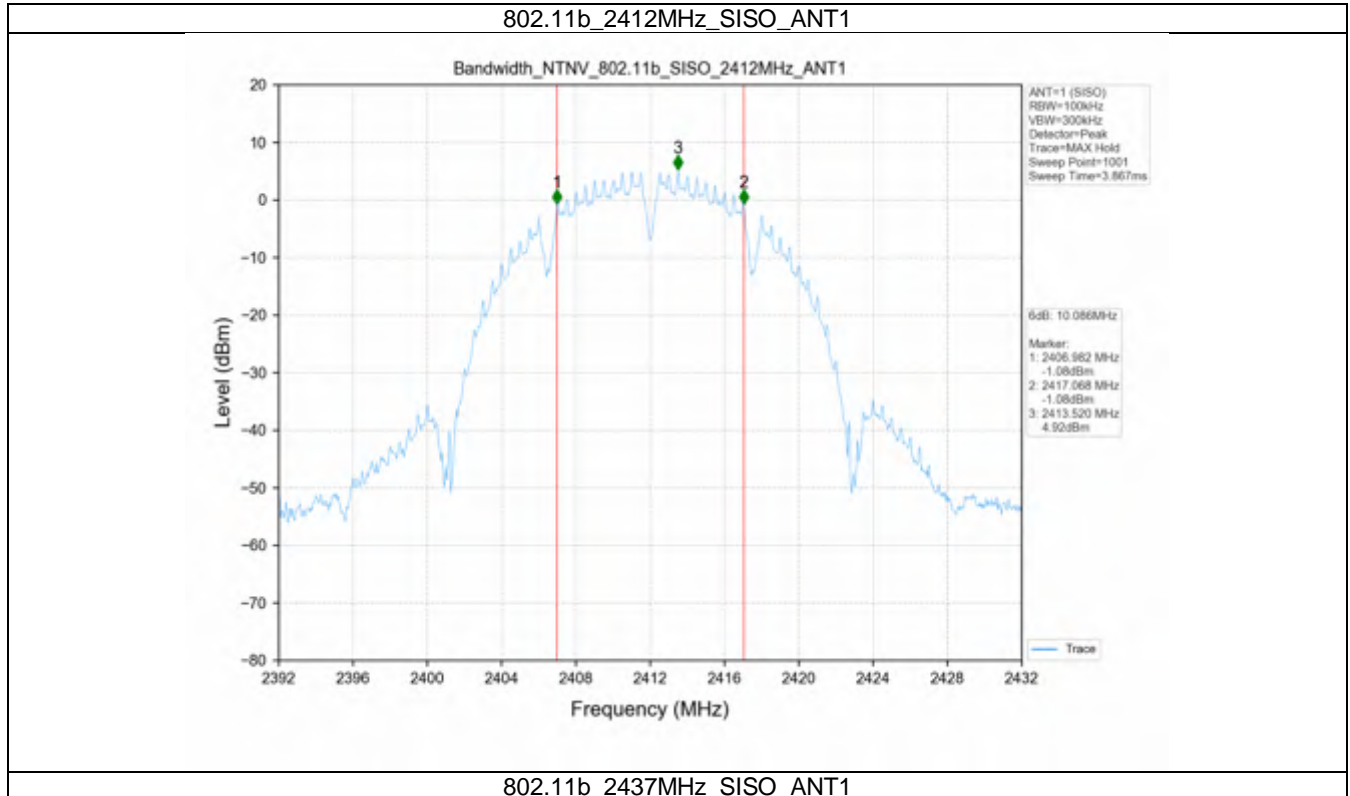
Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11b	2412	SISO	1	14.912	Only for Report Use
	2437	SISO	1	14.898	Only for Report Use
	2462	SISO	1	14.903	Only for Report Use
802.11g	2412	SISO	1	16.876	Only for Report Use
	2437	SISO	1	16.825	Only for Report Use
	2462	SISO	1	16.794	Only for Report Use



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch

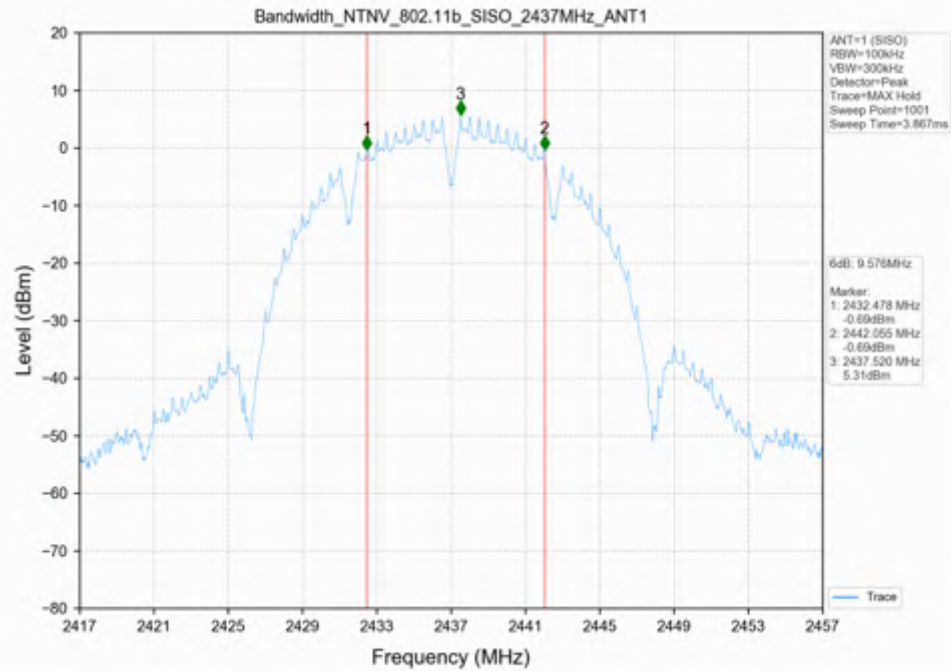
802.11n(HT20)	2412	SISO	1	17.871	Only for Report Use
	2437	SISO	1	17.815	Only for Report Use
	2462	SISO	1	17.775	Only for Report Use
802.11n(HT40)	2422	SISO	1	36.135	Only for Report Use
	2437	SISO	1	36.034	Only for Report Use
	2452	SISO	1	36.070	Only for Report Use

2.2 Test Graph - 6dB Bandwidth

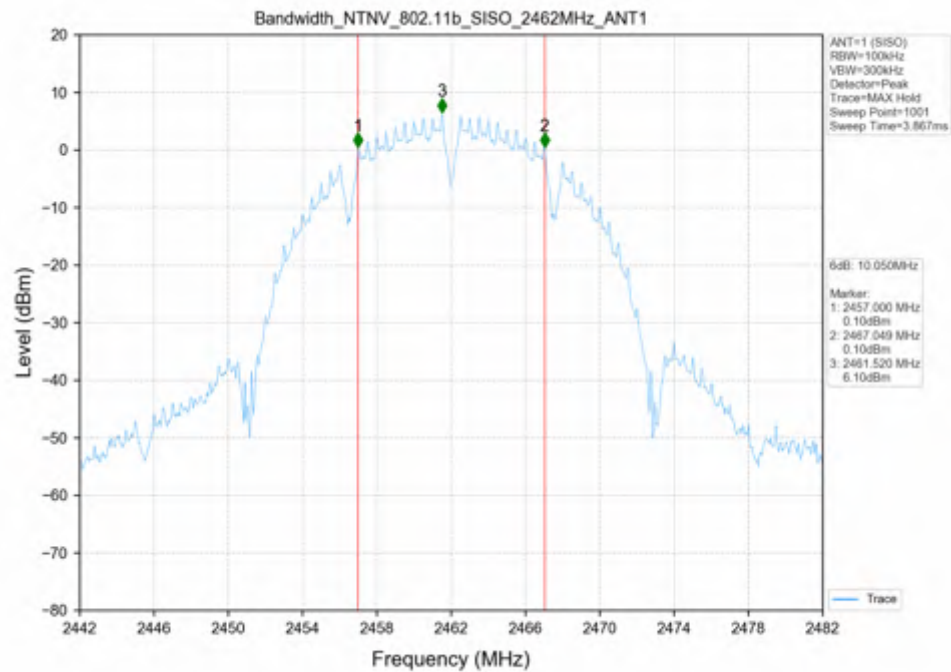




SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



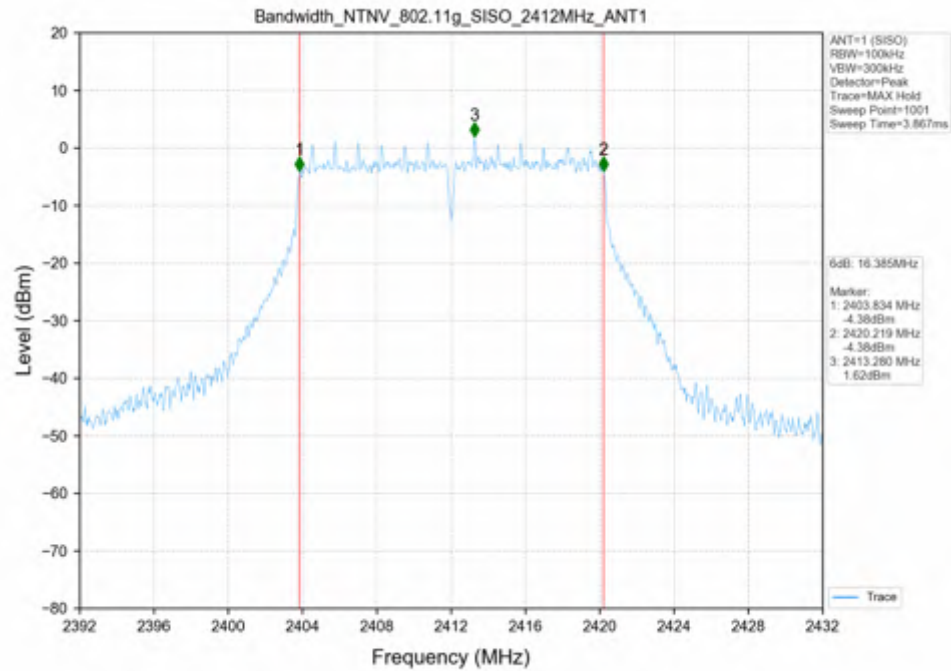
802.11b_2462MHz_SISO_ANT1



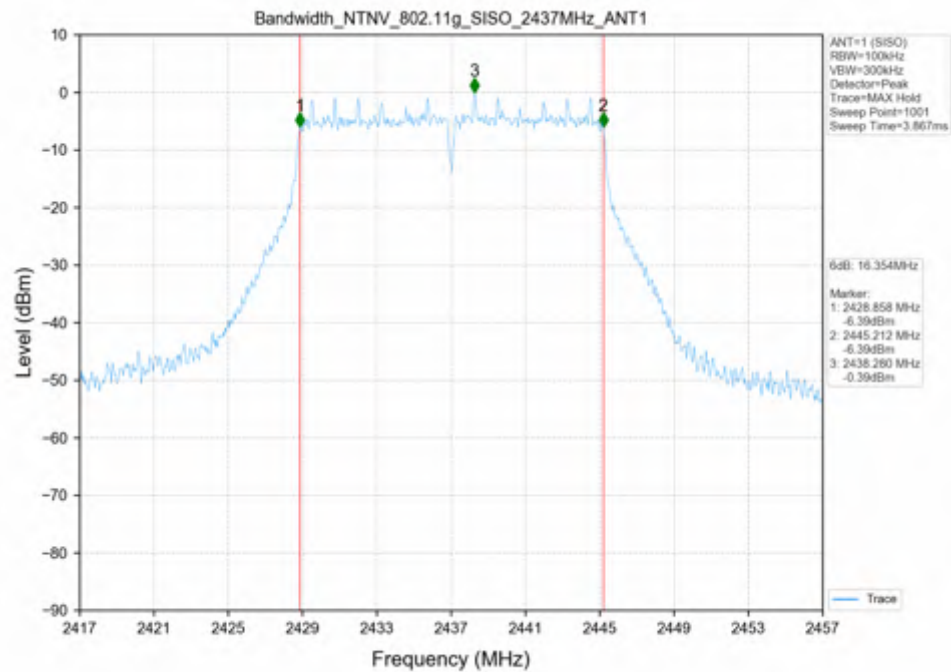
802.11g_2412MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai
Branch



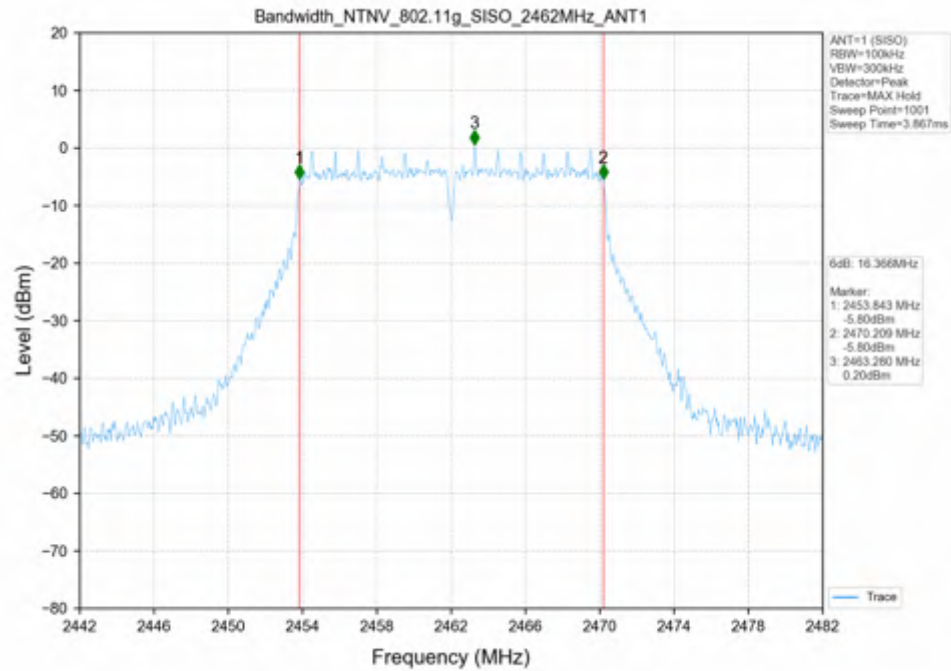
802.11g_2437MHz_SISO_ANT1



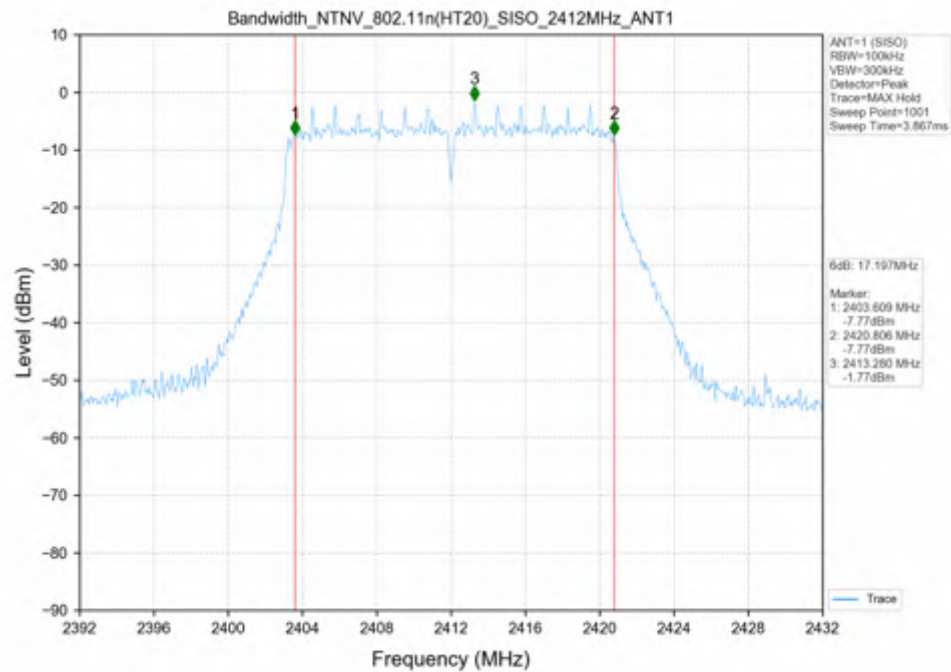
802.11g_2462MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



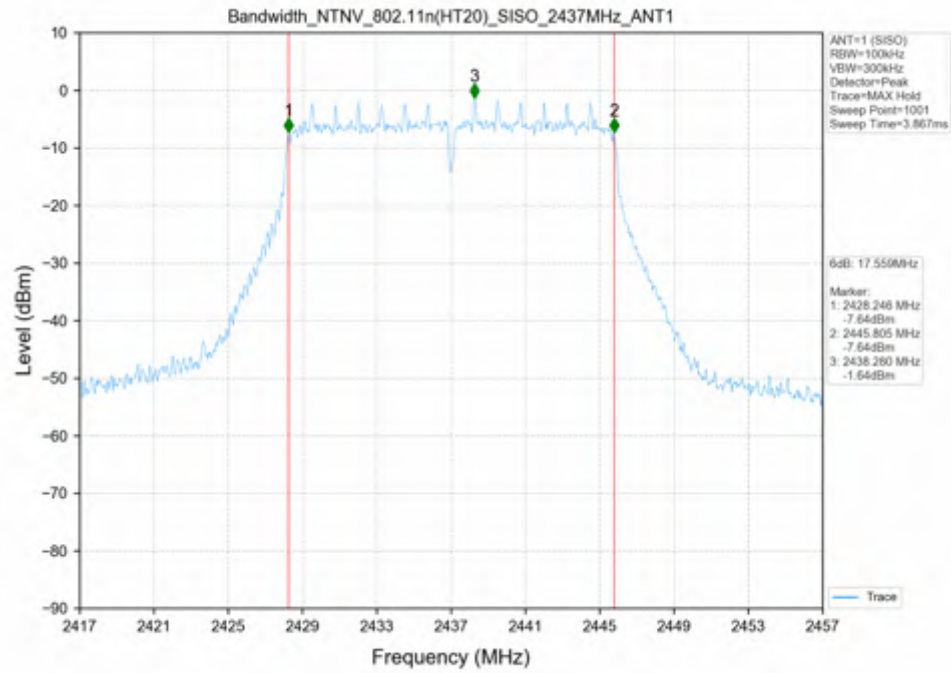
802.11n(HT20)_2412MHz_SISO_ANT1



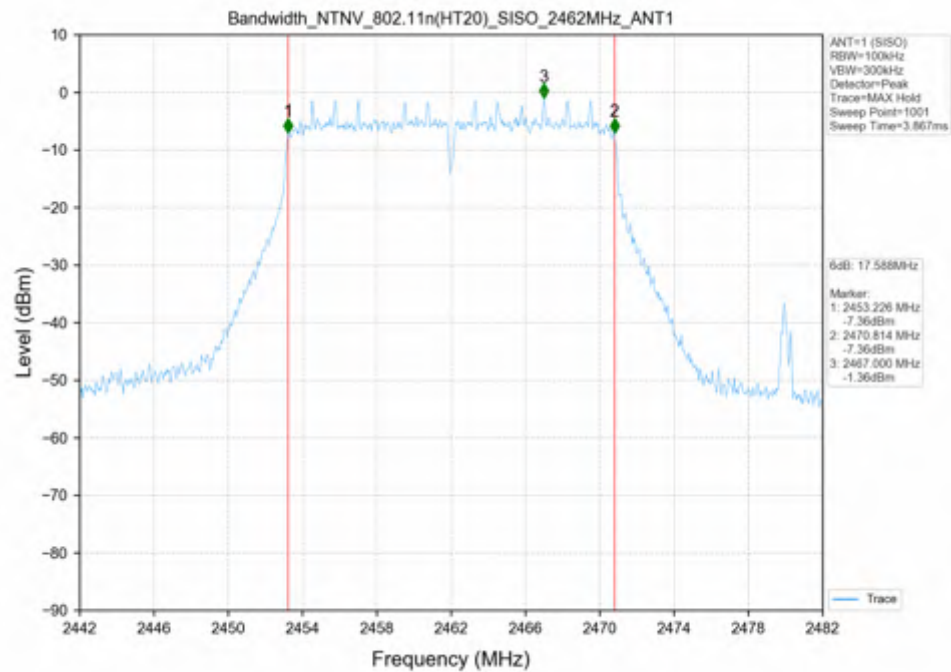
802.11n(HT20)_2437MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



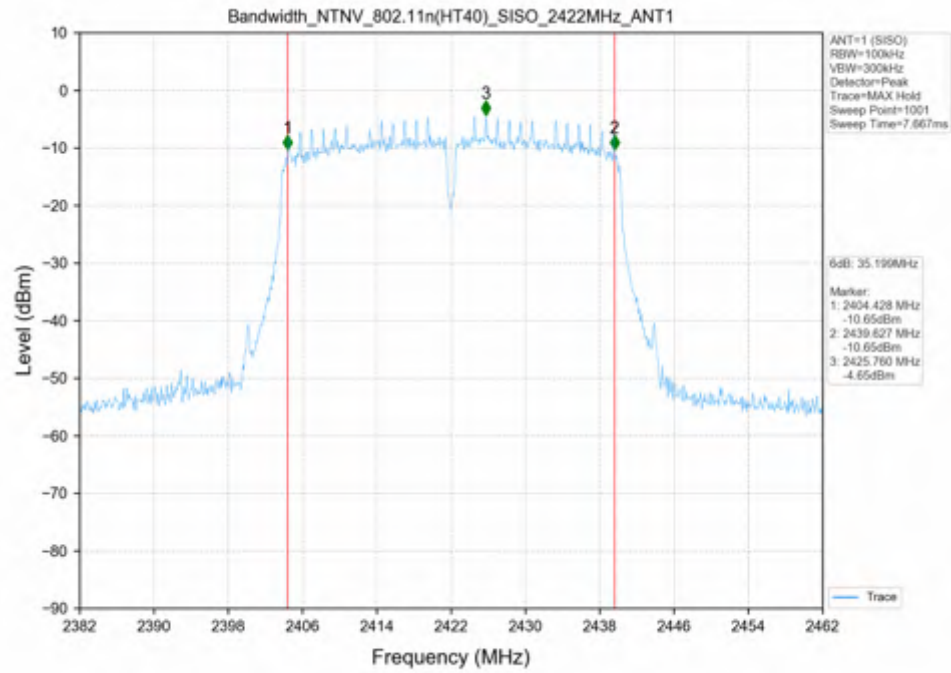
802.11n(HT20)_2462MHz_SISO_ANT1



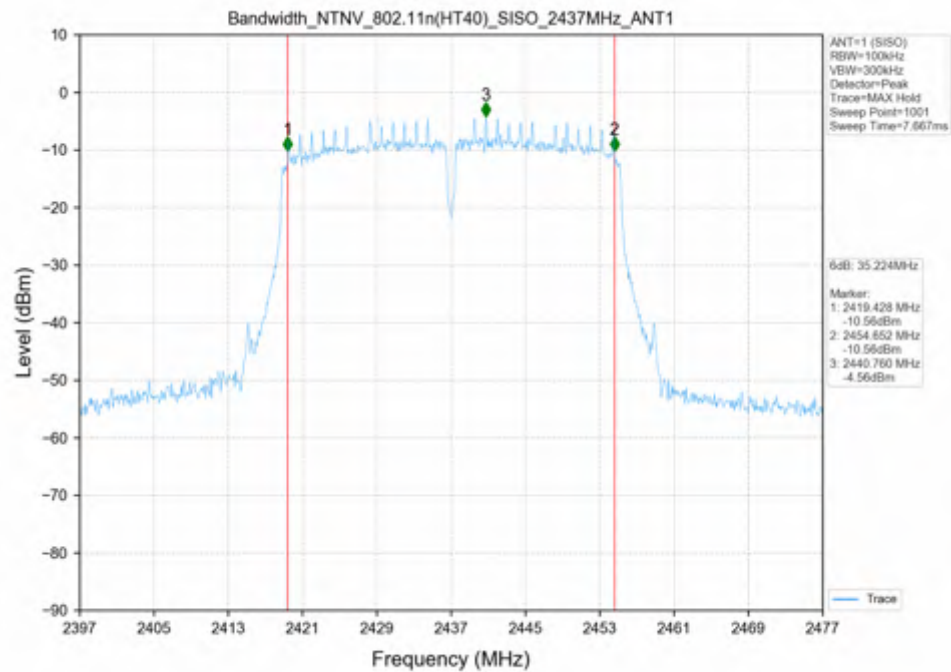
802.11n(HT40)_2422MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



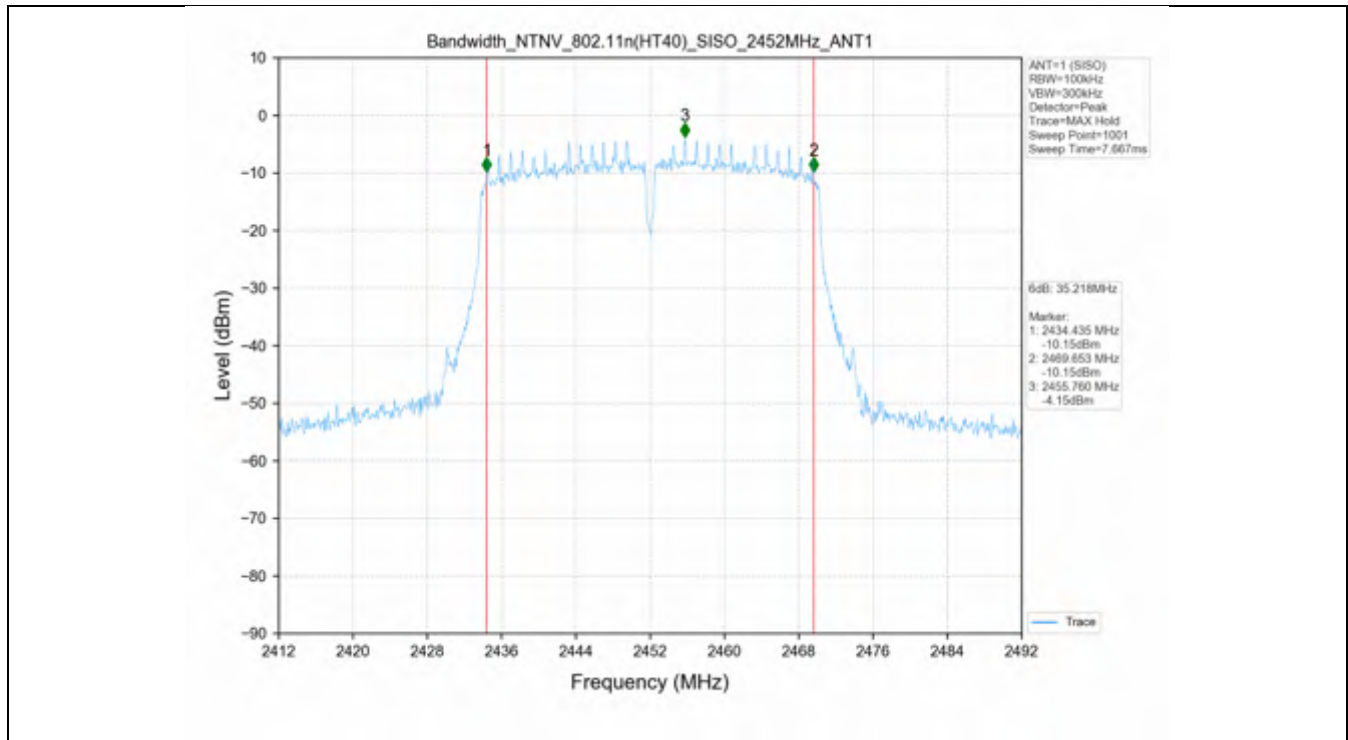
802.11n(HT40)_2437MHz_SISO_ANT1



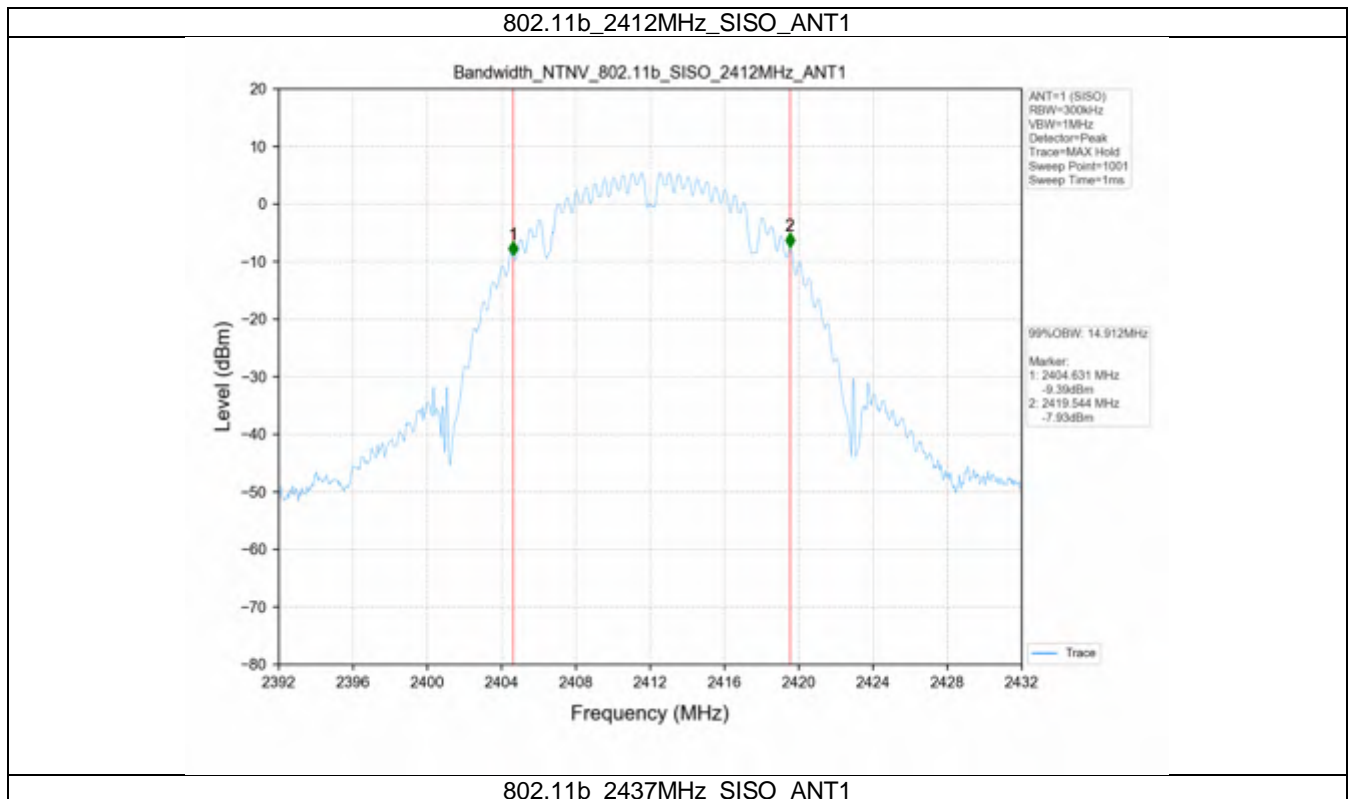
802.11n(HT40)_2452MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch

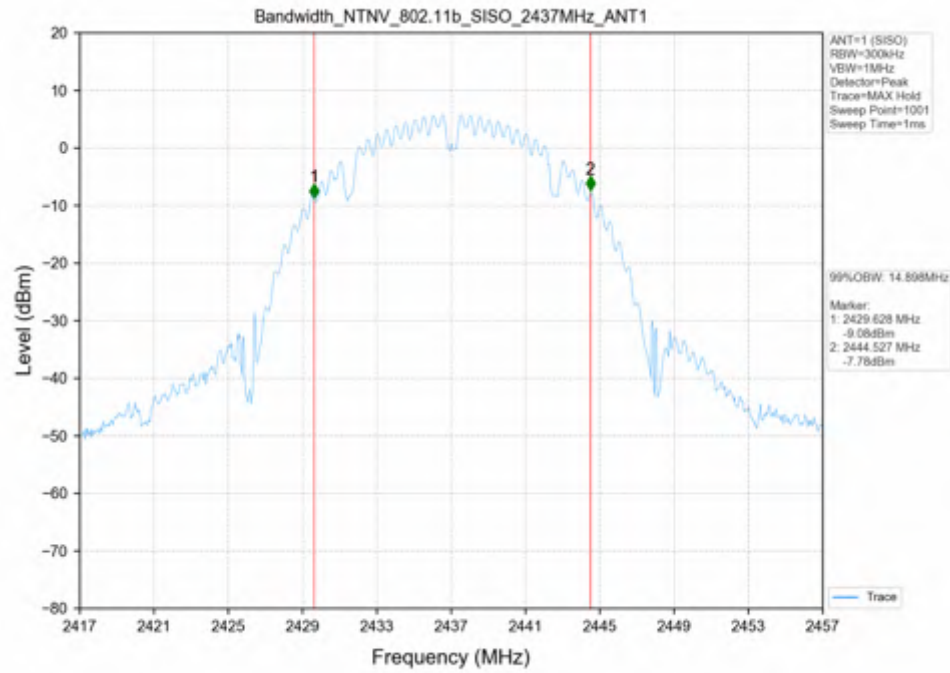


2.3 Test Graph - 99% Occupied Bandwidth

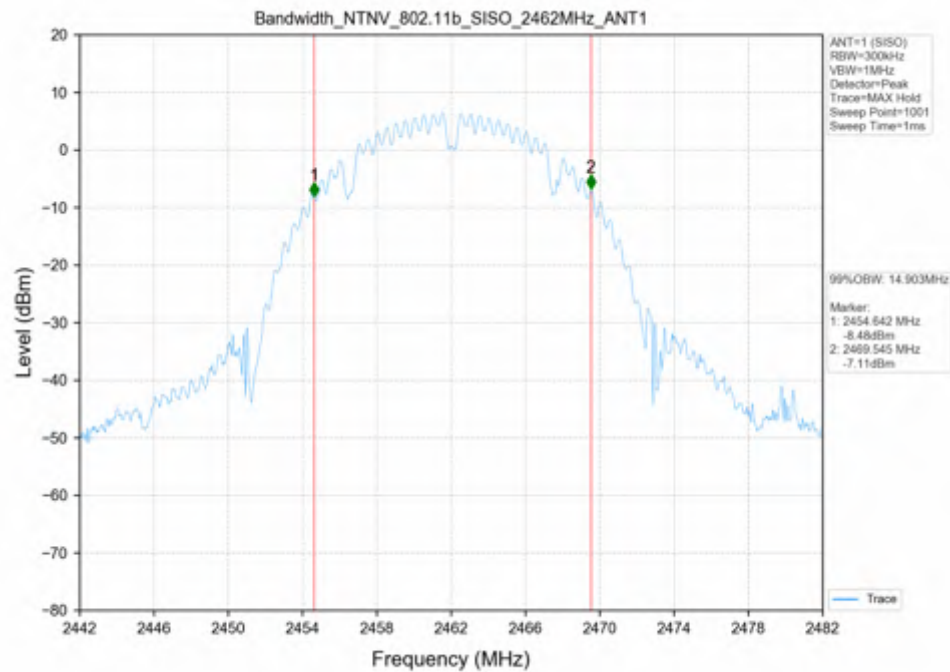




SGS-CSTC Standards Technical Services Co., Ltd. Shanghai
Branch



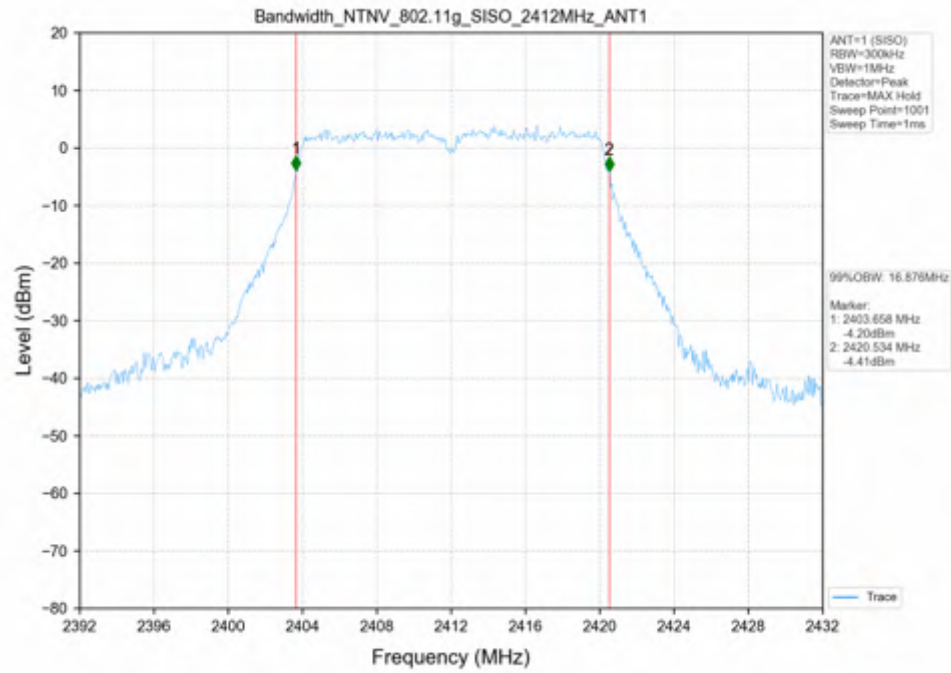
802.11b_2462MHz_SISO_ANT1



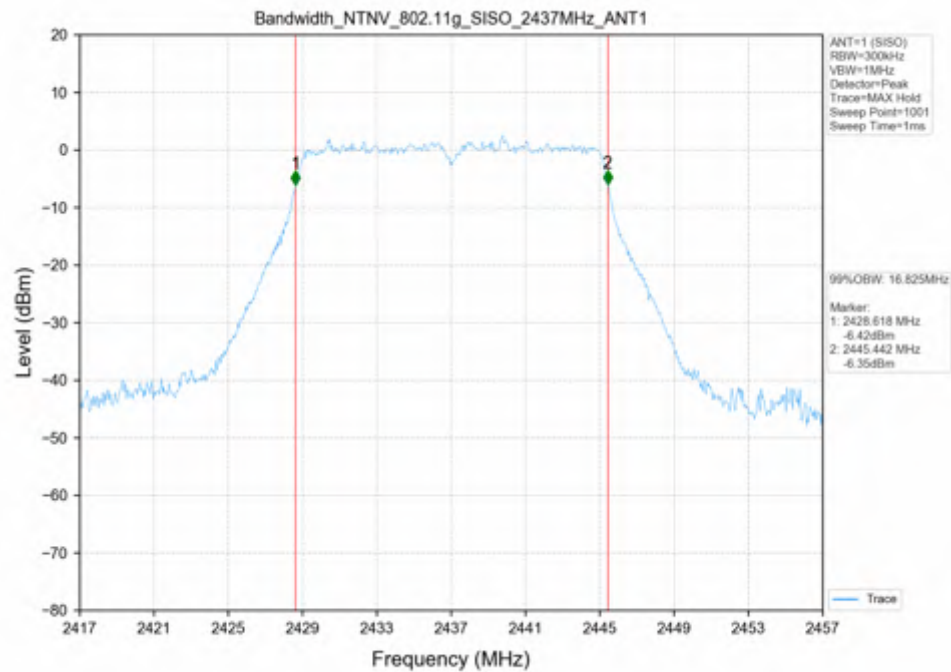
802.11g_2412MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



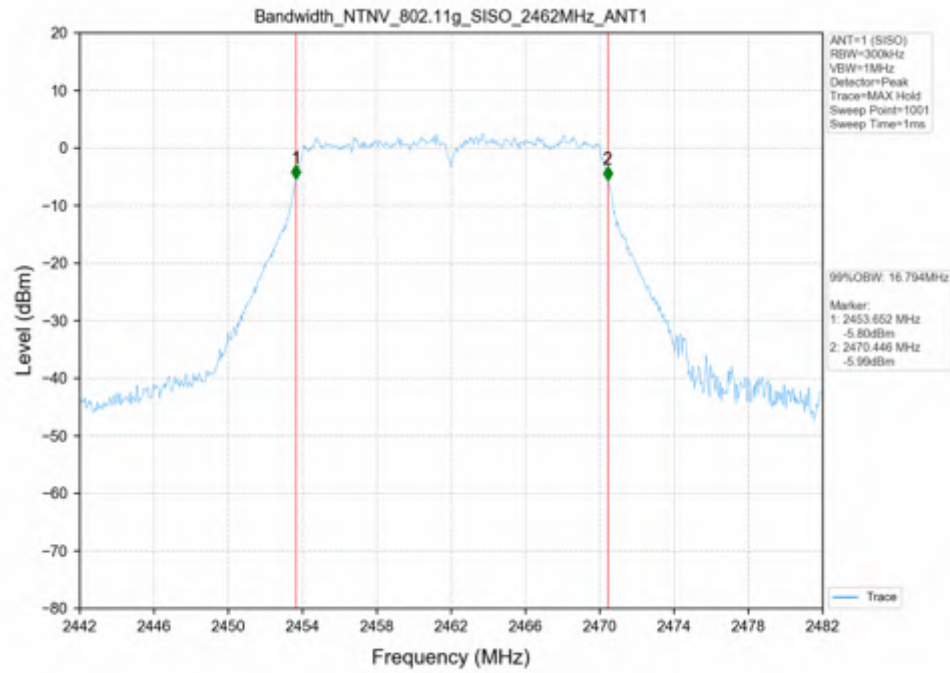
802.11g_2437MHz_SISO_ANT1



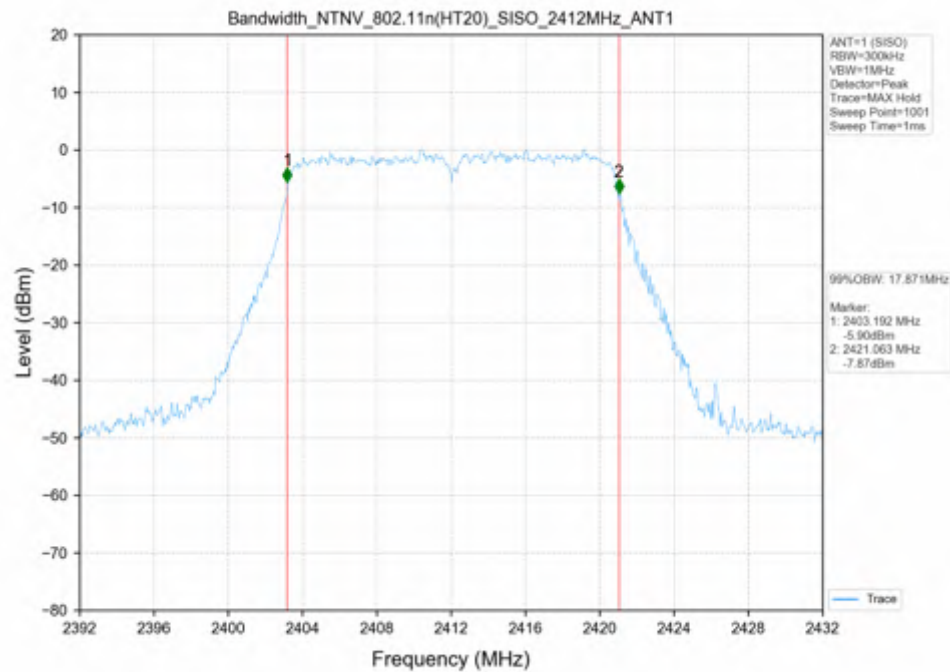
802.11g_2462MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



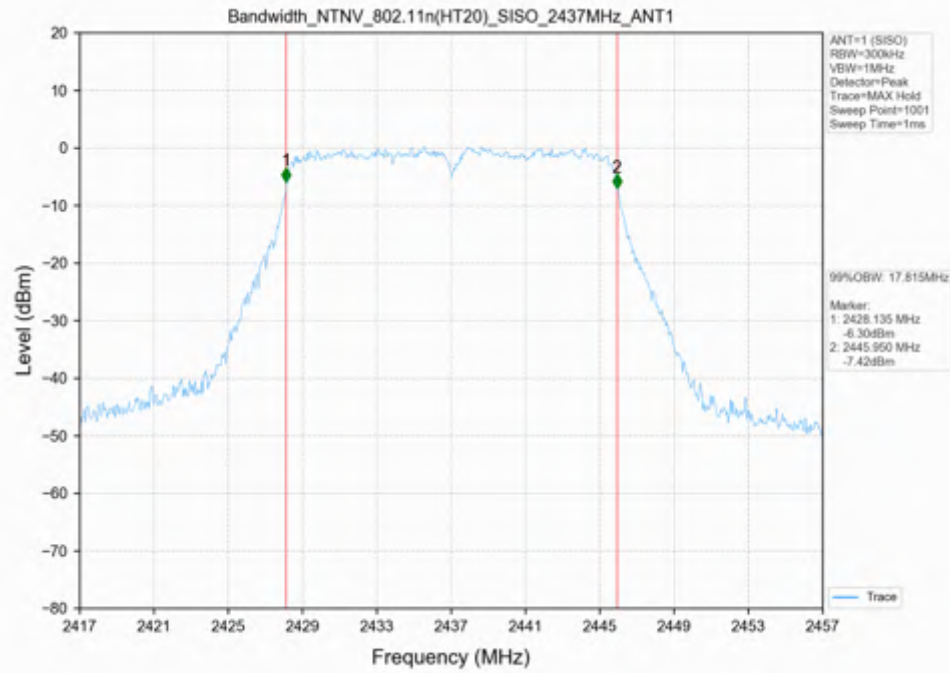
802.11n(HT20)_2412MHz_SISO_ANT1



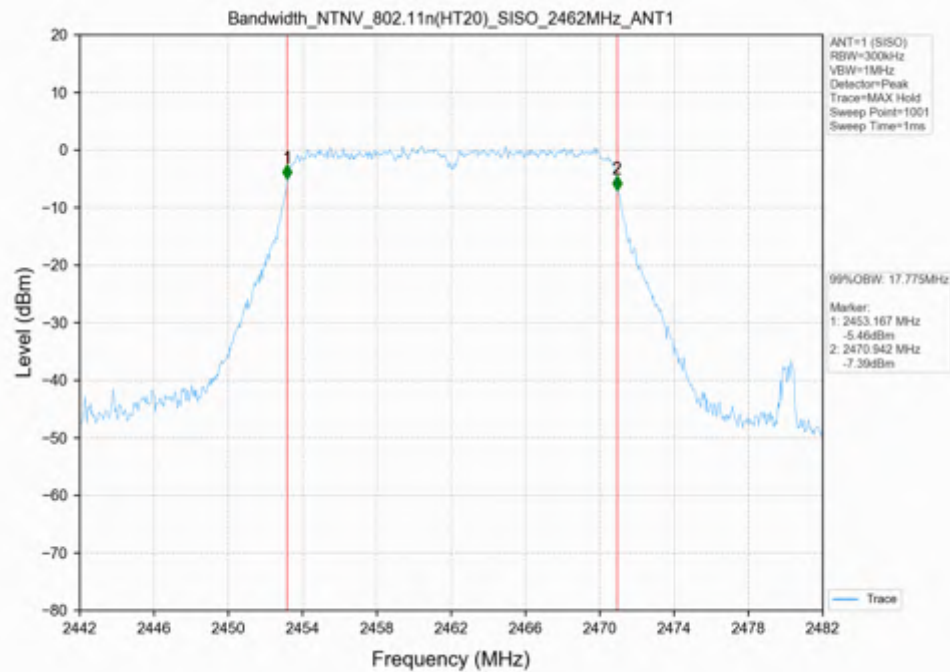
802.11n(HT20)_2437MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai
Branch



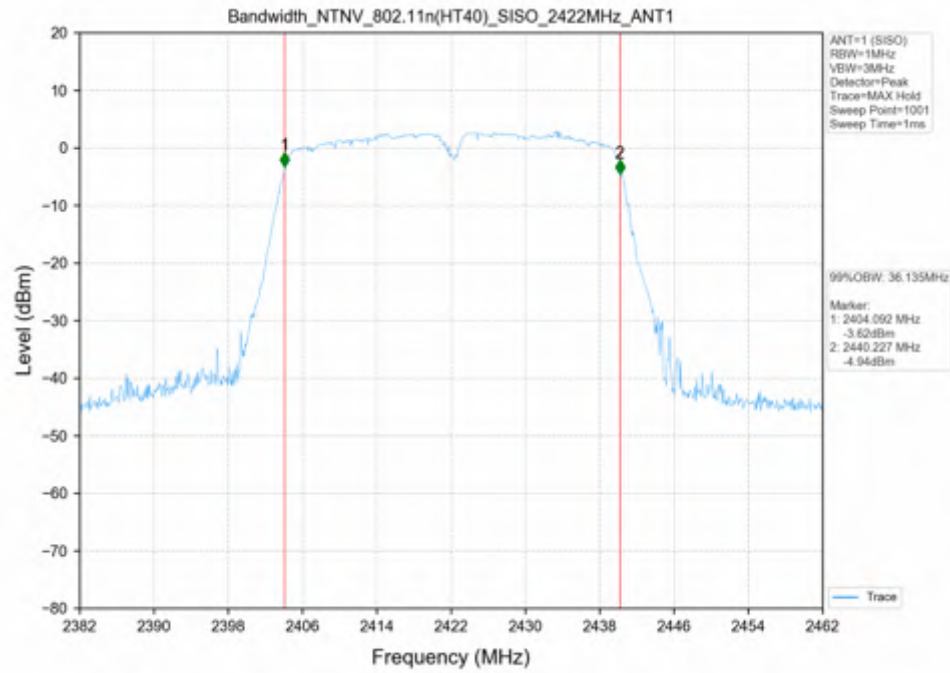
802.11n(HT20)_2462MHz_SISO_ANT1



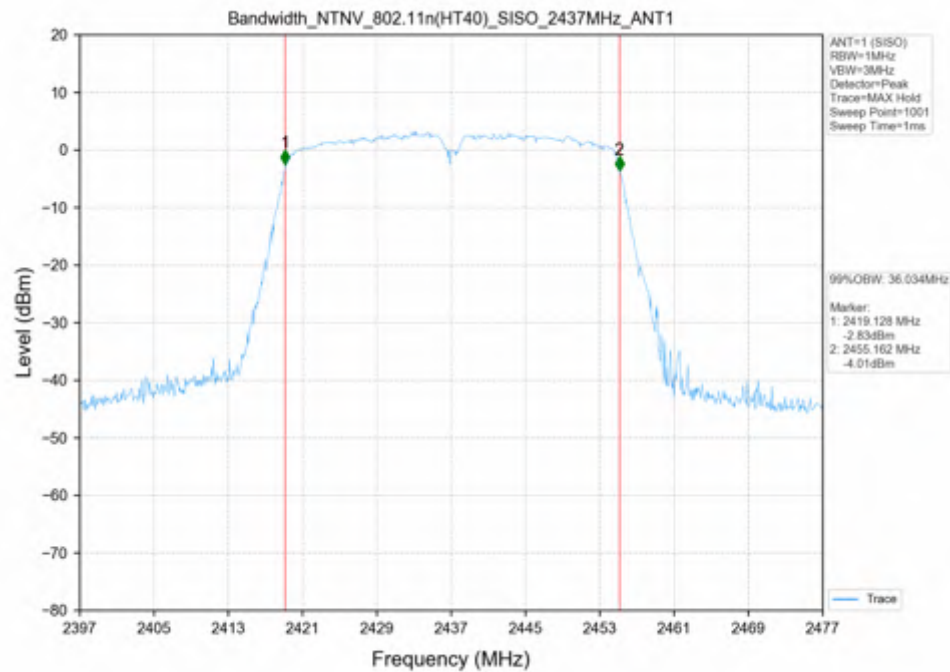
802.11n(HT40)_2422MHz_SISO_ANT1



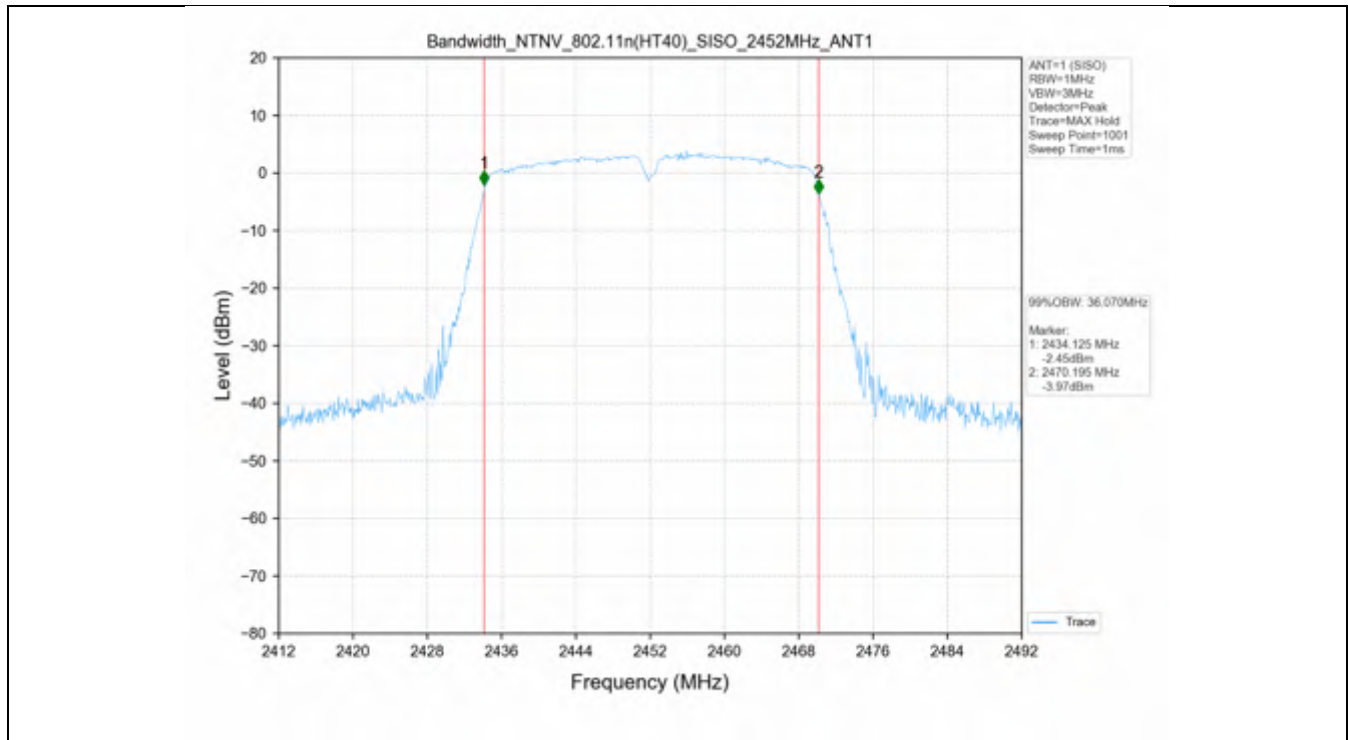
SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



3. Maximum Conducted Output Power

3.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)	Limits (dBm)	Verdict
			Ant 1		
802.11b	2412	SISO	17.42	30	PASS
	2437	SISO	17.83	30	PASS
	2462	SISO	18.68	30	PASS
802.11g	2412	SISO	12.74	30	PASS
	2437	SISO	14.69	30	PASS
	2462	SISO	15.34	30	PASS
802.11n(HT20)	2412	SISO	14.17	30	PASS
	2437	SISO	14.58	30	PASS
	2462	SISO	15.28	30	PASS
802.11n(HT40)	2422	SISO	13.95	30	PASS
	2437	SISO	14.20	30	PASS
	2452	SISO	14.57	30	PASS

34. Maximum Power Spectral Density (PSD)

4.1 Test Result

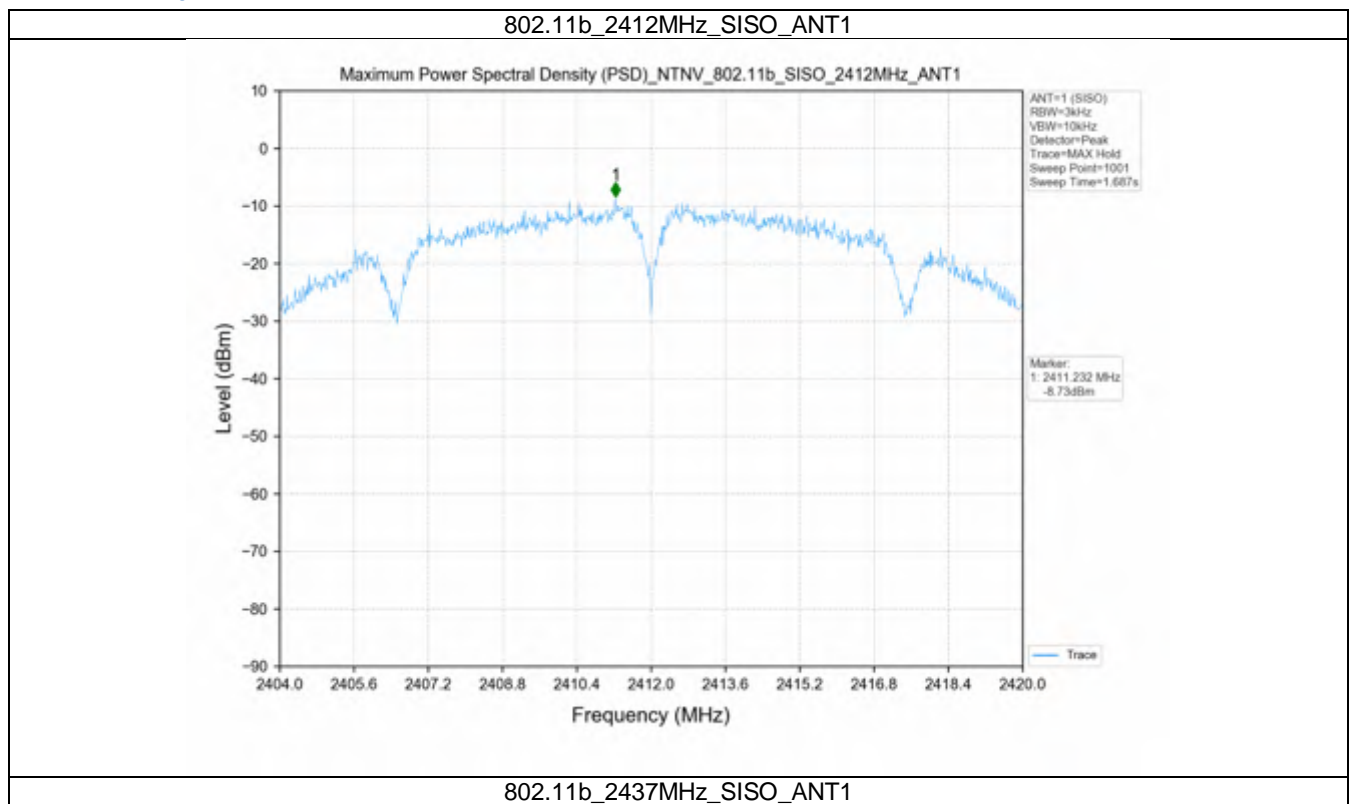
Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/3KHz)	Limits (dBm/3kHz)	Verdict
			Ant 1		



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch

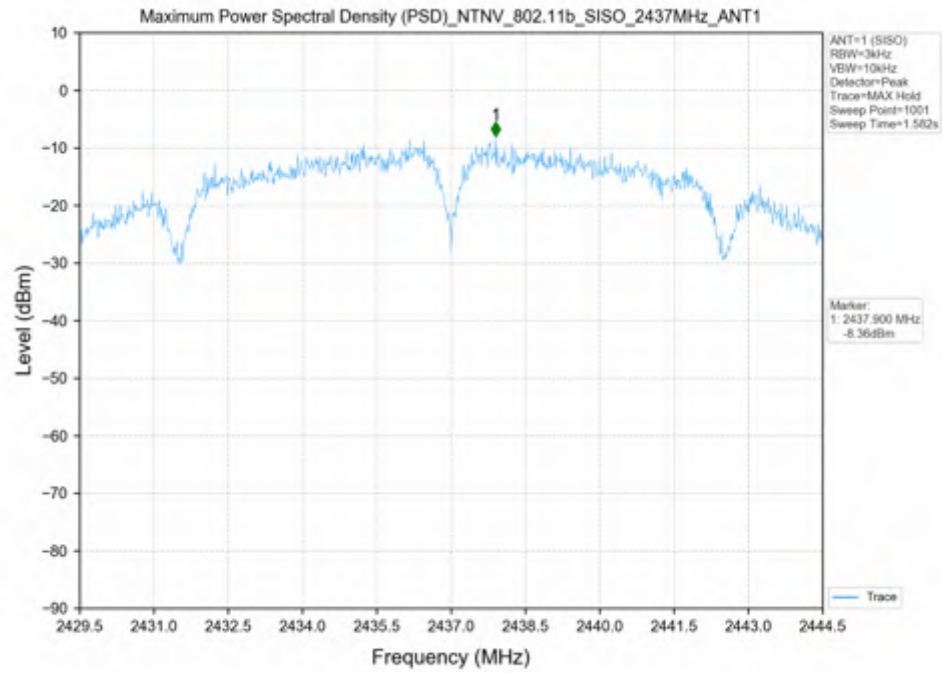
802.11b	2412	SISO	-8.73	≤ 8	PASS
	2437	SISO	-8.36	≤ 8	PASS
	2462	SISO	-7.97	≤ 8	PASS
802.11g	2412	SISO	-12.79	≤ 8	PASS
	2437	SISO	-15.13	≤ 8	PASS
	2462	SISO	-13.40	≤ 8	PASS
802.11n(HT20)	2412	SISO	-16.61	≤ 8	PASS
	2437	SISO	-15.78	≤ 8	PASS
	2462	SISO	-14.25	≤ 8	PASS
802.11n(HT40)	2422	SISO	-18.59	≤ 8	PASS
	2437	SISO	-18.43	≤ 8	PASS
	2452	SISO	-18.39	≤ 8	PASS

4.2 Test Graph

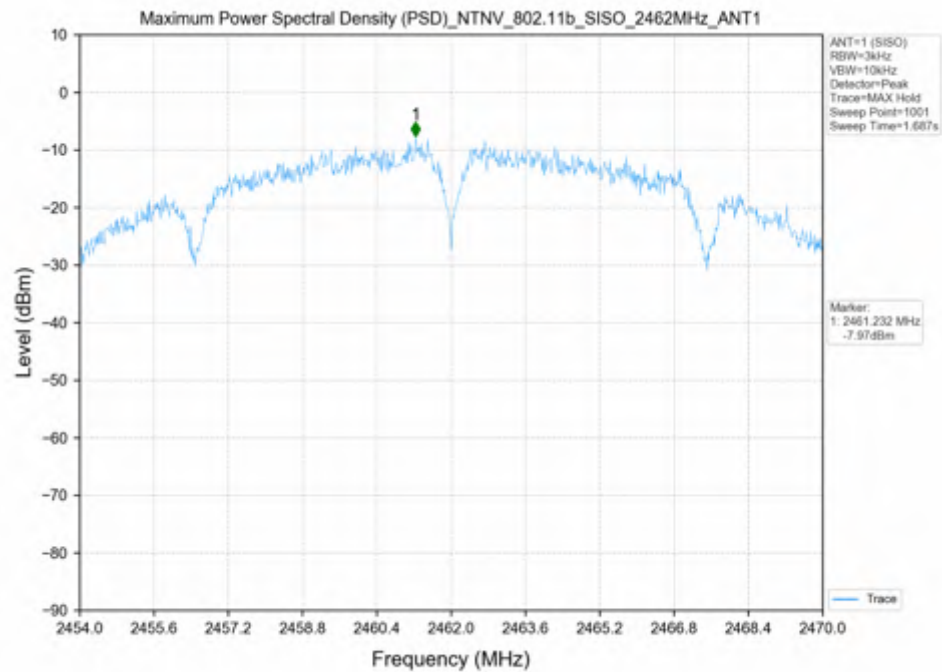




SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



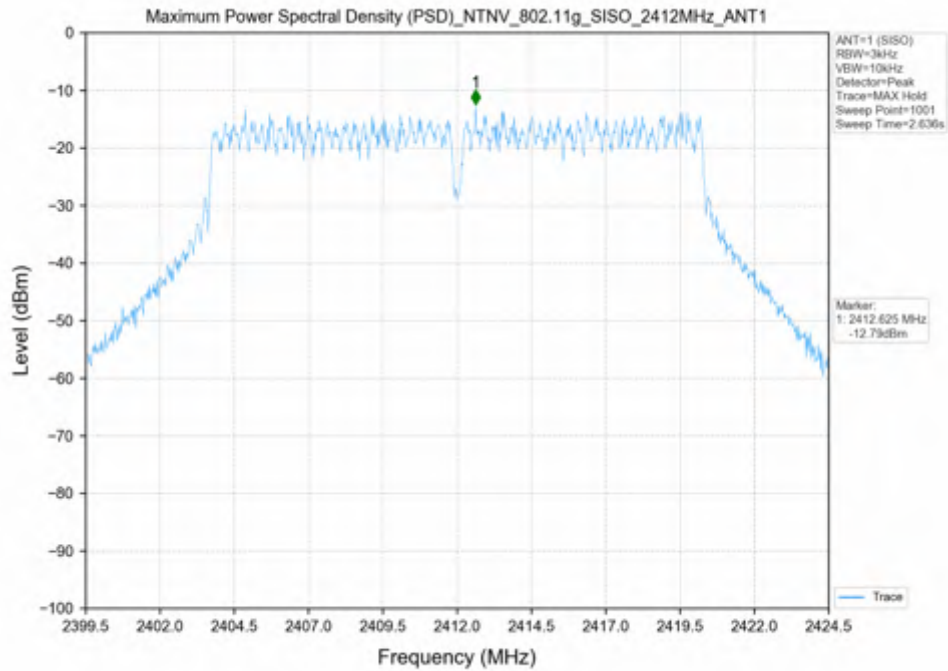
802.11b_2462MHz_SISO_ANT1



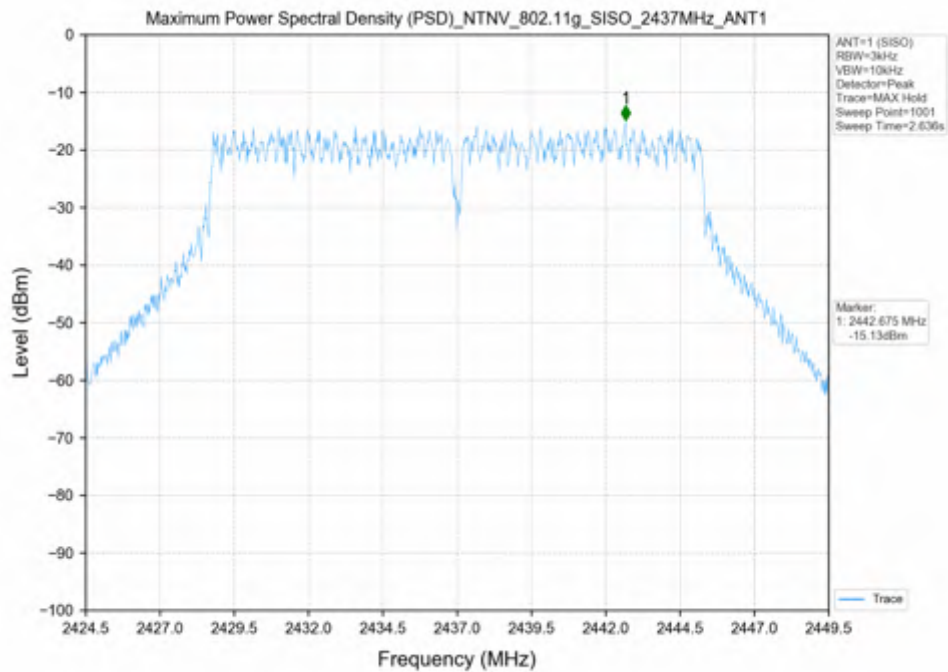
802.11g_2412MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



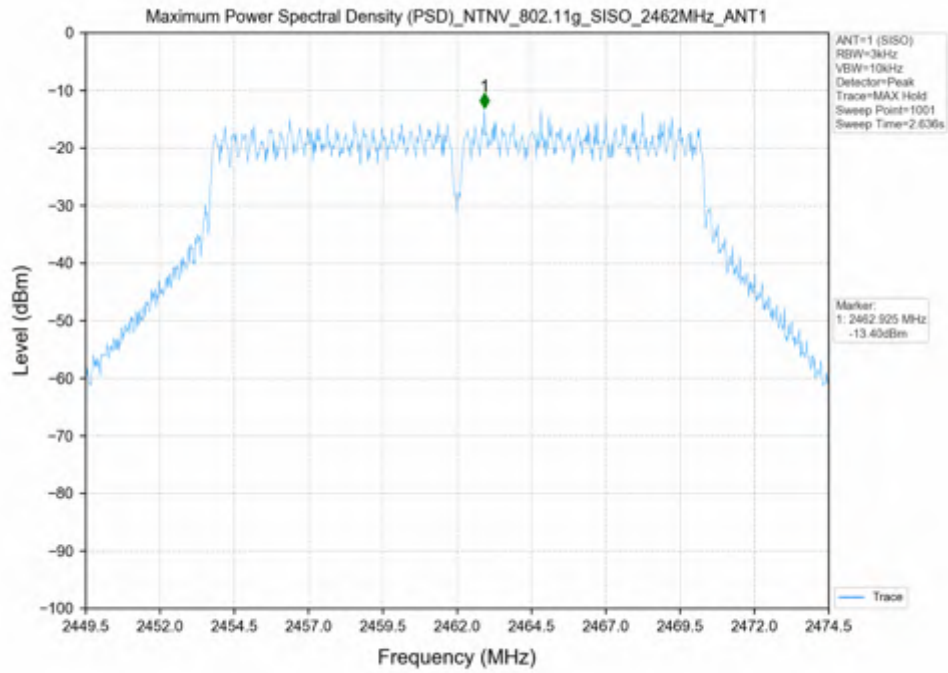
802.11g_2437MHz_SISO_ANT1



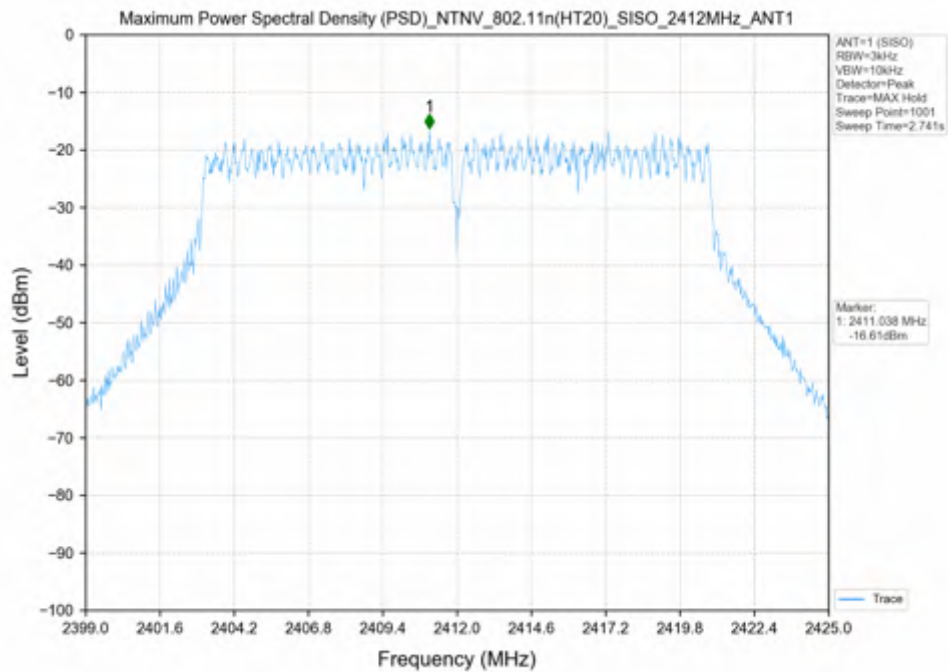
802.11g_2462MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



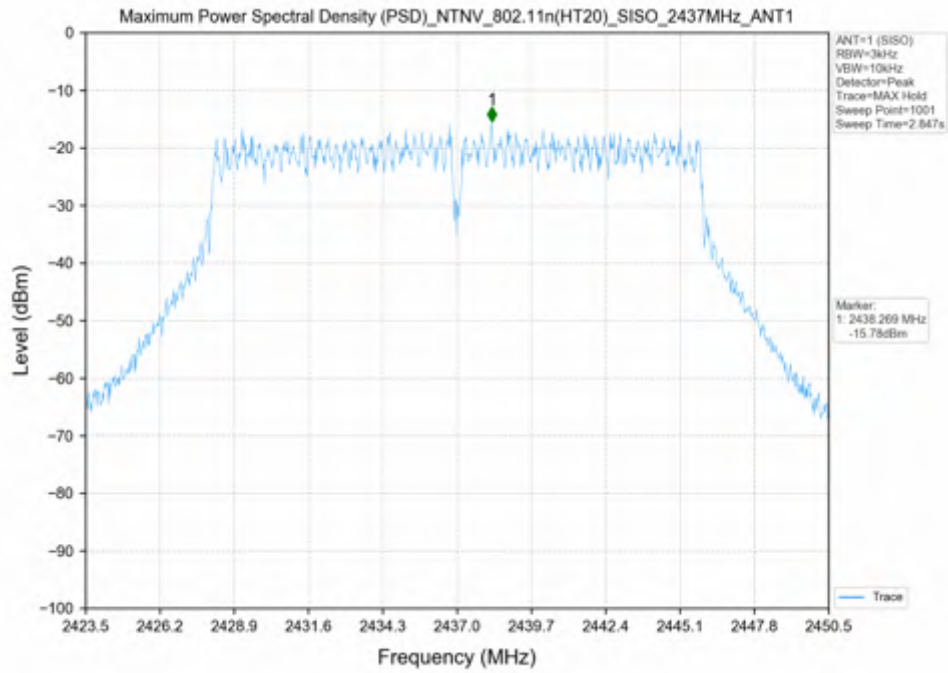
802.11n(HT20)_2412MHz_SISO_ANT1



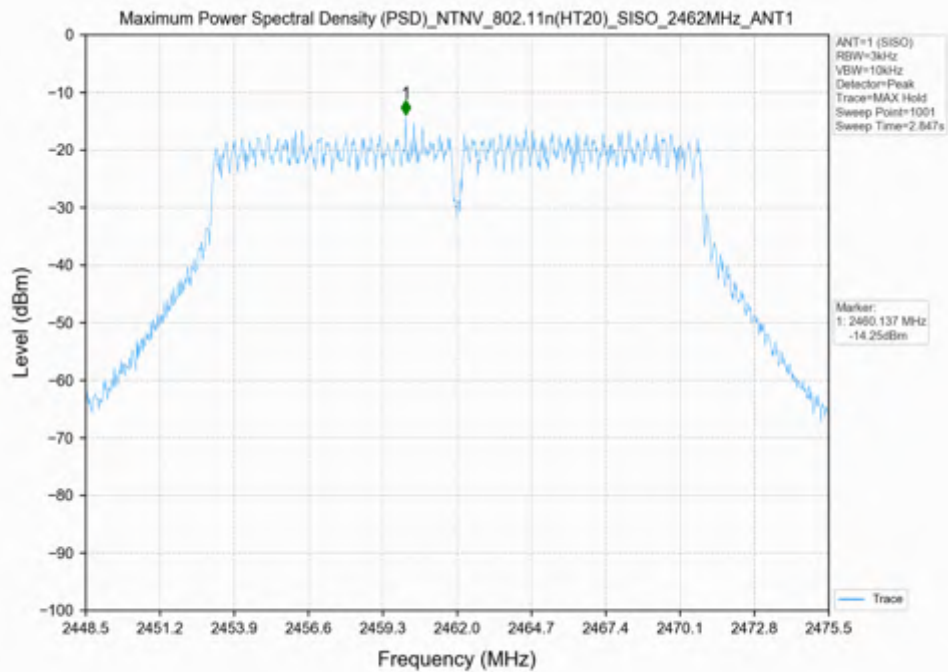
802.11n(HT20)_2437MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



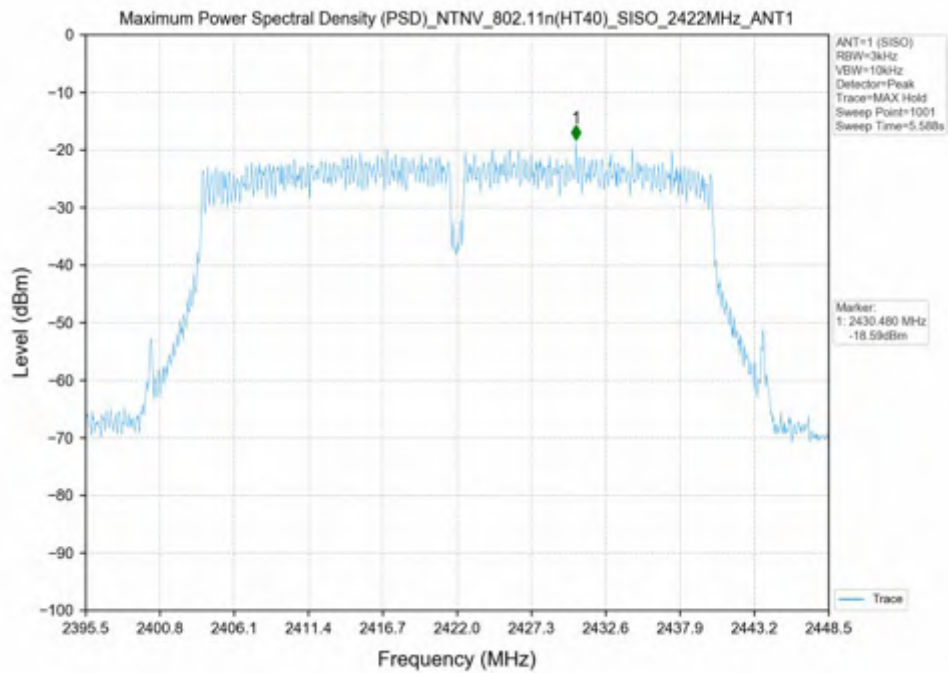
802.11n(HT20)_2462MHz_SISO_ANT1



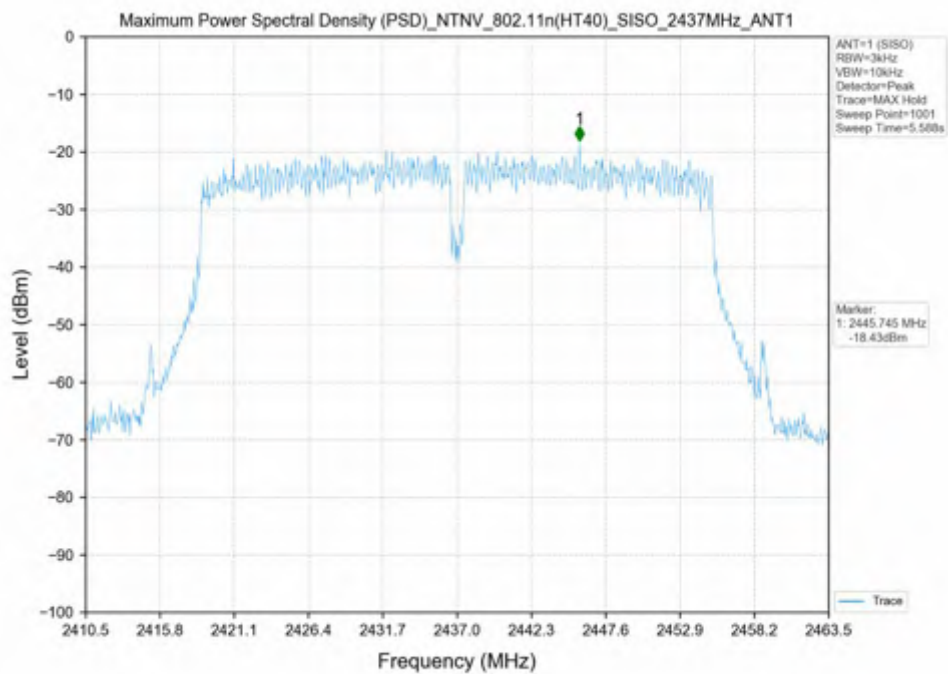
802.11n(HT40)_2422MHz_SISO_ANT1



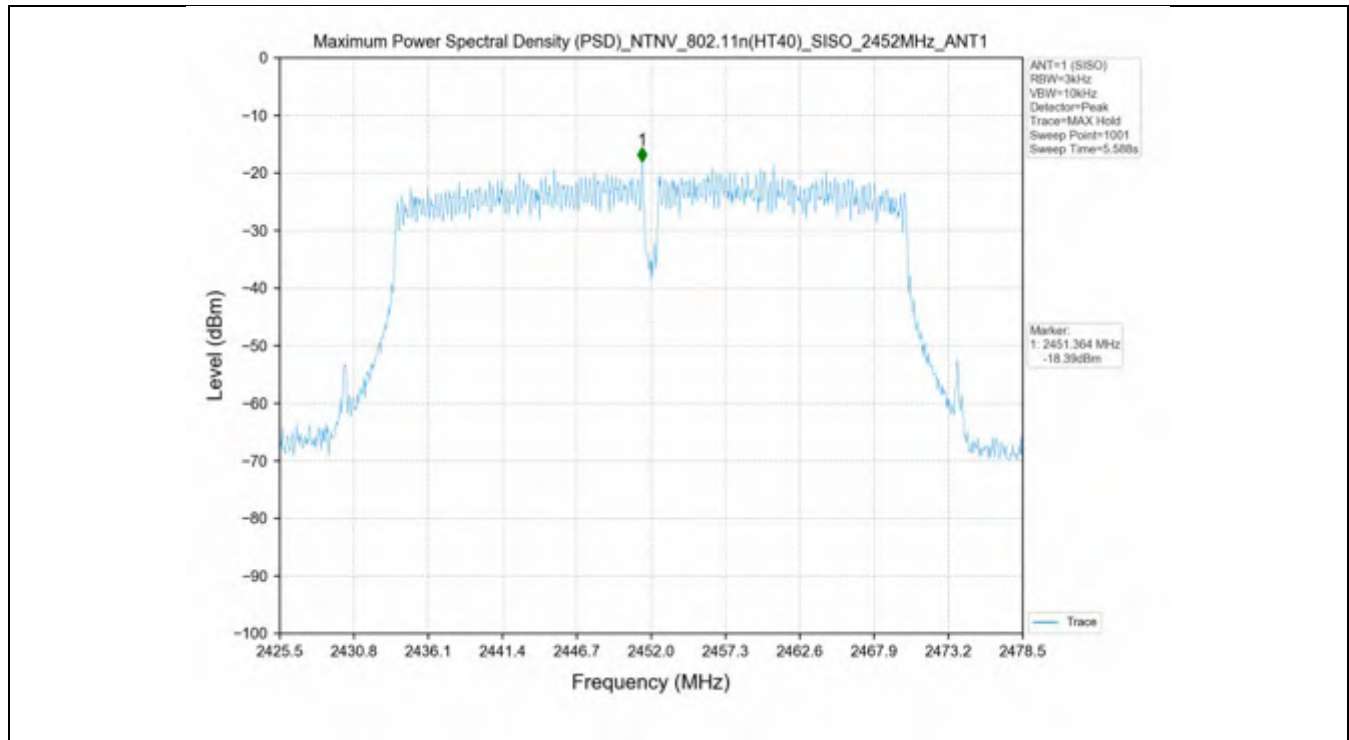
SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



5. Unwanted Emissions in Non-restricted Frequency Bands

5.1 Test Result

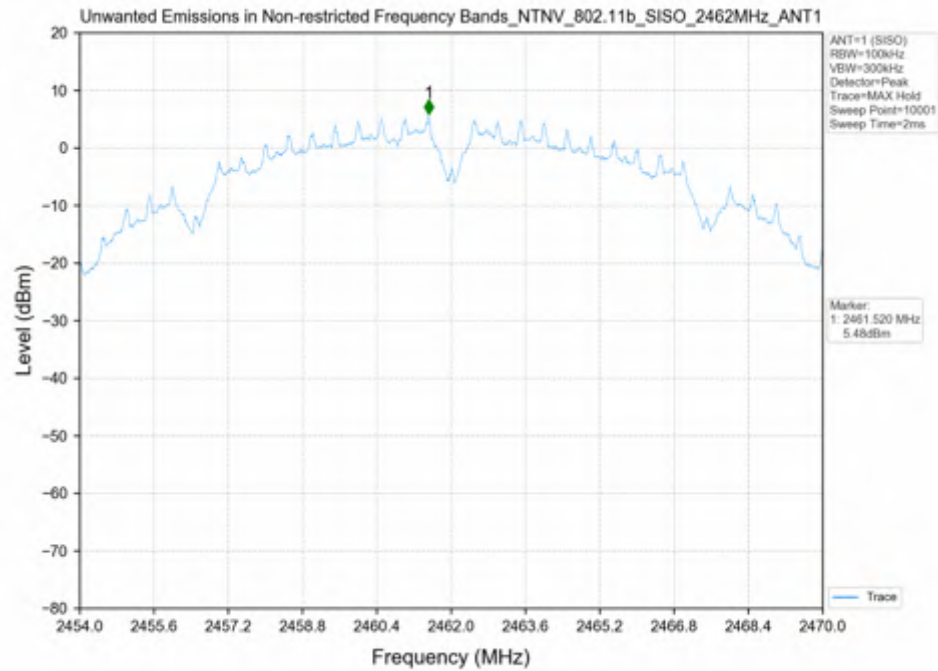
Test Mode	Frequency (MHz)	TX Type	ANT No.	Spurious Conducted Emission (dBm)	Limits (dBm)	Verdict
802.11b	2412	SISO	1	Refer to test graph	-24.52	recalc
	2437	SISO	1	Refer to test graph	-24.52	recalc
	2462	SISO	1	Refer to test graph	-24.52	recalc
802.11g	2412	SISO	1	Refer to test graph	-26.97	recalc
	2437	SISO	1	Refer to test graph	-26.97	recalc
	2462	SISO	1	Refer to test graph	-26.97	recalc
802.11n(HT20)	2412	SISO	1	Refer to test graph	-27.20	recalc
	2437	SISO	1	Refer to test graph	-27.20	recalc
	2462	SISO	1	Refer to test graph	-27.20	recalc
802.11n(HT40)	2422	SISO	1	Refer to test graph	-29.67	recalc
	2437	SISO	1	Refer to test graph	-29.67	recalc
	2452	SISO	1	Refer to test graph	-29.67	recalc

5.2 Test Graph

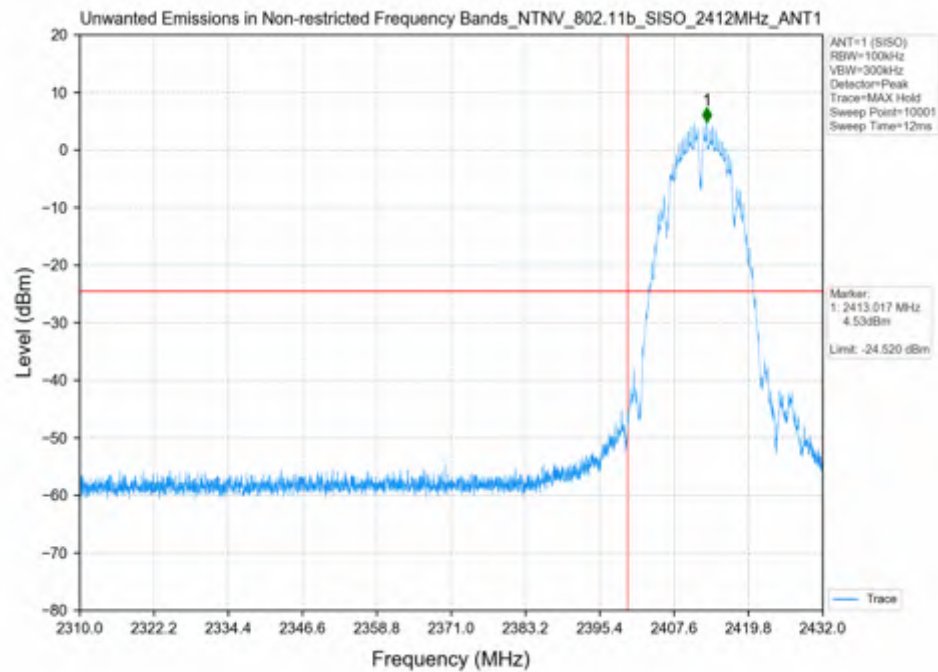
802.11b_SISO_ANT1_REF



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



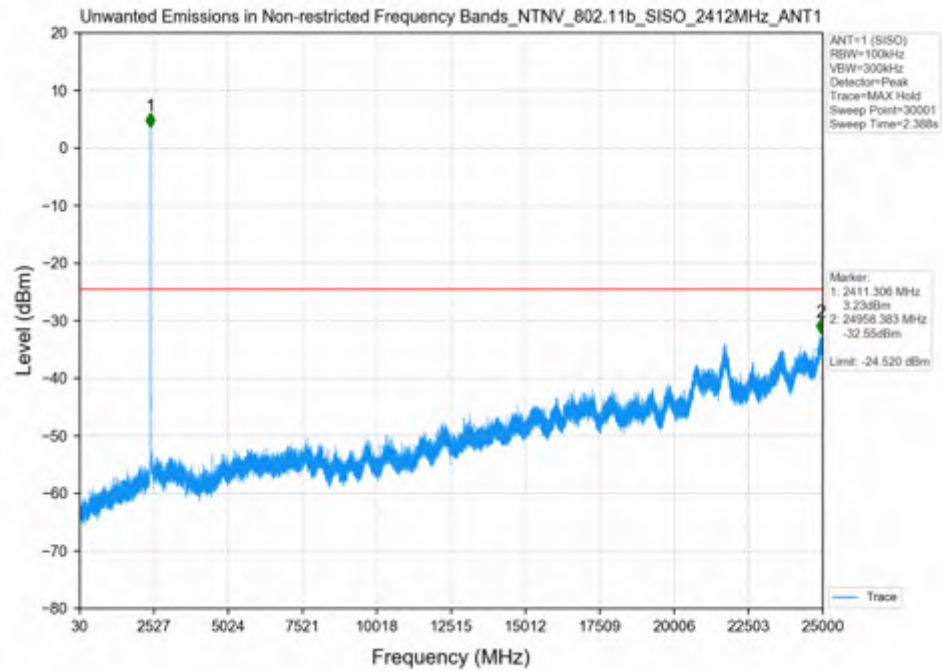
802.11b_2412MHz_SISO_ANT1



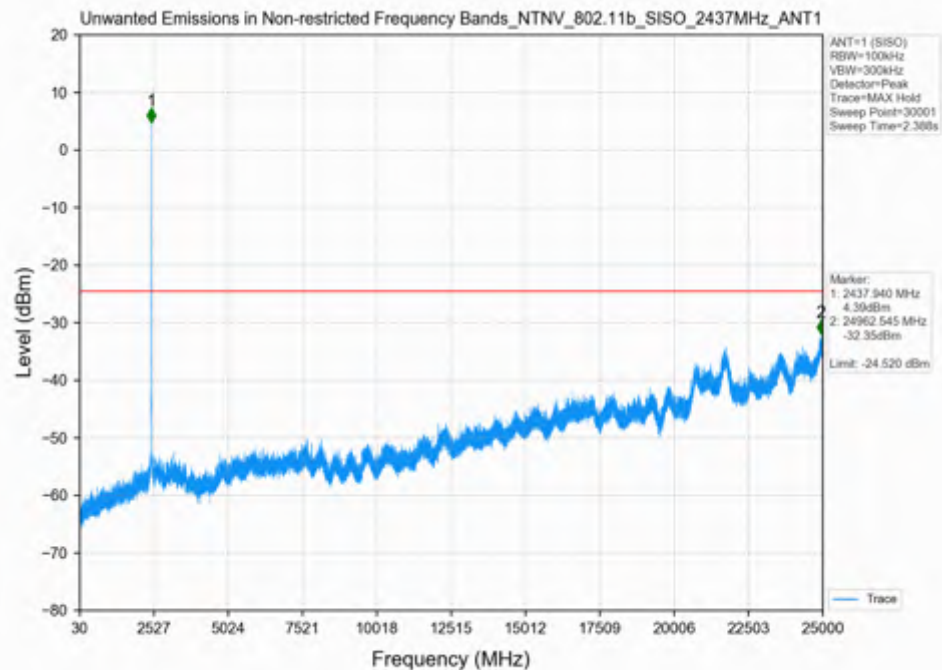
802.11b_2412MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



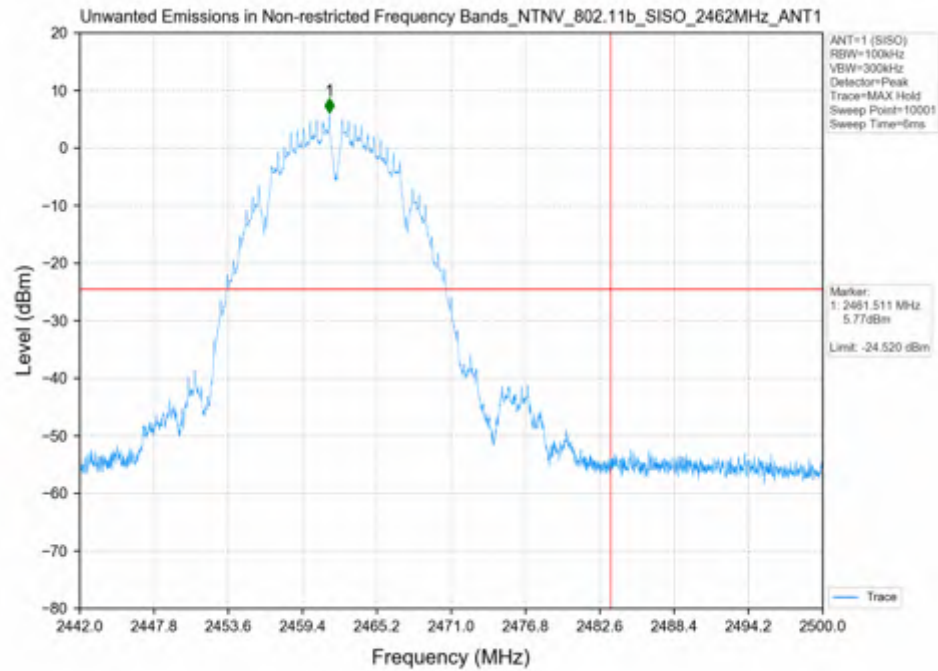
802.11b_2437MHz_SISO_ANT1



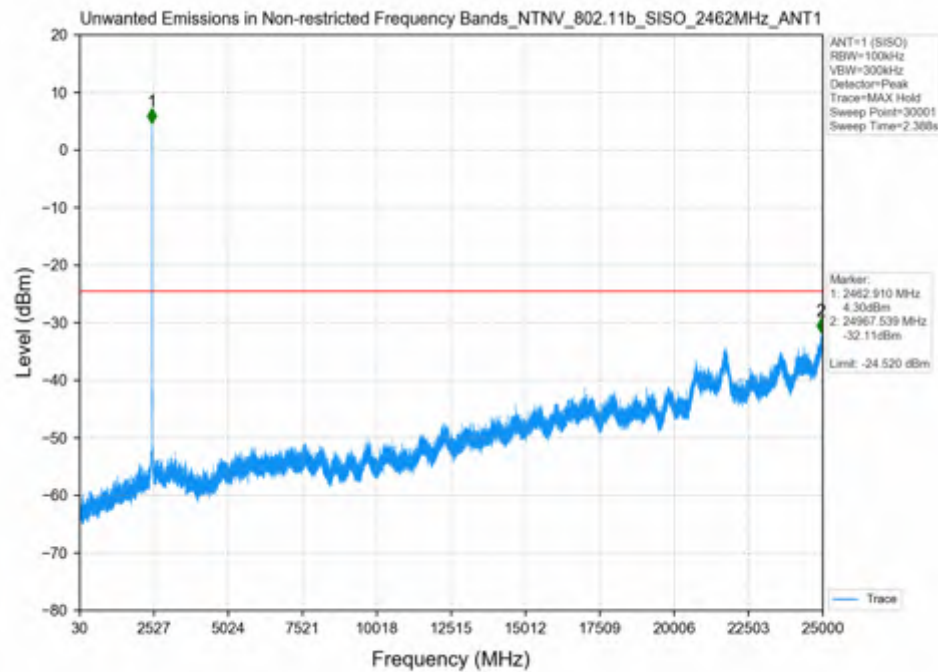
802.11b_2462MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



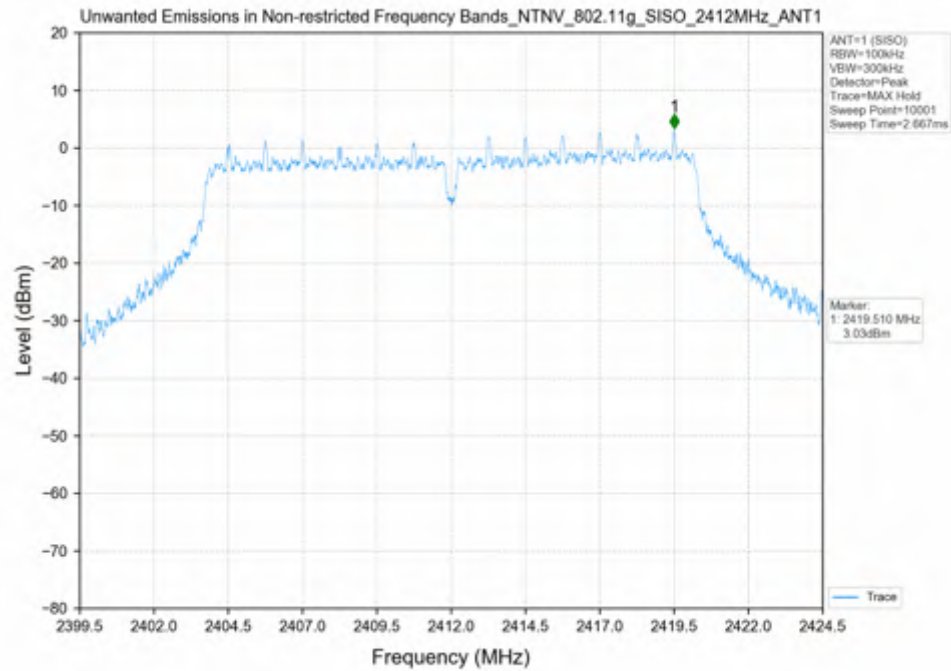
802.11b_2462MHz_SISO_ANT1



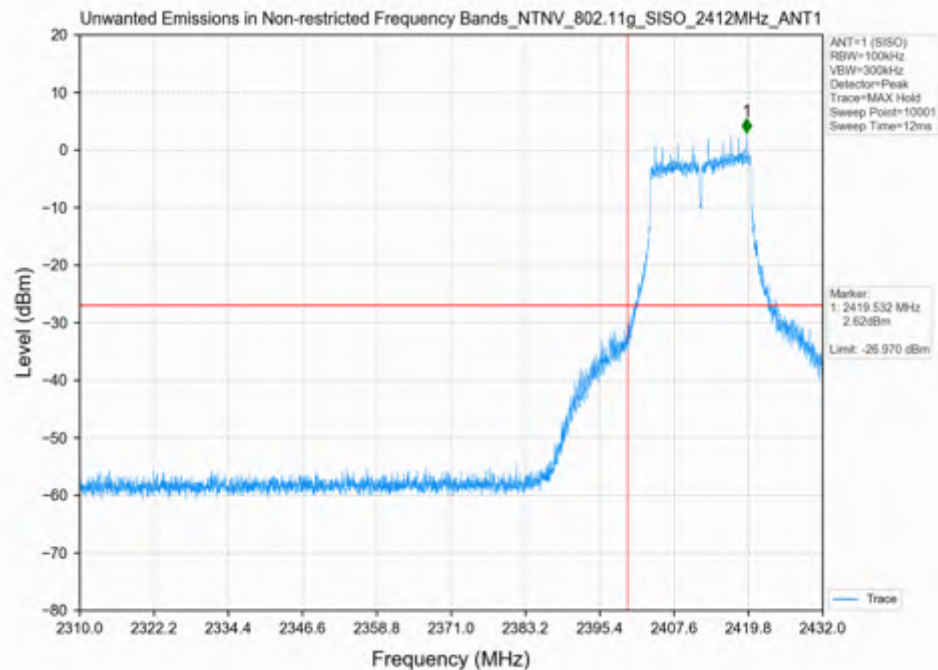
802.11g_SISO_ANT1_REF



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



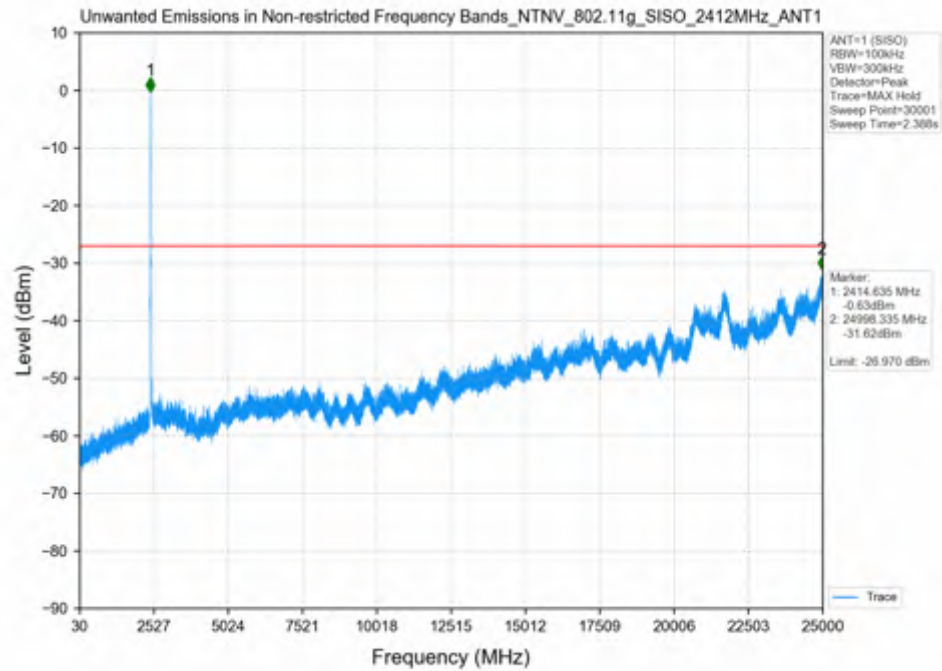
802.11g_2412MHz_SISO_ANT1



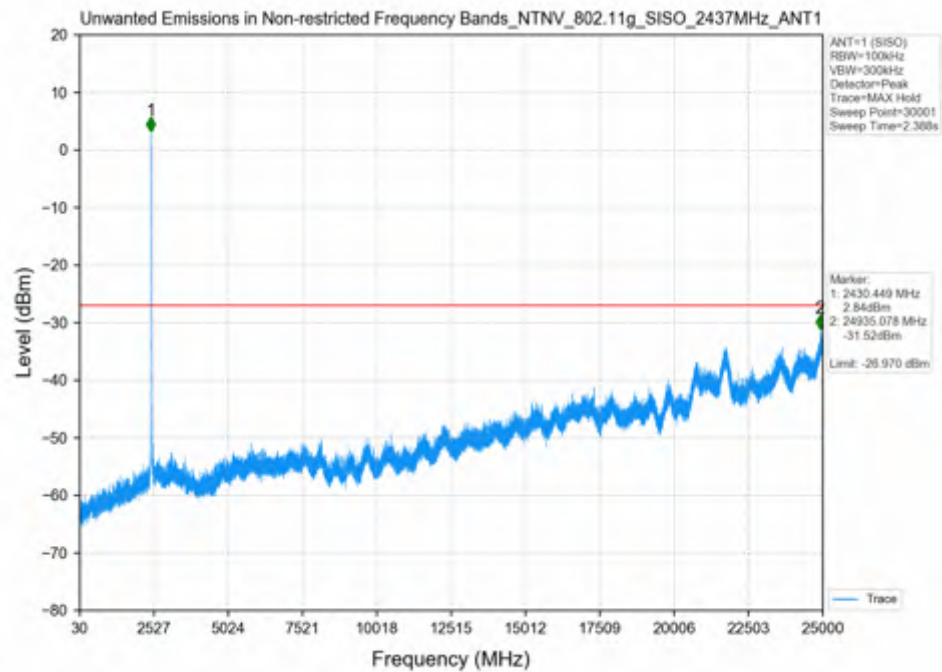
802.11g_2412MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



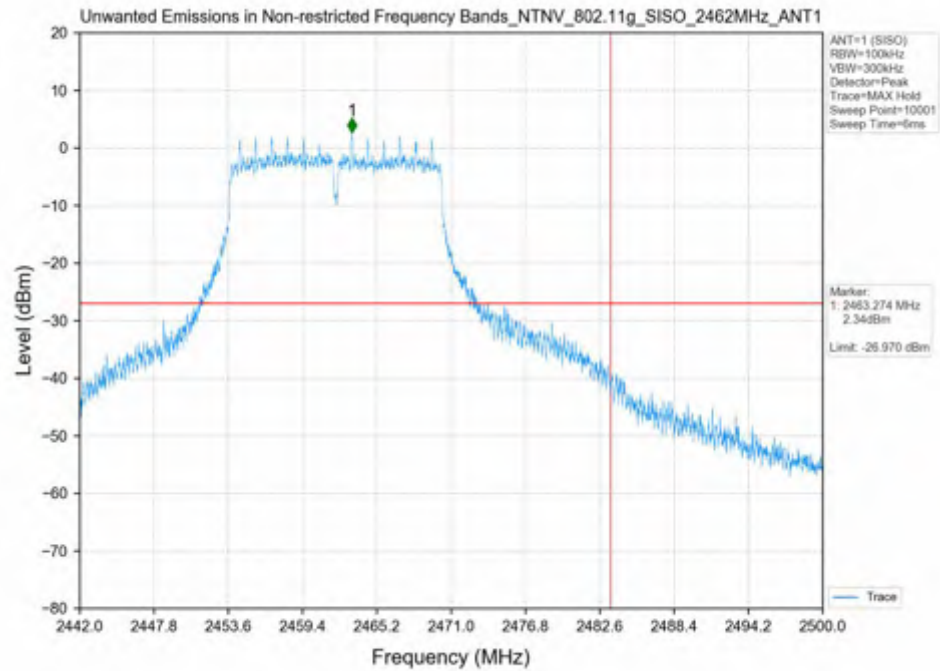
802.11g_2437MHz_SISO_ANT1



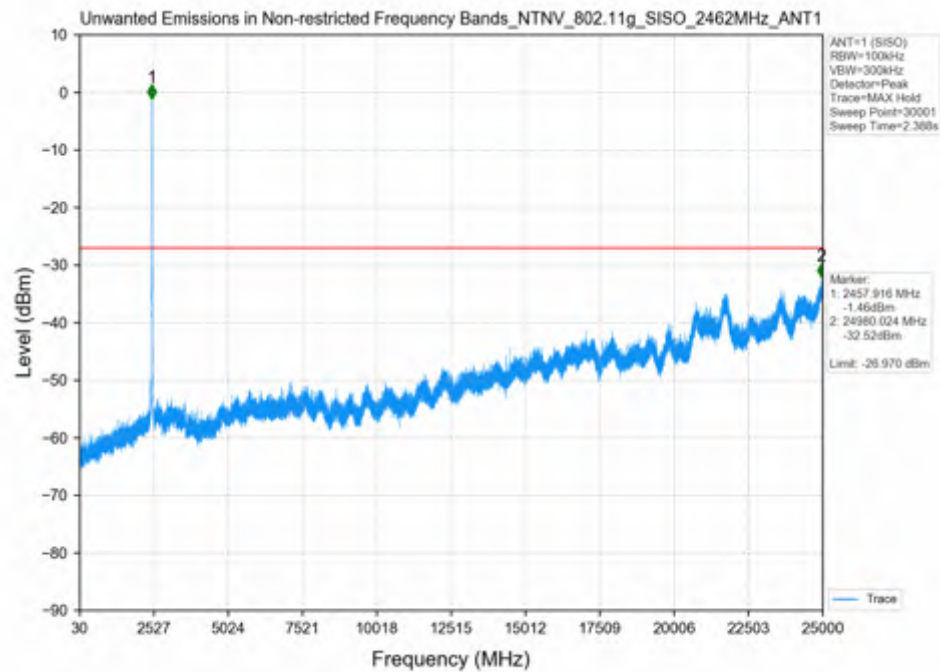
802.11g_2462MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



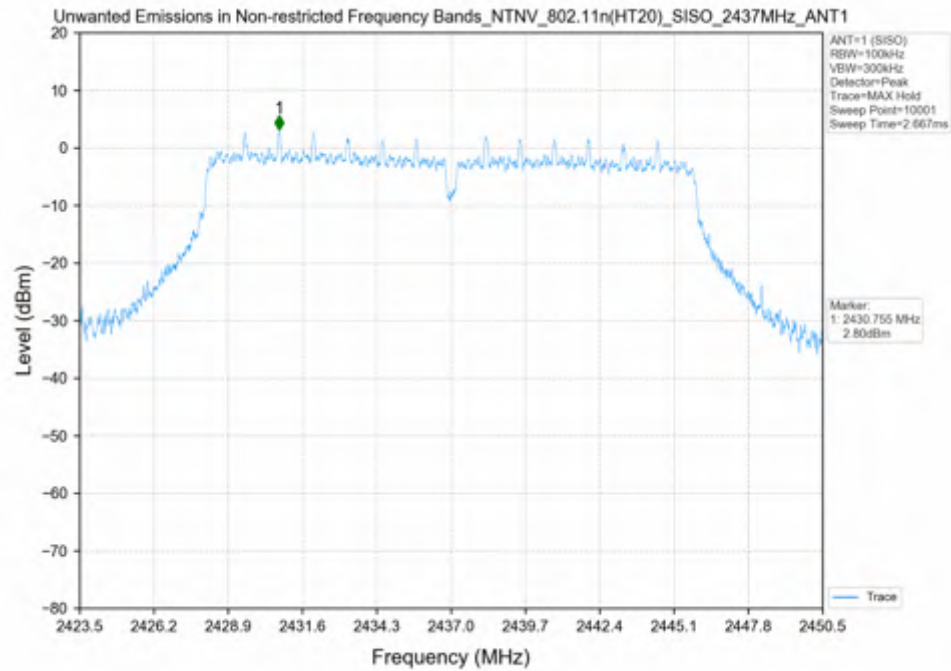
802.11g_2462MHz_SISO_ANT1



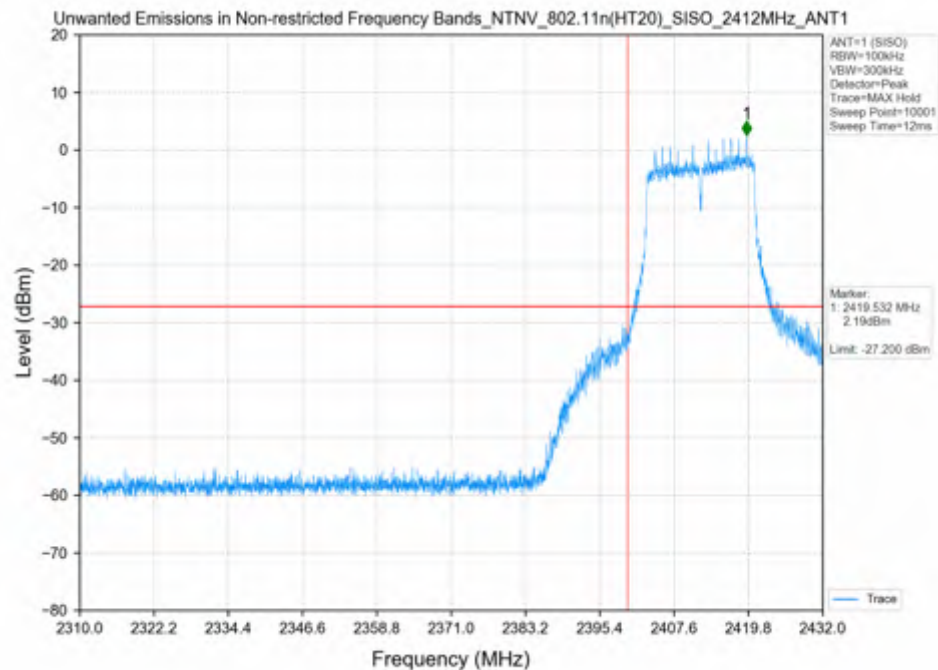
802.11n(HT20)_SISO_ANT1_REF



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



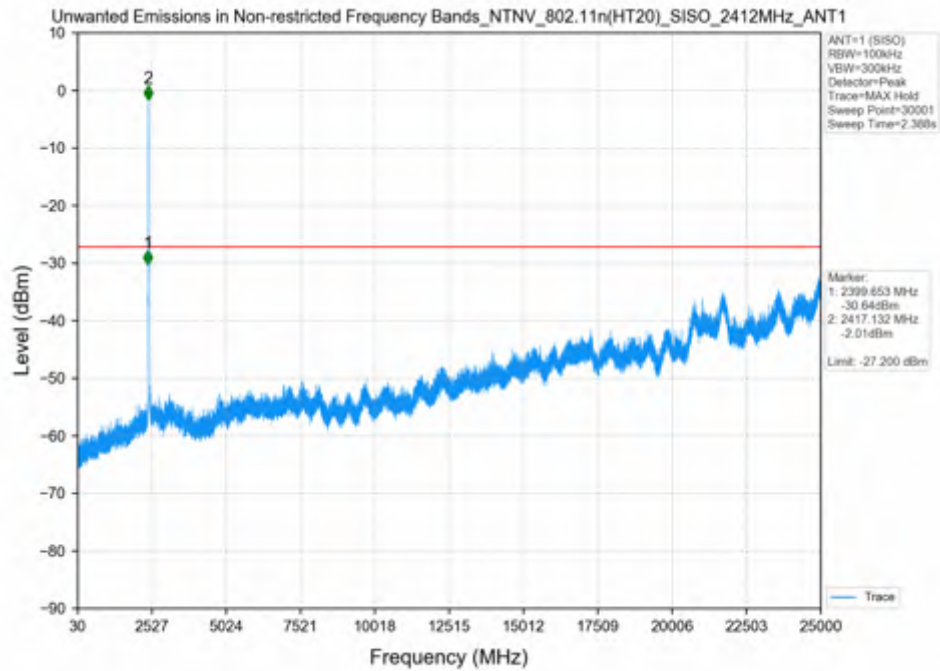
802.11n(HT20)_2412MHz_SISO_ANT1



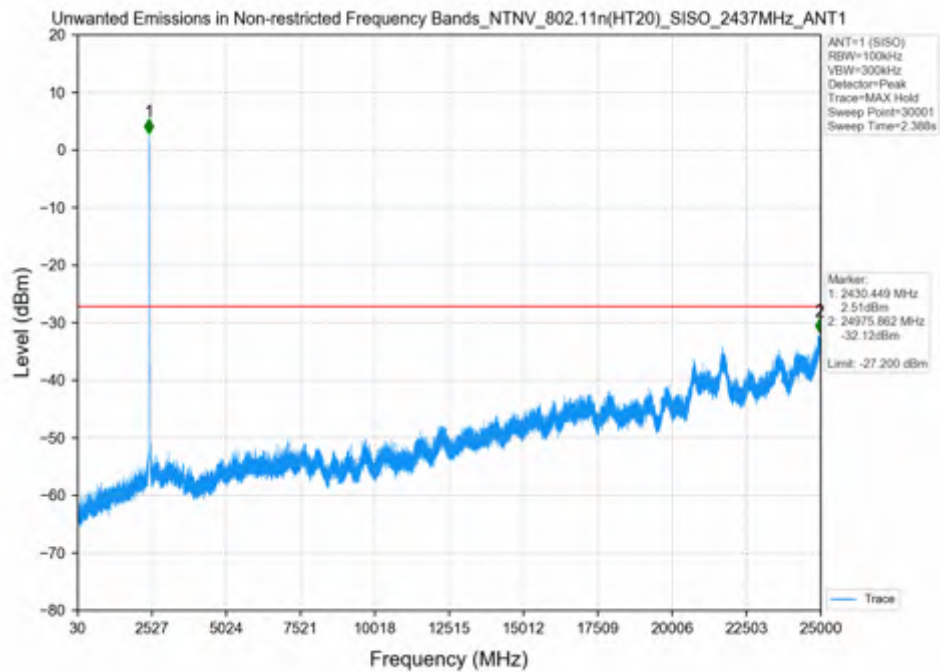
802.11n(HT20)_2412MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



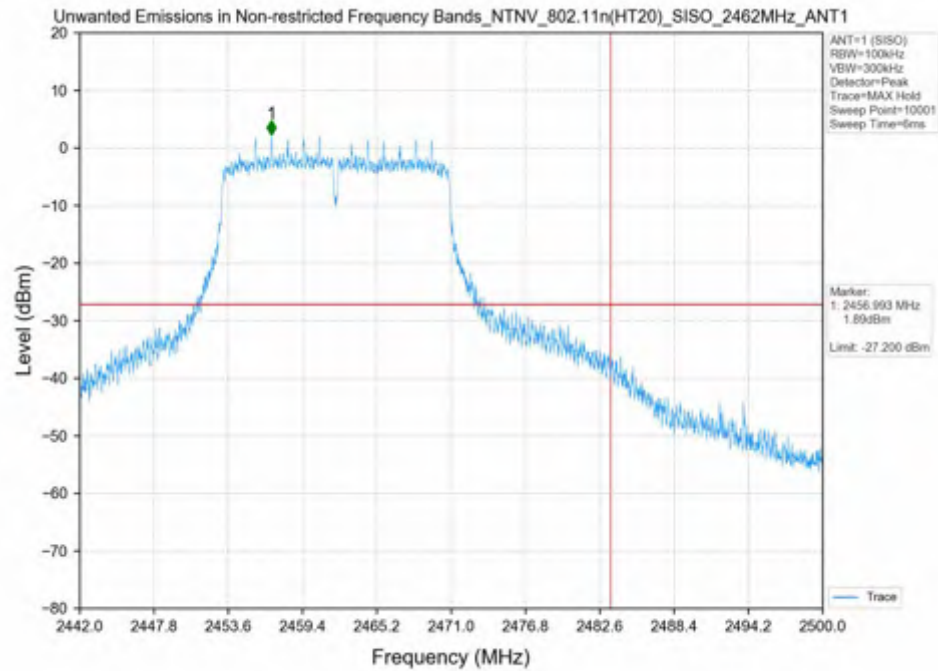
802.11n(HT20)_2437MHz_SISO_ANT1



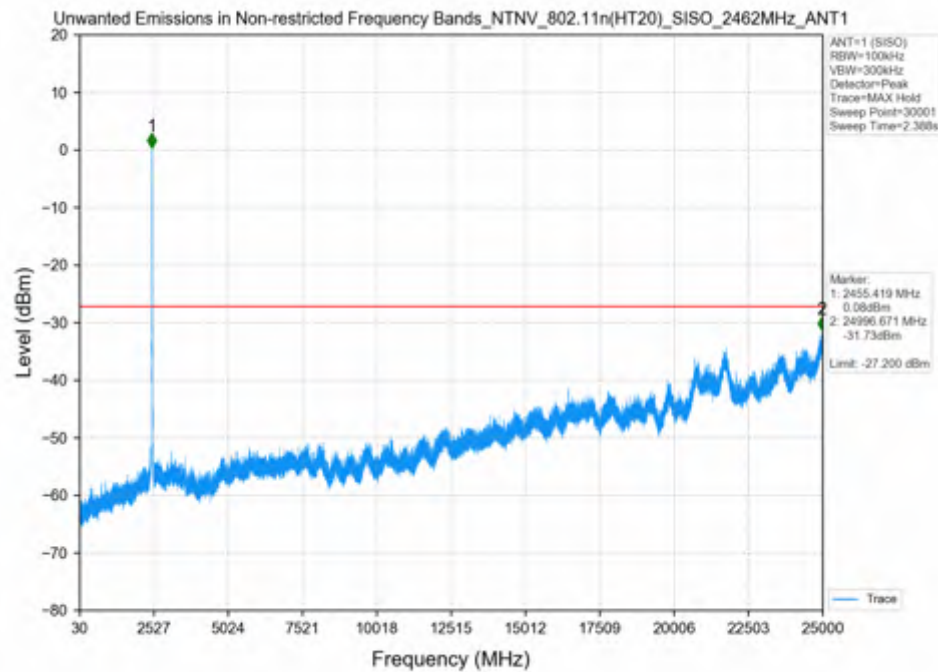
802.11n(HT20)_2462MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



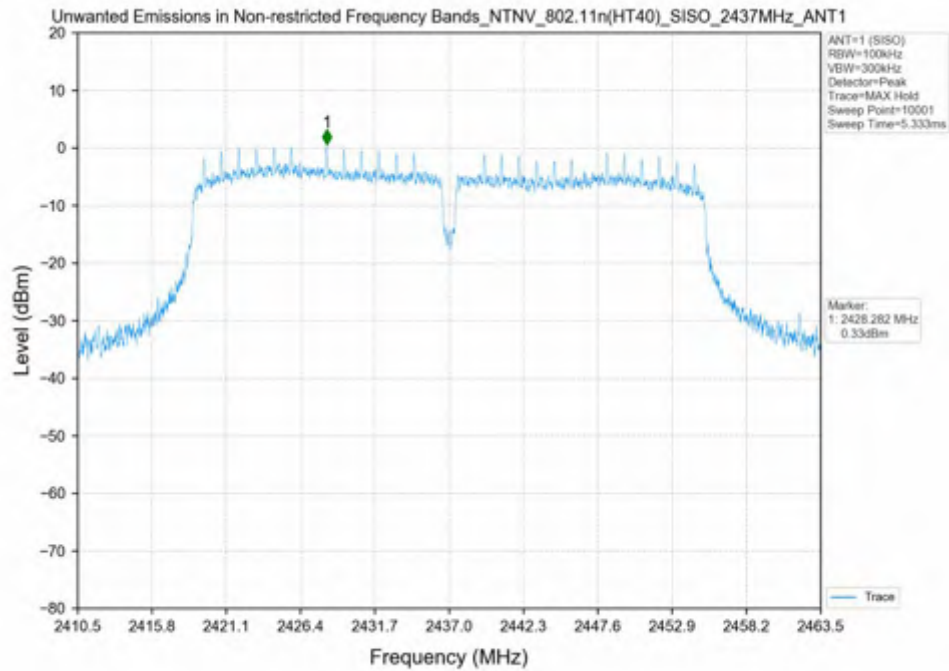
802.11n(HT20)_2462MHz_SISO_ANT1



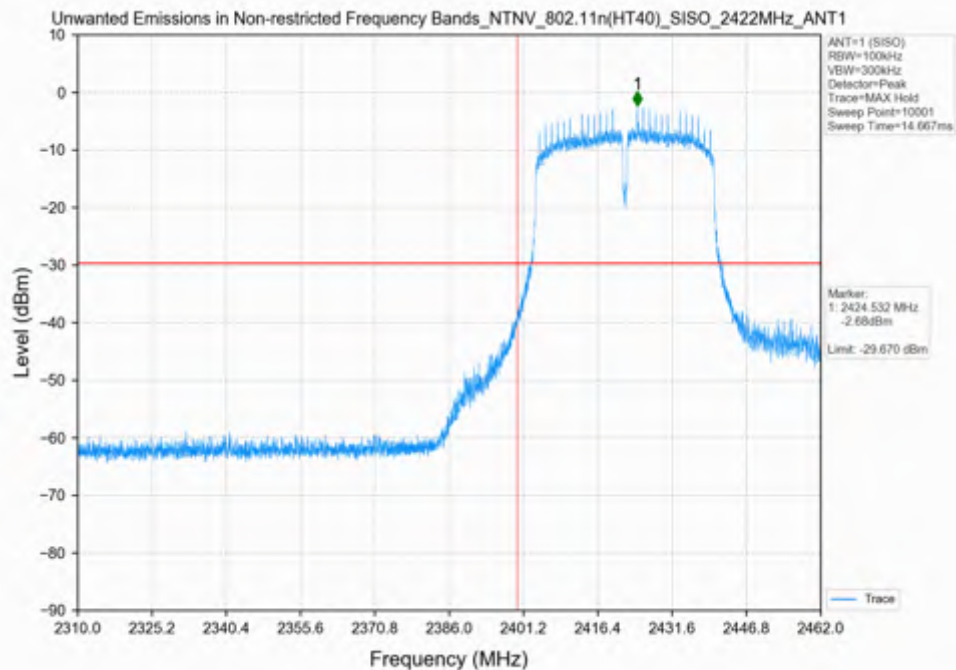
802.11n(HT40)_SISO_ANT1_REF



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai
Branch



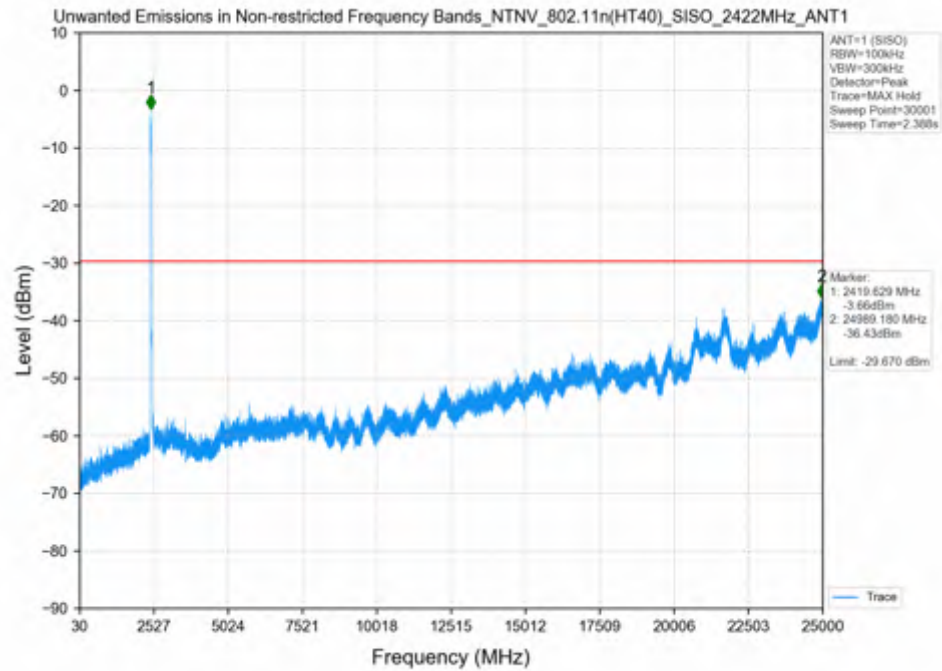
802.11n(HT40)_2422MHz_SISO_ANT1



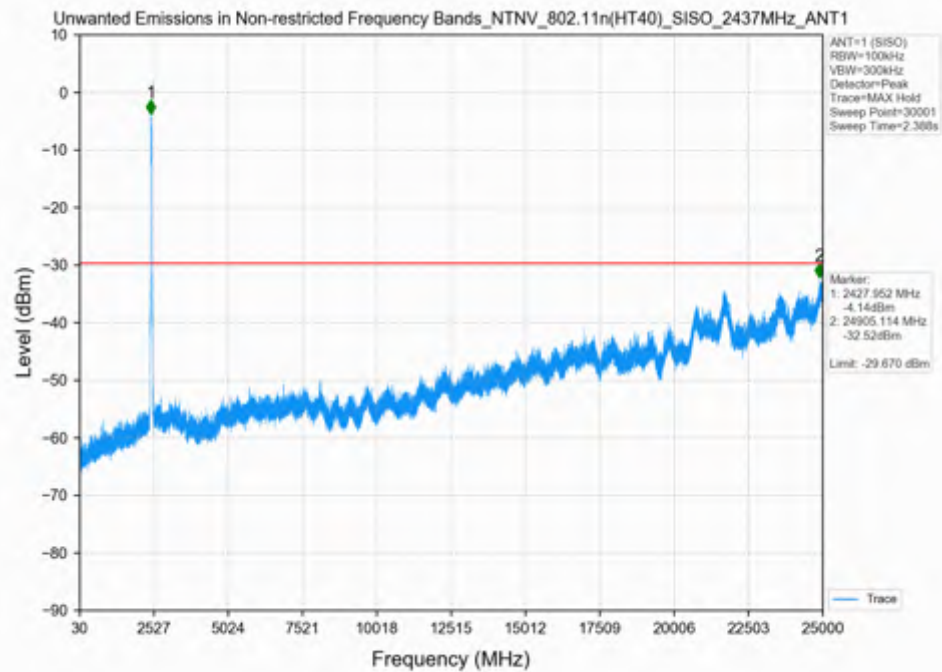
802.11n(HT40)_2422MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



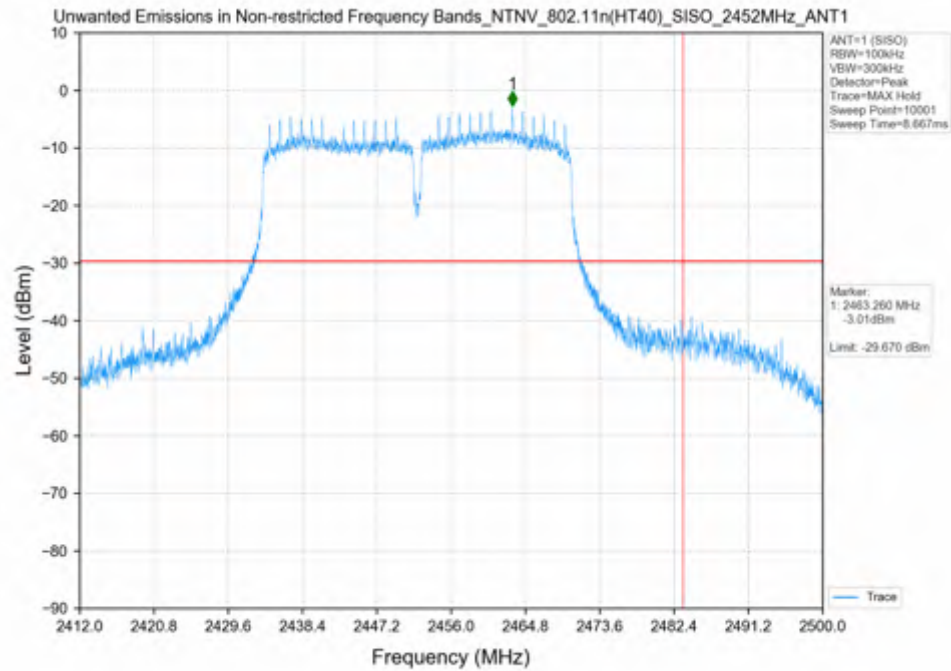
802.11n(HT40)_2437MHz_SISO_ANT1



802.11n(HT40)_2452MHz_SISO_ANT1



SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch



802.11n(HT40)_2452MHz_SISO_ANT1

