Appendix A for SHEM210500493401

1. Duty Cycle

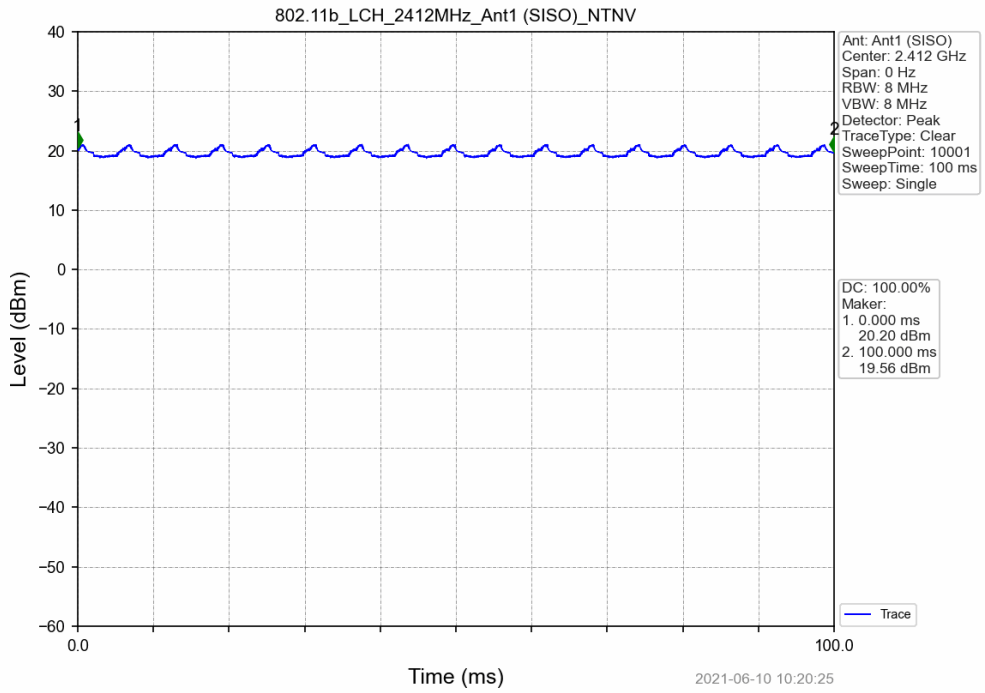
1.1 Ant1

1.1.1 Test Result

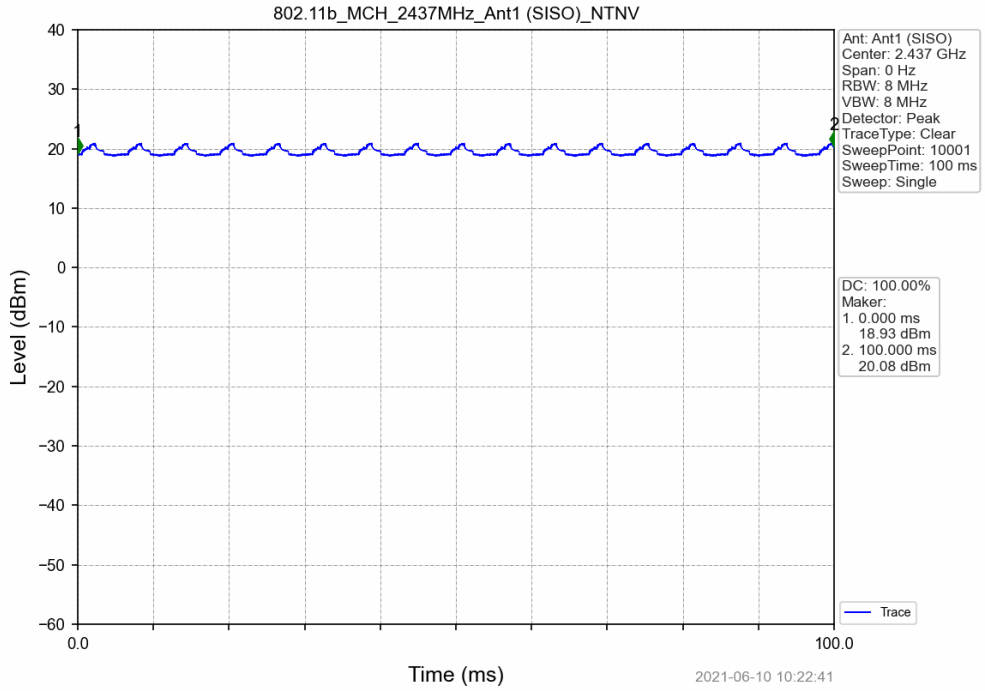
Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	100.00	100.00	100.00	0.00	0.00
		2437	/	/	100.00	100.00	100.00	0.00	0.00
		2462	/	/	100.00	100.00	100.00	0.00	0.00
802.11g	SISO	2412	/	/	100.00	100.00	100.00	0.00	0.00
		2437	/	/	100.00	100.00	100.00	0.00	0.00
		2462	/	/	100.00	100.00	100.00	0.00	0.00
802.11n (HT20)	MIMO	2412	/	/	100.00	100.00	100.00	0.00	0.00
		2437	/	/	100.00	100.00	100.00	0.00	0.00
		2462	/	/	100.00	100.00	100.00	0.00	0.00
802.11n (HT40)	MIMO	2422	/	/	100.00	100.00	100.00	0.00	0.00
		2437	/	/	100.00	100.00	100.00	0.00	0.00
		2452	/	/	100.00	100.00	100.00	0.00	0.00
Note1: Only for Report Use									

1.1.2 Test Graph

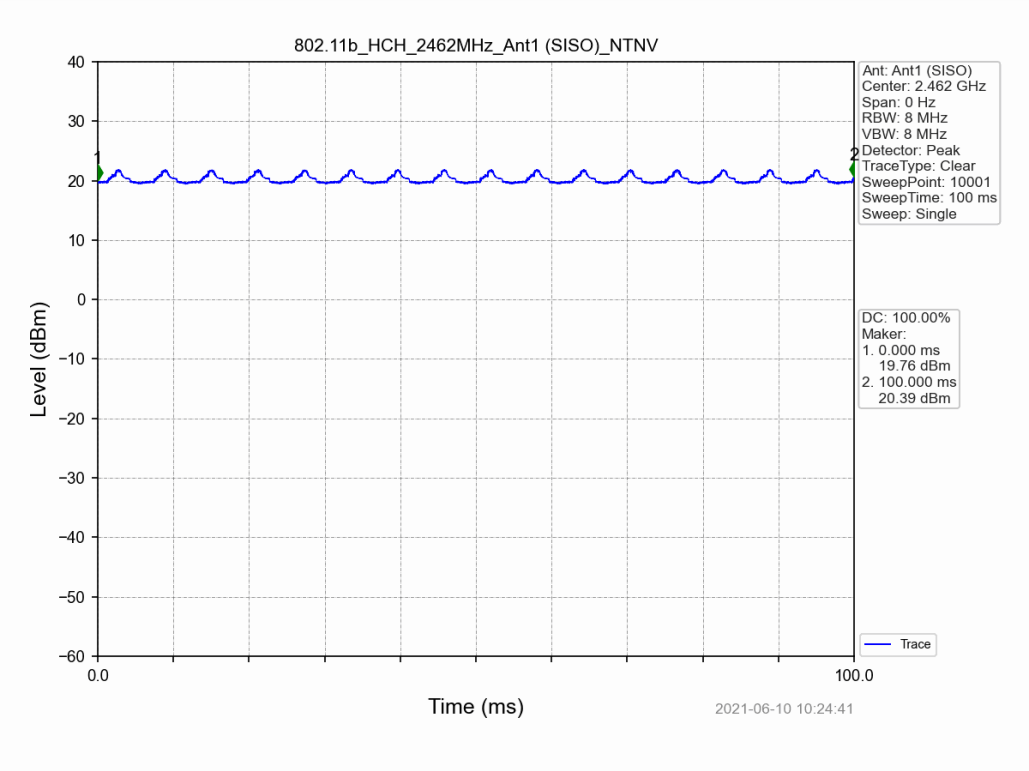
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



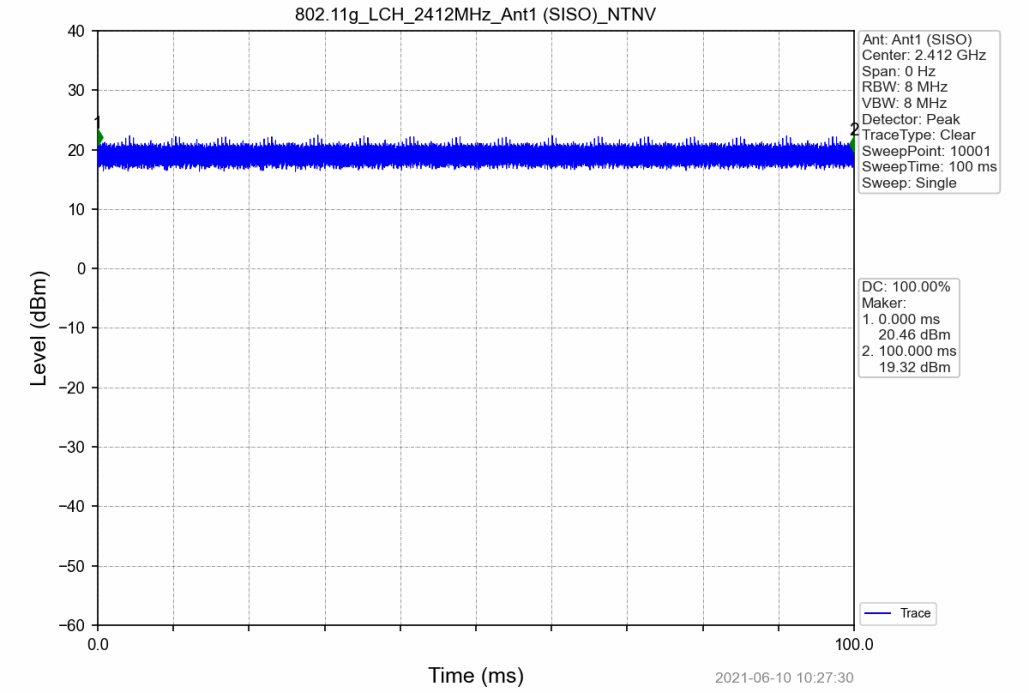
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



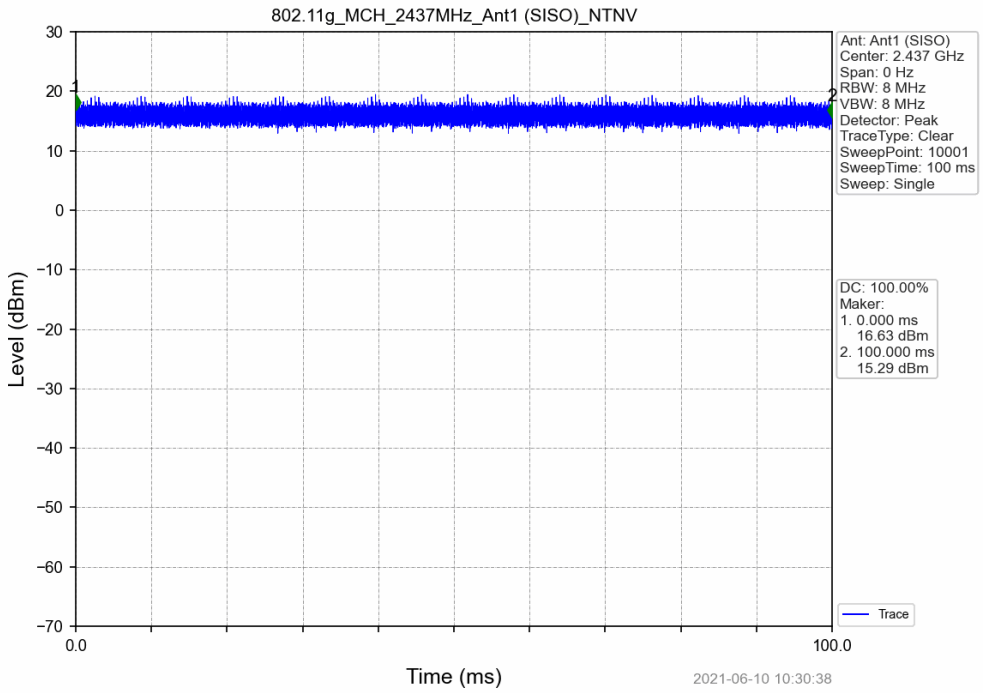
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



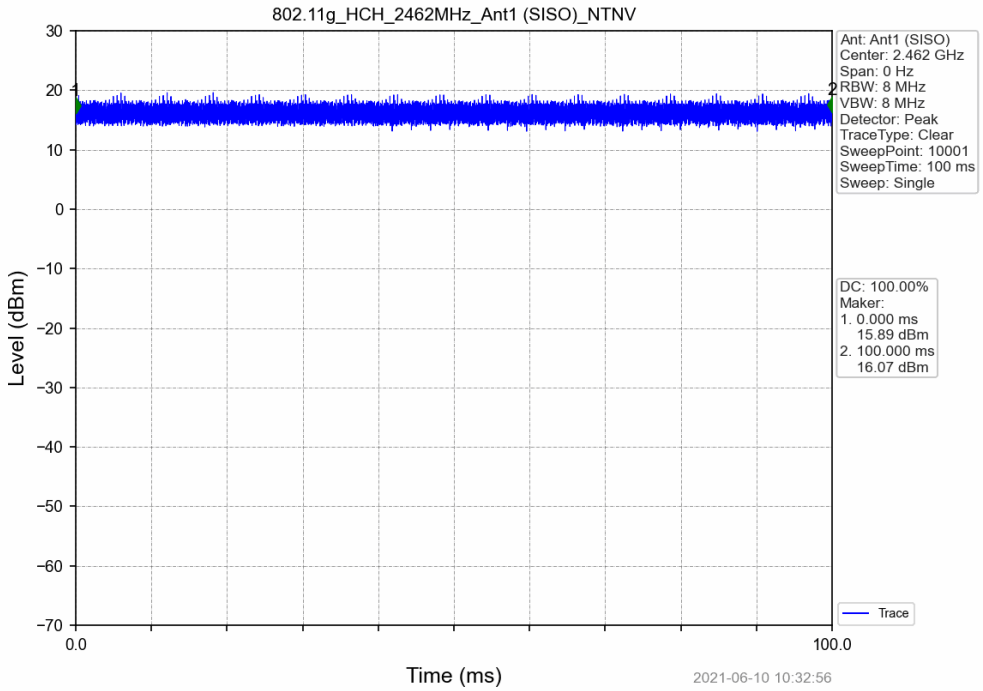
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



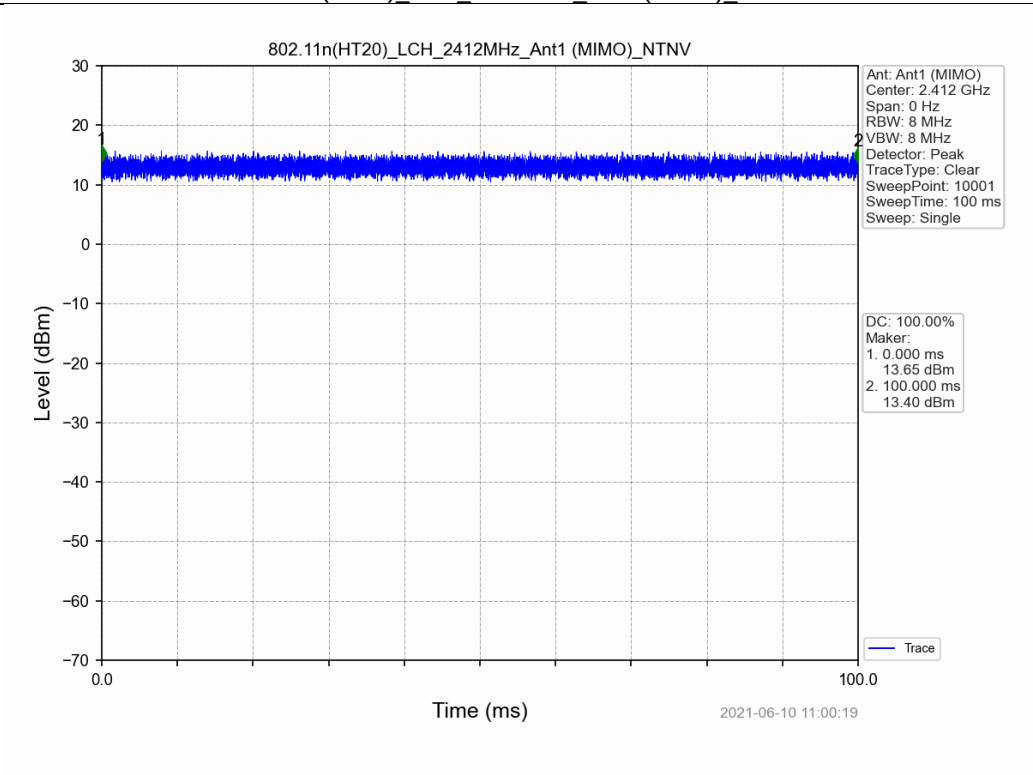
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



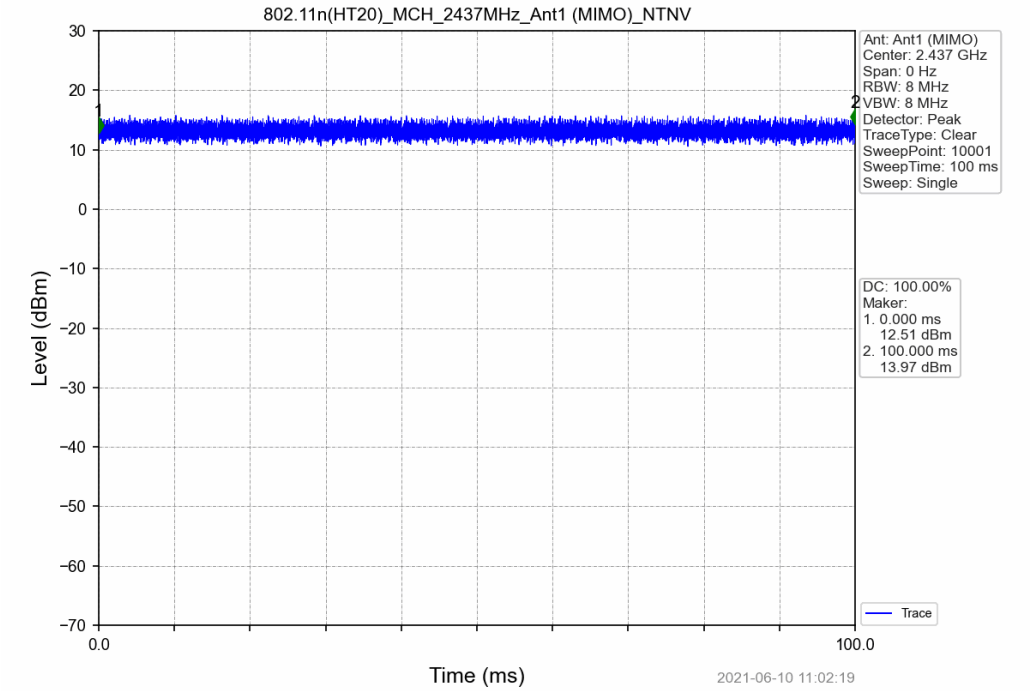
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



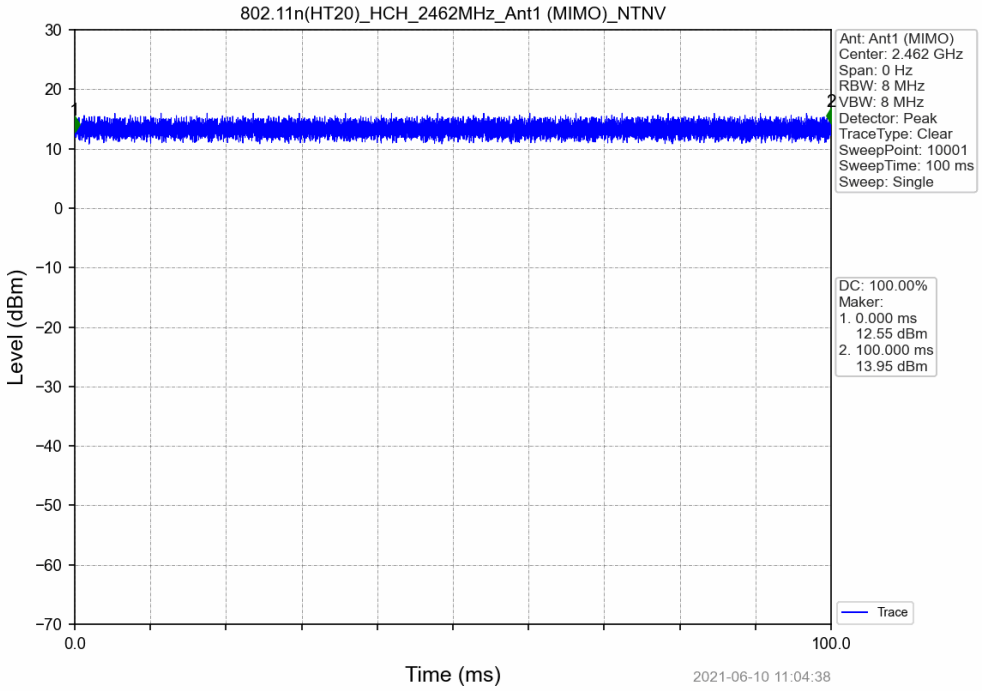
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



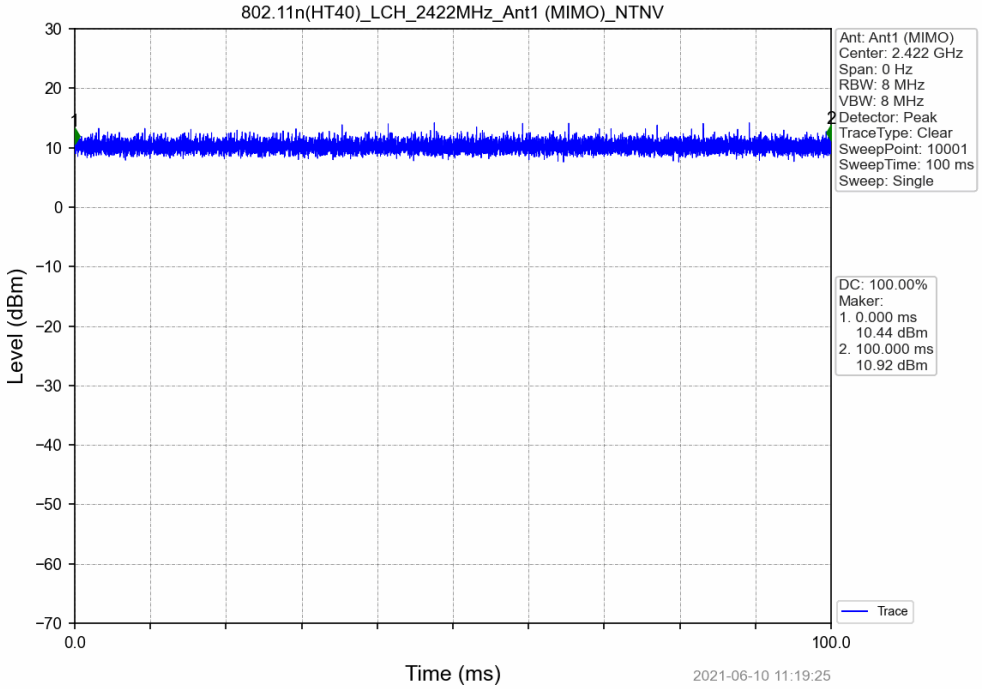
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



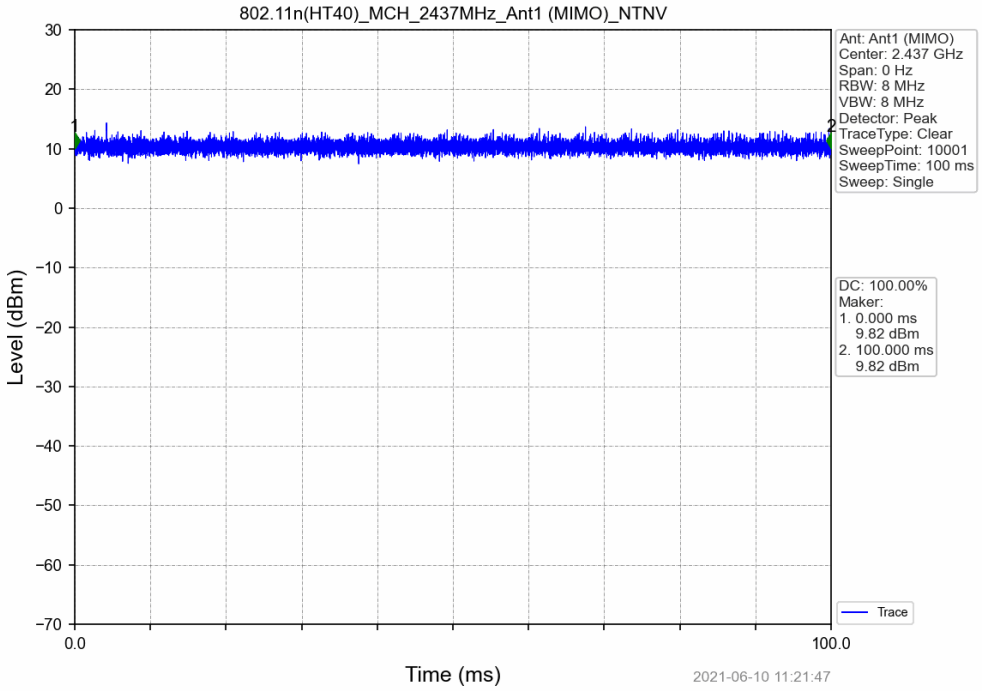
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



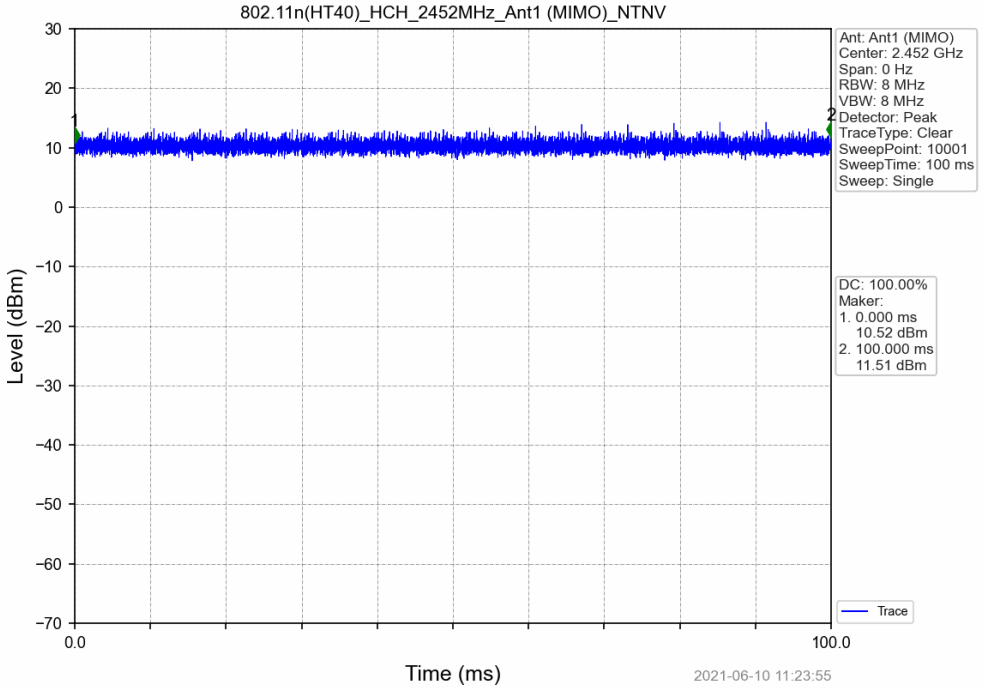
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



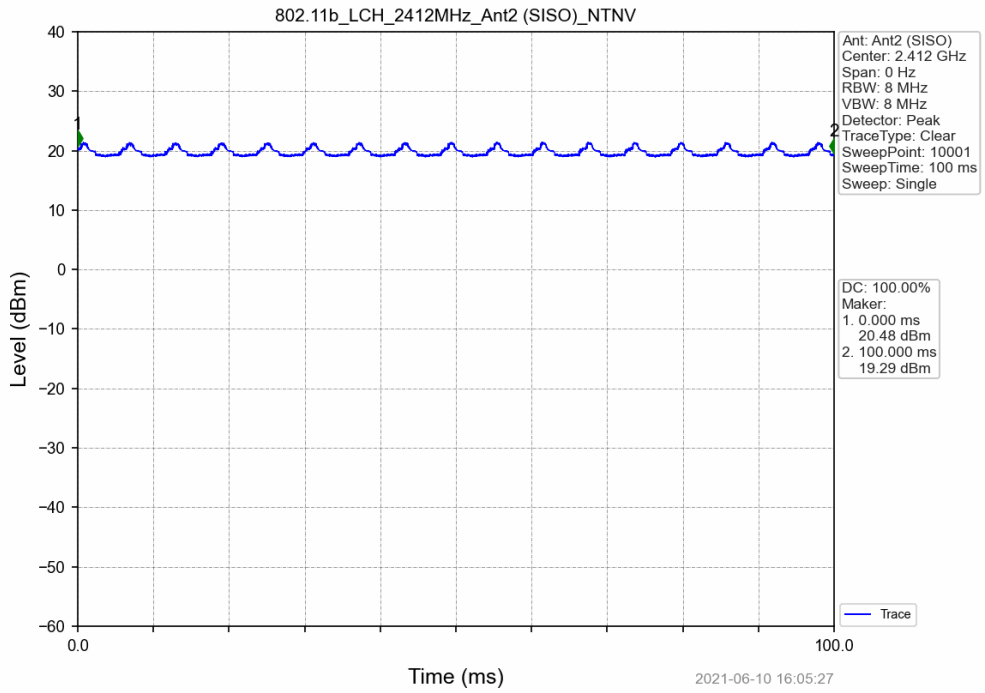
1.2 Ant2

1.2.1 Test Result

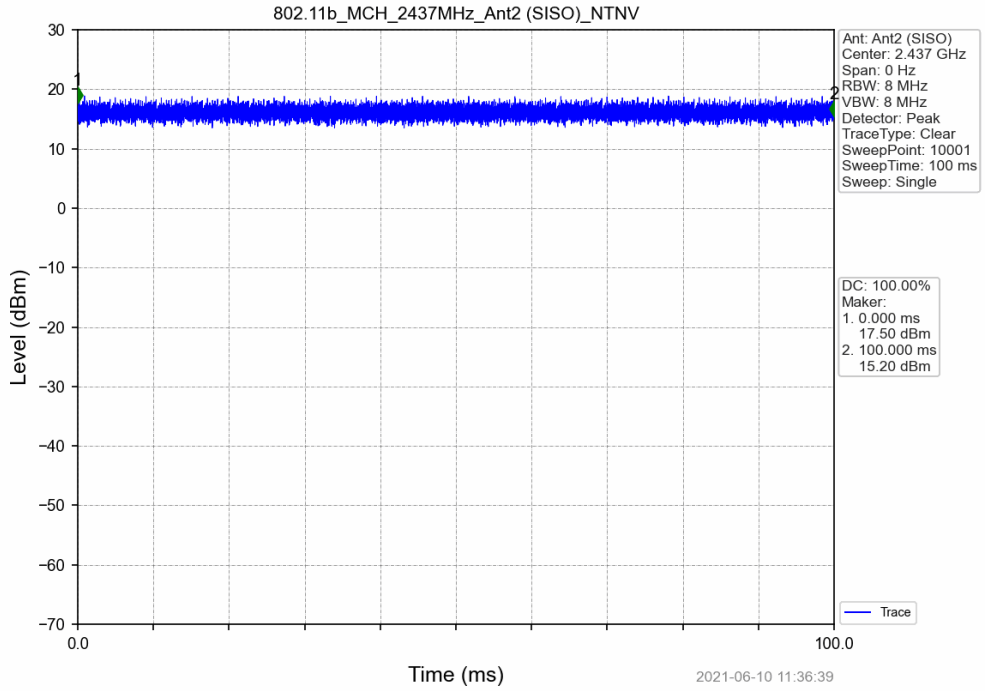
Ant2									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11b	SISO	2412	/	/	100.00	100.00	100.00	0.00	0.00
		2437	/	/	100.00	100.00	100.00	0.00	0.00
		2462	/	/	100.00	100.00	100.00	0.00	0.00
802.11g	SISO	2412	/	/	100.00	100.00	100.00	0.00	0.00
		2437	/	/	100.00	100.00	100.00	0.00	0.00
		2462	/	/	100.00	100.00	100.00	0.00	0.00
802.11n (HT20)	MIMO	2412	/	/	100.00	100.00	100.00	0.00	0.00
		2437	/	/	100.00	100.00	100.00	0.00	0.00
		2462	/	/	100.00	100.00	100.00	0.00	0.00
802.11n (HT40)	MIMO	2422	/	/	100.00	100.00	100.00	0.00	0.00
		2437	/	/	100.00	100.00	100.00	0.00	0.00
		2452	/	/	100.00	100.00	100.00	0.00	0.00
Note1: Only for Report Use									

1.2.2 Test Graph

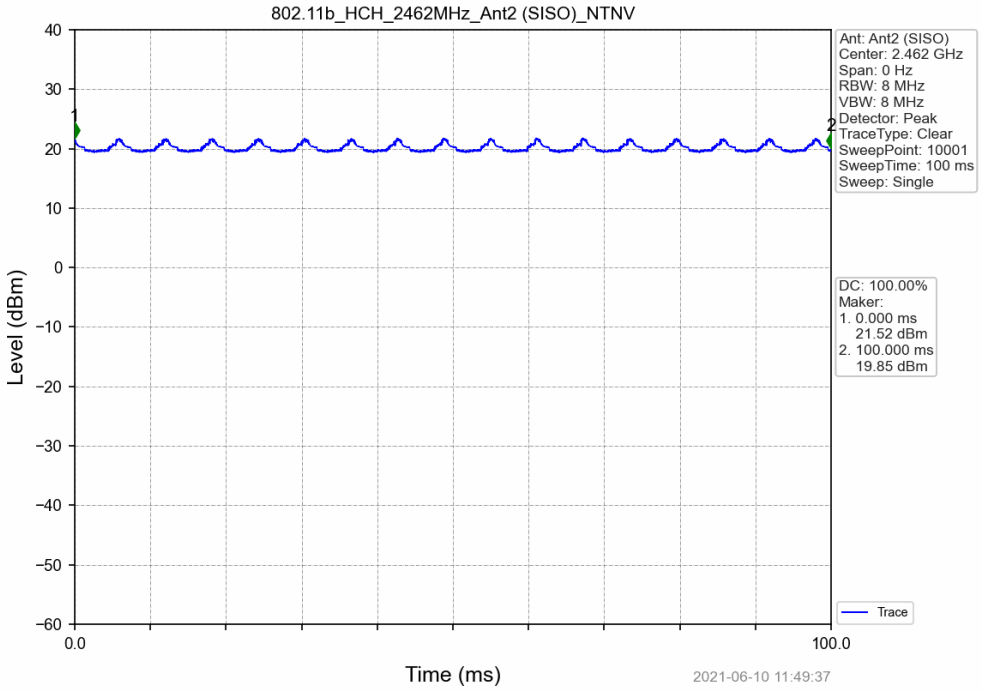
802.11b_LCH_2412MHz_Ant2 (SISO)_NTNV



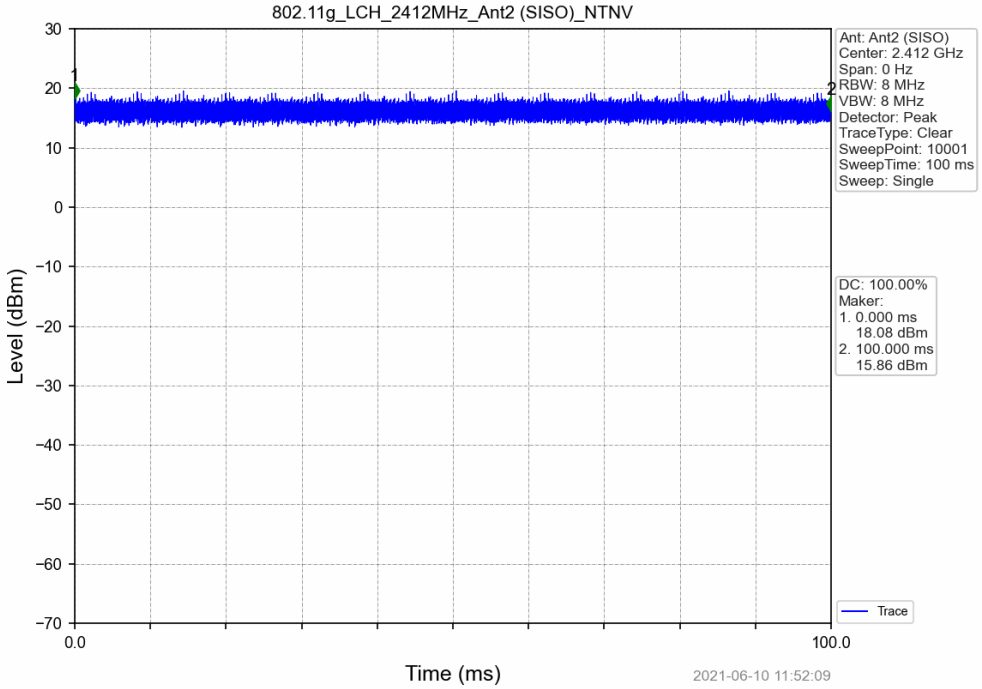
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



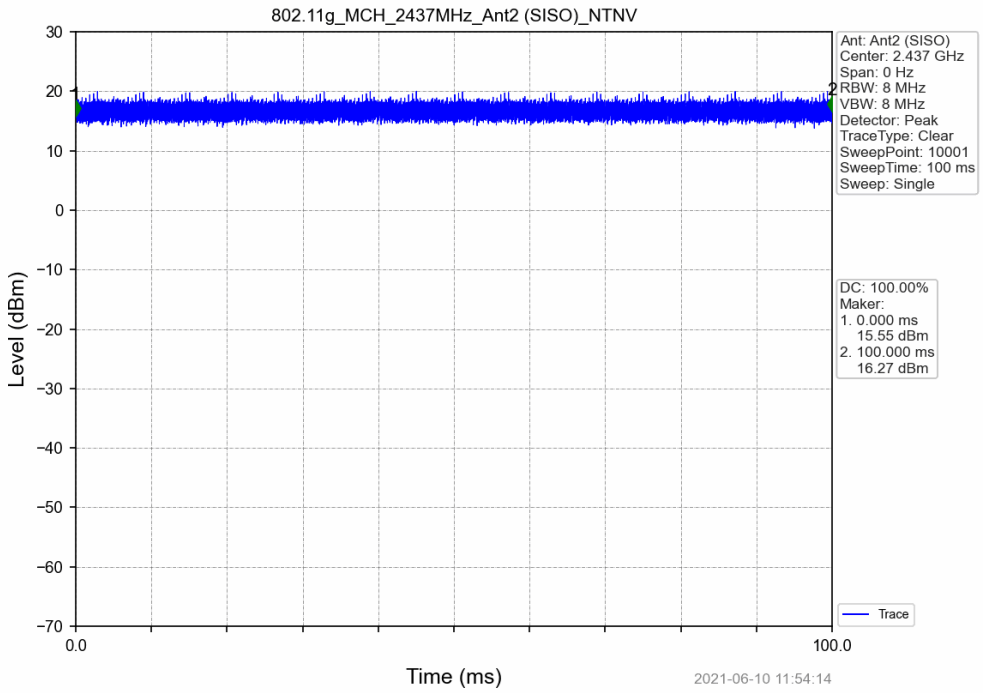
802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



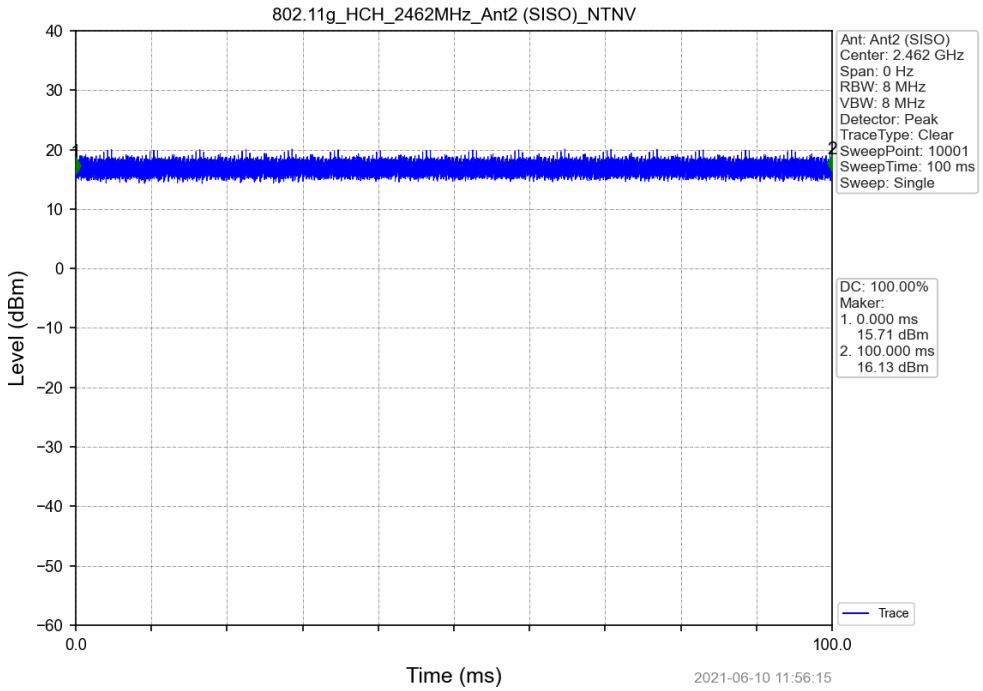
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



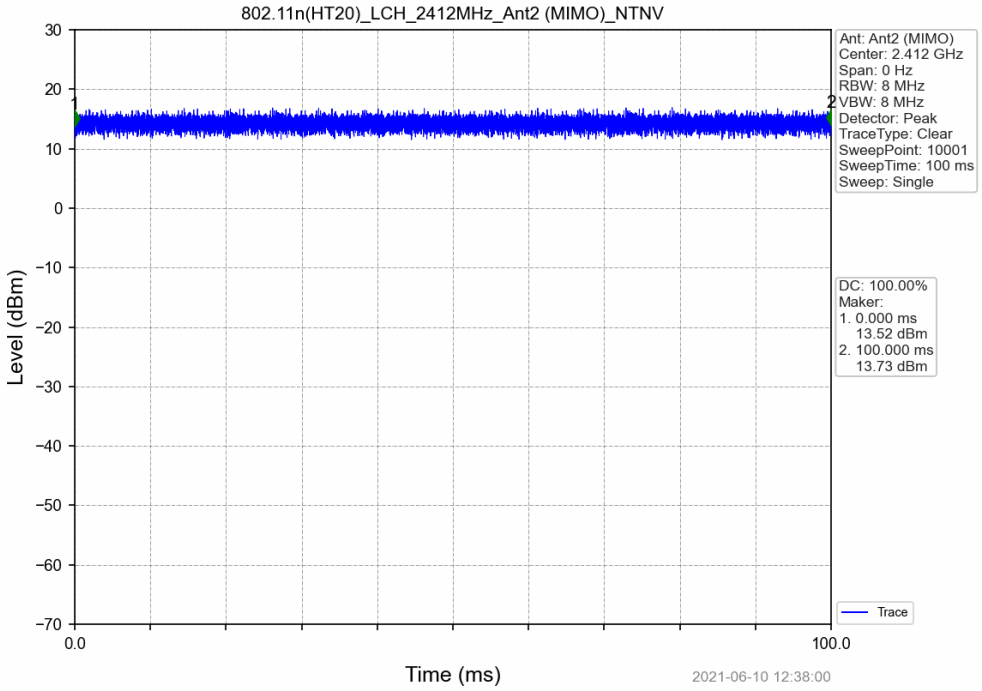
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



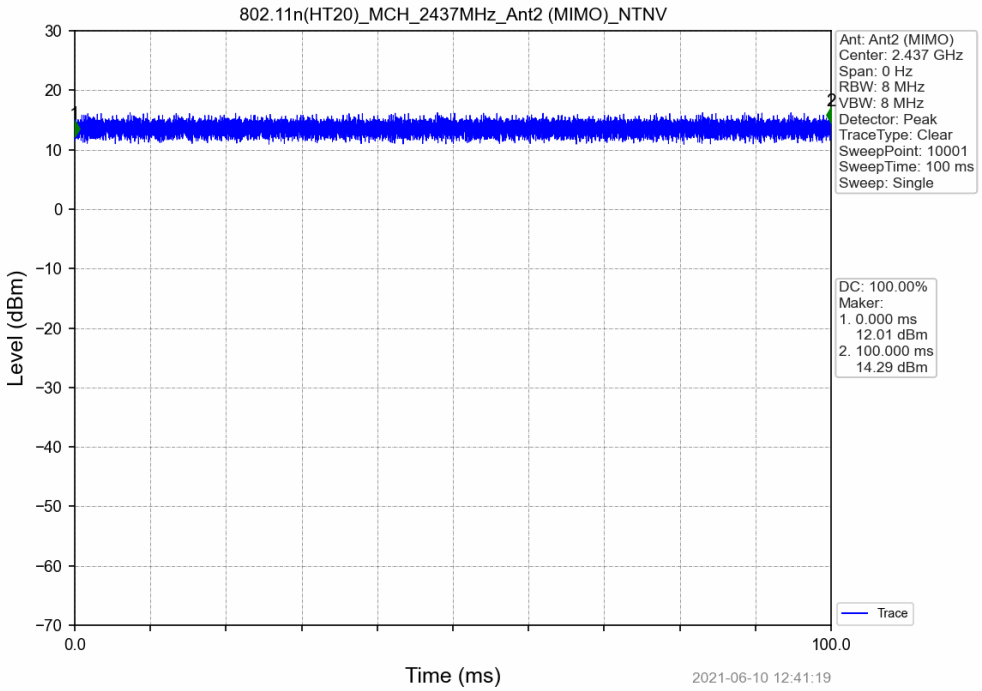
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



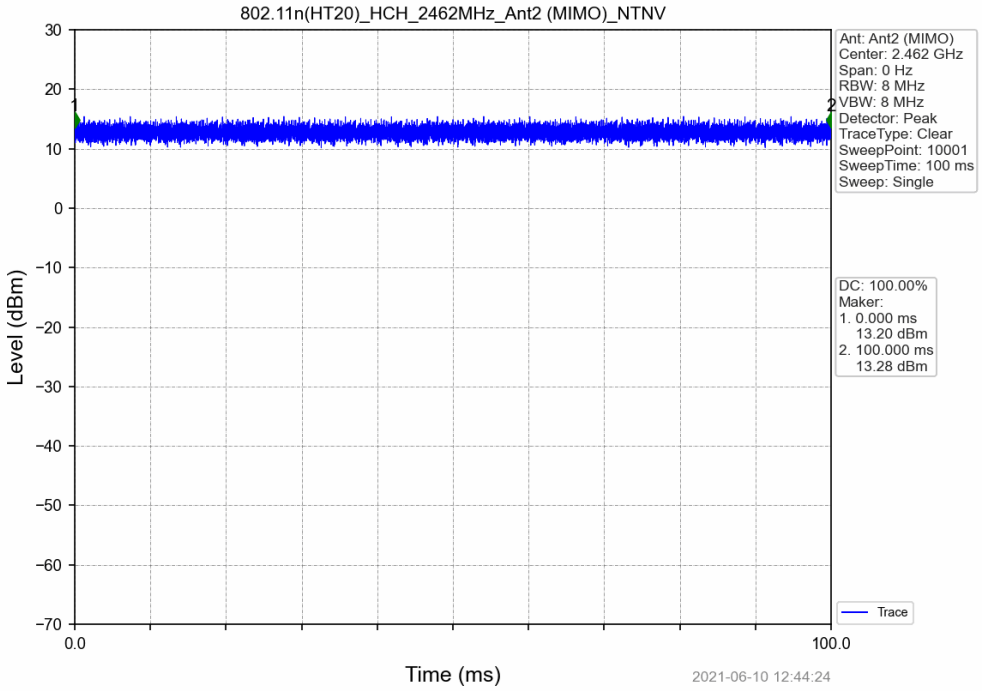
802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV



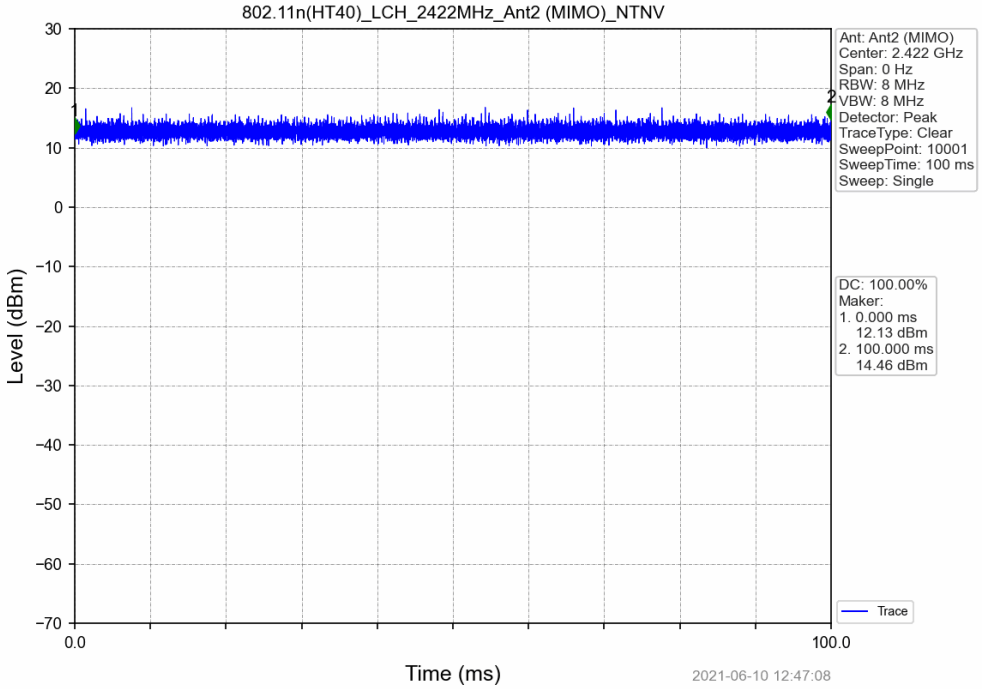
802.11n(HT20)_MCH_2437MHz_Ant2 (MIMO)_NTNV



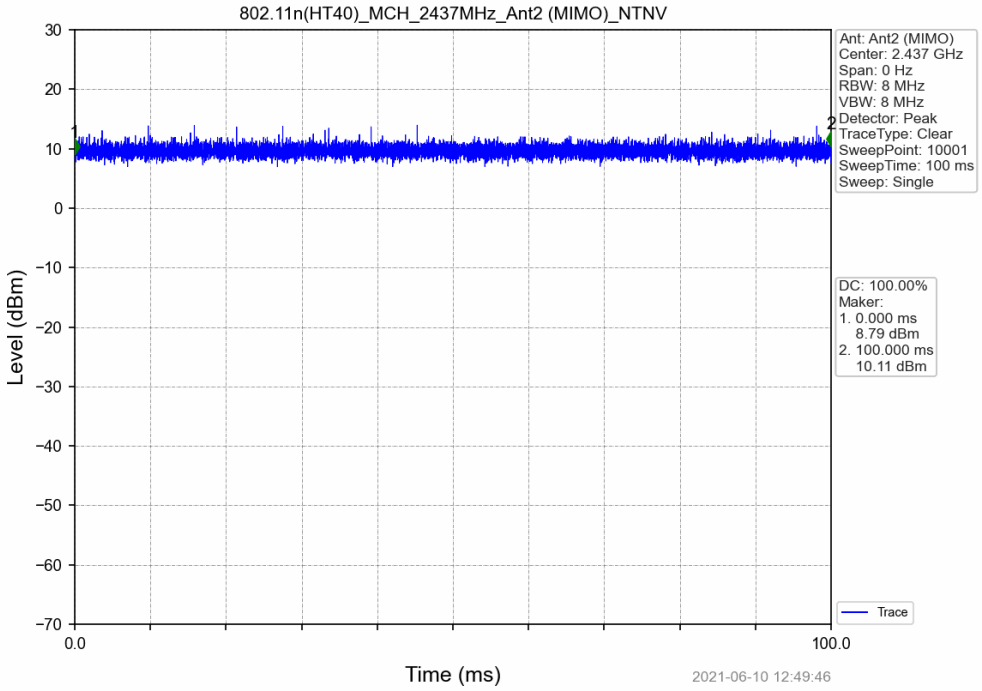
802.11n(HT20)_HCH_2462MHz_Ant2 (MIMO)_NTNV



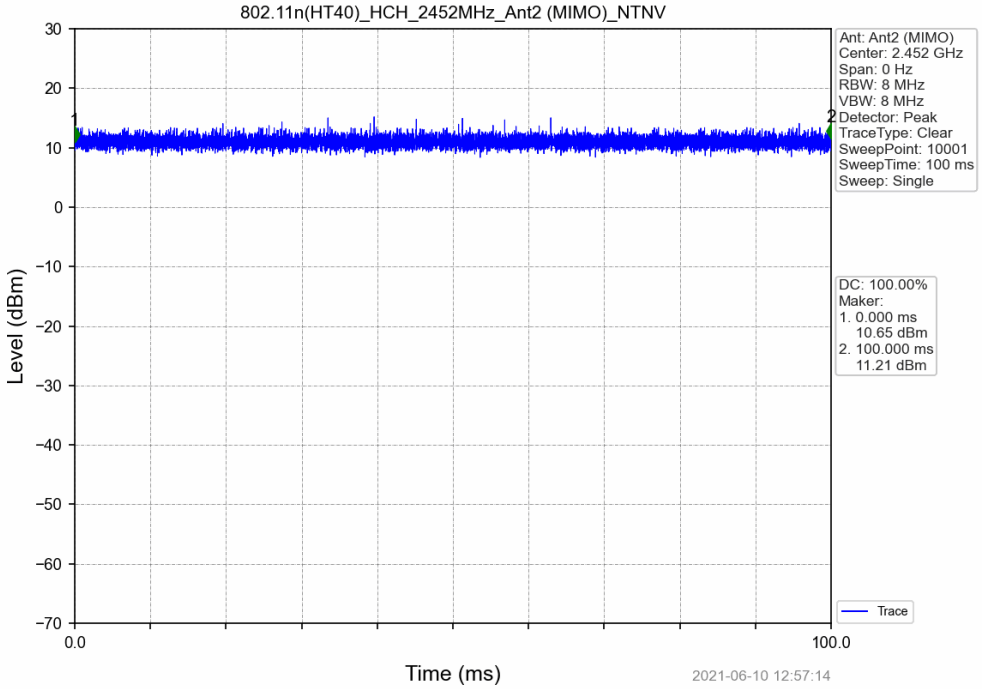
802.11n(HT40)_LCH_2422MHz_Ant2 (MIMO)_NTNV



802.11n(HT40)_MCH_2437MHz_Ant2 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant2 (MIMO)_NTNV



2. Bandwidth

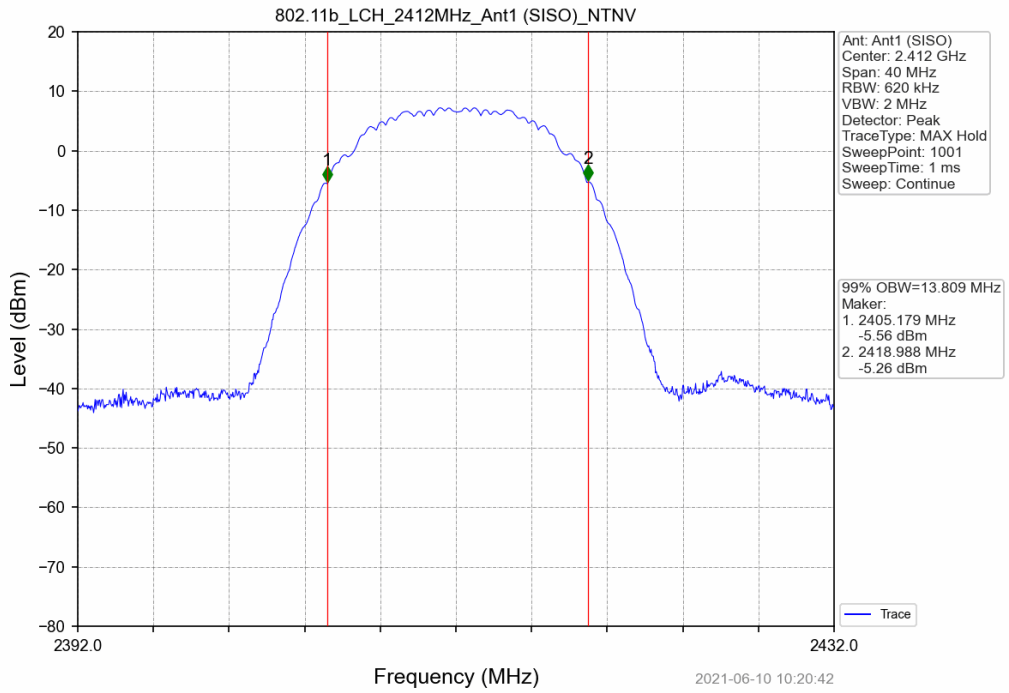
2.1 OBW

2.1.1 Test Result

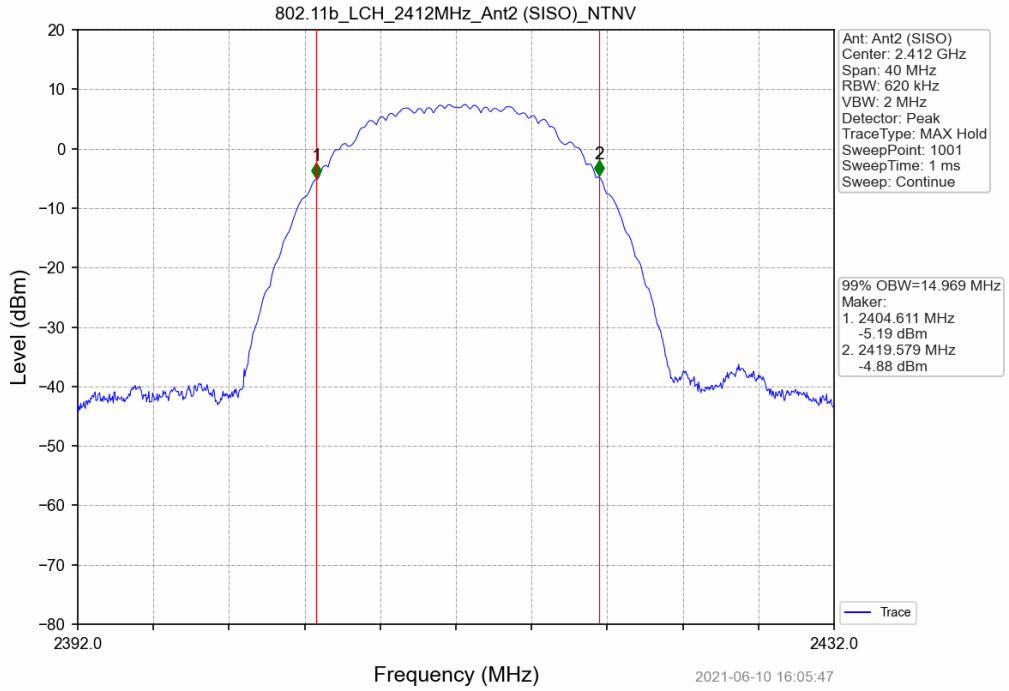
Mode	TX Type	Frequency (MHz)	RU	RU Pos	99% Occupied Bandwidth (MHz)		Limit (MHz)	Verdict
					Ant1	Ant2		
802.11b	SISO	2412	/	/	13.809	14.969	/	Note1
		2437	/	/	13.840	13.820	/	Note1
		2462	/	/	13.812	13.846	/	Note1
802.11g	SISO	2412	/	/	16.788	16.785	/	Note1
		2437	/	/	16.806	16.785	/	Note1
		2462	/	/	16.796	16.776	/	Note1
802.11n (HT20)	MIMO	2412	/	/	17.770	17.747	/	Note1
		2437	/	/	17.772	17.741	/	Note1
		2462	/	/	17.776	17.751	/	Note1
802.11n (HT40)	MIMO	2422	/	/	34.317	34.308	/	Note1
		2437	/	/	34.331	34.316	/	Note1
		2452	/	/	34.331	34.325	/	Note1
Note1: Only for Report Use								

2.1.2 Test Graph

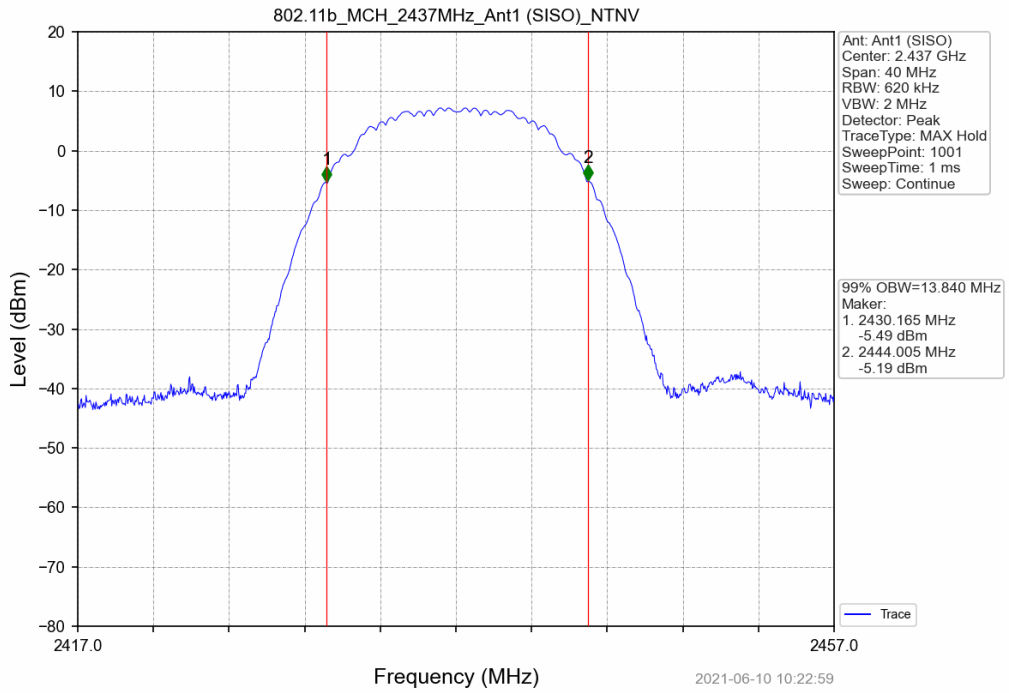
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



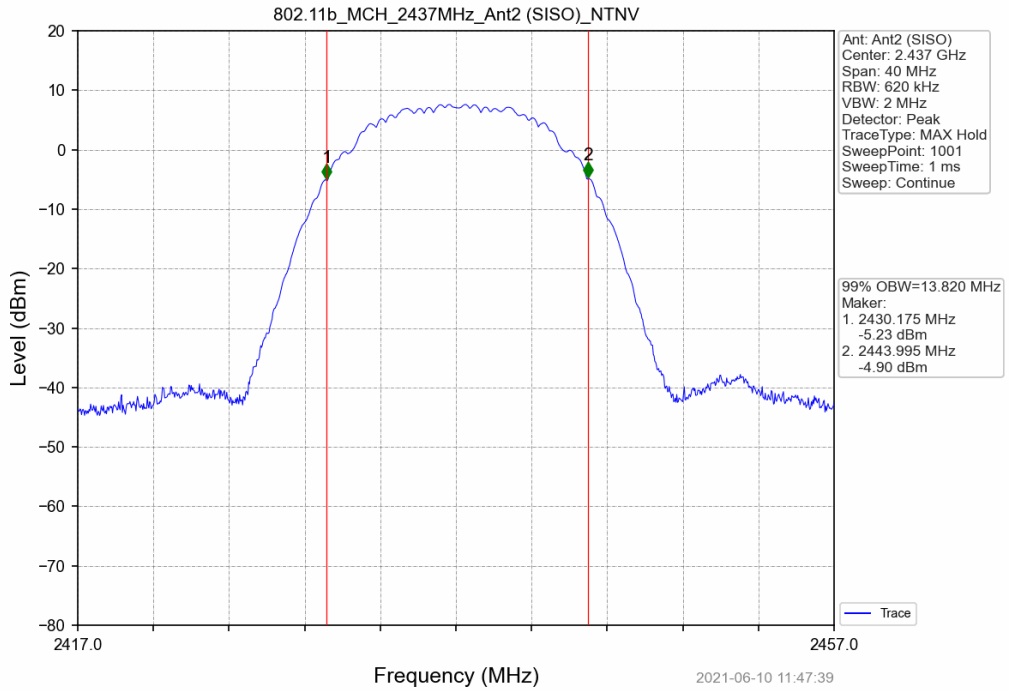
802.11b_LCH_2412MHz_Ant2 (SISO)_NTNV



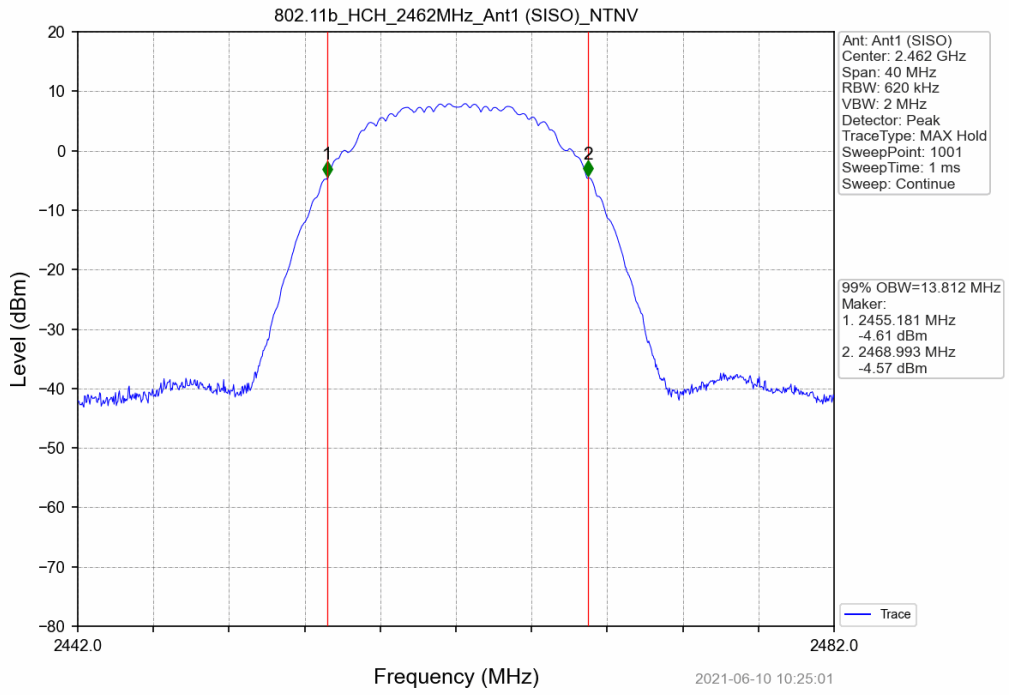
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



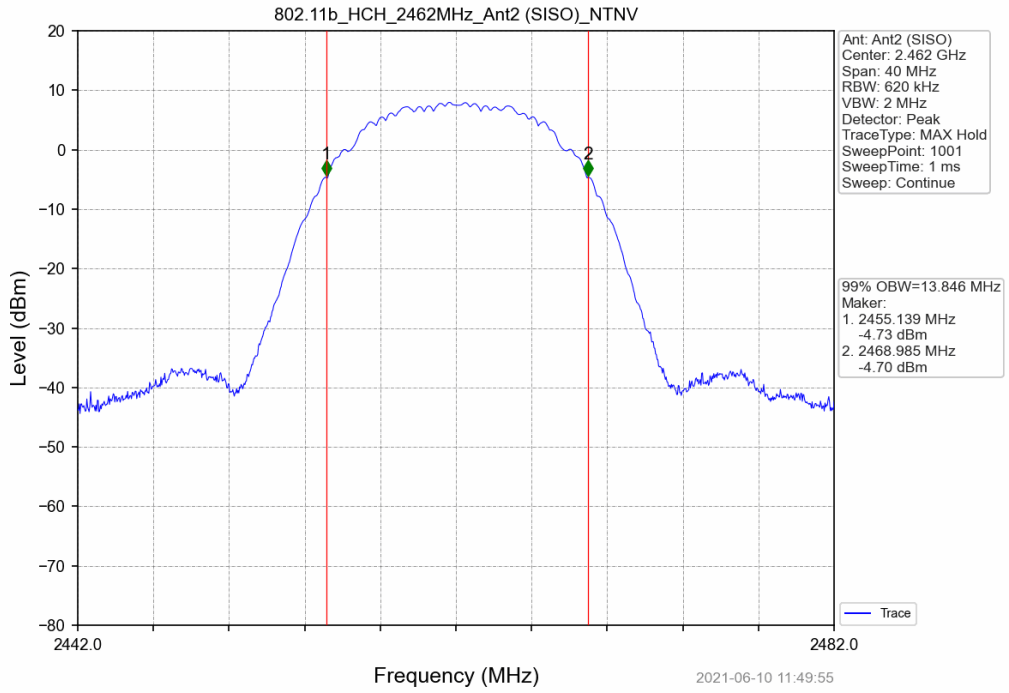
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



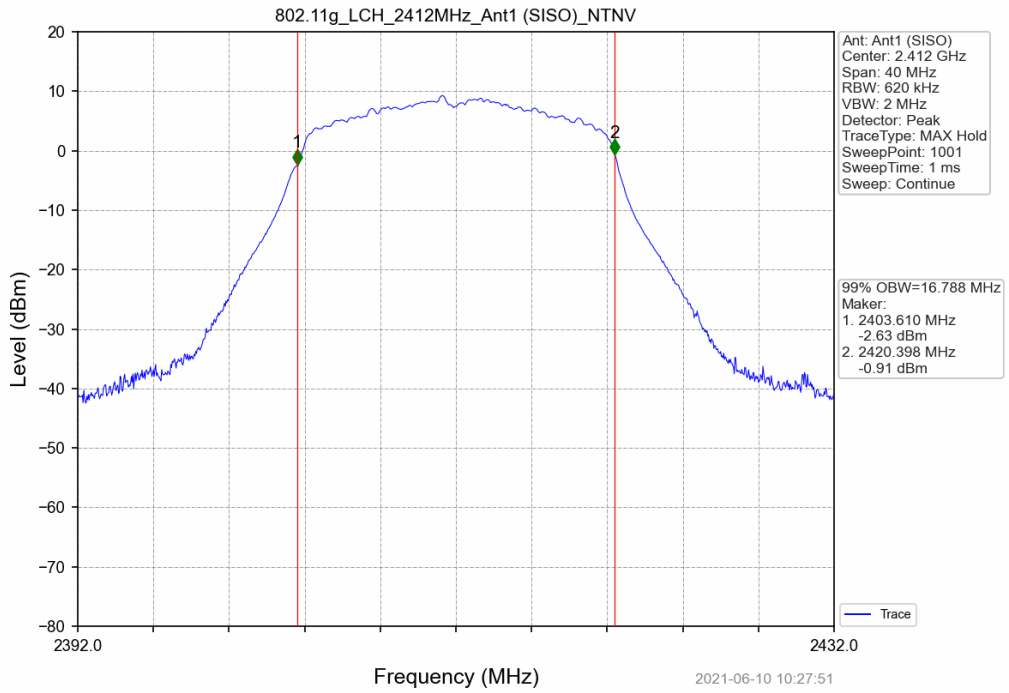
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



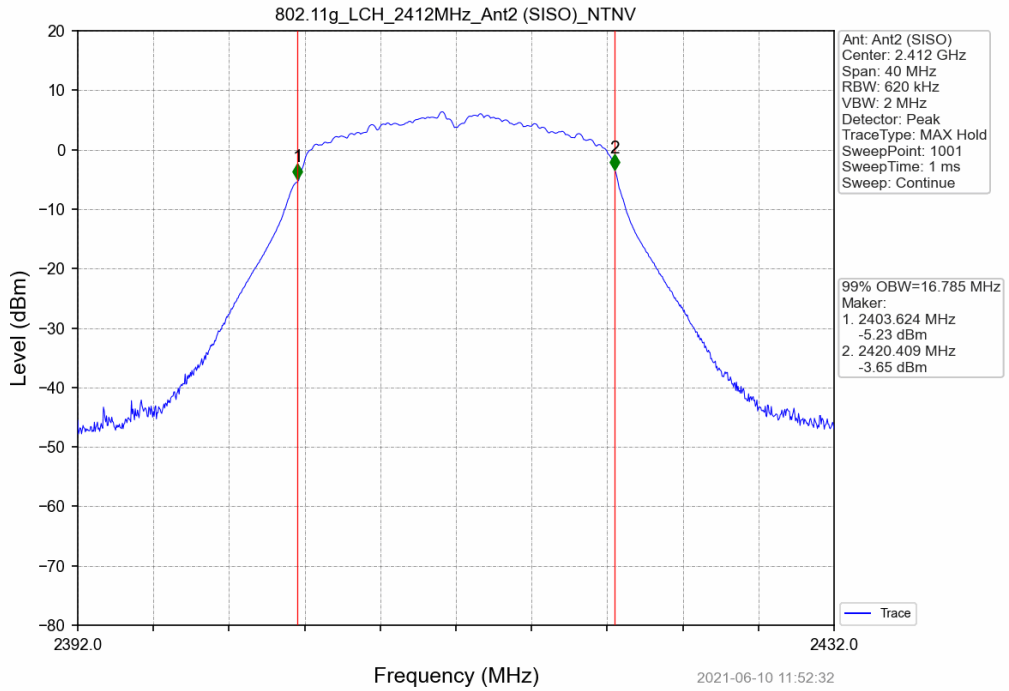
802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



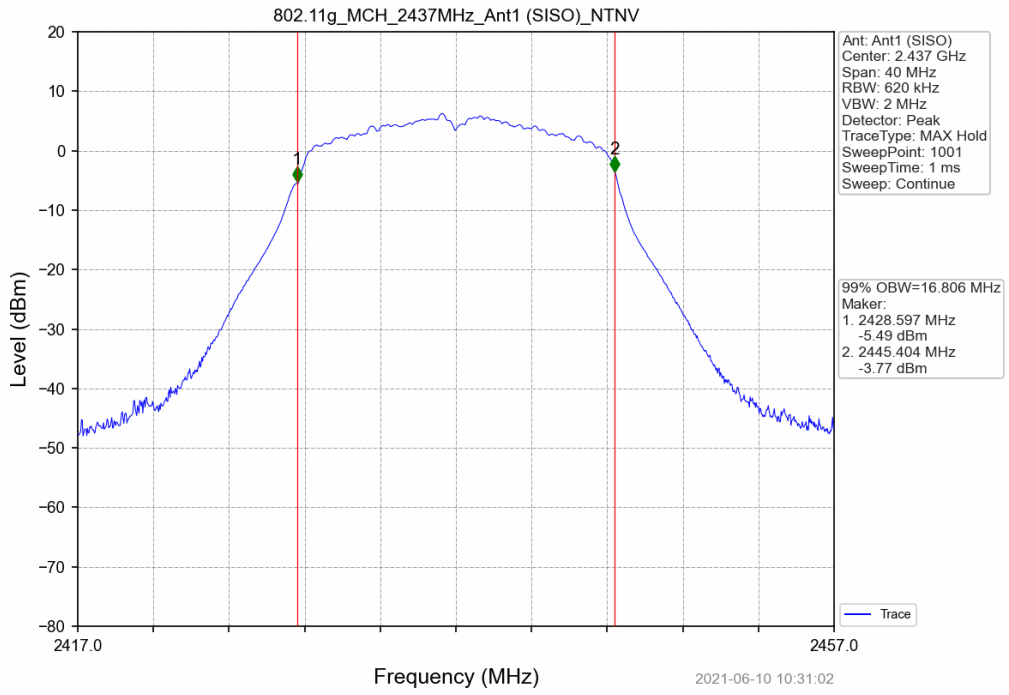
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



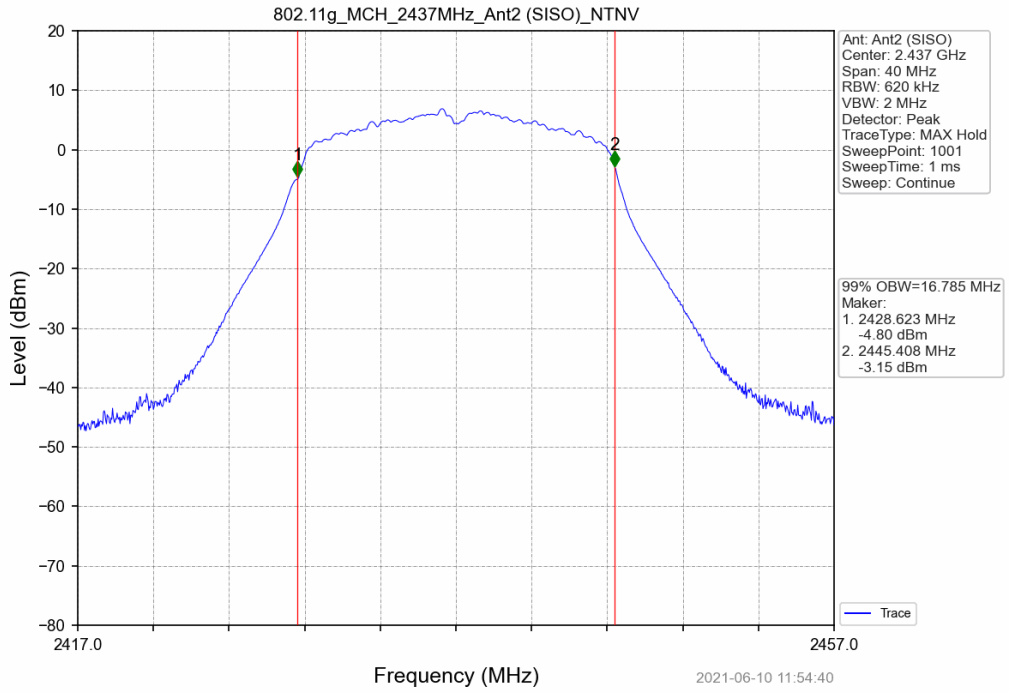
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



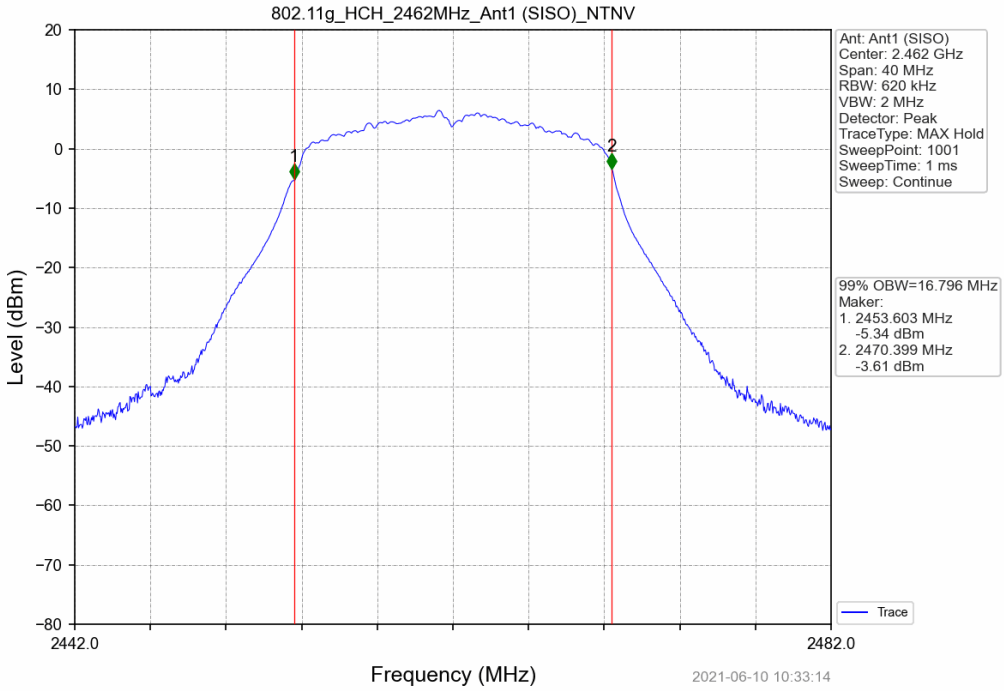
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



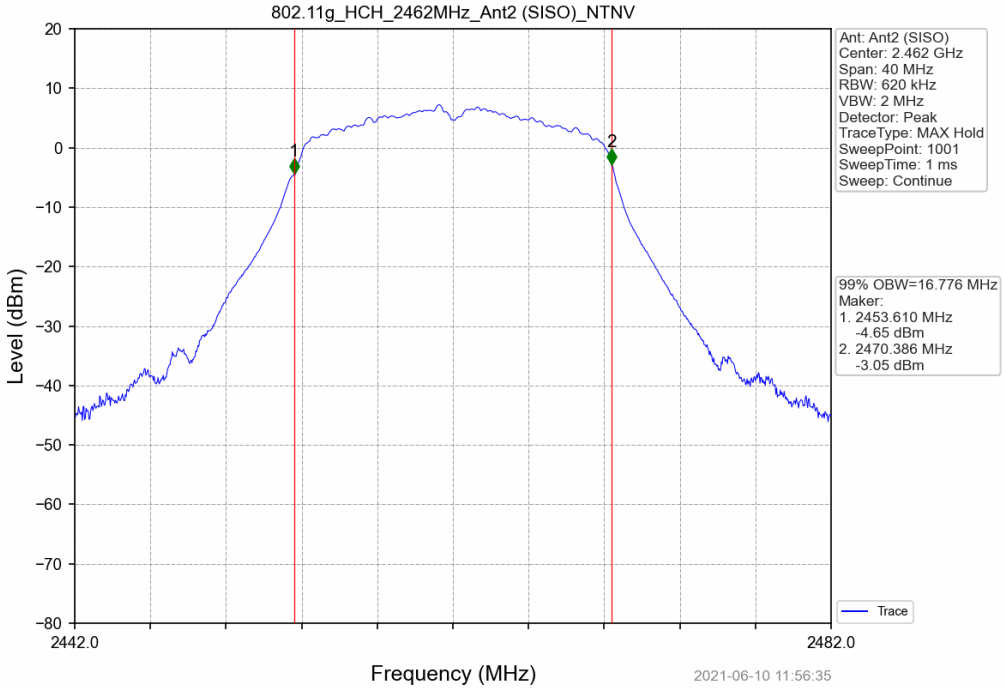
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



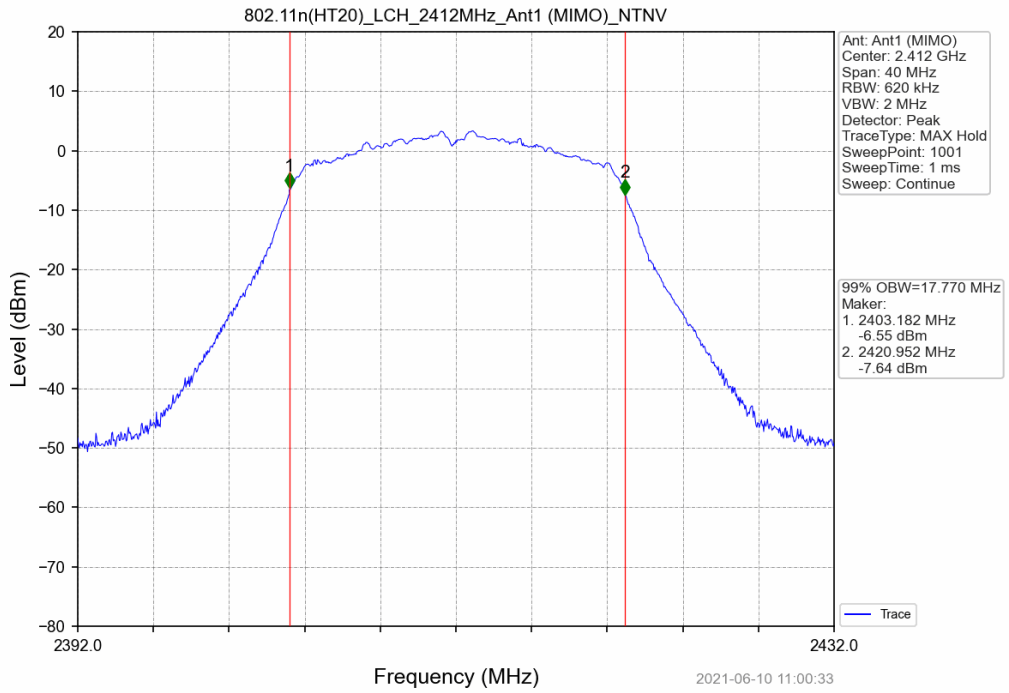
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



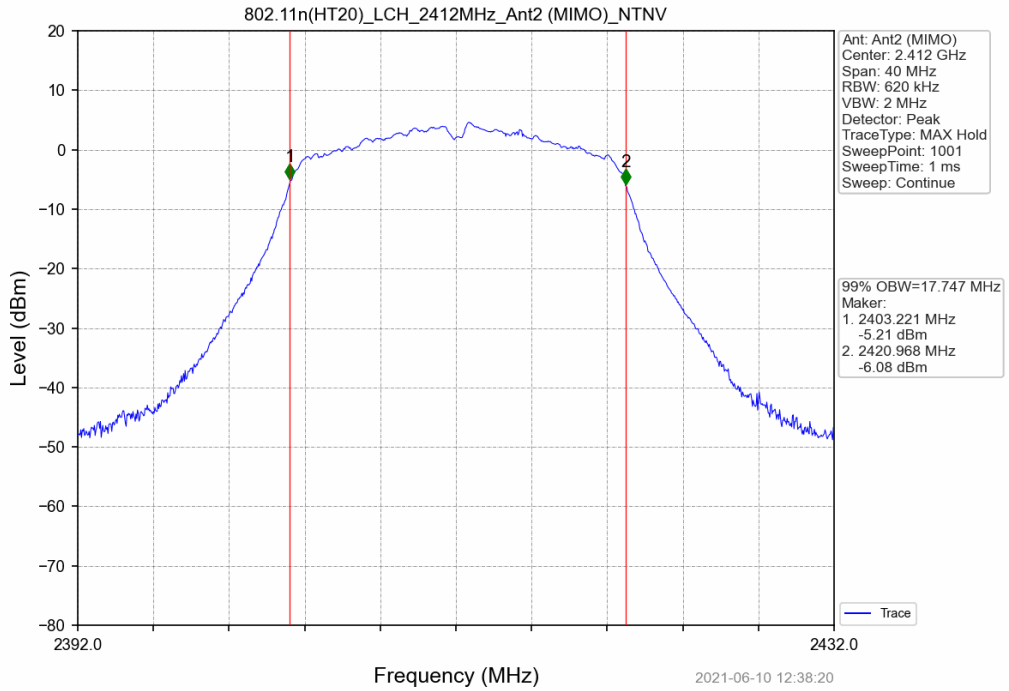
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



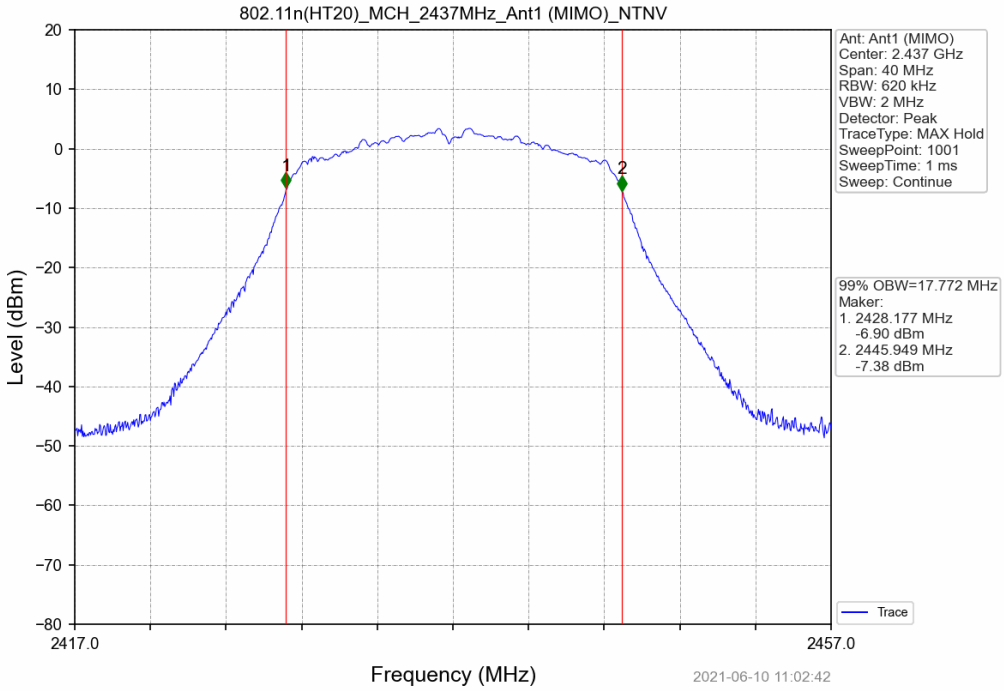
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



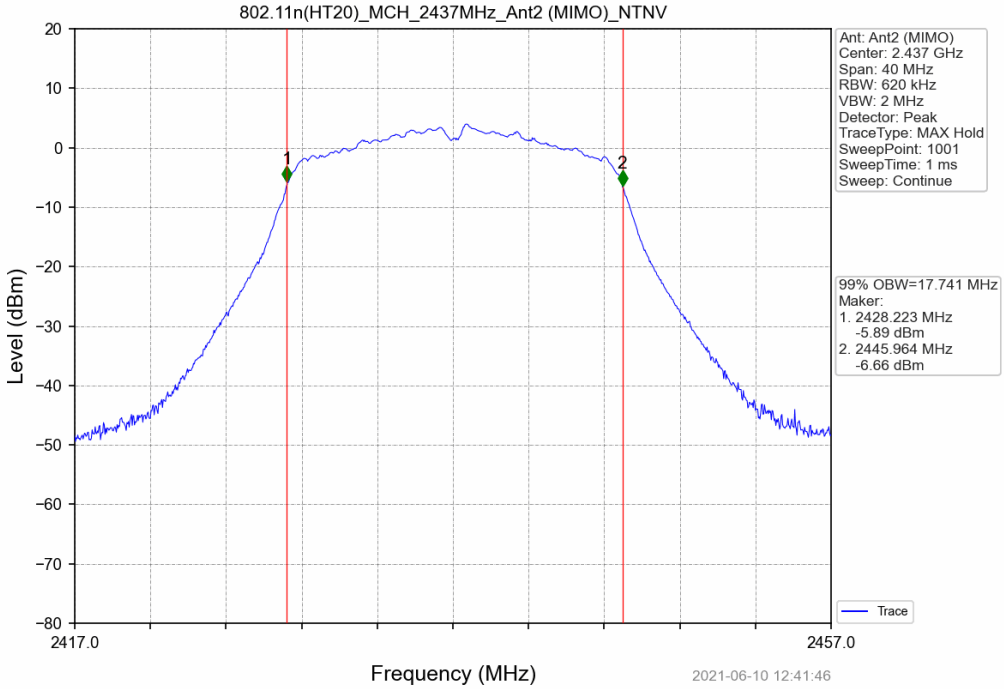
802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV



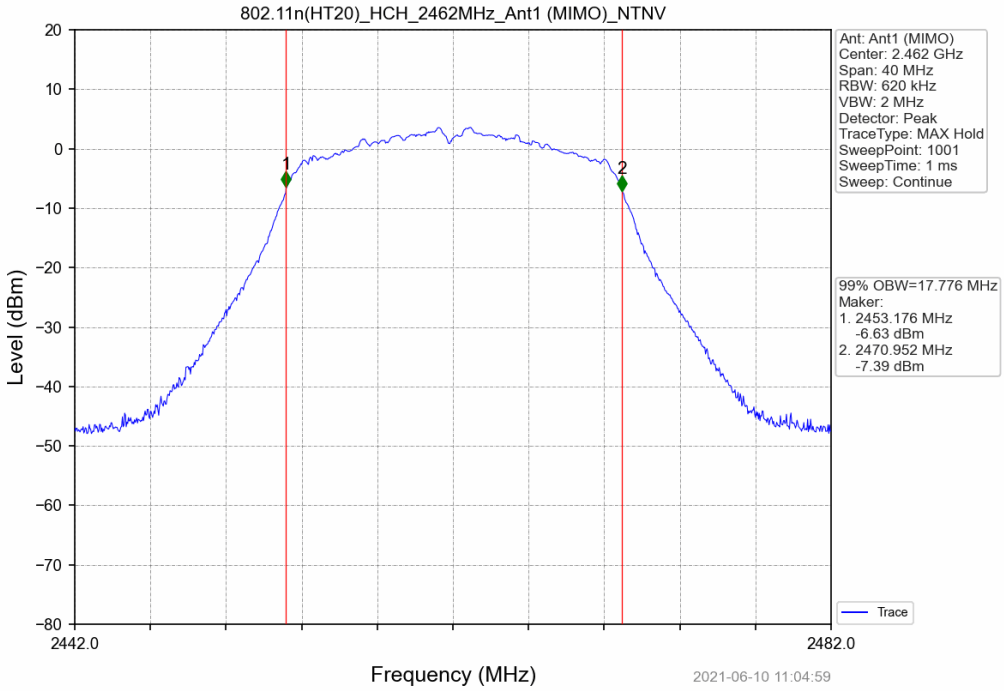
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



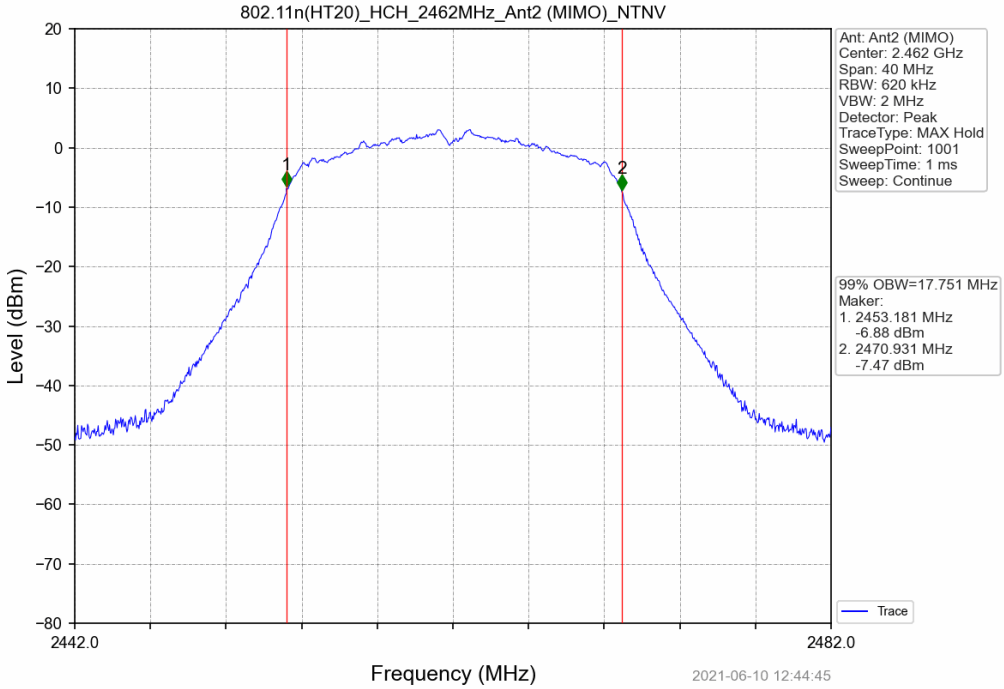
802.11n(HT20)_MCH_2437MHz_Ant2 (MIMO)_NTNV



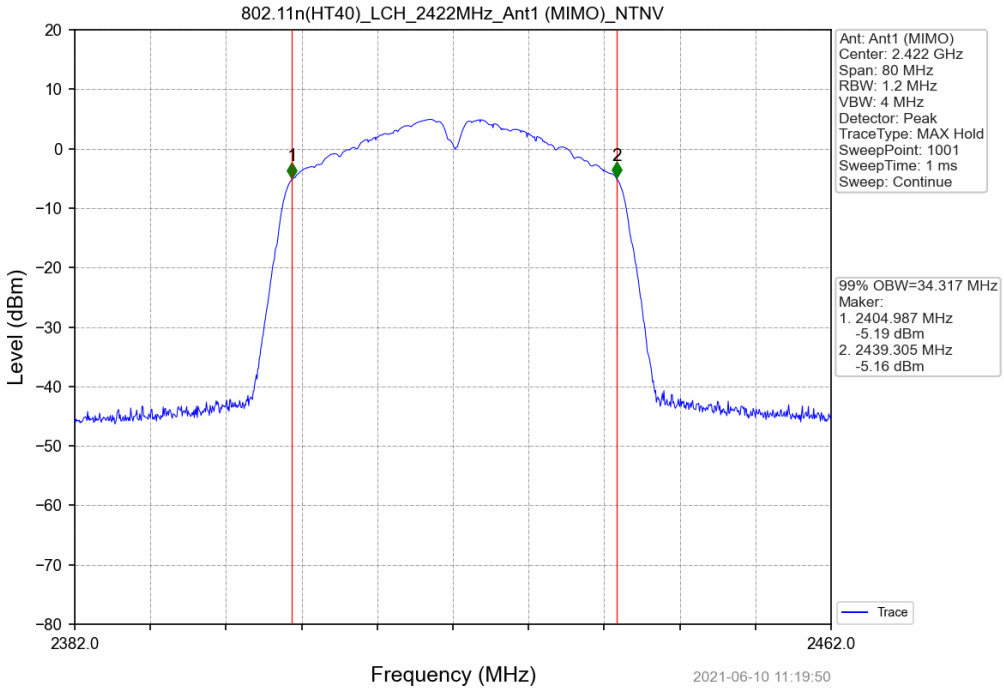
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



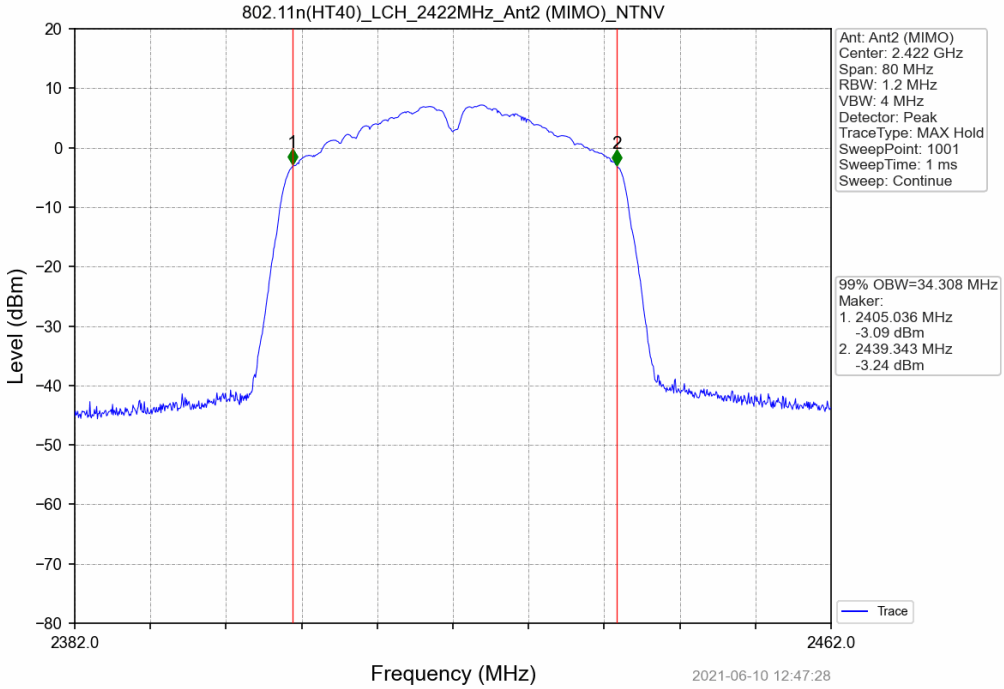
802.11n(HT20)_HCH_2462MHz_Ant2 (MIMO)_NTNV



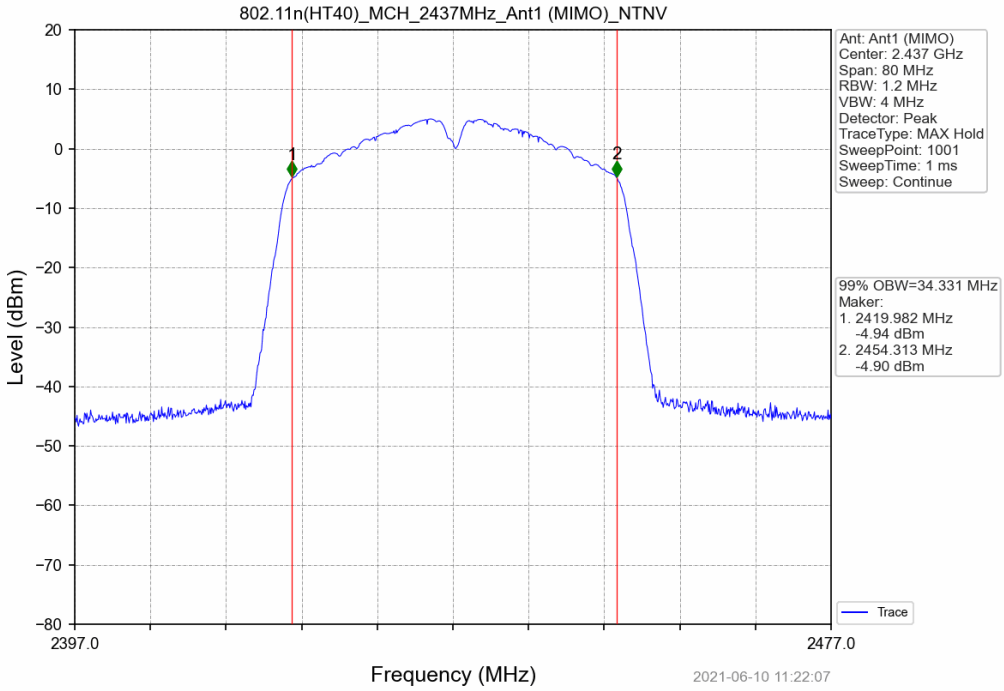
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



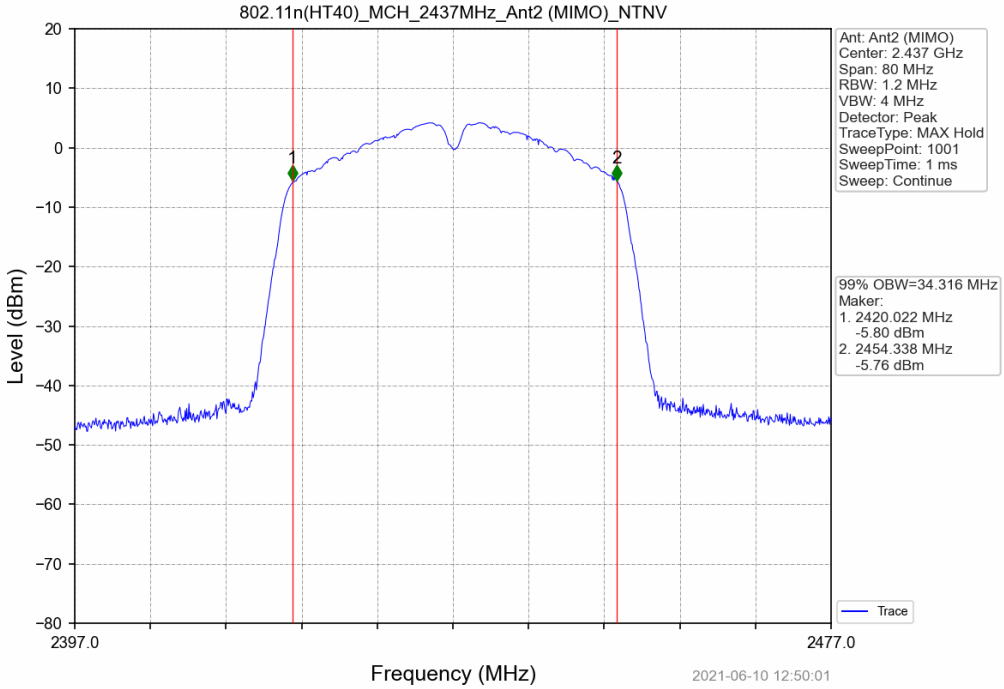
802.11n(HT40)_LCH_2422MHz_Ant2 (MIMO)_NTNV



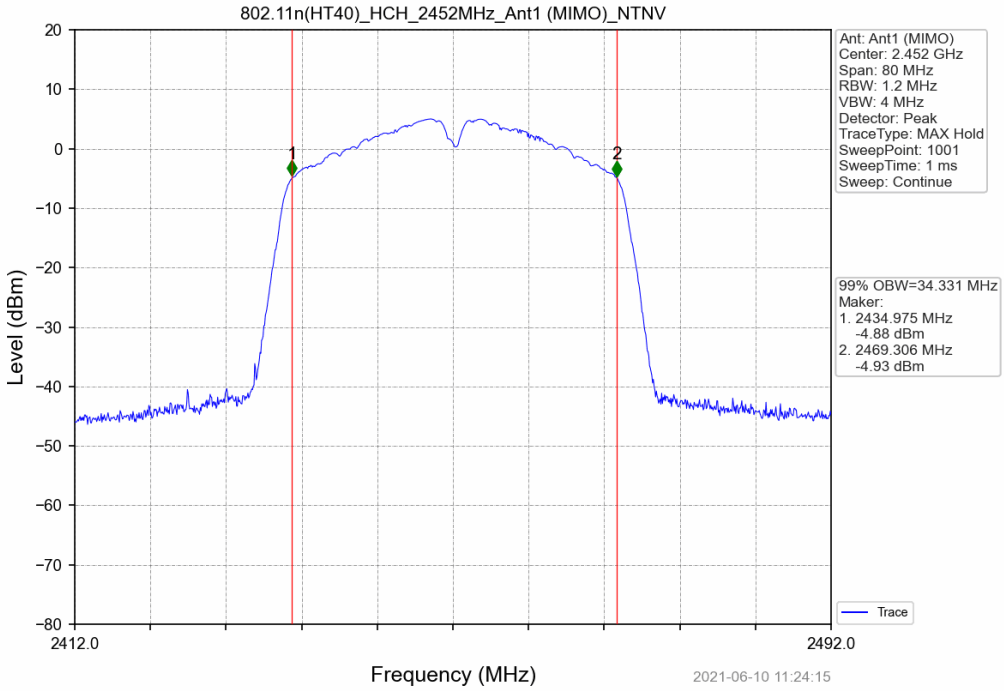
802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



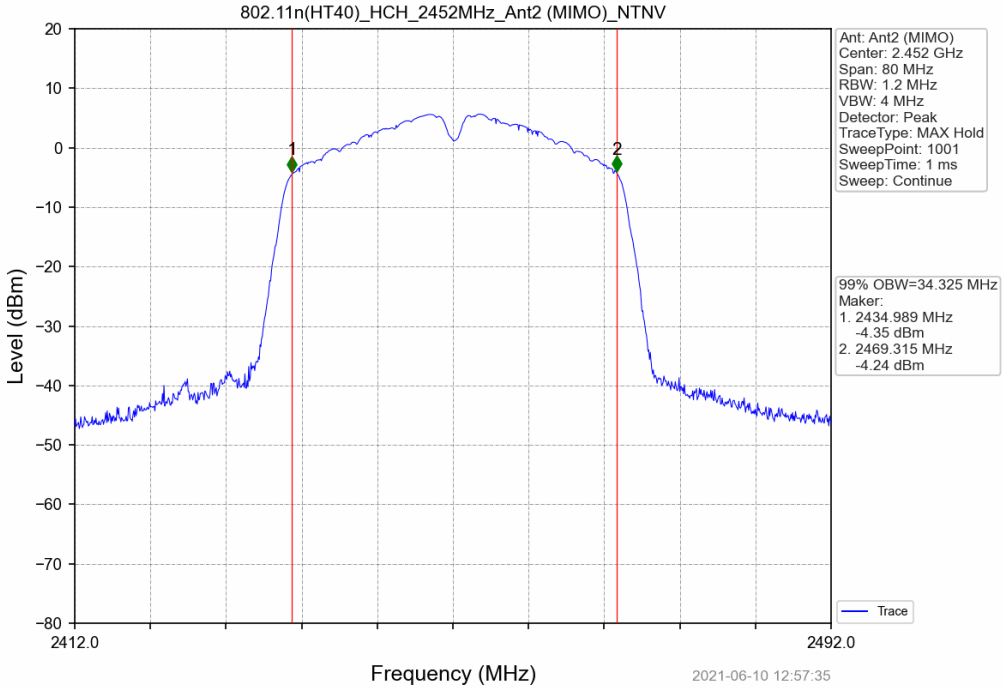
802.11n(HT40)_MCH_2437MHz_Ant2 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant2 (MIMO)_NTNV



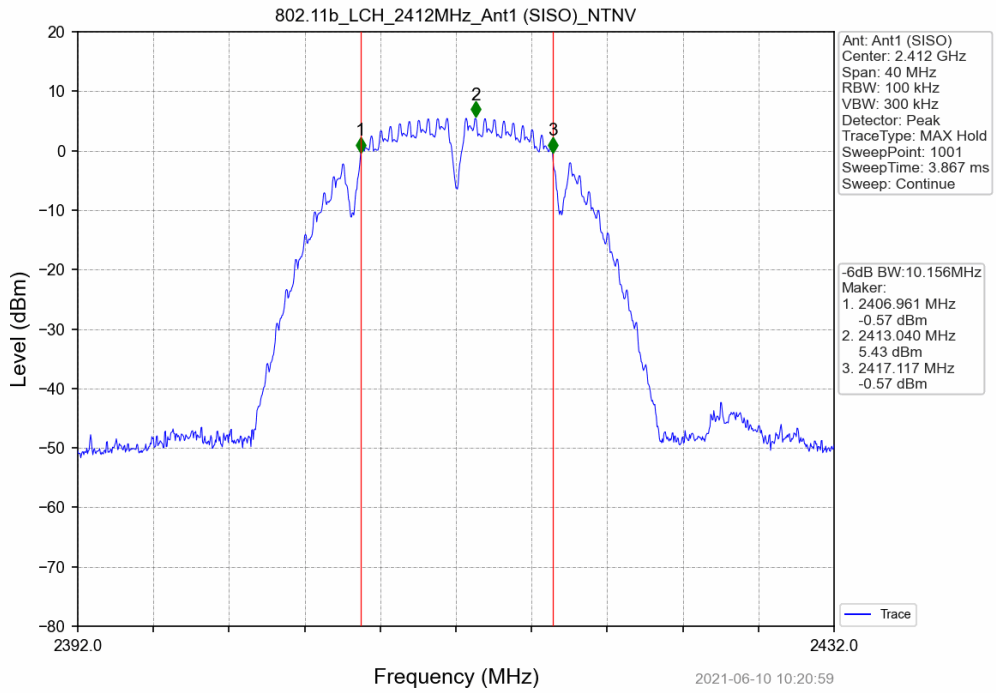
2.2 XDB

2.2.1 Test Result

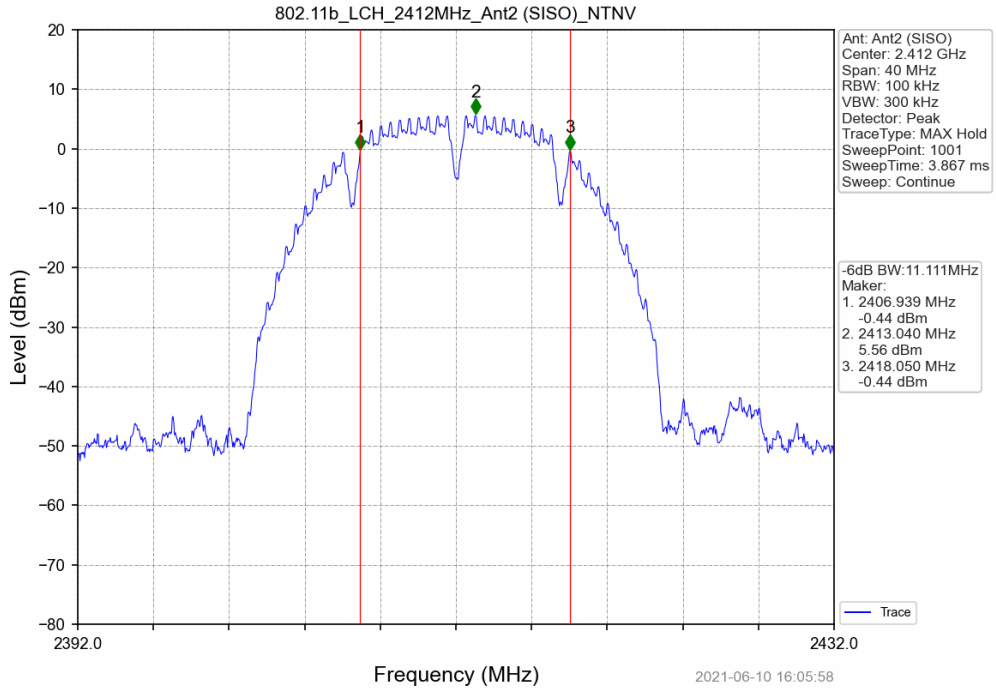
Mode	TX Type	Frequency (MHz)	RU	RU Pos	6dB Bandwidth (MHz)		Limit (MHz)	Verdict
					Ant1	Ant2		
802.11b	SISO	2412	/	/	10.156	11.111	>=0.5	Pass
		2437	/	/	10.160	10.157	>=0.5	Pass
		2462	/	/	10.160	10.160	>=0.5	Pass
802.11g	SISO	2412	/	/	15.718	15.719	>=0.5	Pass
		2437	/	/	15.727	15.714	>=0.5	Pass
		2462	/	/	15.716	15.707	>=0.5	Pass
802.11n (HT20)	MIMO	2412	/	/	16.315	15.860	>=0.5	Pass
		2437	/	/	15.434	15.859	>=0.5	Pass
		2462	/	/	15.436	15.433	>=0.5	Pass
802.11n (HT40)	MIMO	2422	/	/	24.672	23.841	>=0.5	Pass
		2437	/	/	25.942	25.912	>=0.5	Pass
		2452	/	/	25.903	25.878	>=0.5	Pass

2.2.2 Test Graph

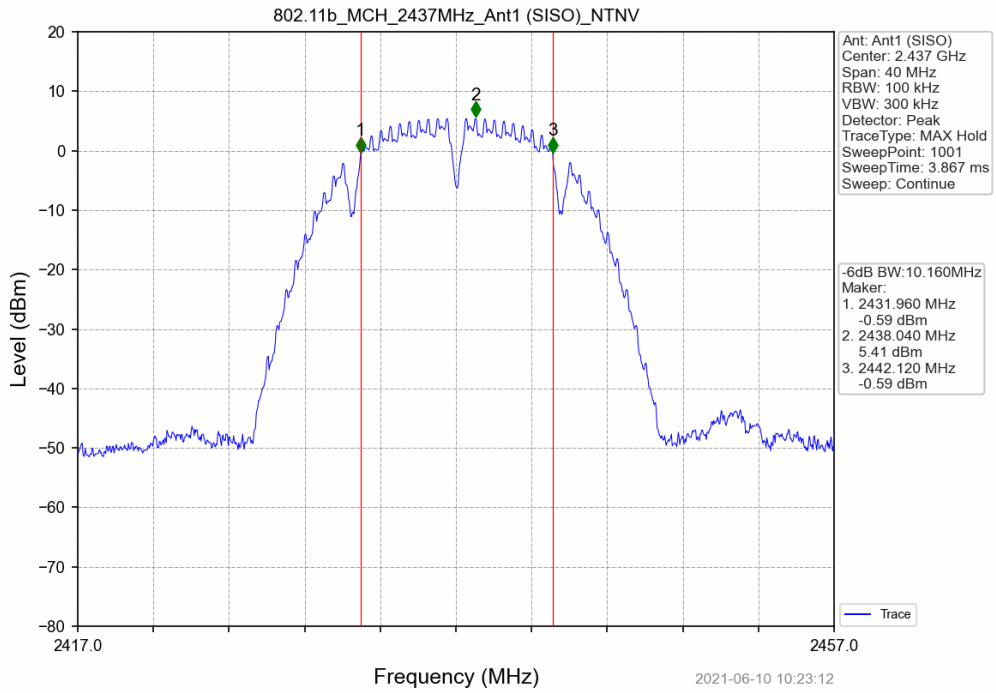
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



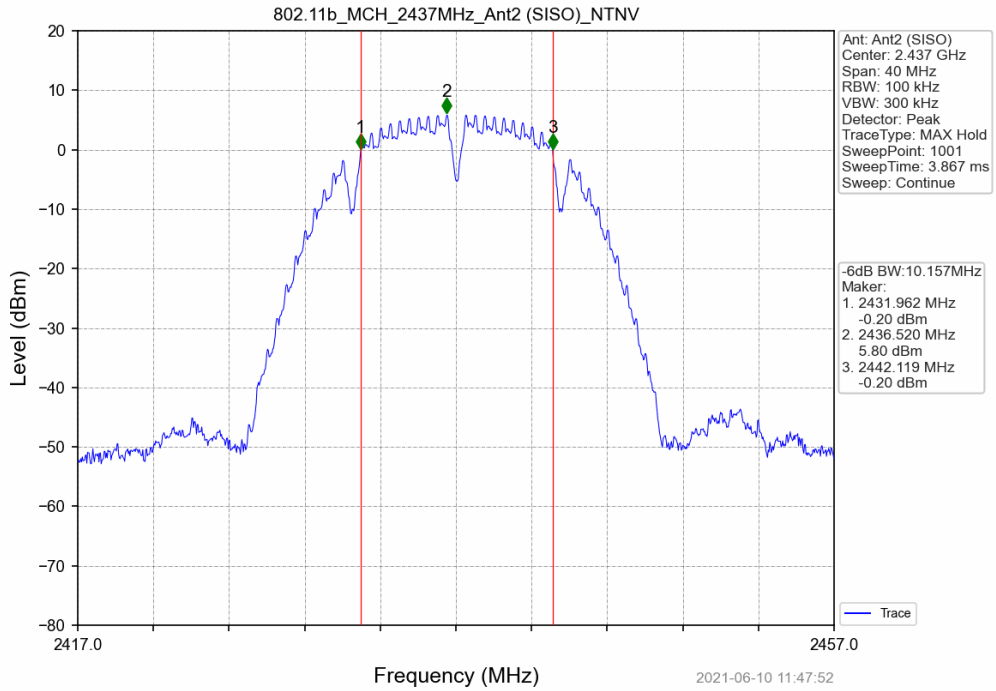
802.11b_LCH_2412MHz_Ant2 (SISO)_NTNV



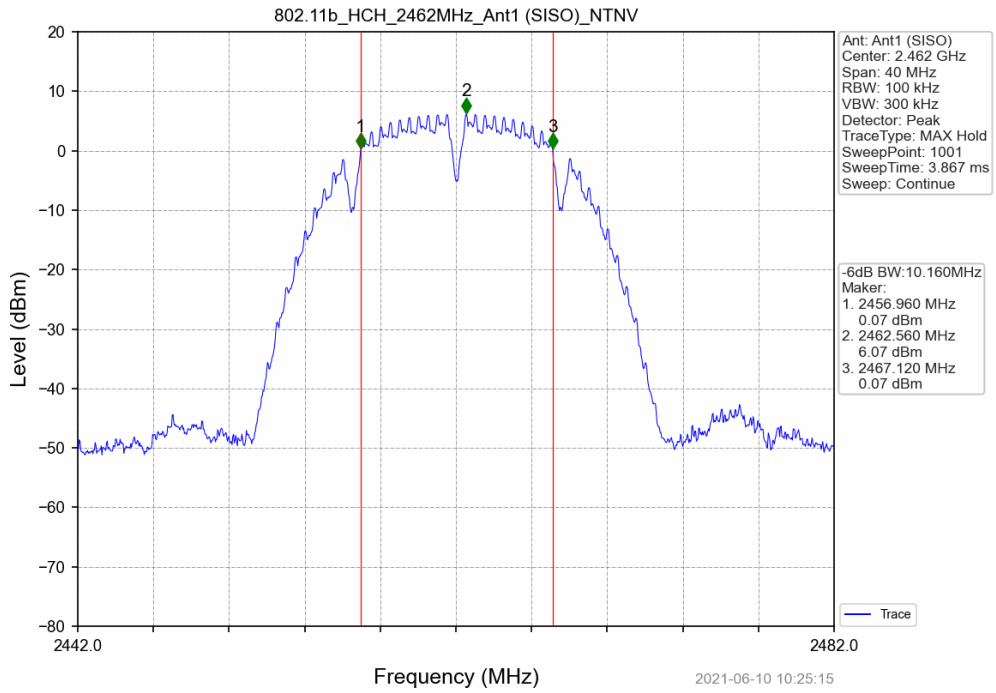
802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



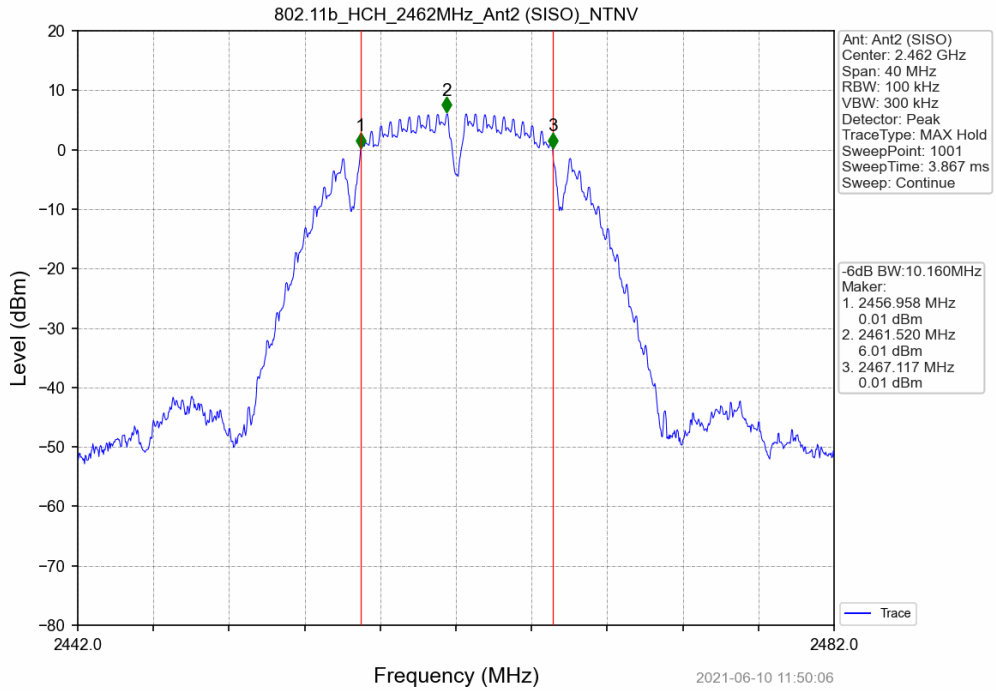
802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV



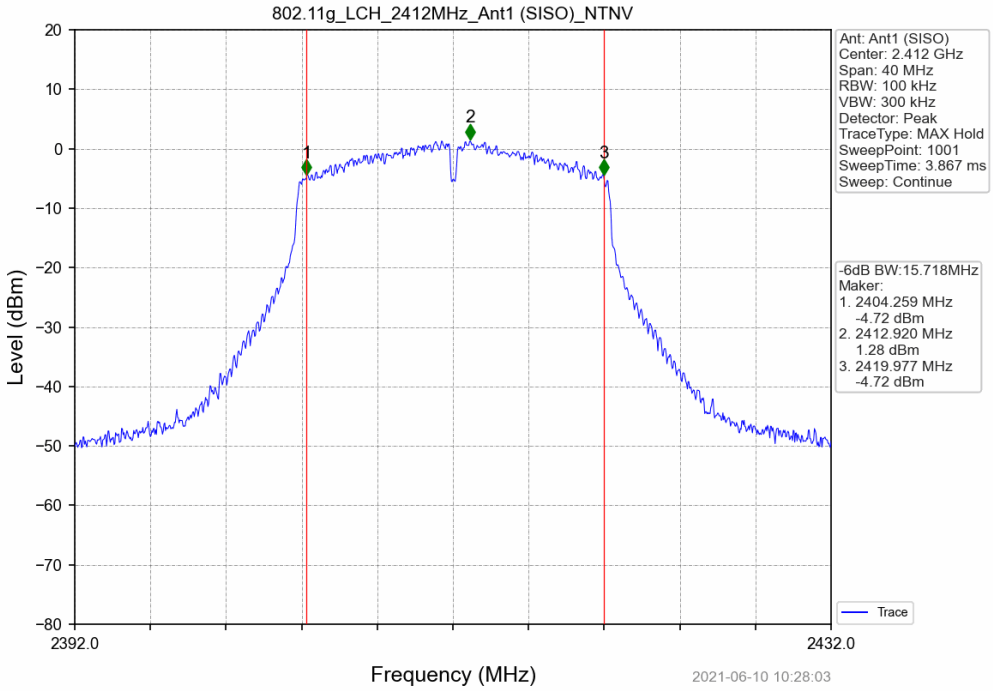
802.11b_HCH_2462MHz_Ant1 (SISO)_NTNV



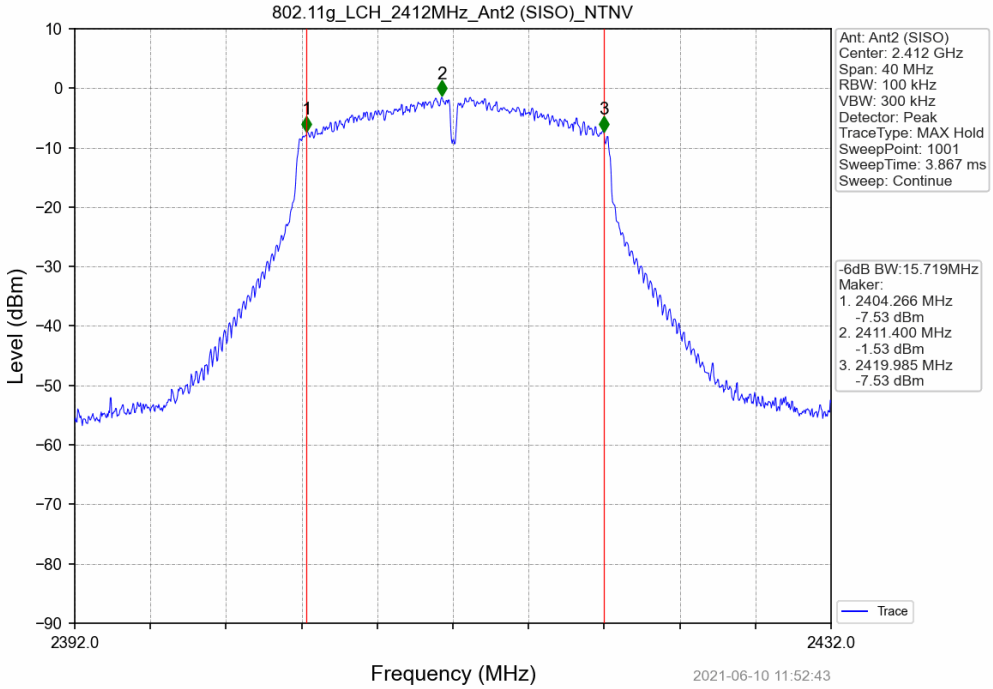
802.11b_HCH_2462MHz_Ant2 (SISO)_NTNV



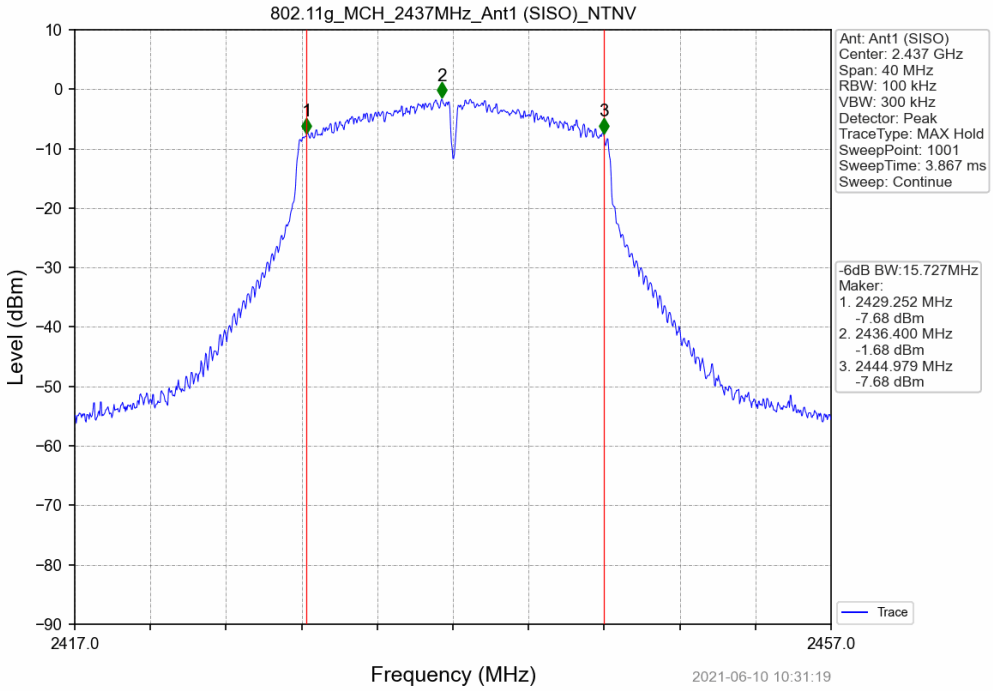
802.11g_LCH_2412MHz_Ant1 (SISO)_NTNV



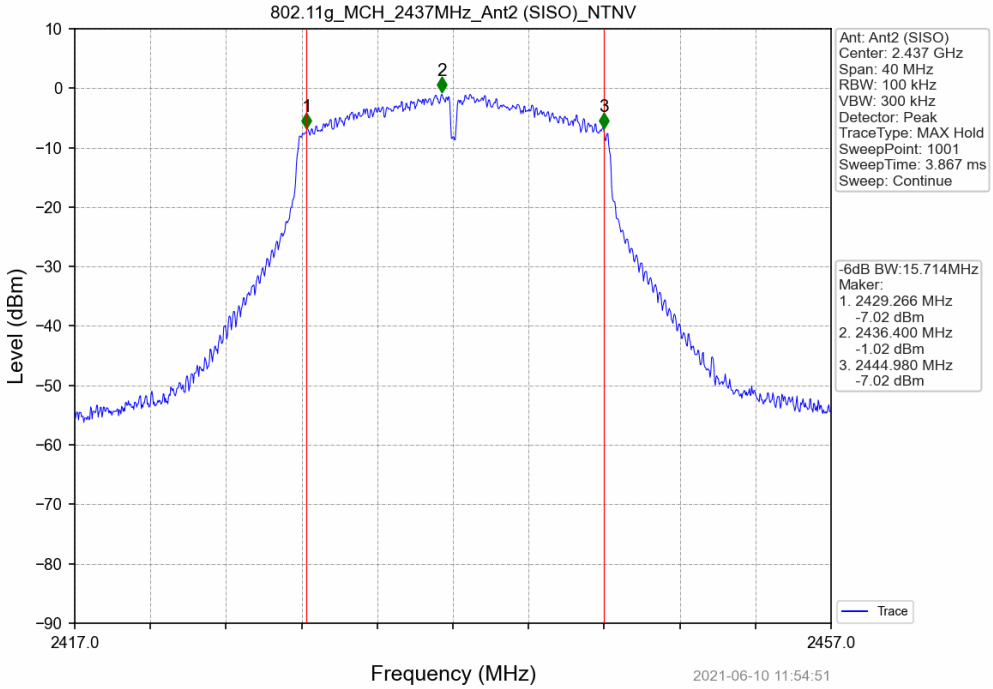
802.11g_LCH_2412MHz_Ant2 (SISO)_NTNV



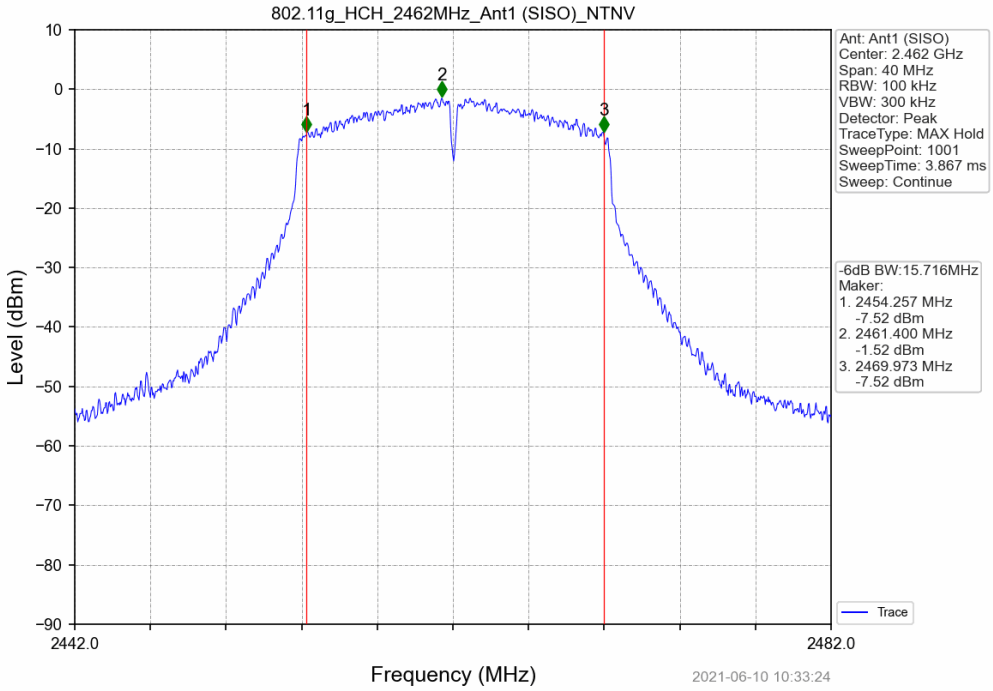
802.11g_MCH_2437MHz_Ant1 (SISO)_NTNV



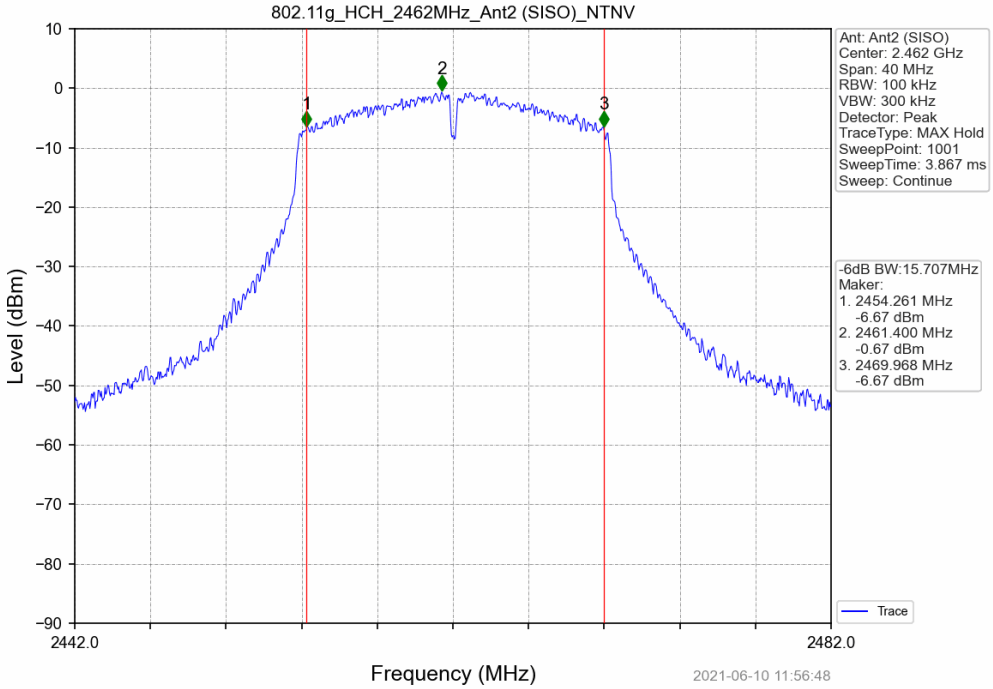
802.11g_MCH_2437MHz_Ant2 (SISO)_NTNV



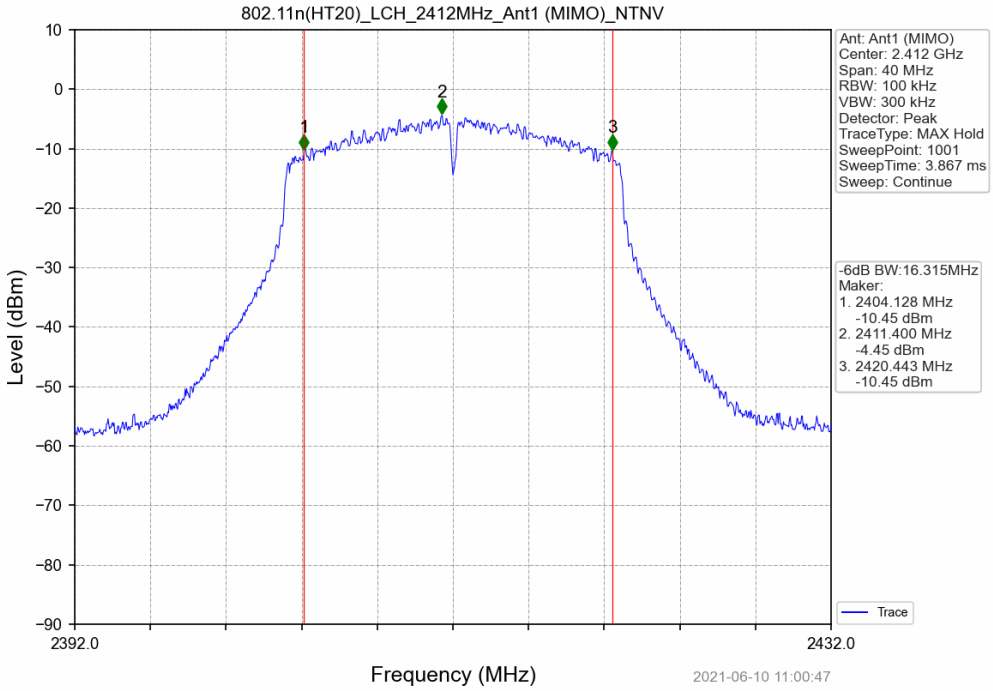
802.11g_HCH_2462MHz_Ant1 (SISO)_NTNV



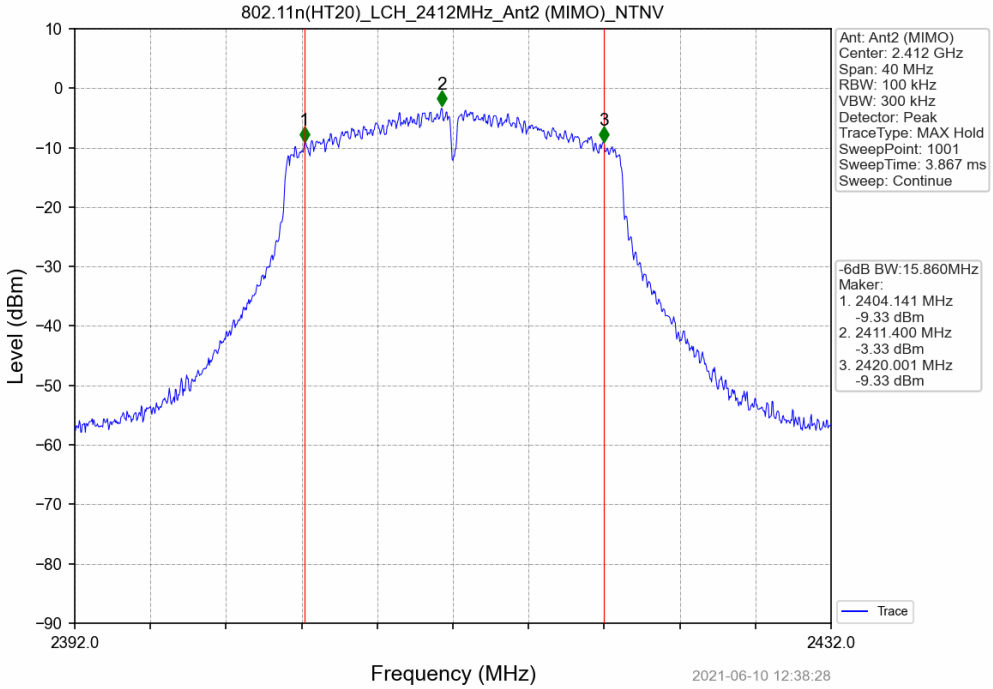
802.11g_HCH_2462MHz_Ant2 (SISO)_NTNV



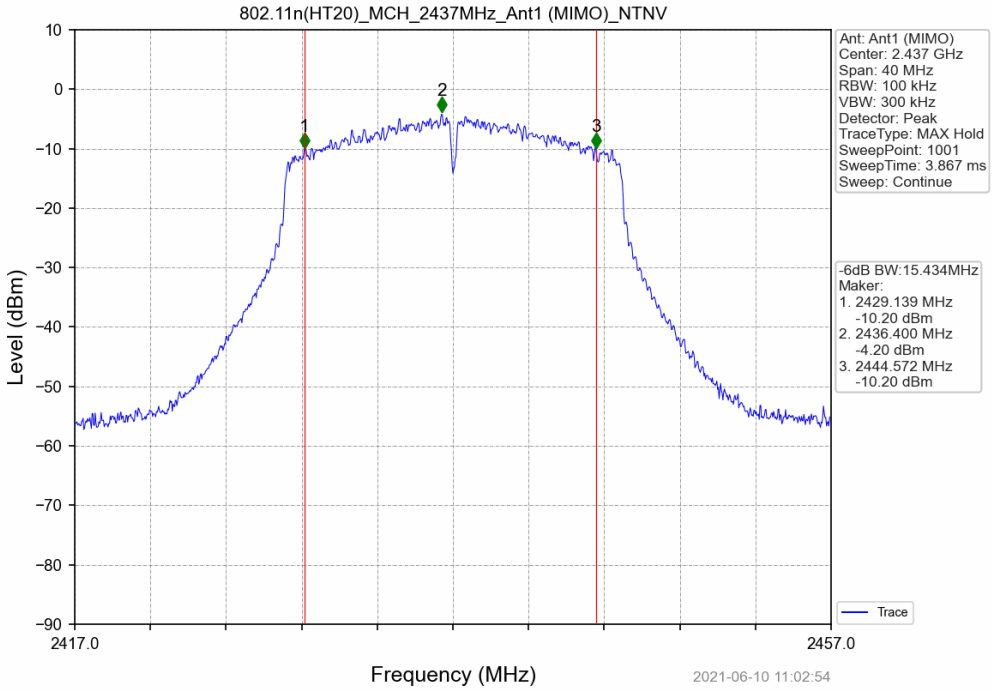
802.11n(HT20)_LCH_2412MHz_Ant1 (MIMO)_NTNV



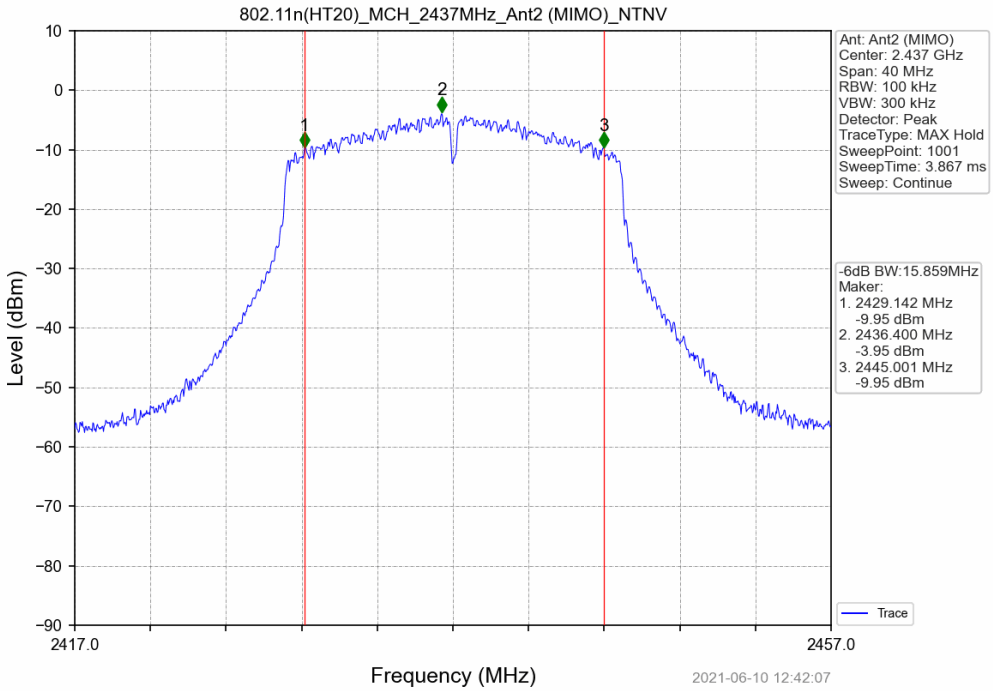
802.11n(HT20)_LCH_2412MHz_Ant2 (MIMO)_NTNV



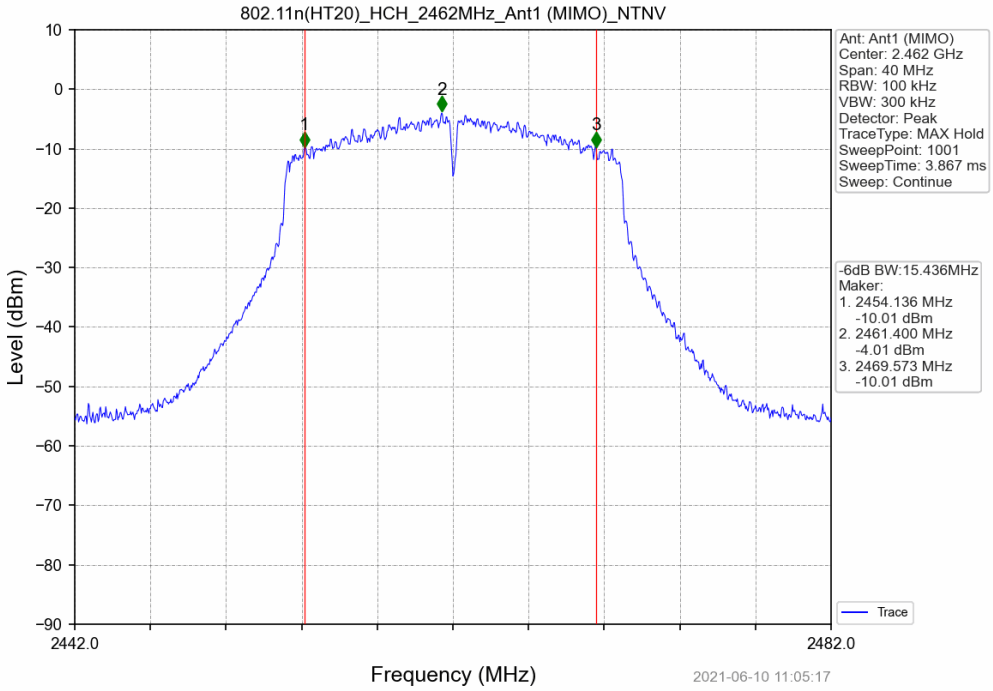
802.11n(HT20)_MCH_2437MHz_Ant1 (MIMO)_NTNV



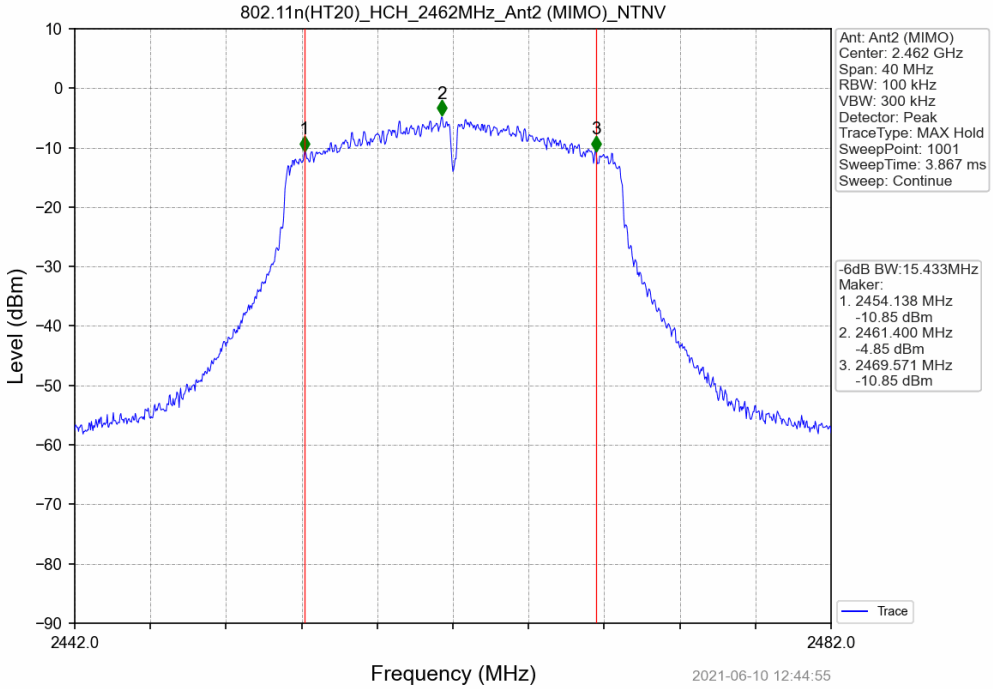
802.11n(HT20)_MCH_2437MHz_Ant2 (MIMO)_NTNV



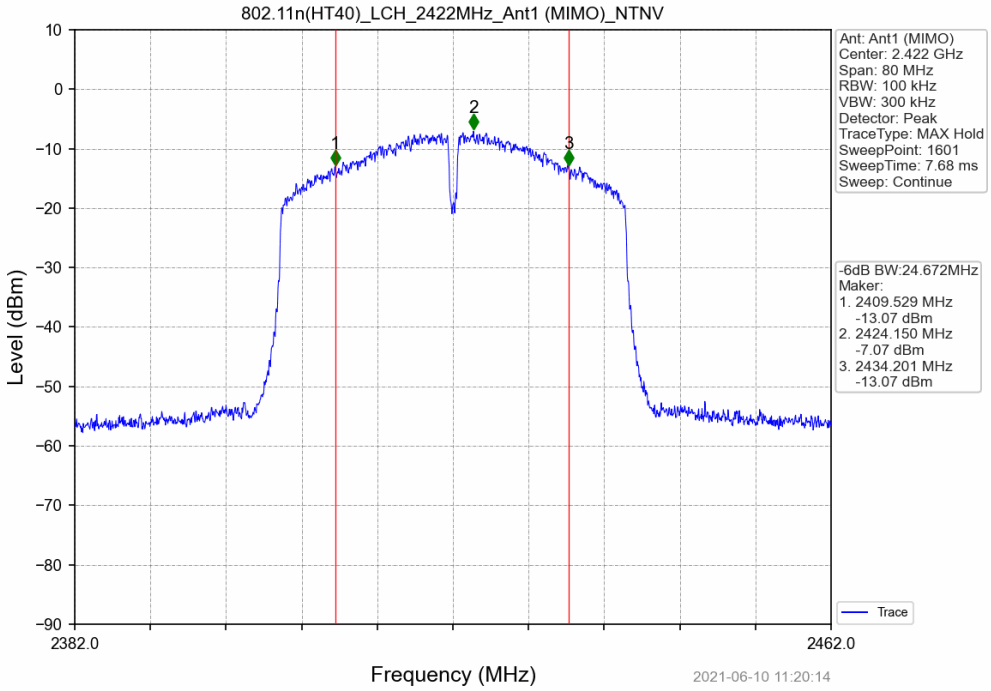
802.11n(HT20)_HCH_2462MHz_Ant1 (MIMO)_NTNV



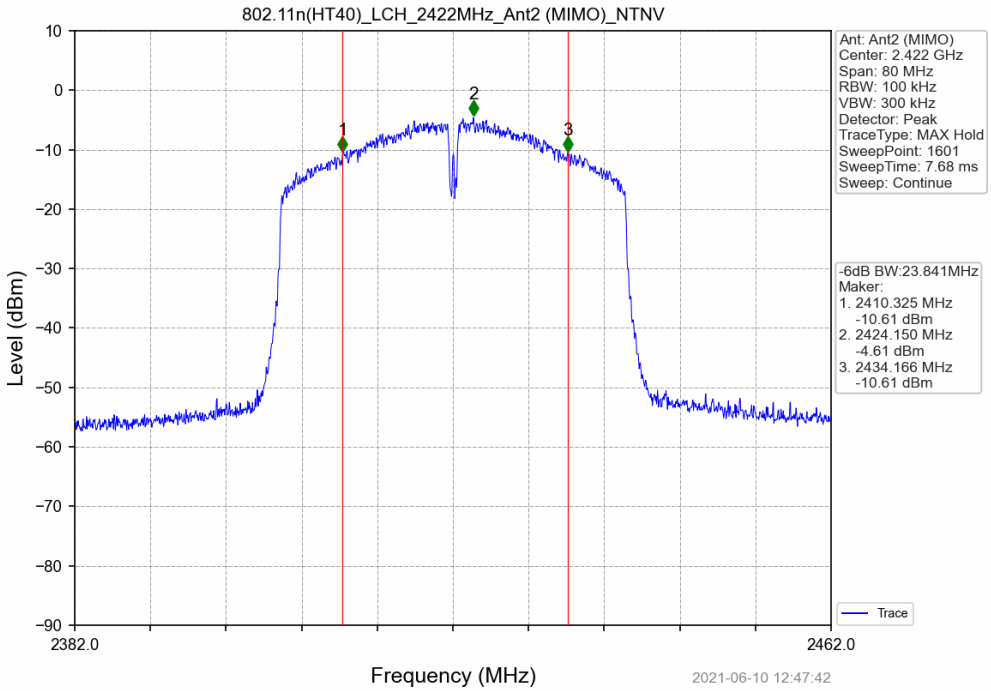
802.11n(HT20)_HCH_2462MHz_Ant2 (MIMO)_NTNV



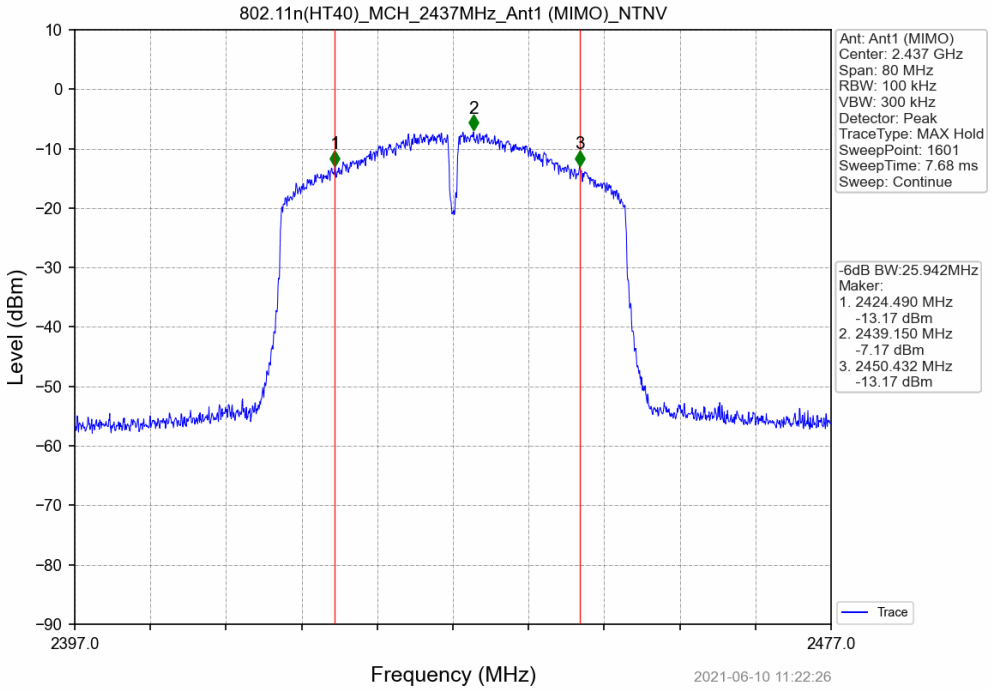
802.11n(HT40)_LCH_2422MHz_Ant1 (MIMO)_NTNV



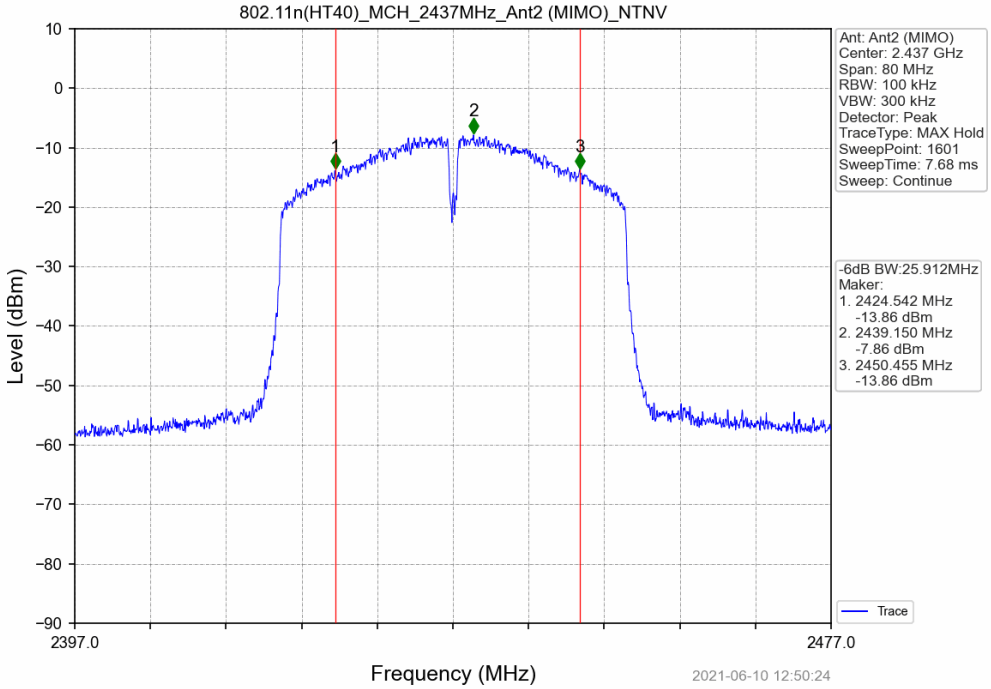
802.11n(HT40)_LCH_2422MHz_Ant2 (MIMO)_NTNV



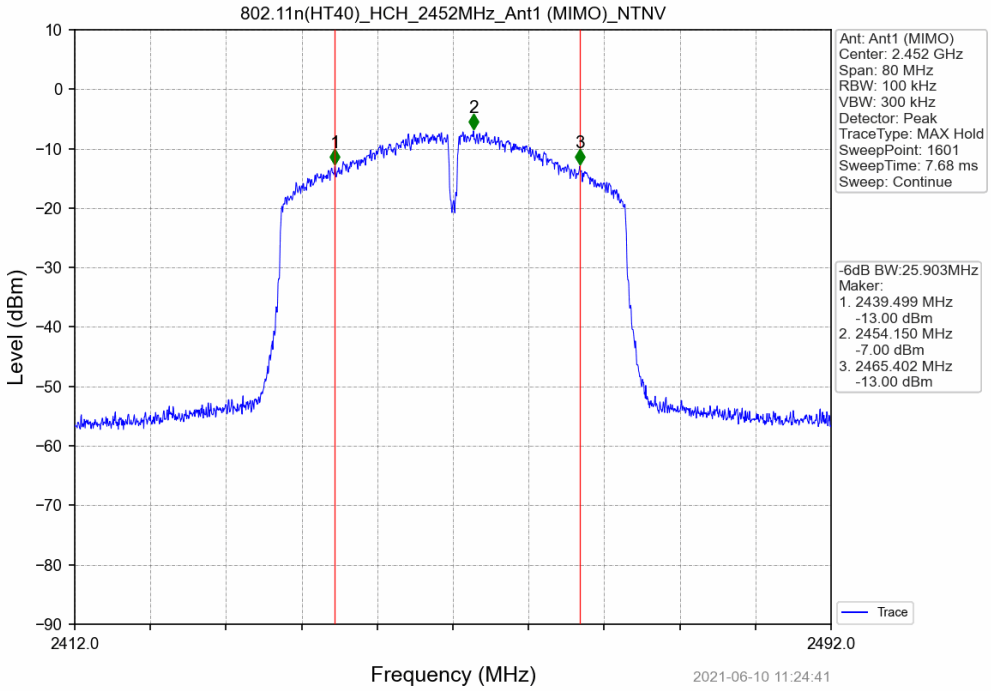
802.11n(HT40)_MCH_2437MHz_Ant1 (MIMO)_NTNV



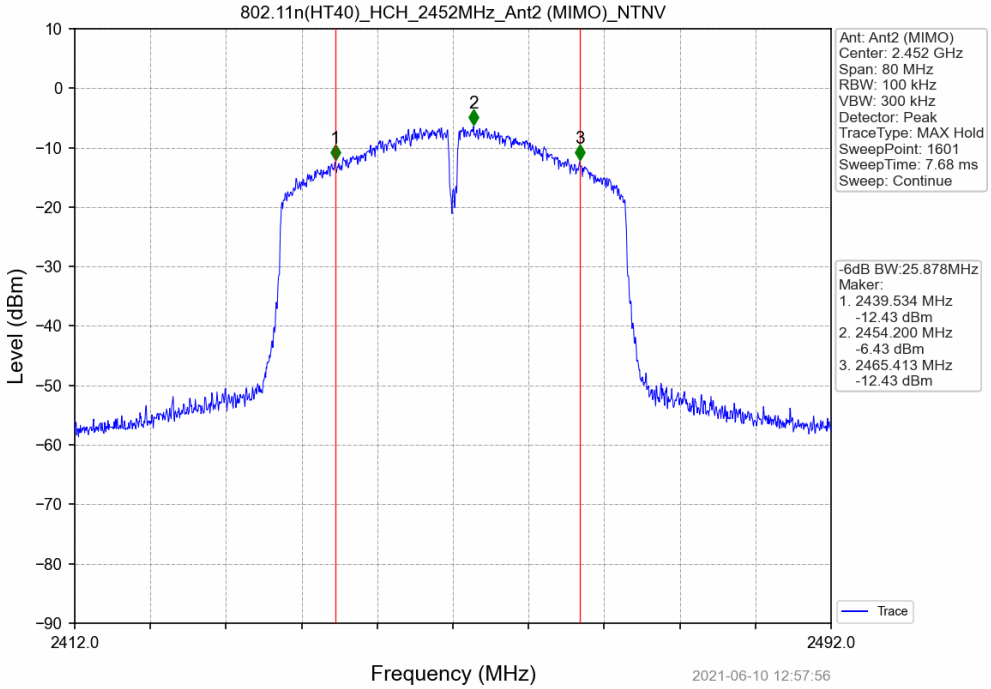
802.11n(HT40)_MCH_2437MHz_Ant2 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant1 (MIMO)_NTNV



802.11n(HT40)_HCH_2452MHz_Ant2 (MIMO)_NTNV



3. Maximum Conducted Output Power

3.1 Power

3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Measured Peak Output Power (dBm)			Limit (dBm)	Verdict
					Ant1	Ant2	Sum		
802.11b	SISO	2412	/	/	18.50	18.75	/	<=30	Pass
		2437	/	/	18.48	18.81	/	<=30	Pass
		2462	/	/	19.14	19.10	/	<=30	Pass
802.11g	SISO	2412	/	/	18.57	18.88	/	<=30	Pass
		2437	/	/	18.71	18.81	/	<=30	Pass
		2462	/	/	18.87	19.10	/	<=30	Pass
802.11n (HT20)	MIMO	2412	/	/	15.77	15.97	18.88	<=27.99	Pass
		2437	/	/	15.89	16.21	19.06	<=27.99	Pass
		2462	/	/	16.03	15.15	18.62	<=27.99	Pass
802.11n (HT40)	MIMO	2422	/	/	15.01	15.06	18.05	<=27.99	Pass
		2437	/	/	15.07	15.50	18.30	<=27.99	Pass
		2452	/	/	15.09	15.72	18.43	<=27.99	Pass
Note1: Antenna Gain: 1: 5.00dBi; 2: 5.00dBi;									

4. Maximum Power Spectral Density

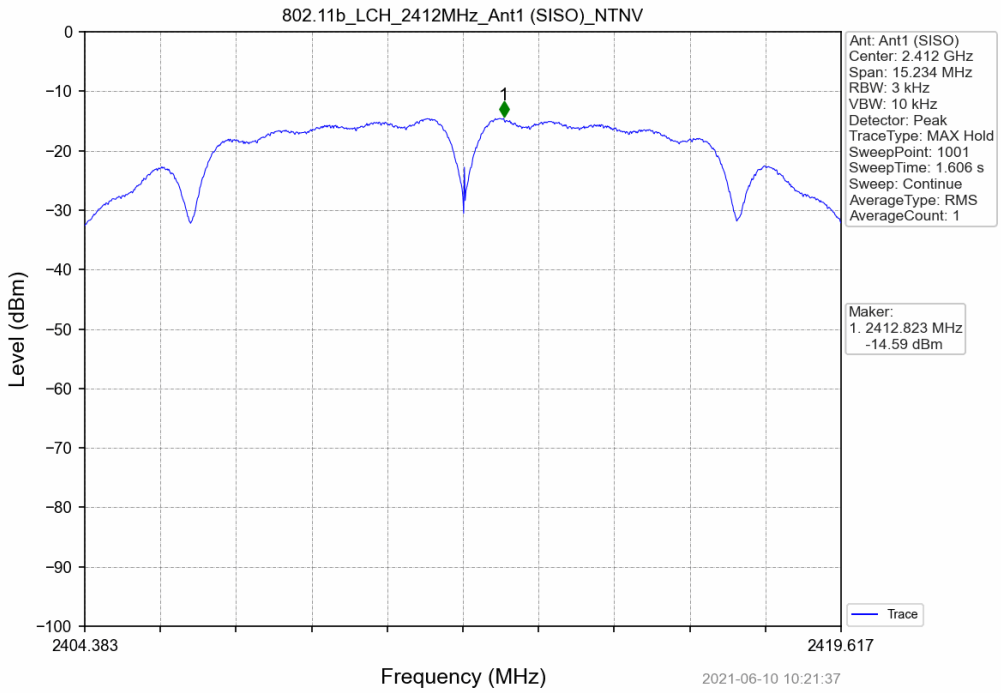
4.1 PSD

4.1.1 Test Result

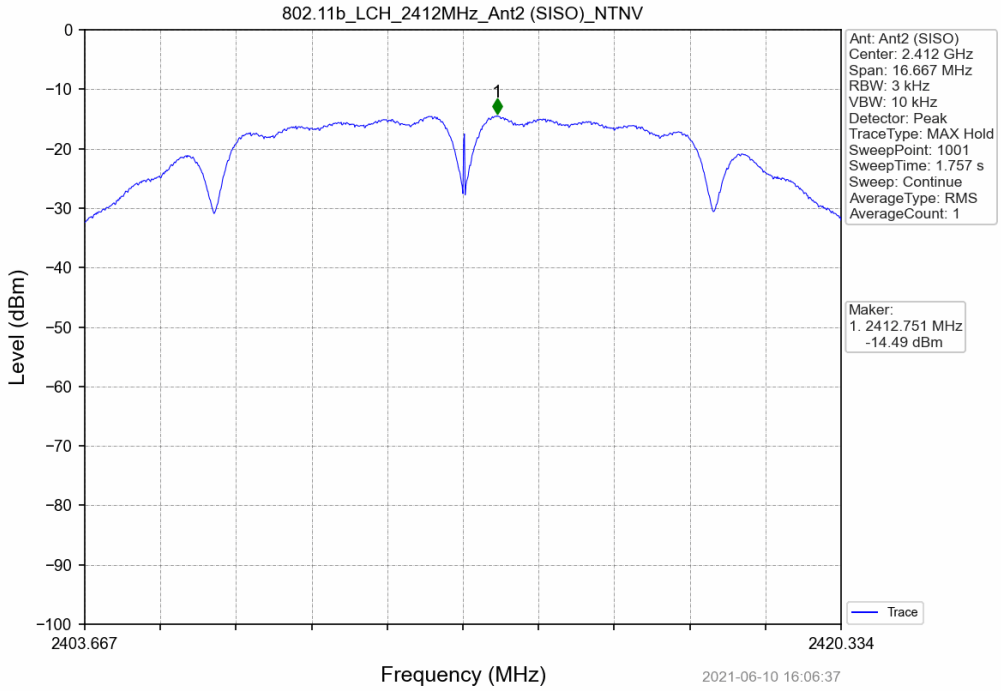
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/3kHz)			Limit (dBm/3kHz)	Verdict
					Ant1	Ant2	Sum		
802.11b	SISO	2412	/	/	-14.59	-14.49	/	<=8.00	Pass
		2437	/	/	-14.61	-14.18	/	<=8.00	Pass
		2462	/	/	-13.92	-13.97	/	<=8.00	Pass
802.11g	SISO	2412	/	/	-16.44	-15.53	/	<=8.00	Pass
		2437	/	/	-15.82	-15.78	/	<=8.00	Pass
		2462	/	/	-15.47	-15.39	/	<=8.00	Pass
802.11n (HT20)	MIMO	2412	/	/	-18.79	-18.84	-15.88	<=5.99	Pass
		2437	/	/	-18.17	-18.40	-15.73	<=5.99	Pass
		2462	/	/	-18.38	-19.35	-15.94	<=5.99	Pass
802.11n (HT40)	MIMO	2422	/	/	-18.47	-19.41	-17.30	<=5.99	Pass
		2437	/	/	-19.43	-19.73	-18.13	<=5.99	Pass
		2452	/	/	-19.28	-18.73	-17.89	<=5.99	Pass
Note1: Antenna Gain: 1: 5.00dBi; 2: 5.00dBi;									

4.1.2 Test Graph

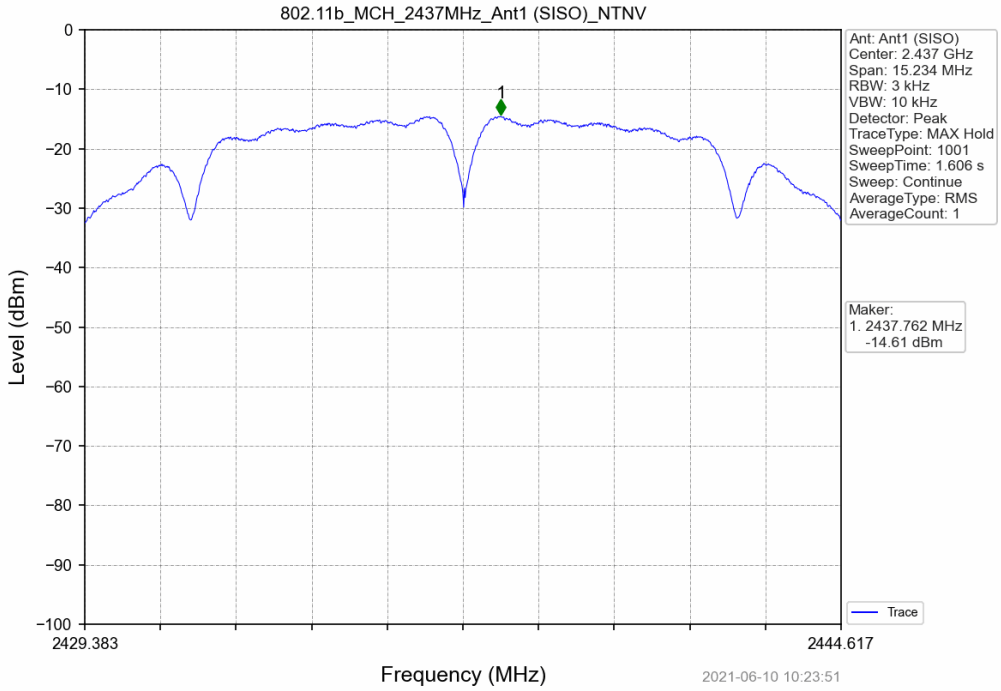
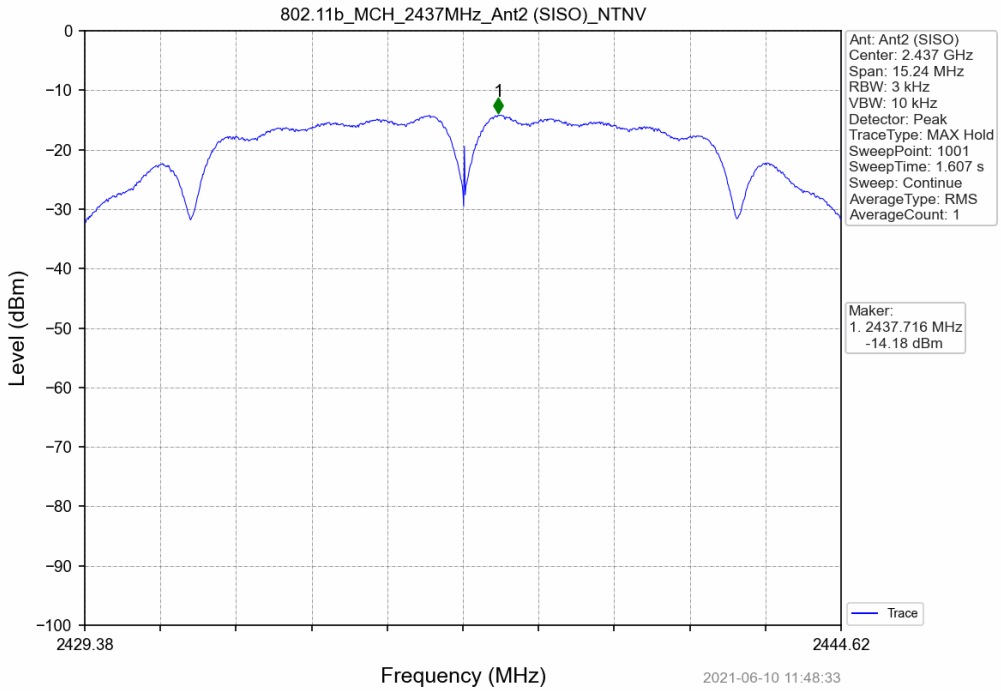
802.11b_LCH_2412MHz_Ant1 (SISO)_NTNV



802.11b_LCH_2412MHz_Ant2 (SISO)_NTNV



802.11b_MCH_2437MHz_Ant1 (SISO)_NTNV



802.11b_MCH_2437MHz_Ant2 (SISO)_NTNV