



Shenzhen CTL Testing Technology Co., Ltd.

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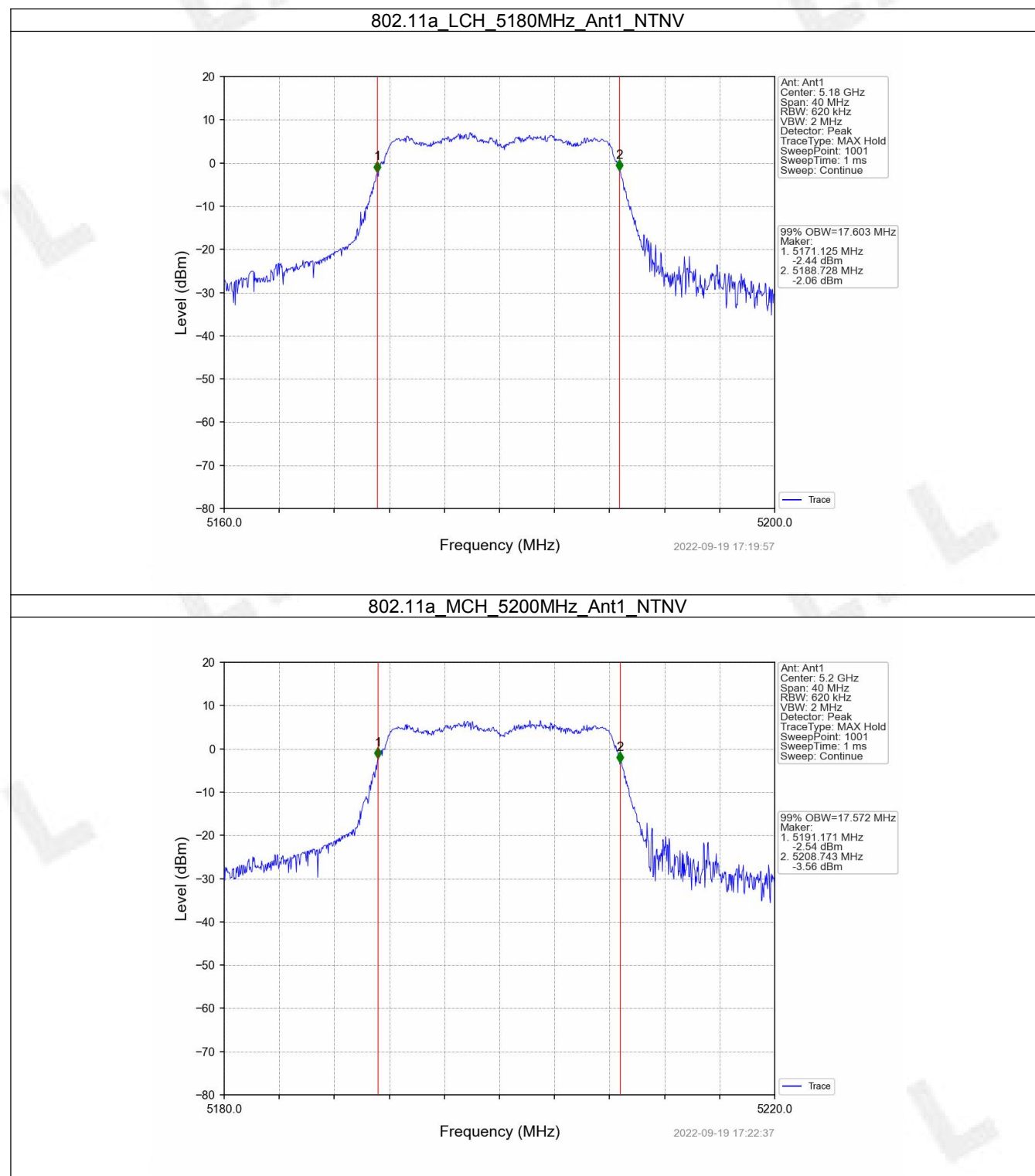
1. Bandwidth

1.1 OBW

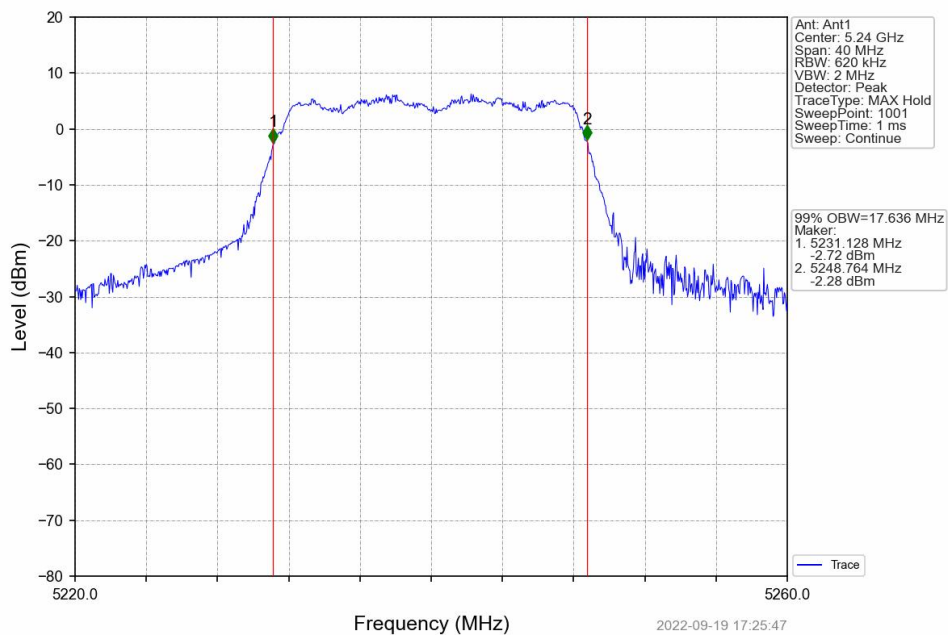
1.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	17.603	Pass
		5200	1	17.572	Pass
		5240	1	17.636	Pass
802.11n (HT20)	SISO	5180	1	18.187	Pass
		5200	1	18.218	Pass
		5240	1	18.223	Pass
802.11n (HT40)	SISO	5190	1	36.889	Pass
		5230	1	36.863	Pass

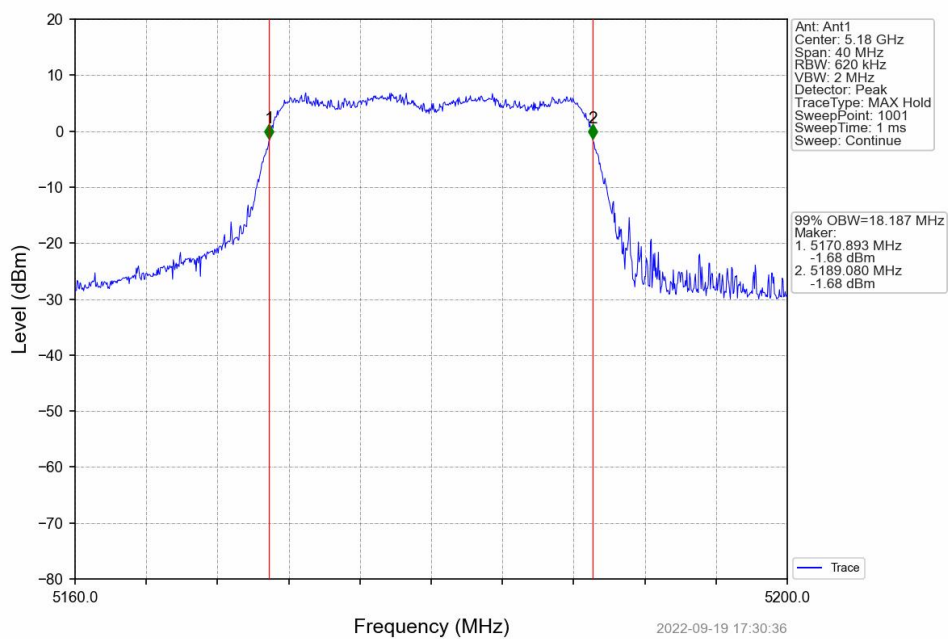
1.1.2 Test Graph



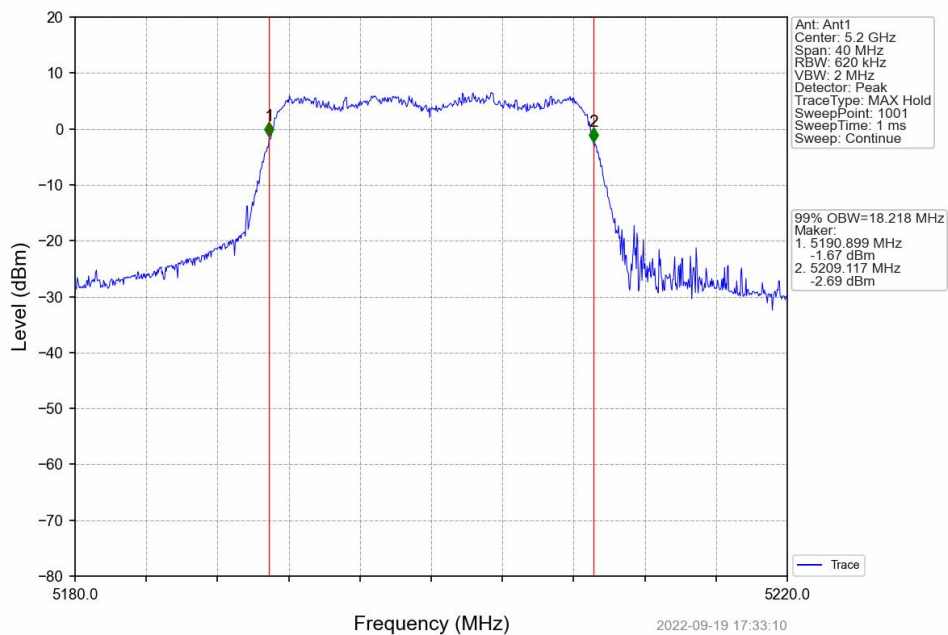
802.11a_HCH_5240MHz_Ant1_NTNV



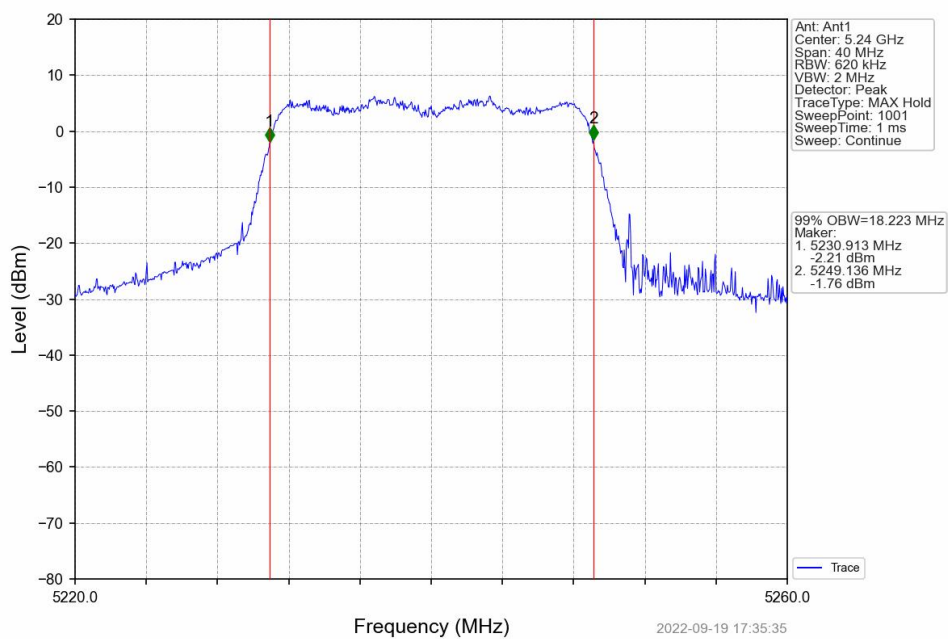
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



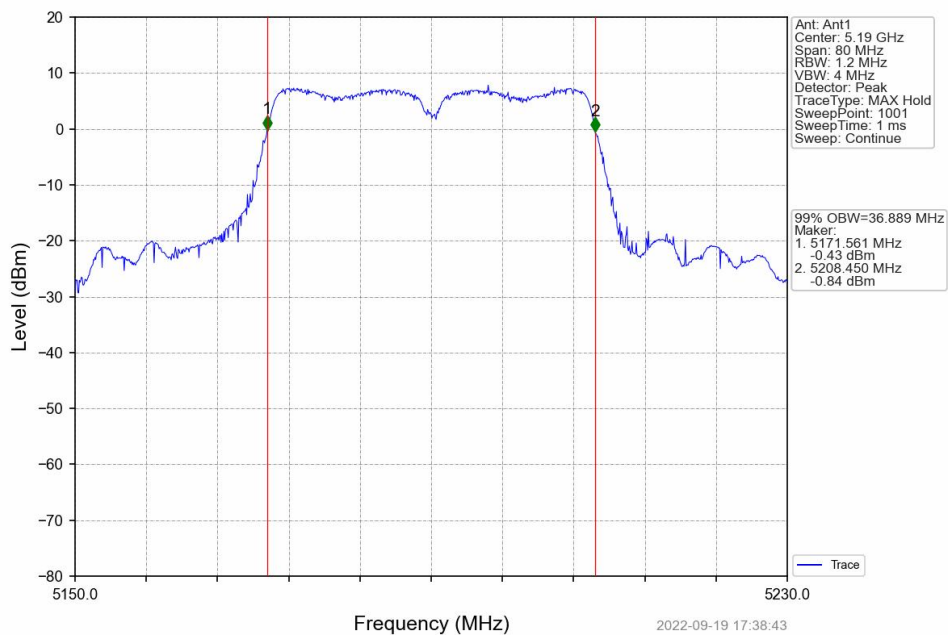
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



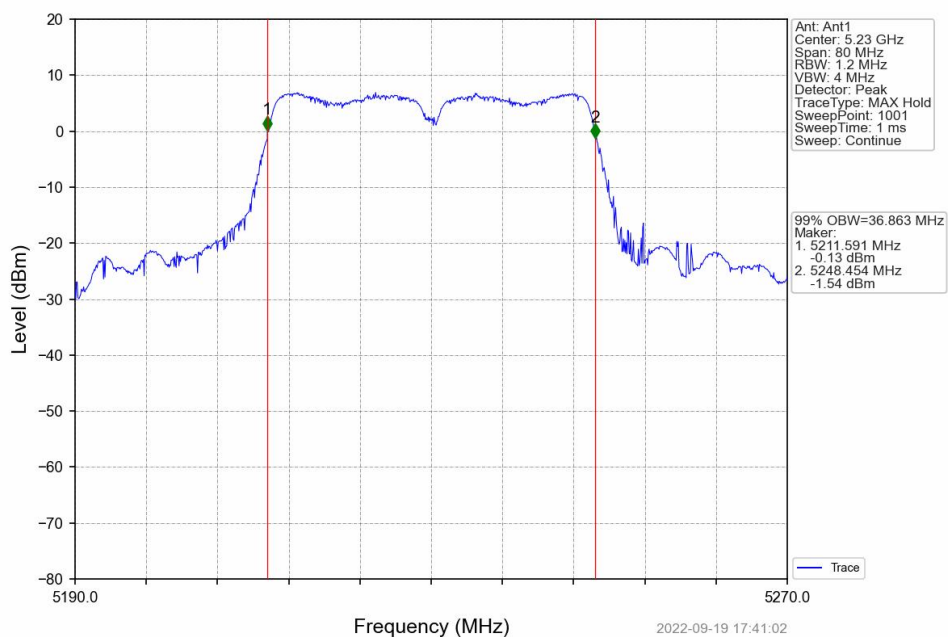
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



802.11n(HT40)_HCH_5230MHz_Ant1_NTNV

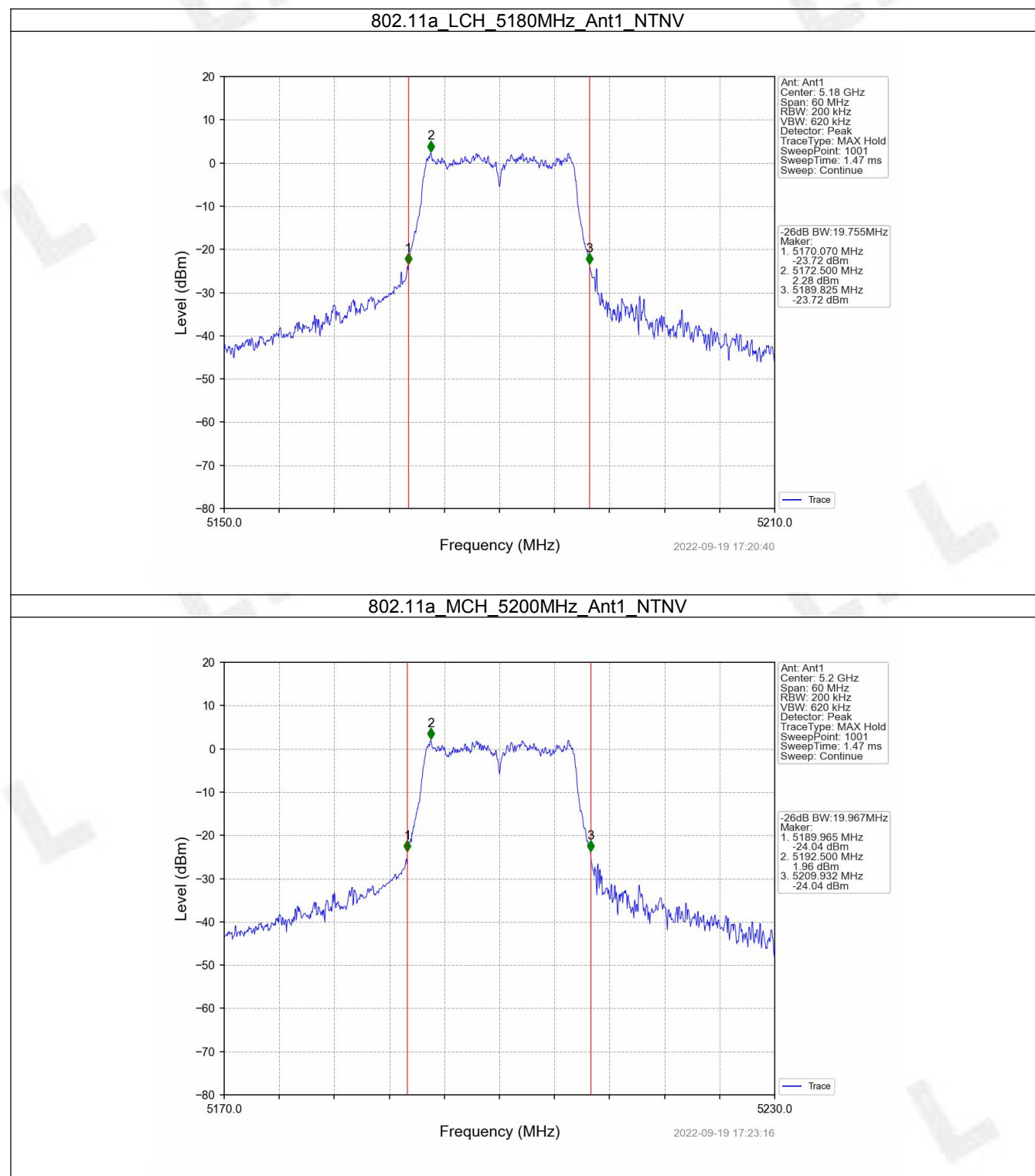


1.2 26dB BW

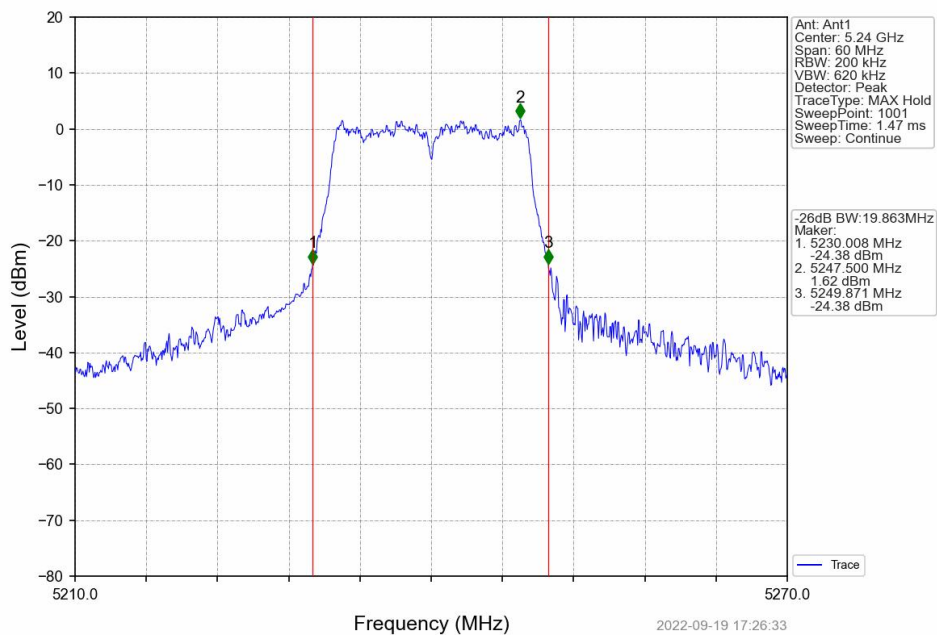
1.2.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	19.755	Pass
		5200	1	19.967	Pass
		5240	1	19.863	Pass
802.11n (HT20)	SISO	5180	1	20.080	Pass
		5200	1	20.490	Pass
		5240	1	20.282	Pass
802.11n (HT40)	SISO	5190	1	41.060	Pass
		5230	1	41.185	Pass

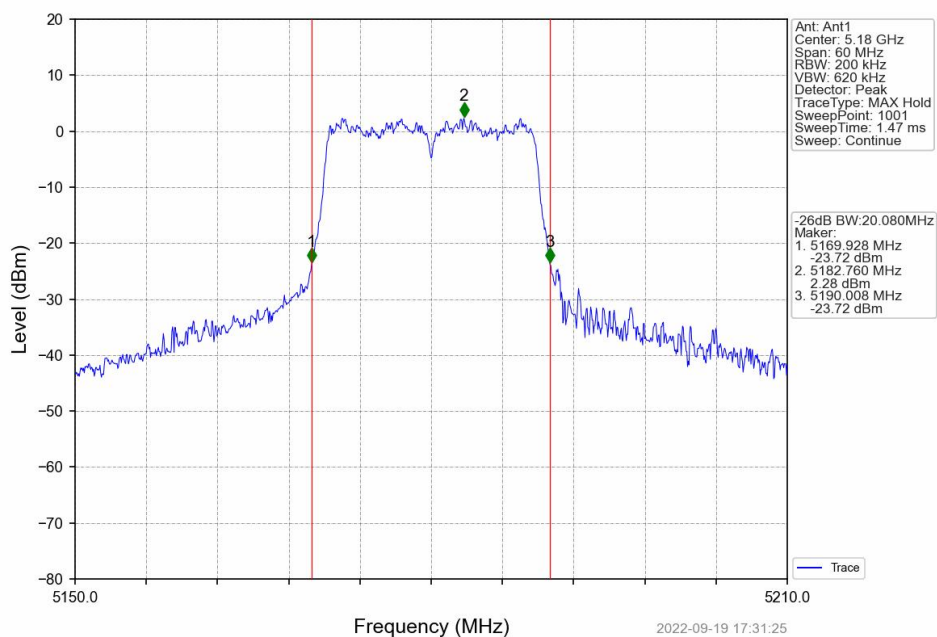
1.2.2 Test Graph



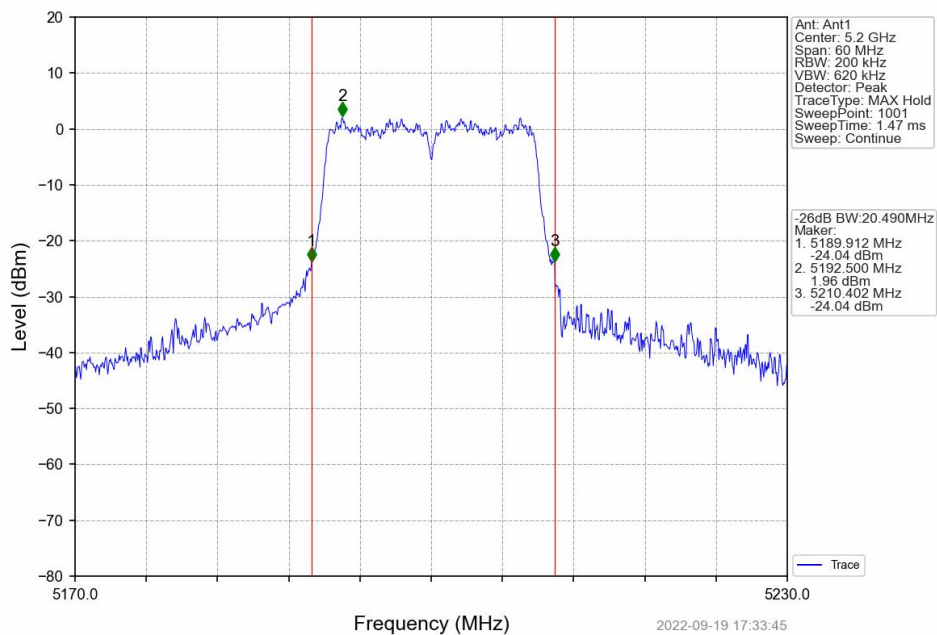
802.11a_HCH_5240MHz_Ant1_NTNV



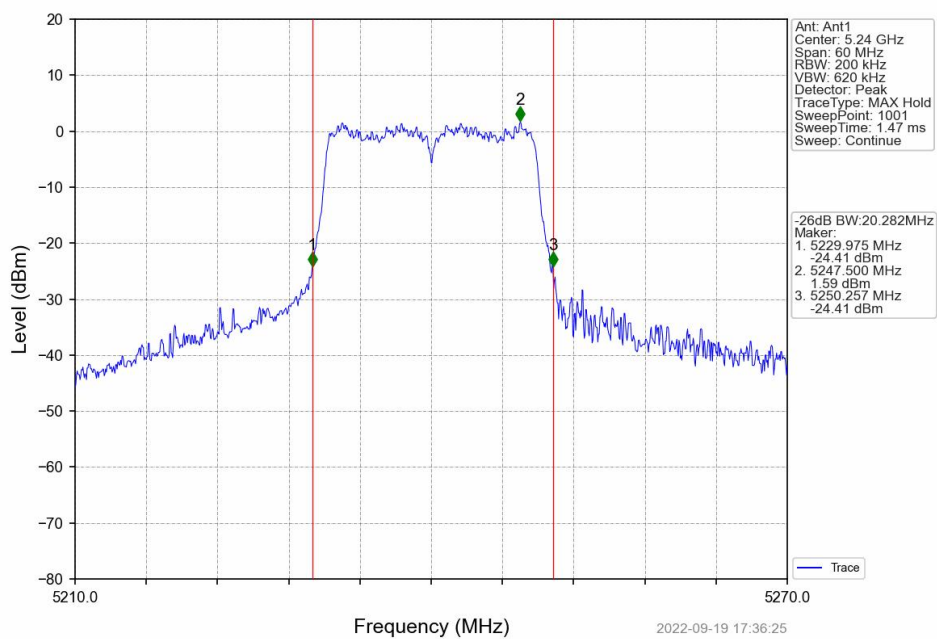
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



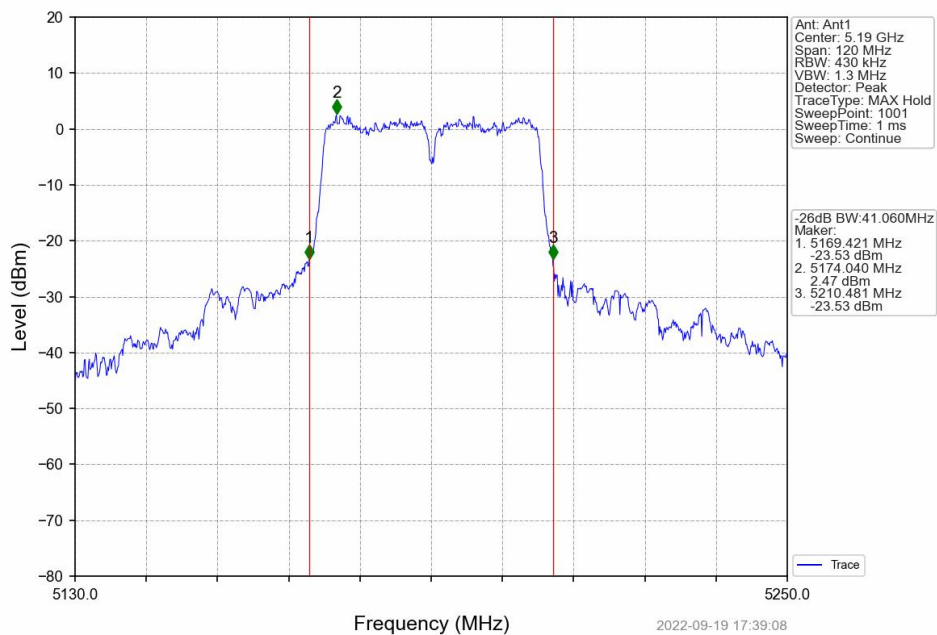
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



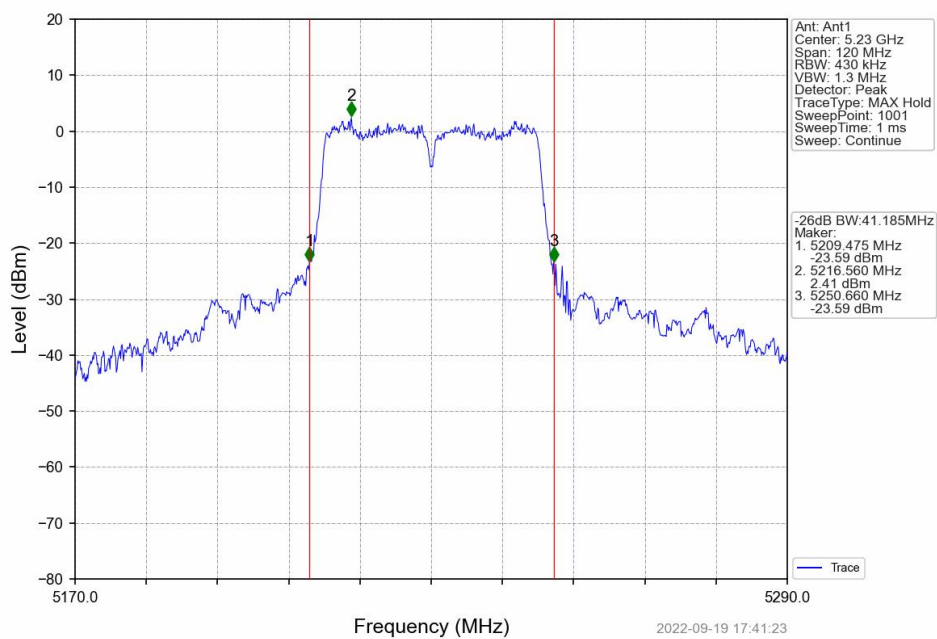
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



2. Maximum Conducted Output Power

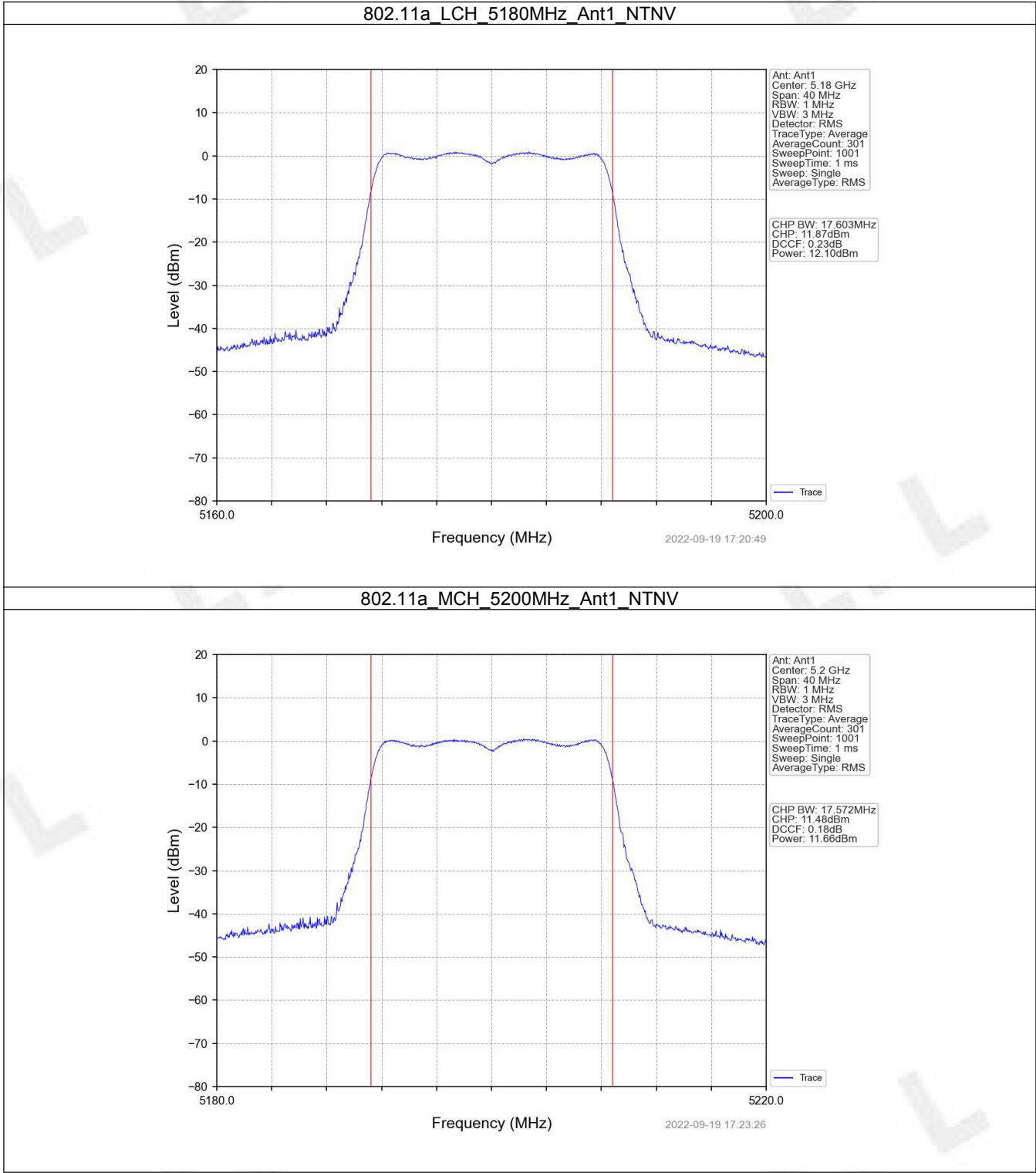
2.1 Power

2.1.1 Test Result

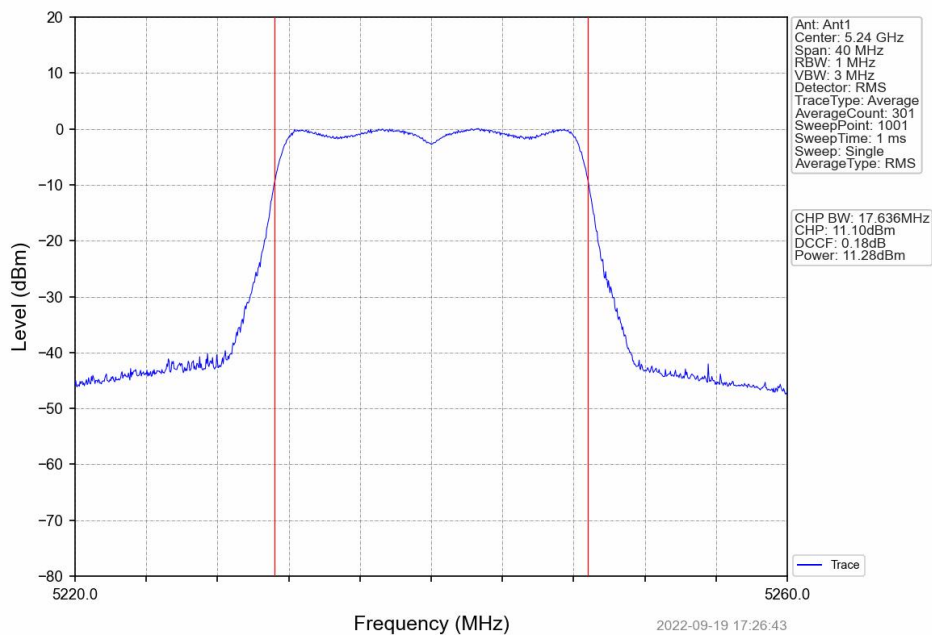
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)				Verdict
			AVG Conducted Power (dBm)	Duty Cycle Factor(dB)	Report Conducted Power(dBm)	Limit	
802.11a	SISO	5180	12.10	0.00	12.10	<=23.98	Pass
		5200	11.66	0.00	11.66	<=23.98	Pass
		5240	11.28	0.00	11.28	<=23.98	Pass
802.11n (HT20)	SISO	5180	12.17	0.00	12.17	<=23.98	Pass
		5200	11.73	0.00	11.73	<=23.98	Pass
		5240	11.34	0.00	11.34	<=23.98	Pass
802.11n (HT40)	SISO	5190	12.10	0.00	12.10	<=23.98	Pass
		5230	11.55	0.00	11.55	<=23.98	Pass

Note1: Antenna Gain: Ant1: 2.49dBi;

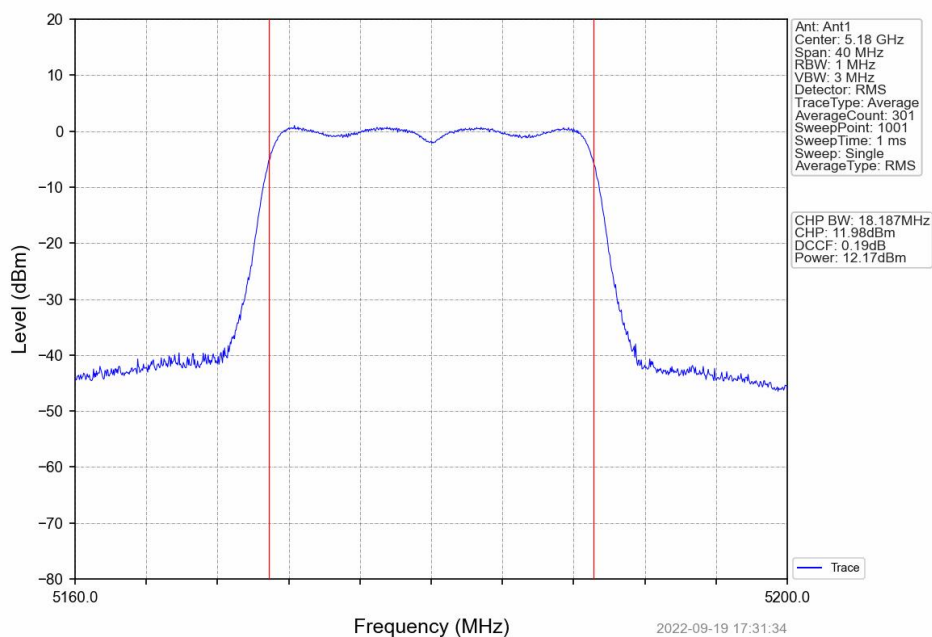
2.1.2 Test Graph



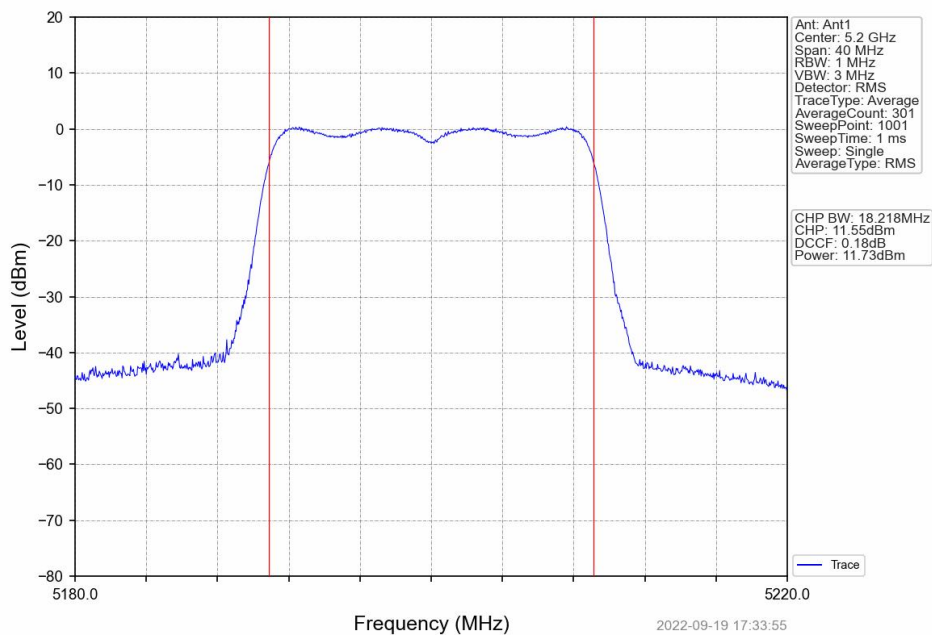
802.11a_HCH_5240MHz_Ant1_NTNV



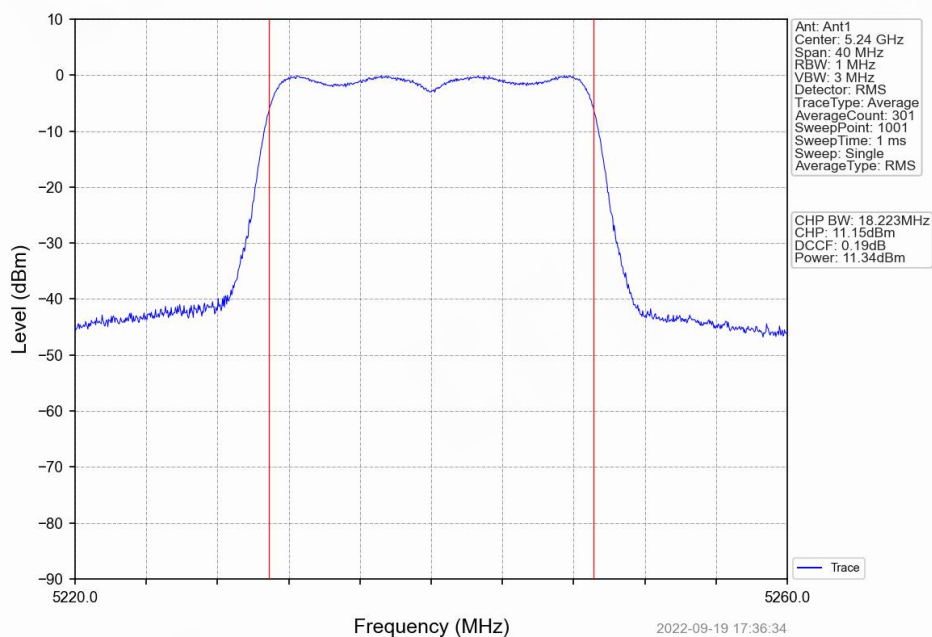
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



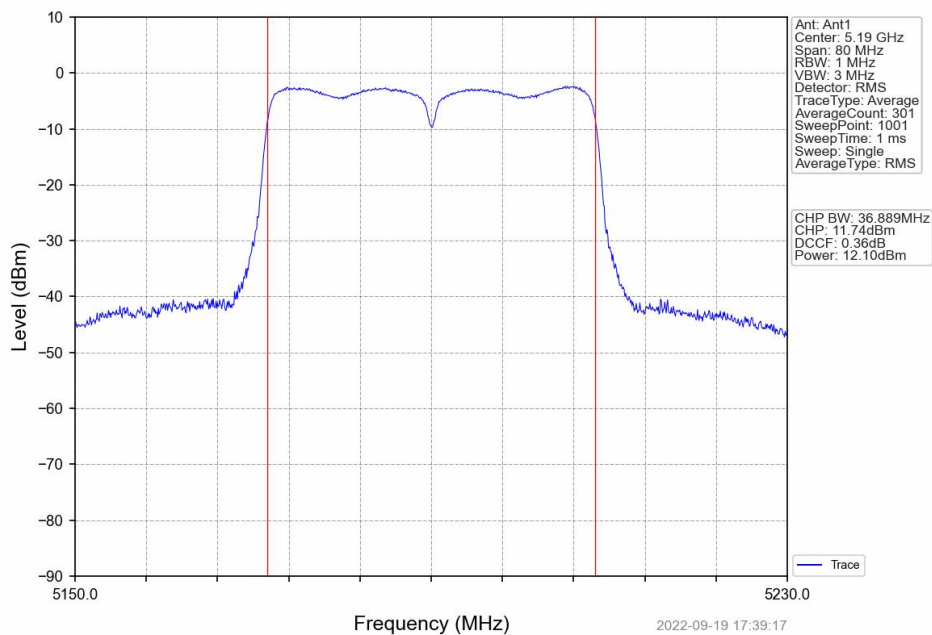
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



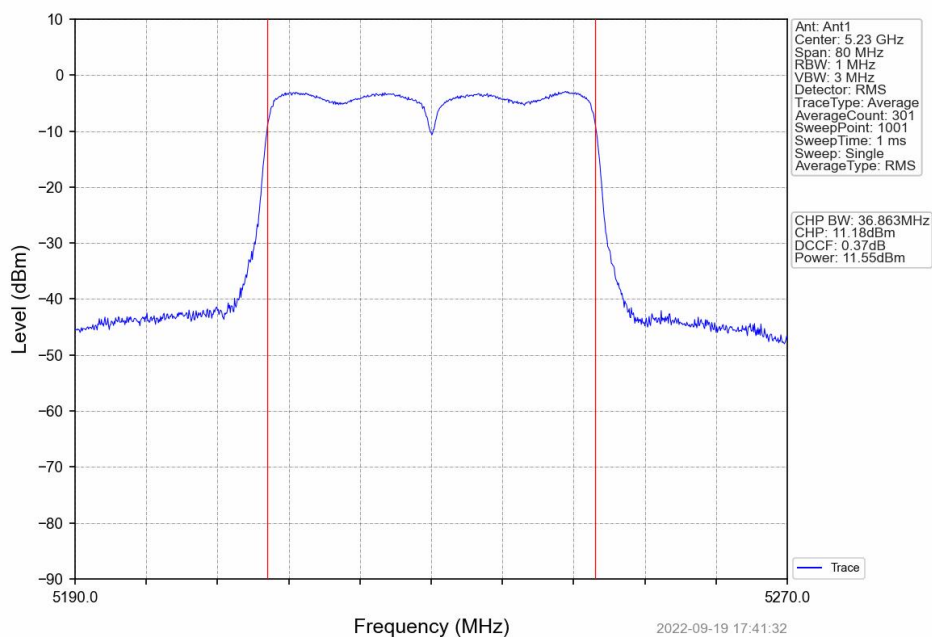
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT40)_LCH_5190MHz_Ant1_NTNV

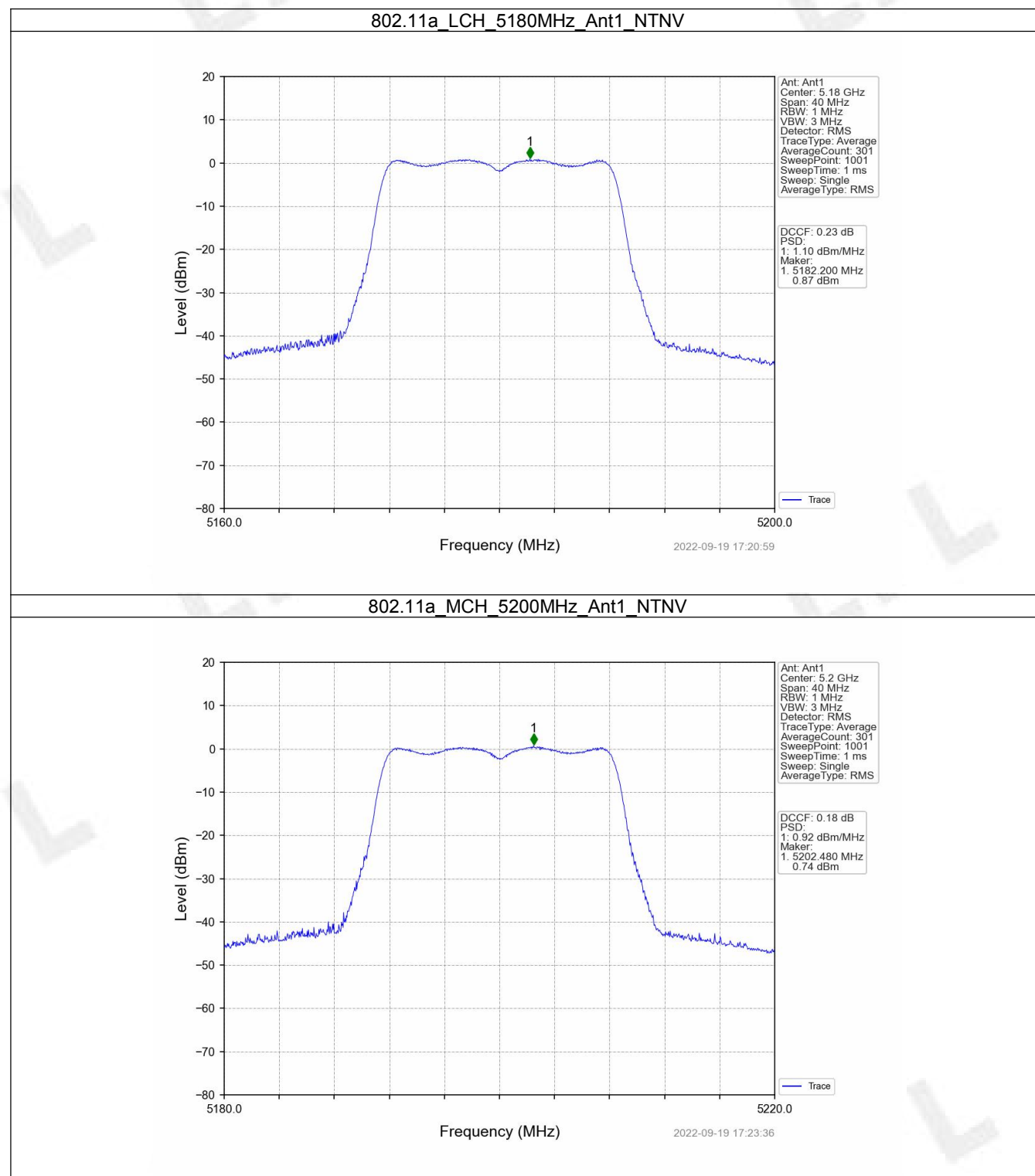


802.11n(HT40)_HCH_5230MHz_Ant1_NTNV

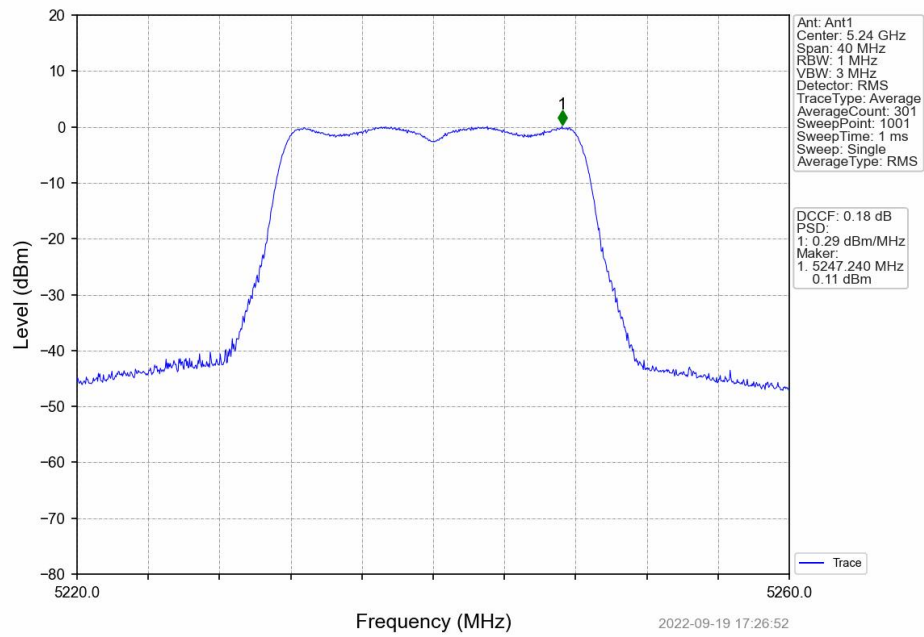


Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)				Verdict
			Report Power Density [dBm/3KHz]	Duty Cycle Factor(dB)	Report Power Density [dBm/3KHz]	Limit	
802.11a	SISO	5180	1.10	0.00	1.10	<=11	Pass
		5200	0.92	0.00	0.92	<=11	Pass
		5240	0.29	0.00	0.29	<=11	Pass
802.11n (HT20)	SISO	5180	0.94	0.00	0.94	<=11	Pass
		5200	0.59	0.00	0.59	<=11	Pass
		5240	0.17	0.00	0.17	<=11	Pass
802.11n (HT40)	SISO	5190	-2.07	0.00	-2.07	<=11	Pass
		5230	-2.40	0.00	-2.40	<=11	Pass
Note1: Antenna Gain: Ant1: 2.49dBi:							

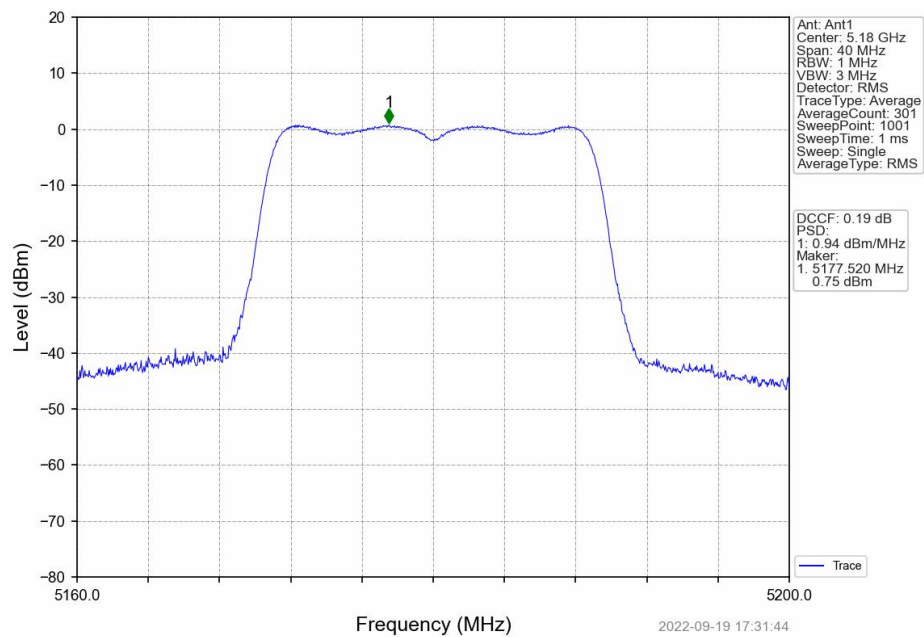
3.1.2 Test Graph



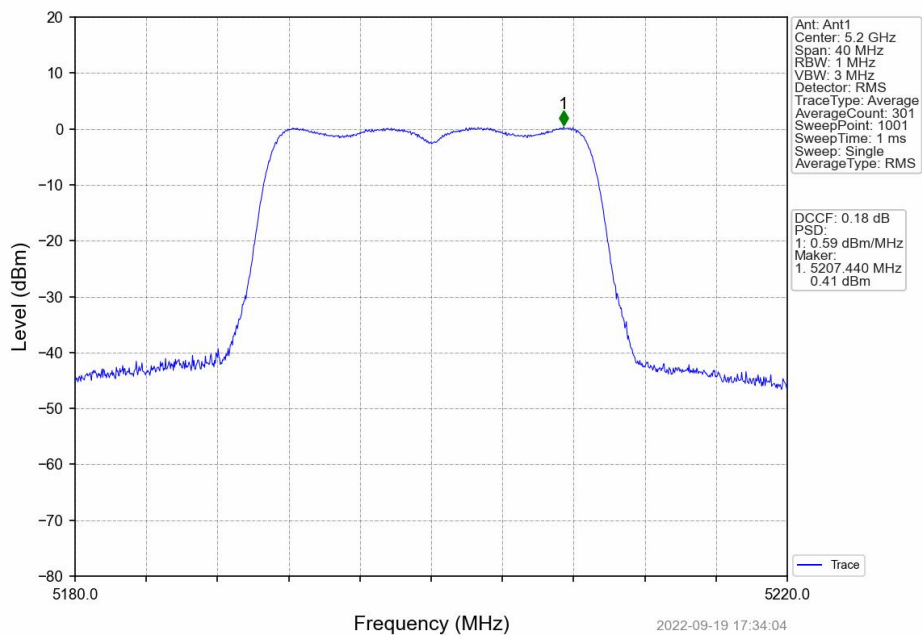
802.11a_HCH_5240MHz_Ant1_NTNV



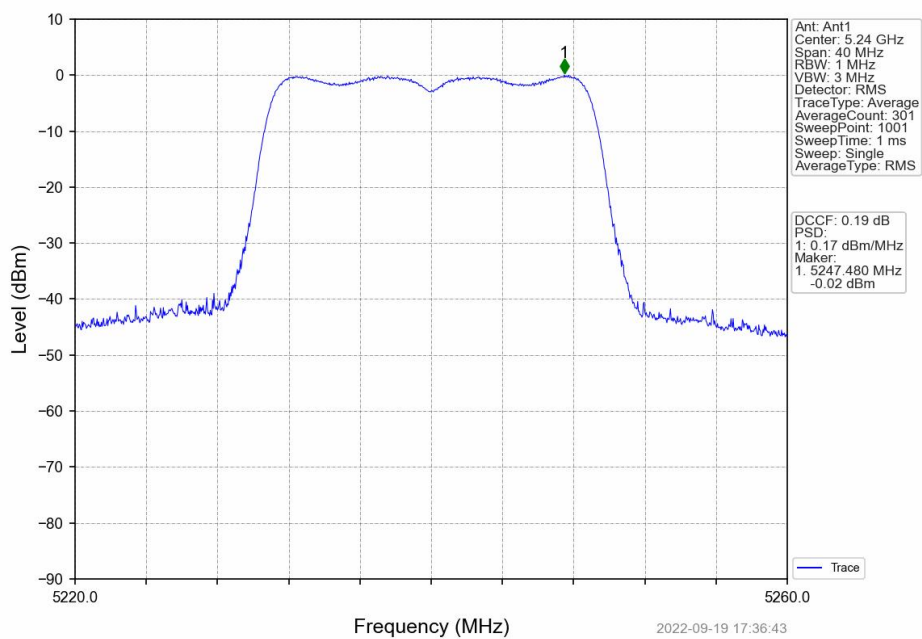
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



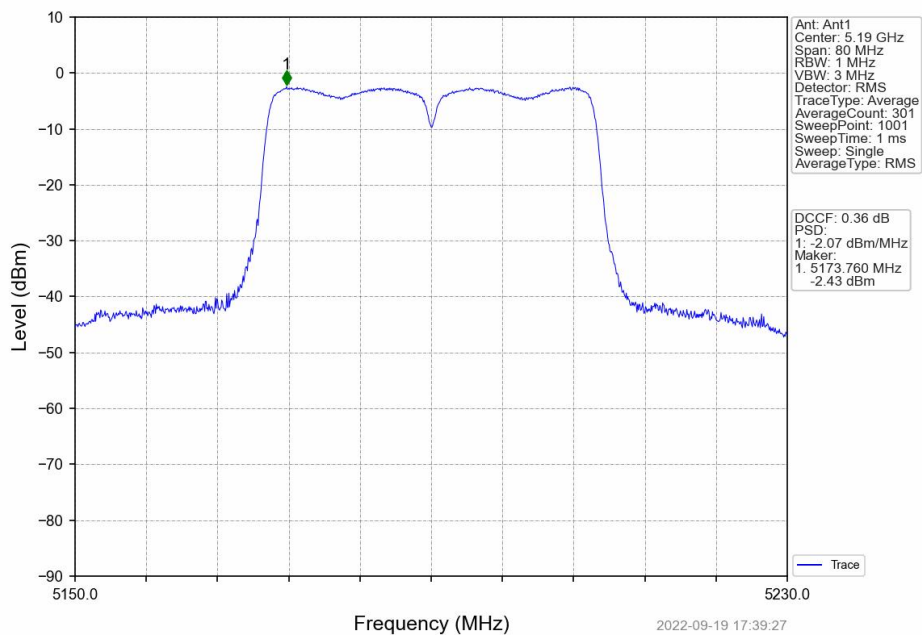
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



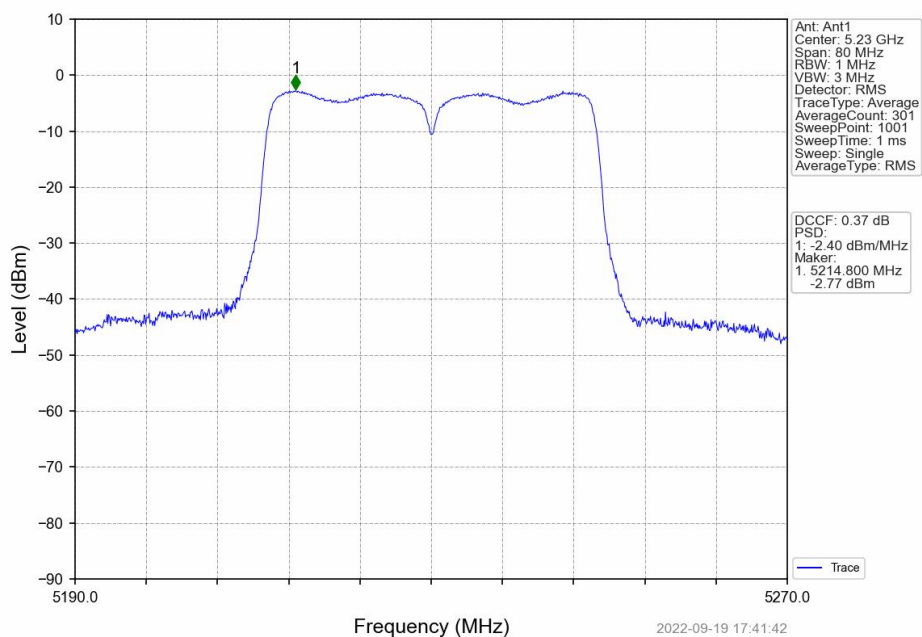
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



4. Frequency Stability

4.1 Ant1

4.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
Carrier Wave	SISO	5180	20	102	5179.963	5150 to 5250	Pass
				120	5179.963	5150 to 5250	Pass
				138	5179.964	5150 to 5250	Pass
			-30	120	5179.964	5150 to 5250	Pass
			-20	120	5179.964	5150 to 5250	Pass
			-10	120	5179.964	5150 to 5250	Pass
			0	120	5179.964	5150 to 5250	Pass
			10	120	5179.964	5150 to 5250	Pass
			30	120	5179.965	5150 to 5250	Pass
			40	120	5179.965	5150 to 5250	Pass
			50	120	5179.965	5150 to 5250	Pass
		5200	20	102	5199.966	5150 to 5250	Pass
				120	5199.966	5150 to 5250	Pass
				138	5199.966	5150 to 5250	Pass
			-30	120	5199.966	5150 to 5250	Pass
			-20	120	5199.966	5150 to 5250	Pass
			-10	120	5199.966	5150 to 5250	Pass
			0	120	5199.966	5150 to 5250	Pass
			10	120	5199.967	5150 to 5250	Pass
			30	120	5199.967	5150 to 5250	Pass
			40	120	5199.967	5150 to 5250	Pass
			50	120	5199.967	5150 to 5250	Pass
		5240	20	102	5239.967	5150 to 5250	Pass
				120	5239.967	5150 to 5250	Pass
				138	5239.967	5150 to 5250	Pass
			-30	120	5239.967	5150 to 5250	Pass
			-20	120	5239.968	5150 to 5250	Pass
			-10	120	5239.967	5150 to 5250	Pass
			0	120	5239.968	5150 to 5250	Pass
			10	120	5239.968	5150 to 5250	Pass
			30	120	5239.968	5150 to 5250	Pass
			40	120	5239.968	5150 to 5250	Pass
			50	120	5239.968	5150 to 5250	Pass
		5190	20	102	5189.963	5150 to 5250	Pass
				120	5189.964	5150 to 5250	Pass
				138	5189.964	5150 to 5250	Pass
			-30	120	5189.964	5150 to 5250	Pass
			-20	120	5189.964	5150 to 5250	Pass
			-10	120	5189.965	5150 to 5250	Pass
			0	120	5189.965	5150 to 5250	Pass
			10	120	5189.965	5150 to 5250	Pass
			30	120	5189.965	5150 to 5250	Pass
			40	120	5189.966	5150 to 5250	Pass
			50	120	5189.966	5150 to 5250	Pass
		5230	20	102	5229.967	5150 to 5250	Pass
				120	5229.967	5150 to 5250	Pass
				138	5229.967	5150 to 5250	Pass
			-30	120	5229.967	5150 to 5250	Pass
			-20	120	5229.967	5150 to 5250	Pass

			-10	120	5229.967	5150 to 5250	Pass
			0	120	5229.967	5150 to 5250	Pass
			10	120	5229.967	5150 to 5250	Pass
			30	120	5229.967	5150 to 5250	Pass
			40	120	5229.967	5150 to 5250	Pass
			50	120	5229.968	5150 to 5250	Pass