

Appendix Test Data for RLAN(5.2G) (Conducted Measurement)

Product Name: Wireless Display Adapter

Trade Mark: N/A

Test Model: HB716-RX (208420)

FCC ID: 2BKCK-HB716RX208420

Environmental Conditions

Temperature:	23.7℃
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Tony luo
Supervised by:	Max zhang
NOTE	N/A

1. Duty Cycle

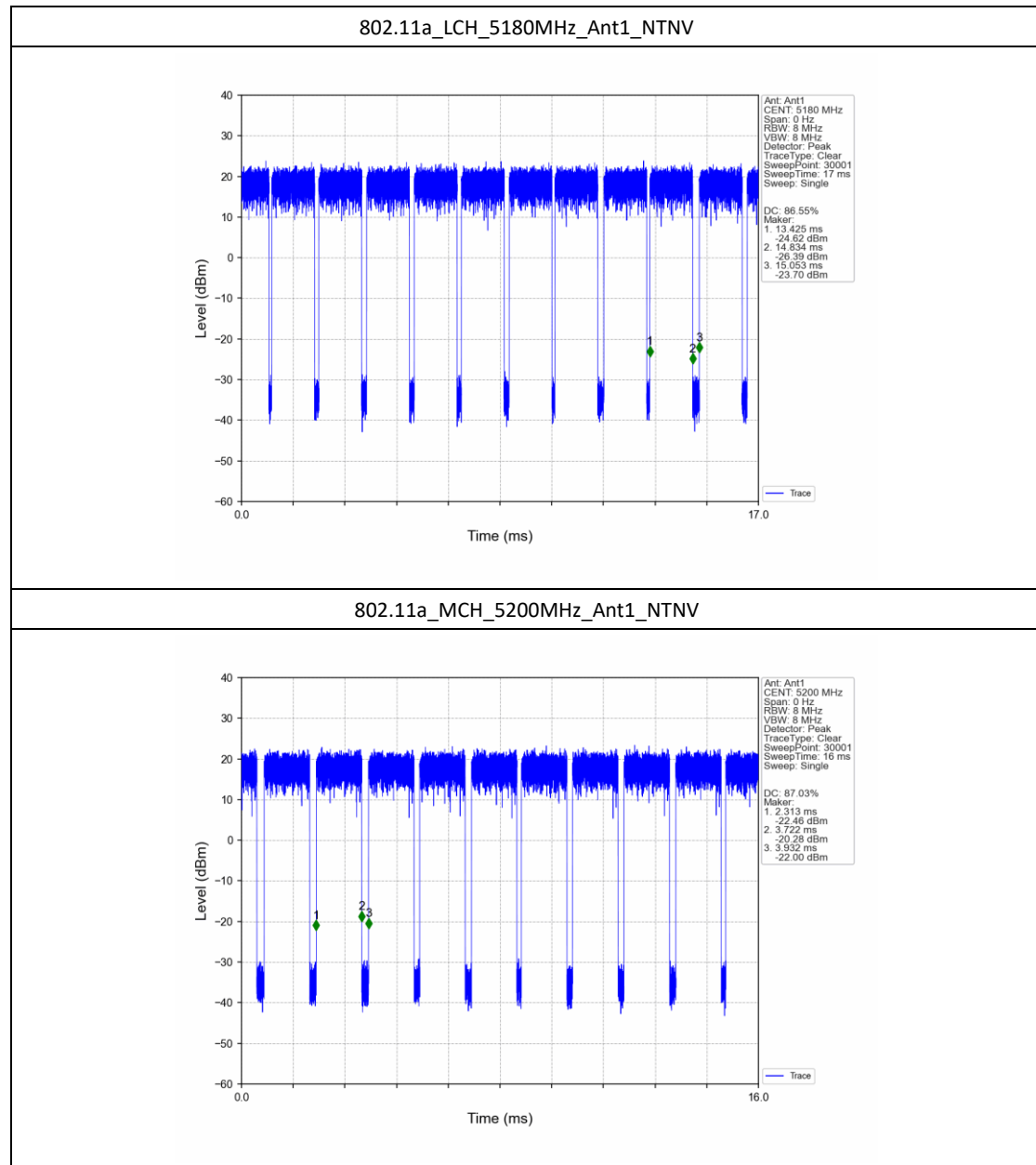
1.1 Test Result

1.1.1 Ant1

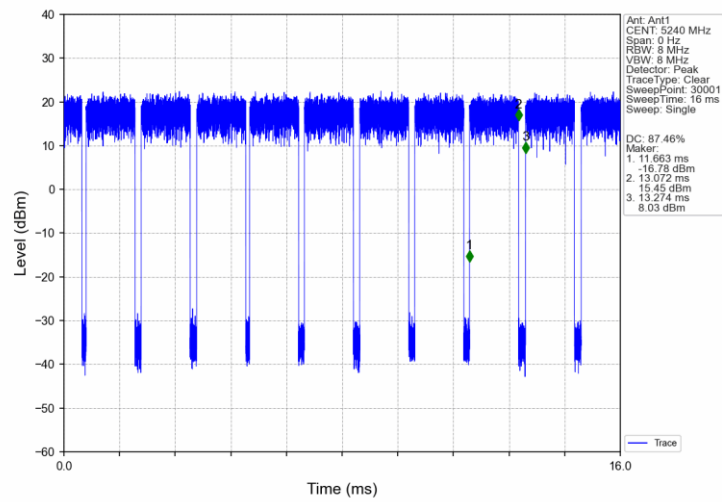
Ant1							
Mode	Tx Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	1.409	1.628	86.55	0.63	7.25
		5200	1.409	1.619	87.03	0.60	4.08
		5240	1.409	1.611	87.46	0.58	5.15
802.11n (HT20)	SISO	5180	1.317	1.536	85.74	0.67	7.07
		5200	1.317	1.545	85.24	0.69	8.16
		5240	1.316	1.499	87.79	0.57	5.65
802.11n (HT40)	SISO	5190	0.653	0.881	74.12	1.30	10.37
		5230	0.653	0.863	75.67	1.21	6.89

1.2 Test Graph

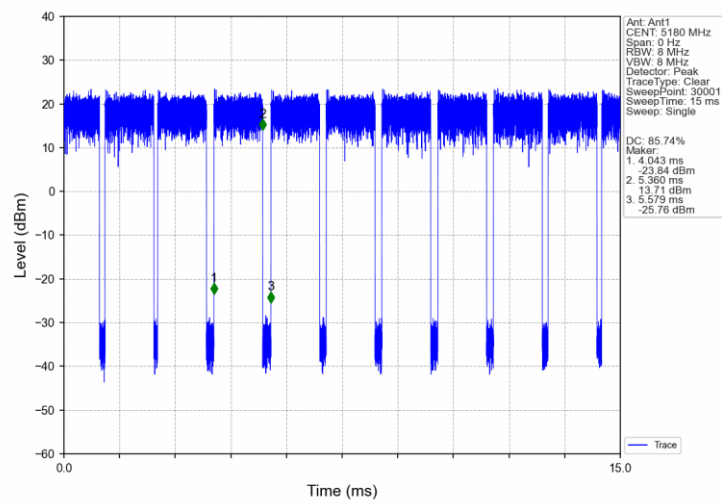
1.2.1 Ant1



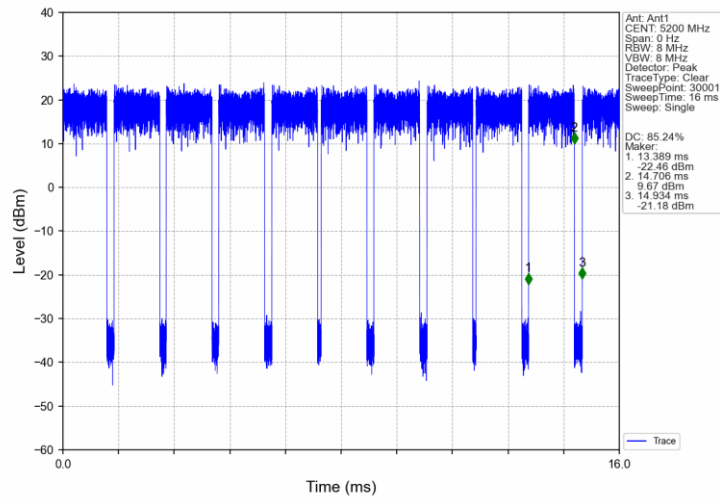
802.11a_HCH_5240MHz_Ant1_NTNV



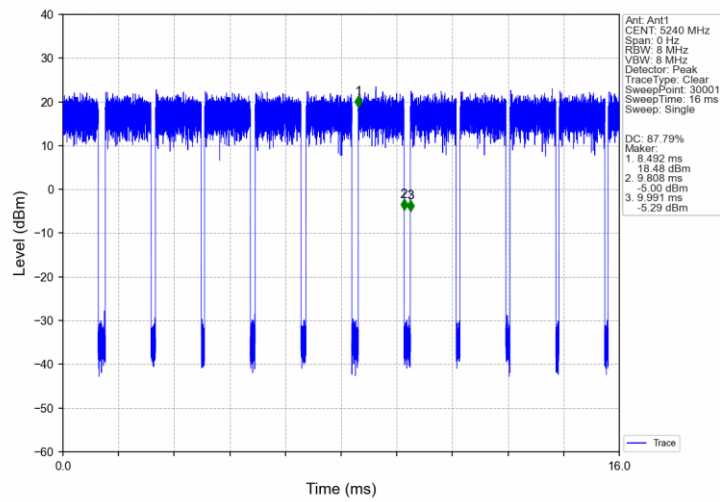
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



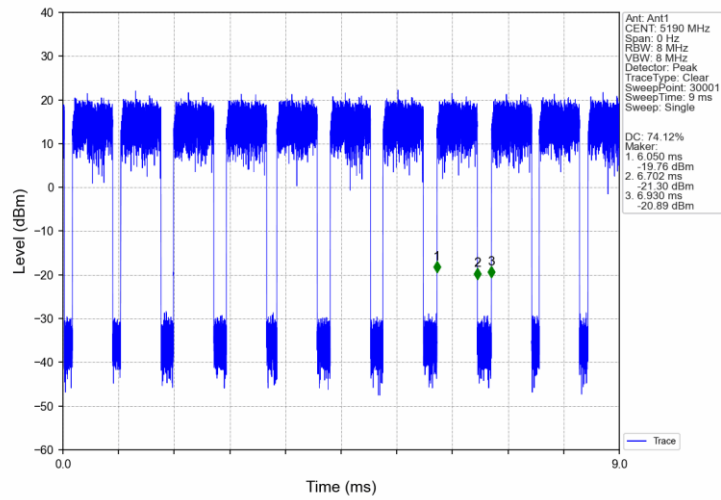
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



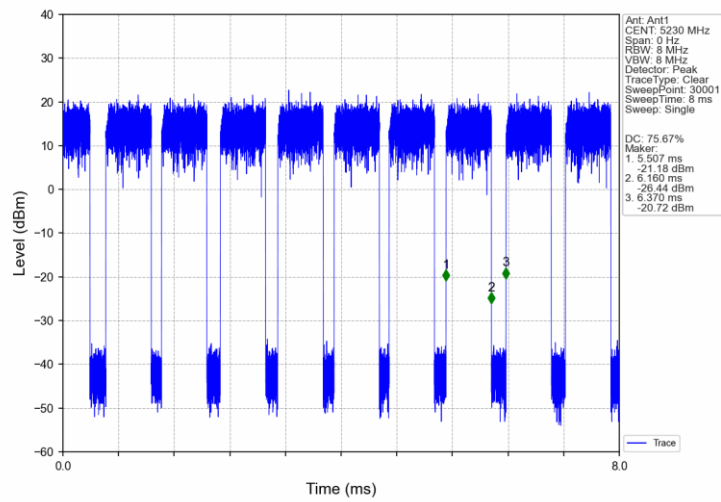
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



2. Bandwidth

2.1 Test Result

2.1.1 OBW

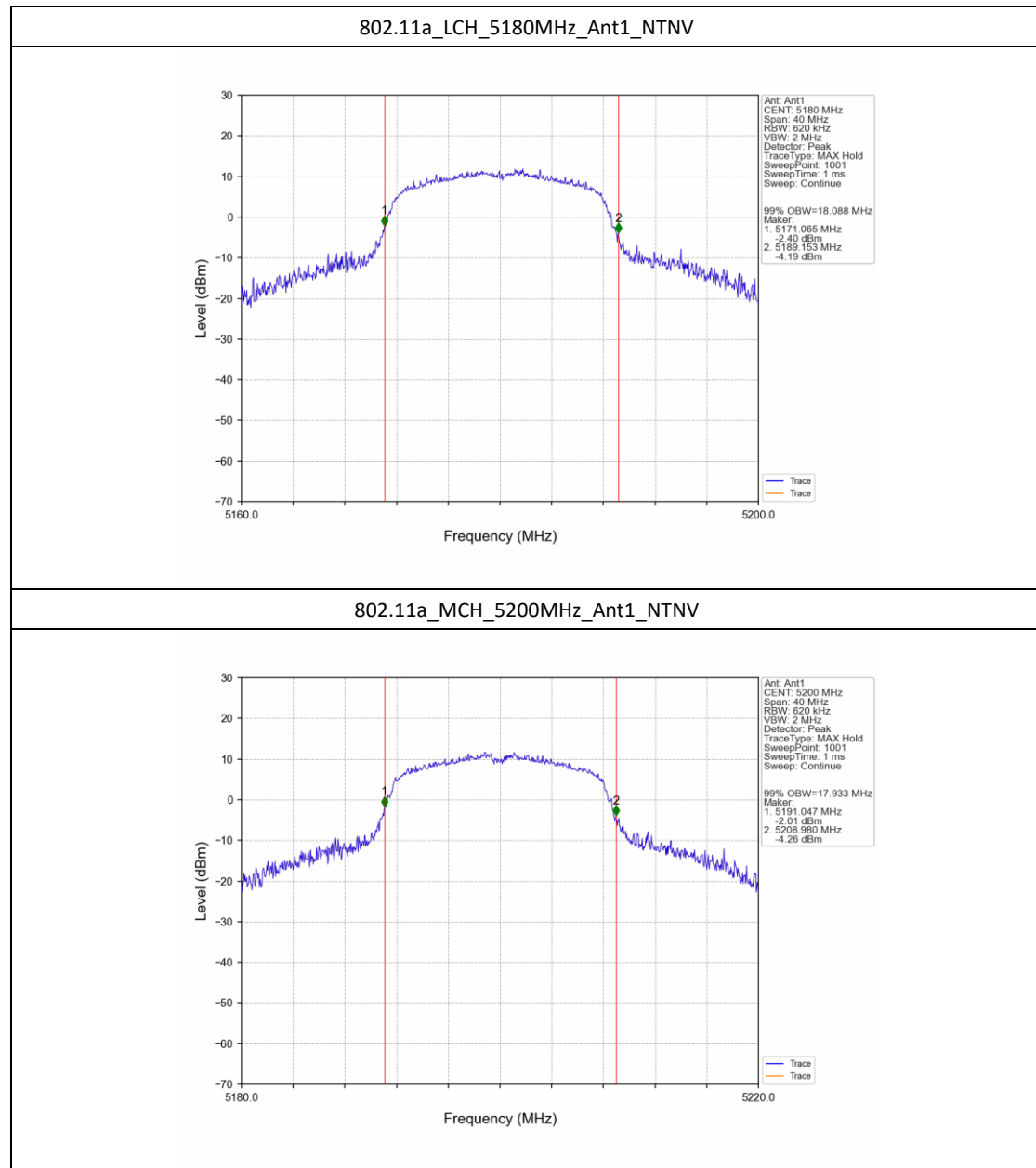
Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	18.088	/	Pass
		5200	1	17.933	/	Pass
		5240	1	17.962	/	Pass
802.11n (HT20)	SISO	5180	1	18.717	/	Pass
		5200	1	19.549	/	Pass
		5240	1	19.037	/	Pass
802.11n (HT40)	SISO	5190	1	36.630	/	Pass
		5230	1	36.750	/	Pass

2.1.2 26dB BW

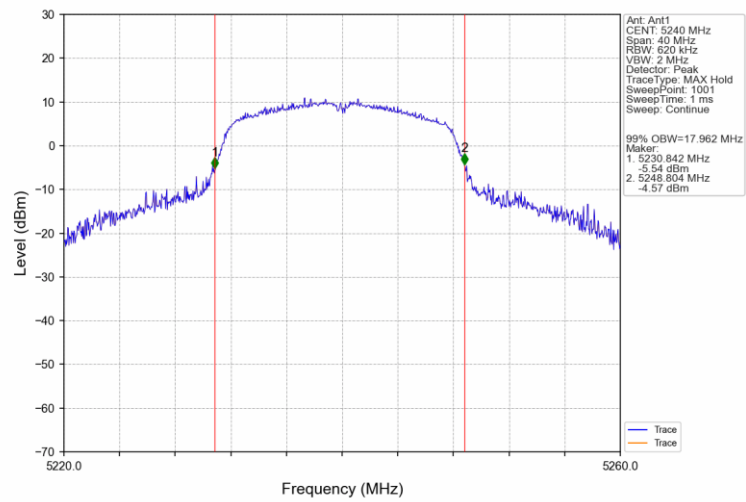
Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5180	1	27.281	/	Pass
		5200	1	28.488	/	Pass
		5240	1	28.261	/	Pass
802.11n (HT20)	SISO	5180	1	28.408	/	Pass
		5200	1	31.318	/	Pass
		5240	1	30.353	/	Pass
802.11n (HT40)	SISO	5190	1	65.019	/	Pass
		5230	1	67.212	/	Pass

2.2 Test Graph

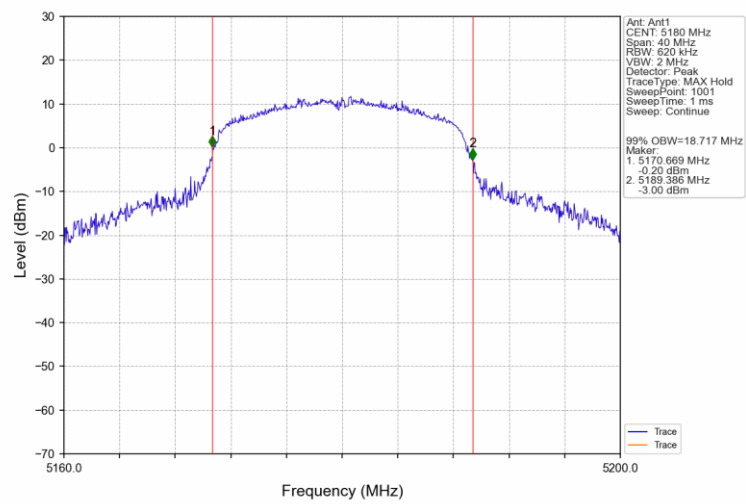
2.2.1 OBW



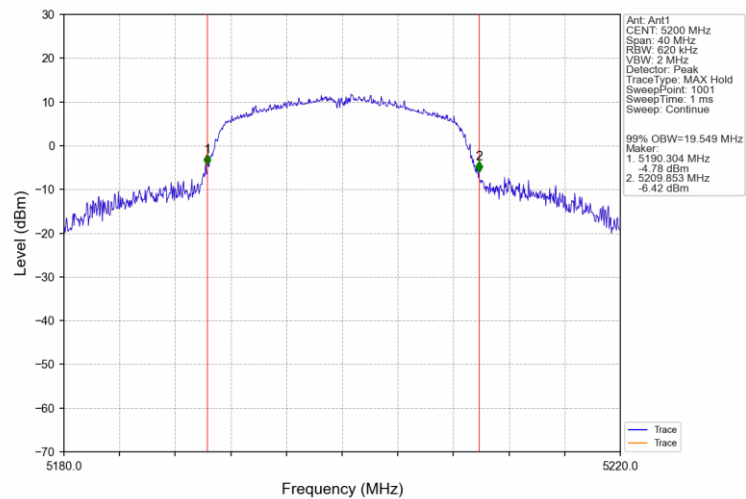
802.11a_HCH_5240MHz_Ant1_NTNV



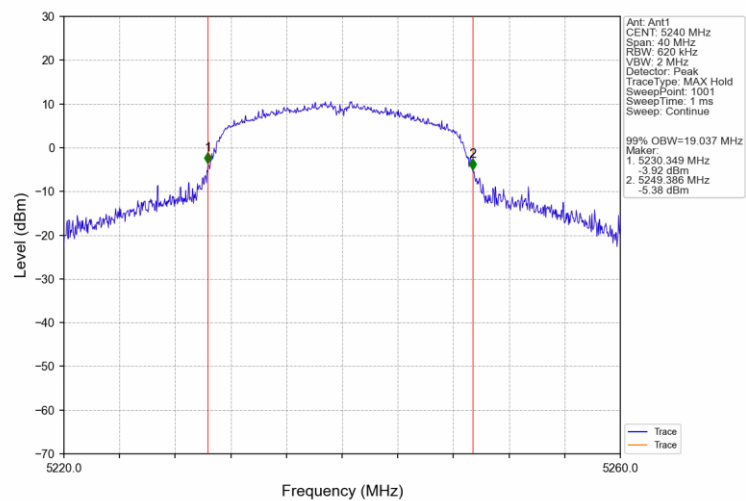
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



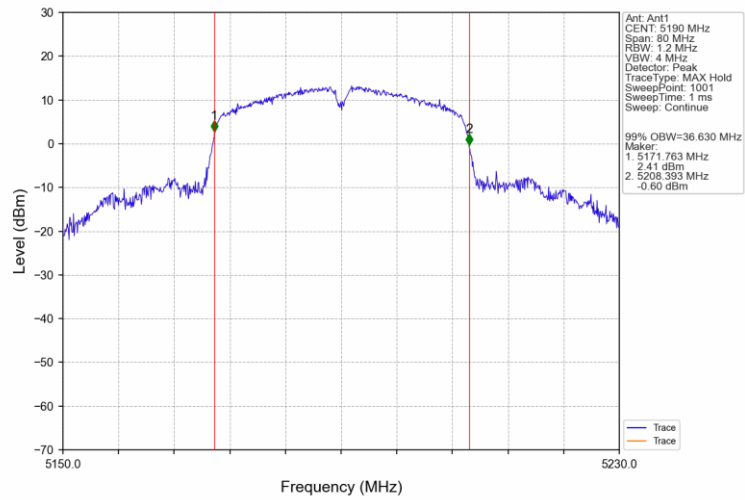
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



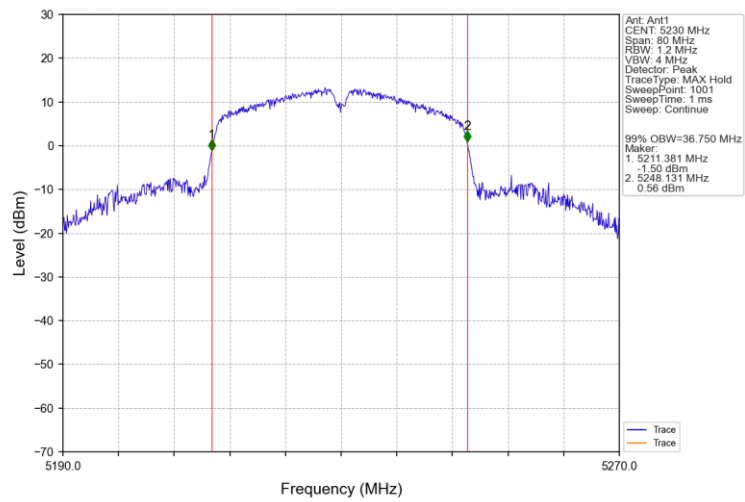
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



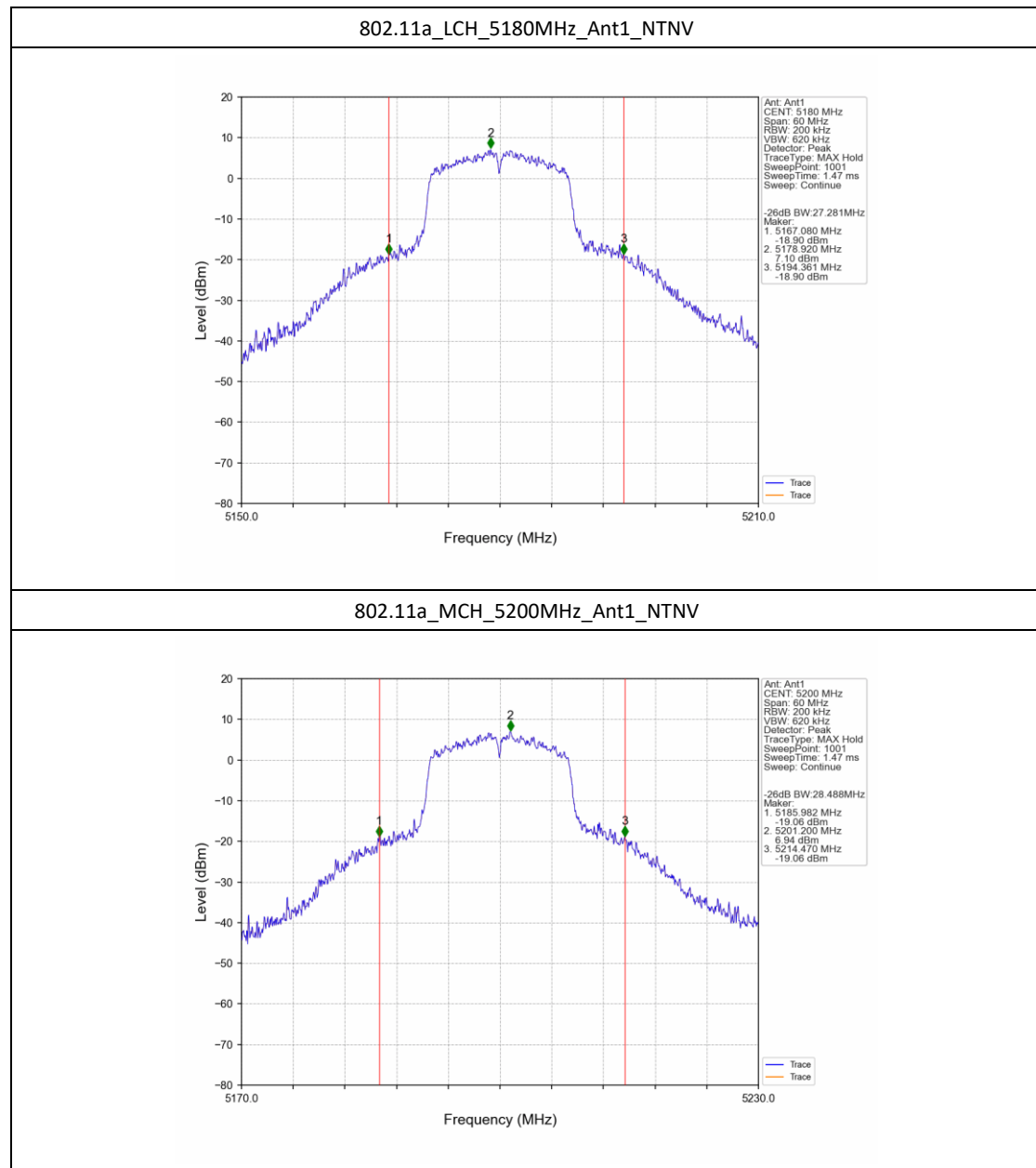
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



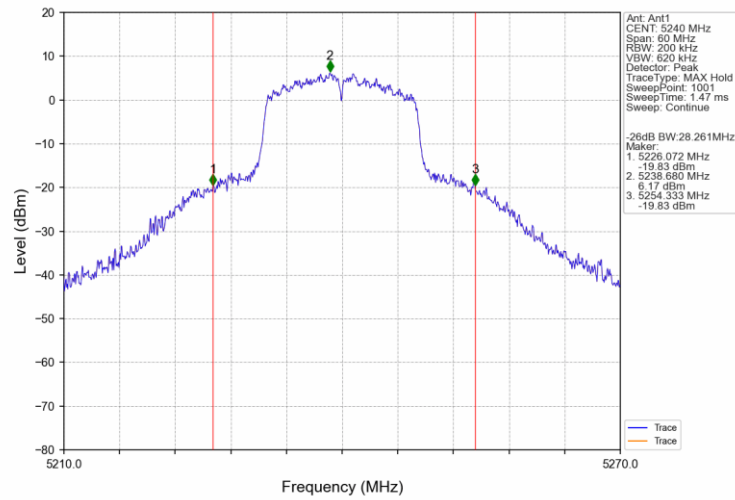
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



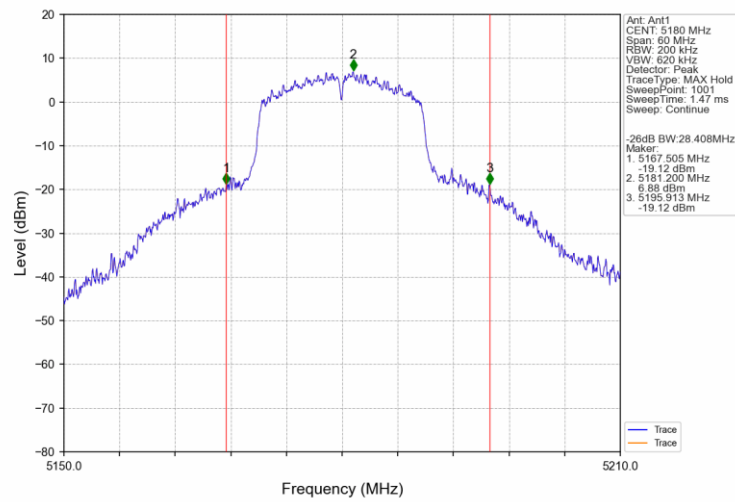
2.2.2 26dB BW



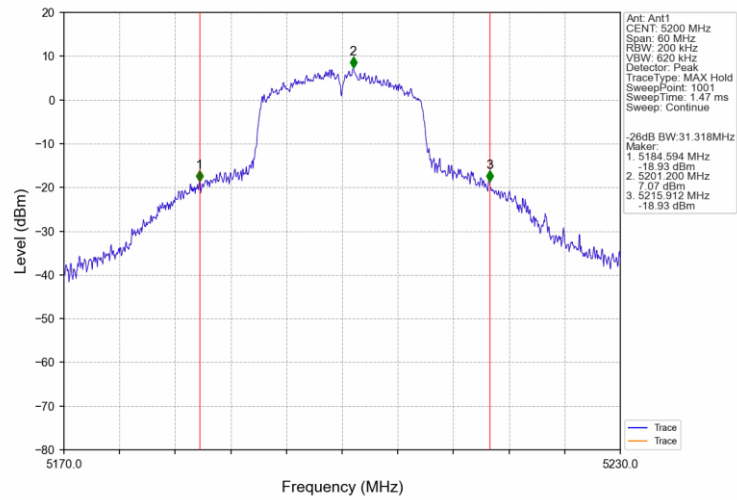
802.11a_HCH_5240MHz_Ant1_NTNV



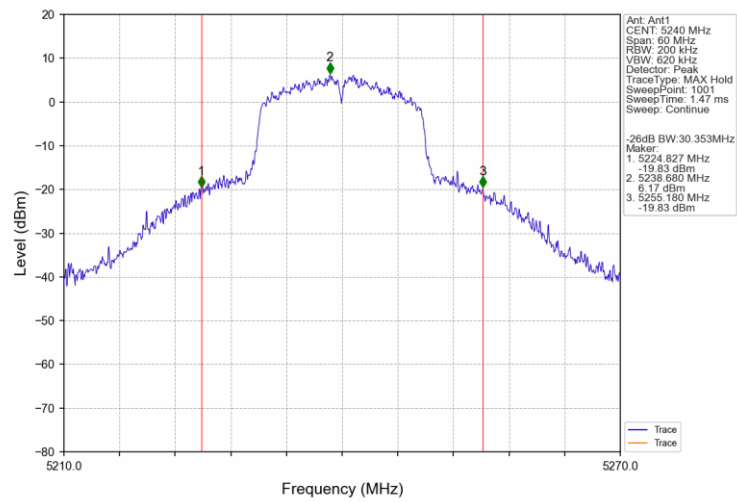
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



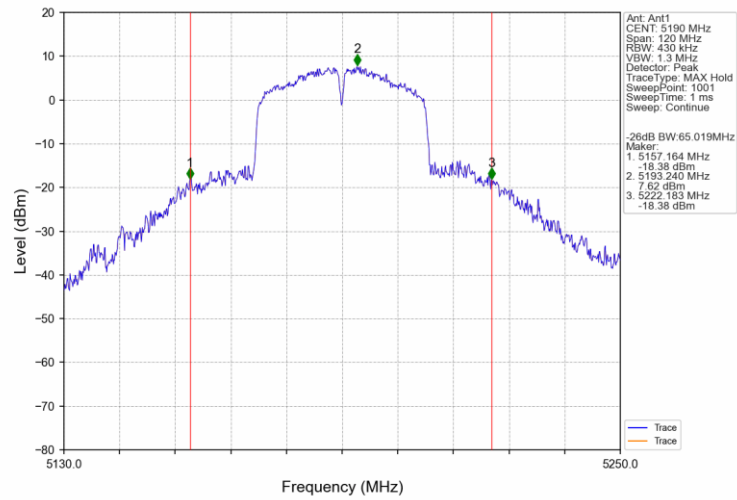
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



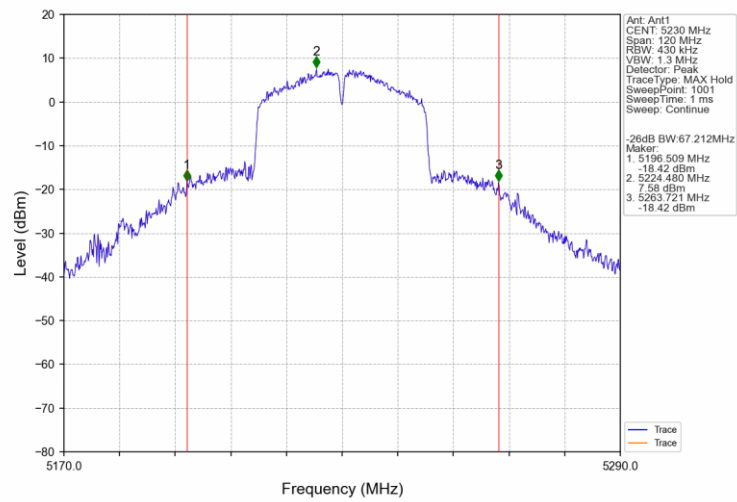
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



3. Maximum Conducted Output Power

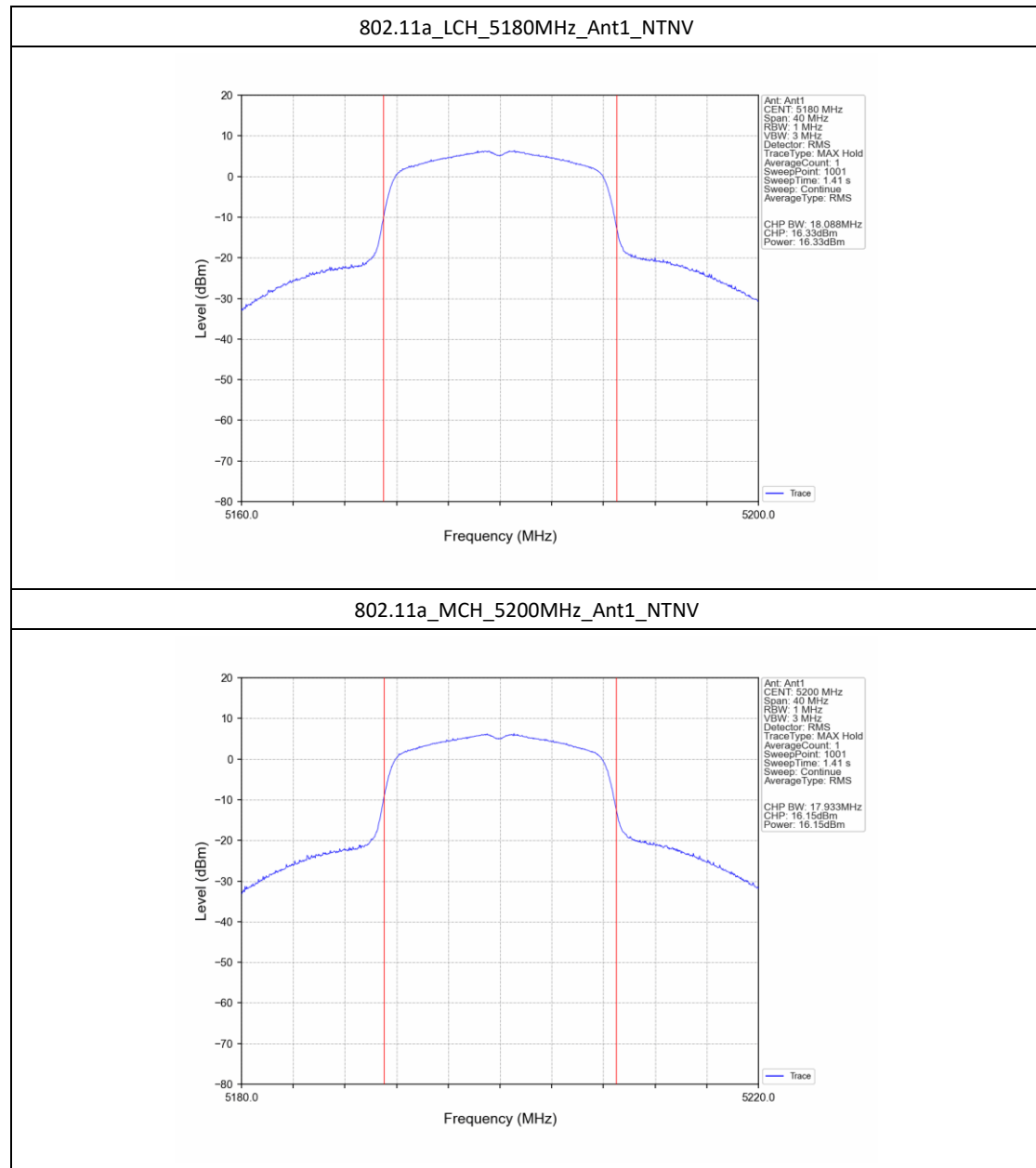
3.1 Test Result

3.1.1 Power

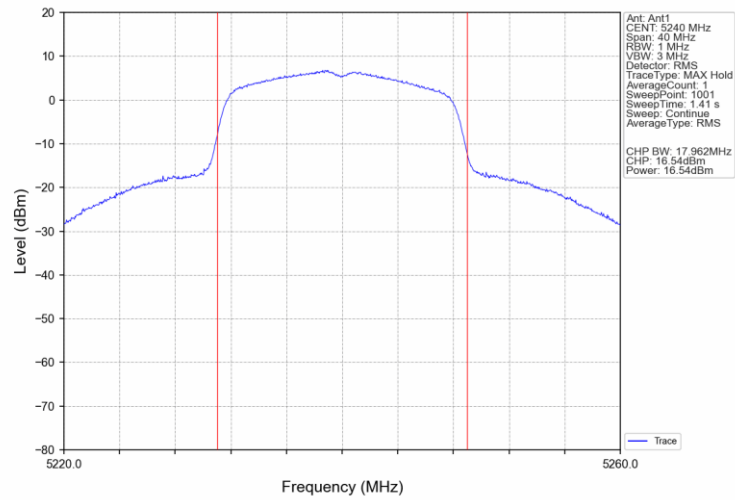
Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	16.33	<=23.98	Pass
		5200	16.15	<=23.98	Pass
		5240	16.54	<=23.98	Pass
802.11n (HT20)	SISO	5180	16.17	<=23.98	Pass
		5200	16.19	<=23.98	Pass
		5240	16.03	<=23.98	Pass
802.11n (HT40)	SISO	5190	16.59	<=23.98	Pass
		5230	16.35	<=23.98	Pass
Note1: Antenna Gain: Ant1: 2.00dBi;					

3.2 Test Graph

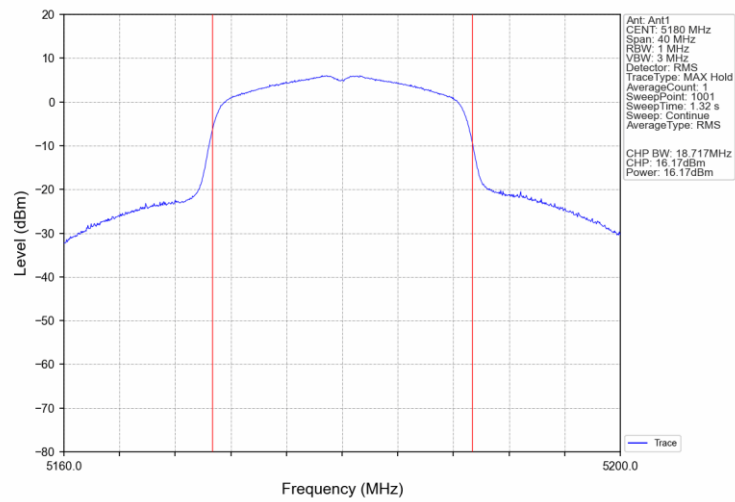
3.2.1 Power



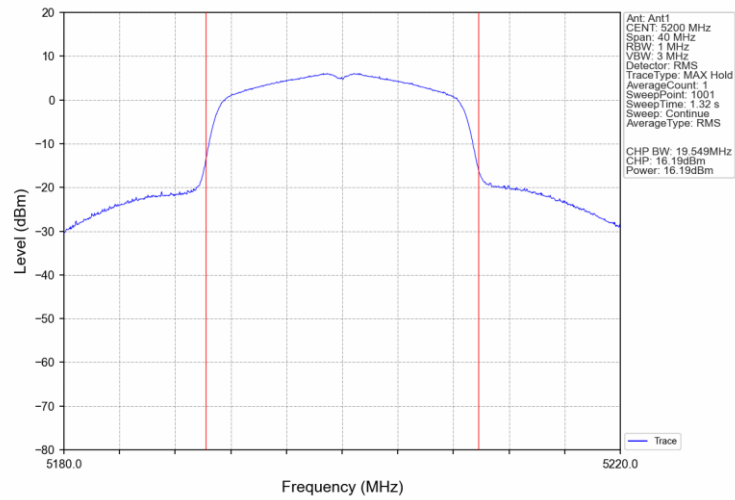
802.11a_HCH_5240MHz_Ant1_NTNV



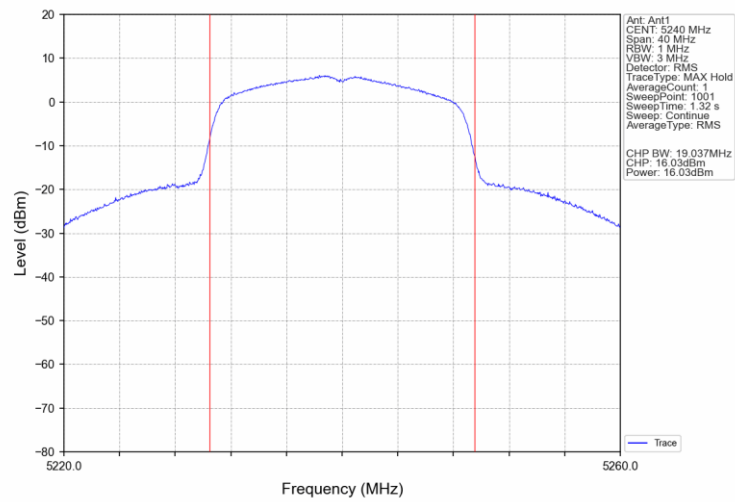
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



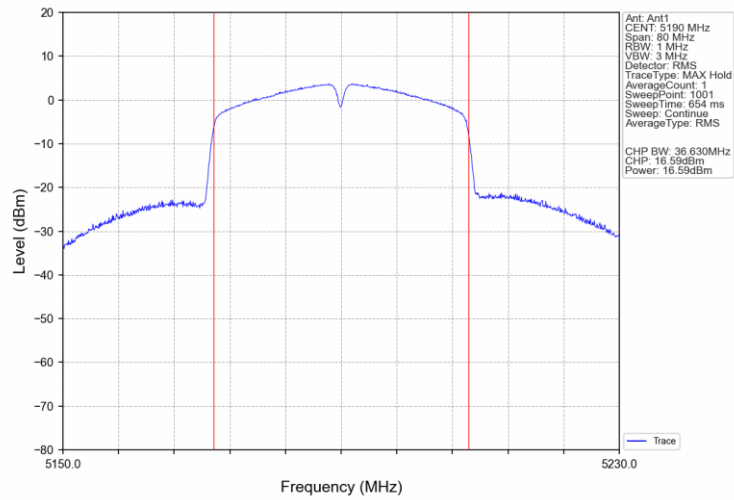
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



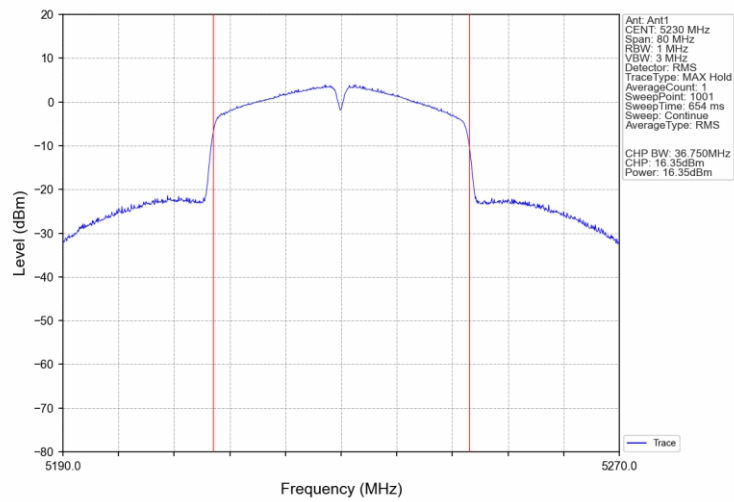
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



4. Maximum Power Spectral Density

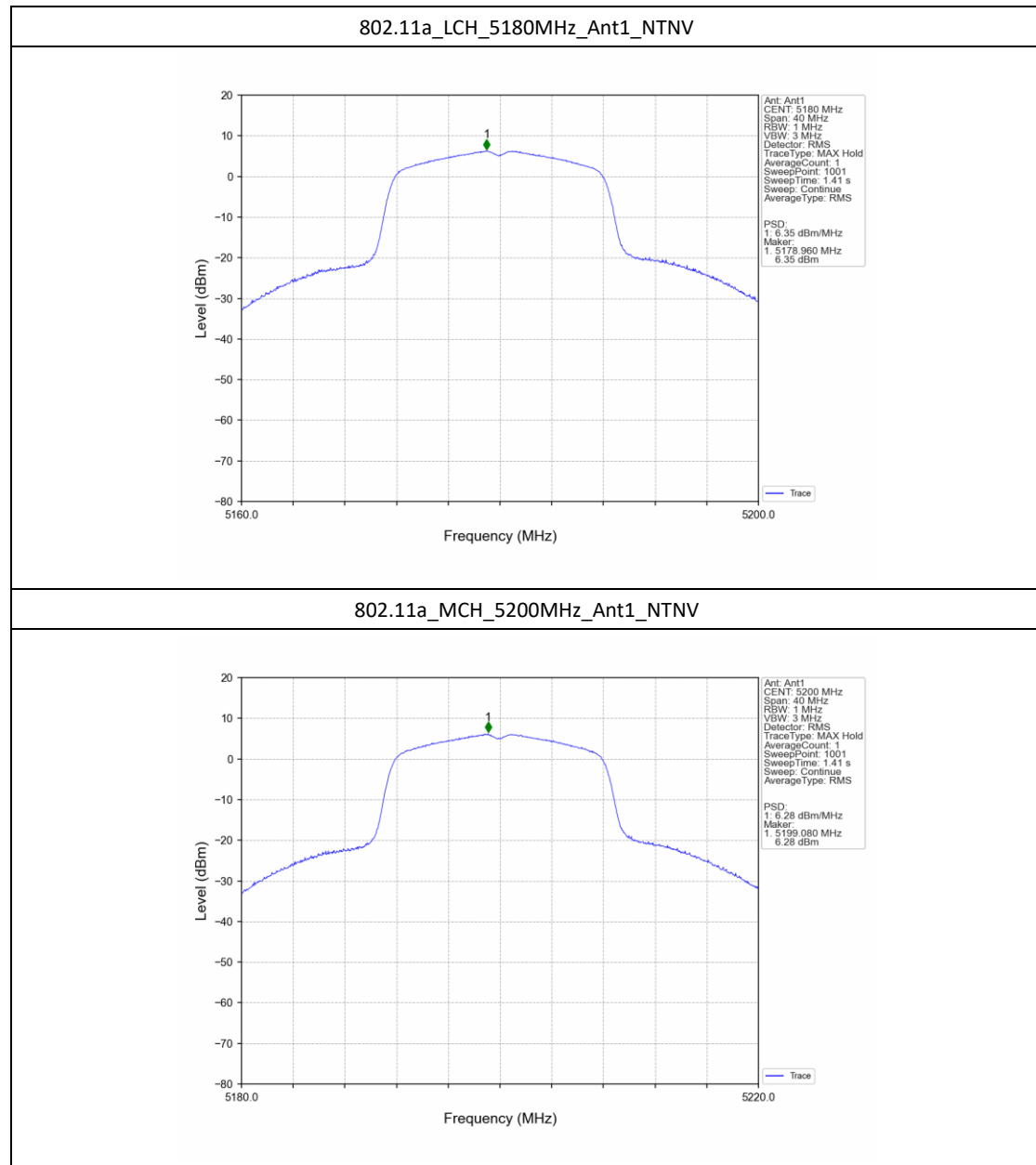
4.1 Test Result

4.1.1 PSD

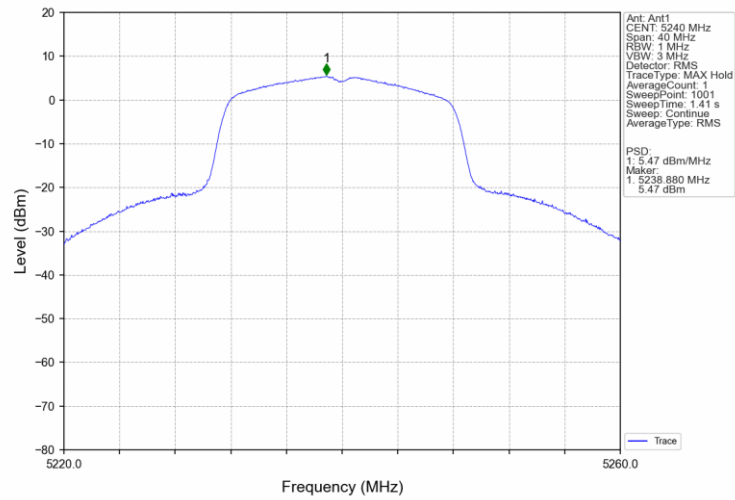
Mode	TX Type	Frequency (MHz)	Maximum PSD (dBm/MHz)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	6.35	<=11	Pass
		5200	6.28	<=11	Pass
		5240	5.47	<=11	Pass
802.11n (HT20)	SISO	5180	6.12	<=11	Pass
		5200	5.89	<=11	Pass
		5240	5.16	<=11	Pass
802.11n (HT40)	SISO	5190	3.79	<=11	Pass
		5230	3.49	<=11	Pass
Note1: Antenna Gain: Ant1: 2.00dBi;					

4.2 Test Graph

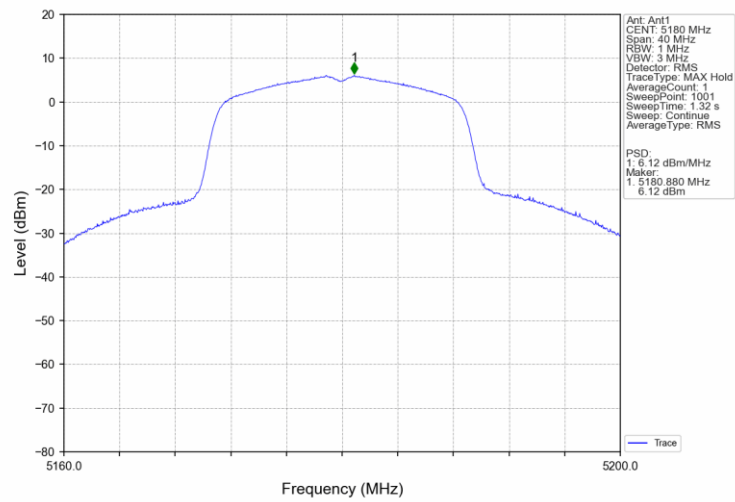
4.2.1 PSD



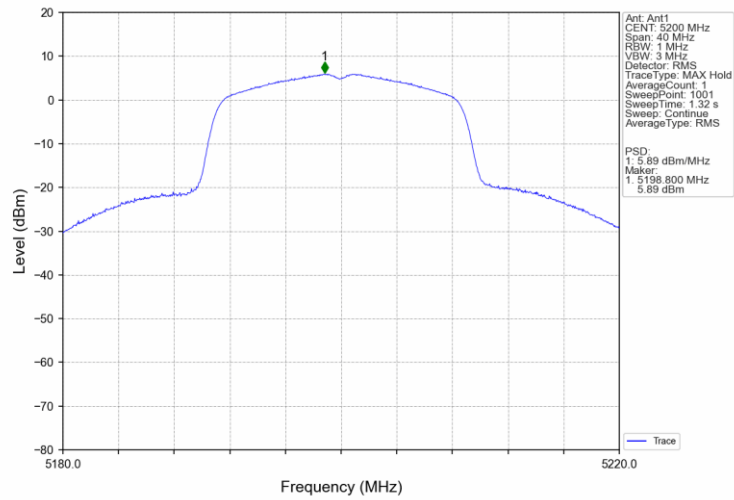
802.11a_HCH_5240MHz_Ant1_NTNV



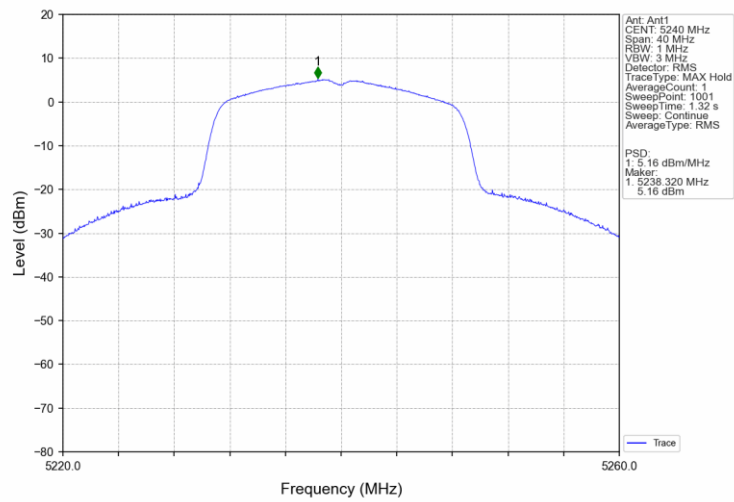
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



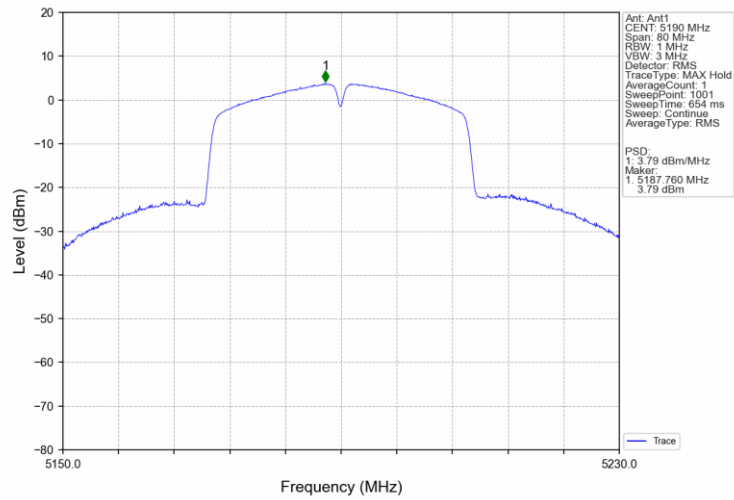
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



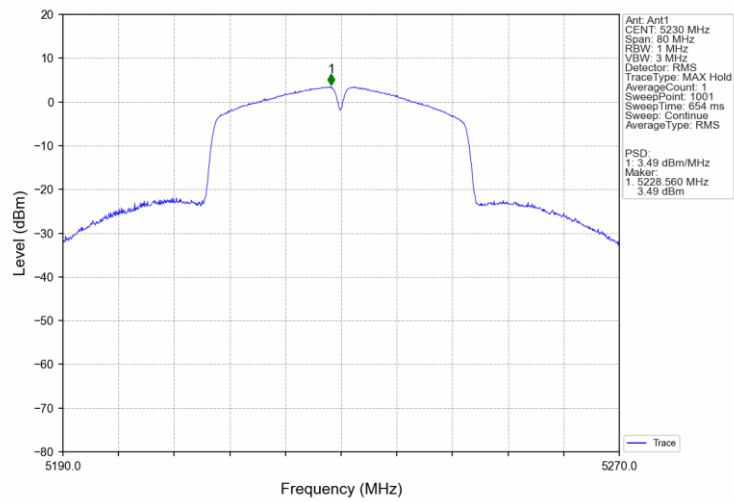
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



5. Frequency Stability

5.1 Test Result

5.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage (VAC)	Measured Frequency (MHz)	Limit (MHz)	Verdict
802.11a	SISO	5180	20	102	5179.960	5150 to 5250	Pass
				120	5179.980	5150 to 5250	Pass
				138	5179.940	5150 to 5250	Pass
			-30	120	5179.940	5150 to 5250	Pass
			-20	120	5179.920	5150 to 5250	Pass
			-10	120	5179.920	5150 to 5250	Pass
			0	120	5179.960	5150 to 5250	Pass
			10	120	5179.940	5150 to 5250	Pass
			30	120	5179.960	5150 to 5250	Pass
			40	120	5179.940	5150 to 5250	Pass
			50	120	5179.960	5150 to 5250	Pass
		5200	20	102	5199.920	5150 to 5250	Pass
				120	5199.940	5150 to 5250	Pass
				138	5199.940	5150 to 5250	Pass
			-30	120	5199.920	5150 to 5250	Pass
			-20	120	5199.920	5150 to 5250	Pass
			-10	120	5199.940	5150 to 5250	Pass
			0	120	5199.920	5150 to 5250	Pass
			10	120	5199.940	5150 to 5250	Pass
			30	120	5199.940	5150 to 5250	Pass
			40	120	5199.940	5150 to 5250	Pass
			50	120	5199.940	5150 to 5250	Pass
		5240	20	102	5239.900	5150 to 5250	Pass
				120	5239.880	5150 to 5250	Pass
				138	5239.900	5150 to 5250	Pass
			-30	120	5239.900	5150 to 5250	Pass
			-20	120	5239.920	5150 to 5250	Pass
			-10	120	5239.920	5150 to 5250	Pass
			0	120	5239.860	5150 to 5250	Pass
			10	120	5239.880	5150 to 5250	Pass
			30	120	5239.900	5150 to 5250	Pass
			40	120	5239.900	5150 to 5250	Pass
			50	120	5239.860	5150 to 5250	Pass
802.11n (HT20)	SISO	5180	20	102	5179.940	5150 to 5250	Pass
				120	5179.960	5150 to 5250	Pass
				138	5179.920	5150 to 5250	Pass

			-30	120	5179.920	5150 to 5250	Pass
			-20	120	5179.940	5150 to 5250	Pass
			-10	120	5179.900	5150 to 5250	Pass
			0	120	5179.960	5150 to 5250	Pass
			10	120	5179.960	5150 to 5250	Pass
			30	120	5179.960	5150 to 5250	Pass
			40	120	5179.920	5150 to 5250	Pass
			50	120	5179.920	5150 to 5250	Pass
		5200	20	102	5199.920	5150 to 5250	Pass
				120	5199.920	5150 to 5250	Pass
				138	5199.940	5150 to 5250	Pass
			-30	120	5199.940	5150 to 5250	Pass
			-20	120	5199.920	5150 to 5250	Pass
			-10	120	5199.940	5150 to 5250	Pass
			0	120	5199.920	5150 to 5250	Pass
			10	120	5199.900	5150 to 5250	Pass
			30	120	5199.900	5150 to 5250	Pass
			40	120	5199.940	5150 to 5250	Pass
			50	120	5199.940	5150 to 5250	Pass
		5240	20	102	5239.900	5150 to 5250	Pass
				120	5239.920	5150 to 5250	Pass
				138	5239.920	5150 to 5250	Pass
			-30	120	5239.920	5150 to 5250	Pass
			-20	120	5239.900	5150 to 5250	Pass
			-10	120	5239.920	5150 to 5250	Pass
			0	120	5239.920	5150 to 5250	Pass
			10	120	5239.920	5150 to 5250	Pass
			30	120	5239.860	5150 to 5250	Pass
			40	120	5239.900	5150 to 5250	Pass
			50	120	5239.900	5150 to 5250	Pass
802.11n (HT40)	SISO	5190	20	102	5189.960	5150 to 5250	Pass
				120	5189.880	5150 to 5250	Pass
				138	5190.000	5150 to 5250	Pass
			-30	120	5189.960	5150 to 5250	Pass
			-20	120	5190.040	5150 to 5250	Pass
			-10	120	5189.960	5150 to 5250	Pass
			0	120	5189.920	5150 to 5250	Pass
			10	120	5189.920	5150 to 5250	Pass
			30	120	5189.920	5150 to 5250	Pass
			40	120	5189.880	5150 to 5250	Pass
			50	120	5189.920	5150 to 5250	Pass
		5230	20	102	5229.840	5150 to 5250	Pass
				120	5229.920	5150 to 5250	Pass
				138	5229.840	5150 to 5250	Pass
			-30	120	5229.880	5150 to 5250	Pass
			-20	120	5229.720	5150 to 5250	Pass

			-10	120	5229.760	5150 to 5250	Pass
			0	120	5229.840	5150 to 5250	Pass
			10	120	5229.880	5150 to 5250	Pass
			30	120	5229.880	5150 to 5250	Pass
			40	120	5229.840	5150 to 5250	Pass
			50	120	5229.880	5150 to 5250	Pass

6. Form731

6.1 Test Result

6.1.1 Form731

Lower Freq (MHz)	High Freq (MHz)	MAX Power (W)	MAX Power (dBm)
5180	5240	0.0451	16.54
5190	5230	0.0456	16.59