



Shenzhen CTL Testing Technology Co., Ltd.

Unit 01A&B&C&D-1, Building A3, Guangming Sci-Tech Park, Guan Guang Road,
Fenghuang Subdistrict, Guangming District, Shenzhen, Guangdong, China
Tel: +86-755-89486194 E-mail: ctl@ctl-lab.com

Annex for 5G Wi-Fi Band 1

Test Report No.: CTL2604152051-WF03

Content

Annex for 5G Wi-Fi Band 1	1
Test Report No.: CTL2604152051-WF03	1
1. Duty Cycle	4
1.1 Test Result	4
1.1.1 Ant1	4
1.2 Test Graph	5
1.2.1 Ant1	5
2. Bandwidth	11
2.1 Test Result	11
2.1.1 OBW	11
2.1.2 26dB BW	11
2.2 Test Graph	12
2.2.1 OBW	12
2.2.2 26dB BW	18
3. Maximum Conducted Output Power	24
3.1 Test Result	24
3.1.1 Power	24
4. Maximum Power Spectral Density	25
4.1 Test Result	25
4.1.1 PSD	25
4.2 Test Graph	26
4.2.1 PSD	26
5. Frequency Stability	32

FCC ID: 2A94J-CP025

5.1 Test Result	32
5.1.1 Ant1	32

FCC ID: 2A94J-CP025

1. Duty Cycle

1.1 Test Result

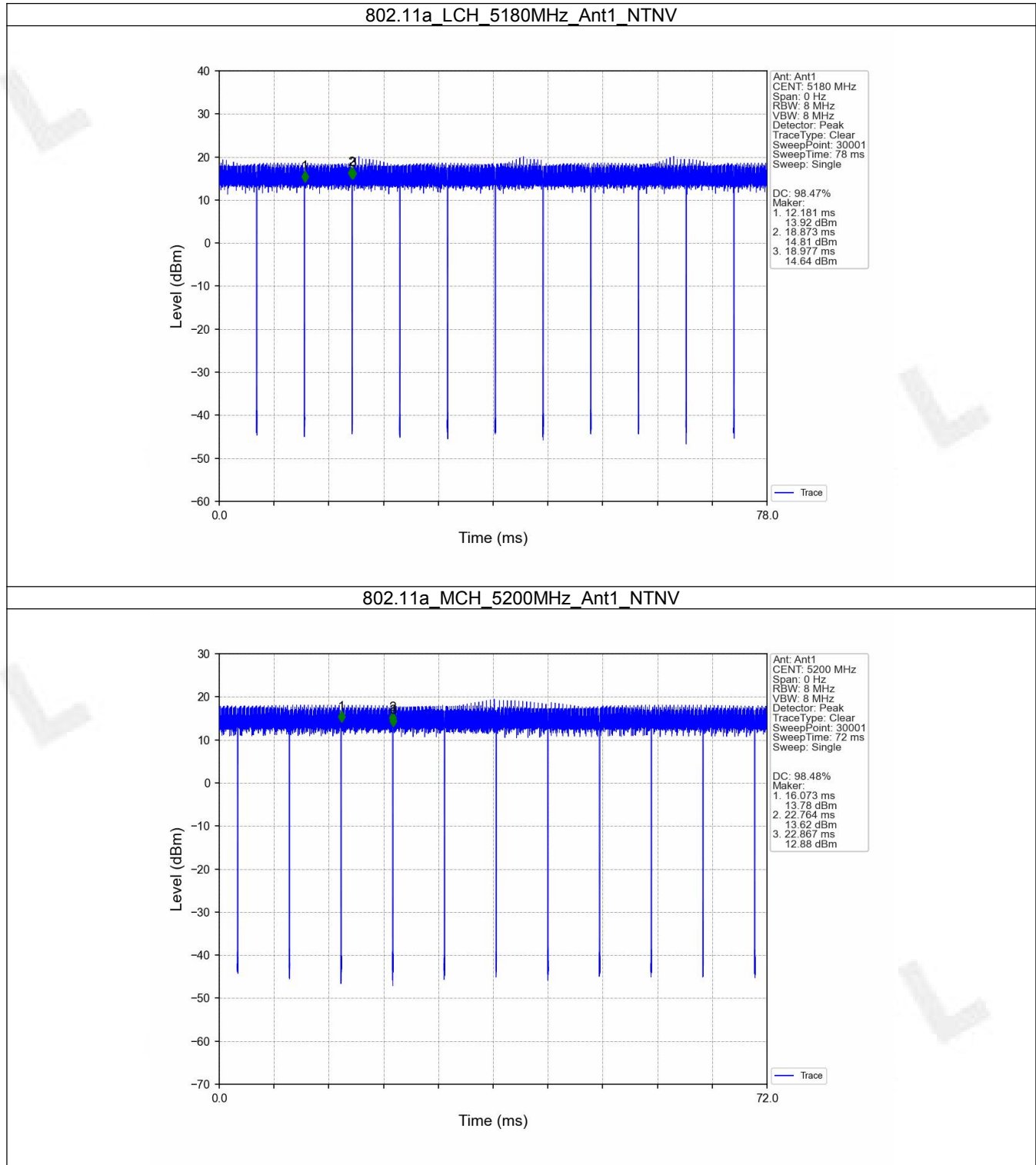
1.1.1 Ant1

Ant1									
Mode	TX Type	Frequency (MHz)	RU	RU Pos	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	/	/	6.692	6.796	98.47	0.07	0.04
		5200	/	/	6.691	6.794	98.48	0.07	0.04
		5240	/	/	6.693	6.796	98.48	0.07	0.03
802.11n (HT20)	SISO	5180	/	/	5.579	5.683	98.17	0.08	0.04
		5200	/	/	5.580	5.684	98.17	0.08	0.04
		5240	/	/	5.580	5.684	98.17	0.08	0.04
802.11ac (VHT20)	SISO	5180	/	/	5.583	5.688	98.15	0.08	0.04
		5200	/	/	5.584	5.688	98.17	0.08	0.04
		5240	/	/	5.584	5.686	98.21	0.08	0.00
802.11ax (HEW20)	SISO	5180	SU	/	4.708	4.811	97.86	0.09	0.03
		5200	SU	/	4.708	4.811	97.86	0.09	0.03
		5240	SU	/	4.708	4.811	97.86	0.09	0.03

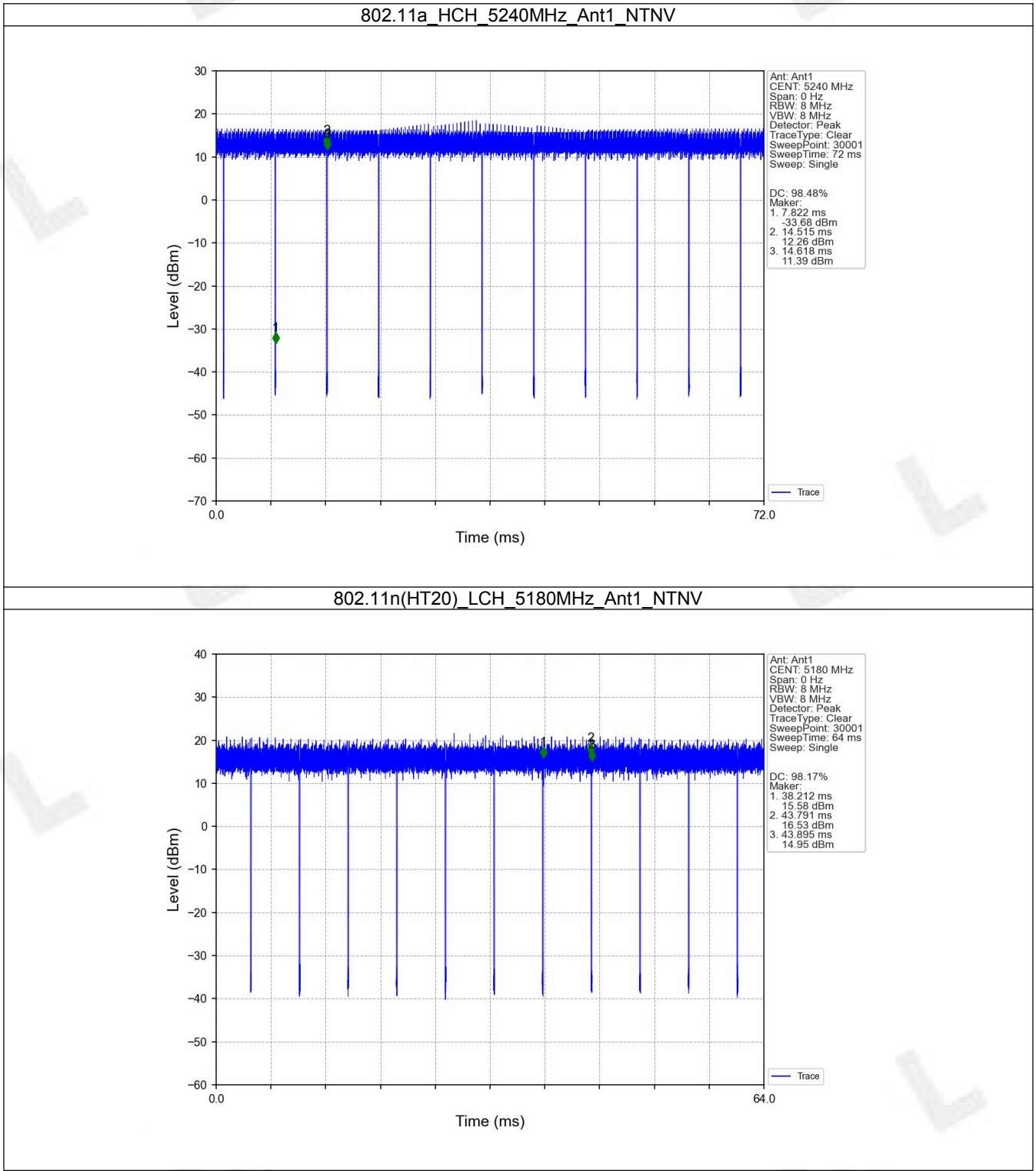
FCC ID: 2A94J-CP025

1.2 Test Graph

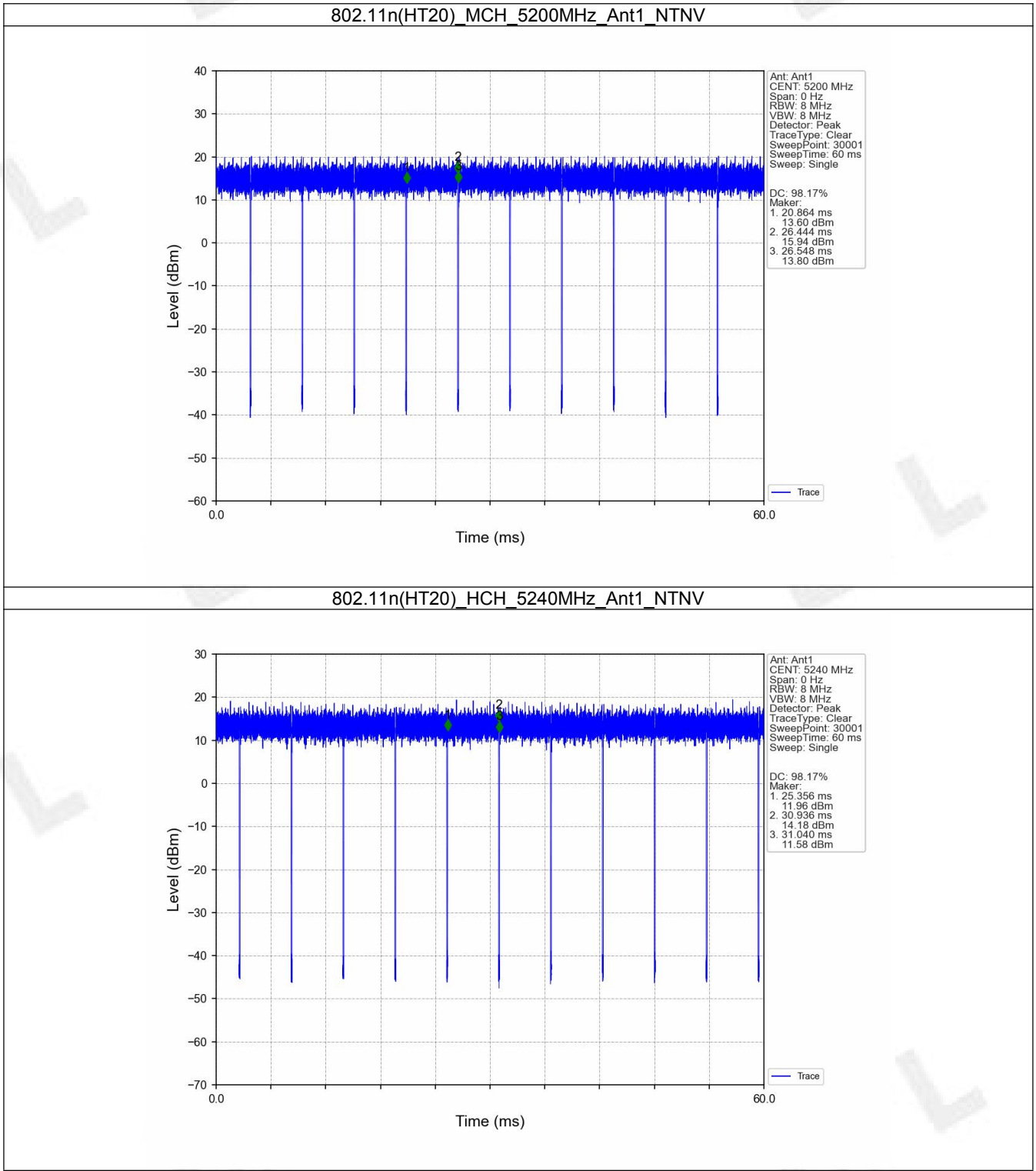
1.2.1 Ant1



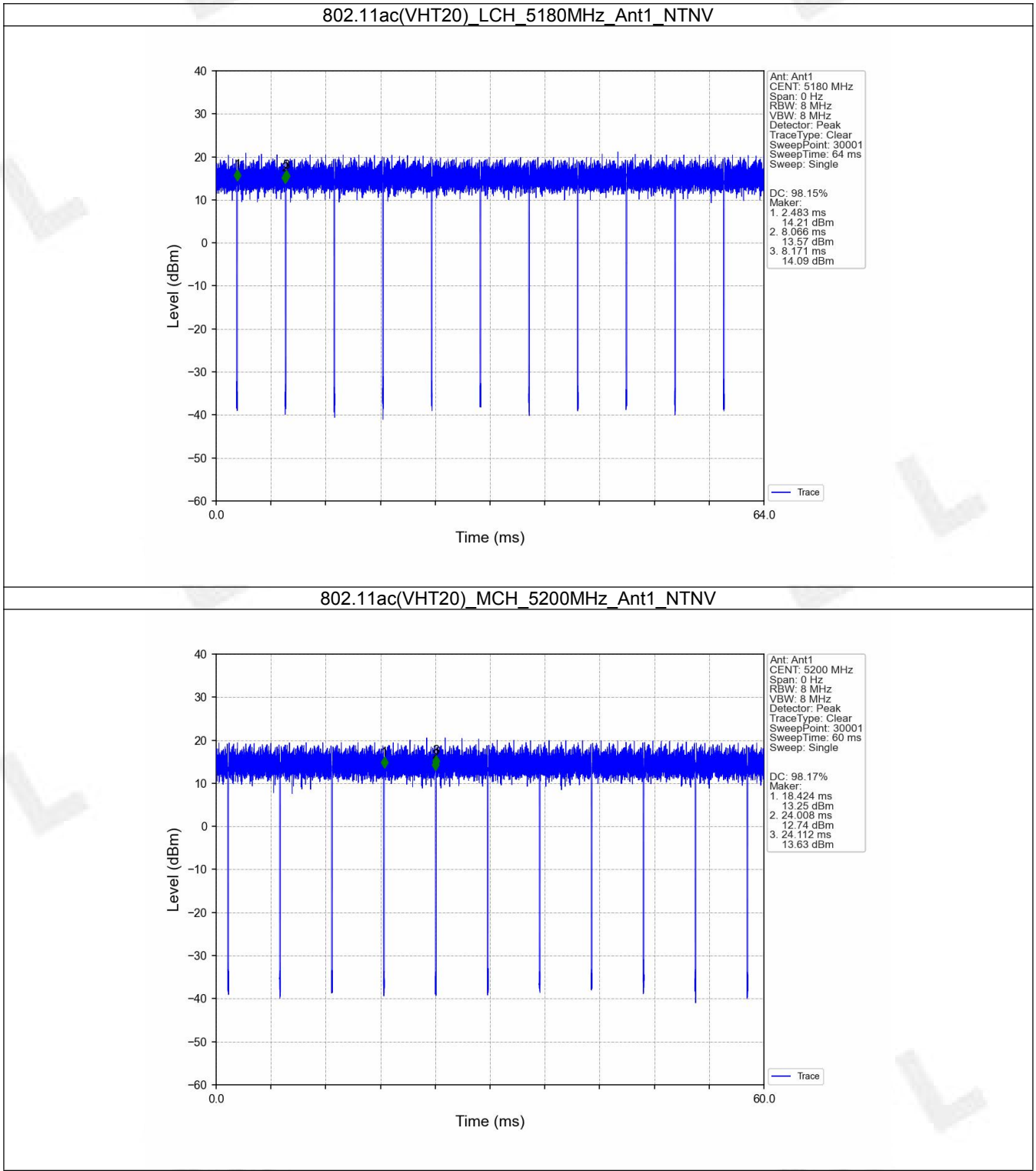
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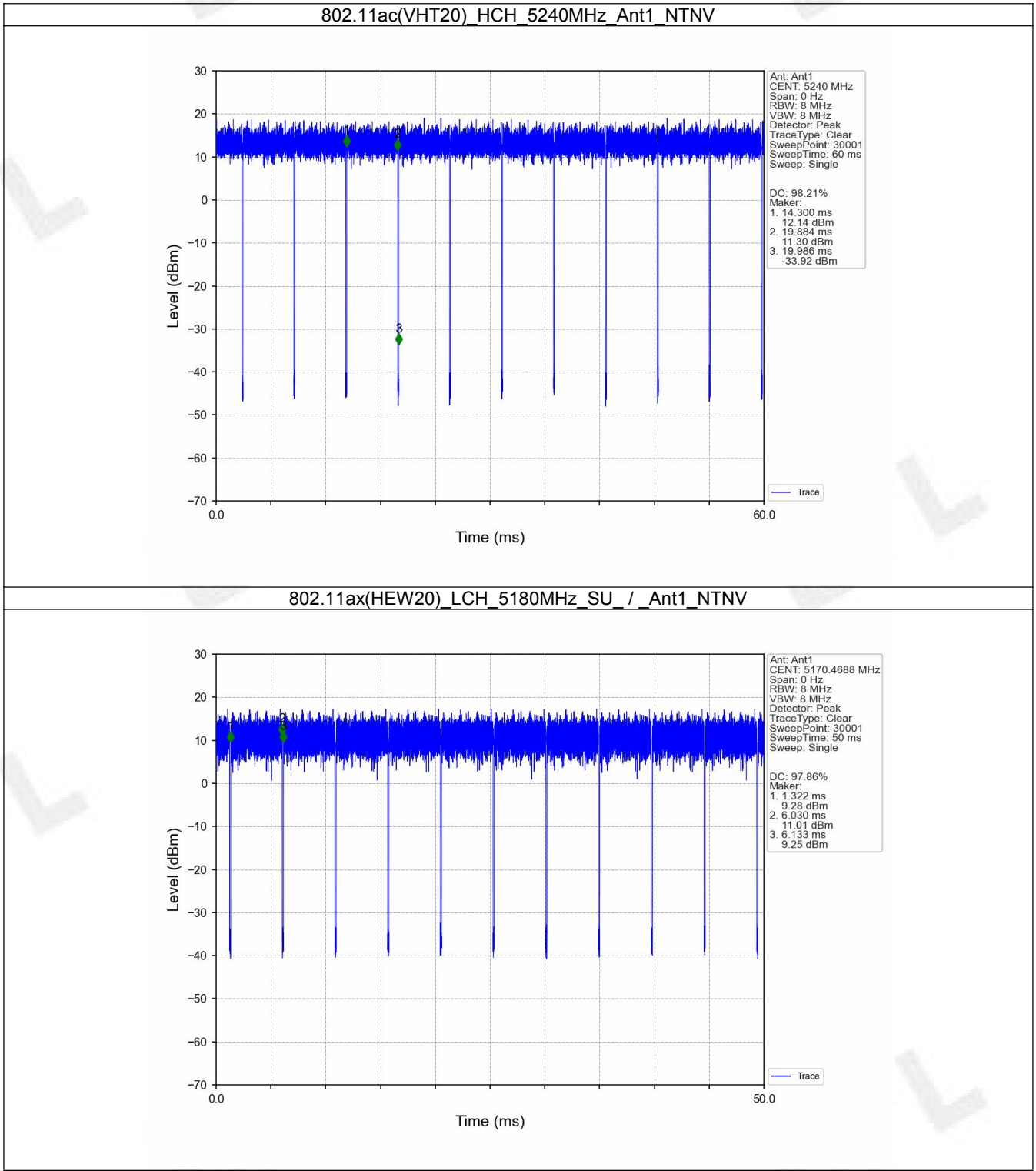
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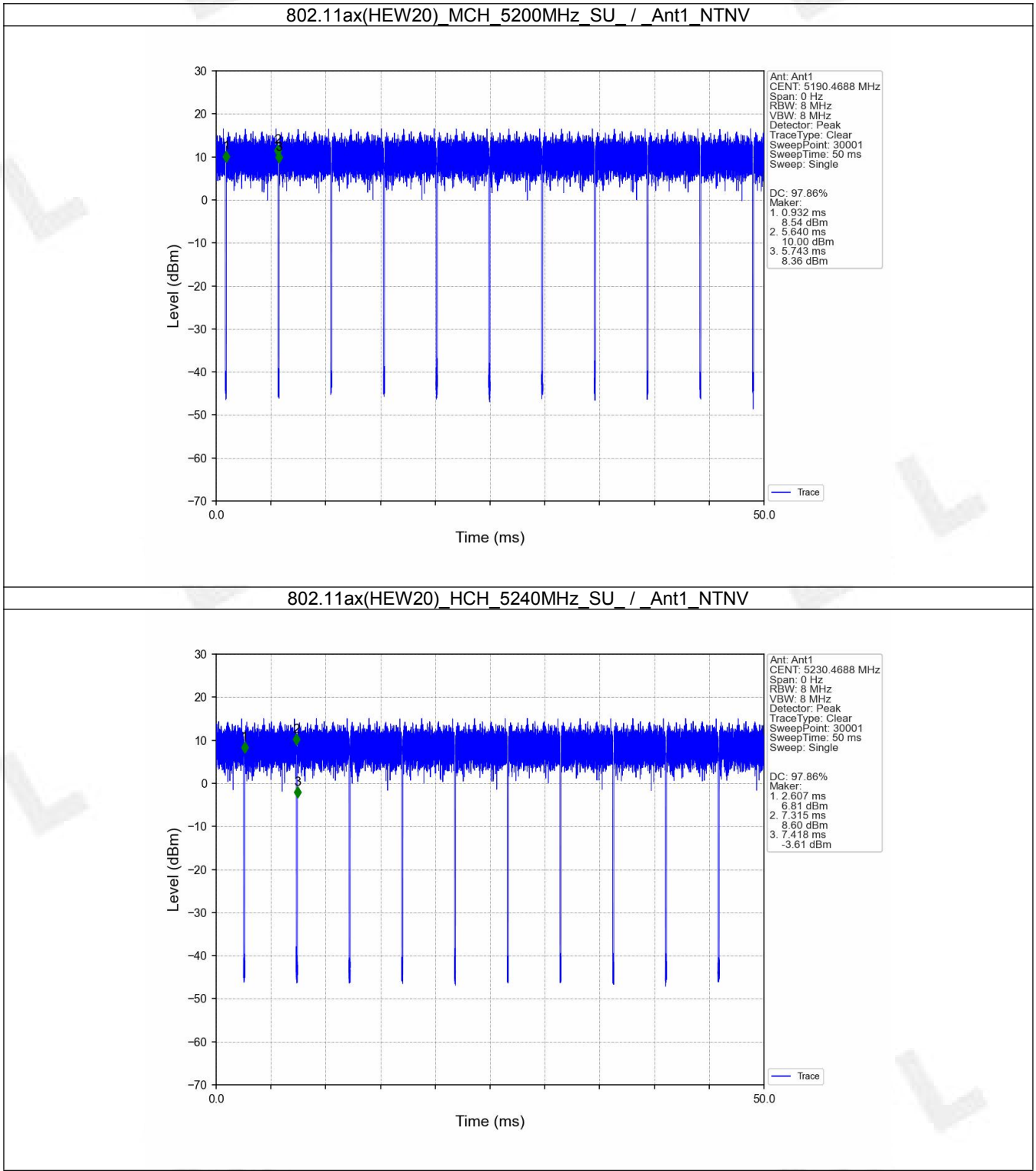
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2. Bandwidth

2.1 Test Result

2.1.1 OBW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	99% Occupied Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	16.406	/	Pass
		5200	/	/	1	16.374	/	Pass
		5240	/	/	1	16.374	/	Pass
802.11n (HT20)	SISO	5180	/	/	1	17.582	/	Pass
		5200	/	/	1	17.571	/	Pass
		5240	/	/	1	17.533	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	17.571	/	Pass
		5200	/	/	1	17.542	/	Pass
		5240	/	/	1	17.512	/	Pass
802.11ax (HEW20)	SISO	5180	SU	/	1	18.808	/	Pass
		5200	SU	/	1	18.806	/	Pass
		5240	SU	/	1	18.817	/	Pass

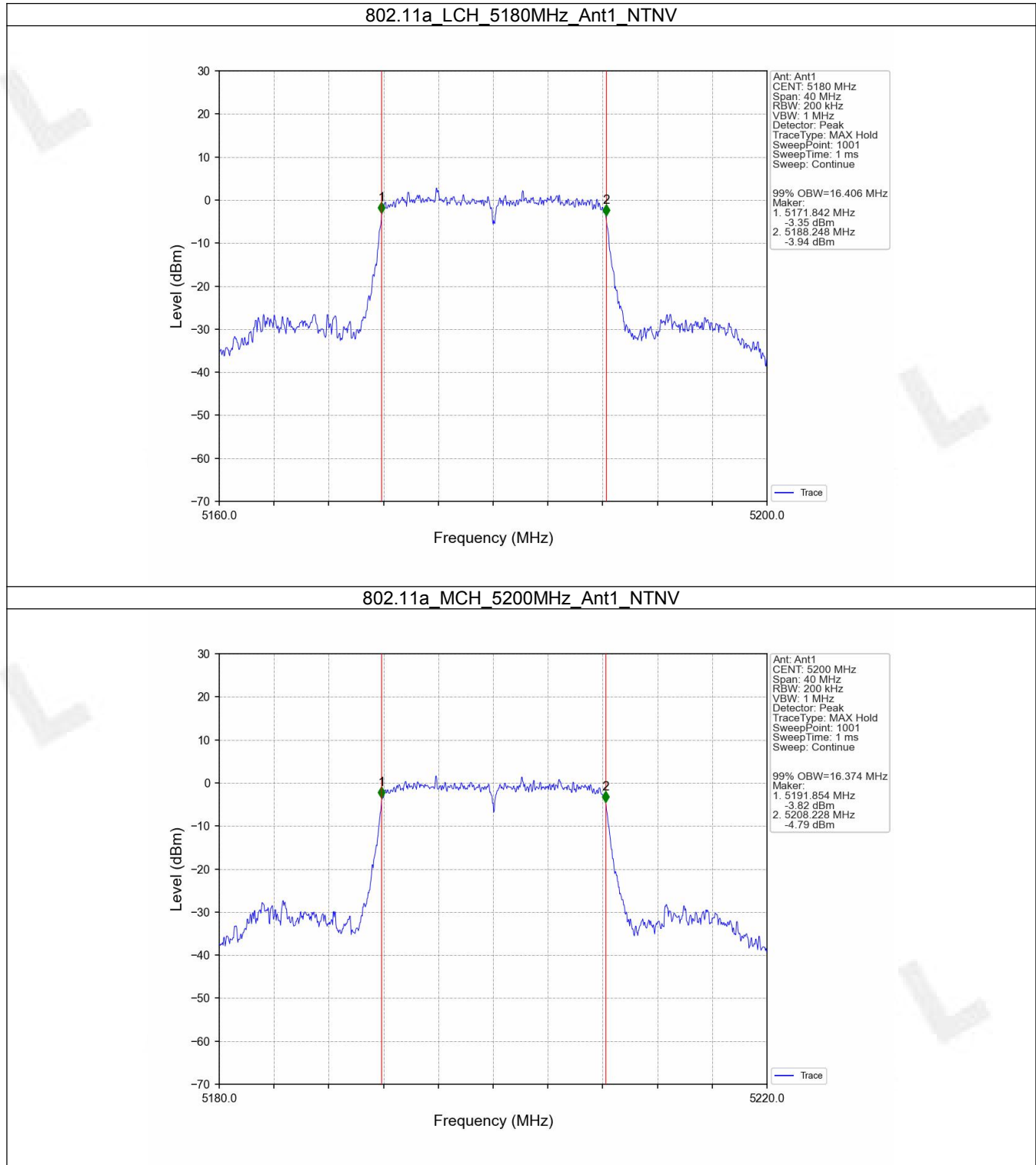
2.1.2 26dB BW

Mode	TX Type	Frequency (MHz)	RU	RU Pos	ANT	26dB Bandwidth (MHz)		Verdict
						Result	Limit	
802.11a	SISO	5180	/	/	1	18.320	/	Pass
		5200	/	/	1	18.235	/	Pass
		5240	/	/	1	18.129	/	Pass
802.11n (HT20)	SISO	5180	/	/	1	19.363	/	Pass
		5200	/	/	1	19.288	/	Pass
		5240	/	/	1	19.281	/	Pass
802.11ac (VHT20)	SISO	5180	/	/	1	19.385	/	Pass
		5200	/	/	1	19.274	/	Pass
		5240	/	/	1	19.323	/	Pass
802.11ax (HEW20)	SISO	5180	SU	/	1	20.667	/	Pass
		5200	SU	/	1	19.928	/	Pass
		5240	SU	/	1	19.886	/	Pass

FCC ID: 2A94J-CP025

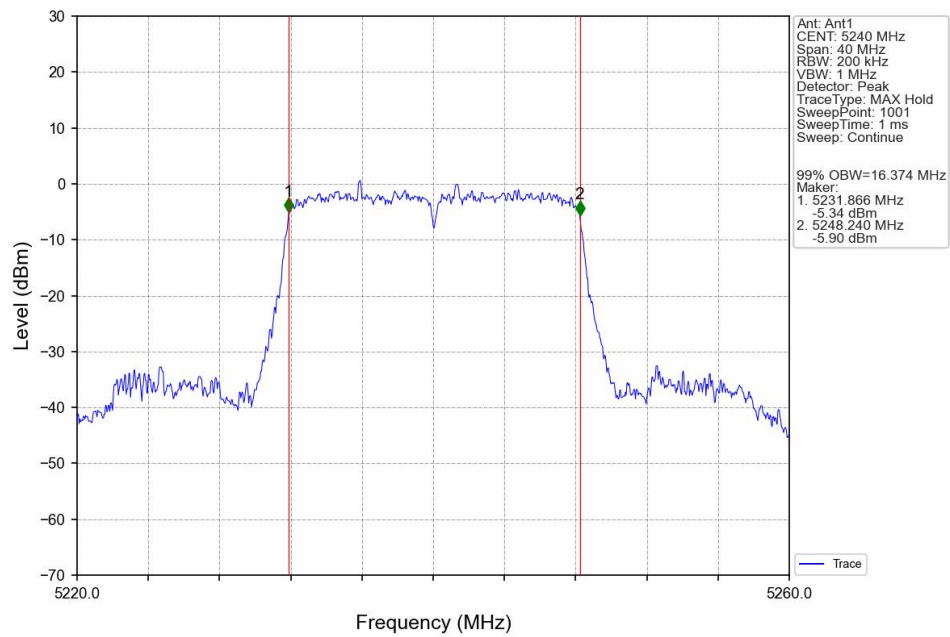
2.2 Test Graph

2.2.1 OBW

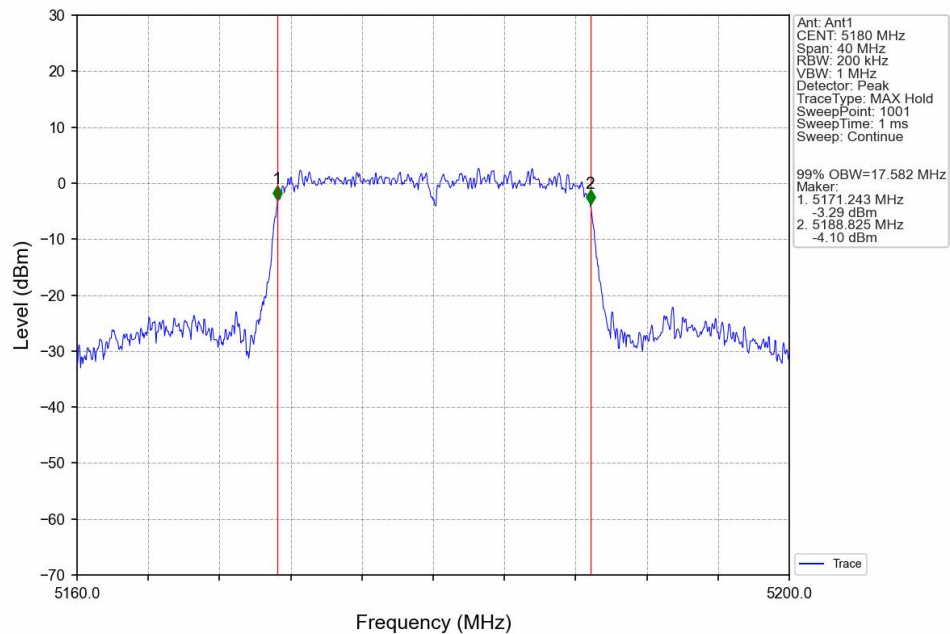


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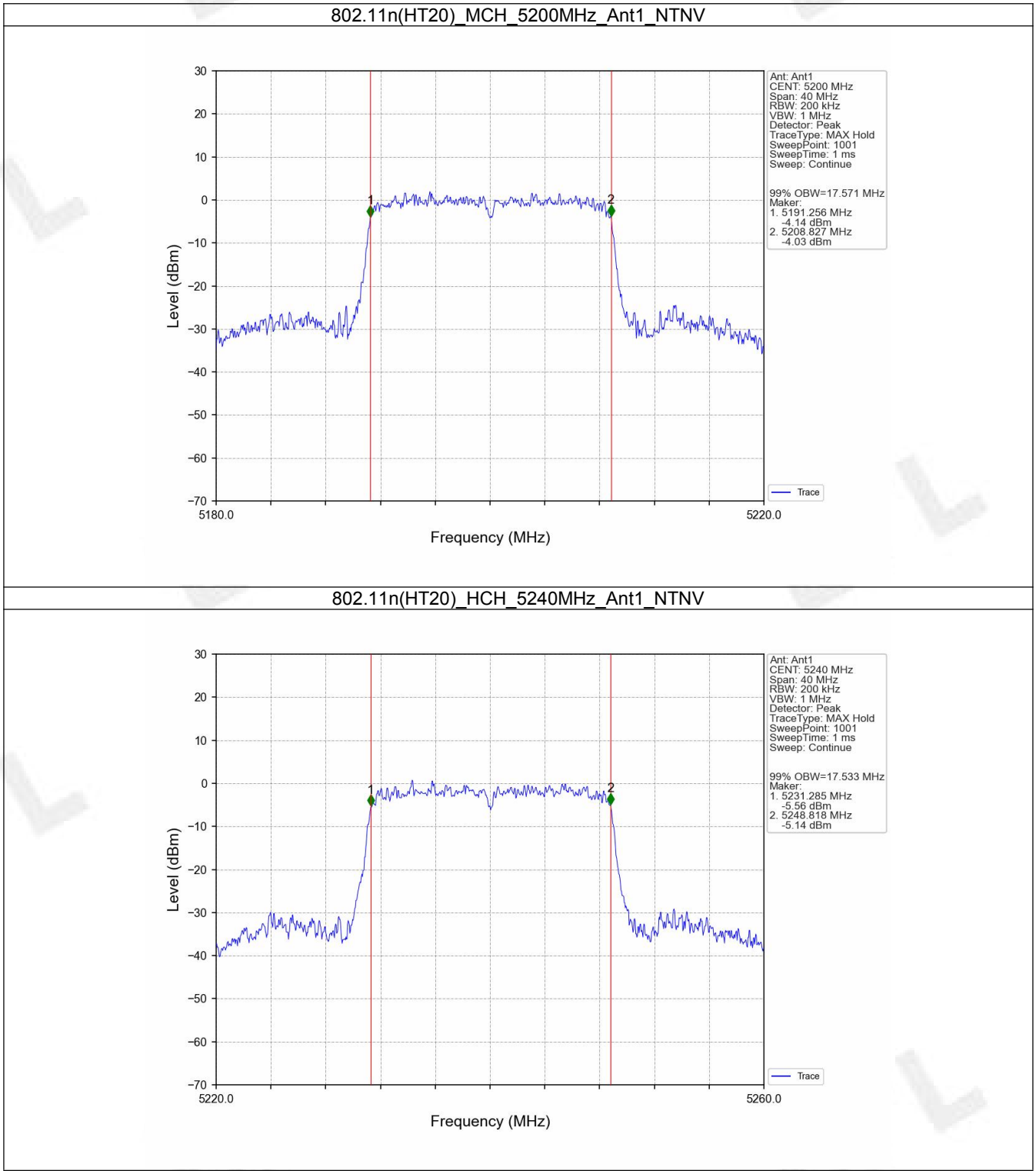
802.11a_HCH_5240MHz_Ant1_NTNV



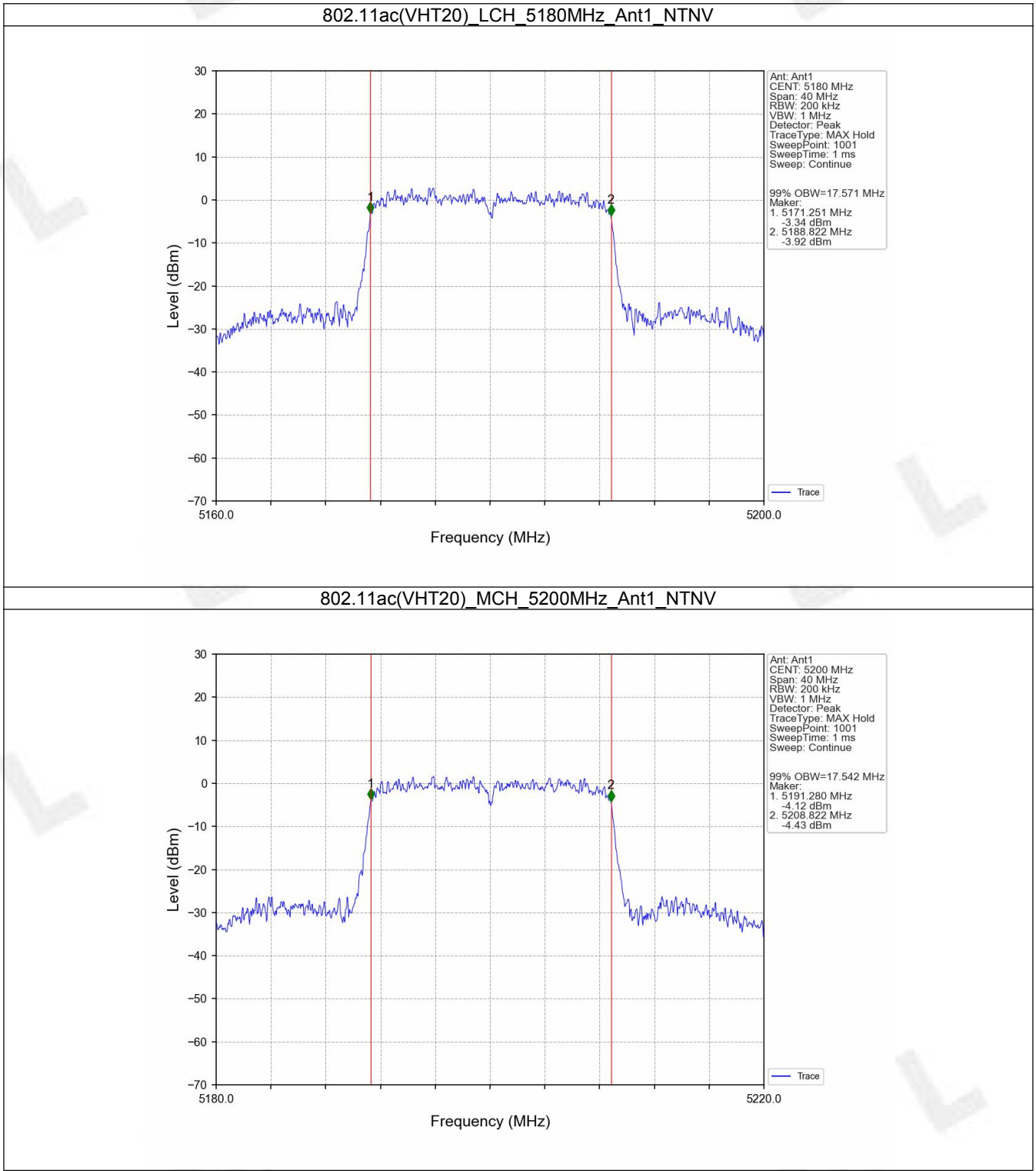
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



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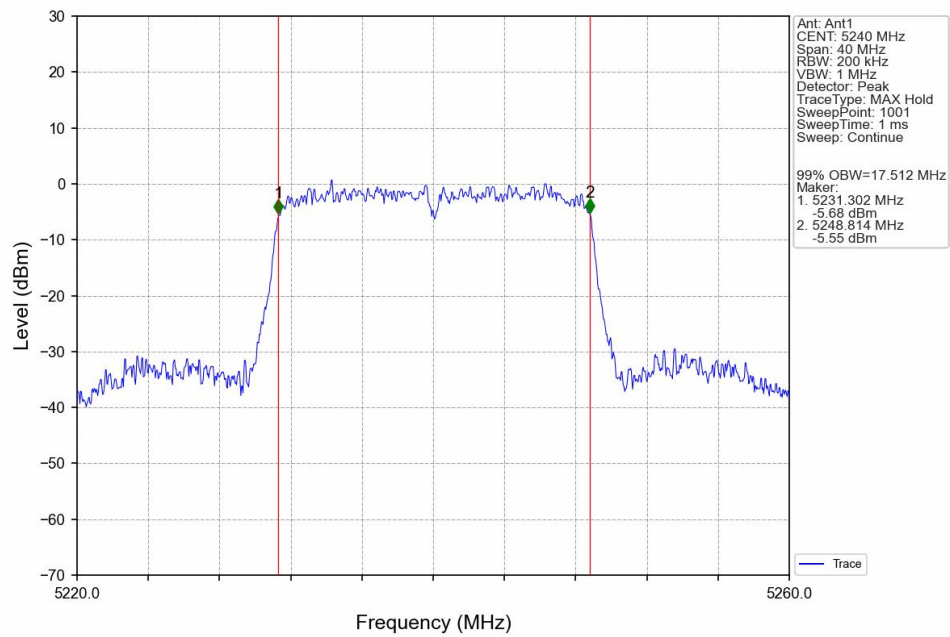


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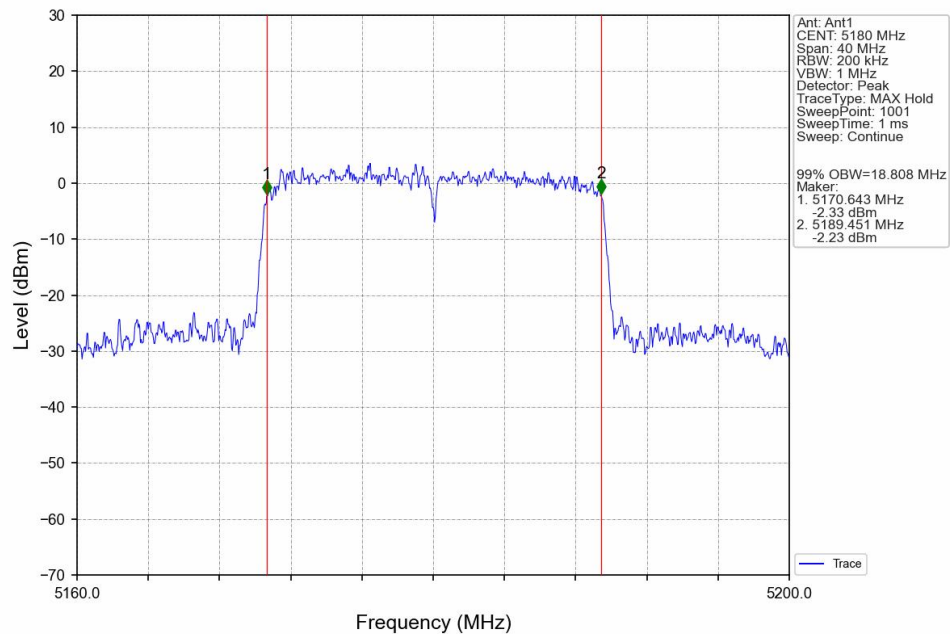


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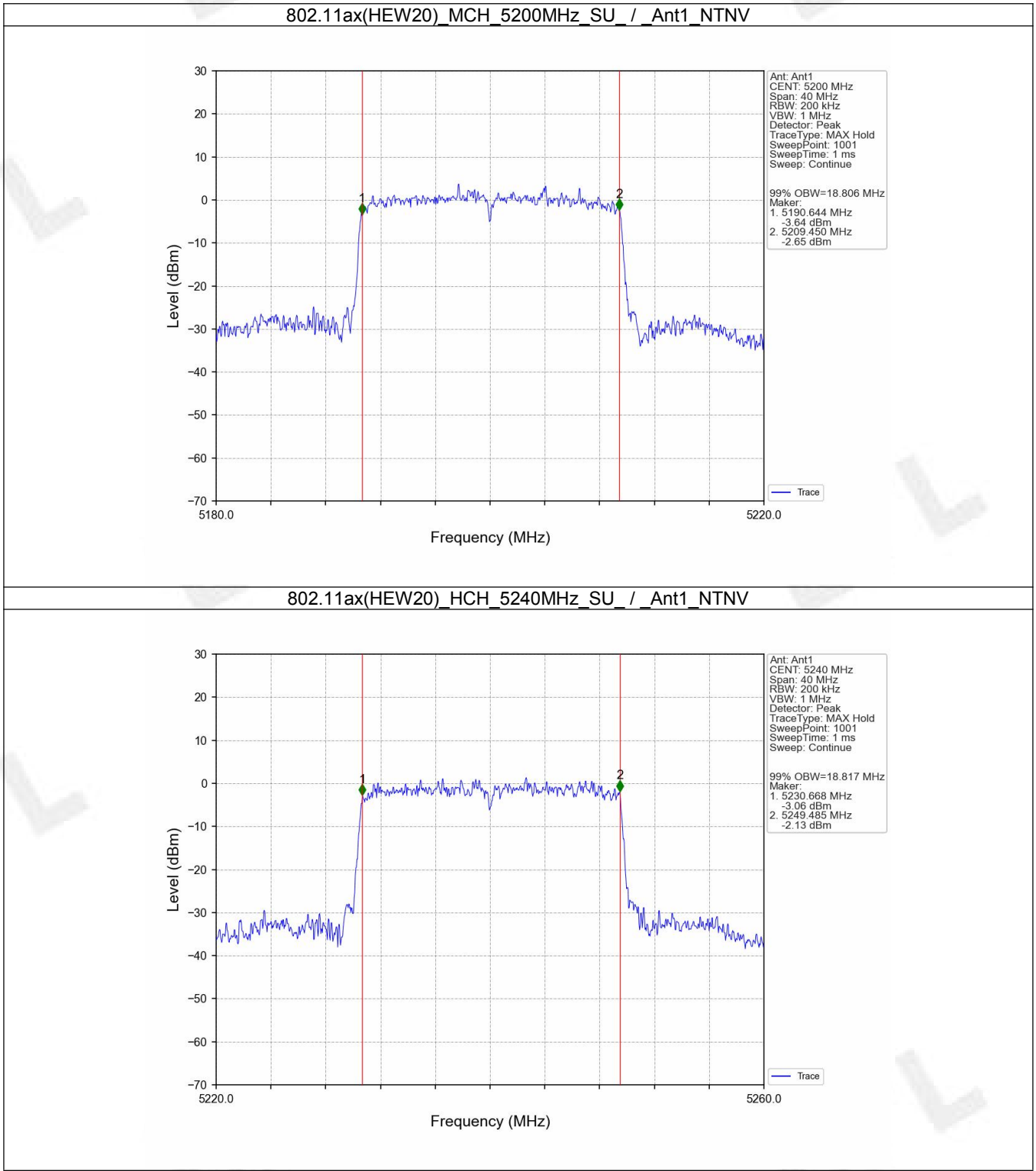
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



802.11ax(HEW20)_LCH_5180MHz_SU_ / _Ant1_NTNV

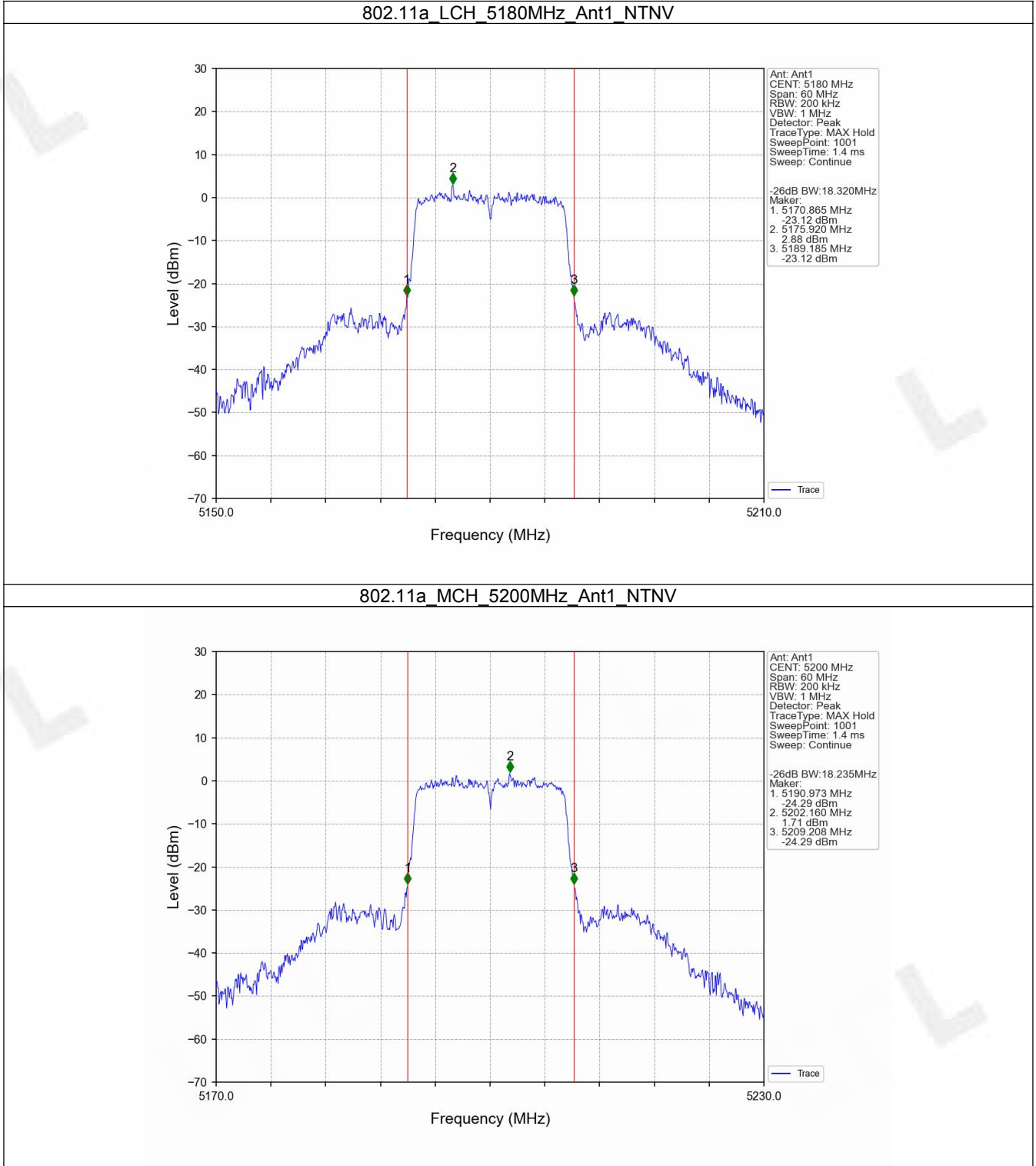


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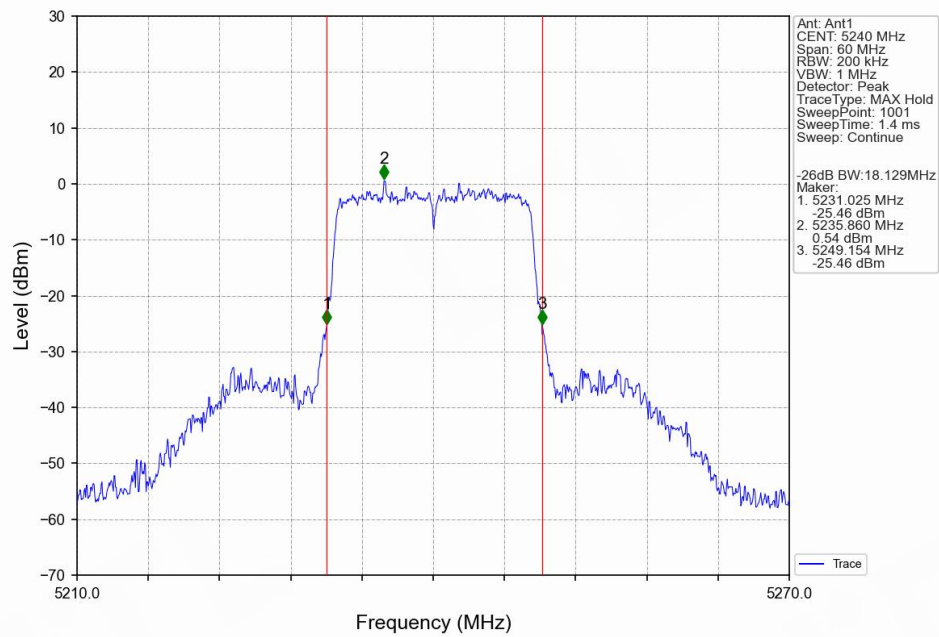
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2.2.2 26dB BW

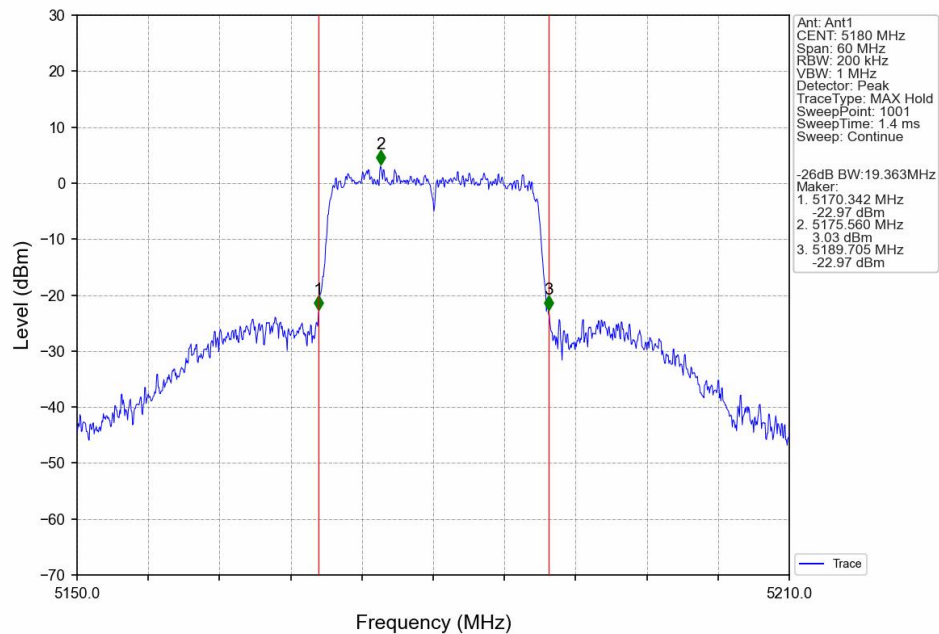


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802.11a_HCH_5240MHz_Ant1_NTNV

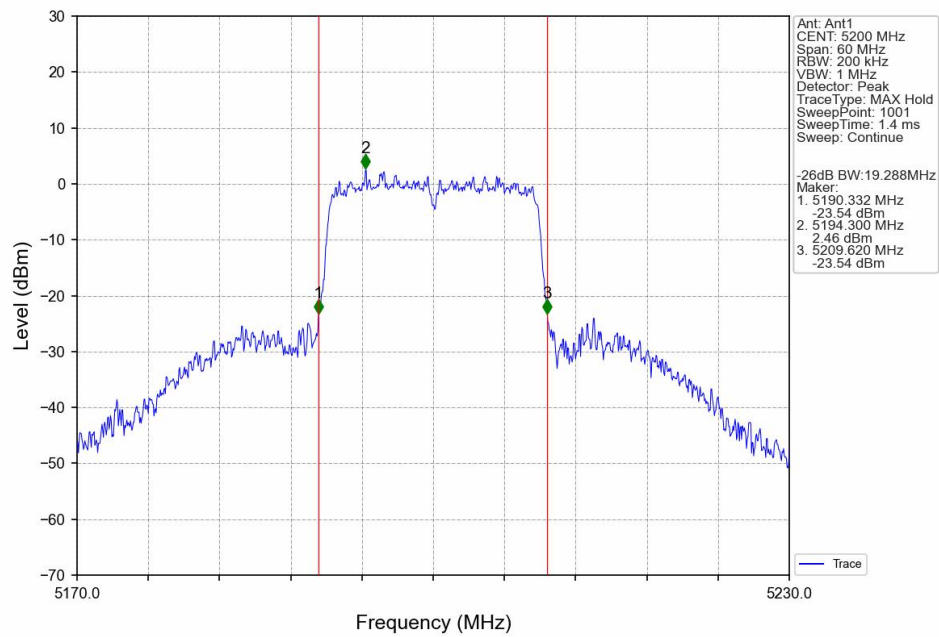


802.11n(HT20)_LCH_5180MHz_Ant1_NTNV

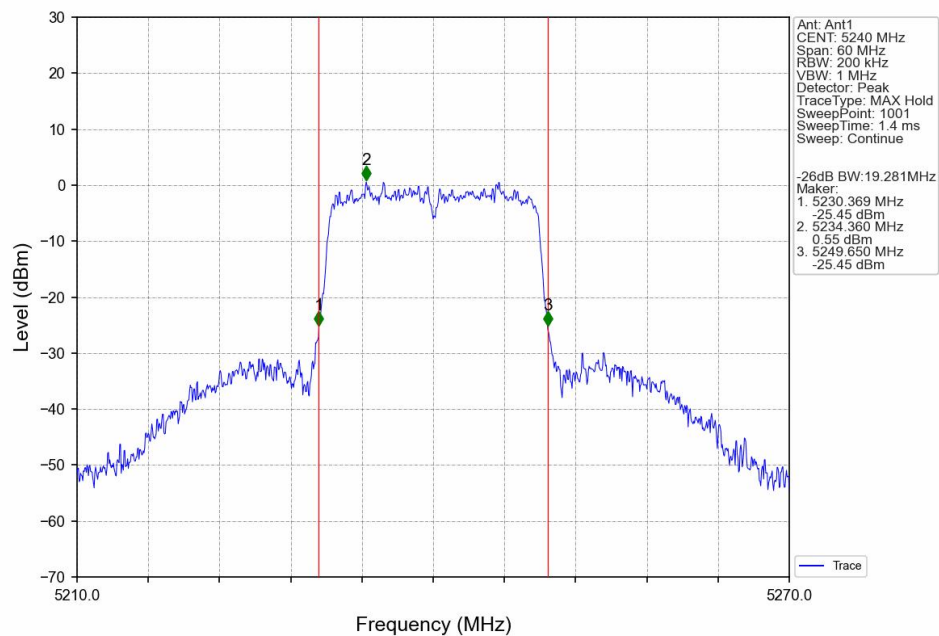


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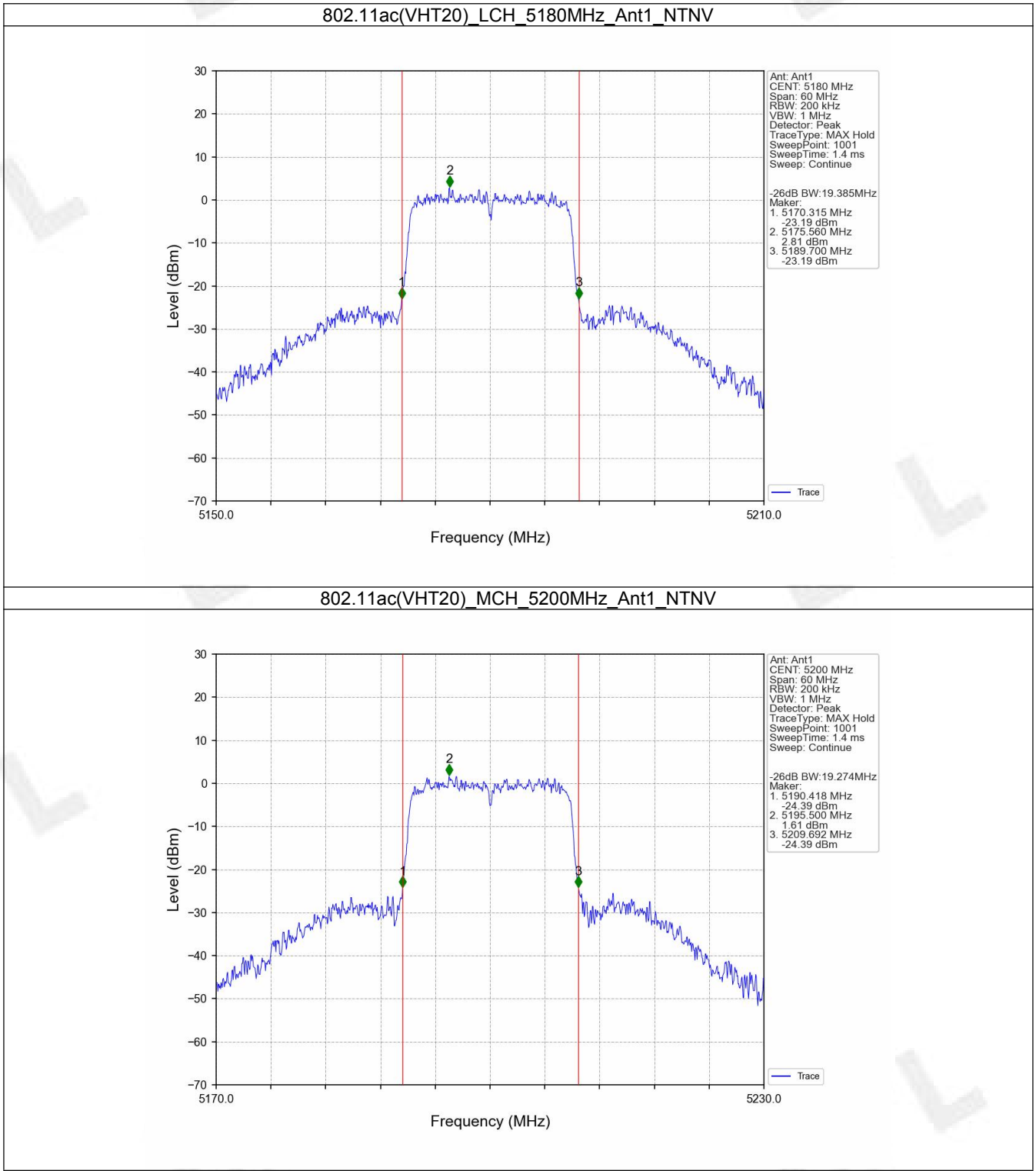
802.11n(HT20)_MCH_5200MHz_Ant1_NTNV



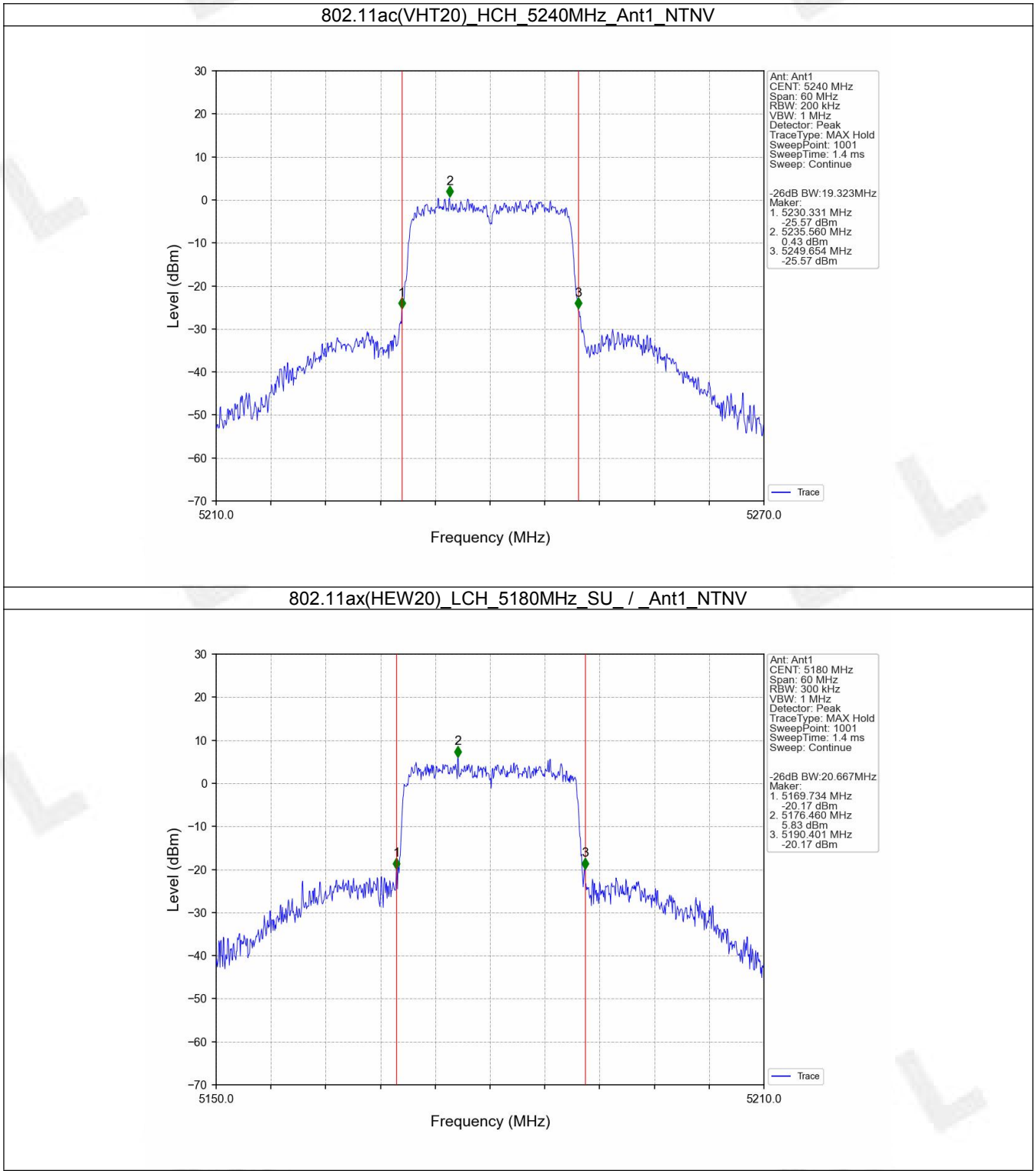
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



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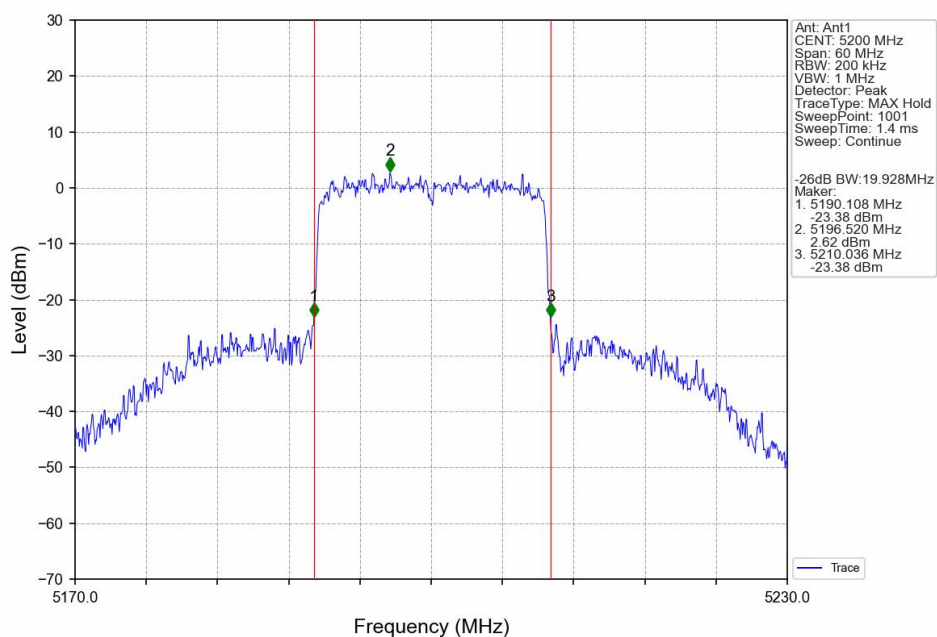


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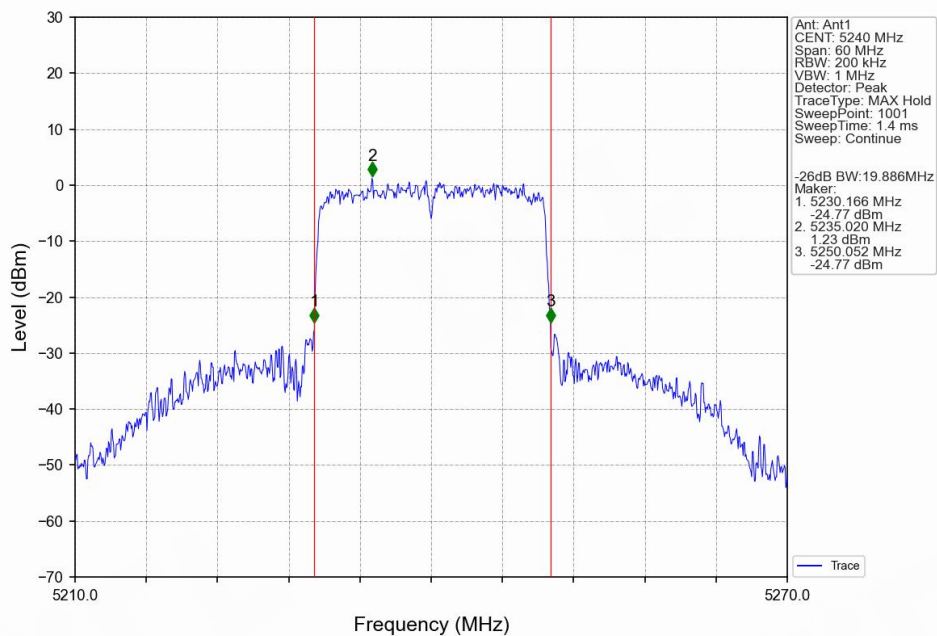


FCC ID: 2A94J-CP025

802.11ax(HEW20)_MCH_5200MHz_SU_/_Ant1_NTNV



802.11ax(HEW20)_HCH_5240MHz_SU_/_Ant1_NTNV



3. Maximum Conducted Output Power

3.1 Test Result

3.1.1 Power

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Average Conducted Output Power (dBm)			Verdict
					Duty Cycle Correction Factor (dB)	ANT1	Limit	
802.11a	SISO	5180	/	/	0.07	12.10	<=30	Pass
		5200	/	/	0.07	11.59	<=30	Pass
		5240	/	/	0.07	10.03	<=30	Pass
802.11n (HT20)	SISO	5180	/	/	0.08	13.01	<=30	Pass
		5200	/	/	0.08	12.26	<=30	Pass
		5240	/	/	0.08	10.72	<=30	Pass
802.11ac (VHT20)	SISO	5180	/	/	0.08	12.69	<=30	Pass
		5200	/	/	0.08	12.03	<=30	Pass
		5240	/	/	0.08	10.55	<=30	Pass
802.11ax (HEW20)	SISO	5180	SU	/	0.09	12.59	<=30	Pass
		5200	SU	/	0.09	11.94	<=30	Pass
		5240	SU	/	0.09	10.51	<=30	Pass

Note1: Antenna Gain: Ant1: -2.06dBi;
 Note2: RF Cable loss=0.5dB
 Note3: The test results include RF Cable loss.
 Note4: The duty factor is already compensated in the result.

4. Maximum Power Spectral Density

4.1 Test Result

4.1.1 PSD

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/MHz)		Verdict
					ANT1	Limit	
802.11a	SISO	5180	/	/	0.98	<=17	Pass
		5200	/	/	0.30	<=17	Pass
		5240	/	/	-1.12	<=17	Pass
802.11n (HT20)	SISO	5180	/	/	1.69	<=17	Pass
		5200	/	/	0.88	<=17	Pass
		5240	/	/	-0.68	<=17	Pass
802.11ac (VHT20)	SISO	5180	/	/	1.35	<=17	Pass
		5200	/	/	0.59	<=17	Pass
		5240	/	/	-0.96	<=17	Pass
802.11ax (HEW20)	SISO	5180	SU	/	1.04	<=17	Pass
		5200	SU	/	0.41	<=17	Pass
		5240	SU	/	-1.03	<=17	Pass

Note1: Antenna Gain: Ant1: -2.06dBi;

Note2: RF Cable loss=0.5dB

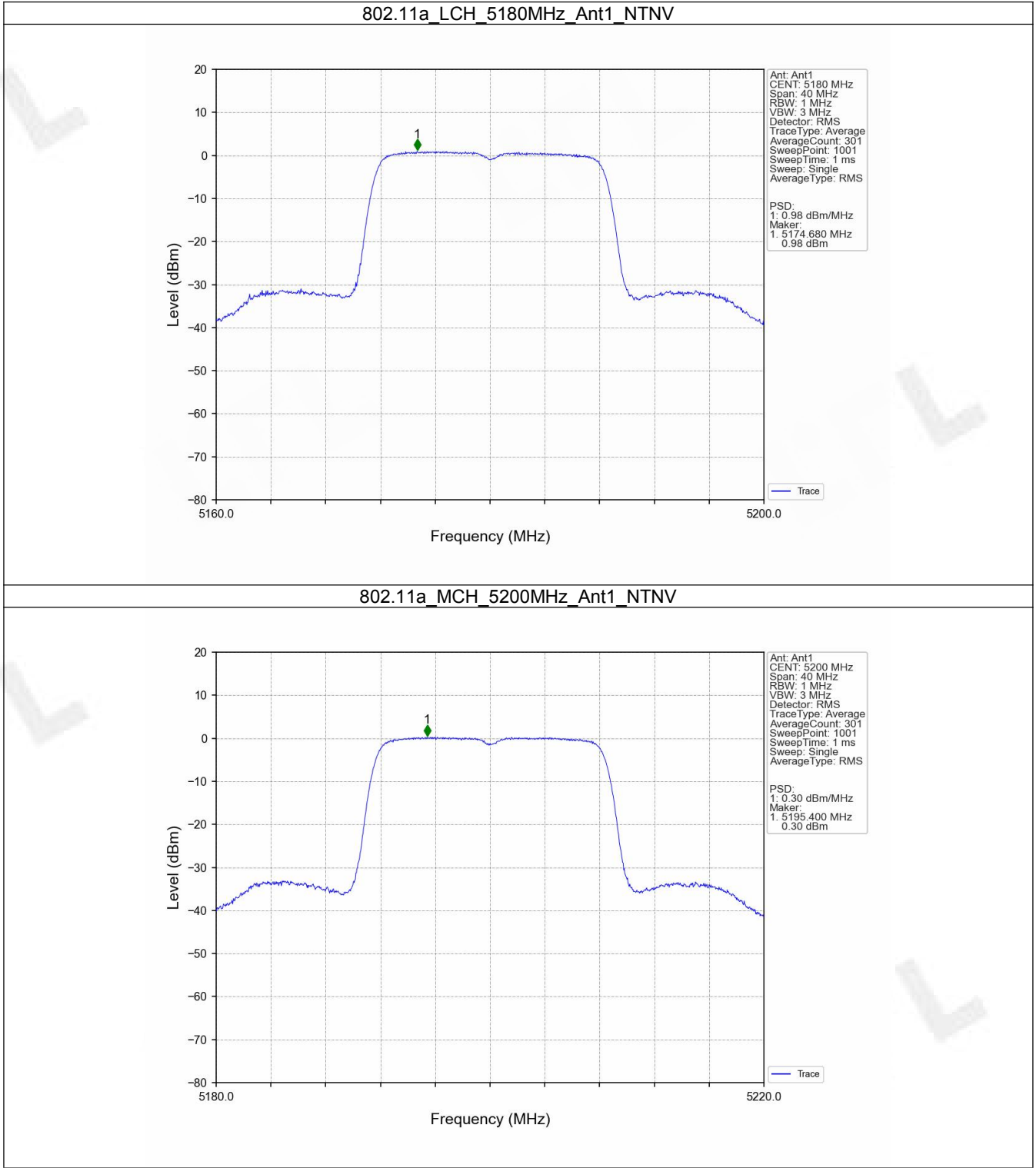
Note3: The test results include RF Cable loss.

Note4: Maximum PSD=DCCF+Maker+factor RBW;

FCC ID: 2A94J-CP025

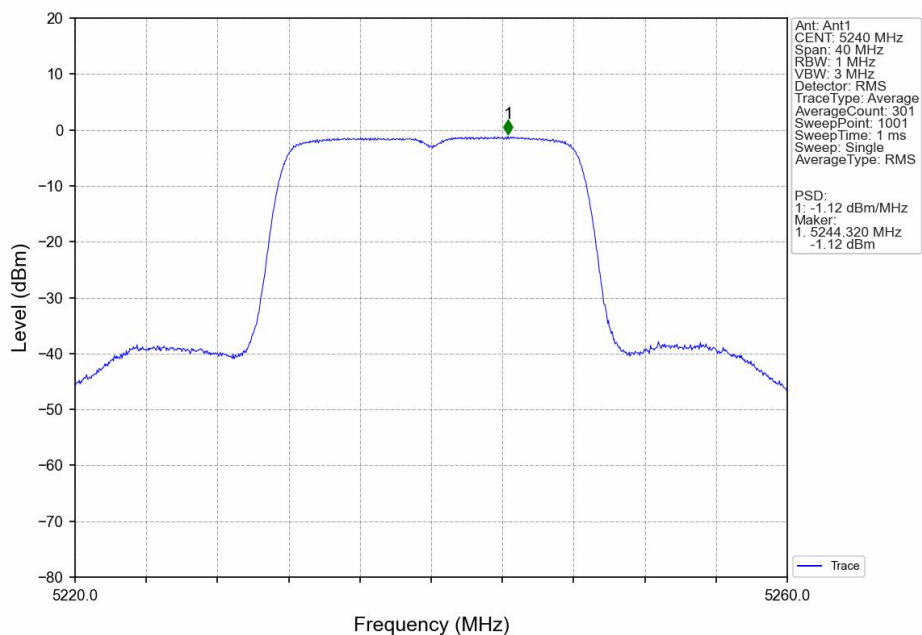
4.2 Test Graph

4.2.1 PSD

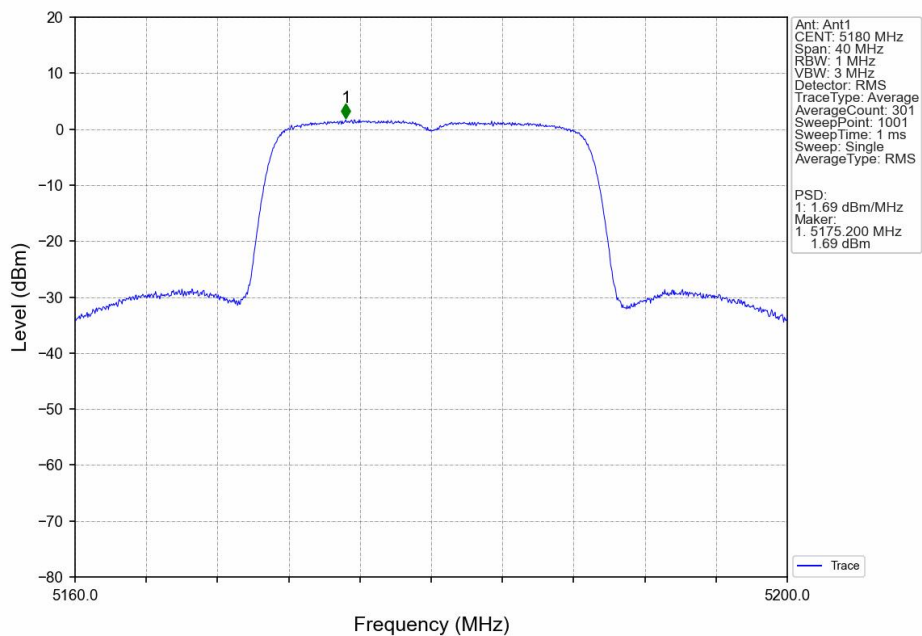


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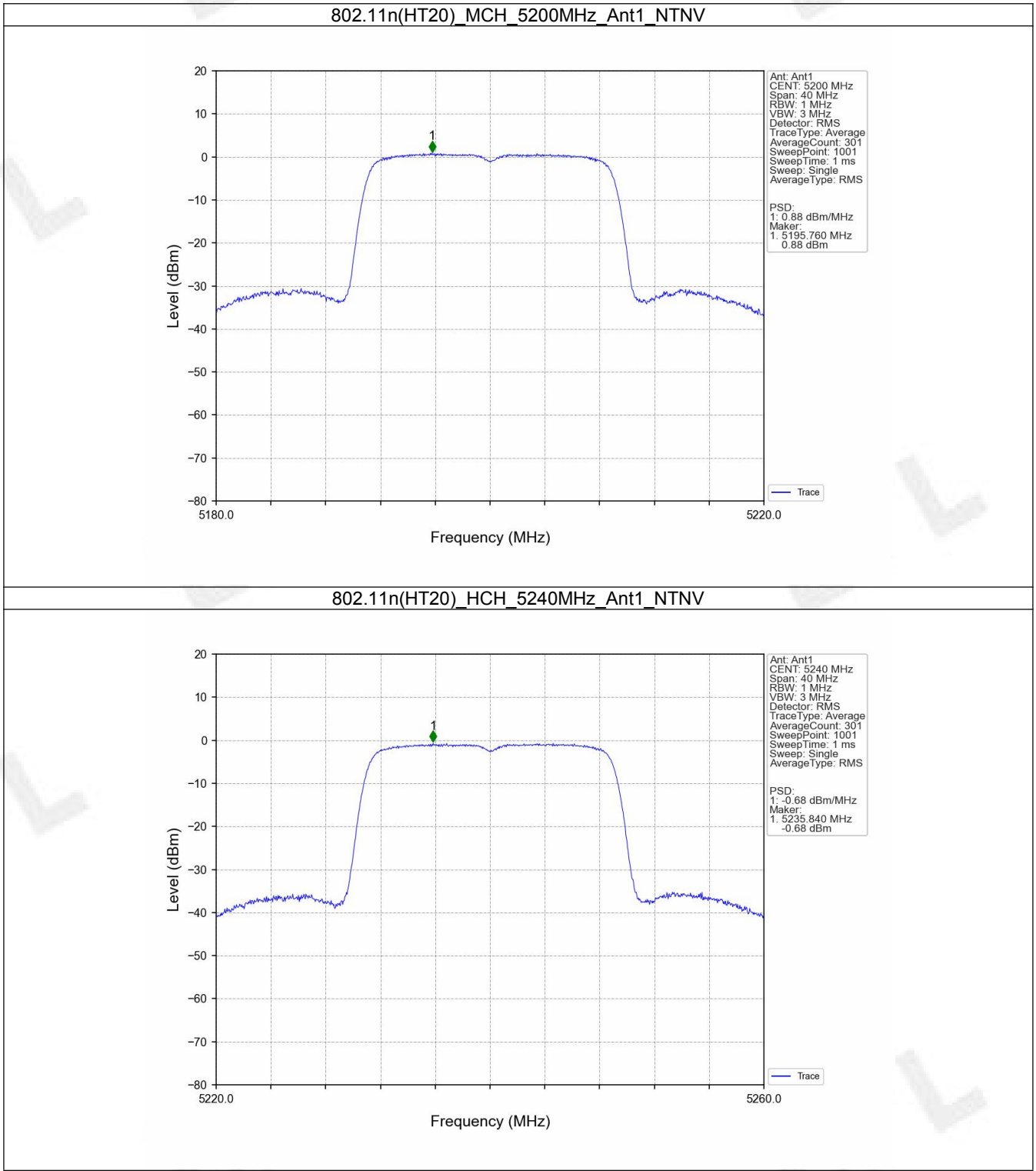
802.11a_HCH_5240MHz_Ant1_NTNV



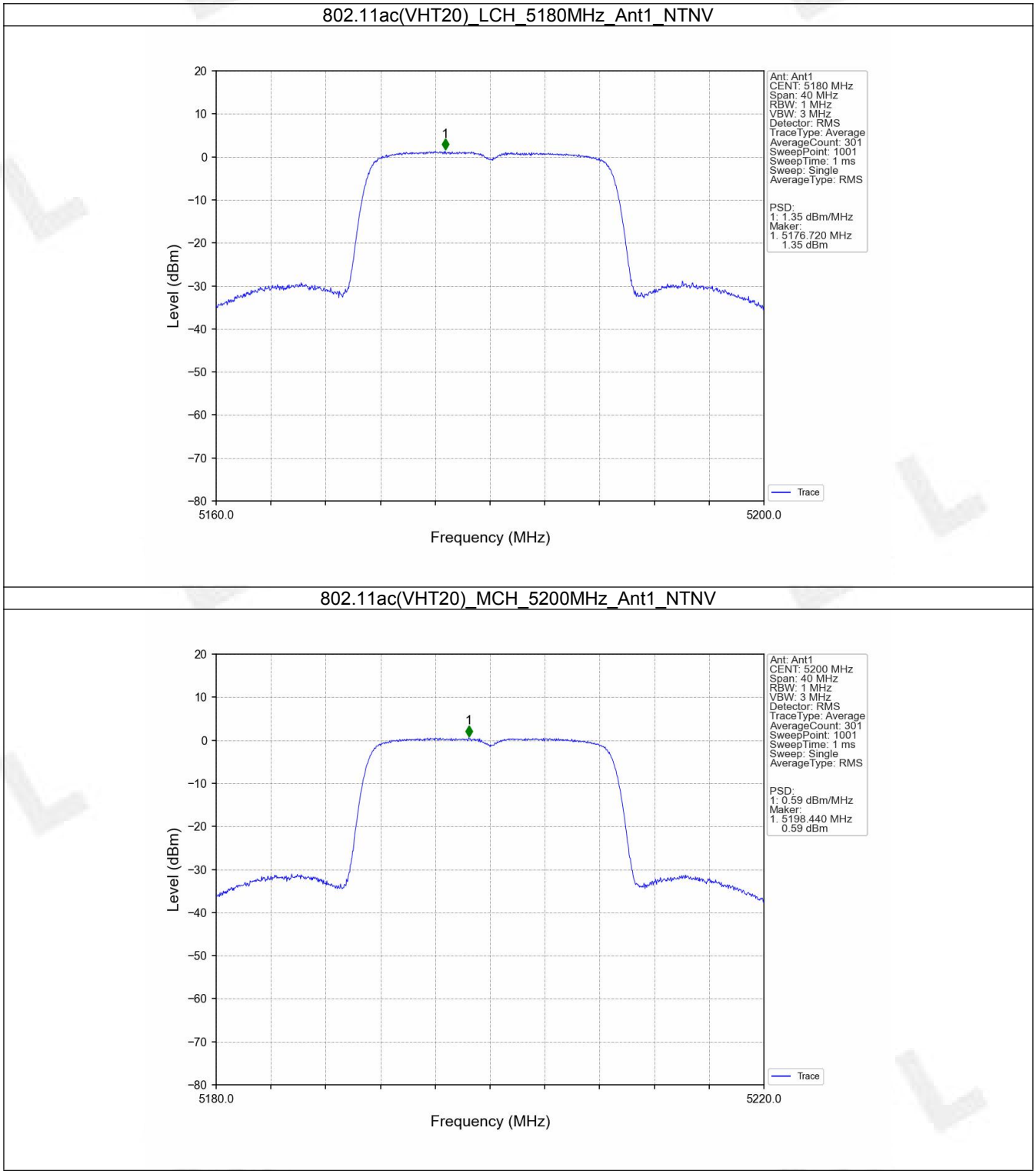
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



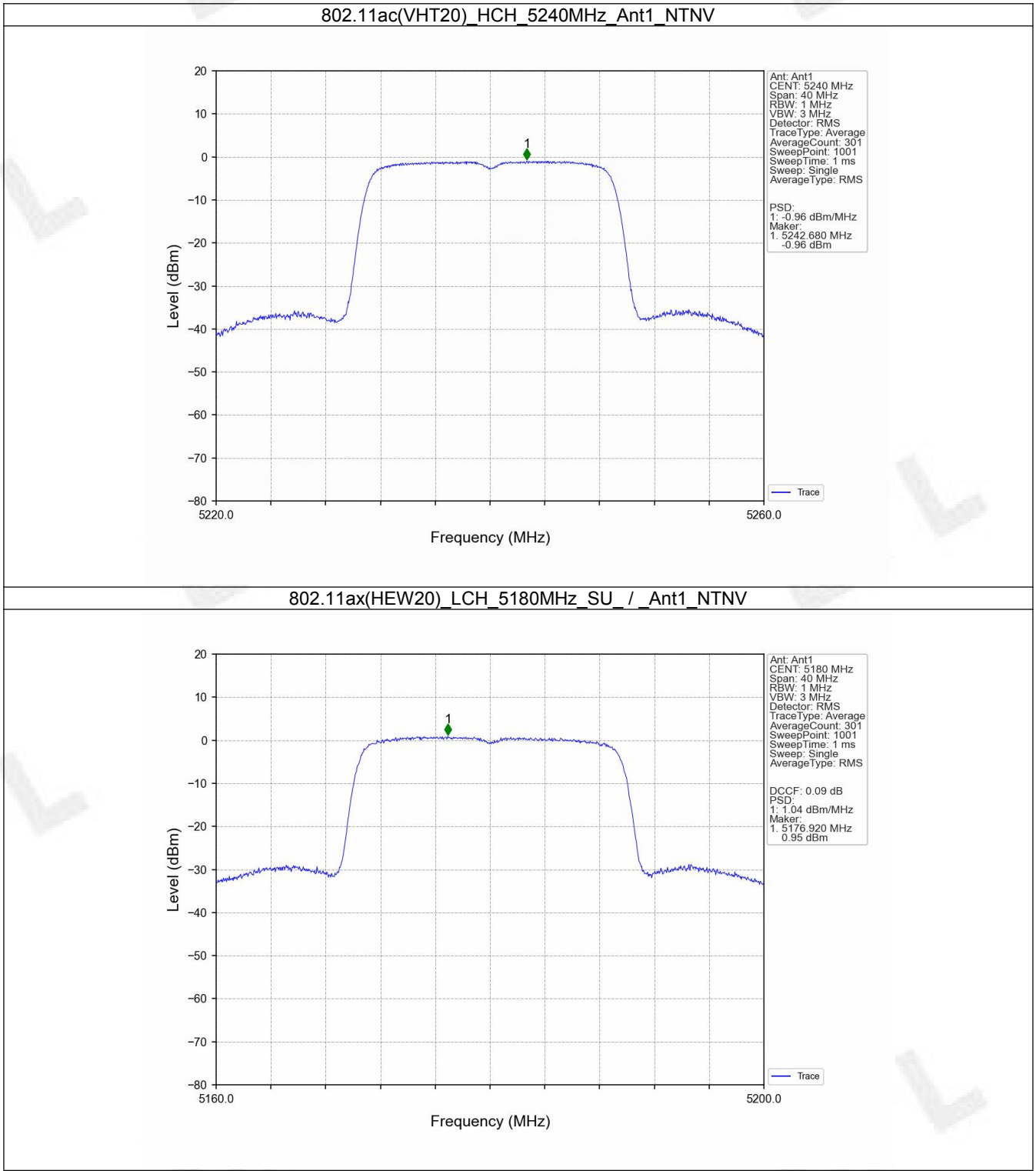
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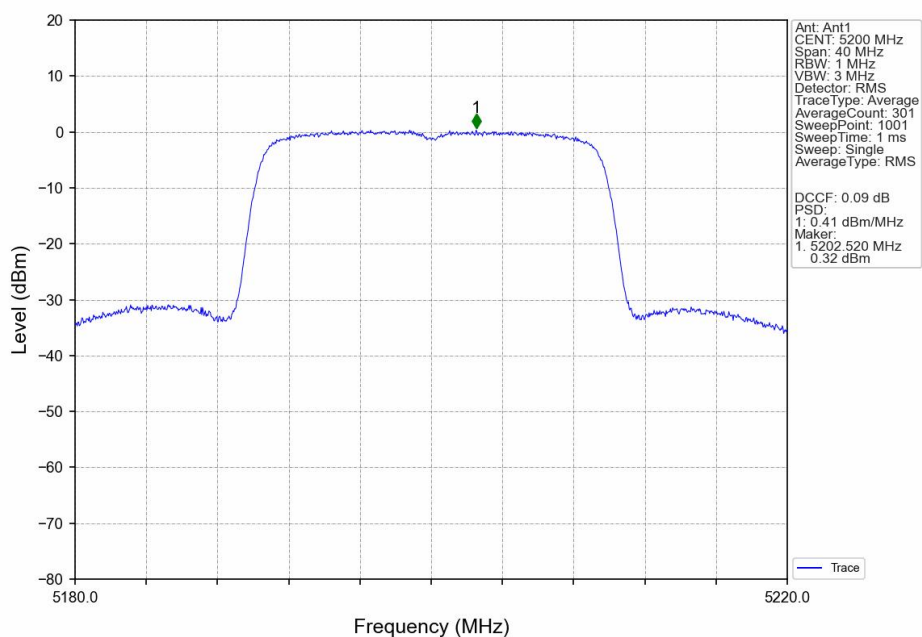


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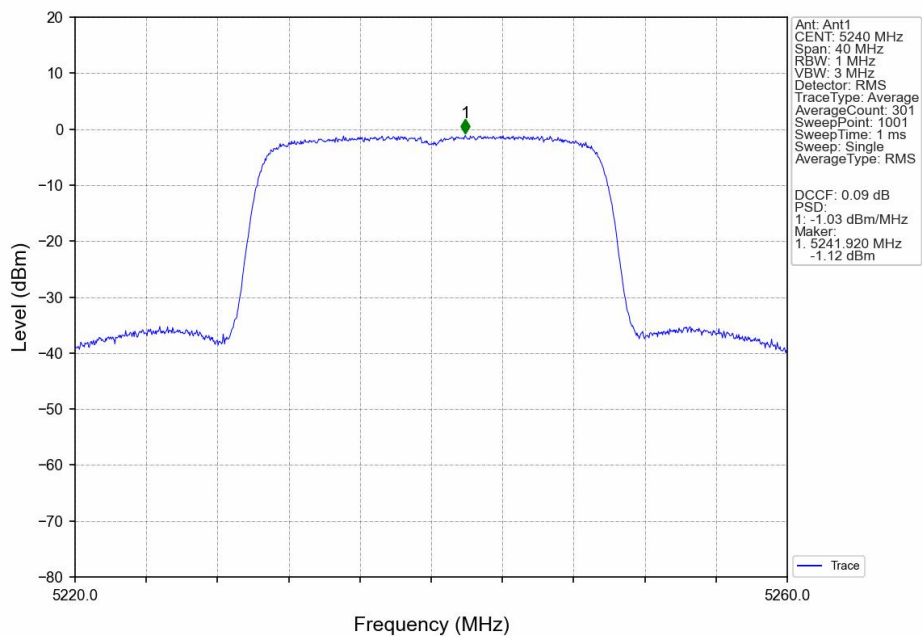


FCC ID: 2A94J-CP025

802.11ax(HEW20)_MCH_5200MHz_SU_ / Ant1_NTNV



802.11ax(HEW20)_HCH_5240MHz_SU_ / Ant1_NTNV



FCC ID: 2A94J-CP025

5. Frequency Stability

5.1 Test Result

5.1.1 Ant1

Ant1							
Mode	TX Type	Frequency (MHz)	Temperature (°C)	Voltage	Measured Frequency (MHz)	Limit (MHz)	Verdict
Carrier Wave	SISO	5180	20	LV	5180.072	5150 to 5250	Pass
				NV	5180.075	5150 to 5250	Pass
				HV	5180.083	5150 to 5250	Pass
			-30	NV	5180.086	5150 to 5250	Pass
			-20	NV	5180.080	5150 to 5250	Pass
			-10	NV	5180.078	5150 to 5250	Pass
			0	NV	5180.081	5150 to 5250	Pass
			10	NV	5180.085	5150 to 5250	Pass
			30	NV	5180.082	5150 to 5250	Pass
			40	NV	5180.083	5150 to 5250	Pass
			50	NV	5180.082	5150 to 5250	Pass
		5200	20	LV	5200.074	5150 to 5250	Pass
				NV	5200.080	5150 to 5250	Pass
				HV	5200.083	5150 to 5250	Pass
			-30	NV	5200.085	5150 to 5250	Pass
			-20	NV	5200.095	5150 to 5250	Pass
			-10	NV	5200.093	5150 to 5250	Pass
			0	NV	5200.100	5150 to 5250	Pass
			10	NV	5200.097	5150 to 5250	Pass
			30	NV	5200.101	5150 to 5250	Pass
			40	NV	5200.109	5150 to 5250	Pass
			50	NV	5200.105	5150 to 5250	Pass
		5240	20	LV	5240.088	5150 to 5250	Pass
				NV	5240.095	5150 to 5250	Pass
				HV	5240.101	5150 to 5250	Pass
			-30	NV	5240.104	5150 to 5250	Pass
			-20	NV	5240.110	5150 to 5250	Pass
			-10	NV	5240.107	5150 to 5250	Pass
			0	NV	5240.112	5150 to 5250	Pass
			10	NV	5240.113	5150 to 5250	Pass
			30	NV	5240.118	5150 to 5250	Pass
			40	NV	5240.127	5150 to 5250	Pass
			50	NV	5240.132	5150 to 5250	Pass