

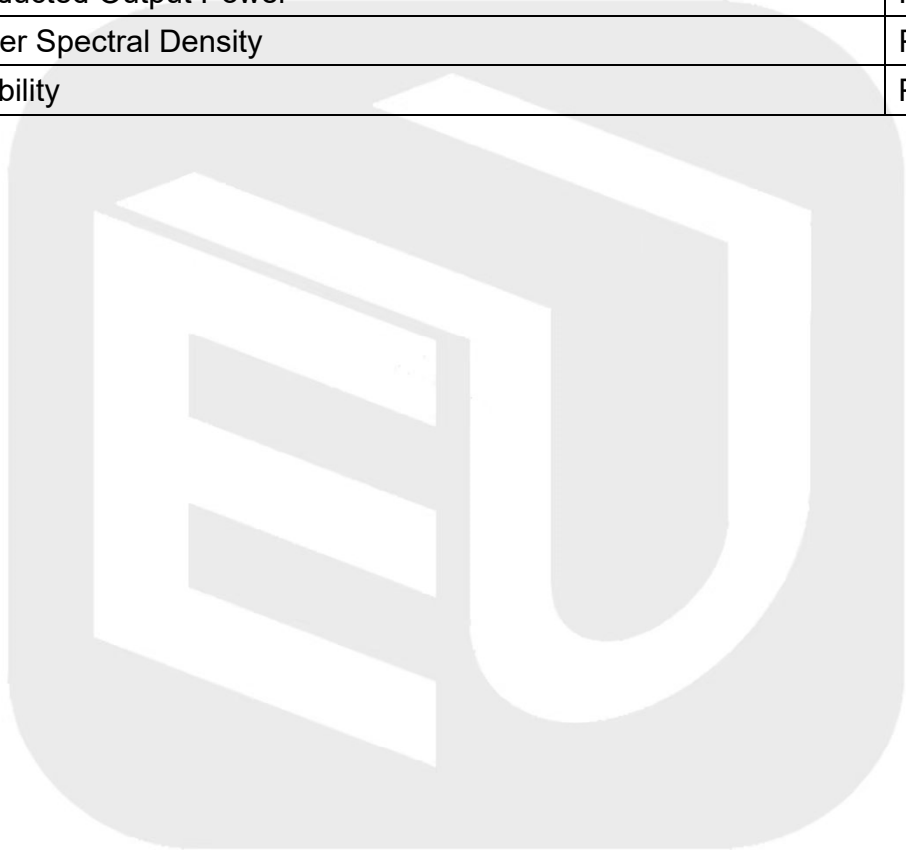
# ANNEX D TEST DATA

## For

Project No.:	8133EU011901W
Client:	Autel Intelligent Technology Corp., Ltd.
Product Description:	MaxiFlash VCMi
Model No.:	MaxiFlash VCMi
FCC ID:	WQ8VCMi2121
Technology:	5G WLAN
Test Engineer:	<i>Mikoy zhu</i>
Test Date:	2023-10-26

## Test Summary

Item	Result
Duty Cycle	Pass
Bandwidth	Pass
Maximum Conducted Output Power	Pass
Maximum Power Spectral Density	Pass
Frequency Stability	Pass



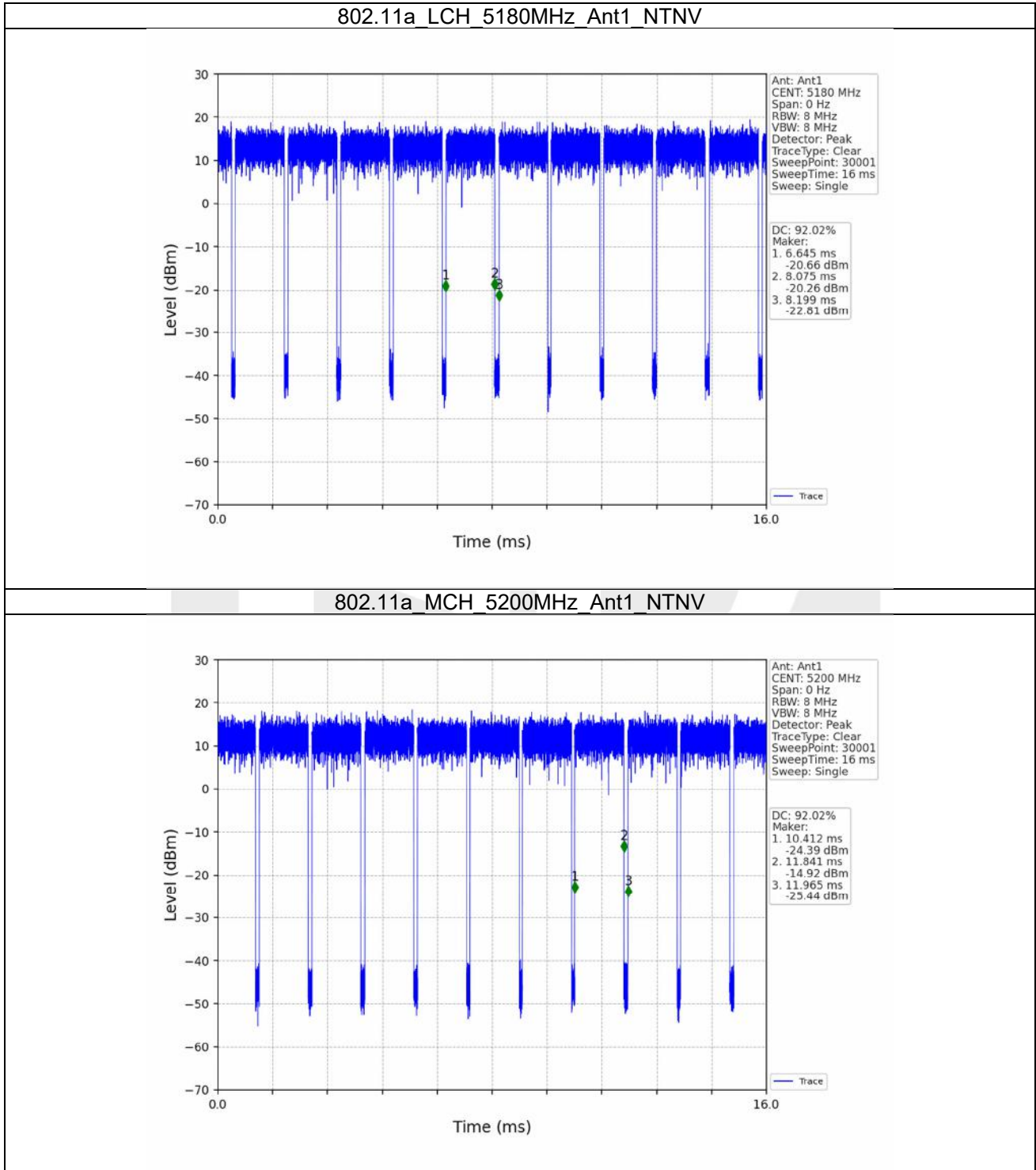
## 1. Duty Cycle

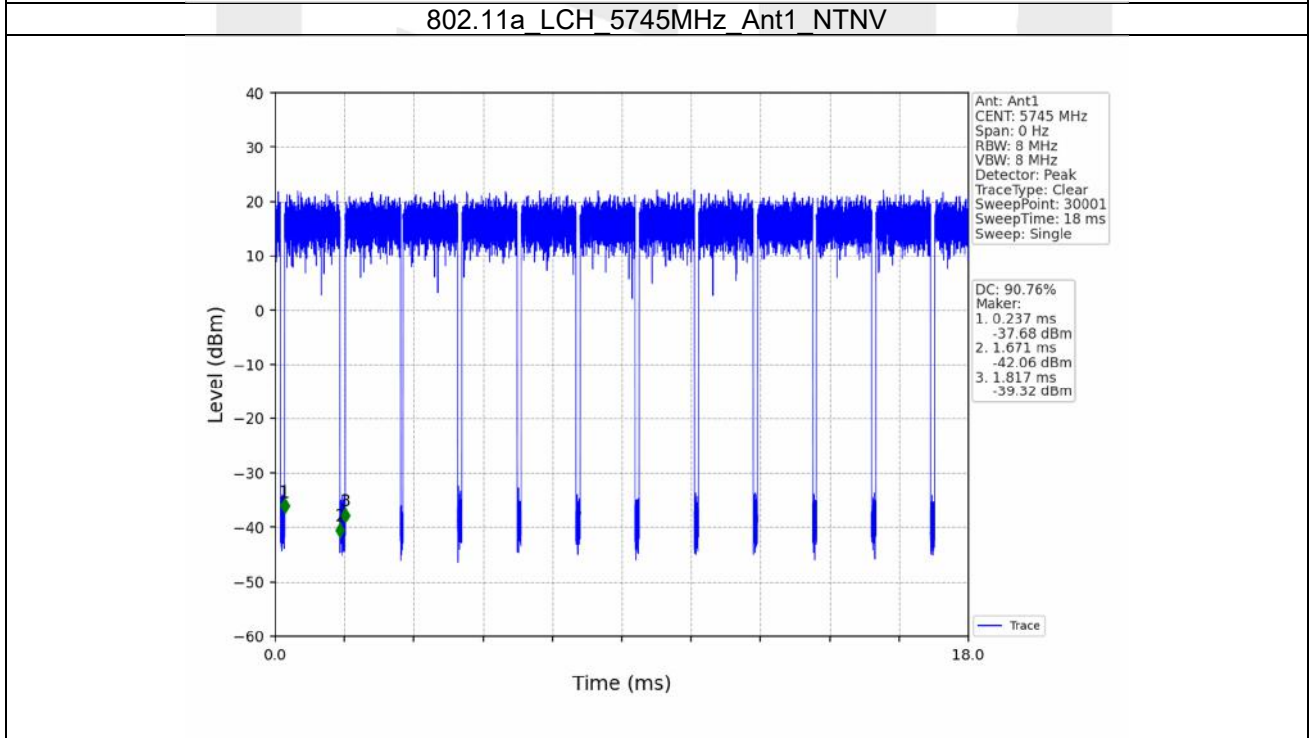
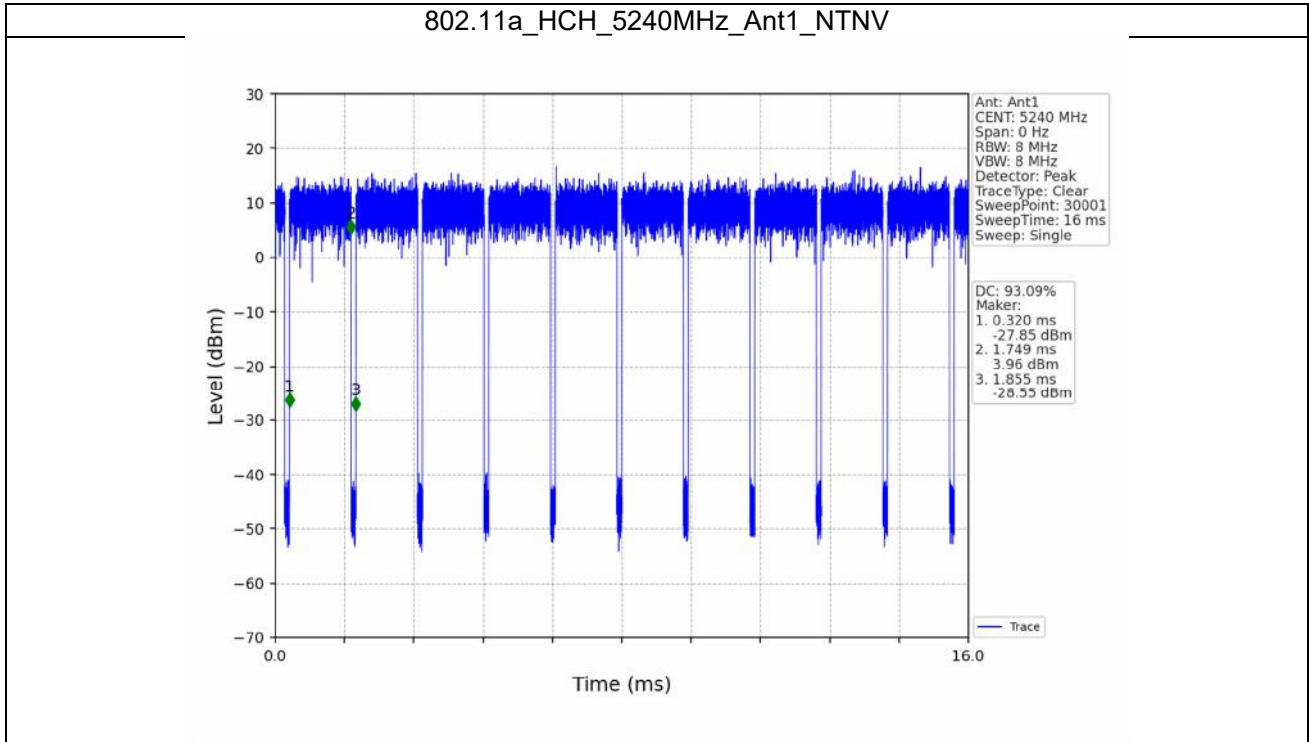
### 1.1 Ant1

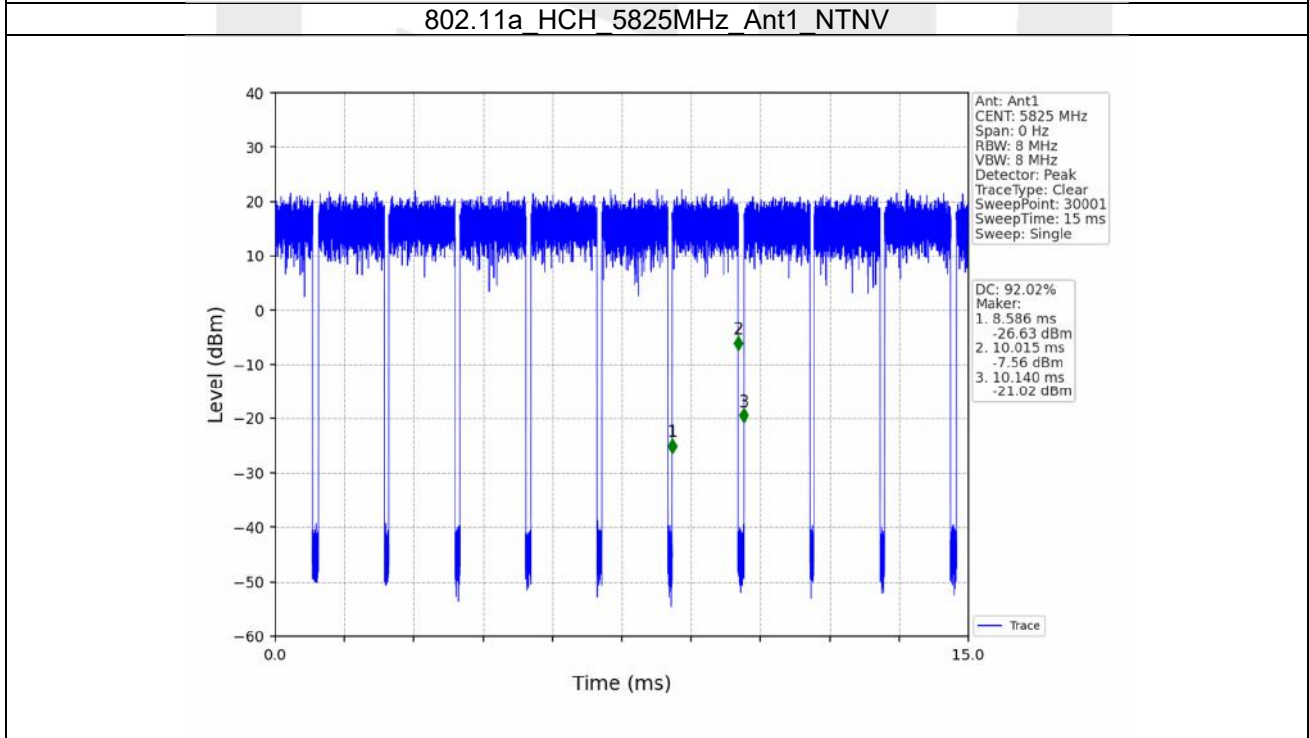
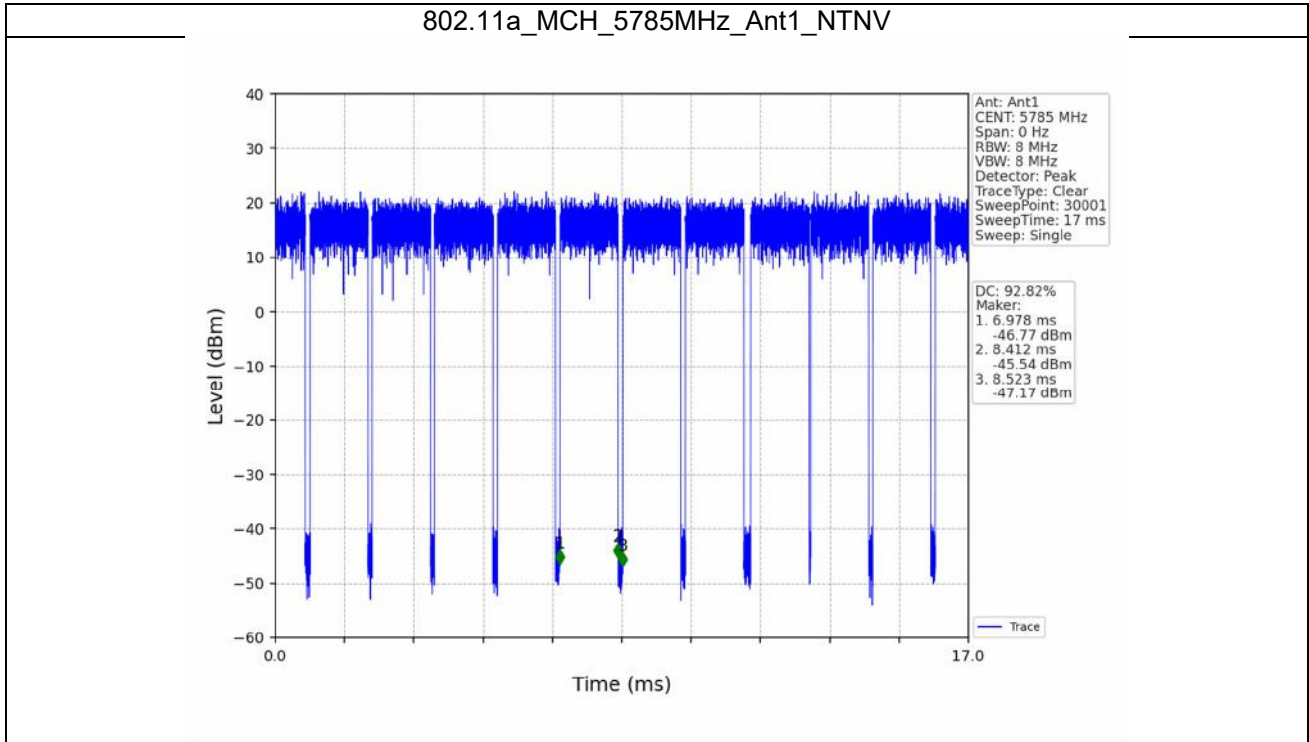
#### 1.1.1 Test Result

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	1.430	1.554	92.02	0.36	2.17
		5200	1.429	1.553	92.02	0.36	1.64
		5240	1.429	1.535	93.09	0.31	0.03
		5745	1.434	1.580	90.76	0.42	5.48
		5785	1.434	1.545	92.82	0.32	5.17
		5825	1.430	1.554	92.02	0.36	2.18
802.11n (HT20)	SISO	5180	1.207	1.332	90.62	0.43	1.26
		5200	1.206	1.313	91.85	0.37	0.12
		5240	1.207	1.332	90.62	0.43	2.52
		5745	1.207	1.334	90.48	0.43	3.38
		5785	1.207	1.322	91.30	0.40	1.24
		5825	1.207	1.332	90.62	0.43	1.90
802.11n (HT40)	SISO	5190	0.602	0.718	83.84	0.77	3.29
		5230	0.603	0.718	83.98	0.76	3.29
		5755	0.603	1.090	55.32	2.57	31.90
		5795	0.603	0.718	83.98	0.76	3.26
802.11ac (VHT20)	SISO	5180	1.215	1.330	91.35	0.39	1.88
		5200	1.216	1.331	91.36	0.39	1.88
		5240	1.214	1.330	91.28	0.40	1.92
		5745	1.220	1.322	92.28	0.35	3.26
		5785	1.216	1.333	91.22	0.40	2.03
		5825	1.215	1.339	90.74	0.42	2.50
802.11ac (VHT40)	SISO	5190	0.606	0.722	83.93	0.76	3.28
		5230	0.607	0.722	84.07	0.75	3.27
		5755	0.610	0.722	84.49	0.73	3.31
		5795	0.606	0.713	84.99	0.71	9.61
802.11ac (VHT80)	SISO	5210	0.304	0.419	72.55	1.39	5.02
		5775	0.304	0.420	72.38	1.40	5.01

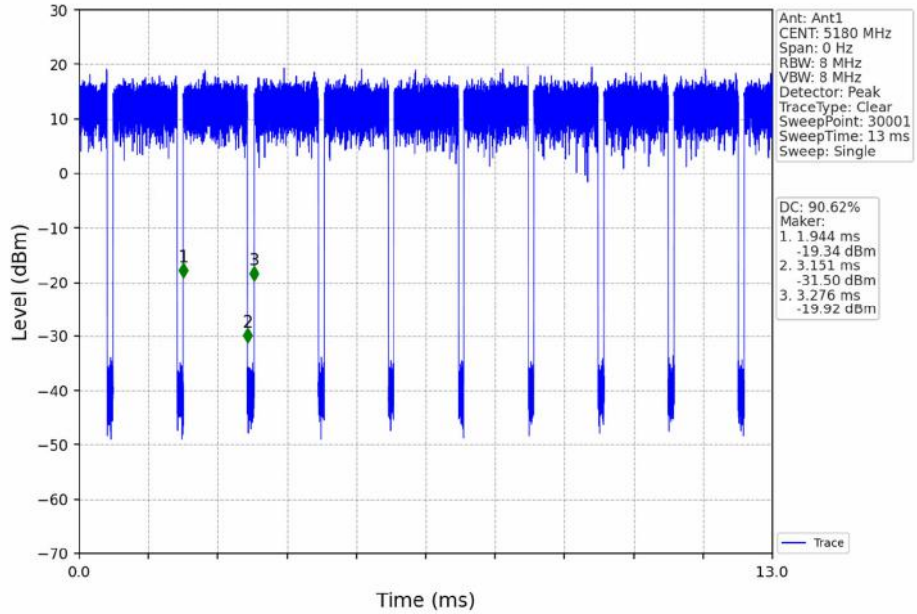
1.1.2 Test Graph



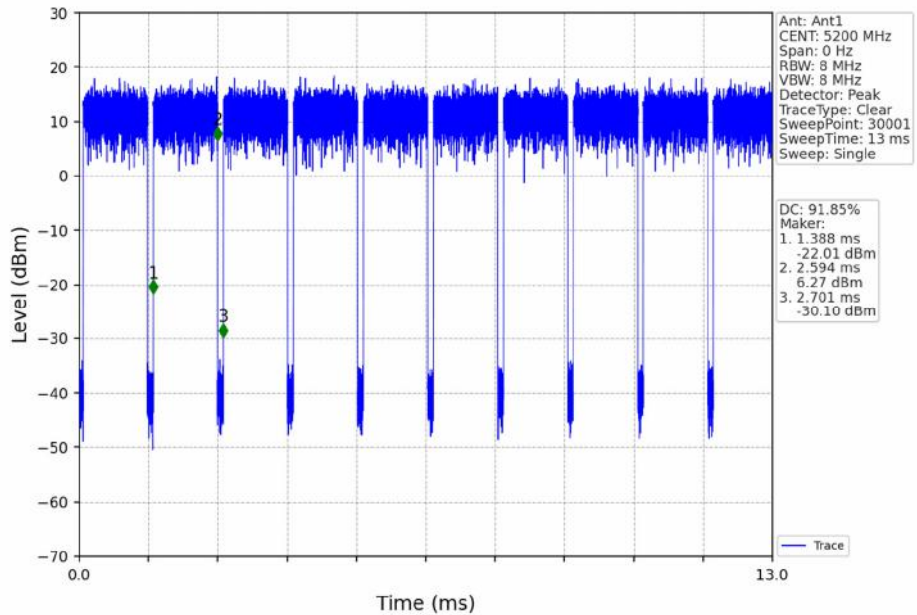




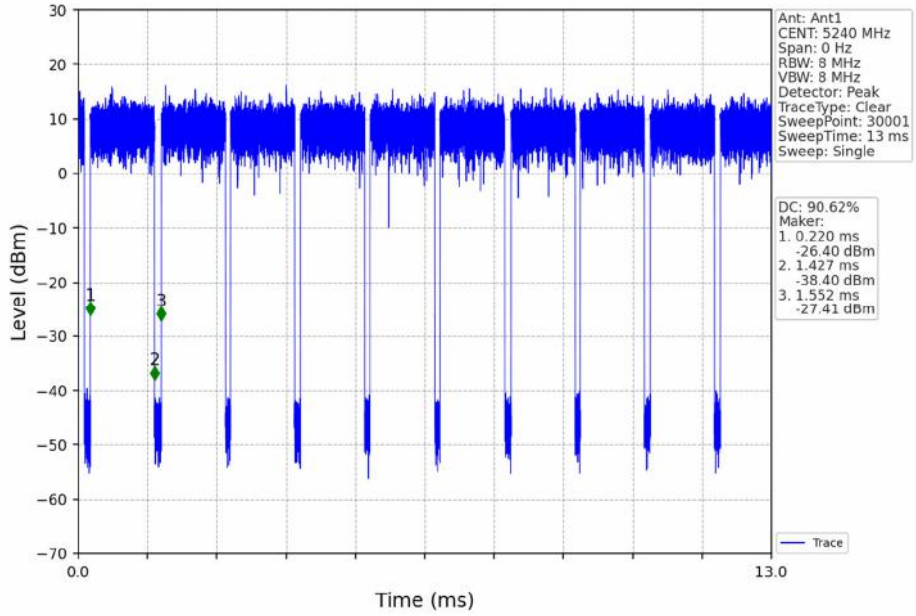
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



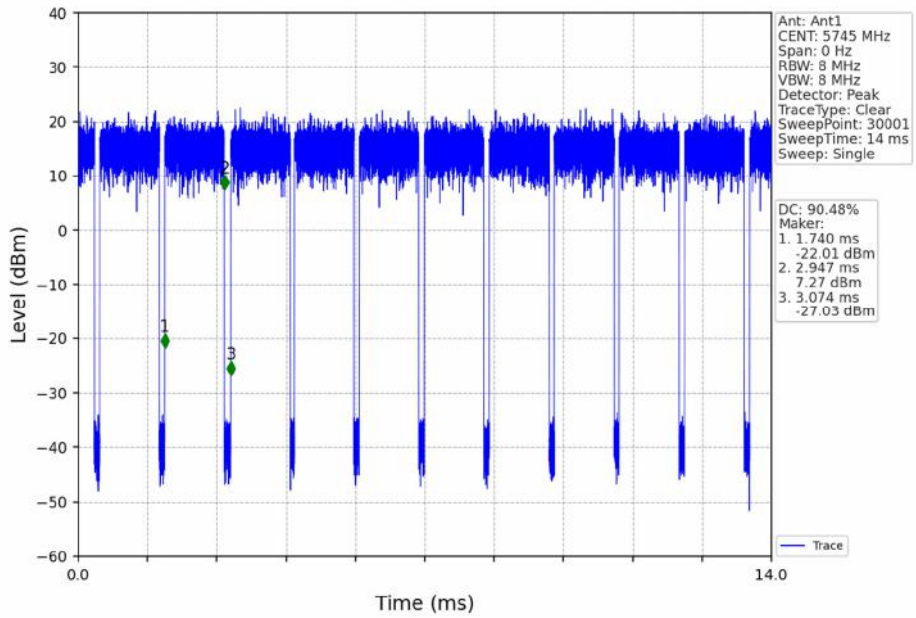
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV

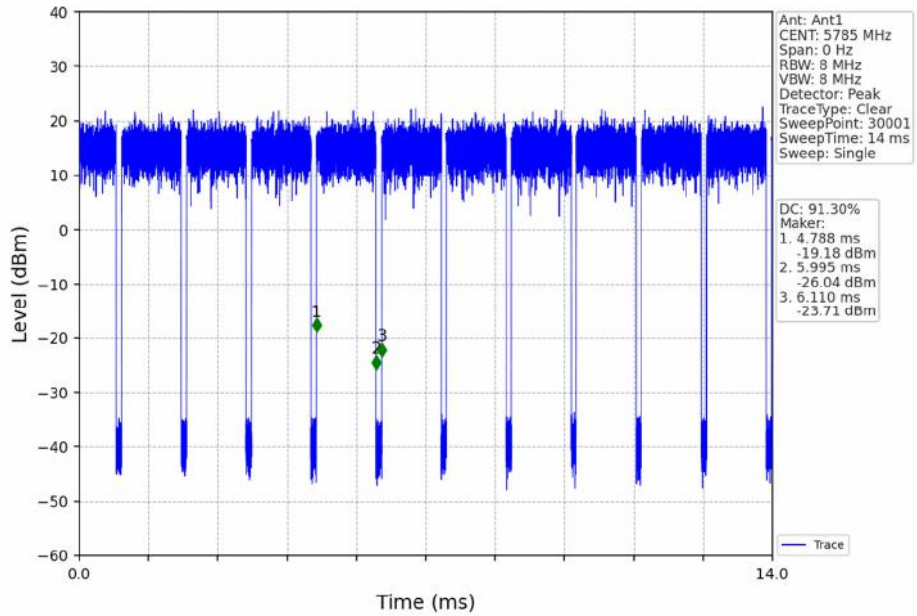


802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV

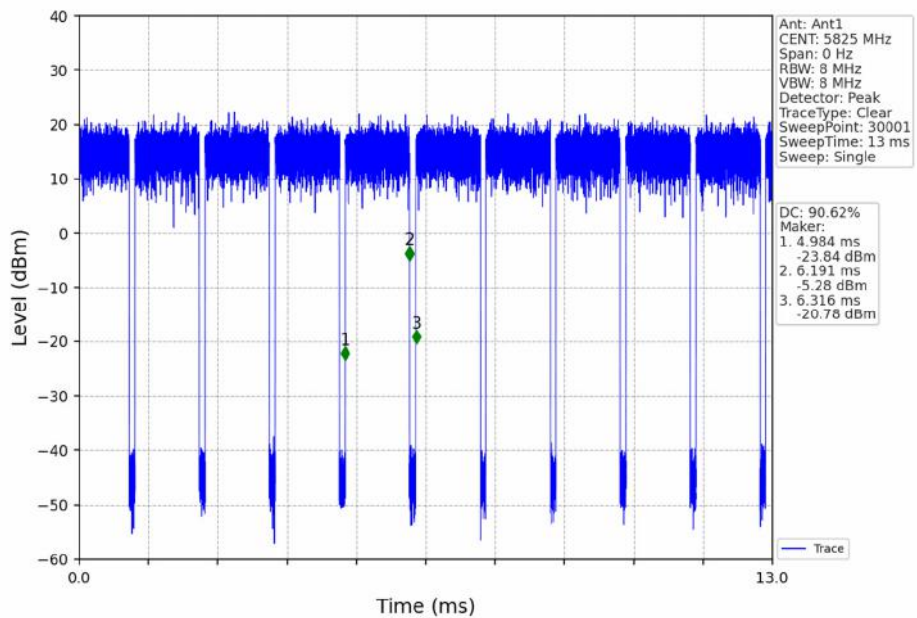




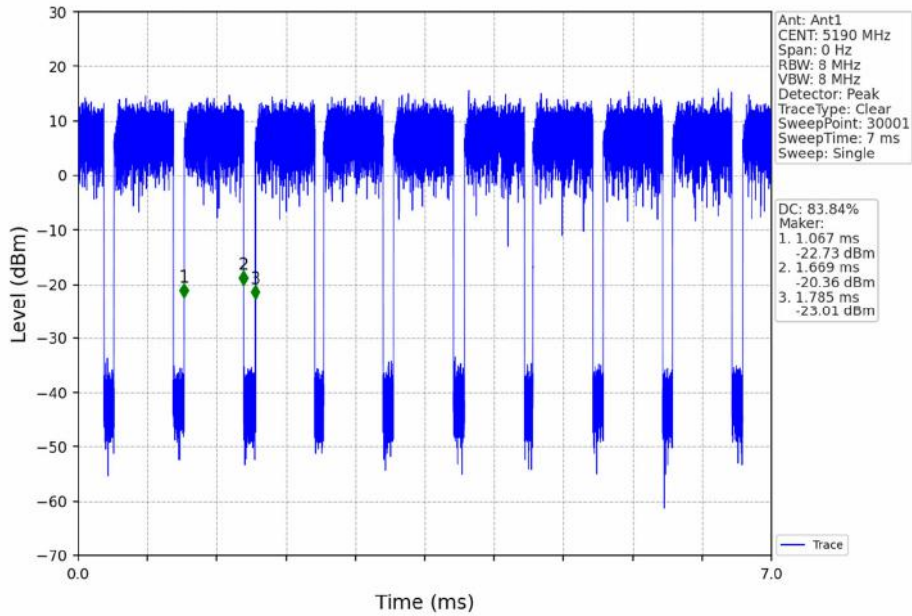
802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV



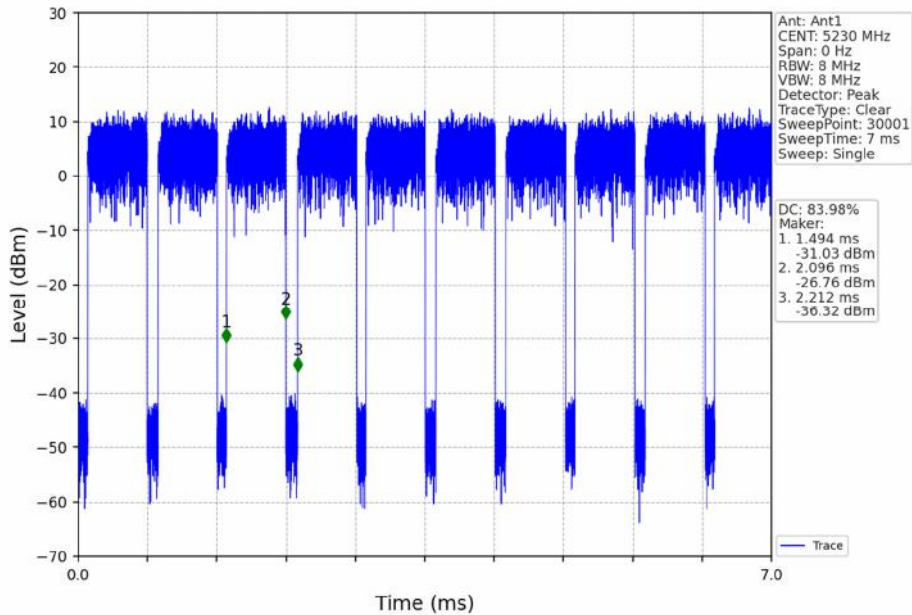
802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



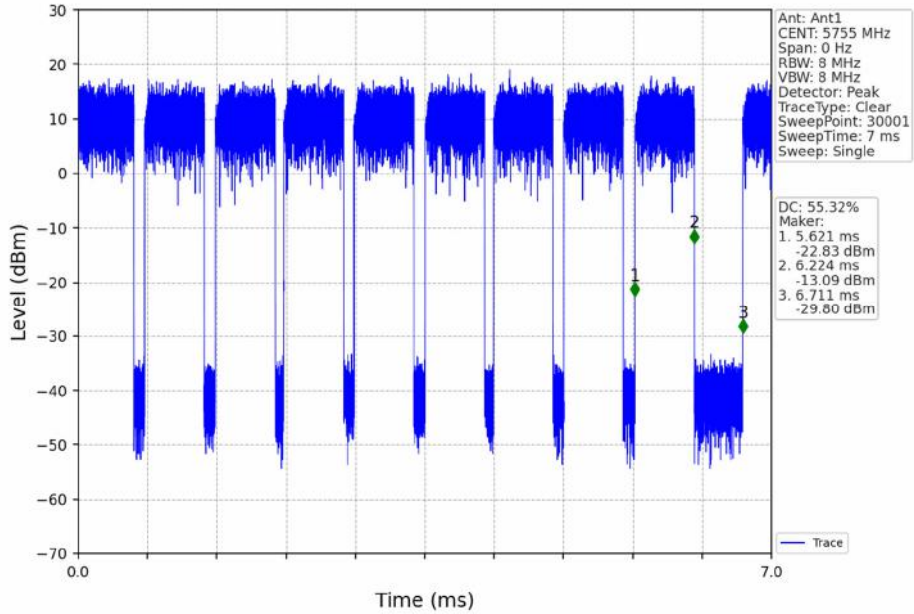
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



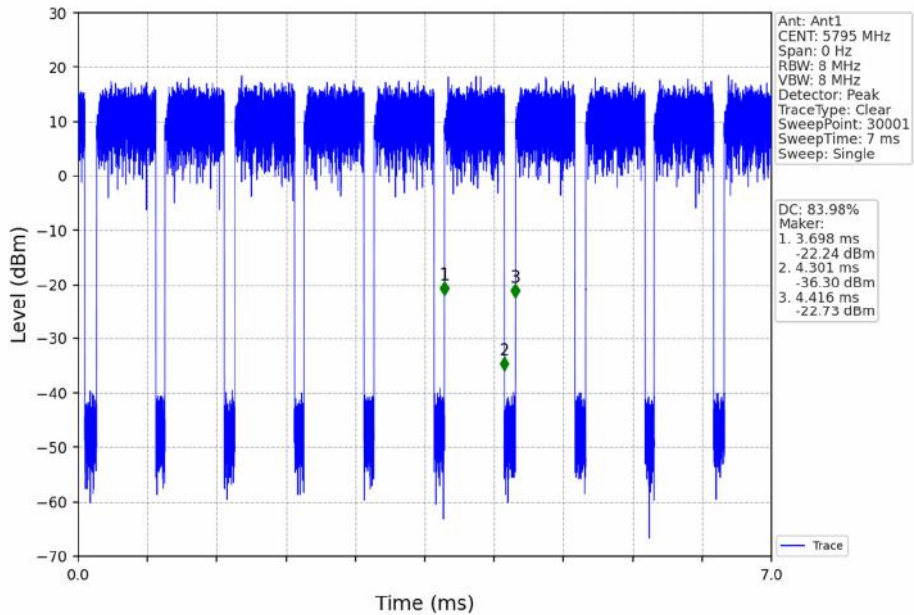
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



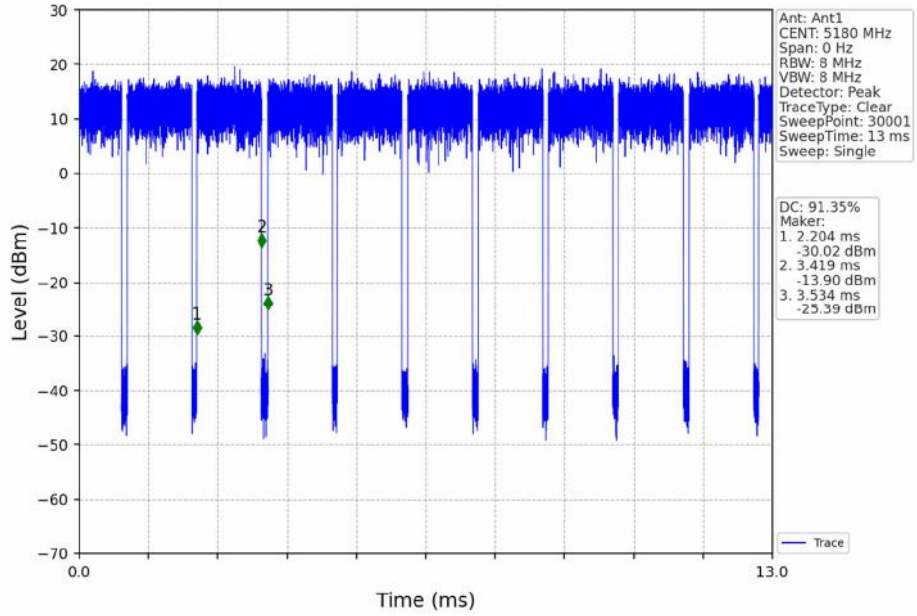
802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



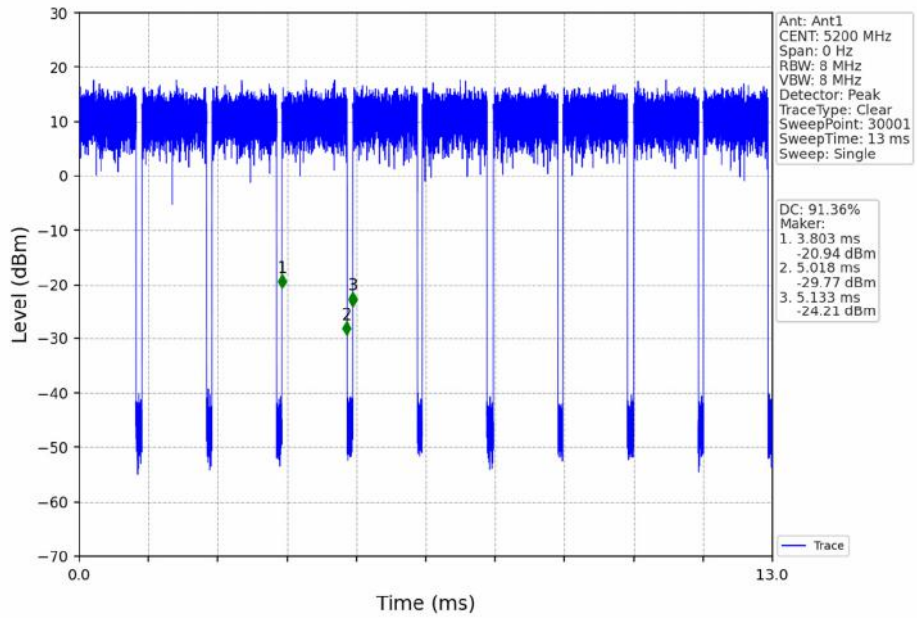
802.11n(HT40) HCH\_5795MHz\_Ant1\_NTNV



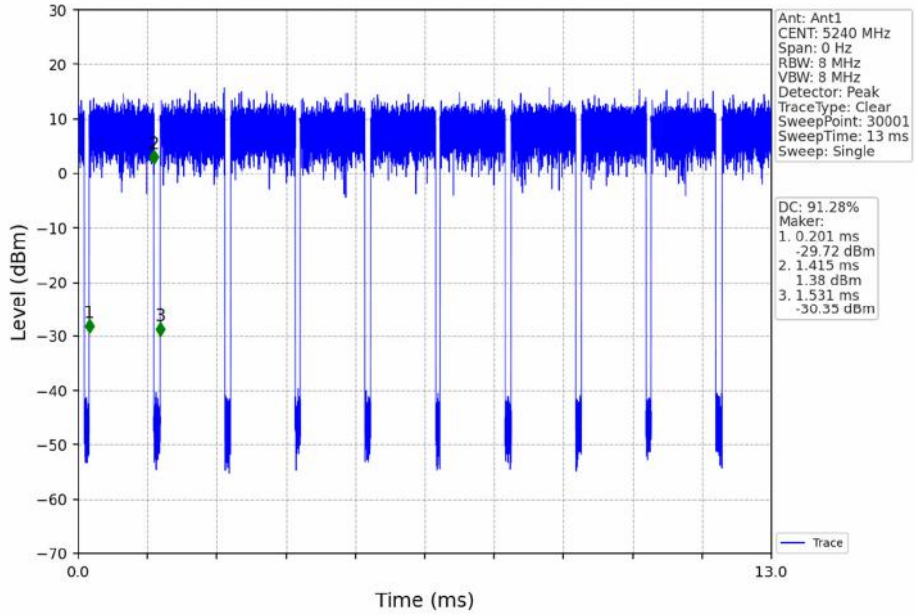
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



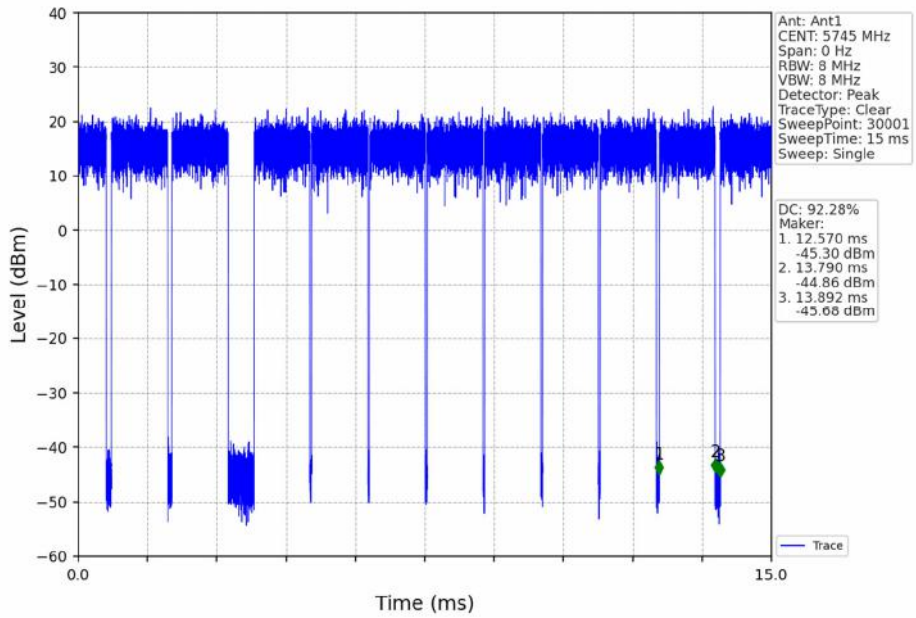
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



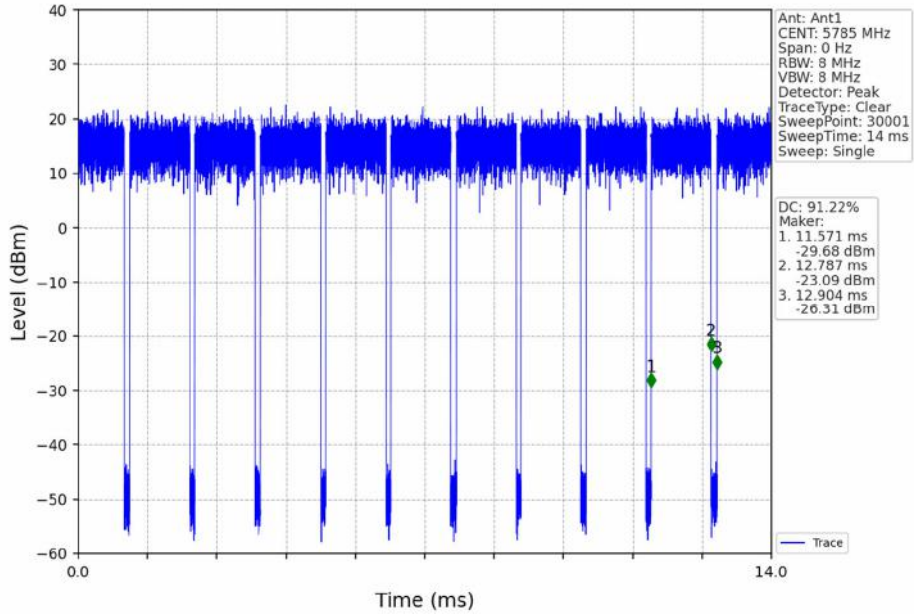
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



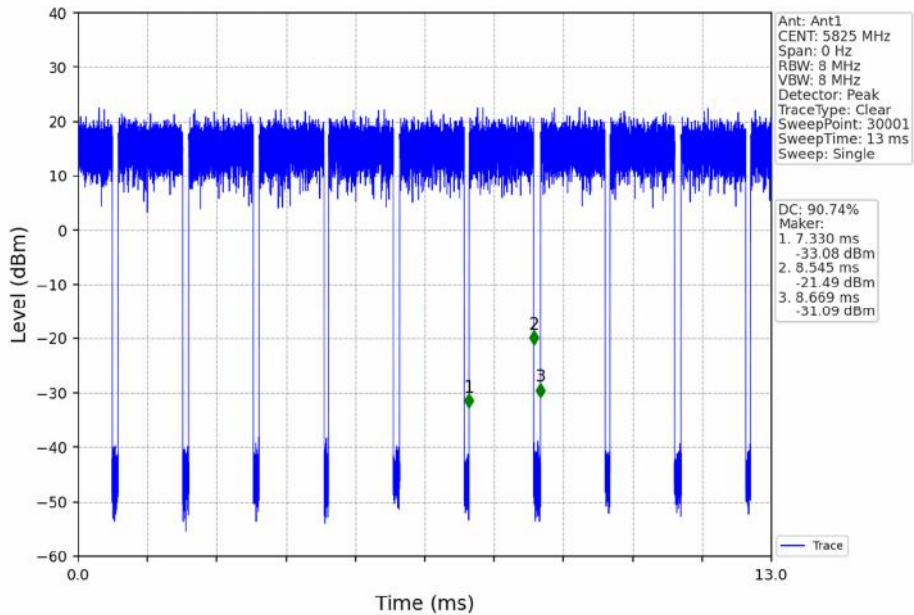
802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



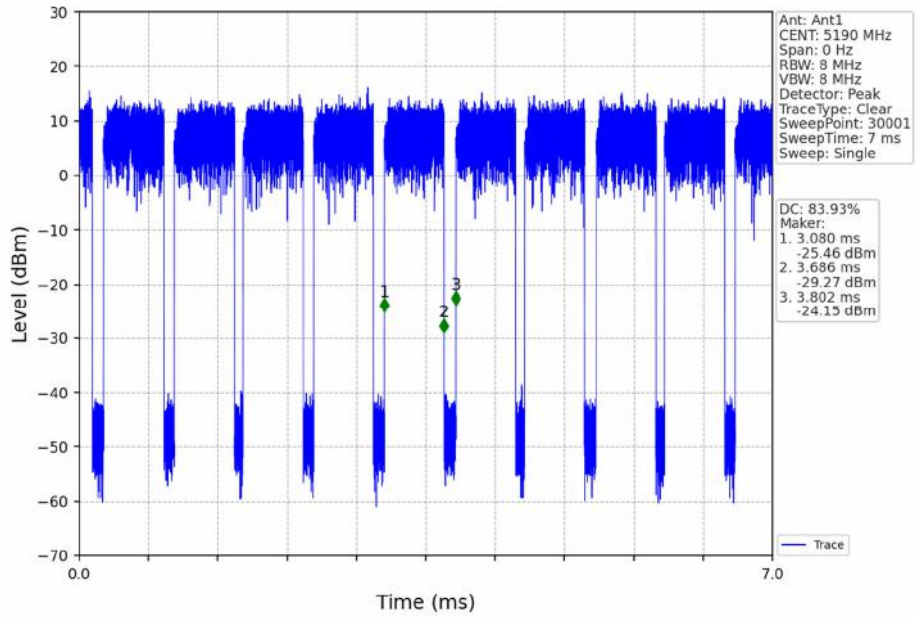
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



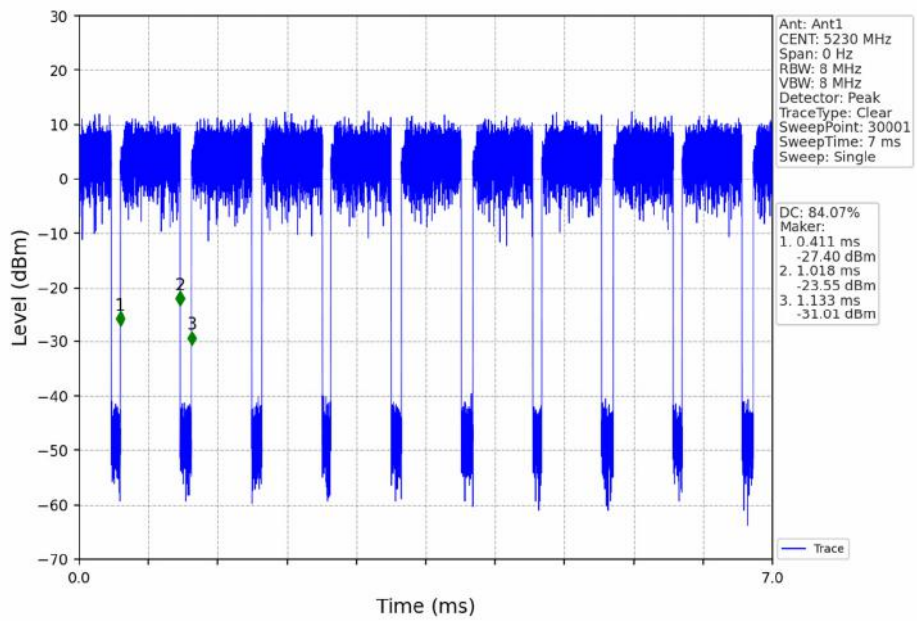
802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



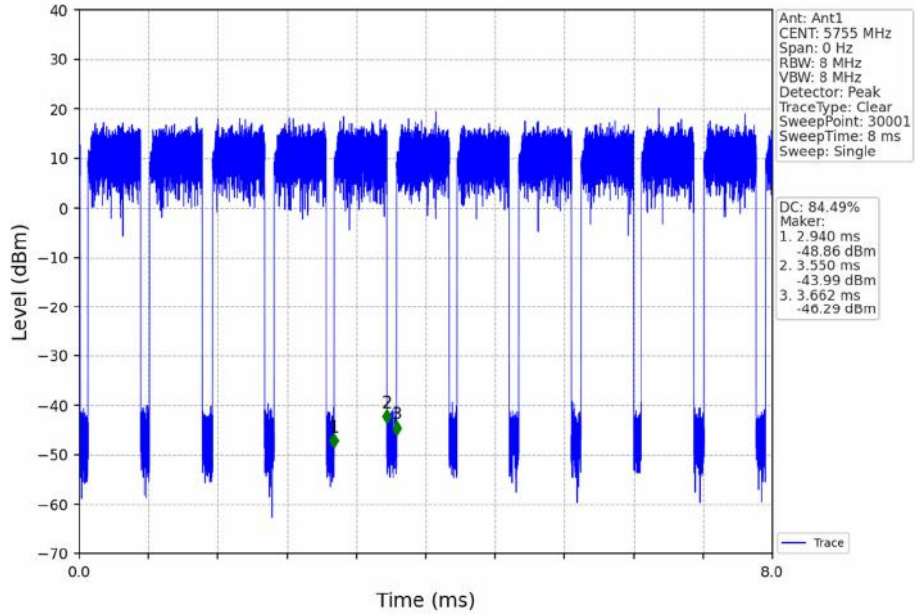
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



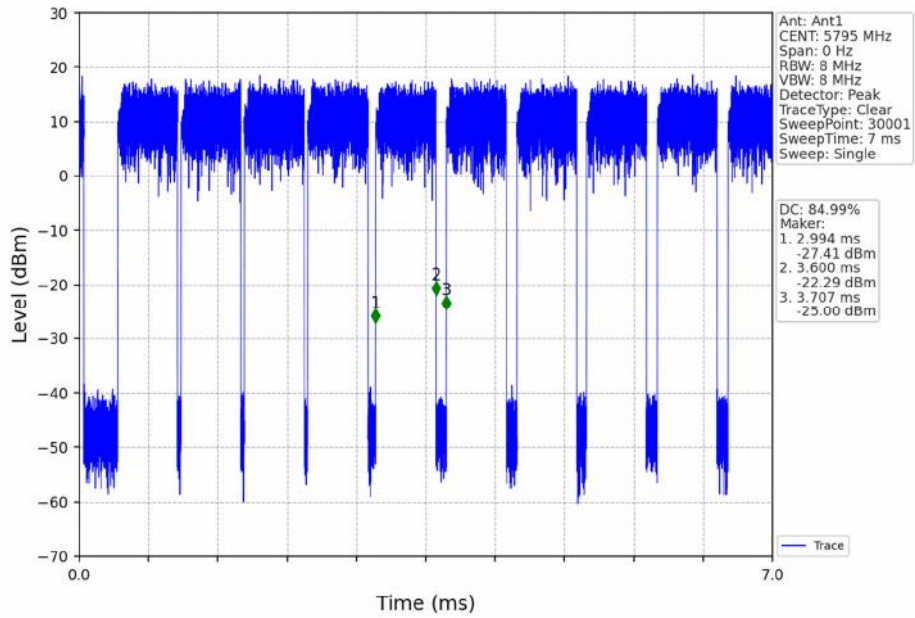
802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV

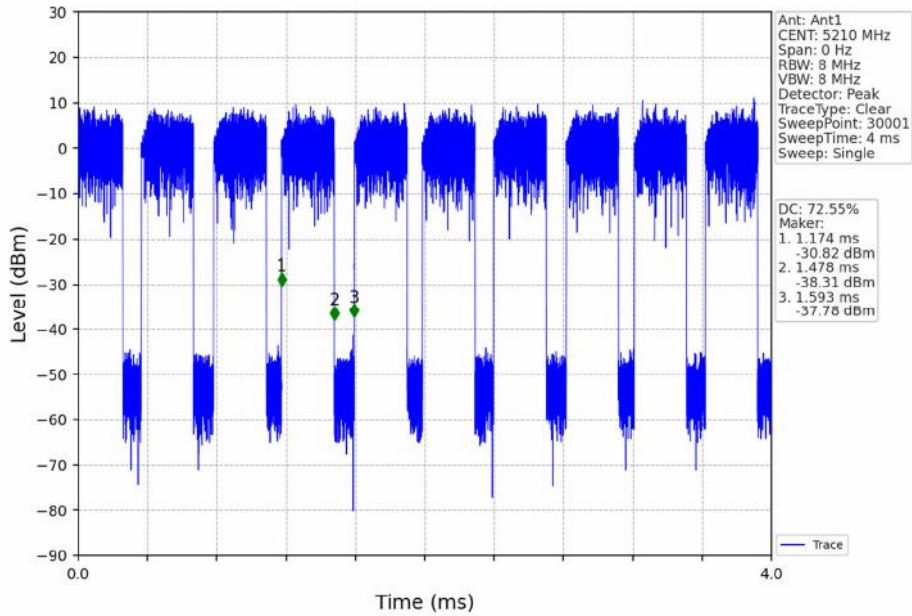


802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV

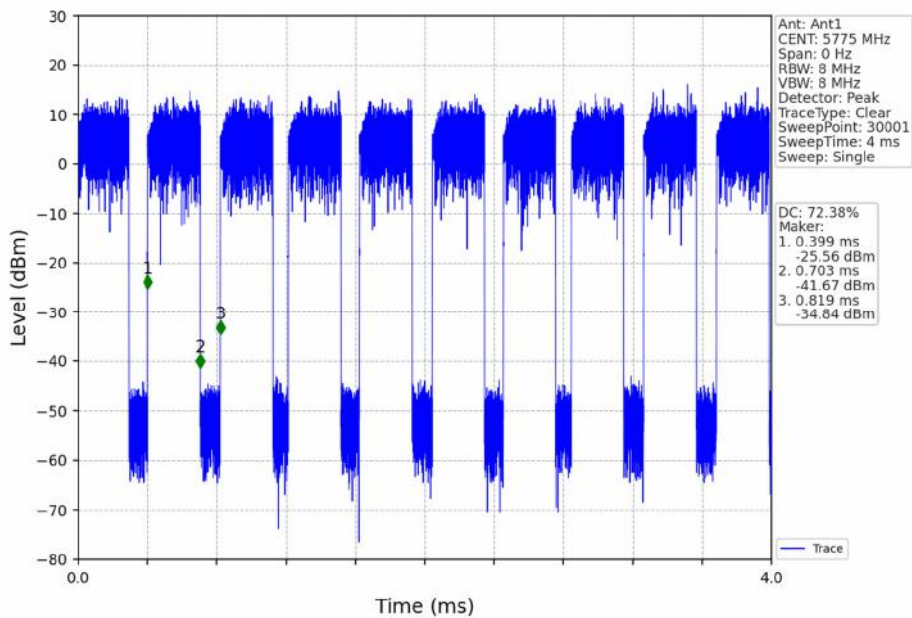




802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



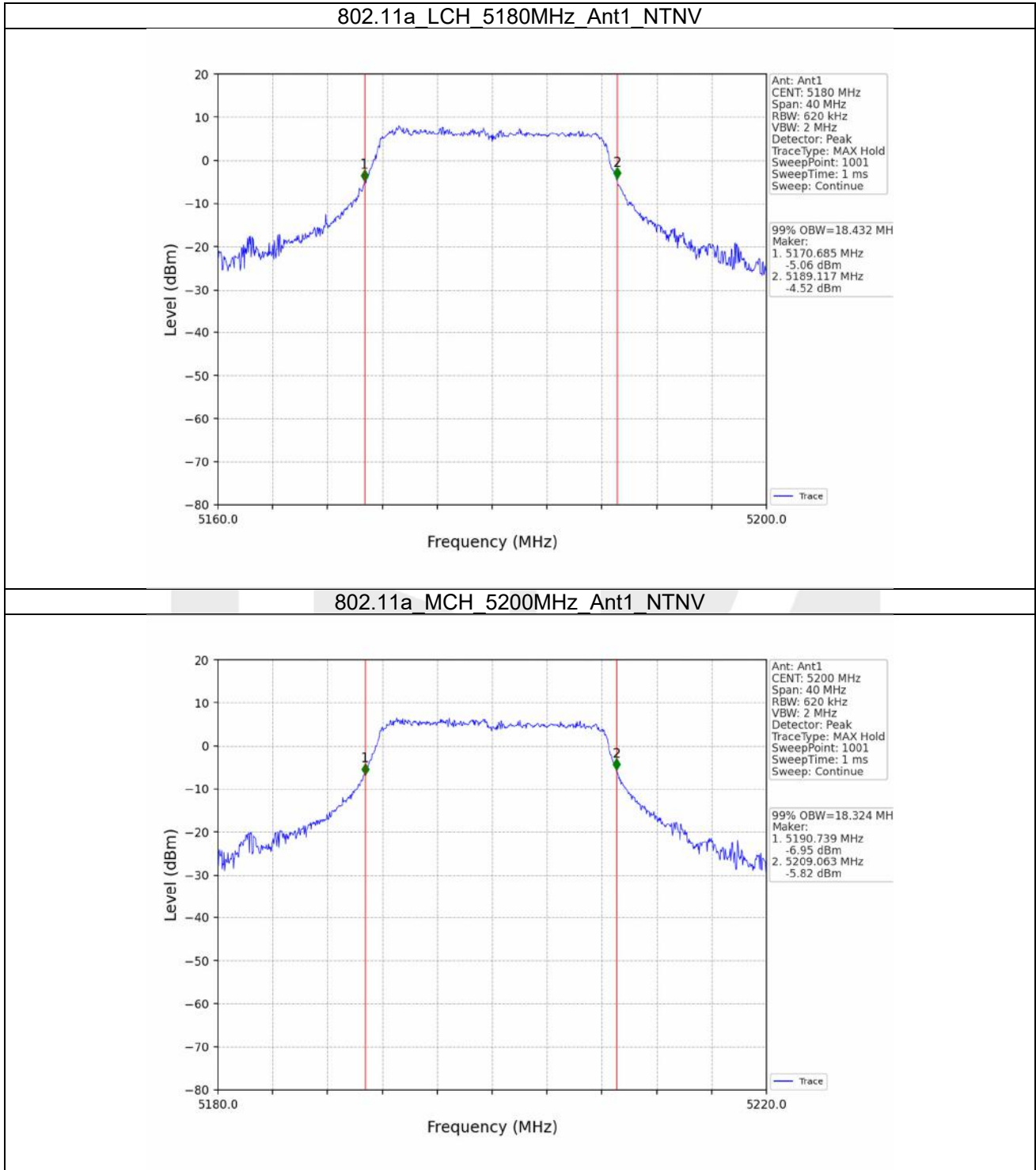
## 2. Bandwidth

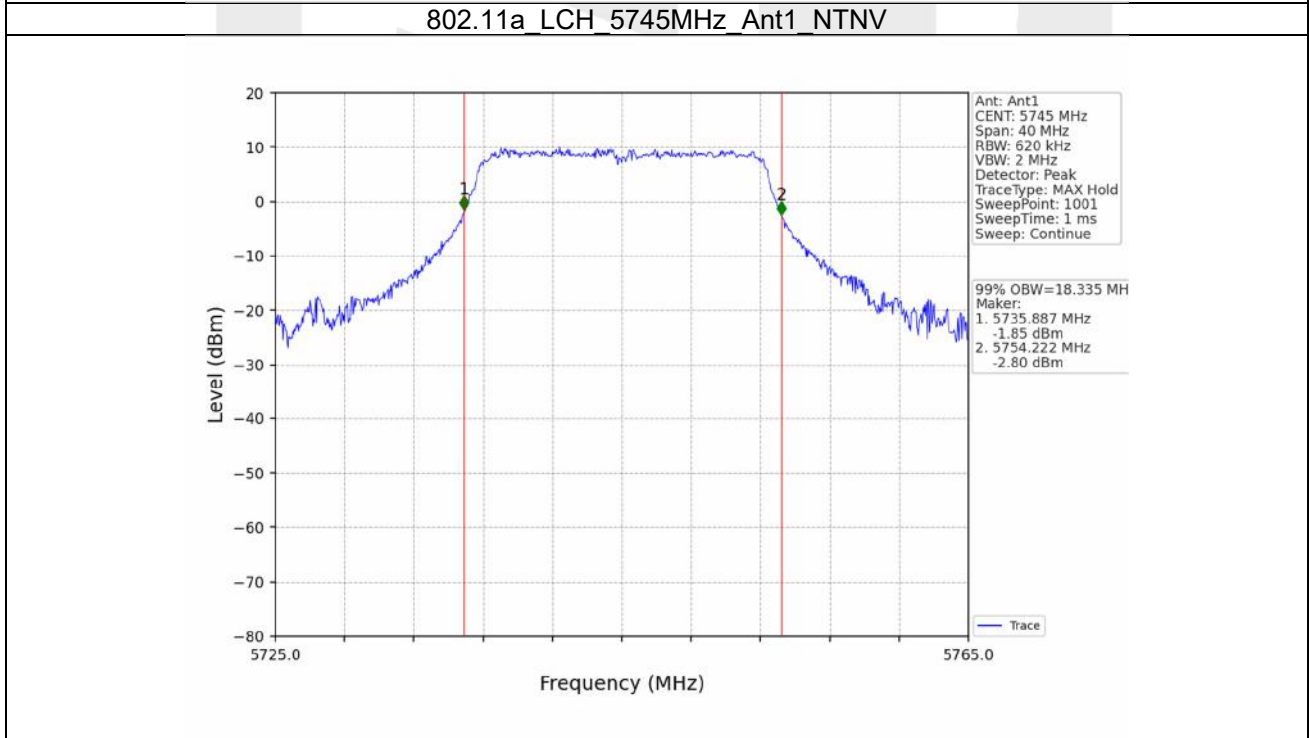
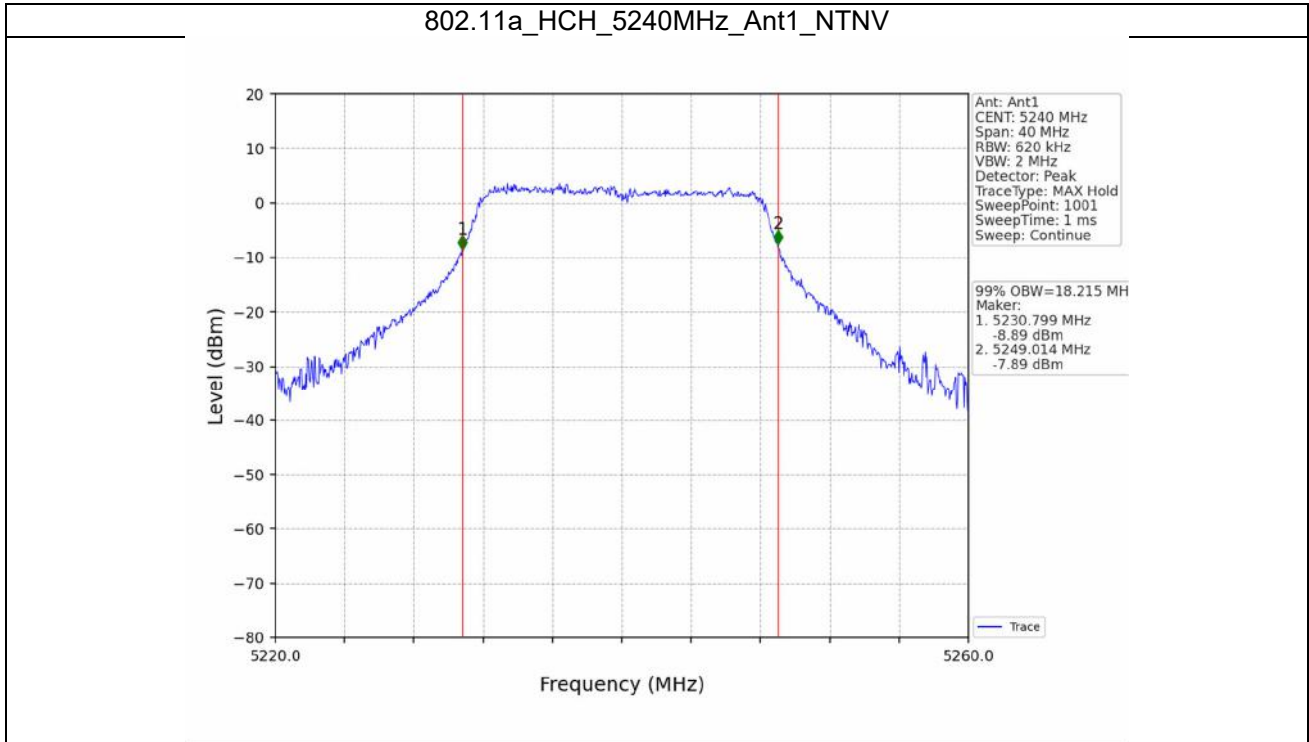
### 2.1 OBW

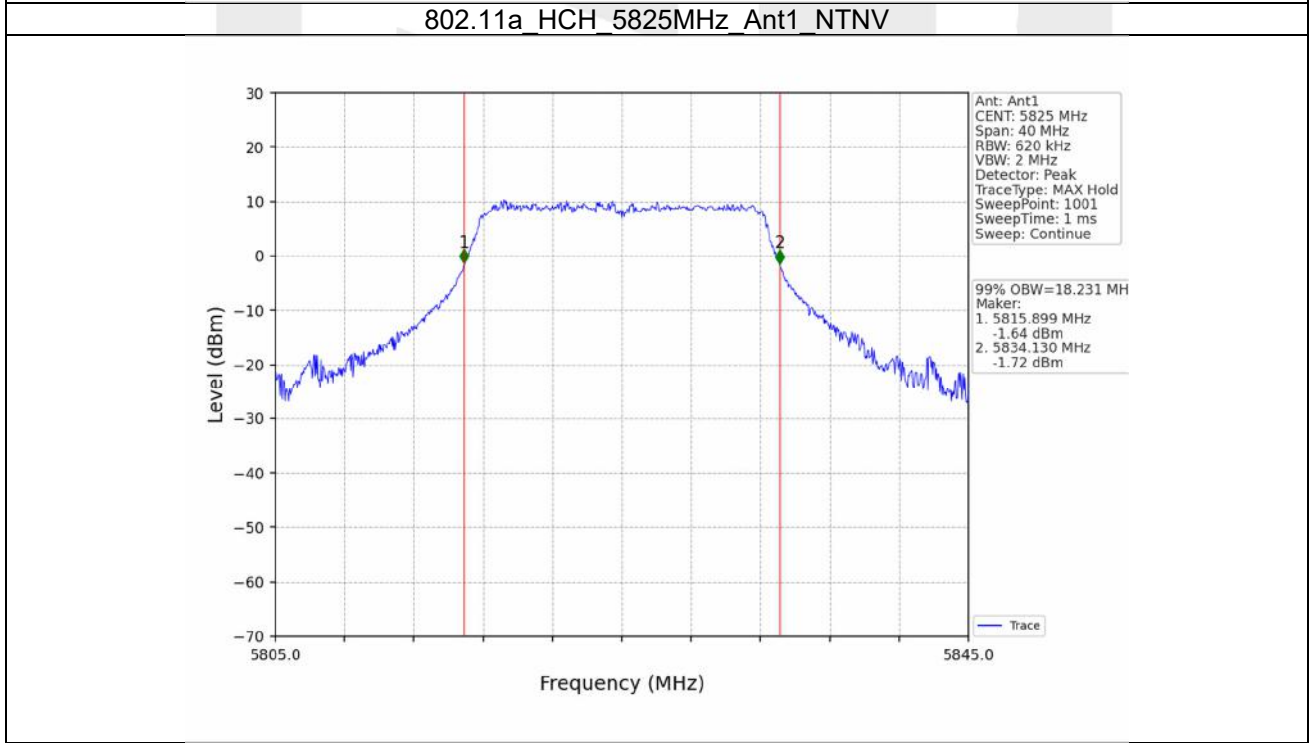
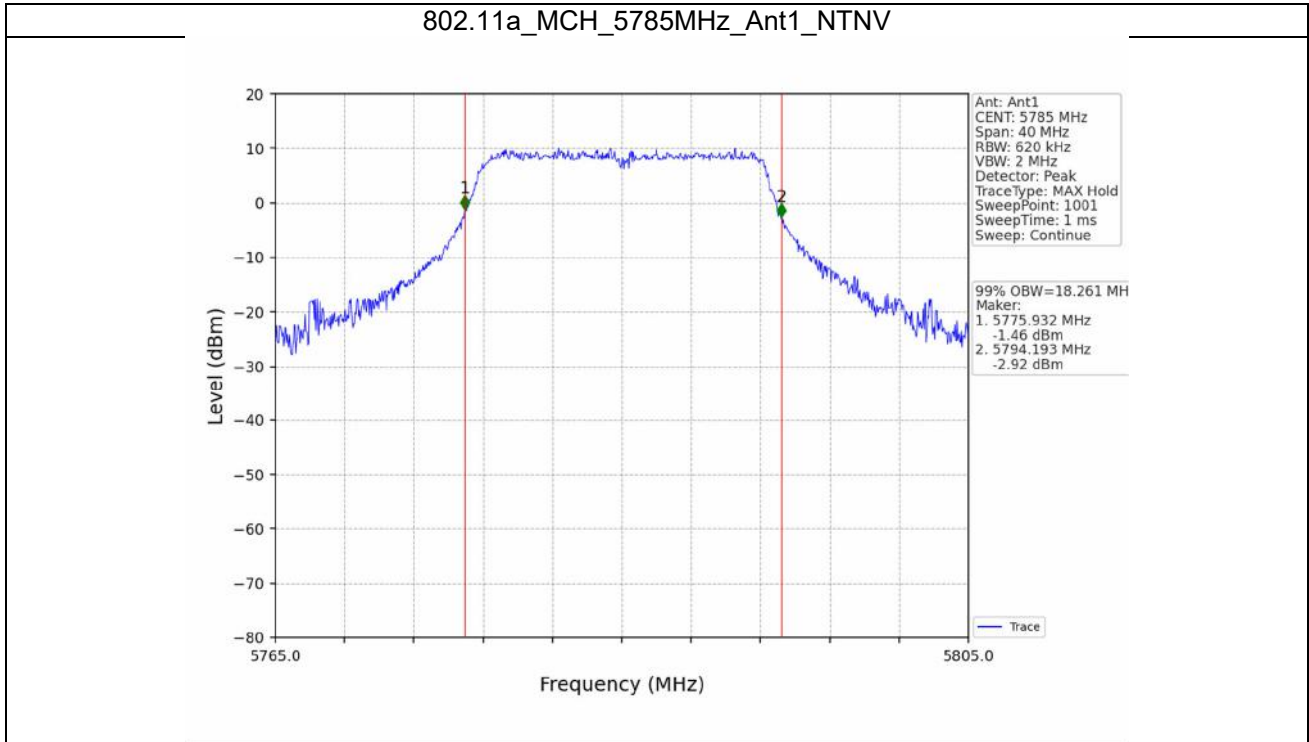
#### 2.1.1 Test Result

Mode	TX Type	Frequency (MHz)	ANT	99% Occupied Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	18.432	Pass
		5200	1	18.324	Pass
		5240	1	18.215	Pass
		5745	1	18.335	Pass
		5785	1	18.261	Pass
		5825	1	18.231	Pass
802.11n (HT20)	SISO	5180	1	19.619	Pass
		5200	1	19.502	Pass
		5240	1	19.290	Pass
		5745	1	19.390	Pass
		5785	1	19.496	Pass
		5825	1	19.292	Pass
802.11n (HT40)	SISO	5190	1	38.345	Pass
		5230	1	38.180	Pass
		5755	1	38.207	Pass
		5795	1	38.257	Pass
802.11ac (VHT20)	SISO	5180	1	19.507	Pass
		5200	1	19.473	Pass
		5240	1	19.282	Pass
		5745	1	19.495	Pass
		5785	1	19.454	Pass
		5825	1	19.430	Pass
802.11ac (VHT40)	SISO	5190	1	38.462	Pass
		5230	1	38.129	Pass
		5755	1	38.433	Pass
		5795	1	38.159	Pass
802.11ac (VHT80)	SISO	5210	1	77.660	Pass
		5775	1	77.570	Pass

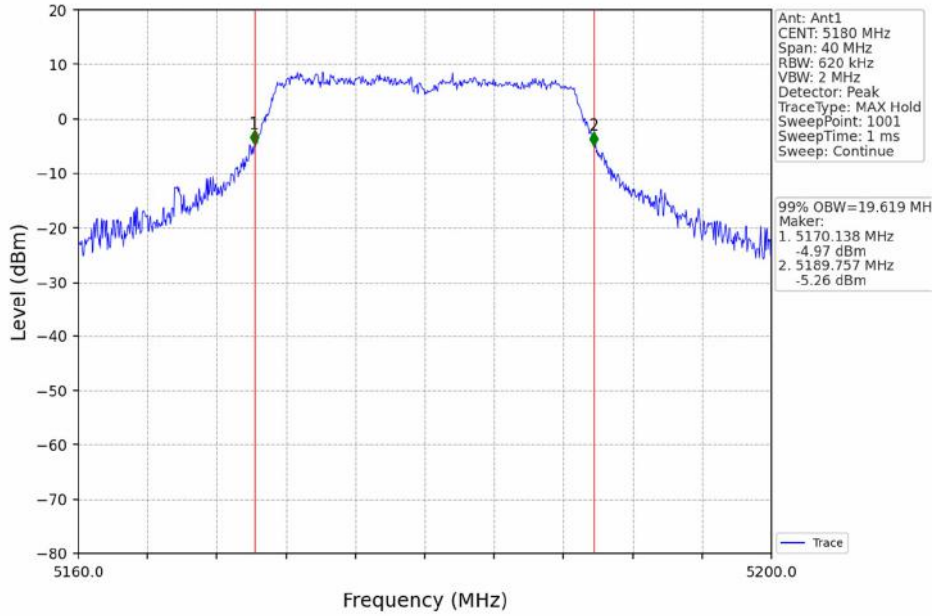
2.1.2 Test Graph



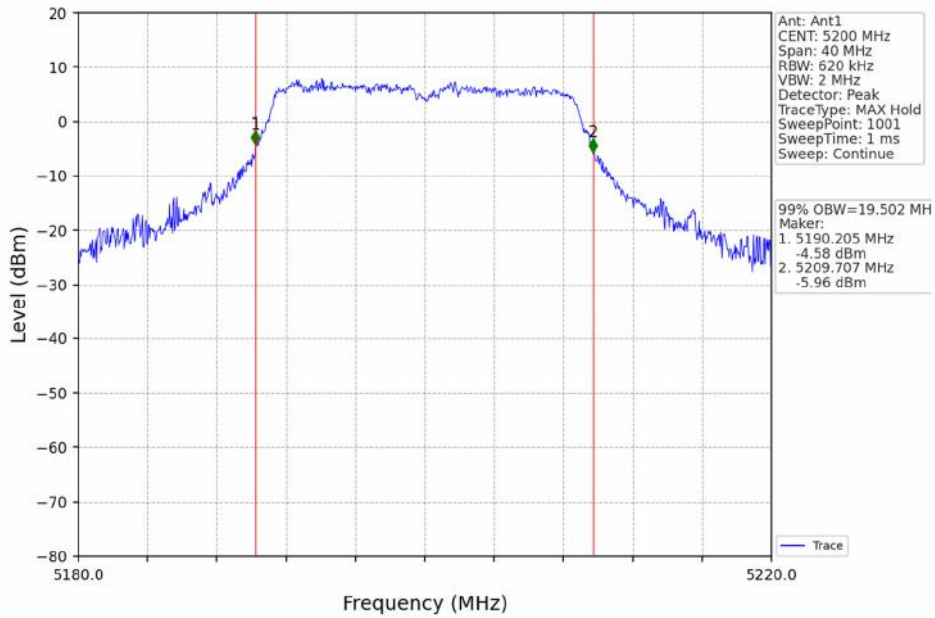




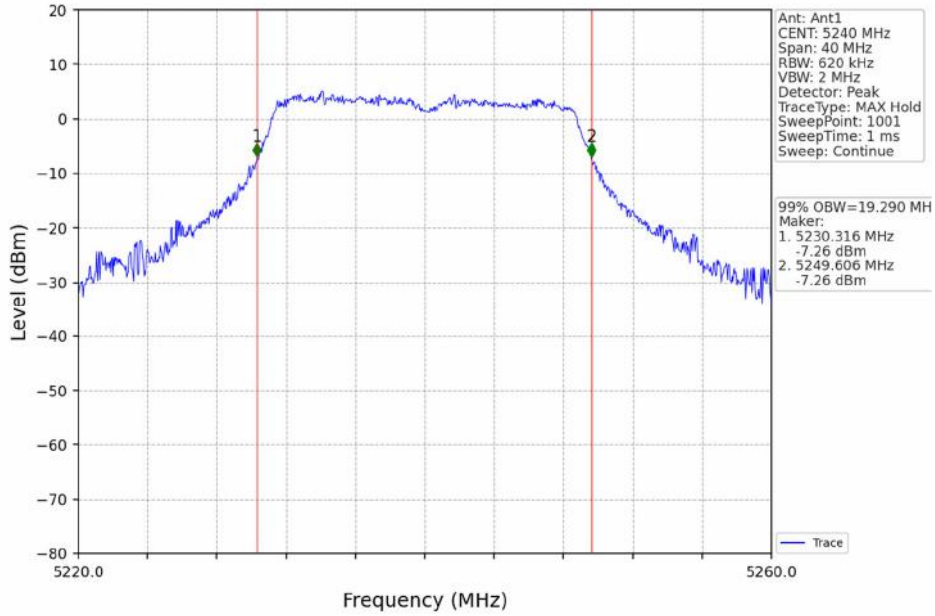
802.11n(HT20)\_LCH\_5180MHz\_Ant1\_NTNV



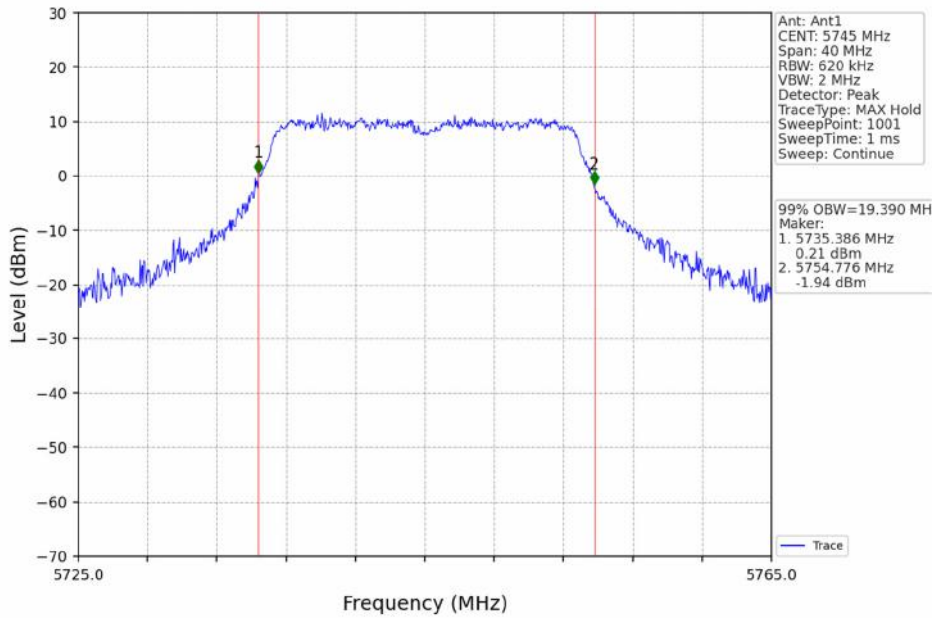
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



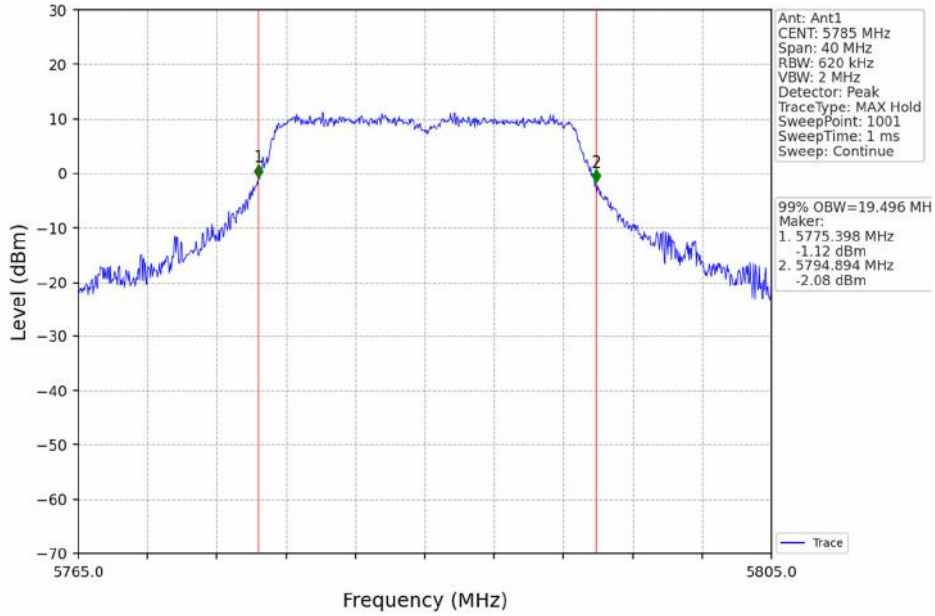
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



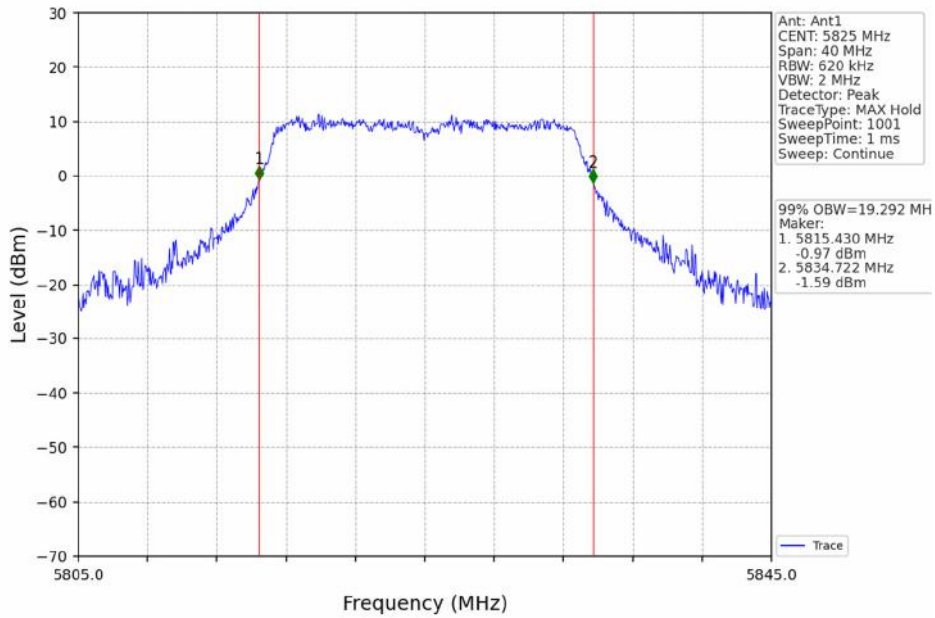
802.11n(HT20)\_LCH\_5745MHz\_Ant1\_NTNV



802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV

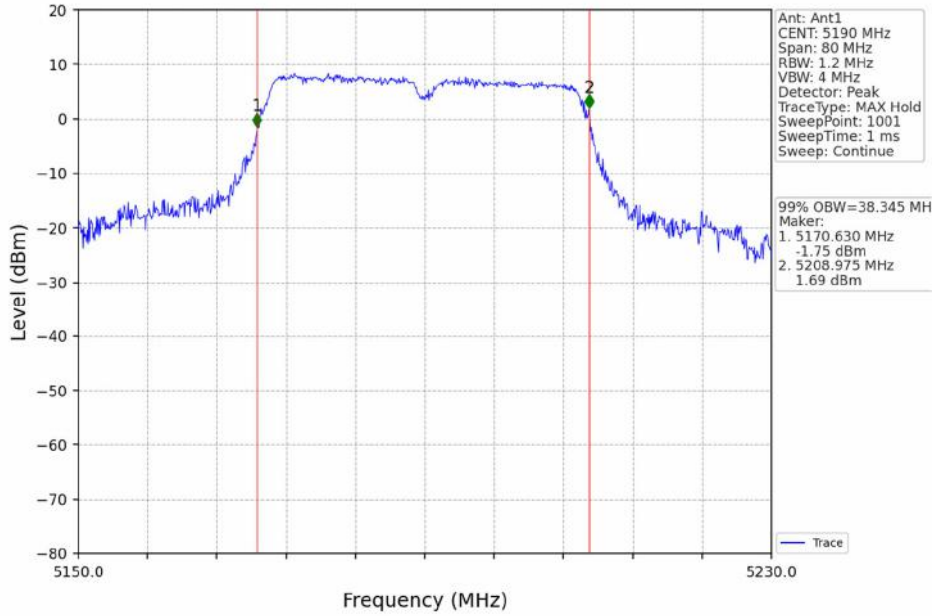


802.11n(HT20) HCH\_5825MHz\_Ant1\_NTNV

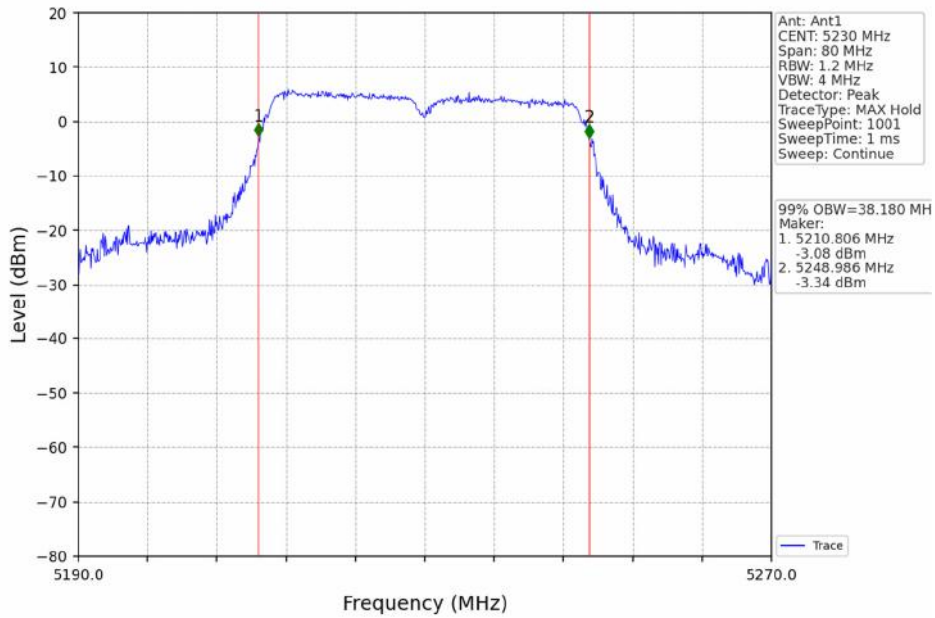




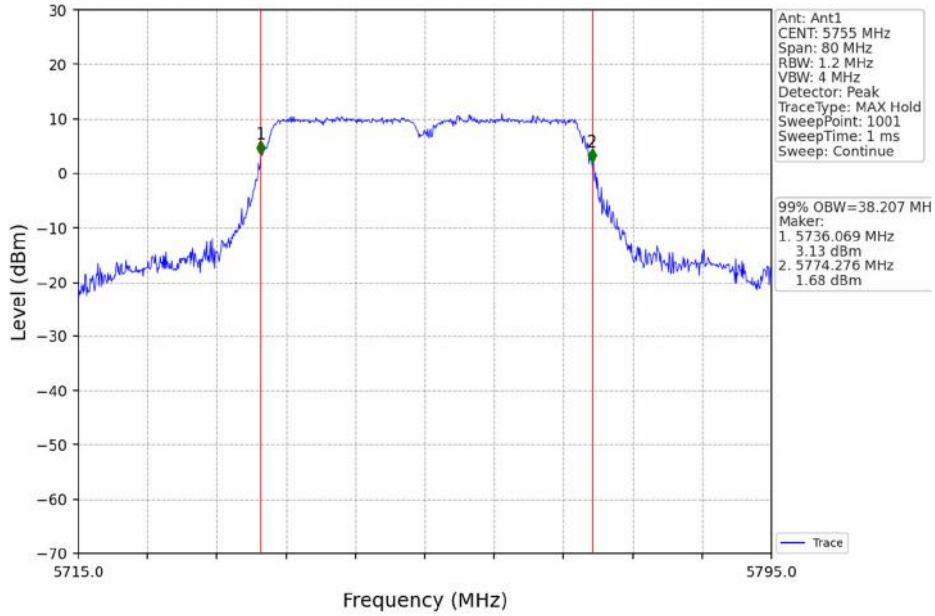
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



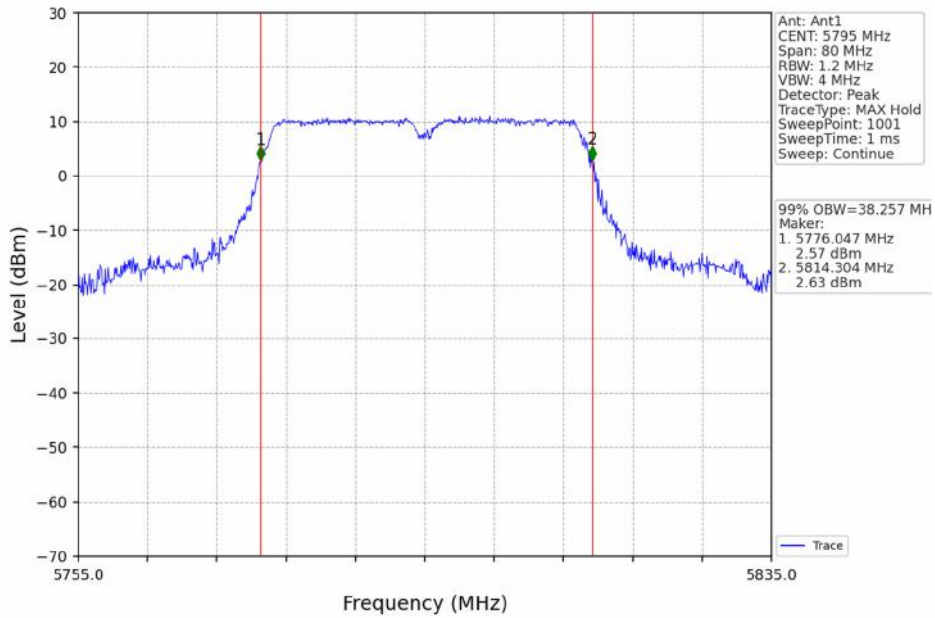
802.11n(HT40) HCH\_5230MHz\_Ant1\_NTNV



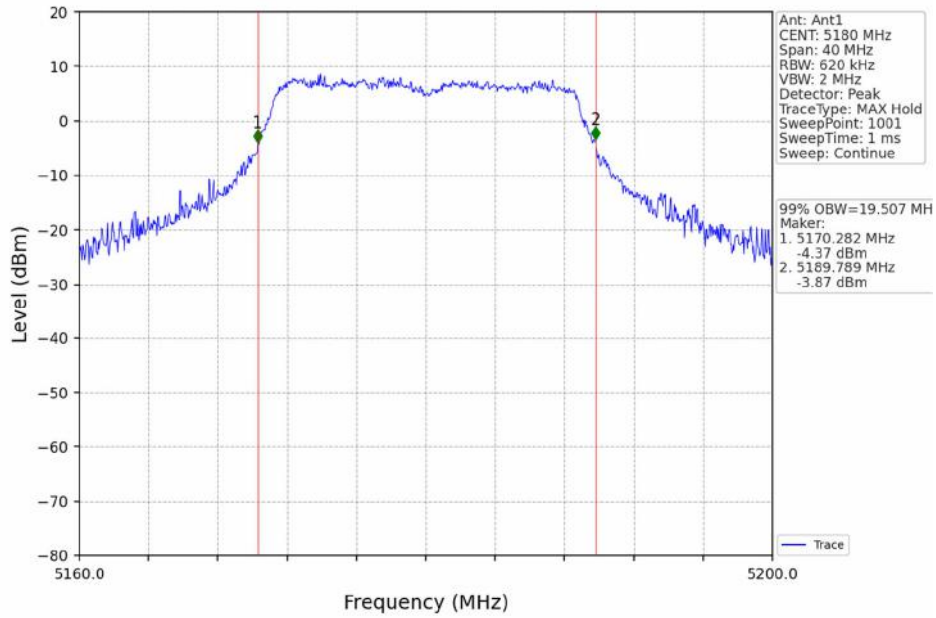
802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



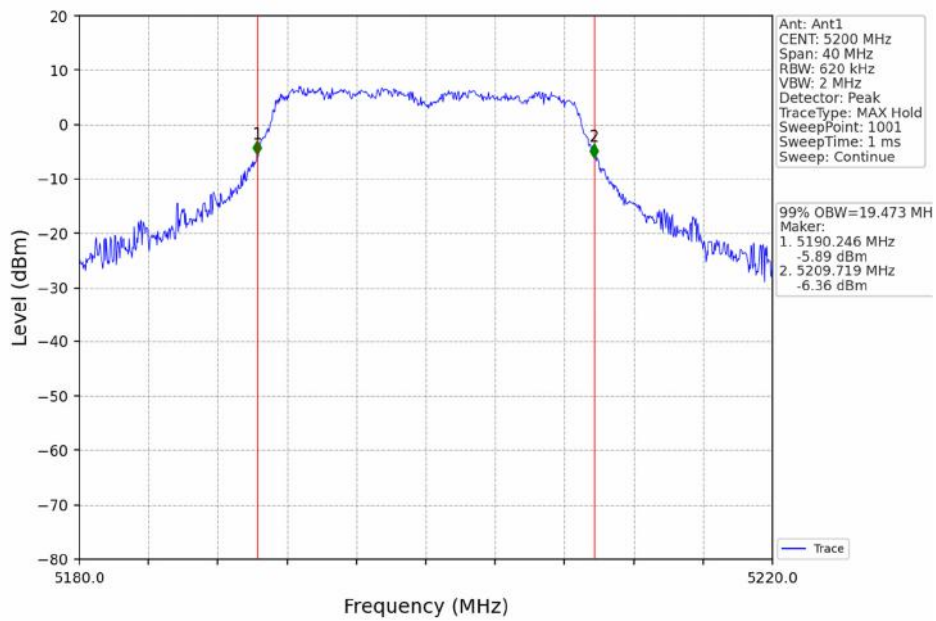
802.11n(HT40) HCH\_5795MHz\_Ant1\_NTNV



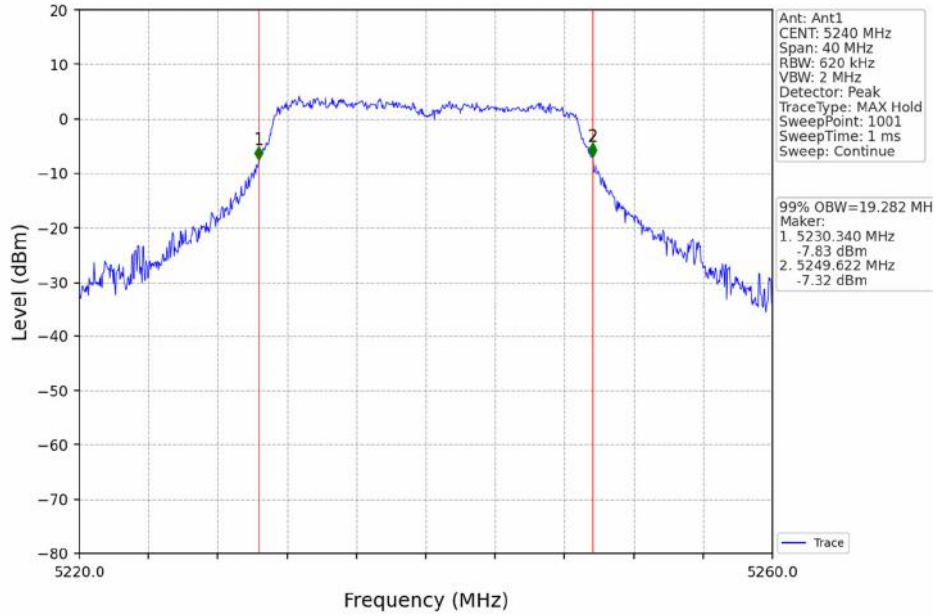
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



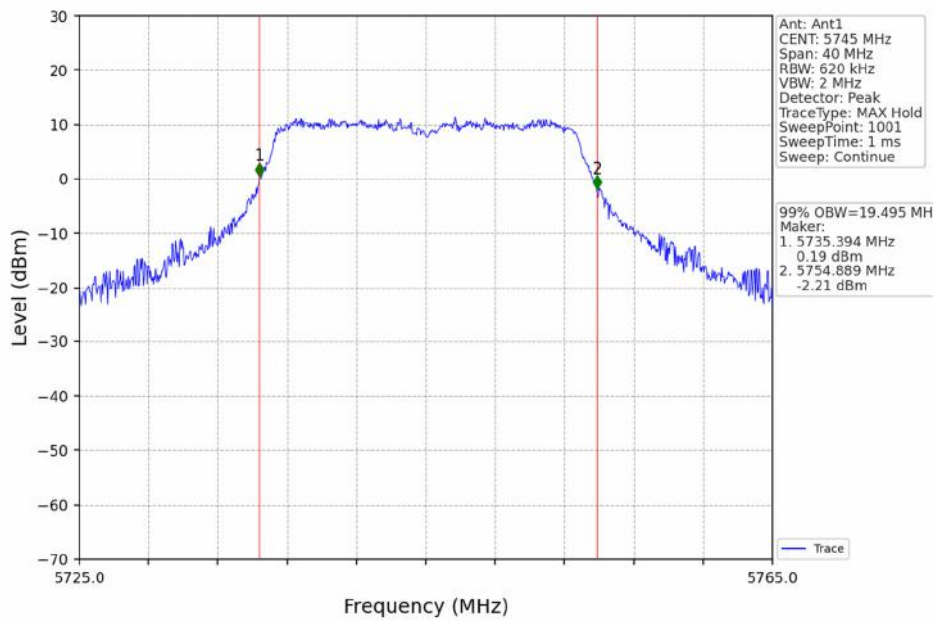
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



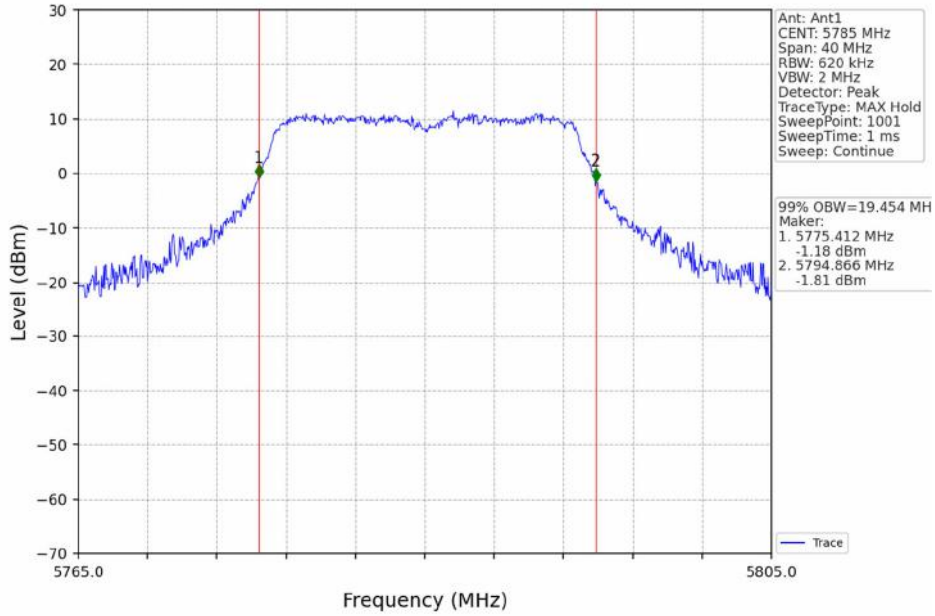
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



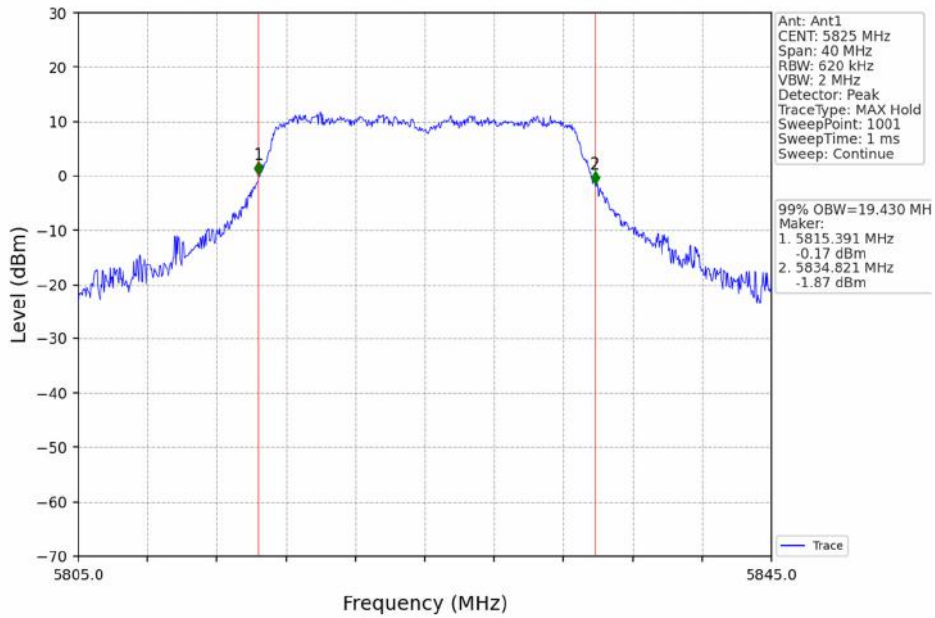
802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV

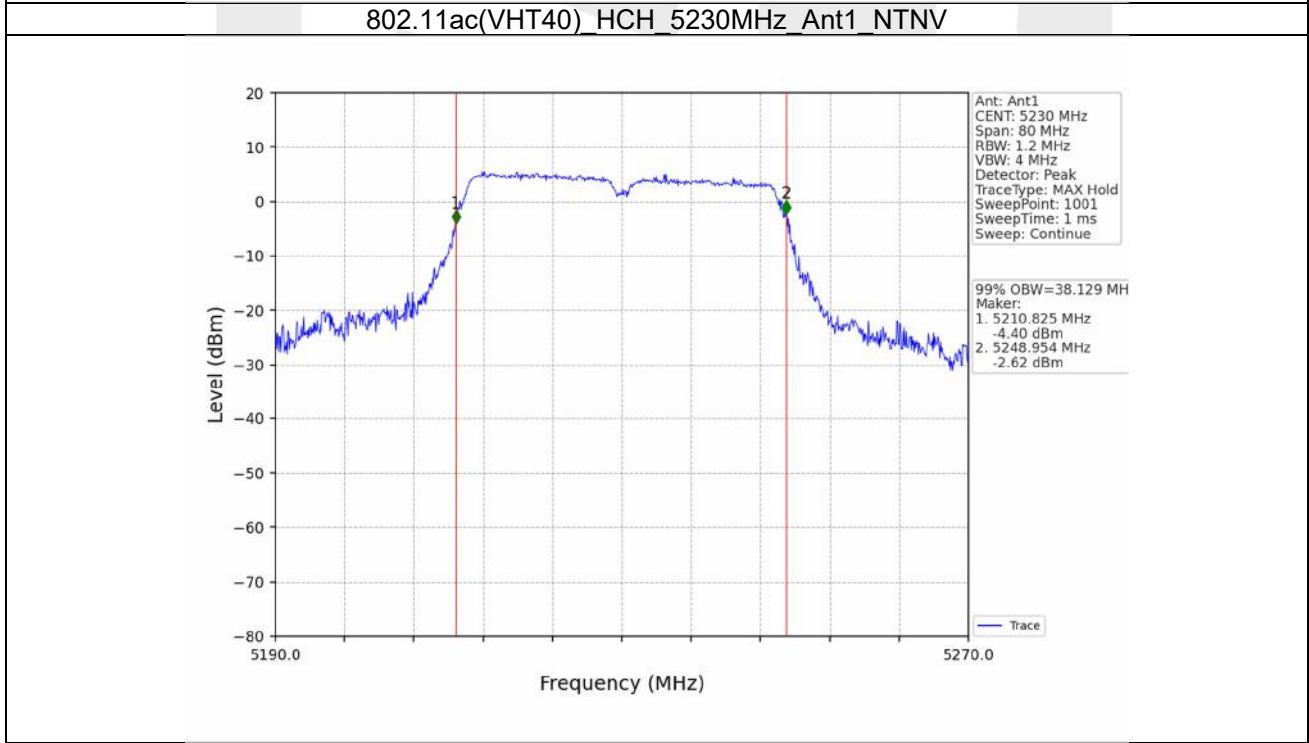
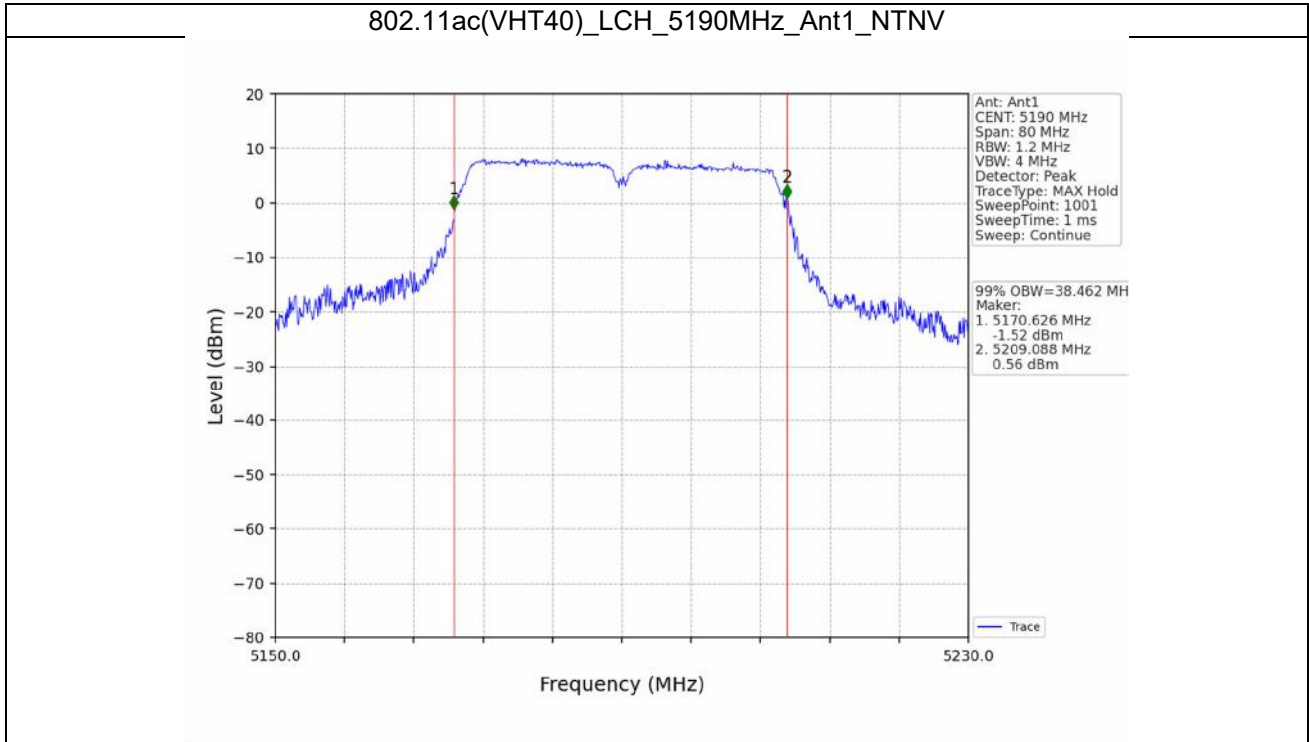


802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV

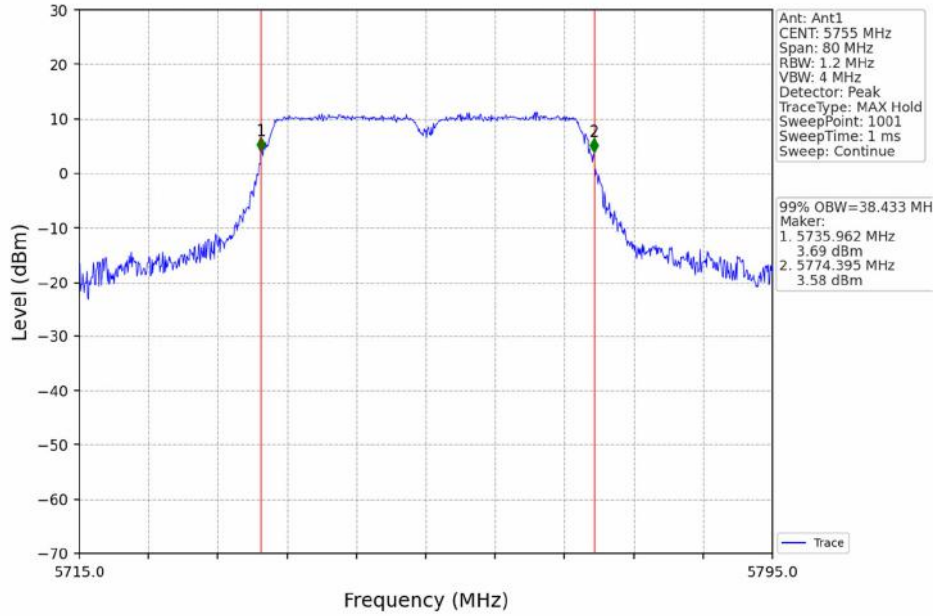


802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV

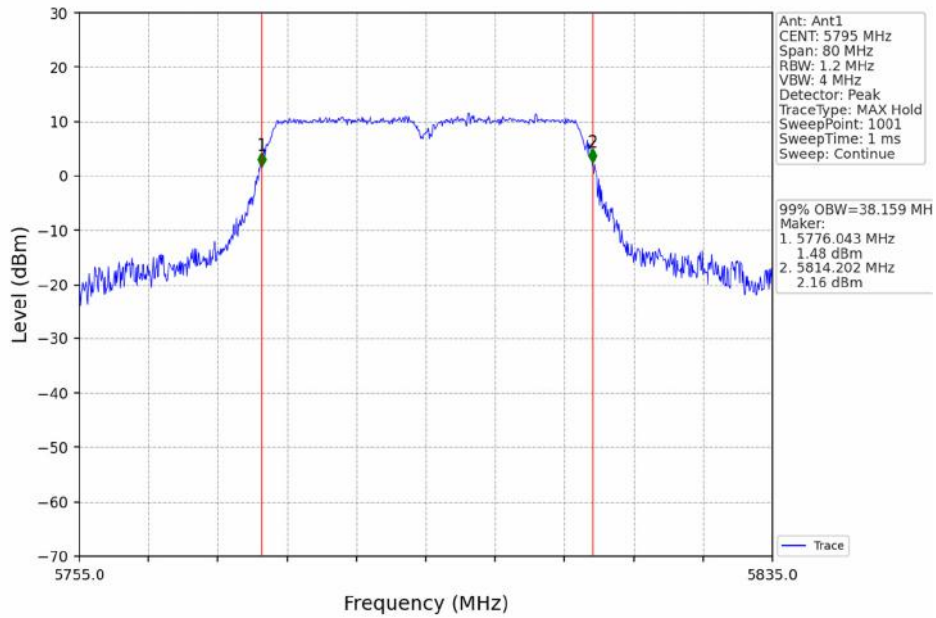




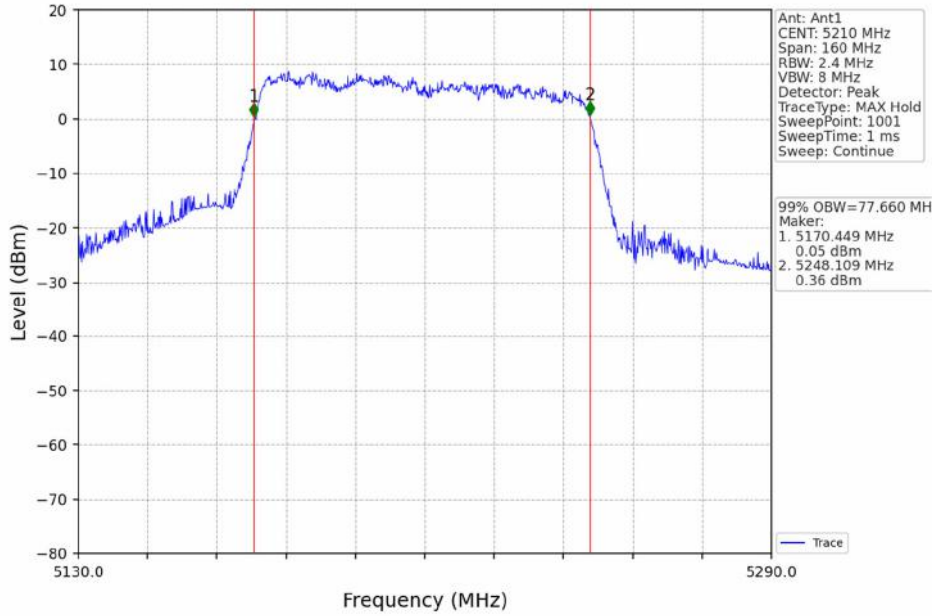
802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



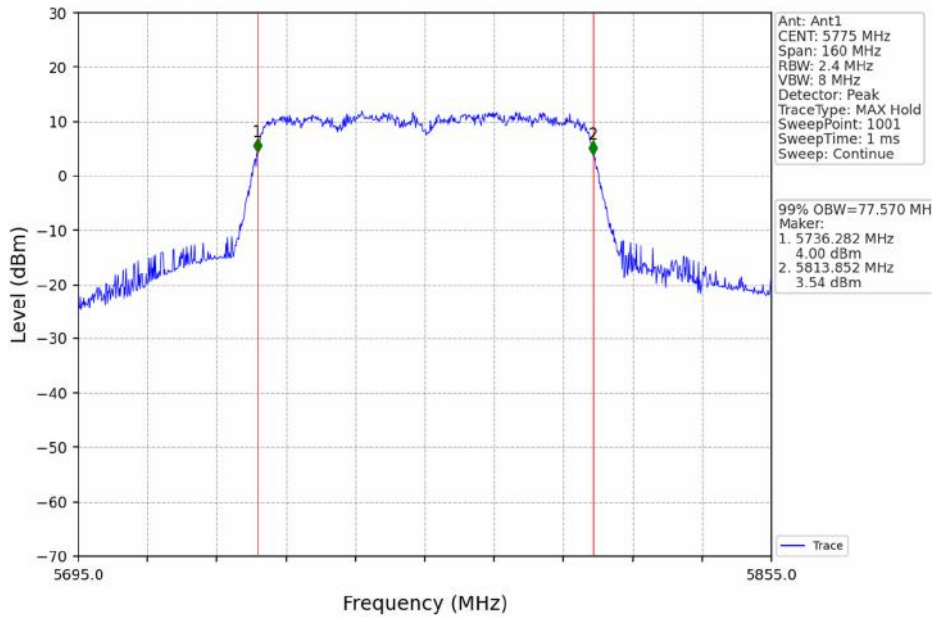
802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



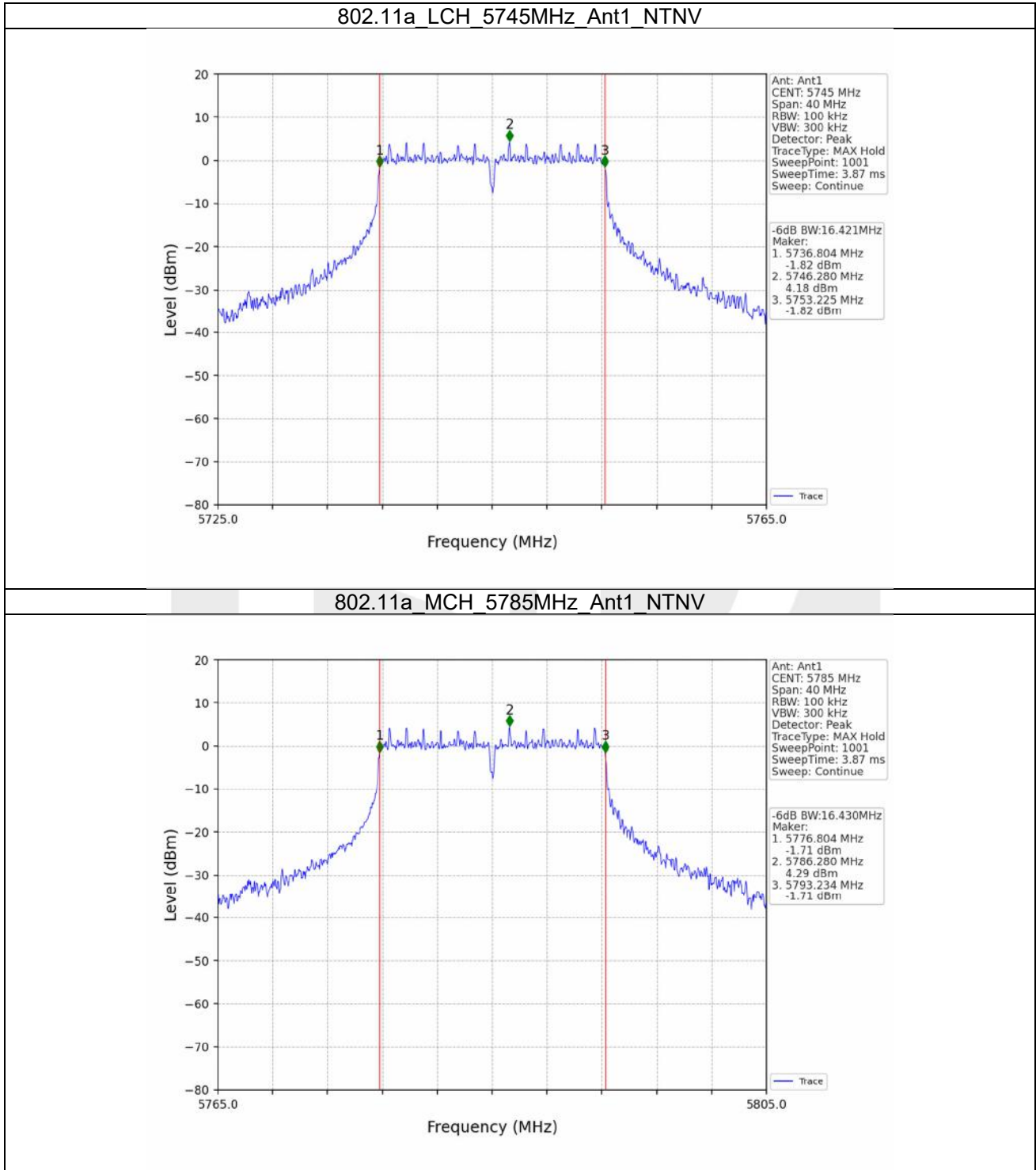


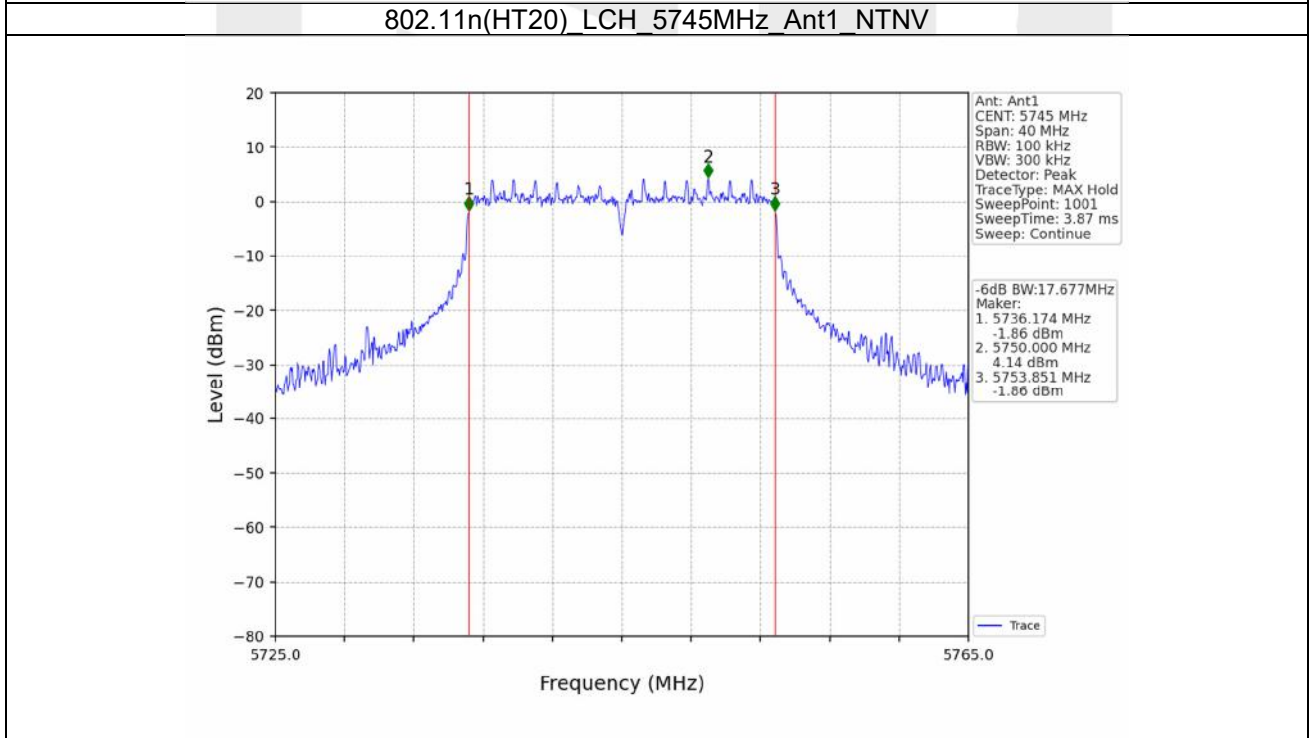
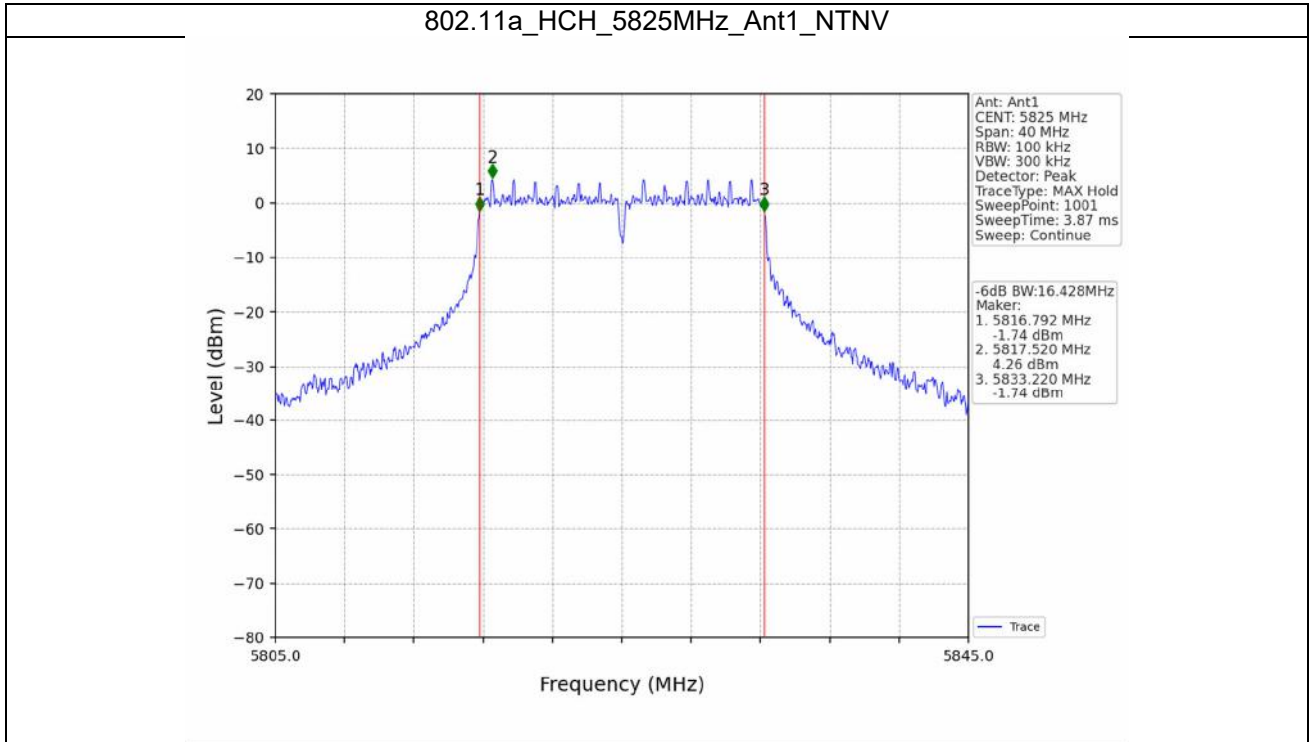
## 2.2 6dB BW

### 2.2.1 Test Result

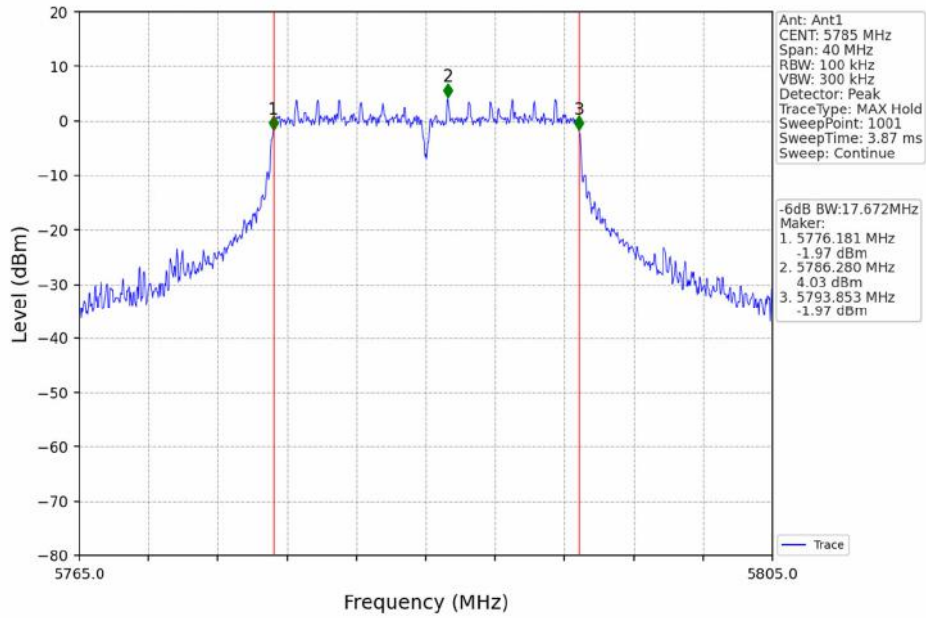
Mode	TX Type	Frequency (MHz)	ANT	6dB Bandwidth (MHz)		Verdict
				Result	Limit	
802.11a	SISO	5745	1	16.421	$\geq 0.5$	Pass
		5785	1	16.430	$\geq 0.5$	Pass
		5825	1	16.428	$\geq 0.5$	Pass
802.11n (HT20)	SISO	5745	1	17.677	$\geq 0.5$	Pass
		5785	1	17.672	$\geq 0.5$	Pass
		5825	1	17.690	$\geq 0.5$	Pass
802.11n (HT40)	SISO	5755	1	36.512	$\geq 0.5$	Pass
		5795	1	36.512	$\geq 0.5$	Pass
802.11ac (VHT20)	SISO	5745	1	17.668	$\geq 0.5$	Pass
		5785	1	17.659	$\geq 0.5$	Pass
		5825	1	17.675	$\geq 0.5$	Pass
802.11ac (VHT40)	SISO	5755	1	36.509	$\geq 0.5$	Pass
		5795	1	36.523	$\geq 0.5$	Pass
802.11ac (VHT80)	SISO	5775	1	76.500	$\geq 0.5$	Pass

2.2.2 Test Graph

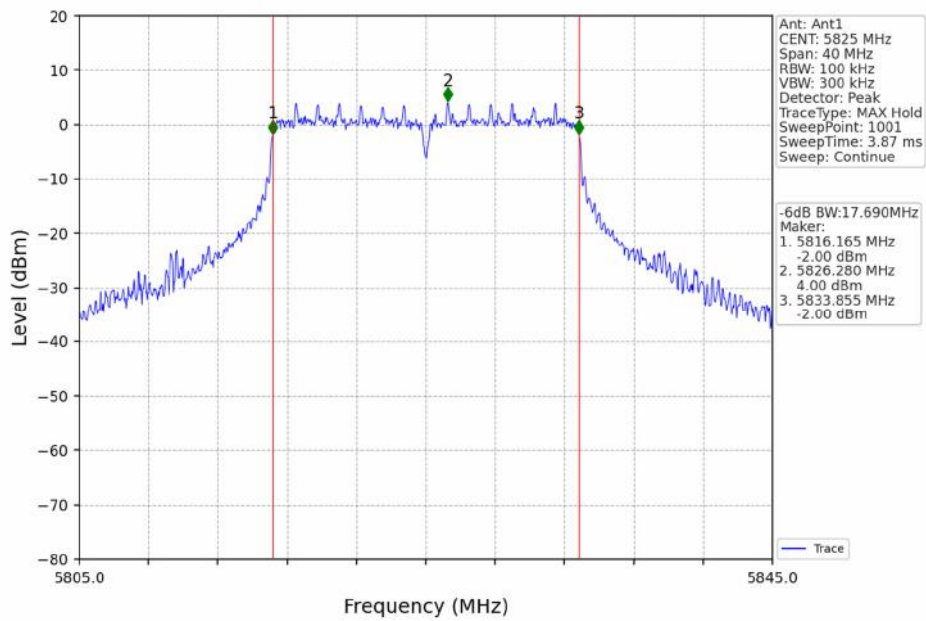




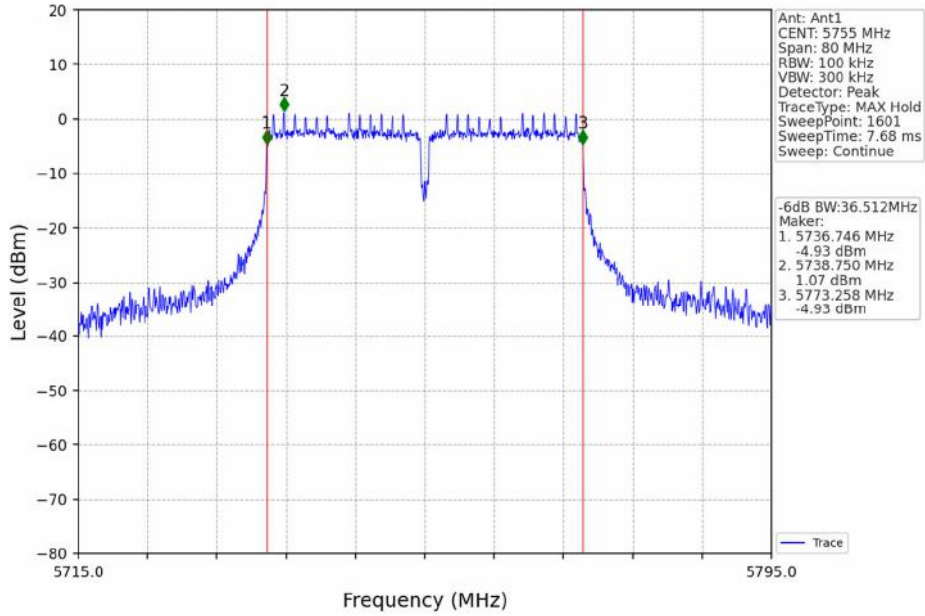
802.11n(HT20)\_MCH\_5785MHz\_Ant1\_NTNV



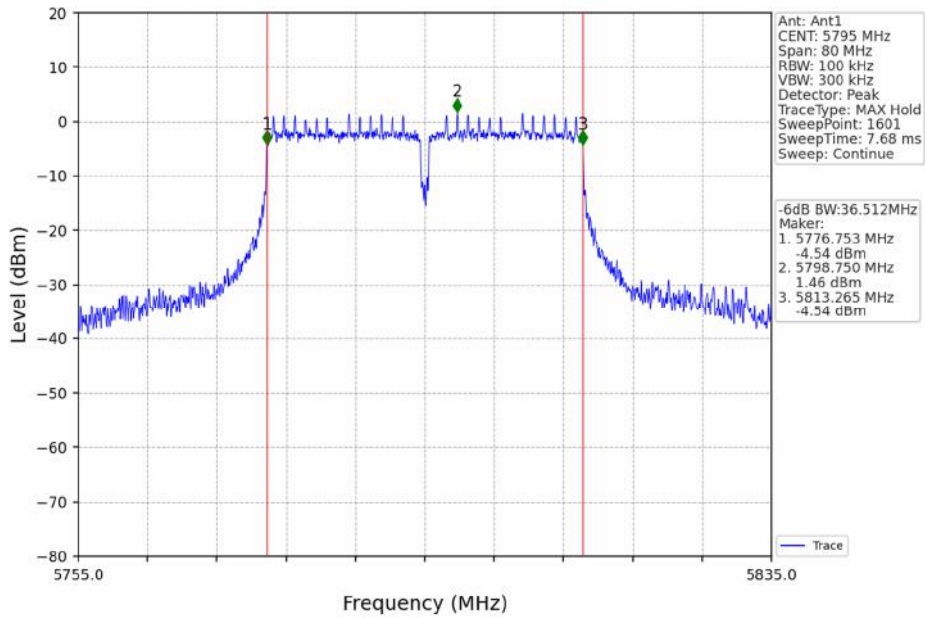
802.11n(HT20)\_HCH\_5825MHz\_Ant1\_NTNV



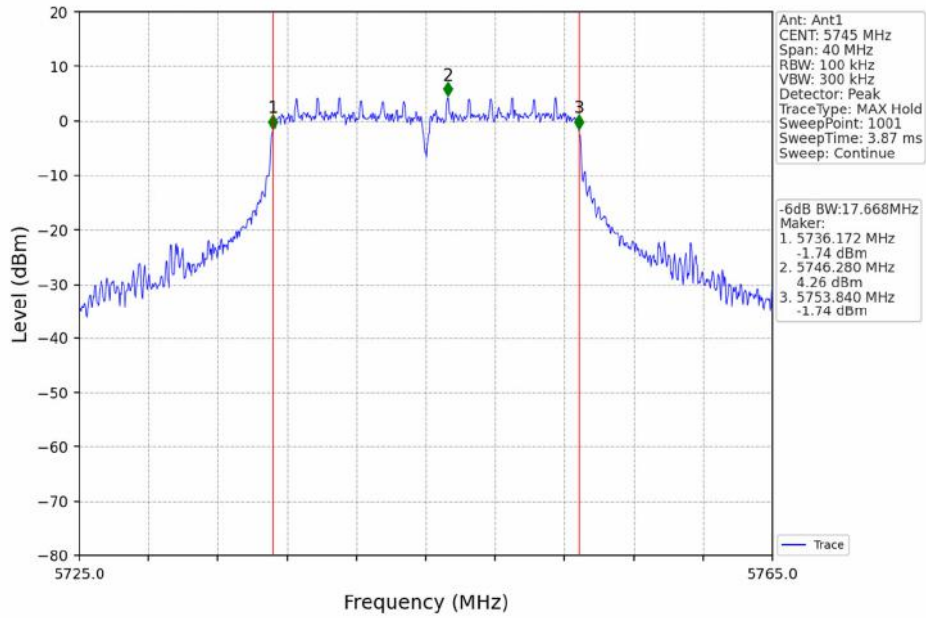
802.11n(HT40)\_LCH\_5755MHz\_Ant1\_NTNV



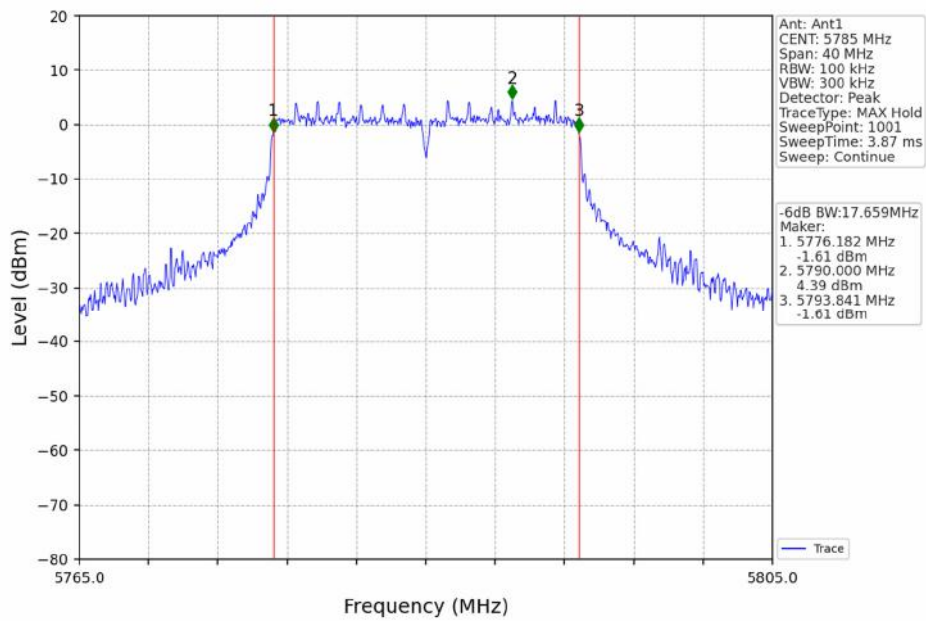
802.11n(HT40) HCH\_5795MHz\_Ant1\_NTNV



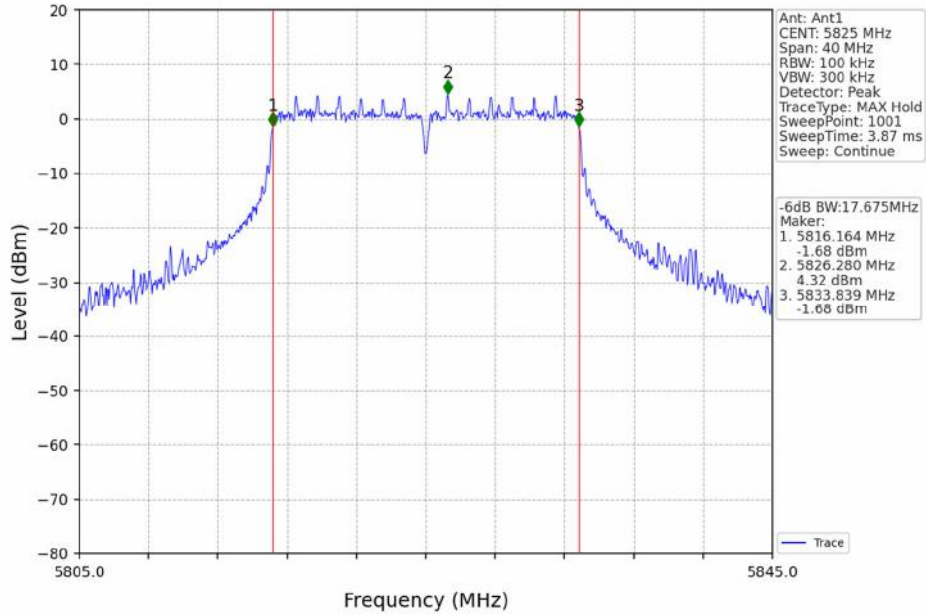
802.11ac(VHT20)\_LCH\_5745MHz\_Ant1\_NTNV



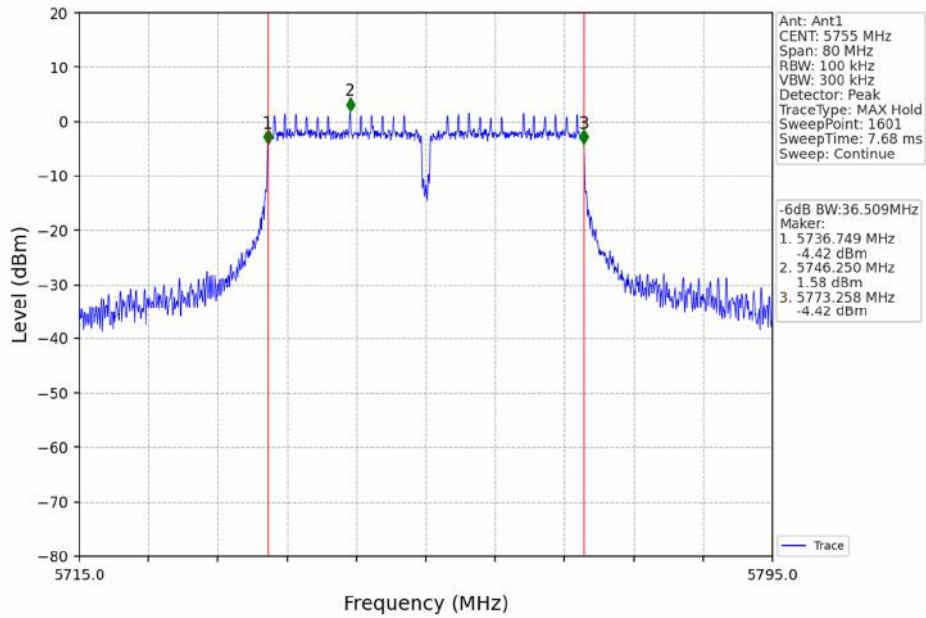
802.11ac(VHT20)\_MCH\_5785MHz\_Ant1\_NTNV



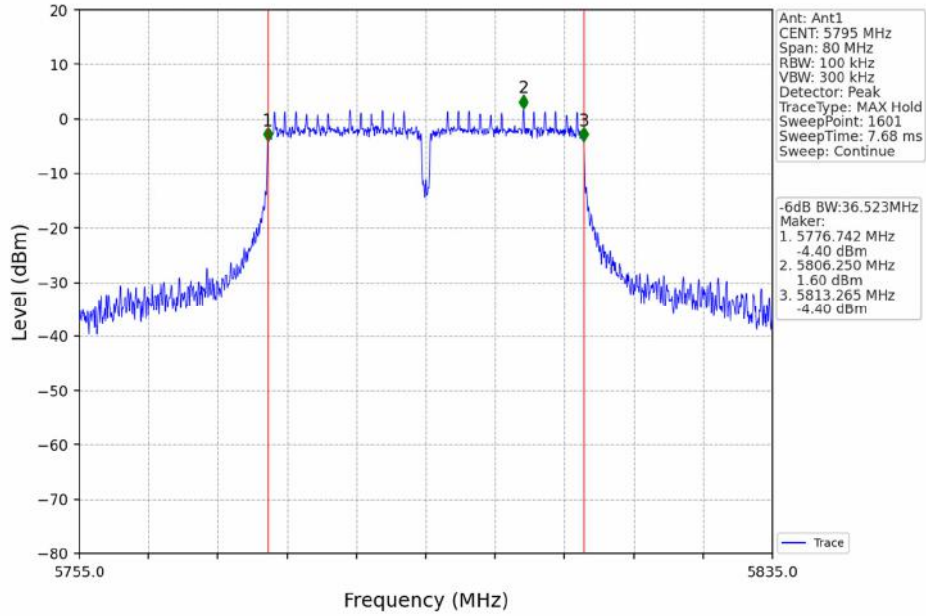
802.11ac(VHT20)\_HCH\_5825MHz\_Ant1\_NTNV



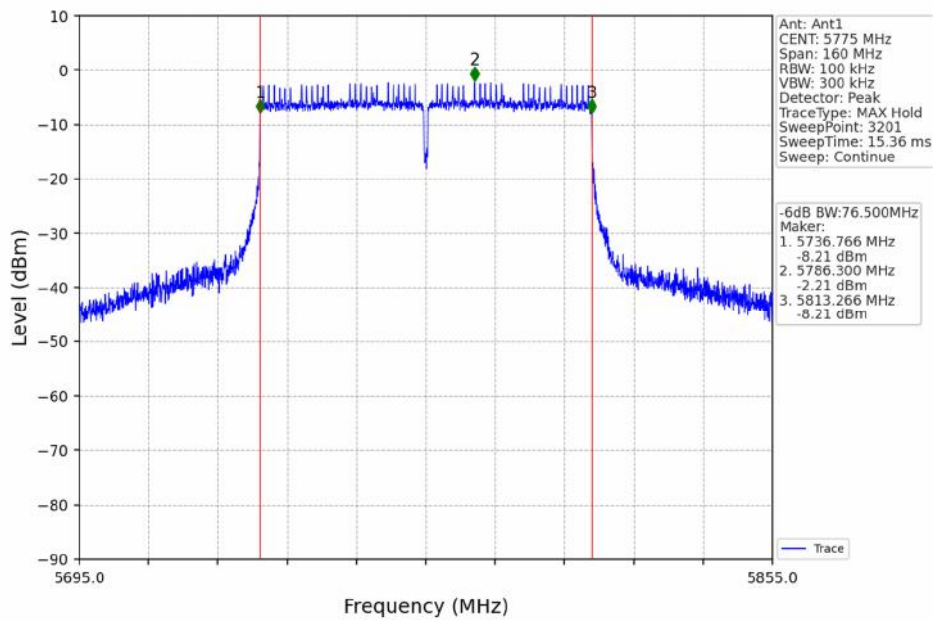
802.11ac(VHT40)\_LCH\_5755MHz\_Ant1\_NTNV



802.11ac(VHT40)\_HCH\_5795MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5775MHz\_Ant1\_NTNV



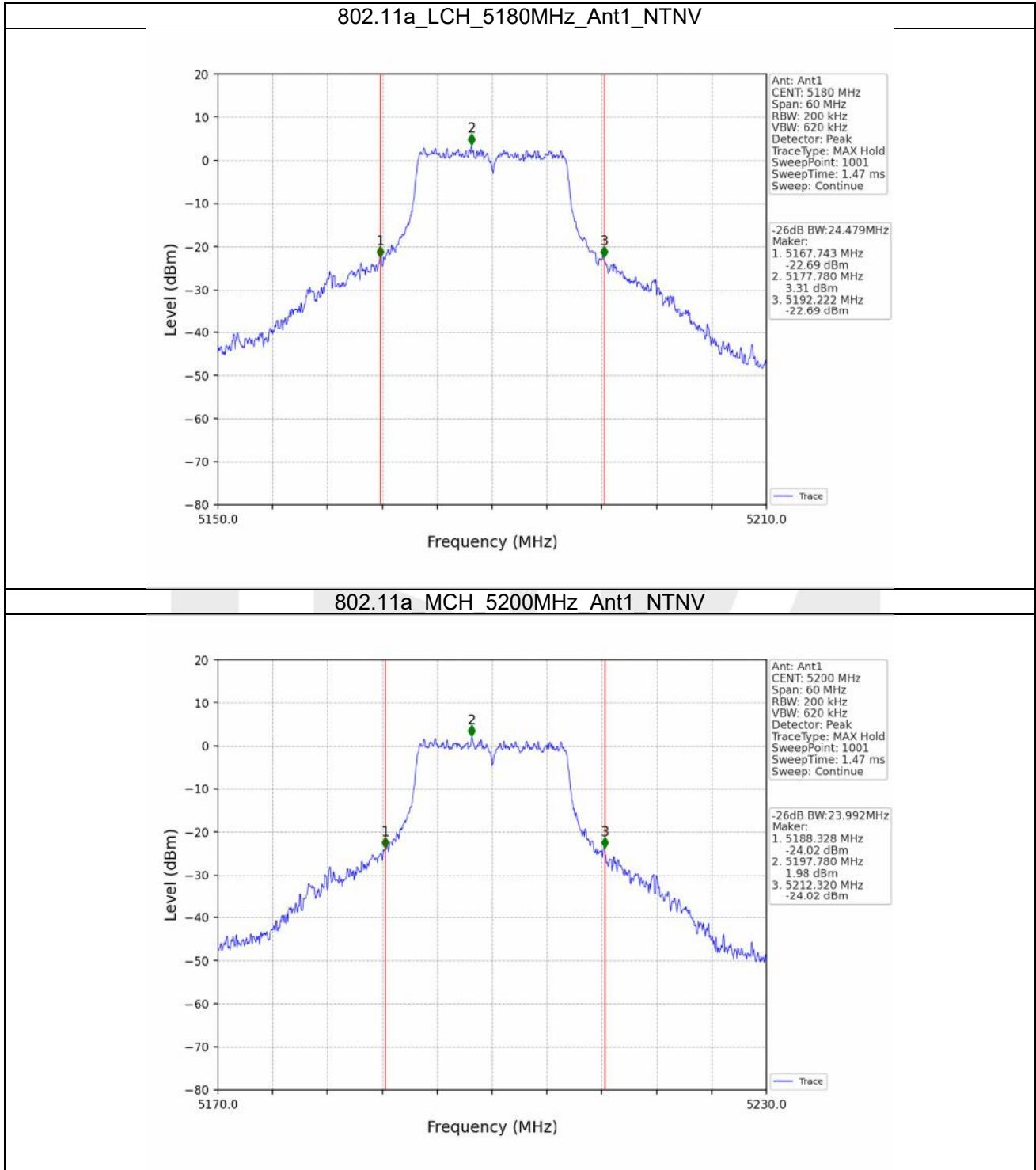


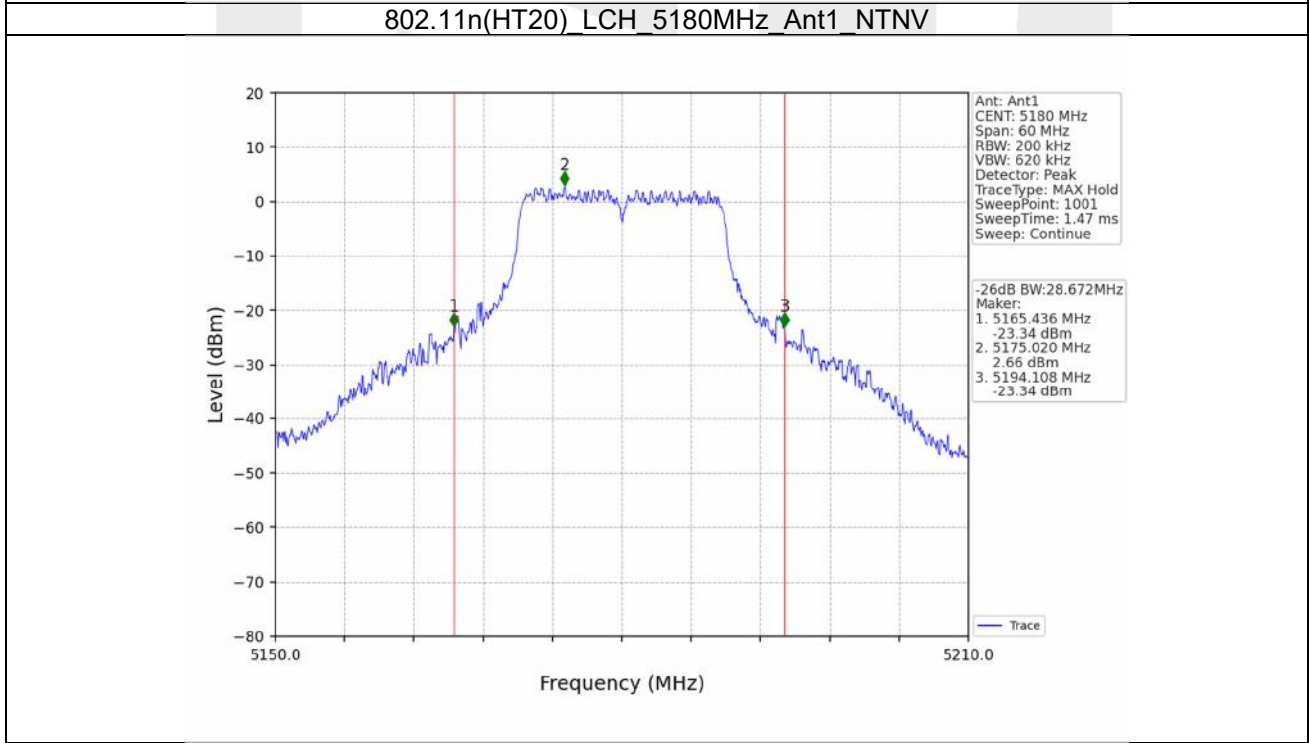
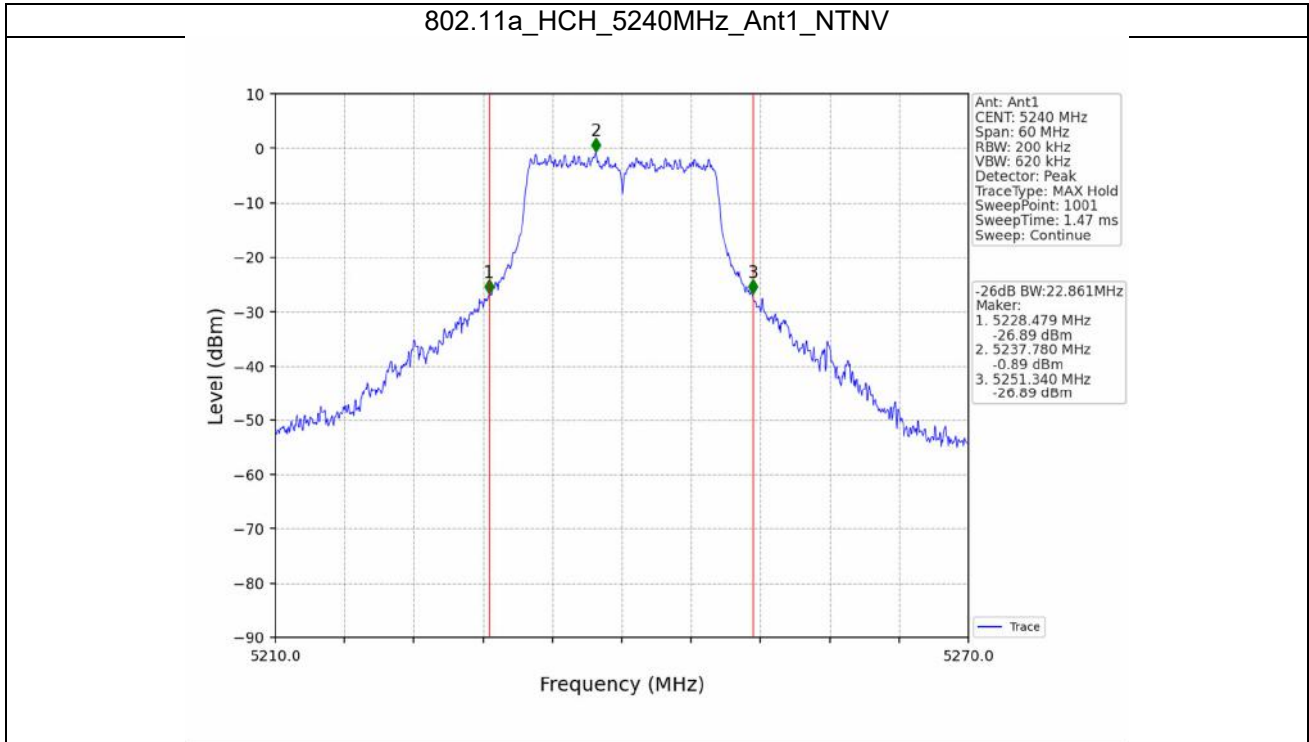
### 2.3 26dB BW

#### 2.3.1 Test Result

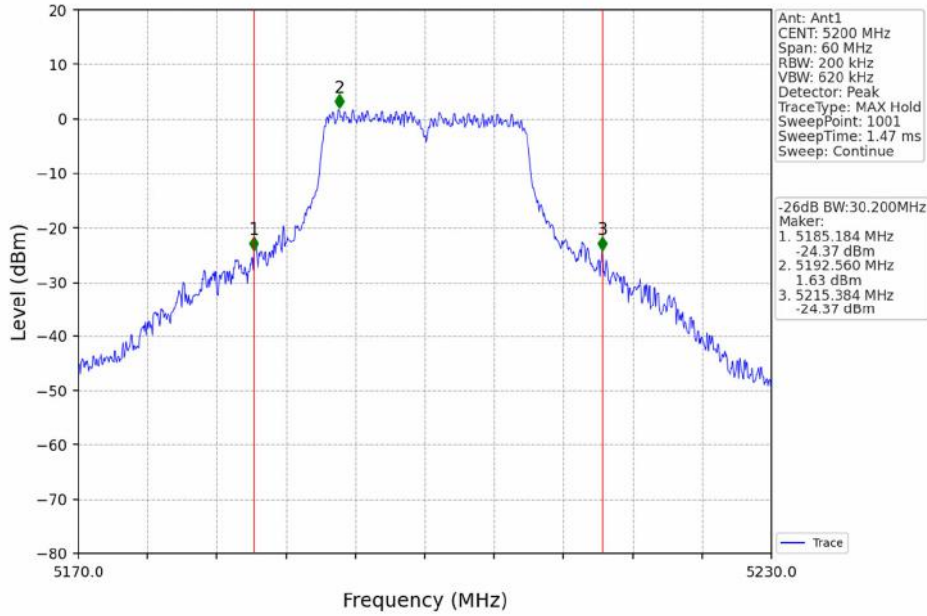
Mode	TX Type	Frequency (MHz)	ANT	26dB Bandwidth (MHz)	Verdict
				Result	
802.11a	SISO	5180	1	24.479	Pass
		5200	1	23.992	Pass
		5240	1	22.861	Pass
802.11n (HT20)	SISO	5180	1	28.672	Pass
		5200	1	30.200	Pass
		5240	1	26.600	Pass
802.11n (HT40)	SISO	5190	1	53.901	Pass
		5230	1	45.510	Pass
802.11ac (VHT20)	SISO	5180	1	28.851	Pass
		5200	1	28.157	Pass
		5240	1	25.076	Pass
802.11ac (VHT40)	SISO	5190	1	53.287	Pass
		5230	1	46.973	Pass
802.11ac (VHT80)	SISO	5210	1	104.186	Pass

2.3.2 Test Graph

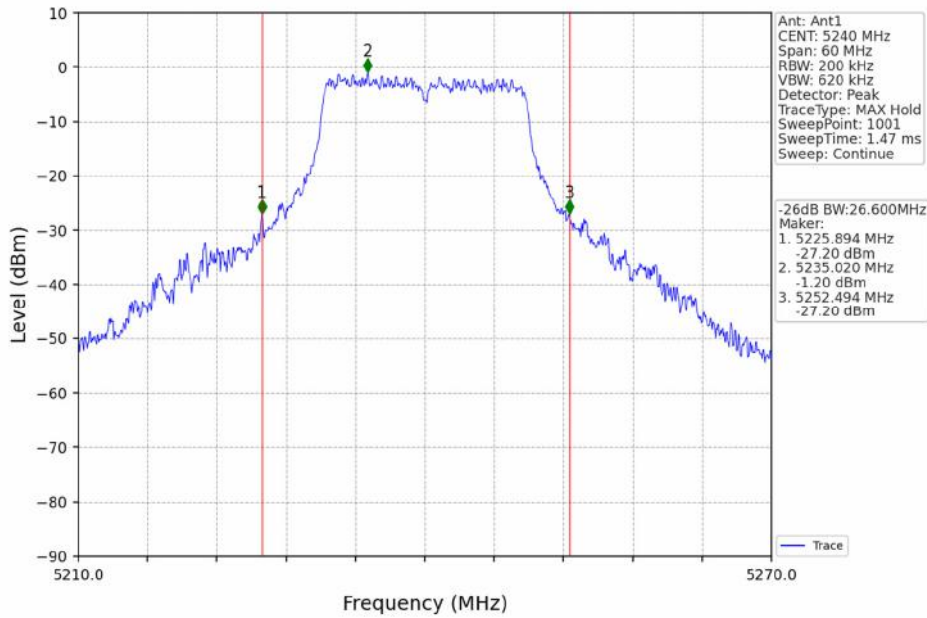




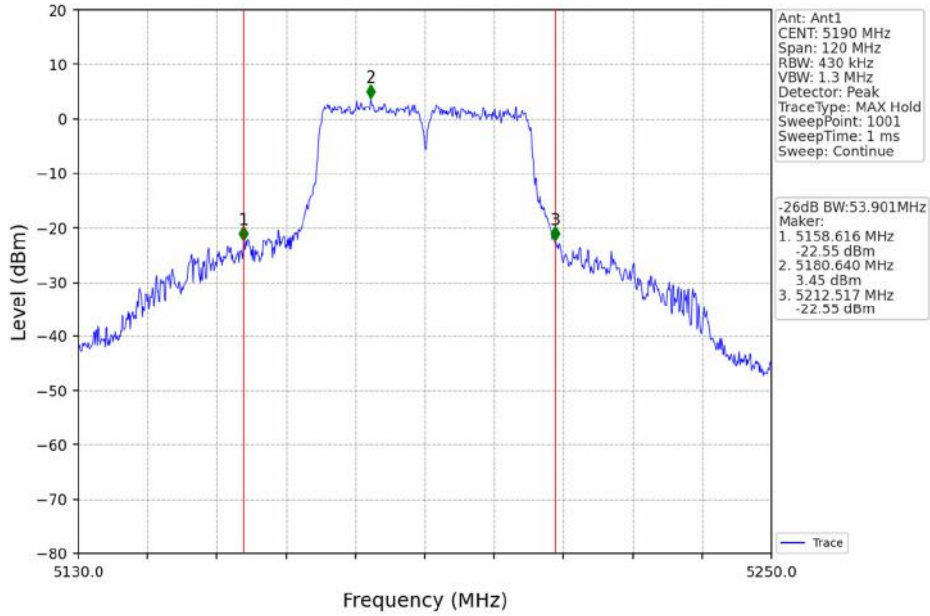
802.11n(HT20)\_MCH\_5200MHz\_Ant1\_NTNV



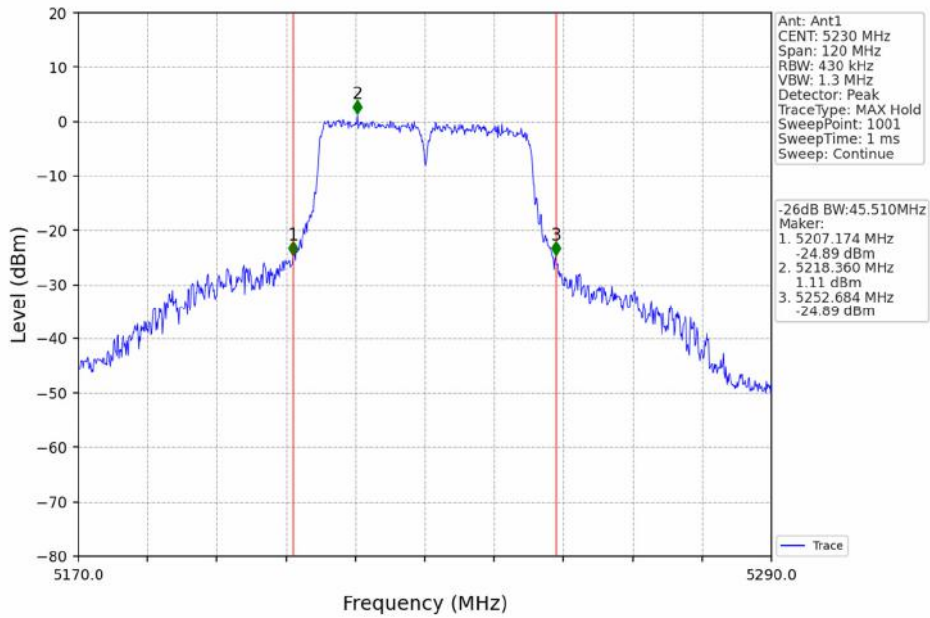
802.11n(HT20)\_HCH\_5240MHz\_Ant1\_NTNV



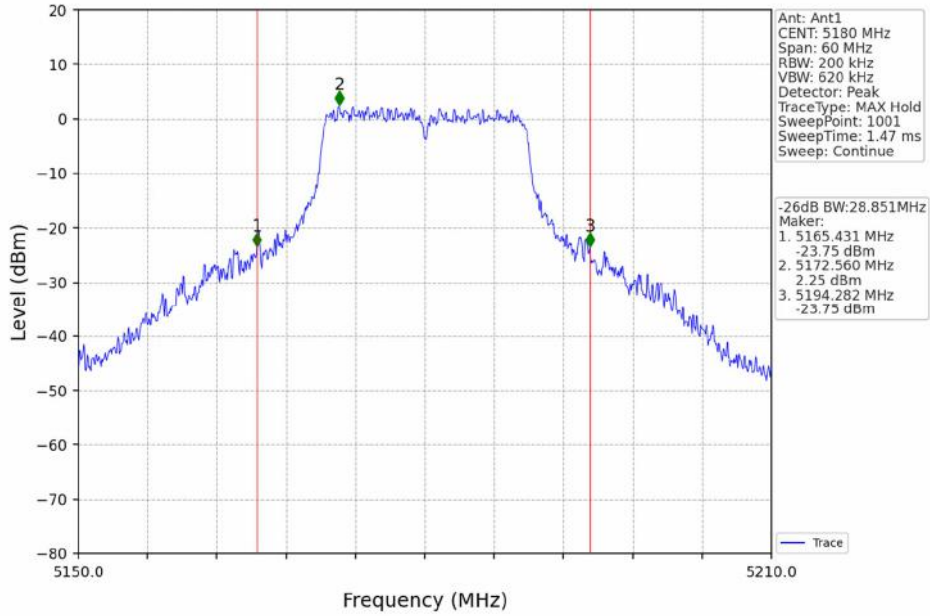
802.11n(HT40)\_LCH\_5190MHz\_Ant1\_NTNV



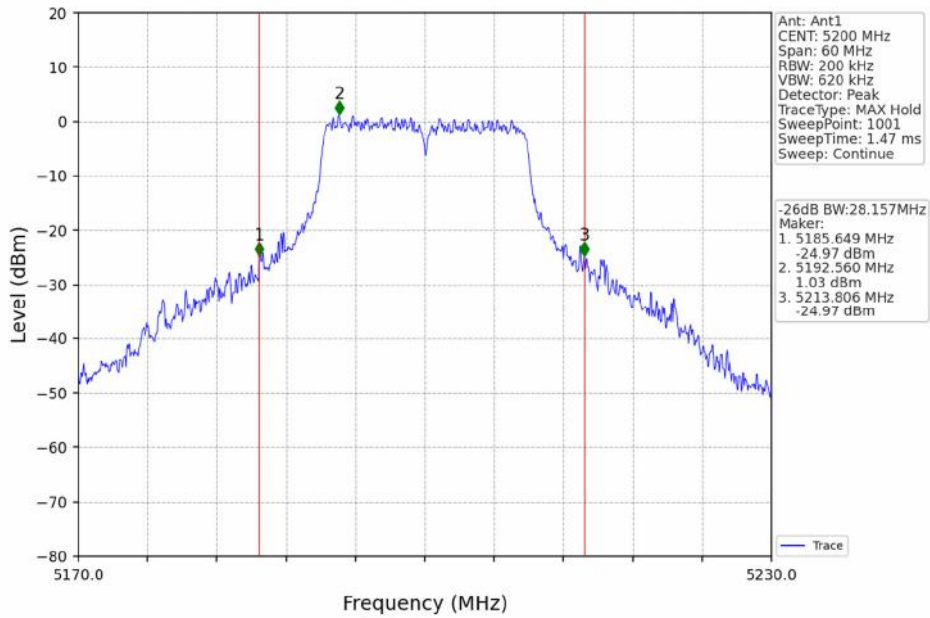
802.11n(HT40)\_HCH\_5230MHz\_Ant1\_NTNV



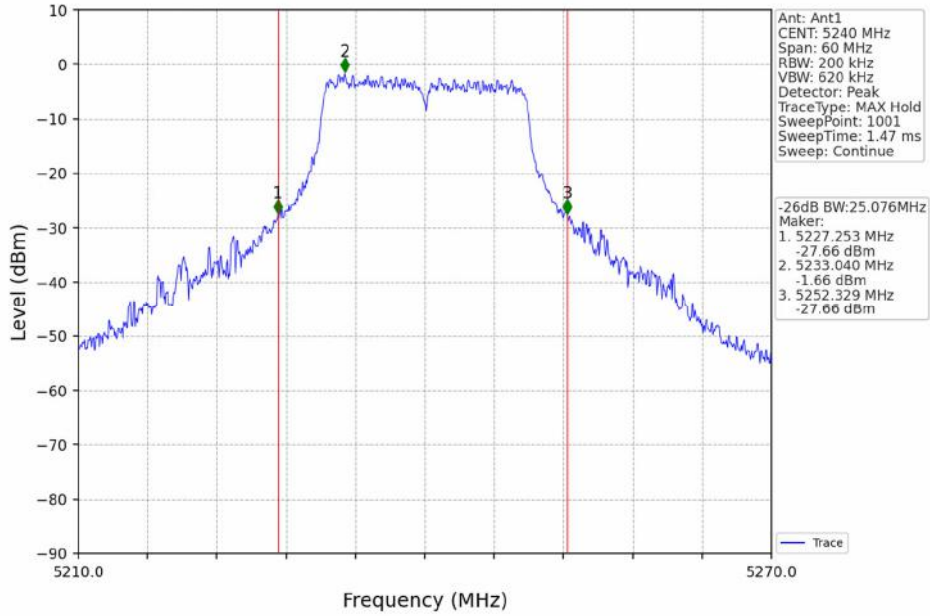
802.11ac(VHT20)\_LCH\_5180MHz\_Ant1\_NTNV



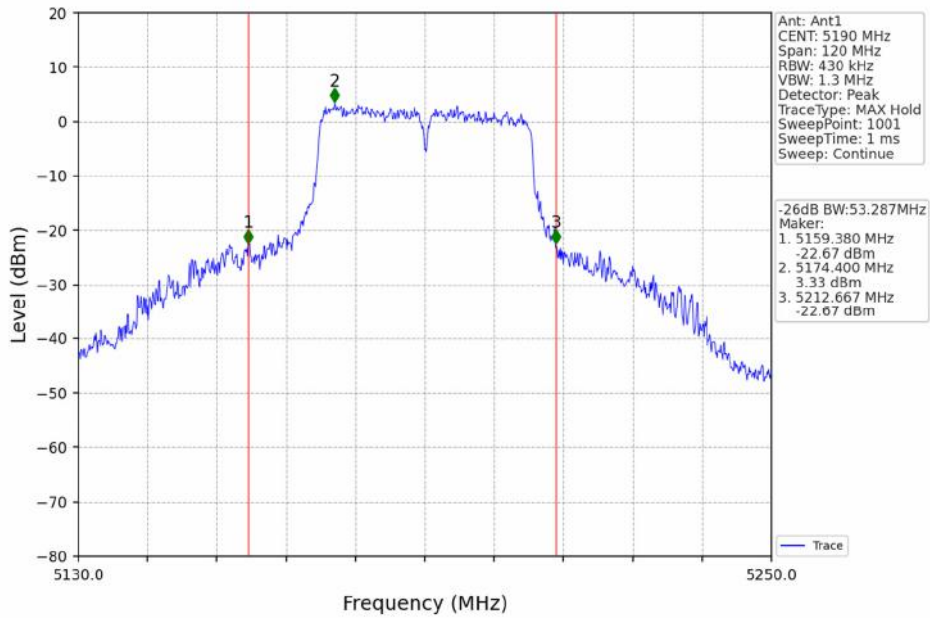
802.11ac(VHT20)\_MCH\_5200MHz\_Ant1\_NTNV



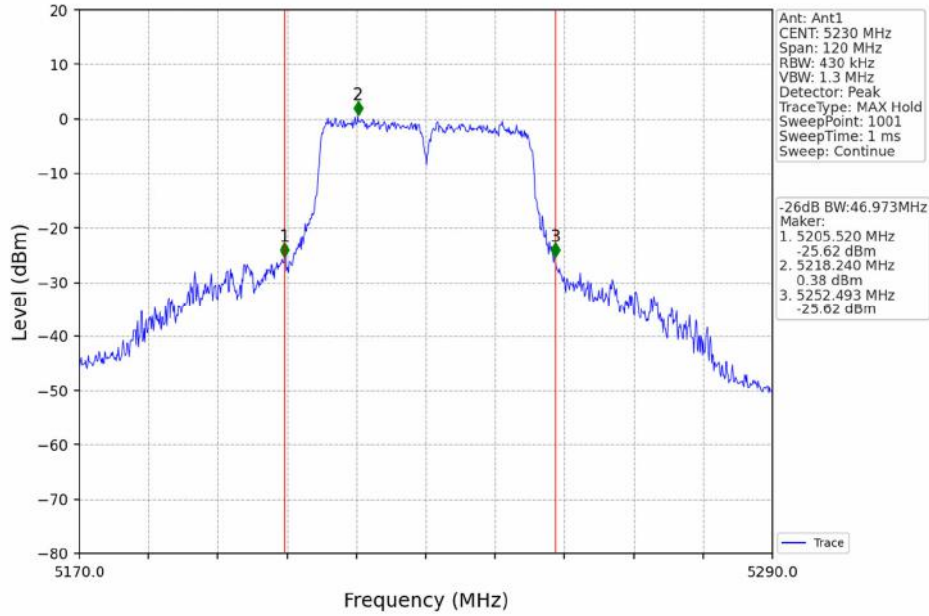
802.11ac(VHT20)\_HCH\_5240MHz\_Ant1\_NTNV



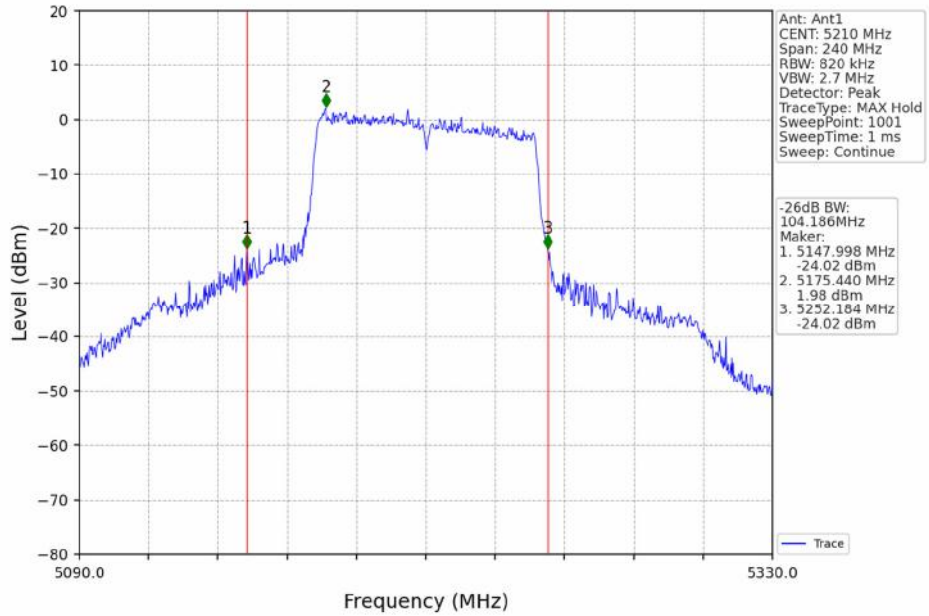
802.11ac(VHT40)\_LCH\_5190MHz\_Ant1\_NTNV



802.11ac(VHT40)\_HCH\_5230MHz\_Ant1\_NTNV



802.11ac(VHT80)\_MCH\_5210MHz\_Ant1\_NTNV





### 3. Maximum Conducted Output Power

#### 3.1 Power

##### 3.1.1 Test Result

Mode	TX Type	Frequency (MHz)	Maximum Average Conducted Output Power (dBm)		Verdict
			ANT1	Limit	
802.11a	SISO	5180	12.96	<=23.98	Pass
		5200	11.93	<=23.98	Pass
		5240	8.99	<=23.98	Pass
		5745	15.62	<=30	Pass
		5785	15.57	<=30	Pass
		5825	15.67	<=30	Pass
802.11n (HT20)	SISO	5180	12.87	<=23.98	Pass
		5200	11.86	<=23.98	Pass
		5240	8.85	<=23.98	Pass
		5745	15.56	<=30	Pass
		5785	15.51	<=30	Pass
		5825	15.55	<=30	Pass
802.11n (HT40)	SISO	5190	12.56	<=23.98	Pass
		5230	9.85	<=23.98	Pass
		5755	15.39	<=30	Pass
		5795	15.68	<=30	Pass
802.11ac (VHT20)	SISO	5180	12.57	<=23.98	Pass
		5200	11.31	<=23.98	Pass
		5240	8.27	<=23.98	Pass
		5745	15.67	<=30	Pass
		5785	15.76	<=30	Pass
		5825	15.78	<=30	Pass
802.11ac (VHT40)	SISO	5190	12.38	<=23.98	Pass
		5230	9.54	<=23.98	Pass
		5755	15.77	<=30	Pass
		5795	15.90	<=30	Pass
802.11ac (VHT80)	SISO	5210	10.67	<=23.98	Pass
		5775	15.01	<=30	Pass

3.1.2 Test Graph

