

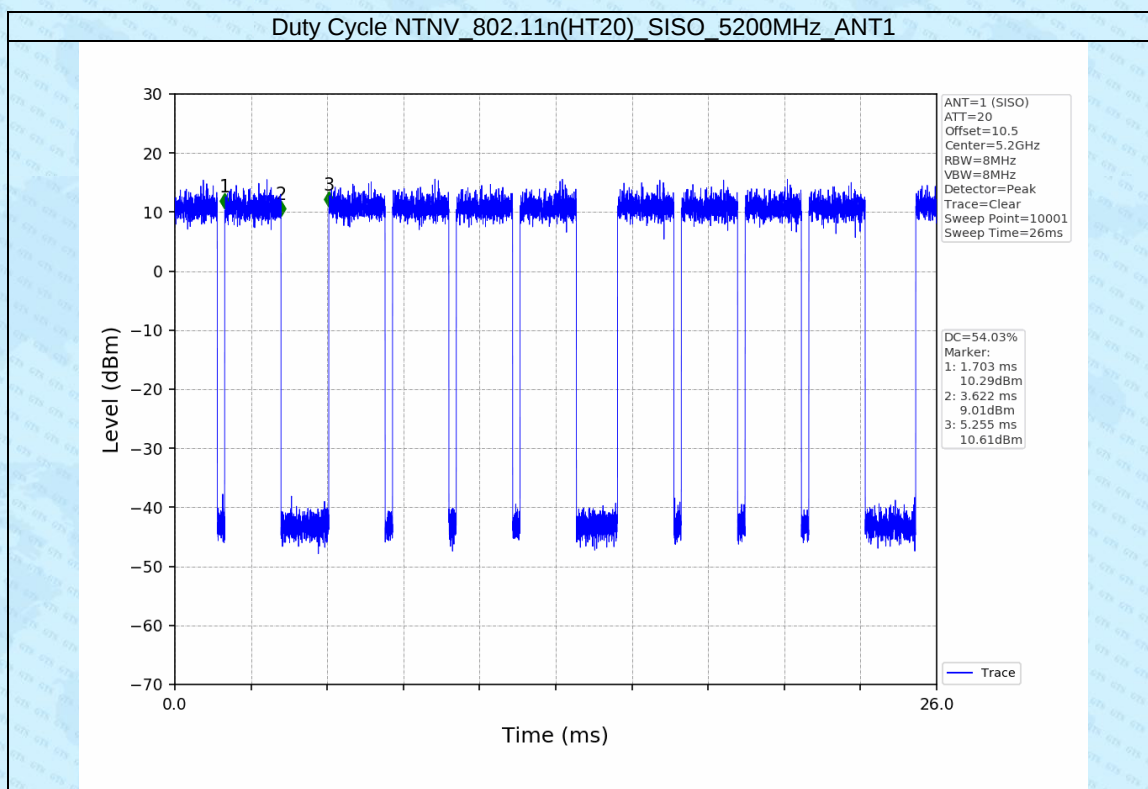
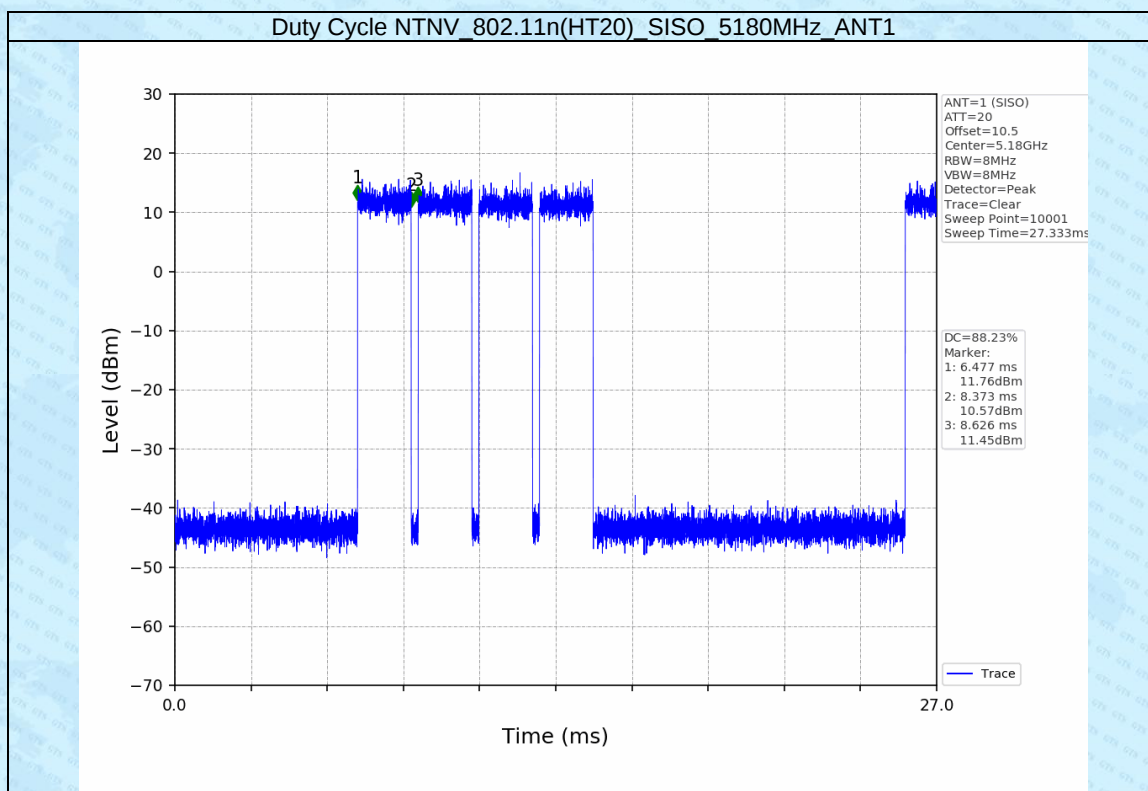
Appendix for 15.407

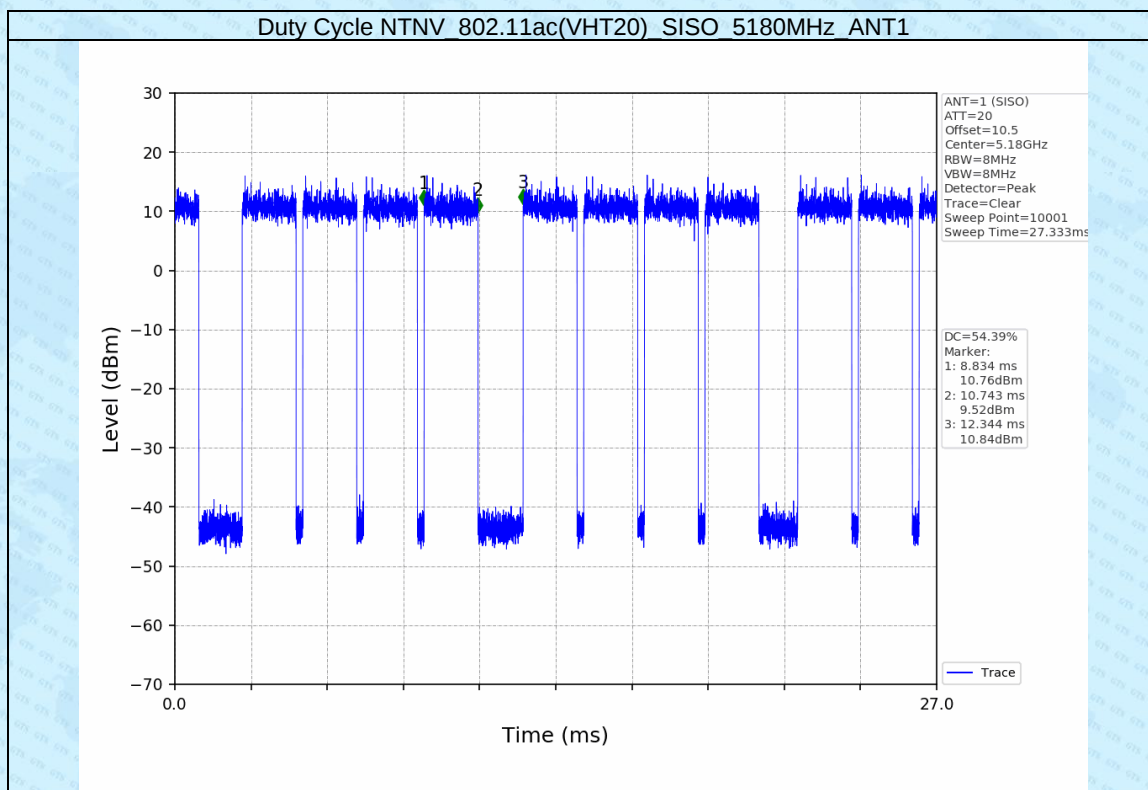
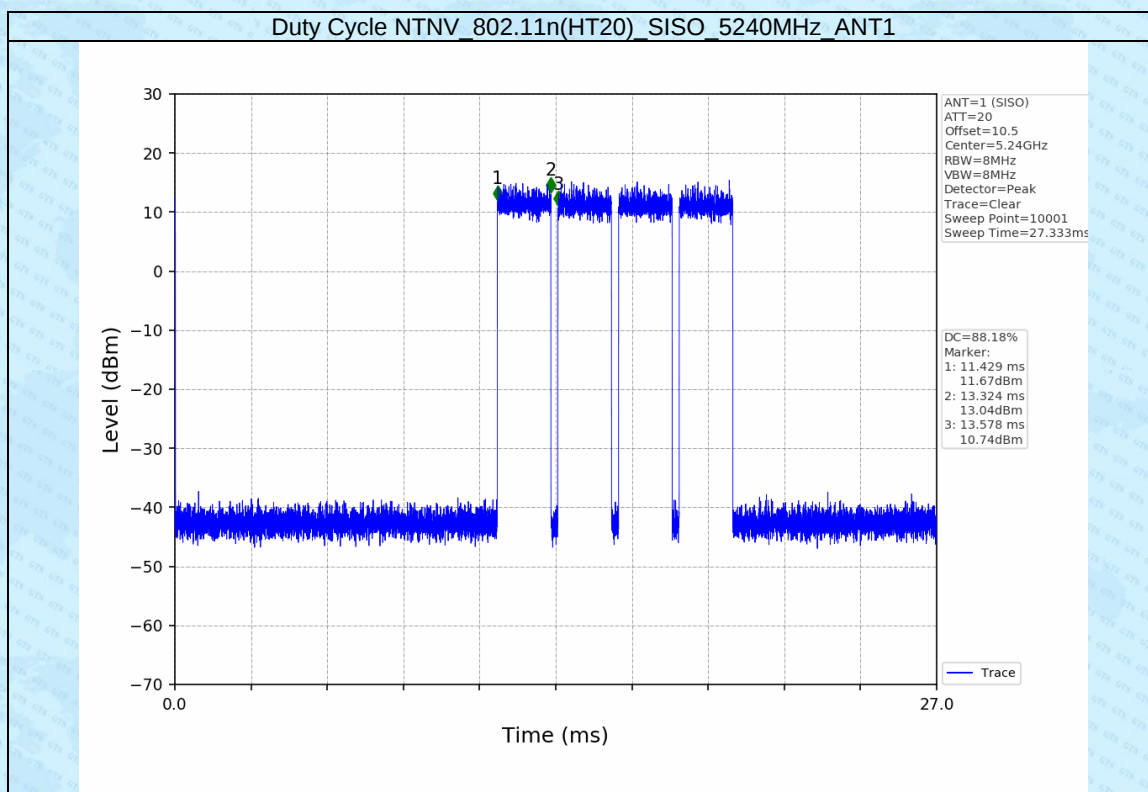
1. Duty Cycle

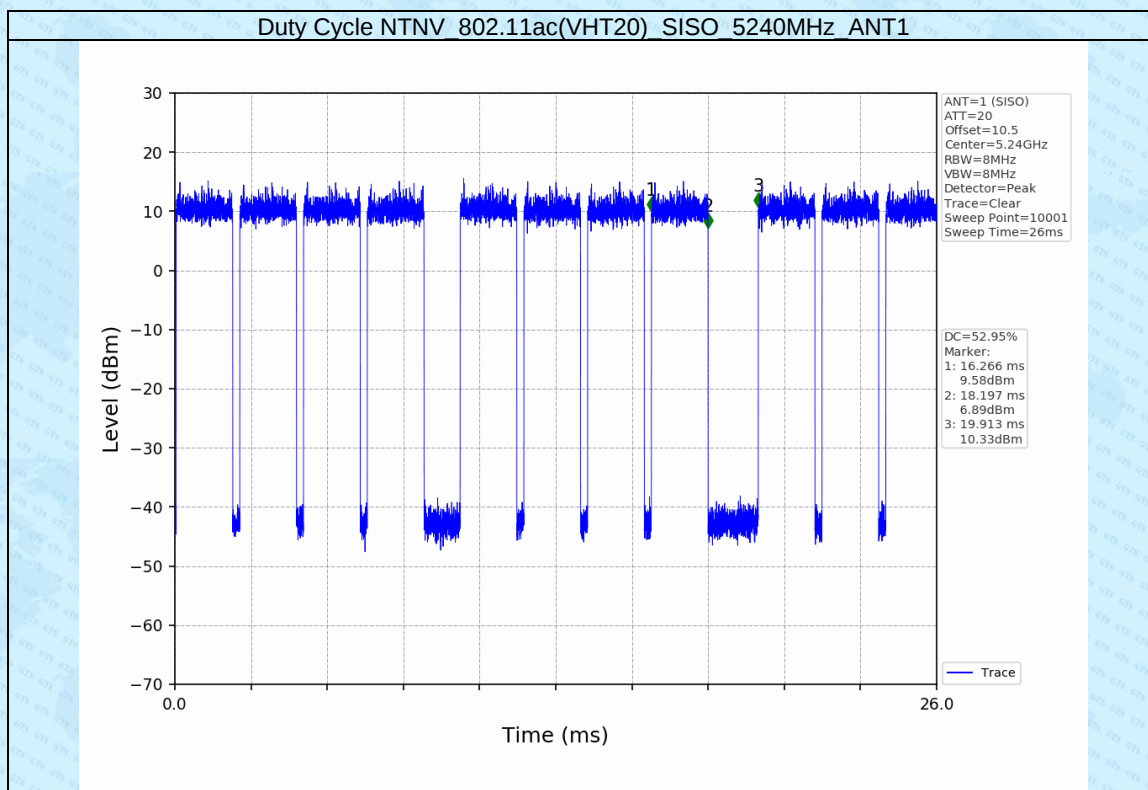
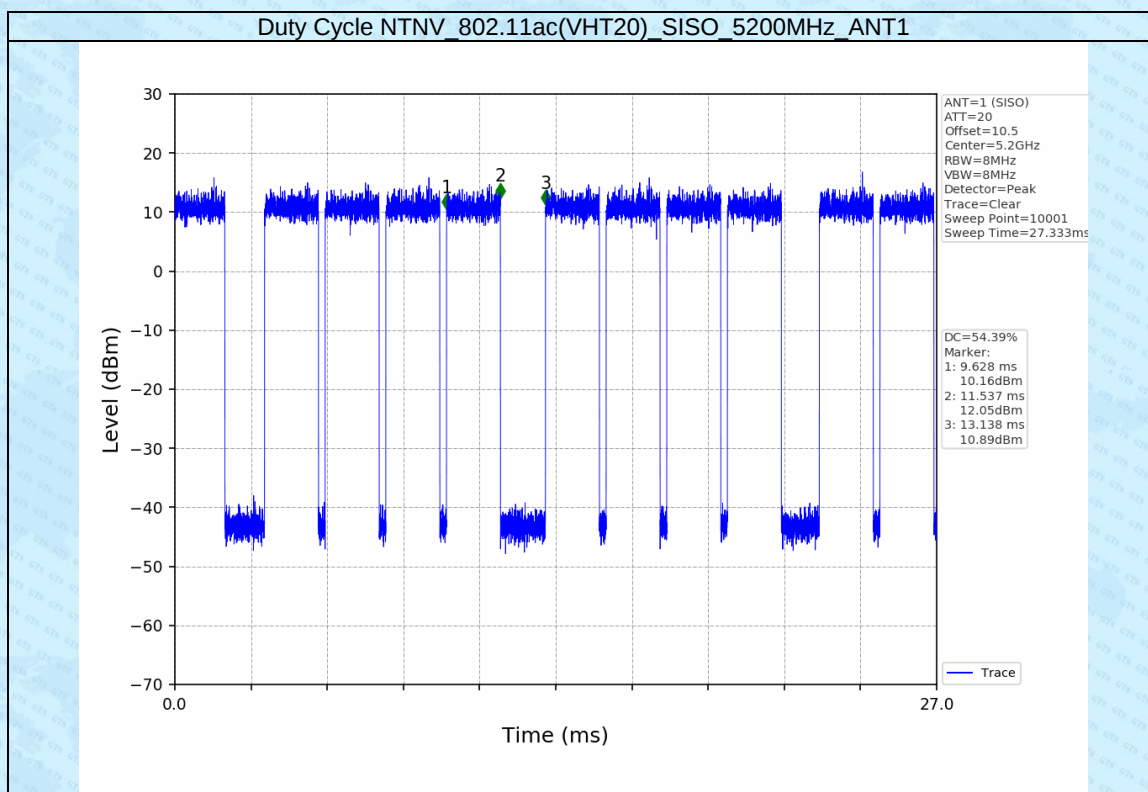
1.1 Test Result

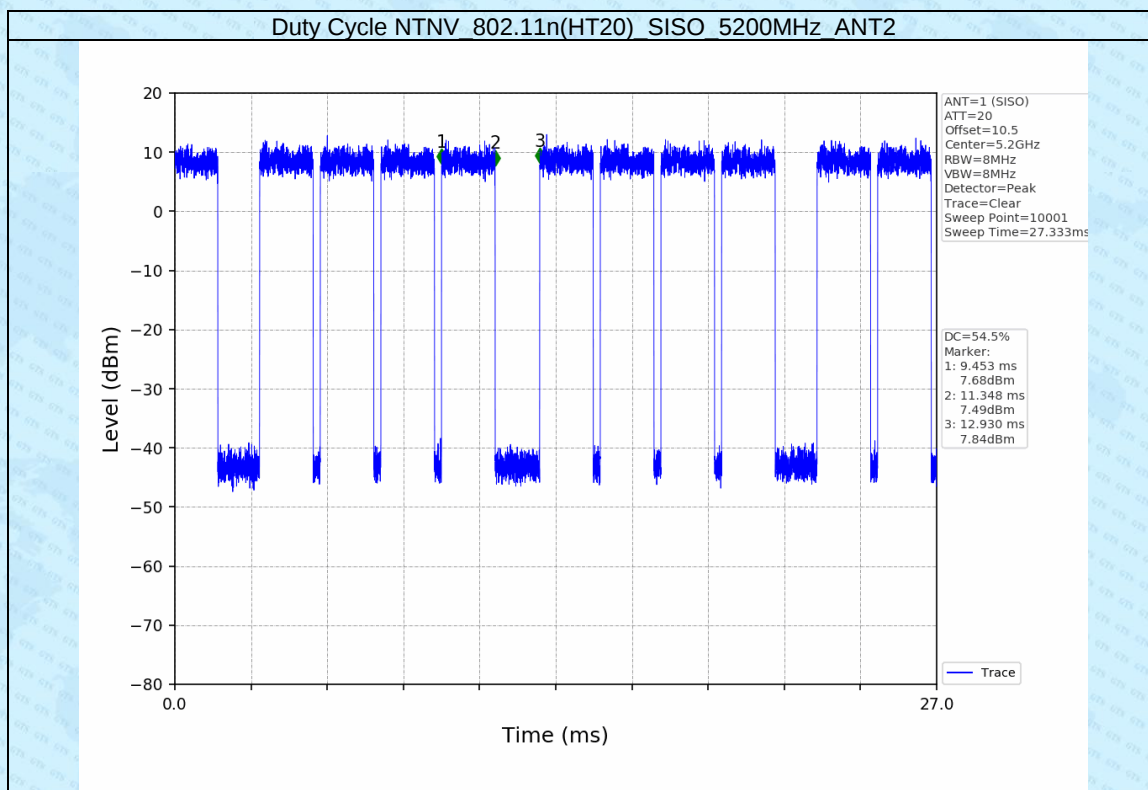
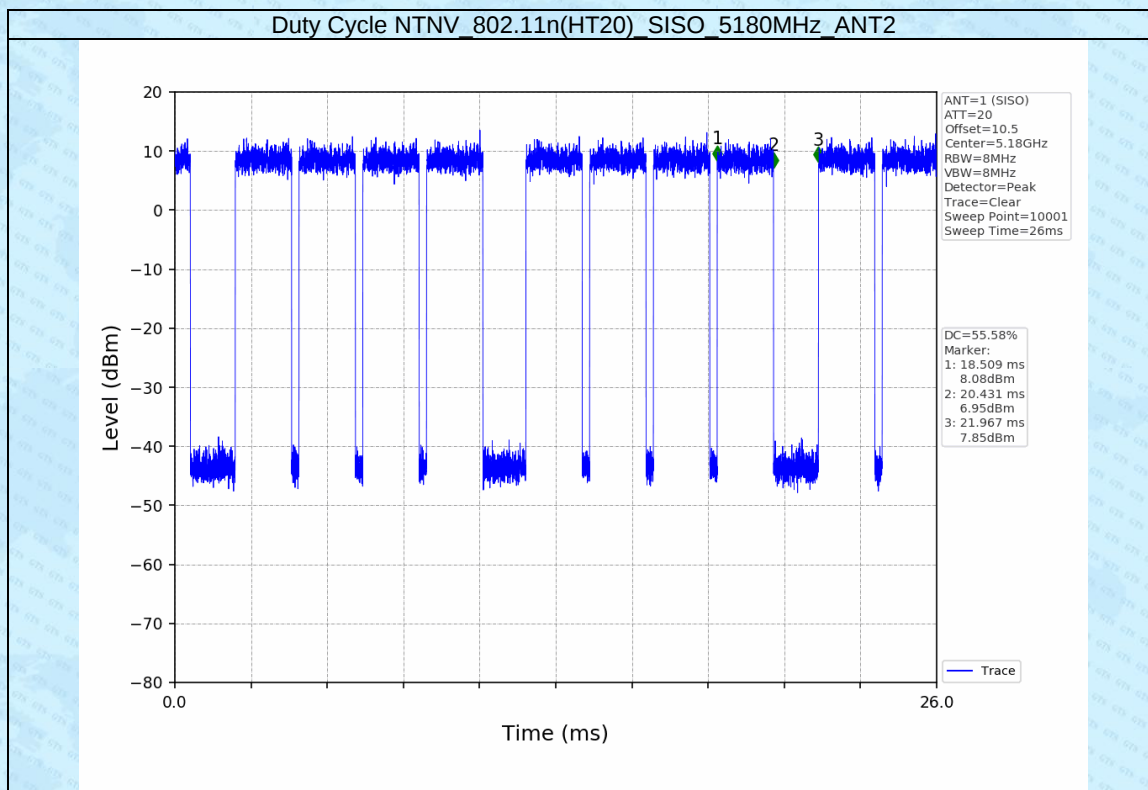
Test Mode	Channel Frequency (MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11n(HT20)	5180	SISO	1	1.896	2.149	88.23	0.54
	5200	SISO	1	1.919	3.552	54.03	2.67
	5240	SISO	1	1.895	2.149	88.18	0.55
802.11ac(VHT20)	5180	SISO	1	1.909	3.510	54.39	2.64
	5200	SISO	1	1.909	3.510	54.39	2.64
	5240	SISO	1	1.931	3.647	52.95	2.76
802.11n(HT20)	5180	SISO	2	1.922	3.458	55.58	2.55
	5200	SISO	2	1.895	3.477	54.50	2.64
	5240	SISO	2	1.895	3.602	52.61	2.79
802.11ac(VHT20)	5180	SISO	2	1.932	3.489	55.37	2.57
	5200	SISO	2	1.909	3.445	55.41	2.56
	5240	SISO	2	1.908	3.226	59.14	2.28

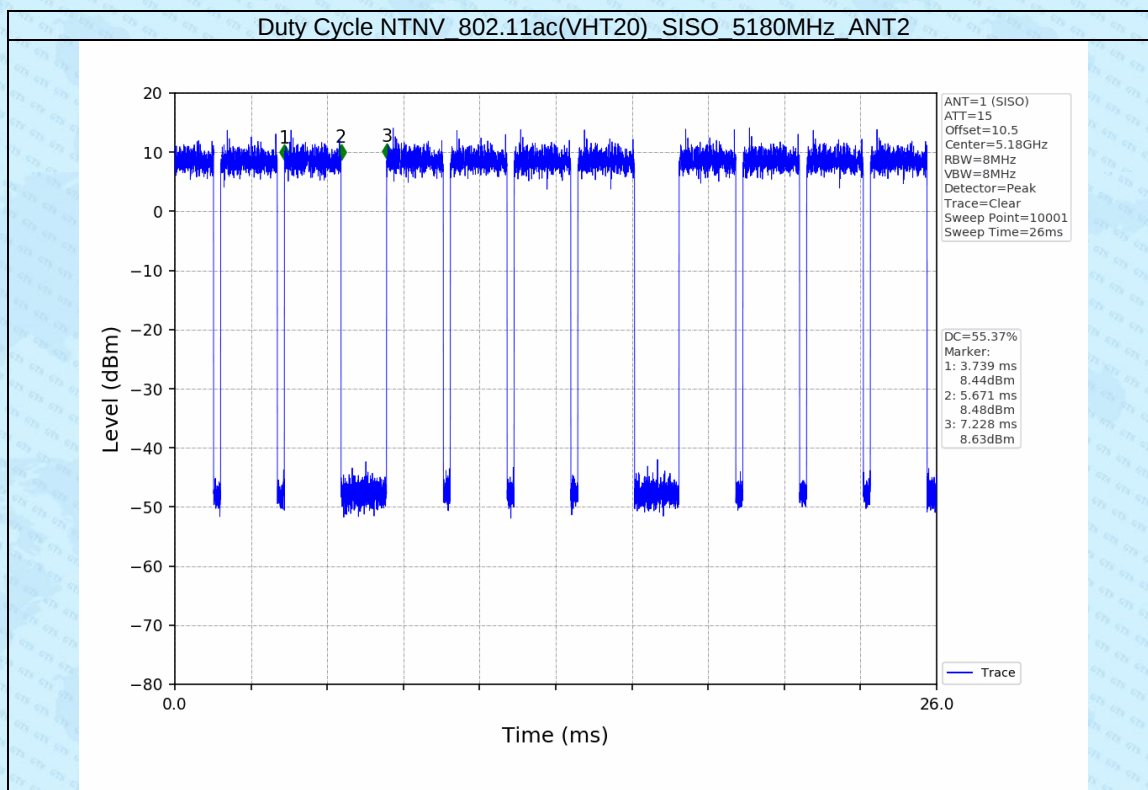
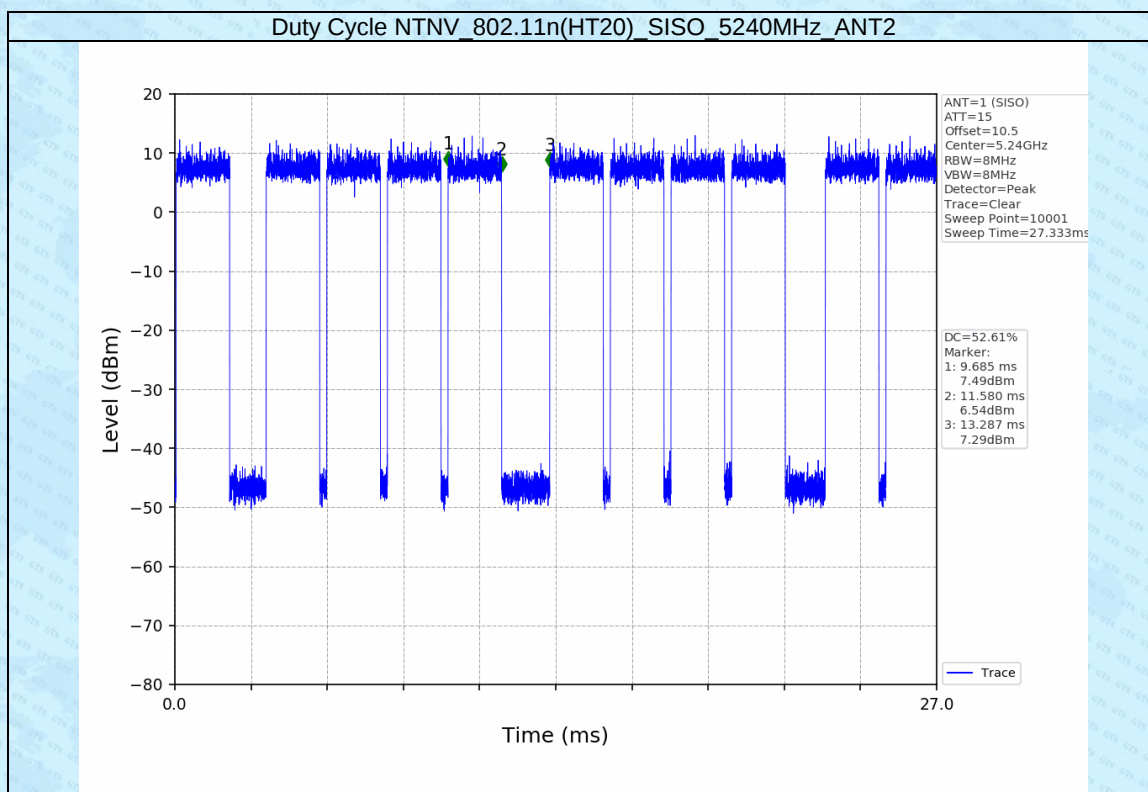
1.2 Test Graph

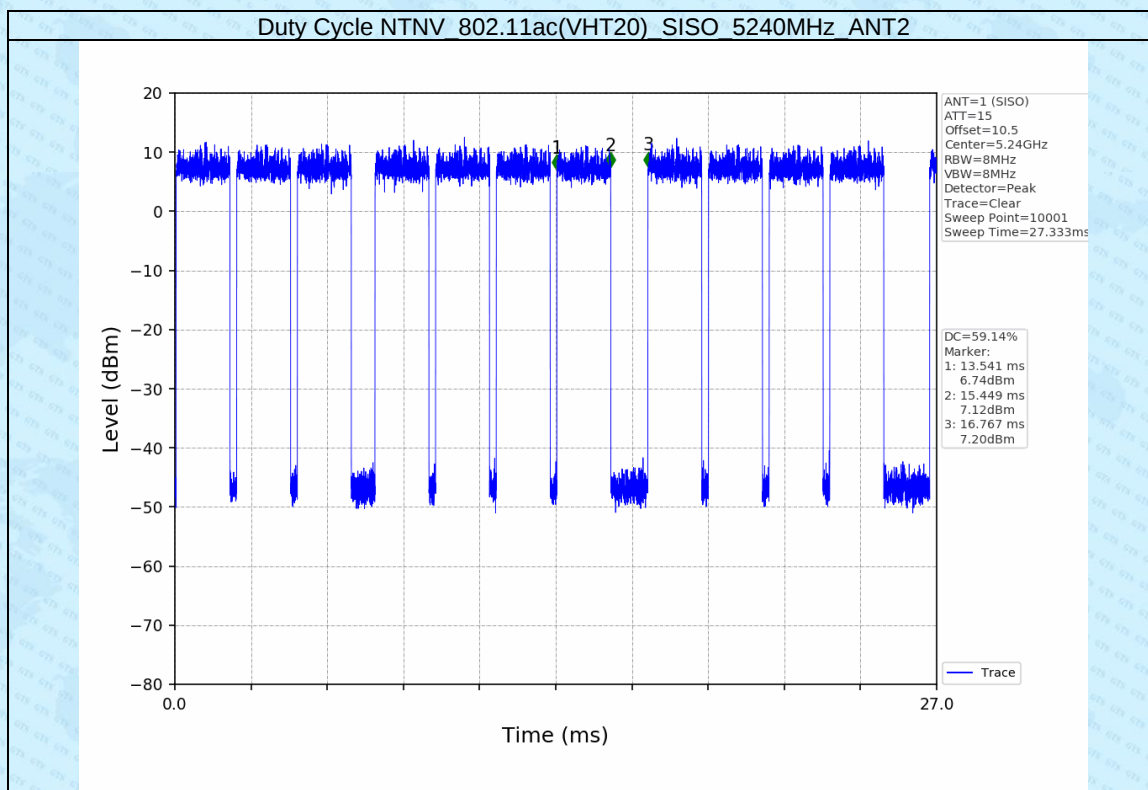
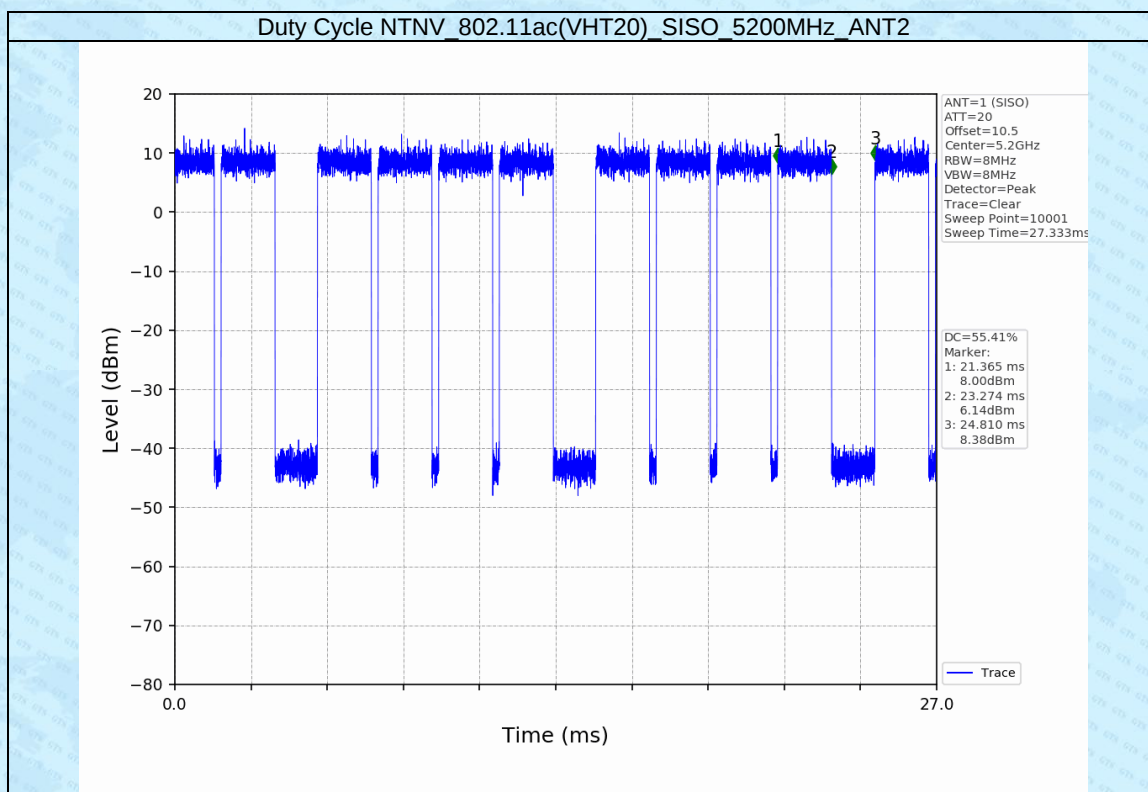












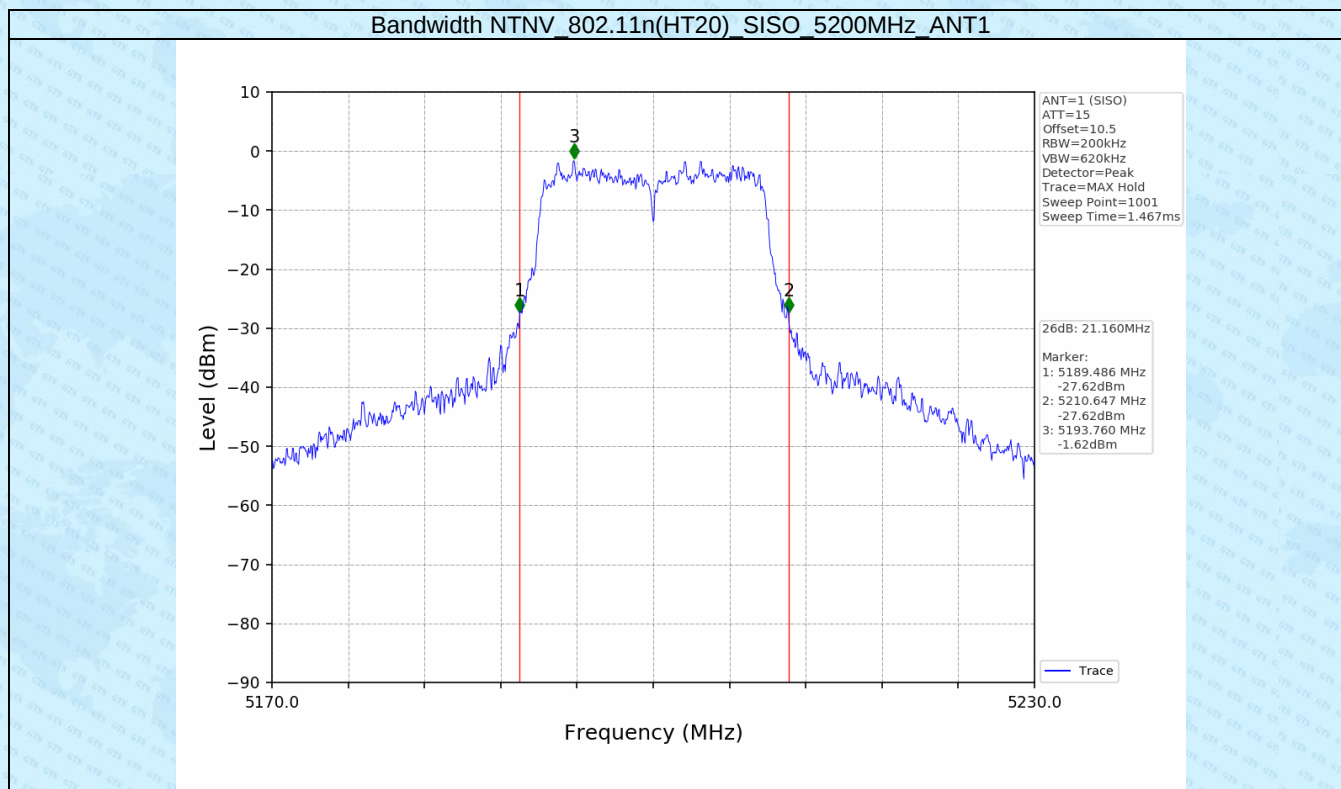
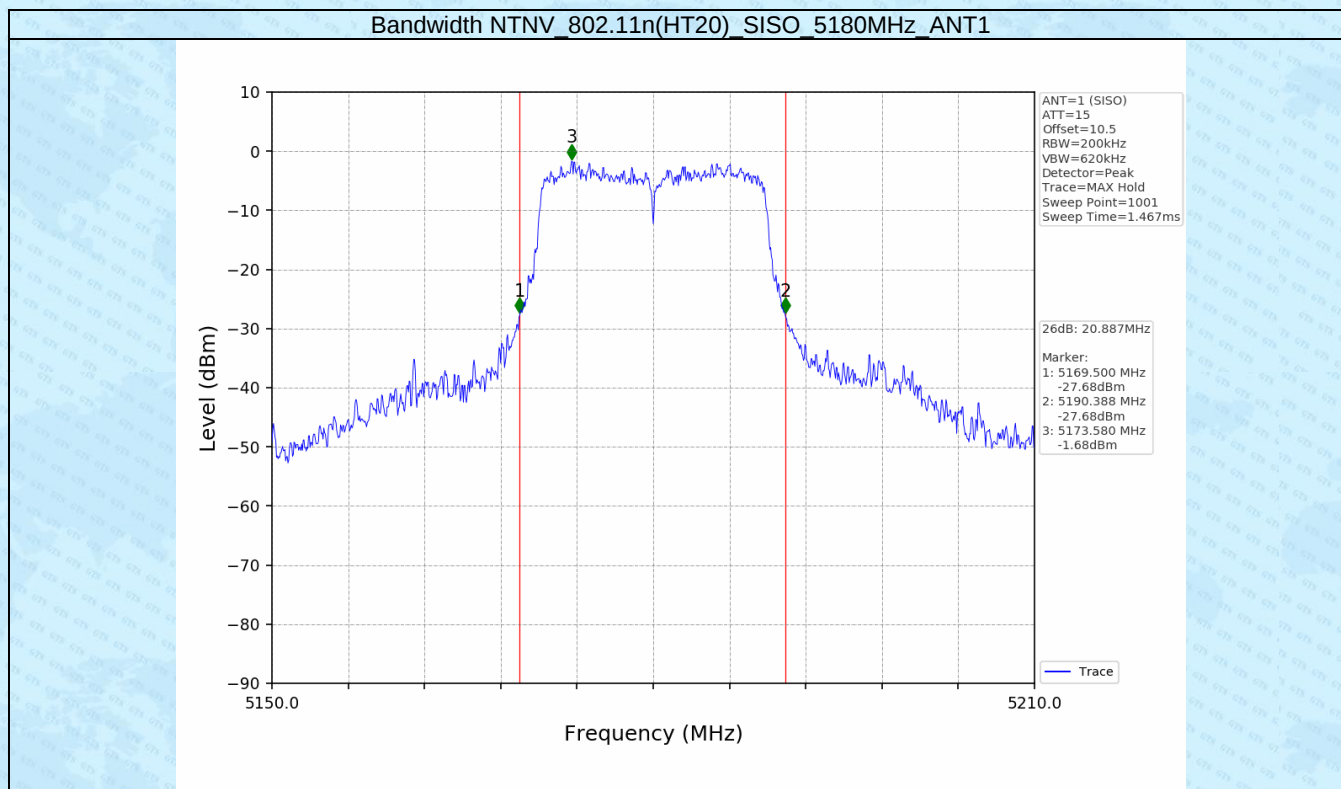
2. Bandwidth

2.1 Test Result

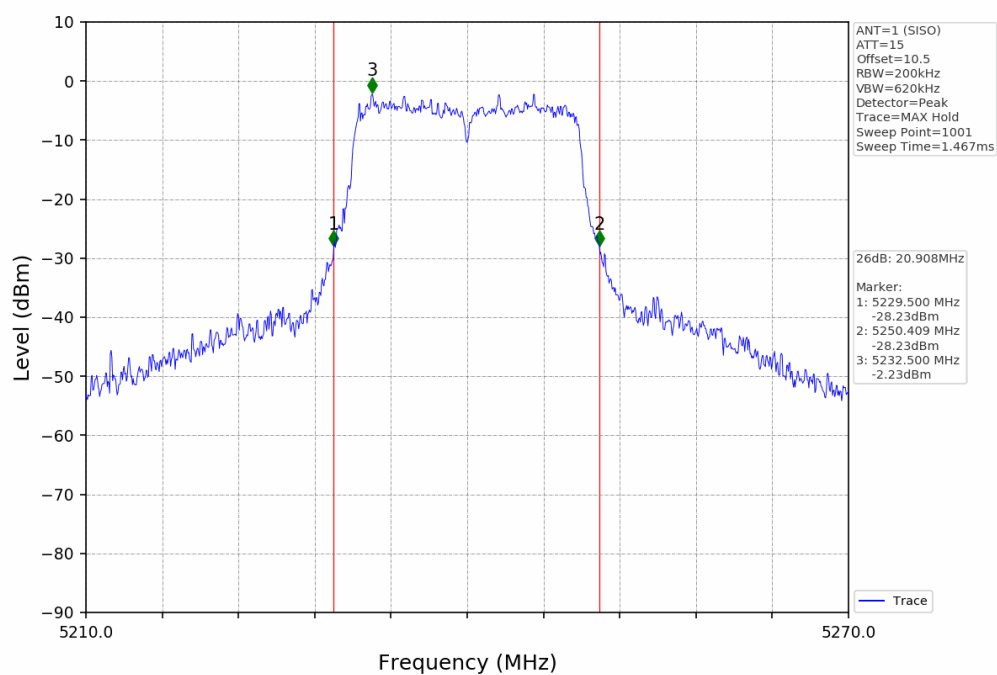
Test Mode	Frequency (MHz)	TX Type	ANT No.	Emission Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11n(HT20)	5180	SISO	1	20.887	Only for Report Use	PASS
	5200	SISO	1	21.160	Only for Report Use	PASS
	5240	SISO	1	20.908	Only for Report Use	PASS
802.11ac(VHT20)	5180	SISO	1	21.126	Only for Report Use	PASS
	5200	SISO	1	20.901	Only for Report Use	PASS
	5240	SISO	1	20.827	Only for Report Use	PASS
802.11n(HT20)	5180	SISO	2	20.674	Only for Report Use	PASS
	5200	SISO	2	20.809	Only for Report Use	PASS
	5240	SISO	2	20.788	Only for Report Use	PASS
802.11ac(VHT20)	5180	SISO	2	21.076	Only for Report Use	PASS
	5200	SISO	2	20.770	Only for Report Use	PASS
	5240	SISO	2	20.631	Only for Report Use	PASS

Test Mode	Frequency (MHz)	TX Type	ANT No.	99% Occupied Bandwidth	
				Test Result (MHz)	
802.11n(HT20)	5180	SISO	1	17.770	Only for Report Use
	5200	SISO	1	17.850	Only for Report Use
	5240	SISO	1	17.773	Only for Report Use
802.11ac(VHT20)	5180	SISO	1	17.906	Only for Report Use
	5200	SISO	1	17.781	Only for Report Use
	5240	SISO	1	17.816	Only for Report Use
802.11n(HT20)	5180	SISO	2	17.709	Only for Report Use
	5200	SISO	2	17.758	Only for Report Use
	5240	SISO	2	17.868	Only for Report Use
802.11ac(VHT20)	5180	SISO	2	17.777	Only for Report Use
	5200	SISO	2	17.748	Only for Report Use
	5240	SISO	2	17.726	Only for Report Use

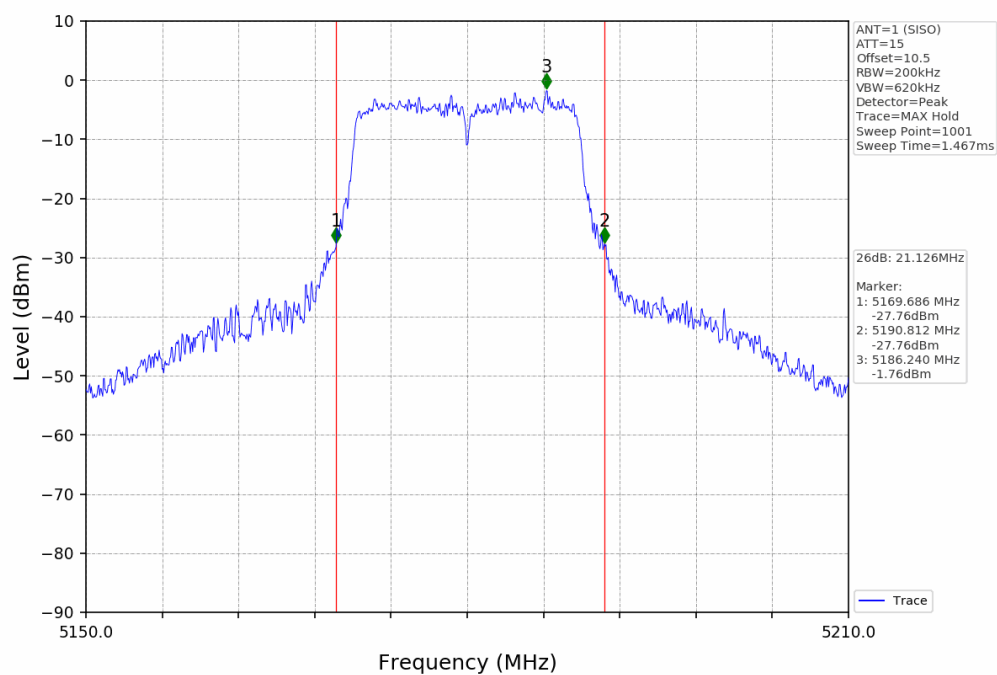
2.2 Test Graph - Emission Bandwidth



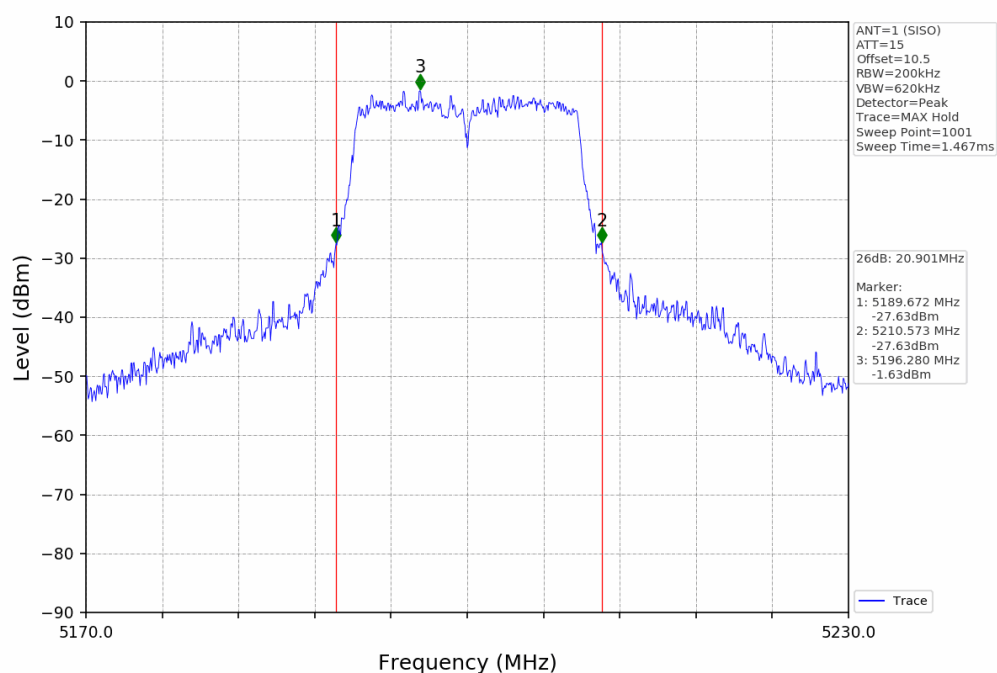
Bandwidth NTNV_802.11n(HT20)_SISO_5240MHz_ANT1



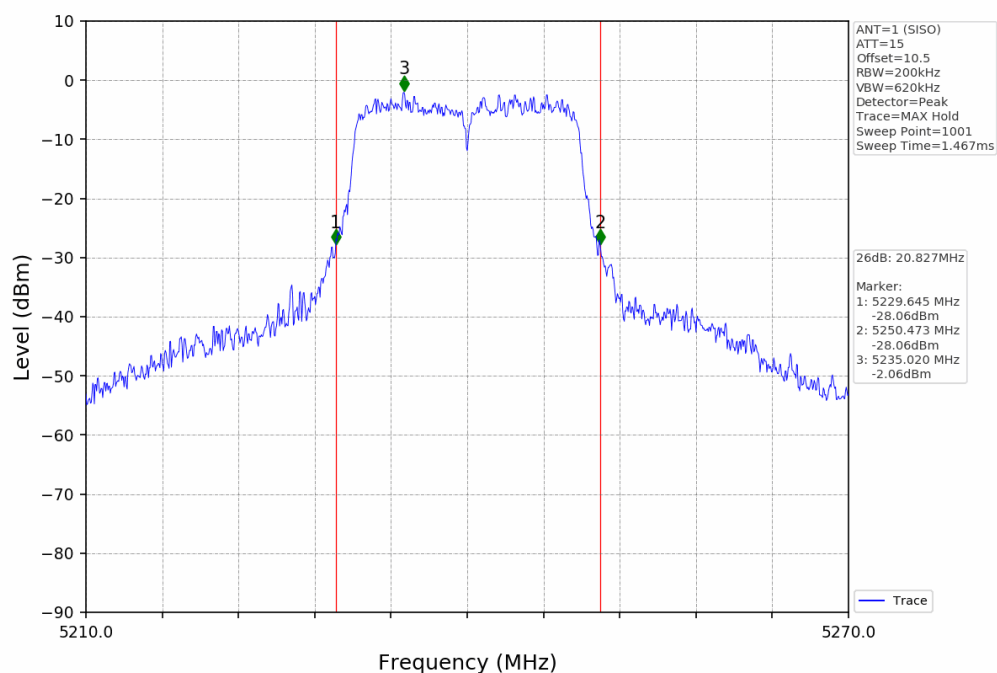
Bandwidth NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT1



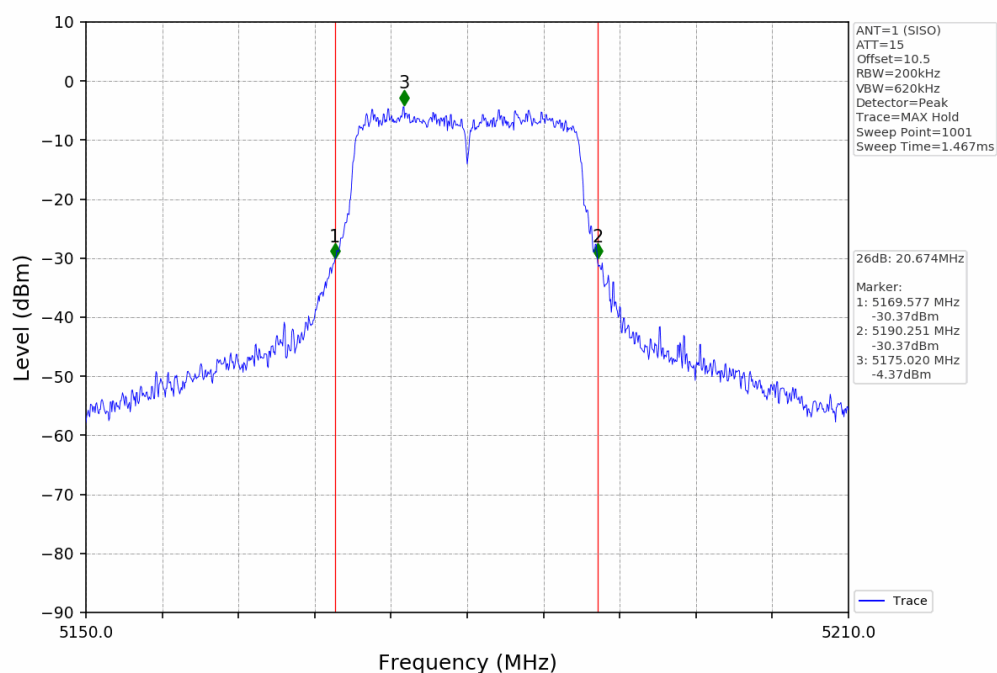
Bandwidth NTNV_802.11ac(VHT20)_SISO_5200MHz_ANT1



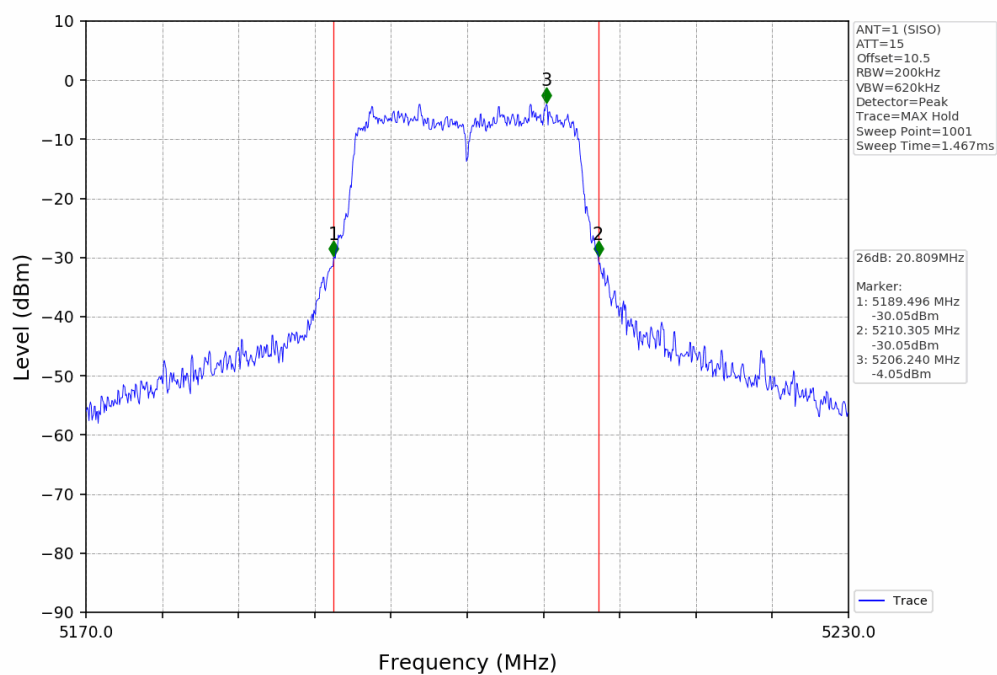
Bandwidth NTNV_802.11ac(VHT20)_SISO_5240MHz_ANT1



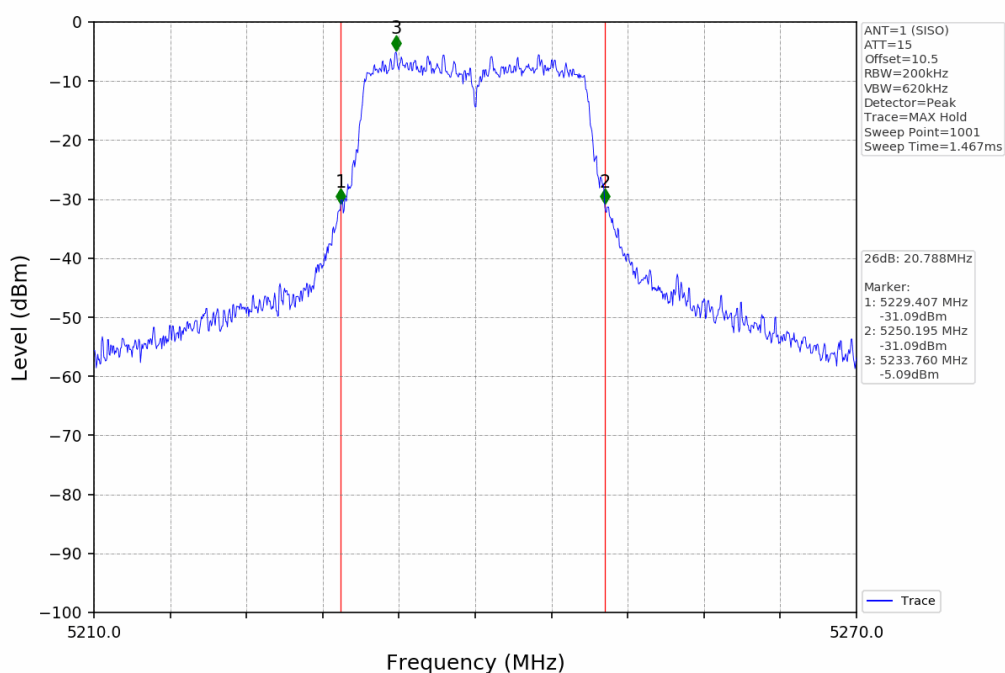
Bandwidth NTNV_802.11n(HT20)_SISO_5180MHz_ANT2



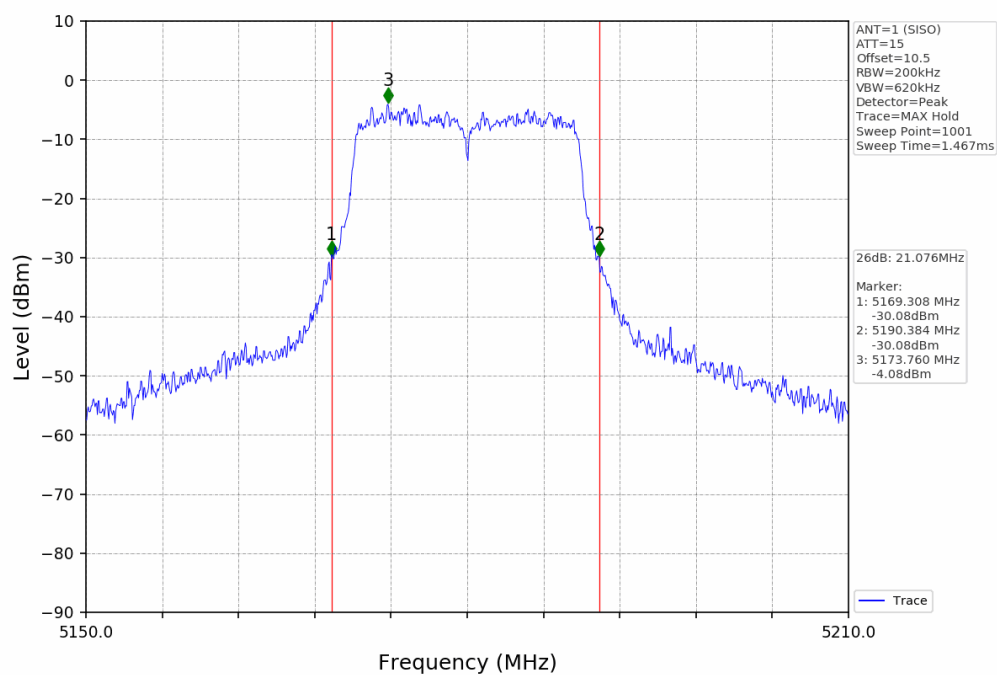
Bandwidth NTNV_802.11n(HT20)_SISO_5200MHz_ANT2



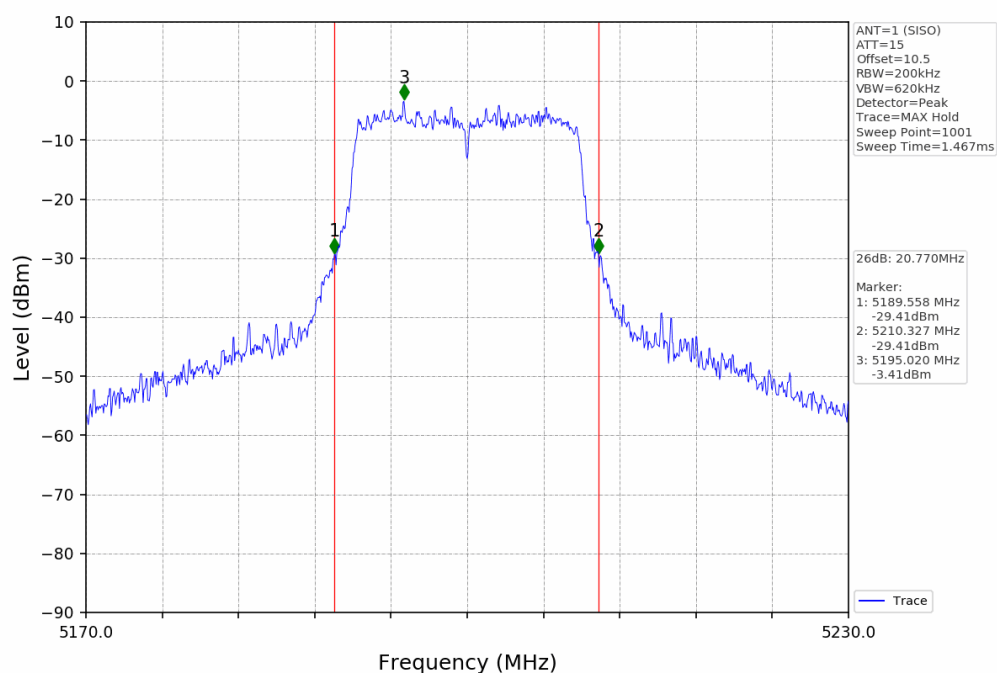
Bandwidth NTNV_802.11n(HT20)_SISO_5240MHz_ANT2



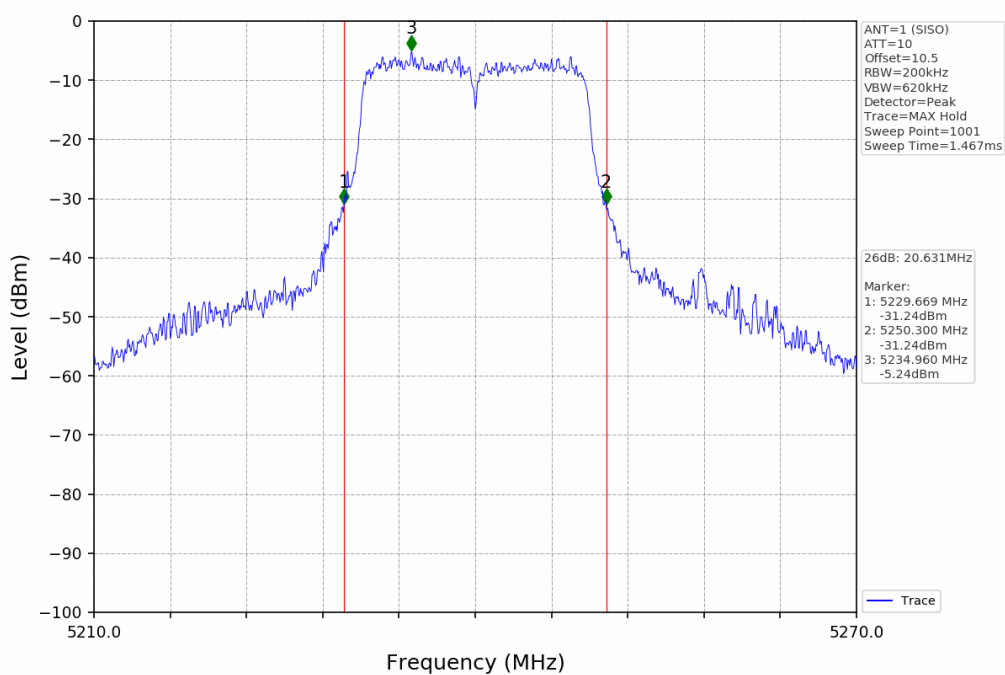
Bandwidth NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT2



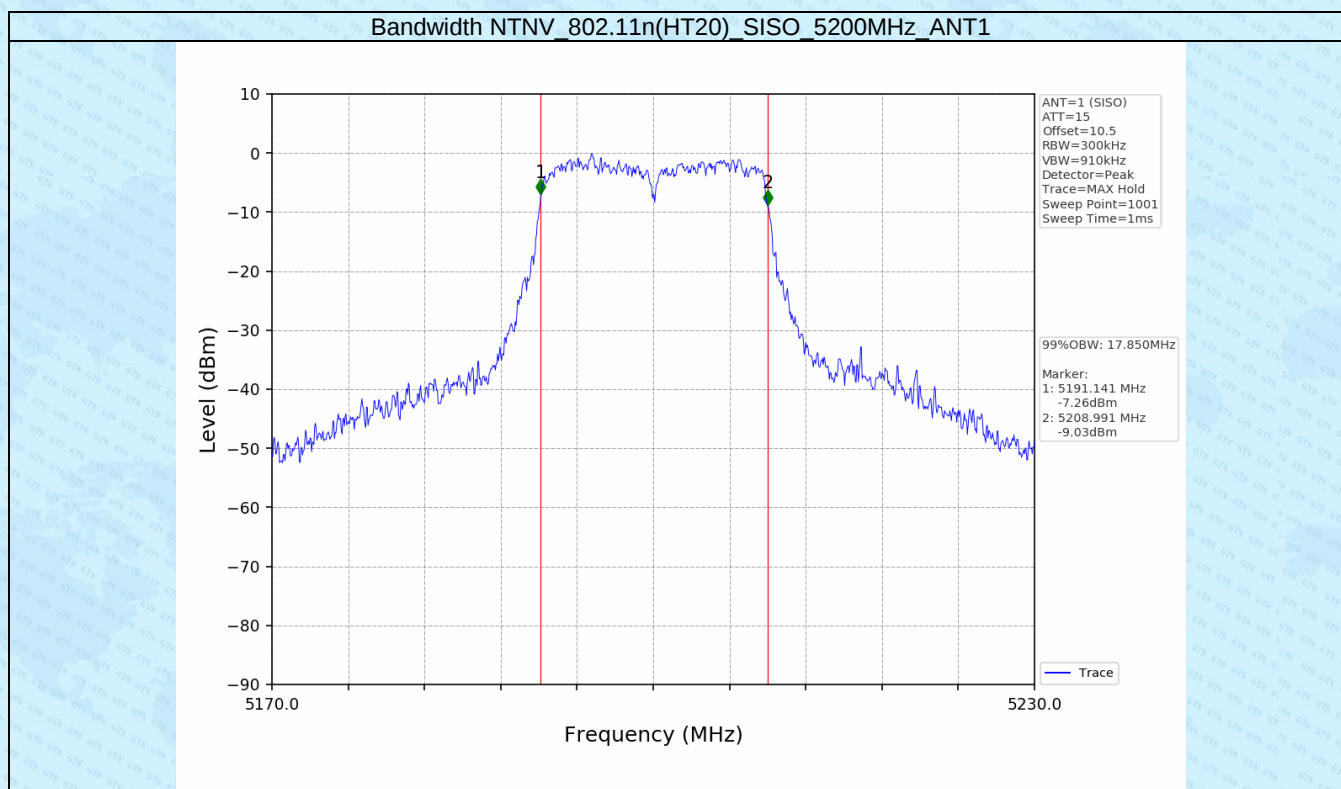
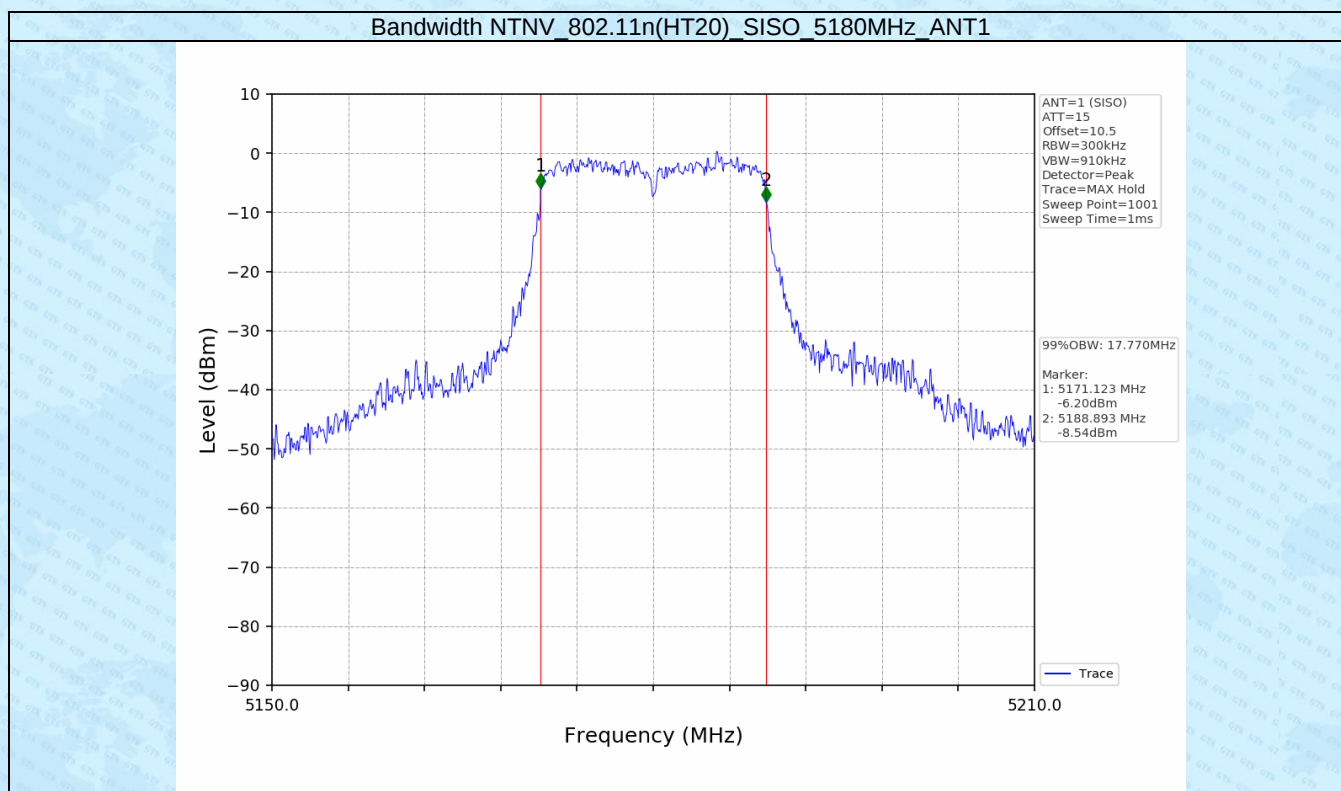
Bandwidth NTN 802.11ac(VHT20) SISO 5200MHz ANT2



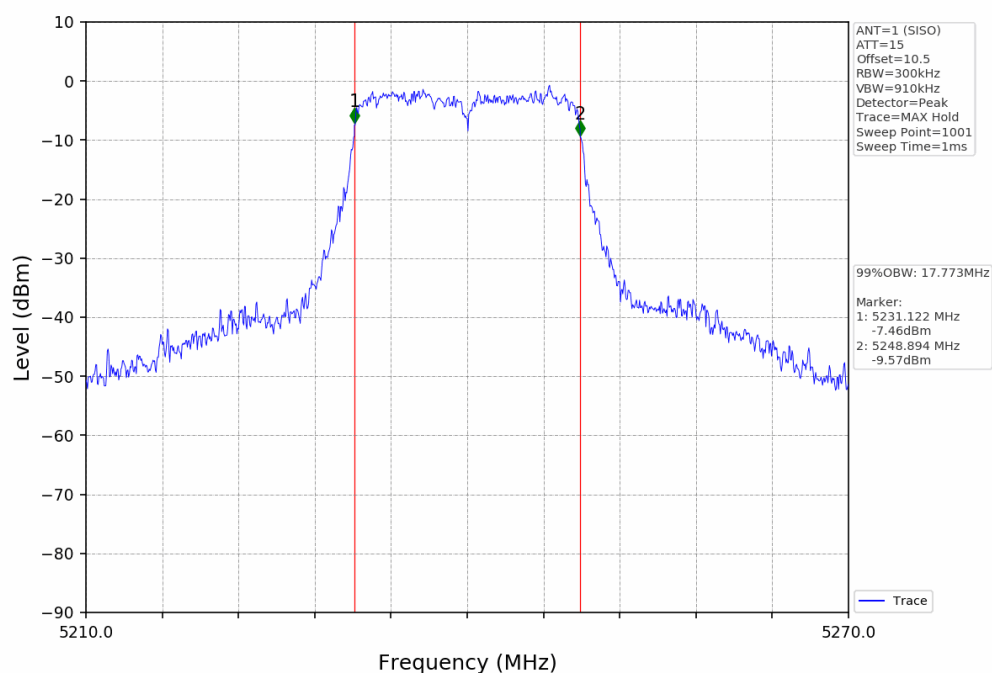
Bandwidth NTN 802.11ac(VHT20) SISO 5240MHz ANT2



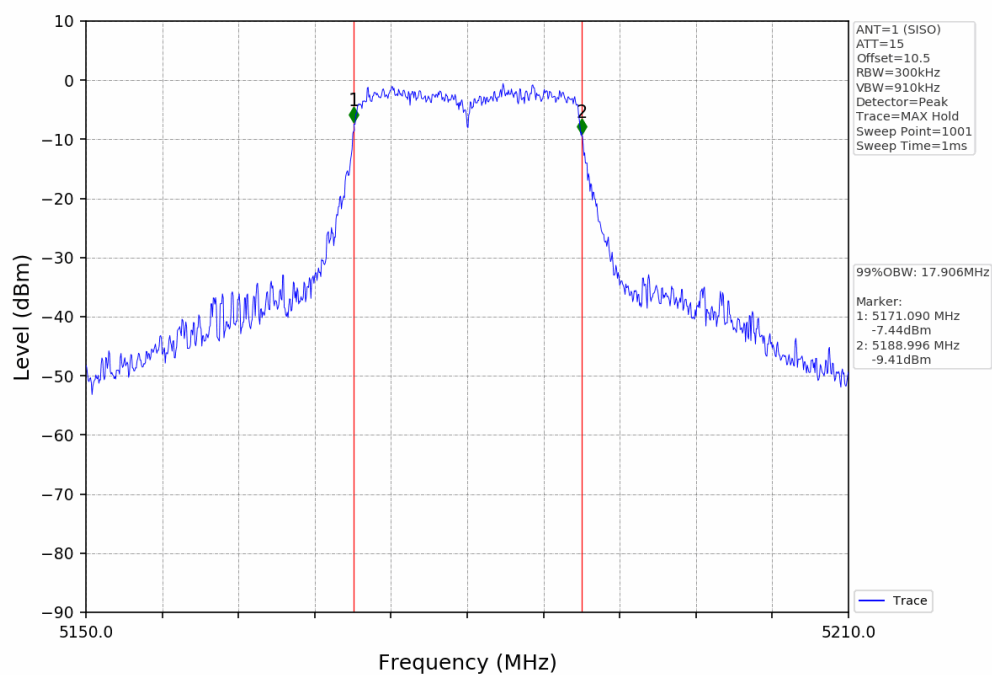
2.3 Test Graph - 99% Occupied Bandwidth



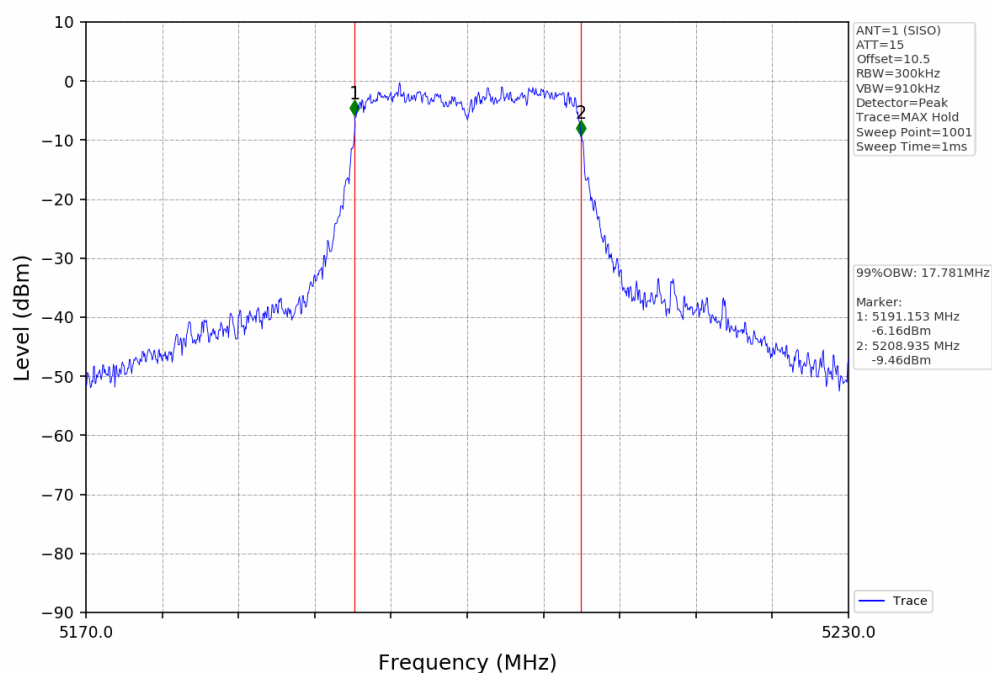
Bandwidth NTNV_802.11n(HT20)_SISO_5240MHz_ANT1



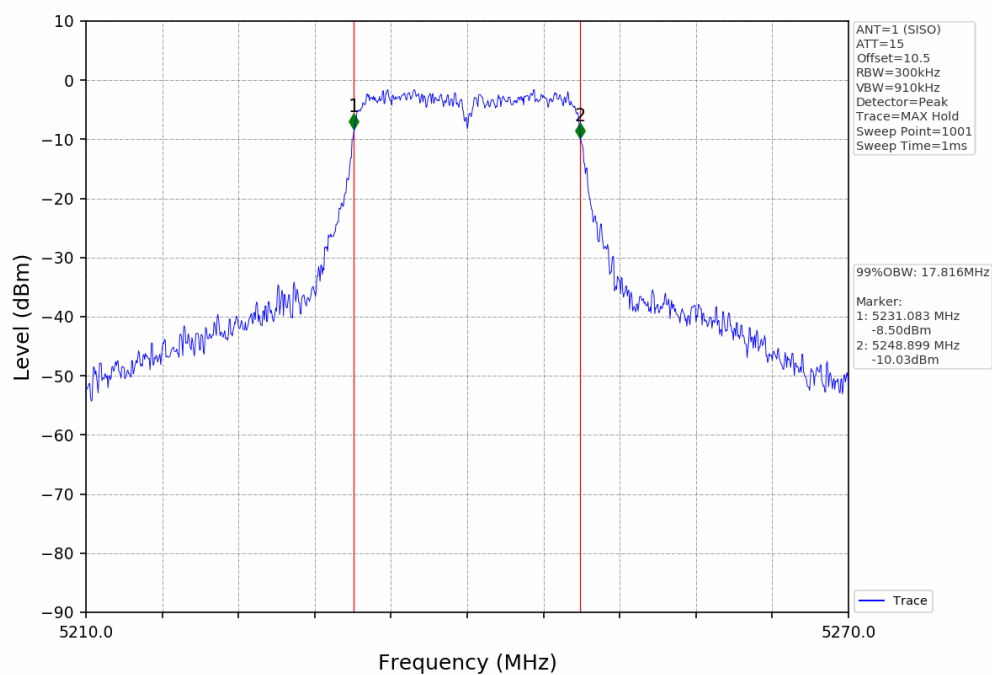
Bandwidth NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT1



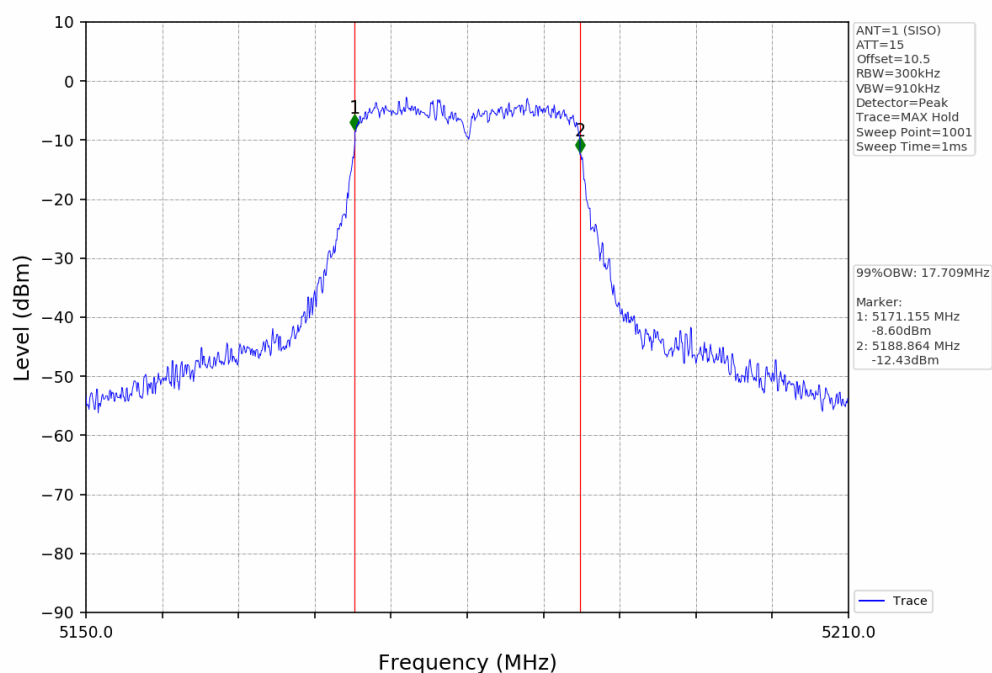
Bandwidth NTN 802.11ac(VHT20) SISO 5200MHz ANT1



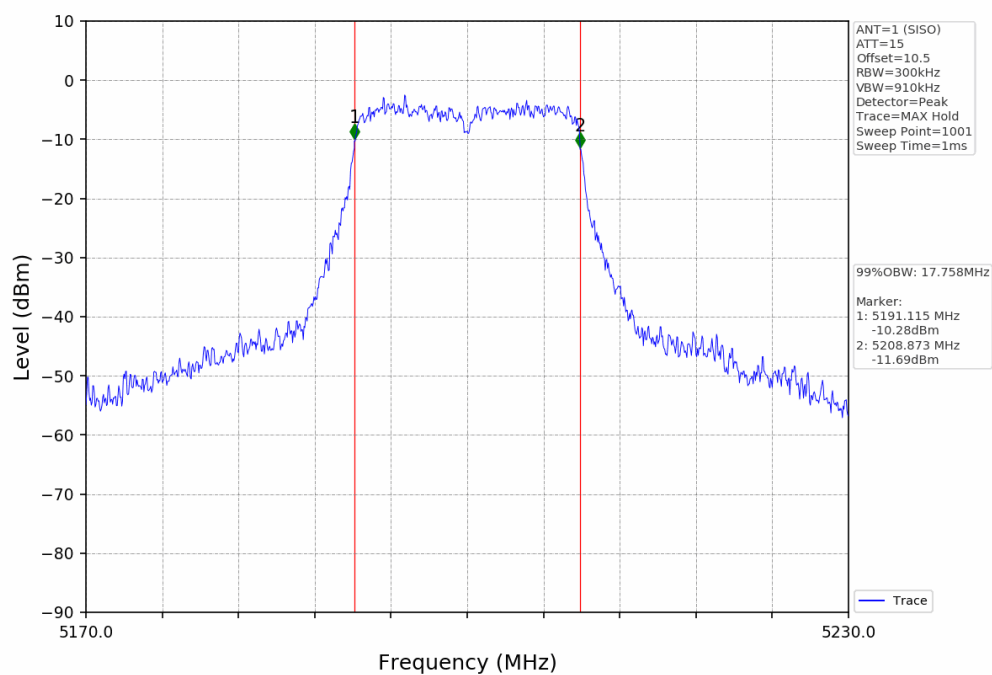
Bandwidth NTN 802.11ac(VHT20) SISO 5240MHz ANT1



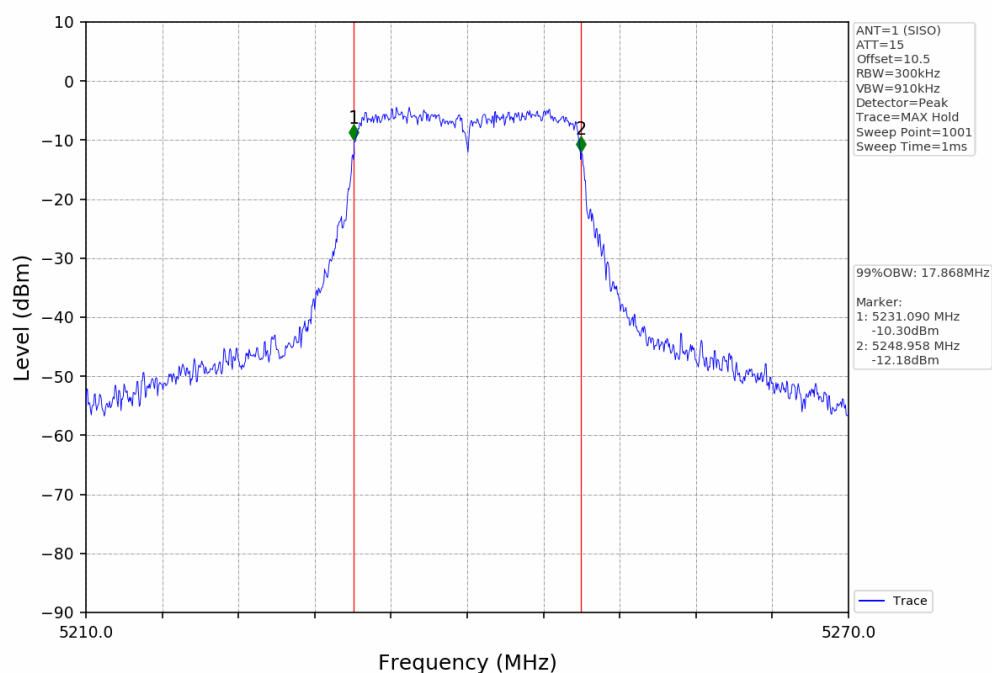
Bandwidth NTV 802.11n(HT20) SISO 5180MHz ANT2



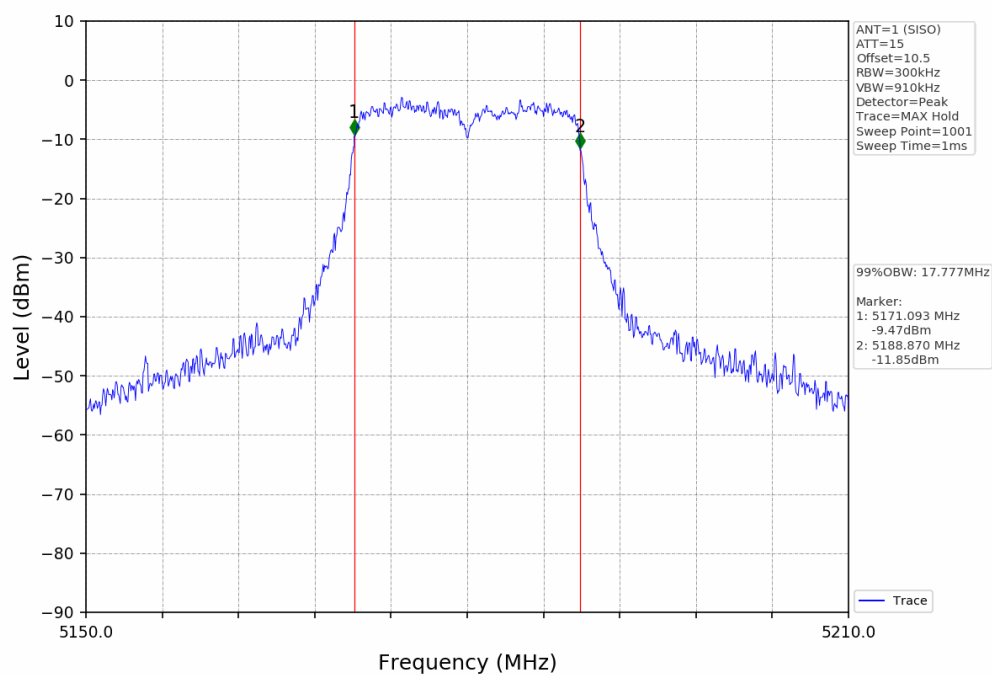
Bandwidth NTV 802.11n(HT20) SISO 5200MHz ANT2



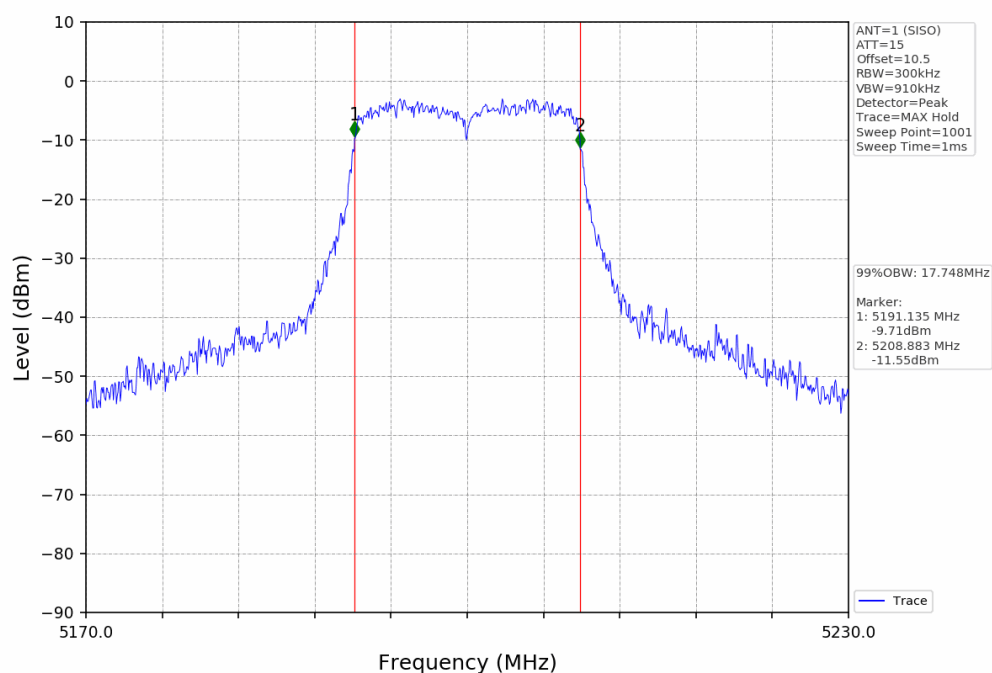
Bandwidth NTNV_802.11n(HT20)_SISO_5240MHz_ANT2



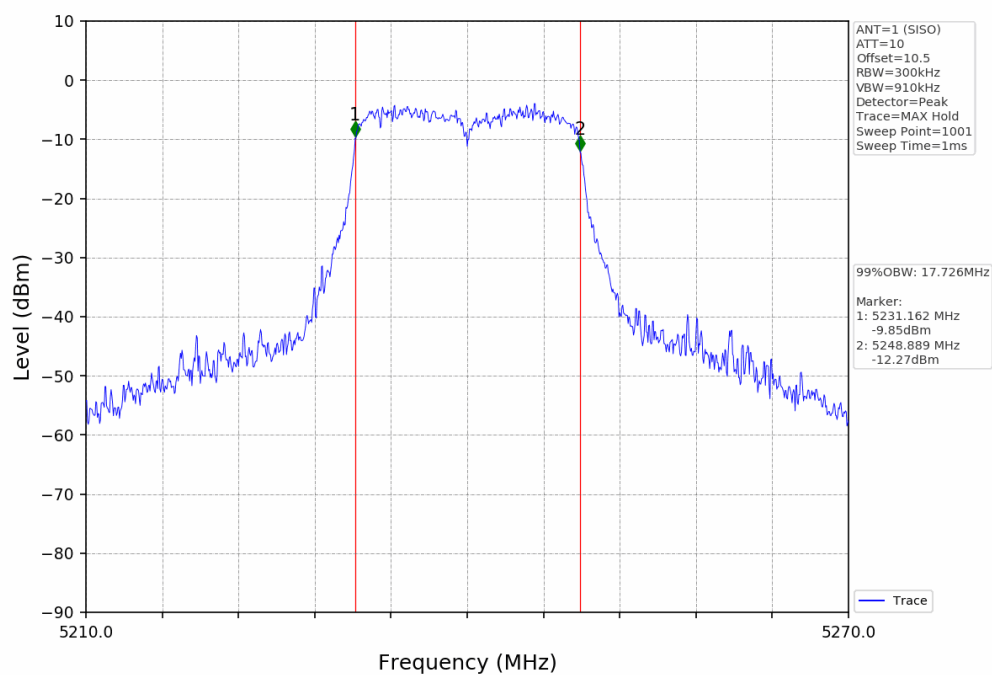
Bandwidth NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT2



Bandwidth NTN 802.11ac(VHT20) SISO 5200MHz ANT2



Bandwidth NTN 802.11ac(VHT20) SISO 5240MHz ANT2



3. Maximum Conducted Output Power

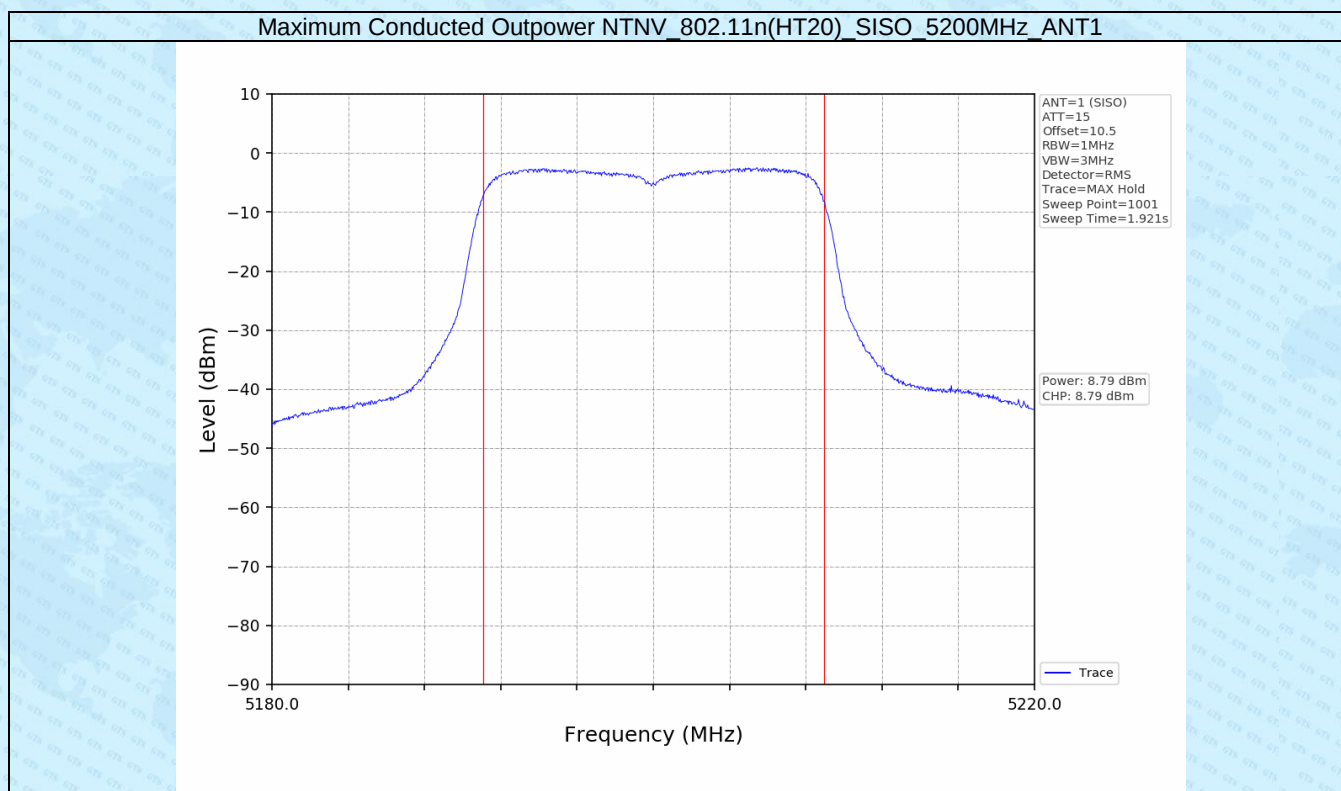
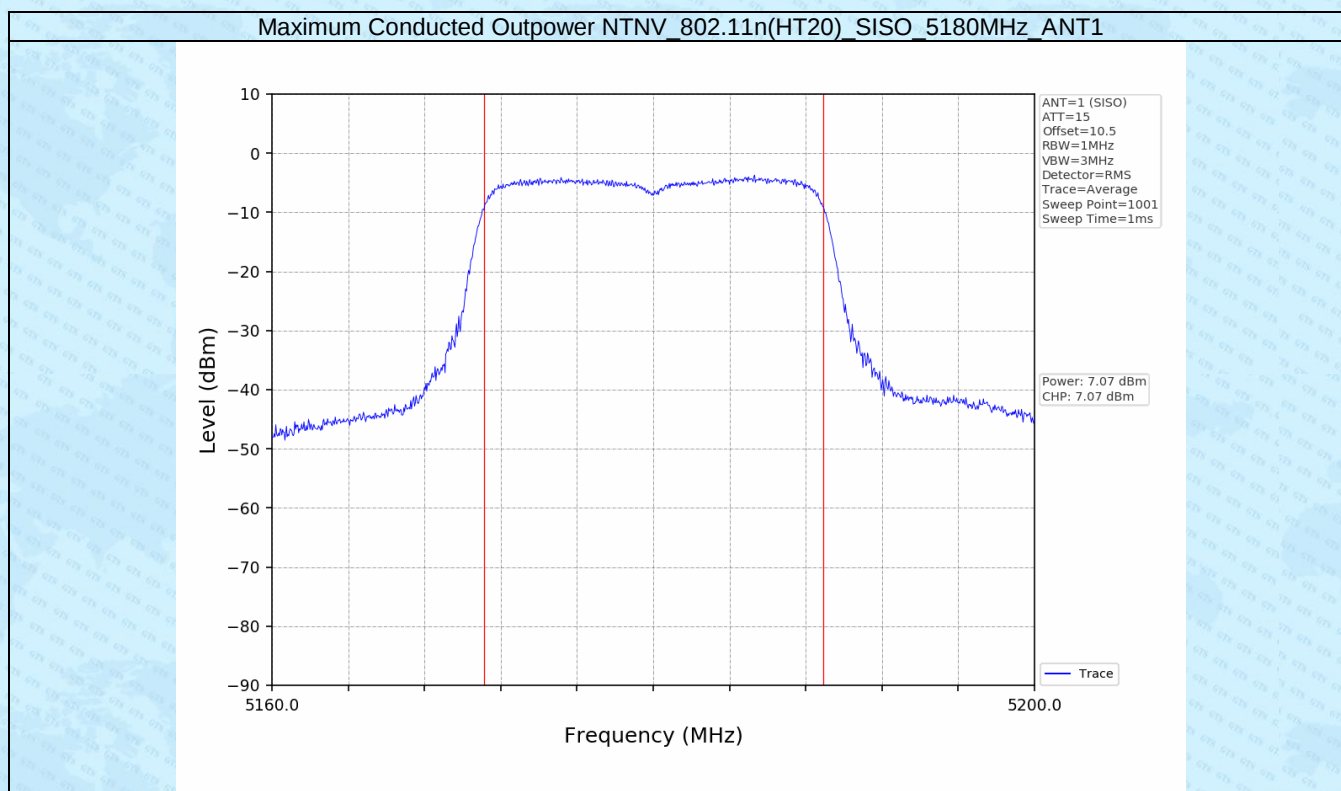
3.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)	Limit (dBm)	Verdict
			Ant 1		
802.11n(HT20)	5180	SISO	7.07	≤23.98	PASS
	5200	SISO	8.79	≤23.98	PASS
	5240	SISO	6.73	≤23.98	PASS
802.11ac(VHT20)	5180	SISO	8.61	≤23.98	PASS
	5200	SISO	9.37	≤23.98	PASS
	5240	SISO	8.20	≤23.98	PASS

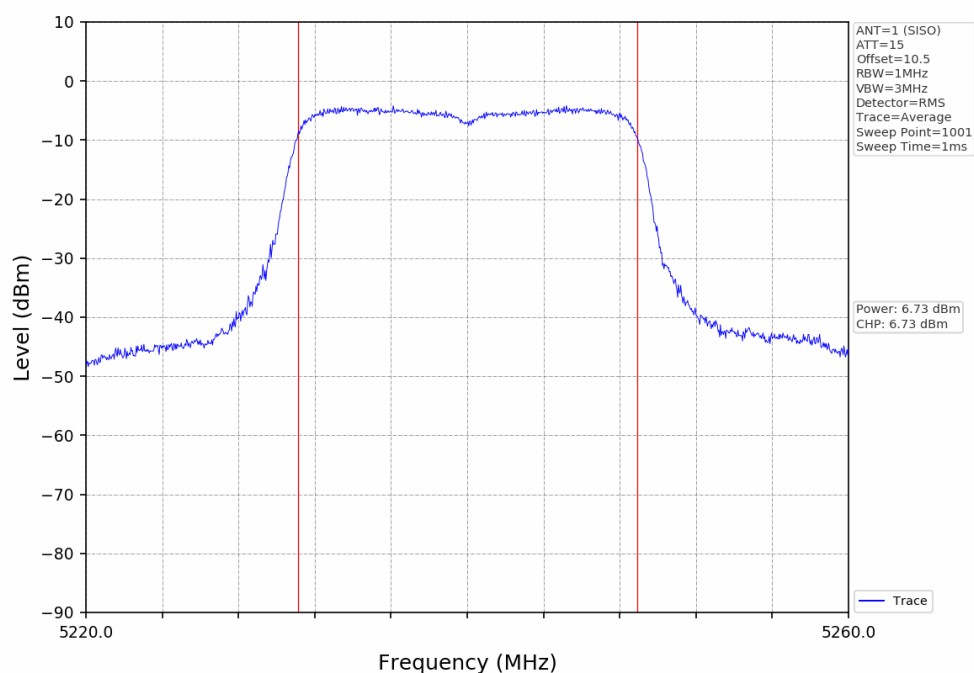
Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)	Limit (dBm)	Verdict
			Ant 2		
802.11n(HT20)	5180	SISO	6.31	≤23.98	PASS
	5200	SISO	6.82	≤23.98	PASS
	5240	SISO	5.83	≤23.98	PASS
802.11ac(VHT20)	5180	SISO	6.42	≤23.98	PASS
	5200	SISO	6.86	≤23.98	PASS
	5240	SISO	5.30	≤23.98	PASS

Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)	Limit (dBm)	Verdict
802.11n(HT20)	5180	MIMO	9.72	≤23.98	PASS
	5200	MIMO	10.93	≤23.98	PASS
	5240	MIMO	9.31	≤23.98	PASS
802.11ac(VHT20)	5180	MIMO	10.66	≤23.98	PASS
	5200	MIMO	11.30	≤23.98	PASS
	5240	MIMO	10.00	≤23.98	PASS

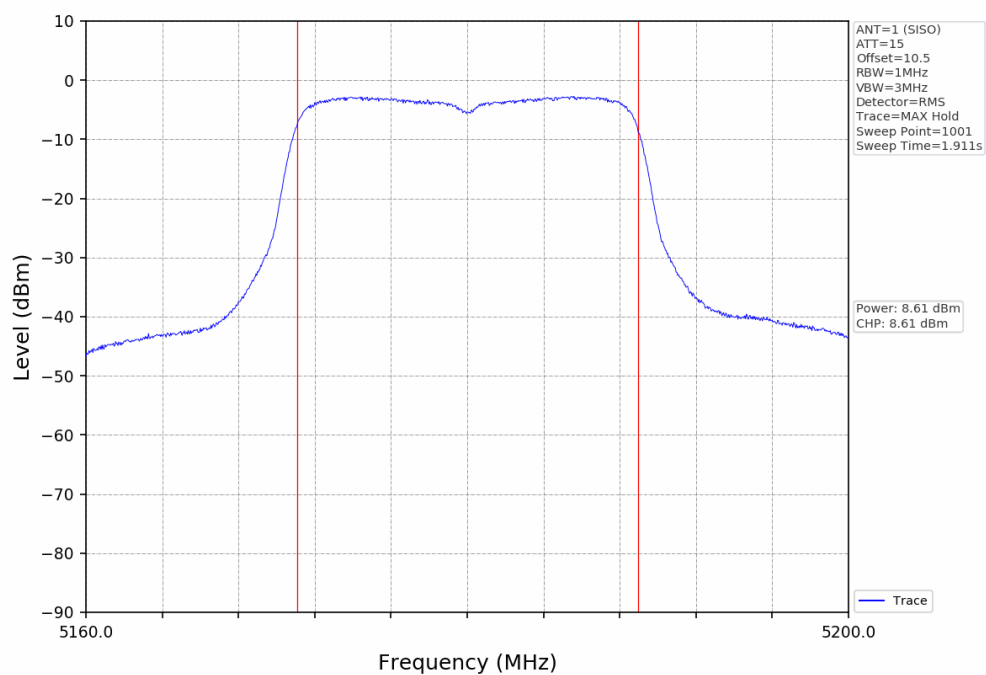
3.2 Test Graph



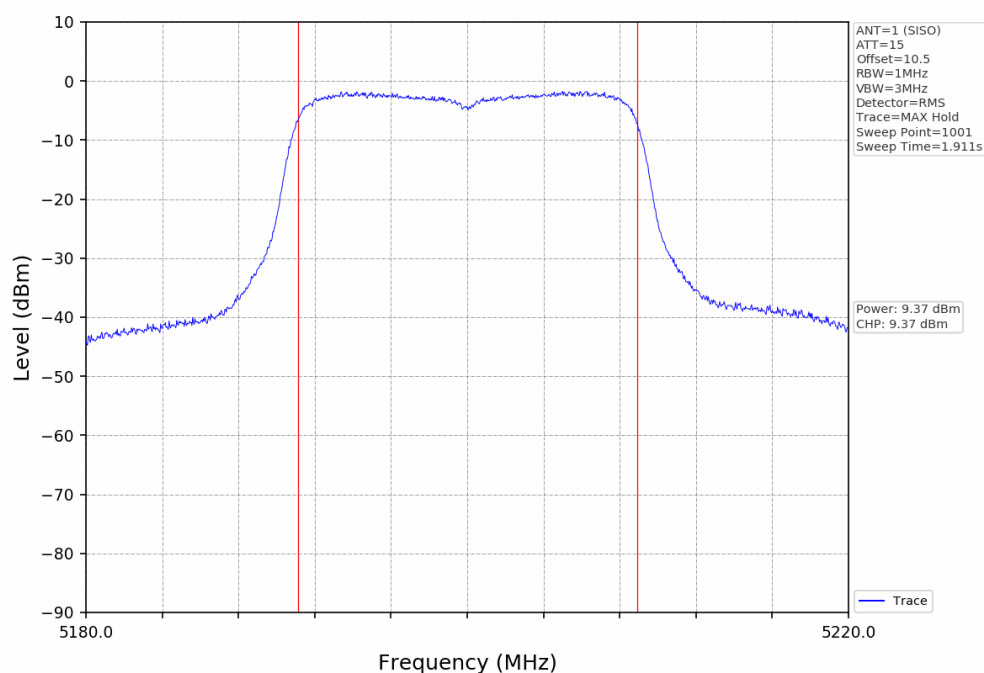
Maximum Conducted Outpower NTNV_802.11n(HT20)_SISO_5240MHz_ANT1



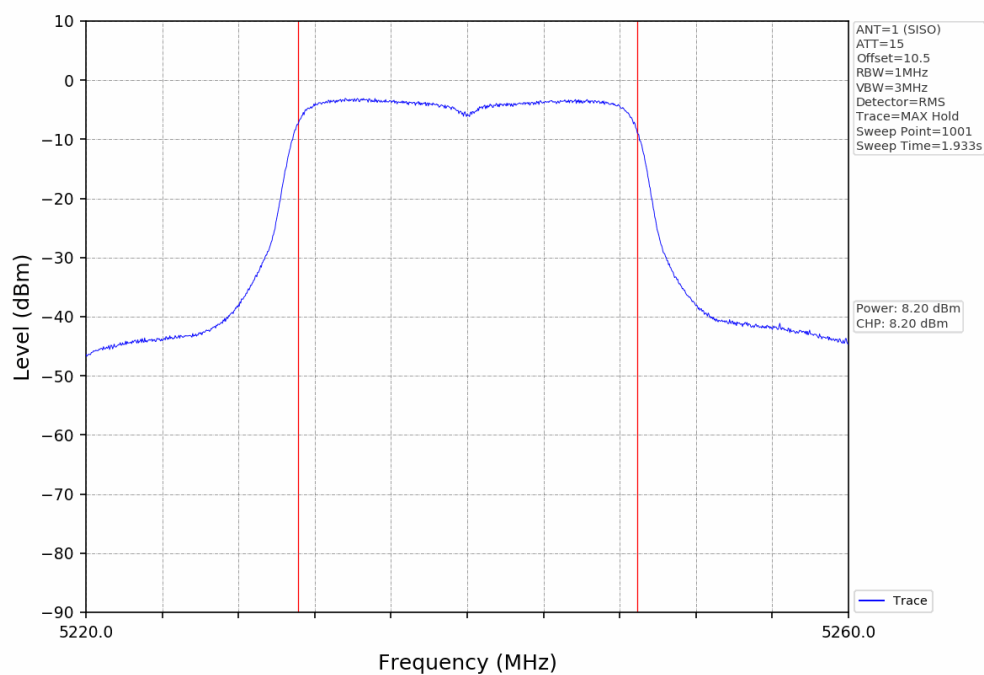
Maximum Conducted Outpower NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT1



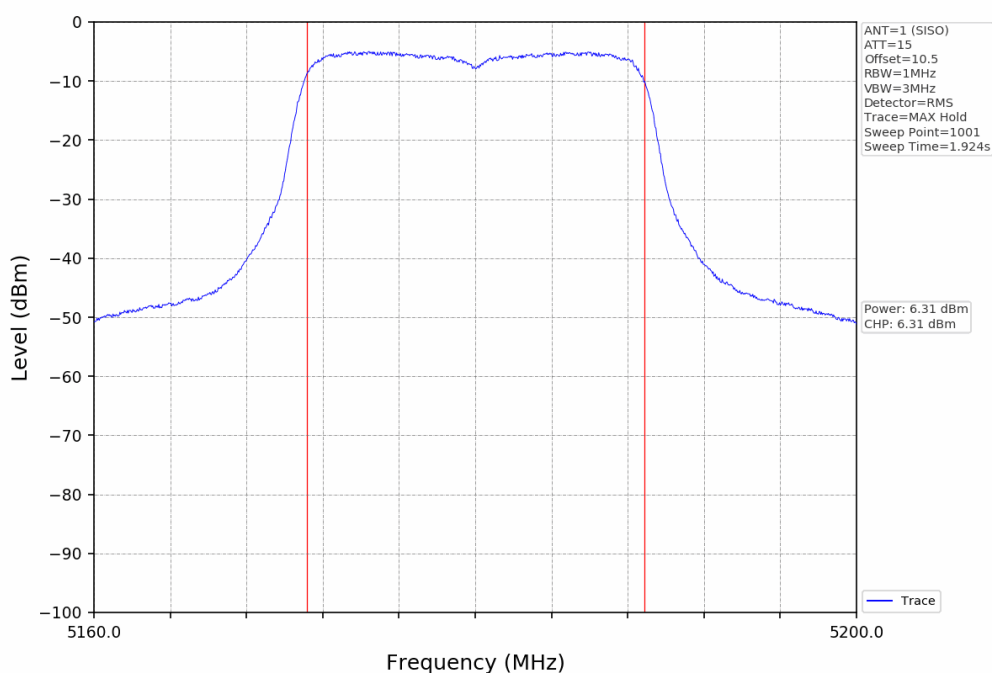
Maximum Conducted Outpower NTV 802.11ac(VHT20) SISO 5200MHz ANT1



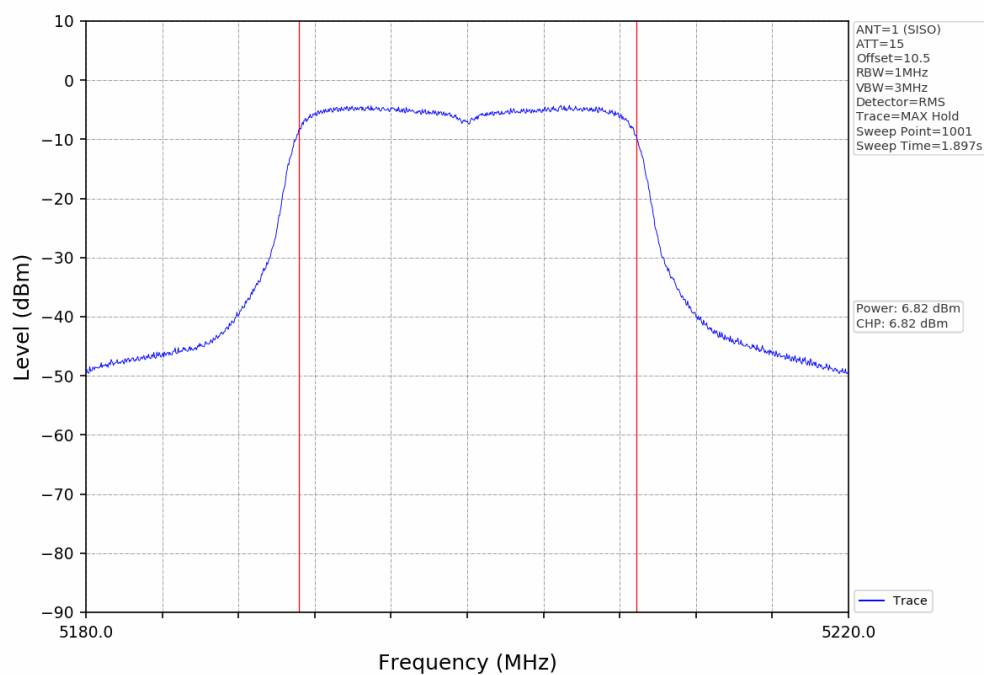
Maximum Conducted Outpower NTV 802.11ac(VHT20) SISO 5240MHz ANT1



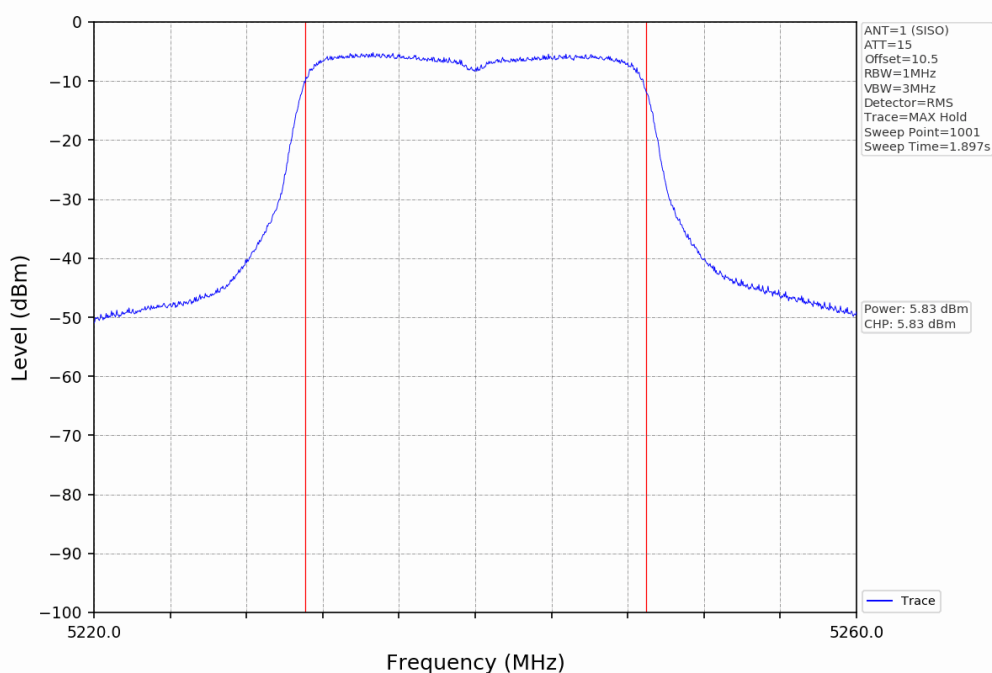
Maximum Conducted Outpower NTN 802.11n(HT20) SISO 5180MHz ANT2



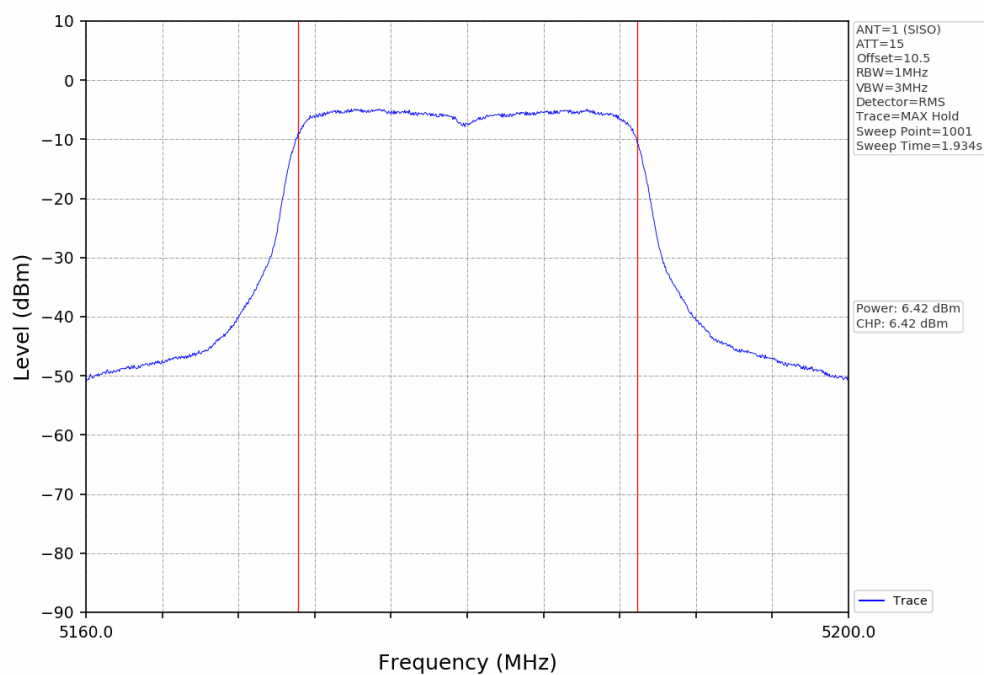
Maximum Conducted Outpower NTN 802.11n(HT20) SISO 5200MHz ANT2



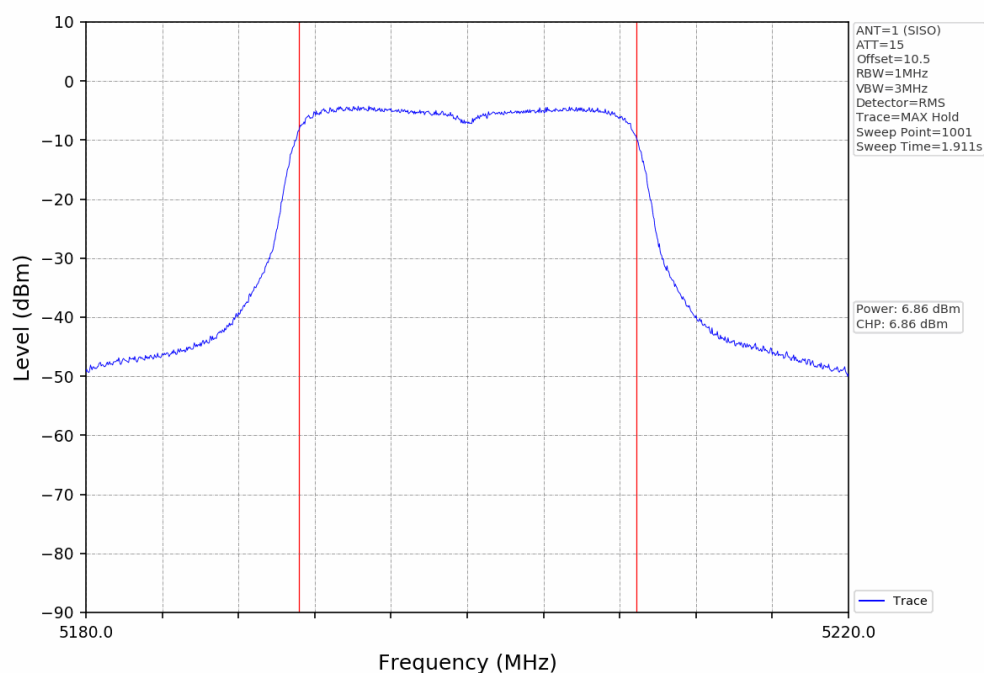
Maximum Conducted Outpower NTNV_802.11n(HT20)_SISO_5240MHz_ANT2



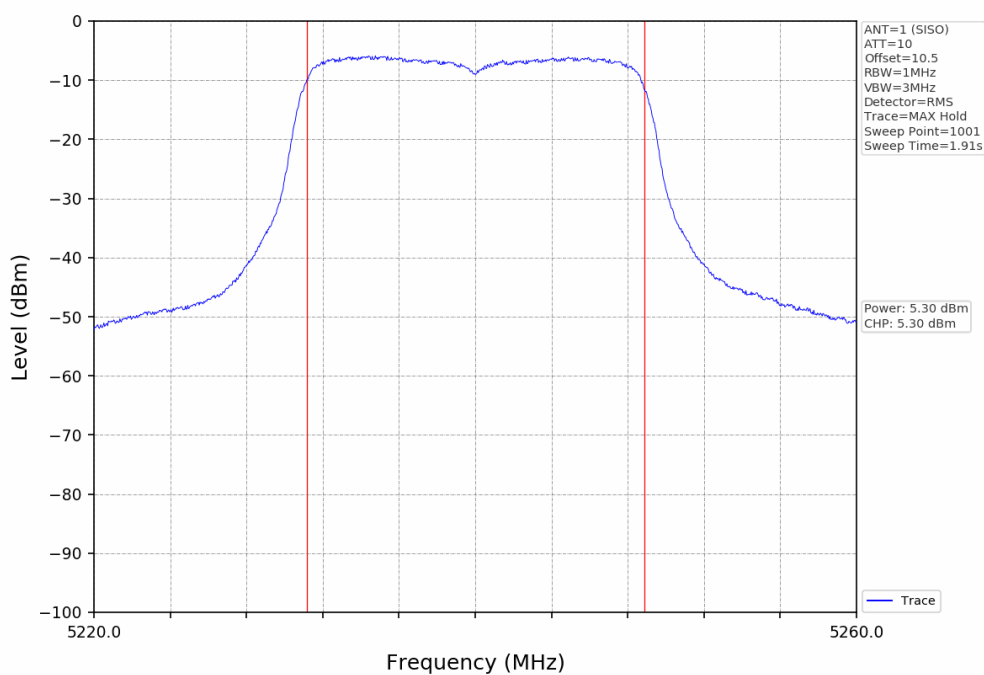
Maximum Conducted Outpower NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT2



Maximum Conducted Outpower NTVN_802.11ac(VHT20)_SISO_5200MHz_ANT2



Maximum Conducted Outpower NTVN_802.11ac(VHT20)_SISO_5240MHz_ANT2



4. Maximum Power Spectral Density (PSD)

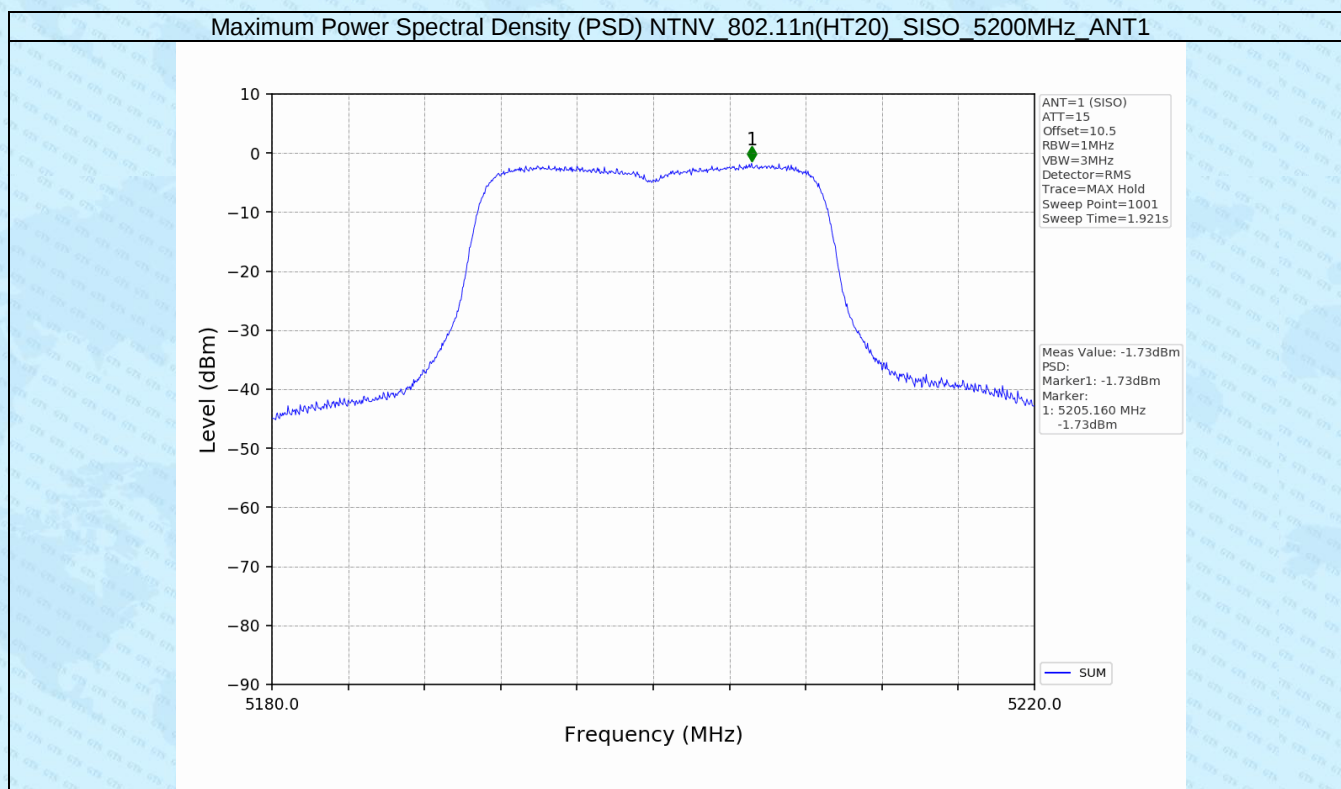
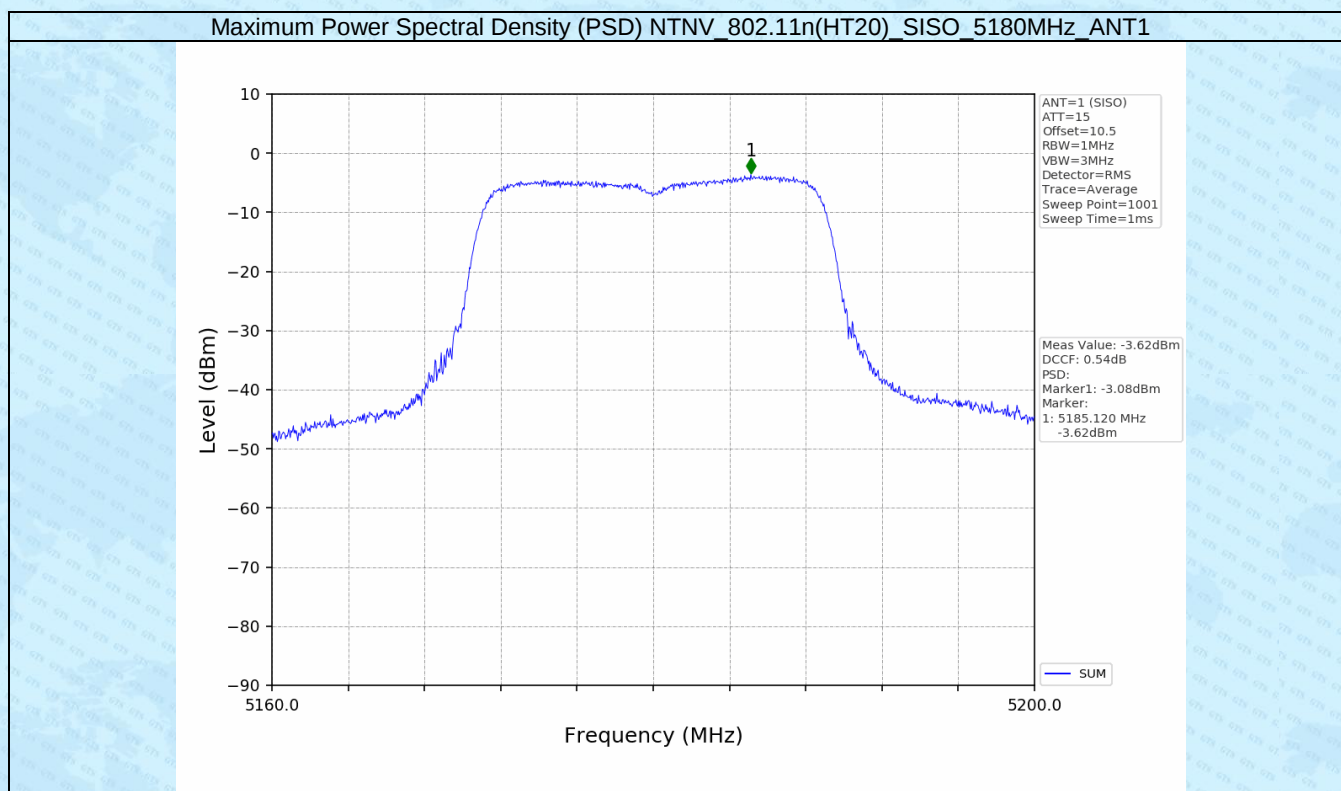
4.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/MHz)	Limits (dBm/MHz)	Verdict
			Ant 1		
802.11n(HT20)	5180	SISO	-3.08	≤11	PASS
	5200	SISO	-1.73	≤11	PASS
	5240	SISO	-3.74	≤11	PASS
802.11ac(VHT20)	5180	SISO	-2.89	≤11	PASS
	5200	SISO	-1.79	≤11	PASS
	5240	SISO	-2.96	≤11	PASS

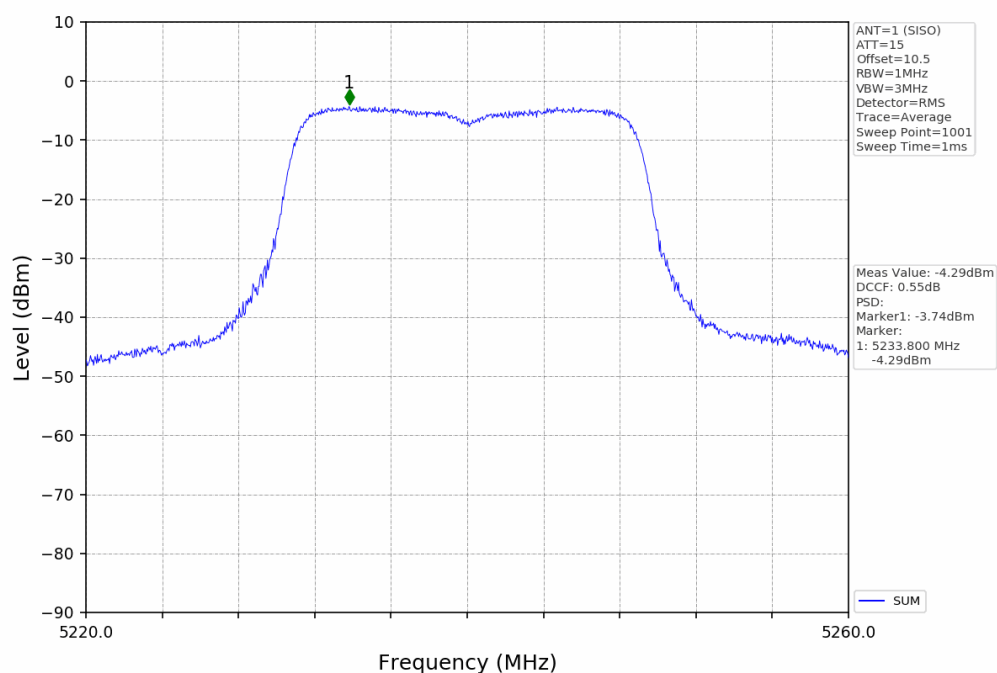
Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/MHz)	Limits (dBm/MHz)	Verdict
			Ant 2		
802.11n(HT20)	5180	SISO	-4.91	≤11	PASS
	5200	SISO	-4.32	≤11	PASS
	5240	SISO	-5.22	≤11	PASS
802.11ac(VHT20)	5180	SISO	-4.82	≤11	PASS
	5200	SISO	-4.83	≤11	PASS
	5240	SISO	-5.94	≤11	PASS

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/MHz)	Limits (dBm/MHz)	Verdict
802.11n(HT20)	5180	MIMO	-0.89	≤11	PASS
	5200	MIMO	0.18	≤11	PASS
	5240	MIMO	-1.41	≤11	PASS
802.11ac(VHT20)	5180	MIMO	-0.74	≤11	PASS
	5200	MIMO	-0.04	≤11	PASS
	5240	MIMO	-1.19	≤11	PASS

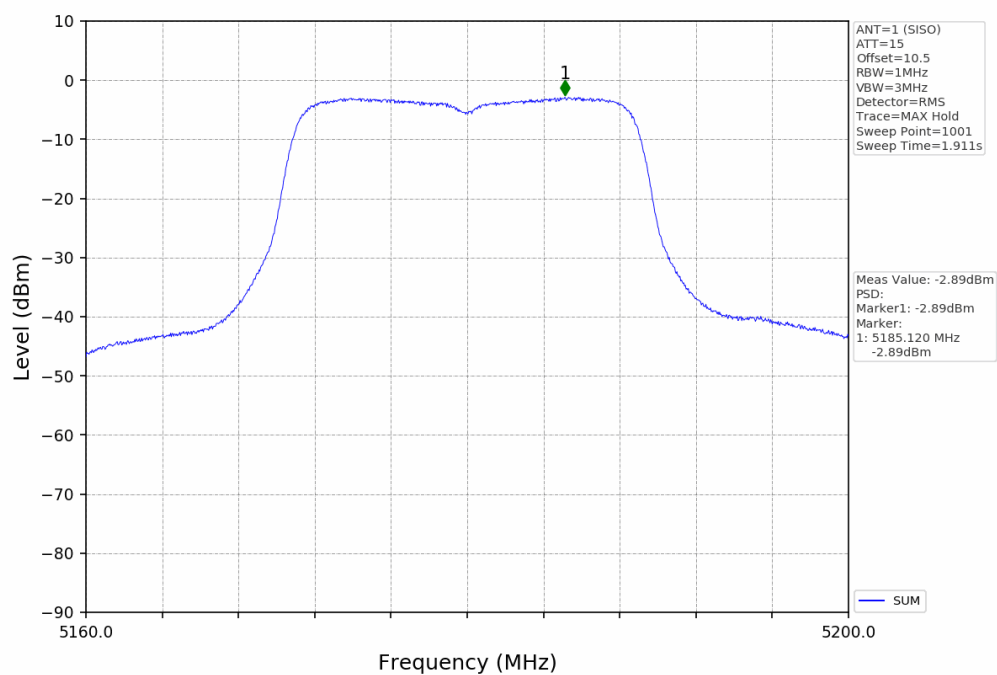
4.2 Test Graph



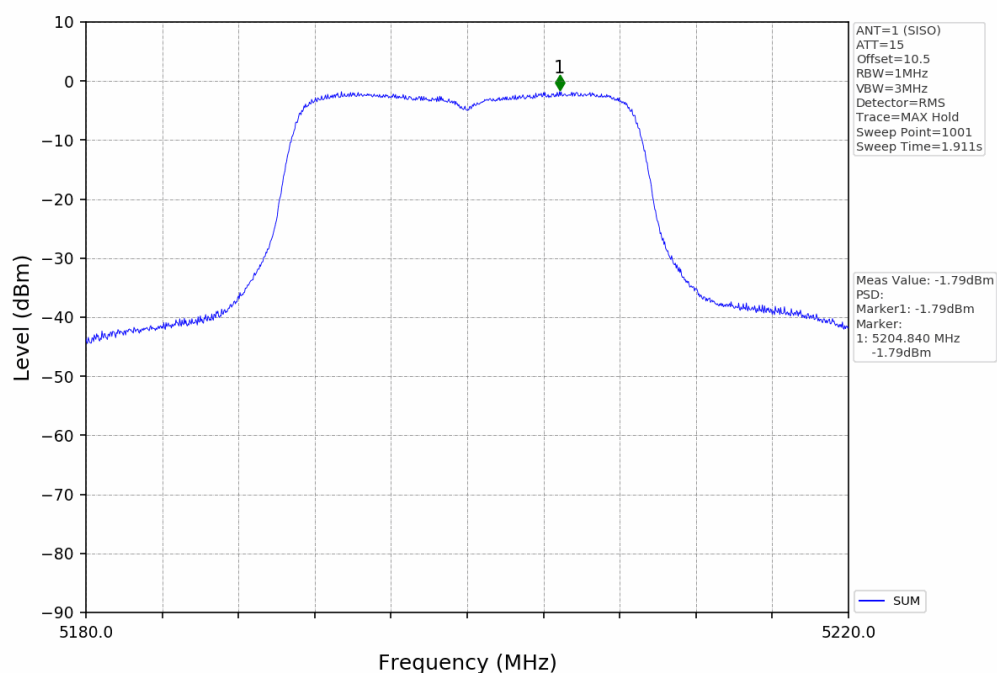
Maximum Power Spectral Density (PSD) NTVN_802.11n(HT20)_SISO_5240MHz_ANT1



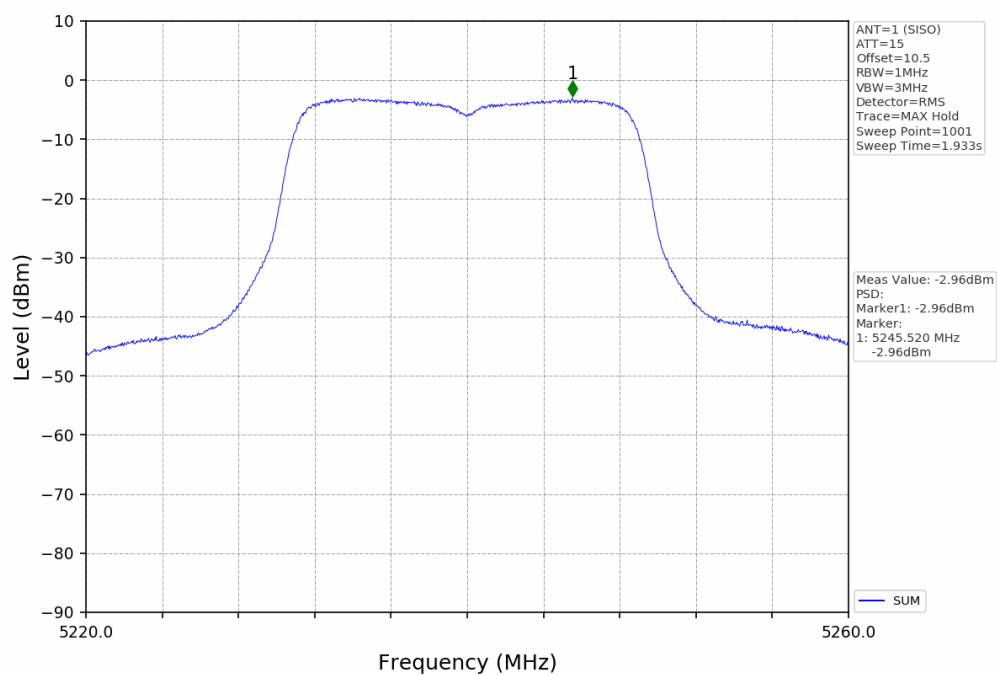
Maximum Power Spectral Density (PSD) NTVN_802.11ac(VHT20)_SISO_5180MHz_ANT1



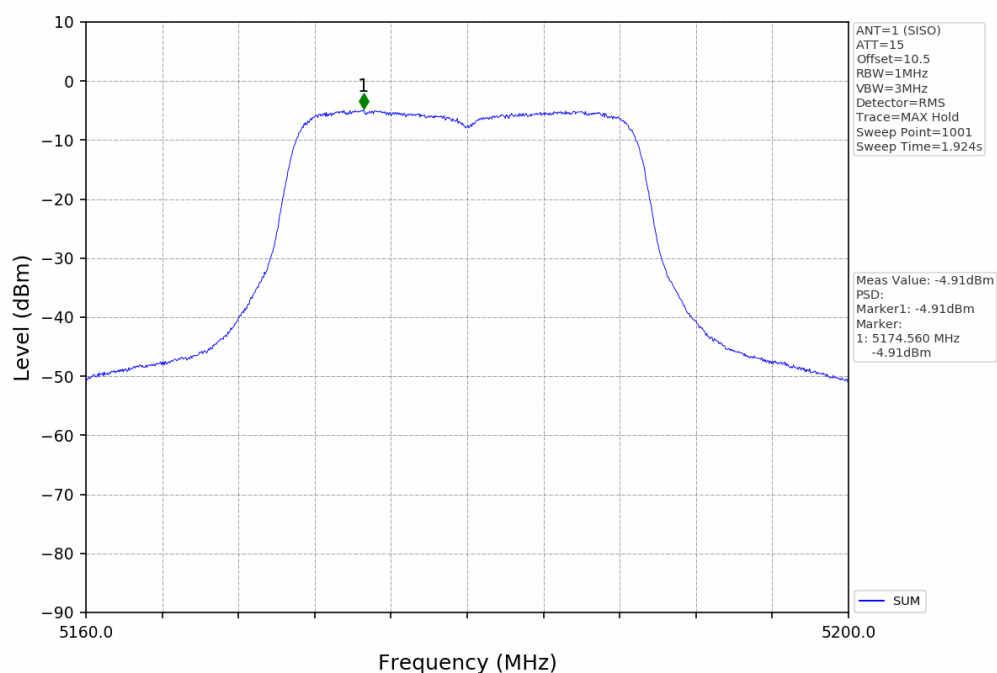
Maximum Power Spectral Density (PSD) NTNV_802.11ac(VHT20)_SISO_5200MHz_ANT1



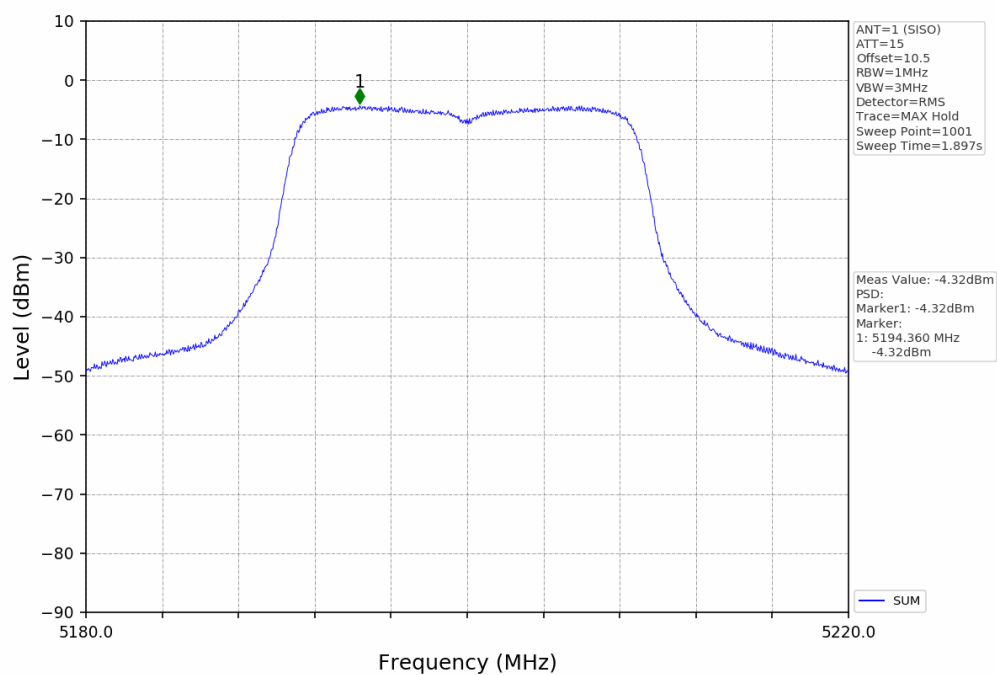
Maximum Power Spectral Density (PSD) NTNV_802.11ac(VHT20)_SISO_5240MHz_ANT1



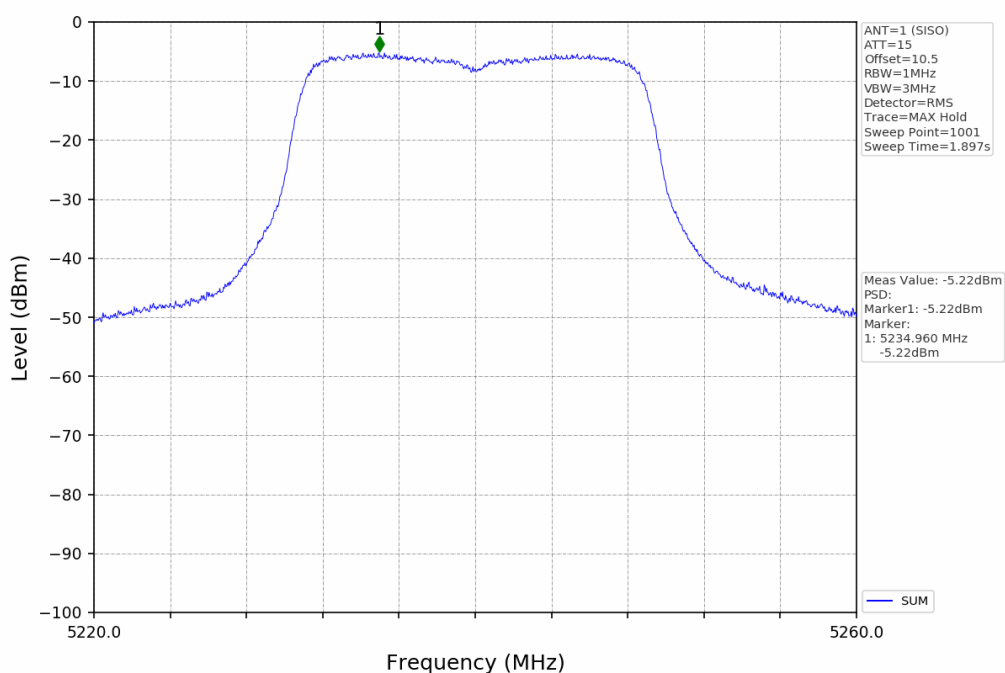
Maximum Power Spectral Density (PSD) NTVN_802.11n(HT20) SISO_5180MHz_ANT2



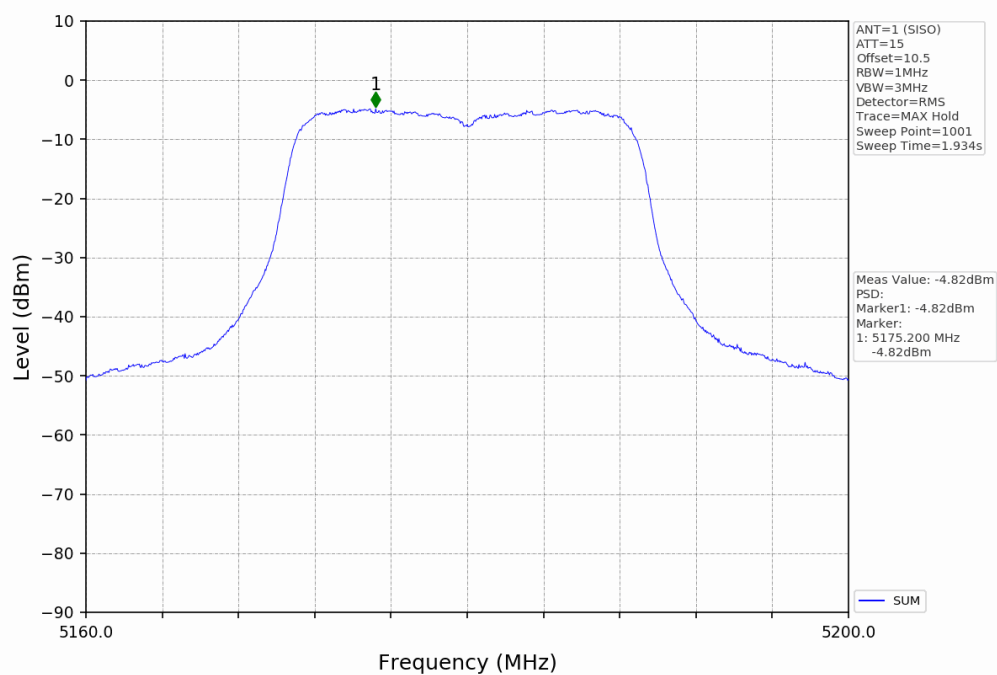
Maximum Power Spectral Density (PSD) NTVN_802.11n(HT20) SISO_5200MHz_ANT2



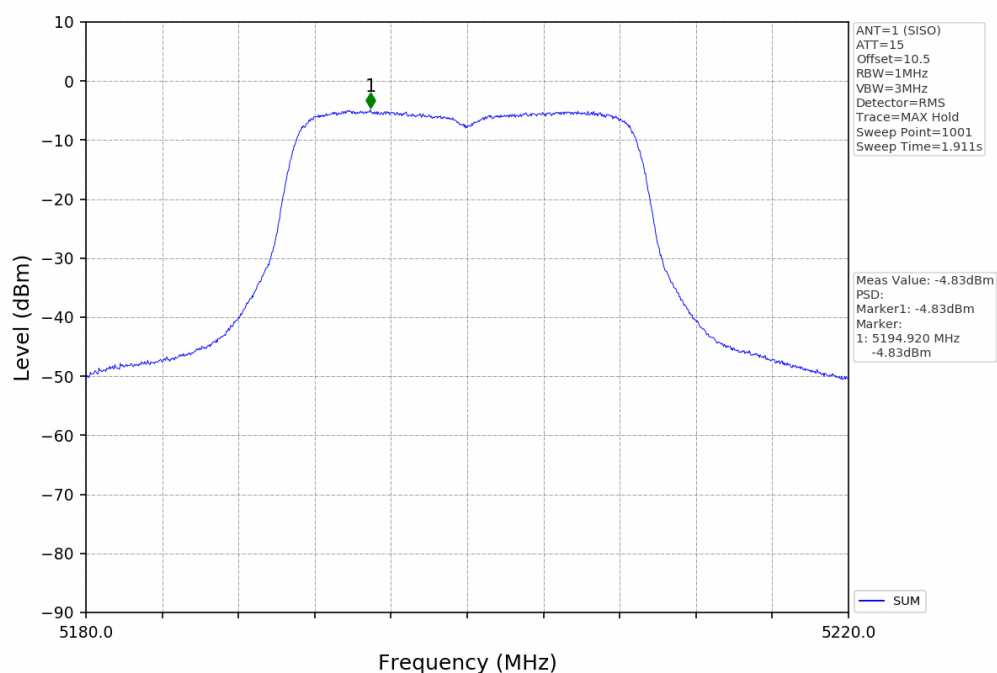
Maximum Power Spectral Density (PSD) NTN_V_802.11n(HT20)_SISO_5240MHz_ANT2



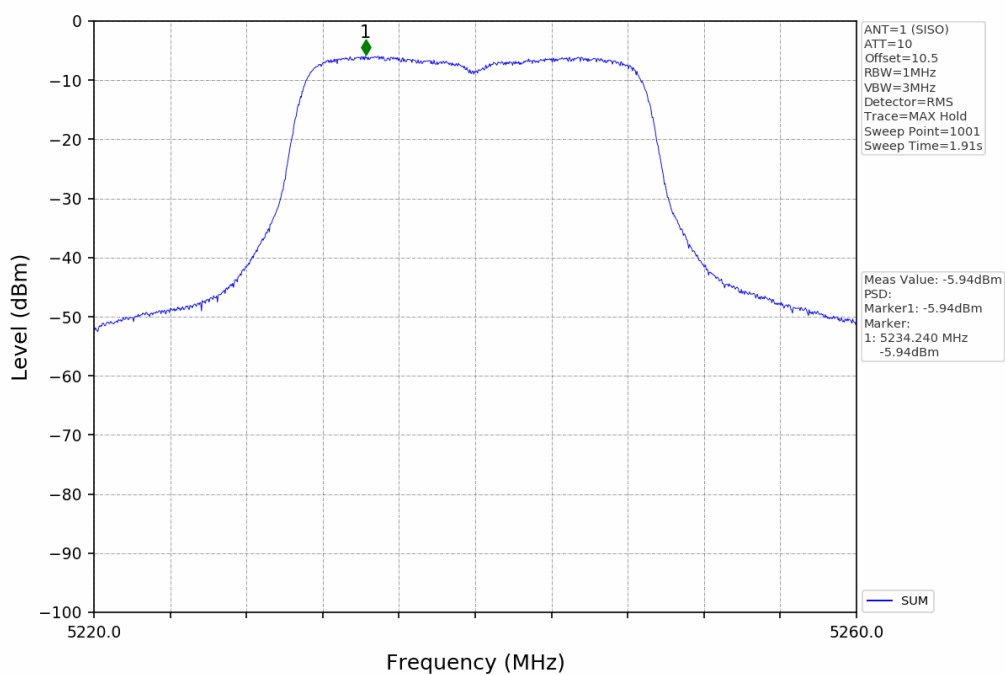
Maximum Power Spectral Density (PSD) NTN_V_802.11ac(VHT20)_SISO_5180MHz_ANT2



Maximum Power Spectral Density (PSD) NTN_V_802.11ac(VHT20)_SISO_5200MHz_ANT2



Maximum Power Spectral Density (PSD) NTN_V_802.11ac(VHT20)_SISO_5240MHz_ANT2



5. Frequency Stability

5.1 Test Result

Test Condition	Test Mode	Test Frequency [MHz]	Ant	Result [ppm]	Limit [ppm]	Verdict
NTNV	Carrier	5180	1	-8.69	≤ 20	PASS
		5200	1	-8.65	≤ 20	PASS
		5240	1	-8.78	≤ 20	PASS
		5180	2	-8.69	≤ 20	PASS
		5200	2	-8.65	≤ 20	PASS
		5240	2	-8.59	≤ 20	PASS

-----End-----