

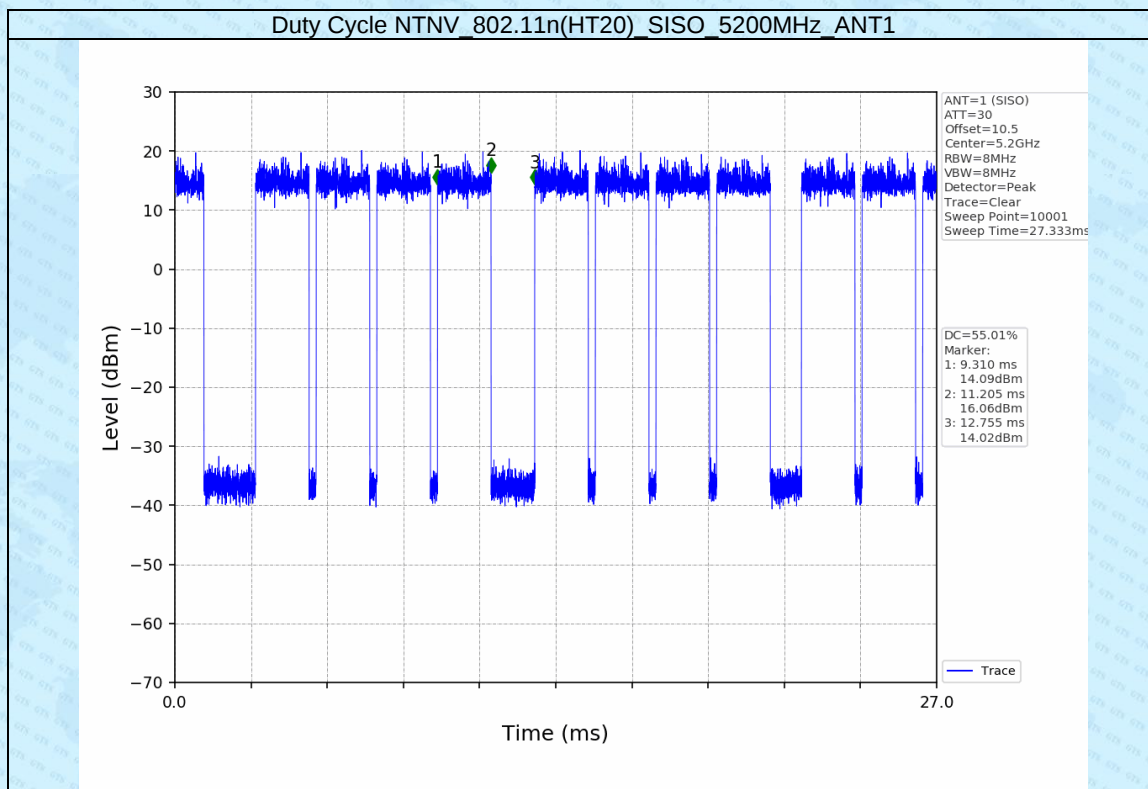
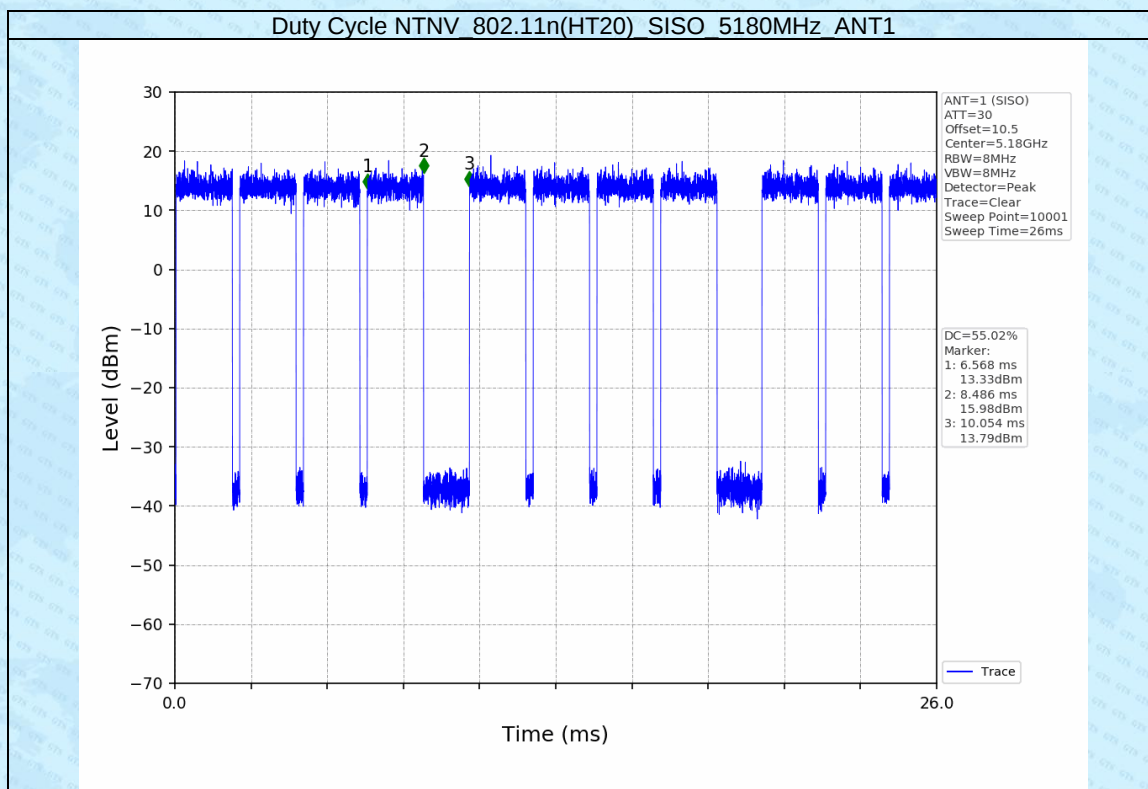
Appendix for 15.407

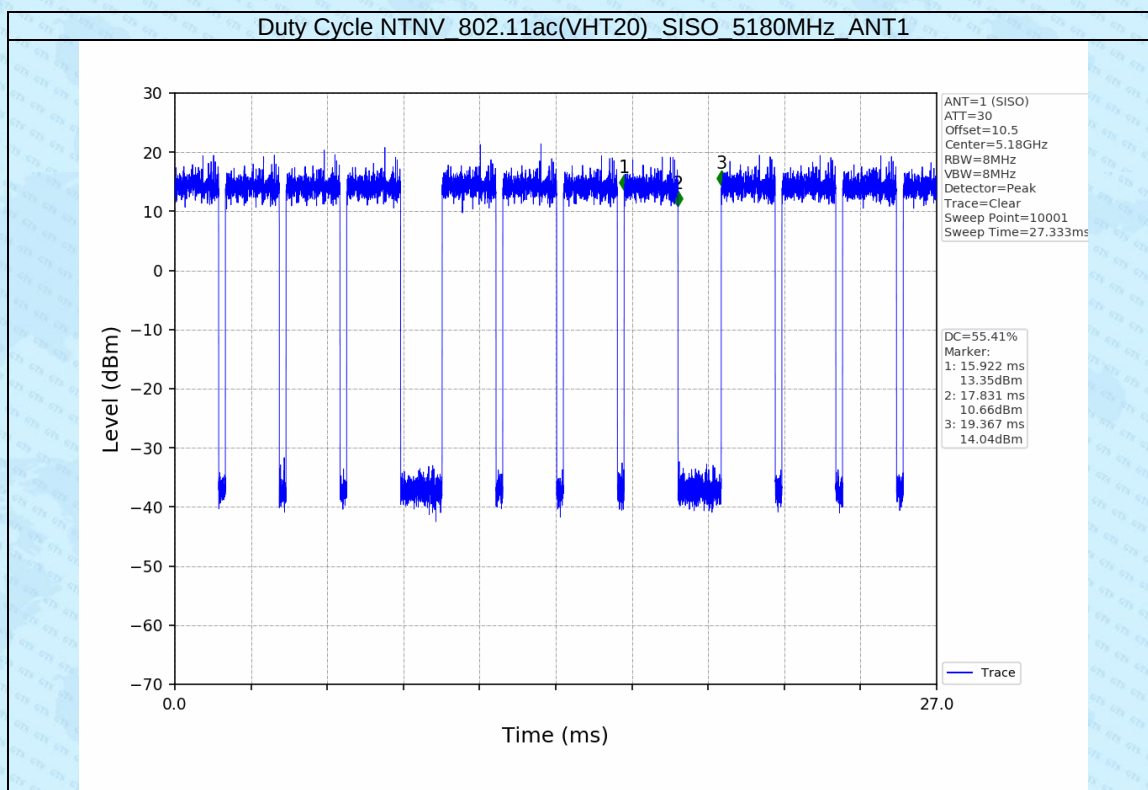
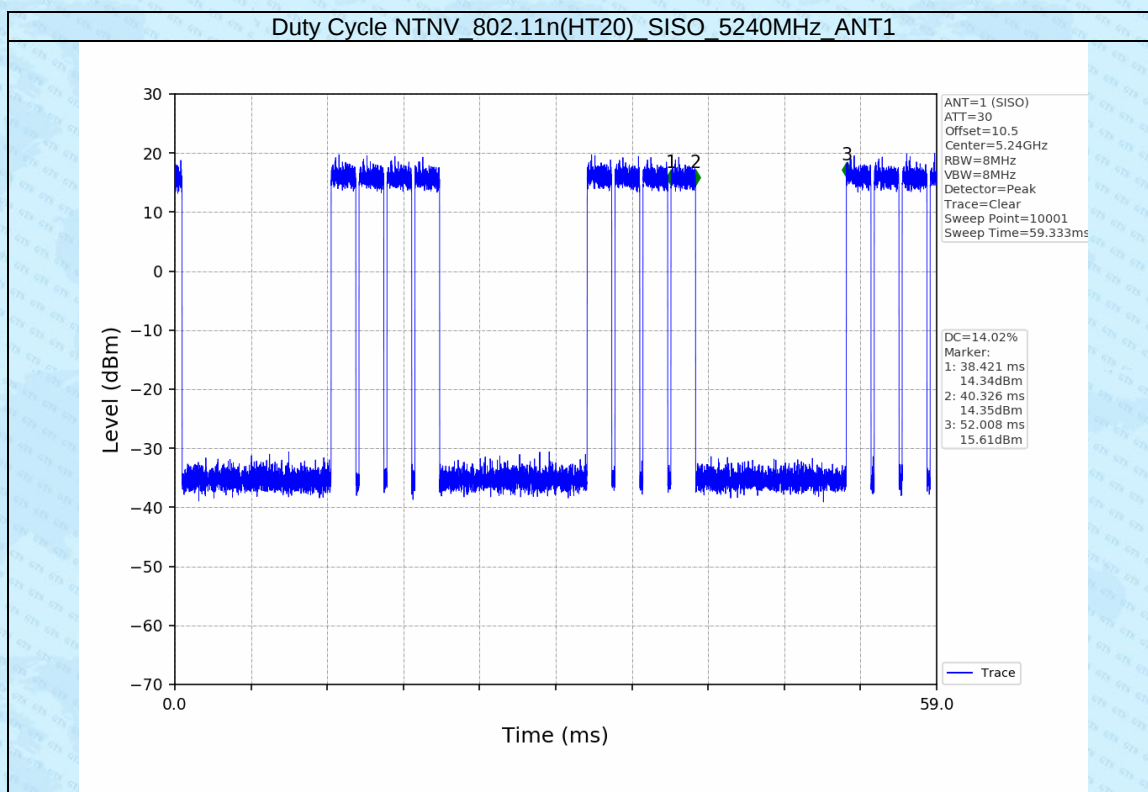
1. Duty Cycle

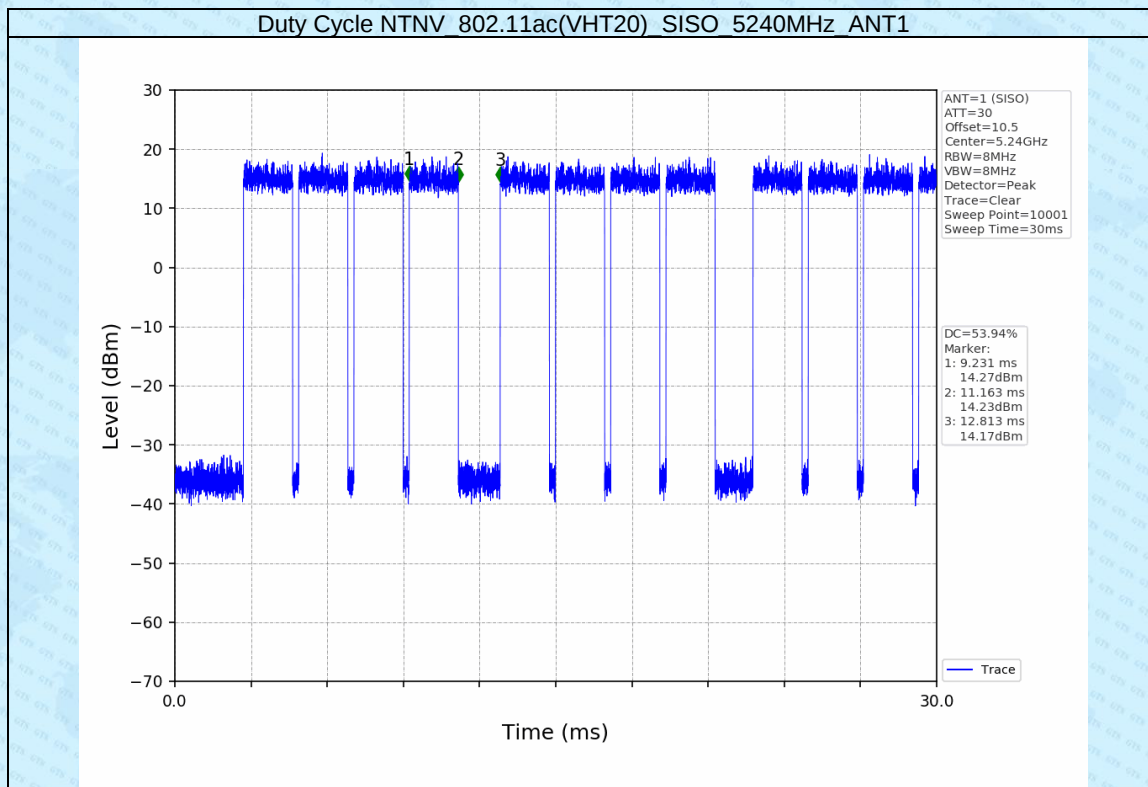
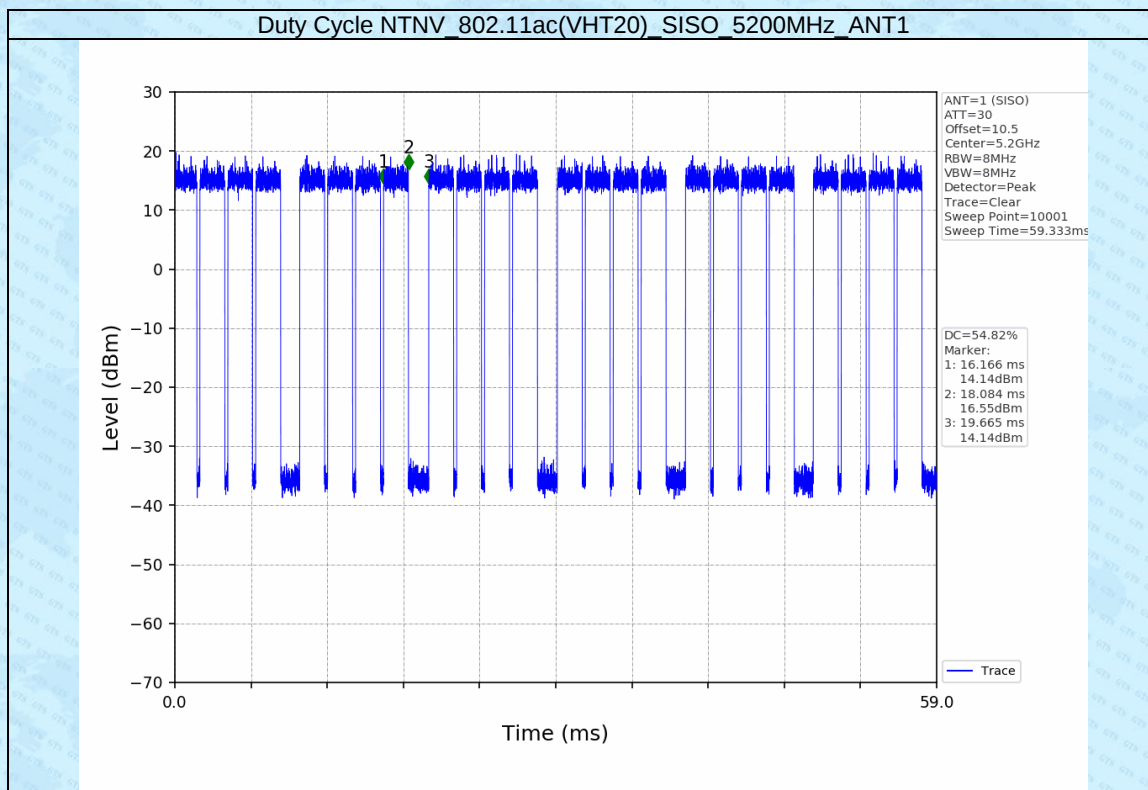
1.1 Test Result

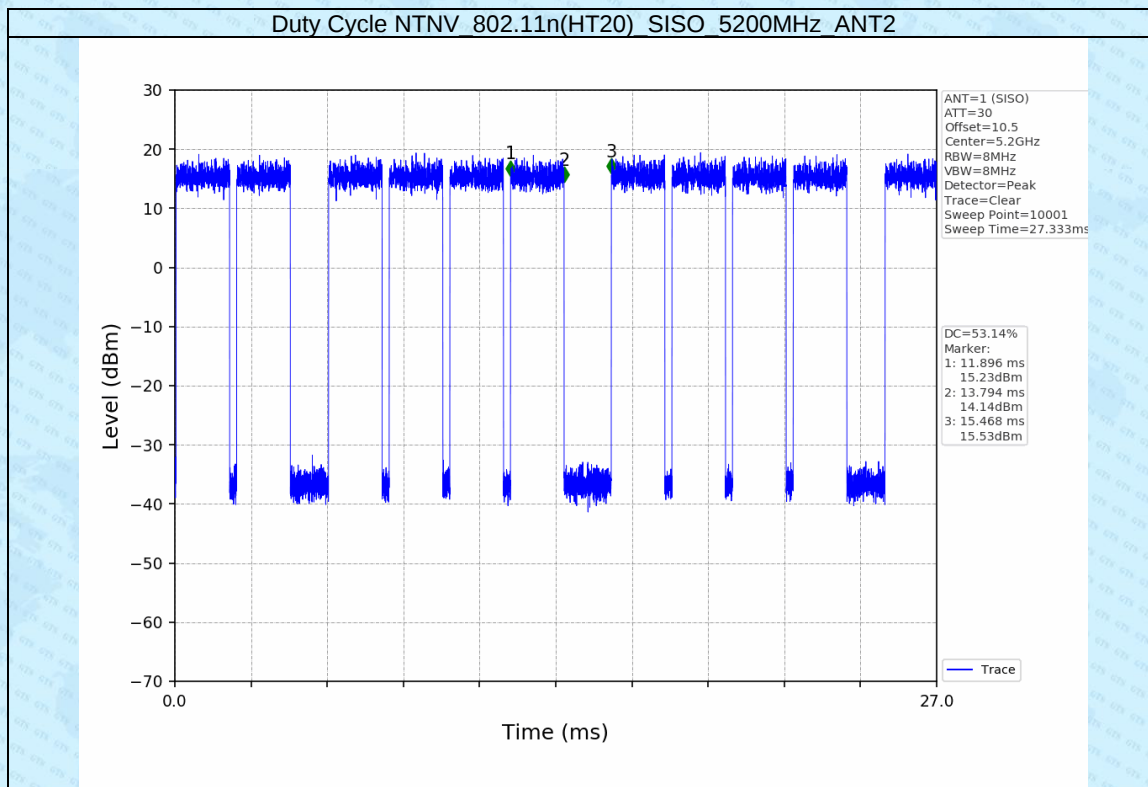
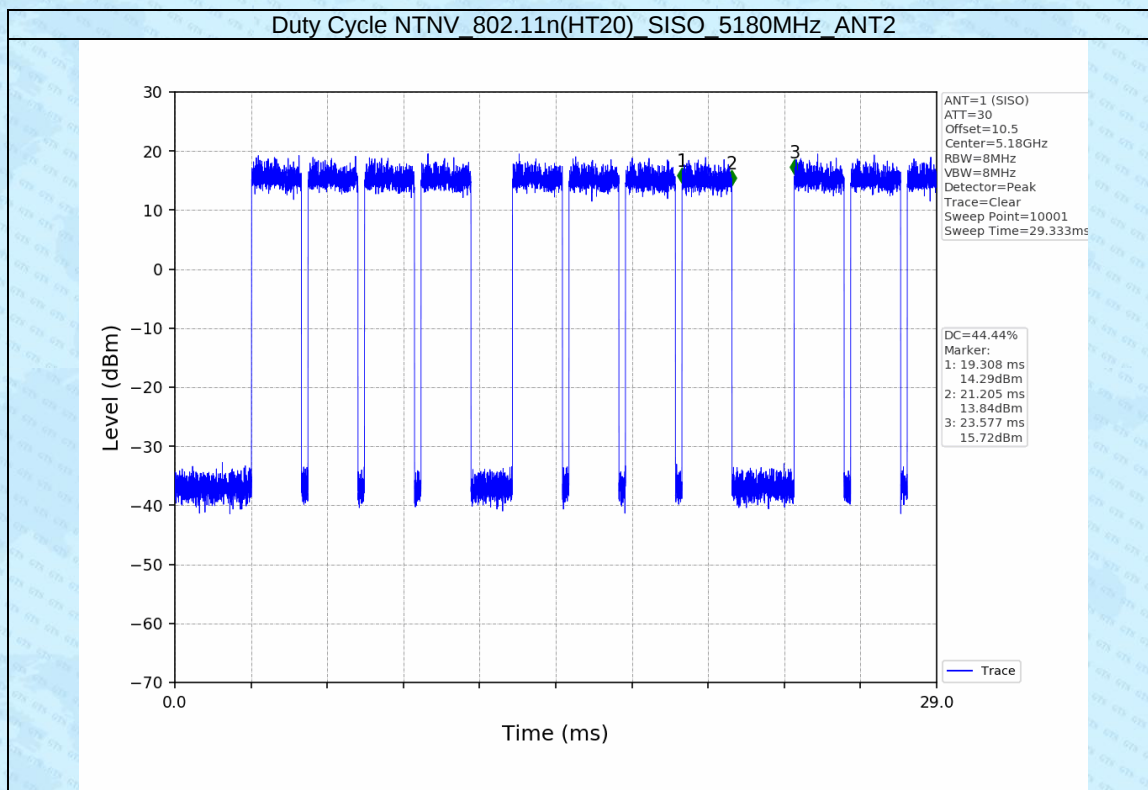
Test Mode	Channel Frequency (MHz)	TX Type	ANT No.	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)
802.11n(HT20)	5180	SISO	1	1.918	3.486	55.02	2.59
	5200	SISO	1	1.895	3.445	55.01	2.60
	5240	SISO	1	1.905	13.587	14.02	8.53
802.11ac(VHT20)	5180	SISO	1	1.909	3.445	55.41	2.56
	5200	SISO	1	1.918	3.499	54.82	2.61
	5240	SISO	1	1.932	3.582	53.94	2.68
802.11n(HT20)	5180	SISO	2	1.897	4.269	44.44	3.52
	5200	SISO	2	1.898	3.572	53.14	2.75
	5240	SISO	2	1.895	3.540	53.53	2.71
802.11ac(VHT20)	5180	SISO	2	1.909	2.149	88.83	0.51
	5200	SISO	2	1.909	3.445	55.41	2.56
	5240	SISO	2	1.928	13.565	14.21	8.47

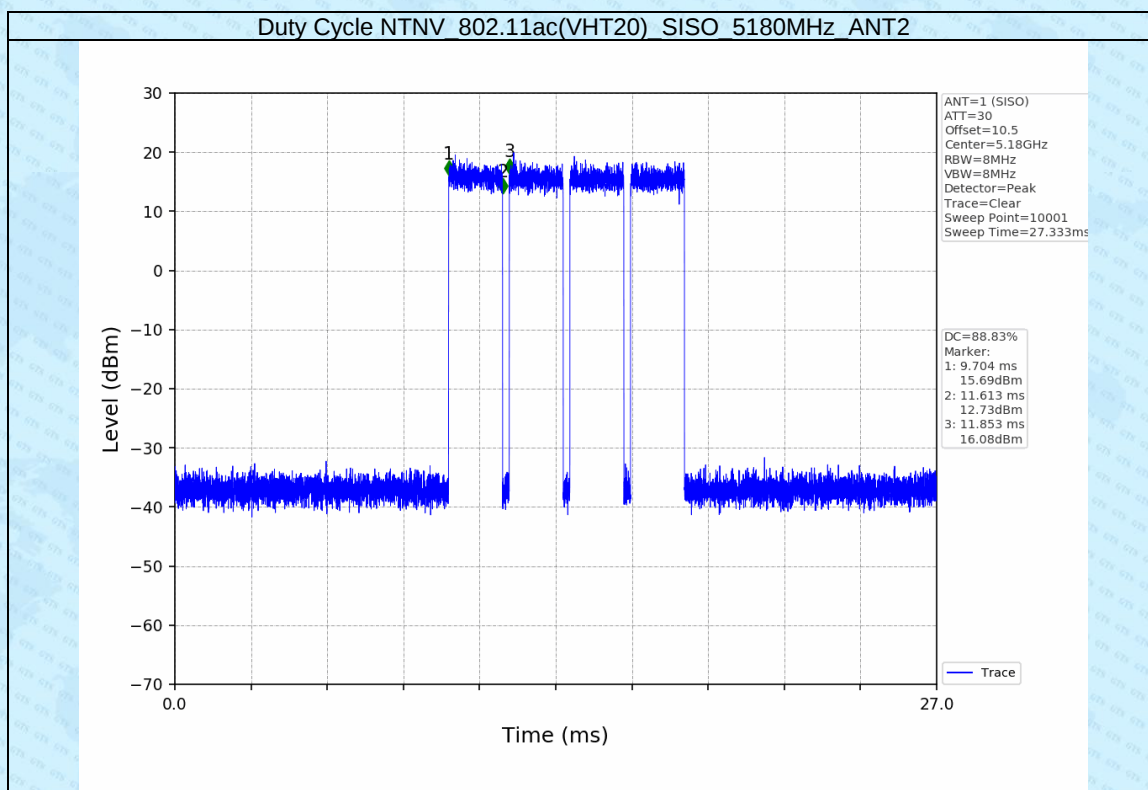
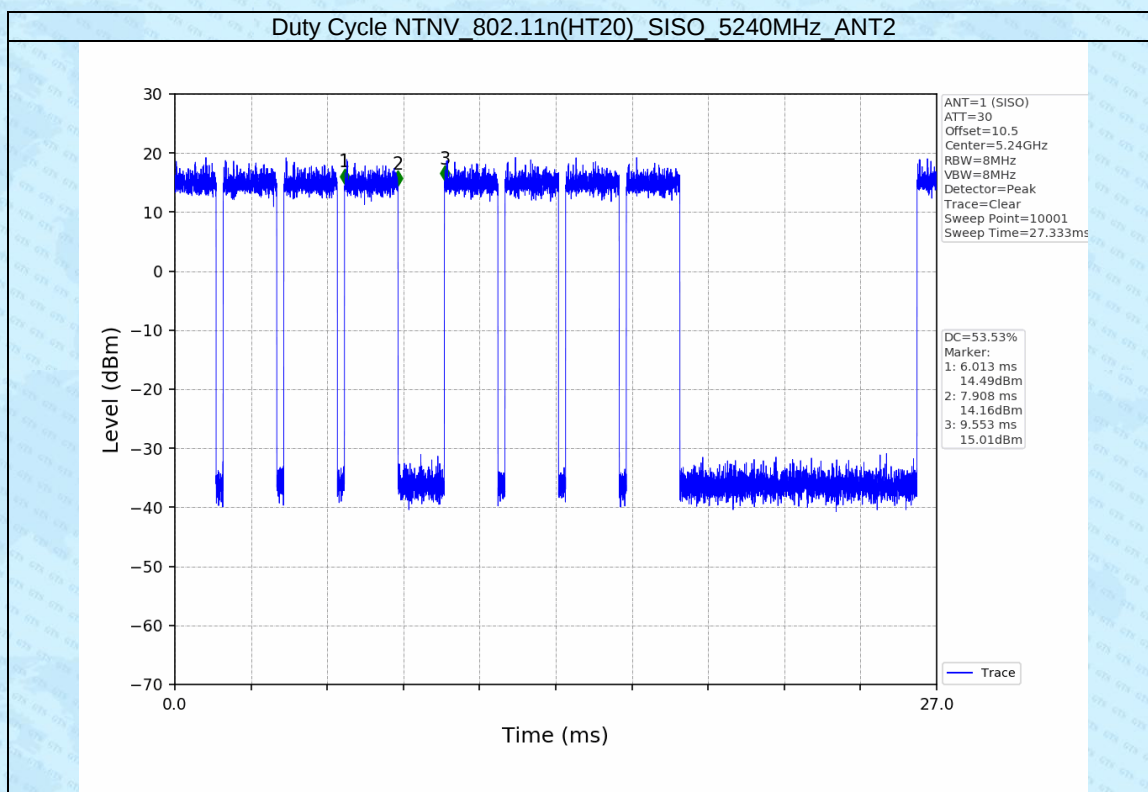
1.2 Test Graph

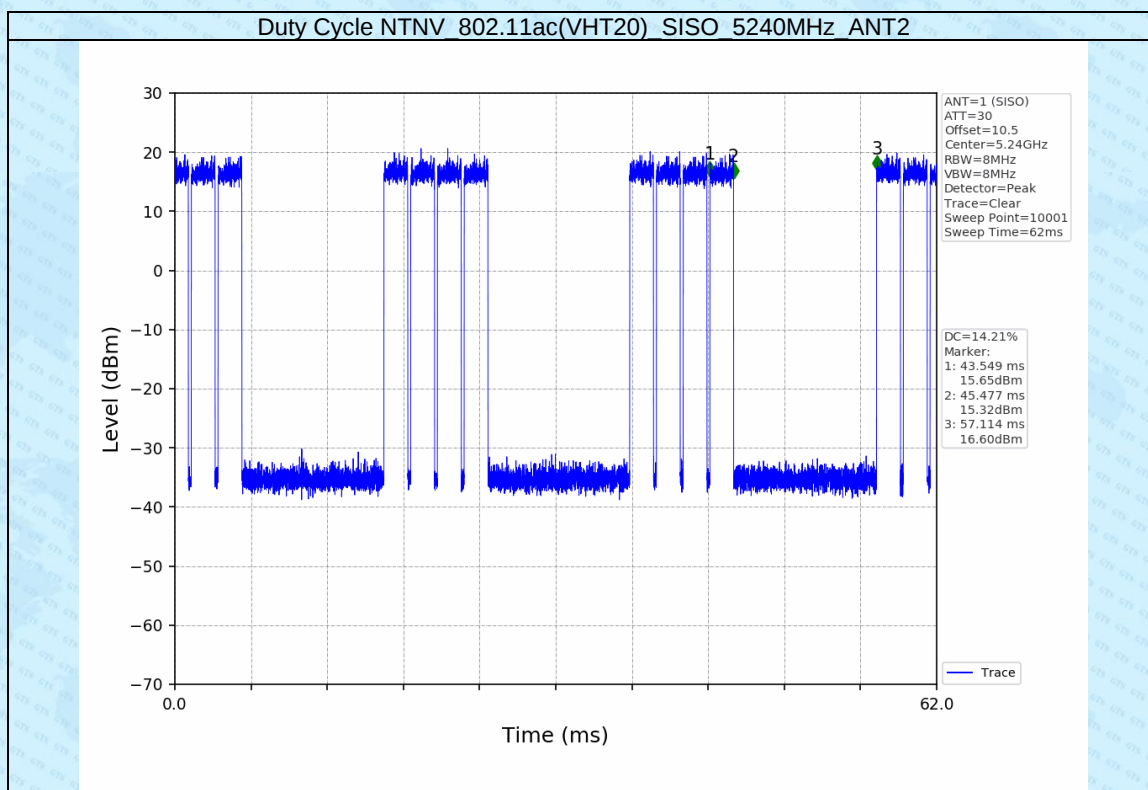
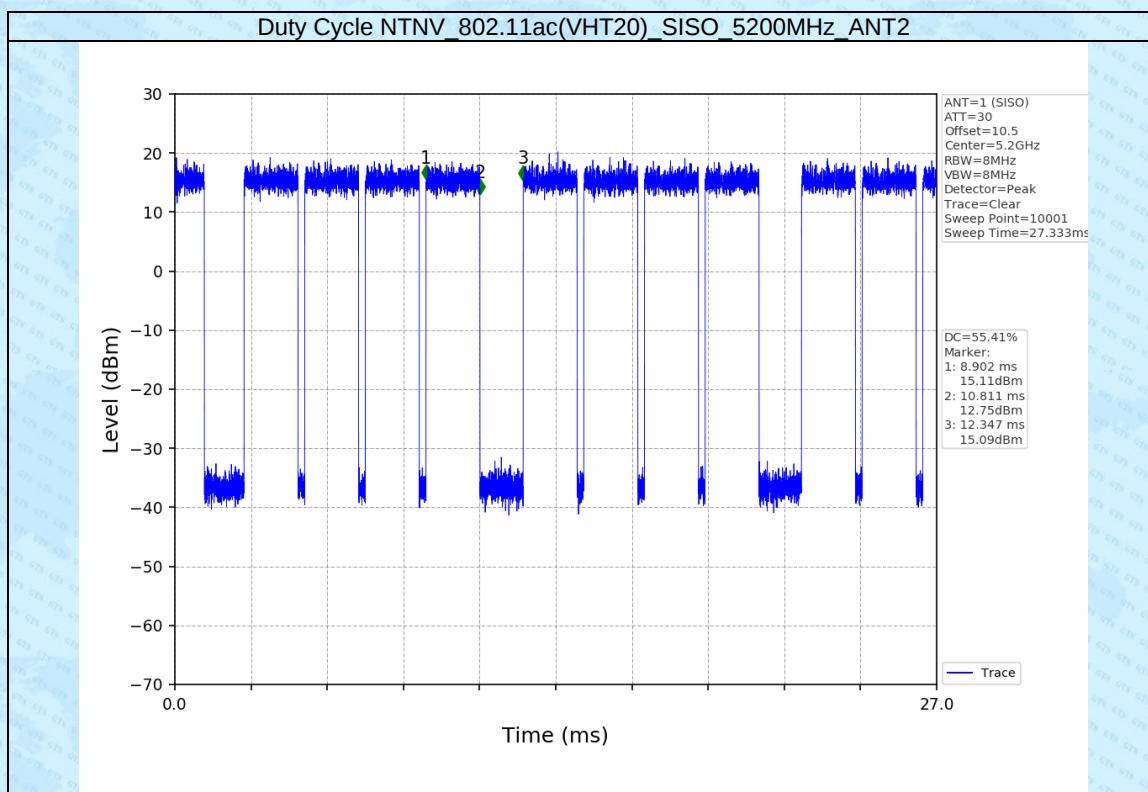












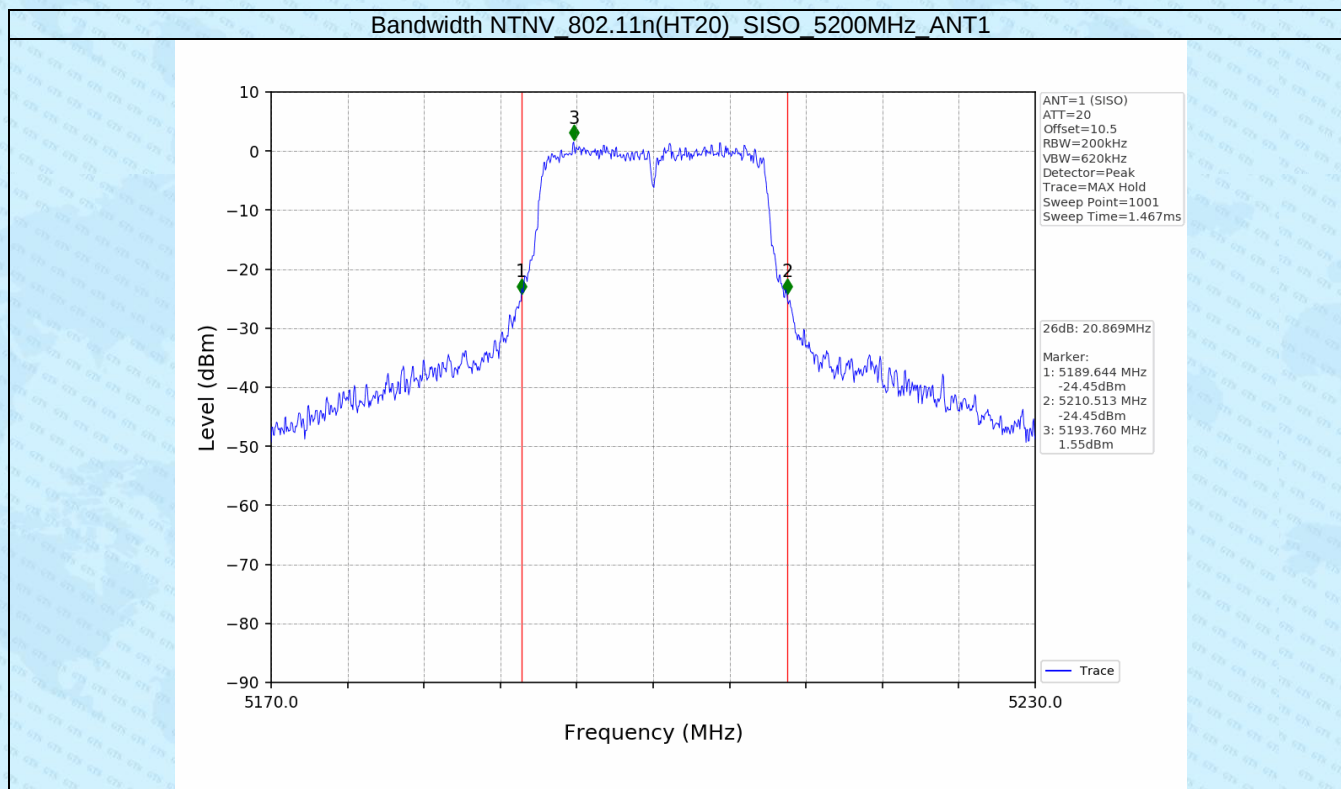
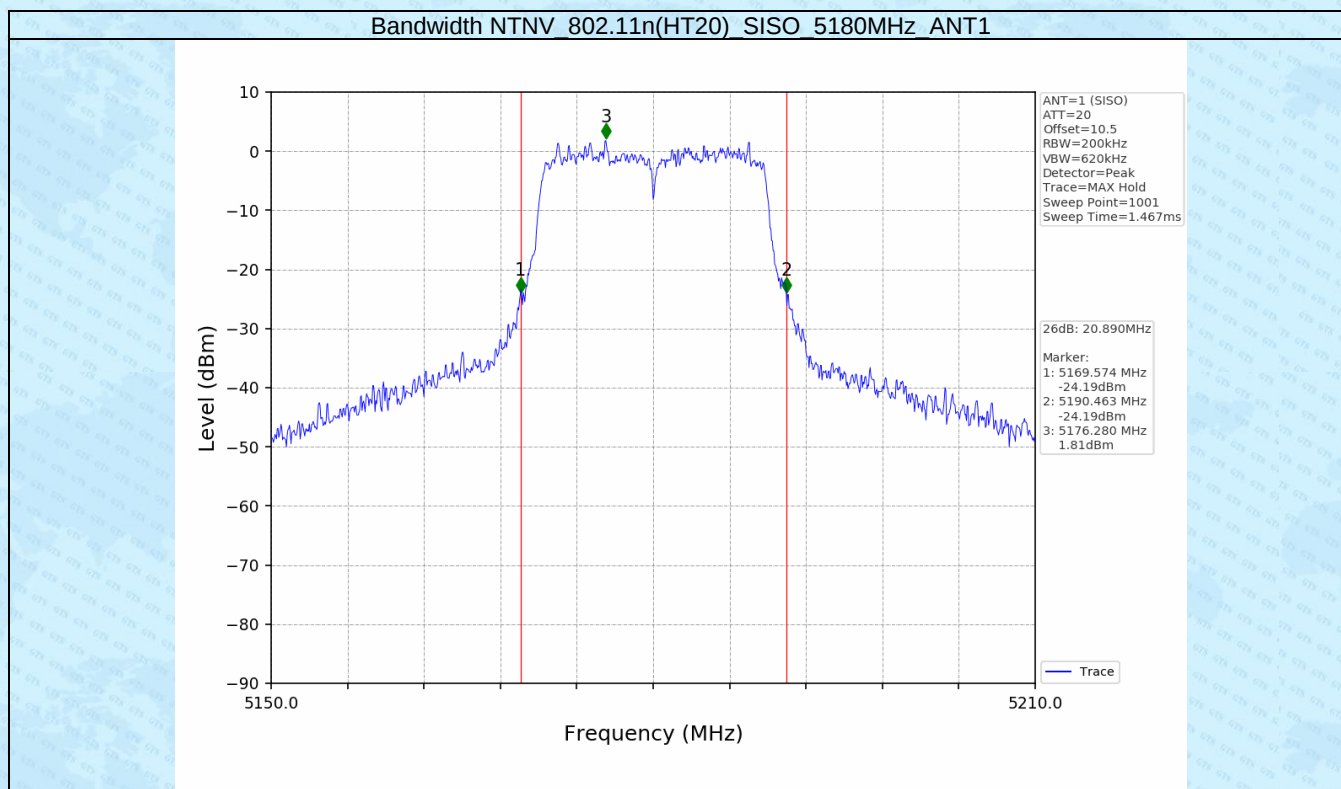
2. Bandwidth

2.1 Test Result

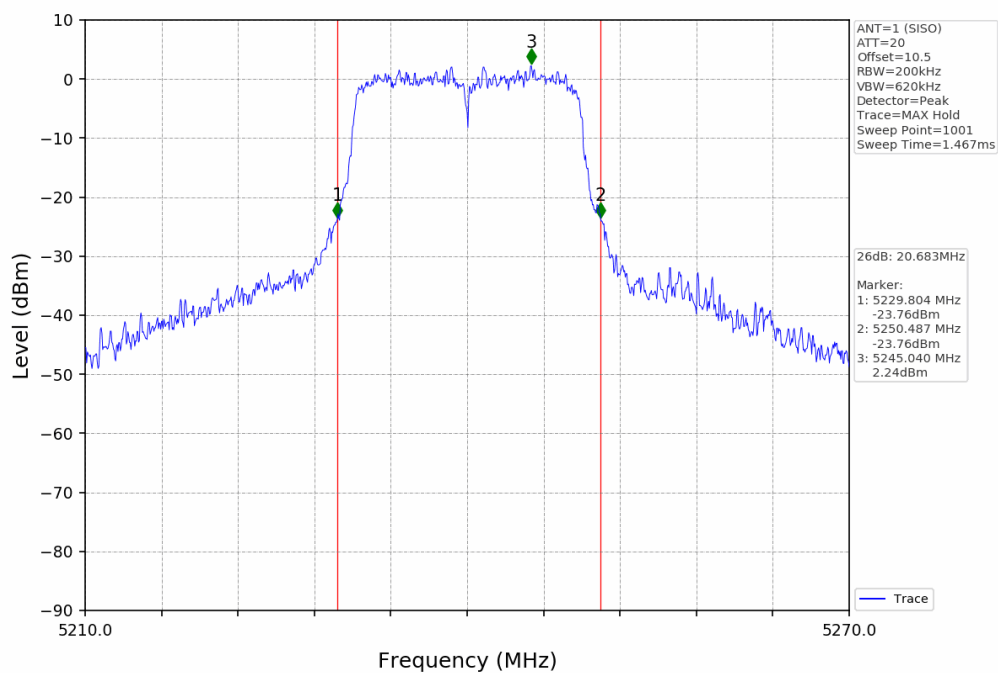
Test Mode	Frequency (MHz)	TX Type	ANT No.	Emission Bandwidth		Verdict
				Test Result (MHz)	Limits (MHz)	
802.11n(HT20)	5180	SISO	1	20.890	Only for Report Use	PASS
	5200	SISO	1	20.869	Only for Report Use	PASS
	5240	SISO	1	20.683	Only for Report Use	PASS
802.11ac(VHT20)	5180	SISO	1	20.586	Only for Report Use	PASS
	5200	SISO	1	20.663	Only for Report Use	PASS
	5240	SISO	1	20.941	Only for Report Use	PASS
802.11n(HT20)	5180	SISO	2	21.104	Only for Report Use	PASS
	5200	SISO	2	21.130	Only for Report Use	PASS
	5240	SISO	2	20.379	Only for Report Use	PASS
802.11ac(VHT20)	5180	SISO	2	23.276	Only for Report Use	PASS
	5200	SISO	2	20.966	Only for Report Use	PASS
	5240	SISO	2	20.990	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	17.728	Only for Report Use
	5200	SISO	1	17.692	Only for Report Use
	5240	SISO	1	17.704	Only for Report Use
802.11ac(VHT20)	5180	SISO	1	17.685	Only for Report Use
	5200	SISO	1	17.698	Only for Report Use
	5240	SISO	1	17.743	Only for Report Use
802.11n(HT20)	5180	SISO	2	17.851	Only for Report Use
	5200	SISO	2	17.793	Only for Report Use
	5240	SISO	2	17.758	Only for Report Use
802.11ac(VHT20)	5180	SISO	2	17.842	Only for Report Use
	5200	SISO	2	17.742	Only for Report Use
	5240	SISO	2	17.772	Only for Report Use

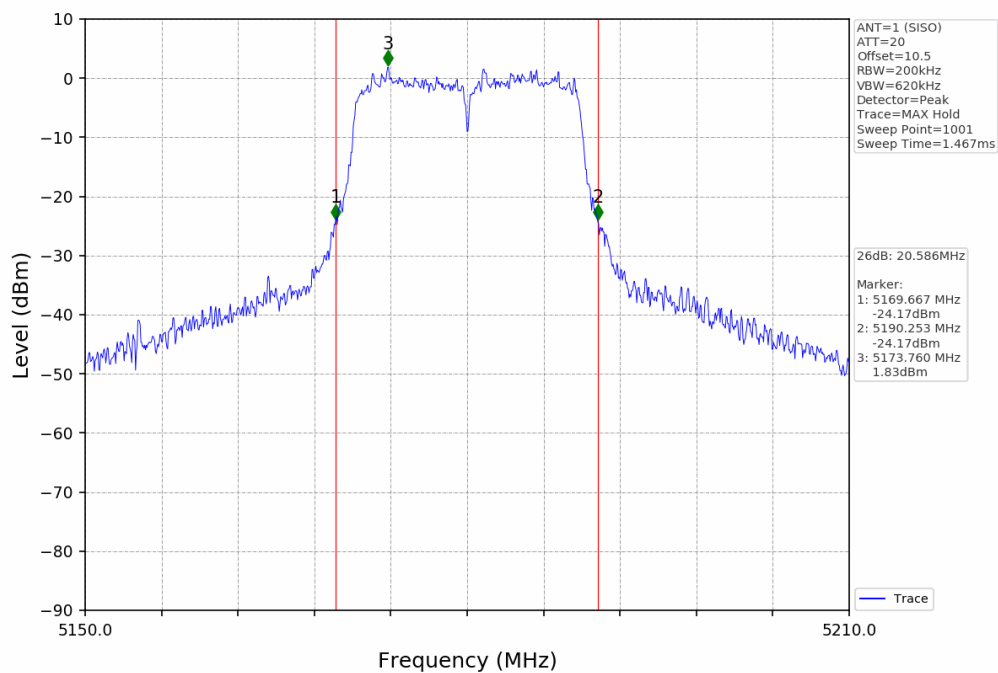
2.2 Test Graph - Emission Bandwidth



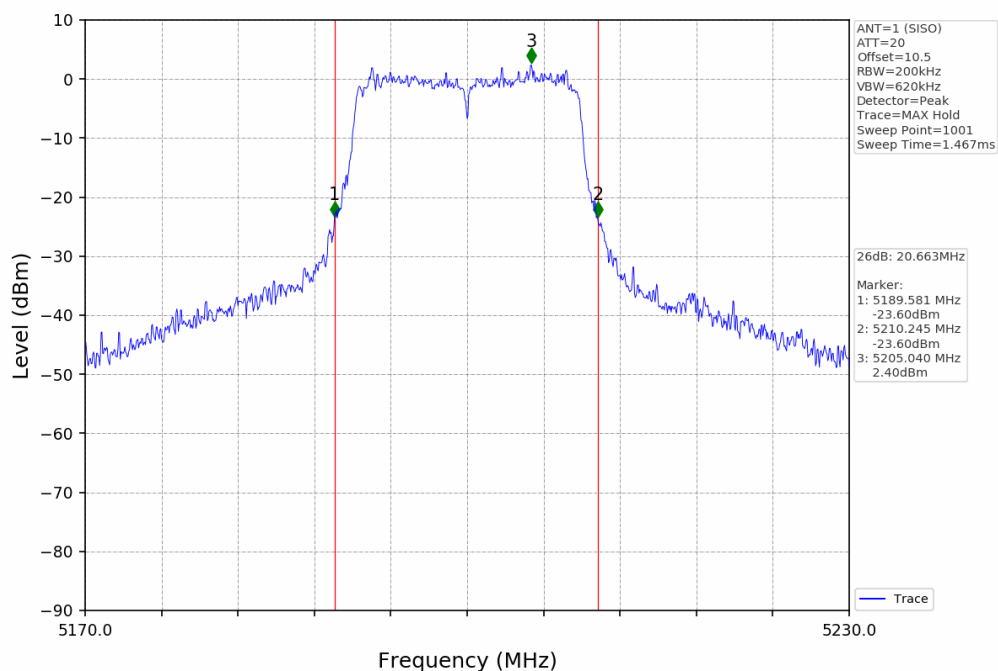
Bandwidth NTNV_802.11n(HT20)_SISO_5240MHz_ANT1



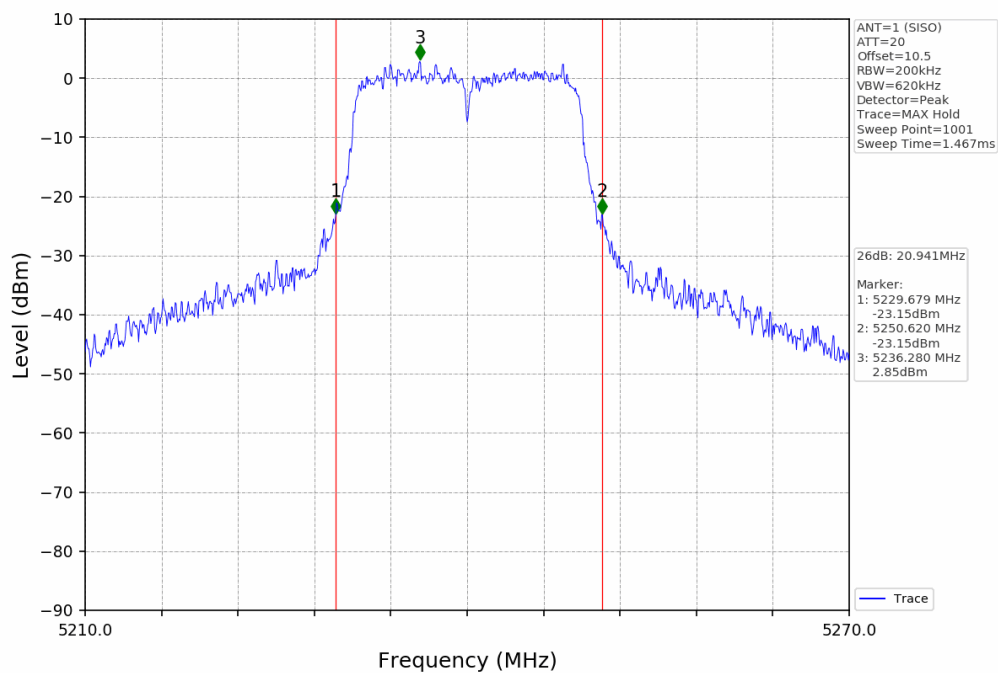
Bandwidth NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT1



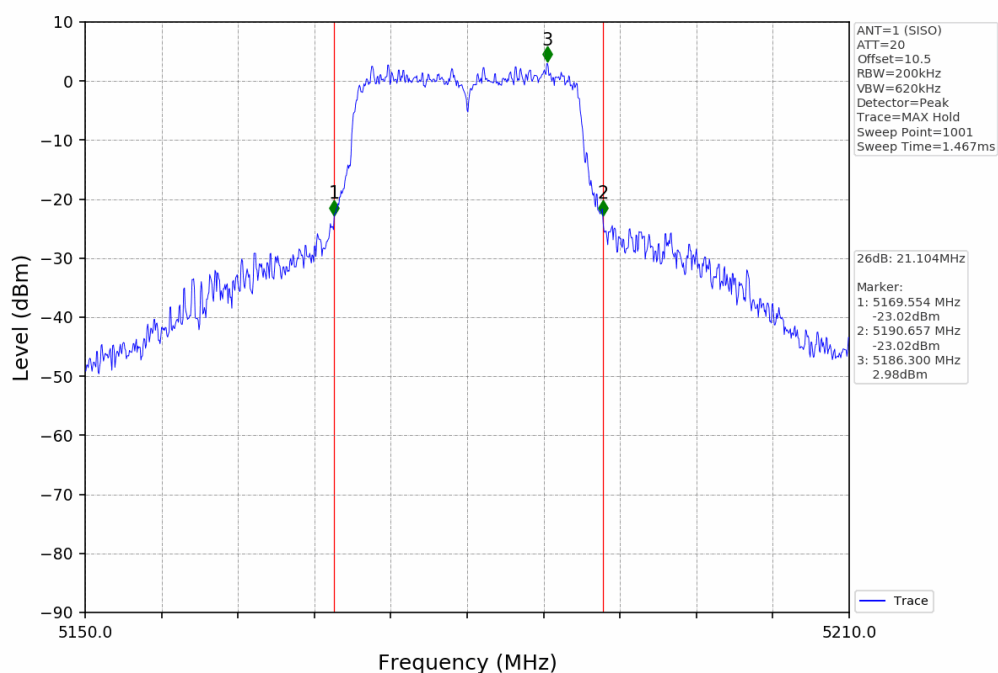
Bandwidth NTN 802.11ac(VHT20) SISO 5200MHz ANT1



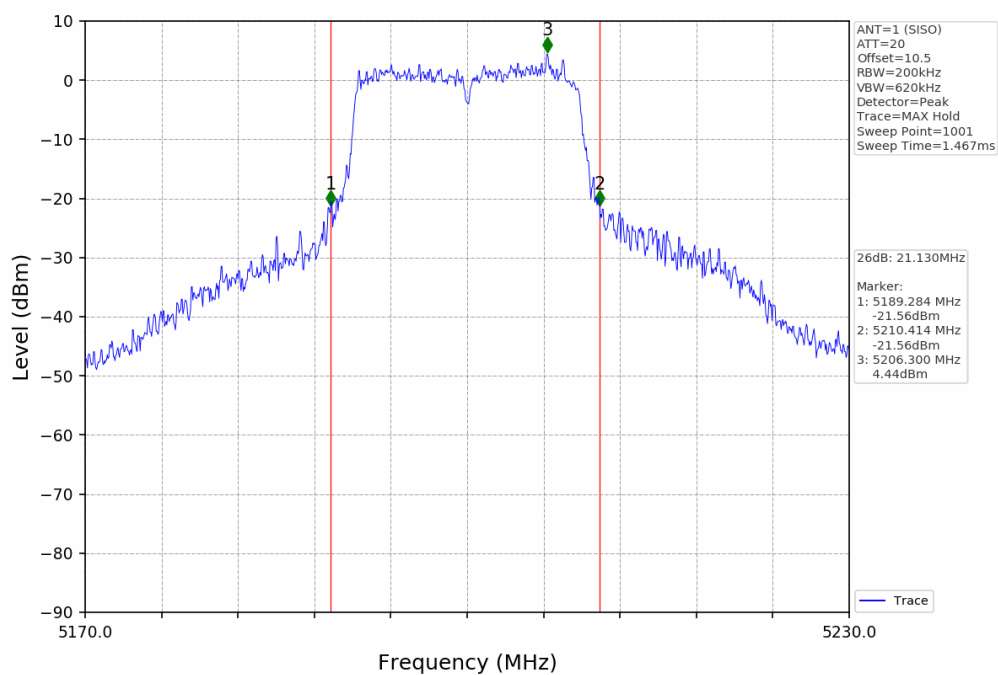
Bandwidth NTN 802.11ac(VHT20) SISO 5240MHz ANT1



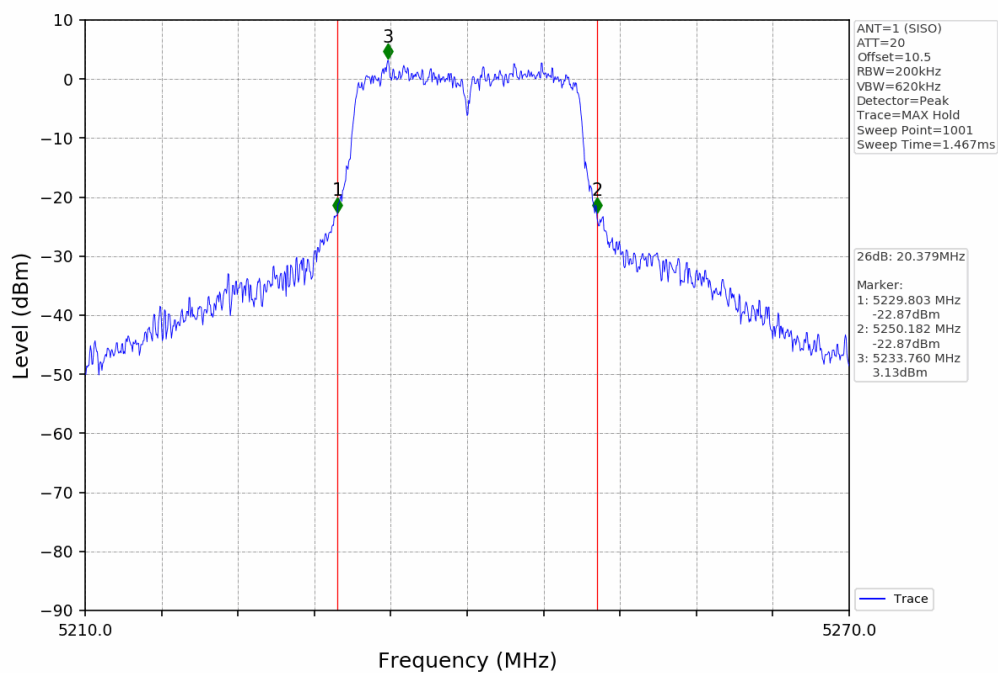
Bandwidth NTNV 802.11n(HT20) SISO 5180MHz ANT2



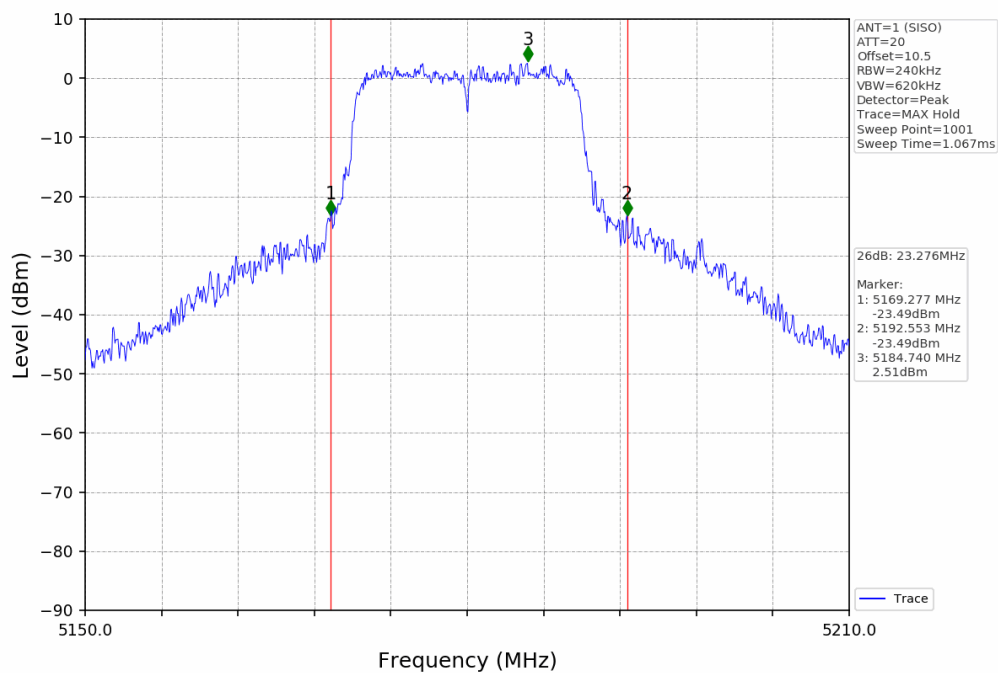
Bandwidth NTNV 802.11n(HT20) SISO 5200MHz ANT2



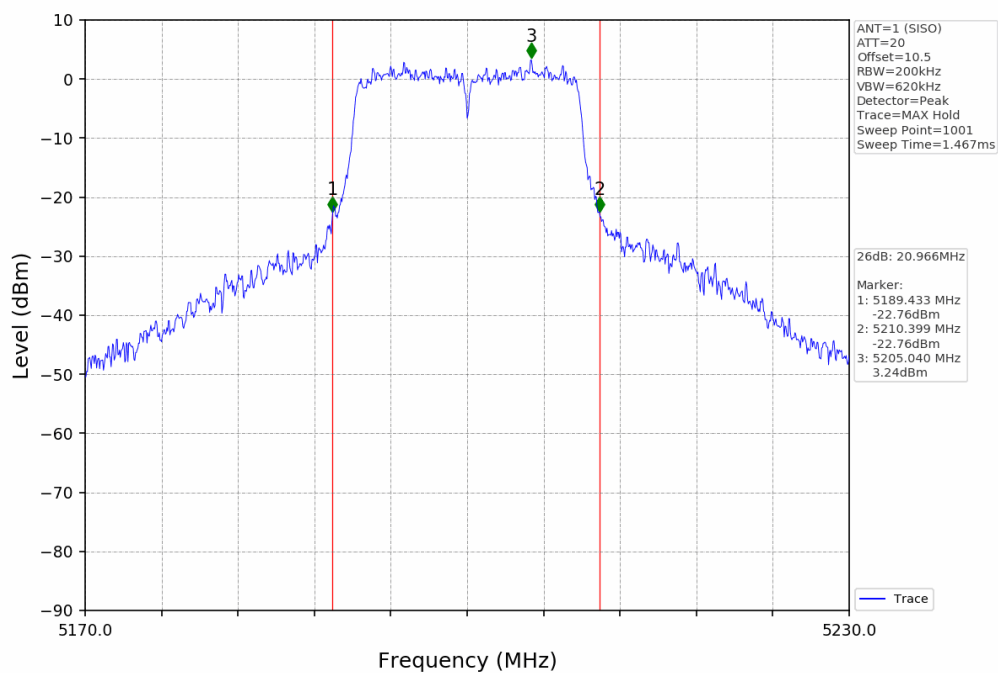
Bandwidth NTNV_802.11n(HT20)_SISO_5240MHz_ANT2



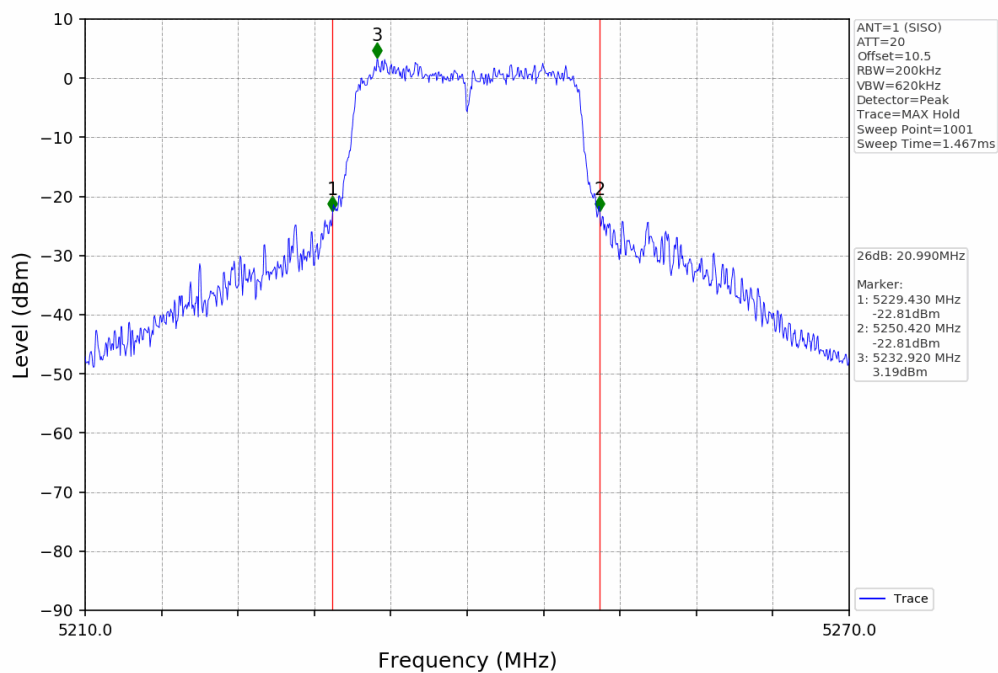
Bandwidth NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT2



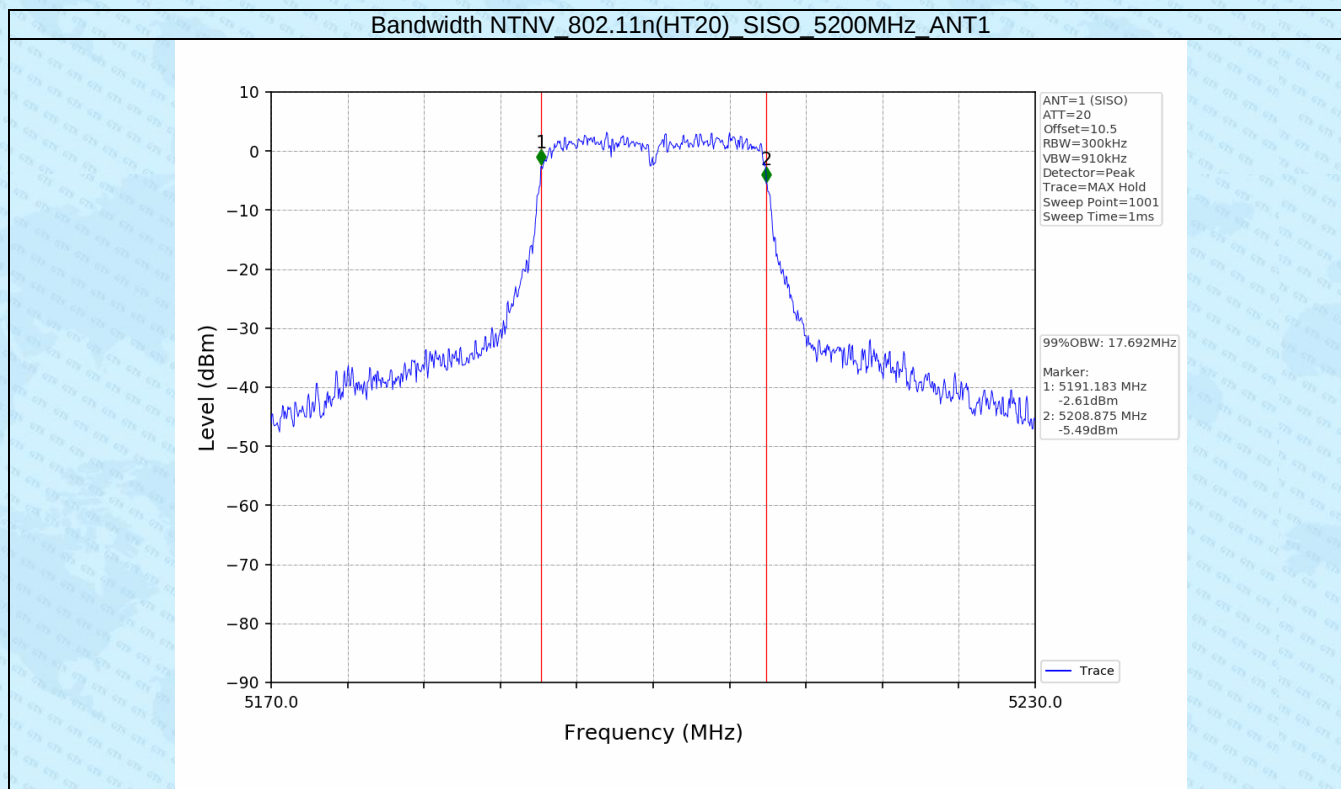
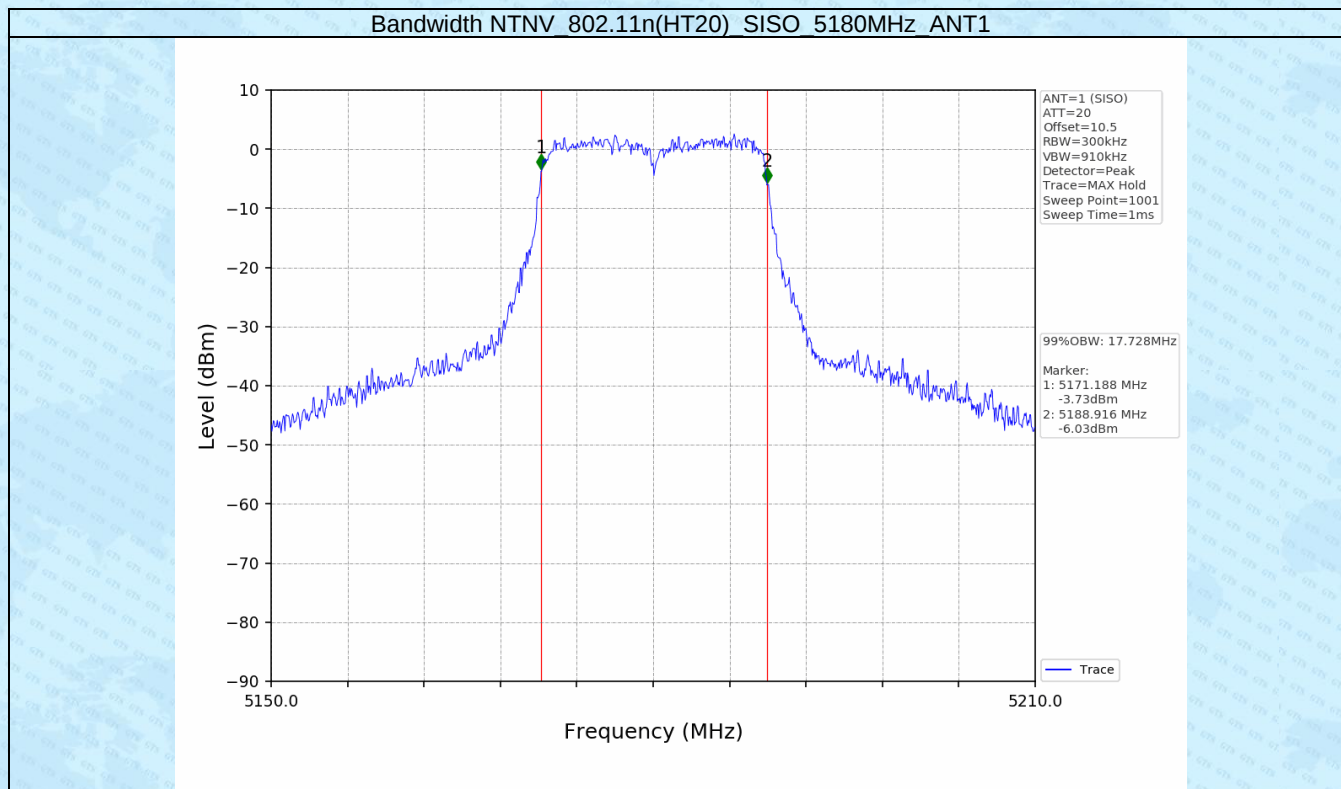
Bandwidth NTN 802.11ac(VHT20) SISO 5200MHz ANT2



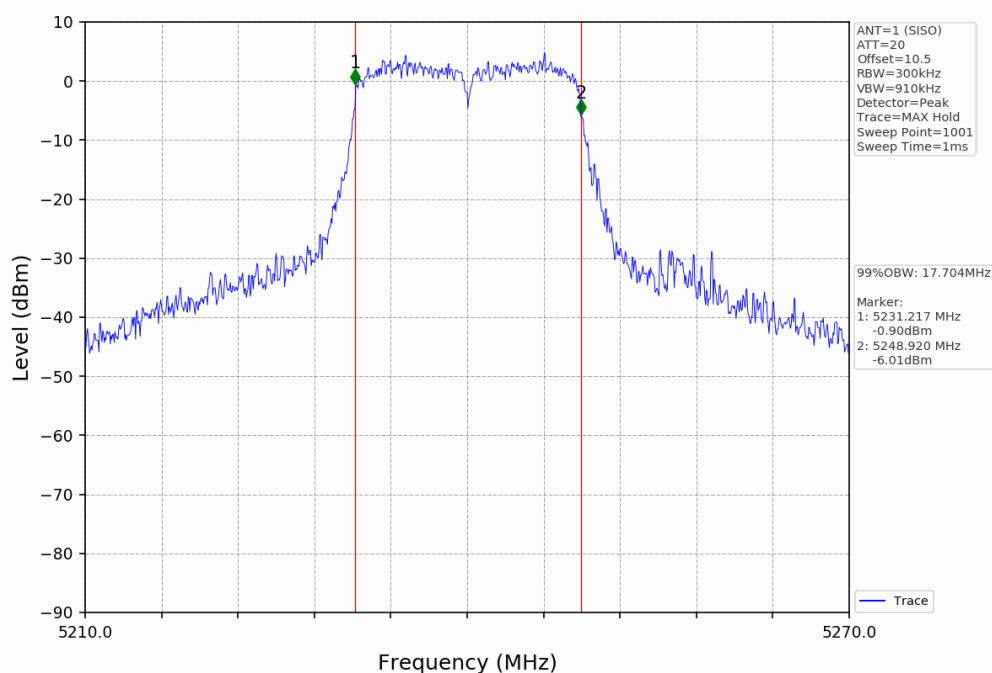
Bandwidth NTN 802.11ac(VHT20) SISO 5240MHz ANT2



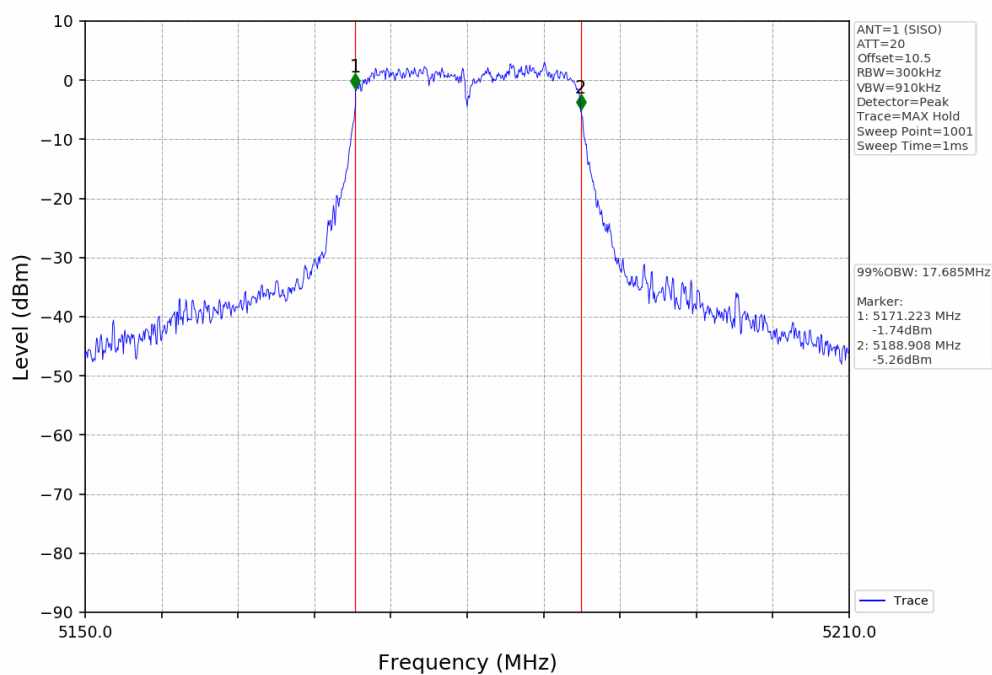
2.3 Test Graph - 99% Occupied Bandwidth



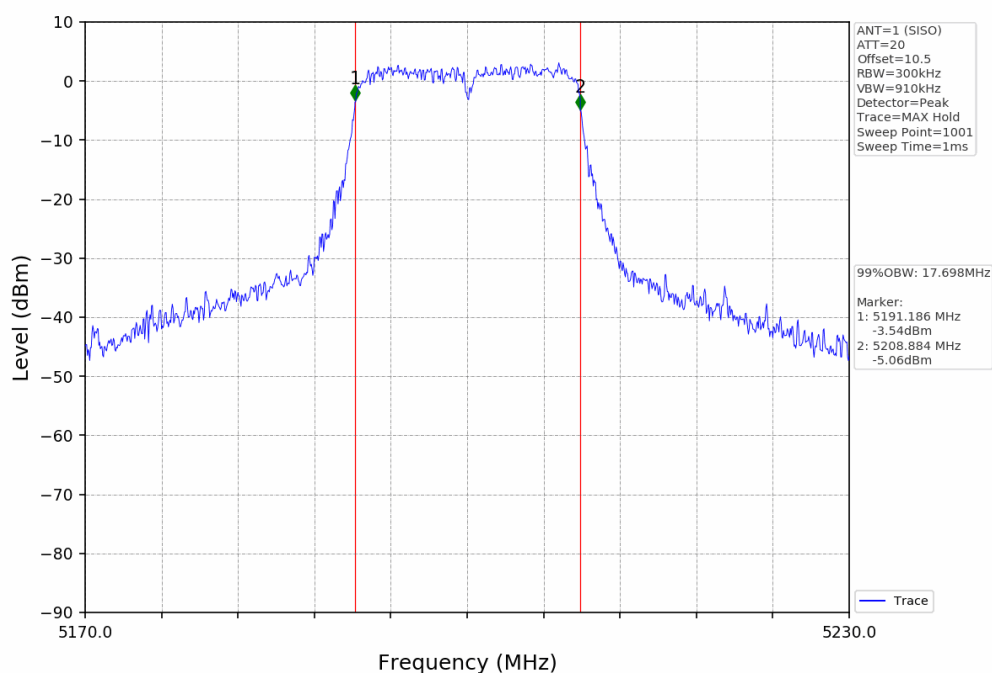
Bandwidth NTNV_802.11n(HT20)_SISO_5240MHz_ANT1



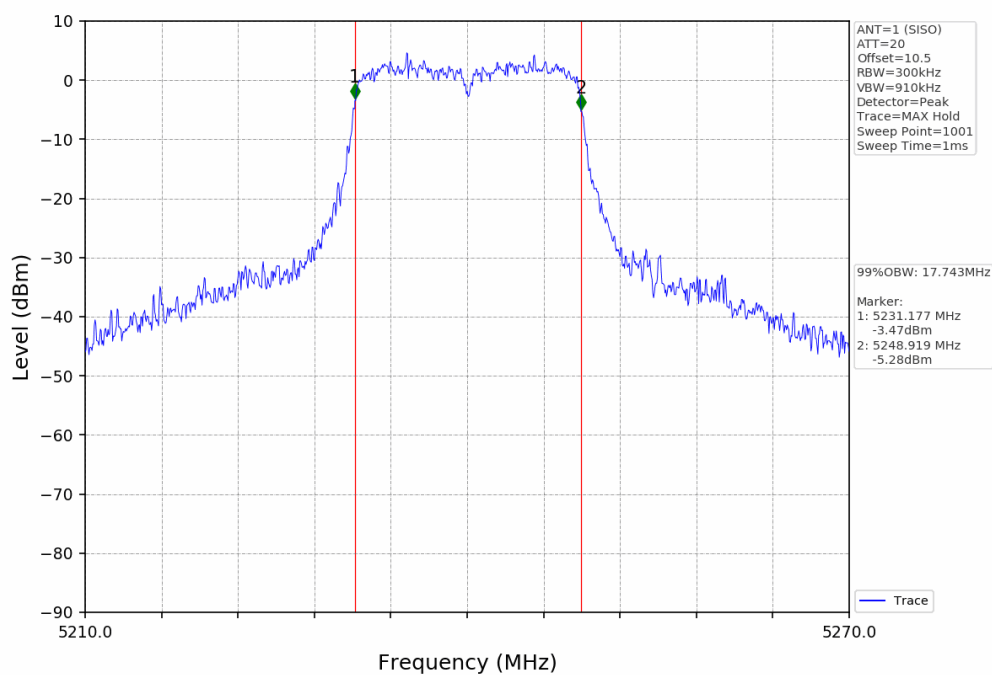
Bandwidth NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT1



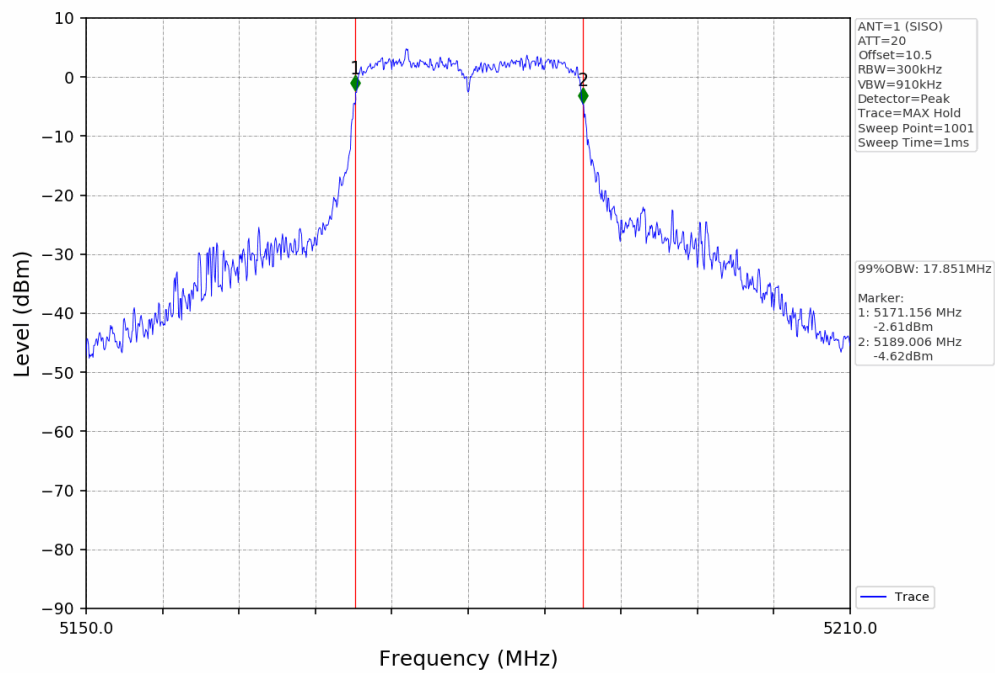
Bandwidth NTN 802.11ac(VHT20) SISO 5200MHz ANT1



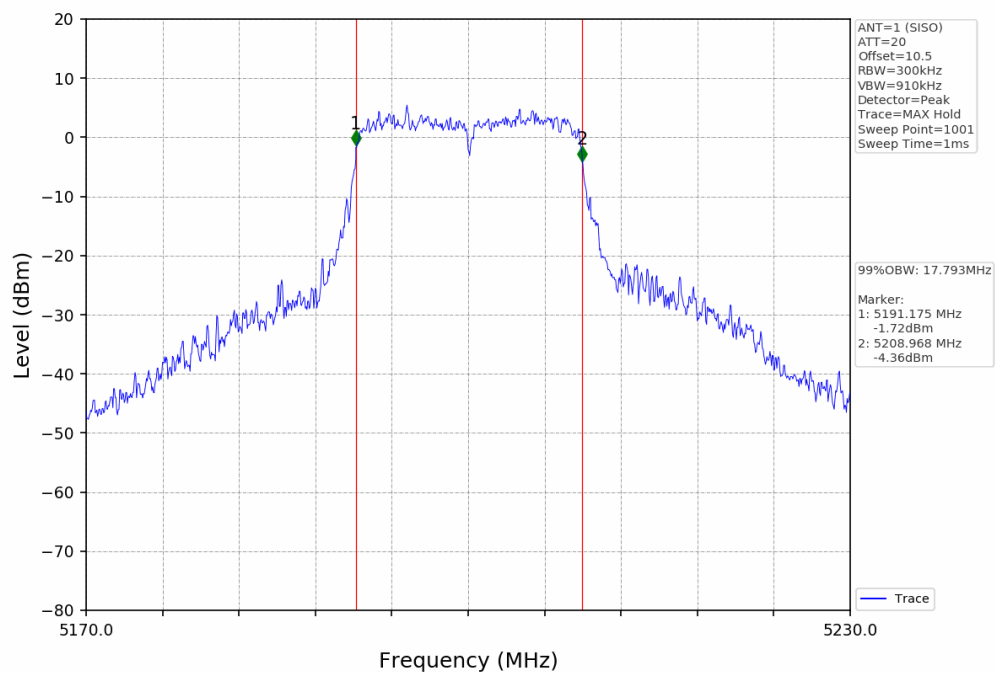
Bandwidth NTN 802.11ac(VHT20) SISO 5240MHz ANT1



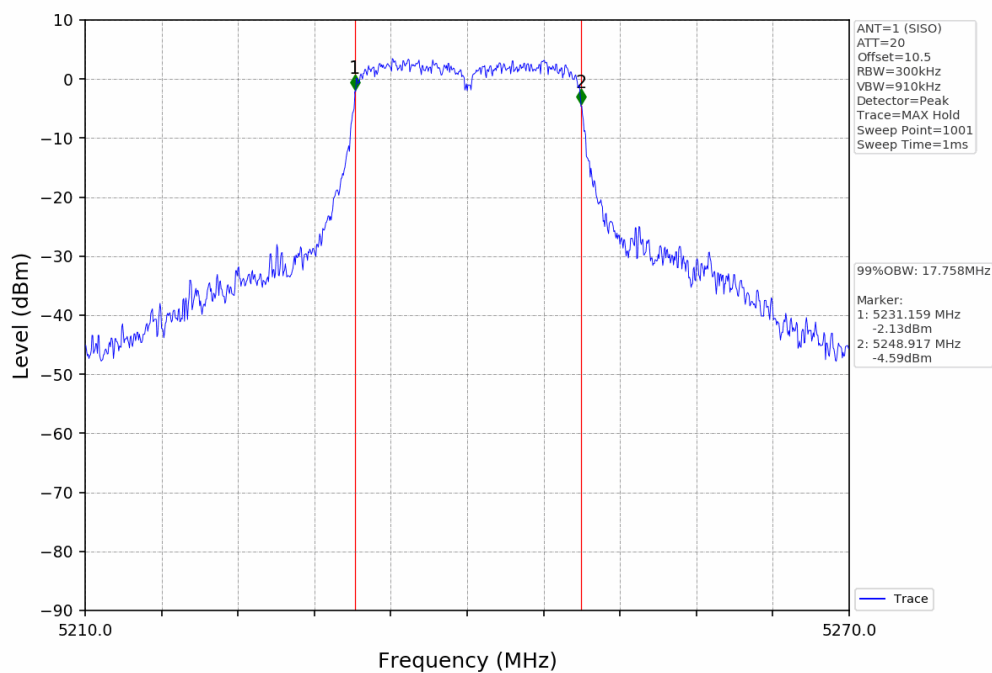
Bandwidth NTNV_802.11n(HT20)_SISO_5180MHz_ANT2



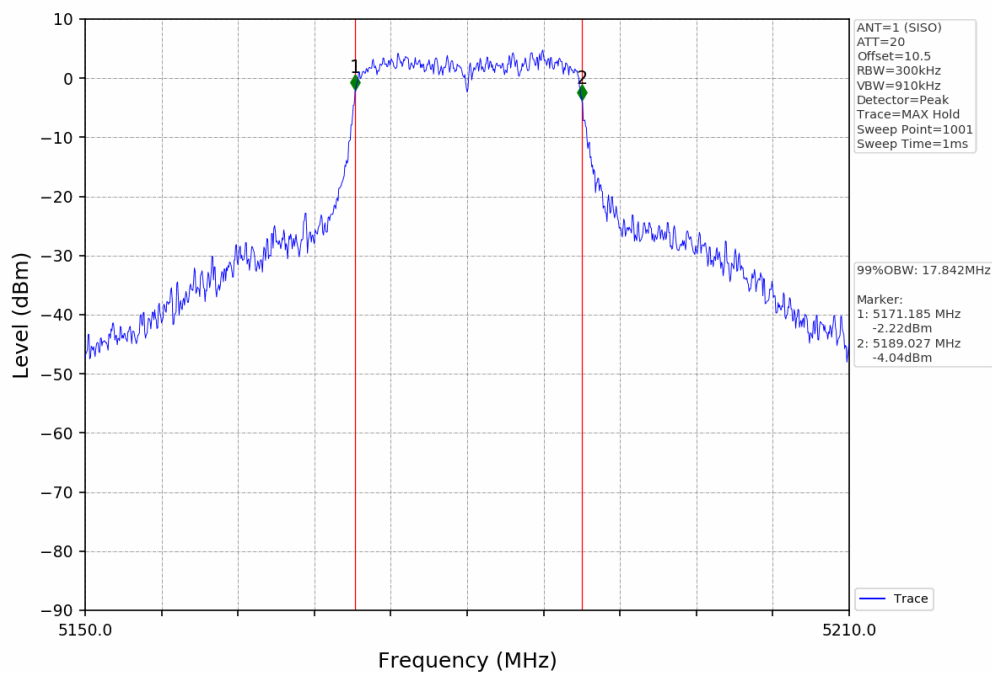
Bandwidth NTNV_802.11n(HT20)_SISO_5200MHz_ANT2



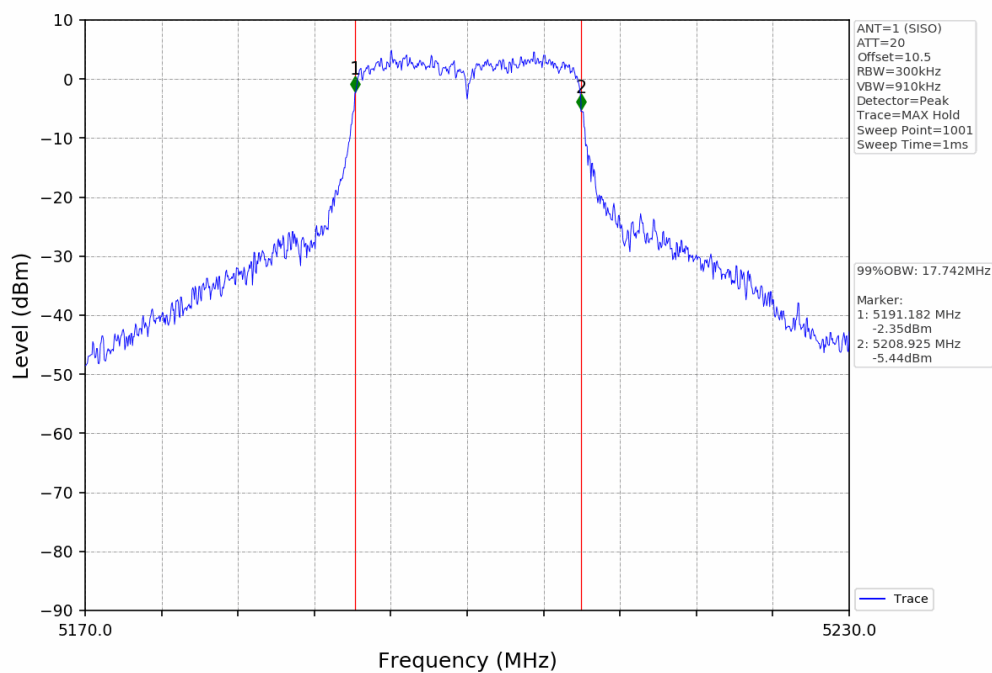
Bandwidth NTNV_802.11n(HT20)_SISO_5240MHz_ANT2



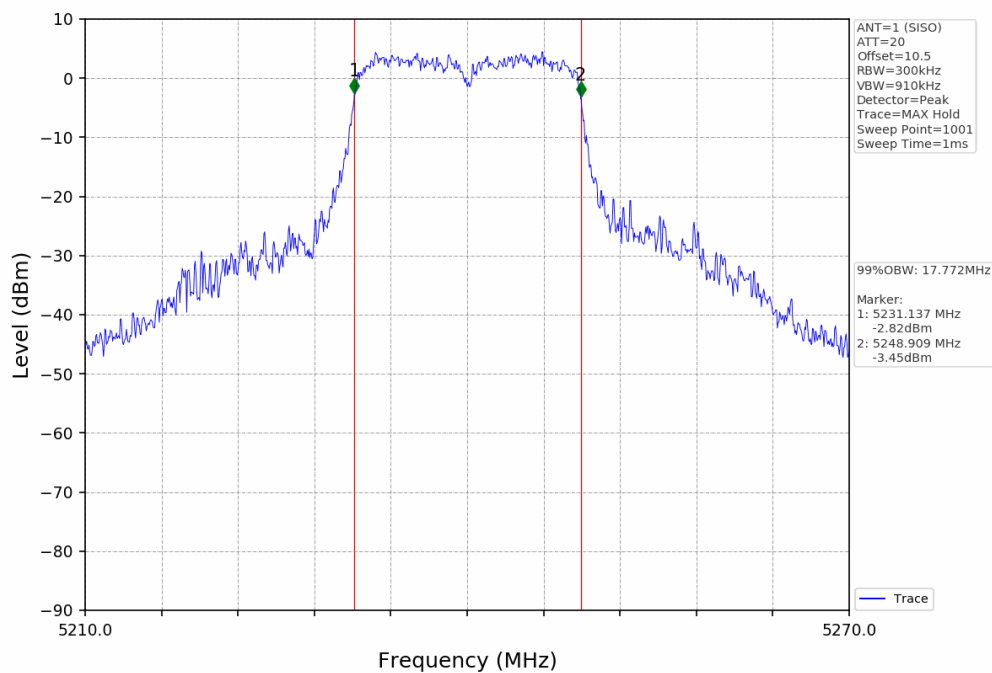
Bandwidth NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT2



Bandwidth NTN 802.11ac(VHT20) SISO 5200MHz ANT2



Bandwidth NTN 802.11ac(VHT20) SISO 5240MHz ANT2



3. Maximum Conducted Output Power

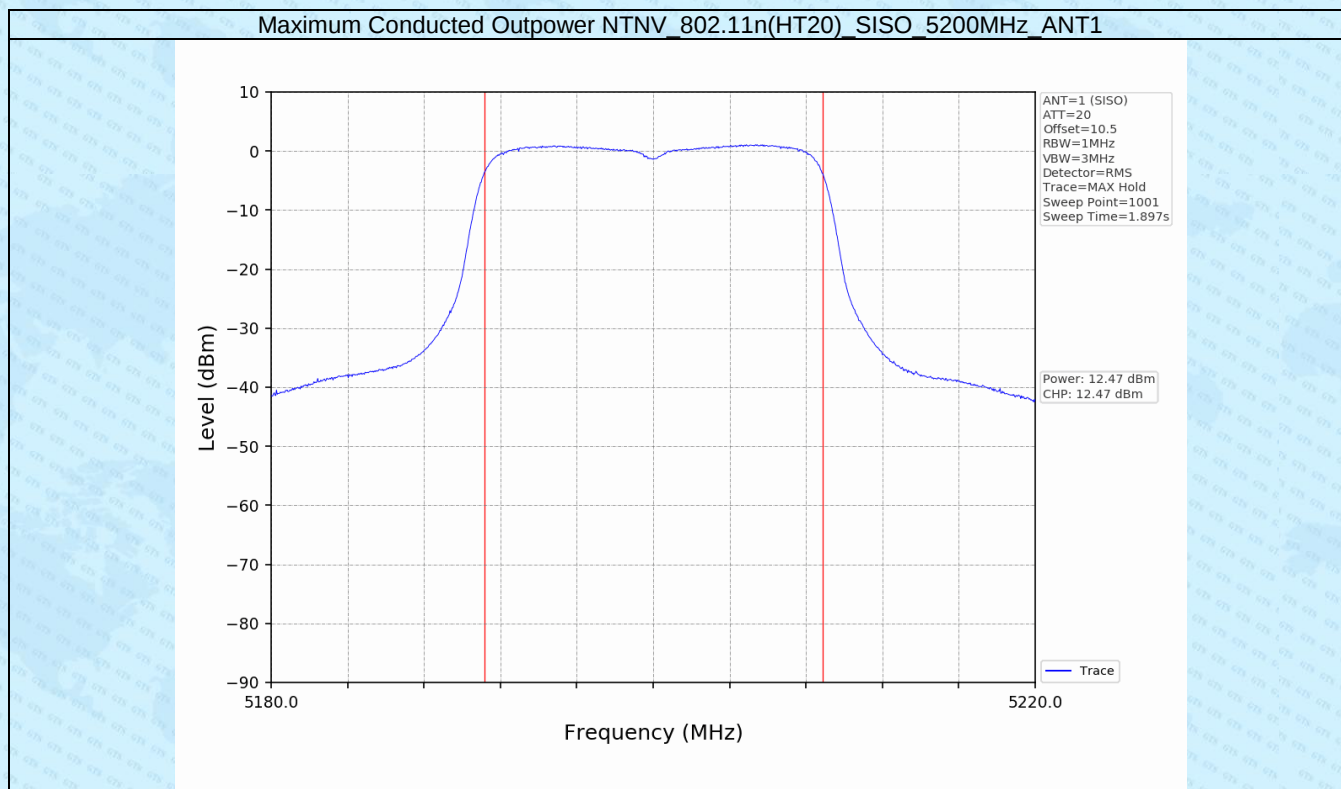
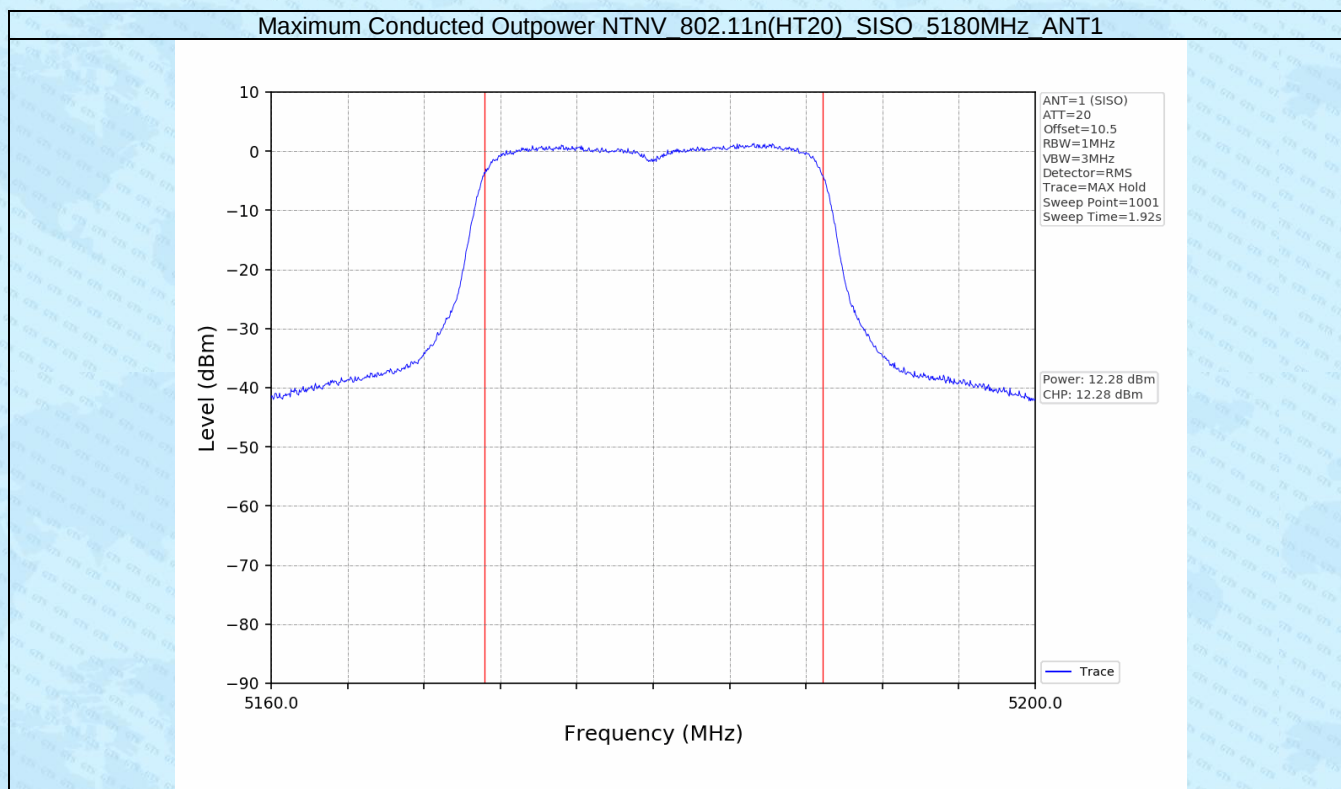
3.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)	Limit (dBm)	Verdict
			Ant 1		
802.11n(HT20)	5180	SISO	12.28	≤23.98	PASS
	5200	SISO	12.47	≤23.98	PASS
	5240	SISO	12.55	≤23.98	PASS
802.11ac(VHT20)	5180	SISO	12.05	≤23.98	PASS
	5200	SISO	12.43	≤23.98	PASS
	5240	SISO	13.13	≤23.98	PASS

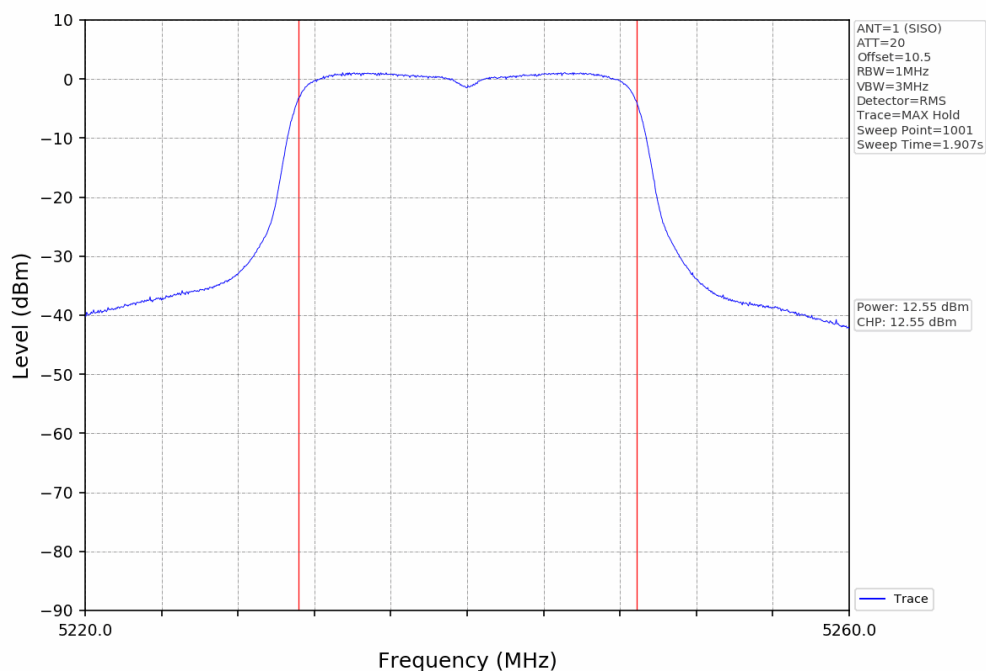
Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)	Limit (dBm)	Verdict
			Ant 2		
802.11n(HT20)	5180	SISO	12.99	≤23.98	PASS
	5200	SISO	13.69	≤23.98	PASS
	5240	SISO	13.48	≤23.98	PASS
802.11ac(VHT20)	5180	SISO	9.65	≤23.98	PASS
	5200	SISO	13.33	≤23.98	PASS
	5240	SISO	13.05	≤23.98	PASS

Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)	Limit (dBm)	Verdict
802.11n(HT20)	5180	MIMO	15.66	≤23.98	PASS
	5200	MIMO	16.13	≤23.98	PASS
	5240	MIMO	16.05	≤23.98	PASS
802.11ac(VHT20)	5180	MIMO	14.02	≤23.98	PASS
	5200	MIMO	15.91	≤23.98	PASS
	5240	MIMO	16.10	≤23.98	PASS

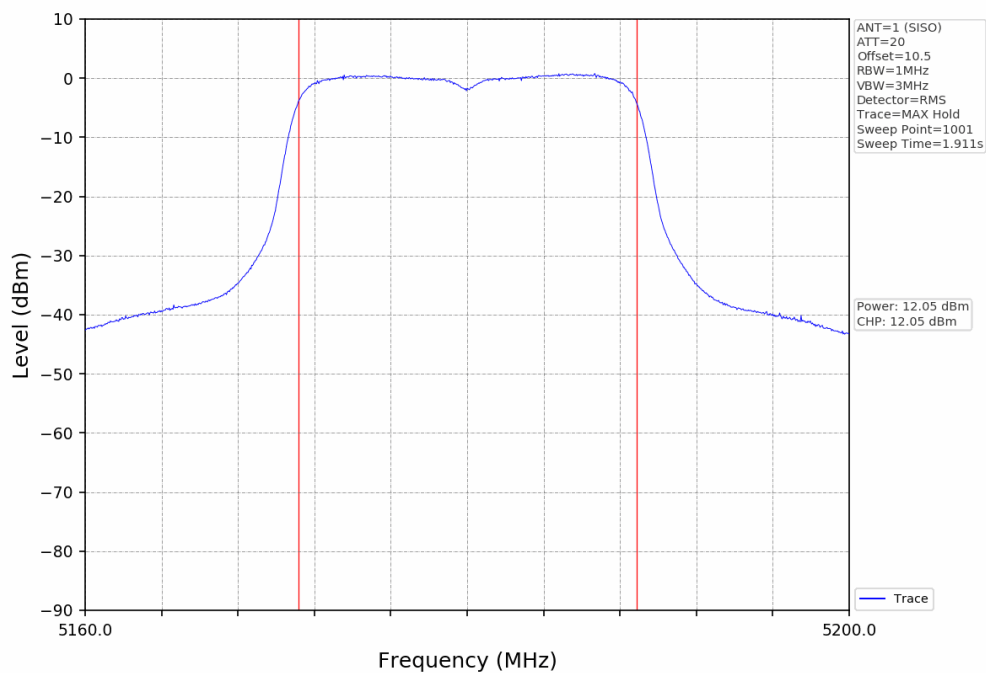
3.2 Test Graph



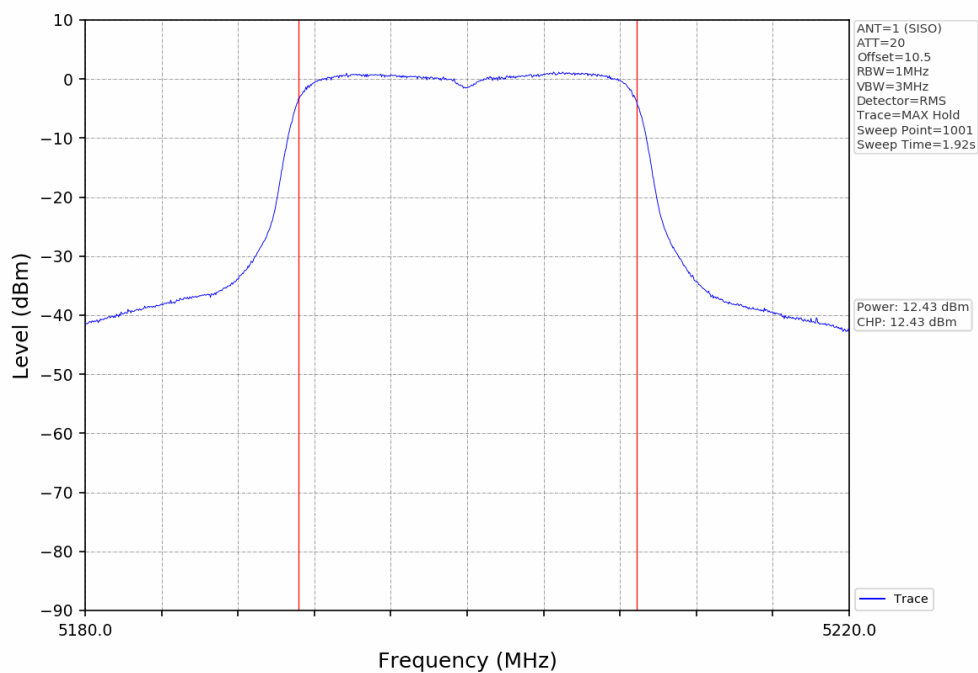
Maximum Conducted Outpower NTNV_802.11n(HT20)_SISO_5240MHz_ANT1



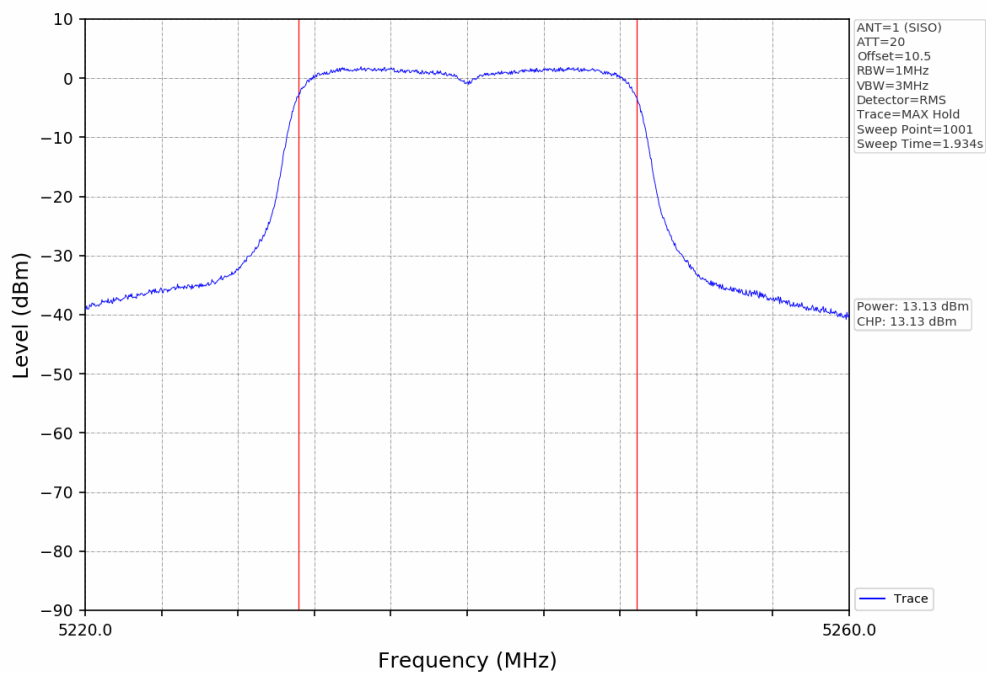
Maximum Conducted Outpower NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT1



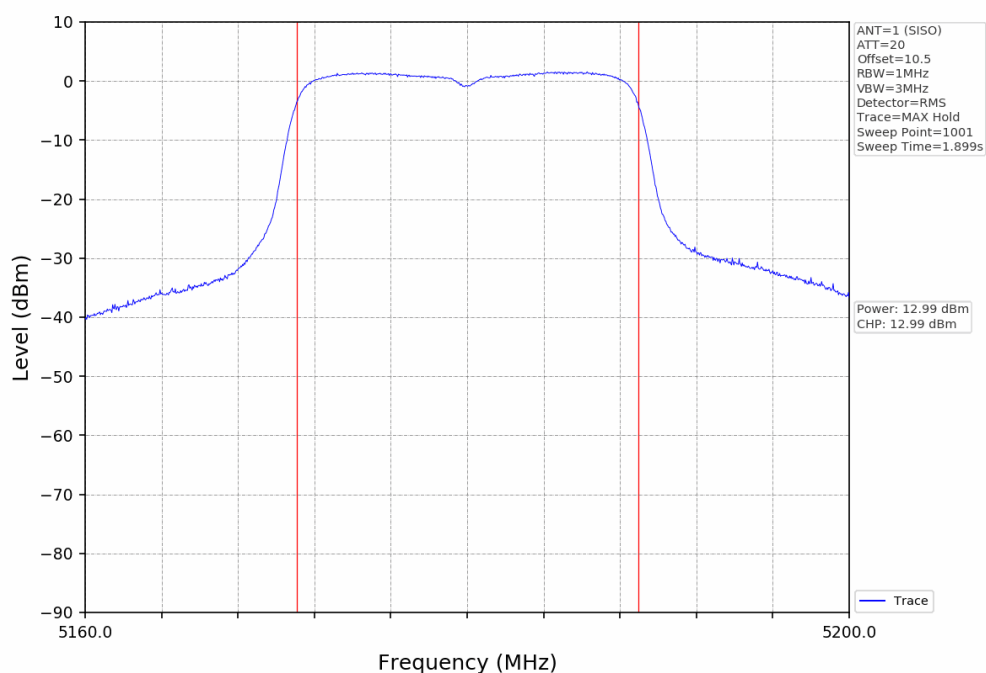
Maximum Conducted Outpower NTV 802.11ac(VHT20) SISO 5200MHz ANT1



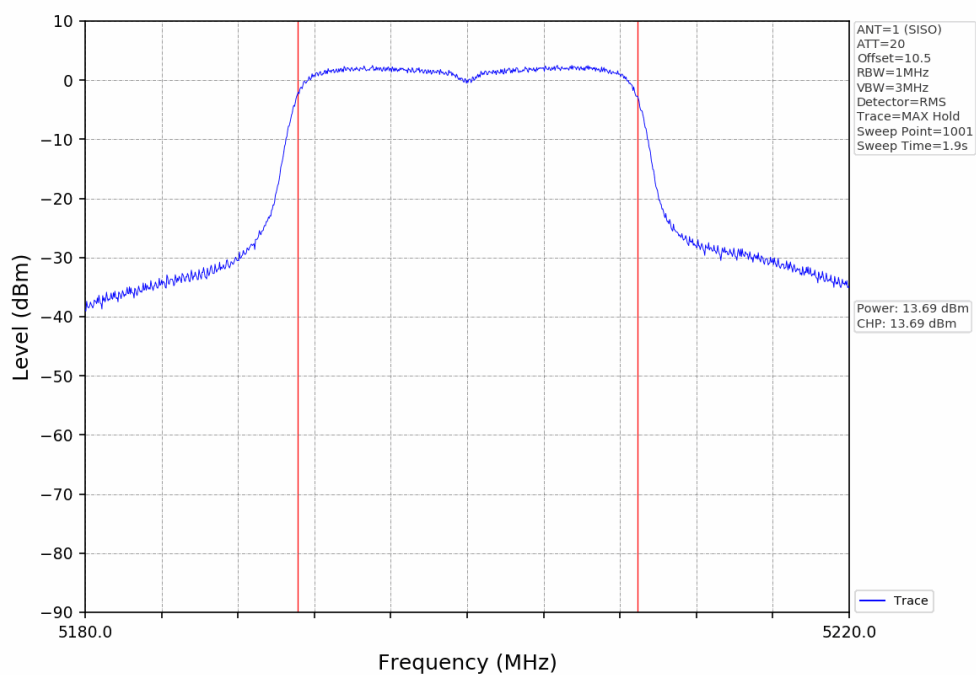
Maximum Conducted Outpower NTV 802.11ac(VHT20) SISO 5240MHz ANT1



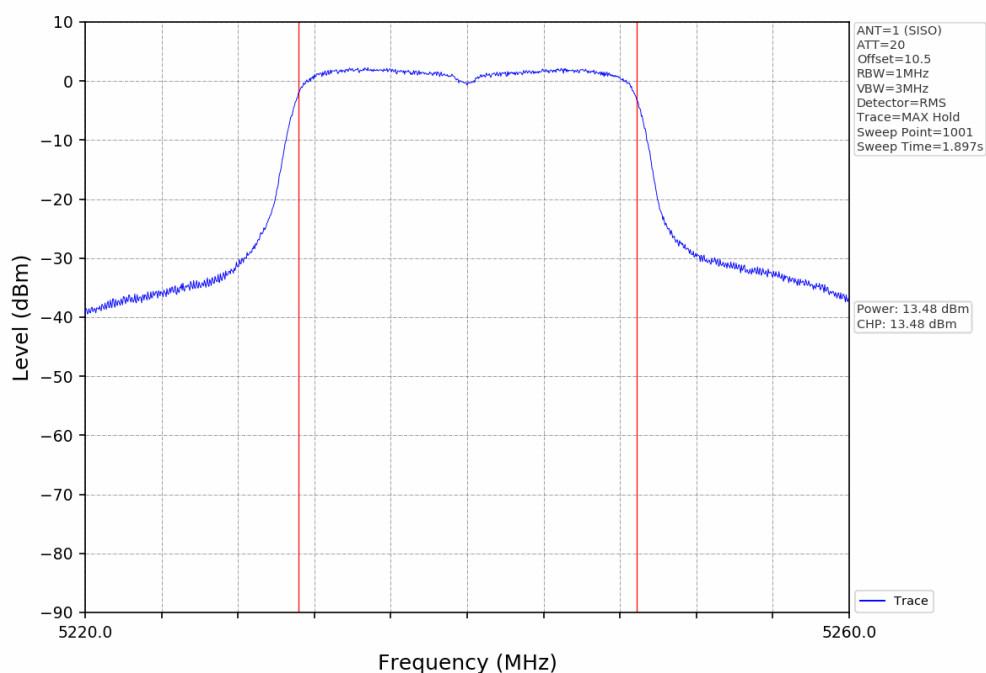
Maximum Conducted Outpower NTN 802.11n(HT20) SISO 5180MHz ANT2



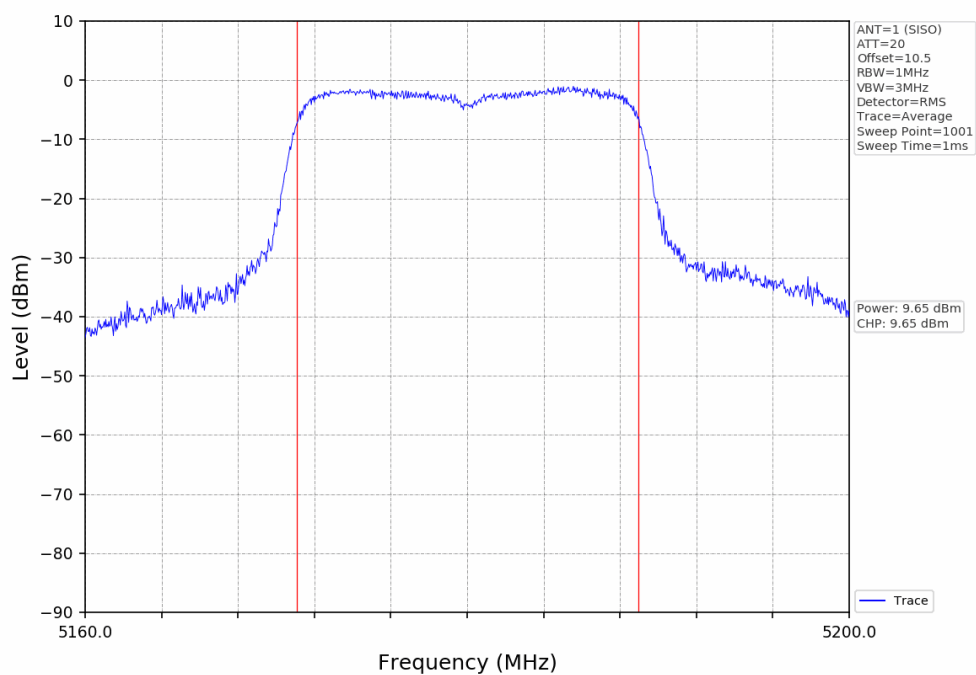
Maximum Conducted Outpower NTN 802.11n(HT20) SISO 5200MHz ANT2



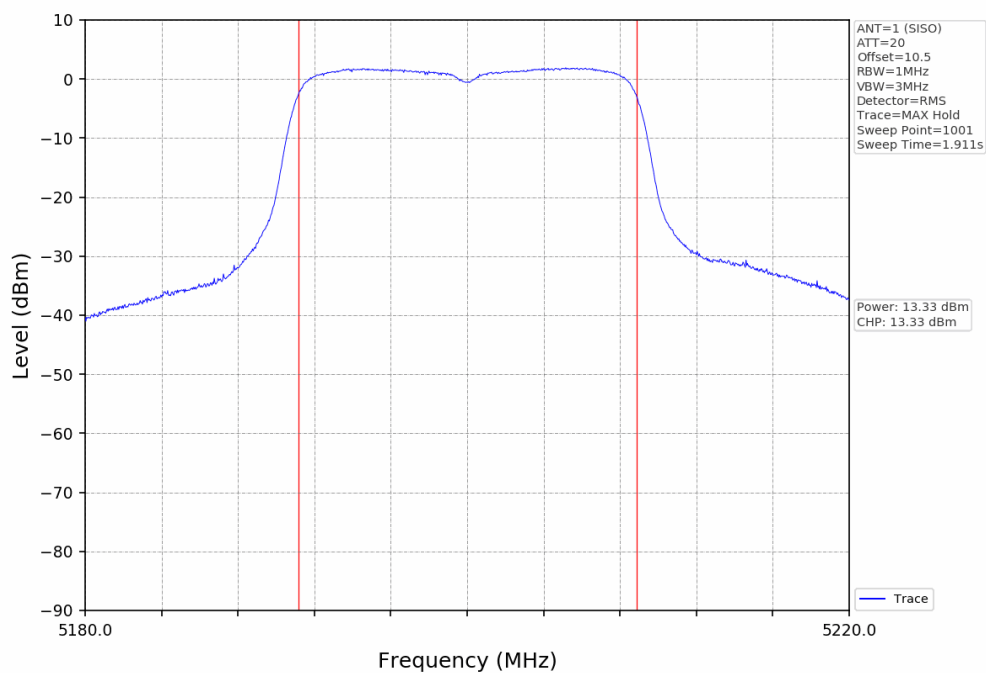
Maximum Conducted Outpower NTNV_802.11n(HT20)_SISO_5240MHz_ANT2



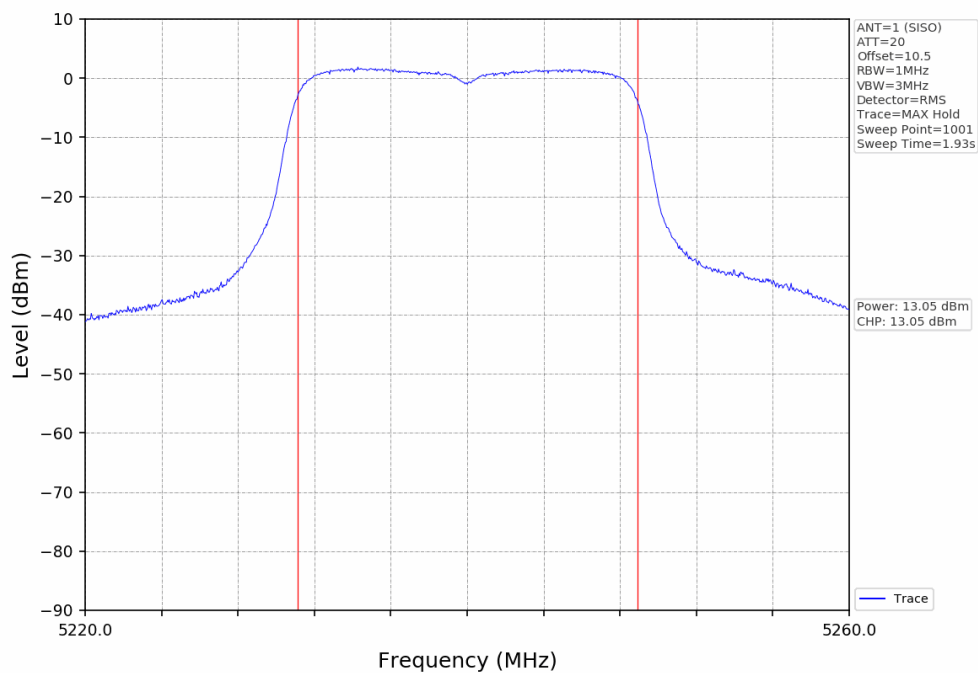
Maximum Conducted Outpower NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT2



Maximum Conducted Outpower NTV 802.11ac(VHT20) SISO 5200MHz ANT2



Maximum Conducted Outpower NTV 802.11ac(VHT20) SISO 5240MHz ANT2



4. Maximum Power Spectral Density (PSD)

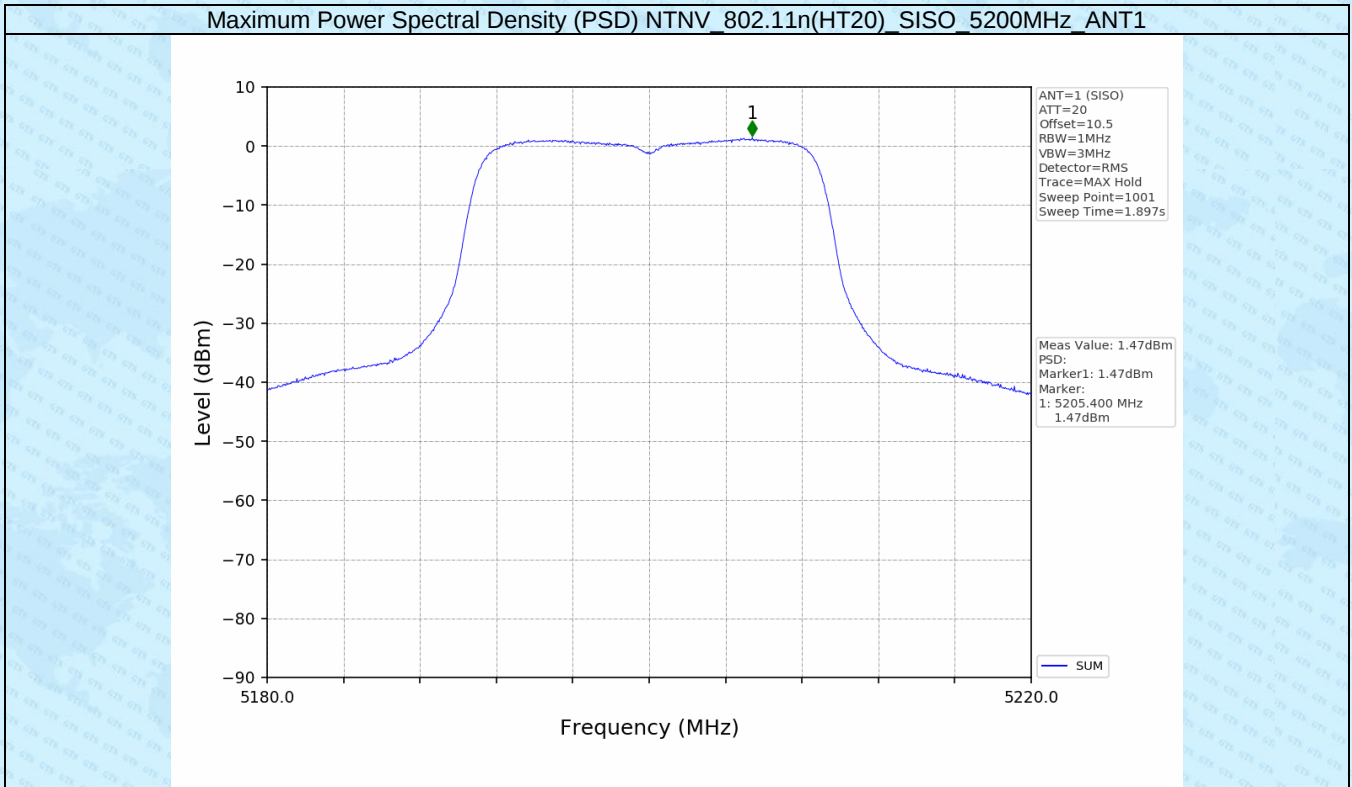
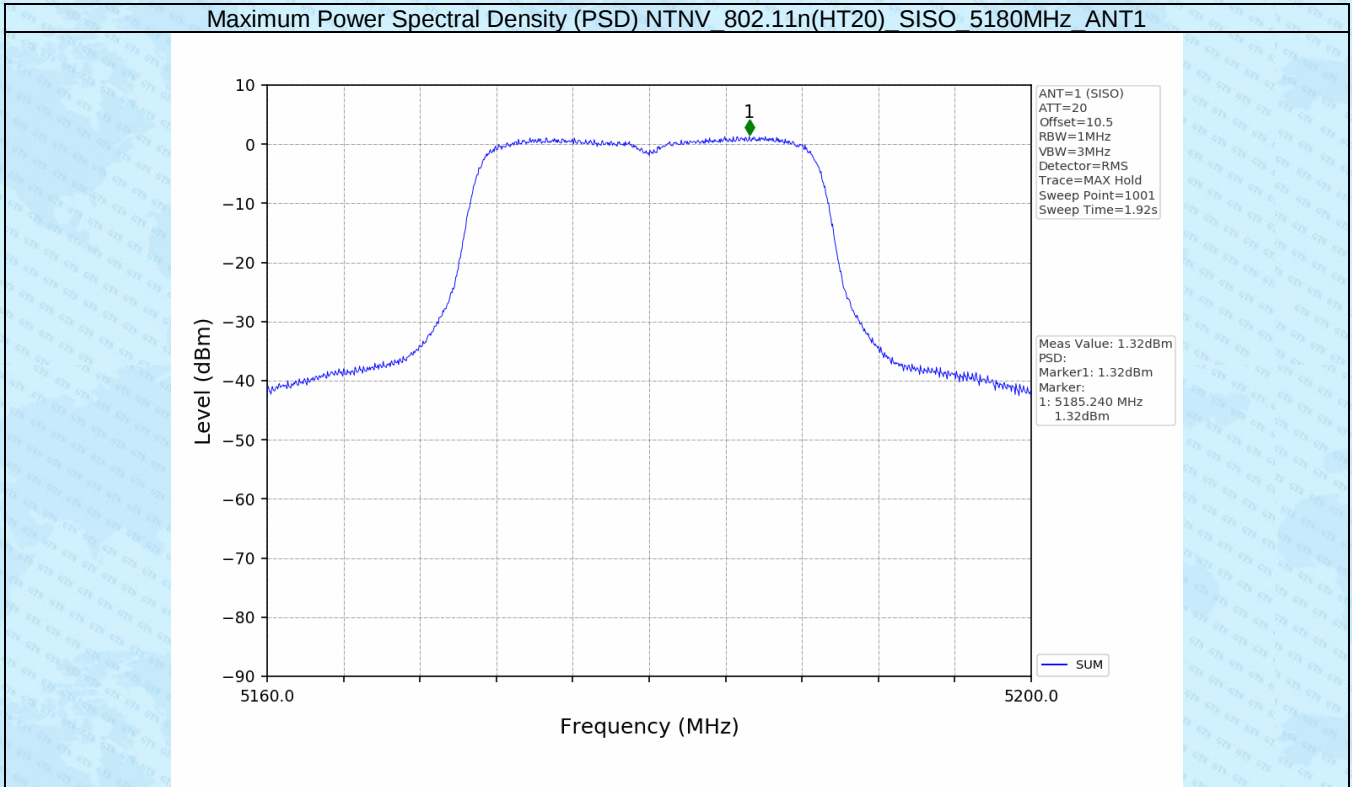
4.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/MHz)	Limits (dBm/MHz)	Verdict
			Ant 1		
802.11n(HT20)	5180	SISO	1.32	≤11	PASS
	5200	SISO	1.47	≤11	PASS
	5240	SISO	1.34	≤11	PASS
802.11ac(VHT20)	5180	SISO	1.51	≤11	PASS
	5200	SISO	1.34	≤11	PASS
	5240	SISO	1.26	≤11	PASS

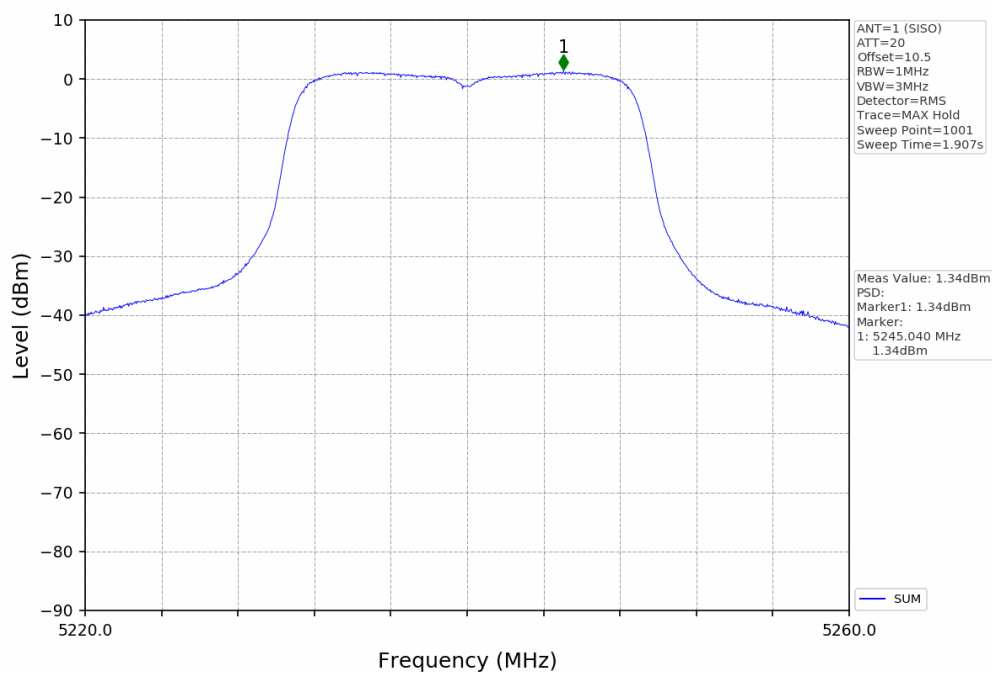
Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/MHz)	Limits (dBm/MHz)	Verdict
			Ant 2		
802.11n(HT20)	5180	SISO	2.37	≤11	PASS
	5200	SISO	1.83	≤11	PASS
	5240	SISO	2.12	≤11	PASS
802.11ac(VHT20)	5180	SISO	-0.55	≤11	PASS
	5200	SISO	2.03	≤11	PASS
	5240	SISO	1.73	≤11	PASS

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/MHz)	Limits (dBm/MHz)	Verdict
802.11n(HT20)	5180	MIMO	4.89	≤11	PASS
	5200	MIMO	4.66	≤11	PASS
	5240	MIMO	4.76	≤11	PASS
802.11ac(VHT20)	5180	MIMO	3.61	≤11	PASS
	5200	MIMO	4.71	≤11	PASS
	5240	MIMO	4.51	≤11	PASS

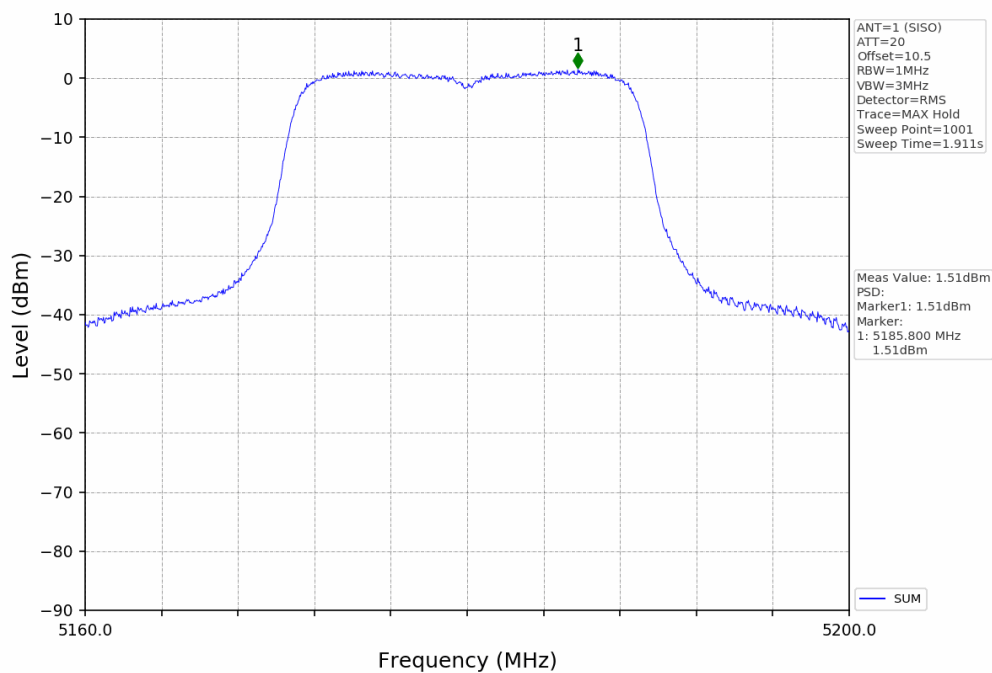
4.2 Test Graph



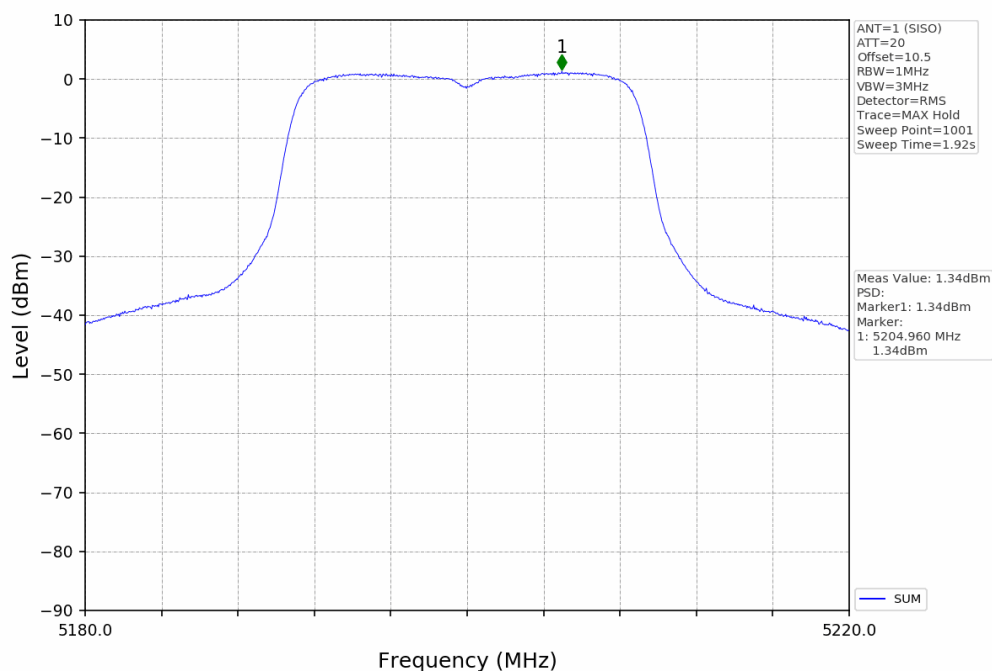
Maximum Power Spectral Density (PSD) NTN_V_802.11n(HT20)_SISO_5240MHz_ANT1



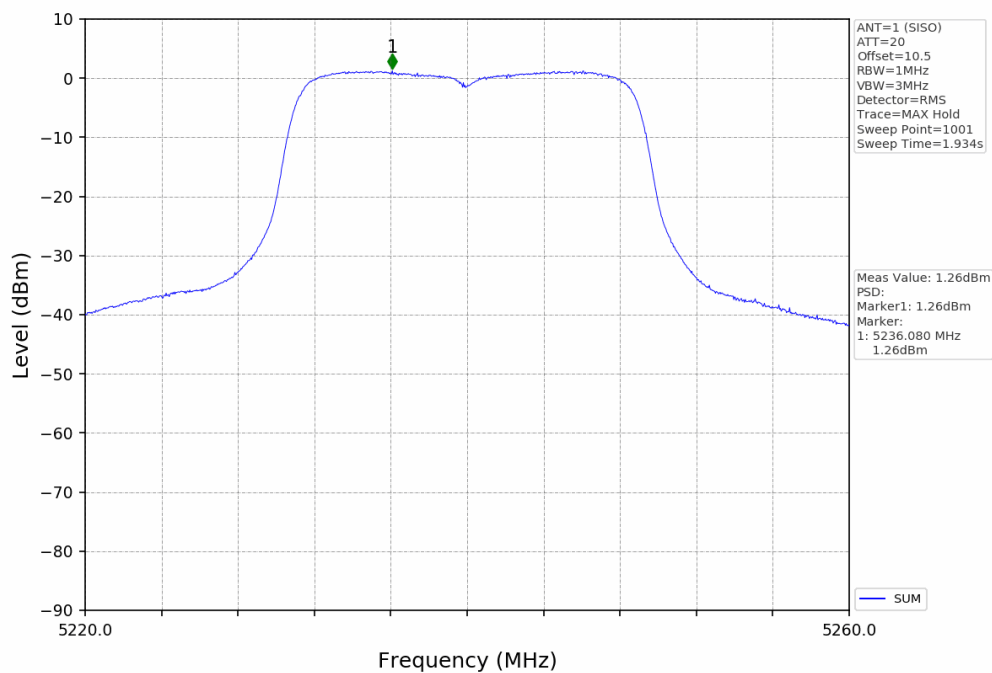
Maximum Power Spectral Density (PSD) NTN_V_802.11ac(VHT20)_SISO_5180MHz_ANT1



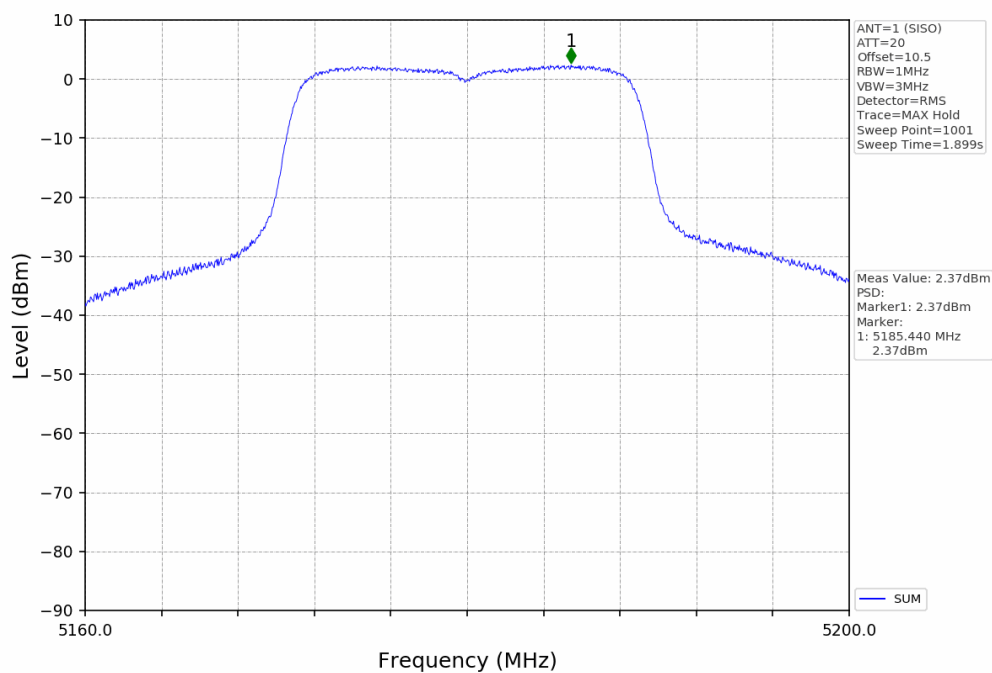
Maximum Power Spectral Density (PSD) NTNV_802.11ac(VHT20)_SISO_5200MHz_ANT1



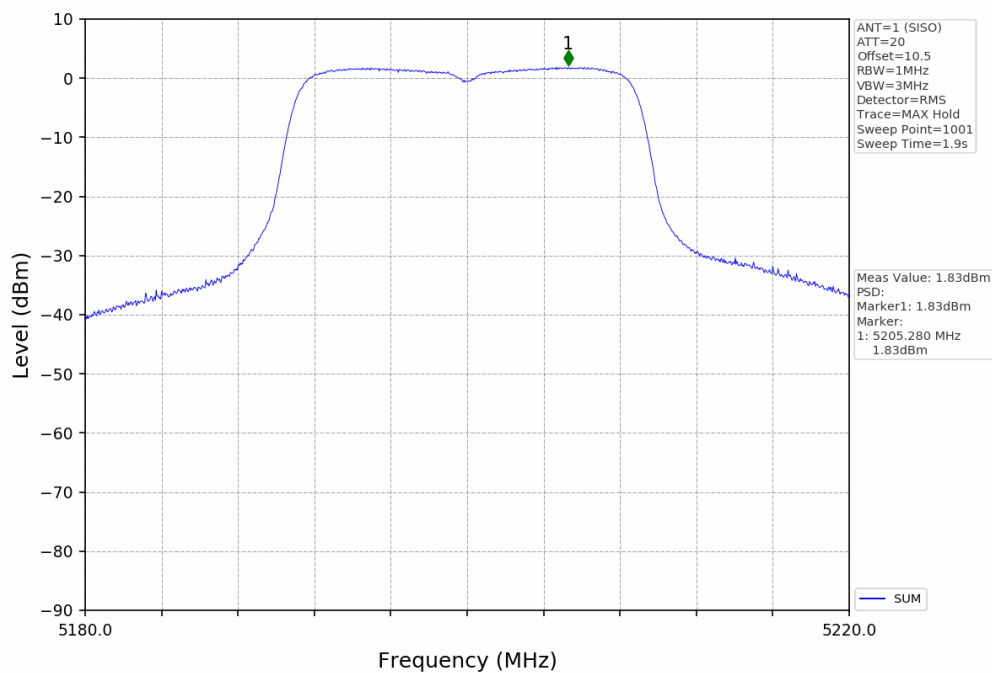
Maximum Power Spectral Density (PSD) NTNV_802.11ac(VHT20)_SISO_5240MHz_ANT1



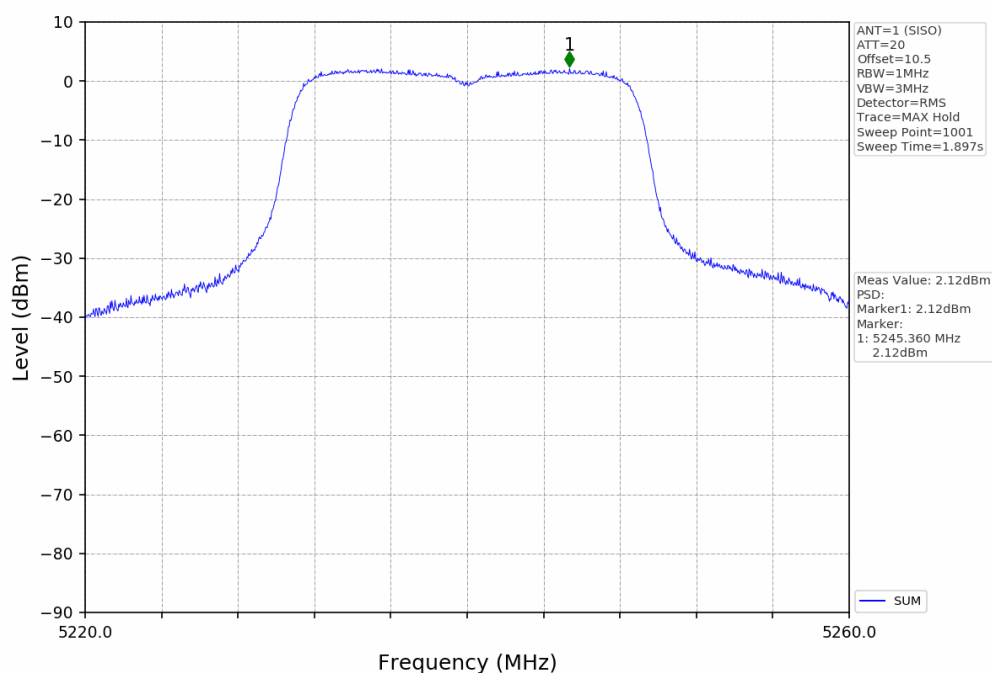
Maximum Power Spectral Density (PSD) NTVN_802.11n(HT20) SISO_5180MHz_ANT2



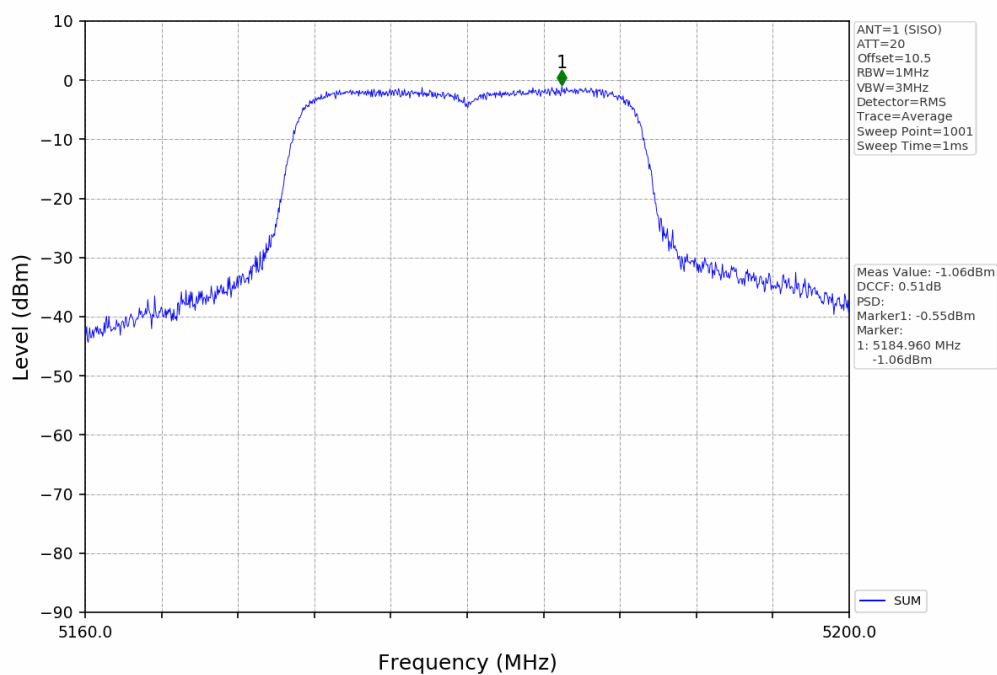
Maximum Power Spectral Density (PSD) NTVN_802.11n(HT20) SISO_5200MHz_ANT2



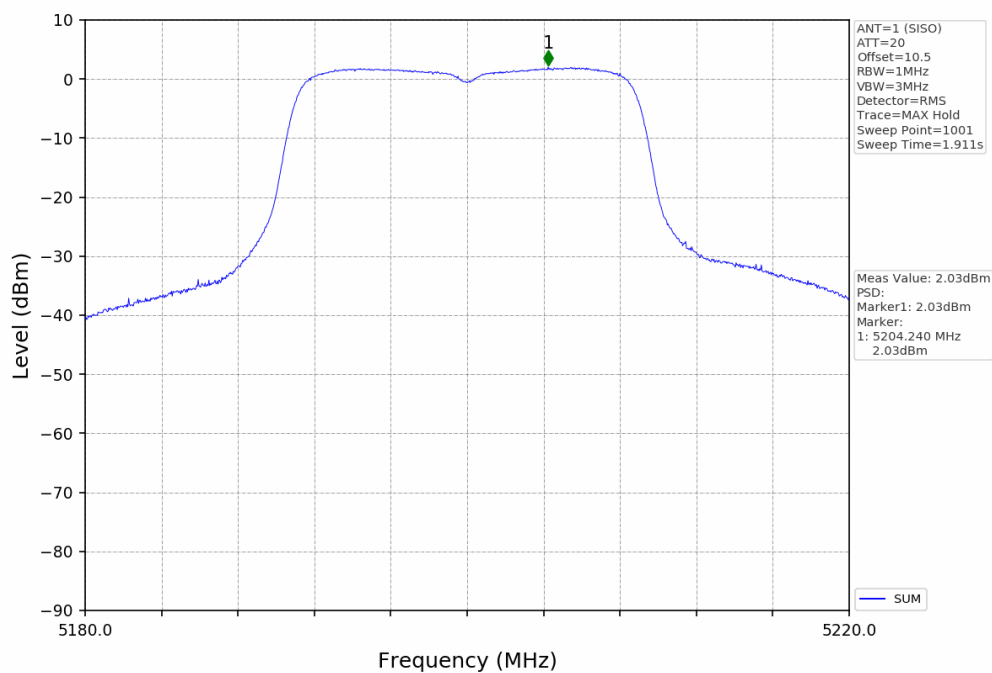
Maximum Power Spectral Density (PSD) NTNV_802.11n(HT20)_SISO_5240MHz_ANT2



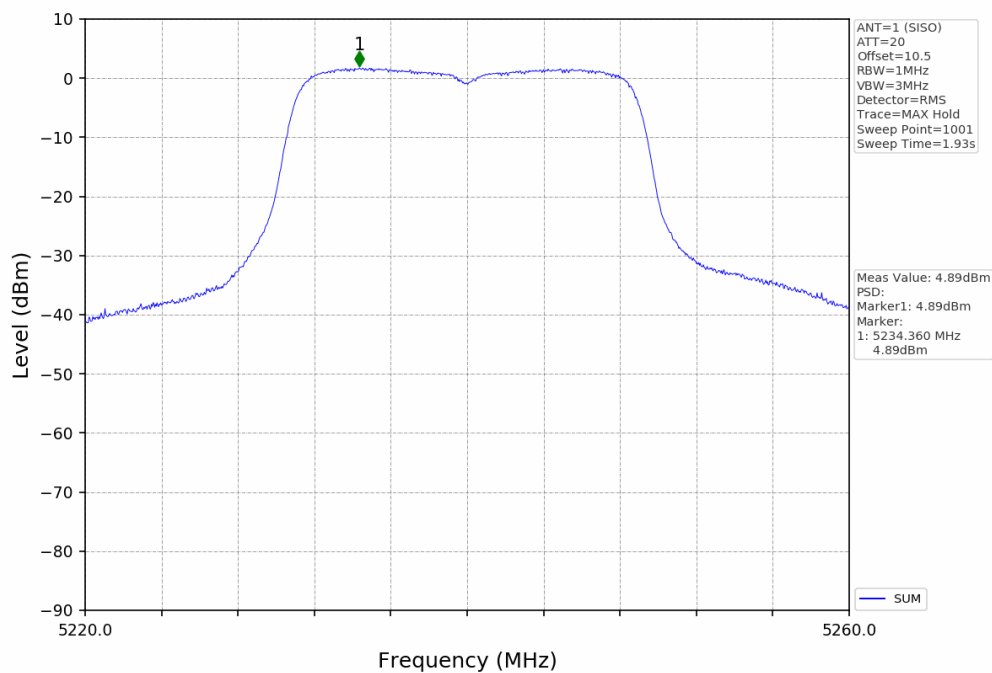
Maximum Power Spectral Density (PSD) NTNV_802.11ac(VHT20)_SISO_5180MHz_ANT2



Maximum Power Spectral Density (PSD) NTNV_802.11ac(VHT20)_SISO_5200MHz_ANT2



Maximum Power Spectral Density (PSD) NTNV_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	-3.86	<=20	PASS
		5200	1	-3.85	<=20	PASS
		5240	1	-3.82	<=20	PASS
		5180	2	-3.86	<=20	PASS
		5200	2	-3.85	<=20	PASS
		5240	2	-3.82	<=20	PASS

---END---