

3. Maximum Conducted Output Power

3.1 Test Result for Sinclair antenna

Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)			Limit (dBm)	Verdict
			Ant 1	Ant 2	Total		
802.11a	5180	SISO	13.72	13.91	/	≤23.98	PASS
	5200	SISO	13.91	13.46	/	≤23.98	PASS
	5240	SISO	14.40	12.75	/	≤23.98	PASS
	5260	SISO	13.84	11.37	/	≤23.98	PASS
	5300	SISO	13.10	10.72	/	≤23.98	PASS
	5320	SISO	13.19	10.51	/	≤23.98	PASS
	5500	SISO	13.69	11.85	/	≤23.98	PASS
	5580	SISO	12.82	11.24	/	≤23.98	PASS
	5700	SISO	13.80	11.36	/	≤23.98	PASS
	5745	SISO	14.19	13.72	/	≤30.00	PASS
	5785	SISO	14.17	12.92	/	≤30.00	PASS
	5825	SISO	13.63	12.59	/	≤30.00	PASS
802.11n(HT20)	5180	MIMO	8.77	10.95	13.01	≤23.98	PASS
	5200	MIMO	9.22	10.55	12.95	≤23.98	PASS
	5240	MIMO	9.52	9.58	12.56	≤23.98	PASS
	5260	MIMO	13.73	13.41	16.58	≤23.98	PASS
	5300	MIMO	13.03	12.59	15.83	≤23.98	PASS
	5320	MIMO	13.14	12.47	15.83	≤23.98	PASS
	5500	MIMO	14.18	14.12	17.16	≤23.98	PASS
	5580	MIMO	13.33	13.36	16.36	≤23.98	PASS
	5700	MIMO	14.45	11.09	16.10	≤23.98	PASS
	5745	MIMO	14.50	9.98	15.81	≤30.00	PASS
	5785	MIMO	14.47	9.07	15.57	≤30.00	PASS
	5825	MIMO	13.84	8.71	15.00	≤30.00	PASS
802.11n(HT40)	5190	MIMO	12.24	13.86	16.14	≤23.98	PASS
	5230	MIMO	12.49	12.80	15.66	≤23.98	PASS
	5270	MIMO	14.12	13.86	17.00	≤23.98	PASS
	5310	MIMO	14.04	13.38	16.73	≤23.98	PASS
	5510	MIMO	14.54	13.79	17.19	≤23.98	PASS
	5550	MIMO	13.85	13.04	16.47	≤23.98	PASS
	5670	MIMO	12.92	10.64	14.94	≤23.98	PASS
	5755	MIMO	13.43	10.33	15.16	≤30.00	PASS
	5795	MIMO	13.24	10.11	14.96	≤30.00	PASS
802.11ac(VHT20)	5180	MIMO	9.10	11.19	13.28	≤23.98	PASS
	5200	MIMO	9.34	10.74	13.11	≤23.98	PASS



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	5240	MIMO	9.68	9.65	12.68	≤23.98	PASS
	5260	MIMO	14.69	14.47	17.59	≤23.98	PASS
	5300	MIMO	14.07	13.58	16.84	≤23.98	PASS
	5320	MIMO	14.00	13.48	16.76	≤23.98	PASS
	5500	MIMO	14.78	14.02	17.43	≤23.98	PASS
	5580	MIMO	13.50	12.97	16.25	≤23.98	PASS
	5700	MIMO	13.84	10.90	15.62	≤23.98	PASS
	5745	MIMO	13.61	10.44	15.32	≤30.00	PASS
	5785	MIMO	13.38	9.96	15.01	≤30.00	PASS
	5825	MIMO	12.99	10.18	14.82	≤30.00	PASS
802.11ac(VHT40)	5190	MIMO	11.85	13.62	15.83	≤23.98	PASS
	5230	MIMO	12.14	12.65	15.41	≤23.98	PASS
	5270	MIMO	14.10	14.18	17.15	≤23.98	PASS
	5310	MIMO	13.81	13.94	16.89	≤23.98	PASS
	5510	MIMO	14.37	12.80	16.67	≤23.98	PASS
	5550	MIMO	13.78	12.55	16.22	≤23.98	PASS
	5670	MIMO	12.88	10.64	14.91	≤23.98	PASS
	5755	MIMO	13.42	10.27	15.13	≤30.00	PASS
	5795	MIMO	13.23	9.80	14.86	≤30.00	PASS
802.11ac(VHT80)	5210	MIMO	12.60	13.84	16.27	≤23.98	PASS
	5290	MIMO	12.35	11.82	15.10	≤23.98	PASS
	5530	MIMO	13.69	12.84	16.30	≤23.98	PASS
	5610	MIMO	12.98	12.17	15.60	≤23.98	PASS
	5775	MIMO	13.10	9.73	14.74	≤30.00	PASS

Since the number of transmit antennas is less than 4, Array gain=0dB.



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3.1 Test Result for SANAV antenna

Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)			Limit (dBm)	Verdict
			Ant 1	Ant 2	Total		
802.11a	5180	SISO	13.72	13.91	/	≤23.98	PASS
	5200	SISO	13.91	13.46	/	≤23.98	PASS
	5240	SISO	14.40	12.75	/	≤23.98	PASS
	5260	SISO	13.84	11.37	/	≤23.98	PASS
	5300	SISO	13.10	10.72	/	≤23.98	PASS
	5320	SISO	13.19	10.51	/	≤23.98	PASS
	5500	SISO	13.69	11.85	/	≤23.98	PASS
	5580	SISO	12.82	11.24	/	≤23.98	PASS
	5700	SISO	13.80	11.36	/	≤23.98	PASS
	5745	SISO	14.19	13.72	/	≤30.00	PASS
	5785	SISO	14.17	12.92	/	≤30.00	PASS
	5825	SISO	13.63	12.59	/	≤30.00	PASS
802.11n(HT20)	5180	MIMO	8.77	10.95	13.01	See note	PASS
	5200	MIMO	9.22	10.55	12.95	See note	PASS
	5240	MIMO	9.52	9.58	12.56	See note	PASS
	5260	MIMO	13.73	13.41	16.58	See note	PASS
	5300	MIMO	13.03	12.59	15.83	See note	PASS
	5320	MIMO	13.14	12.47	15.83	See note	PASS
	5500	MIMO	14.18	14.12	17.16	See note	PASS
	5580	MIMO	13.33	13.36	16.36	See note	PASS
	5700	MIMO	14.45	11.09	16.10	See note	PASS
	5745	MIMO	14.50	9.98	15.81	≤30.00	PASS
	5785	MIMO	14.47	9.07	15.57	≤30.00	PASS
	5825	MIMO	13.84	8.71	15.00	≤30.00	PASS
802.11n(HT40)	5190	MIMO	12.24	13.86	16.14	See note	PASS
	5230	MIMO	12.49	12.80	15.66	See note	PASS
	5270	MIMO	14.12	13.86	17.00	See note	PASS
	5310	MIMO	14.04	13.38	16.73	See note	PASS
	5510	MIMO	14.54	13.79	17.19	See note	PASS
	5550	MIMO	13.85	13.04	16.47	See note	PASS
	5670	MIMO	12.92	10.64	14.94	See note	PASS
	5755	MIMO	13.43	10.33	15.16	≤30.00	PASS
	5795	MIMO	13.24	10.11	14.96	≤30.00	PASS
802.11ac(VHT20)	5180	MIMO	9.10	11.19	13.28	See note	PASS
	5200	MIMO	9.34	10.74	13.11	See note	PASS
	5240	MIMO	9.68	9.65	12.68	See note	PASS
	5260	MIMO	14.69	14.47	17.59	See note	PASS



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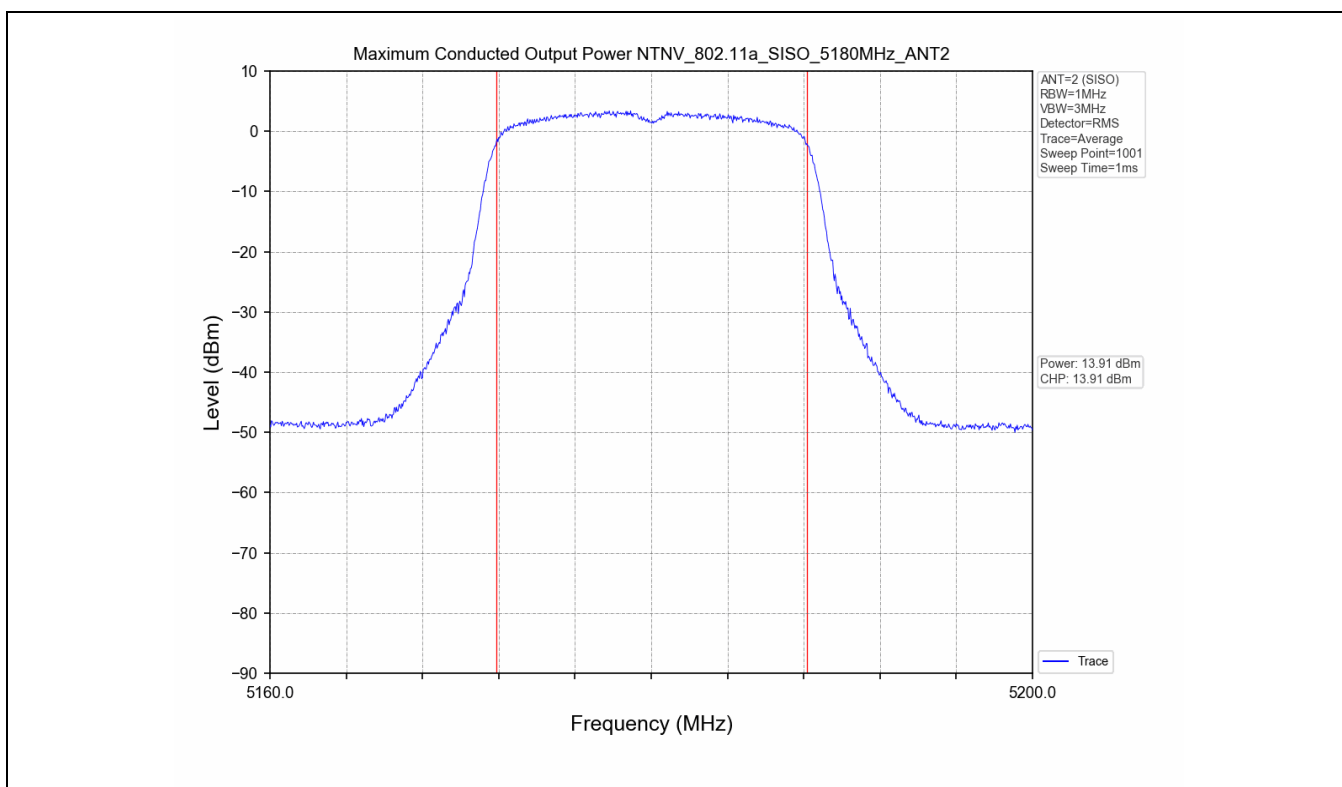
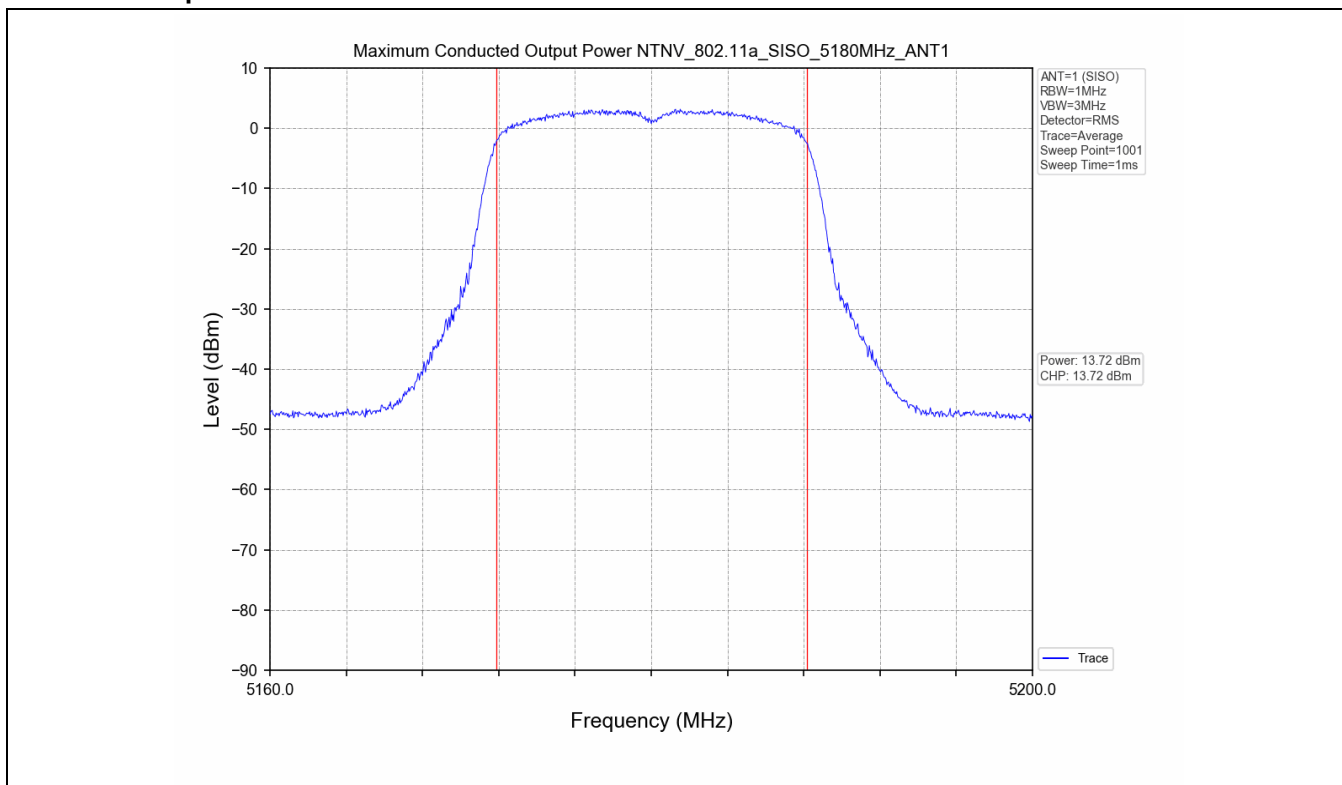
	5300	MIMO	14.07	13.58	16.84	See note	PASS
	5320	MIMO	14.00	13.48	16.76	See note	PASS
	5500	MIMO	14.78	14.02	17.43	See note	PASS
	5580	MIMO	13.50	12.97	16.25	See note	PASS
	5700	MIMO	13.84	10.90	15.62	See note	PASS
	5745	MIMO	13.61	10.44	15.32	≤30.00	PASS
	5785	MIMO	13.38	9.96	15.01	≤30.00	PASS
	5825	MIMO	12.99	10.18	14.82	≤30.00	PASS
802.11ac(VHT40)	5190	MIMO	11.85	13.62	15.83	See note	PASS
	5230	MIMO	12.14	12.65	15.41	See note	PASS
	5270	MIMO	14.10	14.18	17.15	See note	PASS
	5310	MIMO	13.81	13.94	16.89	See note	PASS
	5510	MIMO	14.37	12.80	16.67	See note	PASS
	5550	MIMO	13.78	12.55	16.22	See note	PASS
	5670	MIMO	12.88	10.64	14.91	See note	PASS
	5755	MIMO	13.42	10.27	15.13	≤30.00	PASS
802.11ac(VHT80)	5795	MIMO	13.23	9.80	14.86	≤30.00	PASS
	5210	MIMO	12.60	13.84	16.27	See note	PASS
	5290	MIMO	12.35	11.82	15.10	See note	PASS
	5530	MIMO	13.69	12.84	16.30	See note	PASS
	5610	MIMO	12.98	12.17	15.60	See note	PASS
	5775	MIMO	13.10	9.73	14.74	≤30.00	PASS

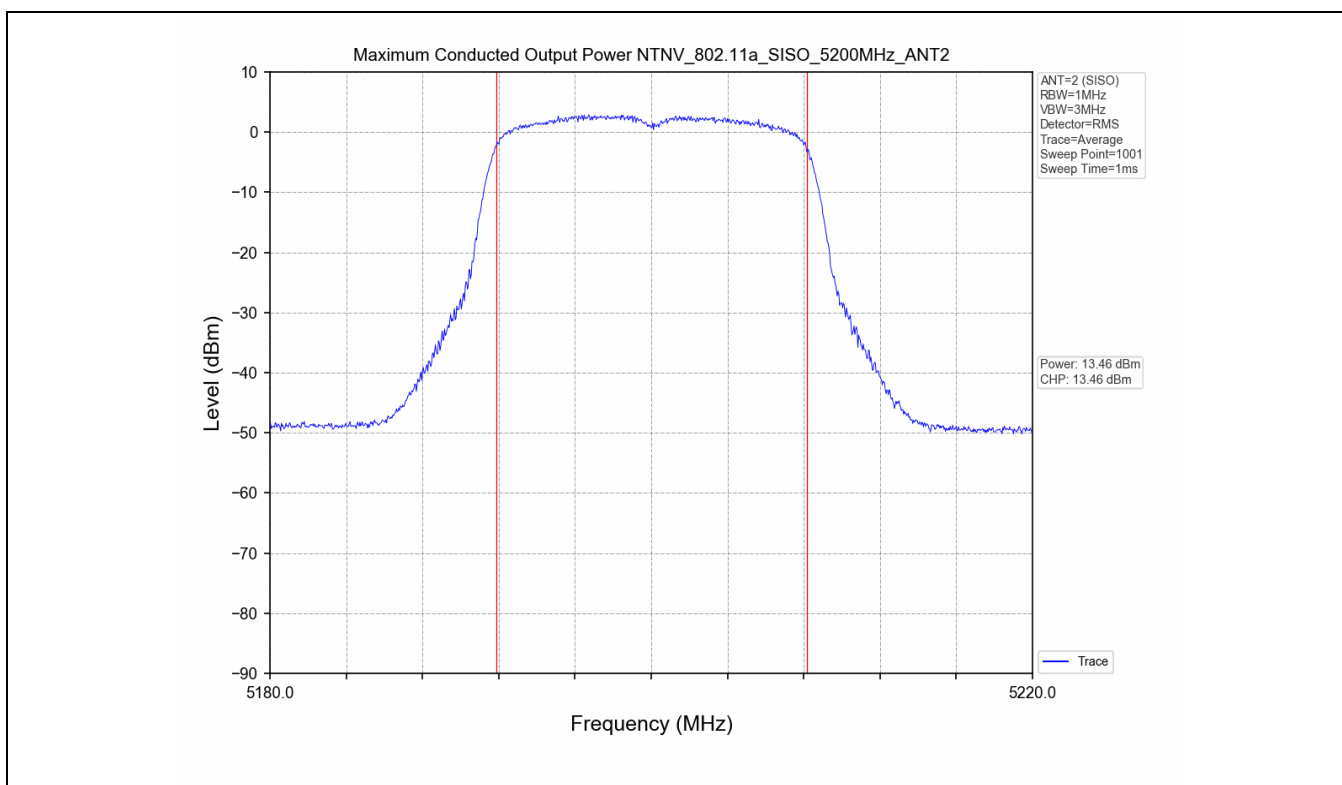
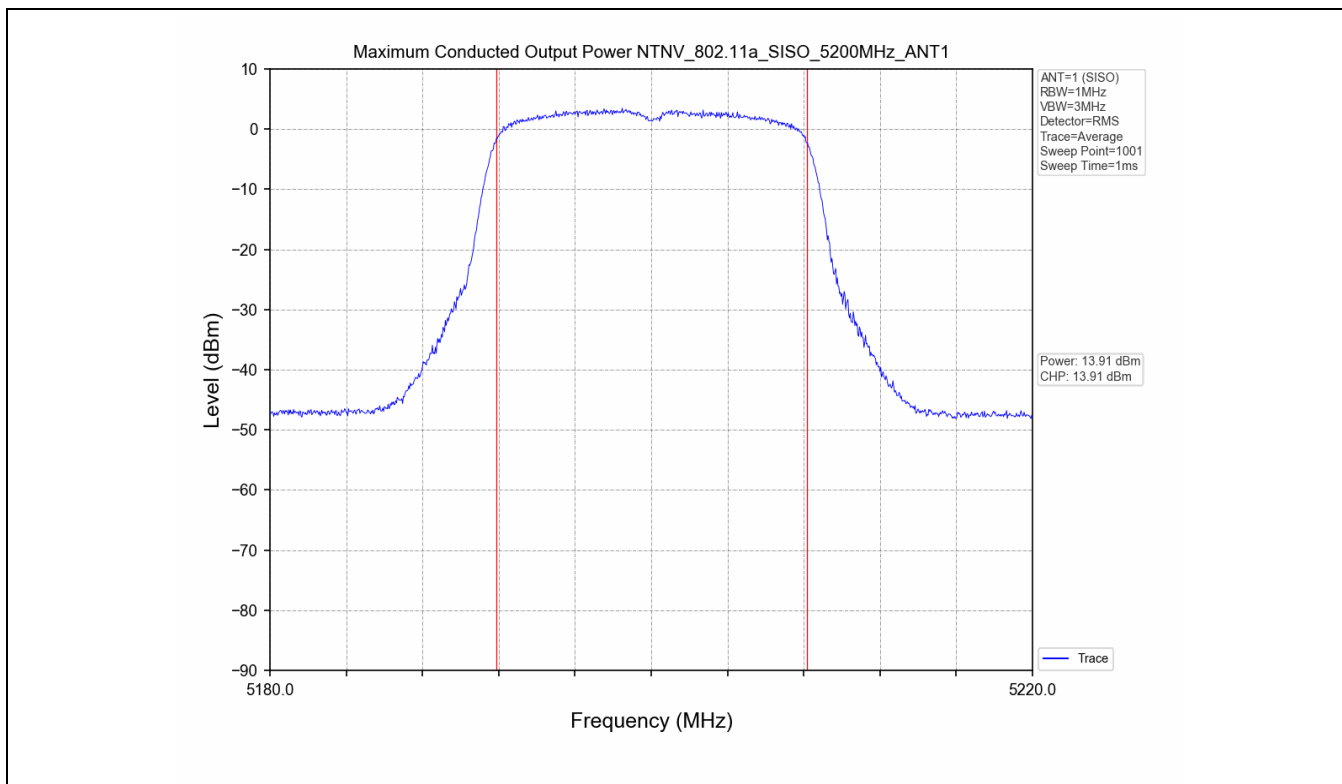
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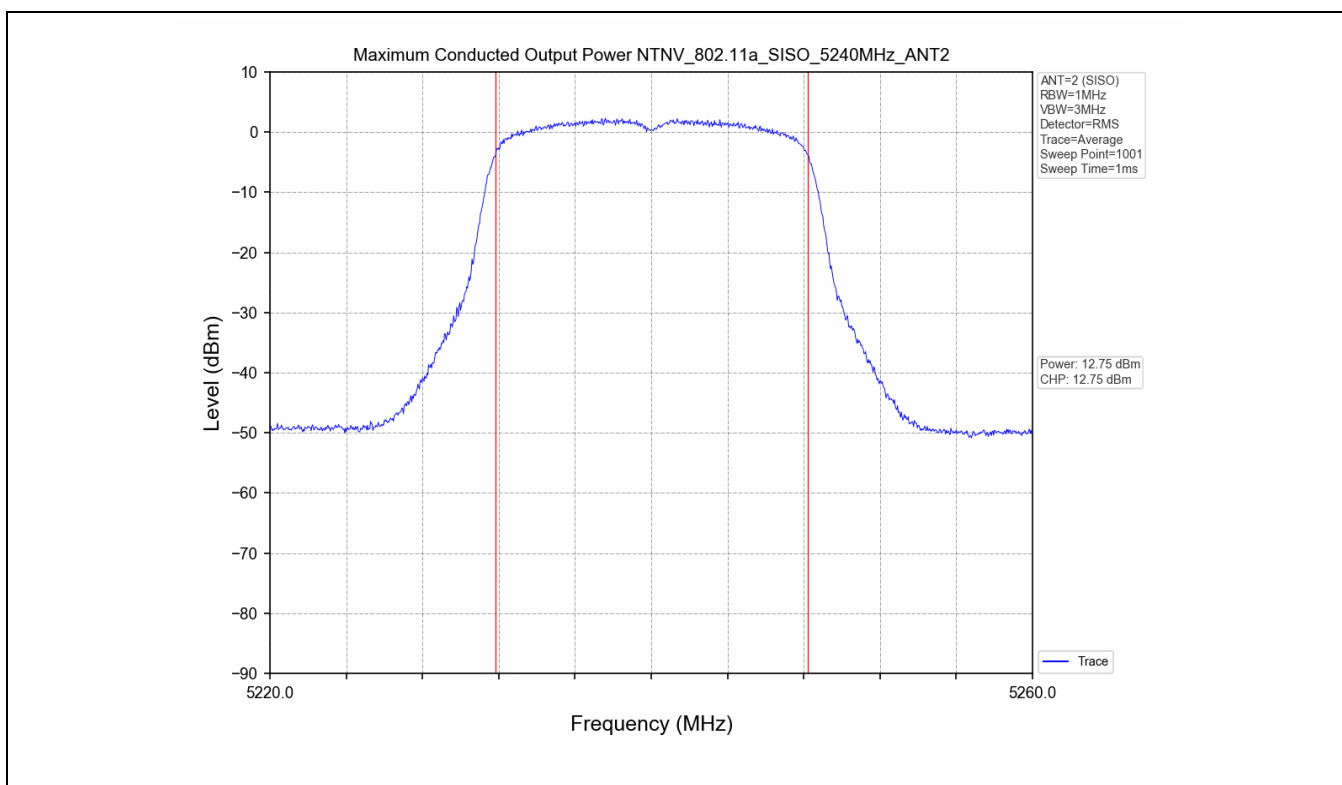
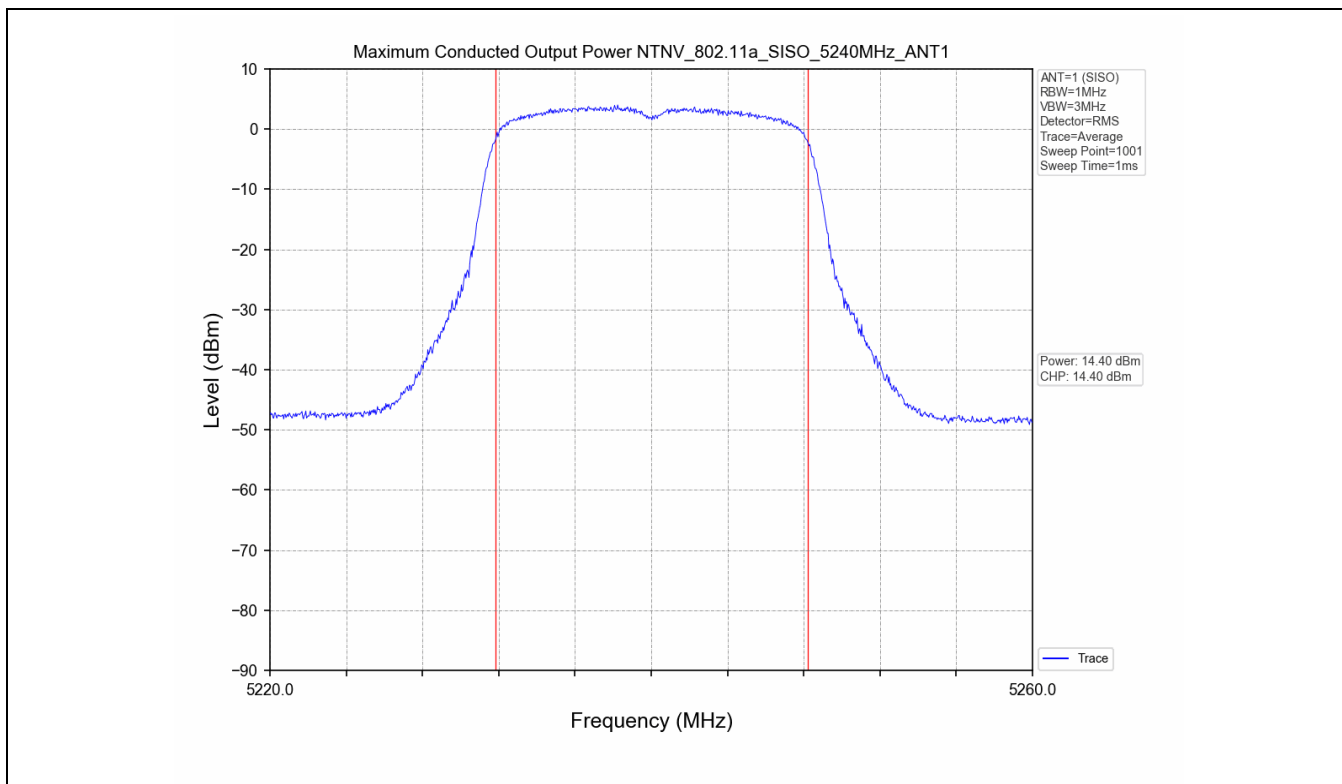
Directional gain = $G_{ANT} + 10 \cdot \log(N_{ANT}/N_{SS}) = 5.84 + 10 \cdot \log(2/1) = 8.85 \text{dBi}$.

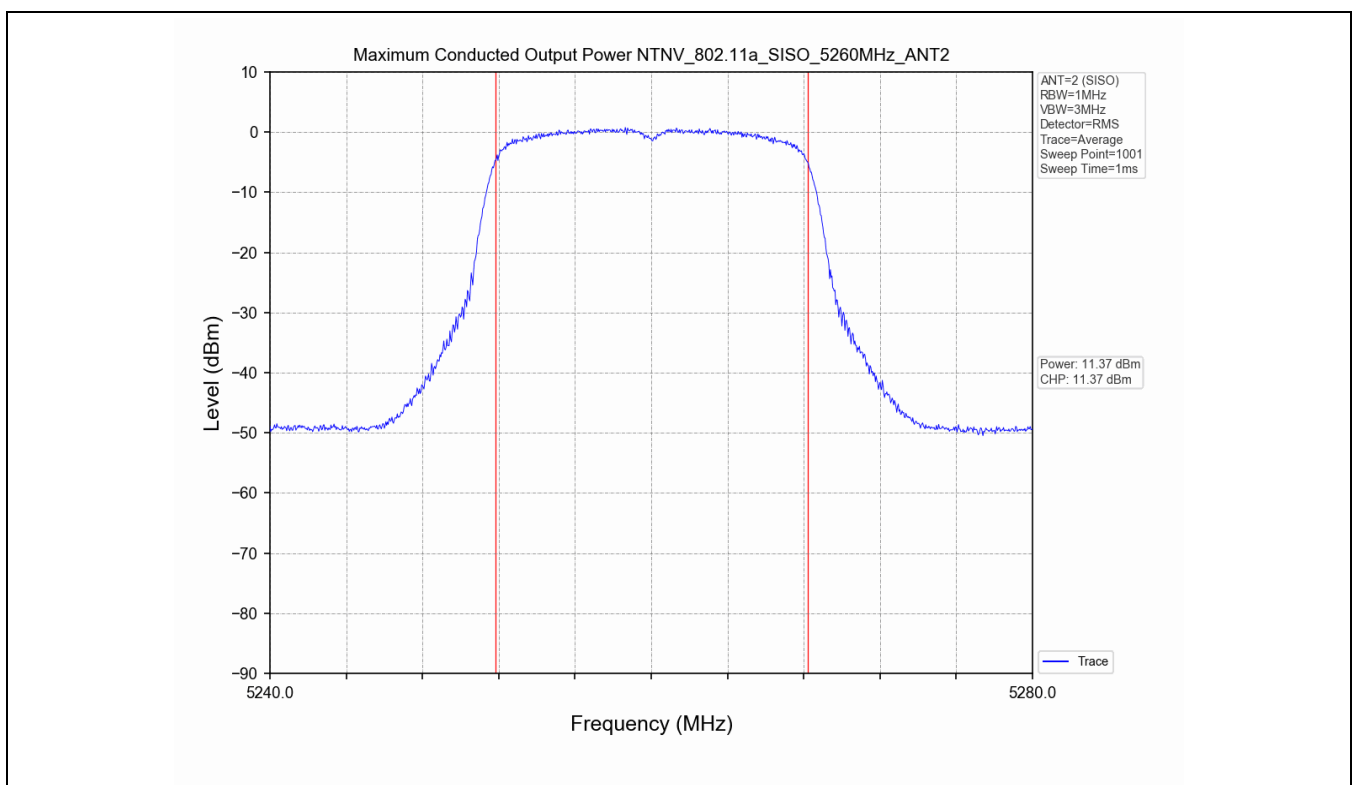
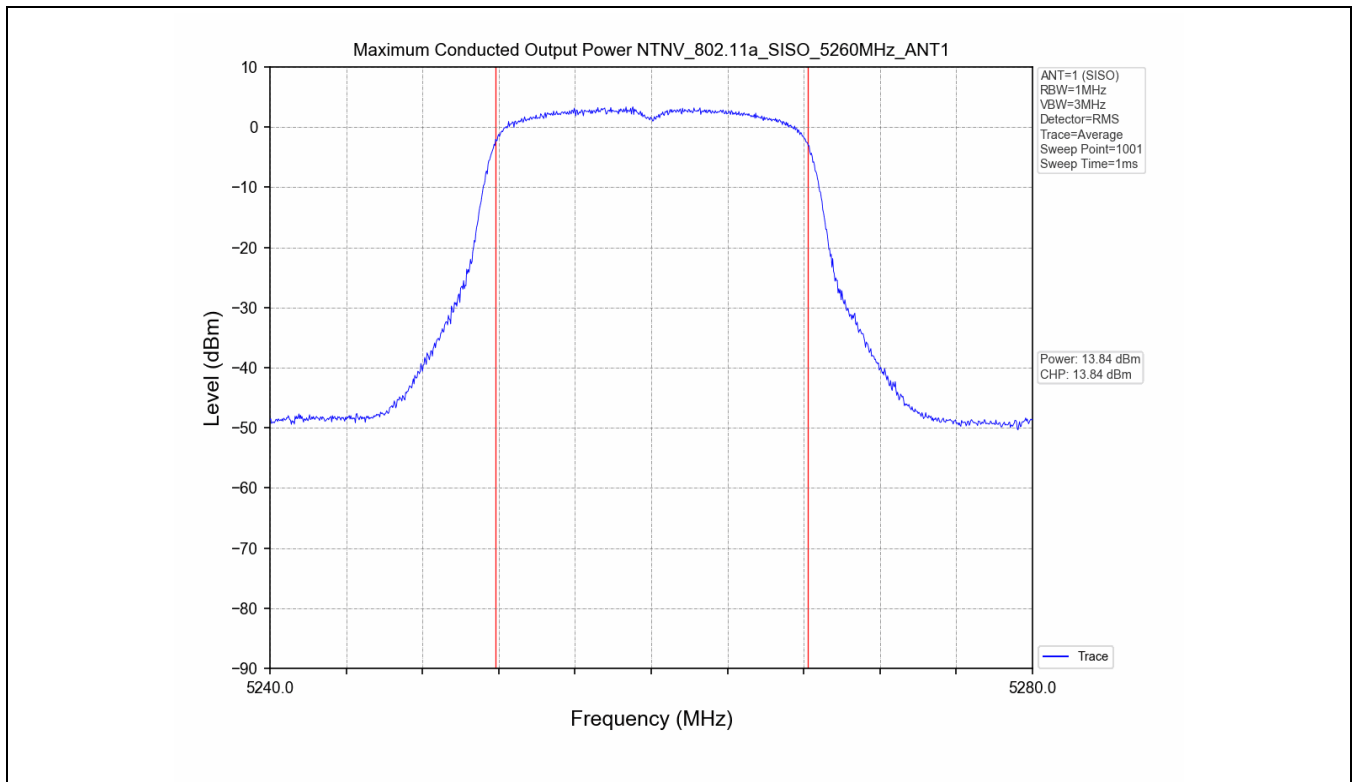
So, the limit of UNII Band I/ Band II-A/ Band II-C is 21.13dBm.

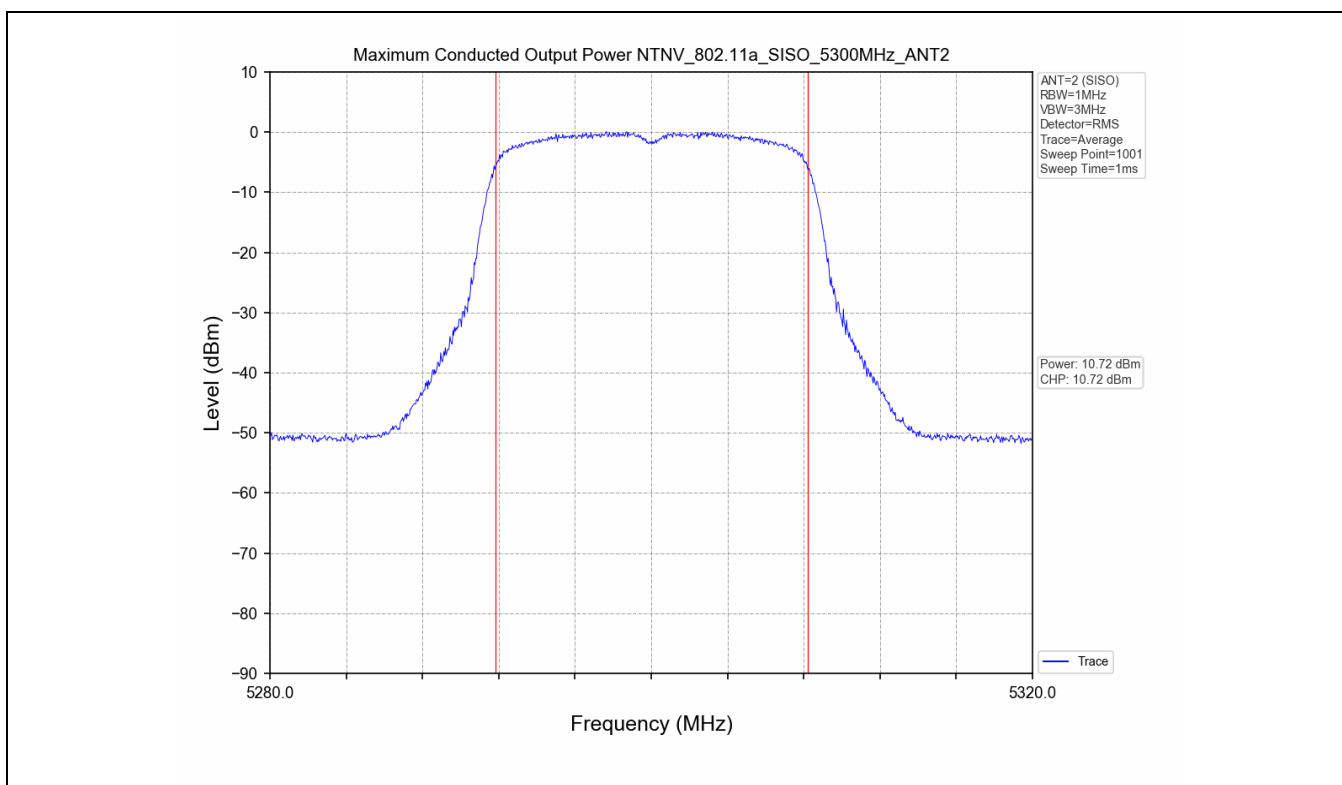
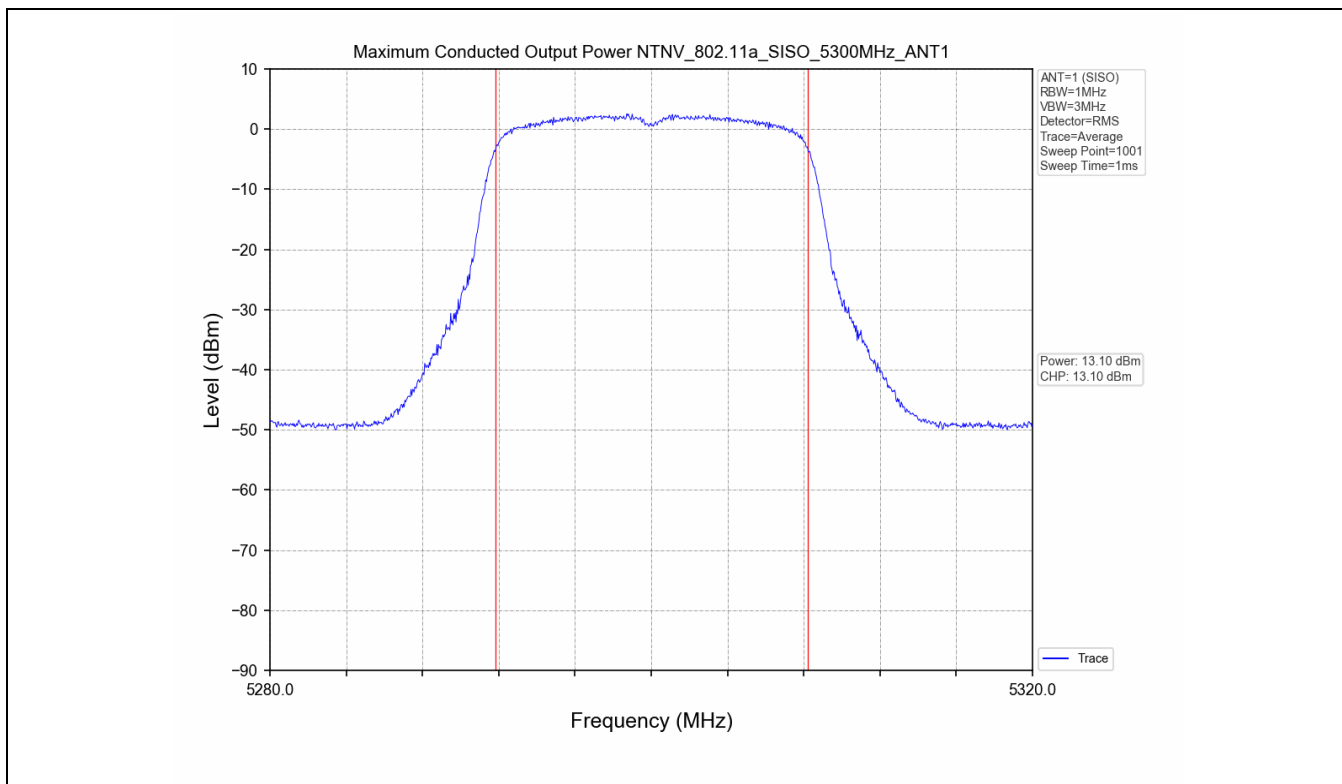
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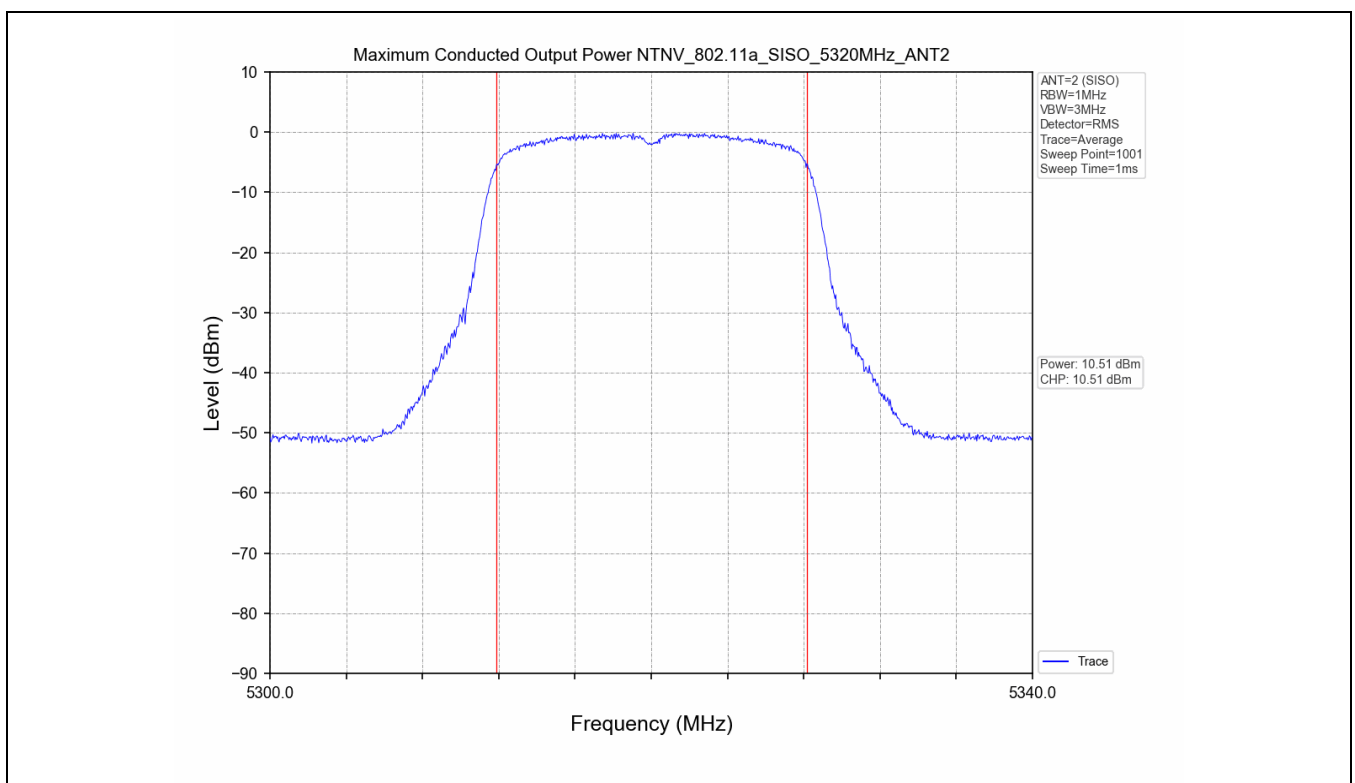
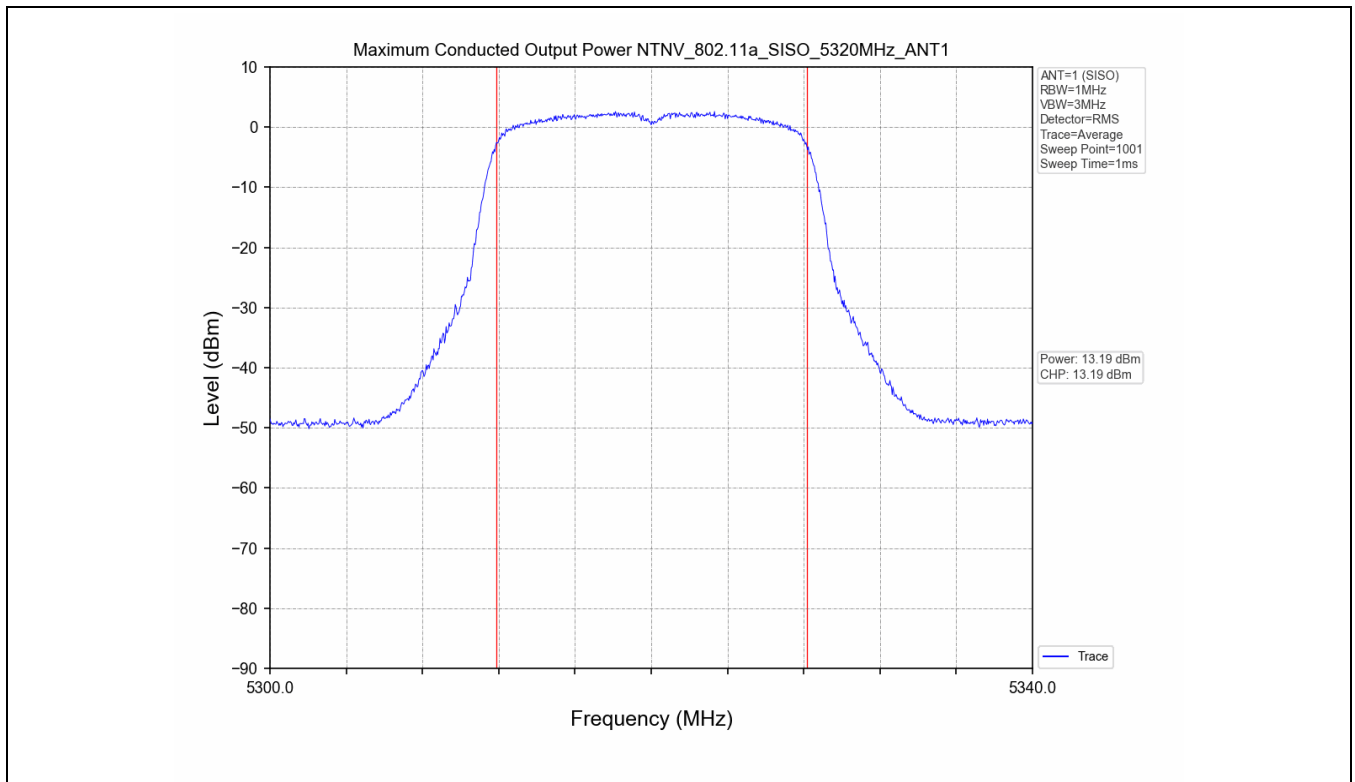


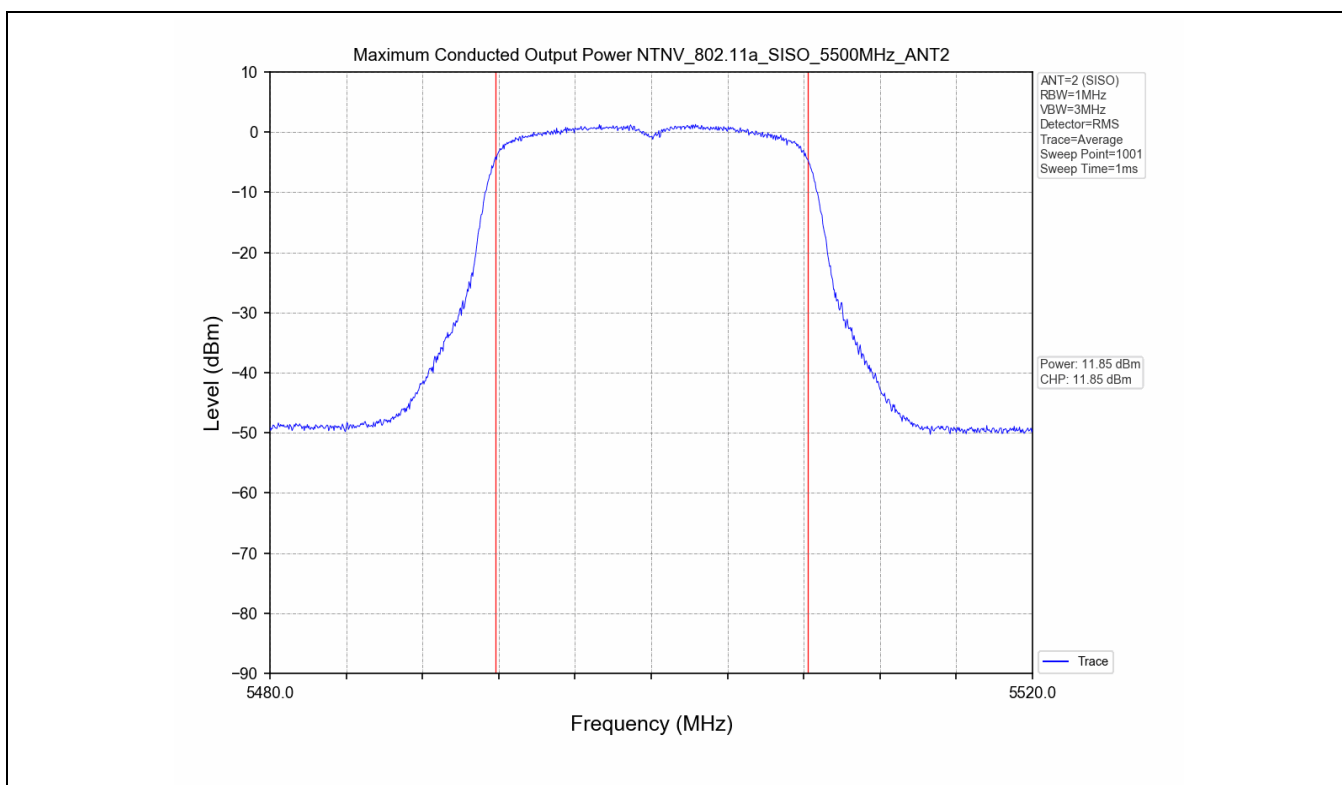
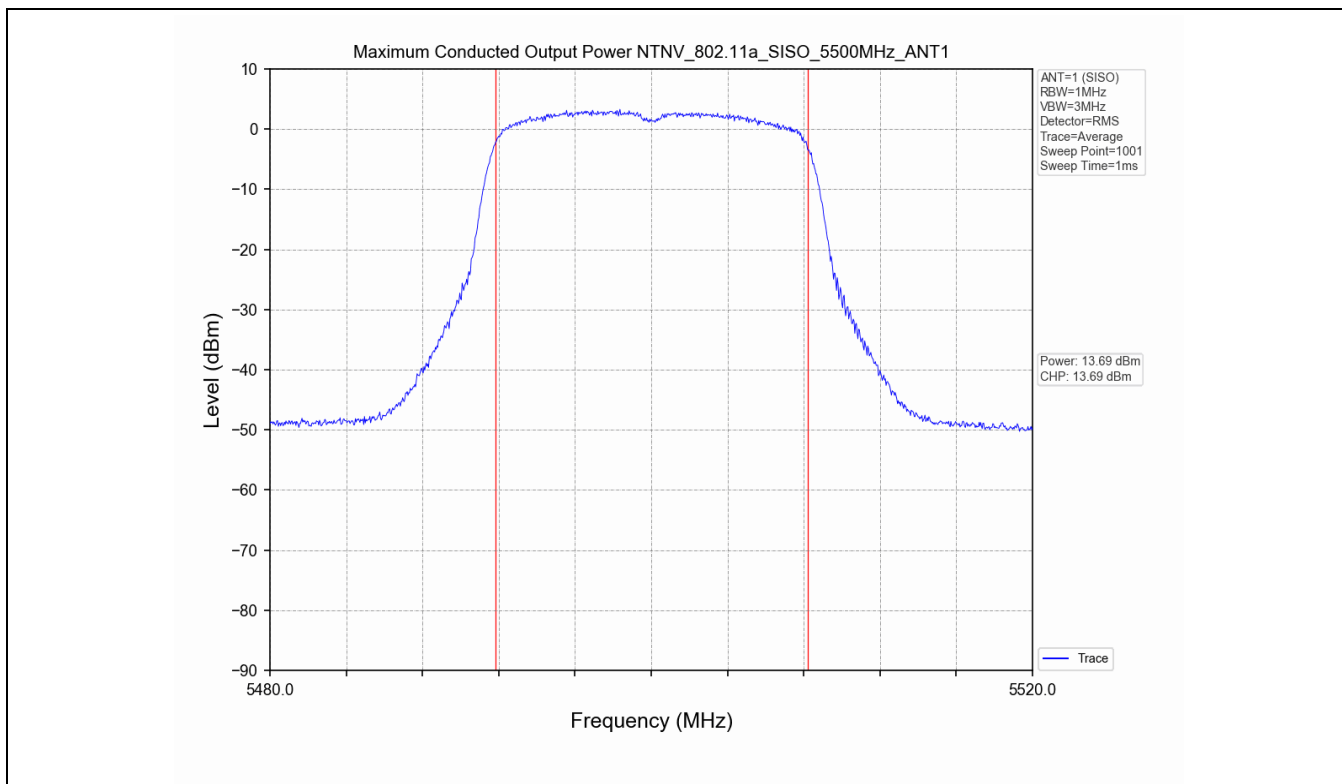


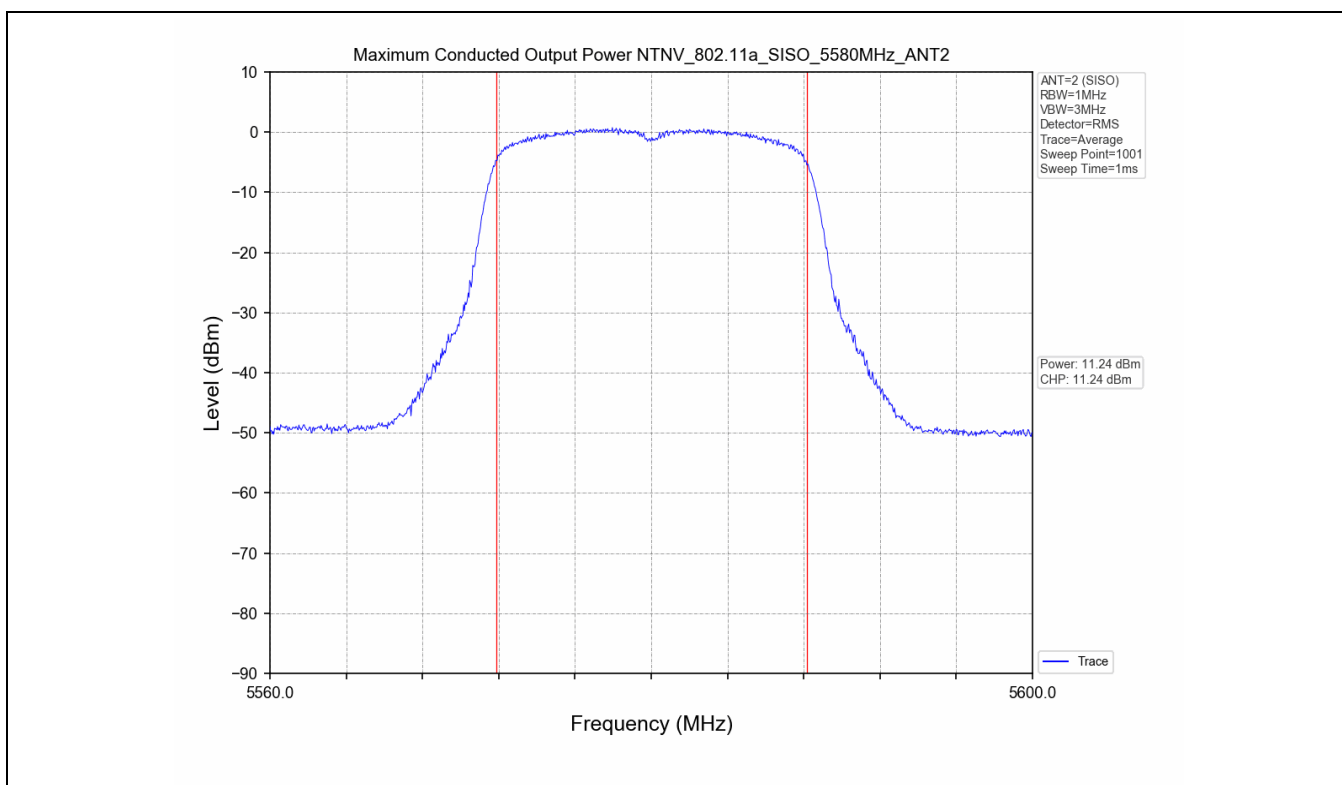
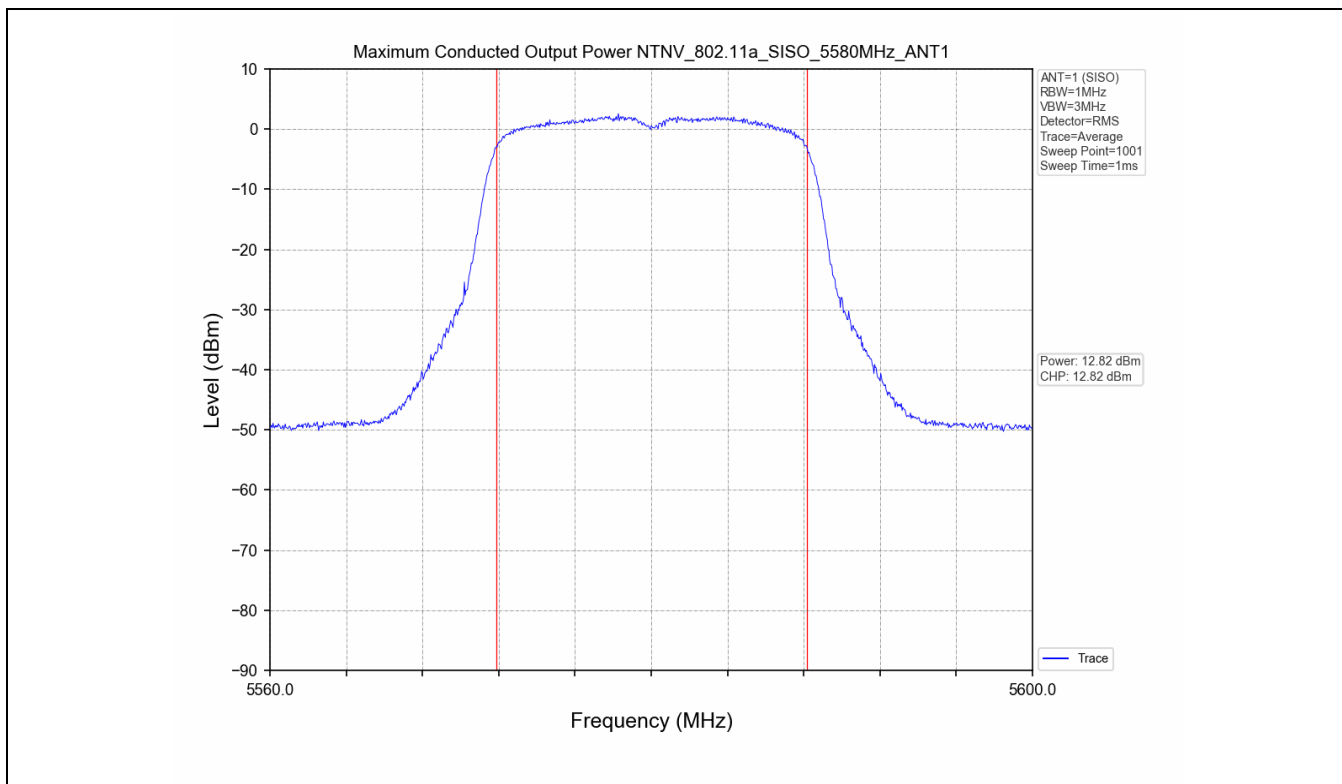


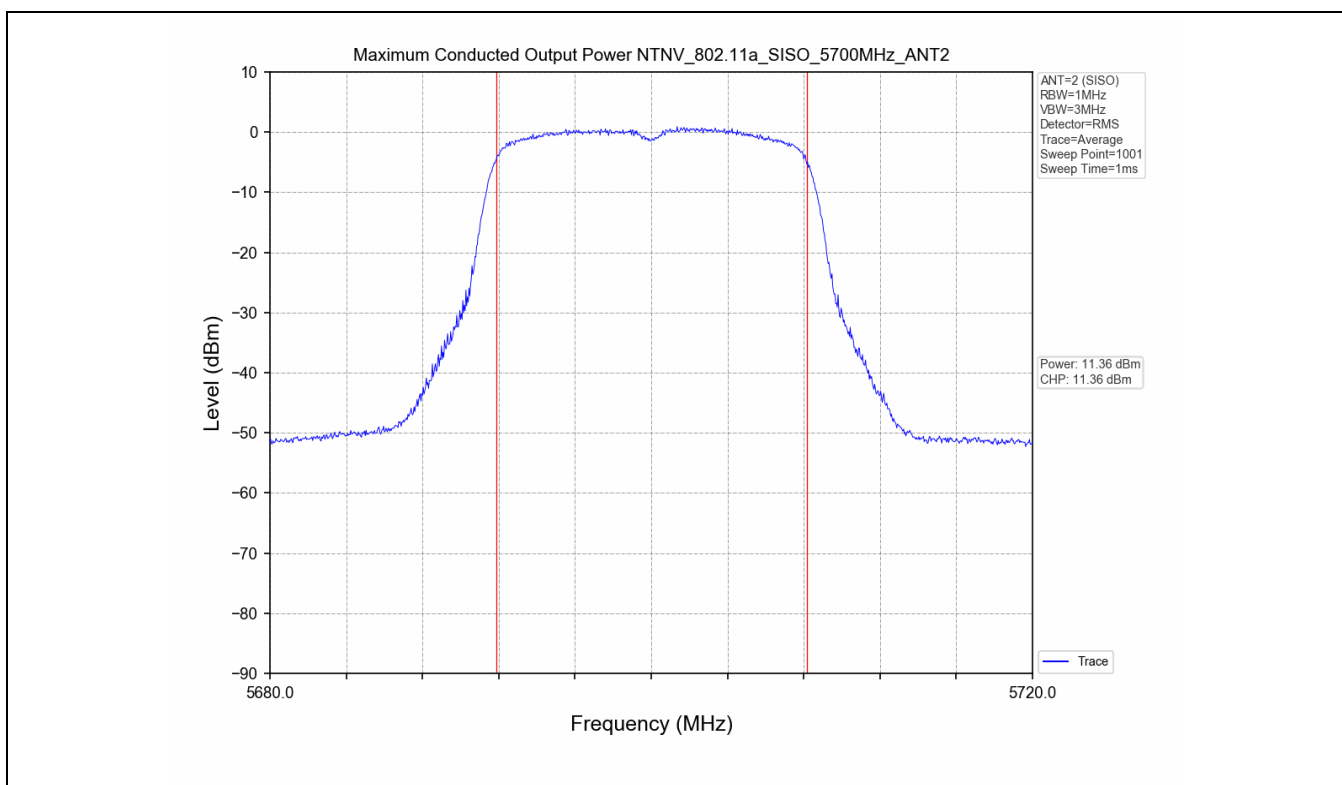
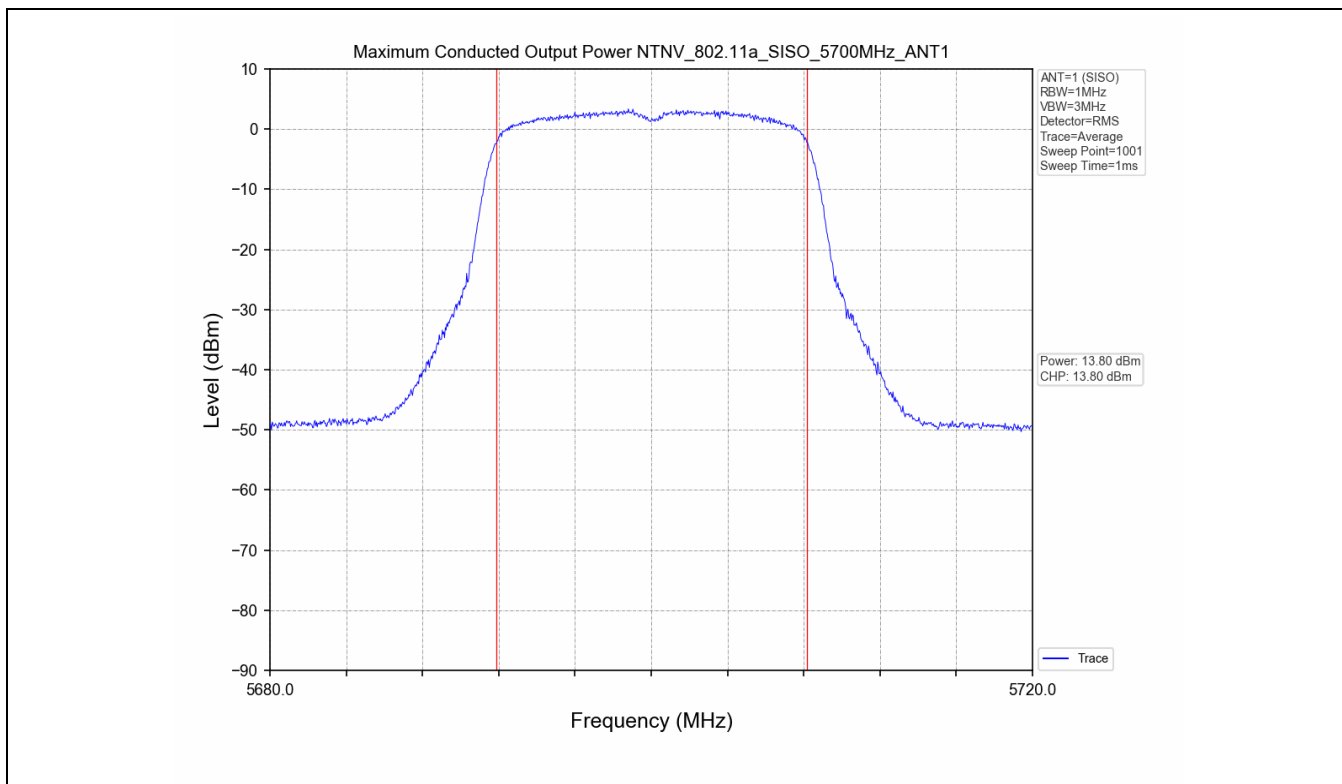


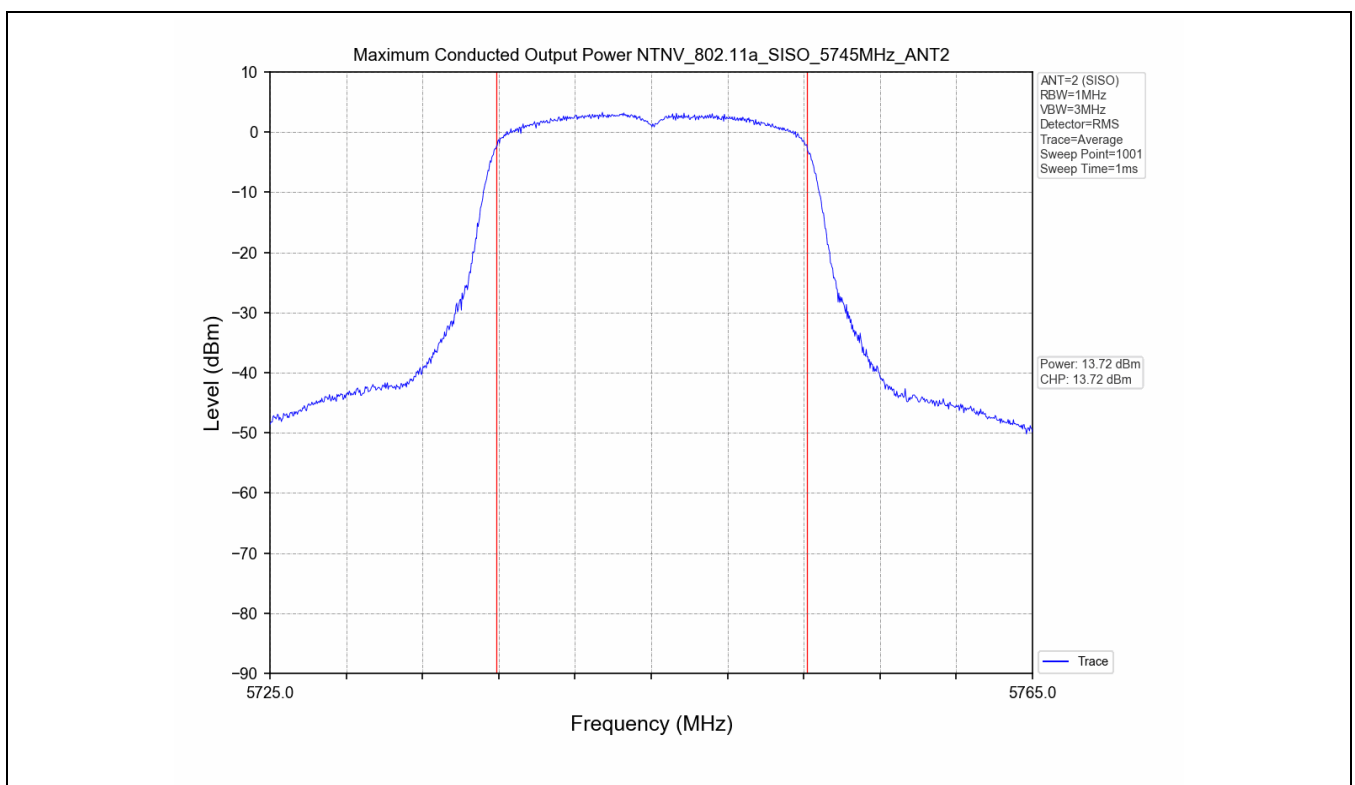
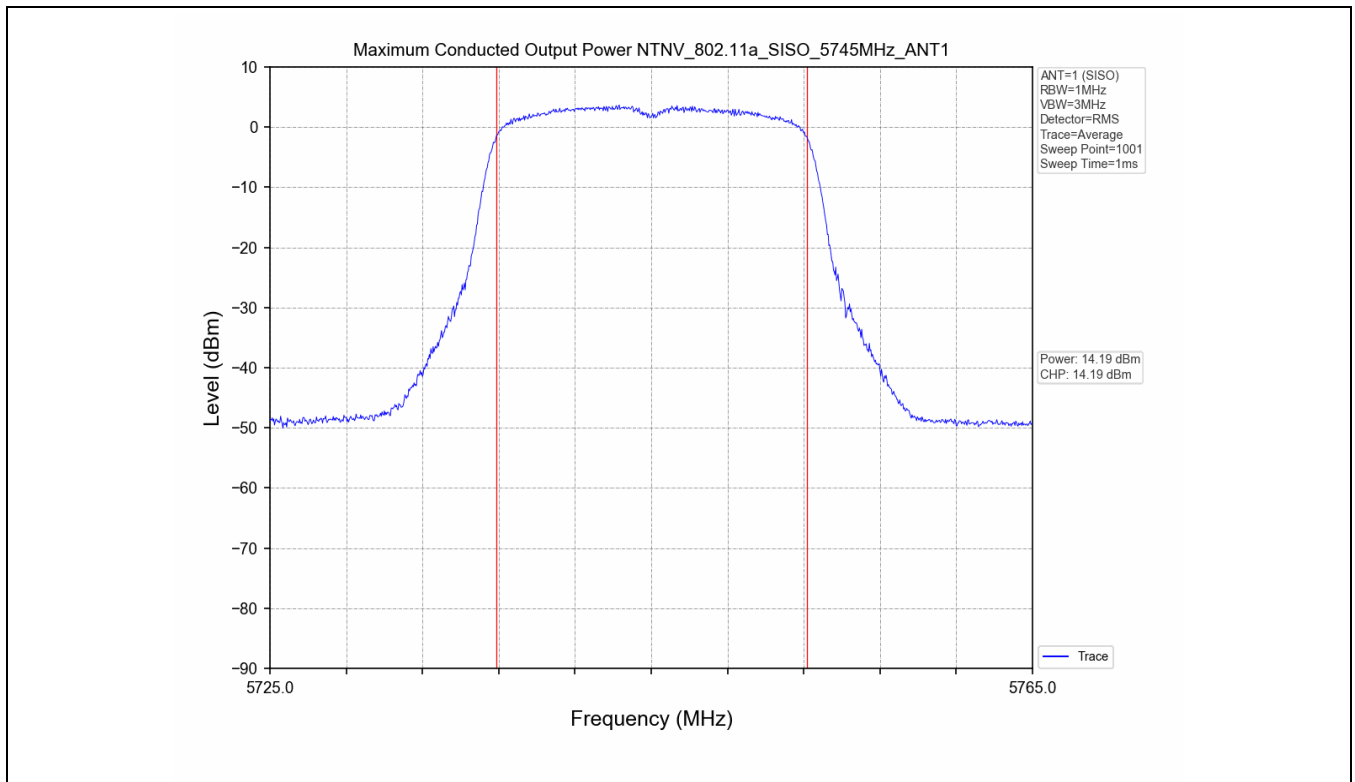


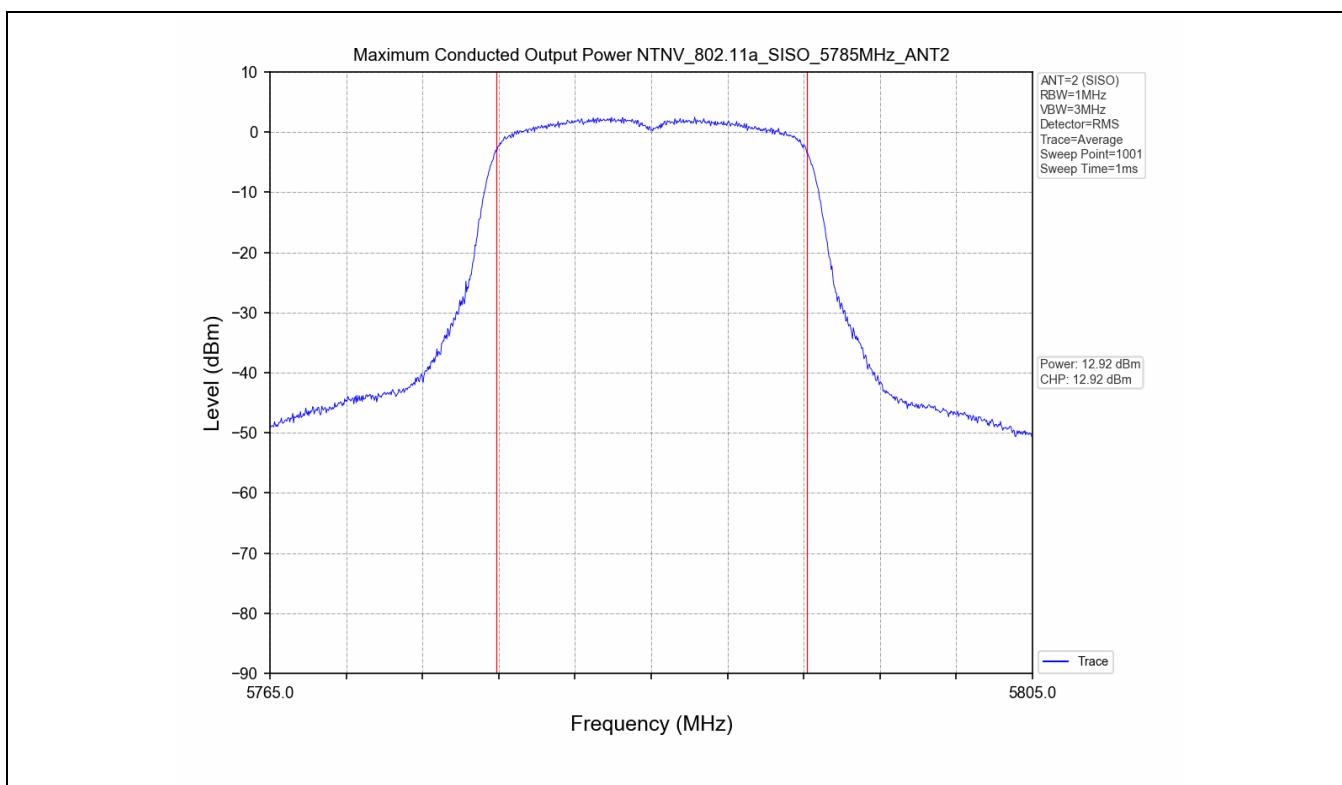
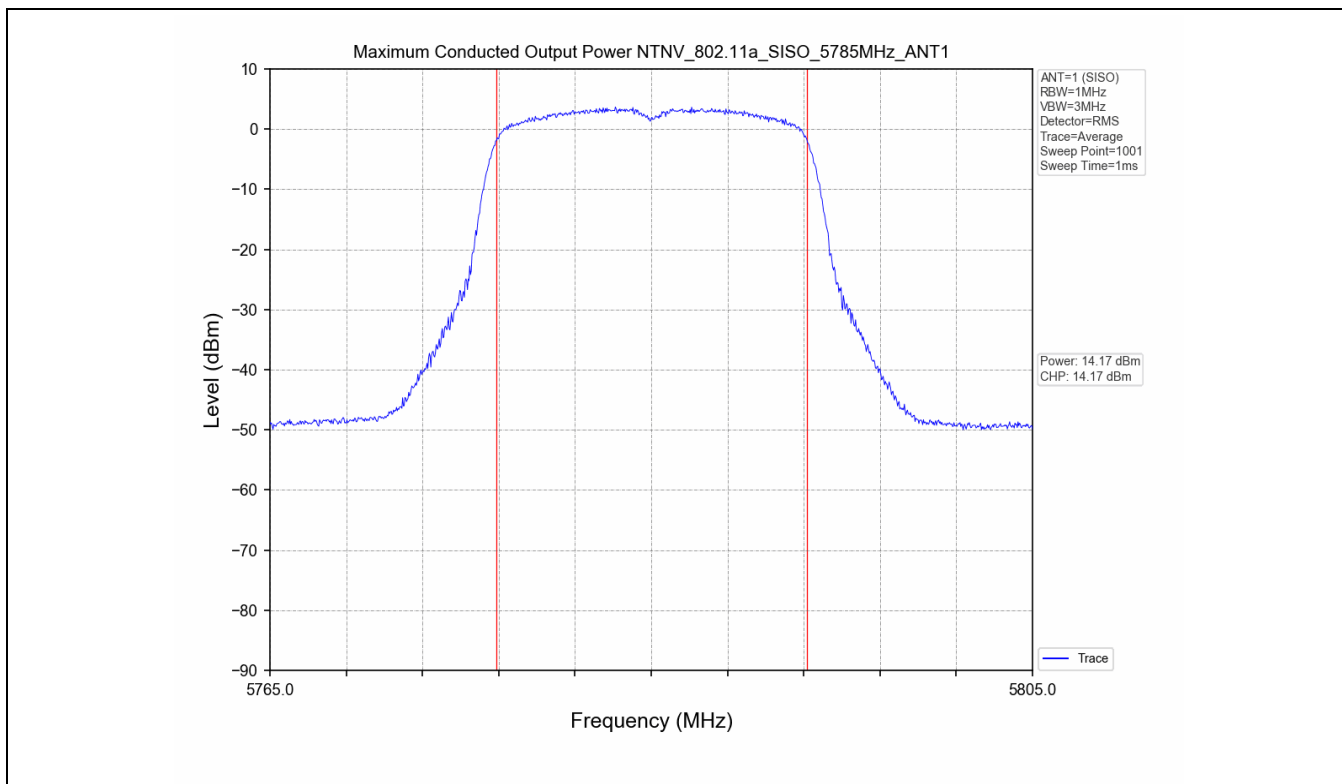


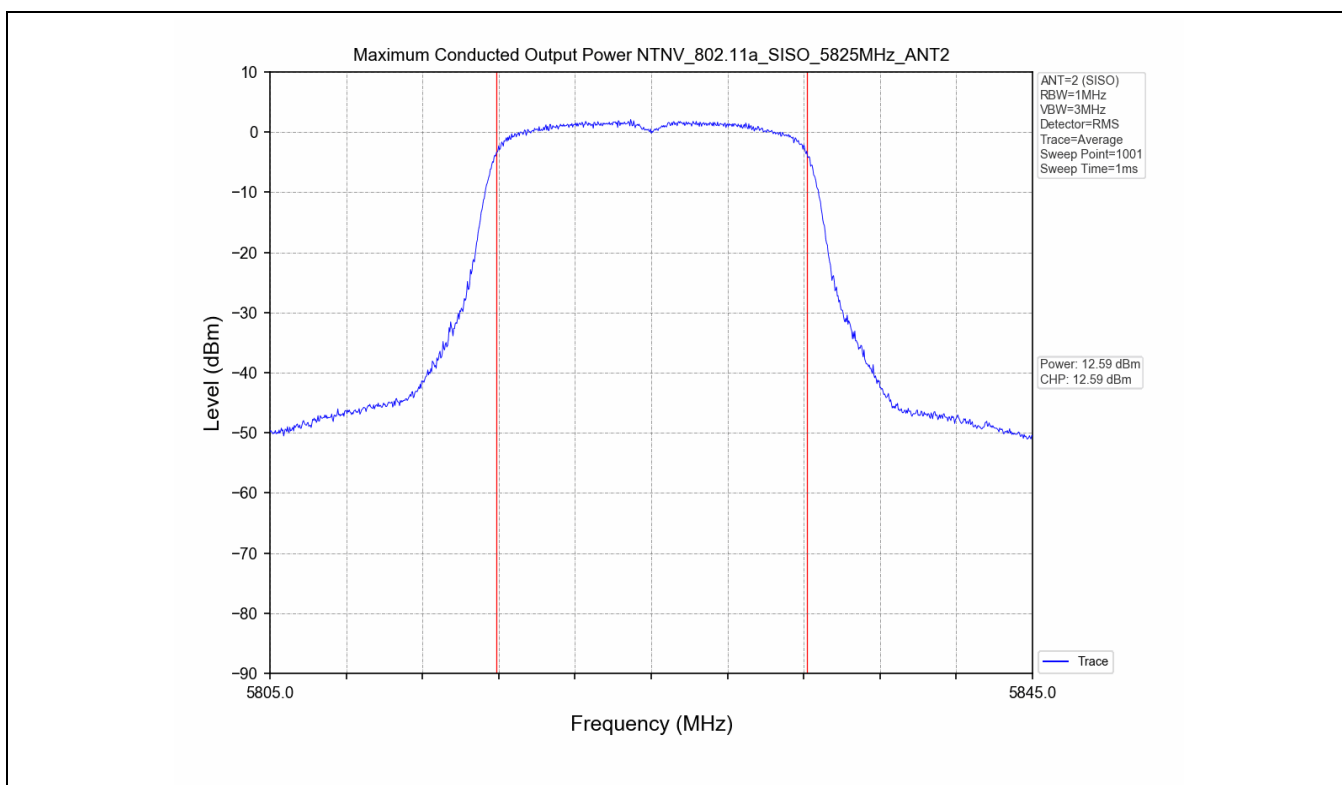
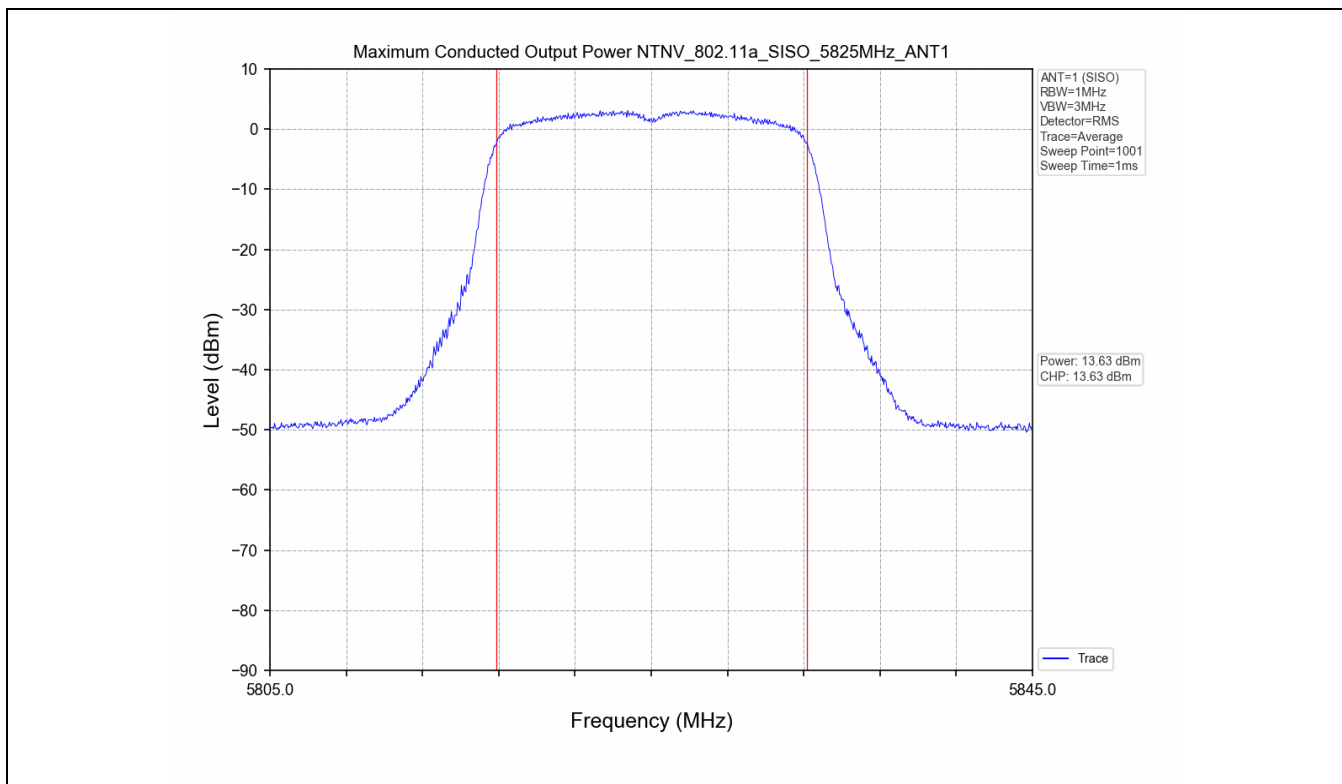


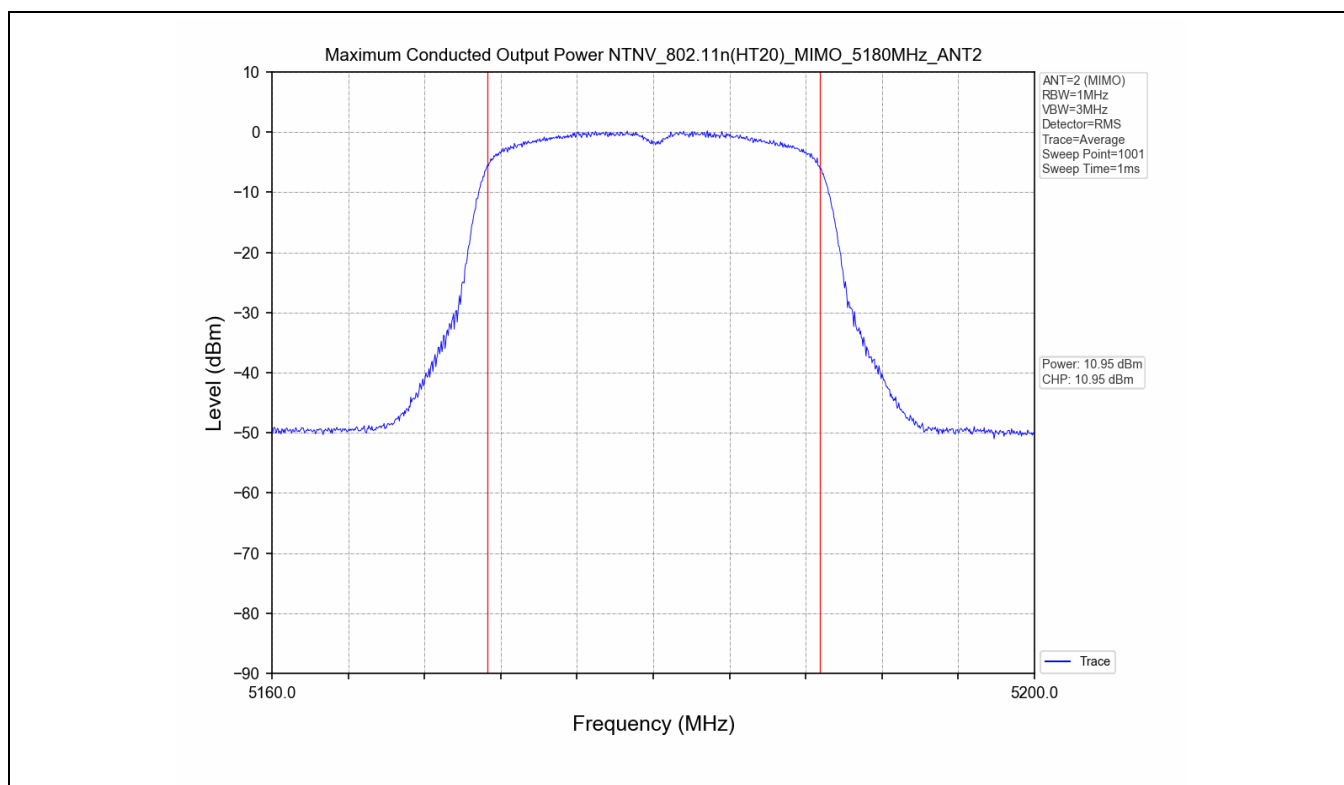
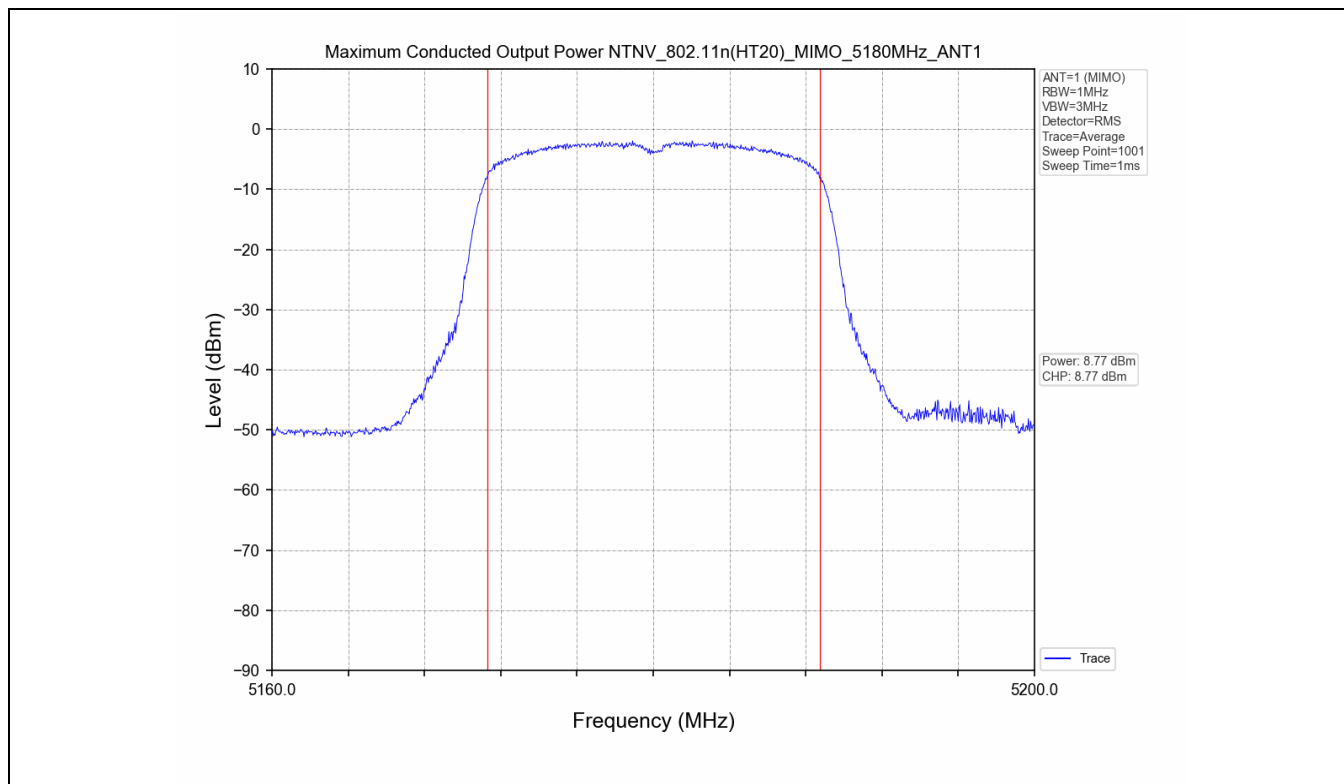


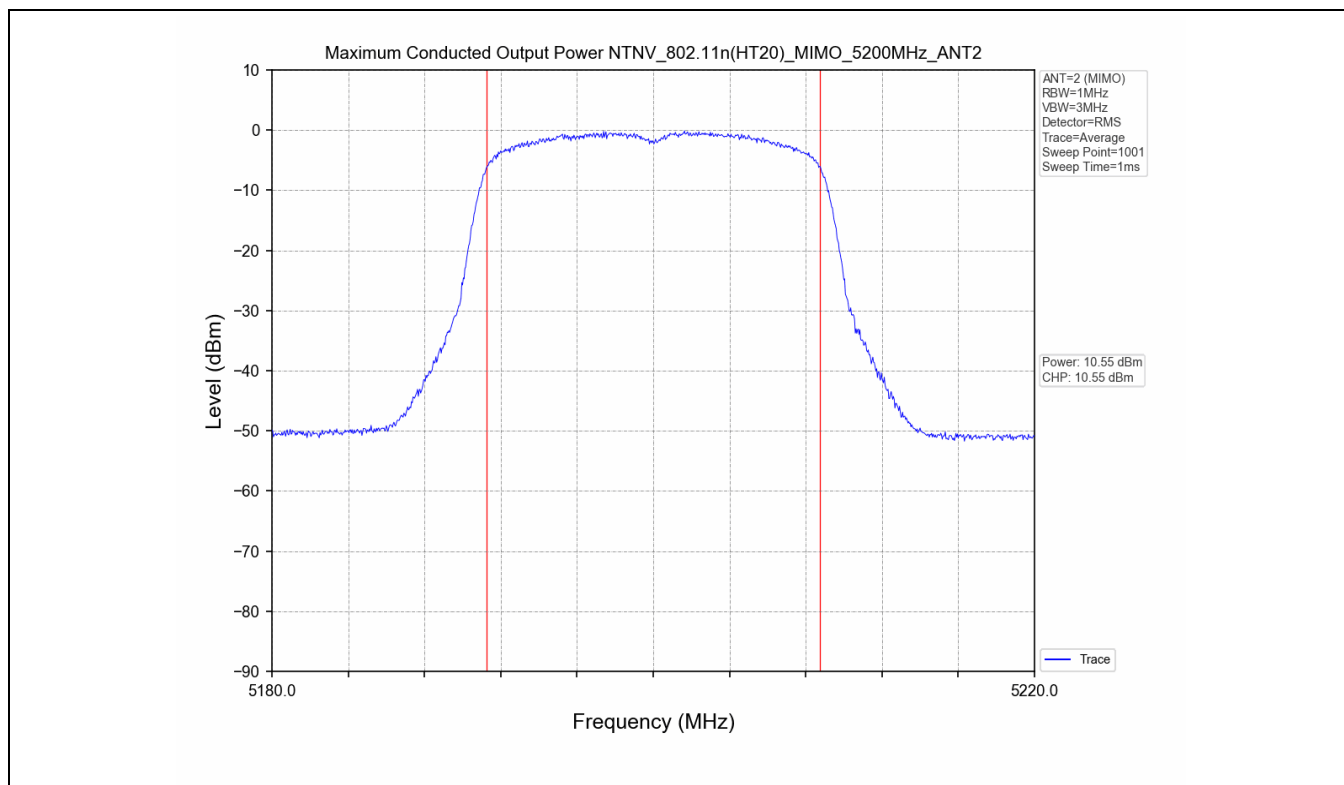
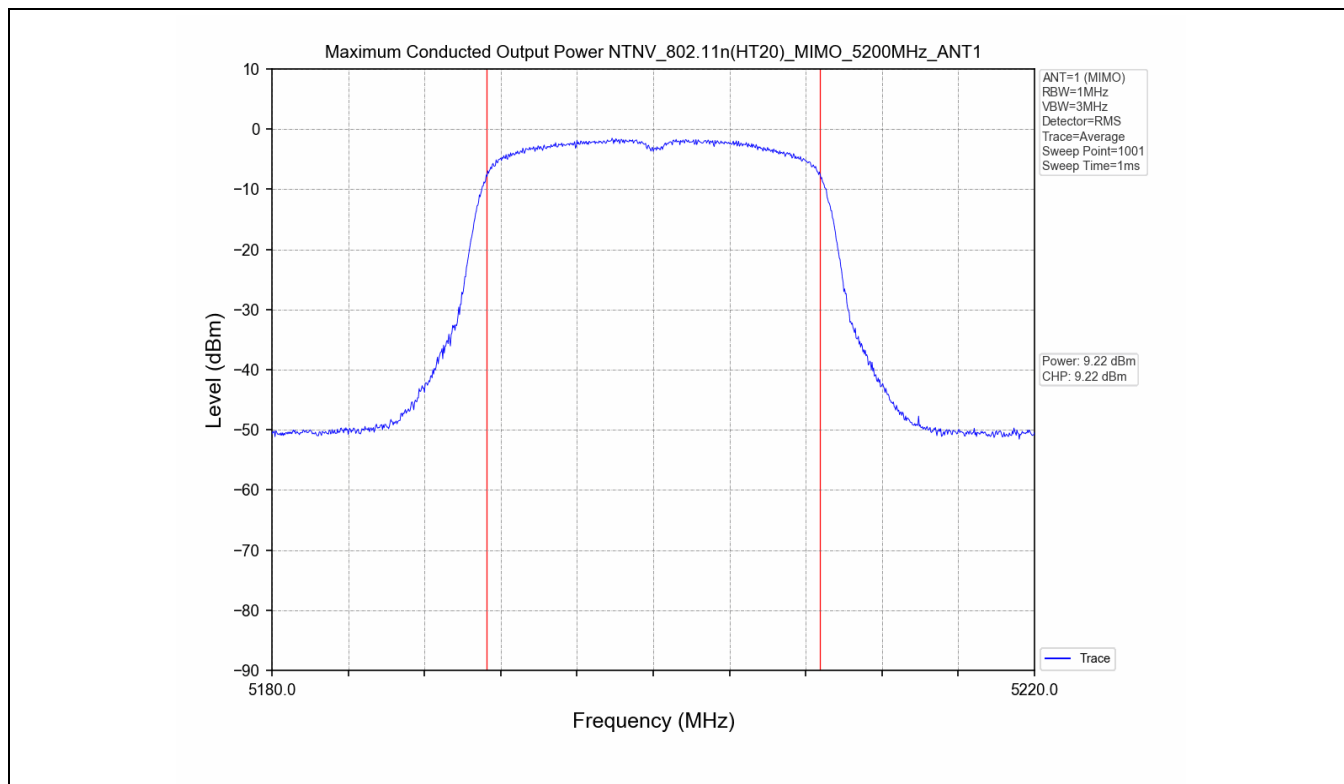


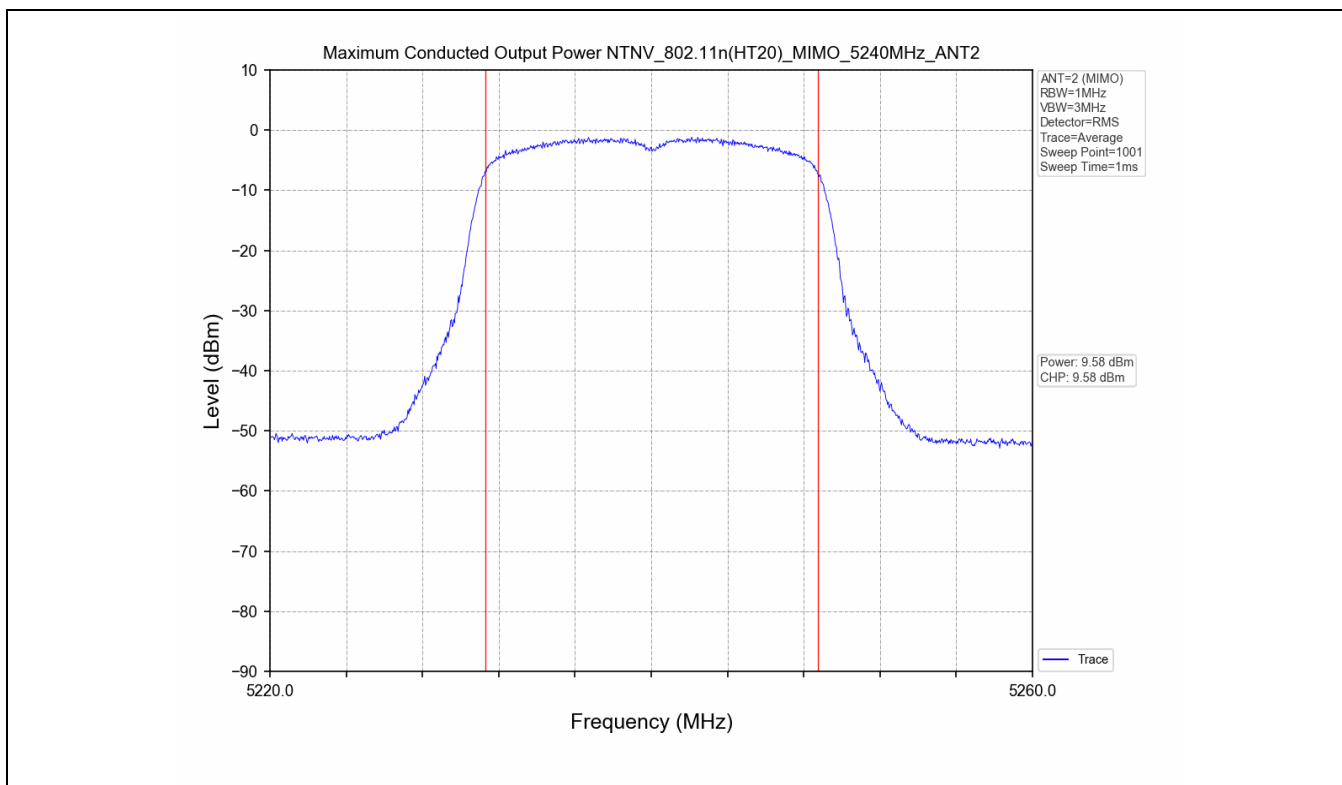
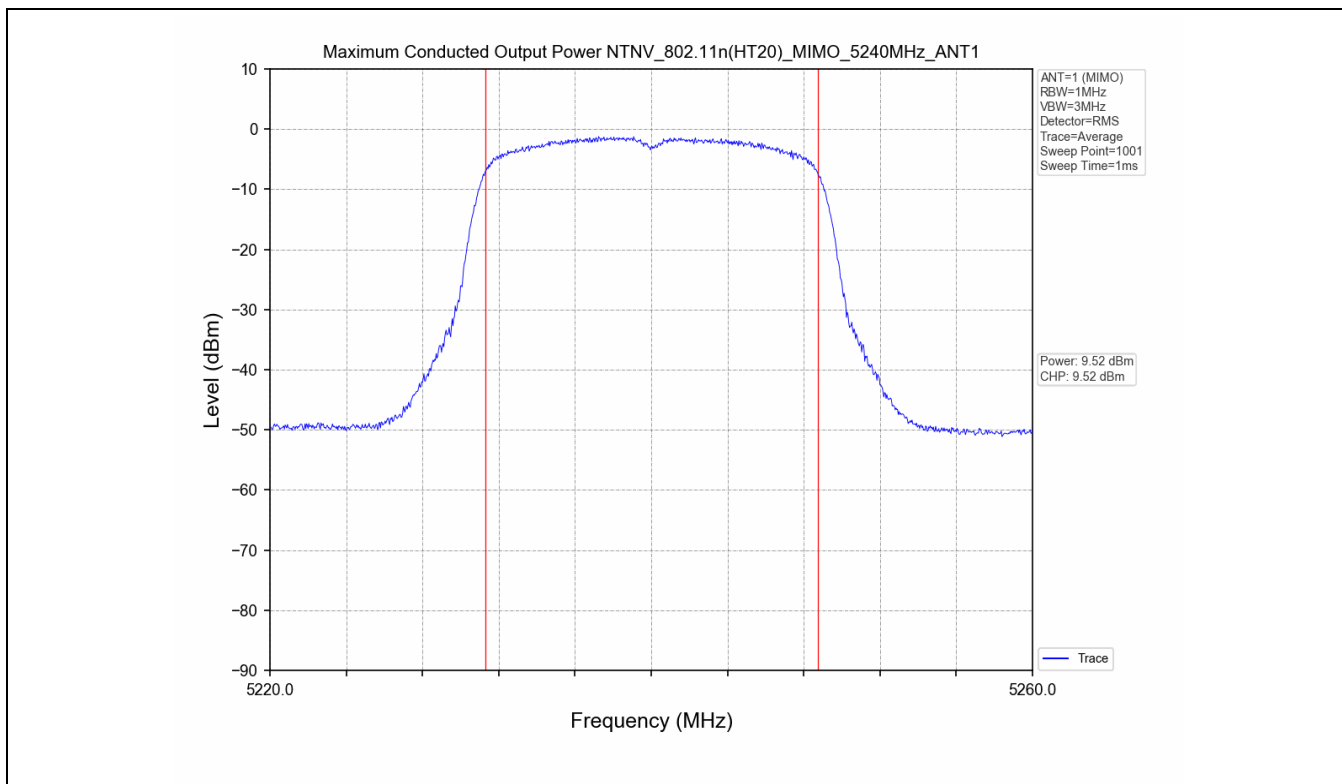


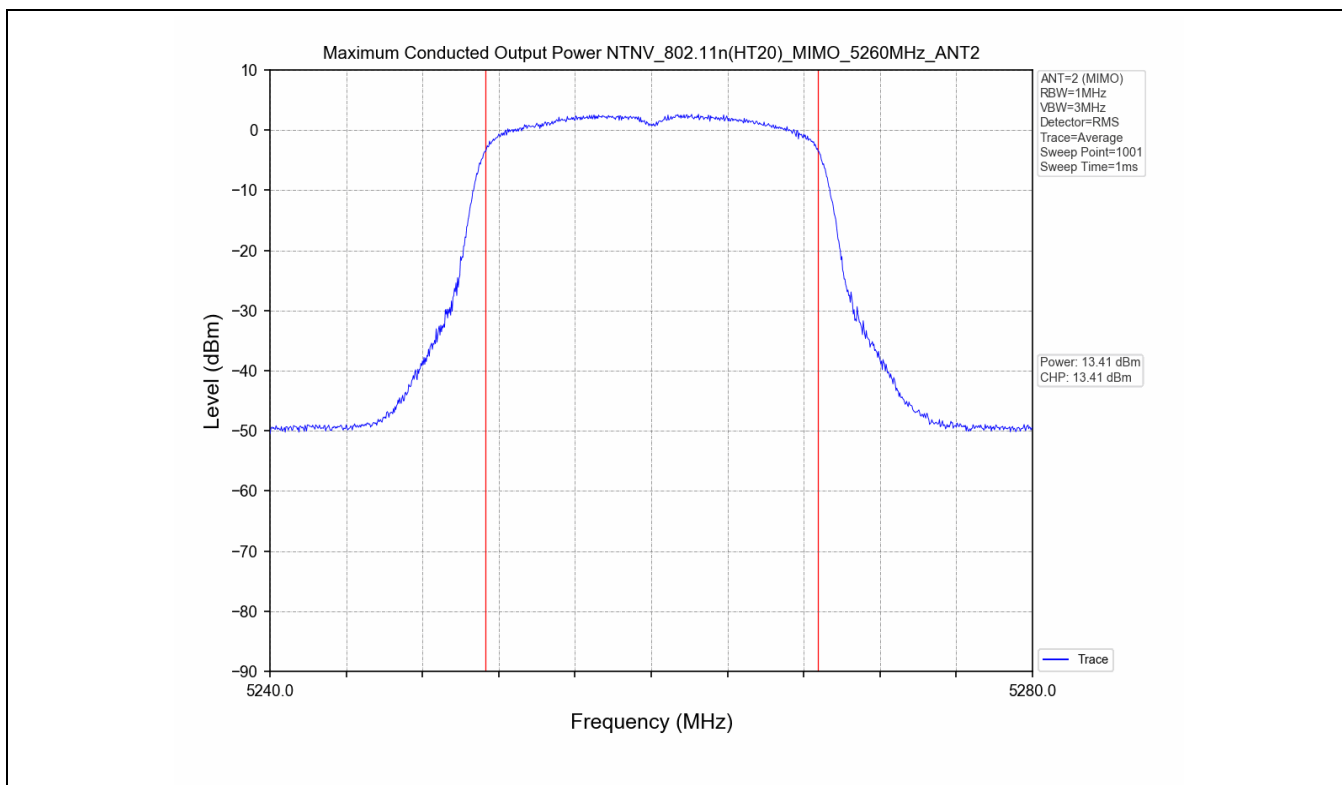
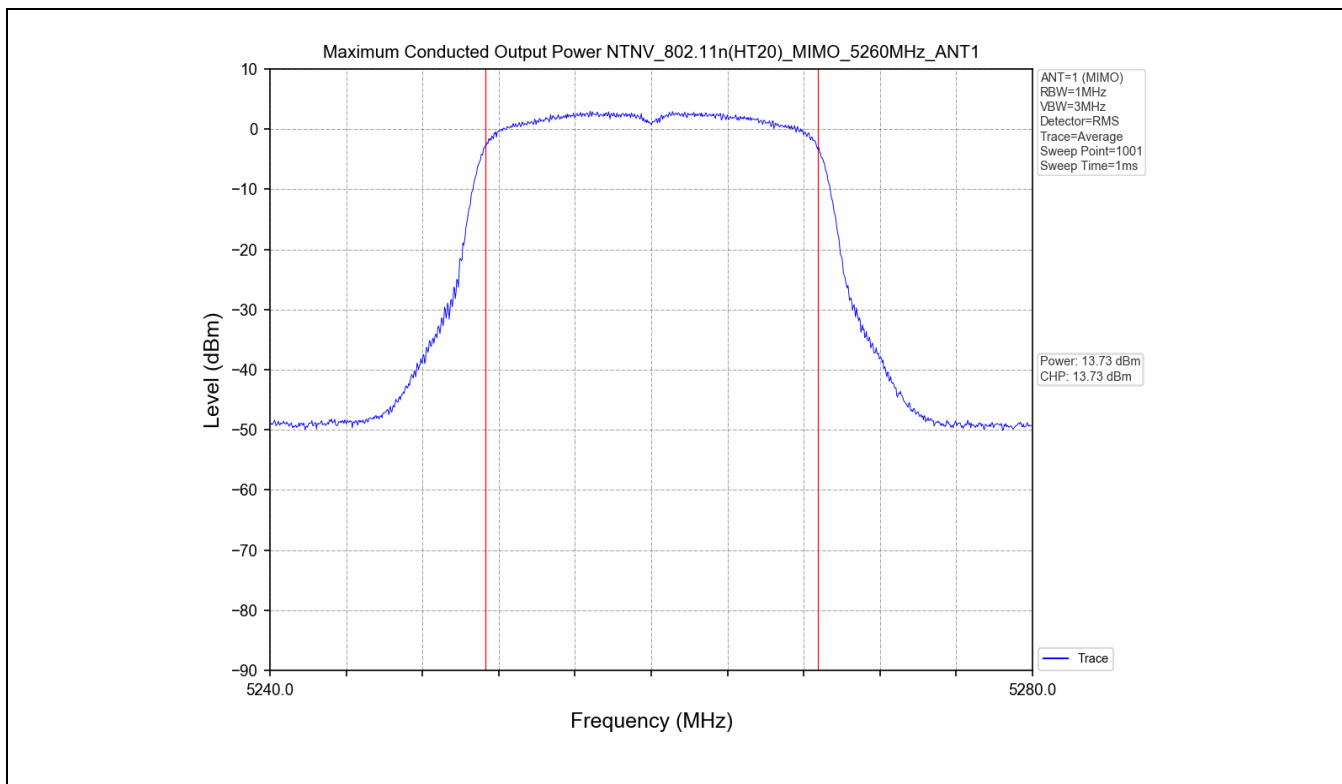


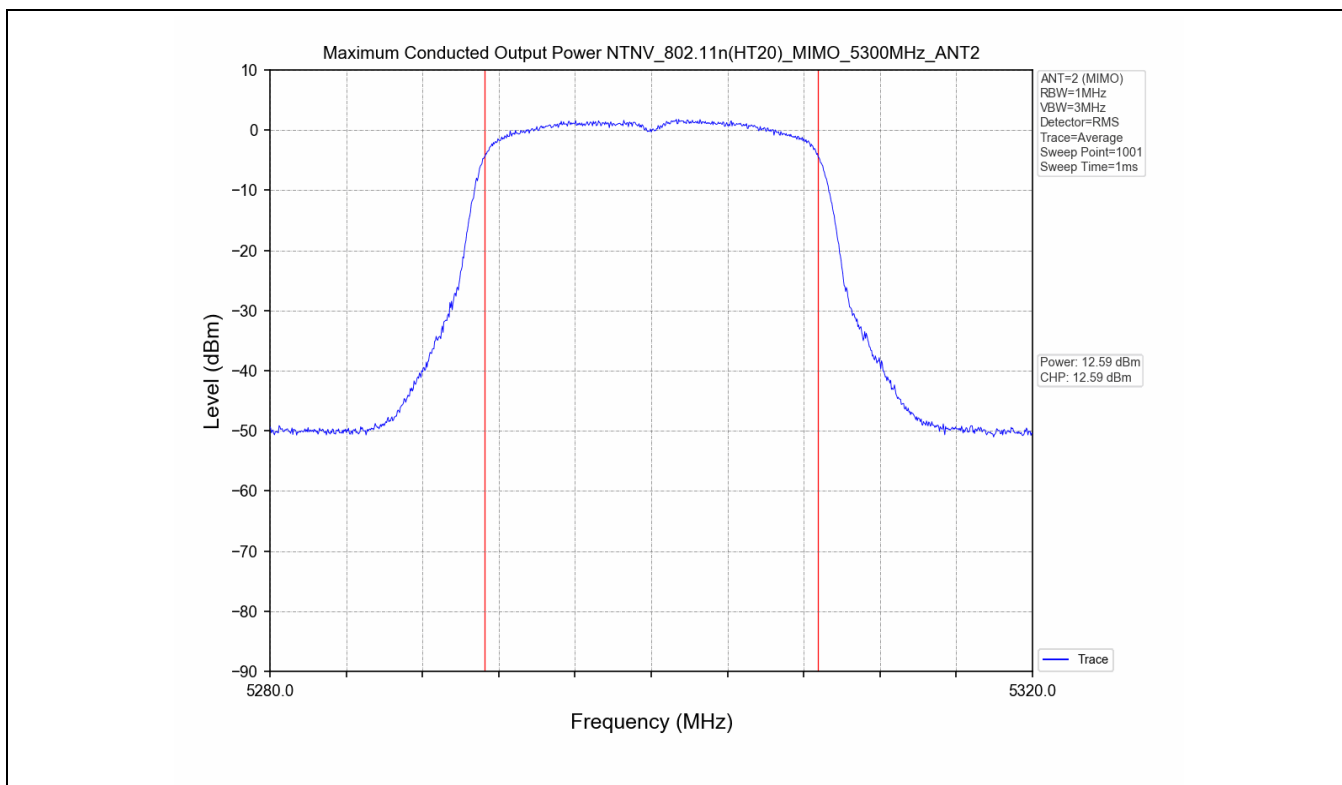
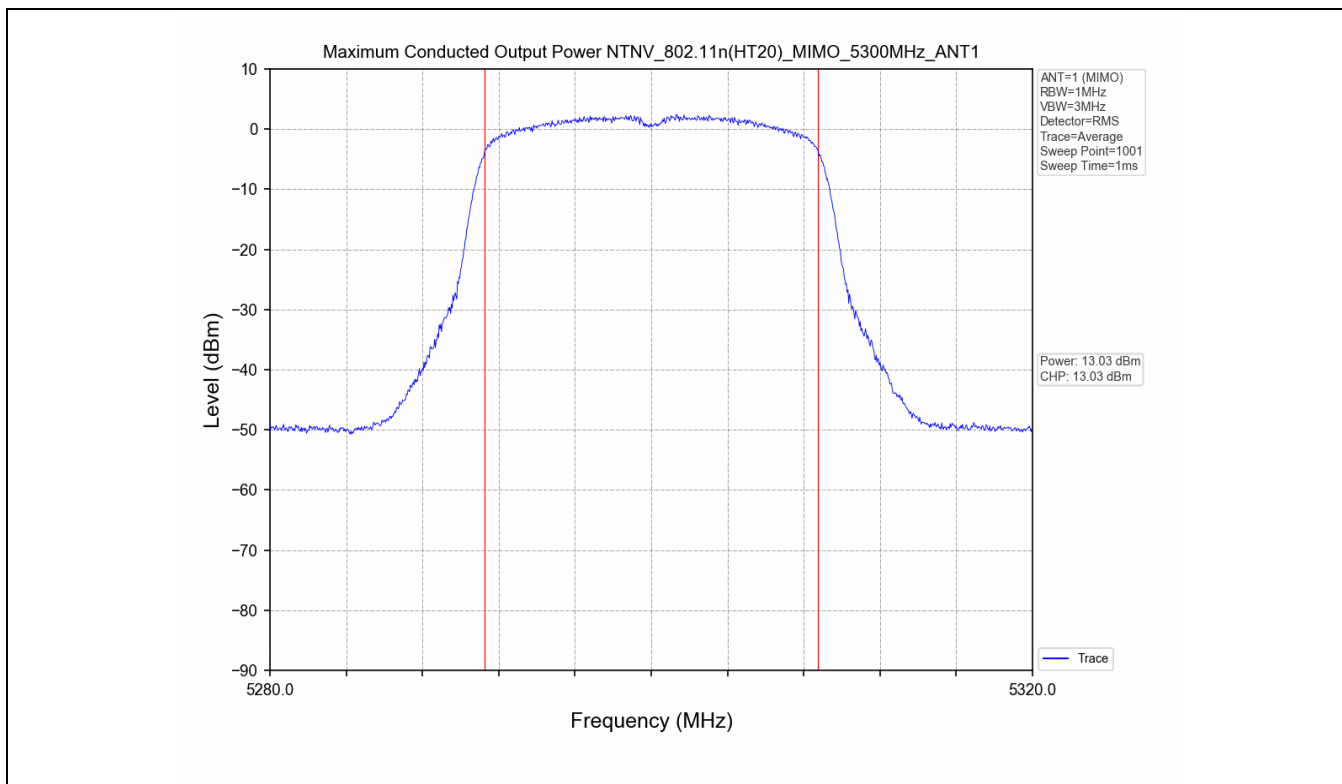


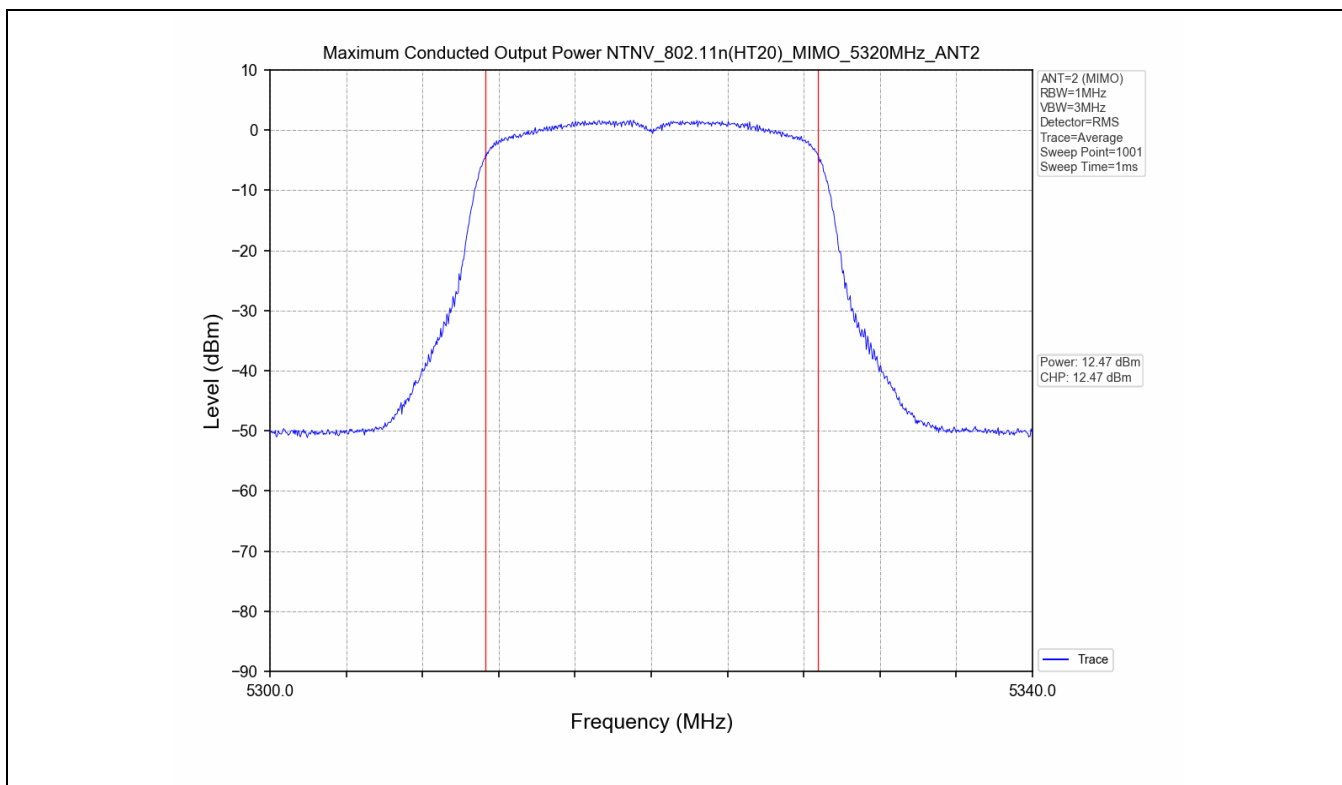
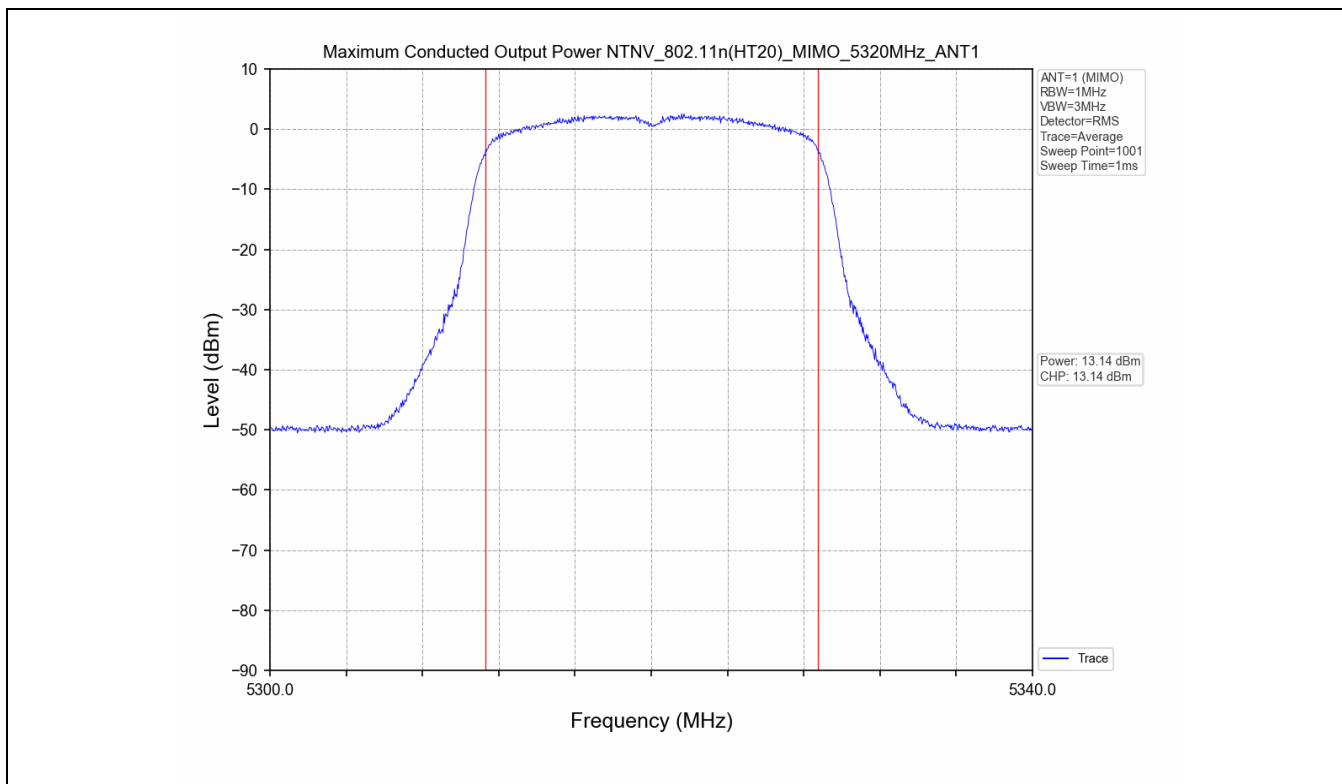


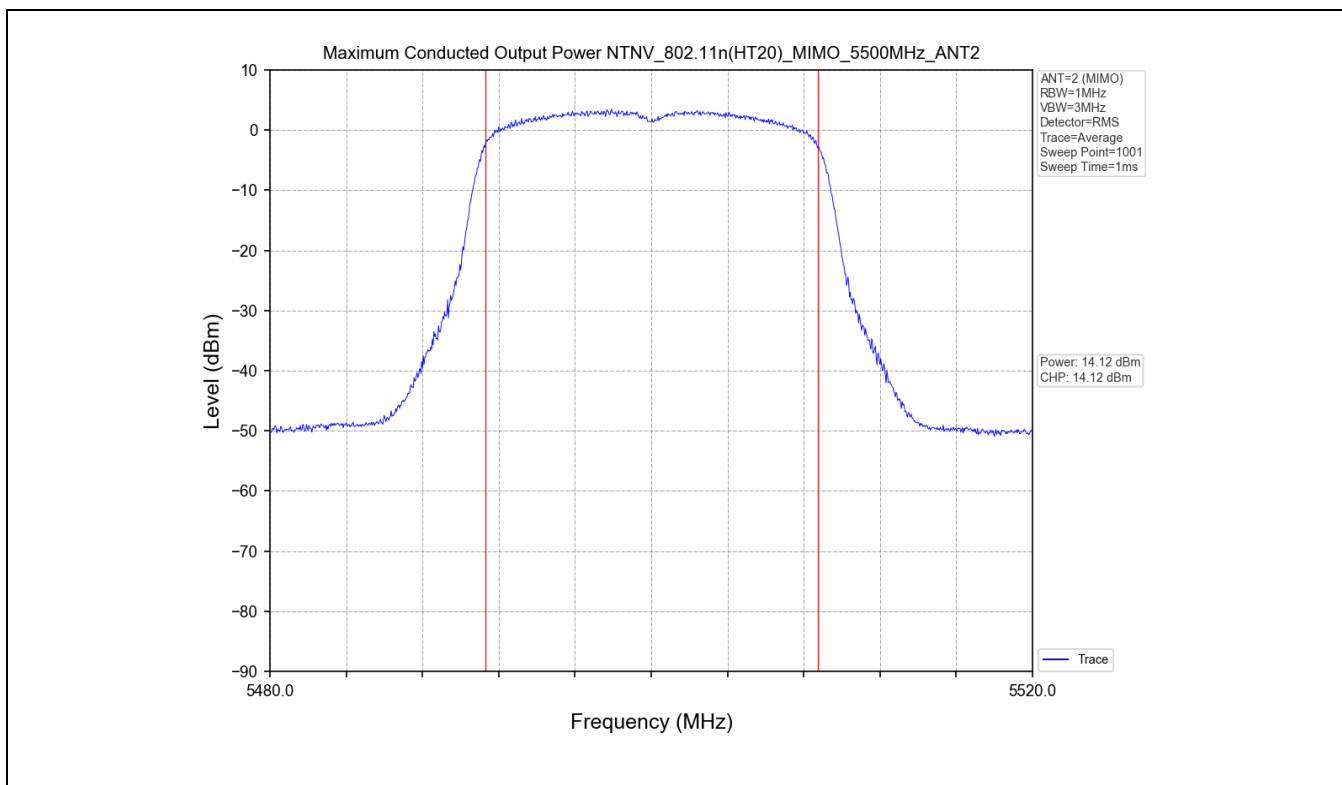
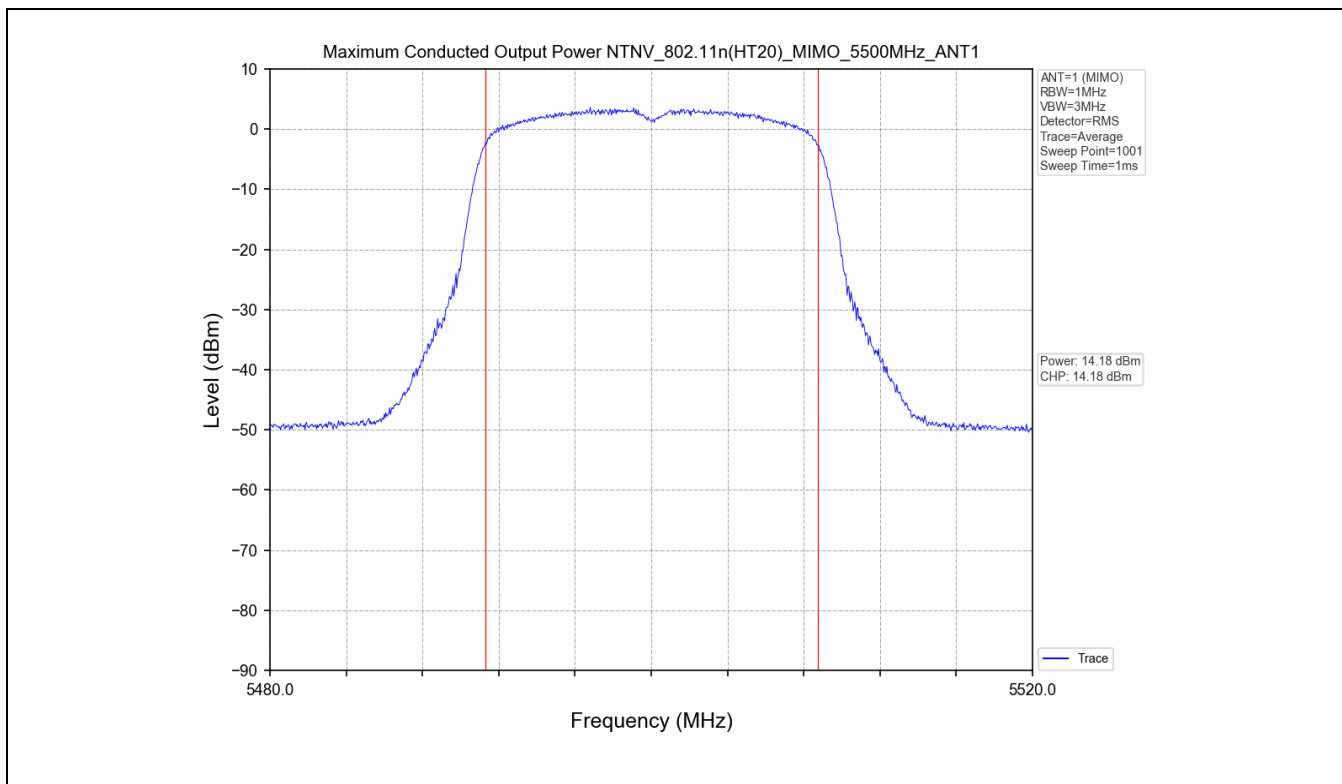


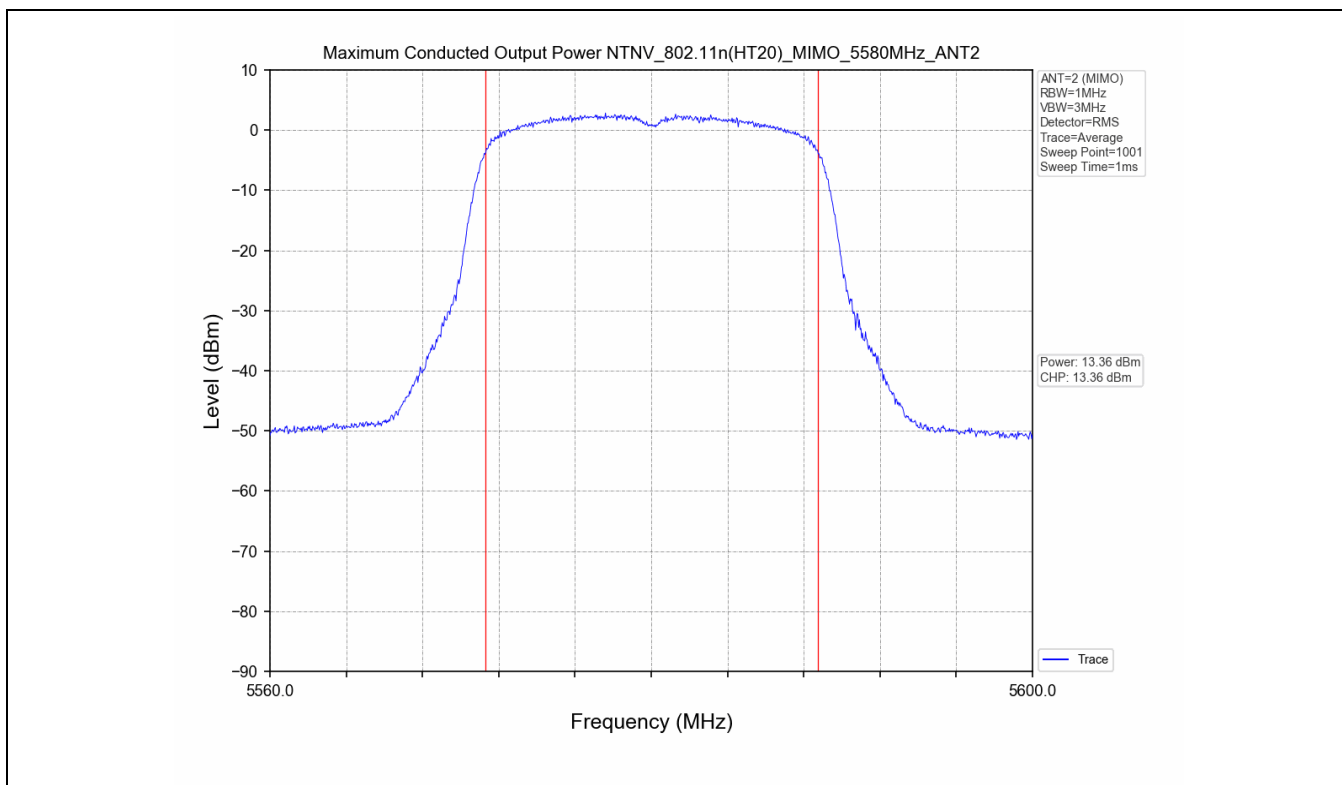
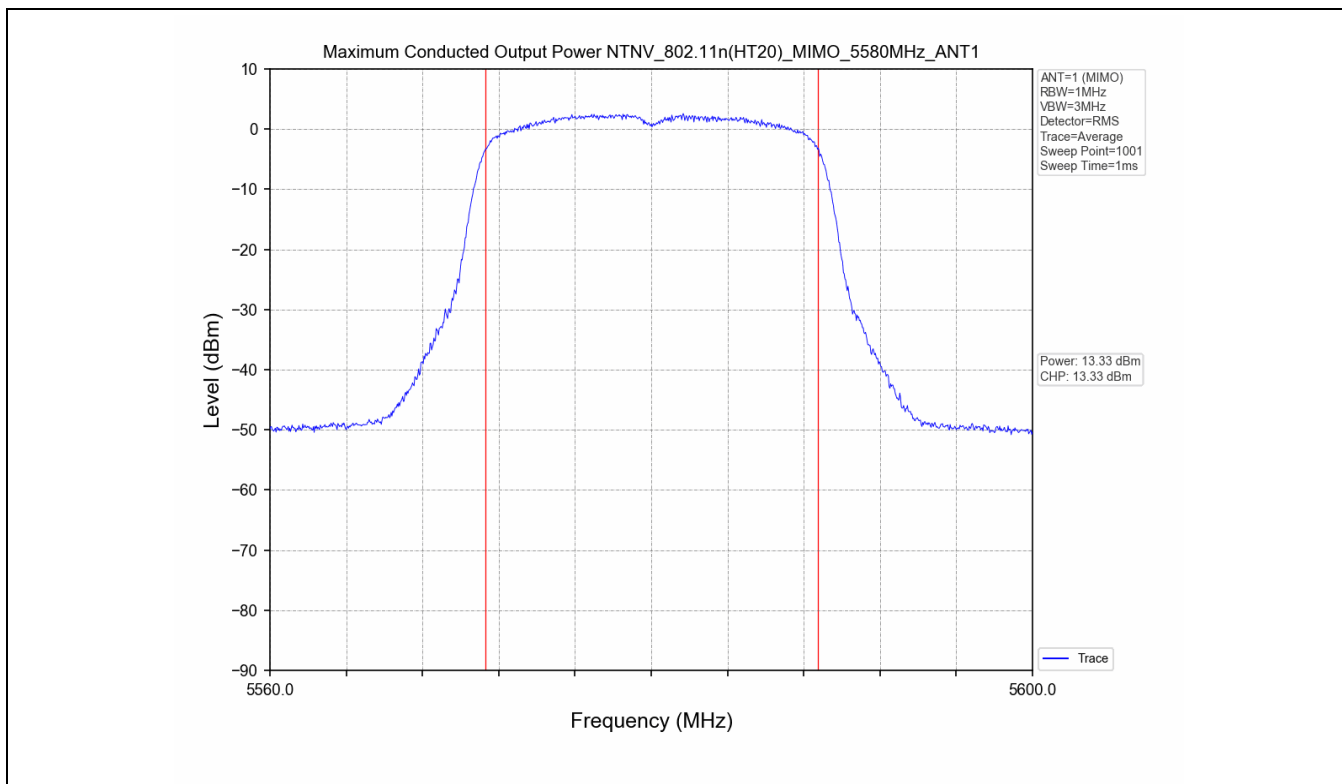


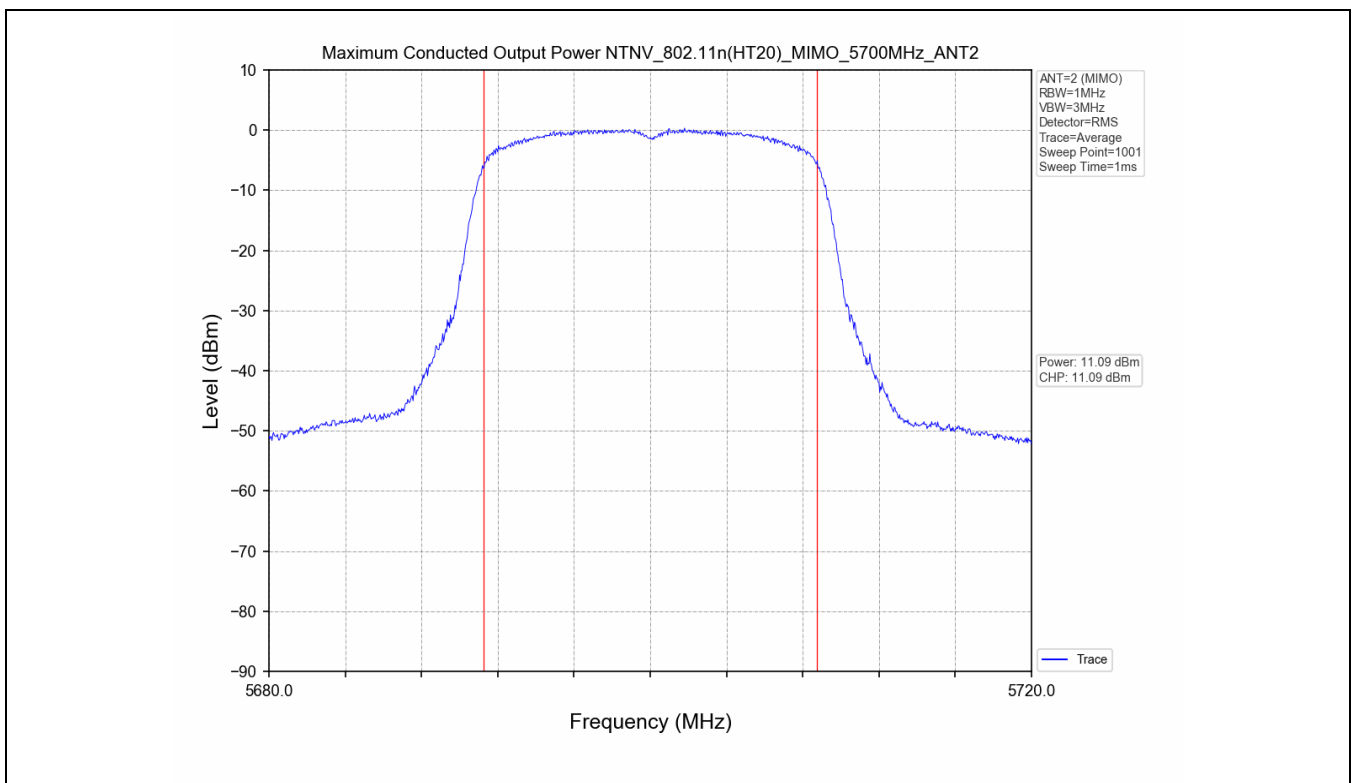
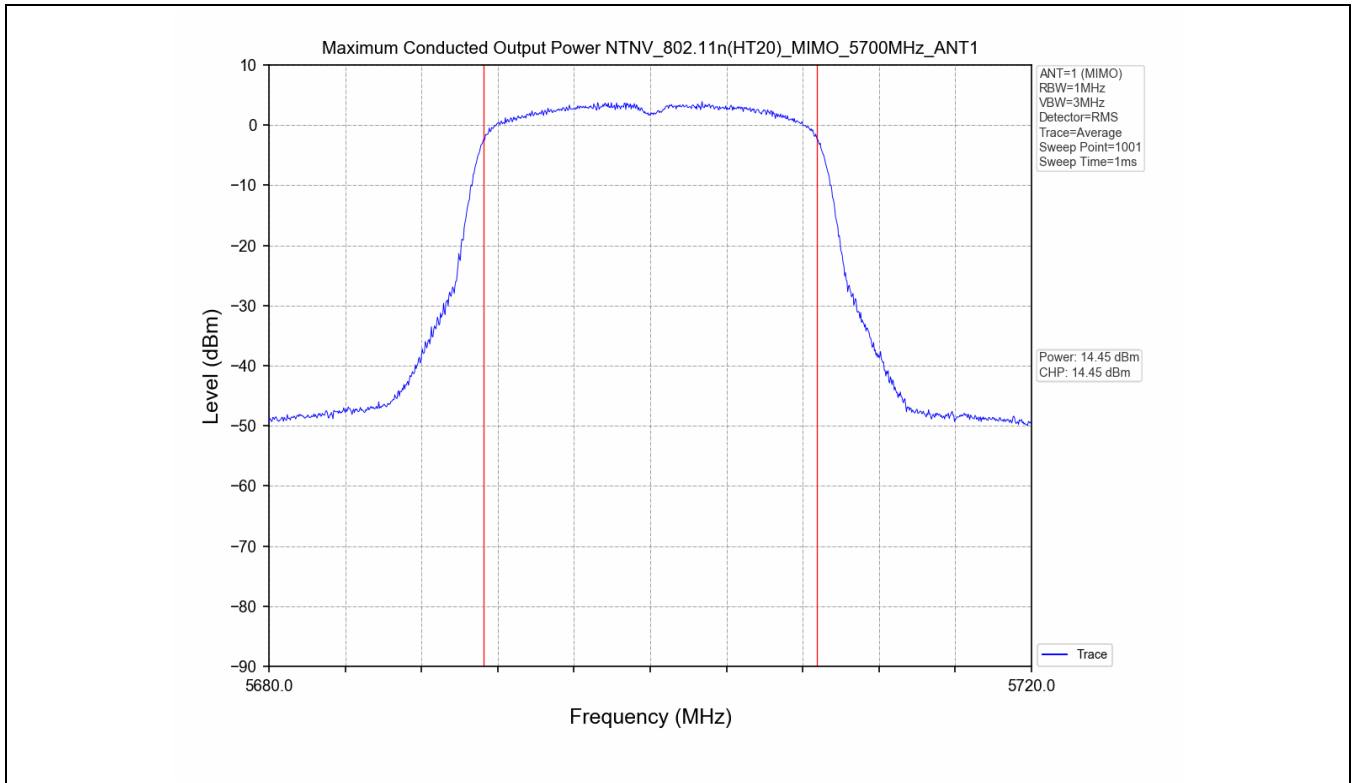


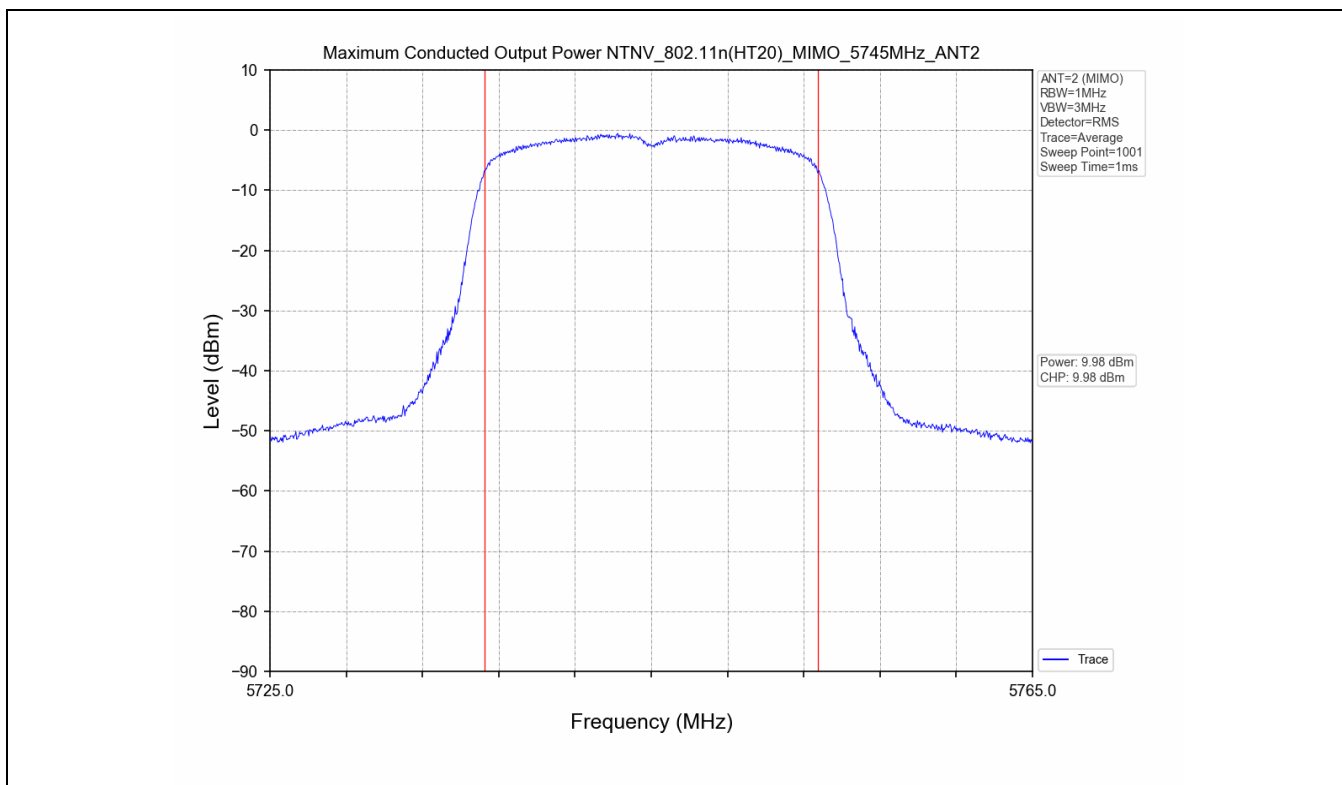
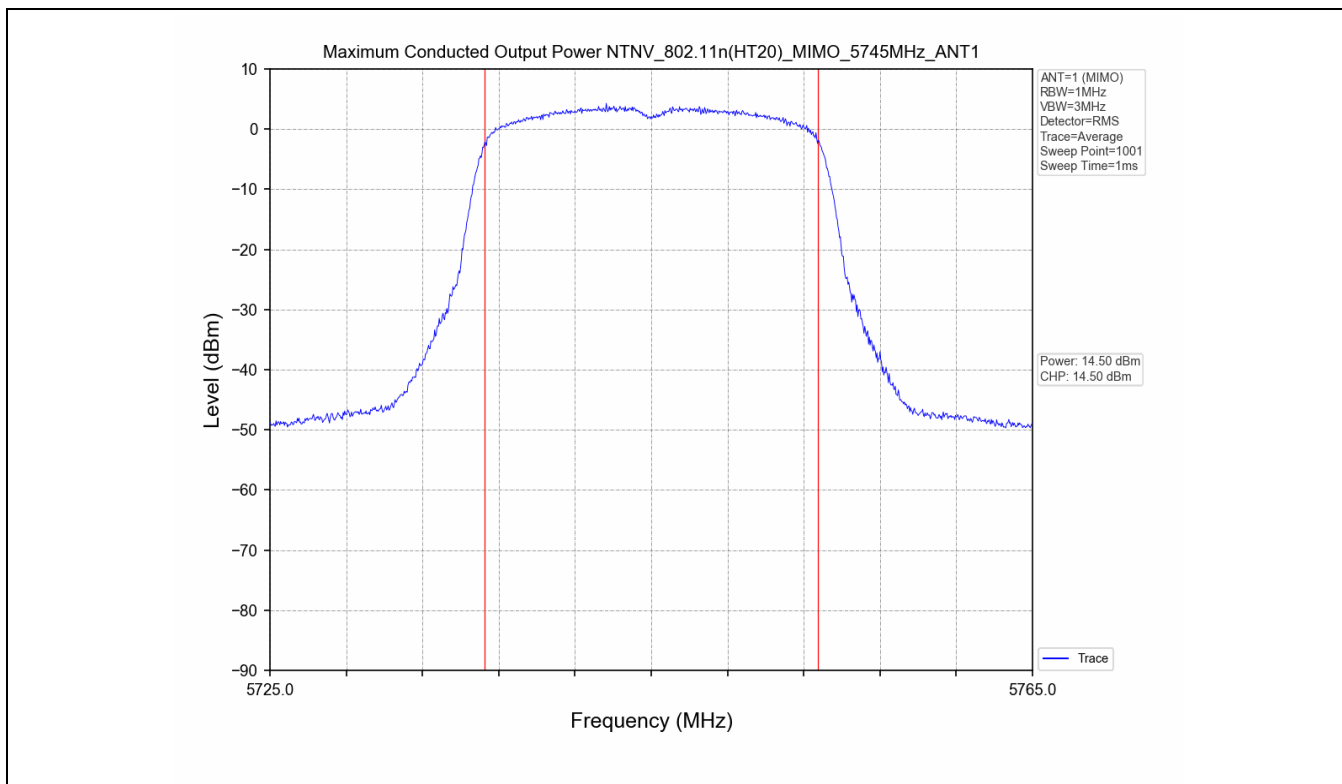


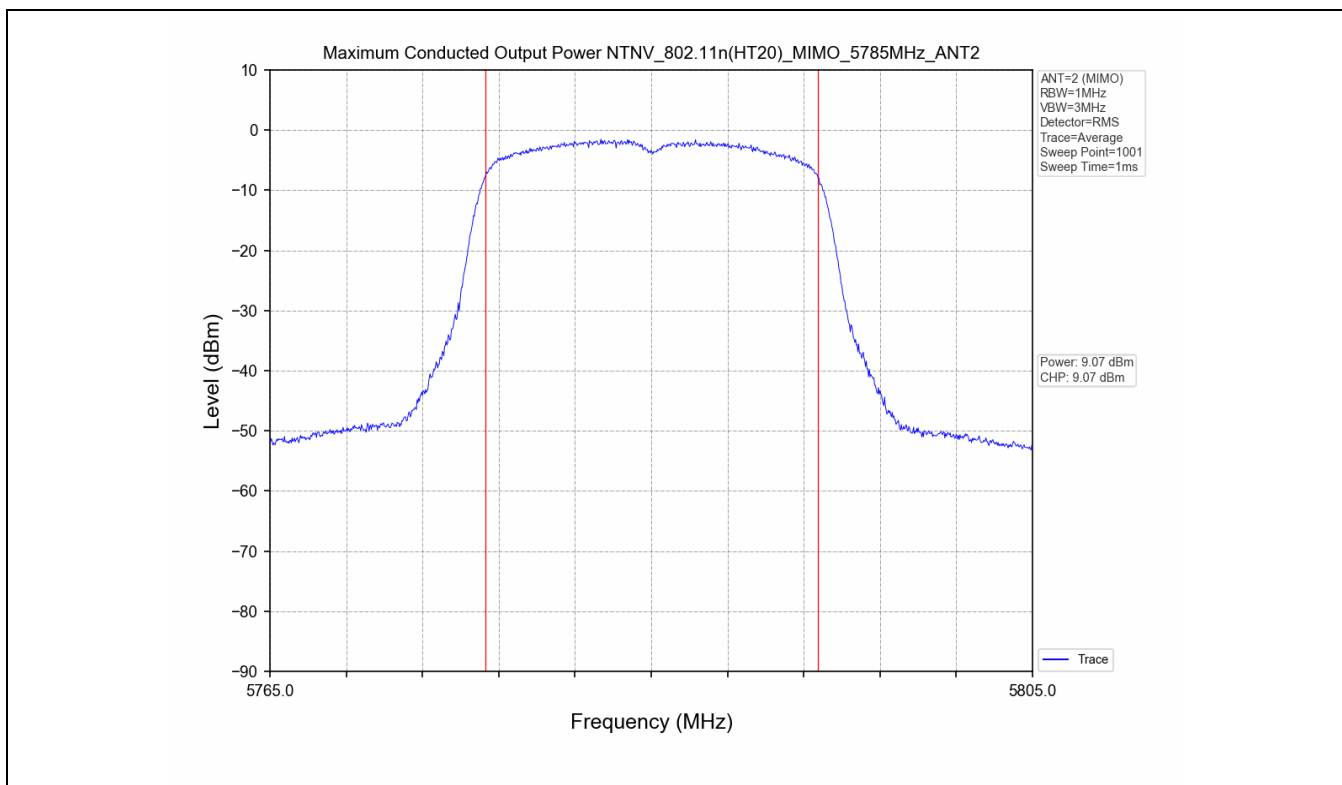
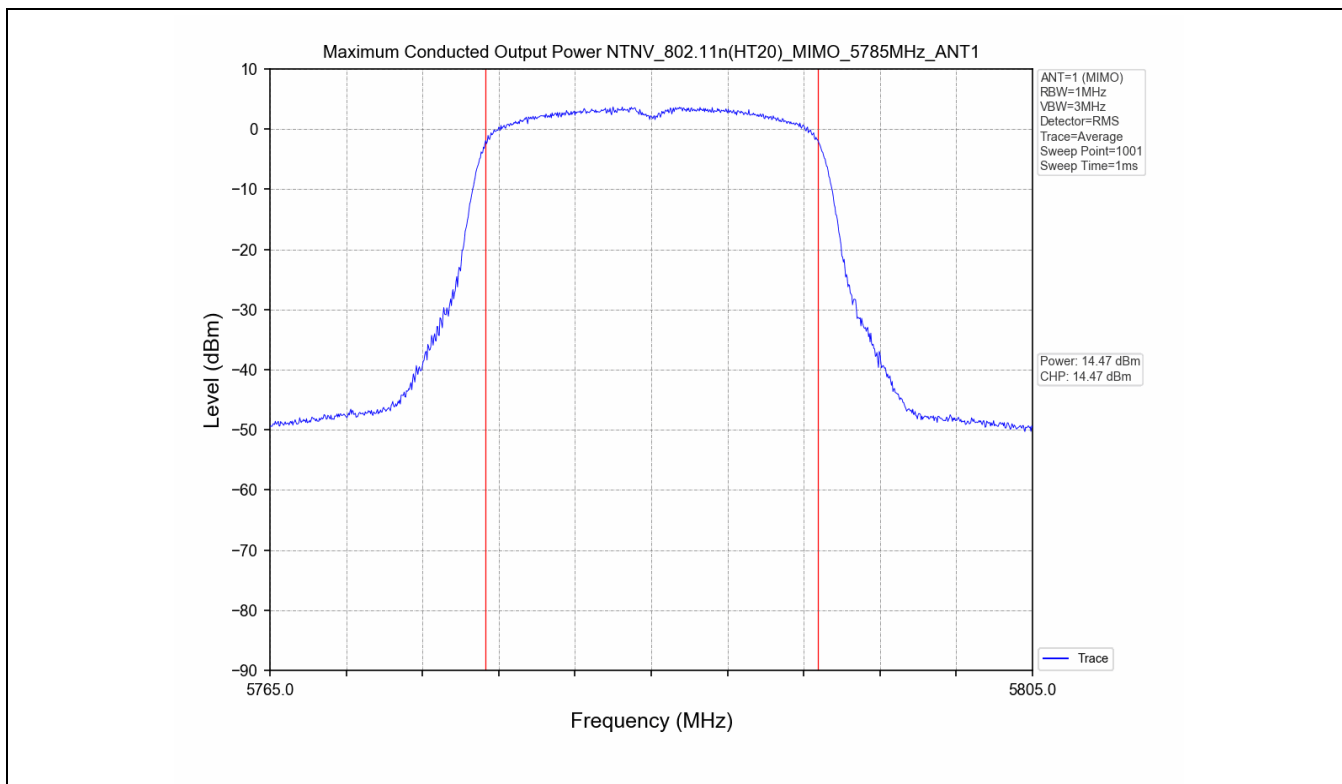


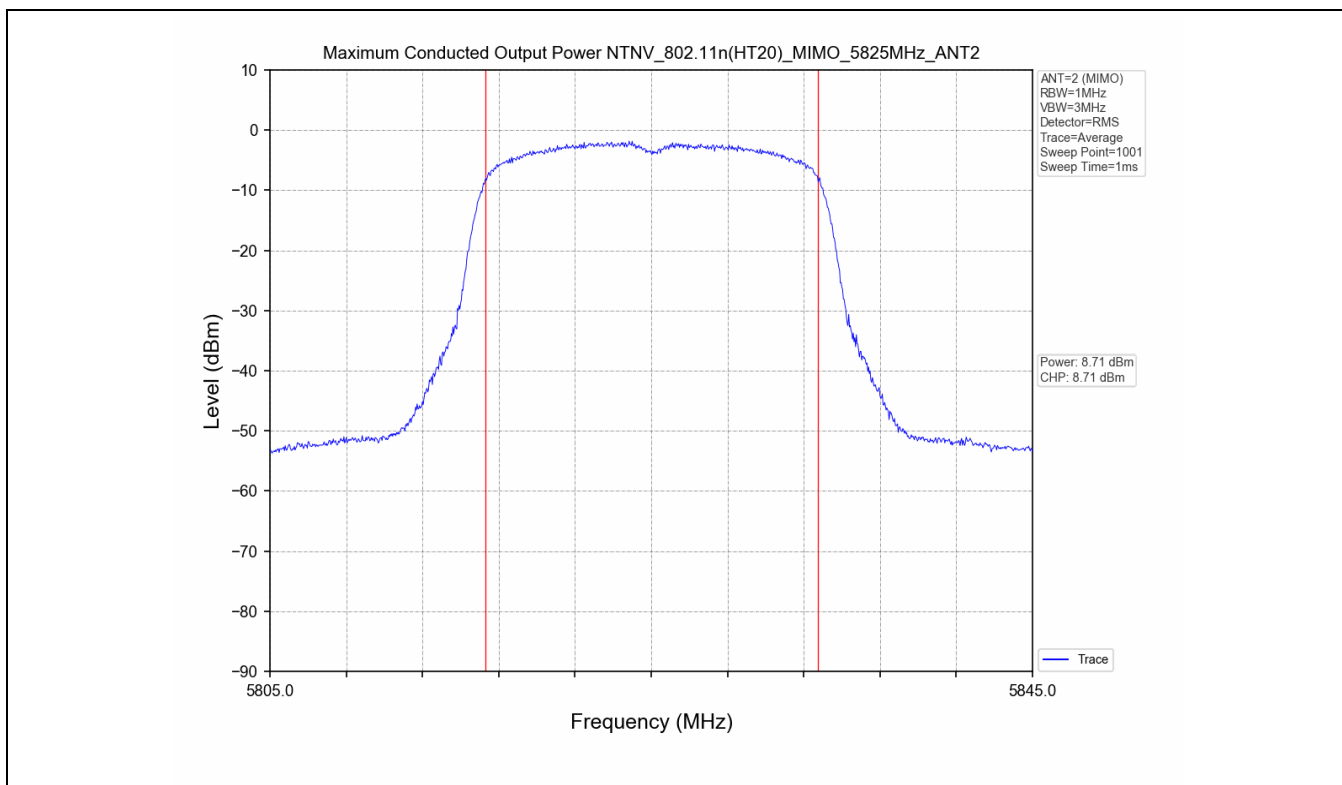
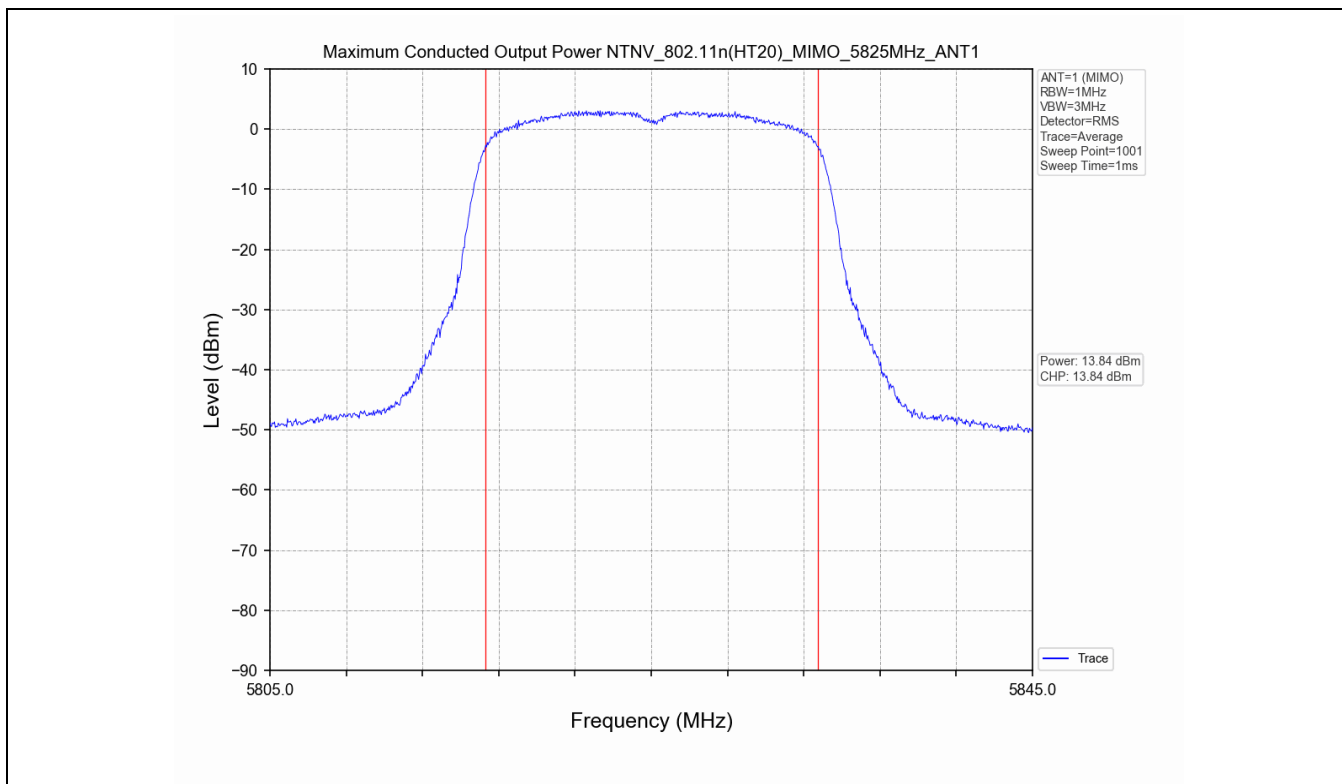


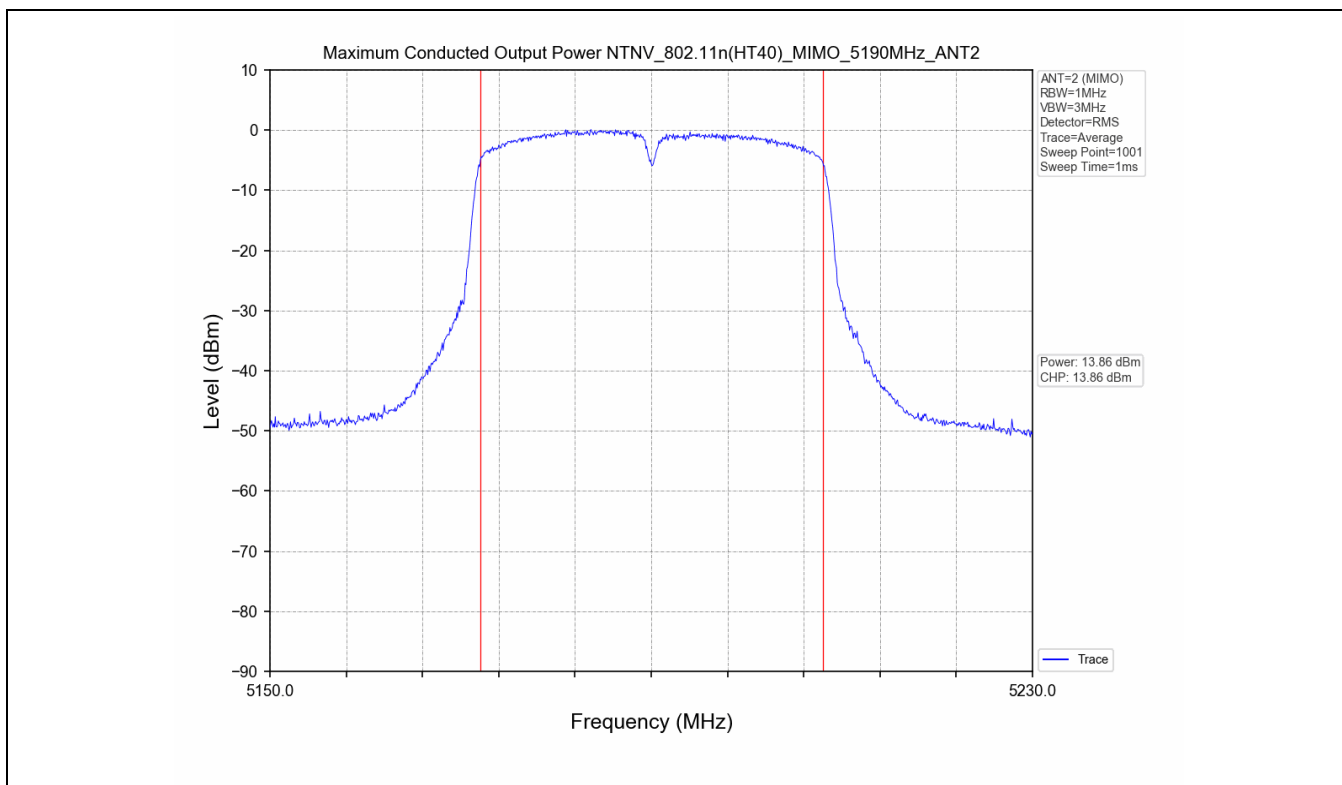
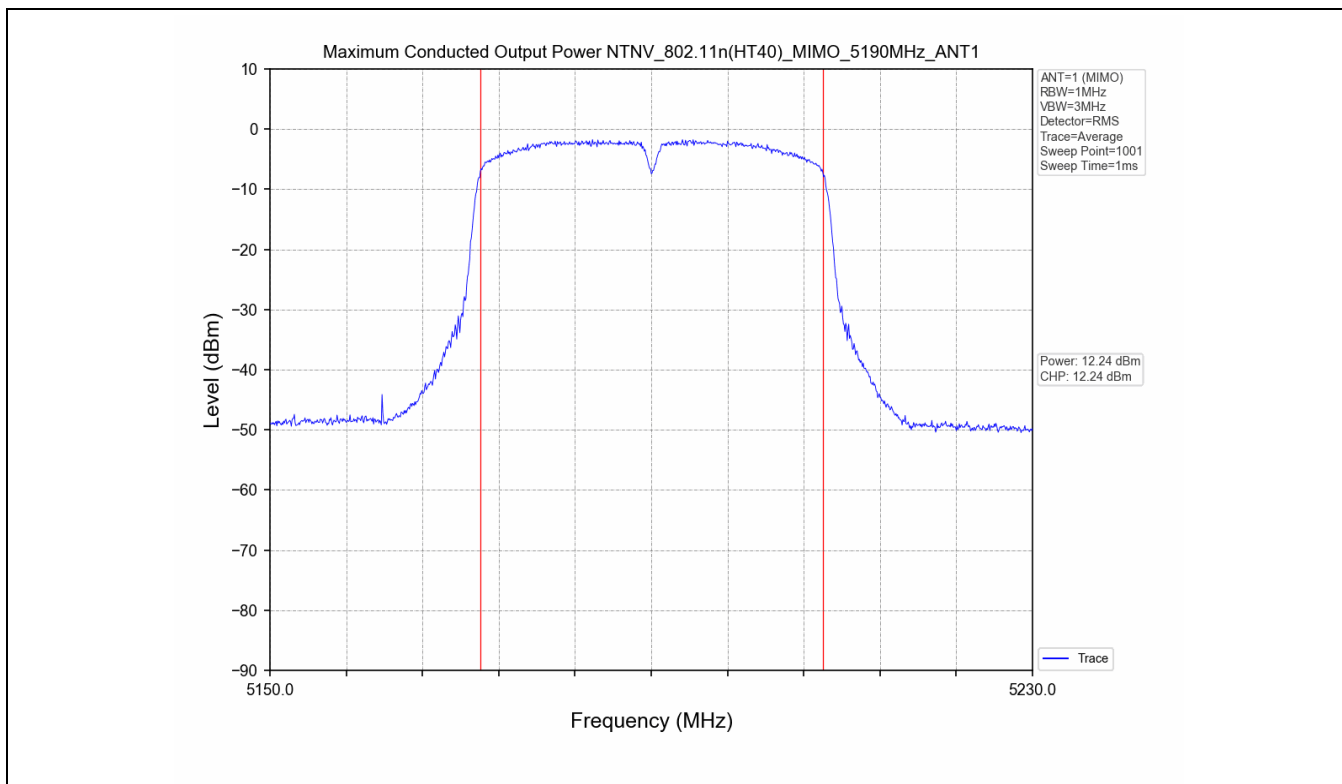


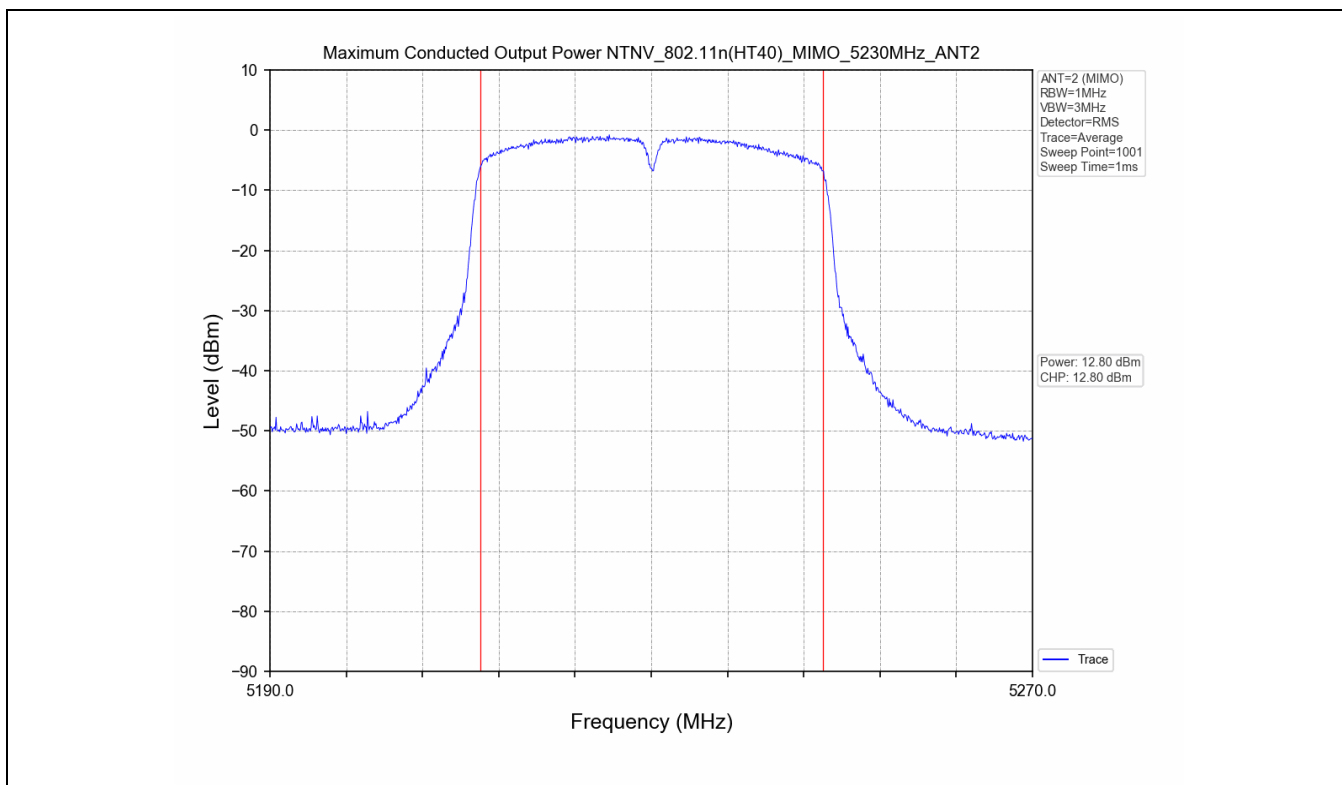
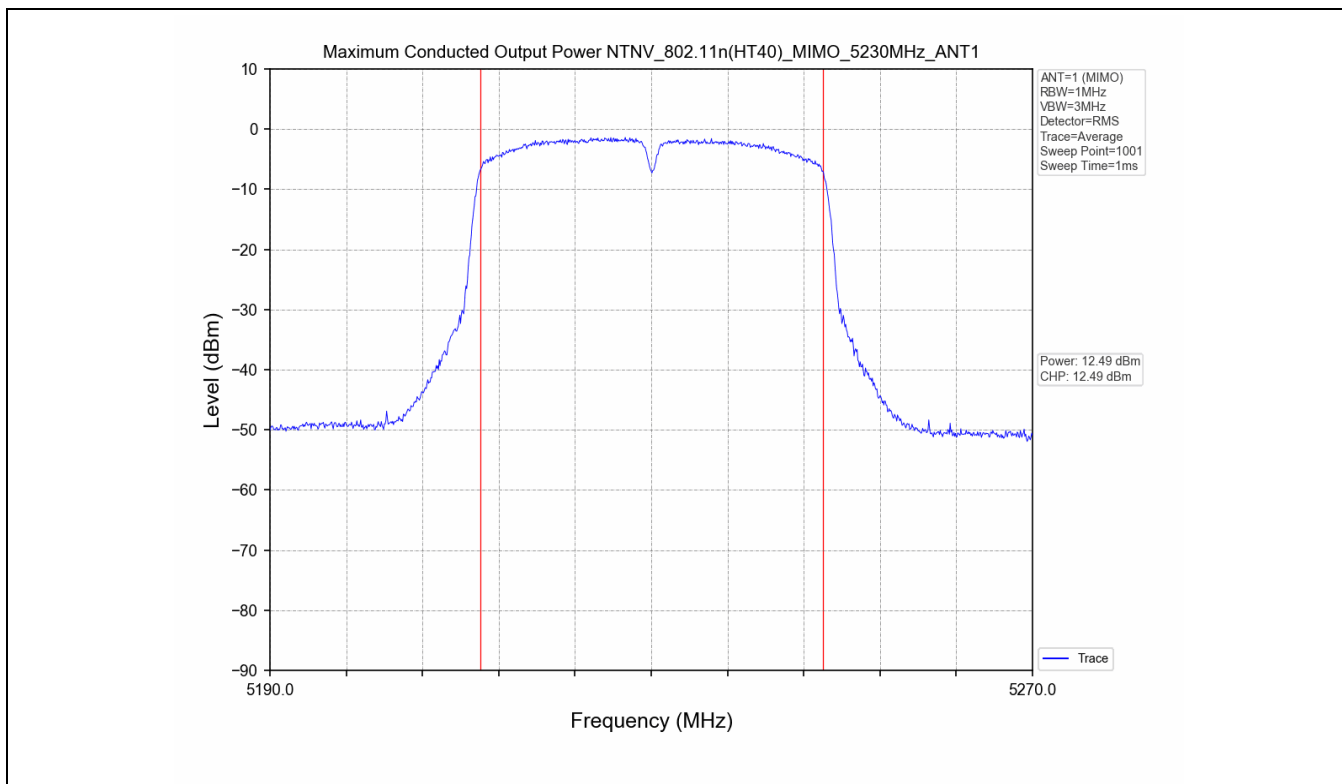


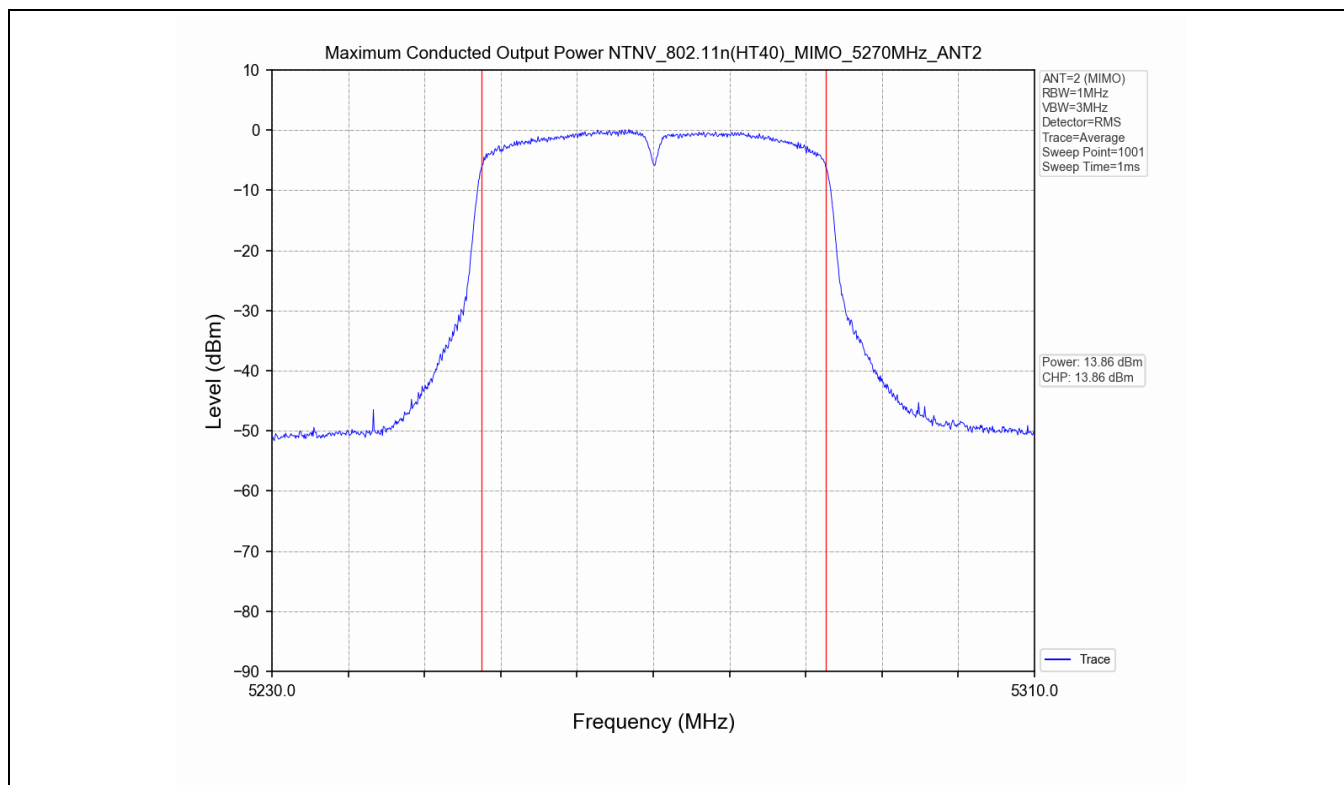
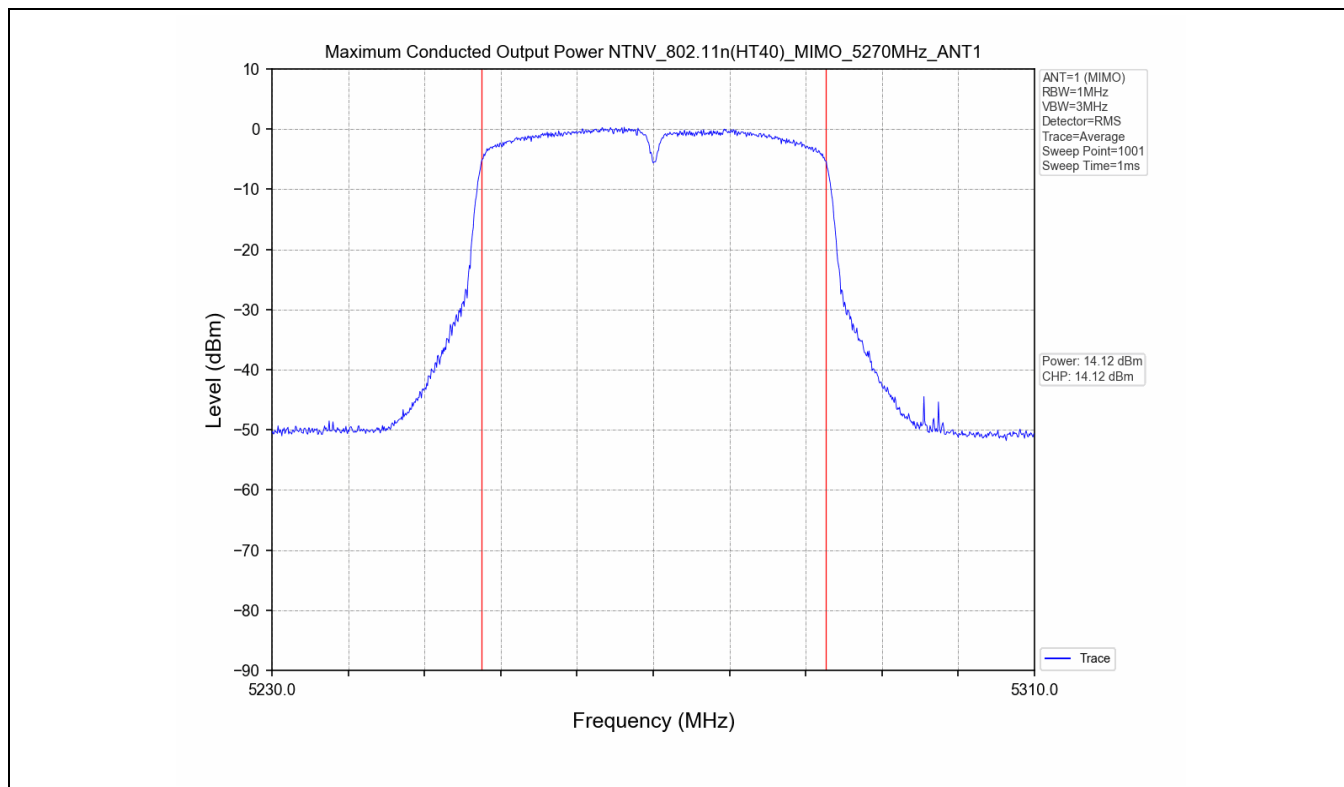


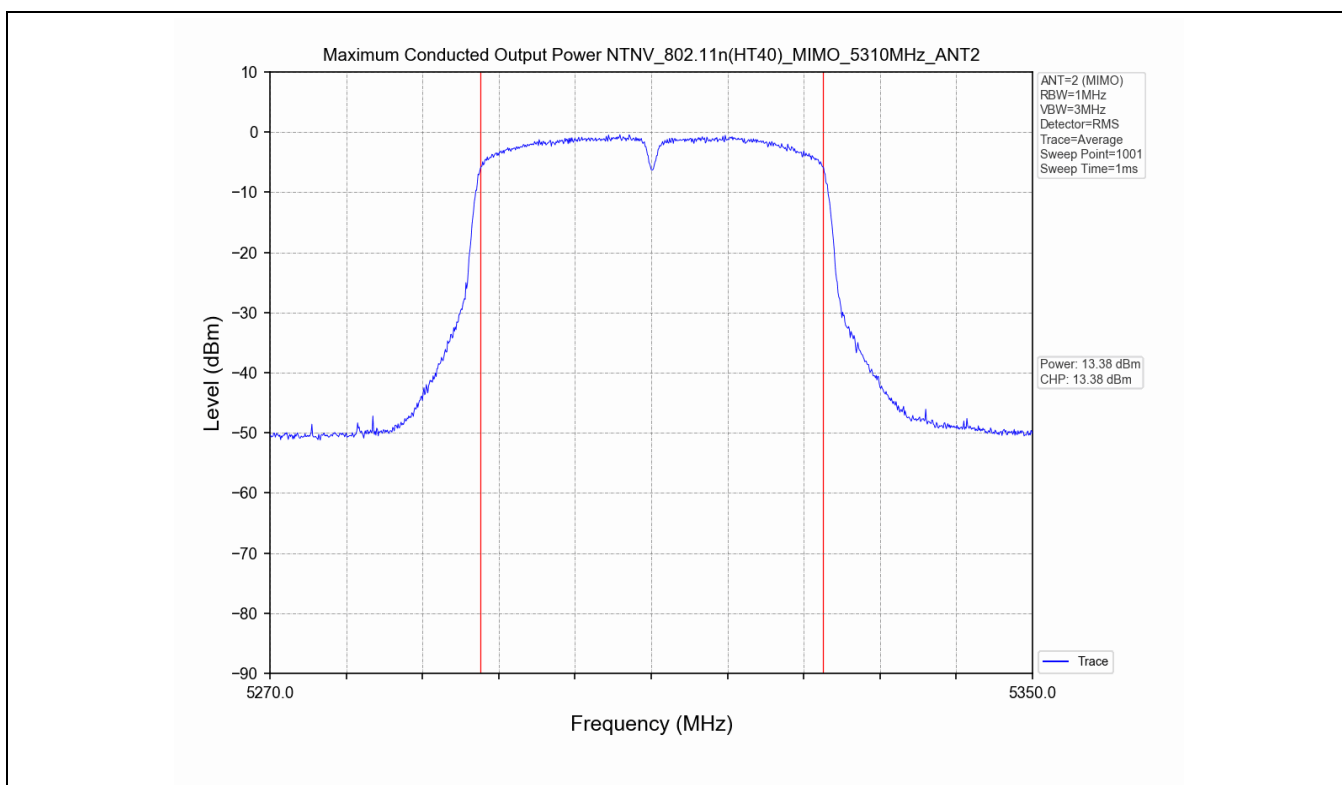
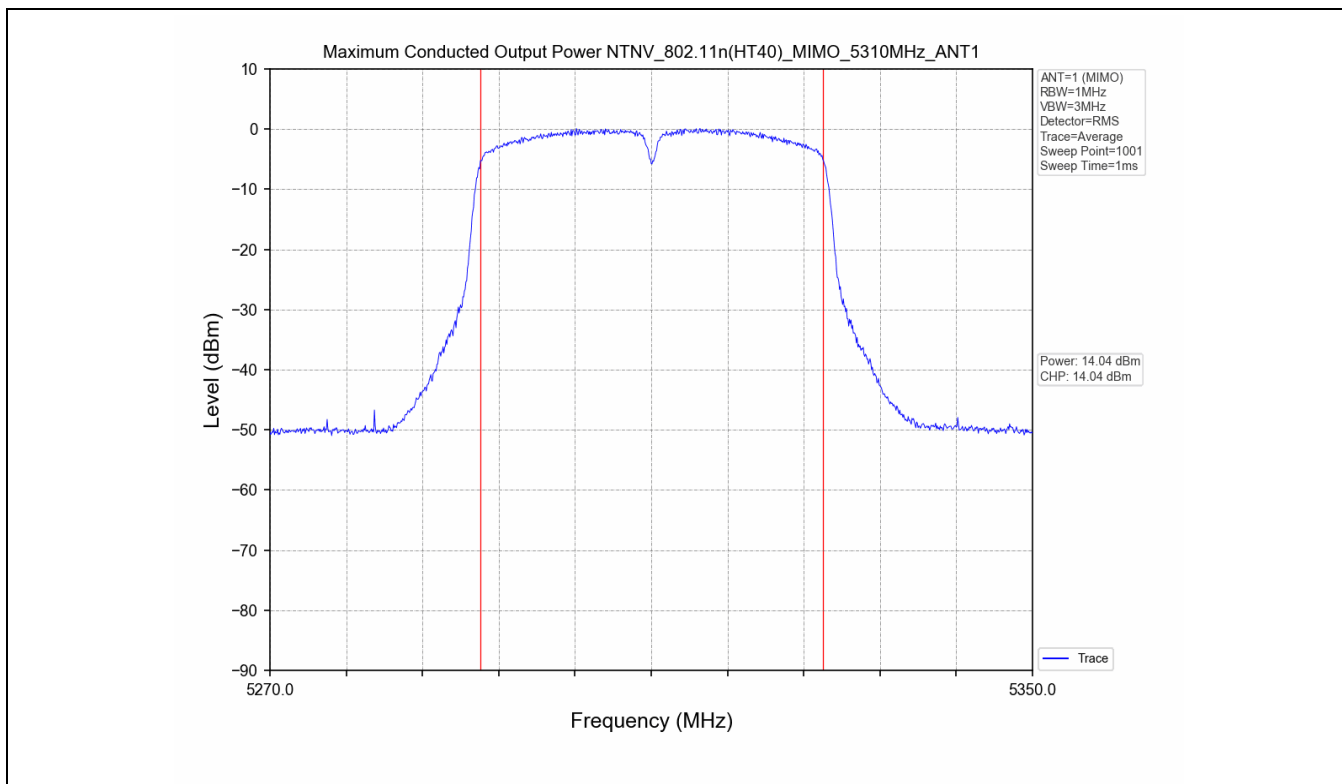


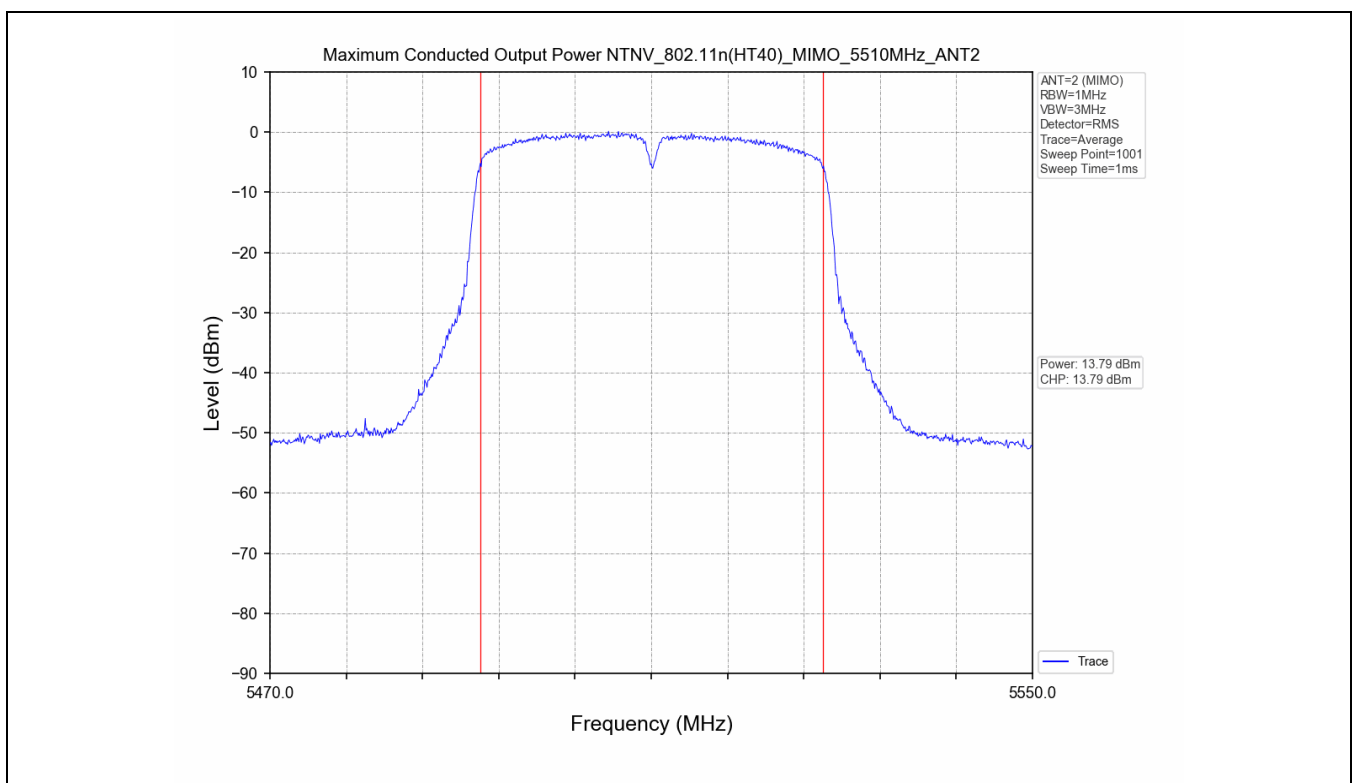
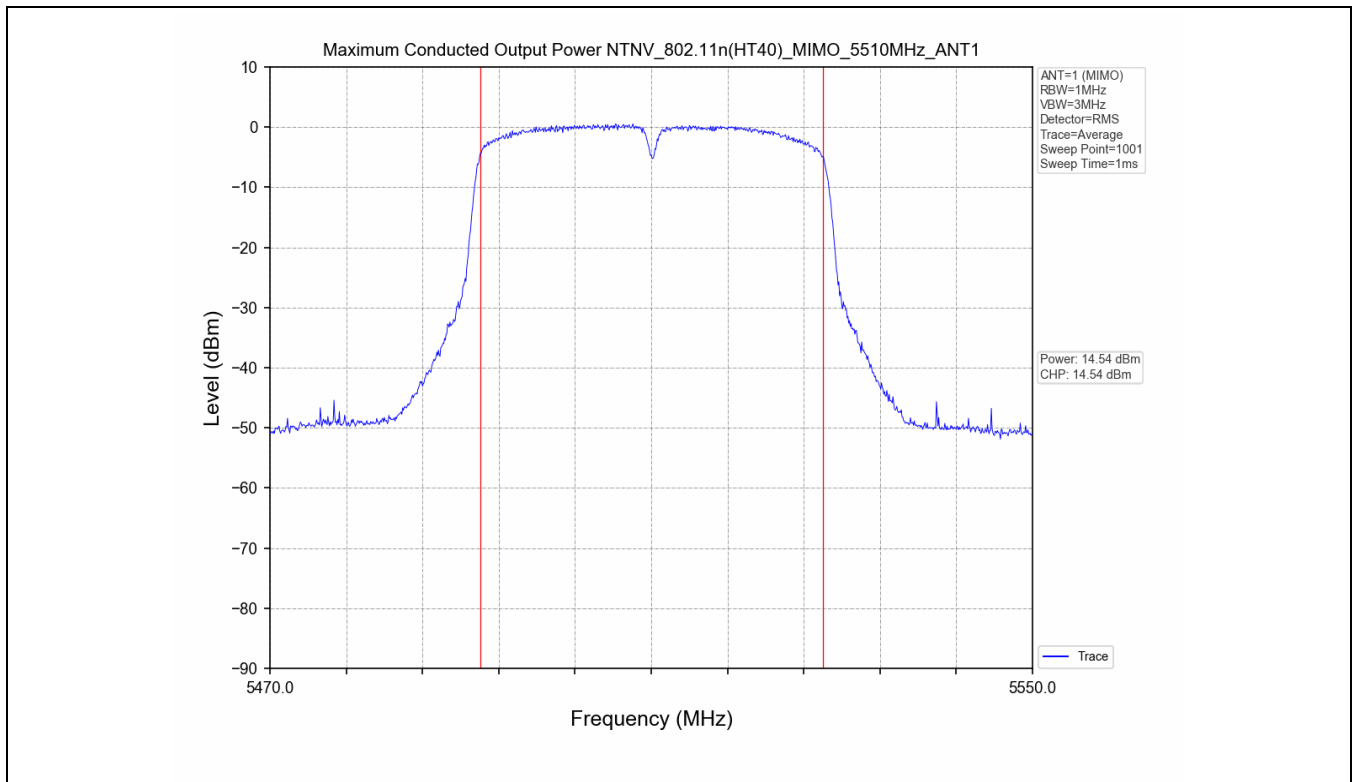


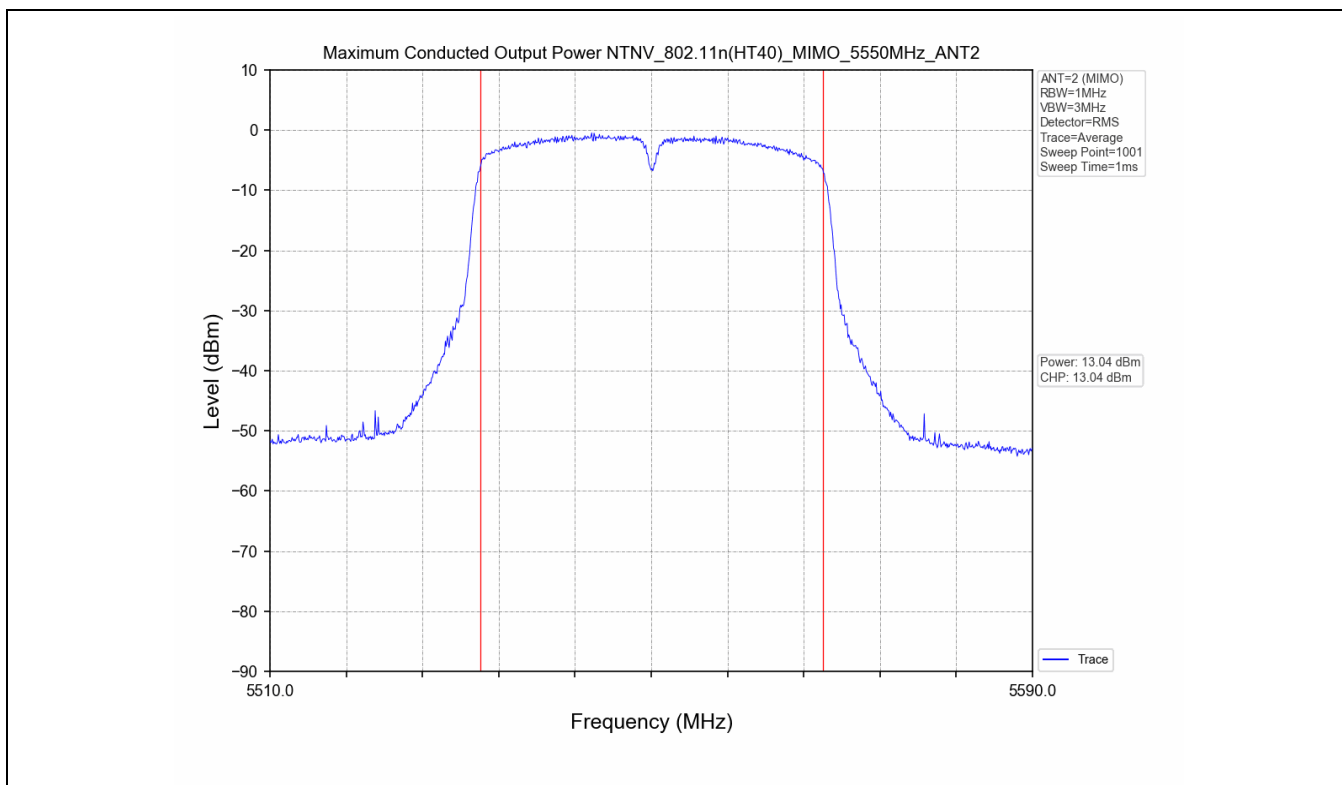
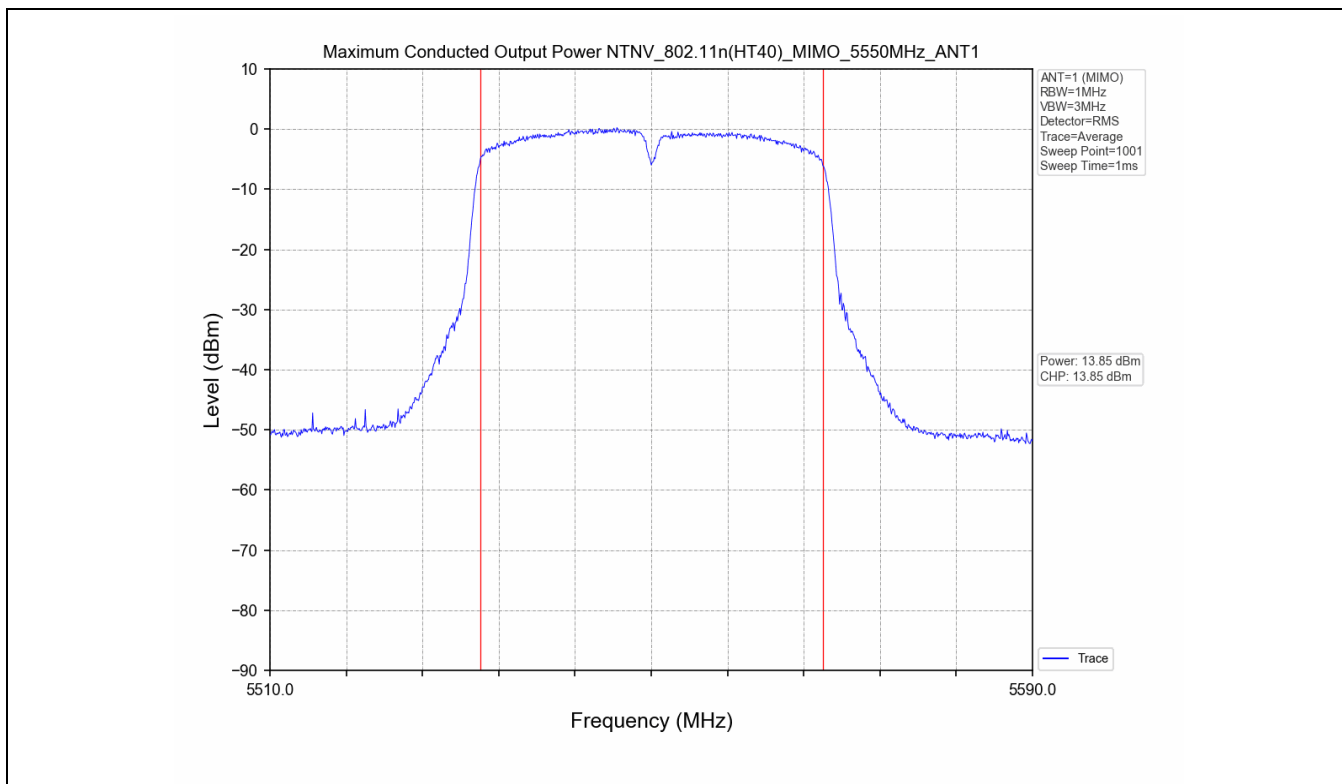


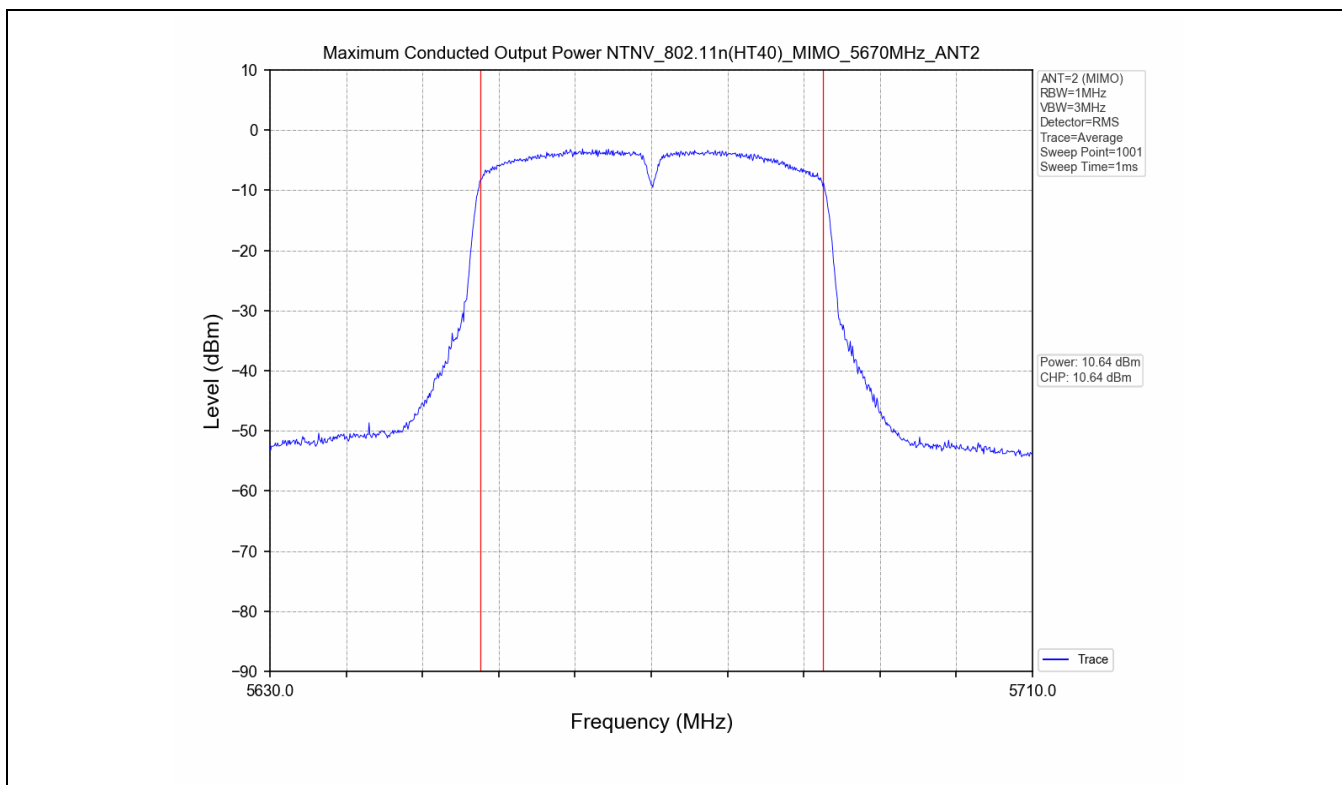
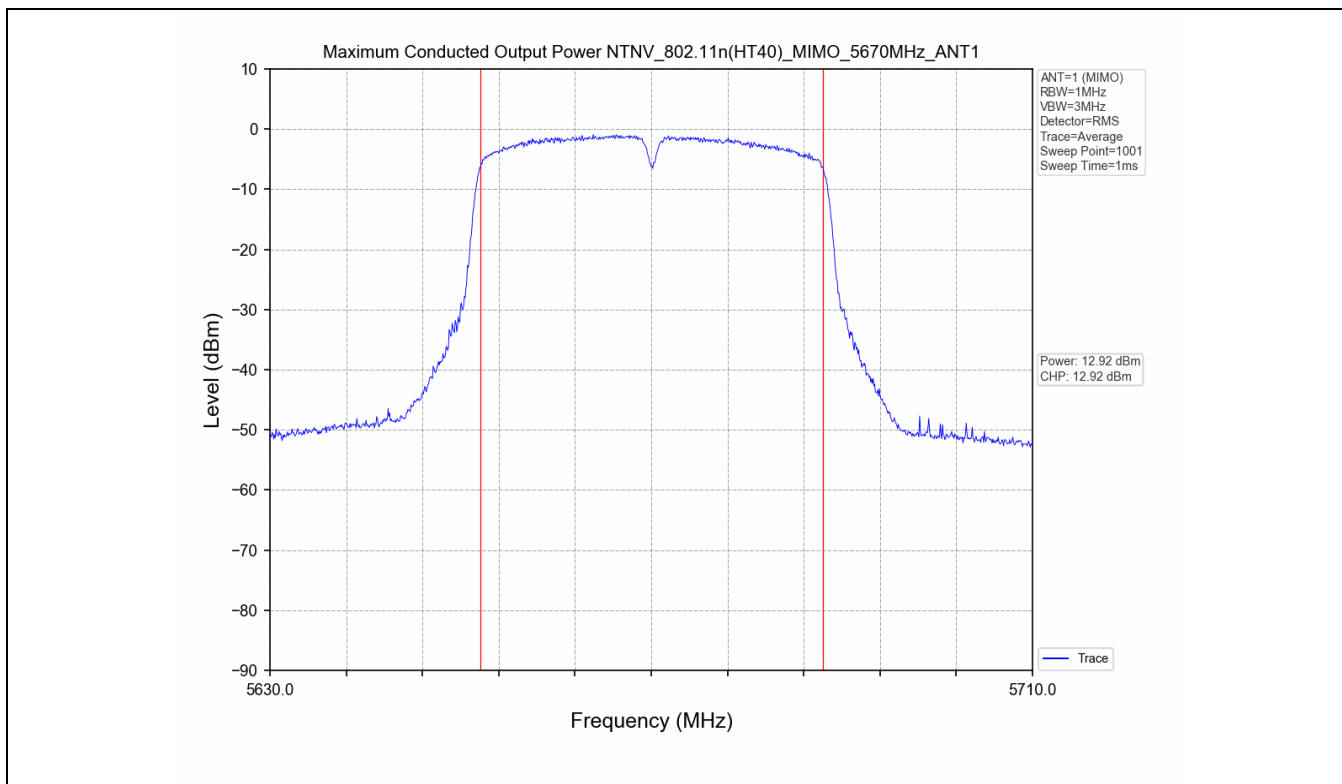


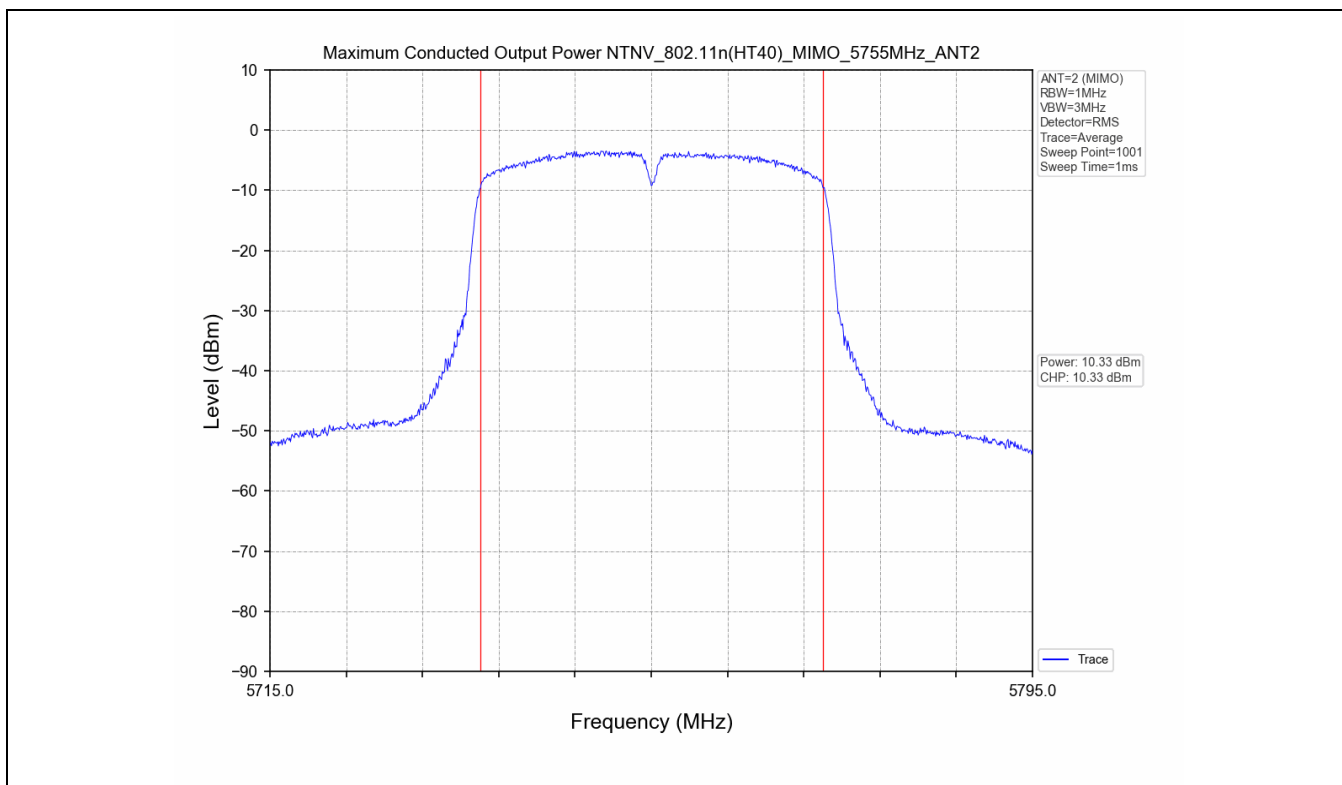
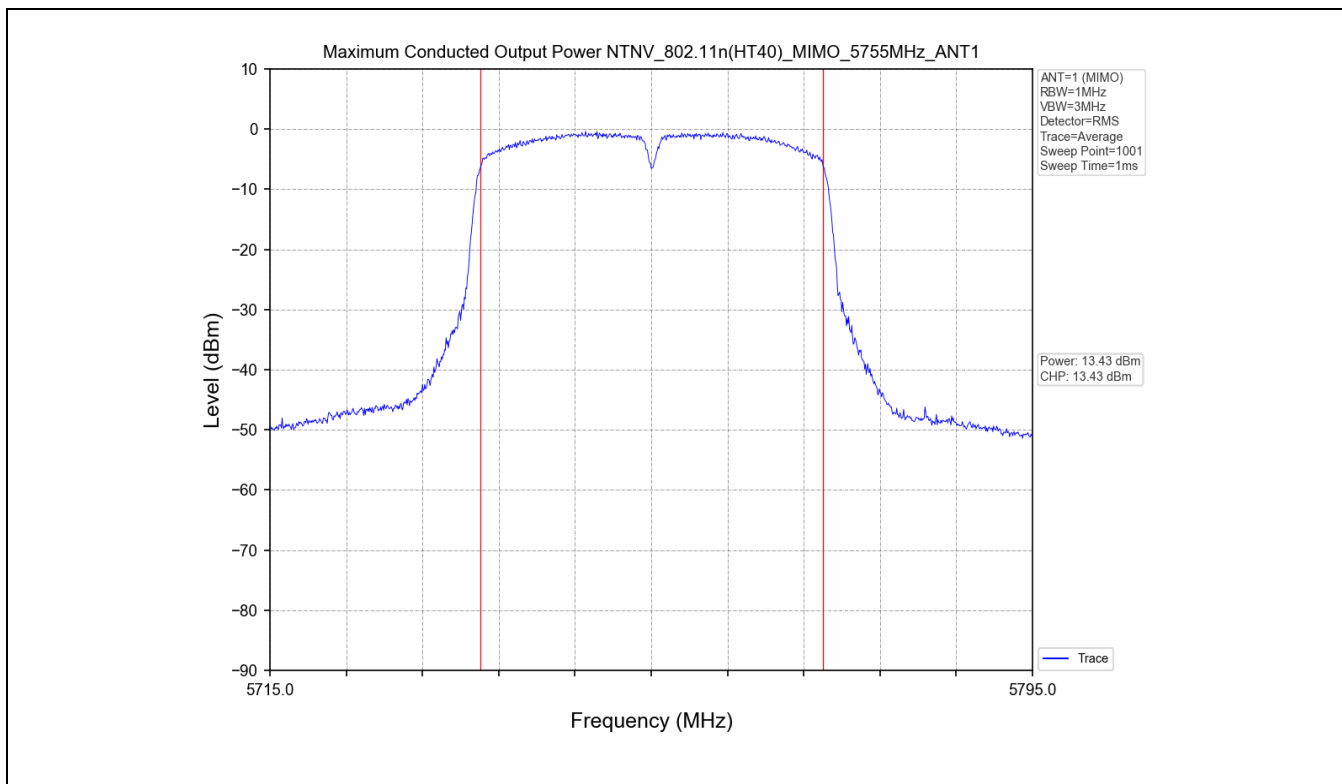


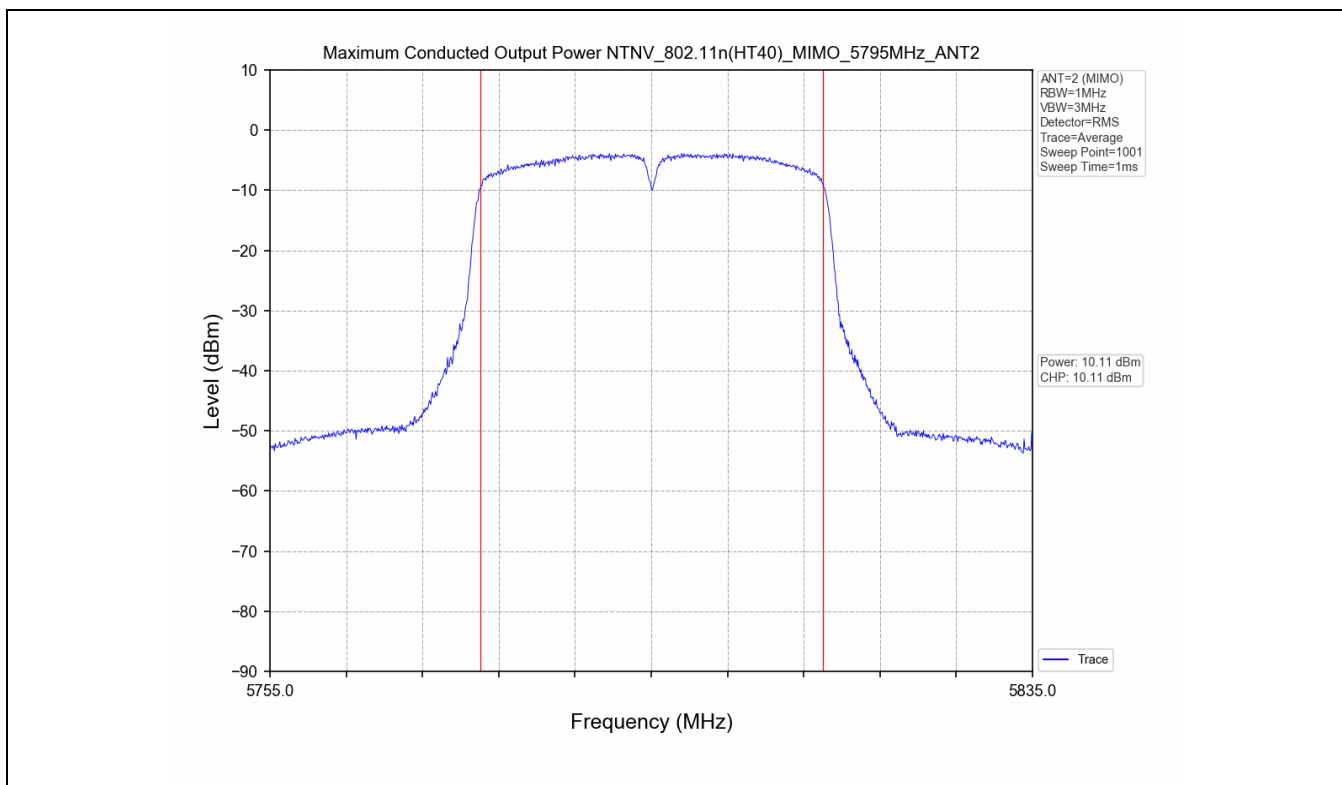
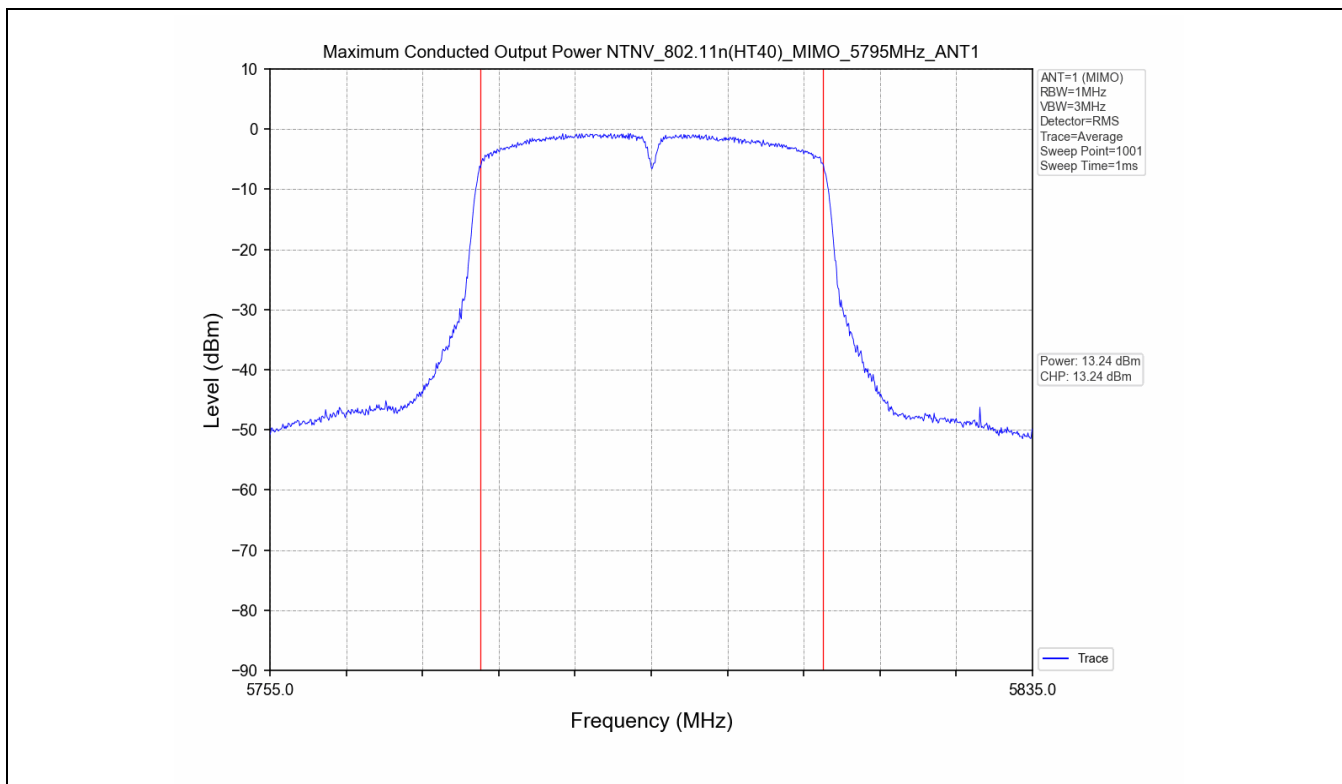


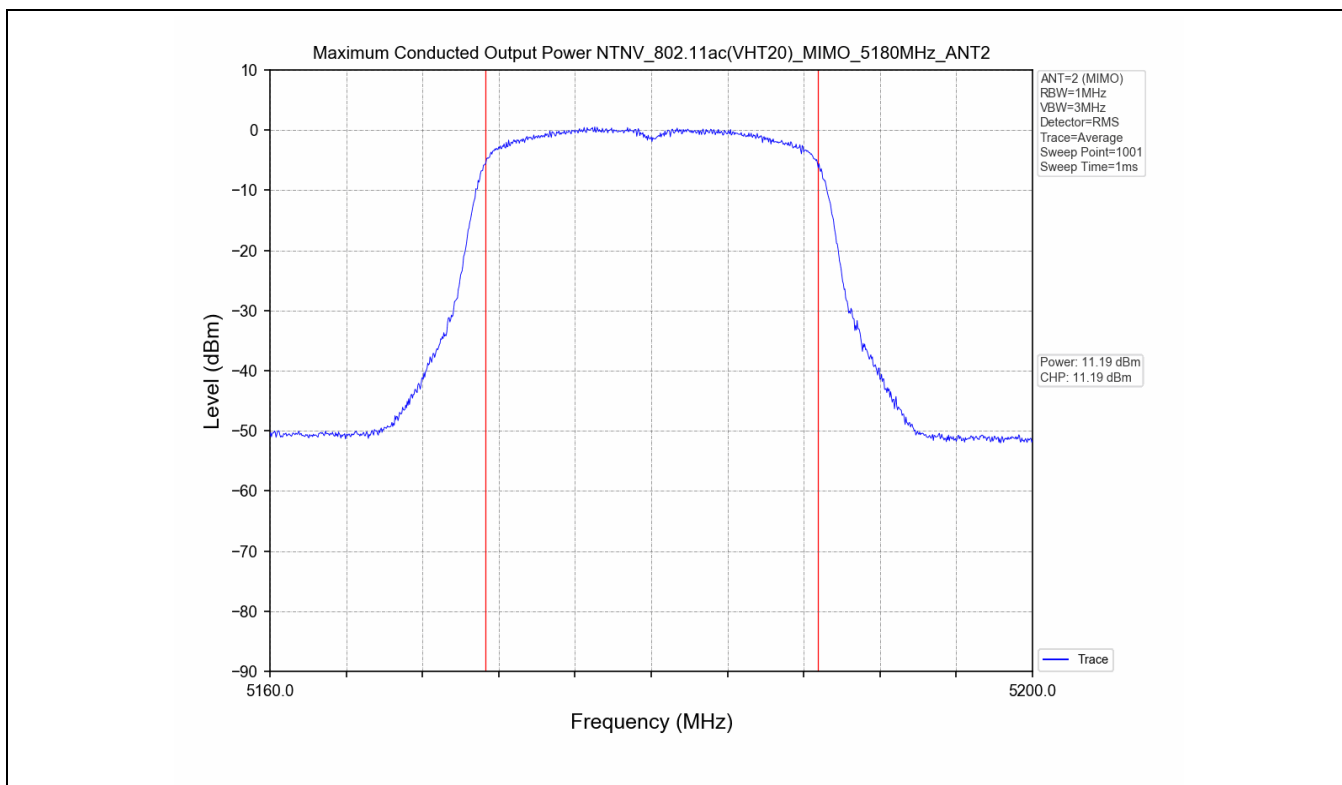
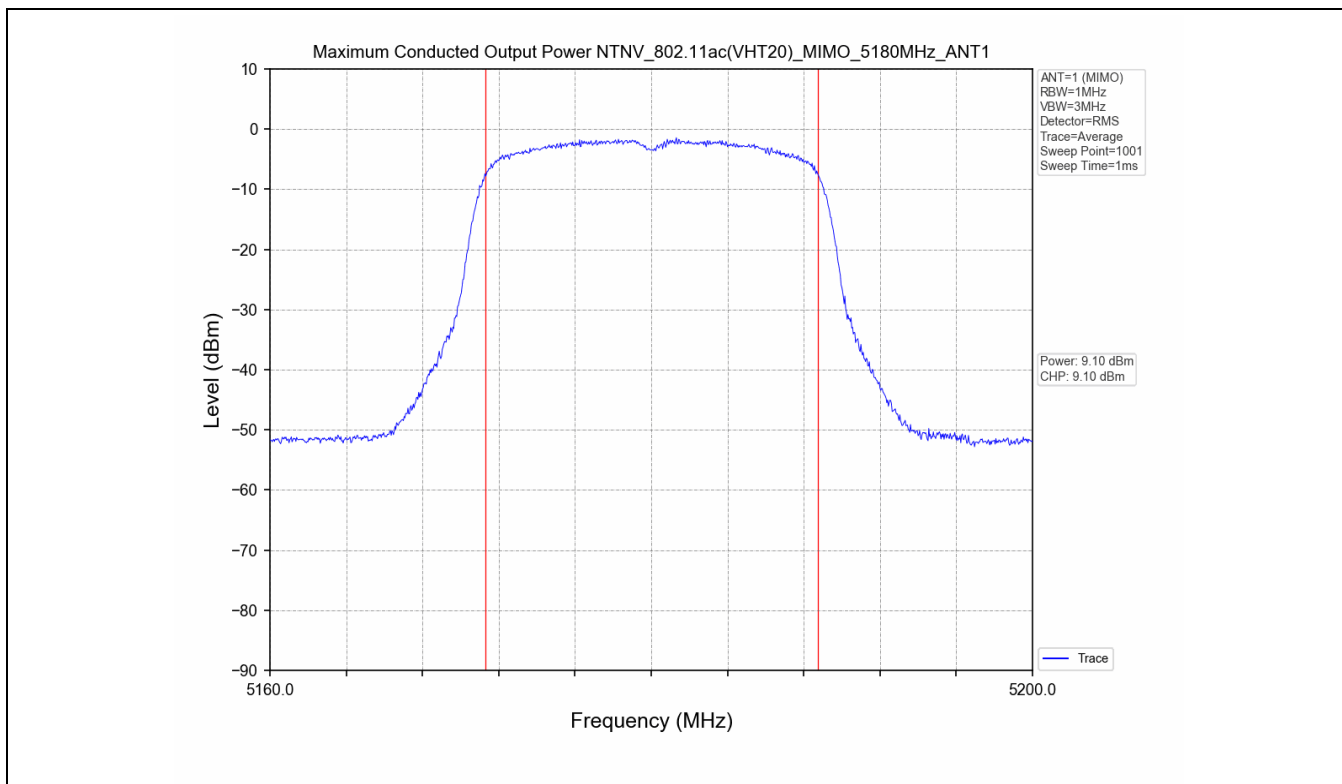


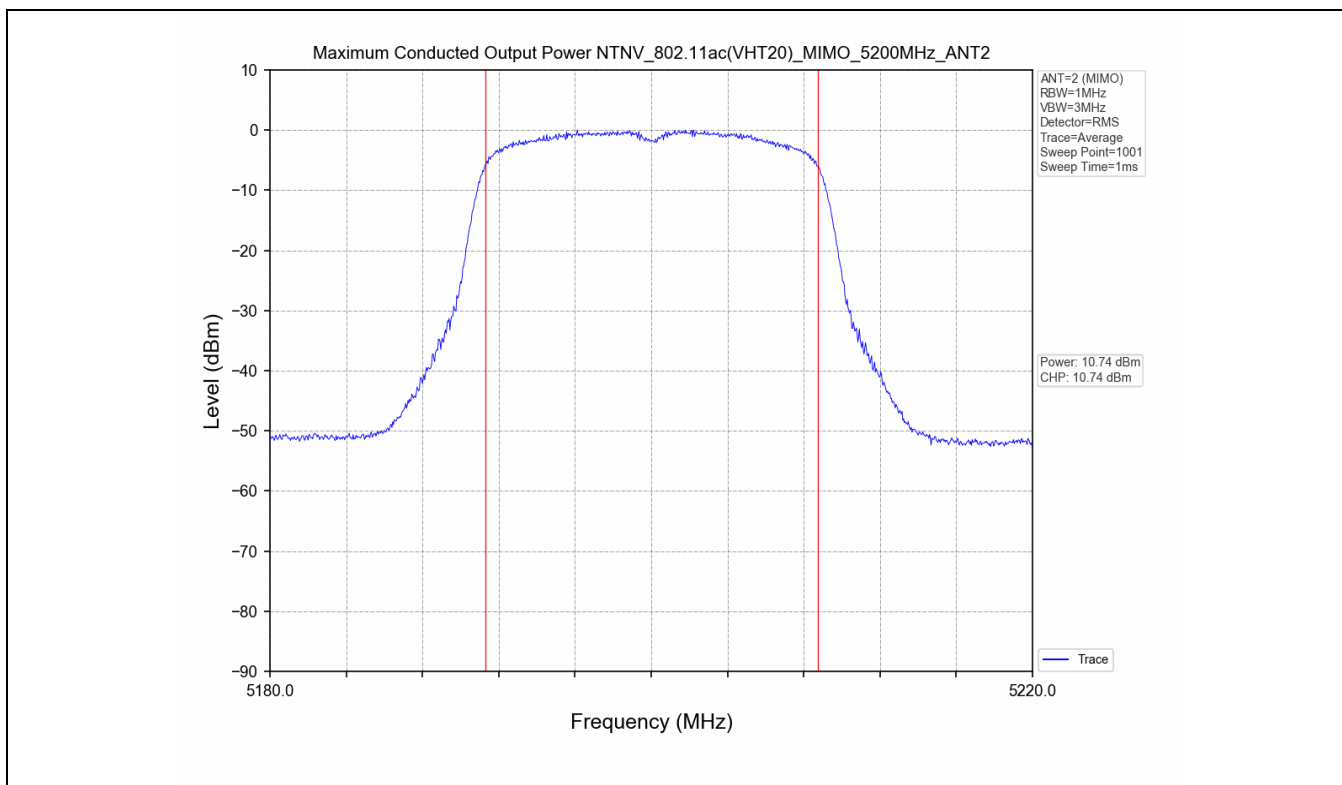
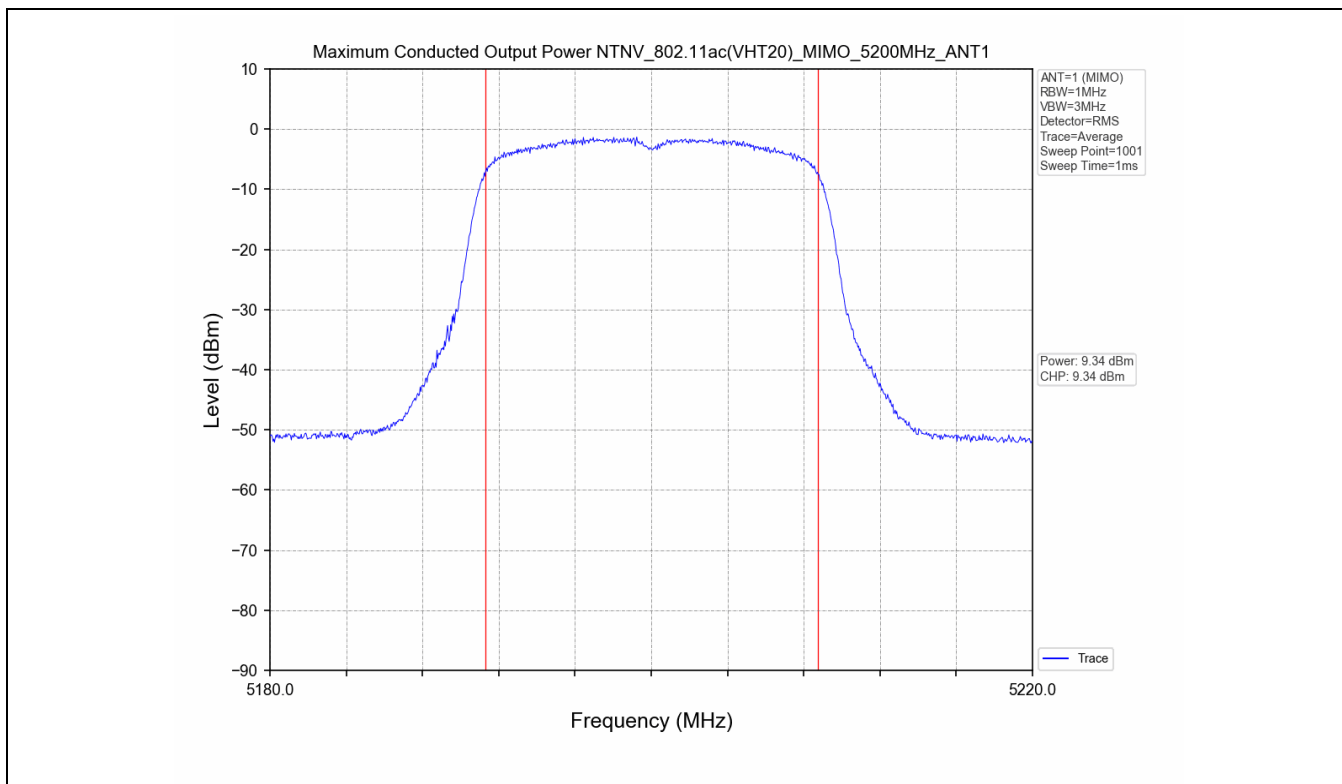


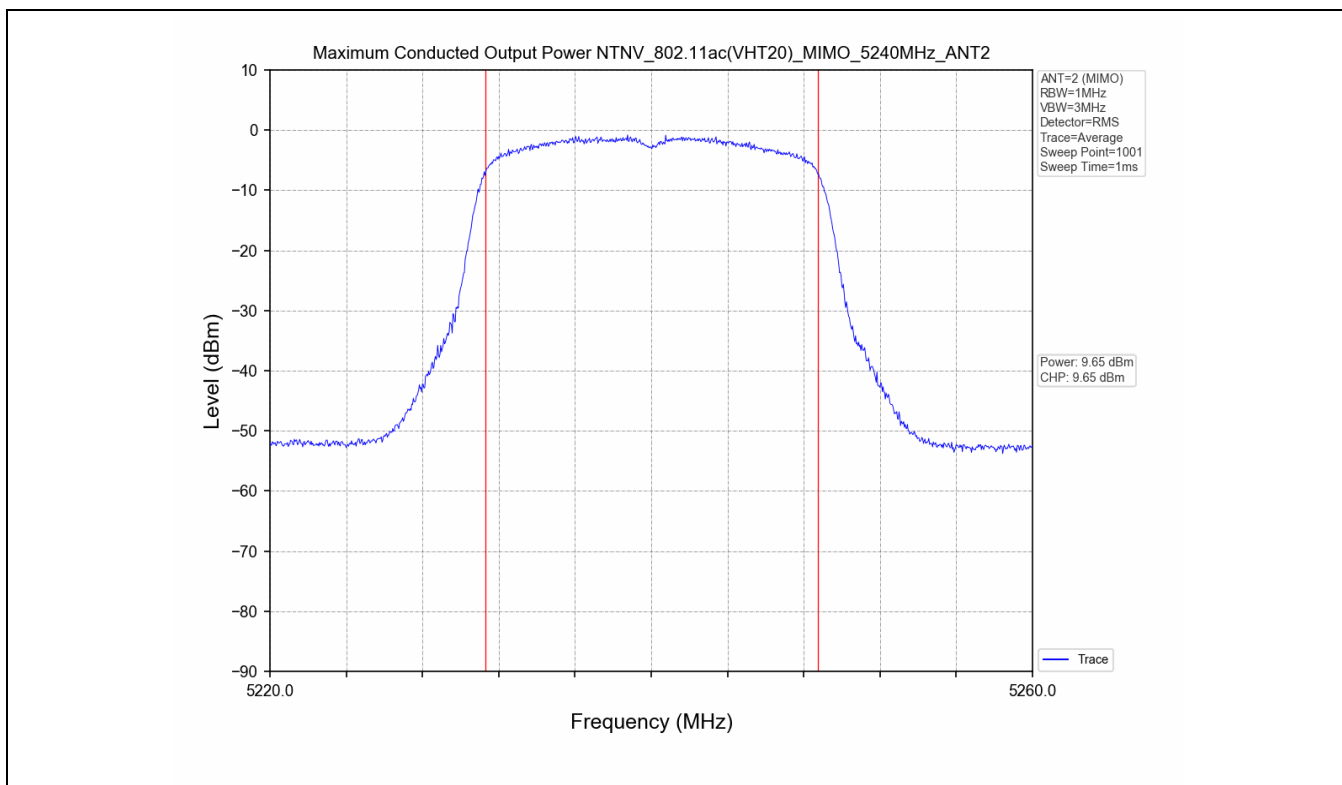
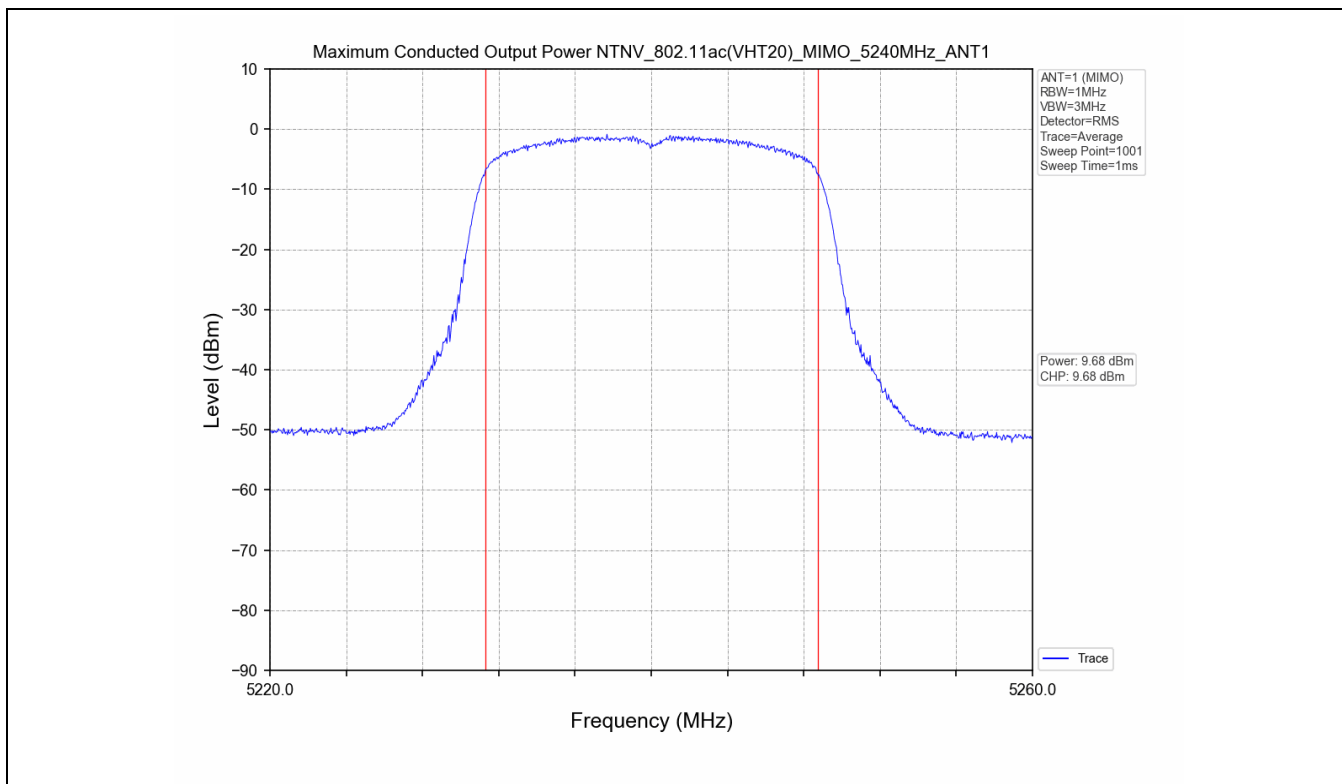


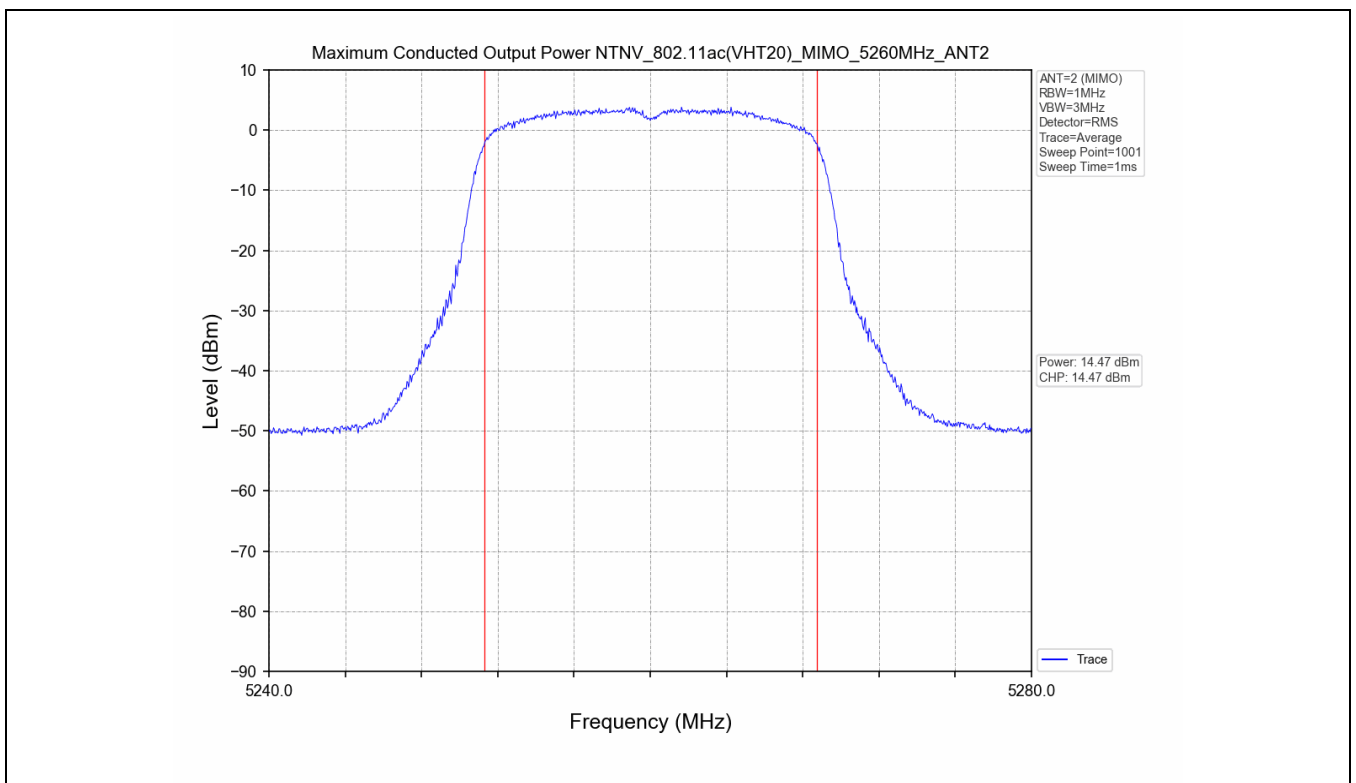
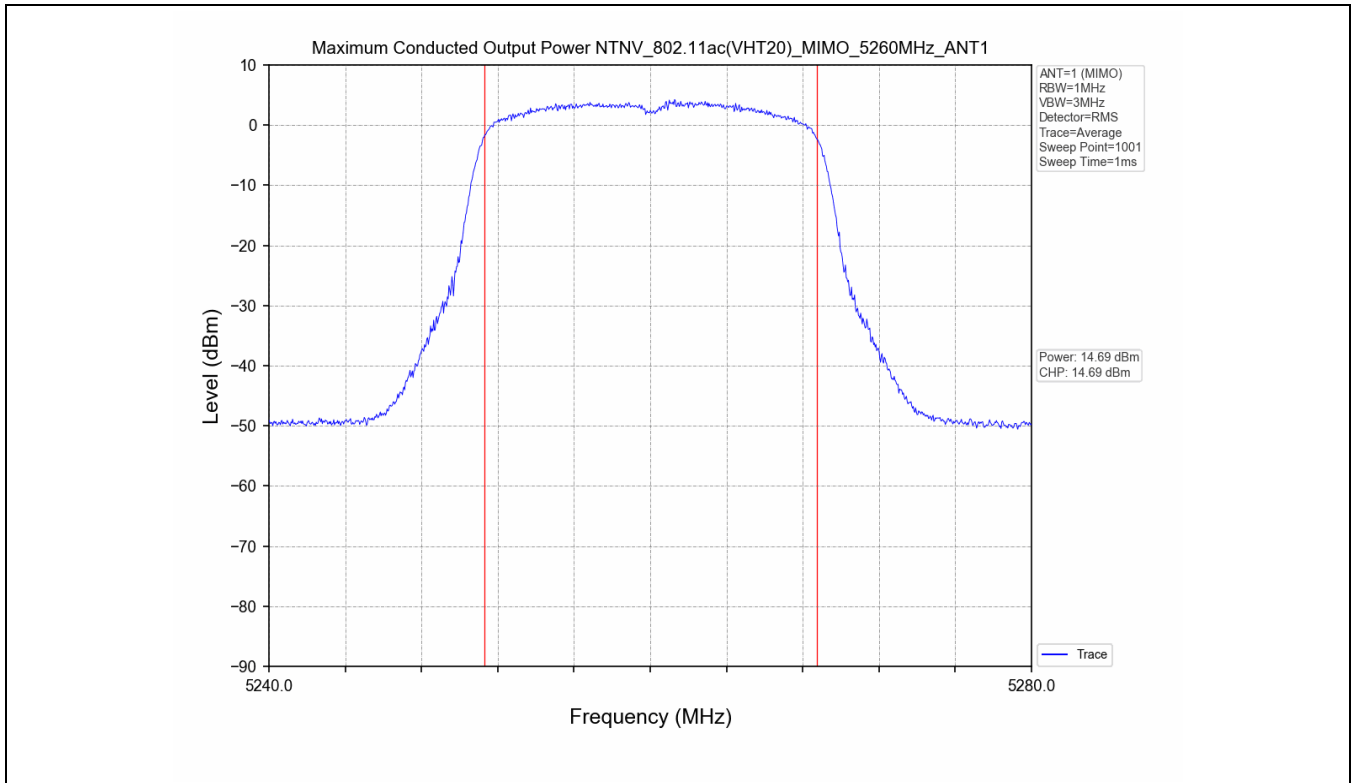


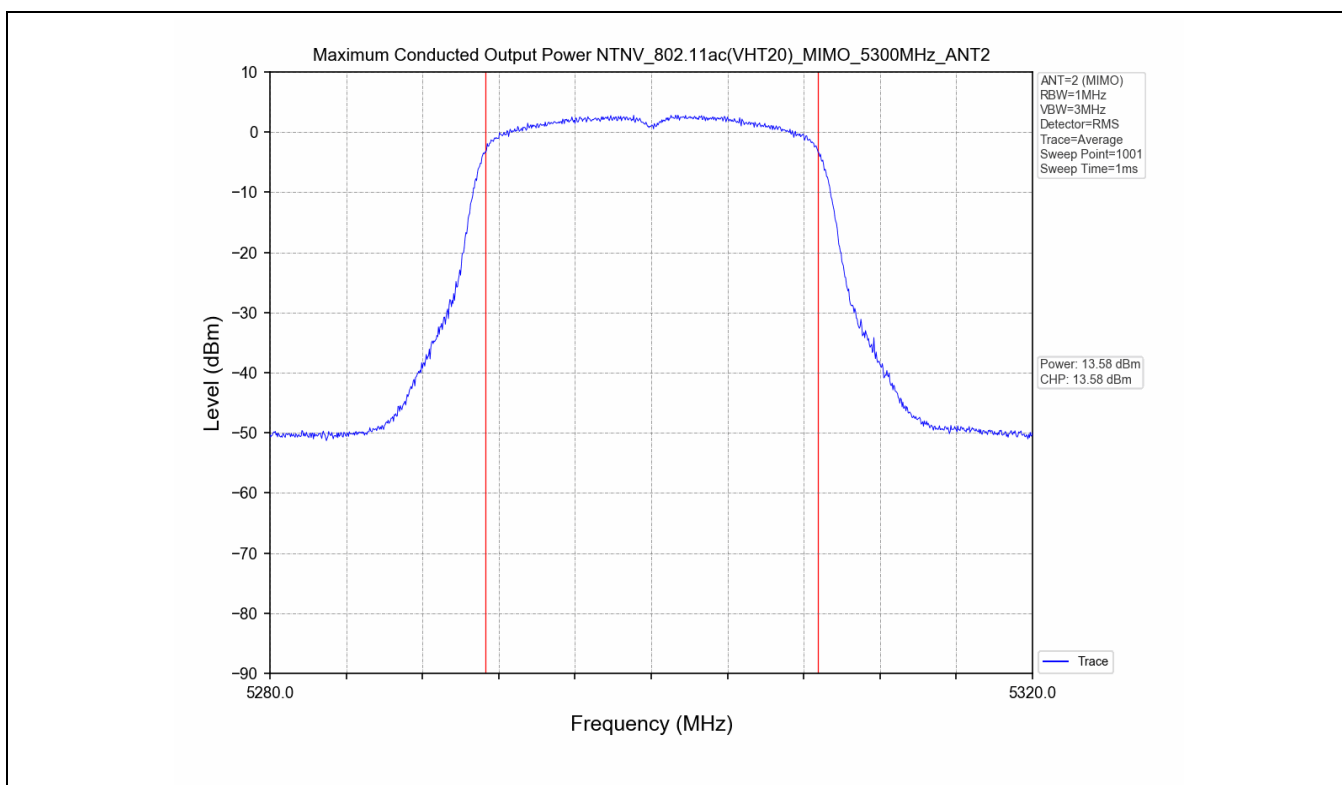
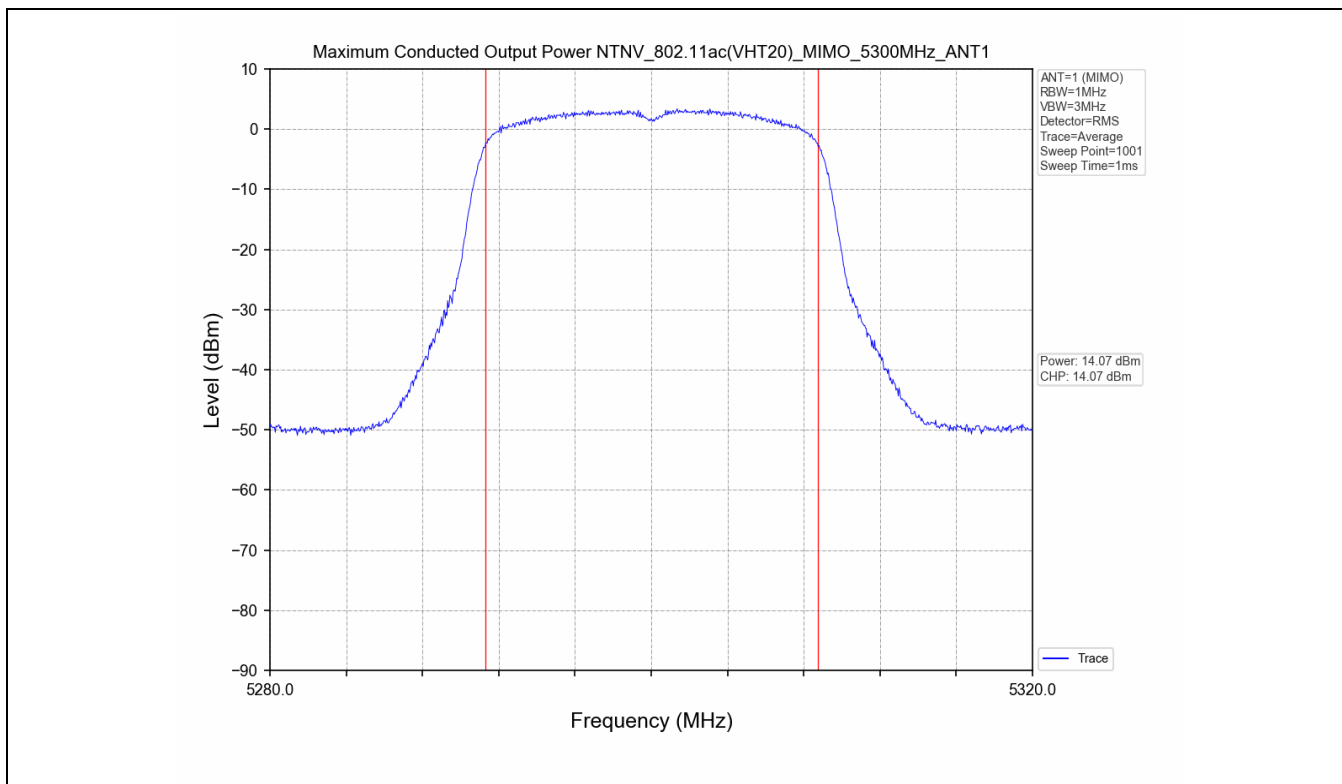


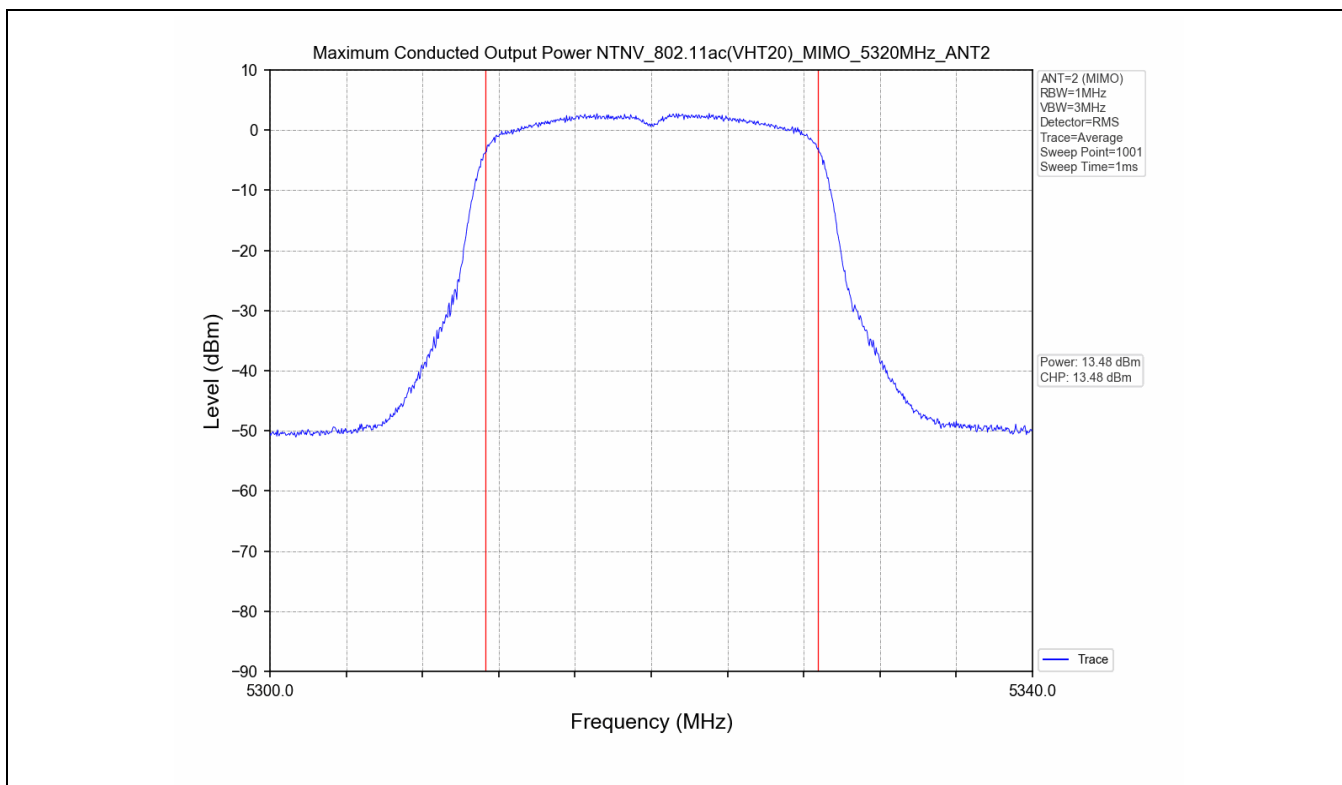
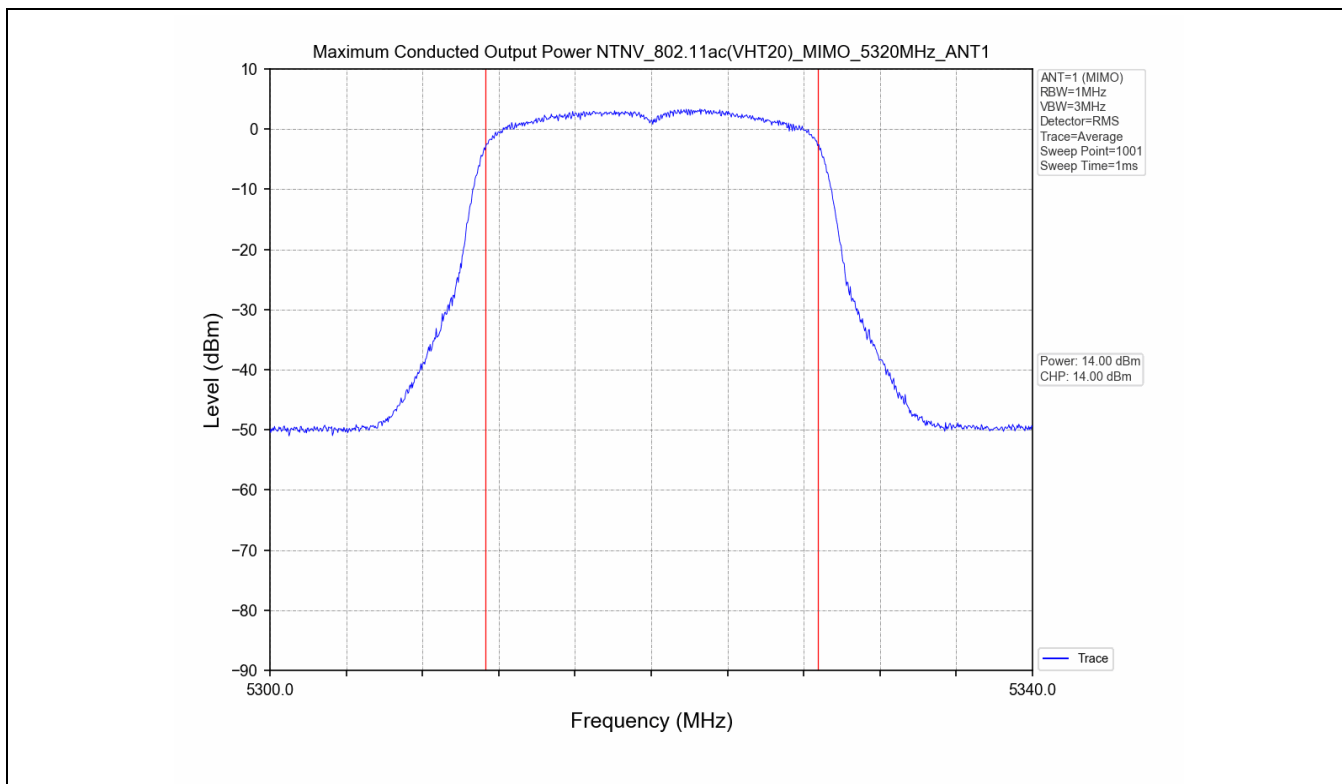


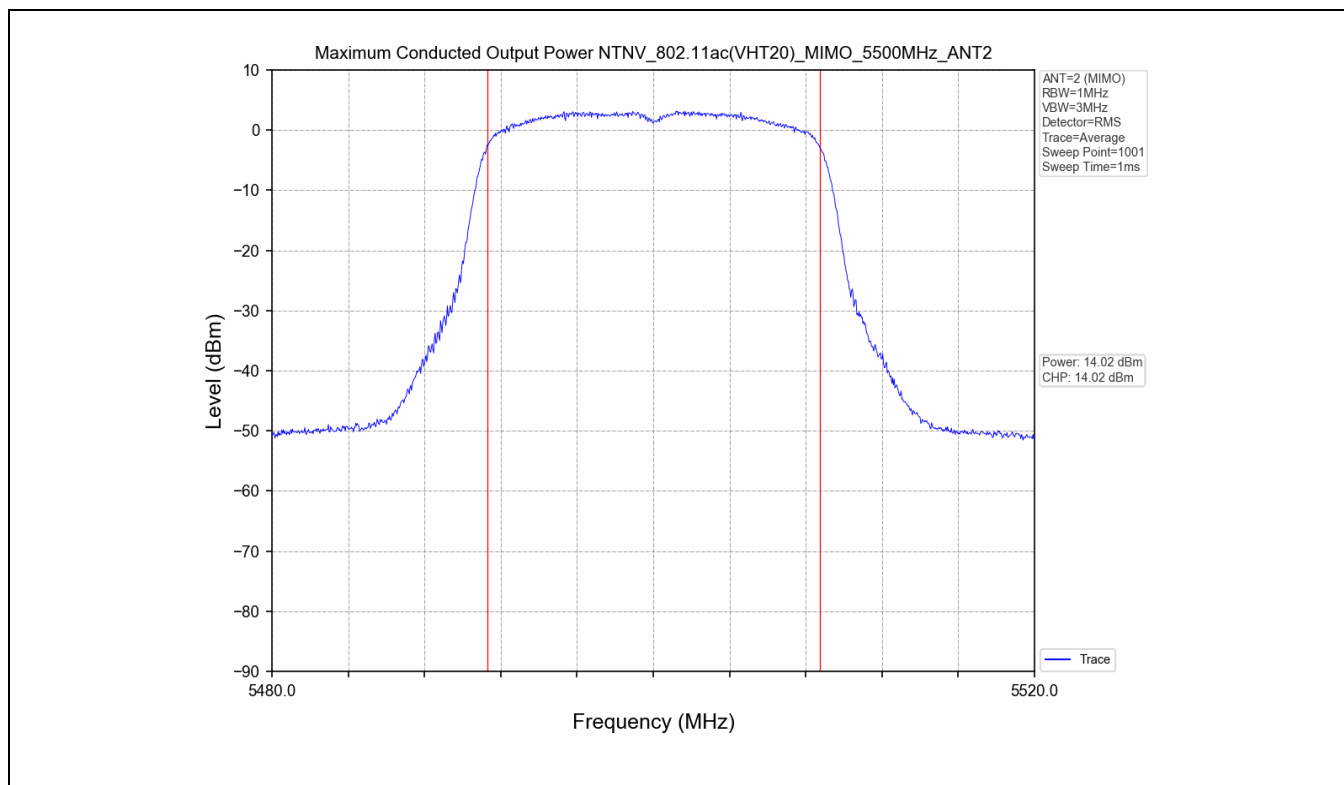
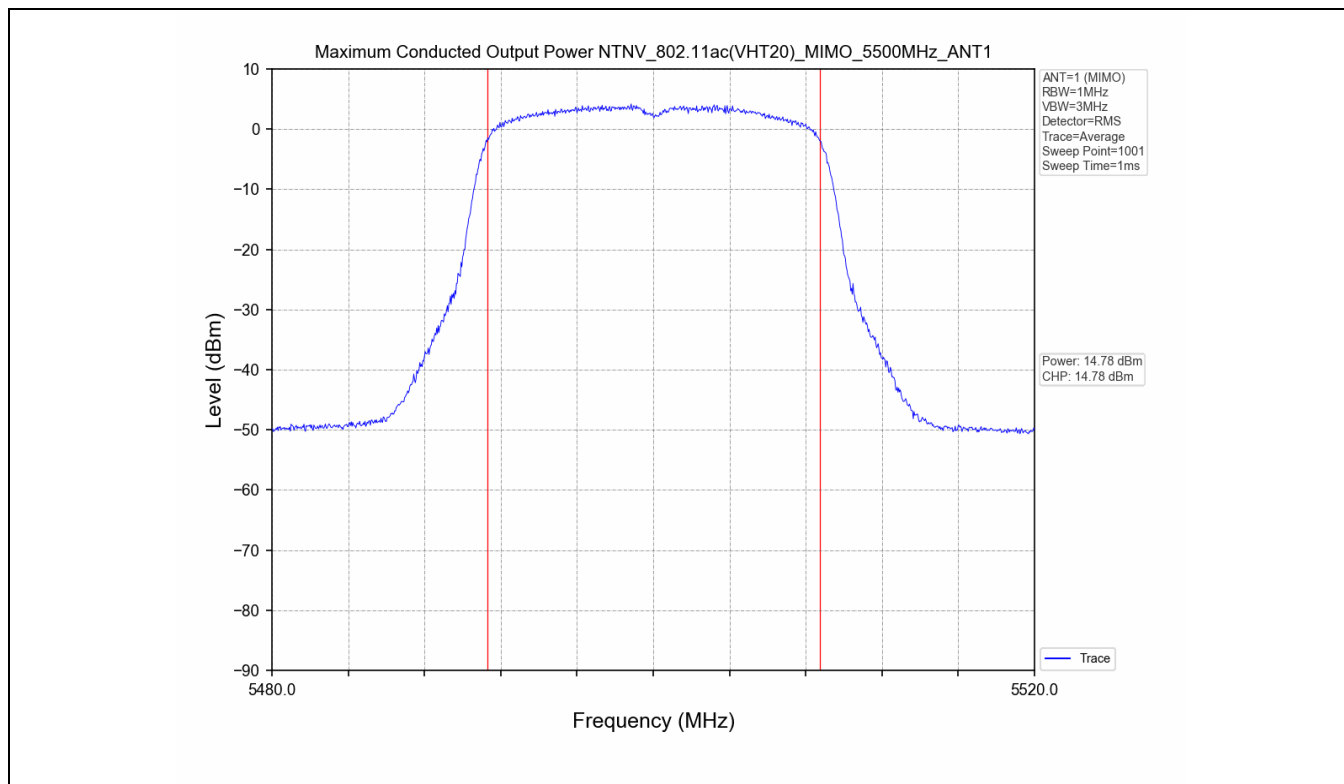












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No.1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgsgroup.com.cn
中国·深圳·科技园中区M-10栋一号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

