

3. Maximum Conducted Output Power

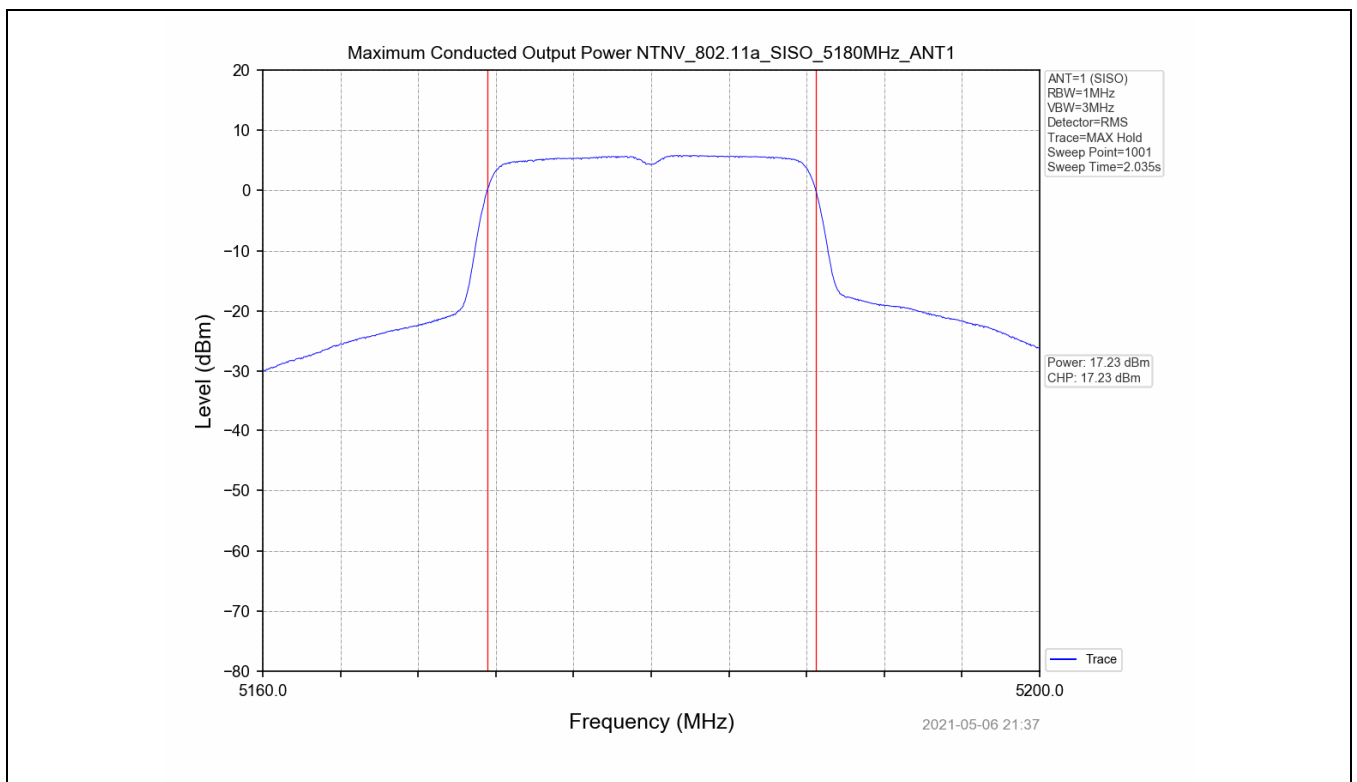
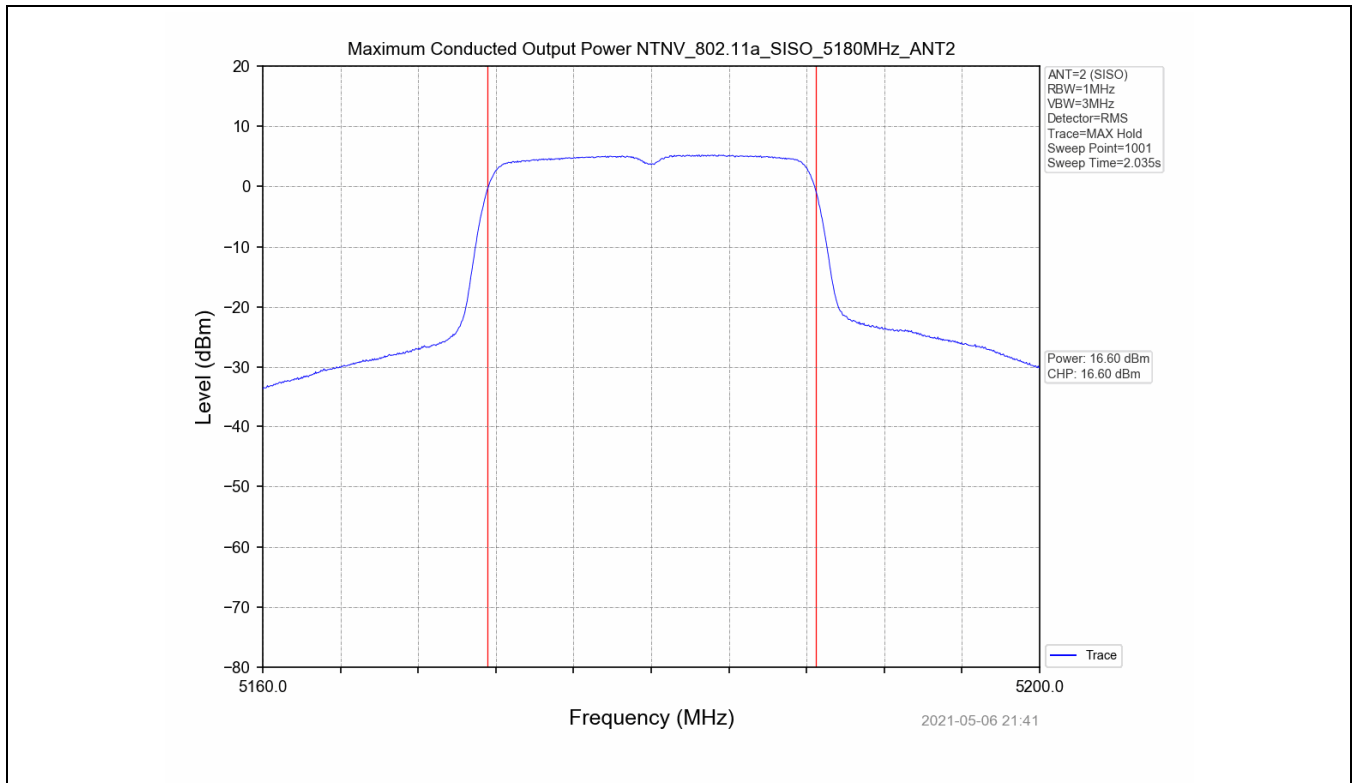
3.1 Test Result

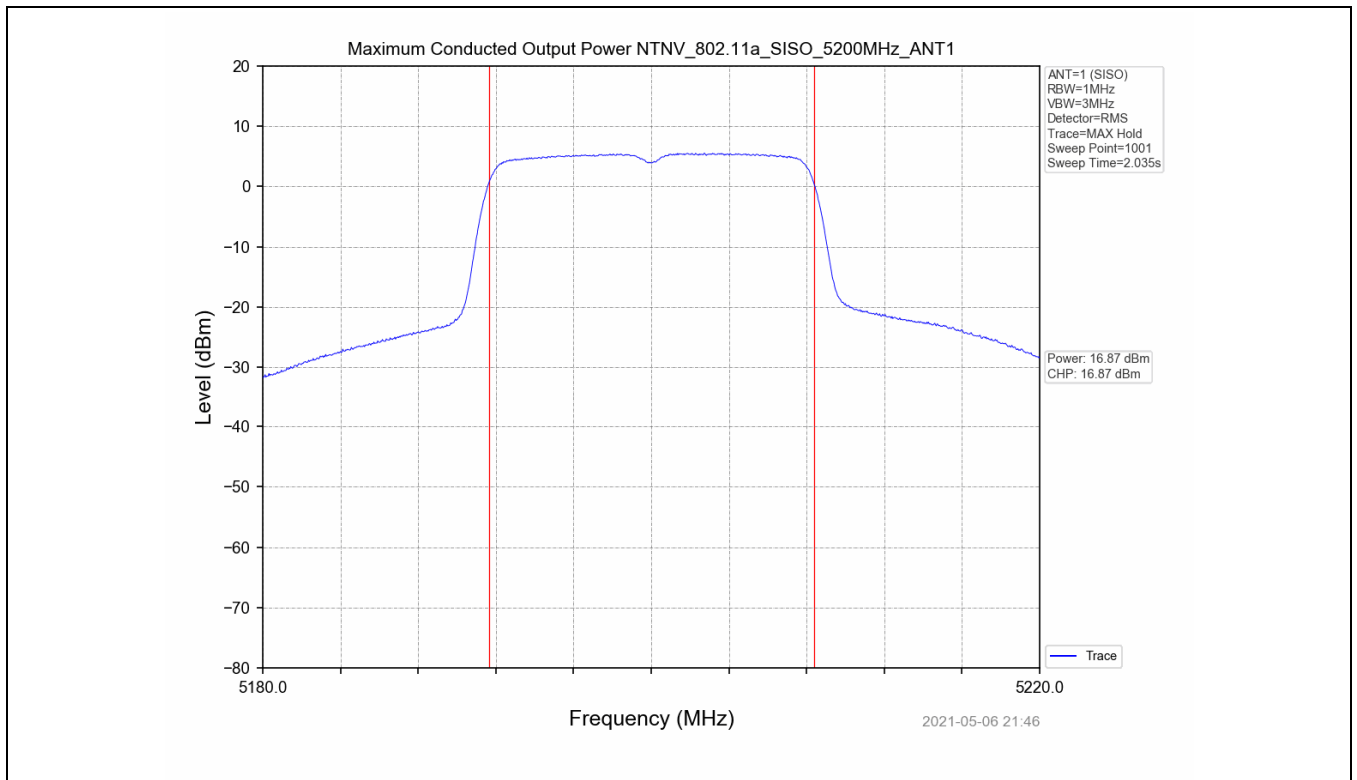
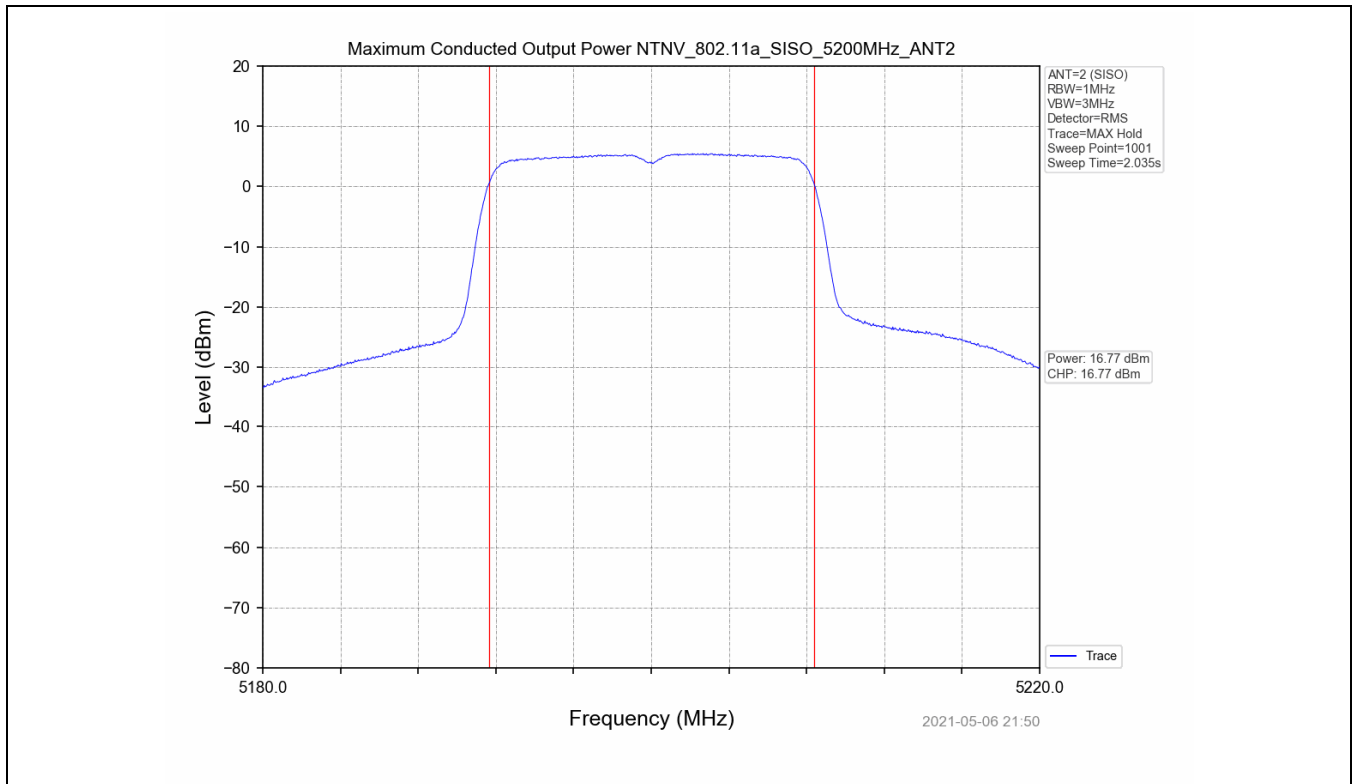
Test Mode	Frequency (MHz)	Tx Type	Measured Output Power (dBm)			Limit (dBm)	Verdict
			Ant 2	Ant 1	Total		
802.11a	5180	SISO	16.60	17.23	/	≤23.98	PASS
	5200	SISO	16.77	16.87	/	≤23.98	PASS
	5240	SISO	16.90	17.01	/	≤23.98	PASS
	5745	SISO	16.87	17.05	/	≤30.00	PASS
	5785	SISO	16.55	17.08	/	≤30.00	PASS
	5825	SISO	17.10	16.93	/	≤30.00	PASS
802.11n(HT20)	5180	MIMO	15.54	15.41	18.49	≤23.97	PASS
	5200	MIMO	16.32	16.09	19.22	≤23.97	PASS
	5240	MIMO	15.78	16.44	19.13	≤23.97	PASS
	5745	MIMO	15.57	16.23	18.92	≤29.99	PASS
	5785	MIMO	15.86	15.98	18.93	≤29.99	PASS
	5825	MIMO	16.49	16.29	19.40	≤29.99	PASS
802.11n(HT40)	5190	MIMO	15.44	15.14	18.30	≤23.97	PASS
	5230	MIMO	16.23	15.77	19.02	≤23.97	PASS
	5755	MIMO	15.76	15.65	18.72	≤29.99	PASS
	5795	MIMO	16.09	16.16	19.14	≤29.99	PASS
802.11ac(VHT20)	5180	MIMO	15.78	15.43	18.62	≤23.97	PASS
	5200	MIMO	15.85	16.16	19.02	≤23.97	PASS
	5240	MIMO	15.98	16.35	19.18	≤23.97	PASS
	5745	MIMO	15.60	16.28	18.96	≤29.99	PASS
	5785	MIMO	15.51	16.09	18.82	≤29.99	PASS
	5825	MIMO	16.21	16.11	19.17	≤29.99	PASS
802.11ac(VHT40)	5190	MIMO	15.77	15.61	18.70	≤23.97	PASS
	5230	MIMO	16.18	15.72	18.97	≤23.97	PASS
	5755	MIMO	15.52	15.64	18.59	≤29.99	PASS
	5795	MIMO	15.85	16.02	18.95	≤29.99	PASS
802.11ac(VHT80)	5210	MIMO	15.14	14.93	18.05	≤23.97	PASS
	5775	MIMO	15.94	16.07	19.02	≤29.99	PASS

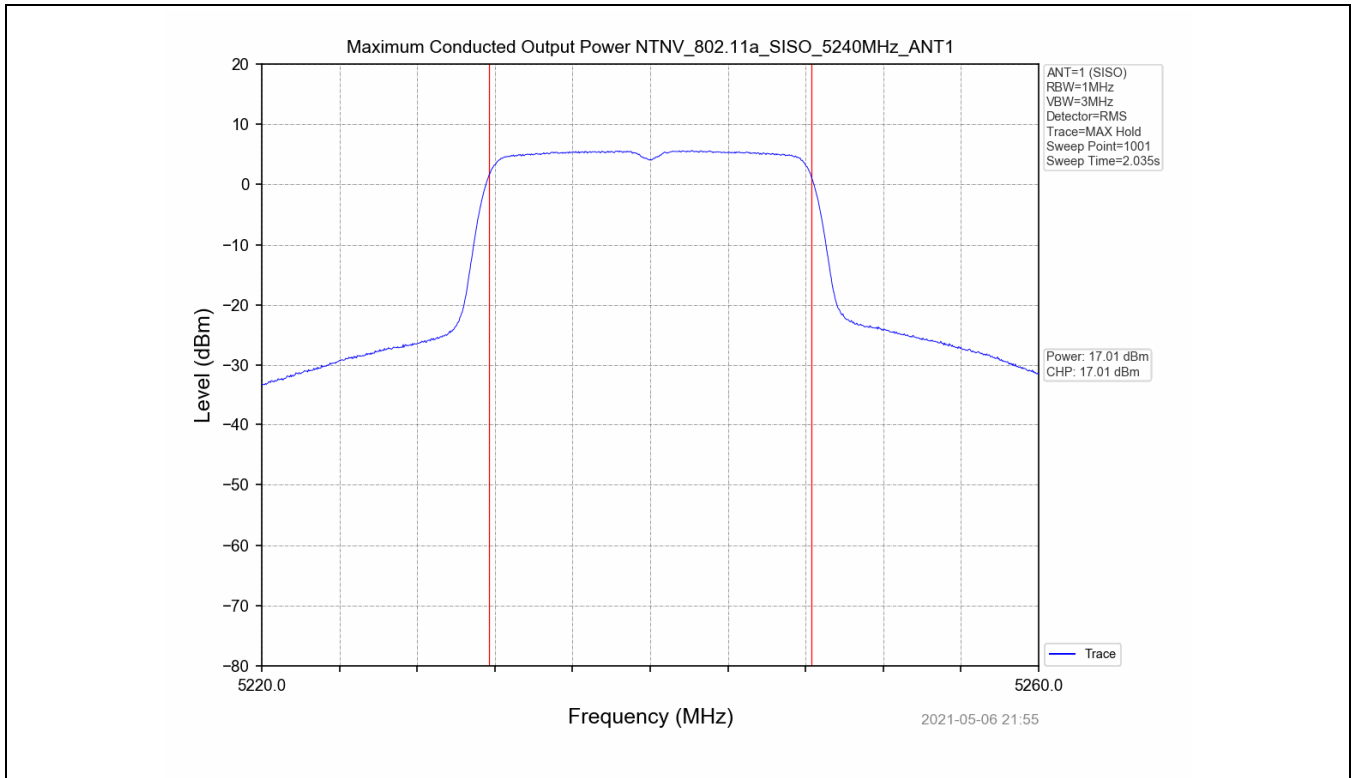
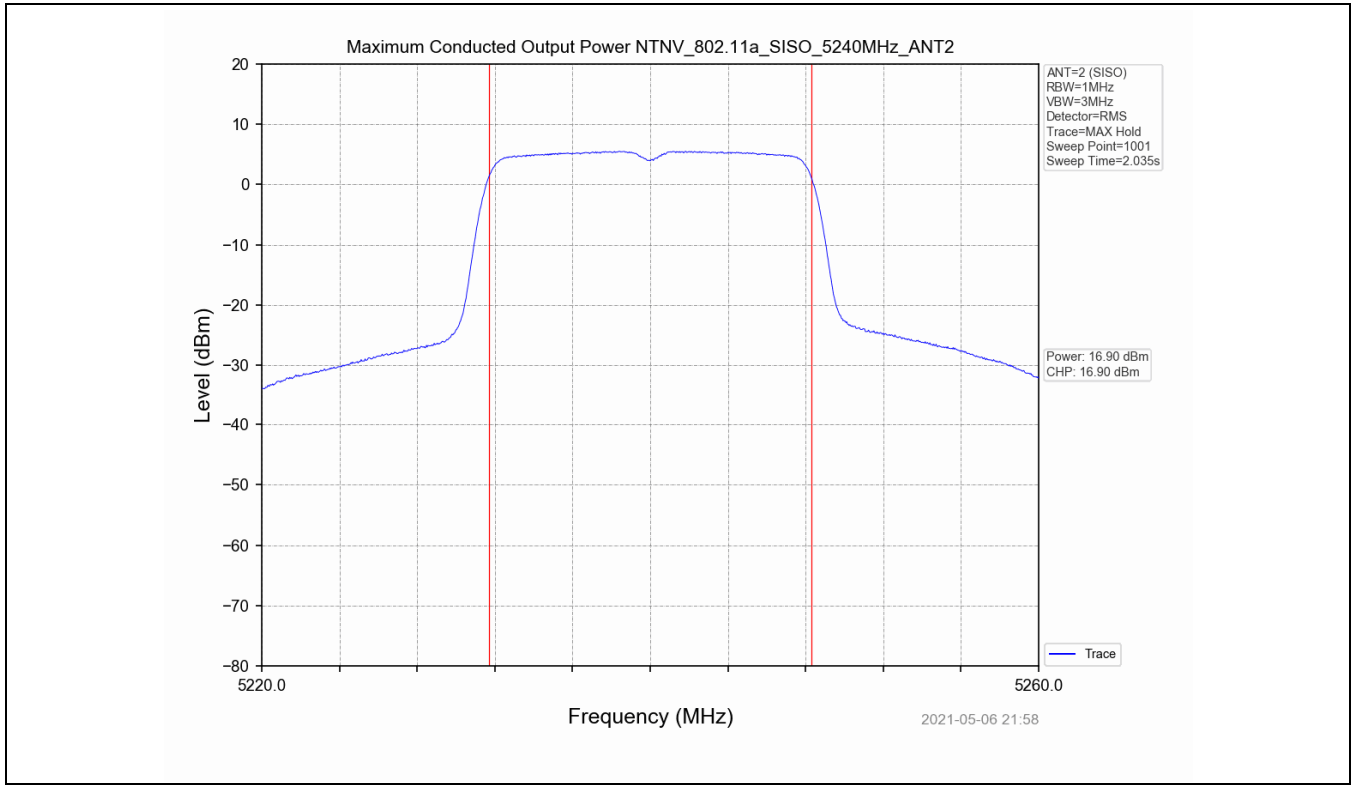
Remark: Directional gain = $G_{ANT} + 10 \cdot \log(N_{ANT}/N_{SS}) = 3 + 10 \cdot \log(2/1) = 6.01\text{dBi}$.

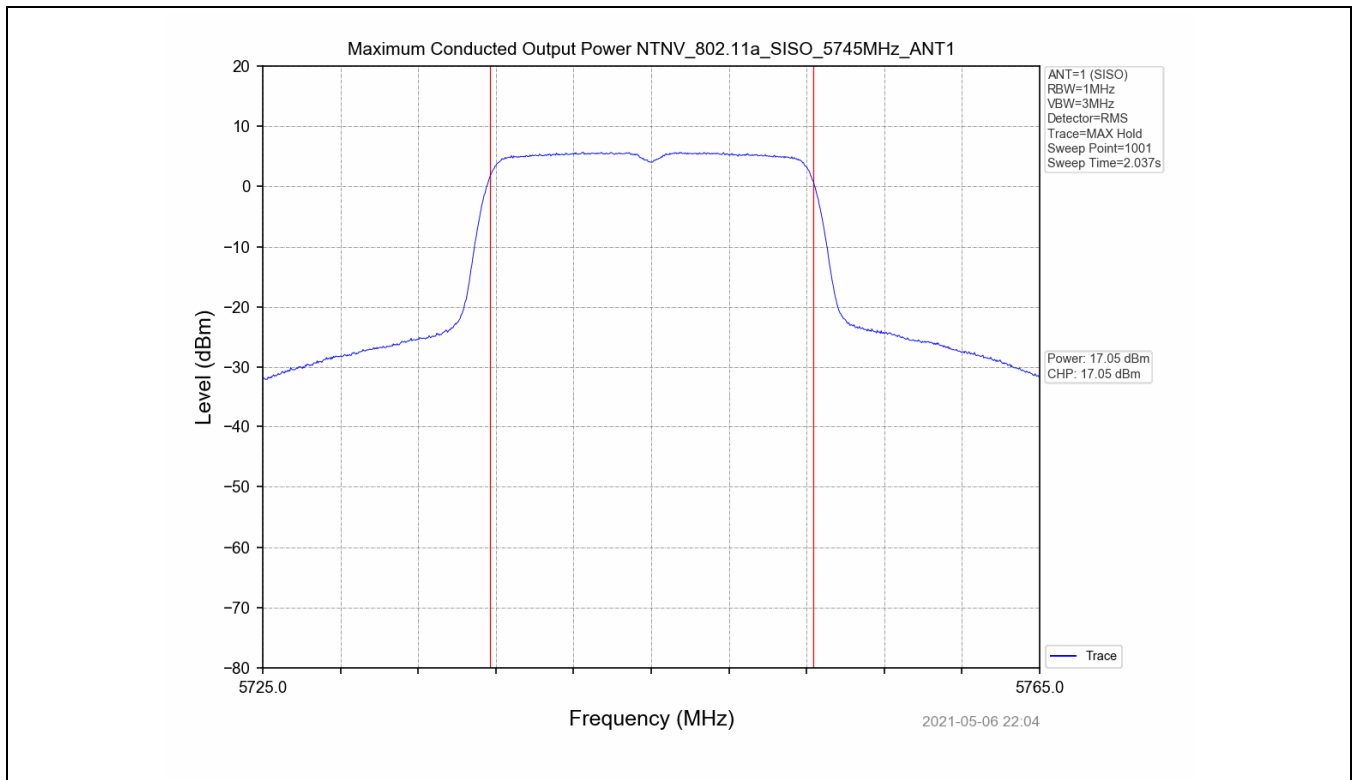
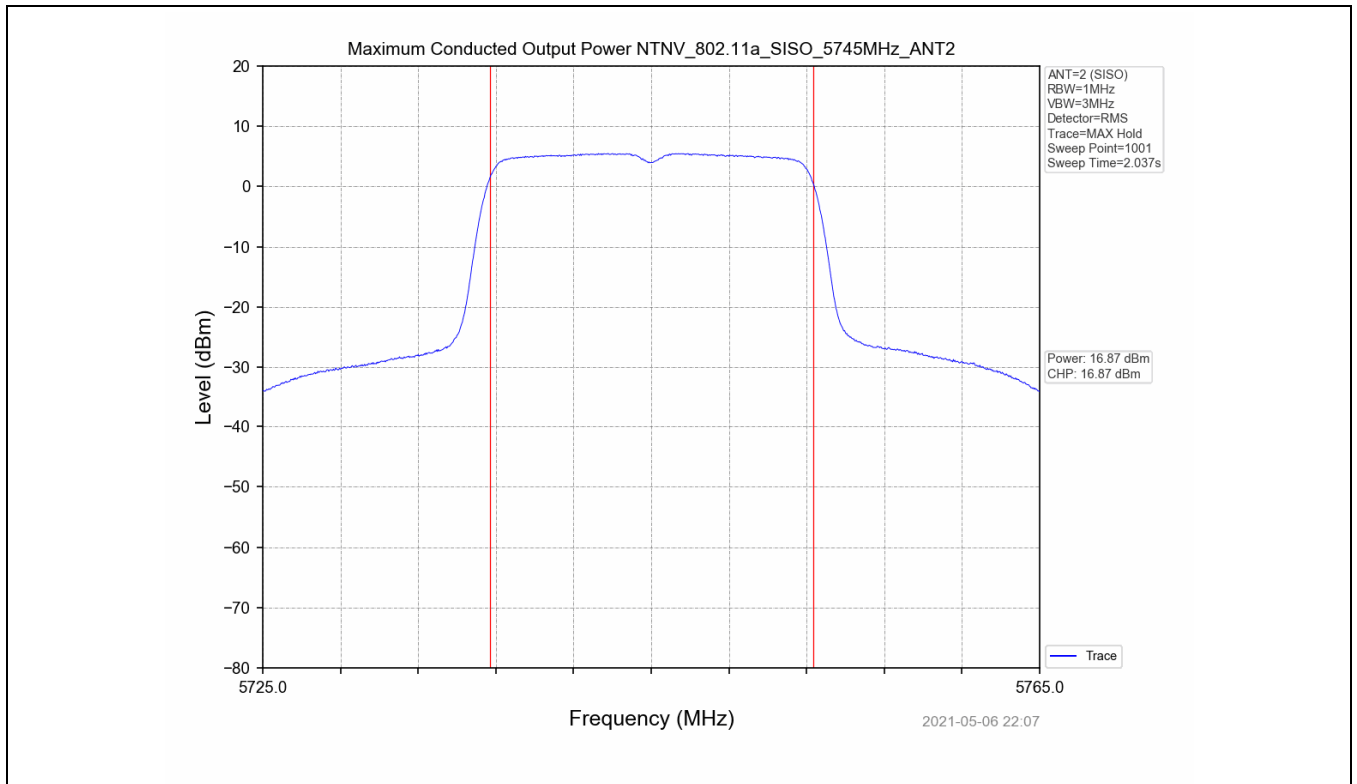
So, the limit of UNII Band I is 23.97dBm; the limit of UNII Band III is 29.99dBm

3.2 Test Graph



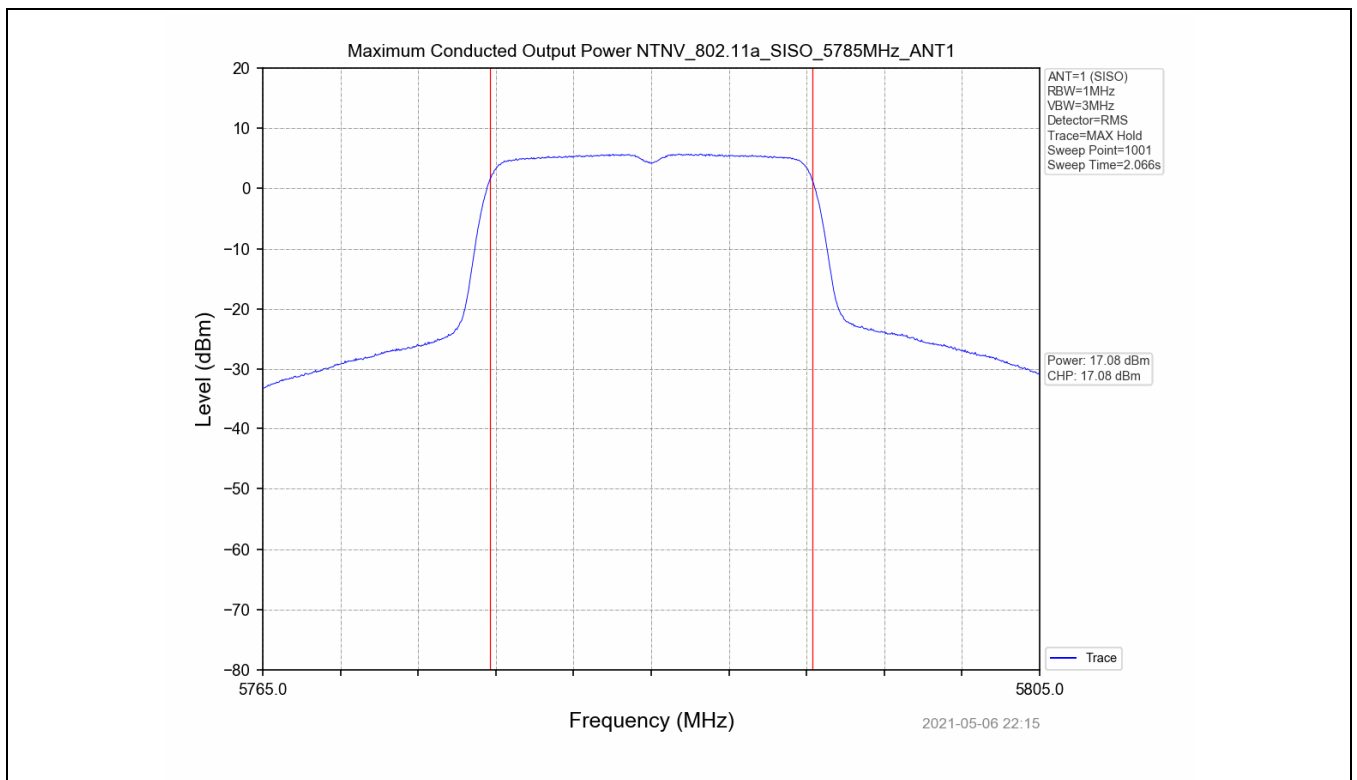
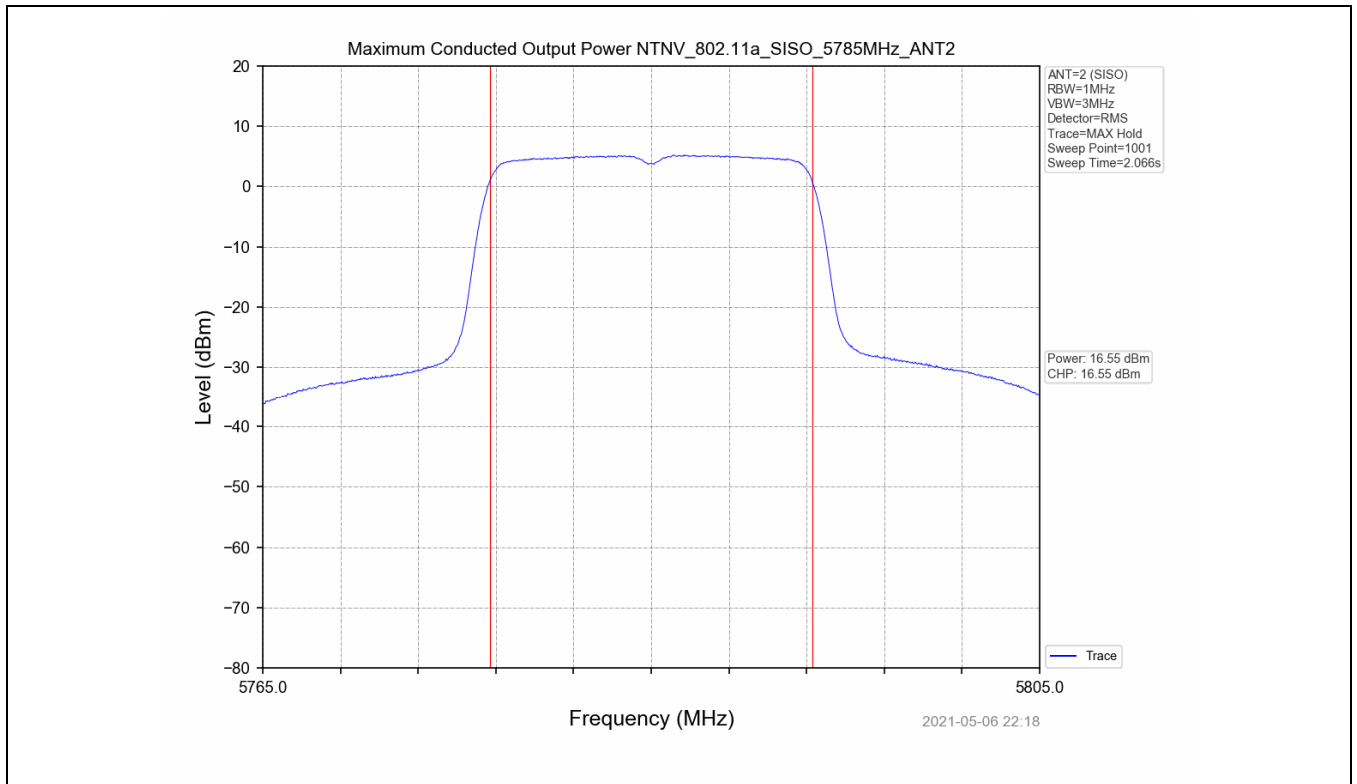






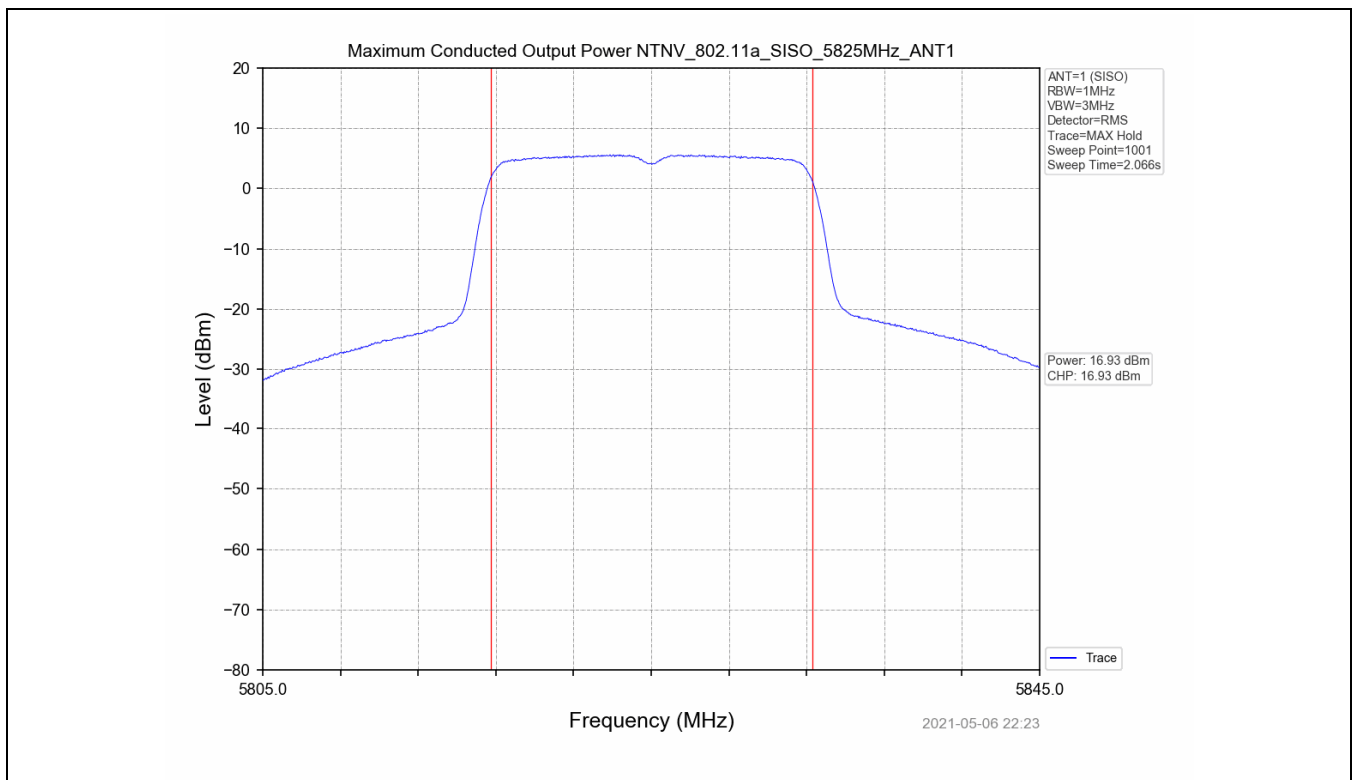
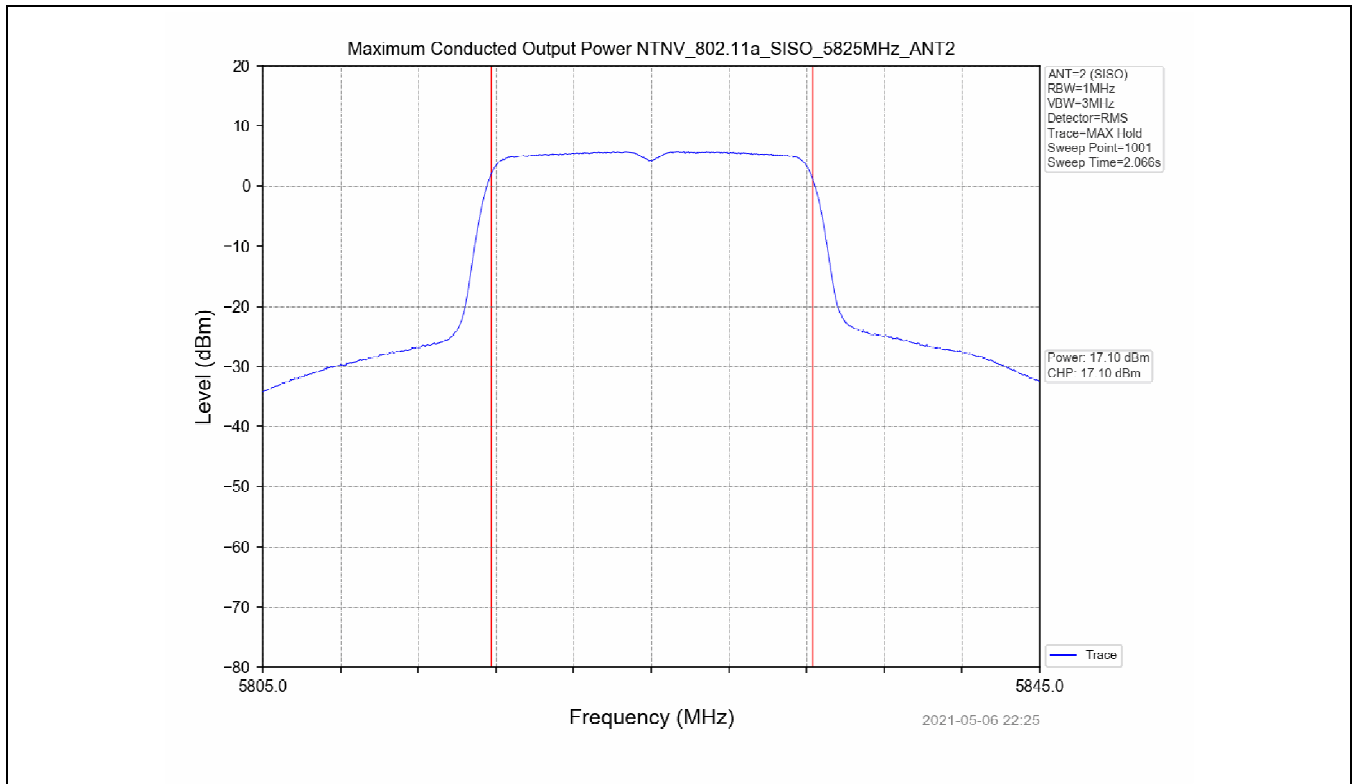
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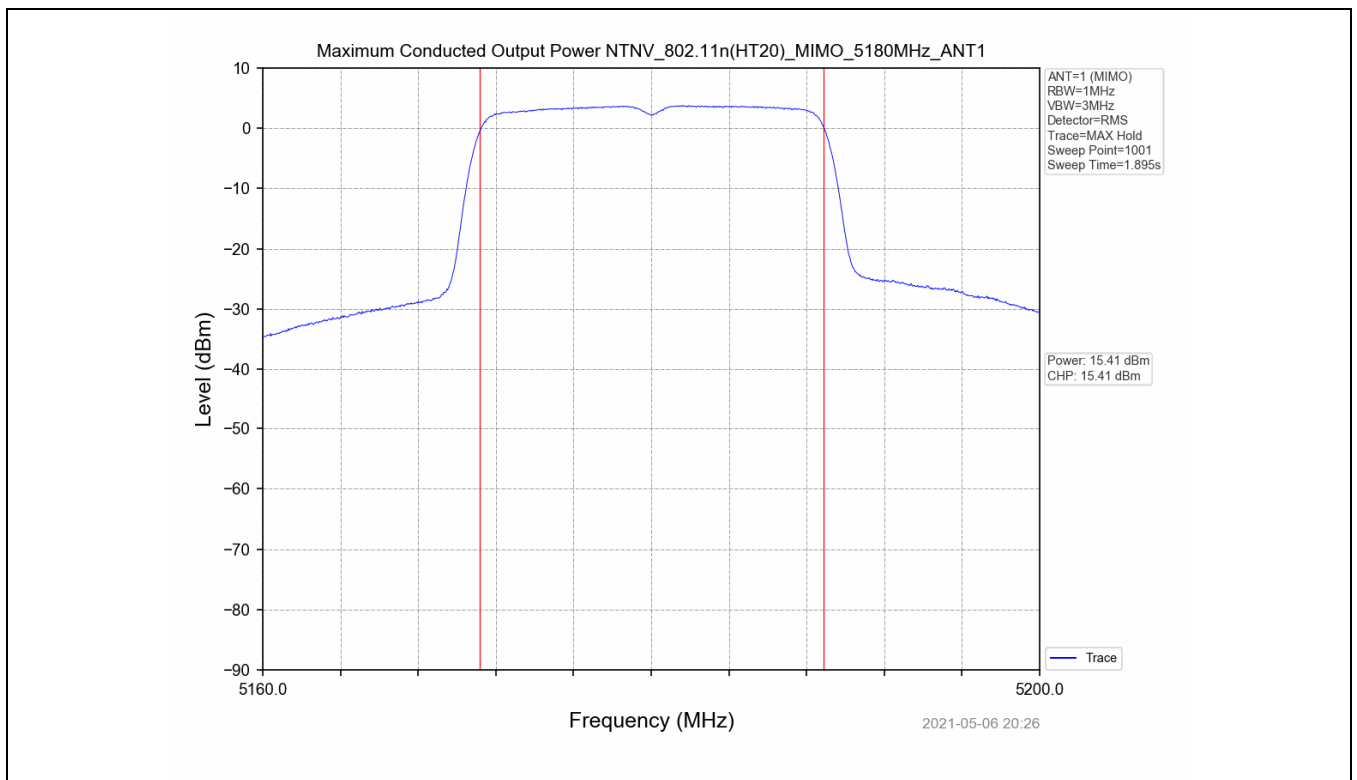
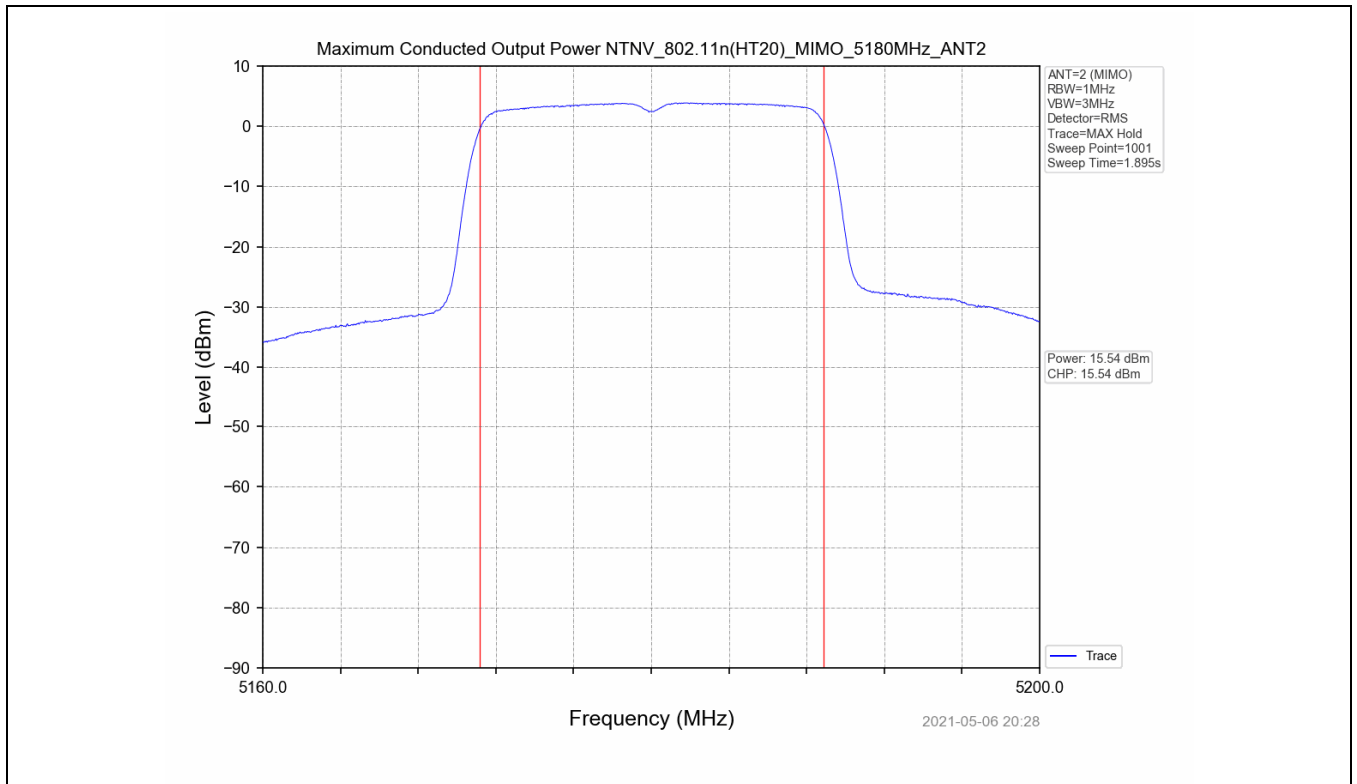
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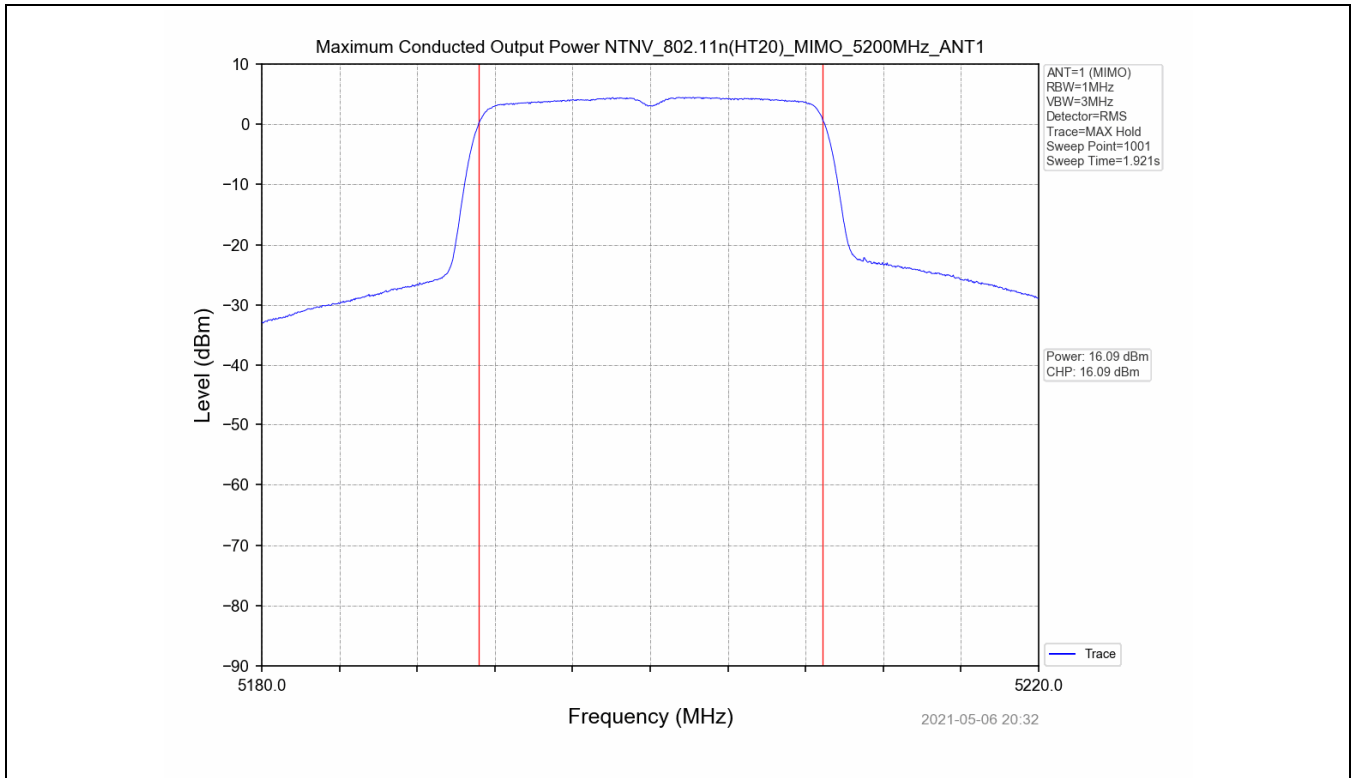
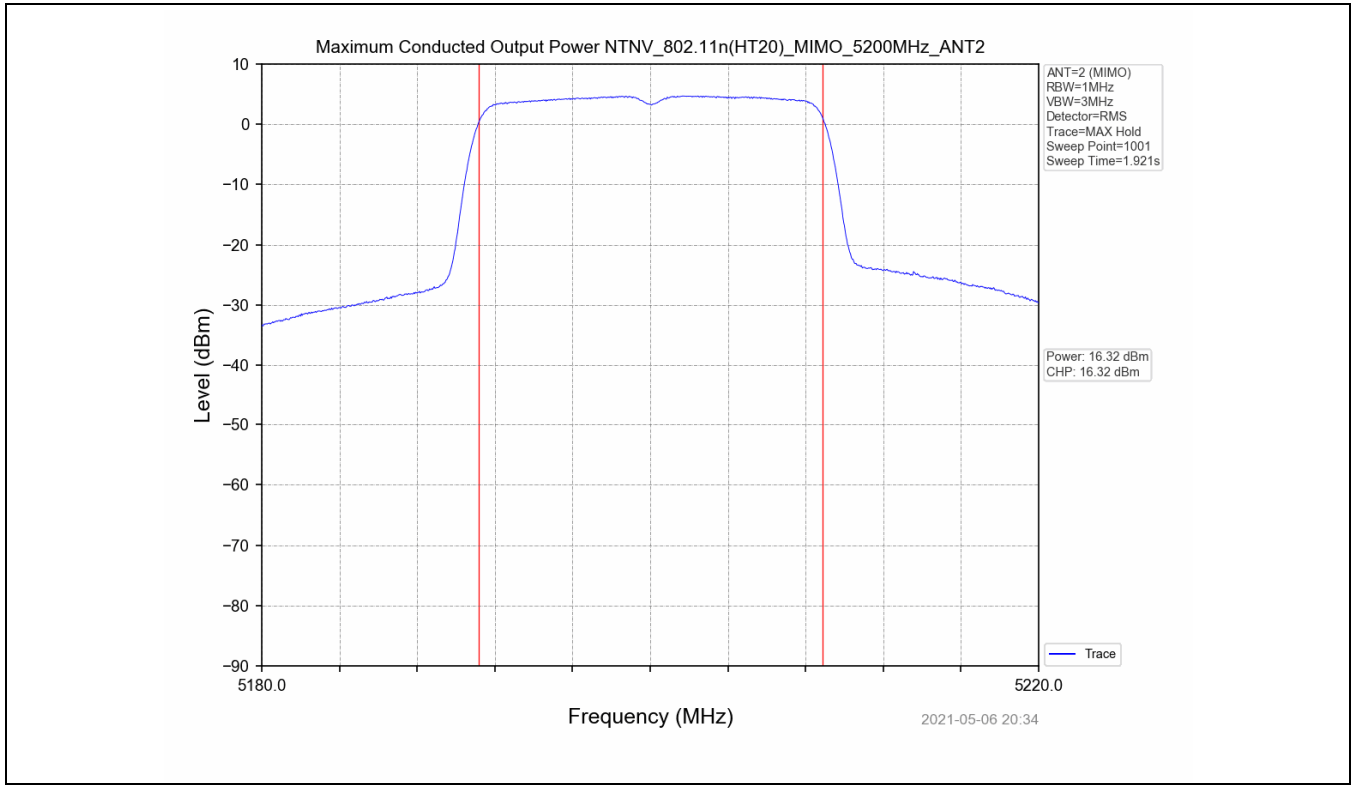
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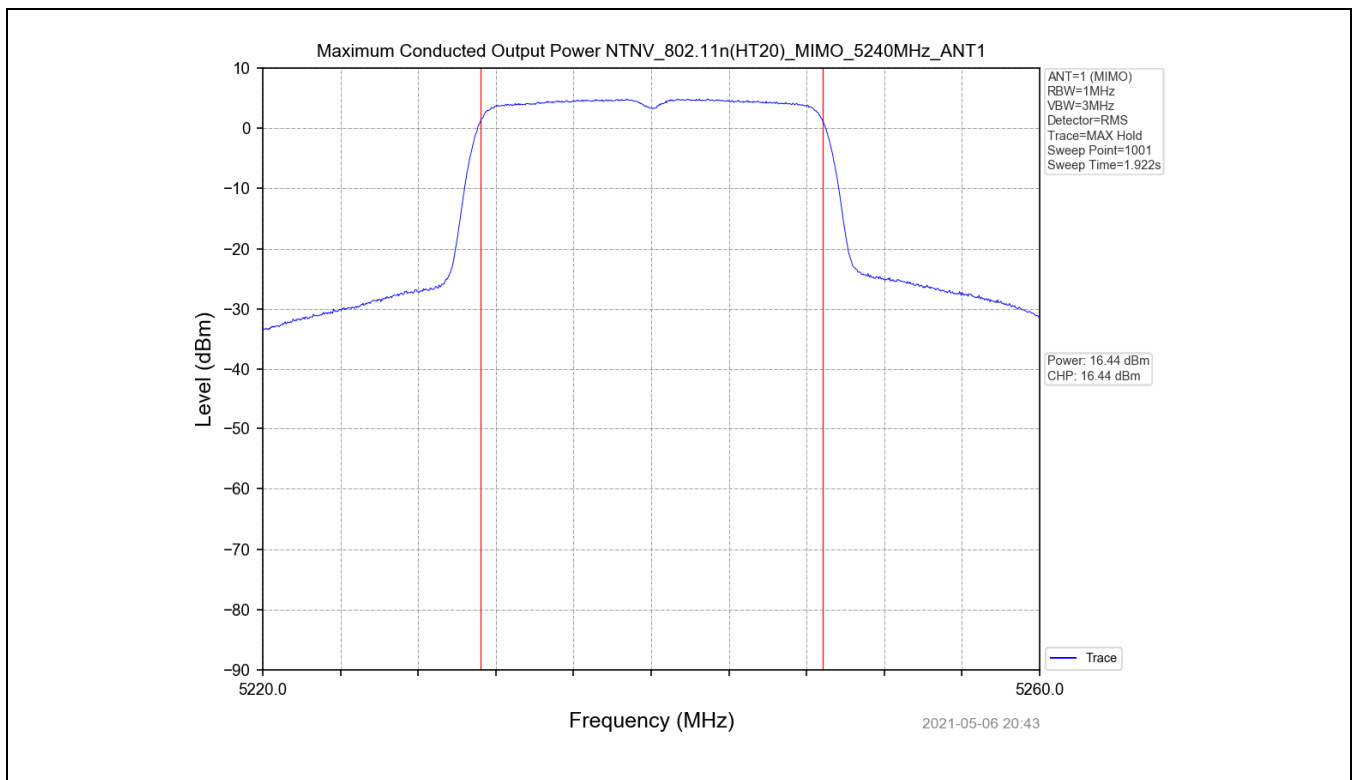
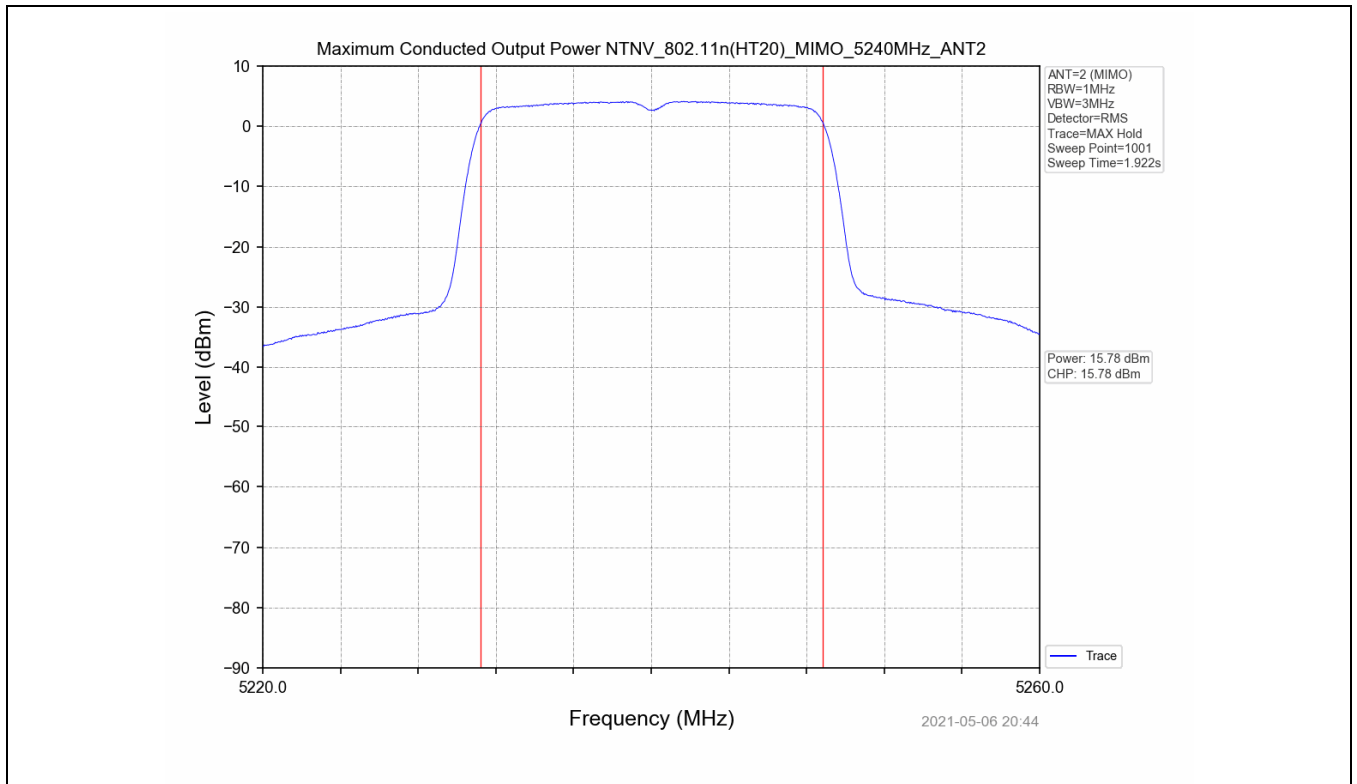
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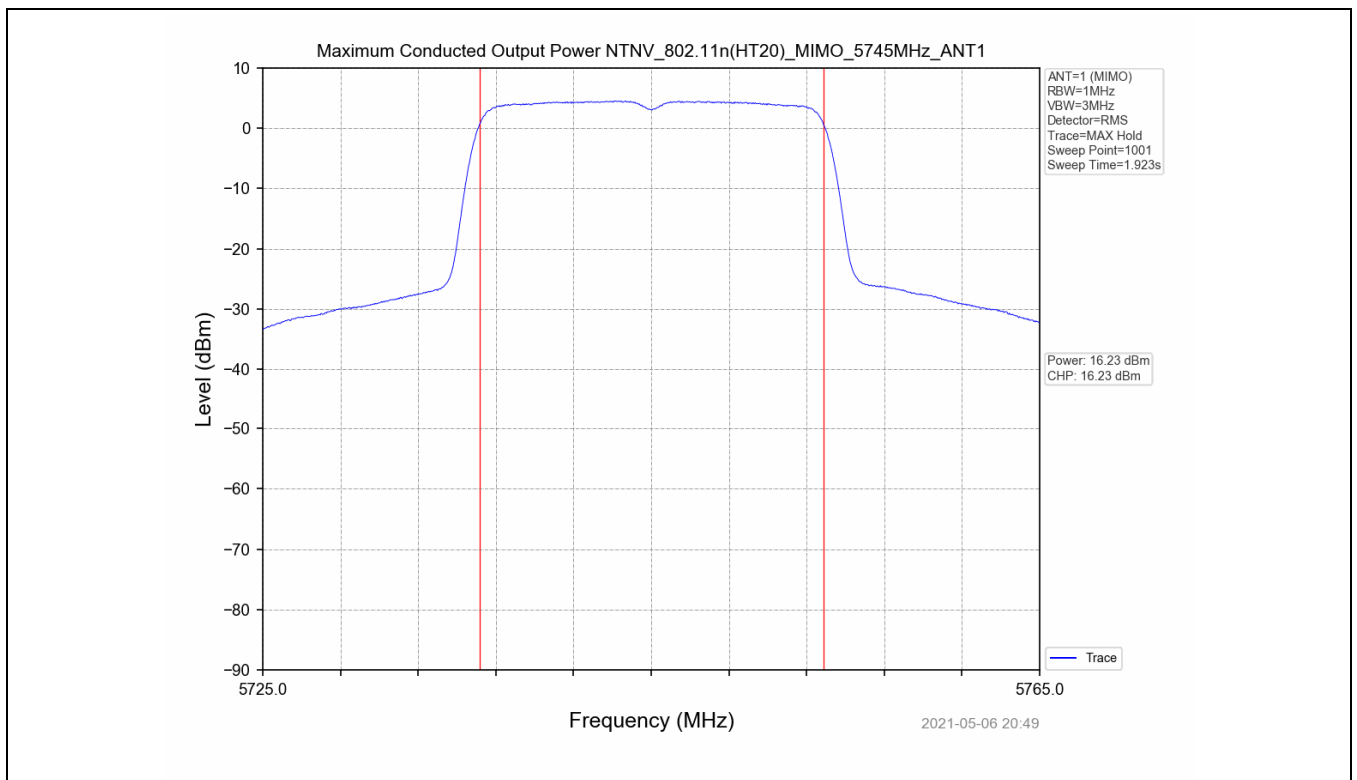
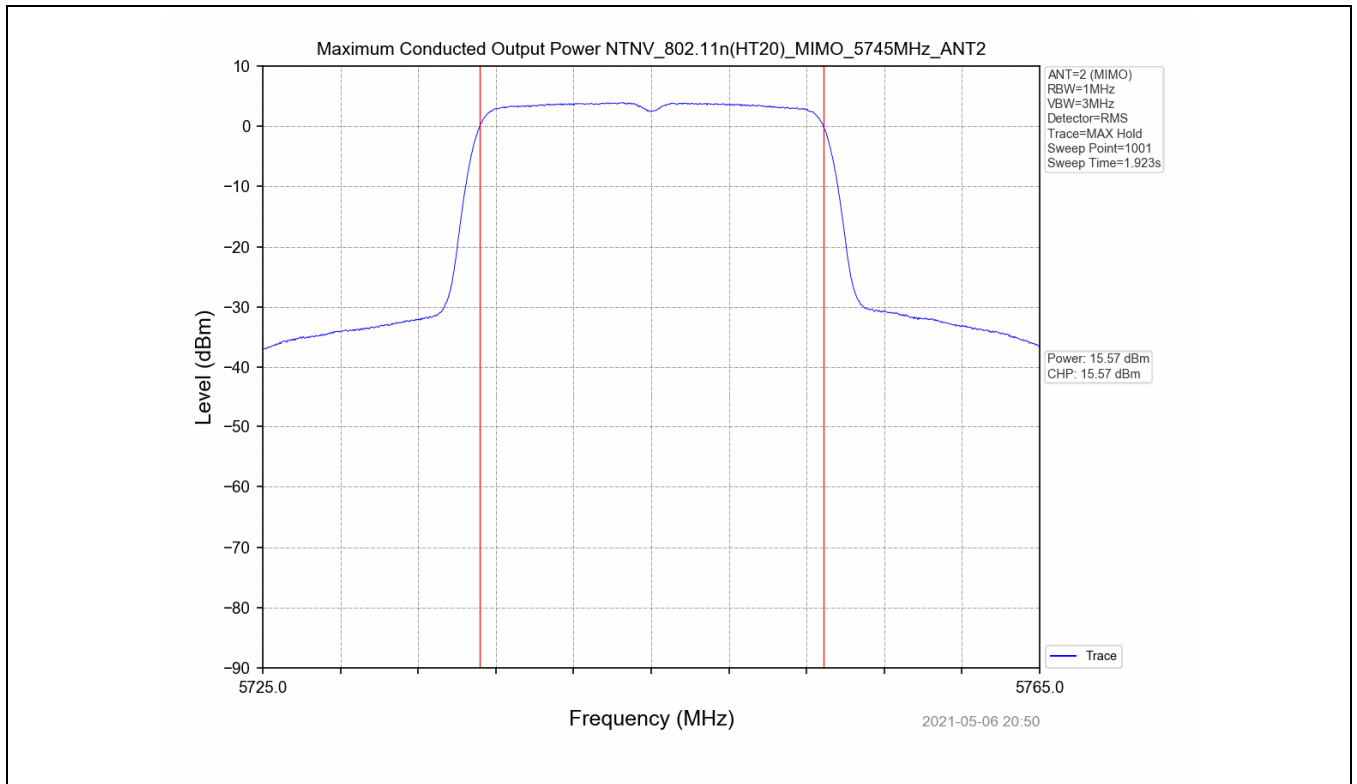
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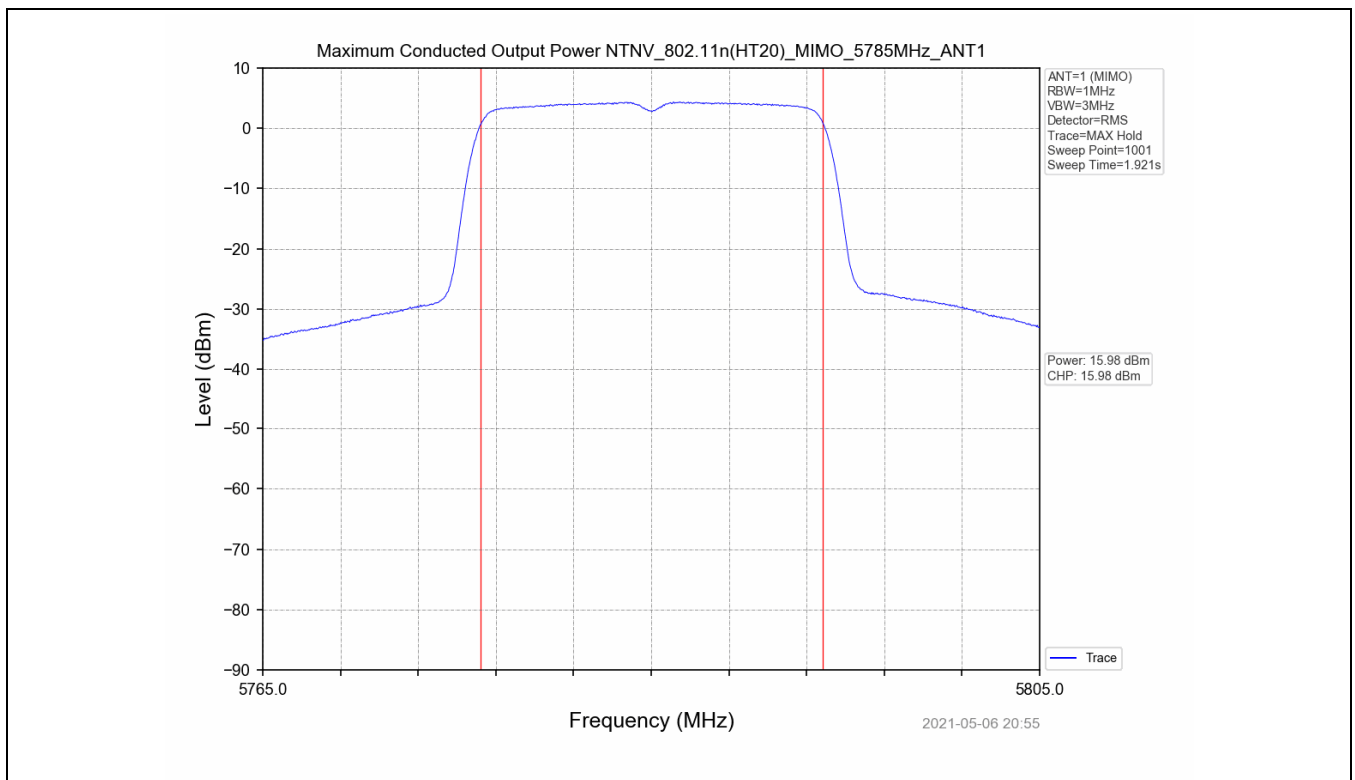
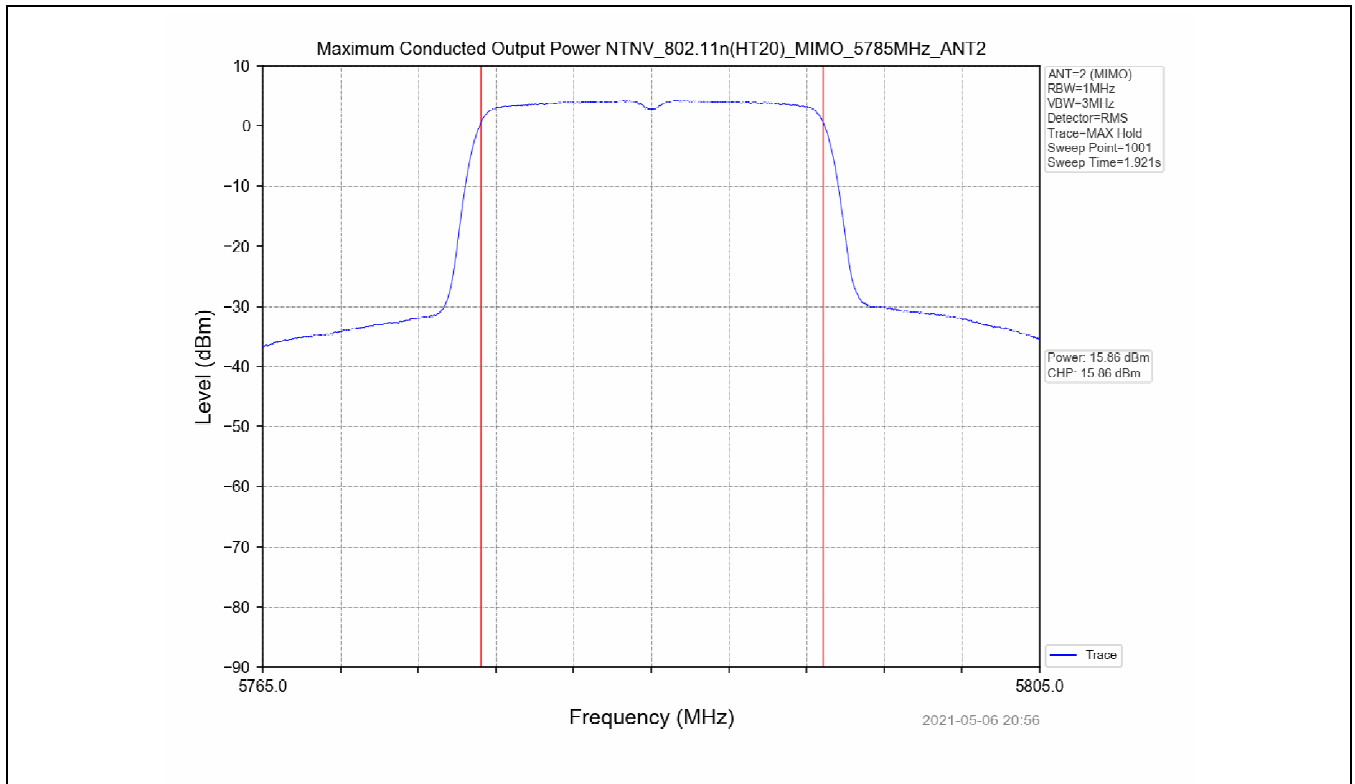


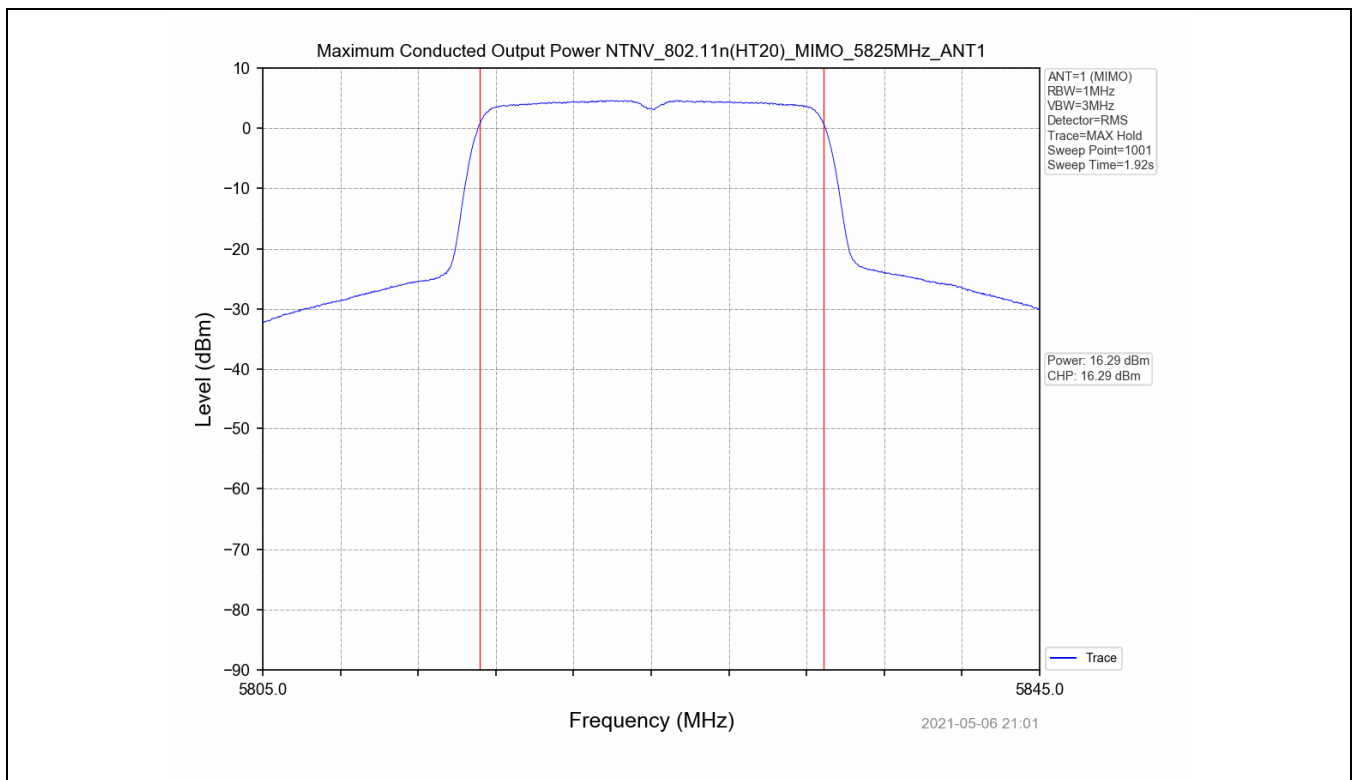
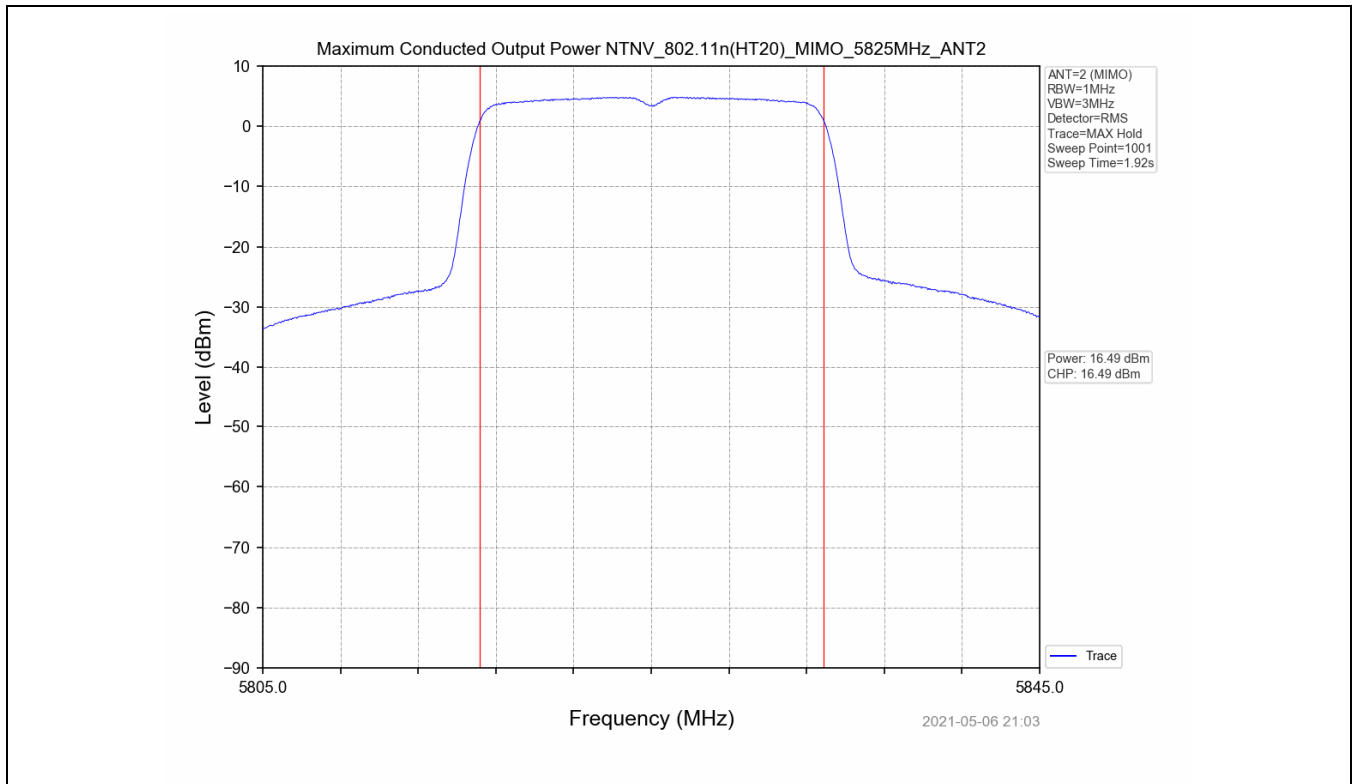


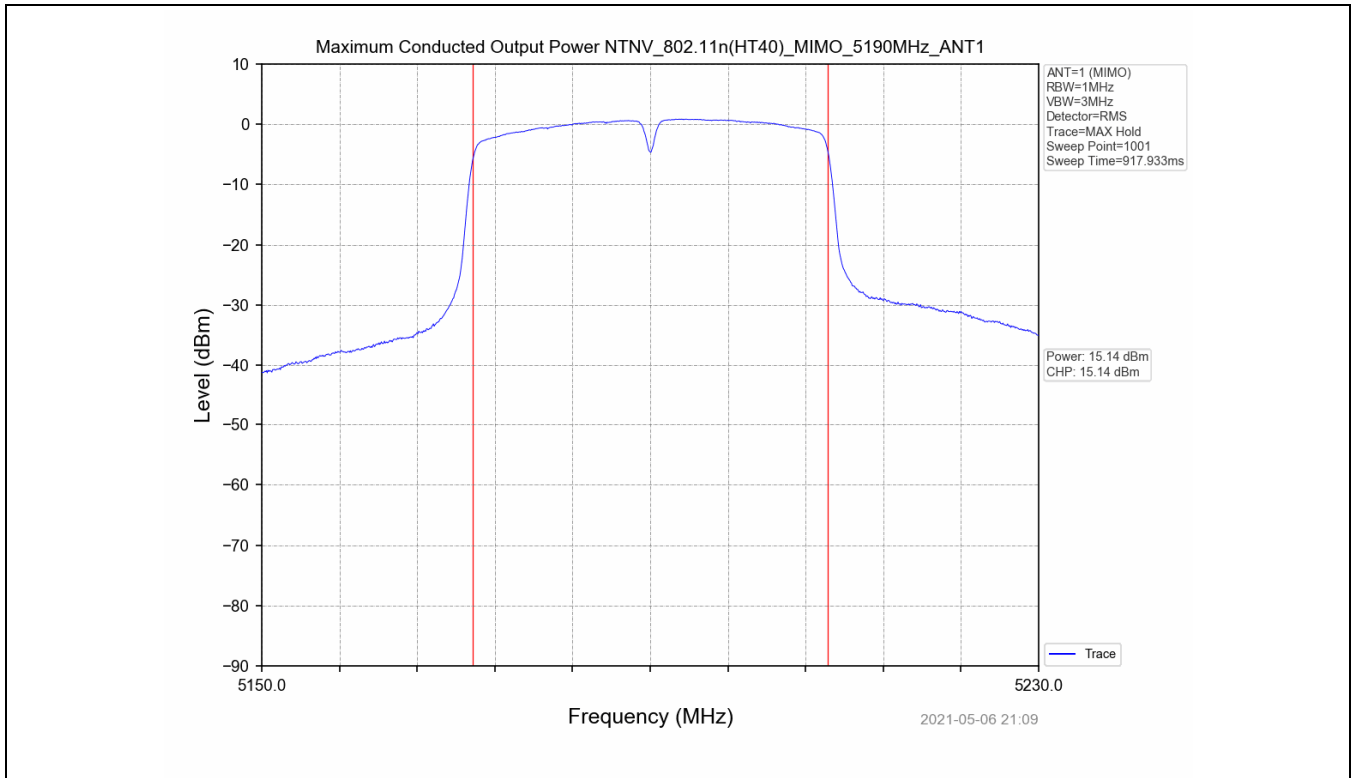
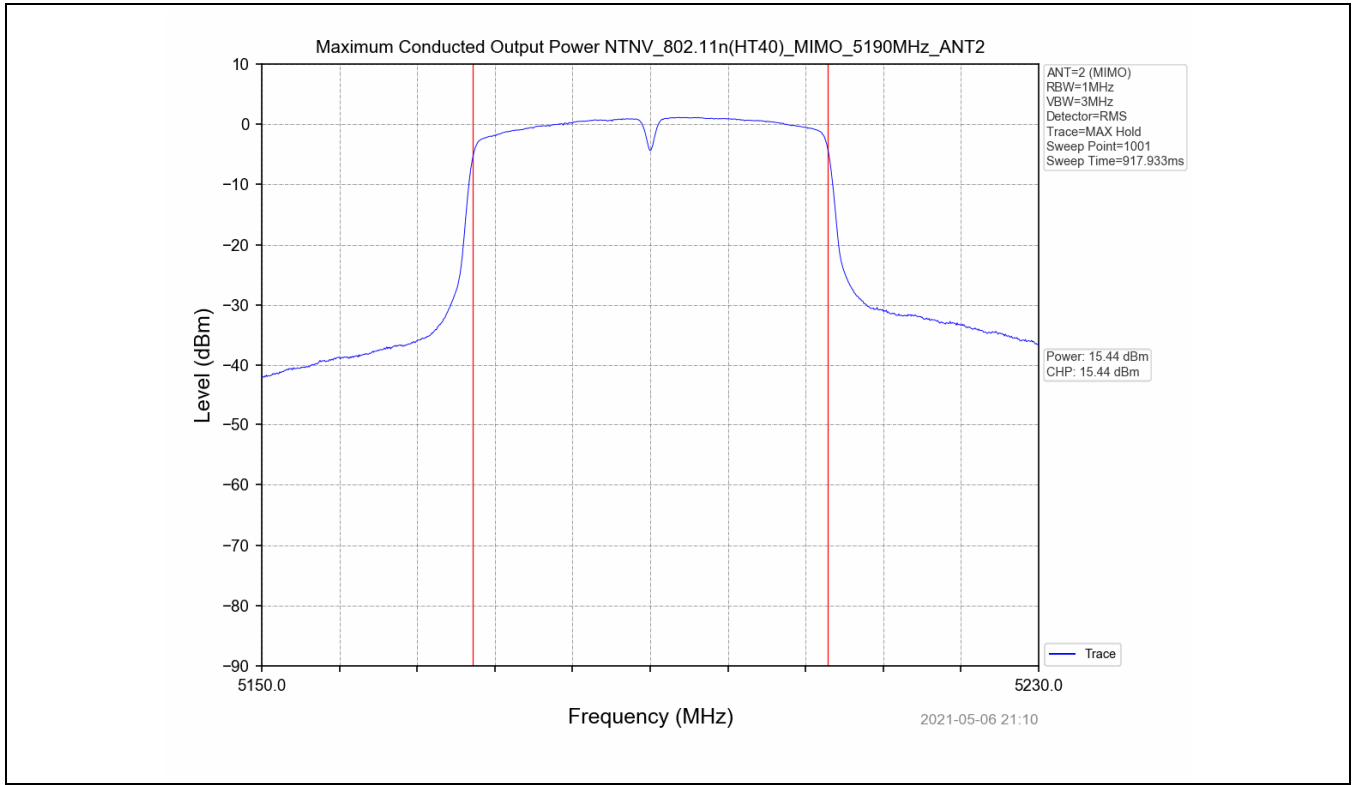
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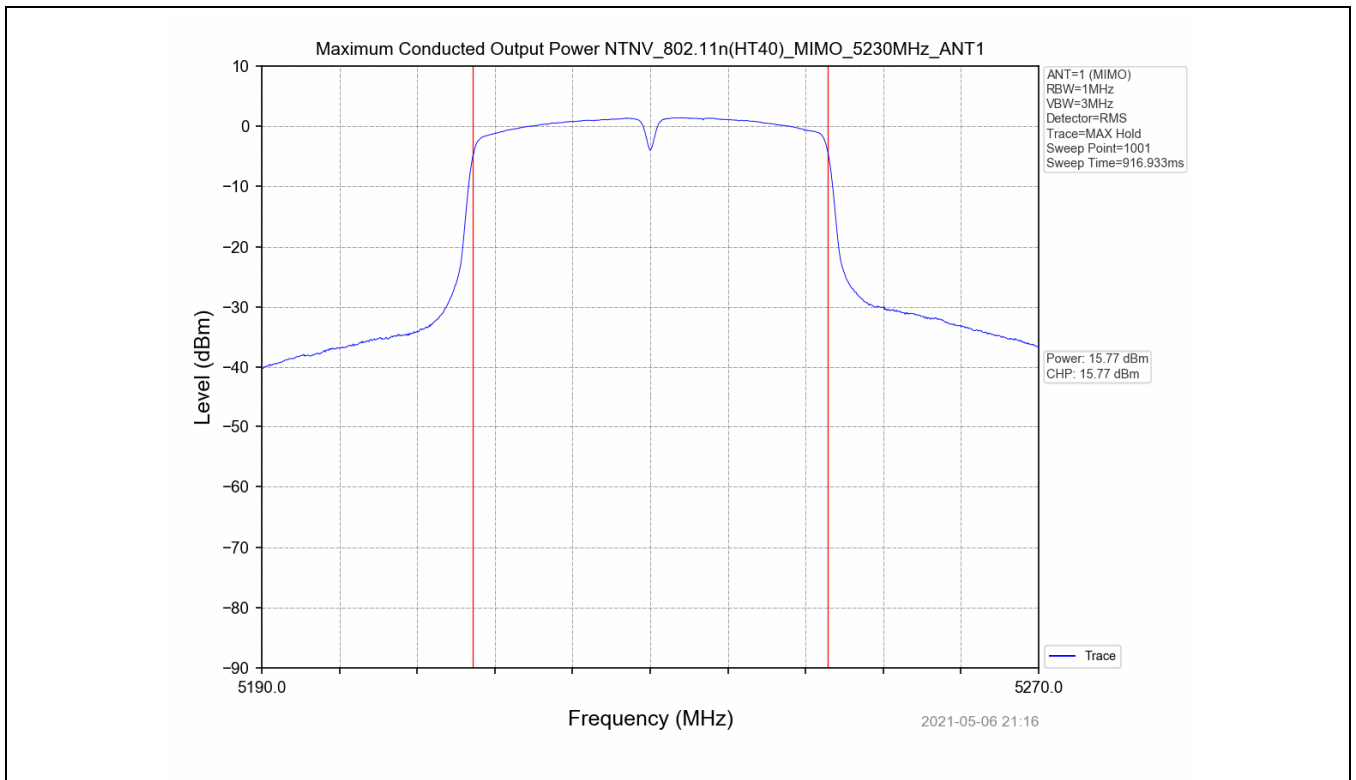
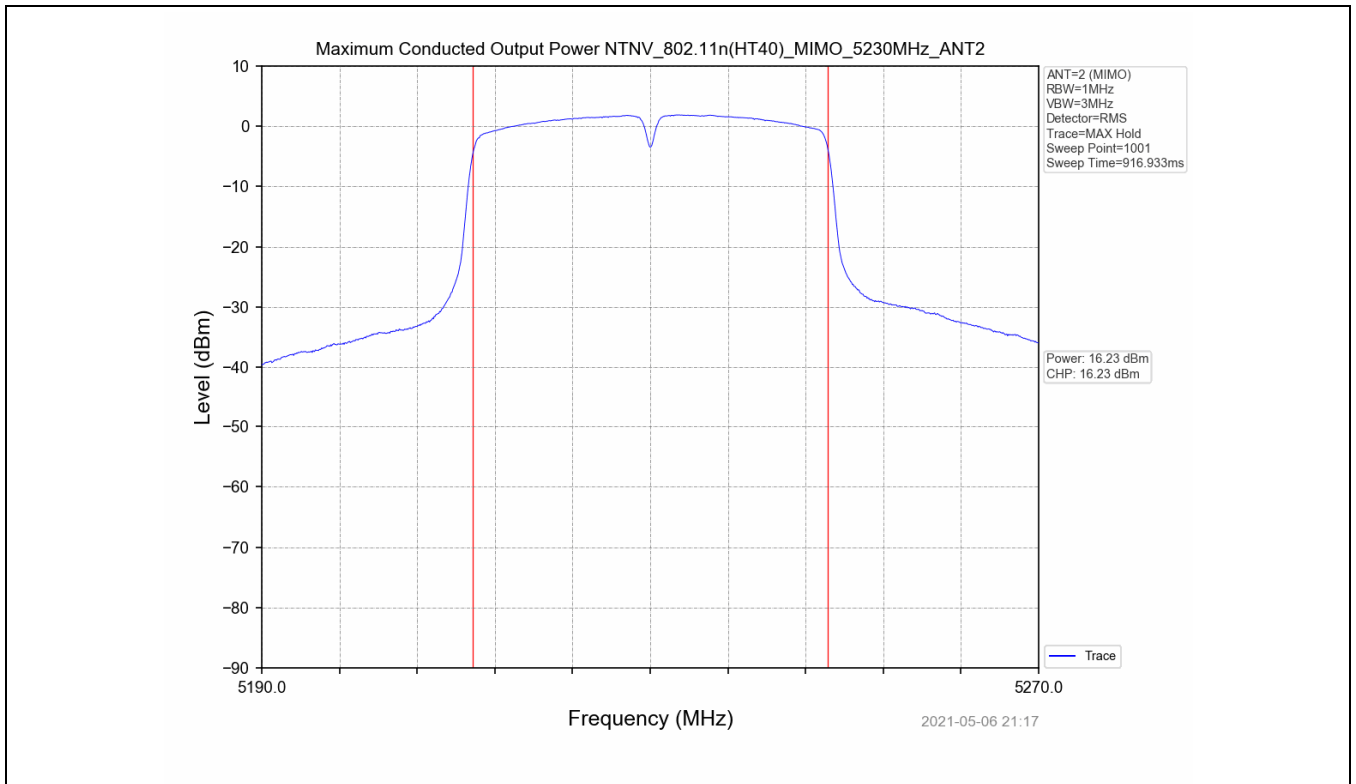
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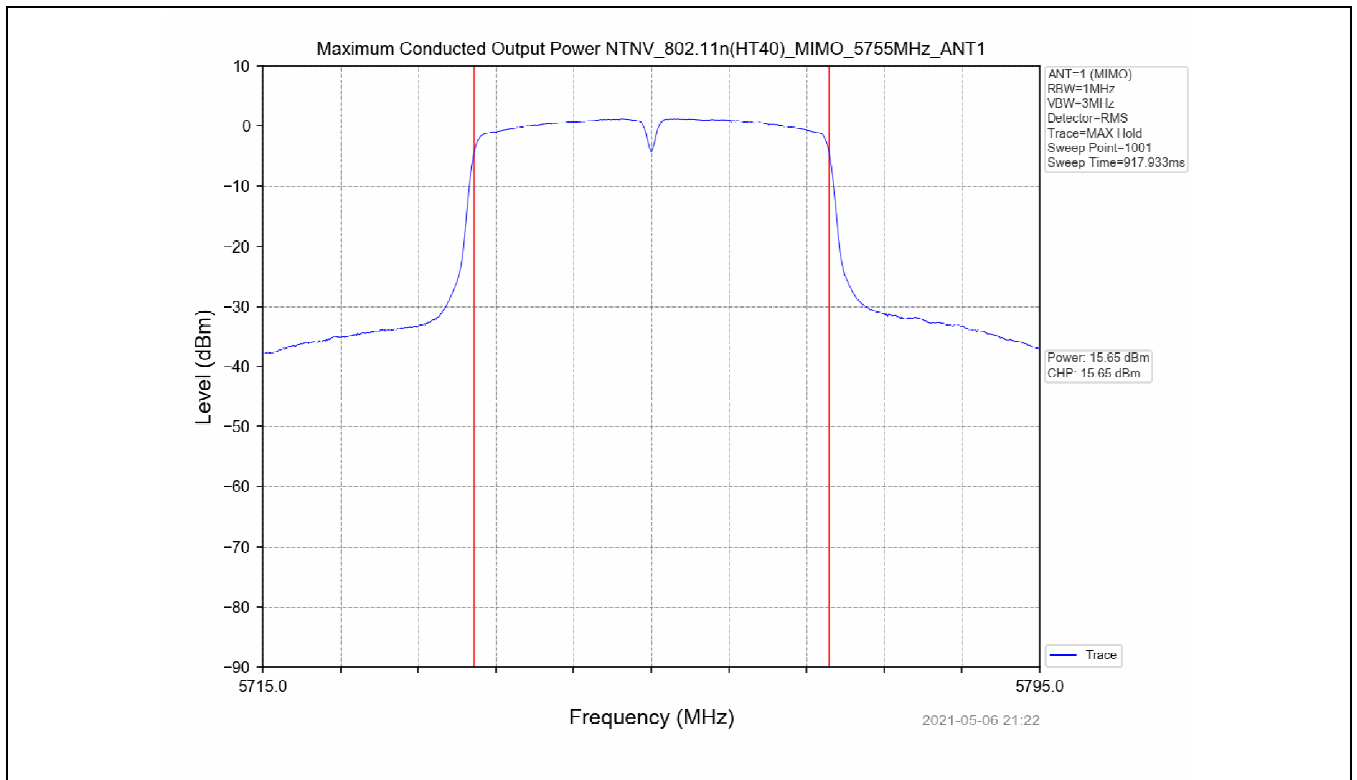
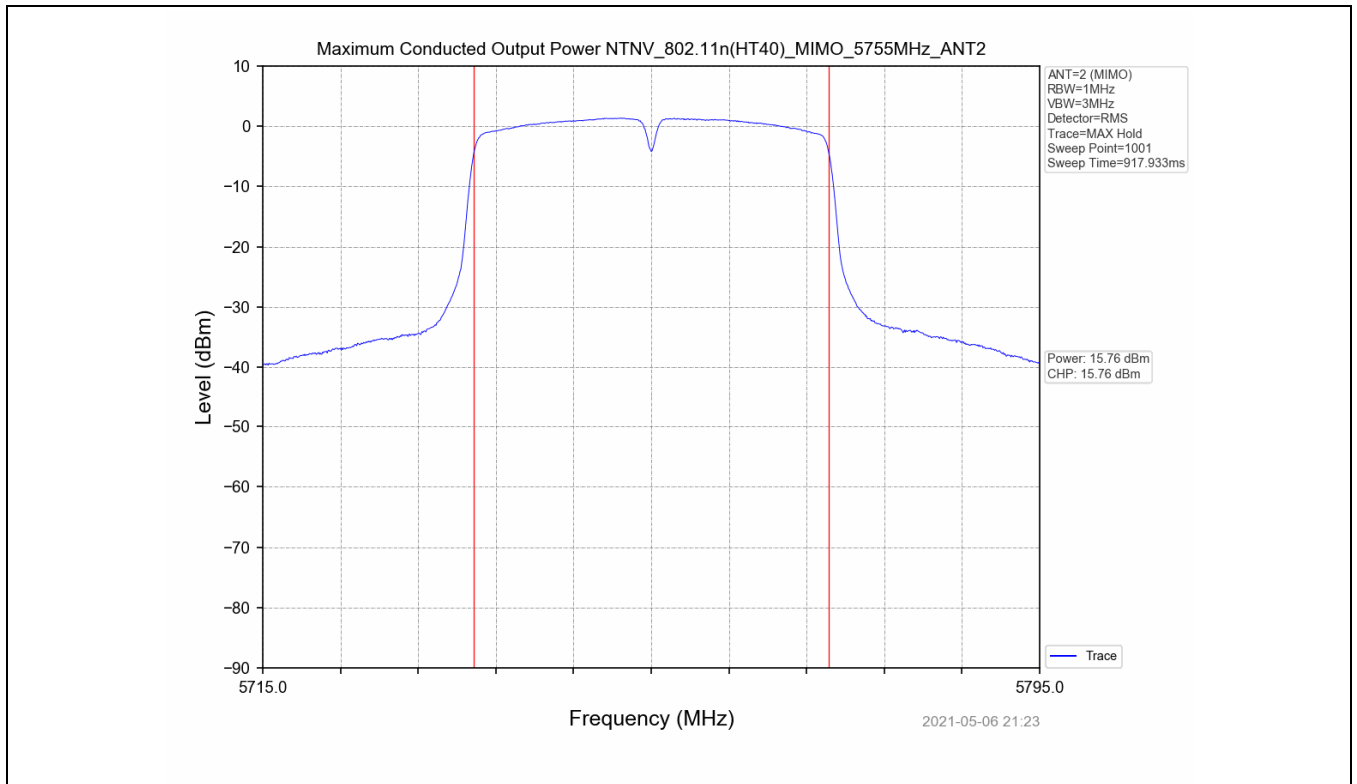


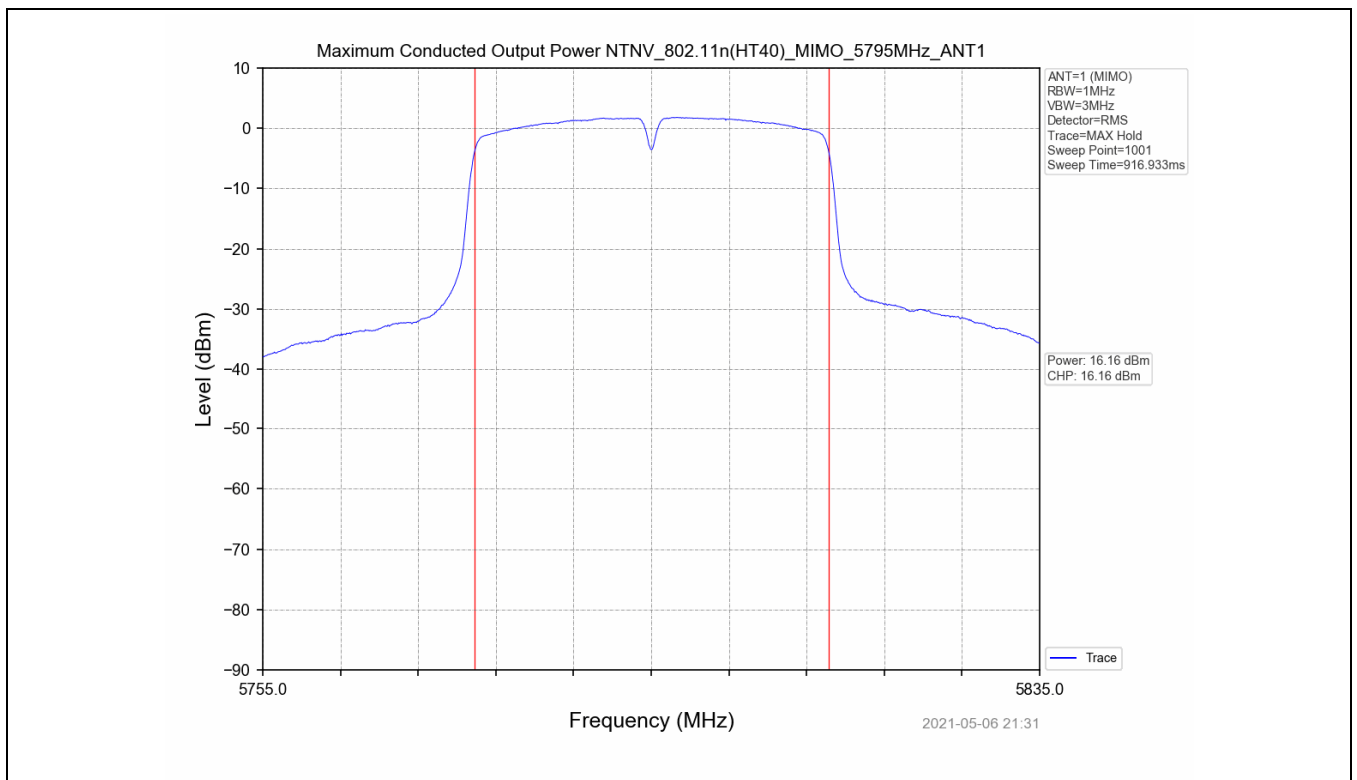
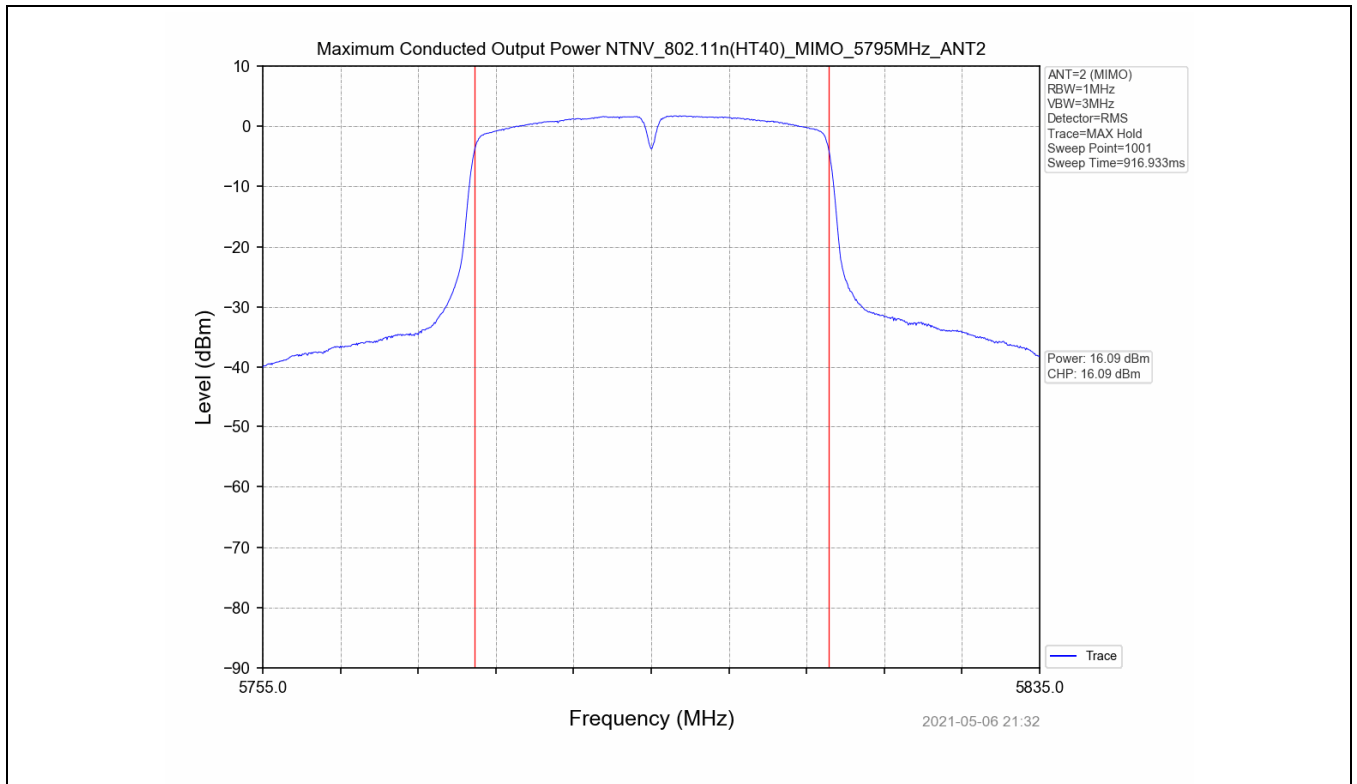






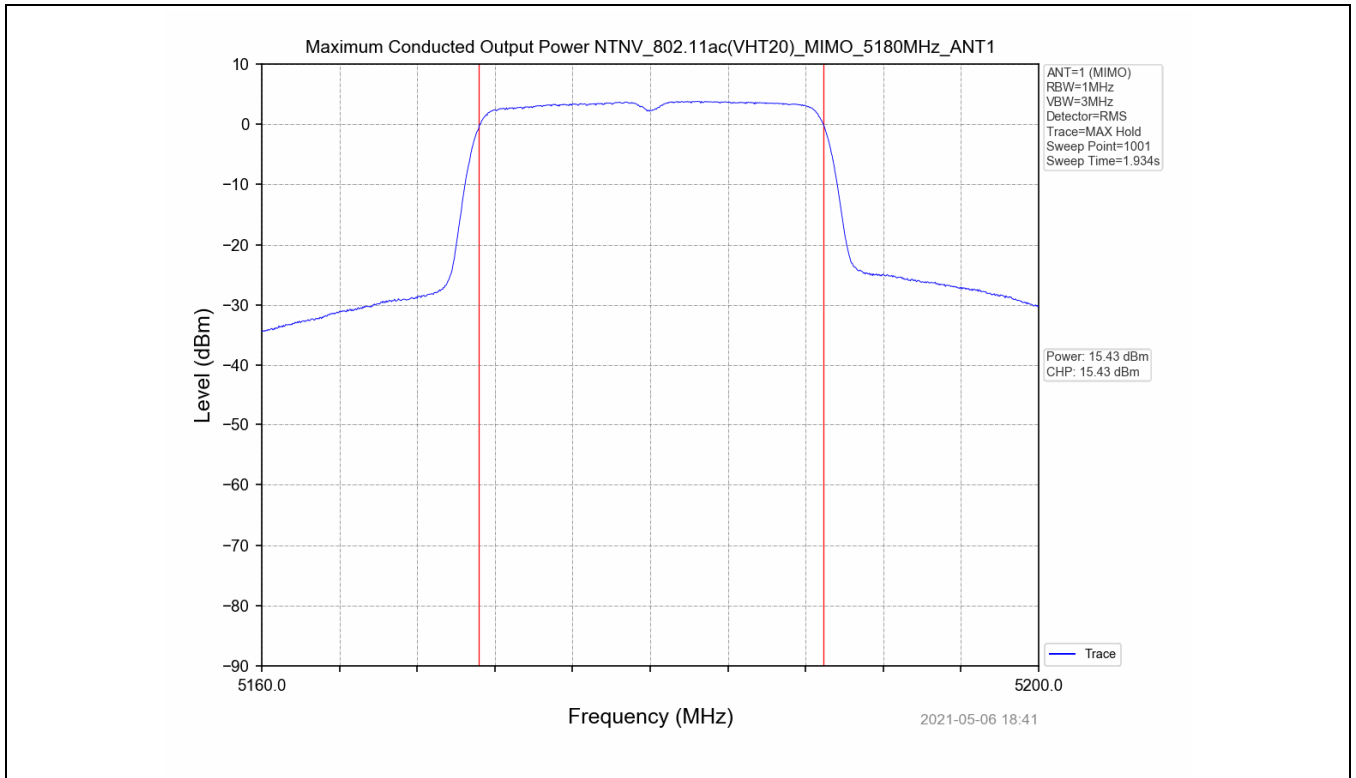
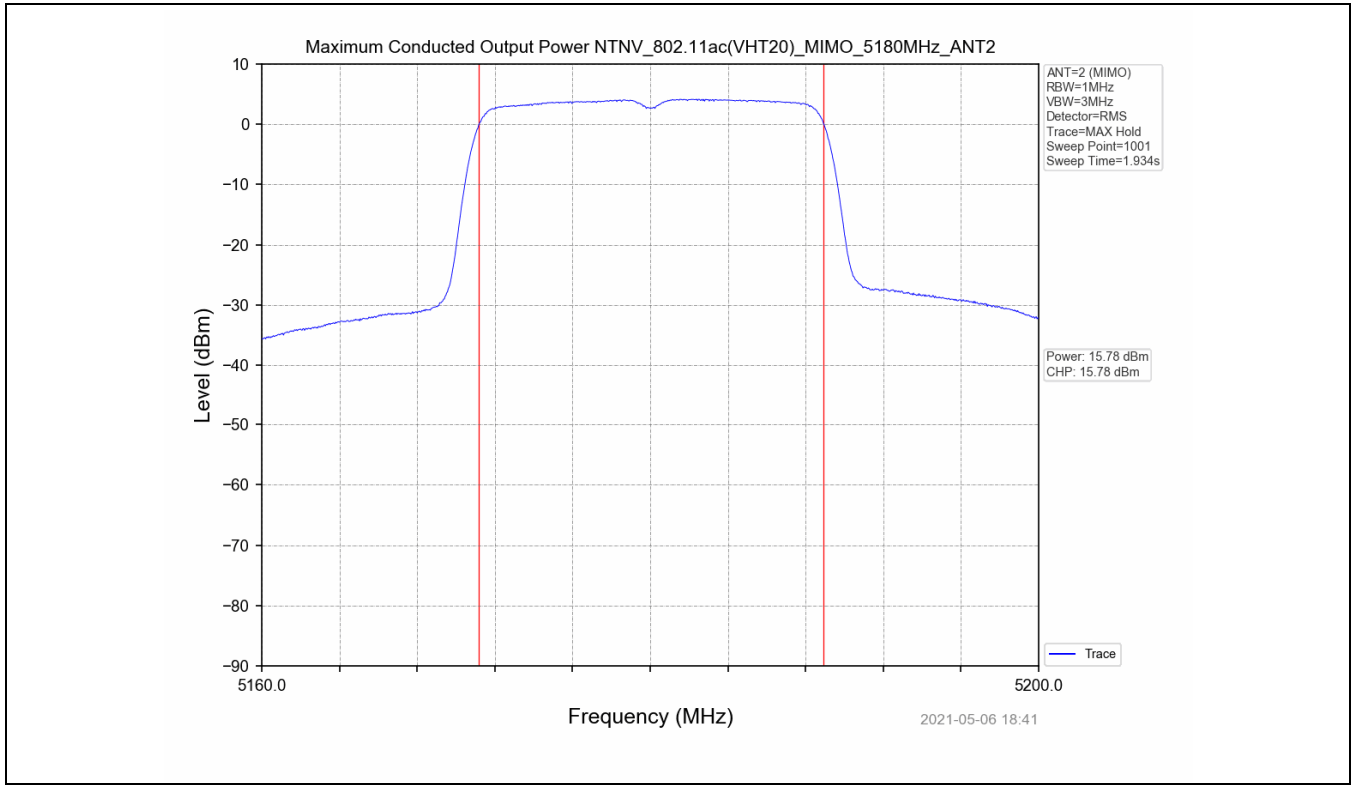


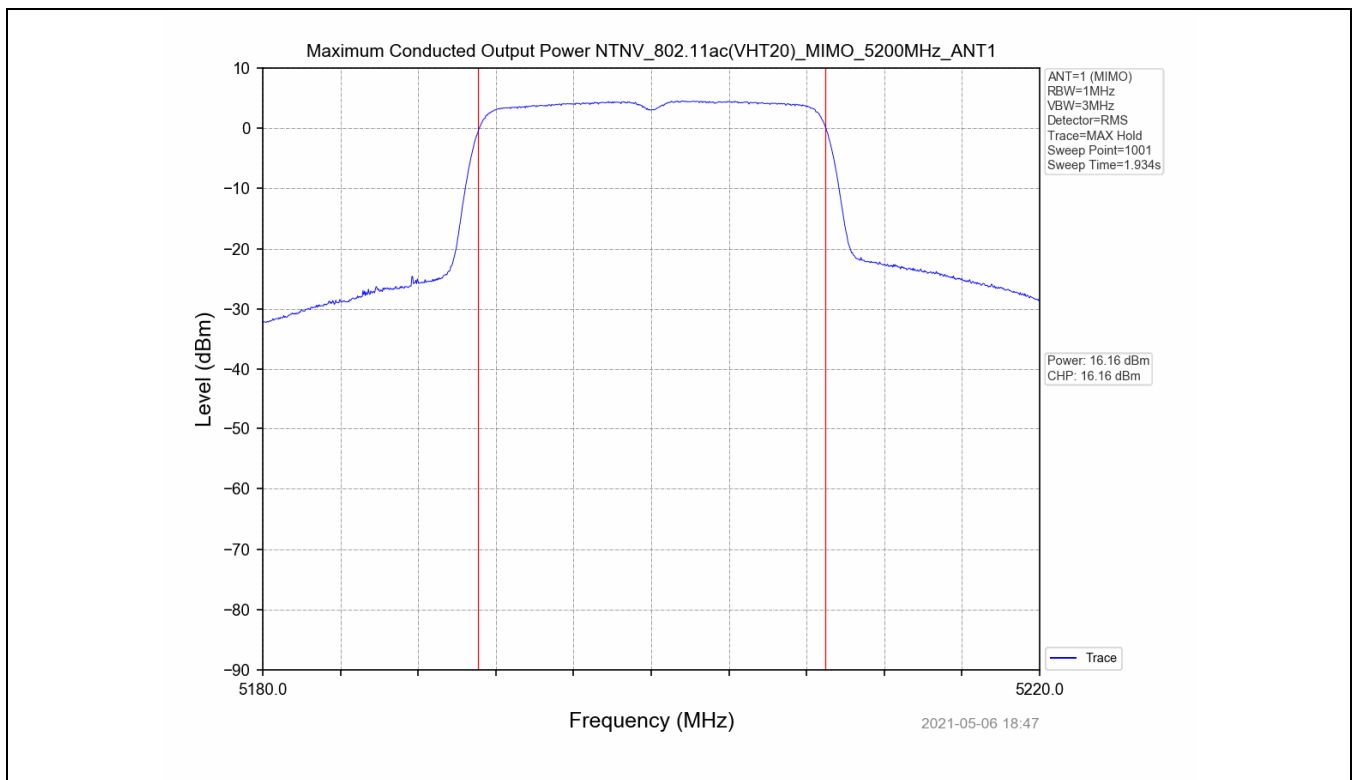
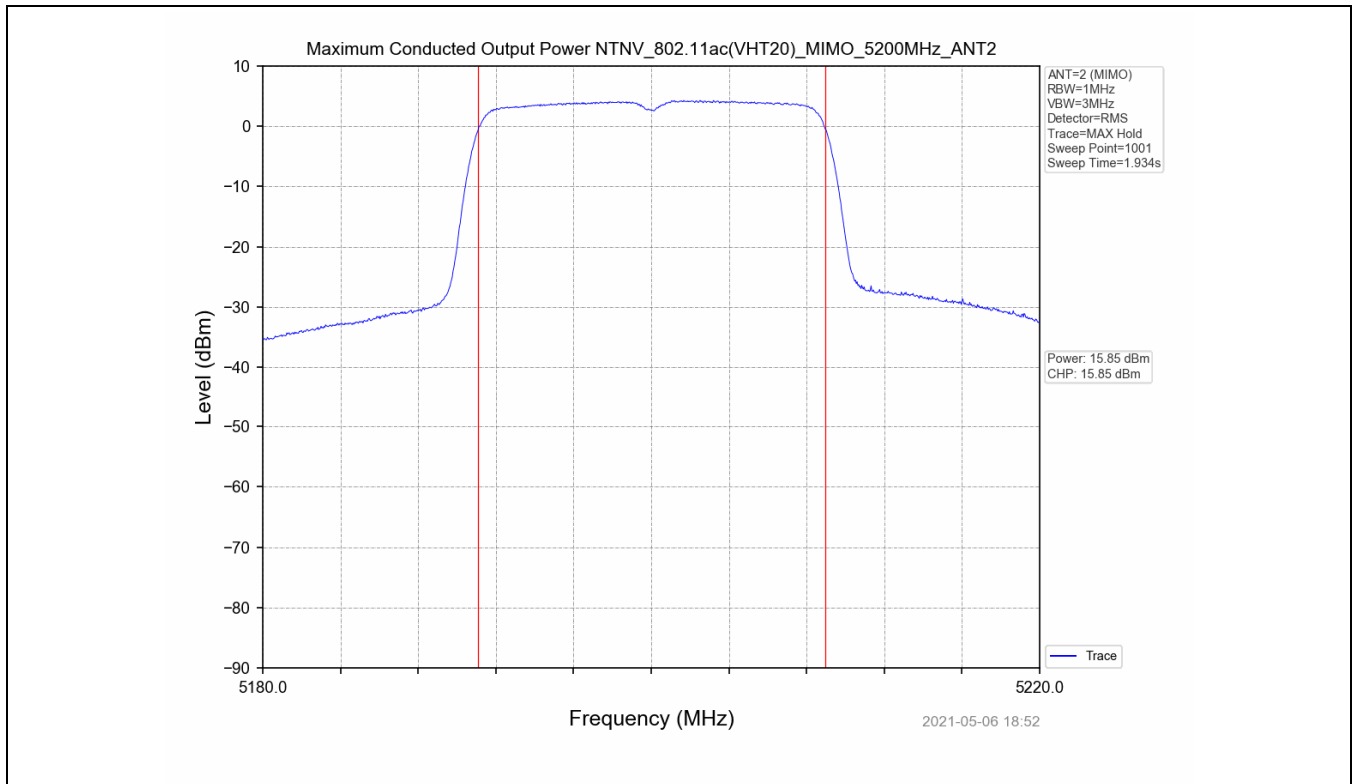


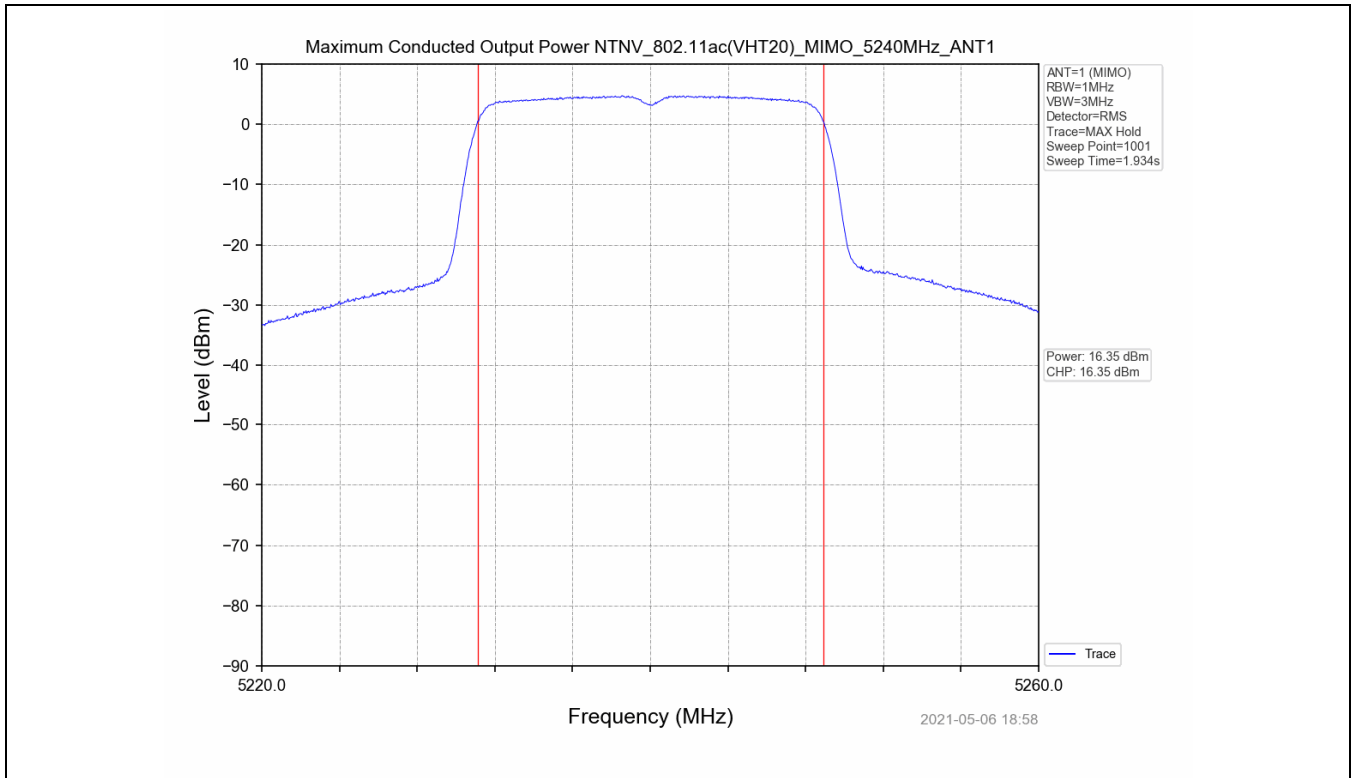
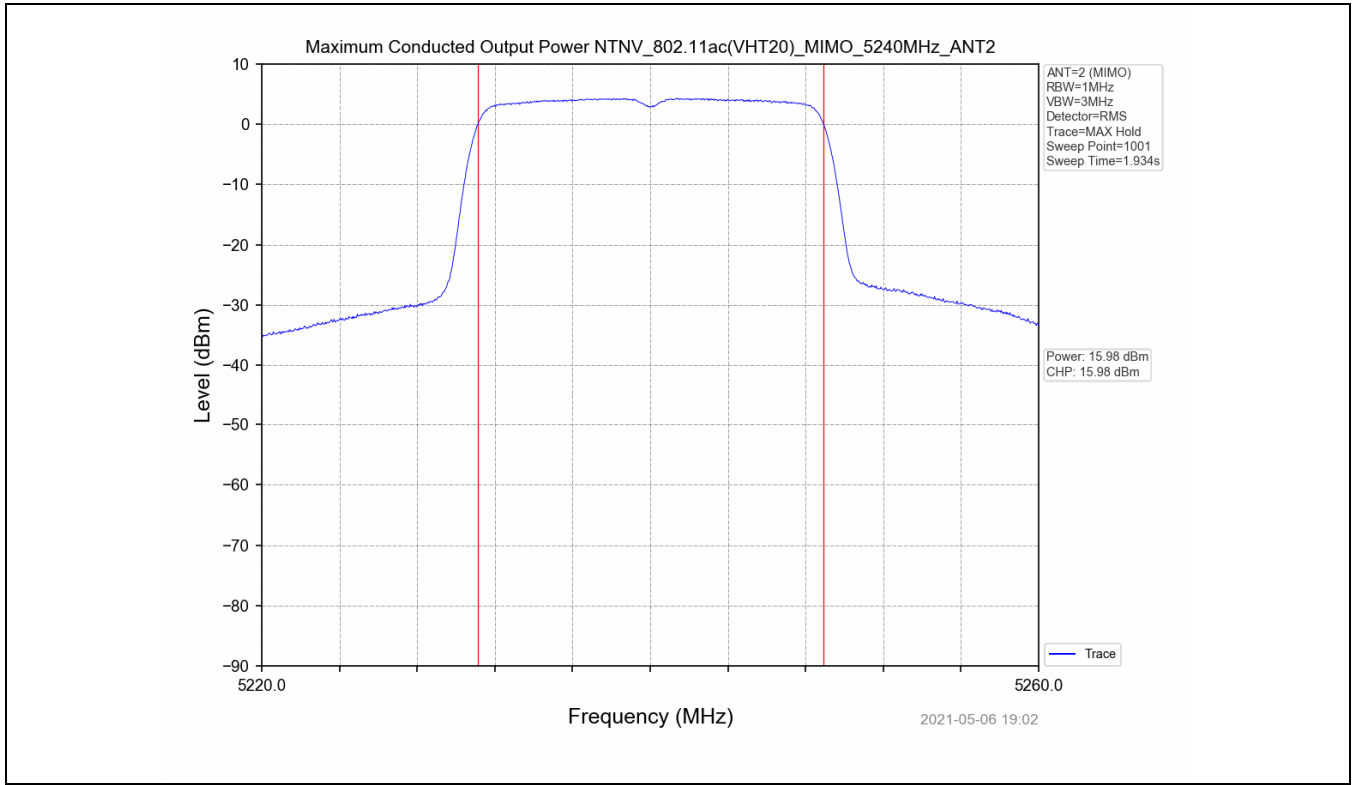


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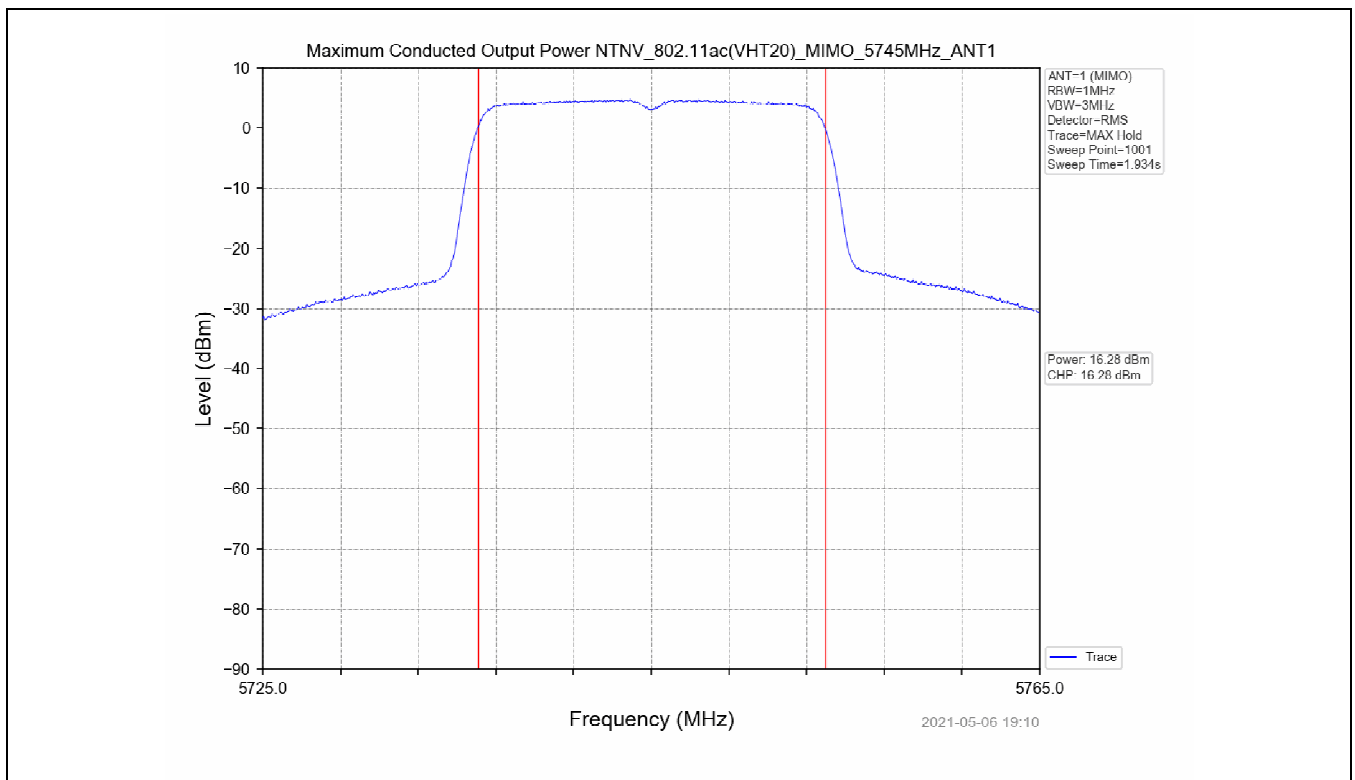
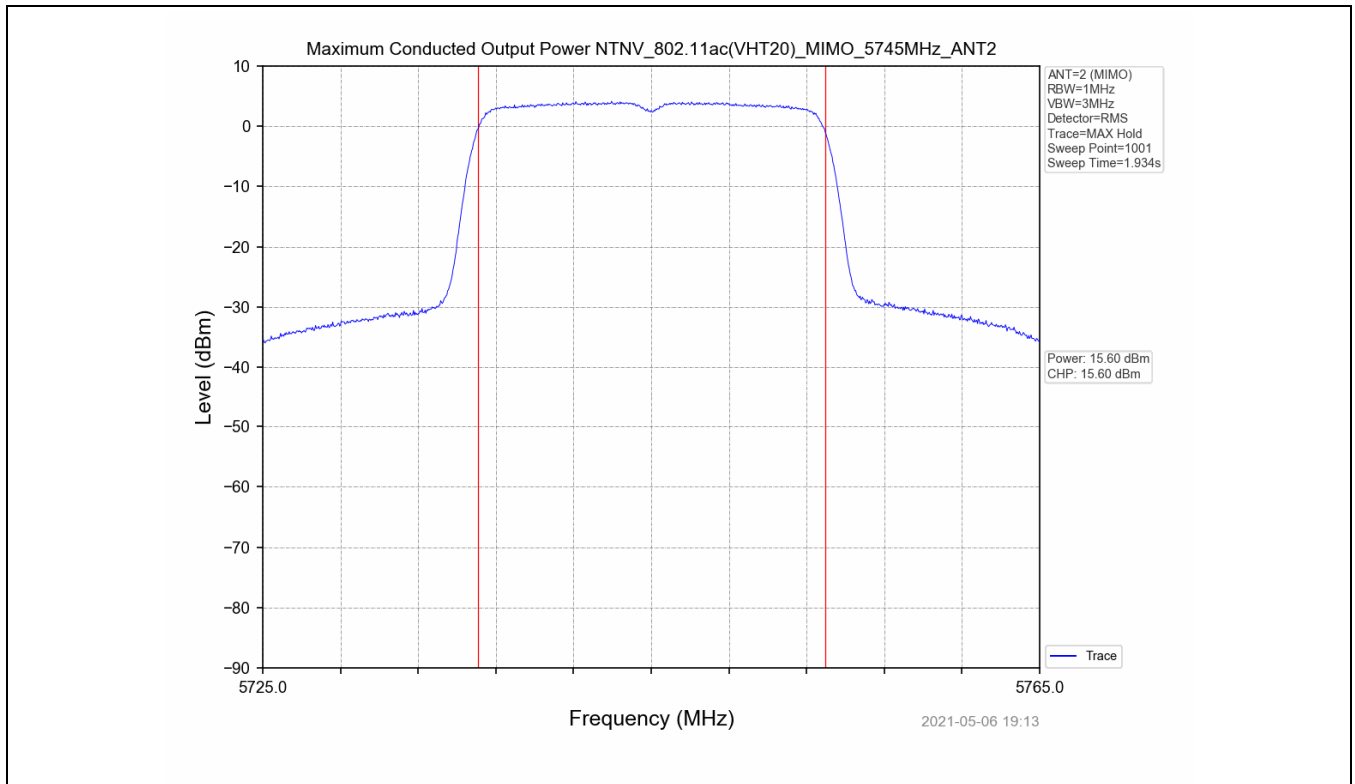


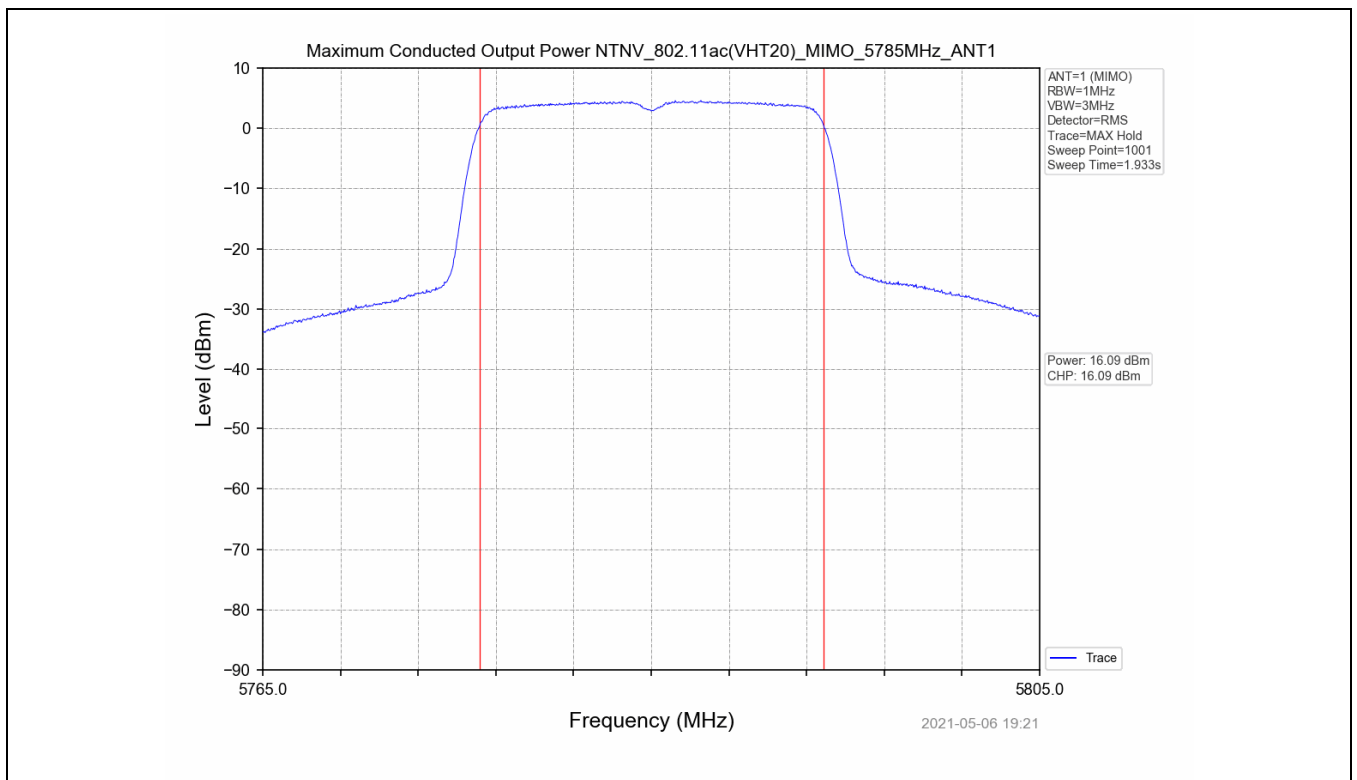
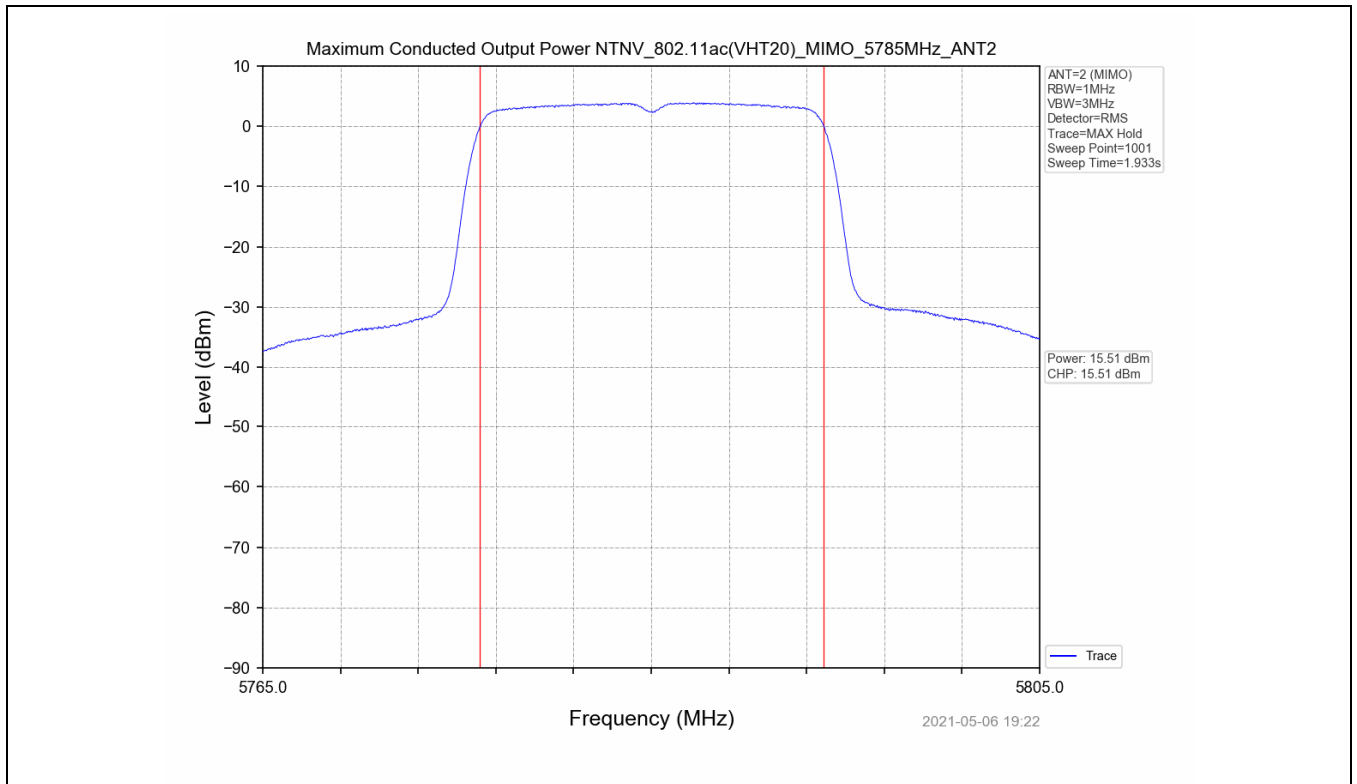


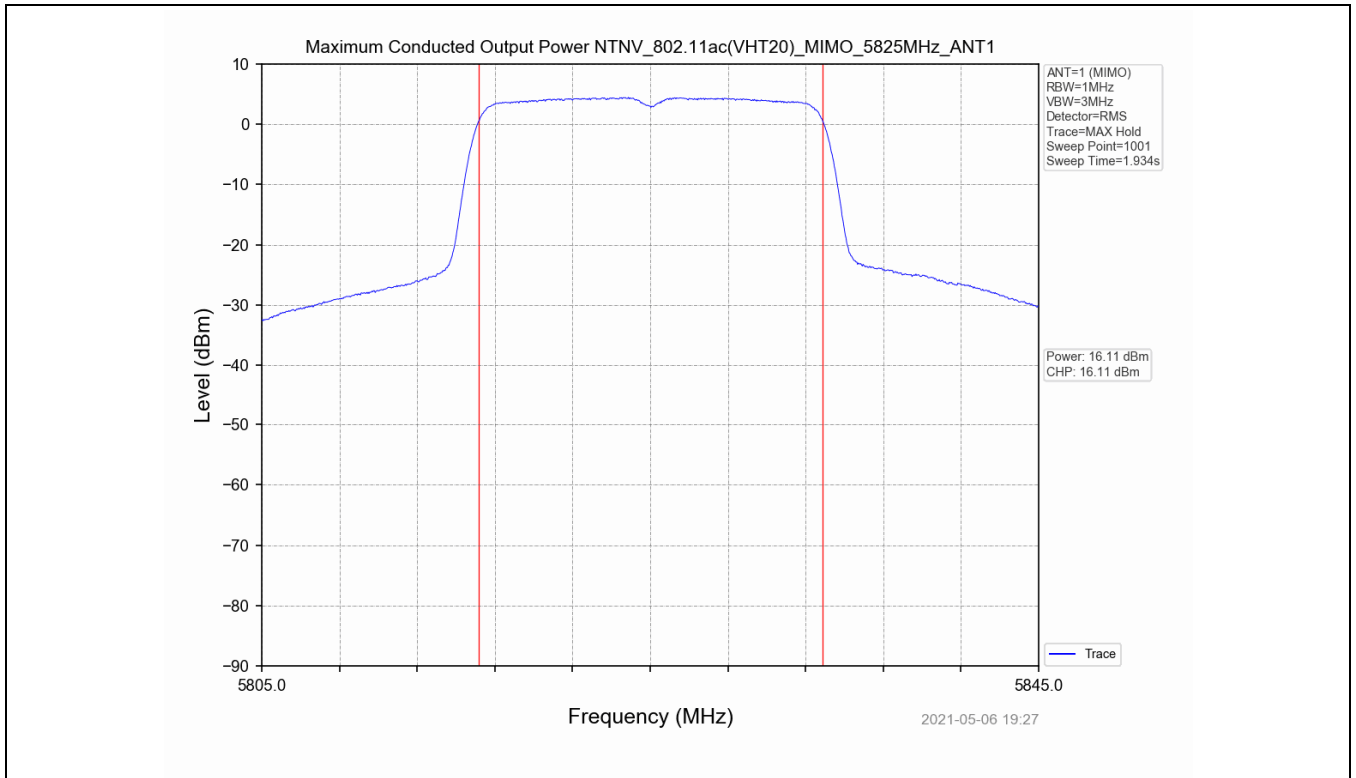
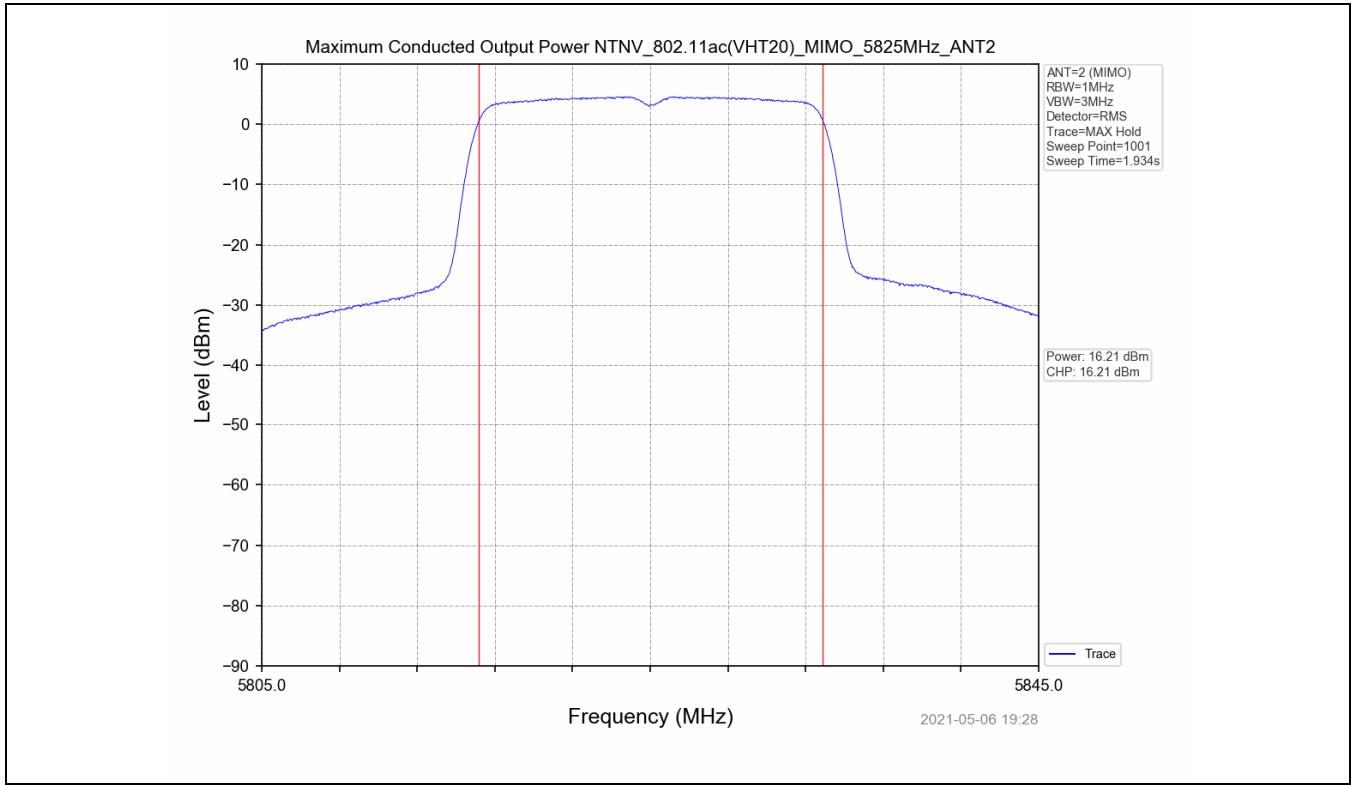


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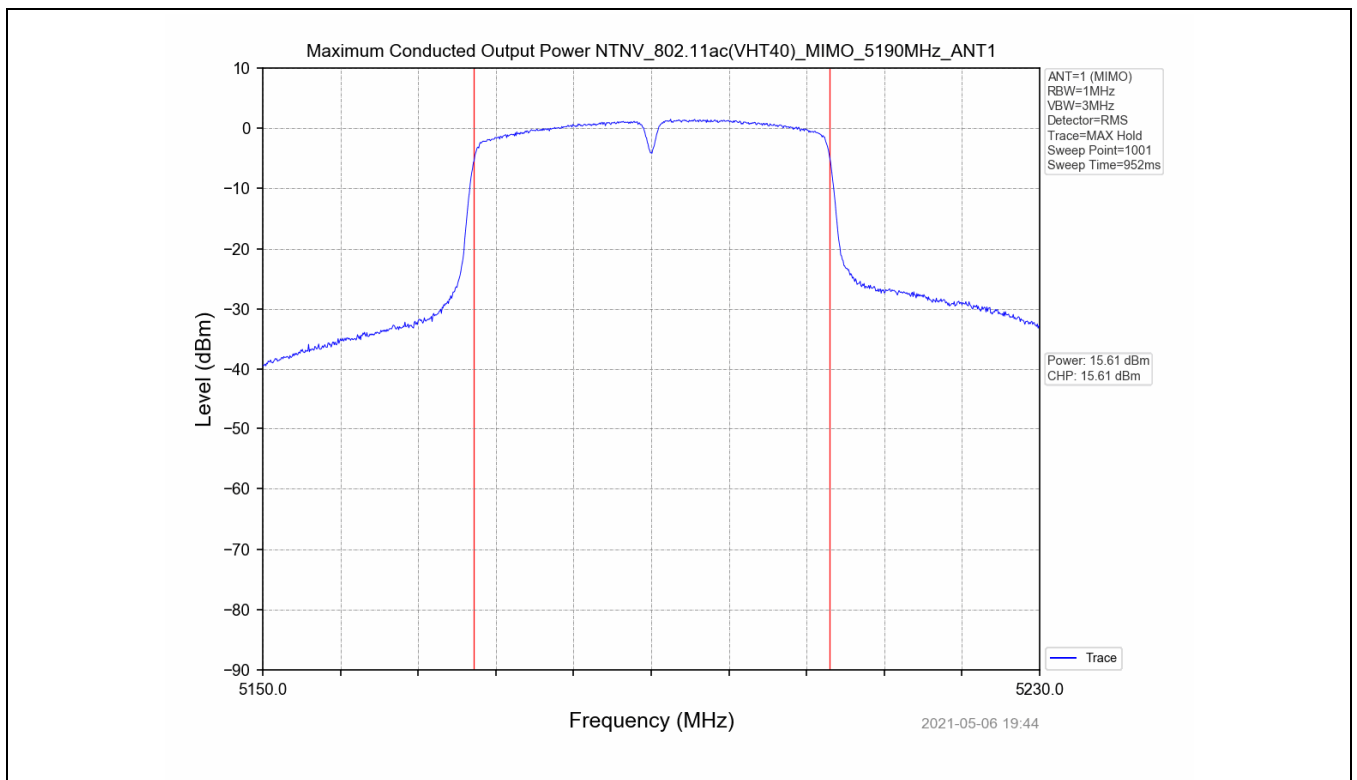
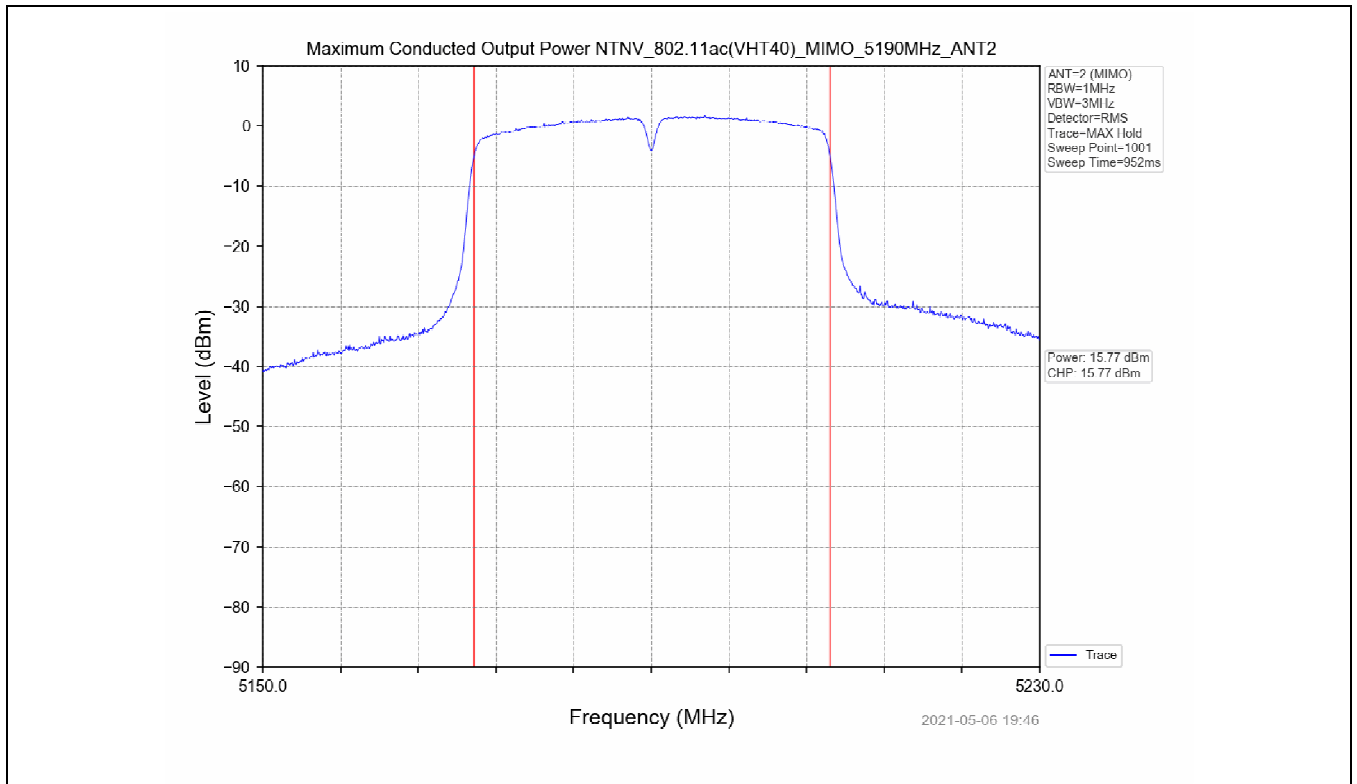


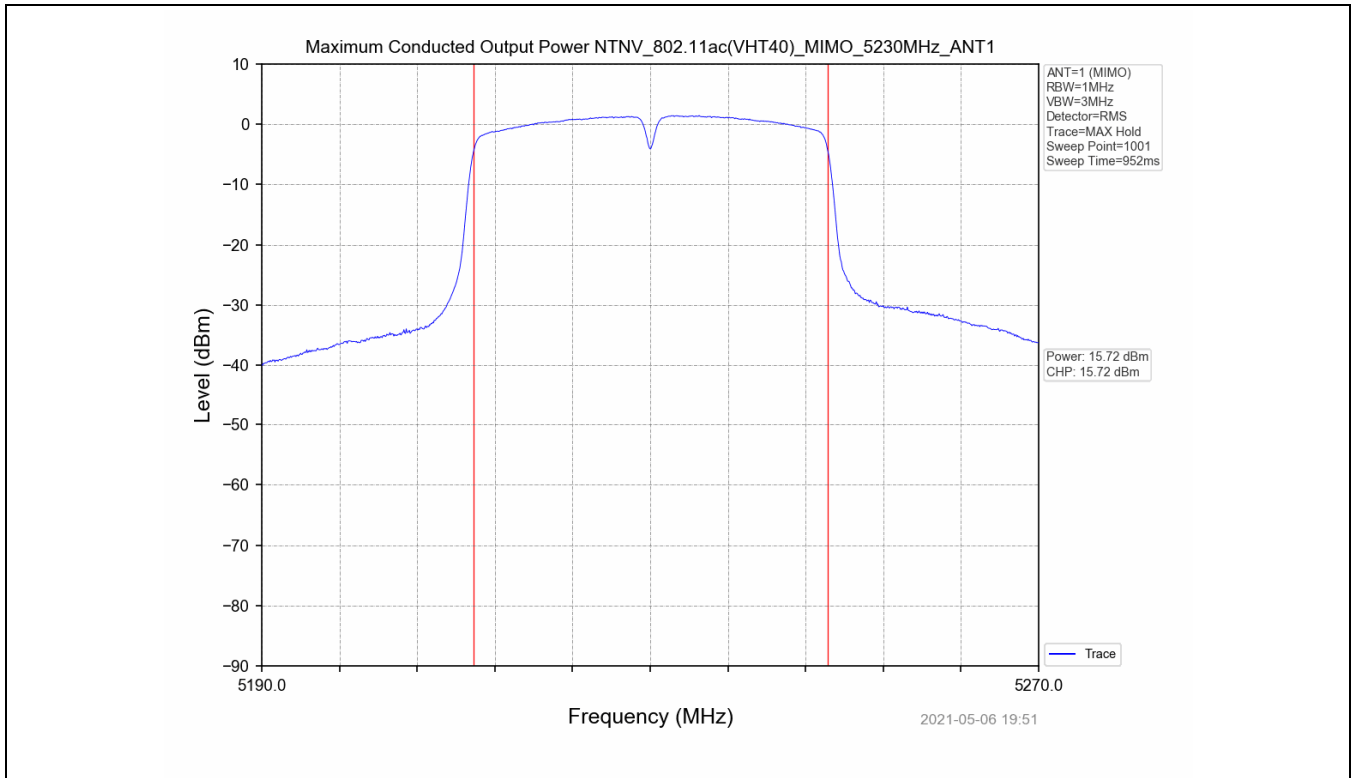
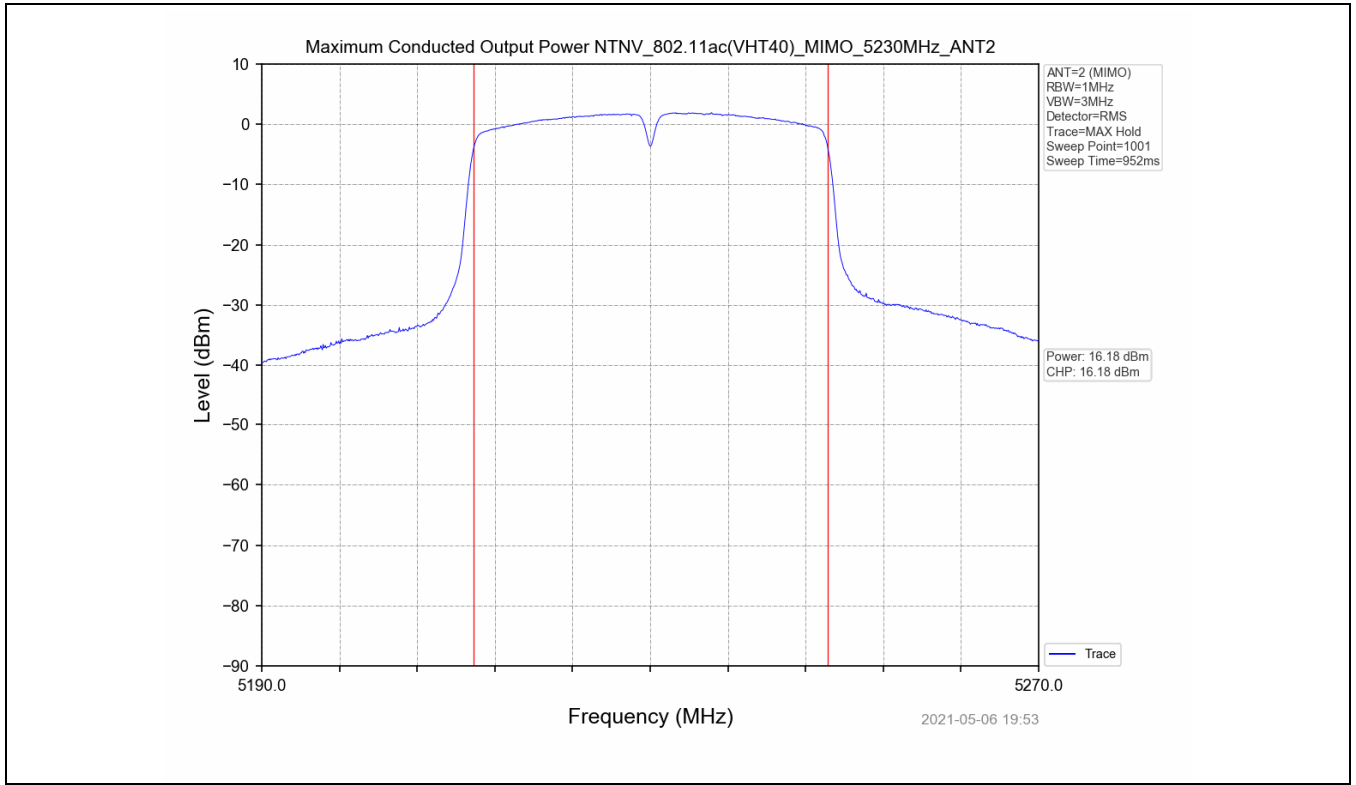


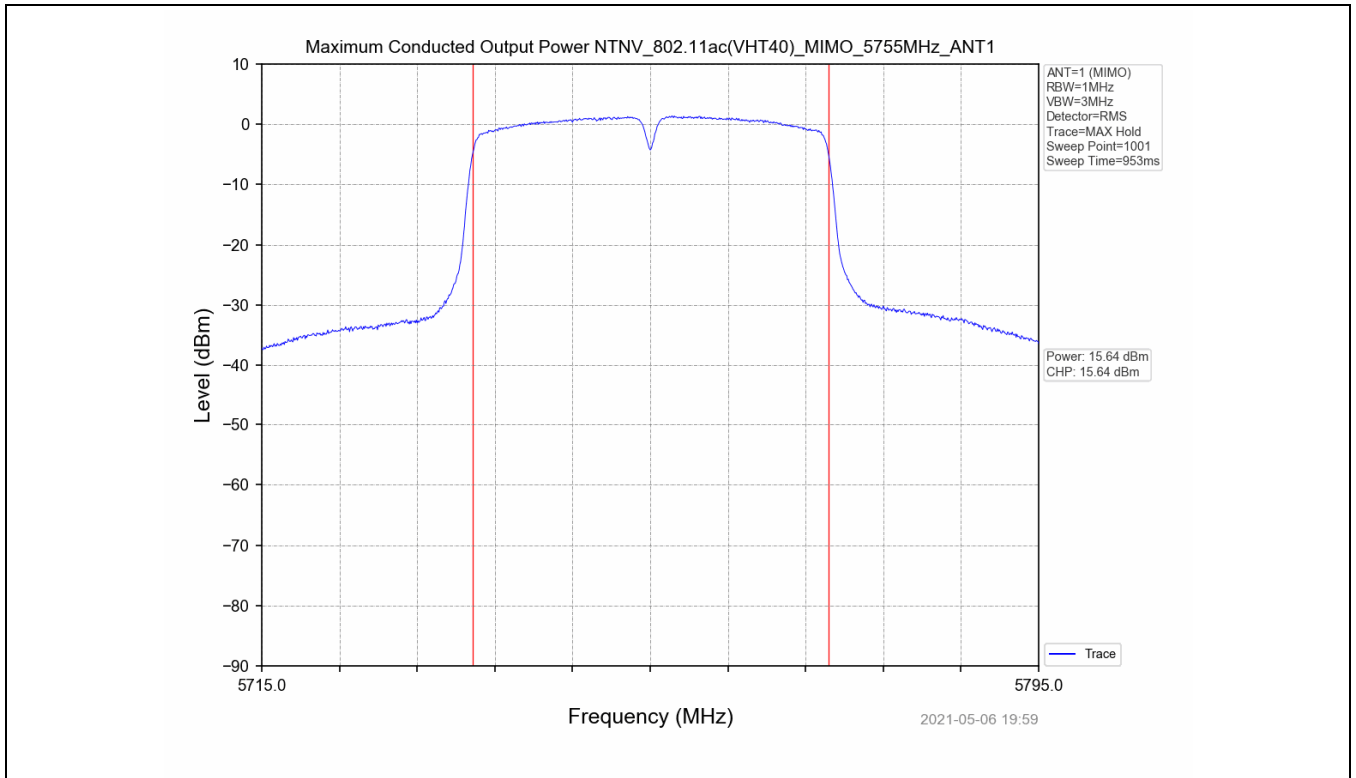
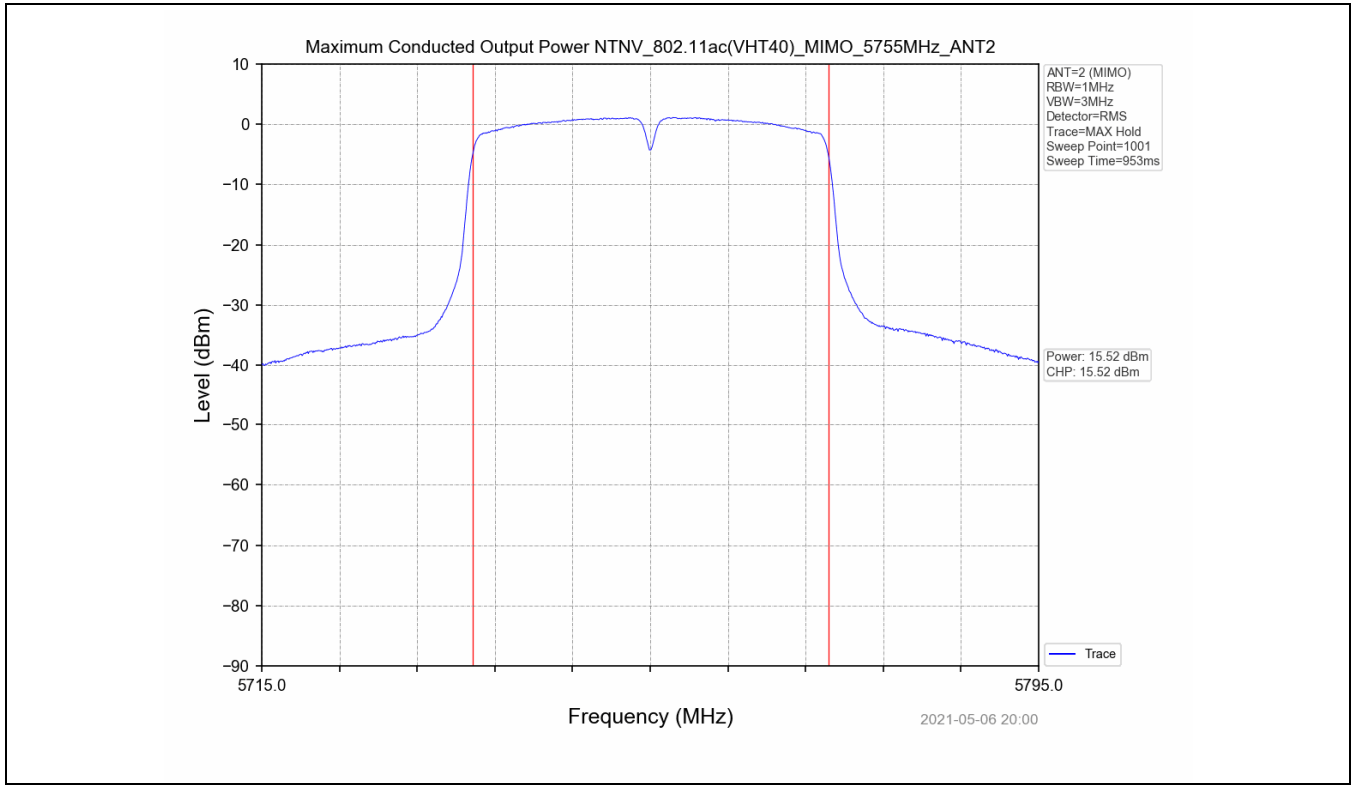


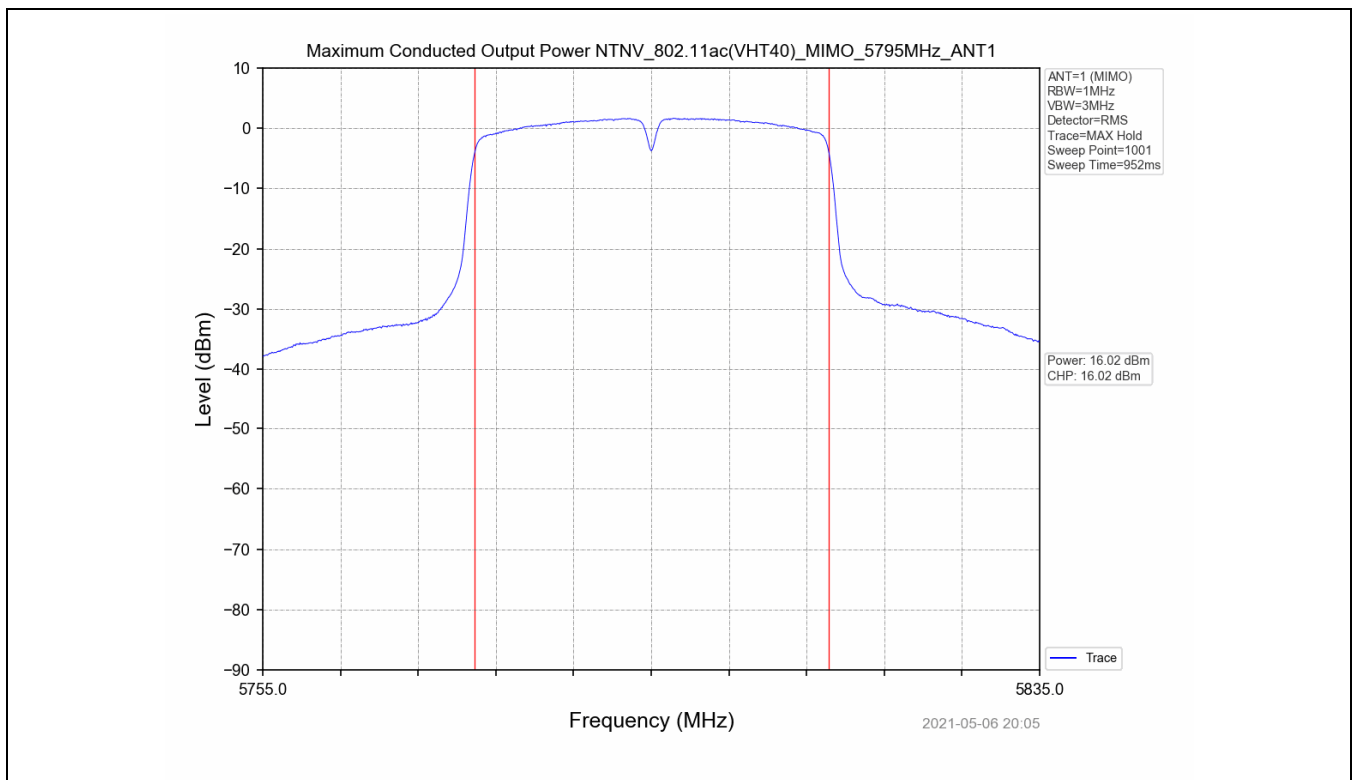
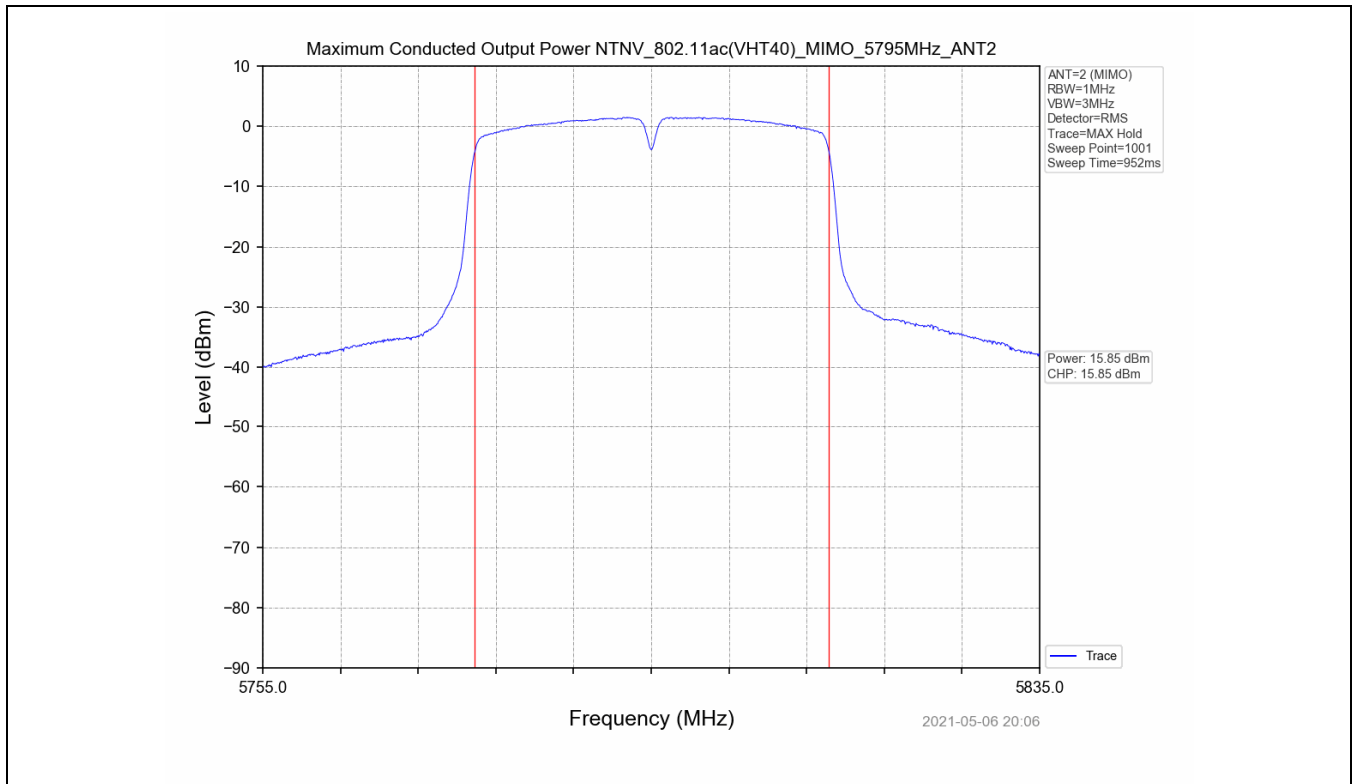
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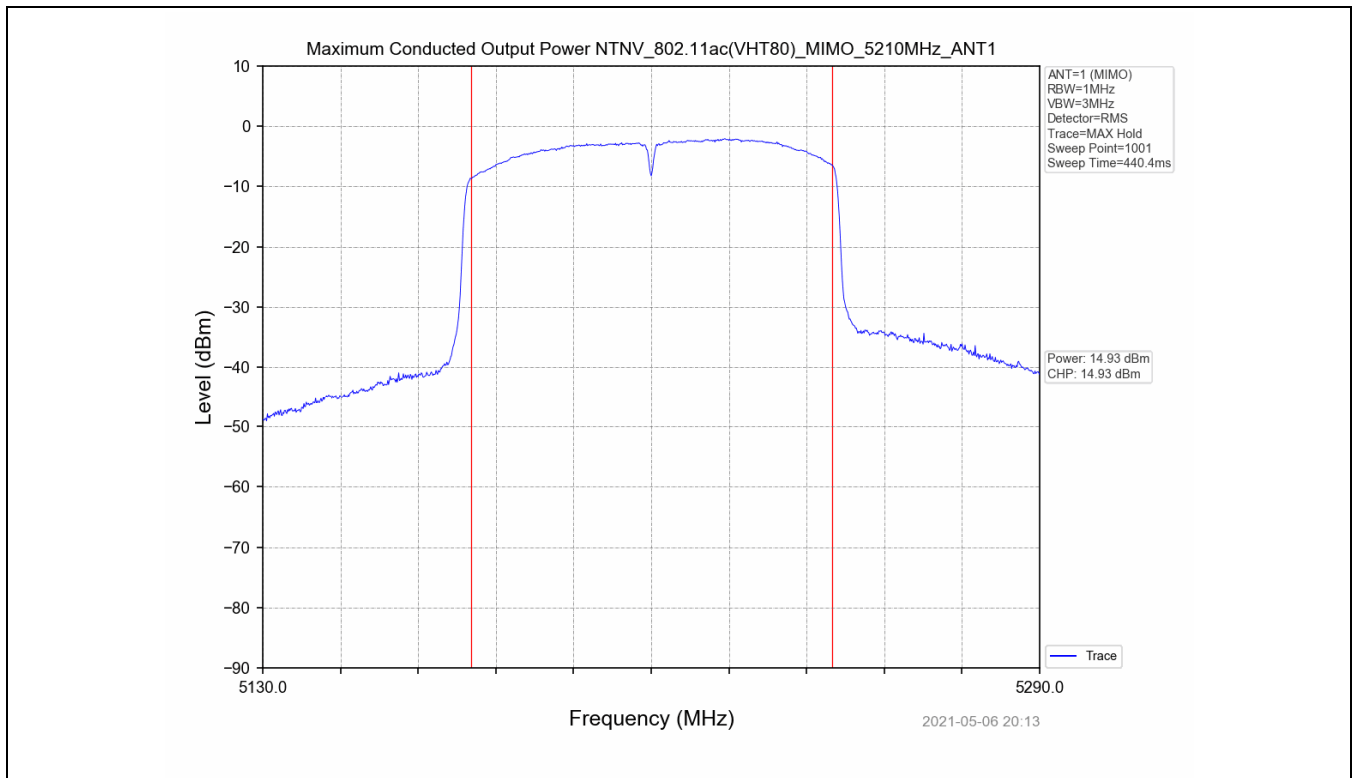
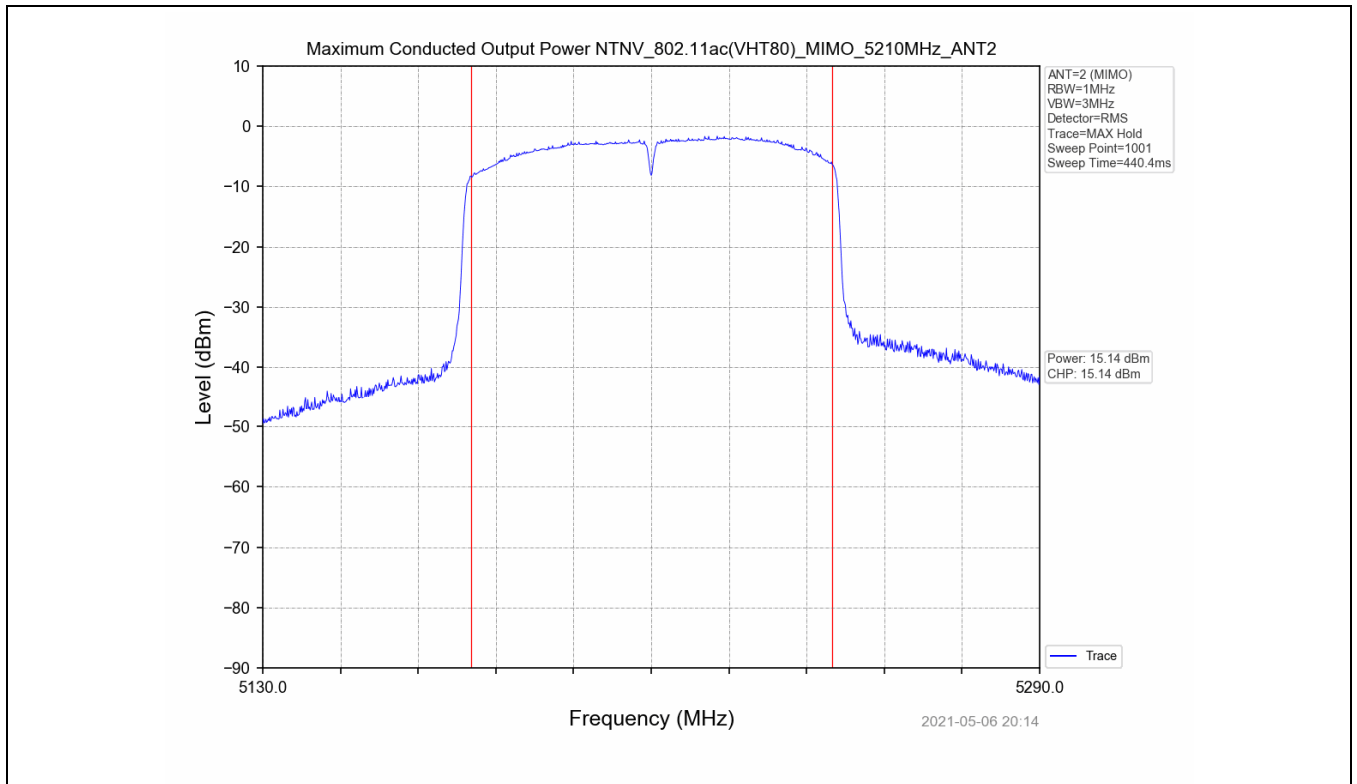
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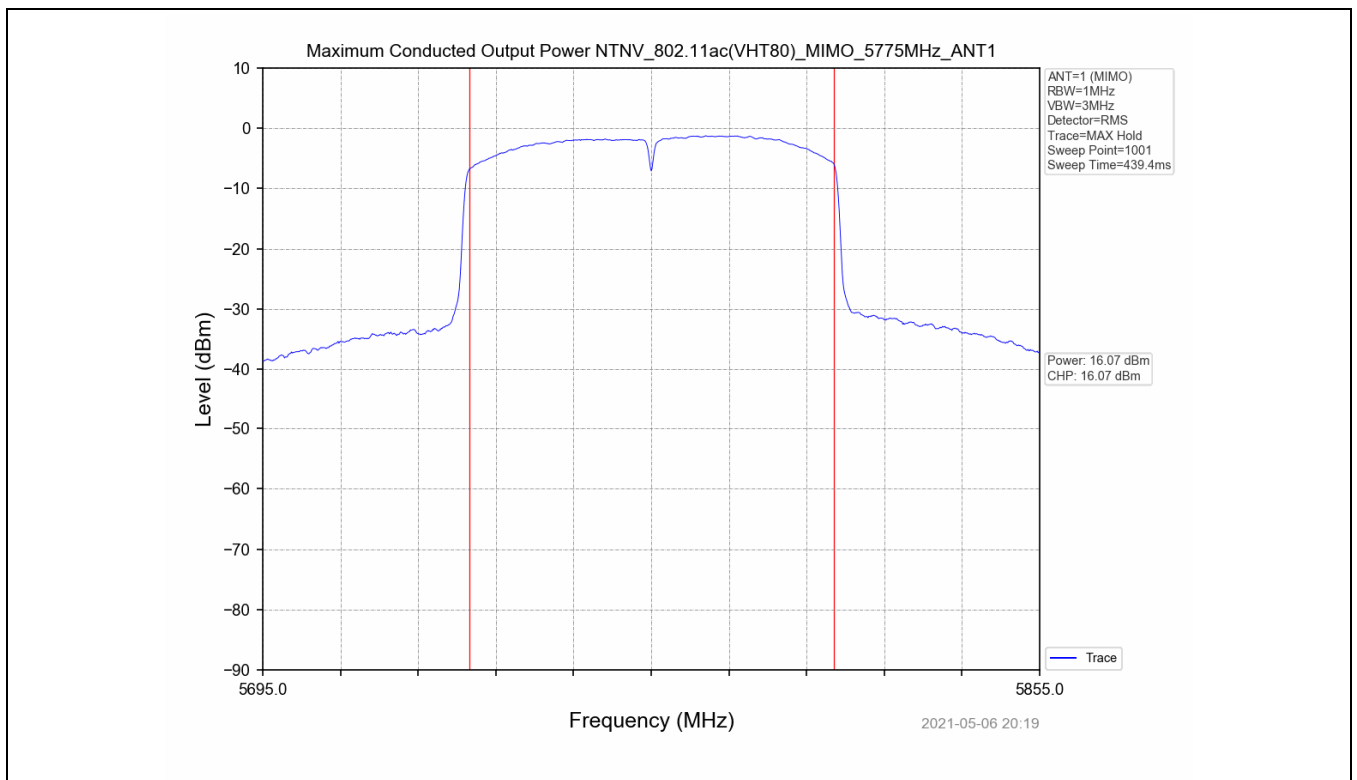
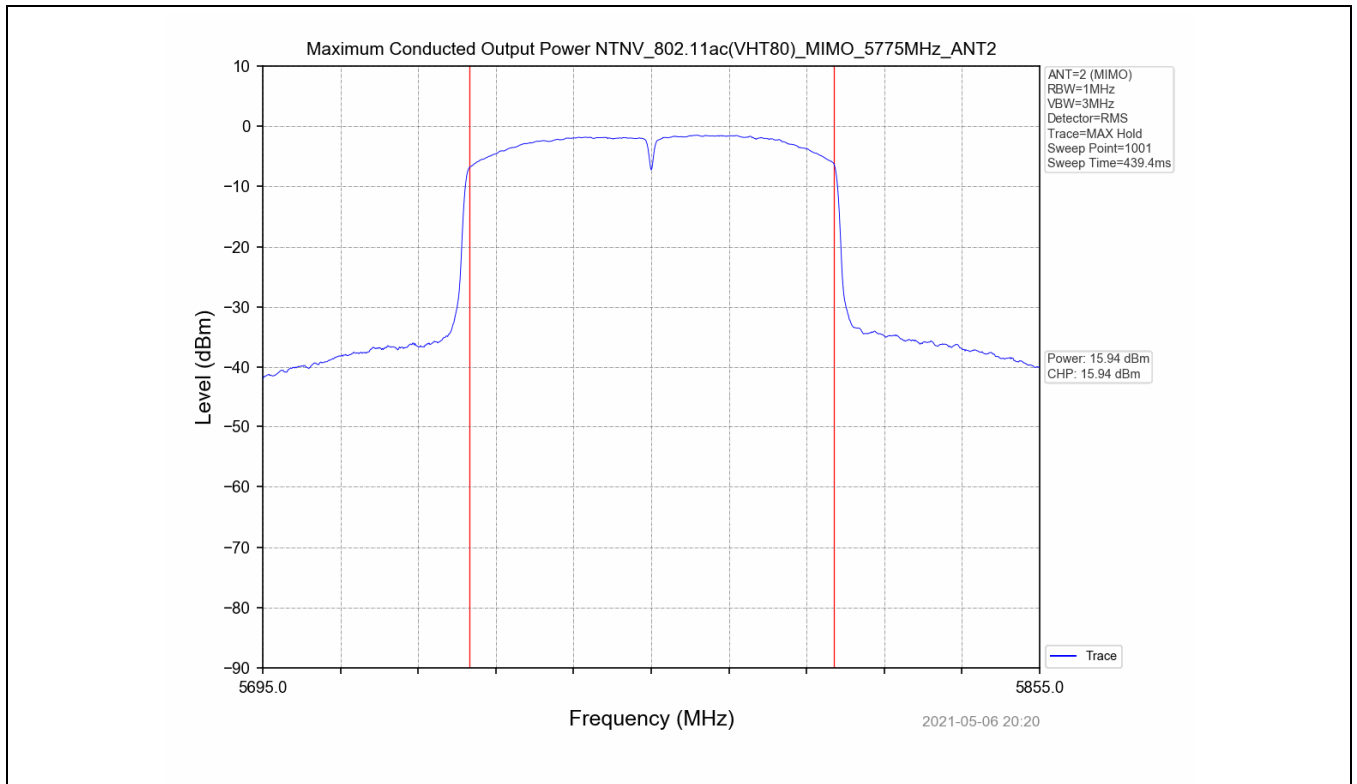












4. Maximum Power Spectral Density (PSD)

4.1 Test Result

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/MHz)			Limits (dBm/MHz)	Verdict
			Ant 2	Ant 1	Total		
802.11a	5180	SISO	5.11	5.78	/	≤11	PASS
	5200	SISO	5.22	5.27	/	≤11	PASS
	5240	SISO	5.38	5.43	/	≤11	PASS
802.11n(HT20)	5180	MIMO	3.83	3.63	6.74	≤10.99	PASS
	5200	MIMO	4.68	4.44	7.57	≤10.99	PASS
	5240	MIMO	4.10	4.59	7.33	≤10.99	PASS
802.11n(HT40)	5190	MIMO	1.08	0.88	3.97	≤10.99	PASS
	5230	MIMO	1.83	1.33	4.59	≤10.99	PASS
802.11ac(VHT20)	5180	MIMO	4.13	3.67	6.87	≤10.99	PASS
	5200	MIMO	4.04	4.55	7.29	≤10.99	PASS
	5240	MIMO	4.13	4.47	7.28	≤10.99	PASS
802.11ac(VHT40)	5190	MIMO	1.38	1.45	4.25	≤10.99	PASS
	5230	MIMO	1.87	1.37	4.59	≤10.99	PASS
802.11ac(VHT80)	5210	MIMO	-1.95	-1.88	1.02	≤10.99	PASS

Test Mode	Frequency (MHz)	Tx Type	Maximum Power Spectral Density (dBm/500kHz)			Limits (dBm/500kHz)	Verdict
			Ant 2	Ant 1	Total		
802.11a	5745	SISO	2.58	2.67	/	≤30	PASS
	5785	SISO	2.36	2.80	/	≤30	PASS
	5825	SISO	2.76	2.90	/	≤30	PASS
802.11n(HT20)	5745	MIMO	1.14	1.71	4.44	≤29.99	PASS
	5785	MIMO	1.46	1.53	4.51	≤29.99	PASS
	5825	MIMO	1.98	1.80	4.90	≤29.99	PASS
802.11n(HT40)	5755	MIMO	-1.41	-1.58	1.52	≤29.99	PASS
	5795	MIMO	-1.09	-1.02	1.95	≤29.99	PASS
802.11ac(VHT20)	5745	MIMO	0.75	1.46	4.12	≤29.99	PASS
	5785	MIMO	1.07	1.27	4.15	≤29.99	PASS
	5825	MIMO	1.75	1.71	4.73	≤29.99	PASS
802.11ac(VHT40)	5755	MIMO	-1.74	-1.75	1.27	≤29.99	PASS
	5795	MIMO	-1.25	-1.12	1.80	≤29.99	PASS
802.11ac(VHT80)	5775	MIMO	-4.05	-3.95	-1.00	≤29.99	PASS

Remark: Directional gain = $G_{ANT} + 10 \cdot \log(N_{ANT}/N_{SS}) = 3 + 10 \cdot \log(2/1) = 6.01 \text{dBi}$.

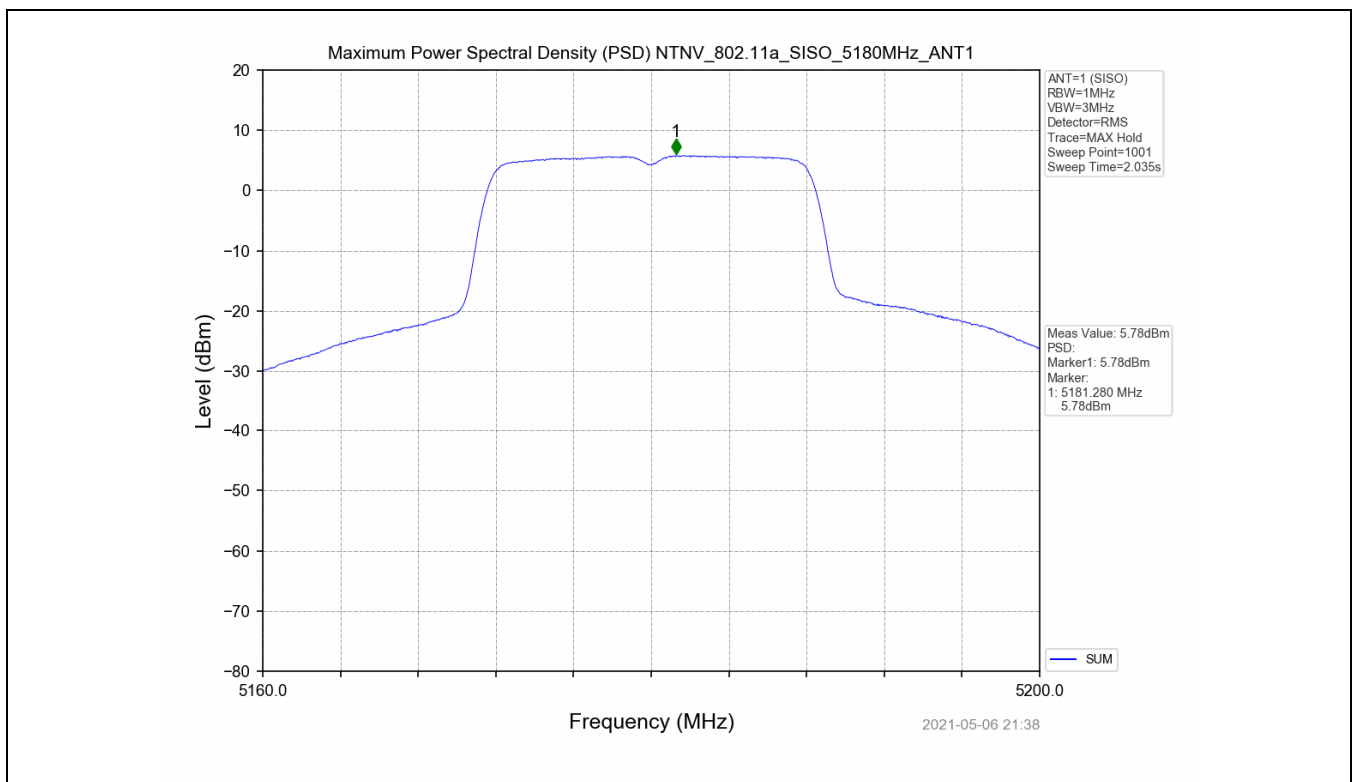
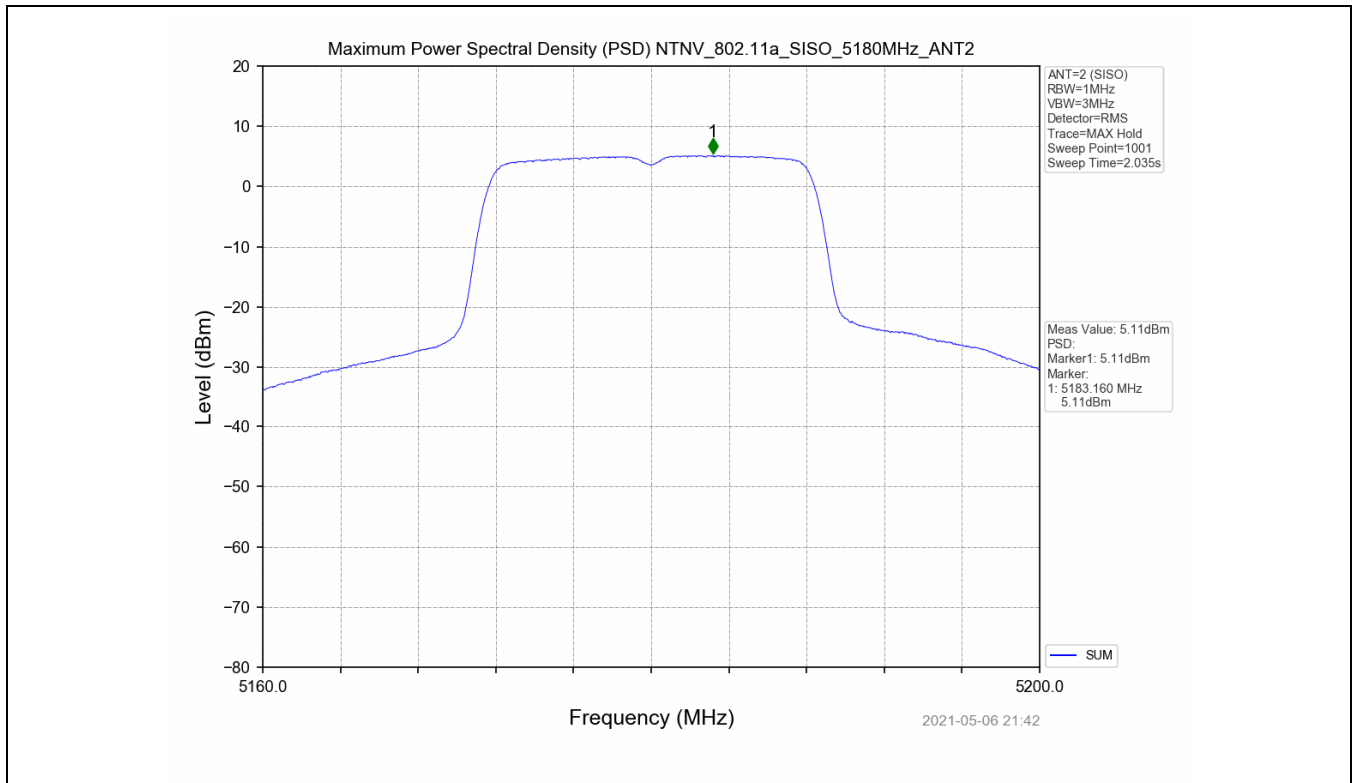
So, the limit of UNII Band I is 10.99dBm/500kHz for MIMO mode; the limit of UNII Band III is 29.99dBm/500kHz for MIMO mode.

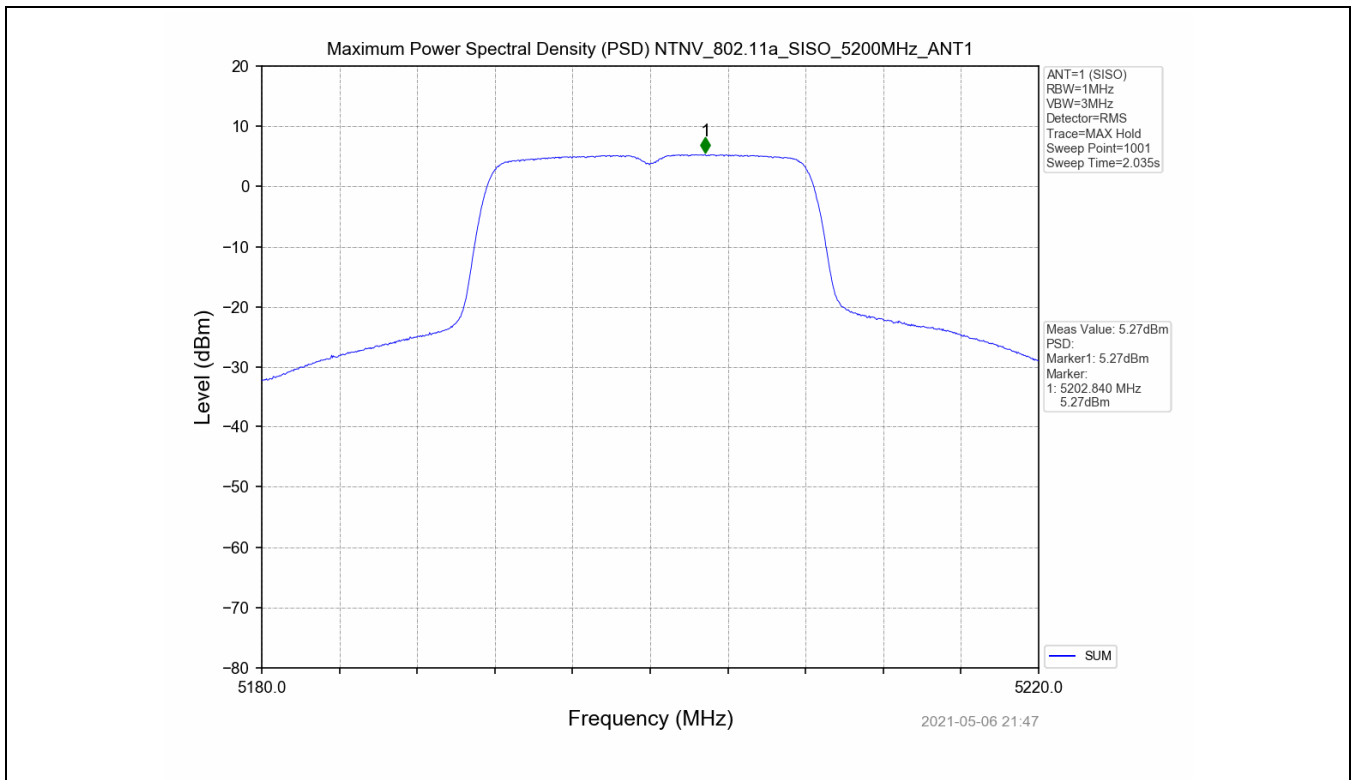
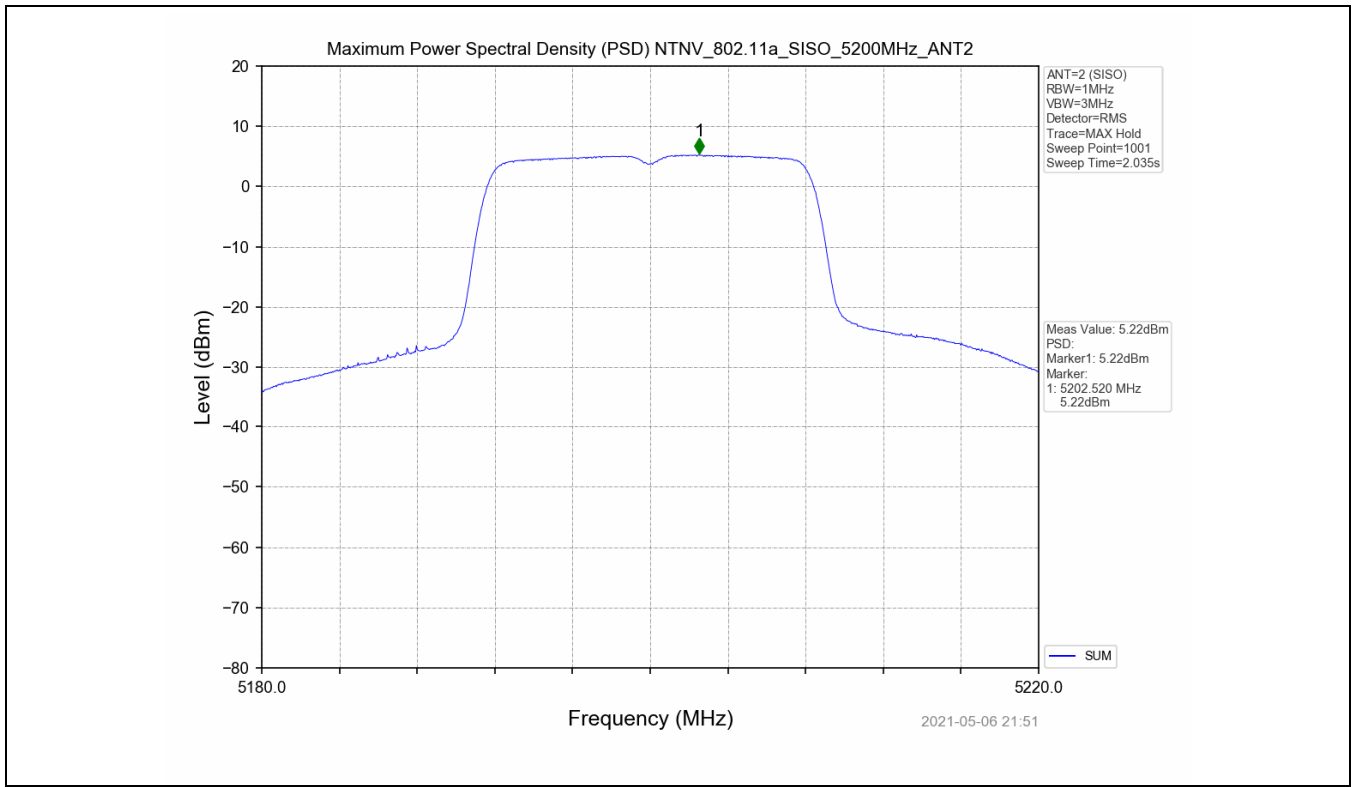


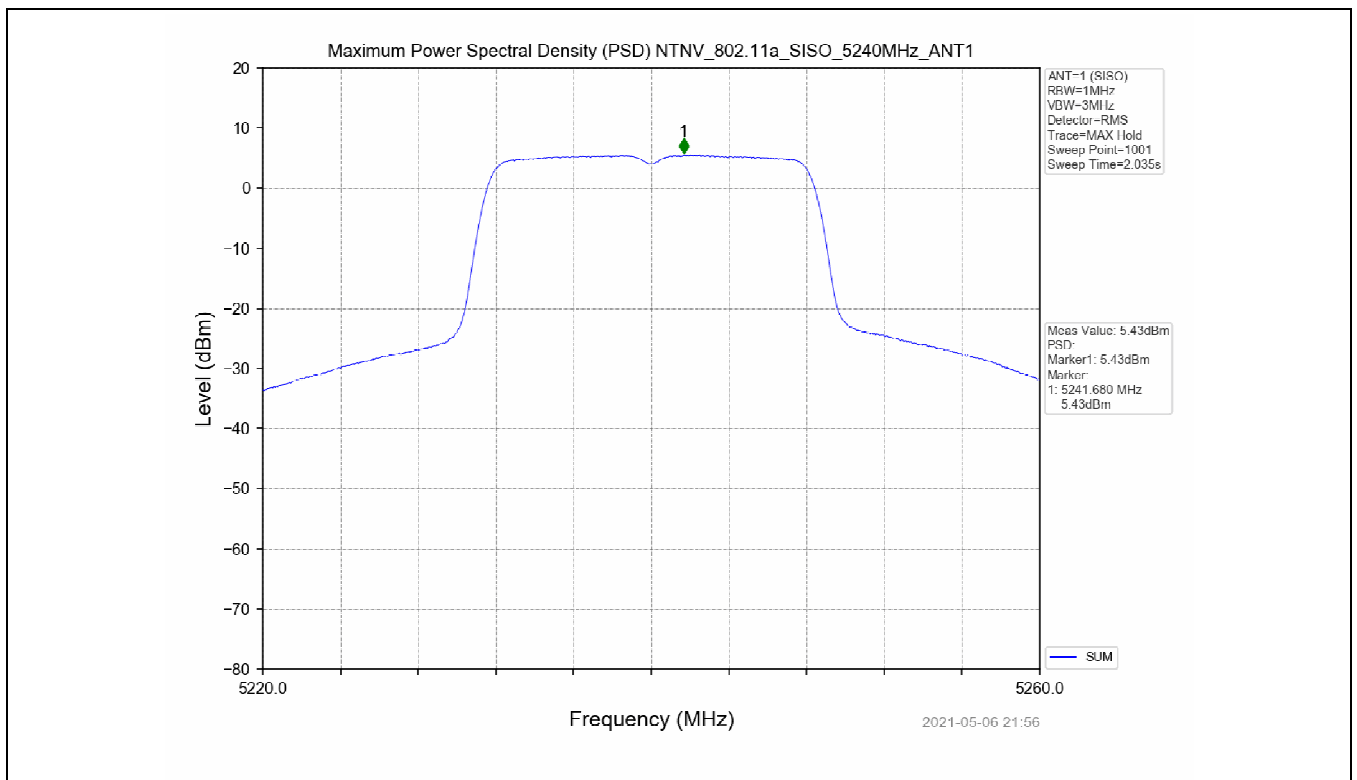
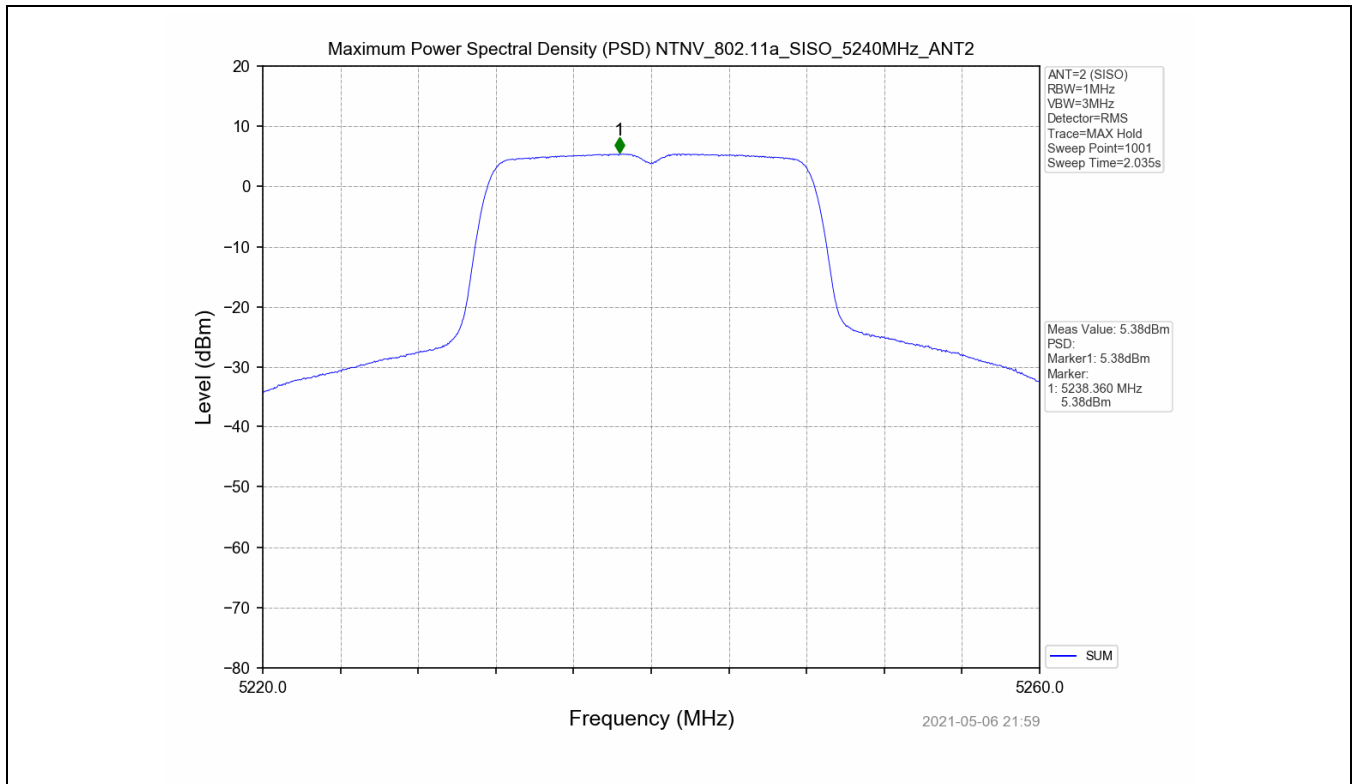
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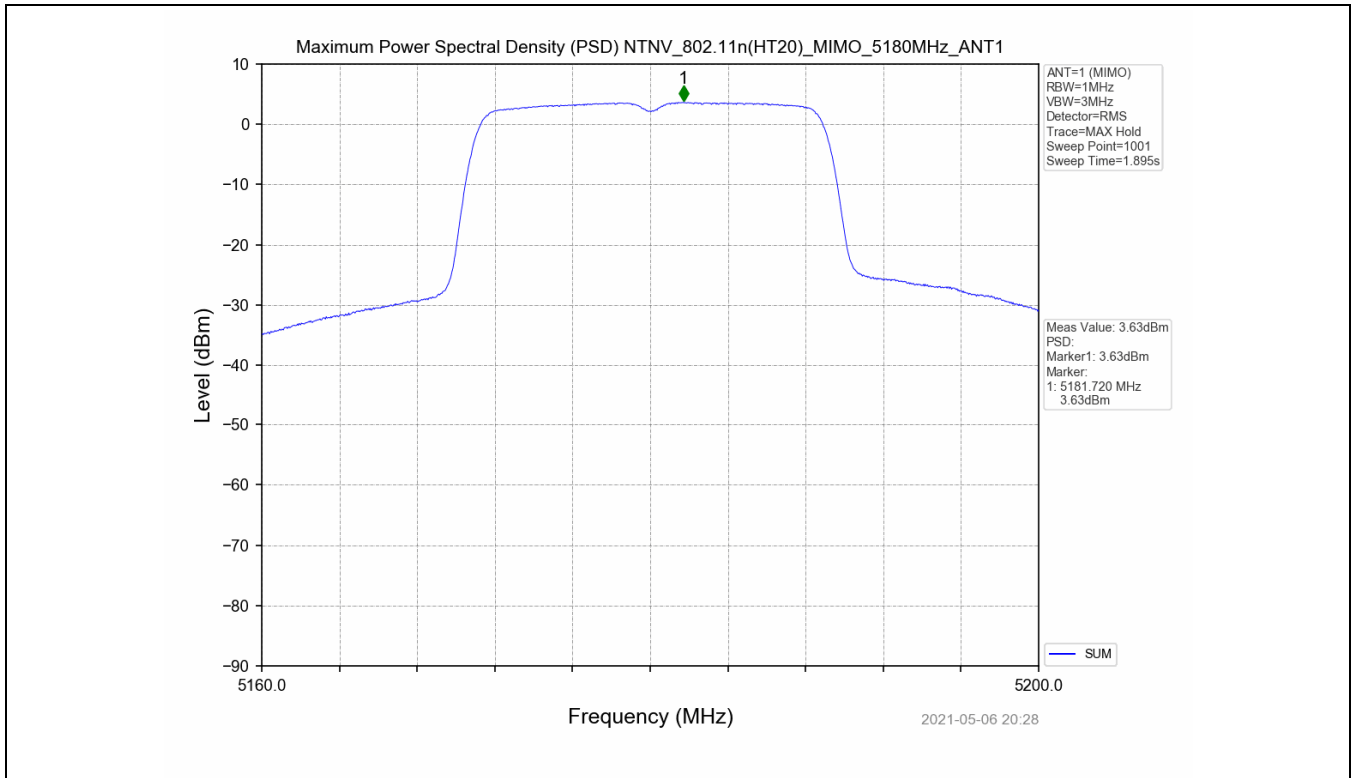
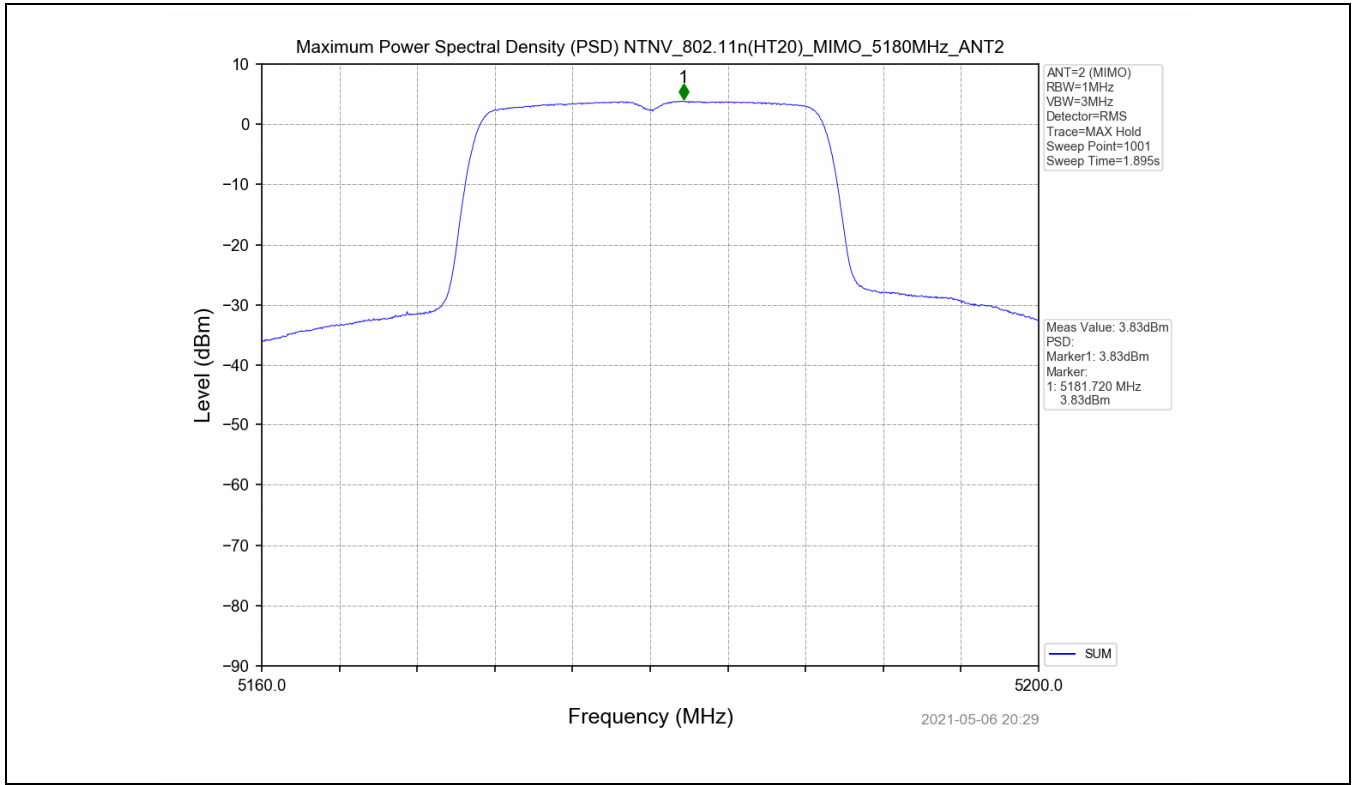
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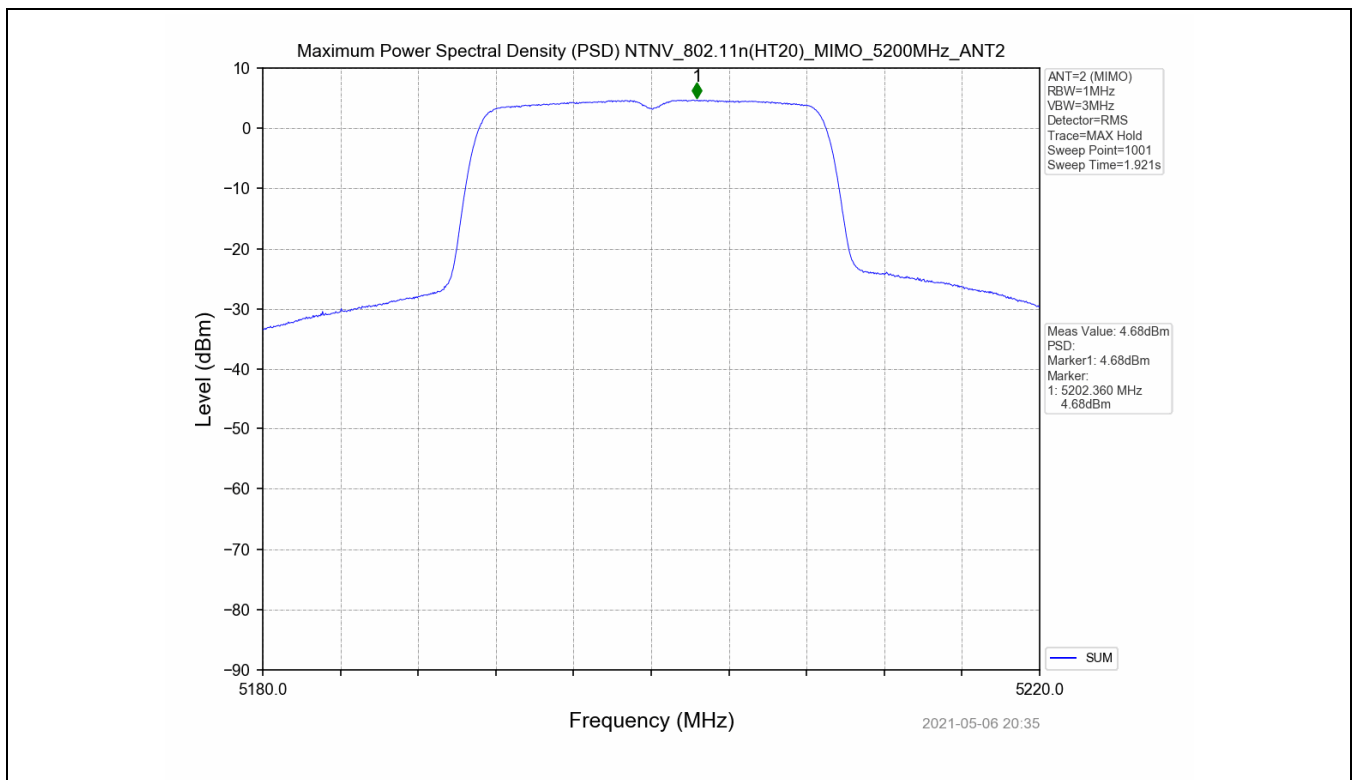
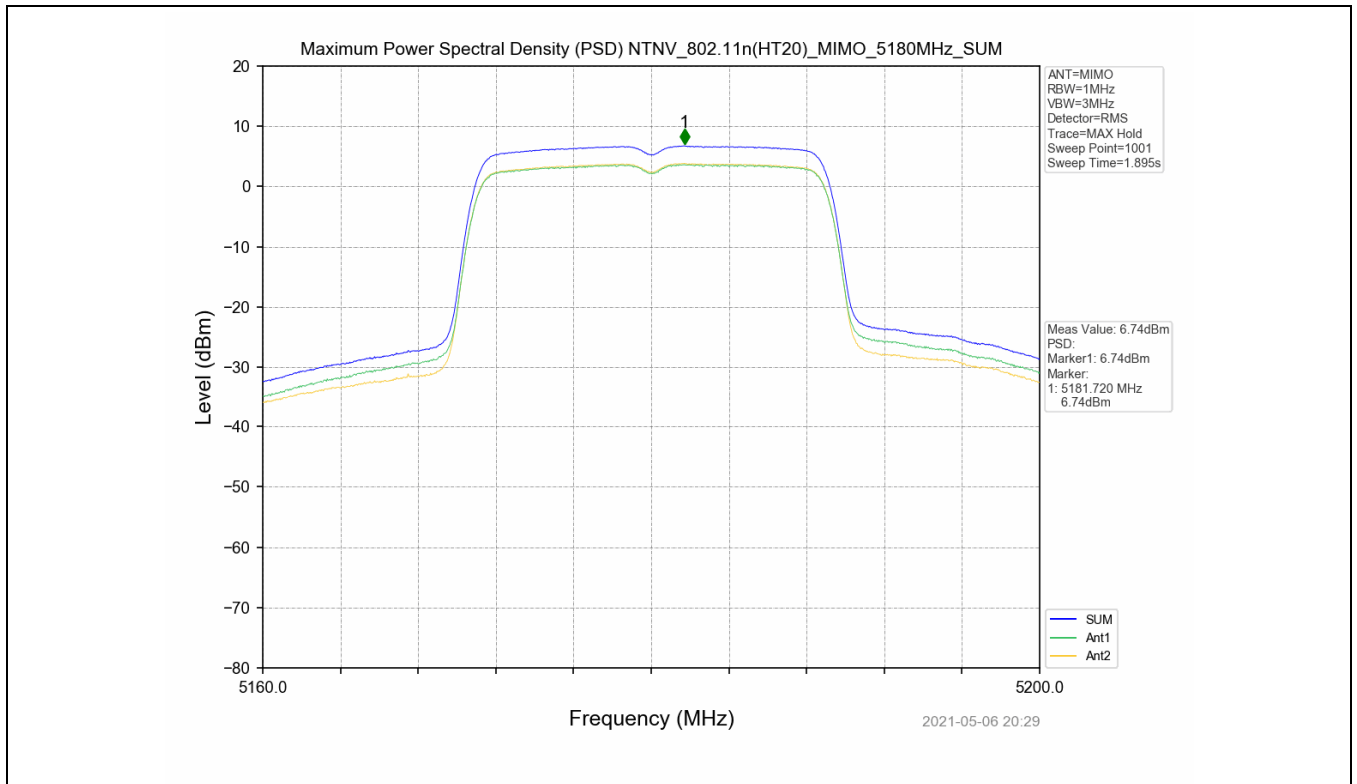
4.2 Test Graph

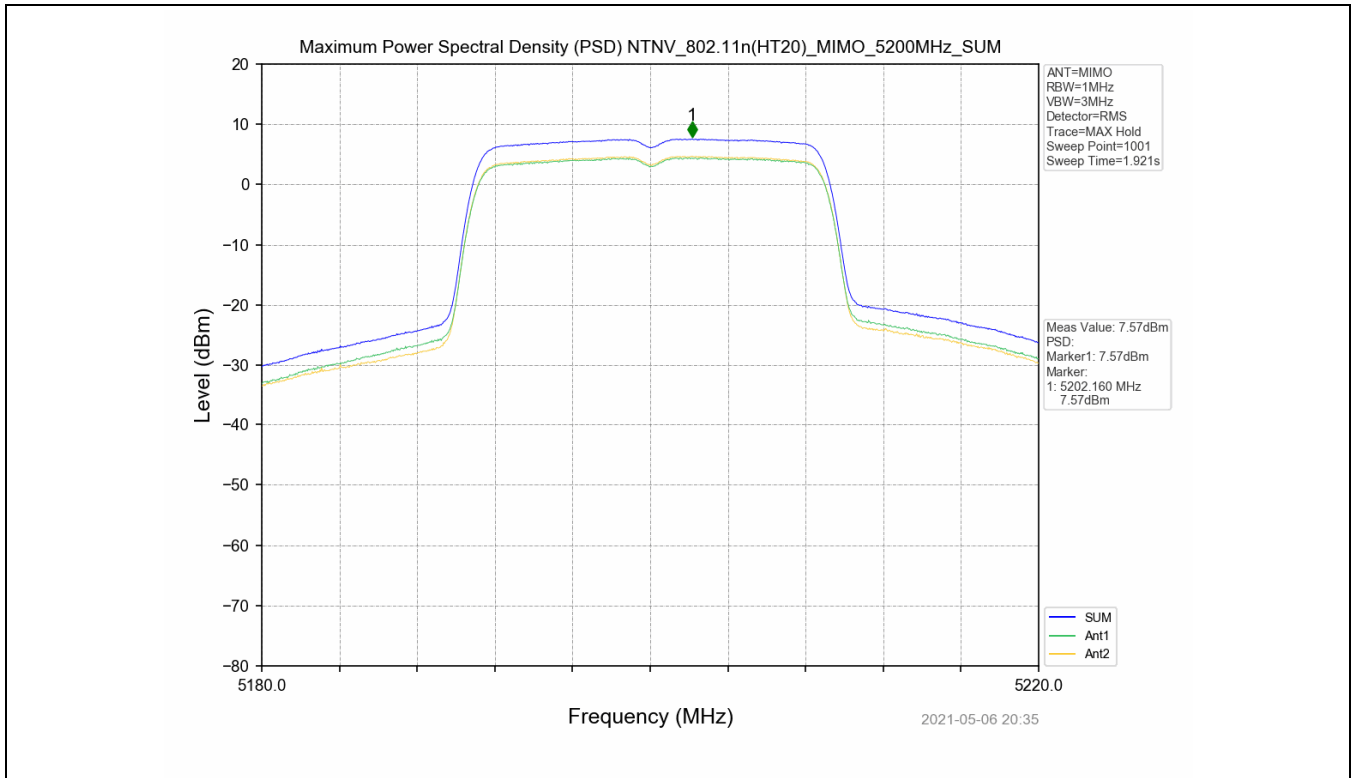
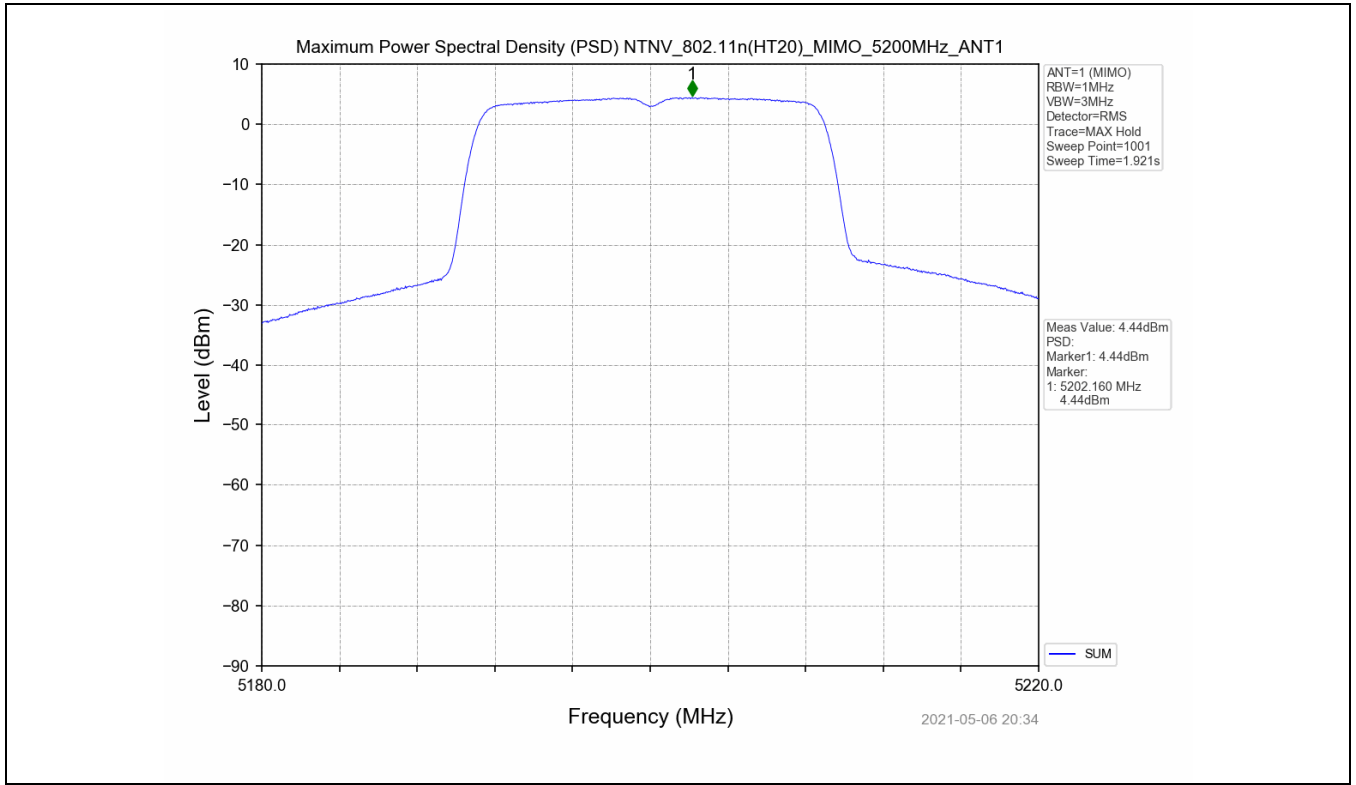


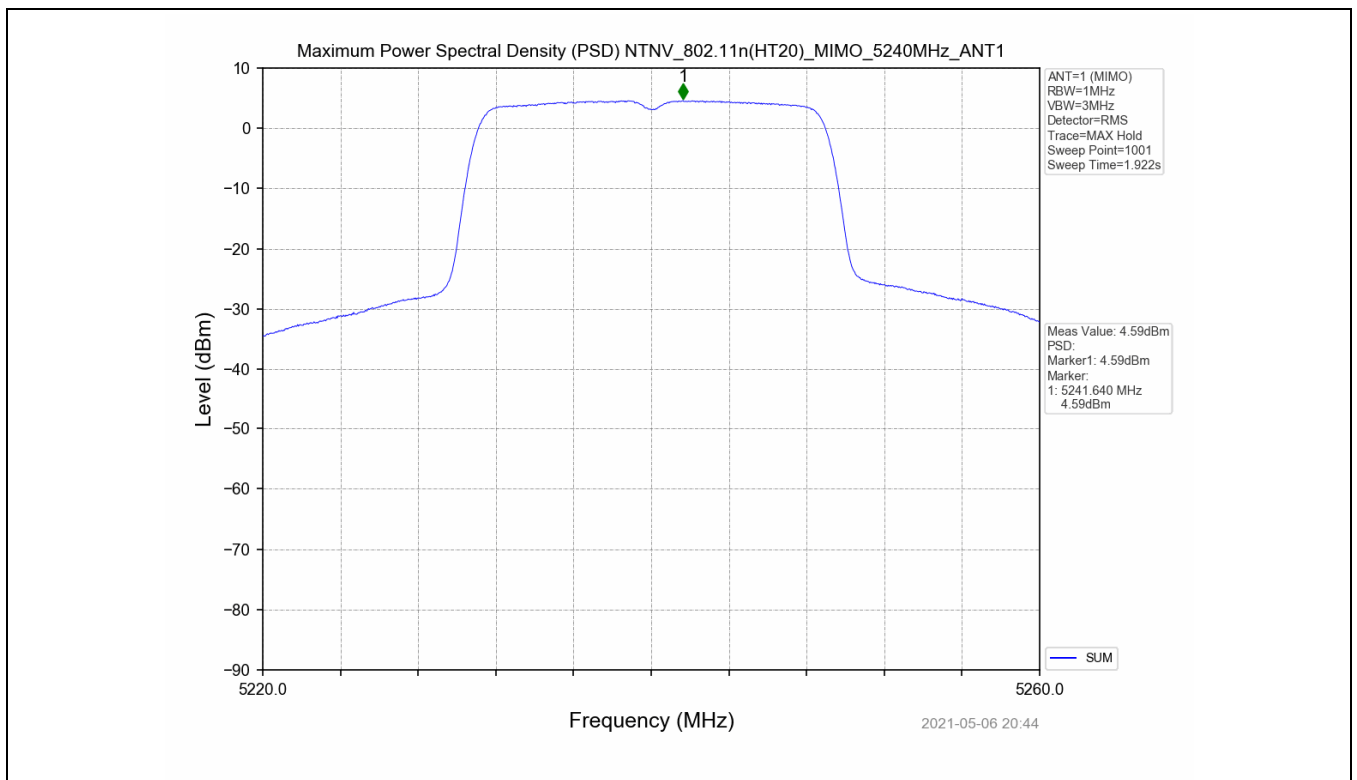
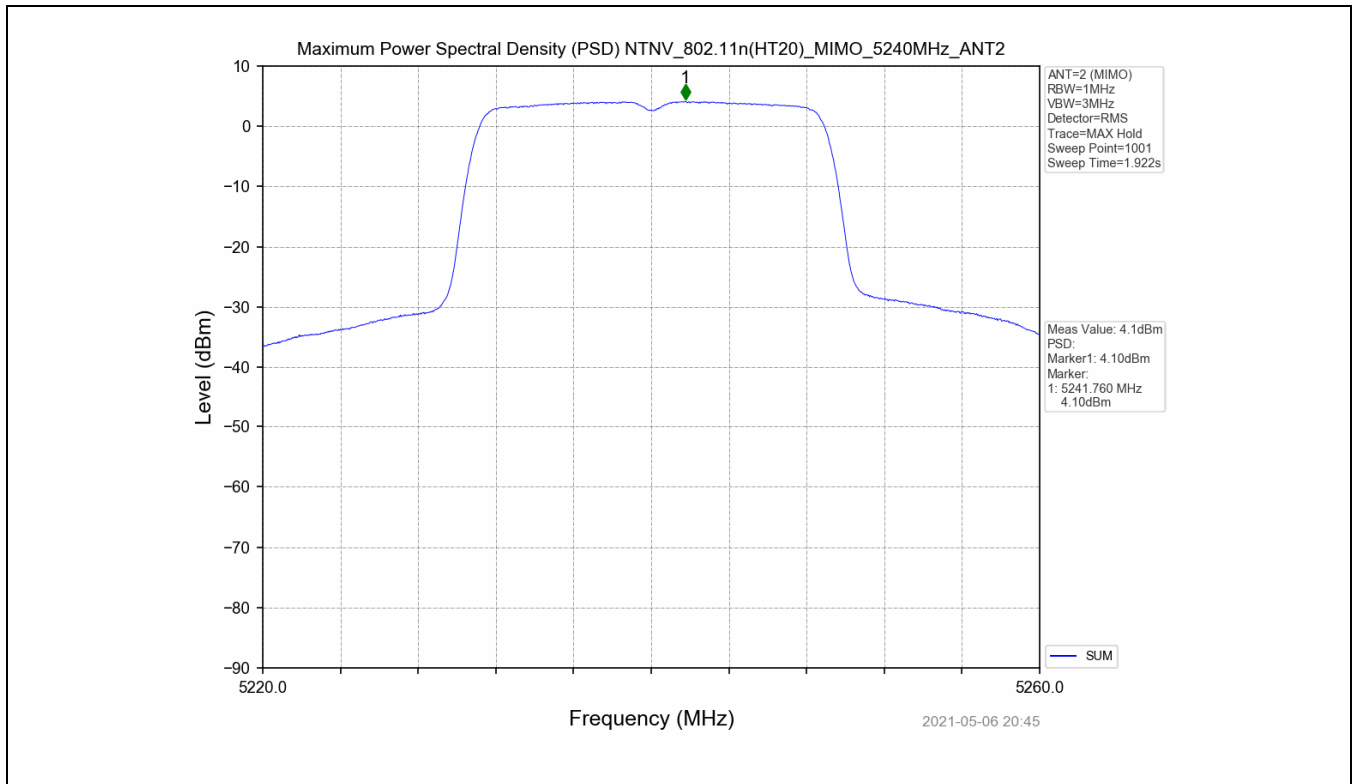


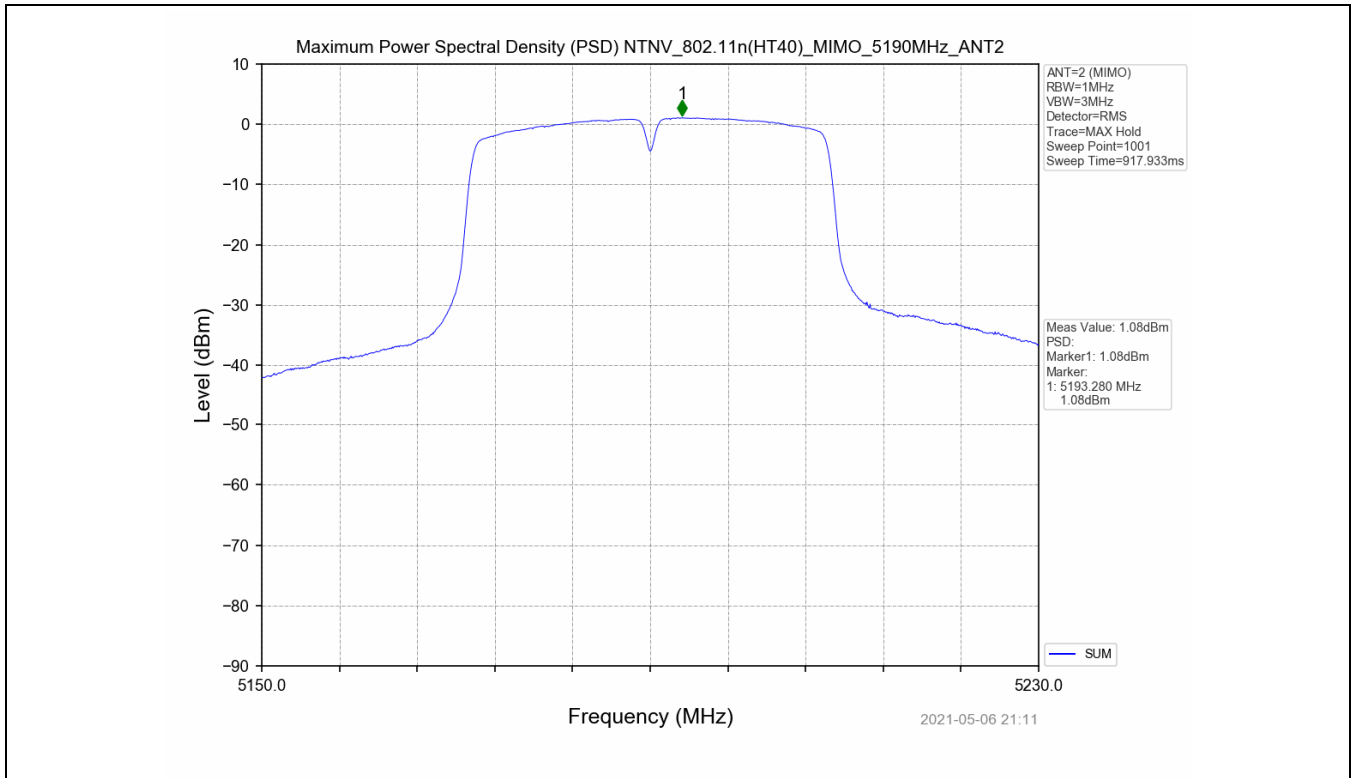
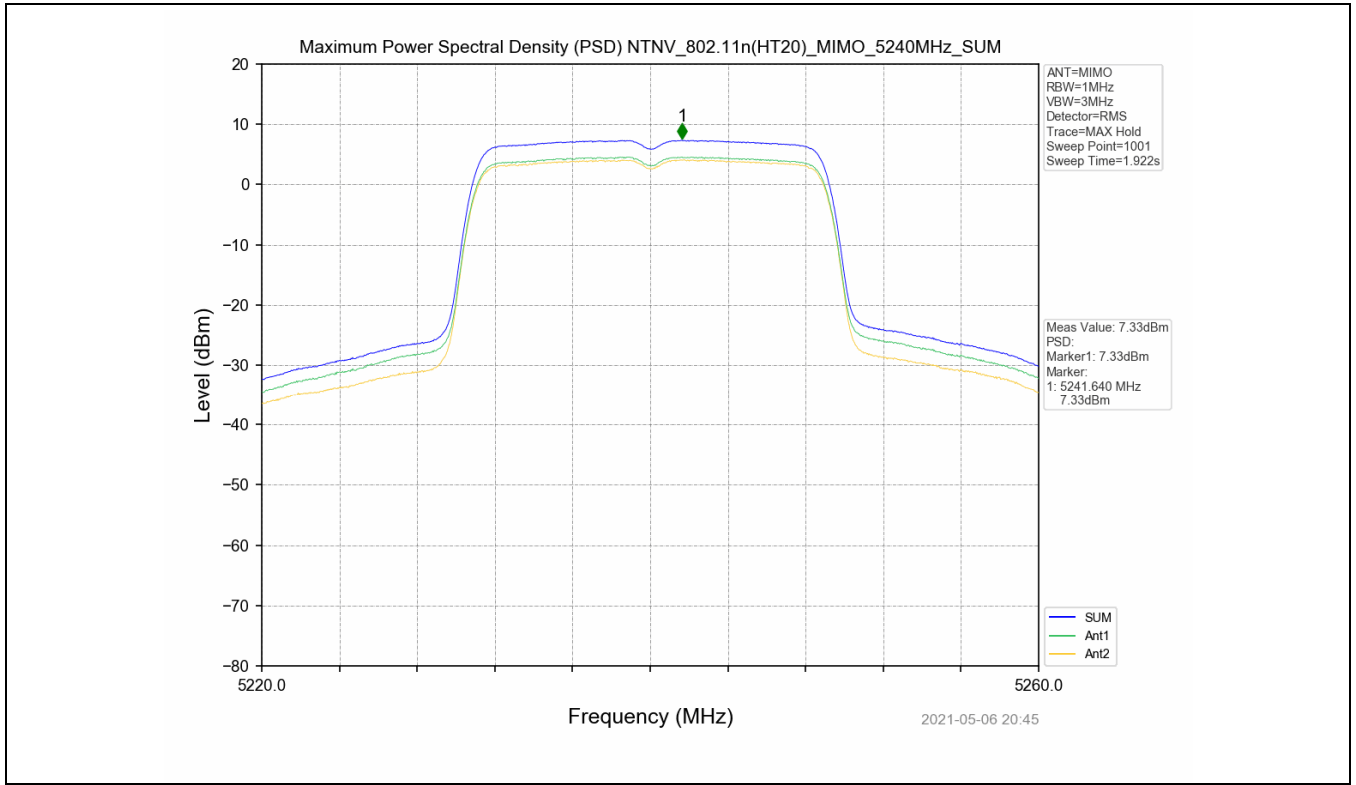


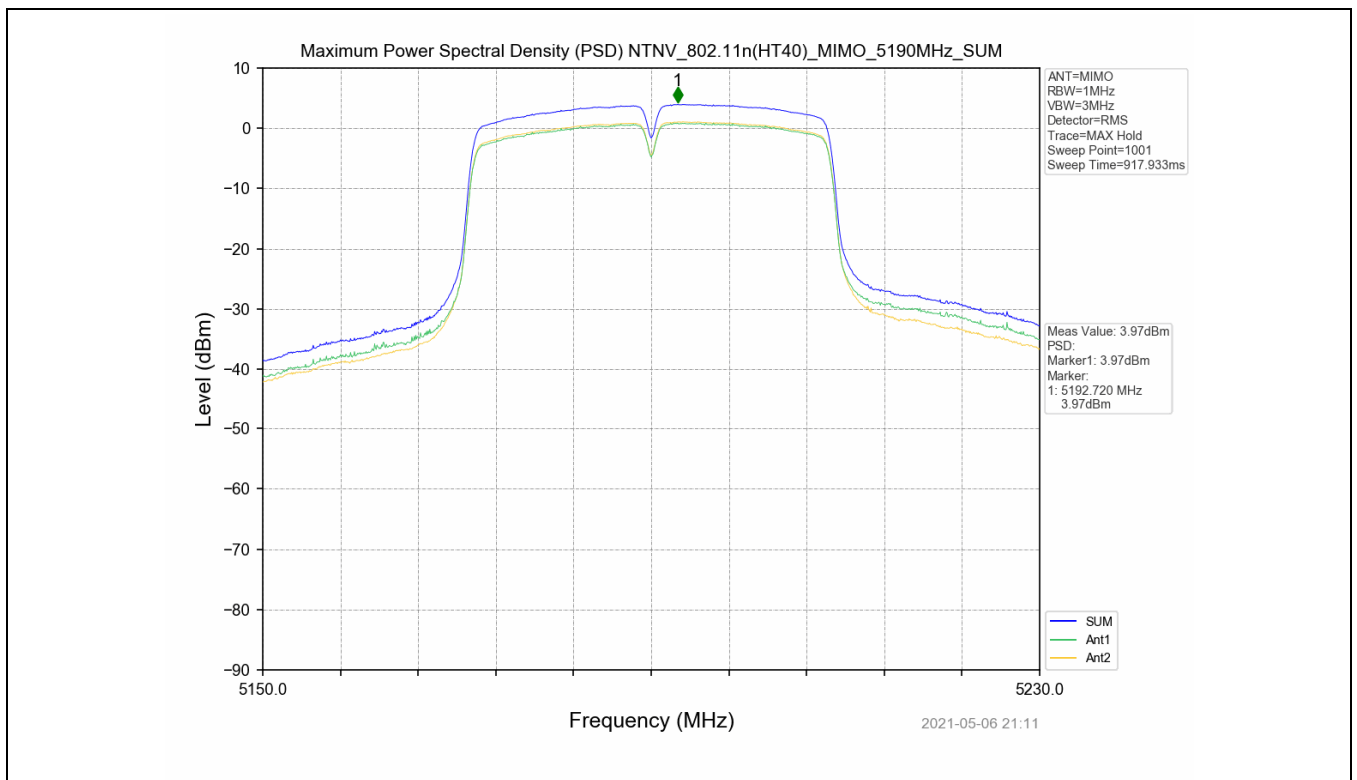
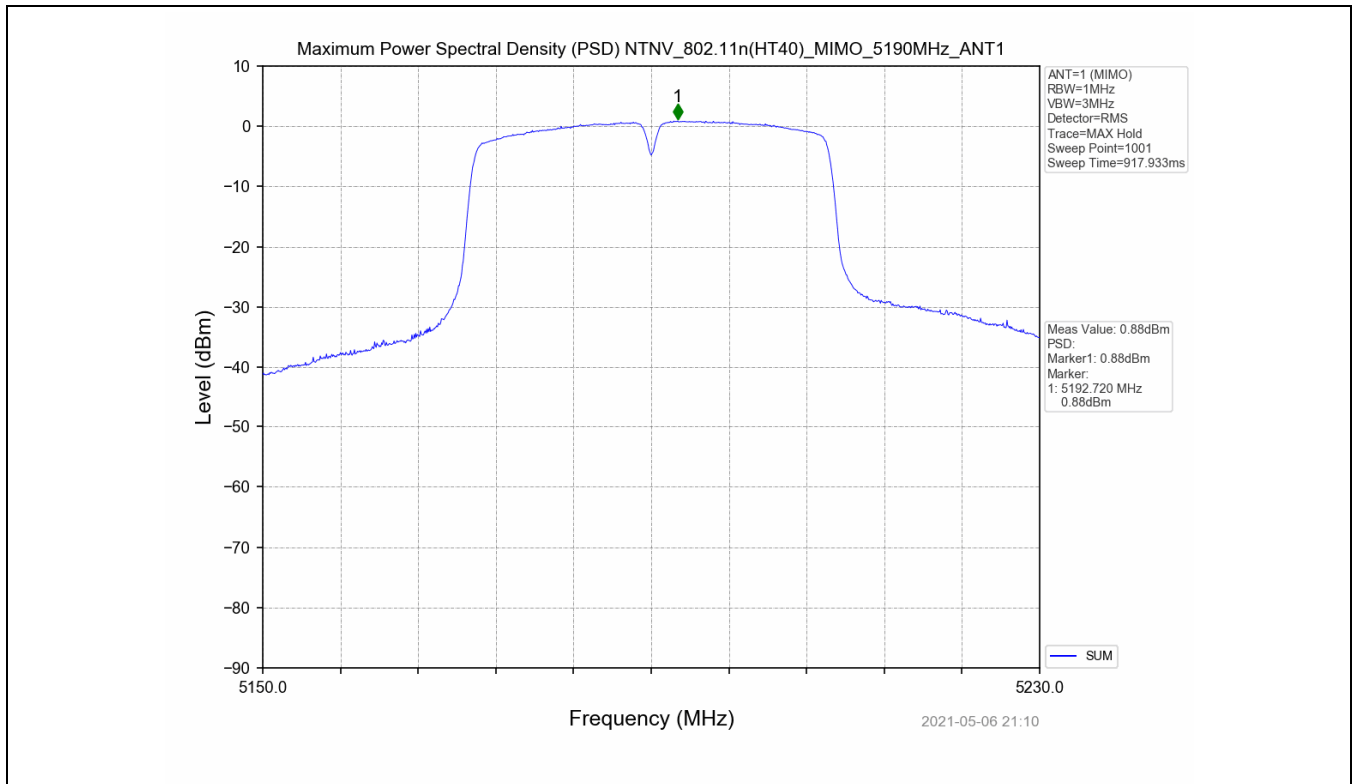


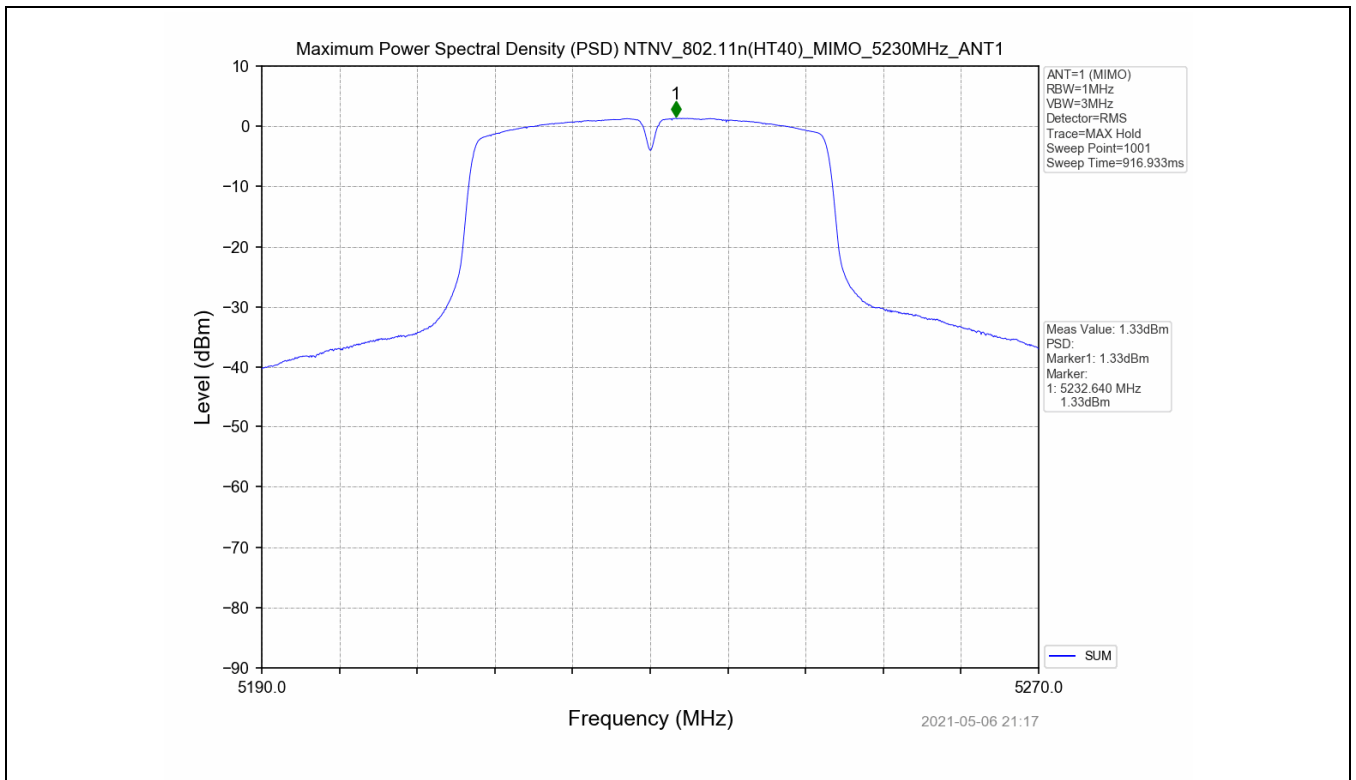
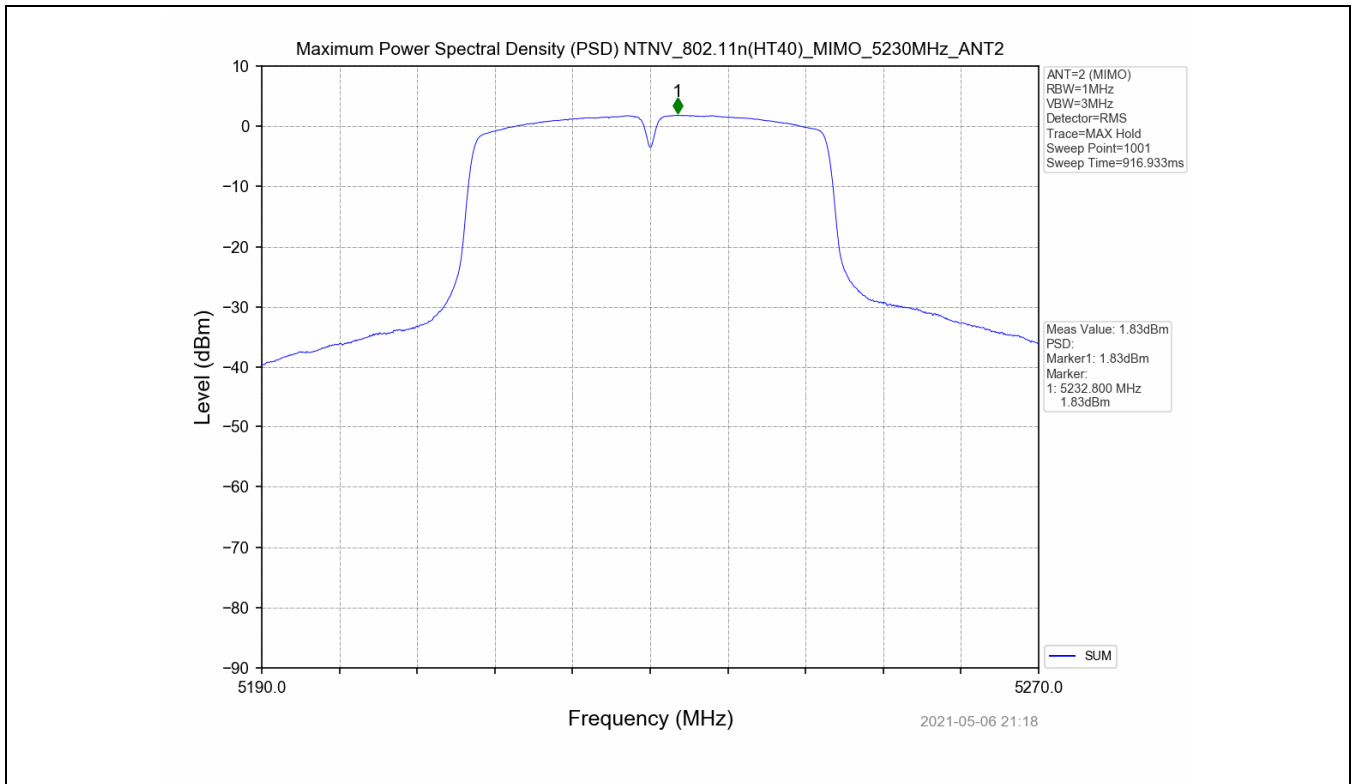


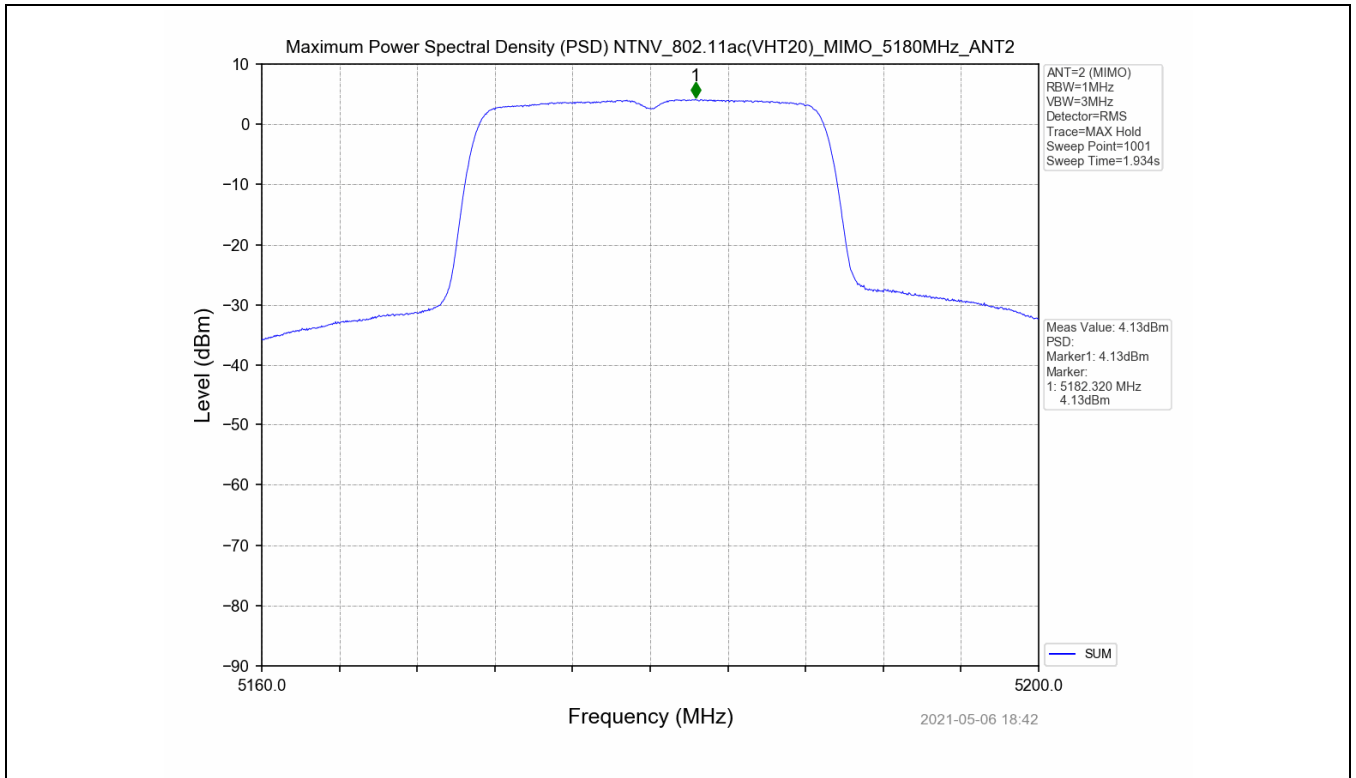
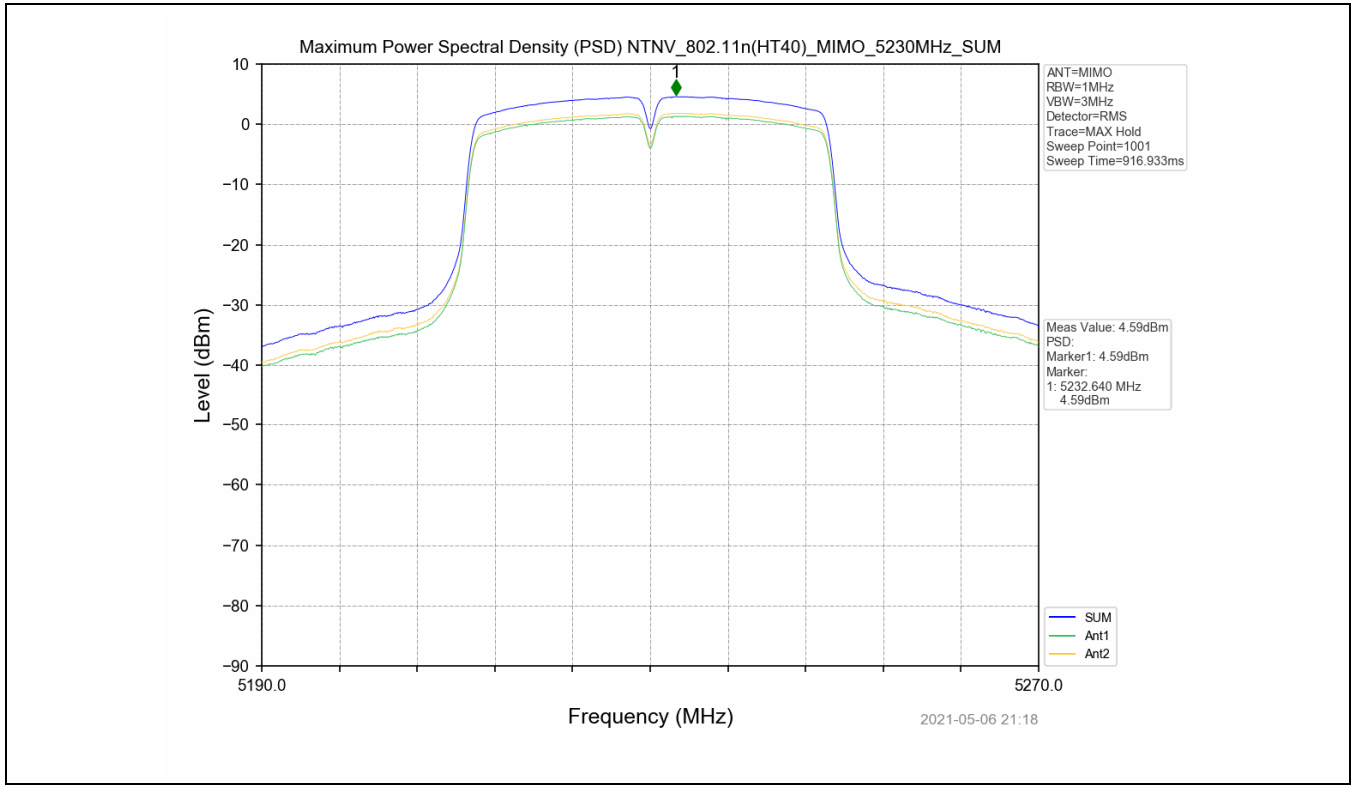






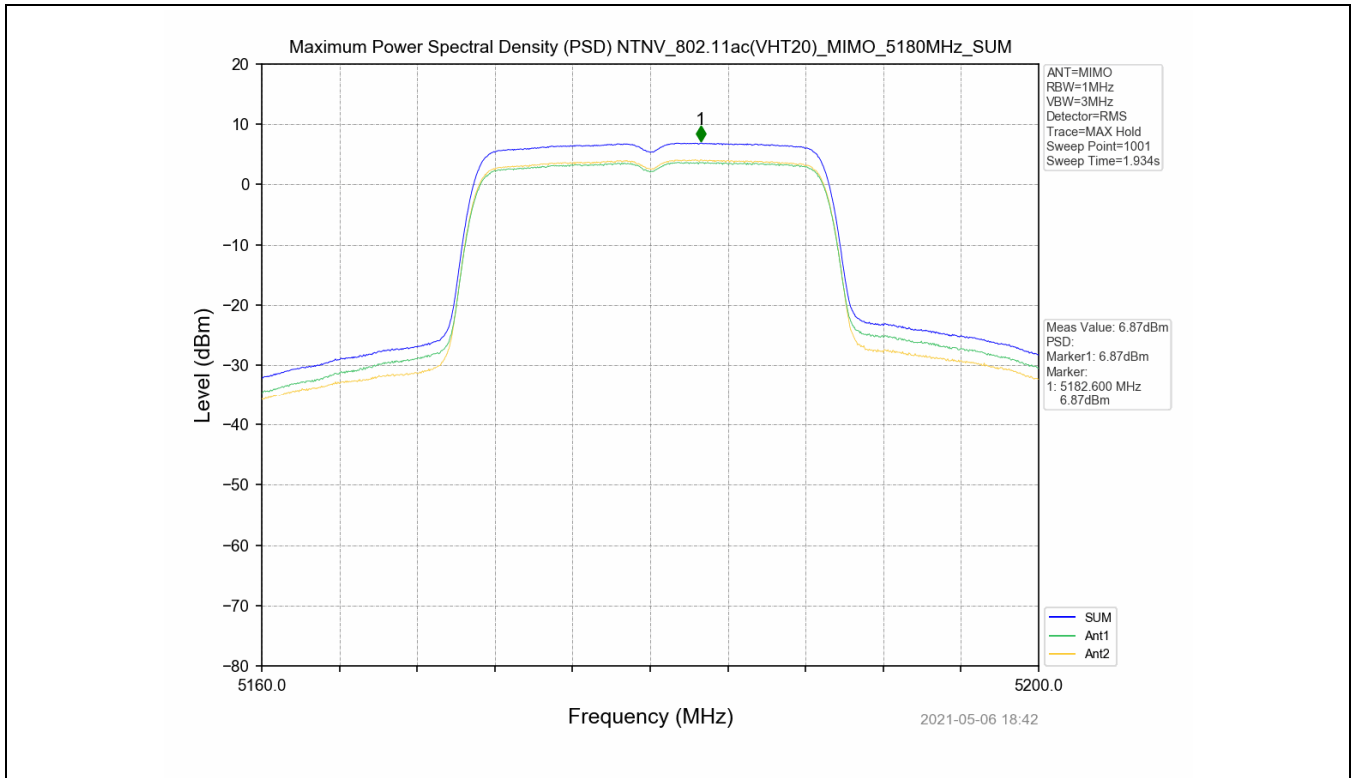
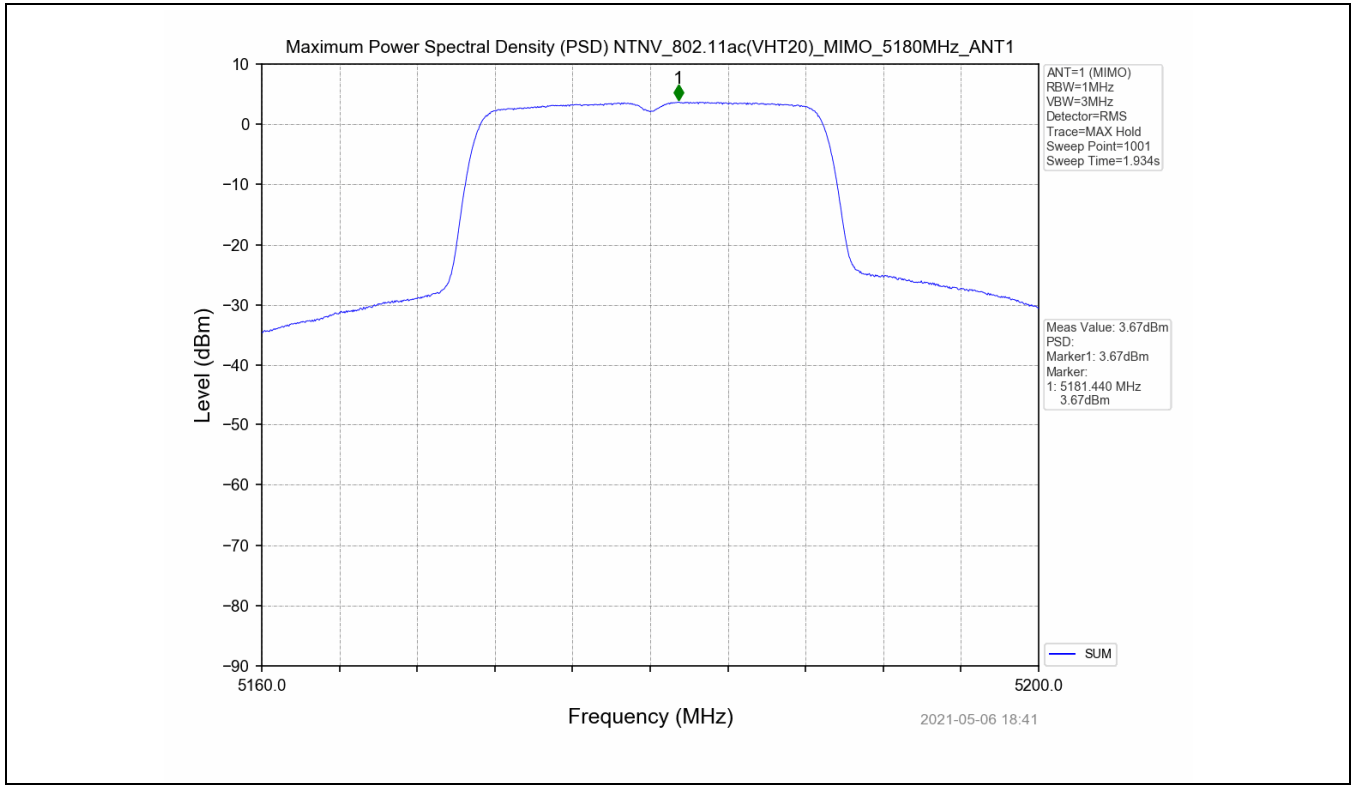


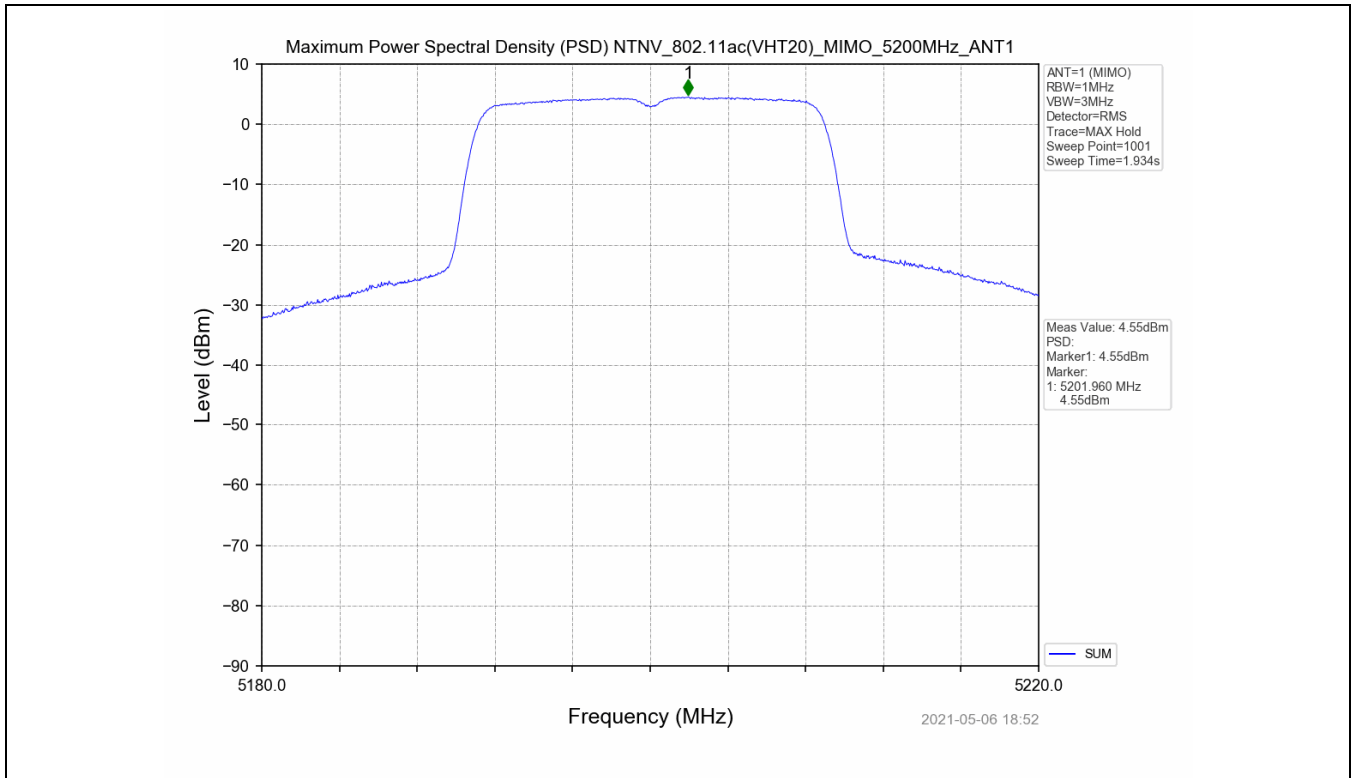
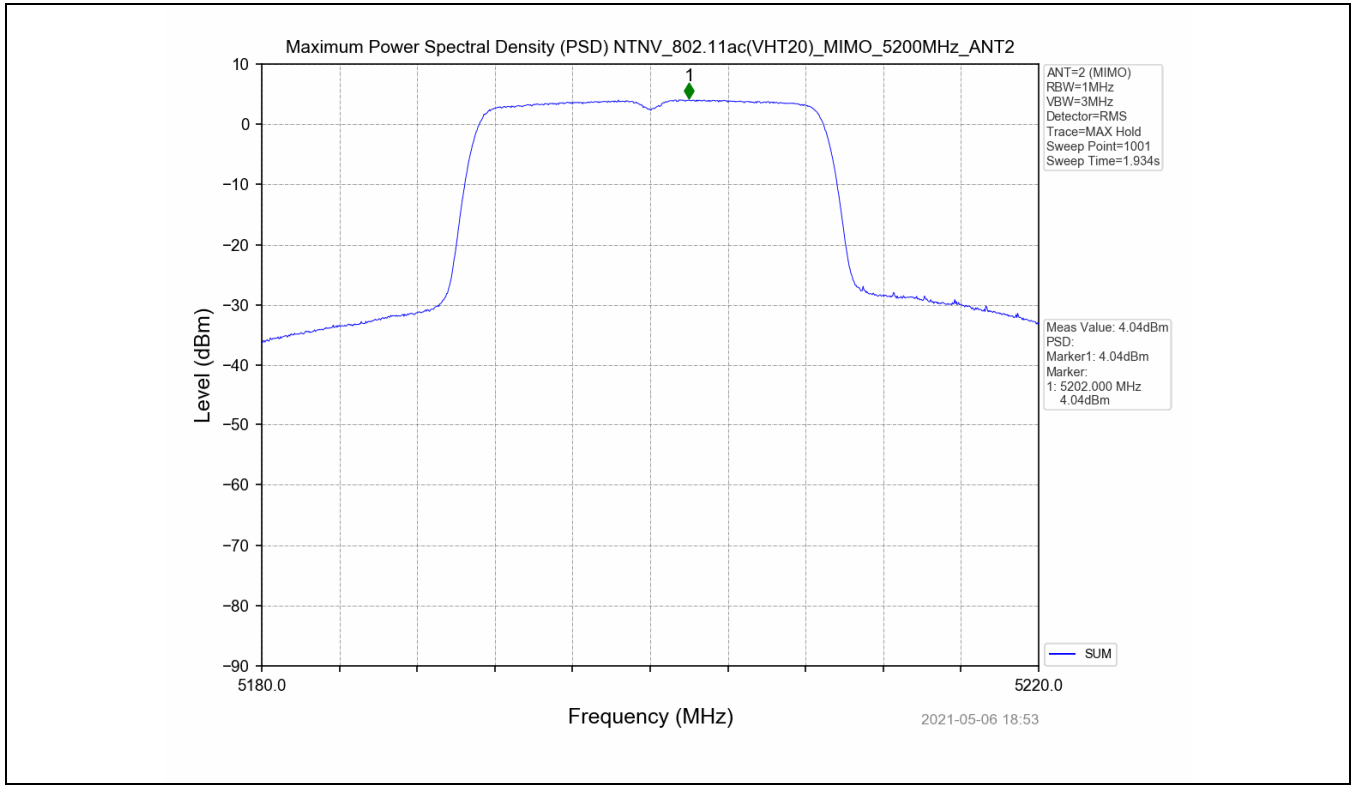


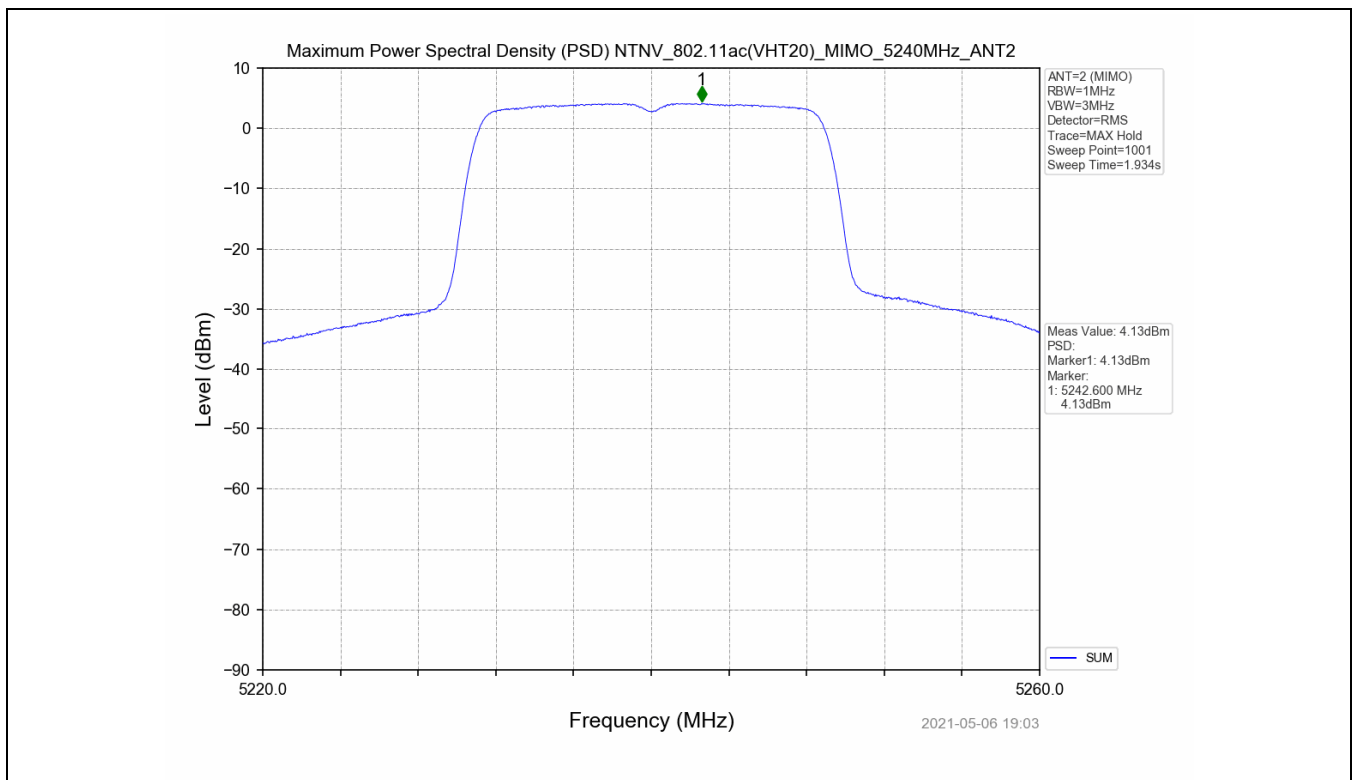
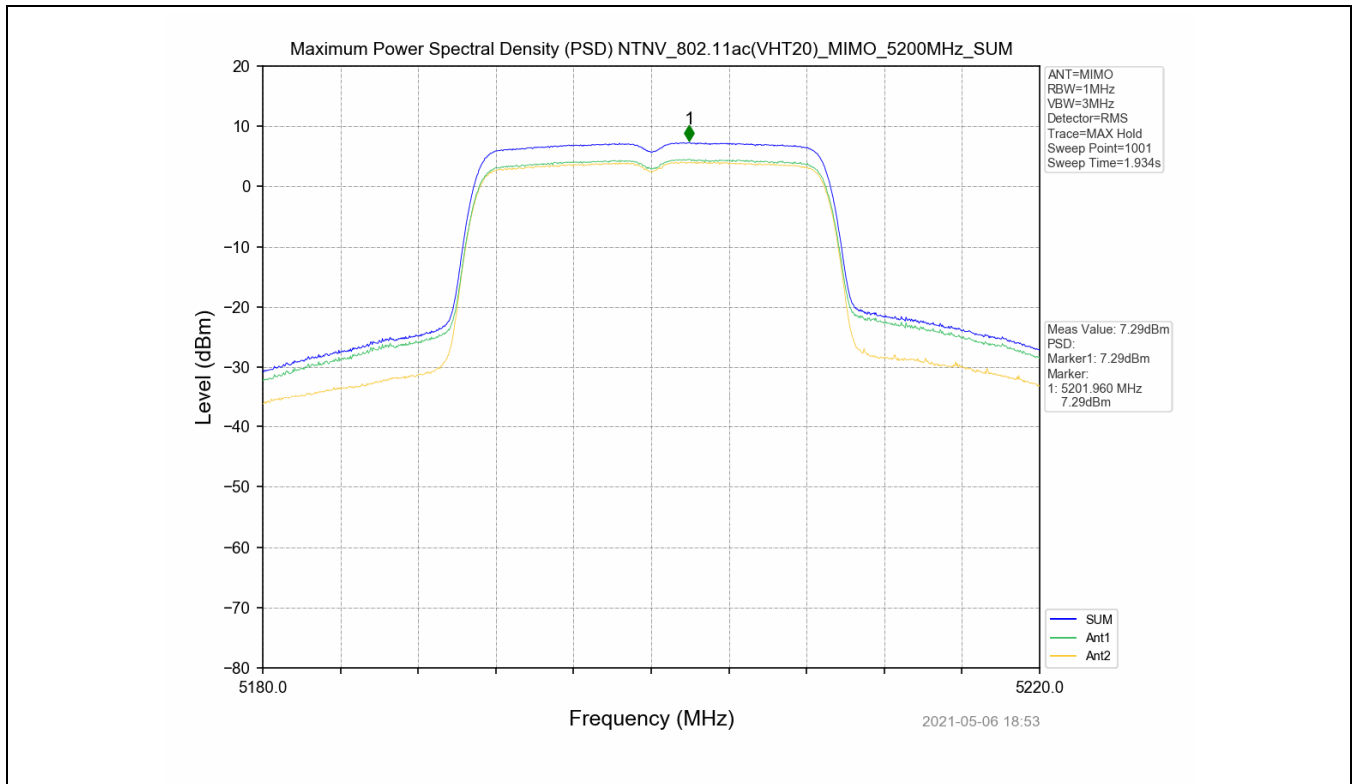


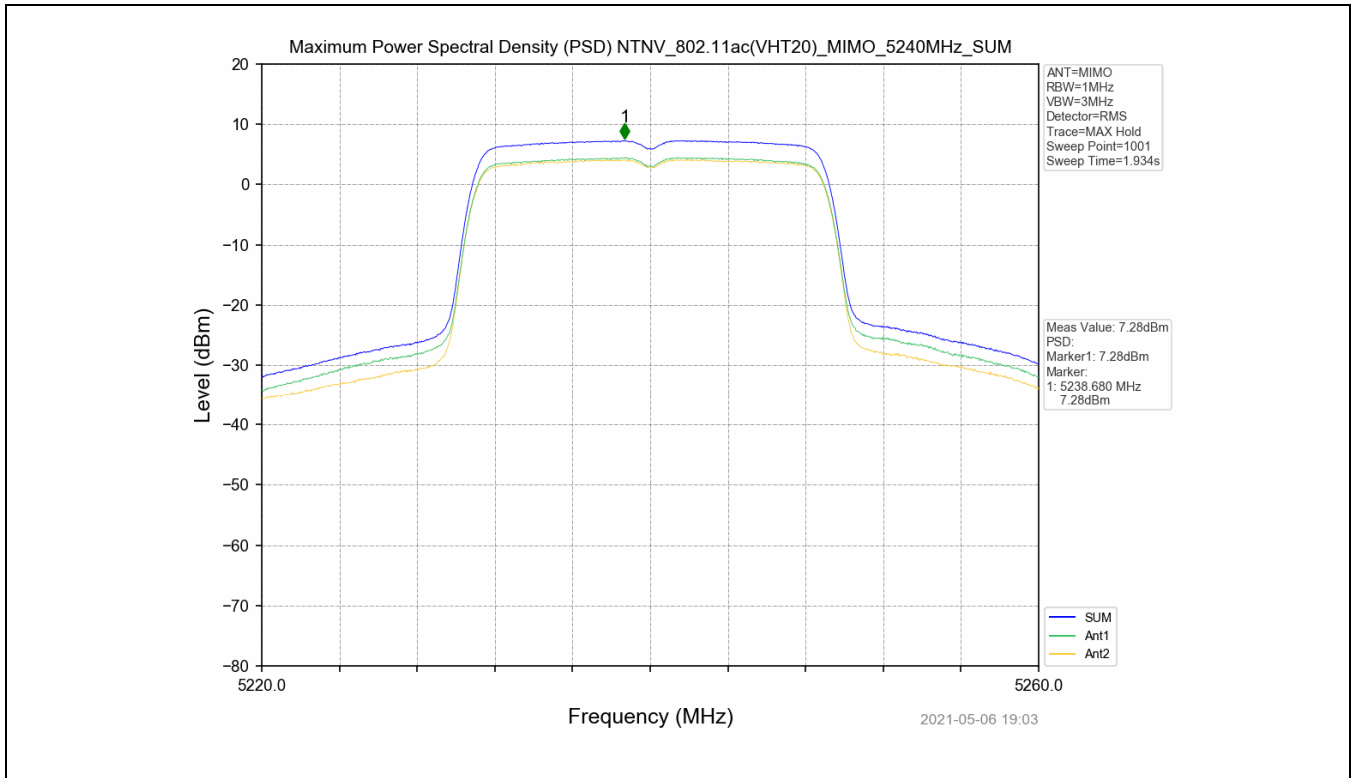
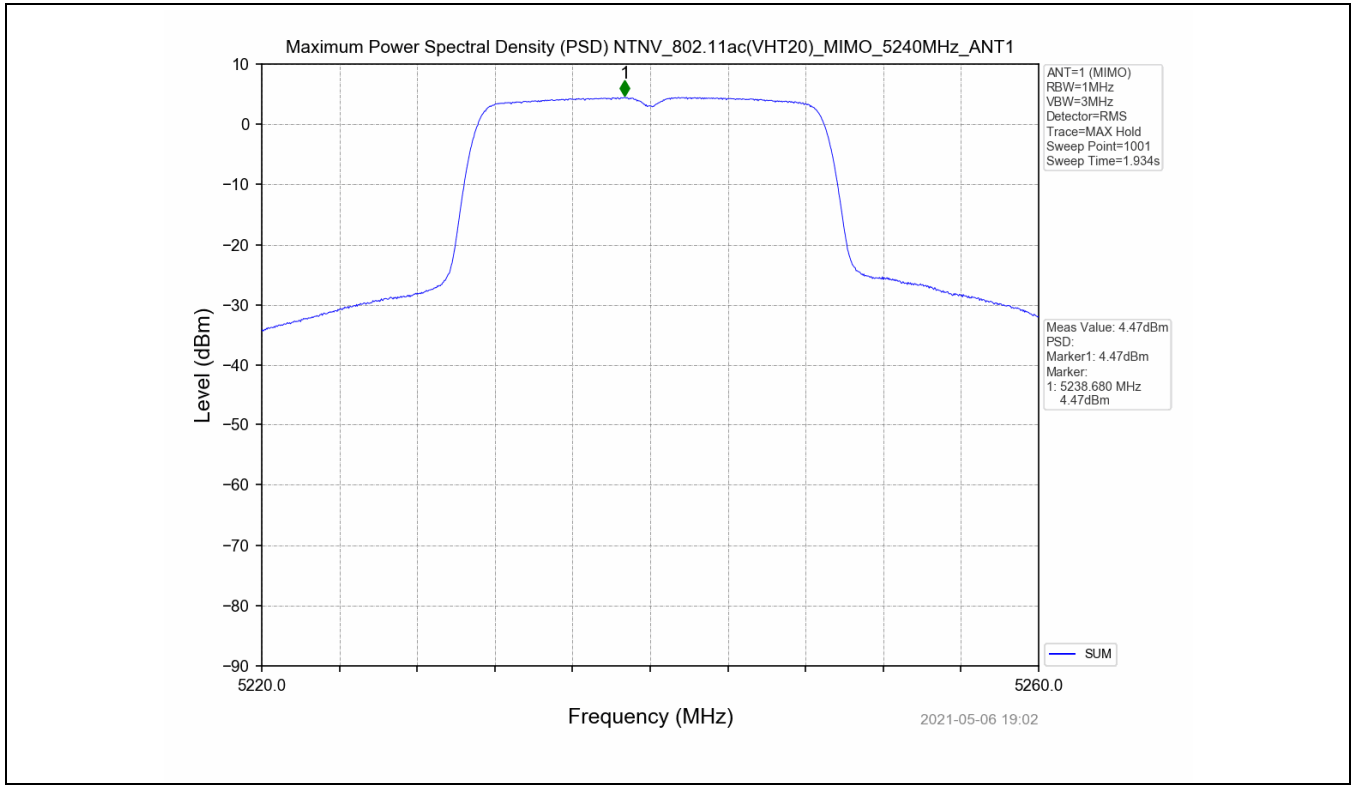
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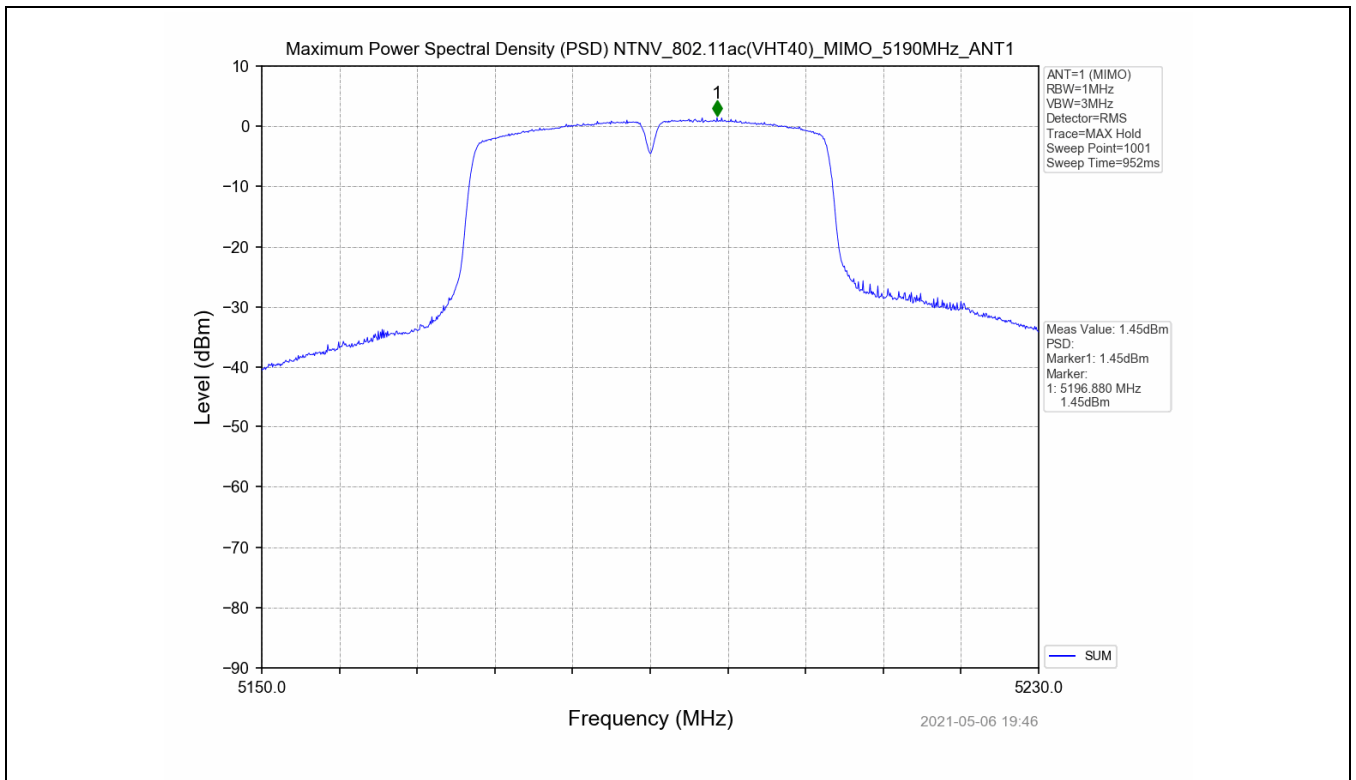
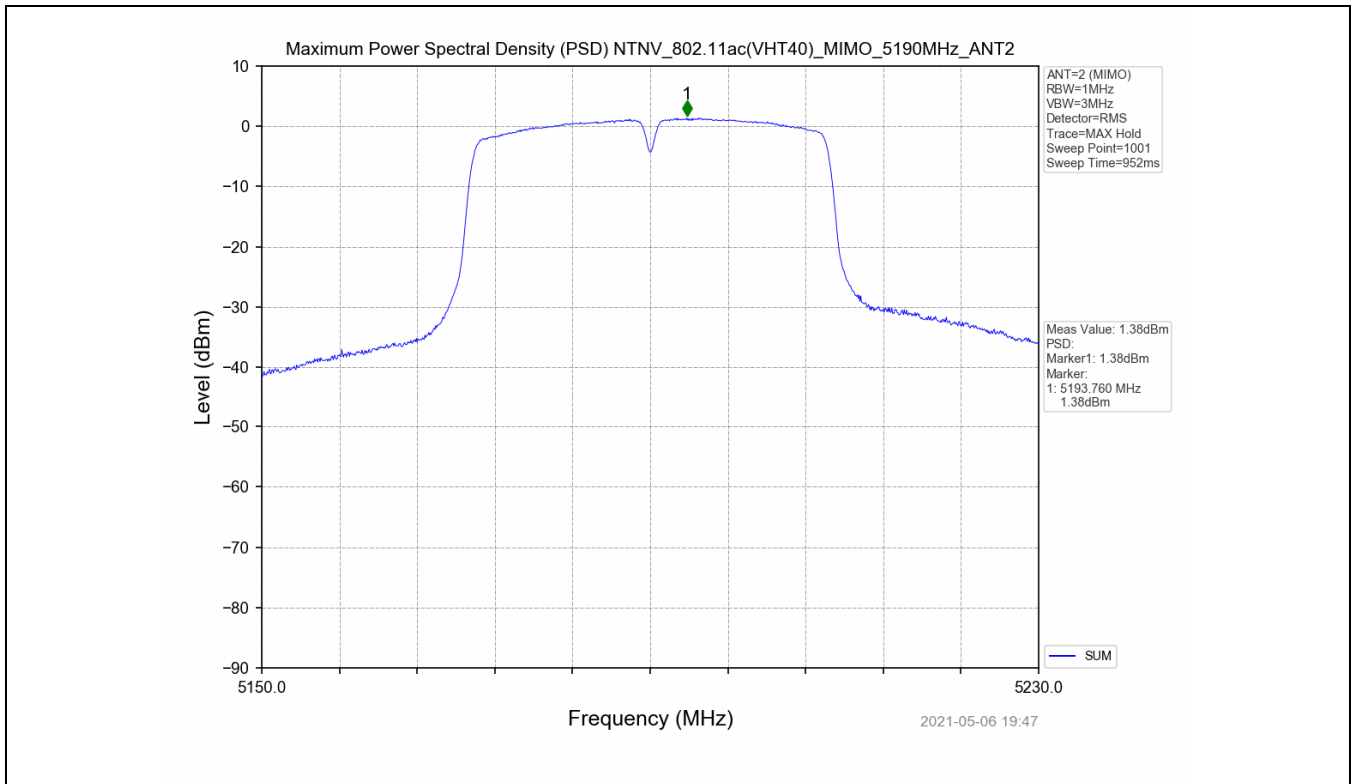
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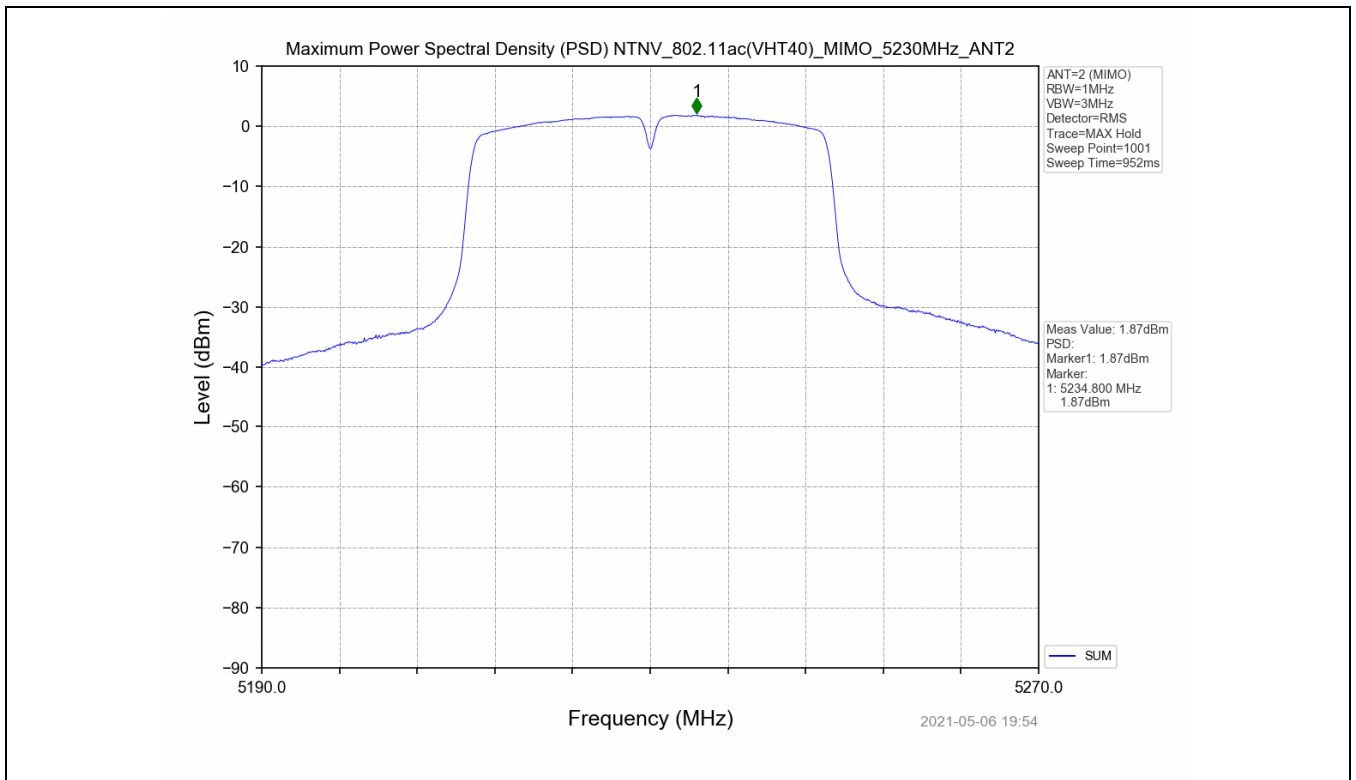
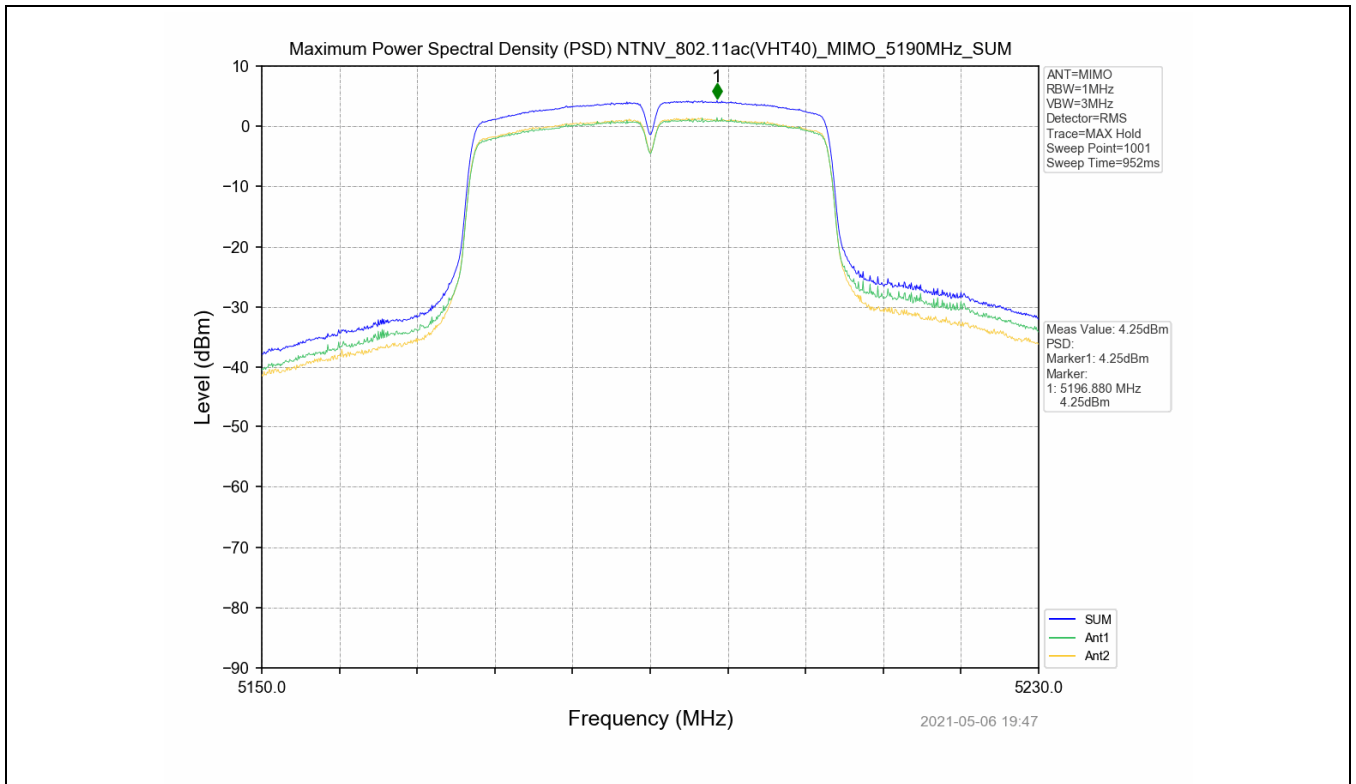


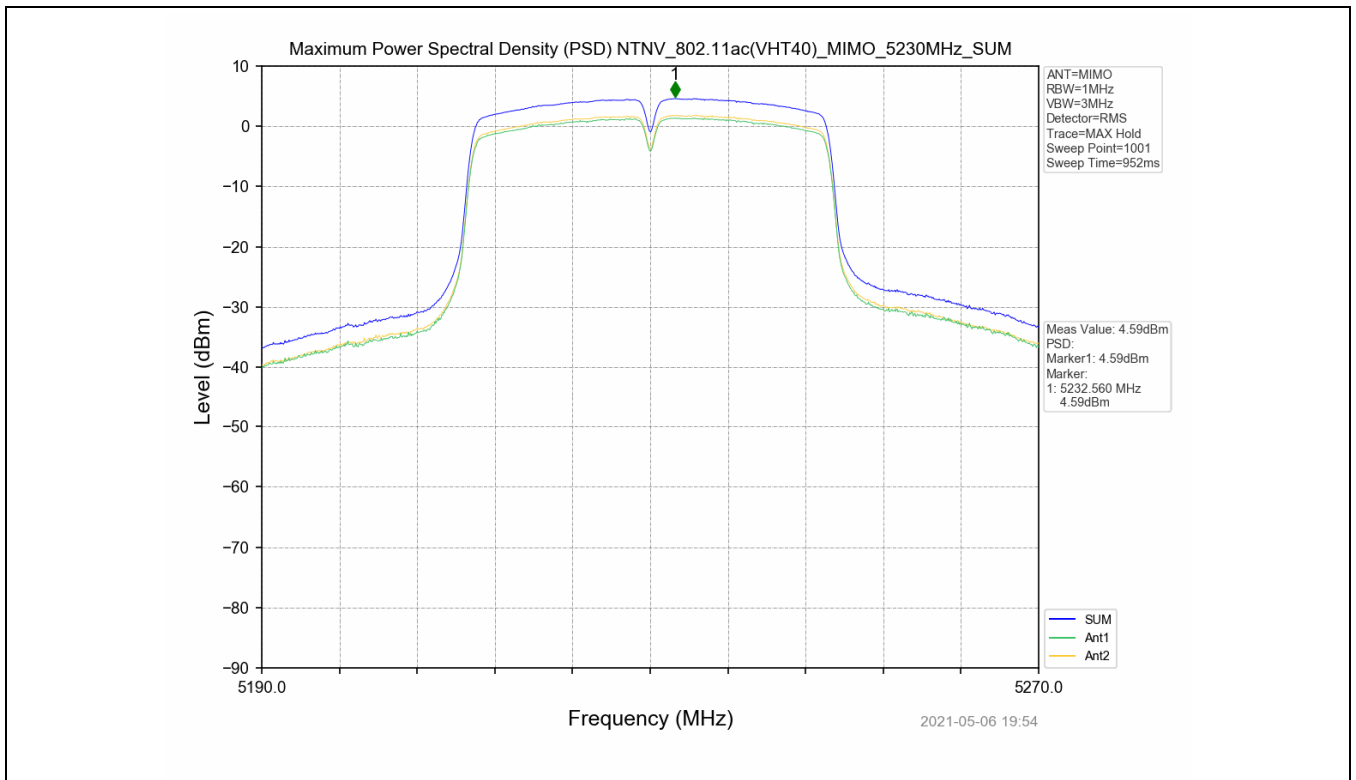
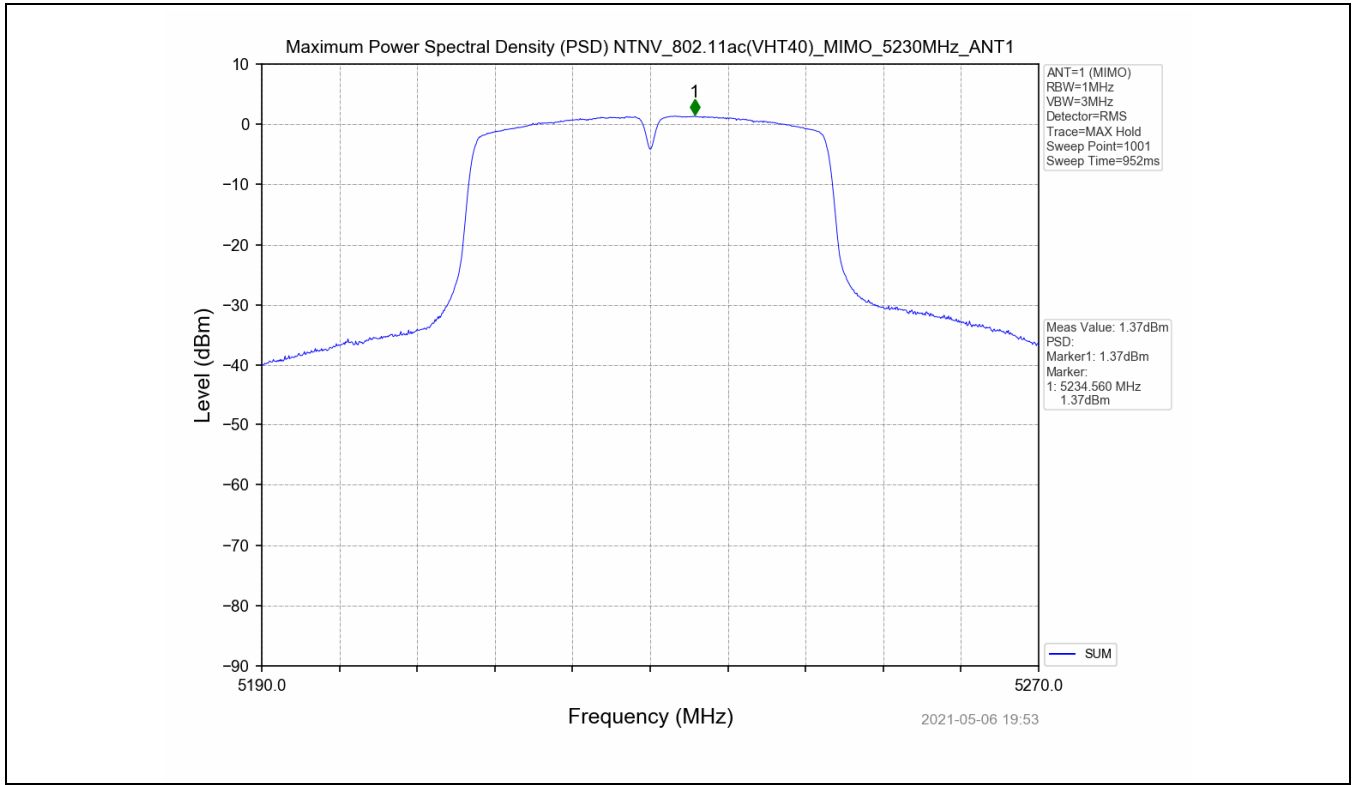


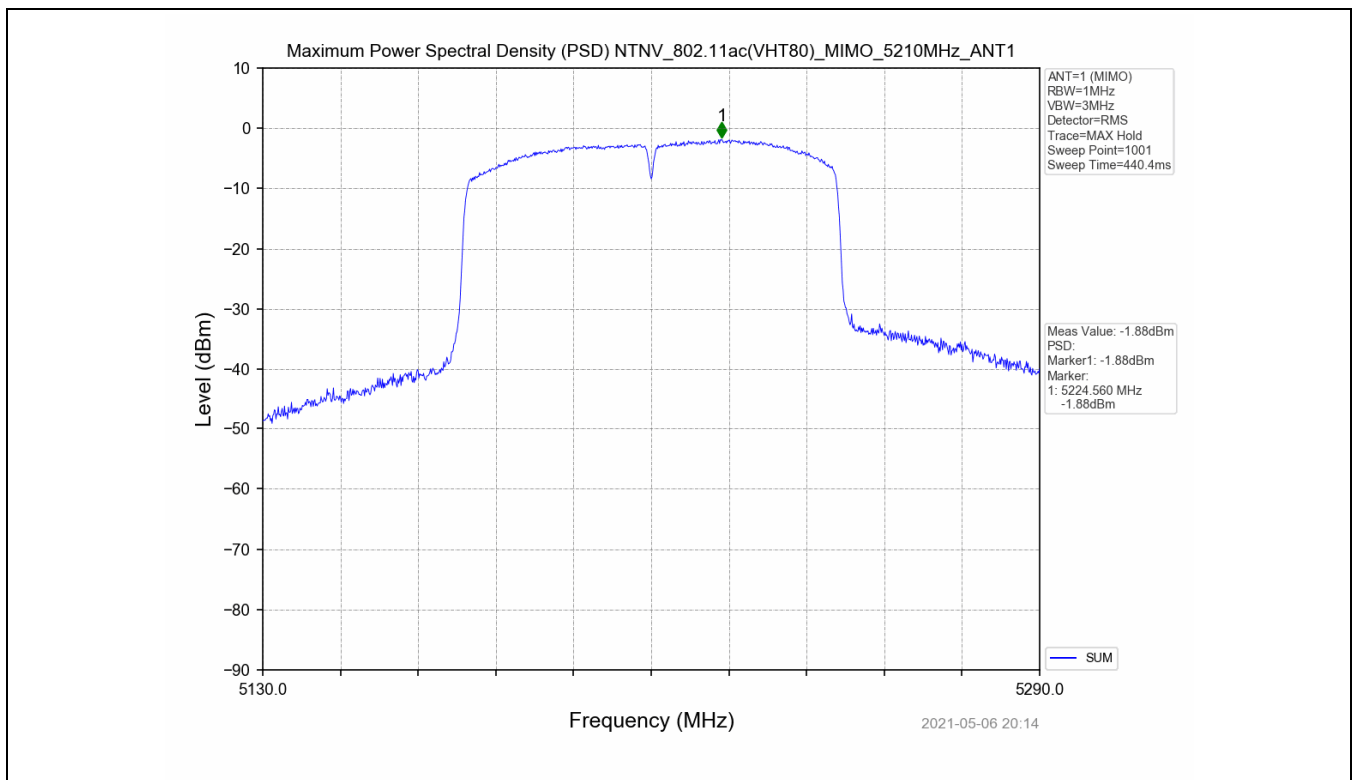
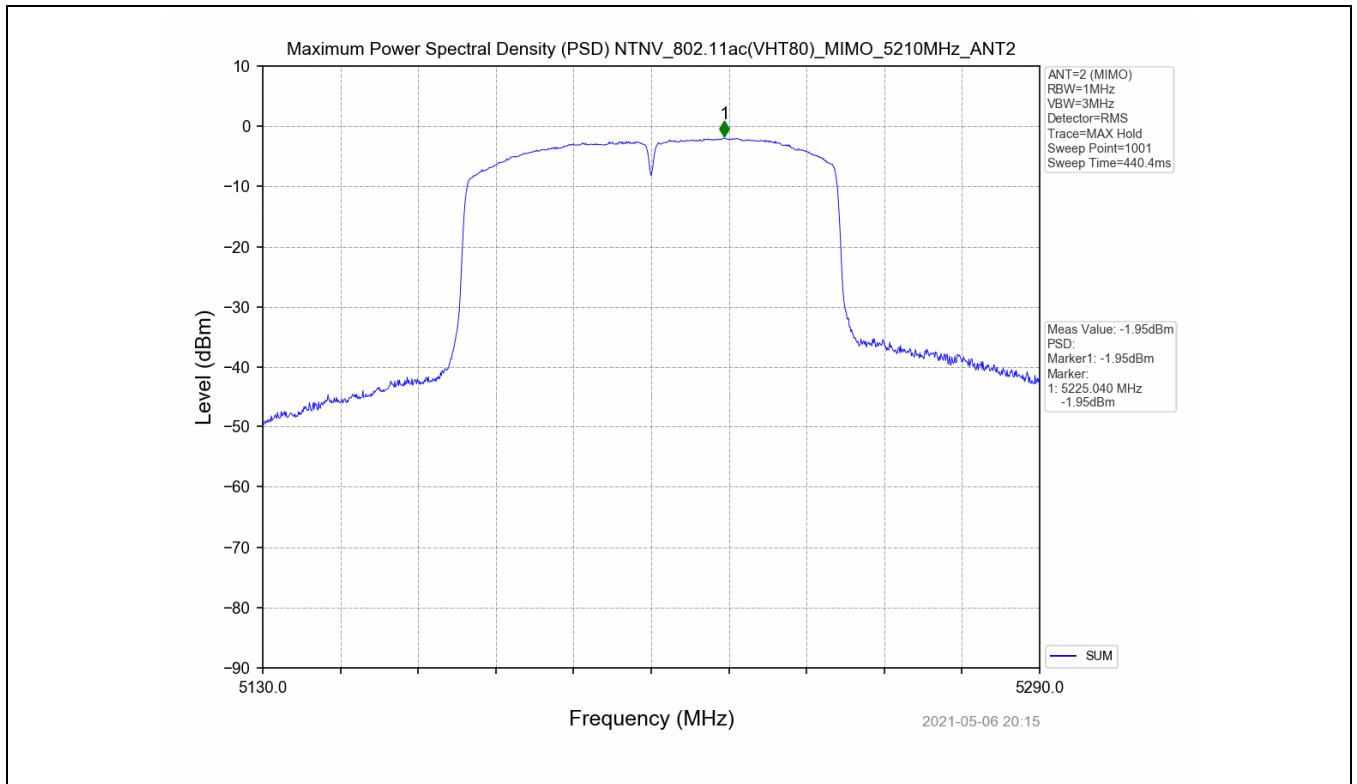


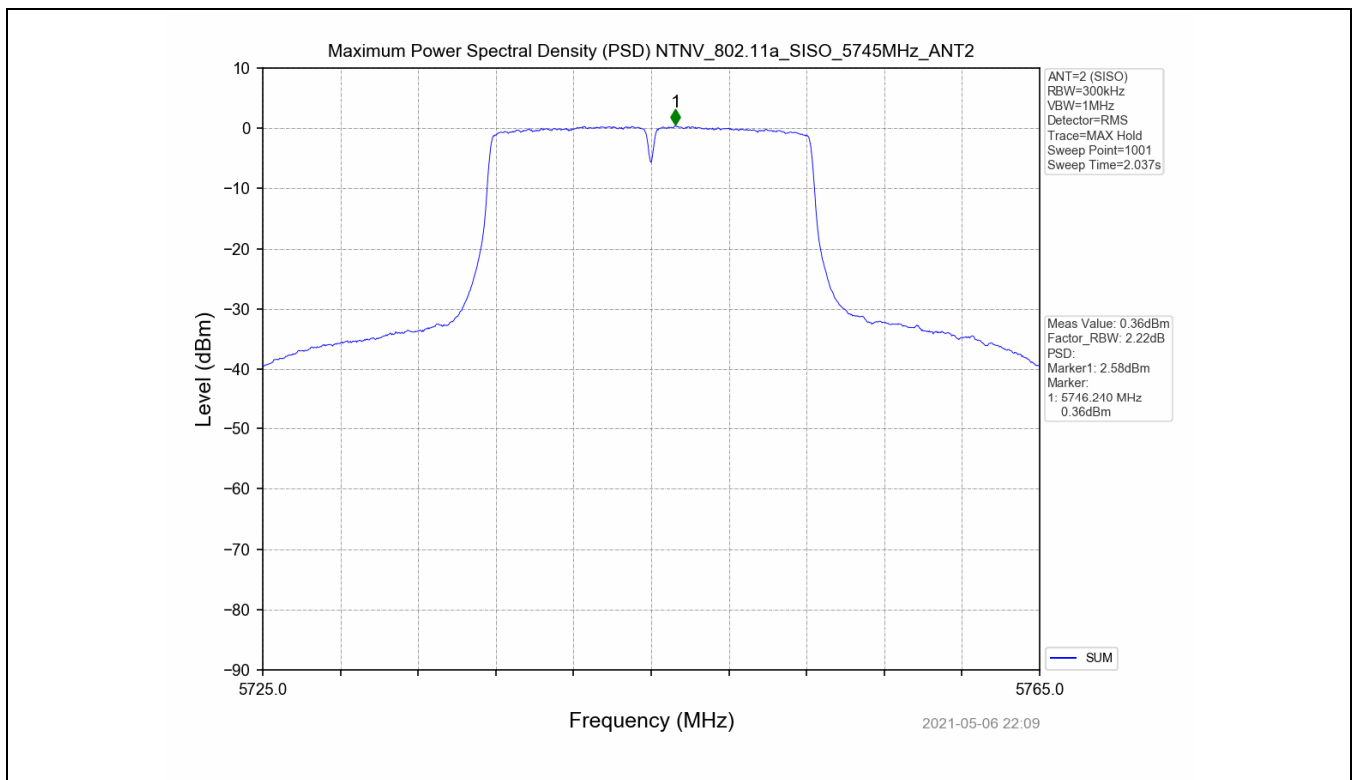
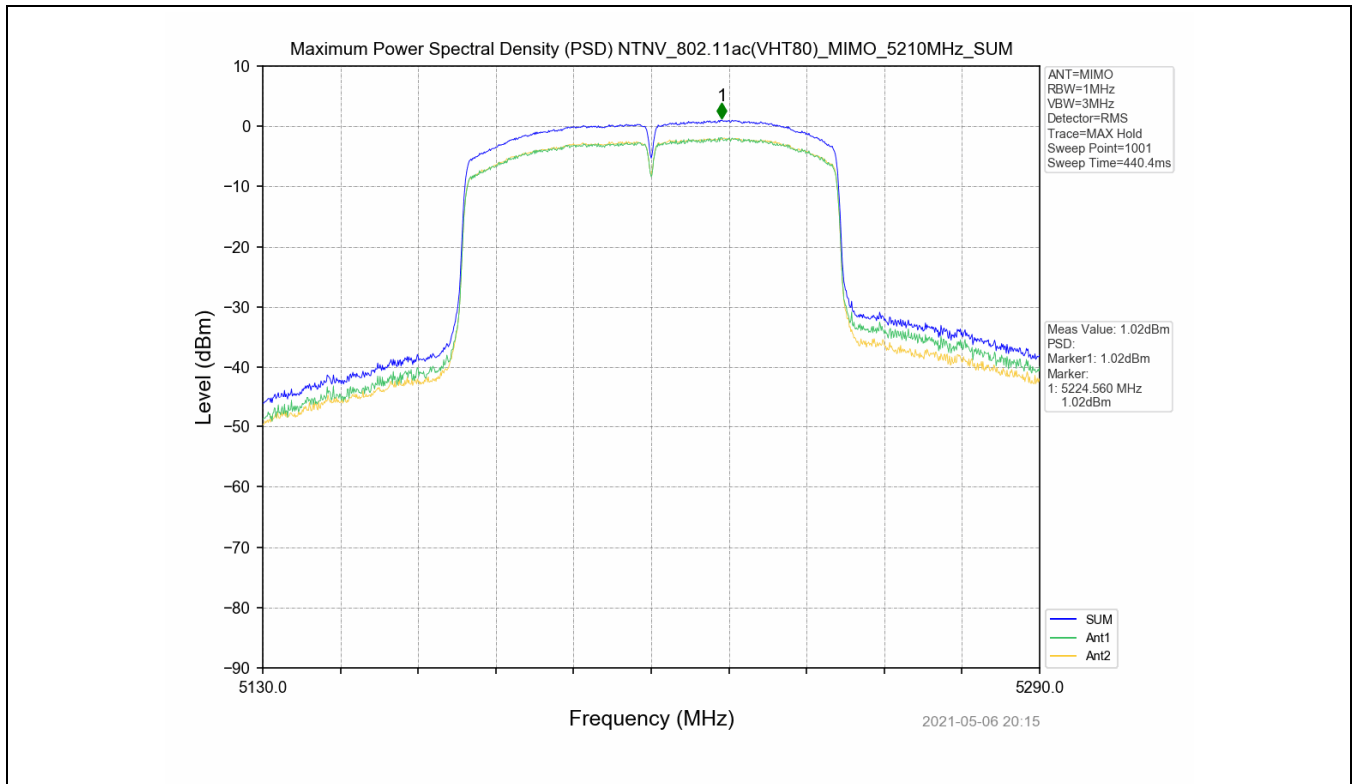












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