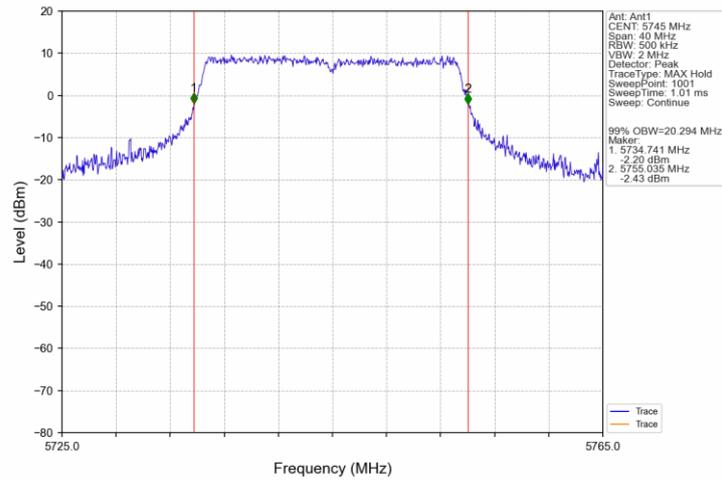
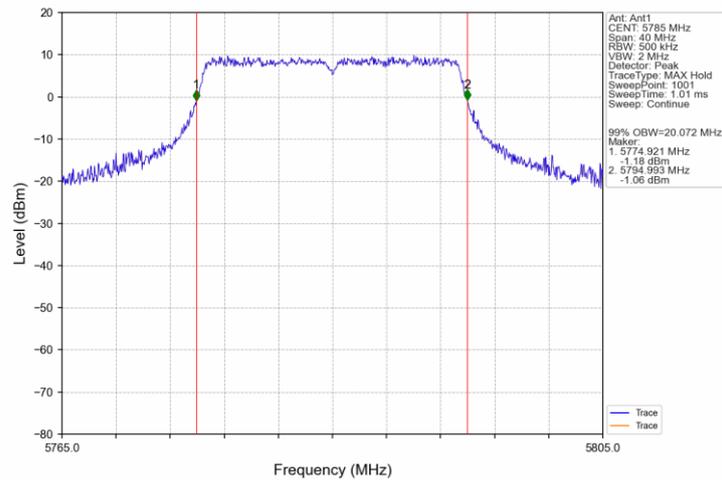


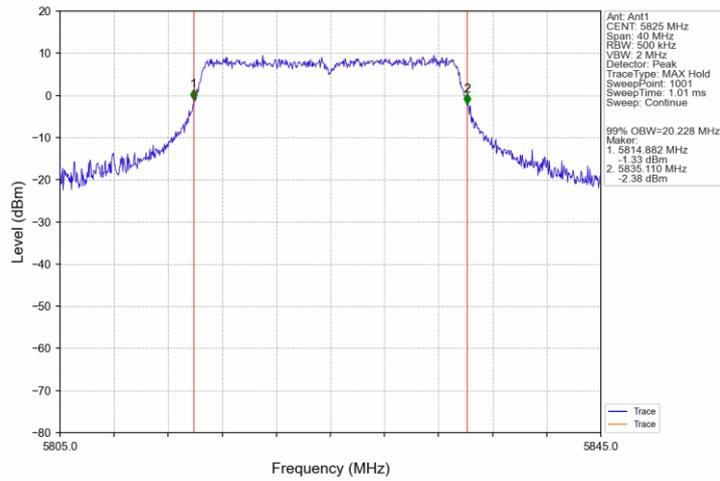
802.11ax(HEW20)_LCH_5745MHz_RU242_Left_Ant1_NTNV



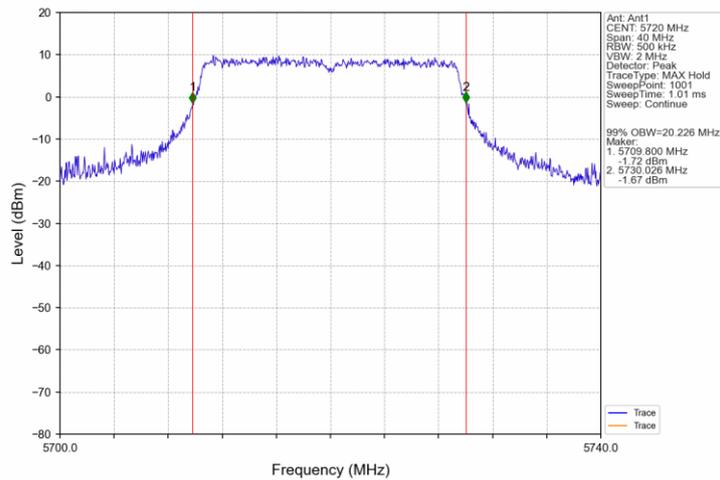
802.11ax(HEW20)_MCH_5785MHz_RU242_Left_Ant1_NTNV



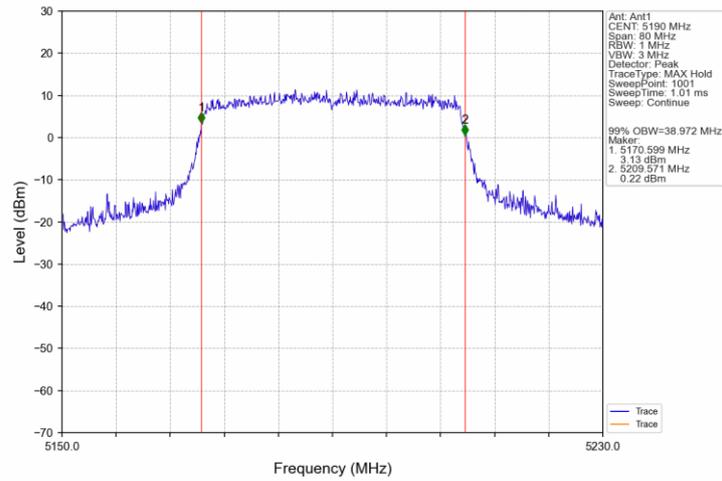
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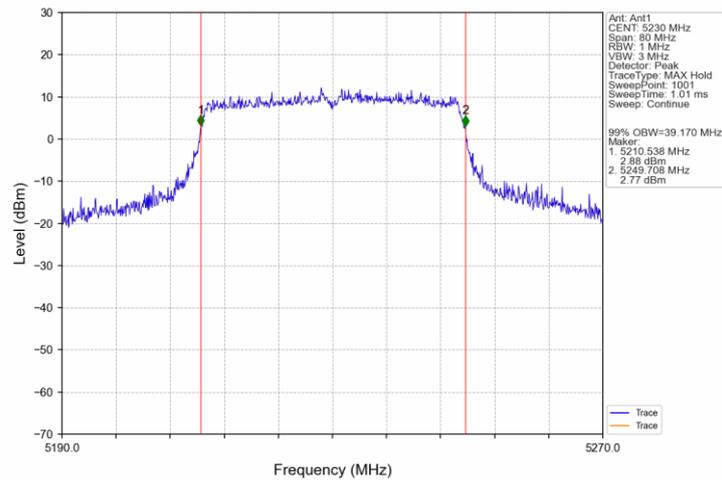
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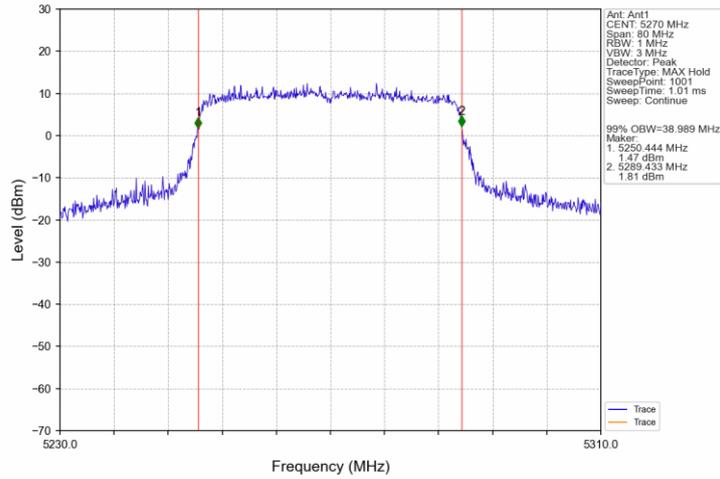
802.11ax(HEW40)_LCH_5190MHz_RU484_Left_Ant1_NTNV



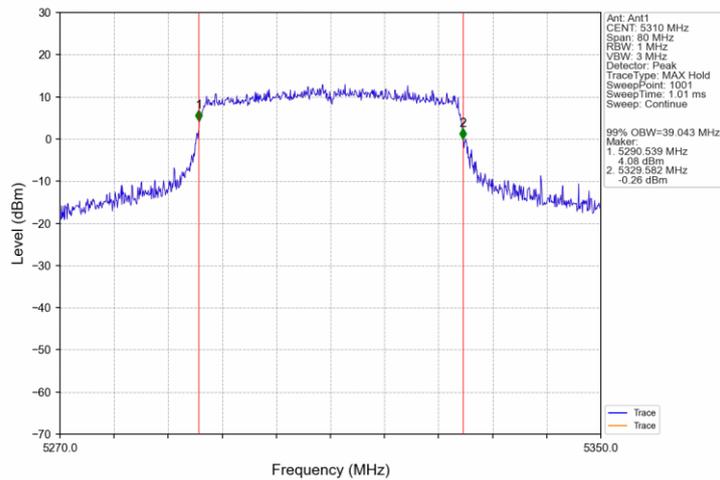
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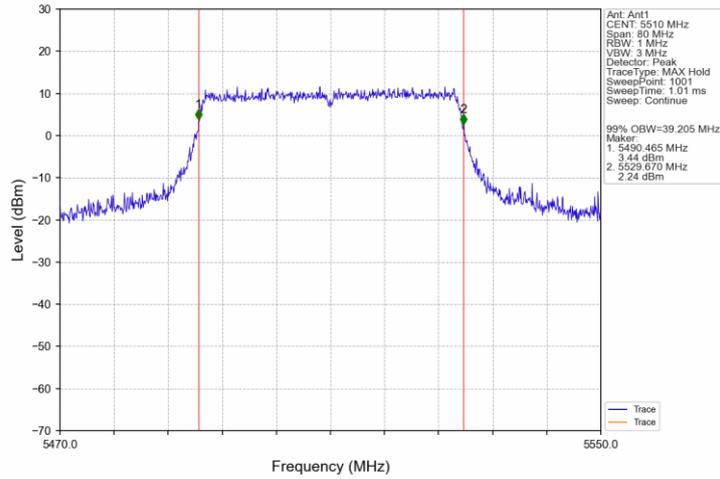
802.11ax(HEW40)_LCH_5270MHz_RU484_Left_Ant1_NTNV



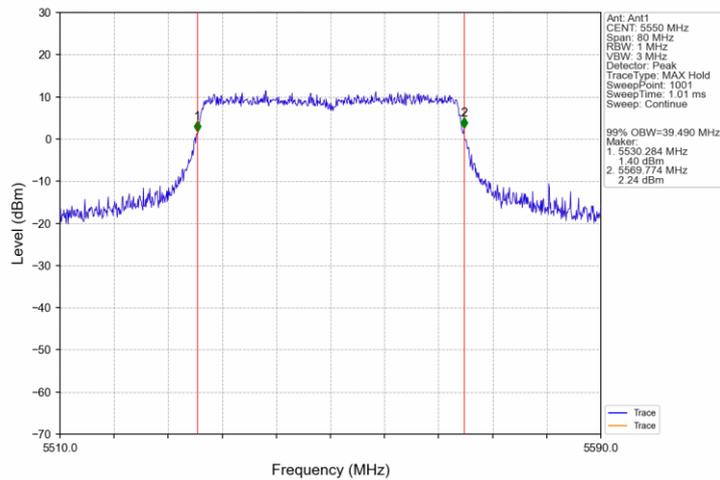
802.11ax(HEW40)_HCH_5310MHz_RU484_Left_Ant1_NTNV



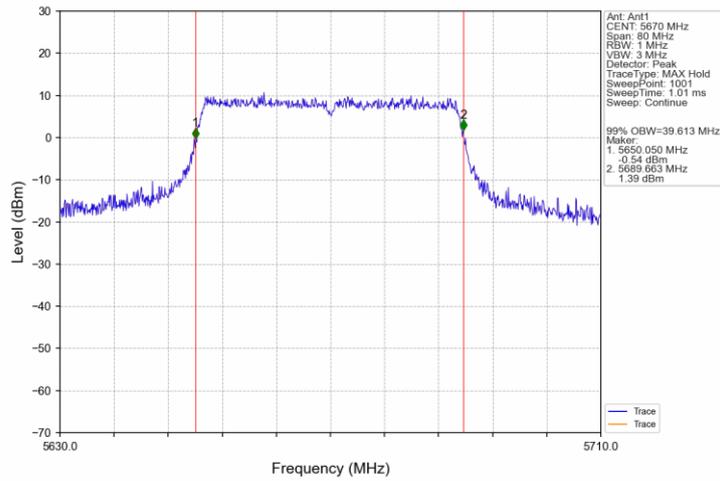
802.11ax(HEW40)_LCH_5510MHz_RU484_Left_Ant1_NTNV



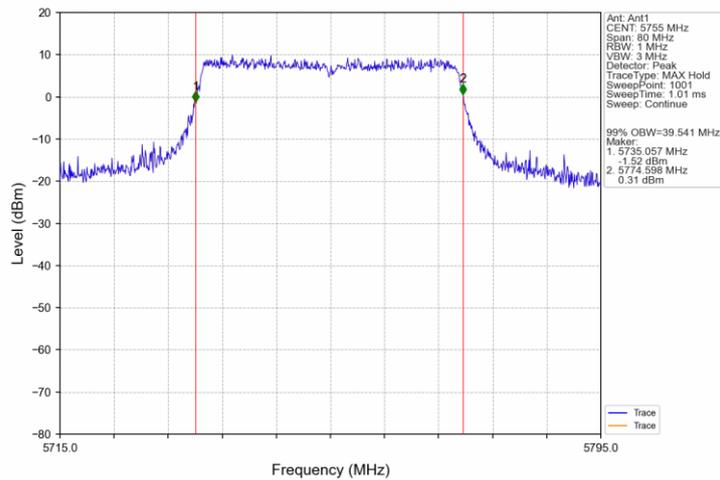
802.11ax(HEW40)_MCH_5550MHz_RU484_Left_Ant1_NTNV



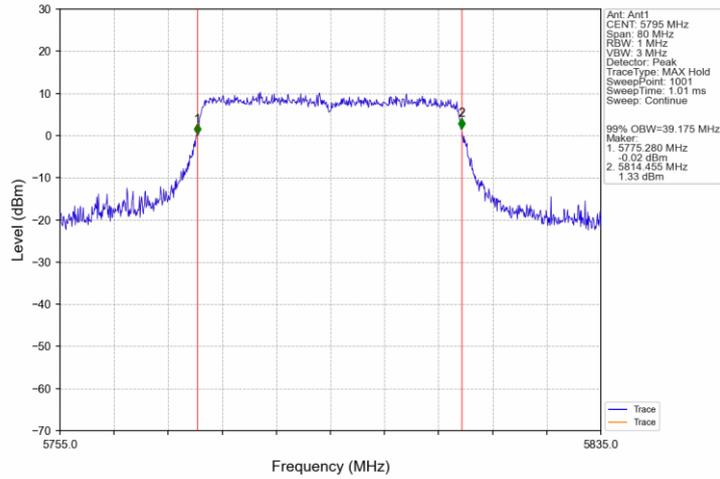
802.11ax(HEW40)_HCH_5670MHz_RU484_Left_Ant1_NTNV



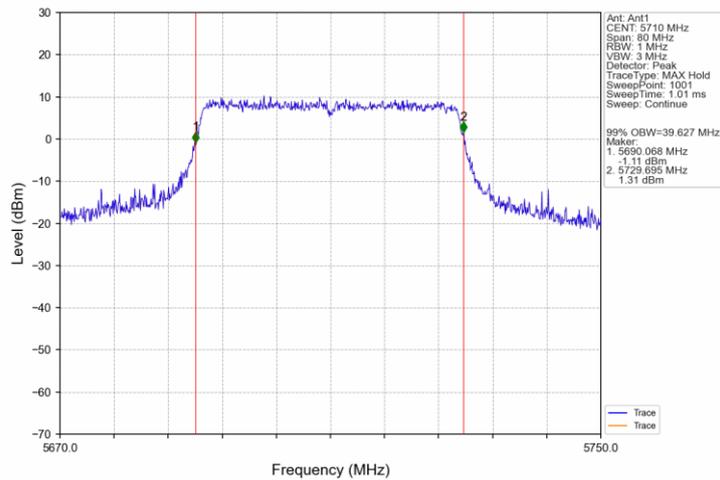
802.11ax(HEW40)_LCH_5755MHz_RU484_Left_Ant1_NTNV



802.11ax(HEW40)_HCH_5795MHz_RU484_Left_Ant1_NTNV



802.11ax(HEW40)_HCH_5710MHz_RU484_Left_Ant1_NTNV



8.3 Maximum conducted output power & EIRP

Test Method

According to C63.10, the EUT was placed on 0.8m height table, the RF output of EUT was connected to the test power meter by RF cable. The path loss was compensated to the results for each measurement.

- (1) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:
The EUT is configured to transmit continuously or to transmit with a consistent duty cycle. At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
- (2) If the transmitter does not transmit continuously, measure the duty cycle, x , of the transmitter output signal as described in 12.2 in C63.10-2013.
- (3) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
- (4) Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25%).

FCC Limits:

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

ISED Limits:

Limits:

For client devices in the 5.15-5.25 GHz band,

- a) the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B \text{ dBm}$, whichever power is less. B is the 99% emission bandwidth in megahertz.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands,

- a) The maximum conducted output power shall not exceed 250 mW or $11 + 10 \log_{10} B \text{ dBm}$, whichever is less. B is the 99% emission bandwidth in megahertz.
- b) The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log_{10} B \text{ dBm}$, whichever is less. B is the 99% emission bandwidth in megahertz.

For the band 5.725-5.85 GHz,

- a) The maximum conducted output power shall not exceed 1 W

Note:

1. Maximum Conducted Output Power = Conducted Output Power + Correction Factor
2. EIRP = Maximum Conducted Output Power + ANT Gain



Test result as below table

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum Average Conducted Output Power (dBm)		Antenna Gain	EIRP (dBm)	ISED Limit (dBm)	Verdict
					ANT1	FCC Limit				
802.11a	SISO	5180	/	/	14.95	<=23.98	3.96	18.91	<=23	Pass
		5200	/	/	14.32	<=23.98	3.96	18.28	<=23	Pass
		5240	/	/	15.32	<=23.98	3.96	19.28	<=23	Pass
		5260	/	/	13.52	<=23.98	3.96	17.48	<=23.98	Pass
		5300	/	/	13.63	<=23.98	3.96	17.59	<=23.98	Pass
		5320	/	/	14.43	<=23.98	3.96	18.39	<=23.98	Pass
		5500	/	/	14.37	<=23.98	3.96	18.33	<=23.98	Pass
		5580	/	/	13.36	<=23.98	3.96	17.32	<=23.98	Pass
		5700	/	/	12.34	<=23.98	3.96	16.3	<=23.98	Pass
		5745	/	/	12.60	<=30	3.96	16.56	<=30	Pass
		5785	/	/	13.16	<=30	3.96	17.12	<=30	Pass
		5825	/	/	12.25	<=30	3.96	16.21	<=30	Pass
5720	/	/	13.02	<=23.98	3.96	16.98	<=23.98	Pass		
802.11n (HT20)	SISO	5180	/	/	14.31	<=23.98	3.96	18.27	<=23	Pass
		5200	/	/	13.96	<=23.98	3.96	17.92	<=23	Pass
		5240	/	/	14.57	<=23.98	3.96	18.53	<=23	Pass
		5260	/	/	13.37	<=23.98	3.96	17.33	<=23.98	Pass
		5300	/	/	13.66	<=23.98	3.96	17.62	<=23.98	Pass
		5320	/	/	14.25	<=23.98	3.96	18.21	<=23.98	Pass
		5500	/	/	14.57	<=23.98	3.96	18.53	<=23.98	Pass
		5580	/	/	13.34	<=23.98	3.96	17.3	<=23.98	Pass
		5700	/	/	12.97	<=23.98	3.96	16.93	<=23.98	Pass
		5745	/	/	12.89	<=30	3.96	16.85	<=30	Pass
		5785	/	/	13.20	<=30	3.96	17.16	<=30	Pass
		5825	/	/	12.44	<=30	3.96	16.4	<=30	Pass
5720	/	/	12.84	<=23.98	3.96	16.8	<=23.98	Pass		
802.11n (HT40)	SISO	5190	/	/	14.26	<=23.98	3.96	18.22	<=23	Pass
		5230	/	/	14.73	<=23.98	3.96	18.69	<=23	Pass
		5270	/	/	13.11	<=23.98	3.96	17.07	<=23.98	Pass
		5310	/	/	13.98	<=23.98	3.96	17.94	<=23.98	Pass
		5510	/	/	14.81	<=23.98	3.96	18.77	<=23.98	Pass
		5550	/	/	14.34	<=23.98	3.96	18.3	<=23.98	Pass
		5670	/	/	13.41	<=23.98	3.96	17.37	<=23.98	Pass
		5755	/	/	12.92	<=30	3.96	16.88	<=30	Pass
		5795	/	/	13.08	<=30	3.96	17.04	<=30	Pass
5710	/	/	13.00	<=23.98	3.96	16.96	<=23.98	Pass		
802.11ac (VHT20)	SISO	5180	/	/	14.19	<=23.98	3.96	18.15	<=23	Pass
		5200	/	/	13.86	<=23.98	3.96	17.82	<=23	Pass
		5240	/	/	14.60	<=23.98	3.96	18.56	<=23	Pass
		5260	/	/	13.62	<=23.98	3.96	17.58	<=23.98	Pass
		5300	/	/	13.86	<=23.98	3.96	17.82	<=23.98	Pass
		5320	/	/	14.46	<=23.98	3.96	18.42	<=23.98	Pass
		5500	/	/	14.73	<=23.98	3.96	18.69	<=23.98	Pass
		5580	/	/	13.66	<=23.98	3.96	17.62	<=23.98	Pass
		5700	/	/	13.13	<=23.98	3.96	17.09	<=23.98	Pass
		5745	/	/	13.05	<=30	3.96	17.01	<=30	Pass
		5785	/	/	13.44	<=30	3.96	17.4	<=30	Pass
		5825	/	/	12.66	<=30	3.96	16.62	<=30	Pass
5720	/	/	13.08	<=23.98	3.96	17.04	<=23.98	Pass		
802.11ac (VHT40)	SISO	5190	/	/	14.23	<=23.98	3.96	18.19	<=23	Pass
		5230	/	/	14.33	<=23.98	3.96	18.29	<=23	Pass
		5270	/	/	13.51	<=23.98	3.96	17.47	<=23.98	Pass
		5310	/	/	14.17	<=23.98	3.96	18.13	<=23.98	Pass
		5510	/	/	14.86	<=23.98	3.96	18.82	<=23.98	Pass
		5550	/	/	14.21	<=23.98	3.96	18.17	<=23.98	Pass
		5670	/	/	13.37	<=23.98	3.96	17.33	<=23.98	Pass
		5755	/	/	13.03	<=30	3.96	16.99	<=30	Pass
5795	/	/	13.17	<=30	3.96	17.13	<=30	Pass		



802.11ax (HEW20)	SISO	5710	/	/	13.08	<=23.98	3.96	17.04	<=23.98	Pass
		5180	RU242	Left	14.26	<=23.98	3.96	18.22	<=23	Pass
		5200	RU242	Left	13.95	<=23.98	3.96	17.91	<=23	Pass
		5240	RU242	Left	14.84	<=23.98	3.96	18.8	<=23	Pass
		5260	RU242	Left	15.17	<=23.98	3.96	19.13	<=23.98	Pass
		5300	RU242	Left	15.35	<=23.98	3.96	19.31	<=23.98	Pass
		5320	RU242	Left	16.01	<=23.98	3.96	19.97	<=23.98	Pass
		5500	RU242	Left	14.91	<=23.98	3.96	18.87	<=23.98	Pass
		5580	RU242	Left	13.90	<=23.98	3.96	17.86	<=23.98	Pass
		5700	RU242	Left	13.48	<=23.98	3.96	17.44	<=23.98	Pass
		5745	RU242	Left	13.33	<=30	3.96	17.29	<=30	Pass
		5785	RU242	Left	13.40	<=30	3.96	17.36	<=30	Pass
		5825	RU242	Left	12.94	<=30	3.96	16.9	<=30	Pass
5720	RU242	Left	13.36	<=23.98	3.96	17.32	<=23.98	Pass		
802.11ax (HEW40)	SISO	5190	RU484	Left	14.22	<=23.98	3.96	18.18	<=23	Pass
		5230	RU484	Left	14.30	<=23.98	3.96	18.26	<=23	Pass
		5270	RU484	Left	15.25	<=23.98	3.96	19.21	<=23.98	Pass
		5310	RU484	Left	15.79	<=23.98	3.96	19.75	<=23.98	Pass
		5510	RU484	Left	14.56	<=23.98	3.96	18.52	<=23.98	Pass
		5550	RU484	Left	13.87	<=23.98	3.96	17.83	<=23.98	Pass
		5670	RU484	Left	13.94	<=23.98	3.96	17.9	<=23.98	Pass
		5755	RU484	Left	13.42	<=30	3.96	17.38	<=30	Pass
		5795	RU484	Left	13.57	<=30	3.96	17.53	<=30	Pass
		5710	RU484	Left	13.25	<=23.98	3.96	17.21	<=23.98	Pass

8.4 Maximum power spectral density

Test Method (Method SA-2 in C63.10-2013)

The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement. (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

1. Measure the duty cycle.
2. Set span to encompass the entire emission bandwidth (EBW) of the signal.
3. Set RBW = 1 MHz.
4. Set VBW \geq 3 MHz.
5. Number of points in sweep \geq 2 Span / RBW.
6. Sweep time = auto.
7. Detector = RMS
8. Trace average at least 100 traces in power averaging mode.
9. Add $10 \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add $10 \log(1/0.25) = 6$ dB if the duty cycle is 25 percent.

Limit:

FCC Limits:

The maximum power spectral density shall not exceed 11dBm for the 5.15-5.25GHz, 5.25-5.35GHz, 5.47-5.725 GHz Band in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500kHz band.

ISED Limits:

The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band for 5.15-5.25GHz. The power spectral density shall not exceed 11 dBm in any 1.0 MHz band for 5.25-5.35GHz and 5.47-5.725 GHz;

The output power spectral density shall not exceed 30 dBm in any 500 kHz band for 5725-5850MHz.



Test Result

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/MHz)		Verdict
					ANT1	Limit	
802.11a	SISO	5180	/	/	4.65	<=11	Pass
		5200	/	/	4.37	<=11	Pass
		5240	/	/	5.62	<=11	Pass
		5260	/	/	2.66	<=11	Pass
		5300	/	/	4.48	<=11	Pass
		5320	/	/	4.23	<=11	Pass
		5500	/	/	4.61	<=11	Pass
		5580	/	/	2.64	<=11	Pass
		5700	/	/	2.71	<=11	Pass
		5720	/	/	2.83	<=11	Pass
802.11n (HT20)	SISO	5180	/	/	3.90	<=11	Pass
		5200	/	/	3.33	<=11	Pass
		5240	/	/	3.87	<=11	Pass
		5260	/	/	3.05	<=11	Pass
		5300	/	/	3.17	<=11	Pass
		5320	/	/	3.39	<=11	Pass
		5500	/	/	3.69	<=11	Pass
		5580	/	/	2.51	<=11	Pass
		5700	/	/	2.01	<=11	Pass
		5720	/	/	2.27	<=11	Pass
802.11n (HT40)	SISO	5190	/	/	0.86	<=11	Pass
		5230	/	/	1.07	<=11	Pass
		5270	/	/	-0.15	<=11	Pass
		5310	/	/	0.75	<=11	Pass
		5510	/	/	0.99	<=11	Pass
		5550	/	/	0.50	<=11	Pass
		5670	/	/	-0.17	<=11	Pass
		5710	/	/	-0.92	<=11	Pass
802.11ac (VHT20)	SISO	5180	/	/	3.55	<=11	Pass
		5200	/	/	3.02	<=11	Pass
		5240	/	/	4.10	<=11	Pass
		5260	/	/	2.91	<=11	Pass
		5300	/	/	3.12	<=11	Pass
		5320	/	/	3.56	<=11	Pass
		5500	/	/	3.67	<=11	Pass
		5580	/	/	2.73	<=11	Pass
		5700	/	/	2.15	<=11	Pass
		5720	/	/	2.19	<=11	Pass
802.11ac (VHT40)	SISO	5190	/	/	1.08	<=11	Pass
		5230	/	/	1.10	<=11	Pass
		5270	/	/	-0.12	<=11	Pass
		5310	/	/	0.74	<=11	Pass
		5510	/	/	0.93	<=11	Pass
		5550	/	/	0.48	<=11	Pass
		5670	/	/	-0.30	<=11	Pass
		5710	/	/	-0.48	<=11	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	3.78	<=11	Pass
		5200	RU242	Left	3.12	<=11	Pass
		5240	RU242	Left	4.10	<=11	Pass
		5260	RU242	Left	4.94	<=11	Pass
		5300	RU242	Left	4.75	<=11	Pass
		5320	RU242	Left	5.62	<=11	Pass
		5500	RU242	Left	3.97	<=11	Pass
		5580	RU242	Left	2.86	<=11	Pass
		5700	RU242	Left	2.45	<=11	Pass
		5720	RU242	Left	2.28	<=11	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	0.58	<=11	Pass
		5230	RU484	Left	1.05	<=11	Pass
		5270	RU484	Left	1.68	<=11	Pass
		5310	RU484	Left	2.66	<=11	Pass

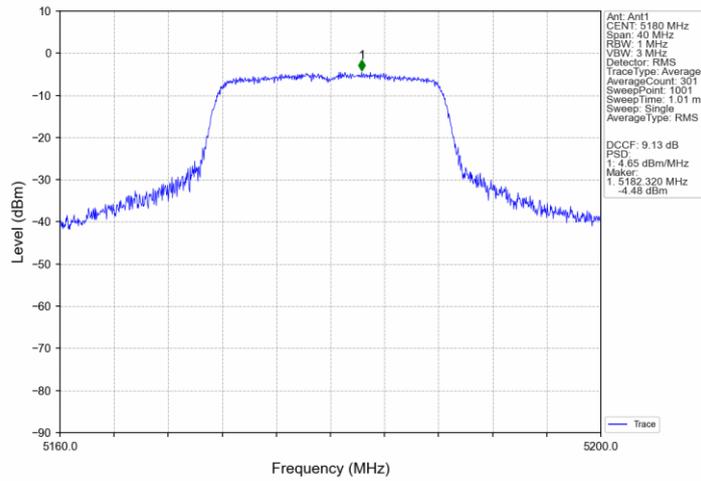
		5510	RU484	Left	1.91	<=11	Pass
		5550	RU484	Left	1.00	<=11	Pass
		5670	RU484	Left	0.03	<=11	Pass
		5710	RU484	Left	-1.13	<=11	Pass

Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum PSD (dBm/500kHz)		Verdict
					ANT1	Limit	
802.11a	SISO	5745	/	/	-0.60	<=30	Pass
		5785	/	/	0.20	<=30	Pass
		5825	/	/	-0.56	<=30	Pass
		5720	/	/	-0.57	<=30	Pass
802.11n (HT20)	SISO	5745	/	/	-0.84	<=30	Pass
		5785	/	/	-0.66	<=30	Pass
		5825	/	/	-1.34	<=30	Pass
		5720	/	/	-1.30	<=30	Pass
802.11n (HT40)	SISO	5755	/	/	-3.70	<=30	Pass
		5795	/	/	-3.56	<=30	Pass
		5710	/	/	-4.19	<=30	Pass
802.11ac (VHT20)	SISO	5745	/	/	-0.60	<=30	Pass
		5785	/	/	-0.47	<=30	Pass
		5825	/	/	-1.32	<=30	Pass
		5720	/	/	-0.71	<=30	Pass
802.11ac (VHT40)	SISO	5755	/	/	-3.62	<=30	Pass
		5795	/	/	-3.29	<=30	Pass
		5710	/	/	-4.09	<=30	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	3.78	<=11	Pass
		5200	RU242	Left	3.12	<=11	Pass
		5240	RU242	Left	4.10	<=11	Pass
		5260	RU242	Left	4.94	<=11	Pass
		5300	RU242	Left	4.75	<=11	Pass
		5320	RU242	Left	5.62	<=11	Pass
		5500	RU242	Left	3.97	<=11	Pass
		5580	RU242	Left	2.86	<=11	Pass
		5700	RU242	Left	2.45	<=11	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	0.58	<=11	Pass
		5230	RU484	Left	1.05	<=11	Pass
		5270	RU484	Left	1.68	<=11	Pass
		5310	RU484	Left	2.66	<=11	Pass
		5510	RU484	Left	1.91	<=11	Pass
		5550	RU484	Left	1.00	<=11	Pass
		5670	RU484	Left	0.03	<=11	Pass
		5710	RU484	Left	-1.13	<=11	Pass

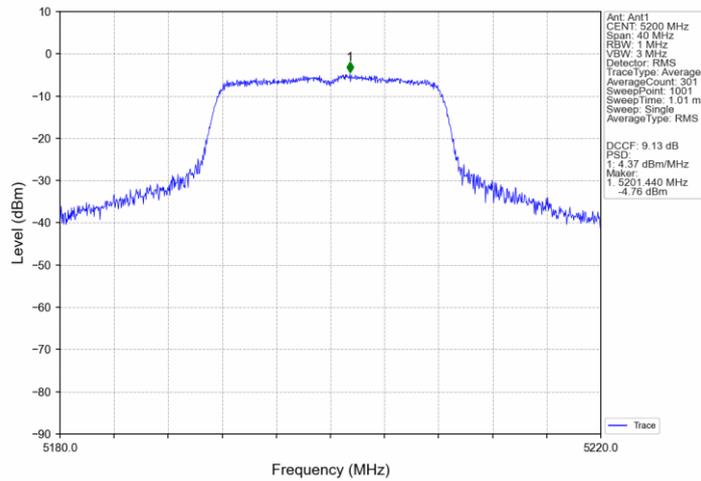
Mode	TX Type	Frequency (MHz)	RU	RU Pos	Maximum e.i.r.p PSD (dBm/MHz)		Verdict
					ANT1	Limit	
802.11a	SISO	5180	/	/	8.61	<=10	Pass
		5200	/	/	8.33	<=10	Pass
		5240	/	/	9.58	<=10	Pass
802.11n (HT20)	SISO	5180	/	/	7.86	<=10	Pass
		5200	/	/	7.29	<=10	Pass
		5240	/	/	7.83	<=10	Pass
802.11n (HT40)	SISO	5190	/	/	4.82	<=10	Pass
		5230	/	/	5.03	<=10	Pass
802.11ac (VHT20)	SISO	5180	/	/	7.51	<=10	Pass
		5200	/	/	6.98	<=10	Pass
		5240	/	/	8.06	<=10	Pass
802.11ac (VHT40)	SISO	5190	/	/	5.04	<=10	Pass
		5230	/	/	5.06	<=10	Pass
802.11ax (HEW20)	SISO	5180	RU242	Left	7.74	<=10	Pass
		5200	RU242	Left	7.08	<=10	Pass
		5240	RU242	Left	8.06	<=10	Pass
802.11ax (HEW40)	SISO	5190	RU484	Left	4.54	<=10	Pass
		5230	RU484	Left	5.01	<=10	Pass

Test Graphs

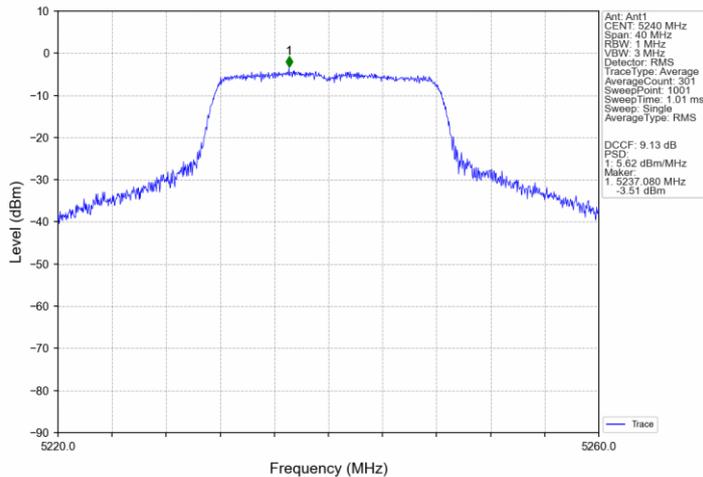
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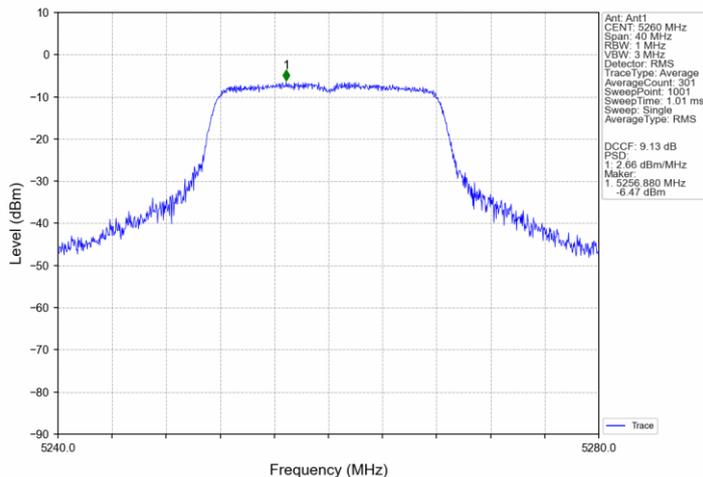
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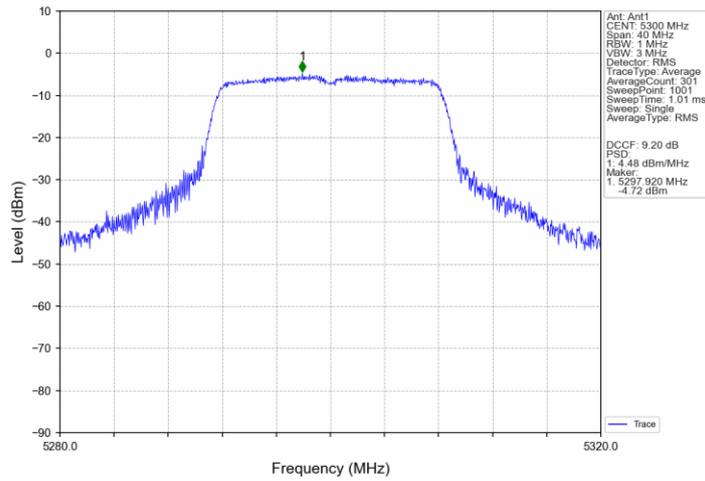
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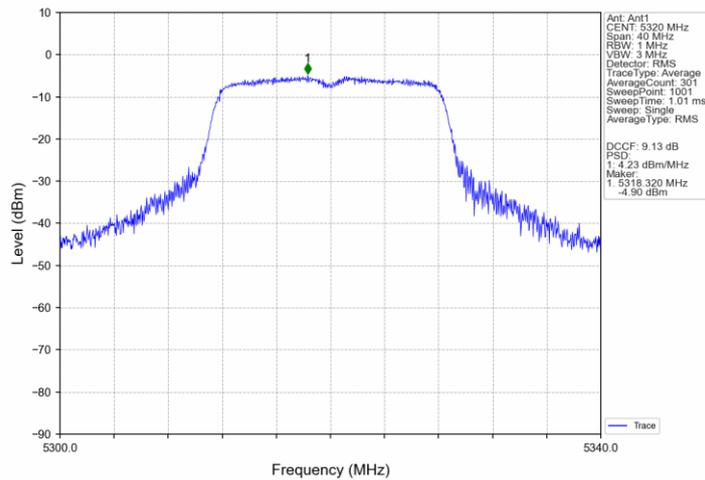
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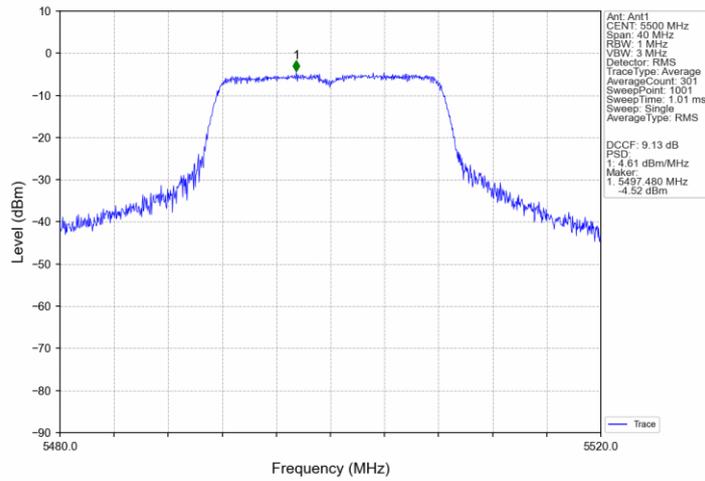
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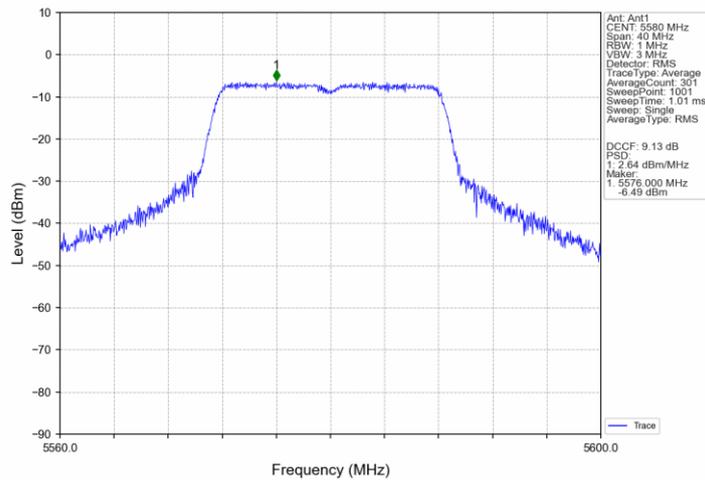
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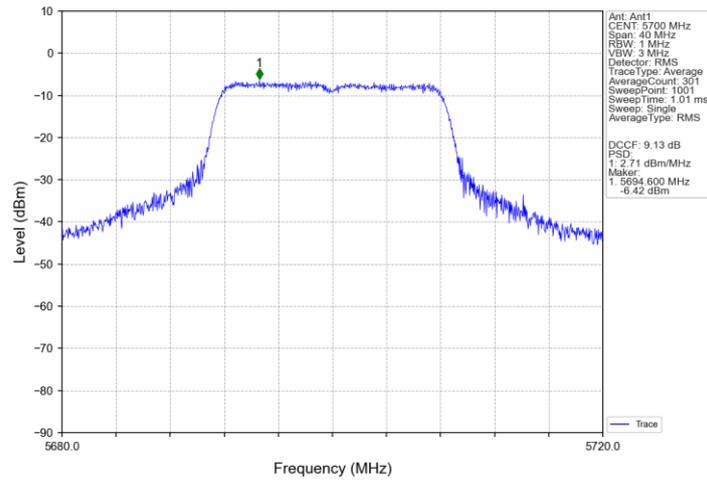
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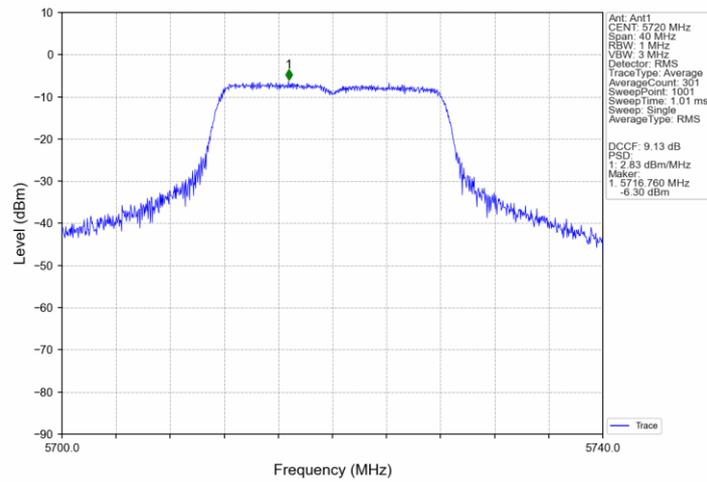
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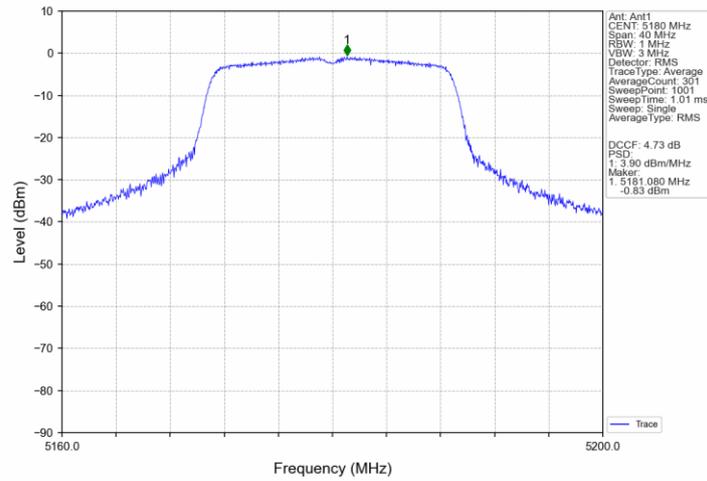
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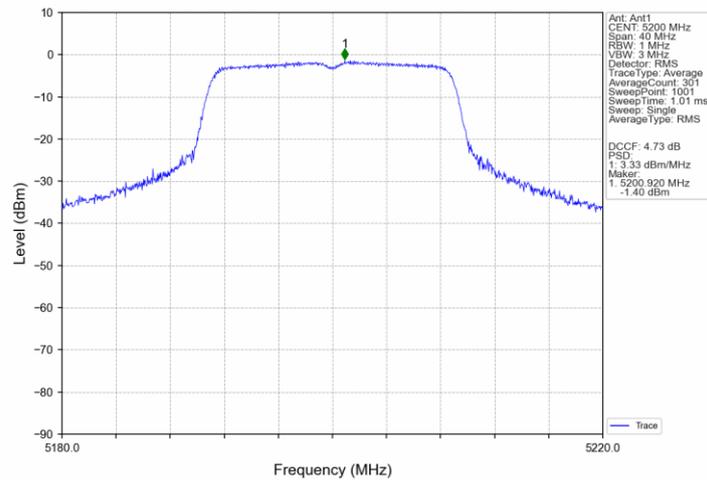
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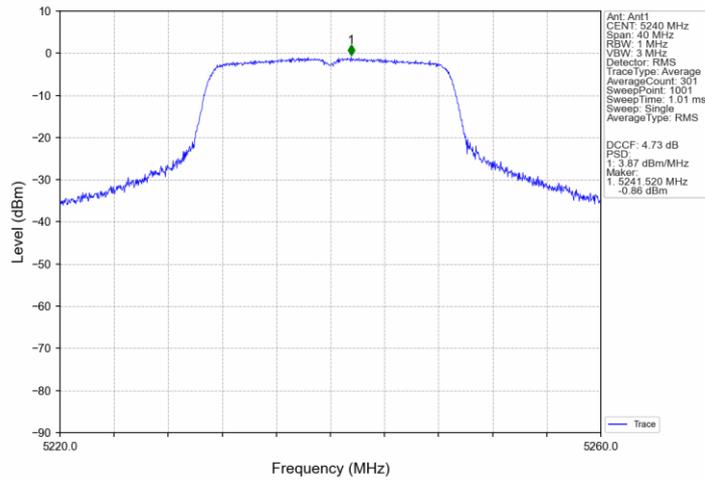
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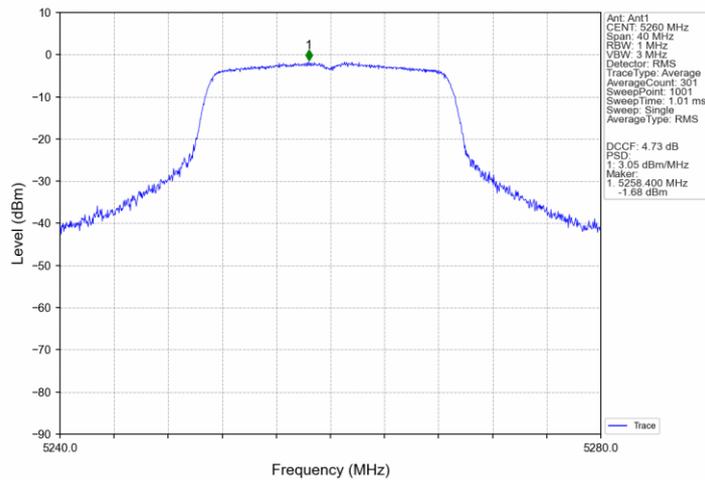
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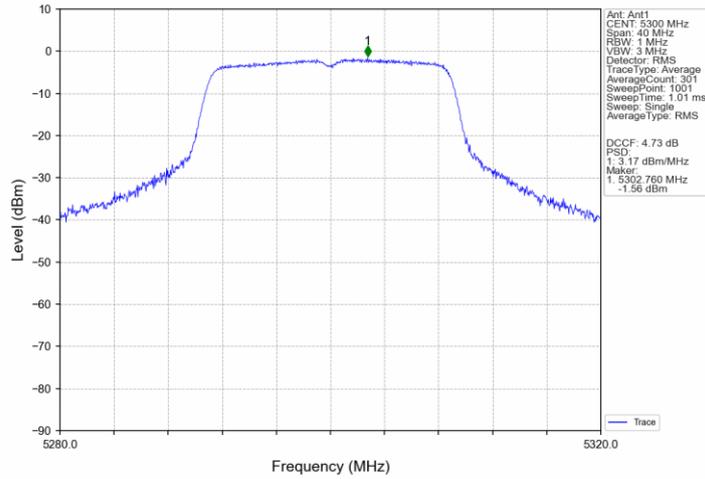
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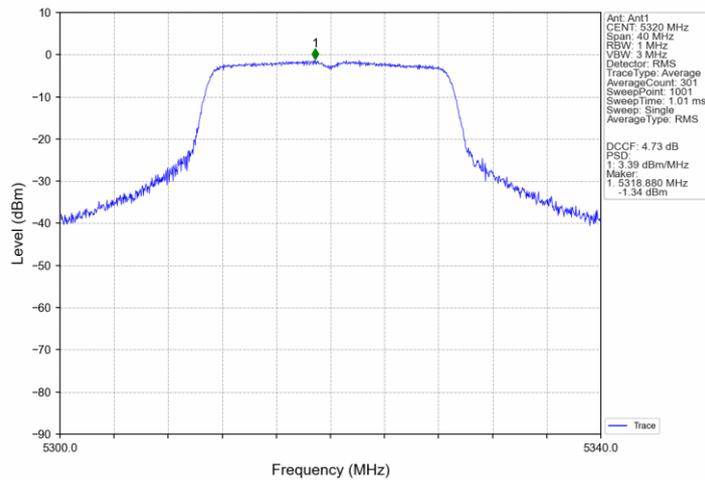
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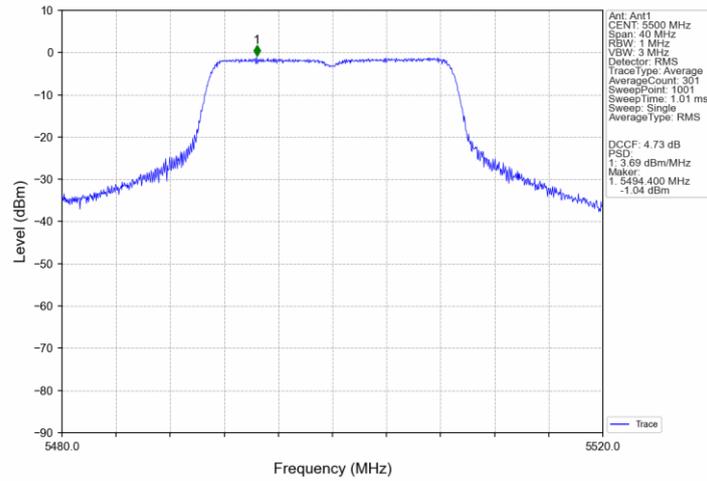
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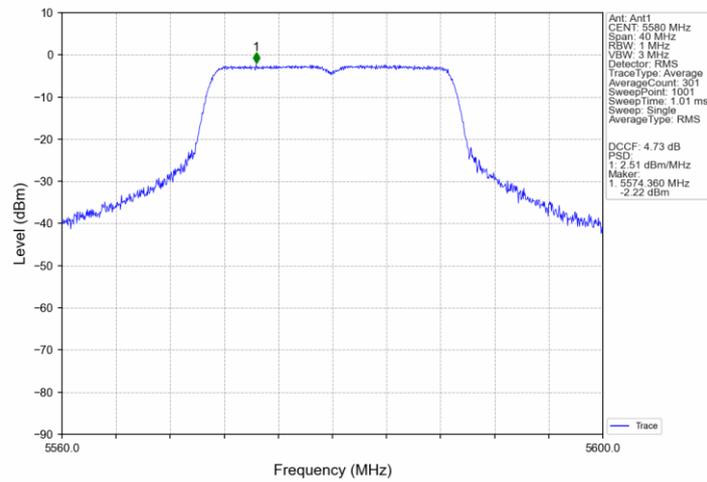
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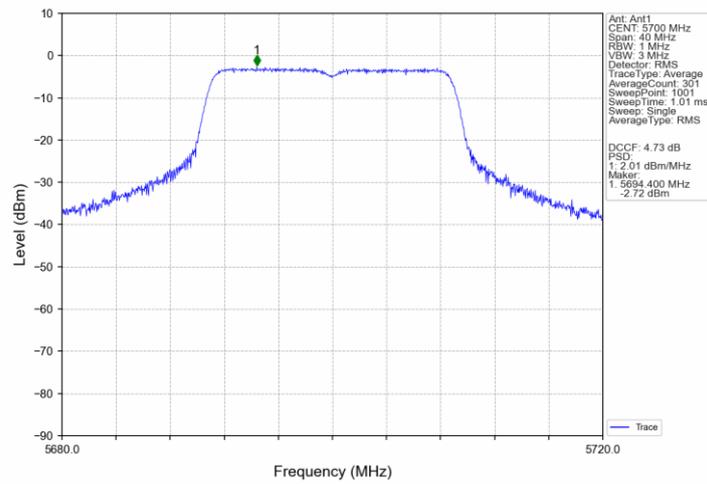
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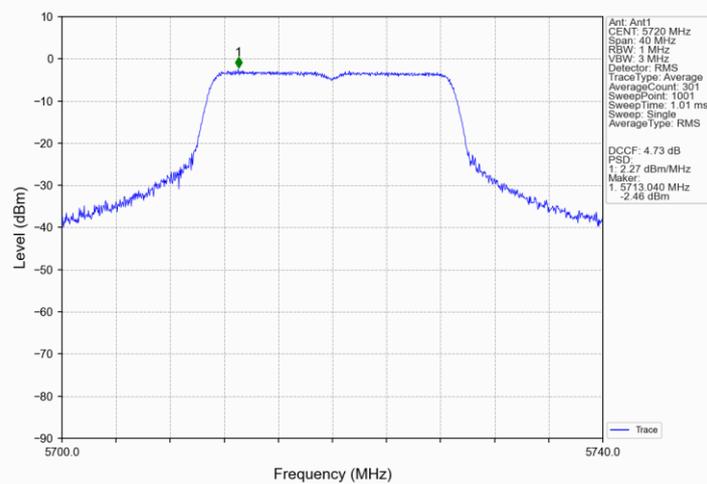
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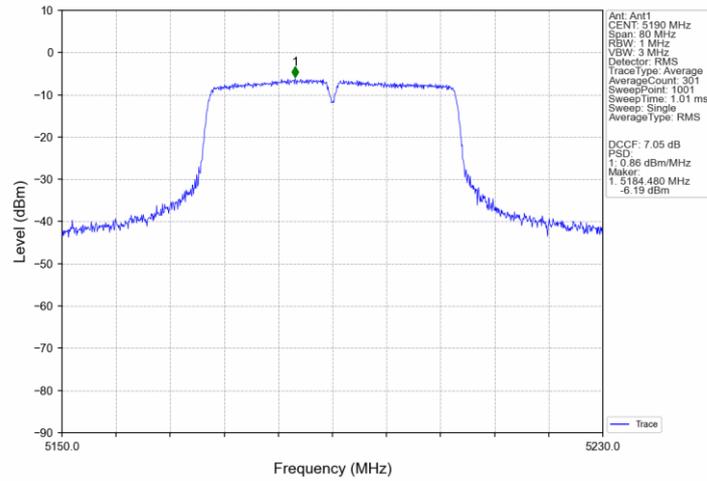
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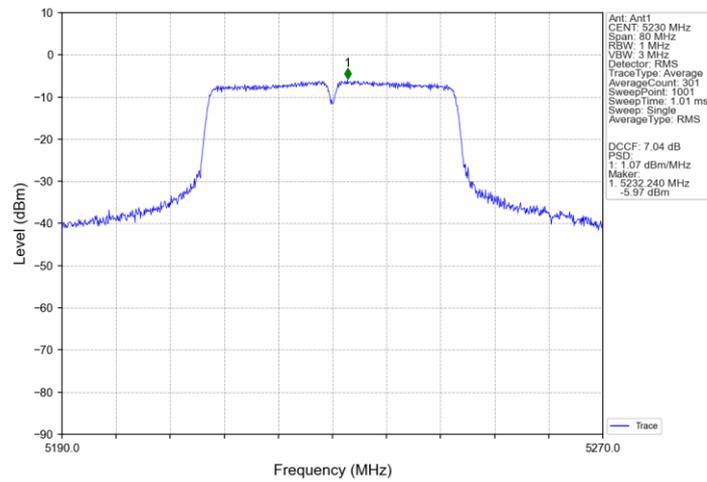
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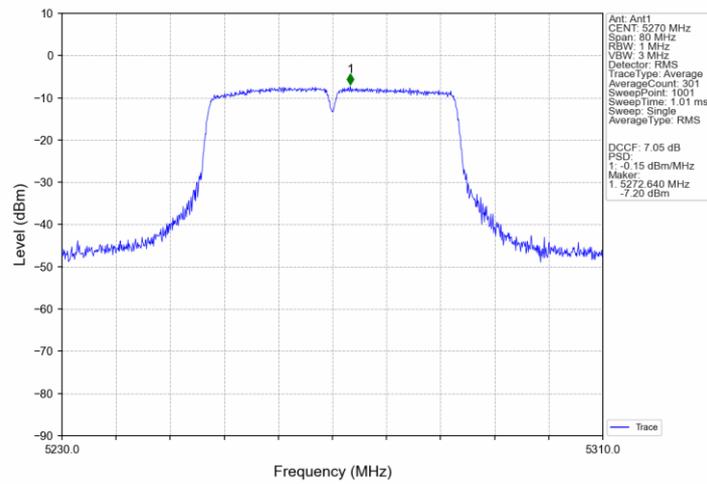
802.11n(HT40) LCH 5190MHz Ant1 NTN



802.11n(HT40) HCH 5230MHz Ant1 NTN



802.11n(HT40) LCH 5270MHz Ant1 NTN



802.11n(HT40) HCH 5310MHz Ant1 NTN

