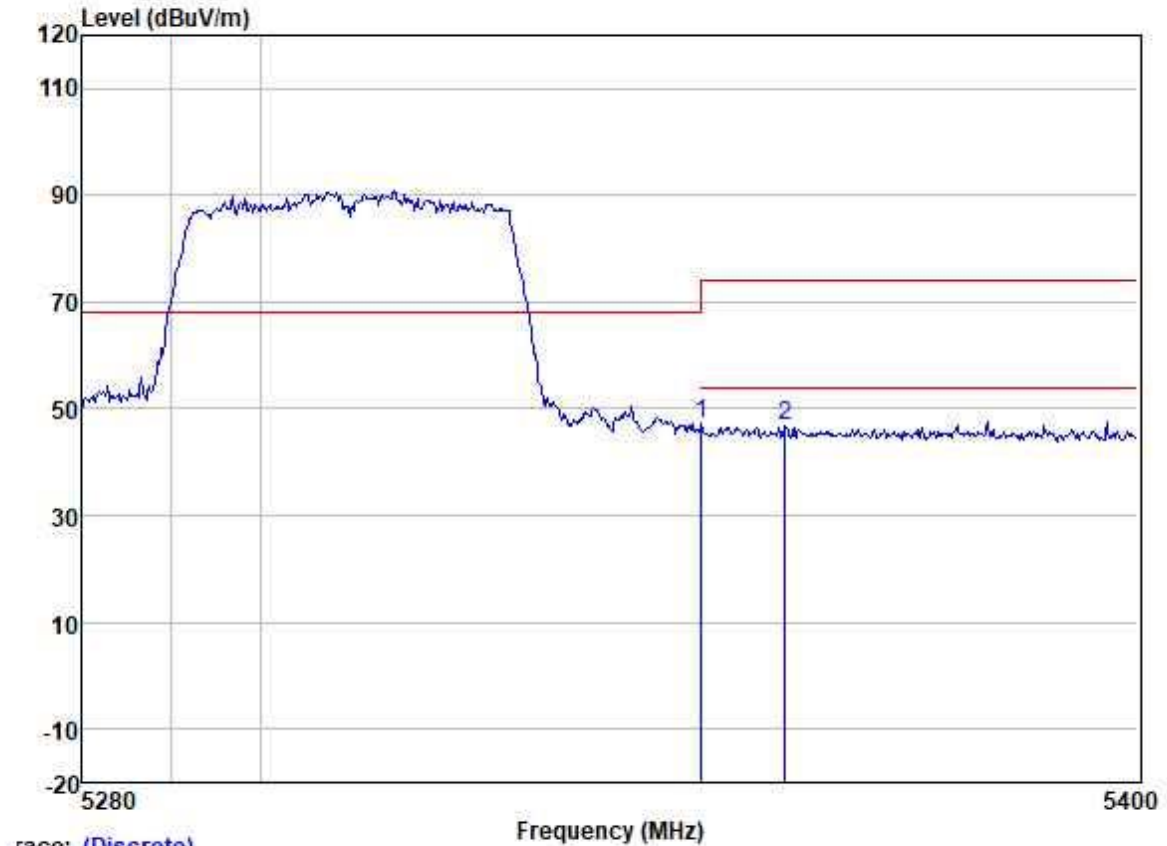


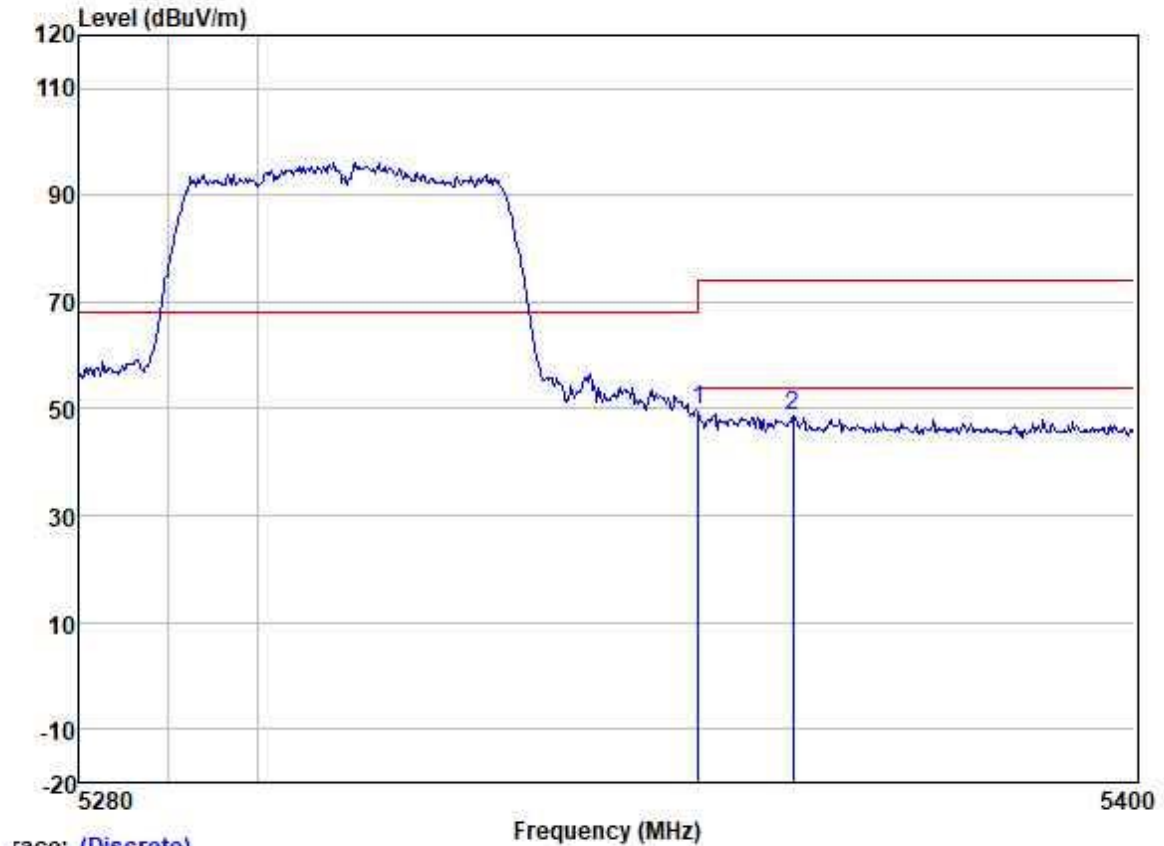
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5350.000	46.32	31.77	5.53	36.24	47.38	68.20	-20.82	VERTICAL	Peak
2	5359.620	45.73	31.78	5.55	36.24	46.82	74.00	-27.18	VERTICAL	Peak

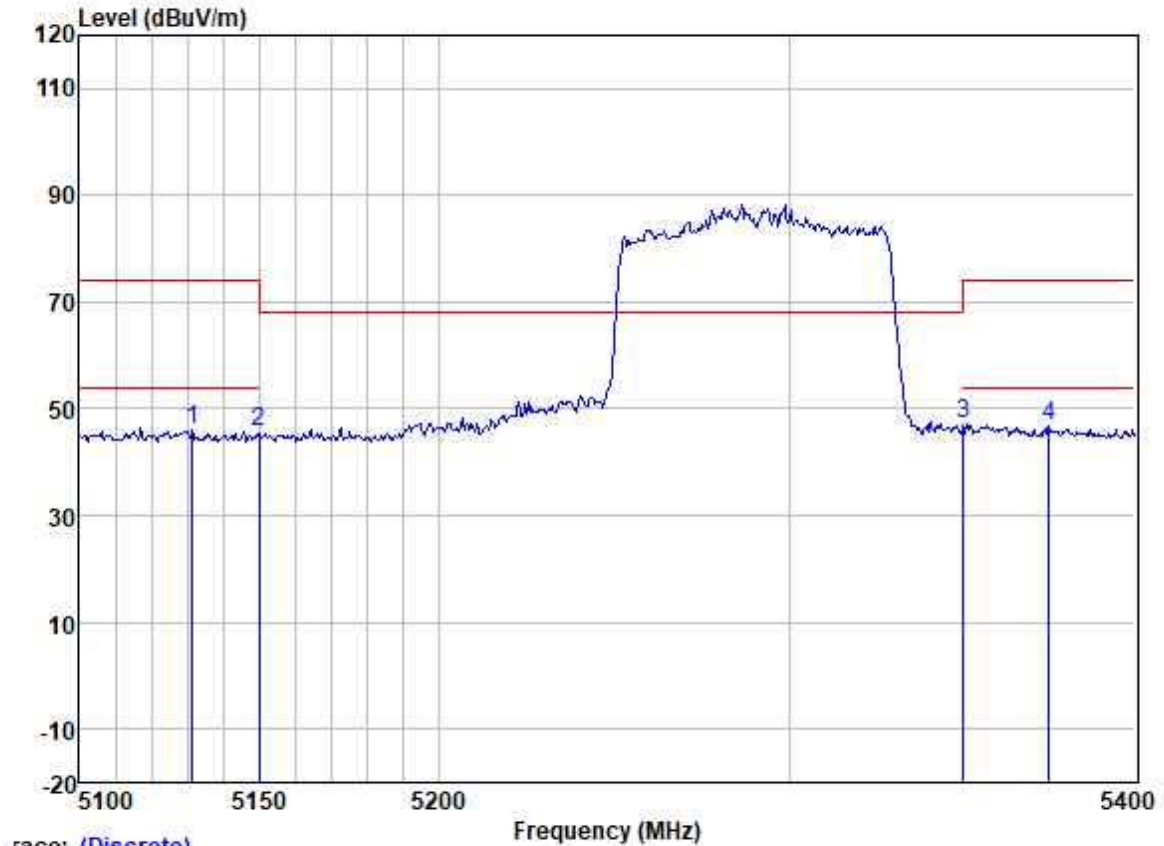
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5350.000	48.72	31.77	5.53	36.24	49.78	68.20	-18.42	HORIZONTAL Peak
2	5360.824	47.45	31.78	5.55	36.24	48.54	74.00	-25.46	HORIZONTAL Peak

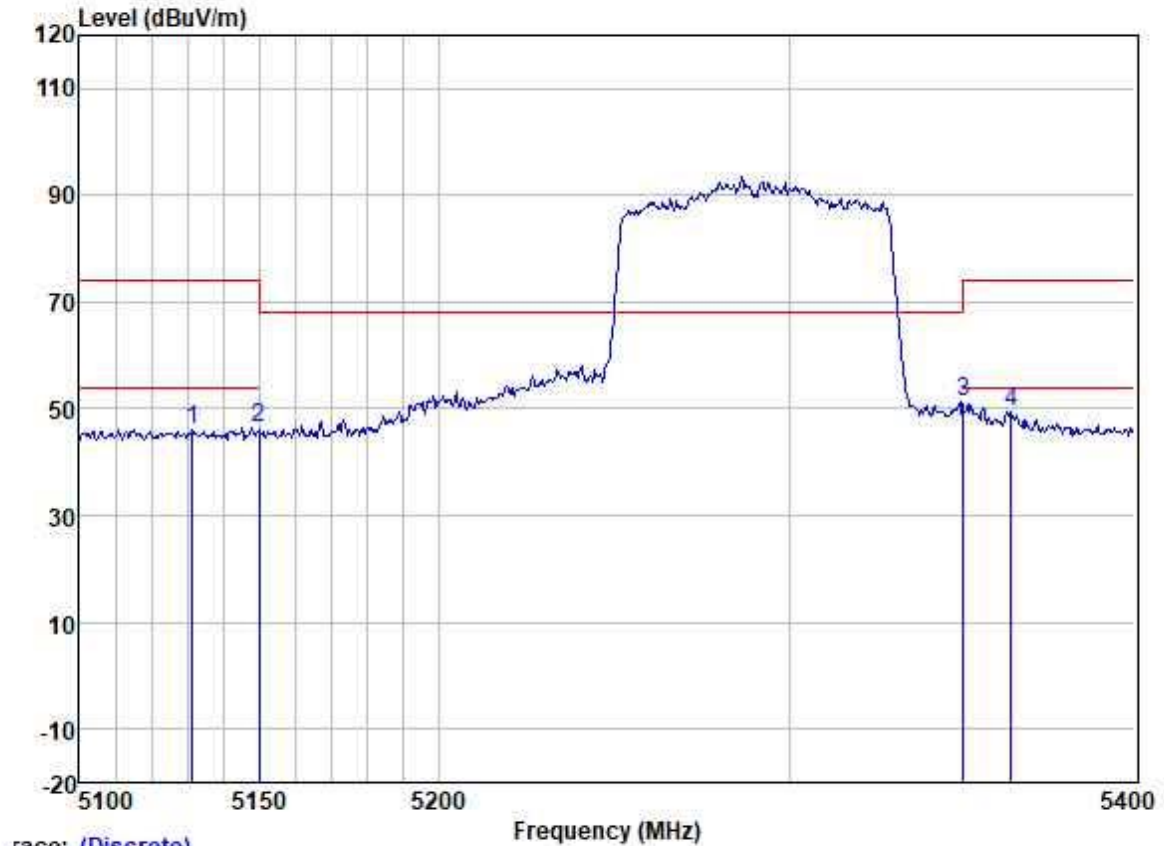
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz;



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5131.287	45.19	31.72	5.38	36.32	45.97	74.00	-28.03	VERTICAL	Peak
2	5150.000	44.92	31.72	5.36	36.31	45.69	68.20	-22.51	VERTICAL	Peak
3	5350.000	45.96	31.77	5.53	36.24	47.02	68.20	-21.18	VERTICAL	Peak
4	5374.750	45.68	31.78	5.56	36.23	46.79	74.00	-27.21	VERTICAL	Peak

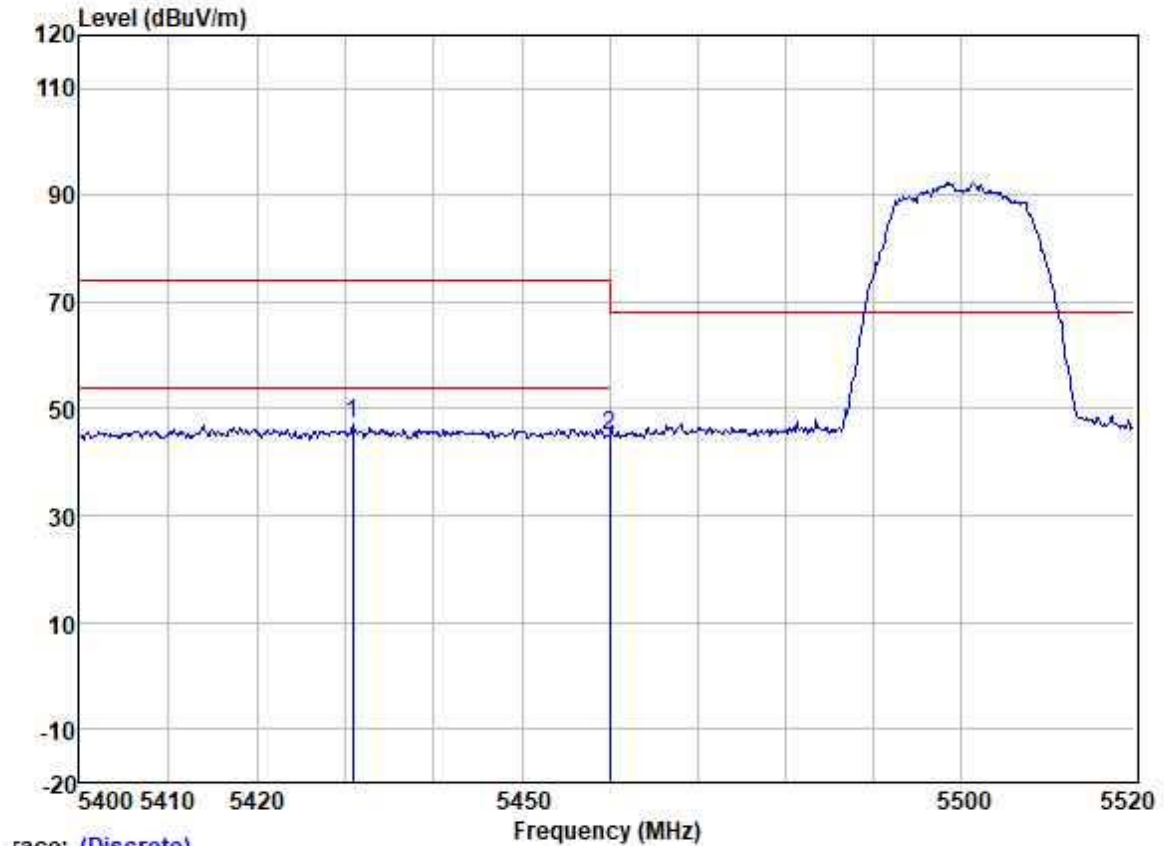
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz;



Trace: (Discrete)

		ReadAntenna		Cable	Preamp		Limit	Over		
	Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5131.287	45.44	31.72	5.38	36.32	46.22	74.00	-27.78	HORIZONTAL	Peak
2	5150.000	45.71	31.72	5.36	36.31	46.48	68.20	-21.72	HORIZONTAL	Peak
3	5350.000	50.36	31.77	5.53	36.24	51.42	68.20	-16.78	HORIZONTAL	Peak
4	5364.008	48.31	31.78	5.55	36.23	49.41	74.00	-24.59	HORIZONTAL	Peak

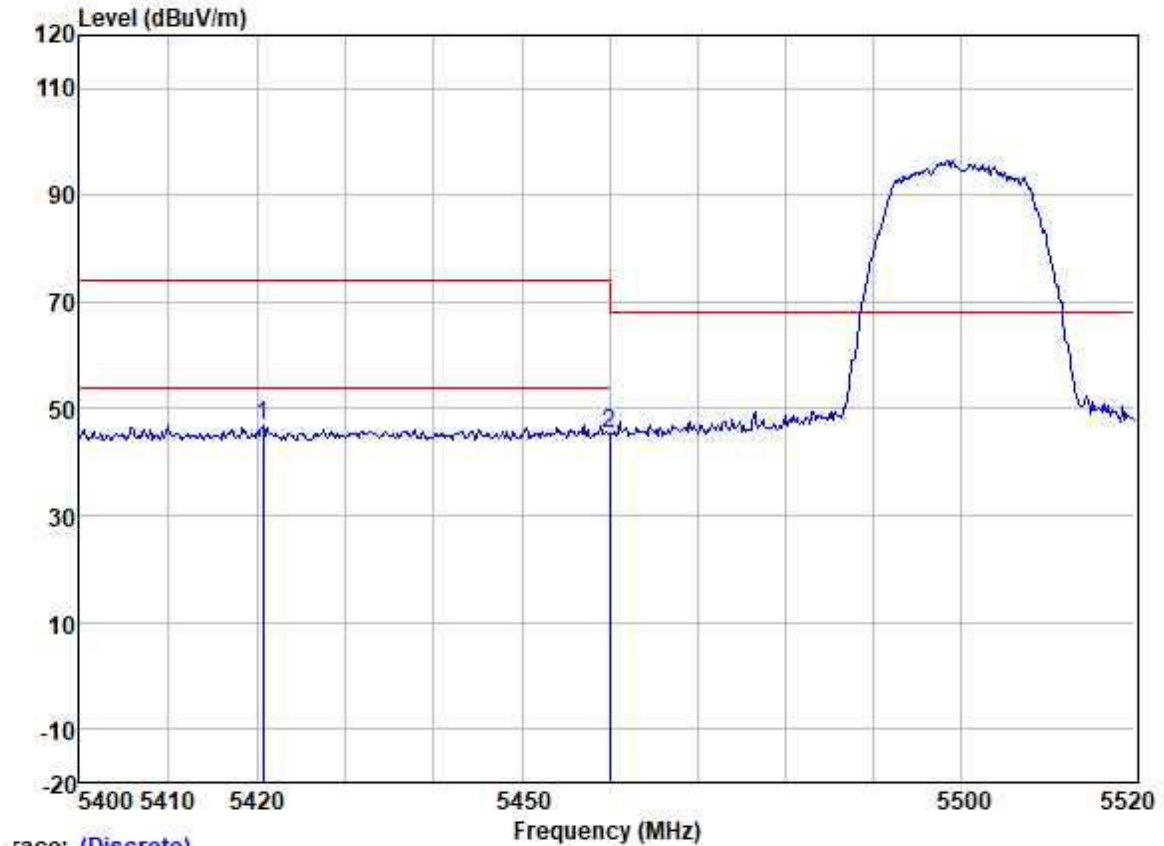
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

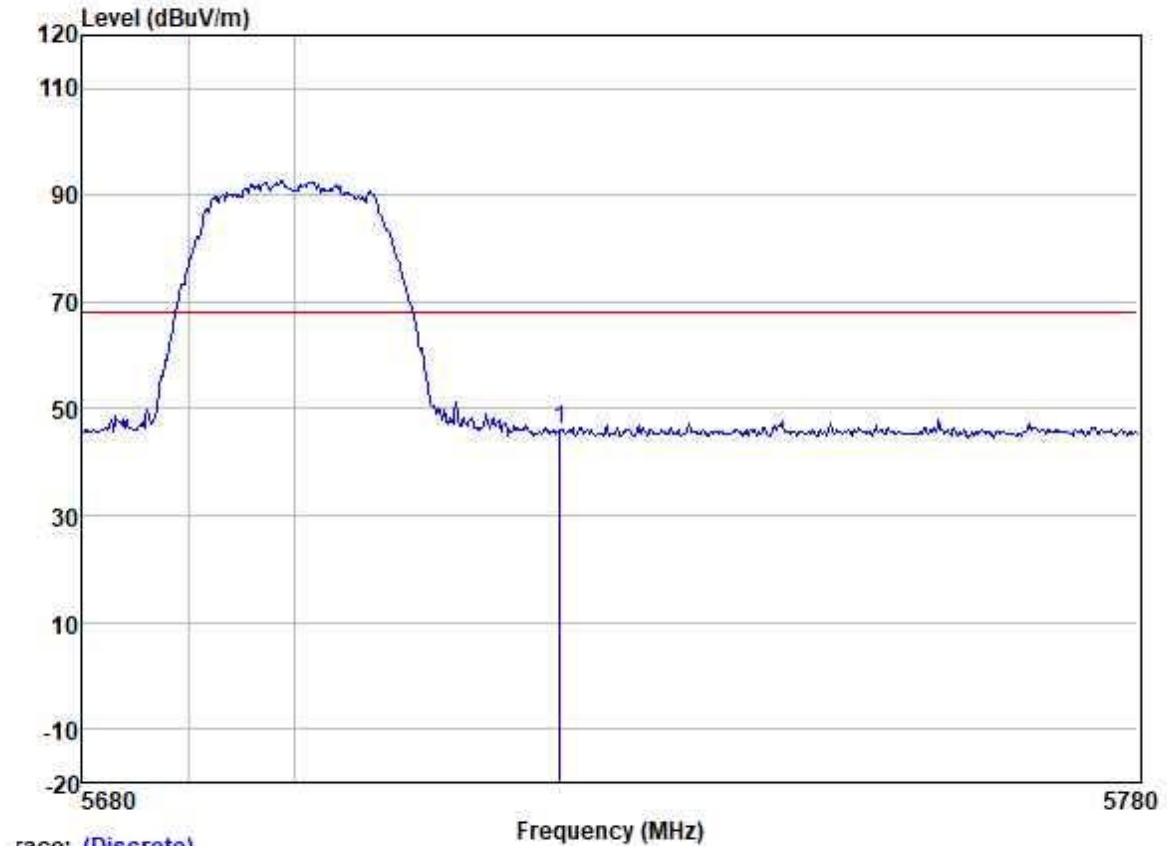
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5430.827	45.87	31.79	5.61	36.21	47.06	74.00	-26.94	VERTICAL	Peak
2	5460.000	43.83	31.79	5.64	36.21	45.05	68.20	-23.15	VERTICAL	Peak

Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5420.691	45.60	31.79	5.61	36.21	46.79	74.00	-27.21	HORIZONTAL Peak
2	5460.000	44.20	31.79	5.64	36.21	45.42	68.20	-22.78	HORIZONTAL Peak

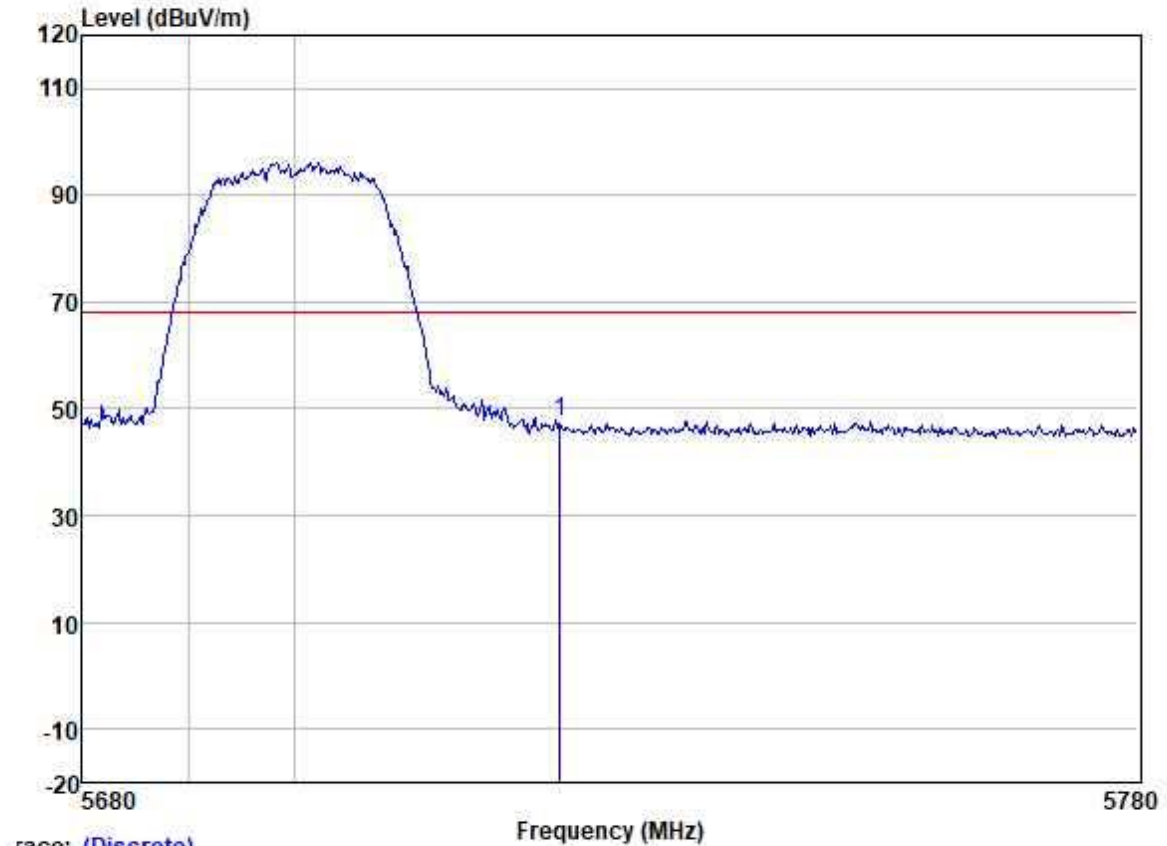
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 5725.000	44.53	32.07	5.71	36.15	46.16	68.20	-22.04	VERTICAL	Peak

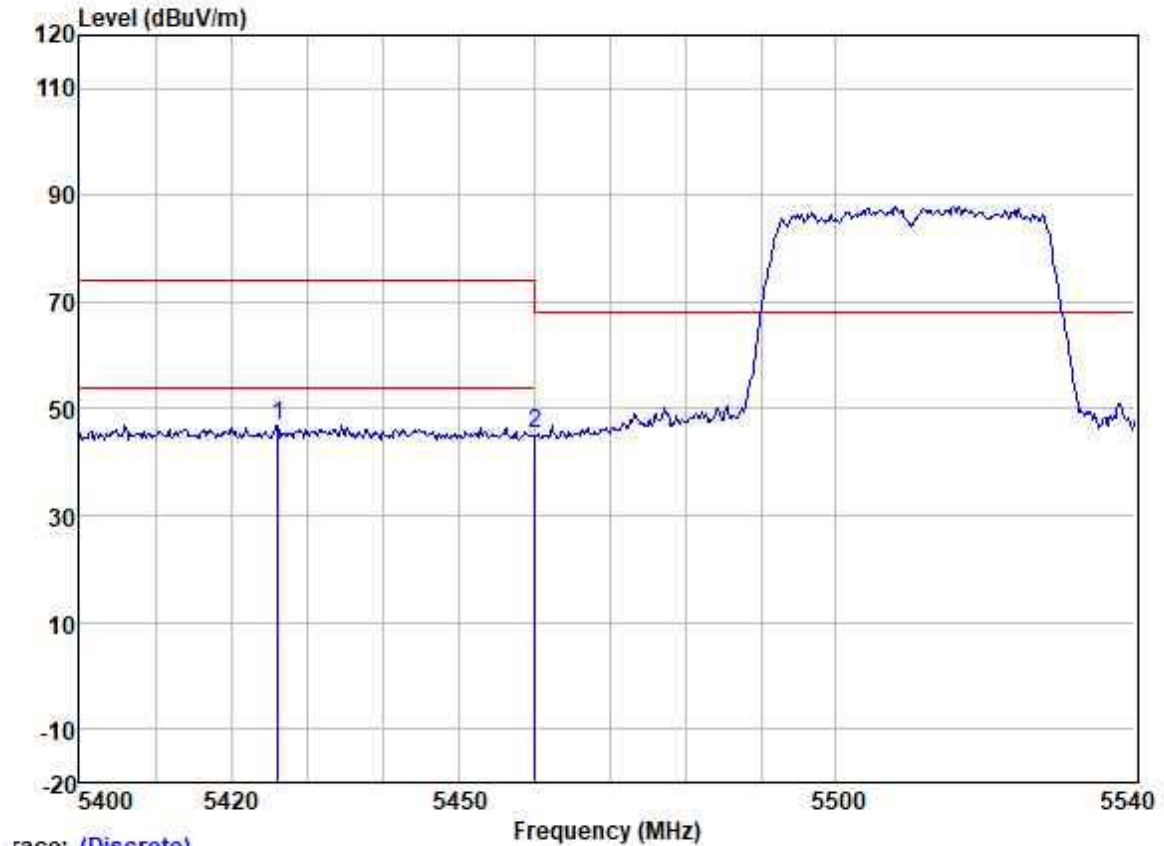
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 5725.000	45.82	32.07	5.71	36.15	47.45	68.20	-20.75	HORIZONTAL	Peak

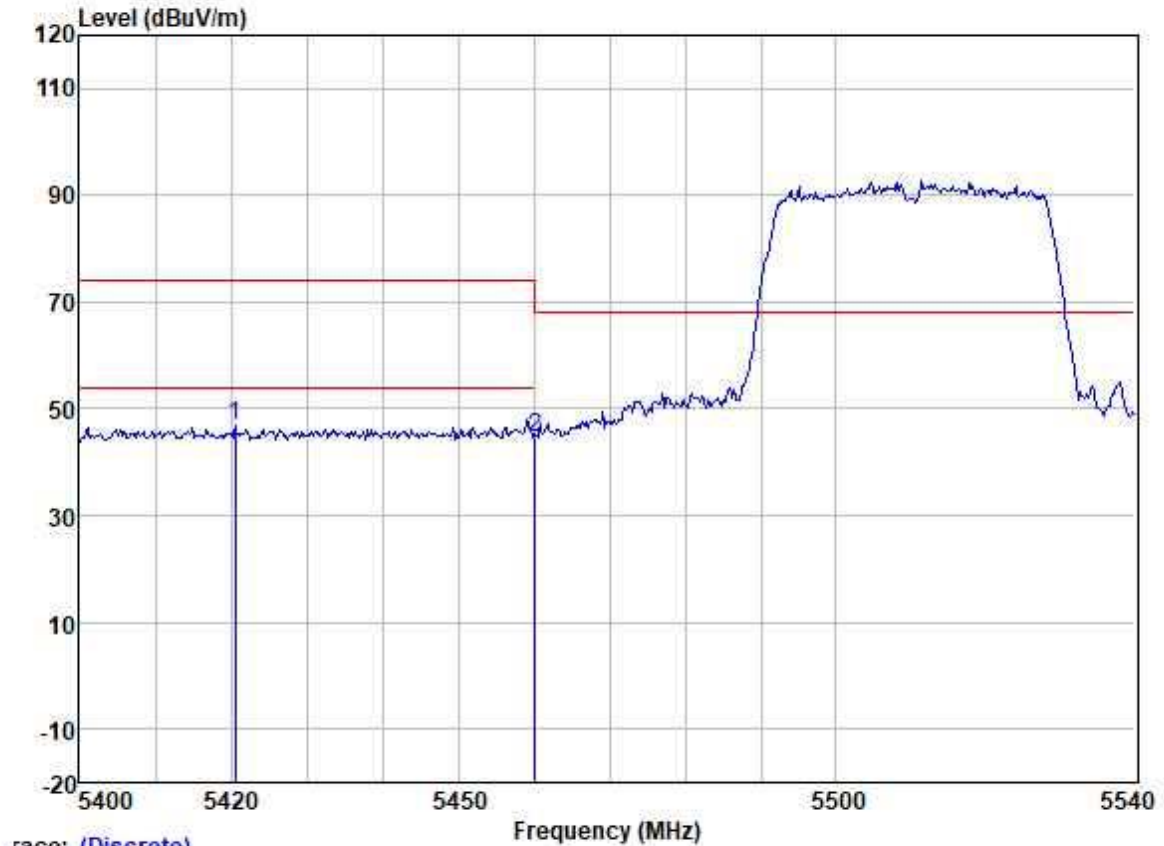
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5426.047	45.70	31.79	5.61	36.21	46.89	74.00	-27.11	VERTICAL	Peak
2	5460.000	44.02	31.79	5.64	36.21	45.24	68.20	-22.96	VERTICAL	Peak

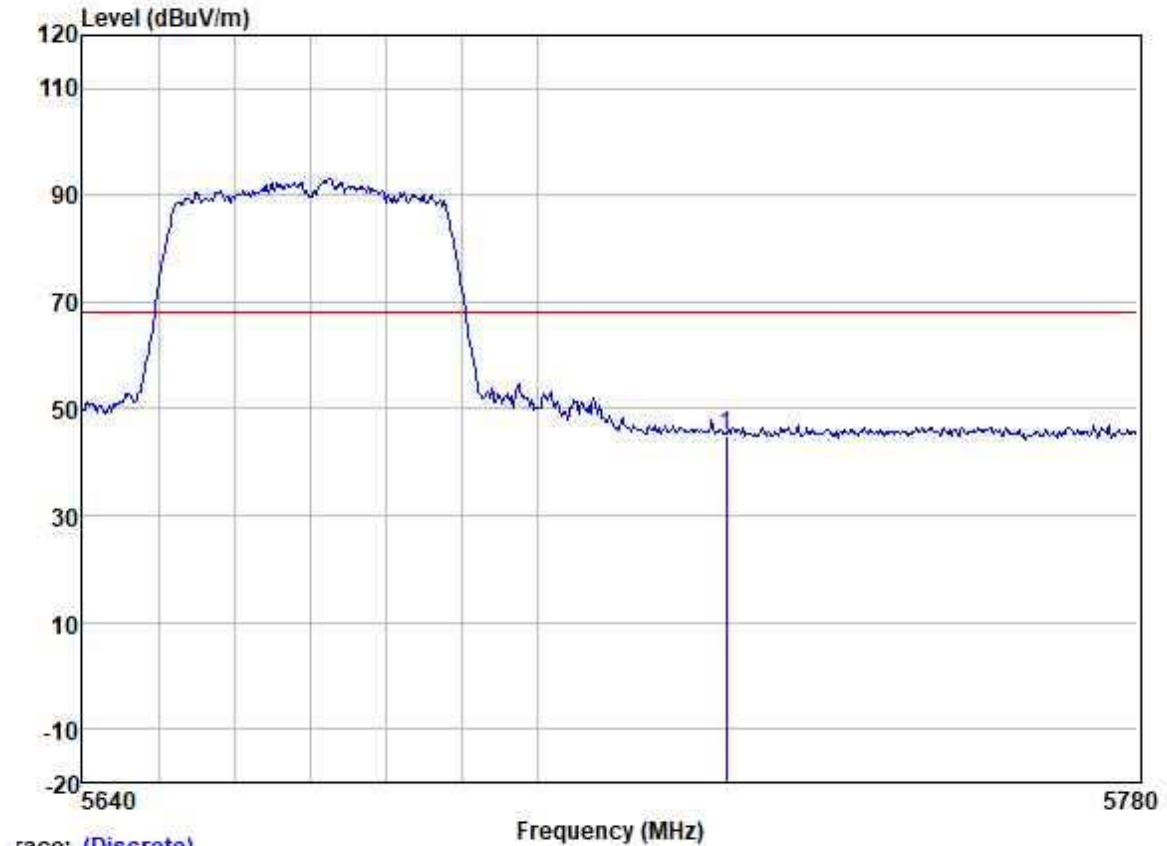
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp	Limit	Over		
	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
	MHz	dBuV	dB/m	dB	dBuV/m	dBuV/m	dB	
1	5420.495	45.57	31.79	5.61	36.21	46.76	74.00	-27.24 HORIZONTAL Peak
2	5460.000	43.28	31.79	5.64	36.21	44.50	68.20	-23.70 HORIZONTAL Peak

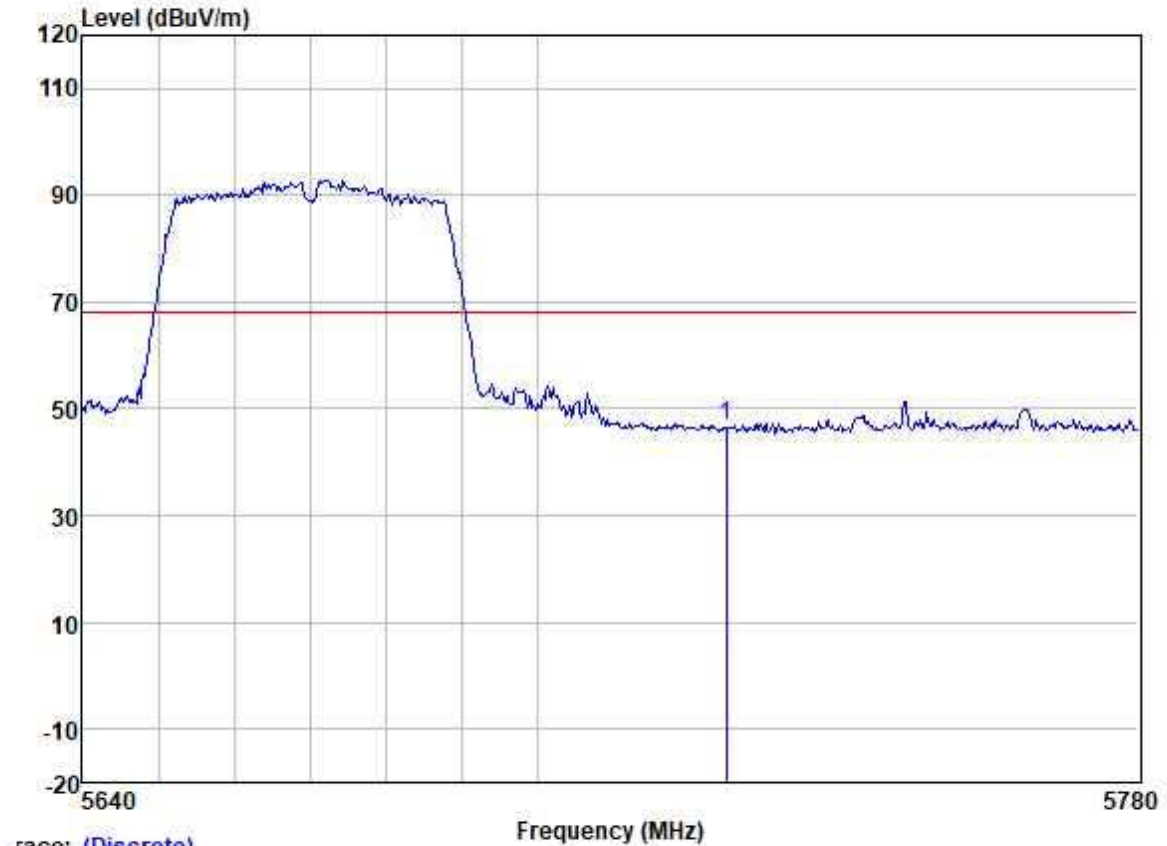
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5725.000	43.45	32.07	5.71	36.15	45.08	68.20	-23.12	VERTICAL	Peak

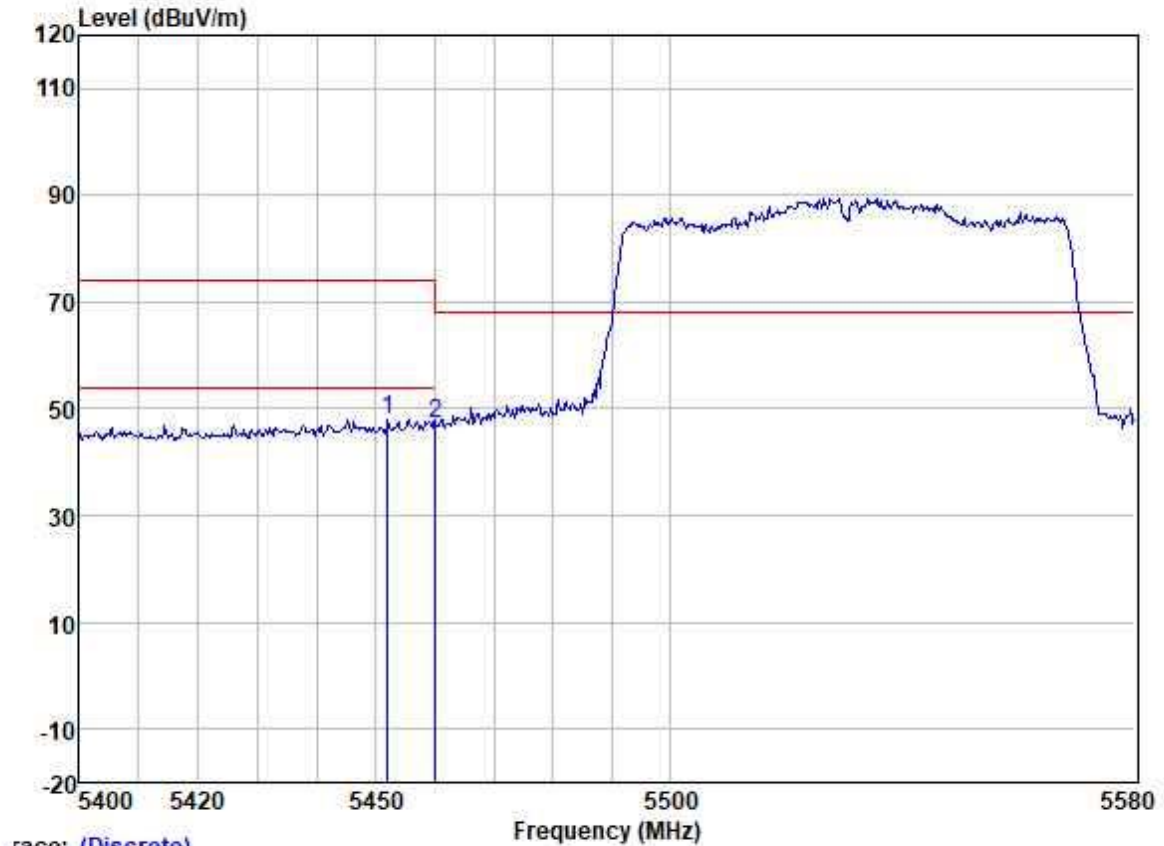
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5725.000	45.10	32.07	5.71	36.15	46.73	68.20	-21.47	HORIZONTAL	Peak

Test Mode: 06; Polarity: Vertical; Modulation: 802.11ac; Bandwidth: 80MHz; Channel: Low



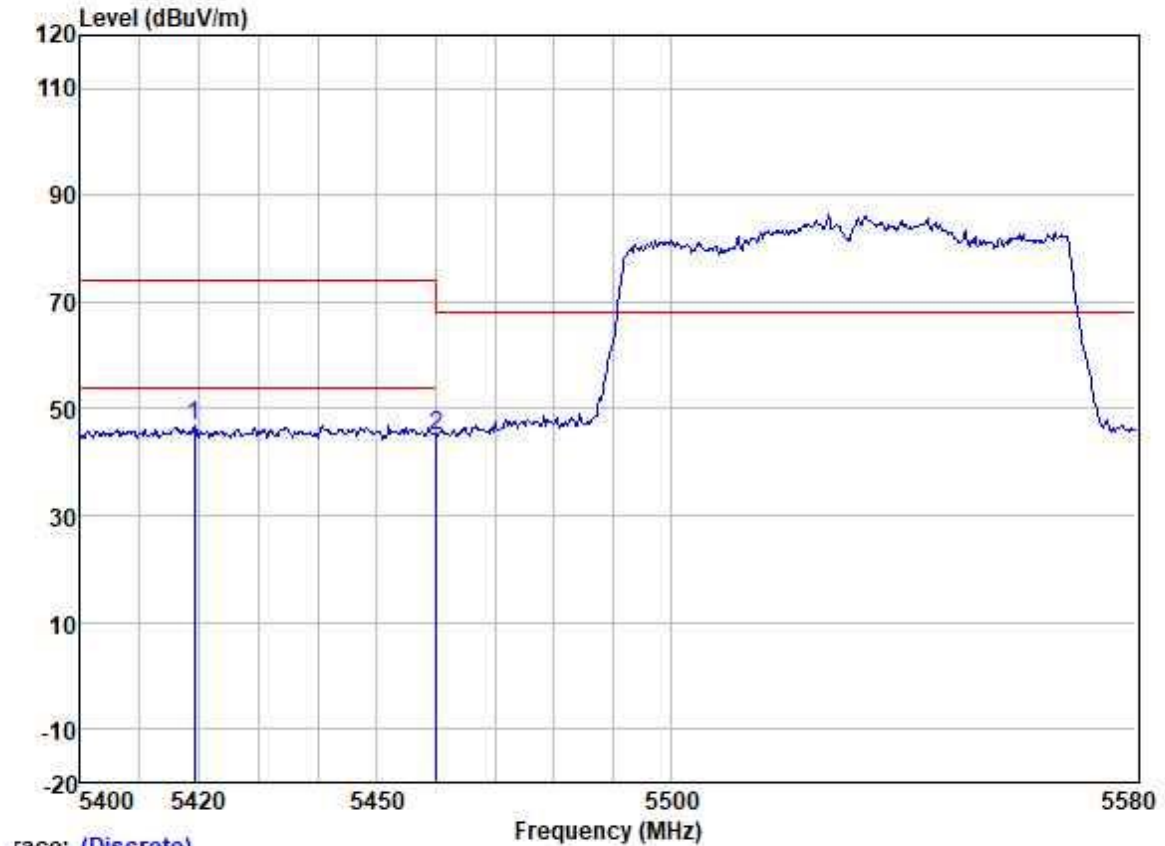
	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5451.951	46.84	31.79	5.64	36.21	48.06	74.00	-25.94	VERTICAL Peak
2	5460.000	46.13	31.79	5.64	36.21	47.35	68.20	-20.85	VERTICAL Peak



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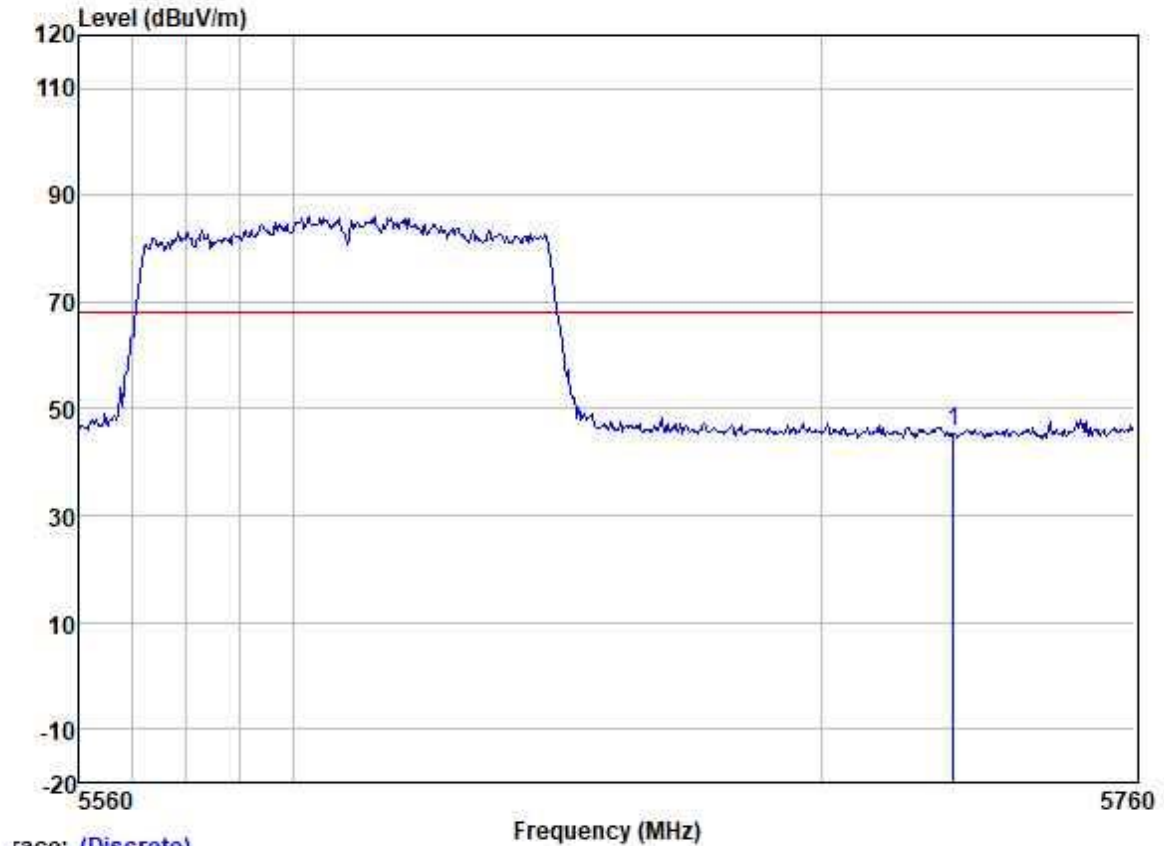
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

Test Mode: 06; Polarity: Horizontal; Modulation: 802.11ac; Bandwidth: 80MHz; Channel: Low



	Read	Antenna	Cable	Preamp		Limit	Over		
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5419.157	45.71	31.79	5.61	36.21	46.90	74.00	-27.10	HORIZONTAL Peak
2	5460.000	43.88	31.79	5.64	36.21	45.10	68.20	-23.10	HORIZONTAL Peak

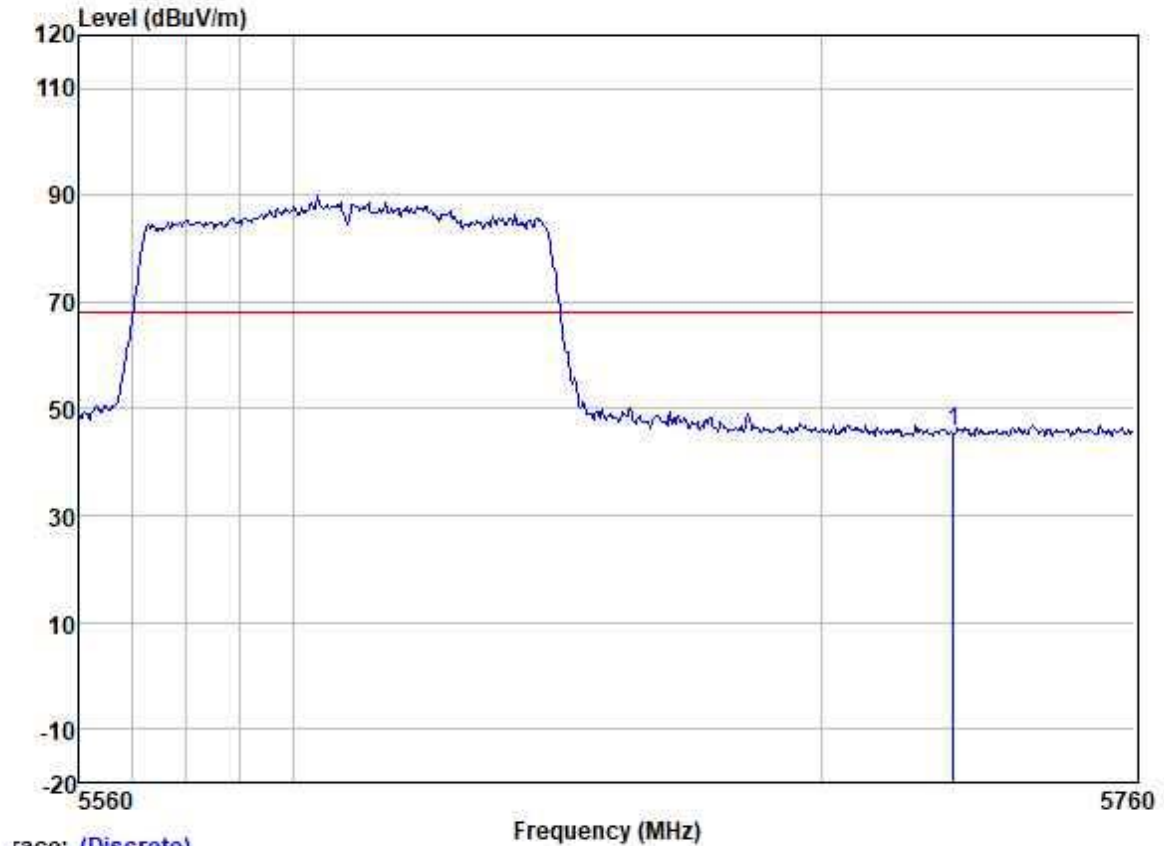
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



Trace: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5725.000	44.18	32.07	5.71	36.15	45.81	68.20	-22.39	VERTICAL	Peak

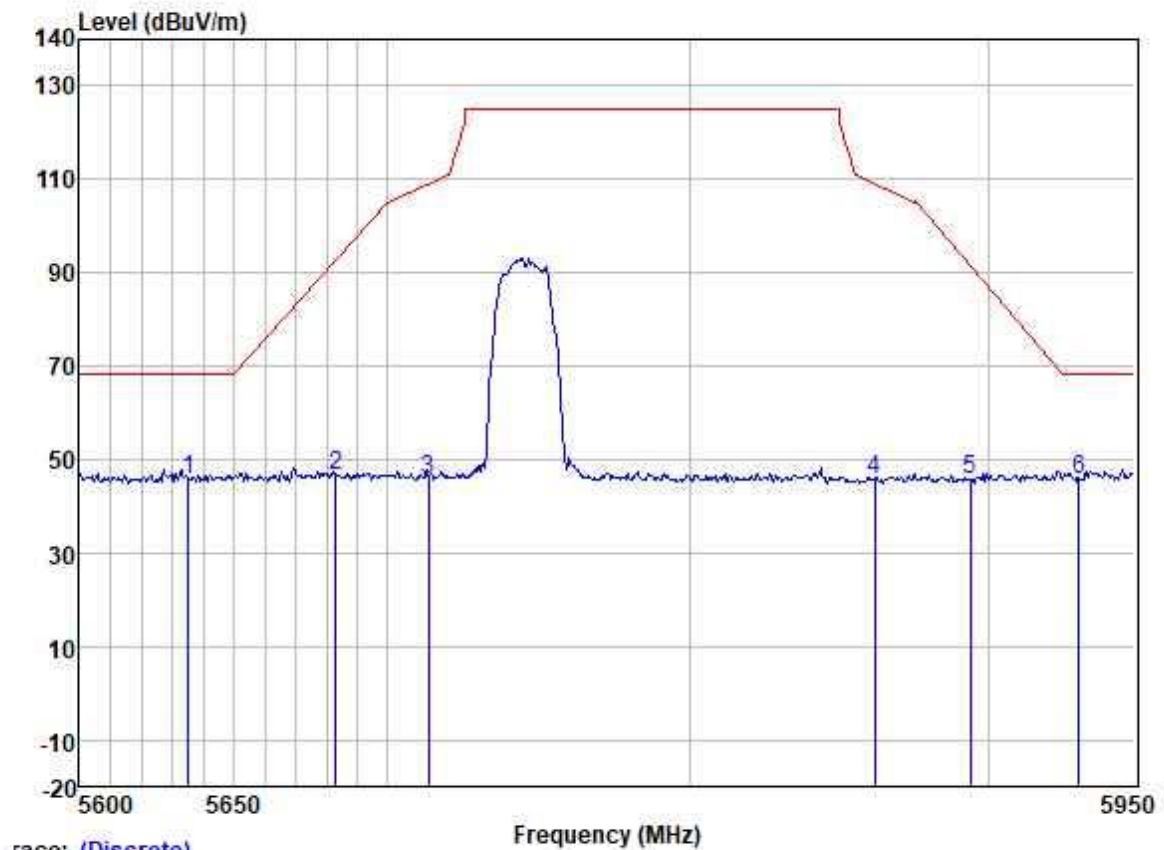
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



Trace: (Discrete)

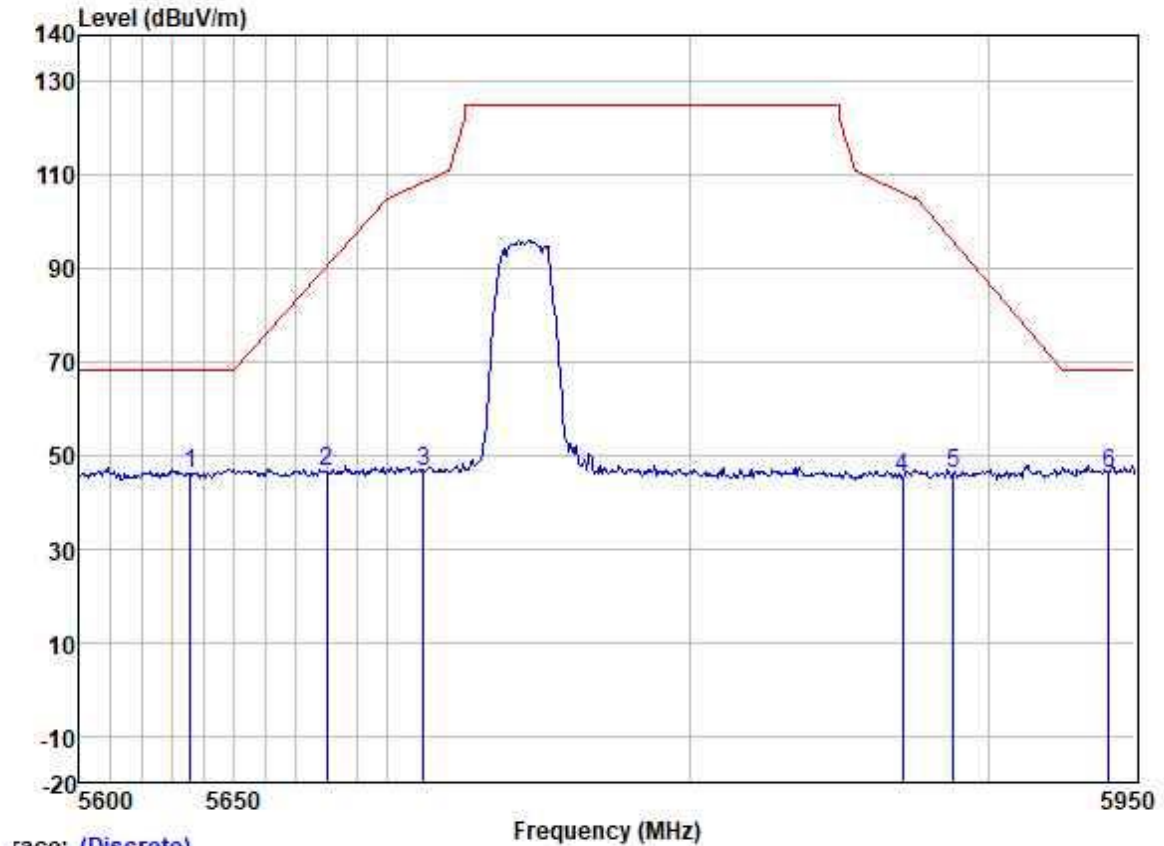
	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5725.000	43.97	32.07	5.71	36.15	45.60	68.20	-22.60	HORIZONTAL	Peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5635.078	43.63	31.93	6.33	36.17	45.72	68.20	-22.48	VERTICAL Peak
2	5683.109	44.51	31.99	6.38	36.16	46.72	92.74	-46.02	VERTICAL Peak
3	5713.509	43.59	32.04	6.33	36.15	45.81	108.98	-63.17	VERTICAL Peak
4	5861.567	43.60	32.27	5.96	36.12	45.71	108.96	-63.25	VERTICAL Peak
5	5893.994	43.57	32.31	5.90	36.12	45.66	91.15	-45.49	VERTICAL Peak
6	5930.913	43.66	32.34	6.00	36.11	45.89	68.20	-22.31	VERTICAL Peak

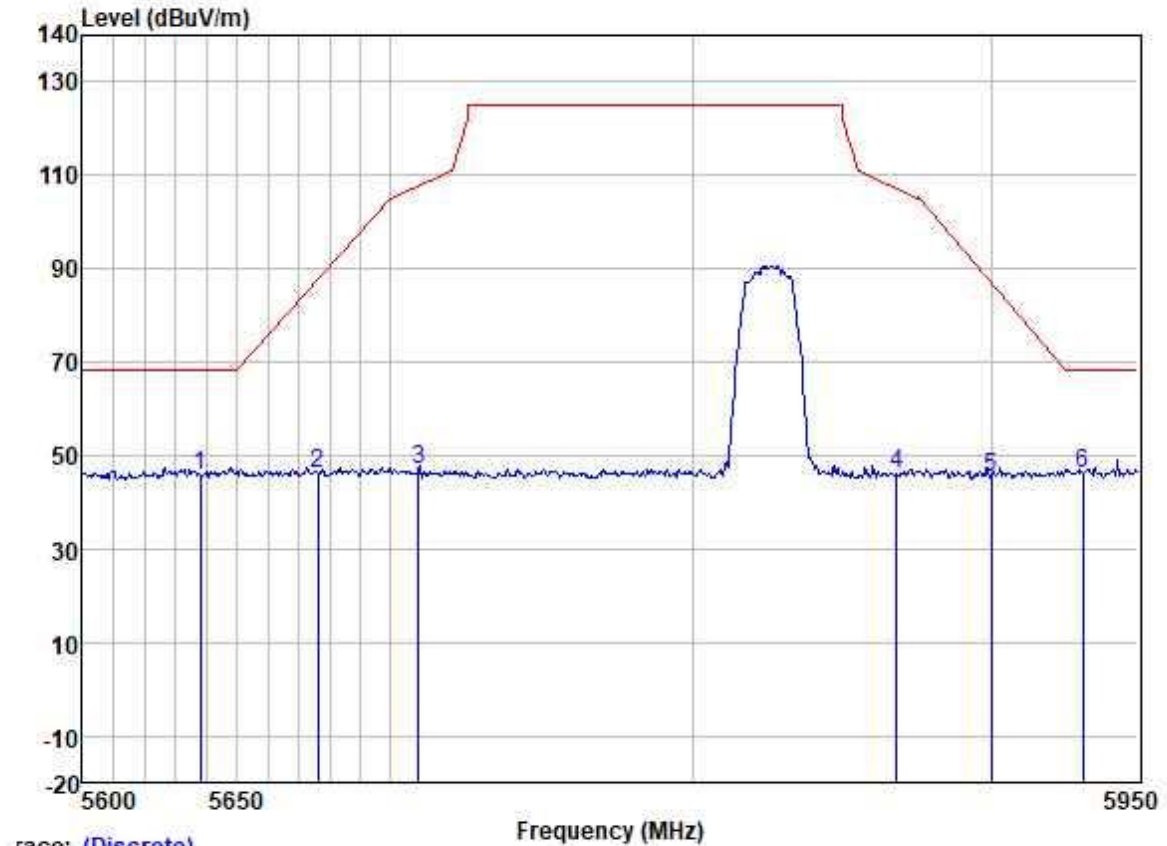
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

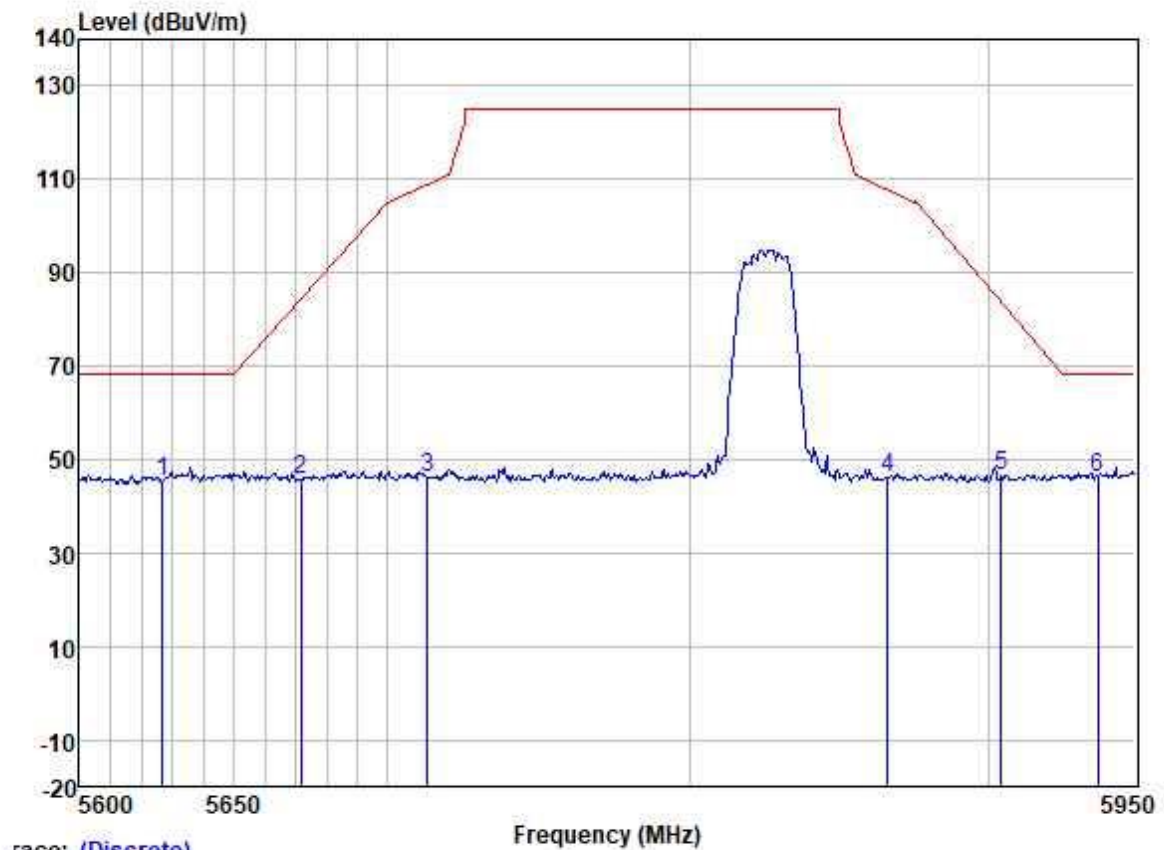
	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier	Limit Level	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5635.761	44.11	31.93	6.33	36.17	46.20	68.20	-22.00	HORIZONTAL Peak
2	5680.009	44.41	31.99	6.38	36.16	46.62	90.45	-43.83	HORIZONTAL Peak
3	5711.777	44.45	32.04	6.33	36.15	46.67	108.50	-61.83	HORIZONTAL Peak
4	5871.169	42.97	32.27	5.96	36.12	45.08	106.27	-61.19	HORIZONTAL Peak
5	5888.279	43.94	32.29	5.93	36.12	46.04	95.39	-49.35	HORIZONTAL Peak
6	5940.989	44.01	32.34	6.00	36.11	46.24	68.20	-21.96	HORIZONTAL Peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Limit Level	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5638.153	43.57	31.93	6.33	36.16	45.67	68.20	-22.53	VERTICAL Peak
2	5676.222	43.99	31.99	6.38	36.16	46.20	87.65	-41.45	VERTICAL Peak
3	5709.008	44.87	32.04	6.33	36.15	47.09	107.72	-60.63	VERTICAL Peak
4	5867.967	44.03	32.27	5.96	36.12	46.14	107.17	-61.03	VERTICAL Peak
5	5900.071	43.26	32.31	5.90	36.12	45.35	86.64	-41.29	VERTICAL Peak
6	5931.272	43.84	32.34	6.00	36.11	46.07	68.20	-22.13	VERTICAL Peak

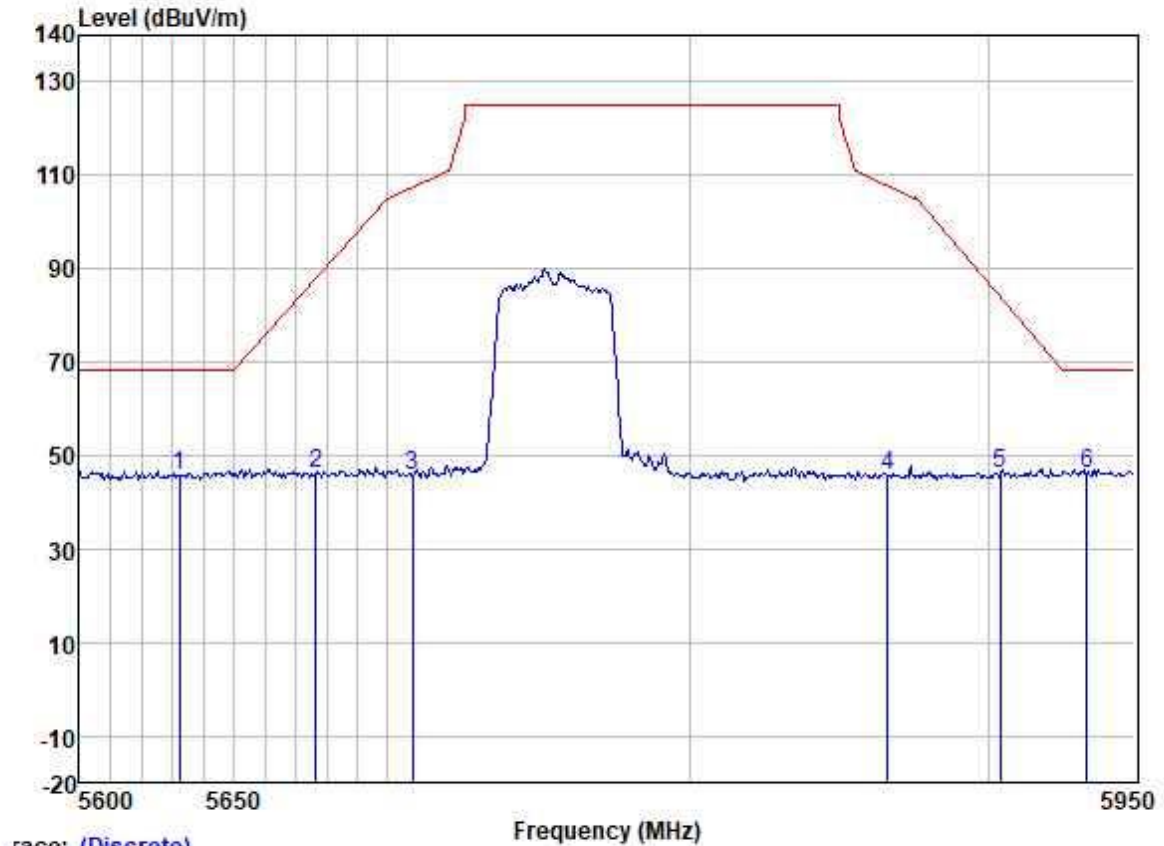
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

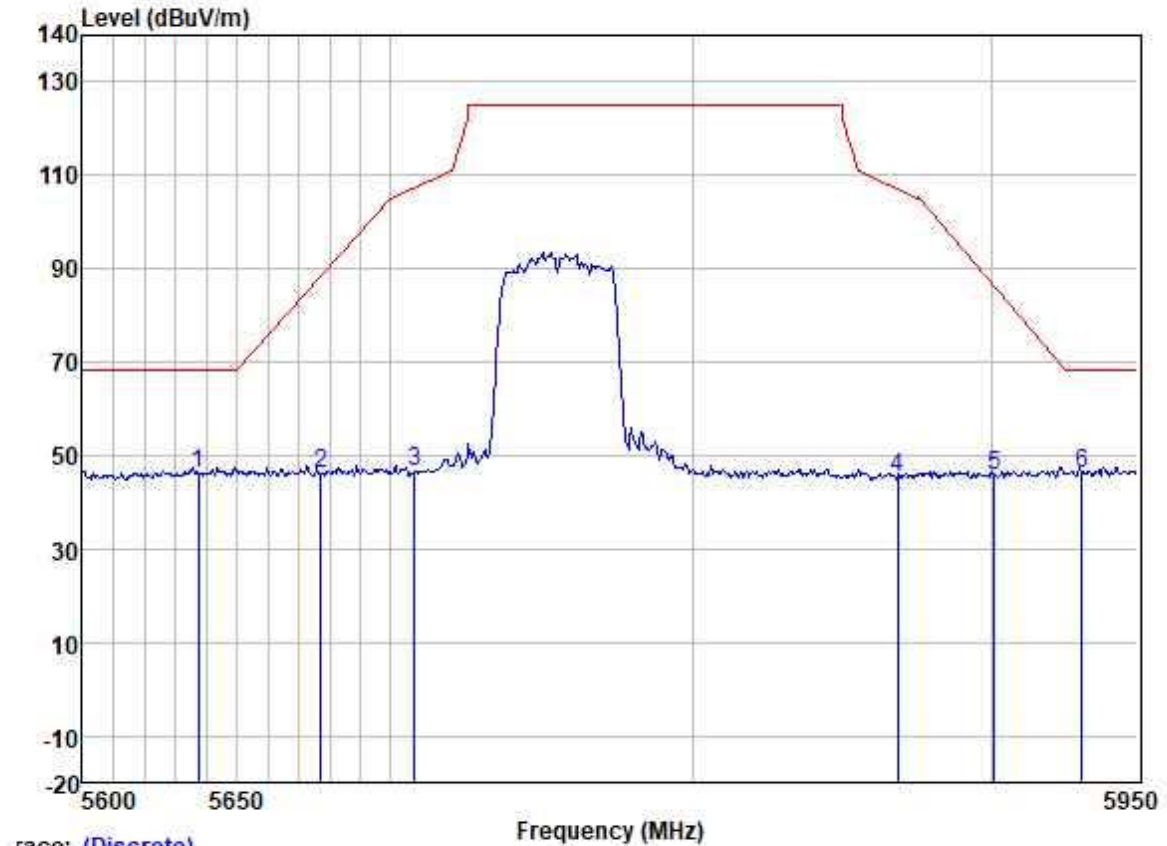
	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier	Limit Level	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5626.885	43.37	31.93	6.33	36.17	45.46	68.20	-22.74	HORIZONTAL Peak
2	5671.750	43.52	31.97	6.37	36.16	45.70	84.34	-38.64	HORIZONTAL Peak
3	5713.163	43.85	32.04	6.33	36.15	46.07	108.89	-62.82	HORIZONTAL Peak
4	5866.188	44.10	32.27	5.96	36.12	46.21	107.67	-61.46	HORIZONTAL Peak
5	5904.365	44.28	32.31	5.90	36.12	46.37	83.46	-37.09	HORIZONTAL Peak
6	5937.388	44.10	32.34	6.00	36.11	46.33	68.20	-21.87	HORIZONTAL Peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



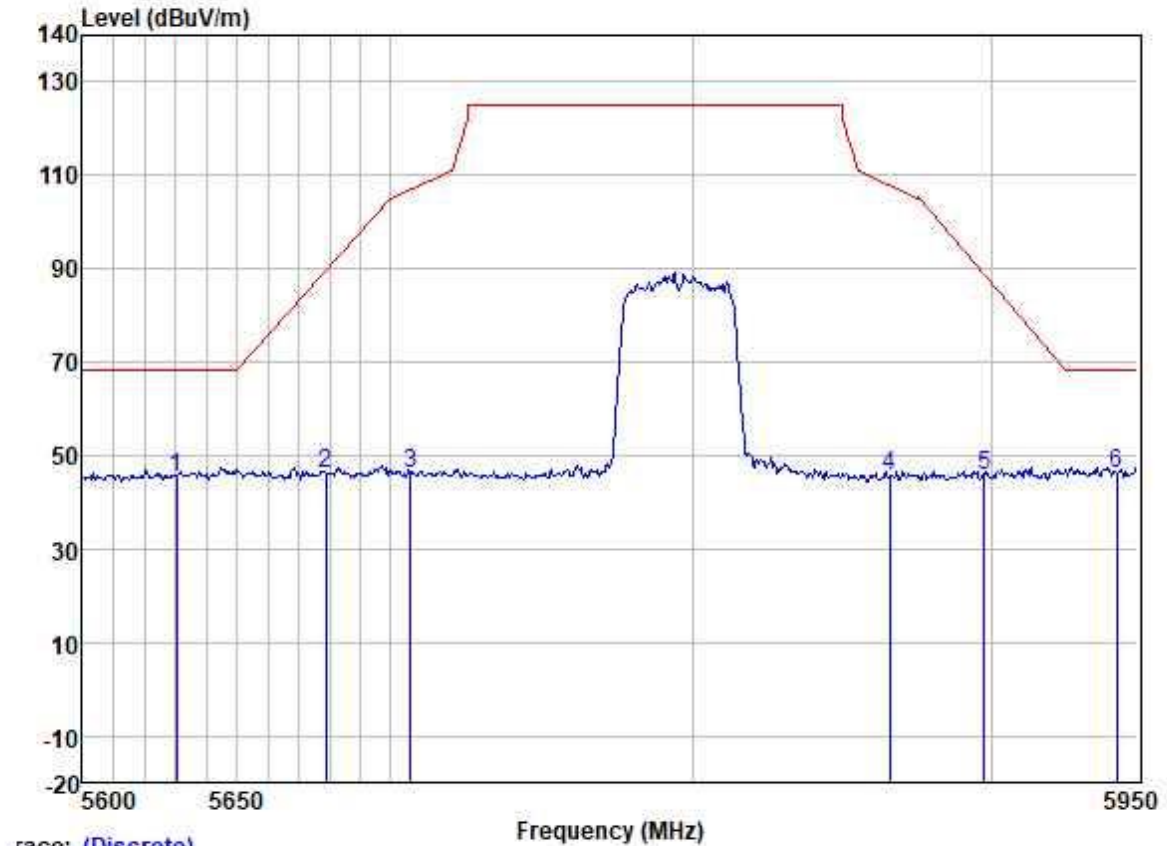
	Freq	Read Level	Antenna Factor	Cable Loss	Preamplifier Factor	Limit Level	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5632.345	43.59	31.93	6.33	36.17	45.68	68.20	-22.52	VERTICAL Peak
2	5676.566	44.05	31.99	6.38	36.16	46.26	87.90	-41.64	VERTICAL Peak
3	5708.315	43.67	32.04	6.33	36.15	45.89	107.53	-61.64	VERTICAL Peak
4	5866.188	43.68	32.27	5.96	36.12	45.79	107.67	-61.88	VERTICAL Peak
5	5904.007	43.85	32.31	5.90	36.12	45.94	83.73	-37.79	VERTICAL Peak
6	5933.430	43.88	32.34	6.00	36.11	46.11	68.20	-22.09	VERTICAL Peak

Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



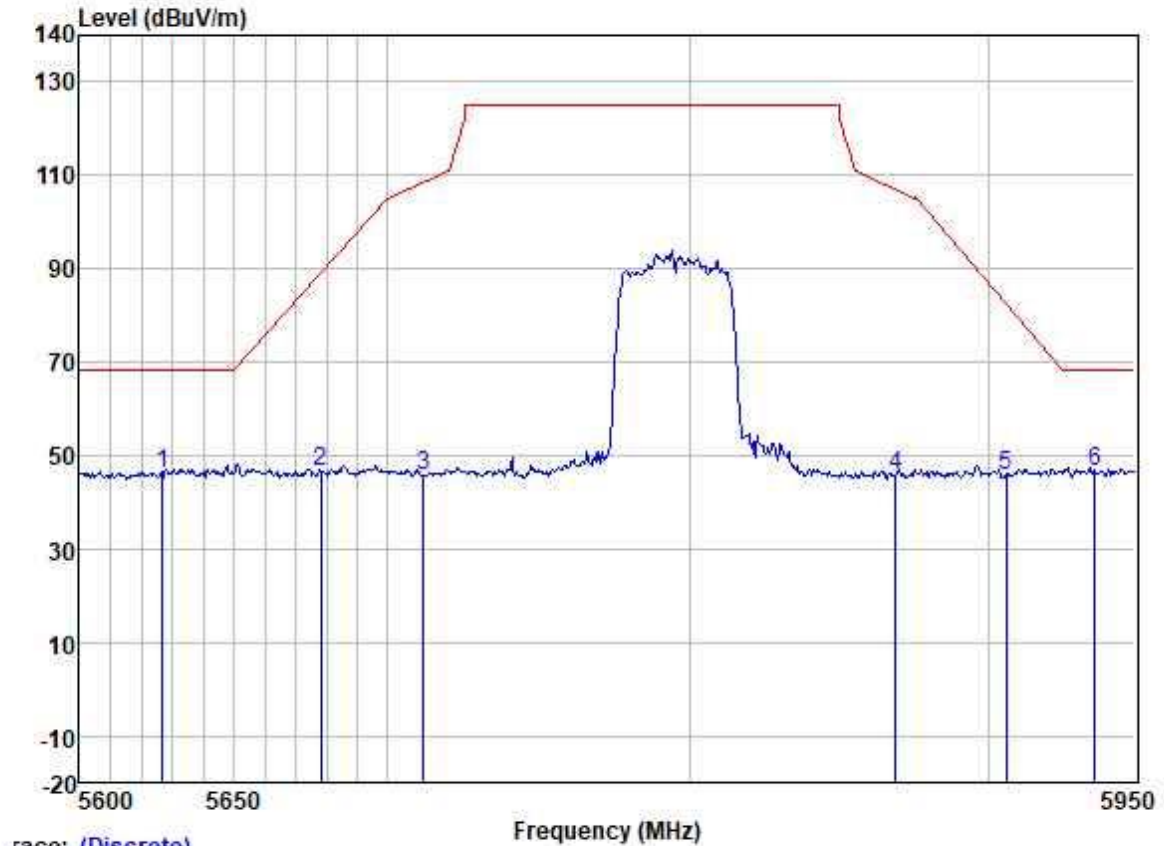
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5637.470	44.15	31.93	6.33	36.17	46.24	68.20	-21.96	HORIZONTAL	Peak
2	5677.254	43.76	31.99	6.38	36.16	45.97	88.41	-42.44	HORIZONTAL	Peak
3	5707.970	44.42	32.04	6.33	36.15	46.64	107.43	-60.79	HORIZONTAL	Peak
4	5868.322	43.29	32.27	5.96	36.12	45.40	107.07	-61.67	HORIZONTAL	Peak
5	5901.144	43.80	32.31	5.90	36.12	45.89	85.85	-39.96	HORIZONTAL	Peak
6	5930.913	43.77	32.34	6.00	36.11	46.00	68.20	-22.20	HORIZONTAL	Peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5630.297	43.27	31.93	6.33	36.17	45.36	68.20	-22.84	VERTICAL	Peak
2	5678.976	44.00	31.99	6.38	36.16	46.21	89.68	-43.47	VERTICAL	Peak
3	5706.585	43.77	32.04	6.33	36.15	45.99	107.05	-61.06	VERTICAL	Peak
4	5865.833	43.49	32.27	5.96	36.12	45.60	107.76	-62.16	VERTICAL	Peak
5	5897.568	43.47	32.31	5.90	36.12	45.56	88.50	-42.94	VERTICAL	Peak
6	5942.790	43.91	32.36	6.05	36.11	46.21	68.20	-21.99	VERTICAL	Peak

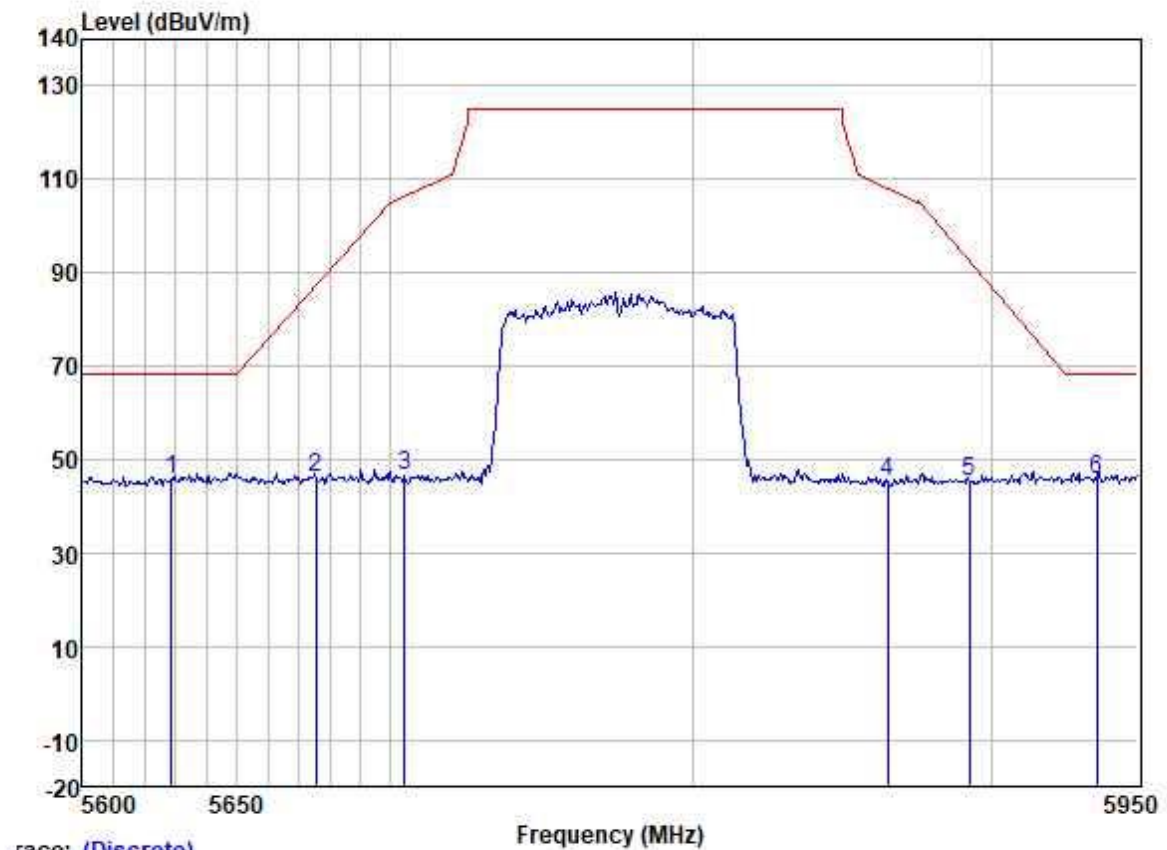
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace: (Discrete)

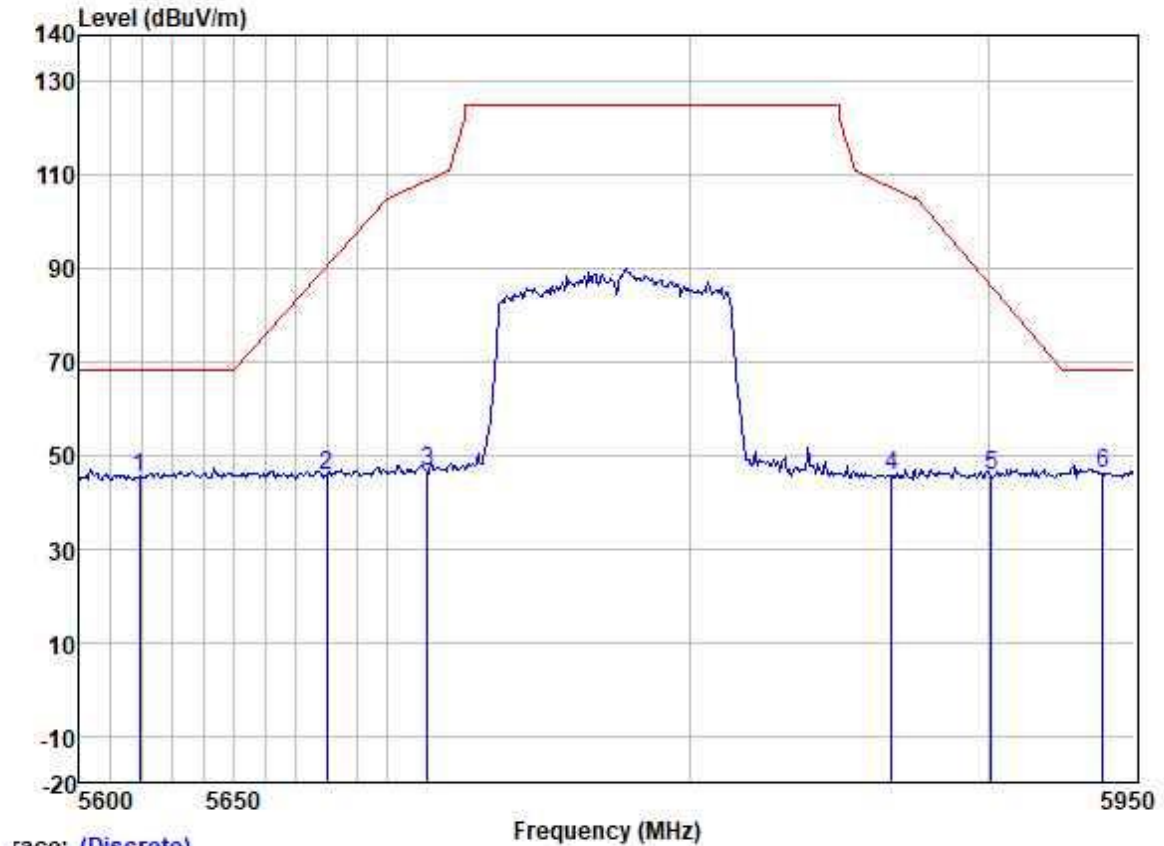
	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5626.885	43.88	31.93	6.33	36.17	45.97	68.20	-22.23	HORIZONTAL	Peak
2	5678.287	44.49	31.99	6.38	36.16	46.70	89.17	-42.47	HORIZONTAL	Peak
3	5711.777	43.39	32.04	6.33	36.15	45.61	108.50	-62.89	HORIZONTAL	Peak
4	5868.678	43.45	32.27	5.96	36.12	45.56	106.97	-61.41	HORIZONTAL	Peak
5	5906.155	43.80	32.31	5.90	36.12	45.89	82.13	-36.24	HORIZONTAL	Peak
6	5936.309	44.26	32.34	6.00	36.11	46.49	68.20	-21.71	HORIZONTAL	Peak

Test Mode: 07; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz;



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5628.590	43.41	31.93	6.33	36.17	45.50	68.20	-22.70	VERTICAL Peak
2	5675.534	44.04	31.99	6.38	36.16	46.25	87.14	-40.89	VERTICAL Peak
3	5704.510	44.28	32.01	6.40	36.15	46.54	106.46	-59.92	VERTICAL Peak
4	5865.122	43.14	32.27	5.96	36.12	45.25	107.96	-62.71	VERTICAL Peak
5	5892.564	43.01	32.31	5.90	36.12	45.10	92.21	-47.11	VERTICAL Peak
6	5935.949	43.44	32.34	6.00	36.11	45.67	68.20	-22.53	VERTICAL Peak

Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz;



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5619.385	43.28	31.91	6.32	36.17	45.34	68.20	-22.86	HORIZONTAL	Peak
2	5680.009	43.55	31.99	6.38	36.16	45.76	90.45	-44.69	HORIZONTAL	Peak
3	5713.163	44.13	32.04	6.33	36.15	46.35	108.89	-62.54	HORIZONTAL	Peak
4	5867.255	43.69	32.27	5.96	36.12	45.80	107.37	-61.57	HORIZONTAL	Peak
5	5901.144	43.52	32.31	5.90	36.12	45.61	85.85	-40.24	HORIZONTAL	Peak
6	5938.828	43.97	32.34	6.00	36.11	46.20	68.20	-22.00	HORIZONTAL	Peak

7.9 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart C 15.407 (g)
Test Method: ANSI C63.10 (2013) Section 6.8

7.9.1 E.U.T. Operation

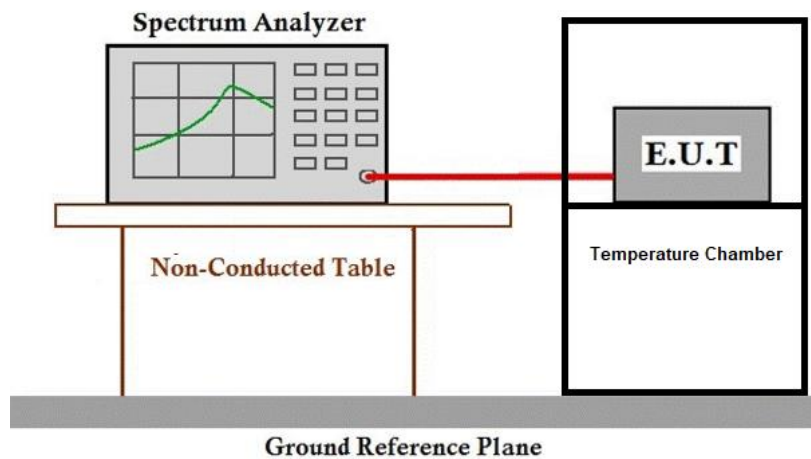
Operating Environment:
Temperature: 25.6 °C Humidity: 44.3 % RH Atmospheric Pressure: 1005 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	04	TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.



7.9.3 Test Setup Diagram



7.9.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.10 Radiated Emissions (Below 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.407(b)

Test Method: KDB 789033 D02 II G

Test Distance: 3 m

Limit:

Frequency (MHz)	Field strength(microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
960-1000	500	3

7.10.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C

Humidity: 52 % RH

Atmospheric Pressure: 1005 mbar

7.10.2 Test Mode Description

Pre-scan / Mode
Final test Code Description

Final test 04 TX mode (U-NII-1)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

Pre-scan 05 TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

Pre-scan 06 TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

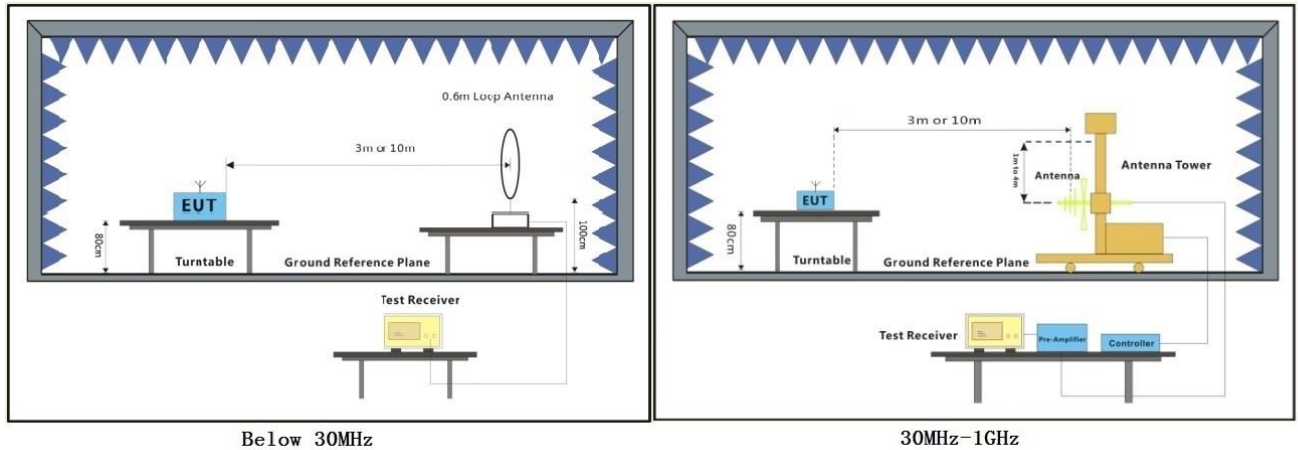


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Pre-scan 07

TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram



7.10.4 Measurement Procedure and Data

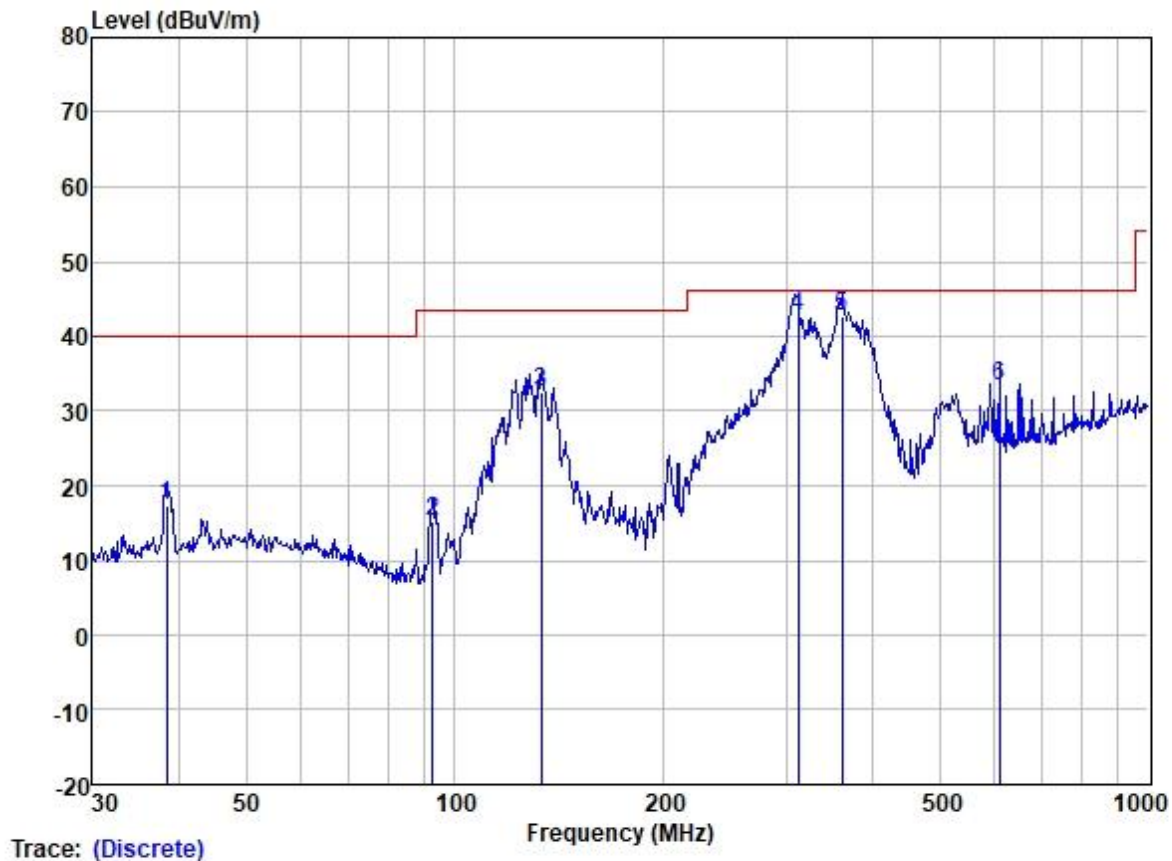
- a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using quasi-peak method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.
- i. Repeat above procedures until all frequencies measured was complete.

Remark:

1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
2. For emission below 1GHz, through the pre-scan found the worst case is the lowest channel of 802.11a. Only the worst case is recorded in the report.
3. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
4. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.



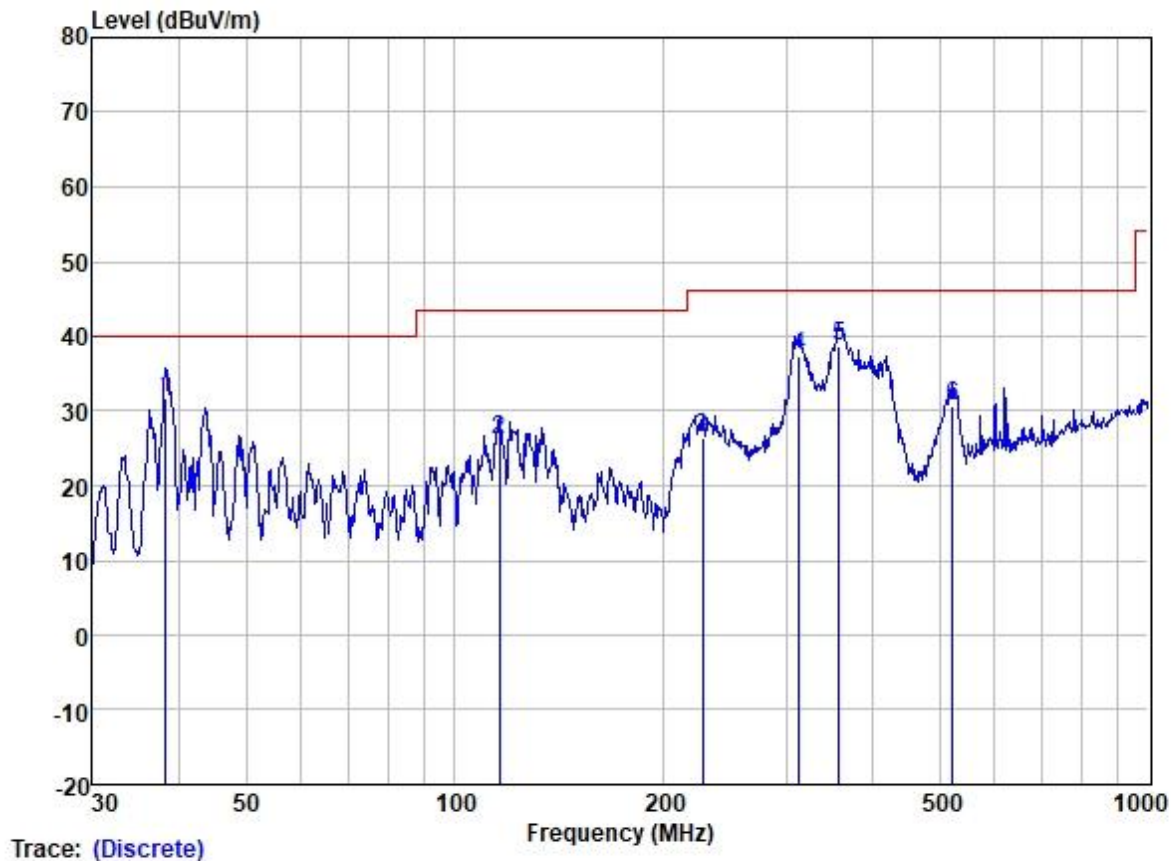
Test Mode: 00; Polarity: Horizontal



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	38.346	30.59	12.86	1.09	27.18	17.36	40.00	-22.64	HORIZONTAL	QP
2	92.787	32.98	7.73	1.65	27.08	15.28	43.50	-28.22	HORIZONTAL	QP
3	133.151	45.21	12.19	1.99	26.97	32.42	43.50	-11.08	HORIZONTAL	QP
4	312.179	52.46	13.50	3.26	26.61	42.61	46.00	-3.39	HORIZONTAL	QP
5	361.714	51.71	14.49	3.70	27.13	42.77	46.00	-3.23	HORIZONTAL	QP
6	609.922	36.39	19.92	5.18	28.21	33.28	46.00	-12.72	HORIZONTAL	QP

Test Mode: 00; Polarity: Vertical



Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Measured Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	38.212	44.87	12.84	1.09	27.18	31.62	40.00	-8.38	VERTICAL	QP
2	115.726	40.75	10.56	1.83	27.04	26.10	43.50	-17.40	VERTICAL	QP
3	227.691	40.22	10.16	2.71	26.69	26.40	46.00	-19.60	VERTICAL	QP
4	313.276	47.11	13.52	3.26	26.62	37.27	46.00	-8.73	VERTICAL	QP
5	357.929	47.59	14.35	3.70	27.09	38.55	46.00	-7.45	VERTICAL	QP
6	522.718	36.10	18.08	4.55	28.02	30.71	46.00	-15.29	VERTICAL	QP

8 Test Setup Photo

Refer to Appendix - Test Setup Photos for GZCR220400040903



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9 EUT Constructional Details (EUT Photos)

Refer to Appendix - External and Internal Photos for GZCR2204000409AT

10 Appendix

1. Duty Cycle

1.1 Ant1

1.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	T_on (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	1.429	1.530	93.40	0.30	0.03
		5200	1.429	1.530	93.40	0.30	0.03
		5240	1.429	1.529	93.46	0.29	0.03
		5260	1.429	1.530	93.40	0.30	0.03
		5300	1.429	1.530	93.40	0.30	0.03
		5320	1.428	1.529	93.39	0.30	0.03
		5500	1.429	1.530	93.40	0.30	0.03
		5580	1.429	1.530	93.40	0.30	0.03
		5700	1.429	1.529	93.46	0.29	0.03
		5745	1.429	1.530	93.40	0.30	0.03
		5785	1.429	1.530	93.40	0.30	0.03
		5825	1.429	1.530	93.40	0.30	0.03
802.11n (HT20)	SISO	5180	0.364	0.466	78.11	1.07	0.07
		5200	0.365	0.466	78.33	1.06	0.07
		5240	0.365	0.466	78.33	1.06	0.08
		5260	0.370	0.466	79.40	1.00	0.13
		5300	0.365	0.466	78.33	1.06	0.04
		5320	0.369	0.465	79.35	1.00	0.07
		5500	0.365	0.466	78.33	1.06	0.04
		5580	0.370	0.466	79.40	1.00	0.06
		5700	0.365	0.466	78.33	1.06	0.10
		5745	0.370	0.466	79.40	1.00	0.10
		5785	0.369	0.465	79.35	1.00	0.06
		5825	0.369	0.465	79.35	1.00	0.10
802.11n (HT40)	SISO	5190	0.201	0.298	67.45	1.71	0.18
		5230	0.200	0.297	67.34	1.72	0.10
		5270	0.196	0.297	65.99	1.81	0.17
		5310	0.201	0.298	67.45	1.71	0.11
		5510	0.201	0.297	67.68	1.70	0.15
		5550	0.201	0.298	67.45	1.71	0.09



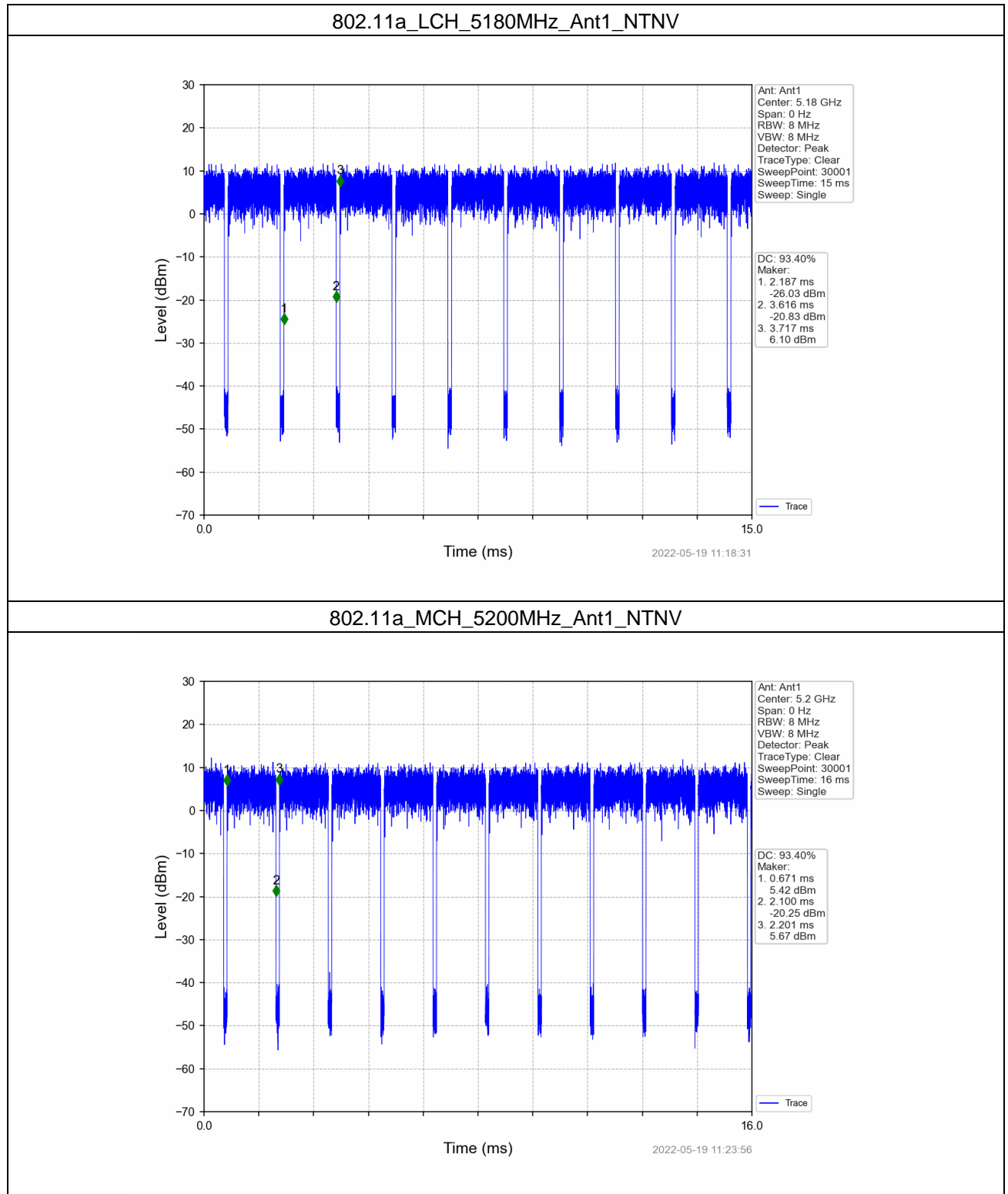
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		5670	0.196	0.297	65.99	1.81	0.12
		5755	0.198	0.298	66.44	1.78	0.13
		5795	0.201	0.298	67.45	1.71	0.10
802.11ac (VHT20)	SISO	5180	0.370	0.470	78.72	1.04	0.08
		5200	0.369	0.470	78.51	1.05	0.06
		5240	0.370	0.470	78.72	1.04	0.06
		5260	0.369	0.469	78.68	1.04	0.10
		5300	0.369	0.470	78.51	1.05	0.07
		5320	0.369	0.470	78.51	1.05	0.04
		5500	0.374	0.470	79.57	0.99	0.07
		5580	0.369	0.469	78.68	1.04	0.07
		5700	0.369	0.470	78.51	1.05	0.11
		5745	0.369	0.470	78.51	1.05	0.09
		5785	0.371	0.470	78.94	1.03	0.08
		5825	0.374	0.470	79.57	0.99	0.13
802.11ac (VHT40)	SISO	5190	0.205	0.302	67.88	1.68	0.10
		5230	0.204	0.301	67.77	1.69	0.12
		5270	0.204	0.302	67.55	1.70	0.10
		5310	0.205	0.302	67.88	1.68	0.09
		5510	0.204	0.302	67.55	1.70	0.11
		5550	0.201	0.302	66.56	1.77	0.14
		5670	0.204	0.301	67.77	1.69	0.12
		5755	0.201	0.302	66.56	1.77	0.09
		5795	0.200	0.301	66.45	1.78	0.10
802.11ac (VHT80)	SISO	5210	0.116	0.217	53.46	2.72	0.09
		5290	0.117	0.218	53.67	2.70	0.15
		5530	0.119	0.218	54.59	2.63	0.25
		5610	0.116	0.217	53.46	2.72	0.04
		5775	0.119	0.217	54.84	2.61	0.17

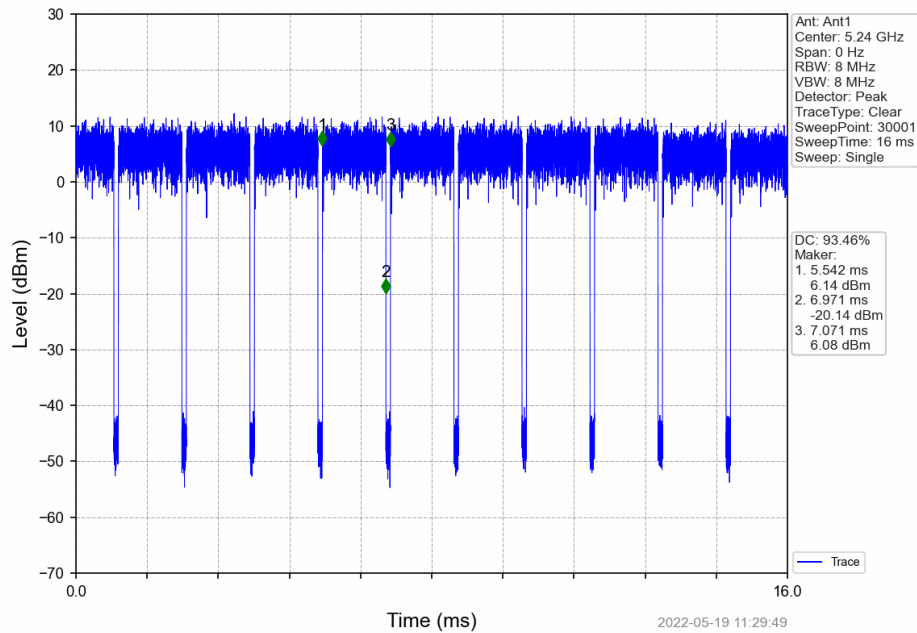


1.1.2 Test Graph

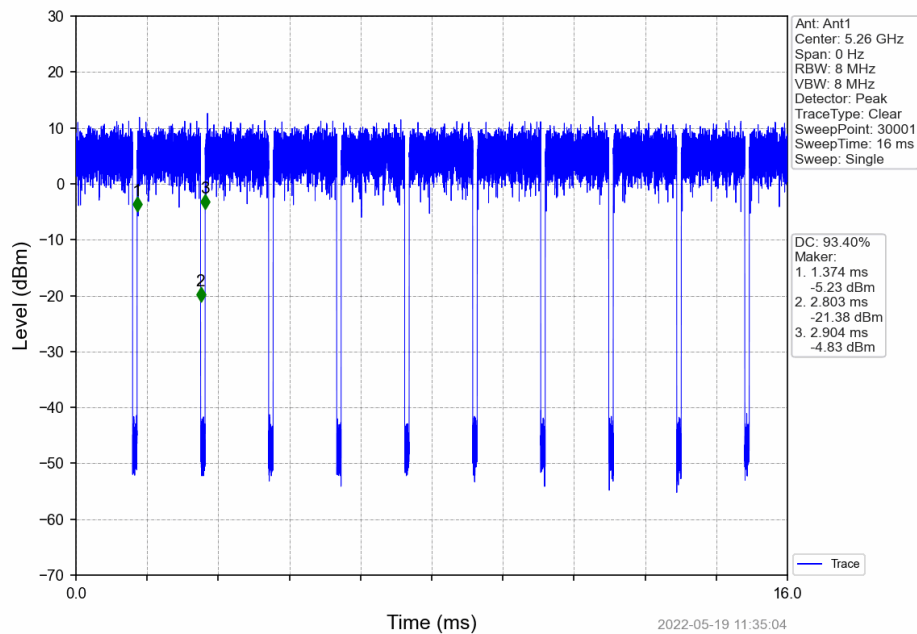


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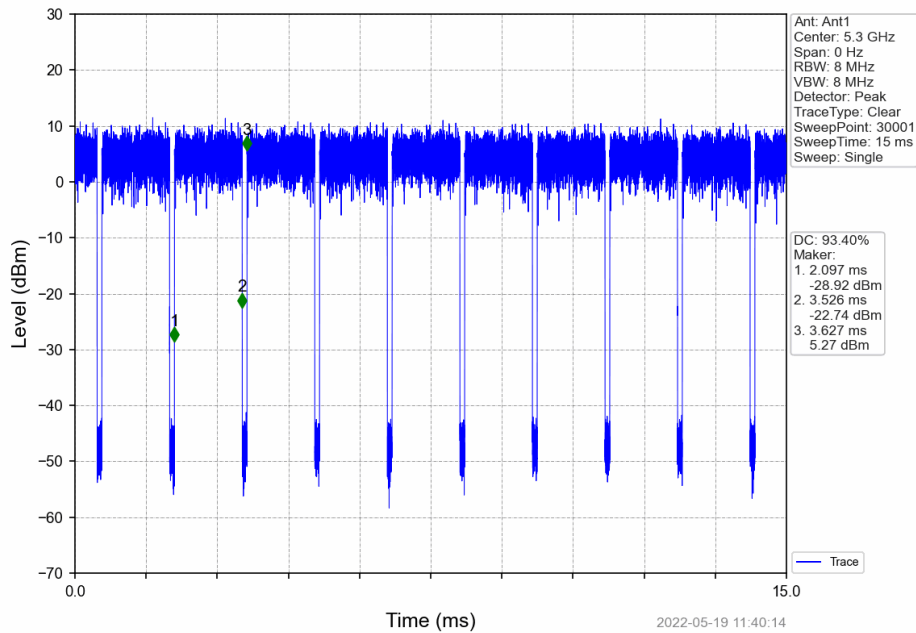
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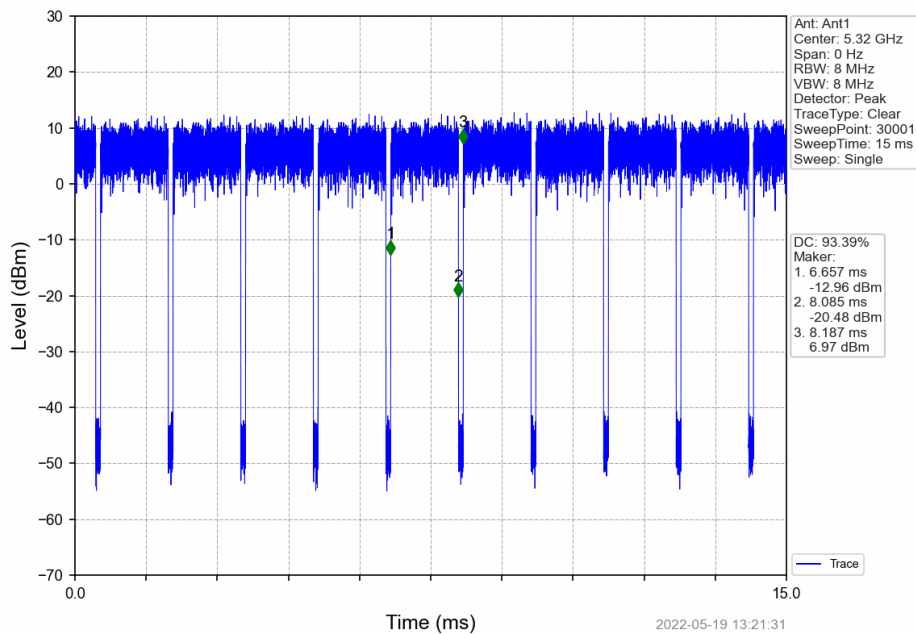
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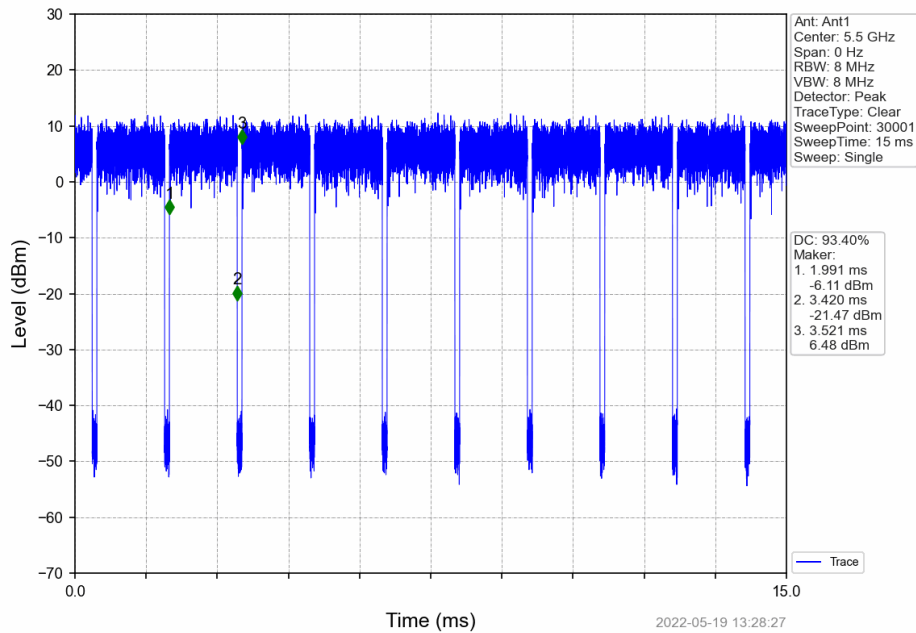
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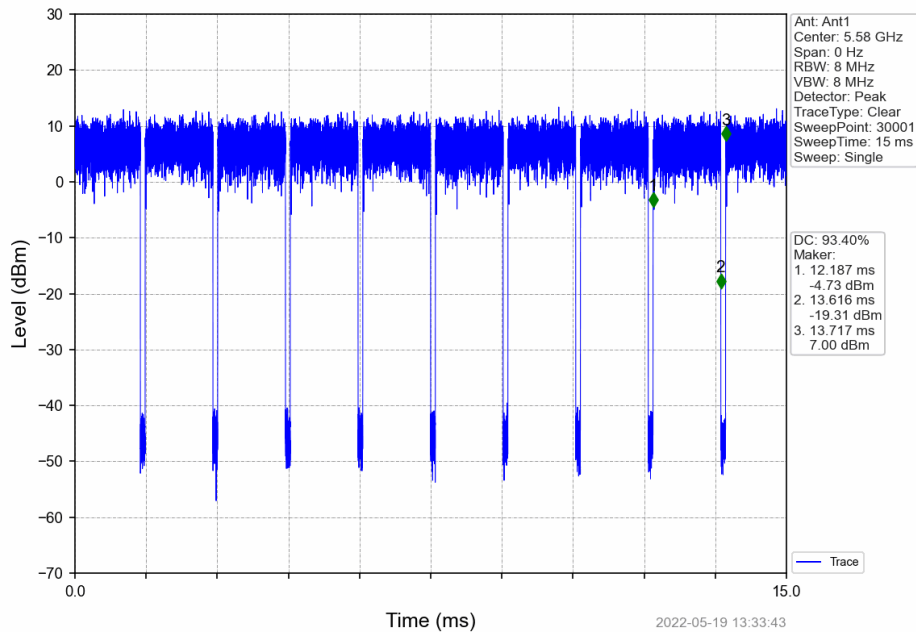
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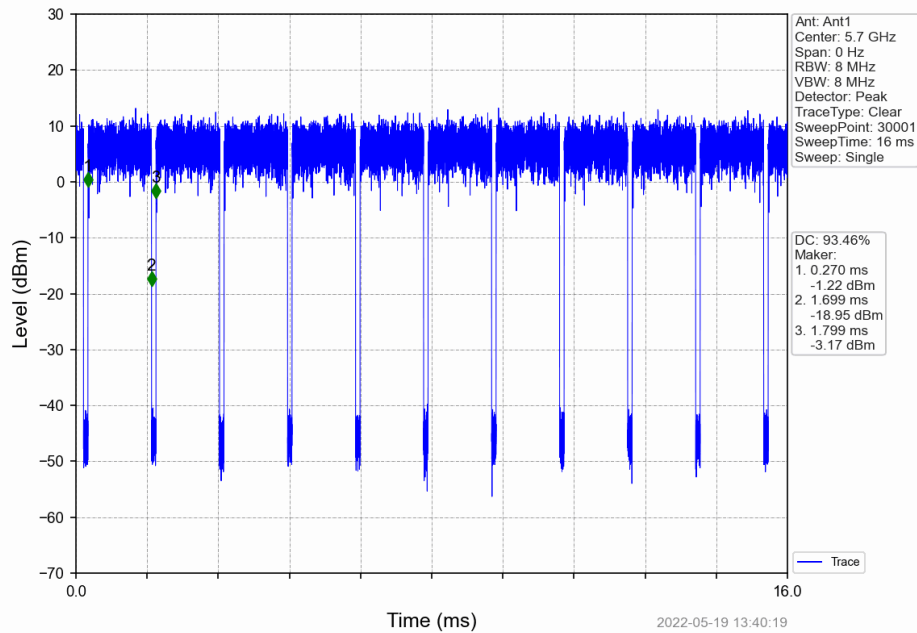
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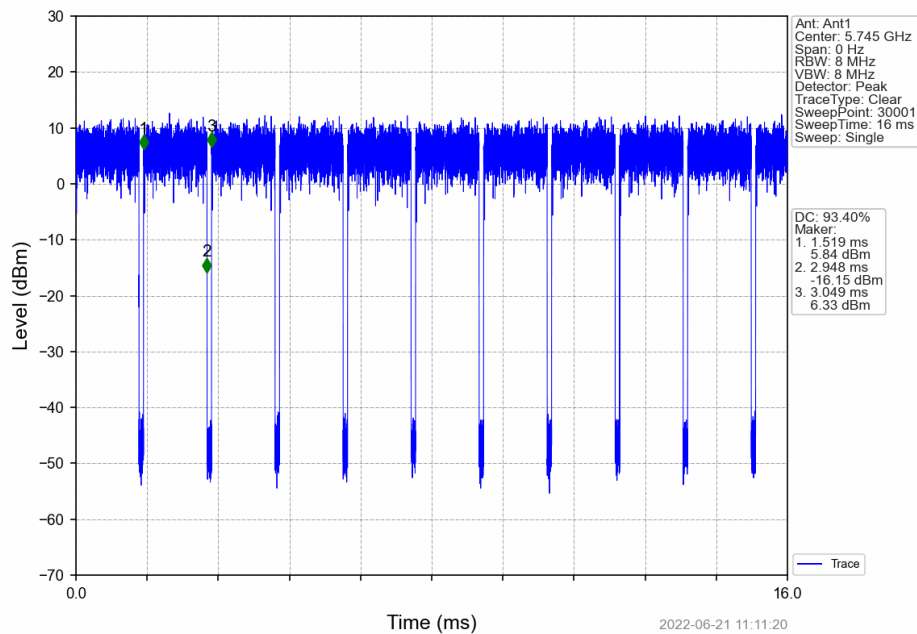
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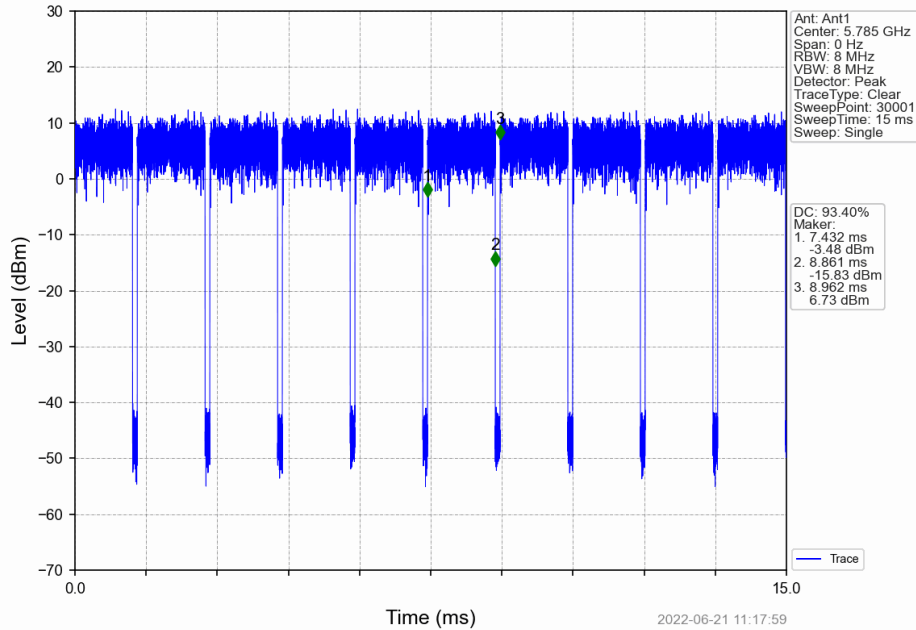
802.11a_HCH_5700MHz_Ant1_NTNV



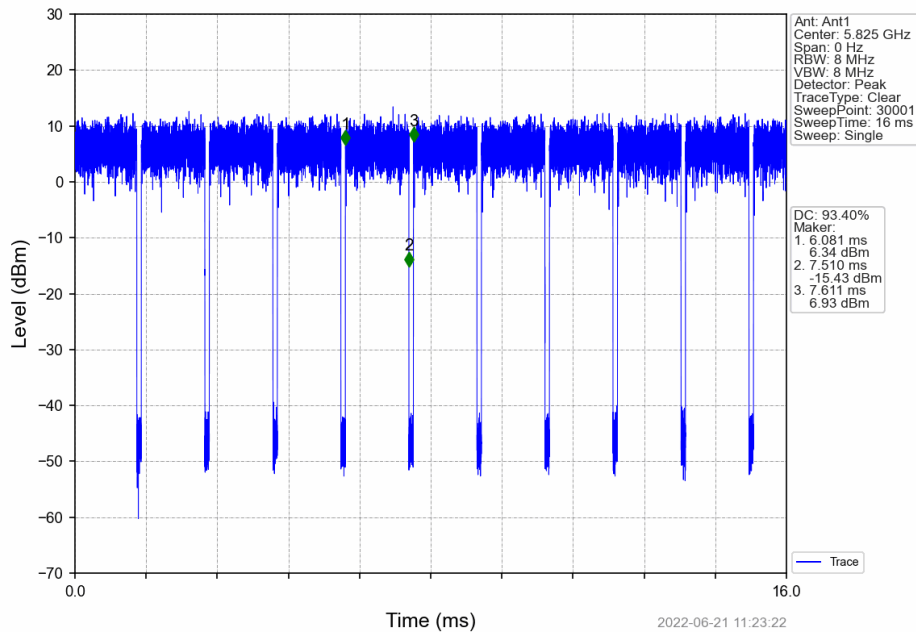
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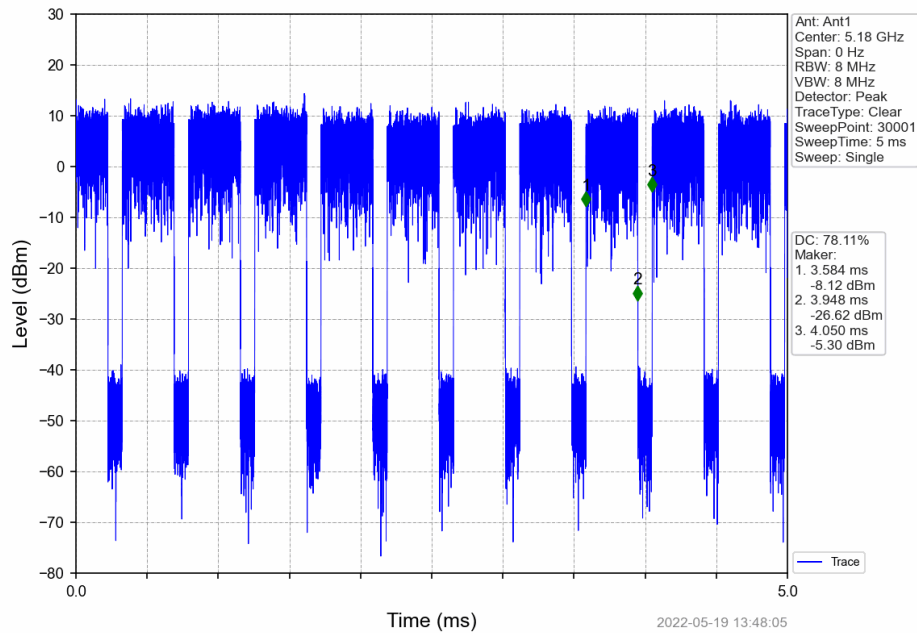
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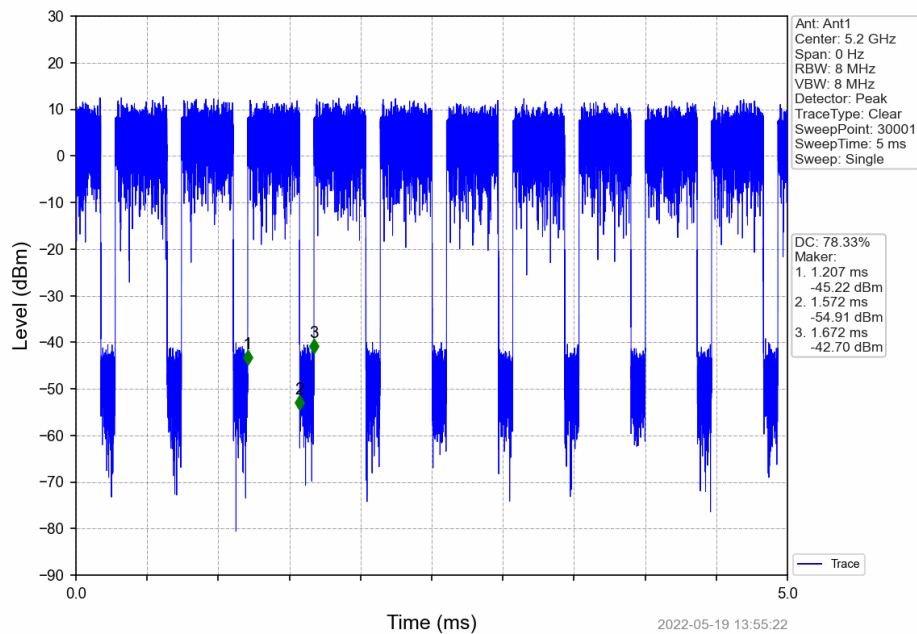
802.11a_HCH_5825MHz_Ant1_NTNV



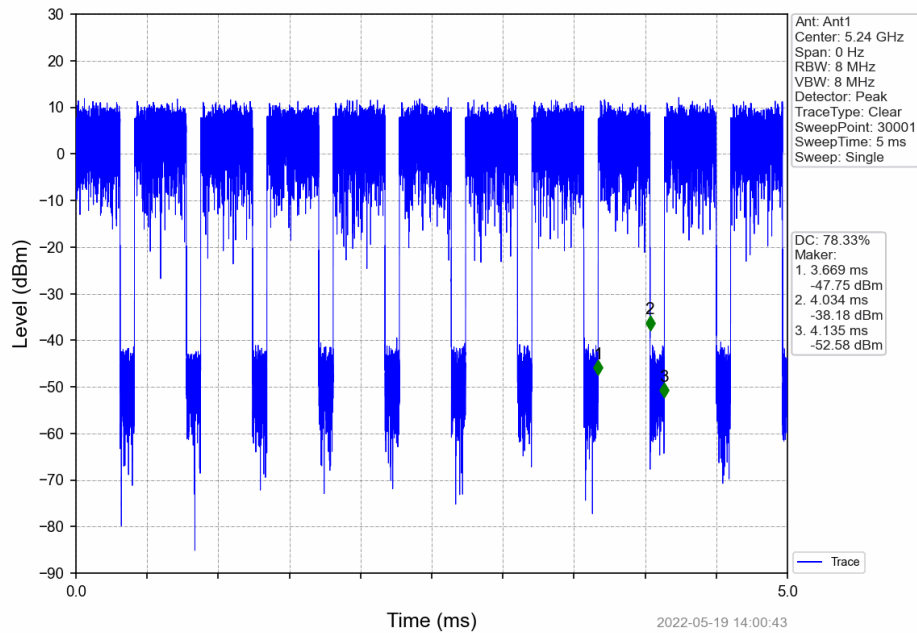
802.11n(HT20)_LCH_5180MHz_Ant1_NTNV



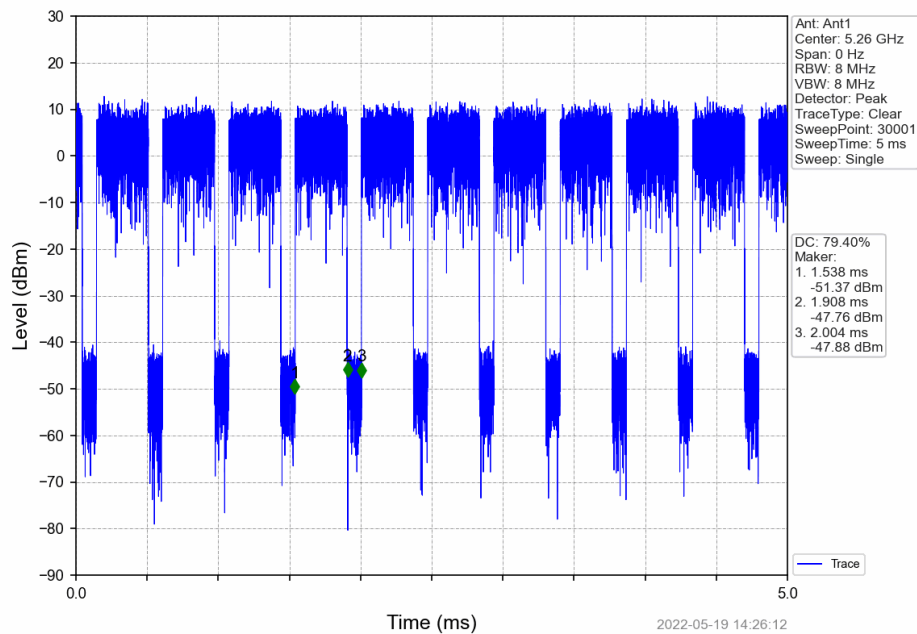
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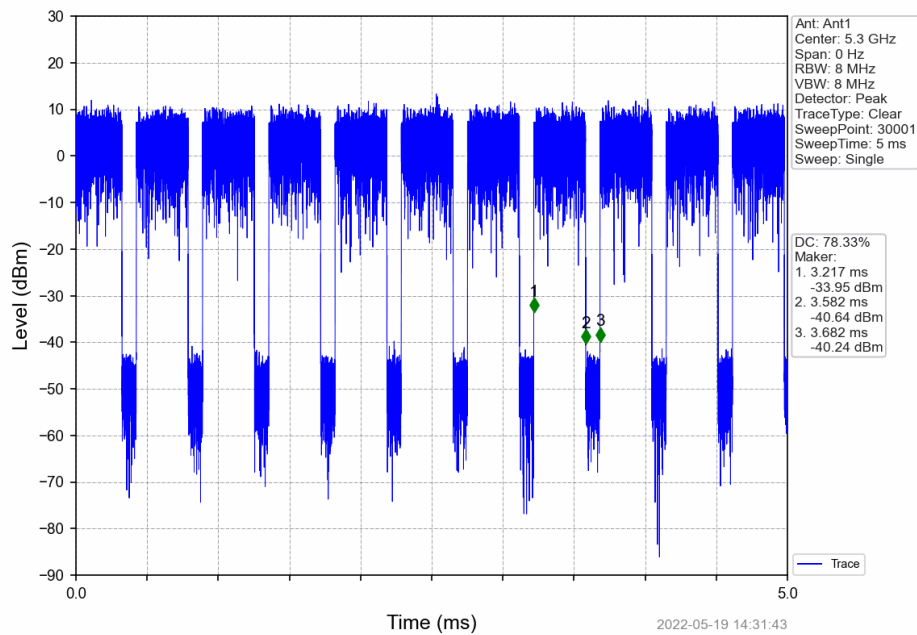
802.11n(HT20)_HCH_5240MHz_Ant1_NTNV



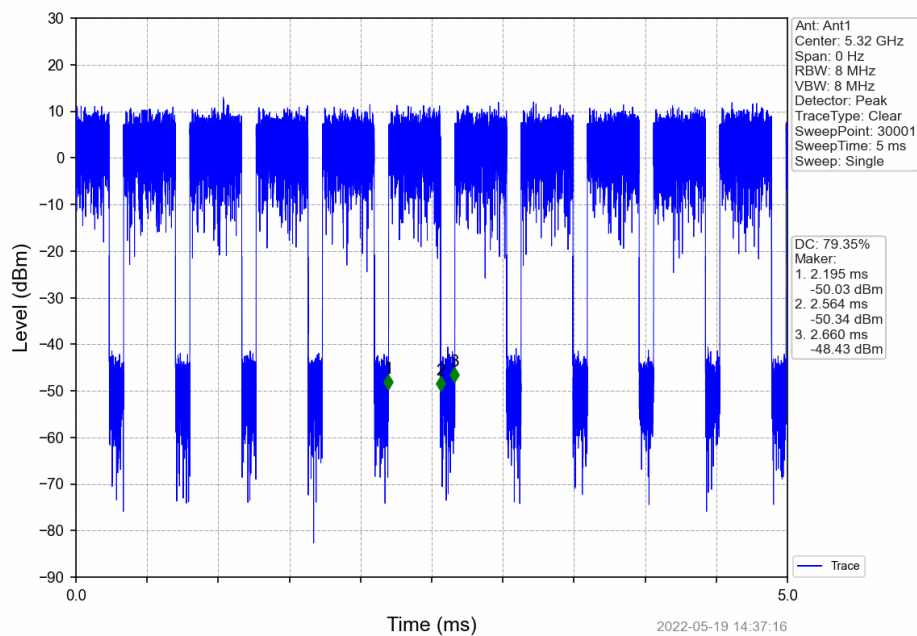
802.11n(HT20)_LCH_5260MHz_Ant1_NTNV



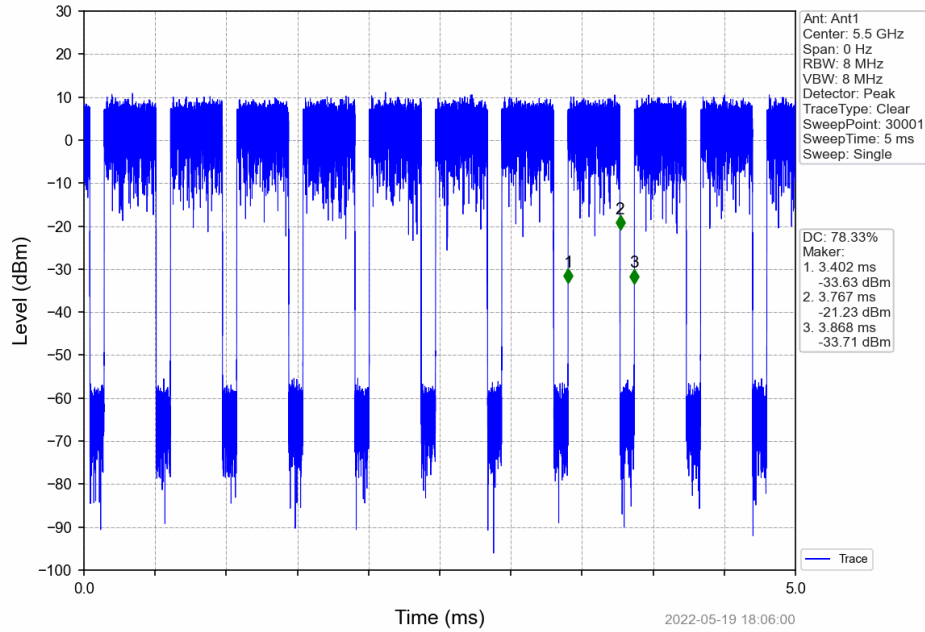
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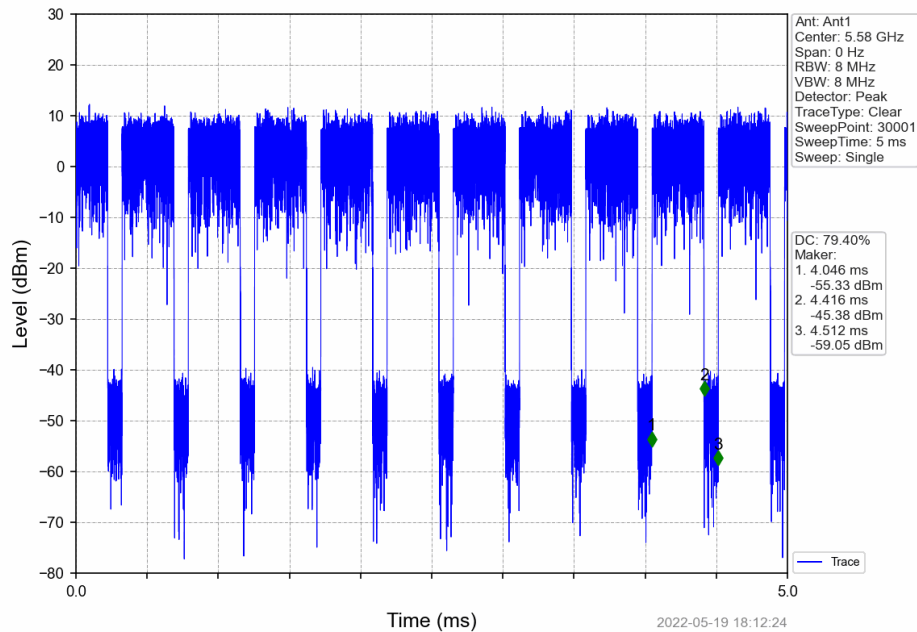
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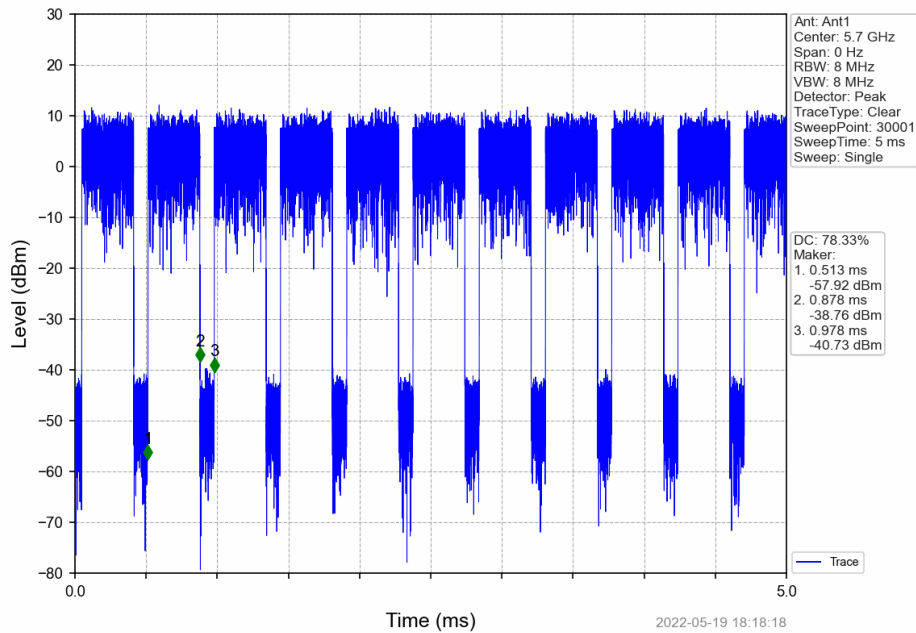
802.11n(HT20)_LCH_5500MHz_Ant1_NTNV



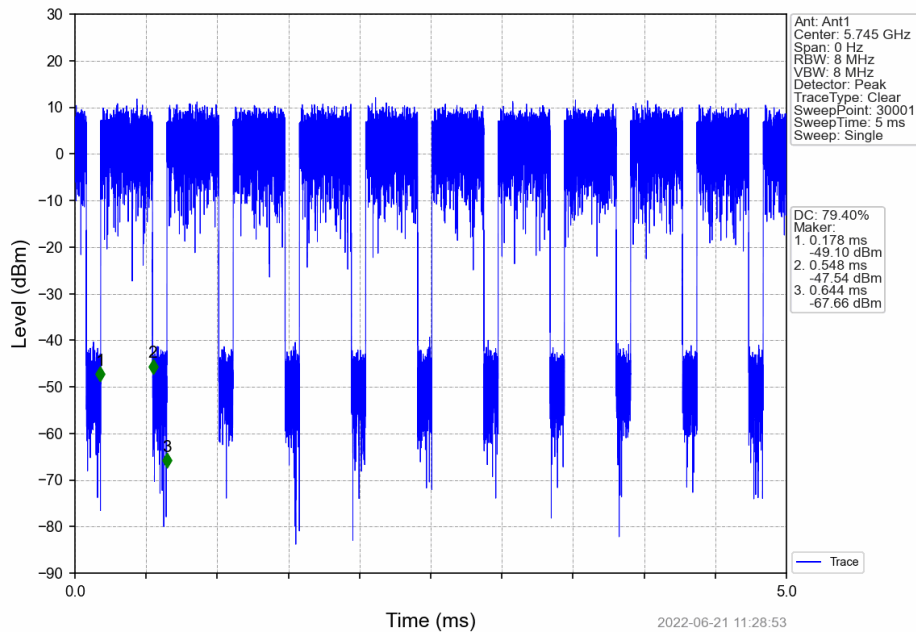
802.11n(HT20)_MCH_5580MHz_Ant1_NTNV



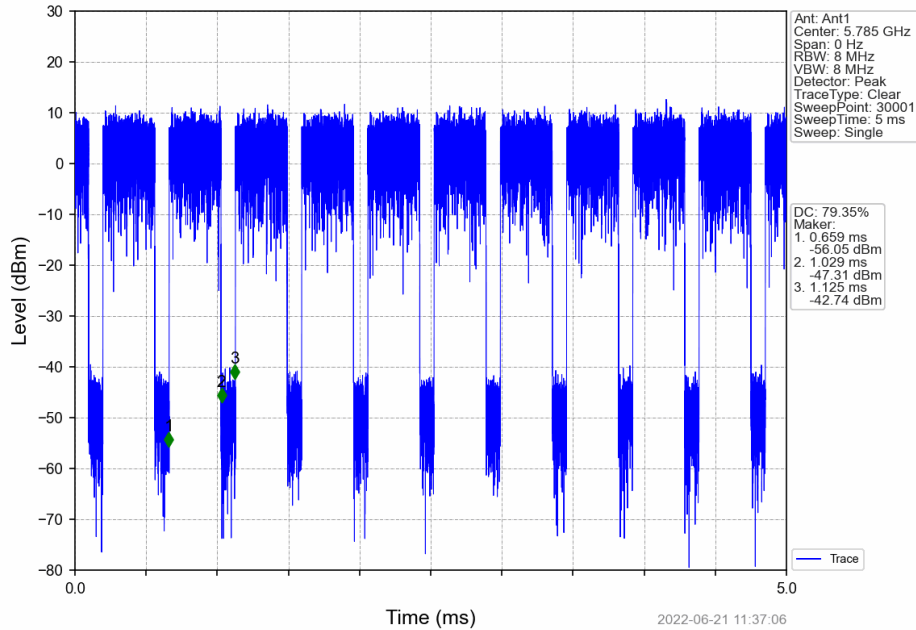
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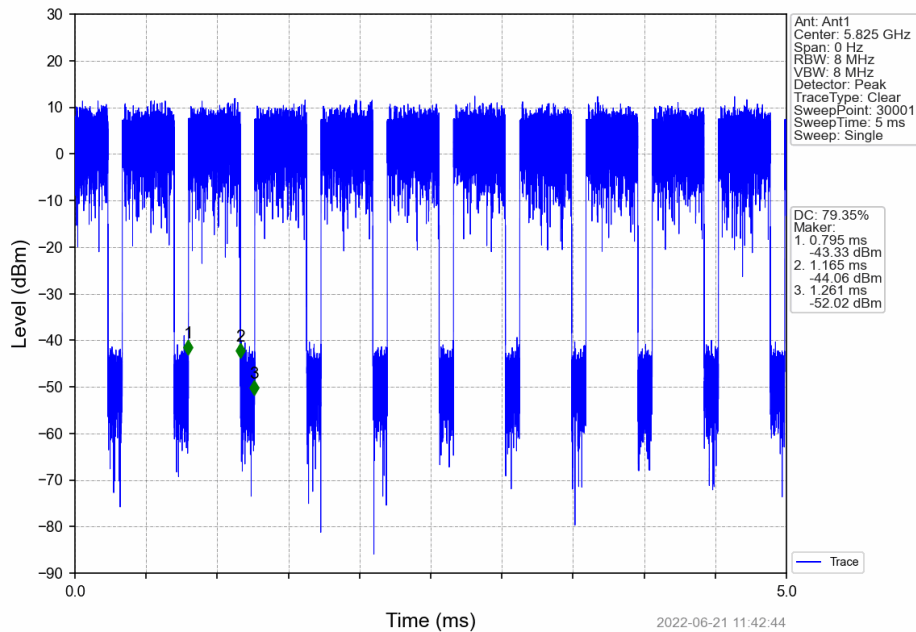
802.11n(HT20)_LCH_5745MHz_Ant1_NTNV



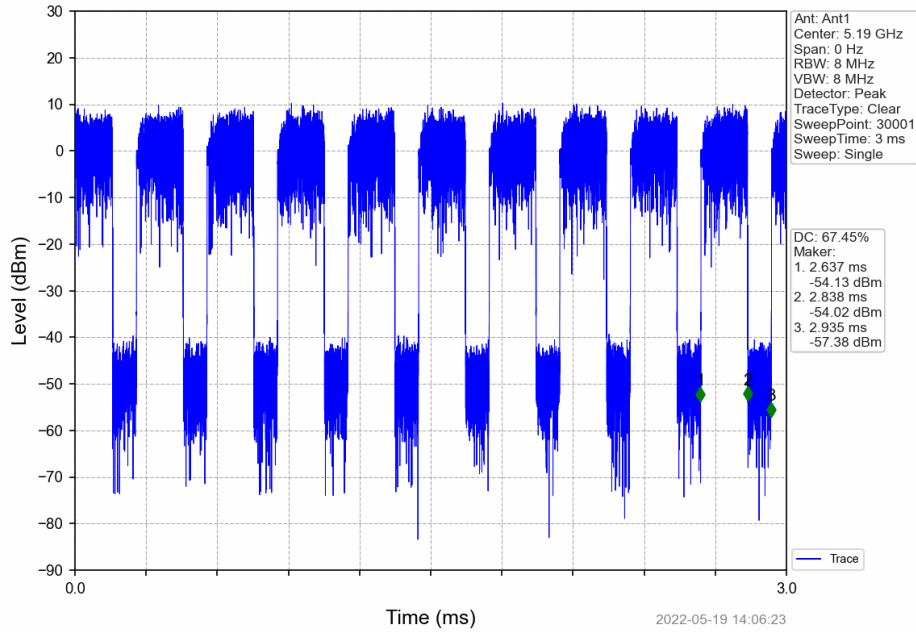
802.11n(HT20)_MCH_5785MHz_Ant1_NTNV



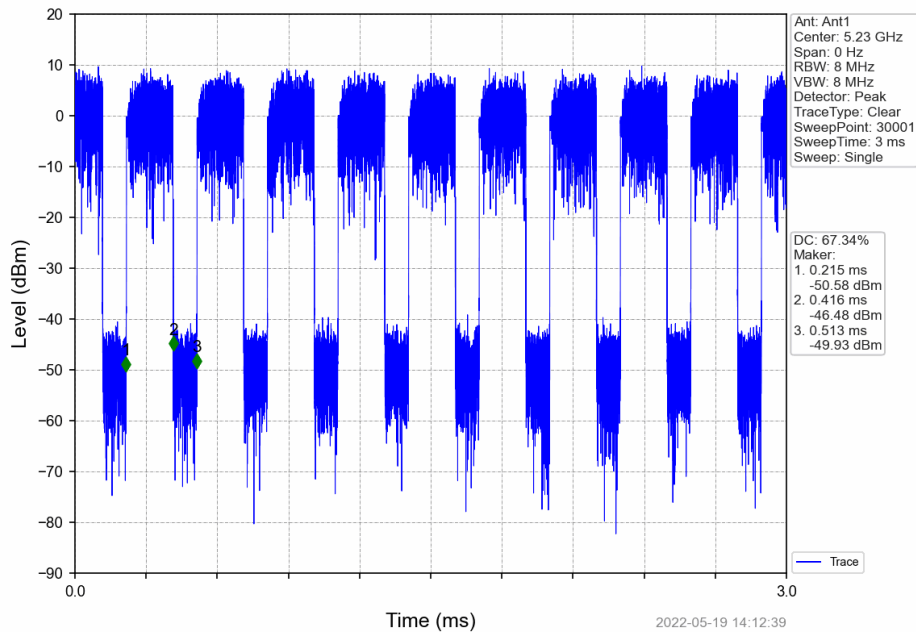
802.11n(HT20)_HCH_5825MHz_Ant1_NTNV



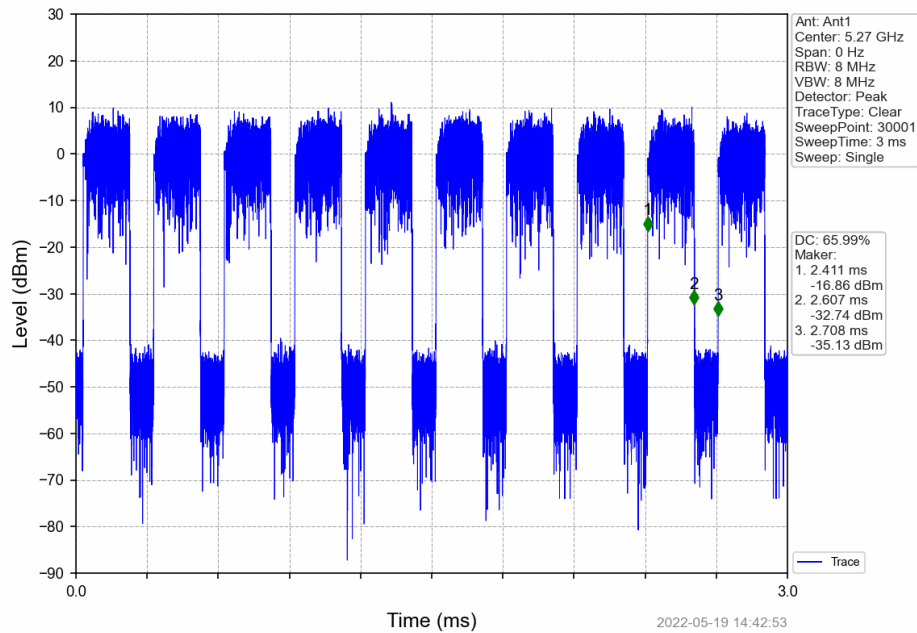
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



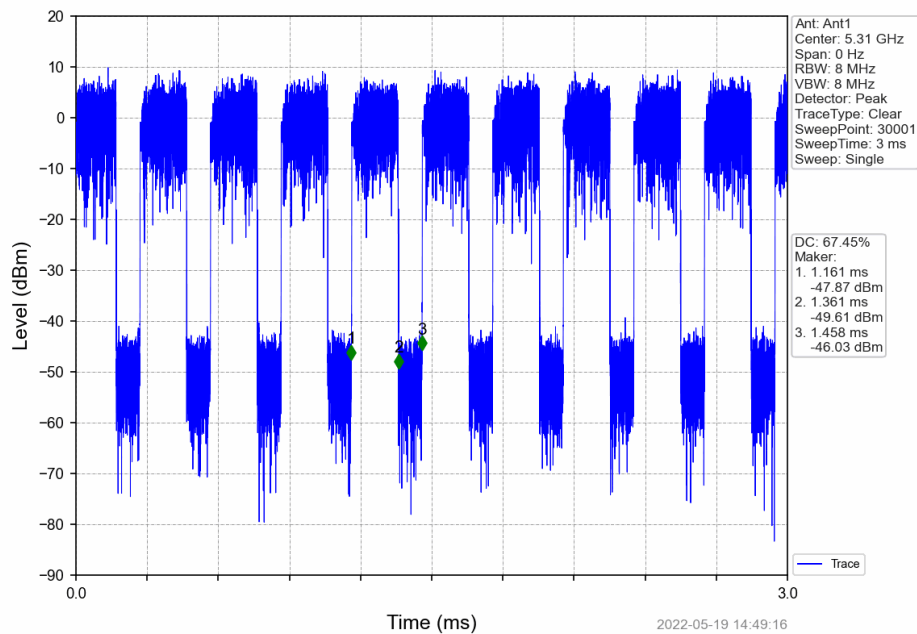
802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



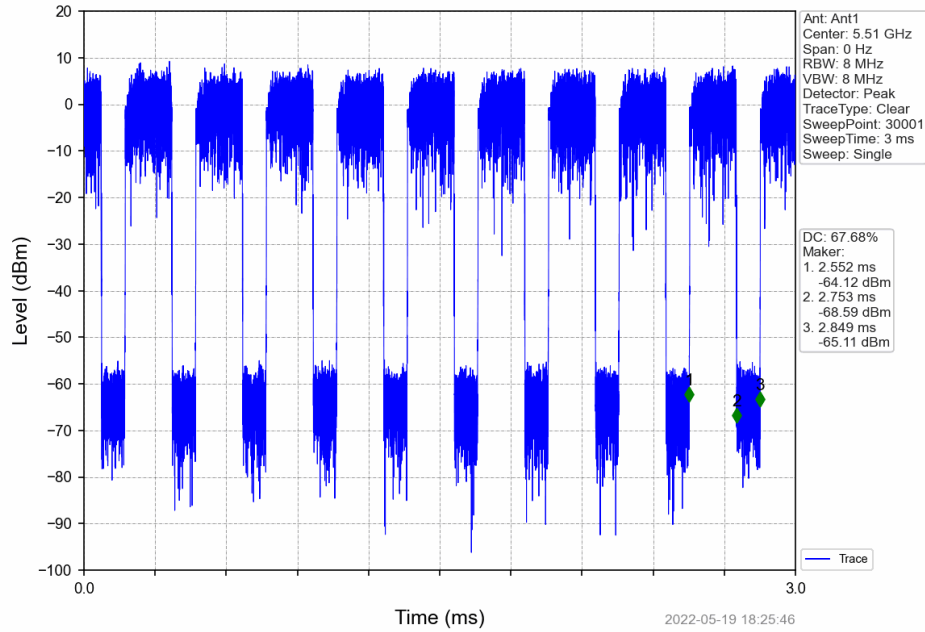
802.11n(HT40)_LCH_5270MHz_Ant1_NTNV



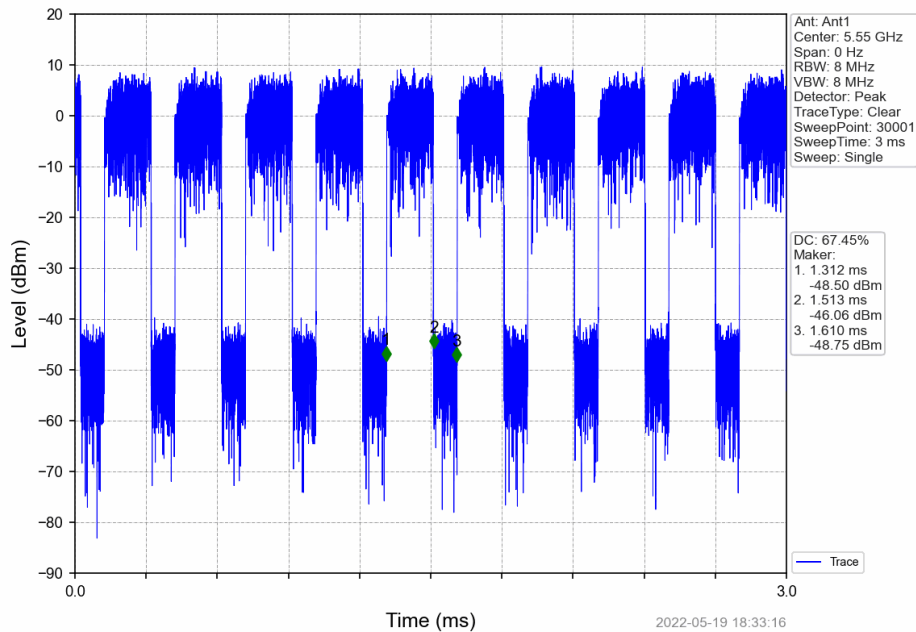
802.11n(HT40)_HCH_5310MHz_Ant1_NTNV



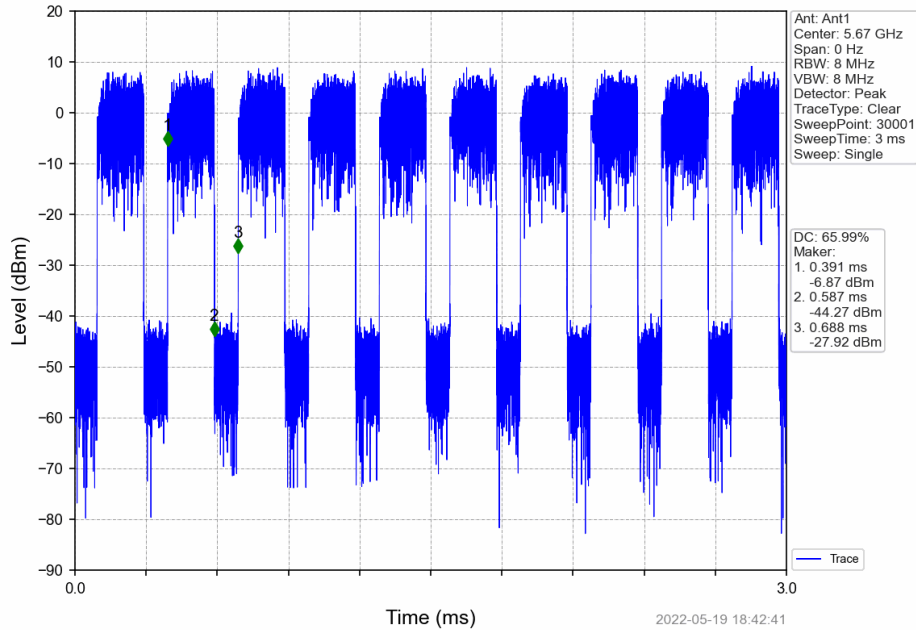
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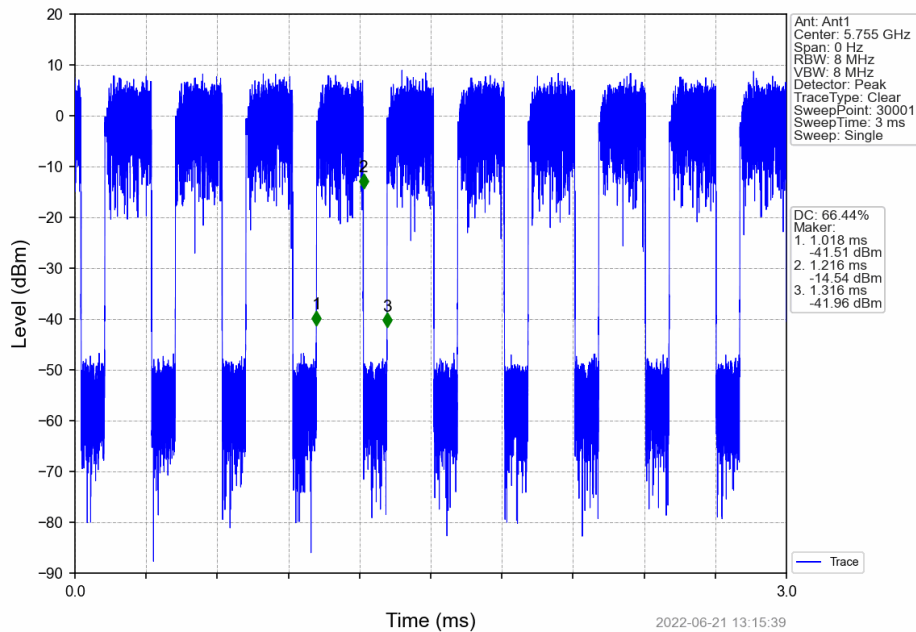
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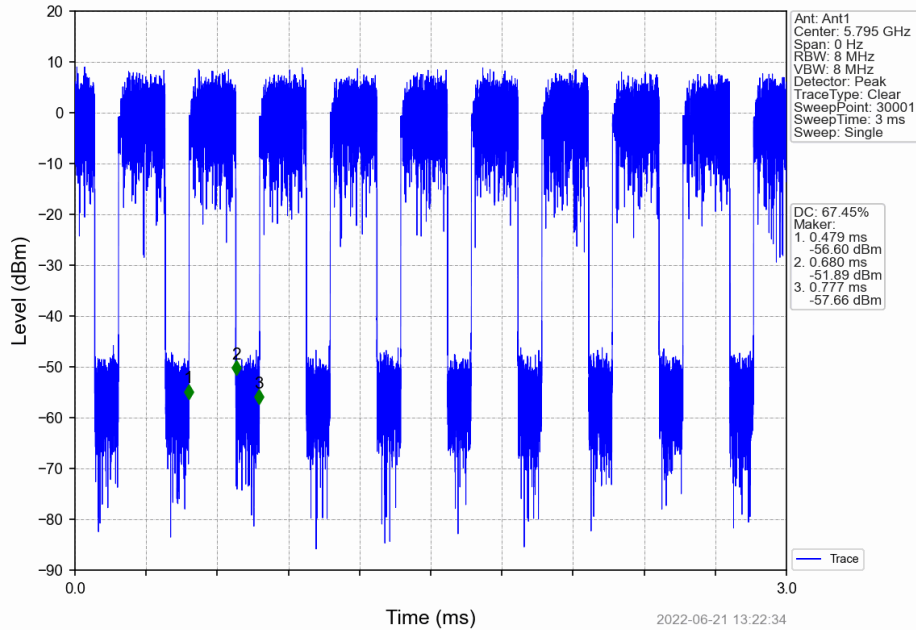
802.11n(HT40)_HCH_5670MHz_Ant1_NTNV



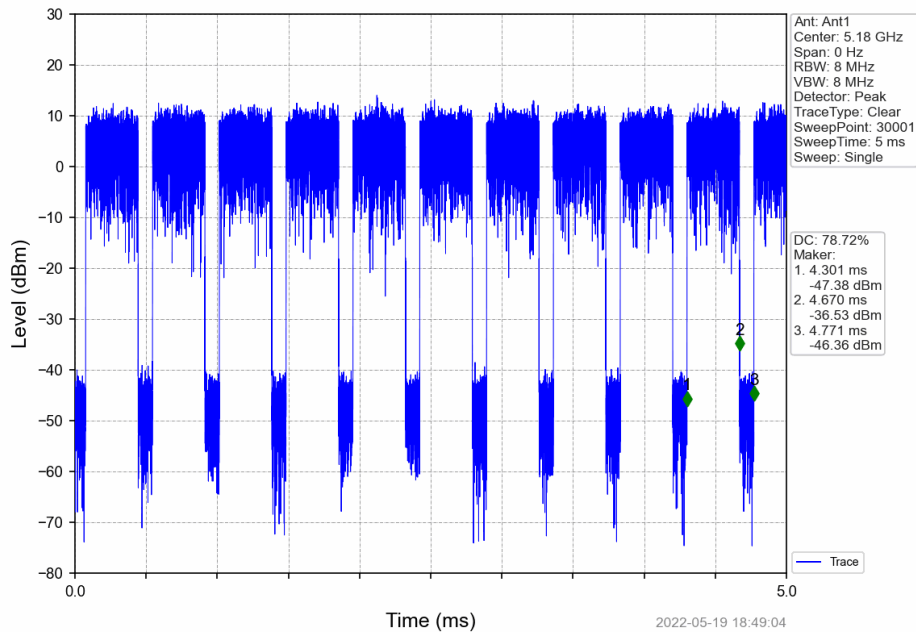
802.11n(HT40)_LCH_5755MHz_Ant1_NTNV



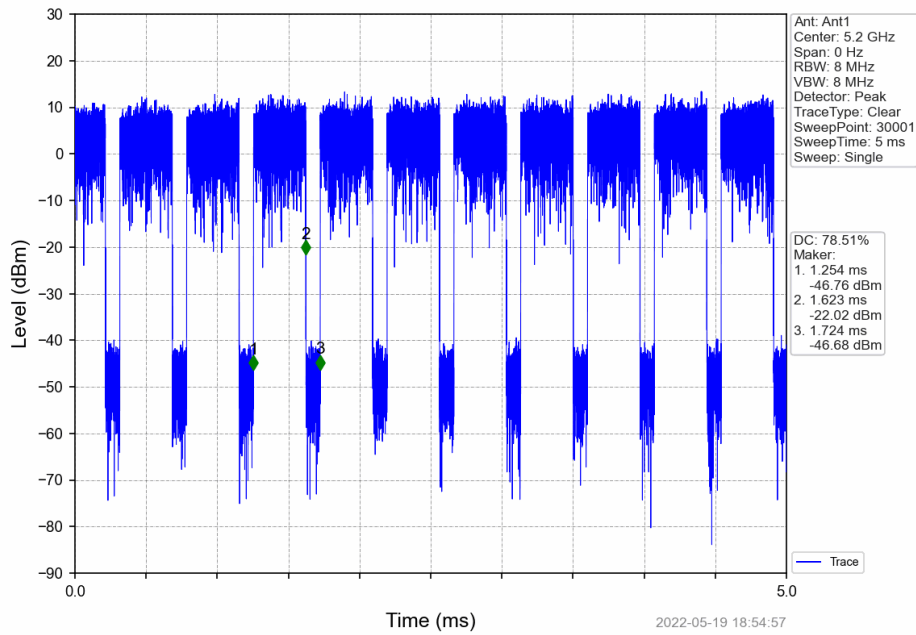
802.11n(HT40)_HCH_5795MHz_Ant1_NTNV



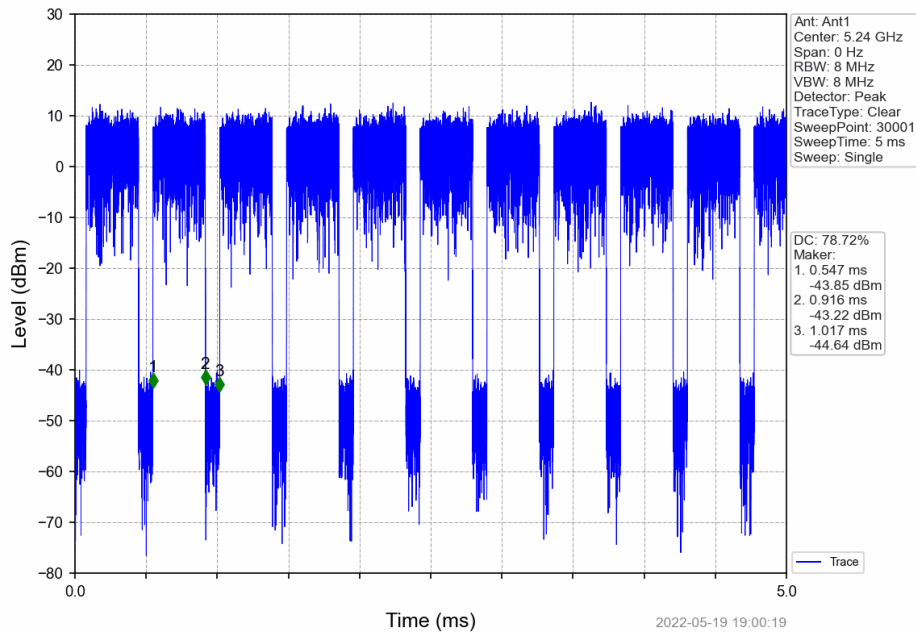
802.11ac(VHT20)_LCH_5180MHz_Ant1_NTNV



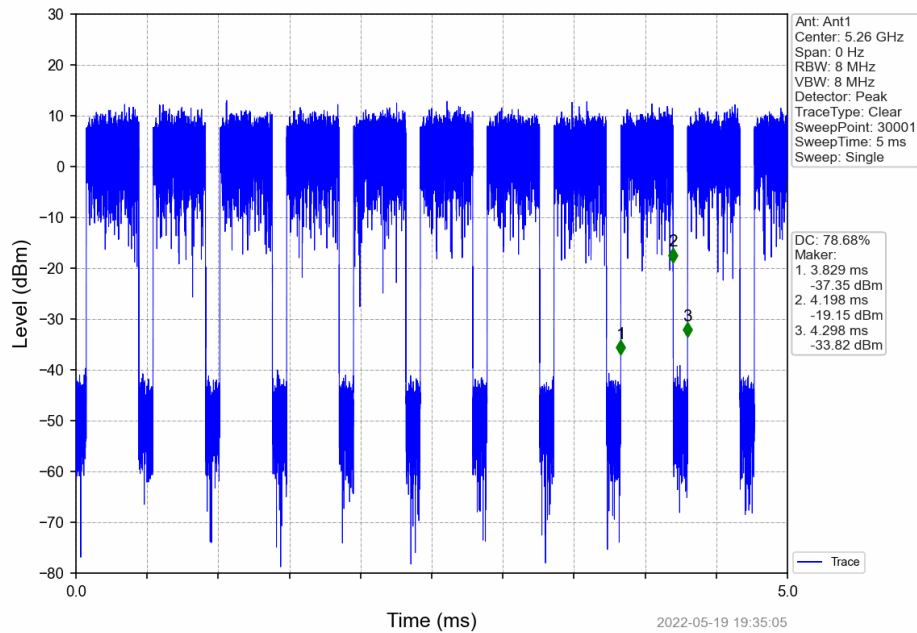
802.11ac(VHT20)_MCH_5200MHz_Ant1_NTNV



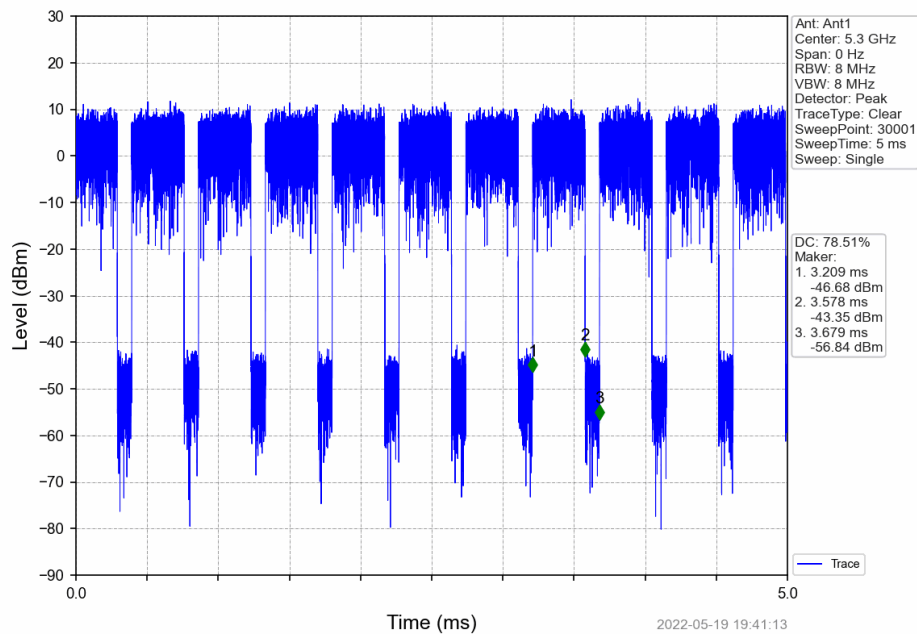
802.11ac(VHT20)_HCH_5240MHz_Ant1_NTNV



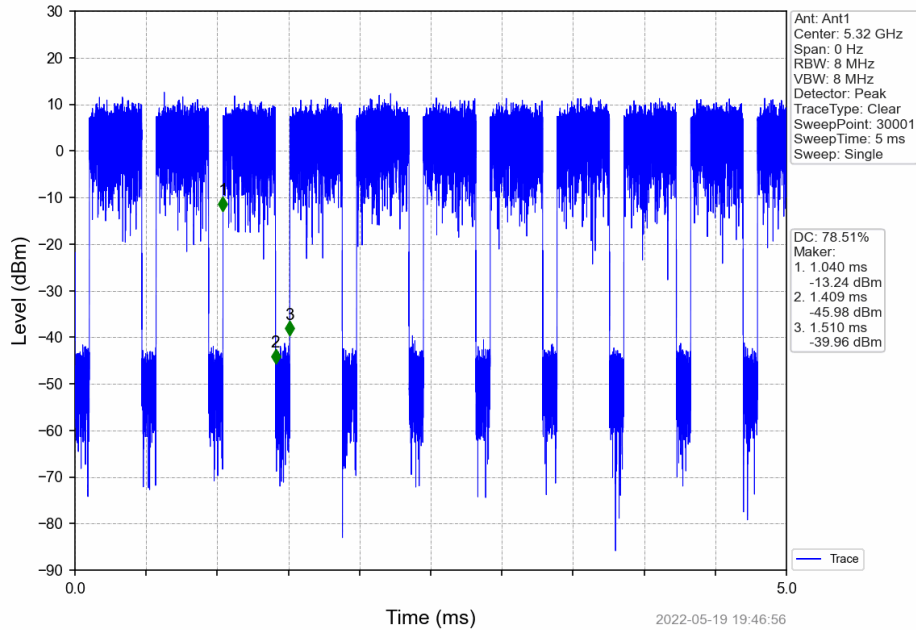
802.11ac(VHT20)_LCH_5260MHz_Ant1_NTNV



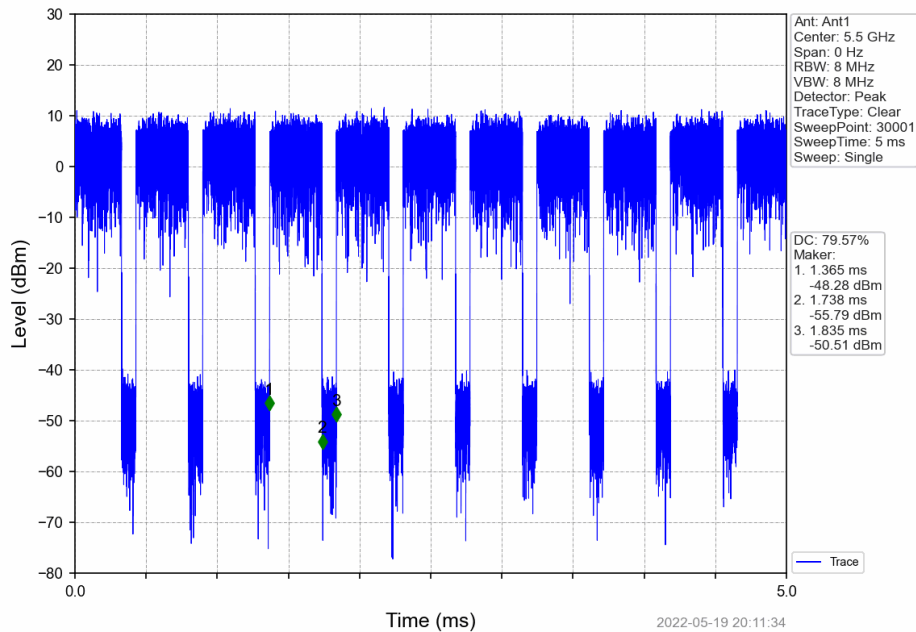
802.11ac(VHT20)_MCH_5300MHz_Ant1_NTNV



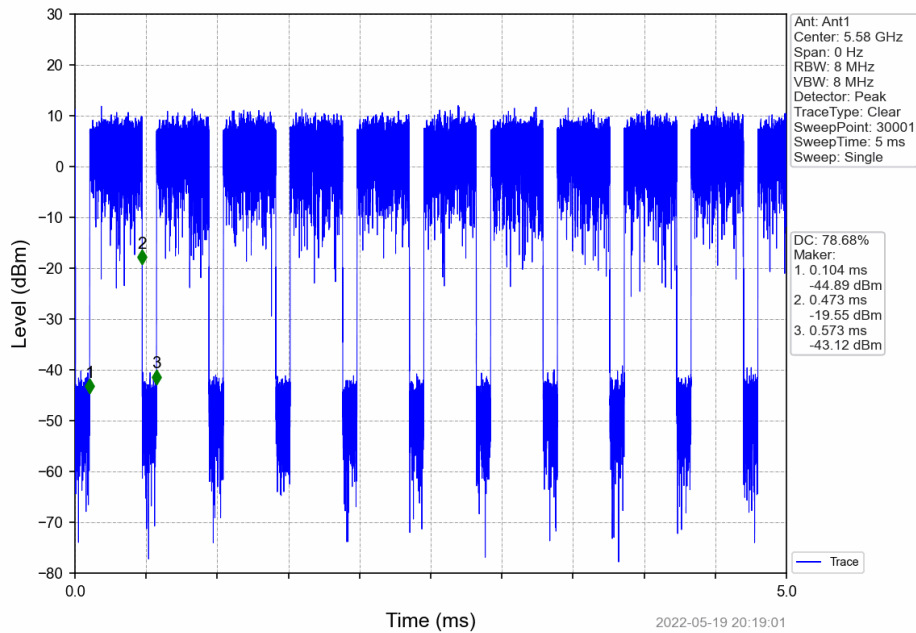
802.11ac(VHT20)_HCH_5320MHz_Ant1_NTNV



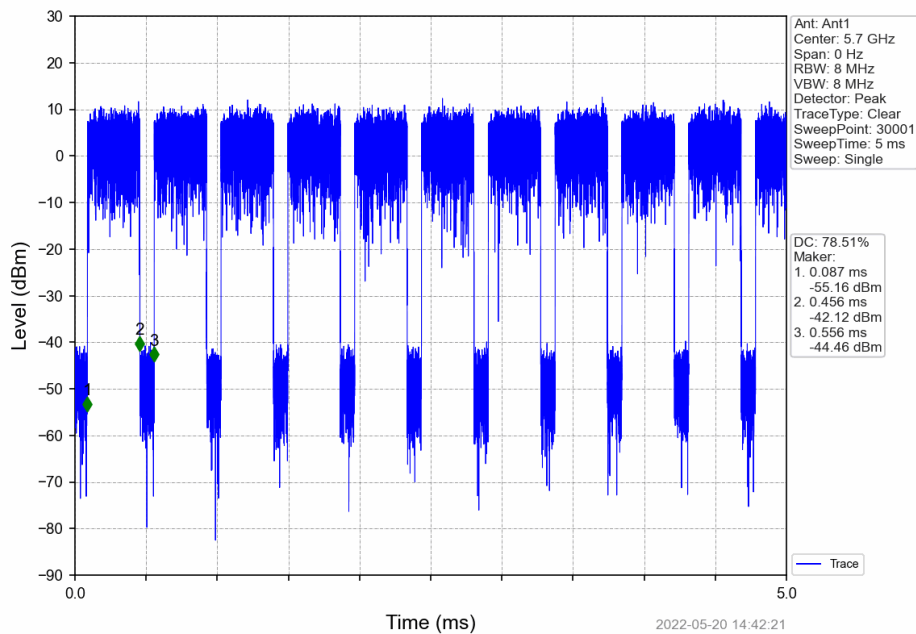
802.11ac(VHT20)_LCH_5500MHz_Ant1_NTNV



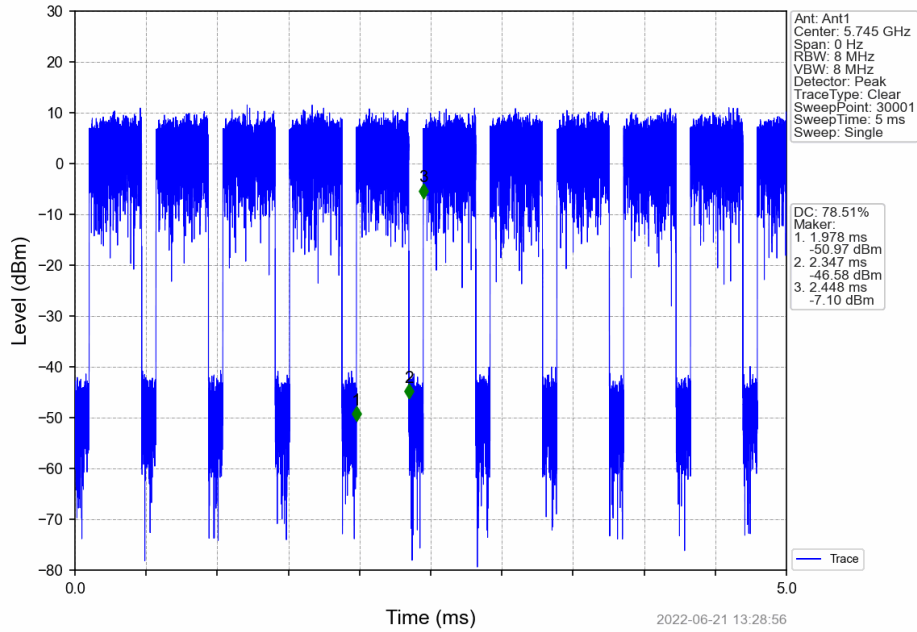
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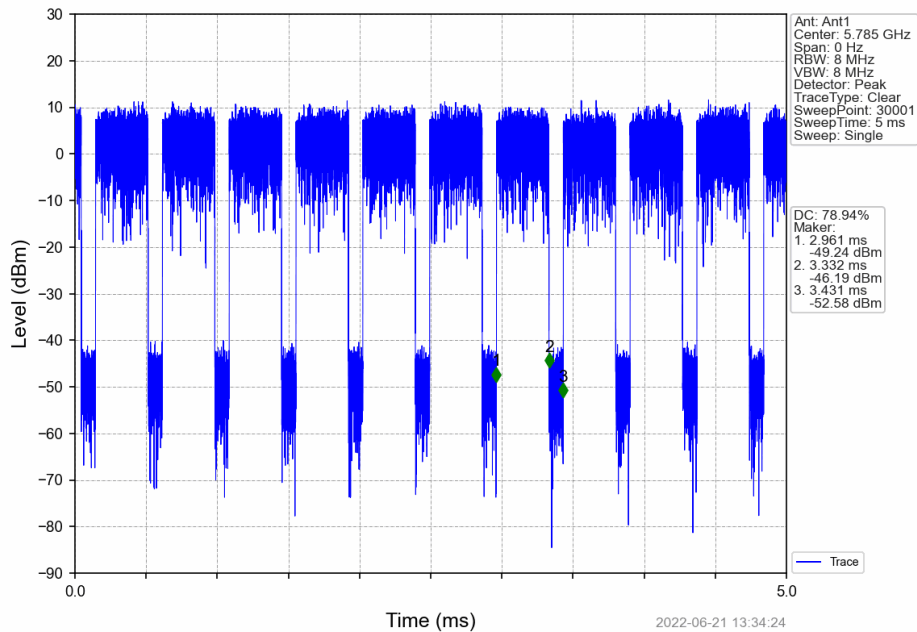
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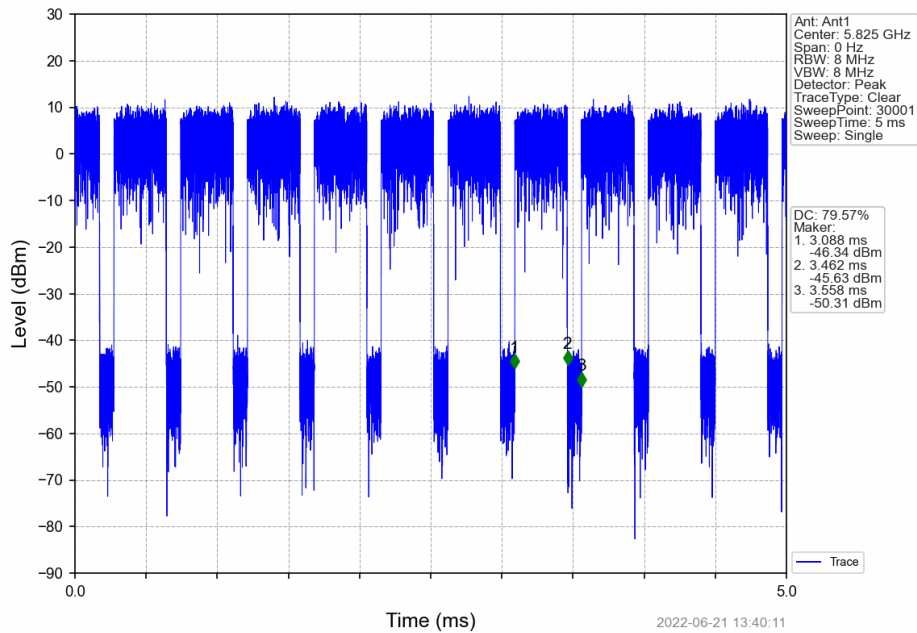
802.11ac(VHT20)_LCH_5745MHz_Ant1_NTNV



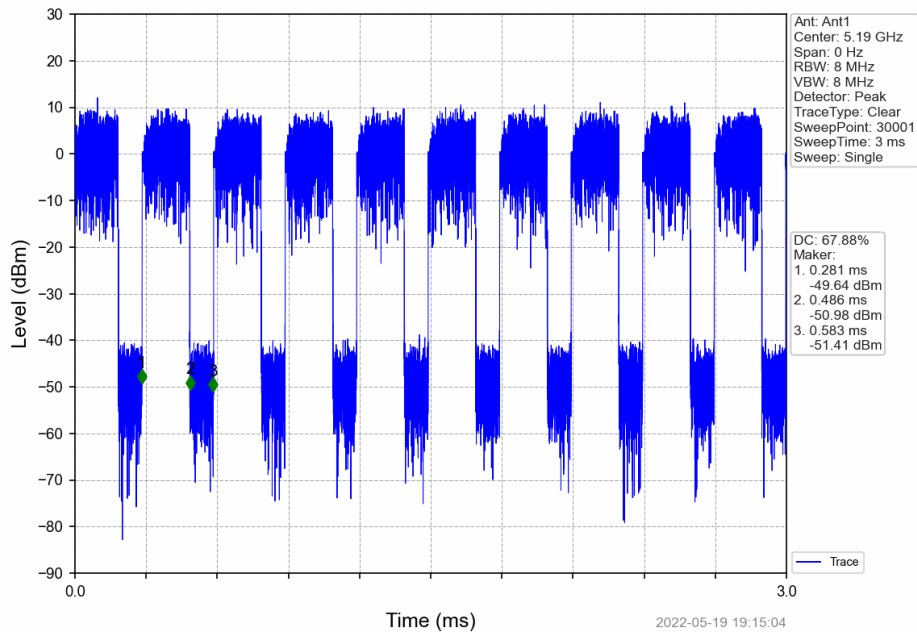
802.11ac(VHT20)_MCH_5785MHz_Ant1_NTNV



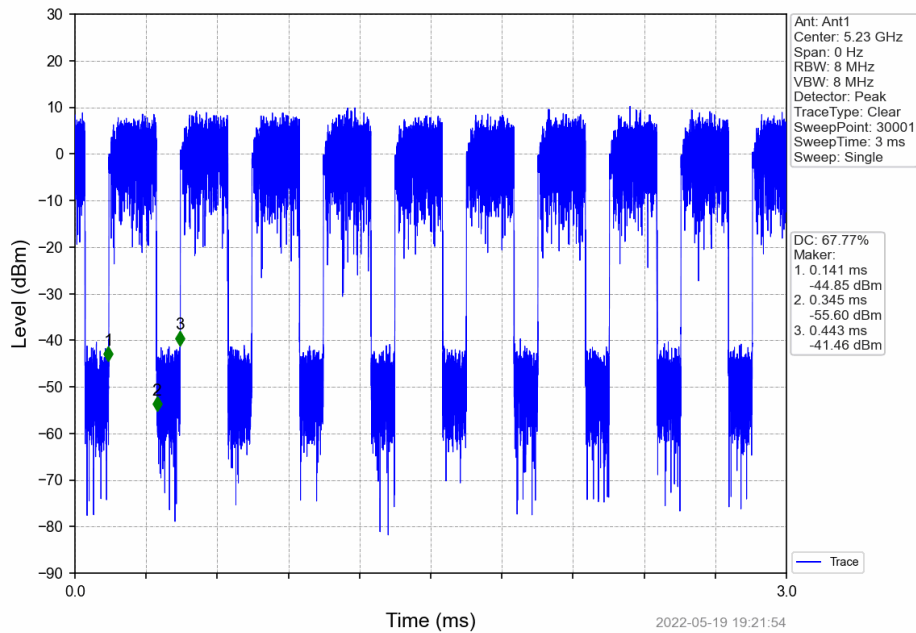
802.11ac(VHT20)_HCH_5825MHz_Ant1_NTNV



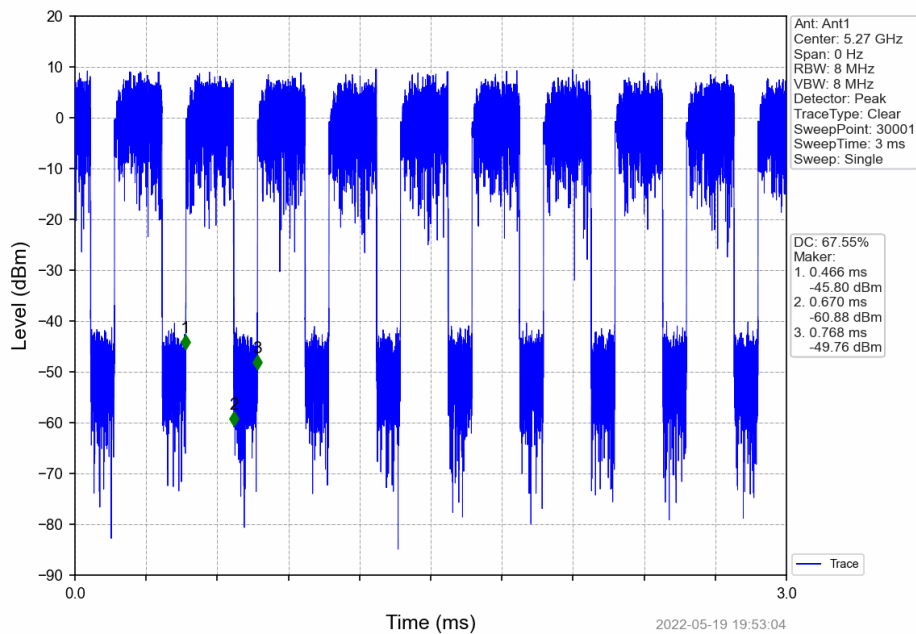
802.11ac(VHT40)_LCH_5190MHz_Ant1_NTNV



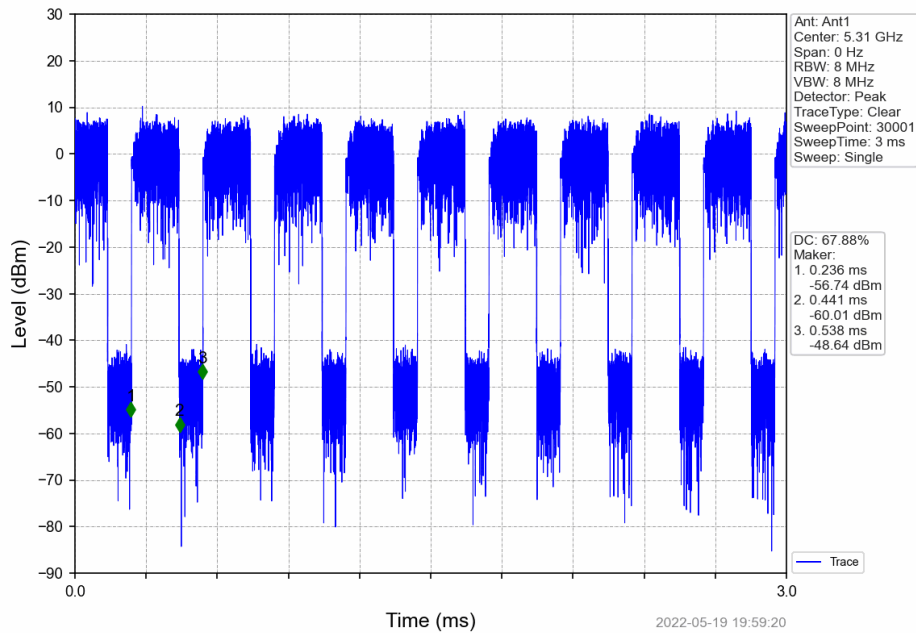
802.11ac(VHT40)_HCH_5230MHz_Ant1_NTNV



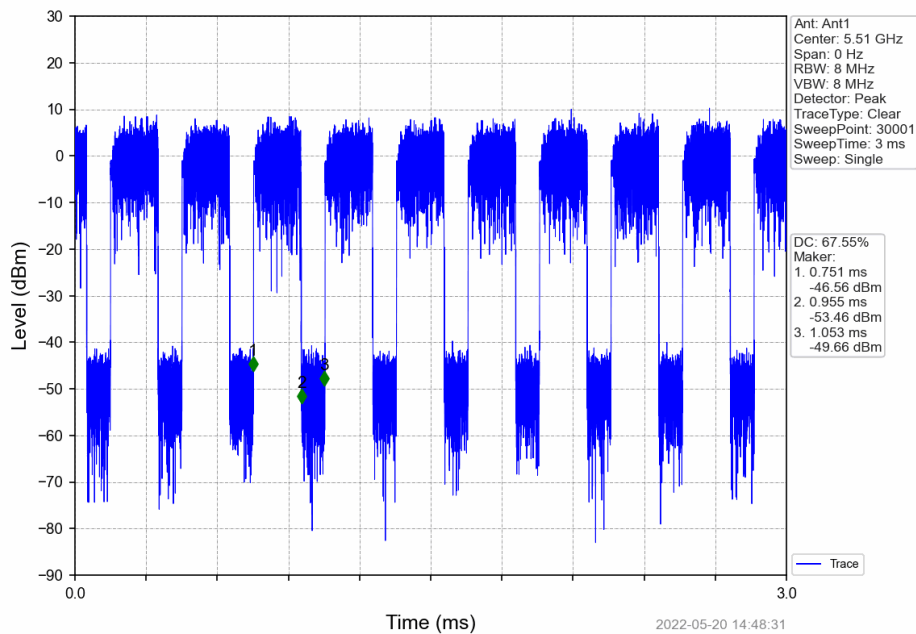
802.11ac(VHT40)_LCH_5270MHz_Ant1_NTNV



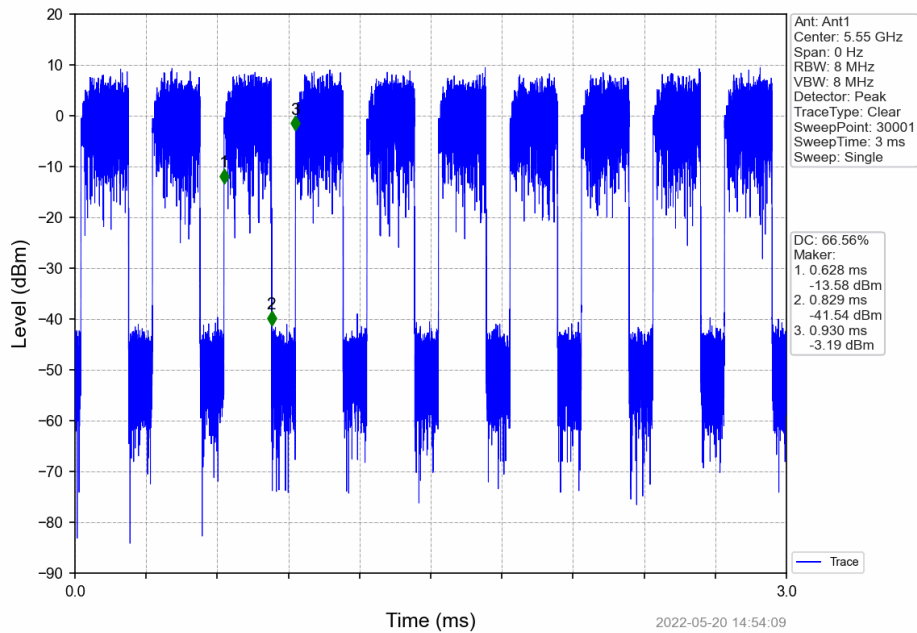
802.11ac(VHT40)_HCH_5310MHz_Ant1_NTNV



802.11ac(VHT40)_LCH_5510MHz_Ant1_NTNV



802.11ac(VHT40)_MCH_5550MHz_Ant1_NTNV



802.11ac(VHT40)_HCH_5670MHz_Ant1_NTNV

