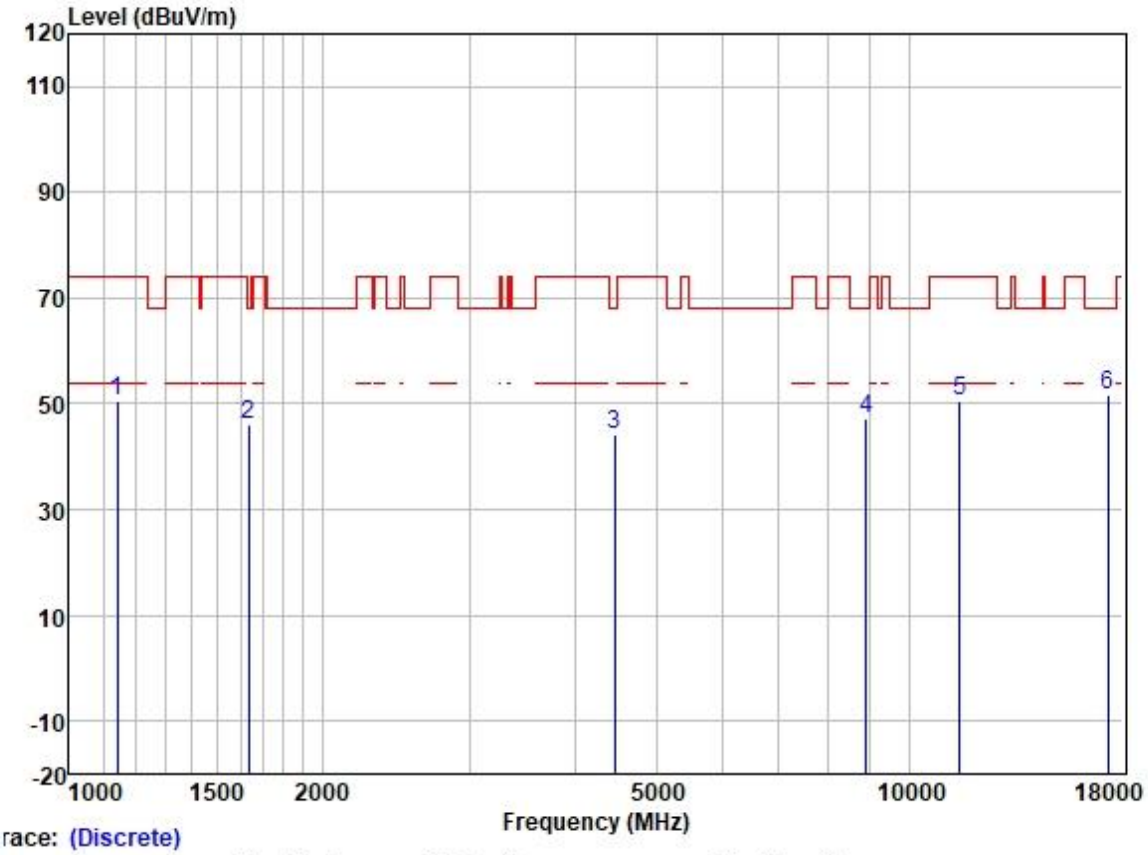
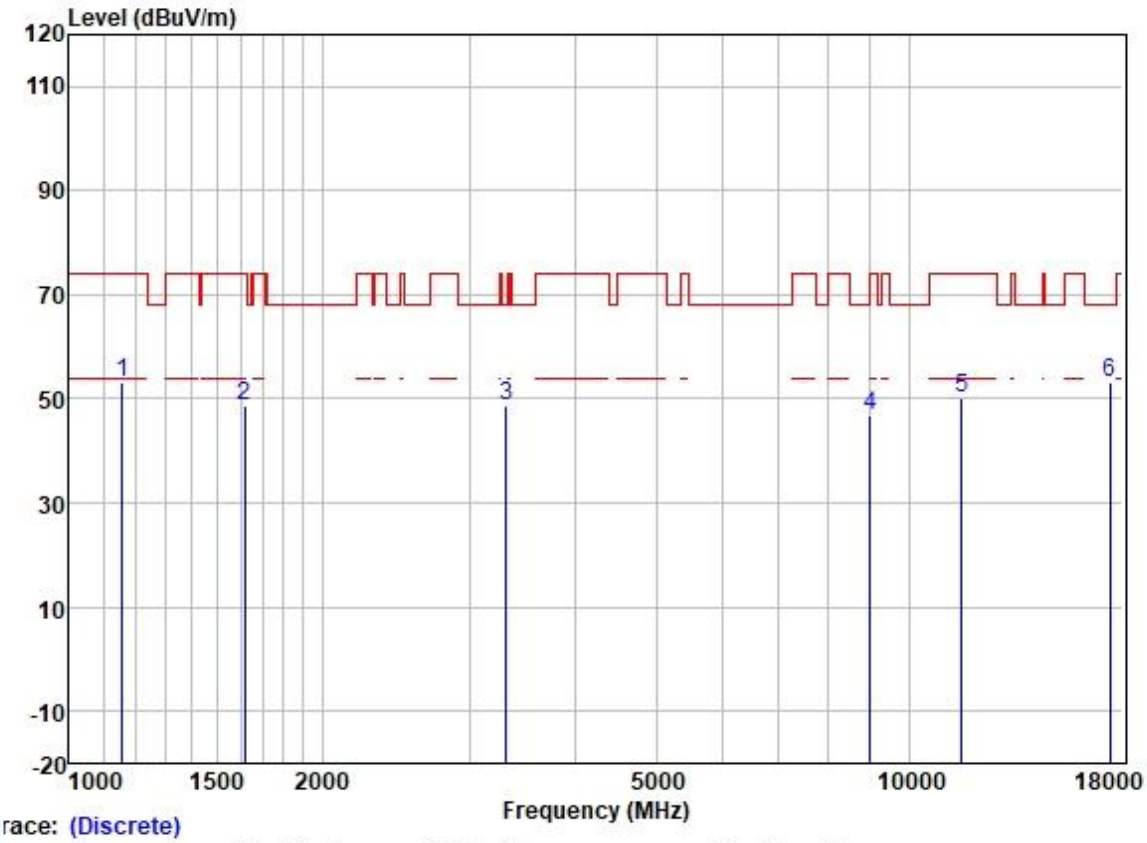
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	1142.201	61.80	24.47	2.30	38.19	50.38	74.00	-23.62	HORIZONTAL	peak
2	1634.543	55.31	25.62	2.80	37.55	46.18	68.20	-22.02	HORIZONTAL	peak
3	4456.315	45.36	30.75	4.88	36.62	44.37	68.20	-23.83	HORIZONTAL	peak
4	8891.725	39.33	37.37	7.42	37.10	47.02	68.20	-21.18	HORIZONTAL	peak
5	11490.000	38.74	39.90	8.41	36.55	50.50	74.00	-23.50	HORIZONTAL	peak
6	17235.000	34.63	43.01	10.08	36.02	51.70	68.20	-16.50	HORIZONTAL	peak

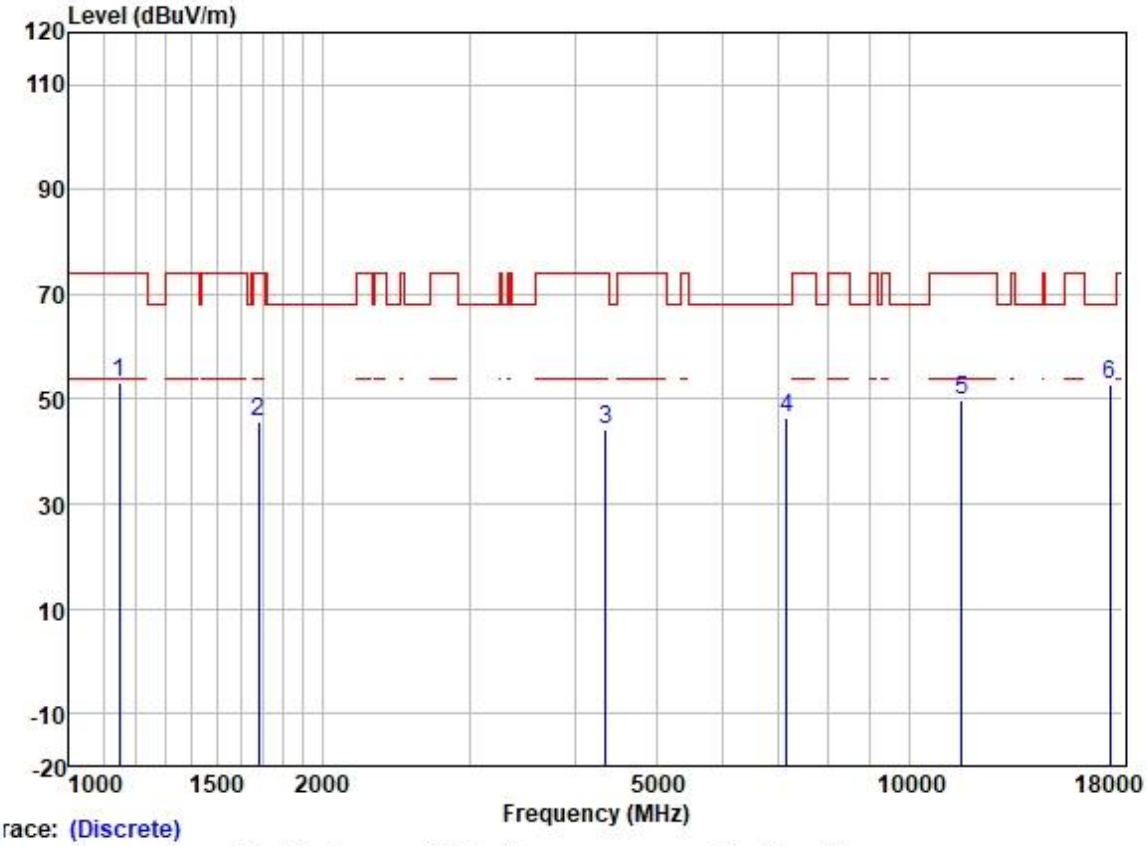
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel: Middle



race: (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	1155.483	64.50	24.51	2.38	38.19	53.20	74.00	-20.80	VERTICAL	peak
2	1615.754	57.95	25.60	2.80	37.55	48.80	74.00	-25.20	VERTICAL	peak
3	3318.471	52.52	28.77	4.07	36.82	48.54	68.20	-19.66	VERTICAL	peak
4	8995.123	38.75	37.40	7.56	37.05	46.66	68.20	-21.54	VERTICAL	peak
5	11570.000	38.46	39.78	8.38	36.54	50.08	74.00	-23.92	VERTICAL	peak
6	17355.000	35.34	43.40	10.39	35.99	53.14	68.20	-15.06	VERTICAL	peak

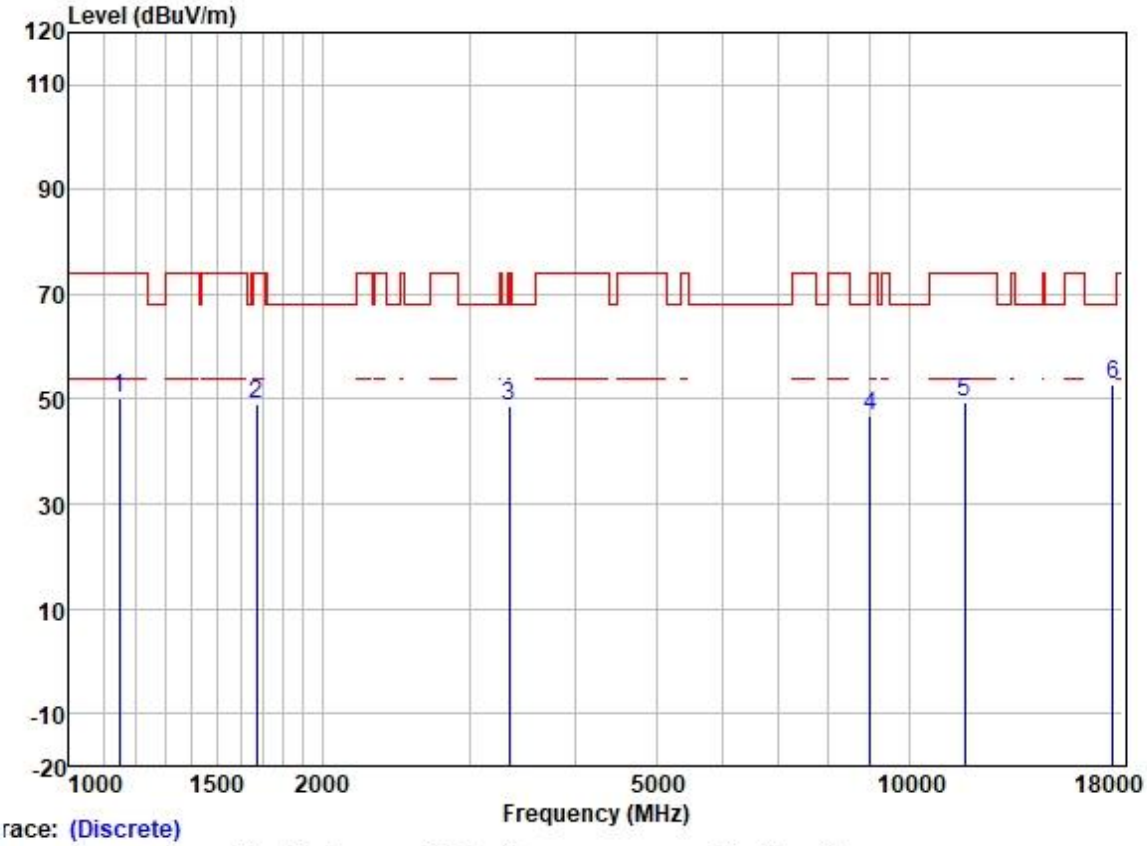
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel: Middle



race: (Discrete)

	Freq	ReadLevel	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	1148.823	64.43	24.49	2.34	38.19	53.07	74.00	-20.93	HORIZONTAL	peak
2	1682.477	54.70	25.68	2.80	37.48	45.70	74.00	-28.30	HORIZONTAL	peak
3	4354.454	45.53	30.59	4.68	36.64	44.16	74.00	-29.84	HORIZONTAL	peak
4	7158.806	41.99	35.40	5.94	36.88	46.45	68.20	-21.75	HORIZONTAL	peak
5	11570.000	38.11	39.78	8.38	36.54	49.73	74.00	-24.27	HORIZONTAL	peak
6	17355.000	35.14	43.40	10.39	35.99	52.94	68.20	-15.26	HORIZONTAL	peak

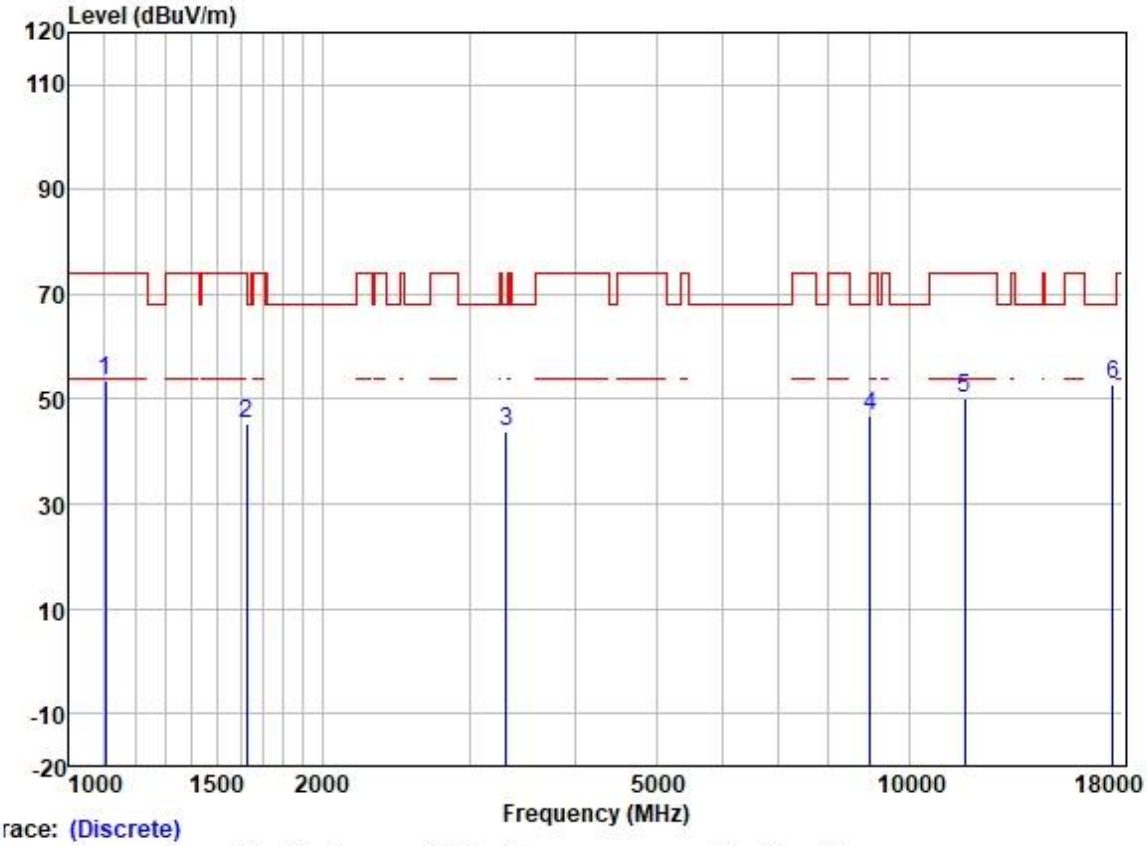
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (Discrete)

	Freq	ReadLevel	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	1148.823	61.48	24.49	2.34	38.19	50.12	74.00	-23.88	VERTICAL	peak
2	1672.779	58.00	25.67	2.80	37.48	48.99	74.00	-25.01	VERTICAL	peak
3	3337.710	52.59	28.79	4.08	36.81	48.65	74.00	-25.35	VERTICAL	peak
4	8995.123	38.87	37.40	7.56	37.05	46.78	68.20	-21.42	VERTICAL	peak
5	11650.000	37.96	39.65	8.35	36.53	49.43	74.00	-24.57	VERTICAL	peak
6	17475.000	34.21	43.90	10.77	35.97	52.91	68.20	-15.29	VERTICAL	peak

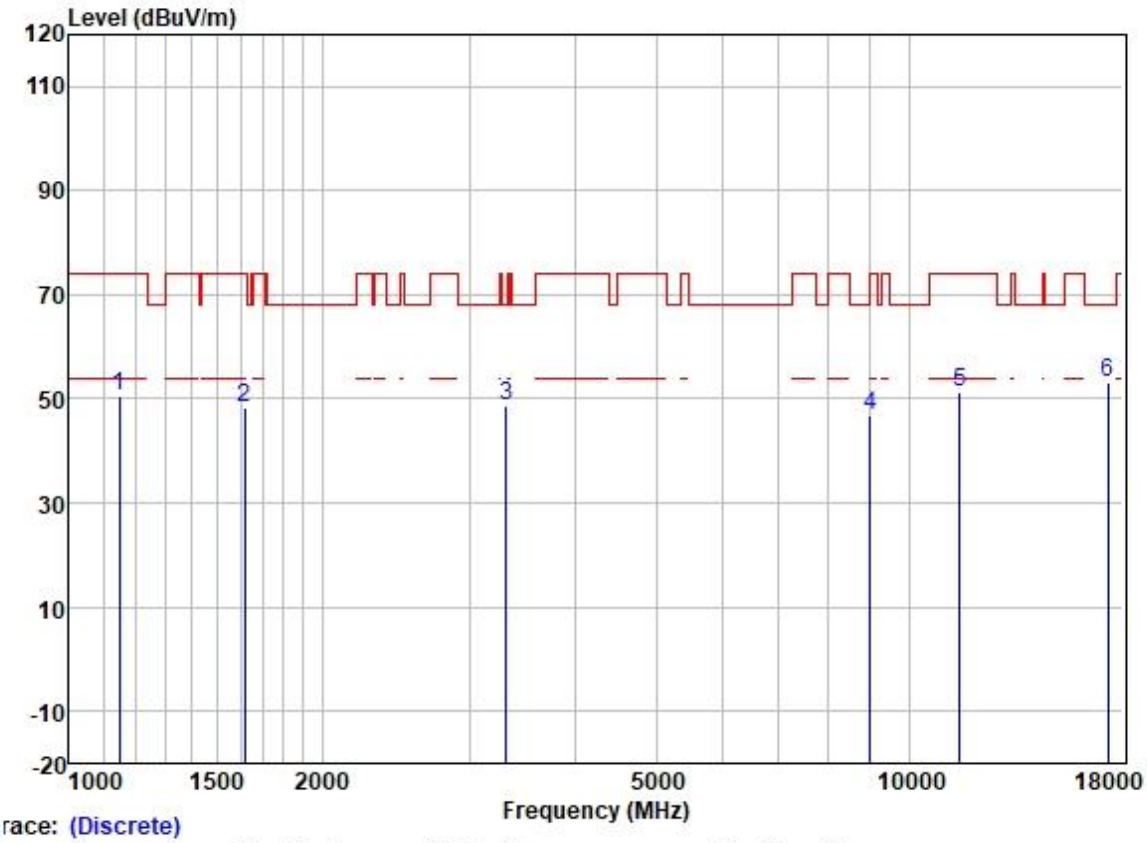
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (Discrete)

	Freq	ReadLevel	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	1103.264	65.17	24.37	2.29	38.23	53.60	74.00	-20.40	HORIZONTAL	peak
2	1625.121	54.55	25.61	2.80	37.55	45.41	74.00	-28.59	HORIZONTAL	peak
3	3318.471	47.74	28.77	4.07	36.82	43.76	68.20	-24.44	HORIZONTAL	peak
4	8995.123	39.03	37.40	7.56	37.05	46.94	68.20	-21.26	HORIZONTAL	peak
5	11650.000	38.89	39.65	8.35	36.53	50.36	74.00	-23.64	HORIZONTAL	peak
6	17475.000	34.11	43.90	10.77	35.97	52.81	68.20	-15.39	HORIZONTAL	peak

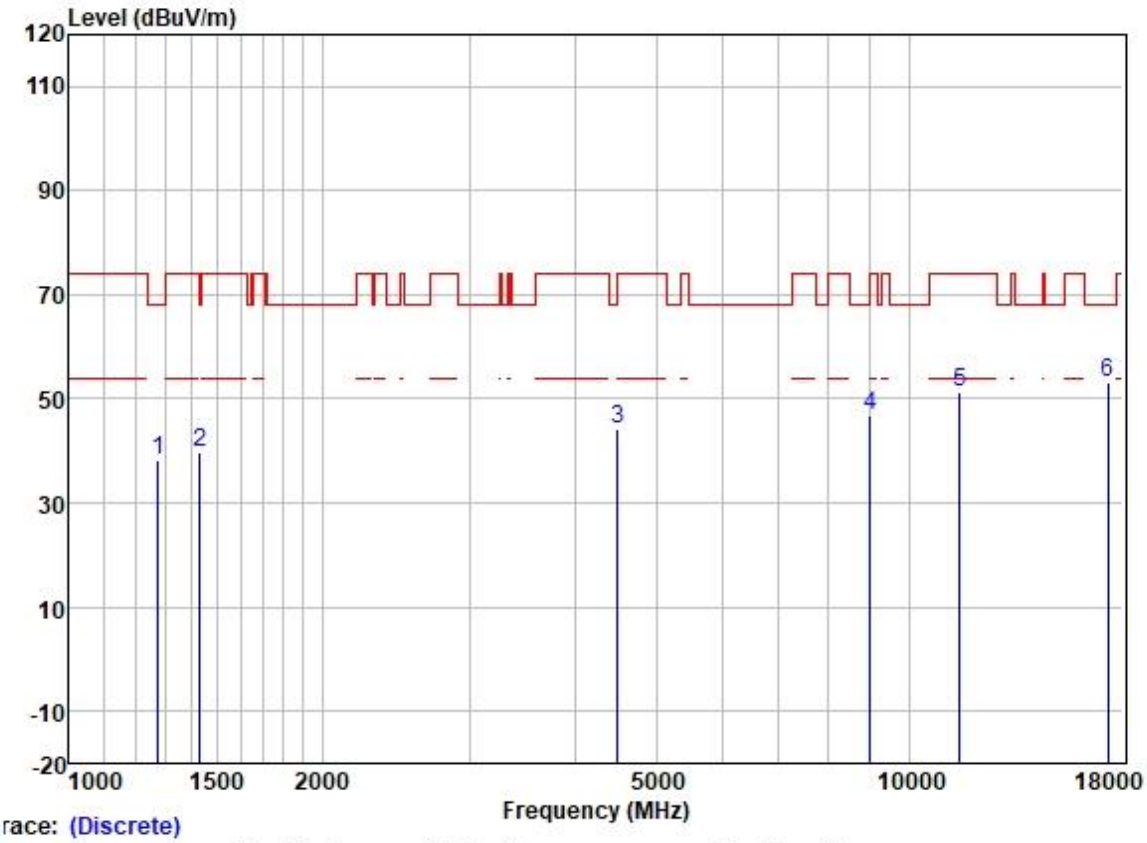
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (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	1148.823	61.96	24.49	2.34	38.19	50.60	74.00	-23.40	VERTICAL	peak
2	1615.754	57.39	25.60	2.80	37.55	48.24	74.00	-25.76	VERTICAL	peak
3	3318.471	52.76	28.77	4.07	36.82	48.78	68.20	-19.42	VERTICAL	peak
4	8995.123	38.91	37.40	7.56	37.05	46.82	68.20	-21.38	VERTICAL	peak
5	11510.000	39.37	39.90	8.41	36.55	51.13	74.00	-22.87	VERTICAL	peak
6	17265.000	35.82	43.21	10.24	36.01	53.26	68.20	-14.94	VERTICAL	peak

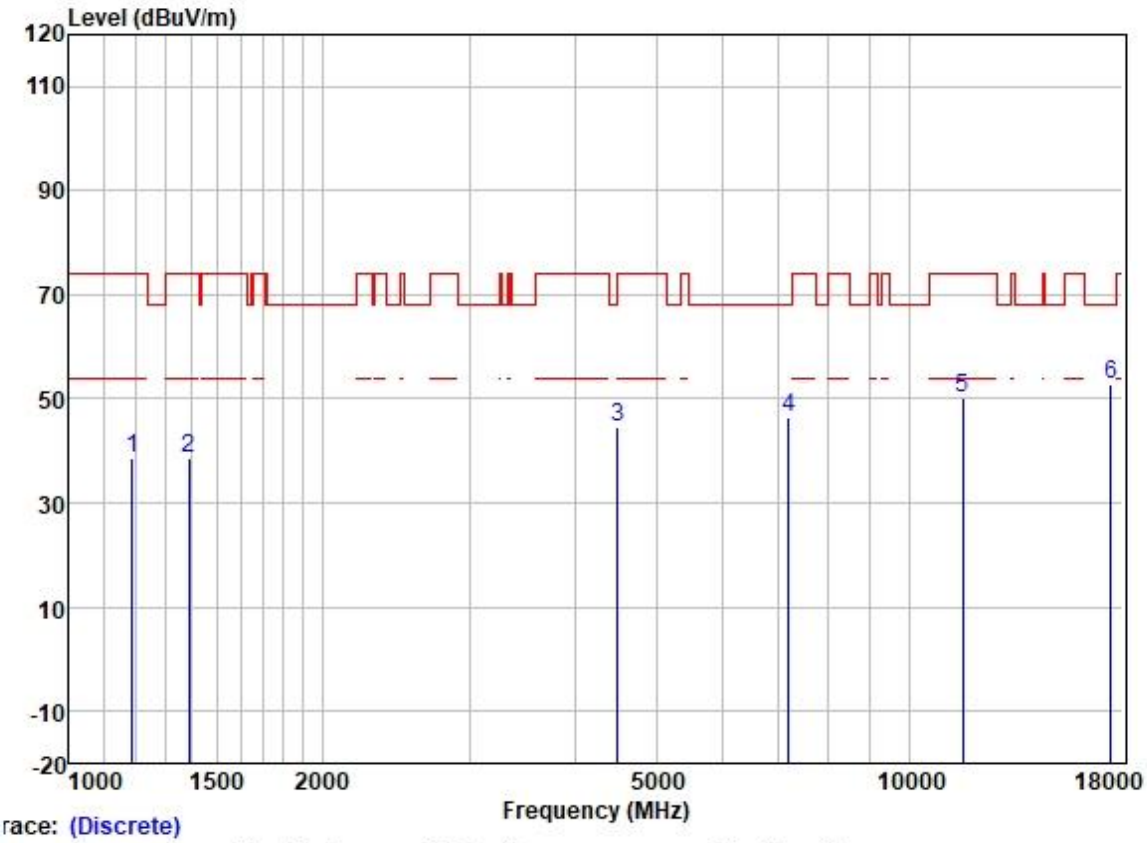
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	1274.802	48.60	25.12	2.48	38.07	38.13	68.20	-30.07	HORIZONTAL	peak
2	1431.047	49.38	25.43	2.66	37.88	39.59	68.20	-28.61	HORIZONTAL	peak
3	4495.125	45.11	30.80	5.05	36.60	44.36	68.20	-23.84	HORIZONTAL	peak
4	8995.123	38.95	37.40	7.56	37.05	46.86	68.20	-21.34	HORIZONTAL	peak
5	11510.000	39.64	39.90	8.41	36.55	51.40	74.00	-22.60	HORIZONTAL	peak
6	17265.000	35.87	43.21	10.24	36.01	53.31	68.20	-14.89	HORIZONTAL	peak

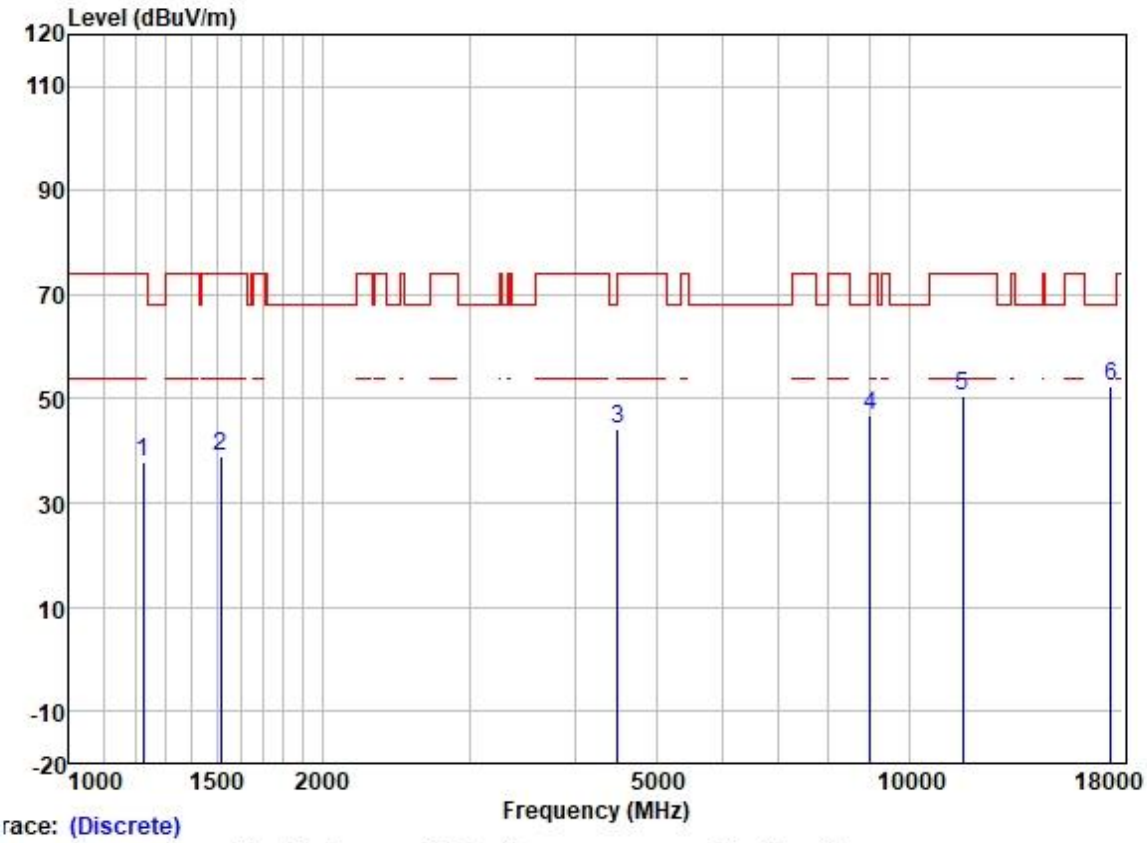
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel: High



race: (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	1189.368	49.85	24.63	2.36	38.14	38.70	74.00	-35.30	VERTICAL	peak
2	1390.276	48.58	25.38	2.60	37.92	38.64	74.00	-35.36	VERTICAL	peak
3	4495.125	45.37	30.80	5.05	36.60	44.62	68.20	-23.58	VERTICAL	peak
4	7200.309	42.00	35.54	5.98	36.92	46.60	68.20	-21.60	VERTICAL	peak
5	11590.000	38.71	39.72	8.37	36.54	50.26	74.00	-23.74	VERTICAL	peak
6	17385.000	34.79	43.57	10.53	35.99	52.90	68.20	-15.30	VERTICAL	peak

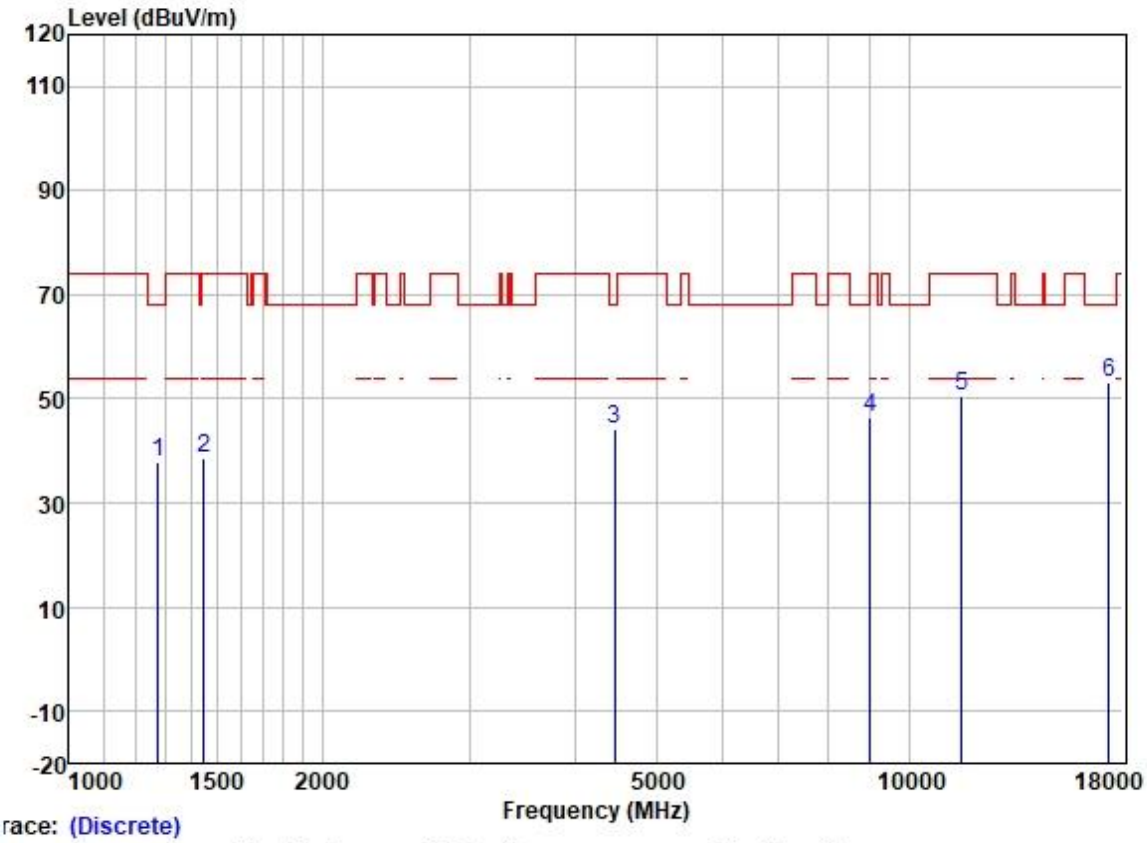
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel: High



race: (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	1224.247	48.70	24.85	2.31	38.12	37.74	74.00	-36.26	HORIZONTAL	peak
2	1516.210	48.44	25.51	2.80	37.70	39.05	74.00	-34.95	HORIZONTAL	peak
3	4495.125	44.92	30.80	5.05	36.60	44.17	68.20	-24.03	HORIZONTAL	peak
4	8995.123	38.93	37.40	7.56	37.05	46.84	68.20	-21.36	HORIZONTAL	peak
5	11590.000	38.84	39.72	8.37	36.54	50.39	74.00	-23.61	HORIZONTAL	peak
6	17385.000	34.32	43.57	10.53	35.99	52.43	68.20	-15.77	HORIZONTAL	peak

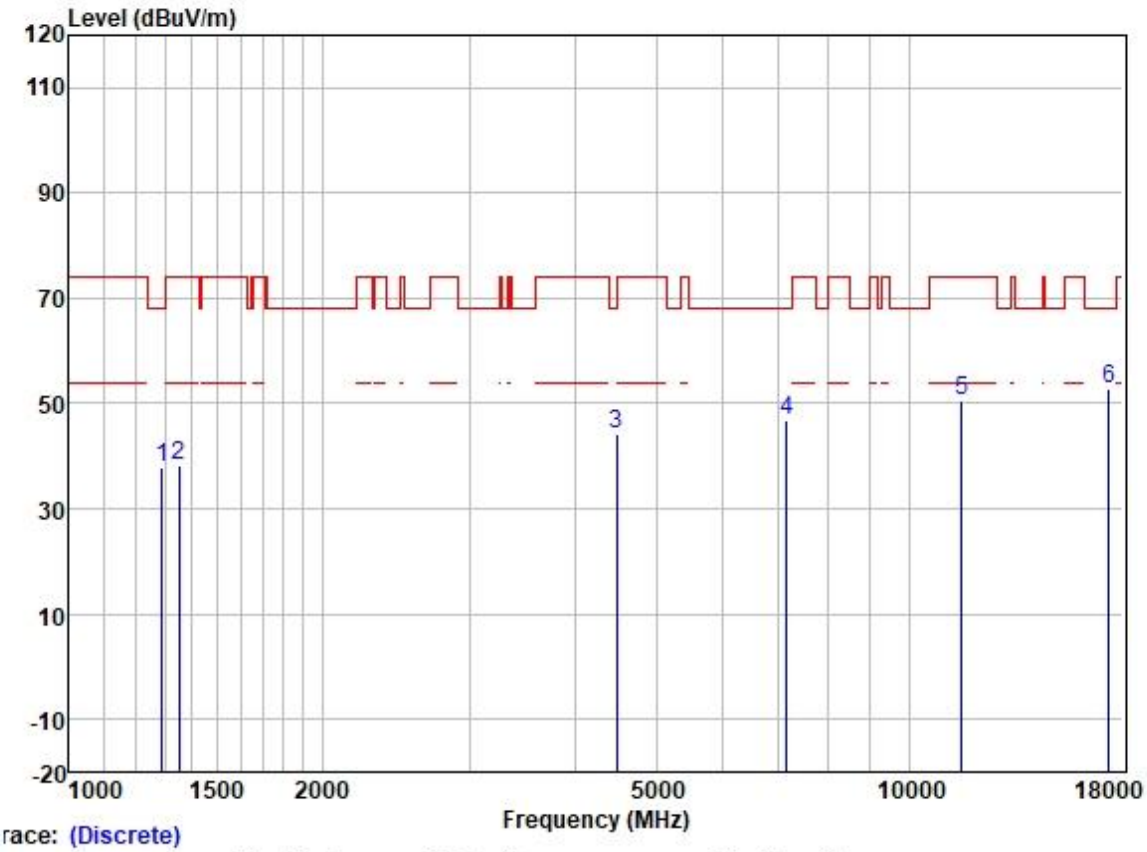
Test Mode: 07; Polarity: Vertical; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (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	1274.802	48.32	25.12	2.48	38.07	37.85	68.20	-30.35	VERTICAL	peak
2	1447.688	48.14	25.45	2.70	37.84	38.45	74.00	-35.55	VERTICAL	peak
3	4456.315	45.29	30.75	4.88	36.62	44.30	68.20	-23.90	VERTICAL	peak
4	8995.123	38.59	37.40	7.56	37.05	46.50	68.20	-21.70	VERTICAL	peak
5	11550.000	38.91	39.84	8.40	36.54	50.61	74.00	-23.39	VERTICAL	peak
6	17325.000	35.43	43.40	10.39	36.00	53.22	68.20	-14.98	VERTICAL	peak

Test Mode: 07; Polarity: Horizontal; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadLevel	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	1289.627	48.30	25.17	2.55	38.04	37.98	68.20	-30.22	HORIZONTAL	peak
2	1350.667	48.38	25.31	2.60	37.99	38.30	74.00	-35.70	HORIZONTAL	peak
3	4482.150	44.95	30.78	4.99	36.61	44.11	68.20	-24.09	HORIZONTAL	peak
4	7158.806	42.26	35.40	5.94	36.88	46.72	68.20	-21.48	HORIZONTAL	peak
5	11550.000	38.71	39.84	8.40	36.54	50.41	74.00	-23.59	HORIZONTAL	peak
6	17325.000	34.95	43.40	10.39	36.00	52.74	68.20	-15.46	HORIZONTAL	peak

7.9 Radiated Emissions which fall in the restricted bands

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

Test Method: KDB 789033 D02 II G

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
Above 960	500	3

*(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of −27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

7.9.1 E.U.T. Operation

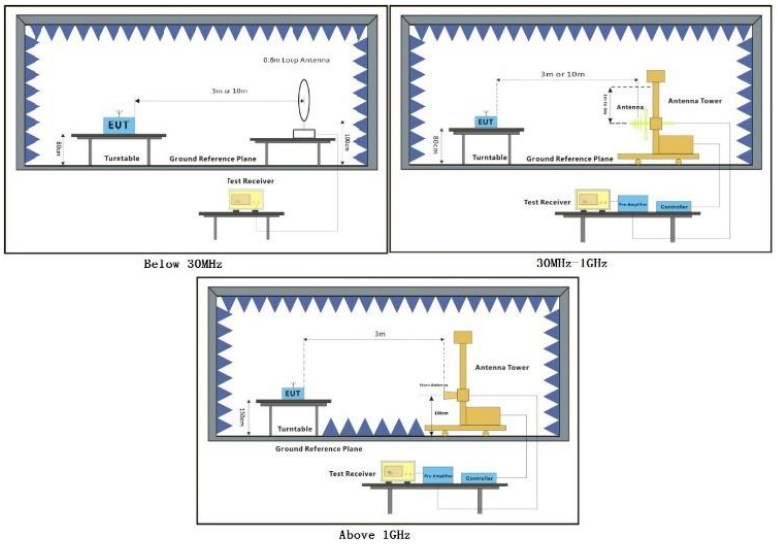
Operating Environment:

Temperature: 23 °C Humidity: 55 % RH Atmospheric Pressure: 1006 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), final test modes are considering the modulation and worse data rates. 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), final test modes are considering the modulation and worse data rates. 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), final test modes are considering the modulation and worse data rates. 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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.9.3 Test Setup Diagram



7.9.4 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 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. 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.

d. 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.

e. 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.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. 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 peak, quasi-peak or average method as specified and then reported in a data sheet.

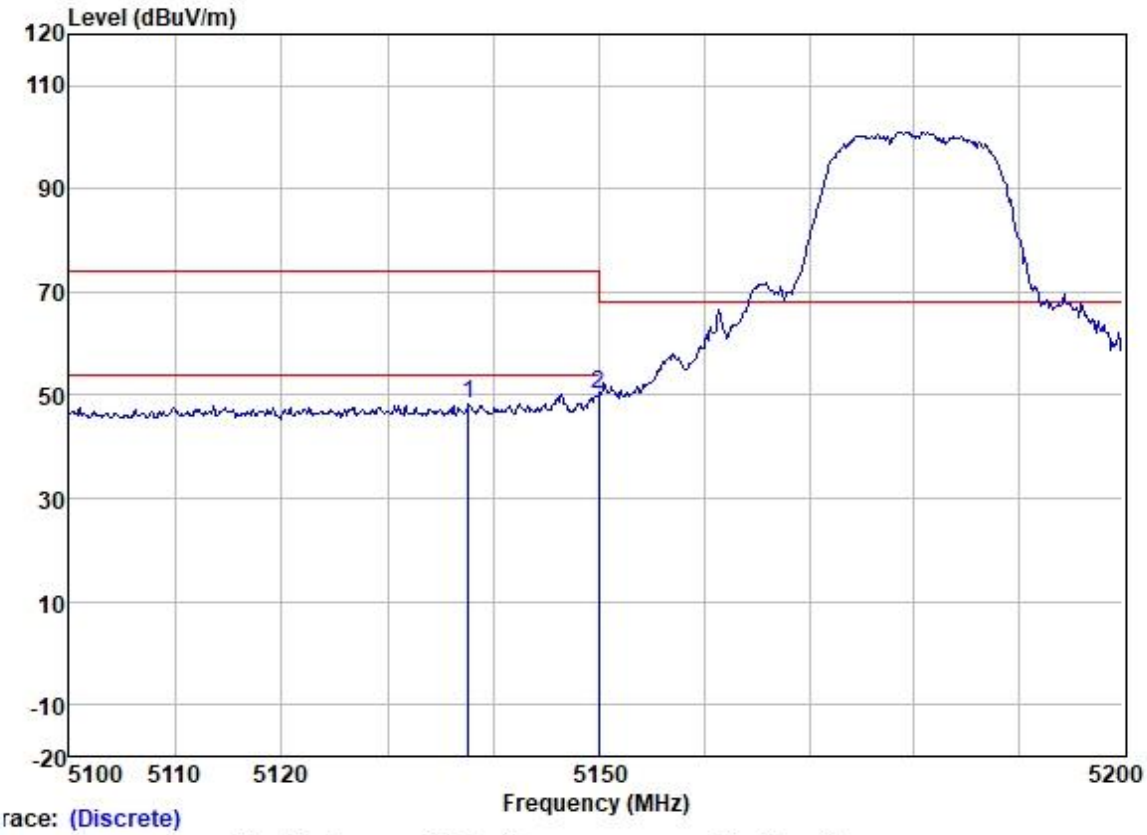
h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. 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.

j. Repeat above procedures until all frequencies measured was complete.

Remark: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

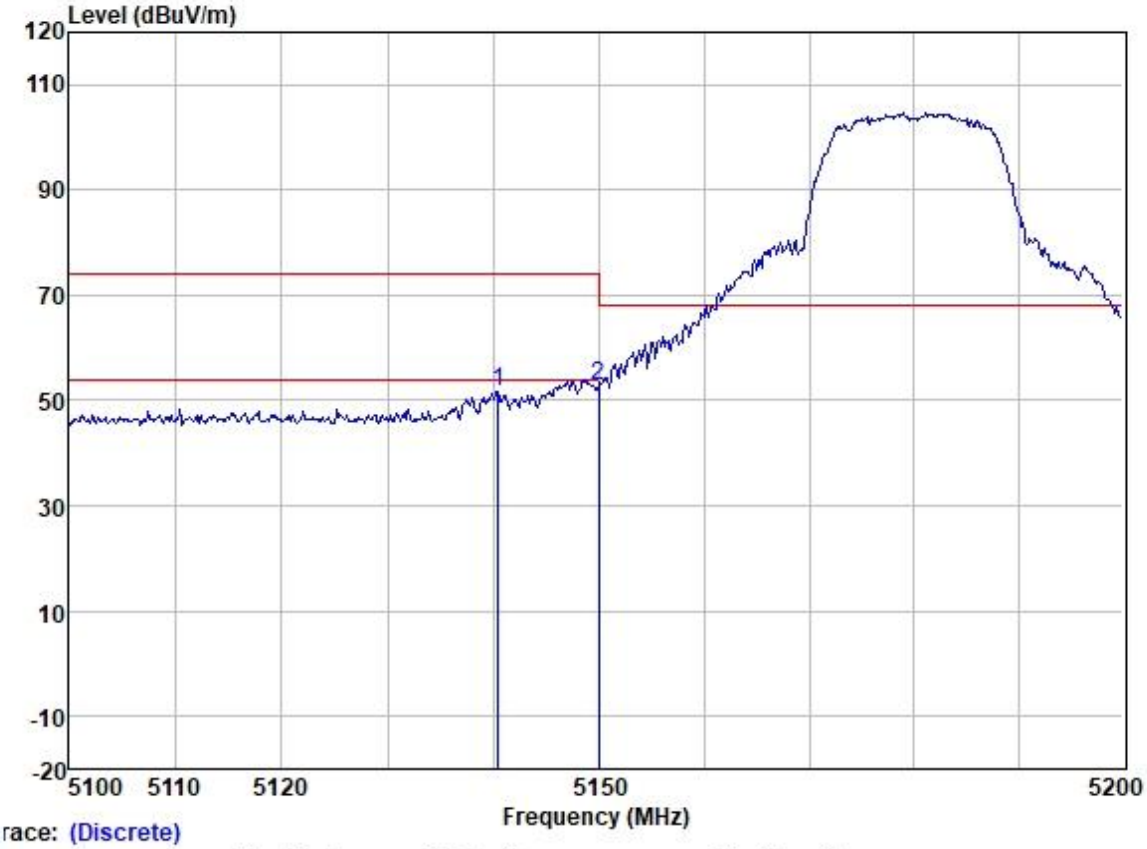
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

	Freq	ReadLevel	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	5137.672	47.20	31.72	5.63	36.31	48.24	74.00	-25.76	VERTICAL	Peak
2	5150.000	49.06	31.72	5.62	36.31	50.09	68.20	-18.11	VERTICAL	Peak

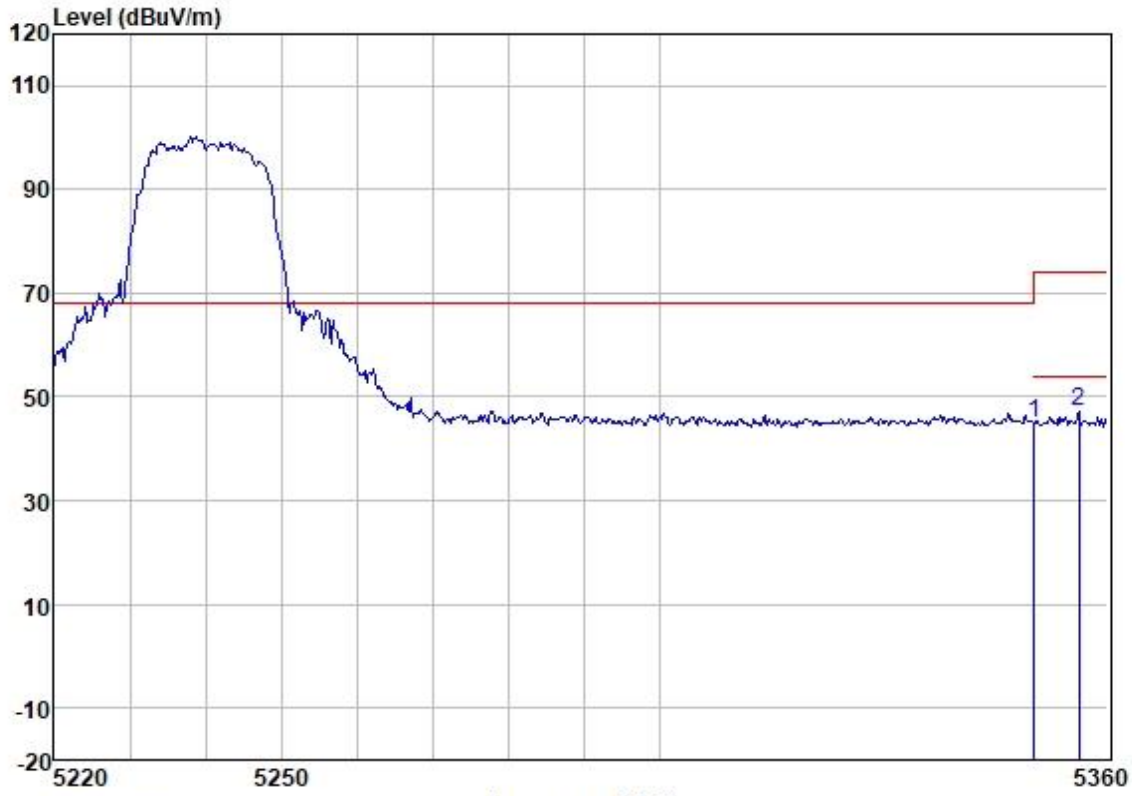
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



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	5140.466	50.77	31.72	5.63	36.31	51.81	74.00	-22.19	HORIZONTAL	Peak
2	5150.000	51.84	31.72	5.62	36.31	52.87	68.20	-15.33	HORIZONTAL	Peak

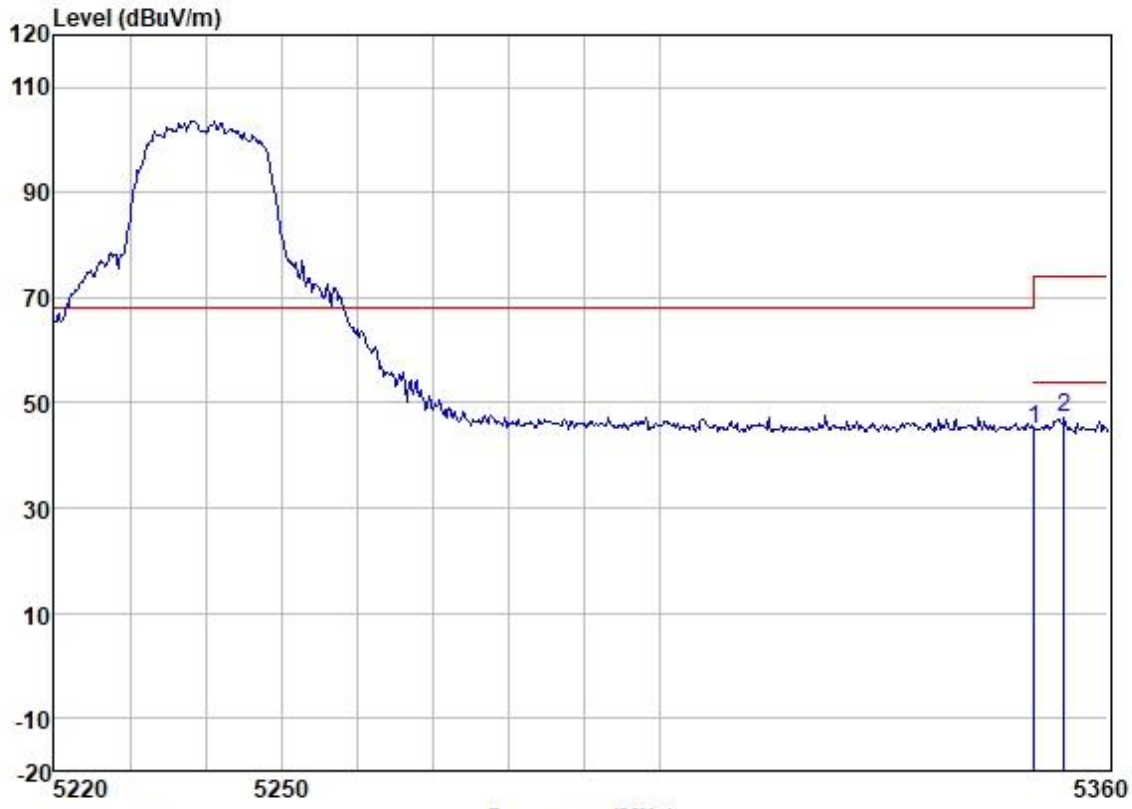
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (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	5350.000	43.26	31.77	6.05	36.24	44.84	68.20	-23.36	VERTICAL	Peak
2	5356.029	45.47	31.78	6.03	36.24	47.04	74.00	-26.96	VERTICAL	Peak

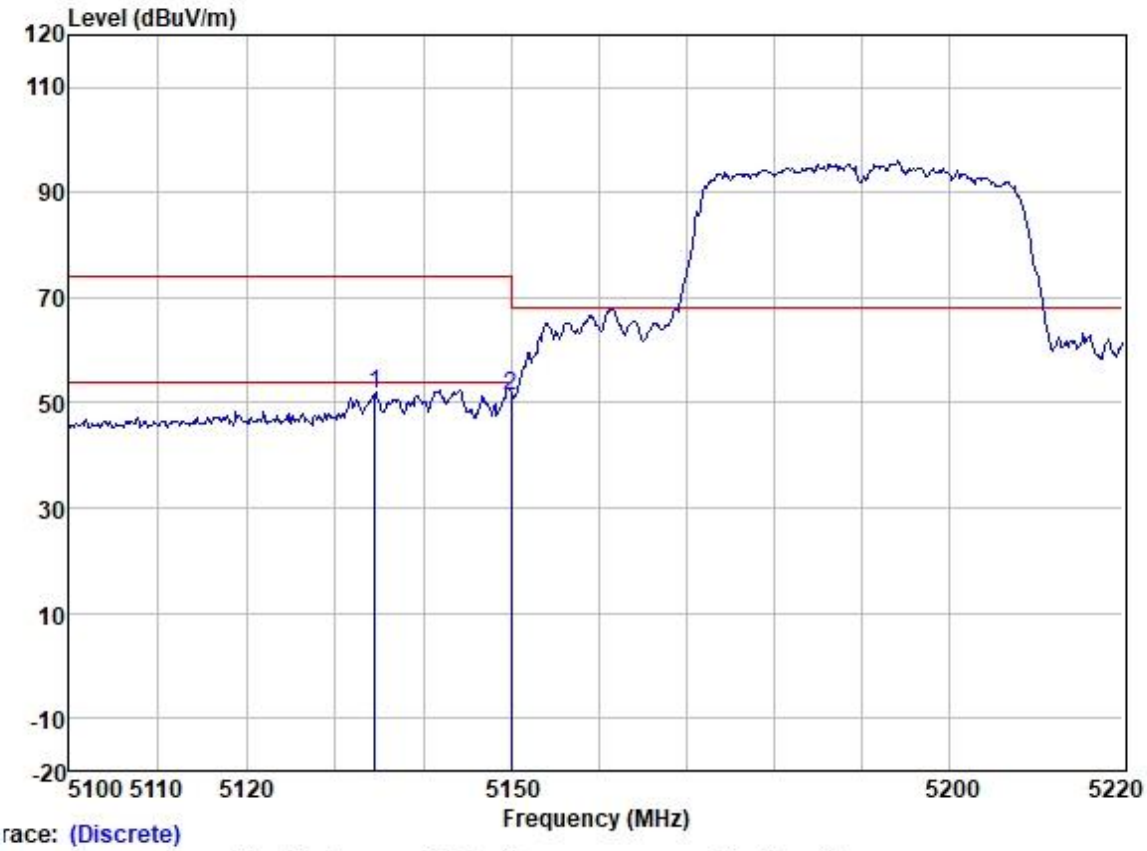
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel: High



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	5350.000	43.47	31.77	6.05	36.24	45.05	68.20	-23.15	HORIZONTAL	Peak
2	5354.045	45.67	31.77	6.05	36.24	47.25	74.00	-26.75	HORIZONTAL	Peak

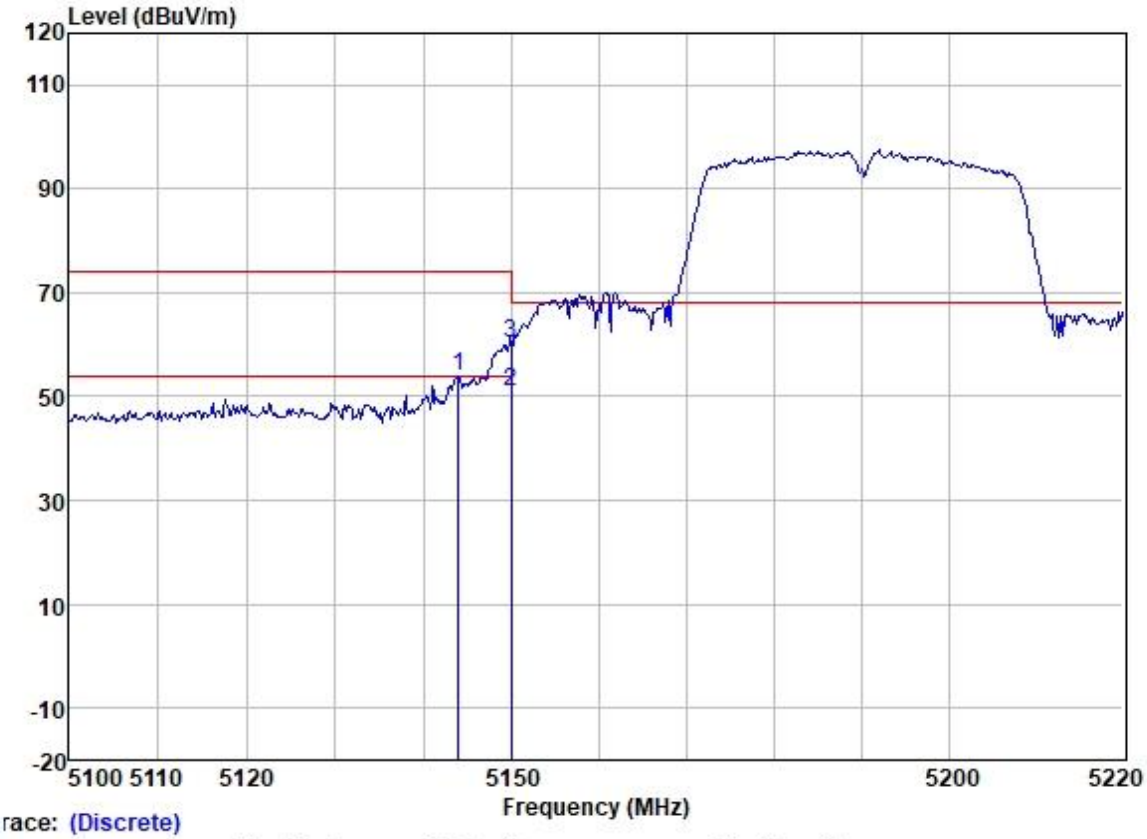
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	ReadAntenna 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	5134.513	50.57	31.72	5.63	36.32	51.60	74.00	-22.40	VERTICAL	Peak
2	5150.000	50.33	31.72	5.62	36.31	51.36	68.20	-16.84	VERTICAL	Peak

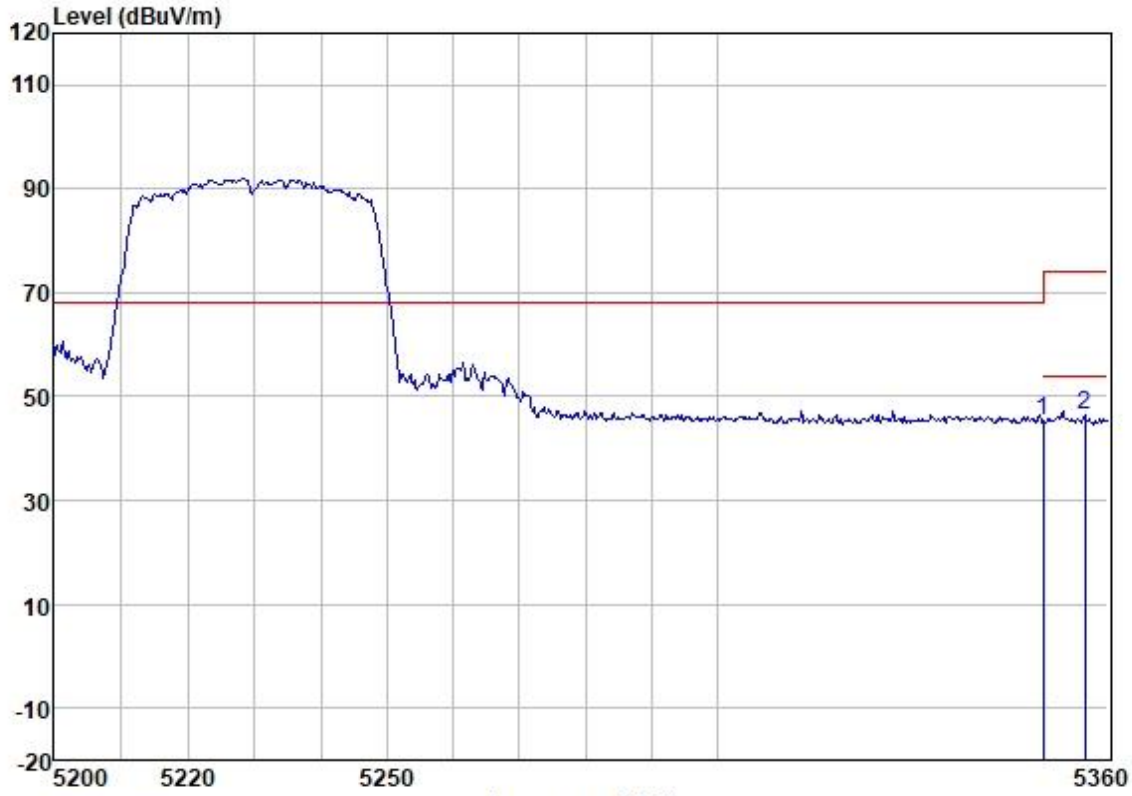
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (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	5143.956	52.97	31.72	5.62	36.31	54.00	74.00	-20.00	HORIZONTAL	Peak
2	5150.000	49.90	31.72	5.62	36.31	50.93	54.00	-3.07	HORIZONTAL	Average
3	5150.000	59.23	31.72	5.62	36.31	60.26	68.20	-7.94	HORIZONTAL	Peak

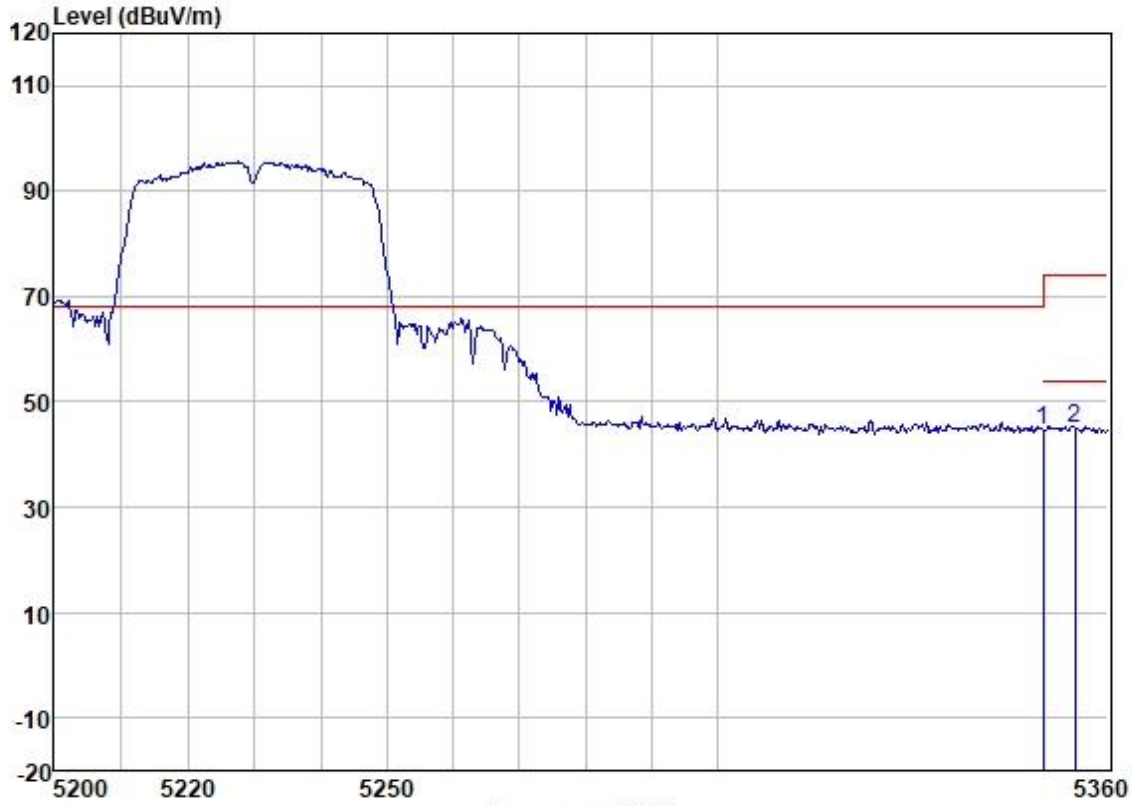
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel: High



race: (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	5350.000	43.61	31.77	6.05	36.24	45.19	68.20	-23.01	VERTICAL	Peak
2	5356.428	44.86	31.78	6.03	36.24	46.43	74.00	-27.57	VERTICAL	Peak

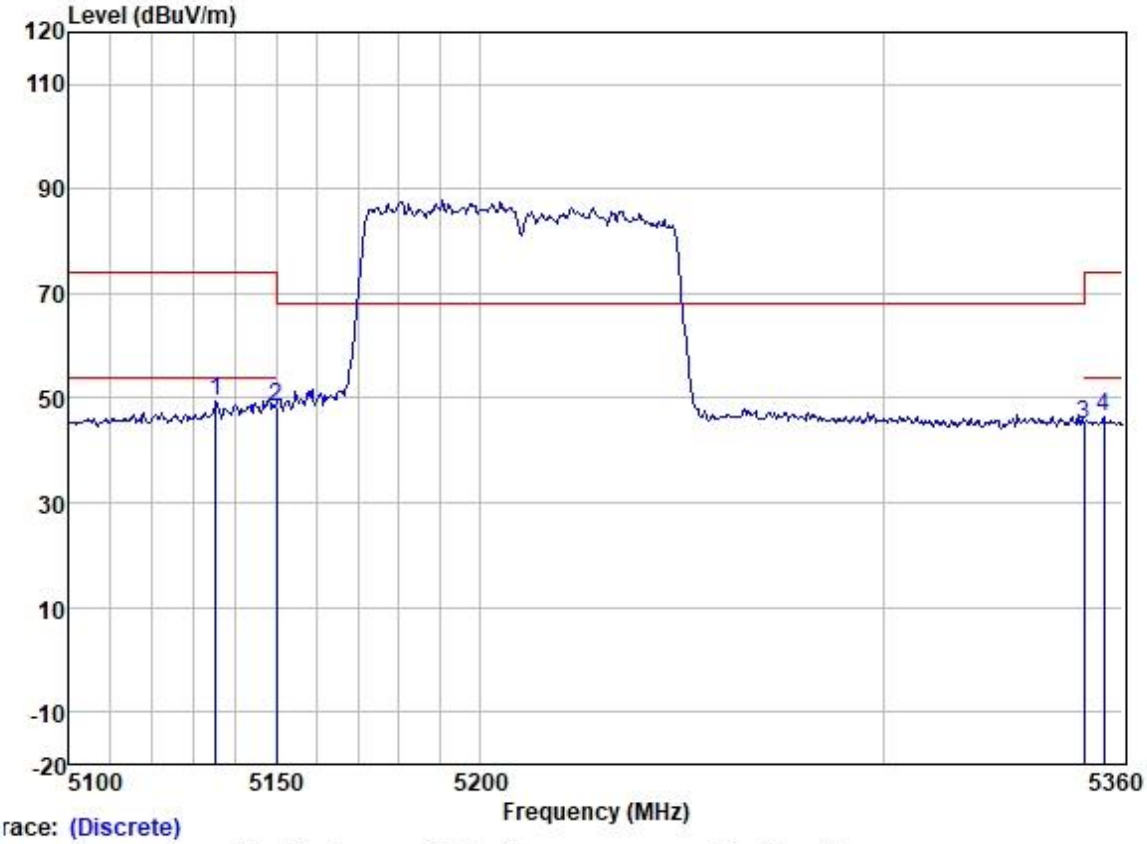
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel: High



Trace: (Discrete)

	Freq	ReadAntenna 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	5350.000	43.19	31.77	6.05	36.24	44.77	68.20	-23.43	HORIZONTAL	Peak
2	5354.805	43.53	31.78	6.03	36.24	45.10	74.00	-28.90	HORIZONTAL	Peak

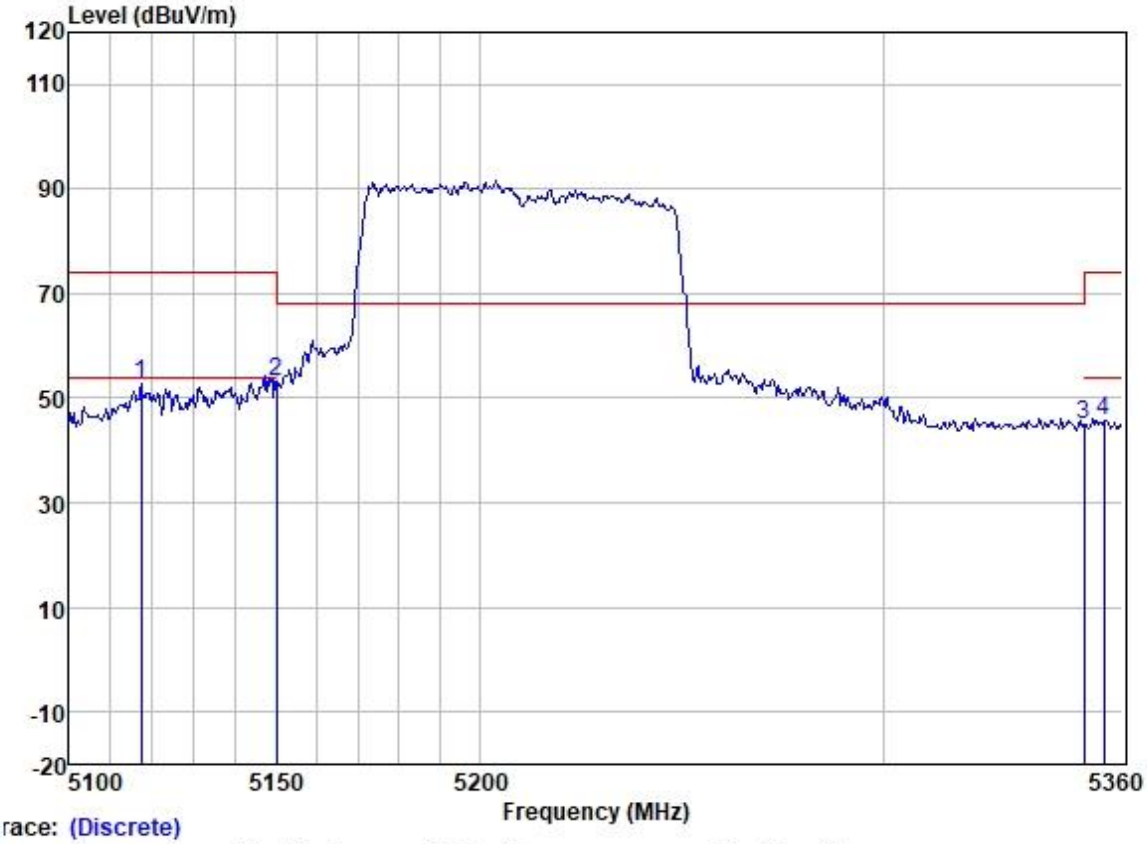
Test Mode: 04; Polarity: Vertical; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5135.371	48.46	31.72	5.63	36.32	49.49	74.00	-24.51	VERTICAL	Peak
2	5150.000	47.33	31.72	5.62	36.31	48.36	68.20	-19.84	VERTICAL	Peak
3	5350.000	43.35	31.77	6.05	36.24	44.93	68.20	-23.27	VERTICAL	Peak
4	5355.205	45.07	31.78	6.03	36.24	46.64	74.00	-27.36	VERTICAL	Peak

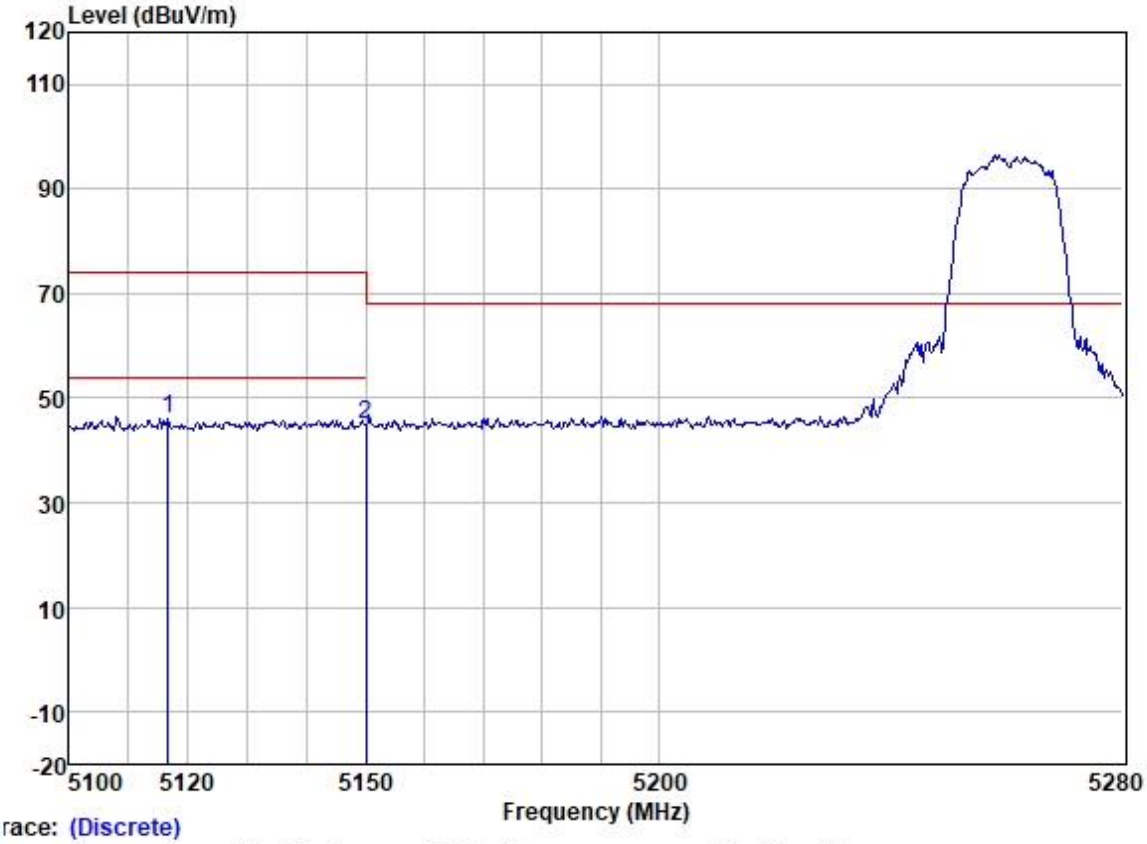
Test Mode: 04; Polarity: Horizontal; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5117.273	51.65	31.72	5.64	36.32	52.69	74.00	-21.31	HORIZONTAL	Peak
2	5150.000	52.01	31.72	5.62	36.31	53.04	68.20	-15.16	HORIZONTAL	Peak
3	5350.000	43.42	31.77	6.05	36.24	45.00	68.20	-23.20	HORIZONTAL	Peak
4	5355.205	44.23	31.78	6.03	36.24	45.80	74.00	-28.20	HORIZONTAL	Peak

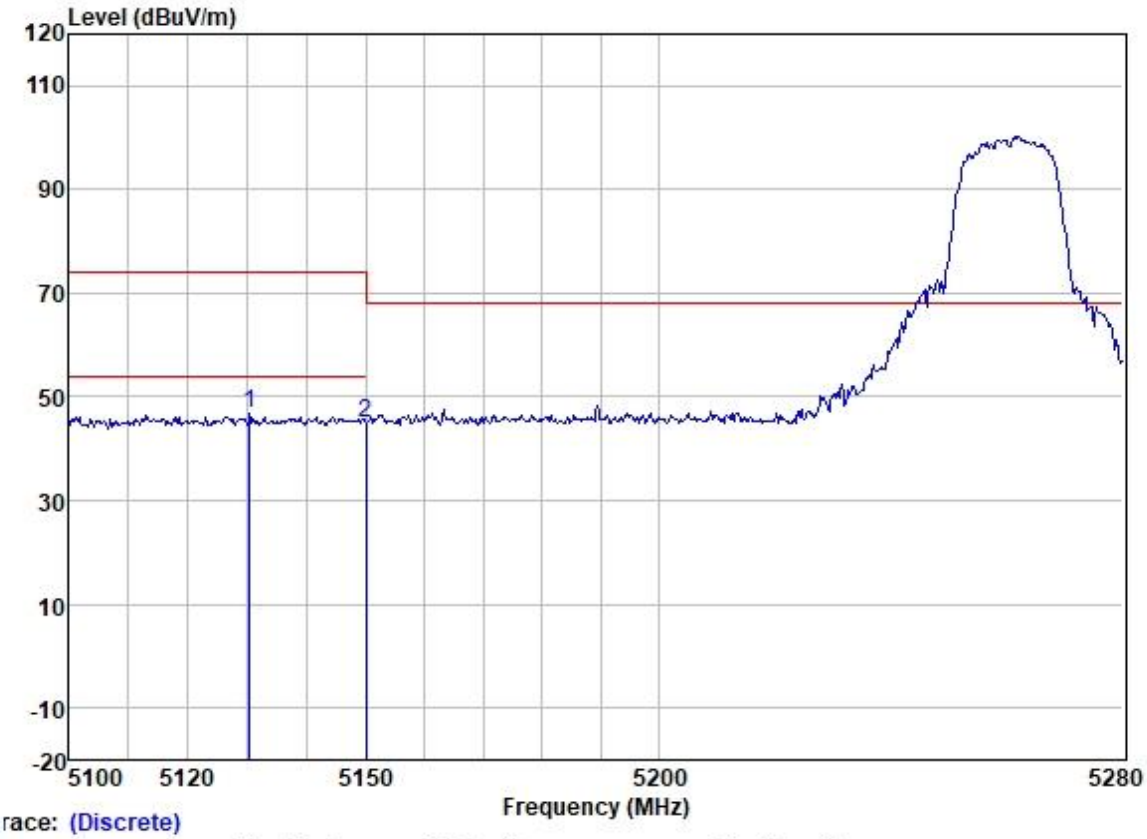
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (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	5116.655	44.92	31.72	5.64	36.32	45.96	74.00	-28.04	VERTICAL	Peak
2	5150.000	43.86	31.72	5.62	36.31	44.89	68.20	-23.31	VERTICAL	Peak

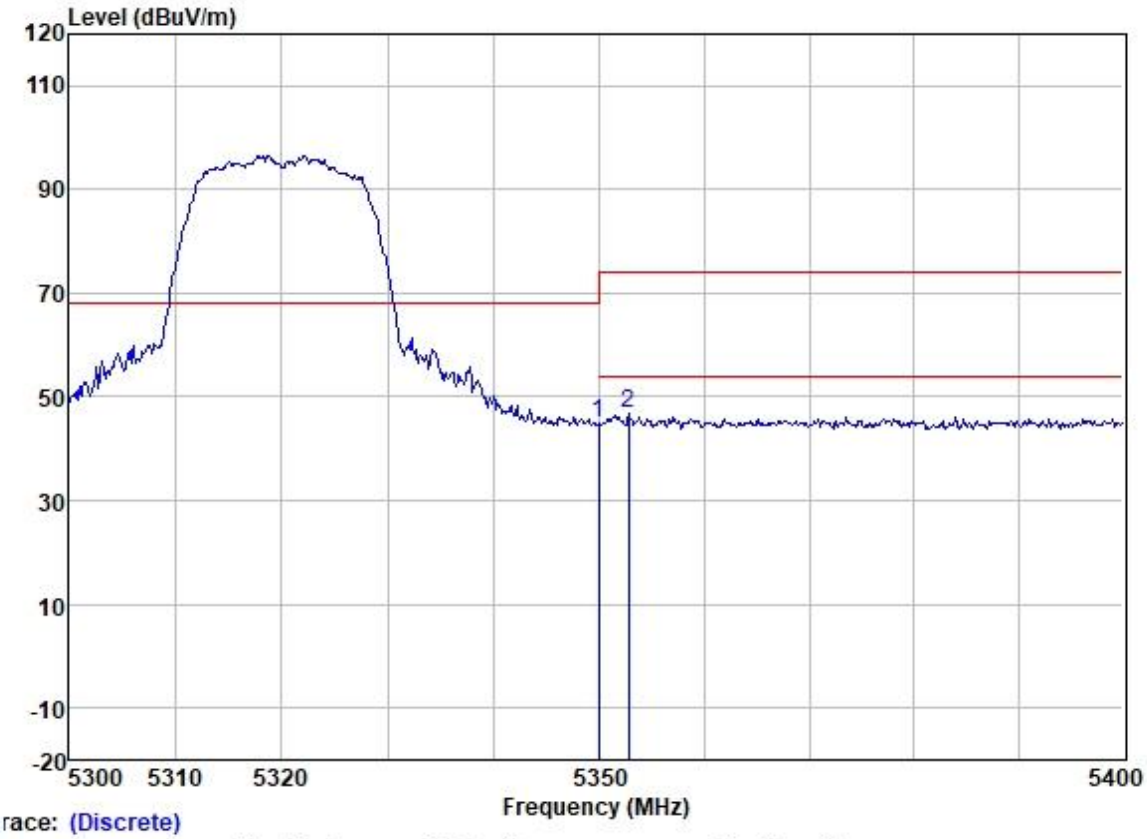
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (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	5130.339	45.66	31.72	5.63	36.32	46.69	74.00	-27.31	HORIZONTAL	Peak
2	5150.000	44.02	31.72	5.62	36.31	45.05	68.20	-23.15	HORIZONTAL	Peak

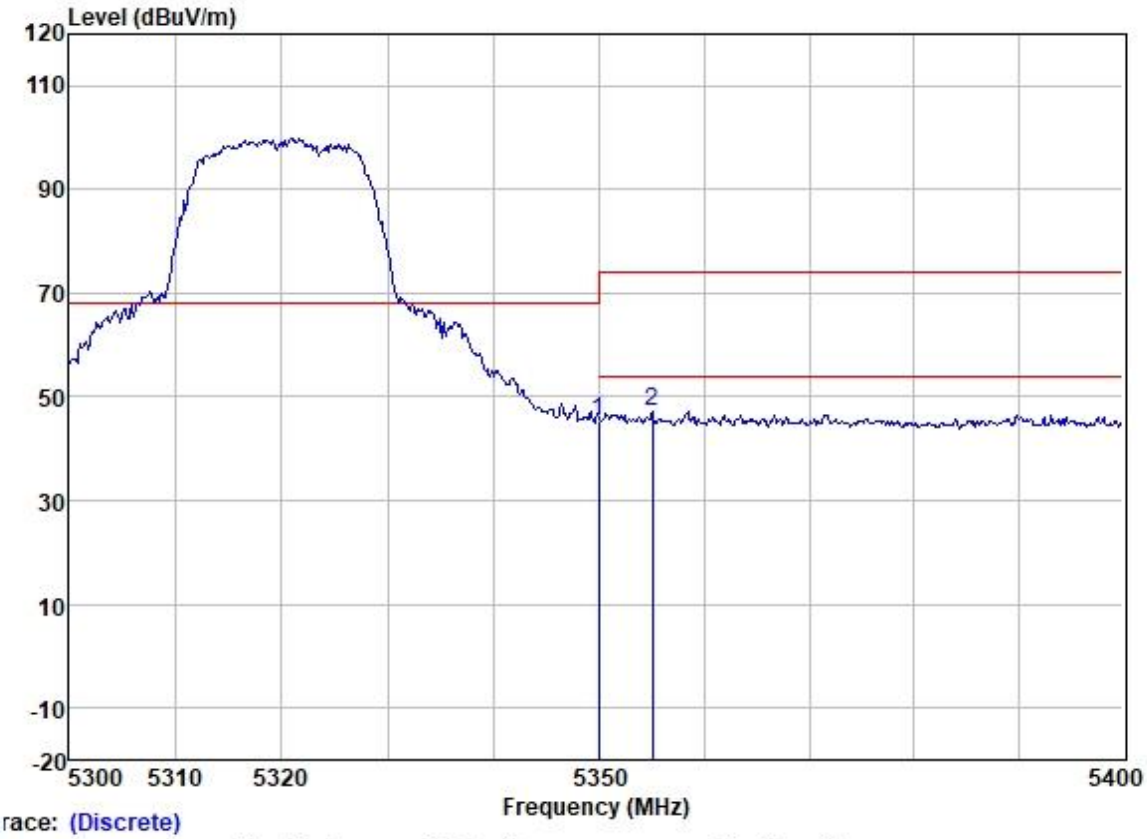
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (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	5350.000	43.46	31.77	6.05	36.24	45.04	68.20	-23.16	VERTICAL	Peak
2	5352.867	45.15	31.77	6.05	36.24	46.73	74.00	-27.27	VERTICAL	Peak

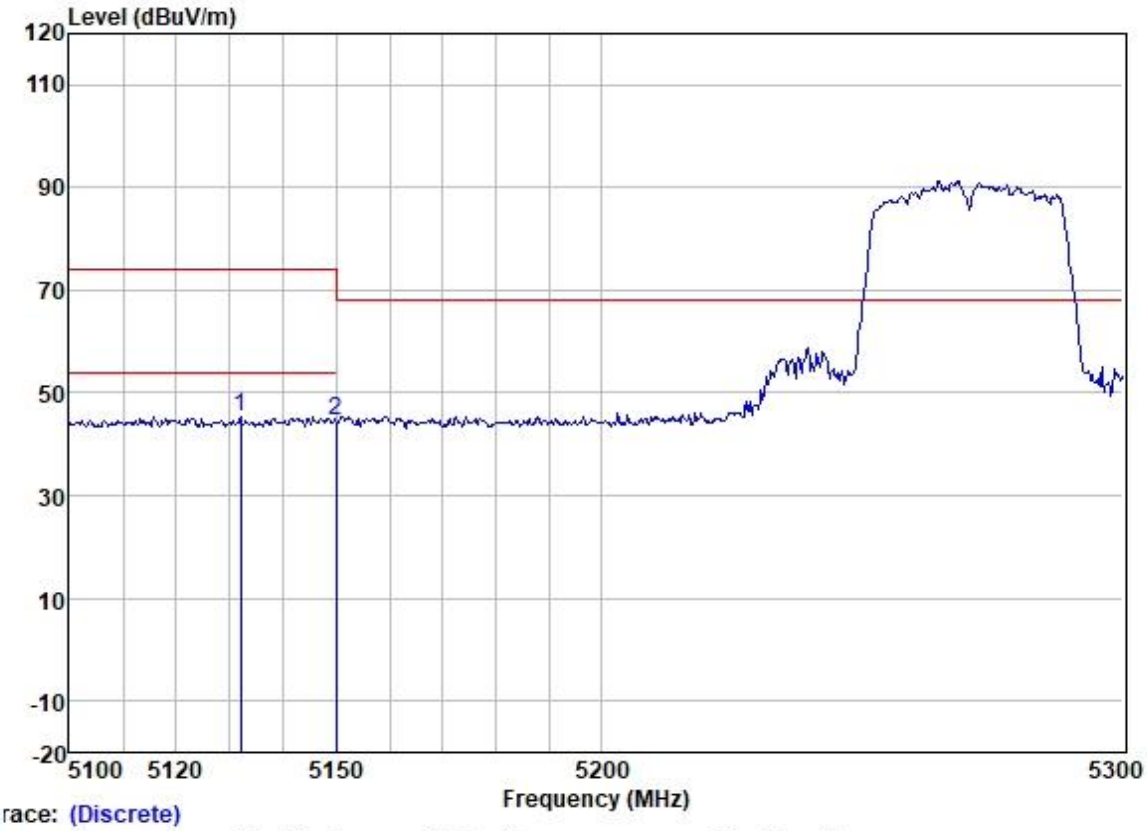
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (Discrete)

	Freq	ReadLevel	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	5350.000	43.94	31.77	6.05	36.24	45.52	68.20	-22.68	HORIZONTAL	Peak
2	5355.069	45.53	31.78	6.03	36.24	47.10	74.00	-26.90	HORIZONTAL	Peak

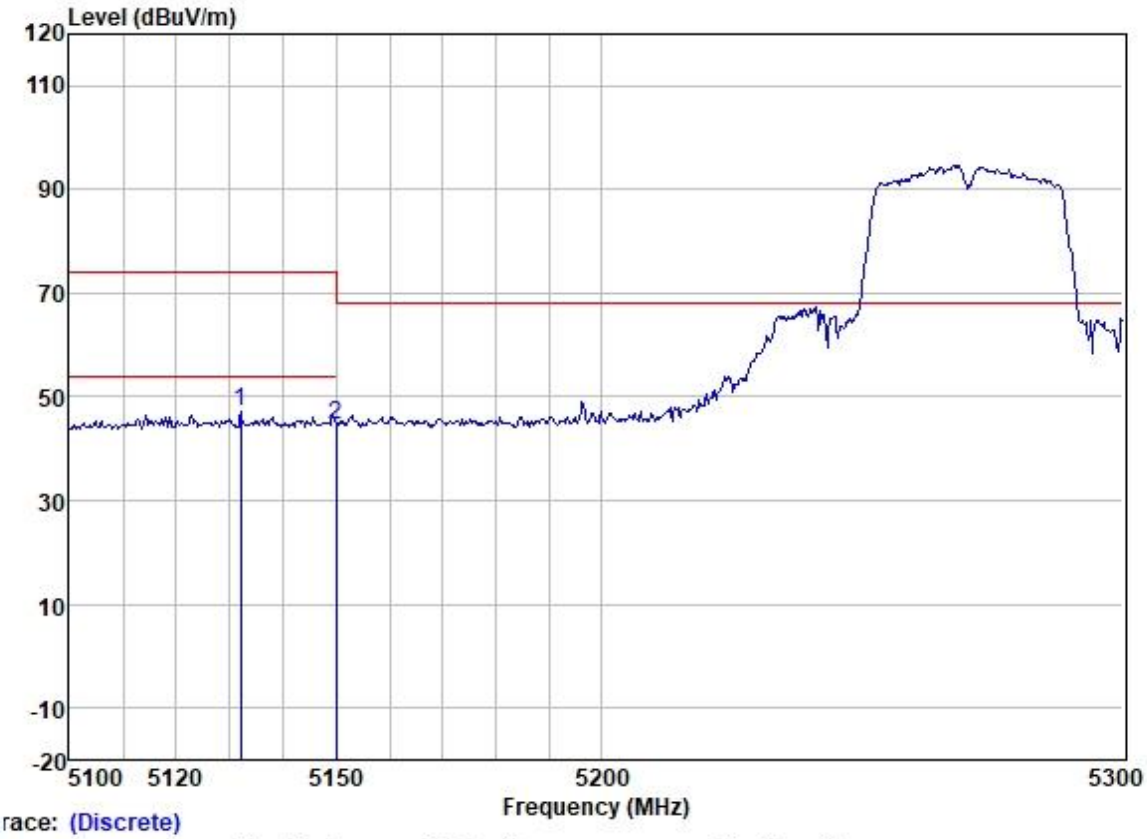
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5132.078	44.43	31.72	5.63	36.32	45.46	74.00	-28.54	VERTICAL	Peak
2	5150.000	43.48	31.72	5.62	36.31	44.51	68.20	-23.69	VERTICAL	Peak

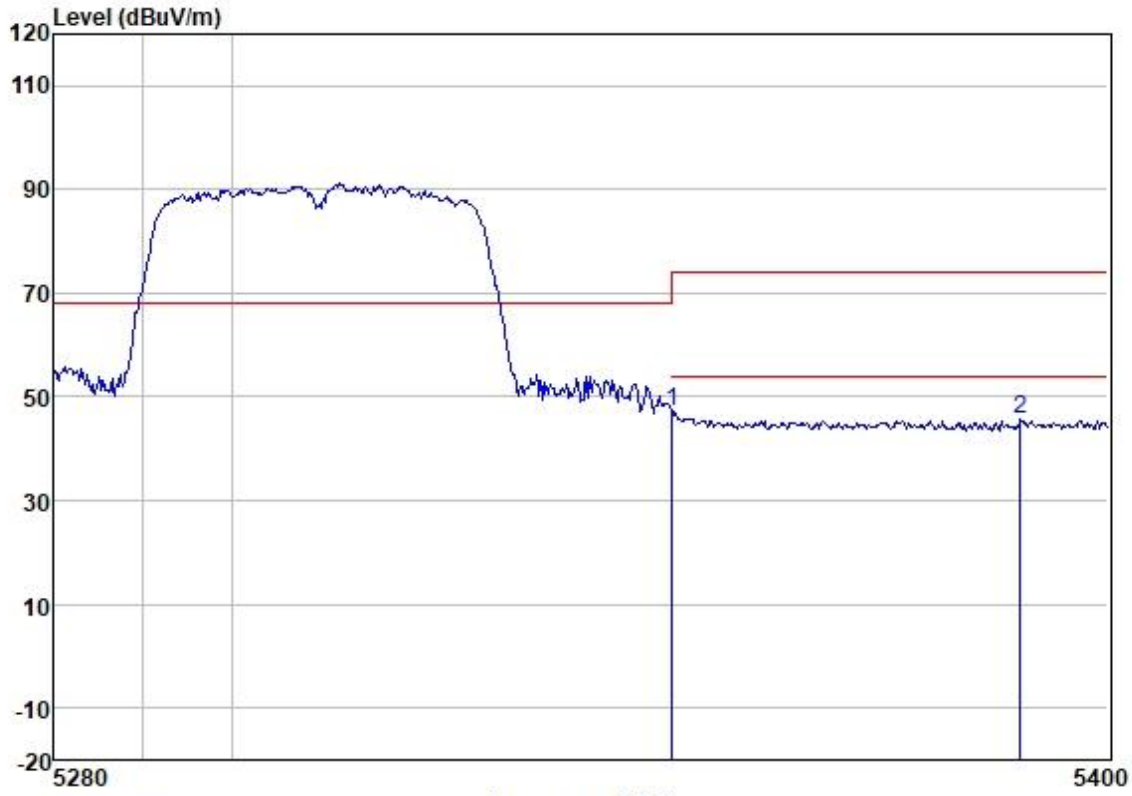
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (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	5132.078	46.19	31.72	5.63	36.32	47.22	74.00	-26.78	HORIZONTAL	Peak
2	5150.000	43.38	31.72	5.62	36.31	44.41	68.20	-23.79	HORIZONTAL	Peak

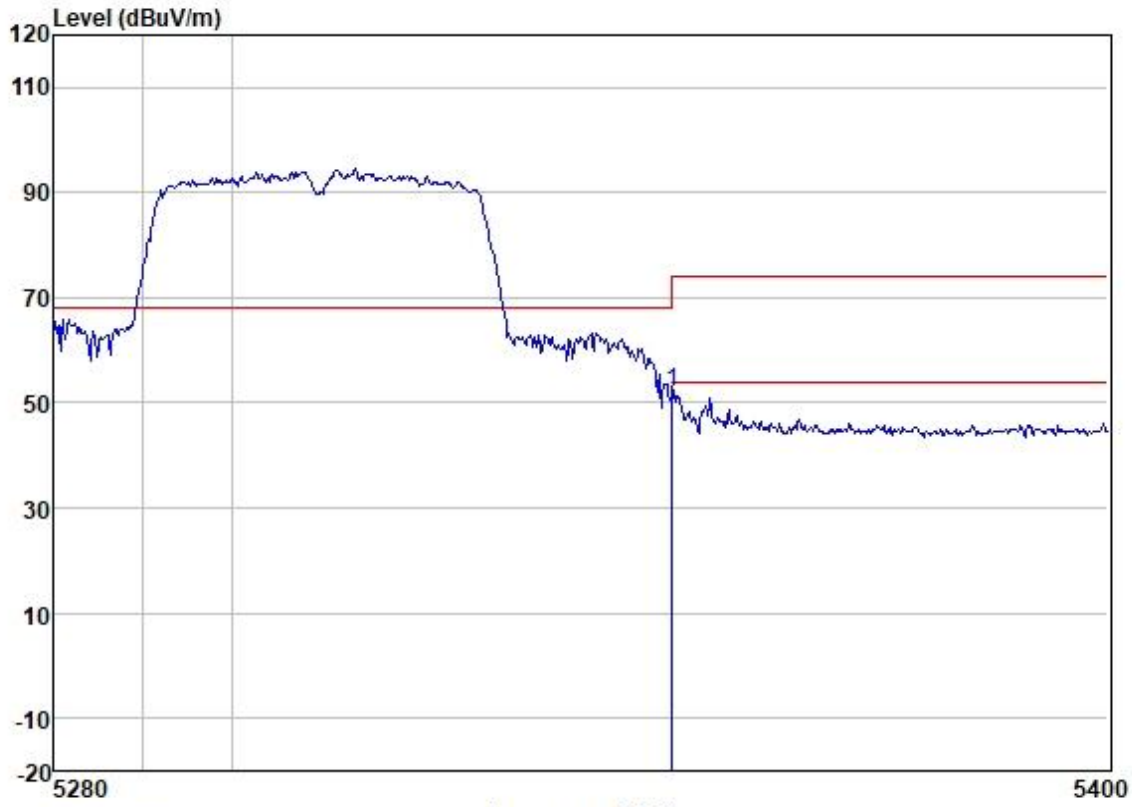
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel: High



race: (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	5350.000	45.53	31.77	6.05	36.24	47.11	68.20	-21.09	VERTICAL	Peak
2	5389.937	44.06	31.78	6.00	36.22	45.62	74.00	-28.38	VERTICAL	Peak

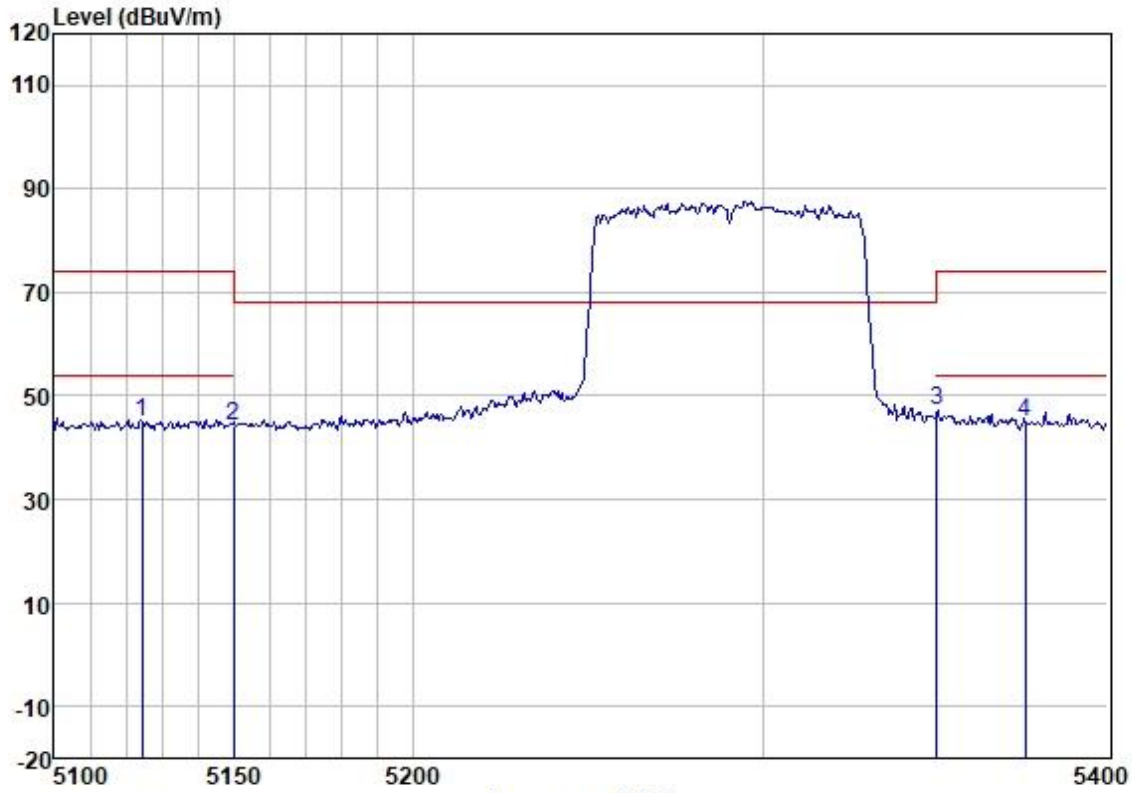
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel: High



race: (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	50.47	31.77	6.05	36.24	52.05	68.20	-16.15	HORIZONTAL	Peak

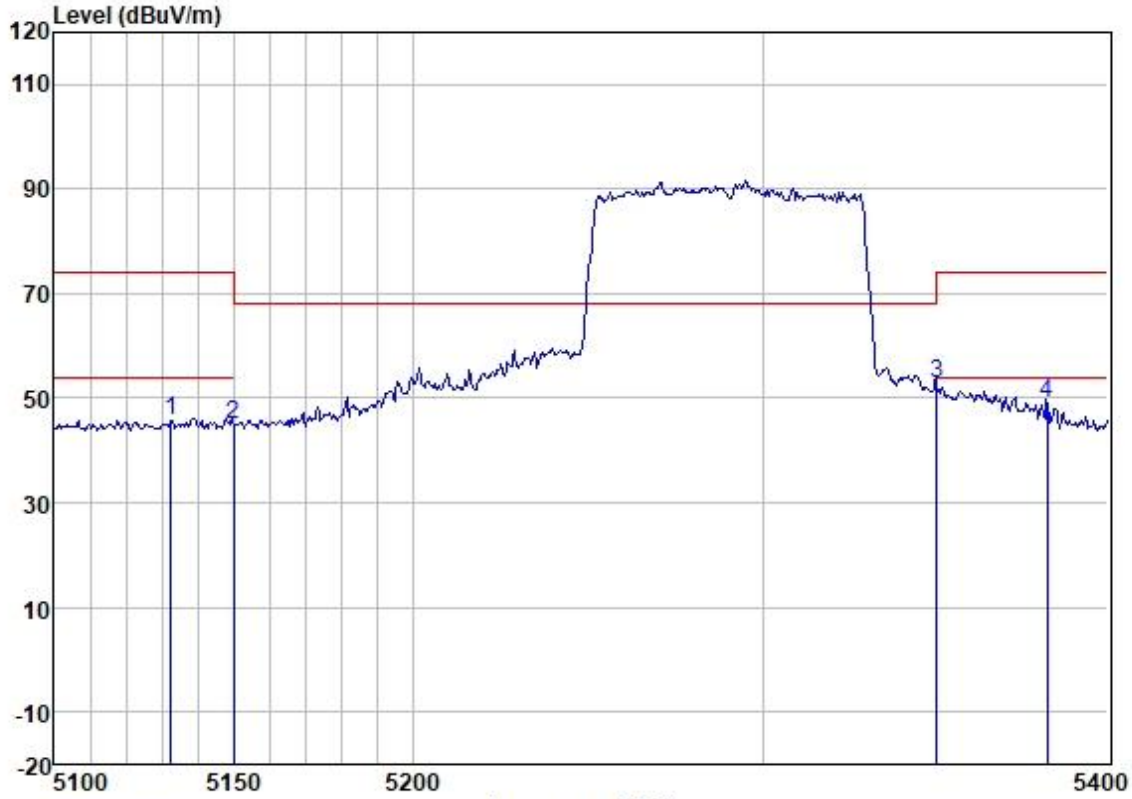
Test Mode: 05; Polarity: Vertical; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (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	5124.252	44.02	31.72	5.64	36.32	45.06	74.00	-28.94	VERTICAL	Peak
2	5150.000	43.03	31.72	5.62	36.31	44.06	68.20	-24.14	VERTICAL	Peak
3	5350.000	45.63	31.77	6.05	36.24	47.21	68.20	-20.99	VERTICAL	Peak
4	5375.671	43.58	31.78	6.02	36.23	45.15	74.00	-28.85	VERTICAL	Peak

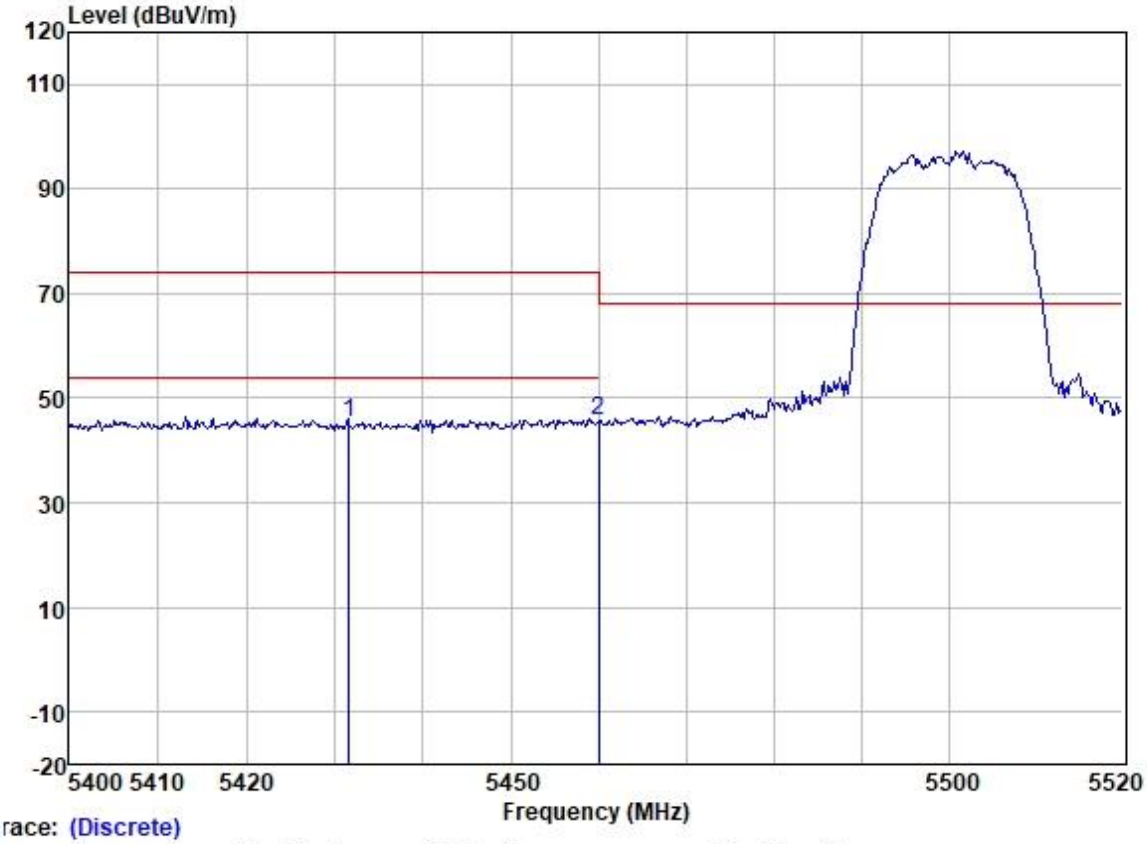
Test Mode: 05; Polarity: Horizontal; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5132.460	44.84	31.72	5.63	36.32	45.87	74.00	-28.13	HORIZONTAL	Peak
2	5150.000	44.03	31.72	5.62	36.31	45.06	68.20	-23.14	HORIZONTAL	Peak
3	5350.000	51.30	31.77	6.05	36.24	52.88	68.20	-15.32	HORIZONTAL	Peak
4	5382.127	47.45	31.78	6.02	36.23	49.02	74.00	-24.98	HORIZONTAL	Peak

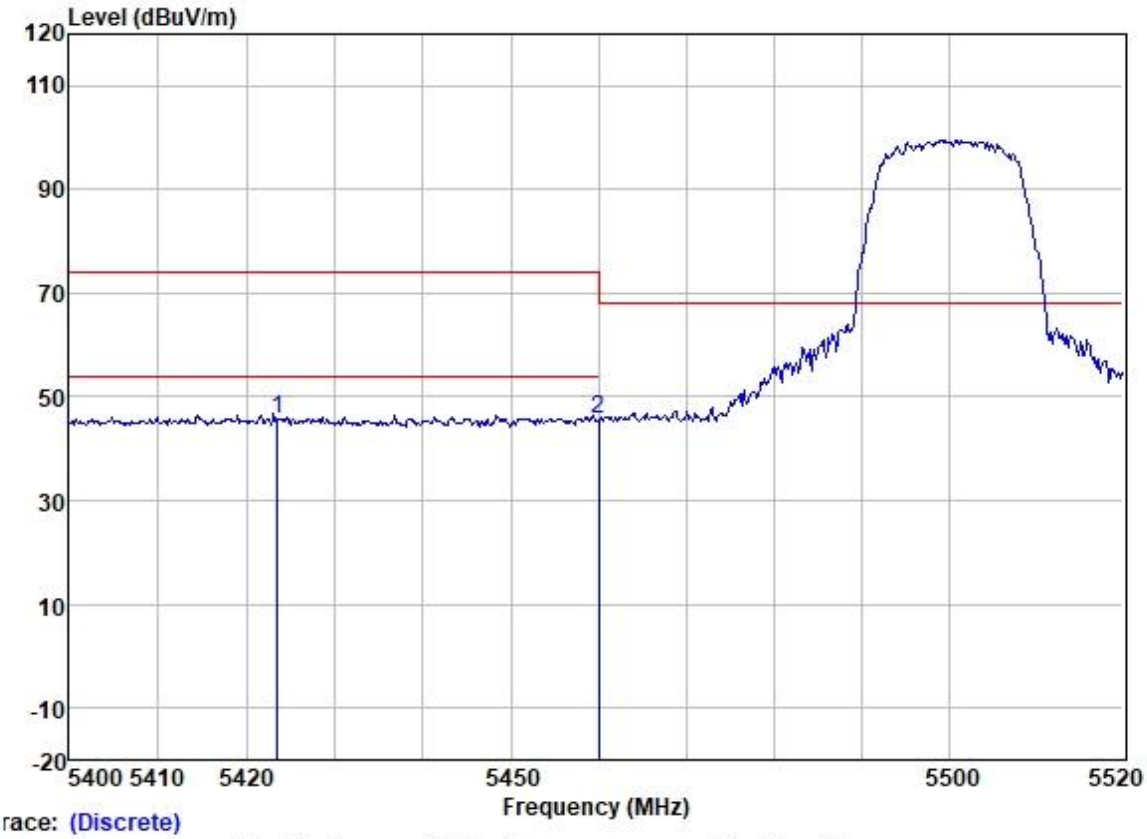
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5431.663	43.56	31.79	6.13	36.21	45.27	74.00	-28.73	VERTICAL	Peak
2	5460.000	43.91	31.79	6.26	36.21	45.75	68.20	-22.45	VERTICAL	Peak

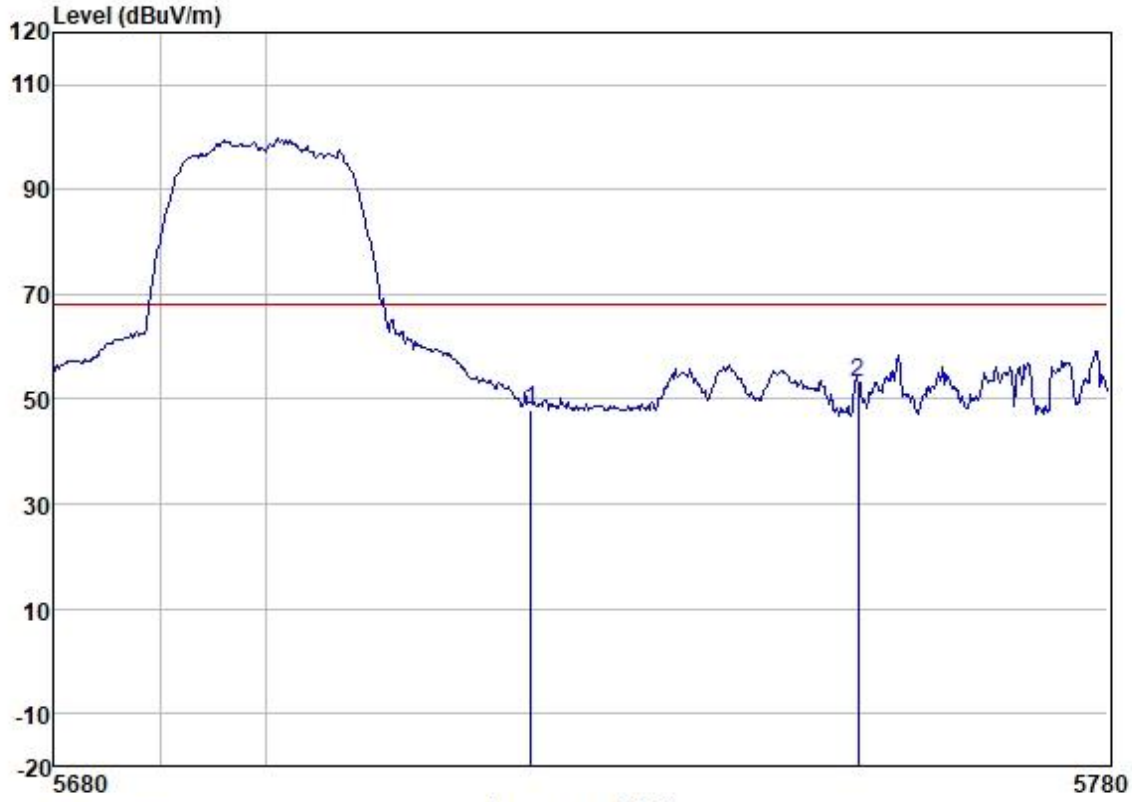
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (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	5423.551	44.07	31.79	6.13	36.21	45.78	74.00	-28.22	HORIZONTAL	Peak
2	5460.000	43.72	31.79	6.26	36.21	45.56	68.20	-22.64	HORIZONTAL	Peak

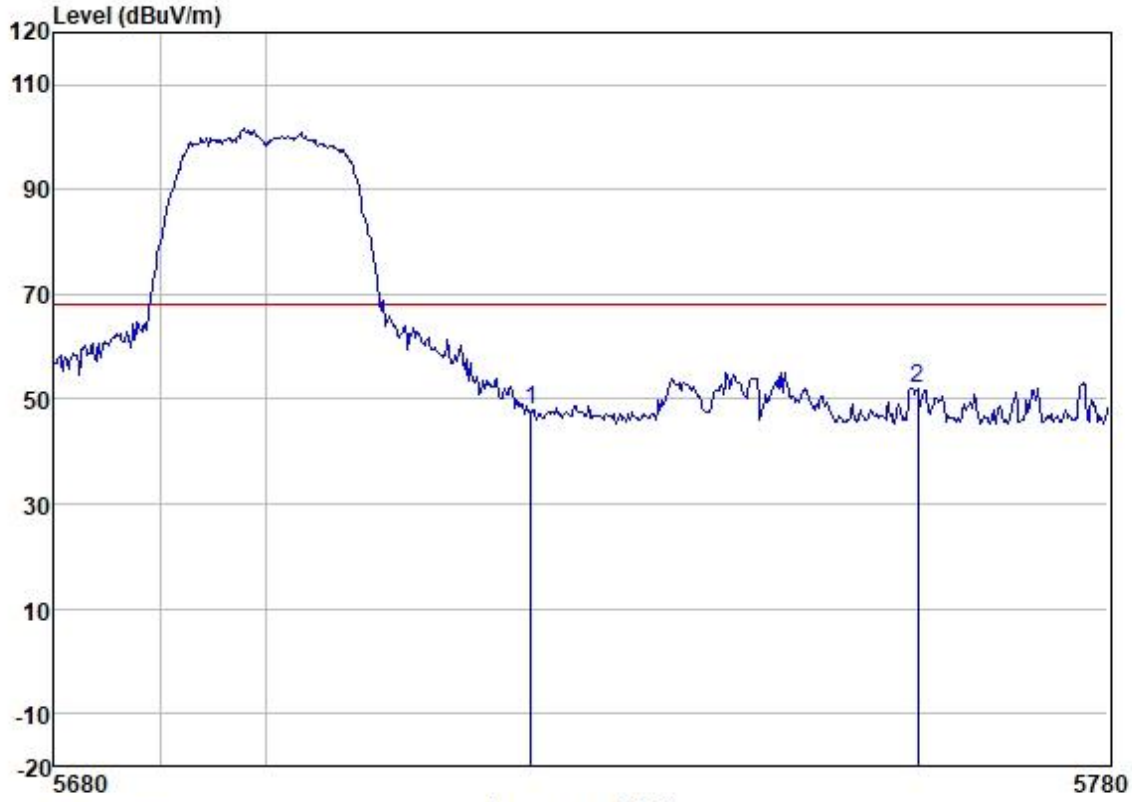
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (Discrete)

	Freq	ReadLevel	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	45.95	32.07	6.25	36.15	48.12	68.20	-20.08	VERTICAL	Peak
2	5756.142	51.06	32.13	6.15	36.14	53.20	68.20	-15.00	VERTICAL	Peak

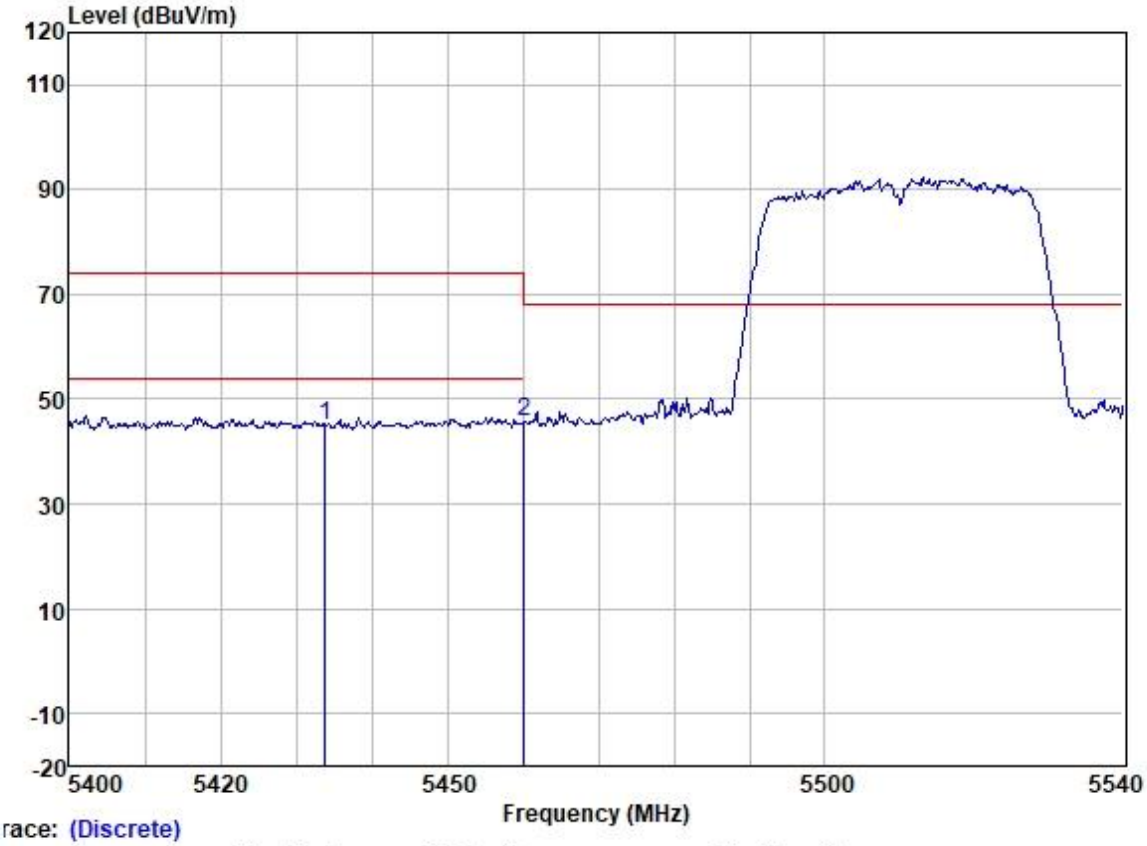
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (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	45.89	32.07	6.25	36.15	48.06	68.20	-20.14	HORIZONTAL	Peak
2	5761.771	49.99	32.13	6.15	36.14	52.13	68.20	-16.07	HORIZONTAL	Peak

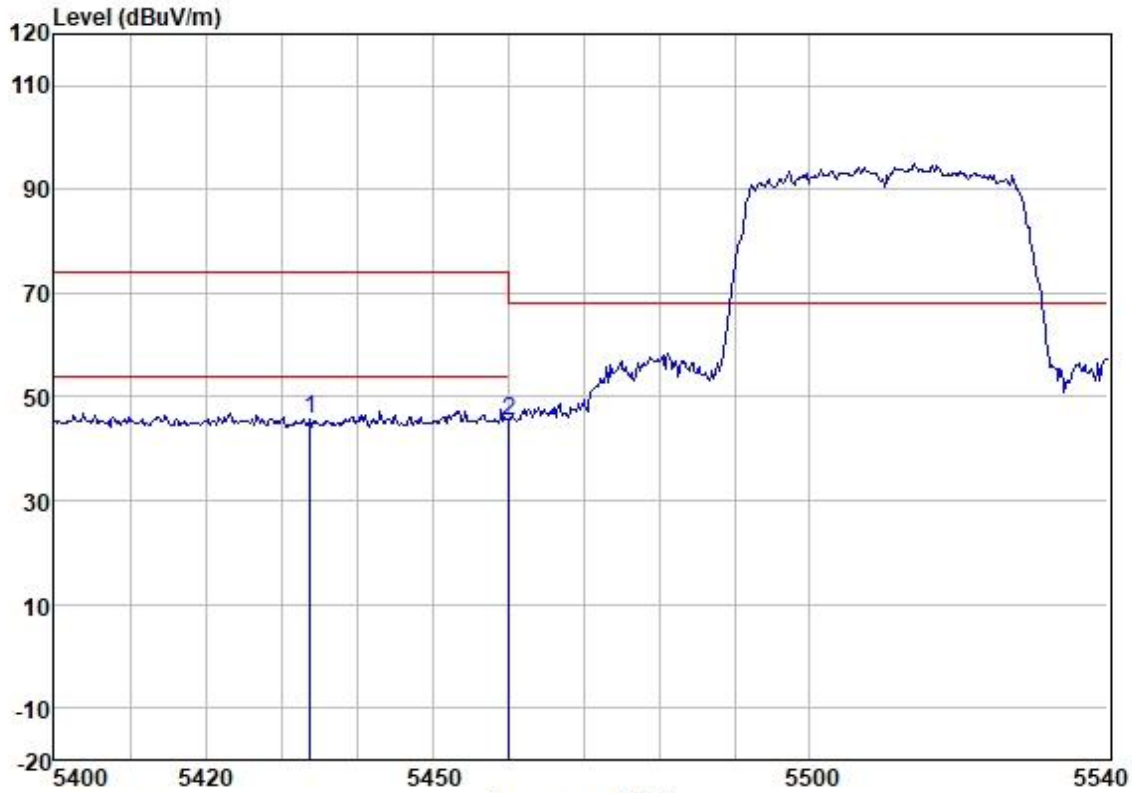
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5433.691	43.36	31.79	6.20	36.21	45.14	74.00	-28.86	VERTICAL	Peak
2	5460.000	44.03	31.79	6.26	36.21	45.87	68.20	-22.33	VERTICAL	Peak

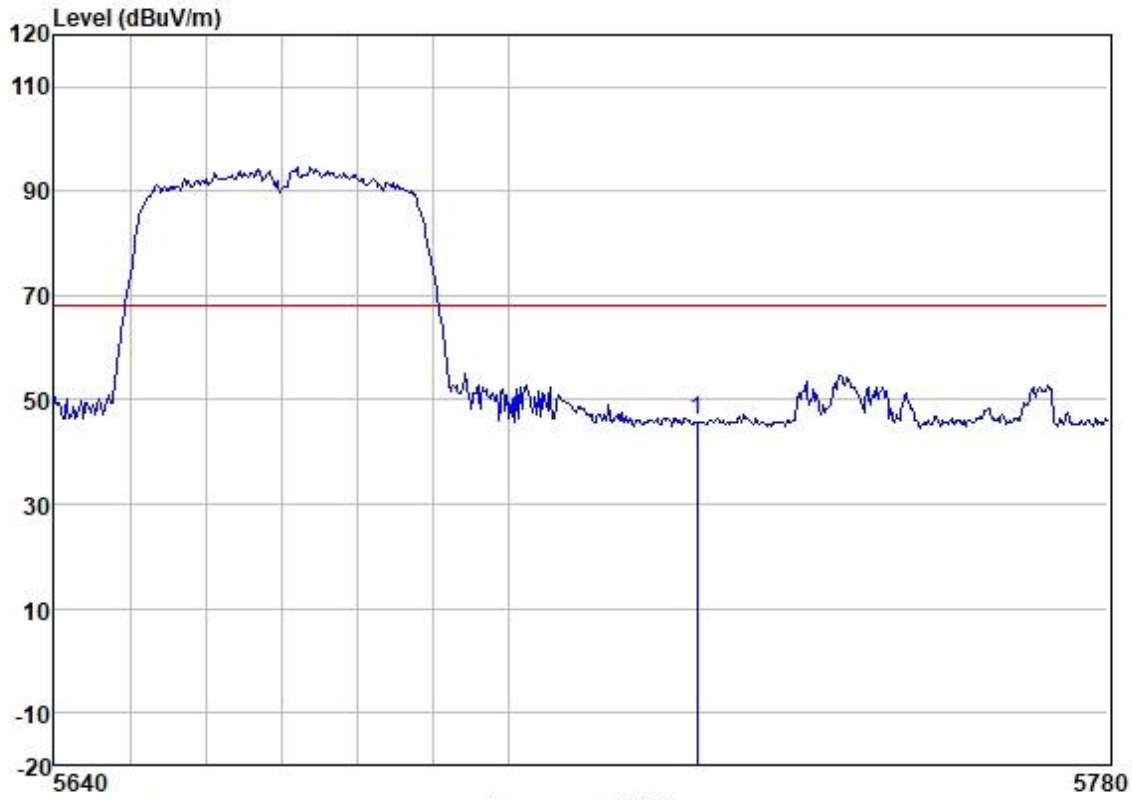
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5433.691	43.96	31.79	6.20	36.21	45.74	74.00	-28.26	HORIZONTAL	Peak
2	5460.000	43.58	31.79	6.26	36.21	45.42	68.20	-22.78	HORIZONTAL	Peak

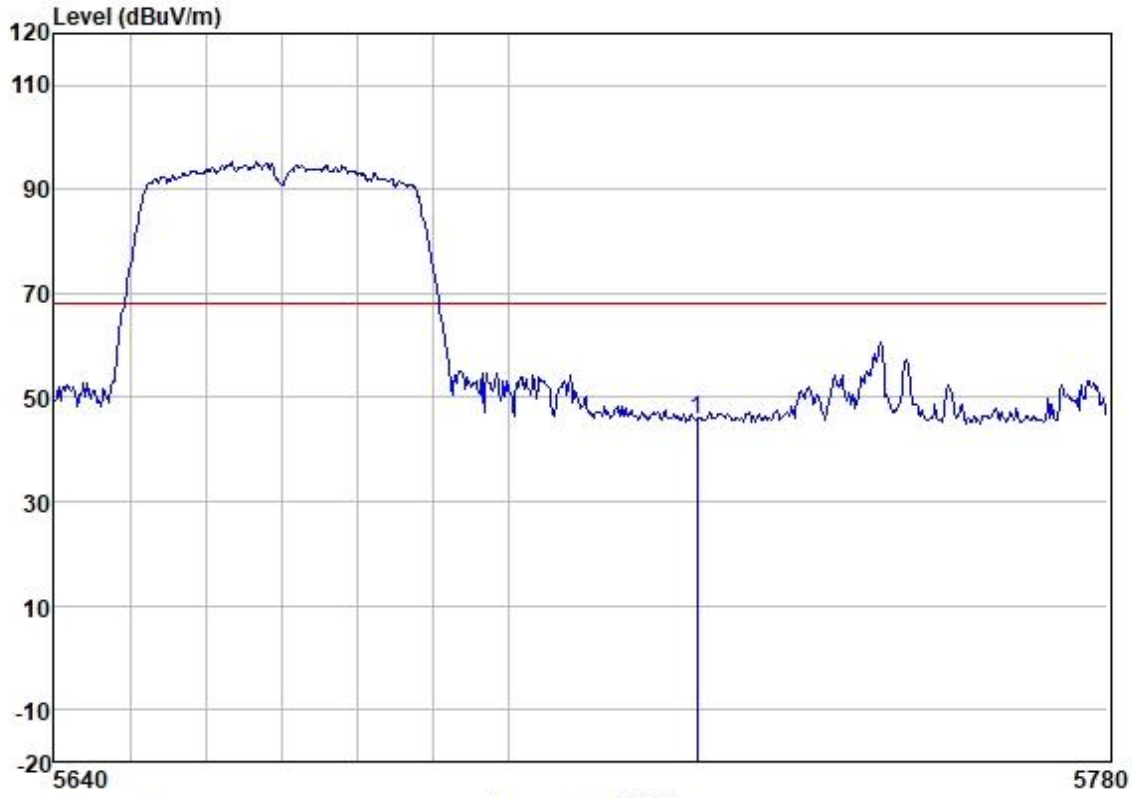
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel: High



race: (Discrete)

	Freq	ReadAntenna 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	44.08	32.07	6.25	36.15	46.25	68.20	-21.95	VERTICAL	Peak

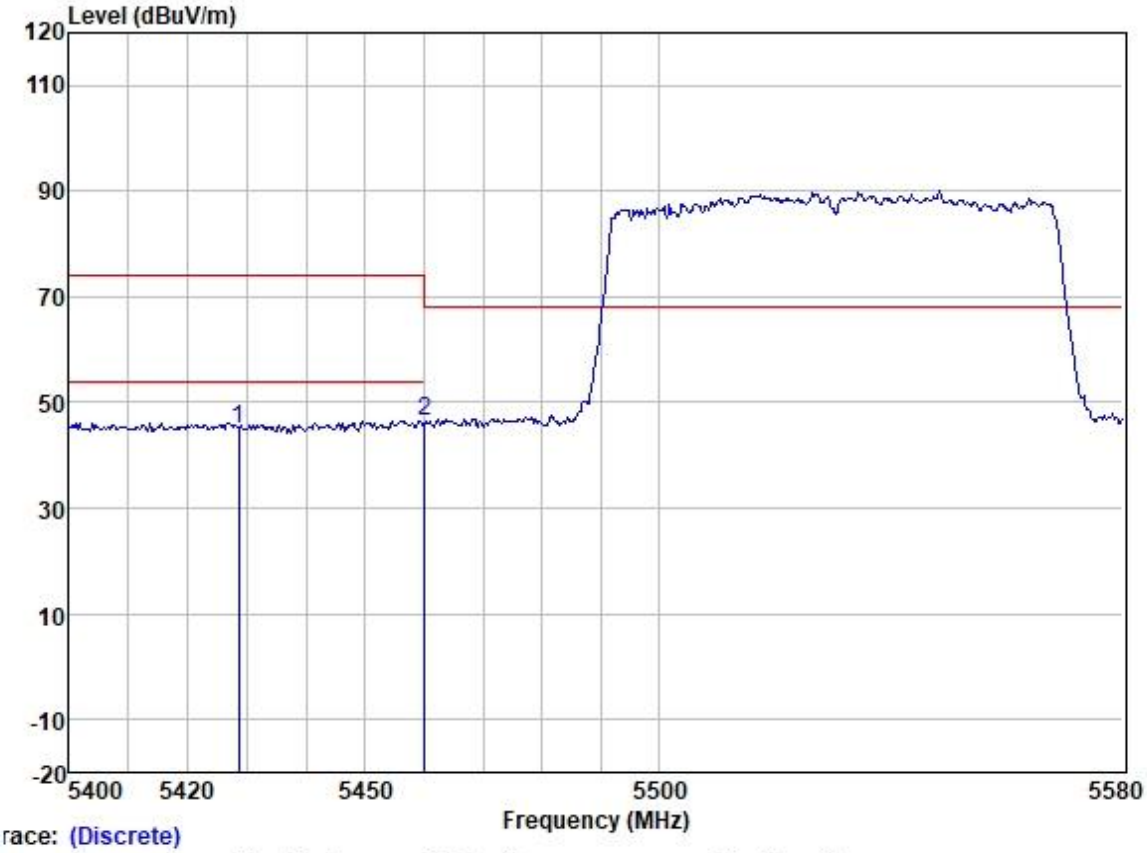
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel: High



race: (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	43.58	32.07	6.25	36.15	45.75	68.20	-22.45	HORIZONTAL	Peak

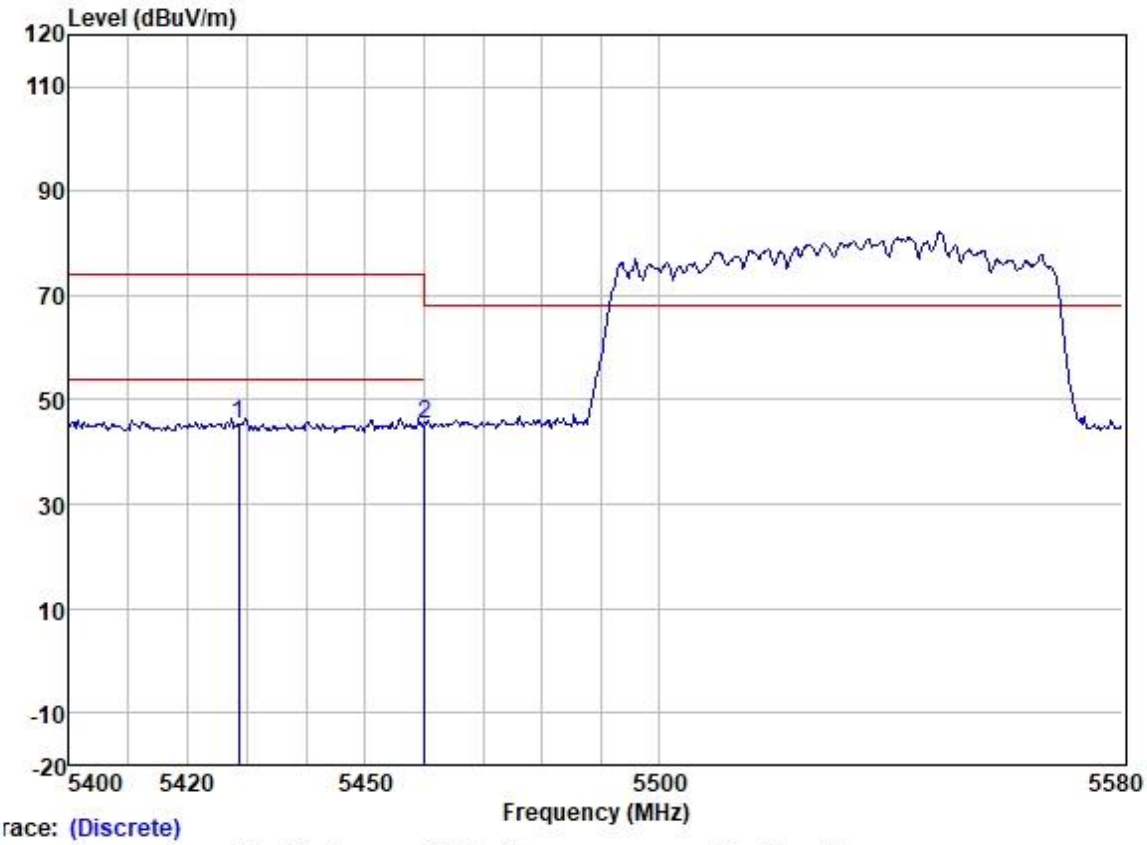
Test Mode: 06; Polarity: Vertical; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5428.583	43.43	31.79	6.13	36.21	45.14	74.00	-28.86	VERTICAL	Peak
2	5460.000	44.57	31.79	6.26	36.21	46.41	68.20	-21.79	VERTICAL	Peak

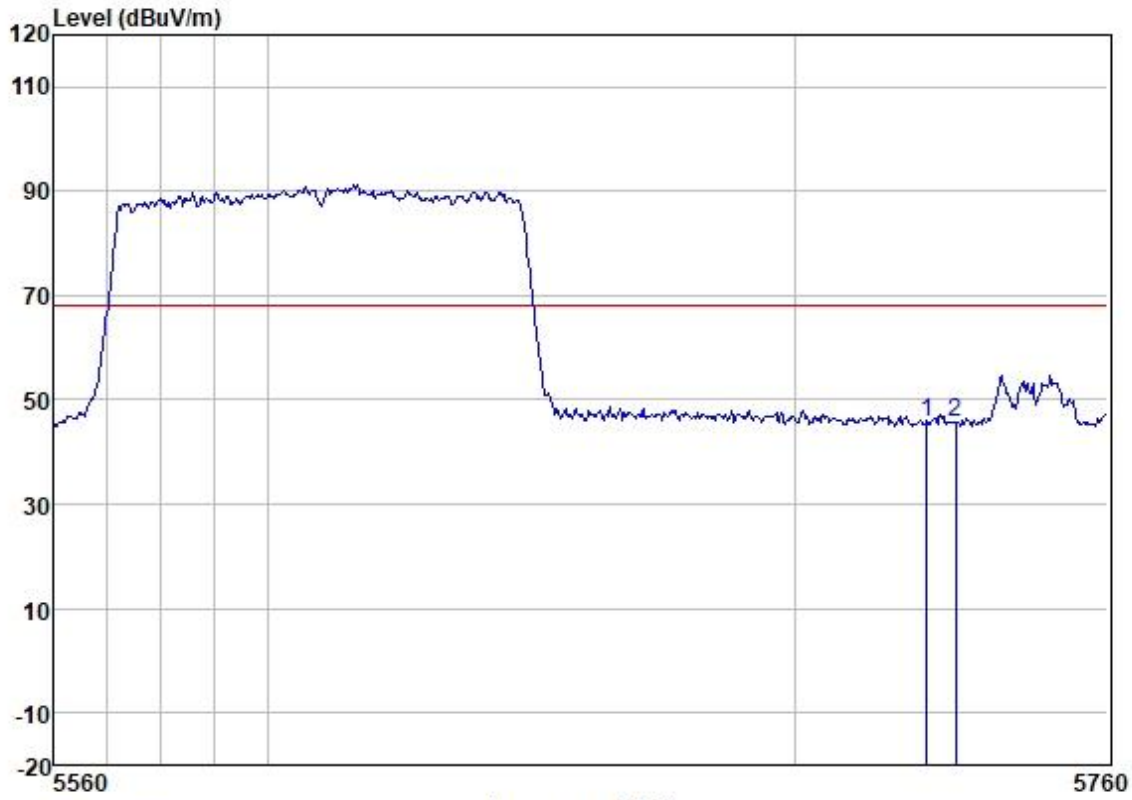
Test Mode: 06; Polarity: Horizontal; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5428.583	43.55	31.79	6.13	36.21	45.26	74.00	-28.74	HORIZONTAL	Peak
2	5460.000	43.64	31.79	6.26	36.21	45.48	68.20	-22.72	HORIZONTAL	Peak

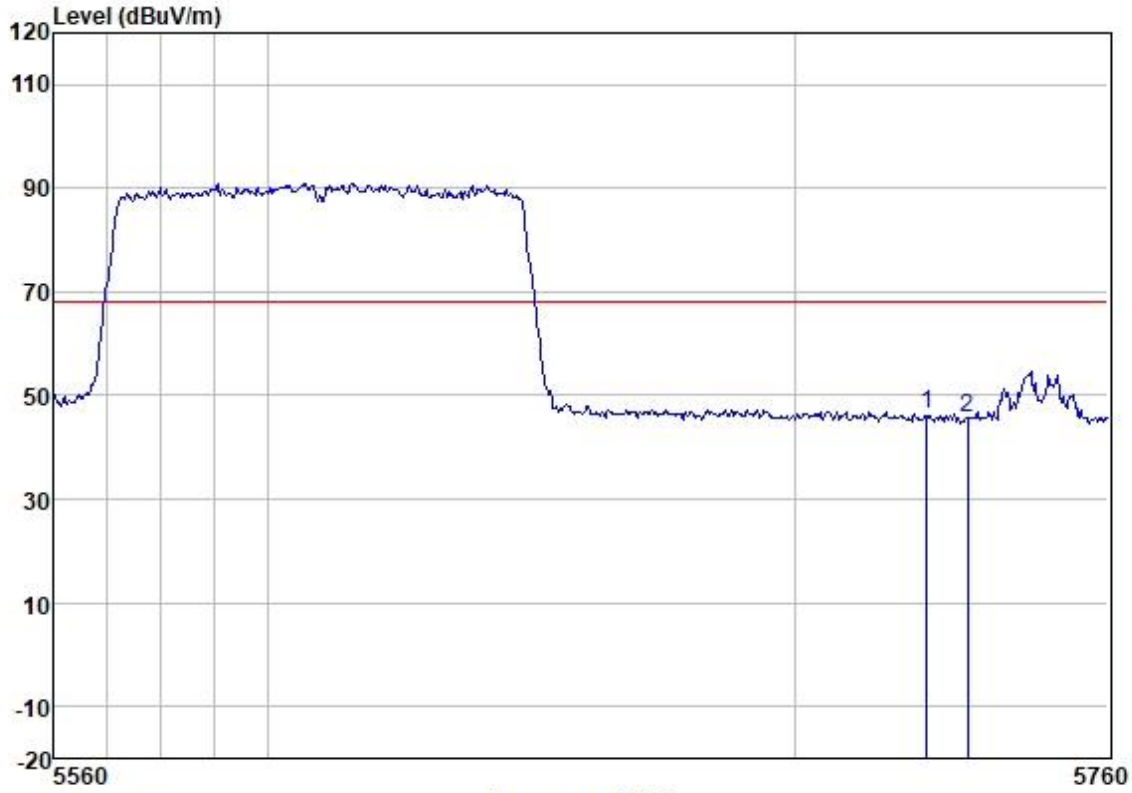
Test Mode: 06; Polarity: Vertical; Modulation:802.11c; Bandwidth:80MHz; Channel: High



race: (Discrete)

	Freq	ReadLevel	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	43.46	32.07	6.25	36.15	45.63	68.20	-22.57	VERTICAL	Peak
2	5730.560	43.46	32.07	6.25	36.15	45.63	68.20	-22.57	VERTICAL	Peak

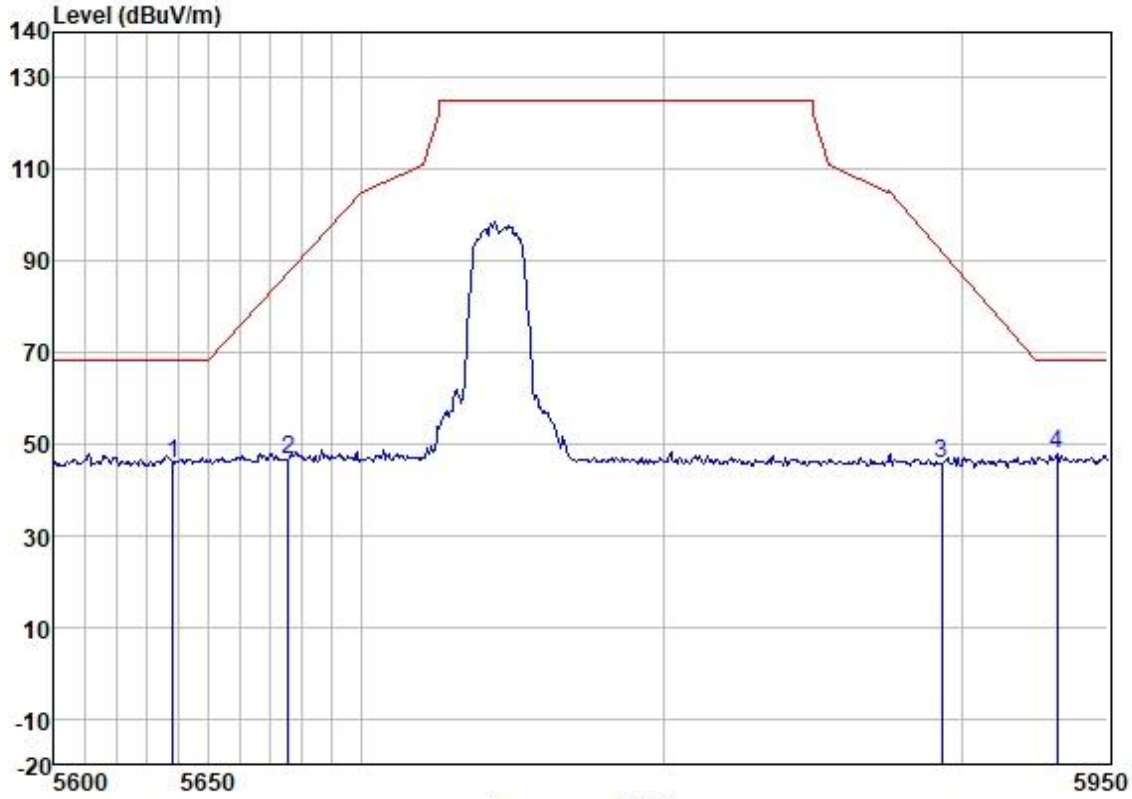
Test Mode: 06; Polarity: Horizontal; Modulation:802.11c; Bandwidth:80MHz; Channel: High



race: (Discrete)

	Freq	ReadLevel	AntennaFactor	CableLoss	PreampFactor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5725.000	44.19	32.07	6.25	36.15	46.36	68.20	-21.84	HORIZONTAL	Peak
2	5732.991	43.53	32.07	6.25	36.15	45.70	68.20	-22.50	HORIZONTAL	Peak

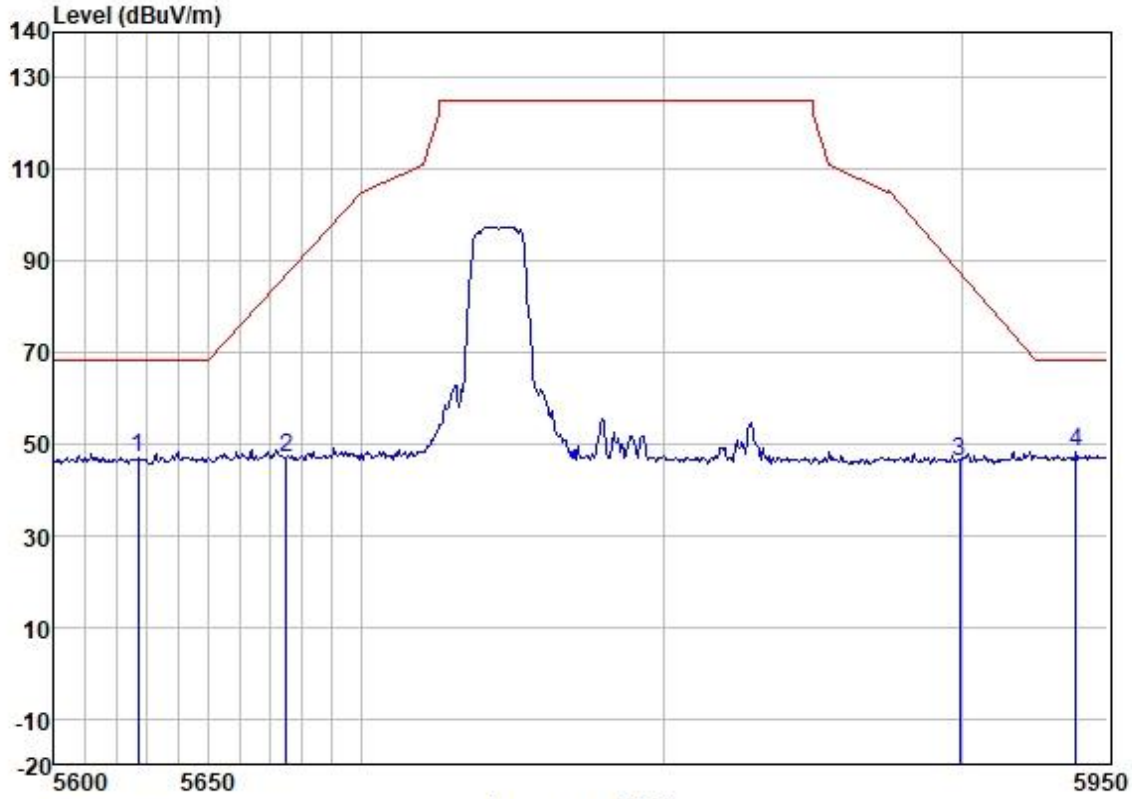
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5638.495	43.57	31.93	6.33	36.16	45.67	68.20	-22.53	VERTICAL	Peak
2	5675.878	44.32	31.99	6.38	36.16	46.53	87.39	-40.86	VERTICAL	Peak
3	5893.279	43.67	32.31	5.90	36.12	45.76	91.68	-45.92	VERTICAL	Peak
4	5932.351	45.46	32.34	6.00	36.11	47.69	68.20	-20.51	VERTICAL	Peak

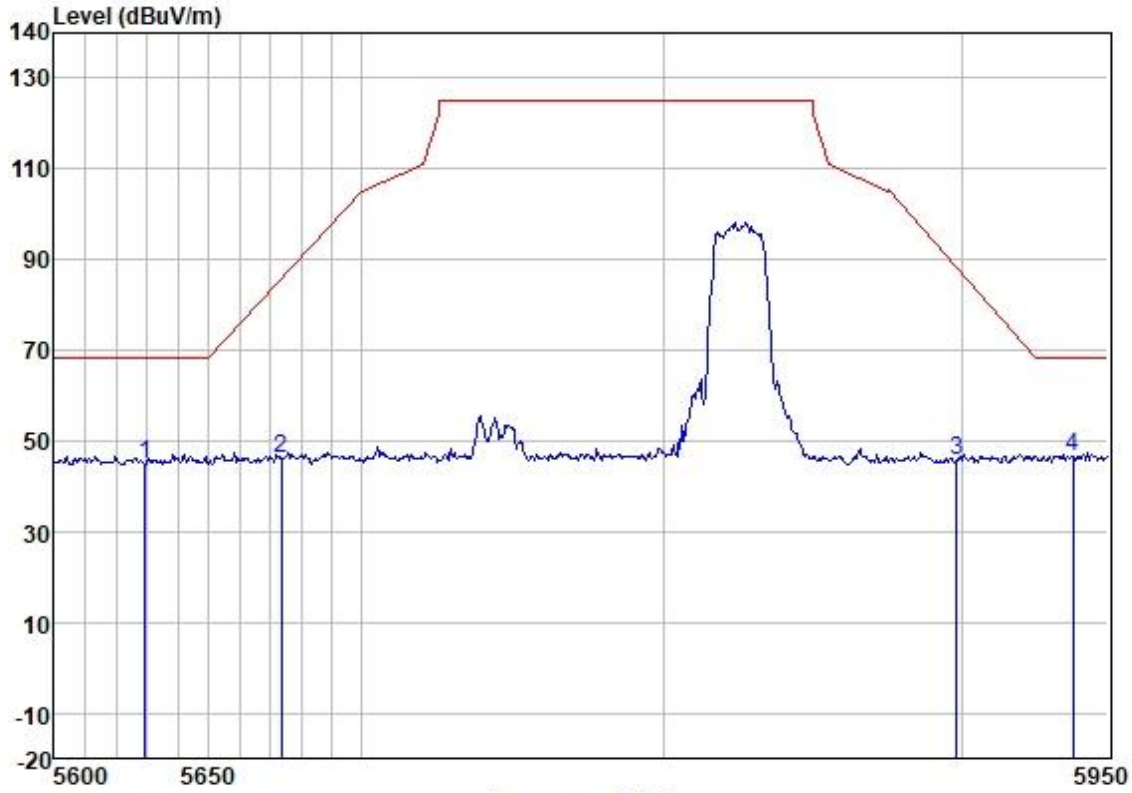
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (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	5627.226	44.69	31.93	6.33	36.17	46.78	68.20	-21.42	HORIZONTAL	Peak
2	5675.190	44.85	31.99	6.38	36.16	47.06	86.88	-39.82	HORIZONTAL	Peak
3	5899.356	44.23	32.31	5.90	36.12	46.32	87.17	-40.85	HORIZONTAL	Peak
4	5938.828	46.04	32.34	6.00	36.11	48.27	68.20	-19.93	HORIZONTAL	Peak

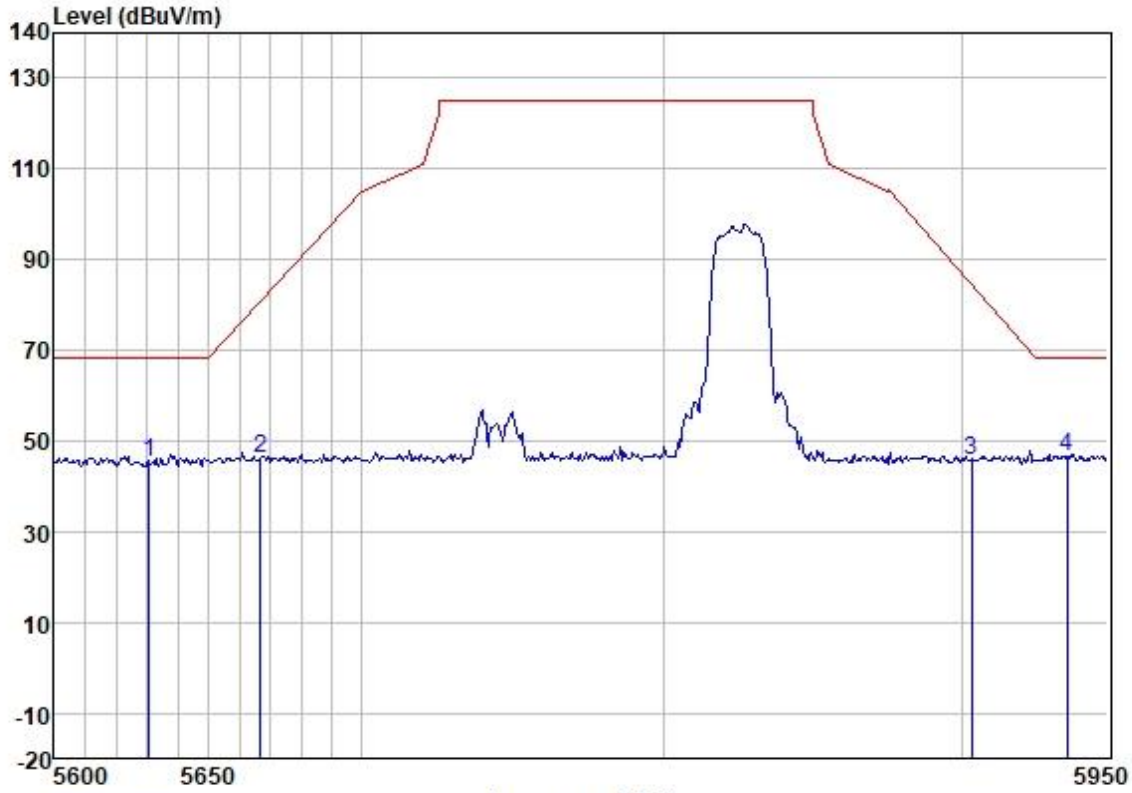
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (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	5629.273	42.86	31.93	6.33	36.17	44.95	68.20	-23.25	VERTICAL	Peak
2	5673.814	43.84	31.99	6.38	36.16	46.05	85.86	-39.81	VERTICAL	Peak
3	5898.283	43.49	32.31	5.90	36.12	45.58	87.97	-42.39	VERTICAL	Peak
4	5938.108	44.28	32.34	6.00	36.11	46.51	68.20	-21.69	VERTICAL	Peak

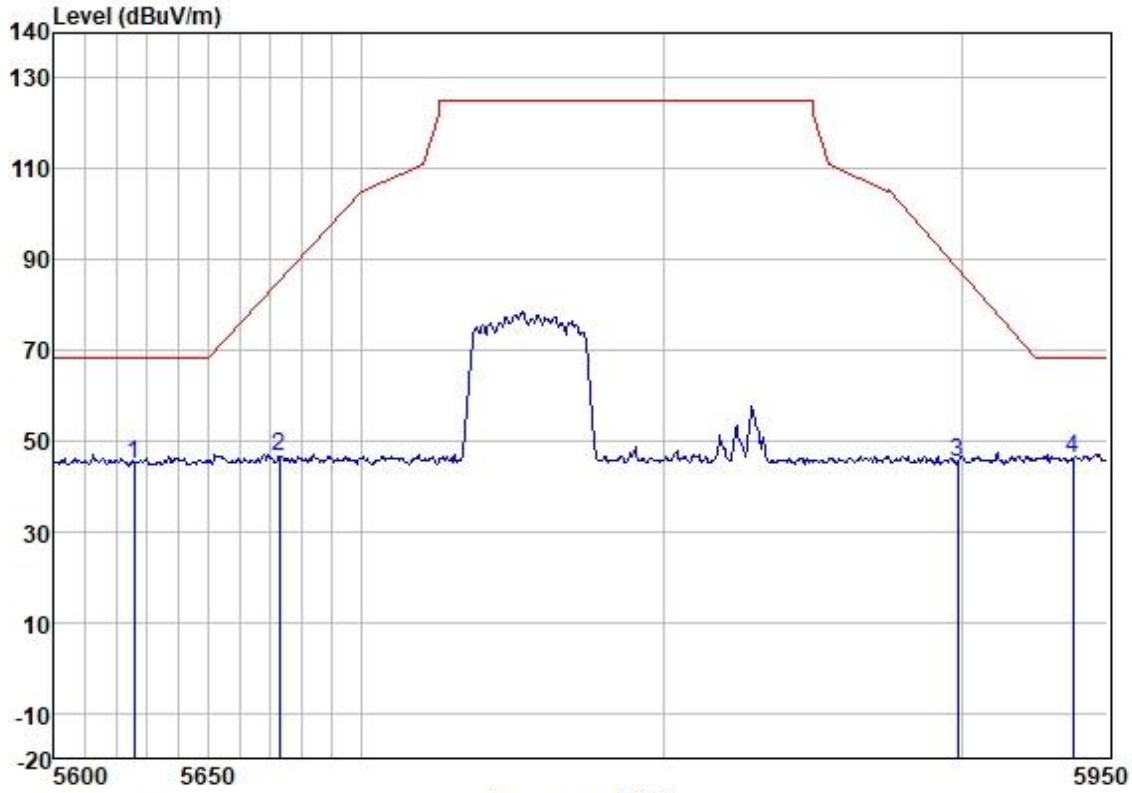
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel: High



race: (Discrete)

	Freq	ReadLevel	AntennaFactor	CableLoss	PreampFactor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5630.638	43.18	31.93	6.33	36.17	45.27	68.20	-22.93	HORIZONTAL	Peak
2	5666.938	43.96	31.97	6.37	36.16	46.14	80.77	-34.63	HORIZONTAL	Peak
3	5903.291	43.72	32.31	5.90	36.12	45.81	84.26	-38.45	HORIZONTAL	Peak
4	5935.949	44.47	32.34	6.00	36.11	46.70	68.20	-21.50	HORIZONTAL	Peak

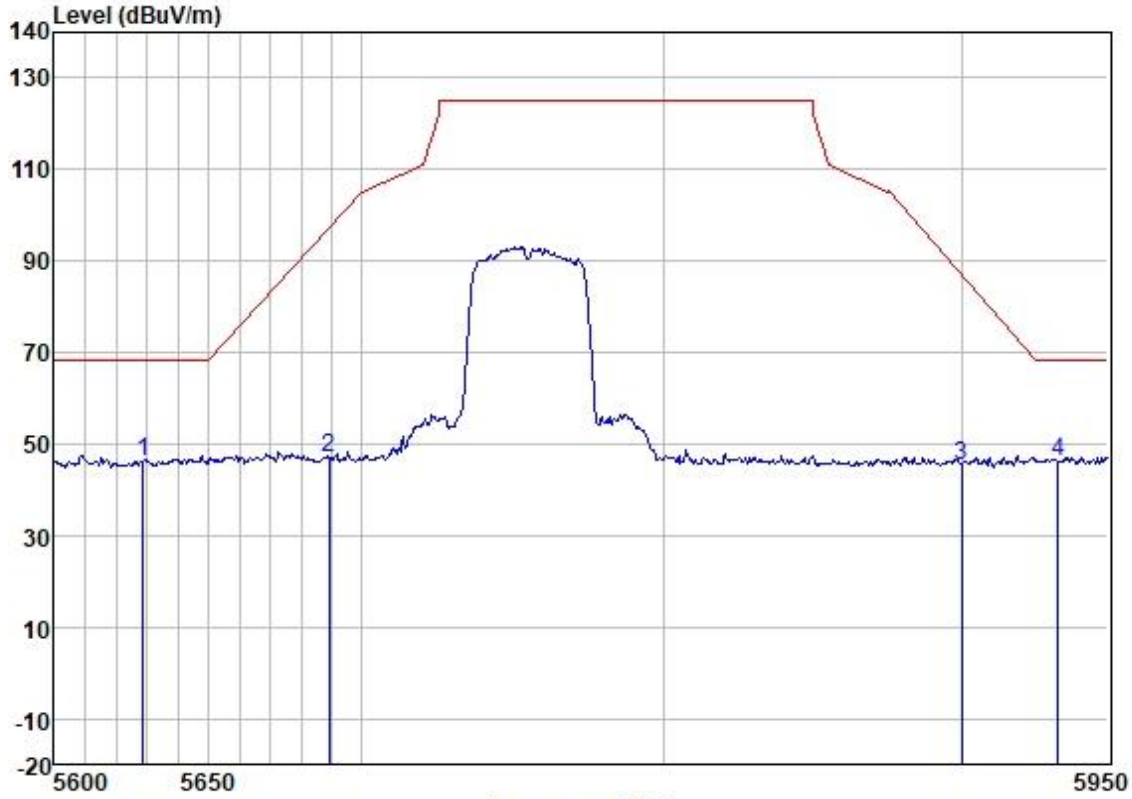
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (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	5625.861	42.90	31.93	6.33	36.17	44.99	68.20	-23.21	VERTICAL	Peak
2	5673.126	44.26	31.99	6.38	36.16	46.47	85.35	-38.88	VERTICAL	Peak
3	5898.641	43.40	32.31	5.90	36.12	45.49	87.70	-42.21	VERTICAL	Peak
4	5938.108	44.01	32.34	6.00	36.11	46.24	68.20	-21.96	VERTICAL	Peak

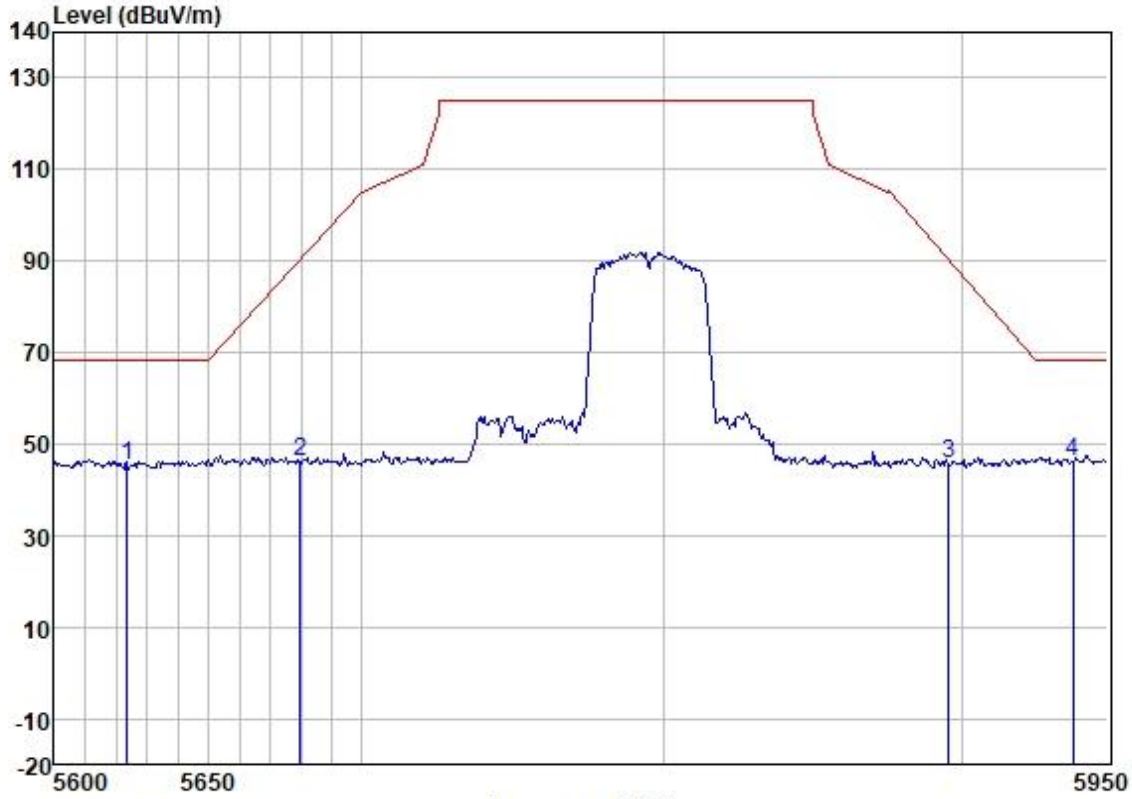
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5628.590	44.19	31.93	6.33	36.17	46.28	68.20	-21.92	HORIZONTAL	Peak
2	5689.313	44.72	32.01	6.40	36.15	46.98	97.32	-50.34	HORIZONTAL	Peak
3	5900.071	43.31	32.31	5.90	36.12	45.40	86.64	-41.24	HORIZONTAL	Peak
4	5932.711	43.96	32.34	6.00	36.11	46.19	68.20	-22.01	HORIZONTAL	Peak

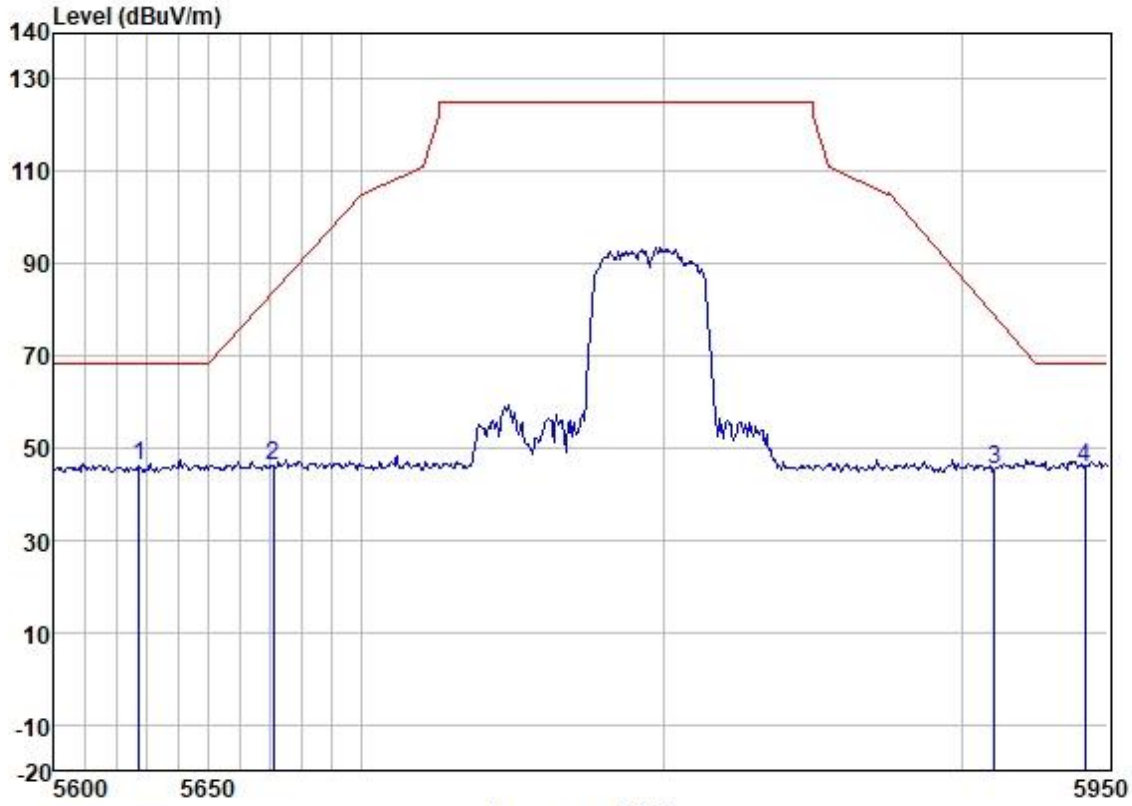
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel: High



race: (Discrete)

	Freq	ReadLevel	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	5623.475	43.29	31.91	6.32	36.17	45.35	68.20	-22.85	VERTICAL	Peak
2	5679.665	43.94	31.99	6.38	36.16	46.15	90.19	-44.04	VERTICAL	Peak
3	5895.780	43.58	32.31	5.90	36.12	45.67	89.83	-44.16	VERTICAL	Peak
4	5938.108	43.87	32.34	6.00	36.11	46.10	68.20	-22.10	VERTICAL	Peak

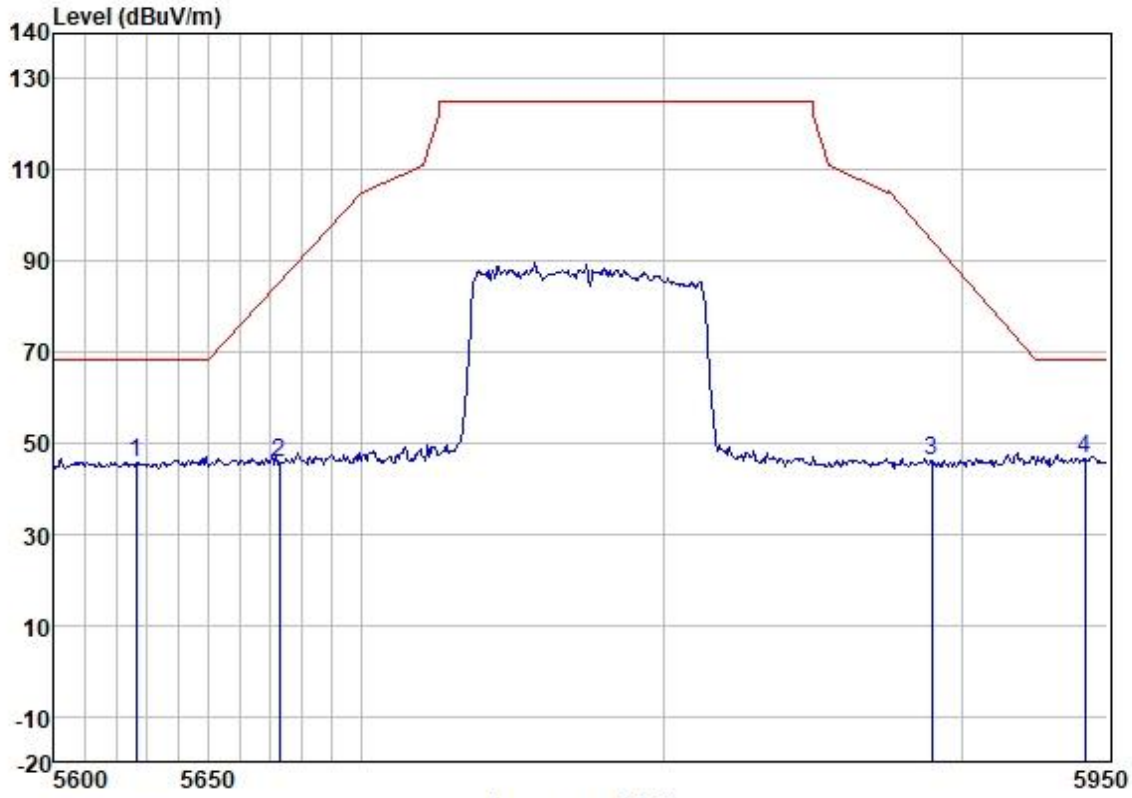
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel: High



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	5627.567	43.83	31.93	6.33	36.17	45.92	68.20	-22.28	HORIZONTAL	Peak
2	5671.063	44.02	31.97	6.37	36.16	46.20	83.83	-37.63	HORIZONTAL	Peak
3	5911.170	43.09	32.33	5.95	36.12	45.25	78.42	-33.17	HORIZONTAL	Peak
4	5942.069	43.58	32.36	6.05	36.11	45.88	68.20	-22.32	HORIZONTAL	Peak

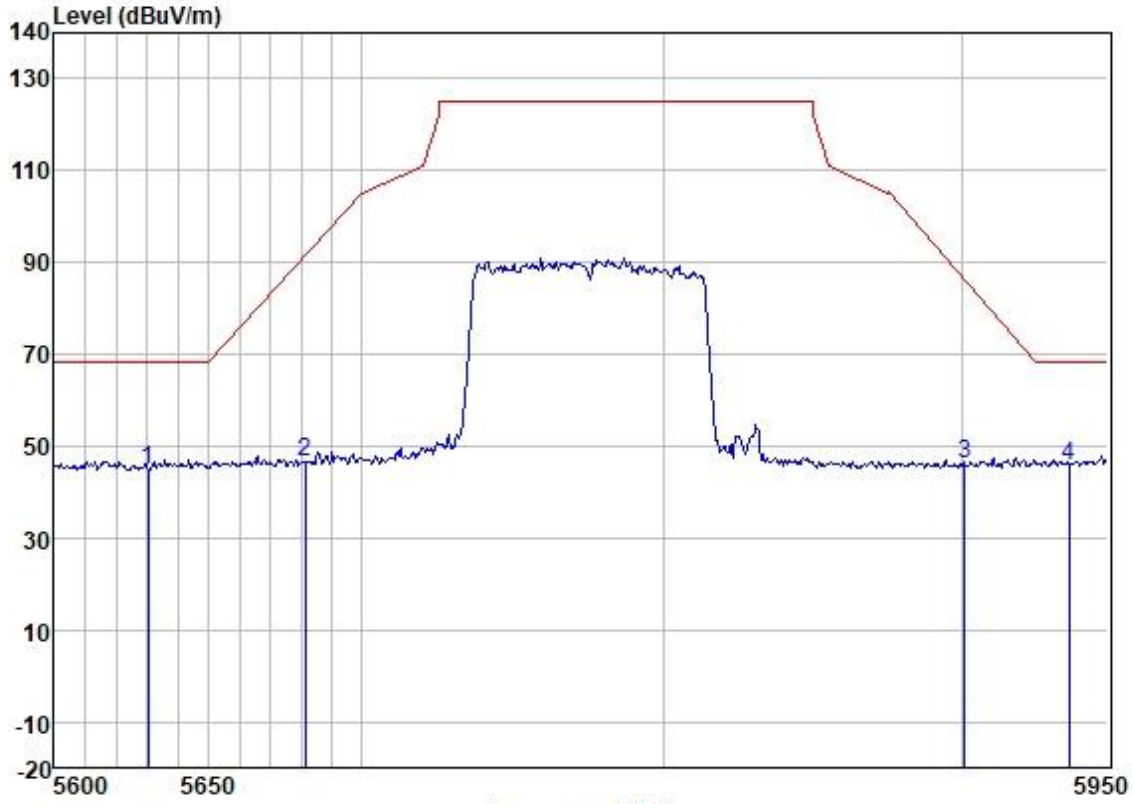
Test Mode: 07; Polarity: Vertical; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5626.543	43.43	31.93	6.33	36.17	45.52	68.20	-22.68	VERTICAL	Peak
2	5673.126	43.29	31.99	6.38	36.16	45.50	85.35	-39.85	VERTICAL	Peak
3	5890.064	43.85	32.31	5.90	36.12	45.94	94.07	-48.13	VERTICAL	Peak
4	5942.069	44.06	32.36	6.05	36.11	46.36	68.20	-21.84	VERTICAL	Peak

Test Mode: 07; Polarity: Horizontal; Modulation:802.11c; Bandwidth:80MHz; Channel:Low



race: (Discrete)

	Freq	ReadLevel	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	5630.297	42.80	31.93	6.33	36.17	44.89	68.20	-23.31	HORIZONTAL	Peak
2	5681.386	44.56	31.99	6.38	36.16	46.77	91.46	-44.69	HORIZONTAL	Peak
3	5901.144	44.23	32.31	5.90	36.12	46.32	85.85	-39.53	HORIZONTAL	Peak
4	5936.668	43.54	32.34	6.00	36.11	45.77	68.20	-22.43	HORIZONTAL	Peak

7.10 Frequency Stability

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

7.10.1 E.U.T. Operation

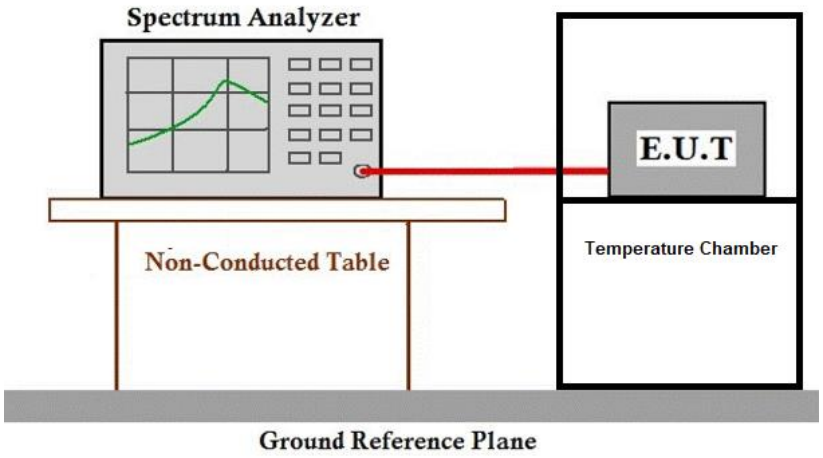
Operating Environment:

Temperature: 27.4 °C Humidity: 57.8 % RH Atmospheric Pressure: 1006 mbar

7.10.2 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), final test modes are considering the modulation and worse data rates. 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), final test modes are considering the modulation and worse data rates. 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), final test modes are considering the modulation and worse data rates. 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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram



7.10.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.11 Radiated Emissions (Below 1GHz)

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

Test Method: KDB 789033 D02 II G

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

7.11.1 E.U.T. Operation

Operating Environment:

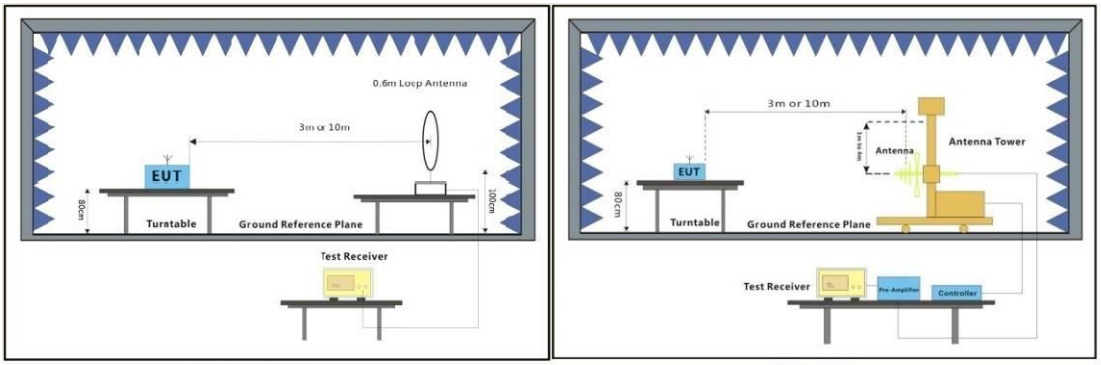
Temperature: 26.0 °C Humidity: 56.3 % RH Atmospheric Pressure: 1006 mbar

7.11.2 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), final test modes are considering the modulation and worse data rates. 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), final test modes are considering the modulation and worse data rates. 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), final test modes are considering the modulation and

		worse data rates. Only the data of worst case is recorded in the report.
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), final test modes are considering the modulation and worse data rates. Only the data of worst case is recorded in the report.

7.11.3 Test Setup Diagram



Below 30MHz　　30MHz-1GHz

7.11.4 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:

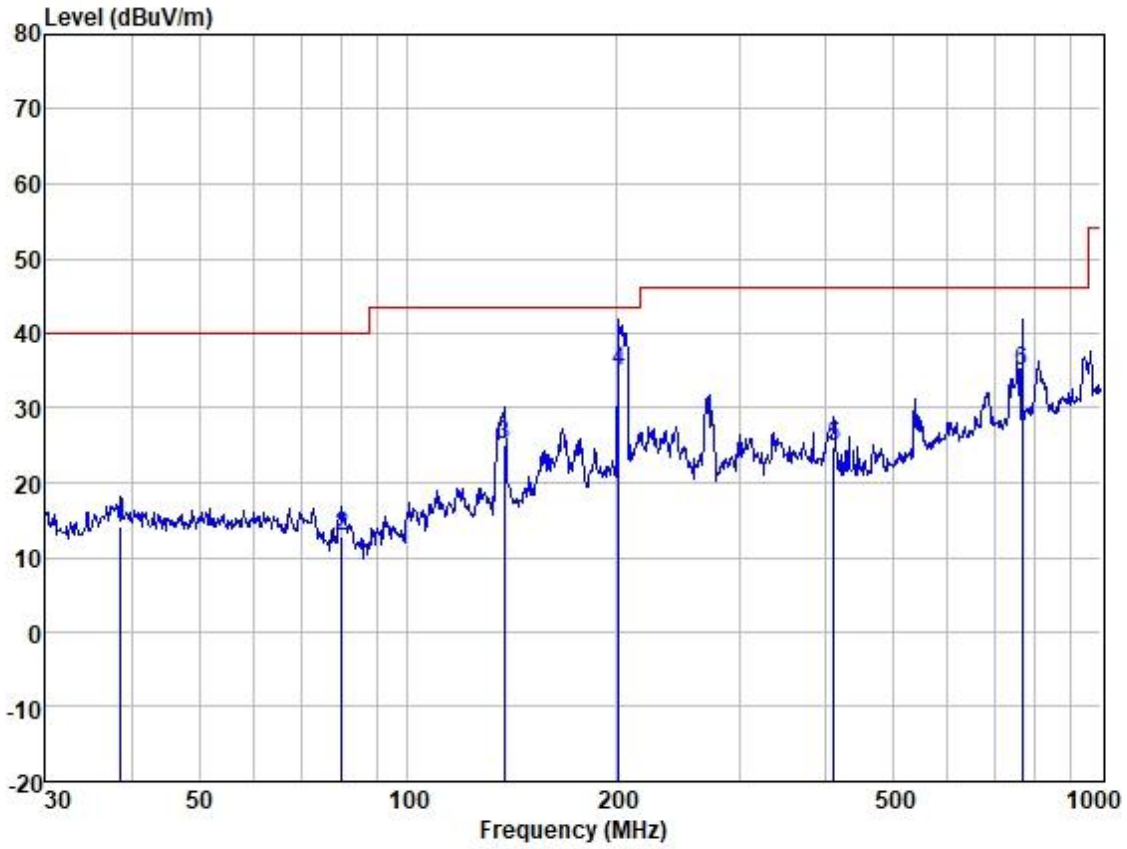
1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

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.

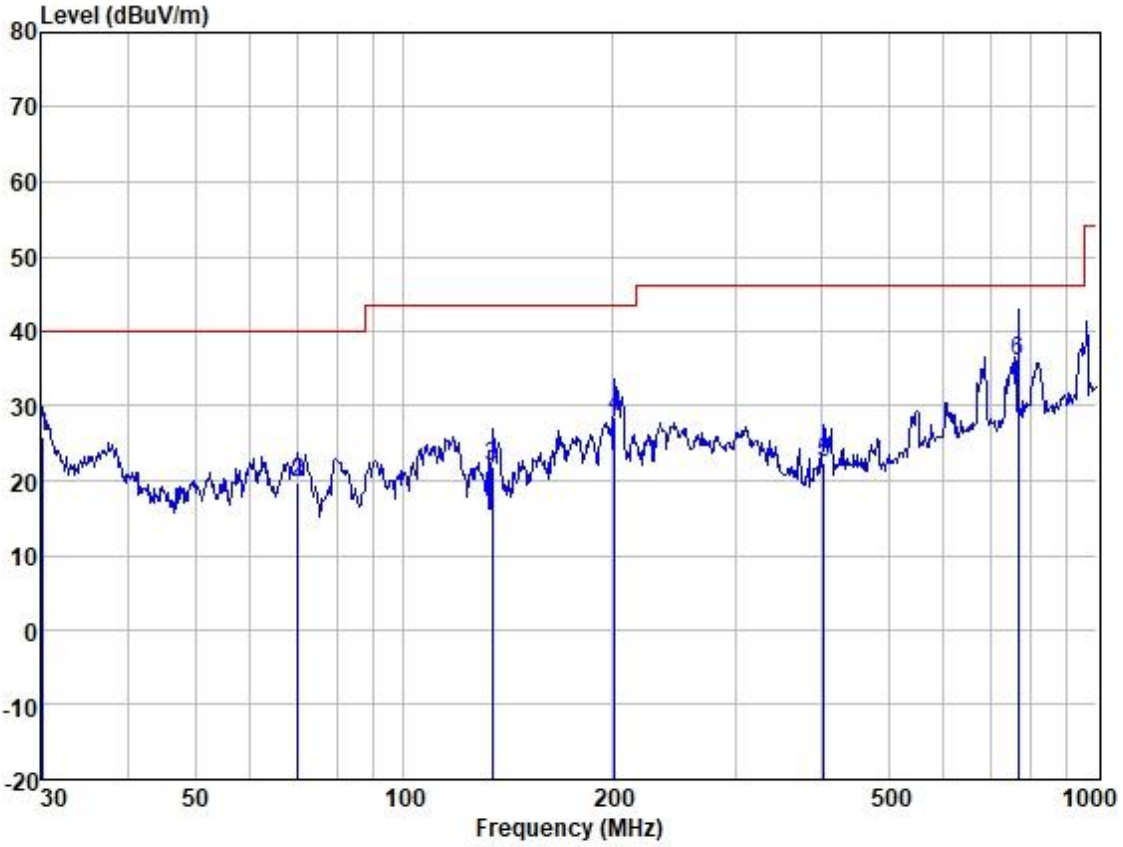
Test Mode: 04; Polarity: Horizontal



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

	Freq	Read Level	Anterna 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	38.481	27.31	13.40	1.09	27.61	14.19	40.00	-25.81	HORIZONTAL	QP
2	80.362	29.86	9.10	1.48	27.60	12.84	40.00	-27.16	HORIZONTAL	QP
3	137.420	37.57	12.91	2.05	27.48	25.05	43.50	-18.45	HORIZONTAL	QP
4	201.393	49.59	10.05	2.53	27.30	34.87	43.50	-8.63	HORIZONTAL	QP
5	411.824	32.95	15.79	3.99	28.05	24.68	46.00	-21.32	HORIZONTAL	QP
6	768.748	35.28	22.14	6.05	28.62	34.85	46.00	-11.15	HORIZONTAL	QP

Test Mode: 04; Polarity: Vertical

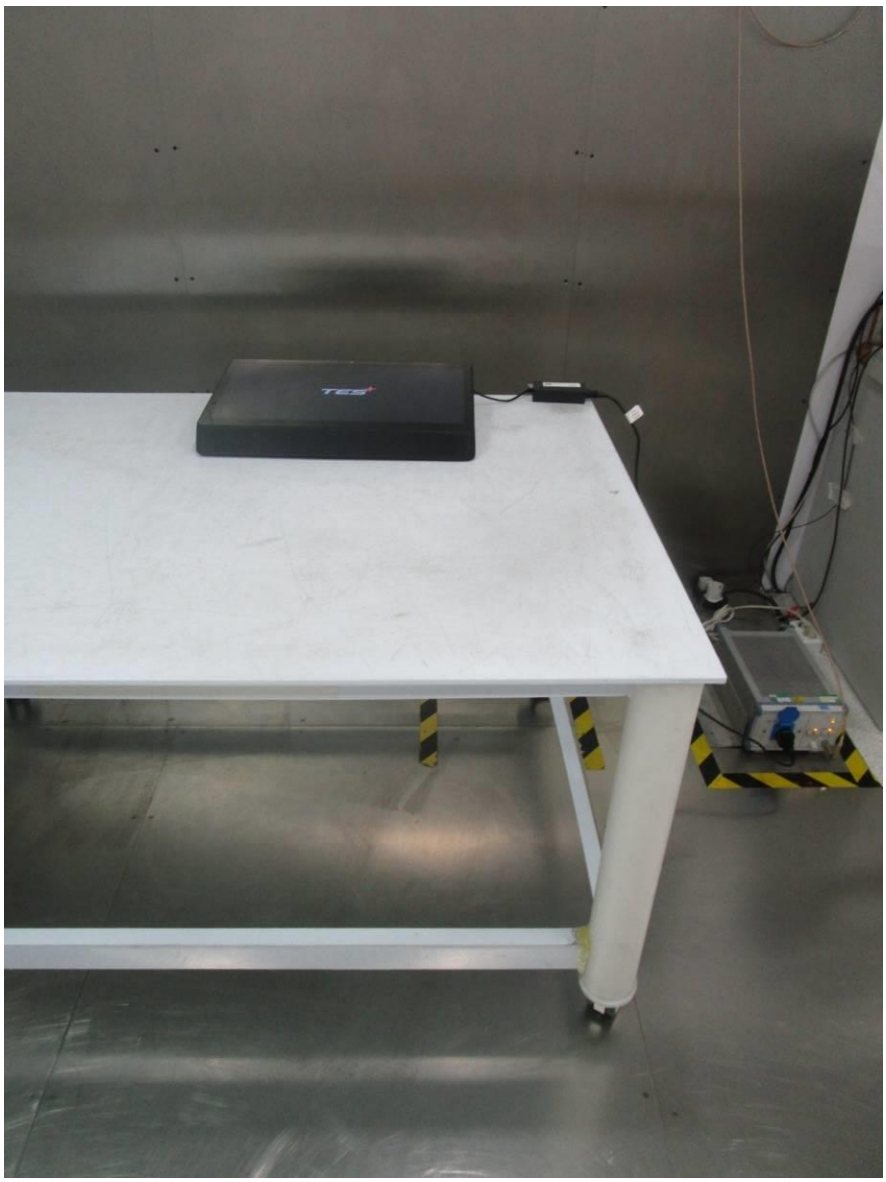


Site : SGS
Job :
Model :
Power :
Test Mode :

	Freq	Read Level	Anterna 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	30.105	39.48	12.94	1.02	27.67	25.77	40.00	-14.23	VERTICAL	QP
2	70.337	34.41	11.46	1.41	27.60	19.68	40.00	-20.32	VERTICAL	QP
3	134.088	34.86	12.56	2.01	27.51	21.92	43.50	-21.58	VERTICAL	QP
4	201.393	43.34	10.05	2.53	27.30	28.62	43.50	-14.88	VERTICAL	QP
5	403.250	30.84	15.62	3.95	28.01	22.40	46.00	-23.60	VERTICAL	QP
6	768.748	36.32	22.14	6.05	28.62	35.89	46.00	-10.11	VERTICAL	QP

8 Test Setup Photo

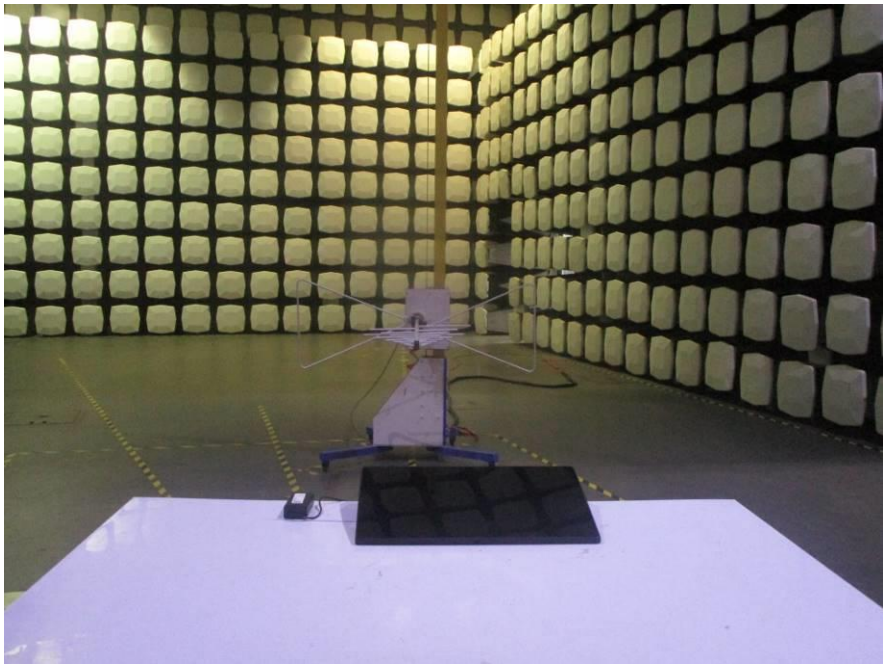
Conducted Emissions at AC Power Line (150kHz-30MHz)



Radiated Emissions (Above 1GHz)

Radiated Emissions which fall in the restricted bands

Radiated Emissions (Below 1GHz)



9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for GZCR2208001061AT

10 Appendix

1. Duty Cycle

1.1 Ant1

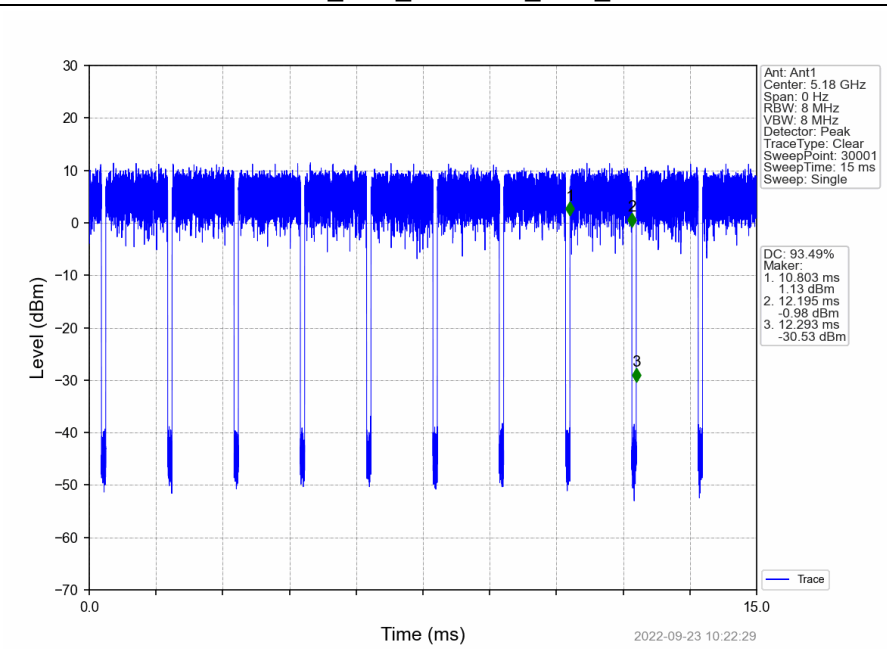
1.1.1 Test Result

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	1.393	1.490	93.49	0.29	0.04
		5200	1.393	1.491	93.43	0.30	0.03
		5240	1.393	1.490	93.49	0.29	0.03
		5260	1.393	1.491	93.43	0.30	0.03
		5300	1.392	1.490	93.42	0.30	0.03
		5320	1.393	1.491	93.43	0.30	0.03
		5500	1.393	1.491	93.43	0.30	0.06
		5580	1.394	1.491	93.49	0.29	0.03
		5700	1.393	1.490	93.49	0.29	0.03
		5745	1.393	1.490	93.49	0.29	0.03
		5785	1.394	1.491	93.49	0.29	0.03
		5825	1.393	1.490	93.49	0.29	0.03
802.11n (HT20)	MIMO	5180	1.300	1.398	92.99	0.32	0.07
		5200	1.300	1.398	92.99	0.32	0.06
		5240	1.300	1.398	92.99	0.32	0.04
		5260	1.301	1.398	93.06	0.31	0.04
		5300	1.300	1.398	92.99	0.32	0.03
		5320	1.301	1.398	93.06	0.31	0.03
		5500	1.301	1.398	93.06	0.31	0.03
		5580	1.301	1.399	92.99	0.32	0.06
		5700	1.301	1.399	92.99	0.32	0.03
		5745	1.301	1.398	93.06	0.31	0.03
		5785	1.300	1.398	92.99	0.32	0.03
		5825	1.300	1.398	92.99	0.32	0.03
802.11n (HT40)	MIMO	5190	0.649	0.746	87.00	0.60	0.03
		5230	0.649	0.746	87.00	0.60	0.04
		5270	0.648	0.746	86.86	0.61	0.00
		5310	0.649	0.746	87.00	0.60	0.04
		5510	0.649	0.746	87.00	0.60	0.03
		5550	0.648	0.746	86.86	0.61	0.04

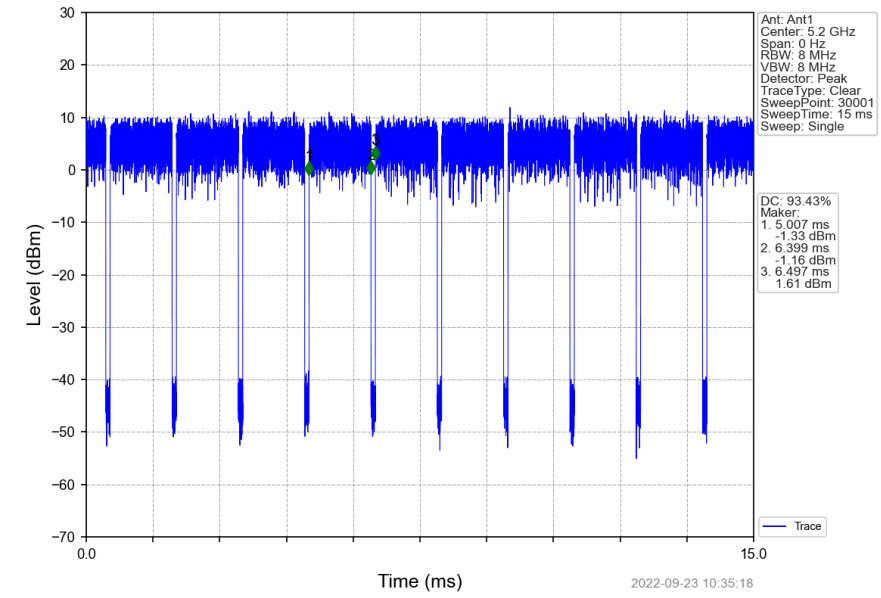
		5670	0.648	0.746	86.86	0.61	0.04
		5755	0.648	0.745	86.98	0.61	0.04
		5795	0.649	0.746	87.00	0.60	0.03
802.11ac (VHT20)	MIMO	5180	1.313	1.411	93.05	0.31	0.04
		5200	1.312	1.410	93.05	0.31	0.07
		5240	1.312	1.410	93.05	0.31	0.07
		5260	1.312	1.410	93.05	0.31	0.03
		5300	1.313	1.410	93.12	0.31	0.03
		5320	1.312	1.410	93.05	0.31	0.03
		5500	1.313	1.411	93.05	0.31	0.03
		5580	1.312	1.410	93.05	0.31	0.03
		5700	1.313	1.410	93.12	0.31	0.03
		5745	1.313	1.410	93.12	0.31	0.03
		5785	1.313	1.411	93.05	0.31	0.03
		5825	1.313	1.411	93.05	0.31	0.03
802.11ac (VHT40)	MIMO	5190	0.652	0.750	86.93	0.61	0.07
		5230	0.653	0.750	87.07	0.60	0.04
		5270	0.653	0.750	87.07	0.60	0.04
		5310	0.652	0.750	86.93	0.61	0.04
		5510	0.652	0.750	86.93	0.61	0.07
		5550	0.652	0.750	86.93	0.61	0.04
		5670	0.653	0.750	87.07	0.60	0.04
		5755	0.653	0.751	86.95	0.61	0.06
		5795	0.653	0.750	87.07	0.60	0.03
802.11ac (VHT80)	MIMO	5210	0.650	0.845	76.92	1.14	0.03
		5290	0.650	0.845	76.92	1.14	0.03
		5530	0.650	0.844	77.01	1.13	0.02
		5610	0.650	0.845	76.92	1.14	0.02
		5775	0.656	0.845	77.63	1.10	0.07

1.1.2 Test Graph

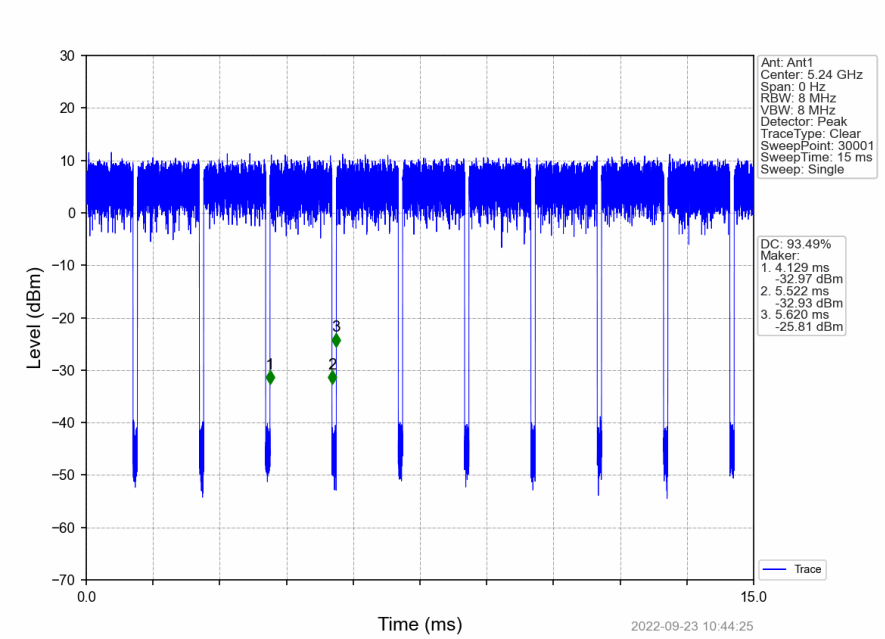
802.11a_LCH_5180MHz_Ant1_NTNV



802.11a_MCH_5200MHz_Ant1_NTNV



802.11a_HCH_5240MHz_Ant1_NTNV



802.11a_LCH_5260MHz_Ant1_NTNV