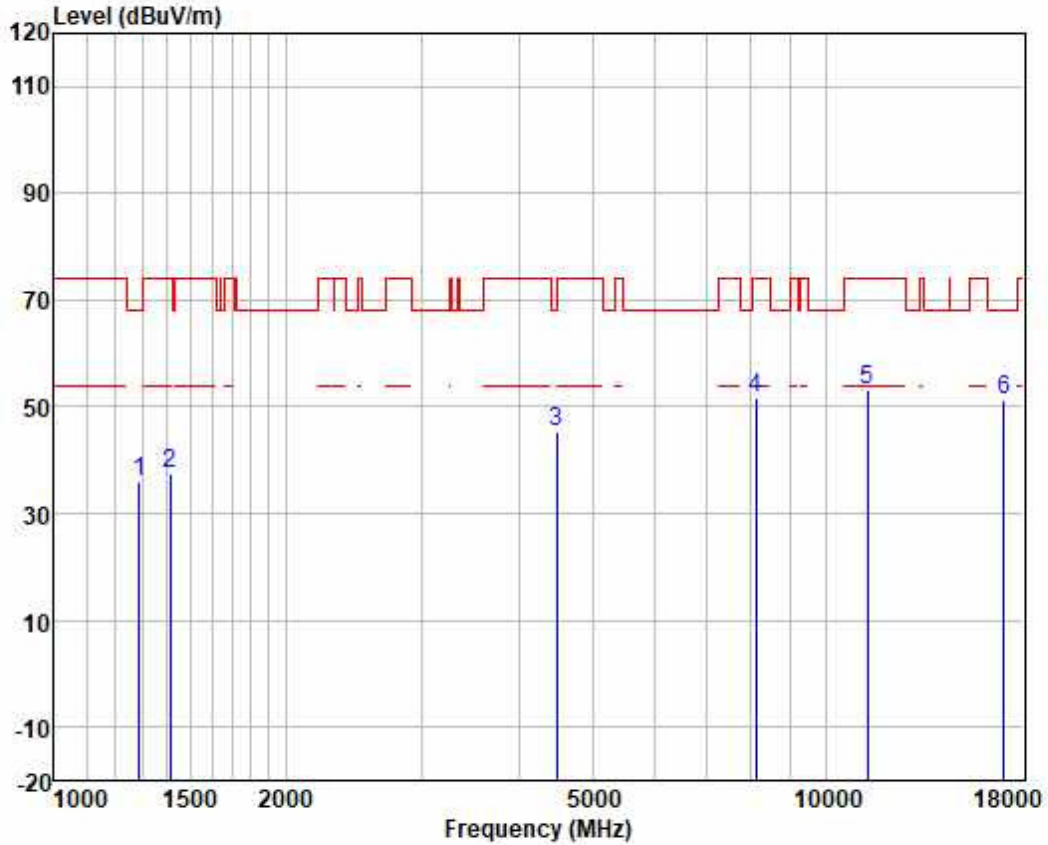


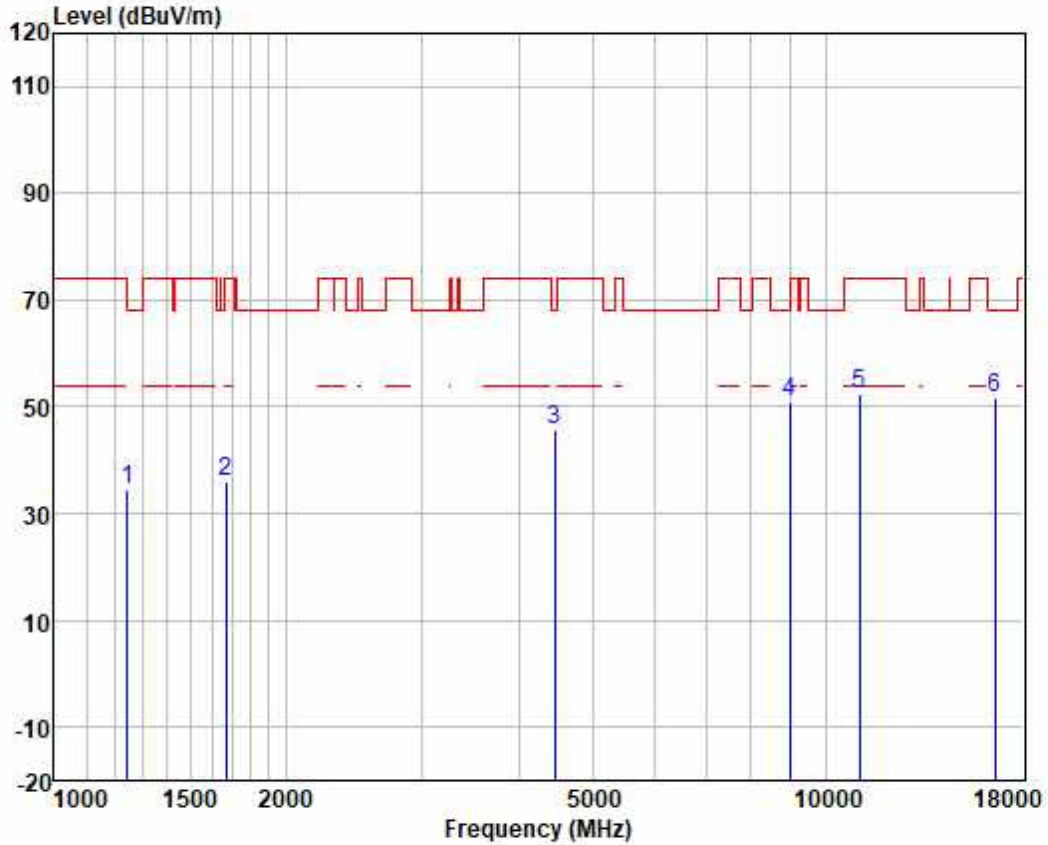
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	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	1289.627	48.09	23.92	2.58	38.60	35.99	68.20	-32.21	HORIZONTAL	peak
2	1414.597	48.99	24.29	2.67	38.47	37.48	74.00	-36.52	HORIZONTAL	peak
3	4482.150	44.12	34.12	4.62	37.44	45.42	68.20	-22.78	HORIZONTAL	peak
4	8129.664	45.75	36.99	6.26	37.20	51.80	74.00	-22.20	HORIZONTAL	peak
5	11340.000	42.16	40.31	7.59	36.94	53.12	74.00	-20.88	HORIZONTAL	peak
6	17010.000	36.89	41.57	9.43	36.42	51.47	68.20	-16.73	HORIZONTAL	peak



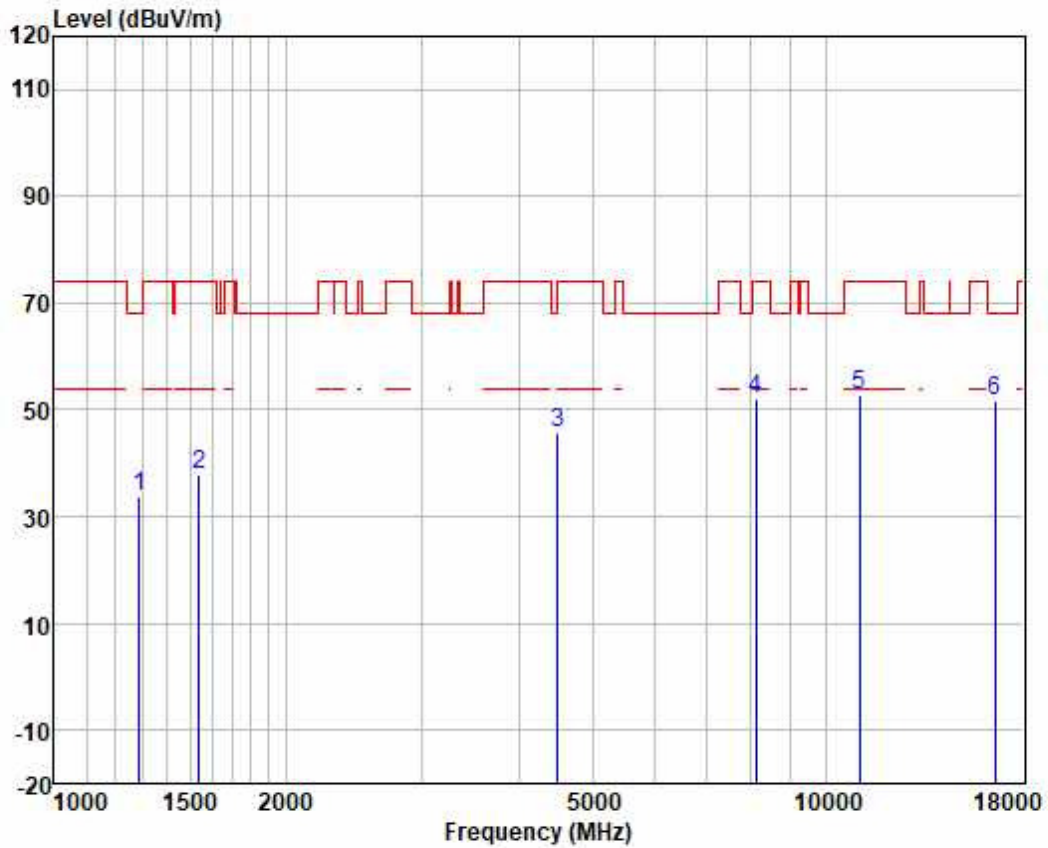
Test Mode: 06; Polarity: Vertical; Modulation: 802.11ac; Bandwidth: 80MHz; Channel: Low



	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	1245.663	47.06	23.65	2.51	38.64	34.58	68.20	-33.62	VERTICAL	peak
2	1672.779	46.14	24.98	2.82	38.05	35.89	74.00	-38.11	VERTICAL	peak
3	4456.315	44.53	34.00	4.61	37.45	45.69	68.20	-22.51	VERTICAL	peak
4	8995.123	43.87	37.59	6.57	37.15	50.88	68.20	-17.32	VERTICAL	peak
5	11060.000	41.46	40.41	7.53	36.98	52.42	74.00	-21.58	VERTICAL	peak
6	16590.000	39.41	39.21	9.36	36.44	51.54	68.20	-16.66	VERTICAL	peak



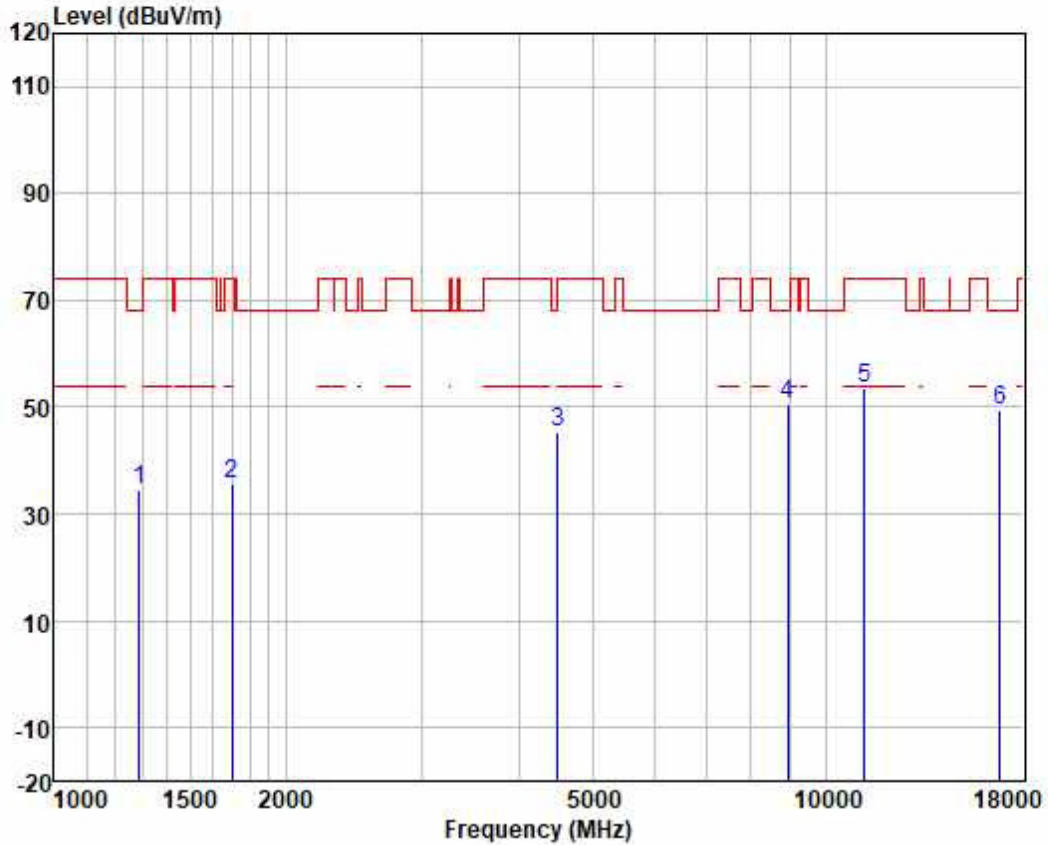
Test Mode: 06; Polarity: Horizontal; Modulation: 802.11ac; Bandwidth: 80MHz; Channel: Low



	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	1289.627	46.04	23.92	2.58	38.60	33.94	68.20	-34.26	HORIZONTAL	peak
2	1542.733	48.69	24.53	2.72	38.23	37.71	74.00	-36.29	HORIZONTAL	peak
3	4495.125	44.29	34.17	4.62	37.44	45.64	68.20	-22.56	HORIZONTAL	peak
4	8129.664	46.00	36.99	6.26	37.20	52.05	74.00	-21.95	HORIZONTAL	peak
5	11060.000	41.98	40.41	7.53	36.98	52.94	74.00	-21.06	HORIZONTAL	peak
6	16590.000	39.72	39.21	9.36	36.44	51.85	68.20	-16.35	HORIZONTAL	peak



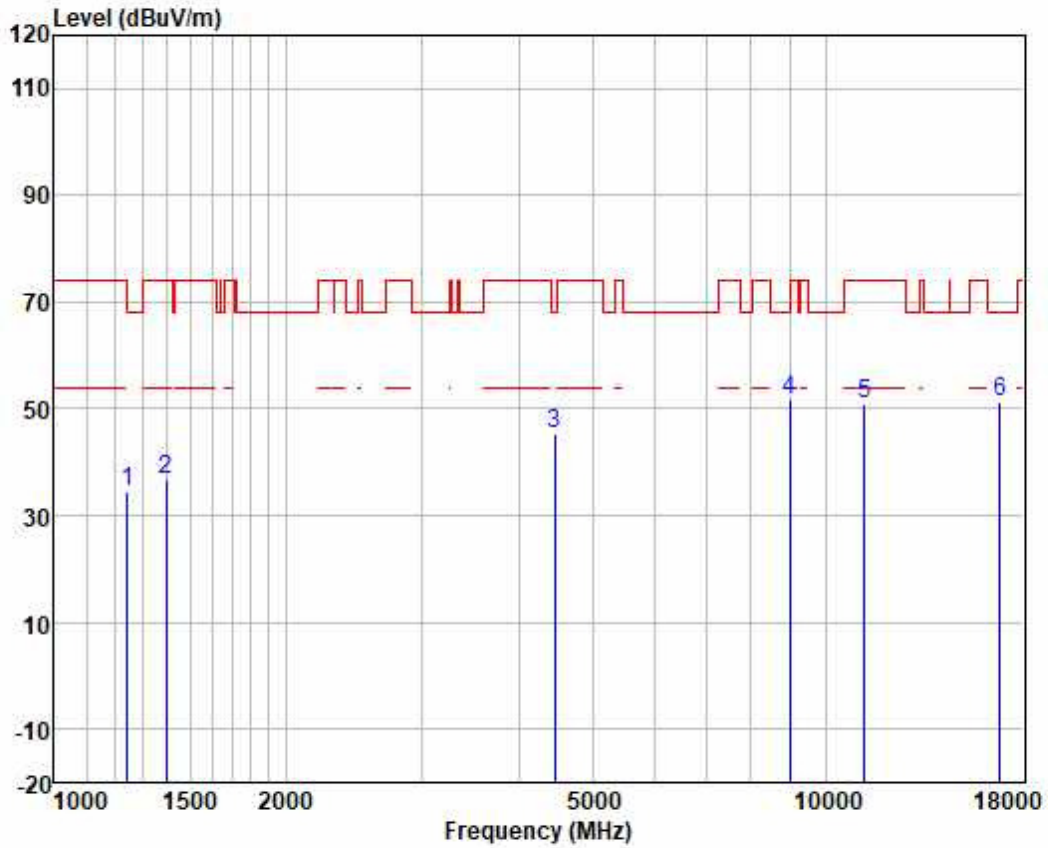
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



	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	1289.627	46.77	23.92	2.58	38.60	34.67	68.20	-33.53	VERTICAL	peak
2	1702.042	45.62	25.15	2.85	38.03	35.59	74.00	-38.41	VERTICAL	peak
3	4495.125	43.82	34.17	4.62	37.44	45.17	68.20	-23.03	VERTICAL	peak
4	8943.274	43.82	37.50	6.56	37.16	50.72	68.20	-17.48	VERTICAL	peak
5	11220.000	42.46	40.36	7.56	36.96	53.42	74.00	-20.58	VERTICAL	peak
6	16830.000	35.76	40.78	9.41	36.43	49.52	68.20	-18.68	VERTICAL	peak



Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; 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	1245.663	47.03	23.65	2.51	38.64	34.55	68.20	-33.65	HORIZONTAL	peak
2	1398.336	48.35	24.26	2.66	38.49	36.78	74.00	-37.22	HORIZONTAL	peak
3	4456.315	44.24	34.00	4.61	37.45	45.40	68.20	-22.80	HORIZONTAL	peak
4	8995.123	44.78	37.59	6.57	37.15	51.79	68.20	-16.41	HORIZONTAL	peak
5	11220.000	40.16	40.36	7.56	36.96	51.12	74.00	-22.88	HORIZONTAL	peak
6	16830.000	37.68	40.78	9.41	36.43	51.44	68.20	-16.76	HORIZONTAL	peak



7.5 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: ANSI C63.10 (2013) Section 6.10.5

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.

7.5.1 E.U.T. Operation

Operating Environment:

Temperature: 23.6 °C

Humidity: 55.9 % RH

Atmospheric Pressure: 1020 mbar



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch, EMC Laboratory

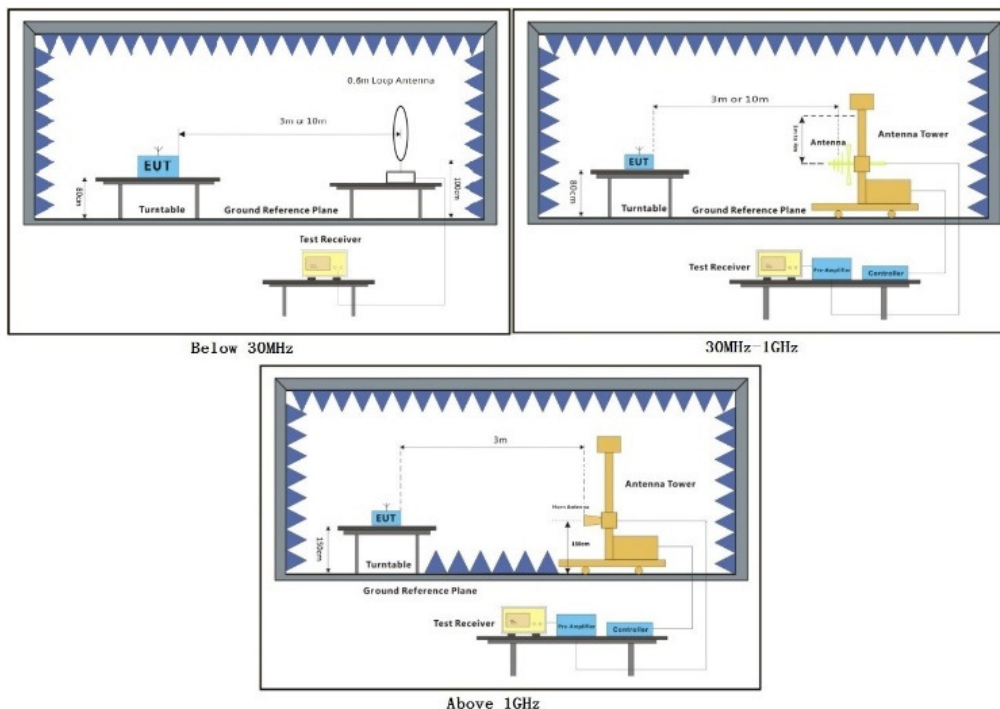
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

7.5.2 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, Only the data of worst case is recorded in the report.

7.5.3 Test Setup Diagram



7.5.4 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.

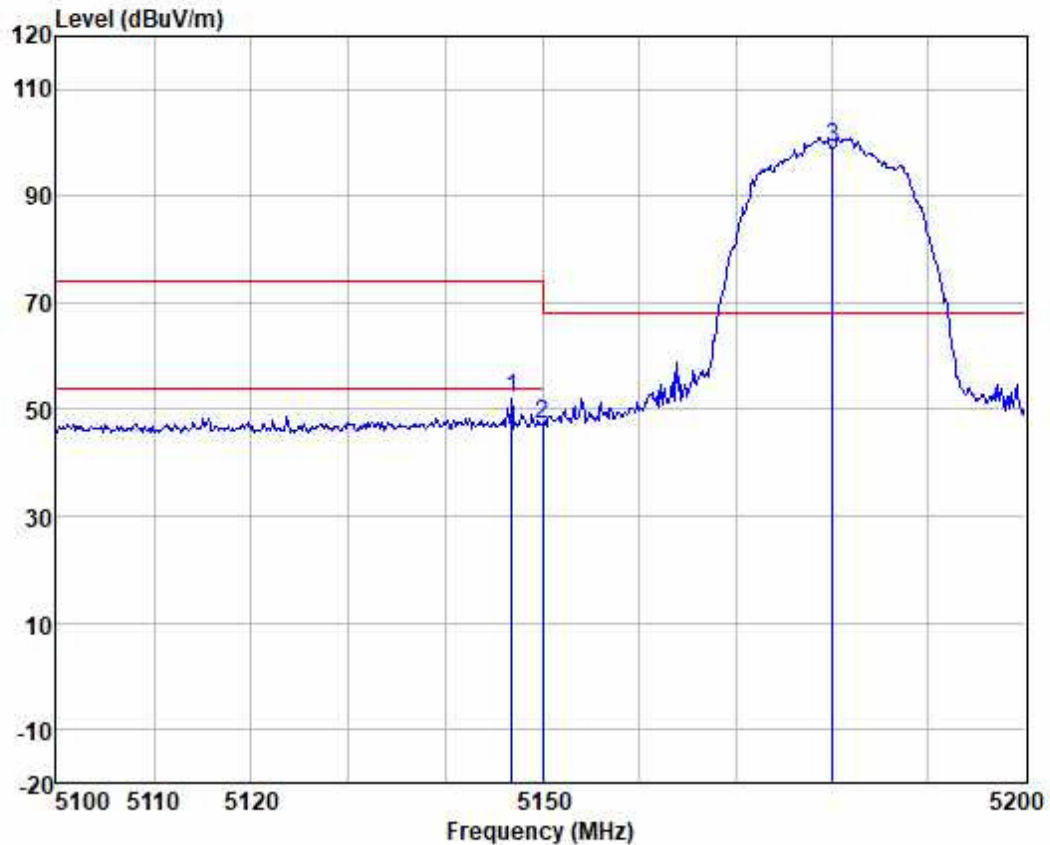
Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for Peak detection (PK) and Average detection (AV) at frequency above 1GHz.

Remark 3. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.



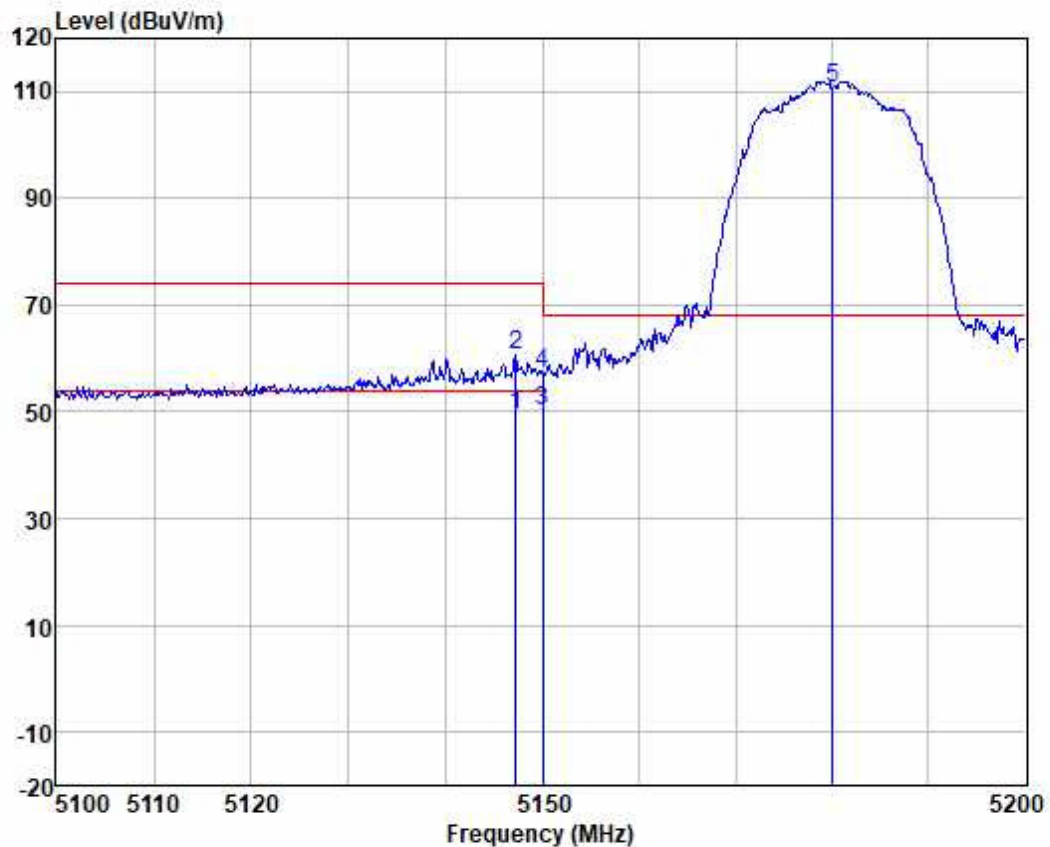
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	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	5146.858	50.71	33.79	4.96	37.23	52.23	74.00	-21.77	VERTICAL peak
2	5150.000	45.76	33.79	4.96	37.23	47.28	68.20	-20.92	VERTICAL peak
3 *	5180.000	97.64	33.69	4.98	37.22	99.09	68.20	30.89	VERTICAL peak



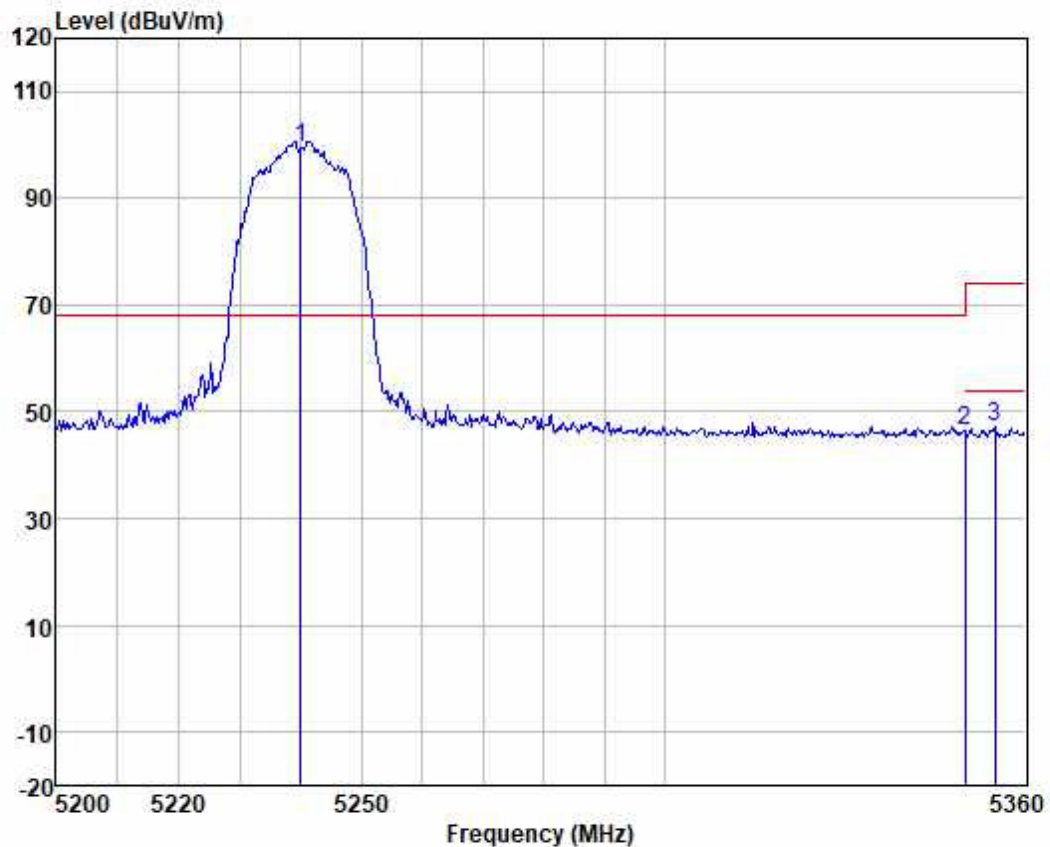
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	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	5147.258	47.79	33.79	4.96	37.23	49.31	54.00	-4.69	HORIZONTAL	Average
2	5147.258	59.13	33.79	4.96	37.23	60.65	74.00	-13.35	HORIZONTAL	peak
3	5150.000	48.67	33.79	4.96	37.23	50.19	54.00	-3.81	HORIZONTAL	Average
4	5150.000	55.89	33.79	4.96	37.23	57.41	68.20	-10.79	HORIZONTAL	peak
5 *	5180.000	109.28	33.69	4.98	37.22	110.73	68.20	42.53	HORIZONTAL	peak



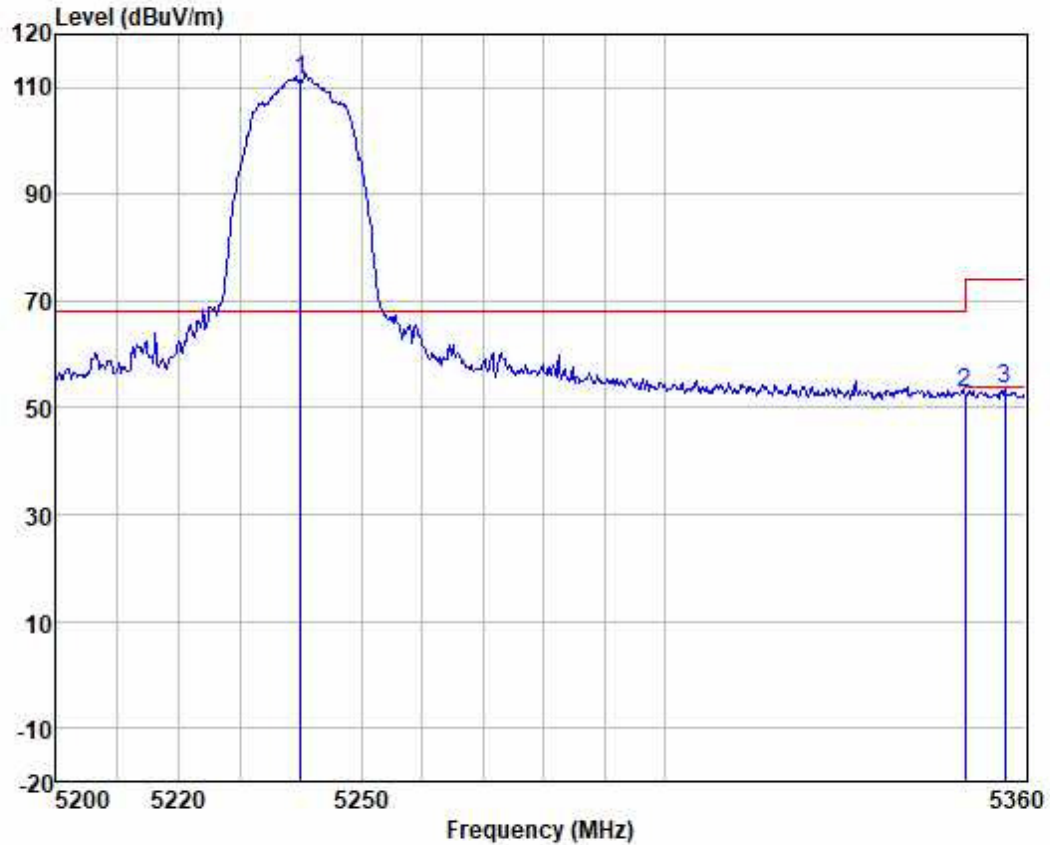
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	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 *	5240.000	98.23	33.45	5.02	37.21	99.49	68.20	31.29	VERTICAL	peak
2	5350.000	45.52	33.00	5.09	37.18	46.43	68.20	-21.77	VERTICAL	peak
3	5355.129	46.16	32.95	5.10	37.18	47.03	74.00	-26.97	VERTICAL	peak



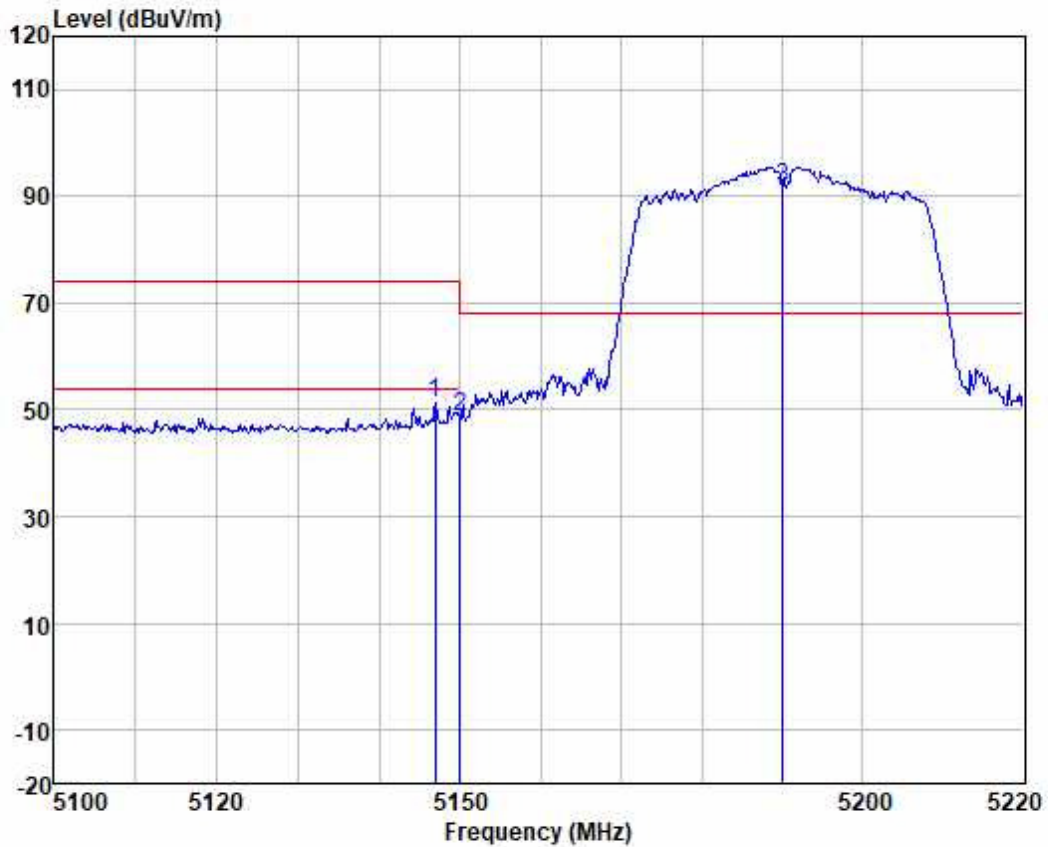
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	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 *	5240.000	110.19	33.45	5.02	37.21	111.45	68.20	43.25	HORIZONTAL	peak
2	5350.000	52.02	33.00	5.09	37.18	52.93	68.20	-15.27	HORIZONTAL	peak
3	5356.752	52.68	32.95	5.10	37.18	53.55	74.00	-20.45	HORIZONTAL	peak



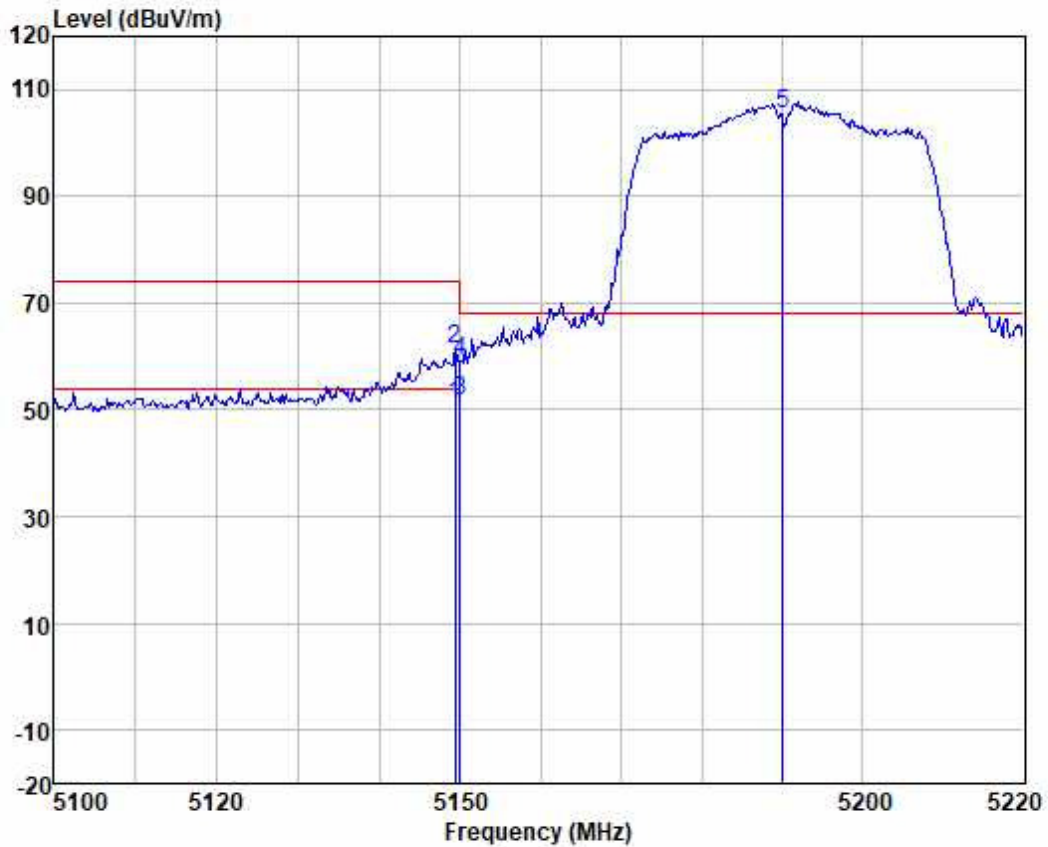
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	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	5146.947	49.97	33.79	4.96	37.23	51.49	74.00	-22.51	VERTICAL	peak
2	5150.000	47.05	33.79	4.96	37.23	48.57	68.20	-19.63	VERTICAL	peak
3 *	5190.000	90.08	33.64	4.99	37.22	91.49	68.20	23.29	VERTICAL	peak



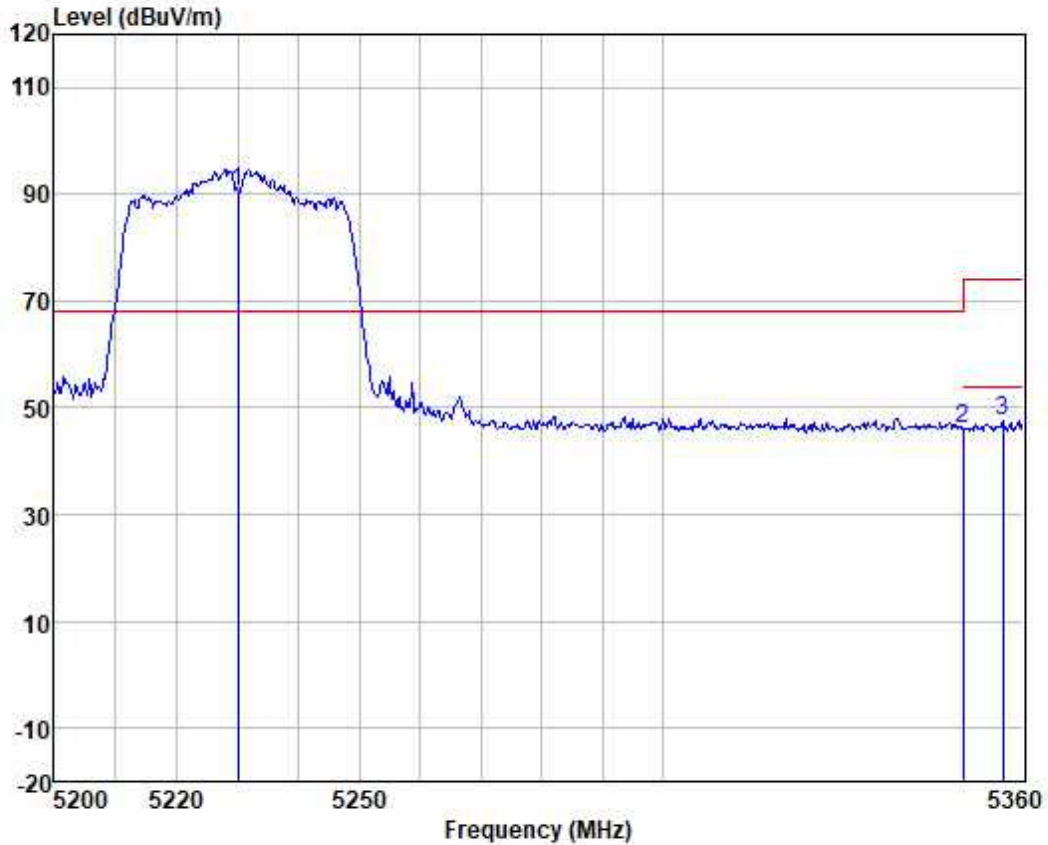
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	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	5149.342	49.44	33.79	4.96	37.23	50.96	54.00	-3.04	HORIZONTAL	Average
2	5149.342	59.92	33.79	4.96	37.23	61.44	74.00	-12.56	HORIZONTAL	peak
3	5150.000	50.02	33.79	4.96	37.23	51.54	54.00	-2.46	HORIZONTAL	Average
4	5150.000	57.47	33.79	4.96	37.23	58.99	68.20	-9.21	HORIZONTAL	peak
5 *	5190.000	104.15	33.64	4.99	37.22	105.56	68.20	37.36	HORIZONTAL	peak



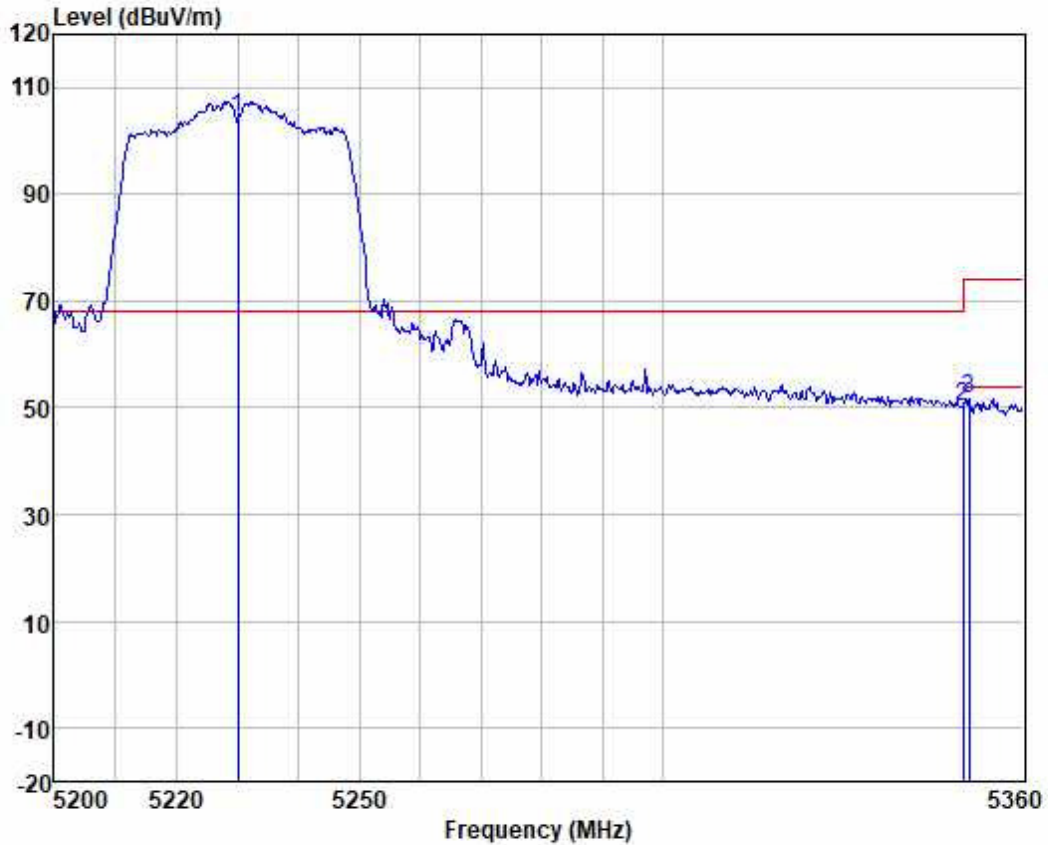
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
		Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	5230.000	89.28	33.52	5.01	37.21	90.60	68.20	22.40	VERTICAL peak
2	5350.000	45.26	33.00	5.09	37.18	46.17	68.20	-22.03	VERTICAL peak
3	5356.752	46.80	32.95	5.10	37.18	47.67	74.00	-26.33	VERTICAL peak



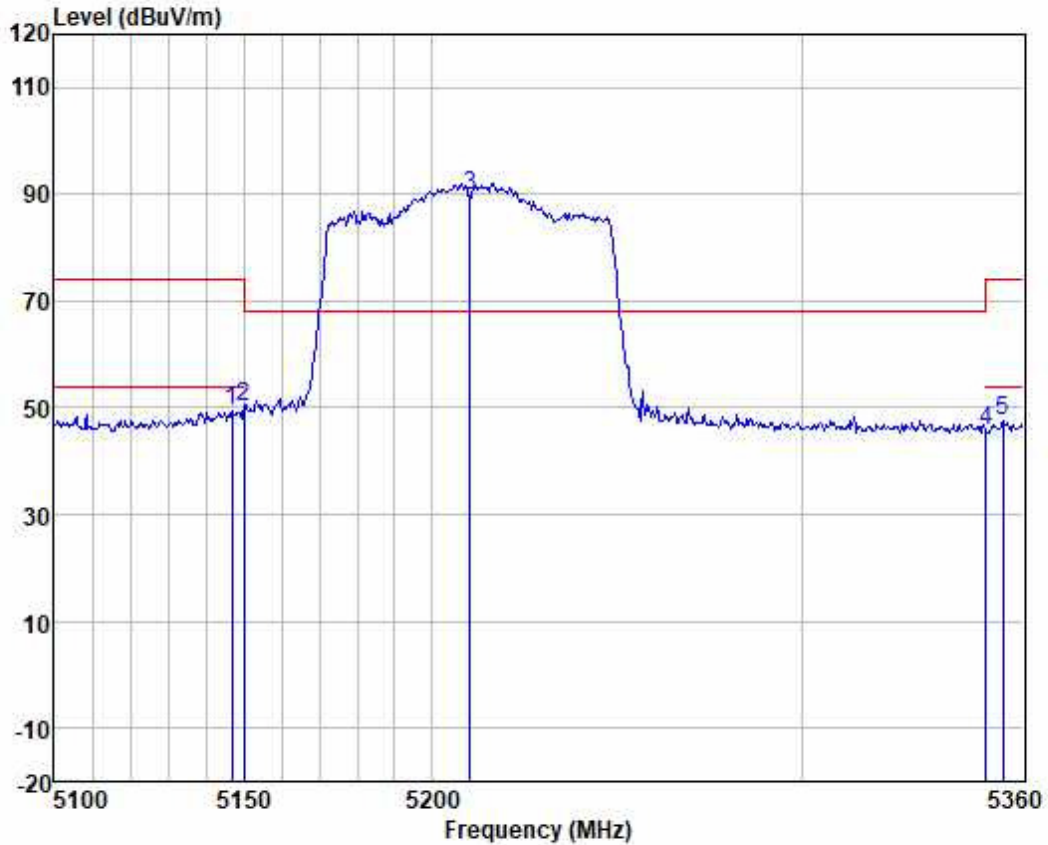
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dB		
1 *	5230.000	103.00	33.52	5.01	37.21	104.32	68.20	36.12	HORIZONTAL peak
2	5350.000	49.25	33.00	5.09	37.18	50.16	68.20	-18.04	HORIZONTAL peak
3	5351.073	50.63	33.00	5.09	37.18	51.54	74.00	-22.46	HORIZONTAL peak



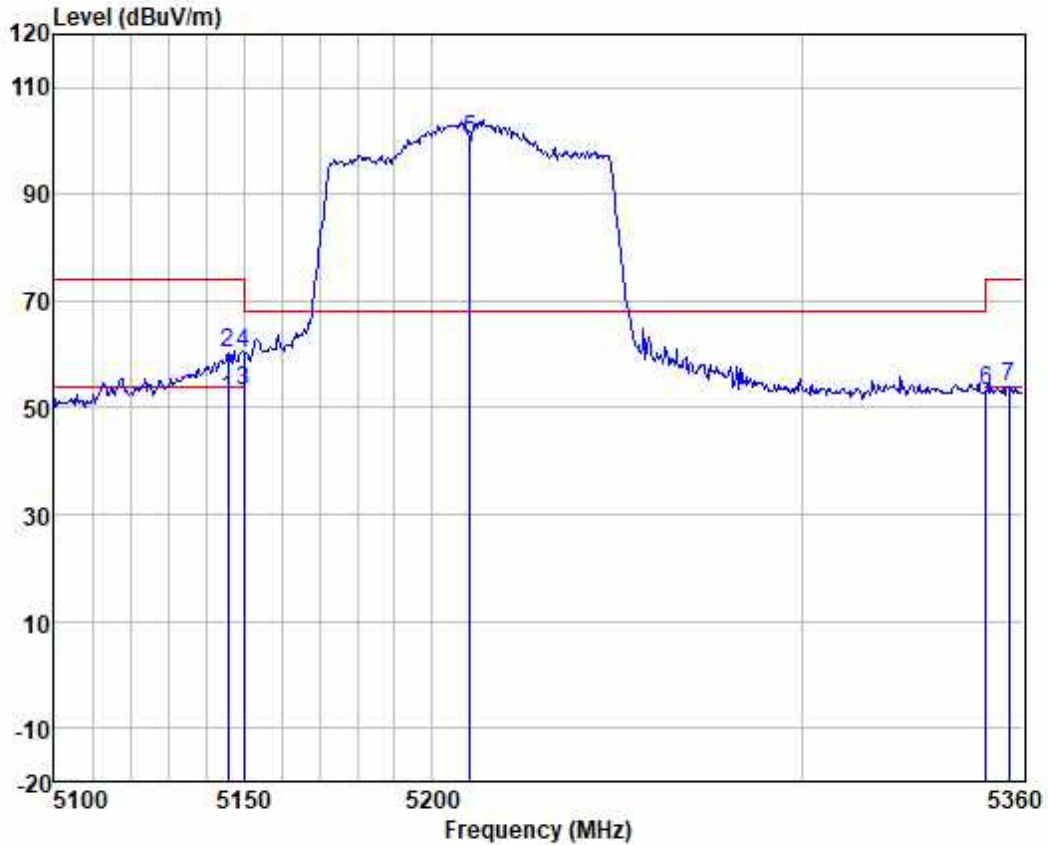
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz



	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	5146.875	48.00	33.79	4.96	37.23	49.52	74.00	-24.48	VERTICAL	peak
2	5150.000	48.80	33.79	4.96	37.23	50.32	68.20	-17.88	VERTICAL	peak
3 *	5210.000	88.22	33.58	5.00	37.21	89.59	68.20	21.39	VERTICAL	peak
4	5350.000	44.74	33.00	5.09	37.18	45.65	68.20	-22.55	VERTICAL	peak
5	5354.672	46.71	32.95	5.10	37.18	47.58	74.00	-26.42	VERTICAL	peak



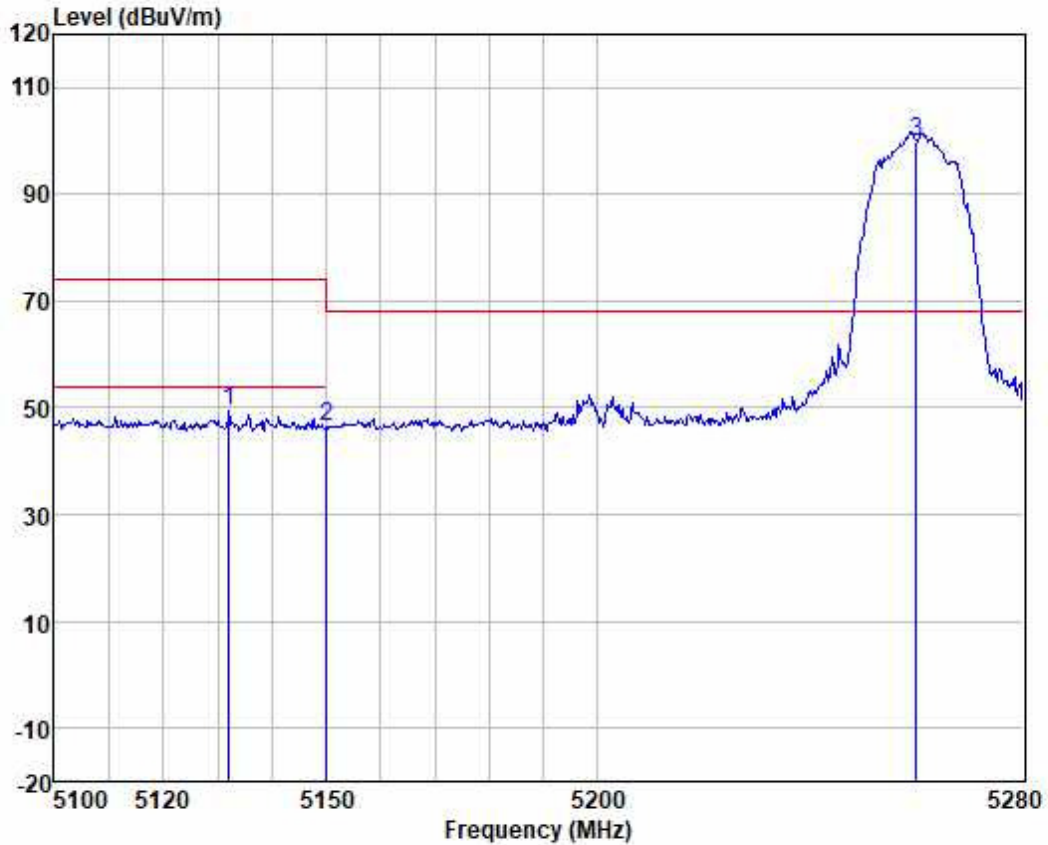
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz



		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	5145.851	50.17	33.79	4.96	37.23	51.69	54.00	-2.31	HORIZONTAL	Average
2	5145.851	58.89	33.79	4.96	37.23	60.41	74.00	-13.59	HORIZONTAL	Peak
3	5150.000	51.78	33.79	4.96	37.23	53.30	54.00	-0.70	HORIZONTAL	Average
4	5150.000	58.69	33.79	4.96	37.23	60.21	68.20	-7.99	HORIZONTAL	peak
5 *	5210.000	98.98	33.58	5.00	37.21	100.35	68.20	32.15	HORIZONTAL	peak
6	5350.000	52.32	33.00	5.09	37.18	53.23	68.20	-14.97	HORIZONTAL	peak
7	5356.270	52.89	32.95	5.10	37.18	53.76	74.00	-20.24	HORIZONTAL	Peak



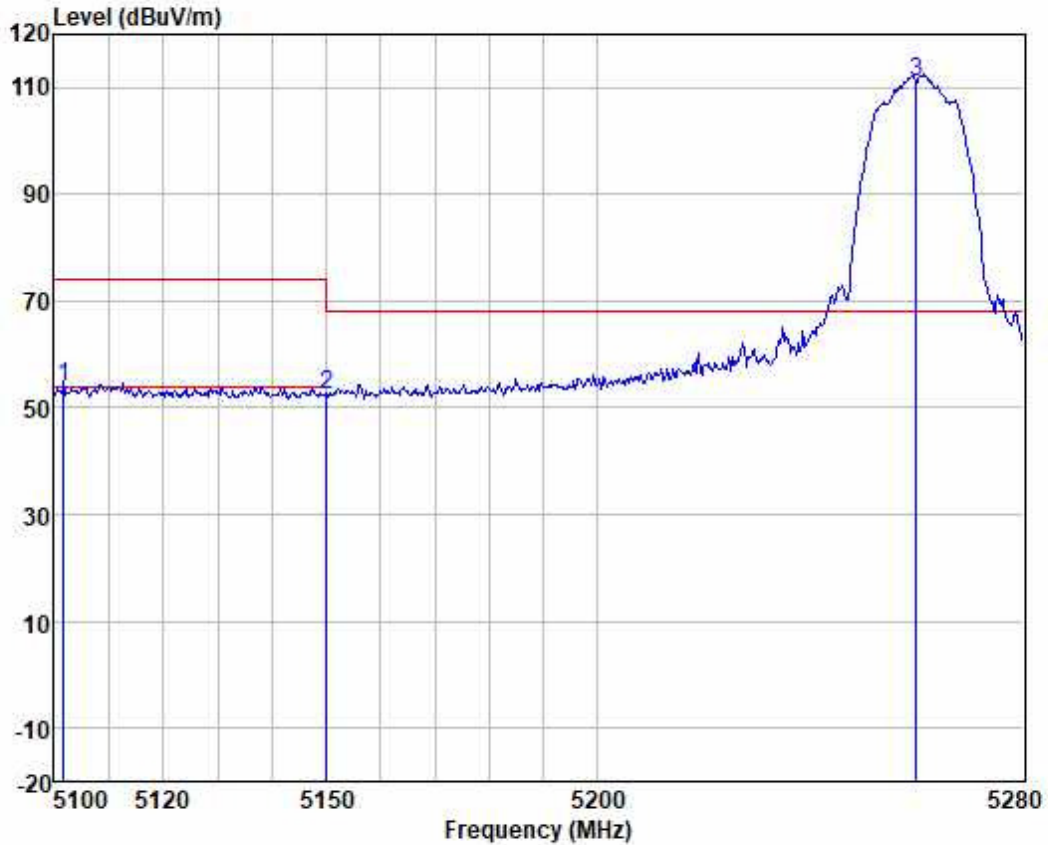
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	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	5132.119	47.76	33.84	4.95	37.24	49.31	74.00	-24.69	VERTICAL	peak
2	5150.000	44.75	33.79	4.96	37.23	46.27	68.20	-21.93	VERTICAL	peak
3 *	5260.000	98.78	33.38	5.03	37.20	99.99	68.20	31.79	VERTICAL	peak



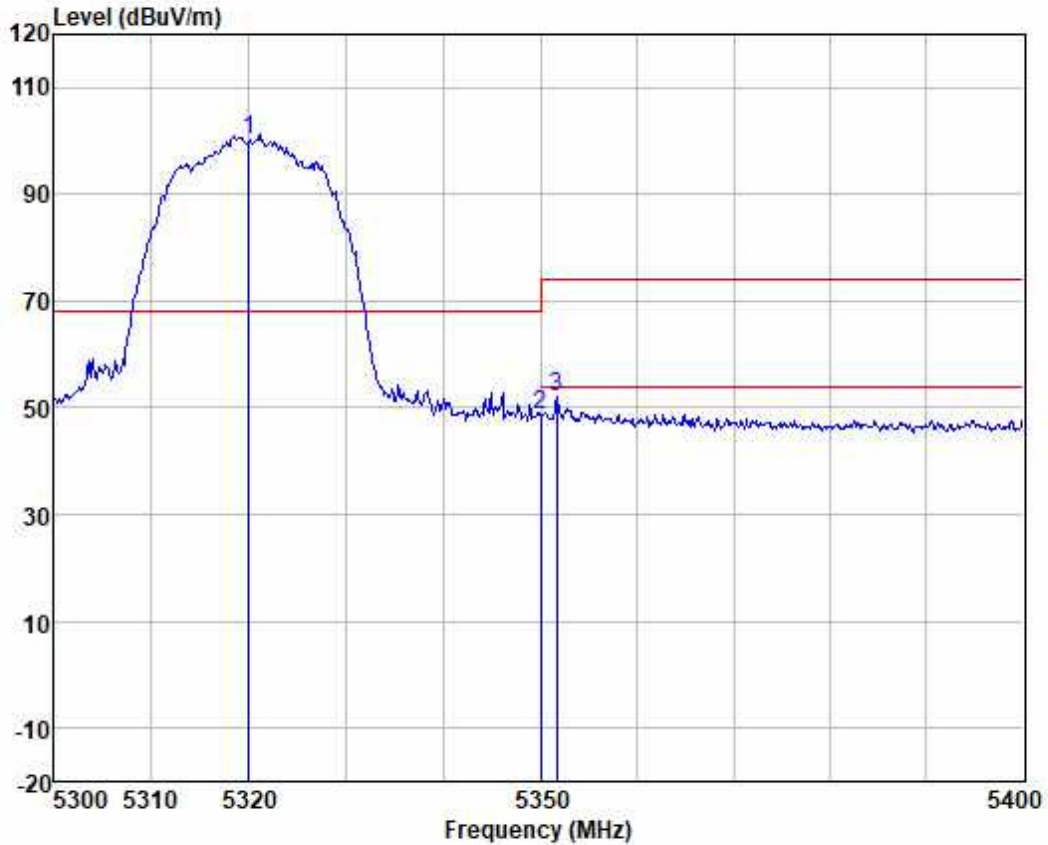
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5101.769	52.27	33.92	4.94	37.25	53.88	74.00	-20.12	HORIZONTAL peak
2	5150.000	51.00	33.79	4.96	37.23	52.52	68.20	-15.68	HORIZONTAL peak
3 *	5260.000	109.88	33.38	5.03	37.20	111.09	68.20	42.89	HORIZONTAL peak



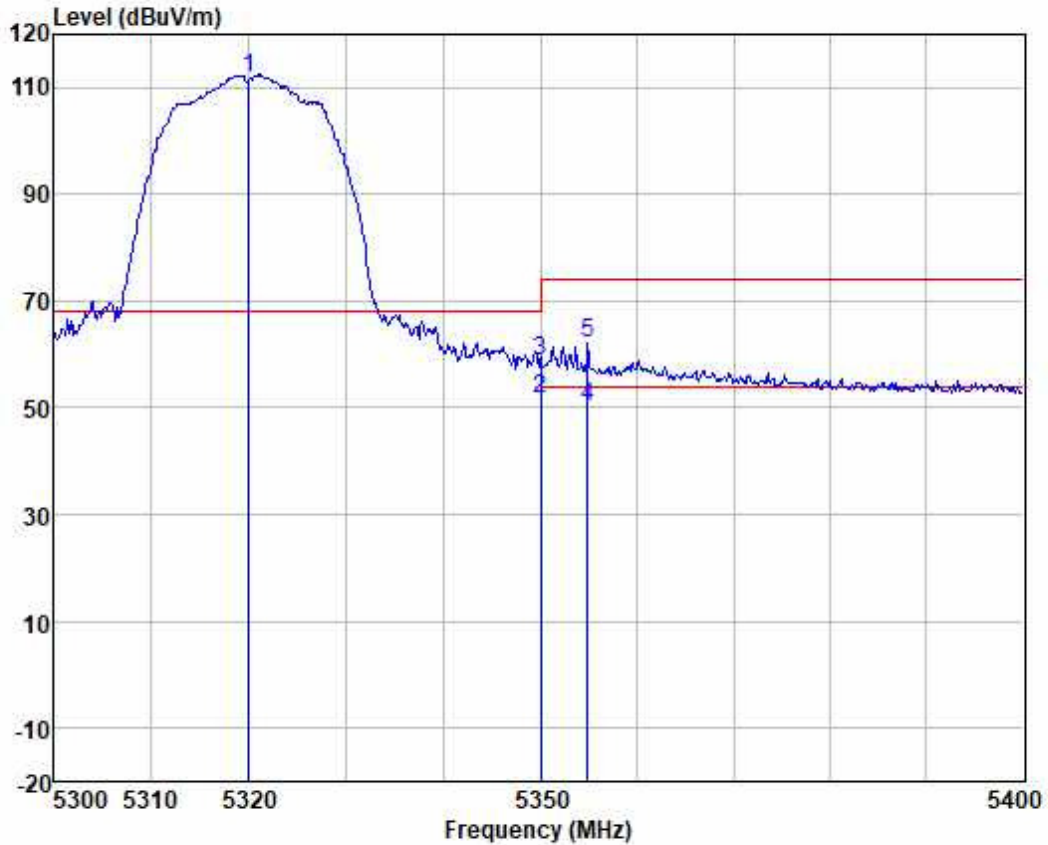
Test Mode: 05; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	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 *	5320.000	99.07	33.11	5.08	37.19	100.07	68.20	31.87	VERTICAL peak
2	5350.000	47.88	33.00	5.09	37.18	48.79	68.20	-19.41	VERTICAL peak
3	5351.667	51.26	33.00	5.09	37.18	52.17	74.00	-21.83	VERTICAL peak



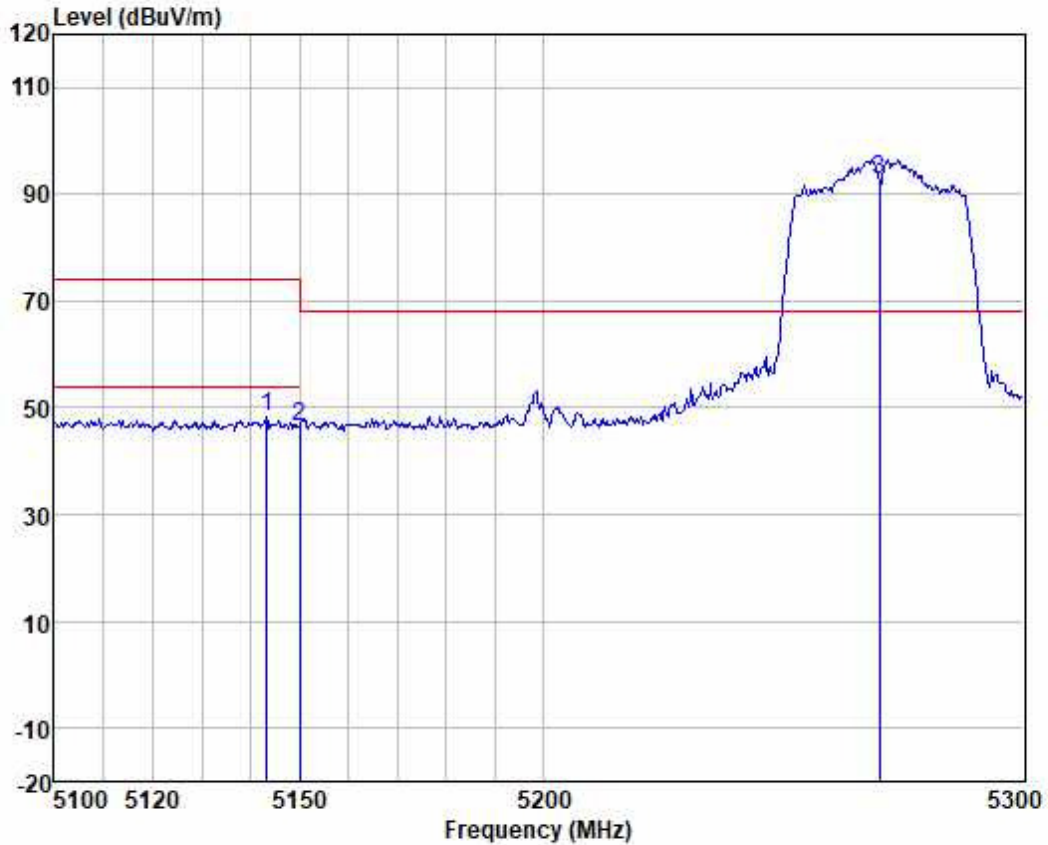
Test Mode: 05; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	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 *	5320.000	110.76	33.11	5.08	37.19	111.76	68.20	43.56	HORIZONTAL peak
2	5350.000	50.68	33.00	5.09	37.18	51.59	54.00	-2.41	HORIZONTAL Average
3	5350.000	57.74	33.00	5.09	37.18	58.65	68.20	-9.55	HORIZONTAL peak
4	5354.869	49.29	32.95	5.10	37.18	50.16	54.00	-3.84	HORIZONTAL Average
5	5354.869	61.22	32.95	5.10	37.18	62.09	74.00	-11.91	HORIZONTAL peak



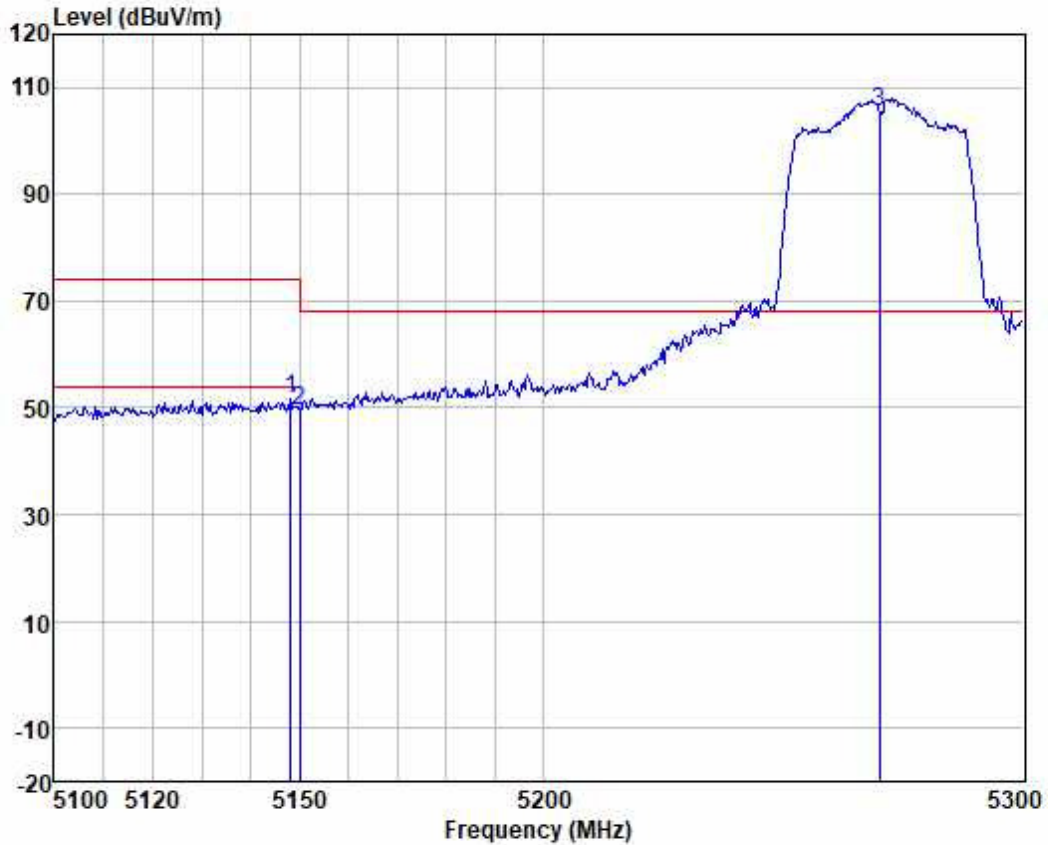
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	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	5143.342	46.74	33.79	4.96	37.23	48.26	74.00	-25.74	VERTICAL peak
2	5150.000	44.95	33.79	4.96	37.23	46.47	68.20	-21.73	VERTICAL peak
3 *	5270.000	91.45	33.30	5.04	37.20	92.59	68.20	24.39	VERTICAL peak



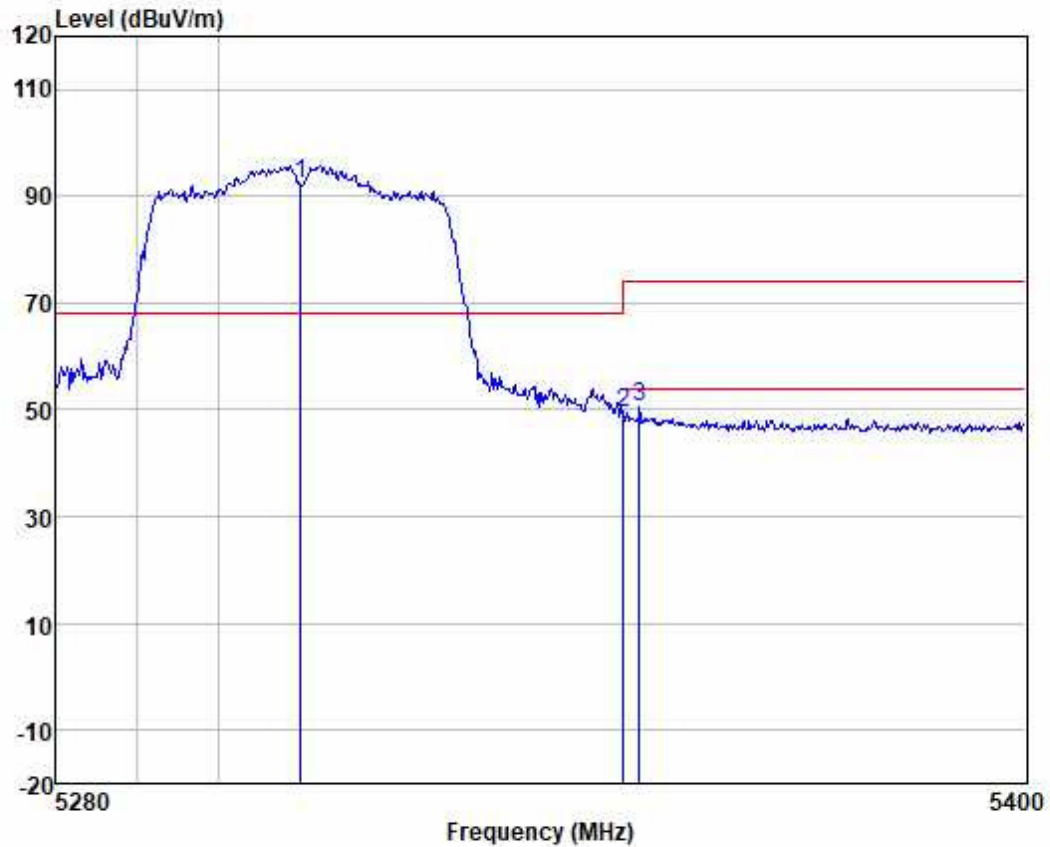
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5148.093	50.24	33.79	4.96	37.23	51.76	74.00	-22.24	HORIZONTAL peak
2	5150.000	48.09	33.79	4.96	37.23	49.61	68.20	-18.59	HORIZONTAL peak
3 *	5270.000	104.26	33.30	5.04	37.20	105.40	68.20	37.20	HORIZONTAL peak



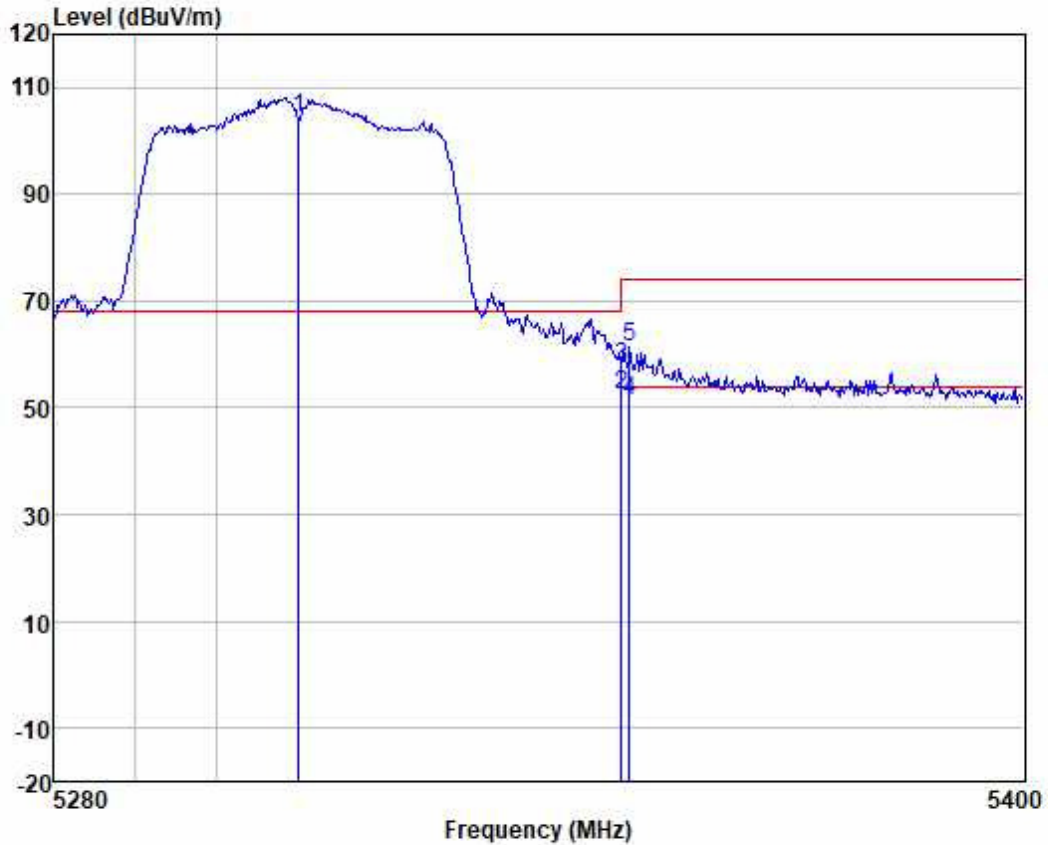
Test Mode: 05; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	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 *	5310.000	91.49	33.11	5.08	37.19	92.49	68.20	24.29	VERTICAL peak
2	5350.000	48.45	33.00	5.09	37.18	49.36	68.20	-18.84	VERTICAL peak
3	5351.917	49.64	33.00	5.09	37.18	50.55	74.00	-23.45	VERTICAL peak



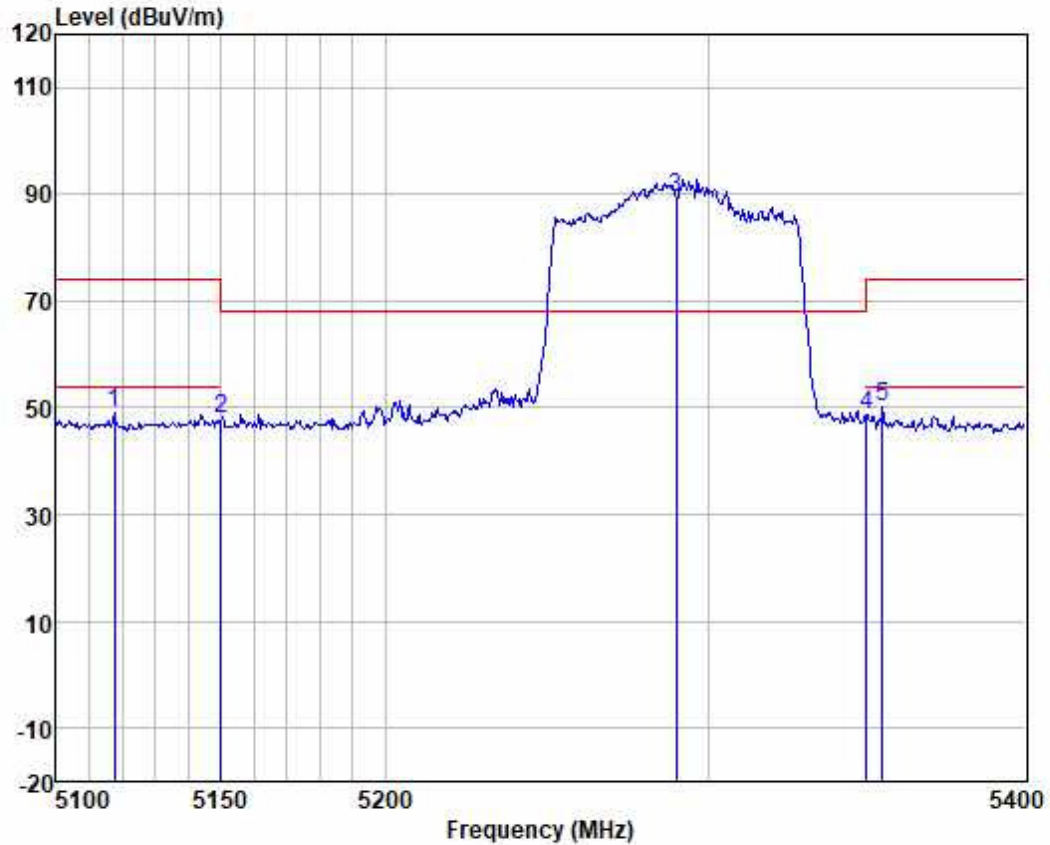
Test Mode: 05; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	5310.000	103.36	33.11	5.08	37.19	104.36	68.20	36.16	HORIZONTAL peak
2	5350.000	51.35	33.00	5.09	37.18	52.26	54.00	-1.74	HORIZONTAL Average
3	5350.000	56.90	33.00	5.09	37.18	57.81	68.20	-10.39	HORIZONTAL peak
4	5350.955	50.32	33.00	5.09	37.18	51.23	54.00	-2.77	HORIZONTAL Average
5	5350.955	60.44	33.00	5.09	37.18	61.35	74.00	-12.65	HORIZONTAL peak



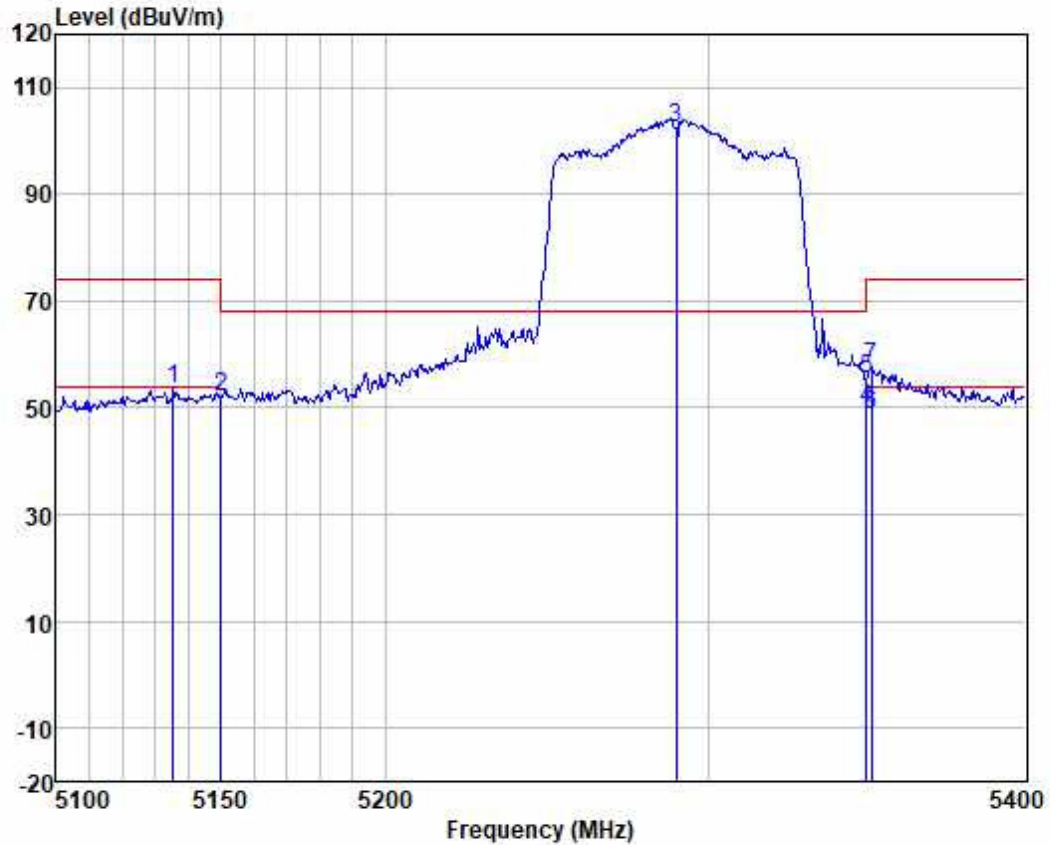
Test Mode: 05; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz



	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	5117.521	47.32	33.88	4.95	37.25	48.90	74.00	-25.10	VERTICAL	peak
2	5150.000	46.26	33.79	4.96	37.23	47.78	68.20	-20.42	VERTICAL	peak
3 *	5290.000	88.16	33.23	5.05	37.20	89.24	68.20	21.04	VERTICAL	peak
4	5350.000	47.71	33.00	5.09	37.18	48.62	68.20	-19.58	VERTICAL	peak
5	5354.818	49.14	32.95	5.10	37.18	50.01	74.00	-23.99	VERTICAL	peak



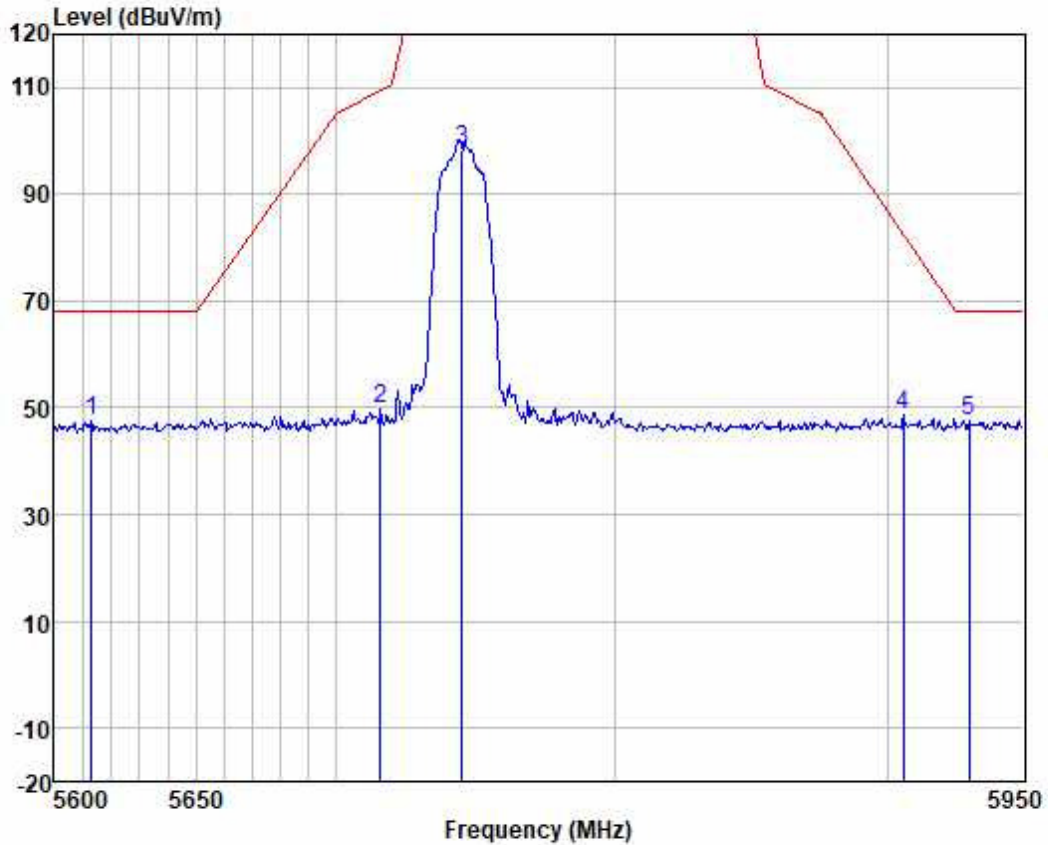
Test Mode: 05; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz



	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	5135.395	51.90	33.84	4.95	37.24	53.45	74.00	-20.55	HORIZONTAL	peak
2	5150.000	50.62	33.79	4.96	37.23	52.14	68.20	-16.06	HORIZONTAL	peak
3 *	5290.000	101.48	33.23	5.05	37.20	102.56	68.20	34.36	HORIZONTAL	peak
4	5350.000	48.94	33.00	5.09	37.18	49.85	54.00	-4.15	HORIZONTAL	Average
5	5350.000	54.63	33.00	5.09	37.18	55.54	68.20	-12.66	HORIZONTAL	peak
6	5351.452	47.74	33.00	5.09	37.18	48.65	54.00	-5.35	HORIZONTAL	Average
7	5351.452	56.66	33.00	5.09	37.18	57.57	74.00	-16.43	HORIZONTAL	peak



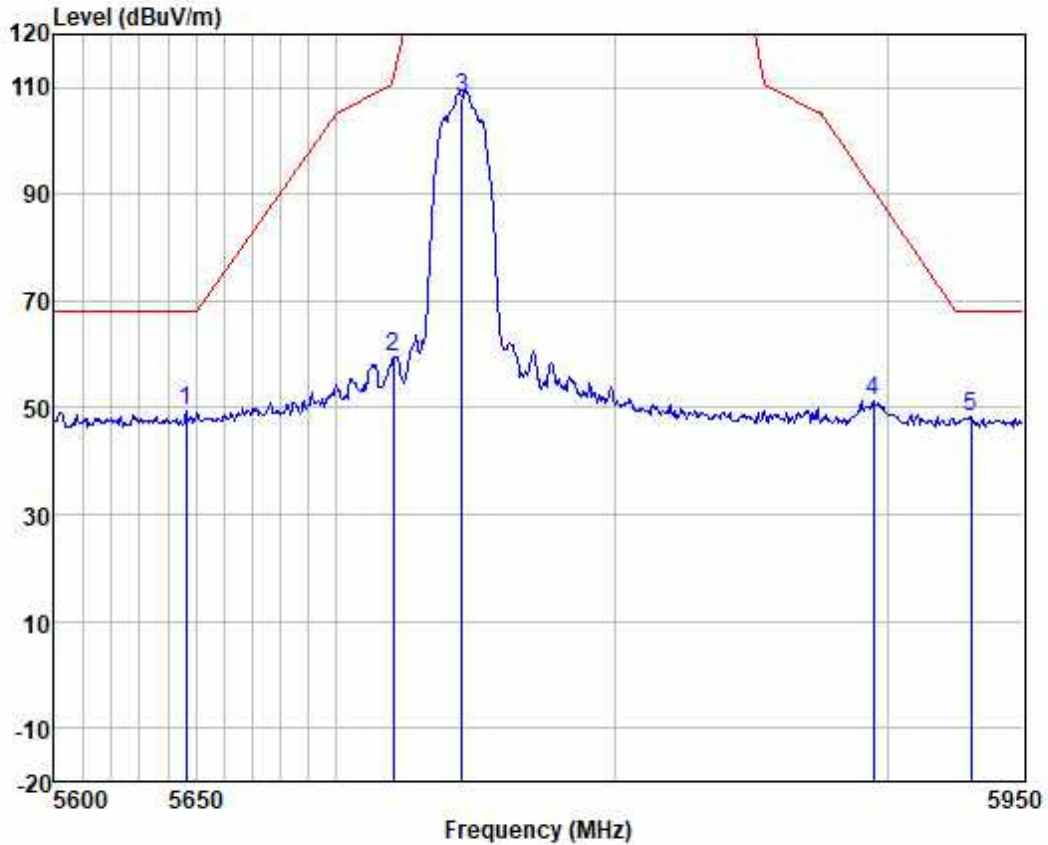
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5613.256	46.85	32.63	5.21	37.14	47.55	68.20	-20.65	VERTICAL	peak
2	5715.587	48.98	32.65	5.27	37.13	49.77	109.57	-59.80	VERTICAL	peak
3	5745.000	97.68	32.65	5.30	37.13	98.50	125.20	-26.70	VERTICAL	peak
4	5905.797	47.55	32.69	5.40	37.11	48.53	82.40	-33.87	VERTICAL	peak
5	5930.194	46.72	32.69	5.41	37.11	47.71	68.20	-20.49	VERTICAL	peak



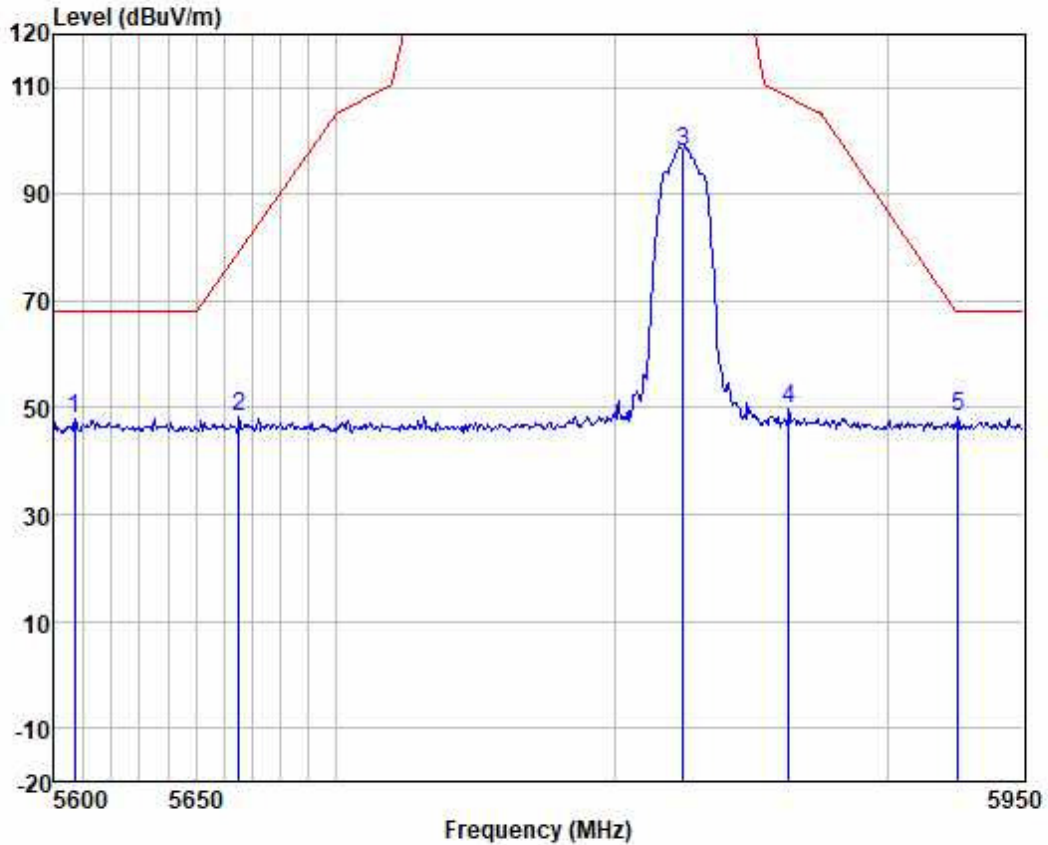
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



	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	5646.363	48.73	32.63	5.23	37.14	49.45	68.20	-18.75	HORIZONTAL	peak
2	5720.094	58.71	32.65	5.27	37.13	59.50	111.01	-51.51	HORIZONTAL	peak
3	5745.000	107.41	32.65	5.30	37.13	108.23	125.20	-16.97	HORIZONTAL	peak
4	5894.708	50.27	32.69	5.40	37.11	51.25	90.62	-39.37	HORIZONTAL	peak
5	5930.913	47.20	32.69	5.41	37.11	48.19	68.20	-20.01	HORIZONTAL	peak



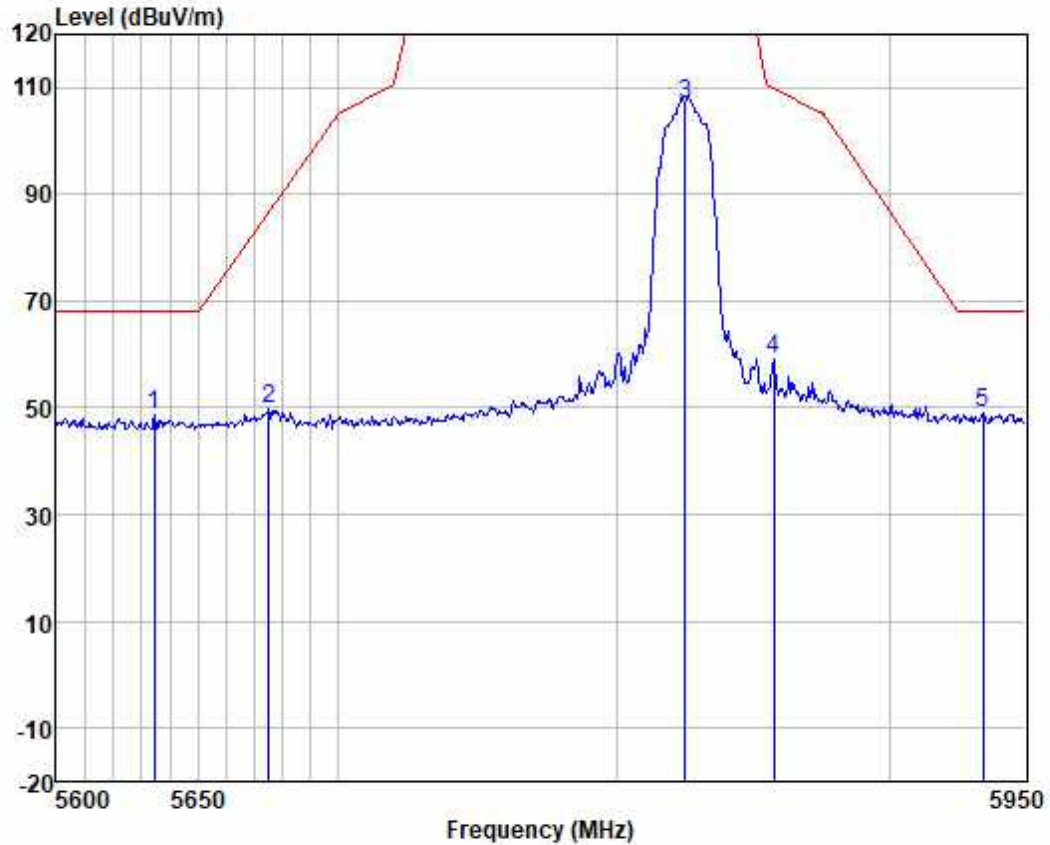
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



		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	5607.134	47.26	32.62	5.20	37.14	47.94	68.20	-20.26	VERTICAL	peak
2	5665.221	47.61	32.64	5.24	37.14	48.35	79.50	-31.15	VERTICAL	peak
3	5825.000	97.20	32.67	5.36	37.12	98.11	125.20	-27.09	VERTICAL	peak
4	5863.699	48.83	32.68	5.38	37.11	49.78	108.36	-58.58	VERTICAL	peak
5	5926.240	47.37	32.69	5.41	37.11	48.36	68.20	-19.84	VERTICAL	peak



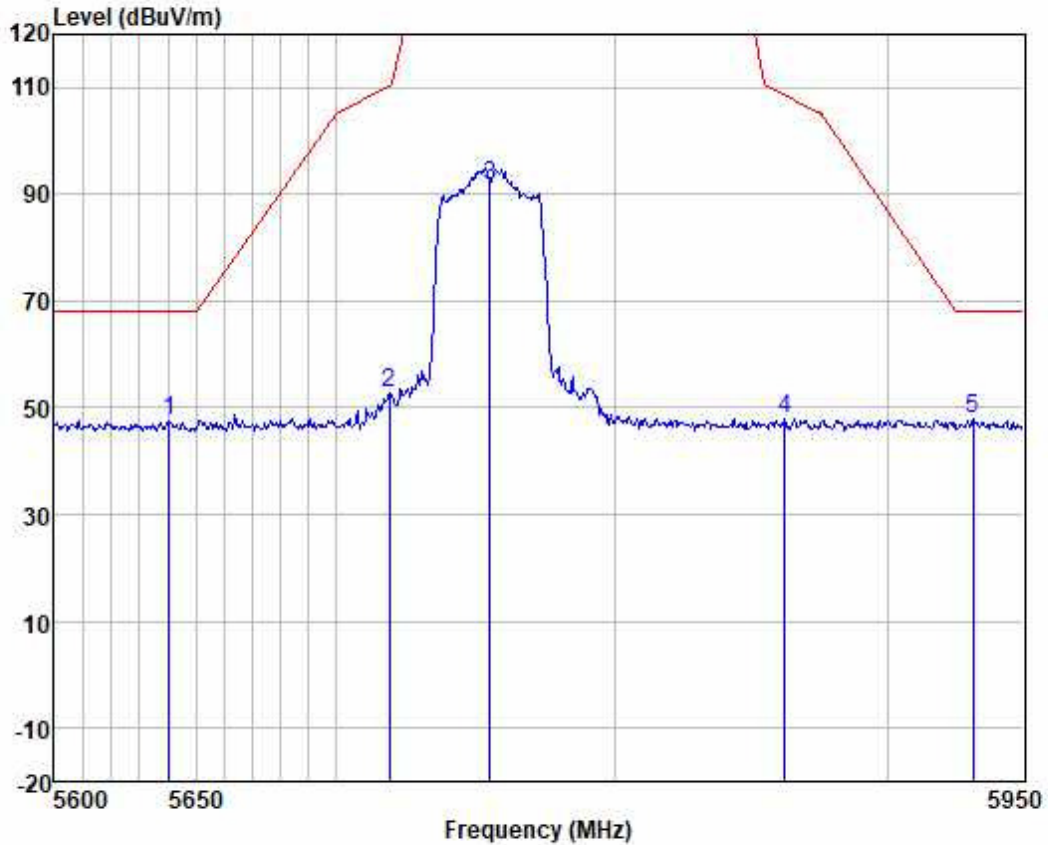
Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5634.395	47.89	32.63	5.22	37.14	48.60	68.20	-19.60	HORIZONTAL peak
2	5675.190	48.88	32.64	5.25	37.13	49.64	86.88	-37.24	HORIZONTAL peak
3	5825.000	106.09	32.67	5.36	37.12	107.00	125.20	-18.20	HORIZONTAL peak
4	5857.304	58.04	32.68	5.38	37.11	58.99	110.15	-51.16	HORIZONTAL peak
5	5934.509	48.06	32.69	5.41	37.11	49.05	68.20	-19.15	HORIZONTAL peak



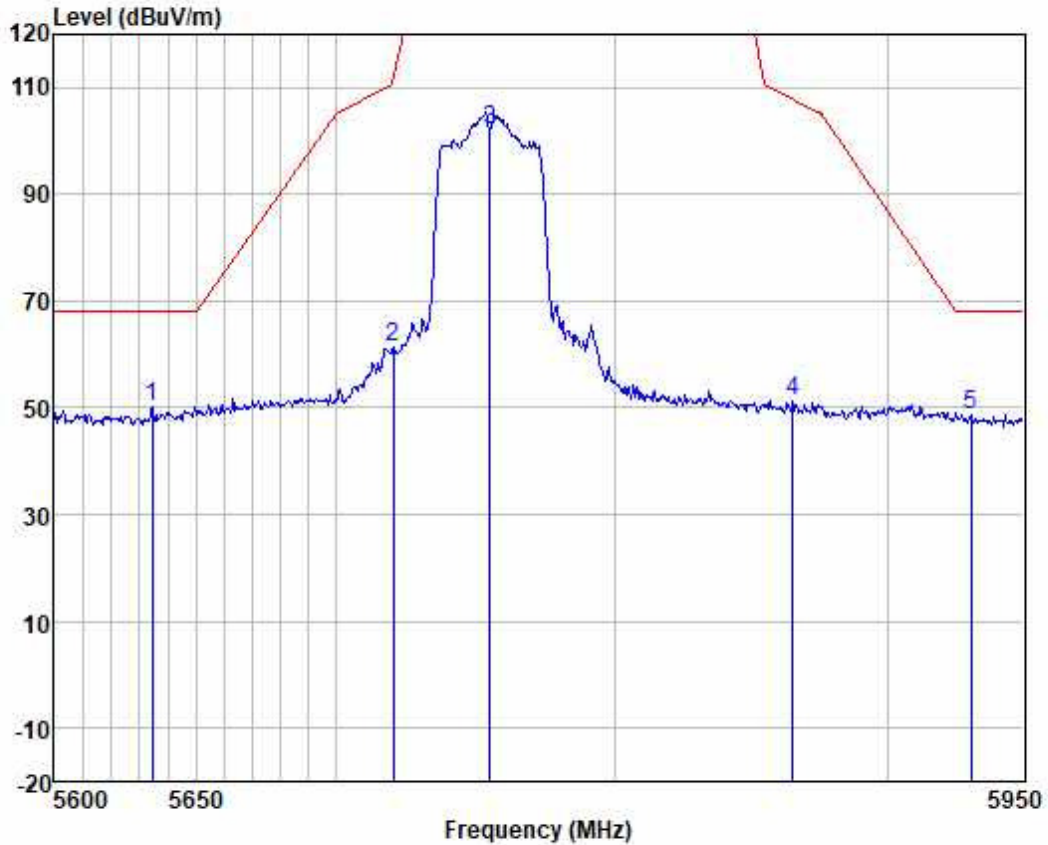
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	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	5640.546	46.70	32.63	5.23	37.14	47.42	68.20	-20.78	VERTICAL	peak
2	5718.707	51.95	32.65	5.27	37.13	52.74	110.44	-57.70	VERTICAL	peak
3	5755.000	90.96	32.65	5.30	37.12	91.79	125.20	-33.41	VERTICAL	peak
4	5862.277	46.99	32.68	5.38	37.11	47.94	108.76	-60.82	VERTICAL	peak
5	5931.632	46.78	32.69	5.41	37.11	47.77	68.20	-20.43	VERTICAL	peak



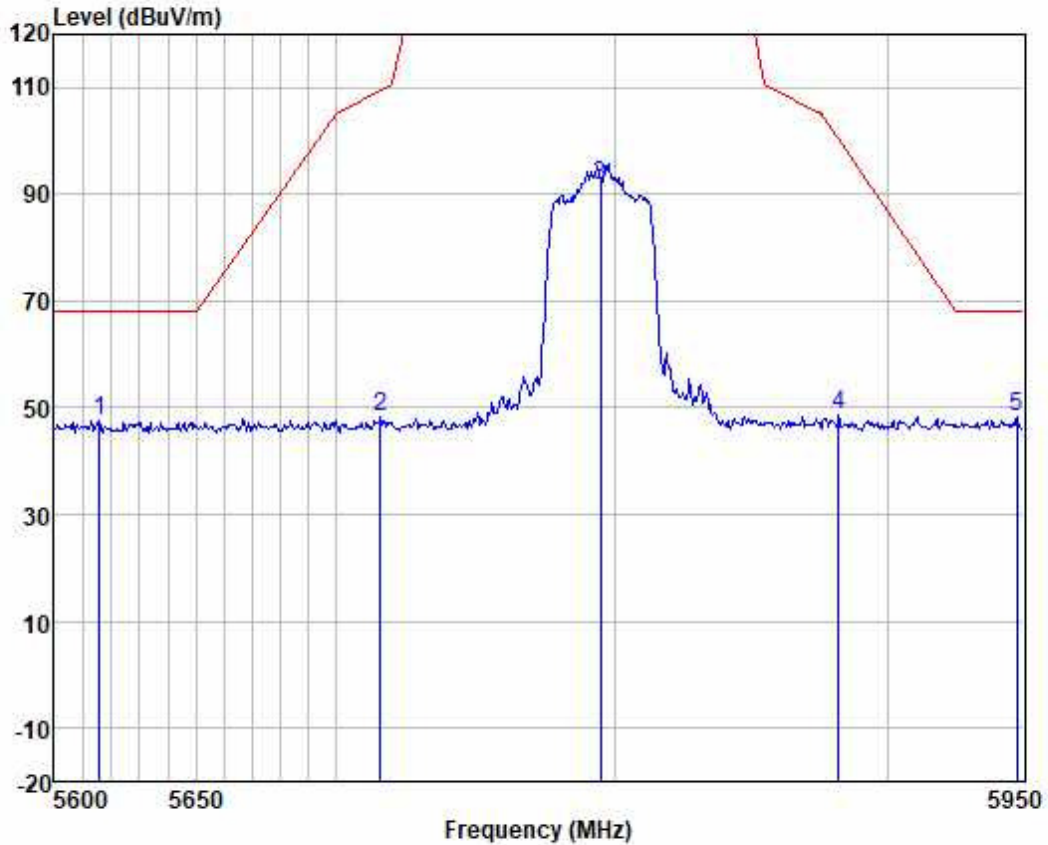
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



		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	5634.395	49.51	32.63	5.22	37.14	50.22	68.20	-17.98	HORIZONTAL	peak
2	5720.094	60.47	32.65	5.27	37.13	61.26	111.01	-49.75	HORIZONTAL	peak
3	5755.000	101.17	32.65	5.30	37.12	102.00	125.20	-23.20	HORIZONTAL	peak
4	5865.122	50.50	32.68	5.38	37.11	51.45	107.96	-56.51	HORIZONTAL	peak
5	5930.913	47.82	32.69	5.41	37.11	48.81	68.20	-19.39	HORIZONTAL	peak



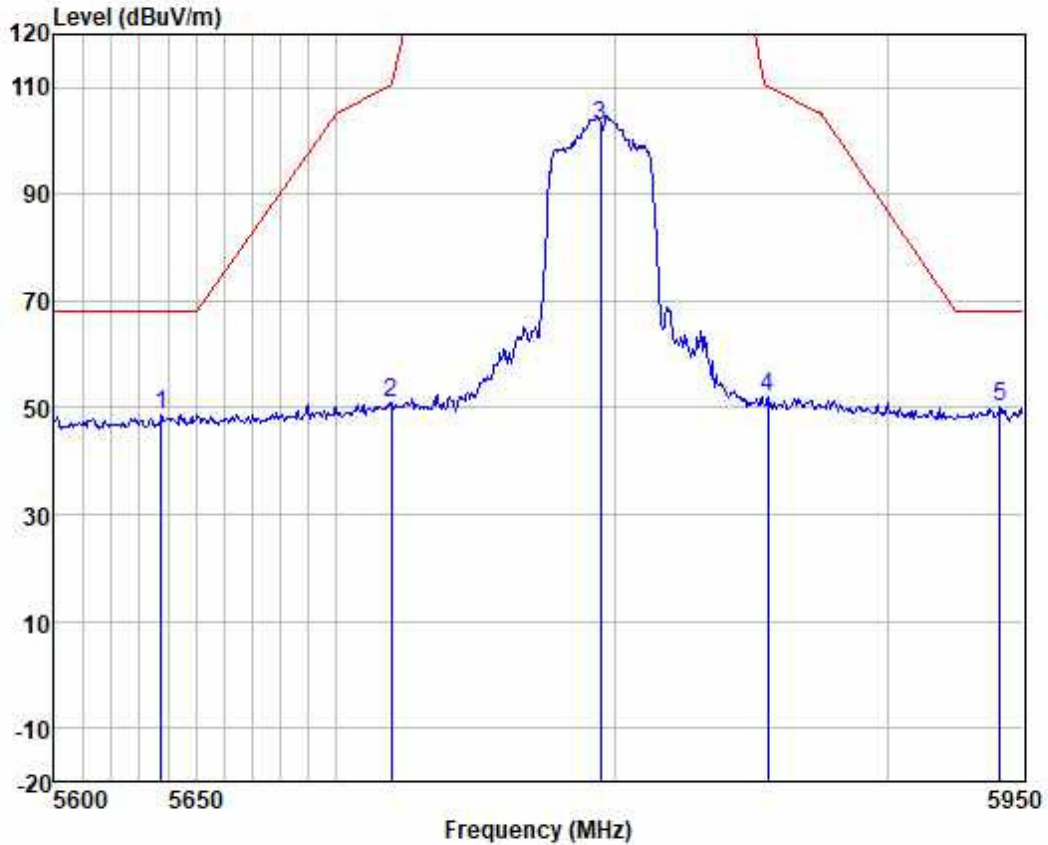
Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



		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	5615.979	46.84	32.63	5.21	37.14	47.54	68.20	-20.66	VERTICAL	peak
2	5715.587	47.42	32.65	5.27	37.13	48.21	109.57	-61.36	VERTICAL	peak
3	5795.000	90.60	32.67	5.34	37.12	91.49	125.20	-33.71	VERTICAL	peak
4	5881.857	47.80	32.68	5.39	37.11	48.76	100.17	-51.41	VERTICAL	peak
5	5947.836	47.23	32.69	5.42	37.10	48.24	68.20	-19.96	VERTICAL	peak



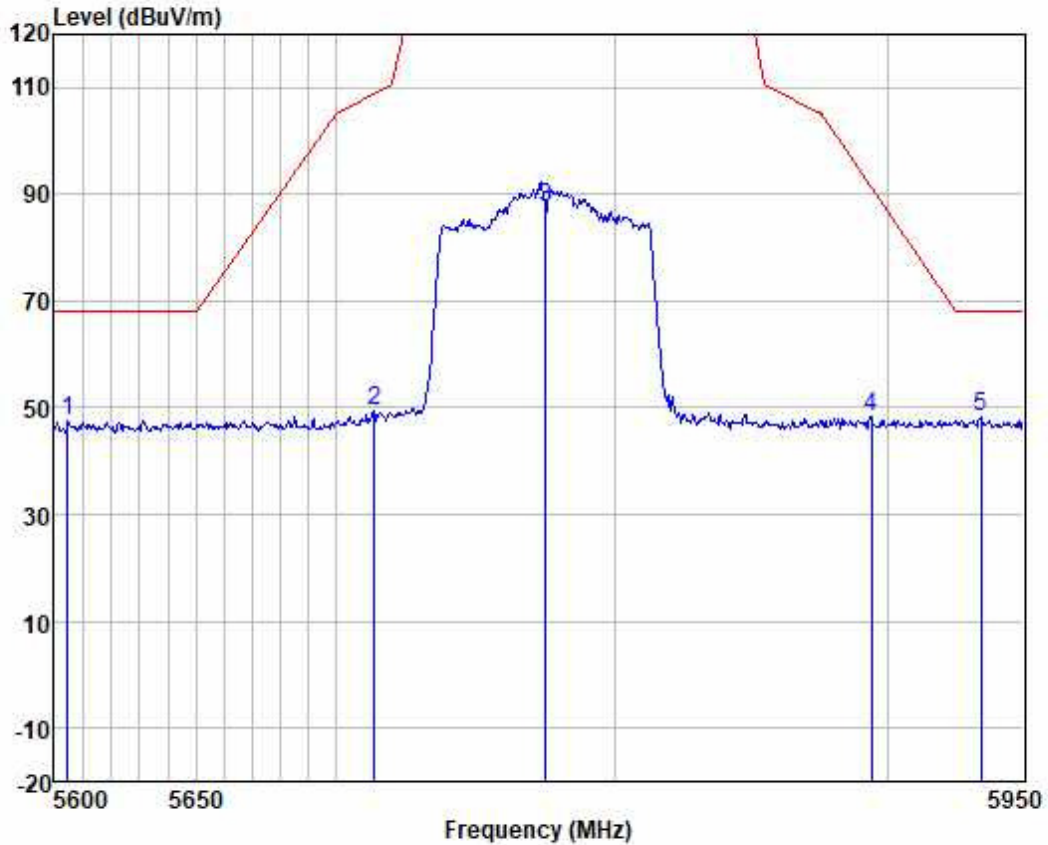
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5637.812	48.11	32.63	5.22	37.14	48.82	68.20	-19.38	HORIZONTAL peak
2	5719.400	50.21	32.65	5.27	37.13	51.00	110.63	-59.63	HORIZONTAL peak
3	5795.000	102.07	32.67	5.34	37.12	102.96	125.20	-22.24	HORIZONTAL peak
4	5855.884	50.94	32.68	5.37	37.11	51.88	110.55	-58.67	HORIZONTAL peak
5	5941.709	49.26	32.69	5.42	37.10	50.27	68.20	-17.93	HORIZONTAL peak



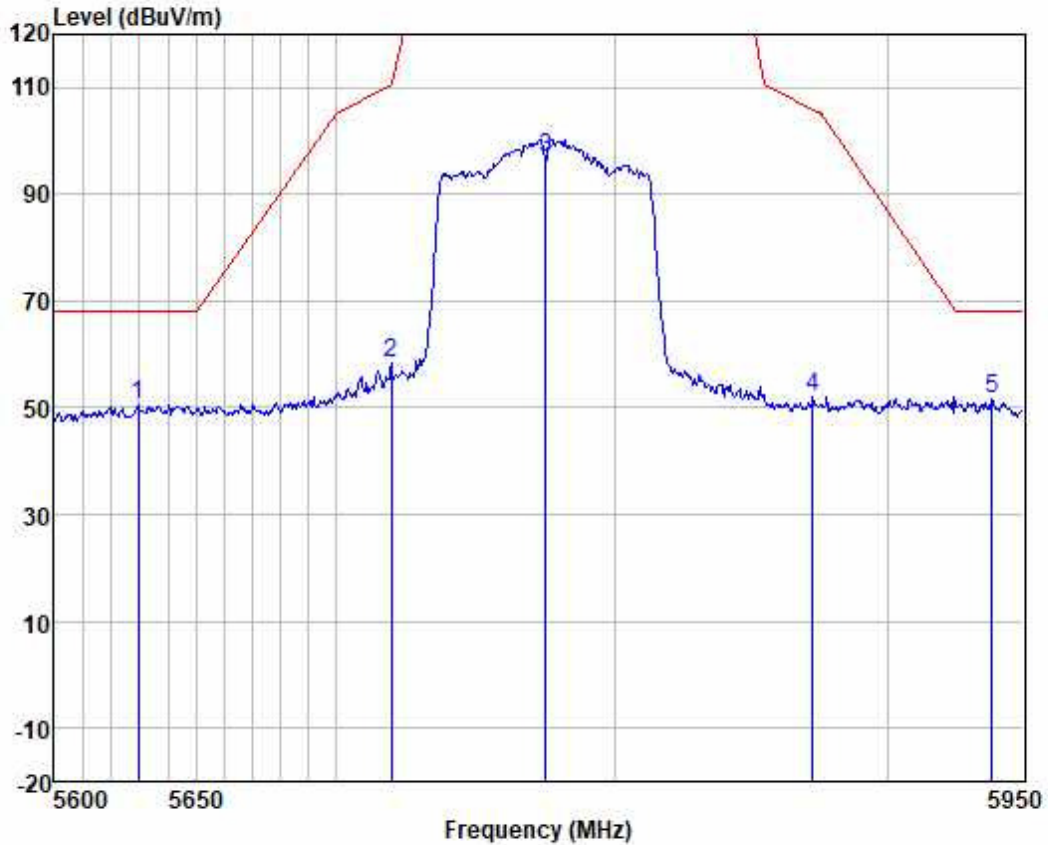
Test Mode: 07; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz



	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	5604.755	46.86	32.62	5.20	37.14	47.54	68.20	-20.66	VERTICAL	peak
2	5713.509	48.48	32.65	5.27	37.13	49.27	108.98	-59.71	VERTICAL	peak
3	5775.000	86.53	32.66	5.33	37.12	87.40	125.20	-37.80	VERTICAL	peak
4	5893.994	47.48	32.69	5.40	37.11	48.46	91.15	-42.69	VERTICAL	peak
5	5934.509	47.16	32.69	5.41	37.11	48.15	68.20	-20.05	VERTICAL	peak



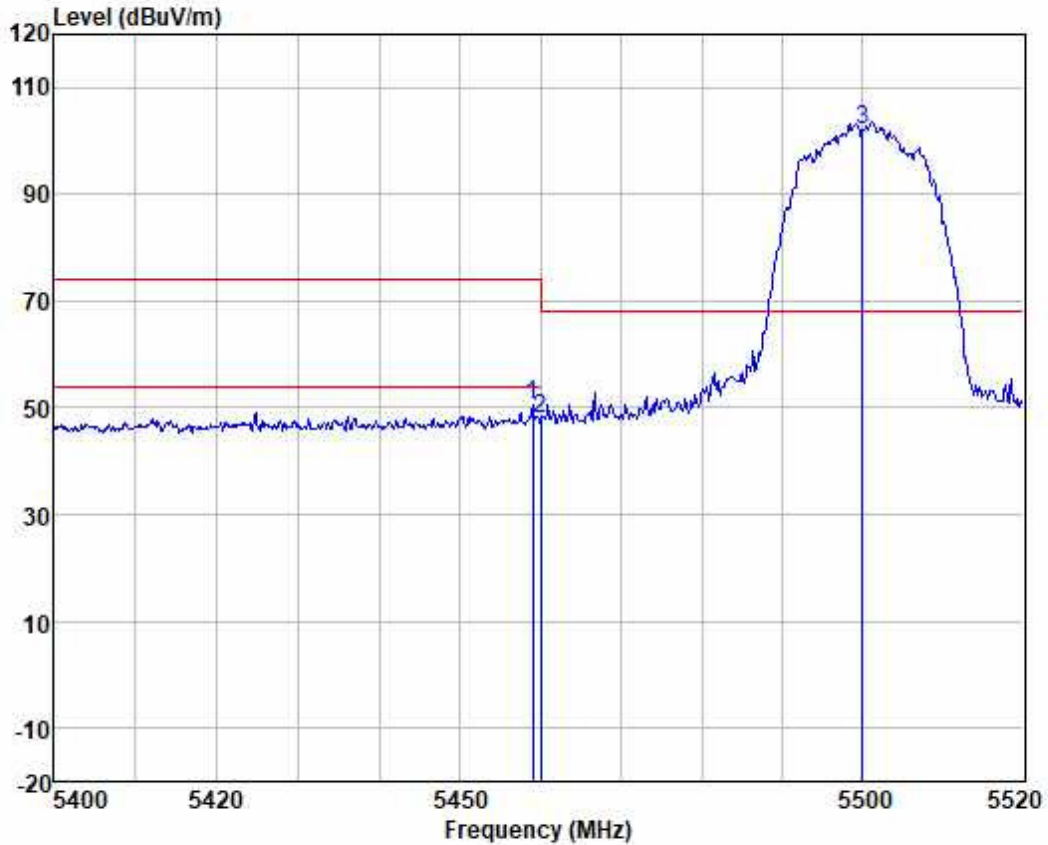
Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz



	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	5629.614	50.03	32.63	5.22	37.14	50.74	68.20	-17.46	HORIZONTAL	peak
2	5719.400	57.71	32.65	5.27	37.13	58.50	110.63	-52.13	HORIZONTAL	peak
3	5775.000	95.82	32.66	5.33	37.12	96.69	125.20	-28.51	HORIZONTAL	peak
4	5872.237	51.21	32.68	5.38	37.11	52.16	105.97	-53.81	HORIZONTAL	peak
5	5938.828	50.66	32.69	5.41	37.10	51.66	68.20	-16.54	HORIZONTAL	peak



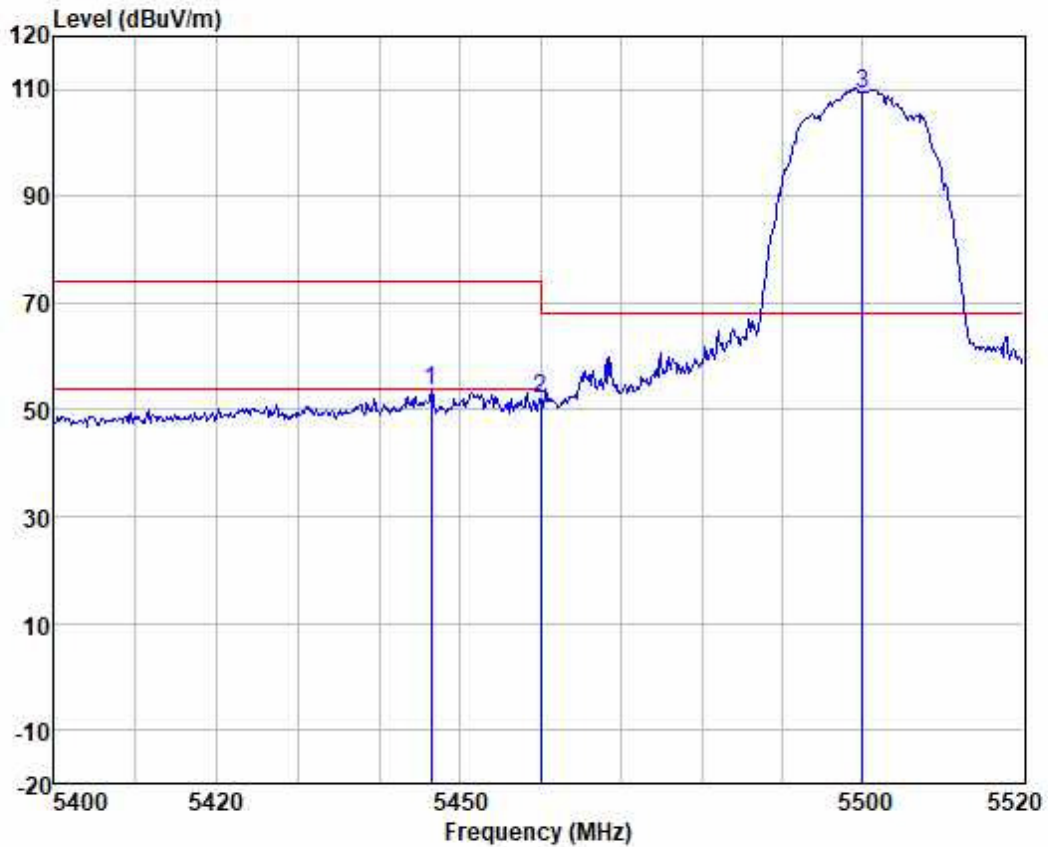
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



		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	5458.950	49.88	32.71	5.14	37.16	50.57	74.00	-23.43	VERTICAL	peak
2	5460.000	47.14	32.71	5.14	37.16	47.83	68.20	-20.37	VERTICAL	peak
3 *	5500.000	101.42	32.61	5.16	37.16	102.03	68.20	33.83	VERTICAL	peak



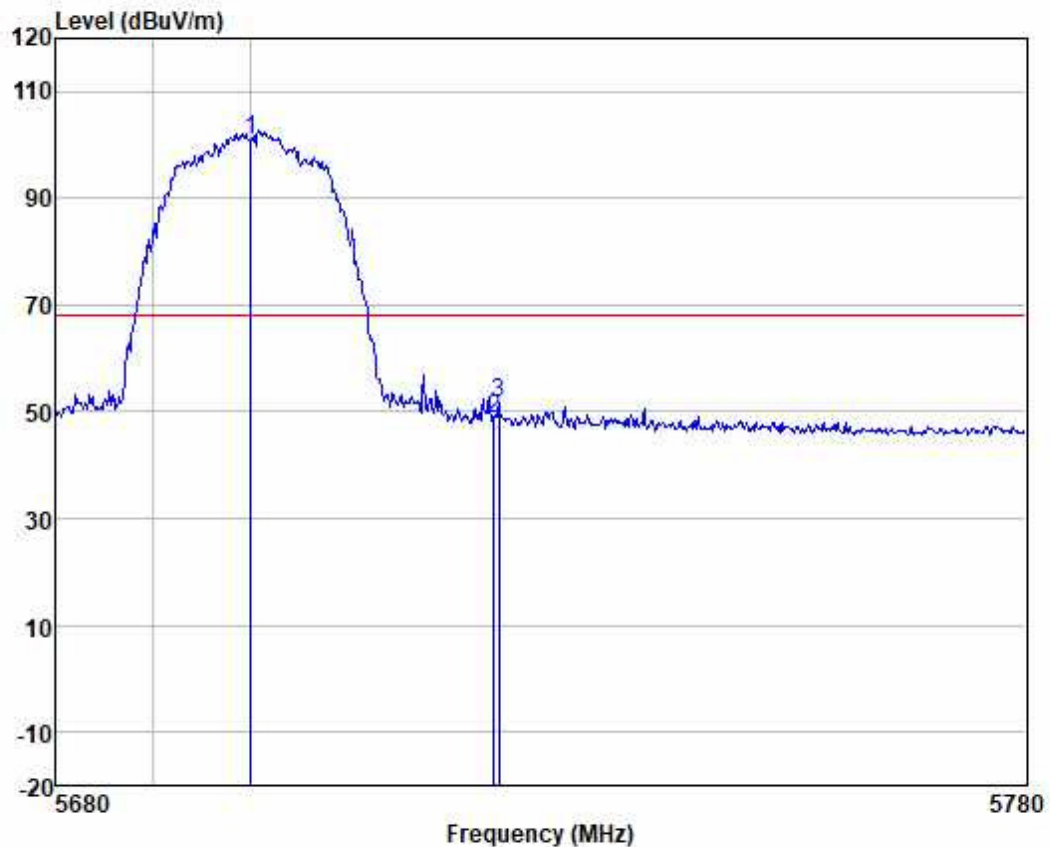
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



		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	5446.367	52.67	32.74	5.14	37.16	53.39	74.00	-20.61	HORIZONTAL	peak
2	5460.000	51.33	32.71	5.14	37.16	52.02	68.20	-16.18	HORIZONTAL	peak
3 *	5500.000	108.62	32.61	5.16	37.16	109.23	68.20	41.03	HORIZONTAL	peak



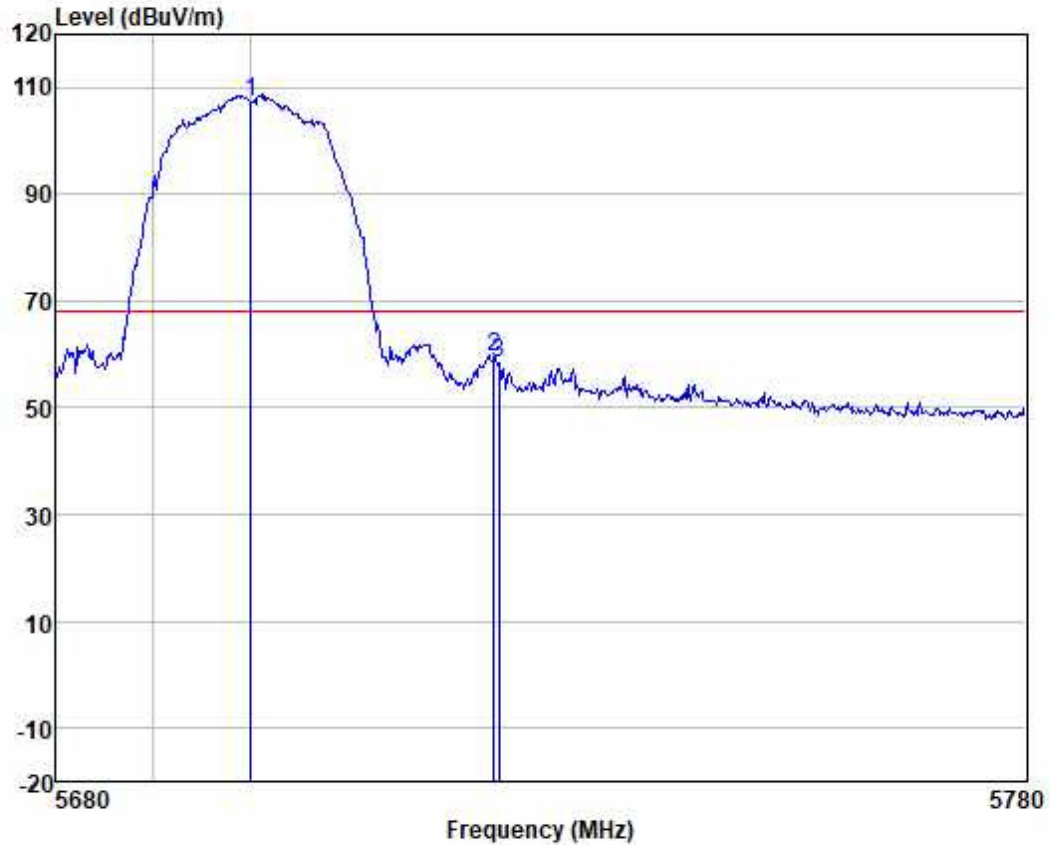
Test Mode: 06; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
		Level	Loss	Factor	Level	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	5700.000	100.15	32.64	5.26	37.13	100.92	68.20	32.72	VERTICAL peak
2	5725.000	47.77	32.65	5.29	37.13	48.58	68.20	-19.62	VERTICAL peak
3	5725.483	50.94	32.65	5.29	37.13	51.75	68.20	-16.45	VERTICAL peak



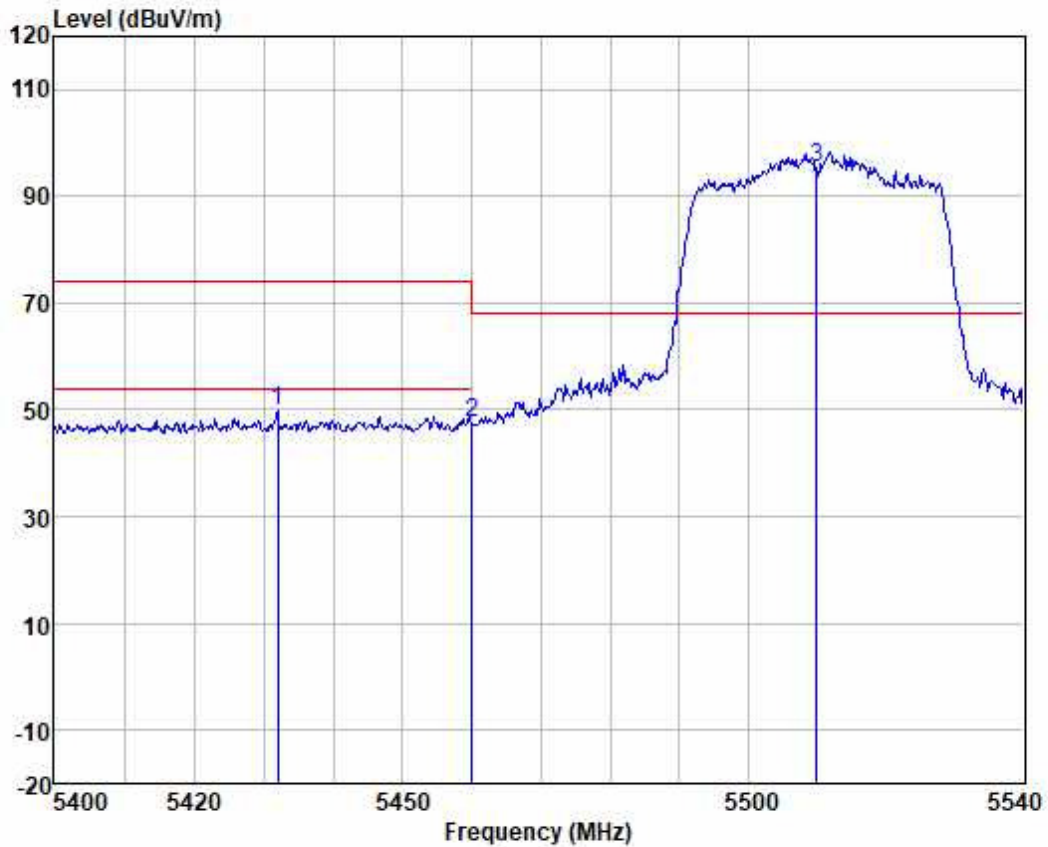
Test Mode: 06; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



	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 *	5700.000	106.44	32.64	5.26	37.13	107.21	68.20	39.01	HORIZONTAL peak
2	5725.000	58.58	32.65	5.29	37.13	59.39	68.20	-8.81	HORIZONTAL peak
3	5725.483	57.48	32.65	5.29	37.13	58.29	68.20	-9.91	HORIZONTAL peak



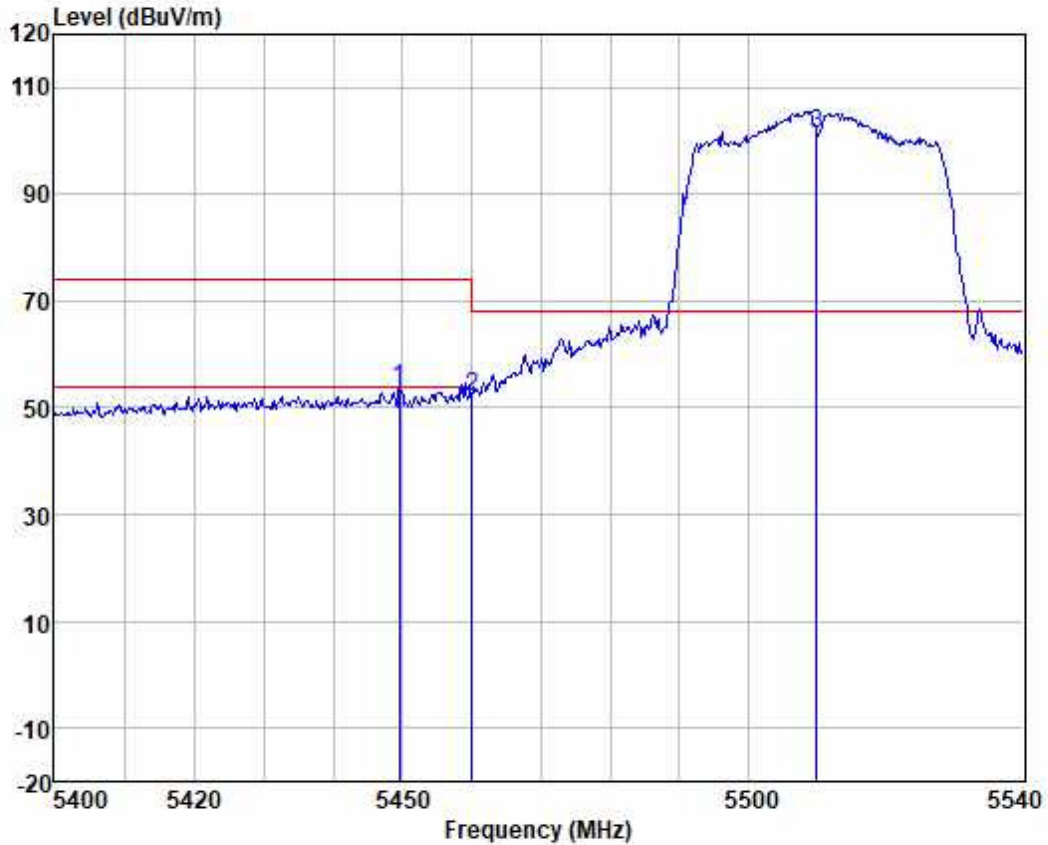
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	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	5432.022	48.93	32.78	5.13	37.17	49.67	74.00	-24.33	VERTICAL	peak
2	5460.000	46.75	32.71	5.14	37.16	47.44	68.20	-20.76	VERTICAL	peak
3 *	5510.000	94.57	32.61	5.16	37.16	95.18	68.20	26.98	VERTICAL	peak



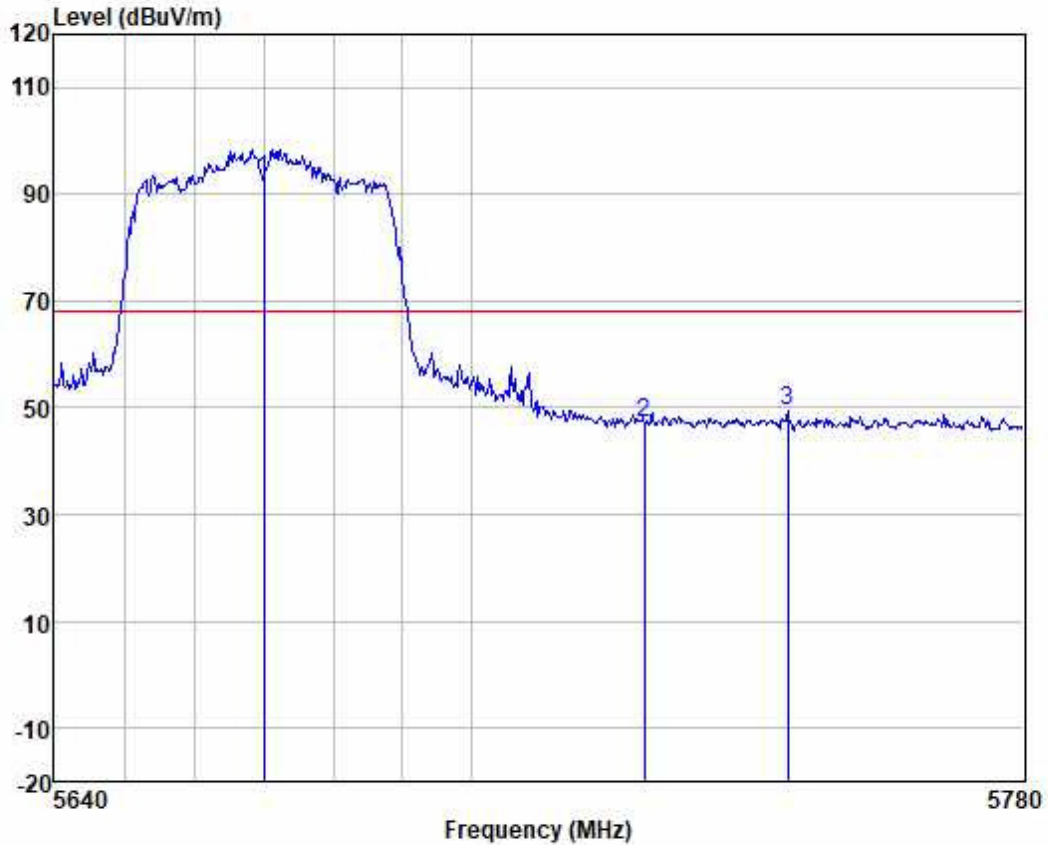
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



	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	5449.430	53.03	32.71	5.14	37.16	53.72	74.00	-20.28	HORIZONTAL	peak
2	5460.000	51.50	32.71	5.14	37.16	52.19	68.20	-16.01	HORIZONTAL	peak
3 *	5510.000	100.91	32.61	5.16	37.16	101.52	68.20	33.32	HORIZONTAL	peak



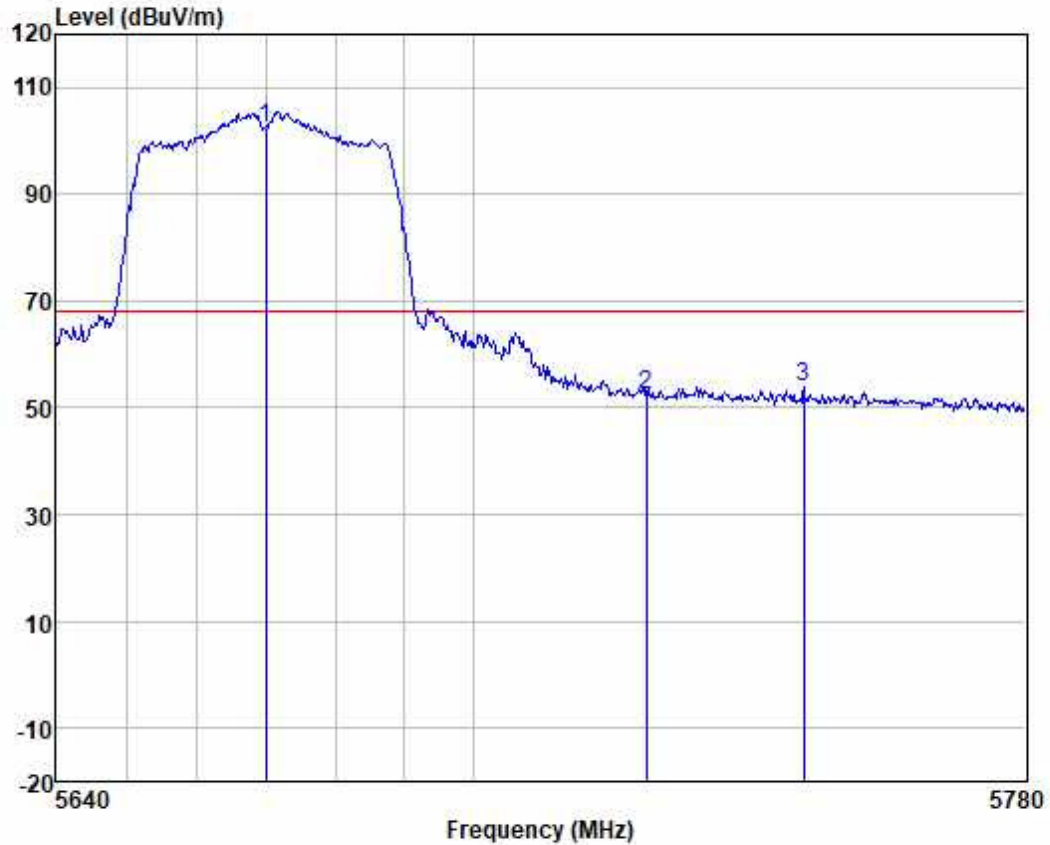
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
		Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1 *	5670.000	92.17	32.64	5.24	37.13	92.92	68.20	24.72	VERTICAL
2	5725.000	46.21	32.65	5.29	37.13	47.02	68.20	-21.18	VERTICAL
3	5745.805	48.50	32.65	5.30	37.13	49.32	68.20	-18.88	VERTICAL



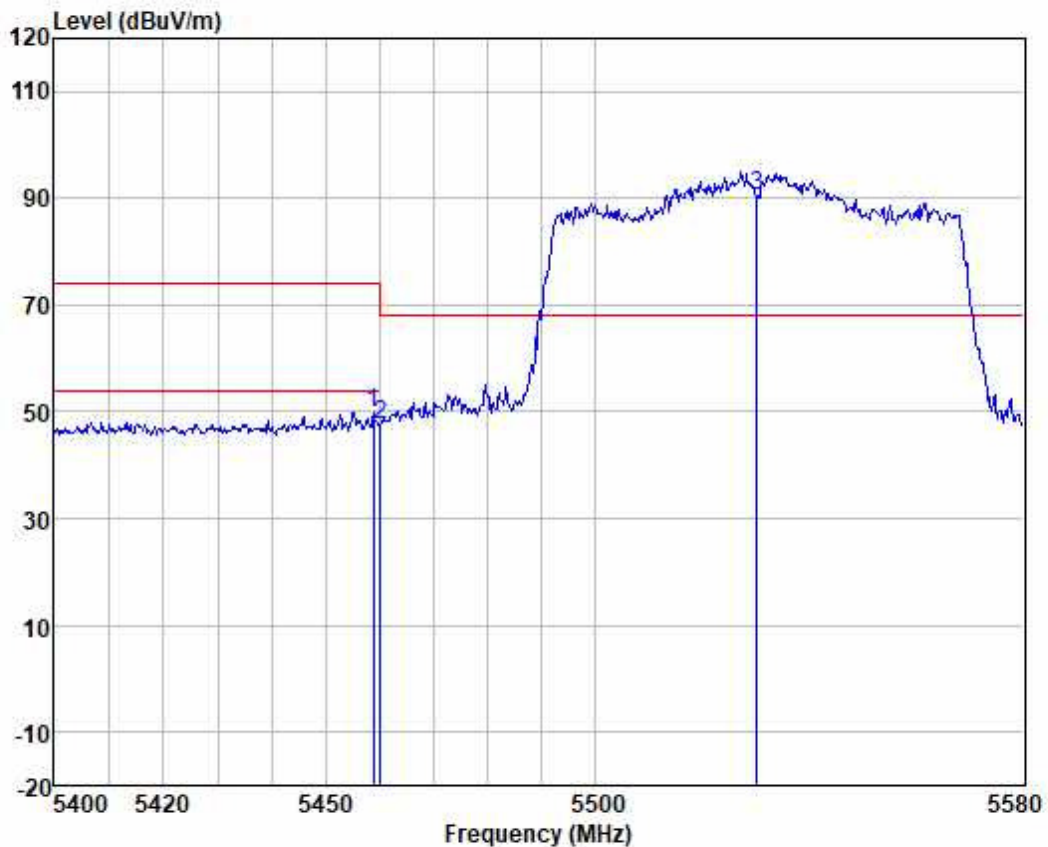
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



	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 *	5670.000	101.04	32.64	5.69	36.78	102.59	68.20	34.39	HORIZONTAL peak
2	5725.000	50.74	32.65	5.72	36.78	52.33	68.20	-15.87	HORIZONTAL peak
3	5747.777	52.40	32.65	5.74	36.79	54.00	68.20	-14.20	HORIZONTAL peak



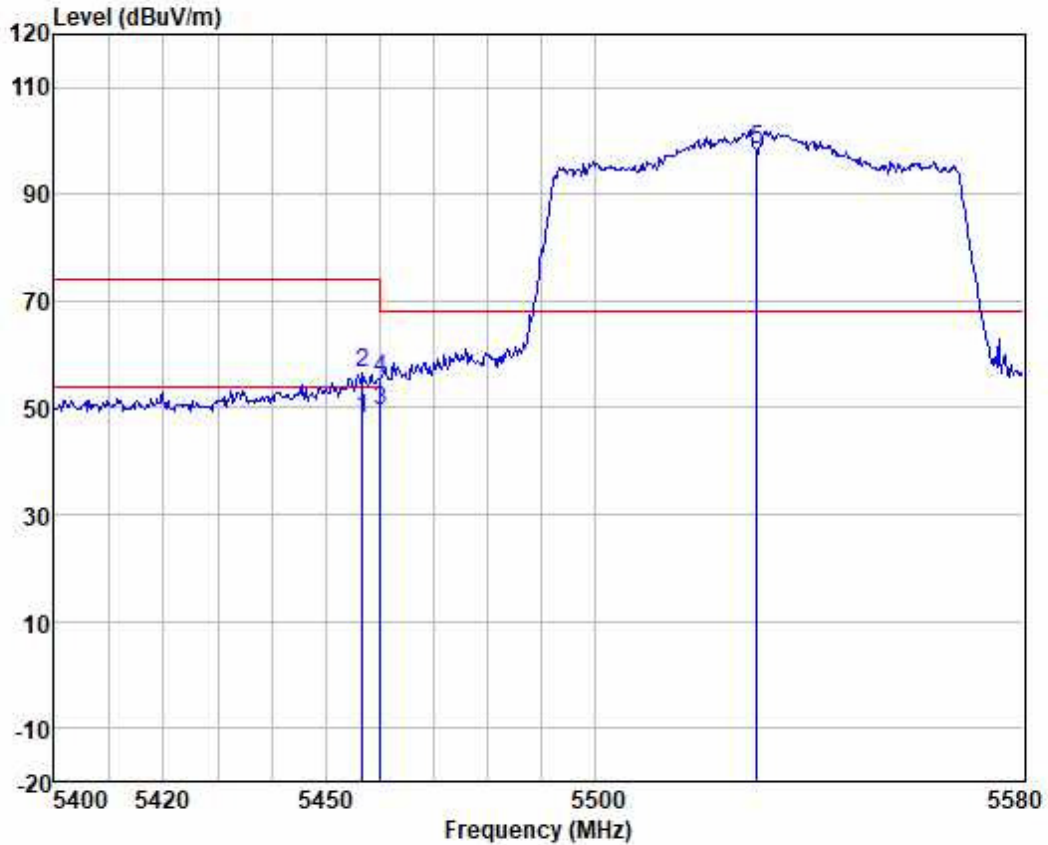
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



	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	5458.749	49.23	32.71	5.14	37.16	49.92	74.00	-24.08	VERTICAL	peak
2	5460.000	46.94	32.71	5.14	37.16	47.63	68.20	-20.57	VERTICAL	peak
3 *	5530.000	89.73	32.61	5.17	37.15	90.36	68.20	22.16	VERTICAL	peak



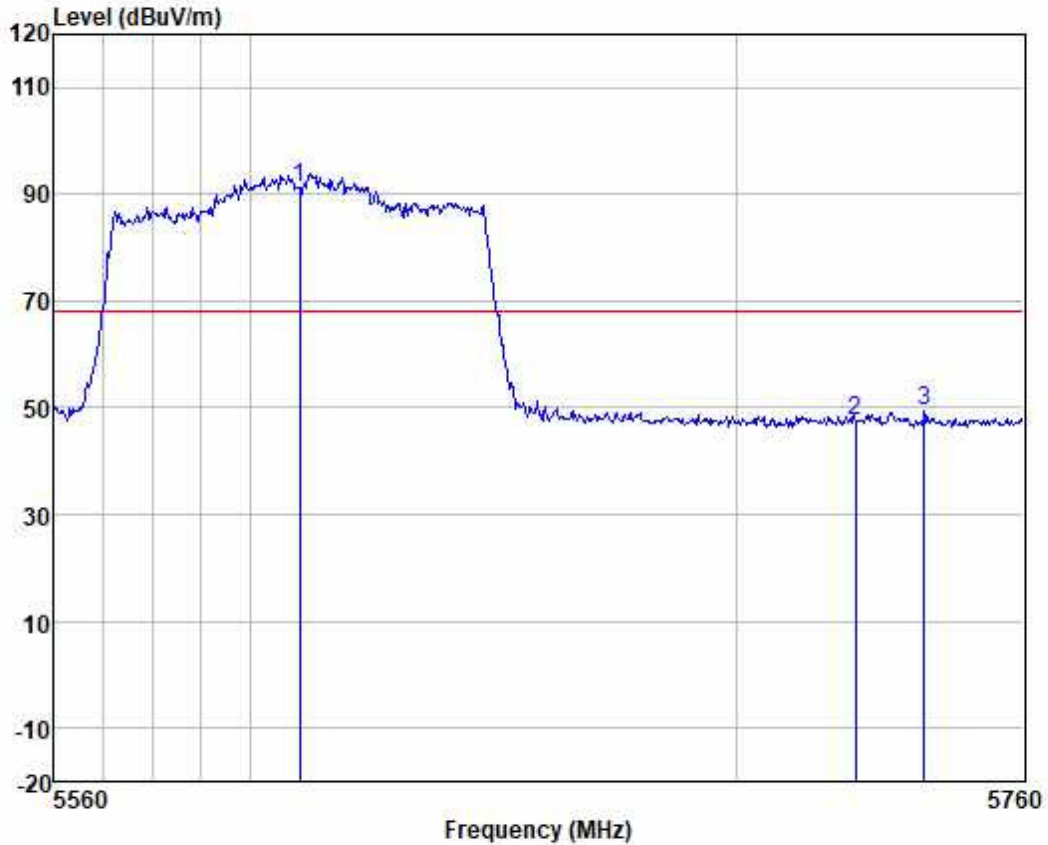
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



	Freq	ReadAntenna	Cable	Preamp		Limit	Over		
	MHz	Level	Factor	Loss	Factor	Level	Line	Limit	Pol/Phase
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	5456.601	47.43	32.71	5.14	37.16	48.12	54.00	-5.88	HORIZONTAL Average
2	5456.601	56.02	32.71	5.14	37.16	56.71	74.00	-17.29	HORIZONTAL peak
3	5460.000	48.58	32.71	5.14	37.16	49.27	54.00	-4.73	HORIZONTAL Average
4	5460.000	54.73	32.71	5.14	37.16	55.42	68.20	-12.78	HORIZONTAL peak
5 *	5530.000	97.61	32.61	5.17	37.15	98.24	68.20	30.04	HORIZONTAL peak



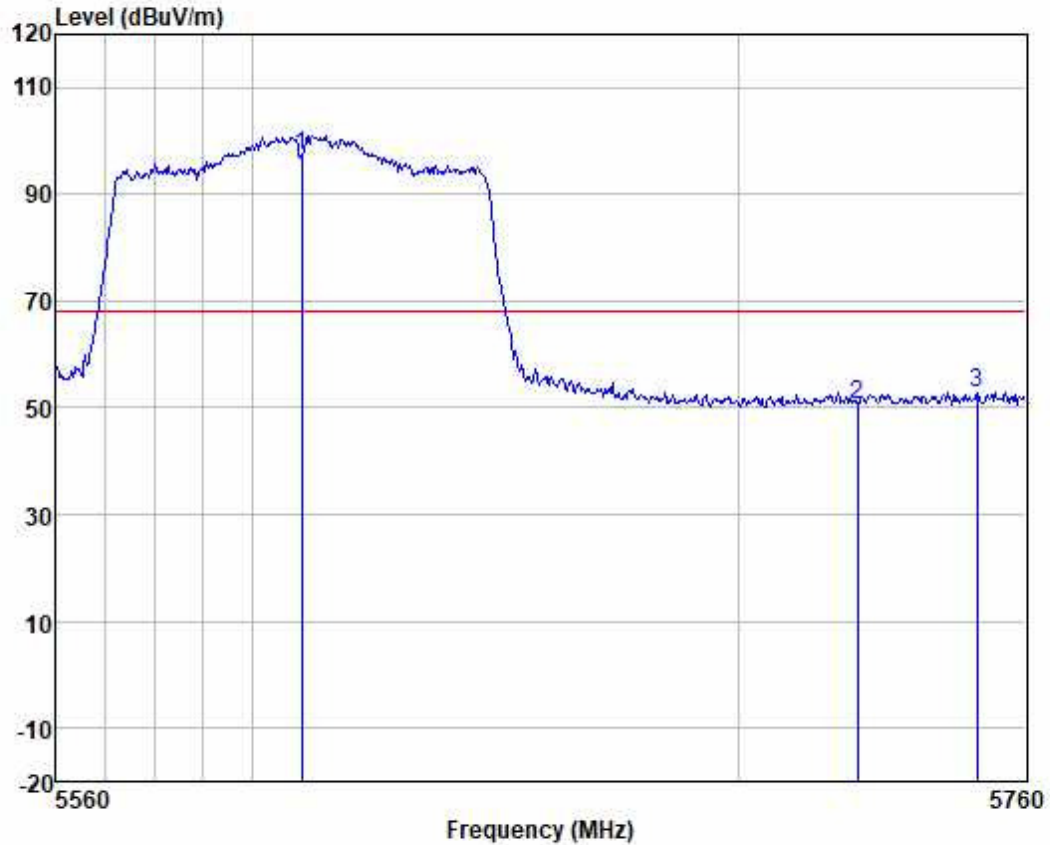
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



	Freq	ReadAntenna	Cable	Preamp	Limit	Over			
	Level	Factor	Loss	Factor	Line	Limit	Pol/Phase	Remark	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dB		
1 *	5610.000	90.53	32.63	5.21	37.14	91.23	68.20	23.03	VERTICAL peak
2	5725.000	46.76	32.65	5.29	37.13	47.57	68.20	-20.63	VERTICAL peak
3	5739.478	48.57	32.65	5.30	37.13	49.39	68.20	-18.81	VERTICAL peak



Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; 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 *	5610.000	96.41	32.63	5.21	37.14	97.11	68.20	28.91	HORIZONTAL peak
2	5725.000	49.93	32.65	5.29	37.13	50.74	68.20	-17.46	HORIZONTAL peak
3	5750.035	51.91	32.65	5.30	37.13	52.73	68.20	-15.47	HORIZONTAL peak



7.6 Duty Cycle

Test Requirement ANSI C63.10 (2013) Section 12.2

Test Method: ANSI C63.10 (2013) Section 12.2

7.6.1 E.U.T. Operation

Operating Environment:

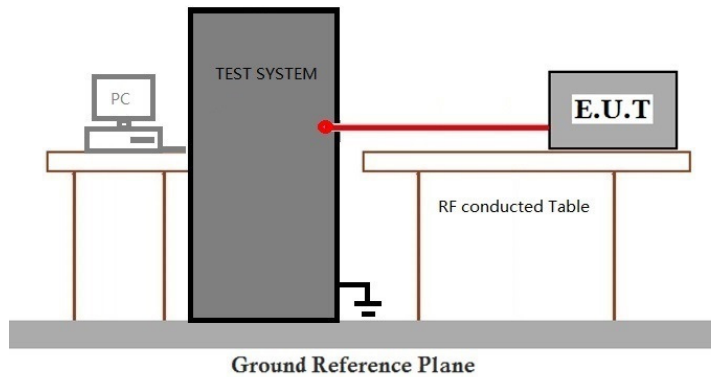
Temperature: 23.9 °C Humidity: 57.8 % RH Atmospheric Pressure: 1020 mbar

7.6.2 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, Only the data of worst case is recorded in the report.



7.6.3 Test Setup Diagram



7.6.4 Measurement Procedure and Data

Please Refer to Appendix for Details

7.7 99% Bandwidth

Test Requirement ANSI C63.10 (2013) Section 12.4.2

Test Method: ANSI C63.10 (2013) Section 12.4.2

7.7.1 E.U.T. Operation

Operating Environment:

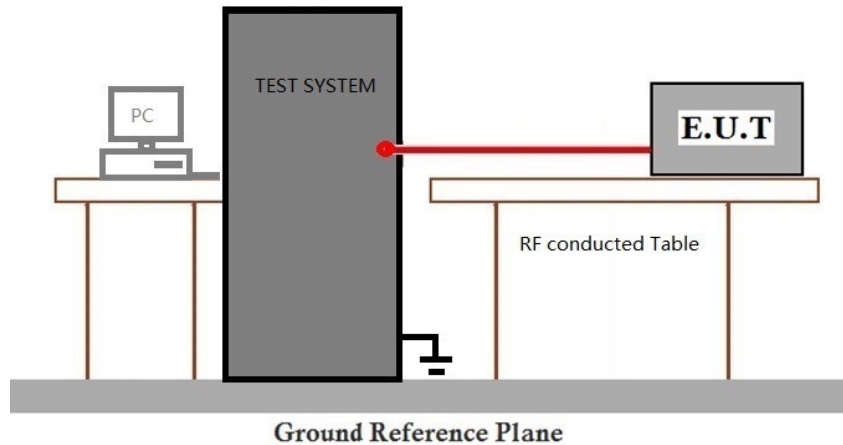
Temperature: 23.9 °C Humidity: 57.8 % RH Atmospheric Pressure: 1020 mbar

7.7.2 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, Only the data of worst case is recorded in the report.



7.7.3 Test Setup Diagram



7.7.4 Measurement Procedure and Data

Please Refer to Appendix for Details



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

7.8 26dB Emission bandwidth

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: ANSI C63.10 (2013) Section 12.4.1

7.8.1 E.U.T. Operation

Operating Environment:

Temperature: 23.9 °C

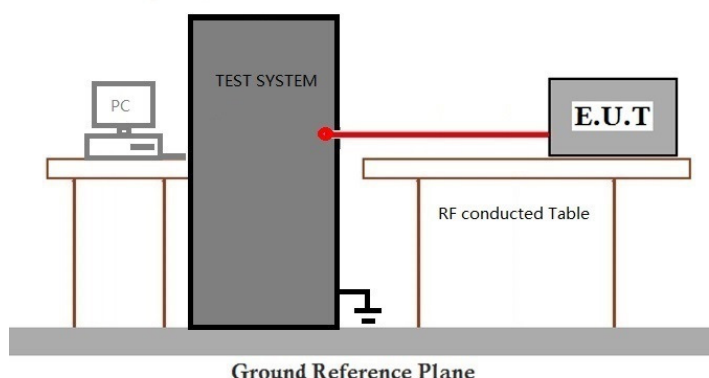
Humidity: 57.8 % RH

Atmospheric Pressure: 1020 mbar

7.8.2 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, Only the data of worst case is recorded in the report.

7.8.3 Test Setup Diagram



7.8.4 Measurement Procedure and Data

Please Refer to Appendix for Details



7.9 Minimum 6 dB bandwidth (5.725-5.85 GHz band)

Test Requirement 47 CFR Part 15, Subpart E 15.407 (e)

Test Method: ANSI C63.10 (2013) Section 6.9.2

Limit:

Frequency band(MHz)	Limit
5725-5850	≥500 kHz

7.9.1 E.U.T. Operation

Operating Environment:

Temperature: 23.9 °C

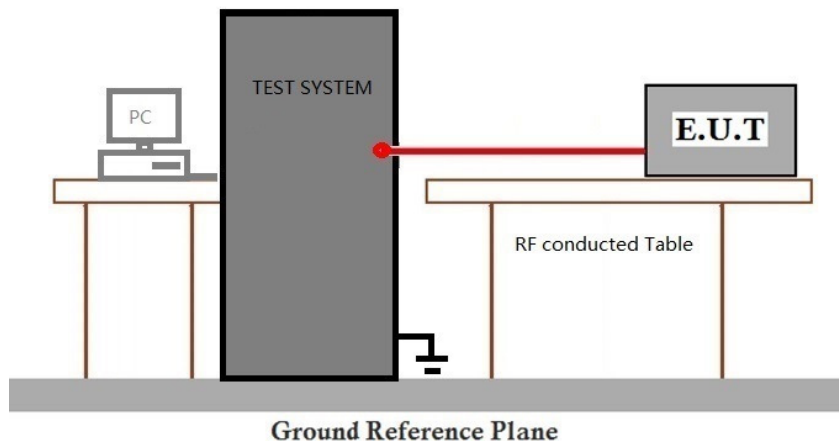
Humidity: 57.8 % RH

Atmospheric Pressure: 1020 mbar

7.9.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
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/ac 20/40/80, 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 Peak Power spectrum density

Test Requirement 47 CFR Part 15, Subpart E 15.407 (a)

Test Method: ANSI C63.10 (2013) Section 12.5

Limit:

Frequency band(MHz)	Limit
5150-5250	≤17dBm in 1MHz for master device
	≤11dBm in 1MHz for client device
5250-5350	≤11dBm in 1MHz for client device
5470-5725	≤11dBm in 1MHz for client device
5725-5850	≤30dBm in 500 kHz
Remark:	The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test.

7.10.1 E.U.T. Operation

Operating Environment:

Temperature: 23.9 °C

Humidity: 57.8 % RH

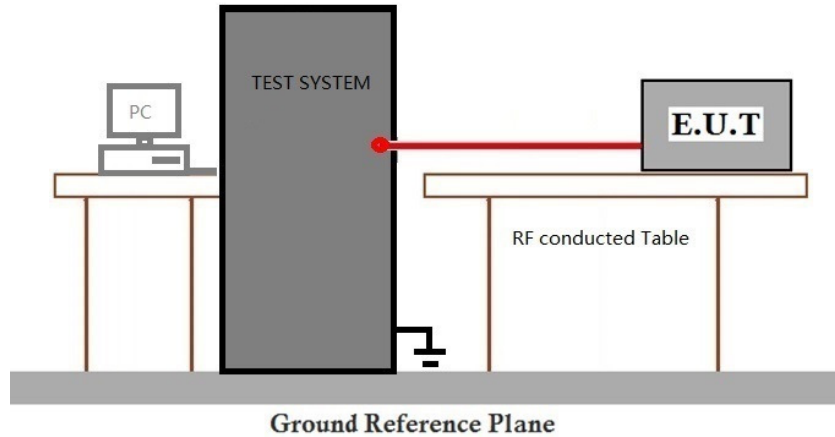
Atmospheric Pressure: 1020 mbar

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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, 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 Frequency Stability

Test Requirement 47 CFR Part 15, Subpart E 15.407 (g)

Test Method: ANSI C63.10 (2013) Section 6.8

7.11.1 E.U.T. Operation

Operating Environment:

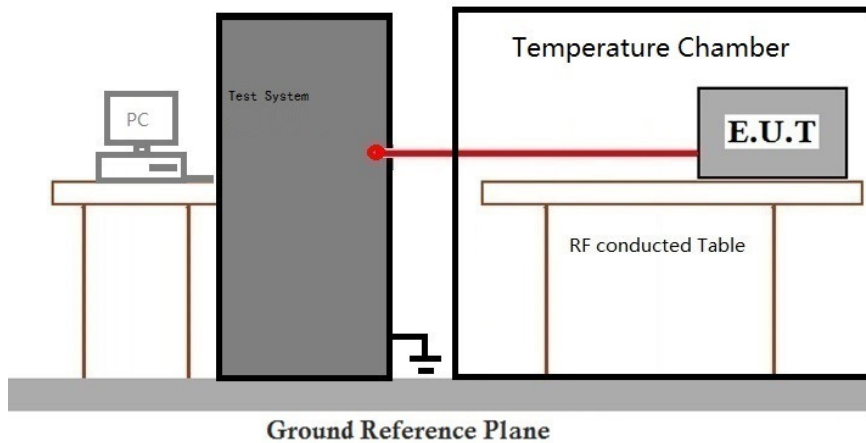
Temperature: 23.9 °C Humidity: 57.8 % RH Atmospheric Pressure: 1020 mbar

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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, 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/ac 20/40/80, Only the data of worst case is recorded in the report.



7.11.3 Test Setup Diagram



7.11.4 Measurement Procedure and Data

Please Refer to Appendix for Details

8 Test Setup Photo

Refer to Appendix_Test Setup Photo for GZCR250300030405



9 EUT Constructional Details (EUT Photos)

Refer to External and Internal Photos for GZCR2503000304HS



10 Appendix

1. Duty Cycle

1.1 Test Result

1.1.1 Ant1

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	1.430	1.530	93.46	0.29	0.03
		5240	1.428	1.529	93.39	0.30	0.03
		5260	1.429	1.530	93.40	0.30	0.00
		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	1.529	93.46	0.29	0.03
		5700	1.429	1.529	93.46	0.29	0.06
		5745	1.429	1.529	93.46	0.29	0.03
		5785	1.429	1.529	93.46	0.29	0.00
802.11n (HT40)	SISO	5825	1.429	1.529	93.46	0.29	0.03
		5190	0.664	0.766	86.68	0.62	0.04
		5230	0.664	0.766	86.68	0.62	0.03
		5270	0.664	0.765	86.80	0.61	0.07
		5310	0.670	0.766	87.47	0.58	0.03
		5510	0.664	0.766	86.68	0.62	0.03
		5550	0.670	0.765	87.58	0.58	0.04
		5670	0.665	0.766	86.81	0.61	0.04
		5755	0.664	0.765	86.80	0.61	0.03
802.11ac (VHT80)	SISO	5795	0.669	0.765	87.45	0.58	0.07
		5210	0.331	0.434	76.27	1.18	0.06
		5290	0.333	0.434	76.73	1.15	0.03
		5530	0.332	0.434	76.50	1.16	0.05
		5610	0.338	0.434	77.88	1.09	0.11
		5775	0.332	0.434	76.50	1.16	0.05

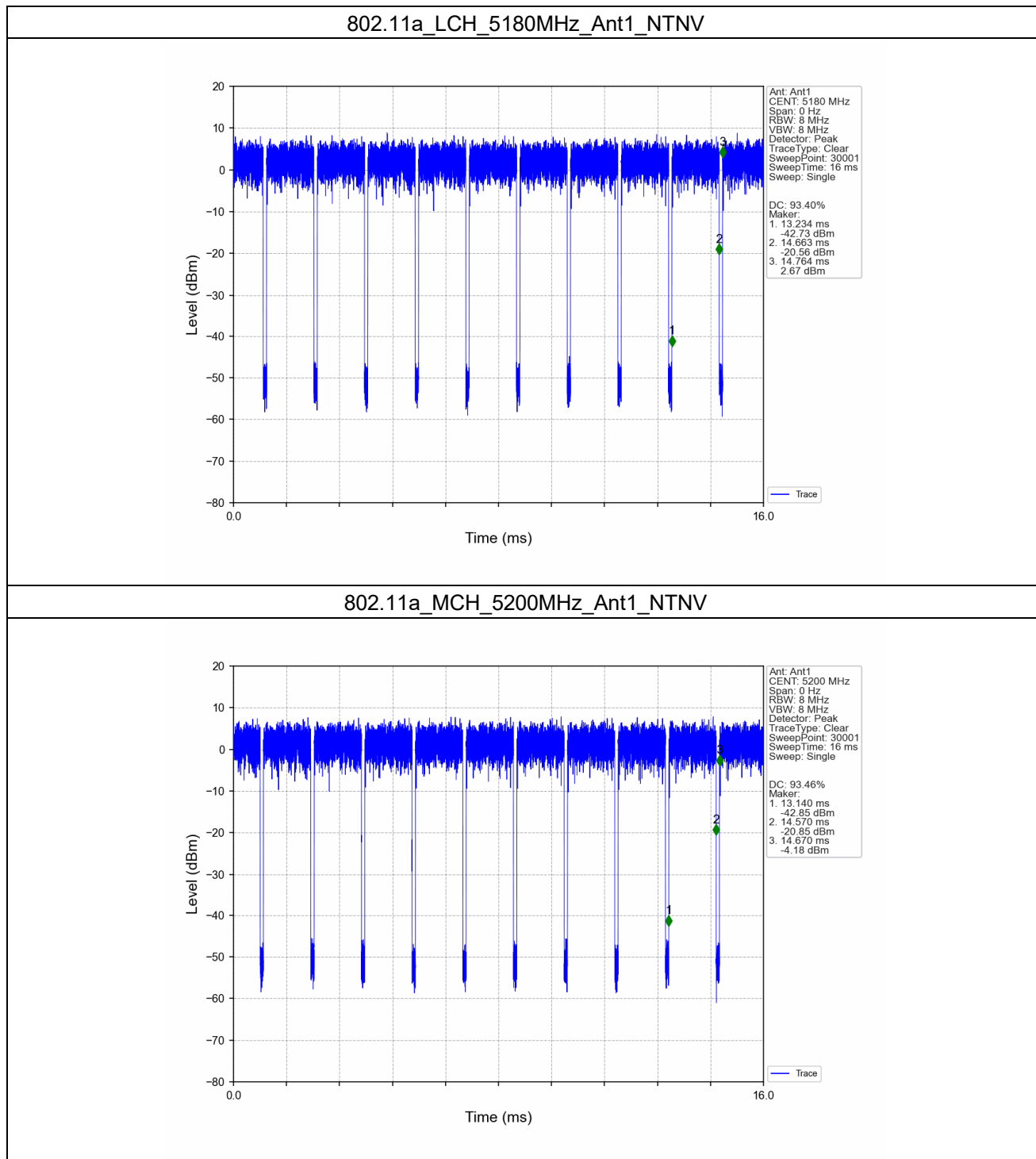


Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

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

1.2 Test Graph

1.2.1 Ant1



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <https://www.sgs.com/en/Terms-and-Conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

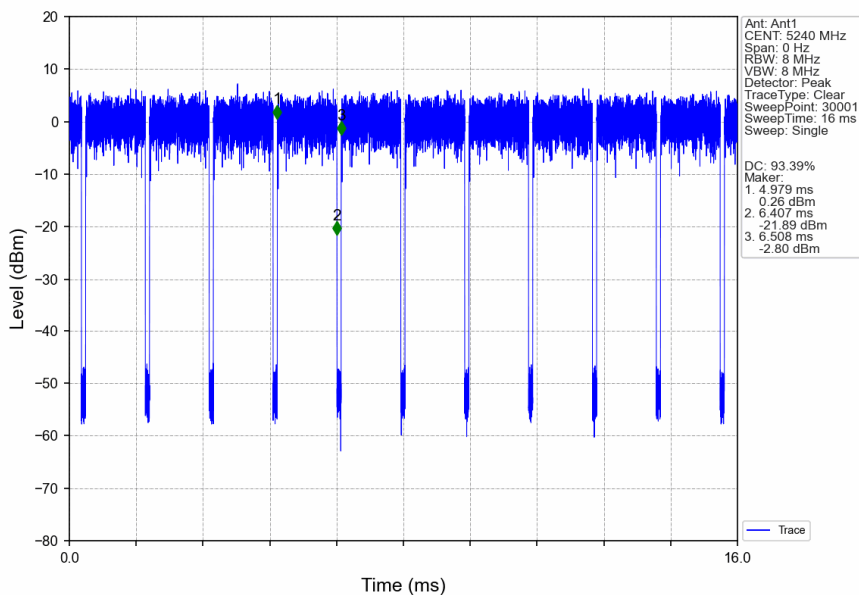
Attention: To check the authenticity of testing /inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Branch (CMAA, CNAS, EEC Laboratory)

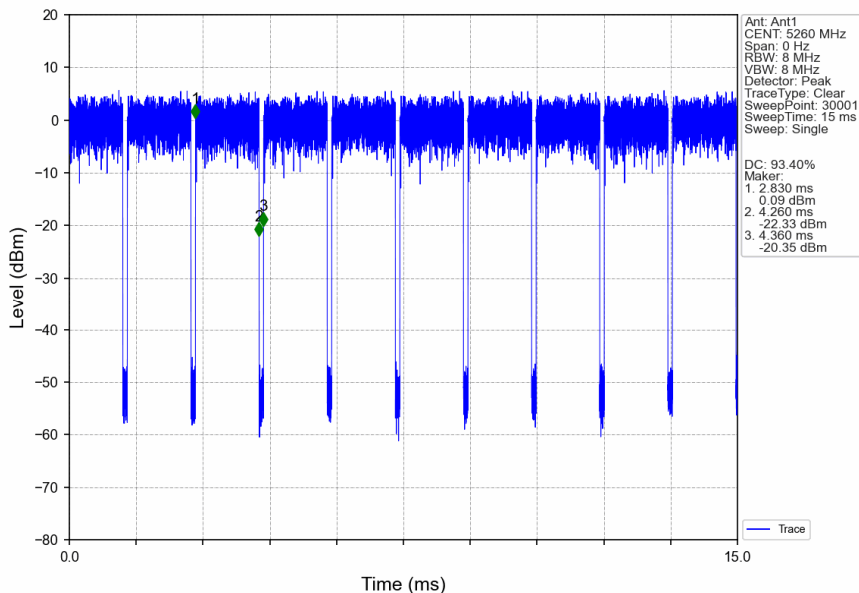
No.198, Kezhu Road, Science City, Economic & Technological Development Area, Guangzhou, Guangdong, China 510663
中国·广东·广州高新技术产业开发区科学城科珠路198号 邮编: 510663

t (86-20) 82155555 www.sgsgroup.com.cn
t (86-20) 82155555 sgs.china@sgs.com

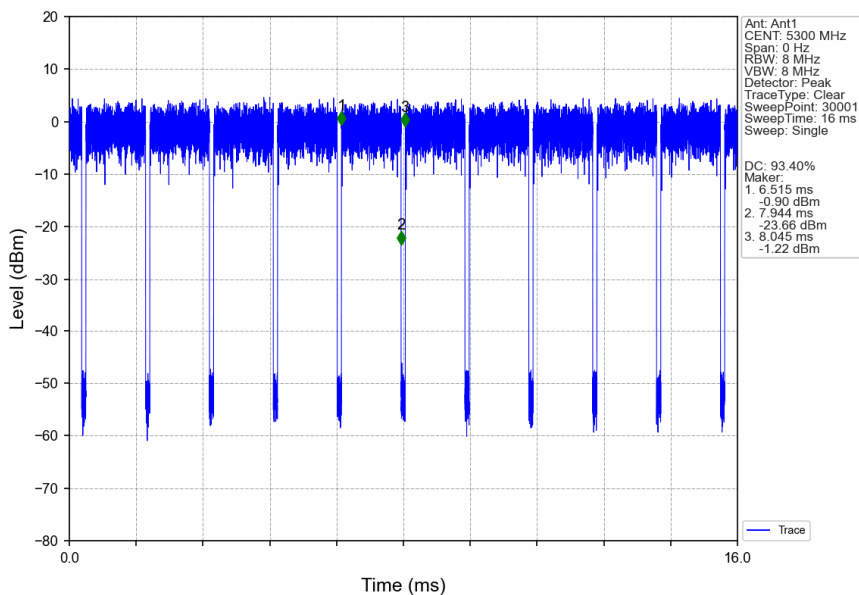
802.11a_HCH_5240MHz_Ant1_NTNV



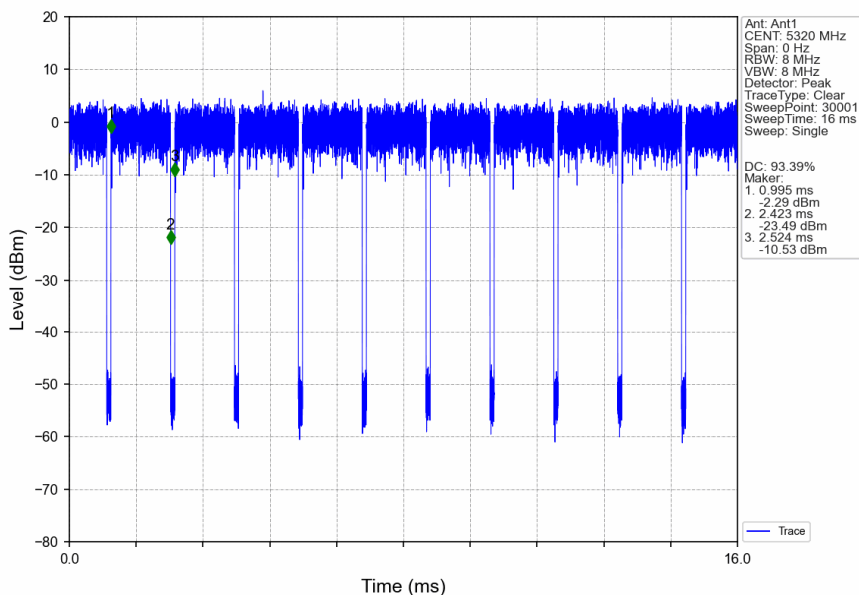
802.11a_LCH_5260MHz_Ant1_NTNV



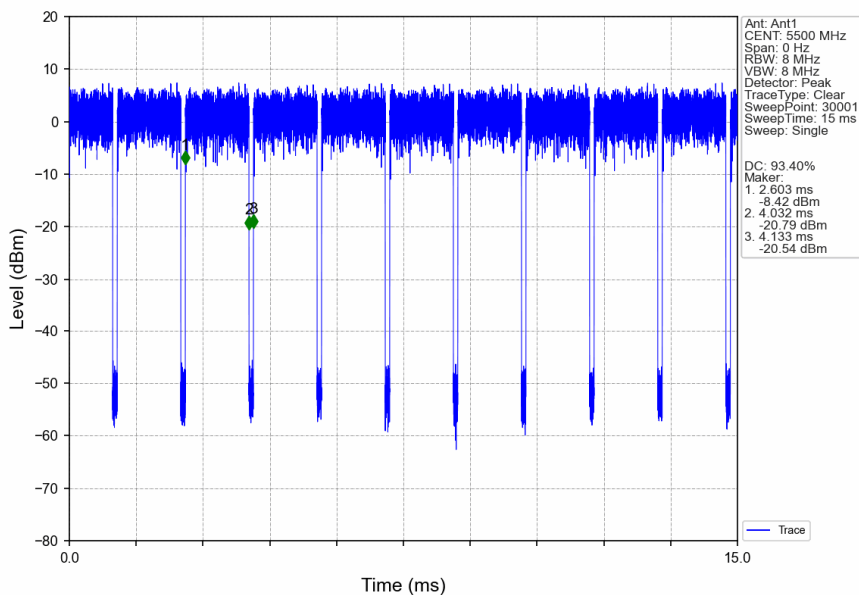
802.11a_MCH_5300MHz_Ant1_NTNV



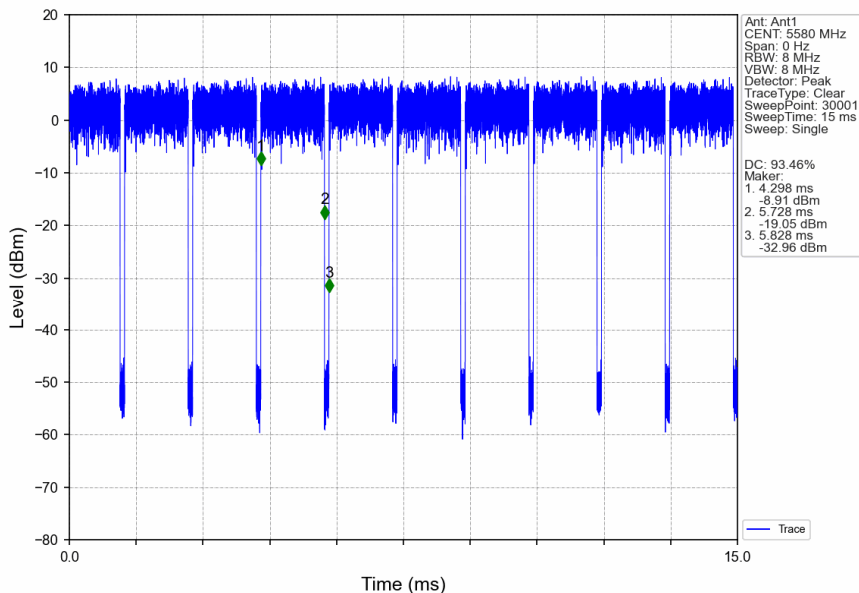
802.11a_HCH_5320MHz_Ant1_NTNV



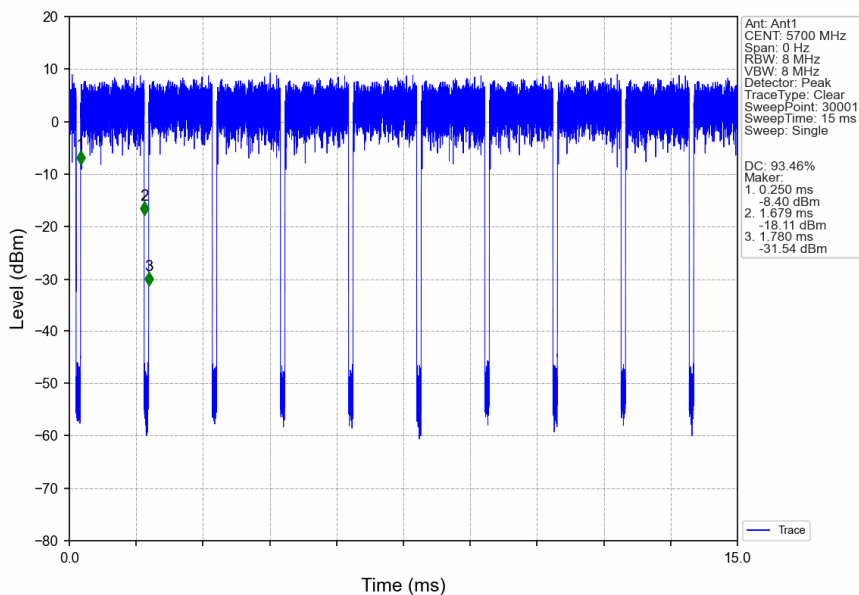
802.11a_LCH_5500MHz_Ant1_NTNV



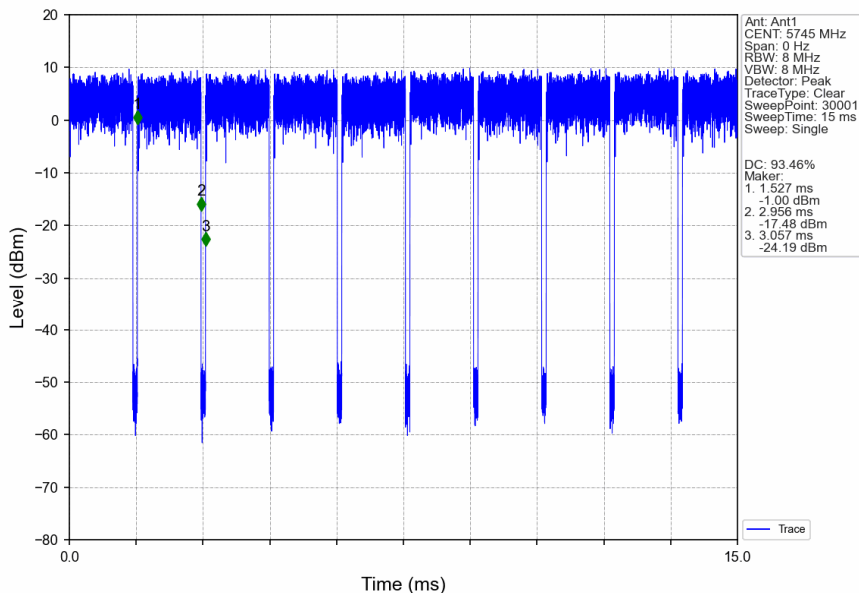
802.11a_MCH_5580MHz_Ant1_NTNV



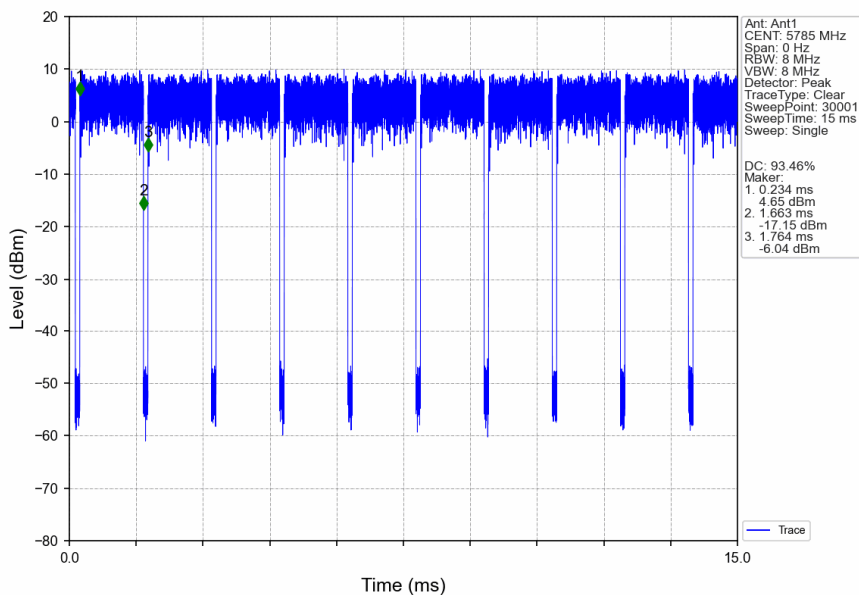
802.11a_HCH_5700MHz_Ant1_NTNV



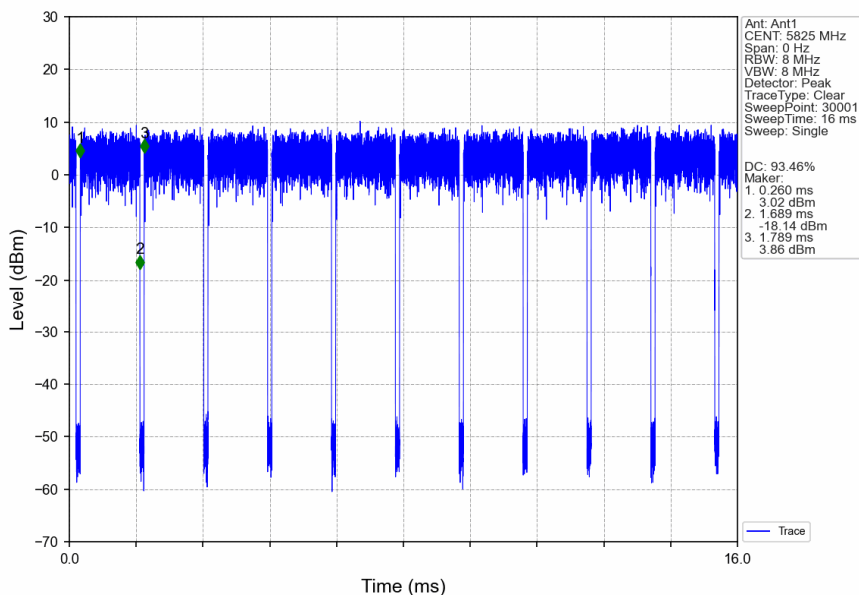
802.11a_LCH_5745MHz_Ant1_NTNV



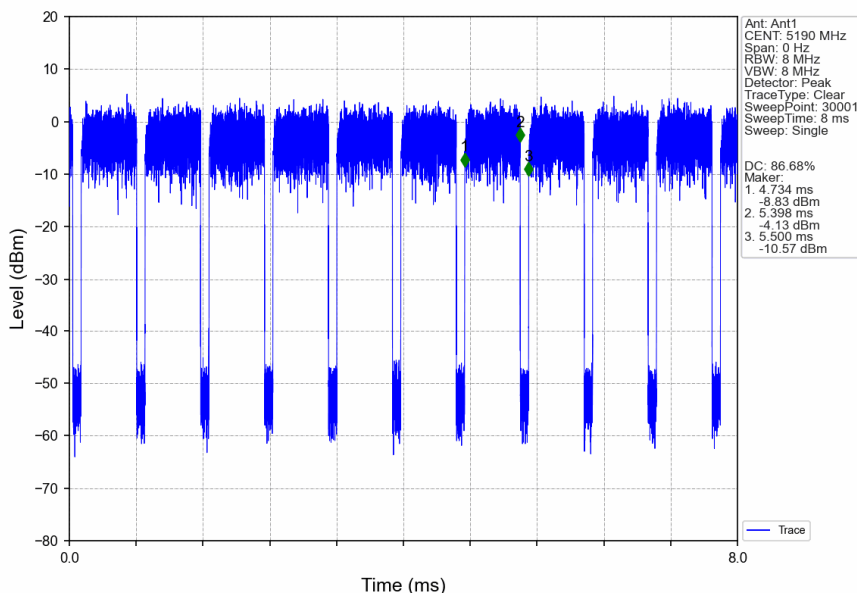
802.11a_MCH_5785MHz_Ant1_NTNV



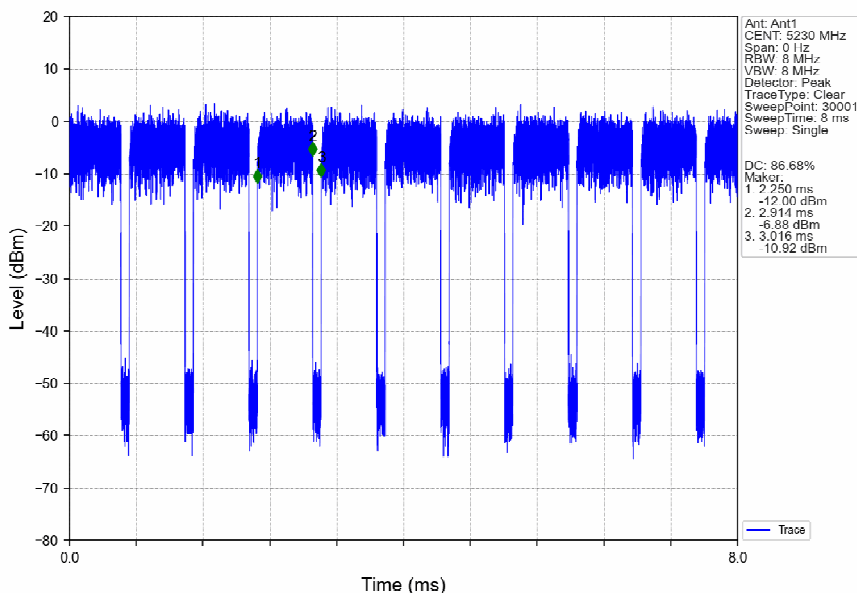
802.11a_HCH_5825MHz_Ant1_NTNV



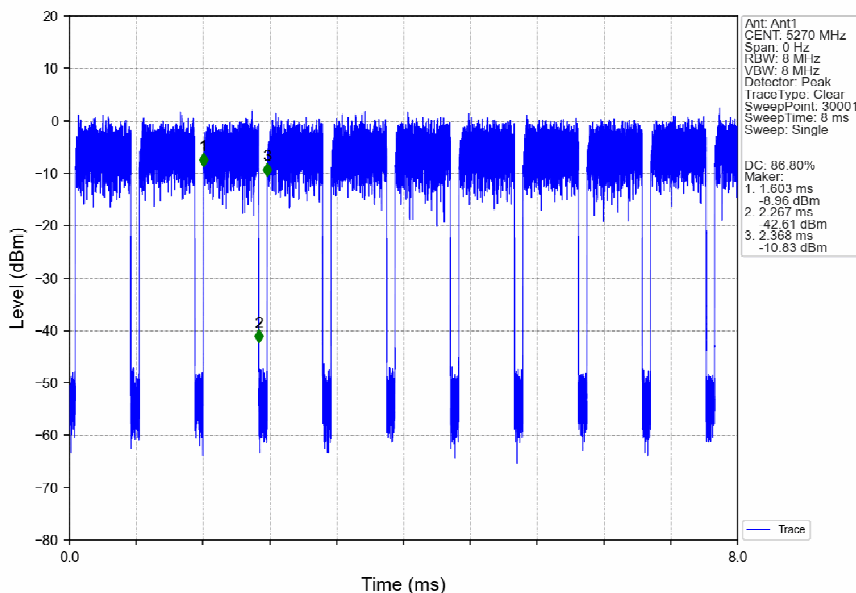
802.11n(HT40)_LCH_5190MHz_Ant1_NTNV



802.11n(HT40)_HCH_5230MHz_Ant1_NTNV



802.11n(HT40)_LCH_5270MHz_Ant1_NTNV



802.11n(HT40)_HCH_5310MHz_Ant1_NTNV

