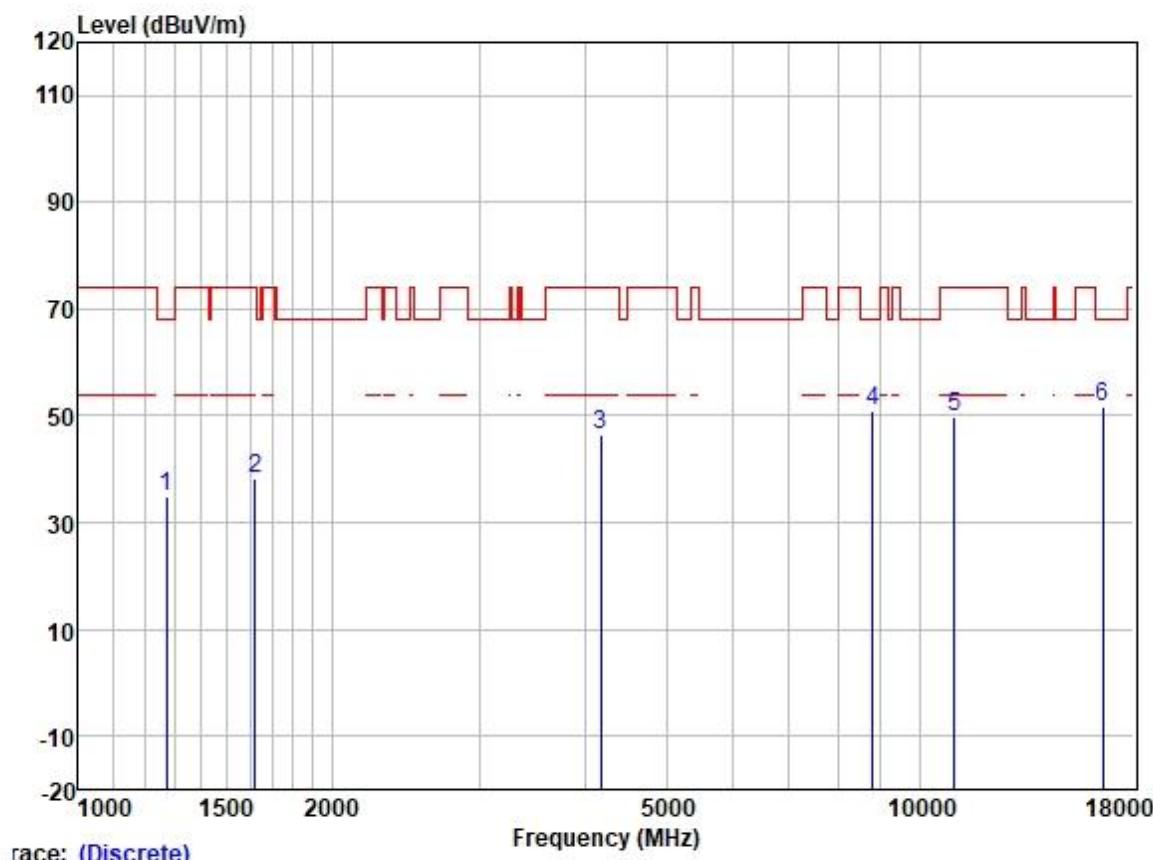


Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Trace	Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
		MHz	dBuV	Level	Factor				dB	dB	dBuV/m	dBuV/m	dB	
1	1271.123	45.62	25.11	2.46	38.33	34.86	68.20	-33.34	HORIZONTAL	Peak				
2	1620.431	47.76	25.60	2.80	37.95	38.21	74.00	-35.79	HORIZONTAL	Peak				
3	4181.768	48.70	30.12	4.60	36.80	46.62	74.00	-27.38	HORIZONTAL	Peak				
4	8789.516	44.05	37.33	7.24	37.54	51.08	68.20	-17.12	HORIZONTAL	Peak				
5	11000.000	39.39	40.10	7.71	37.25	49.95	74.00	-24.05	HORIZONTAL	Peak				
6	16500.000	38.07	39.60	9.44	35.38	51.73	68.20	-16.47	HORIZONTAL	Peak				

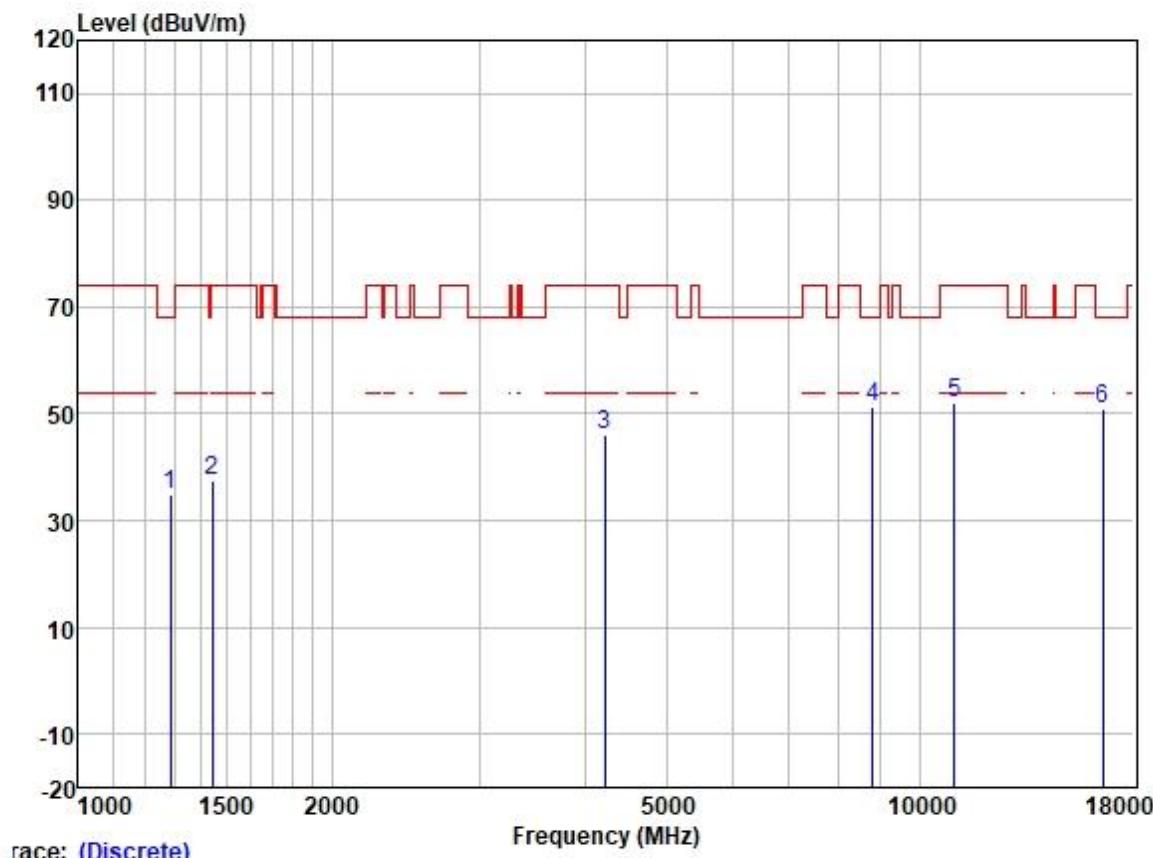
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Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Line	Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Level	Limit	Over	Line	Limit	Pol/Phase	Remark
		MHz	dBuV	Level	Factor				dB	dB	dBuV/m	dBuV/m	dB	dB	dB
1	1285.904	45.46	25.16	2.53	38.33	34.82	68.20	-33.38	VERTICAL	Peak					
2	1443.509	47.45	25.44	2.69	38.17	37.41	74.00	-36.59	VERTICAL	Peak					
3	4230.396	48.05	30.26	4.61	36.81	46.11	74.00	-27.89	VERTICAL	Peak					
4	8789.516	44.38	37.33	7.24	37.54	51.41	68.20	-16.79	VERTICAL	Peak					
5	11000.000	41.46	40.10	7.71	37.25	52.02	74.00	-21.98	VERTICAL	Peak					
6	16500.000	37.15	39.60	9.44	35.38	50.81	68.20	-17.39	VERTICAL	Peak					

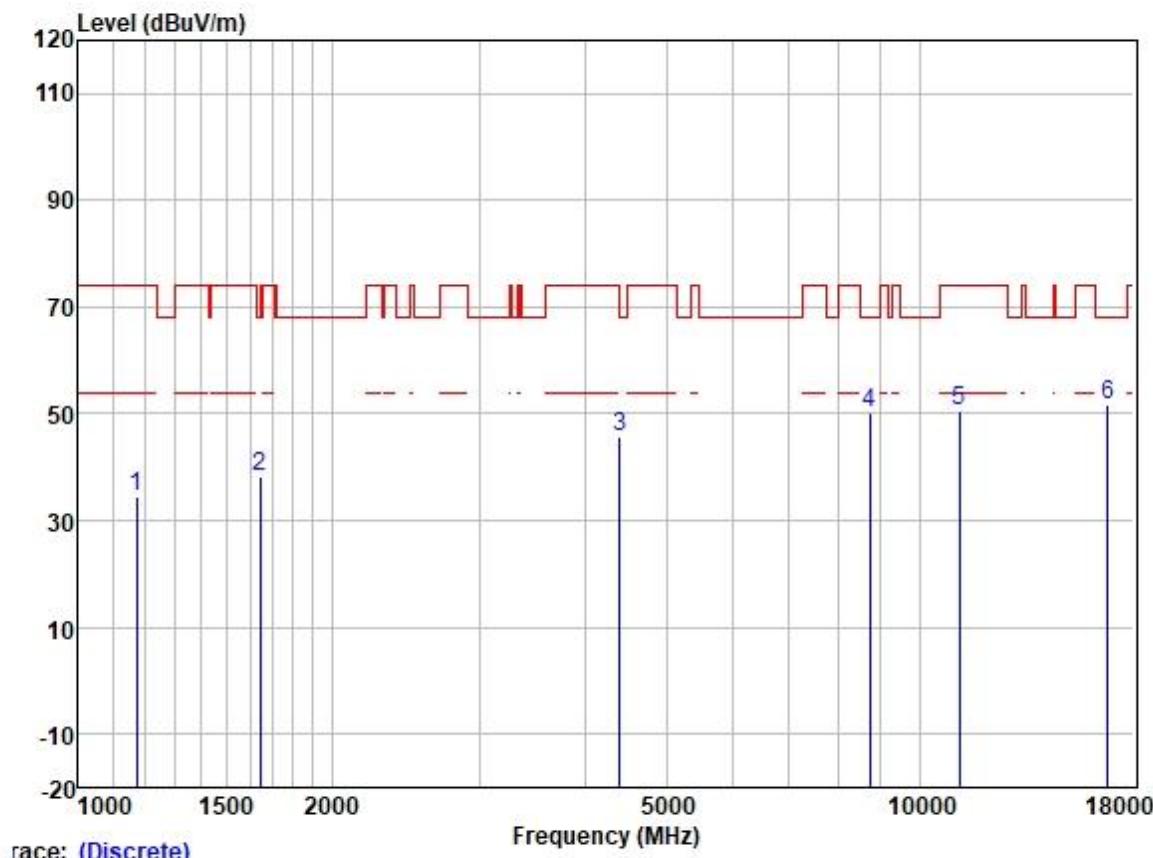
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Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Mode: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Pol/Phase	Remark
	Level	Factor	Loss	Factor							
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB				
1 1172.303	46.11	24.56	2.39	38.40	34.66	74.00	-39.34	HORIZONTAL	Peak		
2 1644.019	47.71	25.63	2.80	37.93	38.21	68.20	-29.99	HORIZONTAL	Peak		
3 4405.090	47.19	30.68	4.70	36.81	45.76	68.20	-22.44	HORIZONTAL	Peak		
4 8738.852	43.45	37.31	7.13	37.54	50.35	68.20	-17.85	HORIZONTAL	Peak		
5 11160.000	39.85	40.04	7.90	37.21	50.58	74.00	-23.42	HORIZONTAL	Peak		
6 16740.000	37.15	40.49	9.41	35.37	51.68	68.20	-16.52	HORIZONTAL	Peak		

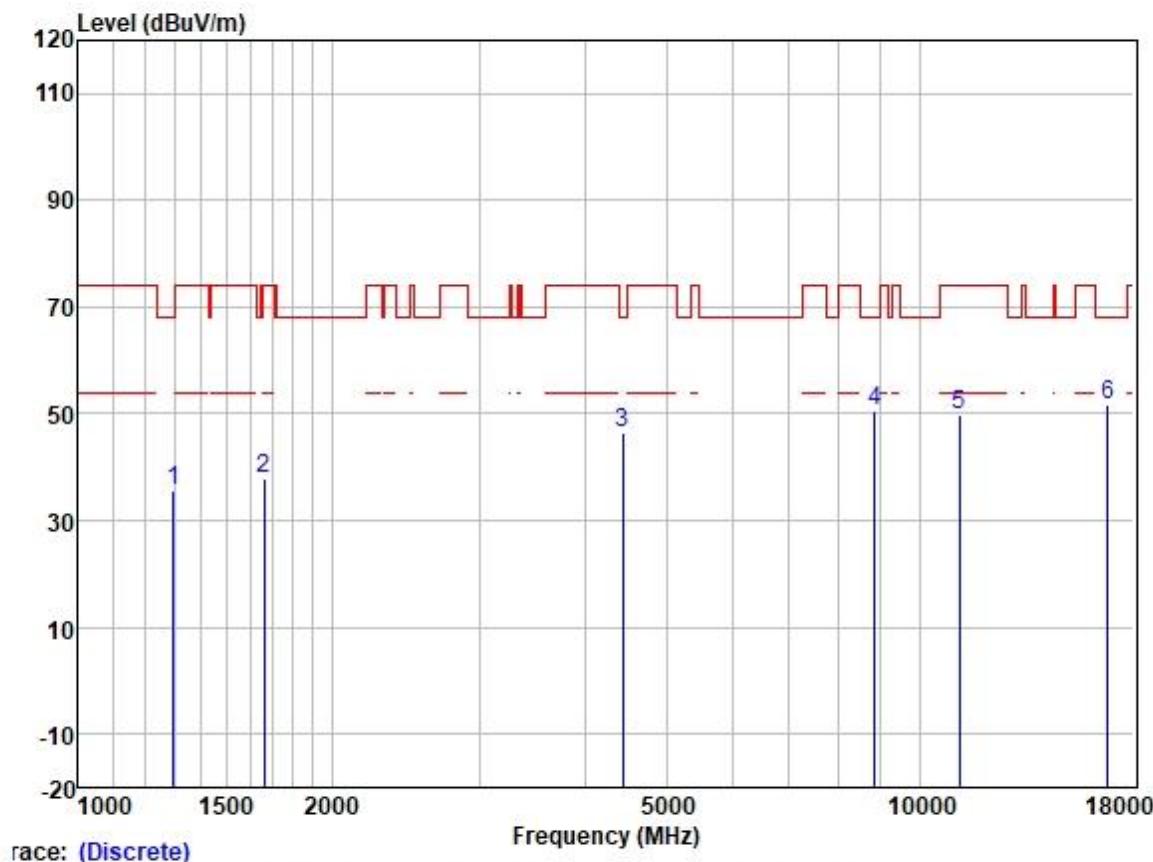
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Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Mode: (Discrete)

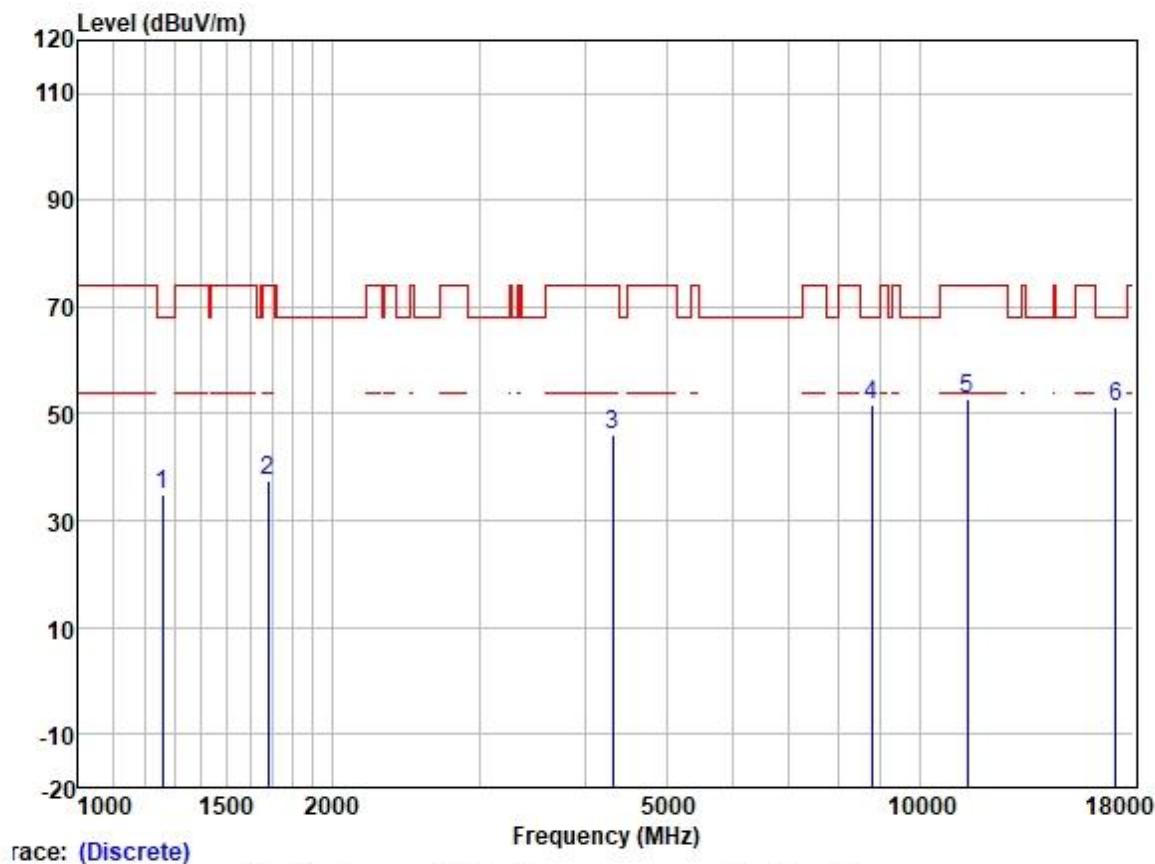
Line	Freq	ReadAntenna		Cable		Preamp	Limit	Over	Limit	Over	Pol/Phase	Remark
		Freq	Level	Factor	Loss							
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	dB	dB		
1	1297.103	46.01	25.19	2.58	38.31	35.47	68.20	-32.73	VERTICAL	Peak		
2	1663.137	47.32	25.65	2.80	37.91	37.86	74.00	-36.14	VERTICAL	Peak		
3	4443.453	47.67	30.73	4.83	36.81	46.42	68.20	-21.78	VERTICAL	Peak		
4	8840.473	43.33	37.35	7.34	37.53	50.49	68.20	-17.71	VERTICAL	Peak		
5	11160.000	39.12	40.04	7.90	37.21	49.85	74.00	-24.15	VERTICAL	Peak		
6	16740.000	37.28	40.49	9.41	35.37	51.81	68.20	-16.39	VERTICAL	Peak		

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



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

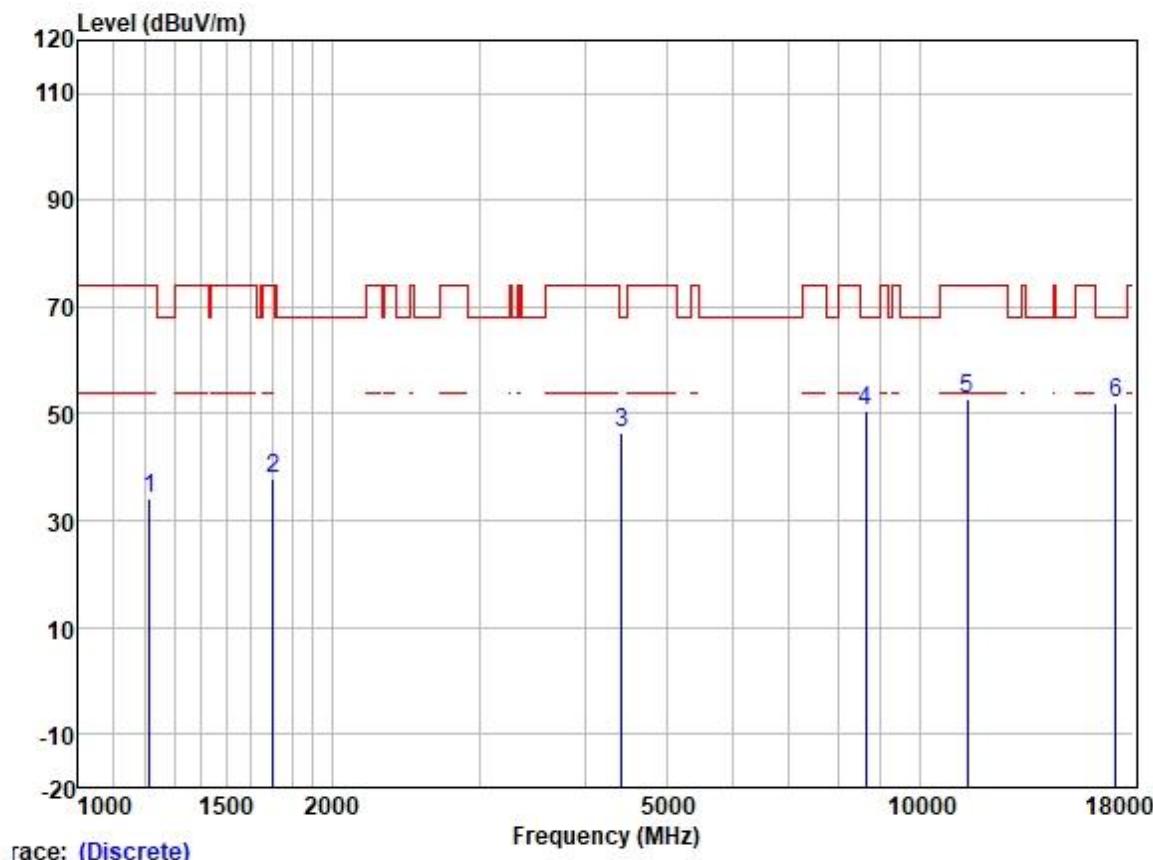


Table: (Discrete)

Line	Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
		MHz	dBuV	Level	Factor				dB	dBuV/m	dBuV/m	dB		
1	1213.677	45.51	24.77	2.32	38.37	34.23	74.00	-39.77	VERTICAL			Peak		
2	1702.042	47.15	25.72	2.80	37.89	37.78	74.00	-36.22	VERTICAL			Peak		
3	4430.628	47.62	30.72	4.78	36.81	46.31	68.20	-21.89	VERTICAL			Peak		
4	8638.399	44.04	37.26	6.92	37.55	50.67	68.20	-17.53	VERTICAL			Peak		
5	11400.000	41.74	39.94	8.28	37.16	52.80	74.00	-21.20	VERTICAL			Peak		
6	17100.000	35.42	42.32	9.63	35.34	52.03	68.20	-16.17	VERTICAL			Peak		

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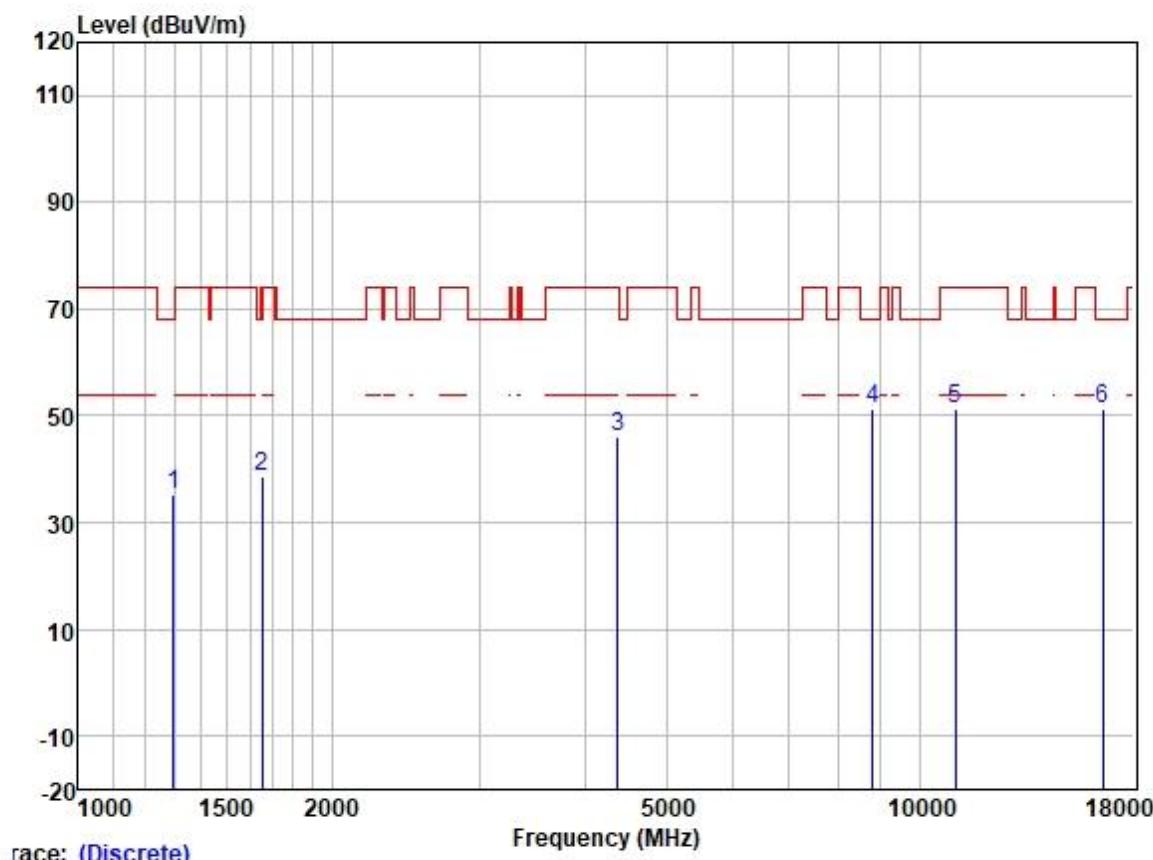
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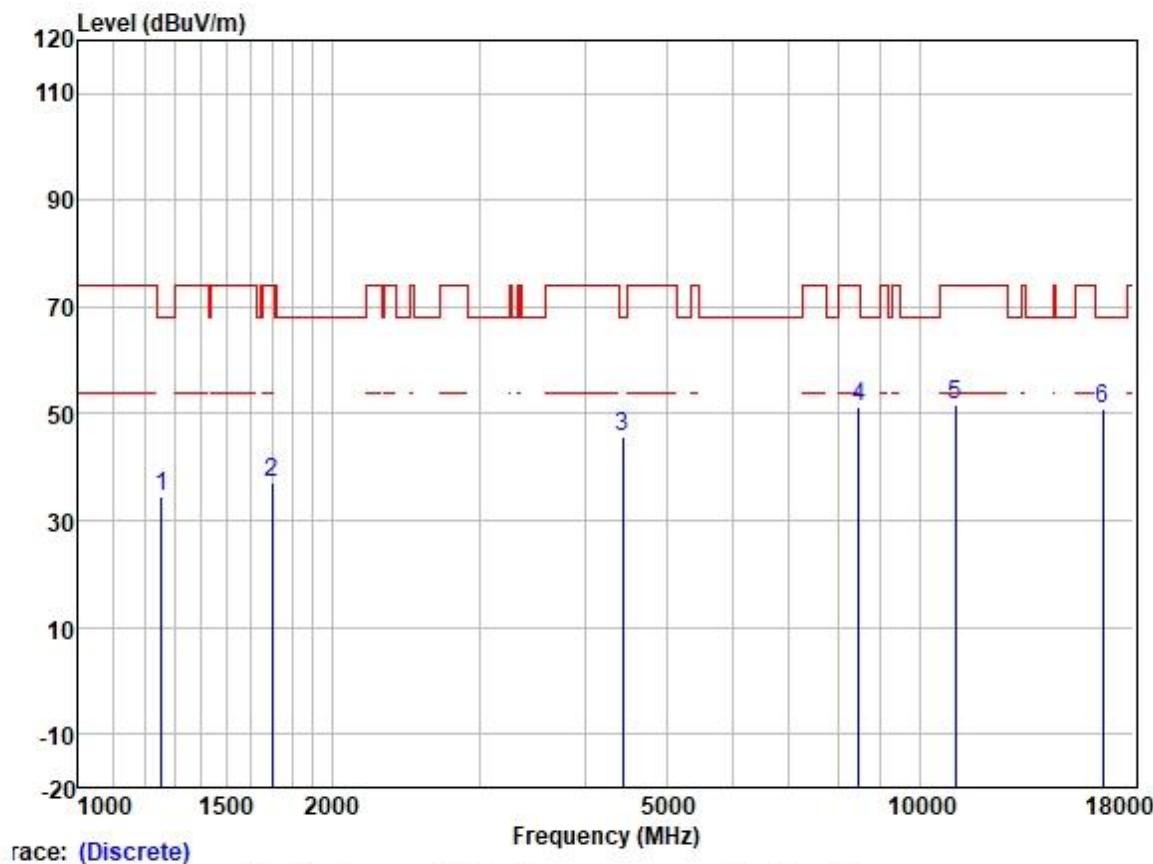
Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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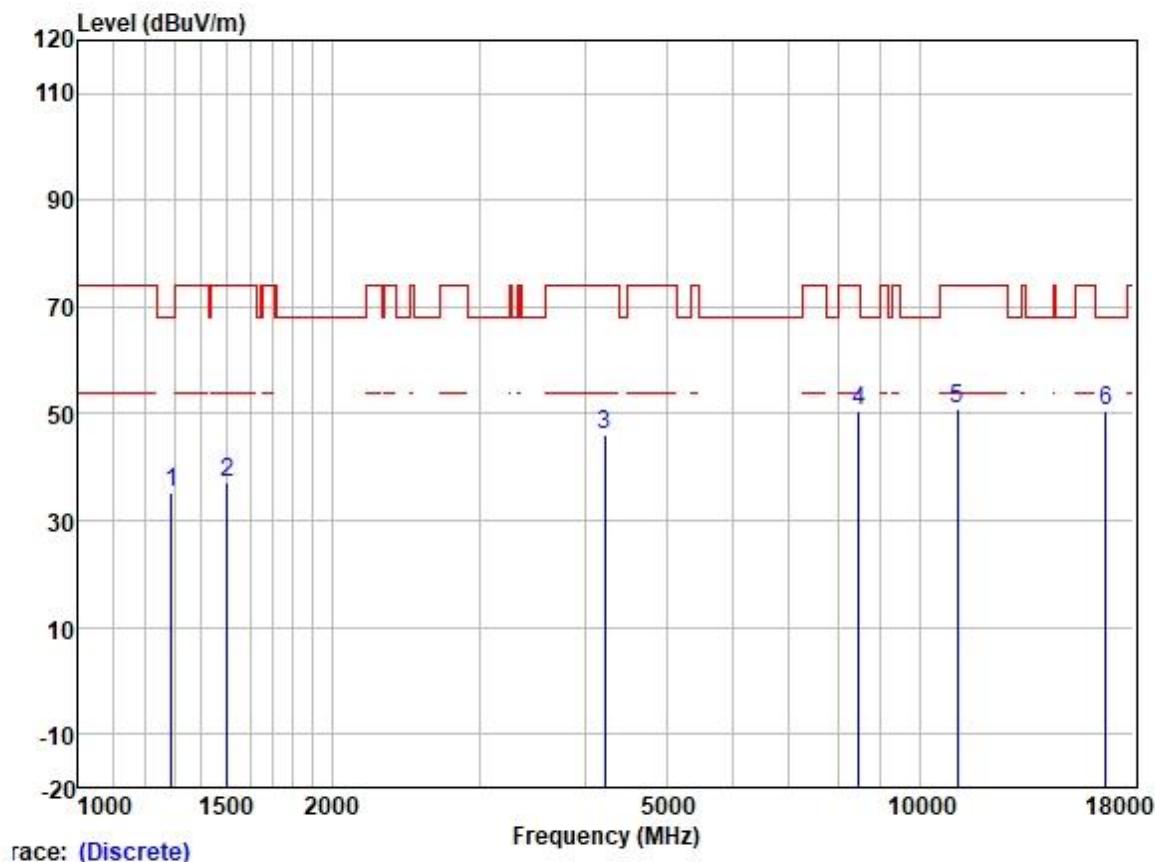
Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



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



Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1289.627	45.87	25.17	2.55	38.31	35.28	68.20	-32.92	HORIZONTAL	Peak			
2	1503.119	46.77	25.50	2.80	38.10	36.97	74.00	-37.03	HORIZONTAL	Peak			
3	4230.396	48.18	30.26	4.61	36.81	46.24	74.00	-27.76	HORIZONTAL	Peak			
4	8465.379	44.36	37.13	6.68	37.57	50.60	74.00	-23.40	HORIZONTAL	Peak			
5	11100.000	40.39	40.07	7.82	37.22	51.06	74.00	-22.94	HORIZONTAL	Peak			
6	16650.000	36.54	40.10	9.43	35.38	50.69	68.20	-17.51	HORIZONTAL	Peak			

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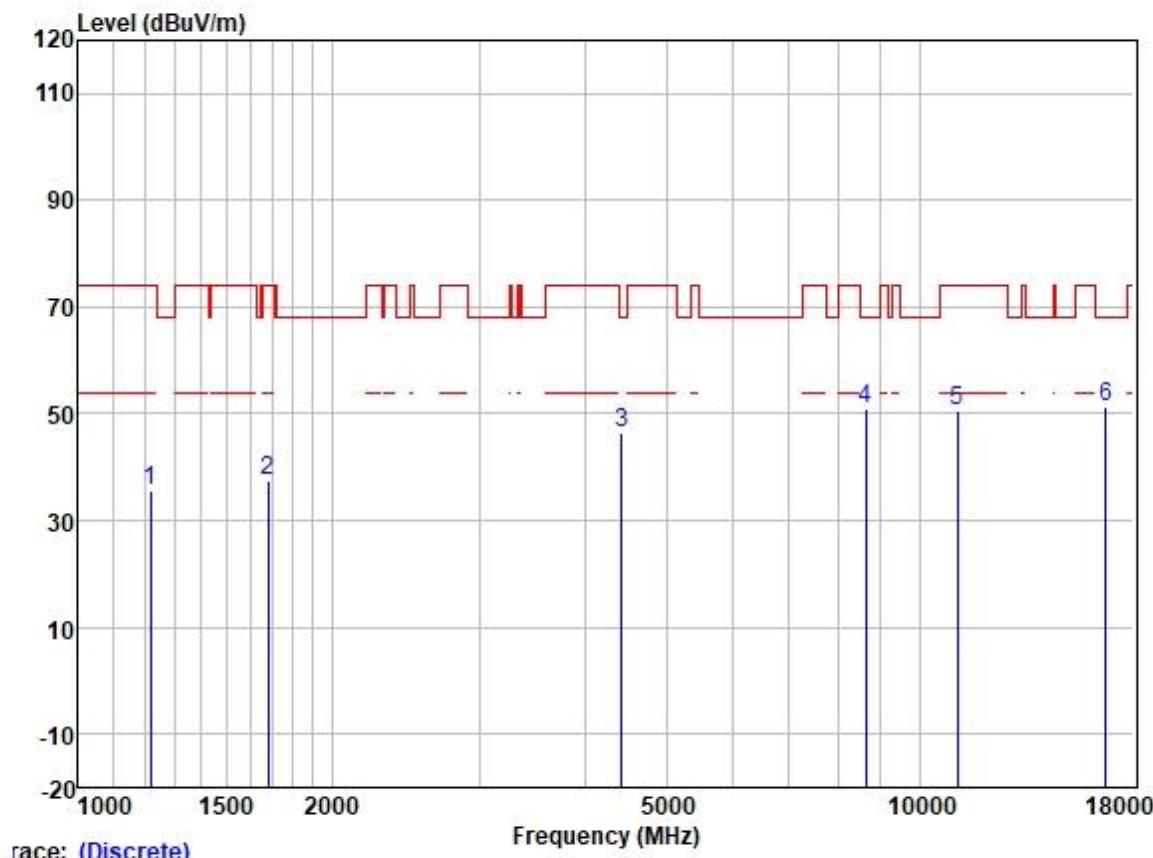
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Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:middle



Trace: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1217.190	46.83	24.79	2.32	38.37	35.57	74.00	-38.43	VERTICAL		Peak		
2	1682.477	47.00	25.68	2.80	37.91	37.57	74.00	-36.43	VERTICAL		Peak		
3	4430.628	47.60	30.72	4.78	36.81	46.29	68.20	-21.91	VERTICAL		Peak		
4	8638.399	44.24	37.26	6.92	37.55	50.87	68.20	-17.33	VERTICAL		Peak		
5	11100.000	39.84	40.07	7.82	37.22	50.51	74.00	-23.49	VERTICAL		Peak		
6	16650.000	37.32	40.10	9.43	35.38	51.47	68.20	-16.73	VERTICAL		Peak		

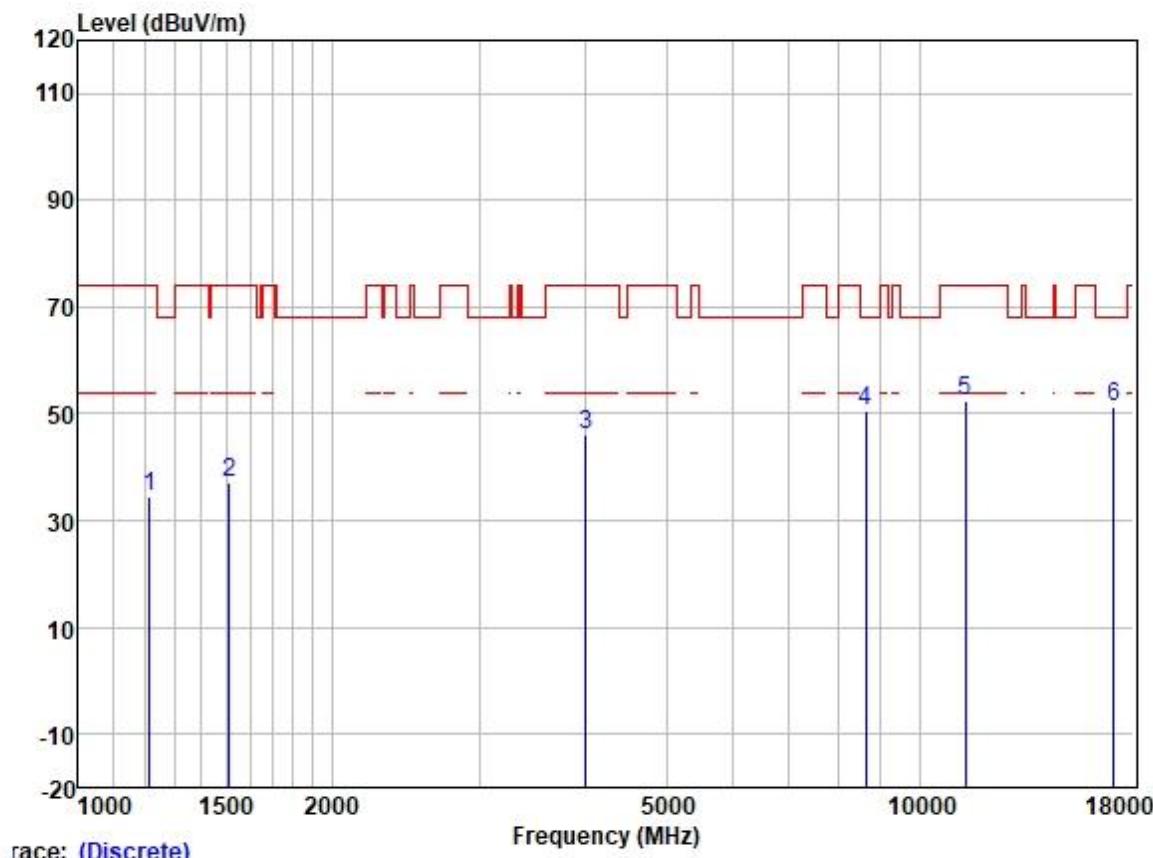
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Test Mode: 06; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Mode: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1213.677	45.85	24.77	2.32	38.37	34.57	74.00	-39.43	HORIZONTAL	Peak			
2	1511.833	46.96	25.51	2.80	38.10	37.17	74.00	-36.83	HORIZONTAL	Peak			
3	4015.929	48.36	29.82	4.60	36.80	45.98	74.00	-28.02	HORIZONTAL	Peak			
4	8638.399	44.11	37.26	6.92	37.55	50.74	68.20	-17.46	HORIZONTAL	Peak			
5	11340.000	41.55	39.97	8.18	37.17	52.53	74.00	-21.47	HORIZONTAL	Peak			
6	17010.000	35.45	41.75	9.39	35.35	51.24	68.20	-16.96	HORIZONTAL	Peak			

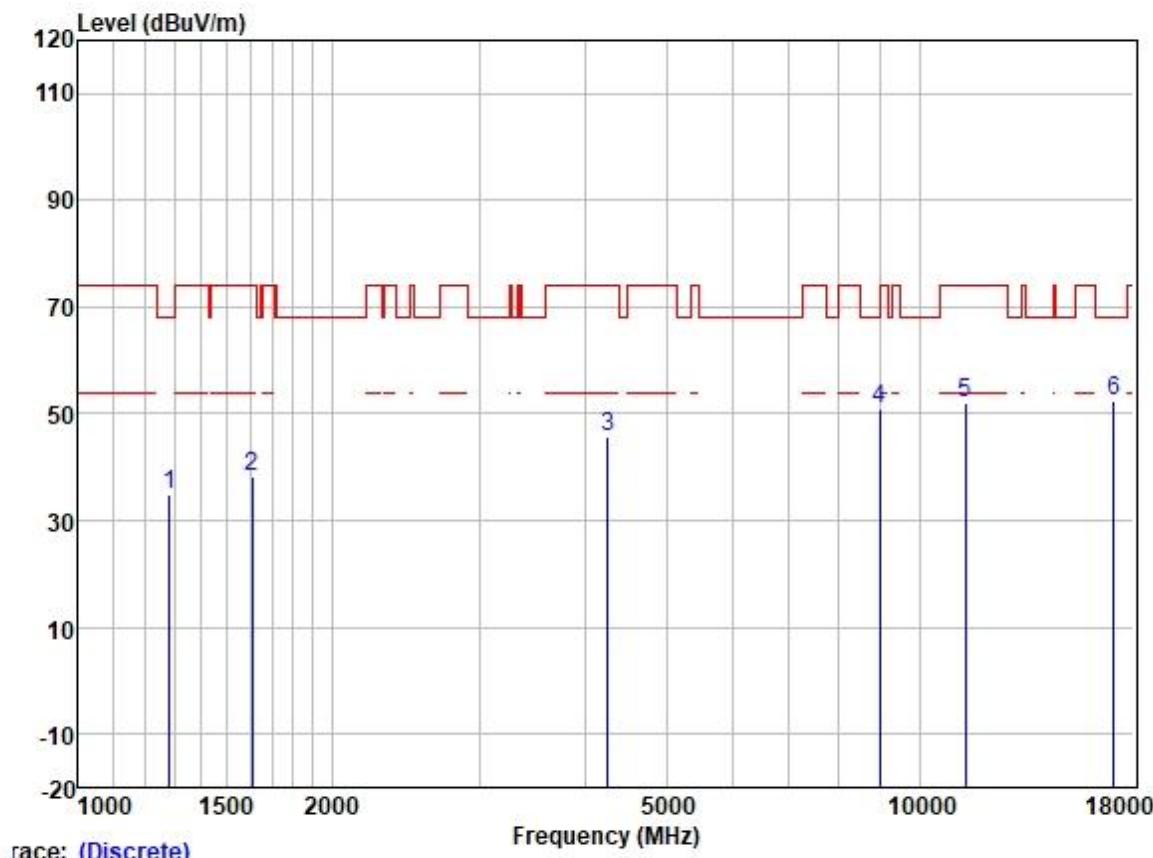
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Test Mode: 06; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Trace:	ReadAntenna	Cable	Preamp	Limit		Over	Limit	Pol/Phase	Remark
				Freq	Level	Factor	Loss	Factor	
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	1282.193	45.36	25.15	2.52	38.33	34.70	68.20	-33.50	VERTICAL Peak
2	1611.091	47.70	25.59	2.80	37.98	38.11	74.00	-35.89	VERTICAL Peak
3	4254.921	47.49	30.34	4.62	36.81	45.64	74.00	-28.36	VERTICAL Peak
4	8969.161	43.51	37.39	7.53	37.51	50.92	68.20	-17.28	VERTICAL Peak
5	11340.000	41.21	39.97	8.18	37.17	52.19	74.00	-21.81	VERTICAL Peak
6	17010.000	36.58	41.75	9.39	35.35	52.37	68.20	-15.83	VERTICAL Peak

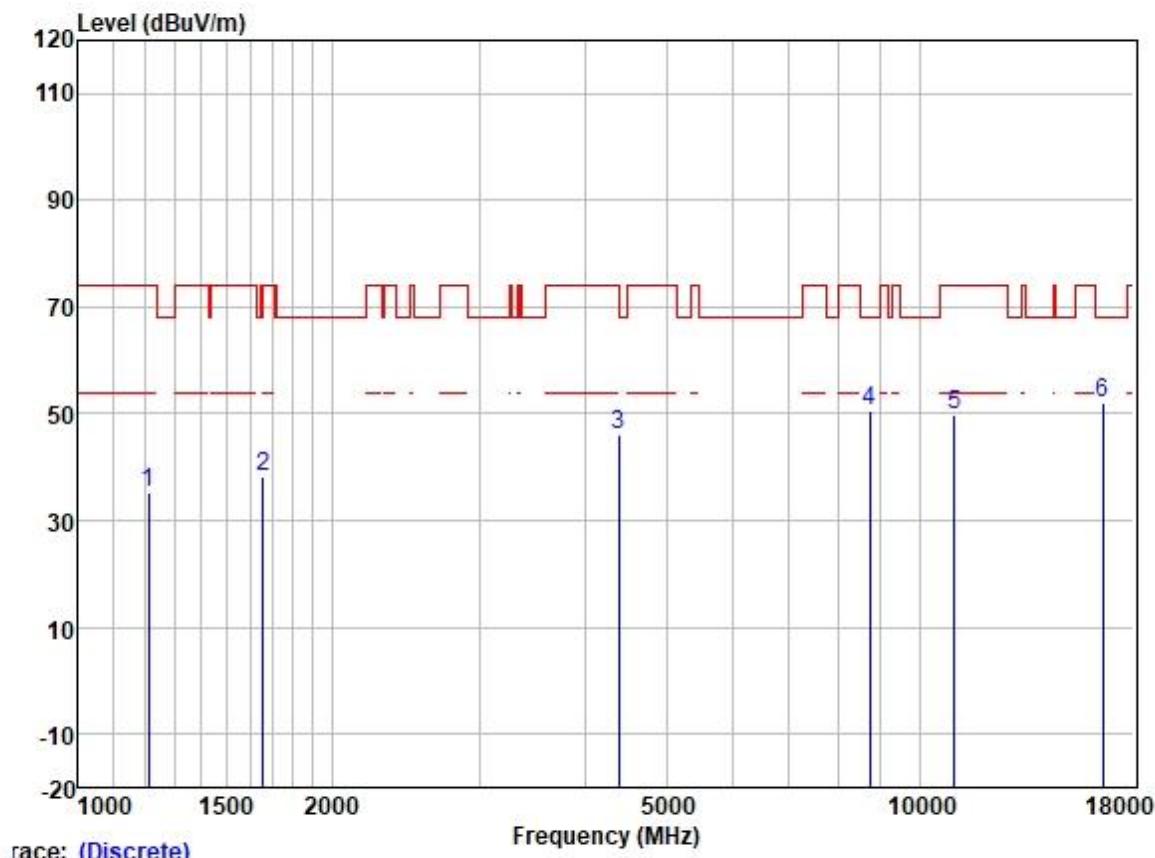
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Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1210.174	46.40	24.74	2.33	38.39	35.08	74.00	-38.92	HORIZONTAL	Peak			
2	1658.337	47.73	25.65	2.80	37.93	38.25	68.20	-29.95	HORIZONTAL	Peak			
3	4392.376	47.48	30.66	4.70	36.81	46.03	74.00	-27.97	HORIZONTAL	Peak			
4	8738.852	43.53	37.31	7.13	37.54	50.43	68.20	-17.77	HORIZONTAL	Peak			
5	11000.000	39.24	40.10	7.71	37.25	49.80	74.00	-24.20	HORIZONTAL	Peak			
6	16500.000	38.28	39.60	9.44	35.38	51.94	68.20	-16.26	HORIZONTAL	Peak			

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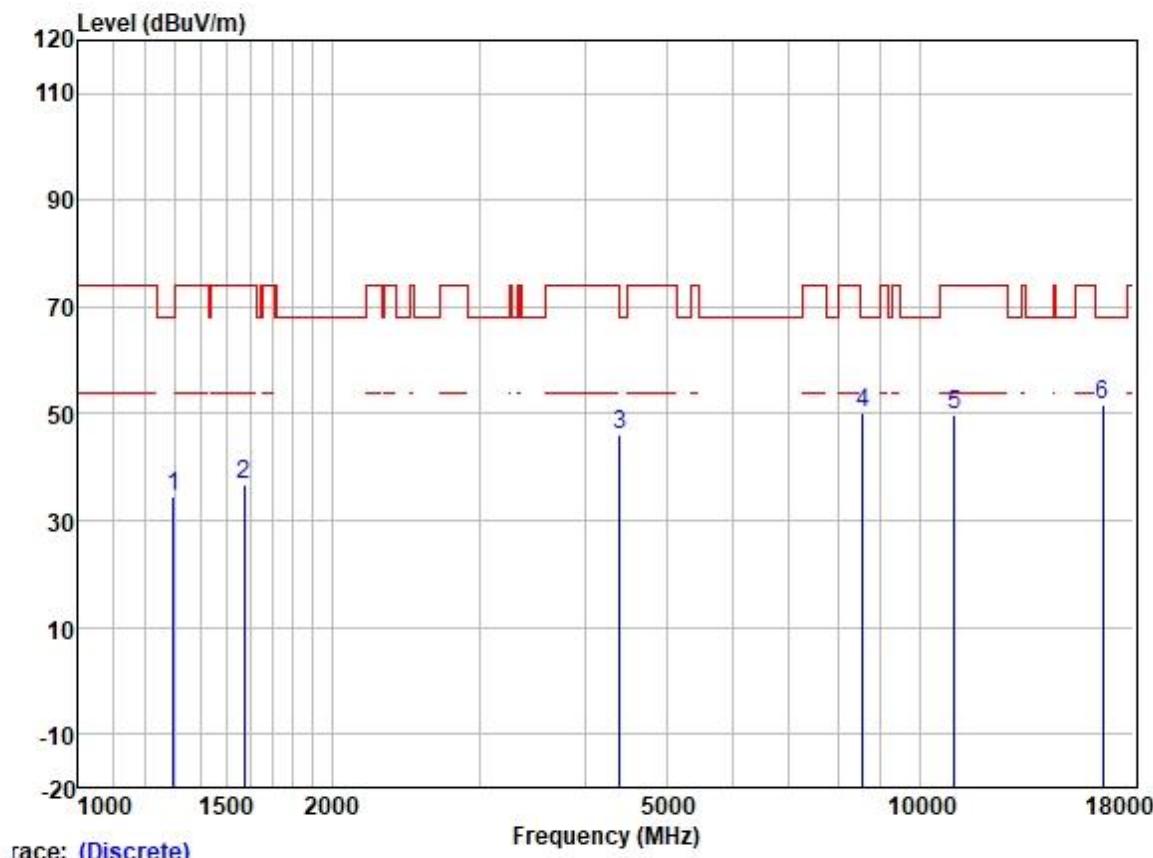
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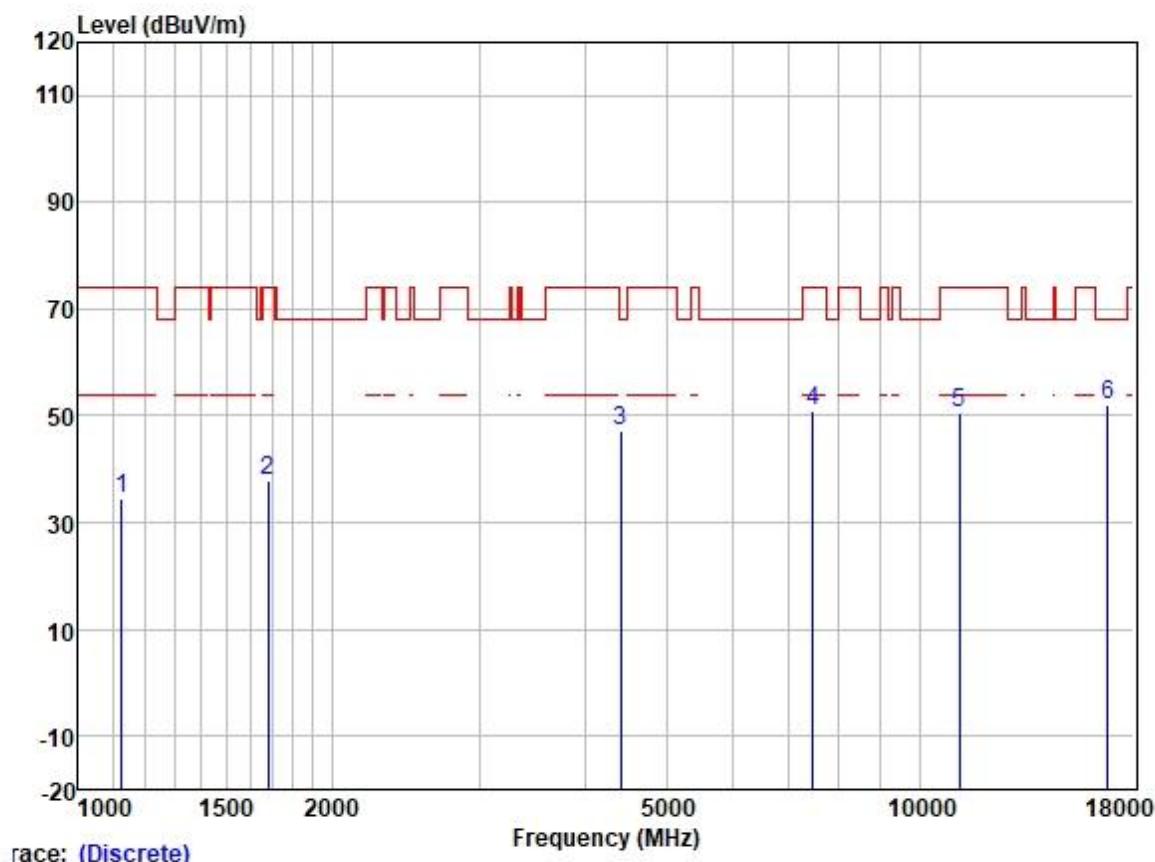
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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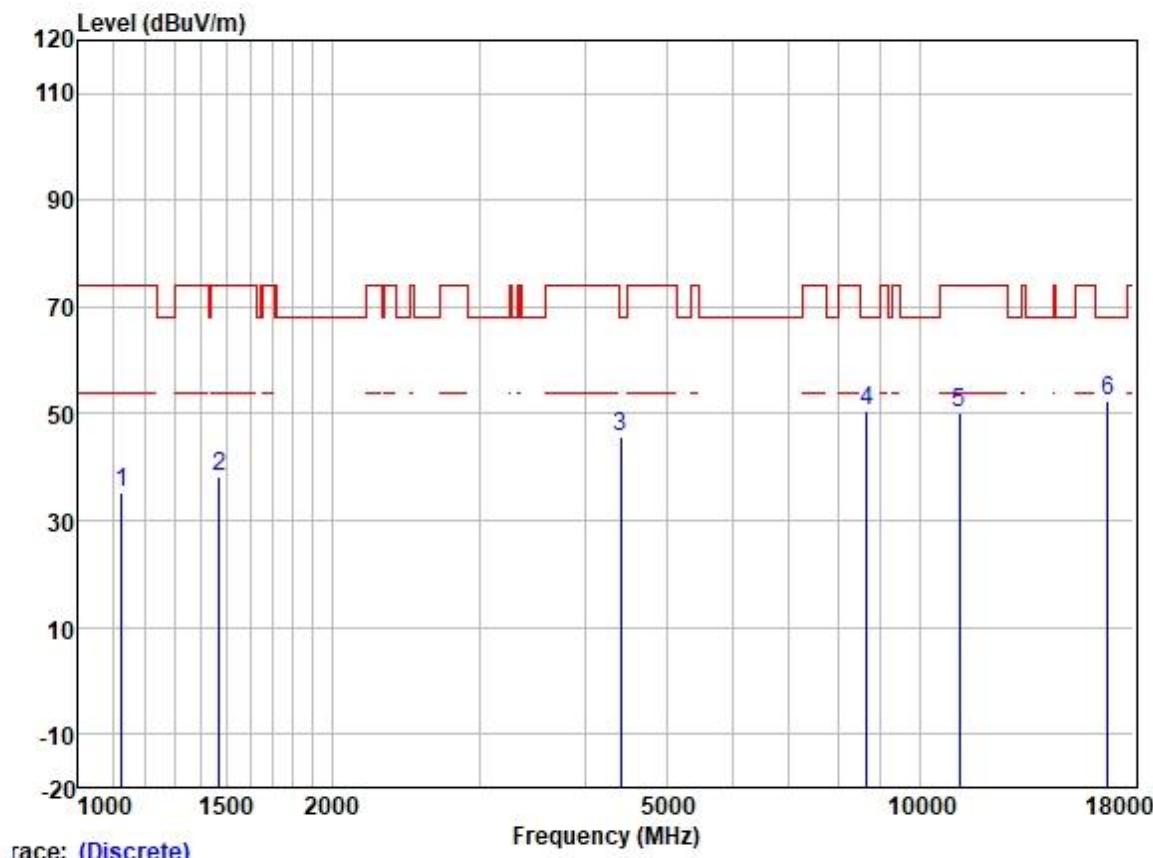
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



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Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Mode: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1125.813	47.02	24.42	2.21	38.43	35.22	74.00	-38.78	VERTICAL		Peak		
2	1468.761	48.17	25.47	2.75	38.13	38.26	74.00	-35.74	VERTICAL		Peak		
3	4417.841	47.08	30.70	4.74	36.81	45.71	68.20	-22.49	VERTICAL		Peak		
4	8663.404	43.90	37.27	6.97	37.55	50.59	68.20	-17.61	VERTICAL		Peak		
5	11160.000	39.58	40.04	7.90	37.21	50.31	74.00	-23.69	VERTICAL		Peak		
6	16740.000	37.86	40.49	9.41	35.37	52.39	68.20	-15.81	VERTICAL		Peak		

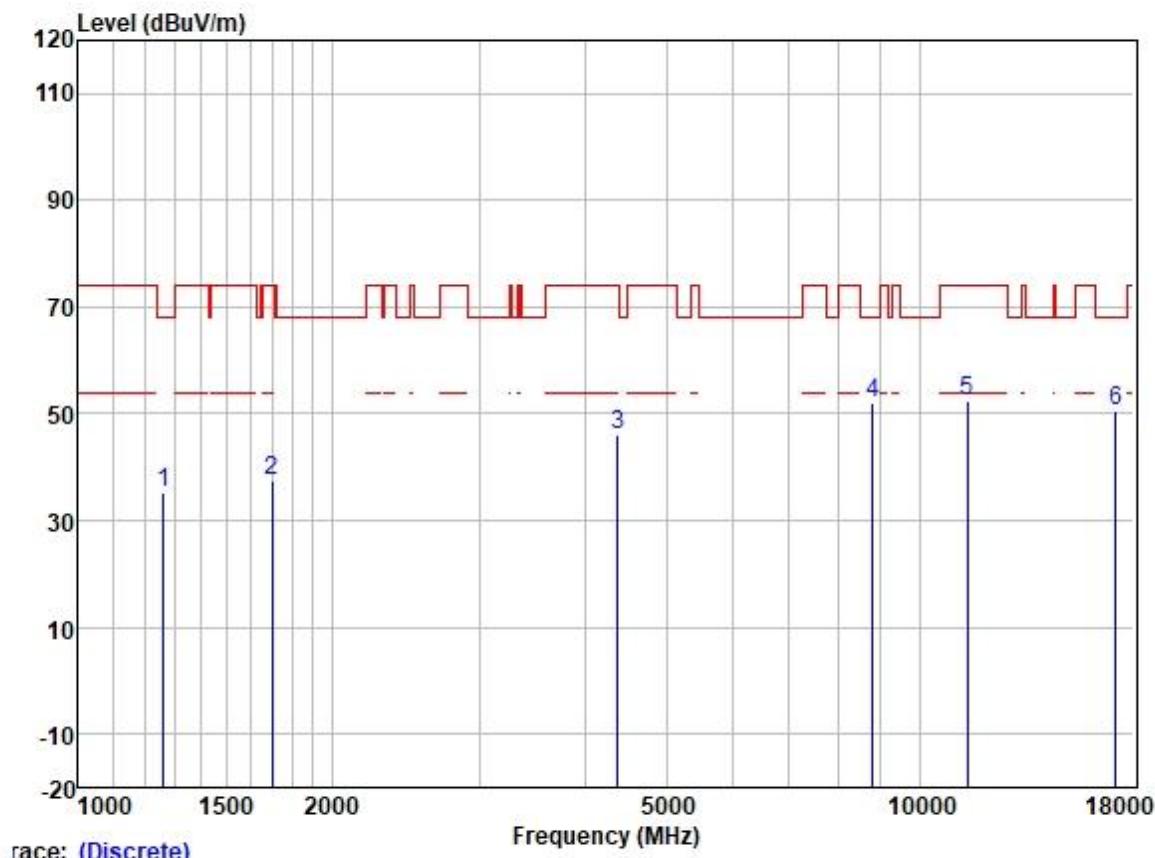
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Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



Trace: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1263.796	46.04	25.08	2.42	38.33	35.21	68.20	-32.99	HORIZONTAL	Peak			
2	1697.129	46.91	25.71	2.80	37.89	37.53	74.00	-36.47	HORIZONTAL	Peak			
3	4379.699	47.39	30.64	4.69	36.81	45.91	74.00	-28.09	HORIZONTAL	Peak			
4	8789.516	45.08	37.33	7.24	37.54	52.11	68.20	-16.09	HORIZONTAL	Peak			
5	11400.000	41.29	39.94	8.28	37.16	52.35	74.00	-21.65	HORIZONTAL	Peak			
6	17100.000	34.05	42.32	9.63	35.34	50.66	68.20	-17.54	HORIZONTAL	Peak			

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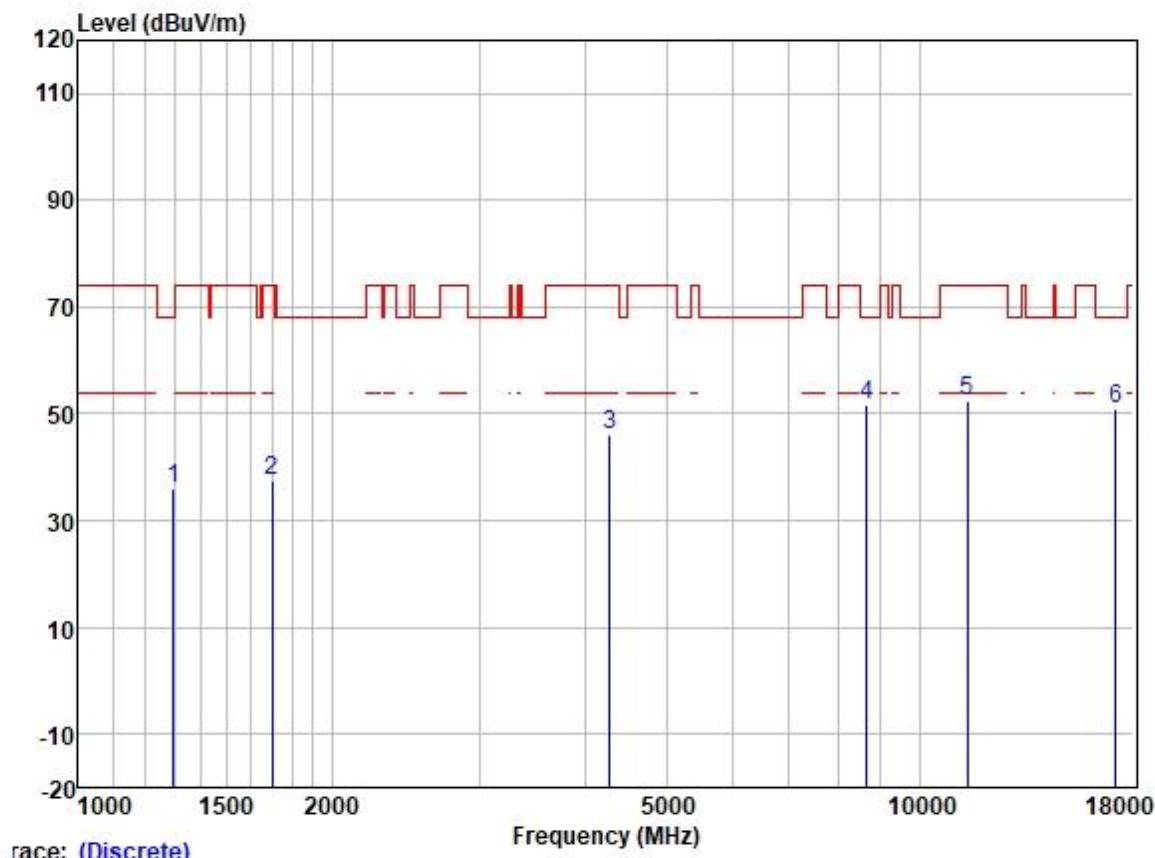
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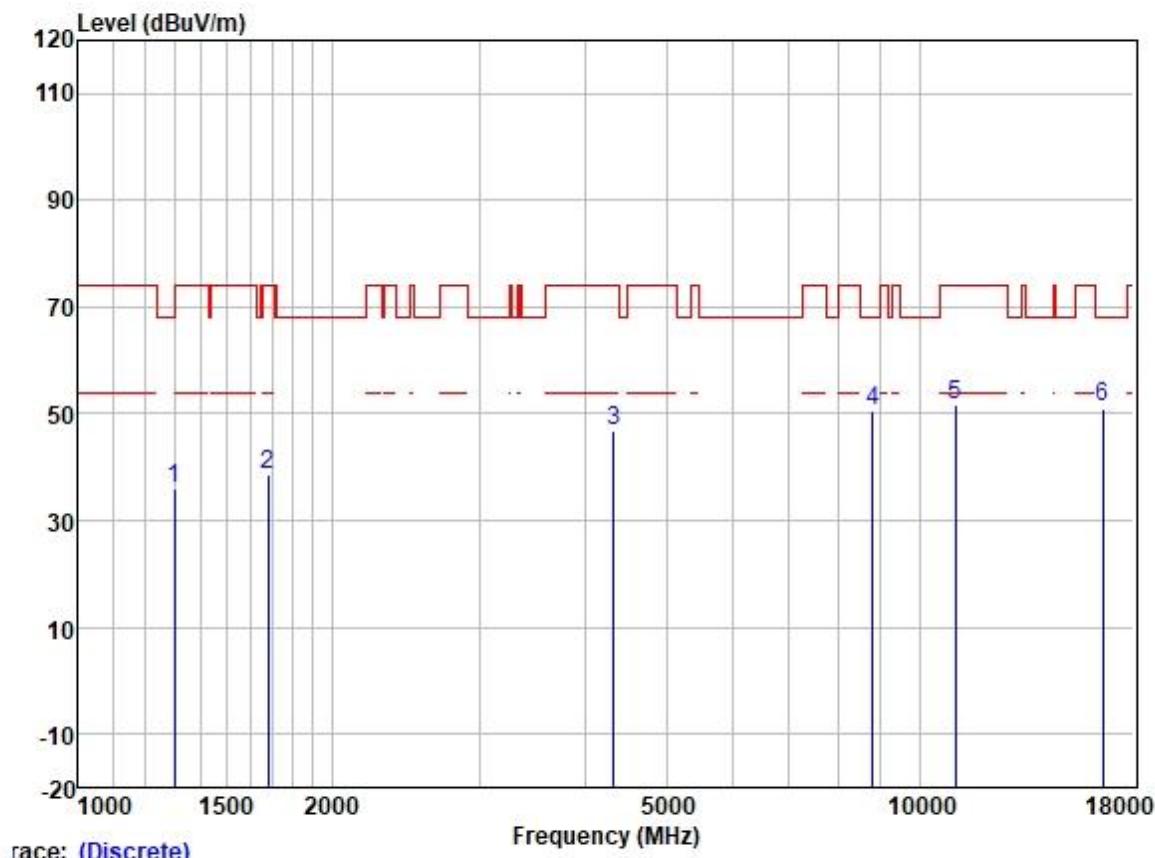
Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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



Index	Freq	ReadAntenna		Cable		Preamp	Limit	Over	Limit	Pol/Phase	Remark
		MHz	Level	Factor	Loss						
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB			
1	1300.858	46.36	25.20	2.60	38.31	35.85	74.00	-38.15	HORIZONTAL	Peak	
2	1682.477	48.08	25.68	2.80	37.91	38.65	74.00	-35.35	HORIZONTAL	Peak	
3	4329.354	48.29	30.54	4.67	36.81	46.69	74.00	-27.31	HORIZONTAL	Peak	
4	8789.516	43.55	37.33	7.24	37.54	50.58	68.20	-17.62	HORIZONTAL	Peak	
5	11020.000	41.05	40.10	7.71	37.24	51.62	74.00	-22.38	HORIZONTAL	Peak	
6	16530.000	37.30	39.76	9.44	35.38	51.12	68.20	-17.08	HORIZONTAL	Peak	

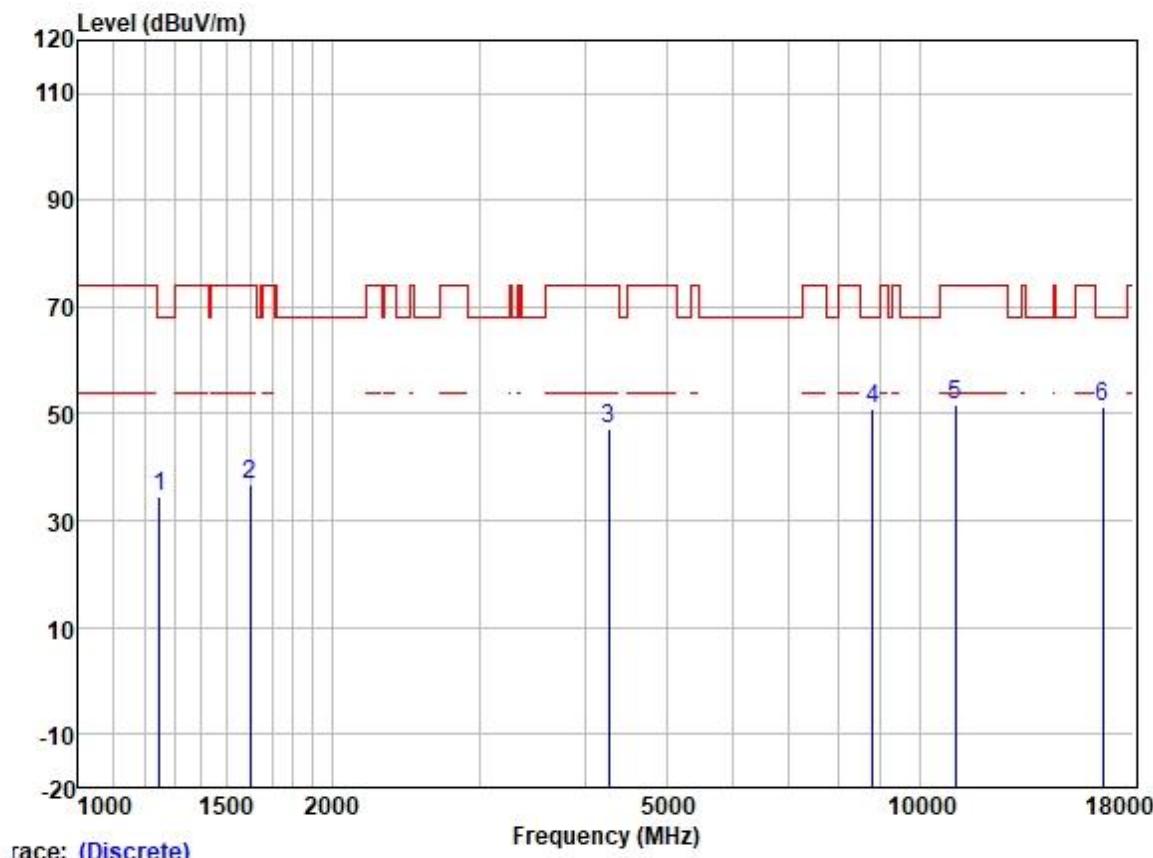
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Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



Race: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dB									
1	1249.269	45.45	25.02	2.34	38.35	34.46	68.20	-33.74	VERTICAL		Peak		
2	1601.804	46.52	25.58	2.80	37.98	36.92	74.00	-37.08	VERTICAL		Peak		
3	4267.237	49.08	30.38	4.63	36.81	47.28	74.00	-26.72	VERTICAL		Peak		
4	8789.516	43.89	37.33	7.24	37.54	50.92	68.20	-17.28	VERTICAL		Peak		
5	11020.000	41.07	40.10	7.71	37.24	51.64	74.00	-22.36	VERTICAL		Peak		
6	16530.000	37.62	39.76	9.44	35.38	51.44	68.20	-16.76	VERTICAL		Peak		

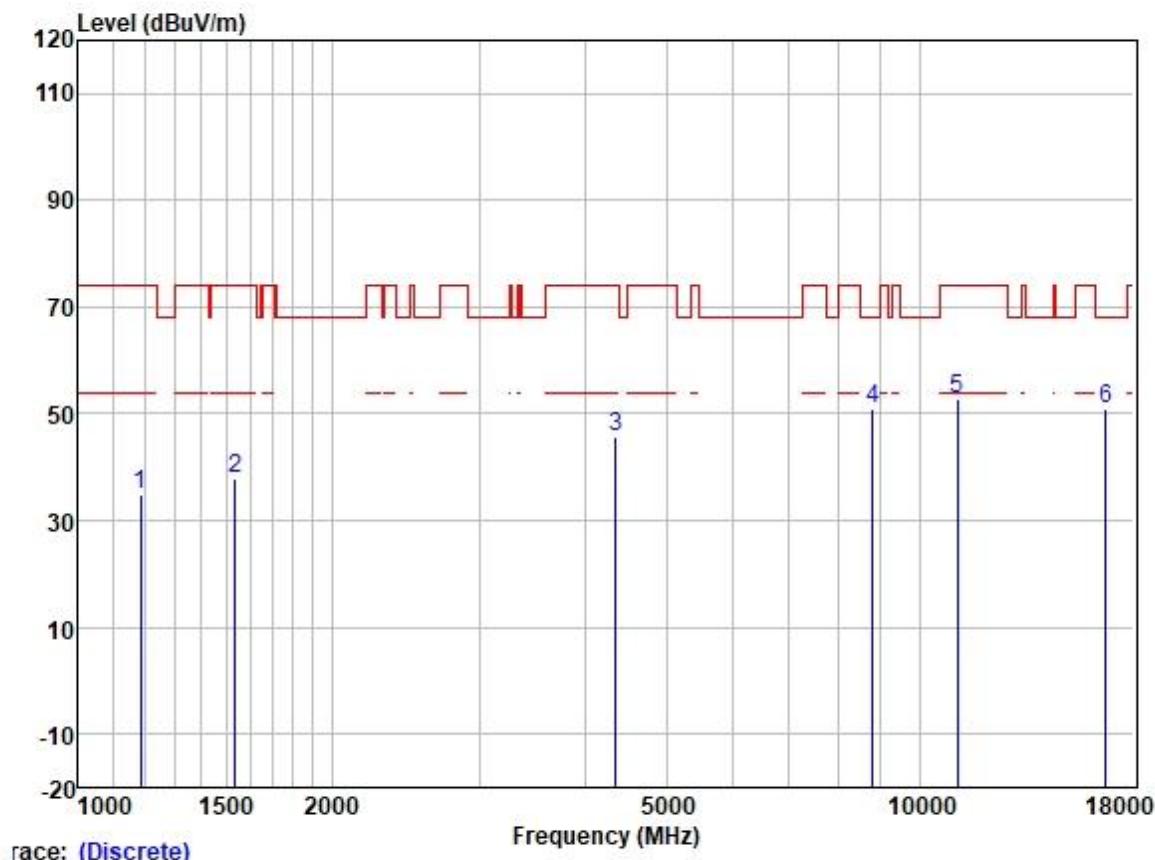
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Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:middle



Rate: (Discrete)

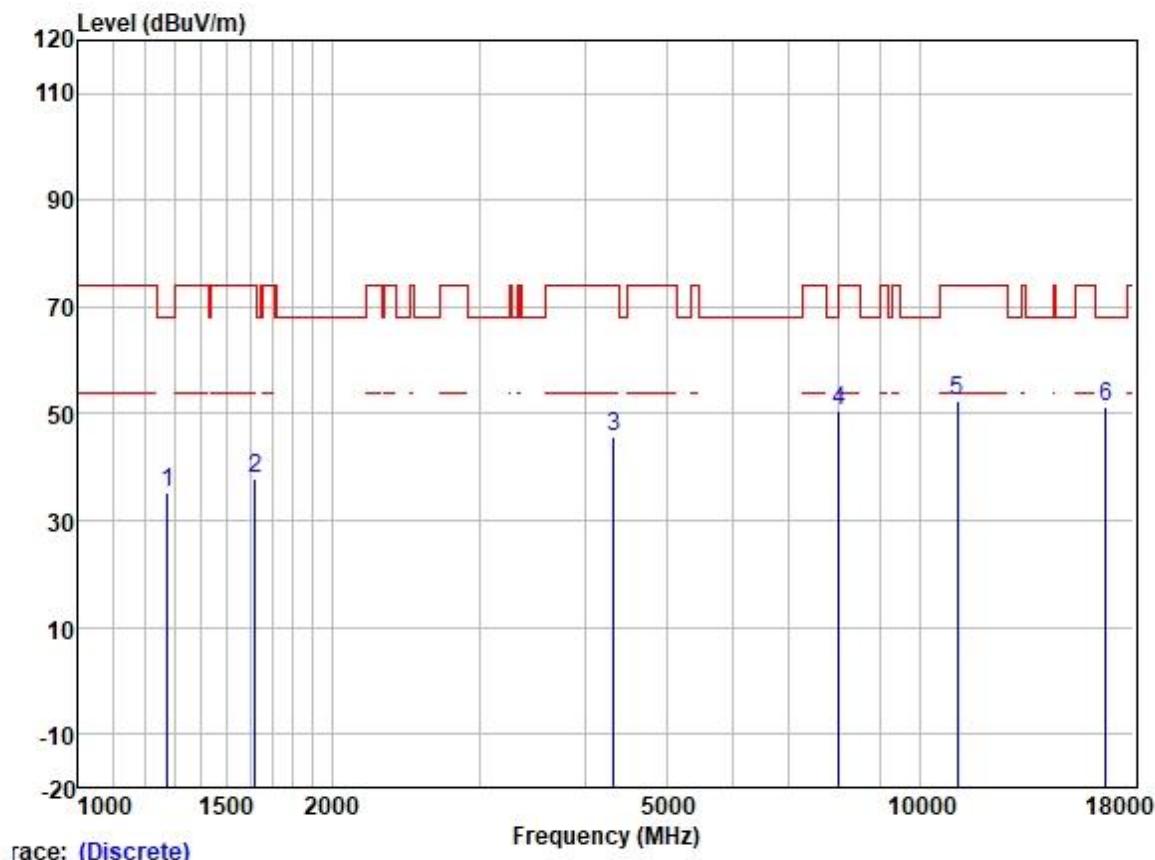
Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor							
1	1185.936	46.21	24.62	2.37	38.40	34.80	74.00	-39.20	HORIZONTAL	Peak	
2	1538.281	47.41	25.53	2.80	38.03	37.71	74.00	-36.29	HORIZONTAL	Peak	
3	4354.454	47.40	30.59	4.68	36.81	45.86	74.00	-28.14	HORIZONTAL	Peak	
4	8789.516	43.78	37.33	7.24	37.54	50.81	68.20	-17.39	HORIZONTAL	Peak	
5	11100.000	41.95	40.07	7.82	37.22	52.62	74.00	-21.38	HORIZONTAL	Peak	
6	16650.000	36.89	40.10	9.43	35.38	51.04	68.20	-17.16	HORIZONTAL	Peak	



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Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:middle



Mode: (Discrete)

Line	Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Level	Limit	Over	Line	Limit	Pol/Phase	Remark
		MHz	dBuV	Level	Factor				dB	dBuV/m	dBuV/m				
1	1274.802	45.88	25.12	2.48	38.33	35.15	68.20	-33.05	VERTICAL	Peak					
2	1620.431	47.34	25.60	2.80	37.95	37.79	74.00	-36.21	VERTICAL	Peak					
3	4329.354	47.31	30.54	4.67	36.81	45.71	74.00	-28.29	VERTICAL	Peak					
4	8013.020	45.00	36.91	6.17	37.60	50.48	68.20	-17.72	VERTICAL	Peak					
5	11100.000	41.73	40.07	7.82	37.22	52.40	74.00	-21.60	VERTICAL	Peak					
6	16650.000	37.29	40.10	9.43	35.38	51.44	68.20	-16.76	VERTICAL	Peak					

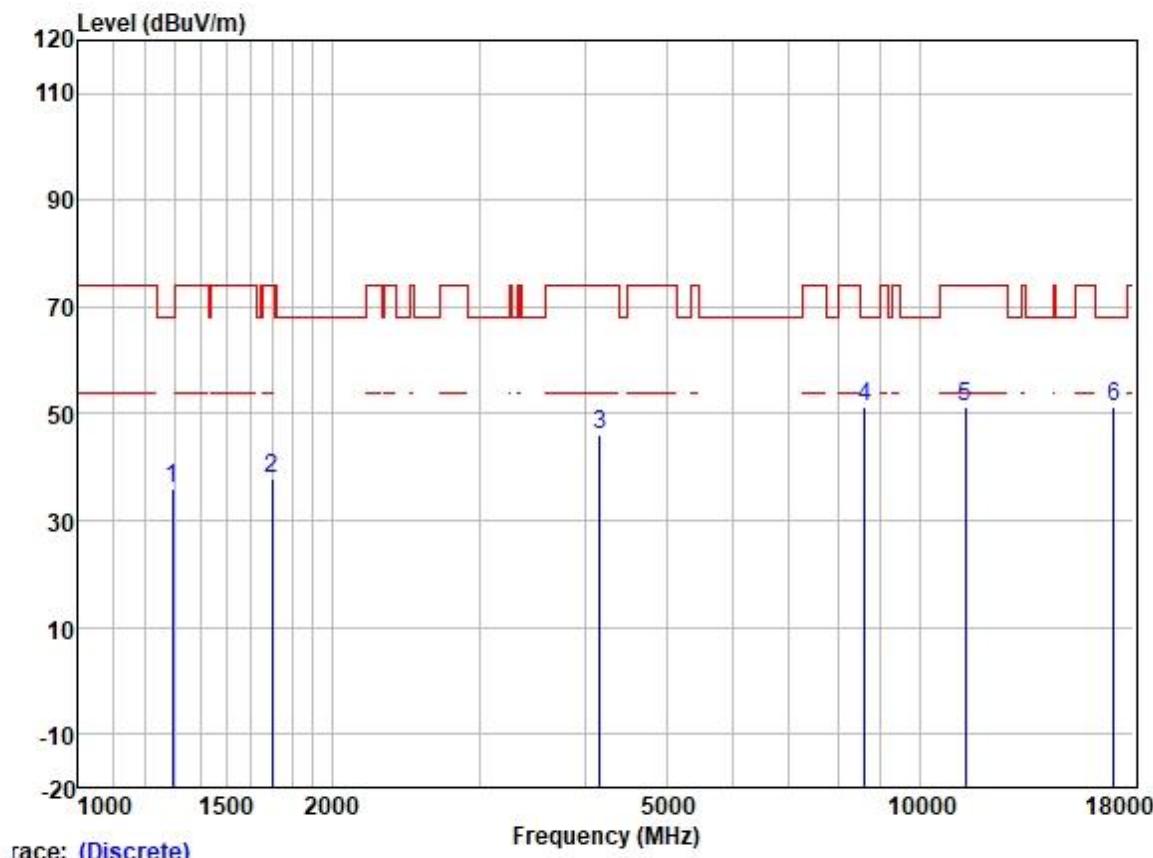
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Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Mode: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Pol/Phase	Remark
	MHz	Level	Factor	Loss							
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	dB		
1	1293.359	46.52	25.18	2.57	38.31	35.96	68.20	-32.24	HORIZONTAL	Peak	
2	1697.129	47.30	25.71	2.80	37.89	37.92	74.00	-36.08	HORIZONTAL	Peak	
3	4169.698	48.21	30.09	4.60	36.80	46.10	74.00	-27.90	HORIZONTAL	Peak	
4	8613.468	44.64	37.24	6.88	37.56	51.20	68.20	-17.00	HORIZONTAL	Peak	
5	11340.000	40.36	39.97	8.18	37.17	51.34	74.00	-22.66	HORIZONTAL	Peak	
6	17010.000	35.60	41.75	9.39	35.35	51.39	68.20	-16.81	HORIZONTAL	Peak	

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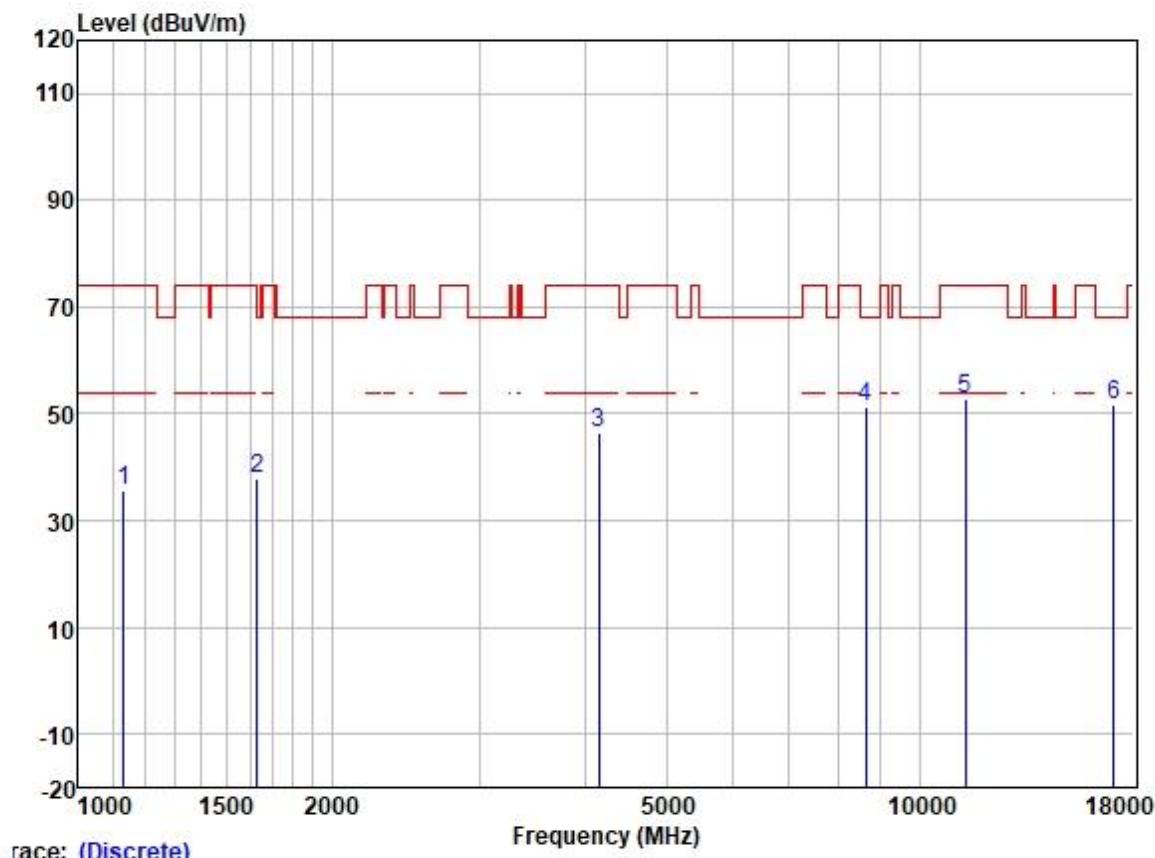
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Test Mode: 06; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



Mode: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor						
1	1132.340	47.33	24.44	2.22	38.43	35.56	74.00	-38.44	VERTICAL	Peak	
2	1629.825	47.22	25.61	2.80	37.95	37.68	68.20	-30.52	VERTICAL	Peak	
3	4157.664	48.53	30.06	4.60	36.80	46.39	74.00	-27.61	VERTICAL	Peak	
4	8638.399	44.68	37.26	6.92	37.55	51.31	68.20	-16.89	VERTICAL	Peak	
5	11340.000	41.77	39.97	8.18	37.17	52.75	74.00	-21.25	VERTICAL	Peak	
6	17010.000	35.77	41.75	9.39	35.35	51.56	68.20	-16.64	VERTICAL	Peak	

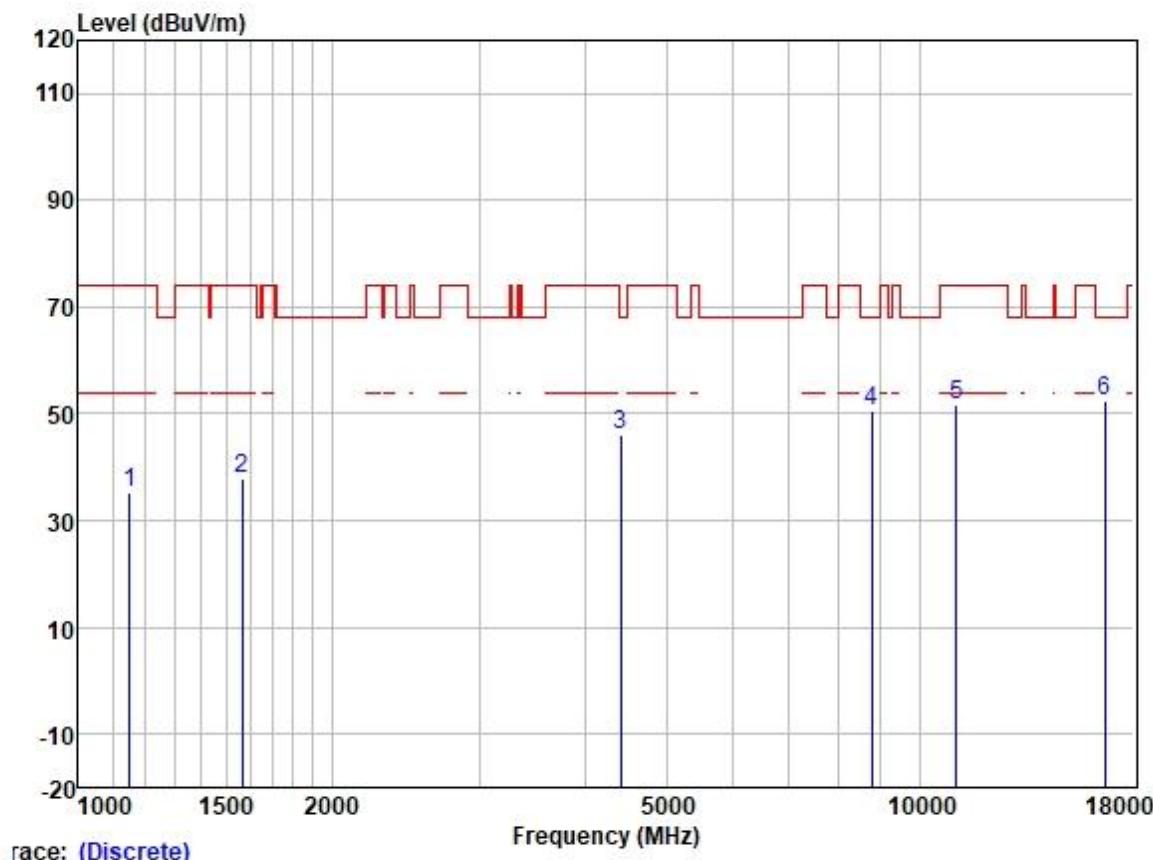
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Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



Trace: (Discrete)

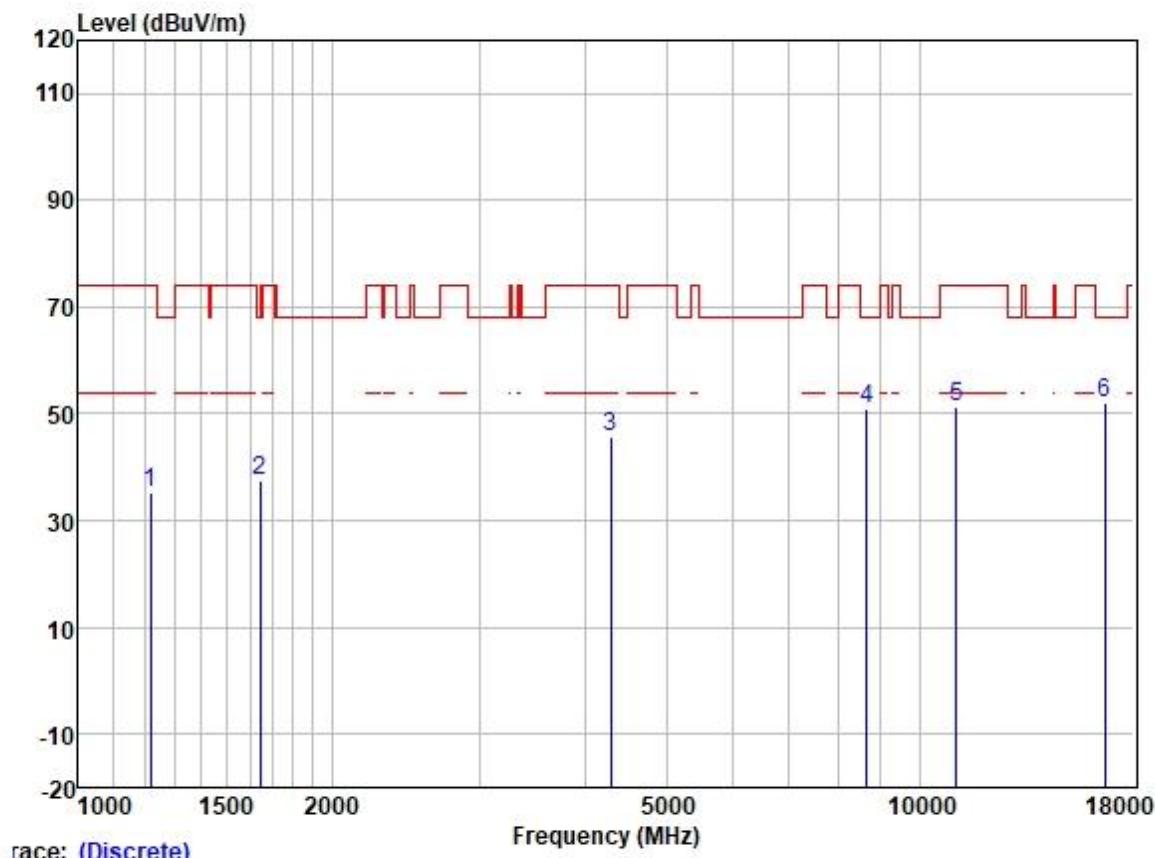
Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1152.148	46.82	24.50	2.36	38.42	35.26	74.00	-38.74	HORIZONTAL	Peak			
2	1565.191	47.38	25.55	2.80	38.00	37.73	74.00	-36.27	HORIZONTAL	Peak			
3	4417.841	47.29	30.70	4.74	36.81	45.92	68.20	-22.28	HORIZONTAL	Peak			
4	8764.146	43.54	37.32	7.19	37.54	50.51	68.20	-17.69	HORIZONTAL	Peak			
5	11060.000	41.18	40.09	7.74	37.23	51.78	74.00	-22.22	HORIZONTAL	Peak			
6	16590.000	38.59	39.93	9.43	35.38	52.57	68.20	-15.63	HORIZONTAL	Peak			

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



Mode: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1217.190	46.50	24.79	2.32	38.37	35.24	74.00	-38.76	VERTICAL			Peak	
2	1644.019	46.88	25.63	2.80	37.93	37.38	68.20	-30.82	VERTICAL			Peak	
3	4291.977	47.60	30.45	4.64	36.81	45.88	74.00	-28.12	VERTICAL			Peak	
4	8663.404	44.32	37.27	6.97	37.55	51.01	68.20	-17.19	VERTICAL			Peak	
5	11060.000	40.54	40.09	7.74	37.23	51.14	74.00	-22.86	VERTICAL			Peak	
6	16590.000	38.21	39.93	9.43	35.38	52.19	68.20	-16.01	VERTICAL			Peak	

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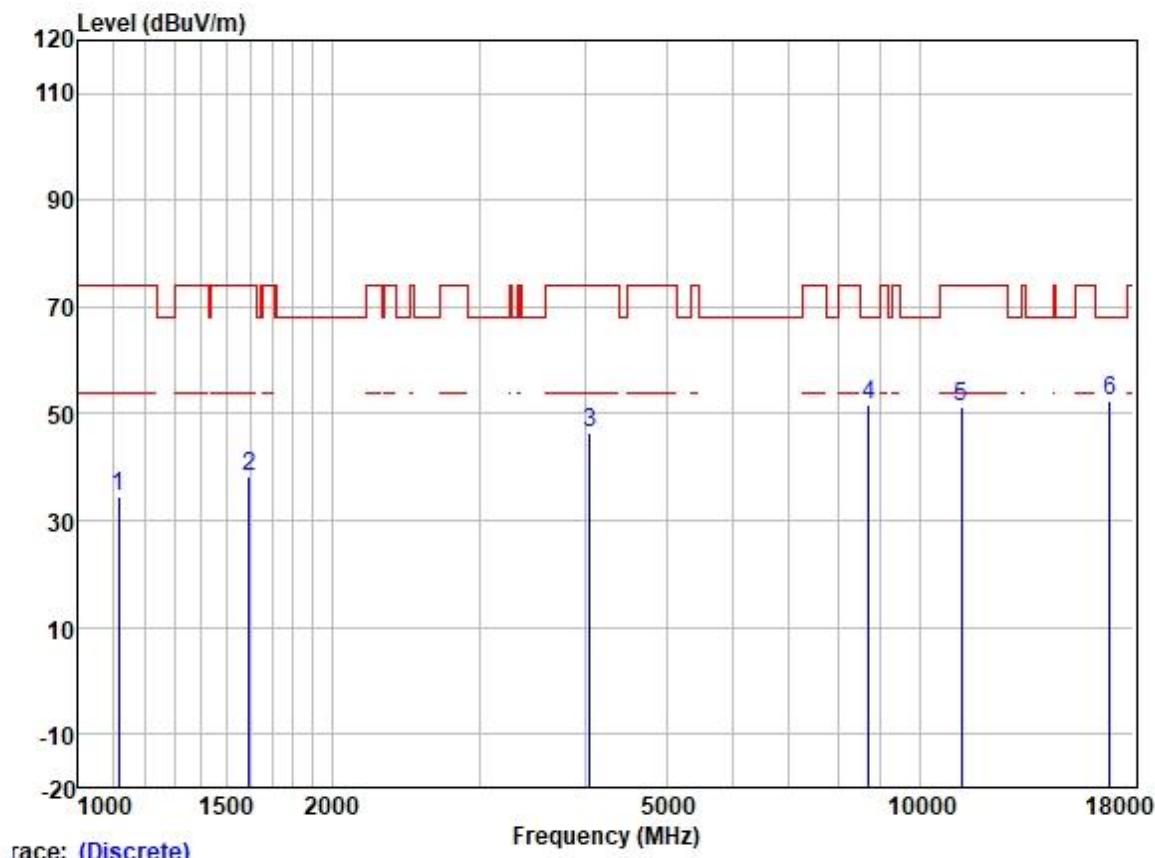
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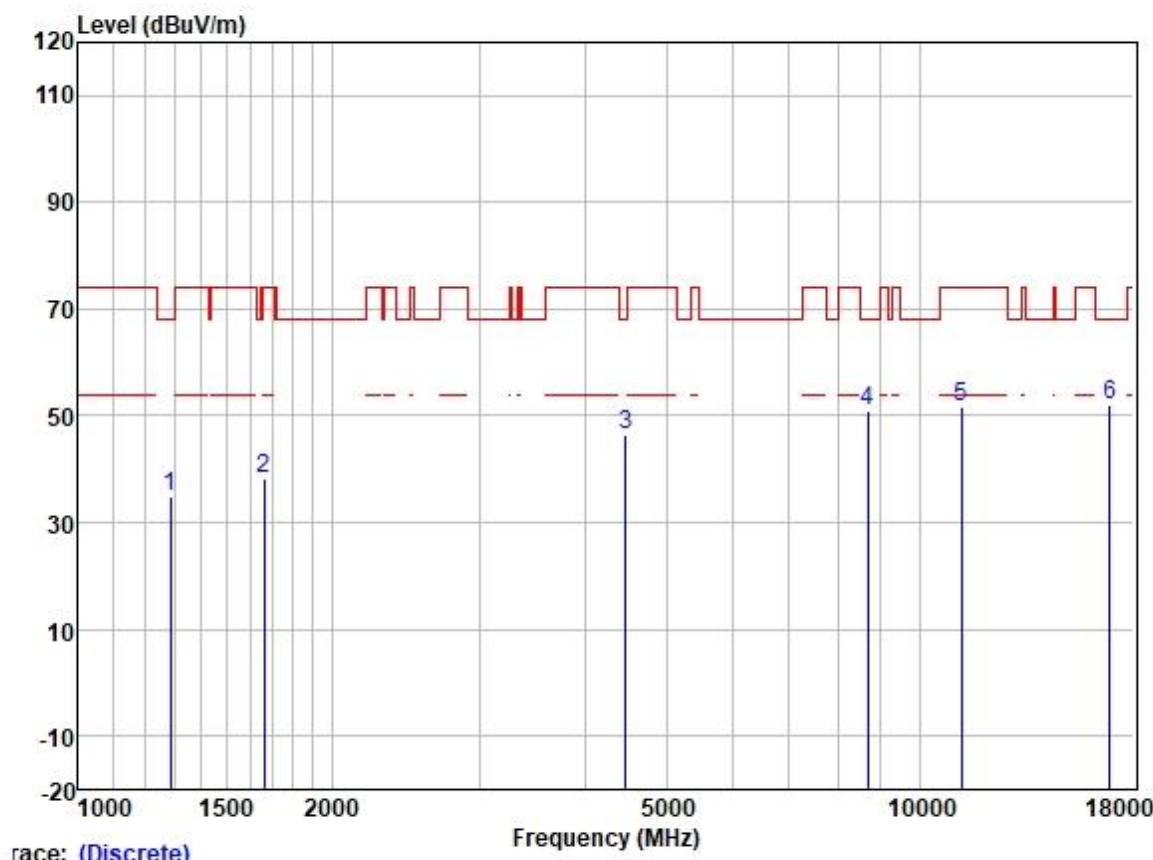
Test Mode: 06; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



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



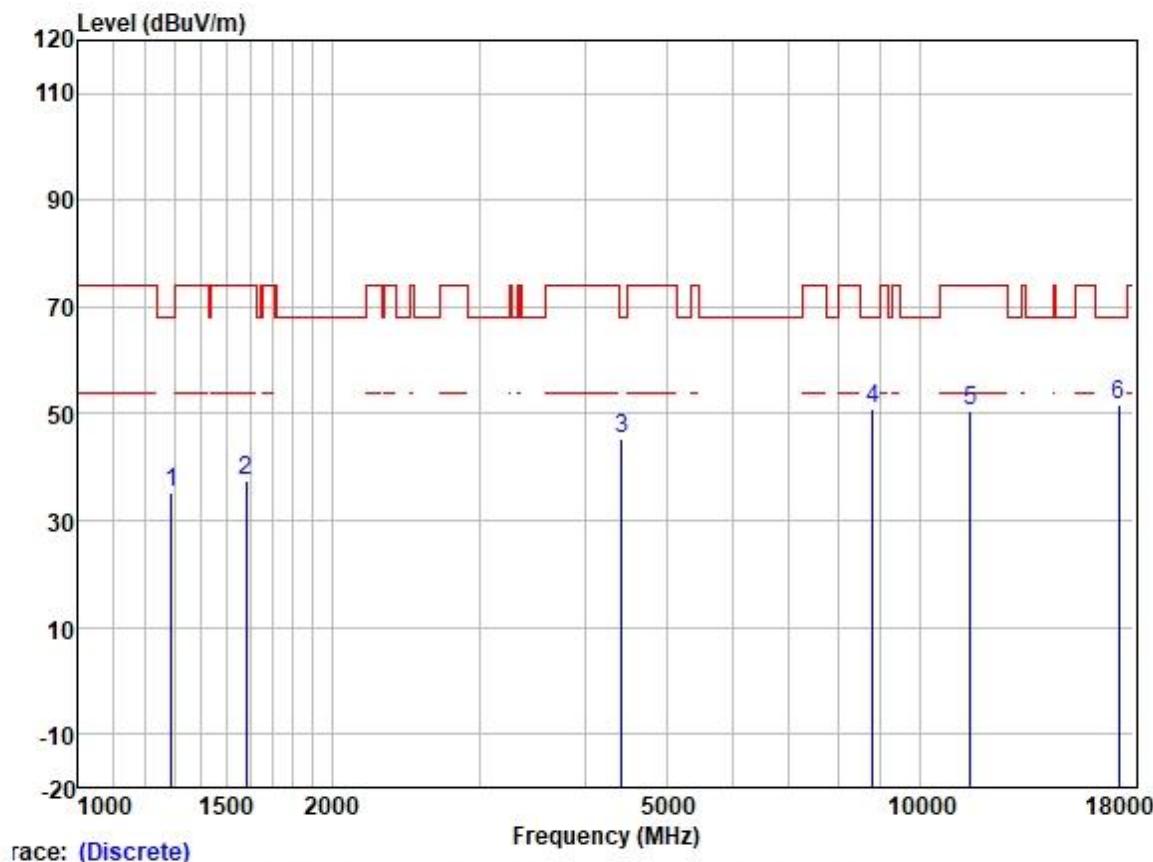
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Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Trace: (Discrete)

Freq	ReadAntenna		Cable Preamp		Limit	Over	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	Level Factor	Cable Loss Factor	Preamp Factor					
1	1289.627	45.75	25.17	2.55	38.31	35.16	68.20	-33.04	HORIZONTAL	Peak
2	1583.392	46.96	25.56	2.80	38.00	37.32	74.00	-36.68	HORIZONTAL	Peak
3	4430.628	46.77	30.72	4.78	36.81	45.46	68.20	-22.74	HORIZONTAL	Peak
4	8789.516	43.79	37.33	7.24	37.54	50.82	68.20	-17.38	HORIZONTAL	Peak
5	11490.000	39.46	39.90	8.41	37.15	50.62	74.00	-23.38	HORIZONTAL	Peak
6	17235.000	34.05	43.01	10.08	35.33	51.81	68.20	-16.39	HORIZONTAL	Peak

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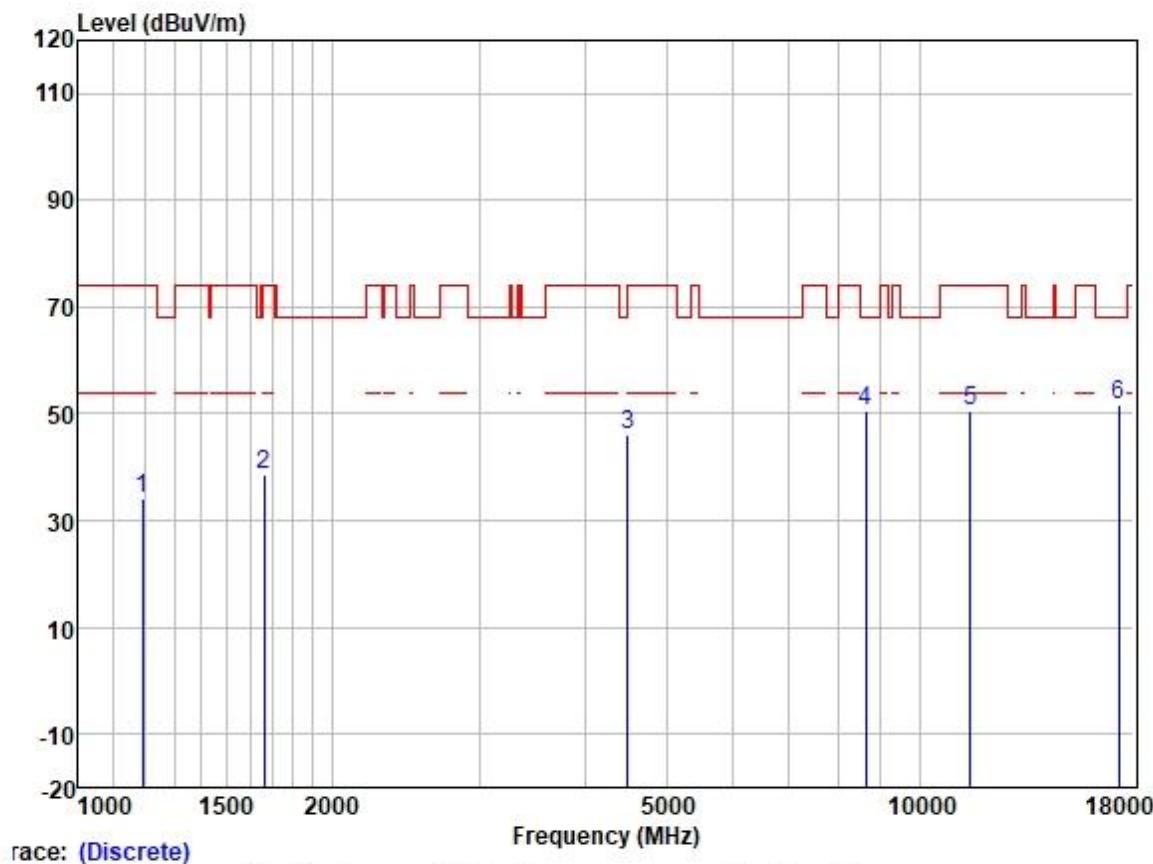
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Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



Race: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1192.811	45.63	24.65	2.36	38.39	34.25	74.00	-39.75	VERTICAL	Peak			
2	1663.137	47.90	25.65	2.80	37.91	38.44	74.00	-35.56	VERTICAL	Peak			
3	4495.125	46.97	30.80	5.05	36.82	46.00	68.20	-22.20	VERTICAL	Peak			
4	8638.399	44.04	37.26	6.92	37.55	50.67	68.20	-17.53	VERTICAL	Peak			
5	11490.000	39.45	39.90	8.41	37.15	50.61	74.00	-23.39	VERTICAL	Peak			
6	17235.000	33.86	43.01	10.08	35.33	51.62	68.20	-16.58	VERTICAL	Peak			

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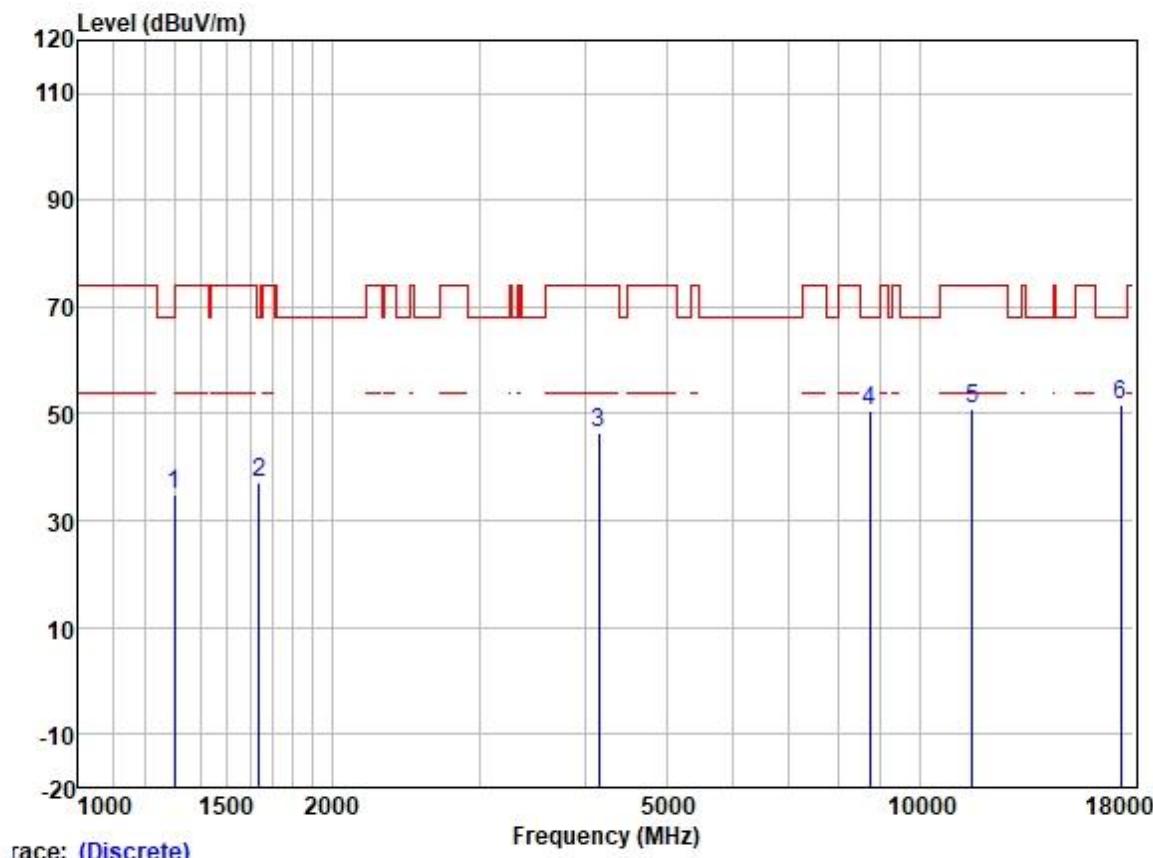
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Test Mode: 07; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



Trace: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1300.858	45.28	25.20	2.60	38.31	34.77	74.00	-39.23	HORIZONTAL	Peak			
2	1639.274	46.66	25.62	2.80	37.93	37.15	68.20	-31.05	HORIZONTAL	Peak			
3	4157.664	48.51	30.06	4.60	36.80	46.37	74.00	-27.63	HORIZONTAL	Peak			
4	8738.852	43.49	37.31	7.13	37.54	50.39	68.20	-17.81	HORIZONTAL	Peak			
5	11570.000	39.77	39.78	8.38	37.14	50.79	74.00	-23.21	HORIZONTAL	Peak			
6	17355.000	33.11	43.40	10.39	35.32	51.58	68.20	-16.62	HORIZONTAL	Peak			

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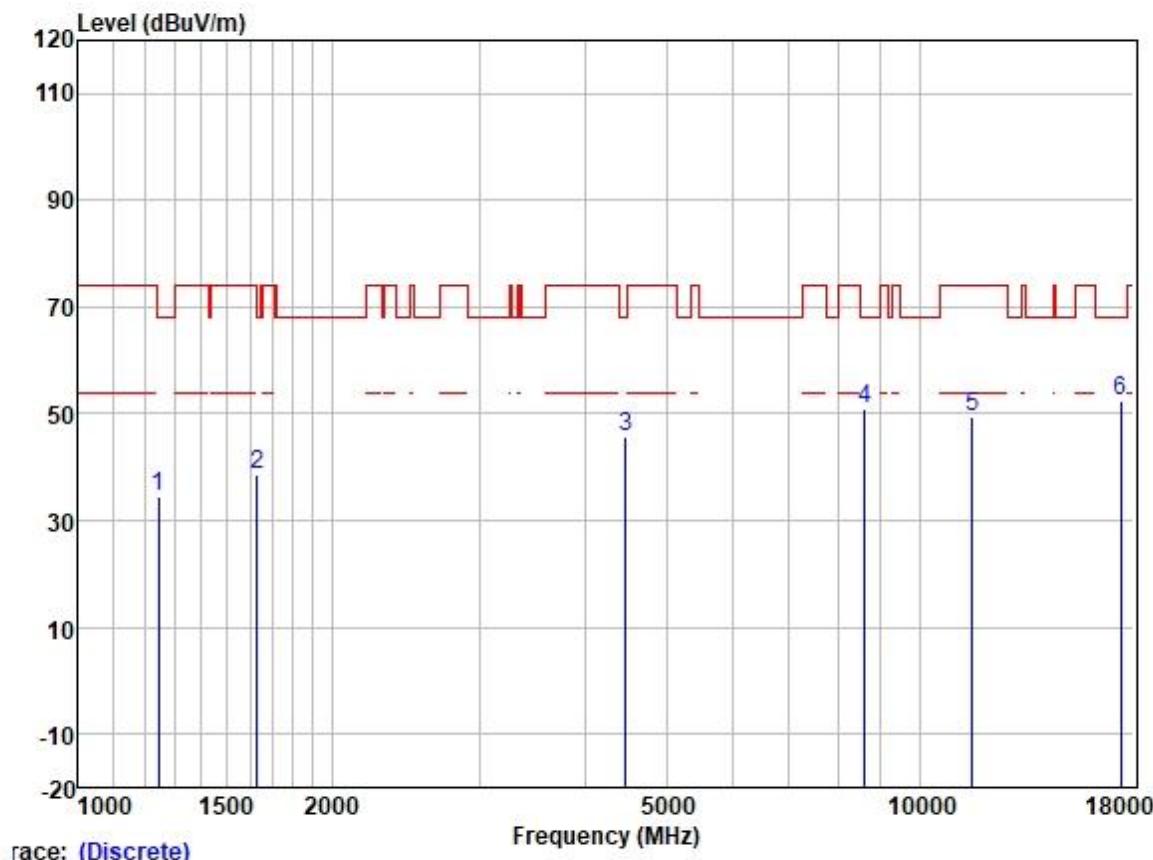
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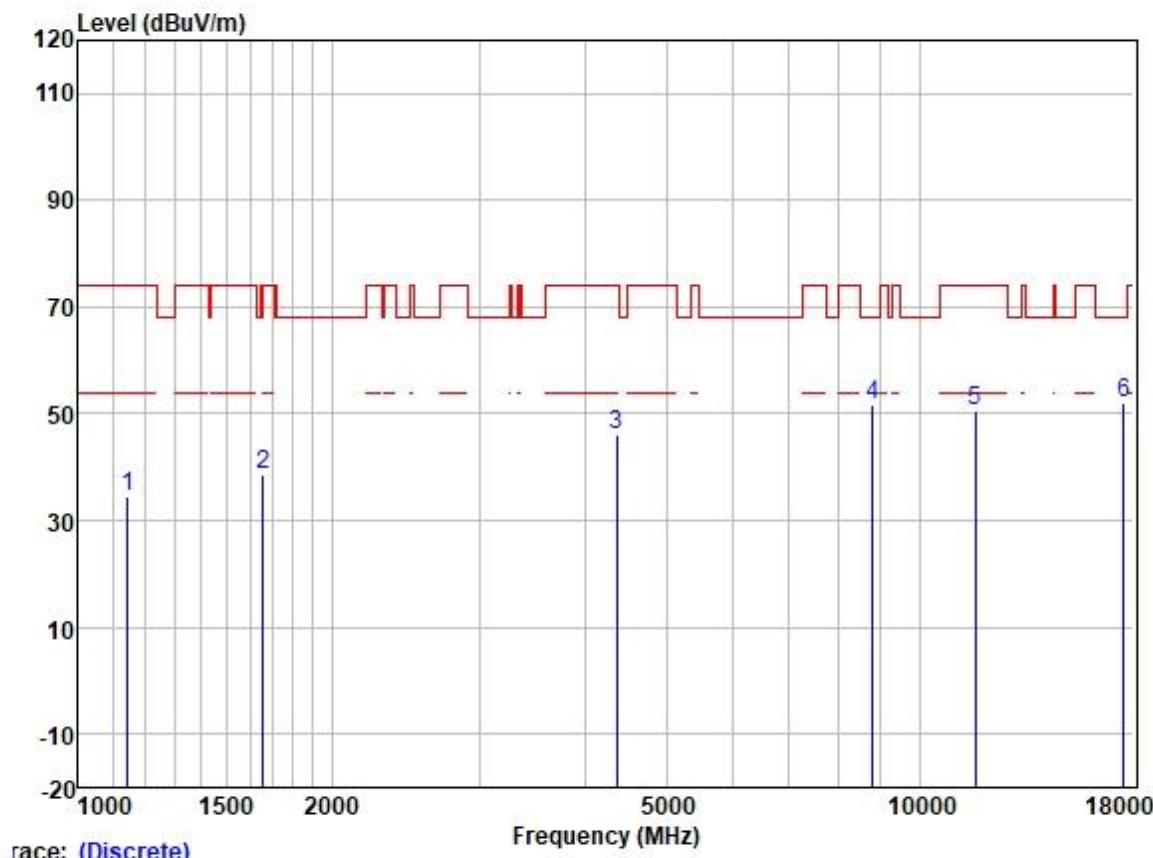
Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:middle



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



Mode: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1145.507	46.08	24.48	2.32	38.42	34.46	74.00	-39.54	HORIZONTAL	Peak			
2	1658.337	48.18	25.65	2.80	37.93	38.70	68.20	-29.50	HORIZONTAL	Peak			
3	4367.058	47.41	30.62	4.68	36.81	45.90	74.00	-28.10	HORIZONTAL	Peak			
4	8789.516	44.47	37.33	7.24	37.54	51.50	68.20	-16.70	HORIZONTAL	Peak			
5	11650.000	39.68	39.65	8.35	37.13	50.55	74.00	-23.45	HORIZONTAL	Peak			
6	17475.000	32.58	43.90	10.77	35.32	51.93	68.20	-16.27	HORIZONTAL	Peak			

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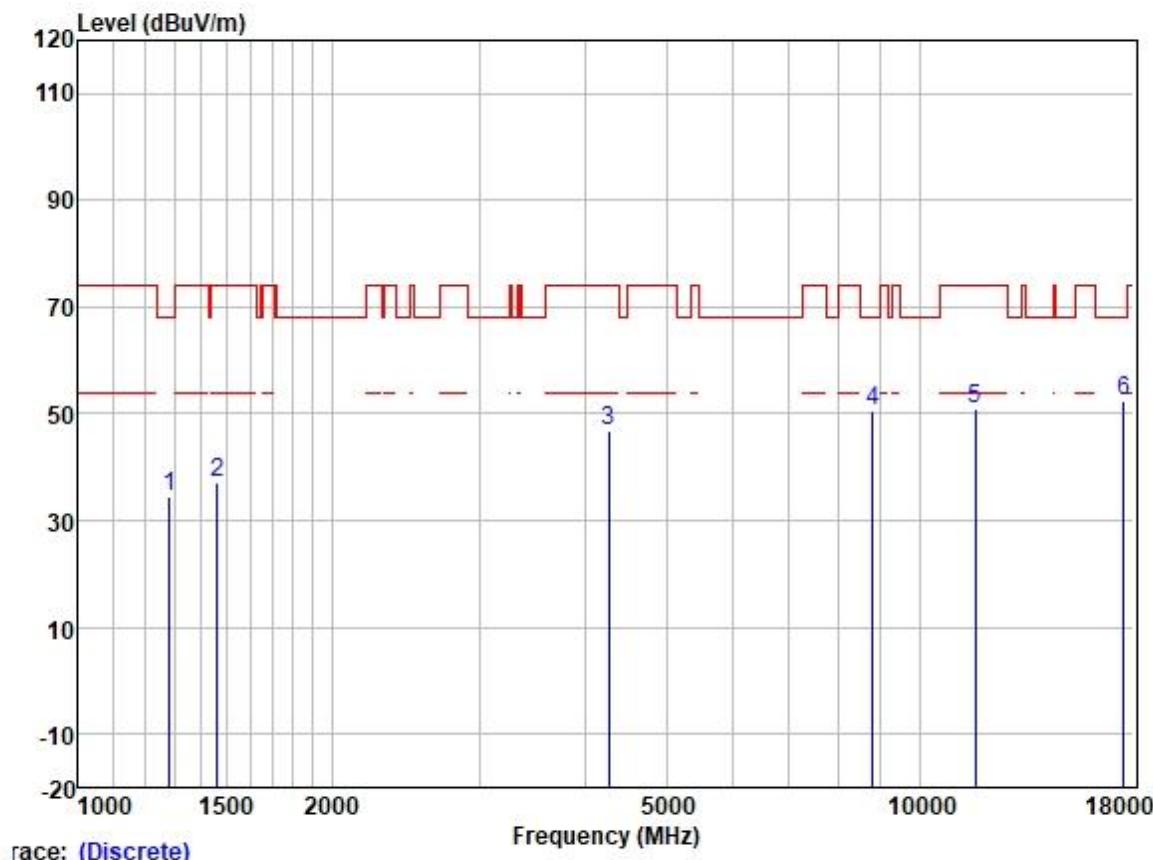
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Test Mode: 07; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



Race: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1282.193	45.11	25.15	2.52	38.33	34.45	68.20	-33.75	VERTICAL	Peak			
2	1464.522	47.17	25.47	2.74	38.13	37.25	74.00	-36.75	VERTICAL	Peak			
3	4267.237	48.51	30.38	4.63	36.81	46.71	74.00	-27.29	VERTICAL	Peak			
4	8789.516	43.42	37.33	7.24	37.54	50.45	68.20	-17.75	VERTICAL	Peak			
5	11650.000	40.00	39.65	8.35	37.13	50.87	74.00	-23.13	VERTICAL	Peak			
6	17475.000	32.94	43.90	10.77	35.32	52.29	68.20	-15.91	VERTICAL	Peak			

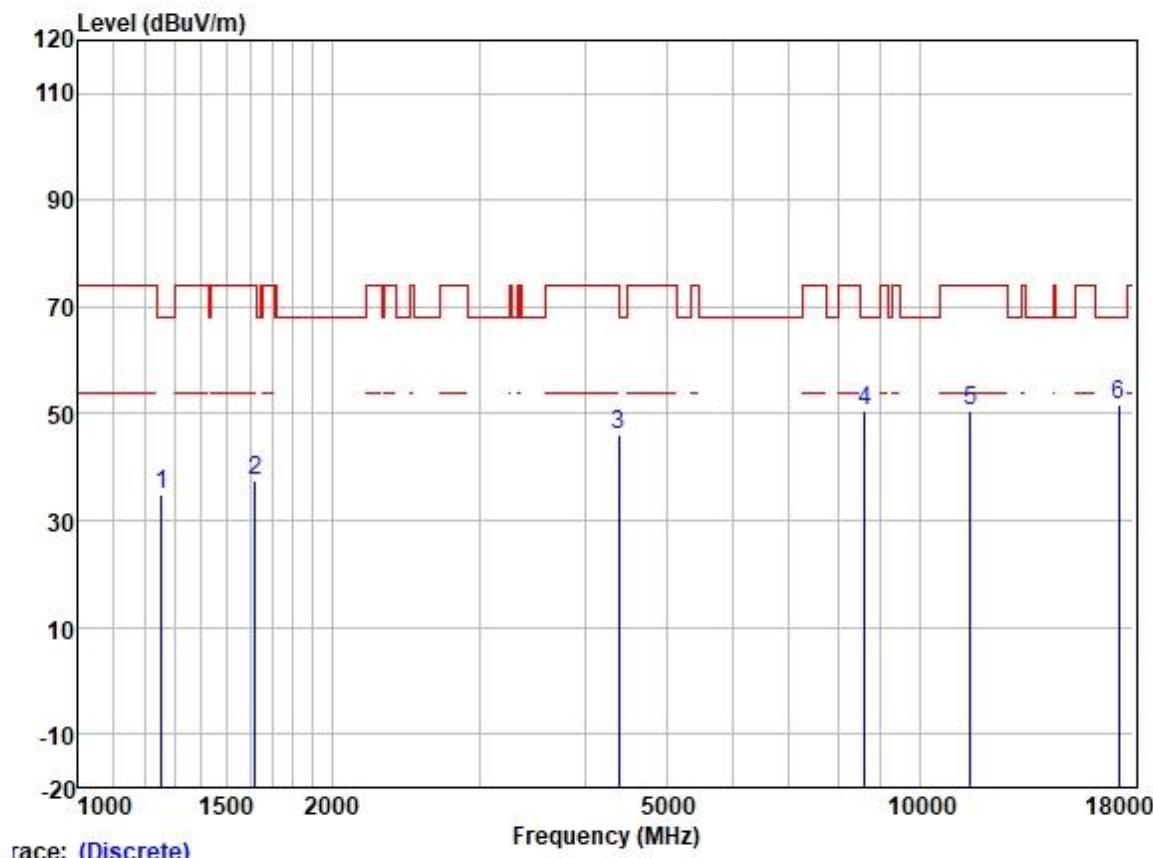
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Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Freq	ReadAntenna		Cable Preamp		Limit	Over	Line	Limit	Pol/Phase	Remark
	MHz	Level	Factor	Loss	Factor					
	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	dB		
1	1256.512	45.80	25.05	2.38	38.35	34.88	68.20	-33.32	HORIZONTAL	Peak
2	1620.431	47.02	25.60	2.80	37.95	37.47	74.00	-36.53	HORIZONTAL	Peak
3	4392.376	47.35	30.66	4.70	36.81	45.90	74.00	-28.10	HORIZONTAL	Peak
4	8613.468	44.16	37.24	6.88	37.56	50.72	68.20	-17.48	HORIZONTAL	Peak
5	11490.000	39.24	39.90	8.41	37.15	50.40	74.00	-23.60	HORIZONTAL	Peak
6	17235.000	34.06	43.01	10.08	35.33	51.82	68.20	-16.38	HORIZONTAL	Peak

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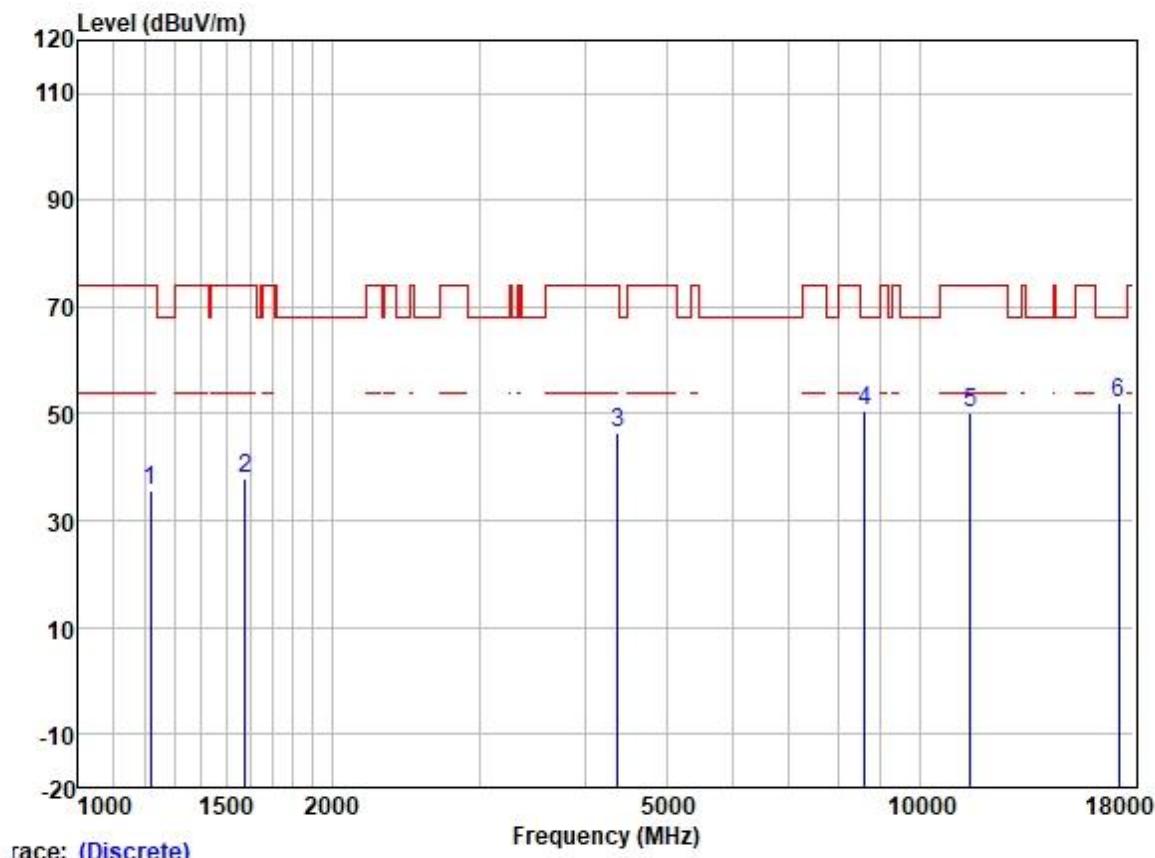


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Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1217.190	46.71	24.79	2.32	38.37	35.45	74.00	-38.55	VERTICAL	Peak			
2	1578.822	47.67	25.56	2.80	38.00	38.03	74.00	-35.97	VERTICAL	Peak			
3	4379.699	47.93	30.64	4.69	36.81	46.45	74.00	-27.55	VERTICAL	Peak			
4	8613.468	44.14	37.24	6.88	37.56	50.70	68.20	-17.50	VERTICAL	Peak			
5	11490.000	39.19	39.90	8.41	37.15	50.35	74.00	-23.65	VERTICAL	Peak			
6	17235.000	34.17	43.01	10.08	35.33	51.93	68.20	-16.27	VERTICAL	Peak			

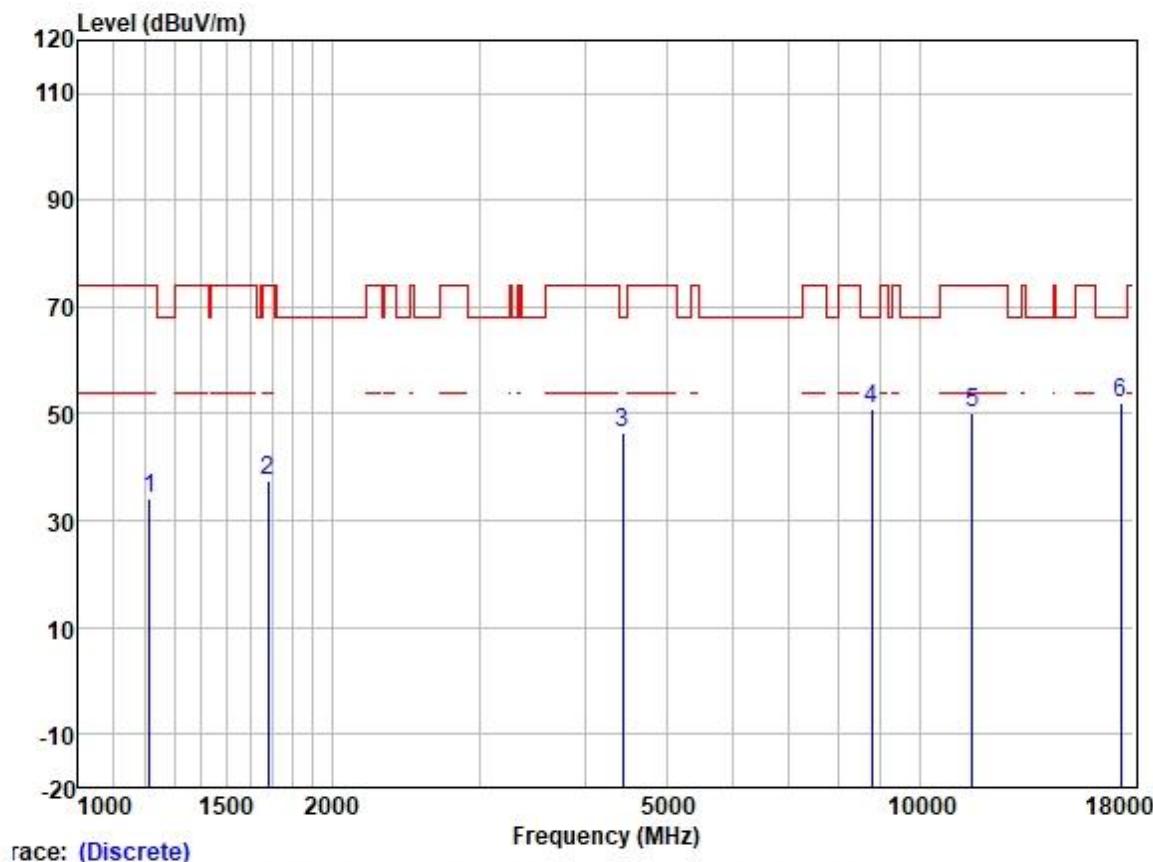
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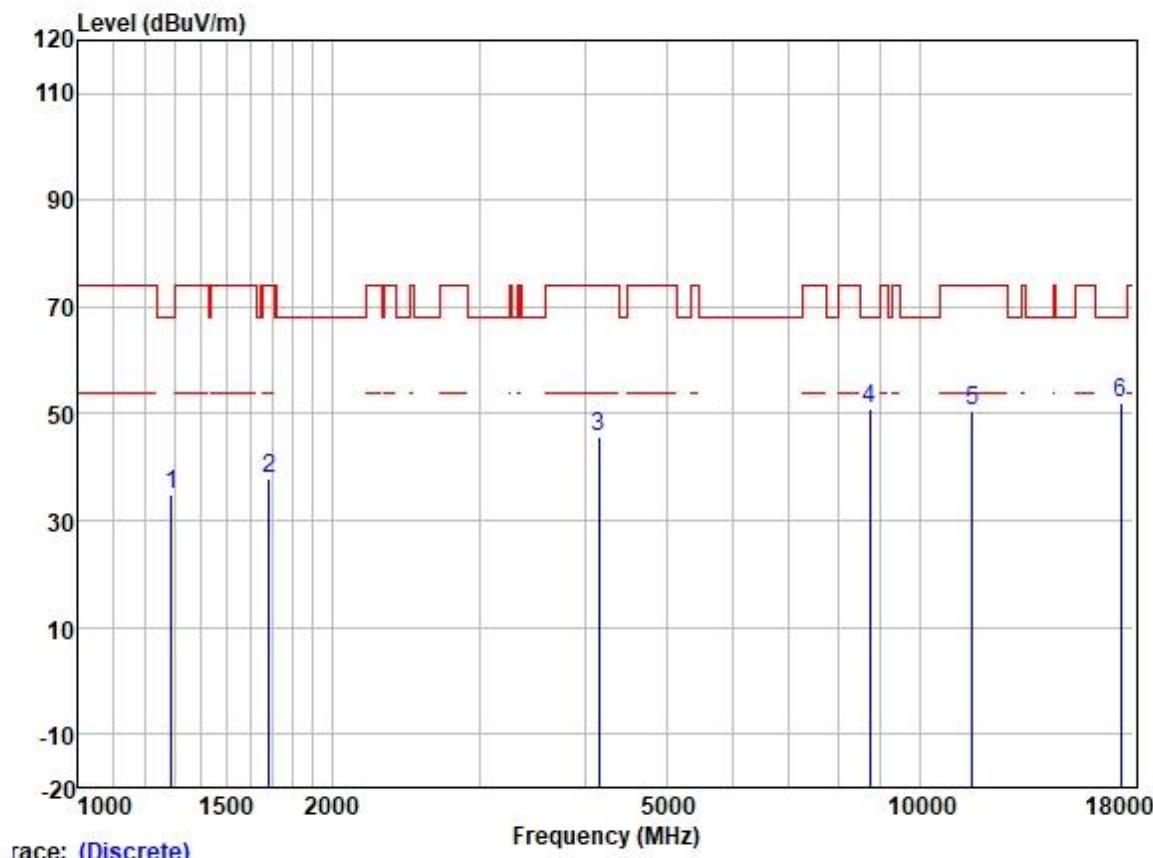
Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



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Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:middle



Type: (Discrete)

Line	Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
		MHz	dBuV	Level	Factor				dB	dB	dBuV/m	dBuV/m	dB	
1	1289.627	45.45	25.17	2.55	38.31	34.86	68.20	-33.34	VERTICAL				Peak	
2	1687.347	47.28	25.69	2.80	37.91	37.86	74.00	-36.14	VERTICAL				Peak	
3	4157.664	47.91	30.06	4.60	36.80	45.77	74.00	-28.23	VERTICAL				Peak	
4	8738.852	44.12	37.31	7.13	37.54	51.02	68.20	-17.18	VERTICAL				Peak	
5	11570.000	39.42	39.78	8.38	37.14	50.44	74.00	-23.56	VERTICAL				Peak	
6	17355.000	33.57	43.40	10.39	35.32	52.04	68.20	-16.16	VERTICAL				Peak	

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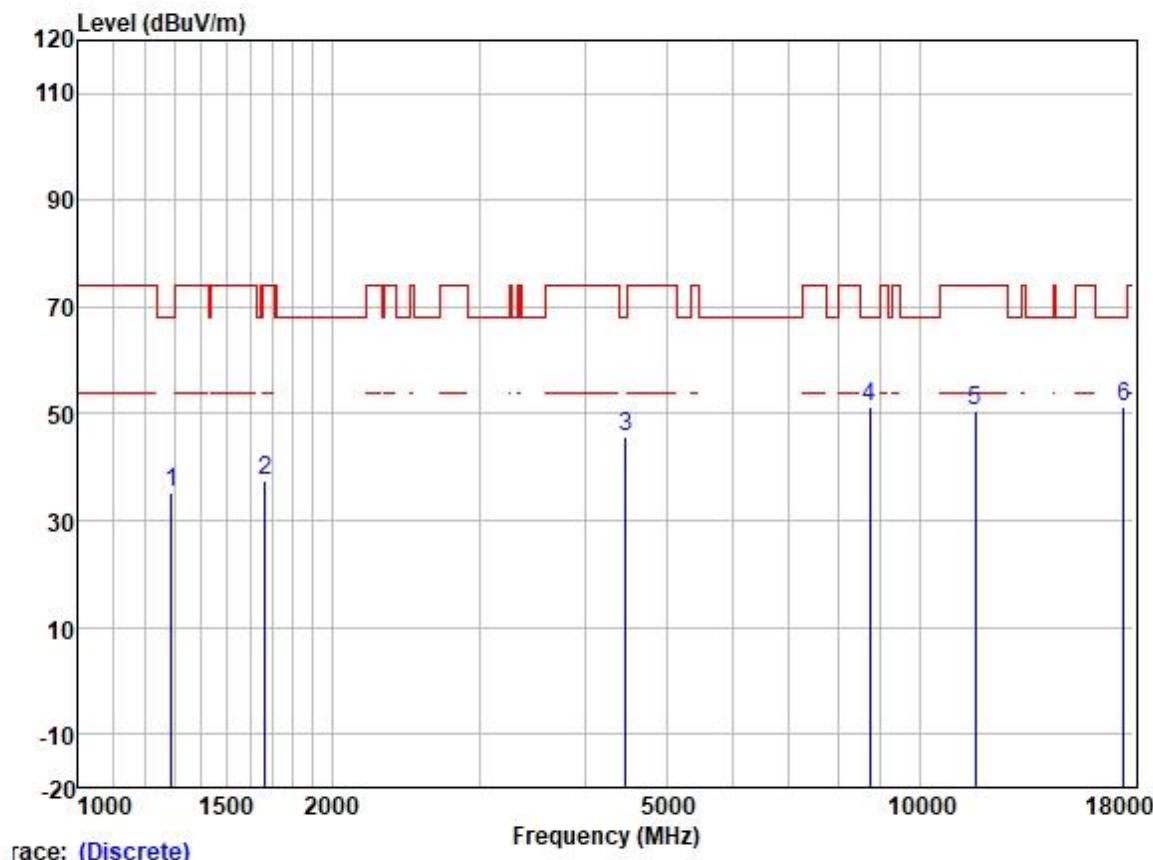
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Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



Race: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1289.627	45.80	25.17	2.55	38.31	35.21	68.20	-32.99	HORIZONTAL	Peak			
2	1667.951	46.98	25.66	2.80	37.91	37.53	74.00	-36.47	HORIZONTAL	Peak			
3	4469.214	46.78	30.77	4.93	36.81	45.67	68.20	-22.53	HORIZONTAL	Peak			
4	8738.852	44.38	37.31	7.13	37.54	51.28	68.20	-16.92	HORIZONTAL	Peak			
5	11650.000	39.51	39.65	8.35	37.13	50.38	74.00	-23.62	HORIZONTAL	Peak			
6	17475.000	31.82	43.90	10.77	35.32	51.17	68.20	-17.03	HORIZONTAL	Peak			

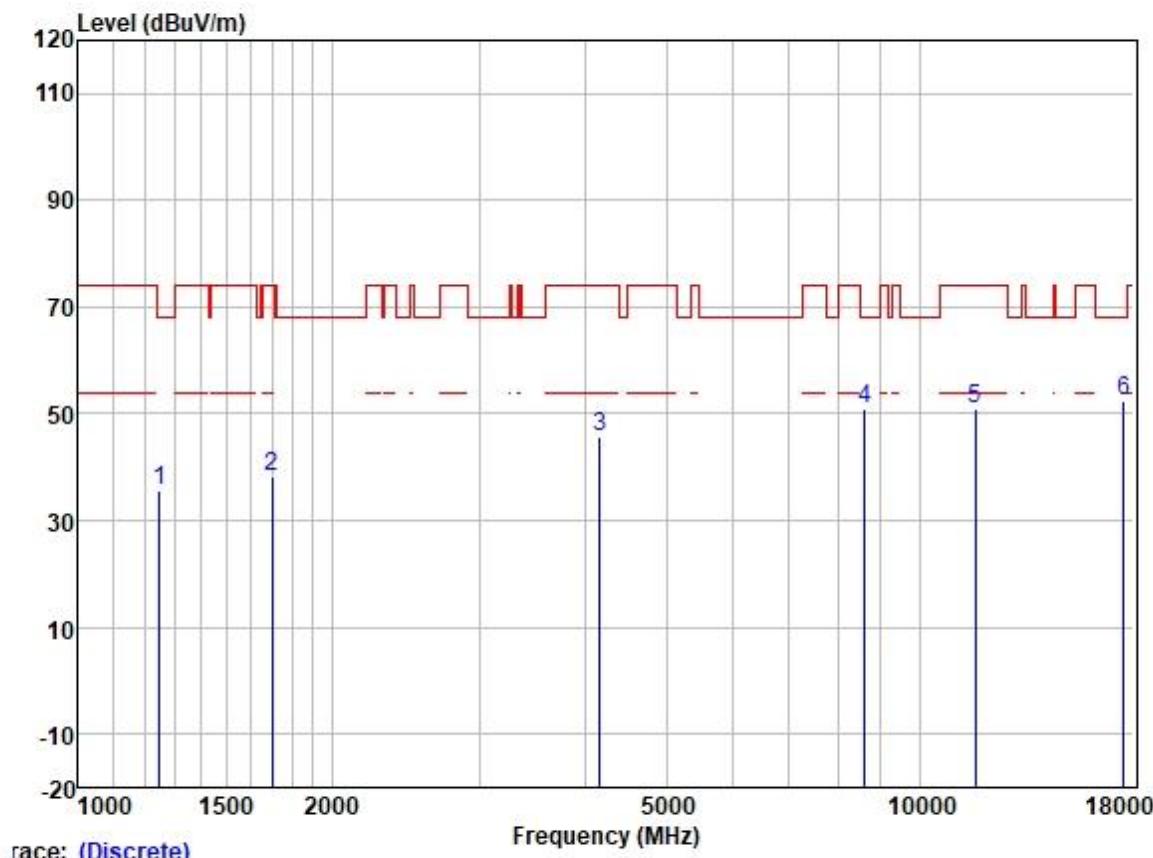
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Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



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

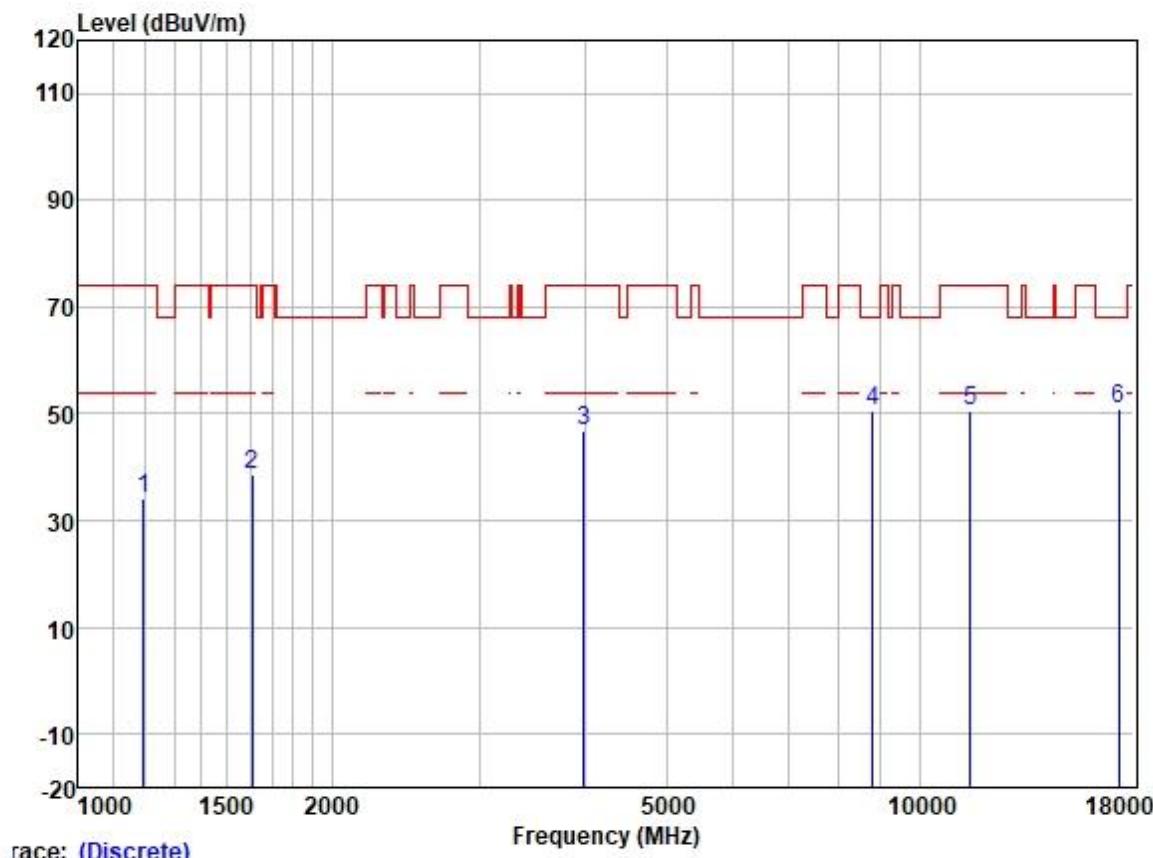


Table: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1196.264	45.64	24.67	2.35	38.39	34.27	74.00	-39.73	HORIZONTAL	Peak			
2	1611.091	48.03	25.59	2.80	37.98	38.44	74.00	-35.56	HORIZONTAL	Peak			
3	3992.781	49.21	29.79	4.60	36.80	46.80	74.00	-27.20	HORIZONTAL	Peak			
4	8789.516	43.47	37.33	7.24	37.54	50.50	68.20	-17.70	HORIZONTAL	Peak			
5	11510.000	39.58	39.90	8.41	37.15	50.74	74.00	-23.26	HORIZONTAL	Peak			
6	17265.000	32.99	43.21	10.24	35.33	51.11	68.20	-17.09	HORIZONTAL	Peak			

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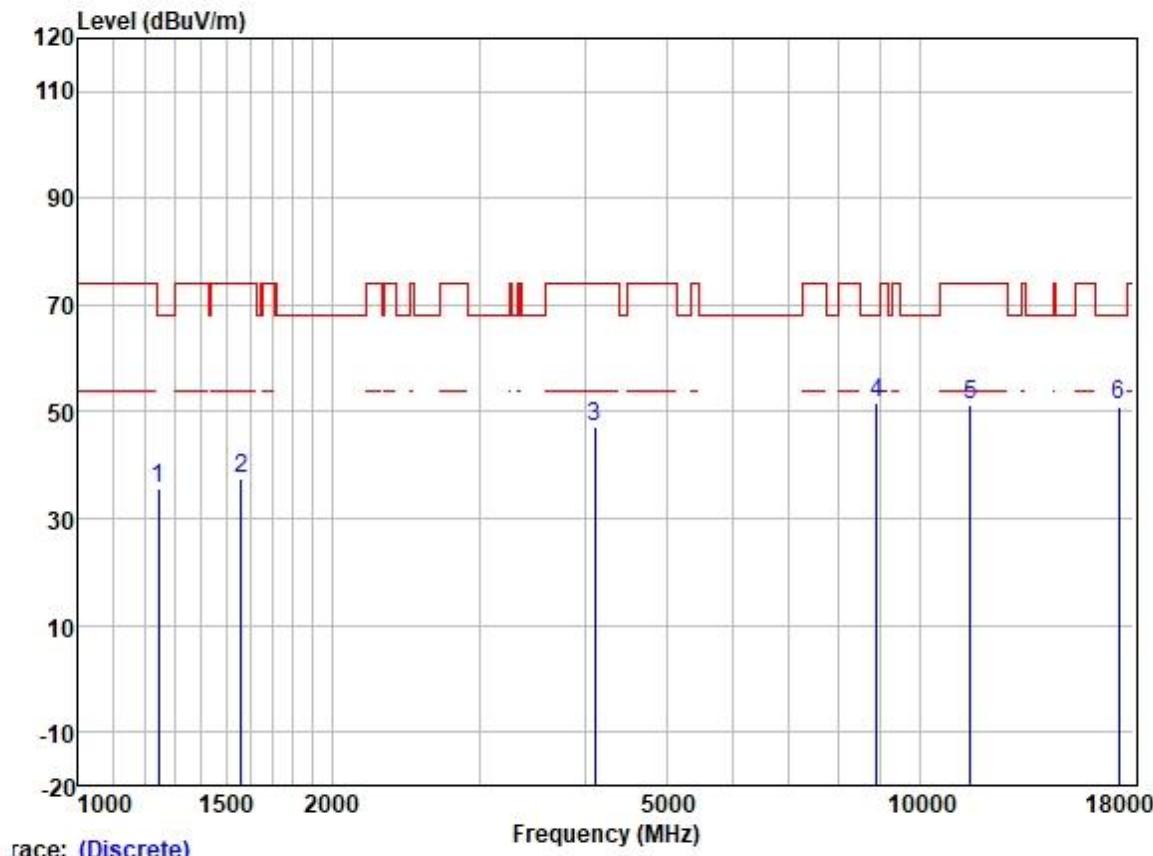
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Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1245.663	46.48	25.00	2.33	38.35	35.46	68.20	-32.74	VERTICAL	Peak			
2	1560.673	47.19	25.54	2.80	38.03	37.50	74.00	-36.50	VERTICAL	Peak			
3	4109.872	49.43	29.96	4.60	36.80	47.19	74.00	-26.81	VERTICAL	Peak			
4	8891.725	44.33	37.37	7.42	37.52	51.60	68.20	-16.60	VERTICAL	Peak			
5	11510.000	40.06	39.90	8.41	37.15	51.22	74.00	-22.78	VERTICAL	Peak			
6	17265.000	33.00	43.21	10.24	35.33	51.12	68.20	-17.08	VERTICAL	Peak			

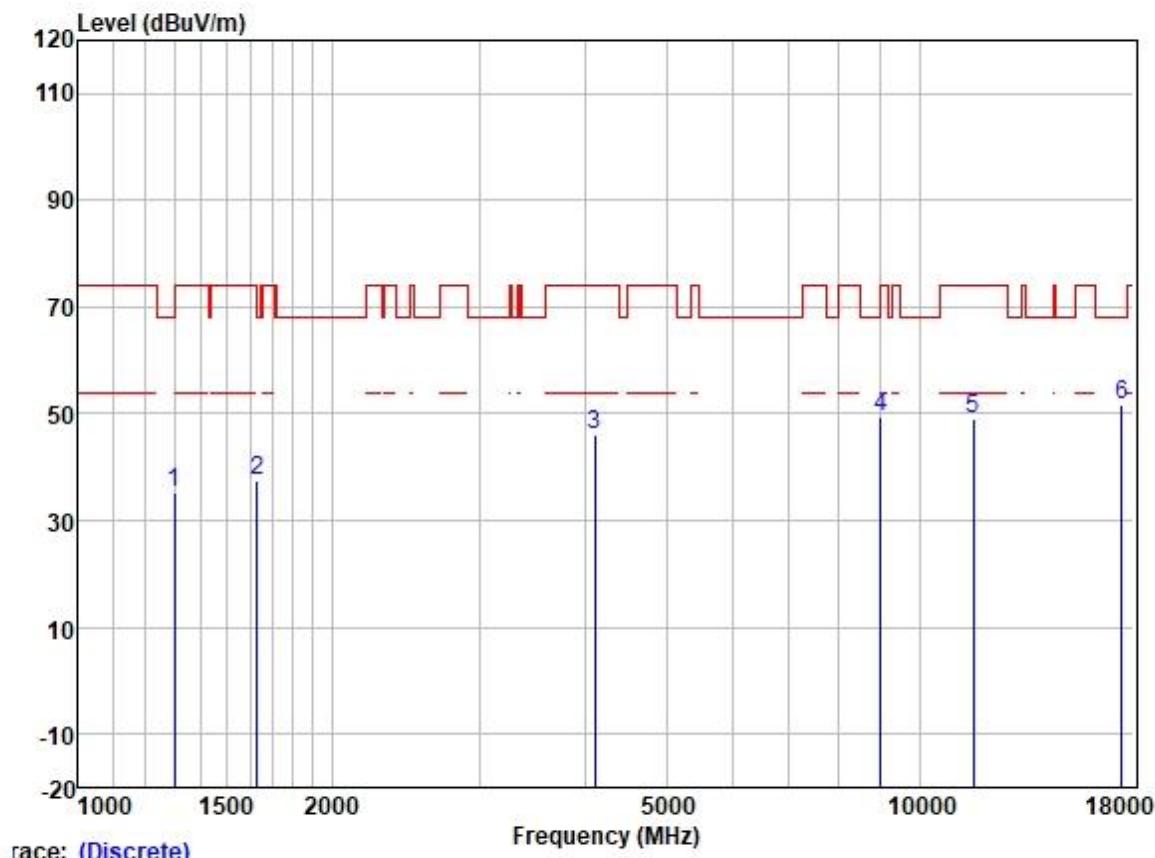
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Test Mode: 07; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Race:	ReadAntenna		Cable		Preamp		Limit	Over	Line	Limit	Pol/Phase	Remark
	Freq	Level	Factor	Loss	Factor	Level						
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB				
1	1300.858	45.82	25.20	2.60	38.31	35.31	74.00	-38.69	HORIZONTAL	Peak		
2	1629.825	46.91	25.61	2.80	37.95	37.37	68.20	-30.83	HORIZONTAL	Peak		
3	4109.872	48.40	29.96	4.60	36.80	46.16	74.00	-27.84	HORIZONTAL	Peak		
4	8995.123	42.08	37.40	7.56	37.50	49.54	68.20	-18.66	HORIZONTAL	Peak		
5	11590.000	38.23	39.72	8.37	37.14	49.18	74.00	-24.82	HORIZONTAL	Peak		
6	17385.000	33.00	43.57	10.53	35.32	51.78	68.20	-16.42	HORIZONTAL	Peak		

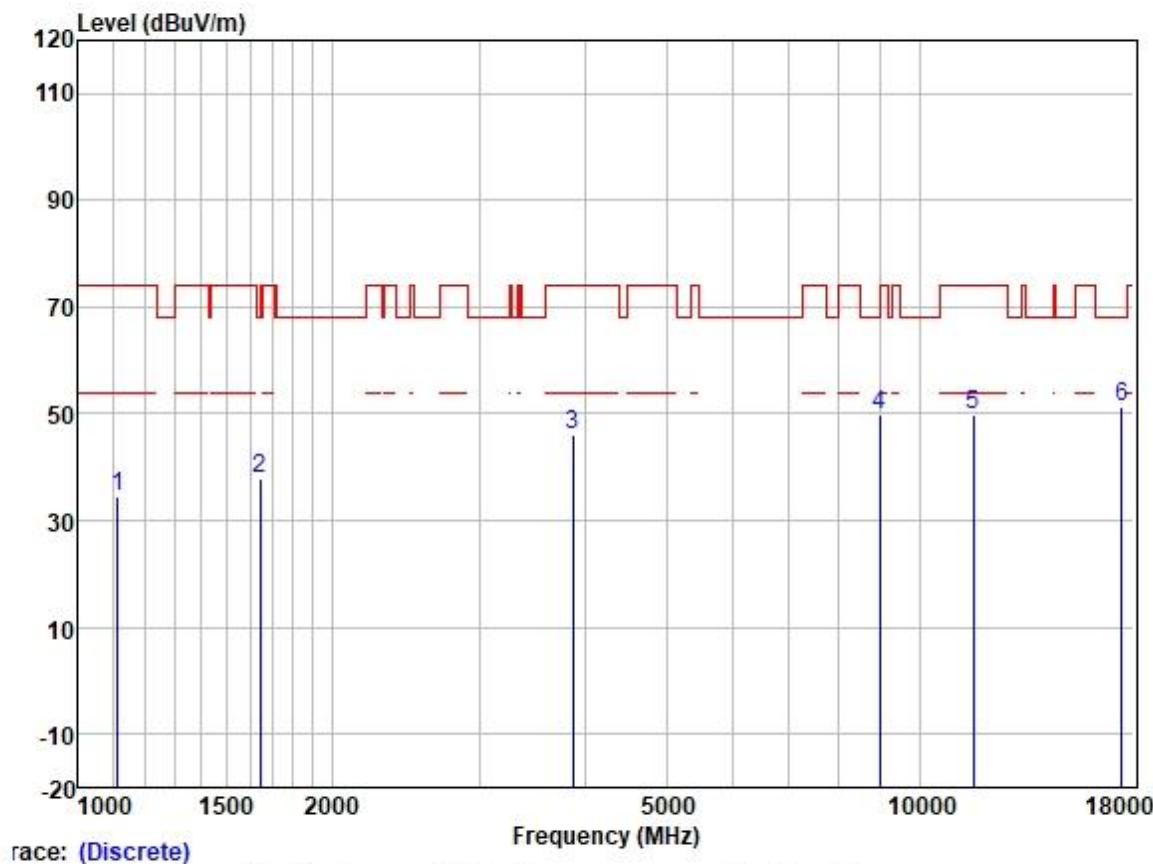
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Test Mode: 07; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



Race: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dB									
1 1112.872	46.33	24.39	2.26	38.43	34.55	74.00	-39.45	VERTICAL				Peak	
2 1644.019	47.41	25.63	2.80	37.93	37.91	68.20	-30.29	VERTICAL				Peak	
3 3867.831	48.64	29.64	4.60	36.83	46.05	74.00	-27.95	VERTICAL				Peak	
4 8969.161	42.49	37.39	7.53	37.51	49.90	68.20	-18.30	VERTICAL				Peak	
5 11590.000	38.91	39.72	8.37	37.14	49.86	74.00	-24.14	VERTICAL				Peak	
6 17385.000	32.68	43.57	10.53	35.32	51.46	68.20	-16.74	VERTICAL				Peak	

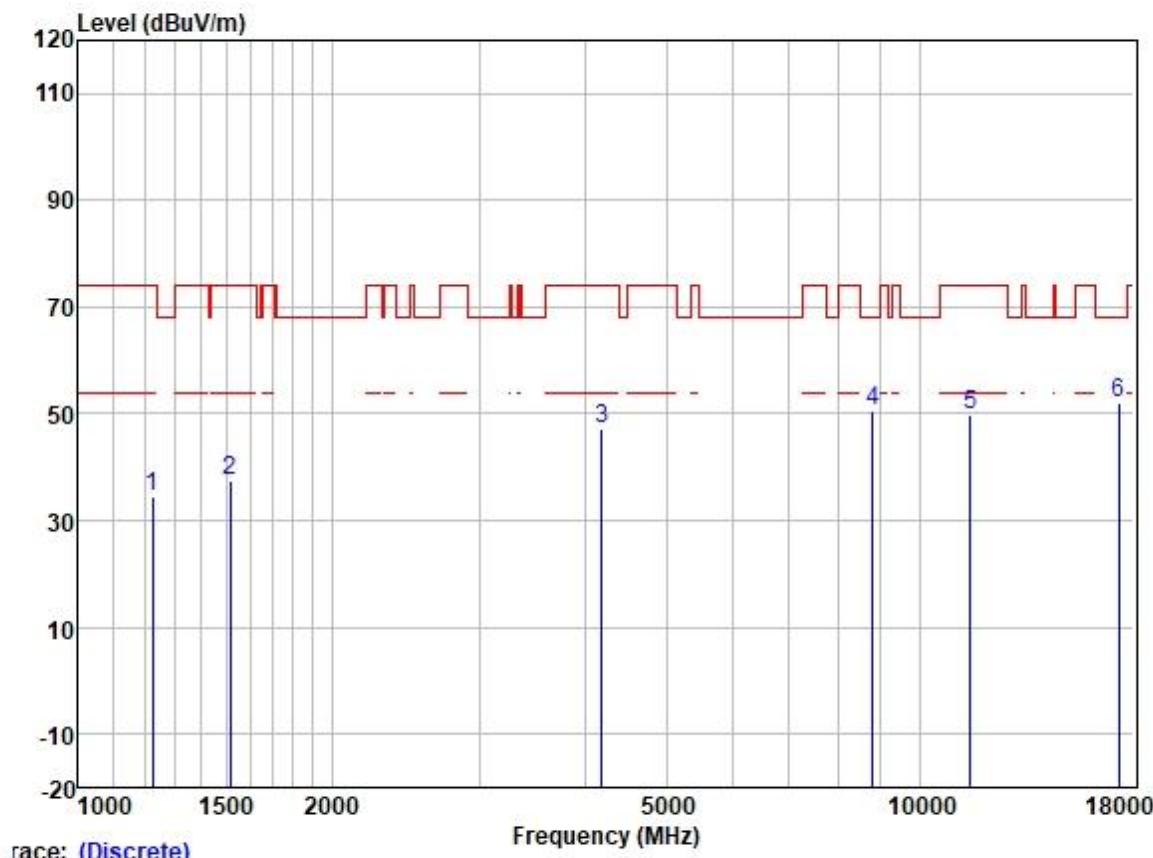
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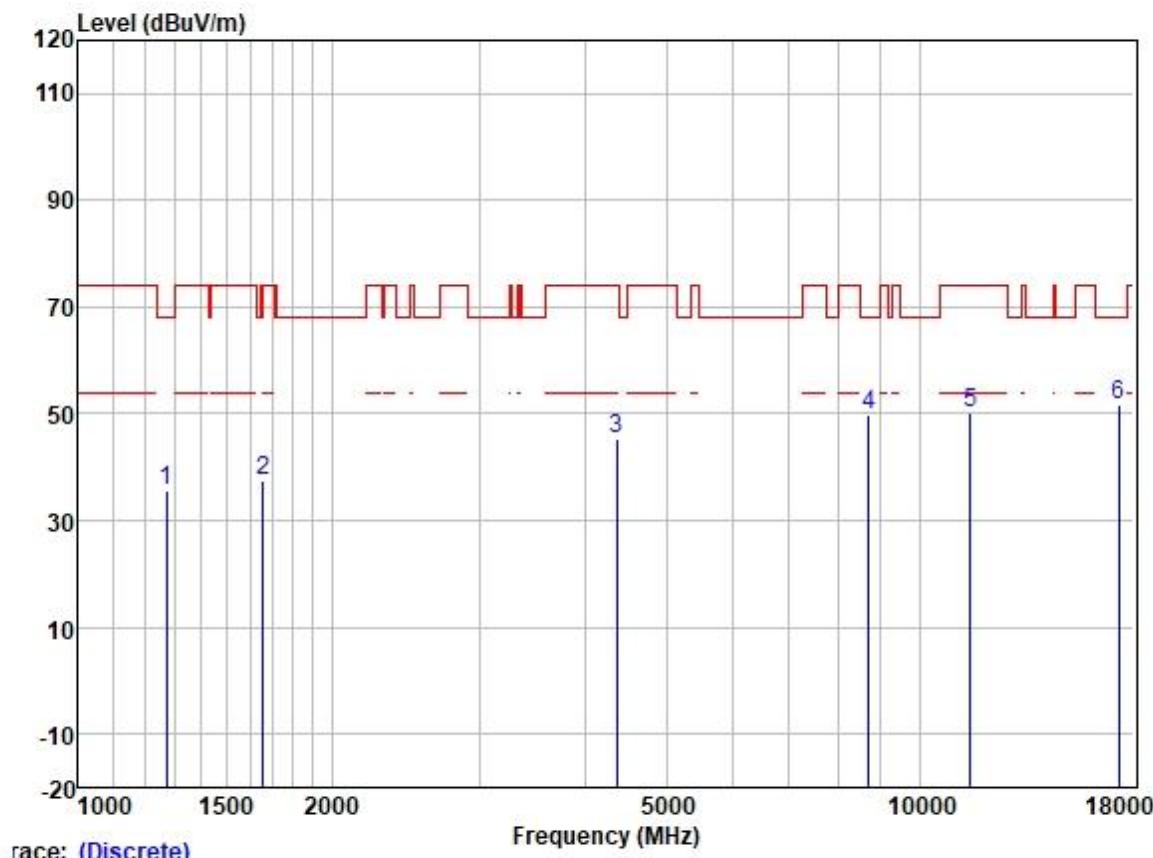
Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



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



Trace: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	dB	dB									
1 1271.123	46.41	25.11	2.46	38.33	35.65	68.20	-32.55	VERTICAL				Peak	
2 1658.337	47.00	25.65	2.80	37.93	37.52	68.20	-30.68	VERTICAL				Peak	
3 4367.058	47.01	30.62	4.68	36.81	45.50	74.00	-28.50	VERTICAL				Peak	
4 8713.630	42.86	37.30	7.07	37.55	49.68	68.20	-18.52	VERTICAL				Peak	
5 11490.000	38.92	39.90	8.41	37.15	50.08	74.00	-23.92	VERTICAL				Peak	
6 17235.000	33.76	43.01	10.08	35.33	51.52	68.20	-16.68	VERTICAL				Peak	

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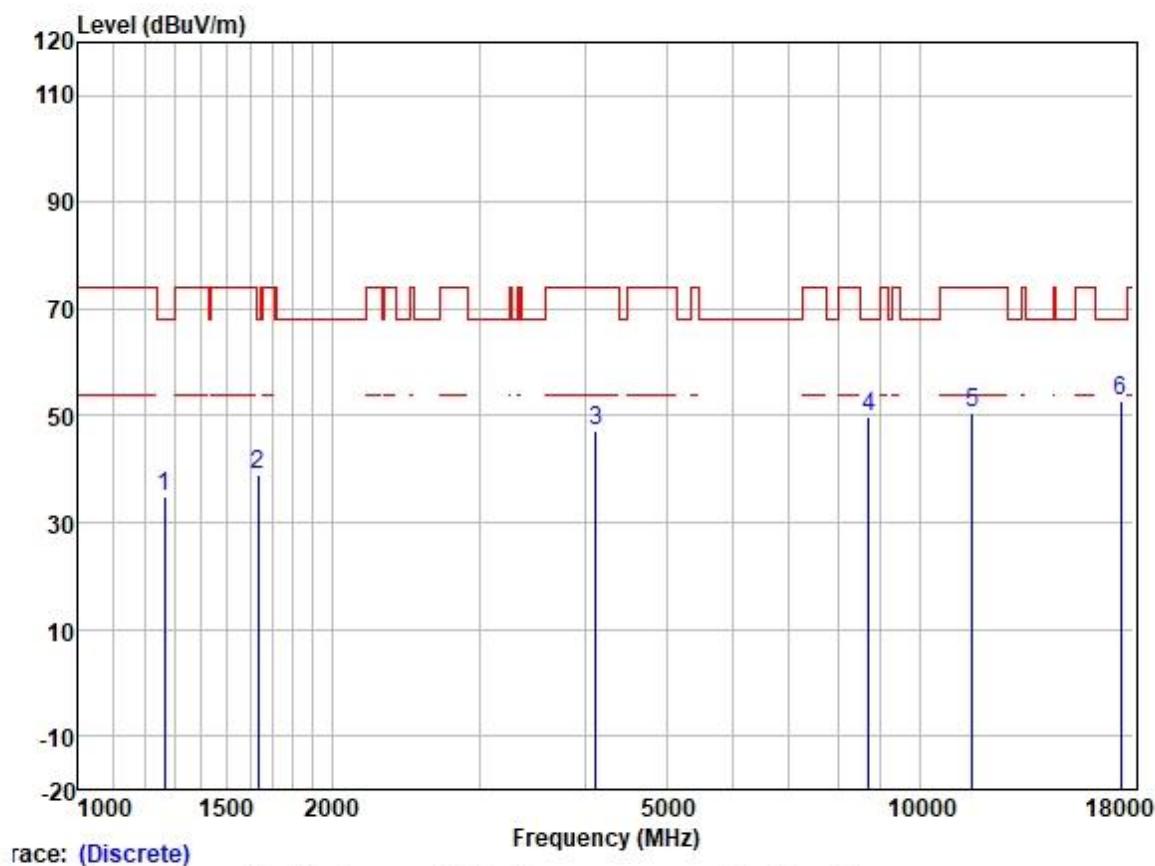
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Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Mode: (Discrete)

Line	Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Level	Limit	Line	Over	Limit	Pol/Phase	Remark
		MHz	dBuV	Level	Factor				dB	dB	dBuV/m	dBuV/m	dB		
1	1267.454	45.67	25.10	2.44	38.33	34.88	68.20	-33.32	HORIZONTAL	Peak					
2	1634.543	48.38	25.62	2.80	37.95	38.85	68.20	-29.35	HORIZONTAL	Peak					
3	4121.768	49.56	29.98	4.60	36.80	47.34	74.00	-26.66	HORIZONTAL	Peak					
4	8713.630	43.15	37.30	7.07	37.55	49.97	68.20	-18.23	HORIZONTAL	Peak					
5	11570.000	39.52	39.78	8.38	37.14	50.54	74.00	-23.46	HORIZONTAL	Peak					
6	17355.000	34.28	43.40	10.39	35.32	52.75	68.20	-15.45	HORIZONTAL	Peak					

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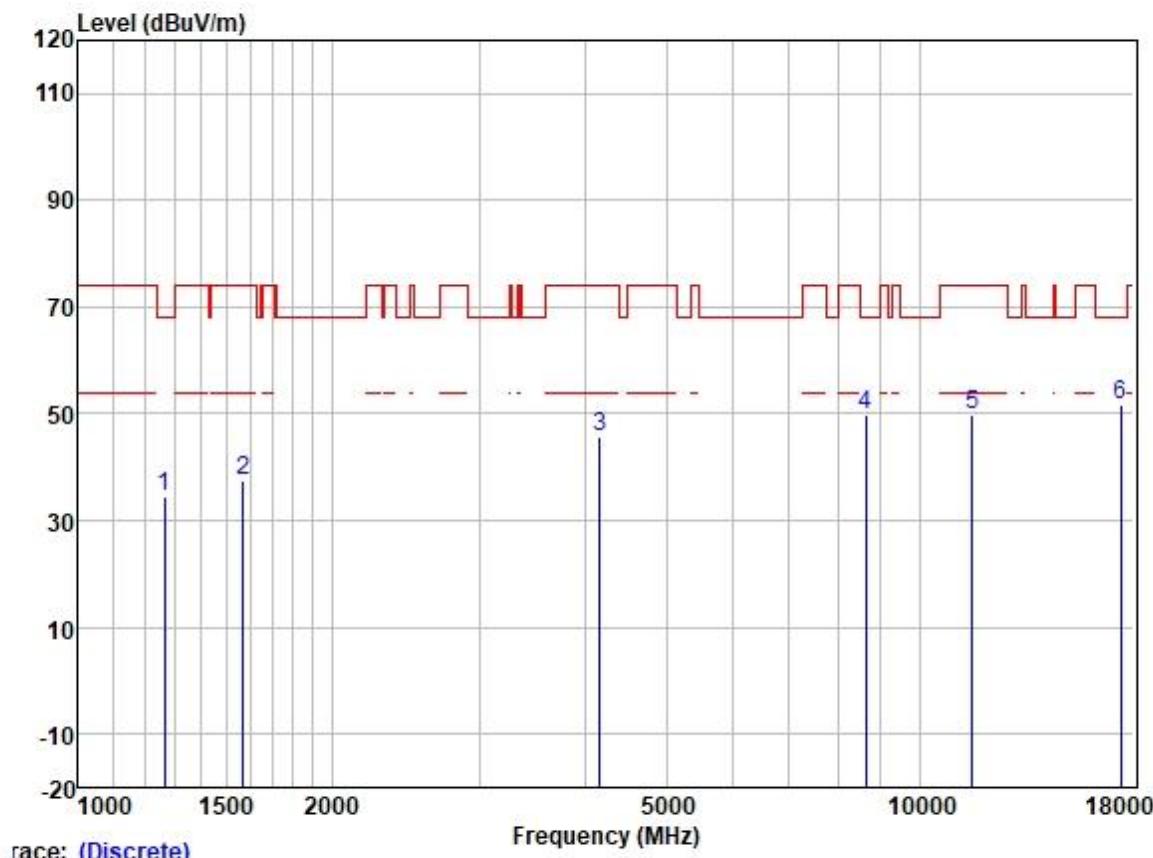
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Test Mode: 07; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:middle



Race: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Pol/Phase	Remark
	MHz	Level	Factor	Loss							
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	dB		
1	1267.454	45.17	25.10	2.44	38.33	34.38	68.20	-33.82	VERTICAL	Peak	
2	1569.721	47.30	25.55	2.80	38.00	37.65	74.00	-36.35	VERTICAL	Peak	
3	4169.698	47.94	30.09	4.60	36.80	45.83	74.00	-28.17	VERTICAL	Peak	
4	8638.399	43.15	37.26	6.92	37.55	49.78	68.20	-18.42	VERTICAL	Peak	
5	11570.000	38.61	39.78	8.38	37.14	49.63	74.00	-24.37	VERTICAL	Peak	
6	17355.000	33.29	43.40	10.39	35.32	51.76	68.20	-16.44	VERTICAL	Peak	

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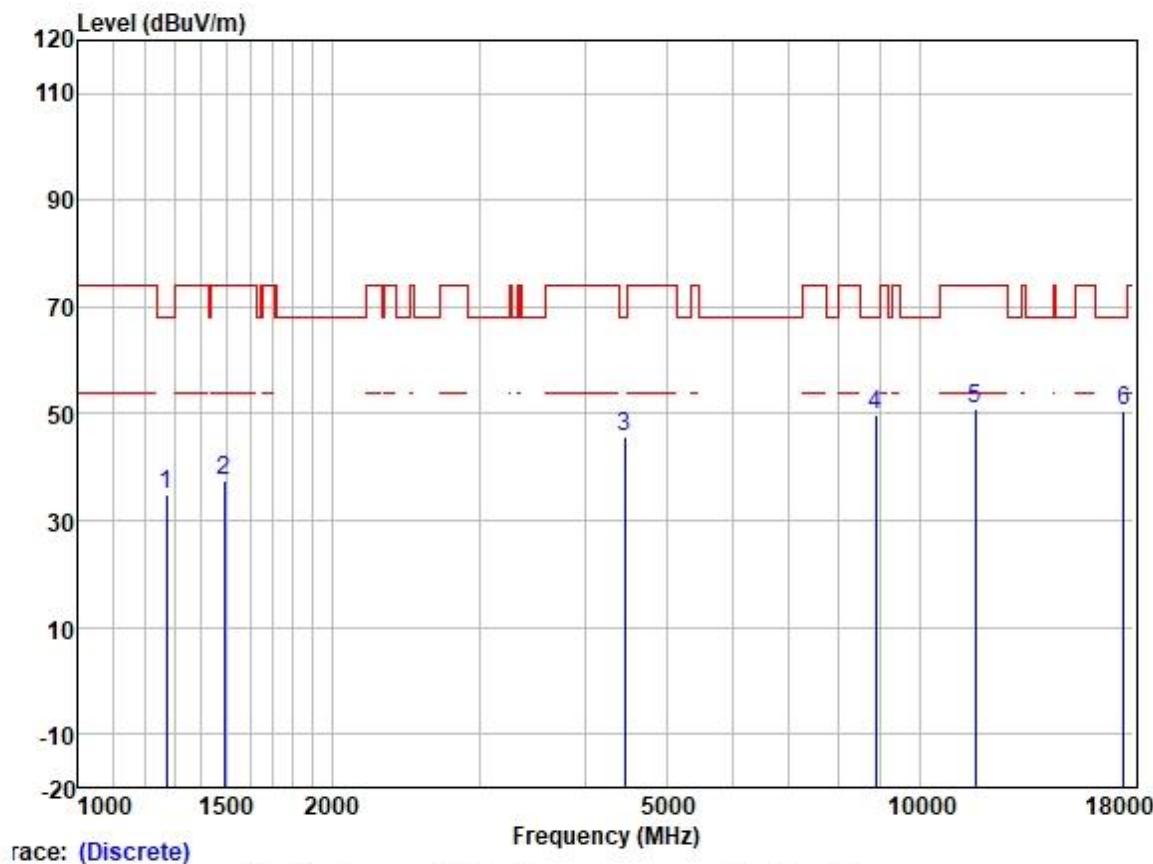
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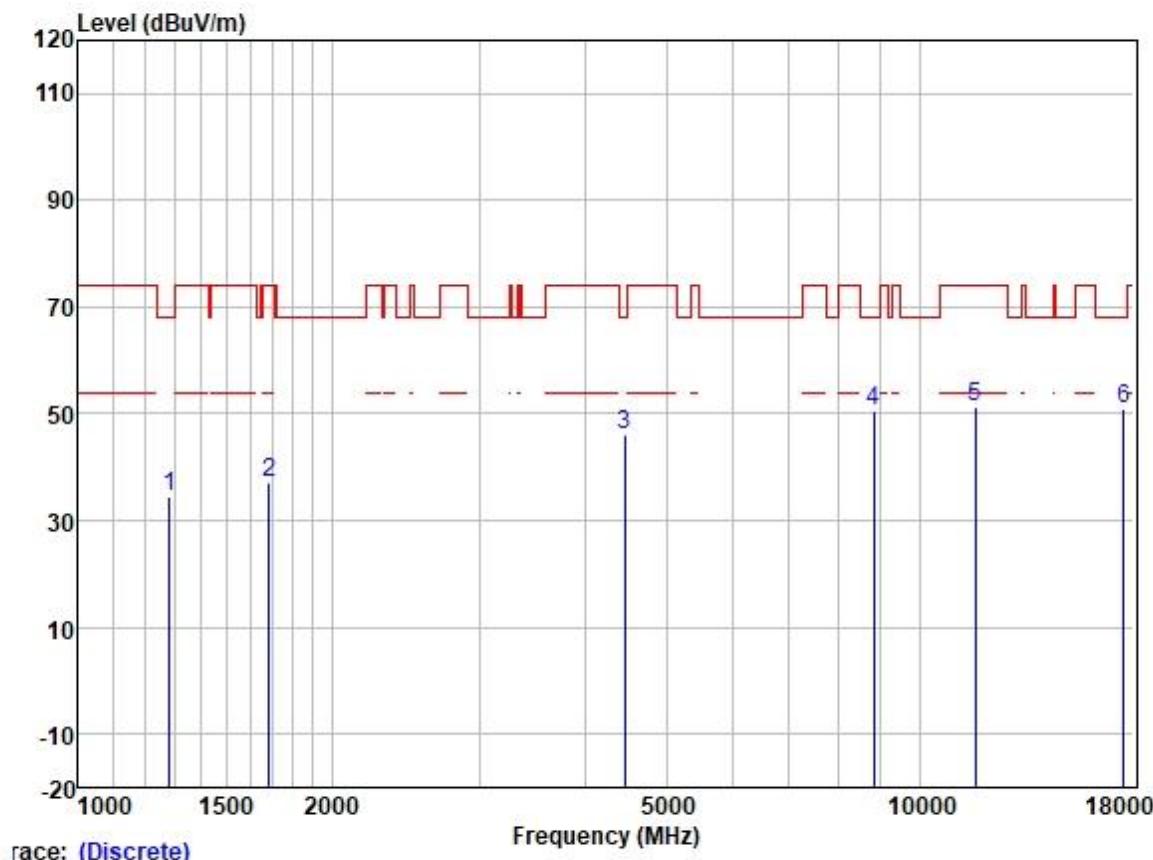
Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



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



Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1282.193	45.26	25.15	2.52	38.33	34.60	68.20	-33.60	VERTICAL		Peak		
2	1687.347	46.56	25.69	2.80	37.91	37.14	74.00	-36.86	VERTICAL		Peak		
3	4456.315	47.43	30.75	4.88	36.81	46.25	68.20	-21.95	VERTICAL		Peak		
4	8814.957	43.52	37.34	7.29	37.53	50.62	68.20	-17.58	VERTICAL		Peak		
5	11650.000	40.58	39.65	8.35	37.13	51.45	74.00	-22.55	VERTICAL		Peak		
6	17475.000	31.41	43.90	10.77	35.32	50.76	68.20	-17.44	VERTICAL		Peak		

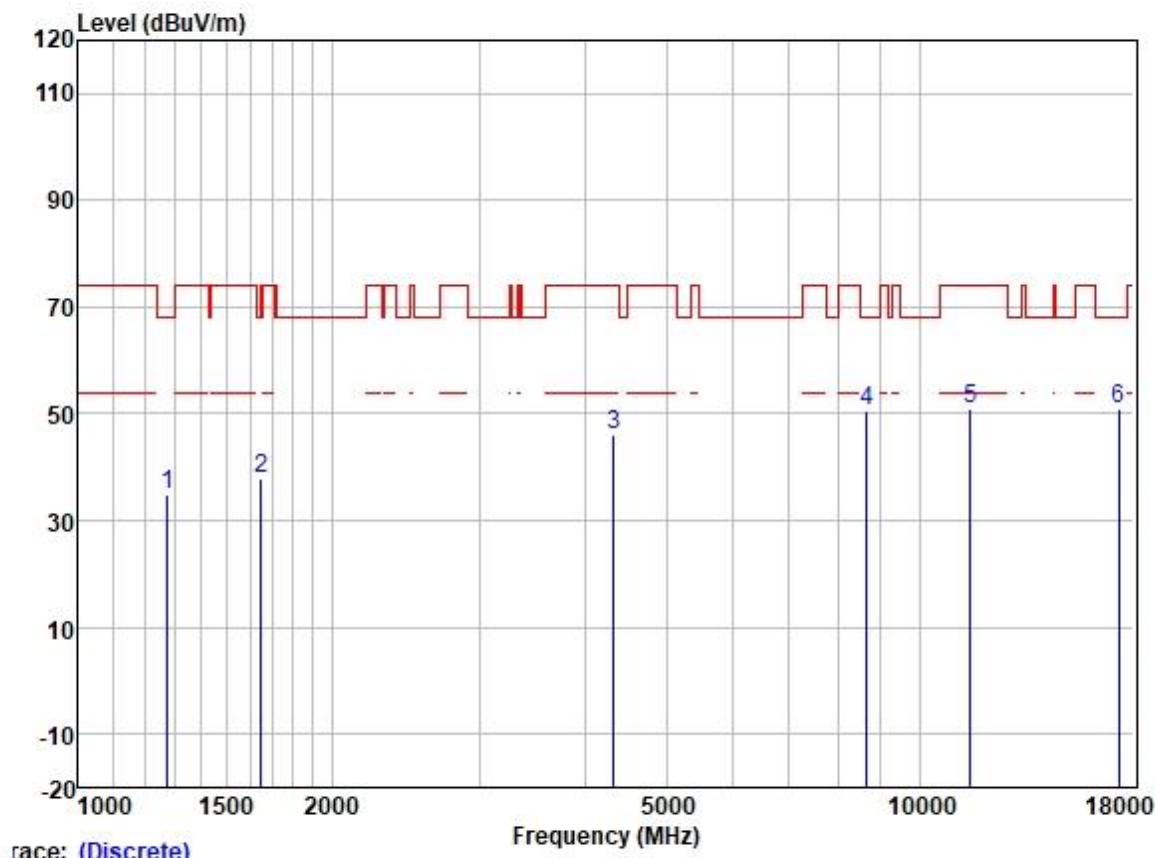
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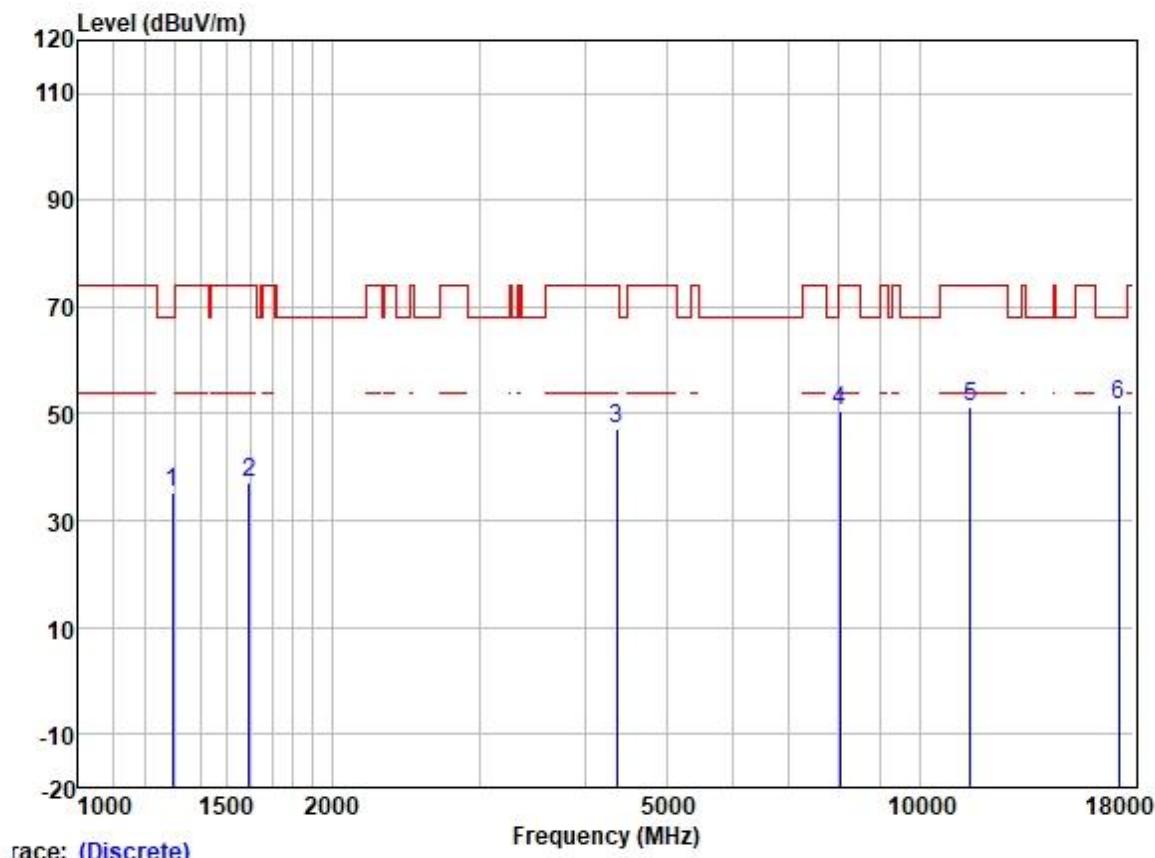
Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



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



Mode: (Discrete)

Freq	ReadAntenna		Cable Preamp		Limit Level	Over Line	Limit Pol/Phase	Remark
	MHz	dBuV	dB/m	dB				
1	1293.359	45.66	25.18	2.57	38.31	35.10	68.20	-33.10 VERTICAL Peak
2	1597.181	46.89	25.58	2.80	37.98	37.29	74.00	-36.71 VERTICAL Peak
3	4367.058	48.84	30.62	4.68	36.81	47.33	74.00	-26.67 VERTICAL Peak
4	8036.214	45.00	36.91	6.19	37.60	50.50	74.00	-23.50 VERTICAL Peak
5	11510.000	40.32	39.90	8.41	37.15	51.48	74.00	-22.52 VERTICAL Peak
6	17265.000	33.54	43.21	10.24	35.33	51.66	68.20	-16.54 VERTICAL Peak

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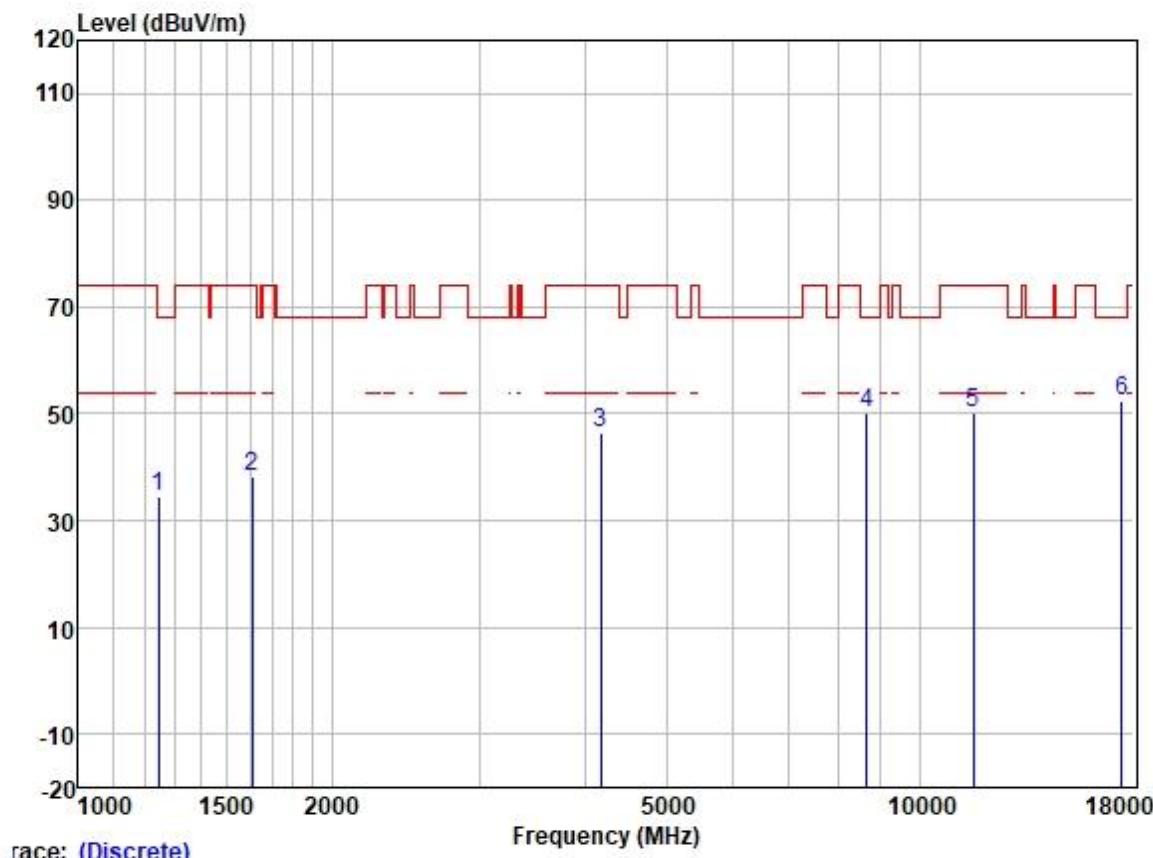
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Test Mode: 07; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



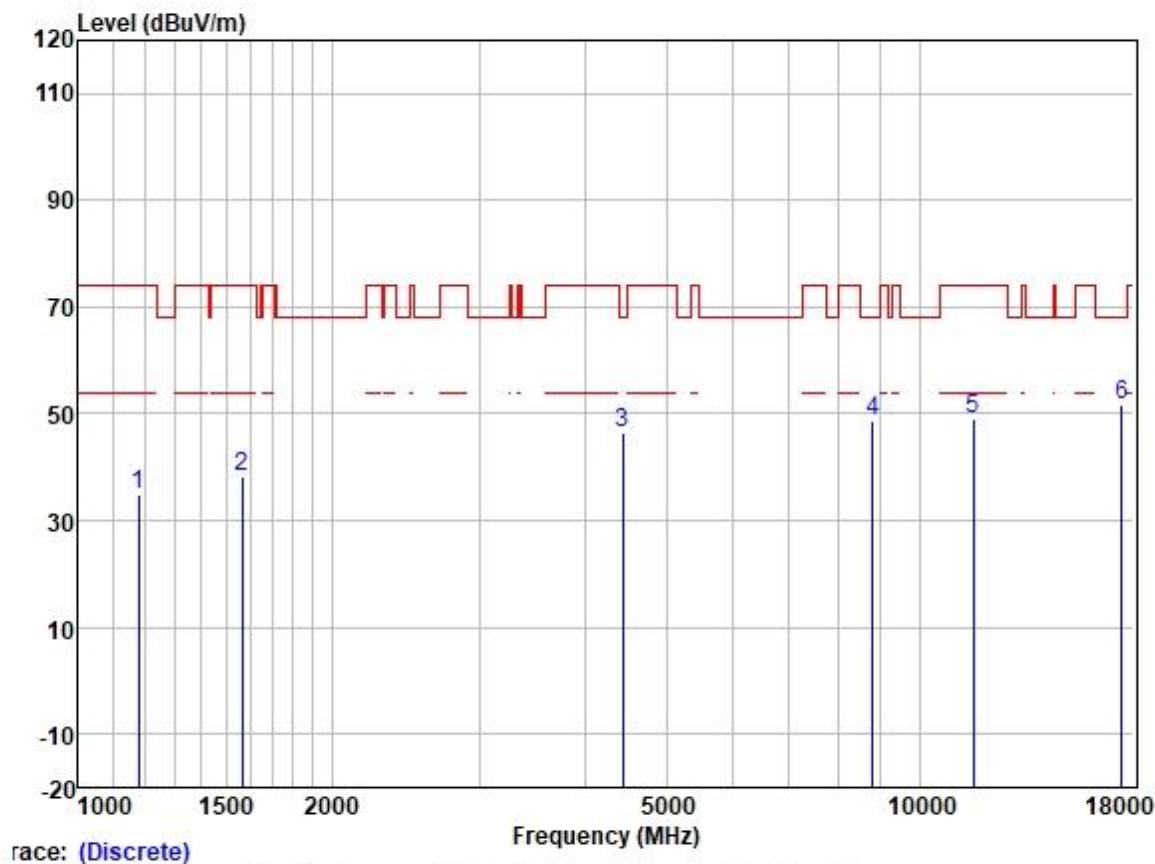
Freq	ReadAntenna		Cable		Preamp		Level	Limit	Over		Remark
	Level	Factor	Loss	Factor	Level	Line			Limit	Pol/Phase	
	MHz	dBuV	dB/m		dB	dB	dBuV/m	dBuV/m		dB	
1	1245.663	45.53	25.00	2.33	38.35	34.51	68.20	-33.69	HORIZONTAL	Peak	
2	1611.091	47.82	25.59	2.80	37.98	38.23	74.00	-35.77	HORIZONTAL	Peak	
3	4181.768	48.70	30.12	4.60	36.80	46.62	74.00	-27.38	HORIZONTAL	Peak	
4	8663.404	43.47	37.27	6.97	37.55	50.16	68.20	-18.04	HORIZONTAL	Peak	
5	11590.000	39.19	39.72	8.37	37.14	50.14	74.00	-23.86	HORIZONTAL	Peak	
6	17385.000	33.47	43.57	10.53	35.32	52.25	68.20	-15.95	HORIZONTAL	Peak	

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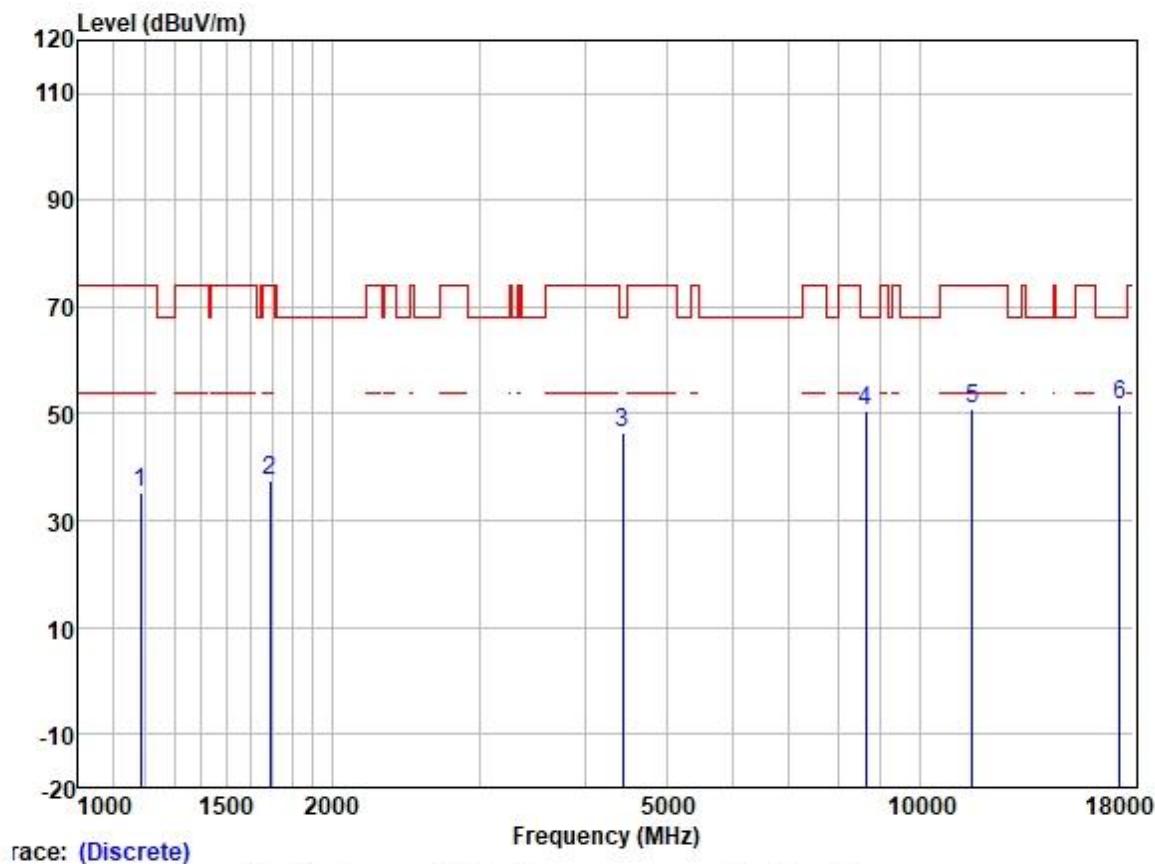
Test Mode: 07; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



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



Mode: (Discrete)

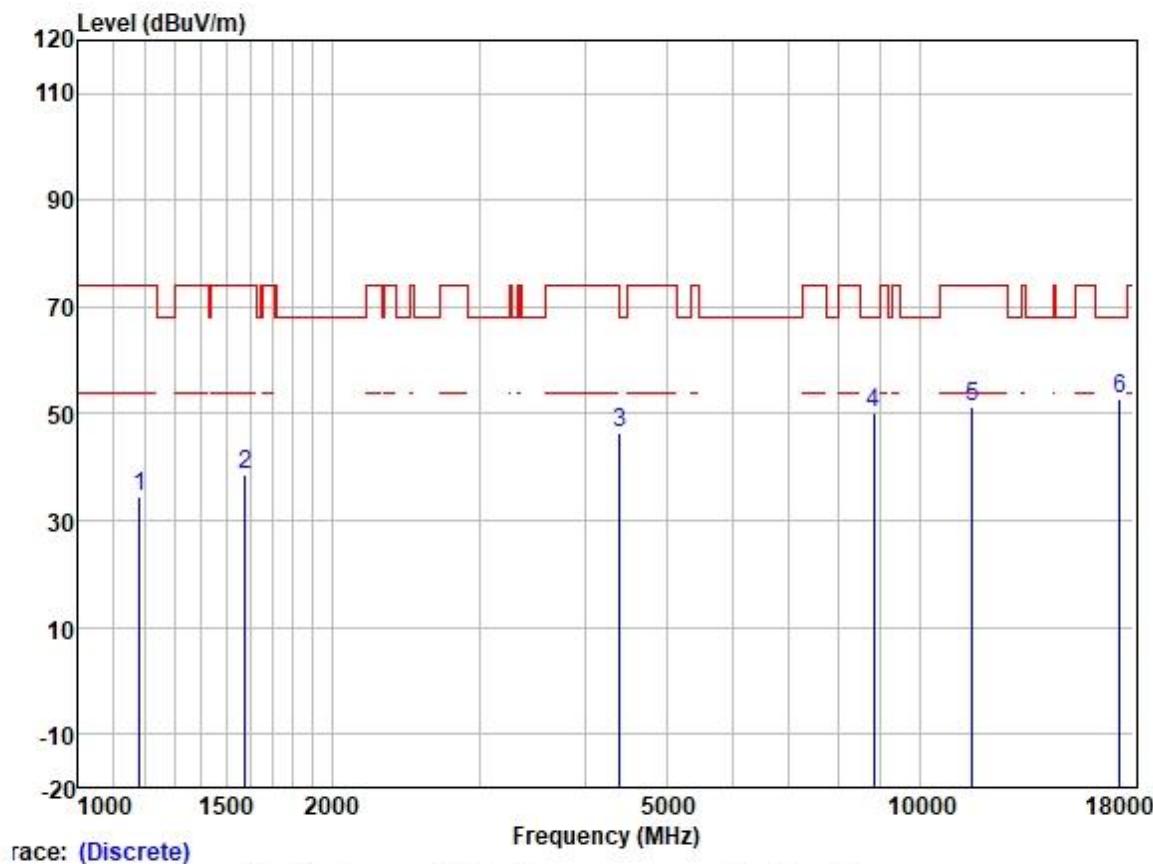
Freq	ReadAntenna		Cable		Preamp	Limit	Over	Line	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor							
1	1185.936	46.61	24.62	2.37	38.40	35.20	74.00	-38.80	HORIZONTAL	Peak	
2	1692.231	46.92	25.70	2.80	37.89	37.53	74.00	-36.47	HORIZONTAL	Peak	
3	4443.453	47.61	30.73	4.83	36.81	46.36	68.20	-21.84	HORIZONTAL	Peak	
4	8638.399	43.87	37.26	6.92	37.55	50.50	68.20	-17.70	HORIZONTAL	Peak	
5	11550.000	39.93	39.84	8.40	37.14	51.03	74.00	-22.97	HORIZONTAL	Peak	
6	17325.000	33.25	43.40	10.39	35.32	51.72	68.20	-16.48	HORIZONTAL	Peak	



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



Race: (Discrete)

Freq	ReadAntenna		Cable		Preamp	Loss	Factor	Limit	Line	Over	Limit	Pol/Phase	Remark
	MHz	dBuV	Level	Factor									
1	1182.513	45.83	24.60	2.37	38.40	34.40	74.00	74.00	-39.60	VERTICAL	Peak		
2	1578.822	48.14	25.56	2.80	38.00	38.50	74.00	74.00	-35.50	VERTICAL	Peak		
3	4405.090	47.73	30.68	4.70	36.81	46.30	68.20	68.20	-21.90	VERTICAL	Peak		
4	8814.957	43.26	37.34	7.29	37.53	50.36	68.20	68.20	-17.84	VERTICAL	Peak		
5	11550.000	40.34	39.84	8.40	37.14	51.44	74.00	74.00	-22.56	VERTICAL	Peak		
6	17325.000	34.50	43.40	10.39	35.32	52.97	68.20	68.20	-15.23	VERTICAL	Peak		

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## 7.11 Frequency Stability

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

### 7.11.1 E.U.T. Operation

Operating Environment:

Temperature: 20.1 °C      Humidity: 52.3 % 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(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	05	TX mode (U-NII-2A)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	06	TX mode (U-NII-2C)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.
Final test	07	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types. All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

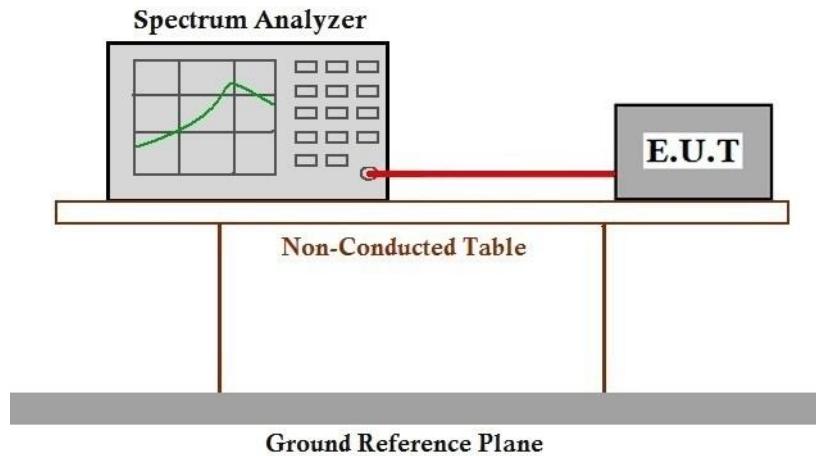
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**7.11.3 Test Setup Diagram****7.11.4 Measurement Procedure and Data**

Please Refer to Appendix for Details

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**7.12 DFS(Dynamic frequency selection)****7.12.1 Non-occupancy period**

Test Requirement KDB 905462 D02 Section 5.1

Test Method: KDB 905462 D02 Section 7.8.3

Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

**7.12.1.1 E.U.T. Operation**

Operating Environment:

Temperature: 20.1 °C      Humidity: 52.3 % RH      Atmospheric Pressure: 1020 mbar

**7.12.1.2 Test Mode Description**

Pre-scan / Final test	Mode Code	Description
Final test	08	Normal operating_Keep the EUT communication with the companion device.

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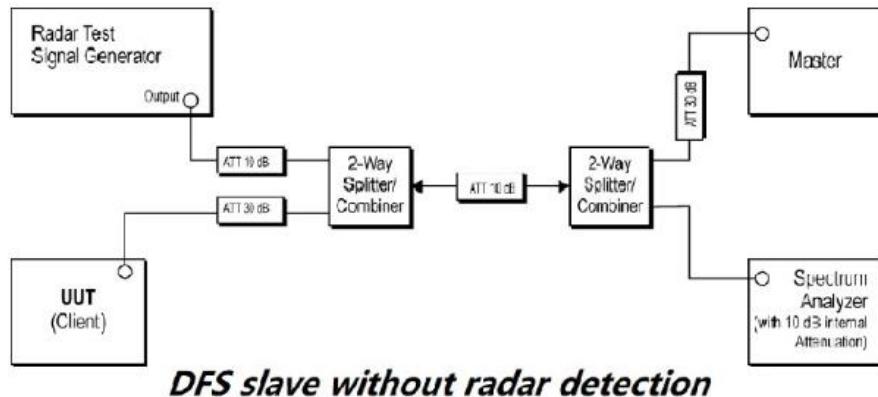
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## 7.12.1.3 Test Setup Diagram



## 7.12.1.4 Measurement Procedure and Data

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =  $S$  (12000ms) /  $B$  (4000); where Dwell is the dwell time per spectrum analyzer sampling bin,  $S$  is sweep time and  $B$  is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by:  $C$  (ms) =  $N$  X Dwell (0.3ms); where  $C$  is the Closing Time,  $N$  is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details



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**7.12.2 Channel Move Time**

Test Requirement      KDB 905462 D02 Section 5.1  
 Test Method:           KDB 905462 D02 Section 7.8.3  
 Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

**7.12.2.1 E.U.T. Operation**

Operating Environment:

Temperature: 20.1 °C      Humidity: 52.3 % RH      Atmospheric Pressure: 1020 mbar

**7.12.2.2 Test Mode Description**

Pre-scan / Final test	Mode Code	Description
Final test	08	Normal operating_Keep the EUT communication with the companion device.

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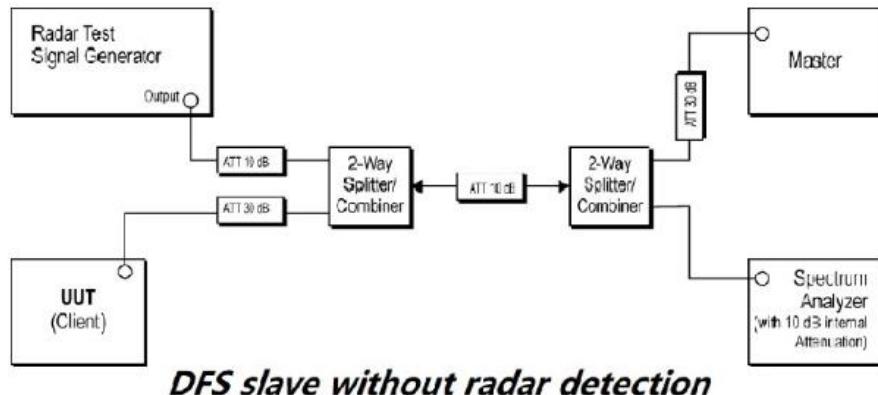
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## 7.12.2.3 Test Setup Diagram



## 7.12.2.4 Measurement Procedure and Data

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =  $S$  (12000ms) /  $B$  (4000); where Dwell is the dwell time per spectrum analyzer sampling bin,  $S$  is sweep time and  $B$  is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by:  $C$  (ms) =  $N$  X Dwell (0.3ms); where  $C$  is the Closing Time,  $N$  is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details



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**7.12.3 Channel Closing Transmission Time**

Test Requirement KDB 905462 D02 Section 5.1

Test Method: KDB 905462 D02 Section 7.8.3

Limit:

Test item	Limit	Applicability	
		Master Device or client with Radar Detection	Client without Radar Detection
Non-occupancy period	Minimum 30 minutes	Yes	Not required
Channel Availability Check Time	60 seconds	Yes	Not required
Channel Move Time	10 seconds See Note 1.	Yes	Yes
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.	Yes	Yes
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.	Yes	Not required

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

**7.12.3.1 E.U.T. Operation**

Operating Environment:

Temperature: 20.1 °C      Humidity: 52.3 % RH      Atmospheric Pressure: 1020 mbar

**7.12.3.2 Test Mode Description**

Pre-scan / Final test	Mode Code	Description
Final test	08	Normal operating_Keep the EUT communication with the companion device.

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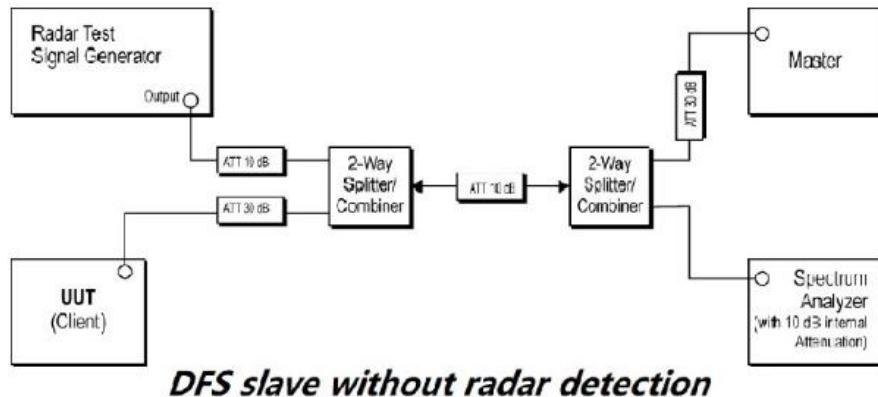
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## 7.12.3.3 Test Setup Diagram



## 7.12.3.4 Measurement Procedure and Data

- 1) The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.
- 2) The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.
- 3) A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.
- 4) EUT will associate with the master at channel. The file "iperf.exe" specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Media Player Classic Ver. 6.4.8.6 in order to properly load the network for the entire period of the test.
- 5) When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.
- 6) Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.
- 7) Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =  $S$  (12000ms) /  $B$  (4000); where Dwell is the dwell time per spectrum analyzer sampling bin,  $S$  is sweep time and  $B$  is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by:  $C$  (ms) =  $N$  X Dwell (0.3ms); where  $C$  is the Closing Time,  $N$  is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.
- 8) Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

Please Refer to Appendix for Details



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## 8 Test Setup Photo

Refer to Appendix – Setup Photographs for GZCR2203000258AT

## 9 EUT Constructional Details (EUT Photos)

Refer to Appendix - Photographs of EUT Constructional Details for GZCR2203000258AT

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## 10 Appendix

### 1. Duty Cycle

#### 1.1 Ant1

##### 1.1.1 Test Result

Ant1							
Mode	TX Type	Frequency (MHz)	T <sub>on</sub> (ms)	Period (ms)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	Max. DC Variation (%)
802.11a	SISO	5180	2.028	2.117	95.80	0.19	0.27
		5200	2.027	2.117	95.75	0.19	0.23
		5240	2.027	2.117	95.75	0.19	0.27
		5260	2.028	2.117	95.80	0.19	0.27
		5300	2.028	2.117	95.80	0.19	0.23
		5320	2.028	2.117	95.80	0.19	0.23
		5500	2.027	2.117	95.75	0.19	0.23
		5580	2.027	2.116	95.79	0.19	0.20
		5700	2.028	2.117	95.80	0.19	0.23
		5745	2.028	2.122	95.57	0.20	0.27
		5785	2.028	2.458	82.51	0.84	13.29
		5825	2.028	2.117	95.80	0.19	0.23
802.11n (HT20)	SISO	5180	1.888	1.982	95.26	0.21	0.26
		5200	1.888	1.982	95.26	0.21	0.27
		5240	1.888	1.982	95.26	0.21	0.27
		5260	1.888	1.977	95.50	0.20	0.06
		5300	1.888	1.981	95.31	0.21	0.24
		5320	1.888	1.977	95.50	0.20	0.05
		5500	1.888	1.981	95.31	0.21	0.25
		5580	1.888	1.979	95.40	0.20	0.12
		5700	1.888	1.981	95.31	0.21	0.24
		5745	1.888	1.987	95.02	0.22	0.24
		5785	0.045	1.041	4.32	13.64	90.38
		5825	1.888	1.978	95.45	0.20	0.06
802.11n (HT40)	SISO	5190	0.928	1.021	90.89	0.41	0.84
		5230	0.928	1.022	90.80	0.42	0.93
		5270	0.928	1.021	90.89	0.41	0.96
		5310	0.928	1.021	90.89	0.41	0.90
		5510	0.928	1.020	90.98	0.41	0.84
		5550	0.928	1.022	90.80	0.42	0.93

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		5670	0.928	1.021	90.89	0.41	0.87
		5755	0.929	1.027	90.46	0.44	0.89
		5795	0.928	1.026	90.45	0.44	0.86
802.11ac (VHT20)	SISO	5180	1.900	1.994	95.29	0.21	0.27
		5200	1.900	1.994	95.29	0.21	0.27
		5240	1.900	1.994	95.29	0.21	0.22
		5260	1.900	1.993	95.33	0.21	0.23
		5300	1.900	1.994	95.29	0.21	0.24
		5320	1.899	1.993	95.28	0.21	0.24
		5500	1.899	1.994	95.24	0.21	0.31
		5580	0.099	0.566	17.49	7.57	81.05
		5700	1.900	1.994	95.29	0.21	0.27
		5745	1.900	1.999	95.05	0.22	0.24
		5785	1.899	1.998	95.05	0.22	0.29
		5825	1.900	1.994	95.29	0.21	0.27
802.11ac (VHT40)	SISO	5190	0.936	1.030	90.87	0.42	0.92
		5230	0.936	1.029	90.96	0.41	0.86
		5270	0.936	1.030	90.87	0.42	0.90
		5310	0.937	1.030	90.97	0.41	0.92
		5510	0.936	1.030	90.87	0.42	0.87
		5550	0.936	1.030	90.87	0.42	0.86
		5670	0.936	1.030	90.87	0.42	0.86
		5755	0.936	1.550	60.39	2.19	30.94
		5795	0.936	1.324	70.69	1.51	20.63
802.11ac (VHT80)	SISO	5210	0.456	0.545	83.67	0.77	0.81
		5290	0.458	0.545	84.04	0.76	0.78
		5530	0.456	0.544	83.82	0.77	0.72
		5610	0.456	0.544	83.82	0.77	0.85
		5775	0.457	0.550	83.09	0.80	0.80

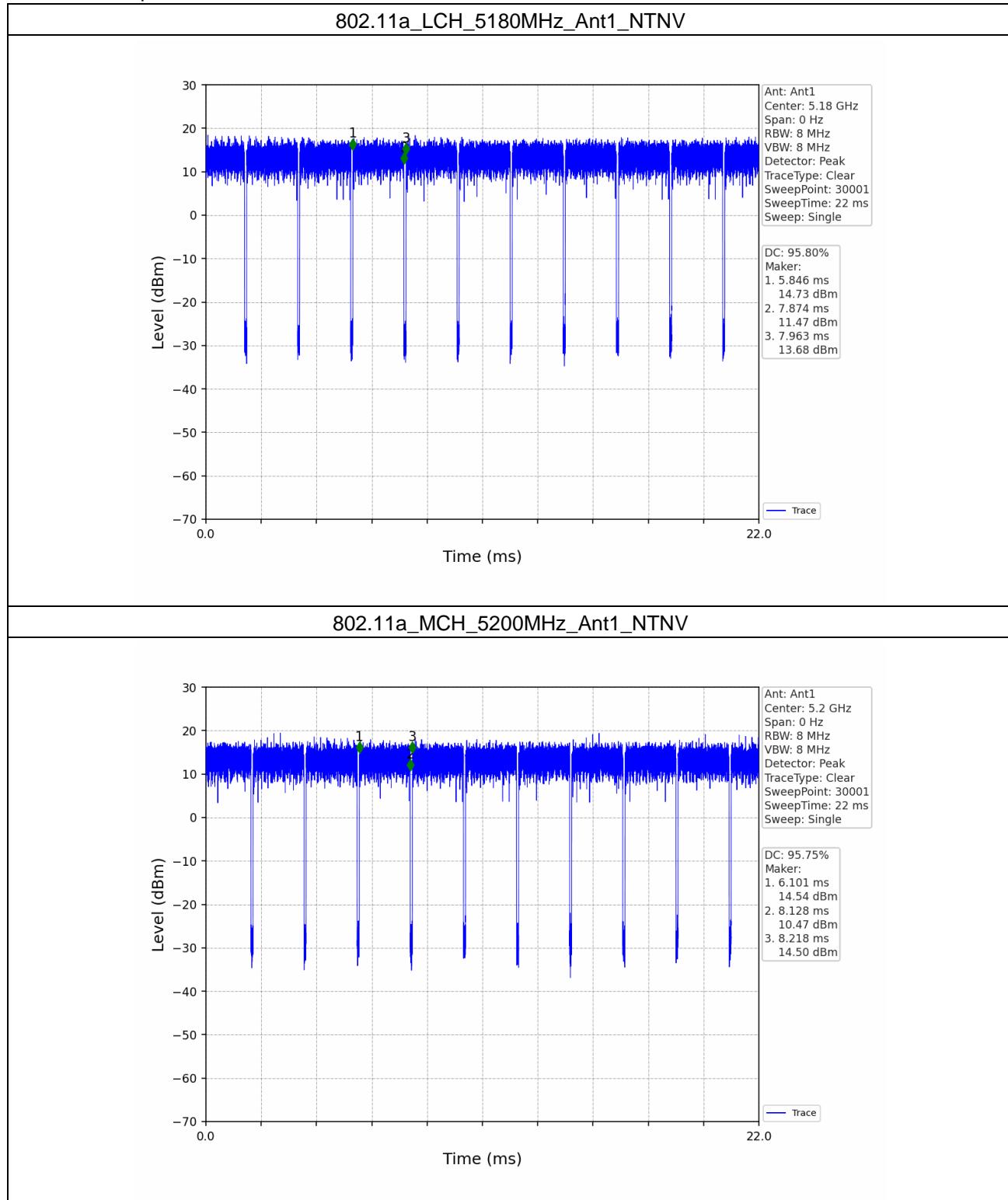
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### 1.1.2 Test Graph



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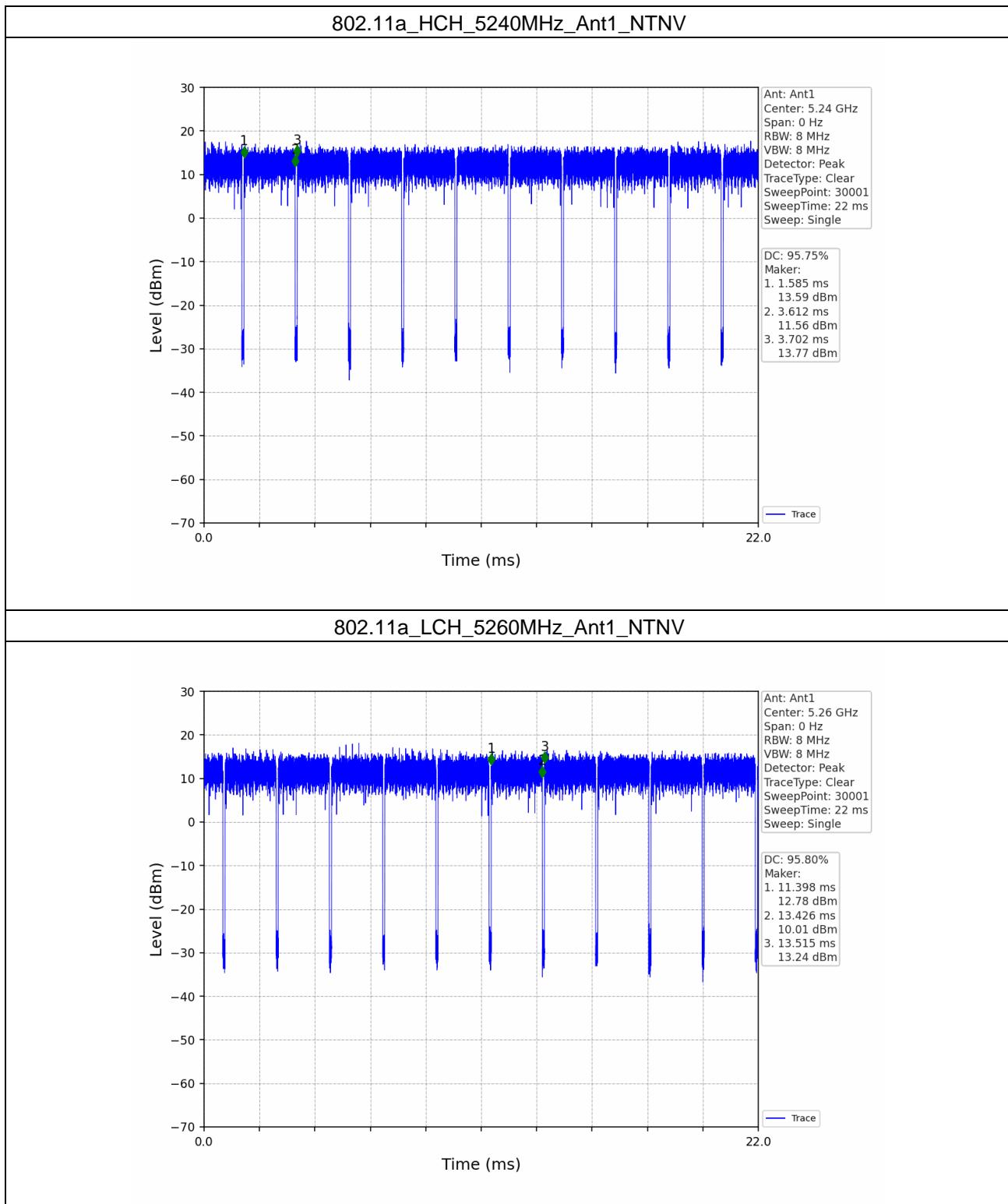
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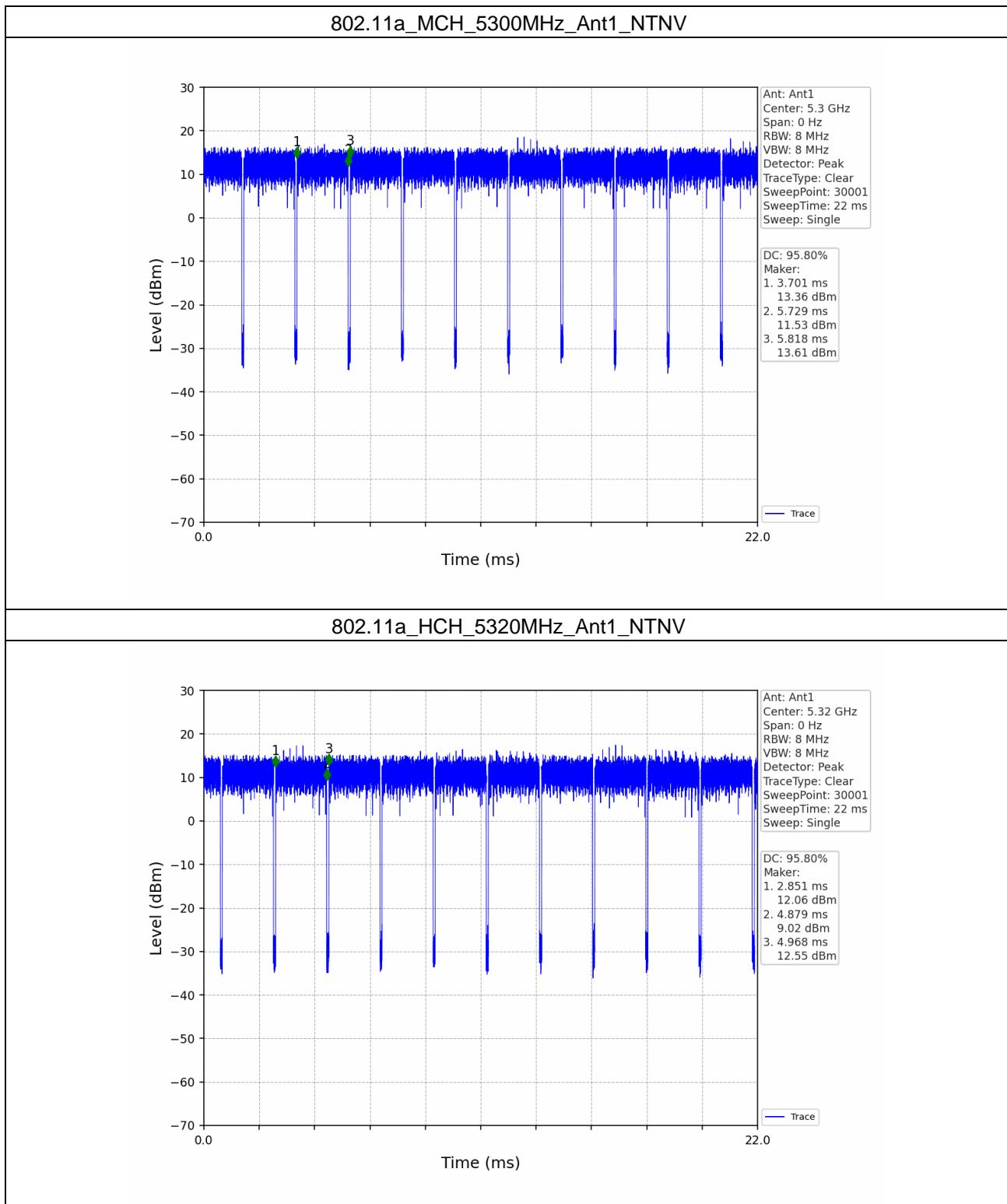
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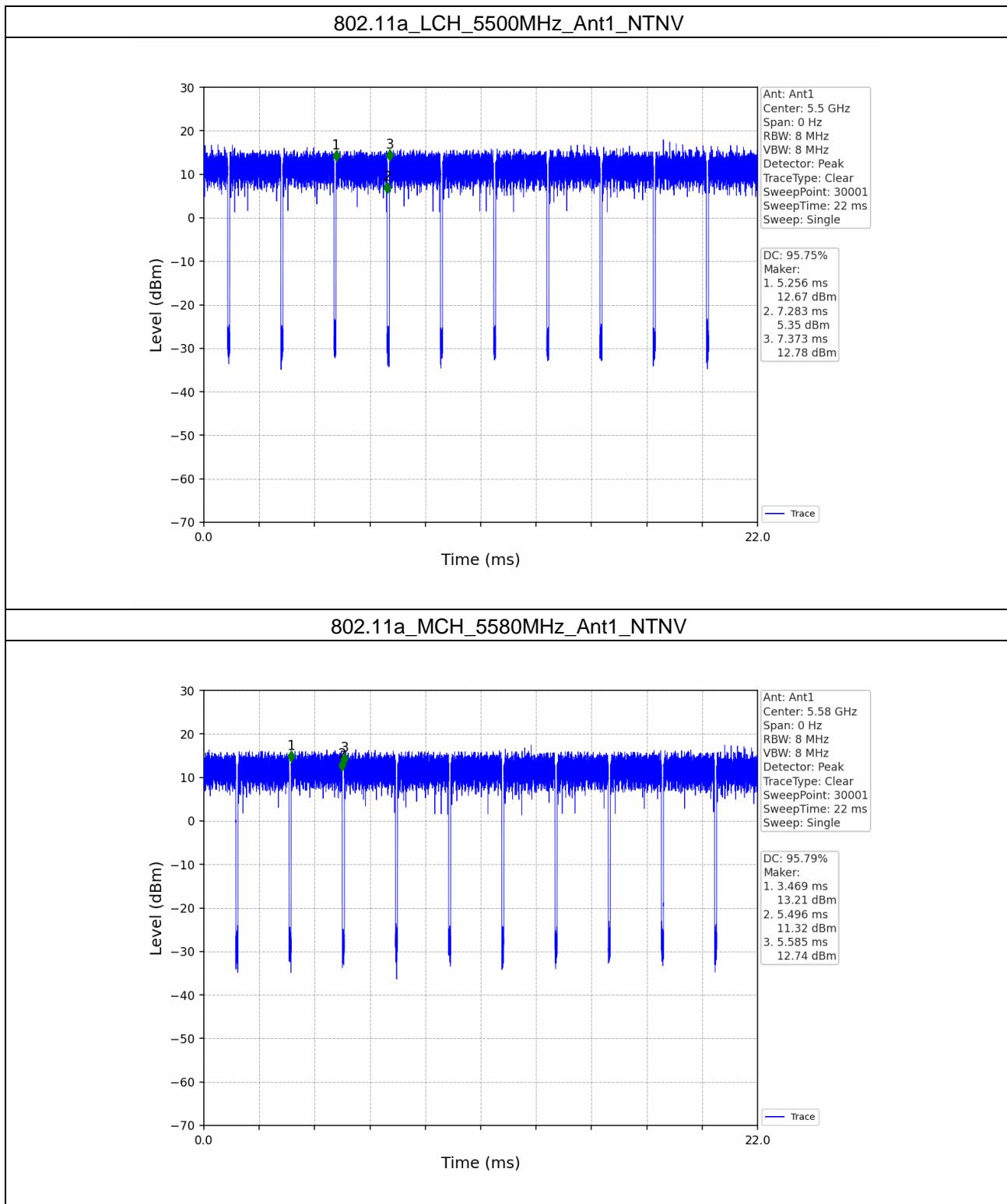
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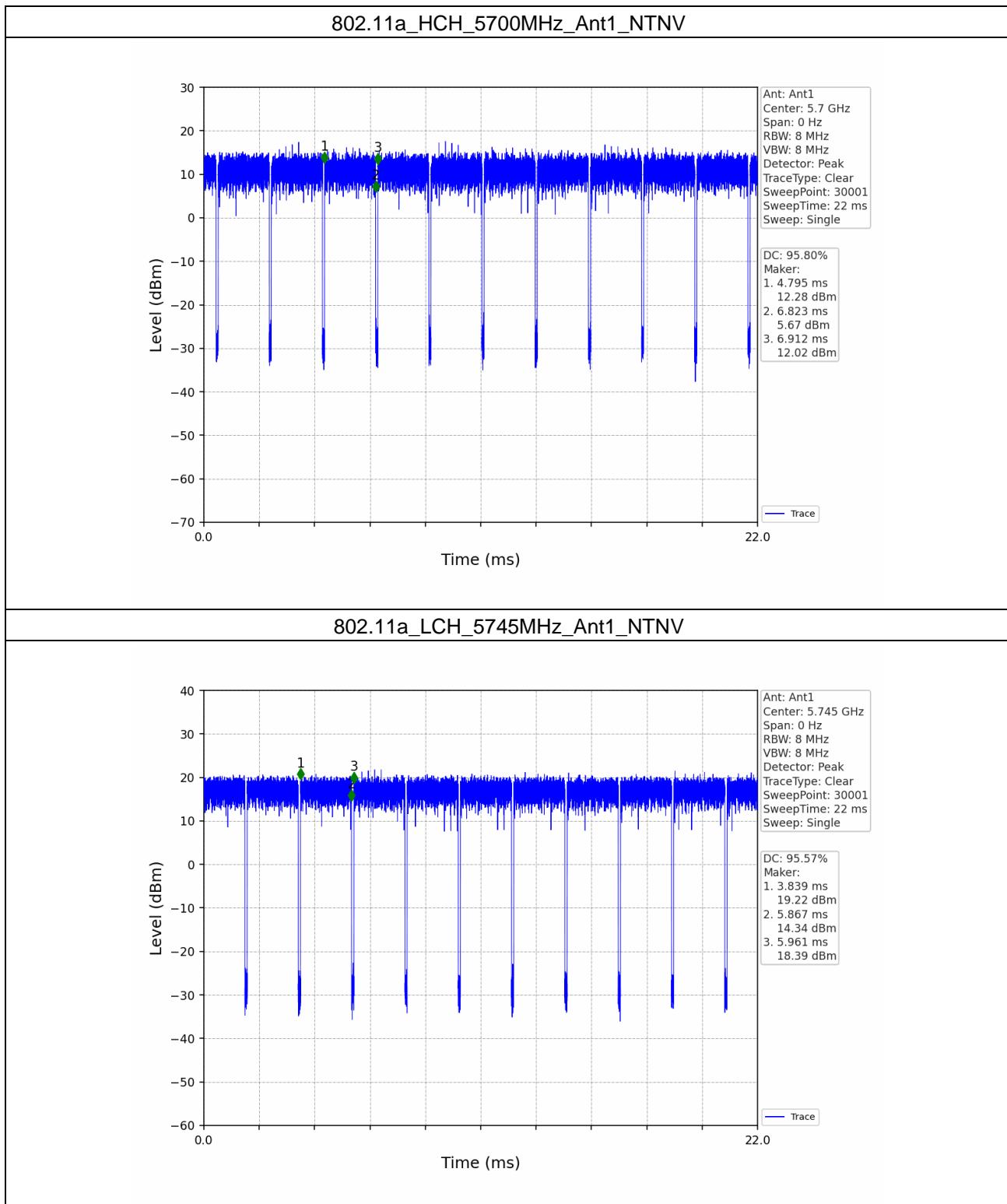
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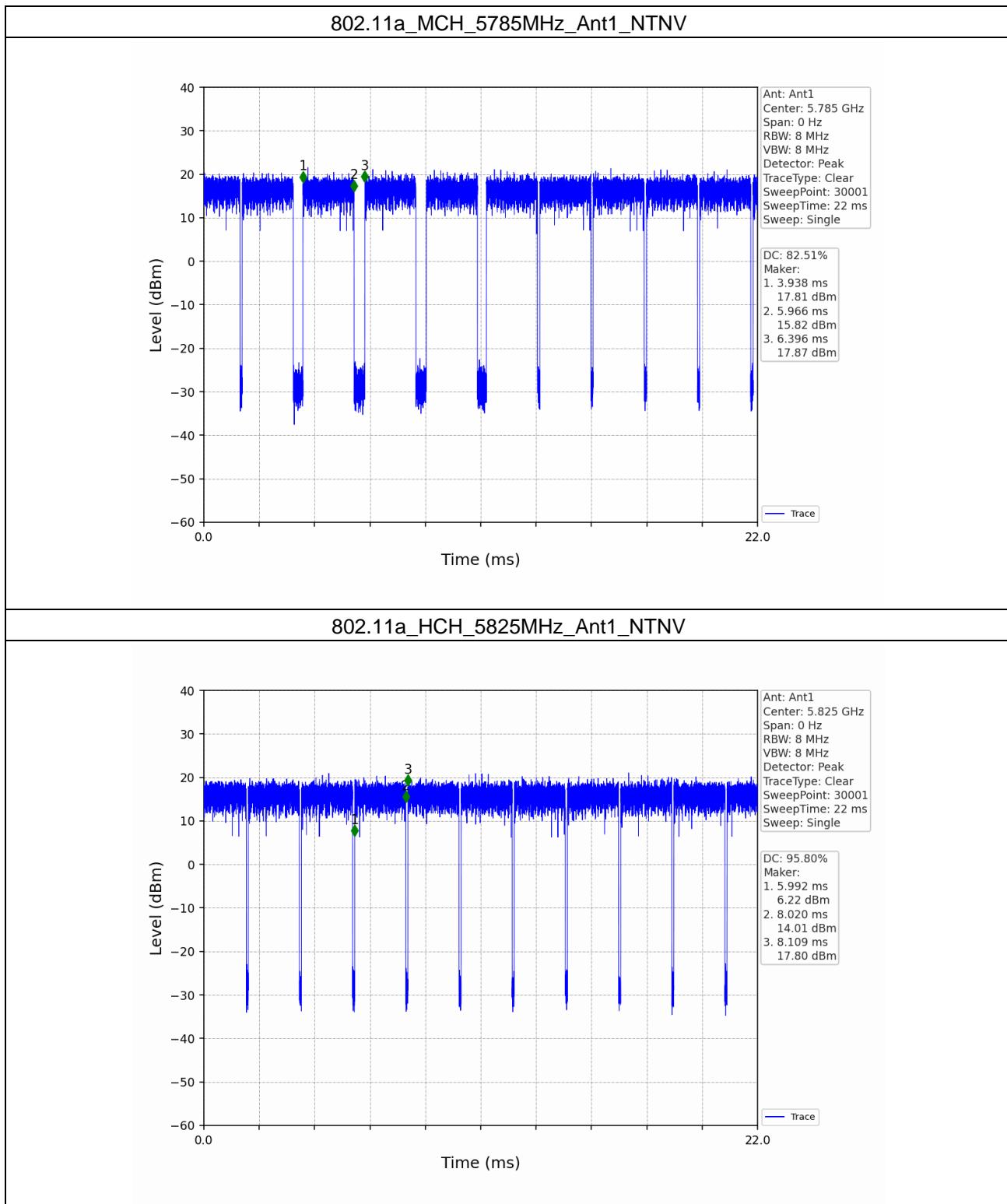
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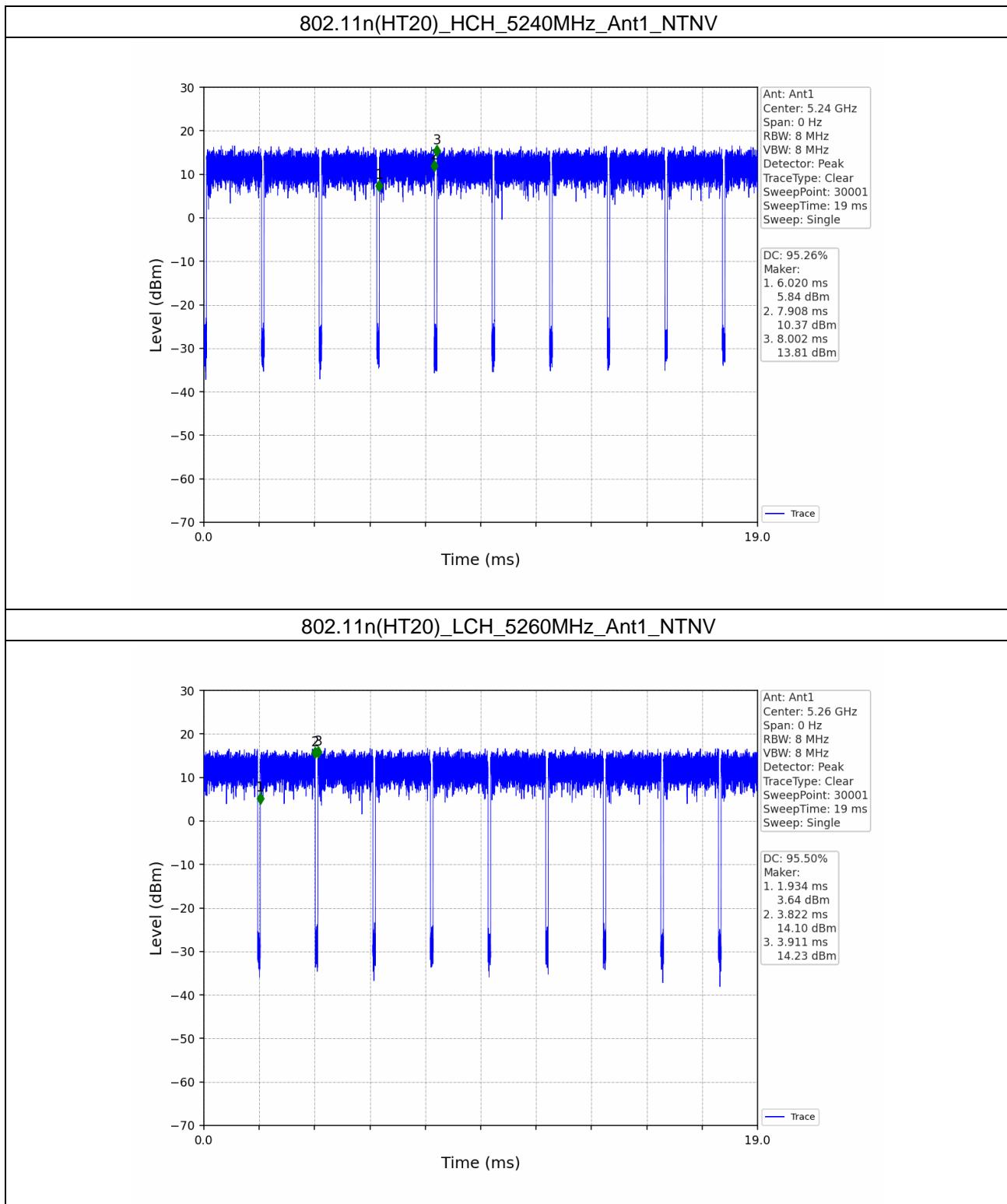
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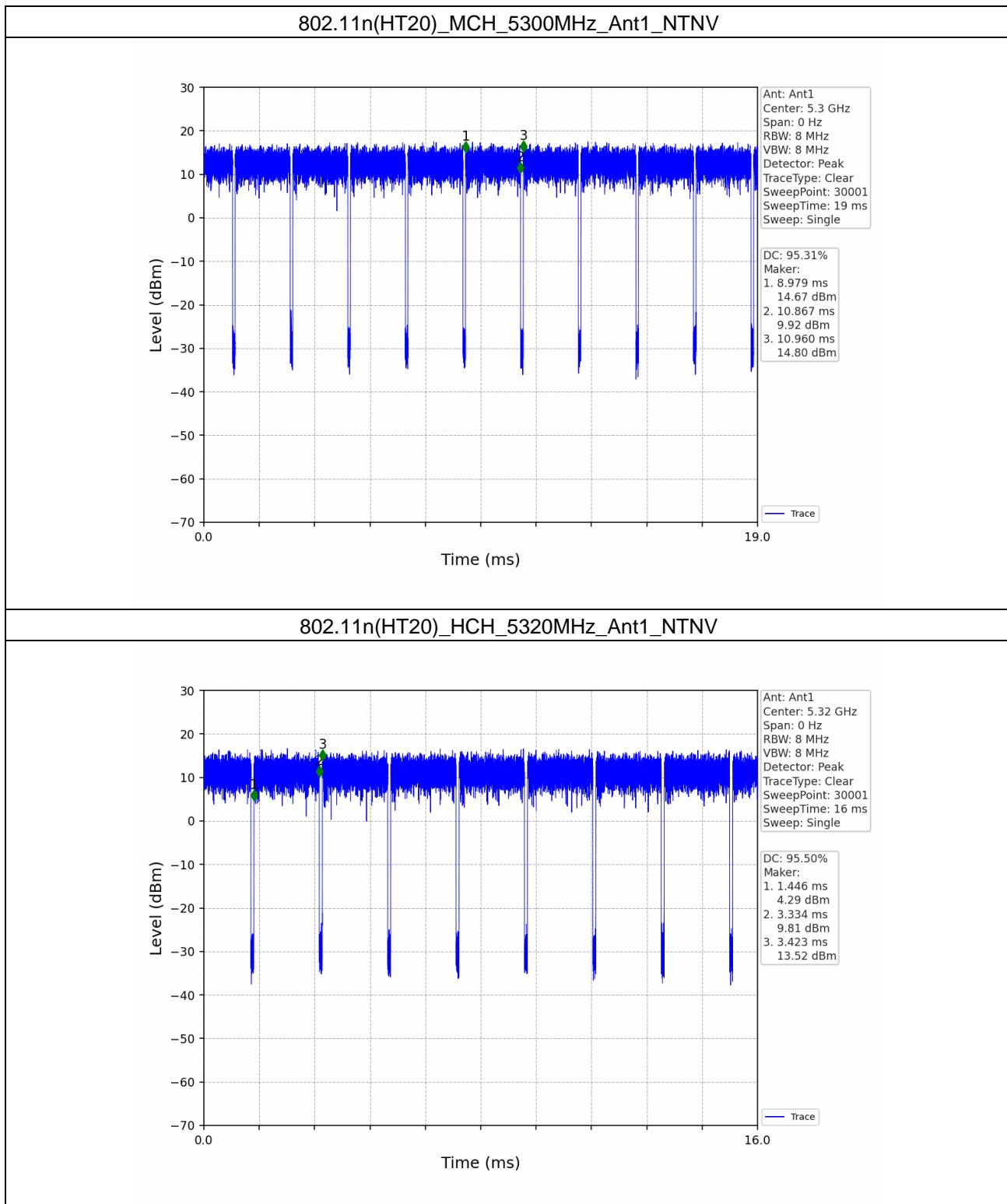
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