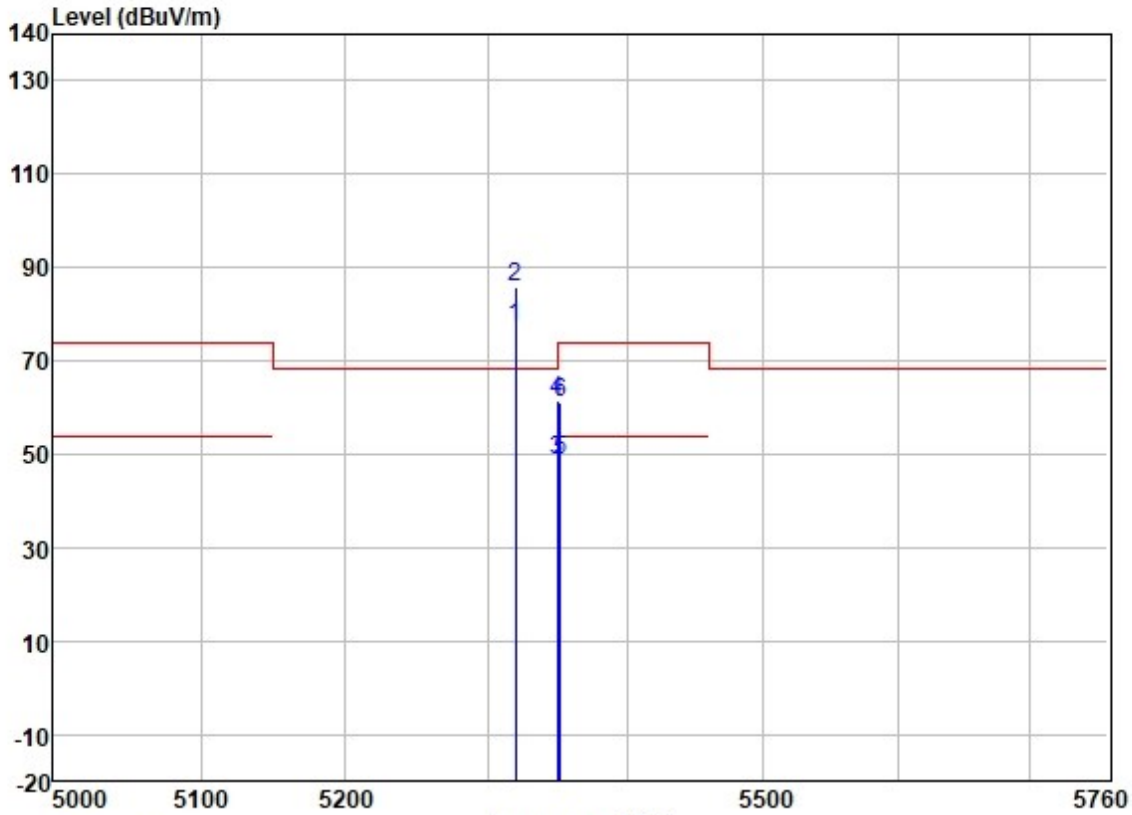
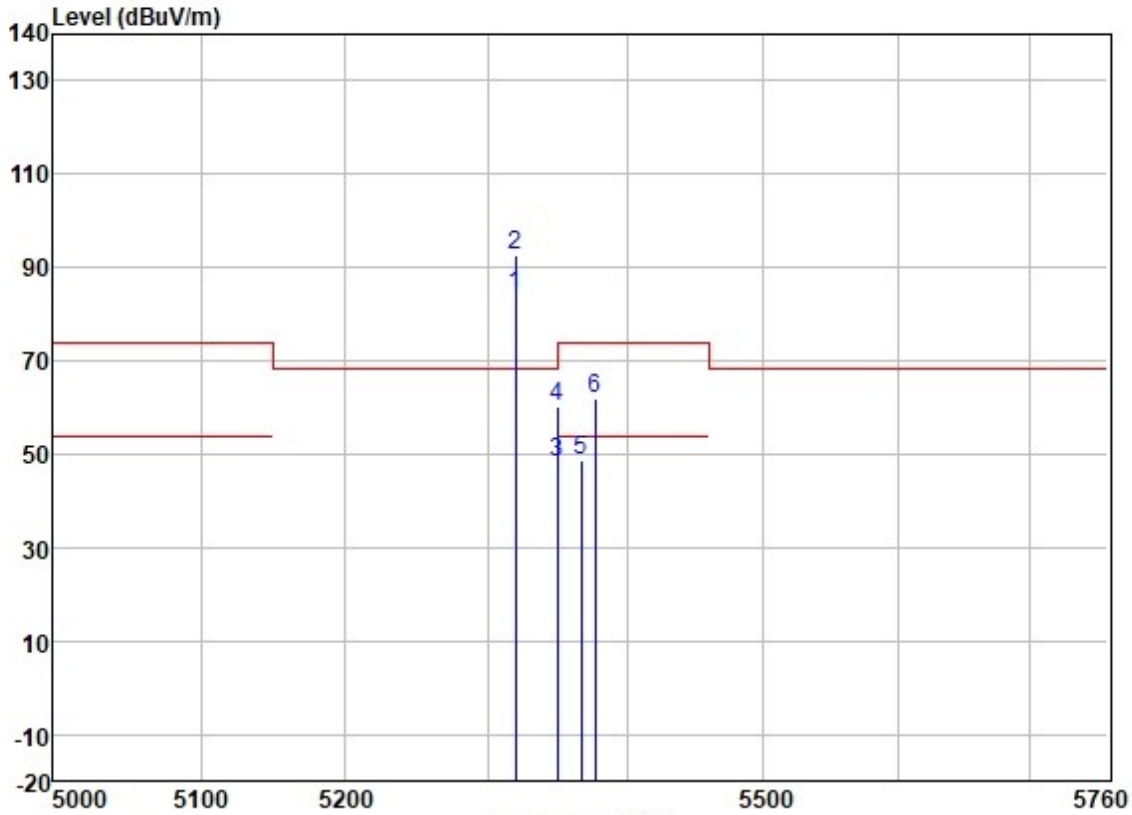
Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5320.000	76.13	31.77	6.08	36.88	77.10	------	------	HORIZONTAL	Average
2	*	5320.000	84.86	31.77	6.08	36.88	85.83	68.20	17.63	HORIZONTAL	Peak
3		5350.020	47.57	31.77	6.05	36.88	48.51	54.00	-5.49	HORIZONTAL	Average
4		5350.020	60.39	31.77	6.05	36.88	61.33	74.00	-12.67	HORIZONTAL	Peak
5		5351.613	47.84	31.77	6.05	36.88	48.78	54.00	-5.22	HORIZONTAL	Average
6		5351.867	60.29	31.77	6.05	36.88	61.23	74.00	-12.77	HORIZONTAL	Peak

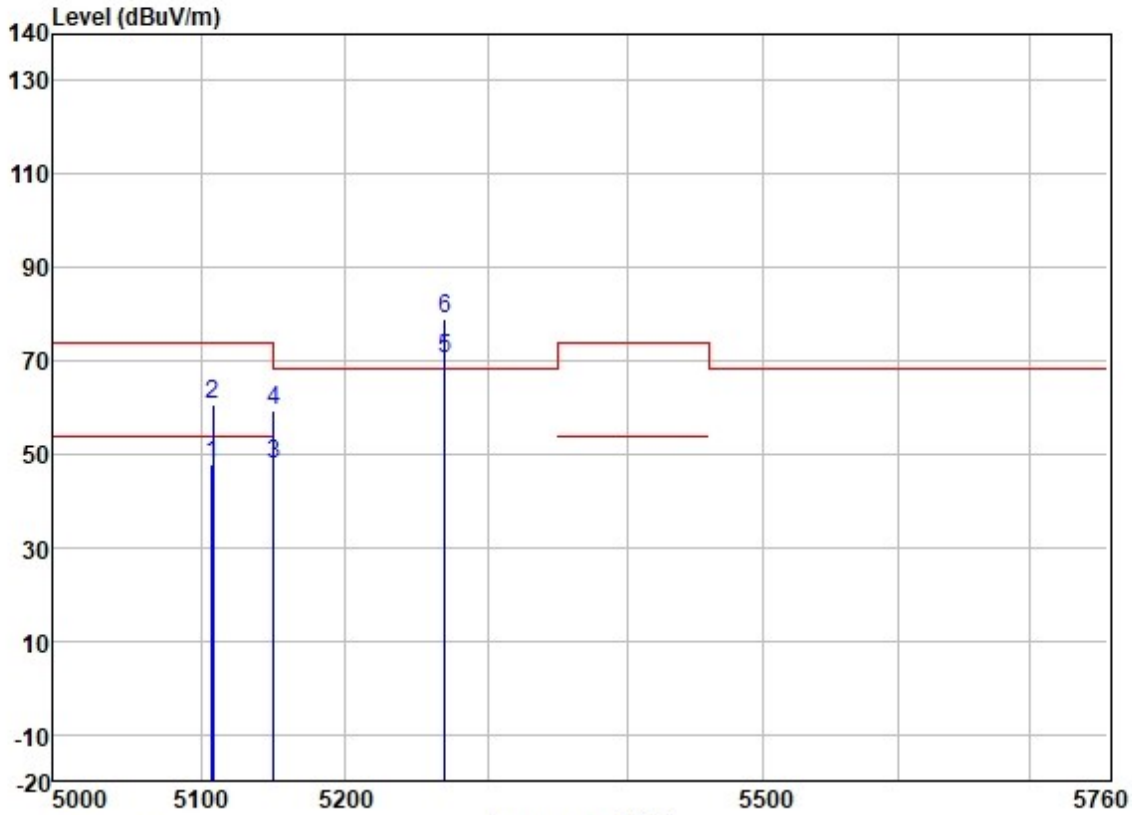
Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5320.000	83.08	31.77	6.08	36.88	84.05	------	------	VERTICAL	Average
2	*	5320.000	91.69	31.77	6.08	36.88	92.66	68.20	24.46	VERTICAL	Peak
3		5350.020	47.52	31.77	6.05	36.88	48.46	54.00	-5.54	VERTICAL	Average
4		5350.020	59.26	31.77	6.05	36.88	60.20	74.00	-13.80	VERTICAL	Peak
5		5366.994	47.69	31.78	6.03	36.88	48.62	54.00	-5.38	VERTICAL	Average
6		5376.834	60.98	31.78	6.02	36.88	61.90	74.00	-12.10	VERTICAL	Peak

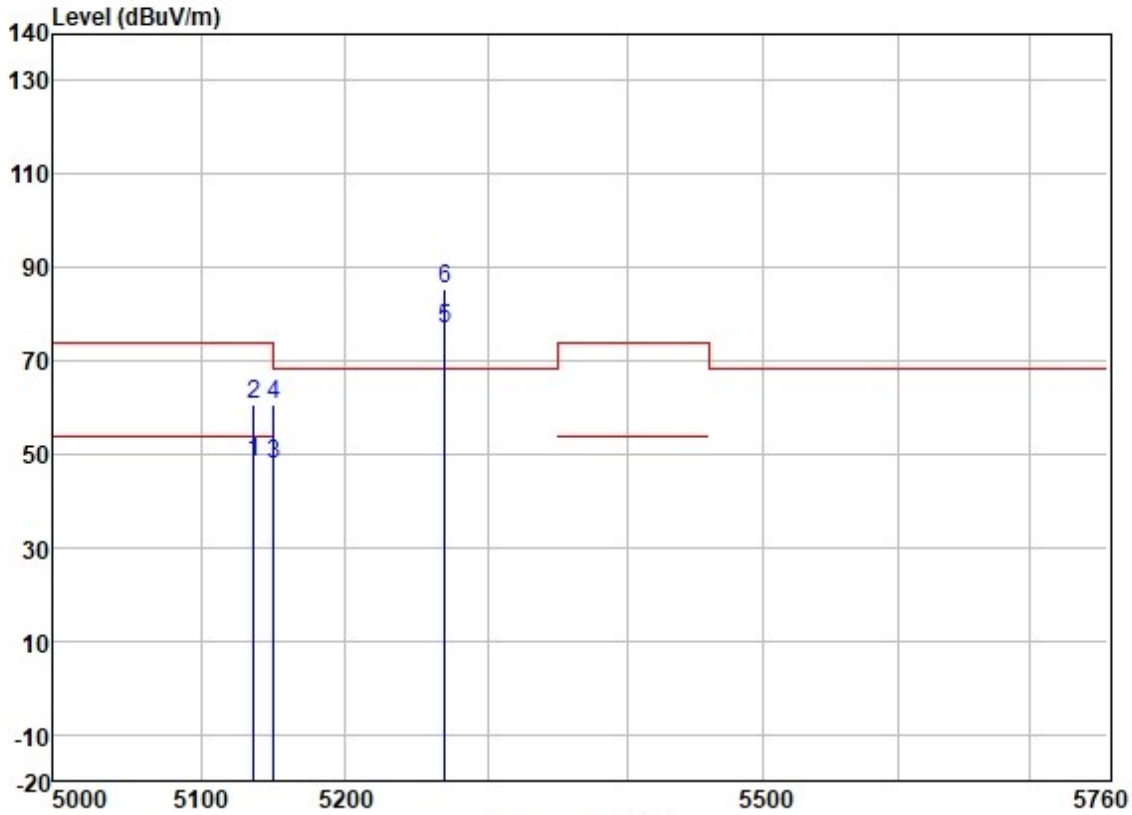
Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5107.460	47.43	31.72	5.65	36.86	47.94	54.00	-6.06	HORIZONTAL	Average
2	5108.443	60.17	31.72	5.65	36.86	60.68	74.00	-13.32	HORIZONTAL	Peak
3	5149.980	47.33	31.72	5.62	36.86	47.81	54.00	-6.19	HORIZONTAL	Average
4	5149.980	58.72	31.72	5.62	36.86	59.20	74.00	-14.80	HORIZONTAL	Peak
5	5270.000	69.62	31.75	5.80	36.87	70.30	------	------	HORIZONTAL	Average
6 *	5270.000	78.39	31.75	5.80	36.87	79.07	68.20	10.87	HORIZONTAL	Peak

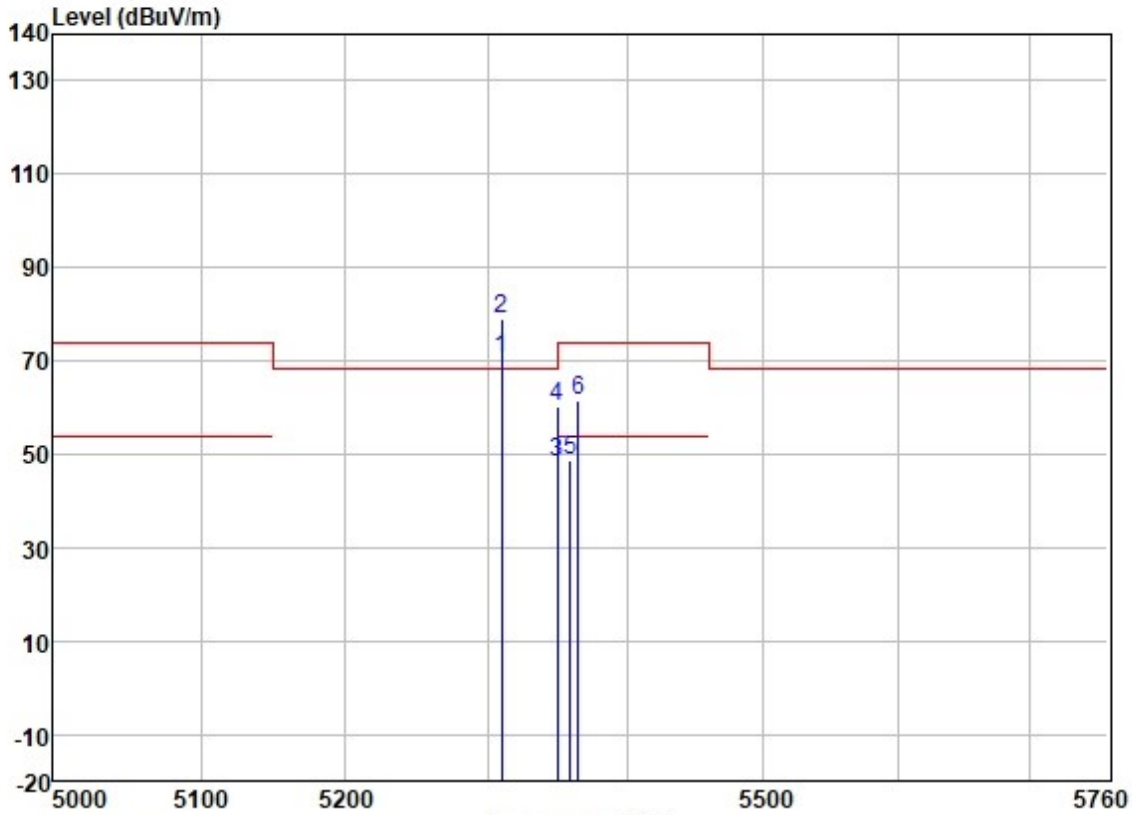
Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

		Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5136.027	47.60	31.72	5.63	36.86	48.09	54.00	-5.91	VERTICAL	Average
2		5136.027	60.26	31.72	5.63	36.86	60.75	74.00	-13.25	VERTICAL	Peak
3		5149.980	47.47	31.72	5.62	36.86	47.95	54.00	-6.05	VERTICAL	Average
4		5149.980	60.12	31.72	5.62	36.86	60.60	74.00	-13.40	VERTICAL	Peak
5		5270.000	76.24	31.75	5.80	36.87	76.92	------	------	VERTICAL	Average
6	*	5270.000	84.73	31.75	5.80	36.87	85.41	68.20	17.21	VERTICAL	Peak

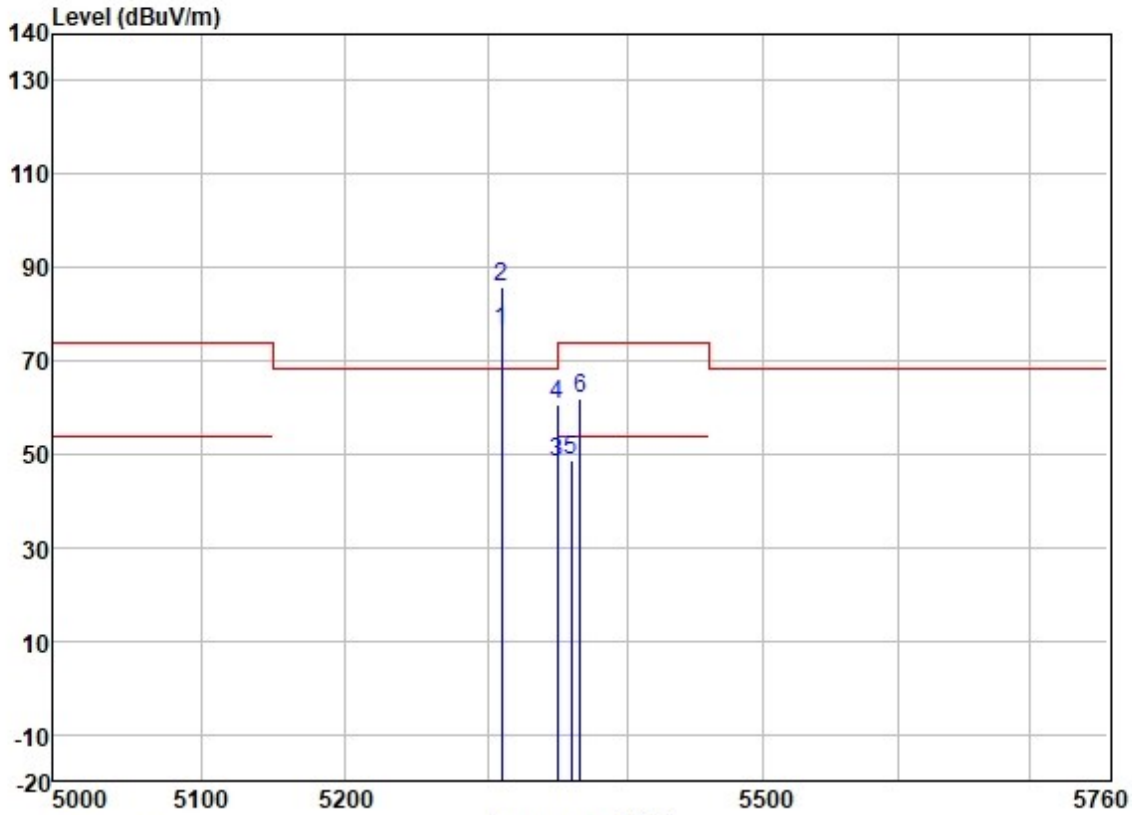
Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5310.000	69.50	31.77	6.08	36.87	70.48	------	------	HORIZONTAL	Average
2	*	5310.000	78.05	31.77	6.08	36.87	79.03	68.20	10.83	HORIZONTAL	Peak
3		5350.020	47.47	31.77	6.05	36.88	48.41	54.00	-5.59	HORIZONTAL	Average
4		5350.020	59.40	31.77	6.05	36.88	60.34	74.00	-13.66	HORIZONTAL	Peak
5		5359.018	47.77	31.78	6.03	36.88	48.70	54.00	-5.30	HORIZONTAL	Average
6		5364.801	60.64	31.78	6.03	36.88	61.57	74.00	-12.43	HORIZONTAL	Peak

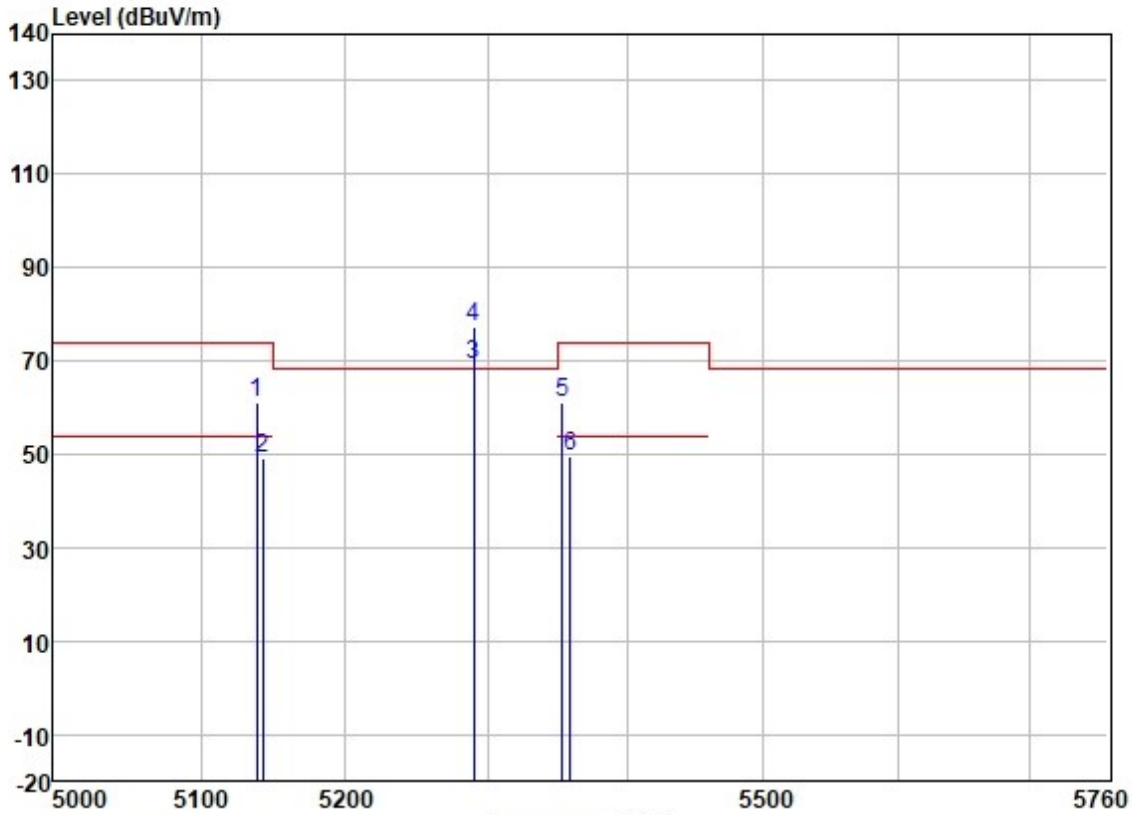
Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5310.000	75.36	31.77	6.08	36.87	76.34	------	------	VERTICAL	Average
2	*	5310.000	84.78	31.77	6.08	36.87	85.76	68.20	17.56	VERTICAL	Peak
3		5350.020	47.41	31.77	6.05	36.88	48.35	54.00	-5.65	VERTICAL	Average
4		5350.020	59.59	31.77	6.05	36.88	60.53	74.00	-13.47	VERTICAL	Peak
5		5360.102	47.83	31.78	6.03	36.88	48.76	54.00	-5.24	VERTICAL	Average
6		5366.128	61.19	31.78	6.03	36.88	62.12	74.00	-11.88	VERTICAL	Peak

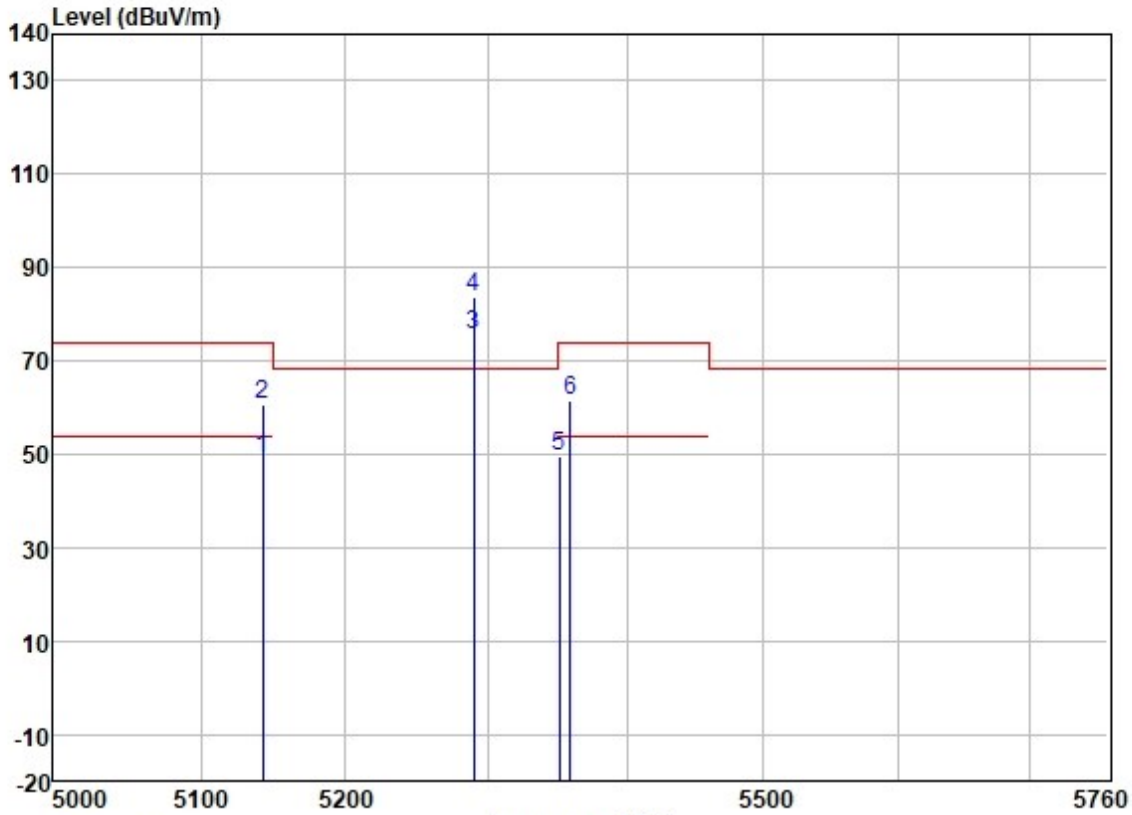
Test Mode: 02; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5138.625	60.56	31.72	5.63	36.86	61.05	74.00	-12.95	HORIZONTAL	Peak
2		5142.444	48.44	31.72	5.62	36.86	48.92	54.00	-5.08	HORIZONTAL	Average
3		5290.000	68.31	31.76	6.00	36.87	69.20	------	------	HORIZONTAL	Average
4	*	5290.000	76.18	31.76	6.00	36.87	77.07	68.20	8.87	HORIZONTAL	Peak
5		5353.594	60.14	31.77	6.05	36.88	61.08	74.00	-12.92	HORIZONTAL	Peak
6		5359.104	48.47	31.78	6.03	36.88	49.40	54.00	-4.60	HORIZONTAL	Average

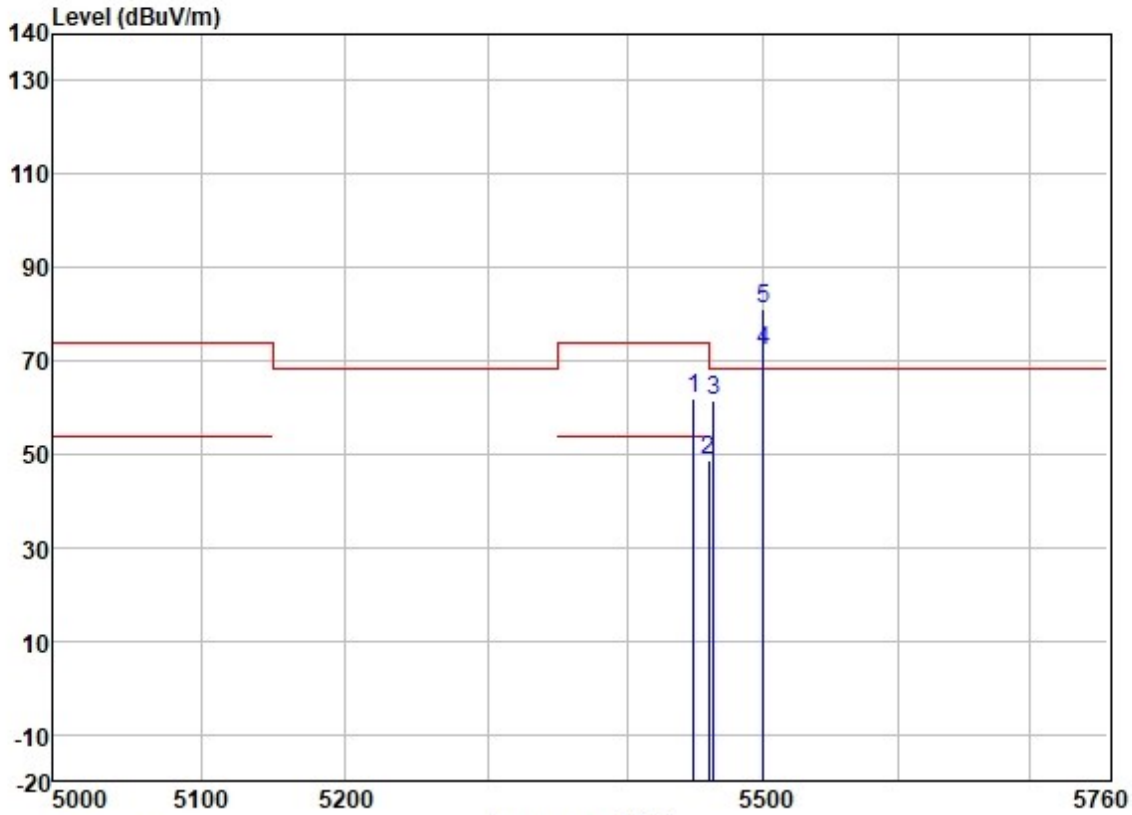
Test Mode: 02; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



race: (Discrete)

		Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5142.444	48.46	31.72	5.62	36.86	48.94	54.00	-5.06	VERTICAL	Average
2		5142.444	60.26	31.72	5.62	36.86	60.74	74.00	-13.26	VERTICAL	Peak
3		5290.000	74.55	31.76	6.00	36.87	75.44	------	------	VERTICAL	Average
4	*	5290.000	82.88	31.76	6.00	36.87	83.77	68.20	15.57	VERTICAL	Peak
5		5350.840	48.46	31.77	6.05	36.88	49.40	54.00	-4.60	VERTICAL	Average
6		5358.798	60.73	31.78	6.03	36.88	61.66	74.00	-12.34	VERTICAL	Peak

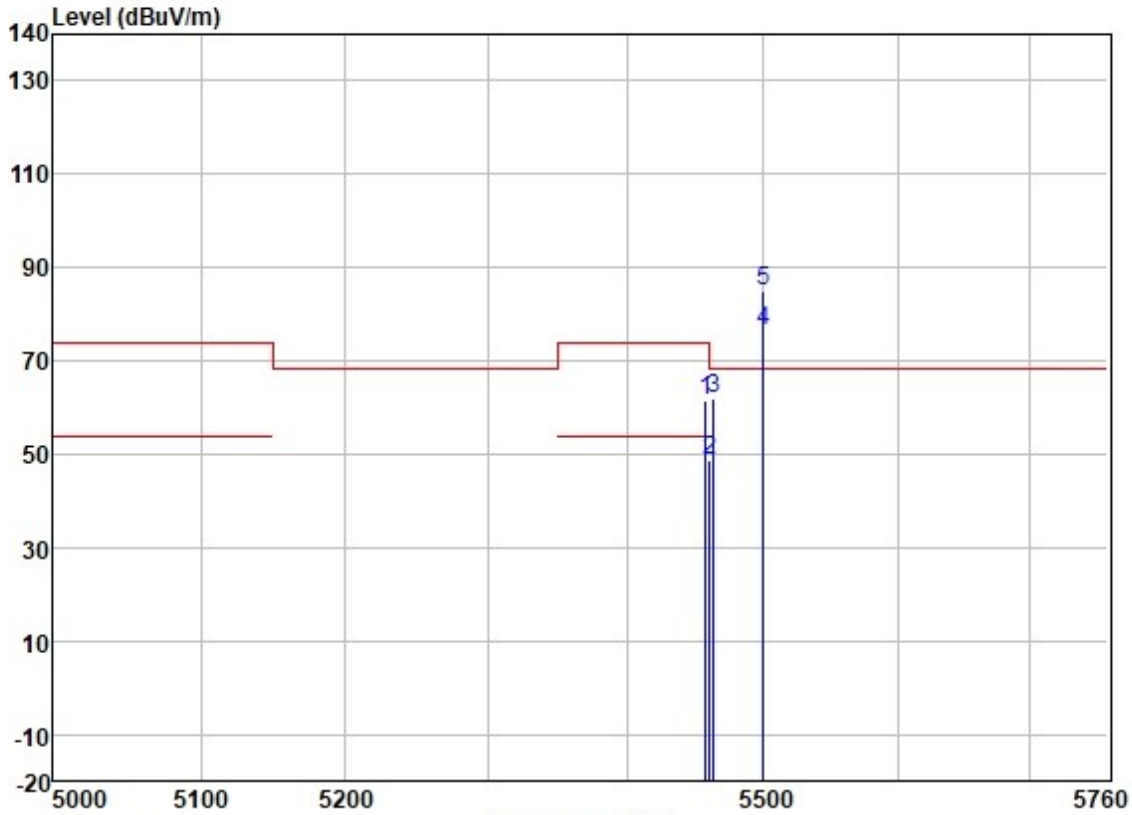
Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5448.282	60.83	31.79	6.26	36.88	62.00	74.00	-12.00	HORIZONTAL	Peak
2		5459.190	47.66	31.79	6.26	36.88	48.83	54.00	-5.17	HORIZONTAL	Average
3		5463.271	60.43	31.79	6.26	36.88	61.60	68.20	-6.60	HORIZONTAL	Peak
4		5500.000	71.03	31.80	6.40	36.88	72.35	------	------	HORIZONTAL	Average
5	*	5500.000	79.65	31.80	6.40	36.88	80.97	68.20	12.77	HORIZONTAL	Peak

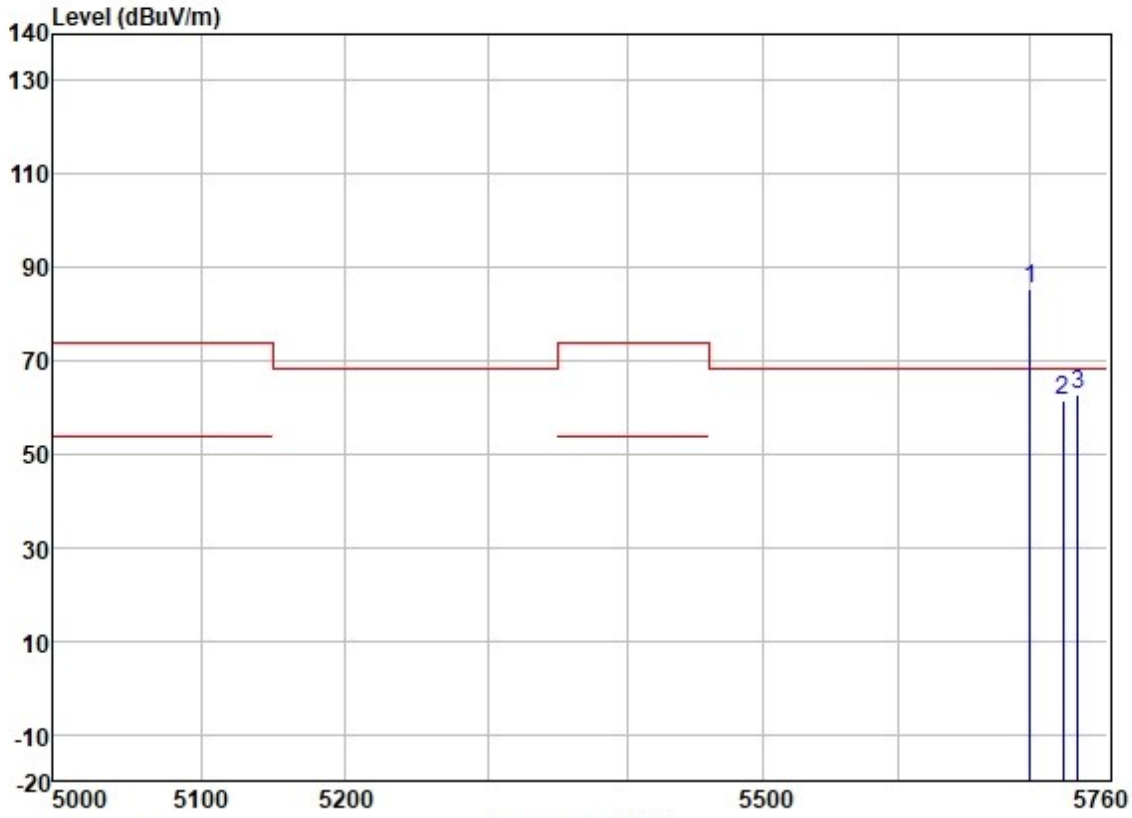
Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5457.151	60.24	31.79	6.26	36.88	61.41	74.00	-12.59	VERTICAL	Peak
2		5459.791	47.63	31.79	6.26	36.88	48.80	54.00	-5.20	VERTICAL	Average
3		5463.031	60.62	31.79	6.26	36.88	61.79	68.20	-6.41	VERTICAL	Peak
4		5500.000	75.15	31.80	6.40	36.88	76.47	------	------	VERTICAL	Average
5	*	5500.000	83.77	31.80	6.40	36.88	85.09	68.20	16.89	VERTICAL	Peak

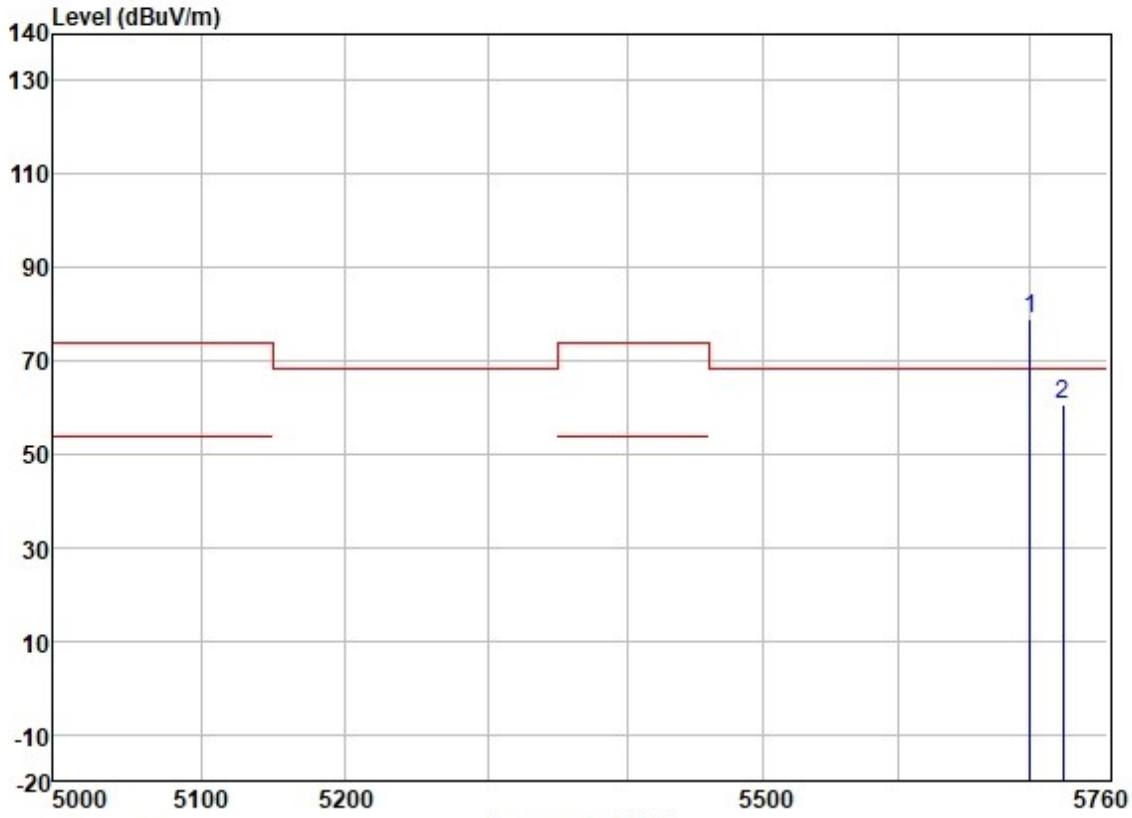
Test Mode: 03; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5700.000	83.87	32.01	6.40	36.89	85.39	68.20	17.19	HORIZONTAL	Peak
2		5725.000	59.88	32.07	6.25	36.89	61.31	68.20	-6.89	HORIZONTAL	Peak
3		5736.886	61.25	32.07	6.25	36.89	62.68	68.20	-5.52	HORIZONTAL	Peak

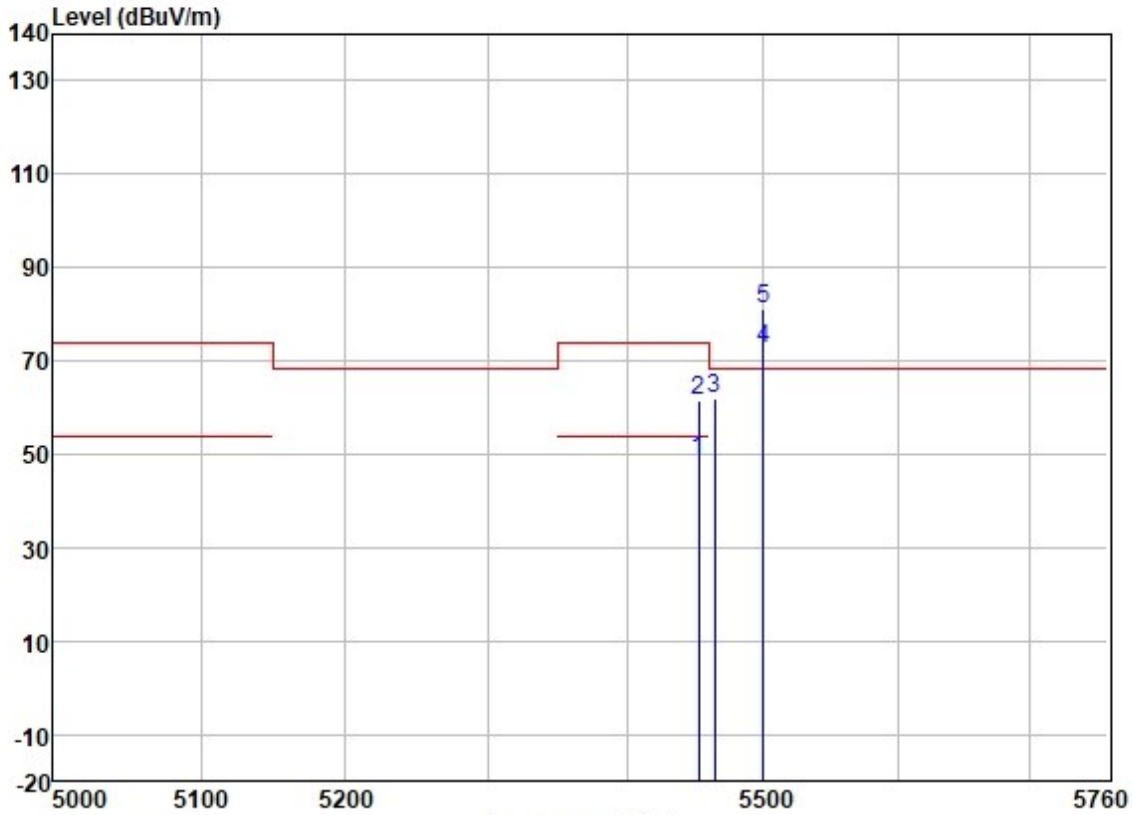
Test Mode: 03; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	5700.000	77.64	32.01	6.40	36.89	79.16	68.20	10.96	VERTICAL	Peak
2	5725.000	59.37	32.07	6.25	36.89	60.80	68.20	-7.40	VERTICAL	Peak

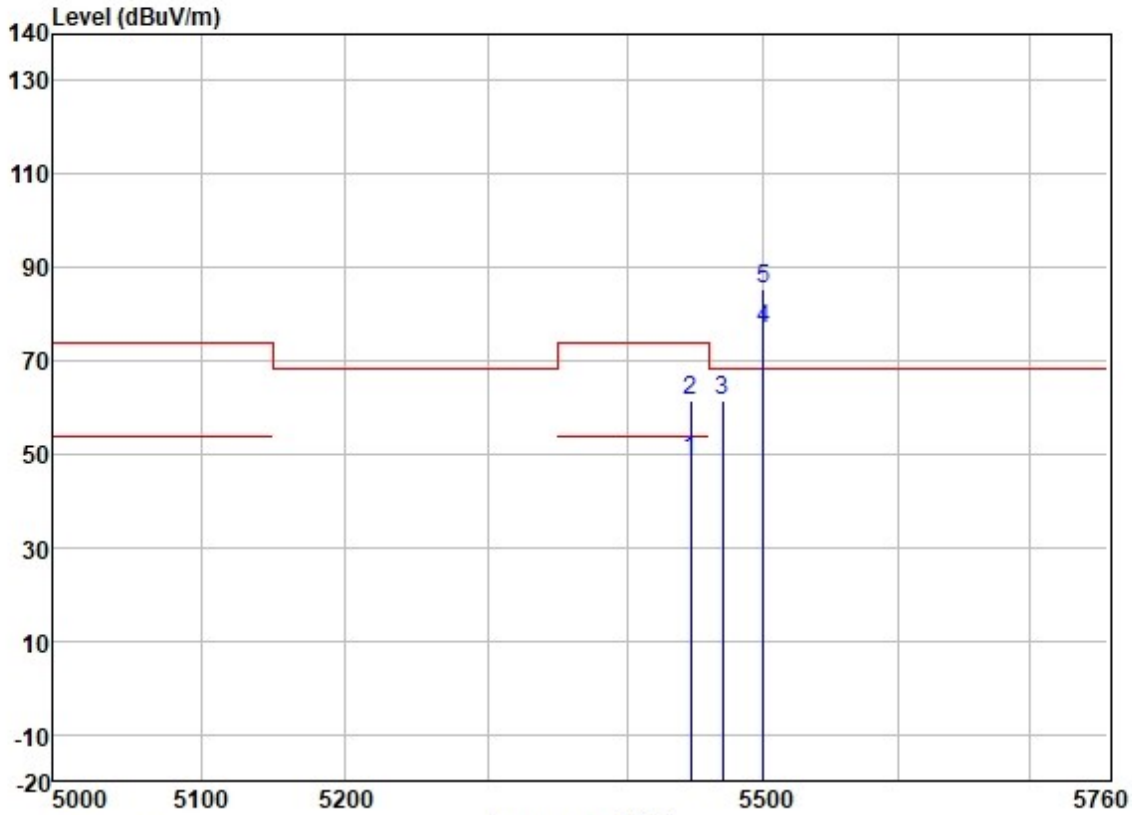
Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5451.996	47.54	31.79	6.26	36.88	48.71	54.00	-5.29	HORIZONTAL	Average
2		5451.996	60.29	31.79	6.26	36.88	61.46	74.00	-12.54	HORIZONTAL	Peak
3		5463.512	60.63	31.79	6.26	36.88	61.80	68.20	-6.40	HORIZONTAL	Peak
4		5500.000	71.18	31.80	6.40	36.88	72.50	------	------	HORIZONTAL	Average
5	*	5500.000	79.72	31.80	6.40	36.88	81.04	68.20	12.84	HORIZONTAL	Peak

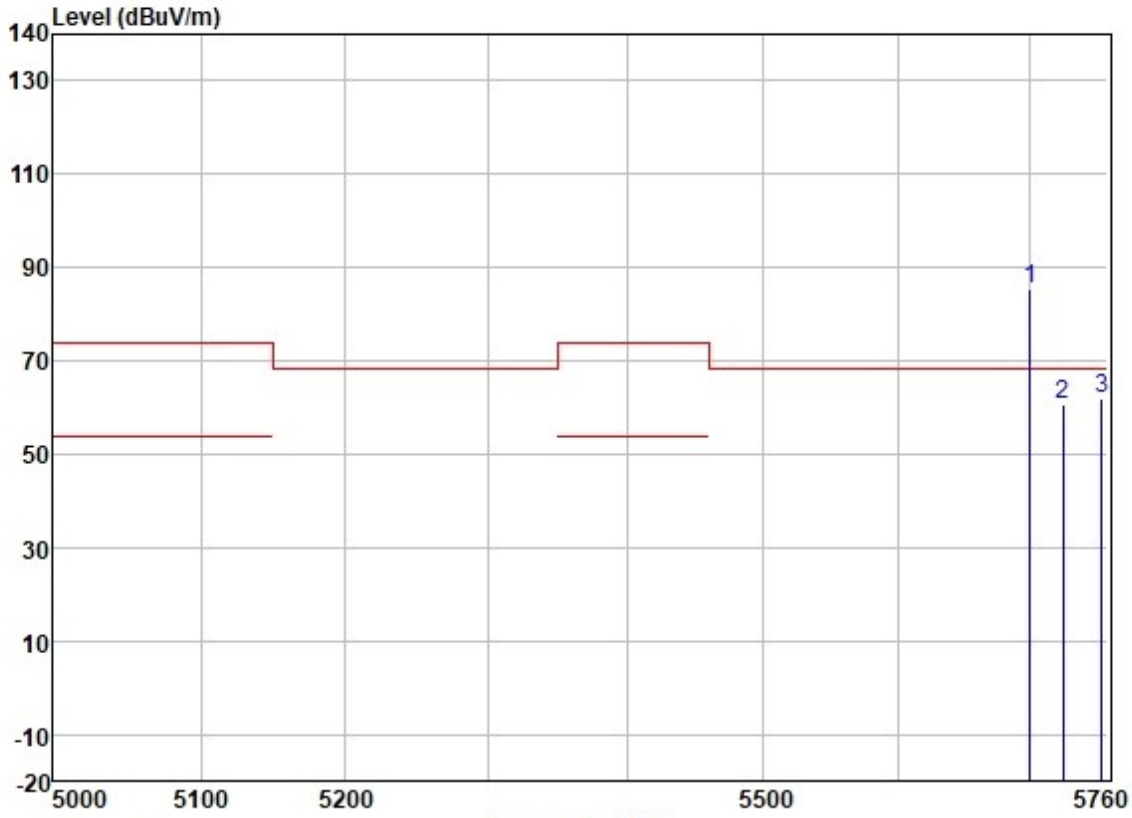
Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5446.606	47.79	31.79	6.20	36.88	48.90	54.00	-5.10	VERTICAL	Average
2		5446.606	60.40	31.79	6.20	36.88	61.51	74.00	-12.49	VERTICAL	Peak
3		5469.880	60.23	31.80	6.31	36.88	61.46	68.20	-6.74	VERTICAL	Peak
4		5500.000	75.40	31.80	6.40	36.88	76.72	------	------	VERTICAL	Average
5	*	5500.000	84.07	31.80	6.40	36.88	85.39	68.20	17.19	VERTICAL	Peak

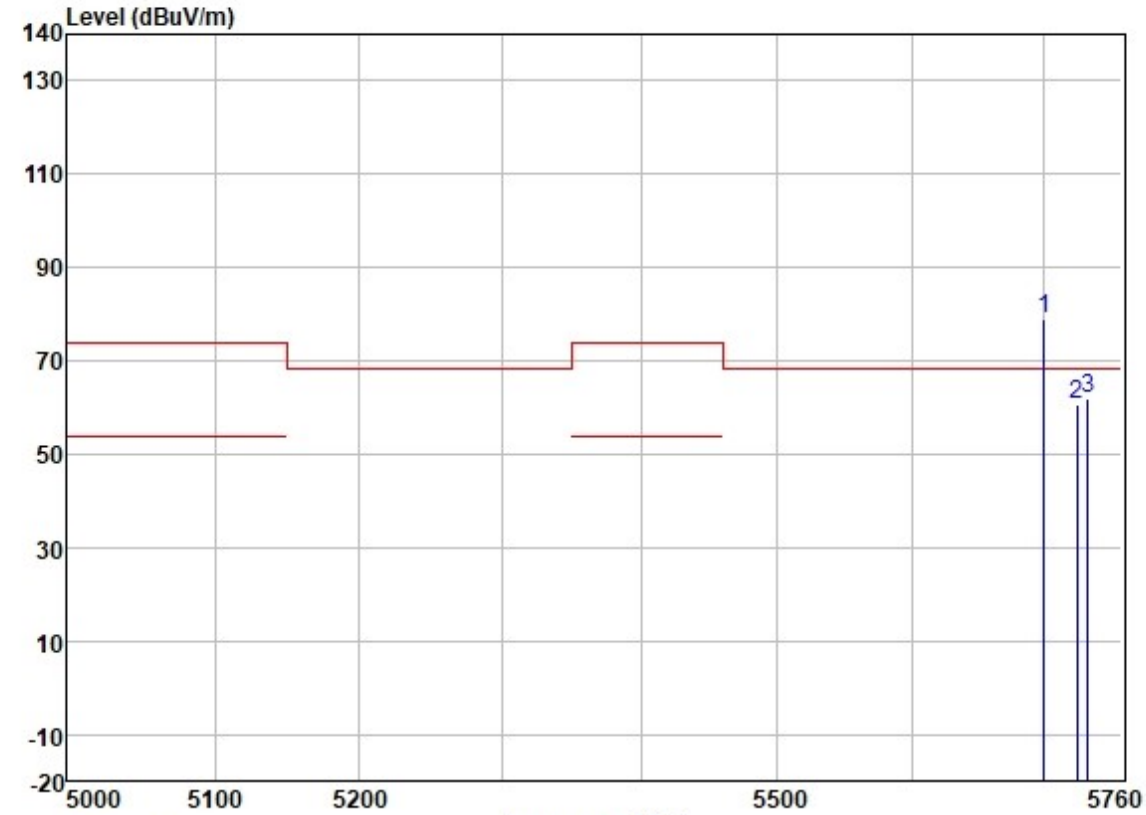
Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5700.000	83.79	32.01	6.40	36.89	85.31	68.20	17.11	HORIZONTAL	Peak
2		5725.000	59.18	32.07	6.25	36.89	60.61	68.20	-7.59	HORIZONTAL	Peak
3		5754.736	60.43	32.10	6.20	36.89	61.84	68.20	-6.36	HORIZONTAL	Peak

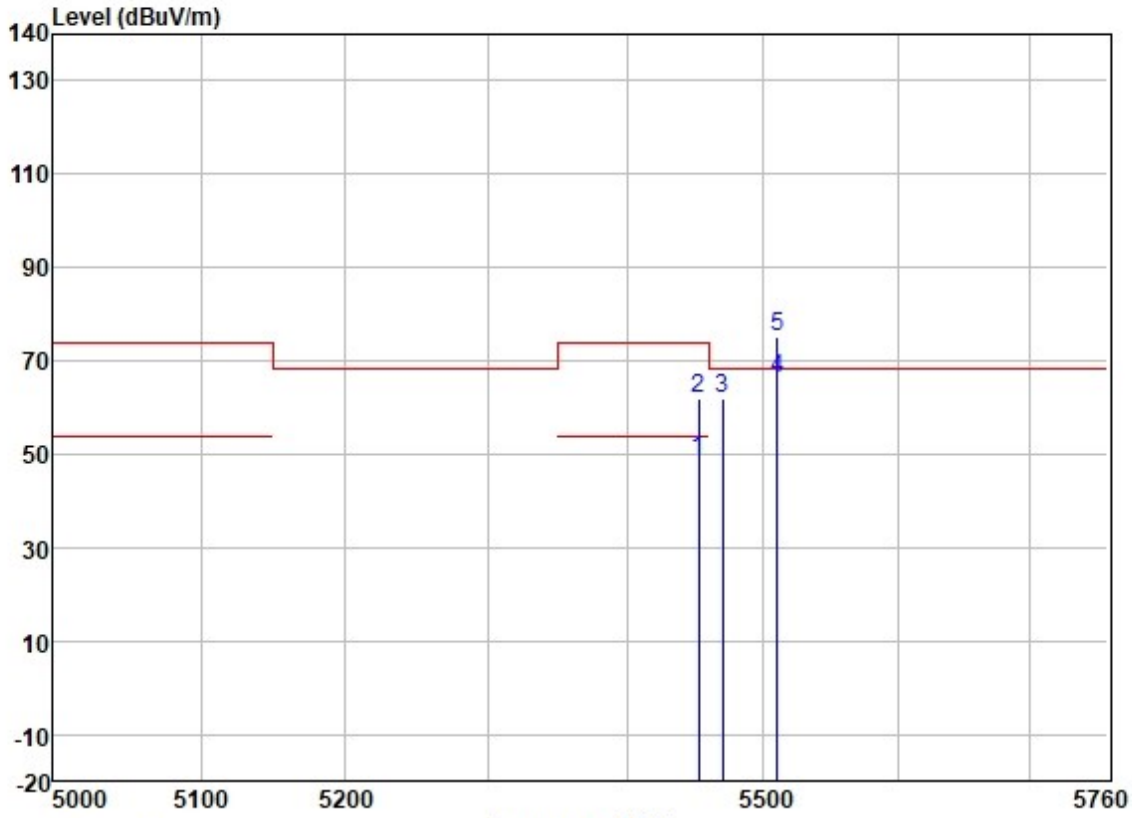
Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	5700.000	77.63	32.01	6.40	36.89	79.15	68.20	10.95	VERTICAL	Peak
2	5725.000	59.33	32.07	6.25	36.89	60.76	68.20	-7.44	VERTICAL	Peak
3	5733.383	60.51	32.07	6.25	36.89	61.94	68.20	-6.26	VERTICAL	Peak

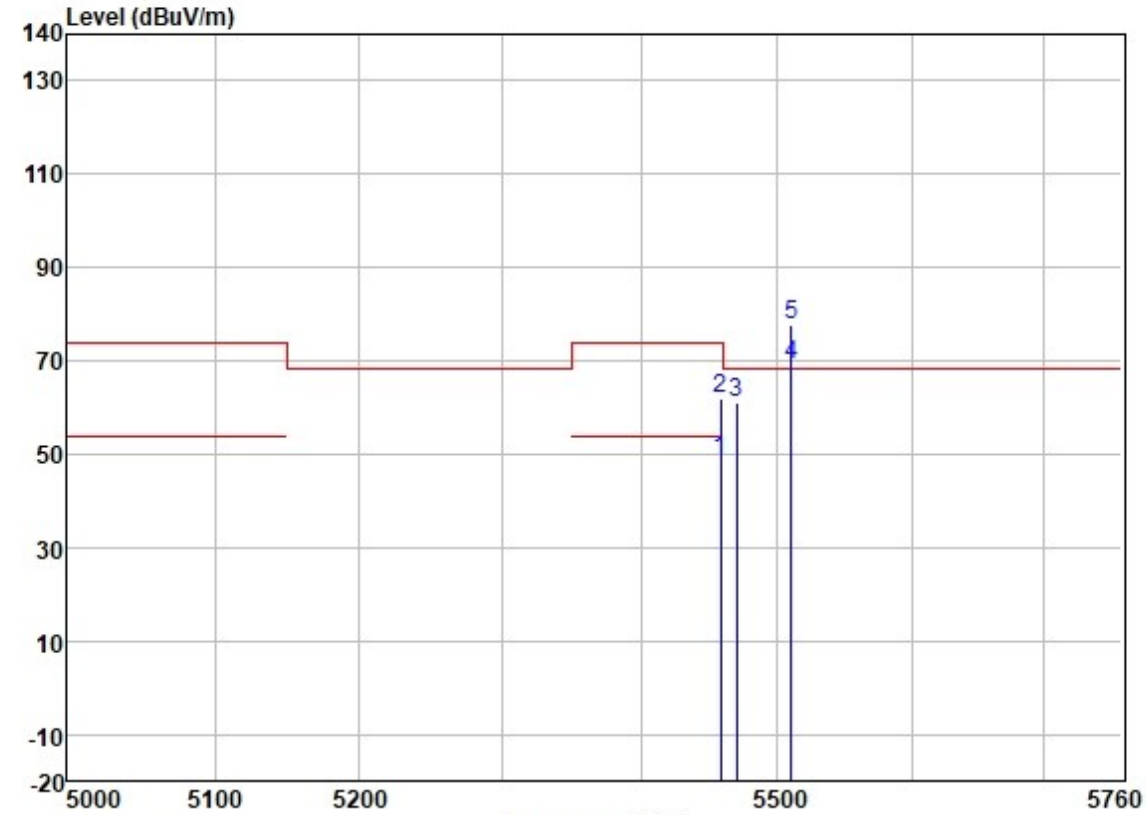
Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5452.220	47.64	31.79	6.26	36.88	48.81	54.00	-5.19	HORIZONTAL	Average
2		5452.220	60.74	31.79	6.26	36.88	61.91	74.00	-12.09	HORIZONTAL	Peak
3		5469.832	60.75	31.80	6.31	36.88	61.98	68.20	-6.22	HORIZONTAL	Peak
4		5510.000	64.78	31.80	6.40	36.88	66.10	------	------	HORIZONTAL	Average
5	*	5510.000	74.02	31.80	6.40	36.88	75.34	68.20	7.14	HORIZONTAL	Peak

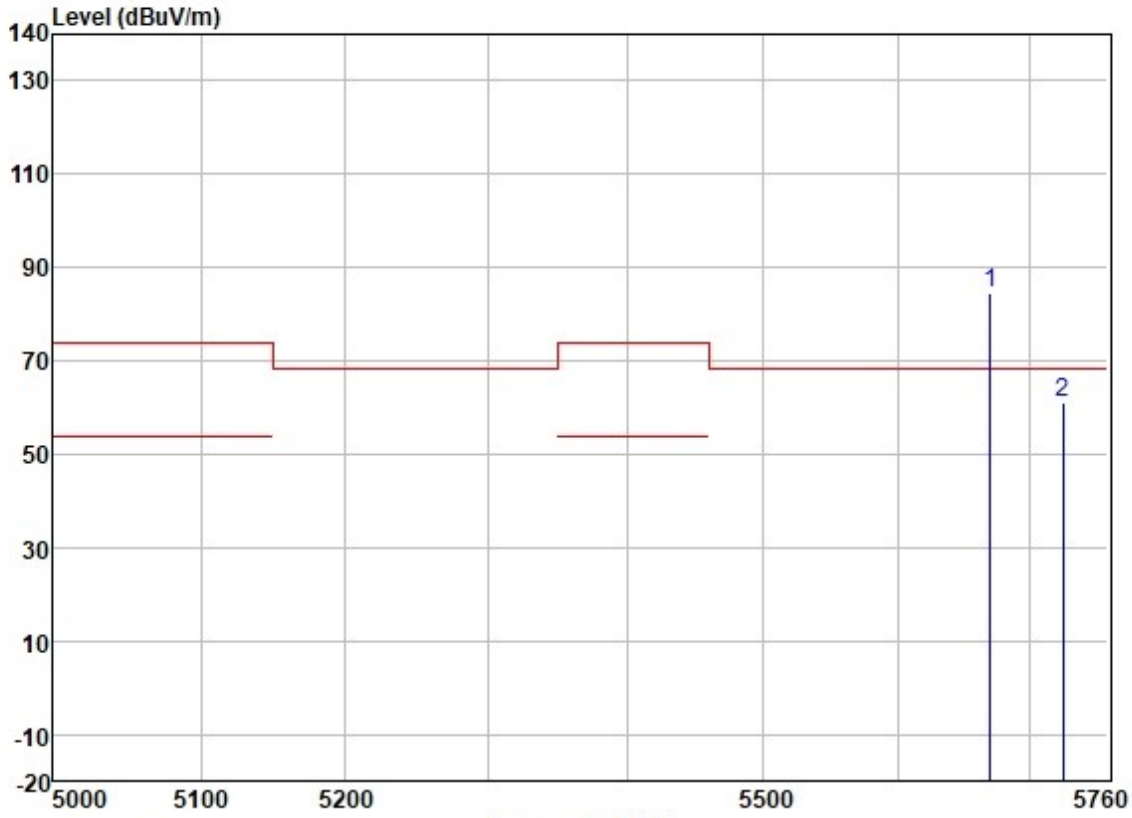
Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5457.805	47.68	31.79	6.26	36.88	48.85	54.00	-5.15	VERTICAL	Average
2	5457.805	60.67	31.79	6.26	36.88	61.84	74.00	-12.16	VERTICAL	Peak
3	5469.832	59.97	31.80	6.31	36.88	61.20	68.20	-7.00	VERTICAL	Peak
4	5510.000	67.74	31.80	6.40	36.88	69.06	------	------	VERTICAL	Average
5 *	5510.000	76.37	31.80	6.40	36.88	77.69	68.20	9.49	VERTICAL	Peak

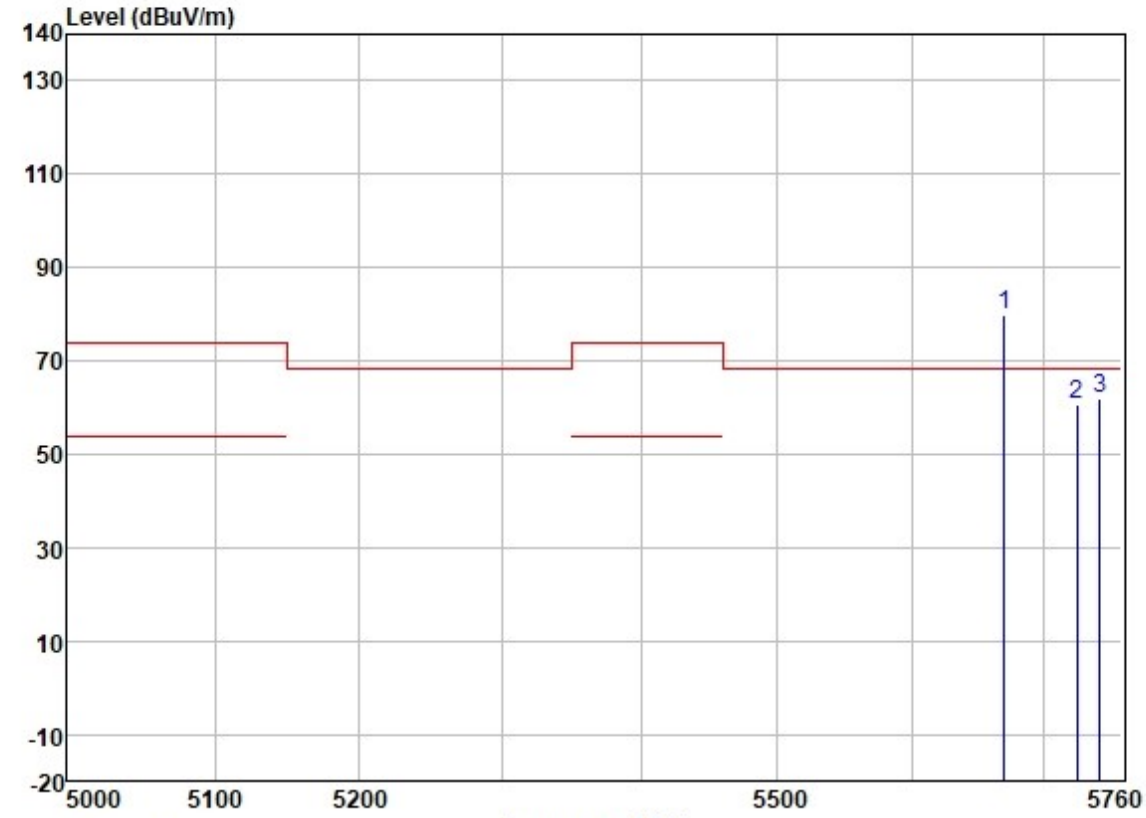
Test Mode: 03; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	5670.000	83.27	31.97	6.37	36.89	84.72	68.20	16.52	HORIZONTAL	Peak
2	5725.000	59.74	32.07	6.25	36.89	61.17	68.20	-7.03	HORIZONTAL	Peak

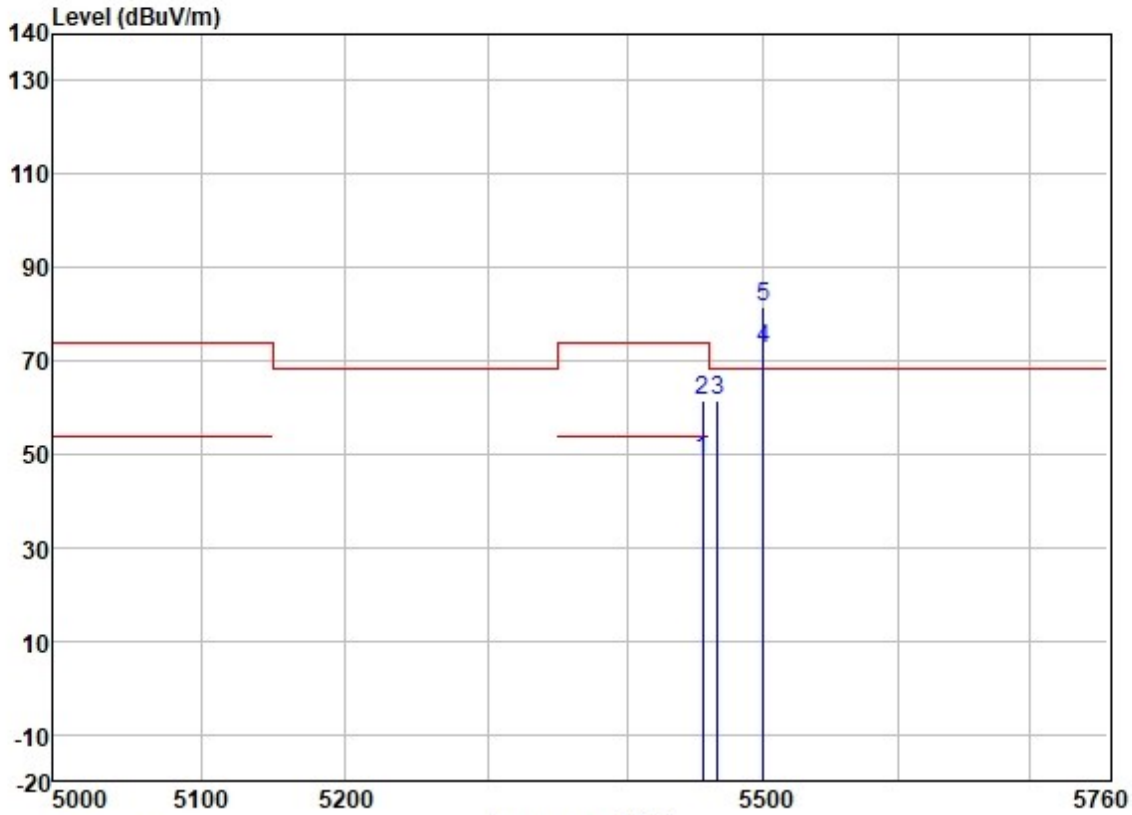
Test Mode: 03; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5670.000	78.51	31.97	6.37	36.89	79.96	68.20	11.76	VERTICAL	Peak
2		5725.000	59.20	32.07	6.25	36.89	60.63	68.20	-7.57	VERTICAL	Peak
3		5742.565	60.44	32.10	6.20	36.89	61.85	68.20	-6.35	VERTICAL	Peak

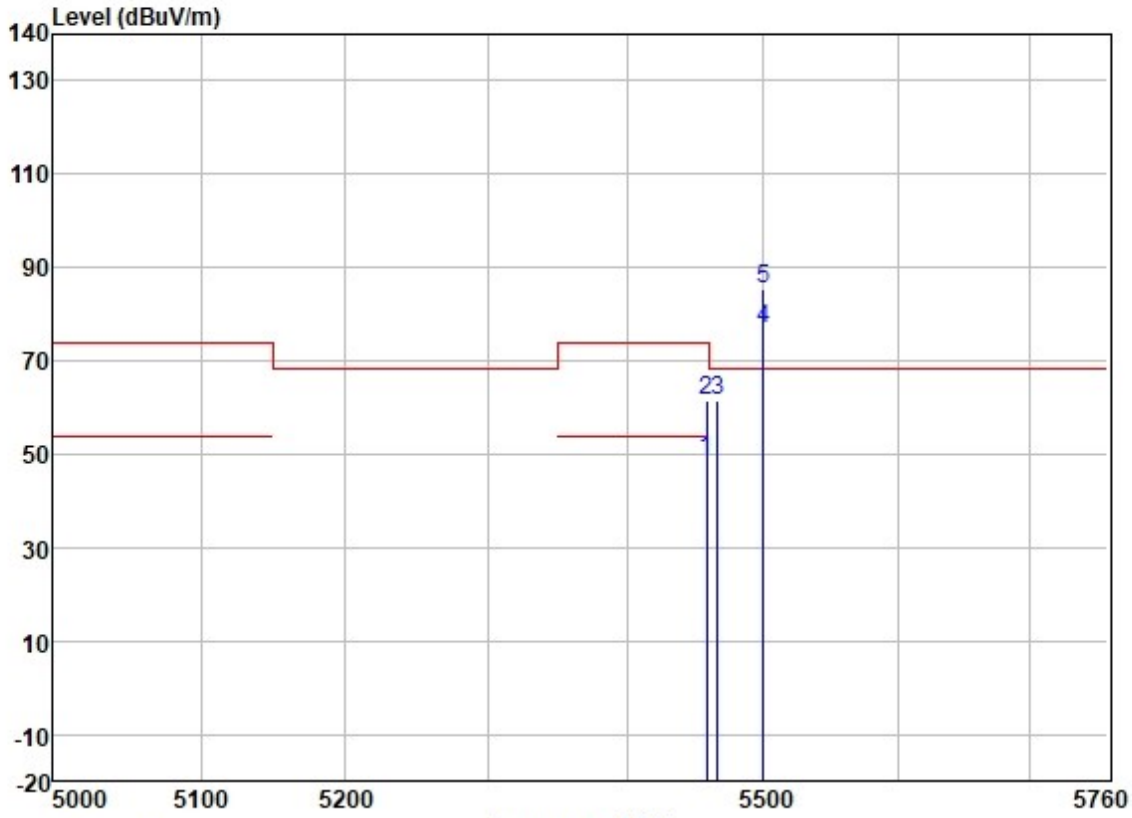
Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5455.232	47.65	31.79	6.26	36.88	48.82	54.00	-5.18	HORIZONTAL	Average
2		5455.232	60.35	31.79	6.26	36.88	61.52	74.00	-12.48	HORIZONTAL	Peak
3		5466.274	60.20	31.80	6.31	36.88	61.43	68.20	-6.77	HORIZONTAL	Peak
4		5500.000	71.15	31.80	6.40	36.88	72.47	------	------	HORIZONTAL	Average
5	*	5500.000	80.02	31.80	6.40	36.88	81.34	68.20	13.14	HORIZONTAL	Peak

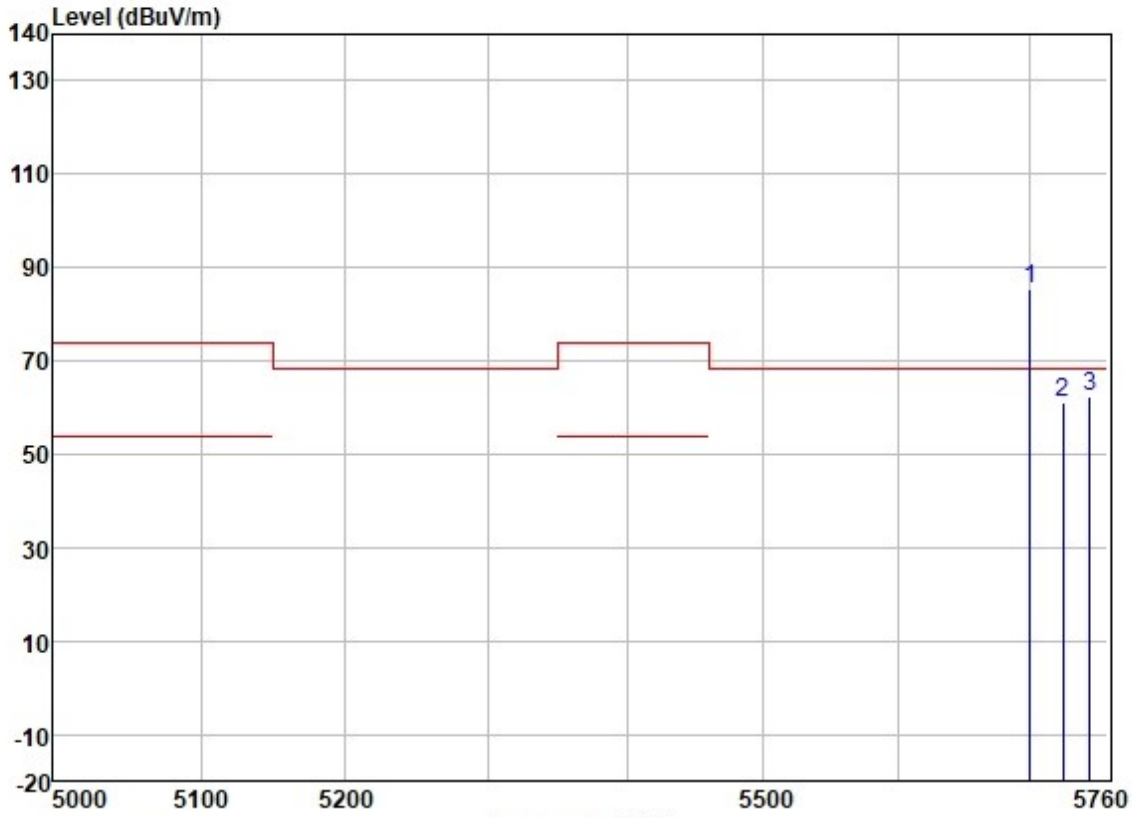
Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5457.871	47.59	31.79	6.26	36.88	48.76	54.00	-5.24	VERTICAL	Average
2		5457.871	60.46	31.79	6.26	36.88	61.63	74.00	-12.37	VERTICAL	Peak
3		5466.154	60.35	31.80	6.31	36.88	61.58	68.20	-6.62	VERTICAL	Peak
4		5500.000	75.39	31.80	6.40	36.88	76.71	------	------	VERTICAL	Average
5	*	5500.000	83.87	31.80	6.40	36.88	85.19	68.20	16.99	VERTICAL	Peak

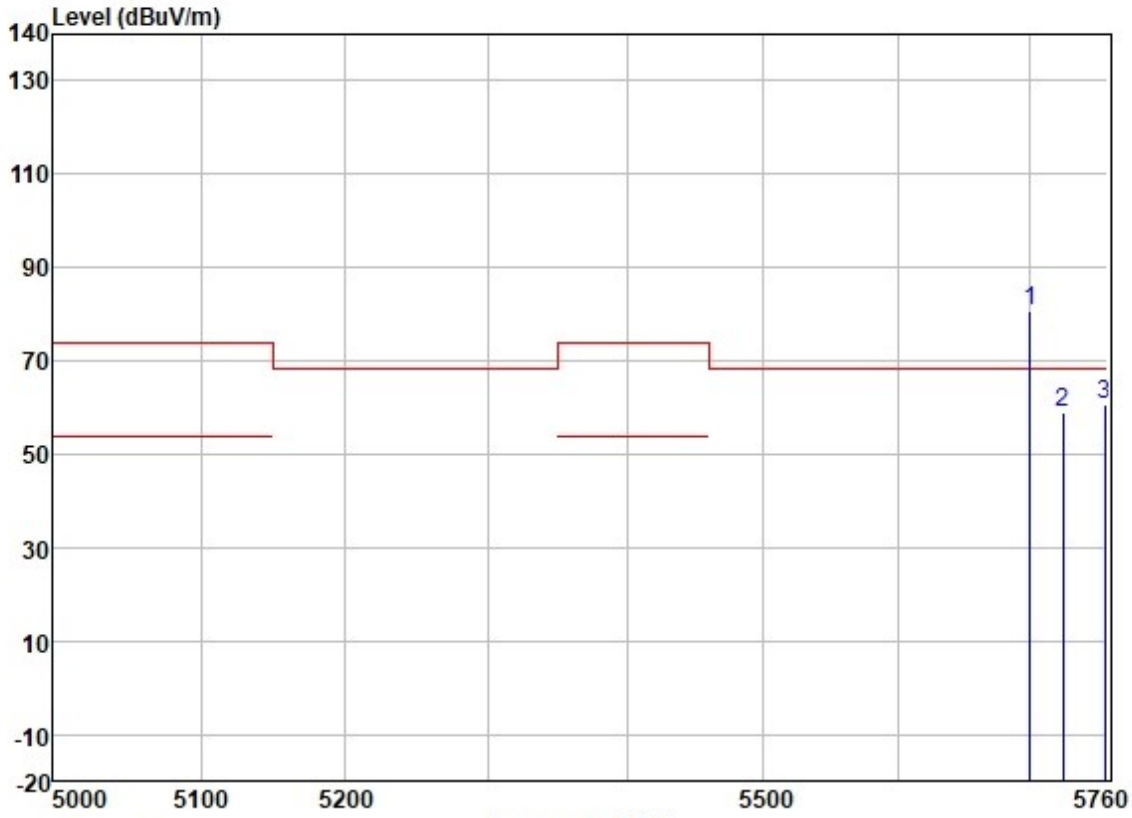
Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5700.000	83.75	32.01	6.40	36.89	85.27	68.20	17.07	HORIZONTAL	Peak
2		5725.000	59.61	32.07	6.25	36.89	61.04	68.20	-7.16	HORIZONTAL	Peak
3		5745.604	60.84	32.10	6.20	36.89	62.25	68.20	-5.95	HORIZONTAL	Peak

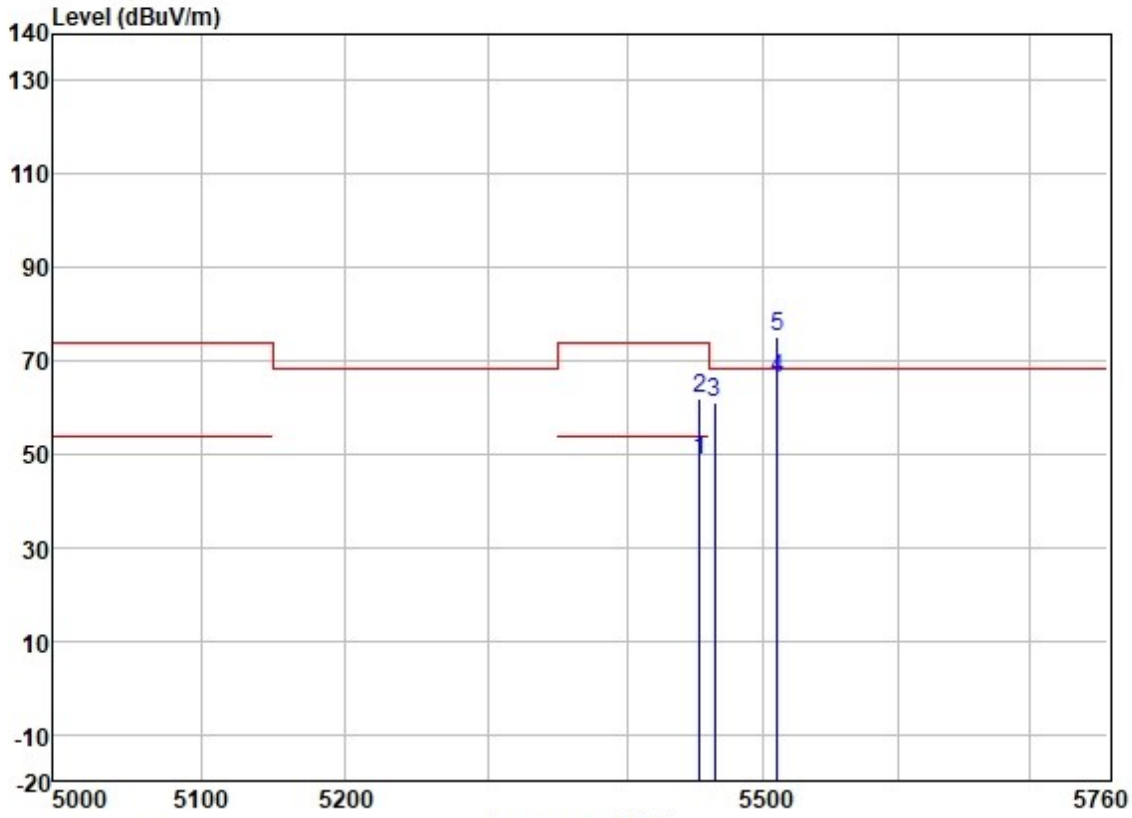
Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5700.000	79.25	32.01	6.40	36.89	80.77	68.20	12.57	VERTICAL	Peak
2		5725.000	57.70	32.07	6.25	36.89	59.13	68.20	-9.07	VERTICAL	Peak
3		5757.247	59.20	32.13	6.15	36.89	60.59	68.20	-7.61	VERTICAL	Peak

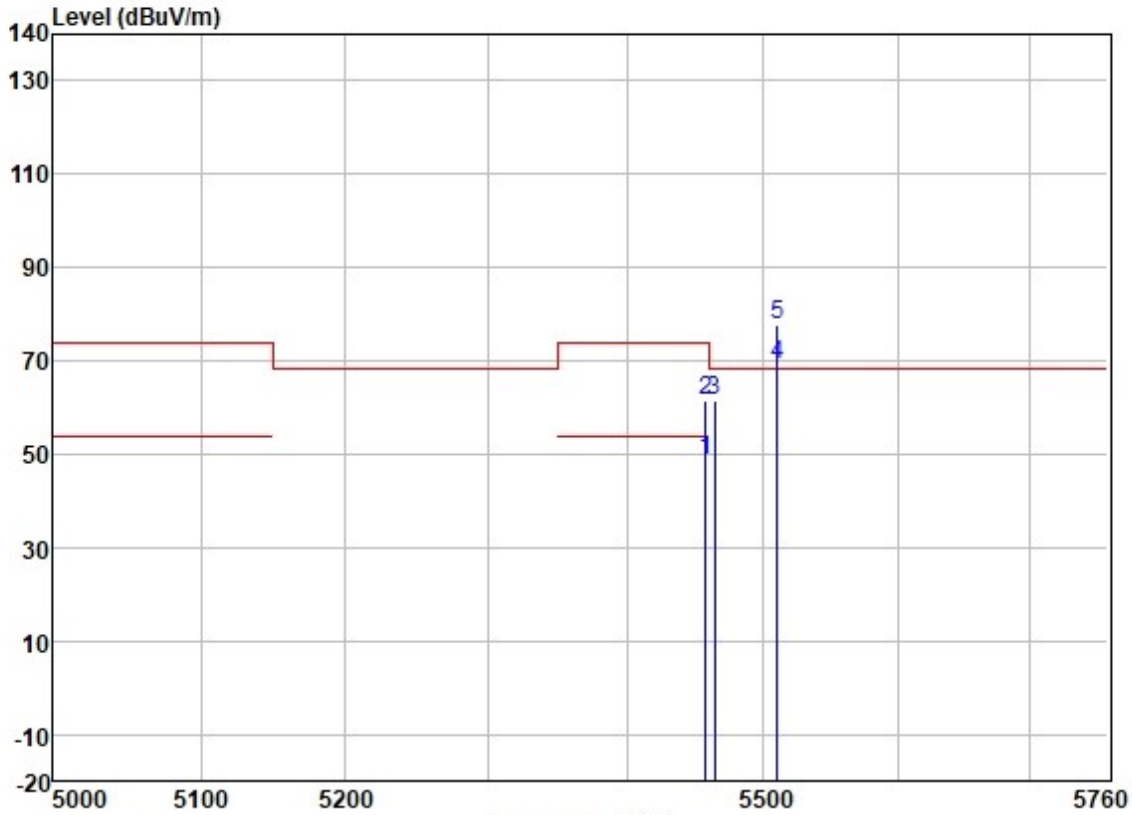
Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5452.918	47.60	31.79	6.26	36.88	48.77	54.00	-5.23	HORIZONTAL	Average
2	5452.918	60.71	31.79	6.26	36.88	61.88	74.00	-12.12	HORIZONTAL	Peak
3	5463.955	59.93	31.80	6.31	36.88	61.16	68.20	-7.04	HORIZONTAL	Peak
4	5510.000	64.74	31.80	6.40	36.88	66.06	------	------	HORIZONTAL	Average
5 *	5510.000	73.64	31.80	6.40	36.88	74.96	68.20	6.76	HORIZONTAL	Peak

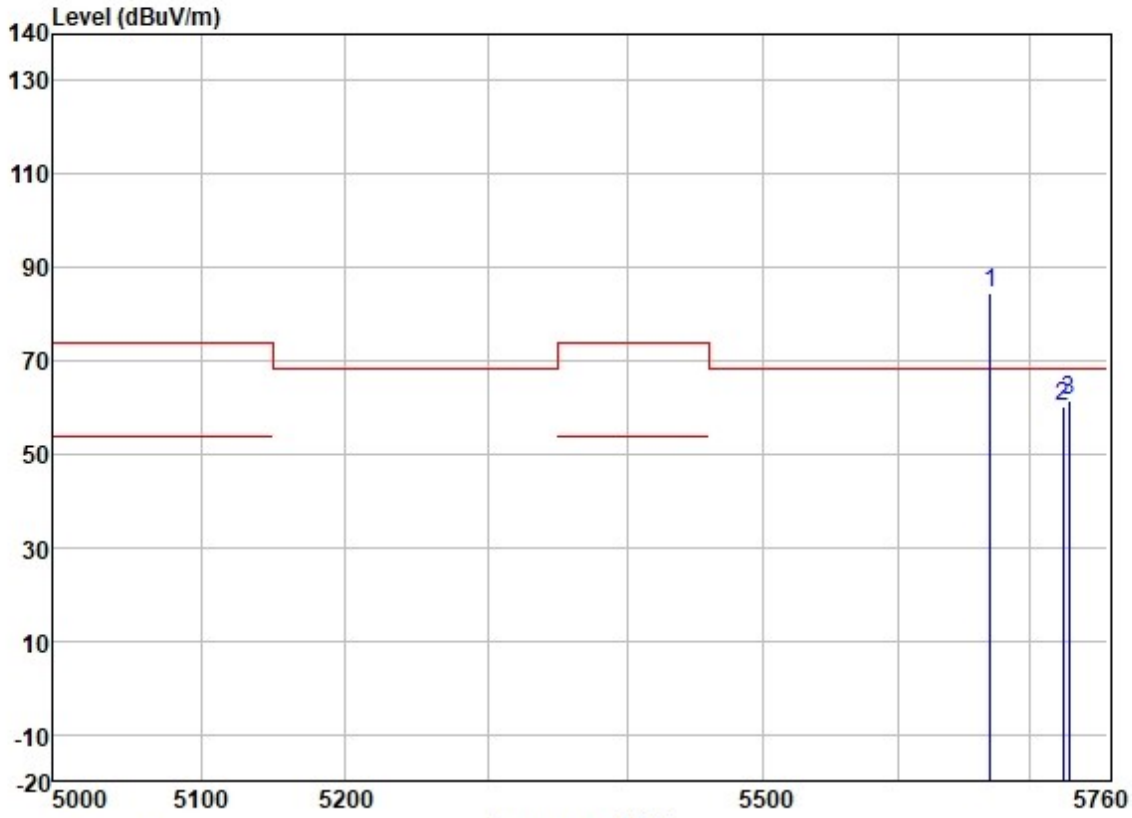
Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5457.526	47.72	31.79	6.26	36.88	48.89	54.00	-5.11	VERTICAL	Average
2		5457.526	60.47	31.79	6.26	36.88	61.64	74.00	-12.36	VERTICAL	Peak
3		5464.095	60.13	31.80	6.31	36.88	61.36	68.20	-6.84	VERTICAL	Peak
4		5510.000	67.78	31.80	6.40	36.88	69.10	------	------	VERTICAL	Average
5	*	5510.000	76.41	31.80	6.40	36.88	77.73	68.20	9.53	VERTICAL	Peak

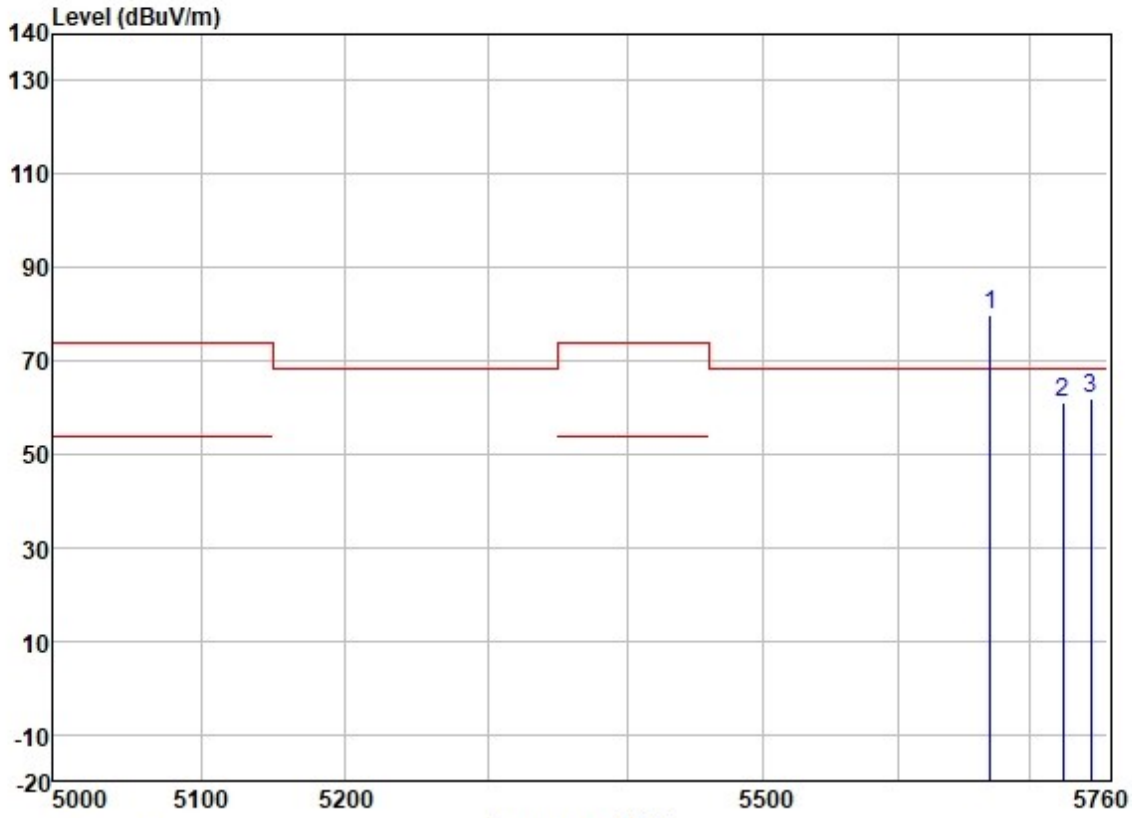
Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5670.000	83.00	31.97	6.37	36.89	84.45	68.20	16.25	HORIZONTAL	Peak
2		5725.000	58.94	32.07	6.25	36.89	60.37	68.20	-7.83	HORIZONTAL	Peak
3		5730.047	60.02	32.07	6.25	36.89	61.45	68.20	-6.75	HORIZONTAL	Peak

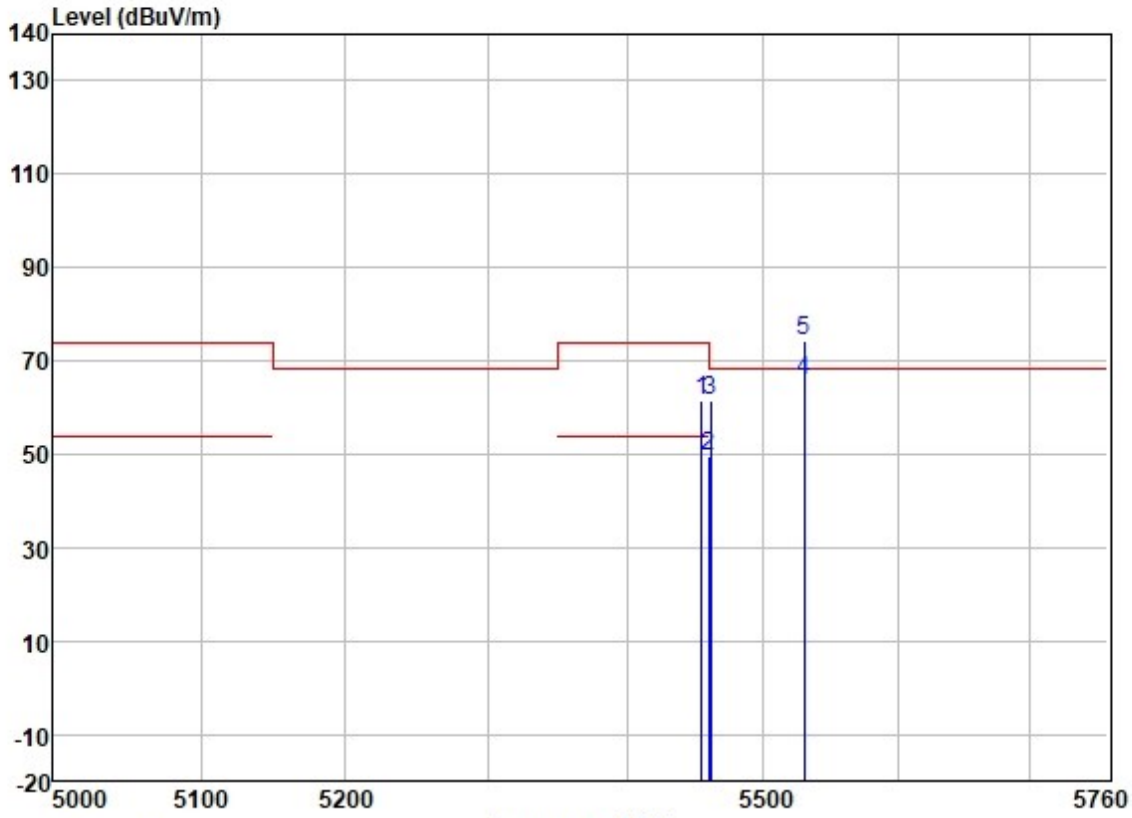
Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	*	5670.000	78.47	31.97	6.37	36.89	79.92	68.20	11.72	VERTICAL	Peak
2		5725.000	59.75	32.07	6.25	36.89	61.18	68.20	-7.02	VERTICAL	Peak
3		5746.227	60.50	32.10	6.20	36.89	61.91	68.20	-6.29	VERTICAL	Peak

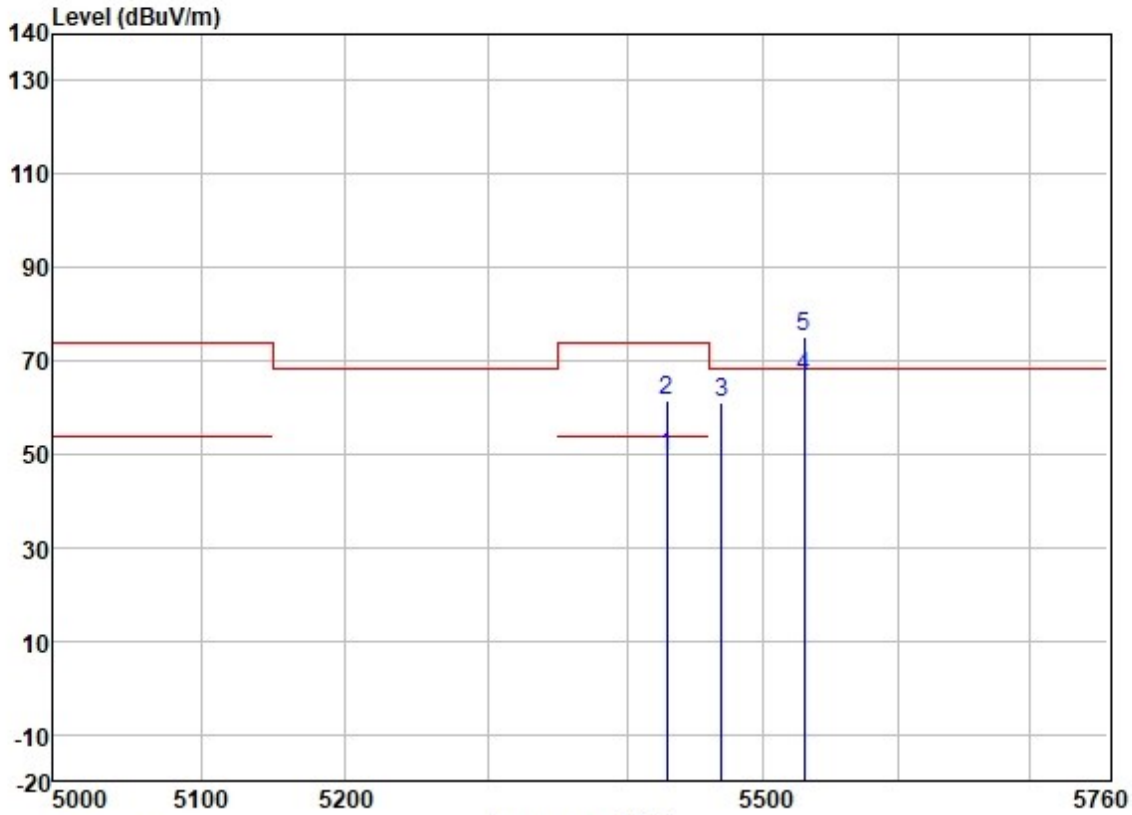
Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



race: (Discrete)

		Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
		MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1		5454.633	60.51	31.79	6.26	36.88	61.68	74.00	-12.32	HORIZONTAL	Peak
2		5459.107	48.41	31.79	6.26	36.88	49.58	54.00	-4.42	HORIZONTAL	Average
3		5461.076	60.41	31.79	6.26	36.88	61.58	68.20	-6.62	HORIZONTAL	Peak
4		5530.000	64.33	31.83	6.37	36.89	65.64	------	------	HORIZONTAL	Average
5	*	5530.000	72.92	31.83	6.37	36.89	74.23	68.20	6.03	HORIZONTAL	Peak

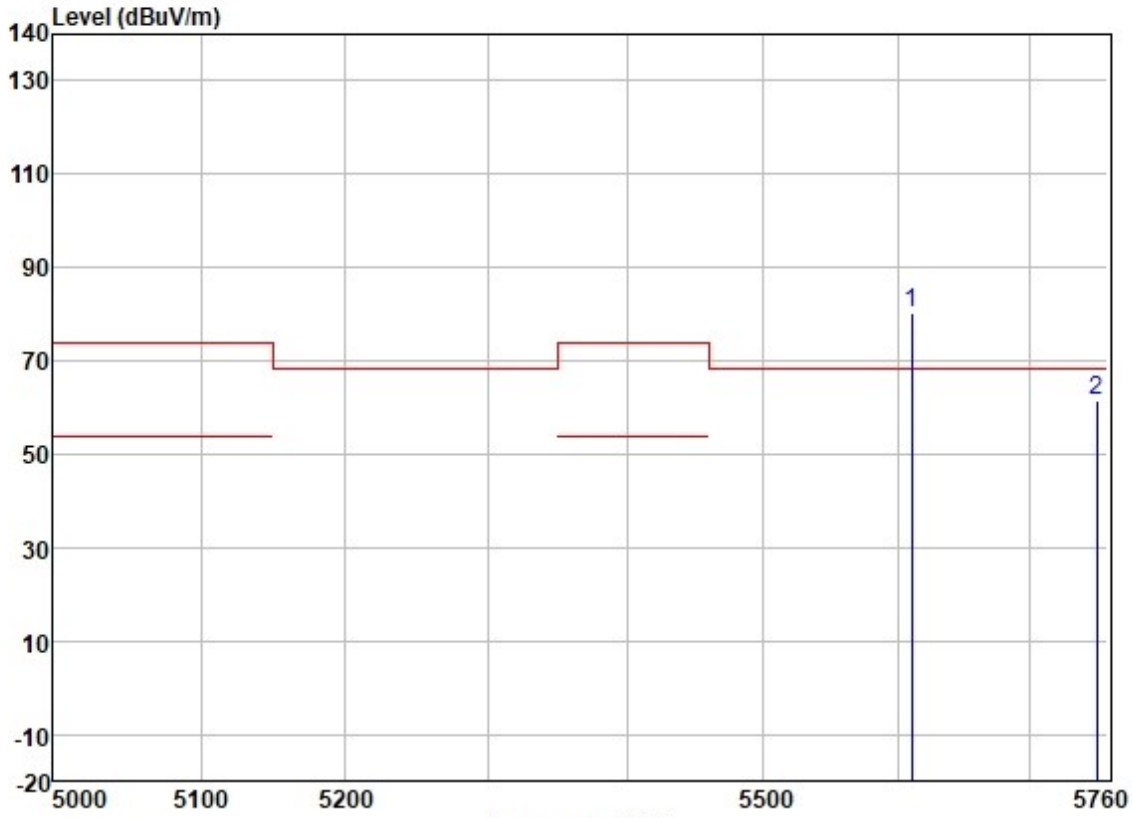
Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5428.583	48.60	31.79	6.13	36.88	49.64	54.00	-4.36	VERTICAL	Average
2	5428.583	60.42	31.79	6.13	36.88	61.46	74.00	-12.54	VERTICAL	Peak
3	5468.781	60.00	31.80	6.31	36.88	61.23	68.20	-6.97	VERTICAL	Peak
4	5530.000	65.38	31.83	6.37	36.89	66.69	------	------	VERTICAL	Average
5 *	5530.000	73.90	31.83	6.37	36.89	75.21	68.20	7.01	VERTICAL	Peak

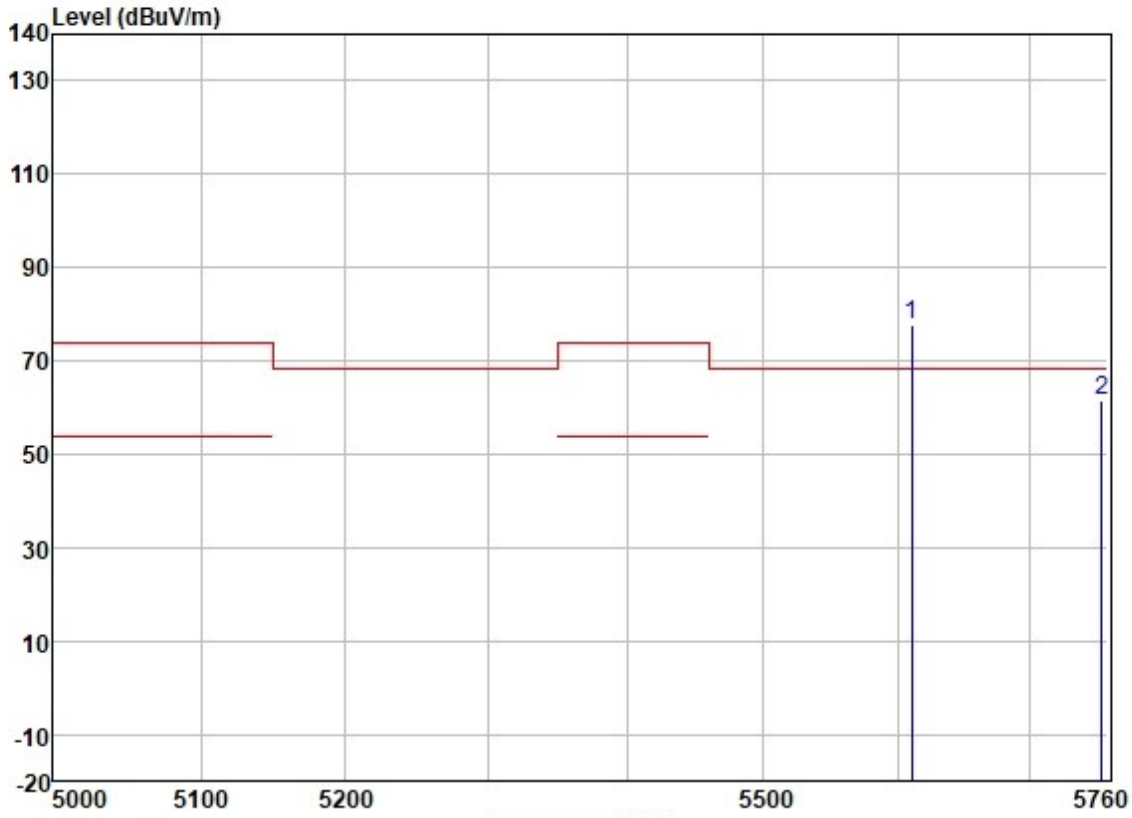
Test Mode: 03; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	5610.000	79.05	31.91	6.32	36.89	80.39	68.20	12.19	HORIZONTAL	Peak
2	5750.847	60.11	32.10	6.20	36.89	61.52	68.20	-6.68	HORIZONTAL	Peak

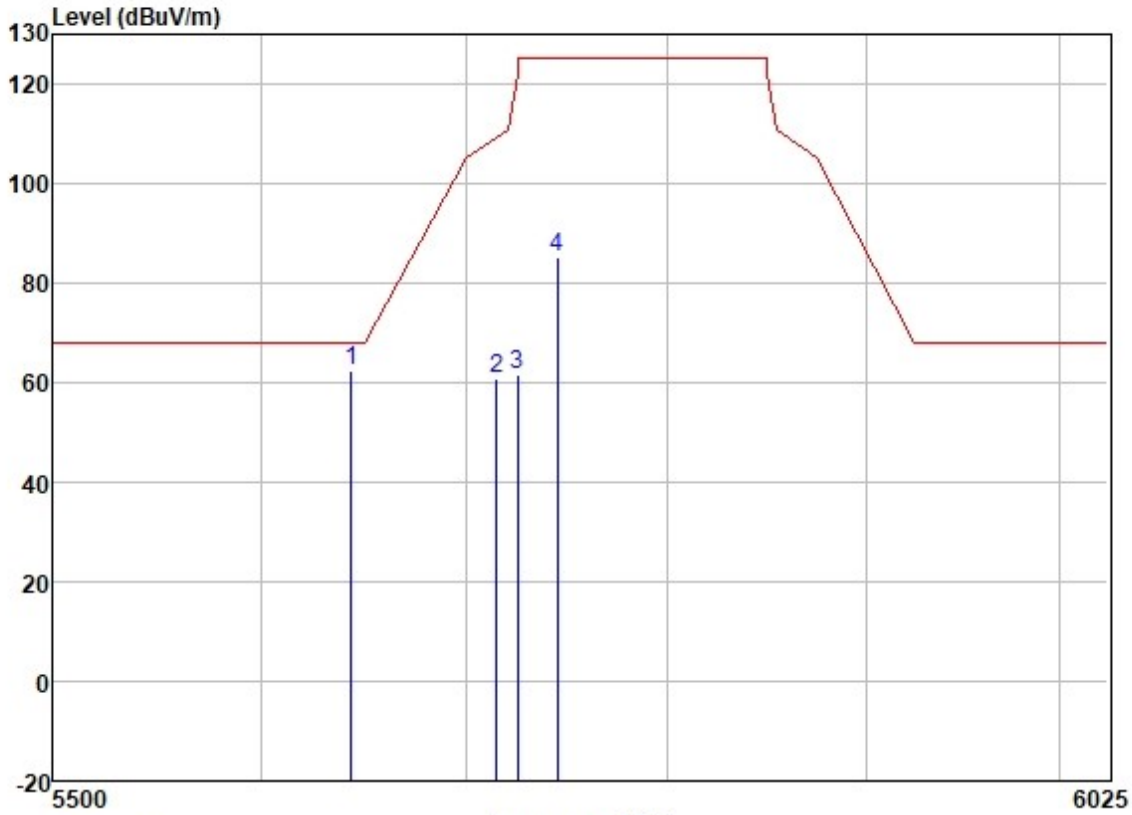
Test Mode: 03; Polarity: Vertical; Modulation:802.11ac; Bandwidth:80MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1 *	5610.000	76.26	31.91	6.32	36.89	77.60	68.20	9.40	VERTICAL	Peak
2	5754.710	60.25	32.10	6.20	36.89	61.66	68.20	-6.54	VERTICAL	Peak

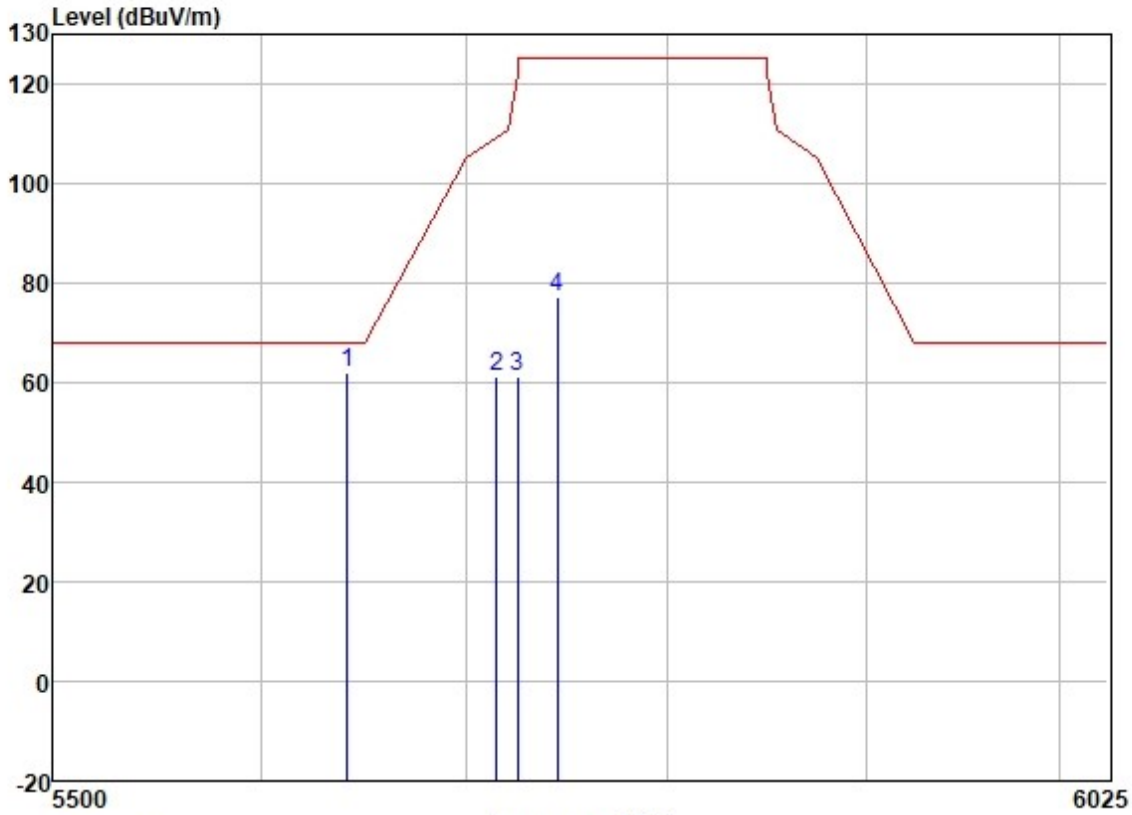
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5643.458	61.14	31.95	6.35	36.89	62.55	68.20	-5.65	HORIZONTAL	Peak
2	5715.000	59.40	32.04	6.33	36.89	60.88	109.40	-48.52	HORIZONTAL	Peak
3	5725.000	60.28	32.07	6.25	36.89	61.71	122.20	-60.49	HORIZONTAL	Peak
4	5745.000	83.97	32.10	6.20	36.89	85.38	125.20	-39.82	HORIZONTAL	Peak

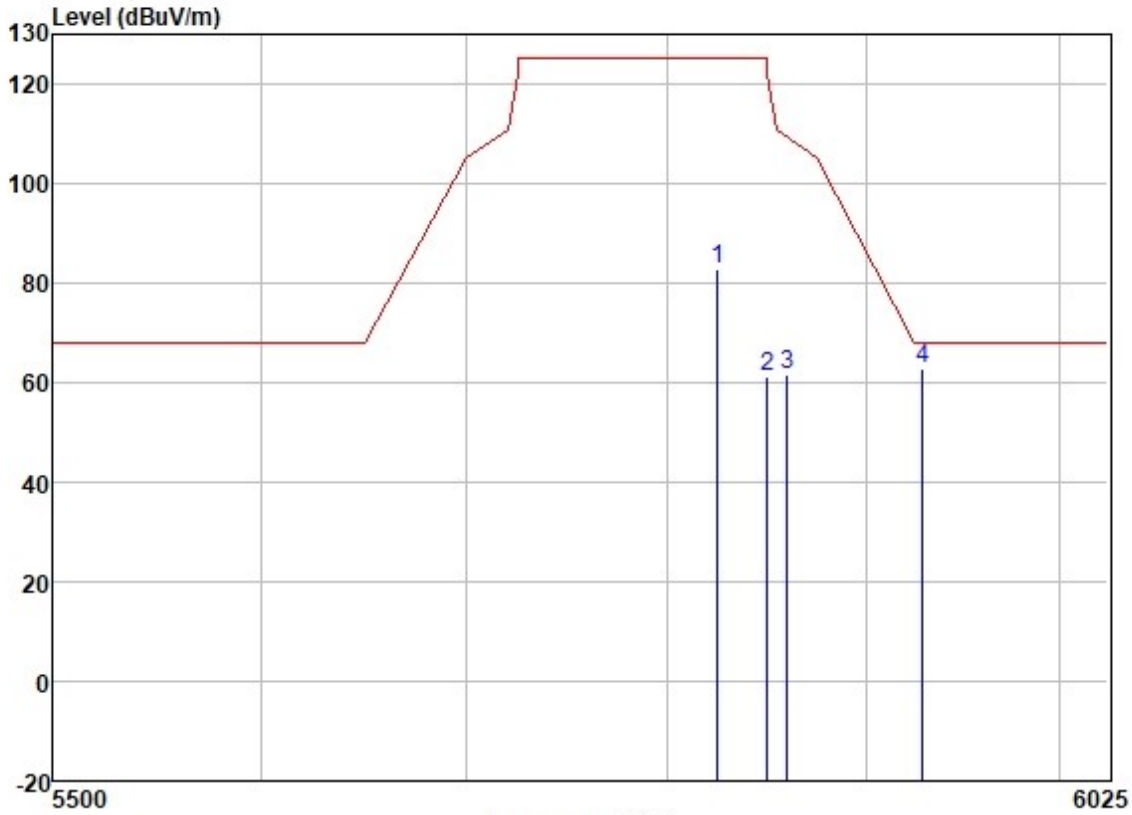
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5641.383	60.75	31.95	6.35	36.89	62.16	68.20	-6.04	VERTICAL	Peak
2	5715.000	59.56	32.04	6.33	36.89	61.04	109.40	-48.36	VERTICAL	Peak
3	5725.000	59.85	32.07	6.25	36.89	61.28	122.20	-60.92	VERTICAL	Peak
4	5745.000	75.70	32.10	6.20	36.89	77.11	125.20	-48.09	VERTICAL	Peak

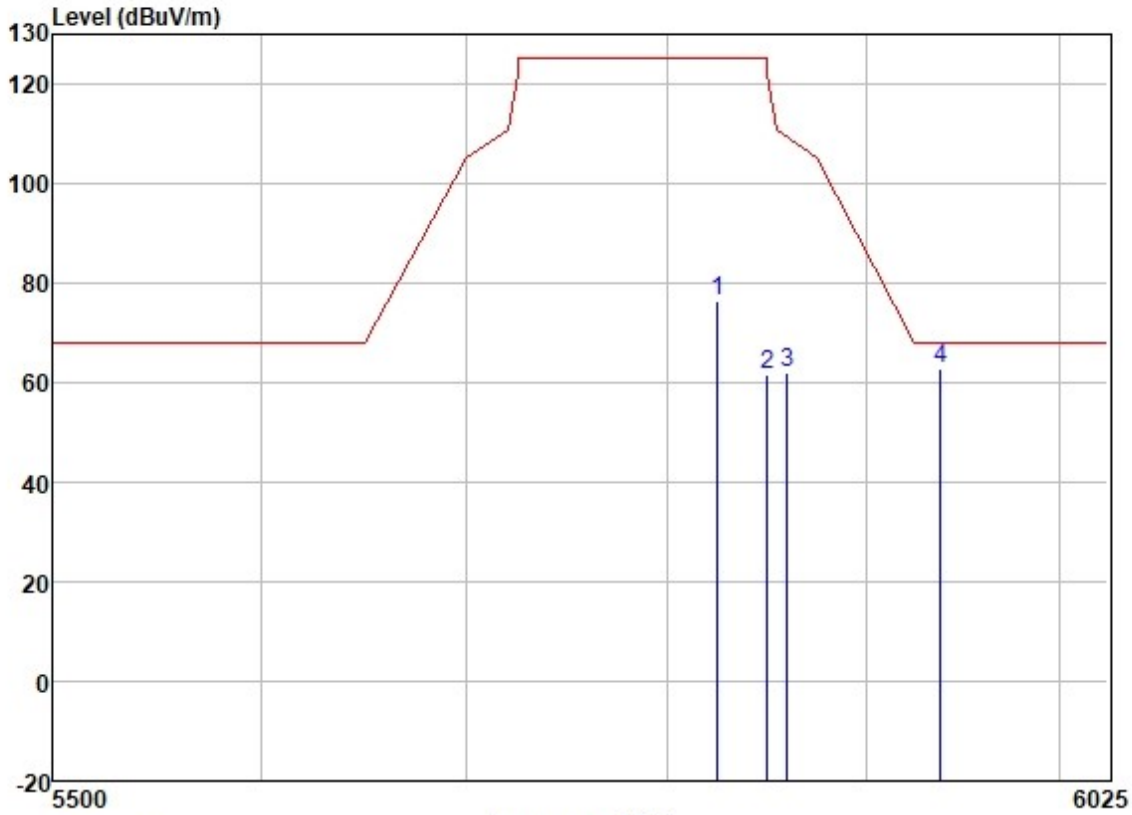
Test Mode: 04; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5825.000	81.26	32.23	6.04	36.90	82.63	125.20	-42.57	HORIZONTAL	Peak
2	5850.000	59.99	32.25	6.00	36.90	61.34	122.20	-60.86	HORIZONTAL	Peak
3	5860.000	60.42	32.27	5.96	36.90	61.75	109.40	-47.65	HORIZONTAL	Peak
4	5929.315	61.40	32.34	6.00	36.90	62.84	68.20	-5.36	HORIZONTAL	Peak

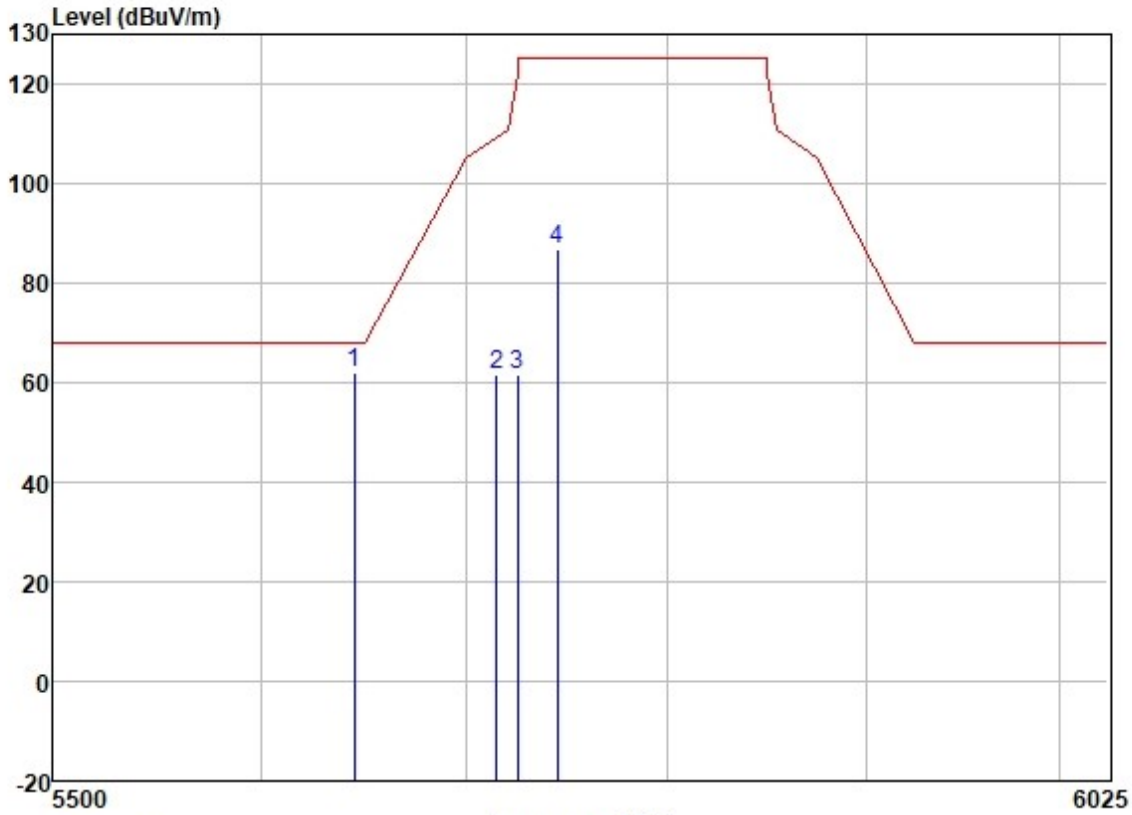
Test Mode: 04; Polarity: Vertical; Modulation:802.11a; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5825.000	75.01	32.23	6.04	36.90	76.38	125.20	-48.82	VERTICAL	Peak
2	5850.000	60.30	32.25	6.00	36.90	61.65	122.20	-60.55	VERTICAL	Peak
3	5860.000	60.49	32.27	5.96	36.90	61.82	109.40	-47.58	VERTICAL	Peak
4	5938.094	61.25	32.34	6.00	36.90	62.69	68.20	-5.51	VERTICAL	Peak

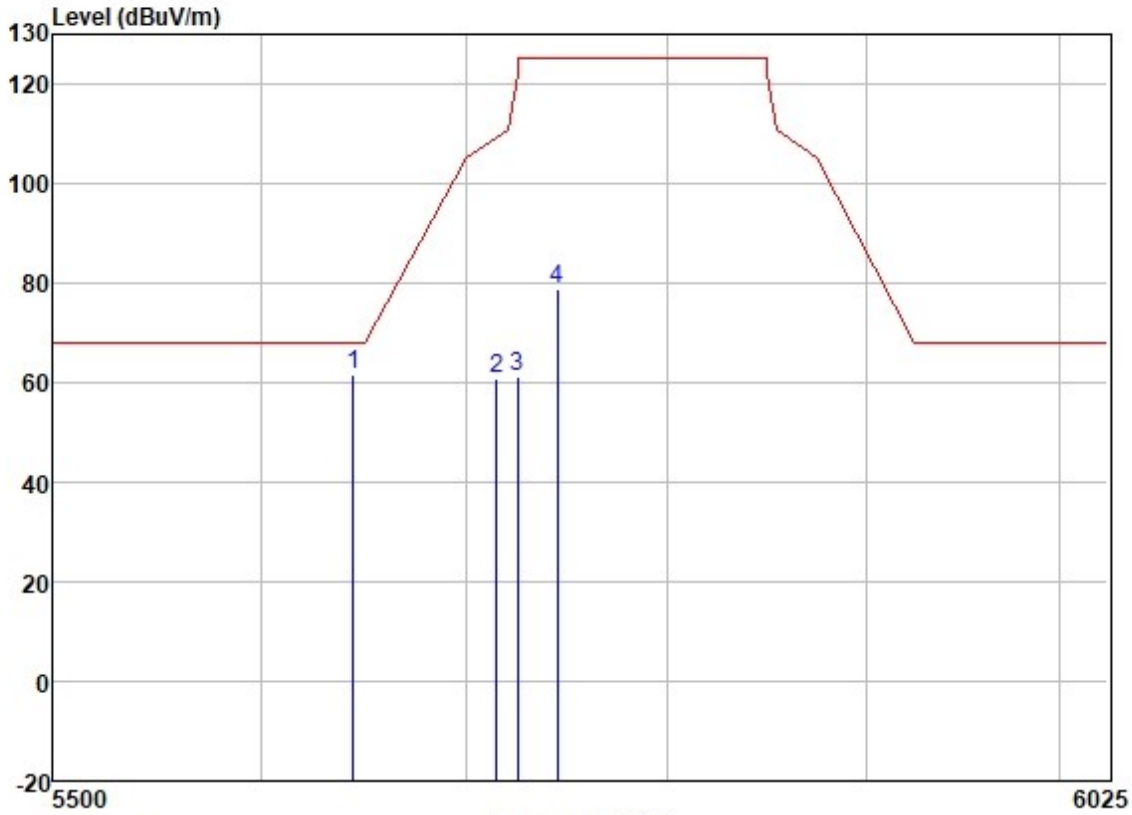
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5644.980	60.71	31.95	6.35	36.89	62.12	68.20	-6.08	HORIZONTAL	Peak
2	5715.000	59.99	32.04	6.33	36.89	61.47	109.40	-47.93	HORIZONTAL	Peak
3	5725.000	60.22	32.07	6.25	36.89	61.65	122.20	-60.55	HORIZONTAL	Peak
4	5745.000	85.51	32.10	6.20	36.89	86.92	125.20	-38.28	HORIZONTAL	Peak

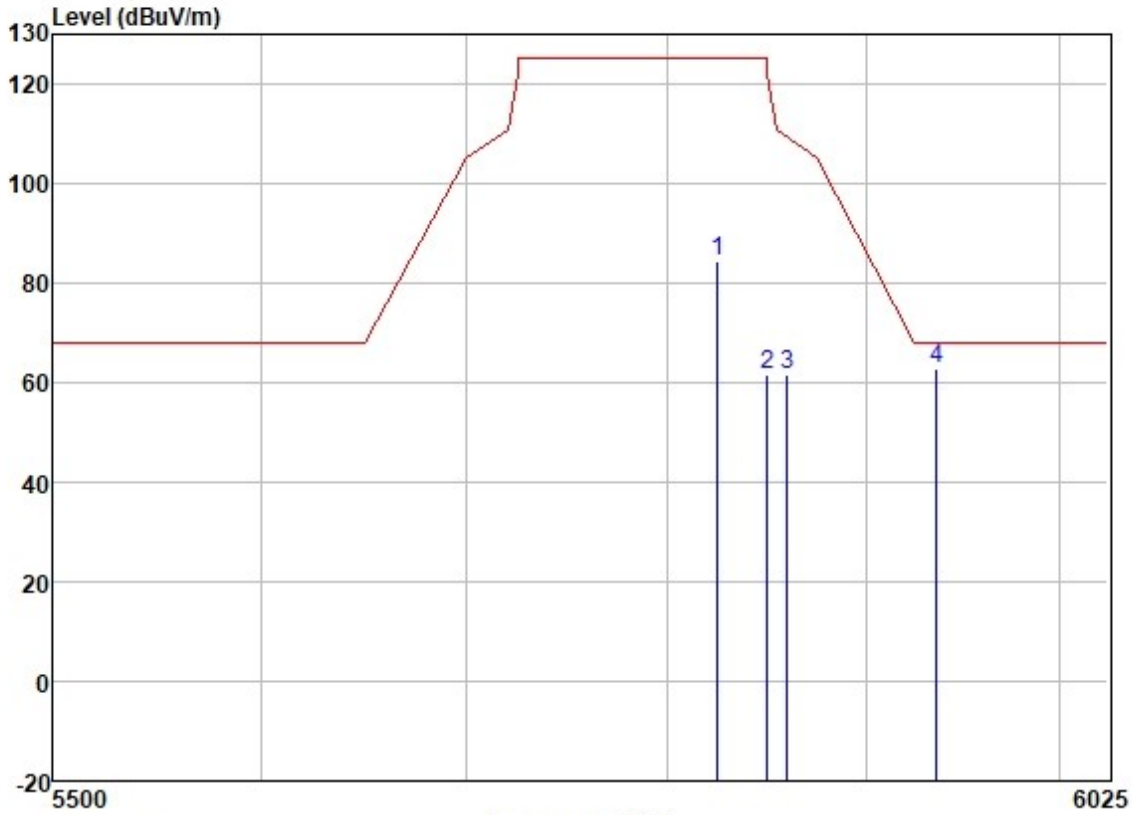
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5644.704	60.24	31.95	6.35	36.89	61.65	68.20	-6.55	VERTICAL	Peak
2	5715.000	59.37	32.04	6.33	36.89	60.85	109.40	-48.55	VERTICAL	Peak
3	5725.000	59.92	32.07	6.25	36.89	61.35	122.20	-60.85	VERTICAL	Peak
4	5745.000	77.29	32.10	6.20	36.89	78.70	125.20	-46.50	VERTICAL	Peak

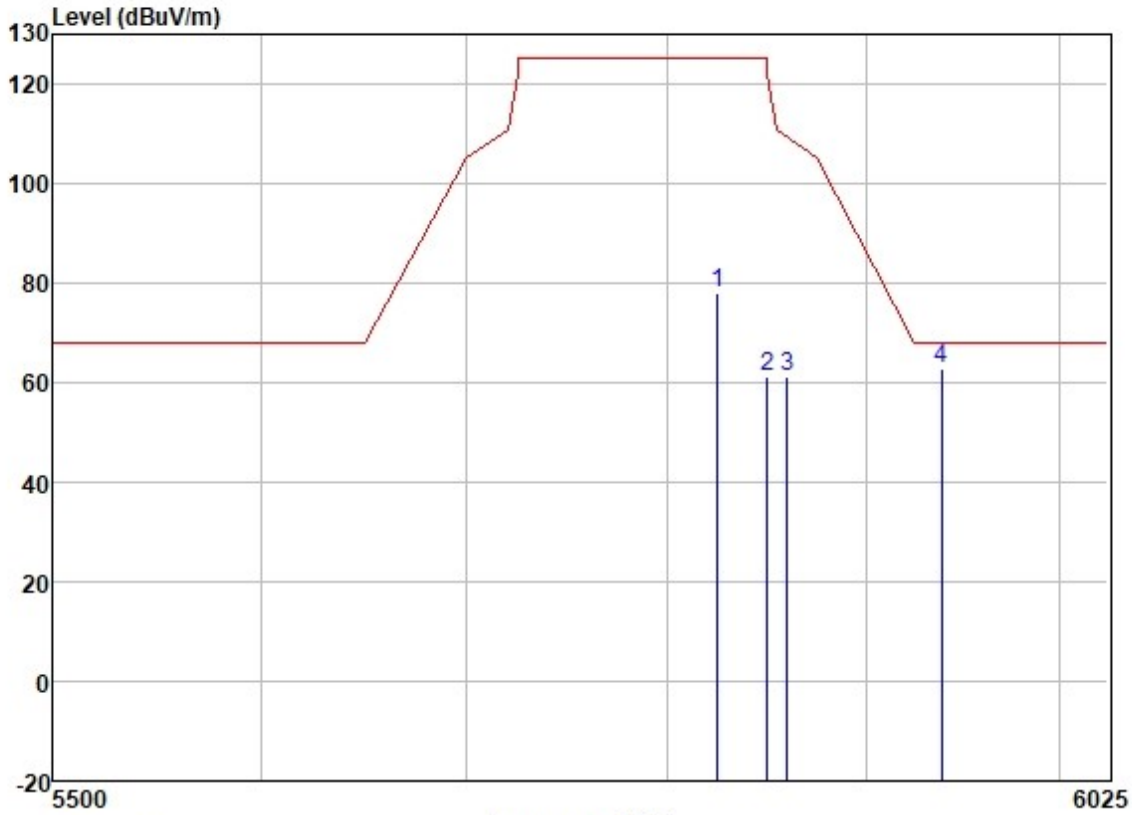
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5825.000	82.93	32.23	6.04	36.90	84.30	125.20	-40.90	HORIZONTAL	Peak
2	5850.000	60.30	32.25	6.00	36.90	61.65	122.20	-60.55	HORIZONTAL	Peak
3	5860.000	60.10	32.27	5.96	36.90	61.43	109.40	-47.97	HORIZONTAL	Peak
4	5936.055	61.49	32.34	6.00	36.90	62.93	68.20	-5.27	HORIZONTAL	Peak

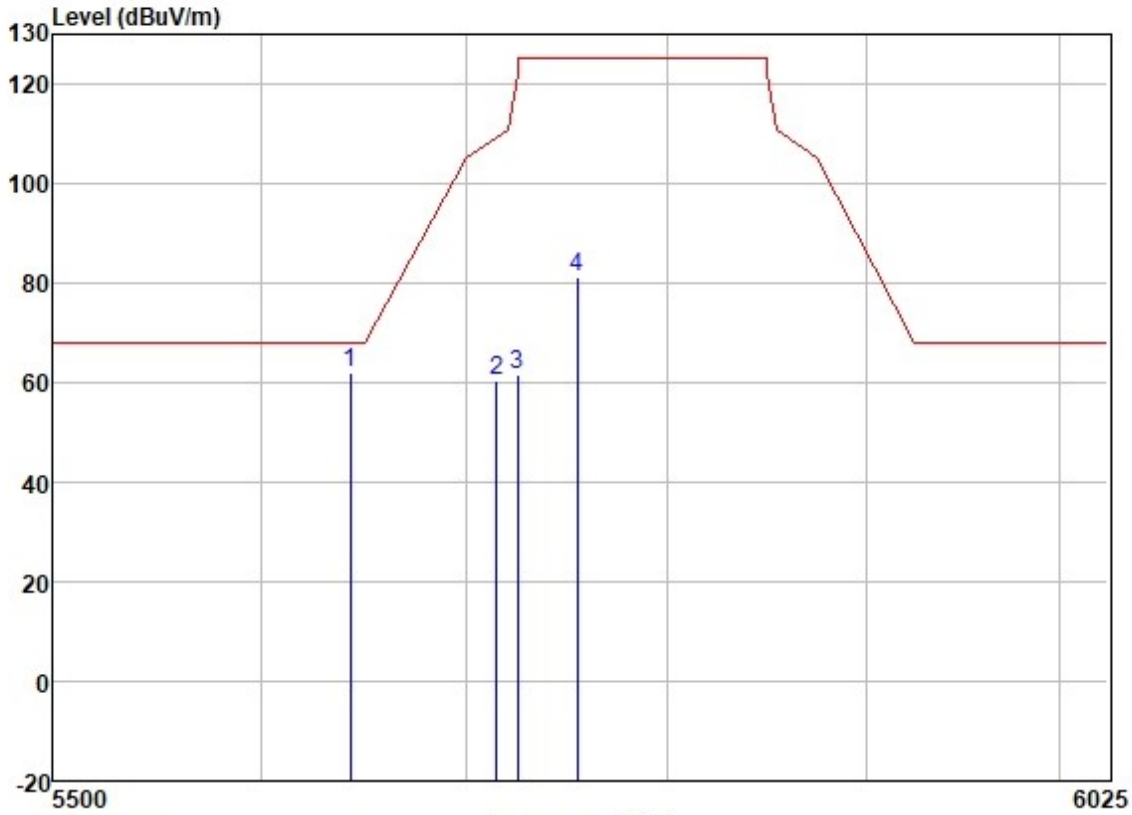
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5825.000	76.43	32.23	6.04	36.90	77.80	125.20	-47.40	VERTICAL	Peak
2	5850.000	59.74	32.25	6.00	36.90	61.09	122.20	-61.11	VERTICAL	Peak
3	5860.000	59.79	32.27	5.96	36.90	61.12	109.40	-48.28	VERTICAL	Peak
4	5939.035	61.42	32.34	6.00	36.90	62.86	68.20	-5.34	VERTICAL	Peak

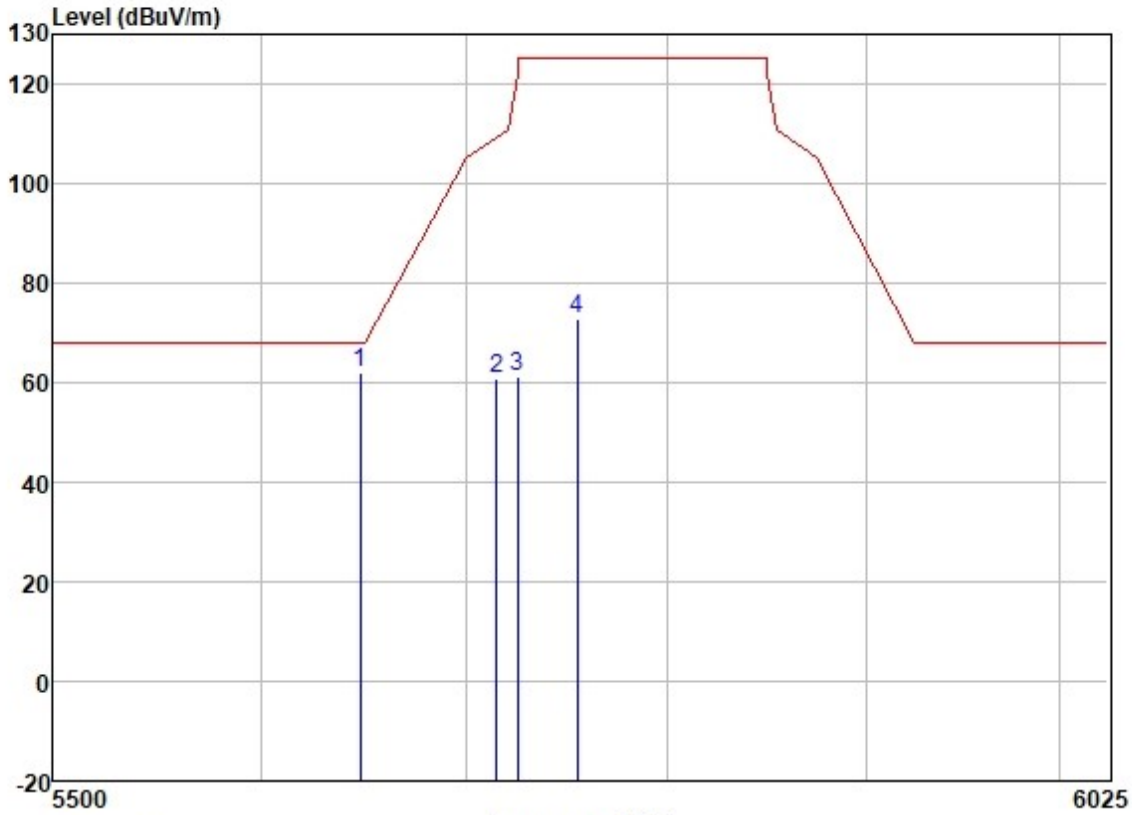
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5642.906	60.43	31.95	6.35	36.89	61.84	68.20	-6.36	HORIZONTAL	Peak
2	5715.000	58.93	32.04	6.33	36.89	60.41	109.40	-48.99	HORIZONTAL	Peak
3	5725.000	60.23	32.07	6.25	36.89	61.66	122.20	-60.54	HORIZONTAL	Peak
4	5755.000	79.72	32.10	6.20	36.89	81.13	125.20	-44.07	HORIZONTAL	Peak

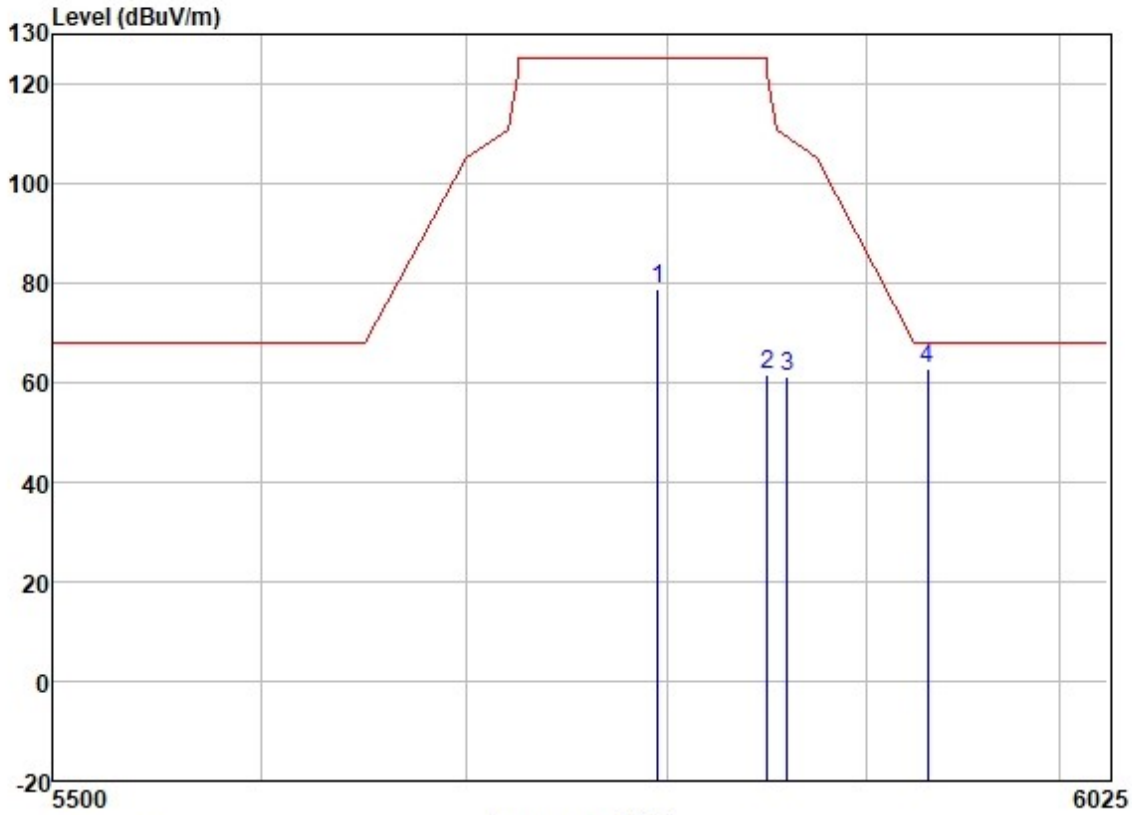
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5647.957	60.41	31.95	6.35	36.89	61.82	68.20	-6.38	VERTICAL	Peak
2	5715.000	59.45	32.04	6.33	36.89	60.93	109.40	-48.47	VERTICAL	Peak
3	5725.000	59.75	32.07	6.25	36.89	61.18	122.20	-61.02	VERTICAL	Peak
4	5755.000	71.42	32.10	6.20	36.89	72.83	125.20	-52.37	VERTICAL	Peak

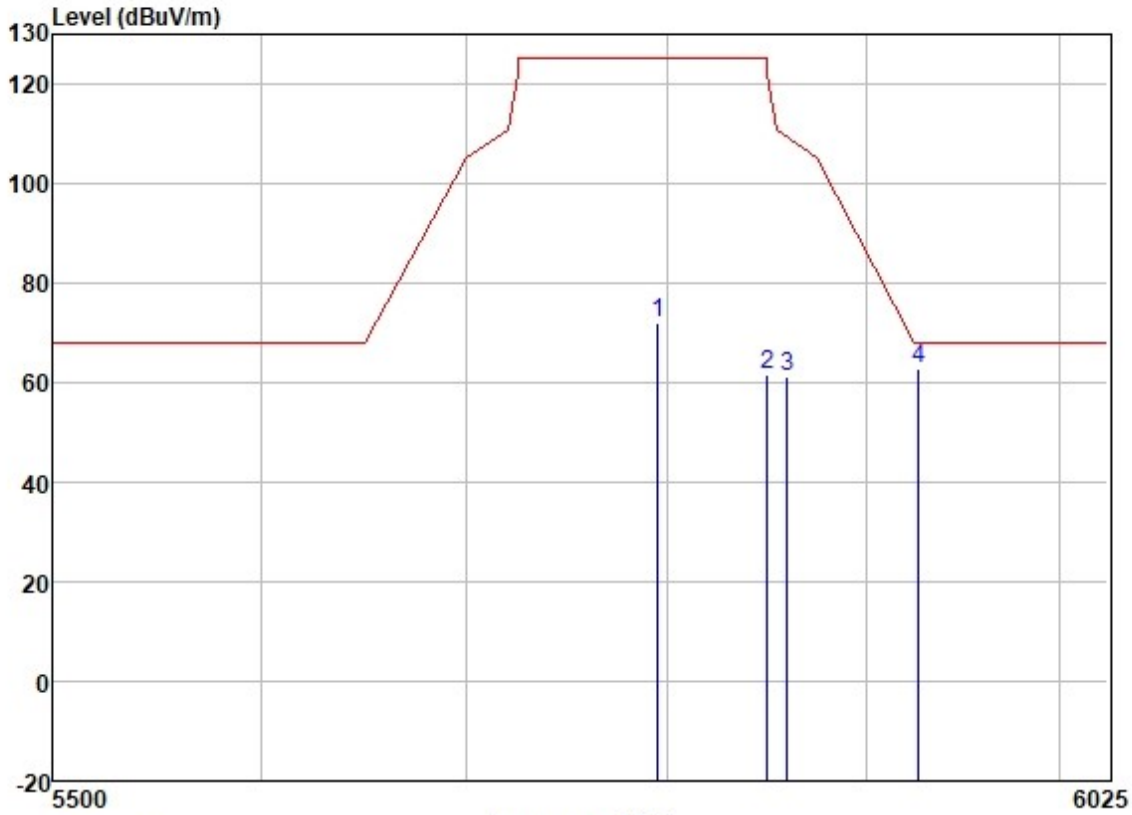
Test Mode: 04; Polarity: Horizontal; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5795.000	77.40	32.19	6.10	36.89	78.80	125.20	-46.40	HORIZONTAL	Peak
2	5850.000	60.06	32.25	6.00	36.90	61.41	122.20	-60.79	HORIZONTAL	Peak
3	5860.000	59.96	32.27	5.96	36.90	61.29	109.40	-48.11	HORIZONTAL	Peak
4	5931.791	61.37	32.34	6.00	36.90	62.81	68.20	-5.39	HORIZONTAL	Peak

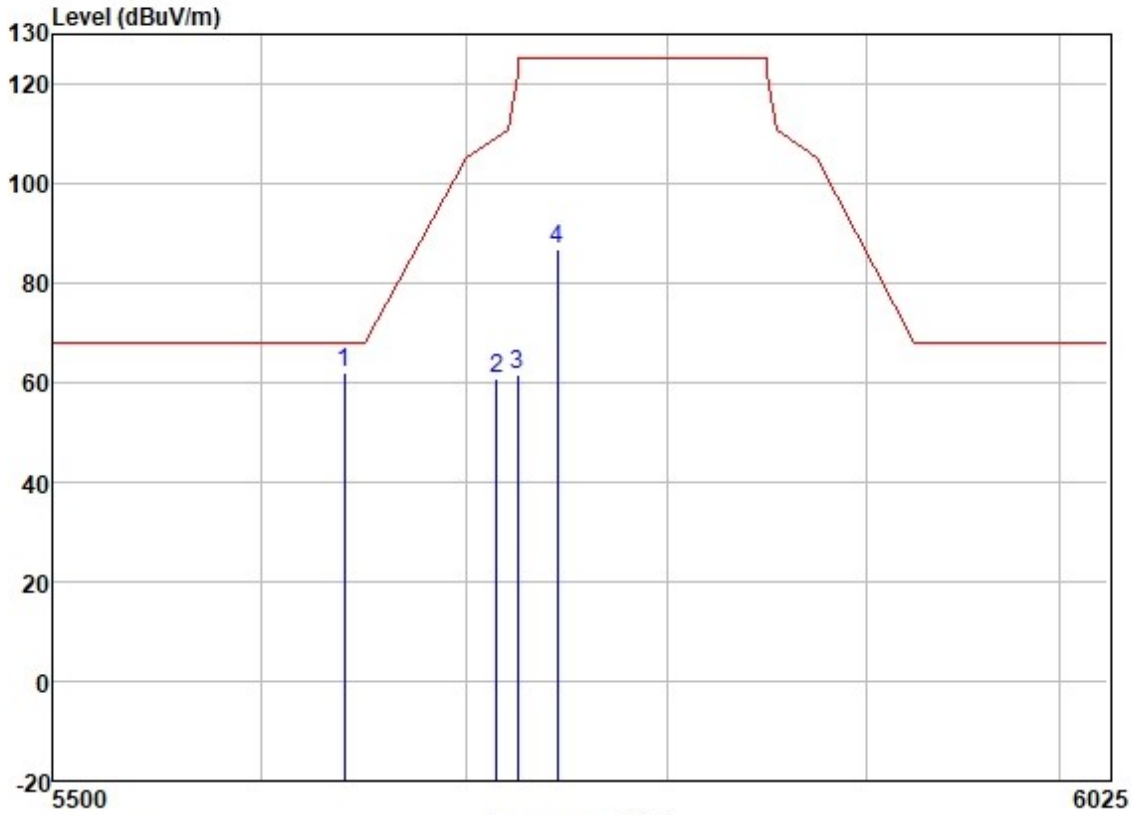
Test Mode: 04; Polarity: Vertical; Modulation:802.11n; Bandwidth:40MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5795.000	70.44	32.19	6.10	36.89	71.84	125.20	-53.36	VERTICAL	Peak
2	5850.000	60.44	32.25	6.00	36.90	61.79	122.20	-60.41	VERTICAL	Peak
3	5860.000	59.82	32.27	5.96	36.90	61.15	109.40	-48.25	VERTICAL	Peak
4	5927.124	61.29	32.34	6.00	36.90	62.73	68.20	-5.47	VERTICAL	Peak

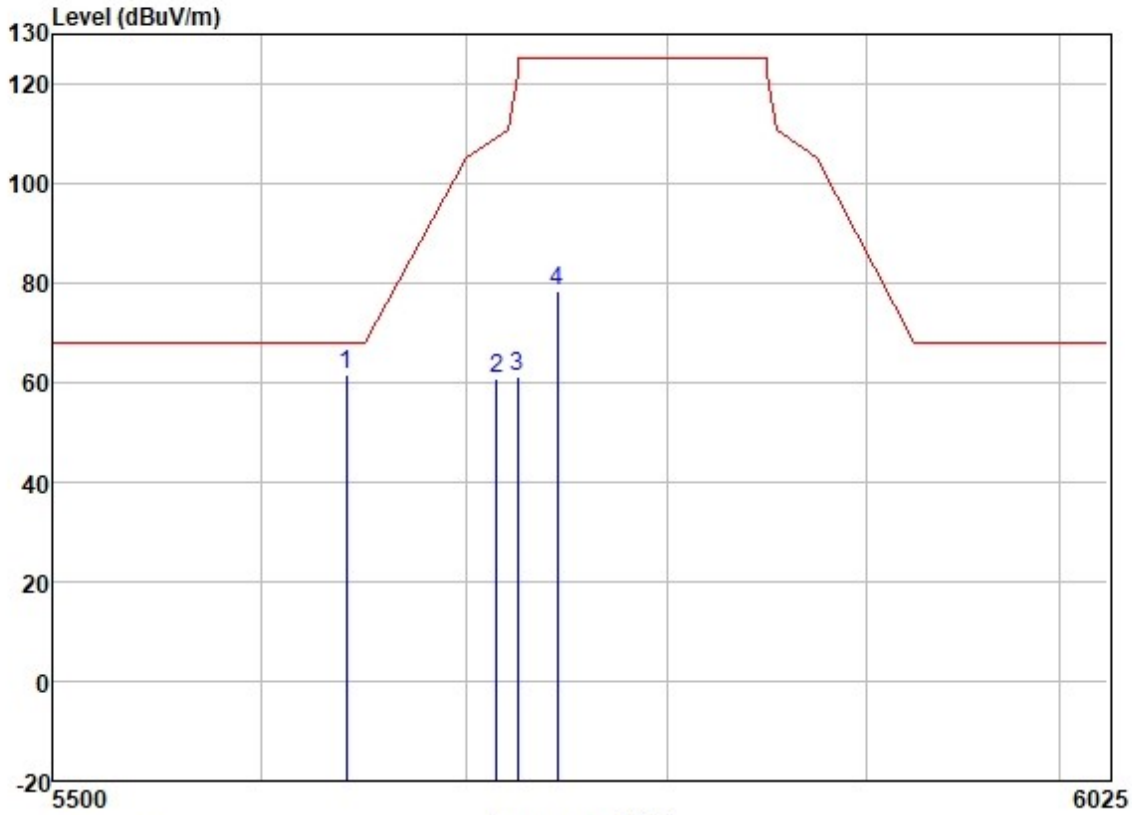
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5640.138	60.58	31.95	6.35	36.89	61.99	68.20	-6.21	HORIZONTAL	Peak
2	5715.000	59.16	32.04	6.33	36.89	60.64	109.40	-48.76	HORIZONTAL	Peak
3	5725.000	60.30	32.07	6.25	36.89	61.73	122.20	-60.47	HORIZONTAL	Peak
4	5745.000	85.45	32.10	6.20	36.89	86.86	125.20	-38.34	HORIZONTAL	Peak

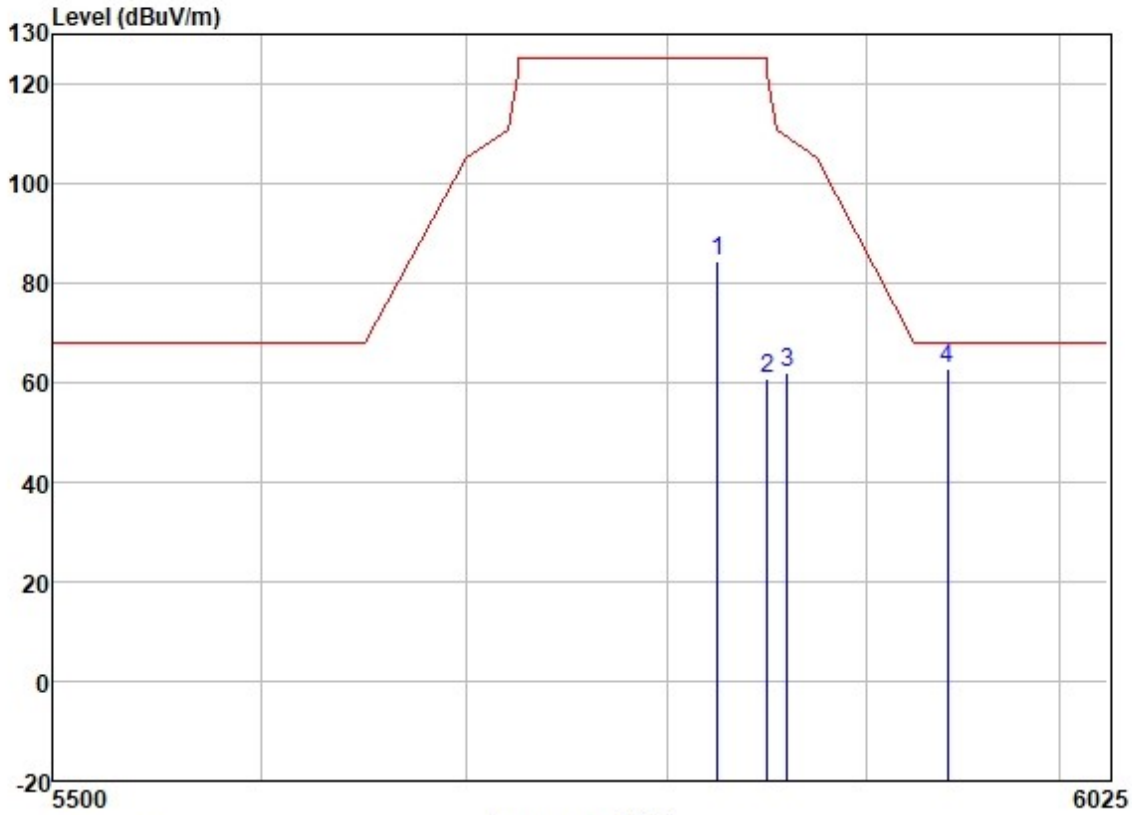
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5641.245	60.33	31.95	6.35	36.89	61.74	68.20	-6.46	VERTICAL	Peak
2	5715.000	59.30	32.04	6.33	36.89	60.78	109.40	-48.62	VERTICAL	Peak
3	5725.000	59.82	32.07	6.25	36.89	61.25	122.20	-60.95	VERTICAL	Peak
4	5745.000	76.95	32.10	6.20	36.89	78.36	125.20	-46.84	VERTICAL	Peak

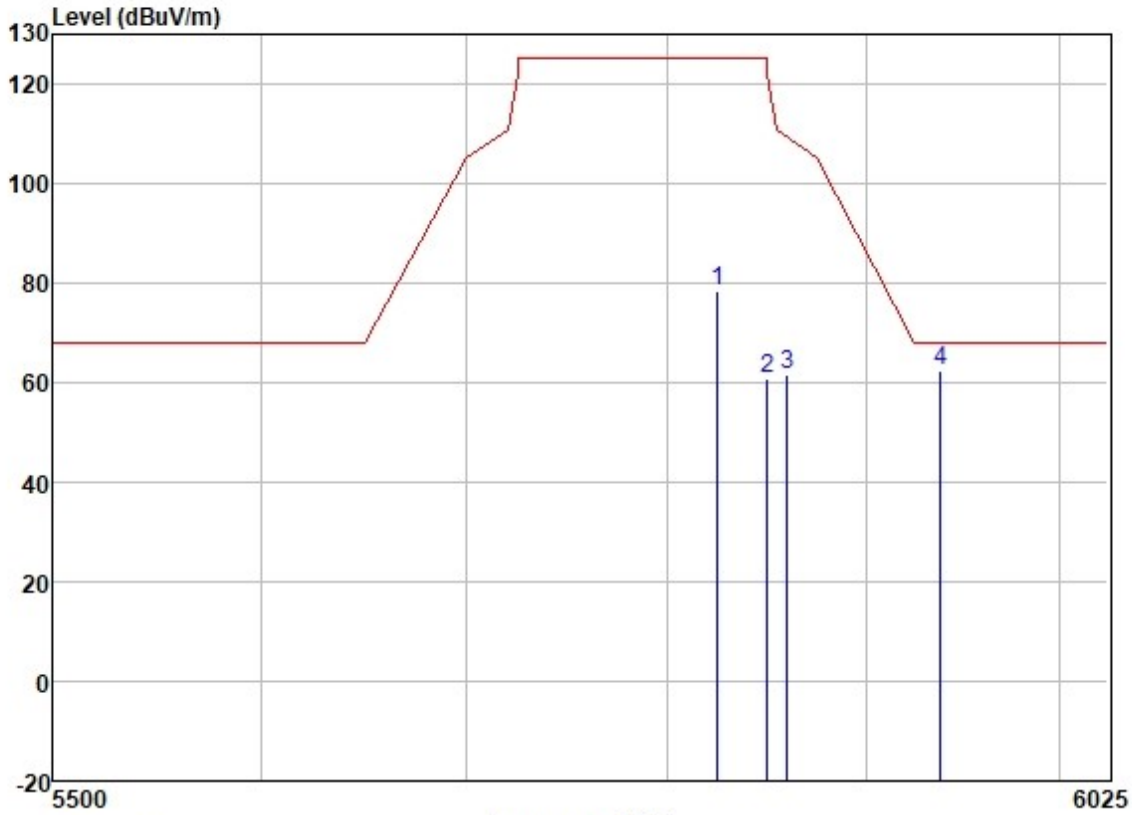
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5825.000	82.84	32.23	6.04	36.90	84.21	125.20	-40.99	HORIZONTAL	Peak
2	5850.000	59.59	32.25	6.00	36.90	60.94	122.20	-61.26	HORIZONTAL	Peak
3	5860.000	60.66	32.27	5.96	36.90	61.99	109.40	-47.41	HORIZONTAL	Peak
4	5941.703	61.36	32.36	6.05	36.90	62.87	68.20	-5.33	HORIZONTAL	Peak

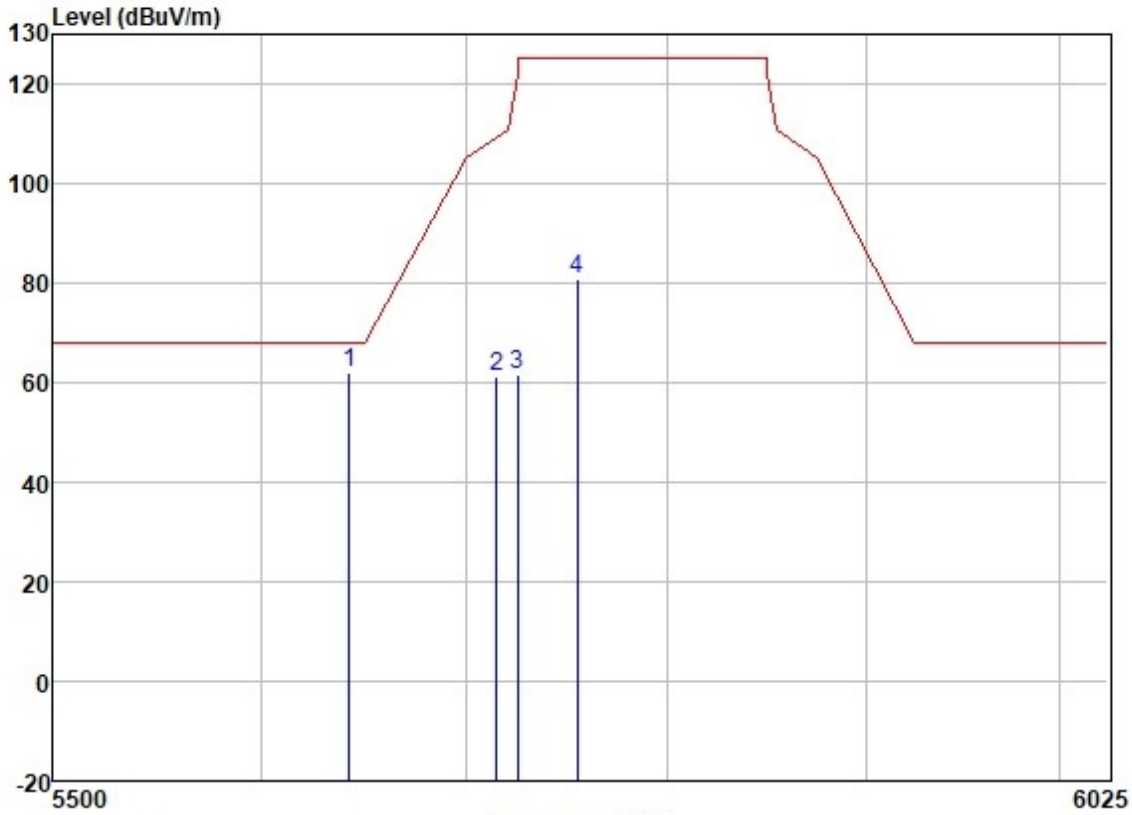
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:20MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5825.000	76.89	32.23	6.04	36.90	78.26	125.20	-46.94	VERTICAL	Peak
2	5850.000	59.56	32.25	6.00	36.90	60.91	122.20	-61.29	VERTICAL	Peak
3	5860.000	60.42	32.27	5.96	36.90	61.75	109.40	-47.65	VERTICAL	Peak
4	5938.564	61.14	32.34	6.00	36.90	62.58	68.20	-5.62	VERTICAL	Peak

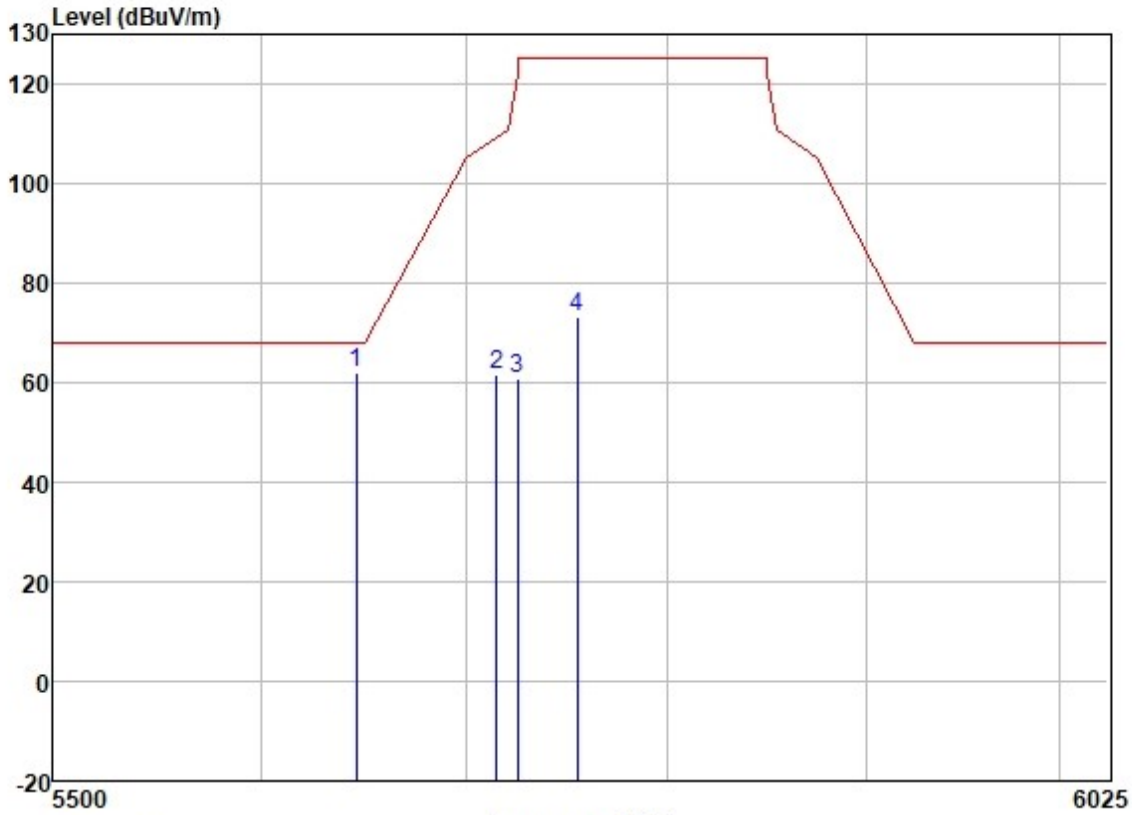
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5642.294	60.66	31.95	6.35	36.89	62.07	68.20	-6.13	HORIZONTAL	Peak
2	5715.000	59.90	32.04	6.33	36.89	61.38	109.40	-48.02	HORIZONTAL	Peak
3	5725.000	60.26	32.07	6.25	36.89	61.69	122.20	-60.51	HORIZONTAL	Peak
4	5755.000	79.35	32.10	6.20	36.89	80.76	125.20	-44.44	HORIZONTAL	Peak

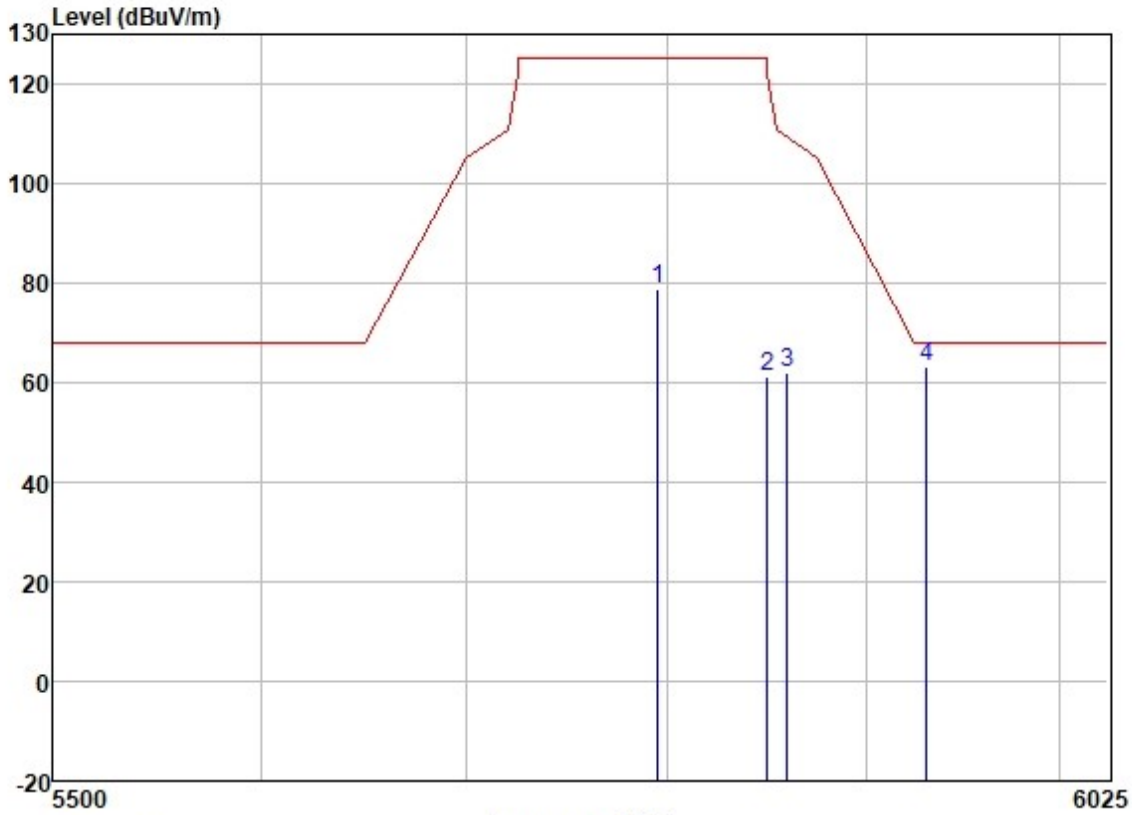
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5646.120	60.50	31.95	6.35	36.89	61.91	68.20	-6.29	VERTICAL	Peak
2	5715.000	59.95	32.04	6.33	36.89	61.43	109.40	-47.97	VERTICAL	Peak
3	5725.000	59.44	32.07	6.25	36.89	60.87	122.20	-61.33	VERTICAL	Peak
4	5755.000	71.72	32.10	6.20	36.89	73.13	125.20	-52.07	VERTICAL	Peak

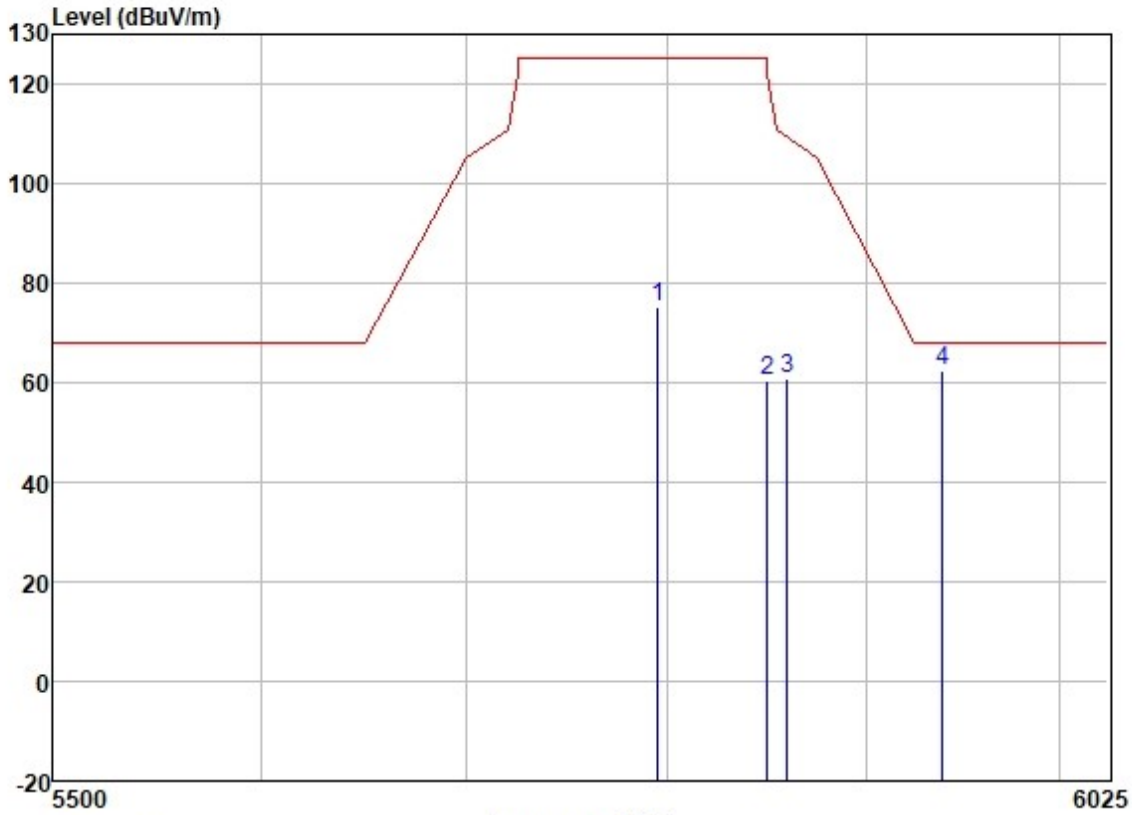
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5795.000	77.55	32.19	6.10	36.89	78.95	125.20	-46.25	HORIZONTAL	Peak
2	5850.000	59.85	32.25	6.00	36.90	61.20	122.20	-61.00	HORIZONTAL	Peak
3	5860.000	60.65	32.27	5.96	36.90	61.98	109.40	-47.42	HORIZONTAL	Peak
4	5931.385	61.64	32.34	6.00	36.90	63.08	68.20	-5.12	HORIZONTAL	Peak

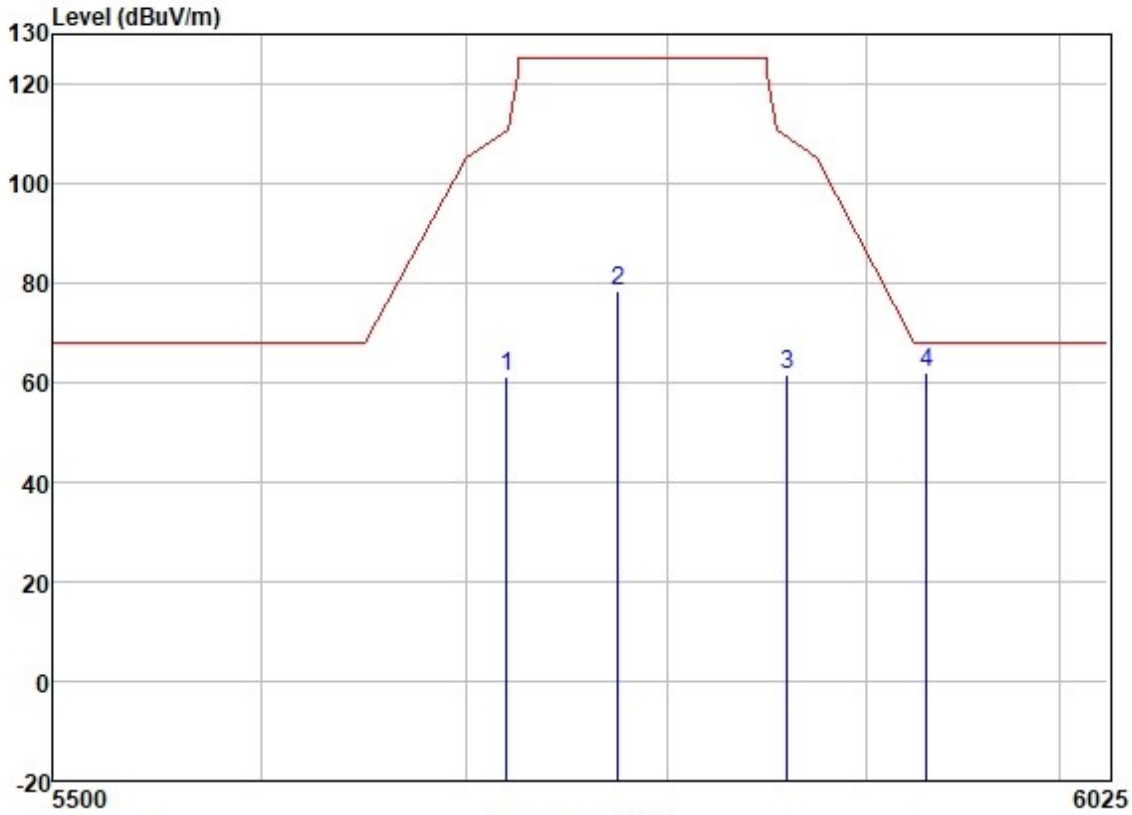
Test Mode: 04; Polarity: Vertical; Modulation:802.11ac; Bandwidth:40MHz; Channel:High



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5795.000	73.93	32.19	6.10	36.89	75.33	125.20	-49.87	VERTICAL	Peak
2	5850.000	58.99	32.25	6.00	36.90	60.34	122.20	-61.86	VERTICAL	Peak
3	5860.000	59.56	32.27	5.96	36.90	60.89	109.40	-48.51	VERTICAL	Peak
4	5939.510	60.80	32.34	6.00	36.90	62.24	68.20	-5.96	VERTICAL	Peak

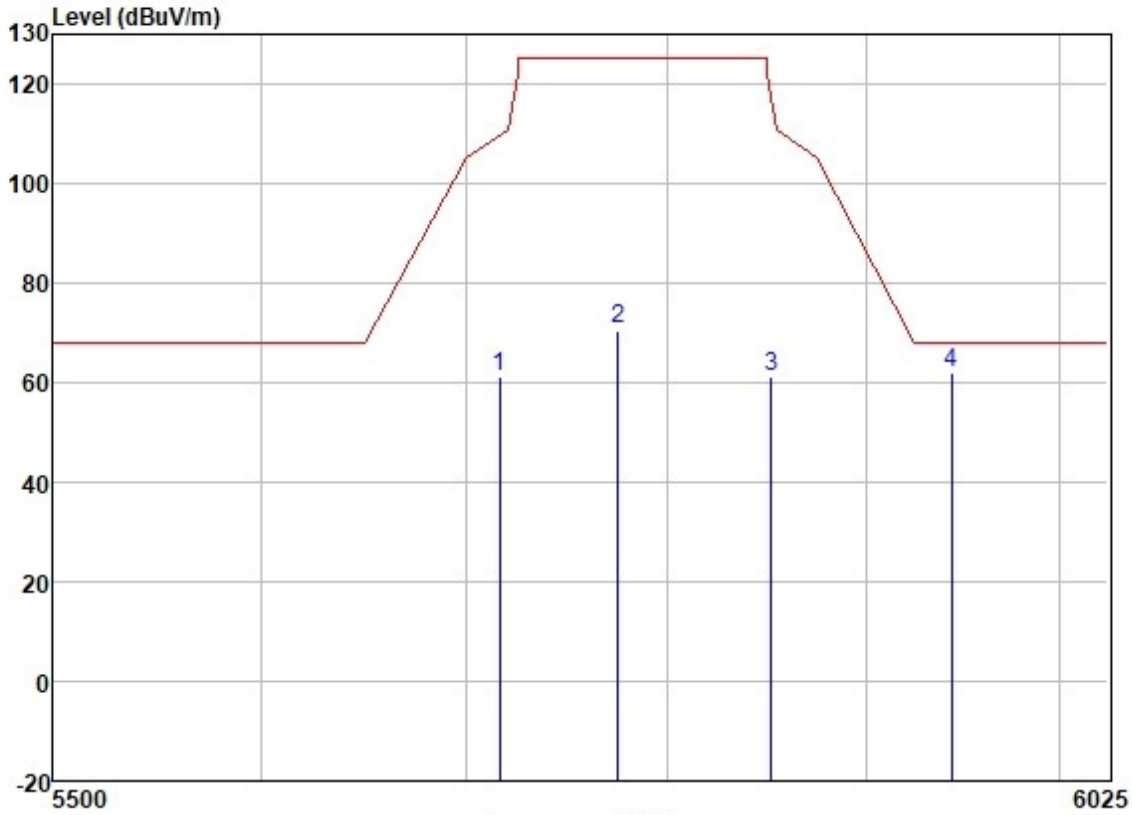
Test Mode: 04; Polarity: Horizontal; Modulation:802.11ac; Bandwidth:80MHz; Channel:middle



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5719.568	59.66	32.04	6.33	36.89	61.14	110.68	-49.54	HORIZONTAL	Peak
2	5775.000	76.96	32.16	6.10	36.89	78.33	125.20	-46.87	HORIZONTAL	Peak
3	5860.135	60.43	32.27	5.96	36.90	61.76	109.36	-47.60	HORIZONTAL	Peak
4	5931.239	60.49	32.34	6.00	36.90	61.93	68.20	-6.27	HORIZONTAL	Peak

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



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	5716.256	59.73	32.04	6.33	36.89	61.21	109.75	-48.54	VERTICAL	Peak
2	5775.000	69.23	32.16	6.10	36.89	70.60	125.20	-54.60	VERTICAL	Peak
3	5852.116	59.81	32.25	6.00	36.90	61.16	117.37	-56.21	VERTICAL	Peak
4	5944.061	60.32	32.36	6.05	36.90	61.83	68.20	-6.37	VERTICAL	Peak

7.10 Frequency Stability

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

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

7.10.1 E.U.T. Operation

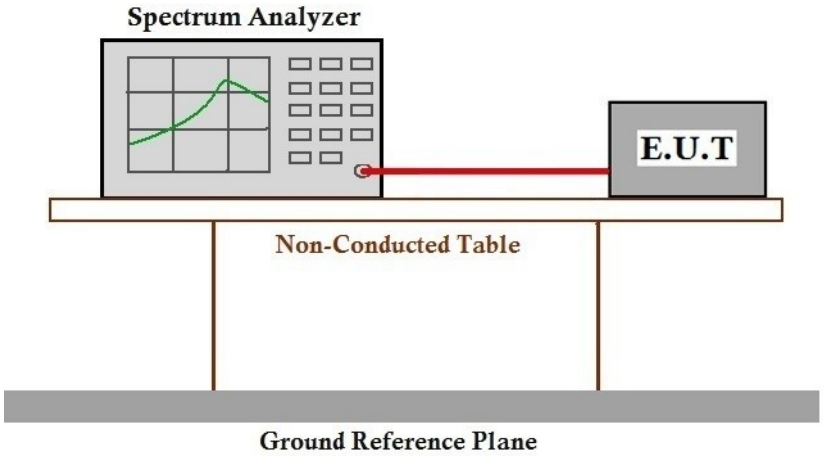
Operating Environment:

Temperature: 24.7 °C Humidity: 55.6 % RH Atmospheric Pressure: 1003 mbar

7.10.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	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	02	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	03	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	04	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.10.3 Test Setup Diagram



7.10.4 Measurement Procedure and Data

The applicant declares that the emissions are maintained within the band of operation under all conditions of normal operation as specified in the user's manual and meets Section 15.407(g) requirements.

7.11 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.

7.11.1 E.U.T. Operation

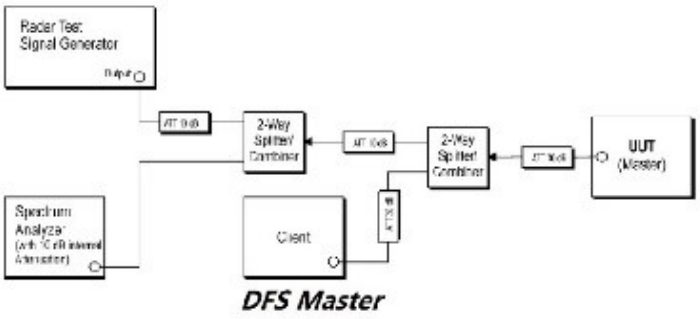
Operating Environment:

Temperature: 24.7 °C Humidity: 55.6 % RH Atmospheric Pressure: 1003 mbar

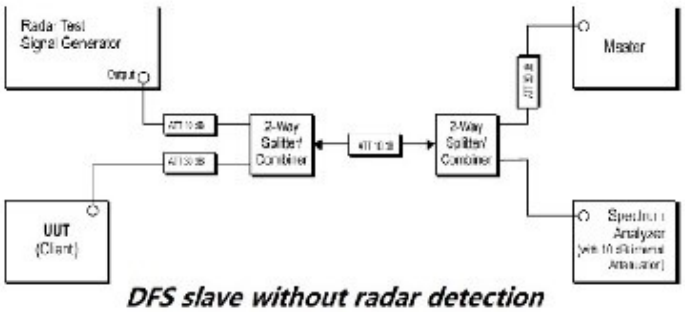
7.11.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Normal operating_Keep the EUT communication with the companion device.

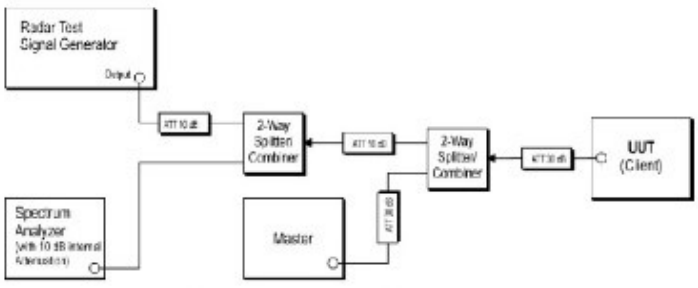
7.11.3 Test Setup Diagram



DFS Master



DFS slave without radar detection



DFS slave with radar detection

7.11.4 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

7.12 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.

7.12.1 E.U.T. Operation

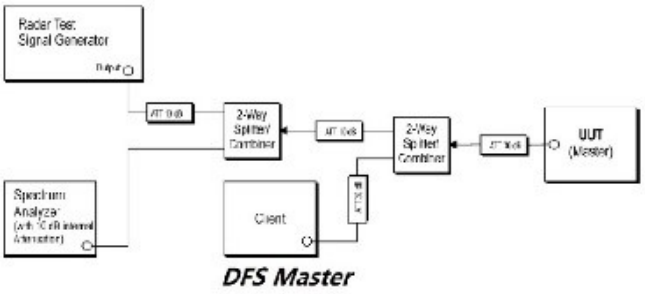
Operating Environment:

Temperature: 24.7 °C Humidity: 5.6 % RH Atmospheric Pressure: 1003 mbar

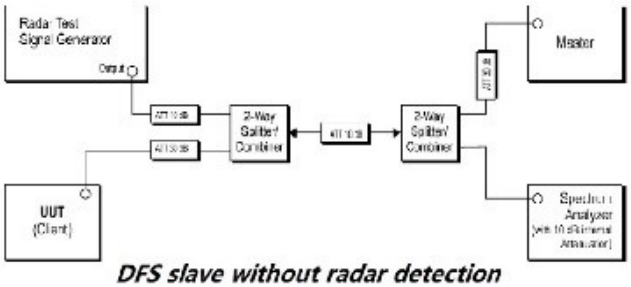
7.12.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Normal operating_Keep the EUT communication with the companion device.

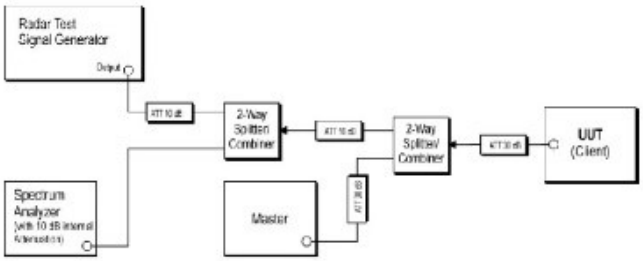
7.12.3 Test Setup Diagram



DFS Master



DFS slave without radar detection



DFS slave with radar detection

7.12.4 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

7.13 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.

7.13.1 E.U.T. Operation

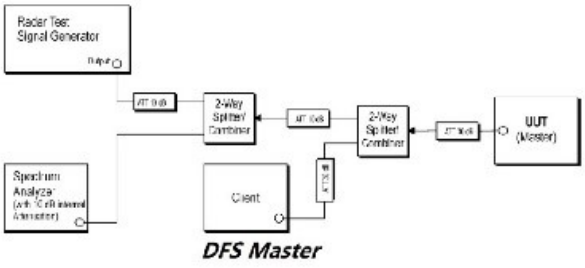
Operating Environment:

Temperature: 24.7 °C Humidity: 55.6 % RH Atmospheric Pressure: 1003 mbar

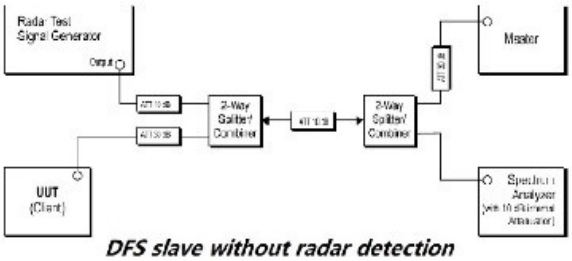
7.13.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	05	Normal operating_Keep the EUT communication with the companion device.

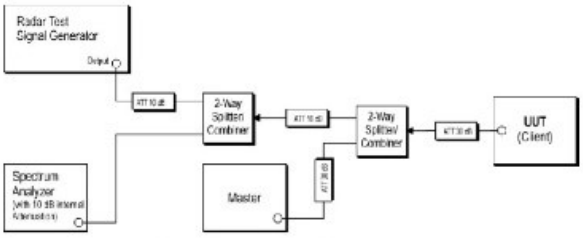
7.13.3 Test Setup Diagram



DFS Master



DFS slave without radar detection



DFS slave with radar detection

7.13.4 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

7.14 Radiated Emissions (above 1GHz)

Test Requirement 47 CFR Part 15, Subpart C 15.209 & 15.407(b)
Test Method: KDB 789033 D02 II G
Measurement Distance: 3m
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.

7.14.1 E.U.T. Operation

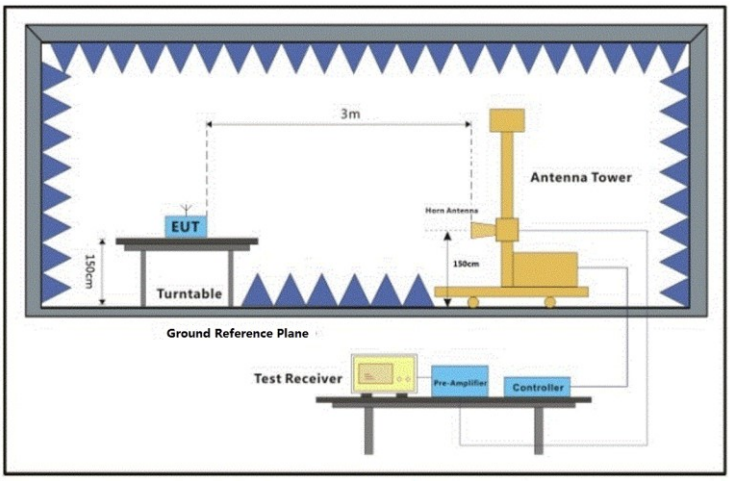
Operating Environment:

Temperature: 24.9 °C Humidity: 56.1 % RH Atmospheric Pressure: 1003 mbar

7.14.2 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	01	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	02	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	03	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	04	TX mode (U-NII-3)_Keep the EUT in continuously transmitting mode with all modulation types.All data rates for each modulation type have been tested and found the data rate @ 6Mbps is the worst case of IEEE 802.11a; data rate @ MCS0 is the worst case of IEEE 802.11n(HT20); data rate @ MCS0 is the worst case of IEEE 802.11n(HT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT20); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT40); data rate @ MCS0 is the worst case of IEEE 802.11ac(VHT80). Only the data of worst case is recorded in the report.

7.14.3 Test Setup Diagram



7.14.4 Measurement Procedure and Data

a. 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.

b. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

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

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

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

h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

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

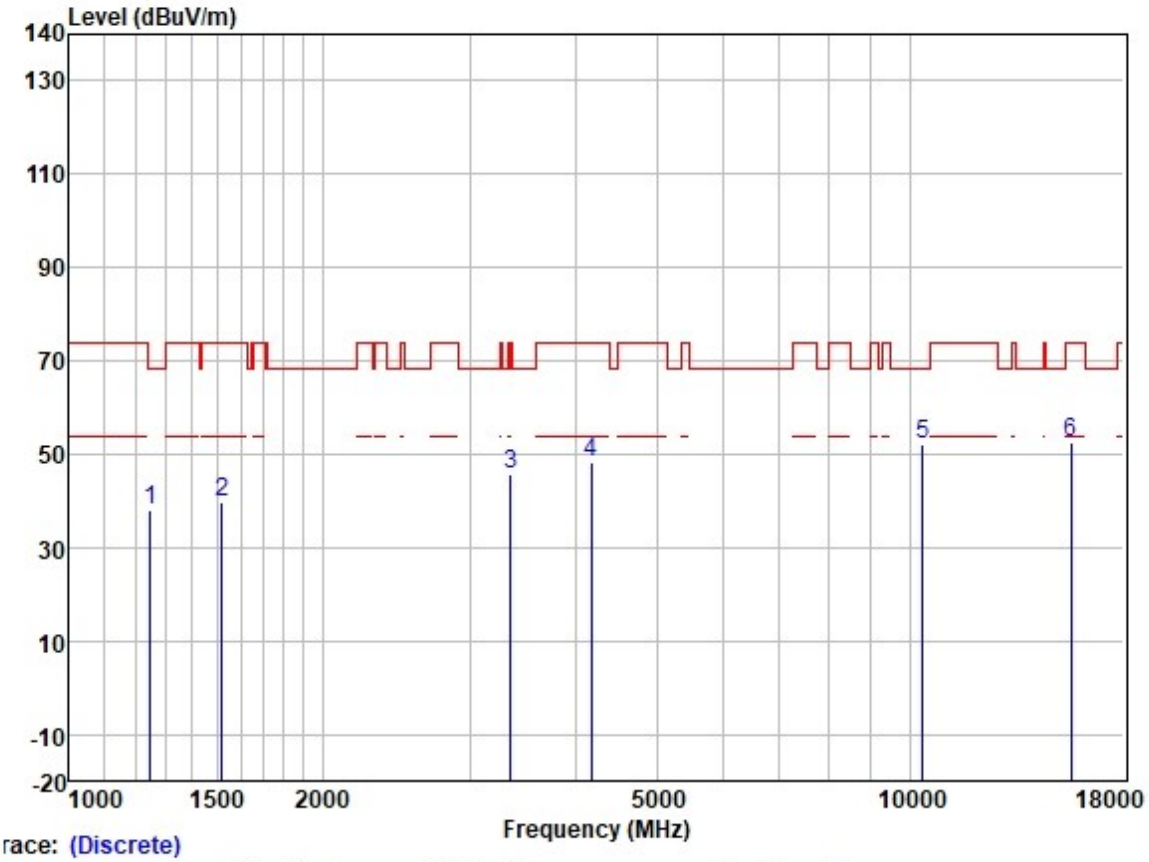
Remark:

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

2. Scan from 1GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

4. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, 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. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

Test Mode: 01; Polarity: Horizontal; Modulation:802.11a; Bandwidth:20MHz; Channel:Low



race: (Discrete)

	Freq	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Pol/Phase	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	1249.269	48.98	25.02	2.34	38.35	37.99	68.20	-30.21	HORIZONTAL	Peak
2	1520.598	49.59	25.51	2.80	38.07	39.83	74.00	-34.17	HORIZONTAL	Peak
3	3347.371	49.76	28.80	4.08	37.01	45.63	74.00	-28.37	HORIZONTAL	Peak
4	4181.768	50.35	30.12	4.60	36.80	48.27	74.00	-25.73	HORIZONTAL	Peak
5	10360.000	42.72	39.28	7.29	37.37	51.92	68.20	-16.28	HORIZONTAL	Peak
6	15540.000	38.94	39.05	9.88	35.39	52.48	74.00	-21.52	HORIZONTAL	Peak