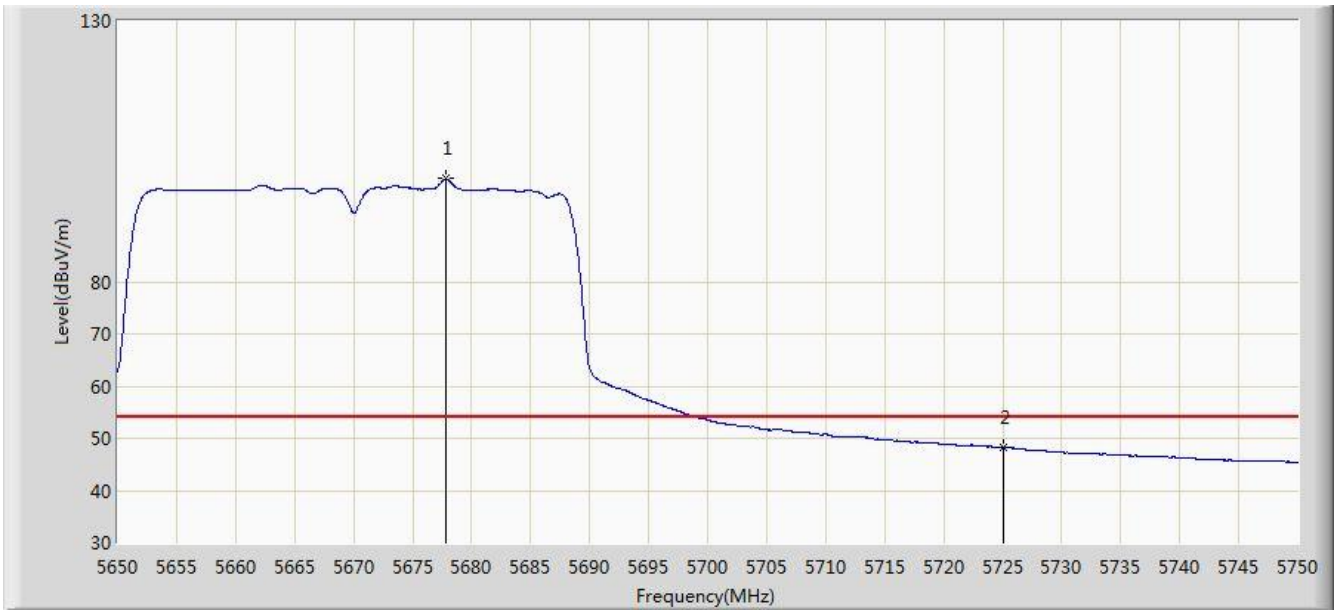


Site: AC1	Time: 2017/11/04 - 08:46
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5670MHz Ant 0 + 1 + 2 + 3	

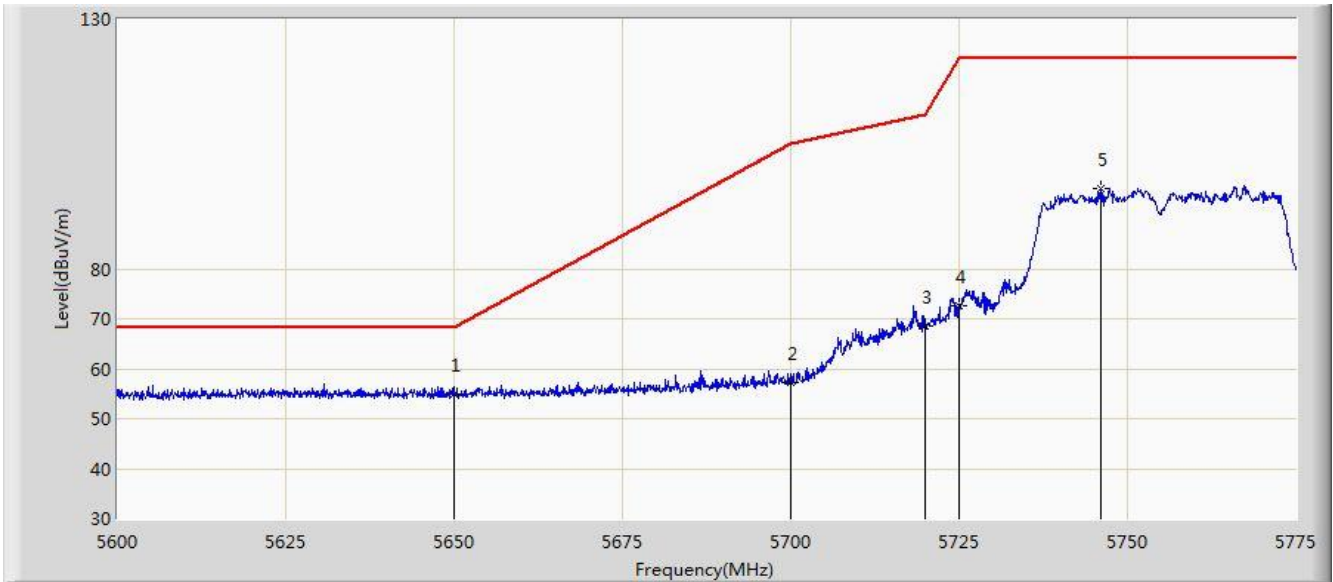


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5677.850	99.727	96.052	N/A	N/A	3.675	AV
2			5725.000	48.239	44.448	-5.761	54.000	3.791	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 16:47
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz Ant 0 + 1 + 2 + 3	

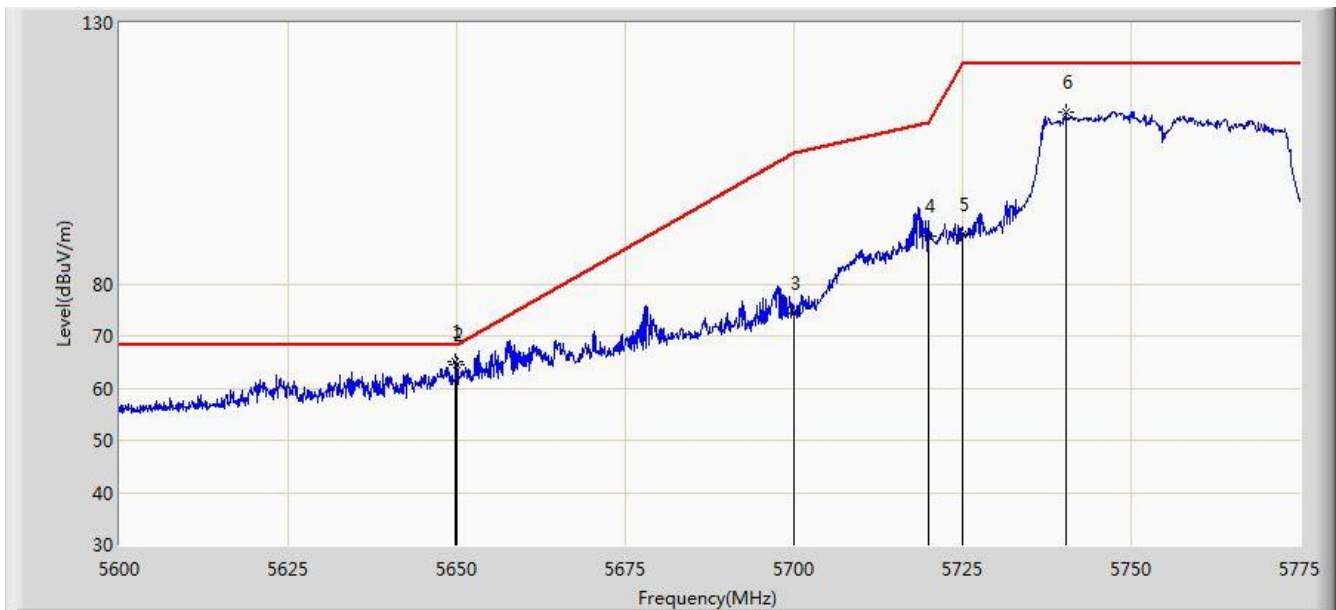


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5650.000	54.943	51.316	-13.257	68.200	3.627	PK
2			5700.000	57.226	53.507	-47.974	105.200	3.719	PK
3			5720.000	68.639	64.863	-42.161	110.800	3.776	PK
4			5725.000	72.467	68.676	-49.733	122.200	3.791	PK
5			5745.950	96.100	92.244	N/A	N/A	3.856	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 16:46
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz Ant 0 + 1 + 2 + 3	

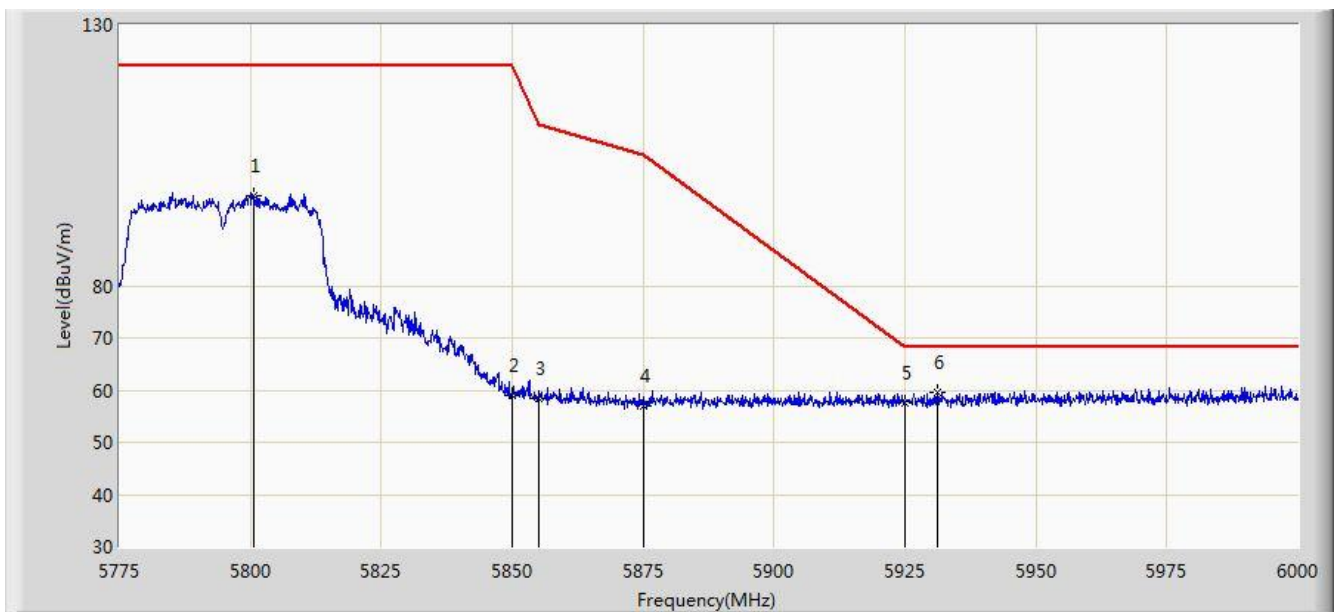


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5649.875	64.932	61.305	-3.268	68.200	3.627	PK
2			5650.000	64.371	60.744	-3.829	68.200	3.627	PK
3			5700.000	74.317	70.598	-30.883	105.200	3.719	PK
4			5720.000	89.034	85.258	-21.766	110.800	3.776	PK
5			5725.000	89.515	85.724	-32.685	122.200	3.791	PK
6			5740.263	112.895	109.057	N/A	N/A	3.838	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 17:09
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz Ant 0 + 1 + 2 + 3	

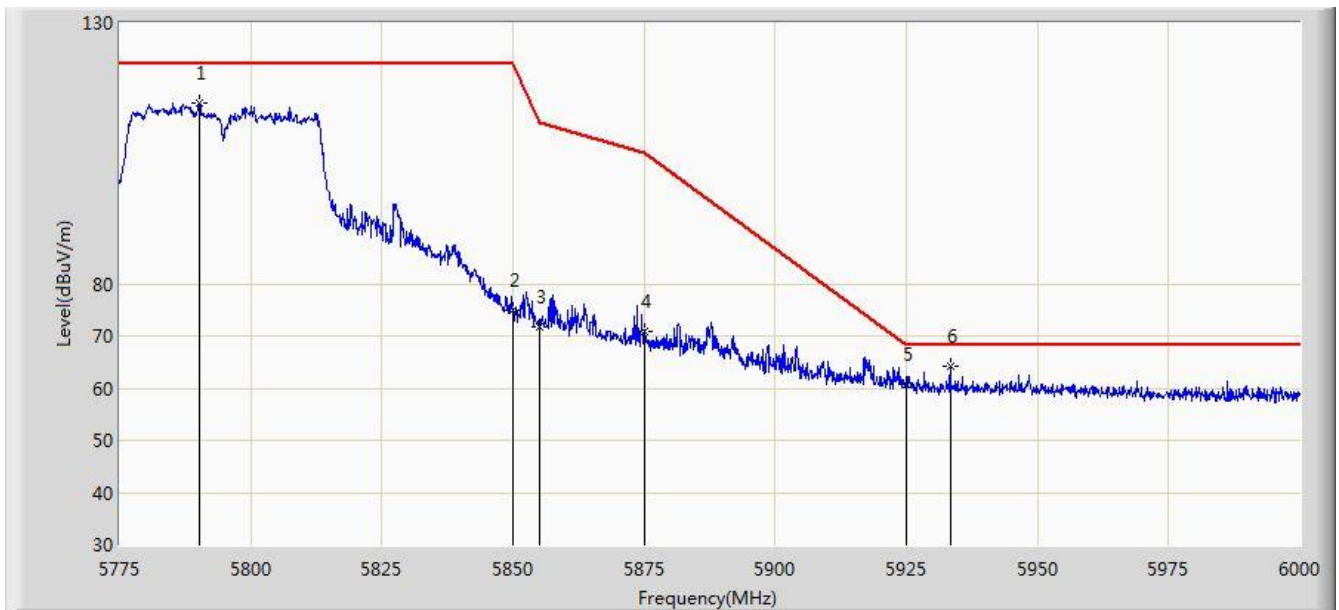


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5800.538	97.308	93.347	N/A	N/A	3.960	PK
2			5850.000	59.128	55.071	-63.072	122.200	4.058	PK
3			5855.000	58.543	54.483	-52.257	110.800	4.060	PK
4			5875.000	56.860	52.755	-48.340	105.200	4.105	PK
5			5925.000	57.624	53.371	-10.576	68.200	4.254	PK
6		*	5931.263	59.566	55.299	-8.634	68.200	4.267	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 17:08
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz Ant 0 + 1 + 2 + 3	

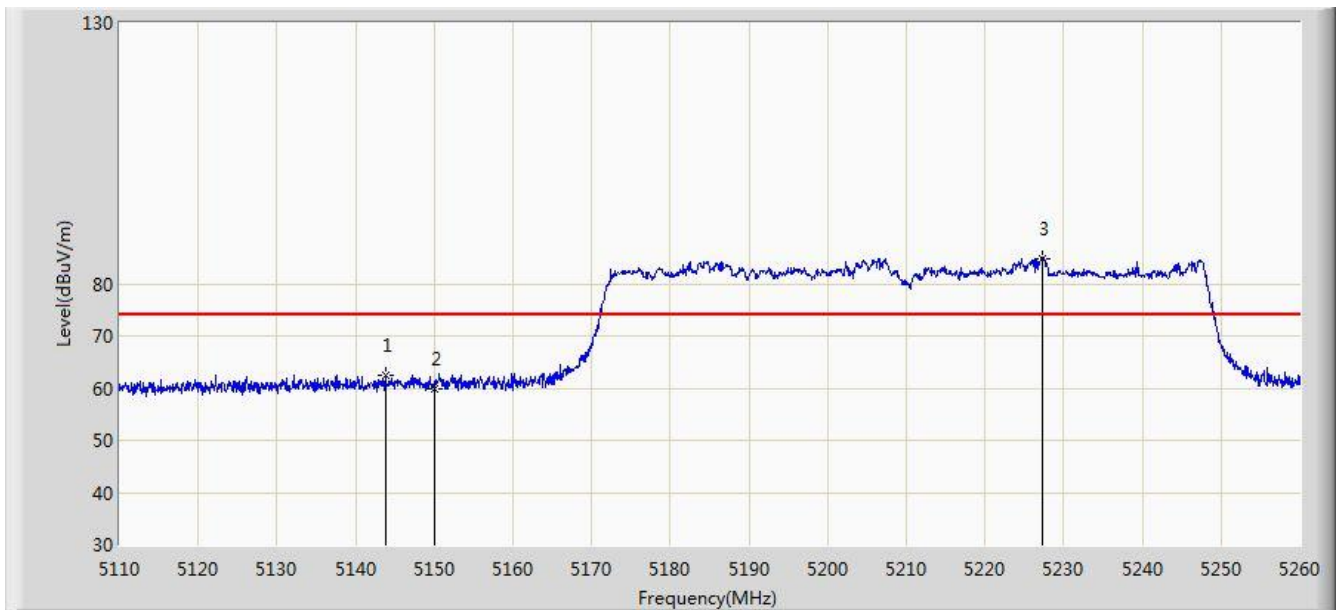


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5790.300	114.651	110.705	N/A	N/A	3.946	PK
2			5850.000	75.042	70.985	-47.158	122.200	4.058	PK
3			5855.000	71.828	67.768	-38.972	110.800	4.060	PK
4			5875.000	70.925	66.820	-34.275	105.200	4.105	PK
5			5925.000	60.826	56.573	-7.374	68.200	4.254	PK
6		*	5933.400	64.068	59.800	-4.132	68.200	4.268	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 17:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz Ant 0 + 1 + 2 + 3	

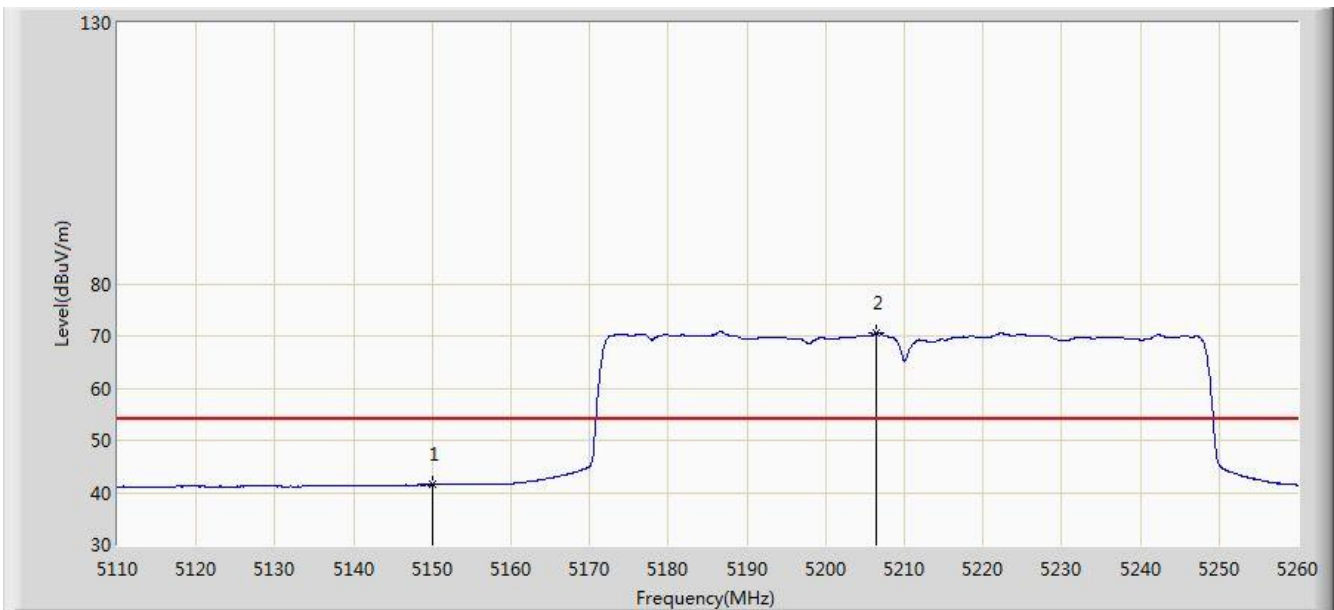


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5143.750	62.523	59.214	-11.477	74.000	3.310	PK
2			5150.000	59.944	56.635	-14.056	74.000	3.309	PK
3		*	5227.225	84.893	81.689	N/A	N/A	3.204	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 17:28
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz Ant 0 + 1 + 2 + 3	

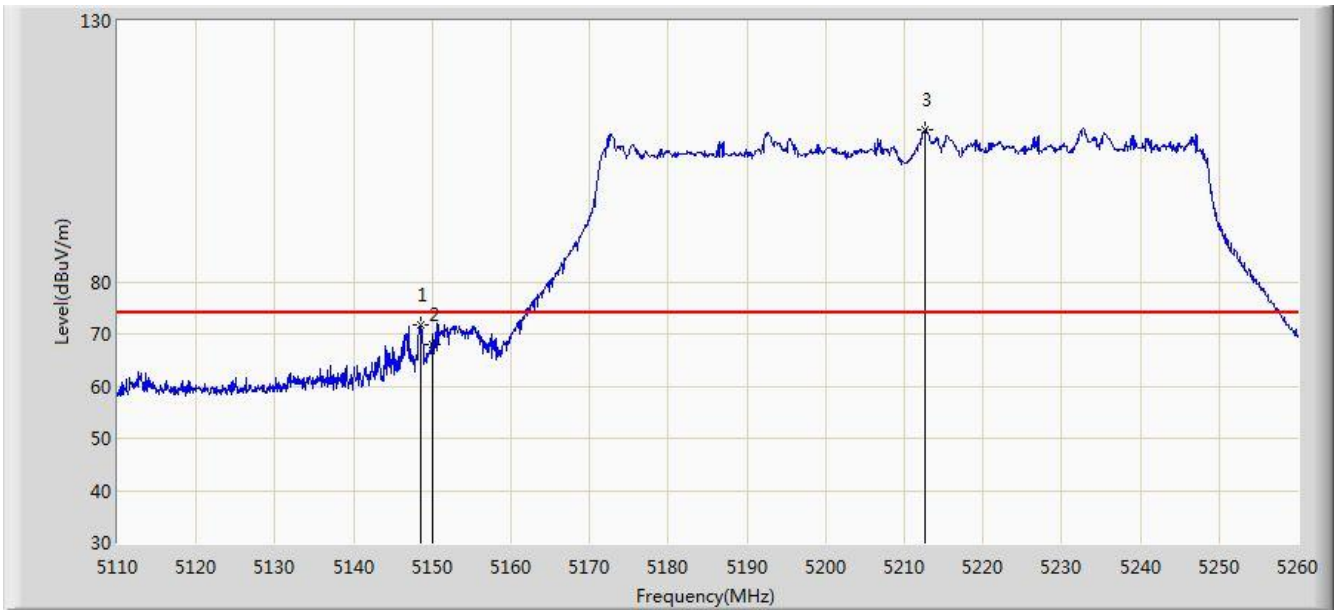


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	41.495	38.186	-12.505	54.000	3.309	AV
2		*	5206.450	70.546	67.312	N/A	N/A	3.234	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 17:22
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz Ant 0 + 1 + 2 + 3	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5148.550	71.628	68.319	-2.372	74.000	3.309	PK
2			5150.000	68.088	64.779	-5.912	74.000	3.309	PK
3		*	5212.600	109.074	105.852	N/A	N/A	3.222	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/11/03 - 17:24
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz Ant 0 + 1 + 2 + 3	

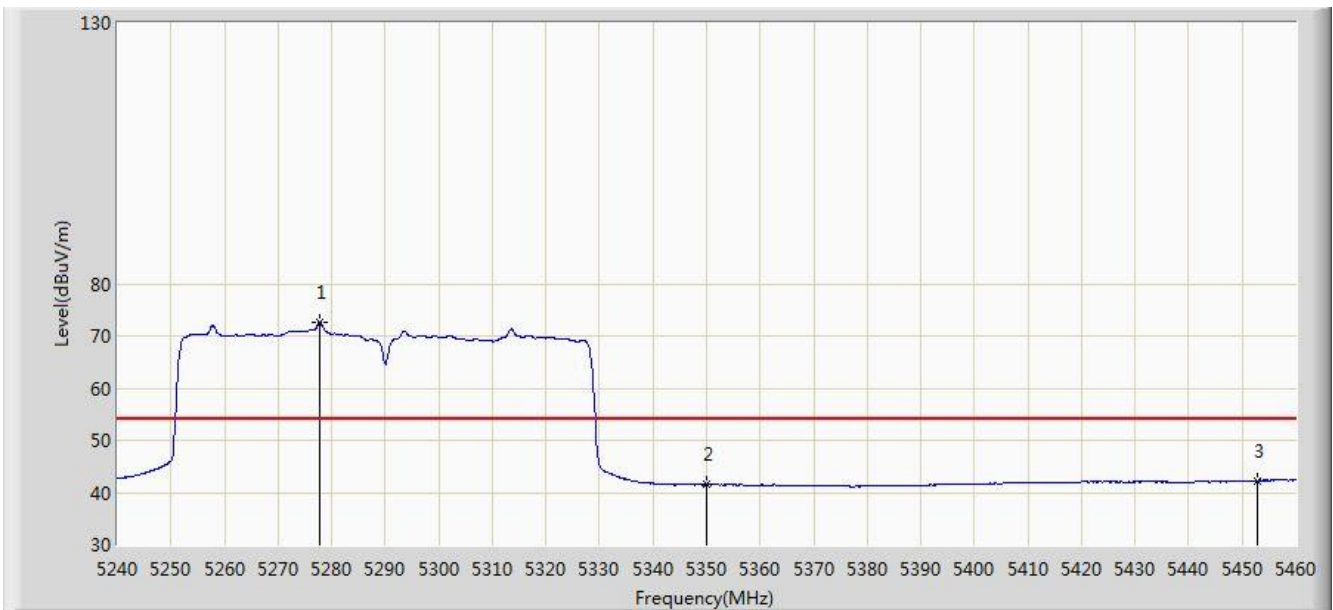


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5150.000	47.401	44.092	-6.599	54.000	3.309	AV
2		*	5242.225	93.281	90.094	N/A	N/A	3.186	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 08:59
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5290MHz Ant 0 + 1 + 2 + 3	

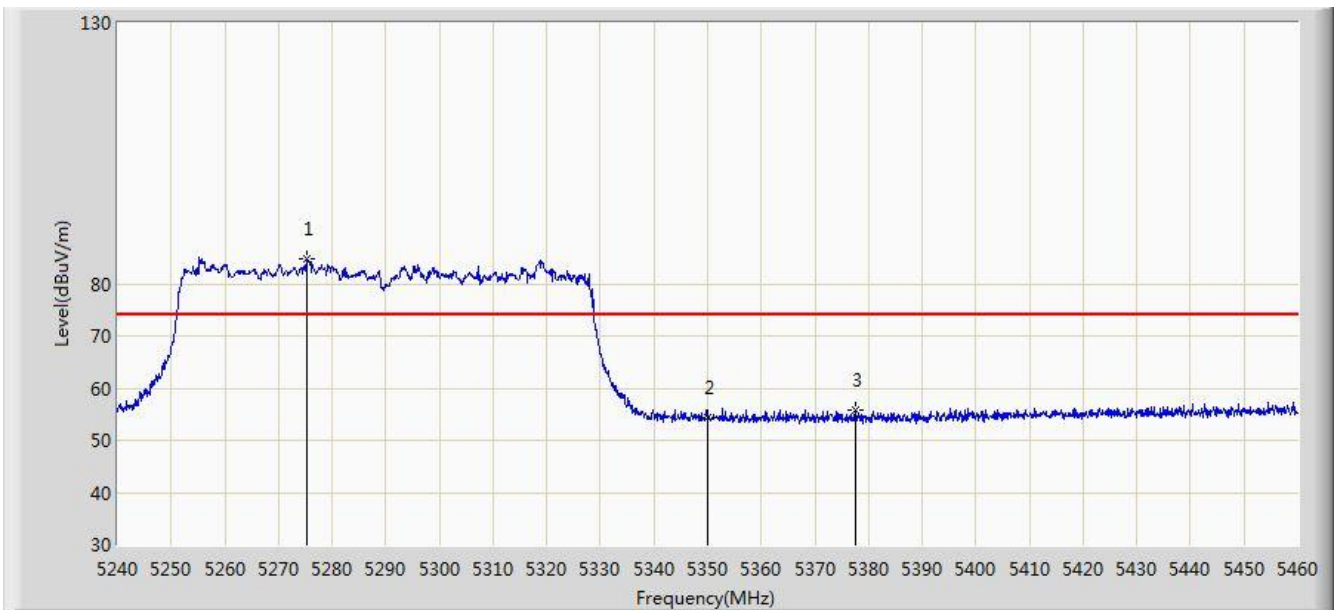


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5277.840	72.541	69.357	N/A	N/A	3.184	AV
2			5350.000	41.478	38.446	-12.522	54.000	3.032	AV
3			5452.960	42.270	38.829	-11.730	54.000	3.442	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 08:57
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5290MHz Ant 0 + 1 + 2 + 3	

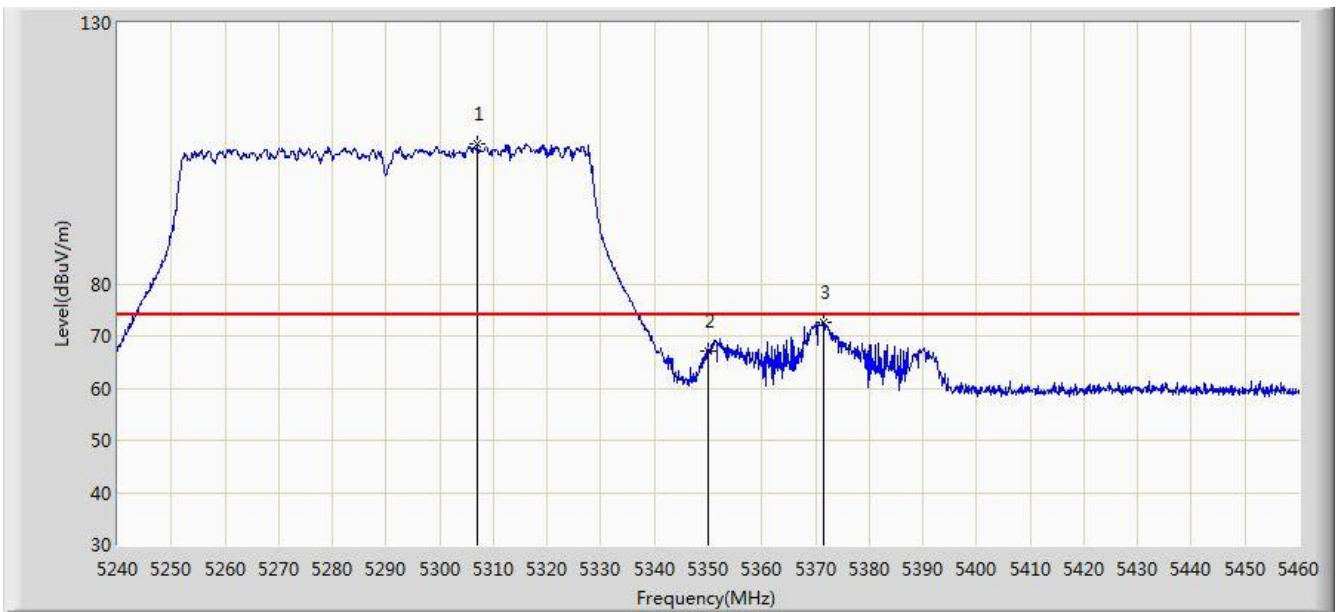


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5275.310	84.786	81.600	N/A	N/A	3.186	PK
2			5350.000	54.346	51.314	-19.654	74.000	3.032	PK
3			5377.500	55.730	52.703	-18.270	74.000	3.027	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 08:54
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5290MHz Ant 0 + 1 + 2 + 3	

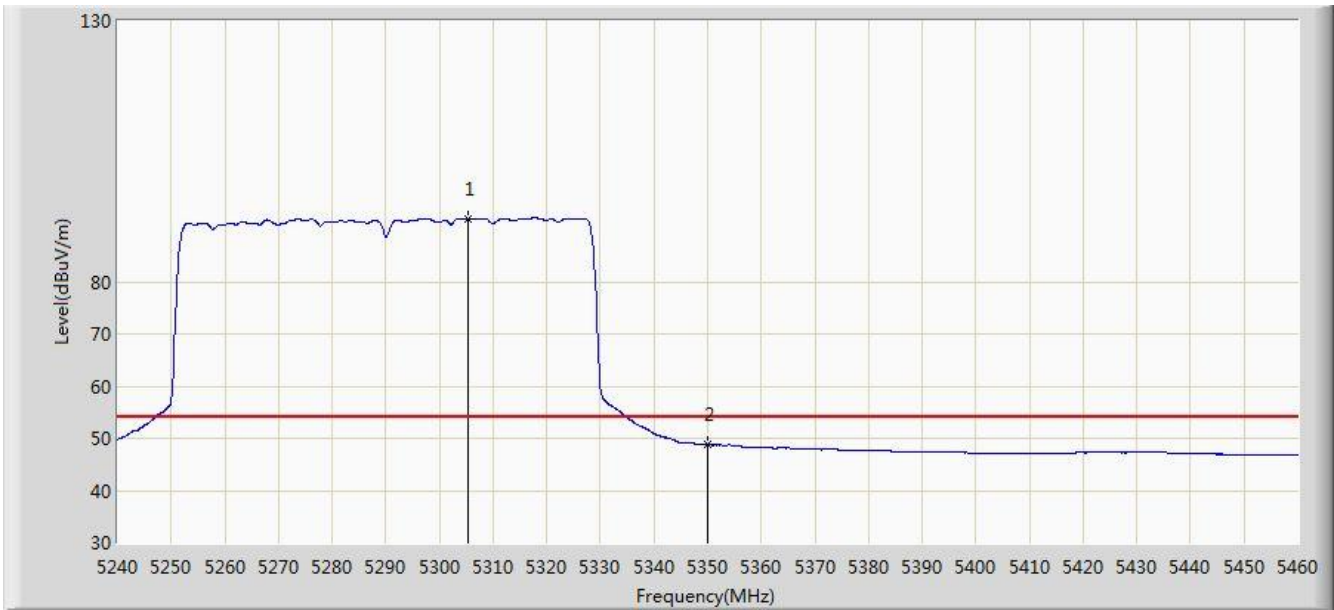


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5307.100	106.927	103.824	N/A	N/A	3.103	PK
2			5350.000	67.120	64.088	-6.880	74.000	3.032	PK
3			5371.450	72.624	69.608	-1.376	74.000	3.016	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 08:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5290MHz Ant 0 + 1 + 2 + 3	

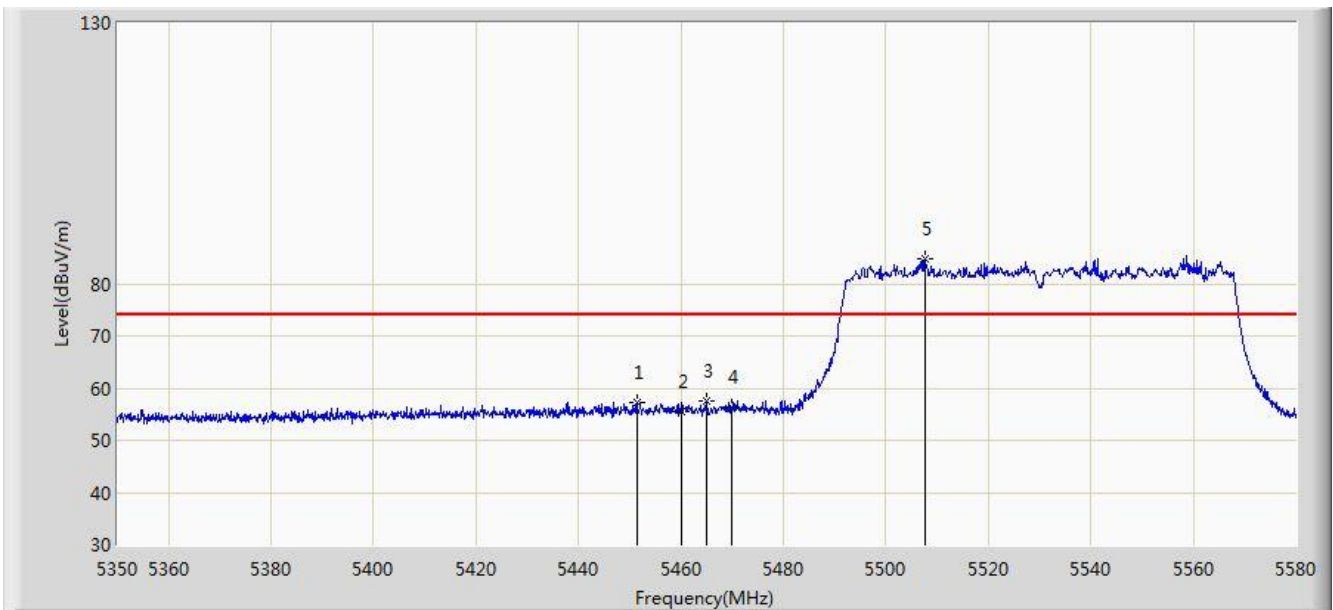


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5305.340	92.057	88.949	N/A	N/A	3.107	AV
2			5350.000	48.741	45.709	-5.259	54.000	3.032	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 09:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5530MHz Ant 0 + 1 + 2 + 3	

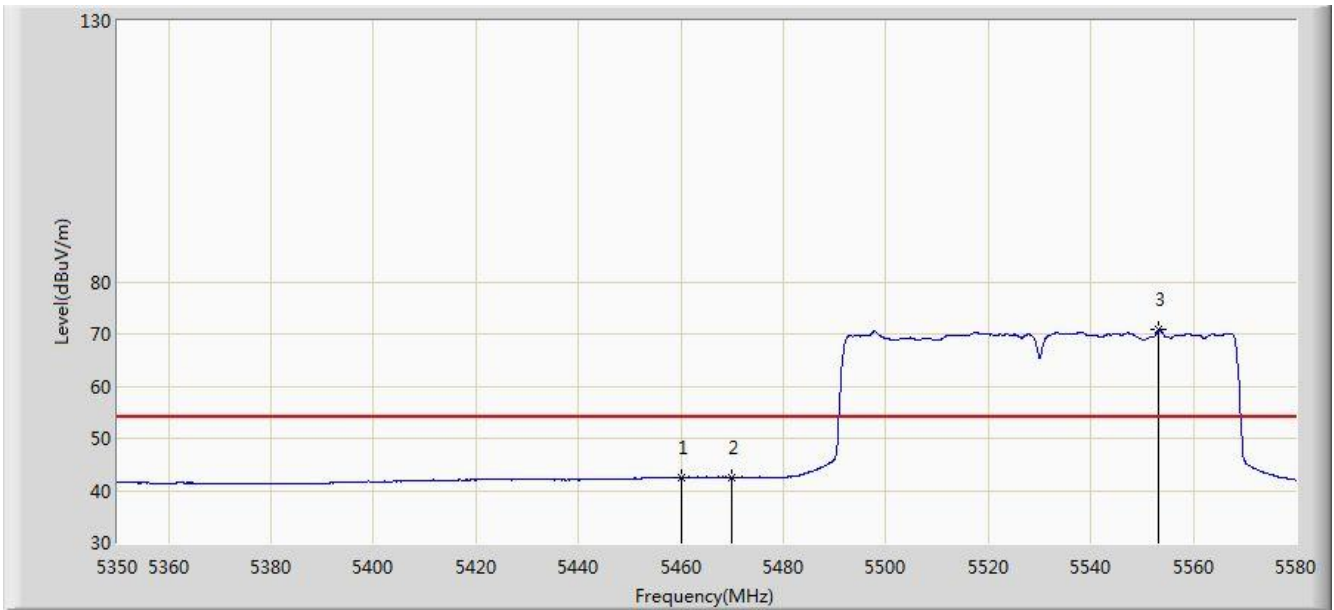


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5451.430	57.177	53.743	-16.823	74.000	3.435	PK
2			5460.000	55.401	51.919	-18.599	74.000	3.482	PK
3			5464.885	57.408	53.898	-16.592	74.000	3.510	PK
4			5470.000	56.441	52.902	-17.559	74.000	3.539	PK
5		*	5507.665	84.668	81.150	N/A	N/A	3.517	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 09:20
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5530MHz Ant 0 + 1 + 2 + 3	

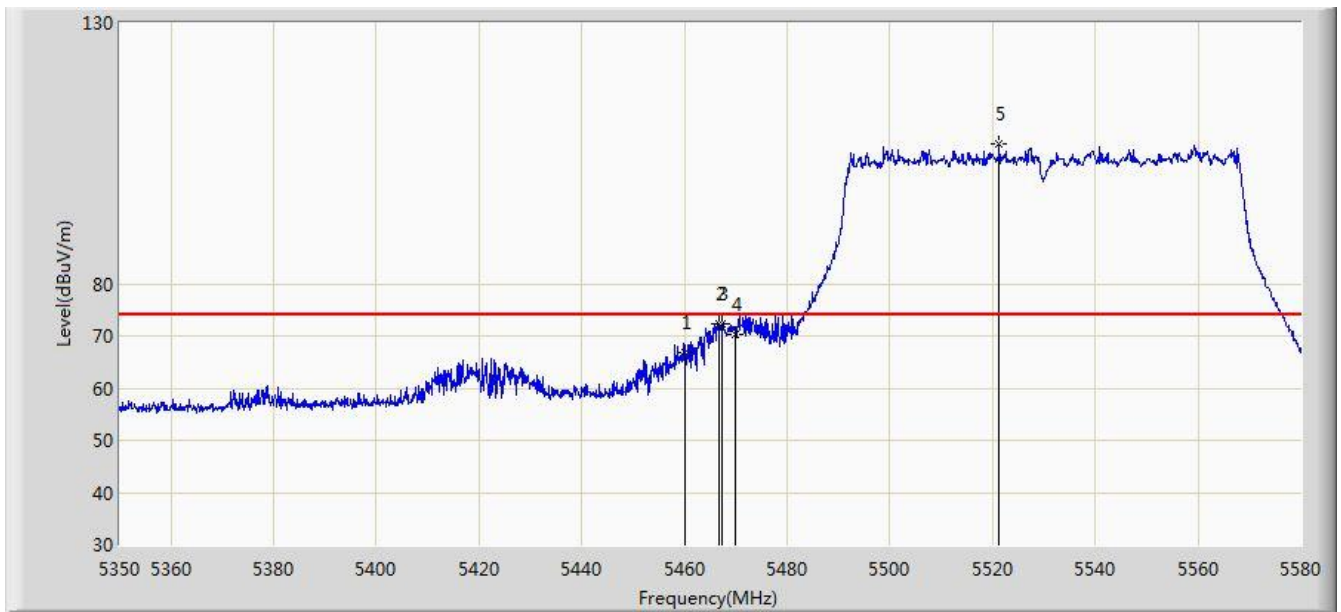


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5460.000	42.514	39.032	-11.486	54.000	3.482	AV
2			5470.000	42.479	38.940	-11.521	54.000	3.539	AV
3		*	5553.320	70.853	67.364	N/A	N/A	3.489	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 09:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5530MHz Ant 0 + 1 + 2 + 3	



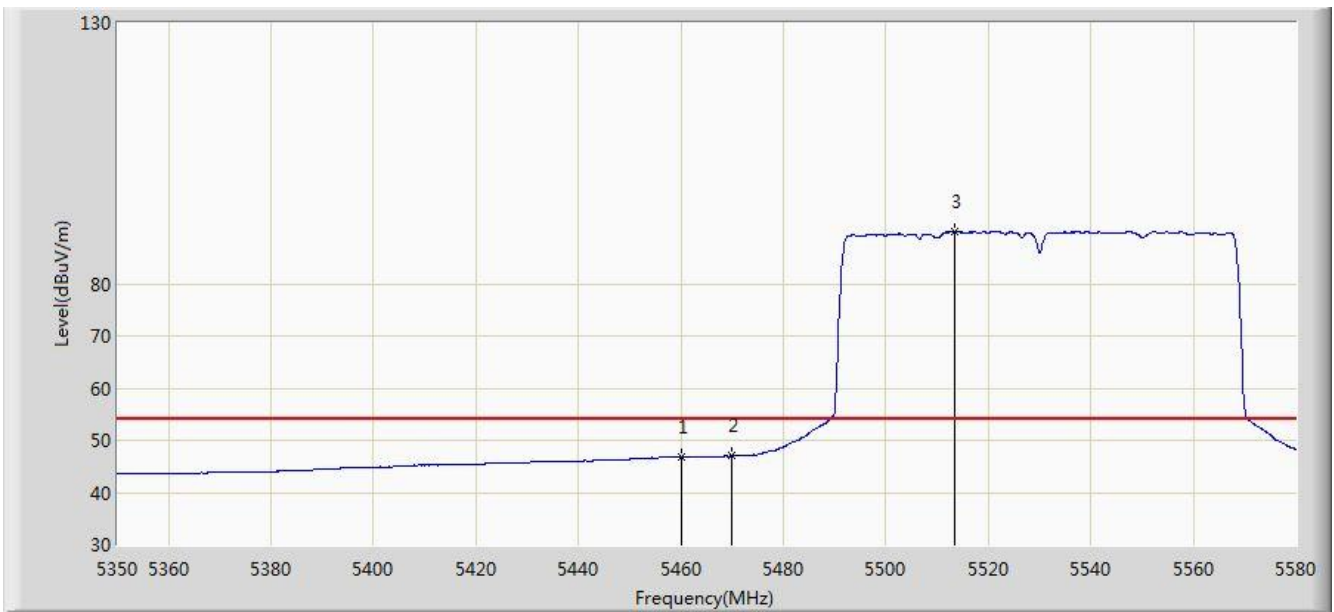
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5460.000	66.700	63.218	-7.300	74.000	3.482	PK
2			5466.840	72.254	68.733	-1.746	74.000	3.521	PK
3			5467.300	72.446	68.922	-1.554	74.000	3.523	PK
4			5470.000	70.165	66.626	-3.835	74.000	3.539	PK
5		*	5521.235	106.712	103.208	N/A	N/A	3.504	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/11/04 - 09:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5530MHz Ant 0 + 1 + 2 + 3	

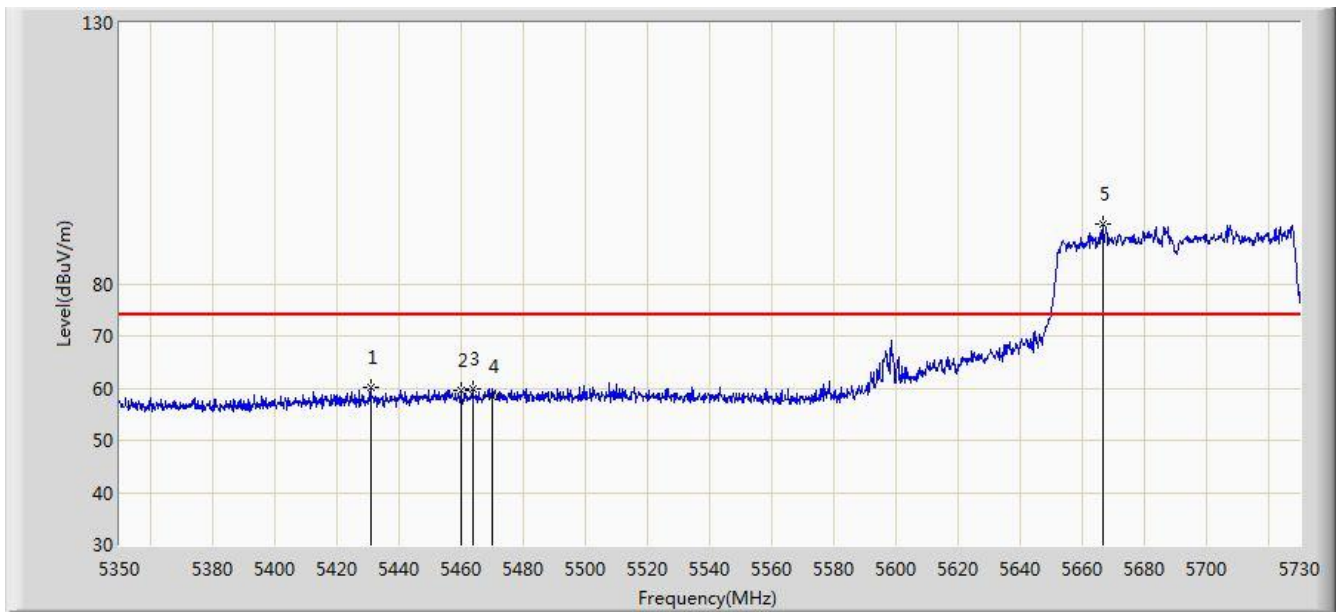


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5460.000	46.690	43.208	-7.310	54.000	3.482	AV
2			5470.000	46.996	43.457	-7.004	54.000	3.539	AV
3		*	5513.415	89.939	86.427	N/A	N/A	3.512	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 16:19
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5690MHz Ant 0 + 1 + 2 + 3	

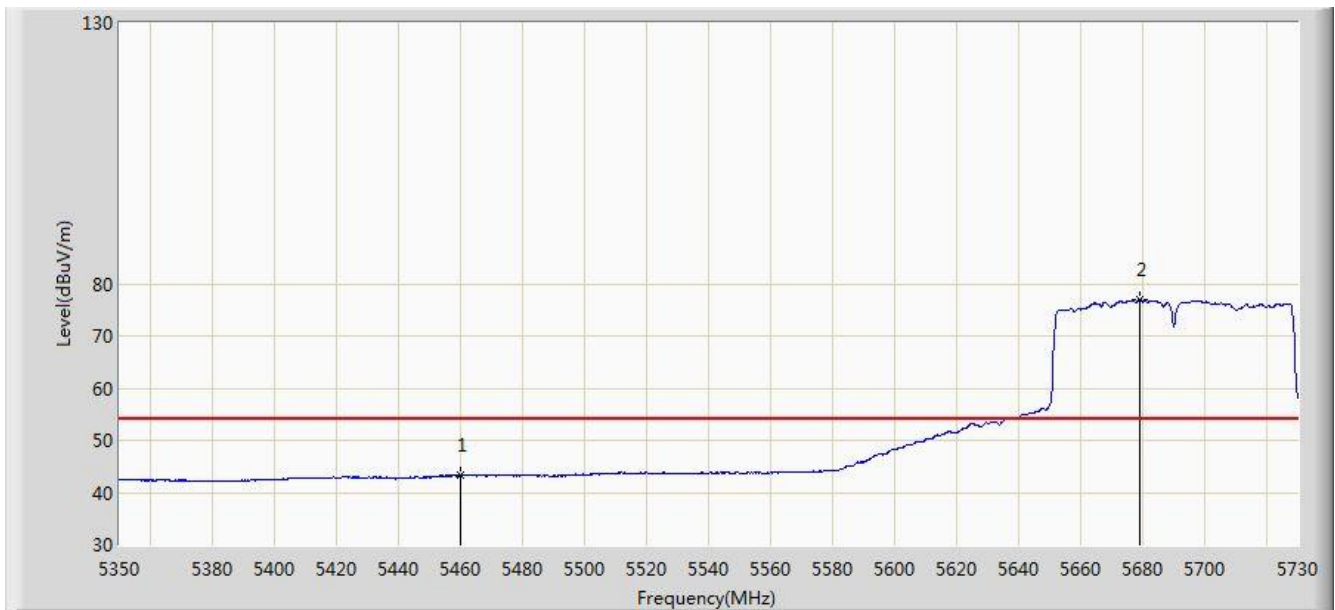


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5430.940	60.077	56.735	-13.923	74.000	3.342	PK
2			5460.000	59.479	55.997	-14.521	74.000	3.482	PK
3			5463.620	59.810	56.307	-14.190	74.000	3.503	PK
4			5470.000	58.541	55.002	-15.459	74.000	3.539	PK
5		*	5666.540	91.343	87.687	N/A	N/A	3.655	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 16:22
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5690MHz Ant 0 + 1 + 2 + 3	

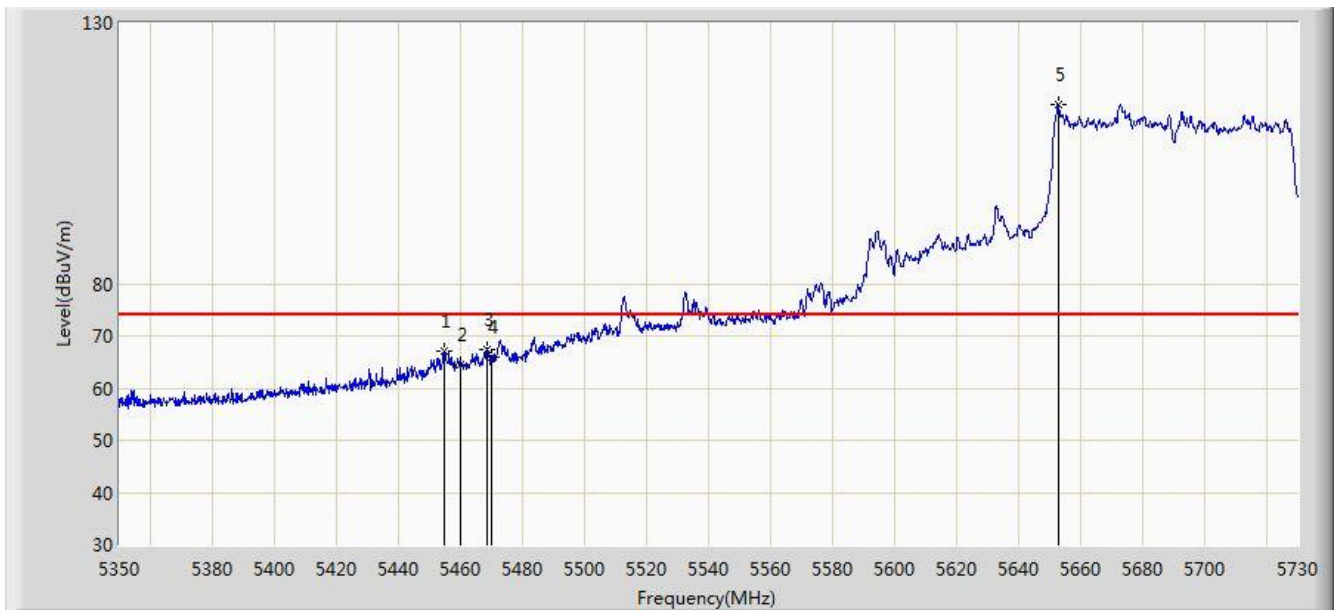


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5460.000	43.266	39.784	-10.734	54.000	3.482	AV
2		*	5679.270	76.875	73.197	N/A	N/A	3.678	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 16:14
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5690MHz Ant 0 + 1 + 2 + 3	

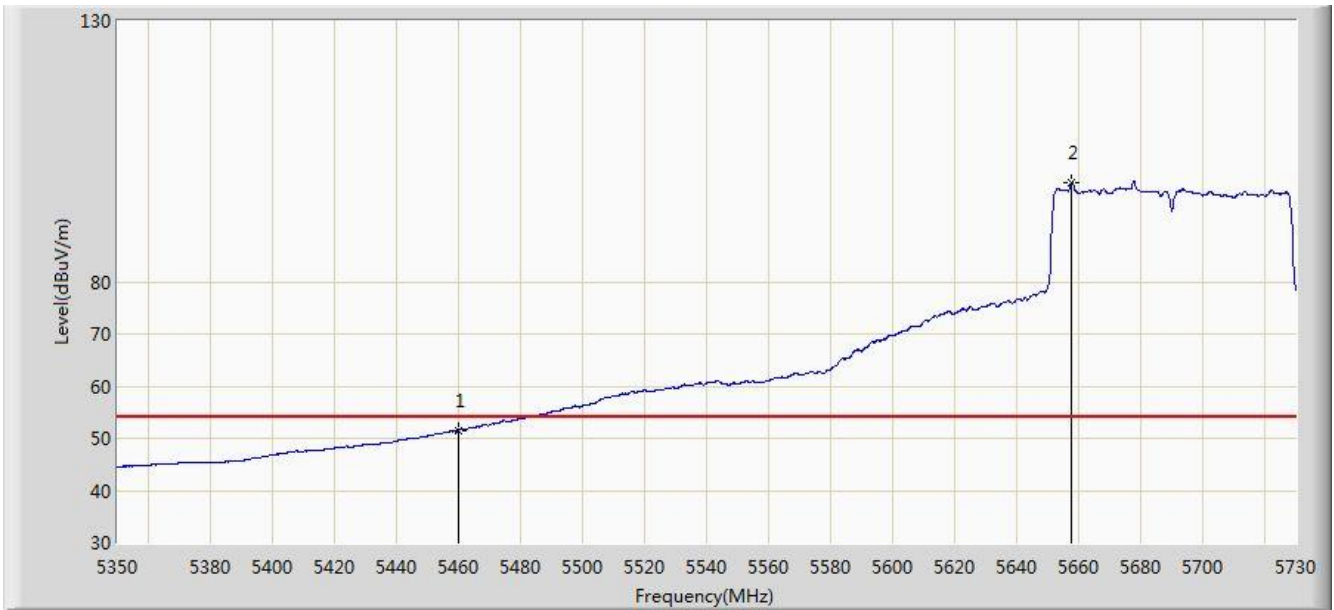


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5454.690	67.209	63.759	-6.791	74.000	3.450	PK
2			5460.000	64.406	60.924	-9.594	74.000	3.482	PK
3			5468.370	67.525	63.995	-6.475	74.000	3.530	PK
4			5470.000	65.922	62.383	-8.078	74.000	3.539	PK
5		*	5652.670	114.395	110.762	N/A	N/A	3.633	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/04 - 16:16
Limit: FCC_Part15.209_RE(3m)	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5690MHz Ant 0 + 1 + 2 + 3	

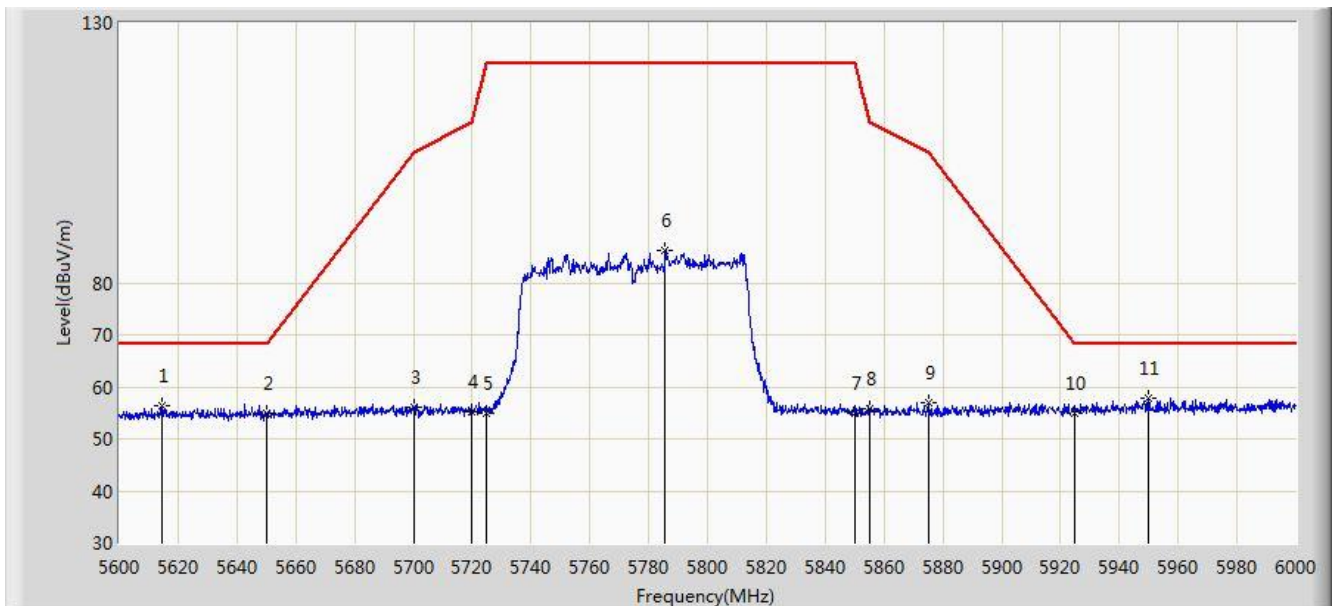


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5460.000	51.569	48.087	-2.431	54.000	3.482	AV
2		*	5657.610	98.932	95.290	N/A	N/A	3.642	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 17:53
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz Ant 0 + 1 + 2 + 3	

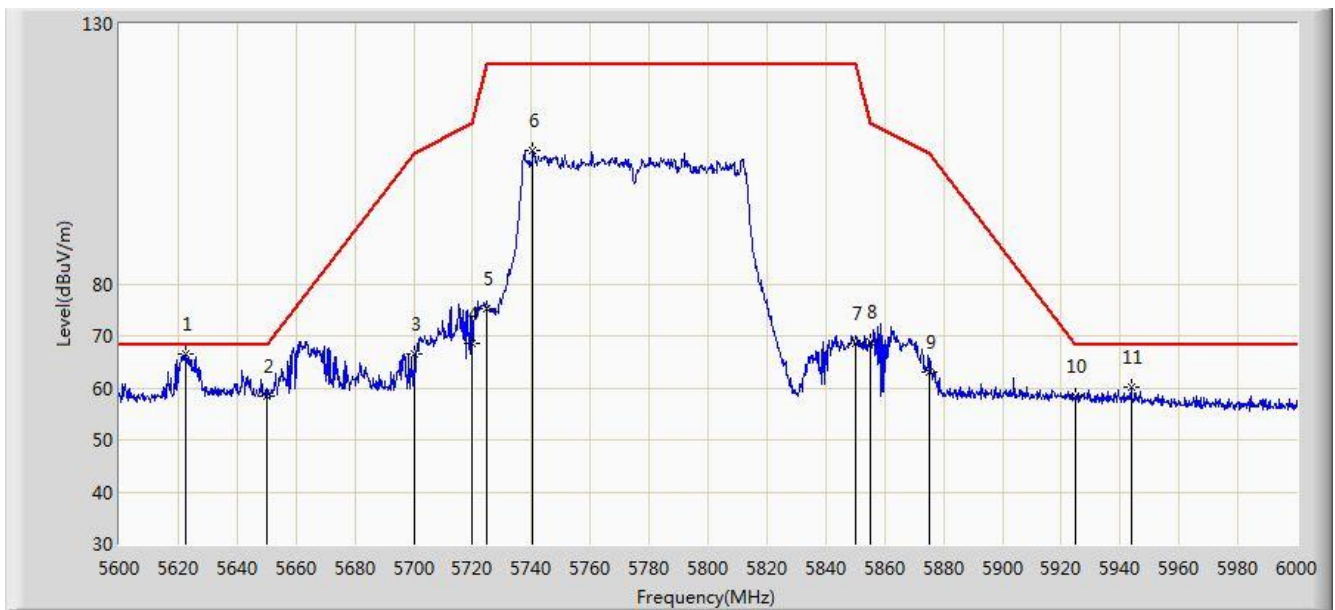


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1			5614.600	56.479	52.953	-11.721	68.200	3.525	PK
2			5650.000	54.905	51.278	-13.295	68.200	3.627	PK
3			5700.000	56.092	52.373	-49.108	105.200	3.719	PK
4			5720.000	55.222	51.446	-55.578	110.800	3.776	PK
5			5725.000	55.000	51.209	-67.200	122.200	3.791	PK
6			5785.600	86.104	82.167	N/A	N/A	3.937	PK
7			5850.000	54.943	50.886	-67.257	122.200	4.058	PK
8			5855.000	55.825	51.765	-54.975	110.800	4.060	PK
9			5875.000	56.942	52.837	-48.258	105.200	4.105	PK
10			5925.000	54.850	50.597	-13.350	68.200	4.254	PK
11		*	5950.000	57.737	53.462	-10.463	68.200	4.274	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 17:50
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Bruce Wang
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz Ant 0 + 1 + 2 + 3	



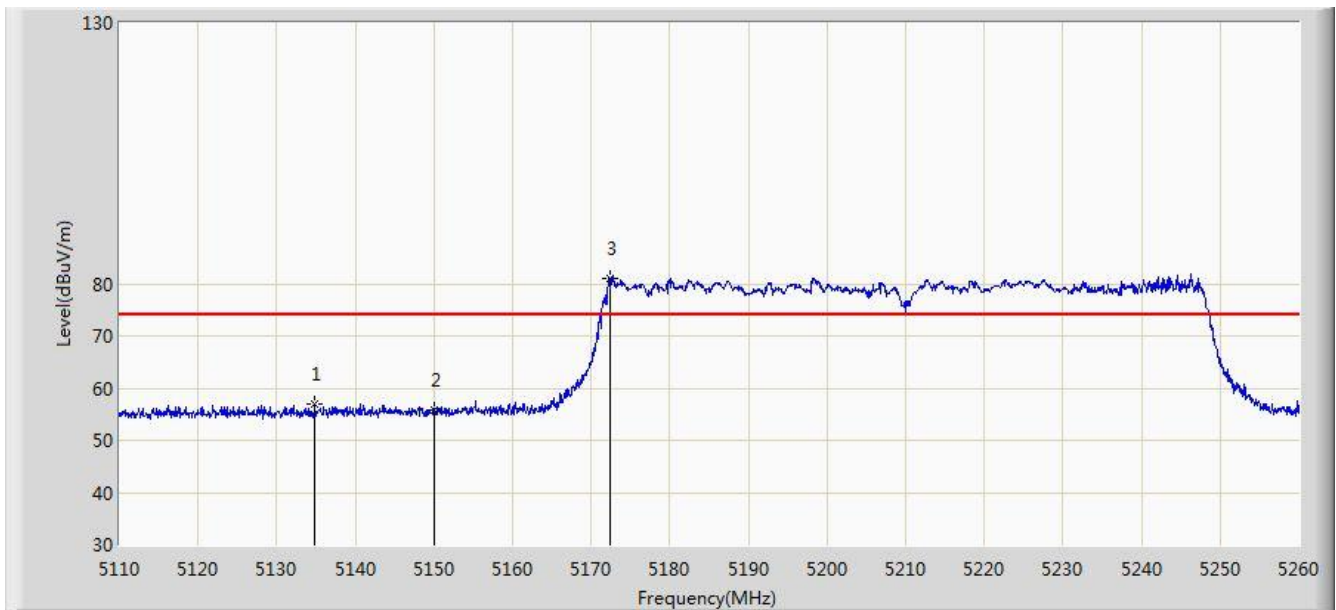
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1		*	5622.600	66.579	63.030	-1.621	68.200	3.548	PK
2			5650.000	58.412	54.785	-9.788	68.200	3.627	PK
3			5700.000	66.544	62.825	-38.656	105.200	3.719	PK
4			5720.000	68.500	64.724	-42.300	110.800	3.776	PK
5			5725.000	75.209	71.418	-46.991	122.200	3.791	PK
6			5740.400	105.516	101.678	N/A	N/A	3.838	PK
7			5850.000	68.556	64.499	-53.644	122.200	4.058	PK
8			5855.000	68.936	64.876	-41.864	110.800	4.060	PK
9			5875.000	62.937	58.832	-42.263	105.200	4.105	PK
10			5925.000	58.451	54.198	-9.749	68.200	4.254	PK
11			5943.800	60.049	55.777	-8.151	68.200	4.272	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/11/03 - 20:47
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5210MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	



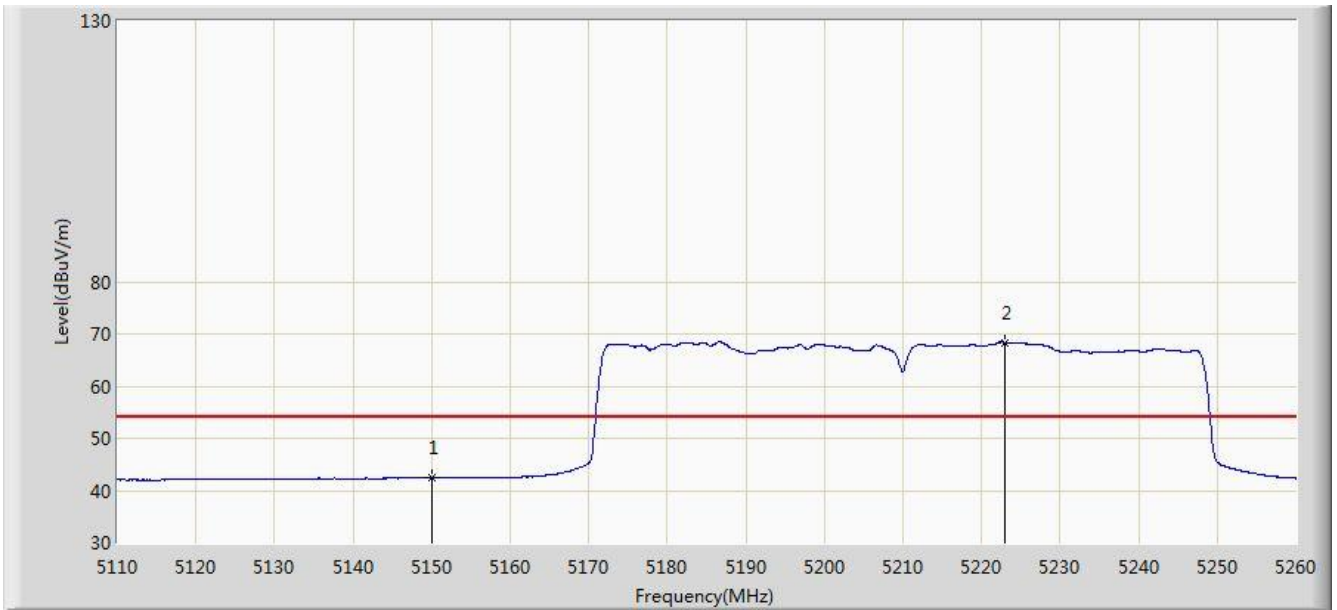
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5134.900	56.960	53.651	-17.040	74.000	3.309	PK
2			5150.000	55.675	52.366	-18.325	74.000	3.309	PK
3		*	5172.475	81.103	77.824	N/A	N/A	3.280	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/11/03 - 20:49
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5210MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

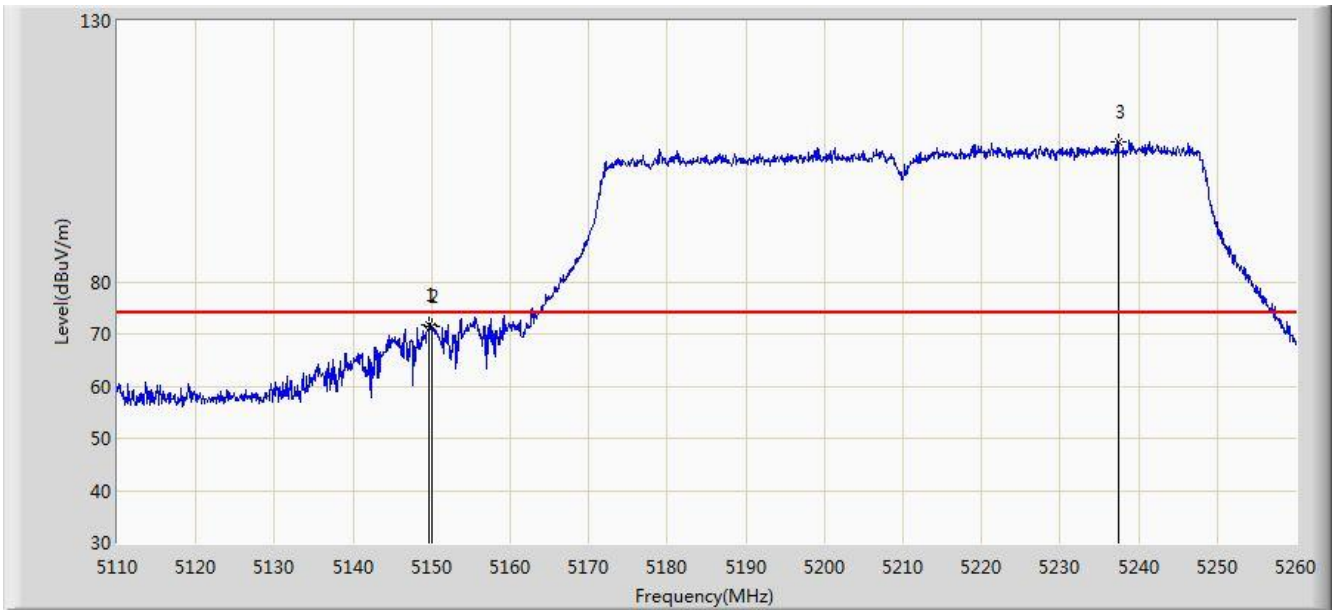


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5150.000	42.382	39.073	-11.618	54.000	3.309	AV
2		*	5223.025	68.296	65.088	N/A	N/A	3.209	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 20:42
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5210MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

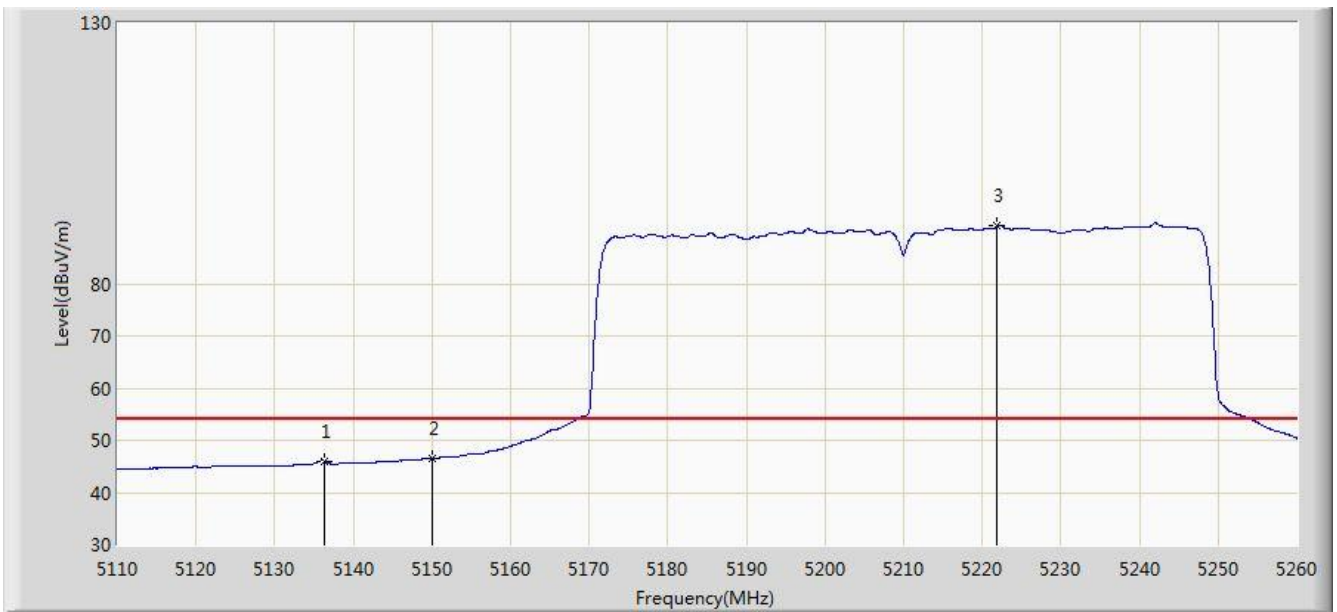


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5149.675	71.598	68.289	-2.402	74.000	3.308	PK
2			5150.000	71.356	68.047	-2.644	74.000	3.309	PK
3		*	5237.425	106.877	103.684	N/A	N/A	3.193	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 20:44
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5210MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

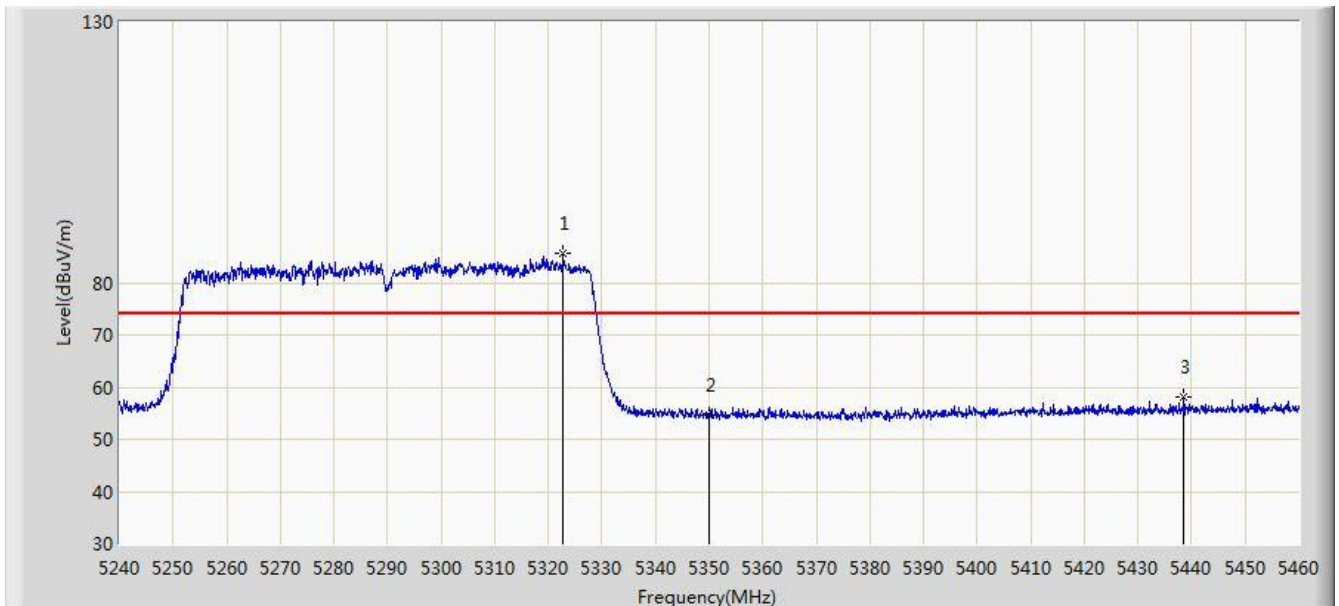


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5136.250	46.073	42.763	-7.927	54.000	3.310	AV
2			5150.000	46.650	43.341	-7.350	54.000	3.309	AV
3		*	5221.900	91.089	87.880	N/A	N/A	3.209	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:41
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5290MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

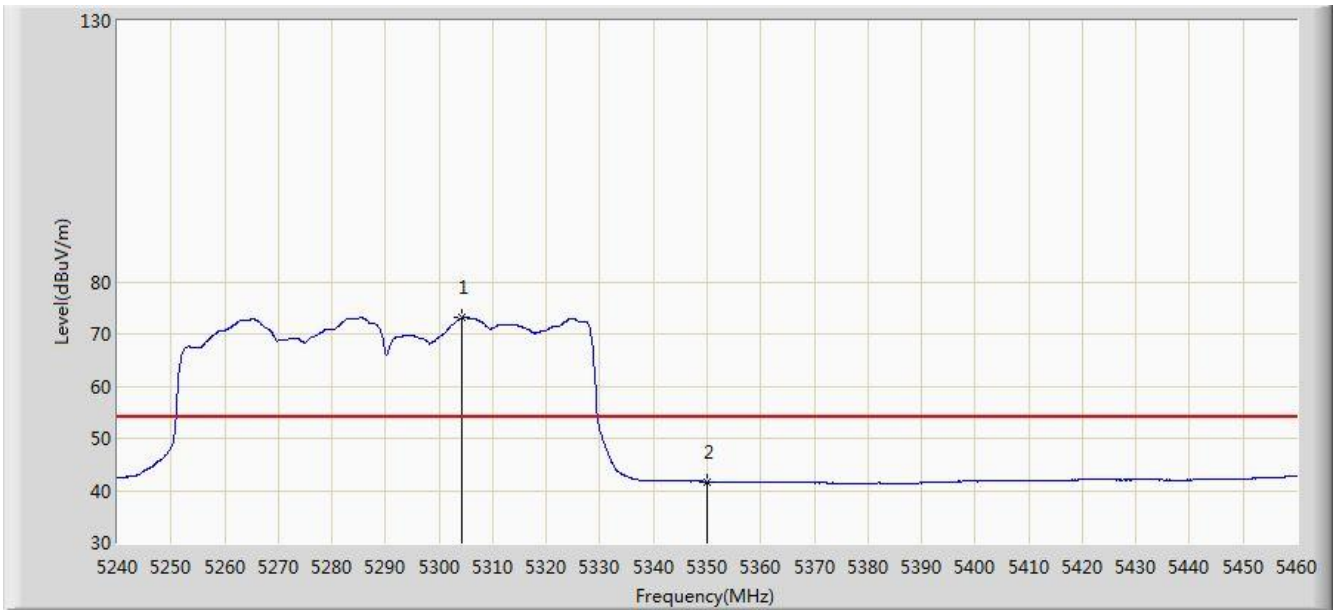


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5322.830	85.794	82.727	N/A	N/A	3.068	PK
2			5350.000	54.584	51.552	-19.416	74.000	3.032	PK
3			5438.550	58.138	54.762	-15.862	74.000	3.376	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:43
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5290MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

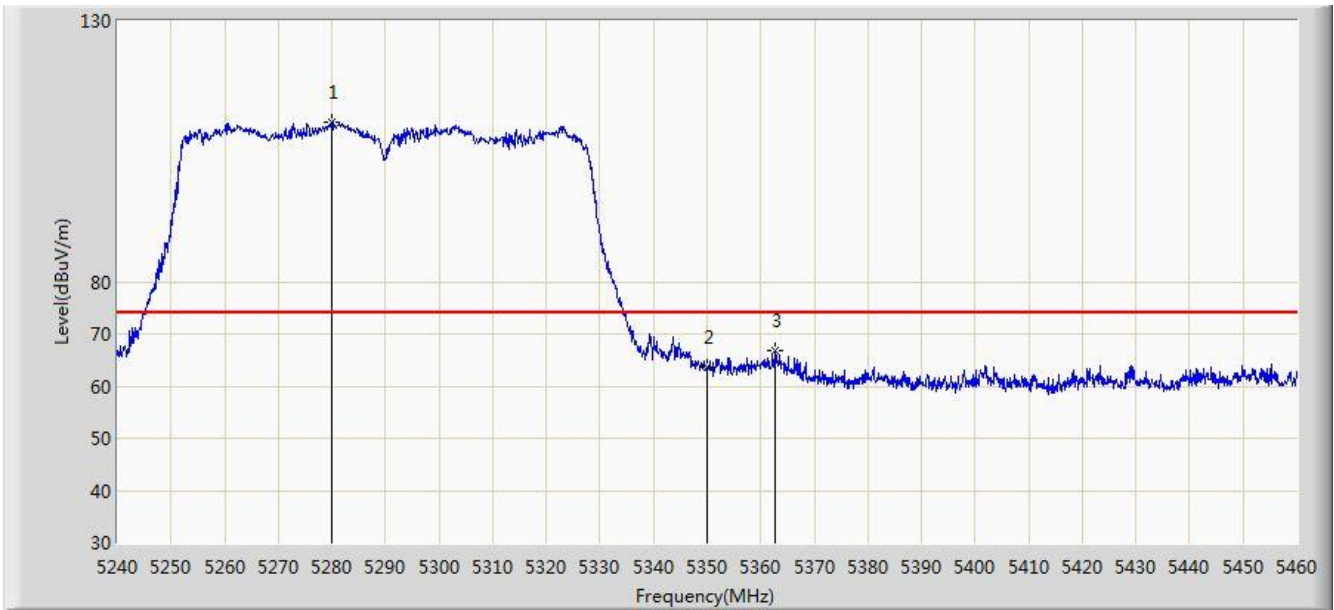


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5304.130	73.069	69.958	N/A	N/A	3.111	AV
2			5350.000	41.712	38.680	-12.288	54.000	3.032	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:40
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5290MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

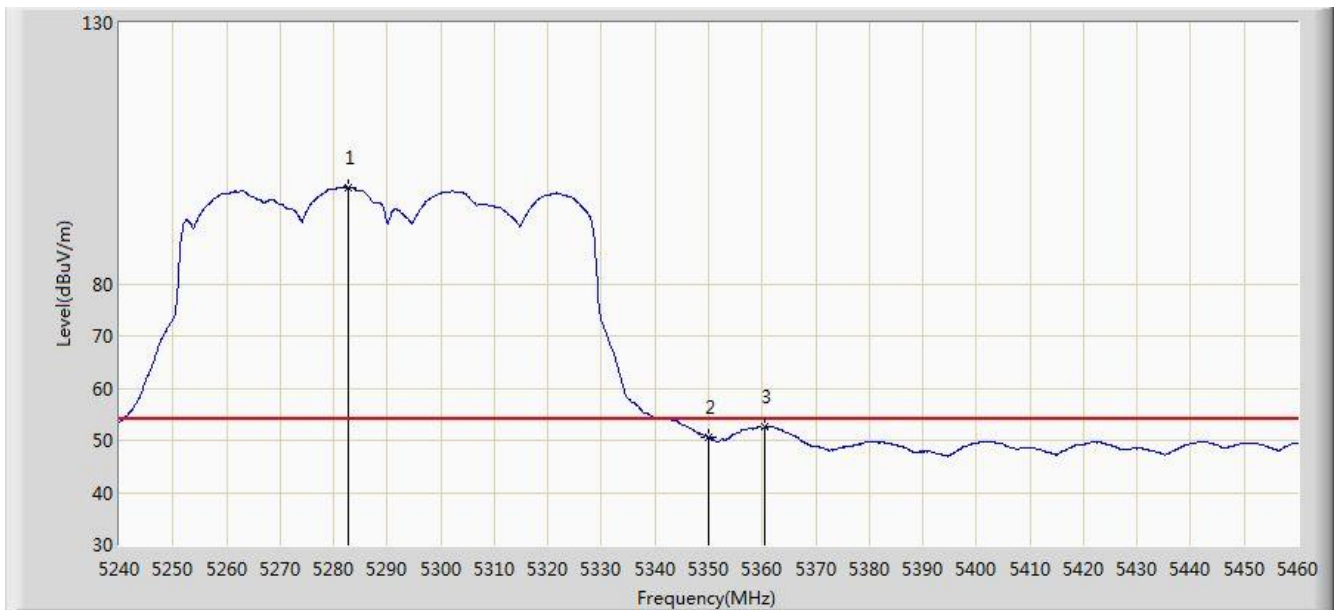


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5279.930	110.460	107.277	N/A	N/A	3.183	PK
2			5350.000	63.715	60.683	-10.285	74.000	3.032	PK
3			5362.650	66.754	63.735	-7.246	74.000	3.018	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:39
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5290MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

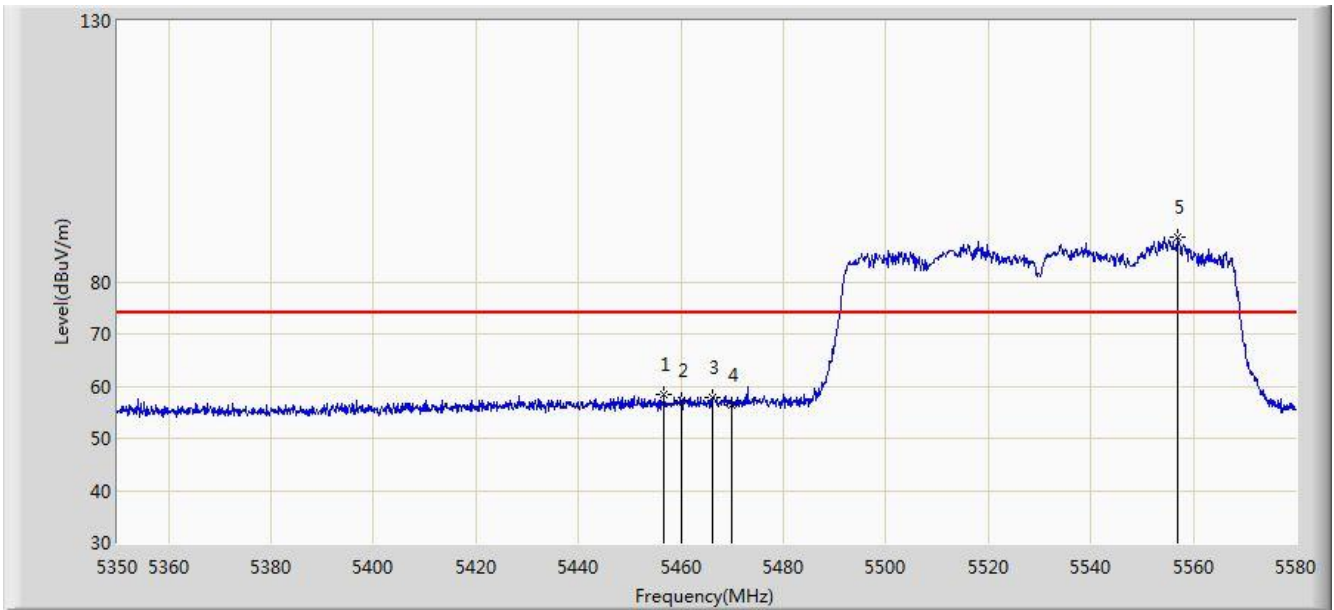


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5282.680	98.525	95.344	N/A	N/A	3.182	AV
2			5350.000	50.583	47.551	-3.417	54.000	3.032	AV
3			5360.560	52.540	49.519	-1.460	54.000	3.021	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:06
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5530MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	



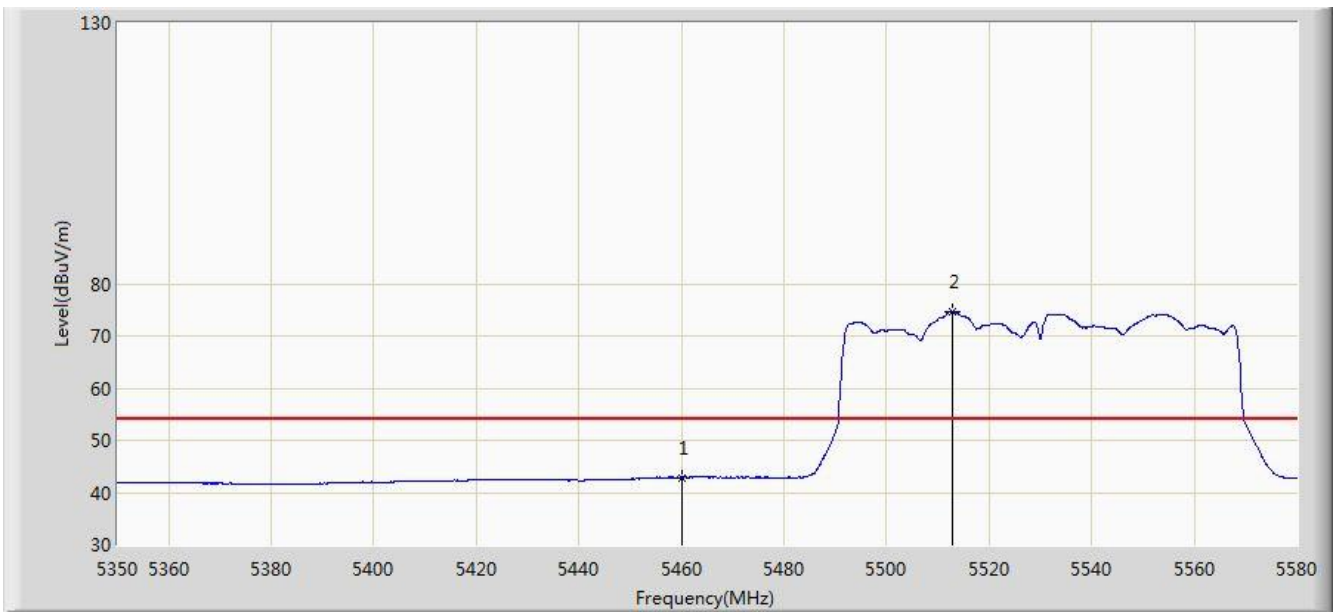
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5456.720	58.388	54.925	-15.612	74.000	3.463	PK
2			5460.000	57.330	53.848	-16.670	74.000	3.482	PK
3			5466.035	57.813	54.297	-16.187	74.000	3.516	PK
4			5470.000	56.500	52.961	-17.500	74.000	3.539	PK
5		*	5556.885	88.562	85.077	N/A	N/A	3.485	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/11/03 - 22:07
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5530MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

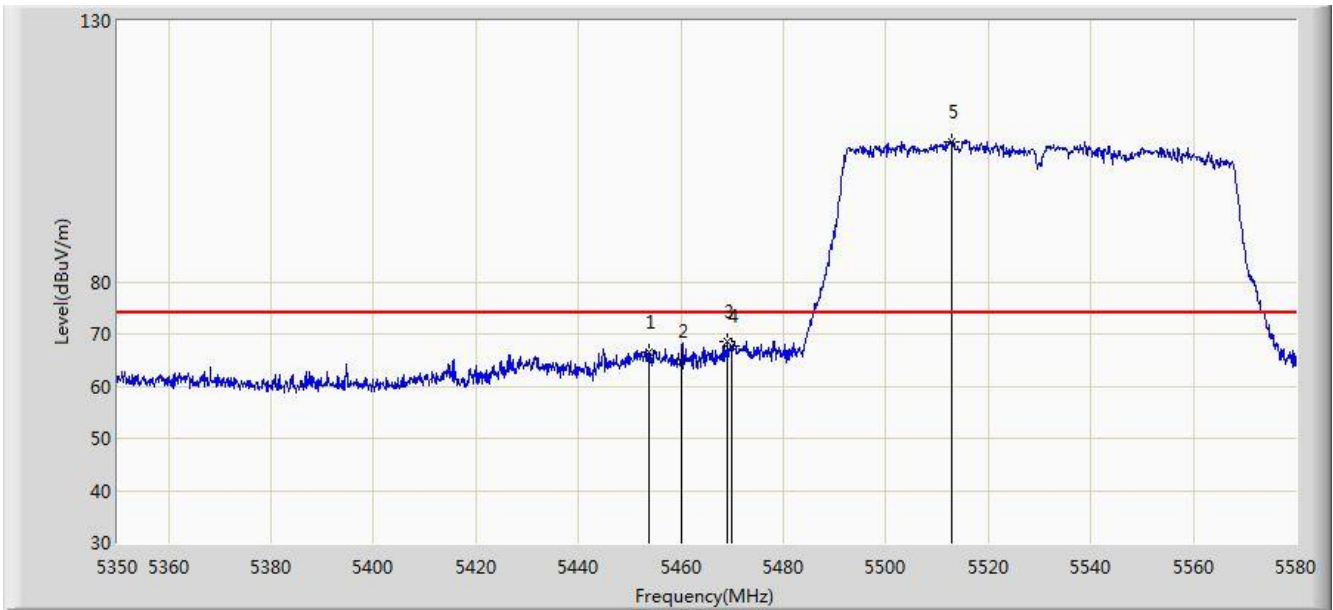


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5460.000	42.883	39.401	-11.117	54.000	3.482	AV
2		*	5512.955	74.680	71.168	N/A	N/A	3.513	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:05
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5530MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

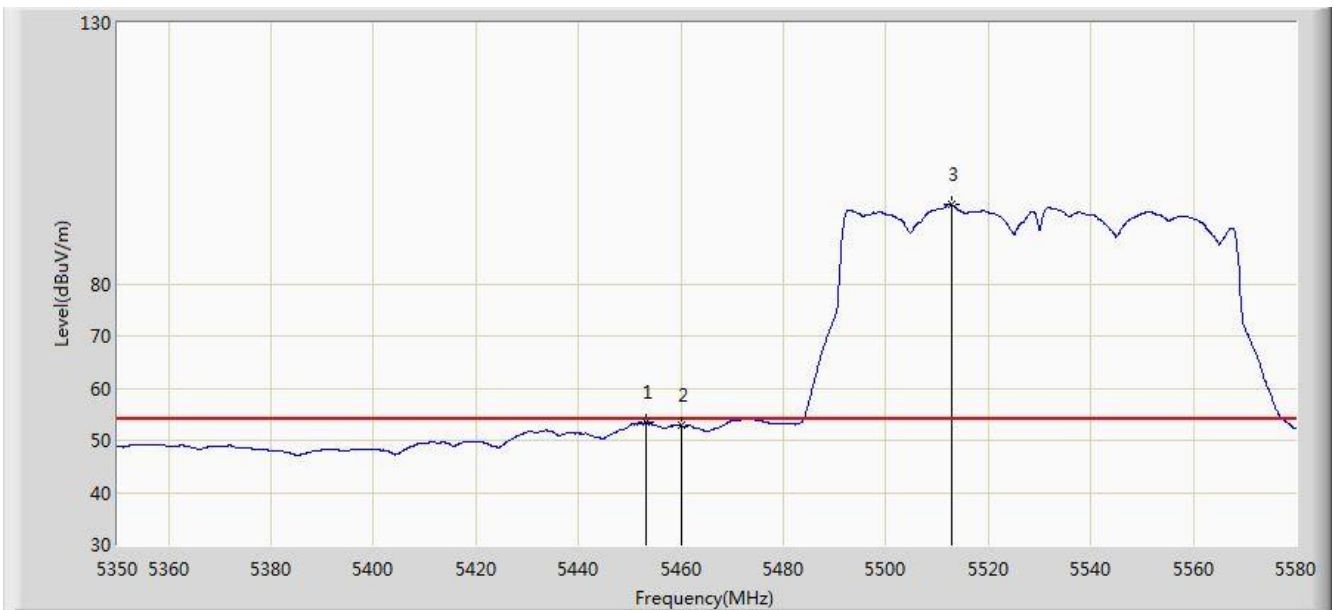


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5453.845	66.546	63.101	-7.454	74.000	3.446	PK
2			5460.000	64.751	61.269	-9.249	74.000	3.482	PK
3			5469.140	68.431	64.897	-5.569	74.000	3.534	PK
4			5470.000	67.537	63.998	-6.463	74.000	3.539	PK
5		*	5512.725	106.869	103.356	N/A	N/A	3.513	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:03
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5530MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

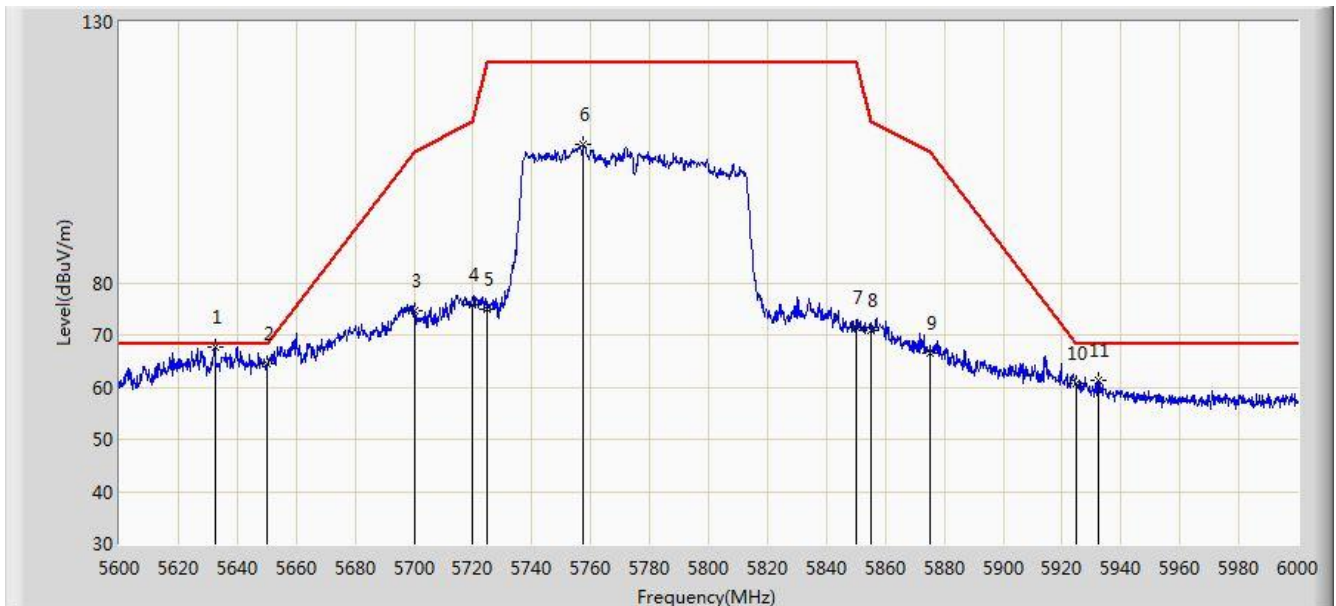


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5453.270	53.451	50.008	-0.549	54.000	3.442	AV
2			5460.000	52.805	49.323	-1.195	54.000	3.482	AV
3		*	5512.955	95.092	91.580	N/A	N/A	3.513	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:29
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5775MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

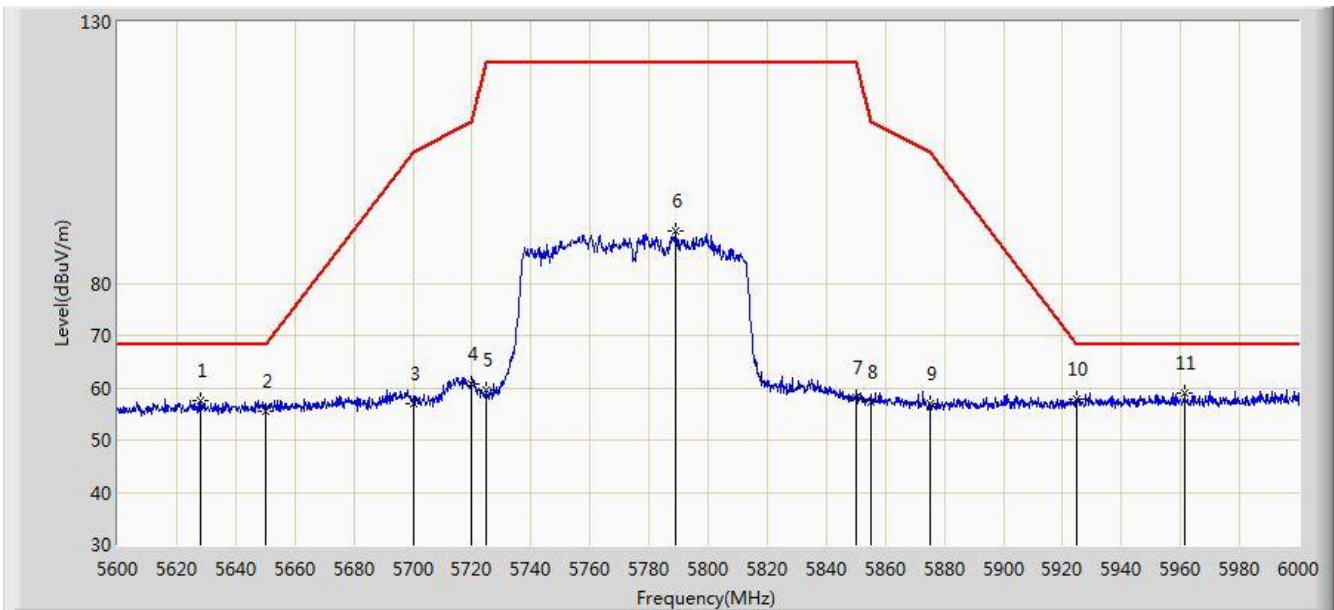


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5632.600	67.798	64.214	-0.402	68.200	3.585	PK
2			5650.000	64.499	60.872	-3.701	68.200	3.627	PK
3			5700.000	74.632	70.913	-30.568	105.200	3.719	PK
4			5720.000	75.814	72.038	-34.986	110.800	3.776	PK
5			5725.000	75.030	71.239	-47.170	122.200	3.791	PK
6			5757.600	106.457	102.558	N/A	N/A	3.899	PK
7			5850.000	71.319	67.262	-50.881	122.200	4.058	PK
8			5855.000	70.820	66.760	-39.980	110.800	4.060	PK
9			5875.000	66.514	62.409	-38.686	105.200	4.105	PK
10			5925.000	60.593	56.340	-7.607	68.200	4.254	PK
11			5932.400	61.232	56.965	-6.968	68.200	4.268	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Profile: 80+80.Bandedge	Page No.: 57
Engineer: Will Yan	
Site: AC1	Time: 2017/11/03 - 22:30
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5775MHz Ant 0 + 1 / Ant 0 + 1 + 2 + 3	

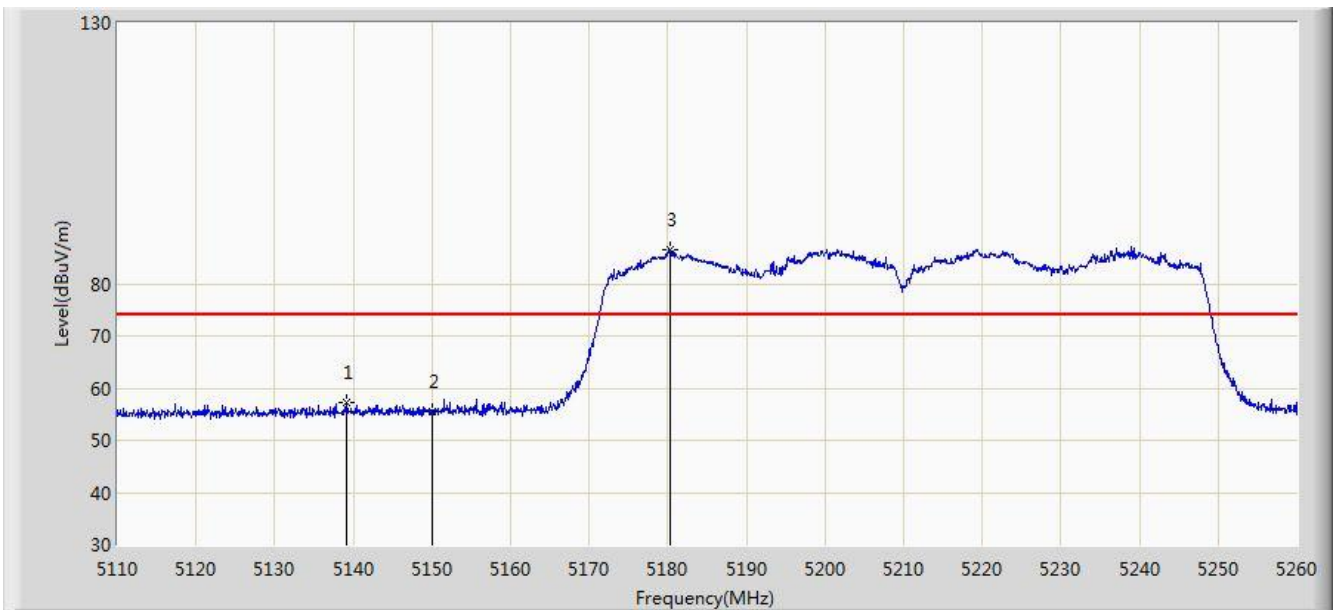


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5628.000	57.614	54.047	-10.586	68.200	3.567	PK
2			5650.000	55.387	51.760	-12.813	68.200	3.627	PK
3			5700.000	56.832	53.113	-48.368	105.200	3.719	PK
4			5720.000	60.585	56.809	-50.215	110.800	3.776	PK
5			5725.000	59.523	55.732	-62.677	122.200	3.791	PK
6			5788.800	89.920	85.977	N/A	N/A	3.943	PK
7			5850.000	58.237	54.180	-63.963	122.200	4.058	PK
8			5855.000	57.323	53.263	-53.477	110.800	4.060	PK
9			5875.000	56.926	52.821	-48.274	105.200	4.105	PK
10			5925.000	57.788	53.535	-10.412	68.200	4.254	PK
11		*	5961.400	58.947	54.645	-9.253	68.200	4.302	PK

Note: Measure Level (dBuV/m) = Reading Level (dBuV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:26
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5210MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

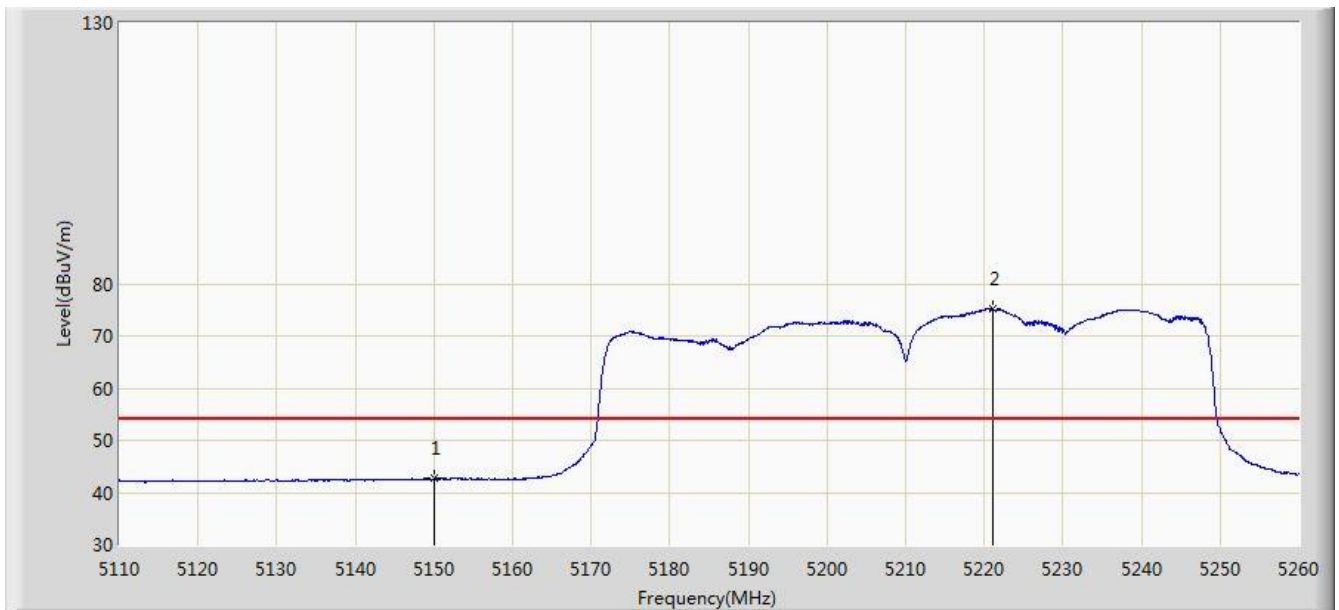


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5139.100	57.360	54.050	-16.640	74.000	3.310	PK
2			5150.000	55.576	52.267	-18.424	74.000	3.309	PK
3		*	5180.350	86.400	83.127	N/A	N/A	3.273	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:28
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5210MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

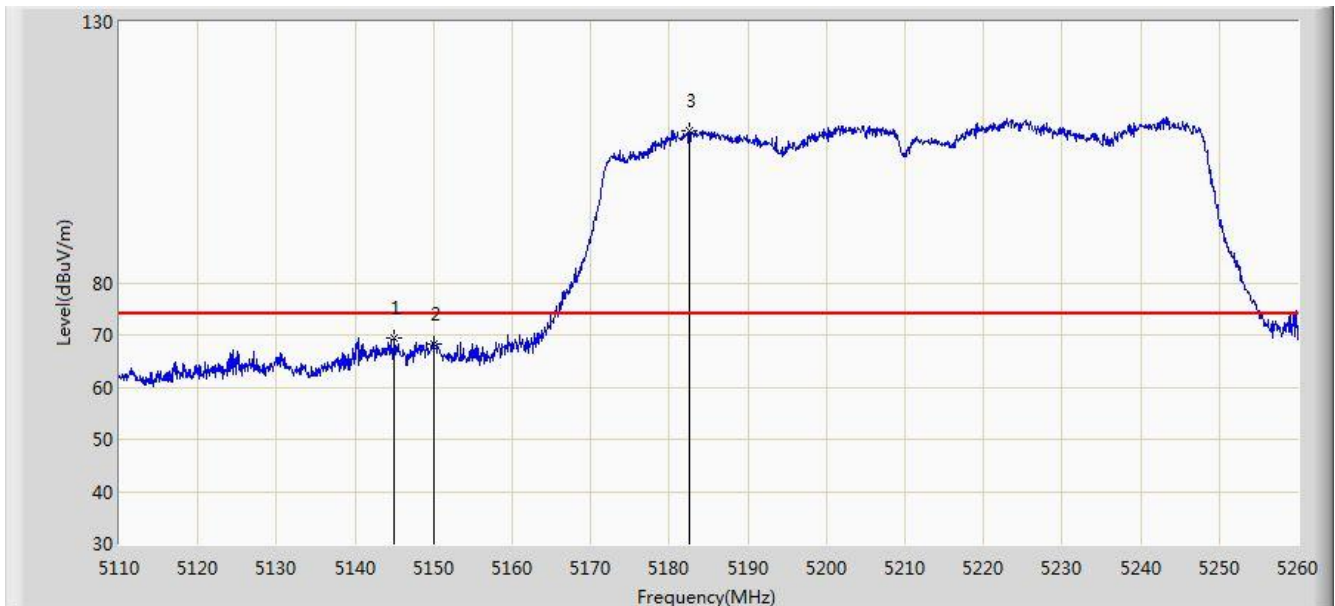


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5150.000	42.677	39.368	-11.323	54.000	3.309	AV
2		*	5221.000	75.099	71.889	N/A	N/A	3.210	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:21
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5210MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	



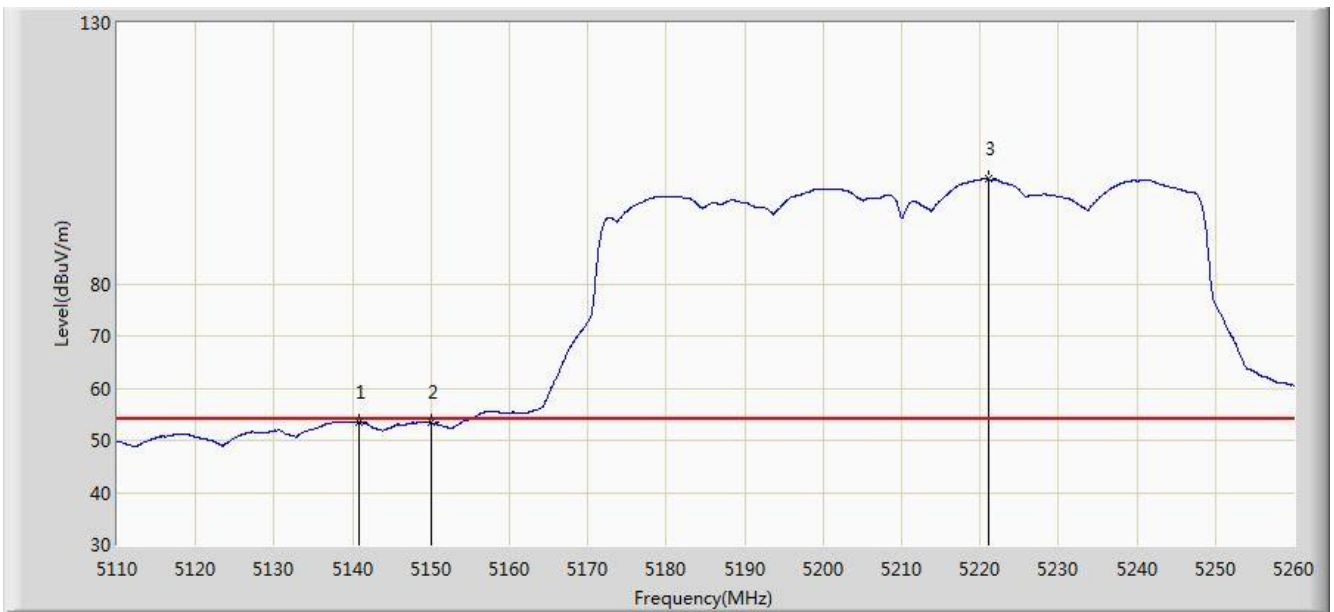
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5144.875	69.377	66.068	-4.623	74.000	3.309	PK
2			5150.000	68.285	64.976	-5.715	74.000	3.309	PK
3		*	5182.600	109.152	105.882	N/A	N/A	3.271	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/11/03 - 21:22
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5210MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

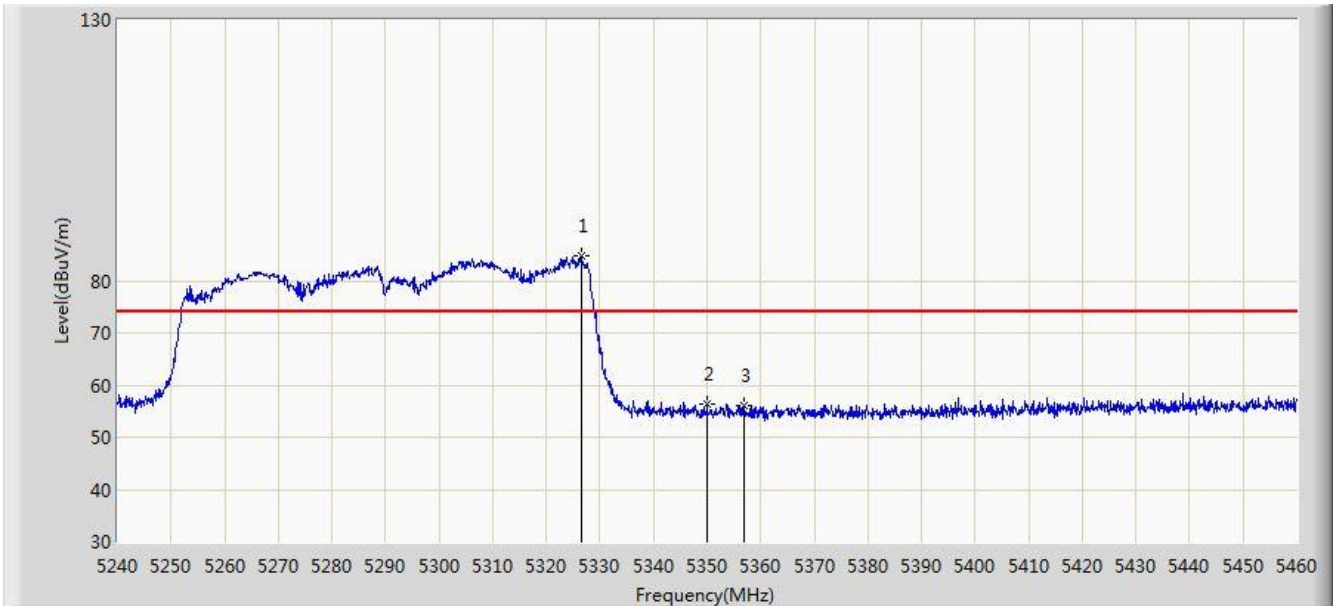


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5140.825	53.555	50.245	-0.445	54.000	3.309	AV
2			5150.000	53.438	50.129	-0.562	54.000	3.309	AV
3		*	5221.000	100.044	96.834	N/A	N/A	3.210	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:56
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5290MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

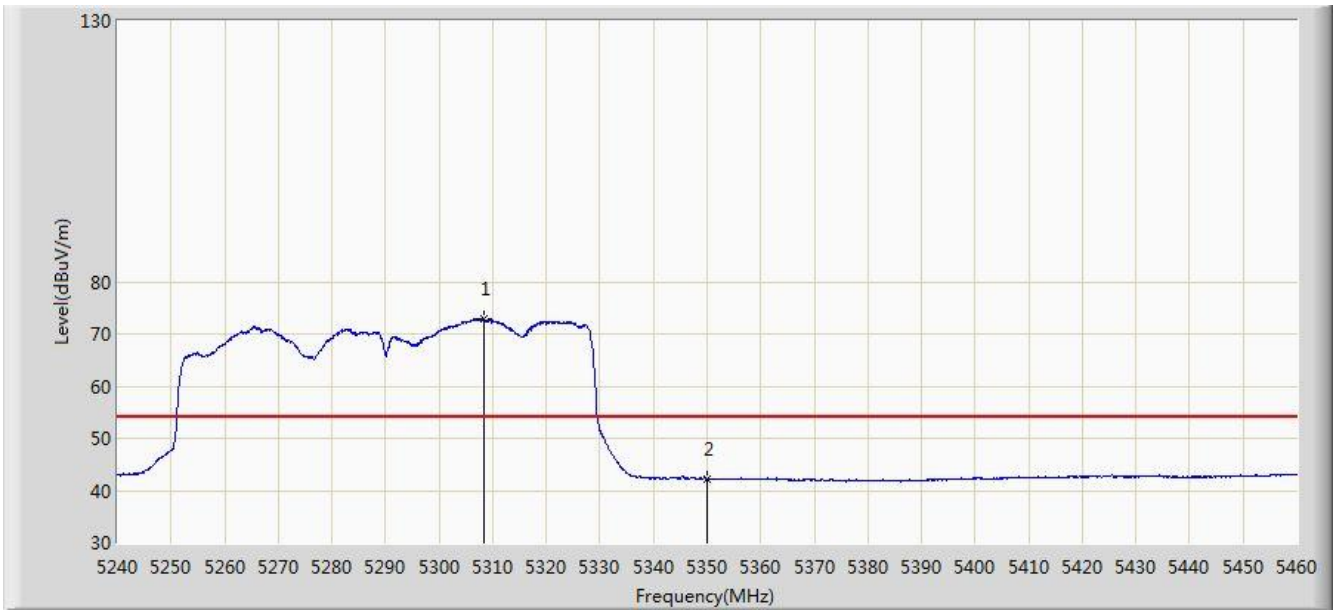


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5326.460	84.649	81.589	N/A	N/A	3.060	PK
2			5350.000	56.266	53.234	-17.734	74.000	3.032	PK
3			5356.820	56.051	53.026	-17.949	74.000	3.025	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:57
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5290MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

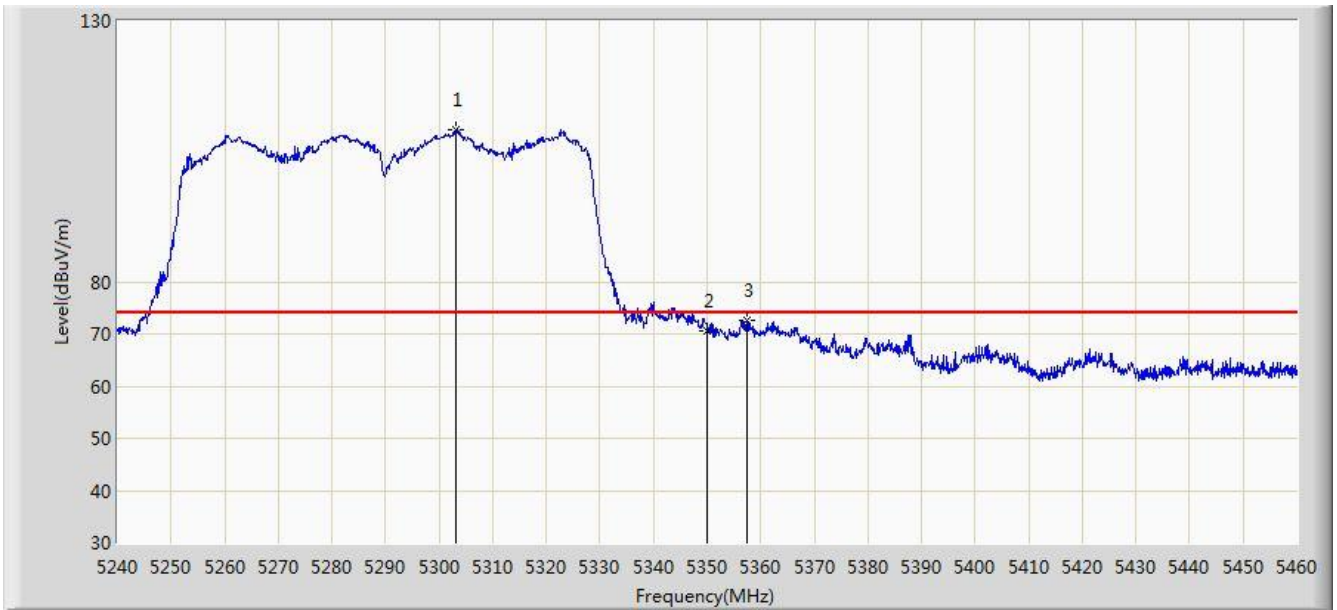


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5308.310	72.807	69.707	N/A	N/A	3.099	AV
2			5350.000	42.231	39.199	-11.769	54.000	3.032	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/09 - 14:53
Limit: FCC_Part15.209_RE(3m)	Margin: 0
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5290MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

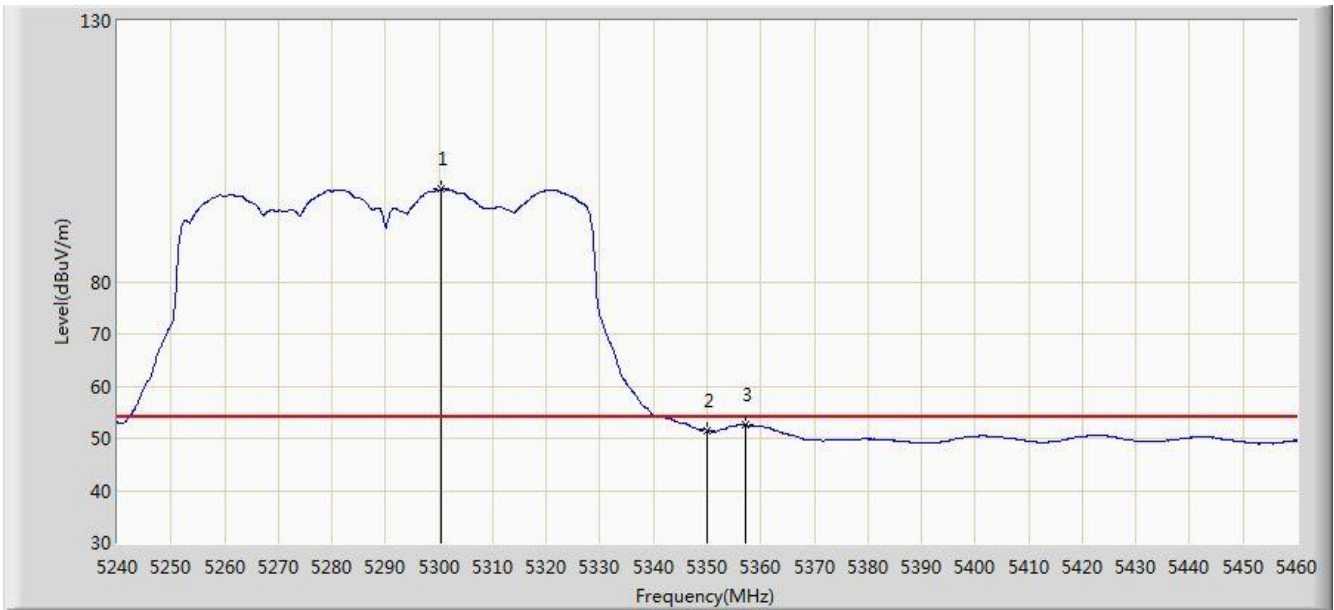


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5303.250	109.006	105.893	N/A	N/A	3.113	PK
2			5350.000	70.716	67.684	-3.284	74.000	3.032	PK
3			5357.480	72.724	69.699	-1.276	74.000	3.025	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 21:53
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5290MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

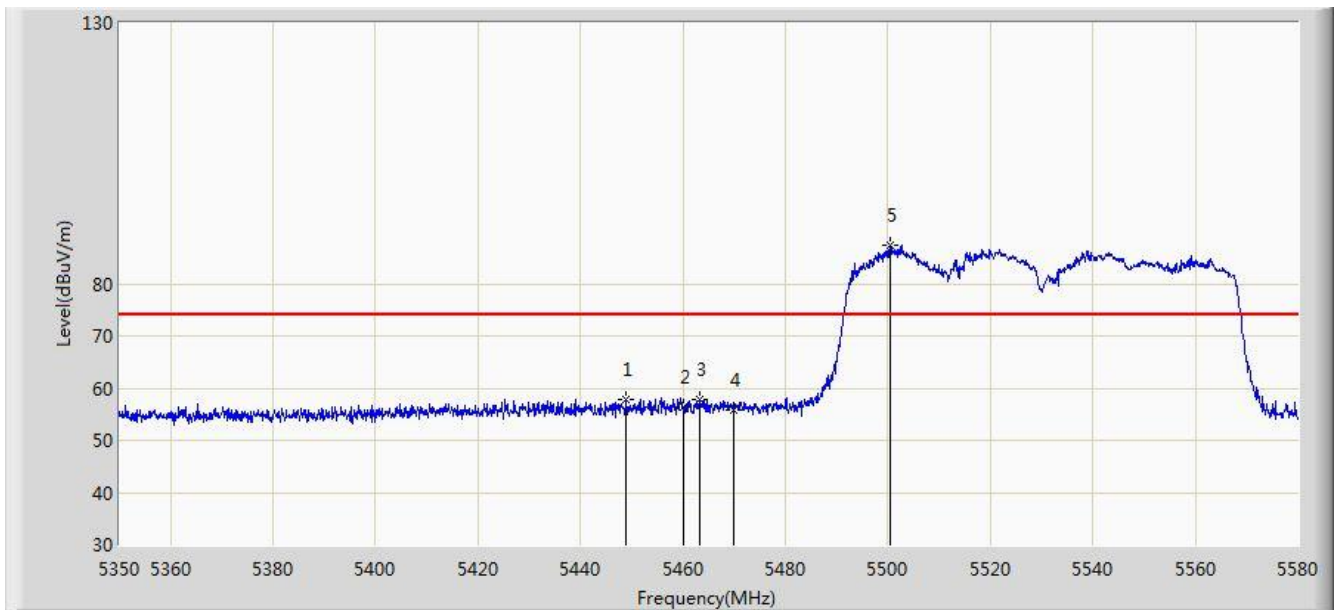


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5300.390	97.732	94.611	N/A	N/A	3.121	AV
2			5350.000	51.570	48.538	-2.430	54.000	3.032	AV
3			5357.260	52.582	49.557	-1.418	54.000	3.025	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:18
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5530MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

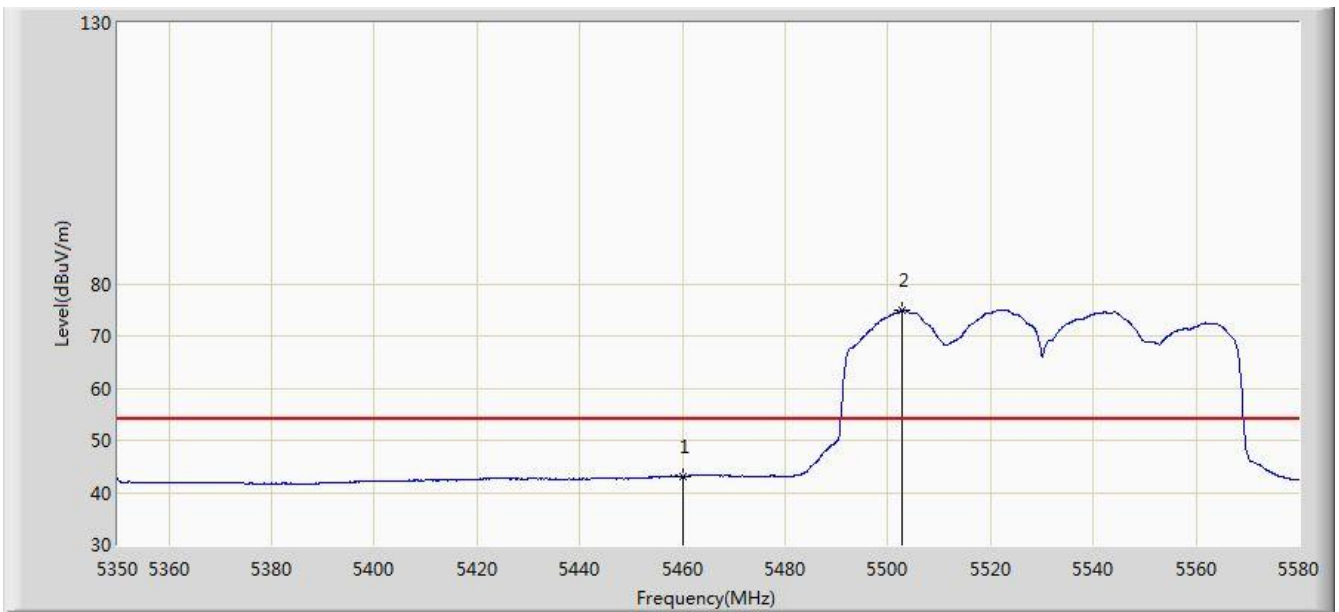


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5448.900	57.810	54.387	-16.190	74.000	3.423	PK
2			5460.000	56.474	52.992	-17.526	74.000	3.482	PK
3			5463.275	57.751	54.250	-16.249	74.000	3.500	PK
4			5470.000	55.778	52.239	-18.222	74.000	3.539	PK
5		*	5500.420	87.459	83.933	N/A	N/A	3.526	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:19
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5530MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

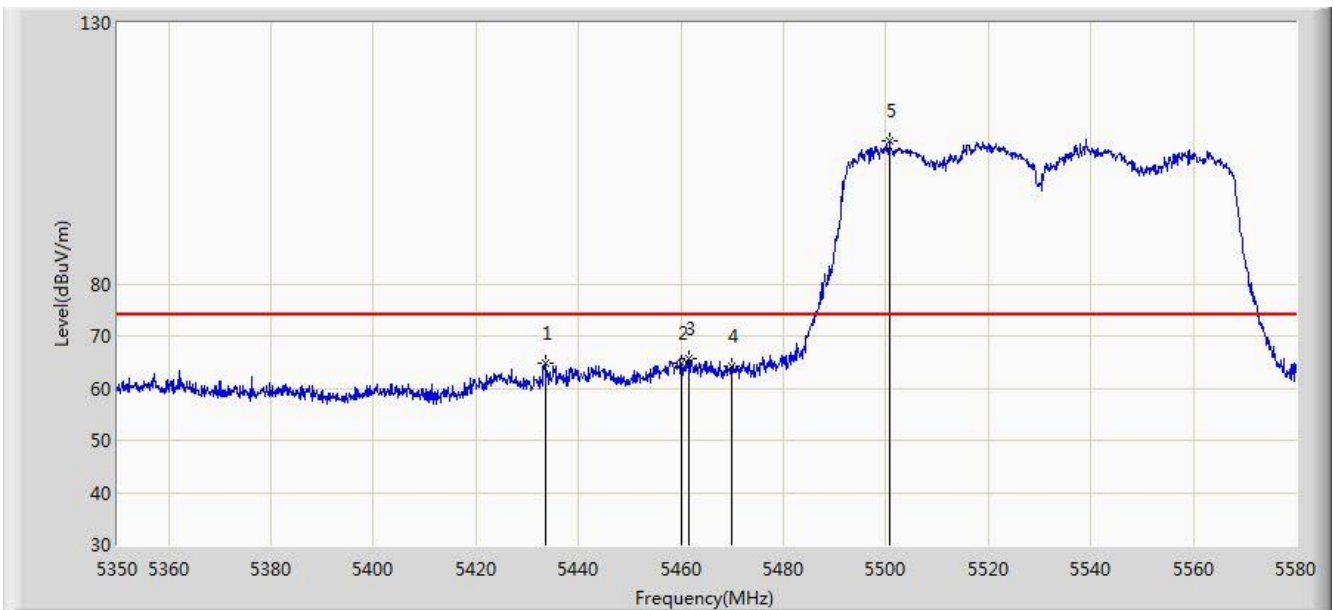


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5460.000	43.106	39.624	-10.894	54.000	3.482	AV
2		*	5502.720	74.891	71.368	N/A	N/A	3.523	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:17
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5530MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	



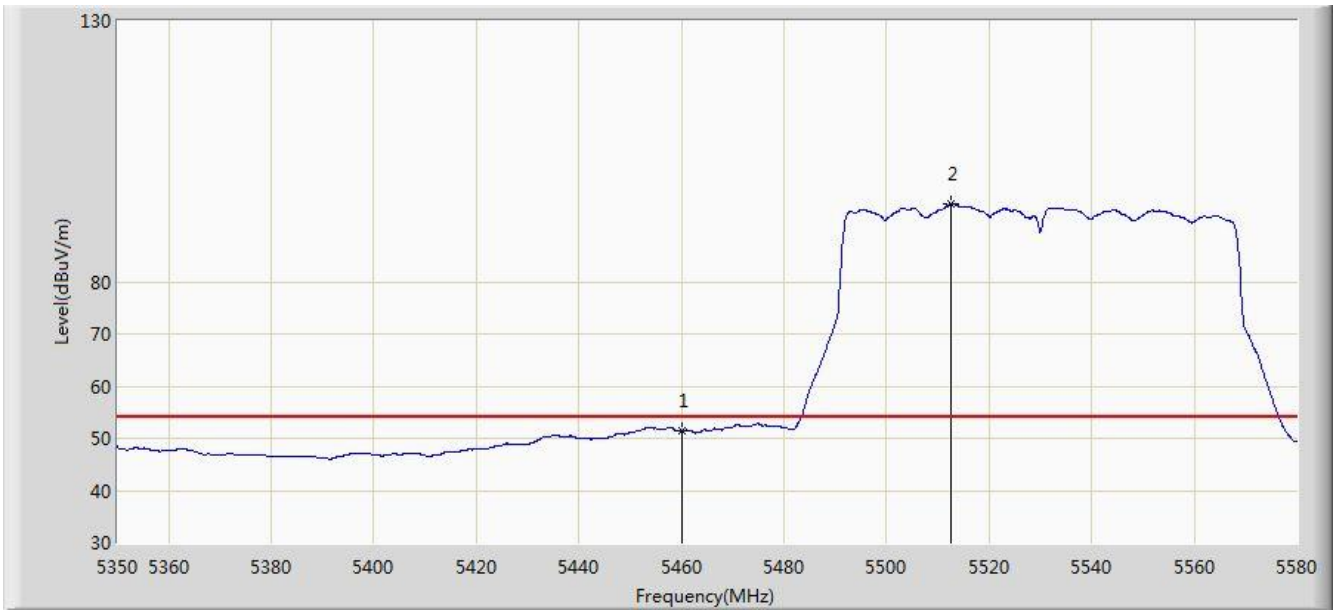
No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5433.605	64.918	61.564	-9.082	74.000	3.354	PK
2			5460.000	64.825	61.343	-9.175	74.000	3.482	PK
3			5461.550	65.624	62.133	-8.376	74.000	3.491	PK
4			5470.000	64.094	60.555	-9.906	74.000	3.539	PK
5		*	5500.650	107.406	103.880	N/A	N/A	3.525	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Site: AC1	Time: 2017/11/03 - 22:15
Limit: FCC_Part15.209_RE(3m)	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5530MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

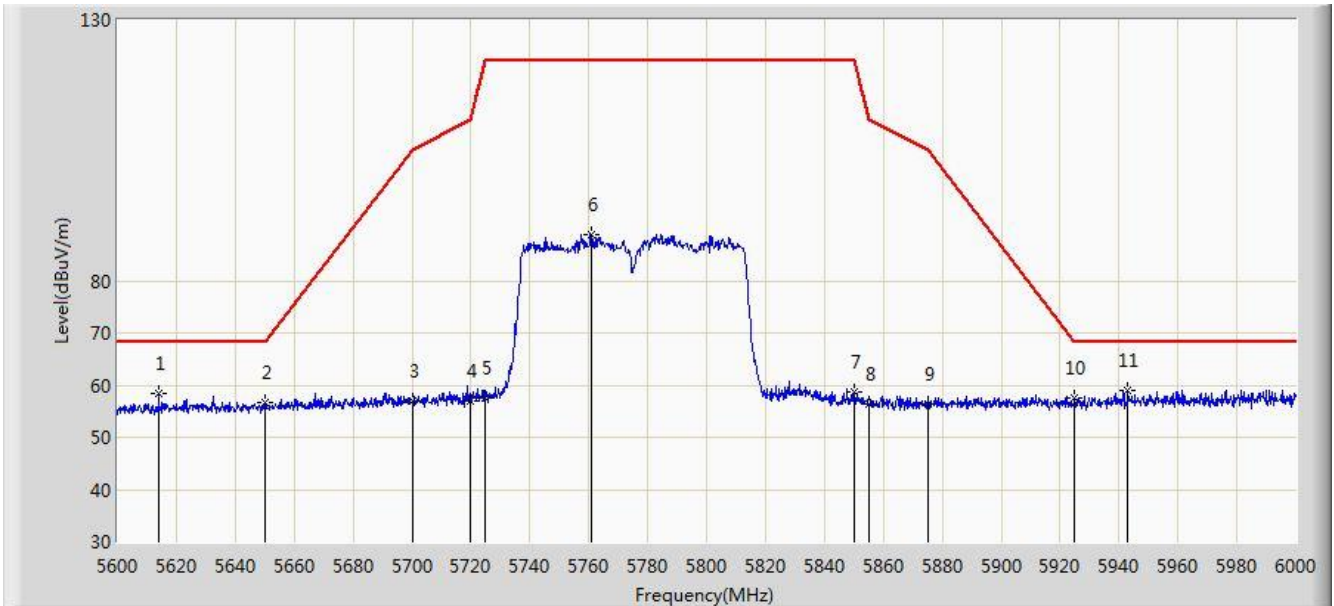


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5460.000	51.553	48.071	-2.447	54.000	3.482	AV
2		*	5512.610	95.040	91.527	N/A	N/A	3.512	AV

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:39
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Horizontal
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5775MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	

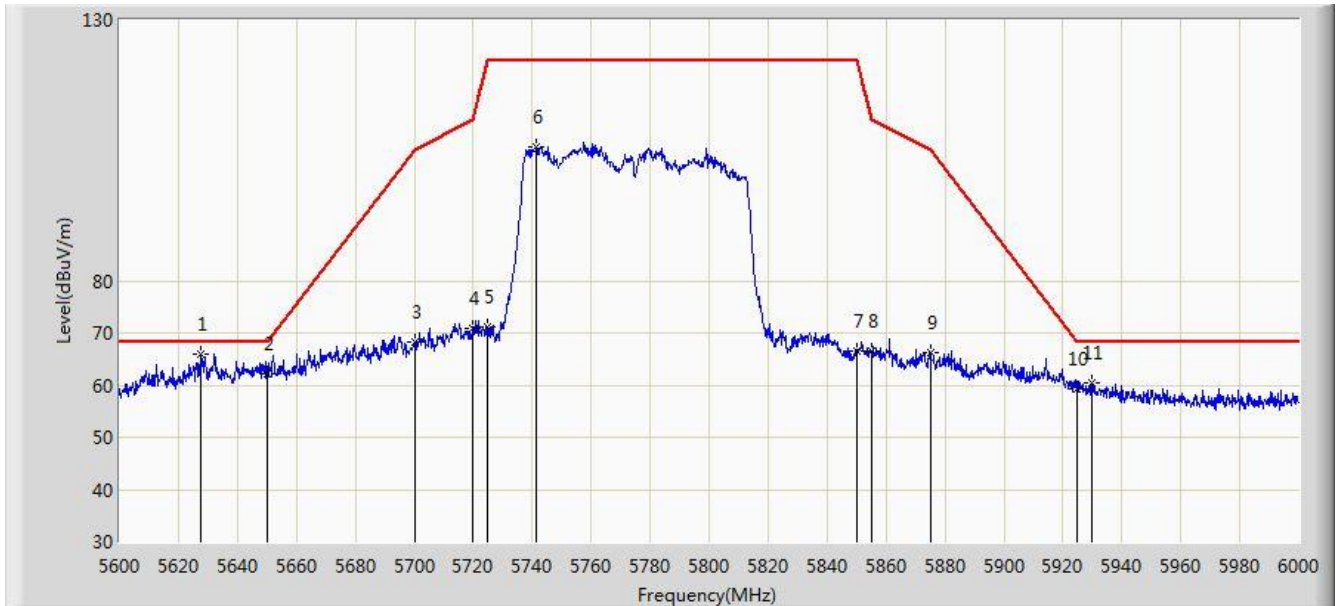


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1			5614.000	58.307	54.783	-9.893	68.200	3.524	PK
2			5650.000	56.799	53.172	-11.401	68.200	3.627	PK
3			5700.000	56.989	53.270	-48.211	105.200	3.719	PK
4			5720.000	56.992	53.216	-53.808	110.800	3.776	PK
5			5725.000	57.602	53.811	-64.598	122.200	3.791	PK
6			5761.000	88.932	85.025	N/A	N/A	3.907	PK
7			5850.000	58.807	54.750	-63.393	122.200	4.058	PK
8			5855.000	56.319	52.259	-54.481	110.800	4.060	PK
9			5875.000	56.428	52.323	-48.772	105.200	4.105	PK
10			5925.000	57.470	53.217	-10.730	68.200	4.254	PK
11		*	5943.000	59.007	54.736	-9.193	68.200	4.271	PK

Note: Measure Level (dBμV/m) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

Site: AC1	Time: 2017/11/03 - 22:38
Limit: FCC_Part15.407_RE(3m)_Bandedge	Engineer: Will Yan
Probe: BBHA9120D_1-18GHz	Polarity: Vertical
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: Powered by PCB Board
Test Mode: Transmit by 802.11ac-VHT80+80 at Channel 5775MHz Ant 2 + 3 / Ant 0 + 1 + 2 + 3	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor	Type
1		*	5627.800	65.887	62.320	-2.313	68.200	3.567	PK
2			5650.000	62.084	58.457	-6.116	68.200	3.627	PK
3			5700.000	68.335	64.616	-36.865	105.200	3.719	PK
4			5720.000	70.925	67.149	-39.875	110.800	3.776	PK
5			5725.000	71.200	67.409	-51.000	122.200	3.791	PK
6			5741.400	105.658	101.817	N/A	N/A	3.842	PK
7			5850.000	66.403	62.346	-55.797	122.200	4.058	PK
8			5855.000	66.436	62.376	-44.364	110.800	4.060	PK
9			5875.000	66.227	62.122	-38.973	105.200	4.105	PK
10			5925.000	59.189	54.936	-9.011	68.200	4.254	PK
11			5929.600	60.473	56.207	-7.727	68.200	4.265	PK

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)

## 7.10. AC Conducted Emissions Measurement

### 7.10.1. Test Limit

FCC Part 15.207 Limits		
Frequency (MHz)	QP (dB $\mu$ V)	AV (dB $\mu$ V)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

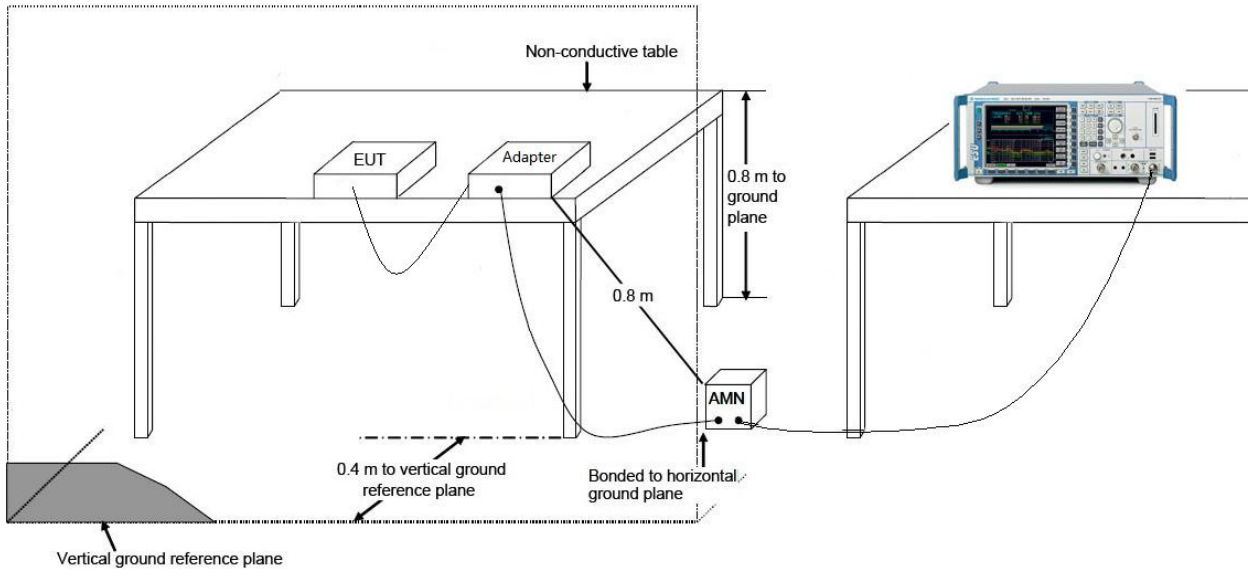
### 7.10.2. Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to KDB 789033 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

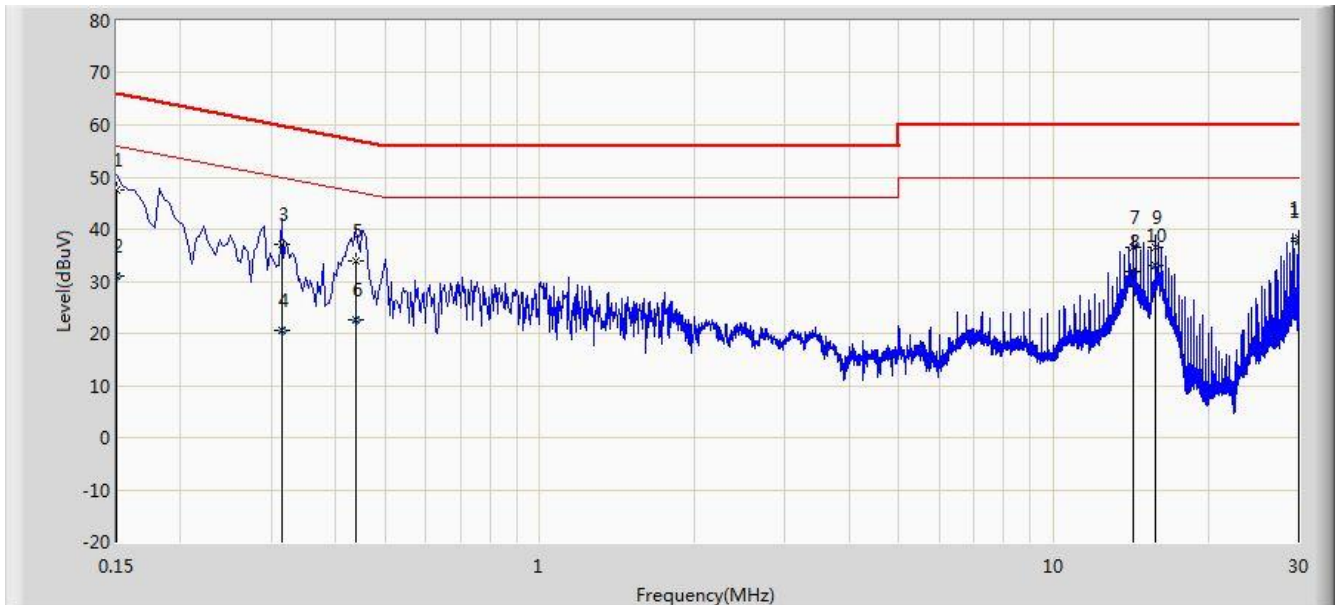
Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

### 7.10.3. Test Setup



**7.10.4. Test Result**

Site: SR2	Time: 2017/11/16 - 00:05
Limit: FCC_Part15.207_CE_AC Power	Engineer: Milo Li
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: AC 120V/60Hz
Test Mode: Mode 1	

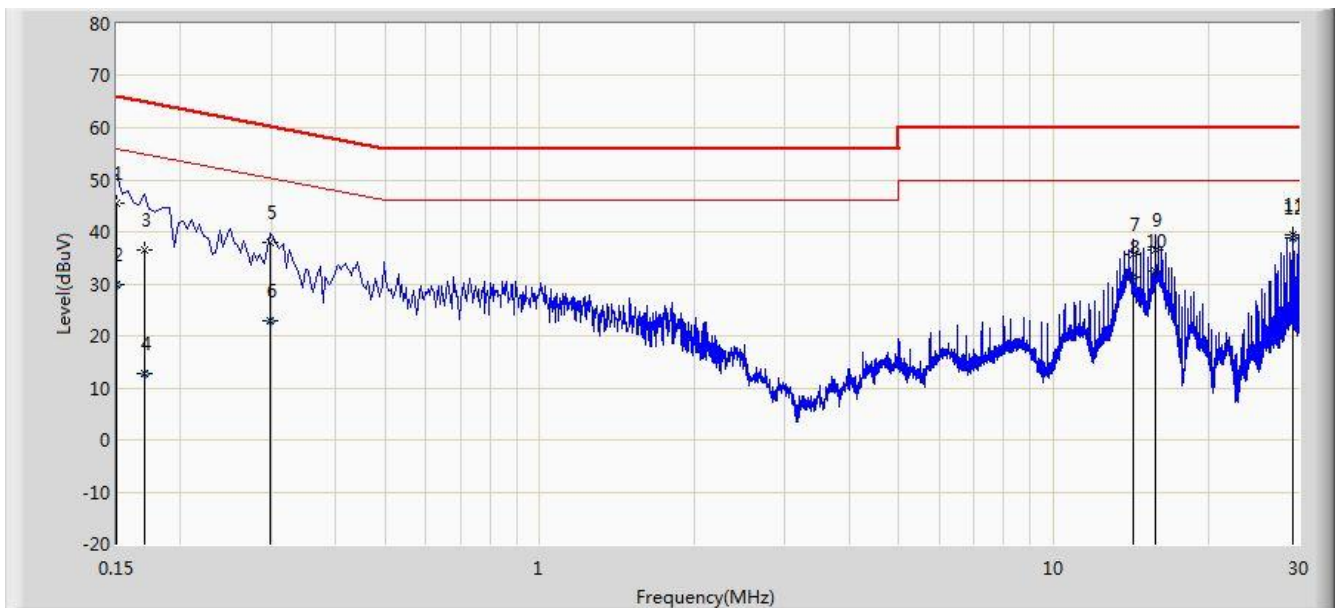


No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.150	47.579	36.410	-18.421	66.000	11.168	QP
2			0.150	30.897	19.728	-25.103	56.000	11.168	AV
3			0.314	36.976	26.960	-22.888	59.864	10.015	QP
4			0.314	20.717	10.701	-29.147	49.864	10.015	AV
5			0.438	33.927	23.811	-23.172	57.100	10.117	QP
6			0.438	22.682	12.566	-24.417	47.100	10.117	AV
7			14.250	36.379	26.308	-23.621	60.000	10.072	QP
8			14.250	31.950	21.878	-18.050	50.000	10.072	AV
9			15.750	36.545	26.475	-23.455	60.000	10.070	QP
10		*	15.750	32.938	22.869	-17.062	50.000	10.070	AV
11			30.002	38.191	27.921	NaN	NaN	10.270	QP
12			30.002	37.737	27.467	NaN	NaN	10.270	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

Site: SR2	Time: 2017/11/16 - 00:20
Limit: FCC_Part15.207_CE_AC Power	Engineer: Milo Li
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: 4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module	Power: AC 120V/60Hz
Test Mode: Mode 1	



No	Flag	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1			0.150	45.509	34.367	-20.491	66.000	11.142	QP
2			0.150	29.724	18.582	-26.276	56.000	11.142	AV
3			0.170	36.666	26.602	-28.295	64.960	10.064	QP
4			0.170	12.794	2.730	-42.167	54.960	10.064	AV
5			0.298	37.866	27.830	-22.432	60.298	10.036	QP
6			0.298	22.781	12.745	-27.517	50.298	10.036	AV
7			14.250	35.558	25.440	-24.442	60.000	10.118	QP
8			14.250	31.349	21.231	-18.651	50.000	10.118	AV
9			15.750	36.502	26.386	-23.498	60.000	10.117	QP
10			15.750	32.518	22.401	-17.482	50.000	10.117	AV
11			29.254	39.353	28.921	-20.647	60.000	10.432	QP
12		*	29.254	38.974	28.541	-11.026	50.000	10.432	AV

Note: Measure Level (dBμV) = Reading Level (dBμV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + LISN Factor (dB)

## 8. CONCLUSION

The data collected relate only the item(s) tested and show that the **4x4 Wave-2 802.11ac/a/n Mini PCIe WiFi Module** is in compliance with Part 15E of the FCC Rules.

————— The End —————