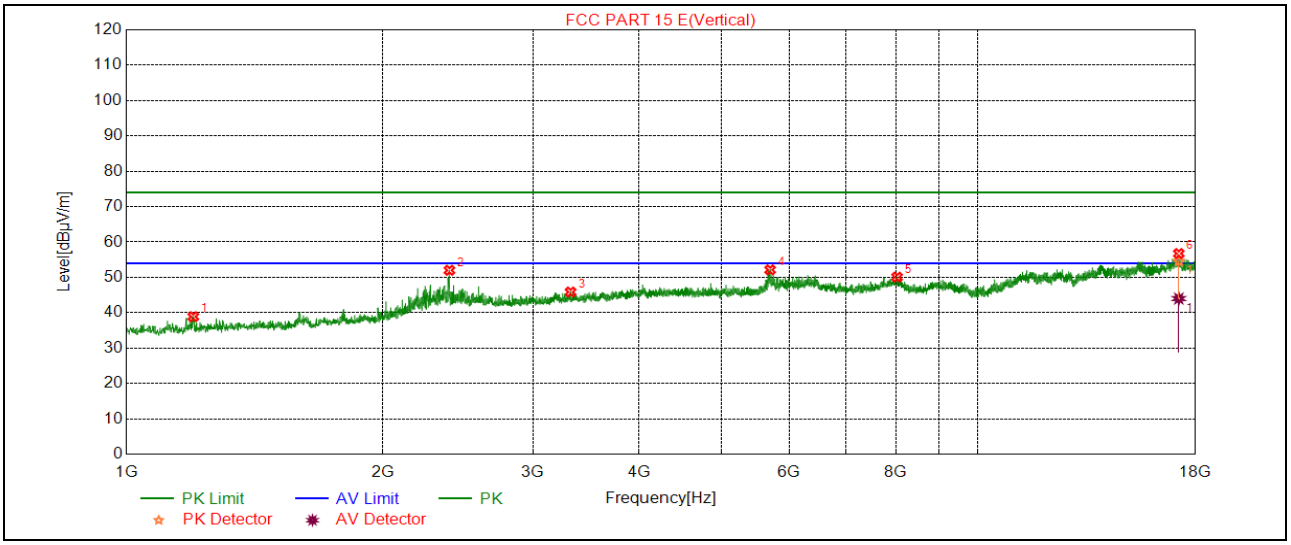
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1198.0330	38.88	74	-35.12	54	-15.12	peak
2	2394.4824	52.00	74	-22.00	54	-2.00	peak
3	3322.3037	45.86	74	-28.14	54	-8.14	peak
4	5698.6998	52.13	74	-21.87	54	-1.87	peak
5	8031.6633	50.07	74	-23.93	54	-3.93	peak
6	17202.5331	56.74	74	-17.26	54	2.74	peak
7	17202.5331	44.00	74	-30.00	54	-10.00	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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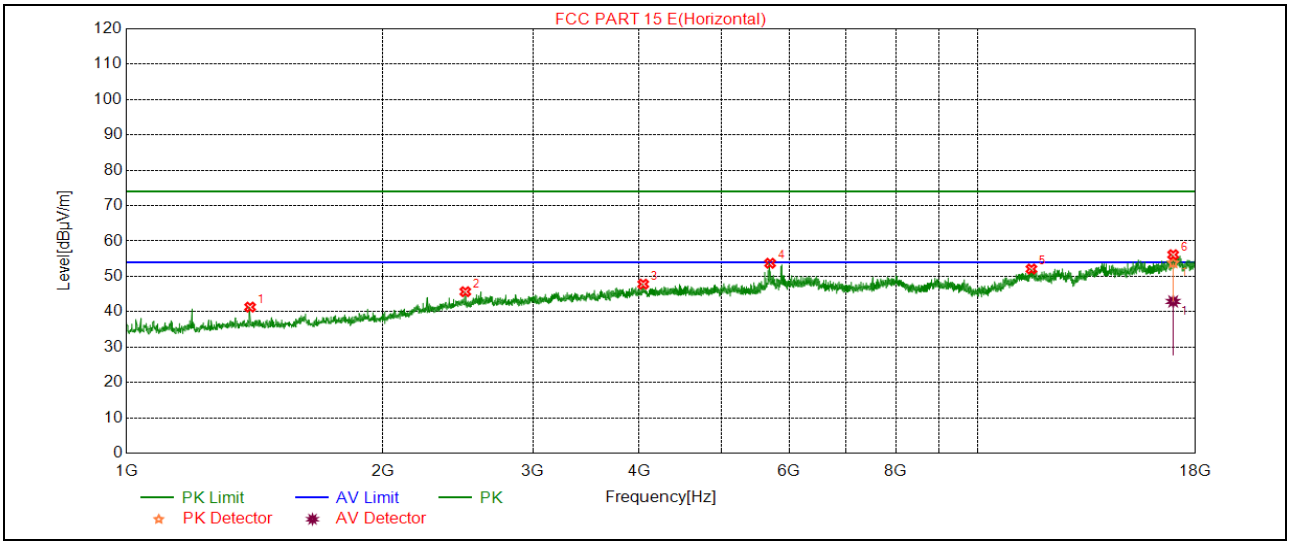
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1396.9828	41.31	74	-32.69	54	-12.69	peak
2	2499.9167	45.66	74	-28.34	54	-8.34	peak
3	4043.8406	47.80	74	-26.20	54	-6.20	peak
4	5697.7830	53.70	74	-20.30	54	-0.30	peak
5	11549.3359	52.08	74	-21.92	54	-1.92	peak
6	16941.8227	56.12	74	-17.88	54	2.12	peak
7	16941.8227	42.90	74	-31.10	54	-11.10	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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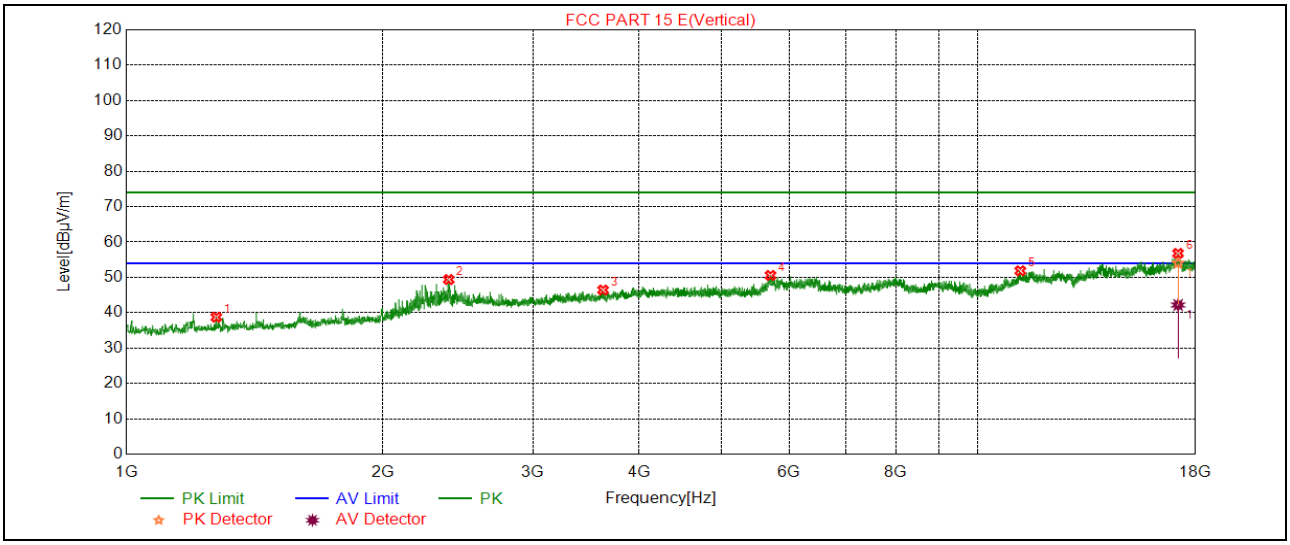
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1275.0458	38.74	74	-35.26	54	-15.26	peak
2	2389.8983	49.38	74	-24.62	54	-4.62	peak
3	3627.6046	46.42	74	-27.58	54	-7.58	peak
4	5704.2007	50.55	74	-23.45	54	-3.45	peak
5	11208.1121	51.85	74	-22.15	54	-2.15	peak
6	17169.9443	56.78	74	-17.22	54	2.78	peak
7	17169.9443	42.18	74	-31.82	54	-11.82	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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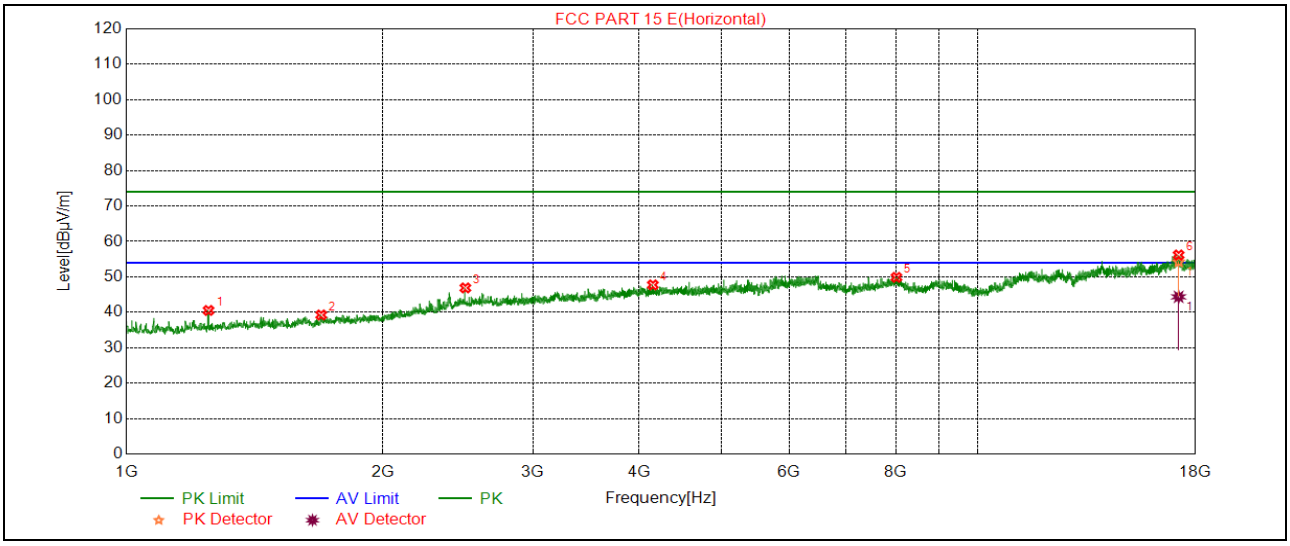
7.3.5. STRADDLE CHANNEL 142

MIMO MODE (WORST-CASE CONFIGURATION)
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1248.4581	40.52	74	-33.48	54	-13.48	peak
2	1693.1155	39.25	74	-34.75	54	-14.75	peak
3	2499.9167	46.88	74	-27.12	54	-7.12	peak
4	4150.1917	47.73	74	-26.27	54	-6.27	peak
5	8018.2444	49.87	74	-24.13	54	-4.13	peak
6	17194.8651	54.23	74	-19.77	54	0.23	peak
7	17194.8651	44.36	74	-29.64	54	-9.64	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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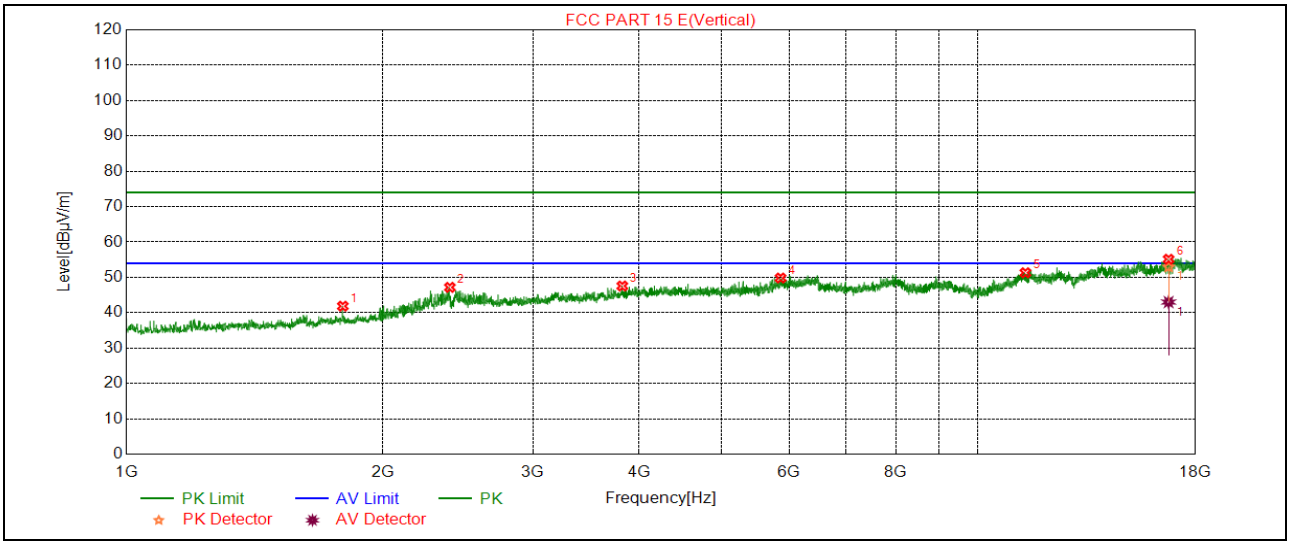
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1794.8825	41.85	74	-32.15	54	-12.15	peak
2	2397.2329	47.17	74	-26.83	54	-6.83	peak
3	3821.0535	47.56	74	-26.44	54	-6.44	peak
4	5861.8936	49.81	74	-24.19	54	-4.19	peak
5	11363.3881	51.30	74	-22.70	54	-2.27	peak
6	16734.7880	52.93	74	-21.07	54	-1.07	peak
7	16734.7880	43.01	74	-30.99	54	-10.99	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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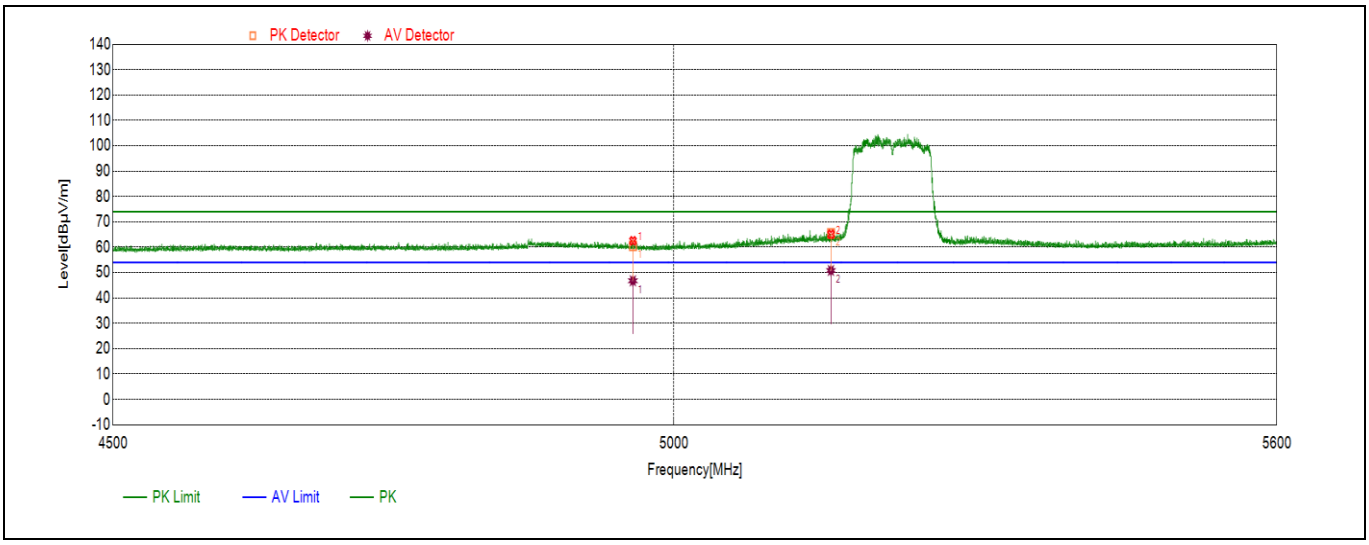
7.4. 802.11ac HT80 MODE

MIMO CDD MODE (WORST-CASE CONFIGURATION)

7.4.1. UNII-1 BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4961.8581	60.64	74.00	-13.36	peak
		46.78	54.00	-7.22	average
2	5150.0000	65.31	74.00	-8.69	peak
		50.83	54.00	-3.17	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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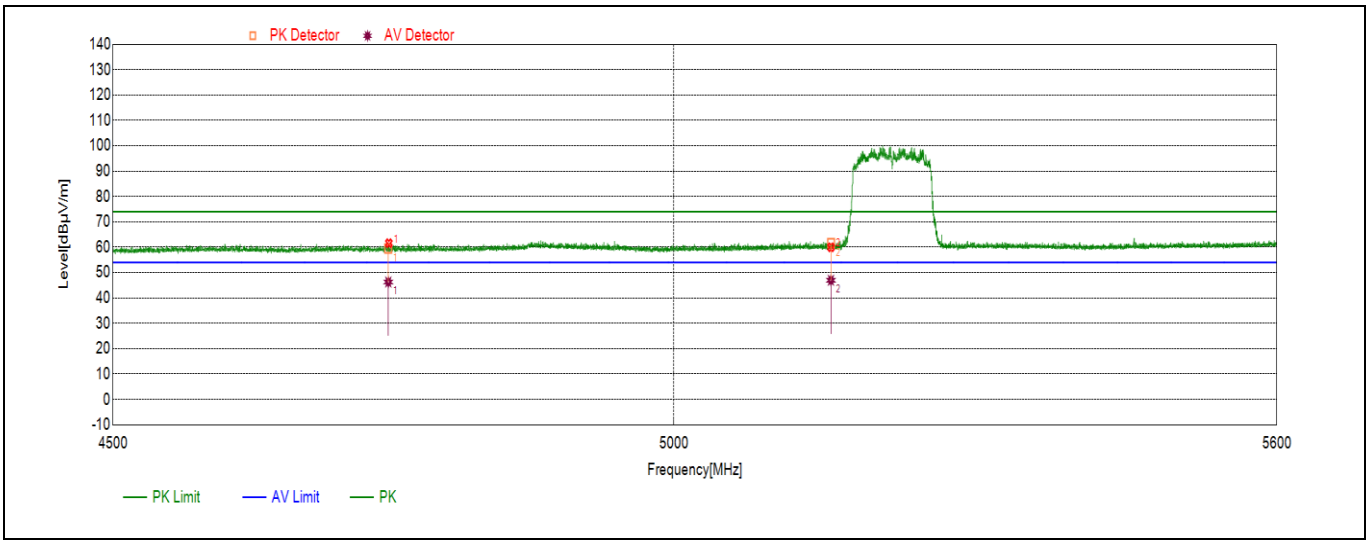
VERTICAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4738.9946	59.31	74.00	-14.69	peak
		46.29	54.00	-7.71	average
2	5150.0000	61.45	74.00	-12.55	peak
		46.97	54.00	-7.03	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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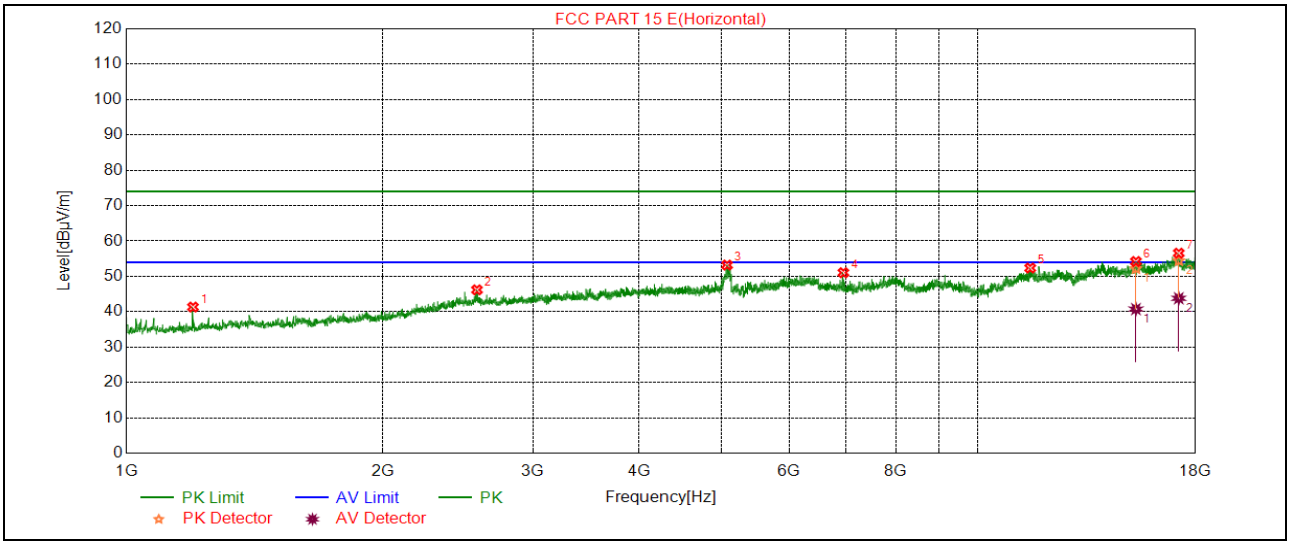
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1197.1162	41.32	74	-32.68	54	-12.68	peak
2	2579.6799	46.19	74	-27.81	54	-7.81	peak
3	5072.5121	53.19	74	-20.81	54	-0.81	peak
4	6946.6578	51.03	74	-22.97	54	-2.97	peak
5	11511.0018	52.35	74	-21.65	54	-1.65	peak
6	15320.0533	54.20	74	-19.80	54	0.20	peak
7	15320.0533	40.75	74	-33.25	54	-13.25	average
8	17200.6168	54.41	74	-19.59	54	0.41	peak
9	17200.6168	43.80	74	-30.20	54	-10.20	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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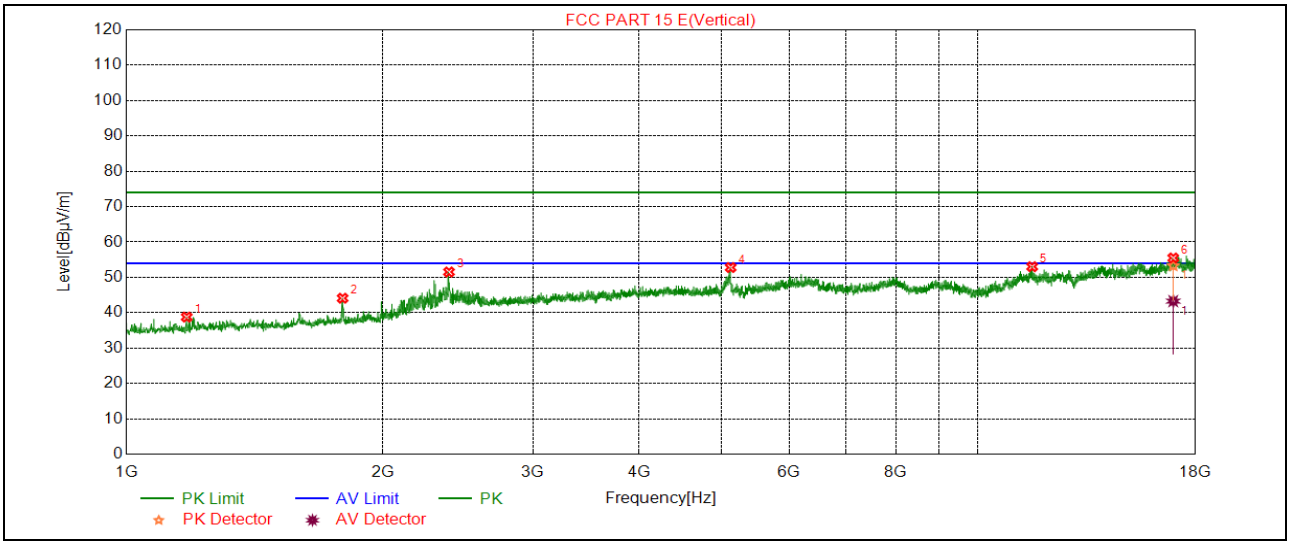
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1176.9462	38.77	74	-35.23	54	-15.23	peak
2	1793.9657	44.10	74	-29.90	54	-9.90	peak
3	2391.7320	51.52	74	-22.48	54	-2.48	peak
4	5122.0203	52.78	74	-21.22	54	-1.22	peak
5	11572.3454	53.02	74	-20.98	54	-0.98	peak
6	16945.6576	55.48	74	-18.52	54	1.48	peak
7	16945.6576	43.28	74	-30.72	54	-10.72	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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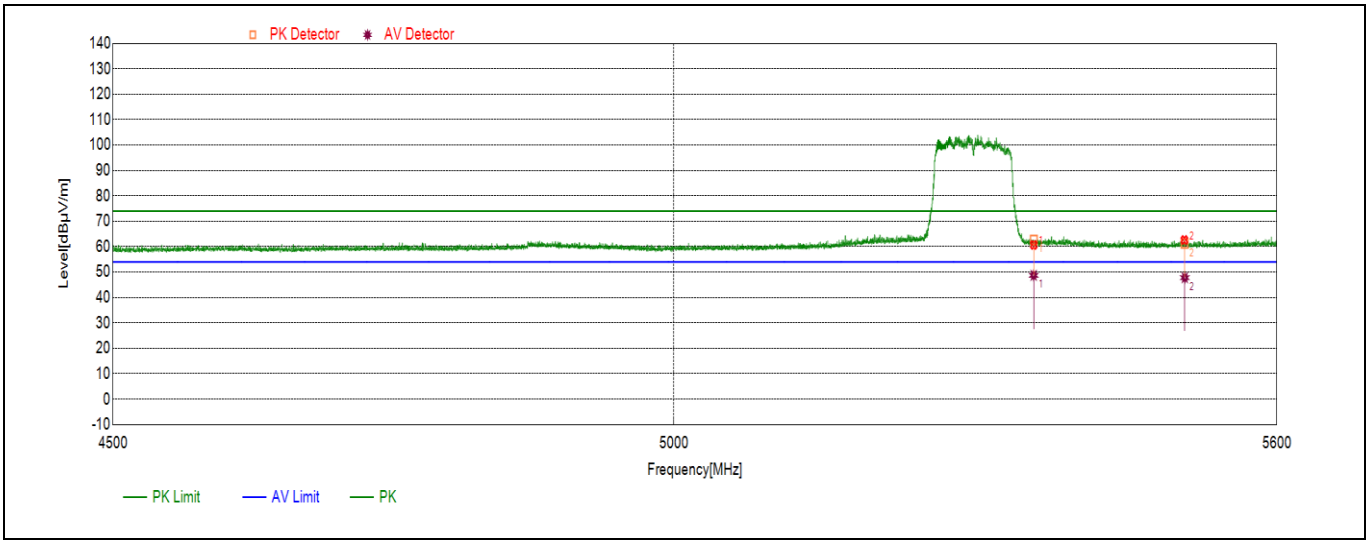
7.4.2. UNII-2A BAND

RESTRICTED BANDEDGE HIGH CHANNEL

HORIZONTAL RESULTS
PEAK



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.0000	62.52	74.00	-11.48	peak
		48.72	54.00	-5.28	average
2	5504.1007	61.04	74.00	-12.96	peak
		47.80	54.00	-6.20	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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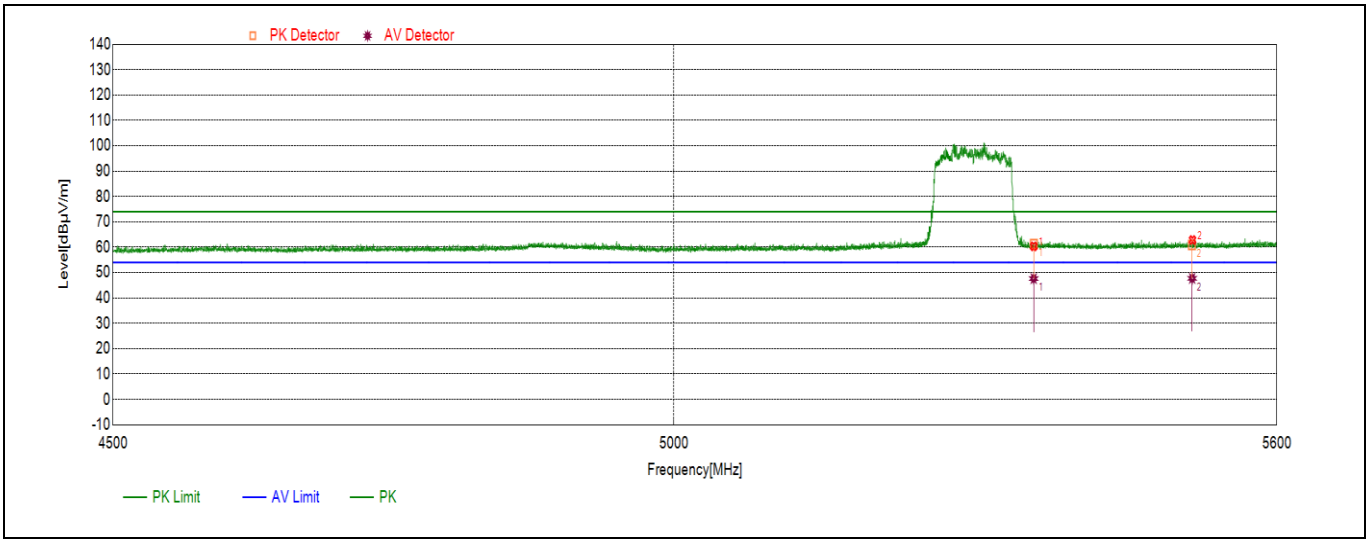
VERTICAL RESULTS
PEAK



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5350.0000	61.13	74.00	-12.87	peak
		47.62	54.00	-6.38	average
2	5511.7510	60.80	74.00	-13.20	peak
		47.72	54.00	-6.28	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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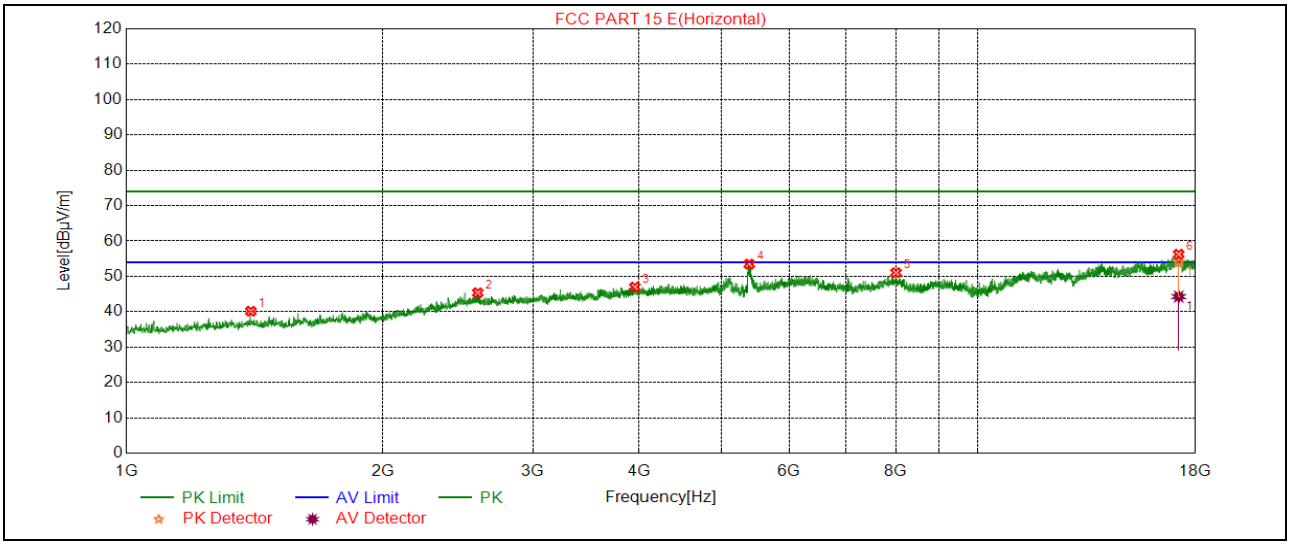
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1399.7333	40.14	74	-33.86	54	-13.86	peak
2	2585.1809	45.36	74	-28.64	54	-8.64	peak
3	3953.0755	46.96	74	-27.04	54	-7.04	peak
4	5386.0643	53.44	74	-20.56	54	-0.56	peak
5	8008.6681	51.03	74	-22.97	54	-2.97	peak
6	17198.6998	56.26	74	-17.74	54	2.26	peak
7	17198.6998	44.28	74	-29.72	54	-9.72	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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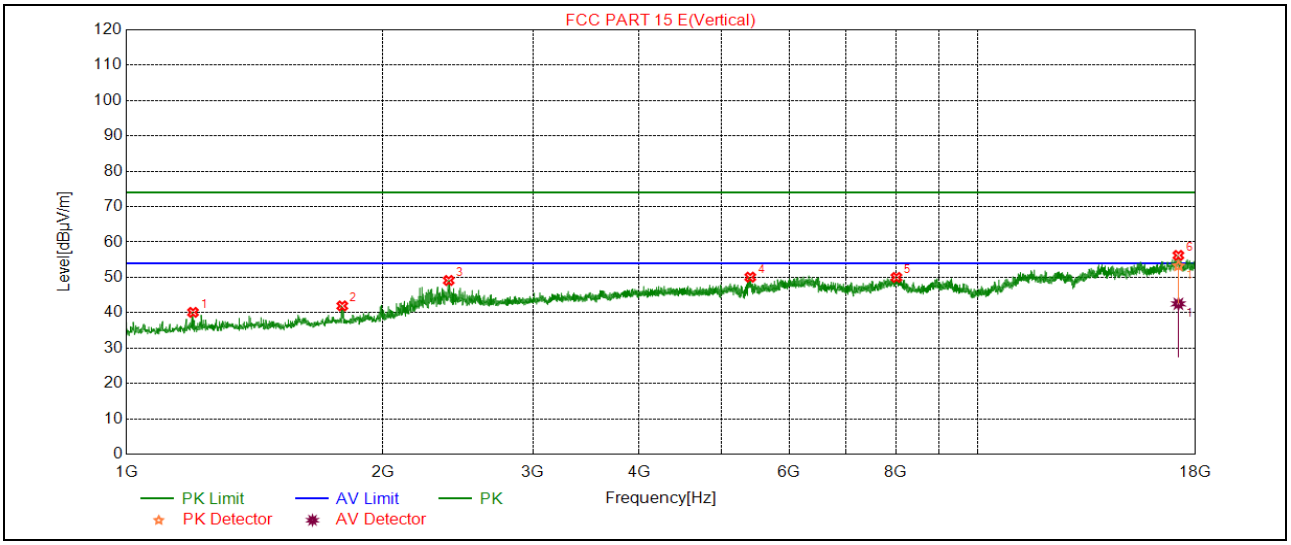
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1197.1162	40.10	74	-33.90	54	-13.90	peak
2	1792.1320	41.92	74	-32.08	54	-12.08	peak
3	2389.8983	49.12	74	-24.88	54	-4.88	peak
4	5400.7335	50.06	74	-23.94	54	-3.94	peak
5	8018.2530	49.98	74	-24.02	54	-4.02	peak
6	17183.3639	56.21	74	-17.79	54	2.21	peak
7	17183.3639	42.51	74	-31.49	54	-11.49	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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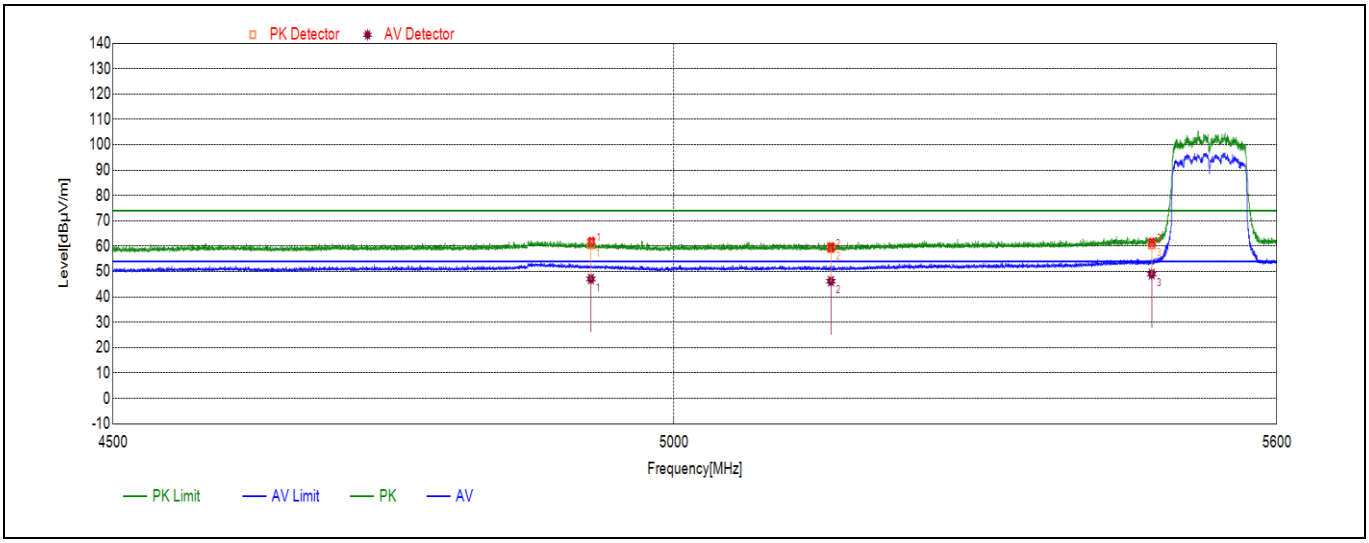
7.4.3. UNII-2C BAND

RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4922.9330	60.73	74.00	-13.27	peak
		47.11	54.00	-6.89	average
2	5150.0000	59.47	74.00	-14.53	peak
		46.22	54.00	-7.78	average
3	5470.000	60.84	74.00	-13.16	peak
		49.03	54.00	-4.97	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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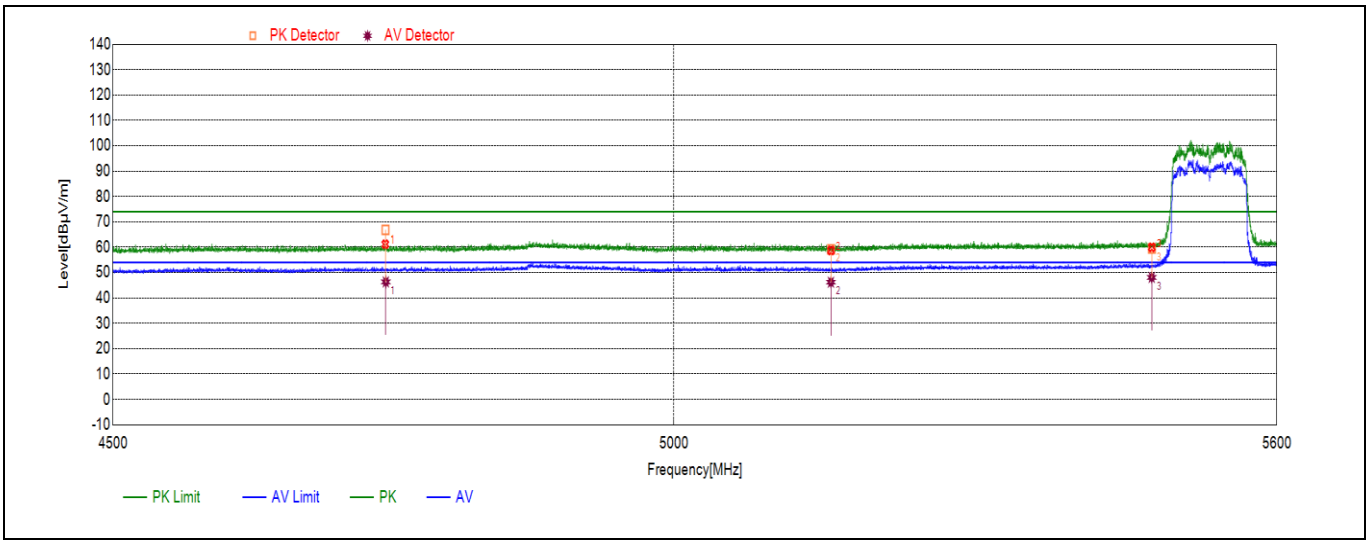
VERTICAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	4736.7884	66.61	74.00	-7.39	peak
		46.33	54.00	-7.67	average
2	5150.0000	59.10	74.00	-14.90	peak
		46.21	54.00	-7.79	average
3	5470.000	59.56	74.00	-14.44	peak
		48.08	54.00	-5.92	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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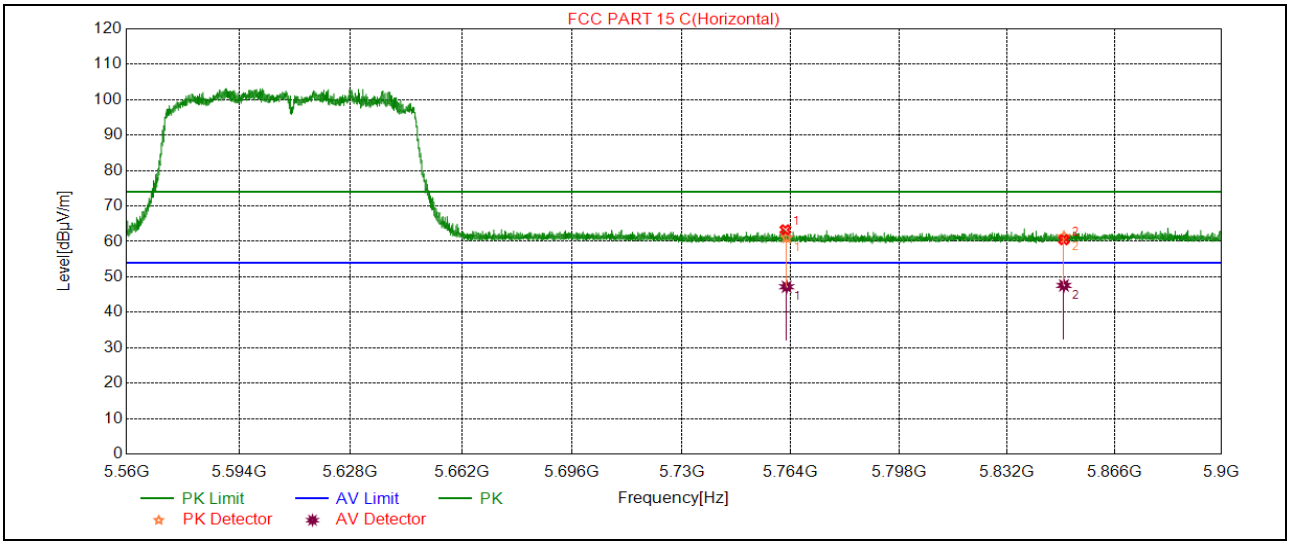
RESTRICTED BANDEDGE HIGH CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5762.6798	61.02	74.00	-12.98	peak
		47.20	54.00	-6.80	average
2	5850.0000	61.32	74.00	-12.68	peak
		47.58	54.00	-6.42	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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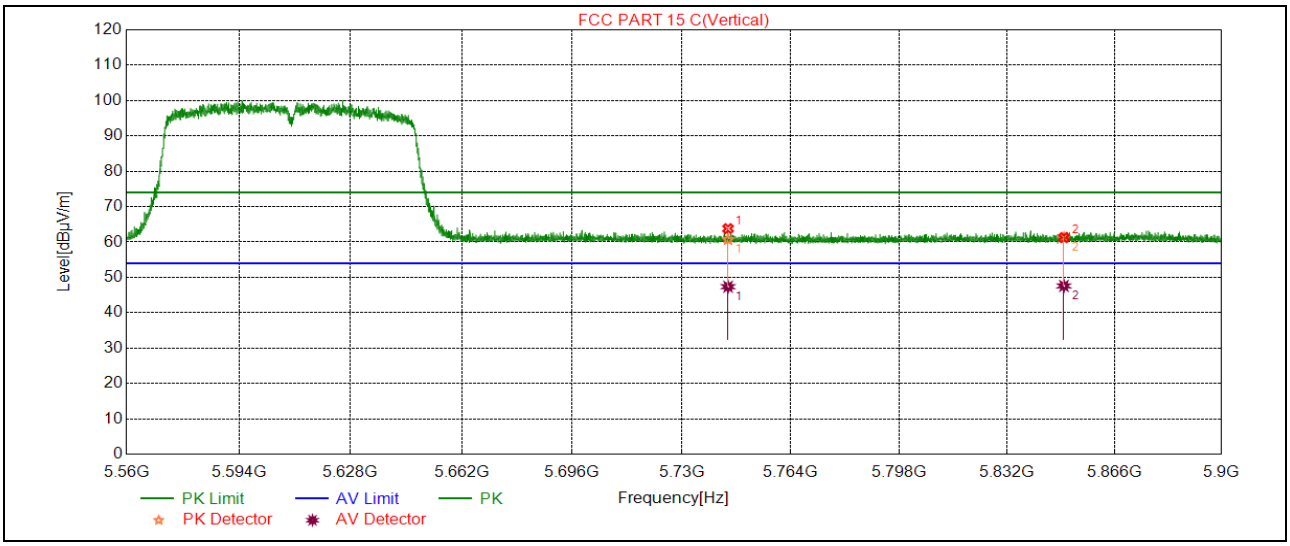
VERTICAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5744.4047	60.67	74.00	-13.33	peak
		47.35	54.00	-6.65	average
2	5850.0000	61.28	74.00	-12.72	peak
		47.58	54.00	-6.42	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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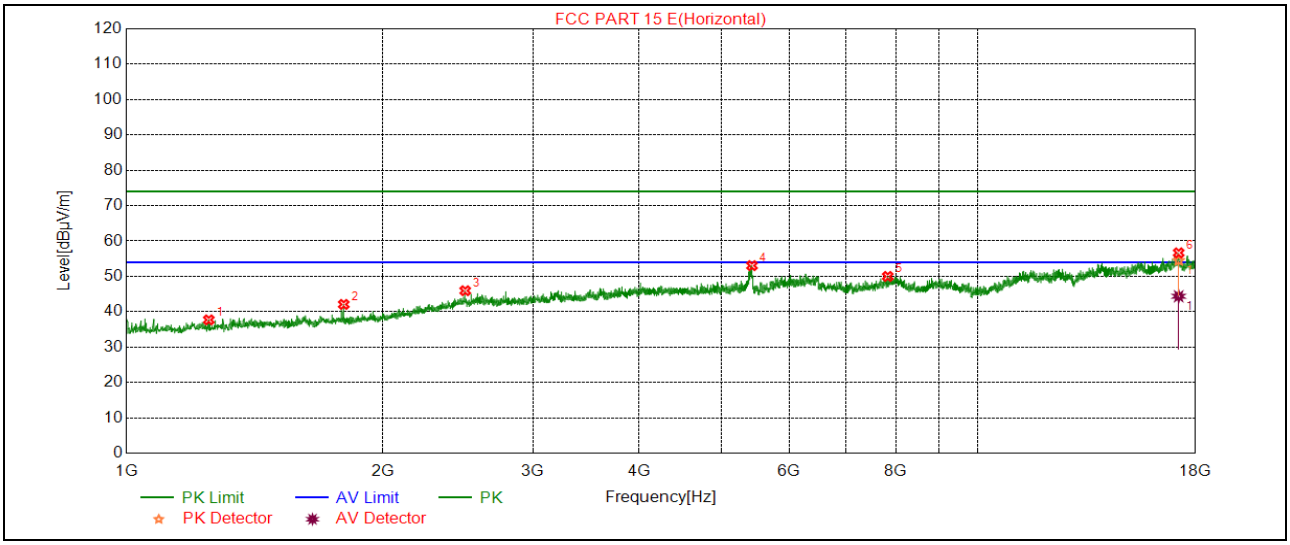
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1249.3749	37.70	74	-36.30	54	-16.30	peak
2	1799.4666	42.07	74	-31.93	54	-11.93	peak
3	2498.9998	45.94	74	-28.06	54	-8.06	peak
4	5425.4876	53.03	74	-20.97	54	-0.97	peak
5	7832.2965	49.98	74	-24.02	54	-4.02	peak
6	17196.7821	56.65	74	-17.35	54	2.65	peak
7	17196.7821	44.37	74	-29.63	54	-9.63	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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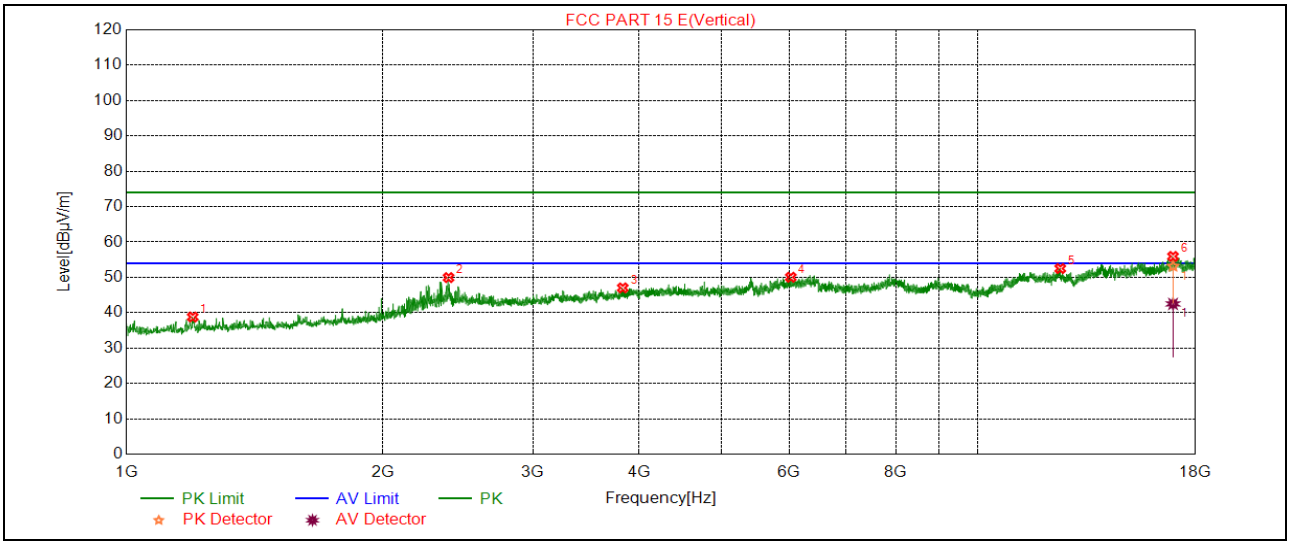
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1196.1994	38.79	74	-35.21	54	-15.21	peak
2	2388.9815	49.93	74	-24.07	54	-4.07	peak
3	3825.6376	47.02	74	-26.98	54	-6.98	peak
4	6026.0043	50.03	74	-23.97	54	-3.97	peak
5	12486.7430	52.49	74	-21.51	54	-1.51	peak
6	16936.0718	55.92	74	-18.08	54	1.92	peak
7	16936.0718	42.49	74	-31.51	54	-11.51	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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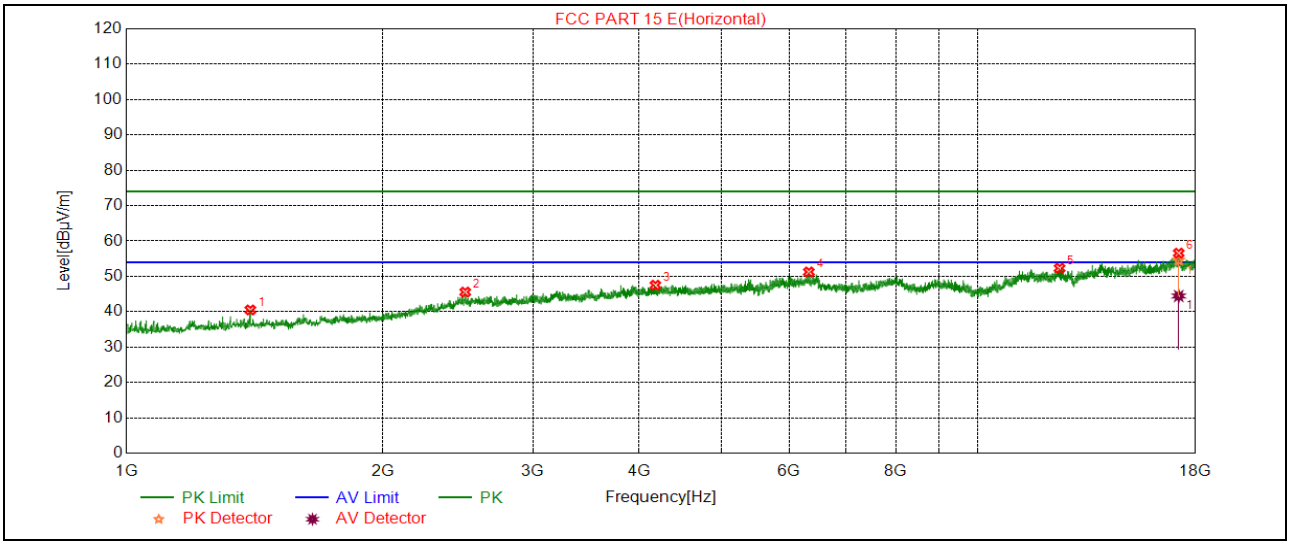
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1397.8997	40.50	74	-33.50	54	-13.50	peak
2	2498.9998	45.55	74	-28.45	54	-8.45	peak
3	4178.6131	47.50	74	-26.50	54	-6.50	peak
4	6327.6379	51.23	74	-22.77	54	-2.77	peak
5	12463.7391	52.29	74	-21.71	54	-1.71	peak
6	17198.6991	56.56	74	-17.44	54	2.56	peak
7	17198.6991	44.44	74	-29.56	54	-9.56	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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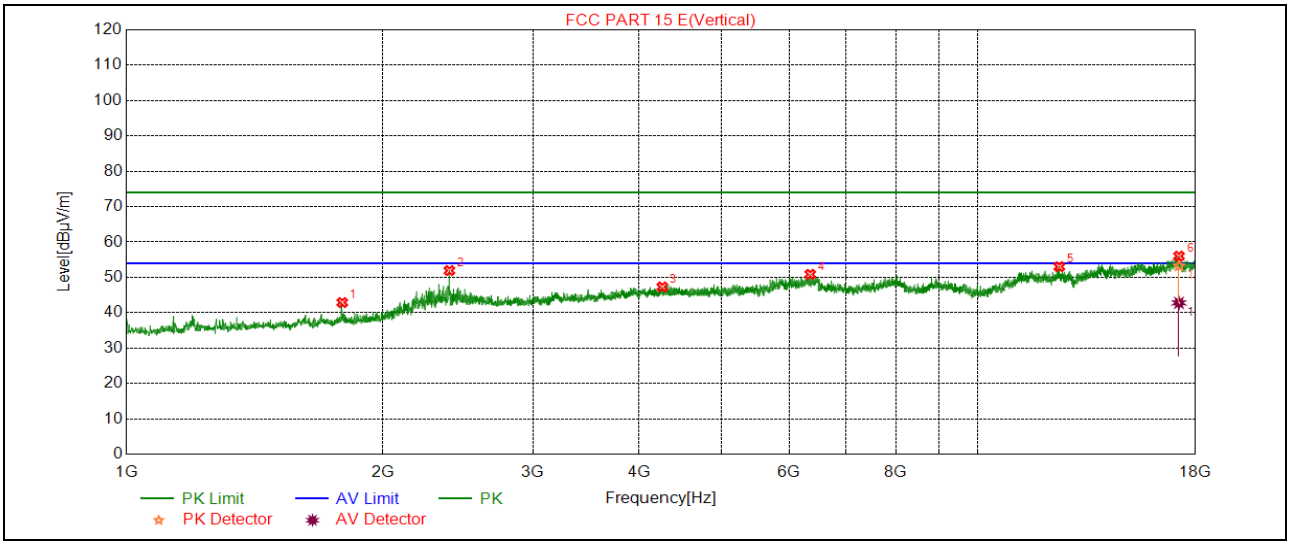
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1792.1320	42.88	74	-31.12	54	-11.12	peak
2	2394.4824	51.92	74	-22.08	54	-2.08	peak
3	4257.4596	47.30	74	-26.70	54	-6.70	peak
4	6350.5584	50.86	74	-23.14	54	-3.14	peak
5	12454.1542	53.02	74	-20.98	54	-0.98	peak
6	17210.2010	56.01	74	-17.99	54	2.01	peak
7	17210.2010	42.79	74	-31.21	54	-11.21	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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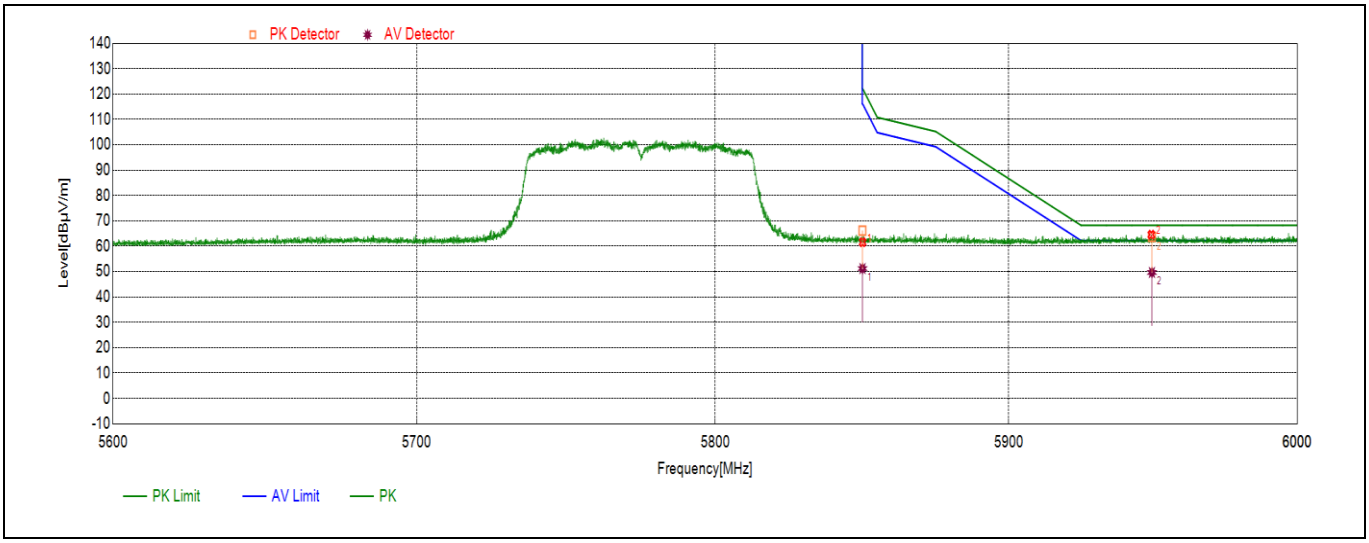
7.4.4. UNII-3 BAND

RESTRICTED BANDEDGE HIGH CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.0000	66.04	122.20	-56.16	peak
		51.19	116.20	-65.01	average
2	5949.4790	63.47	68.20	-4.73	peak
		49.66	62.20	-12.54	average

Note: 1. Measurement = Reading Level + Correct Factor.

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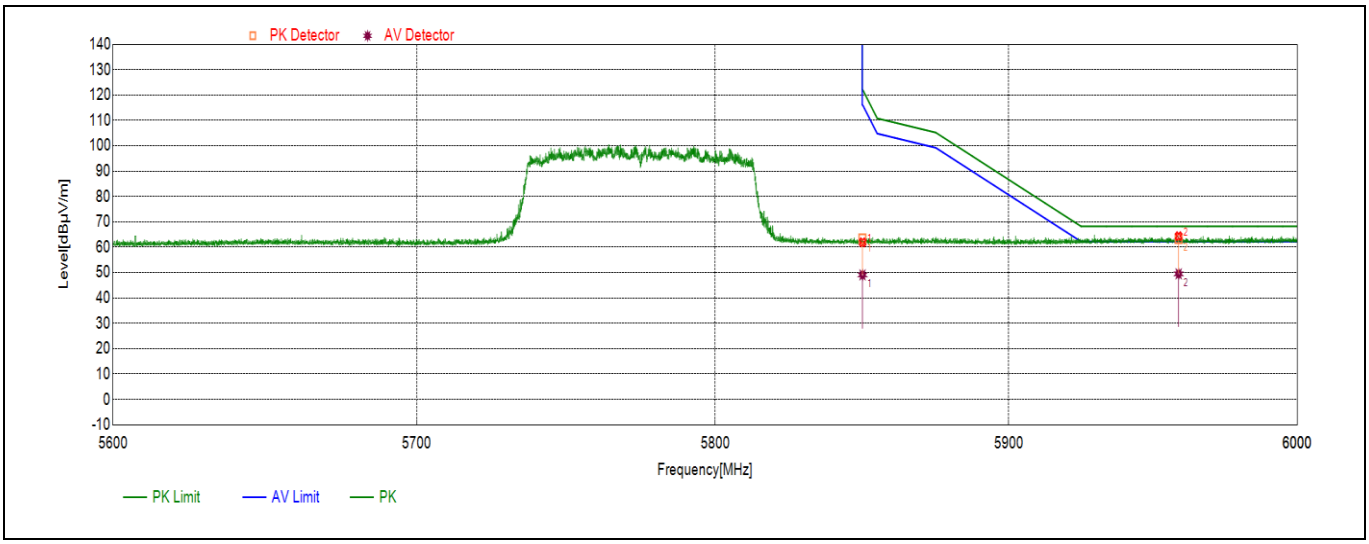
VERTICAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5850.0000	63.18	122.20	-59.02	peak
		49.09	116.20	-67.11	average
2	5958.7530	63.29	68.20	-4.91	peak
		49.51	62.20	-12.69	average

Note: 1. Measurement = Reading Level + Correct Factor.

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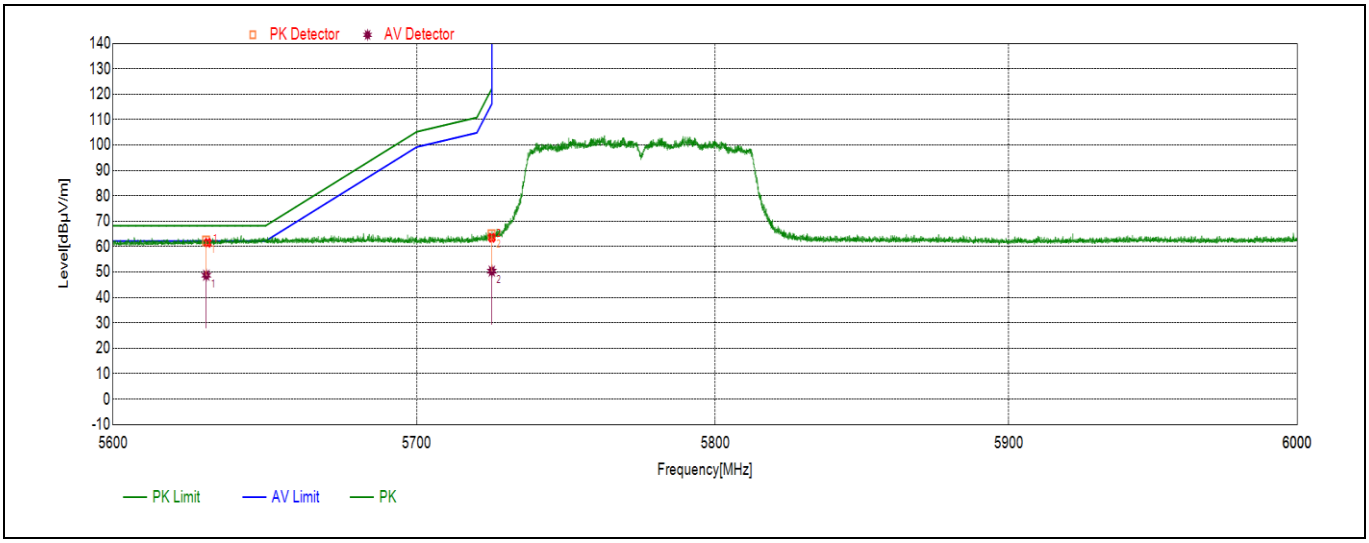
RESTRICTED BANDEDGE LOW CHANNEL

HORIZONTAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5630.5438	62.30	68.20	-5.90	peak
		48.76	62.20	-13.44	average
2	5725.0000	64.56	122.20	-57.64	peak
		50.38	116.20	-65.82	average

Note: 1. Measurement = Reading Level + Correct Factor.

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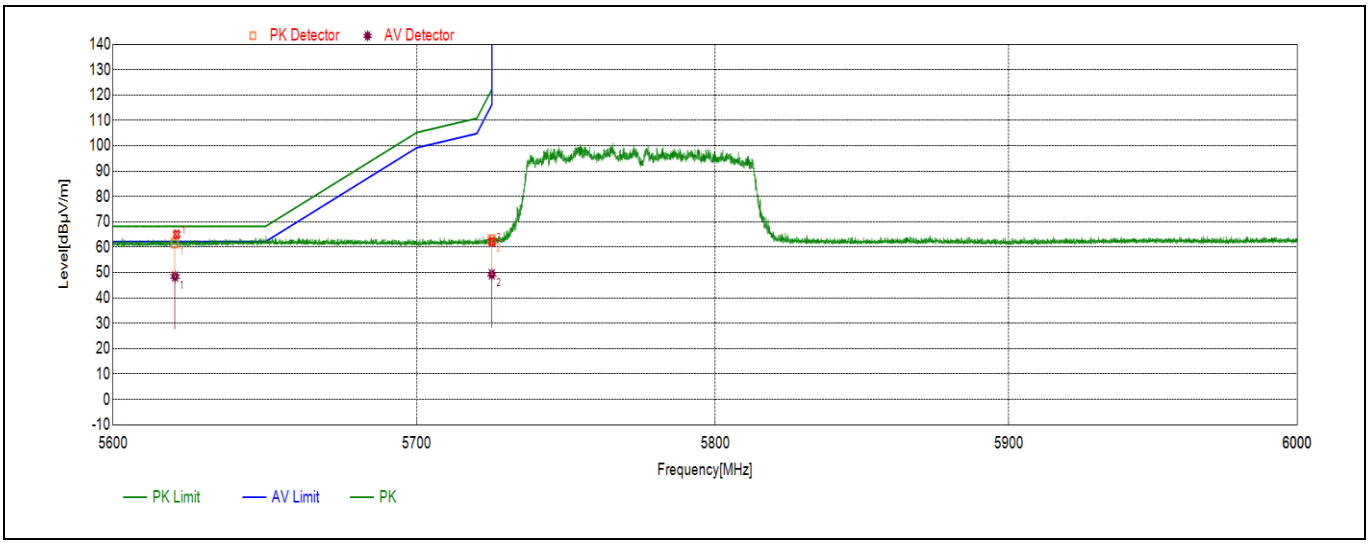
VERTICAL RESULTS



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	5620.3028	61.49	68.20	-6.71	peak
		48.46	62.20	-13.74	average
2	5725.0000	62.96	122.20	-59.24	peak
		49.34	116.20	-66.86	average

Note: 1. Measurement = Reading Level + Correct Factor.

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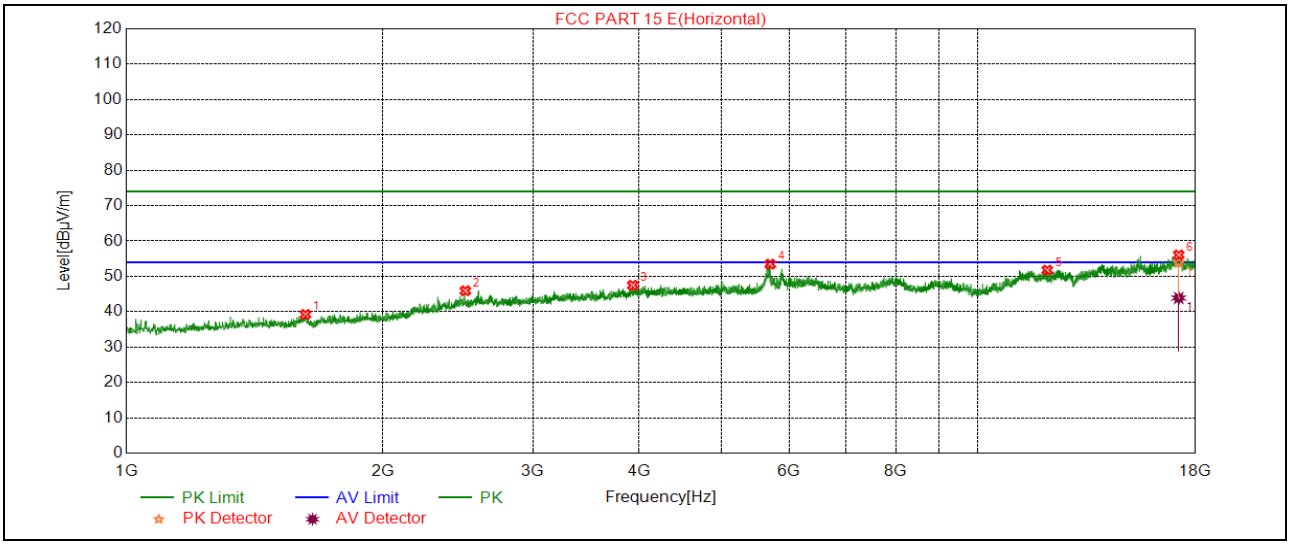
HARMONICS AND SPURIOUS EMISSIONS LOW CHANNEL

HORIZONTAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1622.5204	39.23	74	-34.77	54	-14.77	peak
2	2499.9167	45.93	74	-28.07	54	-8.07	peak
3	3931.0718	47.47	74	-26.53	54	-6.53	peak
4	5700.5334	53.44	74	-20.56	54	-0.56	peak
5	12053.5037	51.75	74	-22.25	54	-2.25	peak
6	17198.6991	56.06	74	-17.94	54	2.06	peak
7	17198.6991	43.88	74	-30.12	54	-10.12	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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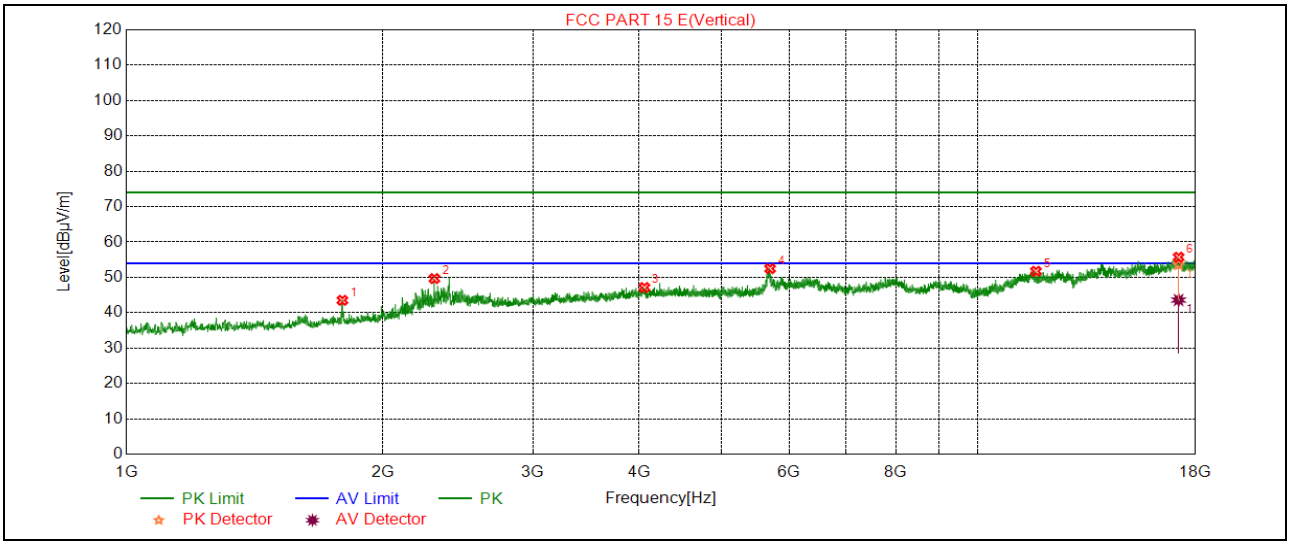
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1793.0488	43.51	74	-30.49	54	-10.49	peak
2	2299.1332	49.65	74	-24.35	54	-4.35	peak
3	4056.6761	47.13	74	-26.87	54	-6.87	peak
4	5697.7830	52.46	74	-21.54	54	-1.54	peak
5	11691.1930	51.73	74	-22.27	54	-2.27	peak
6	17192.9481	55.70	74	-18.30	54	1.70	peak
7	17192.9481	43.59	74	-30.41	54	-10.41	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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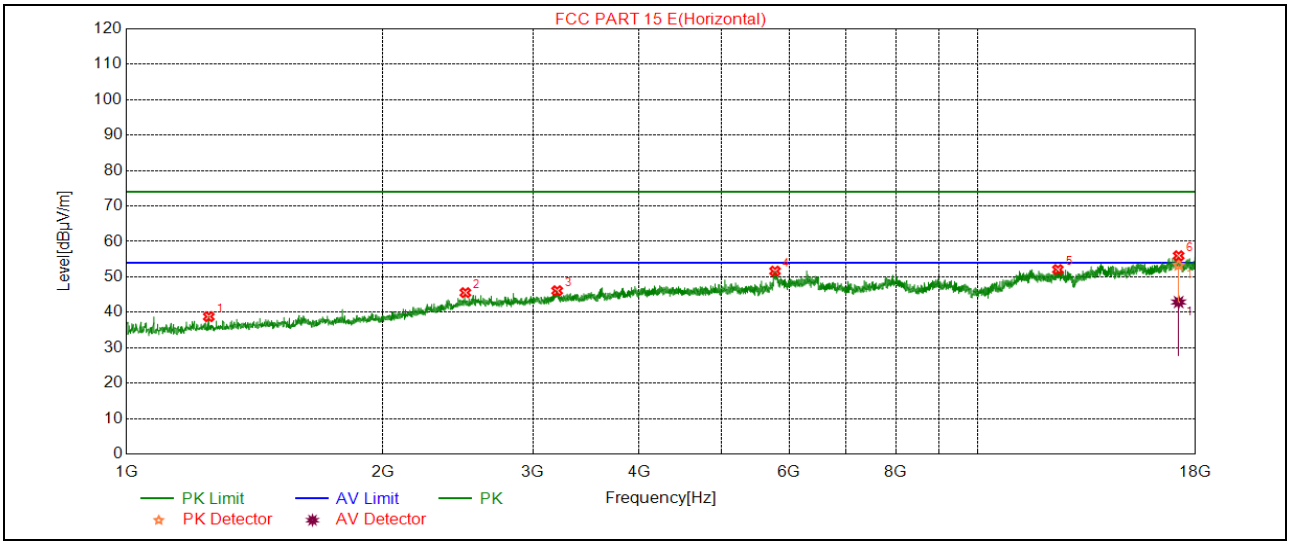
7.4.5. STRADDLE CHANNEL 138

MIMO MODE (WORST-CASE CONFIGURATION)
HARMONICS AND SPURIOUS EMISSIONS HIGH CHANNEL

HORIZONTAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1249.3749	38.77	74	-35.23	54	-15.23	peak
2	2499.9167	45.54	74	-28.46	54	-8.46	peak
3	3204.0340	46.08	74	-27.92	54	-7.92	peak
4	5774.7958	51.62	74	-22.38	54	-2.38	peak
5	12406.2295	52.06	74	-21.94	54	-1.94	peak
6	17194.8651	53.26	74	-20.74	54	-0.74	peak
7	17194.8651	42.89	74	-31.11	54	-11.11	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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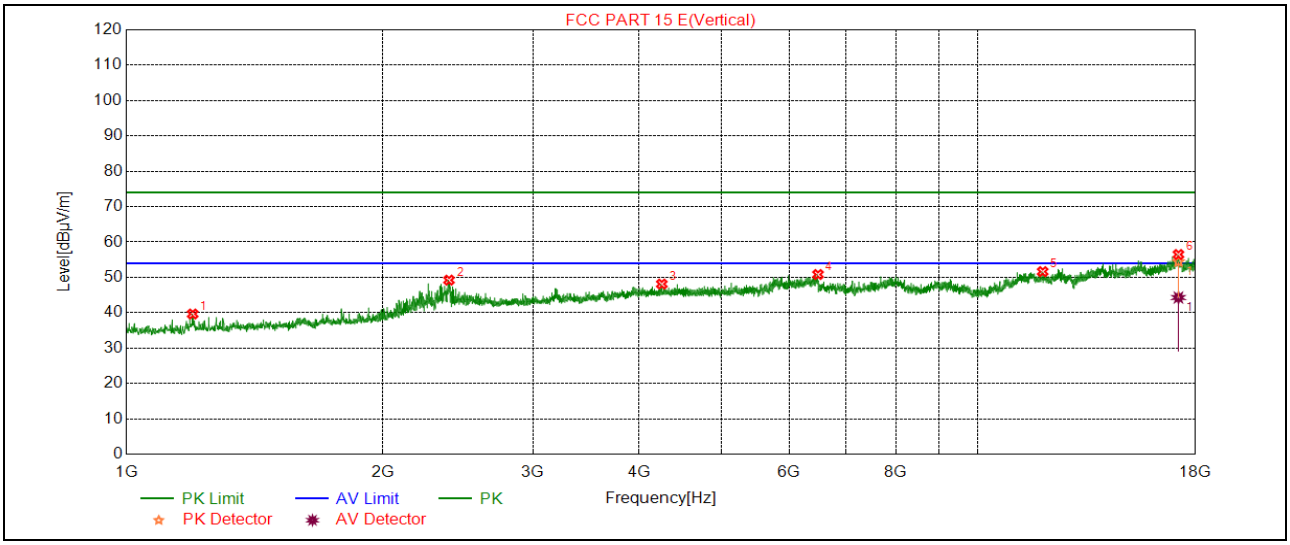
VERTICAL RESULTS
1-18GHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	1196.1994	39.64	74	-34.36	54	-14.36	peak
2	2391.7320	49.22	74	-24.78	54	-4.78	peak
3	4251.9587	48.11	74	-25.89	54	-5.89	peak
4	6486.2477	50.81	74	-23.19	54	-3.19	peak
5	11905.8957	51.62	74	-22.38	54	-2.38	peak
6	17185.2802	54.43	74	-19.57	54	0.43	peak
7	17185.2802	44.29	74	-29.71	54	-9.71	average

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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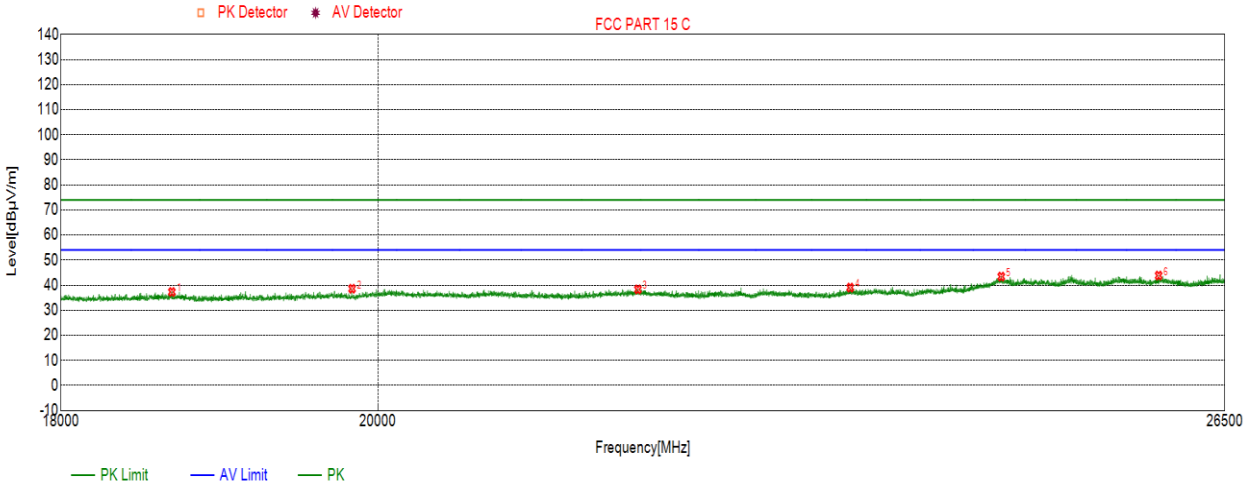
7.5. SPURIOUS EMISSIONS 18~26GHz

7.5.1. 802.11a MIDDLE MODE

(WORST-CASE CONFIGURATION)

SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	18675.8176	37.28	74	-36.72	54	-16.72	peak
2	19828.5329	38.57	74	-35.43	54	-15.43	peak
3	21804.9805	38.30	74	-35.70	54	-15.70	peak
4	23398.8899	39.03	74	-34.97	54	-14.97	peak
5	24603.4603	43.41	74	-30.59	54	-10.59	peak
6	25924.4924	43.83	74	-30.17	54	-10.17	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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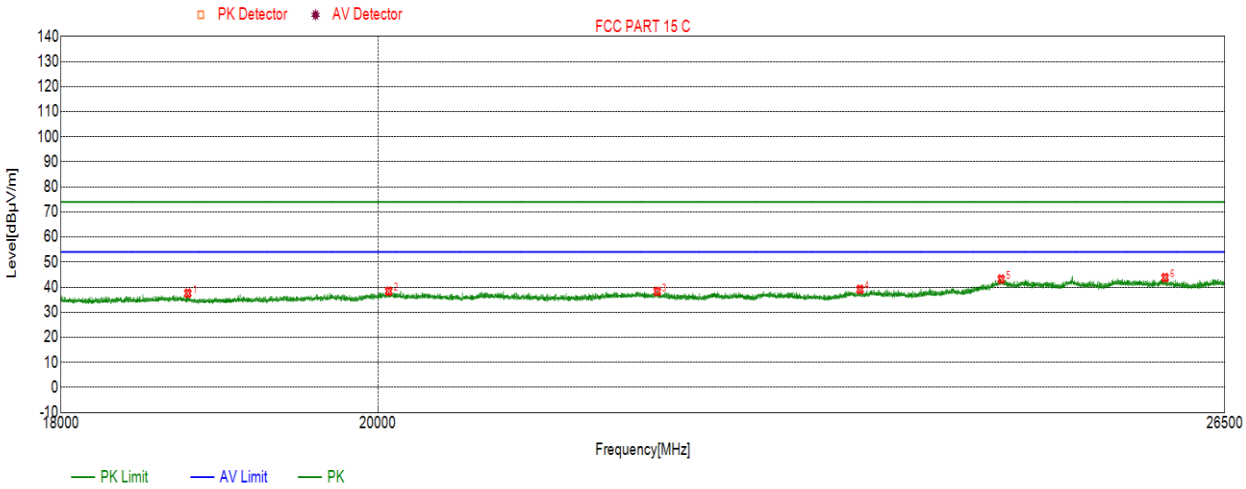
SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	18775.2775	37.55	74	-36.45	54	-16.45	peak
2	20071.6572	38.36	74	-35.64	54	-15.64	peak
3	21945.2445	38.27	74	-35.73	54	-15.73	peak
4	23475.3975	39.10	74	-34.90	54	-14.90	peak
5	24602.6103	43.18	74	-30.82	54	-10.82	peak
6	25979.7480	43.79	74	-30.21	54	-10.21	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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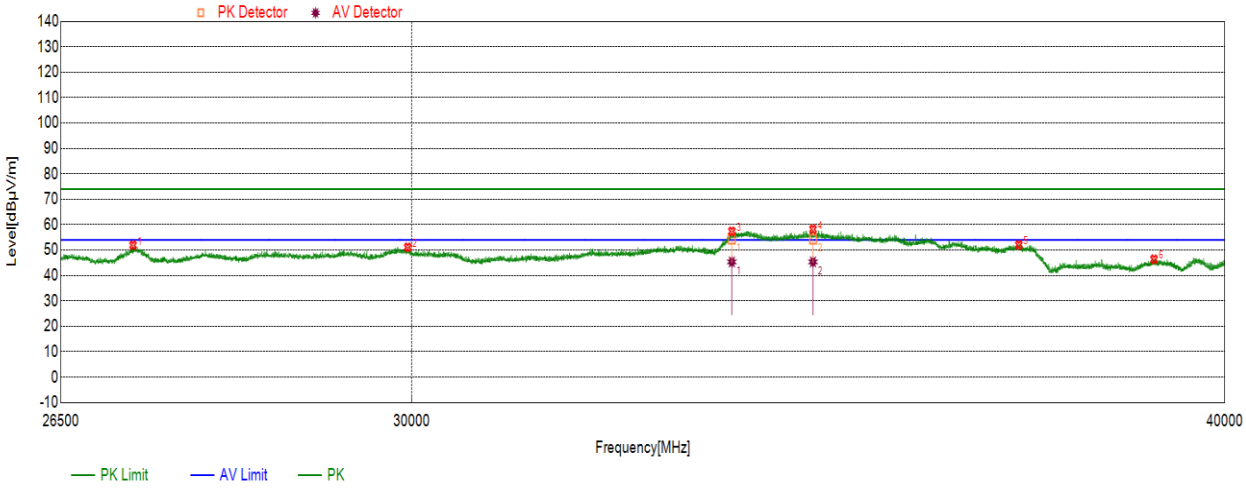
7.6. SPURIOUS EMISSIONS 26~40GHz

7.6.1. 802.11a HT20 MIDDLE MODE

(WORST-CASE CONFIGURATION)

SPURIOUS EMISSIONS (HIGH CHANNEL, HORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	27184.5185	51.91	74	-22.09	54	-2.09	peak
2	29959.0459	51.09	74	-22.91	54	-2.91	peak
3	33599.0099	57.37	74	-16.63	54	3.37	peak
		45.36	74	-28.64	54	-8.64	average
4	34577.8578	58.20	74	-15.80	54	4.20	peak
		45.31	74	-28.69	54	-8.69	average
5	37190.3690	52.04	74	-21.96	54	-1.96	peak
6	39011.7012	46.38	74	-27.62	54	-7.62	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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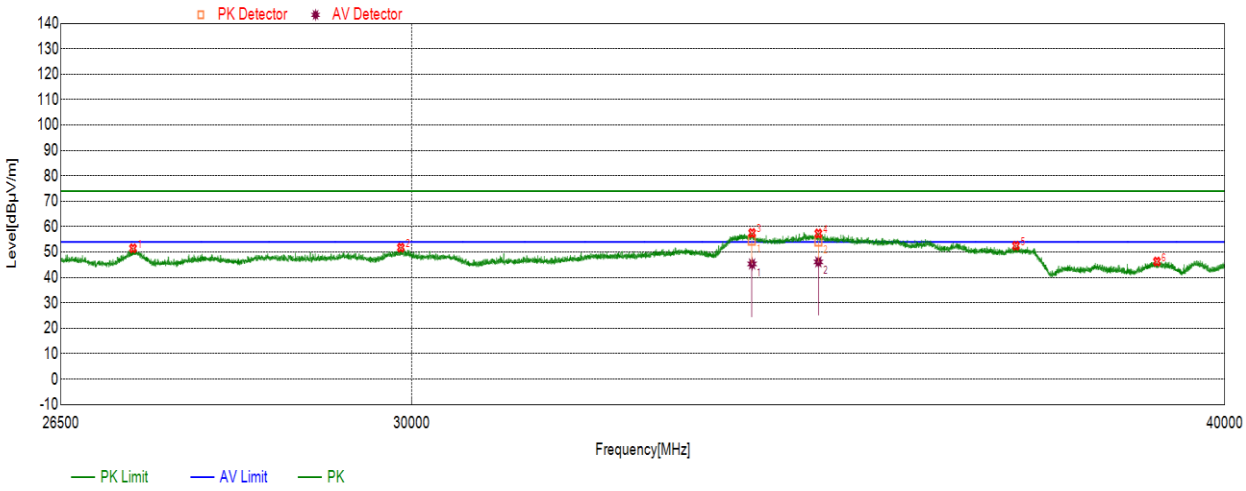
SPURIOUS EMISSIONS (HIGH CHANNEL, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (Peak) (dBuV/m)	Margin (Peak) (dB)	Limit (Ave) (dBuV/m)	Margin (Ave) (dB)	Remark
1	27184.5185	51.47	74	-22.53	54	-2.53	peak
2	29886.1386	51.77	74	-22.23	54	-2.23	peak
3	33840.6841	57.52	74	-16.48	54	3.52	peak
		45.34	74	-28.66	54	-8.66	average
4	34644.0144	57.33	74	-16.67	54	3.33	peak
		46.13	74	-27.87	54	-7.87	average
5	37152.5653	52.48	74	-21.52	54	-1.52	peak
6	39052.2052	46.27	74	-27.73	54	-7.73	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Peak: Peak detector.

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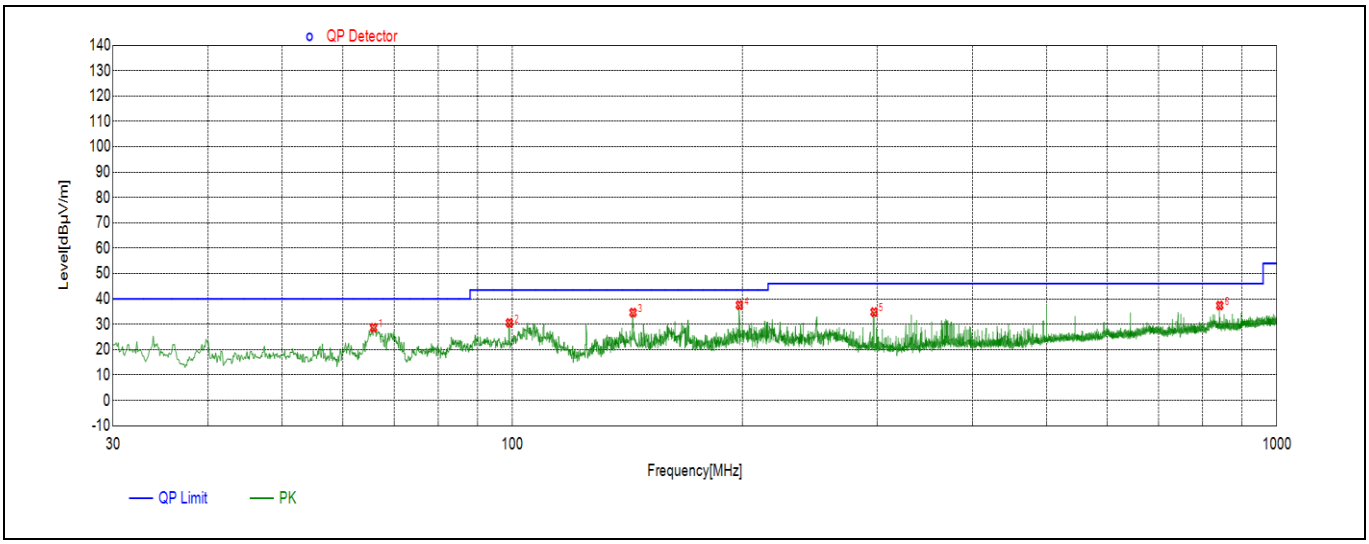
7.7. SPURIOUS EMISSIONS 30M ~ 1 GHz

7.7.1. 802.11a HT20 MIDDLE MODE

(WORST-CASE CONFIGURATION)

SPURIOUS EMISSIONS (MID CHANNELHORIZONTAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
1	65.7966	28.64	40.00	-11.36	QP
2	99.0709	30.54	43.50	-12.96	QP
3	143.7924	34.63	43.50	-8.87	QP
4	198.1178	37.57	43.50	-5.93	QP
5	297.2617	34.82	46.00	-11.18	QP
6	842.3592	37.41	46.00	-8.59	QP

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

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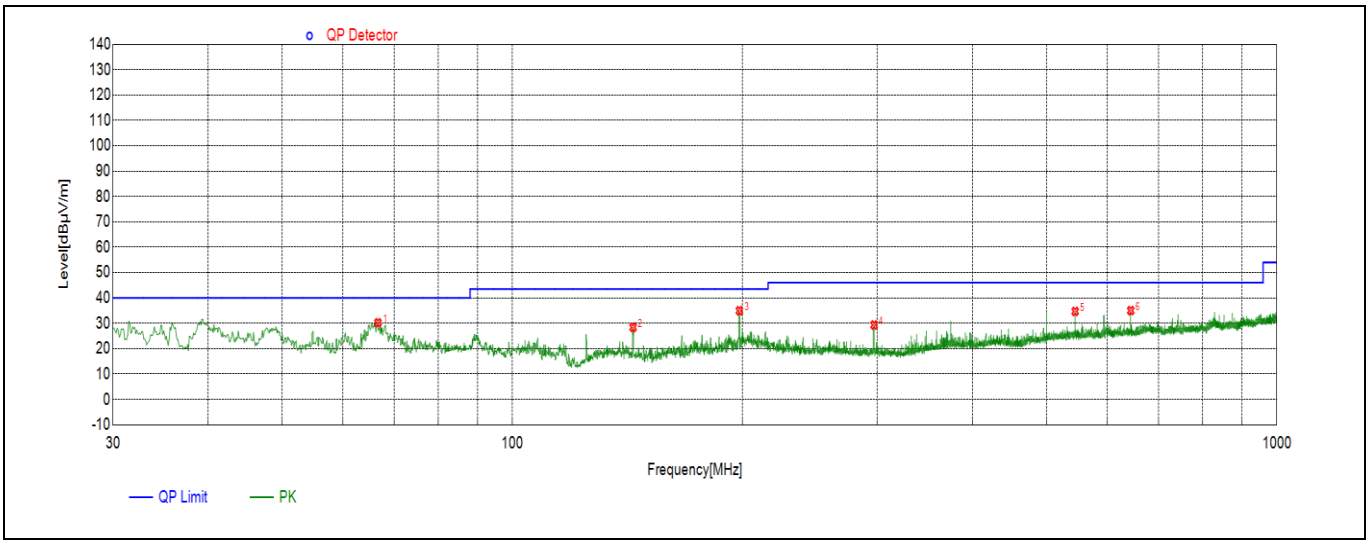
SPURIOUS EMISSIONS (MID CHANNEL, VERTICAL)



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
1	66.6697	30.22	40.00	-9.78	QP
2	143.7924	28.41	43.50	-15.09	QP
3	198.1178	34.95	43.50	-8.55	QP
4	297.2617	29.35	46.00	-16.65	QP
5	544.8305	34.70	46.00	-11.30	QP
6	644.1684	35.01	46.00	-10.99	QP

Note: 1. Result Level = Read Level + Correct Factor.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto

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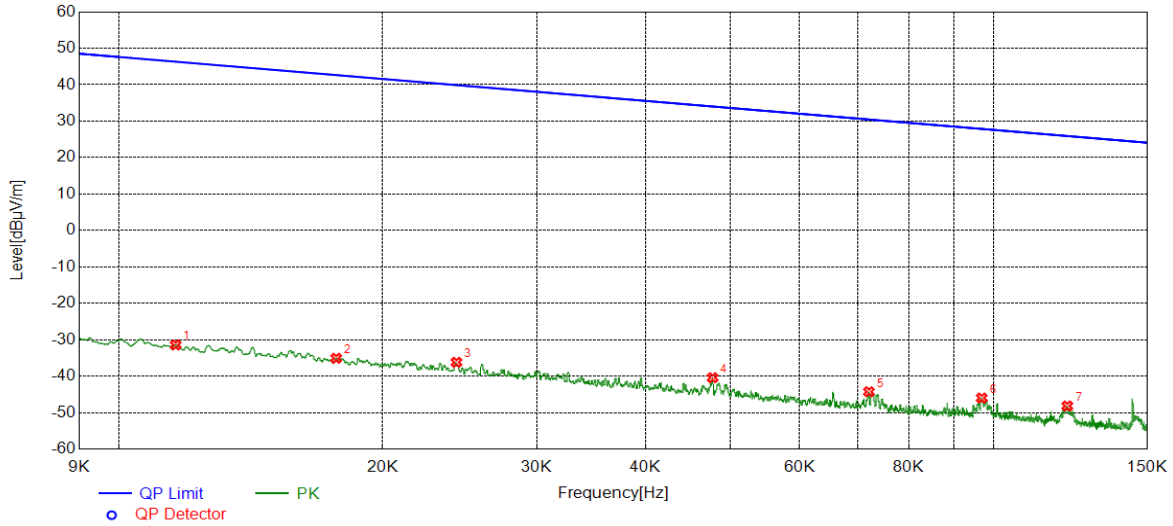
7.8. SPURIOUS EMISSIONS BELOW 30M

7.8.1. 802.11a HT20 MIDDLE MODE

(WORST-CASE CONFIGURATION)

SPURIOUS EMISSIONS (MID CHANNEL)

9kHz ~ 150kHz



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
1	0.0116	-31.42	46.31	-77.73	peak
2	0.0177	-35.08	42.63	-77.71	peak
3	0.0243	-36.18	39.90	-76.08	peak
4	0.0477	-40.43	34.03	-74.46	peak
5	0.0720	-44.27	30.45	-74.72	peak
6	0.0969	-45.99	27.87	-73.86	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

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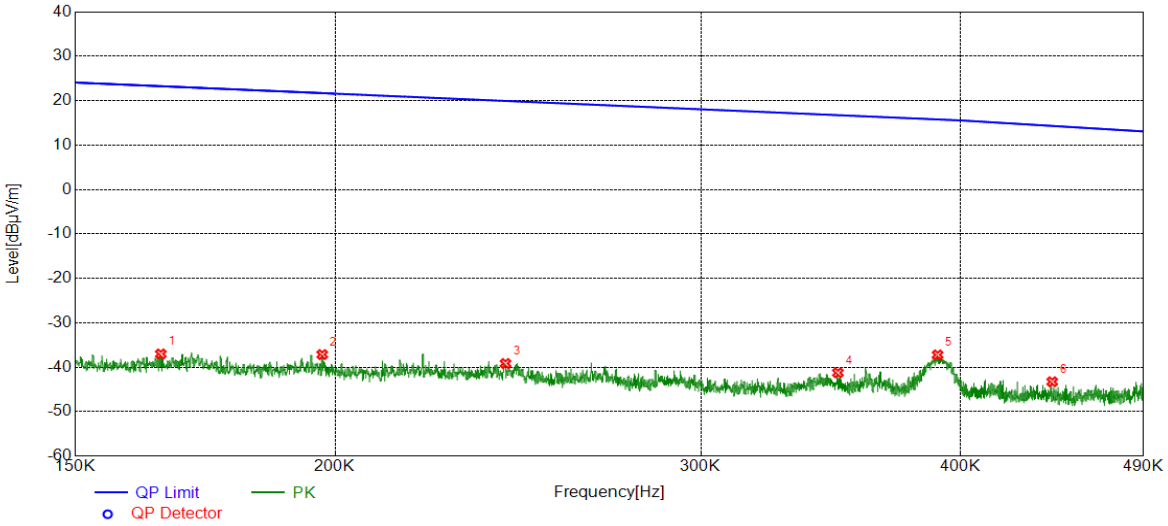
150kHz ~ 490K



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
1	0.1649	-37.01	23.26	-60.27	peak
2	0.1972	-37.15	21.70	-58.85	peak
3	0.2416	-39.16	19.94	-59.10	peak
4	0.3492	-41.25	16.74	-57.99	peak
5	0.3900	-37.22	15.78	-53.00	peak
6	0.4428	-43.26	14.32	-57.58	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

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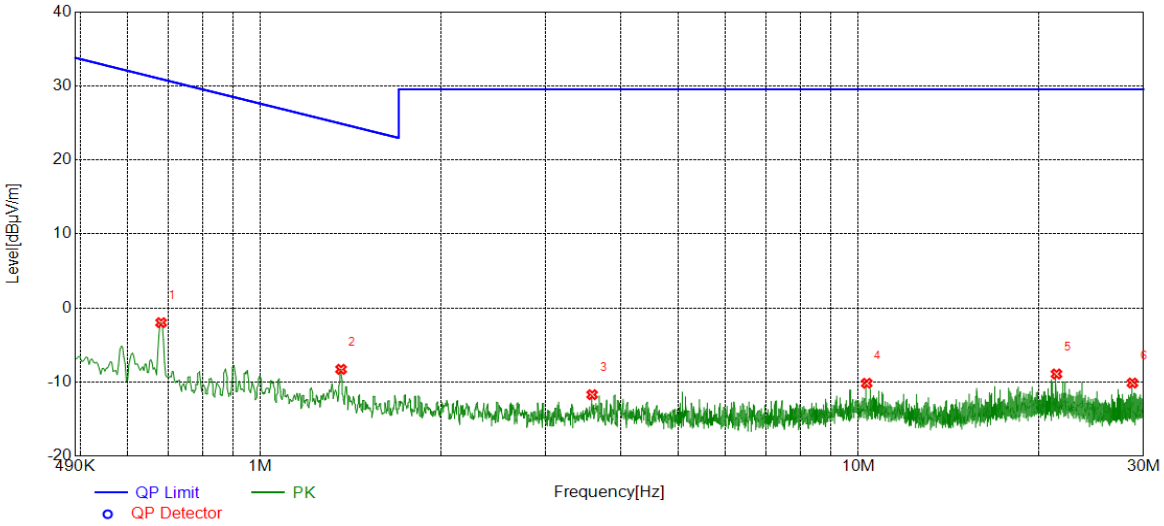
490kHz ~ 30M



No.	Frequency (MHz)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Note
1	0.6818	-1.98	30.93	-32.91	peak
2	1.3636	-8.28	24.91	-33.19	peak
3	3.5859	-11.70	29.54	-41.24	peak
4	10.3267	-10.16	29.54	-39.70	peak
5	21.4471	-8.91	29.54	-38.45	peak
6	28.7309	-10.13	29.54	-39.67	peak

Note: 1. Measurement = Reading Level + Correct Factor.
2. If Peak Result complies with AV and QP limit, AV and QP Result are deemed to comply with AV limit.

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8. DYNAMIC FREQUENCY SELECTION

APPLICABILITY OF DFS REQUIREMENTS

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Requirement	Operational Mode		
	☐Master	☒Client Without Radar Detection	☐Client With Radar Detection
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	☐Master Device or Client with Radar Detection	☒Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth modes	☐Master Device or Client with Radar Detection	☒Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

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LIMITS

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices With Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
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 facilitating 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.	

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PARAMETERS OF RADAR TEST WAVEFORMS

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\text{PRI}_{\mu sec}}\right)\right\}$	60%	30
		Test B			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.
Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a
Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

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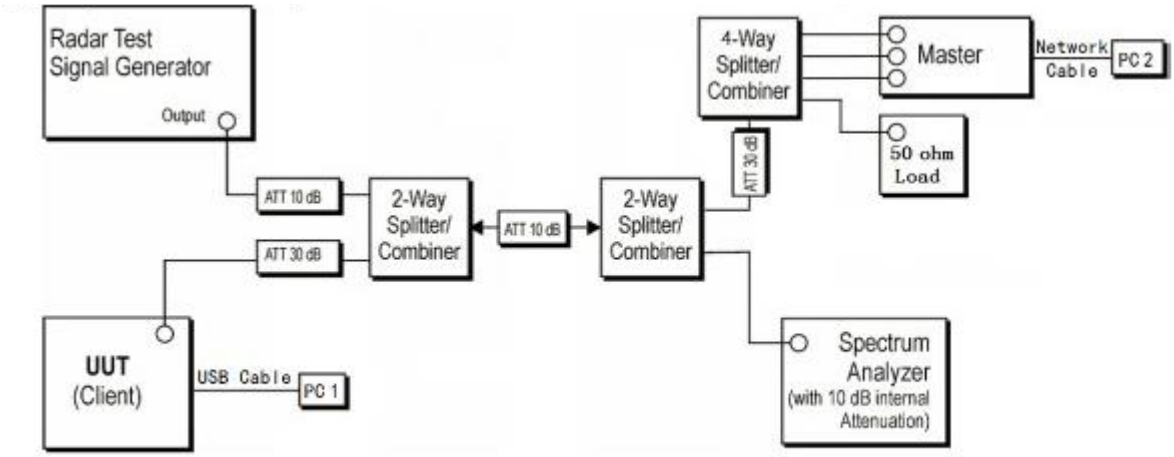
TEST SETUP

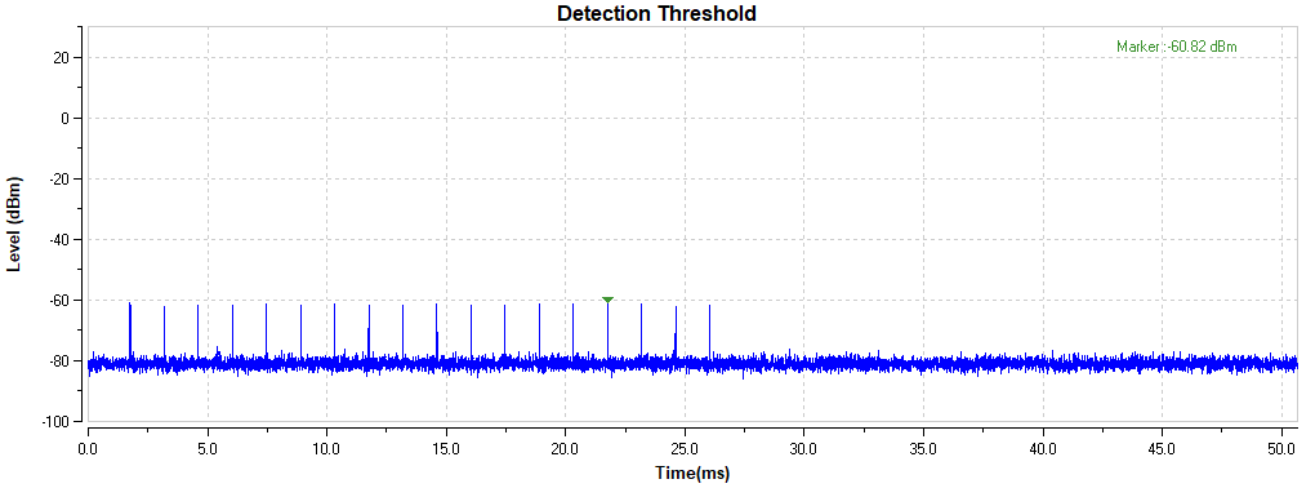
Setup for Client with injection at the Master



TEST RESULTS

DFS Detection Threshold levels
DFS Threshold Level: -60.82
The Interference **Radar Detection Threshold Level** is (-60.82dBm) + (1 [dBi]) + {1 dB}= -60.0 dBm. That had been taken into account the master output power range and antenna gain.

Radar Type 0 (80MHz / 5530MHz)



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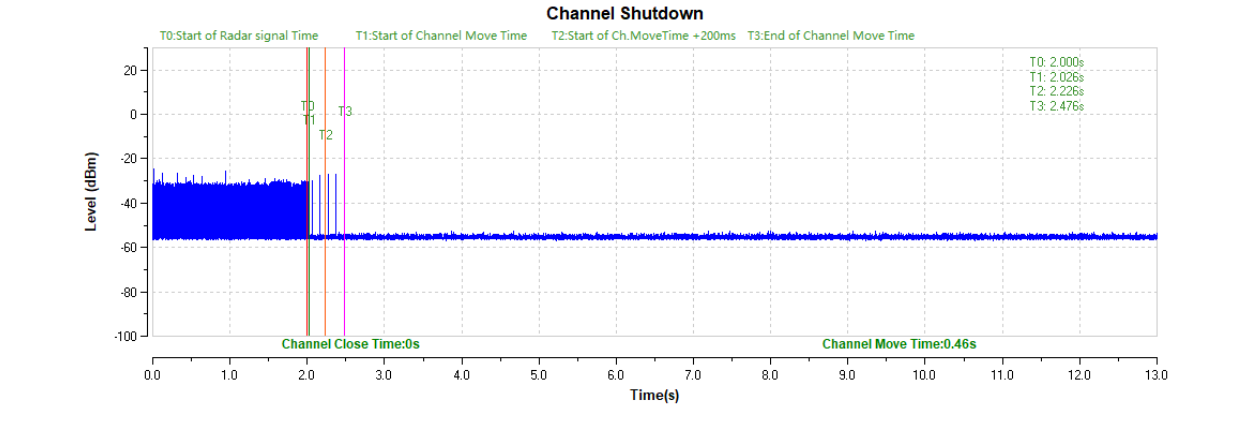
Test Data

BW/Channel	Test Item	Test Result	Limit	Results
80MHz / 5530MHz	Channel Move Time	0.46 s	＜10 s	pass
	Channel Closing Transmission Time	0 s	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.	pass

Test plots as follows:

Channel Move Time & Channel Closing Transmission Time



Note 1: All the modulation and channels had been tested, but only the worst data recorded in the report.

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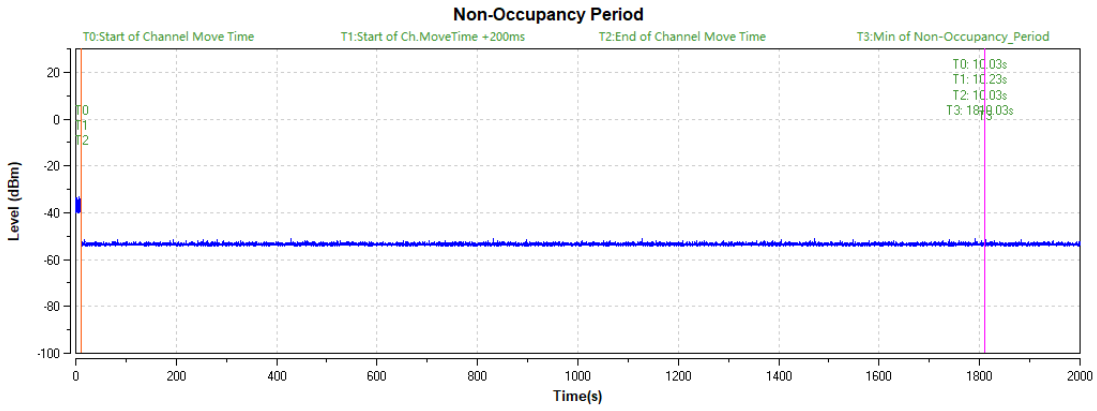
BW/Channel	Test Item	Limit	Results
80MHz / 5530MHz	Non-occupancy period	>1800 s	pass

Test plots as follows:

Non-occupancy period



Note 1: All the modulation and channels had been tested, but only the worst data recorded in the report.

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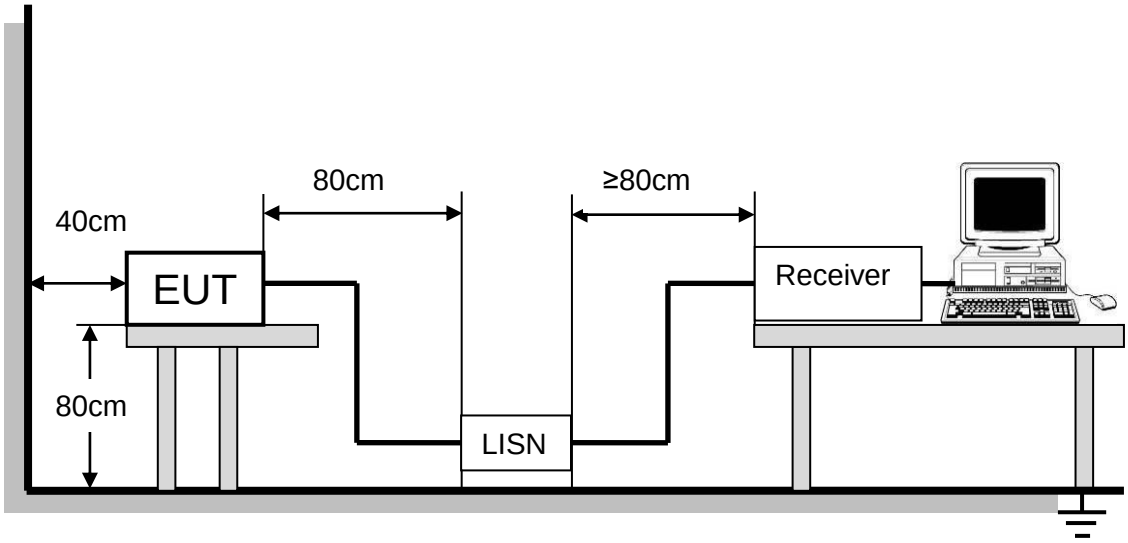
9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

Please refer to FCC §15.207 (a)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

TEST SETUP AND PROCEDURE



The EUT is put on a table of non-conducting material that is 80cm high. The vertical conducting wall of shielding is located 40cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

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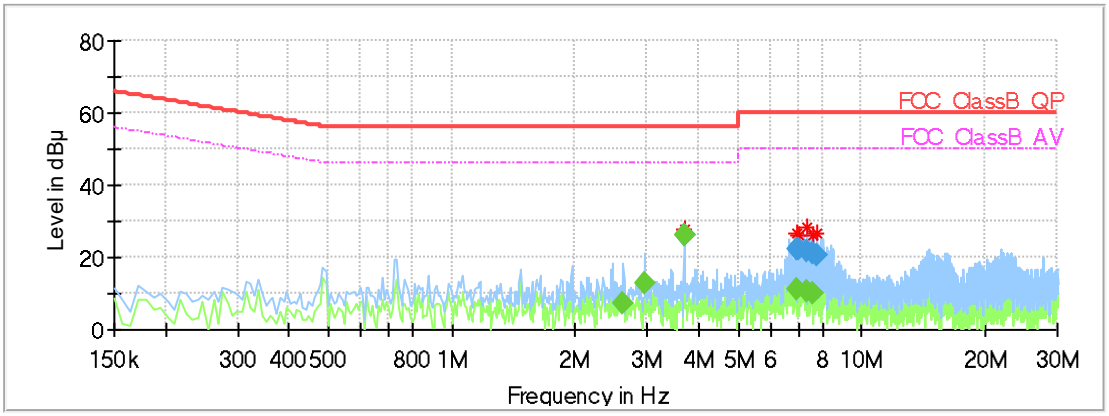
Test Result Table:
For 9KHz-30MHz (worst case)

Test Mode	Test Antenna	Channel	Puw(dBm)	Verdict
11AC20 MIMO	Antenna 1+2	5180 MHz	<Limit	PASS

TEST RESULTS (WORST-CASE CONFIGURATION)



Final_Result

Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Line	Filter	Corr. (dB)
2.620088	---	7.07	46.00	38.93	1000.0	9.000	L1	OFF	9.7
2.955900	---	12.84	46.00	33.16	1000.0	9.000	L1	OFF	9.7
3.694688	---	26.05	46.00	19.95	1000.0	9.000	L1	OFF	9.7
3.694688	25.95	---	56.00	30.05	1000.0	9.000	L1	OFF	9.7
6.925950	---	11.29	50.00	38.71	1000.0	9.000	N	OFF	9.8
6.925950	22.26	---	60.00	37.74	1000.0	9.000	N	OFF	9.8
7.015500	22.31	---	60.00	37.69	1000.0	9.000	N	OFF	9.8
7.343850	21.89	---	60.00	38.11	1000.0	9.000	N	OFF	9.8
7.343850	---	10.54	50.00	39.46	1000.0	9.000	N	OFF	9.8
7.642350	21.37	---	60.00	38.63	1000.0	9.000	N	OFF	9.8
7.642350	---	10.25	50.00	39.75	1000.0	9.000	N	OFF	9.8
7.776675	20.68	---	60.00	39.32	1000.0	9.000	N	OFF	9.8

(continuation of the "Final_Result" table from column 15 ...)

Note: 1. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
2. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
3. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

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10. ANTENNA REQUIREMENTS

APPLICABLE REQUIREMENTS

Please refer to FCC §15.203
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)
The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS

Complies

END OF REPORT

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