

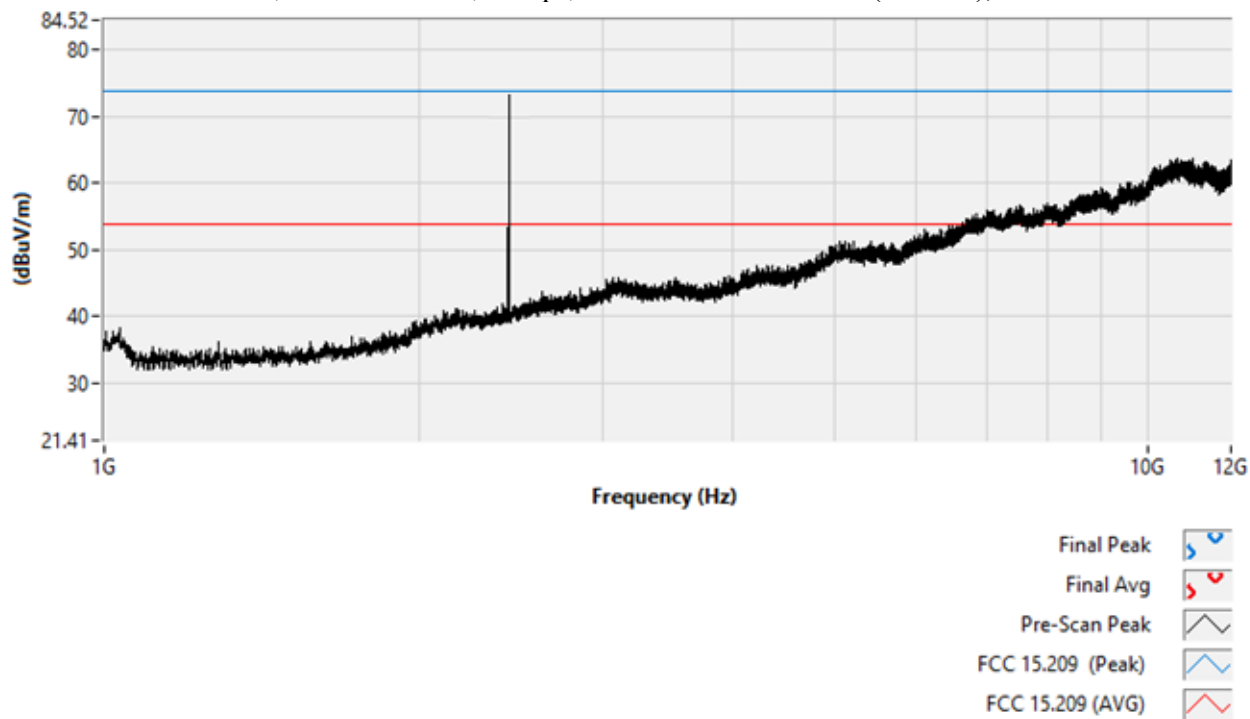


Table 12: 3-meter Radiated Test Data, Center Channel, 1Mbps, 1GHz to 18GHz, miniMic Standard

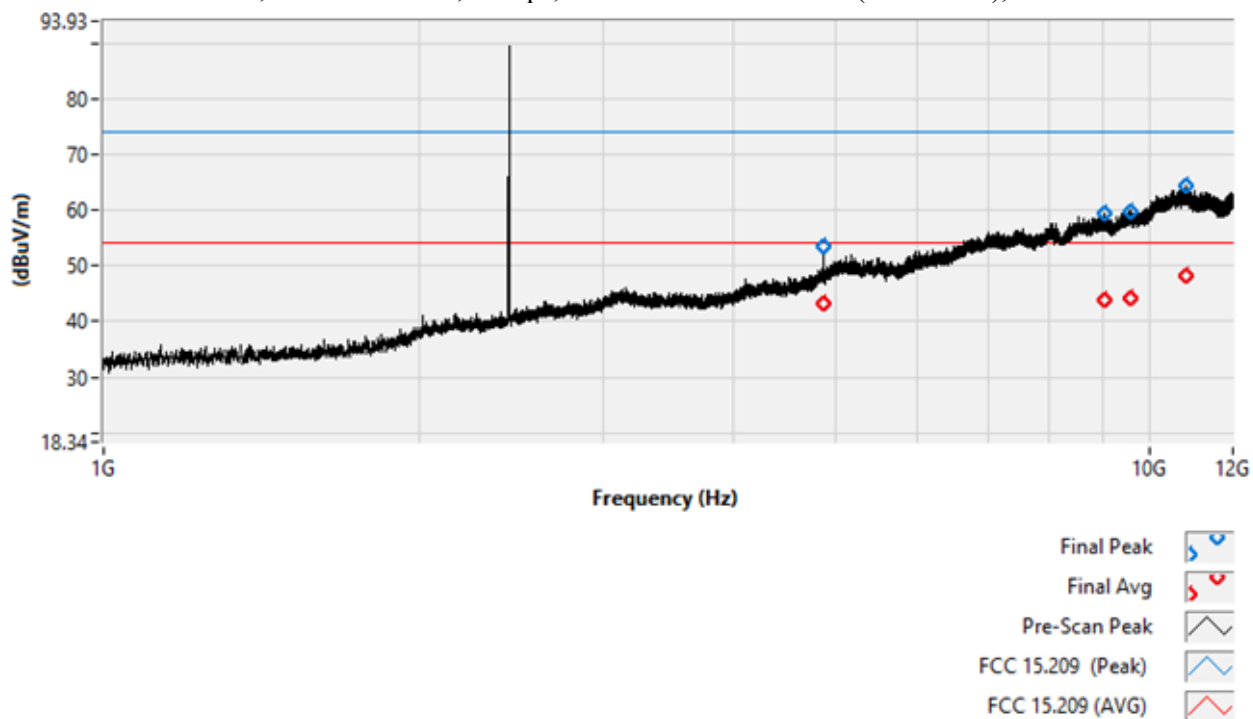
Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2440.00 ^{TX}	Peak	89.055	--	--	200	Vert, 125
	Avg	--	--	--	200	Vert, 125
4880.00	Peak	53.337	74	-20.663	200	Vert, 125
	Avg	43.256	54	-10.744	200	Vert, 125
9047.00	Peak	59.481	74	-14.519	290	Horiz, 200
	Avg	43.76	54	-10.240	290	Horiz, 200
9572.00	Peak	59.816	74	-14.184	290	Horiz, 200
	Avg	44.191	54	-9.809	290	Horiz, 200
10809.00	Peak	64.333	74	-9.667	290	Horiz, 200
	Avg	48.162	54	-5.838	290	Horiz, 200
12341.00	Peak	56.138	74	-17.862	200	Vert, 125
	Avg	42.064	54	-11.936	200	Vert, 125
13474.00	Peak	56.823	74	-17.177	290	Horiz, 200
	Avg	43.192	54	-10.808	290	Horiz, 200
17300.00	Peak	61.737	74	-12.263	290	Horiz, 200
	Avg	47.731	54	-6.269	290	Horiz, 200



miniMic Standard, Center Channel, 1Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz

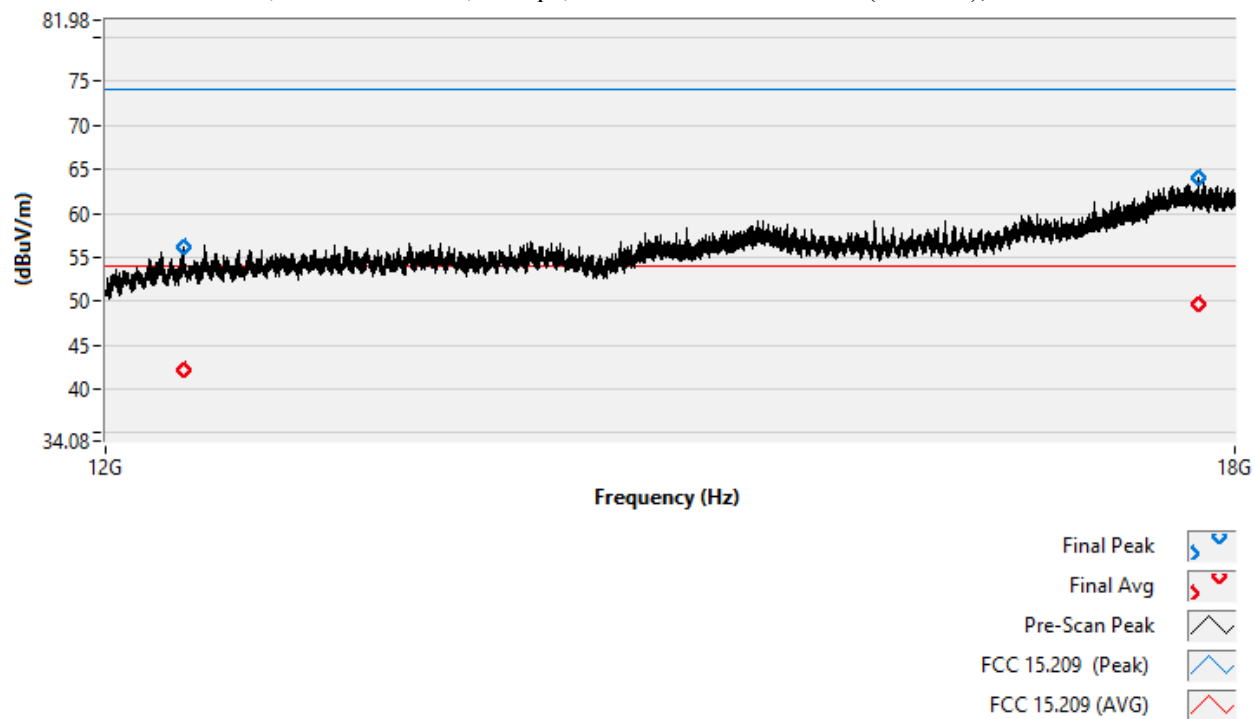


miniMic Standard, Center Channel, 1Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz





miniMic Standard, Center Channel, 1Mbps, Pre-scan and Final Data (Vertical), 12GHz to 18GHz



miniMic Standard, Center Channel, 1Mbps, Pre-scan and Final Data (Horizontal), 12GHz to 18GHz

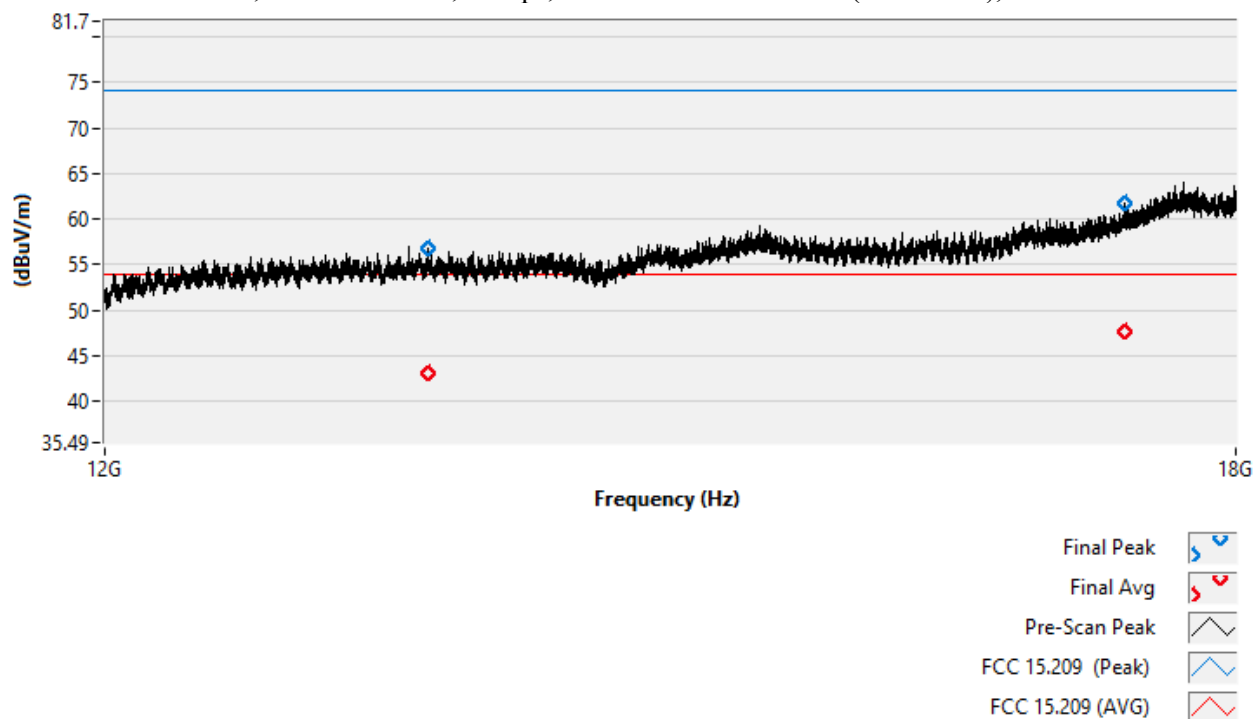




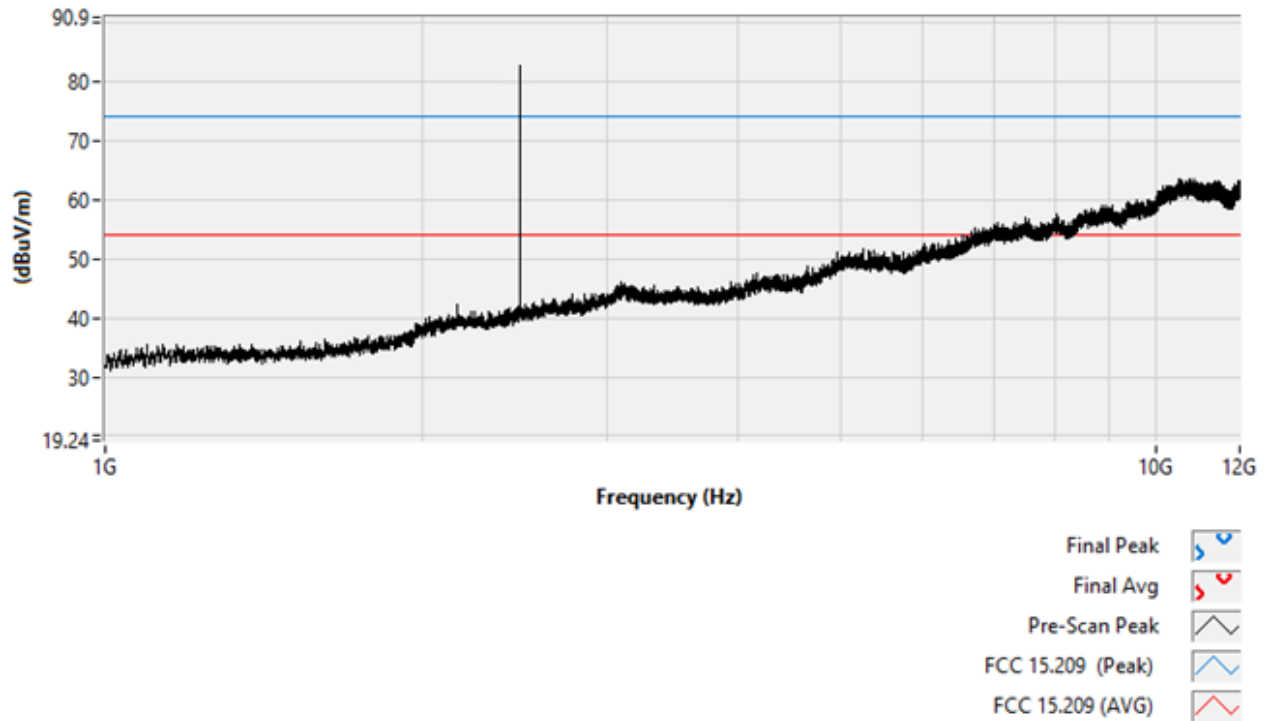
Table 13: 3-meter Radiated Test Data, High Channel, 1Mbps, 1GHz to 18GHz, miniMic Standard

Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2480.00 ^{TX}	Peak	87.225	--	--	290	Horiz, 200
	Avg	--	--	--	290	Horiz, 200
2483.5 ^{BE}	Peak	42.458	67.225 *	-24.737	290	Horiz, 200
	Avg	27.629	54	-26.371	290	Horiz, 200
4960.00	Peak	54.573	74	-19.427	290	Horiz, 200
	Avg	39.673	54	-14.327	290	Horiz, 200
7462.00	Peak	56.895	74	-17.105	290	Horiz, 200
	Avg	41.054	54	-12.946	290	Horiz, 200
8987.00	Peak	59.316	74	-14.684	290	Horiz, 200
	Avg	43.410	54	-10.590	290	Horiz, 200
11347.00	Peak	63.368	74	-10.632	290	Horiz, 200
	Avg	47.680	54	-6.320	290	Horiz, 200
15160.00	Peak	60.073	74	-13.927	200	Vert, 125
	Avg	45.315	54	-8.685	200	Vert, 125
15716.00	Peak	60.643	74	-13.357	290	Horiz, 200
	Avg	44.895	54	-9.105	290	Horiz, 200
16667.00	Peak	62.823	74	-11.177	290	Horiz, 200
	Avg	46.375	54	-7.625	290	Horiz, 200

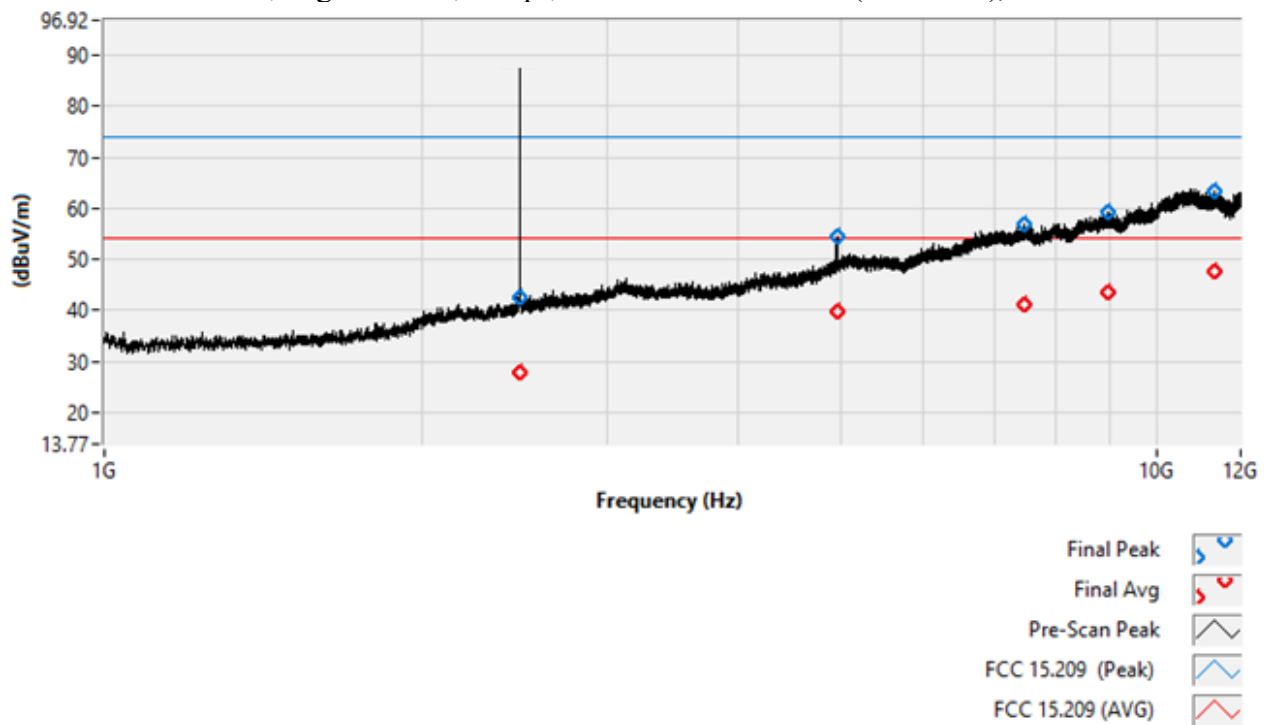
* this limit is -20dBc based on the fundamental



miniMic Standard, High Channel, 1Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz



miniMic Standard, High Channel, 1Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz



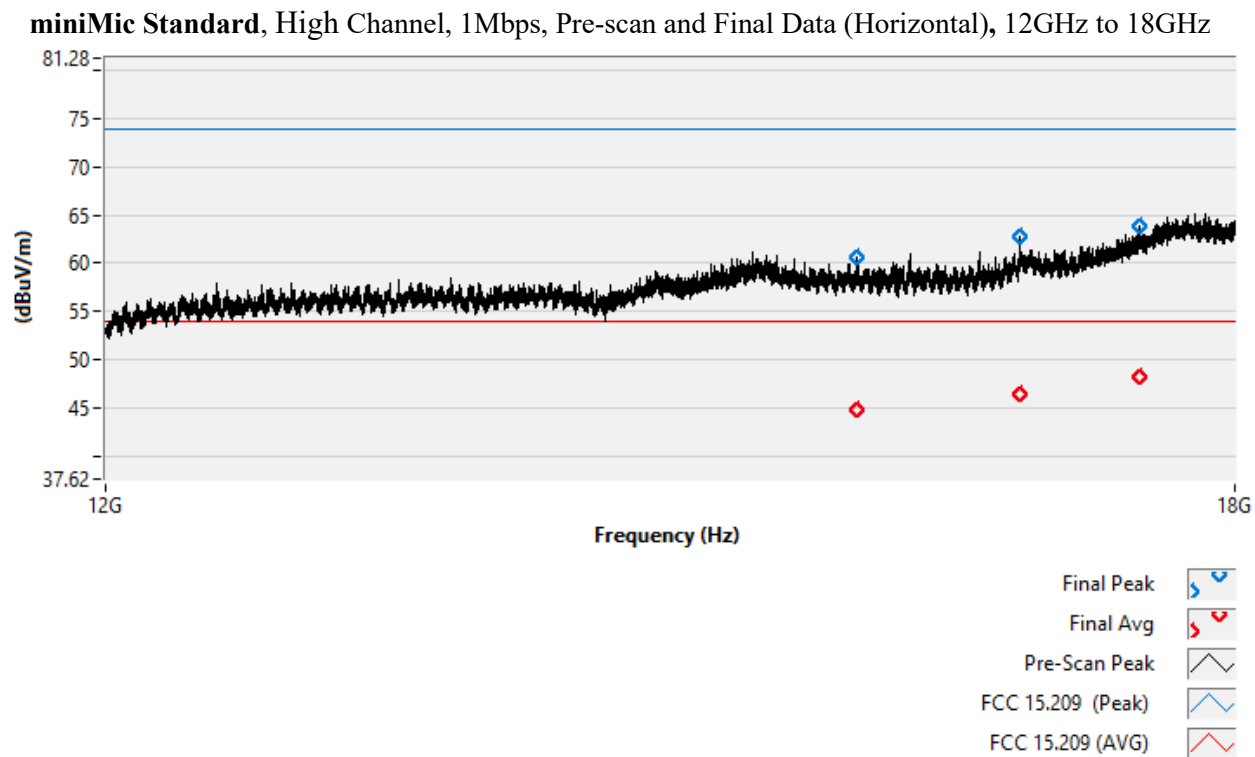
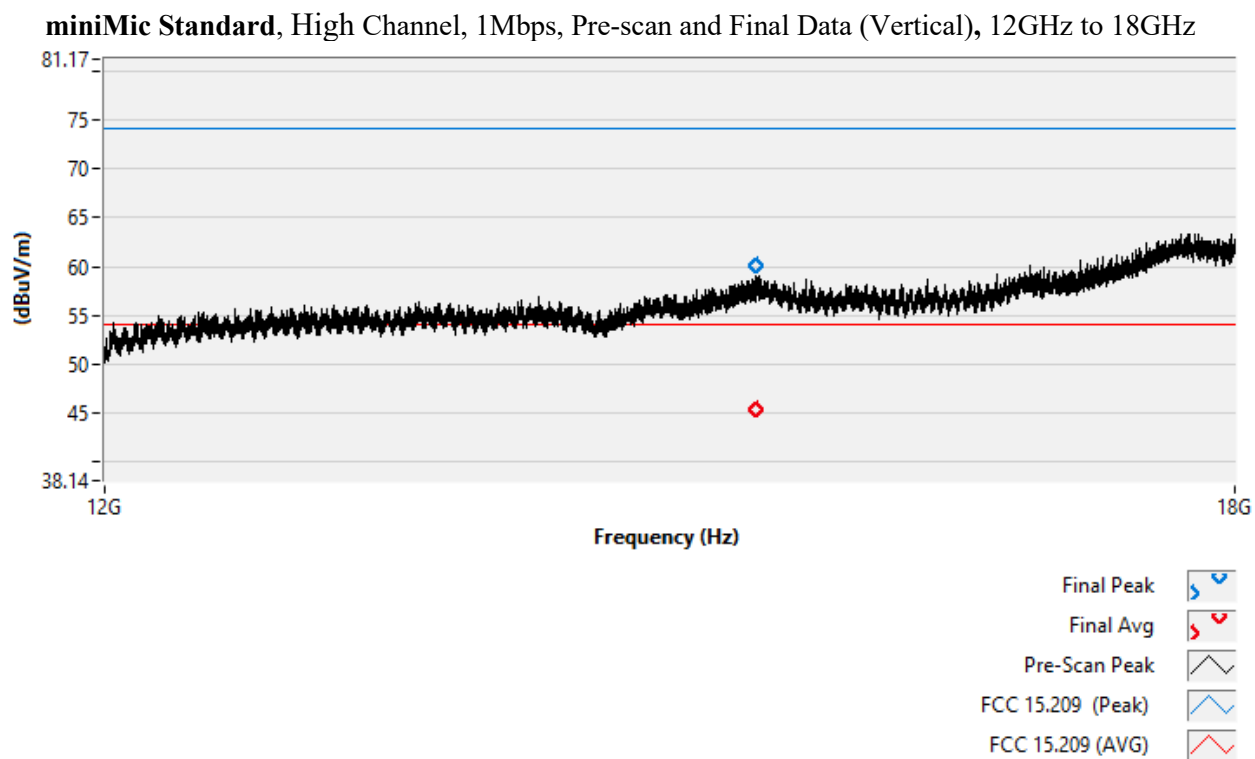
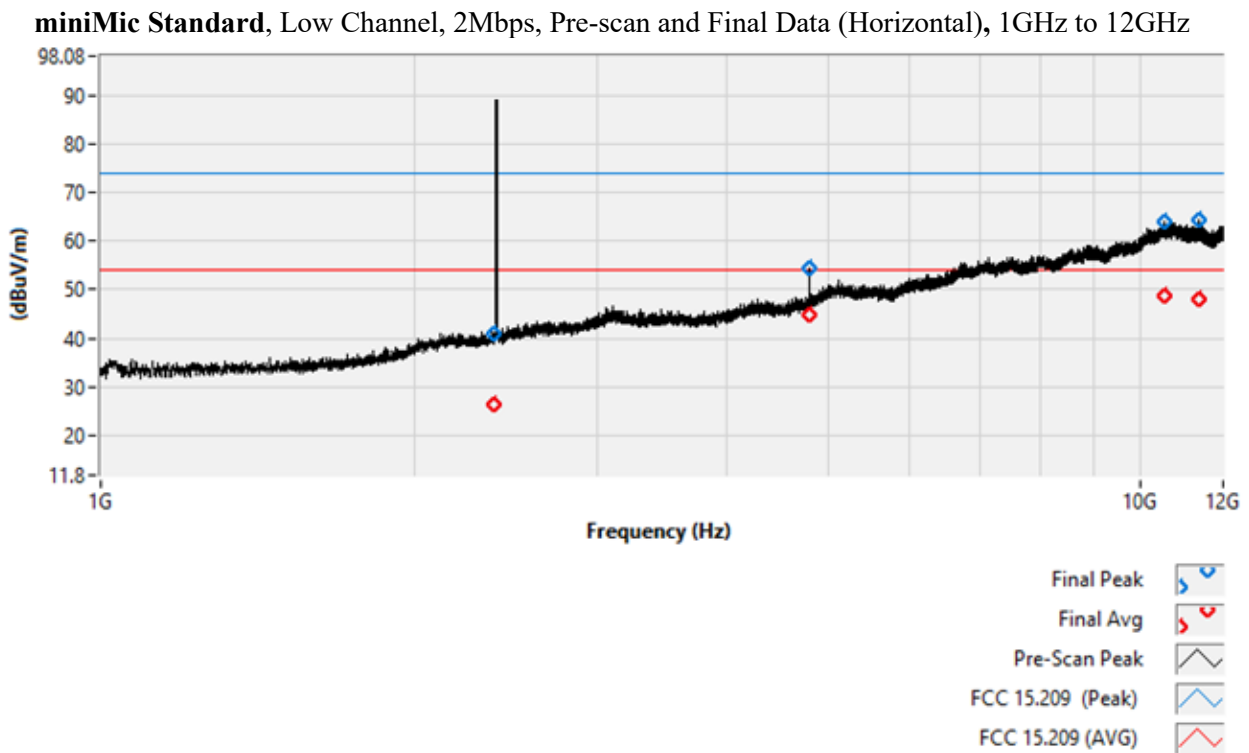
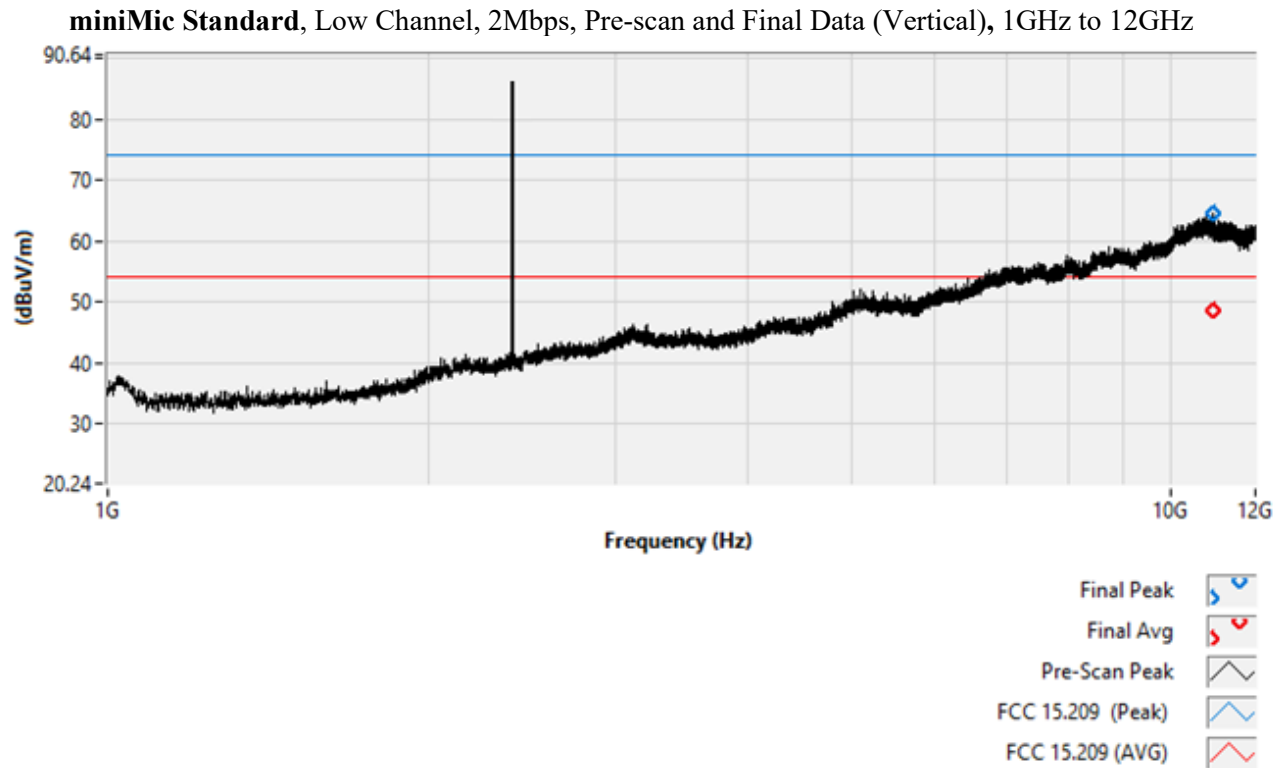




Table 14: 3-meter Radiated Test Data, Low Channel, 2Mbps, 1GHz to 18GHz, miniMic Standard

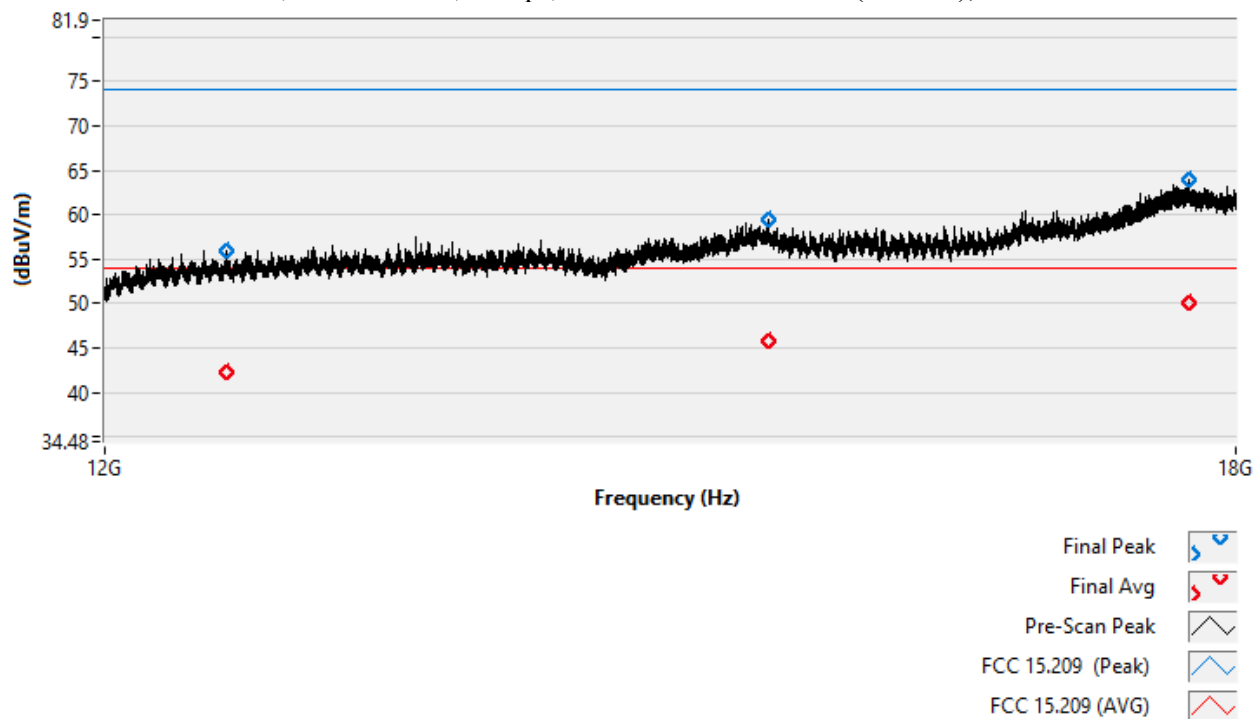
Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2390.0 ^{BE}	Peak	40.827	69.881 *	-29.054	290	Horiz, 200
	Avg	26.184	54	-27.816	290	Horiz, 200
2402.0 ^{TX}	Peak	89.881	--	--	290	Horiz, 200
	Avg	--	--	--	290	Horiz, 200
4804.00	Peak	54.502	74	-19.498	290	Horiz, 200
	Avg	44.673	54	-9.327	290	Horiz, 200
10530.00	Peak	64.158	74	-9.842	290	Horiz, 200
	Avg	48.578	54	-5.422	290	Horiz, 200
10938.00	Peak	64.676	74	-9.324	200	Vert, 125
	Avg	48.601	54	-5.399	200	Vert, 125
11383.00	Peak	64.262	74	-9.738	290	Horiz, 200
	Avg	48.146	54	-5.854	290	Horiz, 200
12532.00	Peak	55.978	74	-18.022	200	Vert, 125
	Avg	42.378	54	-11.622	200	Vert, 125
13418.00	Peak	57.726	74	-16.274	290	Horiz, 200
	Avg	42.943	54	-11.057	290	Horiz, 200
15221.00	Peak	59.416	74	-14.584	200	Vert, 125
	Avg	45.706	54	-8.294	200	Vert, 125

* this limit is -20dBc based on the fundamental





miniMic Standard, Low Channel, 2Mbps, Pre-scan and Final Data (Vertical), 12GHz to 18GHz



miniMic Standard, Low Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 12GHz to 18GHz

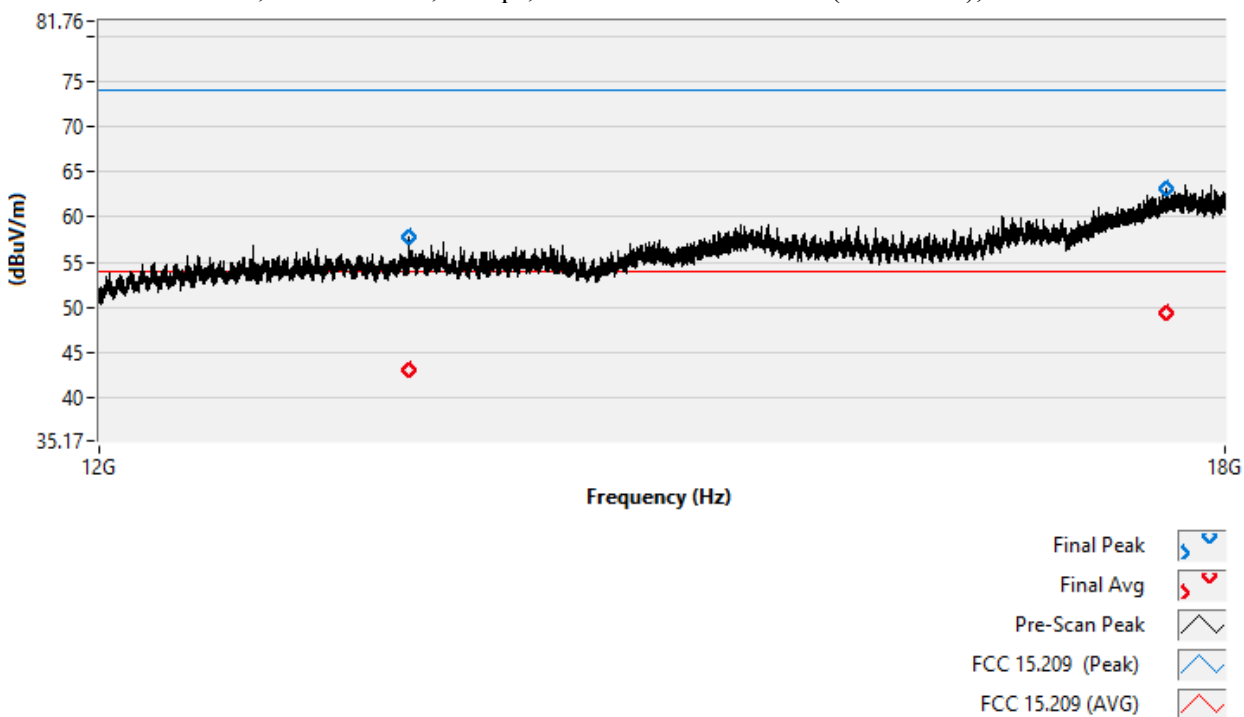


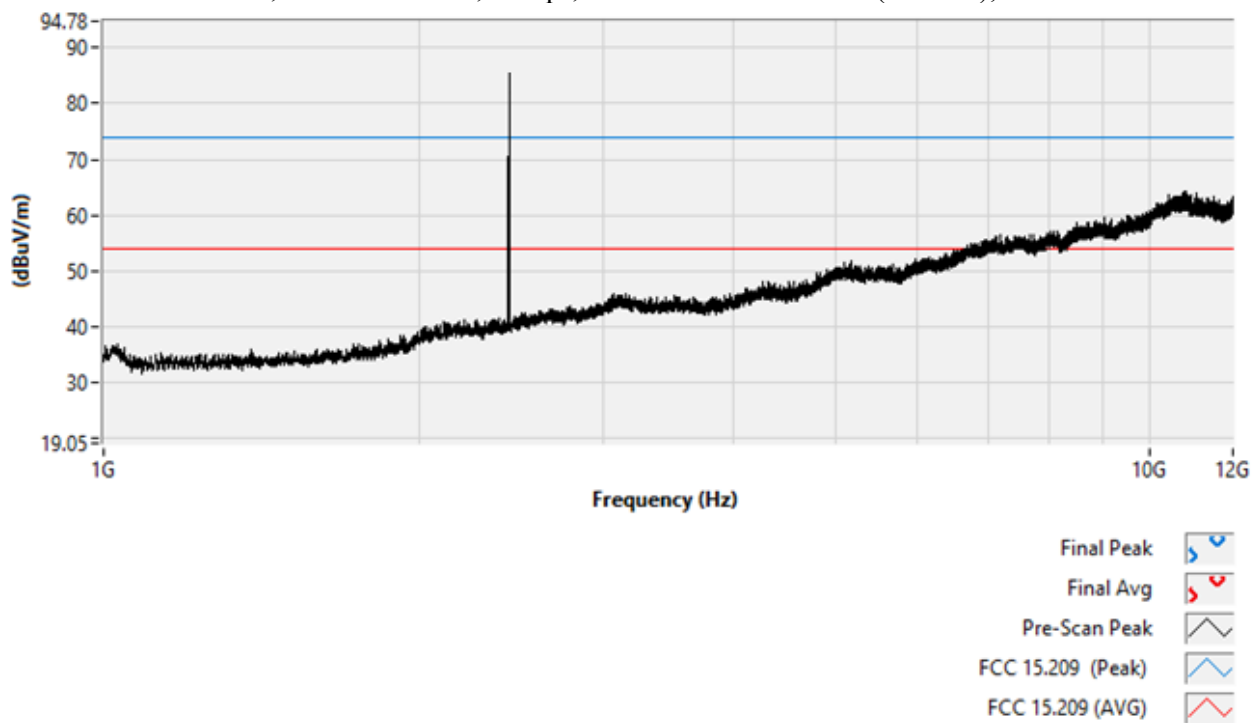


Table 15: 3-meter Radiated Test Data, Center Channel, 2Mbps, 1GHz to 18GHz, miniMic Standard

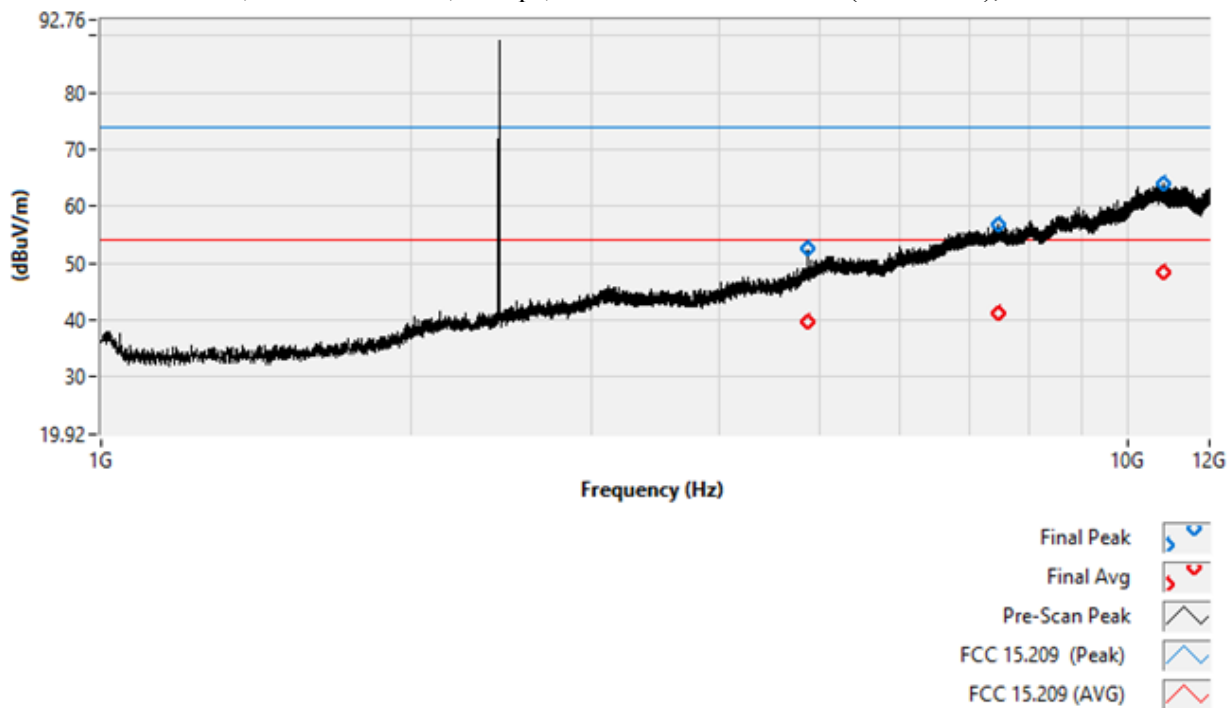
Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2440.00 ^{TX}	Peak	88.886	--	--	290	Horiz, 200
	Avg	--	--	--	290	Horiz, 200
4879.00	Peak	52.551	74	-21.449	290	Horiz, 200
	Avg	39.678	54	-14.322	290	Horiz, 200
7475.00	Peak	56.857	74	-17.143	290	Horiz, 200
	Avg	41.245	54	-12.755	290	Horiz, 200
10841.00	Peak	64.114	74	-9.886	290	Horiz, 200
	Avg	47.453	54	-6.547	290	Horiz, 200
1218.00	Peak	54.74	74	-19.26	200	Vert, 125
	Avg	41.405	54	-12.595	200	Vert, 125
14231.00	Peak	57.41	74	-16.59	290	Horiz, 200
	Avg	43.094	54	-10.906	290	Horiz, 200
14919.00	Peak	58.883	74	-15.117	200	Vert, 125
	Avg	44.618	54	-9.382	200	Vert, 125
17349.00	Peak	62.318	74	-11.682	290	Horiz, 200
	Avg	48.133	54	-5.867	290	Horiz, 200



miniMic Standard, Center Channel, 2Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz

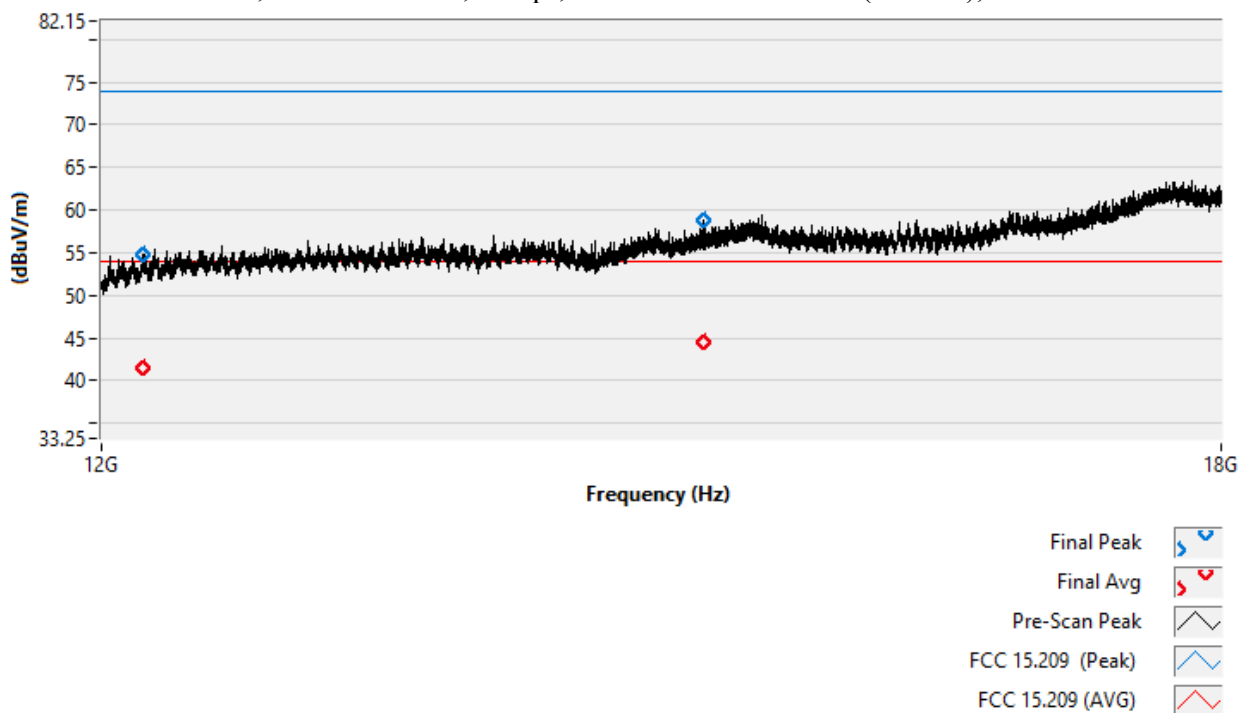


miniMic Standard, Center Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz





miniMic Standard, Center Channel, 2Mbps, Pre-scan and Final Data (Vertical), 12GHz to 18GHz



miniMic Standard, Center Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 12GHz to 18GHz

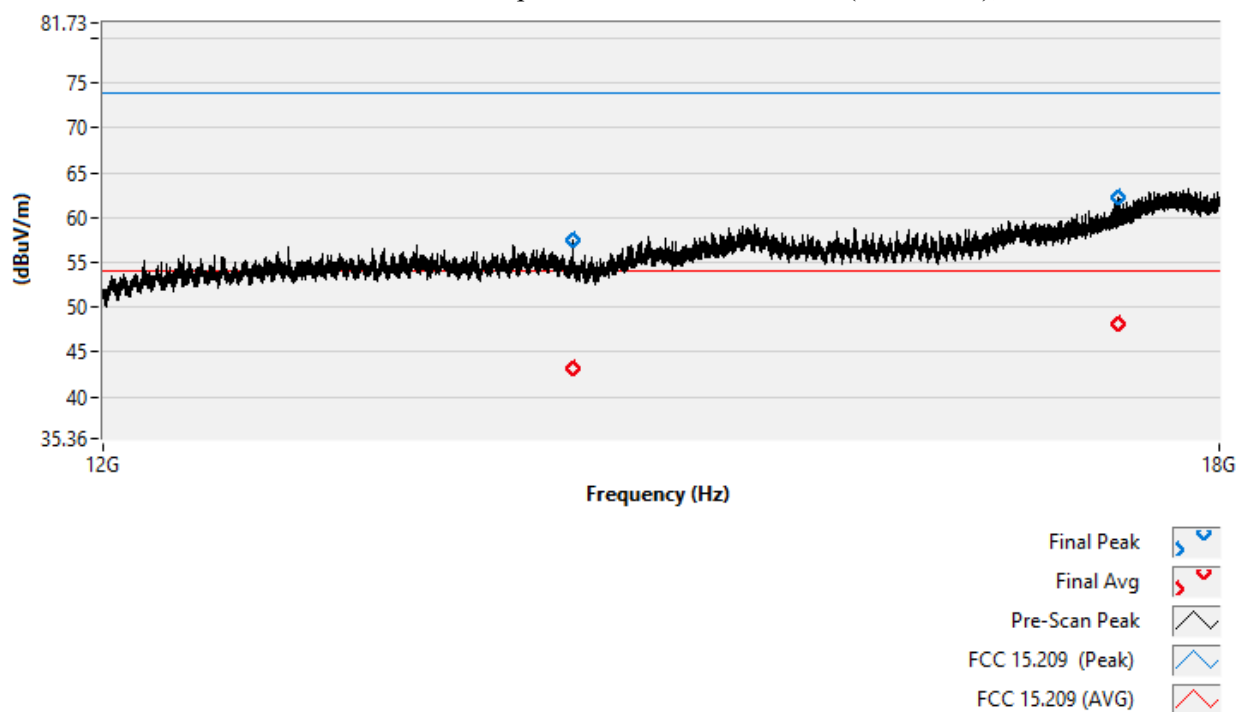




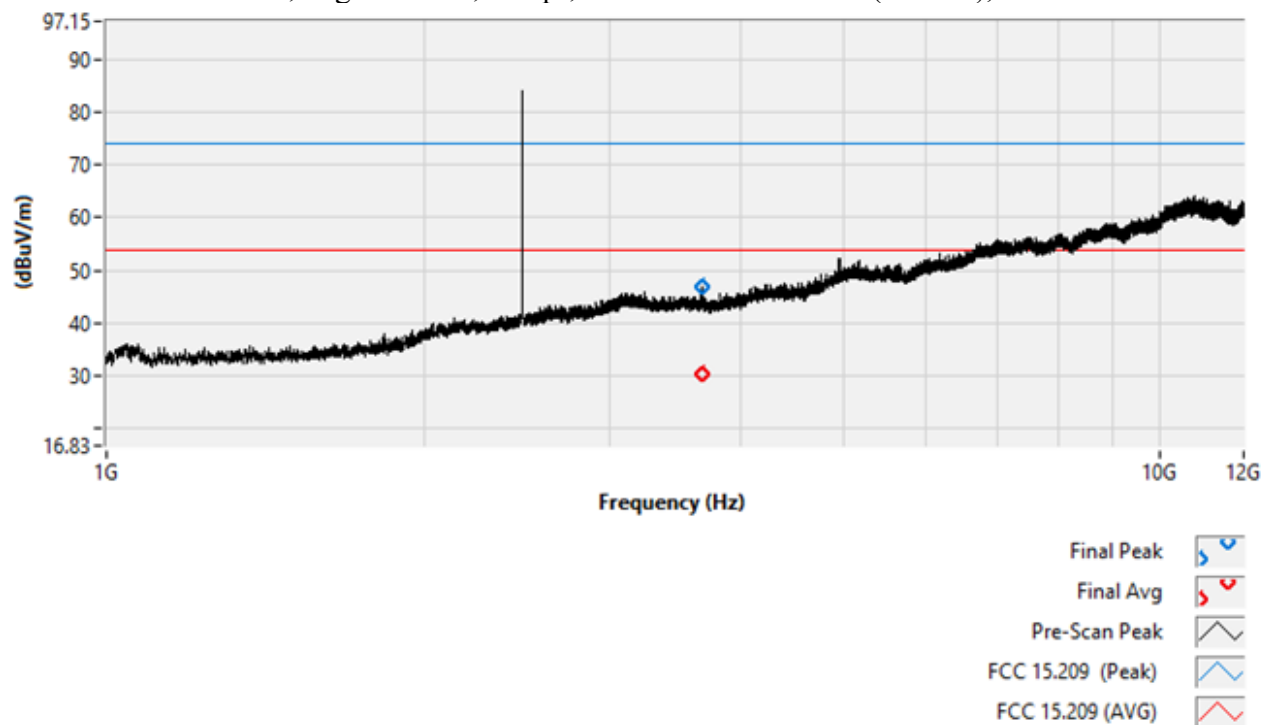
Table 16: 3-meter Radiated Test Data, High Channel, 2Mbps, 1GHz to 18GHz, miniMic Standard

Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2480.00 ^{TX}	Peak	87.447	--	--	290	Horiz, 200
	Avg	--	--	--	290	Horiz, 200
2483.5 ^{BE}	Peak	40.773	67.447 *	-26.674	290	Horiz, 200
	Avg	28.089	54	-25.911	290	Horiz, 200
3673.00	Peak	46.879	74	-27.121	200	Vert, 125
	Avg	30.223	54	-23.777	200	Vert, 125
6638.00	Peak	55.906	74	-18.094	290	Horiz, 200
	Avg	39.381	54	-14.619	290	Horiz, 200
9467.00	Peak	61.105	74	-12.895	290	Horiz, 200
	Avg	43.564	54	-10.436	290	Horiz, 200
10649.00	Peak	64.321	74	-9.679	290	Horiz, 200
	Avg	48.706	54	-5.294	290	Horiz, 200
12583.00	Peak	56.282	74	-17.718	200	Vert, 125
	Avg	42.007	54	-11.993	200	Vert, 125
13026.00	Peak	57.244	74	-16.756	290	Horiz, 200
	Avg	42.649	54	-11.351	290	Horiz, 200
16667.00	Peak	60.543	74	-13.457	290	Horiz, 200
	Avg	46.300	54	-7.700	290	Horiz, 200

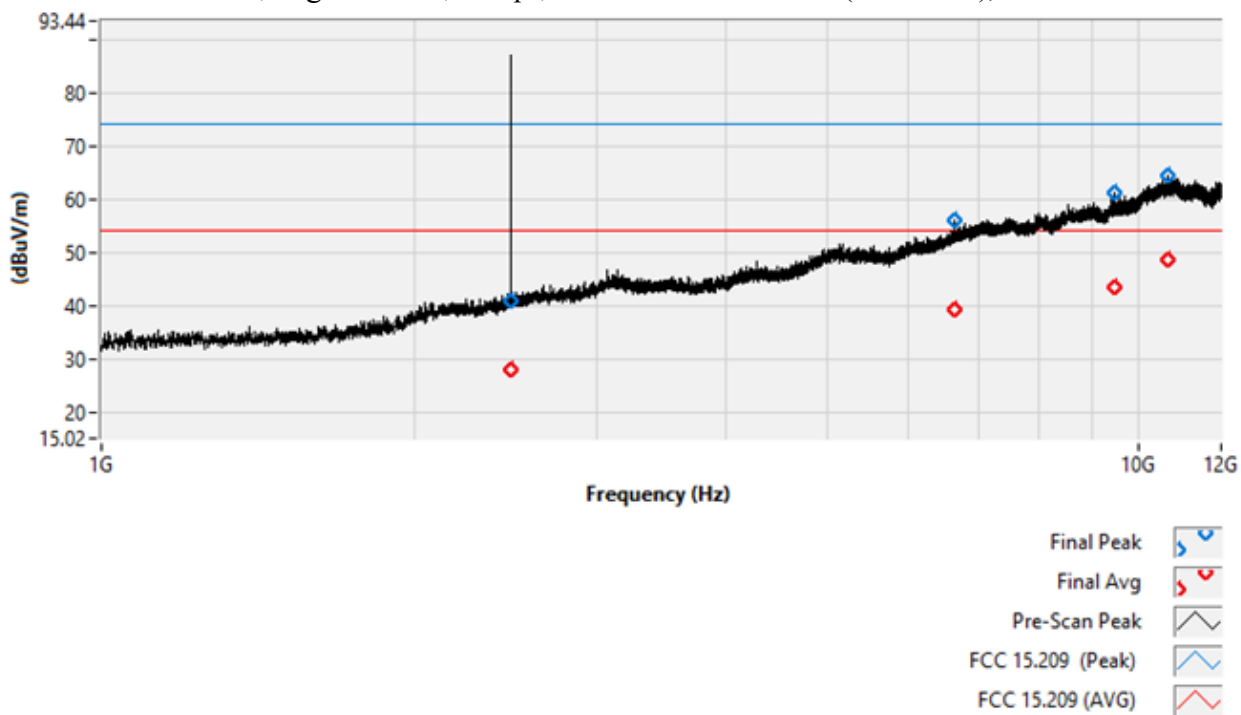
* this limit is -20dBc based on the fundamental



miniMic Standard, High Channel, 2Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz

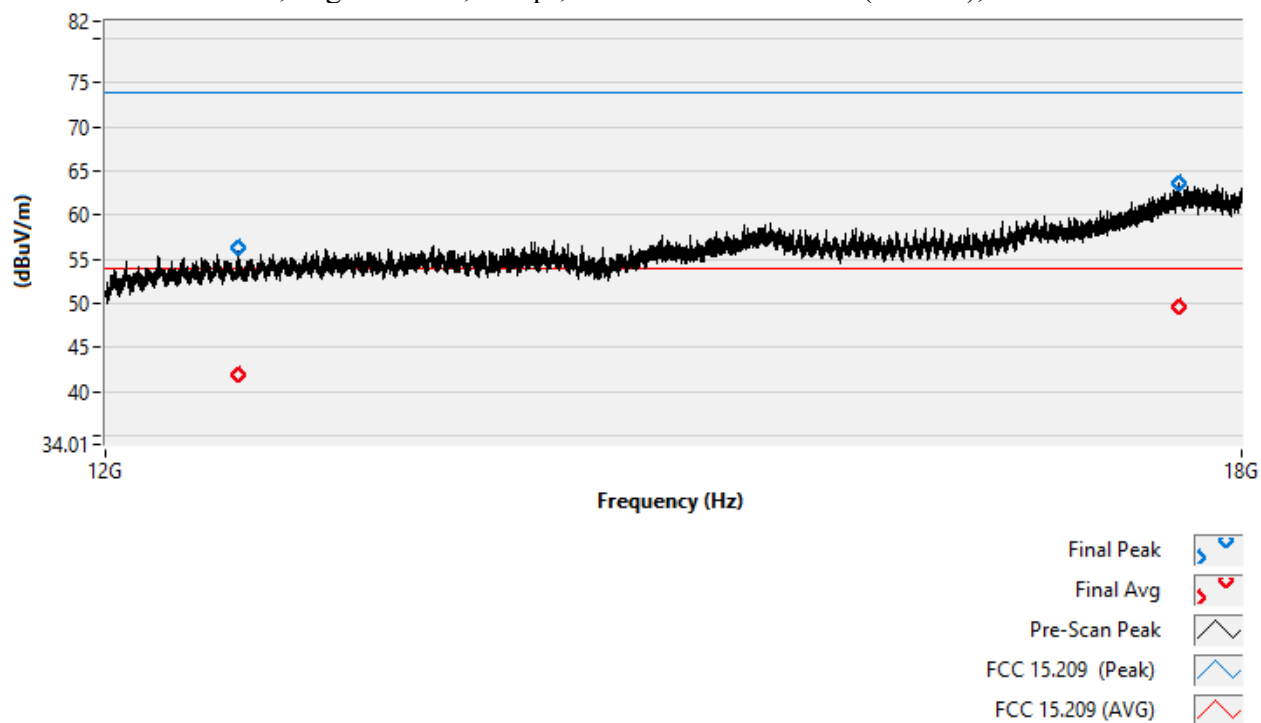


miniMic Standard, High Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz





miniMic Standard, High Channel, 2Mbps, Pre-scan and Final Data (Vertical), 12GHz to 18GHz



miniMic Standard, High Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 12GHz to 18GHz

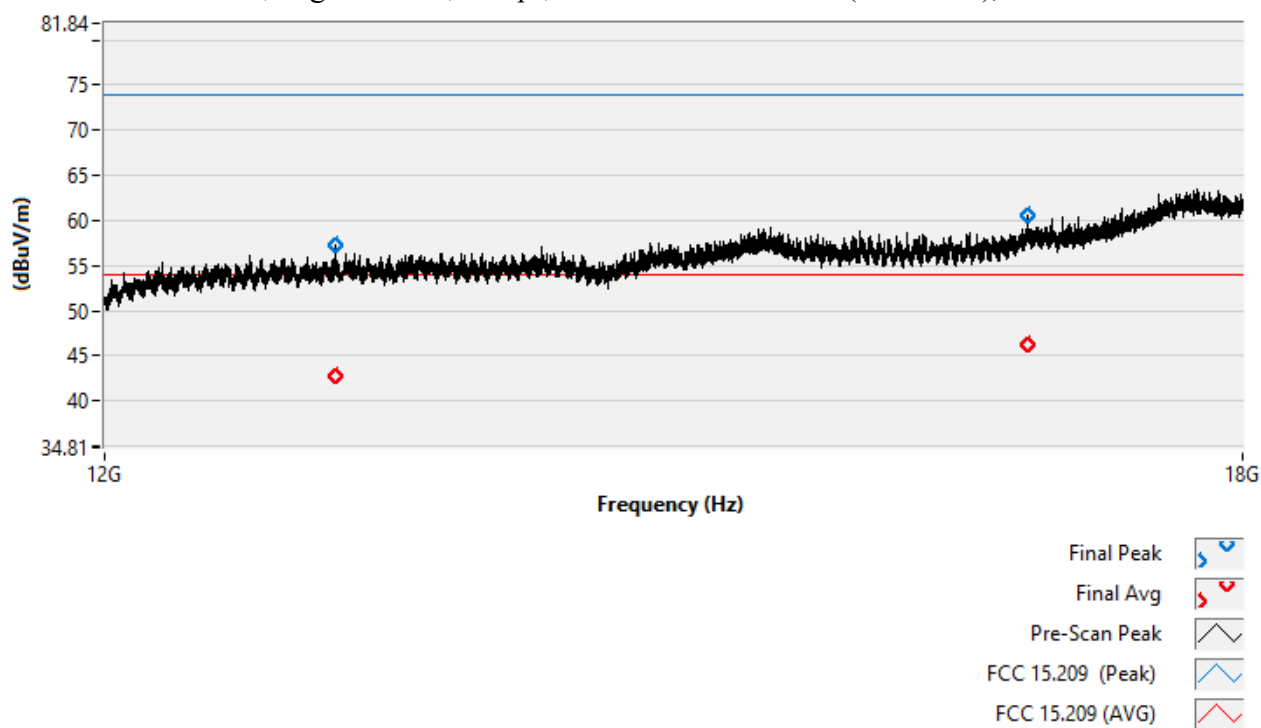


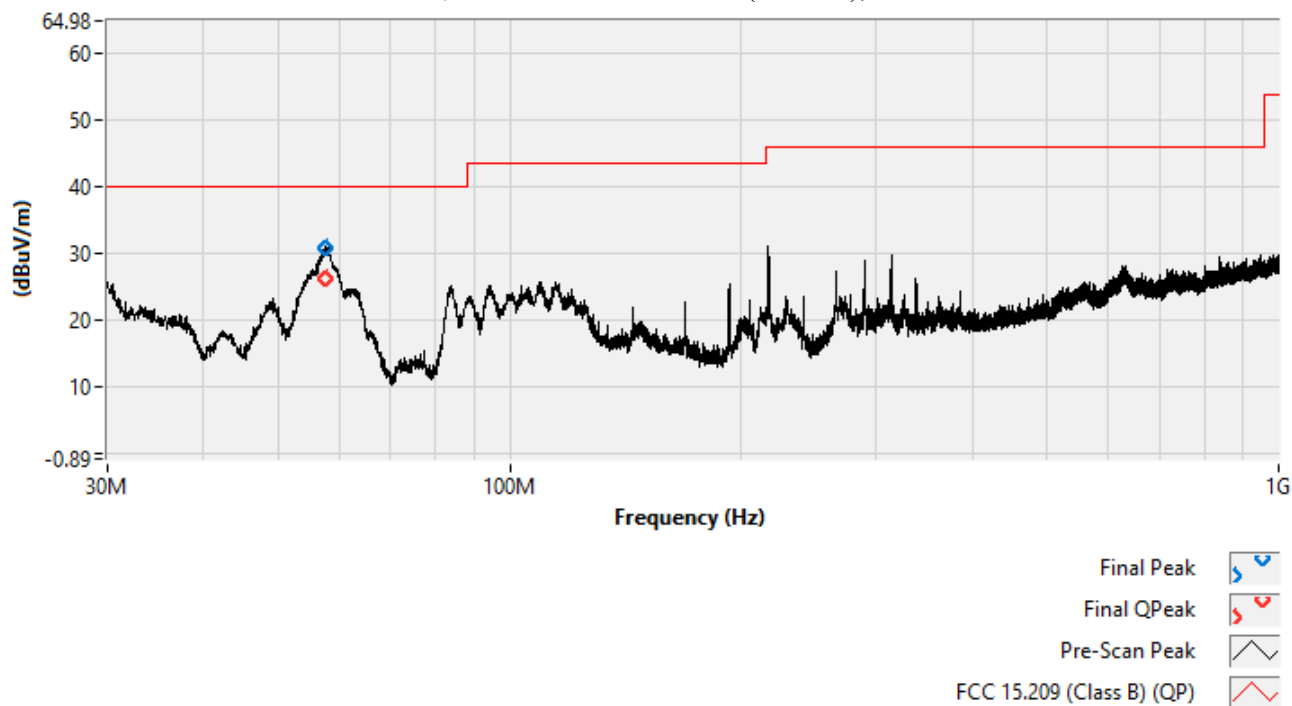


Table 17: 3-meter Radiated Emissions Test Data, 30MHz to 1GHz, miniMic Extended

Frequency (MHz)	Detector	Corr. Meas (dBuV/m)	QP Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
57.483	Peak	30.812	--	--	125	Vert, 100
	QP	26.160	40	-13.840	125	Vert, 100
109.568	Peak	32.415	--	--	90	Horiz, 100
	QP	21.323	43.5	-22.177	90	Horiz, 100
193.036	Peak	37.450	--	--	90	Horiz, 100
	QP	30.227	43.5	-13.273	90	Horiz, 100
216.979	Peak	35.984	--	--	90	Horiz, 100
	QP	33.192	46	-12.808	90	Horiz, 100
624.820	Peak	30.399	--	--	90	Horiz, 100
	QP	19.022	46	-26.978	90	Horiz, 100
948.403	Peak	30.945	--	--	90	Horiz, 100
	QP	23.666	46	-22.334	90	Horiz, 100



miniMic Extended, Pre-scan and Final Data (Vertical), 30MHz to 1GHz



miniMic Extended, Pre-scan and Final Data (Horizontal), 30MHz to 1GHz

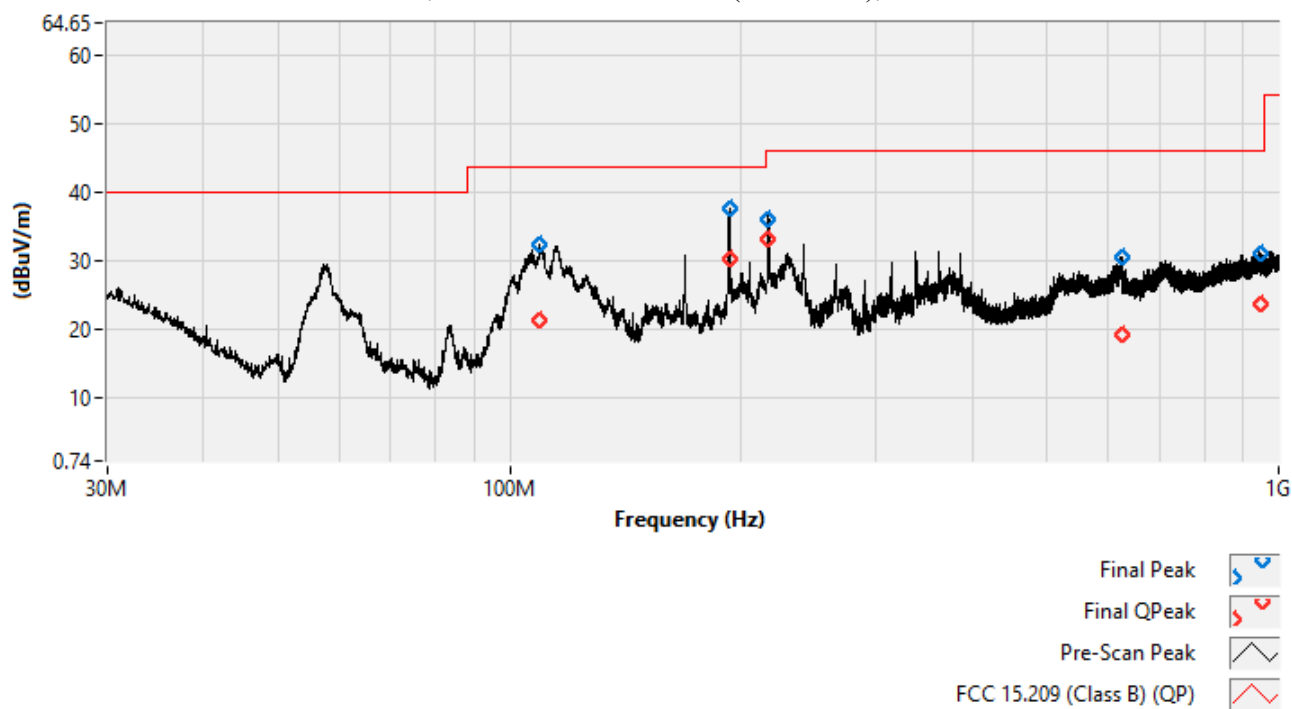




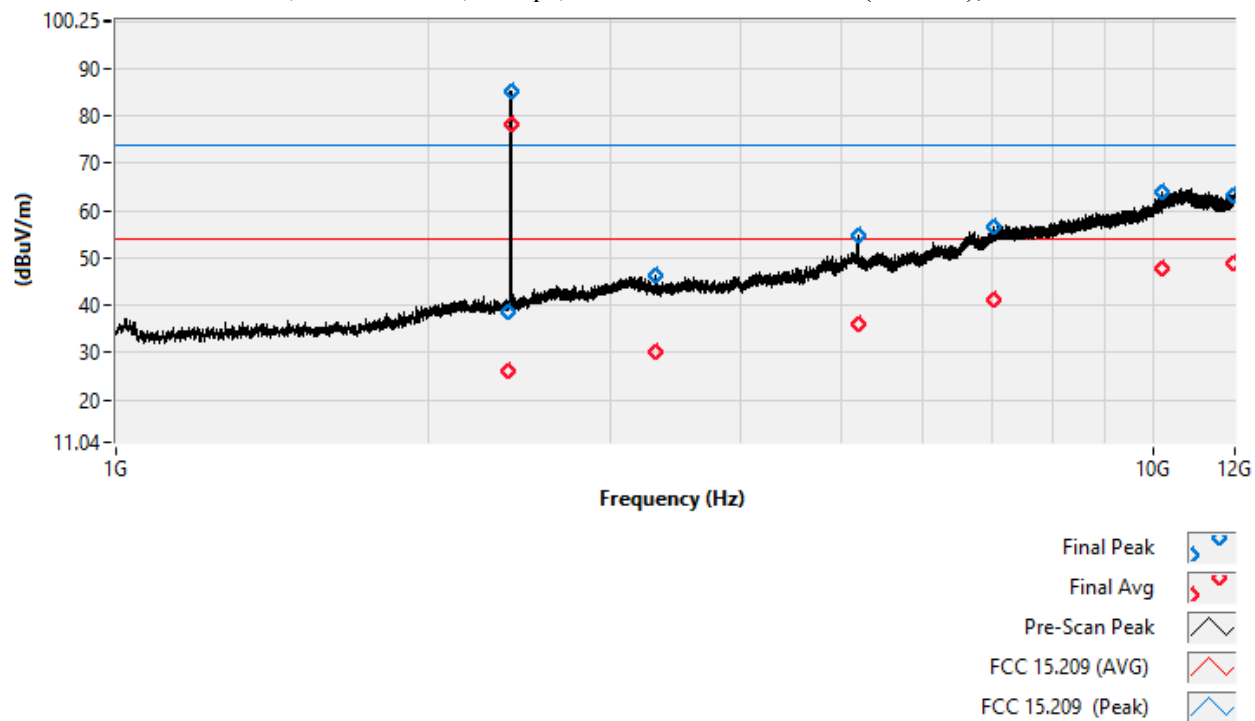
Table 18: 3-meter Radiated Test Data, Low Channel, 1Mbps, 1GHz to 18GHz, miniMic Extended

Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2390.0 ^{BE}	Peak	38.647	68.106 *	-29.459	200	Vert, 118
	Avg	25.912	54	-28.088	200	Vert, 118
2402.0 ^{TX}	Peak	88.106	--	--	290	Horiz, 195
	Avg	--	--	--	290	Horiz, 195
3319.0	Peak	46.290	74	-27.710	280	Vert, 118
	Avg	30.088	54	-23.912	280	Vert, 118
5195.0	Peak	54.890	74	-19.110	280	Vert, 118
	Avg	36.043	54	-17.957	280	Vert, 118
7207.0	Peak	57.823	74	-16.177	290	Horiz, 195
	Avg	45.081	54	-8.919	290	Horiz, 118
10210.0	Peak	63.817	74	-10.183	200	Vert, 118
	Avg	47.825	54	-6.175	200	Vert, 118
11737.0	Peak	61.374	74	-12.626	290	Horiz, 195
	Avg	47.931	54	-6.069	290	Horiz, 118
12941.0	Peak	57.589	74	-16.411	280	Vert, 155
	Avg	43.841	54	-10.159	280	Vert, 155
13038.0	Peak	57.339	74	-16.661	290	Horiz, 170
	Avg	43.555	54	-10.445	290	Horiz, 170
15043.0	Peak	60.049	74	-13.951	280	Vert, 125
	Avg	45.597	54	-8.403	280	Vert, 125
16735.0	Peak	60.264	74	-13.736	280	Vert, 125
	Avg	46.231	54	-7.769	280	Vert, 125
17588.0	Peak	63.496	74	-10.504	290	Horiz, 170
	Avg	49.555	54	-4.445	290	Horiz, 170

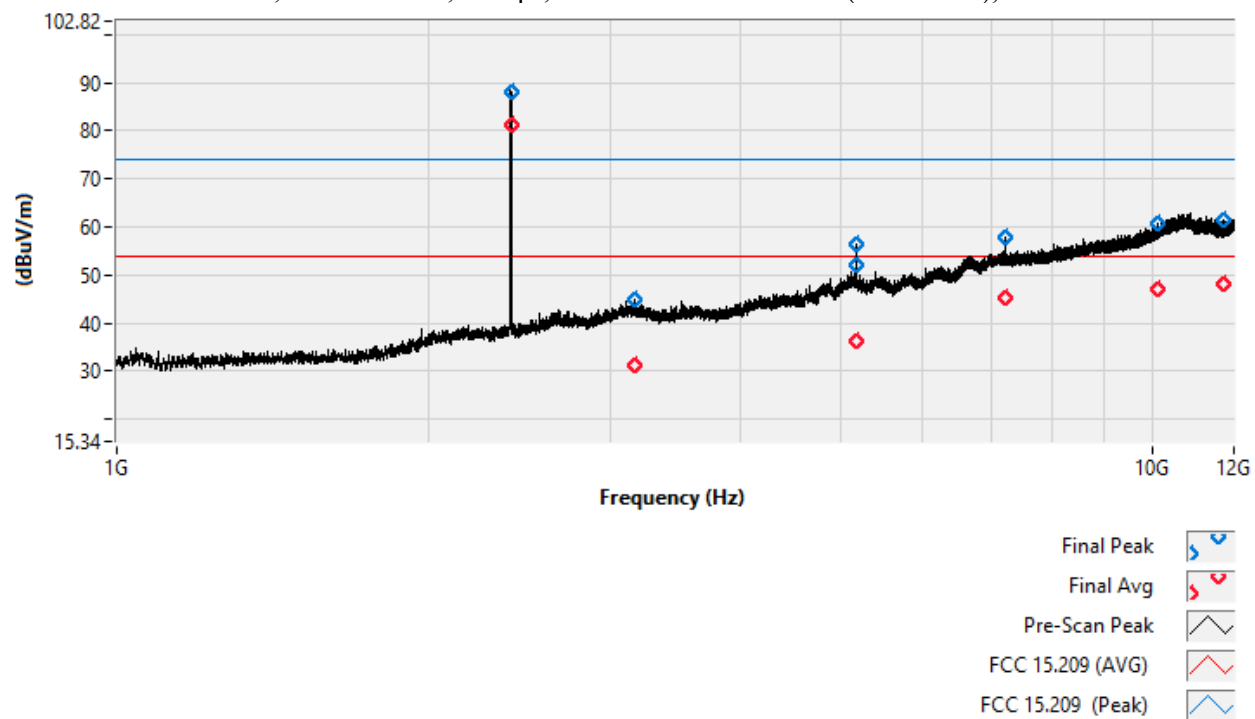
* this limit is -20dBc based on the fundamental



miniMic Extended, Low Channel, 1Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz

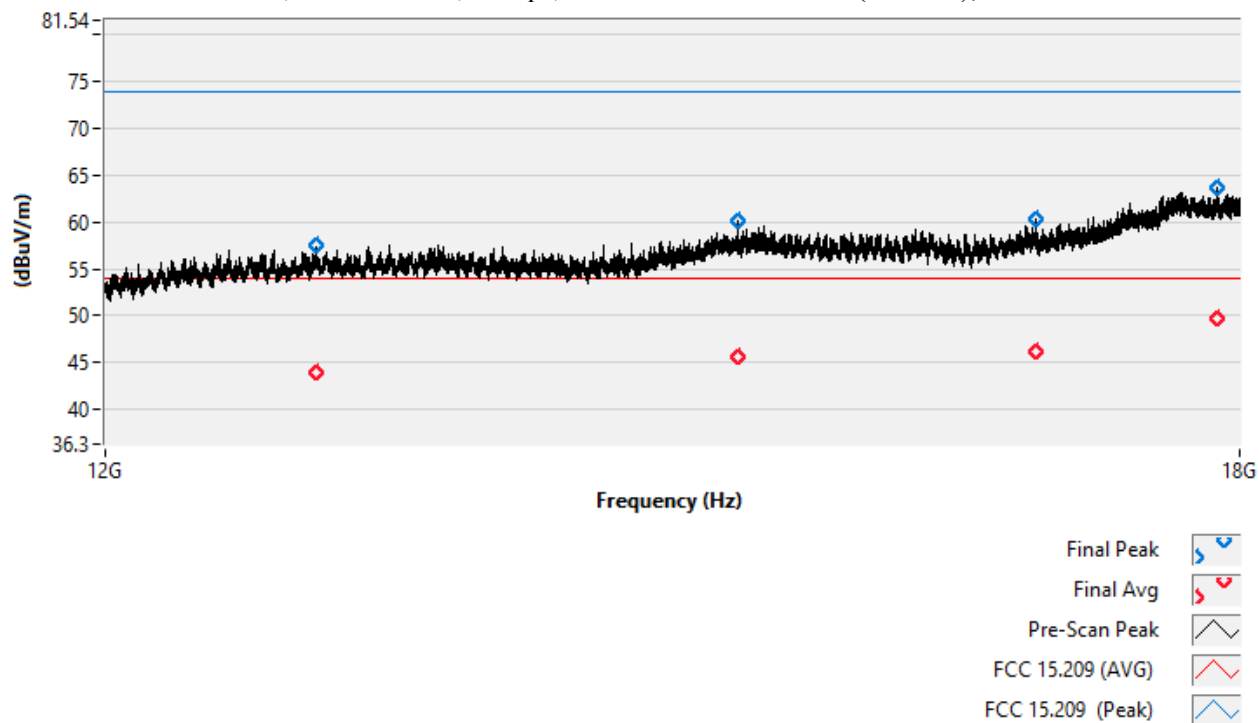


miniMic Extended, Low Channel, 1Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz





miniMic Extended, Low Channel, 1Mbps, Pre-scan and Final Data (Vertical), 12GHz to 18GHz



miniMic Extended, Low Channel, 1Mbps, Pre-scan and Final Data (Horizontal), 12GHz to 18GHz

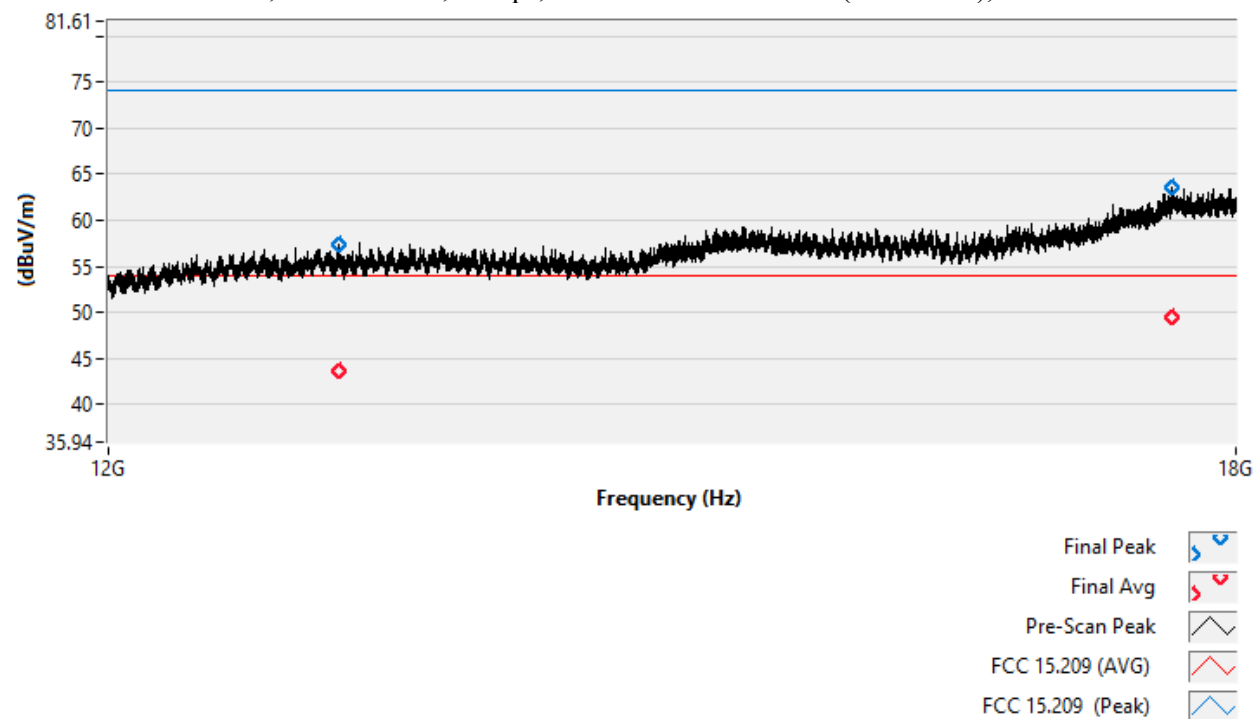


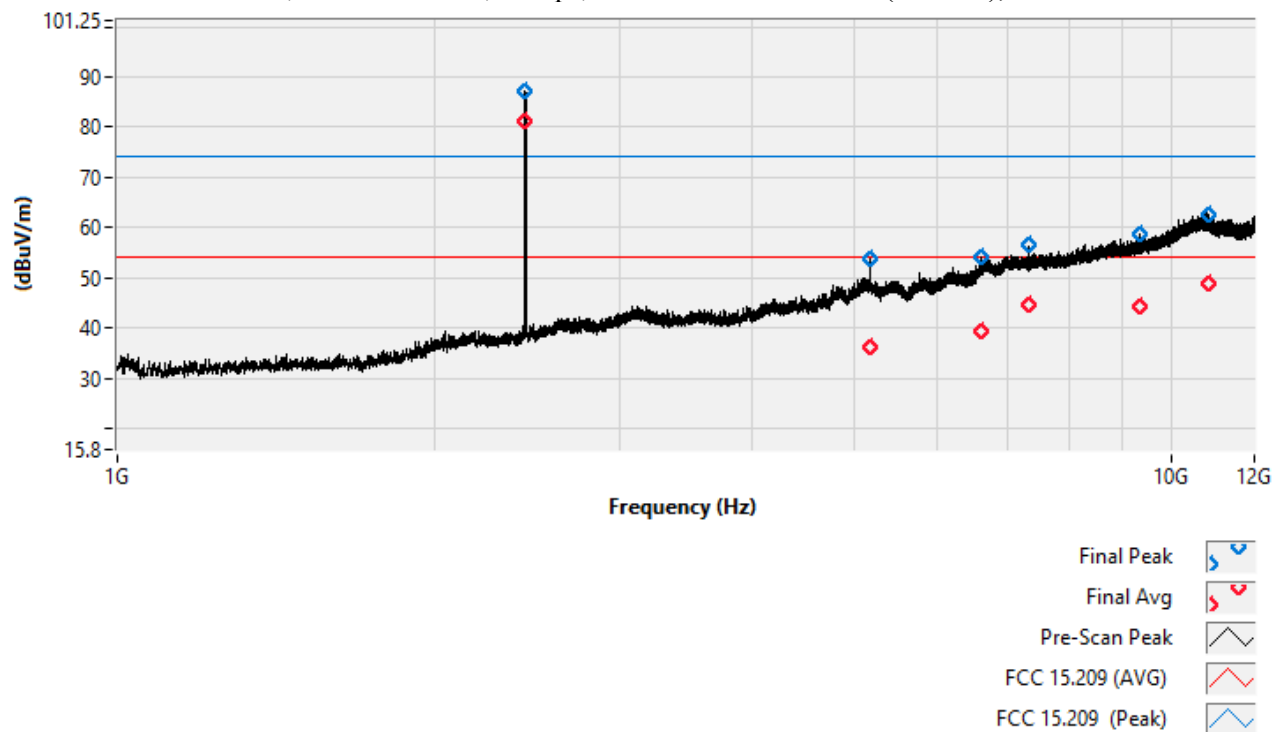


Table 19: 3-meter Radiated Test Data, Center Channel, 1Mbps, 1GHz to 18GHz, miniMic Extended

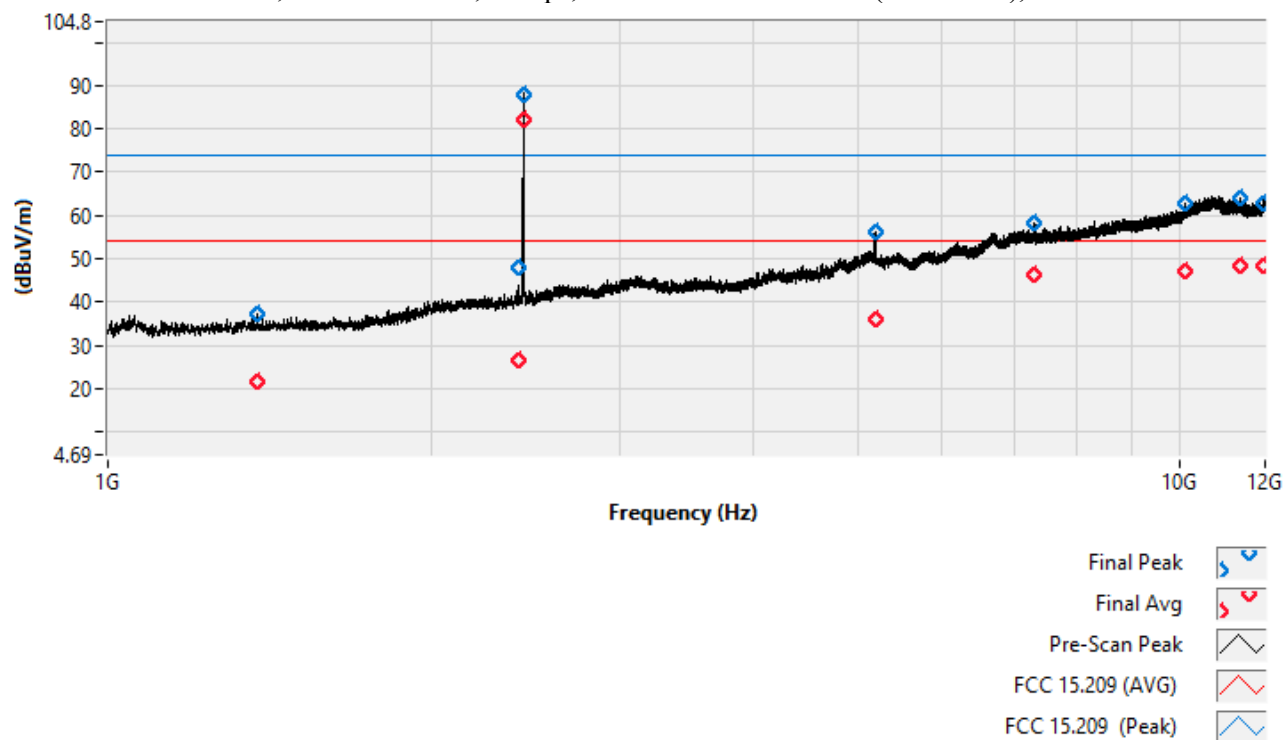
Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
1380.0	Peak	37.441	74	-36.559	290	Horiz, 195
	Avg	21.382	54	-32.618	280	Horiz, 118
2414.0	Peak	48.123	74	-25.877	280	Horiz, 118
	Avg	26.356	54	-27.644	280	Horiz, 118
2440.0 ^{TX}	Peak	88.093	--	--	290	Horiz, 195
	Avg	--	--	--	280	Horiz, 118
5194.0	Peak	56.068	74	-17.932	290	Horiz, 195
	Avg	35.863	54	-18.137	280	Horiz, 118
7320.0	Peak	58.320	74	-15.680	290	Horiz, 195
	Avg	46.114	54	-7.886	280	Horiz, 118
9335.0	Peak	58.799	74	-15.201	200	Vert, 118
	Avg	44.408	54	-9.592	200	Vert, 118
11380.0	Peak	64.029	74	-9.971	290	Horiz, 195
	Avg	48.482	54	-5.518	290	Horiz, 118
12090.0	Peak	55.303	74	-18.697	290	Horiz, 170
	Avg	41.939	54	-12.061	290	Horiz, 170
13188.0	Peak	57.354	74	-16.646	280	Vert, 118
	Avg	43.847	54	-10.153	280	Vert, 118
15867.0	Peak	59.975	74	-14.025	280	Vert, 118
	Avg	45.553	54	-8.447	280	Vert, 118
17264.0	Peak	61.476	74	-12.524	290	Horiz, 170
	Avg	47.980	54	-6.020	290	Horiz, 170



miniMic Extended, Center Channel, 1Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz

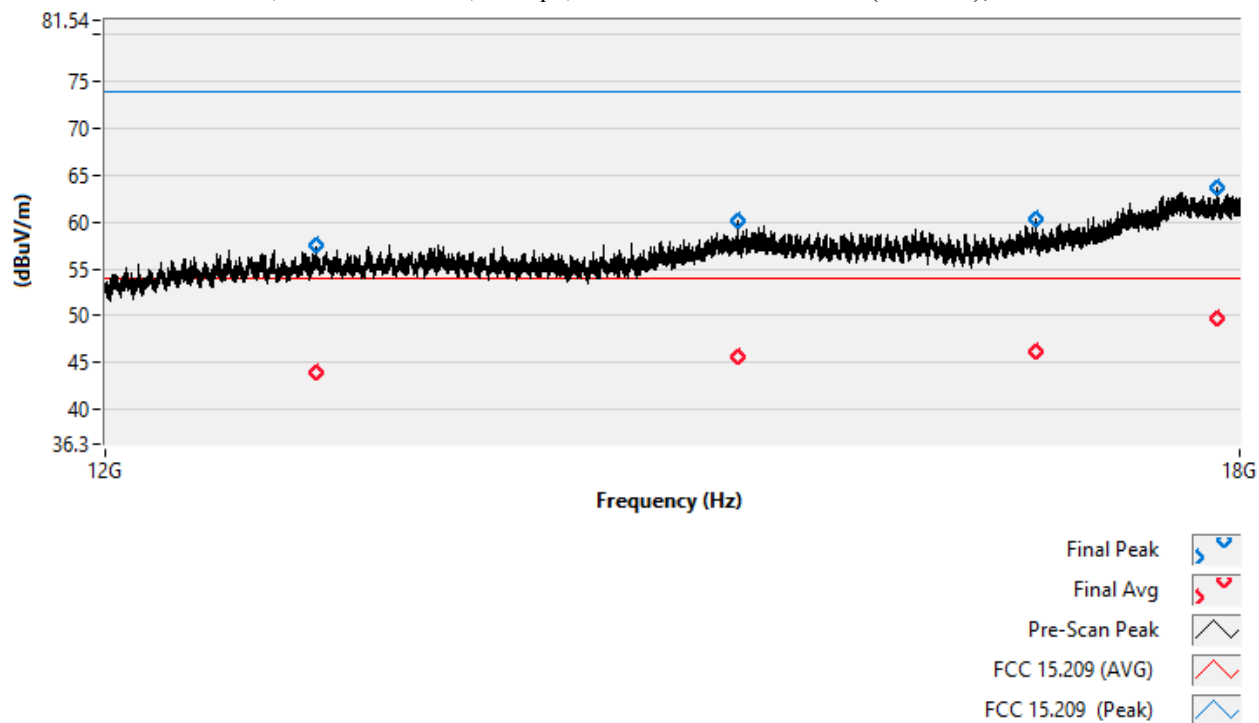


miniMic Extended, Center Channel, 1Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz





miniMic Extended, Center Channel, 1Mbps, Pre-scan and Final Data (Vertical), 12GHz to 18GHz



miniMic Extended, Center Channel, 1Mbps, Pre-scan and Final Data (Horizontal), 12GHz to 18GHz

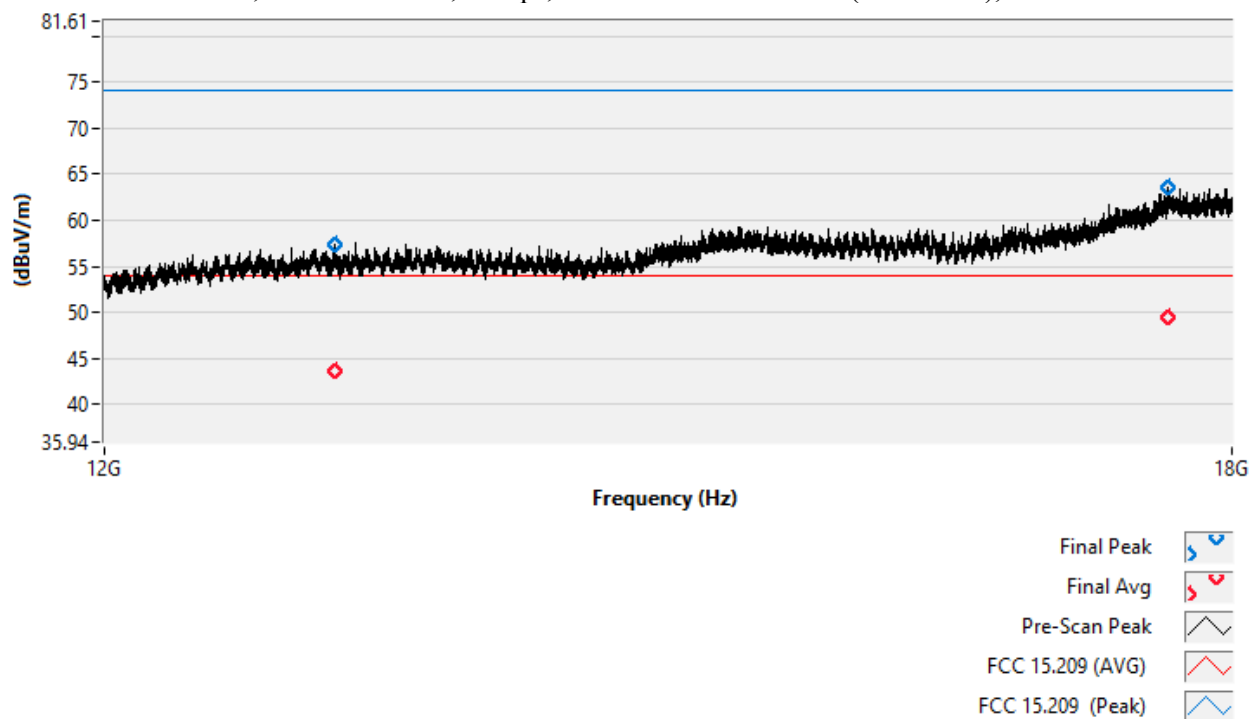




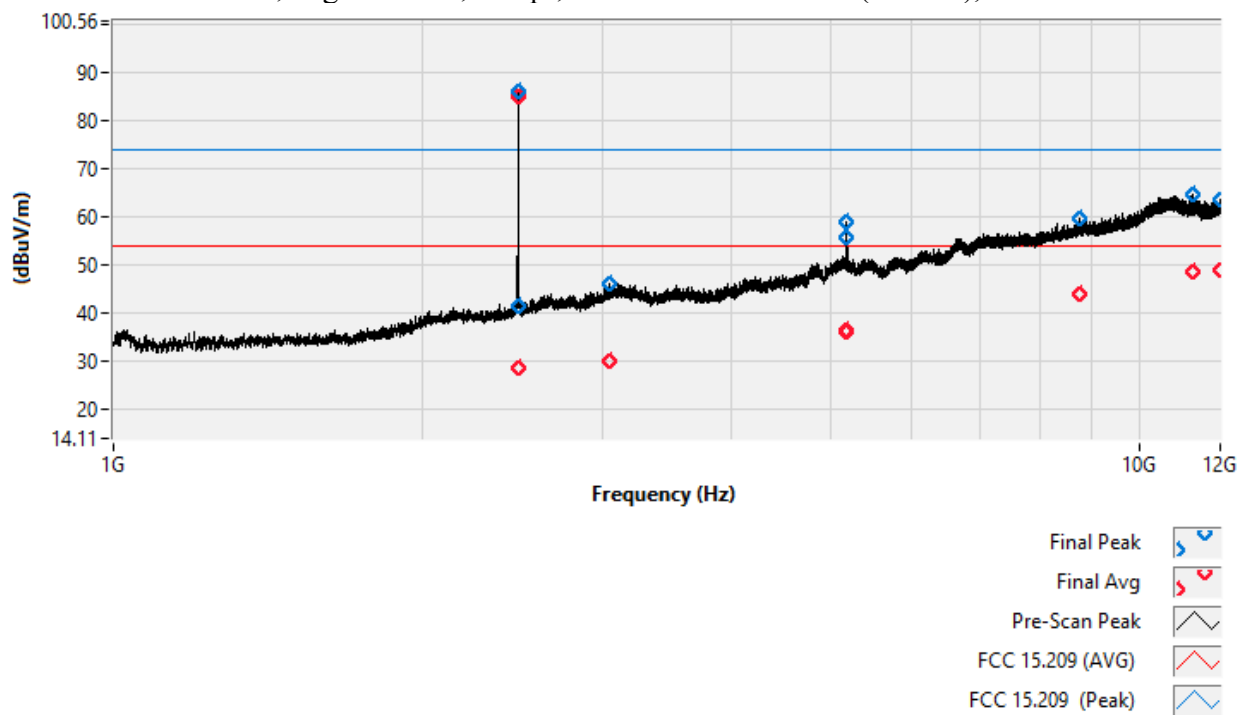
Table 20: 3-meter Radiated Test Data, High Channel, 1Mbps, 1GHz to 18GHz, miniMic Extended

Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2480.0 ^{TX}	Peak	87.988	--	--	290	Horiz, 195
	Avg	--	--	--	290	Horiz, 195
2483.5 ^{BE}	Peak	41.545	67.988 *	-26.443	280	Vert, 118
	Avg	28.525	54	-25.475	280	Vert, 118
3046.0	Peak	46.153	74	-27.847	280	Vert, 118
	Avg	30.058	54	-23.942	280	Vert, 118
5172.0	Peak	58.813	74	-15.187	280	Vert, 118
	Avg	36.496	54	-17.504	280	Vert, 118
5186.0	Peak	55.646	74	-18.354	280	Vert, 118
	Avg	36.182	54	-17.818	280	Vert, 118
8744.0	Peak	59.598	74	-14.402	280	Vert, 118
	Avg	43.992	54	-10.008	280	Vert, 118
11292.0	Peak	64.790	74	-9.210	280	Vert, 118
	Avg	48.730	54	-5.270	280	Vert, 118
12800.0	Peak	57.284	74	-16.716	280	Vert, 118
	Avg	43.079	54	-10.921	280	Vert, 118
14289.0	Peak	57.198	74	-16.802	280	Vert, 118
	Avg	43.351	54	-10.649	280	Vert, 118
15140.0	Peak	59.525	74	-14.475	280	Vert, 118
	Avg	45.625	54	-8.375	280	Vert, 118
16132.0	Peak	59.316	74	-14.684	290	Horiz, 170
	Avg	45.797	54	-8.203	290	Horiz, 170

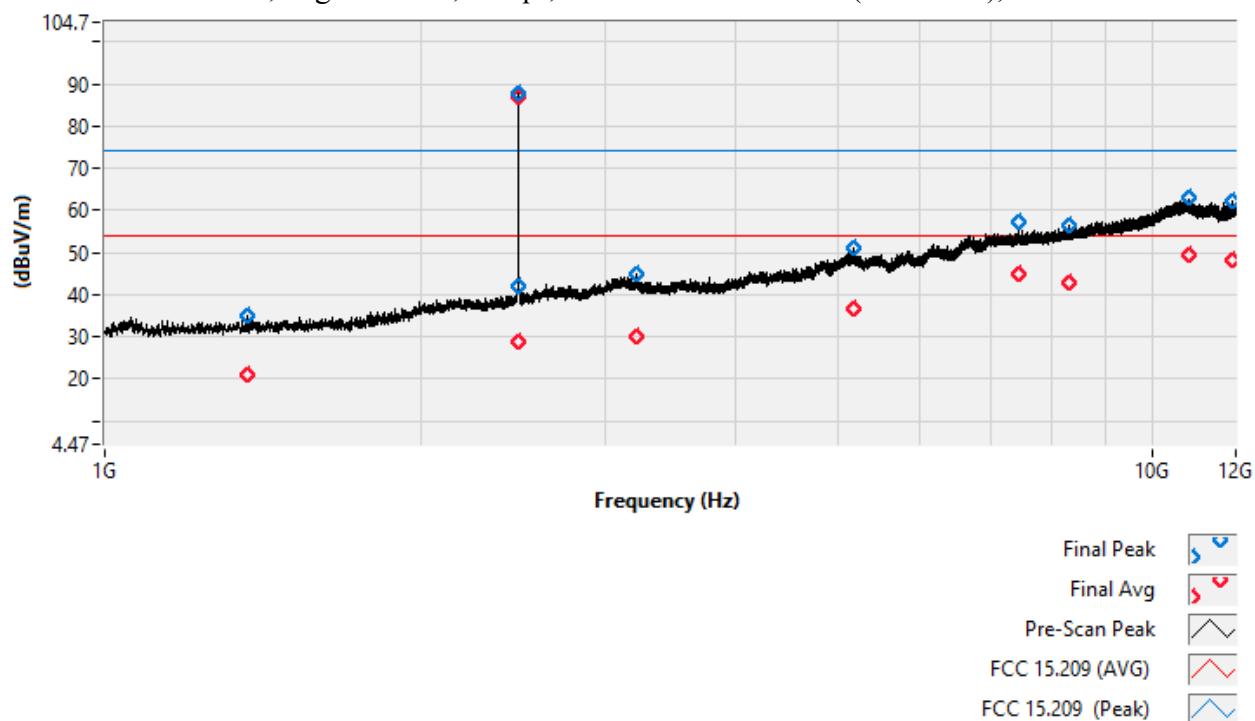
* this limit is -20dBc based on the fundamental



miniMic Extended, High Channel, 1Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz



miniMic Extended, High Channel, 1Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz



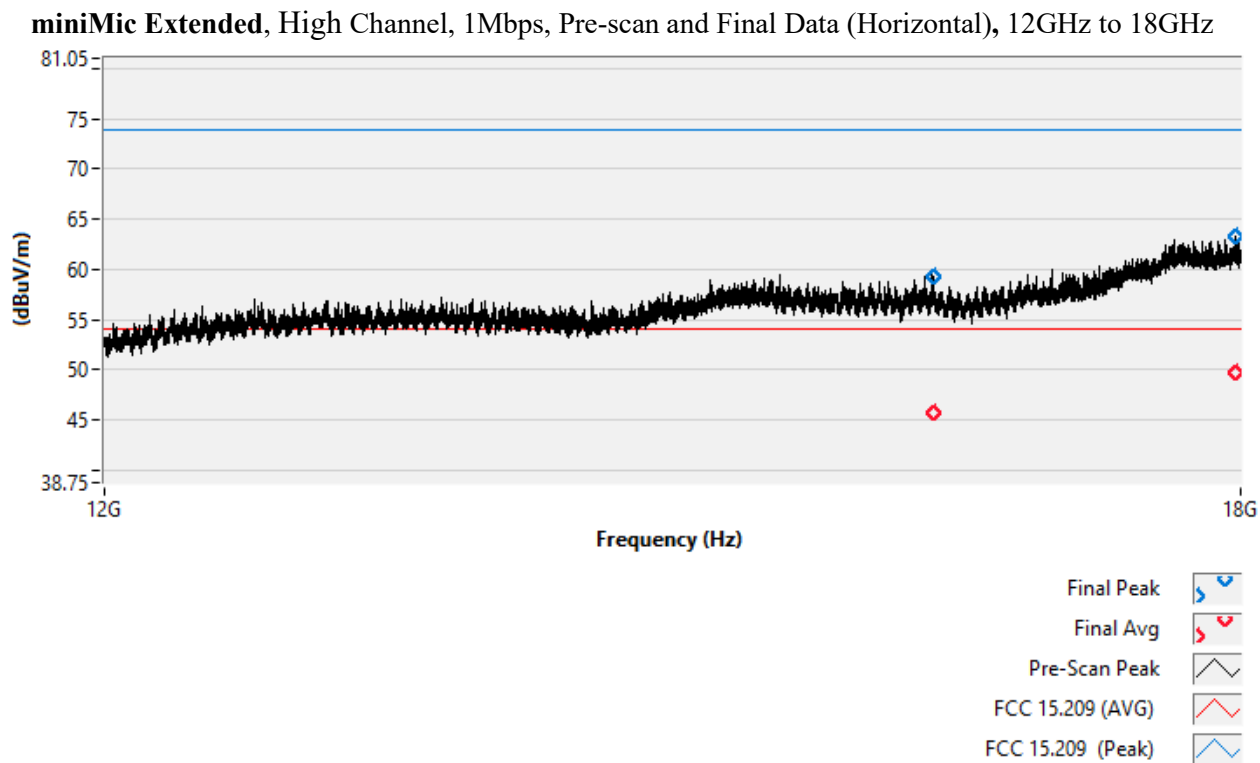
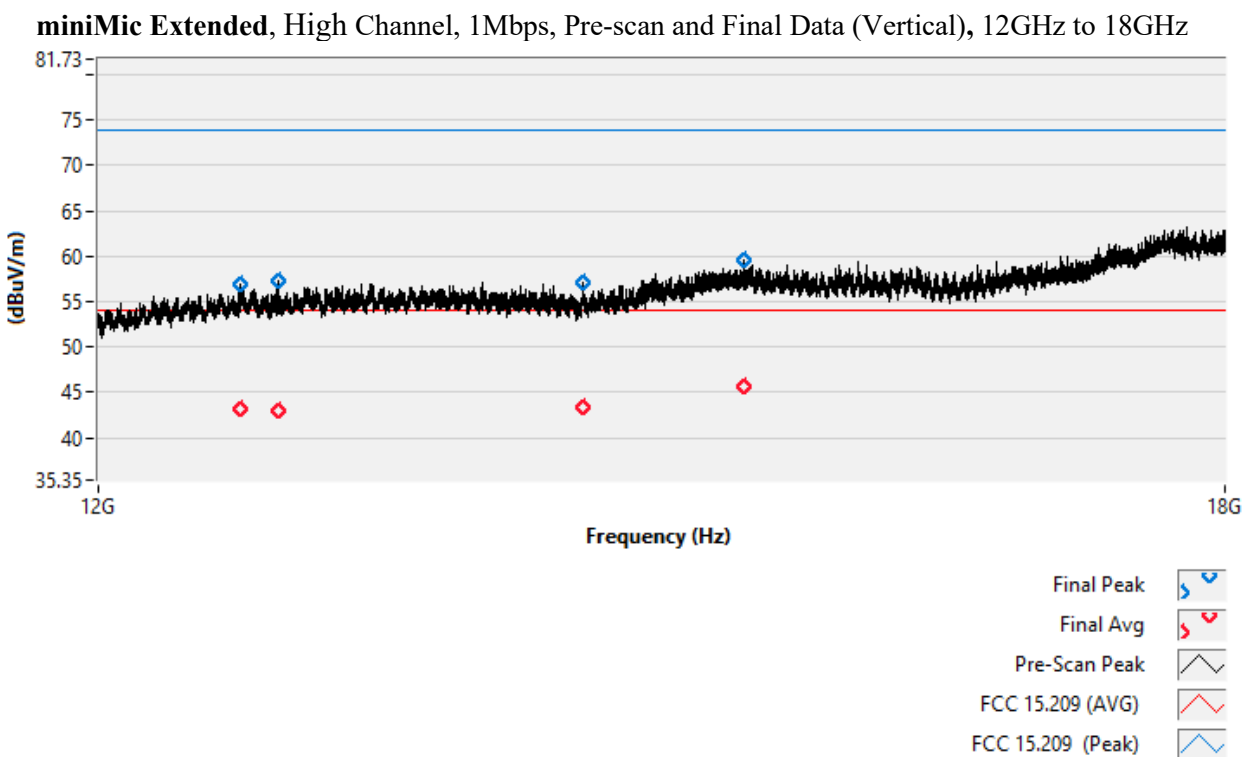




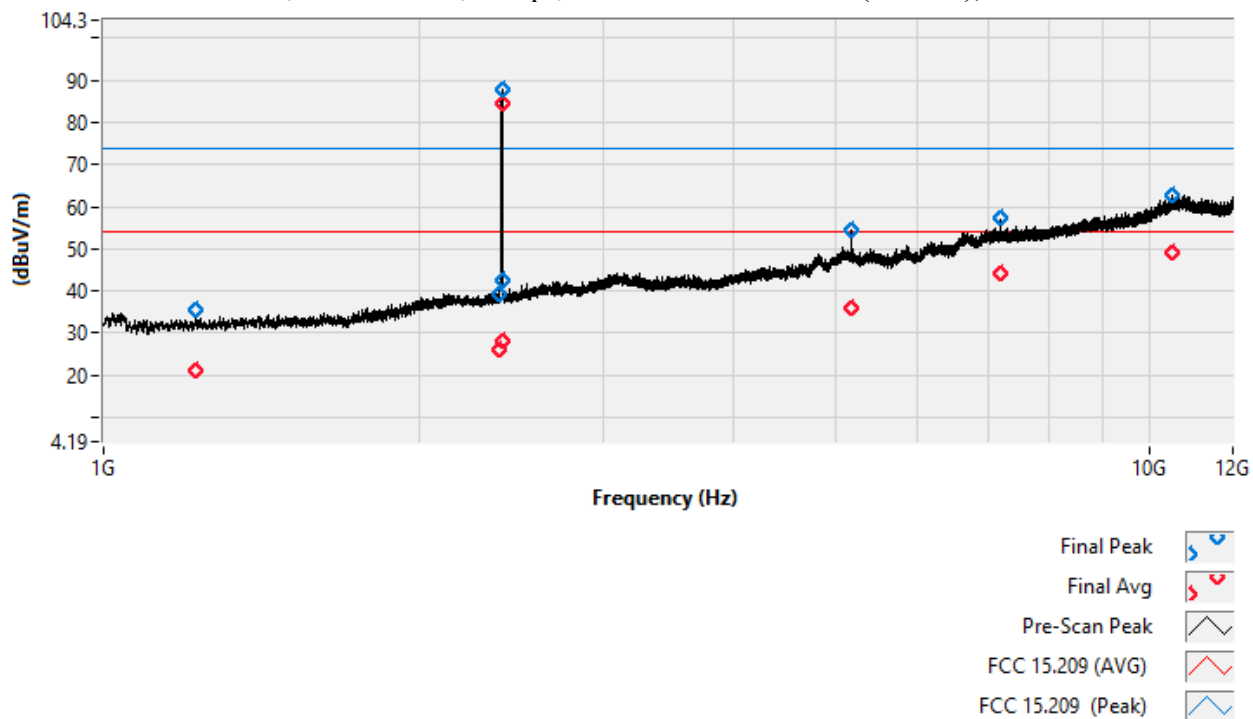
Table 21: 3-meter Radiated Test Data, Low Channel, 2Mbps, 1GHz to 18GHz, miniMic Extended

Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
1029.0	Peak	34.620	74	-39.380	290	Horiz, 170
	Avg	19.885	54	-34.115	200	Horiz, 120
2390.0 ^{BE}	Peak	39.367	67.623 *	-28.256	290	Horiz, 195
	Avg	26.013	54	-27.987	290	Horiz, 195
2402.0 ^{TX}	Peak	87.623	--	--	200	Vert, 120
	Avg	--	--	--	200	Vert, 120
5182.0	Peak	54.404	74	-19.596	200	Vert, 120
	Avg	36.001	54	-17.999	200	Vert, 120
7205.0	Peak	56.484	74	-17.516	290	Horiz, 195
	Avg	44.141	54	-9.859	290	Horiz, 195
10495.0	Peak	62.715	74	-11.285	200	Vert, 170
	Avg	49.038	54	-4.962	200	Vert, 170
12540.0	Peak	56.835	74	-17.165	290	Horiz, 170
	Avg	43.390	54	-10.610	290	Horiz, 170
14590.0	Peak	58.706	74	-15.294	290	Horiz, 170
	Avg	44.065	54	-9.935	290	Horiz, 170
16934.0	Peak	60.825	74	-13.175	290	Vert, 195
	Avg	46.749	54	-7.251	290	Vert, 195
17746.0	Peak	63.500	74	-10.500	290	Horiz, 170
	Avg	49.903	54	-4.097	290	Horiz, 170

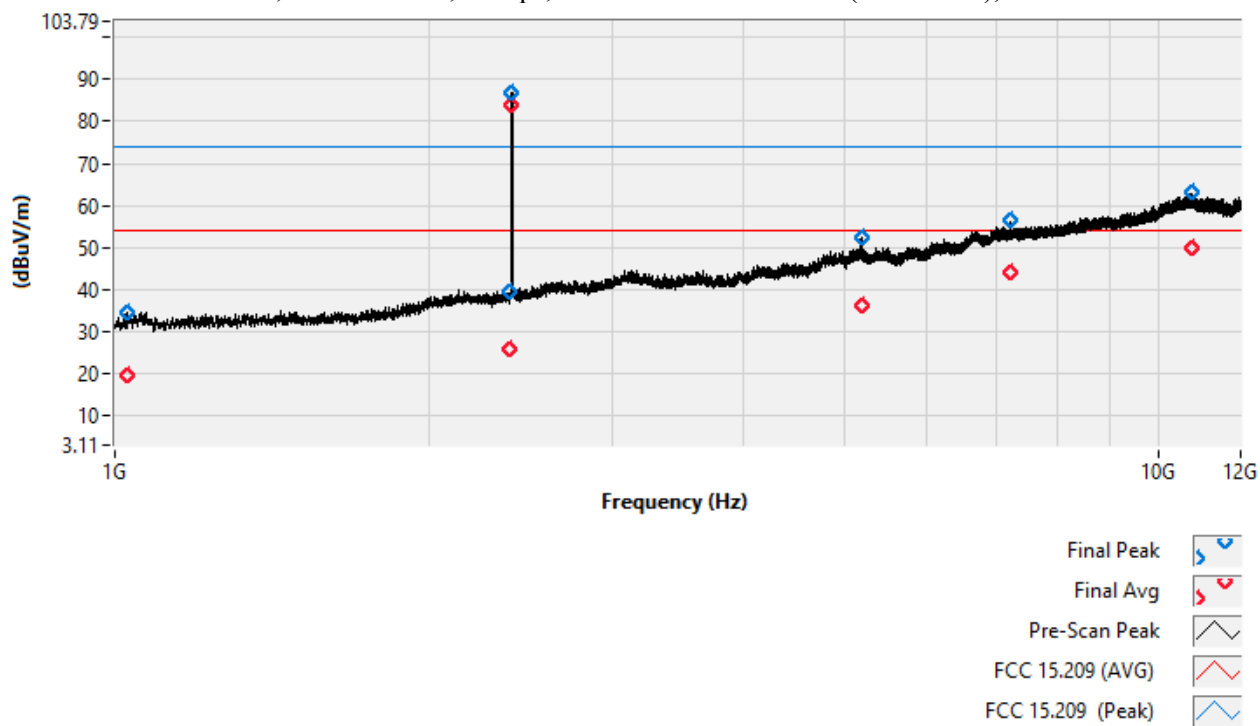
* this limit is -20dBc based on the fundamental



miniMic Extended, Low Channel, 2Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz

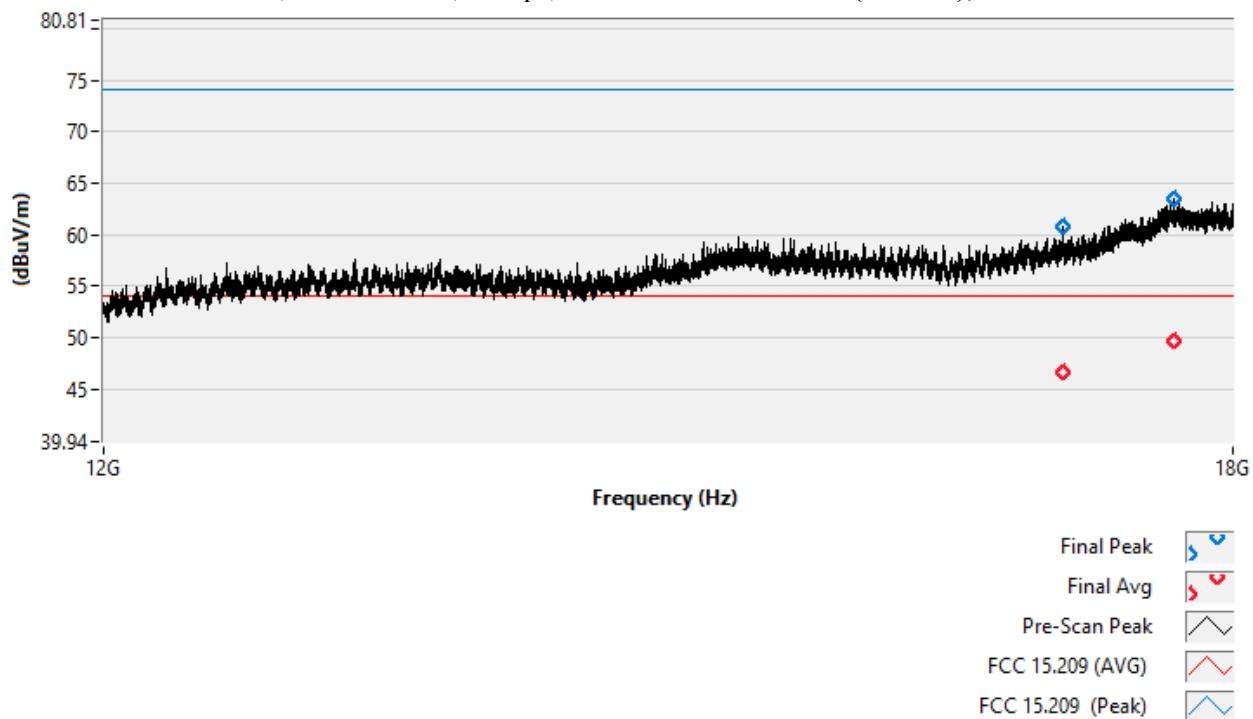


miniMic Extended, Low Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz





miniMic Extended, Low Channel, 2Mbps, Pre-scan and Final Data (Vertical), 12GHz to 18GHz



miniMic Extended, Low Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 12GHz to 18GHz

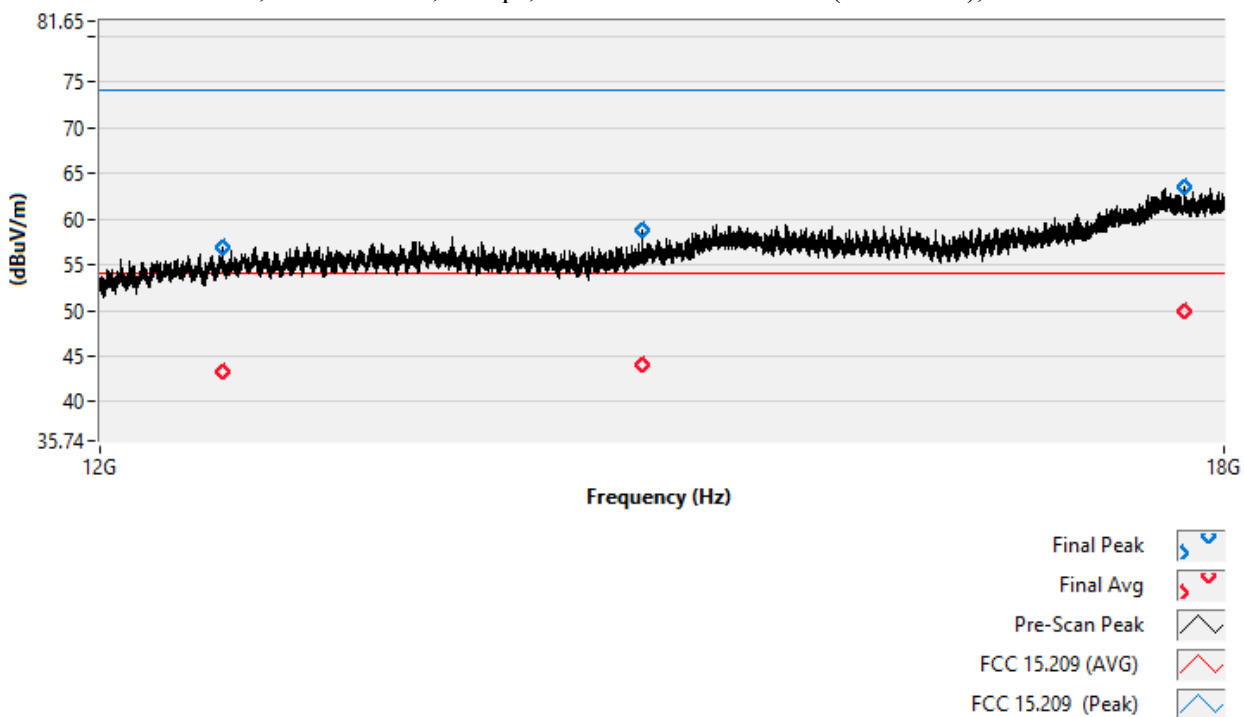


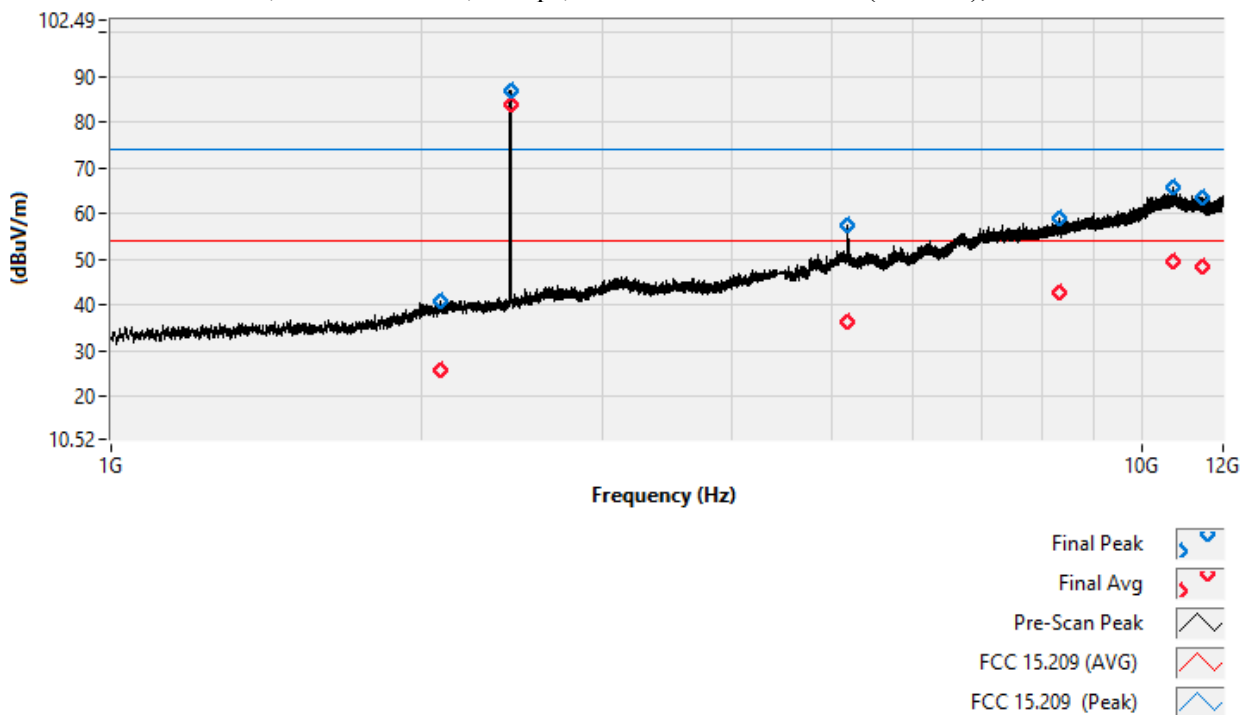


Table 22: 3-meter Radiated Test Data, Center Channel, 2Mbps, 1GHz to 18GHz, miniMic Extended

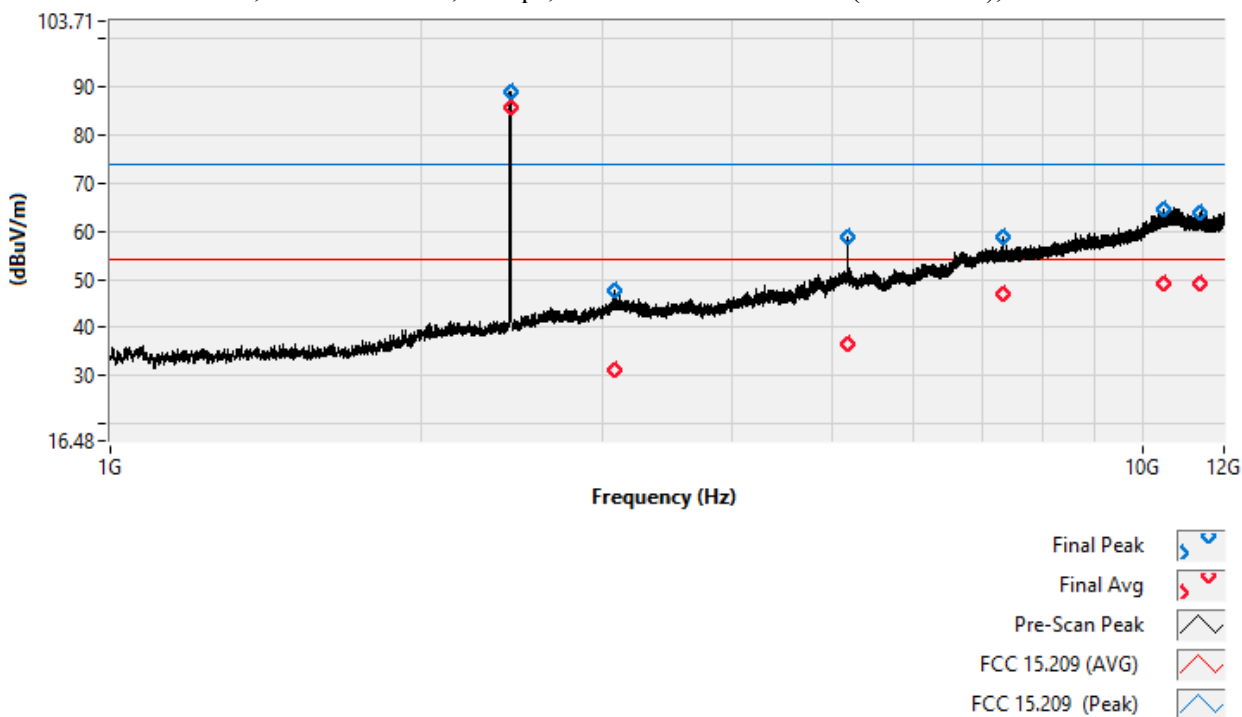
Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2085.0	Peak	40.970	74	-33.030	200	Vert, 125
	Avg	25.848	54	-28.152	200	Vert, 125
2440.0 ^{TX}	Peak	89.171	--	--	290	Horiz, 195
	Avg	--	--	--	290	Horiz, 195
5172.0	Peak	59.004	74	-14.996	290	Horiz, 195
	Avg	36.556	54	-17.444	290	Horiz, 195
8322.0	Peak	59.026	74	-14.974	200	Horiz, 195
	Avg	42.791	54	-11.209	200	Vert, 125
10739.0	Peak	65.764	74	-8.236	200	Vert, 125
	Avg	49.671	54	-4.329	200	Vert, 125
11452.0	Peak	63.388	74	-10.612	200	Vert, 125
	Avg	48.189	54	-5.811	200	Vert, 125
13530.0	Peak	58.418	74	-15.582	290	Vert, 195
	Avg	44.335	54	-9.665	290	Vert, 195
15518.0	Peak	59.046	74	-14.954	290	Vert, 195
	Avg	45.720	54	-8.280	290	Vert, 195
17709.0	Peak	63.782	74	-10.218	290	Horiz, 195
	Avg	49.917	54	-4.083	290	Horiz, 195
13530.0	Peak	58.418	74	-15.582	290	Vert, 195
	Avg	44.335	54	-9.665	290	Vert, 195
15518.0	Peak	59.046	74	-14.954	290	Vert, 195
	Avg	45.720	54	-8.280	290	Vert, 195



miniMic Extended, Center Channel, 2Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz

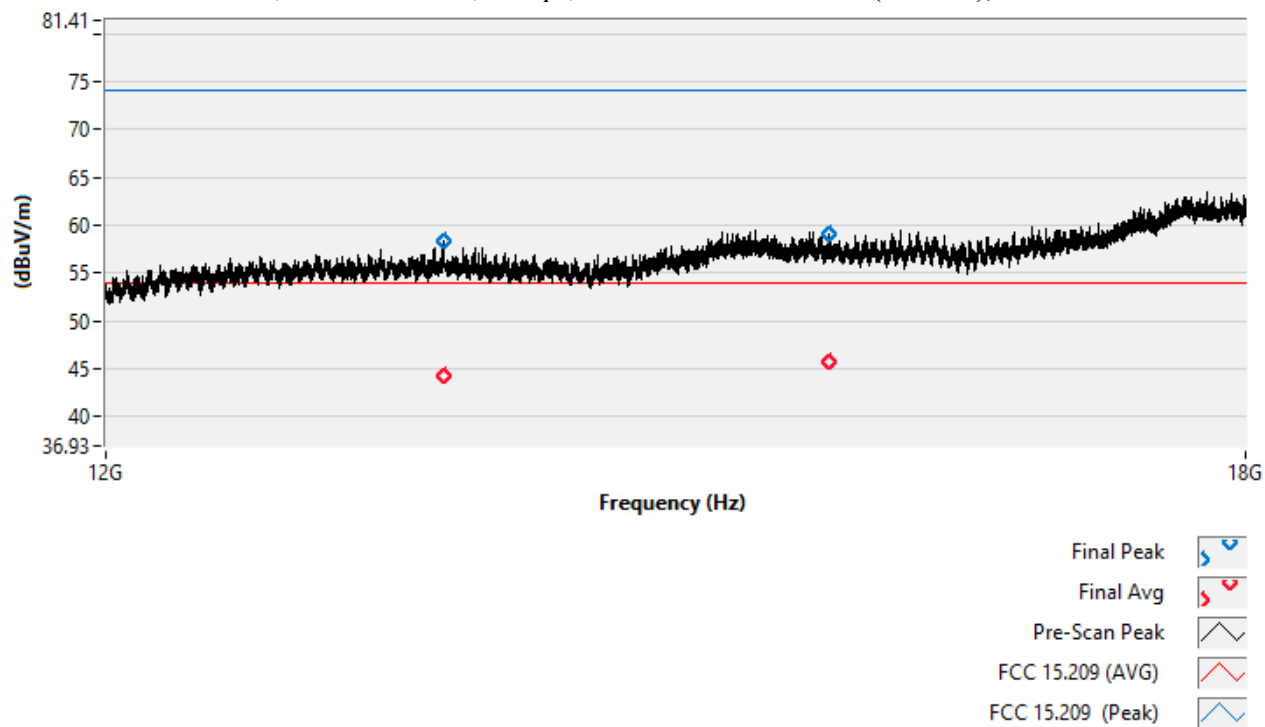


miniMic Extended, Center Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz





miniMic Extended, Center Channel, 2Mbps, Pre-scan and Final Data (Vertical), 12GHz to 18GHz



miniMic Extended, Center Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 12GHz to 18GHz

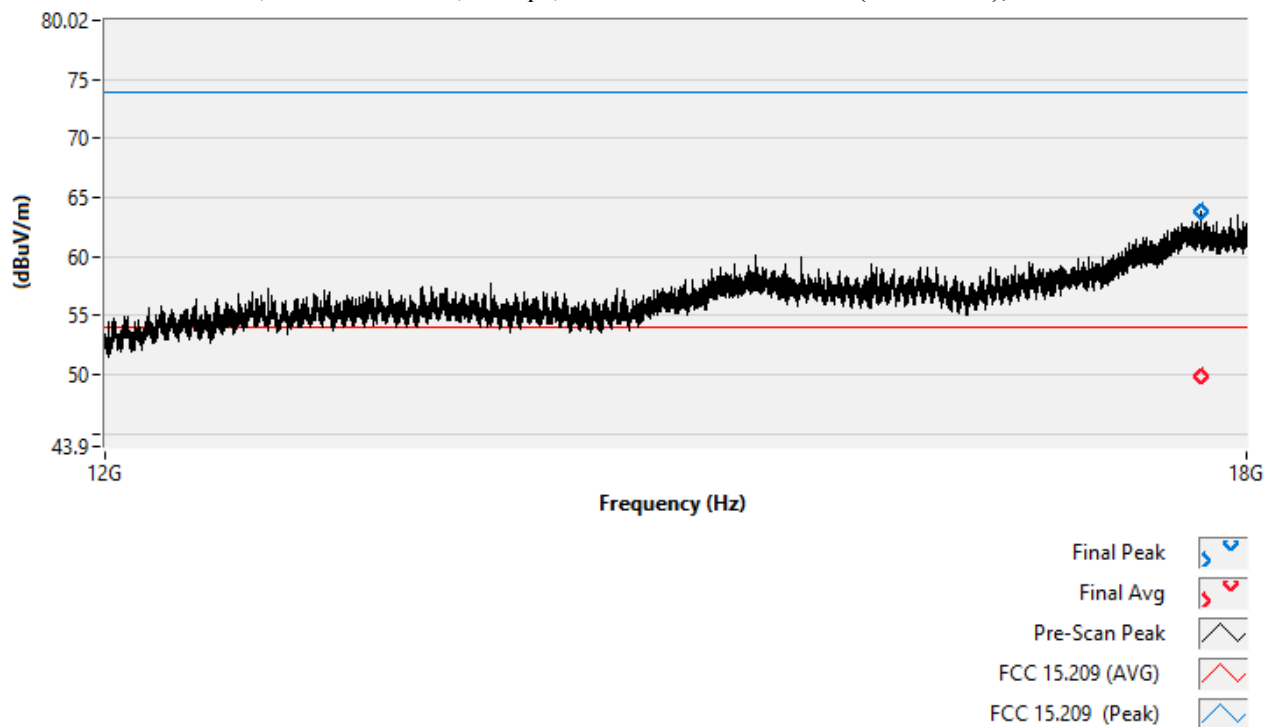




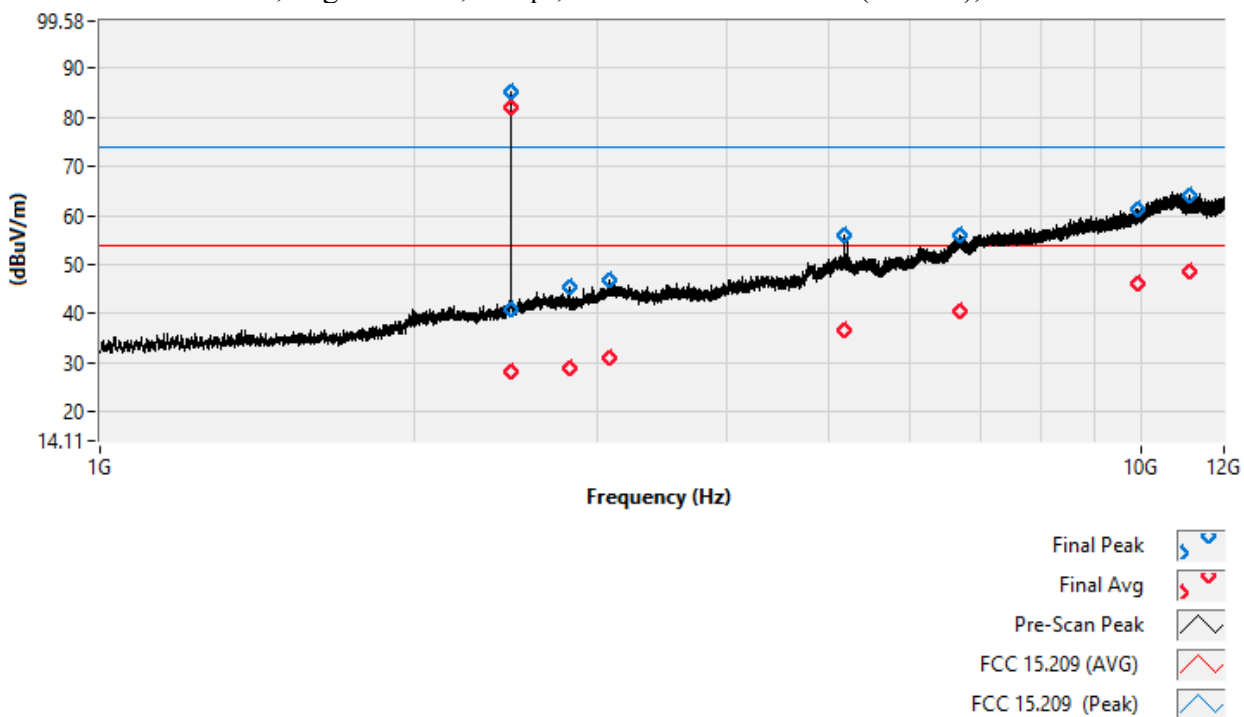
Table 23: 3-meter Radiated Test Data, High Channel, 2Mbps, 1GHz to 18GHz, miniMic Extended

Frequency (MHz)	Detector	Meas (dBuV/m)	Limit (dBuV/m)	Delta (dB)	Turn Table (deg)	Antenna (cm)
2480.0 ^{TX}	Peak	85.326	--	--	200	Vert, 120
	Avg	82.126	--	--	200	Vert, 120
2483.5 ^{BE}	Peak	40.950	68.326 *	-27.376	200	Vert, 120
	Avg	28.352	54	-25.648	200	Vert, 120
2820.0	Peak	45.356	74	-28.644	200	Vert, 120
	Avg	28.932	54	-25.068	200	Vert, 120
3079.0	Peak	46.959	74	-27.041	200	Vert, 120
	Avg	31.079	54	-22.921	200	Vert, 120
5176.0	Peak	55.890	74	-18.110	200	Vert, 120
	Avg	36.613	54	-17.387	200	Vert, 120
6.0685	Peak	56.111	74	-17.889	200	Vert, 120
	Avg	40.330	54	-13.670	200	Vert, 120
9904.0	Peak	61.082	74	-12.918	200	Vert, 120
	Avg	46.227	54	-7.773	200	Vert, 120
11729.0	Peak	61.157	74	-12.843	290	Horiz, 195
	Avg	47.480	54	-6.520	290	Horiz, 195
12637.0	Peak	58.856	74	-15.144	200	Vert, 125
	Avg	43.800	54	-10.200	2200	Vert, 125
13540.0	Peak	57.860	74	-16.140	290	Horiz, 195
	Avg	44.179	54	-9.821	290	Horiz, 195
14090.0	Peak	59.796	74	-14.204	200	Vert, 125
	Avg	43.575	54	-10.425	200	Vert, 125

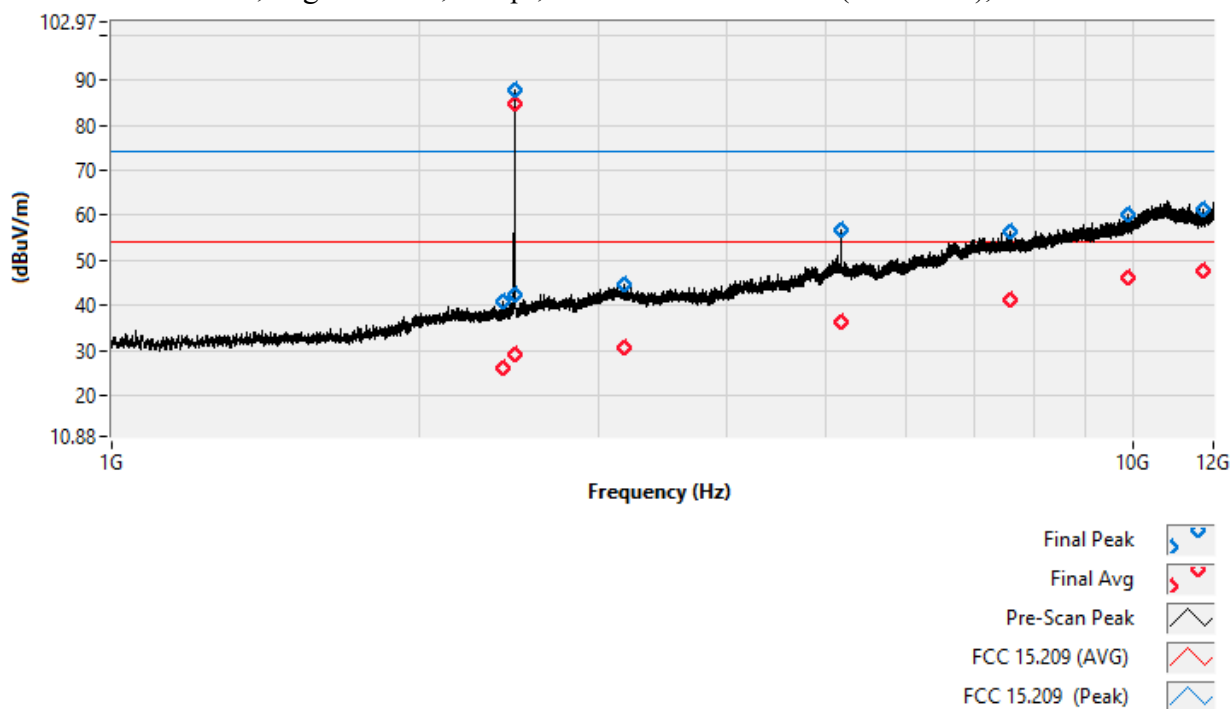
* this limit is -20dBc based on the fundamental



miniMic Extended, High Channel, 2Mbps, Pre-scan and Final Data (Vertical), 1GHz to 12GHz



miniMic Extended, High Channel, 2Mbps, Pre-scan and Final Data (Horizontal), 1GHz to 12GHz



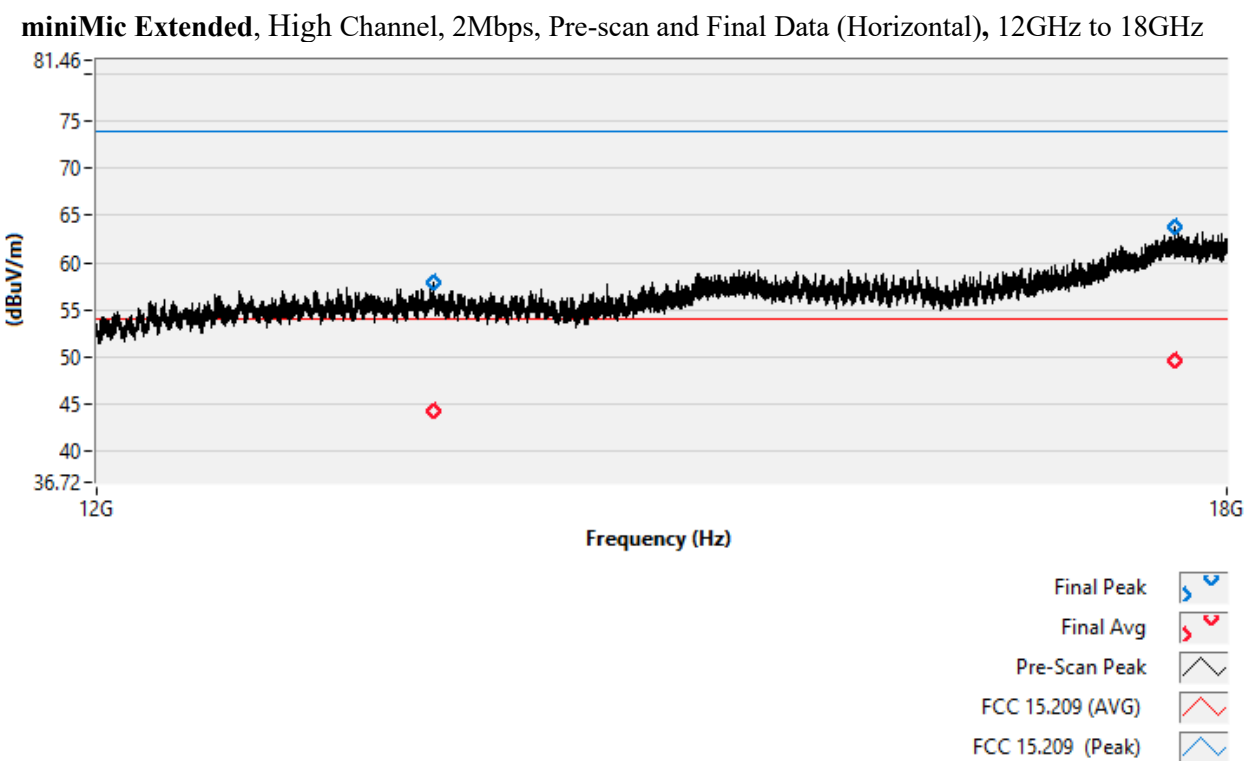
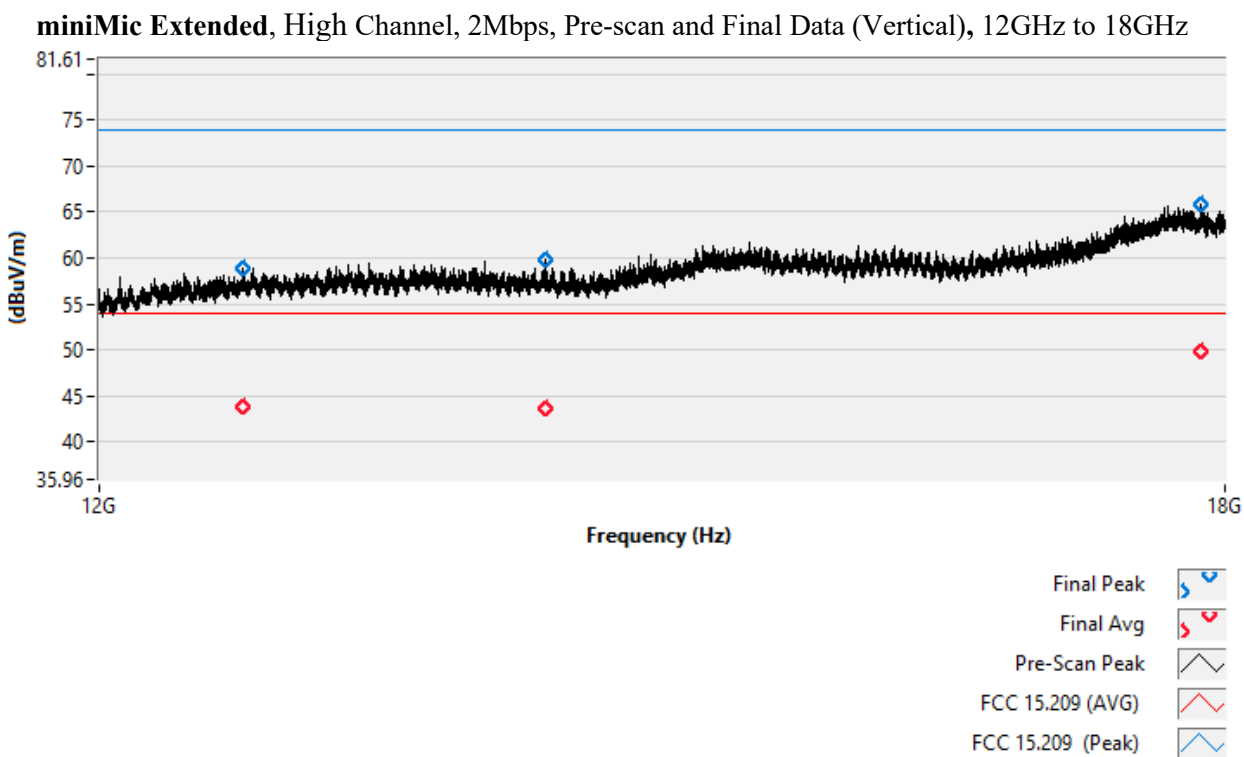
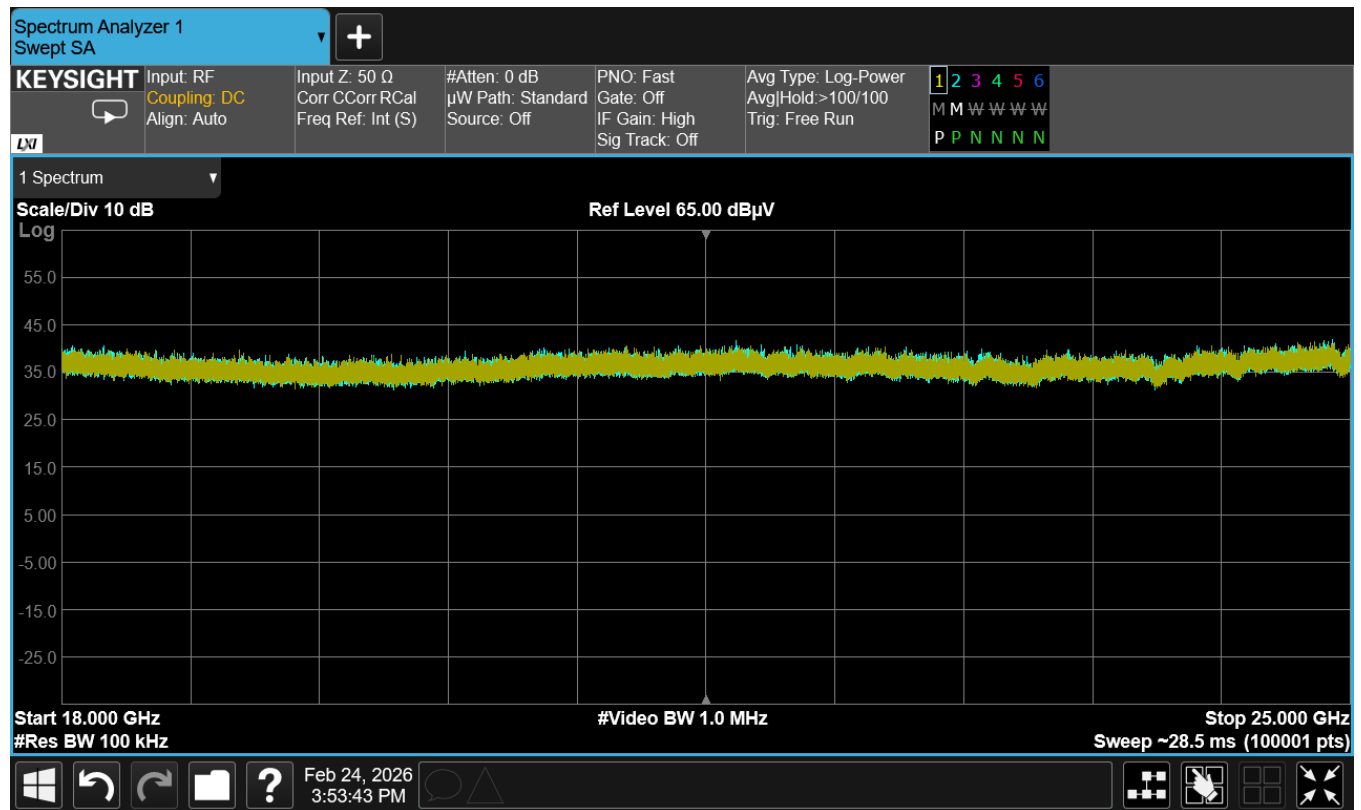




Figure 30: 1-meter Radiated Emissions Test Data, Low Channel, 18GHz to 25GHz



Trace 1 = EUT TX On

Trace 2 = Ambient

Result = No emissions detected from the EUT.

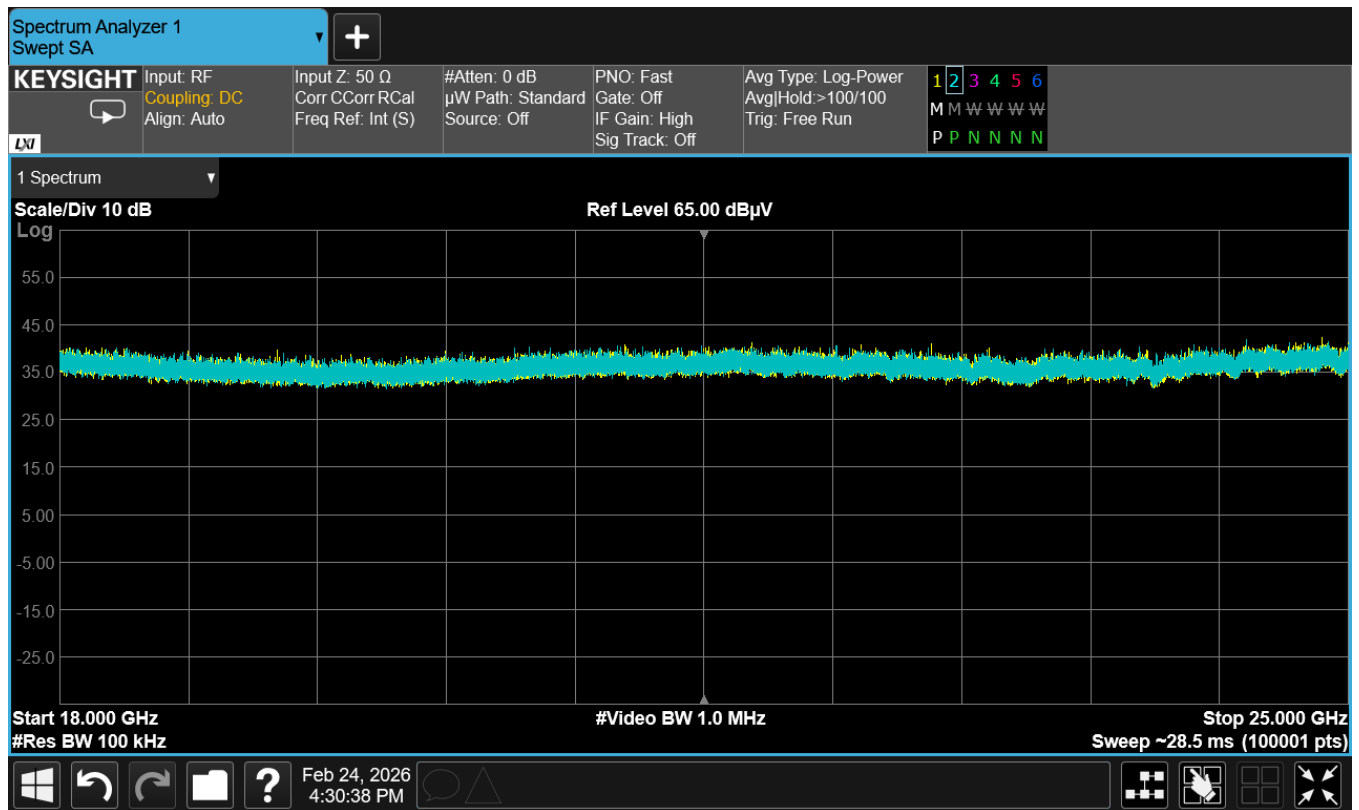
This data applies to both the Standard and Extended models.

This data applies to both the 1Mbps and 2Mbps modes.

There are no emissions detected from the EUT transmitter device in this range.



Figure 31: 1-meter Radiated Emissions Test Data, Center Channel, 18GHz to 25GHz



Trace 1 = EUT TX On

Trace 2 = Ambient

Result = No emissions detected from the EUT.

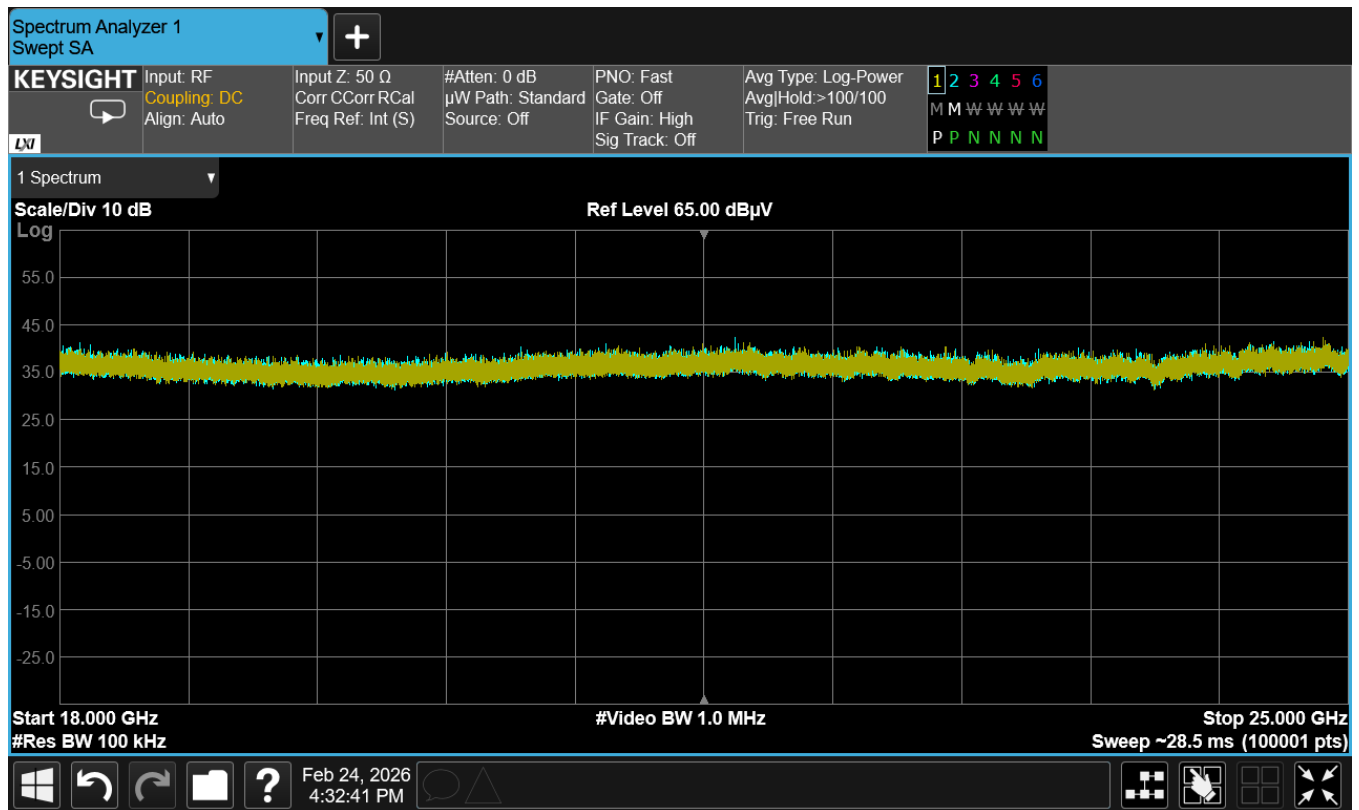
This data applies to both the Standard and Extended models.

This data applies to both the 1Mbps and 2Mbps modes.

There are no emissions detected from the EUT transmitter device in this range.



Figure 32: 1-meter Radiated Emissions Test Data, High Channel, 18GHz to 25GHz



Trace 1 = EUT TX On

Trace 2 = Ambient

Result = No emissions detected from the EUT.

This data applies to both the Standard and Extended models.

This data applies to both the 1Mbps and 2Mbps modes.

There are no emissions detected from the EUT transmitter device in this range.



3.9 AC Conducted Emissions

3.9.1 Requirements

Compliance Standard: FCC Part 15.107, Class B

FCC Compliance Limits				
Frequency Range	Class A Digital Device		Class B Digital Device	
	Quasi-peak	Average	Quasi-peak	Average
0.15 to 0.5 MHz	79 dB μ V	66 dB μ V	66 to 56 dB μ V	56 to 46 dB μ V
0.5 to 5 MHz	79 dB μ V	66 dB μ V	56 dB μ V	46 dB μ V
0.5 to 30 MHz	73 dB μ V	60 dB μ V	60 dB μ V	50 dB μ V

3.9.2 Test Procedure

The requirements of FCC Part 15 call for the EUT to be placed on an 80cm-high 1 X 1.5-meter non-conductive table above a ground plane. Power to the EUT was provided through a Solar Corporation 50 Ω /50 μ H Line Impedance Stabilization Network bonded to a 3 X 2-meter ground plane. The LISN has its AC input supplied from a filtered AC power source. Power was supplied to the peripherals through a second LISN. The peripherals were placed on the table in accordance with ANSI C63.4. Power and data cables were moved about to obtain maximum emissions.

The 50 Ω output of the LISN was connected to the input of the spectrum analyzer and the emissions in the frequency range of 150 kHz to 30 MHz were measured. The detector function was set to quasi-peak, peak, or average as appropriate, and the resolution bandwidth during testing was at least 9 kHz, with all post-detector filtering no less than 10 times the resolution bandwidth. For average measurements, the post-detector filter was set to 10 Hz.

These emissions must meet the limits specified in §15.107 for quasi-peak and average measurements.



3.9.3 Conducted Data Reduction and Reporting

The comparison between the Conducted emissions level and the FCC limit is calculated as shown in the following example:

Spectrum Analyzer Voltage: $V_{dB\mu V}(raw)$

LISN Correction Factor: LISN dB

Cable Correction Factor: CF dB

Voltage: $V_{dB\mu V} = V_{dB\mu V}(raw) + LISN\ dB + CF\ dB$

3.9.4 Test Data

The EUT complies with the Class B Conducted Emissions requirements.

The AC Powerline Conducted Emissions test data is provided in the tables below.

The worst-case powerline emissions are reported below.



Table 24: AC Powerline Emissions Test Data, via Wall-Wart Charger, miniMic Standard, Line

Frequency (Hz)	Detector	Meas (dBuV)	Limit (dBuV)	Delta (dB)
158.999k	Peak	55.386	--	--
	QP	39.458	65.516	-26.058
	Avg	31.417	55.516	-24.099
199.495k	Peak	53.048	--	--
	QP	38.230	63.632	-25.401
	Avg	30.228	53.632	-23.403
248.99k	Peak	46.888	--	--
	QP	34.508	61.791	-27.283
	Avg	26.829	51.791	-24.962
532.462k	Peak	42.752	--	--
	QP	31.963	56	-24.037
	Avg	24.041	46	-21.959
3.43M	Peak	35.449	--	--
	QP	29.720	56	-26.280
	Avg	19.377	46	-26.623
27.944M	Peak	35.250	--	--
	QP	30.589	60	-29.411
	Avg	23.759	50	-26.241

* the EUT transmitter was enabled during this test. Disabling the transmitter has no impact on these test results. While transmitting, changing the data rate has no impact on these results.



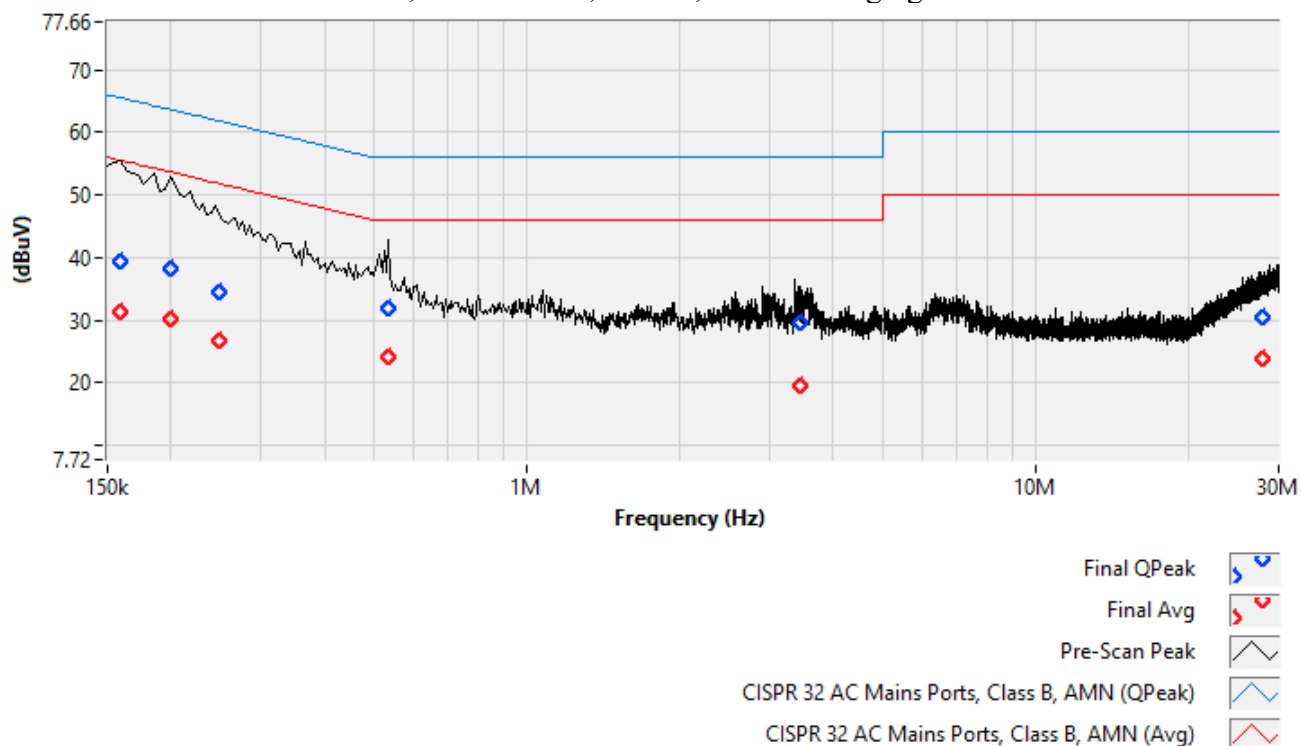
Table 25: AC Powerline Emissions Test Data, via Wall-Wart Charger, miniMic Standard, Neutral

Frequency (Hz)	Detector	Meas (dBuV)	Limit (dBuV)	Delta (dB)
154.5k	Peak	54.061	--	--
	QP	41.474	65.755	-24.280
	Avg	34.174	55.755	-21.581
221.993k	Peak	49.641	--	--
	QP	36.212	62.744	-26.532
	Avg	27.993	52.744	-24.751
284.986k	Peak	43.251	--	--
	QP	33.249	60.669	-27.420
	Avg	25.510	50.669	-25.159
523.462k	Peak	40.314	--	--
	QP	33.269	56	-22.731
	Avg	22.884	46	-23.116
3.075M	Peak	34.060	--	--
	QP	29.541	56	-26.459
	Avg	19.11	46	-26.890
3.529M	Peak	33.115	--	--
	QP	30.040	56	-25.960
	Avg	19.108	46	-26.892
154.5k	Peak	54.061	--	--
	QP	41.474	65.755	-24.280
	Avg	34.174	55.755	-21.581

* the EUT transmitter was enabled during this test. Disabling the transmitter has no impact on these test results. While transmitting, changing the data rate has no impact on these results.



miniMic Standard, Line 1/Phase, TX On, Active Charging via Wall-Wart



miniMic Standard, Neutral, Tx On, Active Charging via Wall-Wart

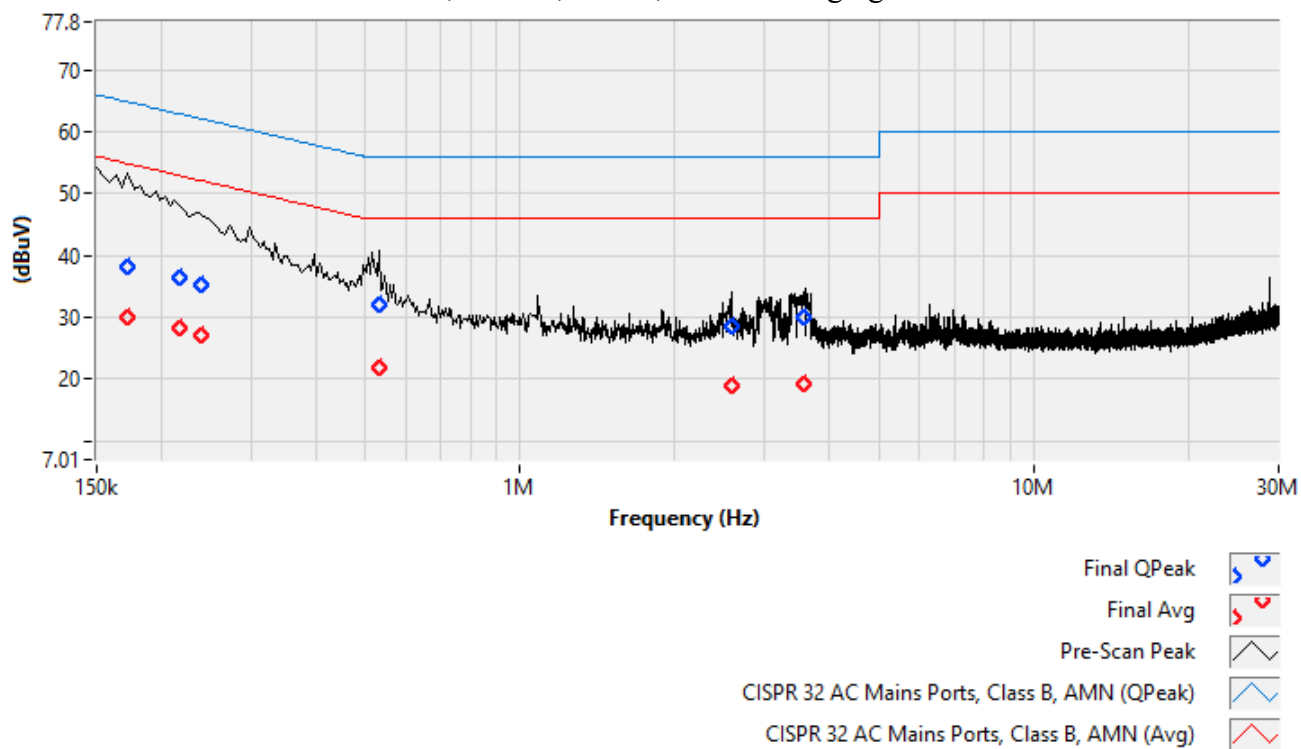




Table 26: AC Powerline Emissions Test Data, via Laptop Interface, miniMic Standard, Line

Frequency (Hz)	Detector	Meas (dBuV)	Limit (dBuV)	Delta (dB)
523.462k	Peak	53.245	--	--
	QP	51.825	56	-4.175
	Avg	40.654	46	-5.346
545.96k	Peak	47.169	--	--
	QP	46.123	56	-9.877
	Avg	34.918	46	-11.082
698.945k	Peak	49.388	--	--
	QP	47.750	56	-8.250
	Avg	36.894	46	-9.106
820.433k	Peak	56.003	--	--
	QP	53.437	56	-2.563
	Avg	42.599	46	-3.401
928.422k	Peak	54.021	--	--
	QP	51.979	56	-4.021
	Avg	42.385	46	-3.615
1.023M	Peak	45.808	--	--
	QP	43.609	56	-12.391
	Avg	31.918	46	-14.082
1.126M	Peak	46.130	--	--
	QP	44.203	56	-11.797
	Avg	32.037	46	-13.963
1.599M	Peak	47.446	--	--
	QP	43.547	56	-12.453
	Avg	30.914	46	-15.086
1.653M	Peak	47.721	--	--
	QP	44.168	56	-11.832
	Avg	32.516	46	-13.484

* the EUT transmitter was enabled during this test. Disabling the transmitter has no impact on these test results. While transmitting, changing the data rate has no impact on these results.



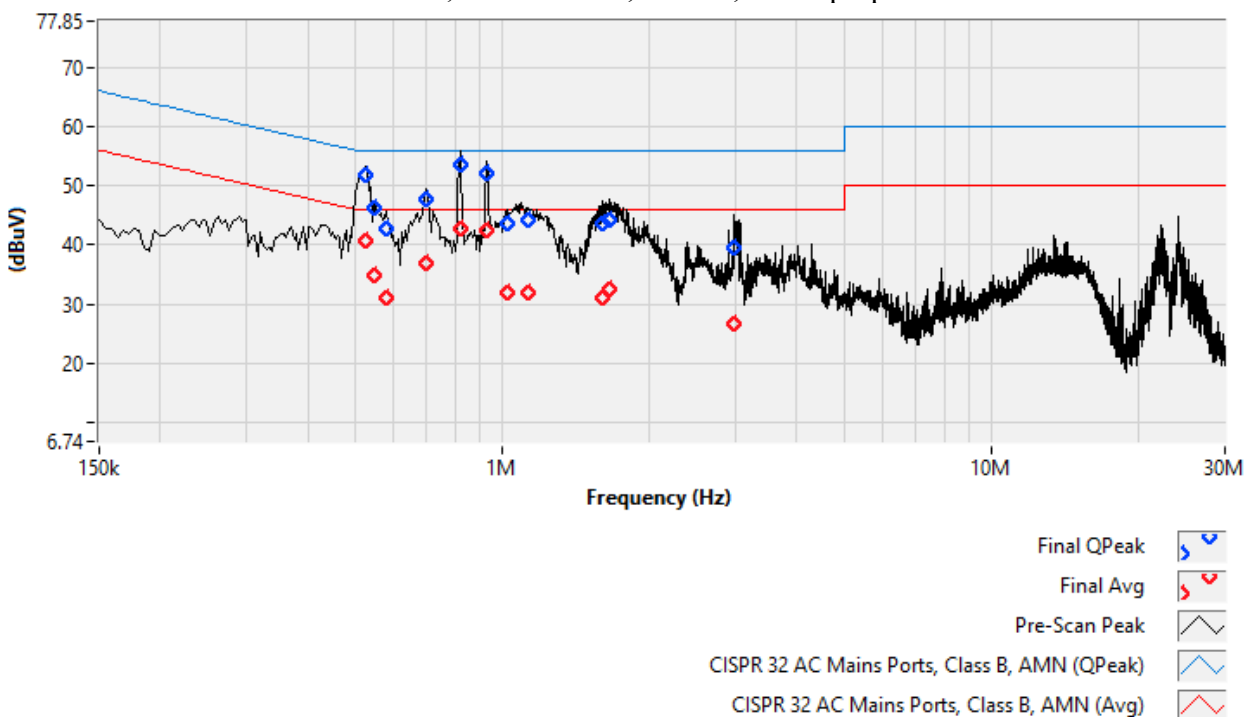
Table 27: AC Powerline Emissions Test Data, via Laptop Interface, miniMic Standard, Neutral

Frequency (Hz)	Detector	Meas (dBuV)	Limit (dBuV)	Delta (dB)
154.5k	Peak	57.062	--	--
	QP	54.707	65.755	-11.048
	Avg	39.691	55.755	-16.064
163.499k	Peak	58.621	--	--
	QP	51.781	65.284	-13.503
	Avg	36.168	55.284	-19.117
532.462k	Peak	46.861	--	--
	QP	43.047	56	-12.953
	Avg	33.283	46	-12.717
586.456k	Peak	47.155	--	--
	QP	44.384	56	-11.616
	Avg	31.187	46	-14.813
3.511M	Peak	46.116	--	--
	QP	40.242	56	-15.758
	Avg	25.048	46	-20.952
6.31M	Peak	49.973	--	--
	QP	43.967	60	-16.033
	Avg	26.745	50	-23.255
9.626M	Peak	49.796	--	--
	QP	43.687	60	-16.313
	Avg	26.568	50	-23.432
13.257M	Peak	54.257	--	--
	QP	46.065	60	-13.935
	Avg	29.754	50	-20.246

* the EUT transmitter was enabled during this test. Disabling the transmitter has no impact on these test results. While transmitting, changing the data rate has no impact on these results.



miniMic Standard, Line 1/Phase, TX On, via Laptop Interface



miniMic Standard, Neutral, Tx On, via Laptop Interface

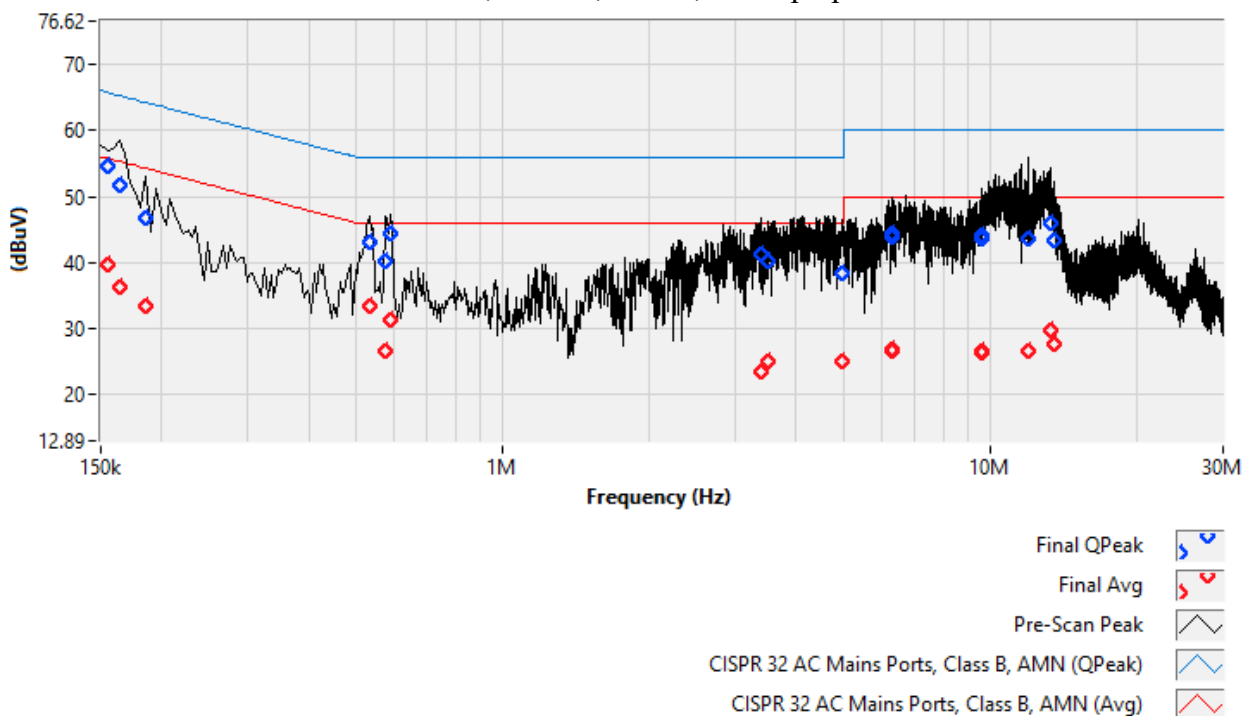




Table 28: AC Powerline Emissions Test Data, via Wall-Wart Charger, miniMic Extended, Line

Frequency (Hz)	Detector	Meas (dBuV)	Limit (dBuV)	Delta (dB)
158.999k	Peak	55.386	--	--
	QP	39.458	65.516	-26.058
	Avg	31.417	55.516	-24.099
199.495k	Peak	53.048	--	--
	QP	38.230	63.632	-25.401
	Avg	30.228	53.632	-23.403
248.99k	Peak	46.888	--	--
	QP	34.508	61.791	-27.283
	Avg	26.829	51.791	-24.962
532.462k	Peak	42.752	--	--
	QP	31.963	56	-24.037
	Avg	24.041	46	-21.959
3.43M	Peak	35.449	--	--
	QP	29.720	56	-26.28
	Avg	19.377	46	-26.623
27.944M	Peak	35.250	--	--
	QP	30.589	60	-29.411
	Avg	23.759	50	-26.241

* the EUT transmitter was enabled during this test. Disabling the transmitter has no impact on these test results. While transmitting, changing the data rate has no impact on these results.



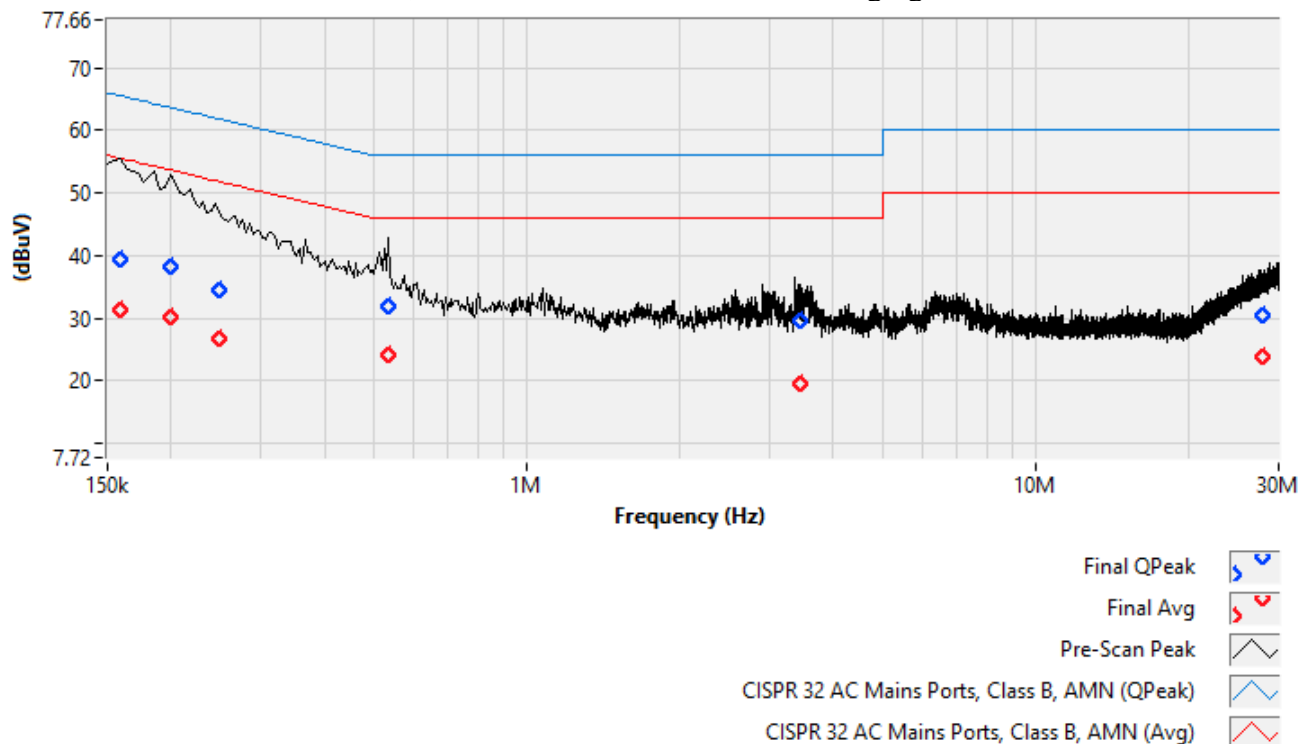
Table 29: AC Powerline Emissions Test Data, via Wall-Wart Charger, miniMic Extended, Neutral

Frequency (Hz)	Detector	Meas (dBuV)	Limit (dBuV)	Delta (dB)
176.997k	Peak	52.349	--	--
	QP	38.370	64.625	-26.256
	Avg	30.008	54.625	-24.617
248.99k	Peak	46.045	--	--
	QP	34.491	61.791	-27.300
	Avg	26.790	51.791	-25.001
284.986k	Peak	43.454	--	--
	QP	33.393	60.669	-27.276
	Avg	25.603	50.669	-25.067
523.462k	Peak	40.054	--	--
	QP	32.630	56	-23.370
	Avg	24.879	46	-21.121
2.575M	Peak	33.712	--	--
	QP	29.005	56	-26.995
	Avg	19.789	46	-26.211
3.547M	Peak	34.901	--	--
	QP	30.340	56	-25.660
	Avg	19.940	46	-26.060
176.997k	Peak	52.349	--	--
	QP	38.370	64.625	-26.256
	Avg	30.008	54.625	-24.617
248.99k	Peak	46.045	--	--
	QP	34.491	61.791	-27.300
	Avg	26.790	51.791	-25.001
284.986k	Peak	43.454	--	--
	QP	33.393	60.669	-27.276
	Avg	25.603	50.669	-25.067

* the EUT transmitter was enabled during this test. Disabling the transmitter has no impact on these test results. While transmitting, changing the data rate has no impact on these results.



miniMic Extended, Line 1/Phase, TX On, Active Charging via Wall-Wart



miniMic Extended, Neutral, TX On, Active Charging via Wall-Wart

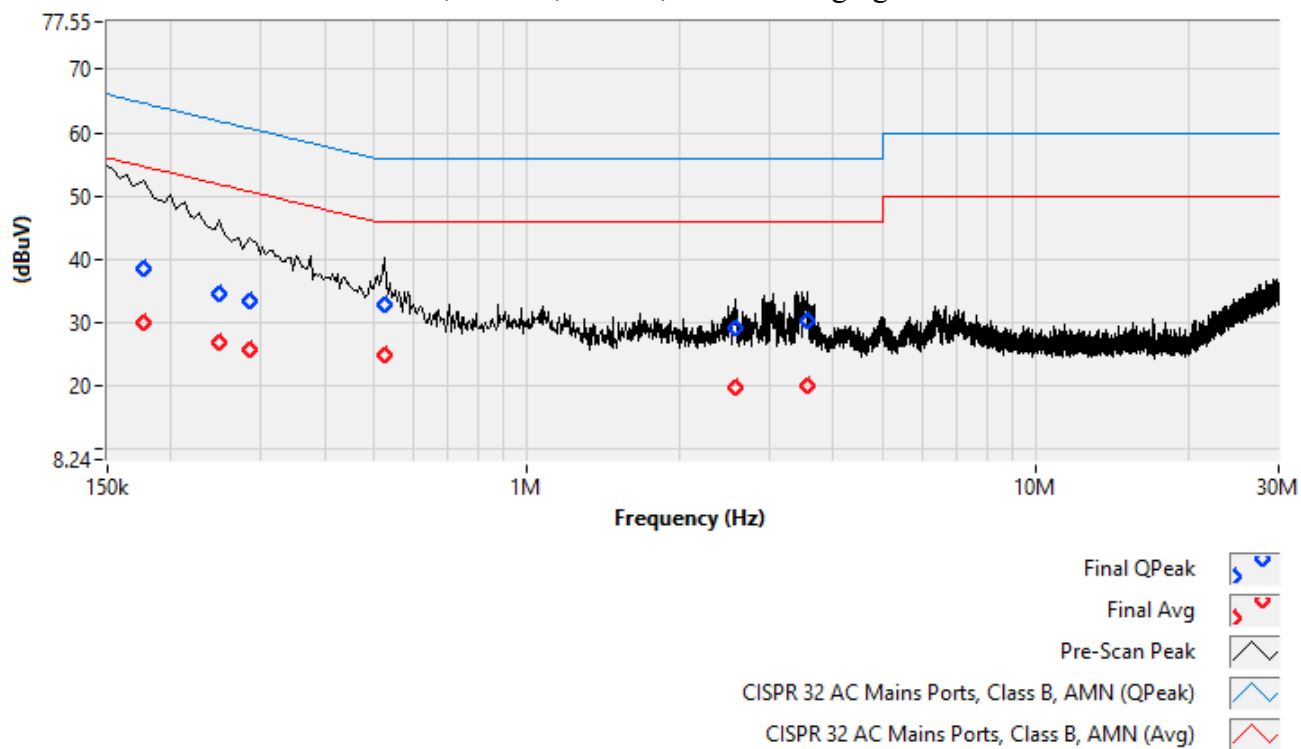




Table 30: AC Powerline Emissions Test Data, via Laptop Interface, miniMic Extended, Line

Frequency (Hz)	Detector	Meas (dBuV)	Limit (dBuV)	Delta (dB)
163.499k	Peak	57.789	--	--
	QP	53.917	65.284	-11.367
	Avg	40.027	55.284	-15.257
176.997k	Peak	53.573	--	--
	QP	49.632	64.625	-14.993
	Avg	33.691	54.625	-20.934
536.961k	Peak	45.099	--	--
	QP	42.987	56	-13.013
	Avg	32.711	46	-13.289
631.452k	Peak	44.166	--	--
	QP	40.870	56	-15.13
	Avg	32.198	46	-13.802
2.931M	Peak	46.143	--	--
	QP	43.333	56	-12.667
	Avg	32.271	46	-13.729
3.457M	Peak	47.603	--	--
	QP	44.131	56	-11.869
	Avg	32.536	46	-13.464
3.835M	Peak	47.481	--	--
	QP	43.915	56	-12.085
	Avg	34.604	46	-11.396
4.663M	Peak	47.530	--	--
	QP	43.923	56	-12.077
	Avg	33.423	46	-12.577

* the EUT transmitter was enabled during this test. Disabling the transmitter has no impact on these test results. While transmitting, changing the data rate has no impact on these results.



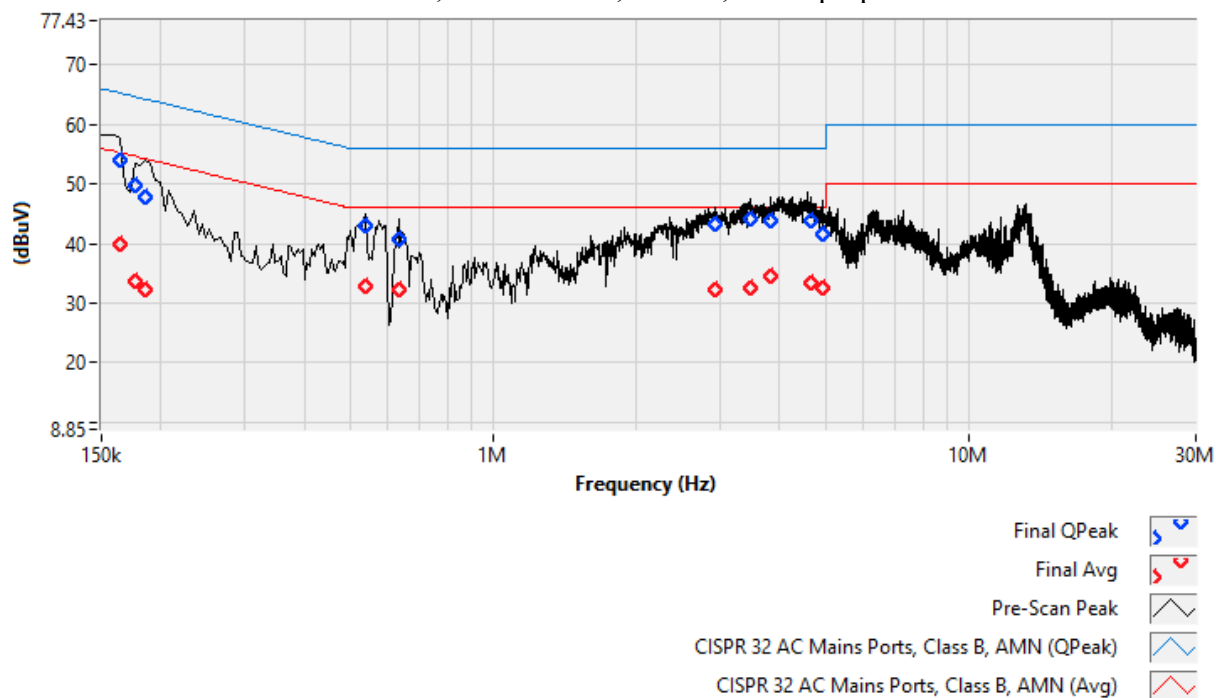
Table 31: AC Powerline Emissions Test Data, via Laptop Interface, miniMic Extended, Neutral

Frequency (Hz)	Detector	Meas (dBuV)	Limit (dBuV)	Delta (dB)
150k	Peak	65.190	--	--
	QP	59.992	66	-6.008
	Avg	44.163	56	-11.837
154.5k	Peak	64.918	--	--
	QP	59.583	65.755	-6.172
	Avg	42.897	55.755	-12.858
167.998k	Peak	61.900	--	--
	QP	53.54	65.059	-11.519
	Avg	36.231	55.059	-18.828
199.495k	Peak	56.955	--	--
	QP	52.144	63.632	-11.487
	Avg	35.860	53.632	-17.772
217.493k	Peak	56.523	--	--
	QP	49.273	62.914	-13.642
	Avg	33.350	52.914	-19.564
527.962k	Peak	44.569	--	--
	QP	40.113	56	-15.887
	Avg	31.240	46	-14.76
595.455k	Peak	44.879	--	--
	QP	41.900	56	-14.100
	Avg	31.175	46	-14.825
4.092M	Peak	47.308	--	--
	QP	44.437	56	-11.563
	Avg	33.412	46	-12.588

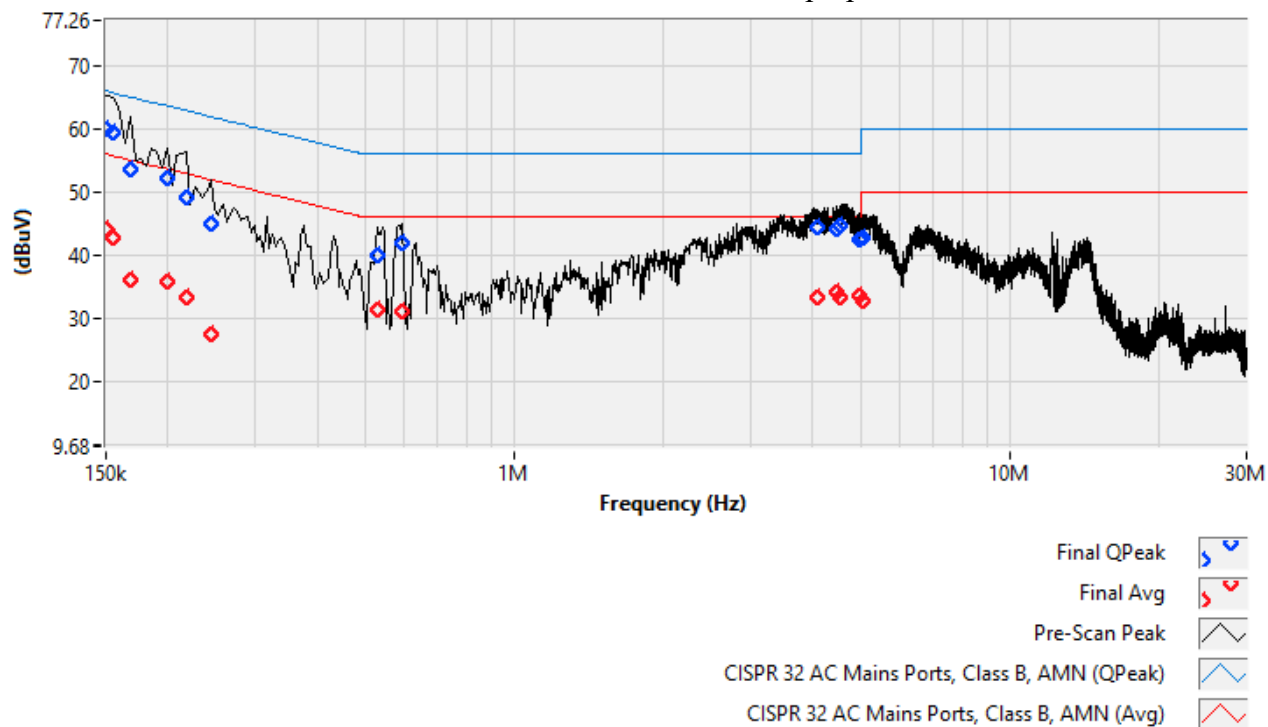
* the EUT transmitter was enabled during this test. Disabling the transmitter has no impact on these test results. While transmitting, changing the data rate has no impact on these results.



miniMic Extended, Line 1/Phase, TX On, via Laptop Interface



miniMic Extended, Neutral, Tx On, via Laptop Interface





4 Test Equipment

The tables below provides a list of the test equipment used for measurements along with the calibration information.

Table 32: Test Equipment List

Test Name: Radiated Emissions		Test Dates: 2/24/2026 to 4/3/2026	
Asset #	Manufacturer/Model	Description	Cal. Due
00993	KEYSIGHT, N9020B	MXA SIGNAL ANALYZER	12/23/2027
00942	AGILENT, N9020A	MXA SIGNAL ANALYZER	12/26/2026
00644	SUNOL SCIENCES CORP., JB1	BICONALOG ANTENNA	12/2/2026
00425	ARA, DRG-118/A	HORN ANTENNA	6/25/2028
00825	CABLE ASSOCIATES, MTC10	SMA COAXIAL CABLE	6/17/20206
00865	STORM, 874-0101-036	LOW LOSS COAXIAL CABLE	6/6/2026
00885	UTIFLEX MICRO, UFA2108	SMA COAXIAL CABLE	6/6/2026
01042	THE EMC SHOP, PA2500M-B	30DB RF PRE-AMPLIFIER	9/24/2026
00066	HP, BZ-01002650-401545-2	HF PRE-AMPLIFIER, 26.5GHZ	8/25/2026
01029	RF-LAMDA, RW62HORN20B	HORN ANTENNA	8/8/2027
00031	EMCO, 6502	ANTENNA ACTIVE LOOP	6/17/2026
00731	NARDA, 4779-3	2W, 3DB ATTENUATOR	6/6/2026
00934	HP/AGILENT, 8648D	SIGNAL GENERATOR	4/19/2026
--	WEINSCHEL, 20DB	10W, 20DB ATTENUATOR	Verify Before Use



Test Name: Conducted RF Emissions		Test Dates: 2/19/2026 to 3/6/2026	
Asset #	Manufacturer/Model	Description	Cal. Due
00993	KEYSIGHT, N9020B	MXA SIGNAL ANALYZER	12/23/2027
00942	AGILENT, N9020A	MXA SIGNAL ANALYZER	12/26/2026
00934	HP/AGILENT, 8648D	SIGNAL GENERATOR	4/19/2026
00803	R&S, SMR40	SIGNAL GENERATOR	1/14/2027
00885	UTIFLEX MICRO, UFA2108	SMA COAXIAL CABLE	6/6/2026
00731	NARDA, 4779-3	2W, 3DB ATTENUATOR	6/6/2026
--	WEINSCHEL, 20DB	10W, 20DB ATTENUATOR	Verify Before Use

Test Name: AC Powerline Emissions		Test Dates: 2/23/2026 to 3/20/2026	
Asset #	Manufacturer/Model	Description	Cal. Due
00993	KEYSIGHT, N9020B	MXA SIGNAL ANALYZER	12/23/2027
00942	AGILENT, N9020A	MXA SIGNAL ANALYZER	12/26/2026
00125	SOLAR, 8028-50-TS-05-BNC	WLL05, LISN	7/1/2026
00126	SOLAR, 8028-50-TS-06-BNC	WLL06, LISN	7/1/2026
01045	COM-POWER, LIT153A	TRANSIENT LIMITER	12/11/2026
00330	CE SITE CABLE, 330	BNC COAXIAL CABLE	7/15/2026



5 Measurements

5.1.1 References

ANSI C63.2 (Jan-2016) Specifications for Electromagnetic Noise and Field Strength Instrumentation

ANSI C63.4 (Jan 2014) American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

ANSI C63.10-2020/Cor 1-2021 American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

CISPR 32:2015 Electromagnetic compatibility of multimedia equipment – Emission Requirements

5.2 Measurement Uncertainty

All results reported herein relate only to the equipment tested. The basis for uncertainty calculation uses ANSI/NCSL Z540-2-1997 (R2002) with a type B evaluation of the standard uncertainty. Elements contributing to the standard uncertainty are combined using the method described in Equation 1. to arrive at the total standard uncertainty. The standard uncertainty is multiplied by the coverage factor to determine the expanded uncertainty which is generally accepted for use in commercial, industrial, and regulatory applications and when health and safety are concerned (see Equation 2). A coverage factor was selected to yield a 95% confidence in the uncertainty estimation.

Equation 1: Standard Uncertainty

$$u_c = \pm \sqrt{\frac{a^2}{div_a^2} + \frac{b^2}{div_b^2} + \frac{c^2}{div_c^2} + \dots}$$

where,

uc	= standard uncertainty
a, b, c,...	= individual uncertainty elements
Div _a , b, c	= the individual uncertainty element divisor based on the probability distribution
Divisor	= 1.732 for rectangular distribution
Divisor	= 2 for normal distribution
Divisor	= 1.414 for trapezoid distribution



Equation 2: Expanded Uncertainty

$$U = ku_c$$

where,

U = expanded uncertainty
k = coverage factor
k ≤ 2 for 95% coverage (ANSI/NCSL Z540-2 Annex G)
uc = standard uncertainty

The measurement uncertainty complies with the maximum allowed uncertainty from CISPR 16-4-2. Measurement uncertainty is not used to adjust the measurements to determine compliance. The expanded uncertainty values for the various scopes in the WLL accreditation are provided in the table below.

Table 33: Expanded Uncertainty List

Scope	Standard(s)	Expanded Uncertainty
Conducted Emissions	CISPR11, CISPR32, CISPR14, FCC Part 15	± 2.63 dB
Radiated Emissions	CISPR11, CISPR32, CISPR14, FCC Part 15	± 4.55 dB

5.3 Environmental Conditions During All Measurements

Ambient Temperature:	Between 18.8 and 23.9 °C
Relative Humidity:	Between 45 and 60 %

5.4 Software Employed by the Test Laboratory

The following test and measurement software were used by the Laboratory:

- (1) Amplifier Research, EMCWare Software Suite v7.0.4
- (2) Keysight 2019, Update Rev. A.25.08
- (3) Keysight 2023, Update Rev. A.33.03