

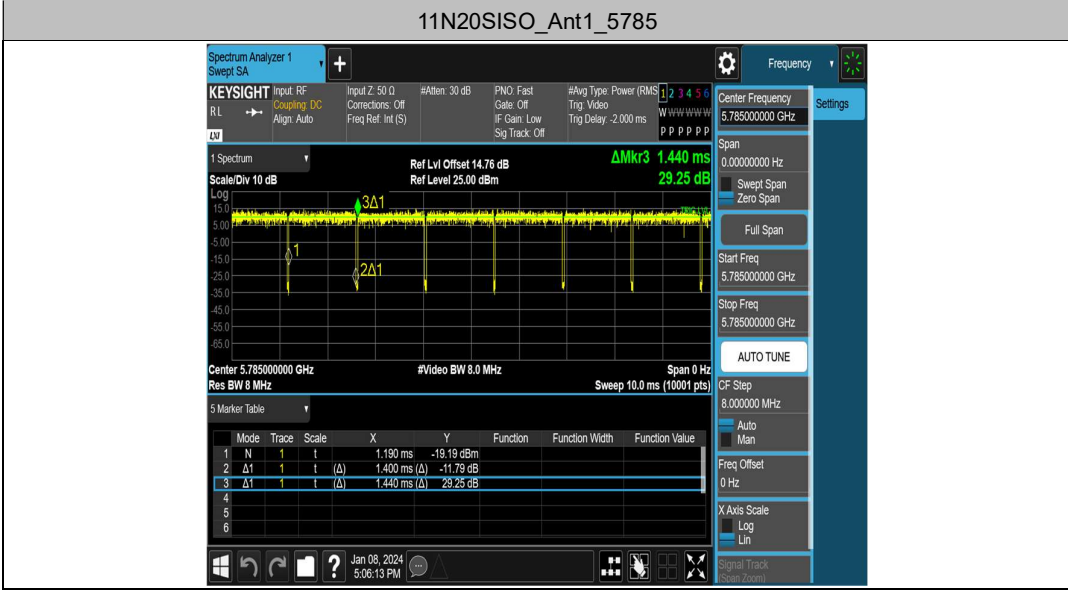
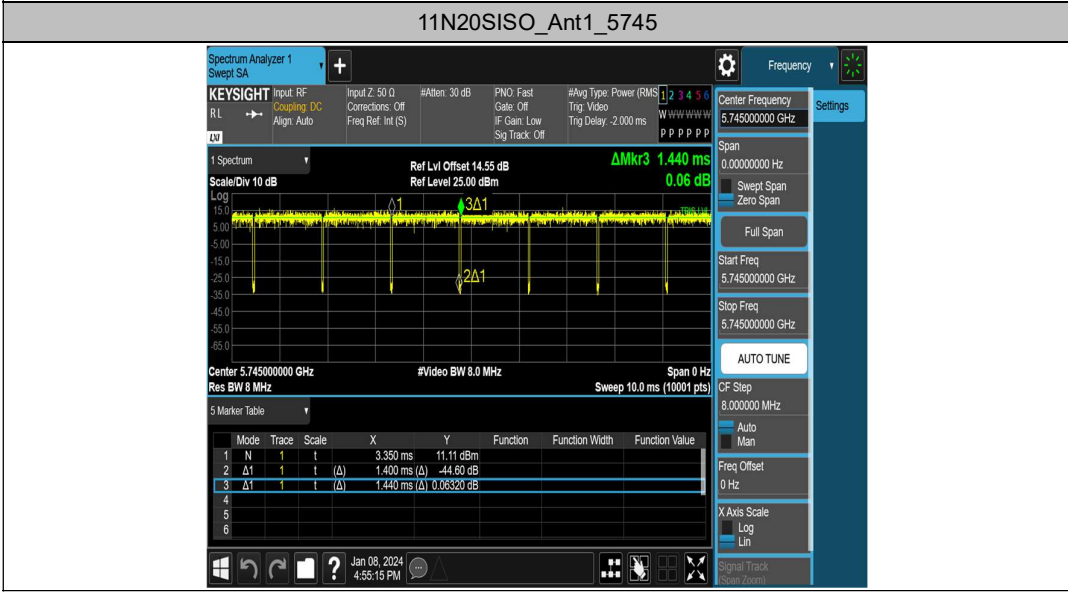
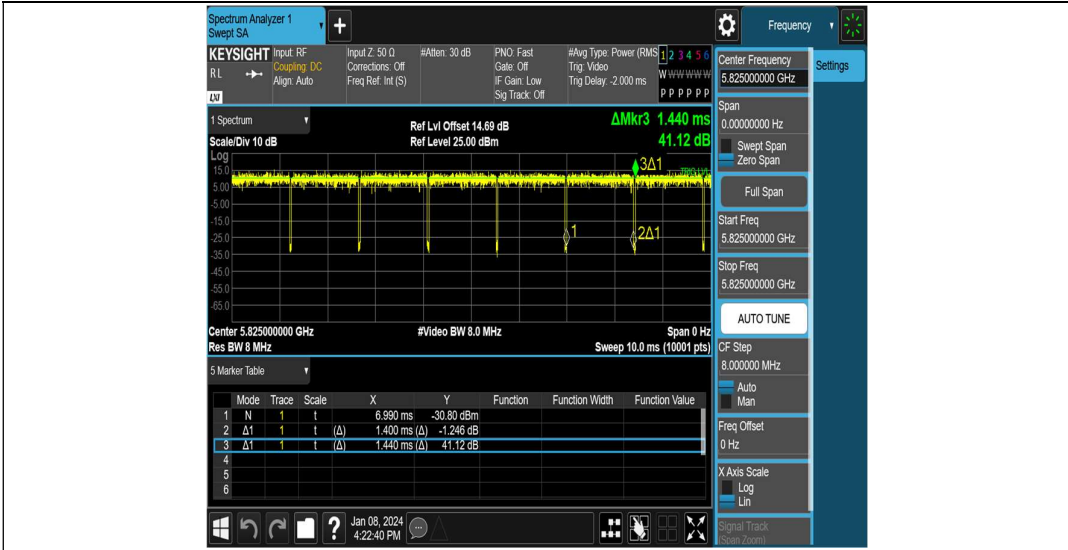
Appendix D: Duty Cycle

Test Result

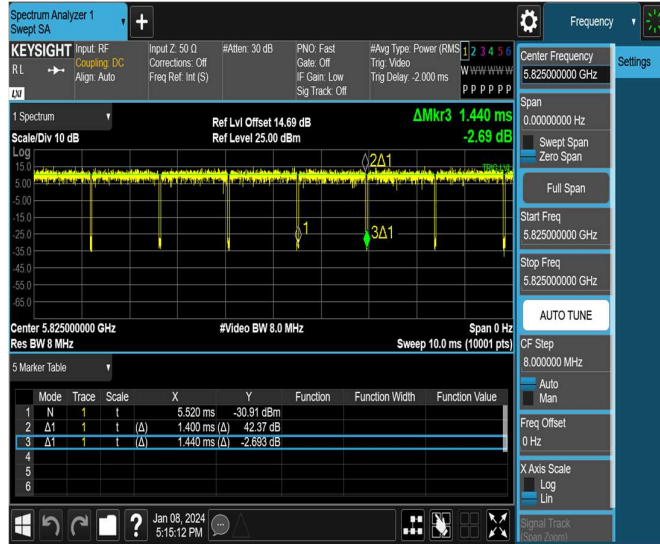
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5745	1.39	1.43	97.20
		5785	1.39	1.43	97.20
		5825	1.40	1.44	97.22
11N20SISO	Ant1	5745	1.40	1.44	97.22
		5785	1.40	1.44	97.22
		5825	1.40	1.44	97.22

Test Graphs



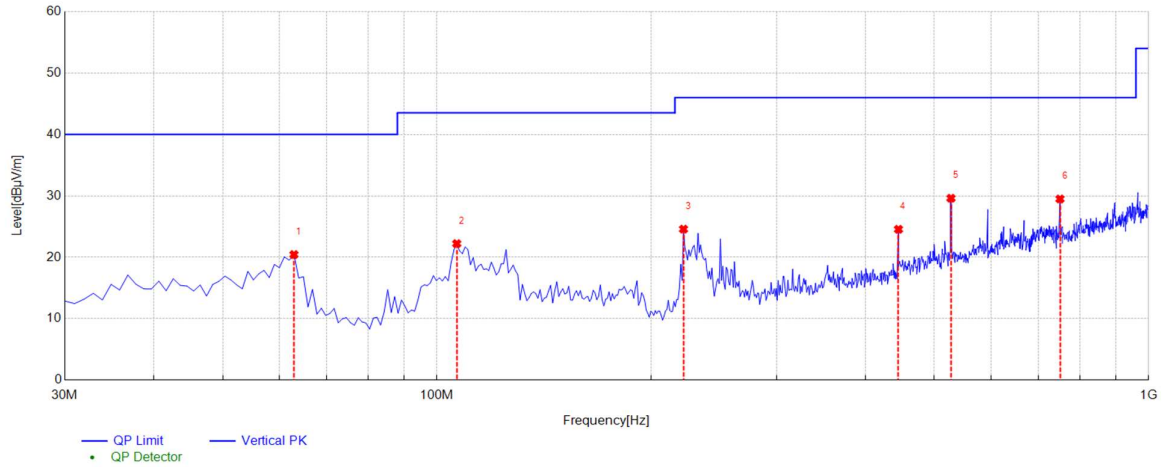


11N20SISO_Ant1_5825

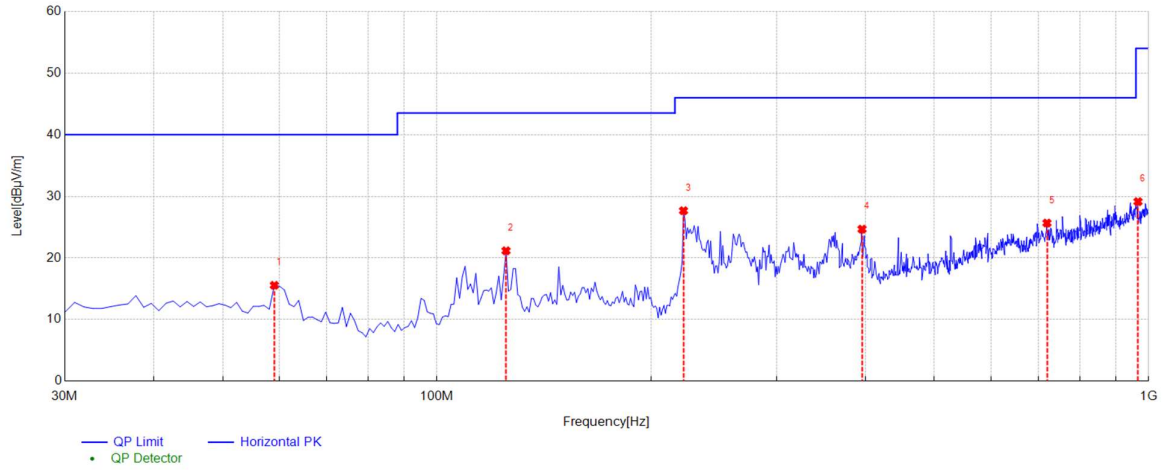


Appendix E: Spurious Emission

Test Result



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	62.9800	20.45	-17.63	40.00	19.55	100	130	Vertical	PASS
2	106.630	22.23	-19.35	43.50	21.27	100	220	Vertical	PASS
3	222.060	24.59	-18.93	46.00	21.41	100	30	Vertical	PASS
4	445.160	24.56	-12.57	46.00	21.44	100	200	Vertical	PASS
5	527.610	29.62	-11.20	46.00	16.38	100	120	Vertical	PASS
6	750.710	29.50	-6.03	46.00	16.50	100	140	Vertical	PASS



NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	59.1000	15.57	-17.09	40.00	24.43	100	350	Horizontal	PASS
2	125.060	21.17	-17.72	43.50	22.33	100	340	Horizontal	PASS
3	222.060	27.67	-18.93	46.00	18.33	100	110	Horizontal	PASS
4	395.690	24.68	-13.57	46.00	21.32	100	130	Horizontal	PASS
5	719.670	25.67	-6.73	46.00	20.33	100	20	Horizontal	PASS
6	966.050	29.14	-2.82	54.00	24.86	100	10	Horizontal	PASS

Mode:	11A-5745
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Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2784.1079	9.99	45.70	74.00	28.30	38.11	54.00	15.89	150	293	Horizontal	PASS
2	6310.3448	18.18	51.20	68.23	17.03	43.94	54.00	10.06	150	227	Horizontal	PASS
3	7471.7641	20.02	52.63	74.00	21.37	42.80	54.00	11.20	150	224	Horizontal	PASS
4	10643.0177	-5.20	45.98	74.00	28.02	37.04	54.00	16.96	150	40	Horizontal	PASS
5	12486.635	-2.18	47.10	74.00	26.90	40.20	54.00	13.80	150	349	Horizontal	PASS
6	17575.3185	2.82	51.62	68.23	16.61	42.75	54.00	11.25	150	237	Horizontal	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2717.6412	9.81	46.63	74.00	27.37	37.53	54.00	16.47	150	280	Vertical	PASS
2	4942.5287	15.67	50.60	74.00	23.40	43.30	54.00	10.70	150	159	Vertical	PASS
3	7443.7781	20.35	53.26	74.00	20.74	44.00	54.00	10.00	150	175	Vertical	PASS
4	8974.2693	-7.55	50.89	68.23	17.34	38.39	54.00	15.61	150	332	Vertical	PASS
5	11599.8001	-3.35	46.76	74.00	27.24	38.39	54.00	15.61	150	105	Vertical	PASS
6	16745.9405	4.13	51.54	68.23	16.69	43.48	54.00	10.52	150	173	Vertical	PASS

Mode:	11A-5785
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Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2042.4788	8.04	45.11	68.23	23.12	37.12	54.00	16.88	150	144	Vertical	PASS
2	4235.8821	13.75	49.08	74.00	24.92	40.16	54.00	13.84	150	238	Vertical	PASS
3	7254.8726	19.87	52.75	74.00	21.25	43.45	54.00	10.55	150	308	Vertical	PASS
4	8974.2693	-7.55	50.43	68.23	17.80	43.44	54.00	10.56	150	347	Vertical	PASS
5	11100.1749	-4.00	48.25	74.00	25.75	39.28	54.00	14.72	150	0	Vertical	PASS
6	16091.4314	2.45	51.06	74.00	22.94	41.73	54.00	12.27	150	182	Vertical	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2189.4053	8.60	45.66	68.23	22.57	38.00	54.00	16.00	150	207	Horizontal	PASS
2	4263.8681	13.80	48.98	74.00	25.02	41.12	54.00	12.88	150	70	Horizontal	PASS
3	7356.3218	20.52	52.86	74.00	21.14	44.43	54.00	9.57	150	24	Horizontal	PASS
4	11427.4294	-3.61	46.81	74.00	27.19	38.95	54.00	15.05	150	195	Horizontal	PASS
5	16673.4949	3.35	51.63	68.23	16.60	42.97	54.00	11.03	150	344	Horizontal	PASS
6	17360.4796	3.98	51.91	68.23	16.32	43.96	54.00	10.04	150	40	Horizontal	PASS

Mode:	11A-5825
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Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2164.9175	8.56	45.91	68.23	22.32	35.62	54.00	18.38	150	342	Horizontal	PASS
2	4942.5287	15.67	50.86	74.00	23.14	42.37	54.00	11.63	150	52	Horizontal	PASS
3	7223.3883	19.54	52.32	68.23	15.91	42.94	54.00	11.06	150	209	Horizontal	PASS
4	11429.9276	-3.59	47.15	74.00	26.85	37.62	54.00	16.38	150	318	Horizontal	PASS
5	13860.6045	-0.35	48.54	68.23	19.69	40.93	54.00	13.07	150	36	Horizontal	PASS
6	15654.2593	2.50	51.60	74.00	22.40	41.34	54.00	12.66	150	347	Horizontal	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	1626.1869	4.38	42.30	74.00	31.70	33.62	54.00	20.38	150	4	Vertical	PASS
2	2738.6307	9.90	47.12	74.00	26.88	39.05	54.00	14.95	150	322	Vertical	PASS
3	4949.5252	15.77	50.25	74.00	23.75	42.62	54.00	11.38	150	275	Vertical	PASS
4	7233.8831	19.67	52.48	68.23	15.75	43.73	54.00	10.27	150	4	Vertical	PASS
5	8971.7712	-7.53	50.11	68.23	18.12	41.66	54.00	12.34	150	347	Vertical	PASS
6	13843.1177	-0.16	49.41	68.23	18.82	40.54	54.00	13.46	150	132	Vertical	PASS

Mode:	11N-5745
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Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2140.4298	8.50	45.96	68.23	22.27	37.07	54.00	16.93	150	269	Horizontal	PASS
2	3711.1444	12.26	47.34	74.00	26.66	38.33	54.00	15.67	150	140	Horizontal	PASS
3	4949.5252	15.77	50.68	74.00	23.32	42.59	54.00	11.41	150	20	Horizontal	PASS
4	7324.8376	20.20	52.78	74.00	21.22	44.94	54.00	9.06	150	20	Horizontal	PASS
5	11197.6018	-3.70	46.55	74.00	27.45	39.57	54.00	14.43	150	238	Horizontal	PASS
6	15386.9598	1.71	48.73	74.00	25.27	41.52	54.00	12.48	150	248	Horizontal	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2864.5677	10.13	47.10	74.00	26.90	37.24	54.00	16.76	150	169	Vertical	PASS
2	3980.5097	13.22	49.03	74.00	24.97	38.90	54.00	15.10	150	339	Vertical	PASS
3	5096.4518	15.51	50.76	74.00	23.24	41.32	54.00	12.68	150	293	Vertical	PASS
4	8971.7256	-7.59	52.93	68.23	15.30	42.07	54.00	11.93	167.3	342.4	Vertical	PASS
5	11092.6805	-4.01	48.97	74.00	25.03	38.94	54.00	15.06	150	298	Vertical	PASS
6	14872.3457	0.77	49.72	68.23	18.51	42.20	54.00	11.80	150	298	Vertical	PASS

Mode:	11N-5785
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Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2413.2934	9.19	45.24	68.23	22.99	35.77	54.00	18.23	150	326	Horizontal	PASS
2	4204.3978	13.68	48.47	74.00	25.53	40.51	54.00	13.49	150	33	Horizontal	PASS
3	4974.013	15.60	49.72	74.00	24.28	42.03	54.00	11.97	150	117	Horizontal	PASS
4	7324.8376	20.20	53.84	74.00	20.16	44.06	54.00	9.94	150	7	Horizontal	PASS
5	12501.6238	-2.22	47.39	74.00	26.61	38.63	54.00	15.37	150	129	Horizontal	PASS
6	15634.2743	2.31	49.49	74.00	24.51	41.74	54.00	12.26	150	247	Horizontal	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2224.3878	8.65	45.95	74.00	28.05	34.69	54.00	19.31	150	28	Vertical	PASS
2	2924.038	10.25	46.68	68.23	21.55	38.39	54.00	15.61	150	344	Vertical	PASS
3	4263.8681	13.80	49.03	74.00	24.97	40.06	54.00	13.94	150	57	Vertical	PASS
4	8979.2656	-7.59	49.17	68.23	19.06	40.60	54.00	13.40	150	346	Vertical	PASS
5	11090.1824	-4.01	49.85	74.00	24.15	42.75	54.00	11.25	150	20	Vertical	PASS
6	14310.2673	1.15	49.61	68.23	18.62	41.11	54.00	12.89	150	355	Vertical	PASS

Mode:	11N-5825
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Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2266.3668	8.79	45.37	74.00	28.63	36.74	54.00	17.26	150	115	Horizontal	PASS
2	3700.6497	12.24	47.54	74.00	26.46	39.48	54.00	14.52	150	324	Horizontal	PASS
3	4925.0375	15.41	50.18	74.00	23.82	42.23	54.00	11.77	150	259	Horizontal	PASS
4	8976.7674	-7.57	45.93	68.23	22.30	37.39	54.00	16.61	150	349	Horizontal	PASS
5	11742.1934	-3.45	46.27	74.00	27.73	37.83	54.00	16.17	150	7	Horizontal	PASS
6	13933.0502	-0.61	48.66	68.23	19.57	39.03	54.00	14.97	150	253	Horizontal	PASS

Final Data List												
NO.	Freq. [MHz]	Factor [dB/m]	PK Value [dB μ V/m]	PK Limit [dB μ V/m]	PK Margin [dB]	AV Value [dB μ V/m]	AV Limit [dB μ V/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	2434.2829	9.26	46.64	68.23	21.59	37.54	54.00	16.46	150	155	Vertical	PASS
2	2731.6342	9.87	46.84	74.00	27.16	37.90	54.00	16.10	150	17	Vertical	PASS
3	4963.5182	15.68	51.40	74.00	22.60	41.91	54.00	12.09	150	293	Vertical	PASS
4	8976.7674	-7.57	50.25	68.23	17.98	39.30	54.00	14.70	150	349	Vertical	PASS
5	11085.1861	-4.01	47.43	74.00	26.57	37.90	54.00	16.10	150	360	Vertical	PASS
6	14869.8476	0.81	48.72	68.23	19.51	39.40	54.00	14.60	150	14	Vertical	PASS

Appendix F: Bnadedge

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5650~5700	-42.82	≤-1.60	PASS
				5700~5720	-41.99	≤13.12	PASS
				5720~5725	-37.29	≤25.52	PASS
				5760~5650	-42.86	≤-27	PASS
		High	5825	5850~5855	-43.21	≤24.10	PASS
				5855~5875	-42.79	≤11.91	PASS
				5875~5925	-41.89	≤-26.16	PASS
				5925~5935	-42.58	≤-27	PASS
11N20SI SO	Ant1	Low	5745	5650~5700	-41.78	≤-5.08	PASS
				5700~5720	-41.32	≤11.79	PASS
				5720~5725	-39.29	≤26.30	PASS
				5760~5650	-43.13	≤-27	PASS
		High	5825	5850~5855	-42.96	≤23.18	PASS
				5855~5875	-41.67	≤13.54	PASS
				5875~5925	-41.5	≤-24.86	PASS
				5925~5935	-42.96	≤-27	PASS

Test Graphs B4





11N20SISO_Ant1_High_5825



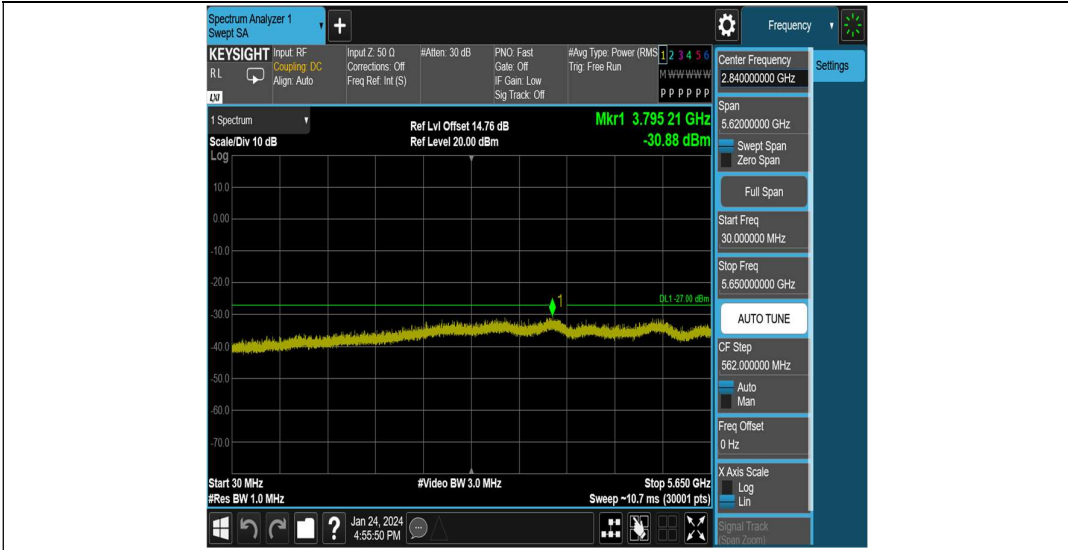
Appendix G: Conducted spurious emission

Test Result

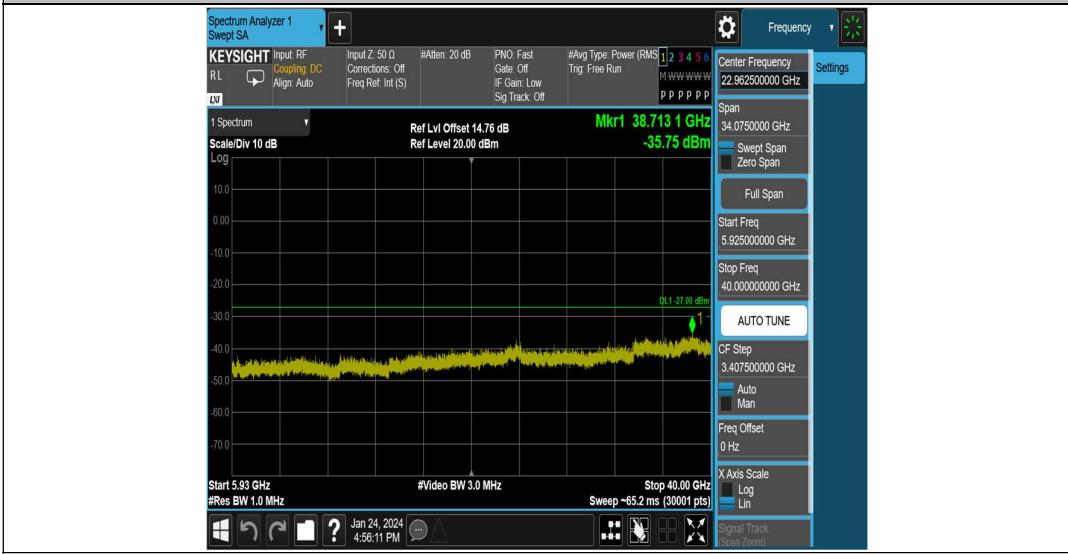
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5745	30~5650	3830.06	-39.65	≤-27	PASS
			5925~40000	39065.21	-35.48	≤-27	PASS
		5785	30~5650	3795.21	-30.88	≤-27	PASS
			5925~40000	38713.1	-35.75	≤-27	PASS
		5825	30~5650	3708.85	-32.33	≤-27	PASS
			5925~40000	38063.4	-34.28	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	4971.48	-31.58	≤-27	PASS
			5925~40000	38601.79	-34.79	≤-27	PASS
		5785	30~5650	3769.36	-31.11	≤-27	PASS
			5925~40000	37923.7	-34.91	≤-27	PASS
		5825	30~5650	3732.64	-31.83	≤-27	PASS
			5925~40000	38909.6	-34.2	≤-27	PASS

Test Graphs

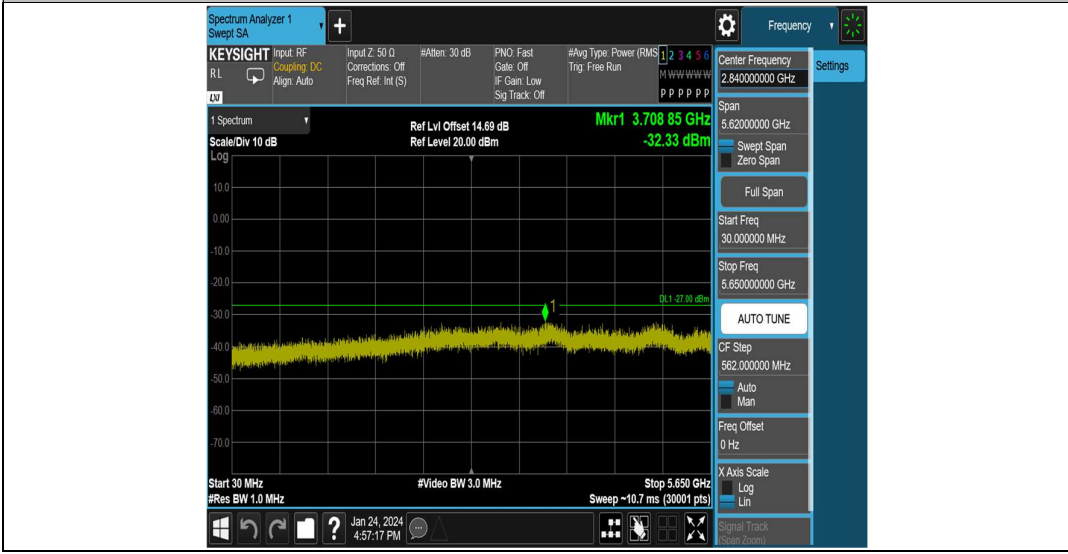




11A_Ant1_5785_5925~40000



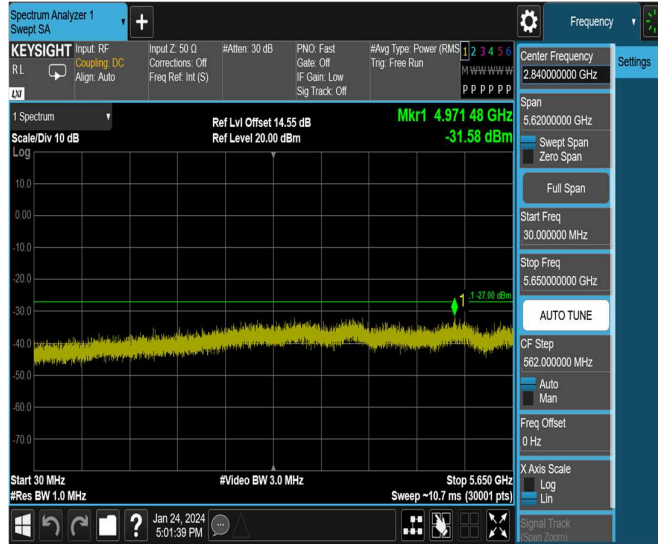
11A_Ant1_5825_30~5650



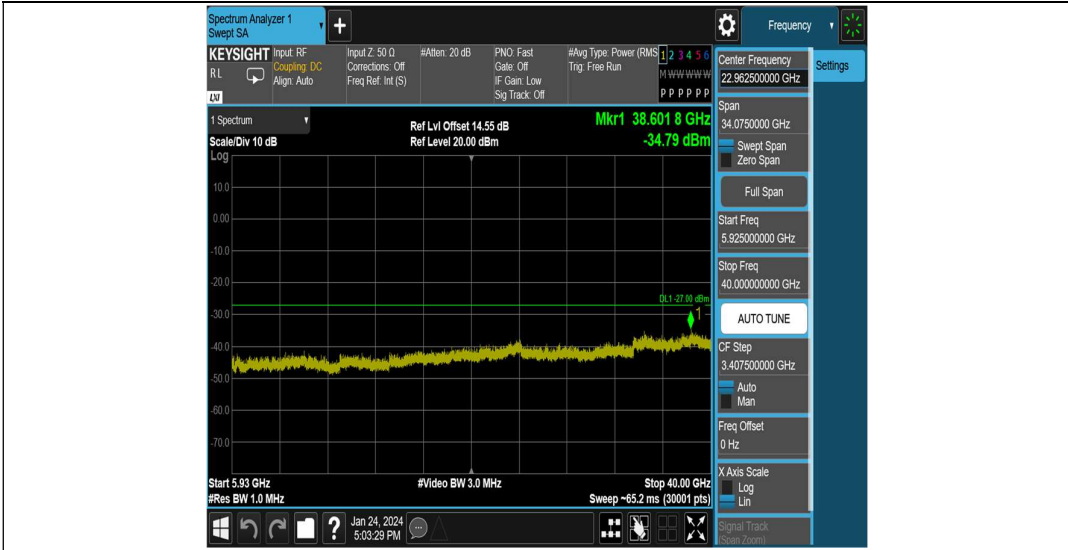
11A_Ant1_5825_5925~40000



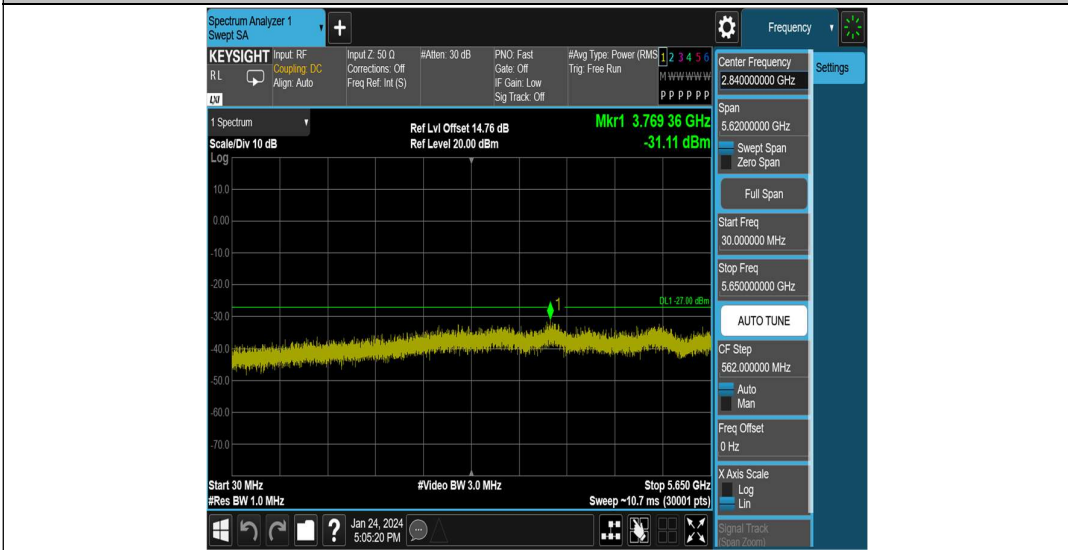
11N20SISO_Ant1_5745_30~5650



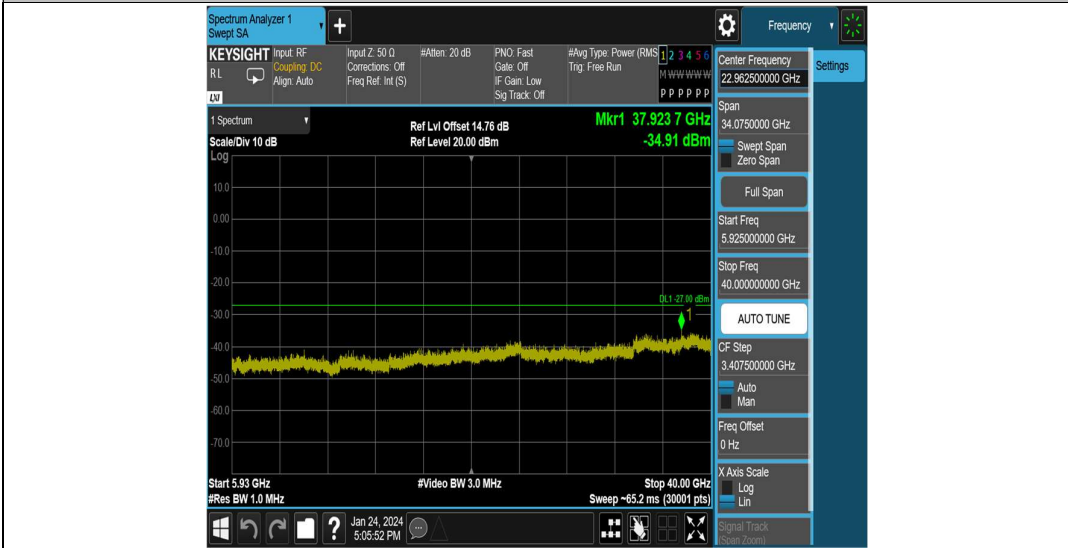
11N20SISO_Ant1_5745_5925~40000



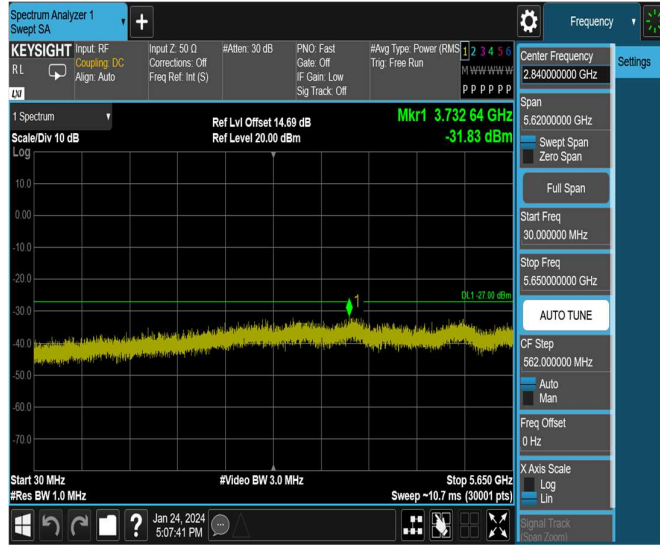
11N20SISO_Ant1_5785_30~5650



11N20SISO_Ant1_5785_5925~4000



11N20SISO_Ant1_5825_30~5650



11N20SISO_Ant1_5825_5925~40000



Appendix H: Frequency Stability

Test Result

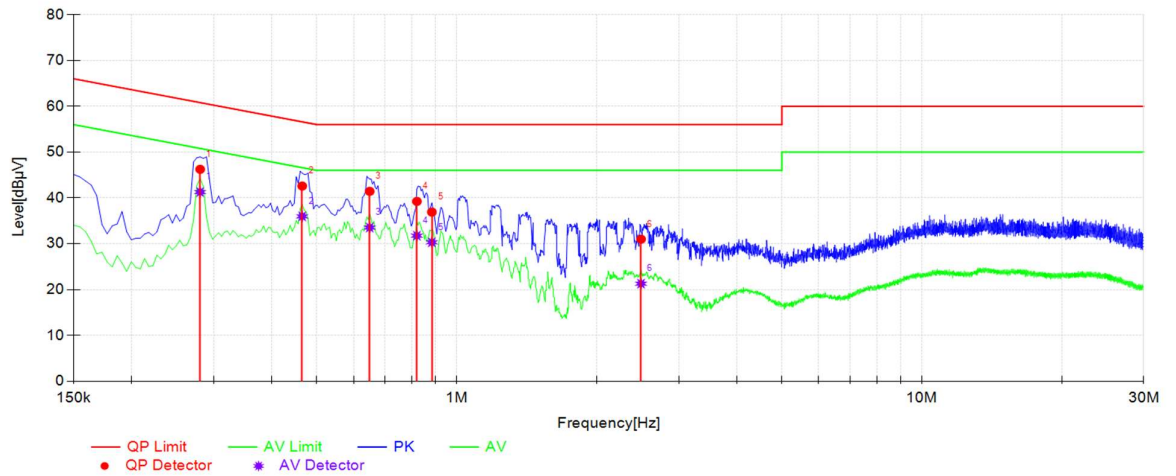
Voltage								
TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	NT	-20000.00	-3.481288	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5785	NV	NT	20000.00	3.457217	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
		5825	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	0.00	0.000000	20	PASS
11N20SI SO	Ant1	5745	NV	NT	0.00	0.000000	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	20000.00	3.481288	20	PASS
		5785	NV	NT	20000.00	3.457217	20	PASS
			LV	NT	0.00	0.000000	20	PASS
			HV	NT	-20000.00	-3.457217	20	PASS
		5825	NV	NT	0.00	0.000000	20	PASS
			LV	NT	-20000.00	-3.433476	20	PASS
			HV	NT	0.00	0.000000	20	PASS

Temperature								
TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5745	NV	-30	0.00	0.000000	20	PASS
			NV	-20	20000.00	3.481288	20	PASS
			NV	-10	-20000.00	-3.481288	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	-20000.00	-3.481288	20	PASS
		5785	NV	-30	0.00	0.000000	20	PASS
			NV	-20	20000.00	3.457217	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS

			NV	20	-20000.00	-3.457217	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	-20000.00	-3.457217	20	PASS
		5825	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	20000.00	3.433476	20	PASS
			NV	10	20000.00	3.433476	20	PASS
			NV	20	20000.00	3.433476	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
11N20SI SO	Ant1	5745	NV	-30	20000.00	3.481288	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	-20000.00	-3.481288	20	PASS
			NV	0	20000.00	3.481288	20	PASS
			NV	10	20000.00	3.481288	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	0.00	0.000000	20	PASS
			NV	50	0.00	0.000000	20	PASS
		5785	NV	-30	0.00	0.000000	20	PASS
			NV	-20	0.00	0.000000	20	PASS
			NV	-10	0.00	0.000000	20	PASS
			NV	0	0.00	0.000000	20	PASS
			NV	10	0.00	0.000000	20	PASS
			NV	20	0.00	0.000000	20	PASS
			NV	30	0.00	0.000000	20	PASS
			NV	40	20000.00	3.457217	20	PASS
			NV	50	0.00	0.000000	20	PASS
5825	NV	-30	0.00	0.000000	20	PASS		
	NV	-20	-20000.00	-3.433476	20	PASS		
	NV	-10	-20000.00	-3.433476	20	PASS		
	NV	0	20000.00	3.433476	20	PASS		
	NV	10	0.00	0.000000	20	PASS		
	NV	20	20000.00	3.433476	20	PASS		
	NV	30	0.00	0.000000	20	PASS		
	NV	40	0.00	0.000000	20	PASS		
	NV	50	20000.00	3.433476	20	PASS		

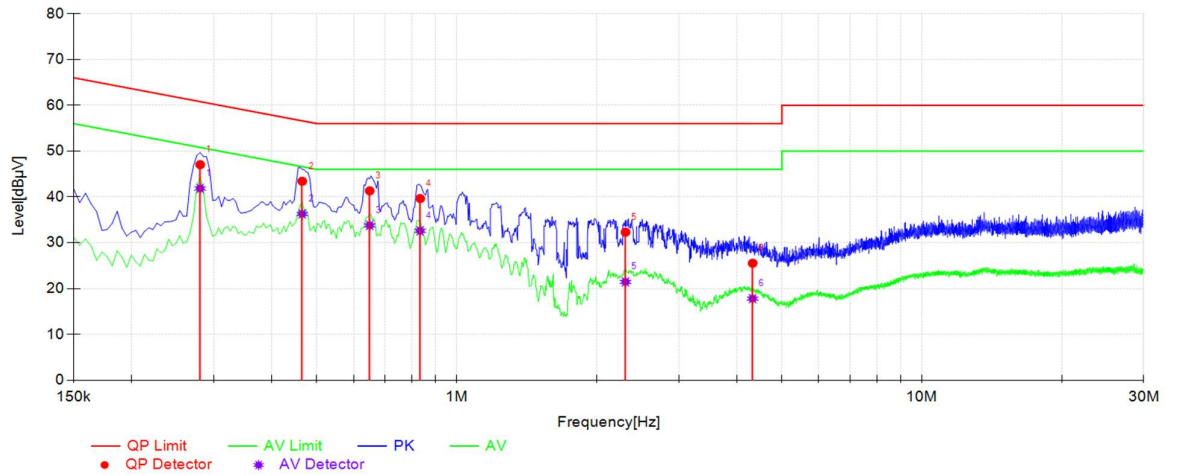
NV: 120V LV:108V HV:132V
NT:25°C

Appendix G: Conducted emission AC power port



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Type	Verdict
1	0.2805	10.27	46.25	60.80	14.55	41.28	50.80	9.52	L1	PASS
2	0.465	10.27	42.60	56.60	14.00	35.98	46.60	10.62	L1	PASS
3	0.6495	10.27	41.44	56.00	14.56	33.54	46.00	12.46	L1	PASS
4	0.8205	10.27	39.24	56.00	16.76	31.76	46.00	14.24	L1	PASS
5	0.8835	10.28	36.92	56.00	19.08	30.32	46.00	15.68	L1	PASS
6	2.49	10.29	31.00	56.00	25.00	21.29	46.00	24.71	L1	PASS



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]	Type	Verdict
1	0.2805	10.27	47.05	60.80	13.75	41.86	50.80	8.94	N	PASS
2	0.465	10.27	43.42	56.60	13.18	36.28	46.60	10.32	N	PASS
3	0.6495	10.27	41.33	56.00	14.67	33.79	46.00	12.21	N	PASS
4	0.834	10.27	39.65	56.00	16.35	32.61	46.00	13.39	N	PASS
5	2.3055	10.31	32.32	56.00	23.68	21.46	46.00	24.54	N	PASS
6	4.326	10.41	25.53	56.00	30.47	17.82	46.00	28.18	N	PASS