

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.640	2401.616	2402.256	0.5	PASS
		2440	0.640	2439.608	2440.248	0.5	PASS
		2480	0.640	2479.616	2480.256	0.5	PASS

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



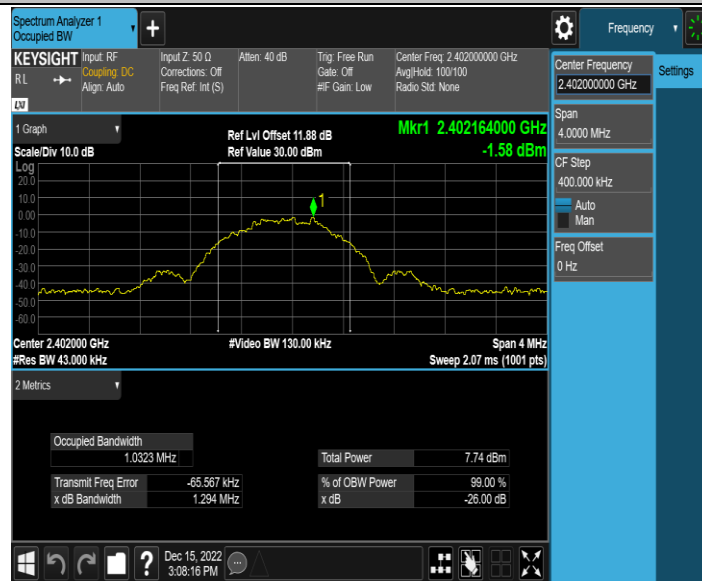
Appendix B: Occupied Channel Bandwidth

Test Result

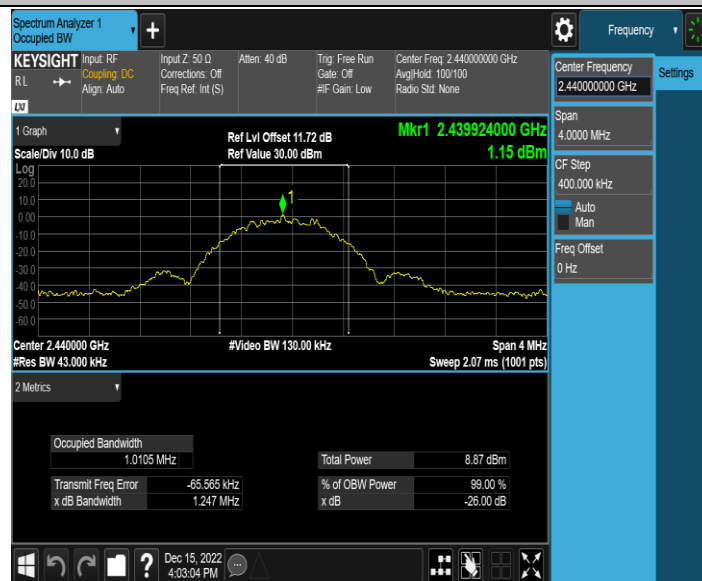
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0323	2401.4183	2402.4506	---	---
		2440	1.0105	2439.4292	2440.4397	---	---
		2480	1.0210	2479.4224	2480.4434	---	---

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.8	≤30	PASS
		2440	2.37	≤30	PASS
		2480	1.21	≤30	PASS

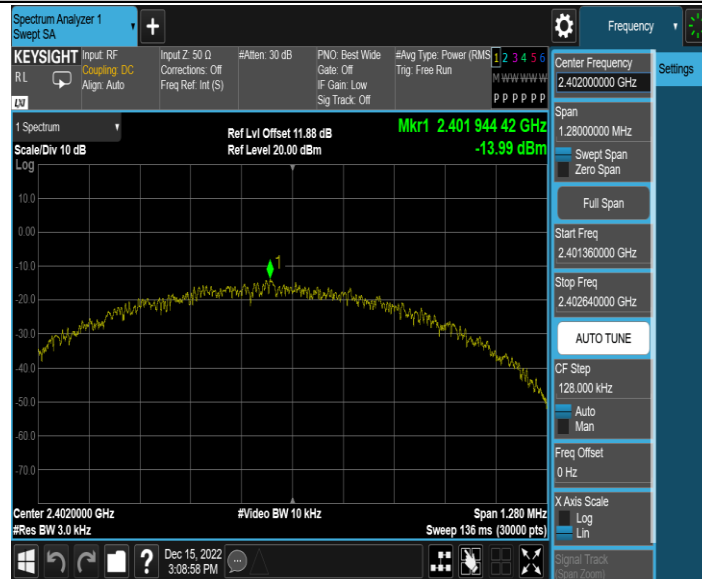
Appendix D: Maximum power spectral density

Test Result

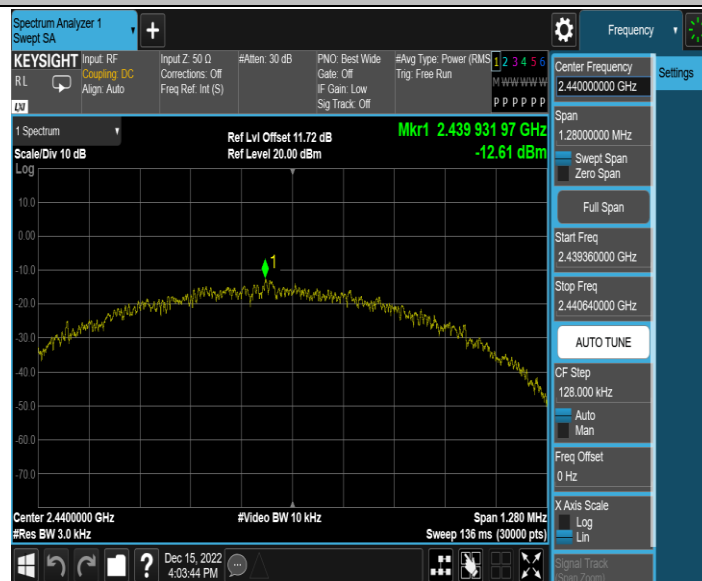
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-13.99	≤8.00	PASS
		2440	-12.61	≤8.00	PASS
		2480	-13.4	≤8.00	PASS

Test Graphs

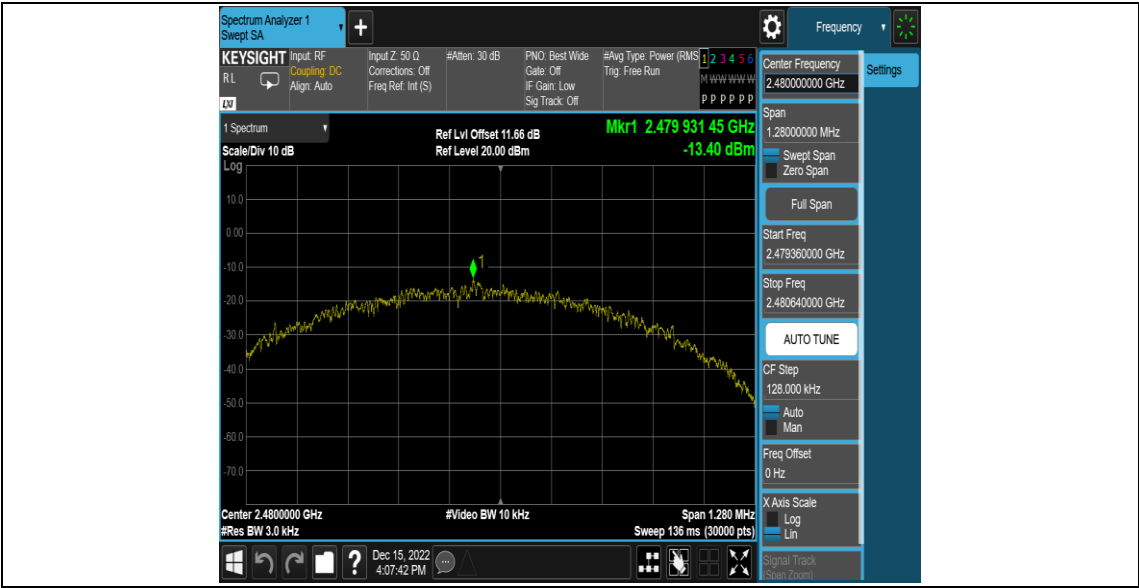
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



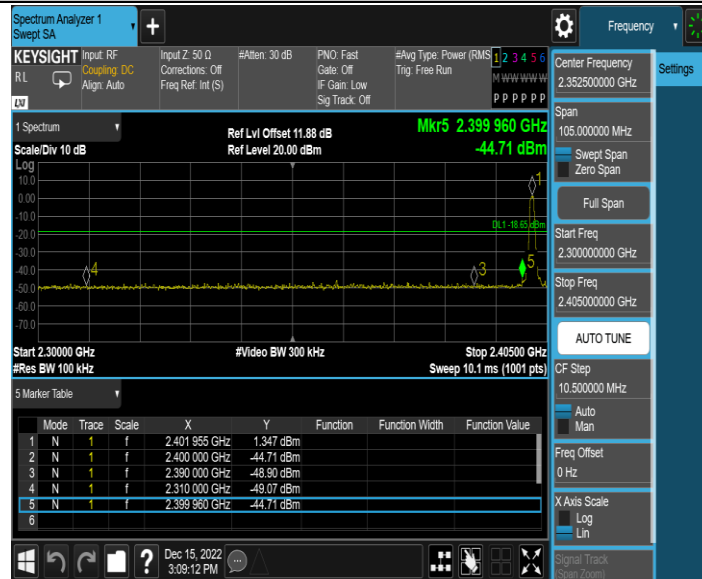
Appendix E: Band edge measurements

Test Result

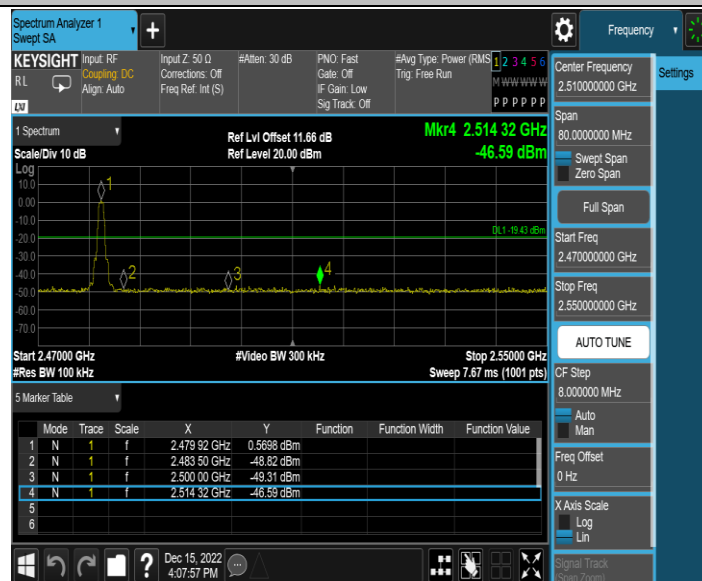
TestMod e	Antenn a	ChNam e	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdic t
BLE_1M	Ant1	Low	2402	1.35	-44.71	≤-18.65	PASS
		High	2480	0.57	-46.59	≤-19.43	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



Appendix F: Conducted Spurious Emission

Test Result

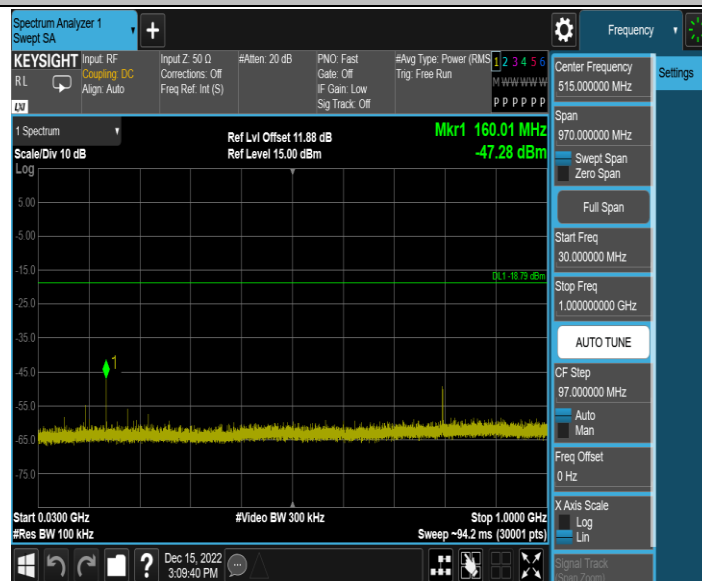
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	1.21	1.21	---	PASS
			30~1000	1.21	-47.28	≤-18.79	PASS
			1000~26500	1.21	-49.76	≤-18.79	PASS
		2440	Reference	1.95	1.95	---	PASS
			30~1000	1.95	-47.46	≤-18.05	PASS
			1000~26500	1.95	-50.04	≤-18.05	PASS
		2480	Reference	0.67	0.67	---	PASS
			30~1000	0.67	-47	≤-19.33	PASS
			1000~26500	0.67	-50.11	≤-19.33	PASS

Test Graphs

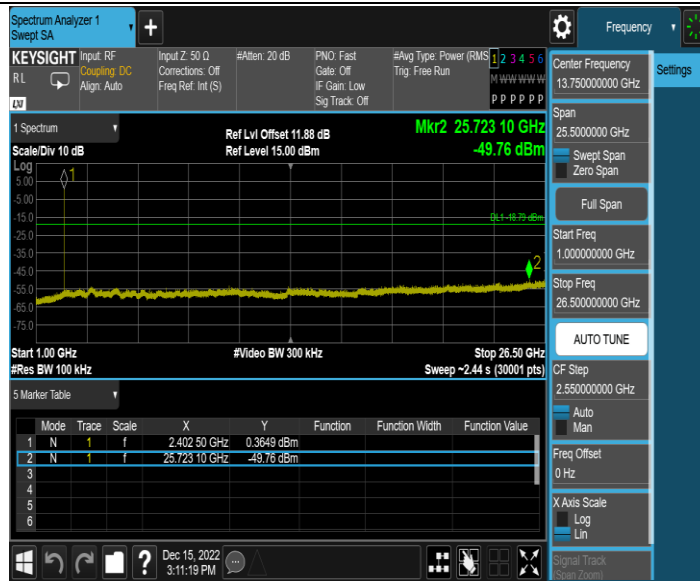
BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000



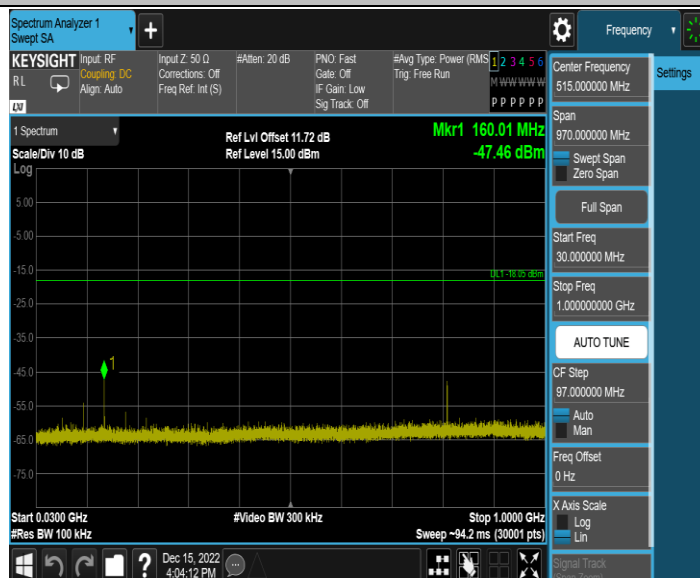
BLE_1M_Ant1_2402_1000~26500



BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



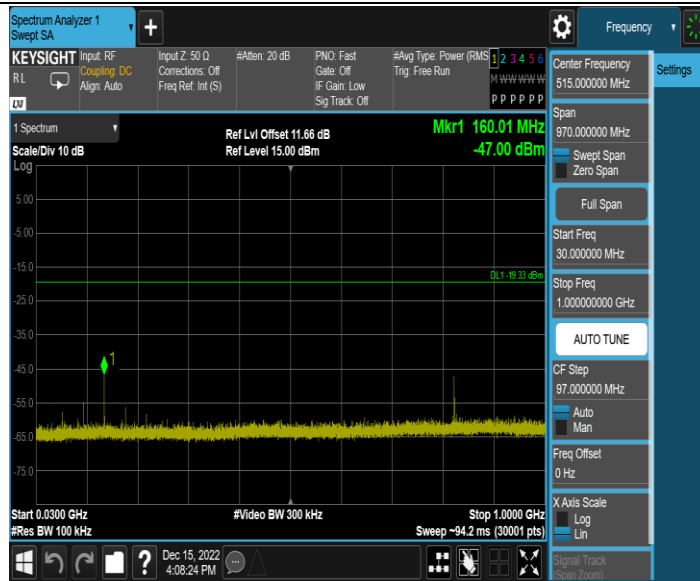
BLE_1M_Ant1_2440_1000~26500



BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



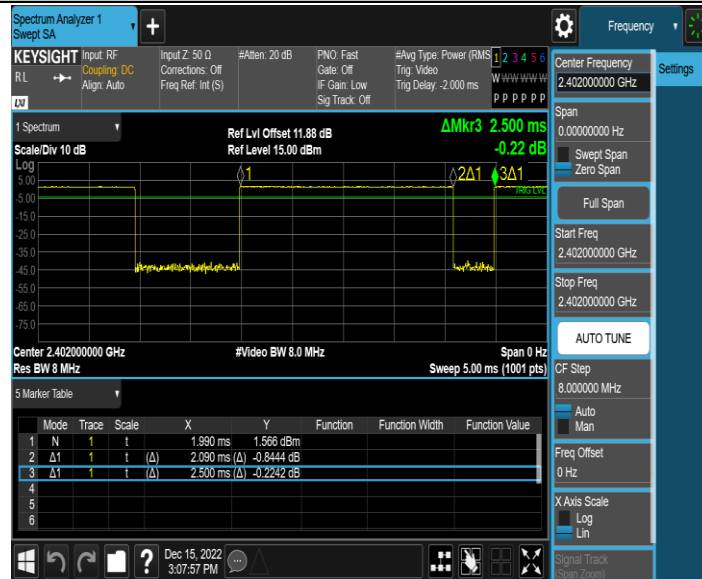
Appendix G: Duty Cycle

Test Result

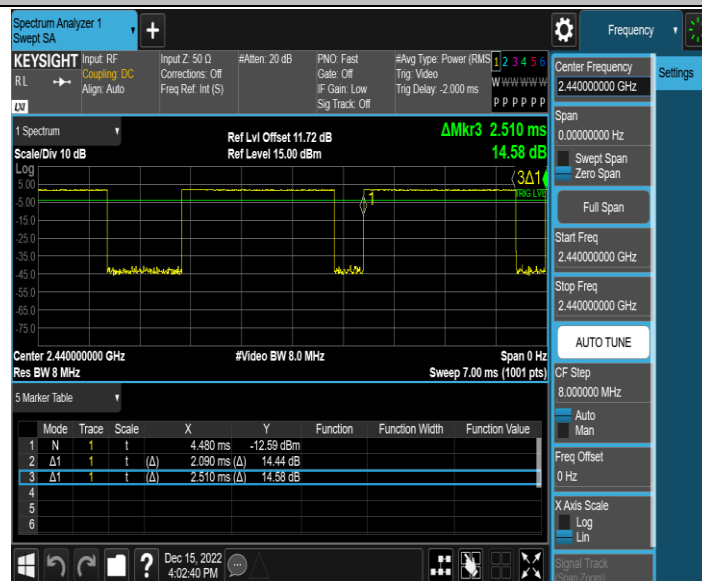
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
BLE_1M	Ant1	2402	2.09	2.50	83.60	0.78
		2440	2.09	2.51	83.27	0.80
		2480	2.09	2.50	83.60	0.78

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

Appendix H: Emissions in Restricted Bands

Test Result

Mode:	2402
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PK Final Data List								
NO.	Freq. [MHz]	PK Reading [dB μ V/m]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Polarity	Verdict
1	2310	39.78	47.24	7.46	74.00	26.76	Horizontal	PASS
2	2331.46	40.88	48.34	7.46	74.00	25.66	Horizontal	PASS
3	2338.02	40.96	48.42	7.46	74.00	25.58	Horizontal	PASS
4	2369.01	40.80	48.25	7.45	74.00	25.75	Horizontal	PASS
5	2379.99	41.11	48.56	7.45	74.00	25.44	Horizontal	PASS
6	2390	39.77	47.22	7.45	74.00	26.78	Horizontal	PASS

PK Final Data List								
NO.	Freq. [MHz]	PK Reading [dB μ V/m]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Polarity	Verdict
1	2310	39.58	47.04	7.46	74.00	26.96	Vertical	PASS
2	2326.09	41.01	48.47	7.46	74.00	25.53	Vertical	PASS
3	2338.50	41.55	49.01	7.46	74.00	24.99	Vertical	PASS
4	2363.57	40.43	47.88	7.45	74.00	26.12	Vertical	PASS
5	2371.90	41.03	48.48	7.45	74.00	25.52	Vertical	PASS
6	2390	39.78	47.23	7.45	74.00	26.77	Vertical	PASS

Mode:	2480
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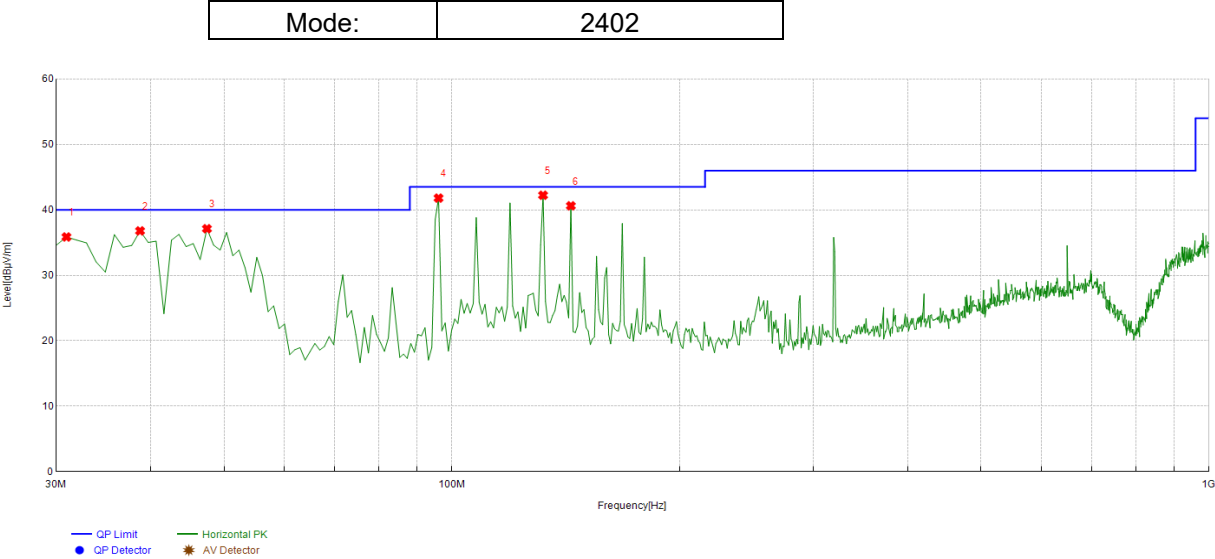
PK Final Data List								
NO.	Freq. [MHz]	PK Reading [dB μ V/m]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Polarity	Verdict
1	2483.5	39.66	47.62	7.96	74.00	26.38	Horizontal	PASS
2	2487.97	40.56	48.55	7.99	74.00	25.45	Horizontal	PASS
3	2490.51	40.80	48.80	8.00	74.00	25.20	Horizontal	PASS
4	2493.05	41.27	49.28	8.01	74.00	24.72	Horizontal	PASS
5	2497.16	41.39	49.44	8.05	74.00	24.56	Horizontal	PASS
6	2500	39.20	47.26	8.06	74.00	26.74	Horizontal	PASS

PK Final Data List								
NO.	Freq. [MHz]	PK Reading [dB μ V/m]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Polarity	Verdict
1	2483.5	39.33	47.29	7.96	74.00	26.71	Vertical	PASS
2	2486.30	40.98	48.96	7.98	74.00	25.04	Vertical	PASS
3	2490.84	41.06	49.06	8.00	74.00	24.94	Vertical	PASS
4	2493.4	40.95	48.97	8.02	74.00	25.03	Vertical	PASS
5	2494.93	41.02	49.04	8.02	74.00	24.96	Vertical	PASS
6	2500	40.49	48.55	8.06	74.00	25.45	Vertical	PASS

Note:

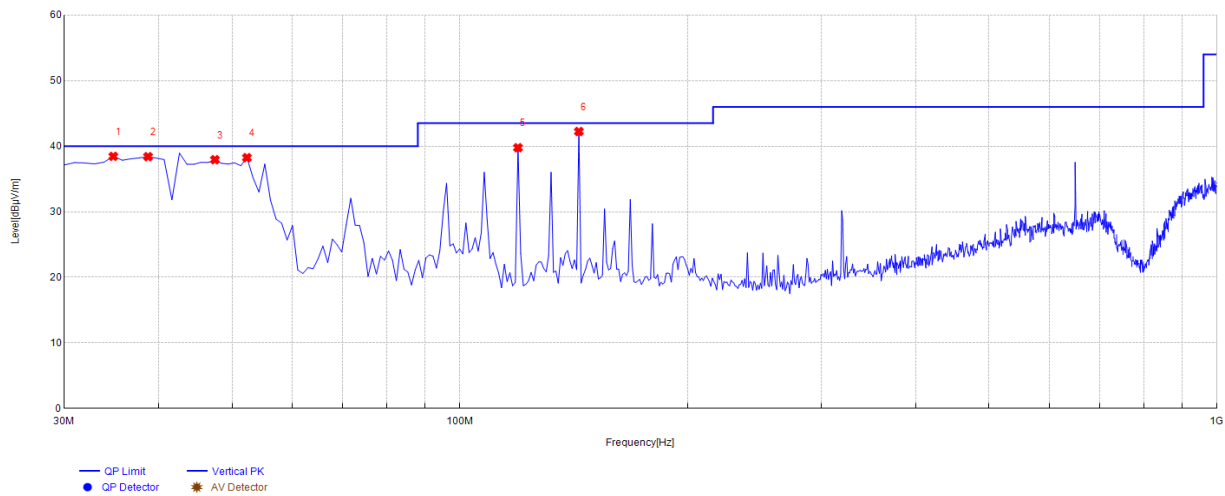
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dB μ V/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Appendix I: Radiated emissions



NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	30.971	52.83	35.86	-16.97	40.00	4.14	Horizontal	PASS
2	38.7387	52.56	36.79	-15.77	40.00	3.21	Horizontal	PASS
3	47.4775	53.56	37.12	-16.44	40.00	2.88	Horizontal	PASS
4	96.026	62.22	41.80	-20.42	43.50	1.70	Horizontal	PASS
5	131.952	59.79	42.24	-17.55	43.50	1.26	Horizontal	PASS
6	143.603	57.59	40.62	-16.97	43.50	2.88	Horizontal	PASS

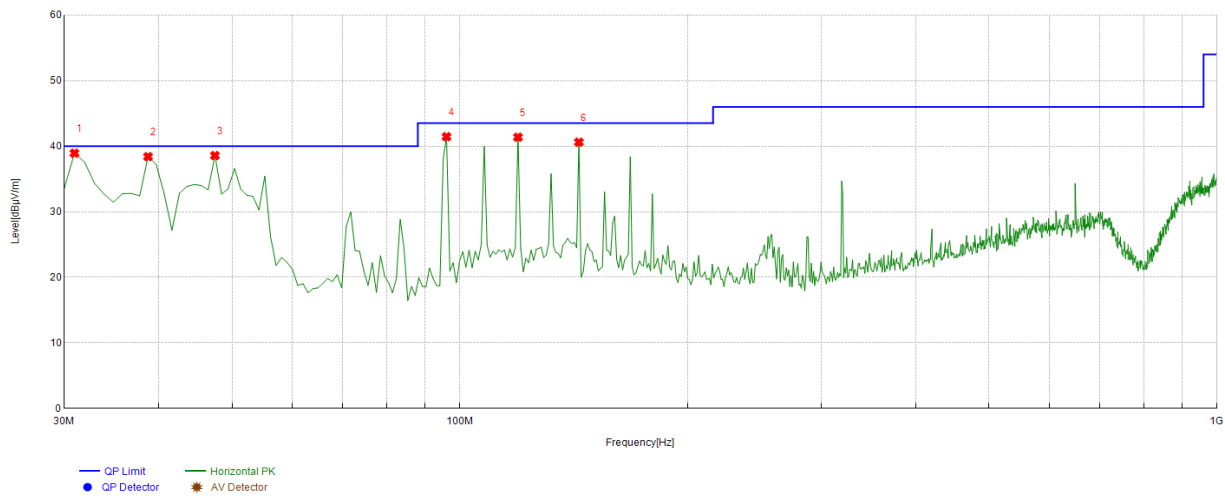
Mode: 2402



NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	34.8549	54.82	38.45	-16.37	40.00	1.55	Vertical	PASS
2	38.7387	54.17	38.40	-15.77	40.00	1.60	Vertical	PASS
3	47.4775	54.38	37.94	-16.44	40.00	2.06	Vertical	PASS
4	52.3323	55.18	38.25	-16.93	40.00	1.75	Vertical	PASS
5	119.329	58.19	39.77	-18.42	43.50	3.73	Vertical	PASS
6	143.603	59.21	42.24	-16.97	43.50	1.26	Vertical	PASS

Mode:

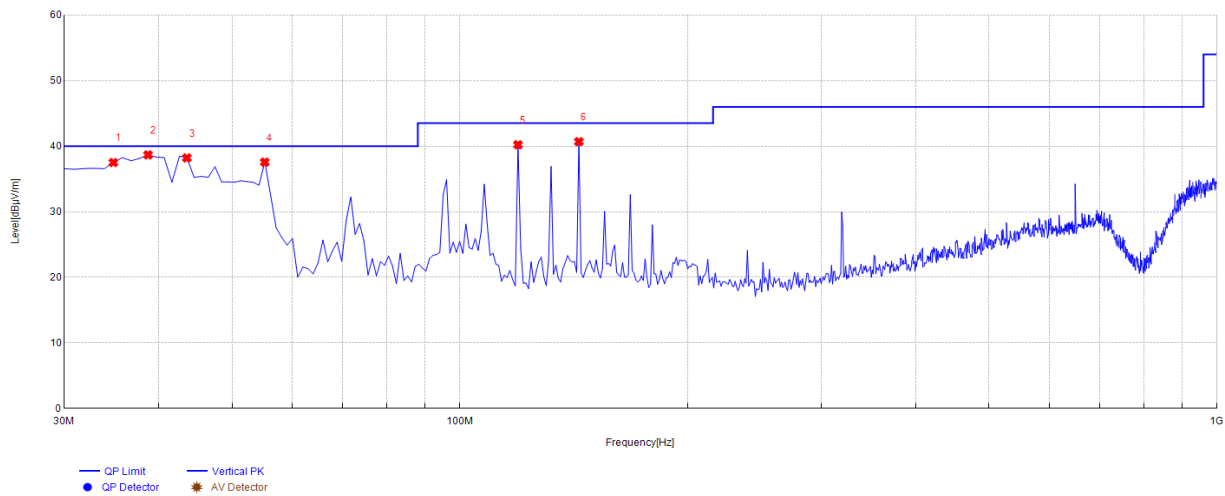
2480



NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	30.971	55.90	38.93	-16.97	40.00	1.07	Horizontal	PASS
2	38.7387	54.18	38.41	-15.77	40.00	1.59	Horizontal	PASS
3	47.4775	55.01	38.57	-16.44	40.00	1.43	Horizontal	PASS
4	96.026	61.87	41.45	-20.42	43.50	2.05	Horizontal	PASS
5	119.329	59.79	41.37	-18.42	43.50	2.13	Horizontal	PASS
6	143.603	57.58	40.61	-16.97	43.50	2.89	Horizontal	PASS

Mode:

2480



NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	34.8549	53.88	37.51	-16.37	40.00	2.49	Vertical	PASS
2	38.7387	54.44	38.67	-15.77	40.00	1.33	Vertical	PASS
3	43.5936	54.20	38.21	-15.99	40.00	1.79	Vertical	PASS
4	55.2452	54.74	37.57	-17.17	40.00	2.43	Vertical	PASS
5	119.329	58.64	40.22	-18.42	43.50	3.28	Vertical	PASS
6	143.603	57.66	40.69	-16.97	43.50	2.81	Vertical	PASS

Mode:	2402
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PK Final Data List								
NO.	Freq. [MHz]	PK Reading [dBμV/m]	Factor [dB]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	Polarity	Verdict
1	3205.0684	60.74	-16.07	44.67	74.00	29.33	Horizontal	PASS
2	4805.6019	62.88	-12.26	50.62	74.00	23.38	Horizontal	PASS
3	6481.1604	52.19	-9.68	42.51	74.00	31.49	Horizontal	PASS
4	8716.9056	51.62	-8.37	43.25	74.00	30.75	Horizontal	PASS
5	13278.4261	46.58	0.34	46.92	74.00	27.08	Horizontal	PASS
6	17484.8283	45.87	5.63	51.50	74.00	22.50	Horizontal	PASS

PK Final Data List								
NO.	Freq. [MHz]	PK Reading [dBμV/m]	Factor [dB]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	Polarity	Verdict
1	3205.0684	62.75	-16.07	46.68	74.00	27.32	Vertical	PASS
2	4805.6019	69.25	-12.26	56.99	74.00	17.01	Vertical	PASS
3	6841.2804	52.14	-8.96	43.18	74.00	30.82	Vertical	PASS
4	9342.114	50.94	-6.78	44.16	74.00	29.84	Vertical	PASS
5	14658.8863	46.36	1.01	47.37	74.00	26.63	Vertical	PASS
6	17484.8283	45.81	5.63	51.44	74.00	22.56	Vertical	PASS

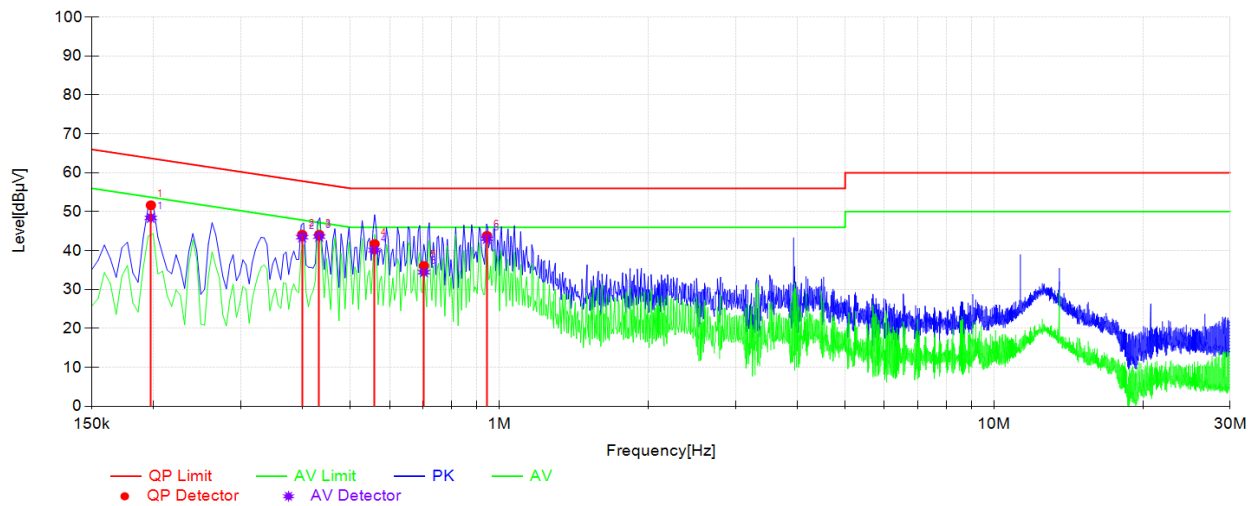
AV Final Data List								
NO.	Freq. [MHz]	DCCF [dB]	Factor [dB]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Polarity	Verdict
2	4805.6019	-24.79	-12.26	47.87	54.00	6.13	Vertical	PASS

Mode:	2480
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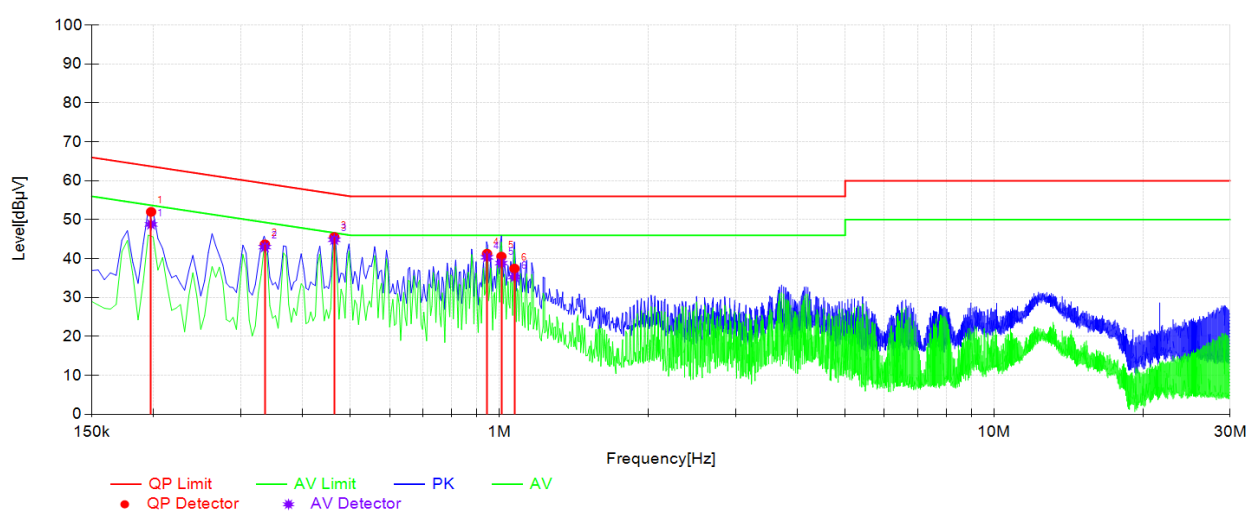
PK Final Data List								
NO.	Freq. [MHz]	PK Reading [dBμV/m]	Factor [dB]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	Polarity	Verdict
1	3305.1017	59.72	-16.89	42.83	74.00	31.17	Horizontal	PASS
2	4960.6536	61.77	-12.91	48.86	74.00	25.14	Horizontal	PASS
3	6606.2021	52.11	-9.83	42.28	74.00	31.72	Horizontal	PASS
4	7831.6105	50.53	-8.04	42.49	74.00	31.51	Horizontal	PASS
5	9687.2291	50.45	-6.10	44.35	74.00	29.65	Horizontal	PASS
6	17784.9283	46.46	5.80	52.26	74.00	21.74	Horizontal	PASS

PK Final Data List								
NO.	Freq. [MHz]	PK Reading [dBμV/m]	Factor [dB]	PK Value [dBμV/m]	PK Limit [dBμV/m]	PK Margin [dB]	Polarity	Verdict
1	3305.1017	64.3	-16.89	47.41	74.00	26.59	Vertical	PASS
2	4135.3785	54.74	-14.67	40.07	74.00	33.93	Vertical	PASS
3	4960.6536	64.32	-12.91	51.41	74.00	22.59	Vertical	PASS
4	6326.1087	52.61	-10.20	42.41	74.00	31.59	Vertical	PASS
5	7481.4938	51.69	-8.81	42.88	74.00	31.12	Vertical	PASS
6	17329.7766	45.31	5.41	50.72	74.00	23.28	Vertical	PASS

Appendix J: 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	0.1974	10.26	51.67	63.72	12.05	48.43	53.72	5.29	L1	PASS
2	0.3993	10.26	44.11	57.87	13.76	43.43	47.87	4.44	L1	PASS
3	0.4322	10.26	44.09	57.21	13.12	43.60	47.21	3.61	L1	PASS
4	0.5592	10.27	41.71	56.00	14.29	40.12	46.00	5.88	L1	PASS
5	0.7037	10.28	36.08	56.00	19.92	34.47	46.00	11.53	L1	PASS
6	0.9433	10.28	43.80	56.00	12.20	43.05	46.00	2.95	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	0.1976	10.26	52.02	63.71	11.69	48.80	53.71	4.91	N	PASS
2	0.3356	10.27	43.68	59.31	15.63	42.95	49.31	6.36	N	PASS
3	0.4636	10.27	45.56	56.63	11.07	44.84	46.63	1.79	N	PASS
4	0.9439	10.28	41.27	56.00	14.73	40.34	46.00	5.66	N	PASS
5	1.0091	10.28	40.53	56.00	15.47	38.85	46.00	7.15	N	PASS
6	1.0725	10.28	37.46	56.00	18.54	35.28	46.00	10.72	N	PASS