

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.656	0.5	PASS
		2440	0.648	0.5	PASS
		2480	0.636	0.5	PASS

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



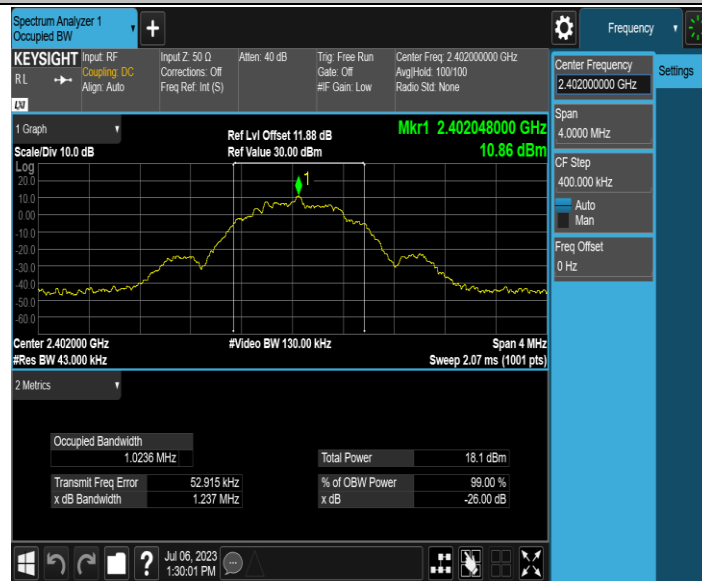
Appendix B: Occupied Channel Bandwidth

Test Result

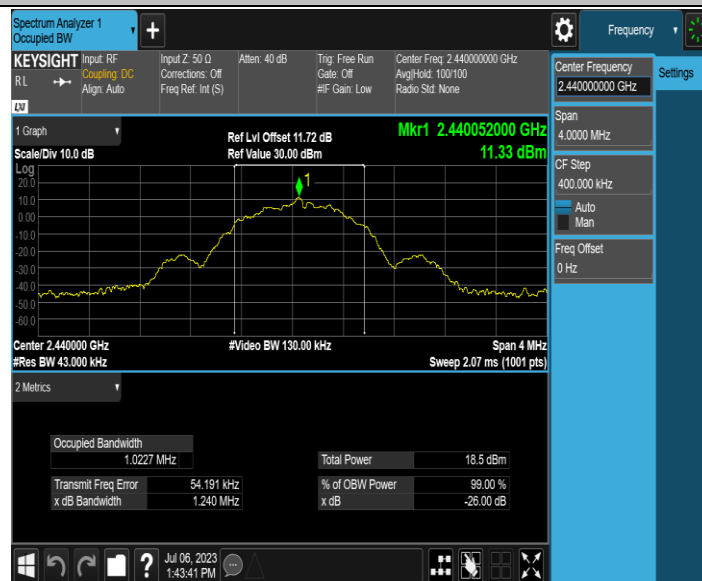
TestMode	Antenna	Frequency[MHz]	OCB [MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0236	---	---
		2440	1.0227	---	---
		2480	1.0339	---	---

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



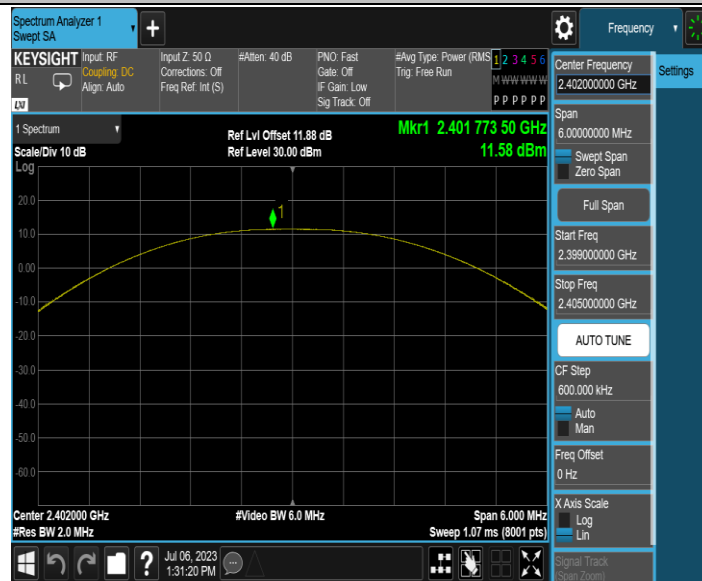
Appendix C: Maximum conducted output power

Test Result

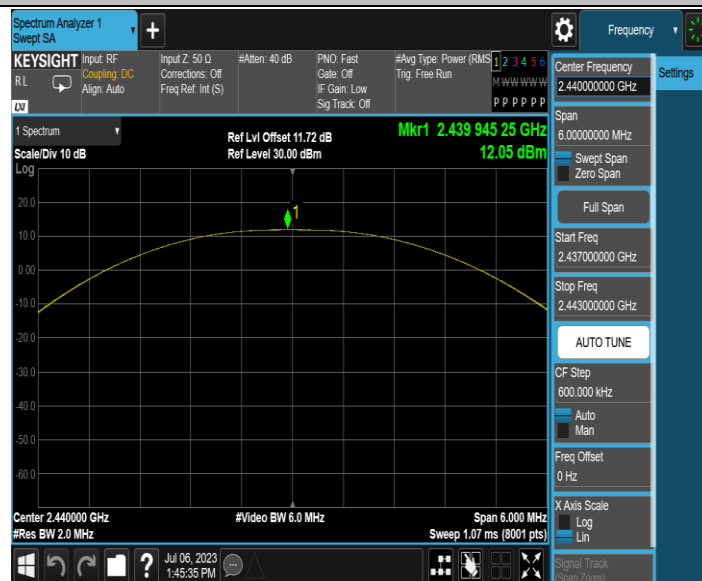
TestMode	Antenna	Frequency[MHz]	Conducted Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	11.58	≤30	14.12	≤36	PASS
		2440	12.05	≤30	14.59	≤36	PASS
		2480	12.28	≤30	14.82	≤36	PASS

Test Graphs Peak

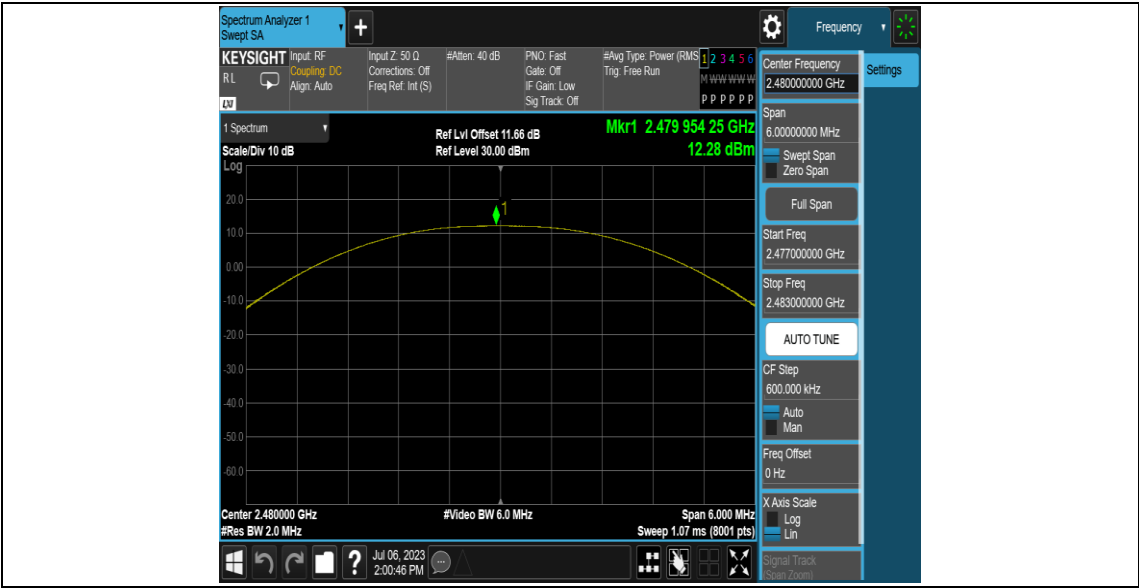
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



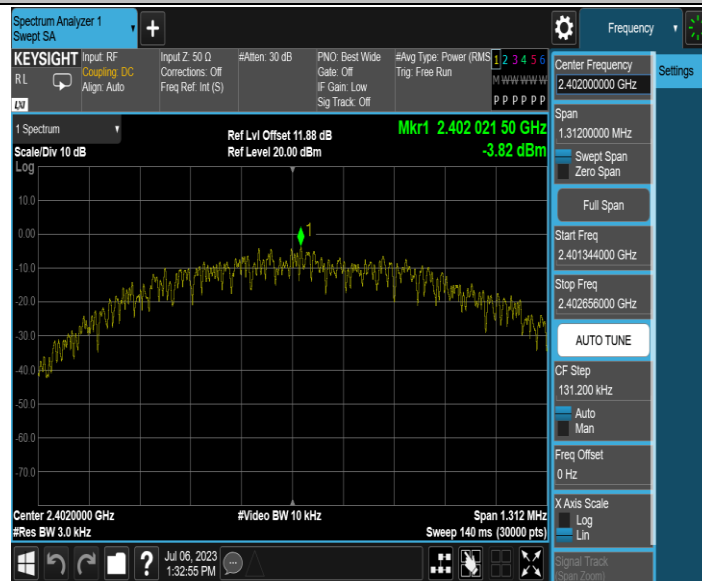
Appendix D: Maximum power spectral density

Test Result

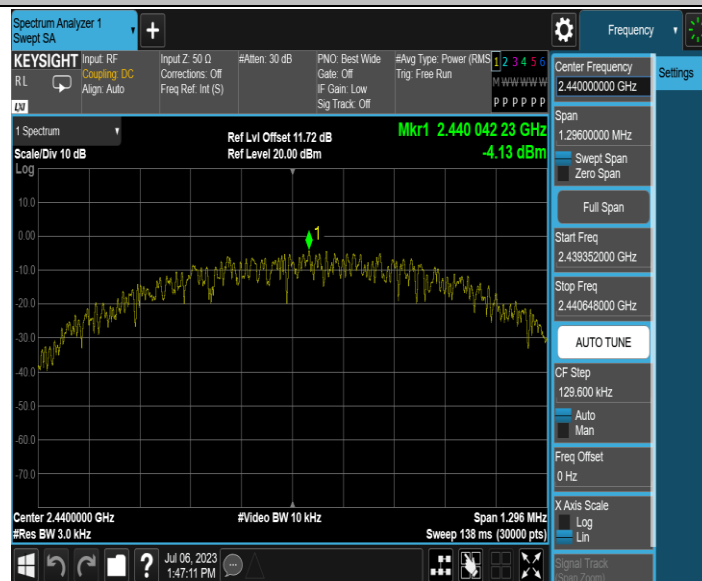
TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-3.82	≤8.00	PASS
		2440	-4.13	≤8.00	PASS
		2480	-2.54	≤8.00	PASS

Test Graphs

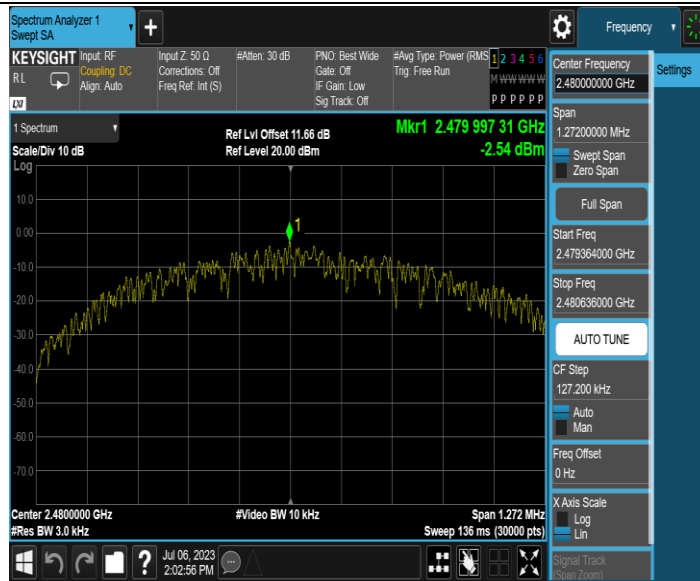
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



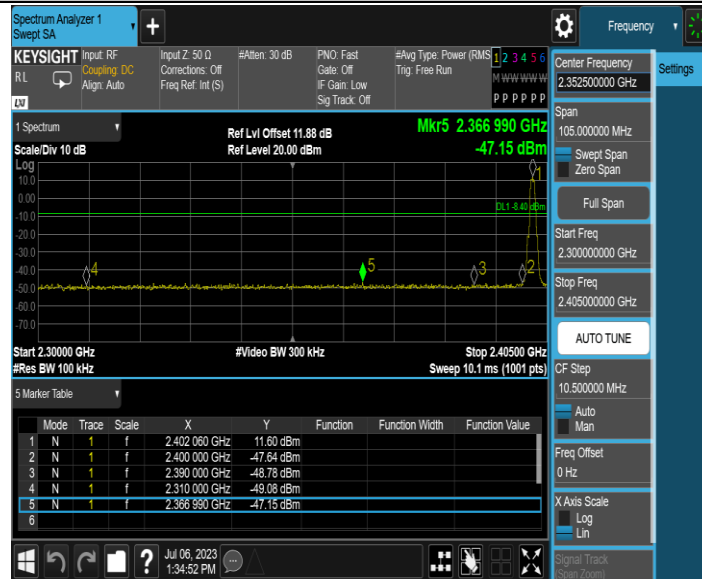
Appendix E: Band edge measurements

Test Result

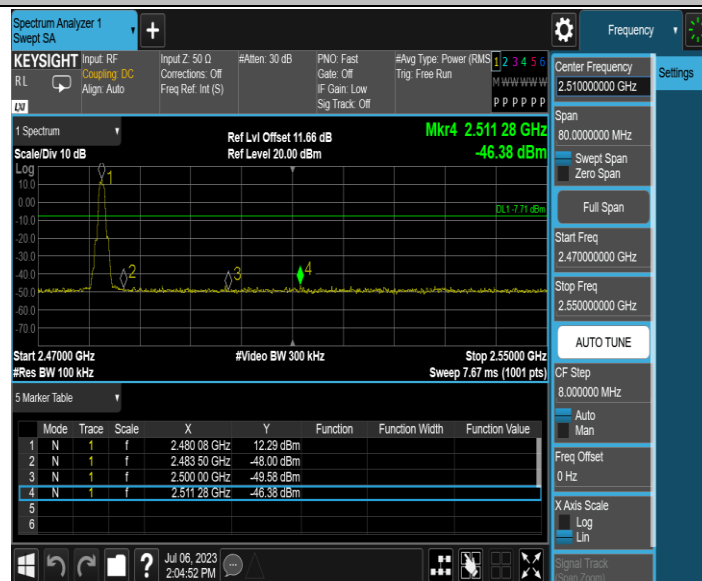
TestMod e	Antenn a	ChNam e	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdic t
BLE_1M	Ant1	Low	2402	11.60	-47.15	≤-8.4	PASS
		High	2480	12.29	-46.38	≤-7.71	PASS

Test Graphs

BLE_1M_Ant1_Low_2402



BLE_1M_Ant1_High_2480



Appendix F: Conducted Spurious Emission

Test Result

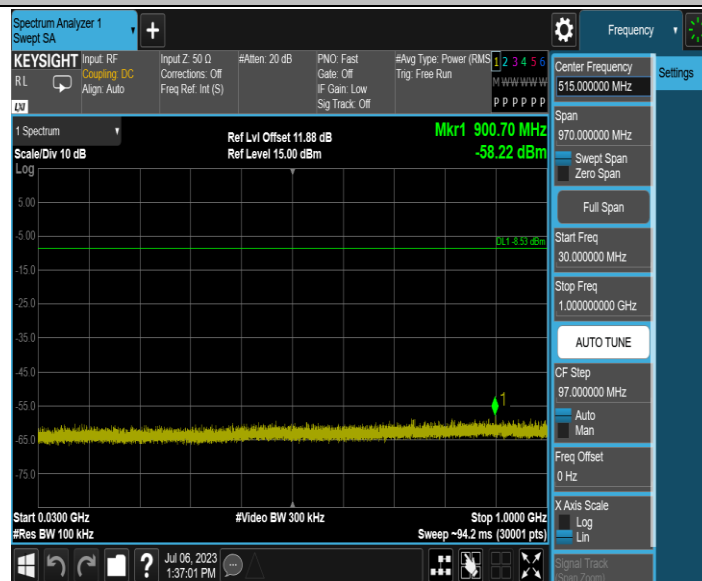
TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	11.47	11.47	---	PASS
			30~1000	11.47	-58.22	≤-8.53	PASS
			1000~26500	11.47	-49.77	≤-8.53	PASS
		2440	Reference	11.98	11.98	---	PASS
			30~1000	11.98	-57.82	≤-8.02	PASS
			1000~26500	11.98	-49.92	≤-8.02	PASS
		2480	Reference	12.17	12.17	---	PASS
			30~1000	12.17	-58.8	≤-7.83	PASS
			1000~26500	12.17	-50.18	≤-7.83	PASS

Test Graphs

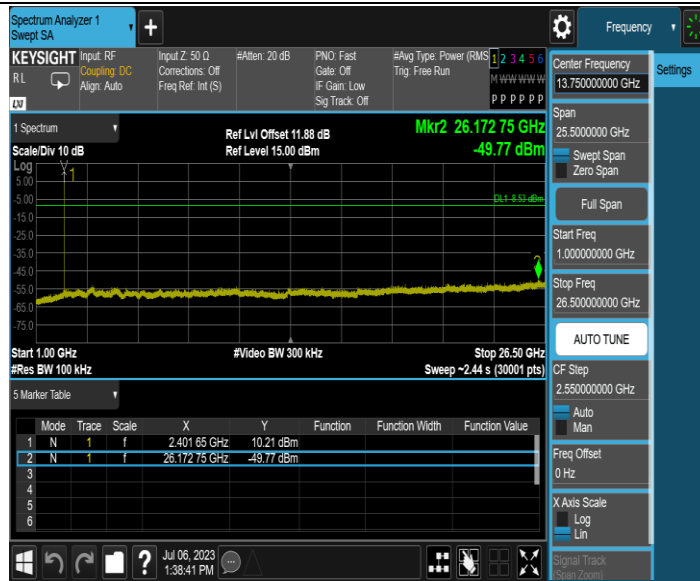
BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000



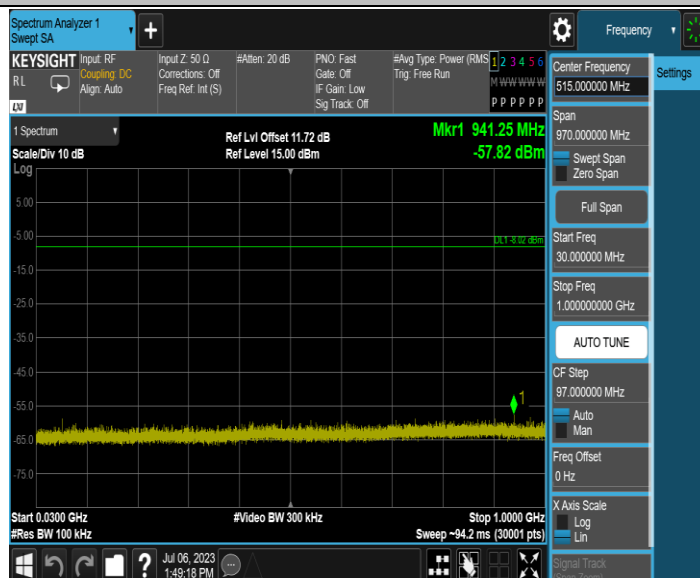
BLE_1M_Ant1_2402_1000~26500



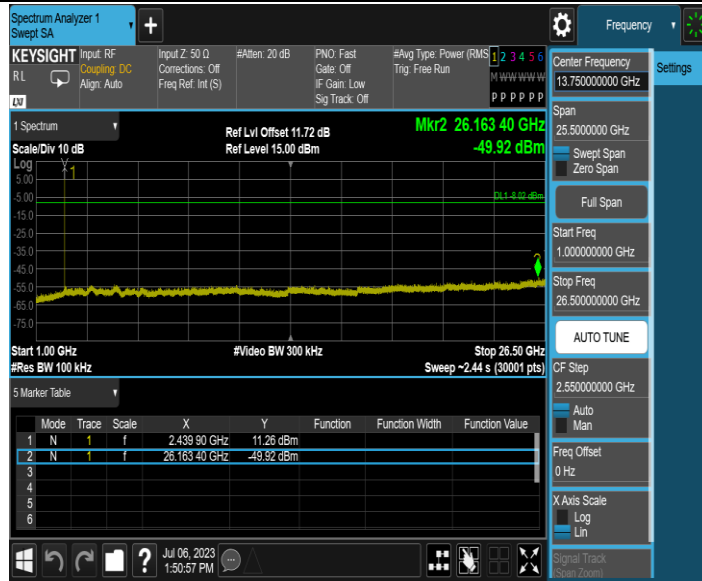
BLE_1M_Ant1_2440_0~Reference



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



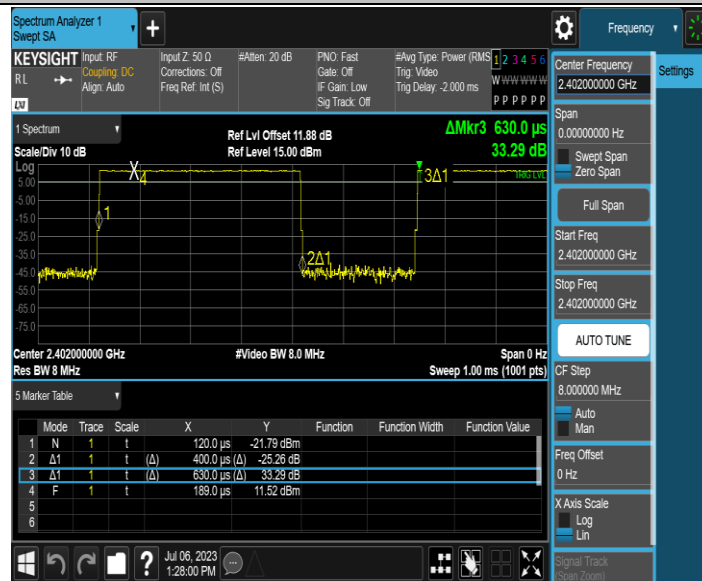
Appendix G: Duty Cycle

Test Result

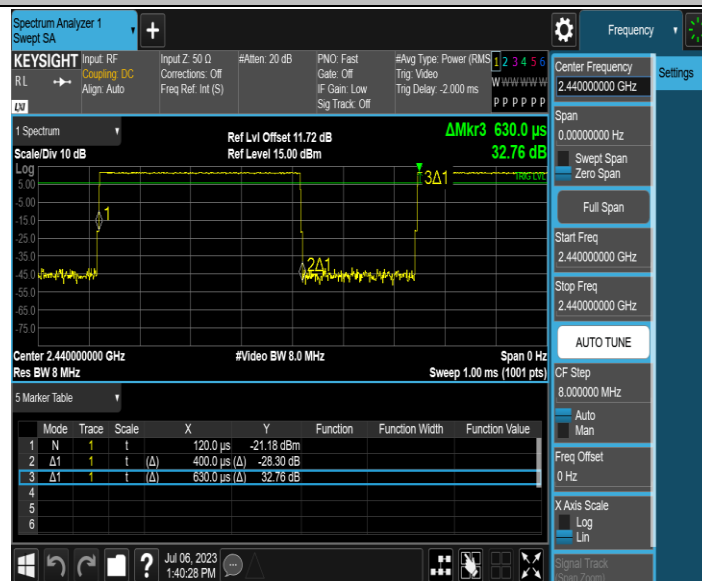
TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]
BLE_1M	Ant1	2402	0.40	0.63	63.49
		2440	0.40	0.63	63.49
		2480	0.40	0.63	63.49

Test Graphs

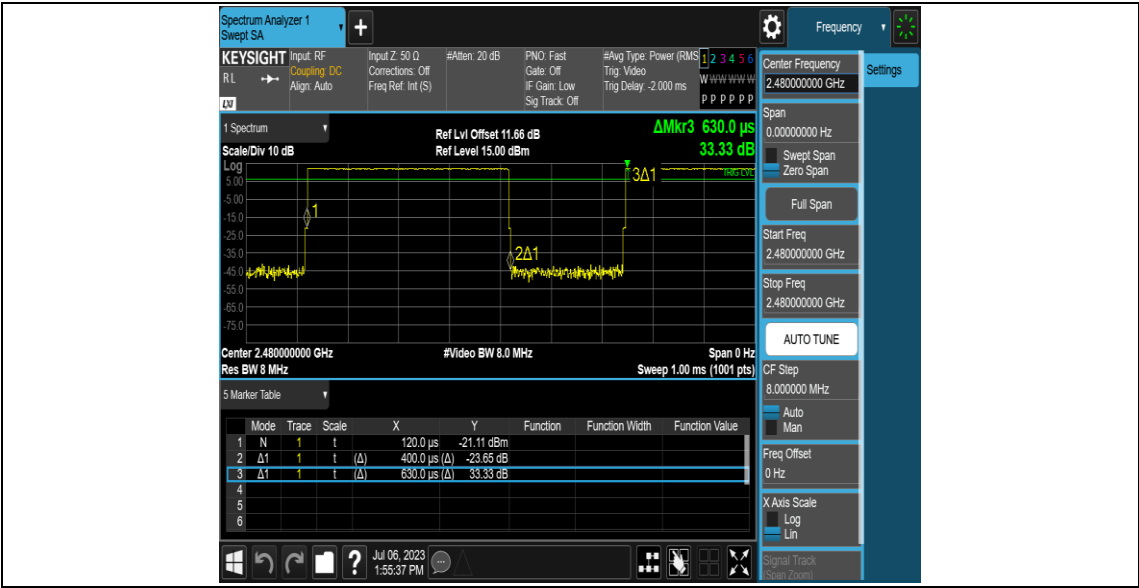
BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

Mode:	1M-2402
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NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2310	47.22	7.07	74.00	26.78	150	74	Horizontal
2	2339.2	49.04	7.15	74.00	24.96	150	351	Horizontal
3	2349.44	48.88	7.22	74.00	25.12	150	174	Horizontal
4	2362	48.75	7.43	74.00	25.25	150	77	Horizontal
5	2372.48	49.16	7.62	74.00	24.84	150	74	Horizontal
6	2390	49.09	8.38	74.00	24.91	150	137	Horizontal

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2310	46.81	7.07	74.00	27.19	150	304	Vertical
2	2329.2	48.61	7.17	74.00	25.39	150	107	Vertical
3	2343.2	48.66	7.26	74.00	25.34	150	0	Vertical
4	2361.92	49.78	7.42	74.00	24.22	150	328	Vertical
5	2368.24	50.22	7.47	74.00	23.78	150	328	Vertical
6	2390	48.21	8.38	74.00	25.79	150	41	Vertical

Mode:	1M-2480
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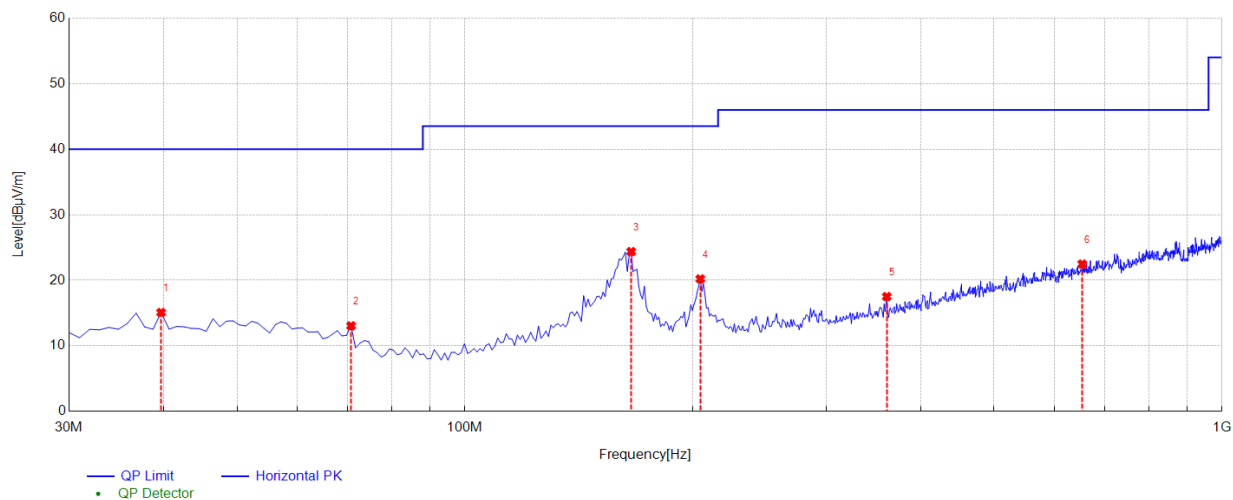
NO.	Freq. [MHz]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	2483.5	49.71	8.62	74.00	24.29	150	136	Horizontal
2	2484.29	50.91	8.54	74.00	23.09	150	42	Horizontal
3	2487.54	50.96	8.27	74.00	23.04	150	178	Horizontal
4	2493.02	49.82	8.43	74.00	24.18	150	162	Horizontal
5	2496.61	50.20	8.33	74.00	23.80	150	95	Horizontal
6	2500	47.68	8.10	74.00	26.32	150	360	Horizontal

NO.	Freq. [MHz]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	283.5	48.61	8.62	74.00	25.39	150	335	Vertical
2	2487.95	49.51	8.22	74.00	24.49	150	252	Vertical
3	2489.63	49.96	8.26	74.00	24.04	150	243	Vertical
4	2493.28	49.79	8.45	74.00	24.21	150	183	Vertical
5	2496.56	49.49	8.33	74.00	24.51	150	0	Vertical
6	2500	46.93	8.10	74.00	27.07	150	304	Vertical

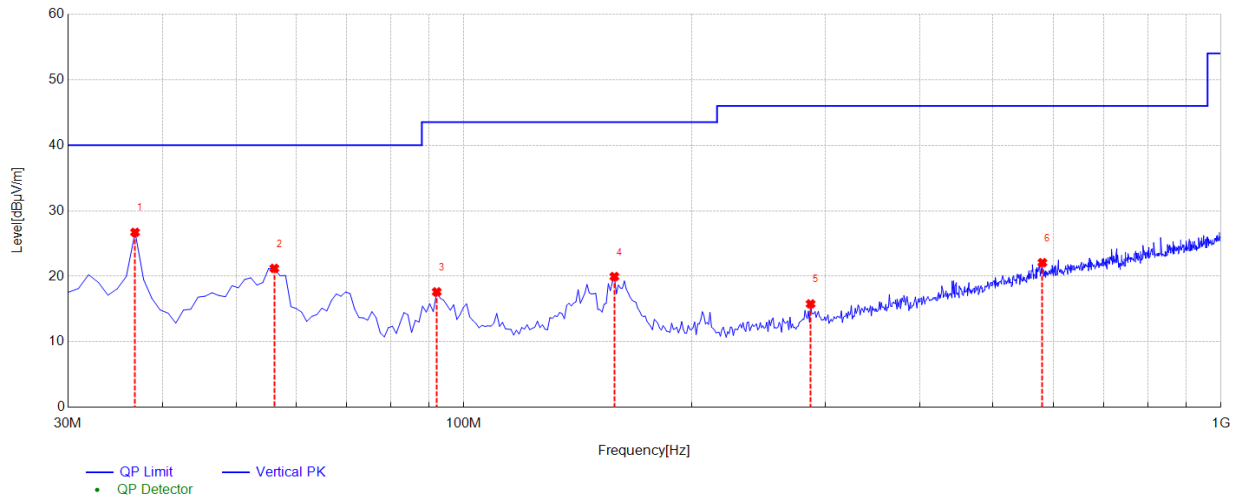
Note:

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: Spurious emissions



NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	39.7	15.10	-15.87	40.00	24.90	100	118	Horizontal	PASS
2	70.74	13.06	-18.40	40.00	26.94	100	336	Horizontal	PASS
3	165.8	24.38	-16.10	43.50	19.12	200	96	Horizontal	PASS
4	204.6	20.22	-19.04	43.50	23.28	100	212	Horizontal	PASS
5	360.77	17.53	-14.38	46.00	28.47	100	350	Horizontal	PASS
6	653.71	22.49	-8.85	46.00	23.51	100	282	Horizontal	PASS



NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	Verdict
1	36.79	26.71	-16.35	40.00	13.29	100	300	Vertical	PASS
2	56.19	21.22	-15.96	40.00	18.78	100	341	Vertical	PASS
3	92.08	17.63	-21.12	43.50	25.87	100	12	Vertical	PASS
4	158.04	19.97	-15.65	43.50	23.53	100	343	Vertical	PASS
5	287.05	15.80	-15.92	46.00	30.20	200	223	Vertical	PASS
6	580.96	22.09	-9.77	46.00	23.91	200	148	Vertical	PASS

Mode:	1M-2402
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NO.	Freq. [MHz]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1340	42.18	1.10	74.00	31.82	150	214	Horizontal
2	1988	45.50	5.98	74.00	28.50	150	226	Horizontal
3	4803	48.45	-14.85	74.00	25.55	150	155	Horizontal
4	7311	44.96	-11.89	74.00	29.04	150	322	Horizontal
5	9564	45.50	-8.60	74.00	28.50	150	89	Horizontal
6	12084	49.88	-4.08	74.00	24.12	150	56	Horizontal

NO.	Freq. [MHz]	Level [dB μ V/m]	Factor [dB/m]	Limit [dB μ V/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1304	41.91	1.18	74.00	32.09	150	320	Vertical
2	1986	45.75	5.96	74.00	28.25	150	193	Vertical
3	3939	45.65	-17.18	74.00	28.35	150	186	Vertical
4	4803	45.87	-14.85	74.00	28.13	150	52	Vertical
5	6411	45.01	-12.28	74.00	28.99	150	6	Vertical
6	15549	50.44	-0.82	74.00	23.56	150	195	Vertical

Mode:	1M-2440
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NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1192	42.20	1.10	74.00	31.80	150	272	Horizontal
2	2108	46.23	6.50	74.00	27.77	150	197	Horizontal
3	4881	51.14	-14.67	74.00	22.86	150	149	Horizontal
4	6981	44.68	-11.76	74.00	29.32	150	321	Horizontal
5	10092	46.34	-7.53	74.00	27.66	150	239	Horizontal
6	11409	48.07	-5.66	74.00	25.93	150	50	Horizontal

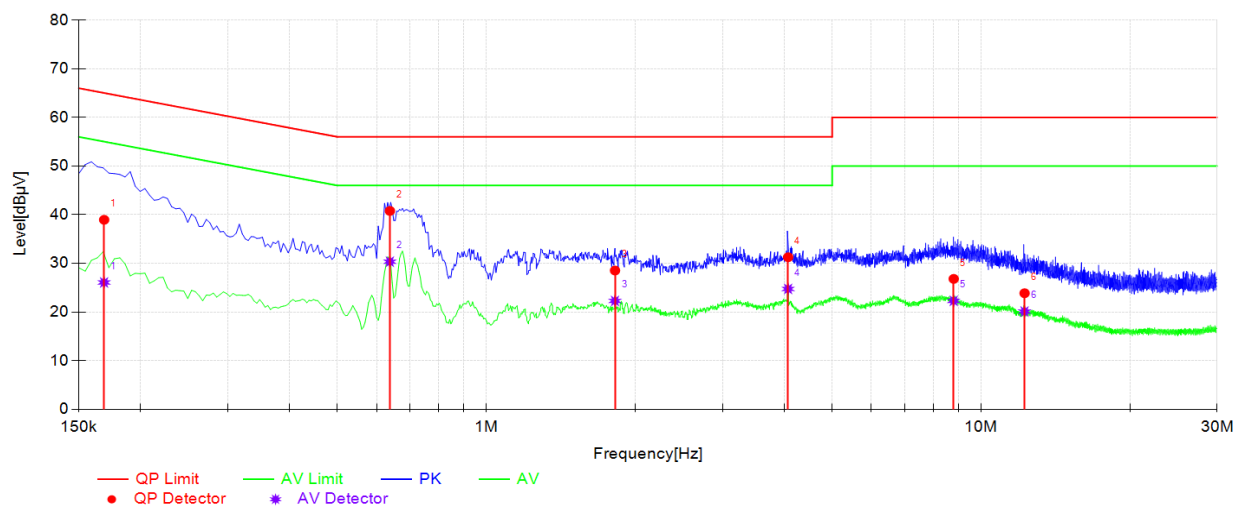
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1258	41.99	1.06	74.00	32.01	150	76	Vertical
2	2136	47.23	6.62	74.00	26.77	150	12	Vertical
3	3951	46.68	-17.33	74.00	27.32	150	217	Vertical
4	4881	47.77	-14.67	74.00	26.23	150	93	Vertical
5	5922	46.36	-12.37	74.00	27.64	150	112	Vertical
6	12012	47.69	-5.13	74.00	26.31	150	109	Vertical

Mode:	1M-2480
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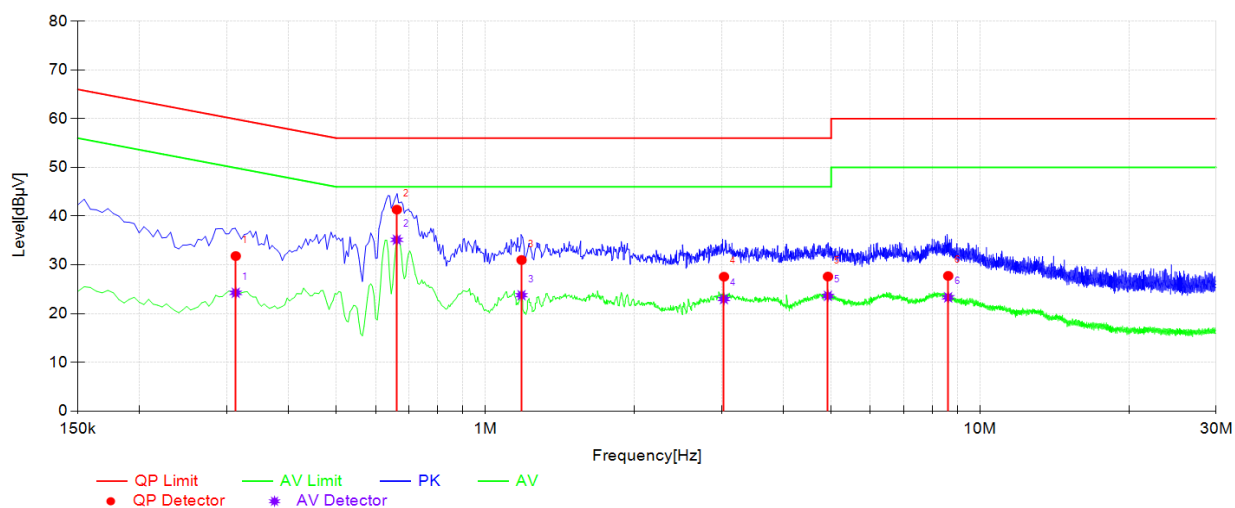
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1318	41.75	1.15	74.00	32.25	150	171	Horizontal
2	1988	45.83	5.98	74.00	28.17	150	91	Horizontal
3	3828	42.51	-17.17	74.00	31.49	150	217	Horizontal
4	4962	48.82	-15.15	74.00	25.18	150	169	Horizontal
5	5949	45.12	-11.91	74.00	28.88	150	88	Horizontal
6	14328	49.59	-1.25	74.00	24.41	150	281	Horizontal

NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1314	42.52	1.15	74.00	31.48	150	195	Vertical
2	2002	45.56	6.14	74.00	28.44	150	314	Vertical
3	3942	46.65	-17.22	74.00	27.35	150	109	Vertical
4	4959	46.62	-15.18	74.00	27.38	150	96	Vertical
5	6537	44.44	-12.30	74.00	29.56	150	106	Vertical
6	11859	48.14	-4.91	74.00	25.86	150	88	Vertical

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	0.1687	10.26	38.96	65.02	26.06	26.07	55.02	28.95	L1	PASS
2	0.6380	10.27	40.79	56.00	15.21	30.34	46.00	15.66	L1	PASS
3	1.8194	10.29	28.53	56.00	27.47	22.28	46.00	23.72	L1	PASS
4	4.0736	10.31	31.27	56.00	24.73	24.74	46.00	21.26	L1	PASS
5	8.8040	10.43	26.81	60.00	33.19	22.30	50.00	27.70	L1	PASS
6	12.2434	10.48	23.87	60.00	36.13	20.10	50.00	29.90	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	0.3128	10.27	31.82	59.90	28.08	24.27	49.90	25.63	N	PASS
2	0.6621	10.28	41.34	56.00	14.66	35.15	46.00	10.85	N	PASS
3	1.1831	10.28	31.00	56.00	25.00	23.78	46.00	22.22	N	PASS
4	3.0356	10.35	27.58	56.00	28.42	22.99	46.00	23.01	N	PASS
5	4.9258	10.41	27.61	56.00	28.39	23.64	46.00	22.36	N	PASS
6	8.6208	10.43	27.75	60.00	32.25	23.34	50.00	26.66	N	PASS