

APPENDIX B: TEST RESULTS OF BLUETOOTH (LOW ENERGY)

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APPENDIX B.1: CONDUCTED POWER SPECTRAL DENSITY

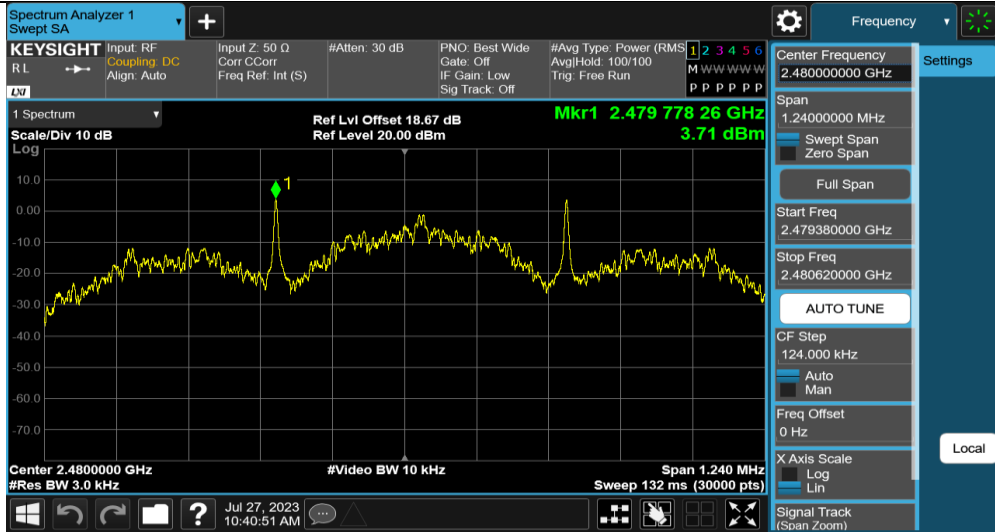
Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_125K	Ant1	2402	3.69	≤8.00	PASS
		2440	3.84	≤8.00	PASS
		2480	3.72	≤8.00	PASS
BLE_1M	Ant1	2402	-7.26	≤8.00	PASS
		2440	-7.09	≤8.00	PASS
		2480	-7.21	≤8.00	PASS
BLE_2M	Ant1	2402	-8.95	≤8.00	PASS
		2440	-8.61	≤8.00	PASS
		2480	-8.56	≤8.00	PASS
BLE_500K	Ant1	2402	3.57	≤8.00	PASS
		2440	3.75	≤8.00	PASS
		2480	3.63	≤8.00	PASS

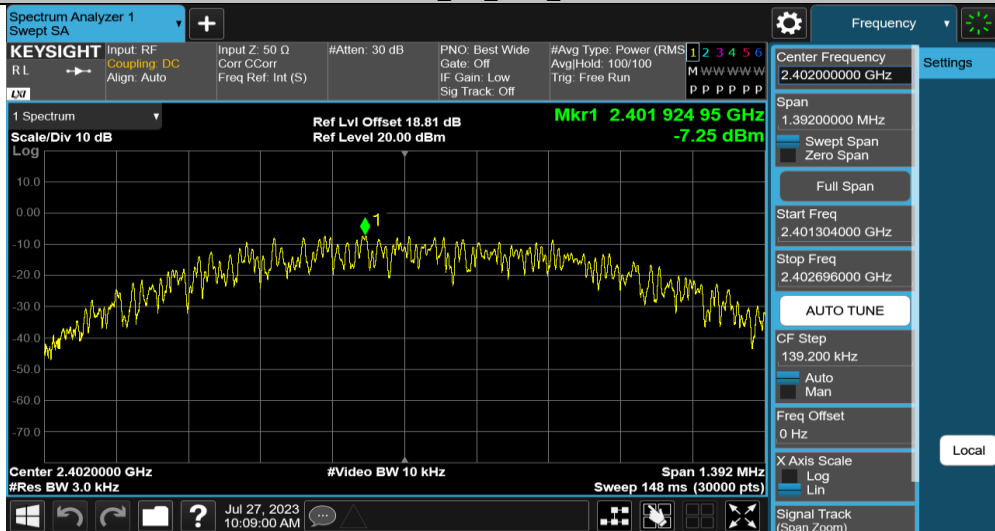
Test Graphs



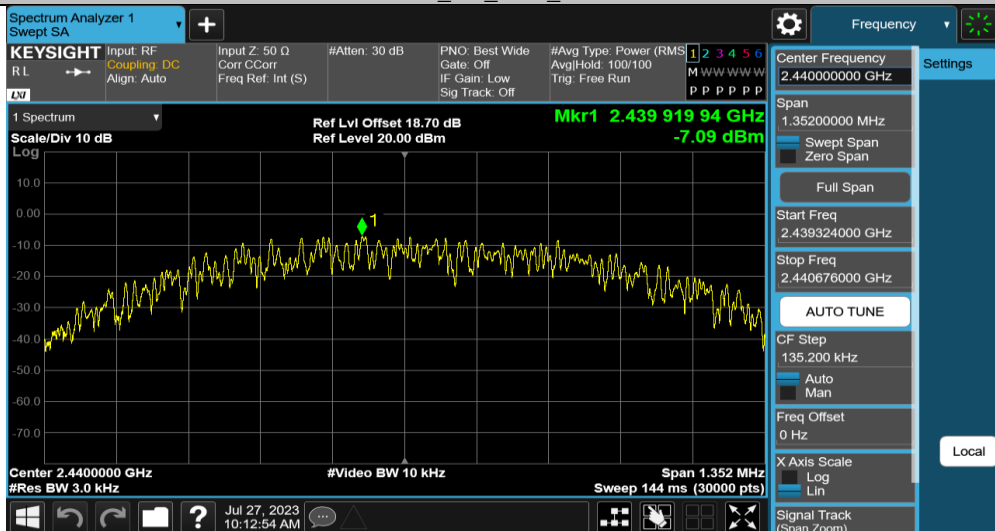
BLE_125K_Ant1_2480



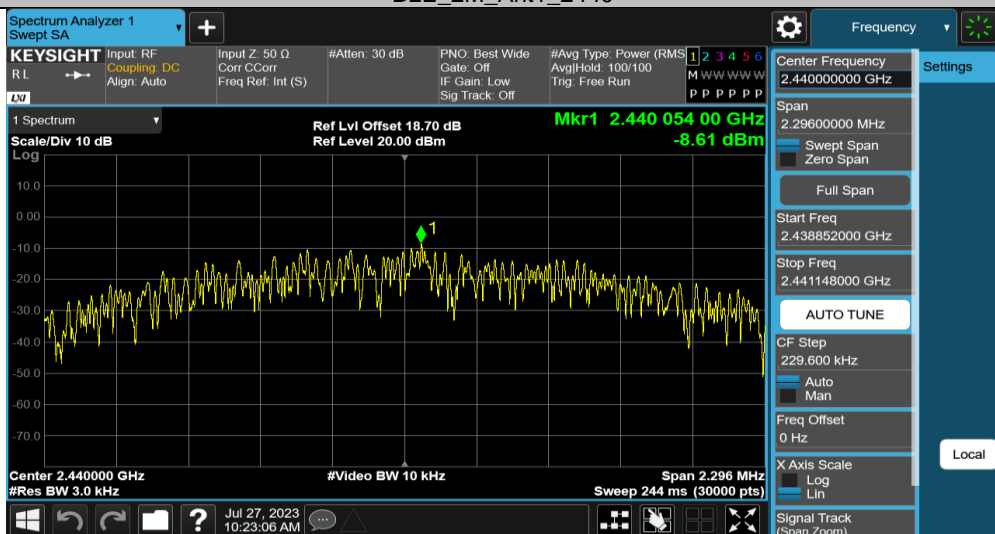
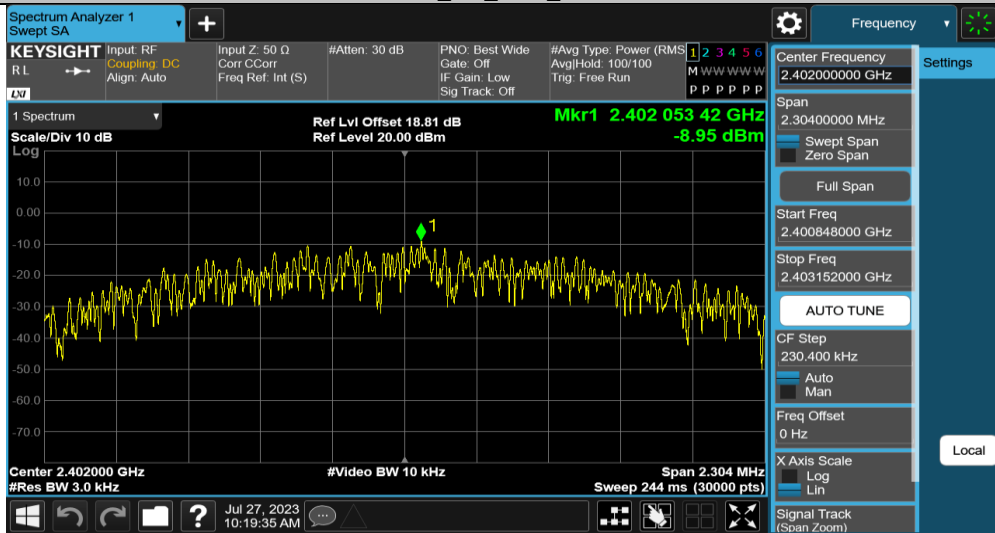
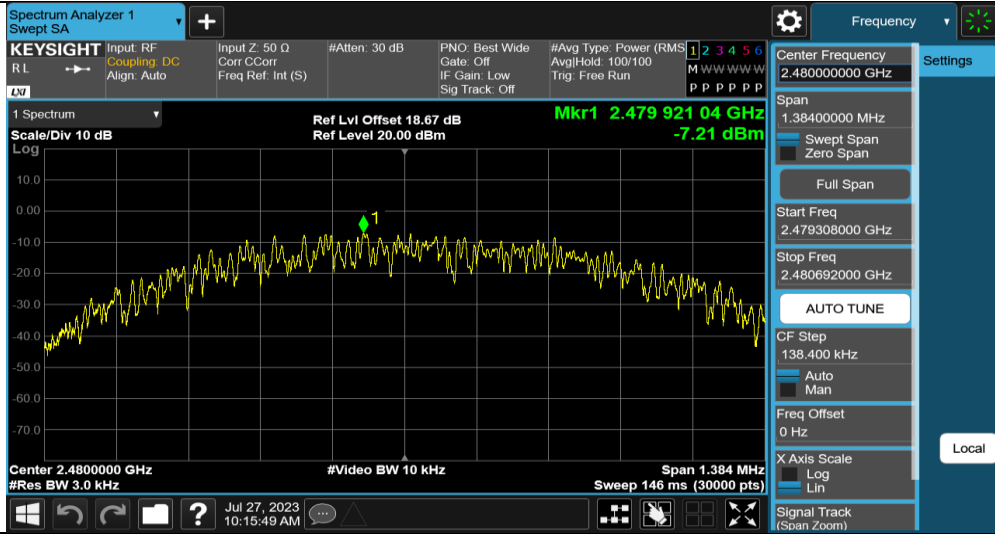
BLE_1M_Ant1_2402

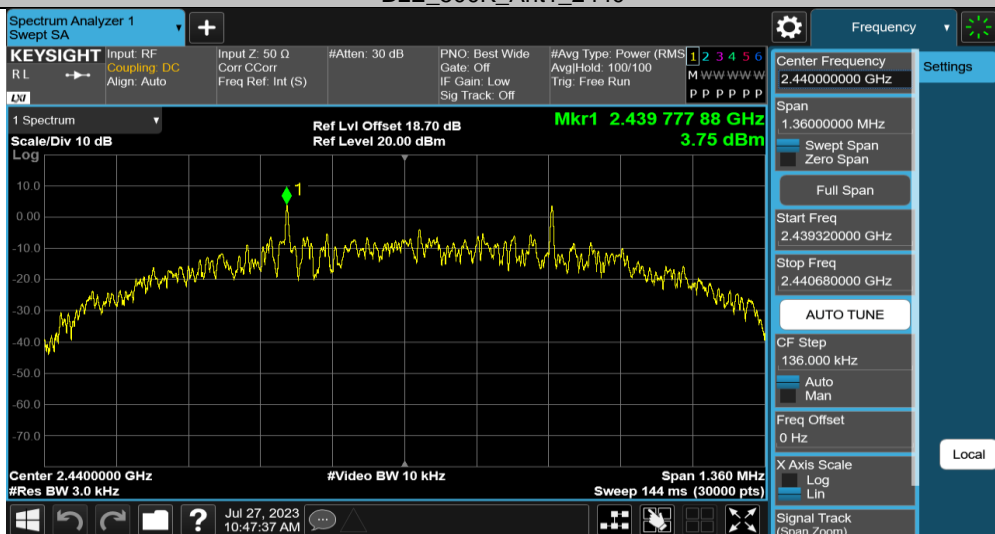
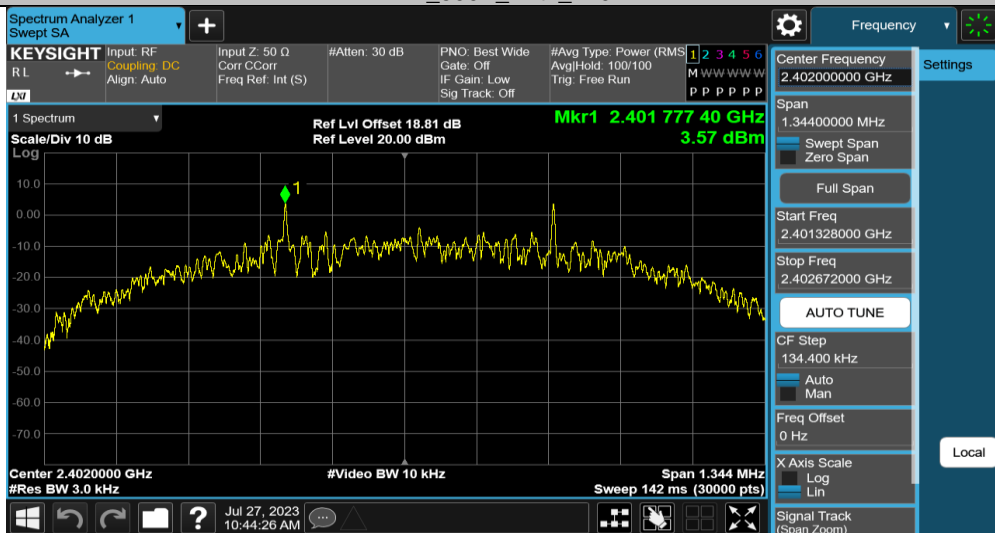
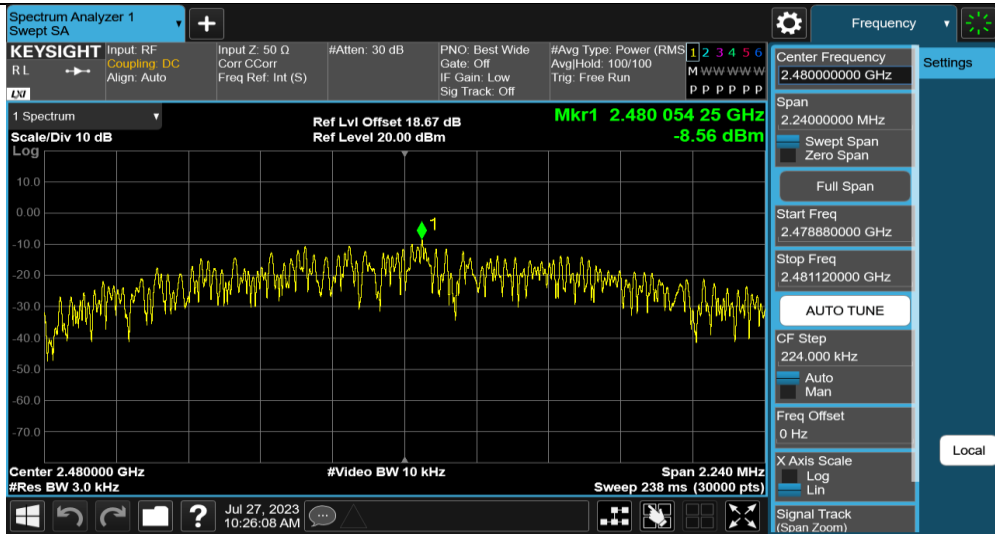


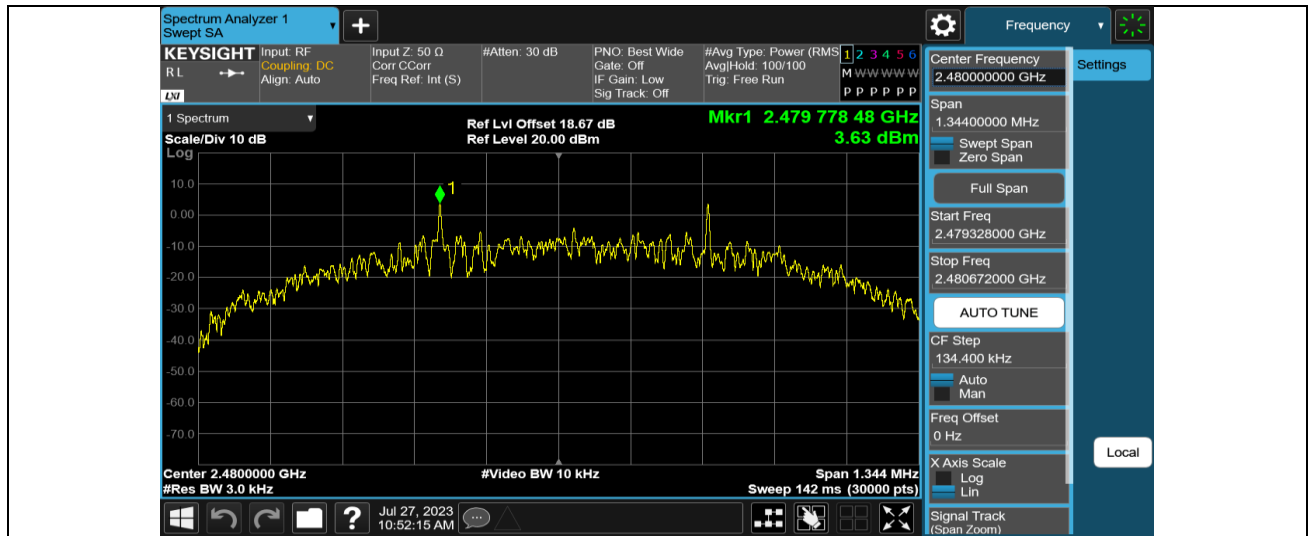
BLE_1M_Ant1_2440



BLE_1M_Ant1_2480





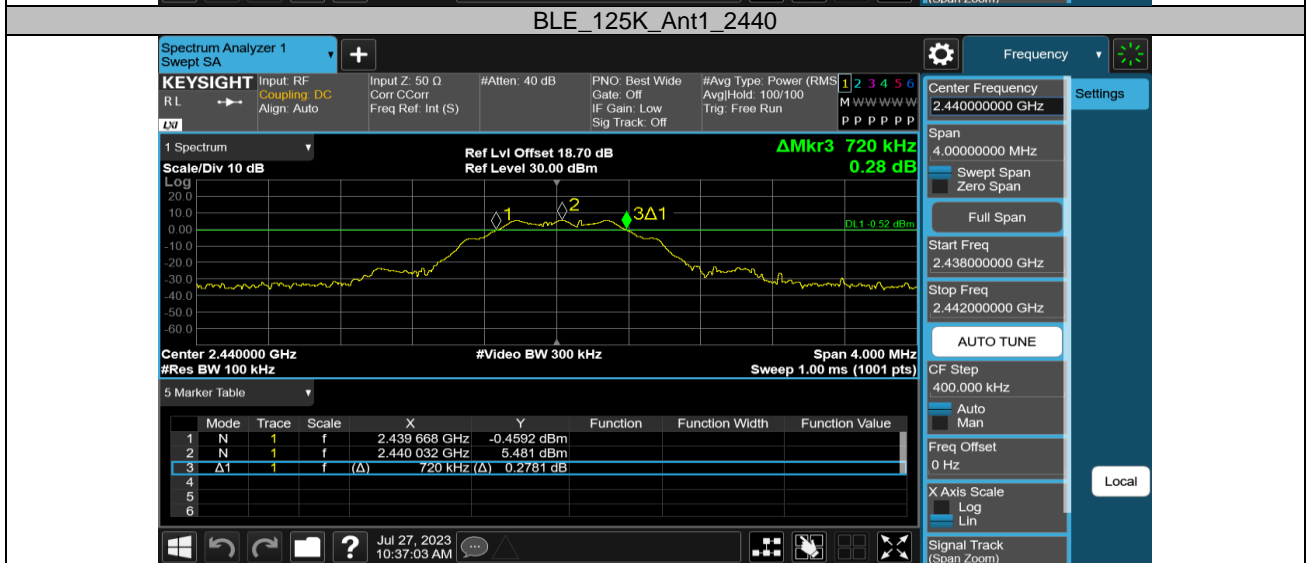
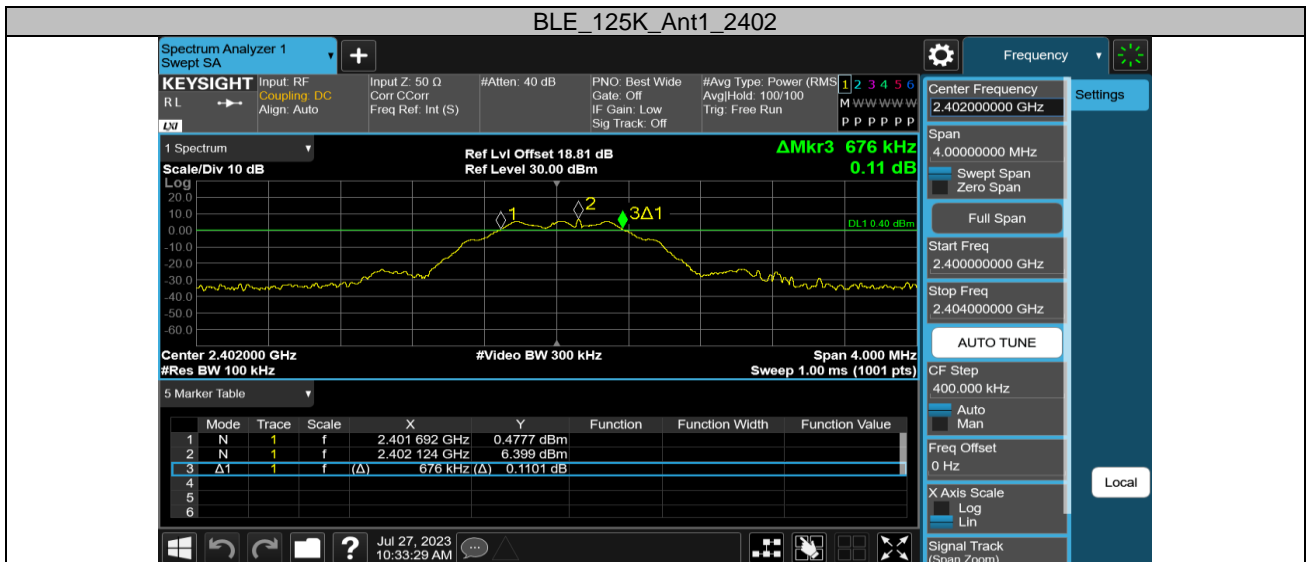


APPENDIX B.2: 6DB BANDWIDTH

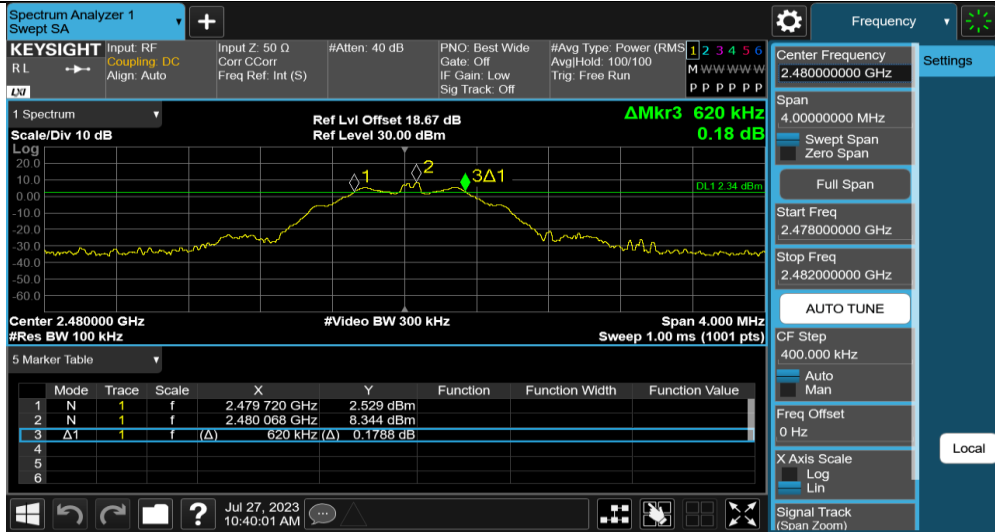
Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_125K	Ant1	2402	0.676	2401.692	2402.368	0.5	PASS
		2440	0.720	2439.668	2440.388	0.5	PASS
		2480	0.620	2479.720	2480.340	0.5	PASS
BLE_1M	Ant1	2402	0.696	2401.680	2402.376	0.5	PASS
		2440	0.676	2439.676	2440.352	0.5	PASS
		2480	0.692	2479.688	2480.380	0.5	PASS
BLE_2M	Ant1	2402	1.152	2401.452	2402.604	0.5	PASS
		2440	1.148	2439.452	2440.600	0.5	PASS
		2480	1.120	2479.476	2480.596	0.5	PASS
BLE_500K	Ant1	2402	0.672	2401.696	2402.368	0.5	PASS
		2440	0.680	2439.696	2440.376	0.5	PASS
		2480	0.672	2479.696	2480.368	0.5	PASS

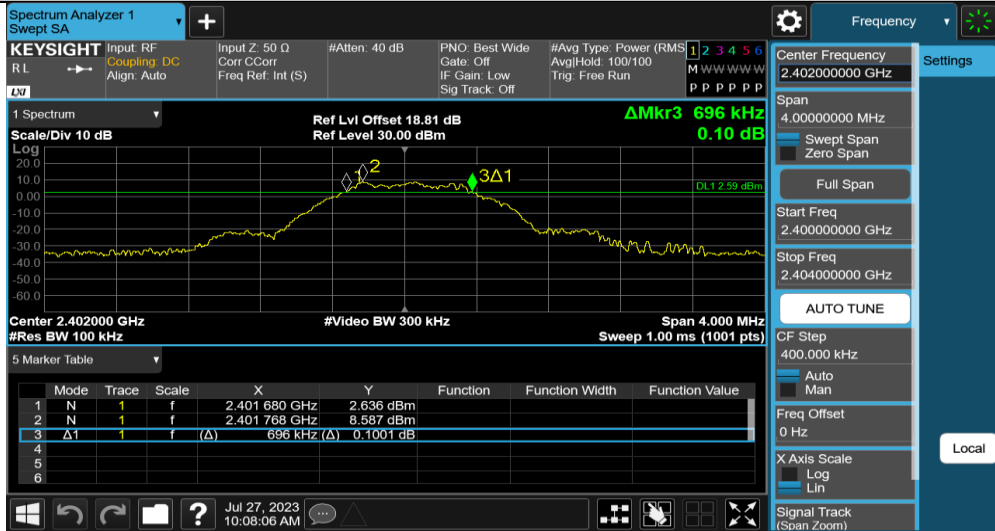
Test Graphs



BLE_125K_Ant1_2480



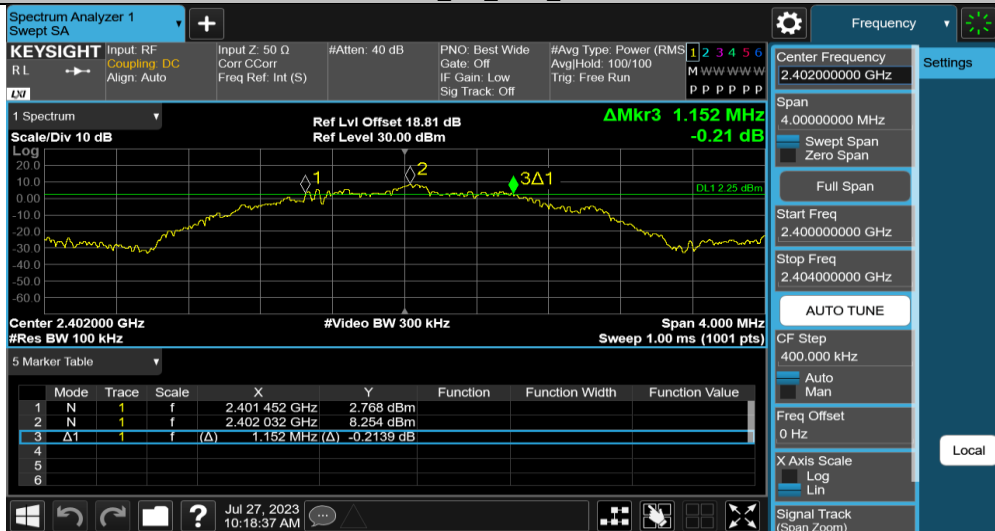
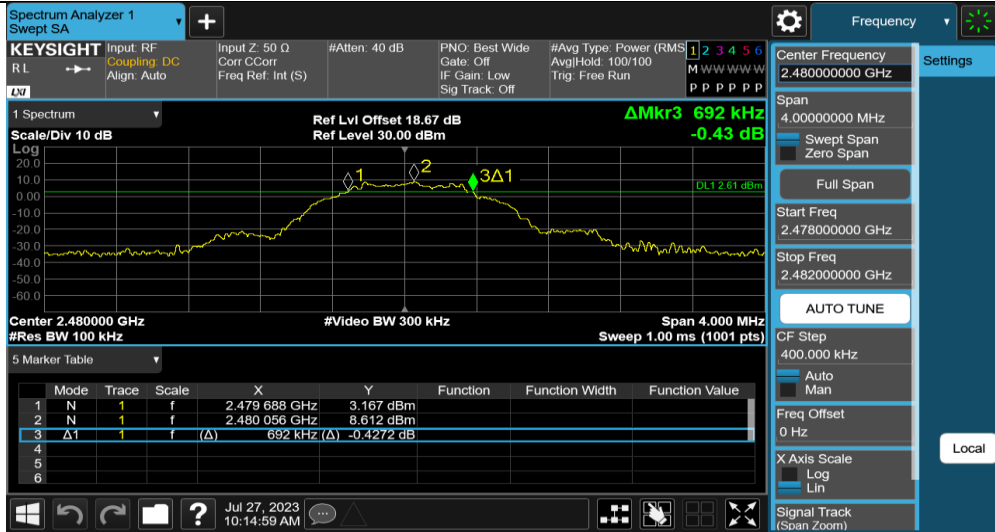
BLE_1M_Ant1_2402

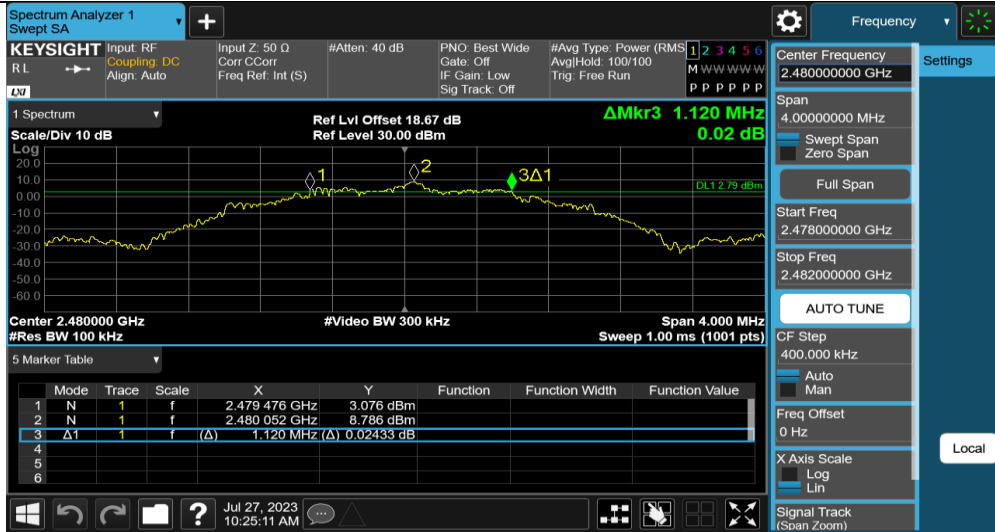


BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

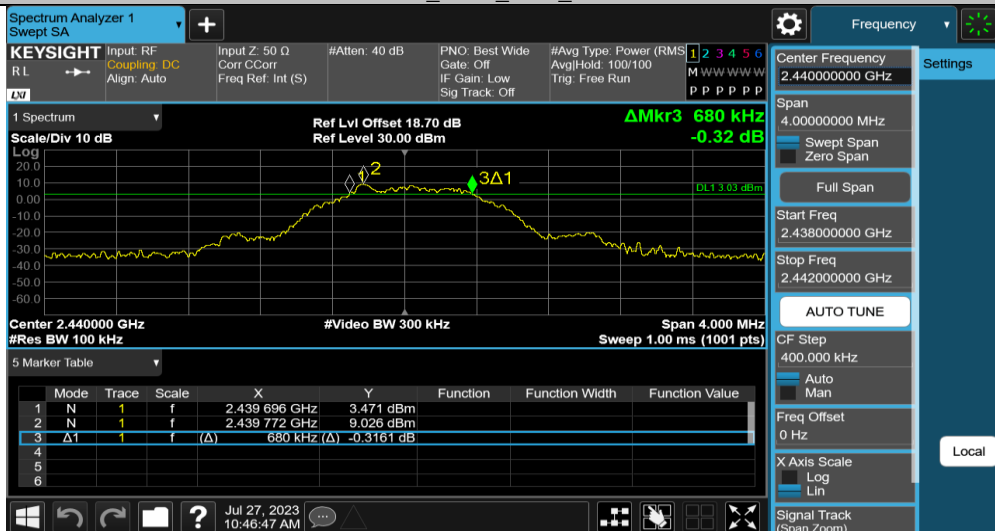




BLE_500K_Ant1_2402



BLE_500K_Ant1_2440



BLE_500K_Ant1_2480

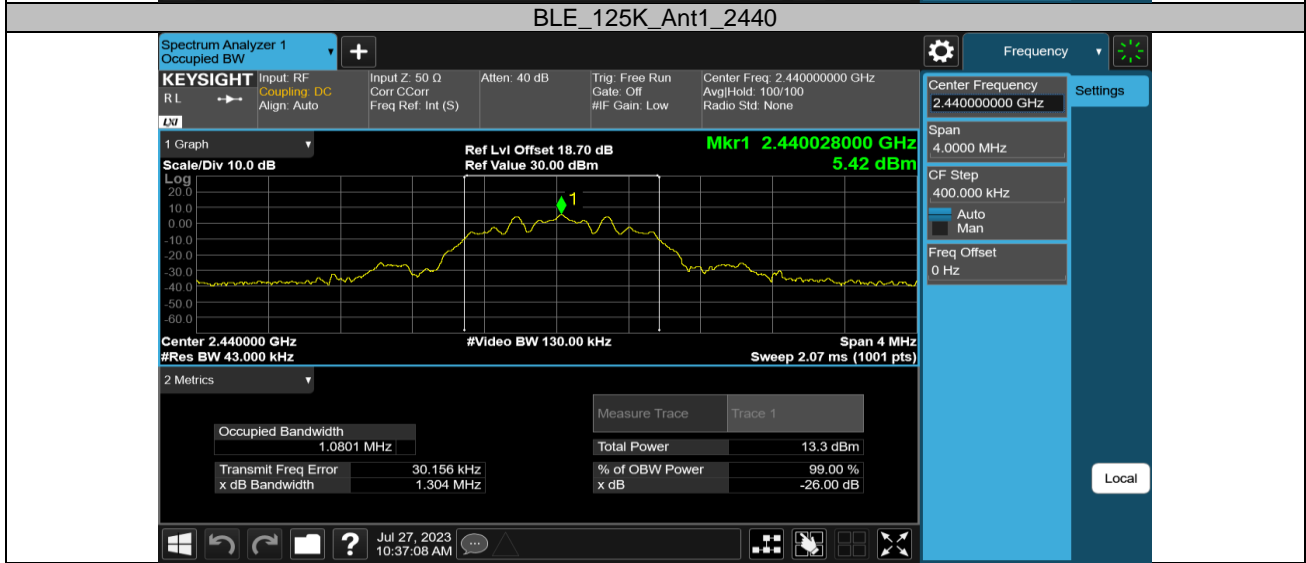
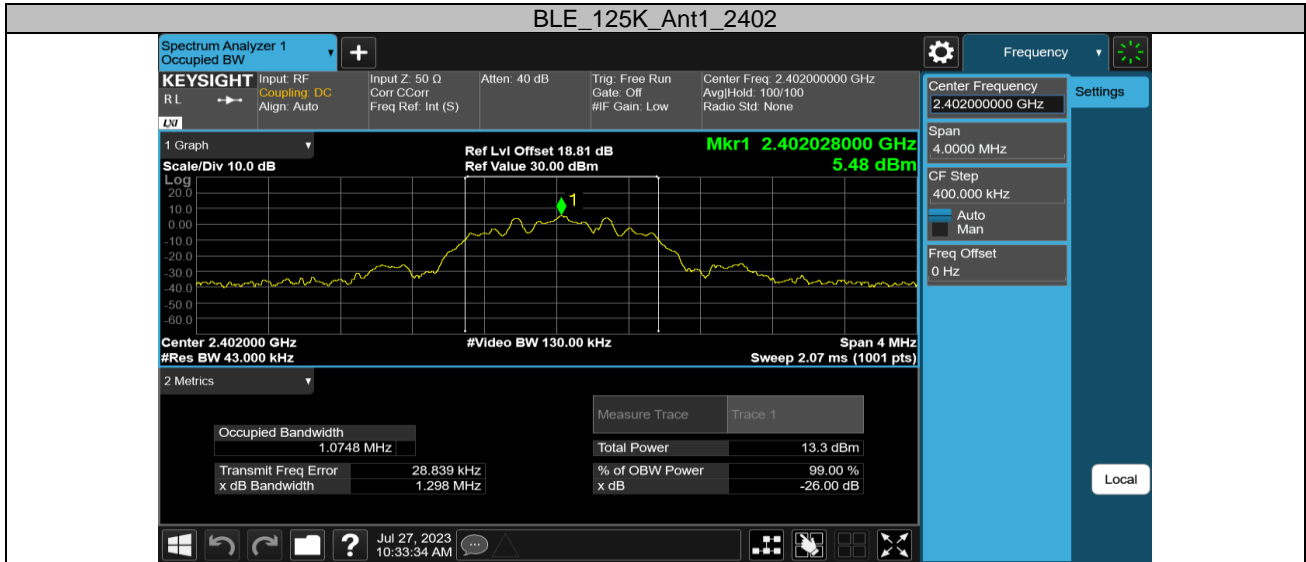


APPENDIX B.3: 99% BANDWIDTH

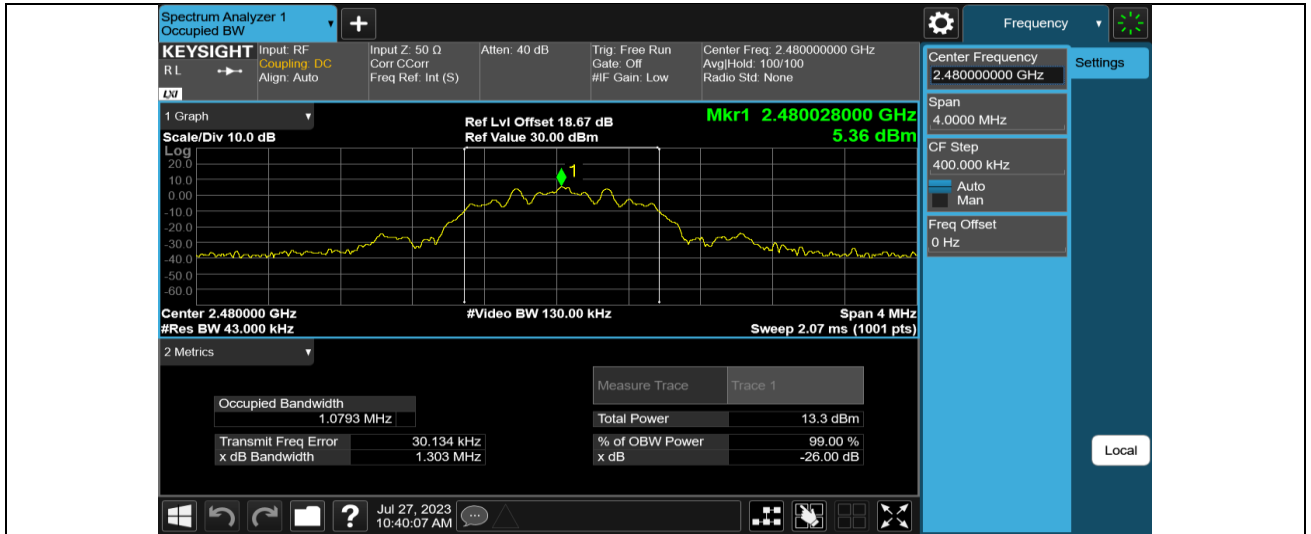
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_125K	Ant1	2402	1.0748	2401.4914	2402.5662	---	---
		2440	1.0801	2439.4901	2440.5702	---	---
		2480	1.0793	2479.4905	2480.5698	---	---
BLE_1M	Ant1	2402	1.0465	2401.5161	2402.5626	---	---
		2440	1.0500	2439.5154	2440.5654	---	---
		2480	1.0506	2479.5134	2480.5640	---	---
BLE_2M	Ant1	2402	2.0415	2401.0285	2403.0700	---	---
		2440	2.0098	2439.0357	2441.0455	---	---
		2480	2.0517	2479.0280	2481.0797	---	---
BLE_500K	Ant1	2402	1.0427	2401.5108	2402.5535	---	---
		2440	1.0346	2439.5122	2440.5468	---	---
		2480	1.0444	2479.5069	2480.5513	---	---

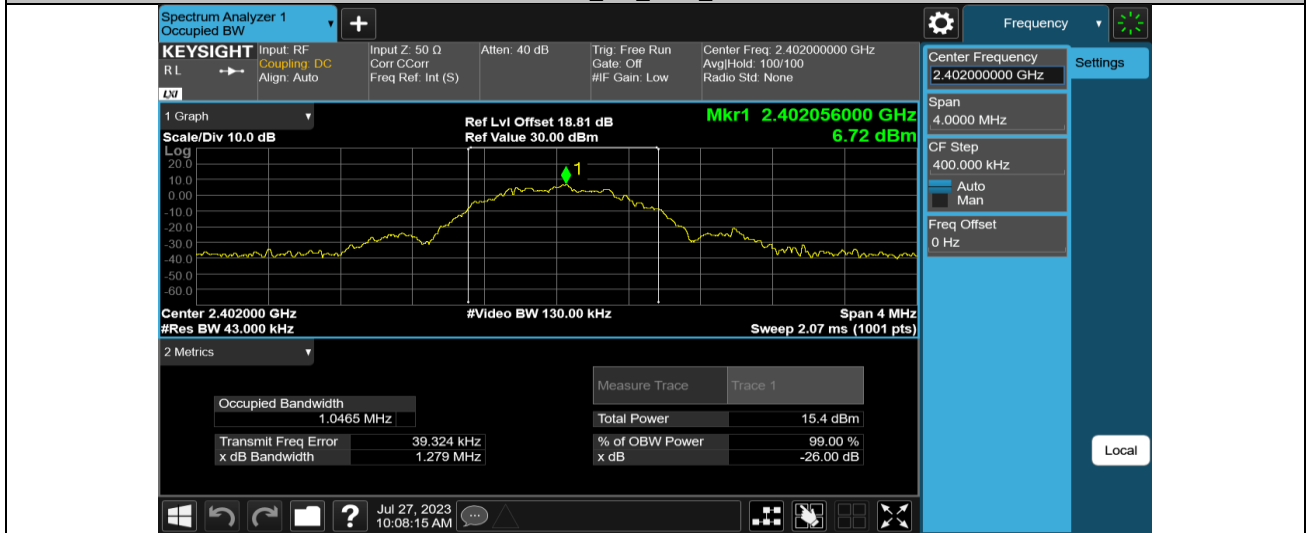
Test Graphs



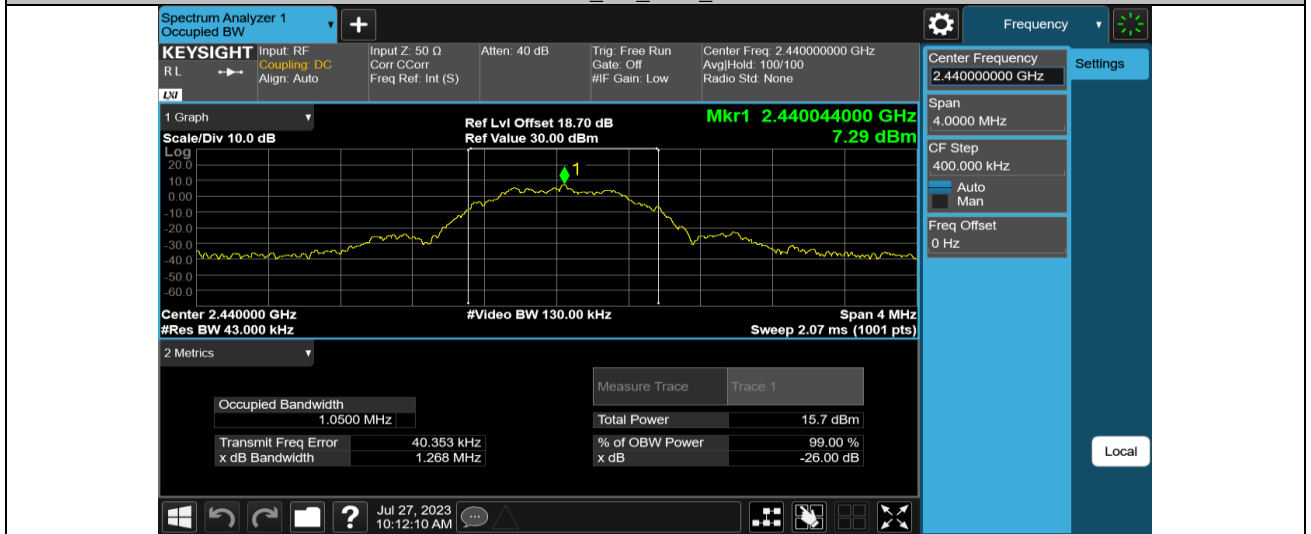
BLE_125K_Ant1_2480



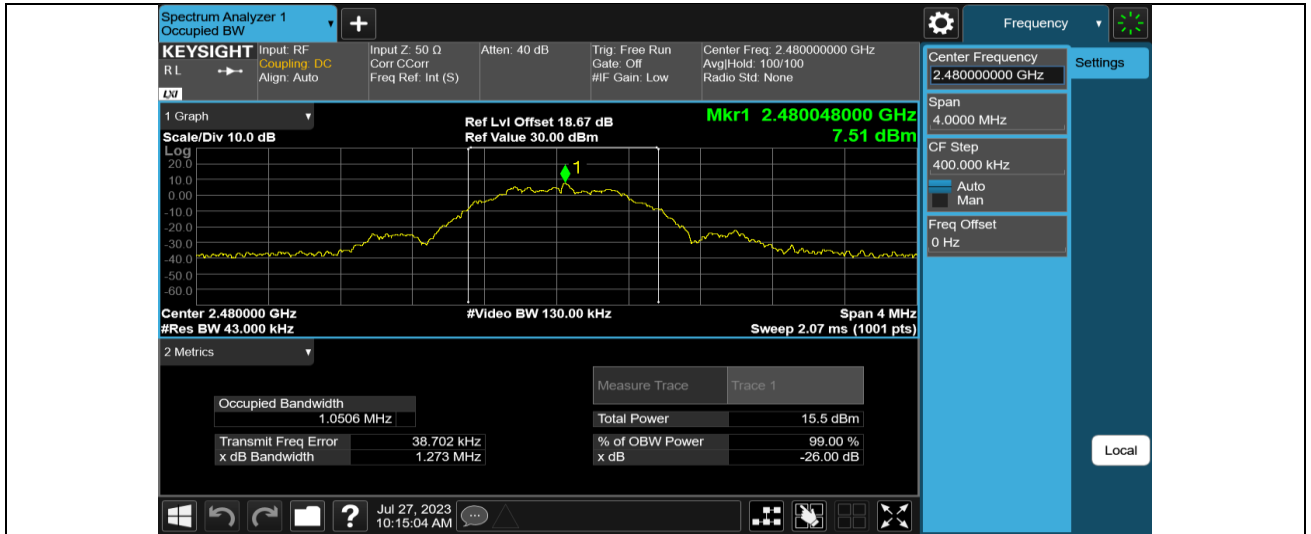
BLE_1M_Ant1_2402



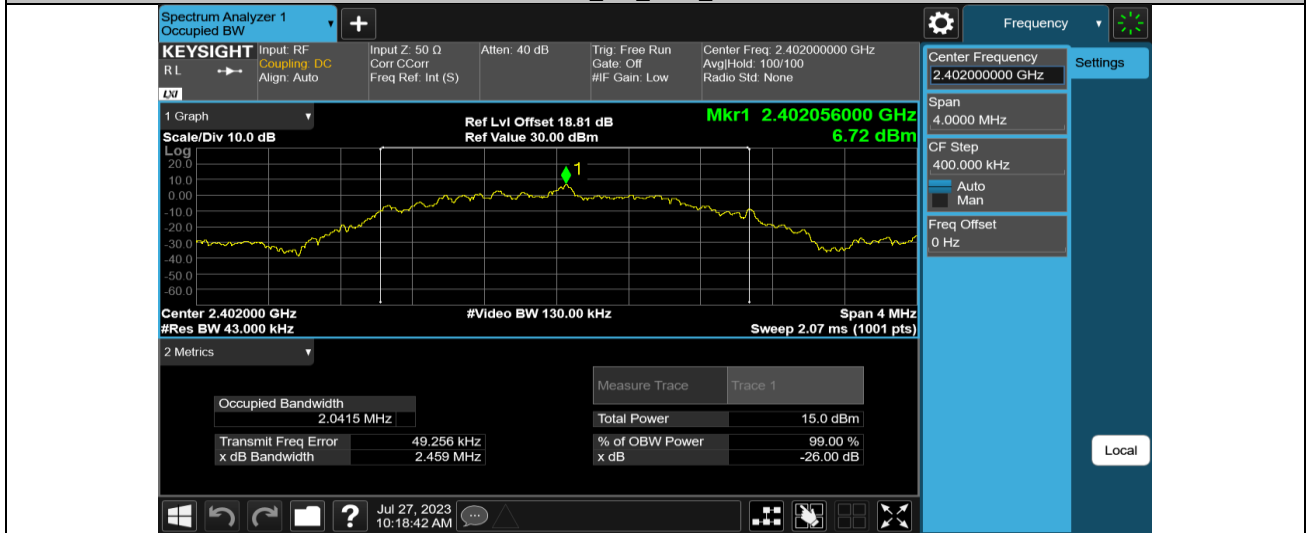
BLE_1M_Ant1_2440



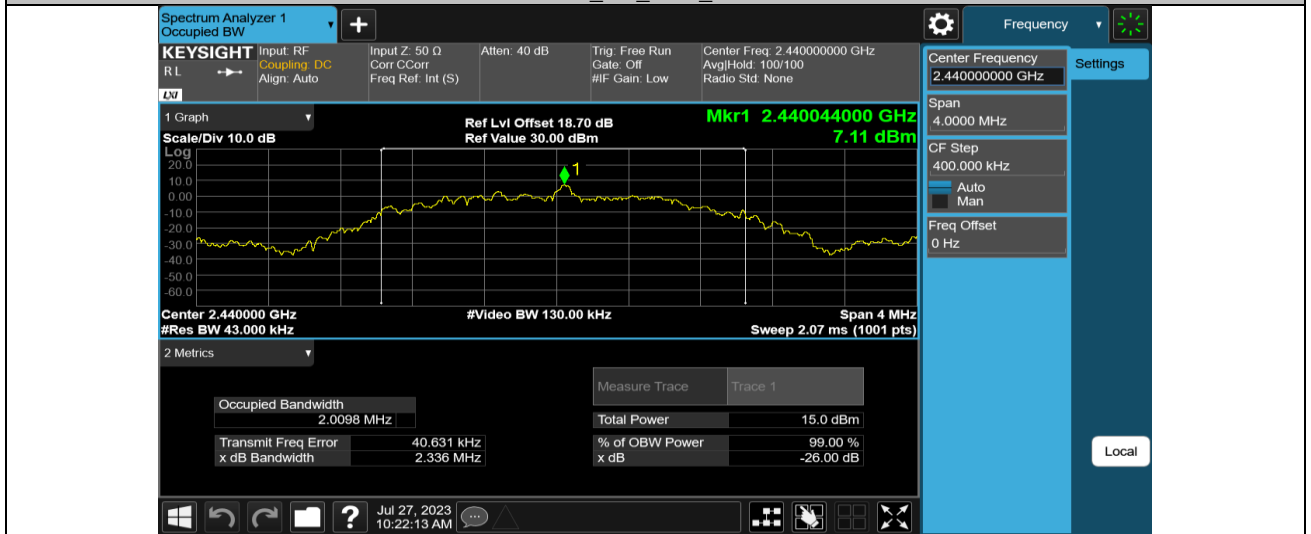
BLE_1M_Ant1_2480



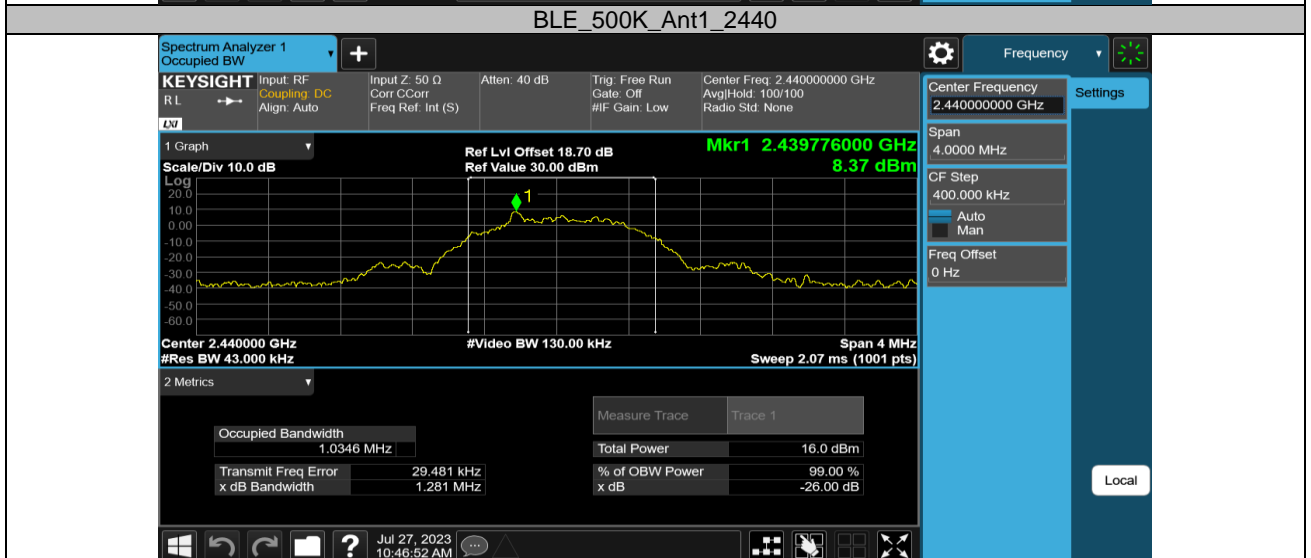
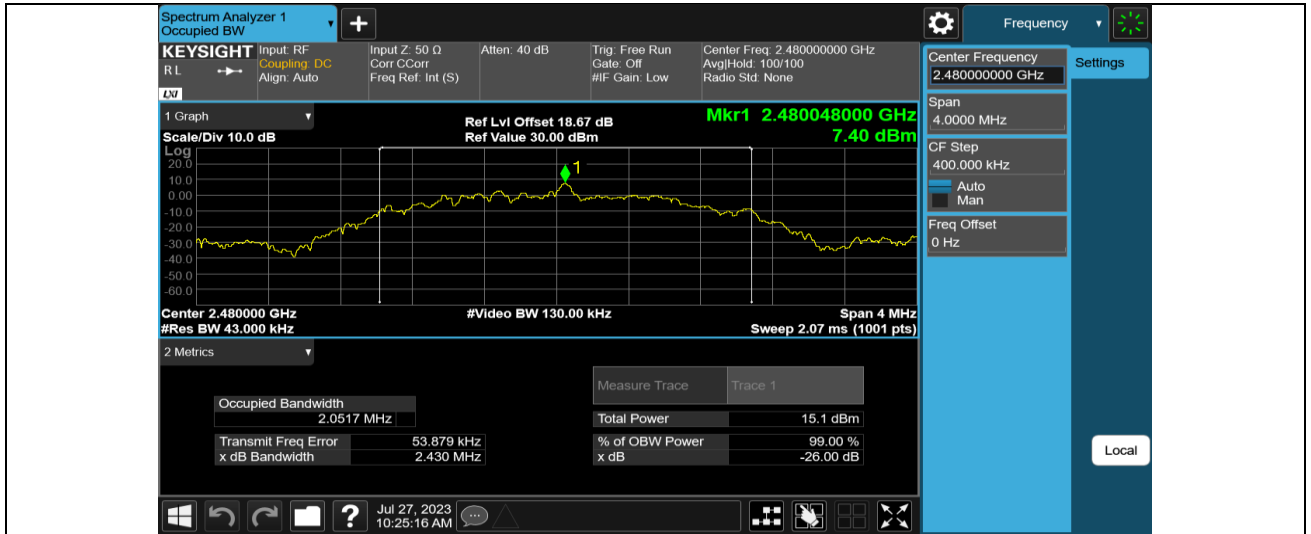
BLE_2M_Ant1_2402

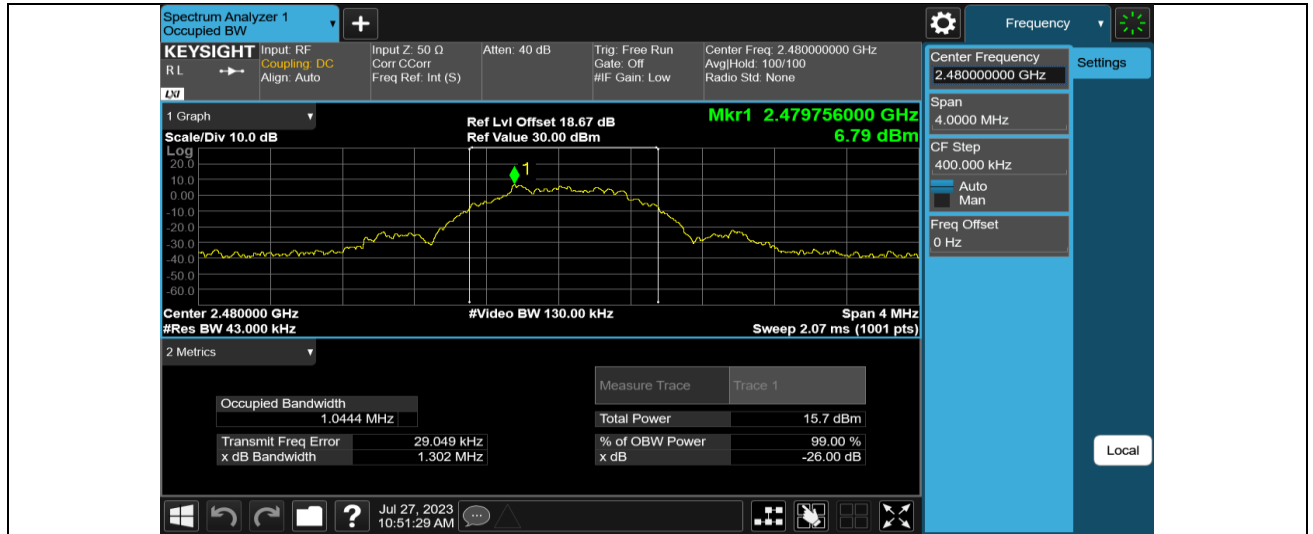


BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



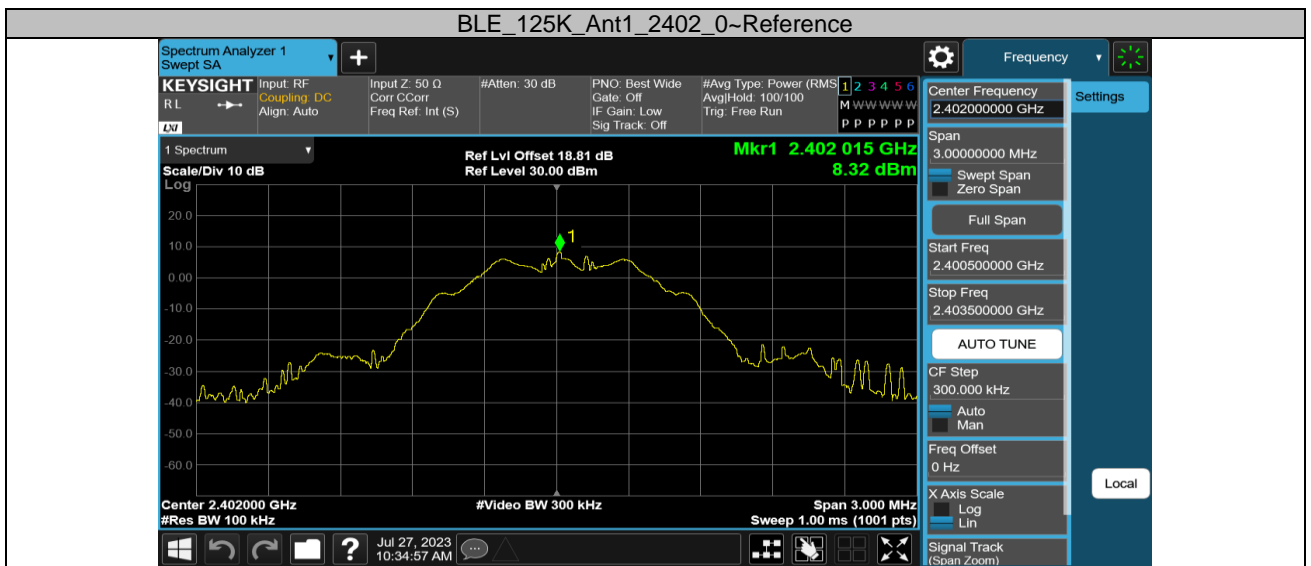


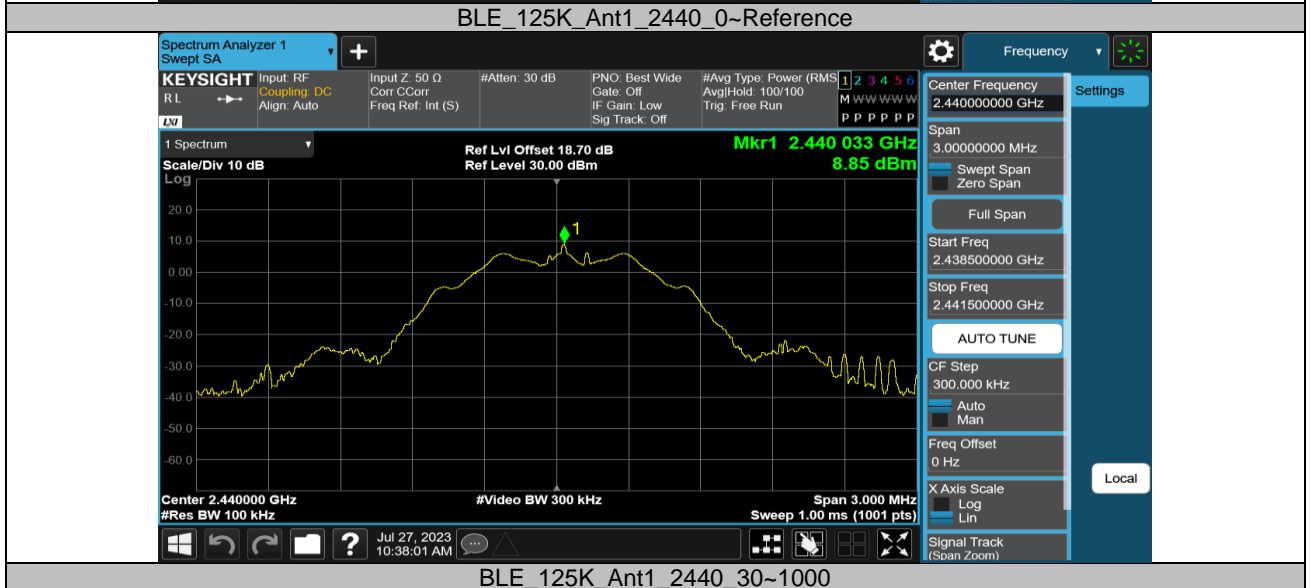
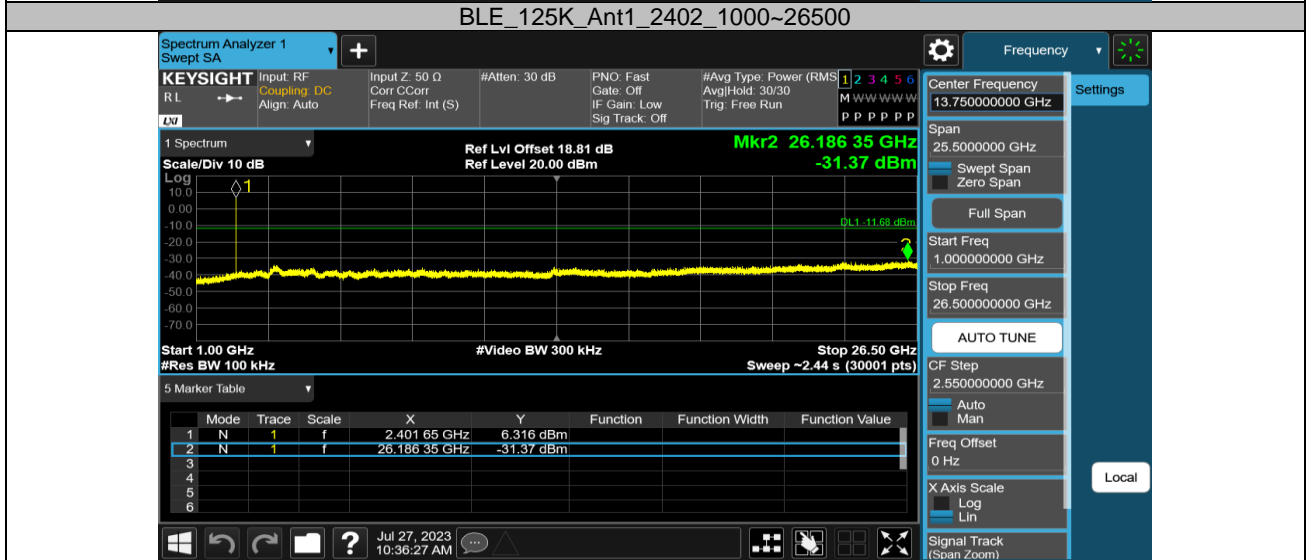
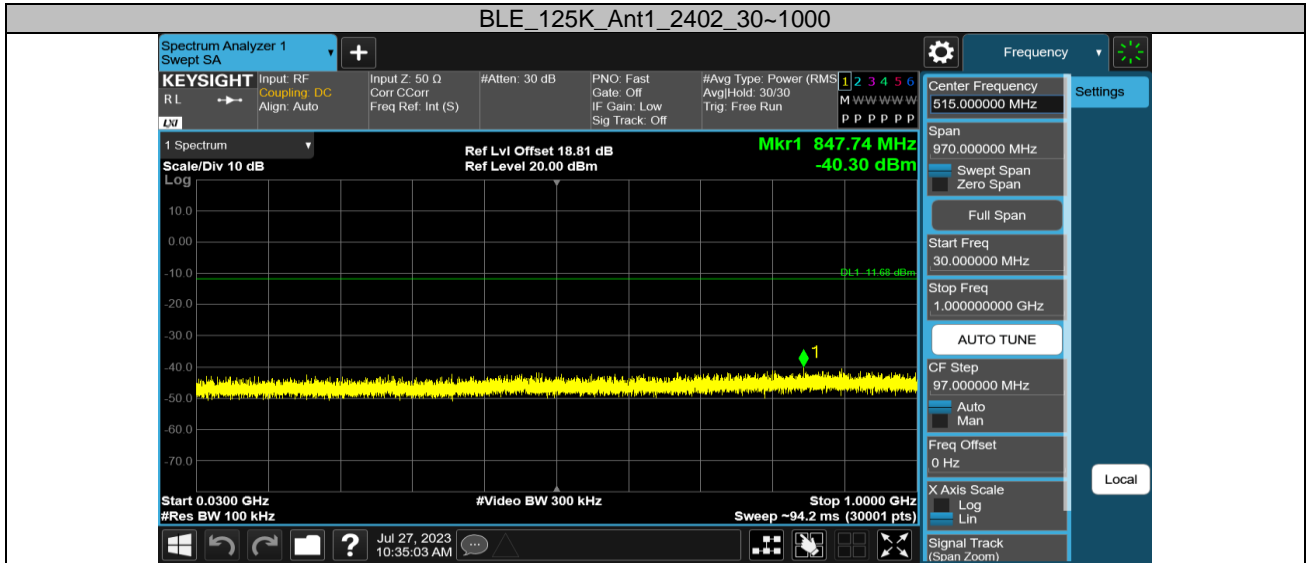
APPENDIX B.4: CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH

Test Result

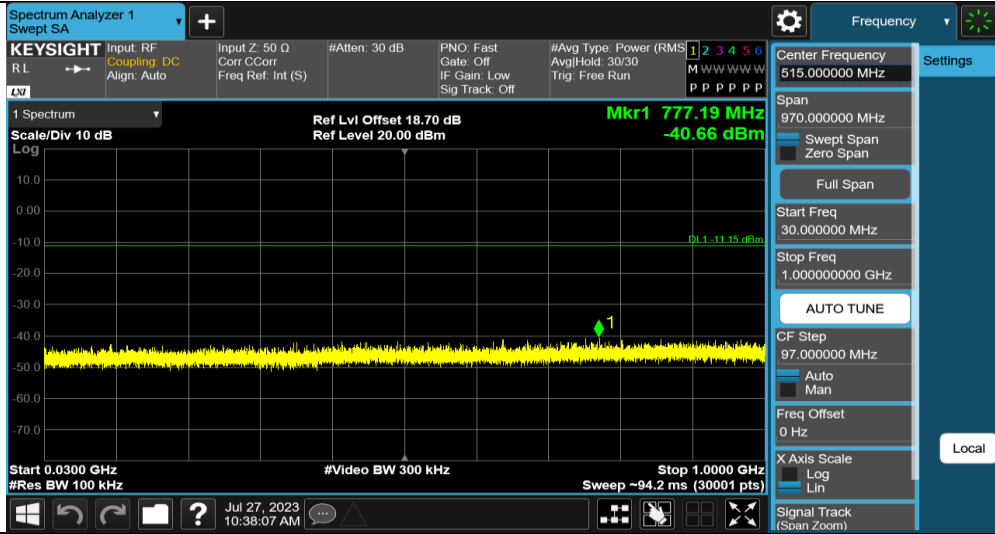
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_125K	Ant1	2402	Reference	8.32	8.32	---	PASS
			30~1000	8.32	-40.3	≤-11.68	PASS
			1000~26500	8.32	-31.37	≤-11.68	PASS
		2440	Reference	8.85	8.85	---	PASS
			30~1000	8.85	-40.66	≤-11.15	PASS
			1000~26500	8.85	-30.44	≤-11.15	PASS
		2480	Reference	6.15	6.15	---	PASS
			30~1000	6.15	-40.79	≤-13.85	PASS
			1000~26500	6.15	-31.75	≤-13.85	PASS
BLE_1M	Ant1	2402	Reference	9.25	9.25	---	PASS
			30~1000	9.25	-40.12	≤-10.75	PASS
			1000~26500	9.25	-31.41	≤-10.75	PASS
		2440	Reference	9.39	9.39	---	PASS
			30~1000	9.39	-40.54	≤-10.61	PASS
			1000~26500	9.39	-31.76	≤-10.61	PASS
		2480	Reference	9.39	9.39	---	PASS
			30~1000	9.39	-40.02	≤-10.61	PASS
			1000~26500	9.39	-31.77	≤-10.61	PASS
BLE_2M	Ant1	2402	Reference	9.12	9.12	---	PASS
			30~1000	9.12	-40.65	≤-10.88	PASS
			1000~26500	9.12	-32.09	≤-10.88	PASS
		2440	Reference	9.55	9.55	---	PASS
			30~1000	9.55	-40.25	≤-10.45	PASS
			1000~26500	9.55	-31.95	≤-10.45	PASS
		2480	Reference	9.34	9.34	---	PASS
			30~1000	9.34	-40.52	≤-10.66	PASS
			1000~26500	9.34	-31.8	≤-10.66	PASS
BLE_500K	Ant1	2402	Reference	9.55	9.55	---	PASS
			30~1000	9.55	-40.94	≤-10.45	PASS
			1000~26500	9.55	-31.04	≤-10.45	PASS
		2440	Reference	9.77	9.77	---	PASS
			30~1000	9.77	-39.85	≤-10.23	PASS
			1000~26500	9.77	-31.57	≤-10.23	PASS
		2480	Reference	9.19	9.19	---	PASS
			30~1000	9.19	-41.06	≤-10.81	PASS
			1000~26500	9.19	-31.68	≤-10.81	PASS

Test Graphs

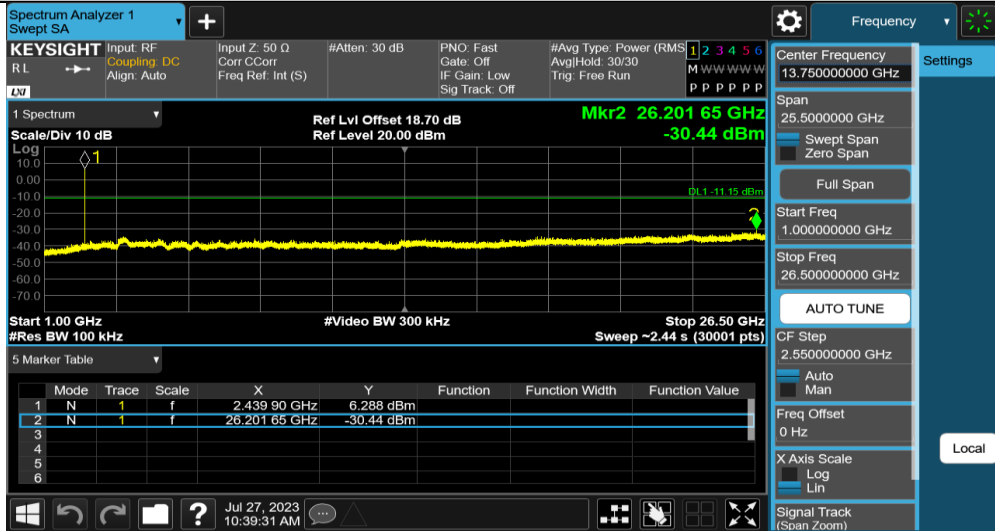




BLE_125K_Ant1_2440_30~1000



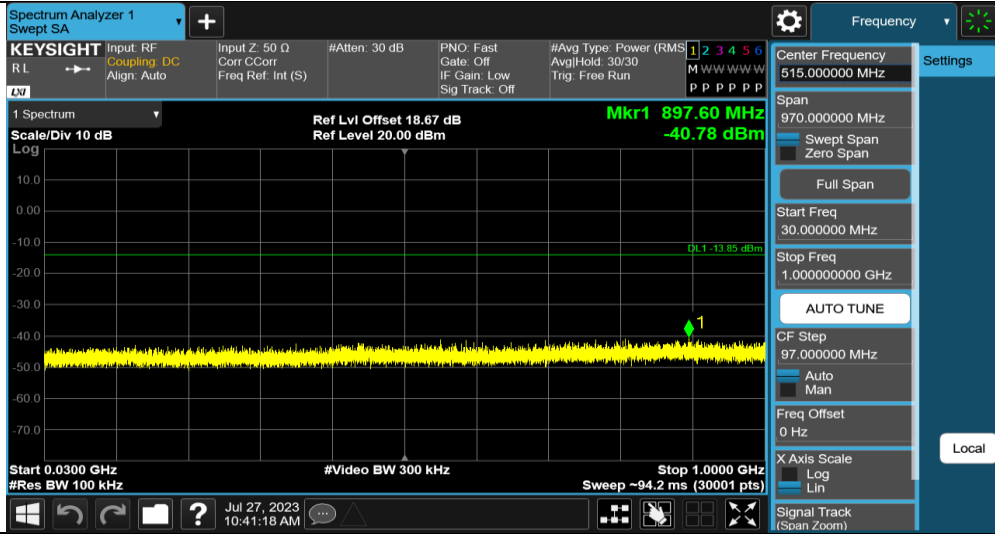
BLE_125K_Ant1_2440_1000~26500



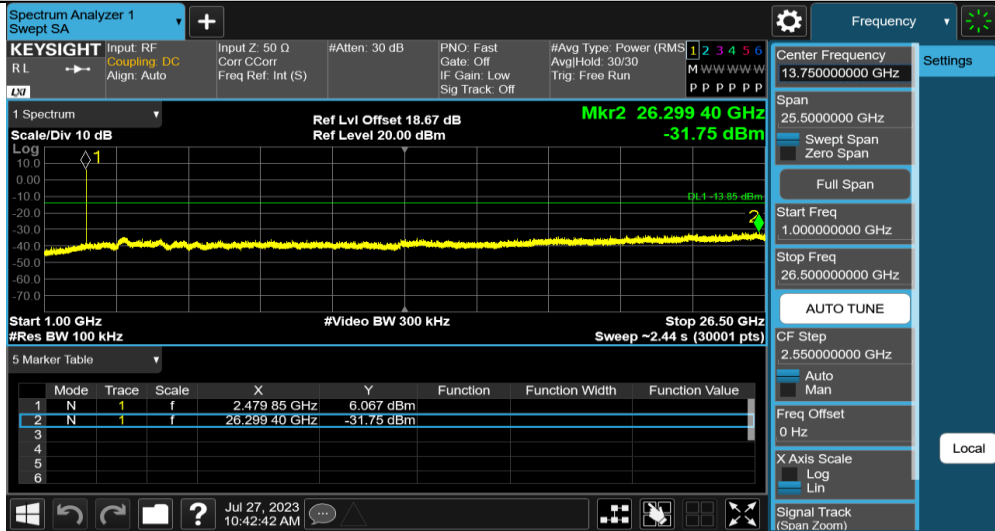
BLE_125K_Ant1_2480_0~Reference



BLE_125K_Ant1_2480_30~1000



BLE_125K_Ant1_2480_1000~26500



BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000