Appendix for Bluetooth BLE

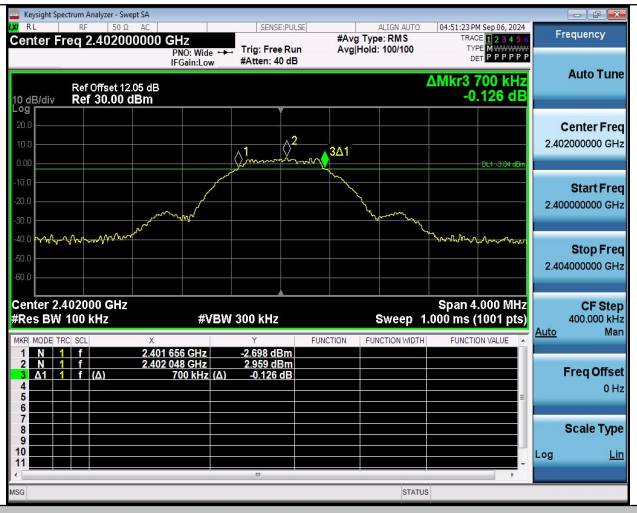
Product Name: Bluetooth Dongle
Model No: BTD-L

Appendix A: DTS Bandwidth

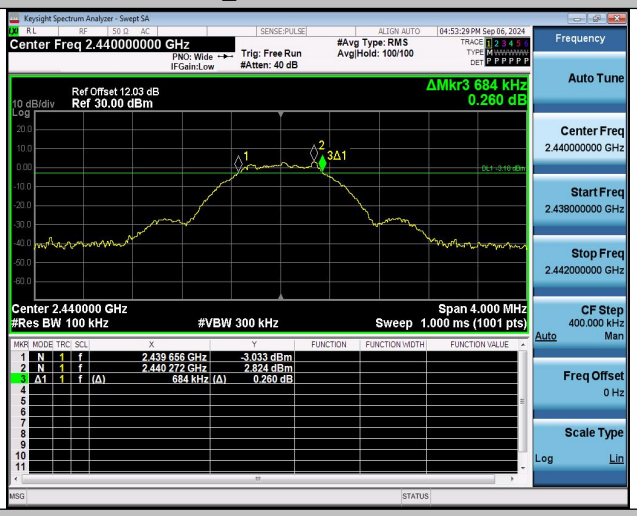
Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.700	2401.656	2402.356	0.5	PASS
BLE_1M	Ant1	2440	0.684	2439.656	2440.340	0.5	PASS
BLE_1M	Ant1	2480	0.700	2479.656	2480.356	0.5	PASS
BLE_2M	Ant1	2402	1.076	2401.448	2402.524	0.5	PASS
BLE_2M	Ant1	2440	1.164	2439.444	2440.608	0.5	PASS
BLE_2M	Ant1	2480	1.132	2479.420	2480.552	0.5	PASS

Test Graphs



BLE_1M-Ant1-2402-PASS

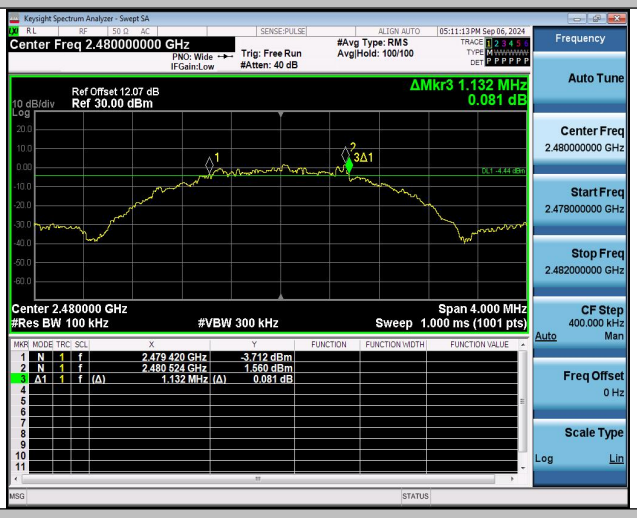


BLE_1M-Ant1-2440-PASS

BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2440-PASS



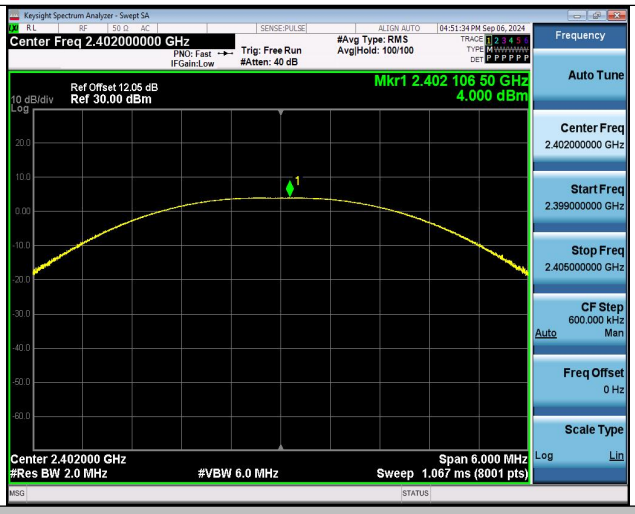
BLE_2M-Ant1-2480-PASS

Appendix B: Maximum conducted output power

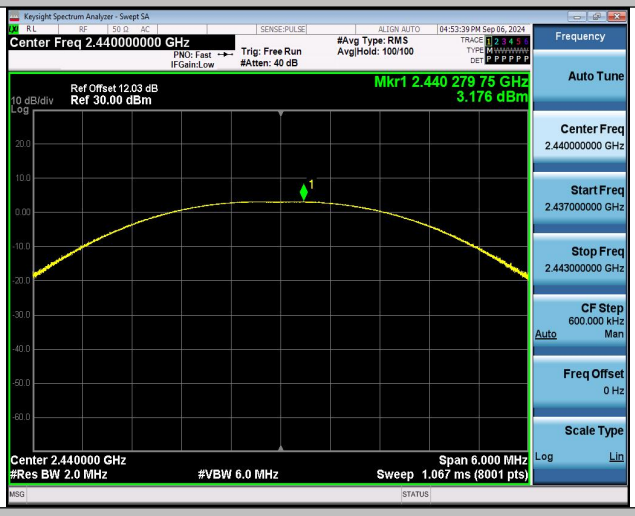
Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	4.00	≤30	PASS
BLE_1M	Ant1	2440	3.18	≤30	PASS
BLE_1M	Ant1	2480	3.06	≤30	PASS
BLE_2M	Ant1	2402	3.99	≤30	PASS
BLE_2M	Ant1	2440	3.17	≤30	PASS
BLE_2M	Ant1	2480	3.08	≤30	PASS

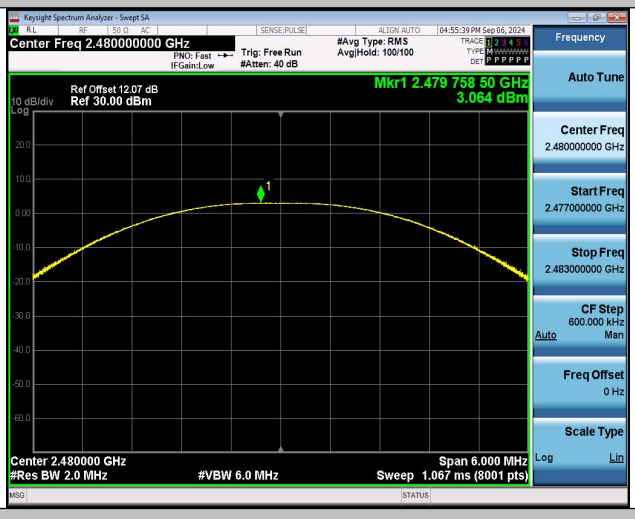
Test Graphs Peak



BLE_1M-Ant1-2402-PASS

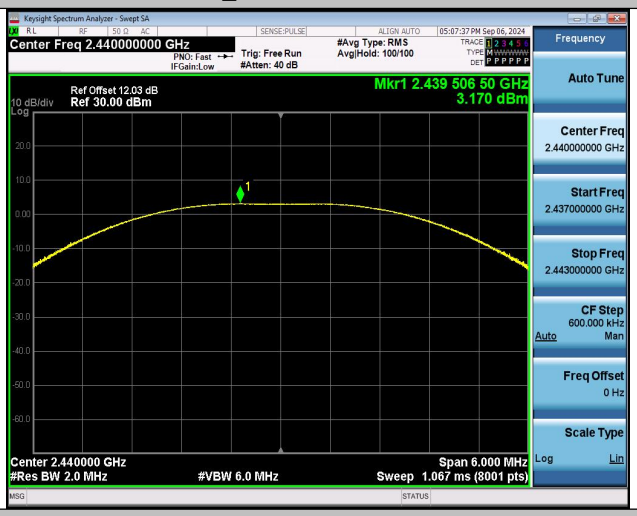


BLE_1M-Ant1-2440-PASS

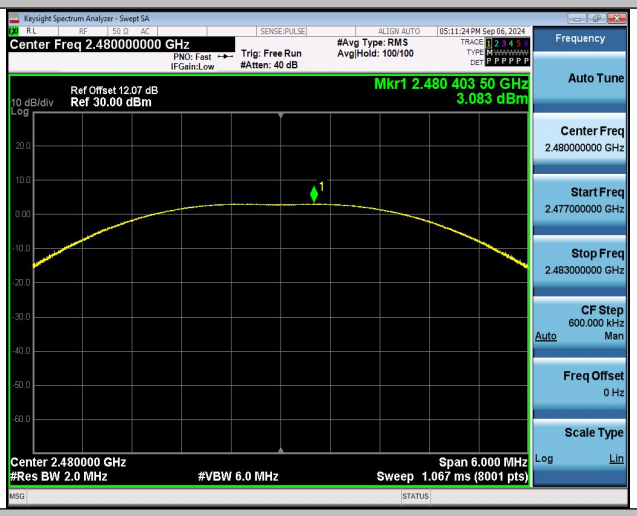


BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2402-PASS



BLE_2M-Ant1-2440-PASS



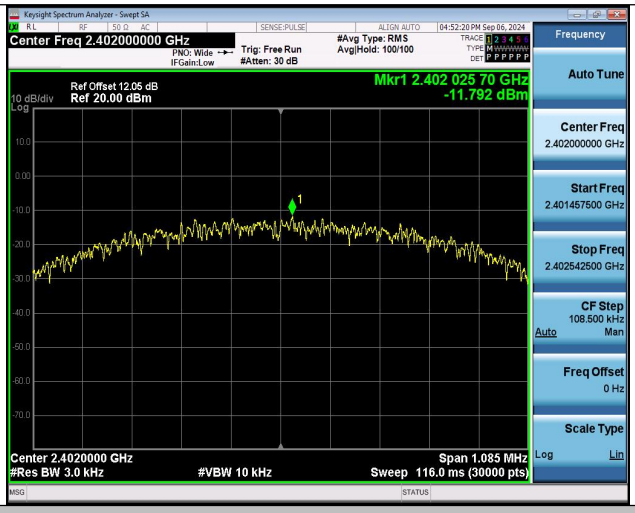
BLE_2M-Ant1-2480-PASS

Appendix C: Maximum power spectral density

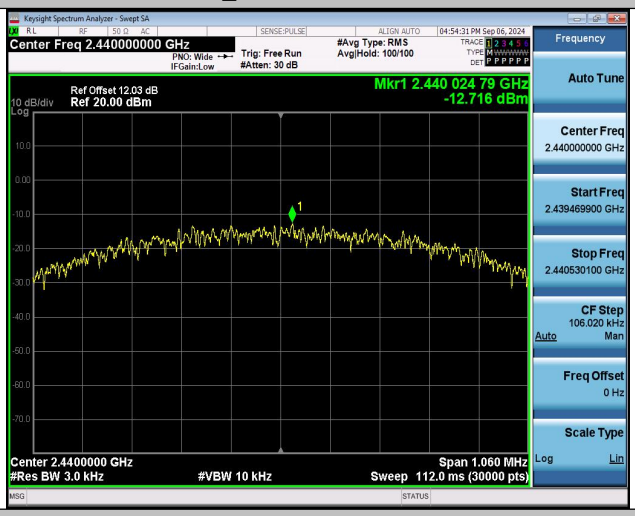
Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-11.79	≤8.00	PASS
BLE_1M	Ant1	2440	-12.72	≤8.00	PASS
BLE_1M	Ant1	2480	-12.85	≤8.00	PASS
BLE_2M	Ant1	2402	-13.67	≤8.00	PASS
BLE_2M	Ant1	2440	-14.67	≤8.00	PASS
BLE_2M	Ant1	2480	-14.73	≤8.00	PASS

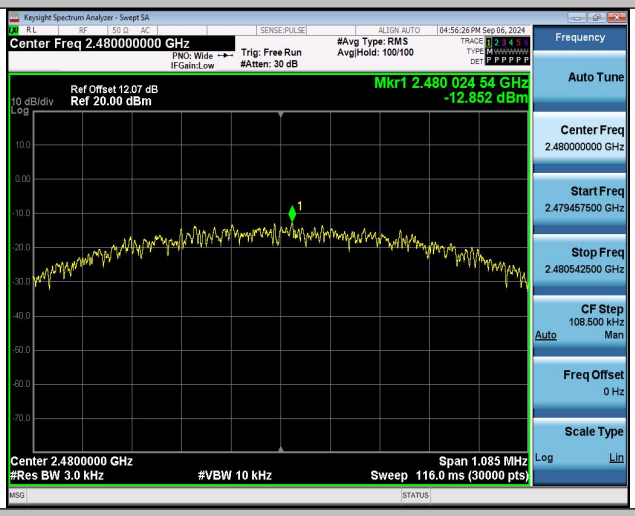
Test Graphs



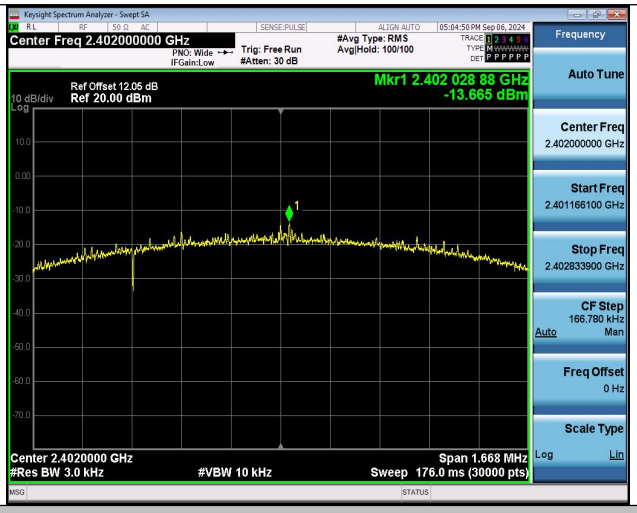
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2440-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2440-PASS

BLE_2M-Ant1-2480-PASS

Appendix D: Reference level measurement

Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2402.28	3.55
BLE_1M	Ant1	2440	2440.26	2.83
BLE_1M	Ant1	2480	2480.26	2.75
BLE_2M	Ant1	2402	2402.00	2.92
BLE_2M	Ant1	2440	2439.99	2.32
BLE_2M	Ant1	2480	2479.99	2.59

Test Graphs

BLE_1M-Ant1-2402-PASS

BLE_1M-Ant1-2440-PASS

BLE_1M-Ant1-2480-PASS

BLE_2M-Ant1-2402-PASS

BLE_2M-Ant1-2440-PASS

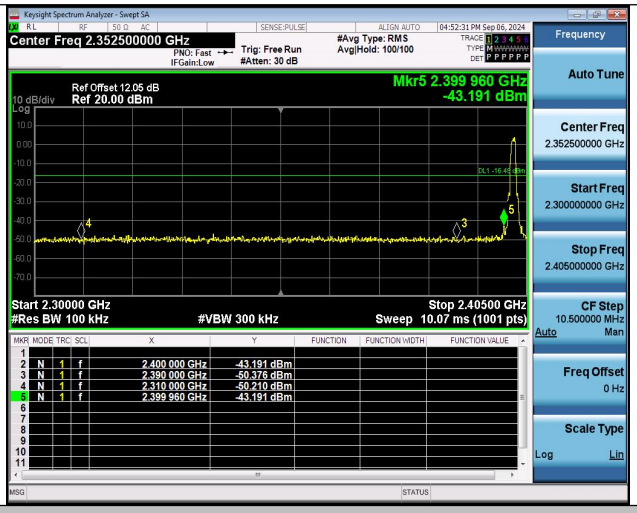
BLE_2M-Ant1-2480-PASS

Appendix E: Band edge measurements

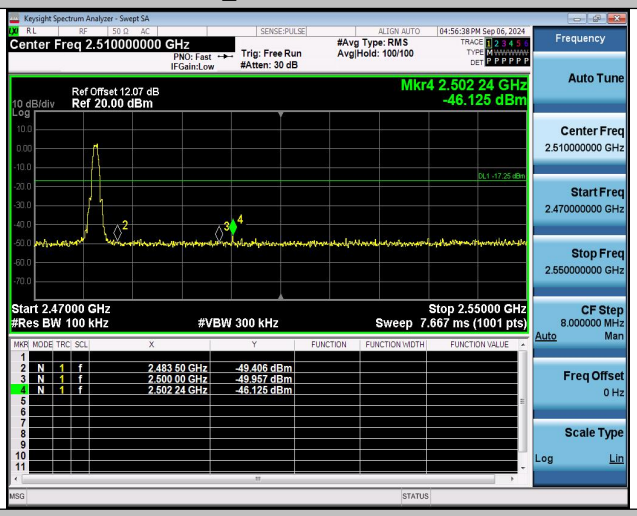
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	3.55	-43.19	≤-16.45	PASS
BLE_1M	Ant1	High	2480	2.75	-46.13	≤-17.25	PASS
BLE_2M	Ant1	Low	2402	2.92	-31.05	≤-17.08	PASS
BLE_2M	Ant1	High	2480	2.59	-45.99	≤-17.41	PASS

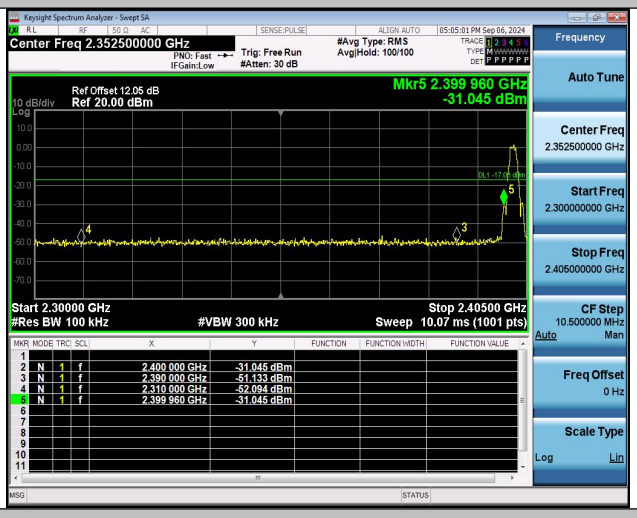
Test Graphs



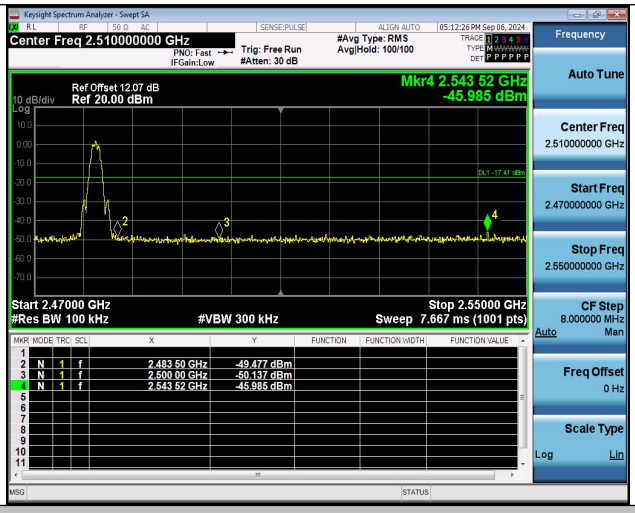
BLE_1M-Ant1-2402-PASS



BLE_1M-Ant1-2480-PASS



BLE_2M-Ant1-2402-PASS



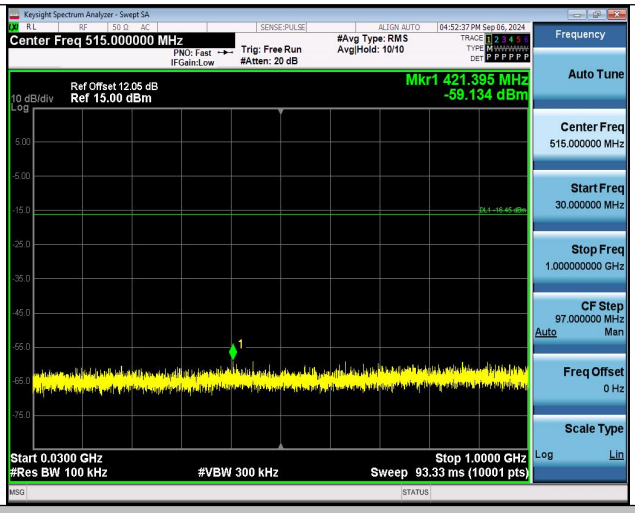
BLE_2M-Ant1-2480-PASS

Appendix F: Conducted Spurious Emission

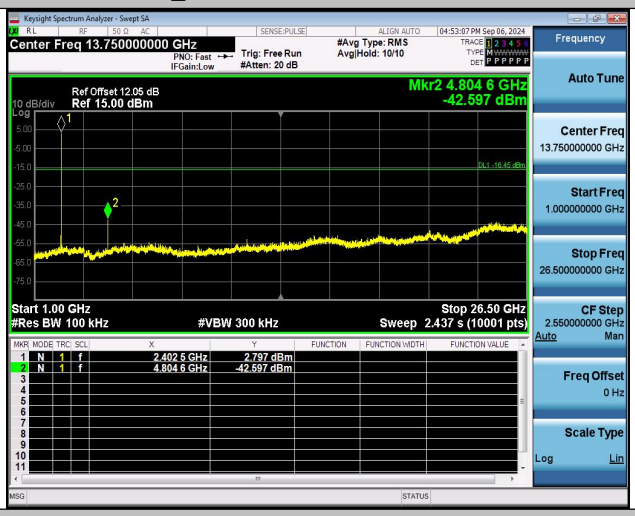
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	30~1000	3.55	-59.13	≤-16.45	PASS
BLE_1M	Ant1	2402	1000~26500	3.55	-42.6	≤-16.45	PASS
BLE_1M	Ant1	2440	30~1000	2.83	-59.38	≤-17.17	PASS
BLE_1M	Ant1	2440	1000~26500	2.83	-43.65	≤-17.17	PASS
BLE_1M	Ant1	2480	30~1000	2.75	-59.24	≤-17.25	PASS
BLE_1M	Ant1	2480	1000~26500	2.75	-44.36	≤-17.25	PASS
BLE_2M	Ant1	2402	30~1000	2.92	-59.52	≤-17.08	PASS
BLE_2M	Ant1	2402	1000~26500	2.92	-43.17	≤-17.08	PASS
BLE_2M	Ant1	2440	30~1000	2.32	-59.01	≤-17.68	PASS
BLE_2M	Ant1	2440	1000~26500	2.32	-44.32	≤-17.68	PASS
BLE_2M	Ant1	2480	30~1000	2.59	-58.97	≤-17.41	PASS
BLE_2M	Ant1	2480	1000~26500	2.59	-44.47	≤-17.41	PASS

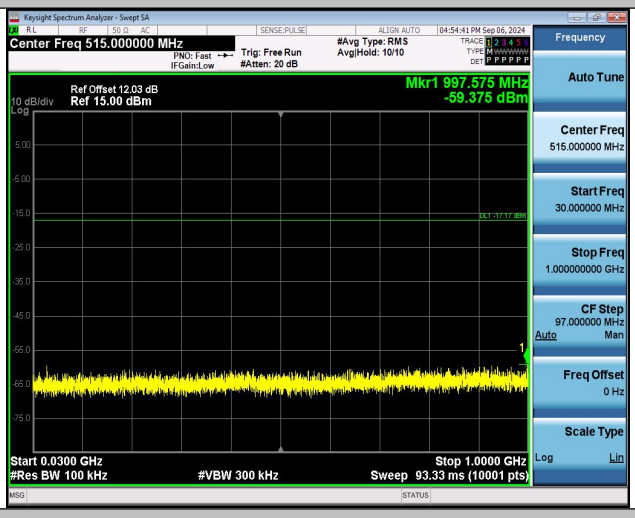
Test Graphs



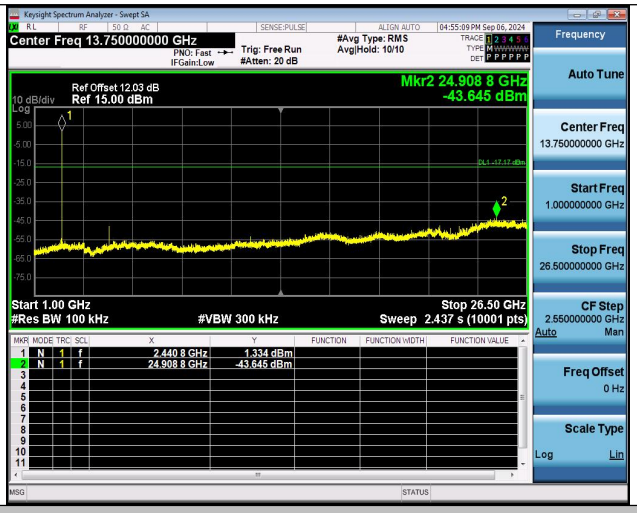
BLE_1M-Ant1-2402-30~1000-PASS



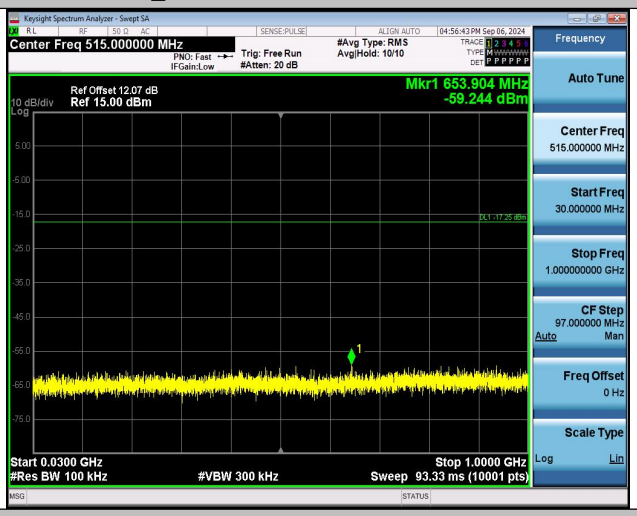
BLE_1M-Ant1-2402-1000~26500-PASS



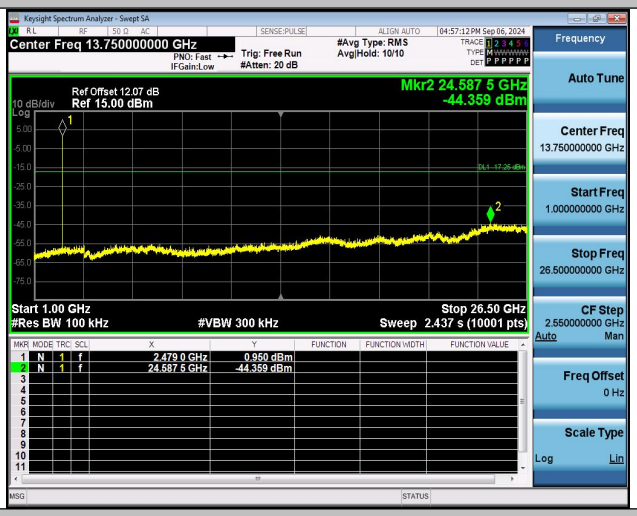
BLE_1M-Ant1-2440-30~1000-PASS



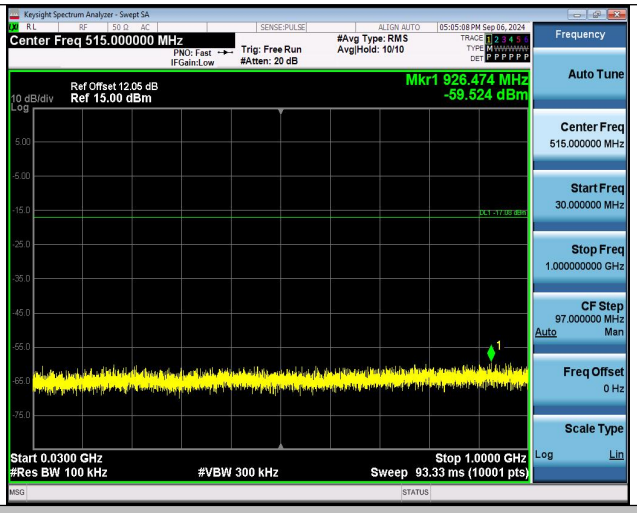
BLE_1M-Ant1-2440-1000~26500-PASS



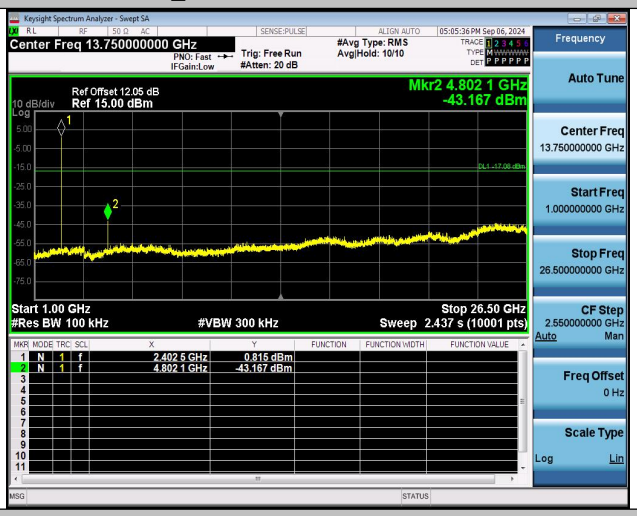
BLE_1M-Ant1-2480-30~1000-PASS



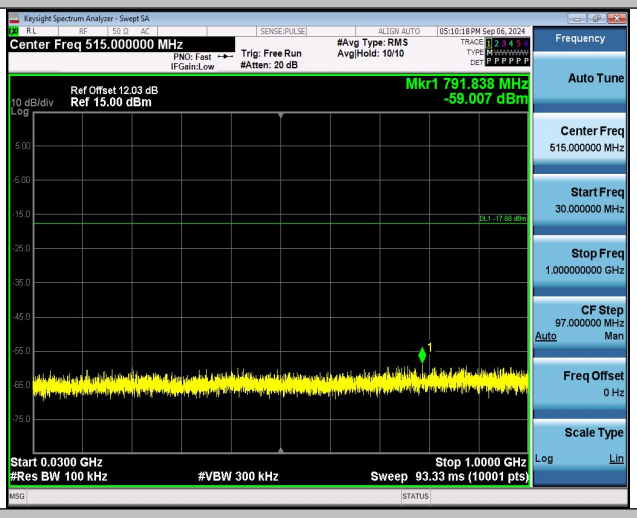
BLE_1M-Ant1-2480-1000~26500-PASS



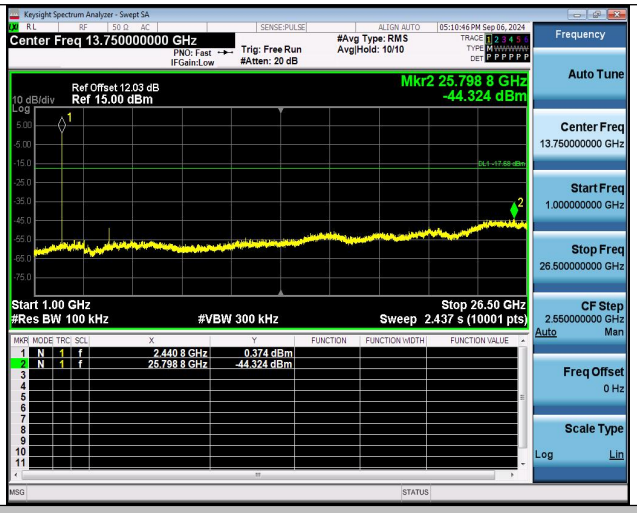
BLE_2M-Ant1-2402-30~1000-PASS



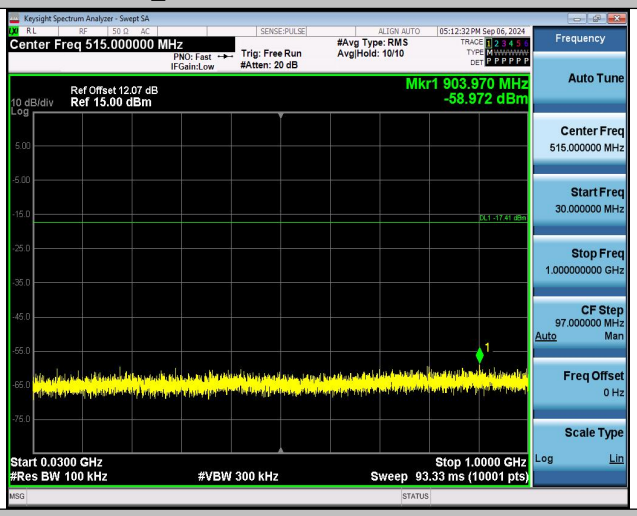
BLE_2M-Ant1-2402-1000~26500-PASS



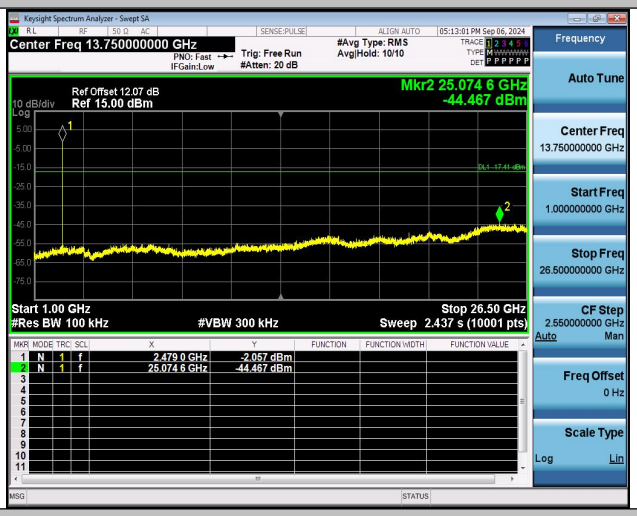
BLE_2M-Ant1-2440-30~1000-PASS



BLE_2M-Ant1-2440-1000~26500-PASS



BLE_2M-Ant1-2480-30~1000-PASS



BLE_2M-Ant1-2480-1000~26500-PASS