

Appendix Test Data for BLE (Conducted Measurement)

Product Name: Baseus Open-Ear TWS Earbuds

Trade Mark: baseus

Test Model: PM144

FCC ID: 2A482-PM144

Environmental Conditions

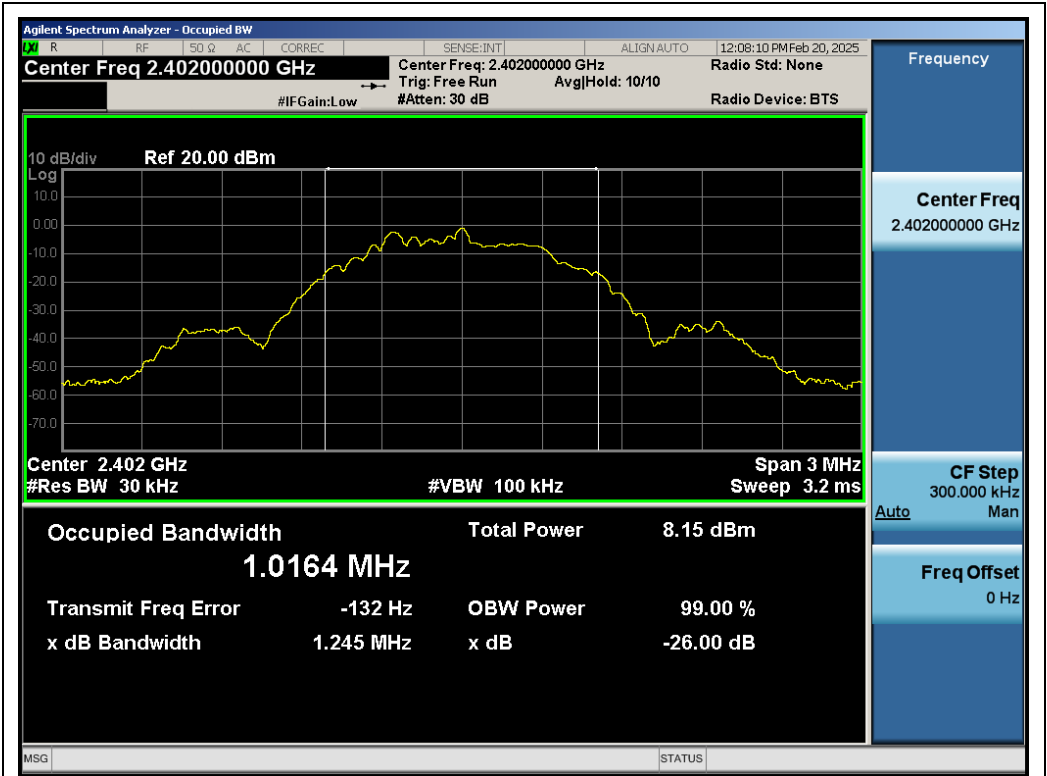
Temperature:	25°C
Relative Humidity:	48%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Max Zhang
NOTE	N/A

Appendix A: DTS Bandwidth & Occupied Channel Bandwidth

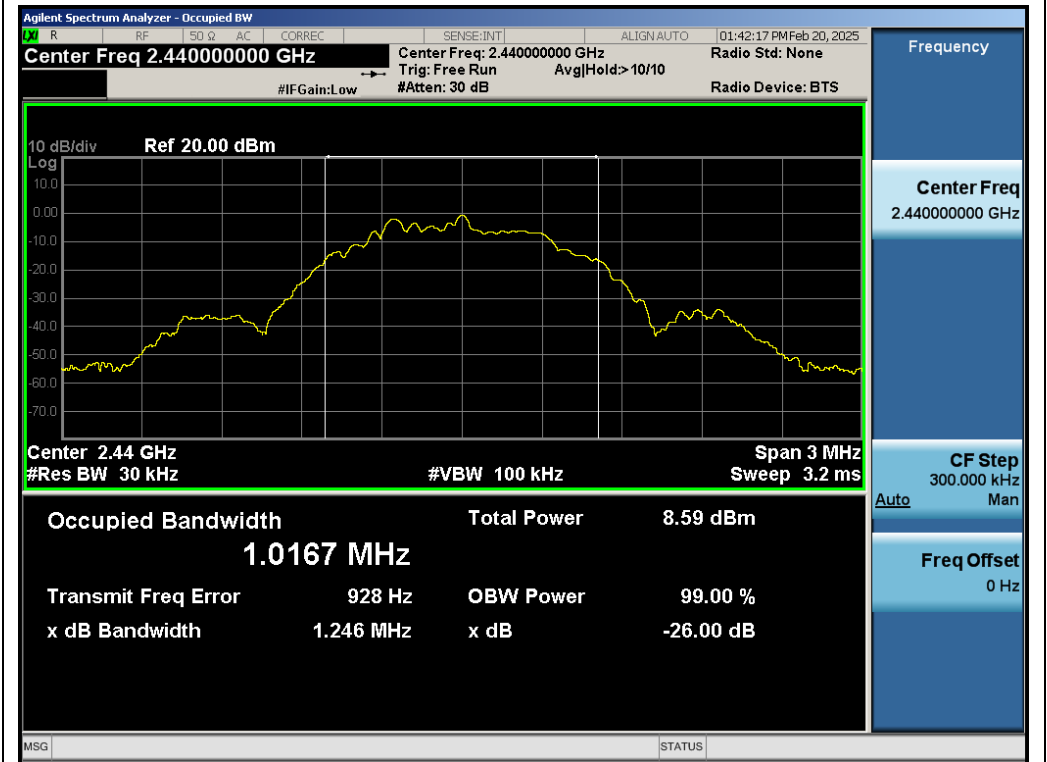
Test Result

Test Mode	Test Frequency	Occupied Bandwidth (MHz)	DTS BW (MHz)	DTS BW Limits	Pass or Fail
GFSK_1Mbps	2402	1.016	0.668	≥ 0.5	Pass
	2440	1.017	0.661	≥ 0.5	Pass
	2480	1.016	0.666	≥ 0.5	Pass
GFSK_2Mbps	2402	2.006	1.157	≥ 0.5	Pass
	2440	2.007	1.163	≥ 0.5	Pass
	2480	2.007	1.157	≥ 0.5	Pass

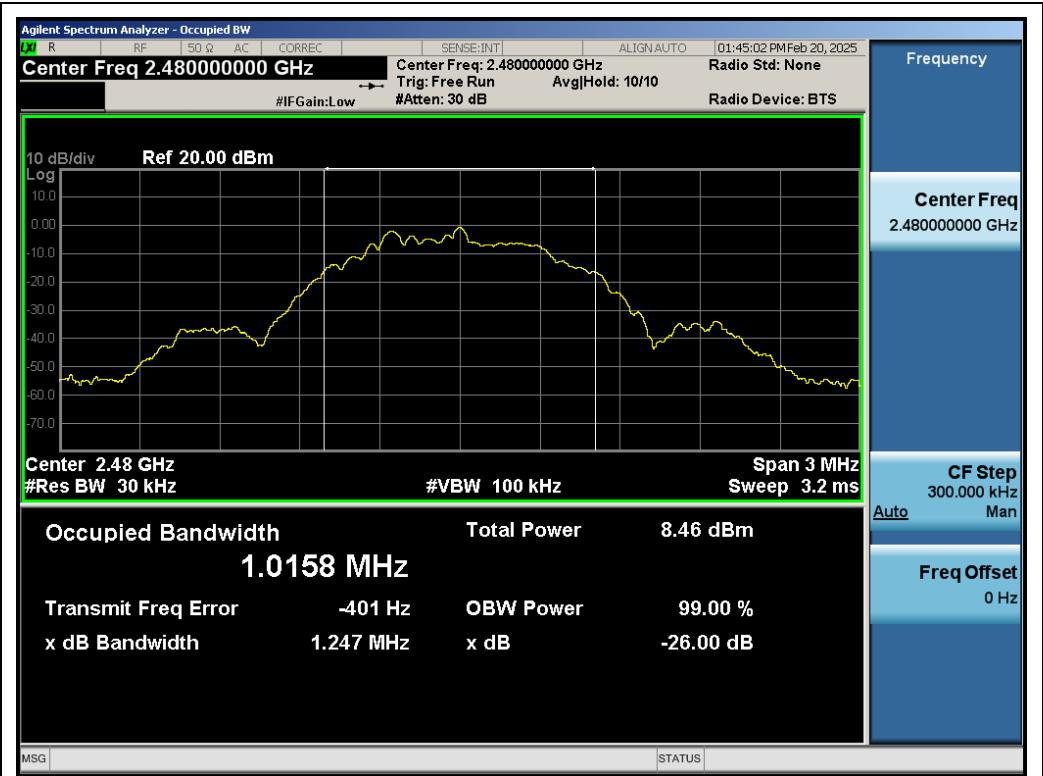
Test Graphs



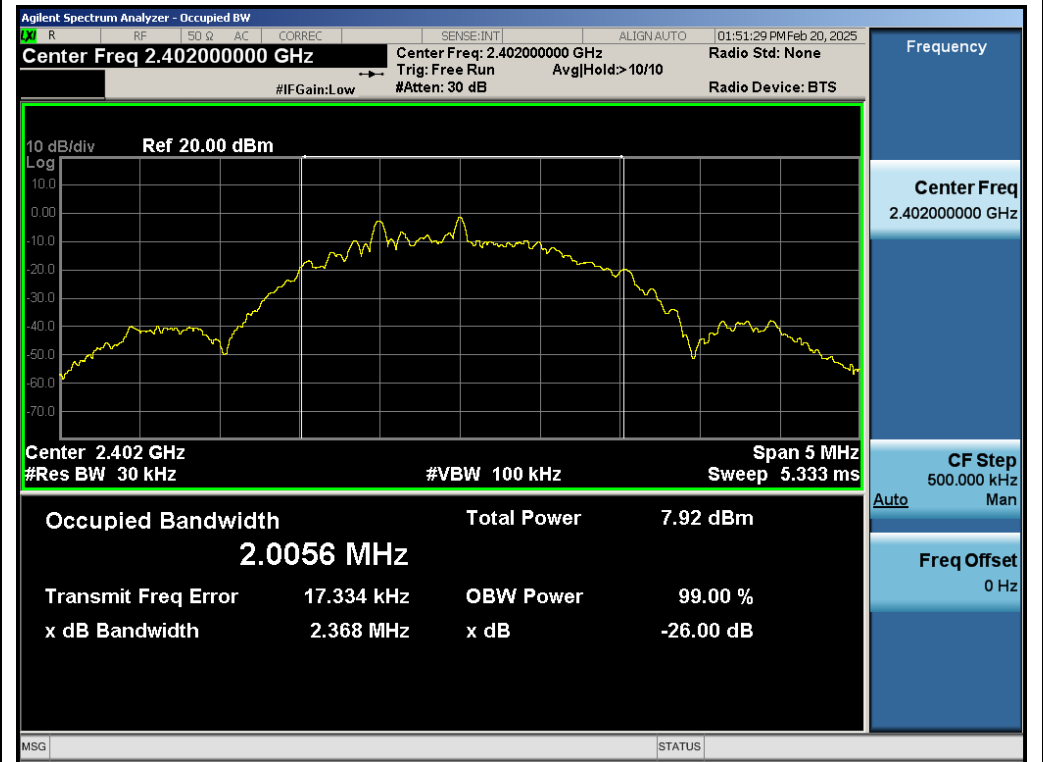
Test_Graph_LE1M_ANT1_2402_1Mbps_OBW



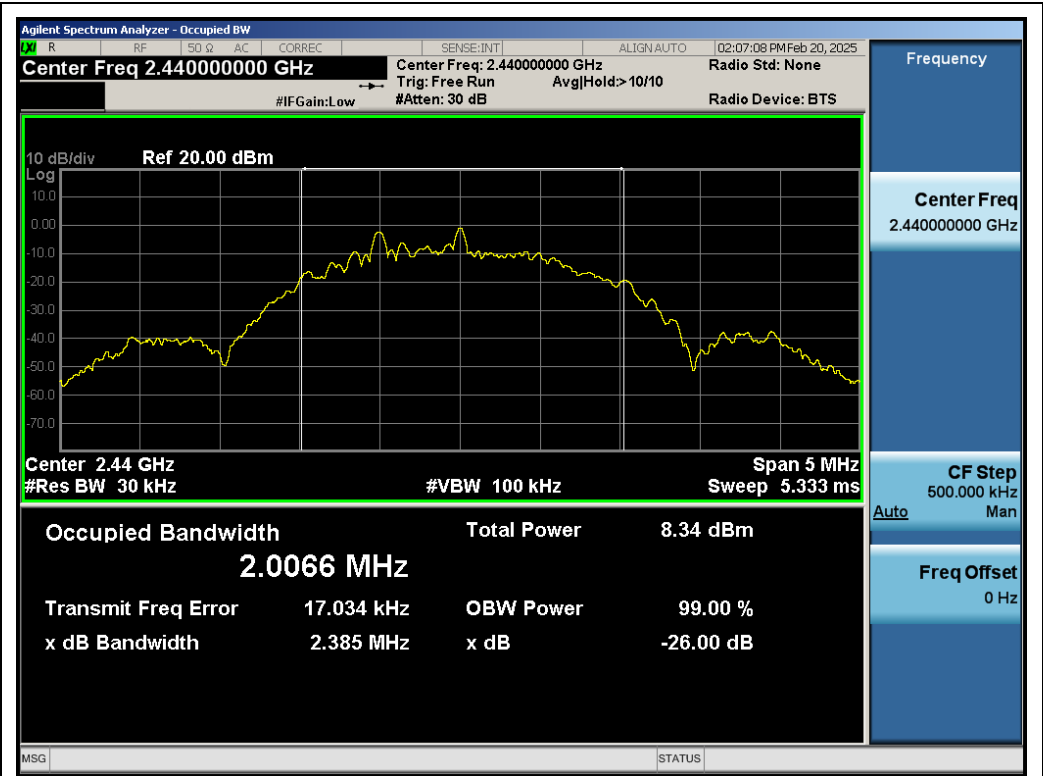
Test_Graph_LE1M_ANT1_2440_1Mbps_OBW



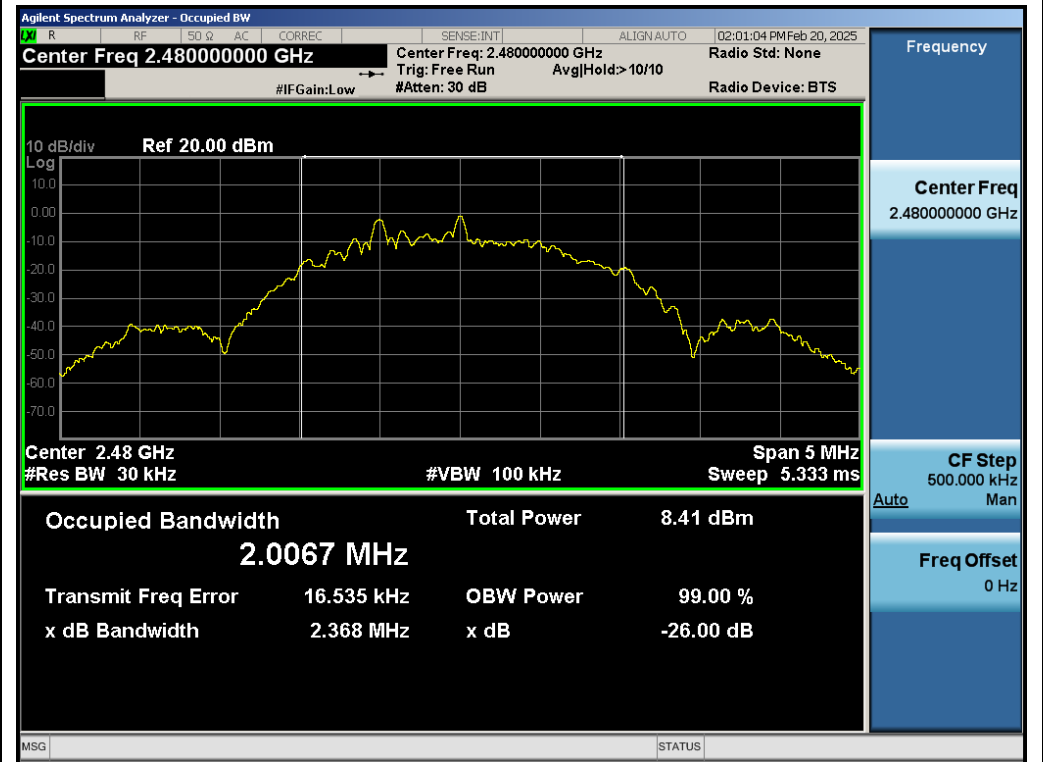
Test_Graph_LE1M_ANT1_2480_1Mbps_OBW



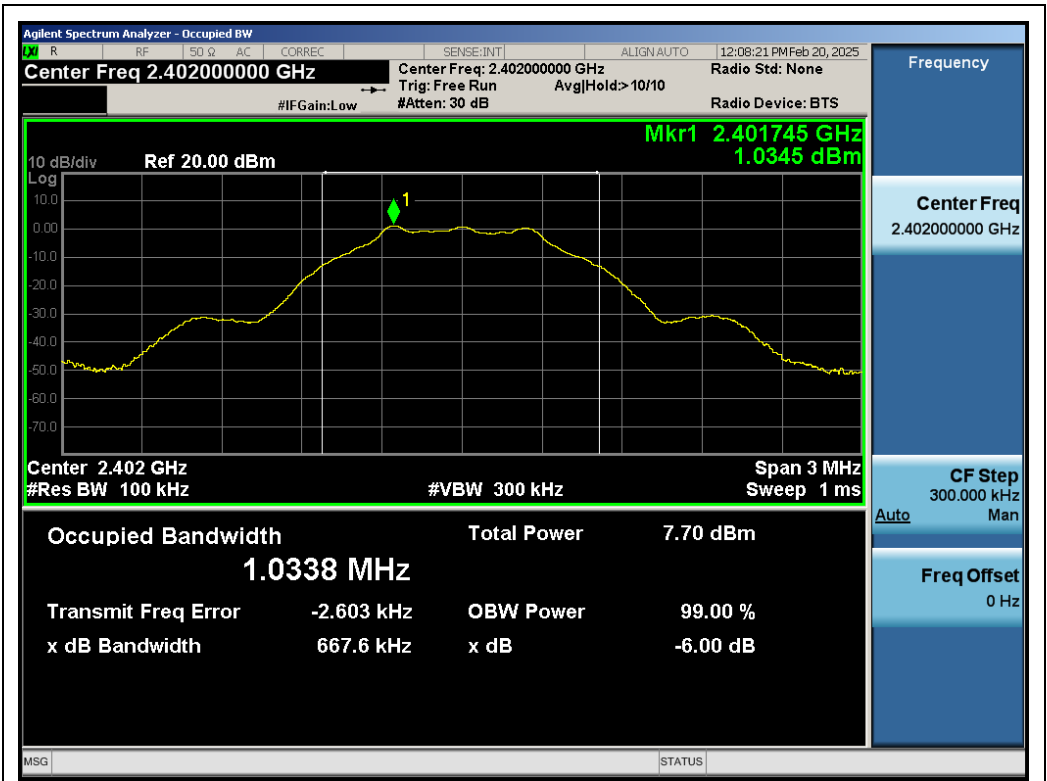
Test_Graph_LE2M_ANT1_2402_2Mbps_OBW



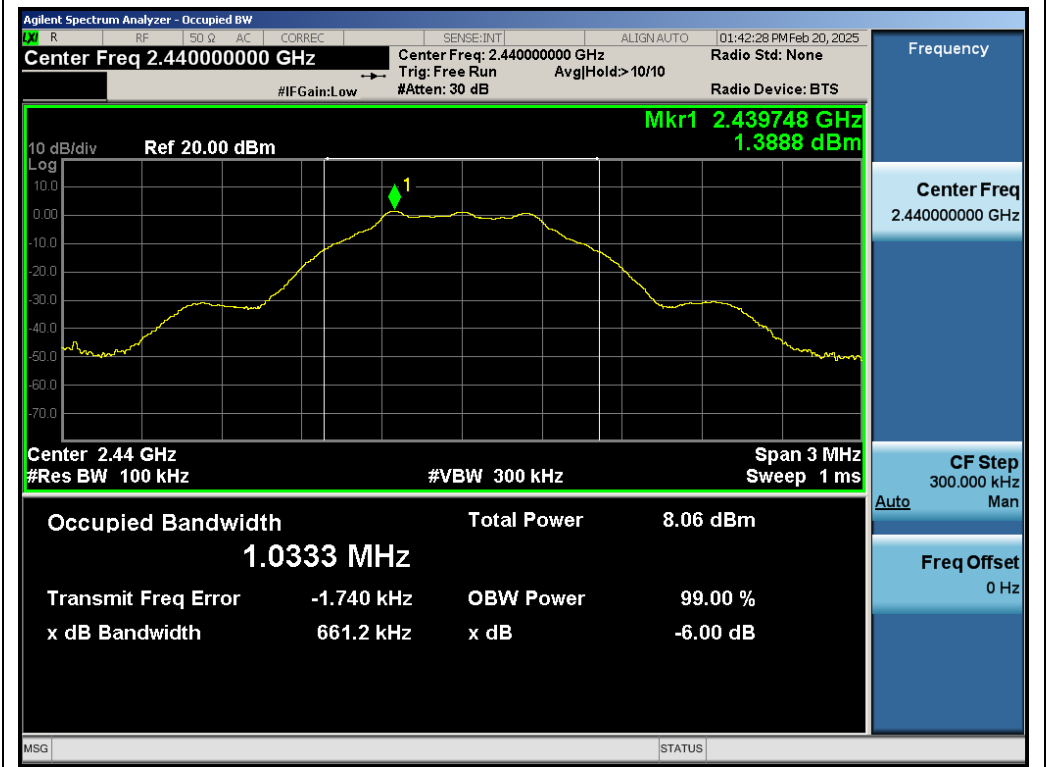
Test_Graph_LE2M_ANT1_2440_2Mbps_OBW



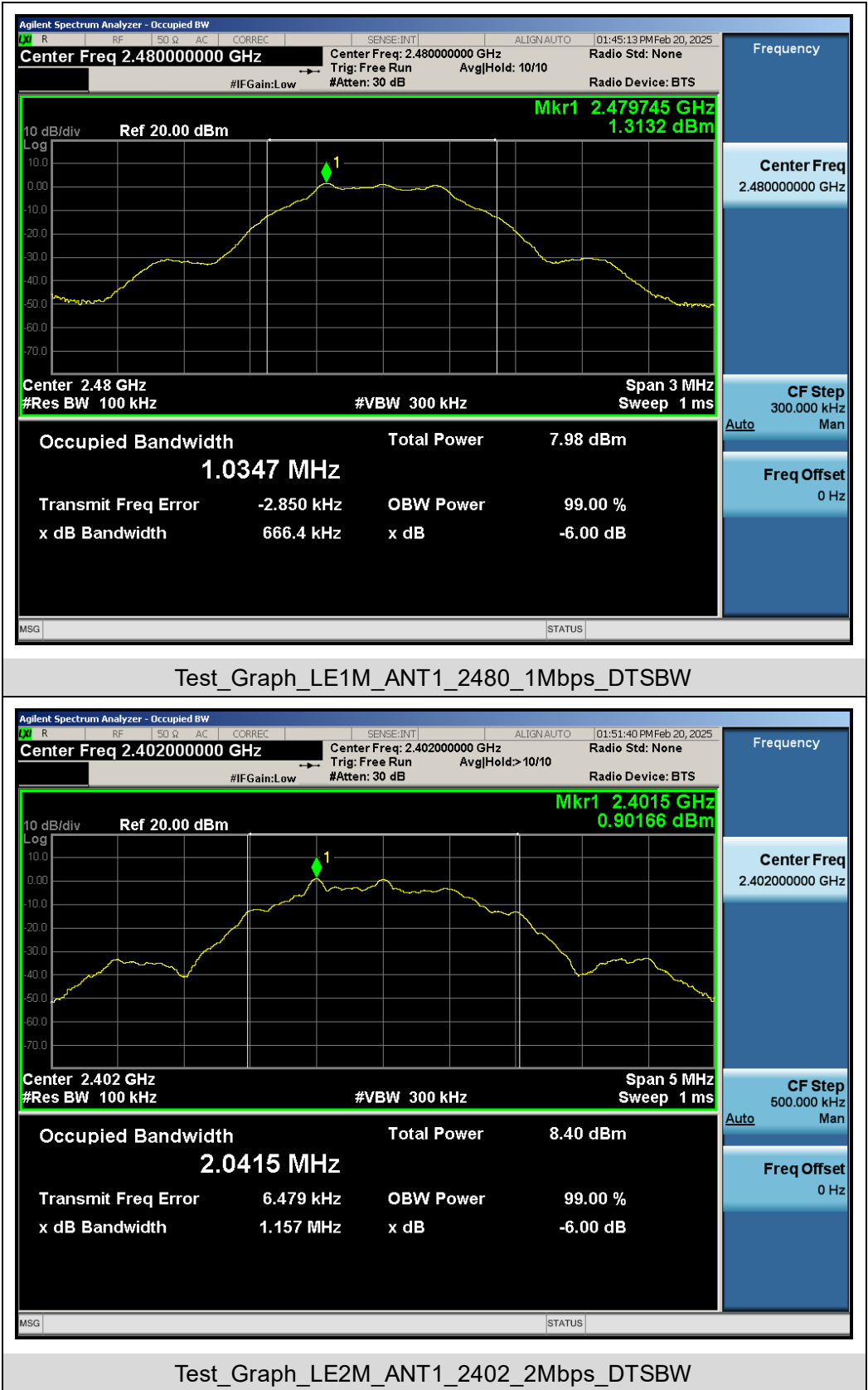
Test_Graph_LE2M_ANT1_2480_2Mbps_OBW

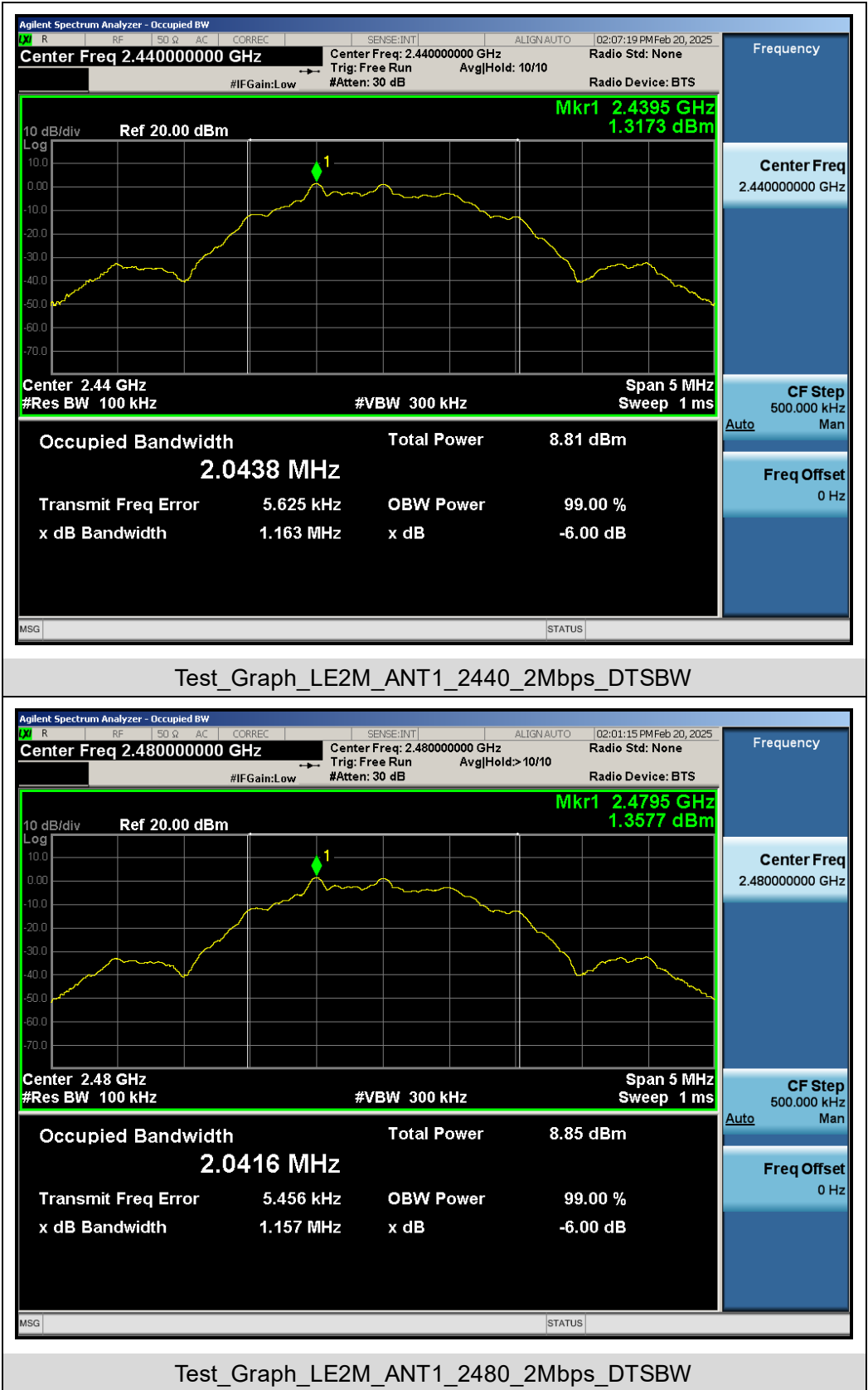


Test_Graph_LE1M_ANT1_2402_1Mbps_DTSBW



Test_Graph_LE1M_ANT1_2440_1Mbps_DTSBW





Appendix B: Maximum peak conducted output power

Test Result Peak

Left earphone:

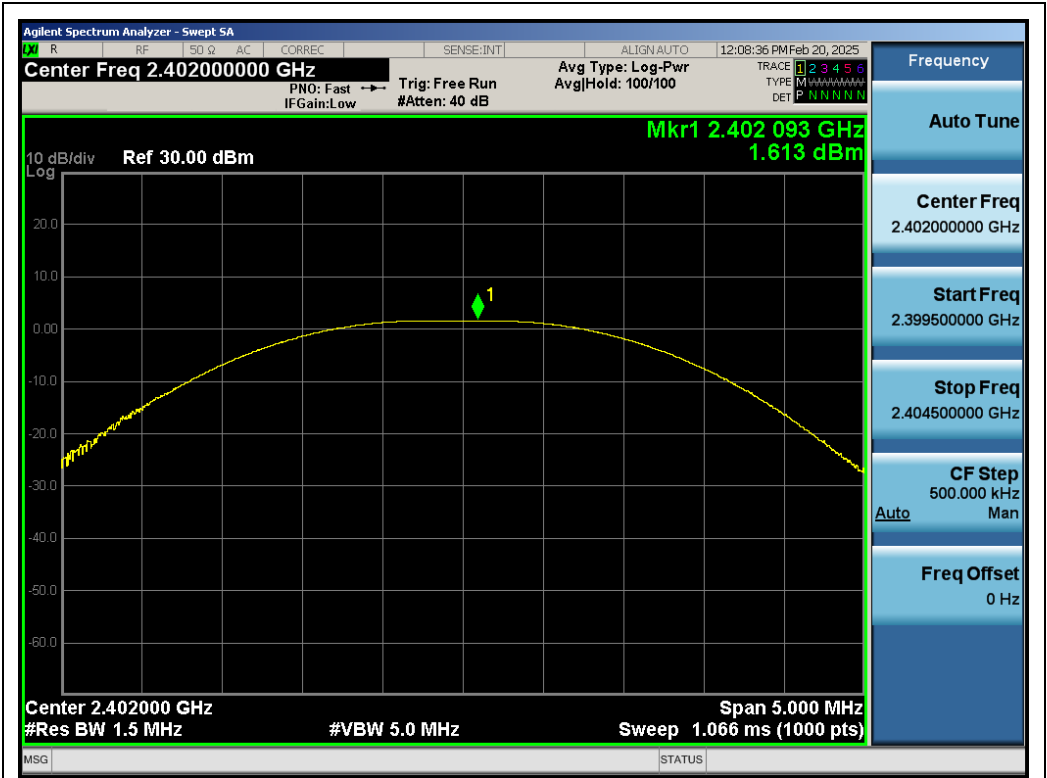
Test Mode	Test Frequency (MHz)	Peak Power (dBm)	Limits (dBm)	Pass or Fail
GFSK_1Mbps	2402	1.613	≤ 30	Pass
	2440	1.925	≤ 30	Pass
	2480	1.830	≤ 30	Pass
GFSK_2Mbps	2402	1.436	≤ 30	Pass
	2440	1.816	≤ 30	Pass
	2480	1.791	≤ 30	Pass

Right earphone:

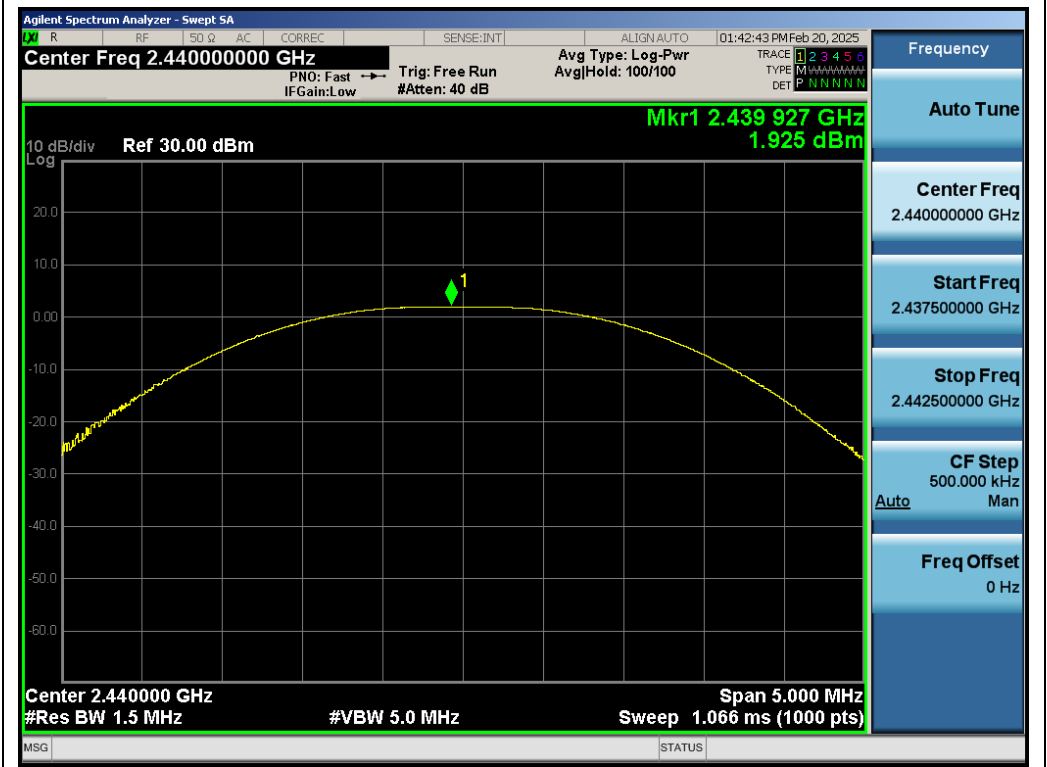
Test Mode	Test Frequency (MHz)	Peak Power (dBm)	Limits (dBm)	Pass or Fail
GFSK_1Mbps	2402	0.646	≤ 30	Pass
	2440	1.437	≤ 30	Pass
	2480	1.196	≤ 30	Pass
GFSK_2Mbps	2402	0.719	≤ 30	Pass
	2440	1.430	≤ 30	Pass
	2480	1.155	≤ 30	Pass

Test Graphs Peak

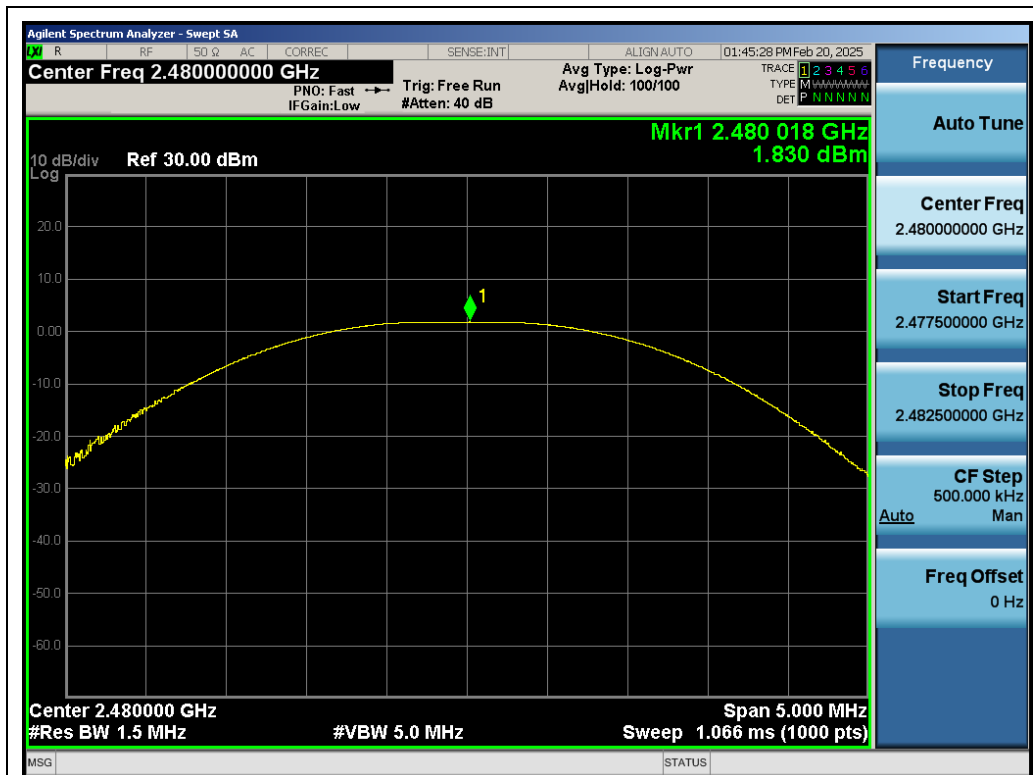
Left earphone:



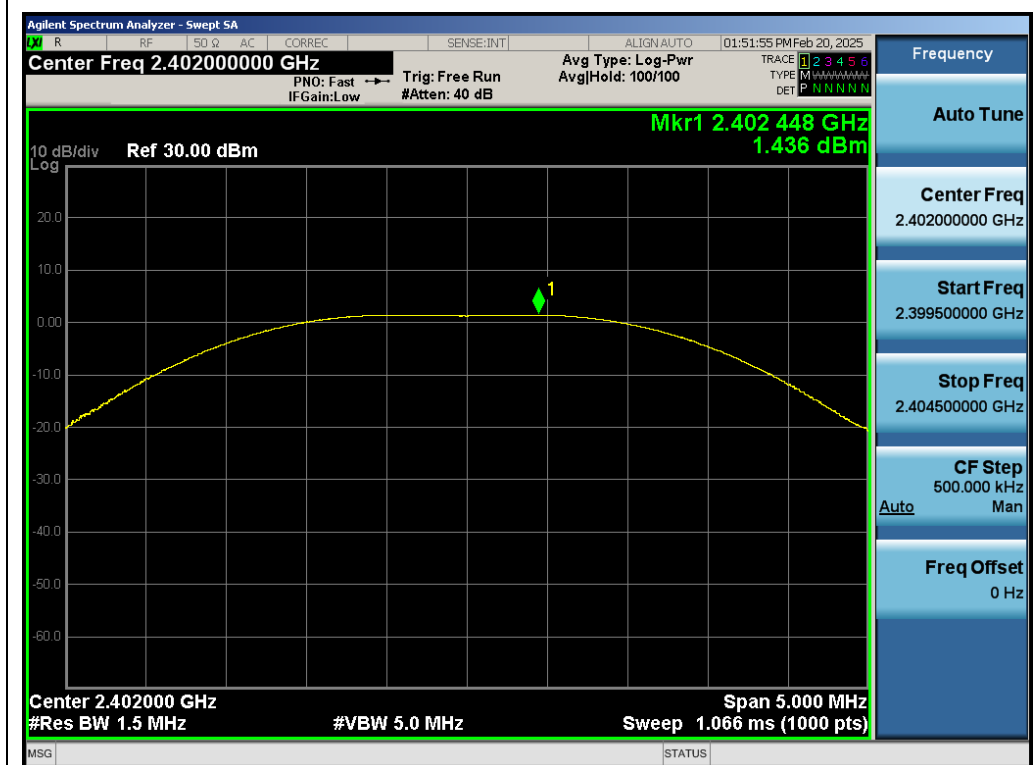
Test_Graph_LE1M_ANT1_2402_1Mbps_Peak Power



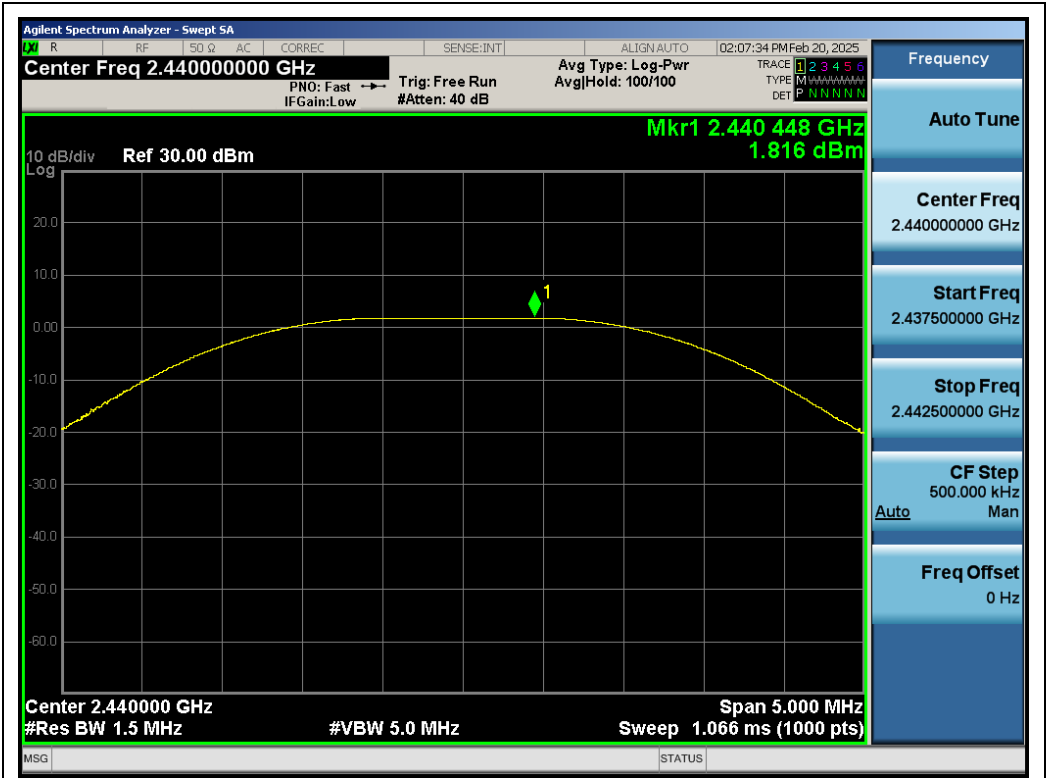
Test_Graph_LE1M_ANT1_2440_1Mbps_Peak Power



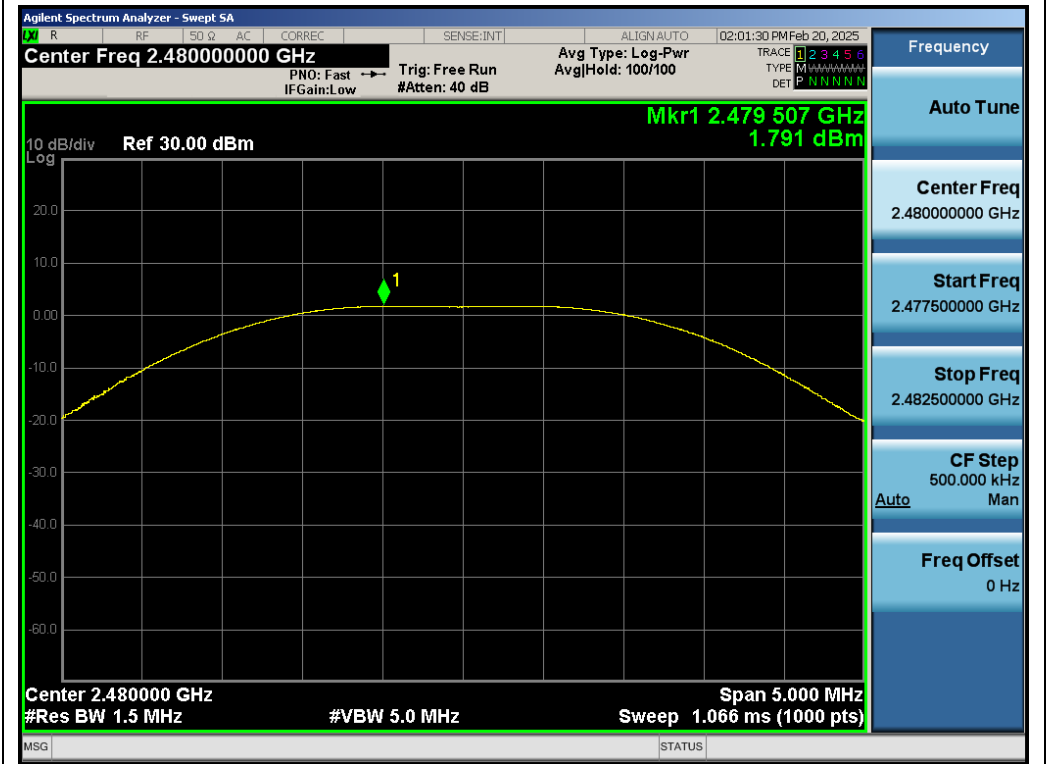
Test_Graph_LE1M_ANT1_2480_1Mbps_Peak Power



Test_Graph_LE2M_ANT1_2402_2Mbps_Peak Power

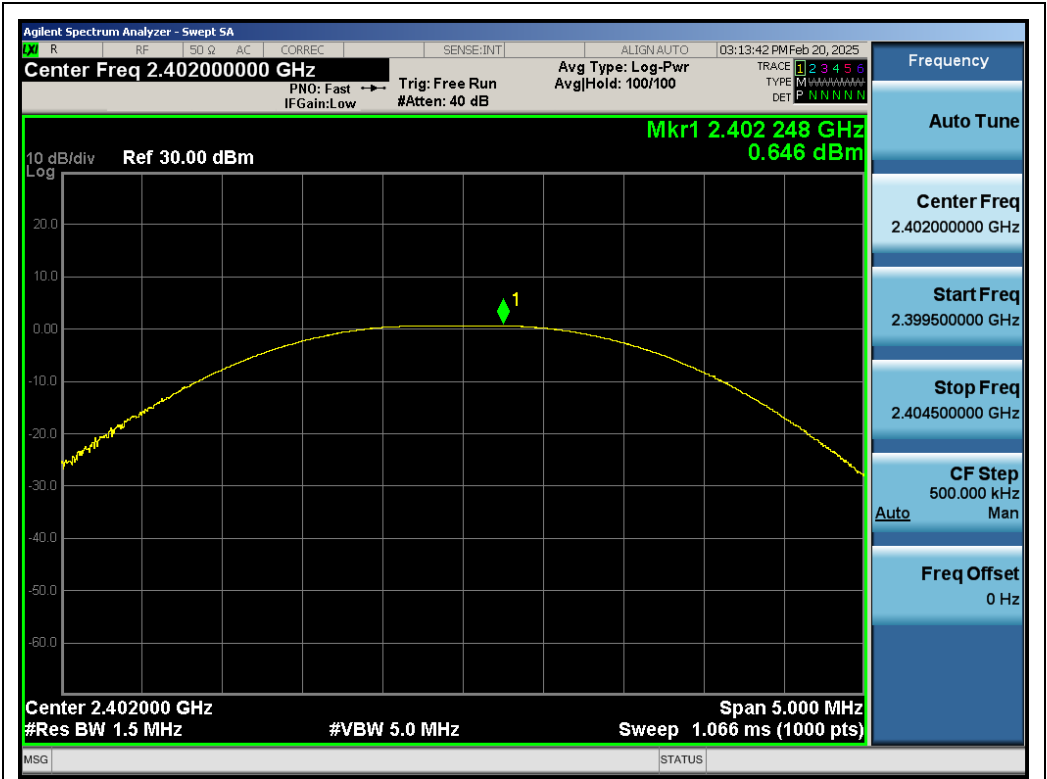


Test_Graph_LE2M_ANT1_2440_2Mbps_Peak Power

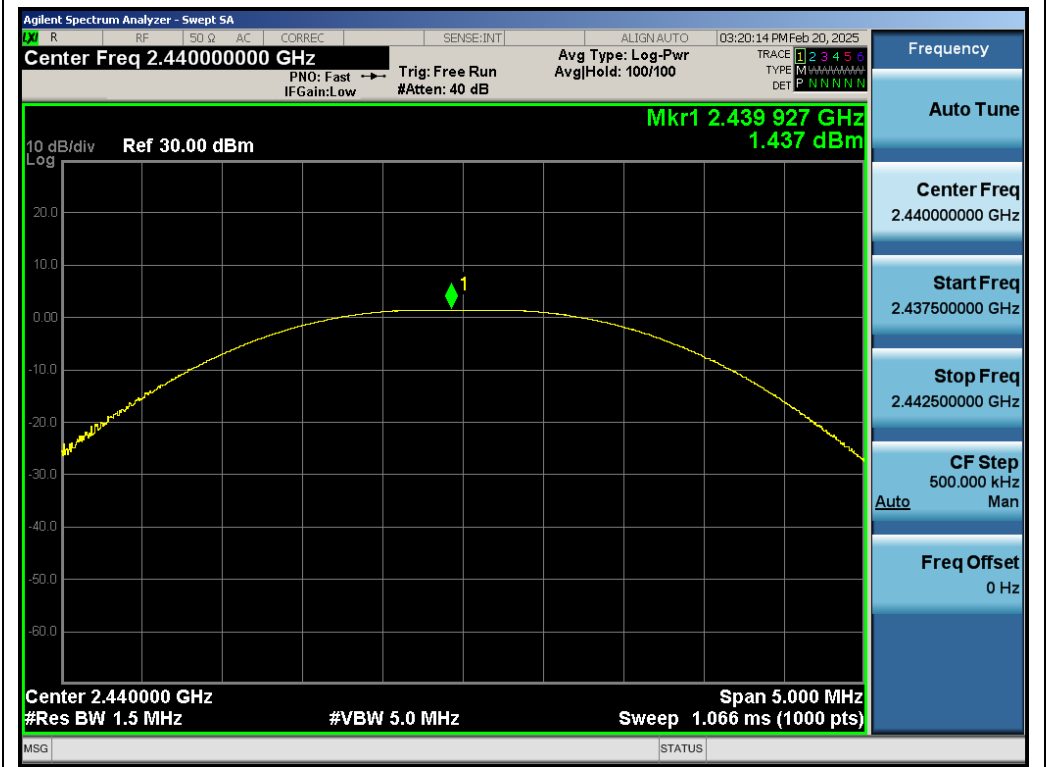


Test_Graph_LE2M_ANT1_2480_2Mbps_Peak Power

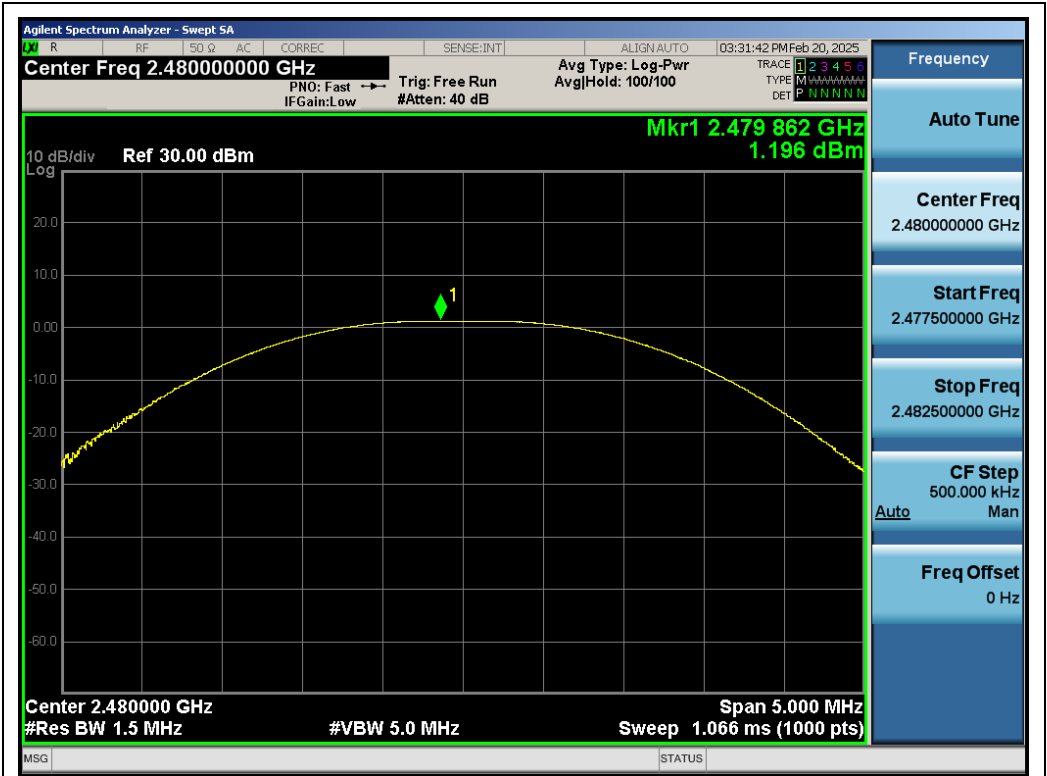
Right earphone:



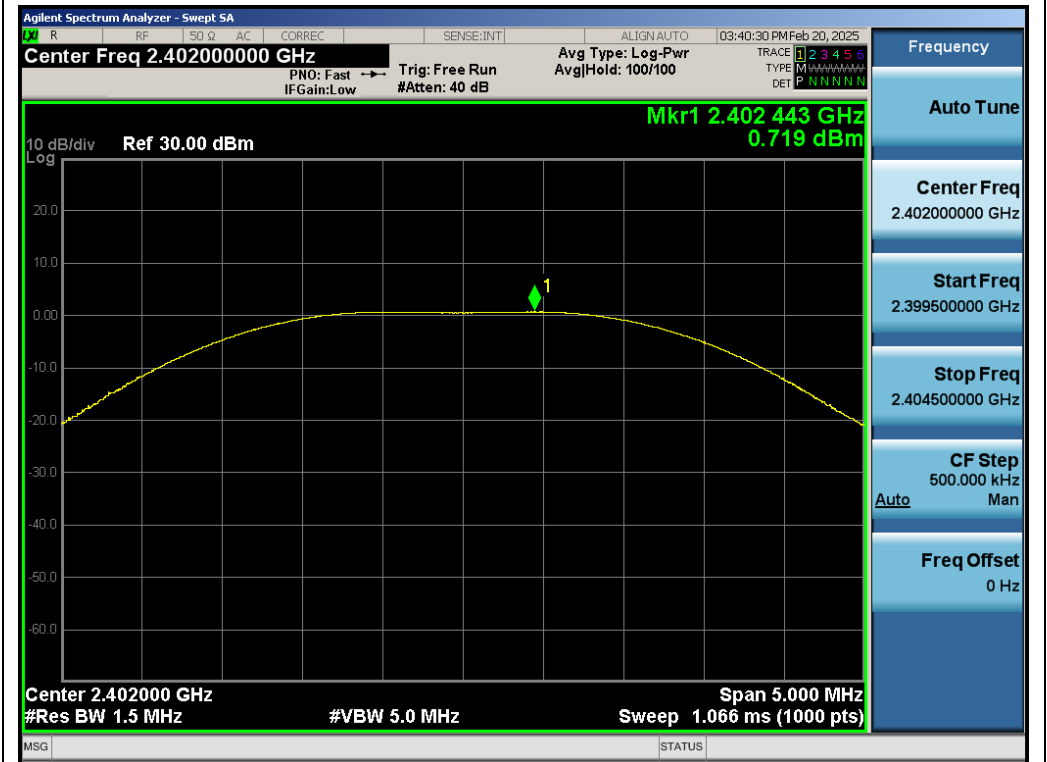
Test_Graph_LE1M_ANT1_2402_1Mbps_Peak Power



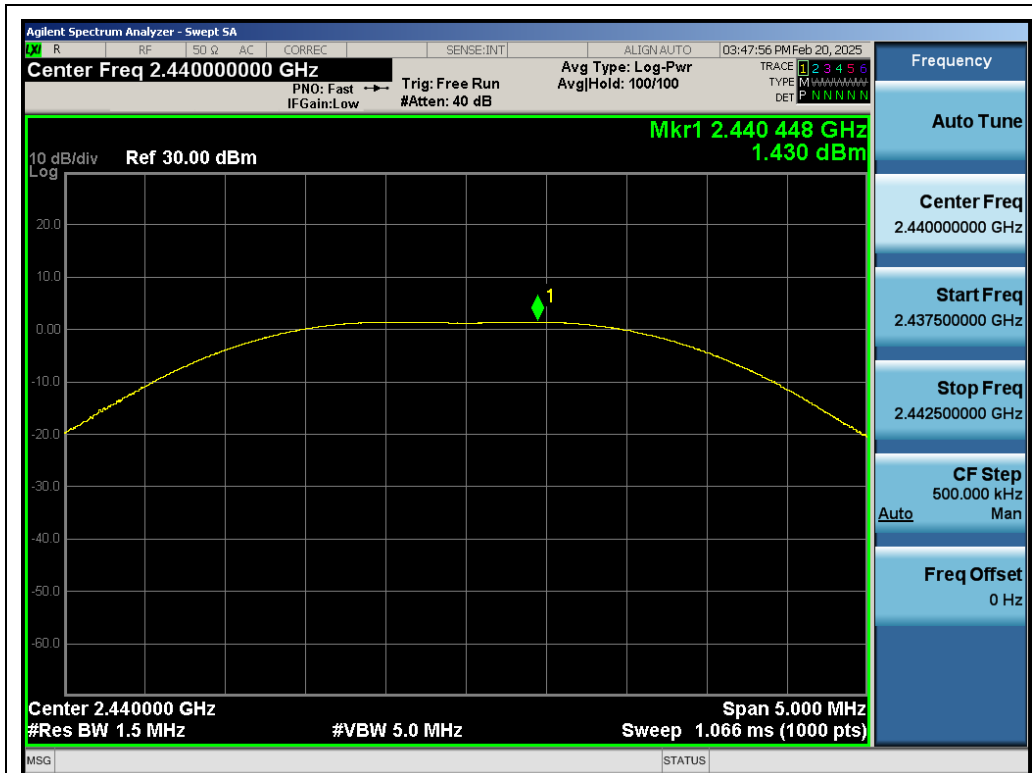
Test_Graph_LE1M_ANT1_2440_1Mbps_Peak Power



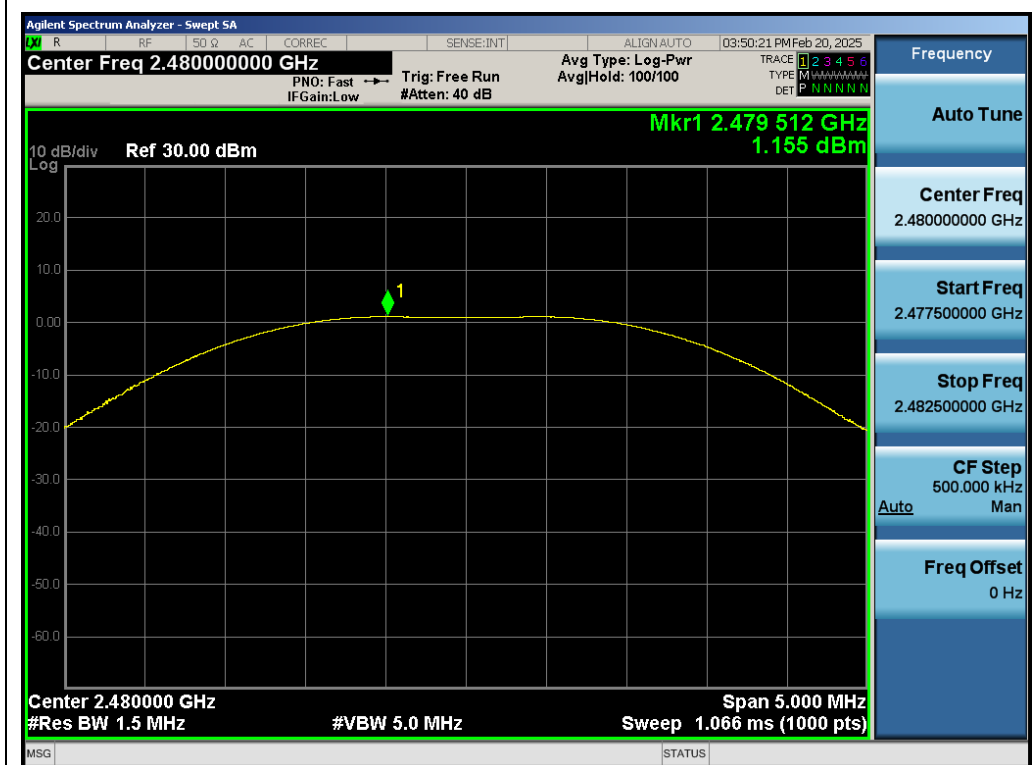
Test_Graph_LE1M_ANT1_2480_1Mbps_Peak Power



Test_Graph_LE2M_ANT1_2402_2Mbps_Peak Power



Test_Graph_LE2M_ANT1_2440_2Mbps_Peak Power



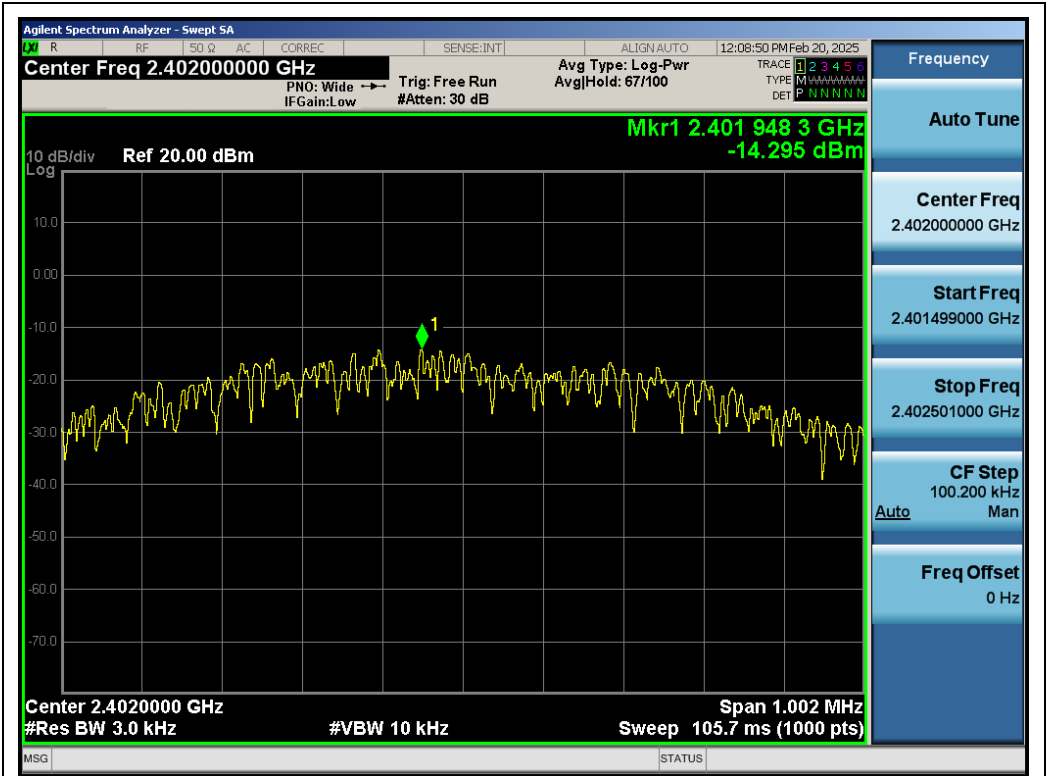
Test_Graph_LE2M_ANT1_2480_2Mbps_Peak Power

Appendix C: Maximum peak power spectral density

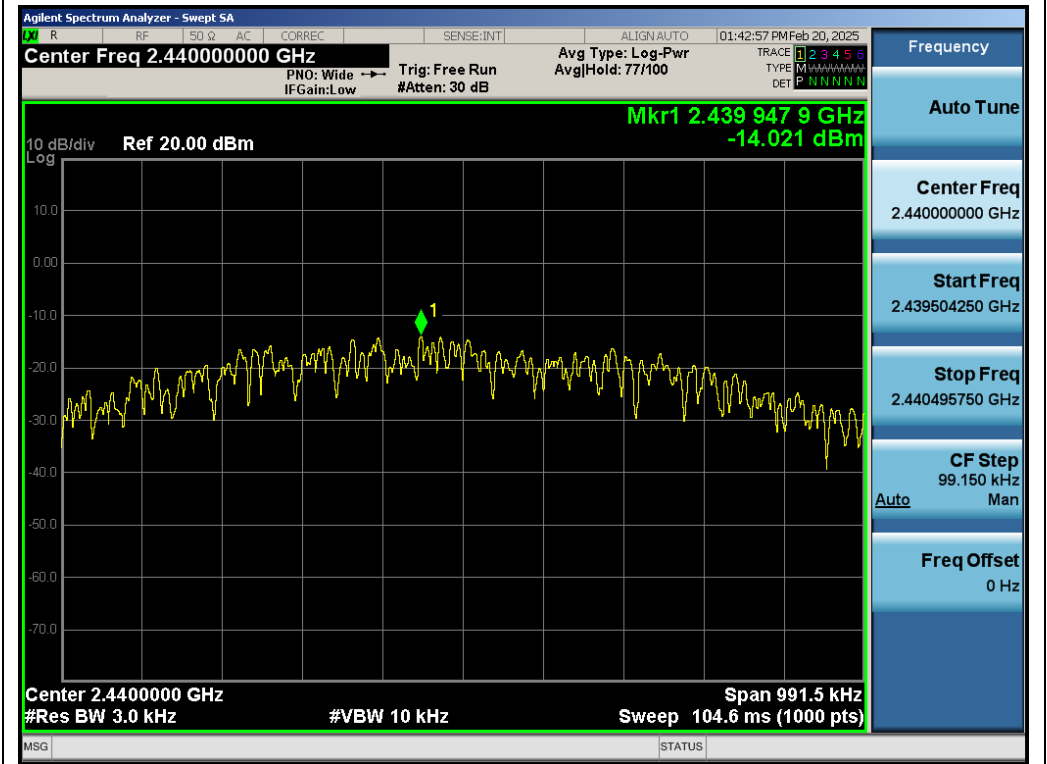
Test Result

Test Mode	Test Frequency (MHz)	Power density (dBm/3kHz)	Limit (dBm/3kHz)	Pass or Fail
GFSK_1Mbps	2402	-14.295	≤ 8	Pass
	2440	-14.021	≤ 8	Pass
	2480	-14.074	≤ 8	Pass
GFSK_2Mbps	2402	-17.209	≤ 8	Pass
	2440	-16.883	≤ 8	Pass
	2480	-16.820	≤ 8	Pass

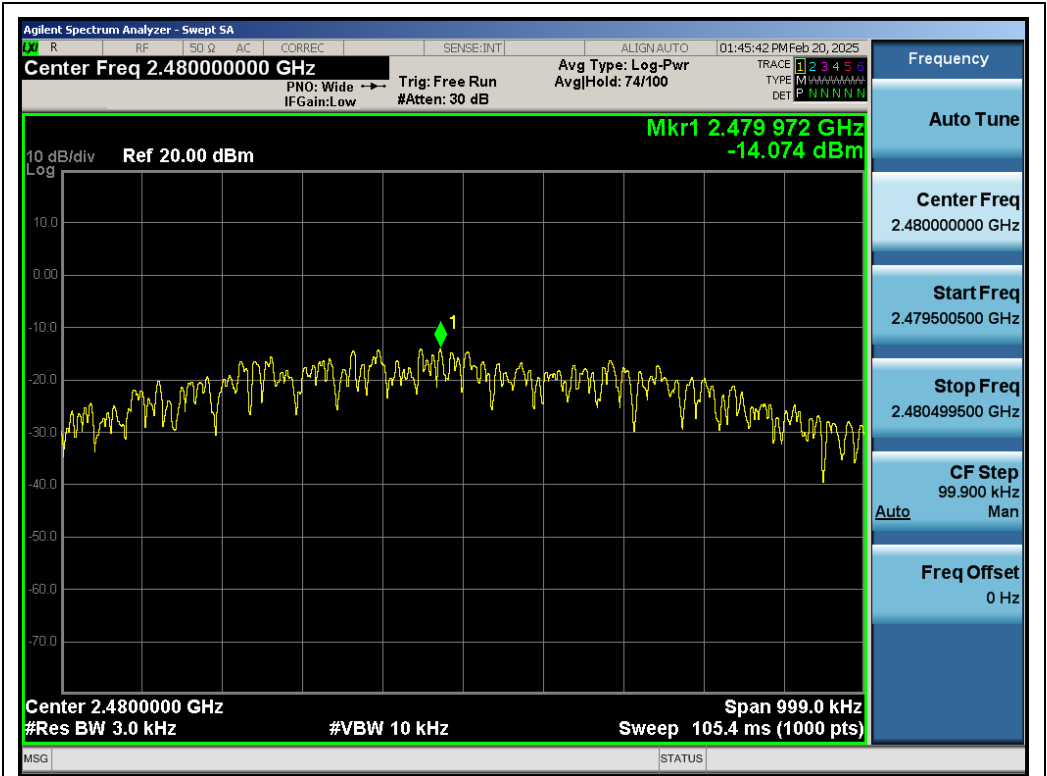
Test Graphs



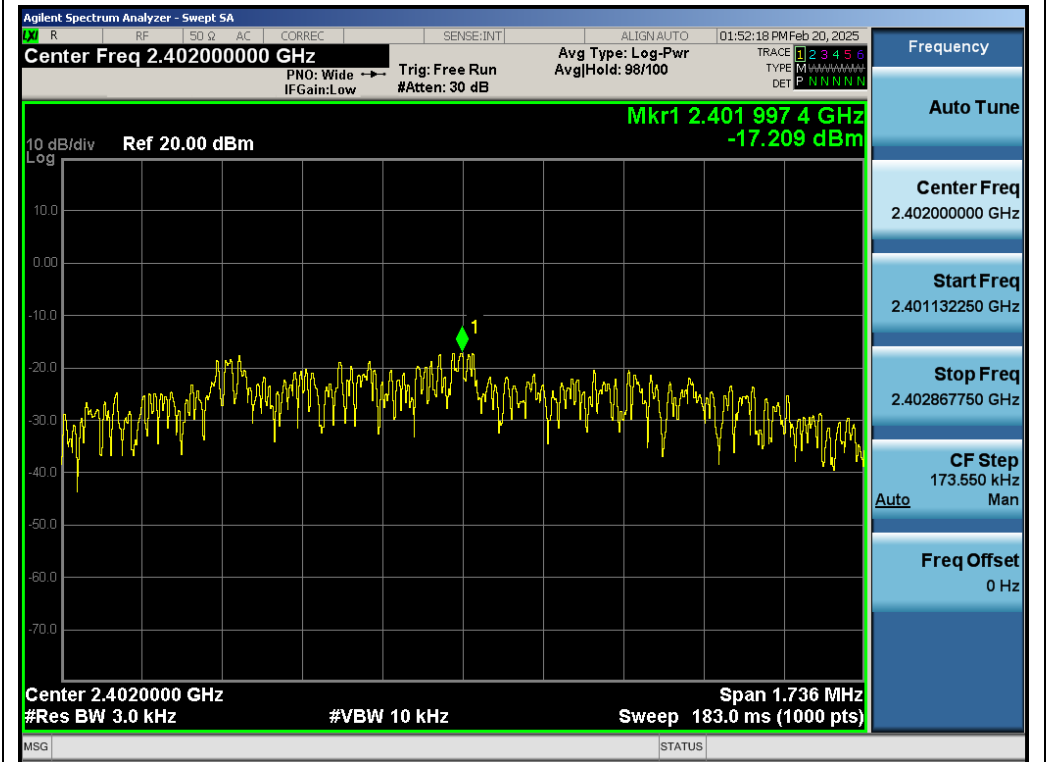
Test_Graph_LE1M_ANT1_2402_1Mbps_PSD



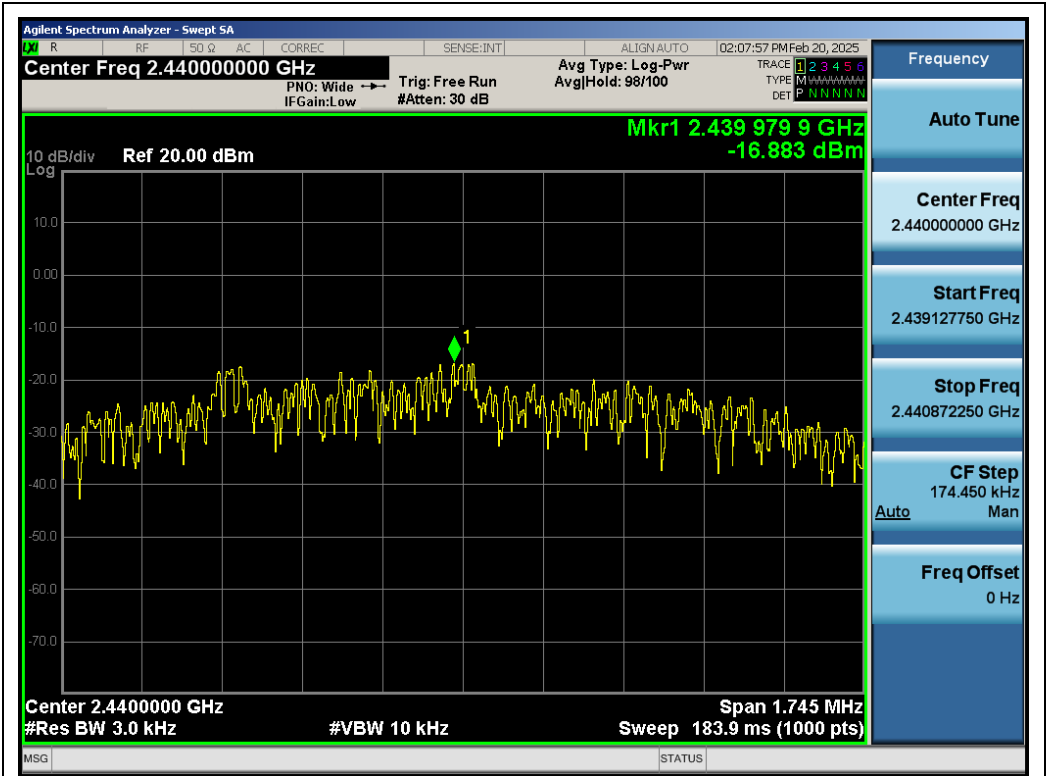
Test_Graph_LE1M_ANT1_2440_1Mbps_PSD



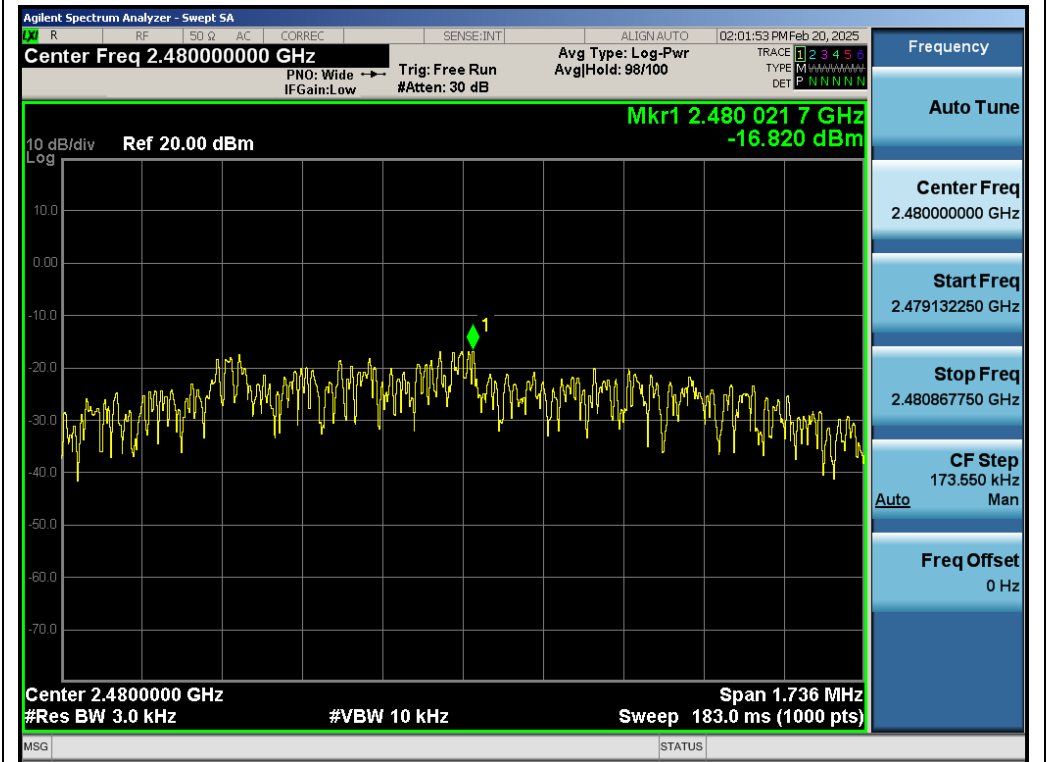
Test_Graph_LE1M_ANT1_2480_1Mbps_PSD



Test_Graph_LE2M_ANT1_2402_2Mbps_PSD



Test_Graph_LE2M_ANT1_2440_2Mbps_PSD



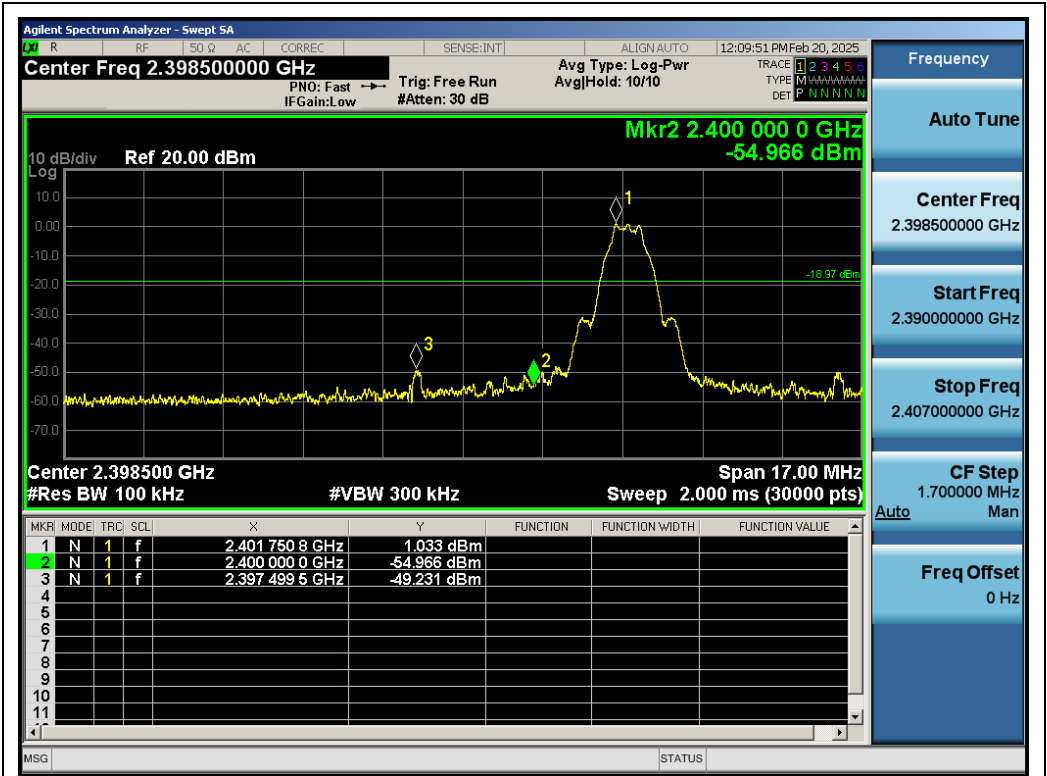
Test_Graph_LE2M_ANT1_2480_2Mbps_PSD

Appendix D: Band edge measurements

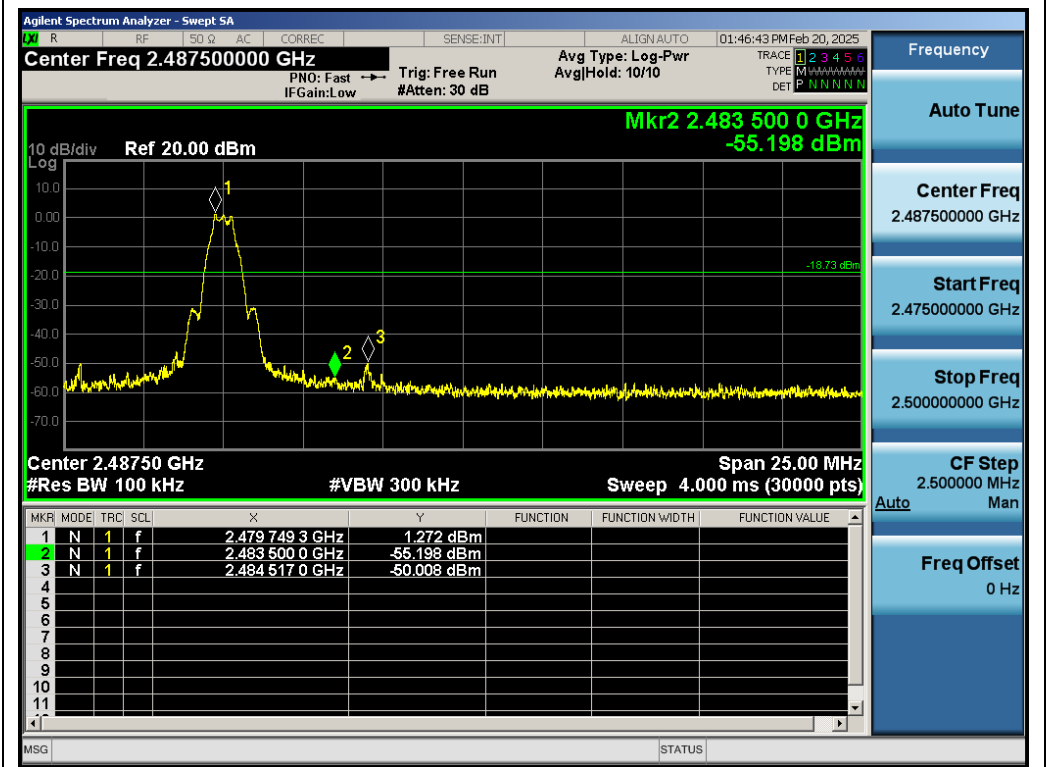
Test Result

Test Mode	Ch. Name	Frequency [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
GFSK_1Mbps	Low	2402	1.033	-54.966	≤ -18.97	Pass
GFSK_1Mbps	High	2480	1.272	-55.198	≤ -18.73	Pass
GFSK_2Mbps	Low	2402	0.963	-33.242	≤ -19.04	Pass
GFSK_2Mbps	High	2480	1.288	-58.686	≤ -18.71	Pass

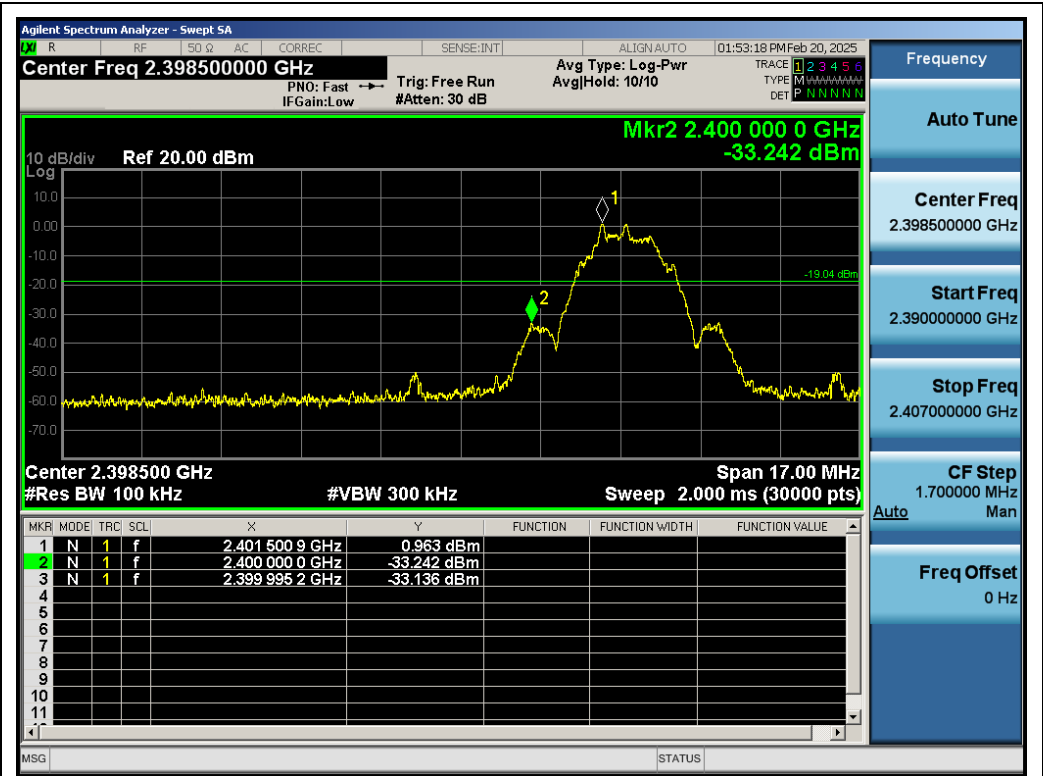
Test Graphs



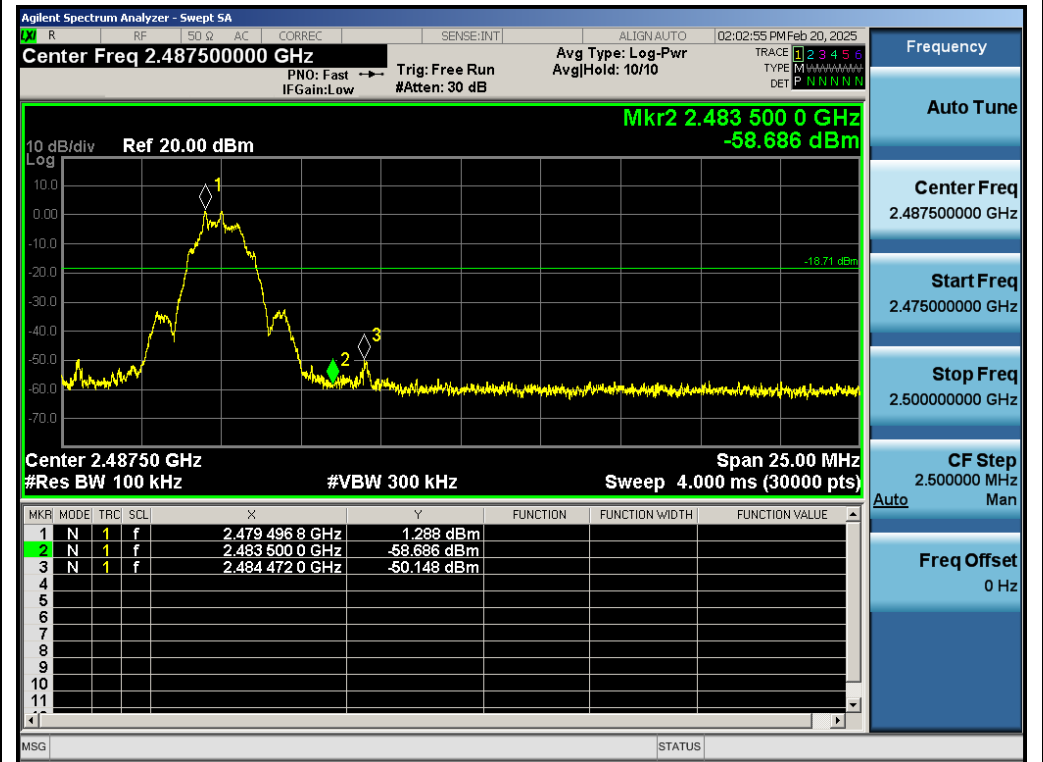
Test_Graph_LE1M_ANT1_2402_1Mbps_Lower Band Edge Emissions



Test_Graph_LE1M_ANT1_2480_1Mbps_Higher Band Edge Emissions



Test_Graph_LE2M_ANT1_2402_2Mbps_Lower Band Edge Emissions



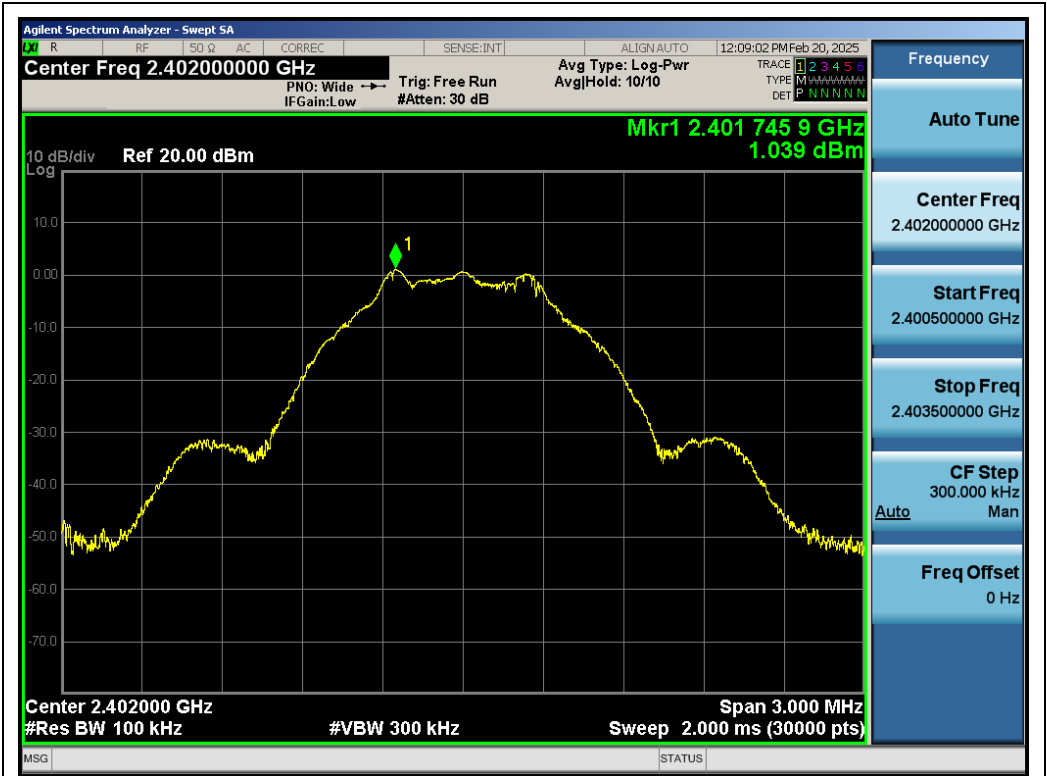
Test_Graph_LE2M_ANT1_2480_2Mbps_Higher Band Edge Emissions

Appendix E: Conducted Spurious Emission

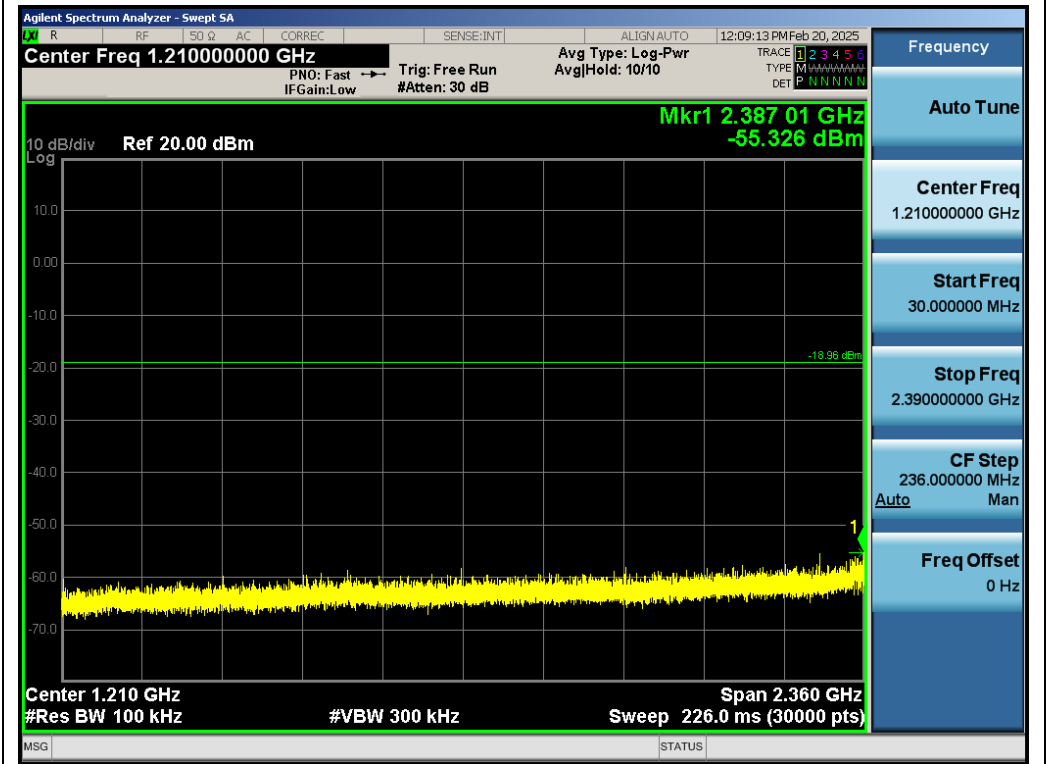
Test Result

Test Mode	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
GFSK_1Mbps	2402	0~Reference	1.039	1.039	---	Pass
GFSK_1Mbps	2402	30~2390	1.039	-55.326	≤ -18.96	Pass
GFSK_1Mbps	2402	2483.5~25000	1.039	-45.257	≤ -18.96	Pass
GFSK_1Mbps	2440	0~Reference	1.302	1.302	---	Pass
GFSK_1Mbps	2440	30~2400	1.302	-56.036	≤ -18.70	Pass
GFSK_1Mbps	2440	2483.5~25000	1.302	-43.016	≤ -18.70	Pass
GFSK_1Mbps	2480	0~Reference	1.319	1.319	---	Pass
GFSK_1Mbps	2480	30~2400	1.319	-57.315	≤ -18.68	Pass
GFSK_1Mbps	2480	2500~26500	1.319	-42.378	≤ -18.68	Pass
GFSK_2Mbps	2402	0~Reference	0.926	0.926	---	Pass
GFSK_2Mbps	2402	30~2390	0.926	-54.892	≤ -19.07	Pass
GFSK_2Mbps	2402	2483.5~25000	0.926	-46.502	≤ -19.07	Pass
GFSK_2Mbps	2440	0~Reference	1.297	1.297	---	Pass
GFSK_2Mbps	2440	30~2400	1.297	-56.417	≤ -18.70	Pass
GFSK_2Mbps	2440	2483.5~25000	1.297	-47.674	≤ -18.70	Pass
GFSK_2Mbps	2480	0~Reference	1.344	1.344	---	Pass
GFSK_2Mbps	2480	30~2400	1.344	-56.337	≤ -18.66	Pass
GFSK_2Mbps	2480	2500~26500	1.344	-42.779	≤ -18.66	Pass

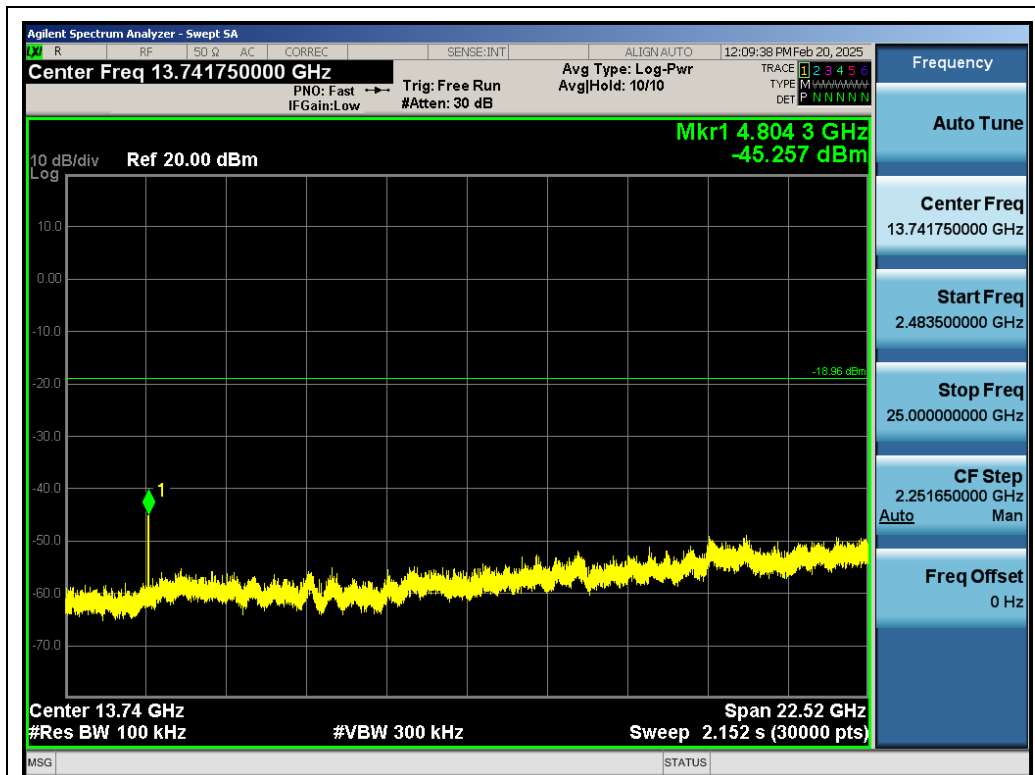
Test Graphs



Test_Graph_LE1M_ANT1_2402_1Mbps_Reference Level



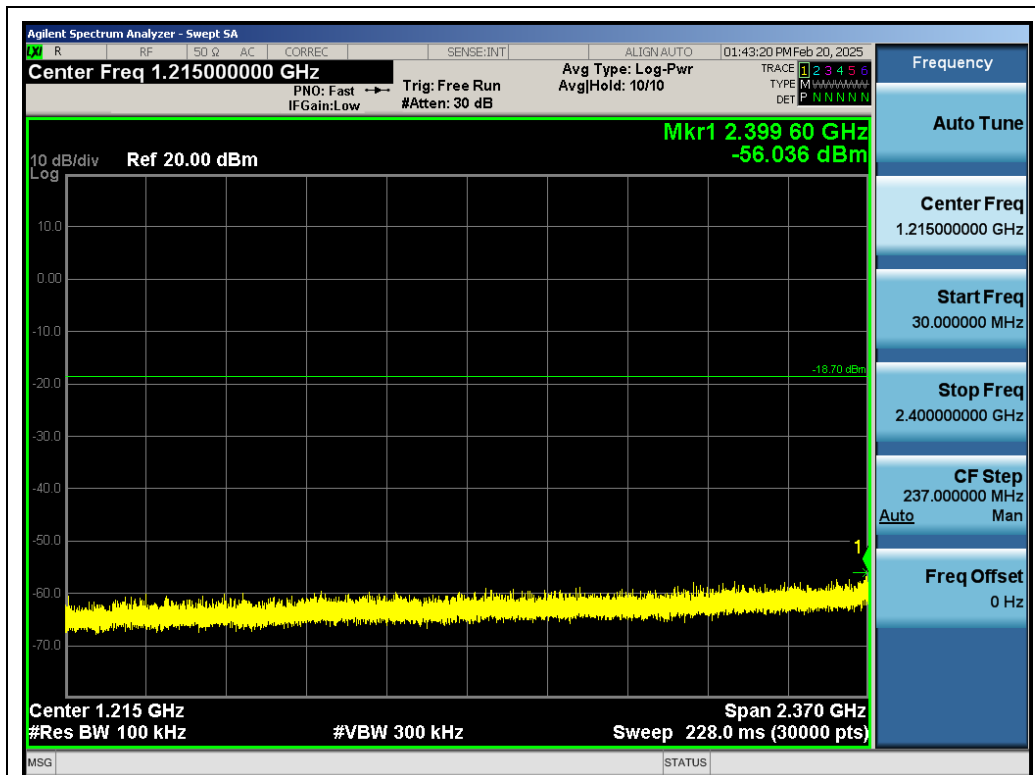
Test_Graph_LE1M_ANT1_2402_1Mbps_Lower Band Emissions



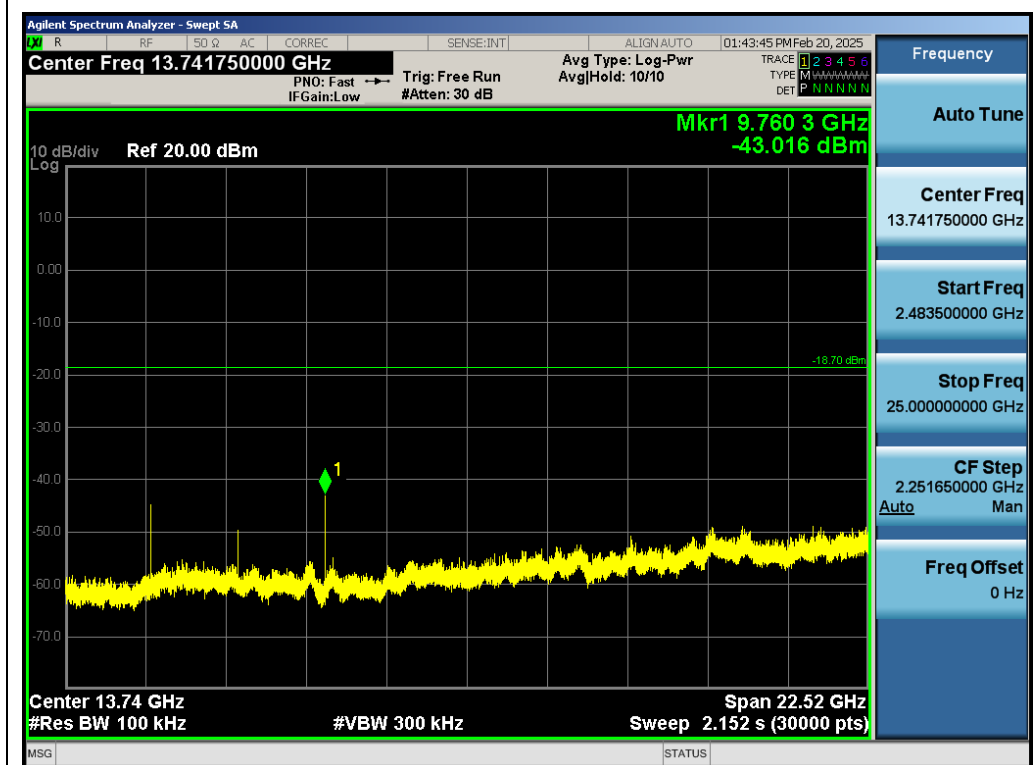
Test_Graph_LE1M_ANT1_2402_1Mbps_Higher Band Emissions



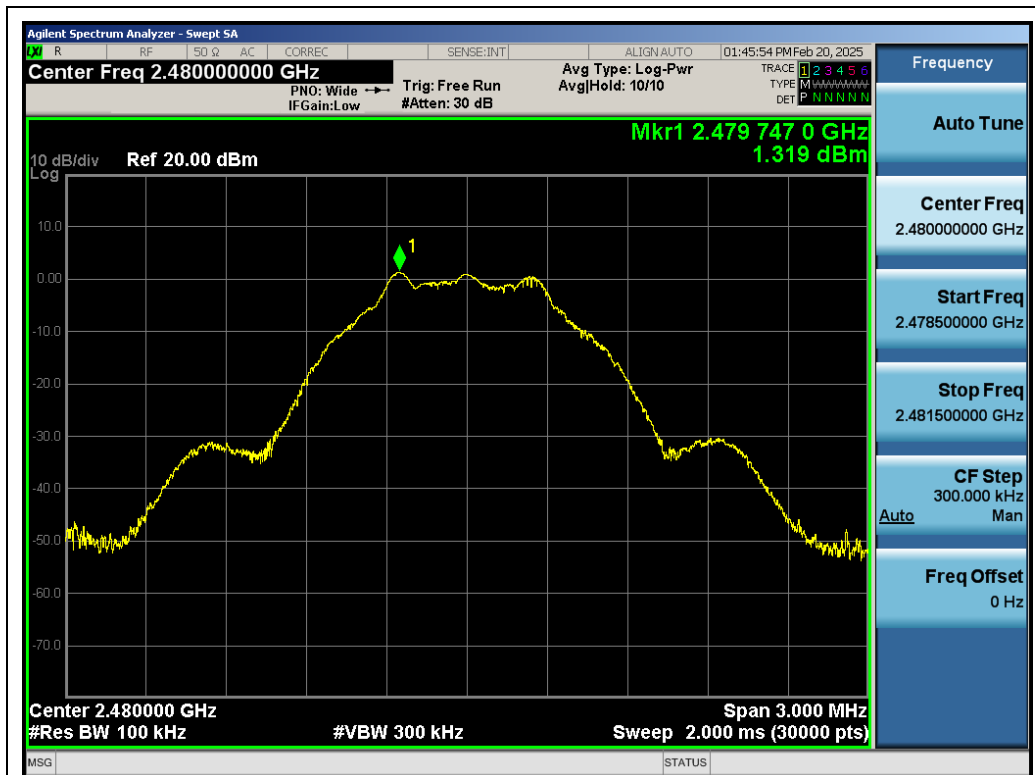
Test_Graph_LE1M_ANT1_2440_1Mbps_Reference Level



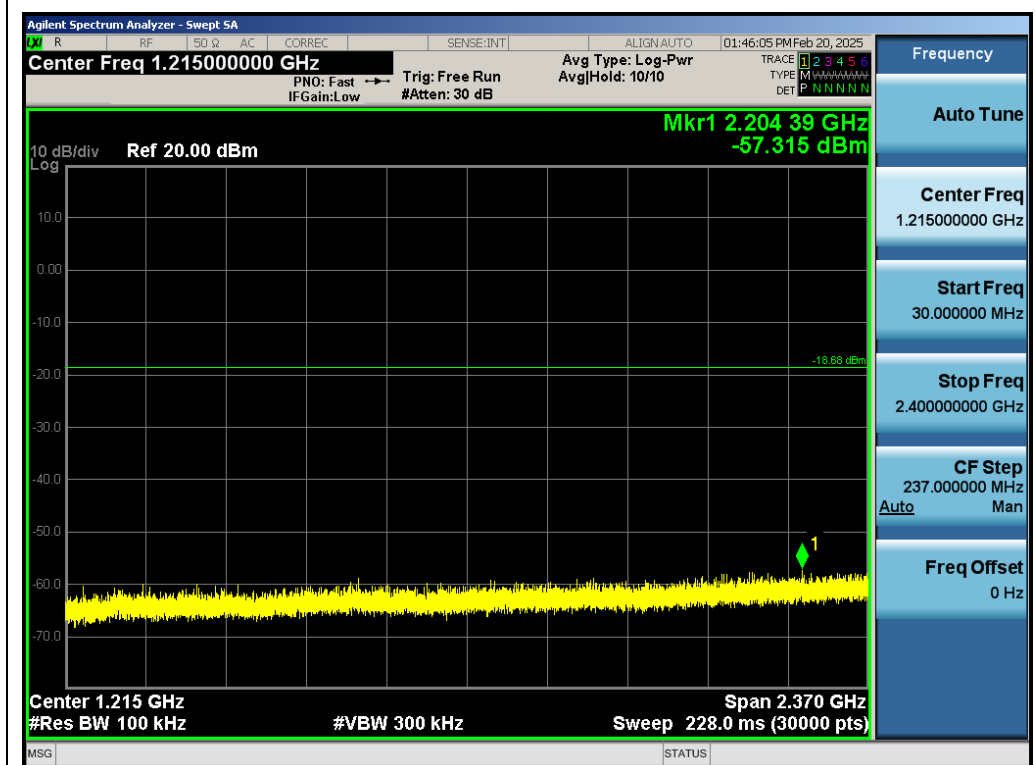
Test_Graph_LE1M_ANT1_2440_1Mbps_Lower Band Emissions



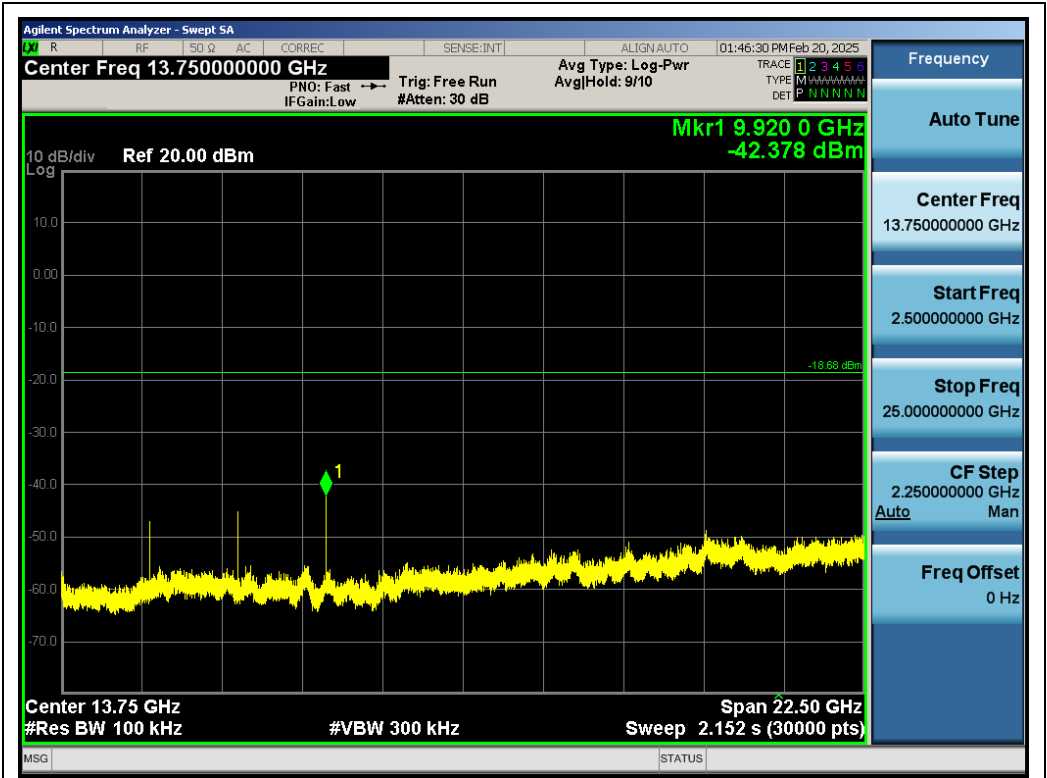
Test_Graph_LE1M_ANT1_2440_1Mbps_Higher Band Emissions



Test_Graph_LE1M_ANT1_2480_1Mbps_Reference Level



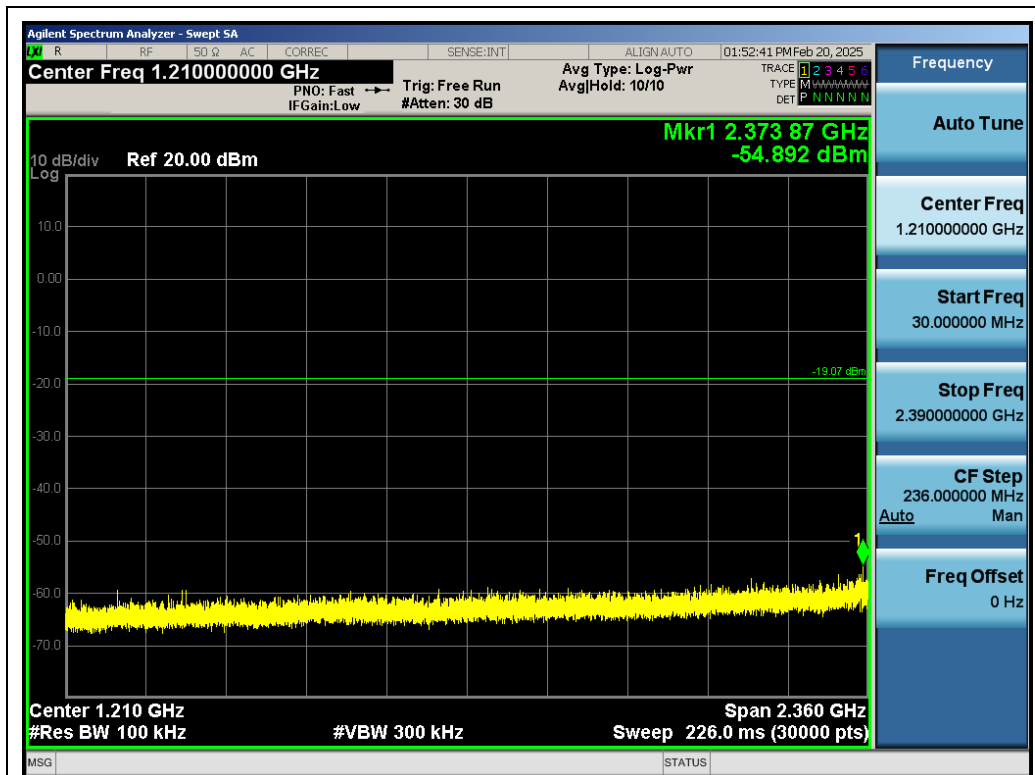
Test_Graph_LE1M_ANT1_2480_1Mbps_Lower Band Emissions



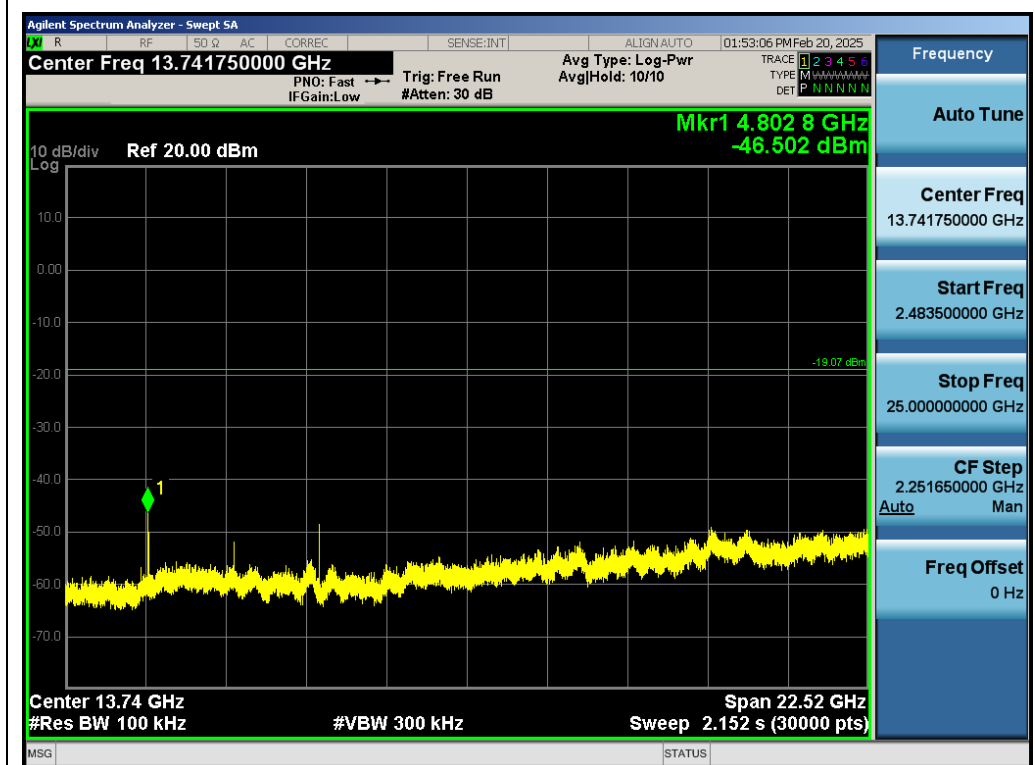
Test_Graph_LE1M_ANT1_2480_1Mbps_Higher Band Emissions



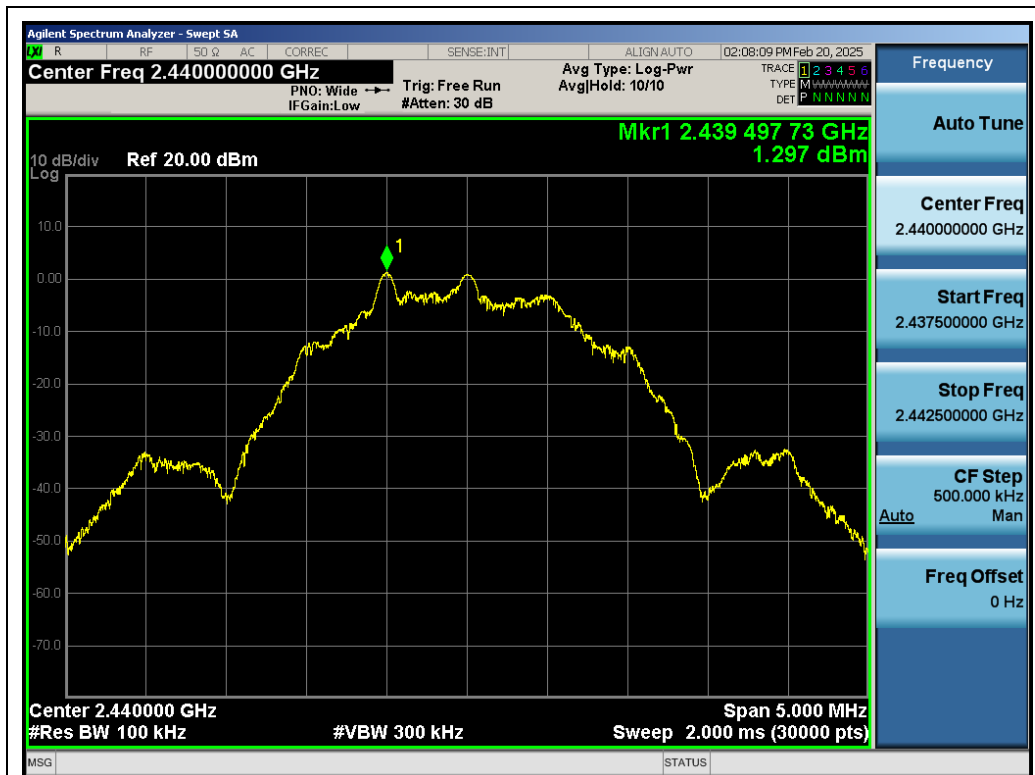
Test_Graph_LE2M_ANT1_2402_2Mbps_Reference Level



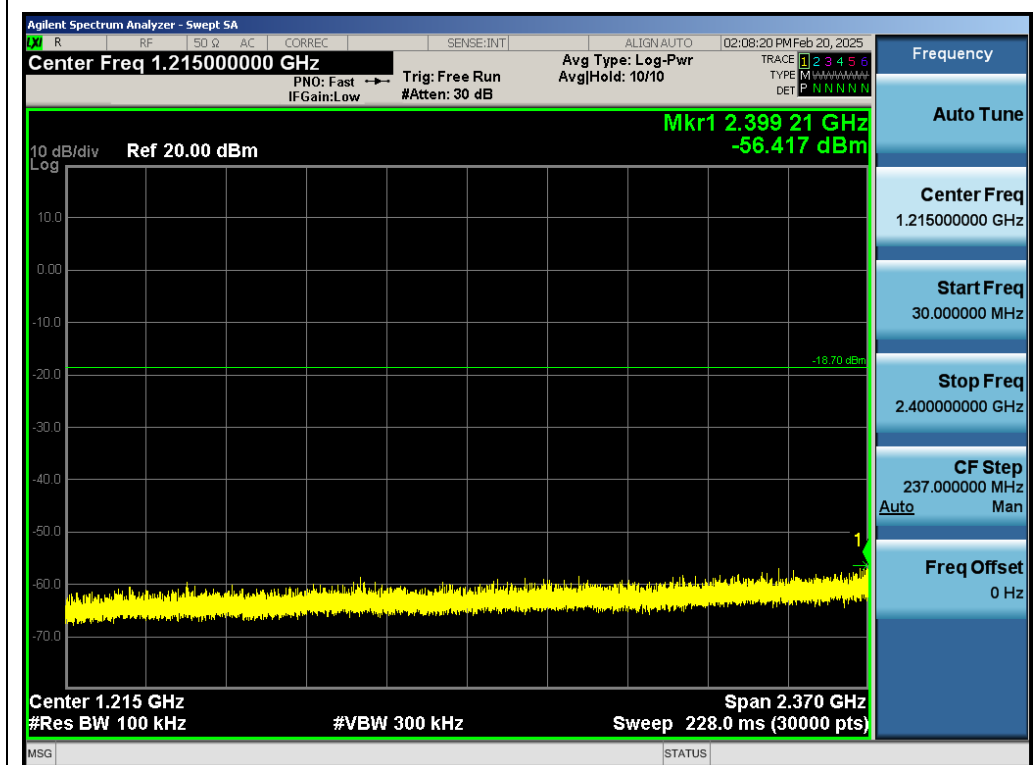
Test_Graph_LE2M_ANT1_2402_2Mbps_Lower Band Emissions



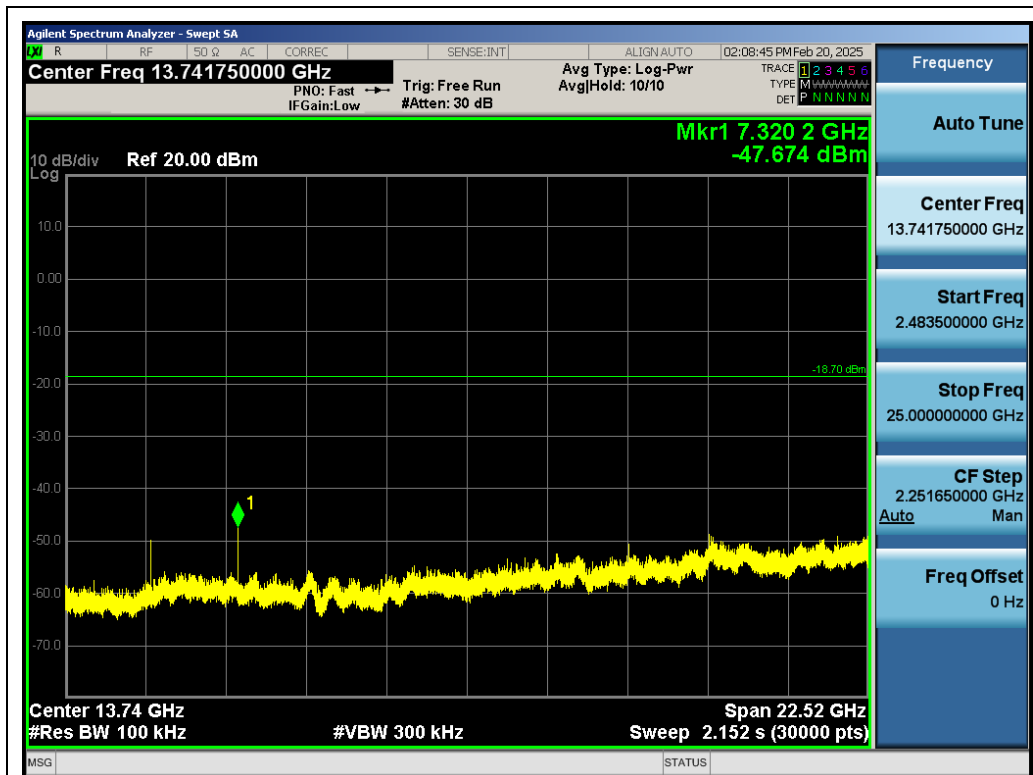
Test_Graph_LE2M_ANT1_2402_2Mbps_Higher Band Emissions



Test_Graph_LE2M_ANT1_2440_2Mbps_Reference Level



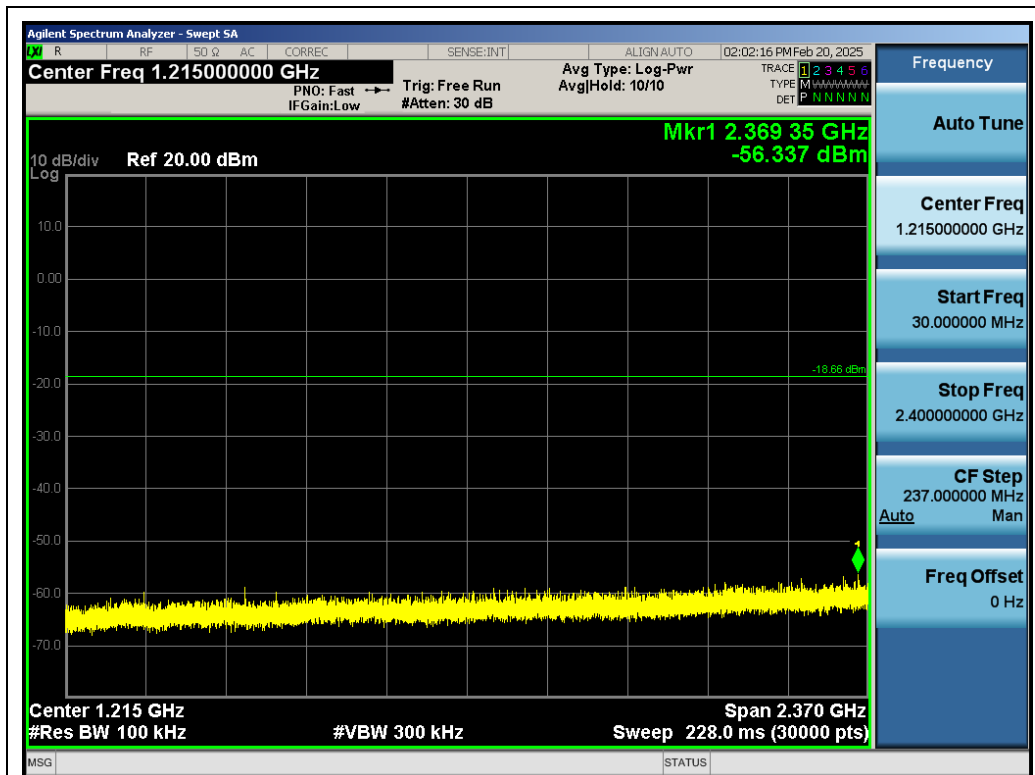
Test_Graph_LE2M_ANT1_2440_2Mbps_Lower Band Emissions



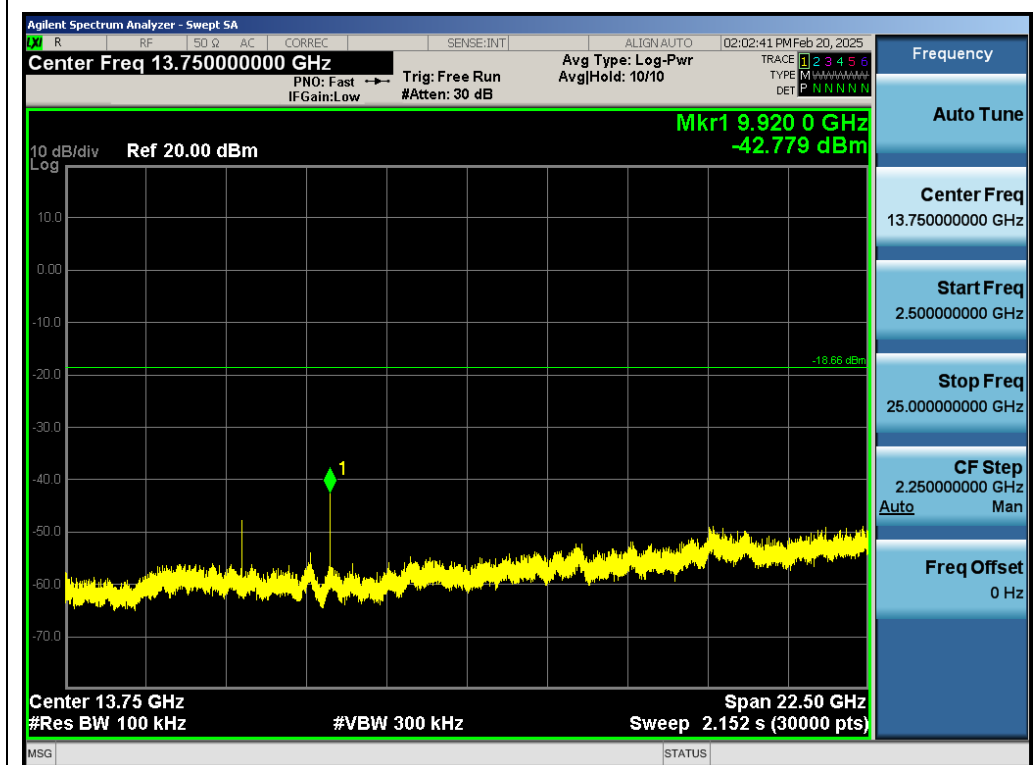
Test_Graph_LE2M_ANT1_2440_2Mbps_Higher Band Emissions



Test_Graph_LE2M_ANT1_2480_2Mbps_Reference Level



Test_Graph_LE2M_ANT1_2480_2Mbps_Lower Band Emissions



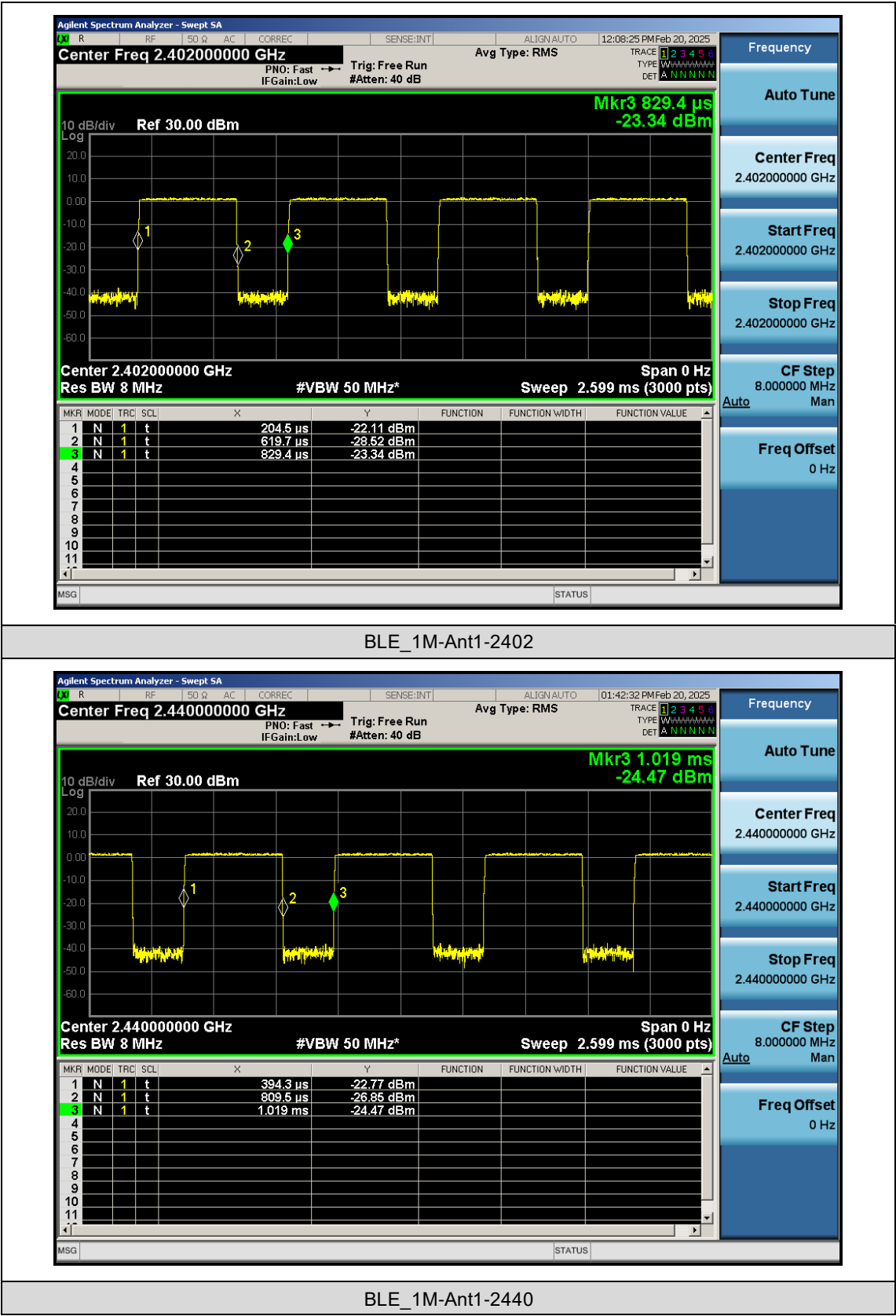
Test_Graph_LE2M_ANT1_2480_2Mbps_Higher Band Emissions

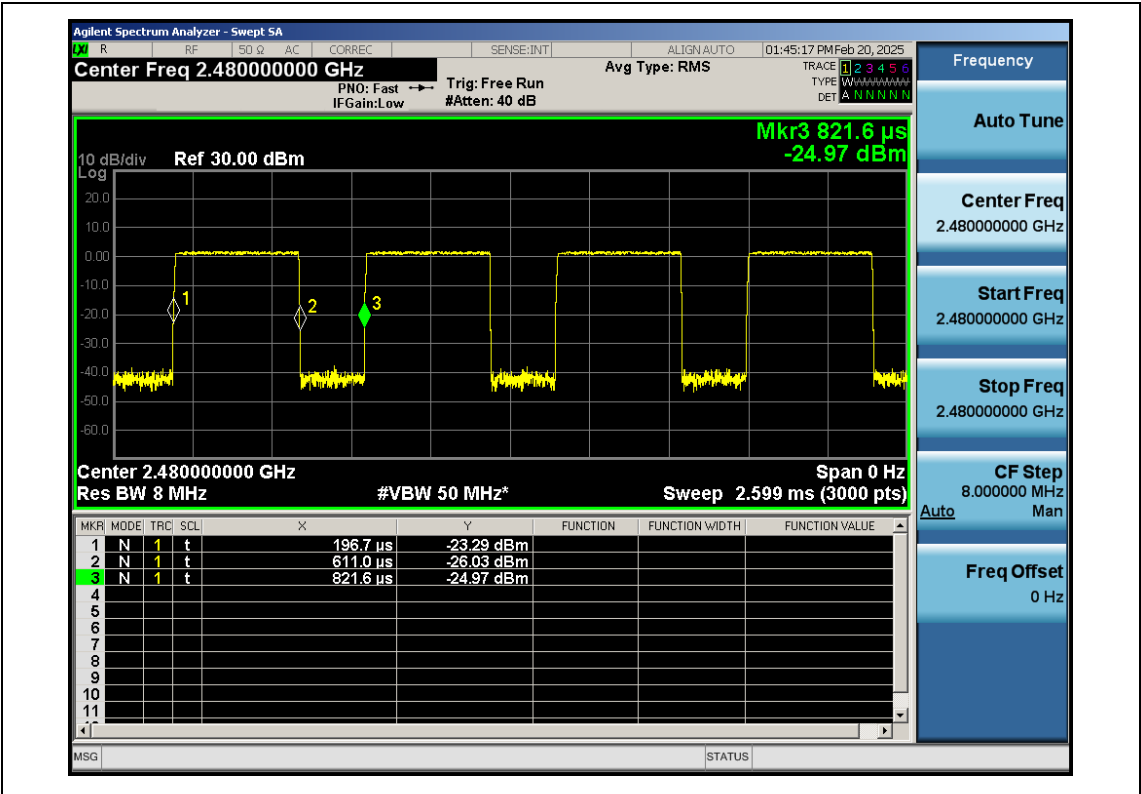
Appendix F: Duty Cycle

Test Result

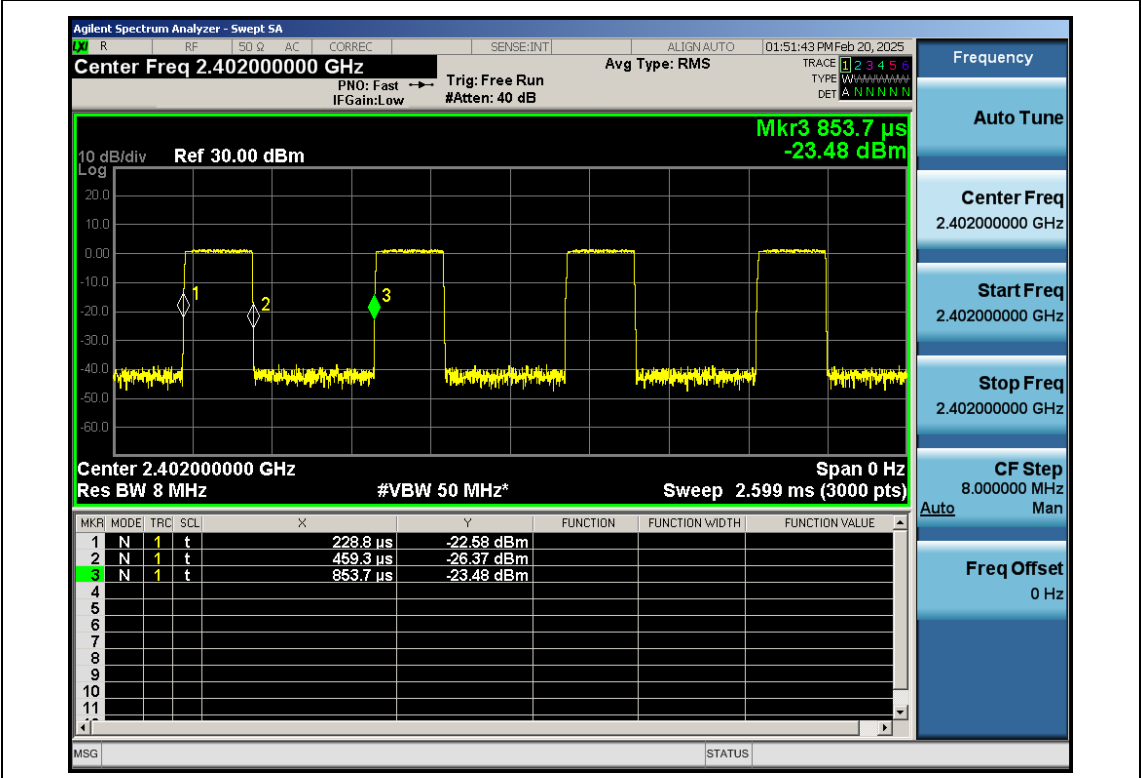
Test Mode	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
GFSK_1Mbps	2402	0.42	0.62	66.44	1.78
GFSK_1Mbps	2440	0.42	0.62	66.46	1.77
GFSK_1Mbps	2480	0.41	0.62	66.30	1.78
GFSK_2Mbps	2402	0.23	0.62	36.89	4.33
GFSK_2Mbps	2440	0.23	0.62	37.03	4.31
GFSK_2Mbps	2480	0.23	0.62	36.89	4.33

Test Graphs

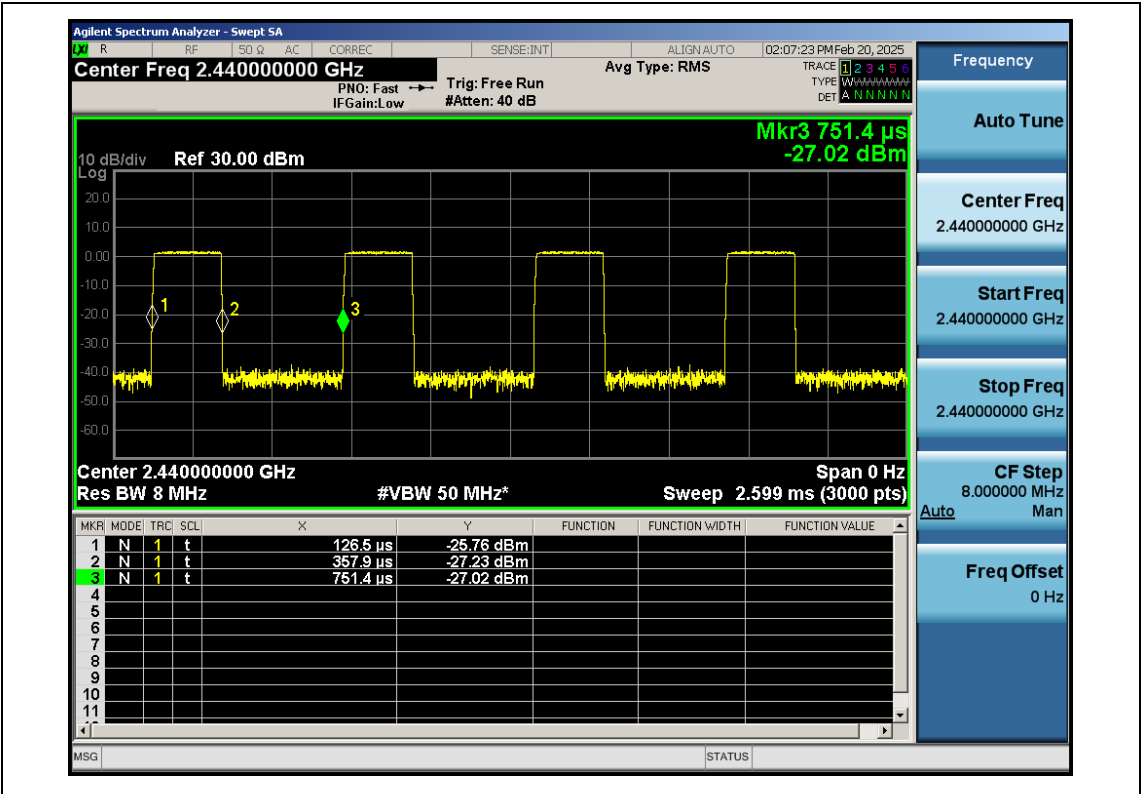




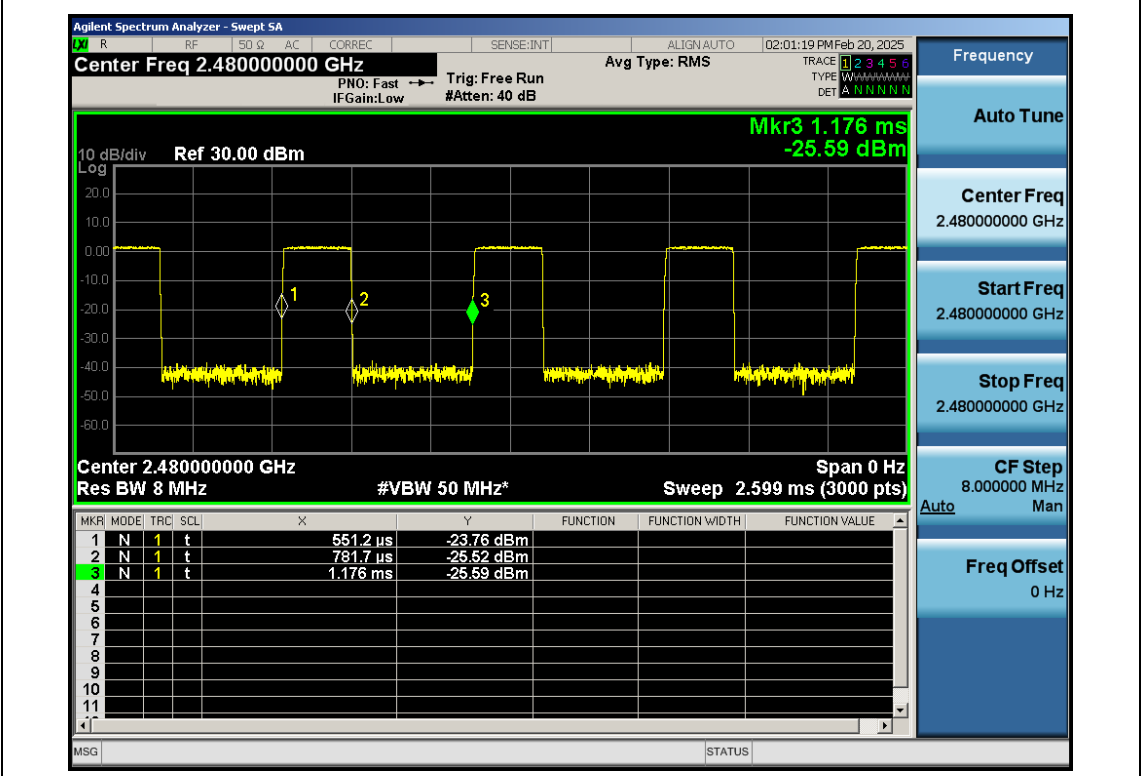
BLE_1M-Ant1-2480



BLE_2M-Ant1-2402



BLE_2M-Ant1-2440



BLE_2M-Ant1-2480