

FCC Appendix RF Test Data for BLE

FCC ID : 2BXI6-8D-9C

Company : Shantou Haodaole Electronic Technology Co., Ltd.

EUT : Multifunctional DJ guitar

Model Number : 8D-9C

Report No. : CTA26080701101

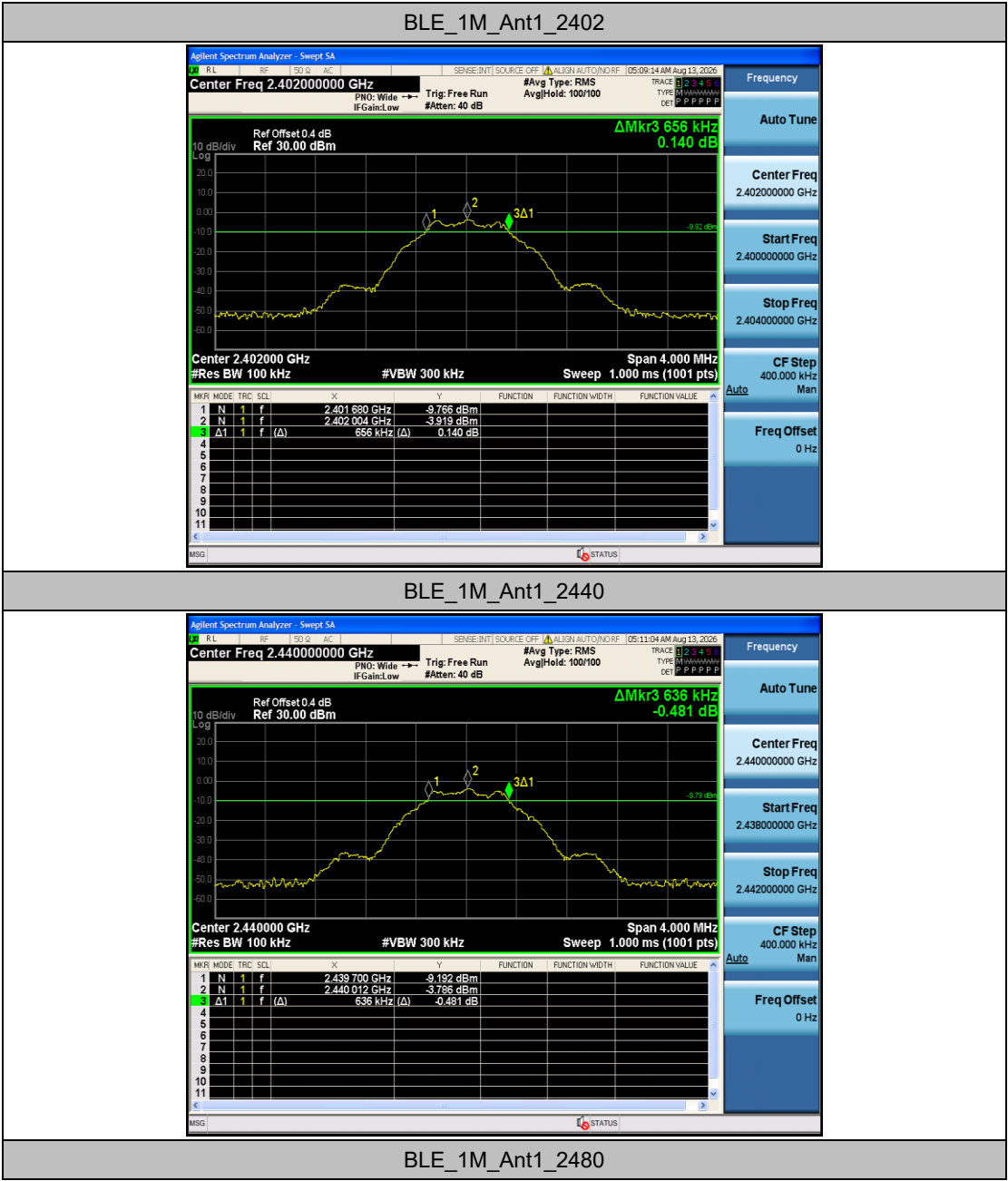
Reviewed By : Eric Wang

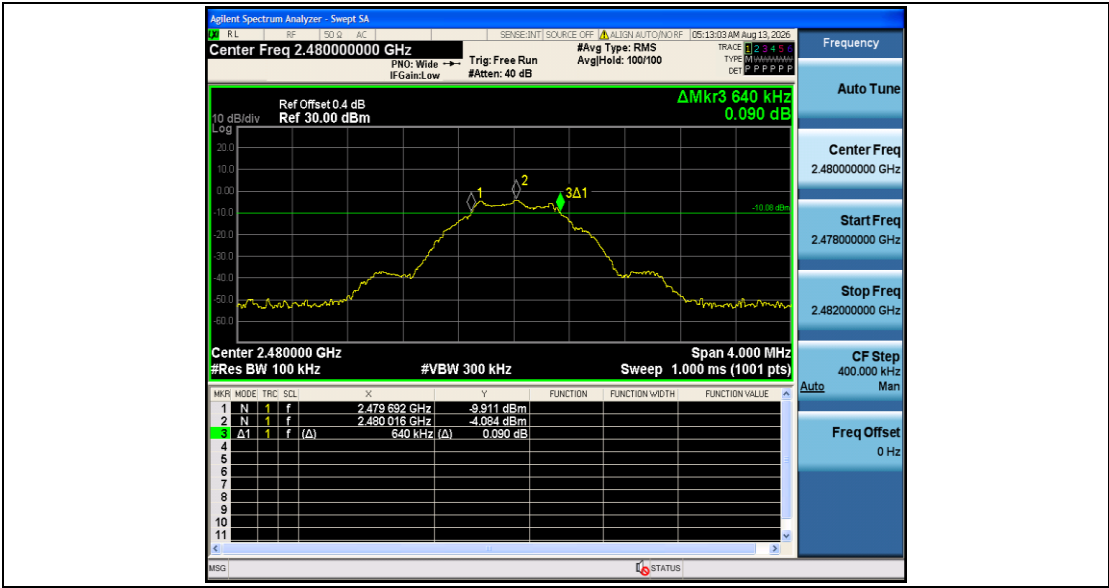
Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.656	2401.680	2402.336	0.5	PASS
		2440	0.636	2439.700	2440.336	0.5	PASS
		2480	0.640	2479.692	2480.332	0.5	PASS

Test Graphs



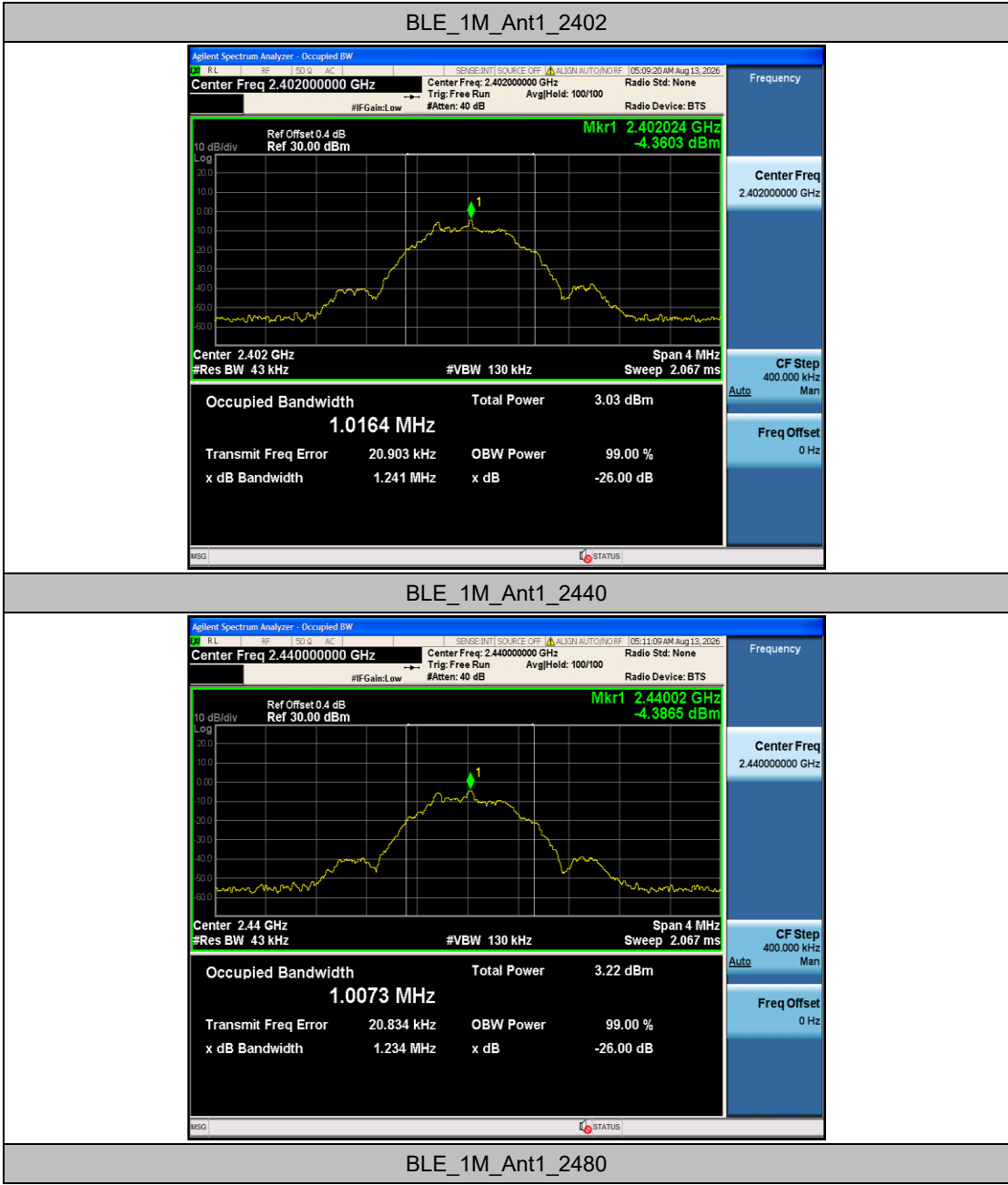


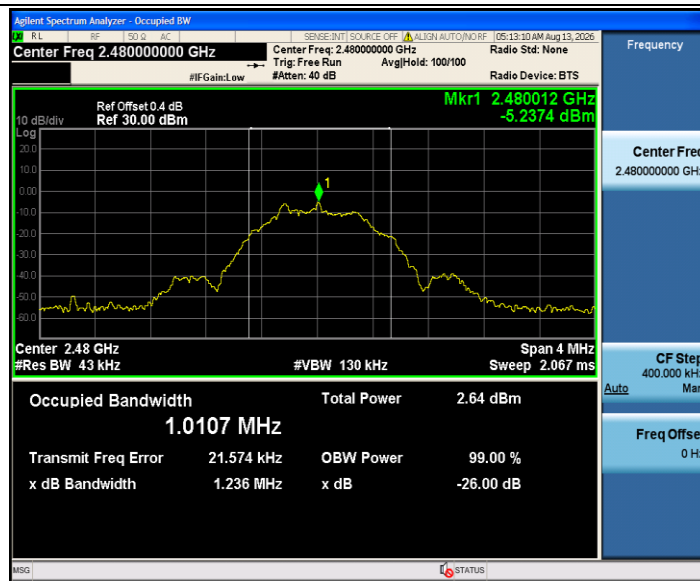
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0164	2401.5127	2402.5291	---	---
		2440	1.0073	2439.5172	2440.5245	---	---
		2480	1.0107	2479.5162	2480.5269	---	---

Test Graphs





Appendix C: Maximum conducted output power

Test Result Peak

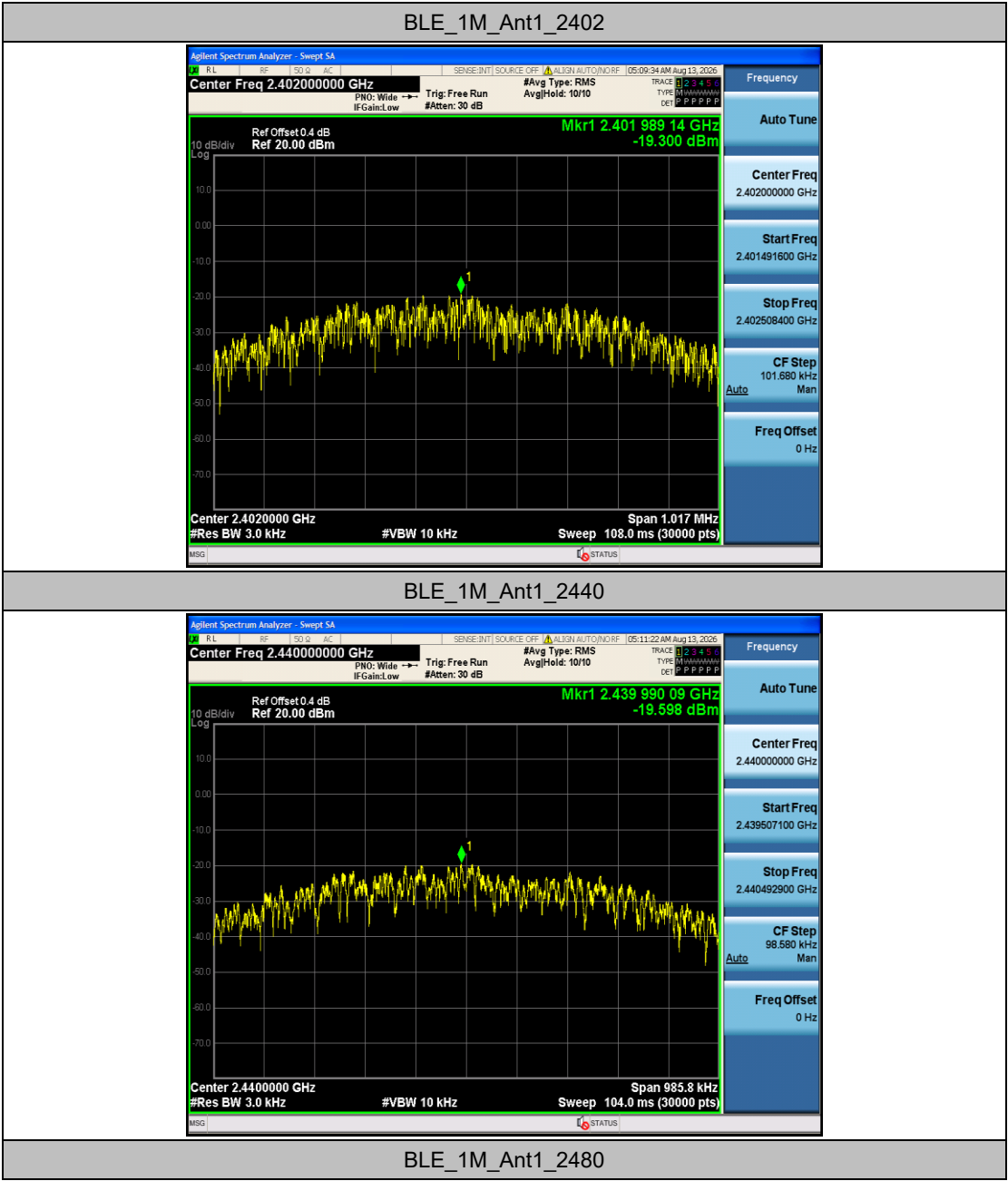
TestMode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-3.46	≤30	PASS
		2440	-3.58	≤30	PASS
		2480	-3.91	≤30	PASS

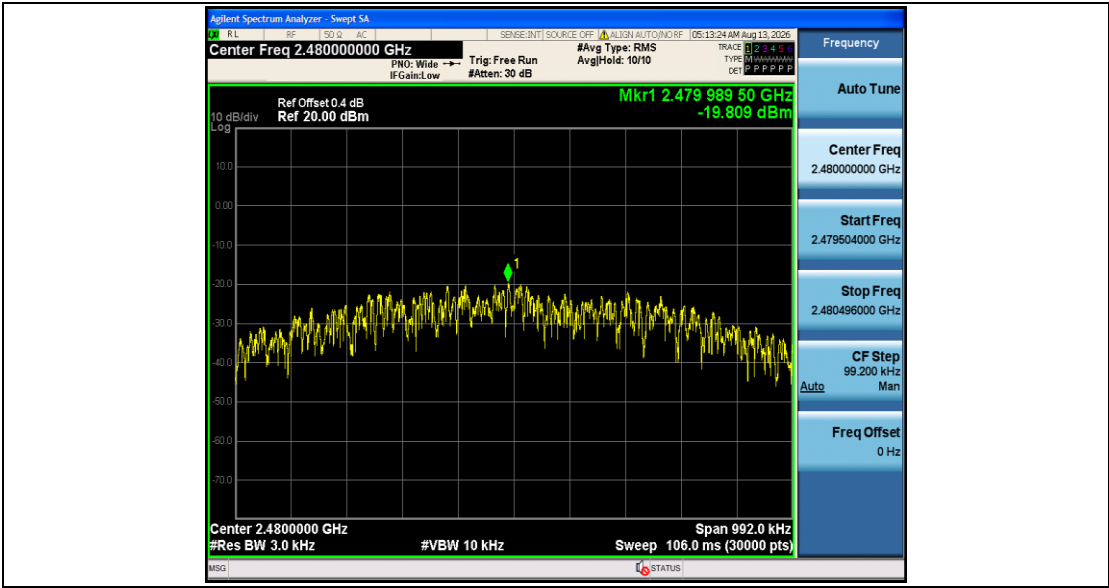
Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Freq(MHz)	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-19.30	≤8.00	PASS
		2440	-19.60	≤8.00	PASS
		2480	-19.81	≤8.00	PASS

Test Graphs



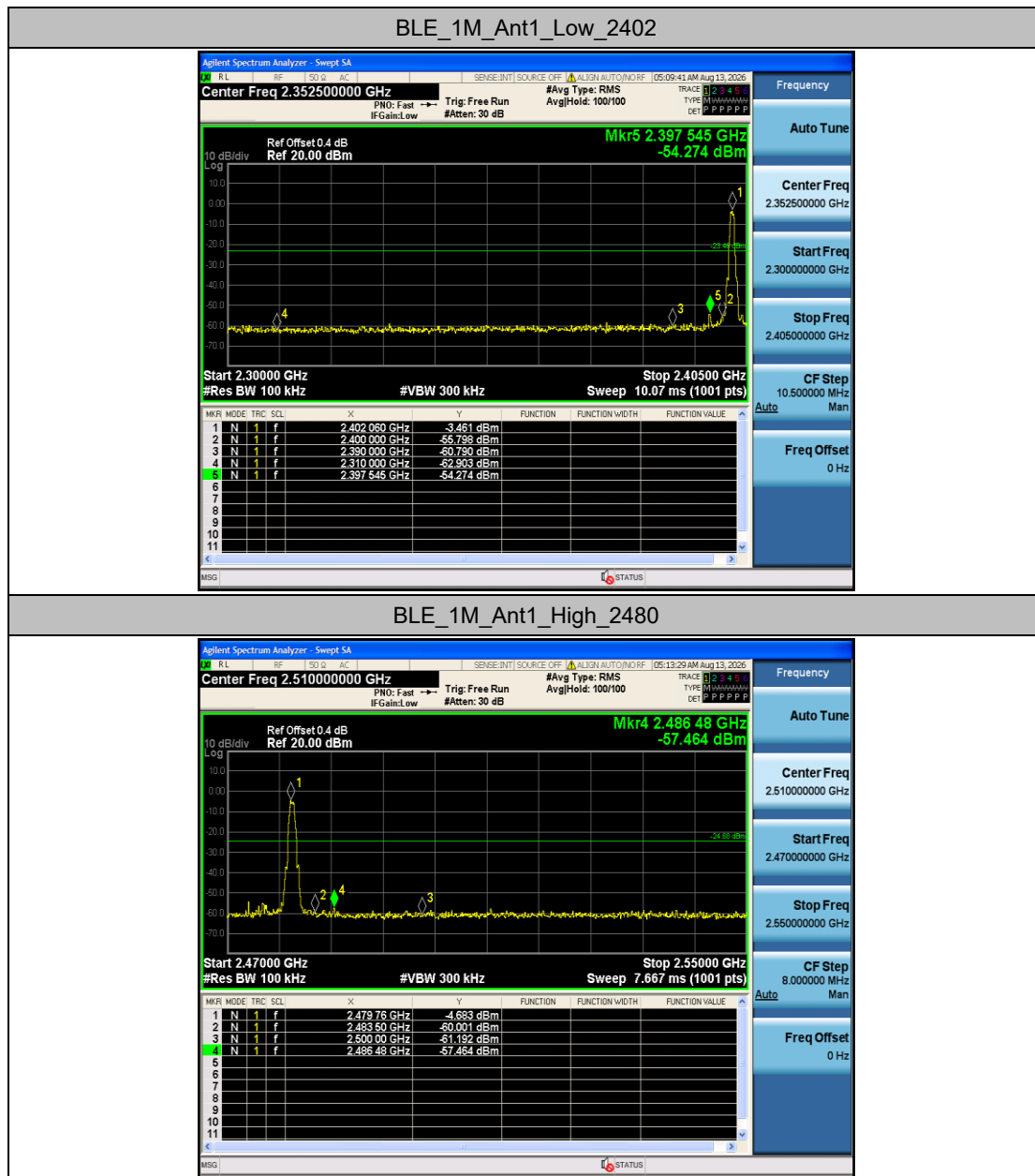


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	Channel	Freq(MHz)	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-3.46	-54.27	≤-23.46	PASS
		High	2480	-4.68	-57.46	≤-24.68	PASS

Test Graphs



Appendix F: Conducted Spurious Emission

Test Result

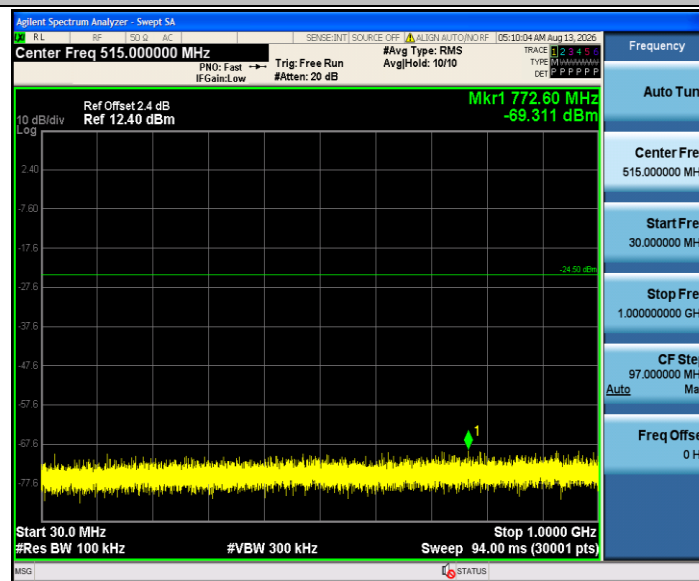
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-4.50	-4.50	---	PASS
			30~1000	-4.50	-69.31	≤-24.5	PASS
			1000~26500	-4.50	-46.51	≤-24.5	PASS
		2440	Reference	-4.48	-4.48	---	PASS
			30~1000	-4.48	-69.28	≤-24.48	PASS
			1000~26500	-4.48	-46.83	≤-24.48	PASS
		2480	Reference	-4.54	-4.54	---	PASS
			30~1000	-4.54	-46.17	≤-24.54	PASS
			1000~26500	-4.54	-46.05	≤-24.54	PASS

Test Graphs

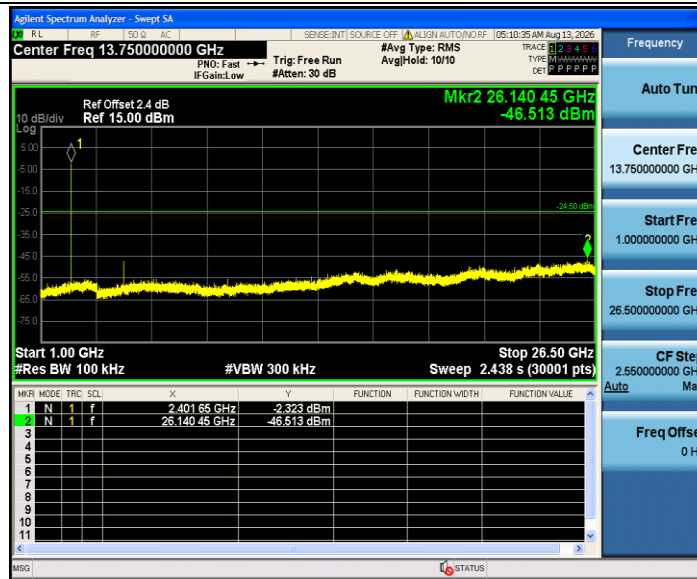
BLE_1M_Ant1_2402_0~Reference



BLE_1M_Ant1_2402_30~1000



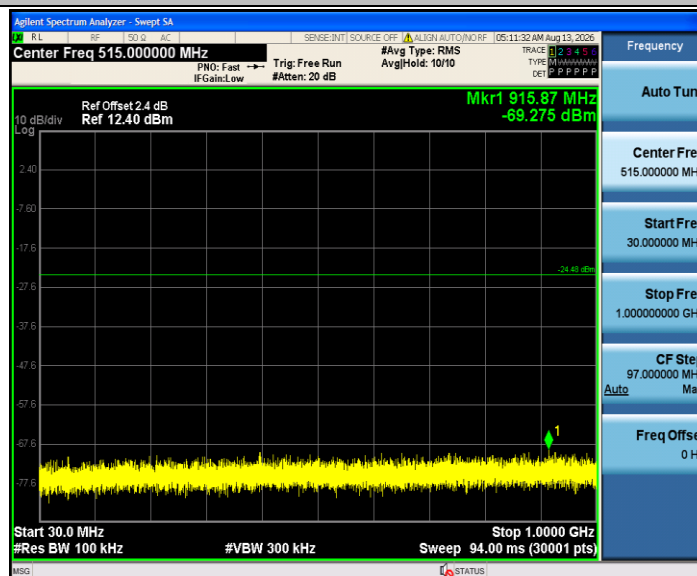
BLE_1M_Ant1_2402_1000~26500



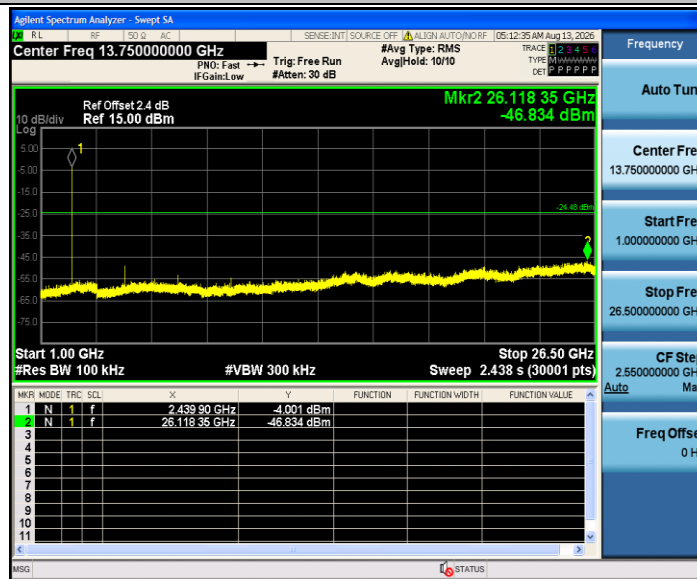
BLE_1M_Ant1_2440_0~Reference



BLE_1M_Ant1_2440_30~1000



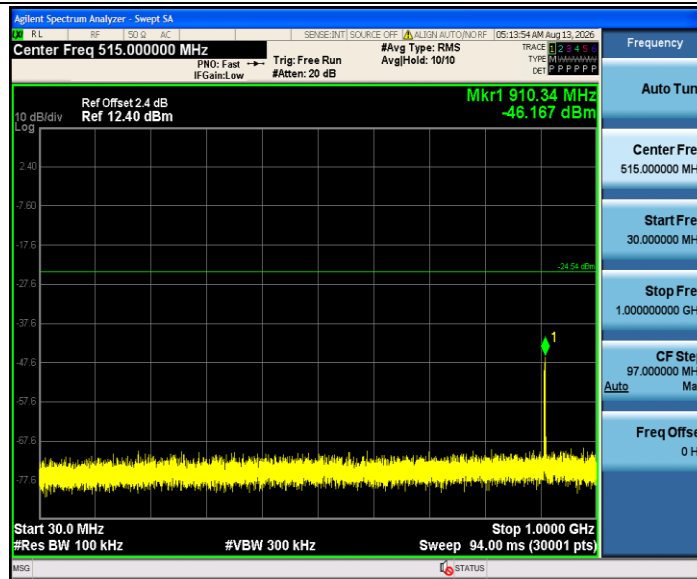
BLE_1M_Ant1_2440_1000~26500



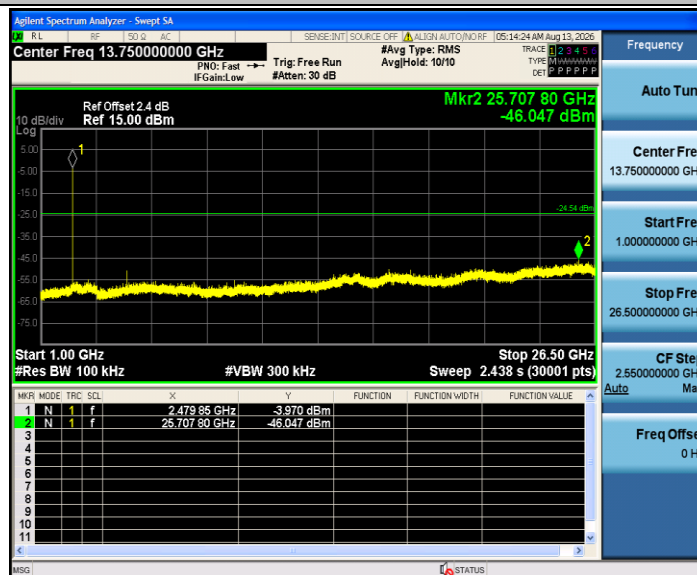
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500

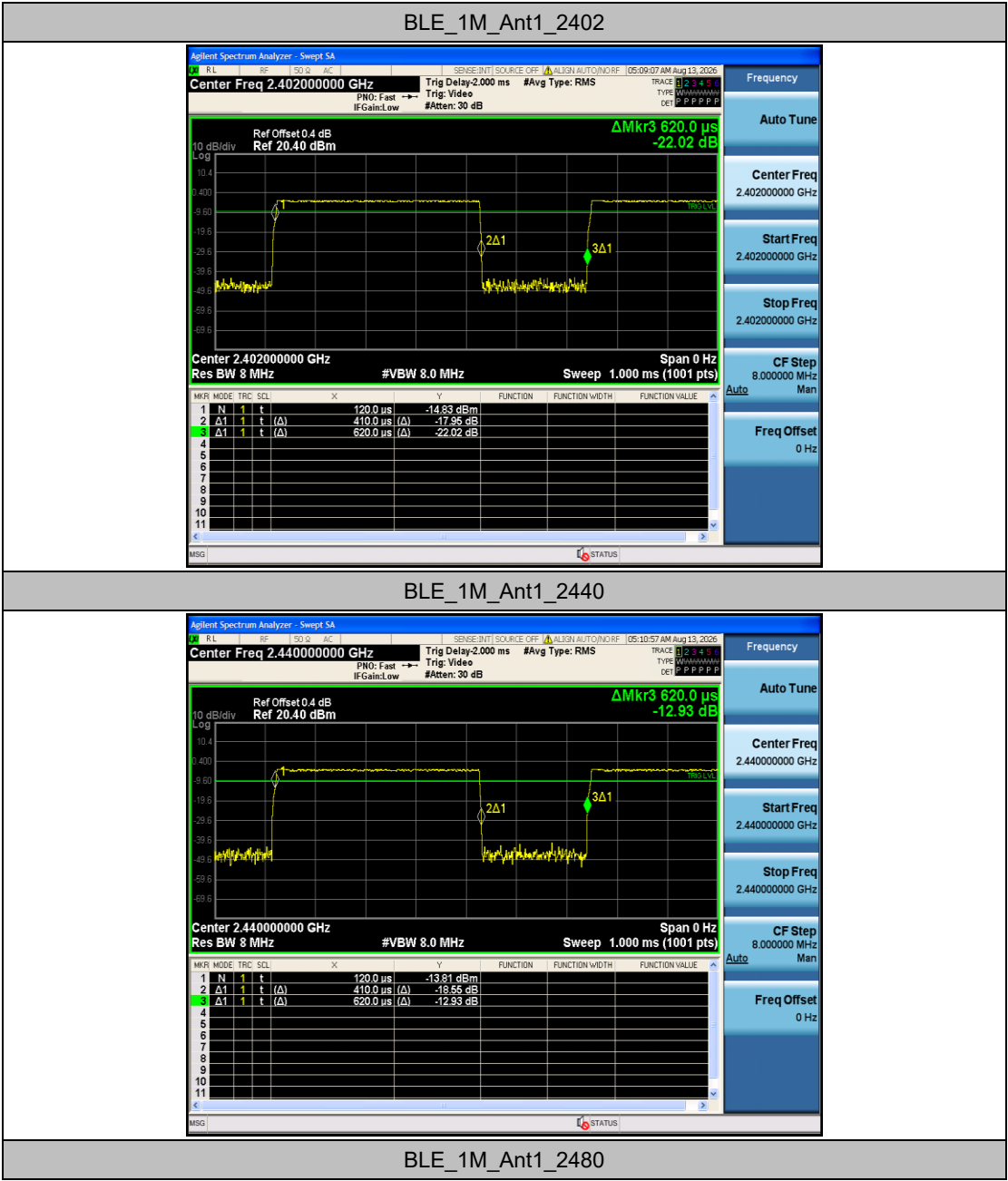


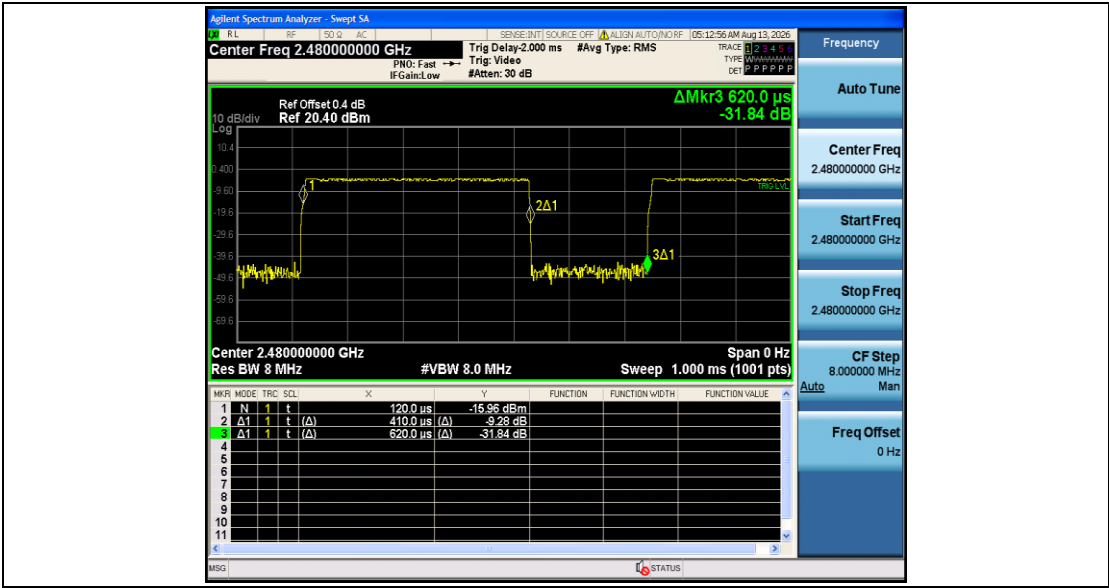
Appendix G: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
BLE_1M	Ant1	2402	0.41	0.62	0.6613	66.13	1.80	---	---
		2440	0.41	0.62	0.6613	66.13	1.80	---	---
		2480	0.41	0.62	0.6613	66.13	1.80	---	---

Test Graphs





Appendix H: Emissions in Restricted Bands

Test Result

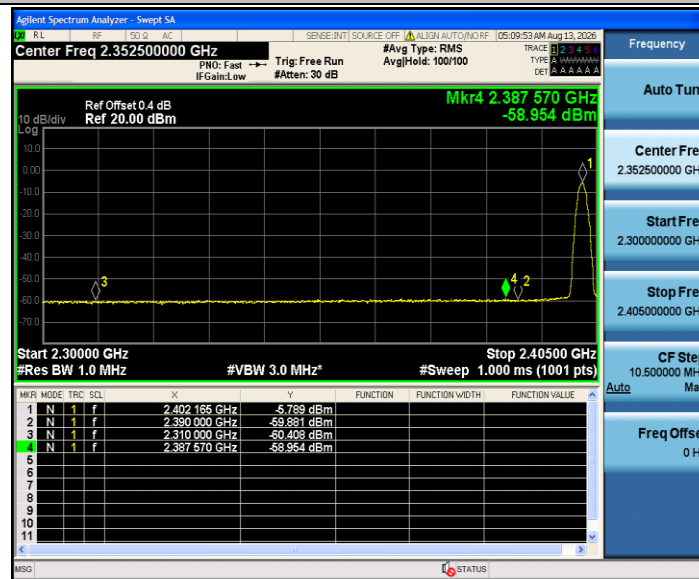
TestMode	Antenna	ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Gain [dB]	DC Factor [dB]	Result [dBUV/m]	Limit [dBUV/m]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-60.41	2.499	1.80	39.089	≤54	PASS
				AV	2387.570	-58.95	2.499	1.80	40.549	≤54	PASS
				AV	2390.000	-59.88	2.499	1.80	39.619	≤54	PASS
				Peak	2310.000	-52.08	2.499	0.00	45.619	≤74	PASS
				Peak	2379.905	-49.76	2.499	0.00	47.939	≤74	PASS
				Peak	2390.000	-51.89	2.499	0.00	45.809	≤74	PASS
		High	2480	AV	2483.500	-58.94	2.499	1.80	40.559	≤54	PASS
				AV	2484.080	-58.2	2.499	1.80	41.299	≤54	PASS
				AV	2500.000	-59.34	2.499	1.80	40.159	≤54	PASS
				Peak	2483.500	-50	2.499	0.00	47.699	≤74	PASS
				Peak	2484.000	-46.46	2.499	0.00	51.239	≤74	PASS
				Peak	2500.000	-51.02	2.499	0.00	46.679	≤74	PASS

Note:

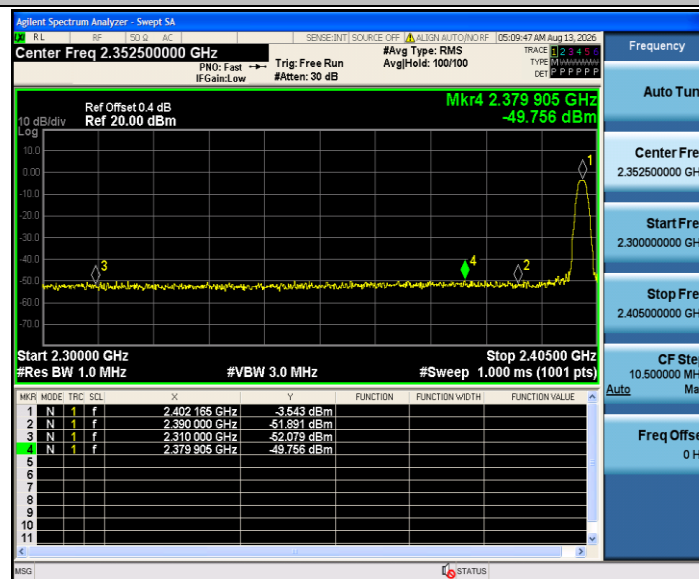
The limit in dBm for average detector is conversion from 54dBUV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

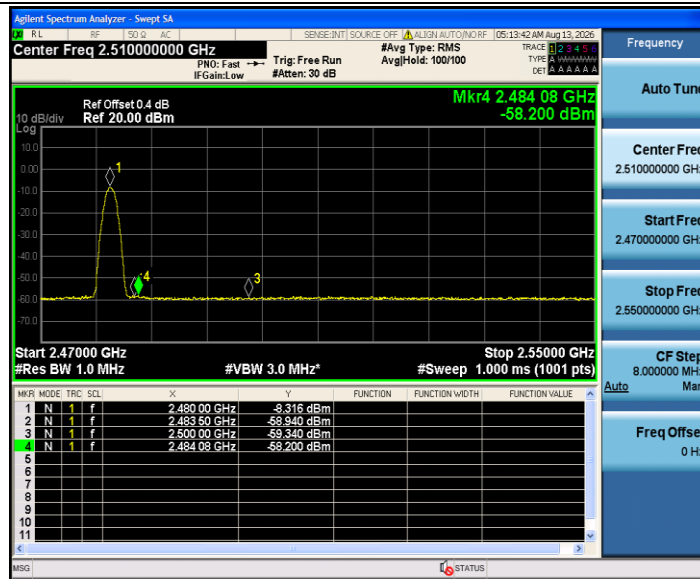
BLE_1M_Ant1_Low_2402_AV



BLE_1M_Ant1_Low_2402_Peak



BLE_1M_Ant1_High_2480_AV



BLE_1M_Ant1_High_2480_Peak

