

Appendix Test Data for BT(BLE) (Conducted Measurement)

Product Name: Smart Watch

Trade Mark: XINJI

Test Model: NOTHING1

FCC ID: 2AE8V-NOTHING1

Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	60%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

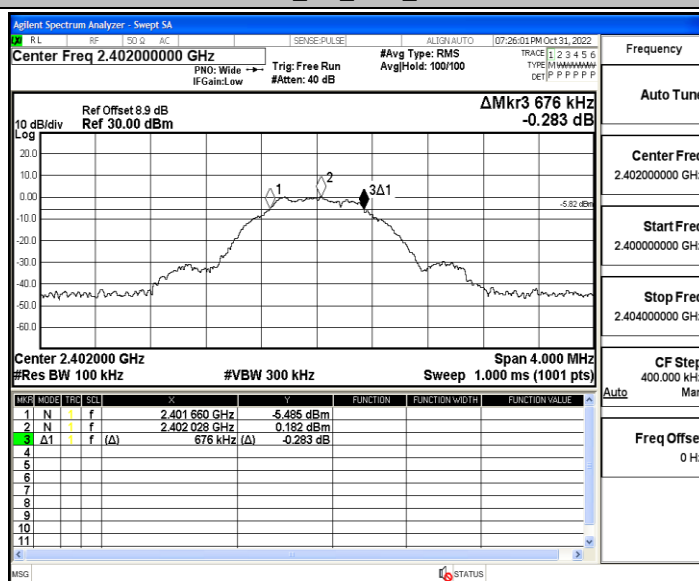
Appendix A: DTS Bandwidth

Test Result

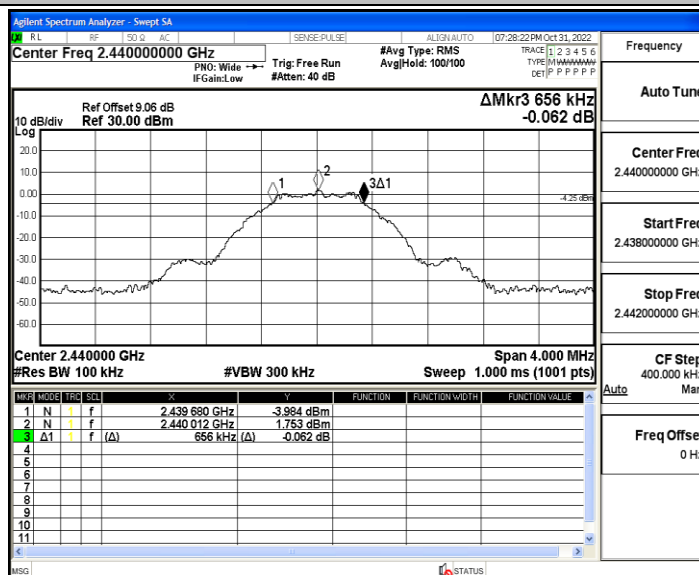
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.676	2401.660	2402.336	0.5	PASS
		2440	0.656	2439.680	2440.336	0.5	PASS
		2480	0.668	2479.668	2480.336	0.5	PASS
BLE_2M	Ant1	2402	1.140	2401.476	2402.616	0.5	PASS
		2440	1.036	2439.444	2440.480	0.5	PASS
		2480	1.000	2479.528	2480.528	0.5	PASS

Test Graphs

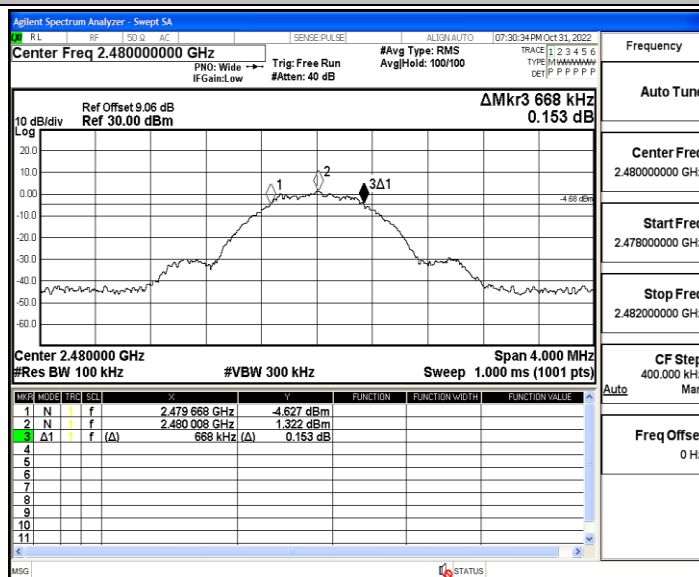
BLE_1M_Ant1_2402



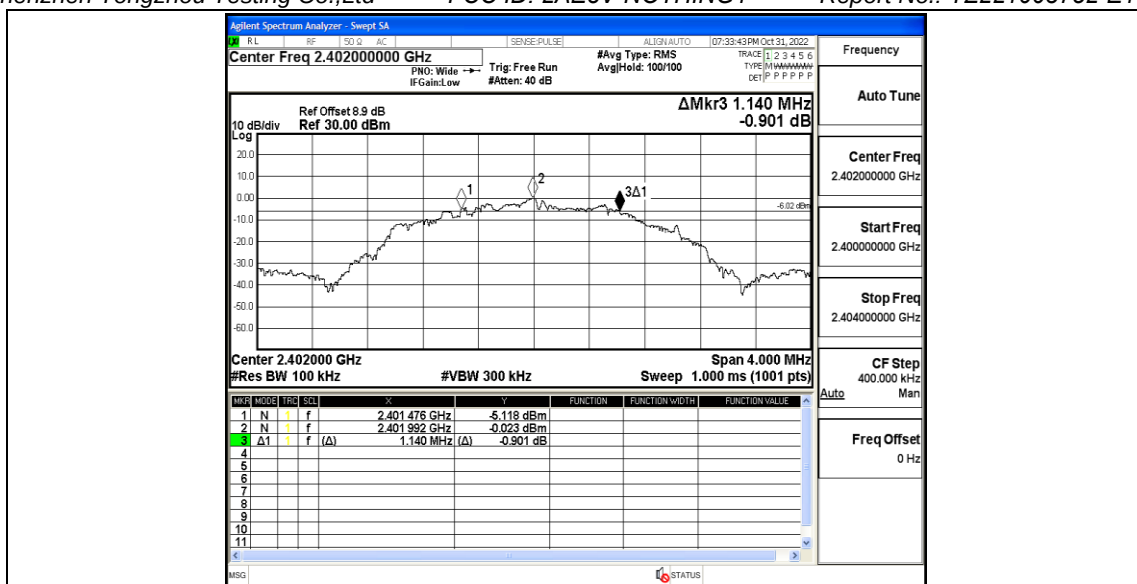
BLE_1M_Ant1_2440



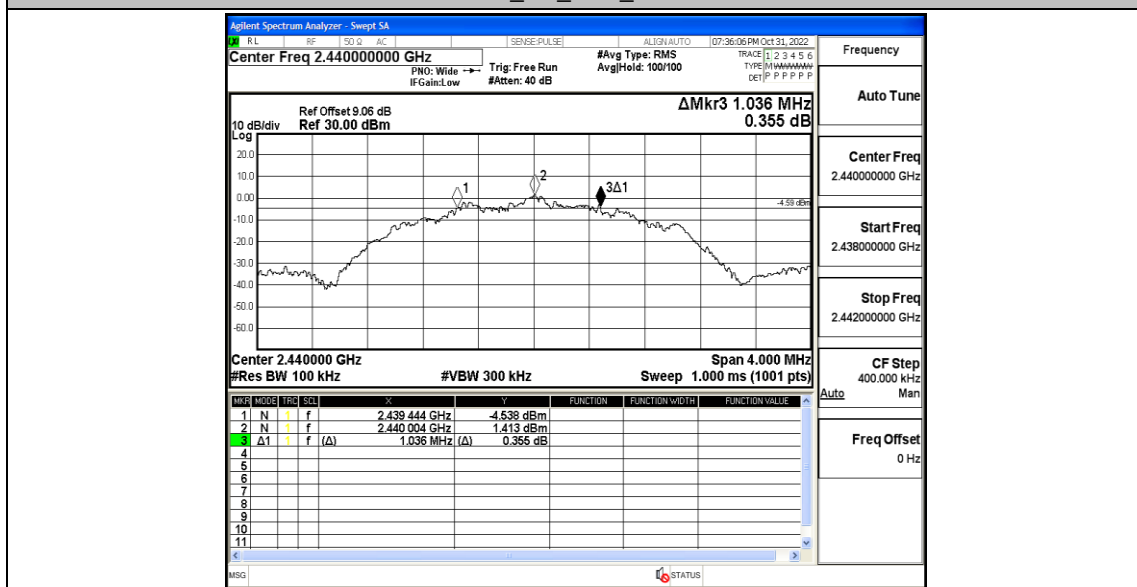
BLE_1M_Ant1_2480



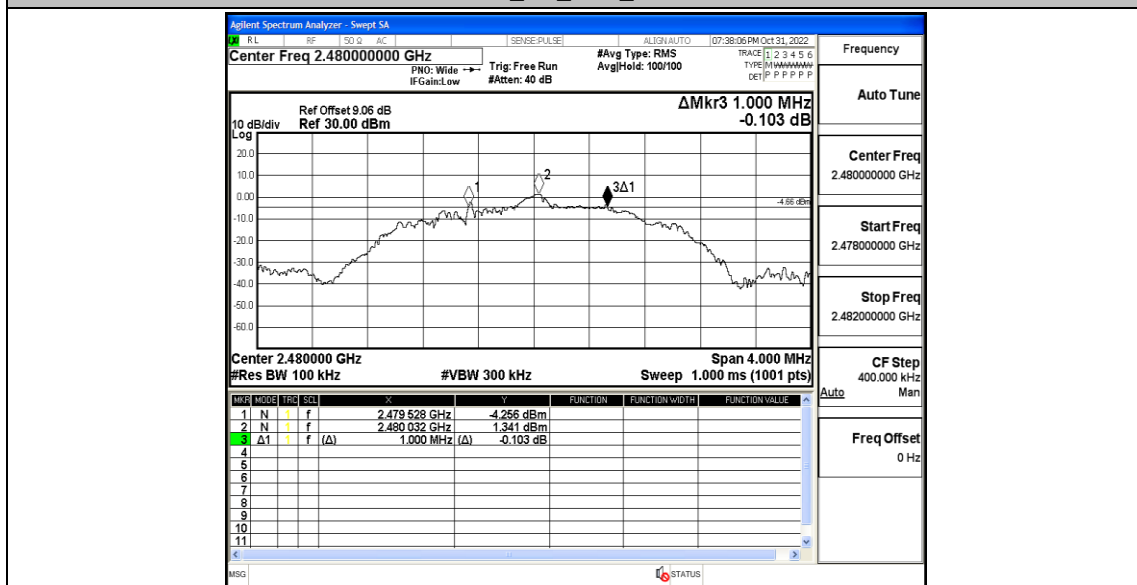
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



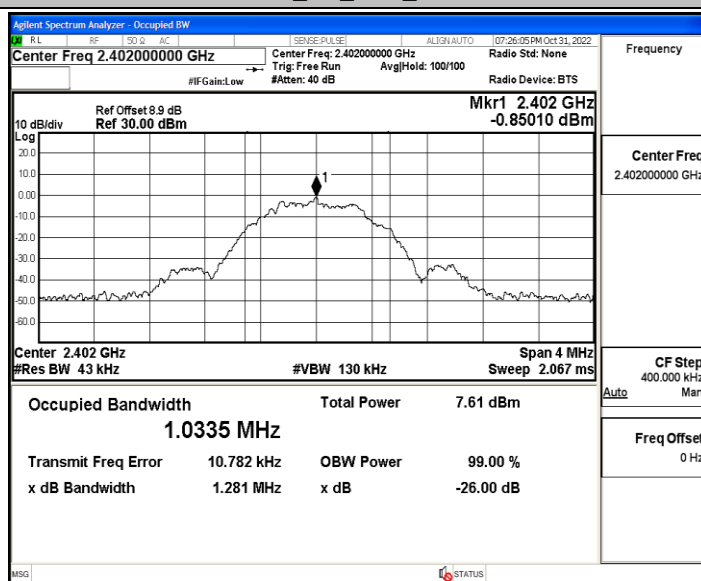
Appendix B: Occupied Channel Bandwidth

Test Result

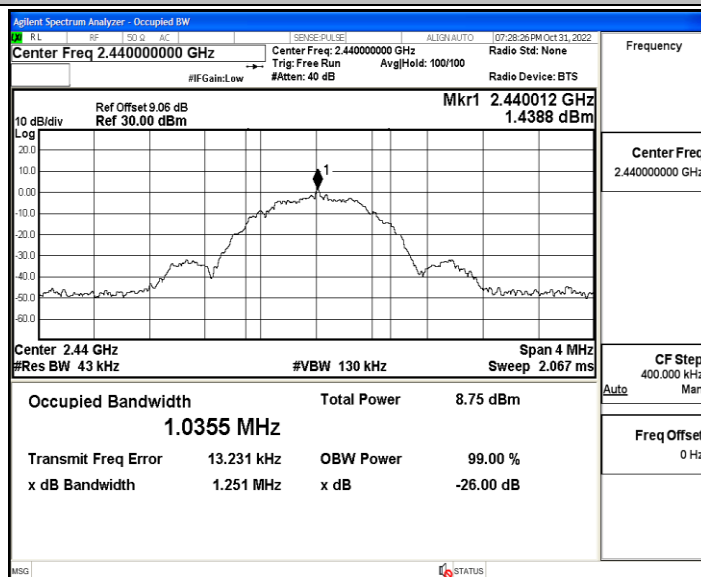
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0335	2401.4940	2402.5275	---	---
		2440	1.0355	2439.4955	2440.5310	---	---
		2480	1.0329	2479.4921	2480.5250	---	---
BLE_2M	Ant1	2402	2.0539	2401.0079	2403.0618	---	---
		2440	2.0671	2438.9975	2441.0646	---	---
		2480	2.0518	2479.0044	2481.0562	---	---

Test Graphs

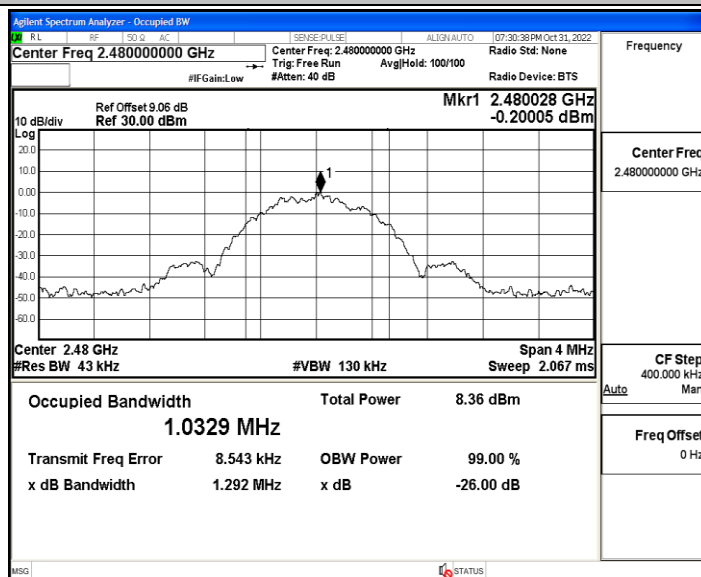
BLE_1M_Ant1_2402



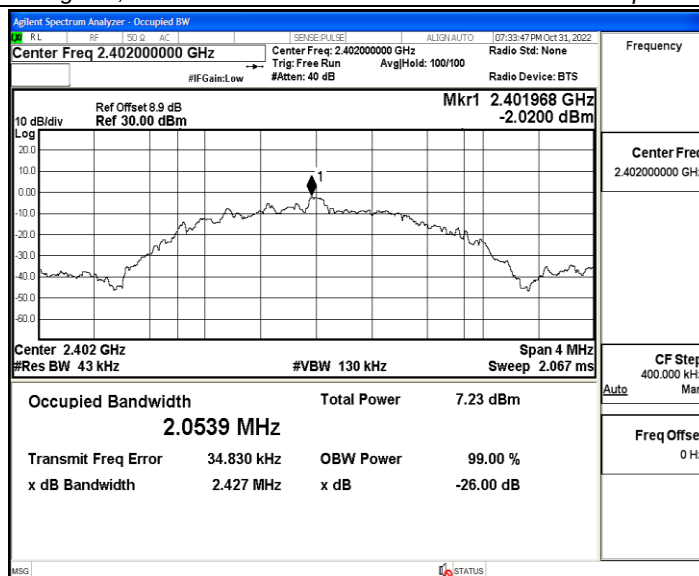
BLE_1M_Ant1_2440



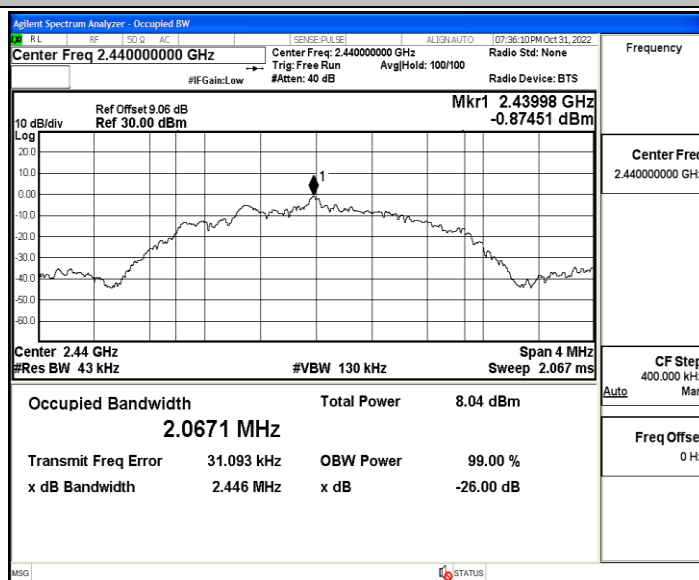
BLE_1M_Ant1_2480



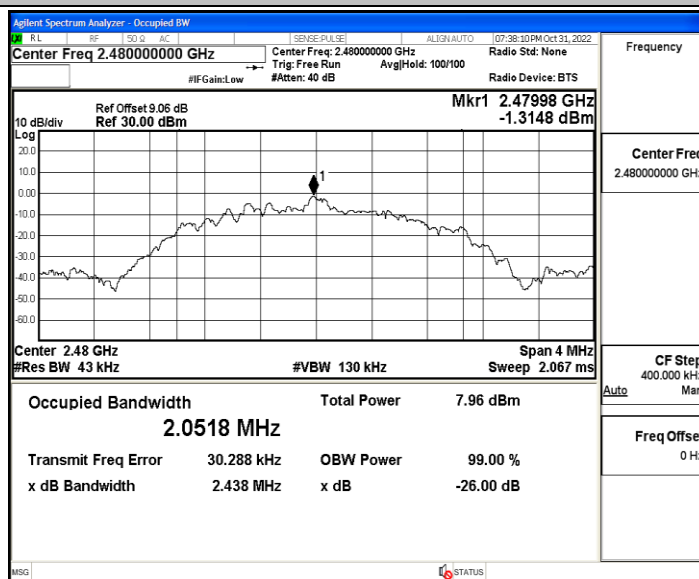
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



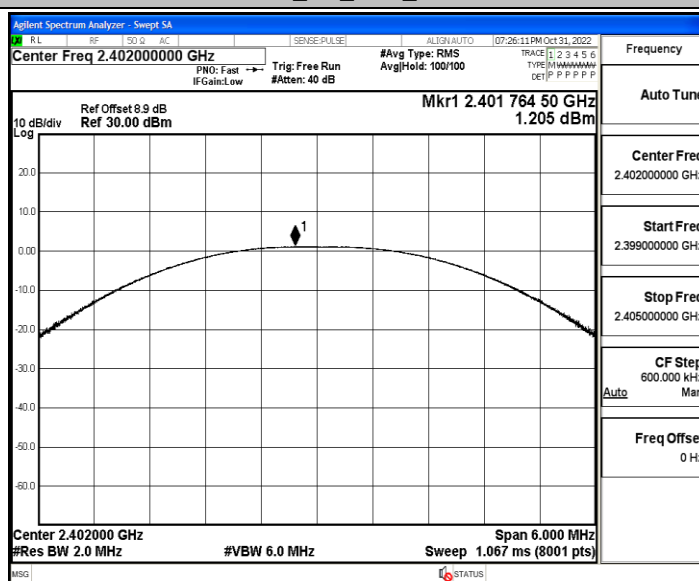
Appendix C: Maximum Peak conducted output power

Test Result

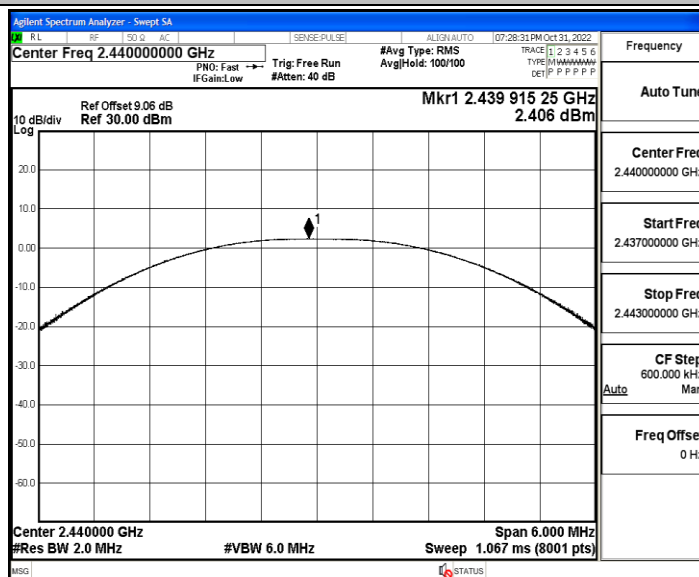
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.21	≤30	PASS
		2440	2.41	≤30	PASS
		2480	1.7	≤30	PASS
BLE_2M	Ant1	2402	1.45	≤30	PASS
		2440	2.22	≤30	PASS
		2480	1.91	≤30	PASS

Test Graphs

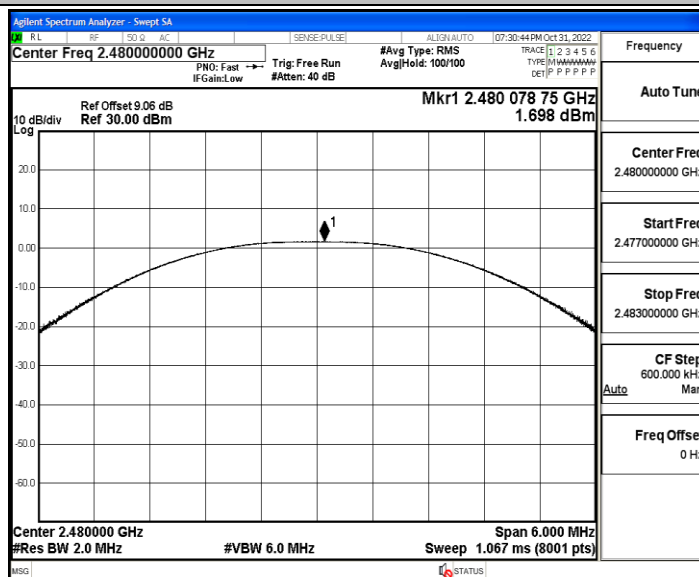
BLE_1M_Ant1_2402



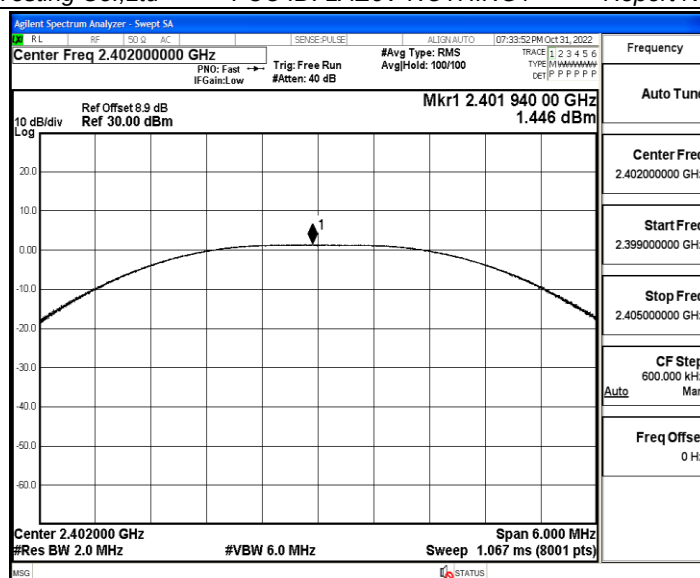
BLE_1M_Ant1_2440



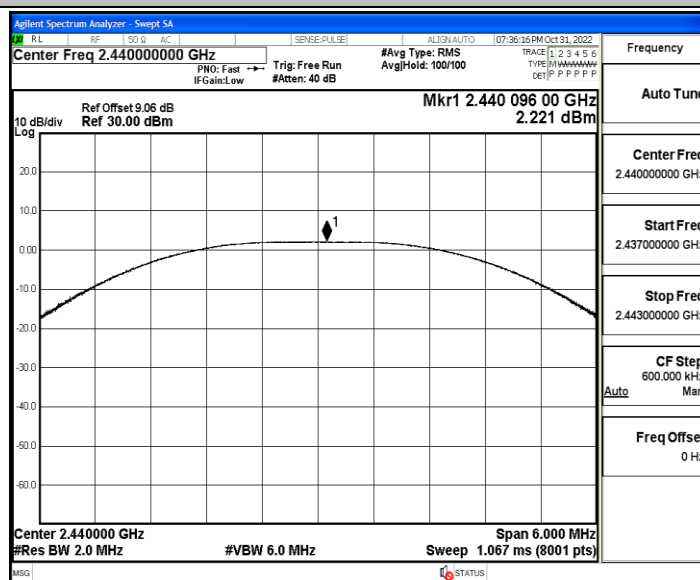
BLE_1M_Ant1_2480



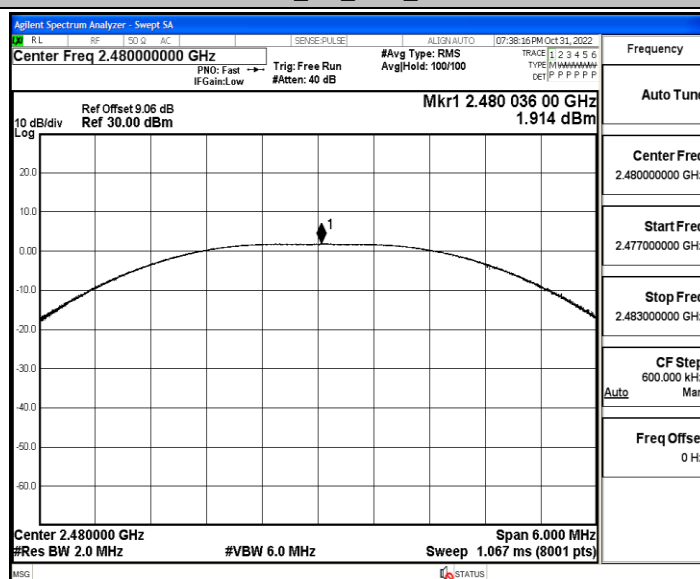
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



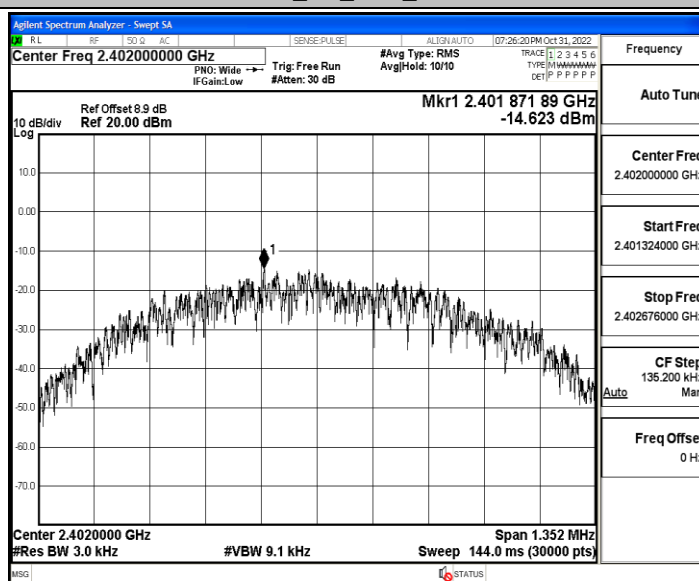
Appendix D: Maximum power spectral density

Test Result

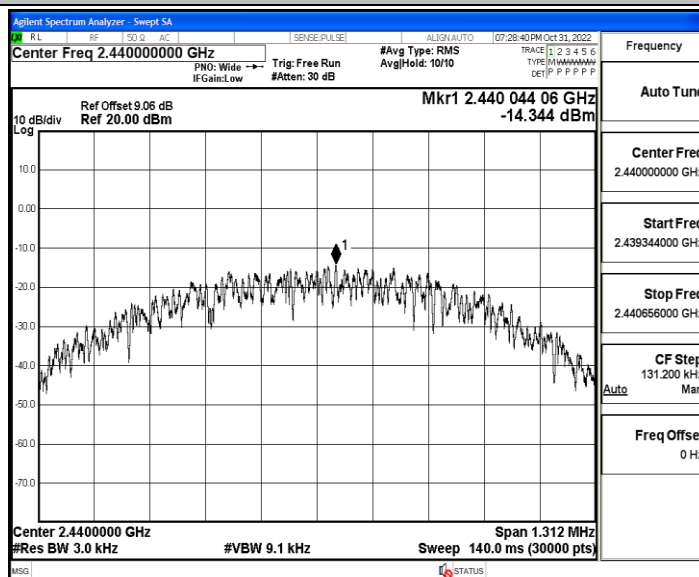
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.62	≤8.00	PASS
		2440	-14.34	≤8.00	PASS
		2480	-13.75	≤8.00	PASS
BLE_2M	Ant1	2402	-16.86	≤8.00	PASS
		2440	-15.92	≤8.00	PASS
		2480	-16.03	≤8.00	PASS

Test Graphs

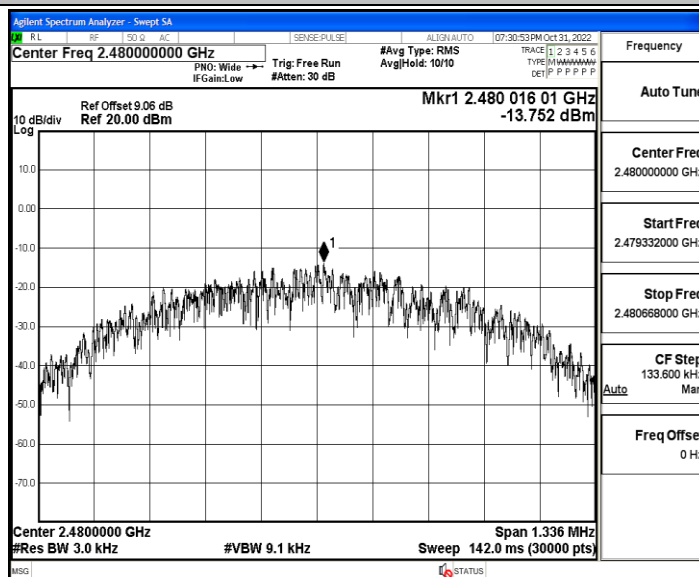
BLE_1M_Ant1_2402



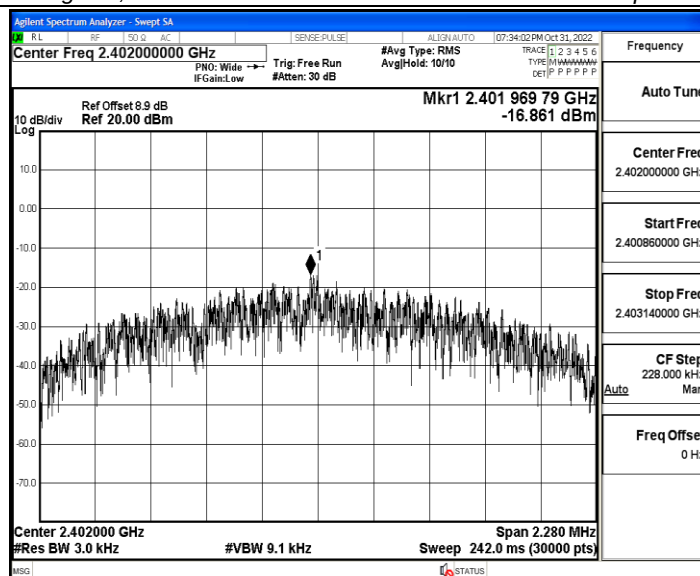
BLE_1M_Ant1_2440



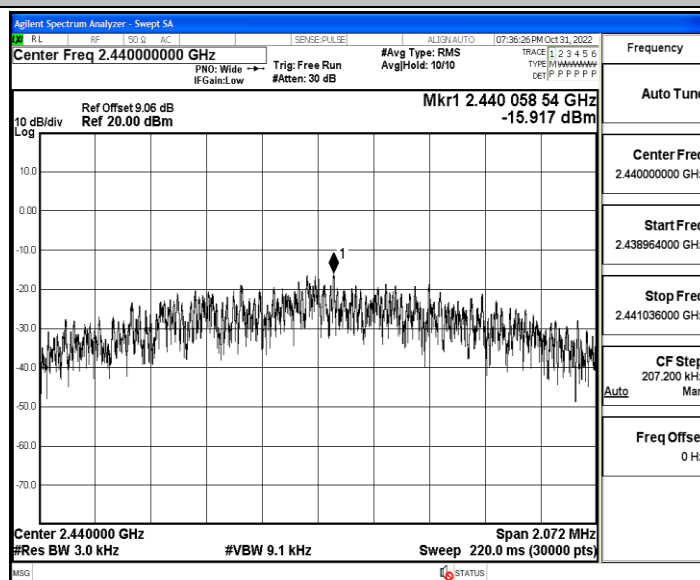
BLE_1M_Ant1_2480



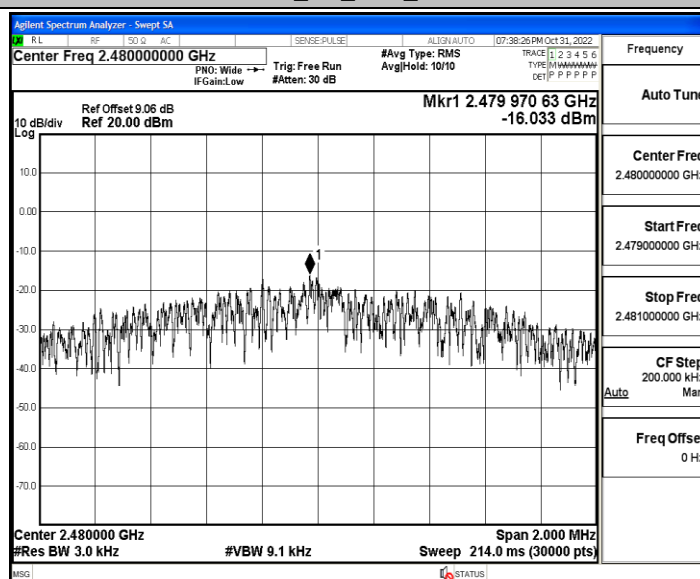
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



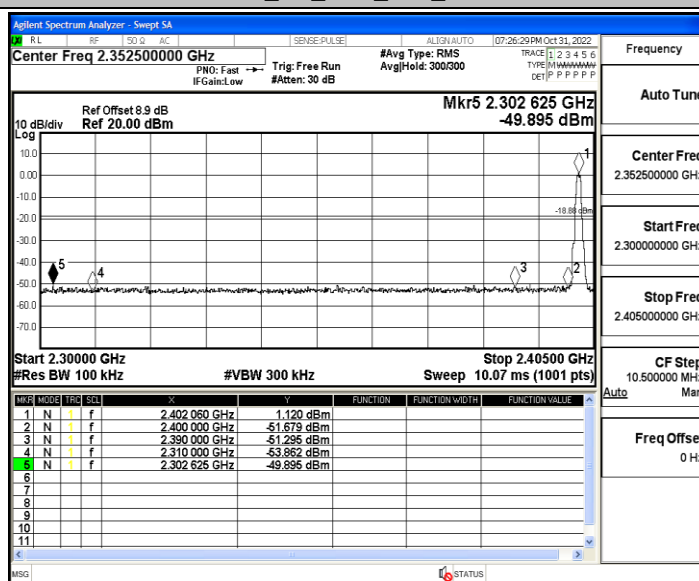
Appendix E: Band edge measurements

Test Result

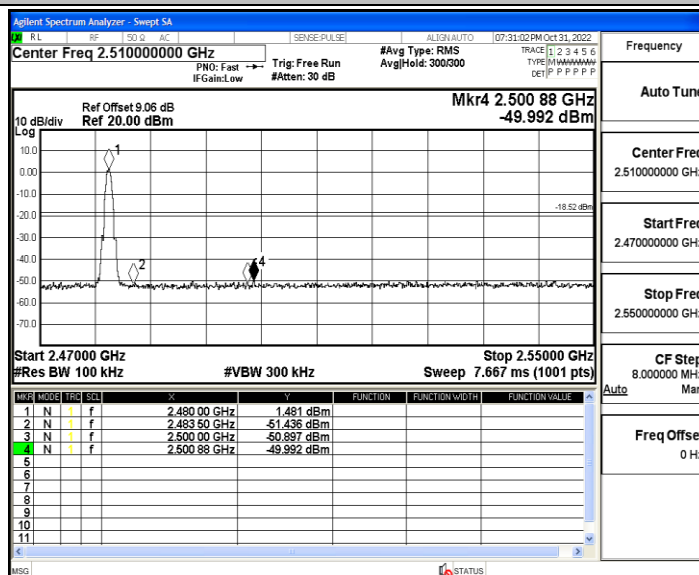
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	1.12	-49.9	≤-18.88	PASS
		High	2480	1.48	-49.99	≤-18.52	PASS
BLE_2M	Ant1	Low	2402	1.06	-32.25	≤-18.94	PASS
		High	2480	1.44	-49	≤-18.56	PASS

Test Graphs

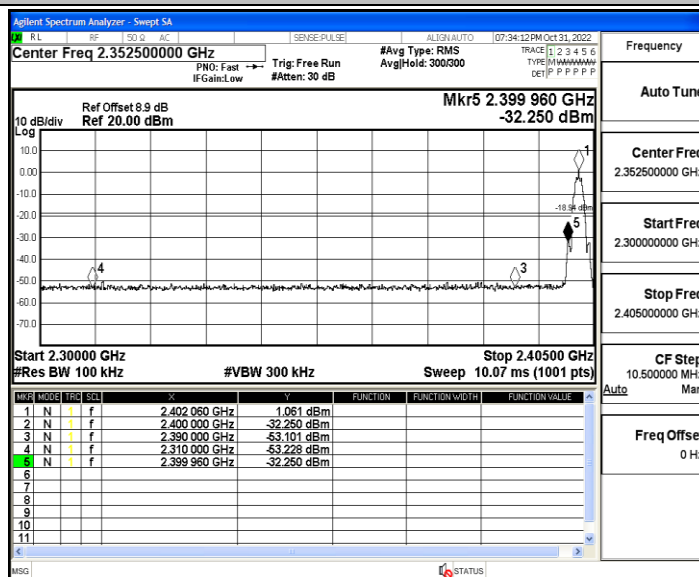
BLE_1M_Ant1_Low_2402



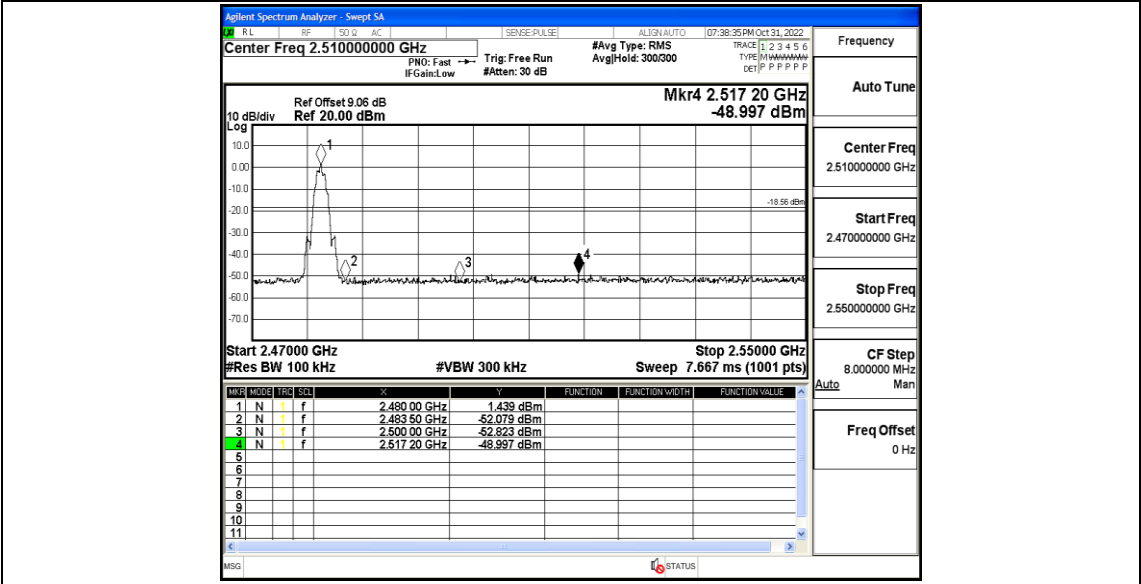
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480

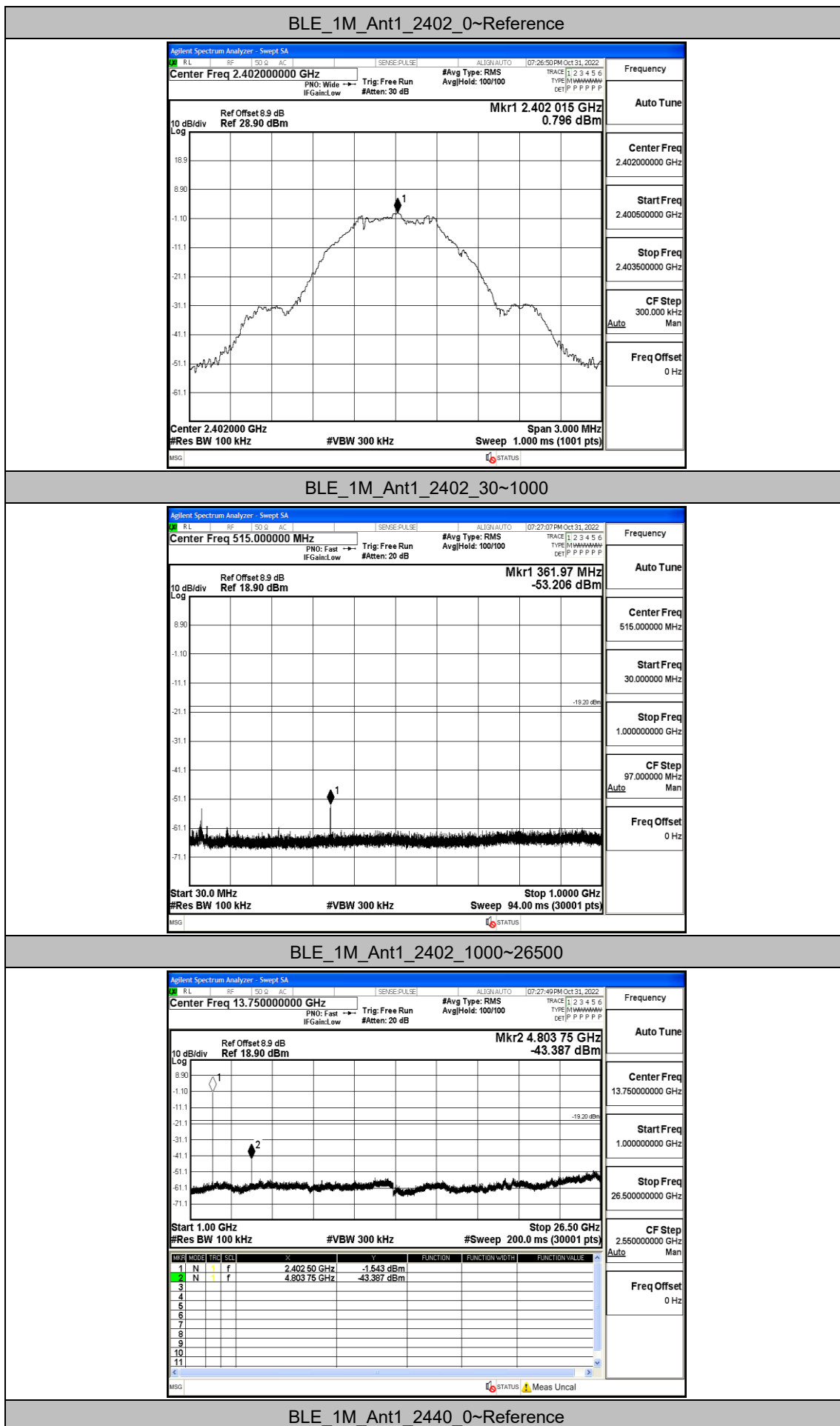


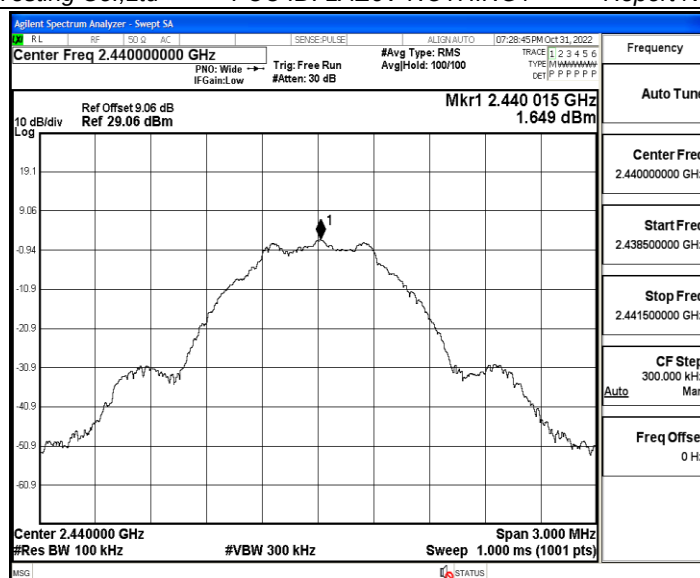
Appendix F: Conducted Spurious Emission

Test Result

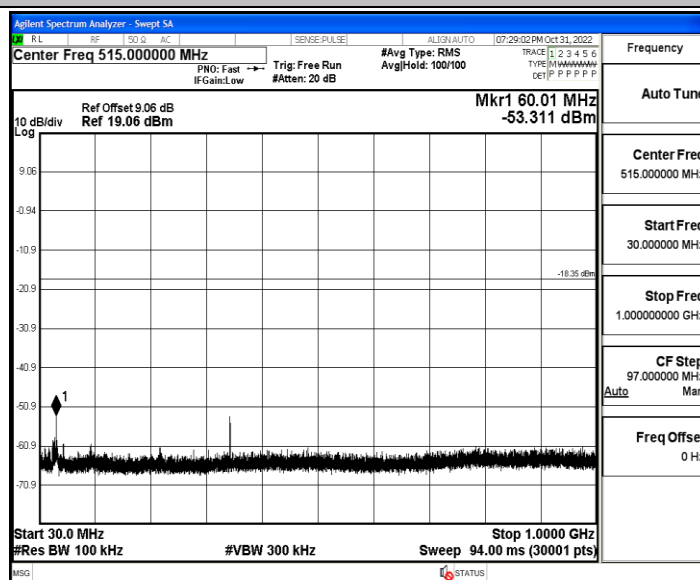
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.80	0.80	---	PASS
			30~1000	0.80	-53.21	≤-19.2	PASS
			1000~26500	0.80	-43.39	≤-19.2	PASS
		2440	Reference	1.65	1.65	---	PASS
			30~1000	1.65	-53.31	≤-18.35	PASS
			1000~26500	1.65	-43.92	≤-18.35	PASS
		2480	Reference	1.44	1.44	---	PASS
			30~1000	1.44	-53.4	≤-18.56	PASS
			1000~26500	1.44	-44.22	≤-18.56	PASS
BLE_2M	Ant1	2402	Reference	0.45	0.45	---	PASS
			30~1000	0.45	-54.39	≤-19.55	PASS
			1000~26500	0.45	-44.29	≤-19.55	PASS
		2440	Reference	1.75	1.75	---	PASS
			30~1000	1.75	-53.86	≤-18.25	PASS
			1000~26500	1.75	-45.65	≤-18.25	PASS
		2480	Reference	0.54	0.54	---	PASS
			30~1000	0.54	-53.81	≤-19.46	PASS
			1000~26500	0.54	-47.57	≤-19.46	PASS

Test Graphs

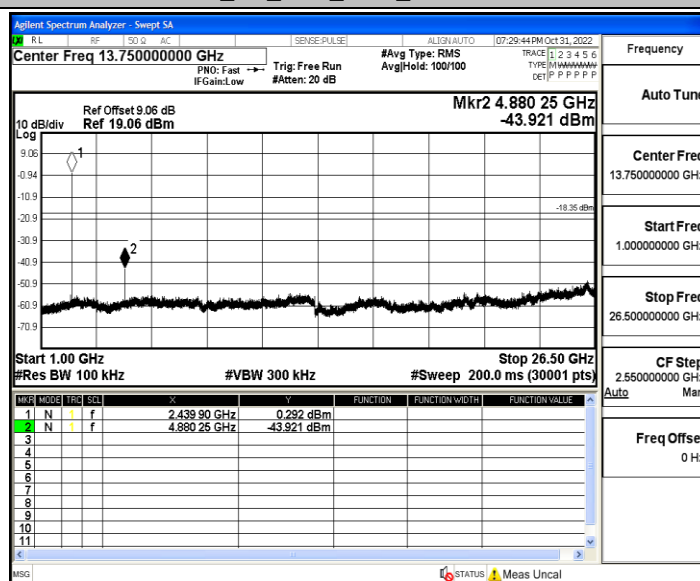




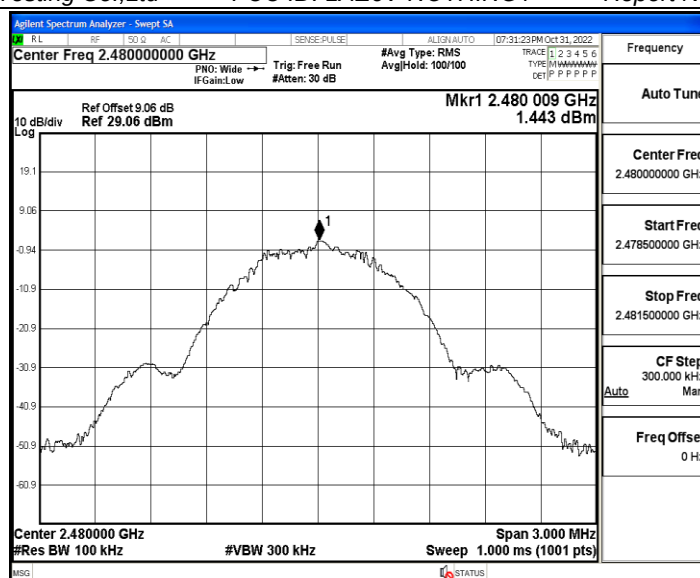
BLE_1M_Ant1_2440_30~1000



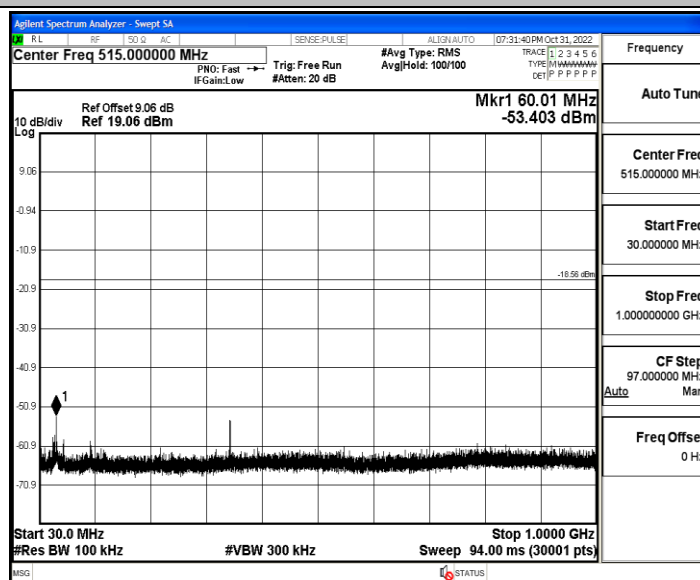
BLE_1M_Ant1_2440_1000~26500



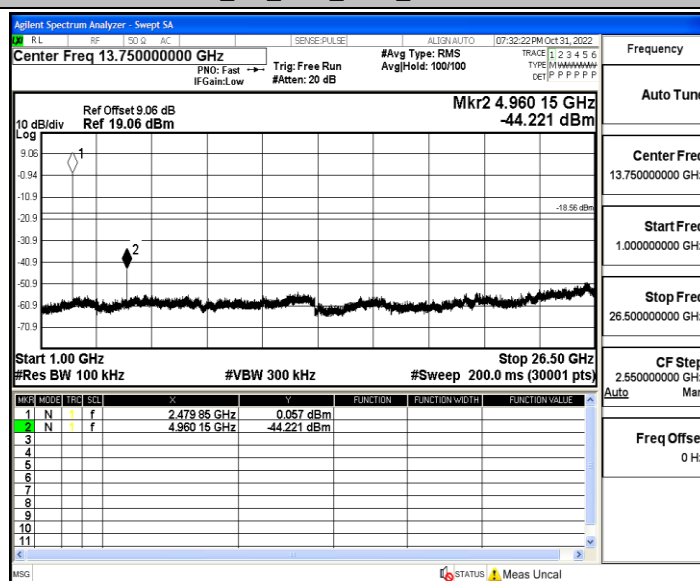
BLE_1M_Ant1_2480_0~Reference



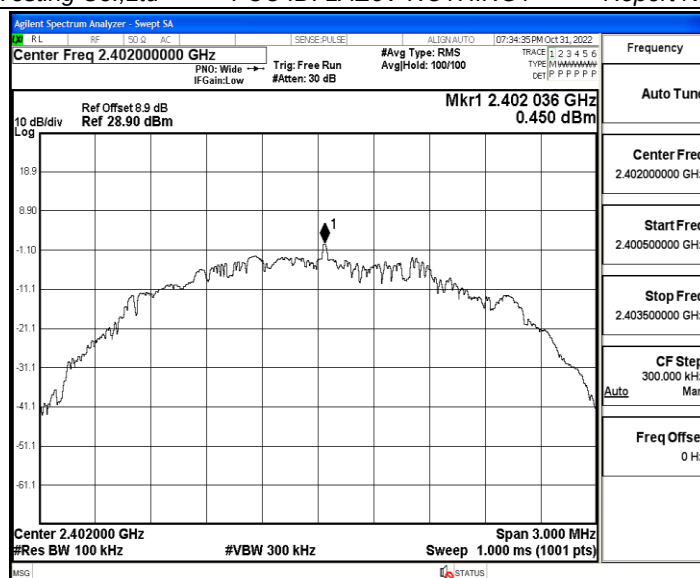
BLE_1M_Ant1_2480_30~1000



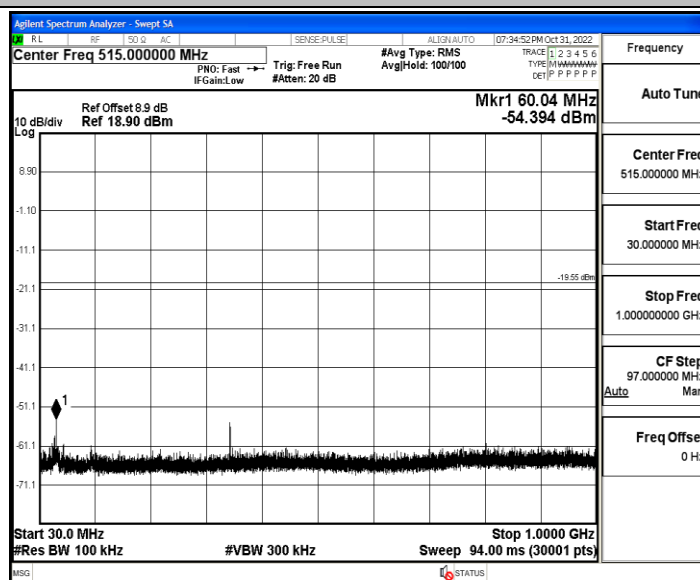
BLE_1M_Ant1_2480_1000~26500



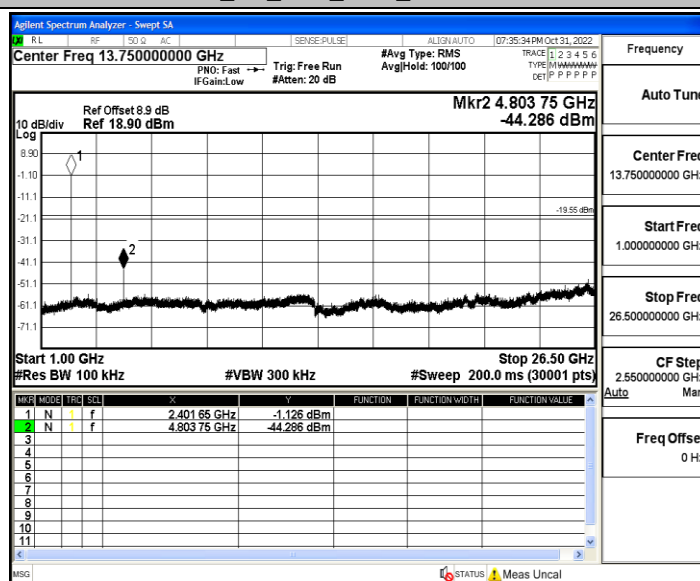
BLE_2M_Ant1_2402_0~Reference



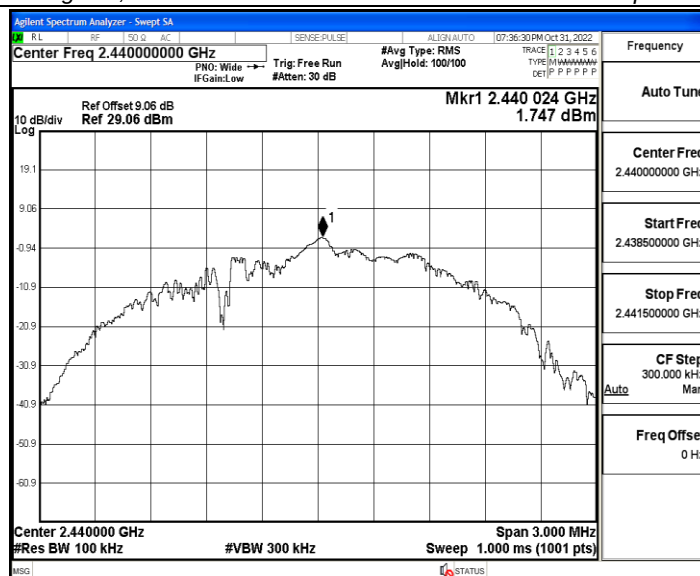
BLE_2M_Ant1_2402_30~1000



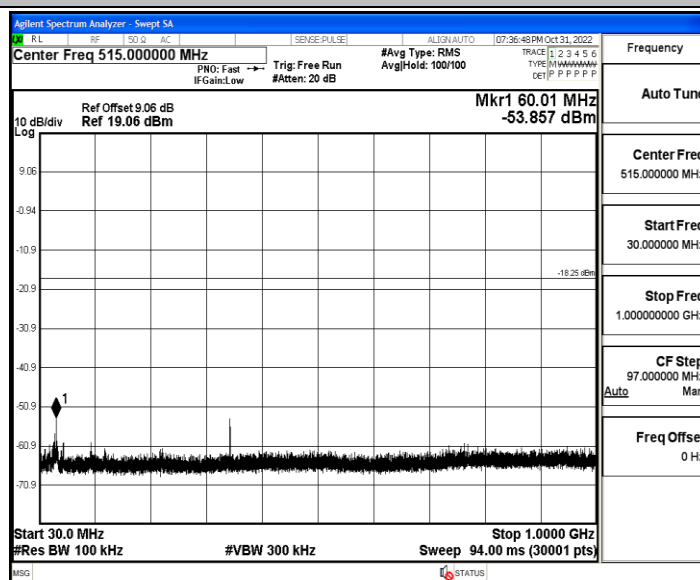
BLE_2M_Ant1_2402_1000~26500



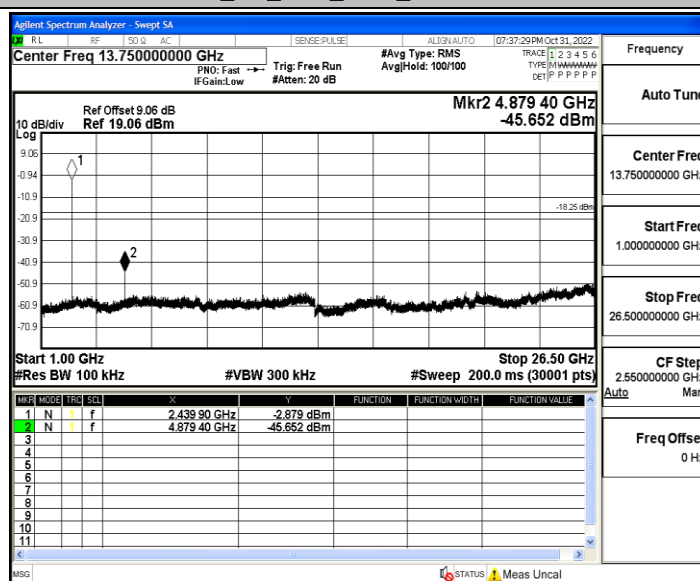
BLE_2M_Ant1_2440_0~Reference



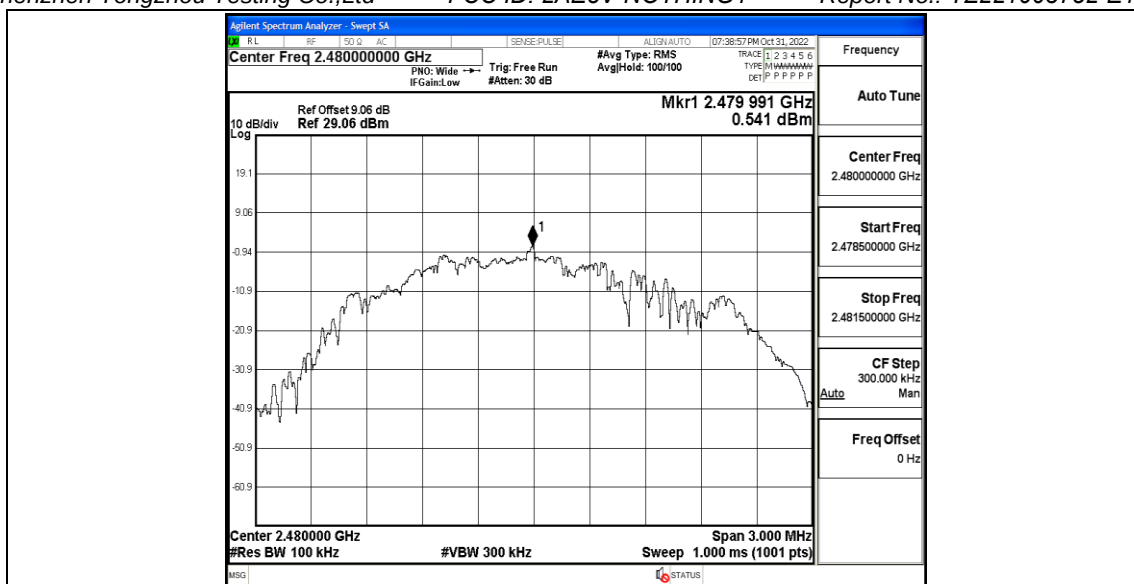
BLE_2M_Ant1_2440_30~1000



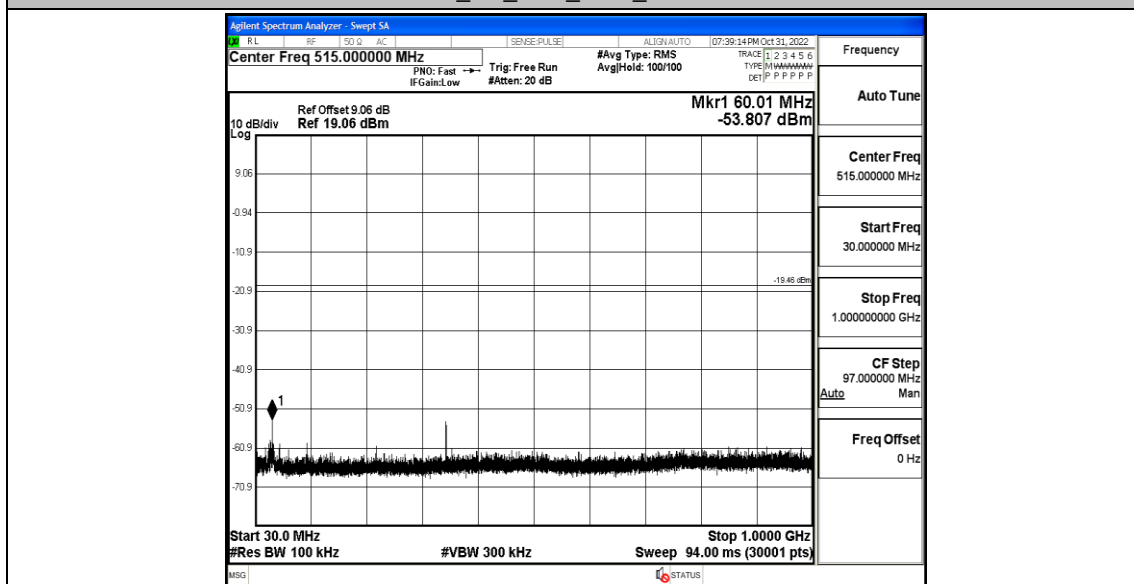
BLE_2M_Ant1_2440_1000~26500



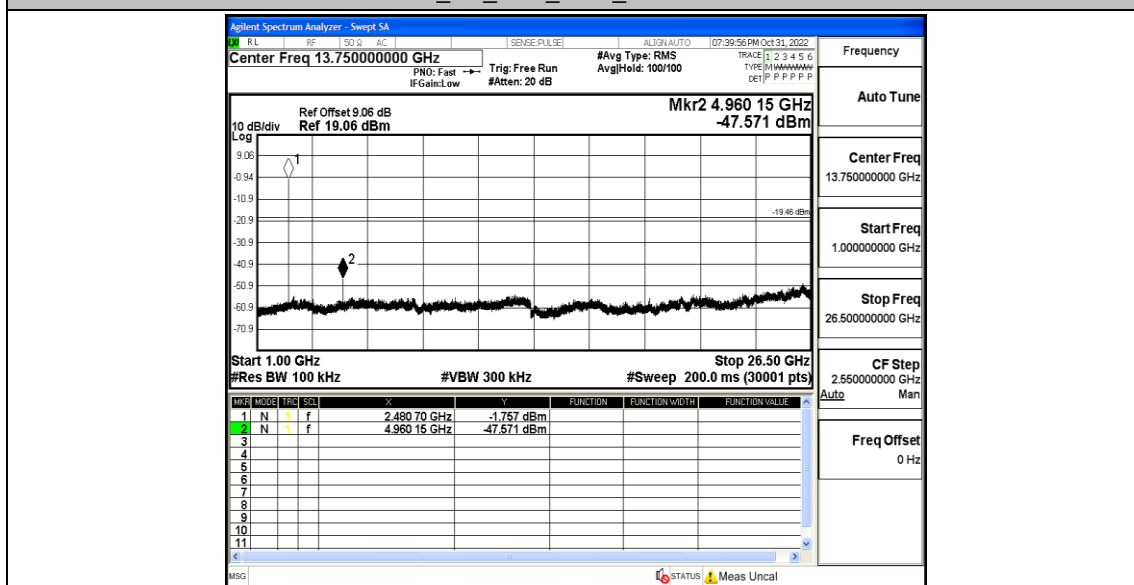
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500

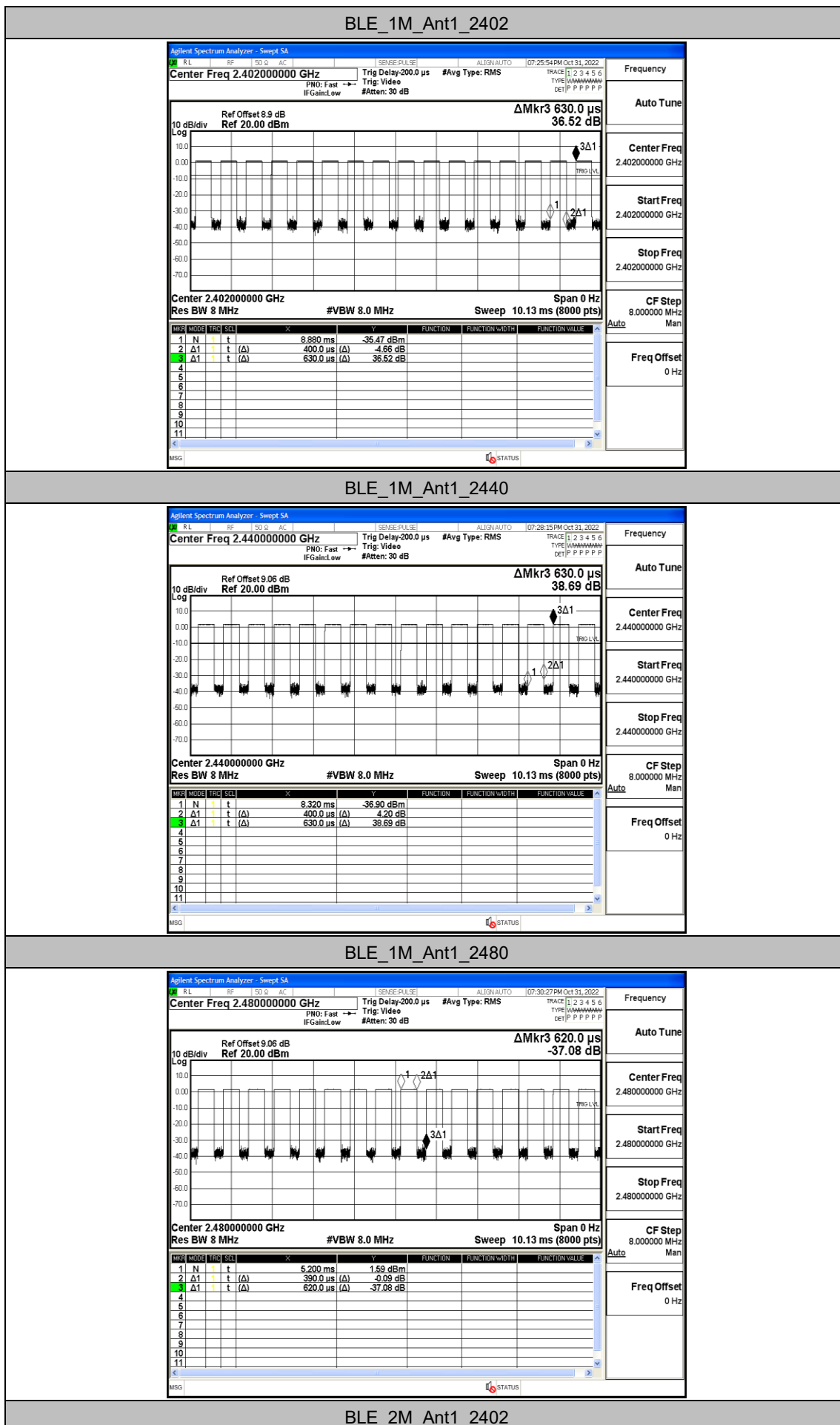


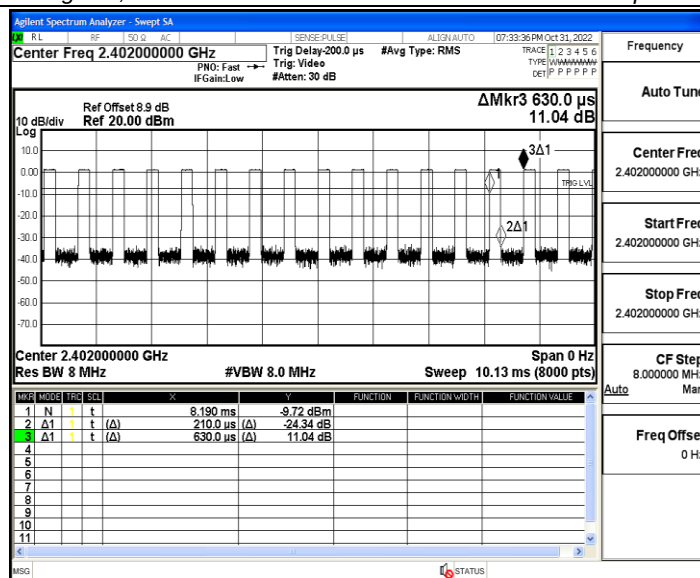
Appendix G: Duty Cycle

Test Result

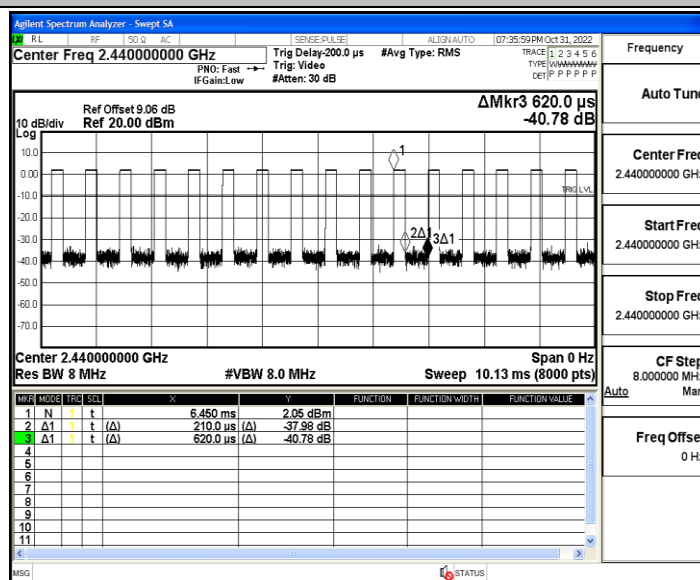
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.40	0.63	63.49	2.50
		2440	0.40	0.63	63.49	2.50
		2480	0.39	0.62	62.90	2.56
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.76
		2440	0.21	0.62	33.87	4.76
		2480	0.21	0.63	33.33	4.76

Test Graphs

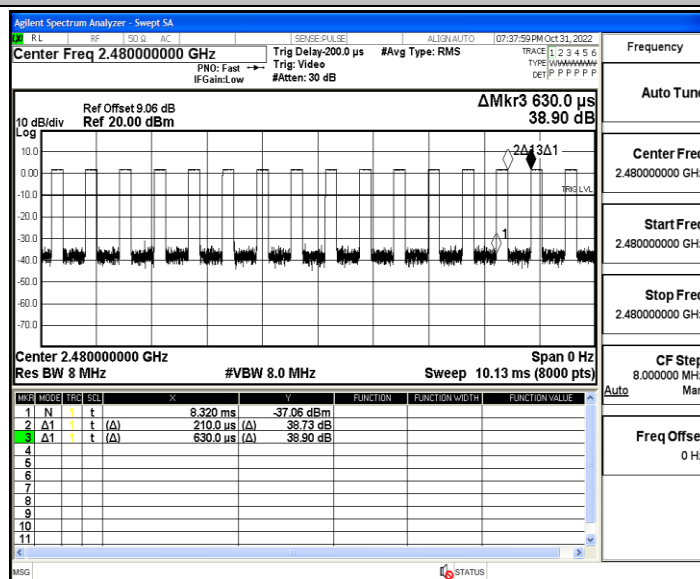




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

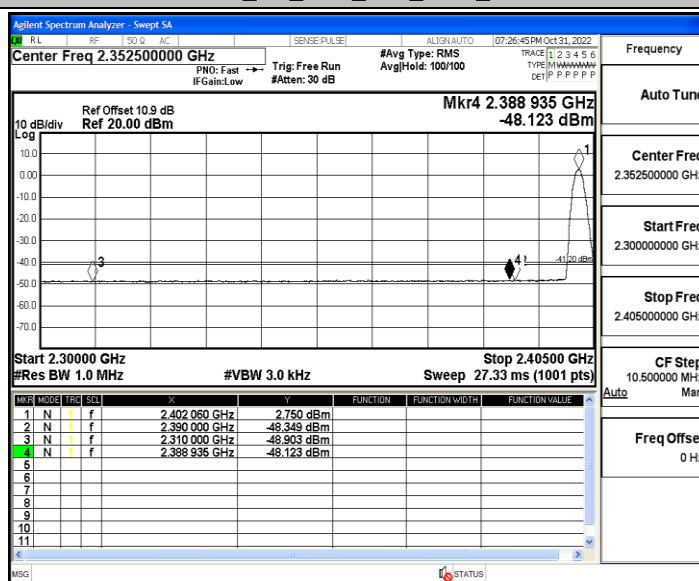
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.9	≤-41.20	PASS
				AV	2388.935	-48.12	≤-41.20	PASS
				AV	2390.000	-48.35	≤-41.20	PASS
				Peak	2310.000	-42.35	≤-21.20	PASS
				Peak	2383.265	-38.56	≤-21.20	PASS
				Peak	2390.000	-41.9	≤-21.20	PASS
		High	2480	AV	2483.500	-47.26	≤-41.20	PASS
				AV	2483.520	-47.26	≤-41.20	PASS
				AV	2500.000	-47.54	≤-41.20	PASS
				Peak	2483.500	-42.25	≤-21.20	PASS
				Peak	2492.560	-38.7	≤-21.20	PASS
				Peak	2500.000	-41.66	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-48.38	≤-41.20	PASS
				AV	2378.120	-47.61	≤-41.20	PASS
				AV	2390.000	-48.05	≤-41.20	PASS
				Peak	2310.000	-42.63	≤-21.20	PASS
				Peak	2315.750	-39.41	≤-21.20	PASS
				Peak	2390.000	-40.69	≤-21.20	PASS
		High	2480	AV	2483.500	-45.7	≤-41.20	PASS
				AV	2483.520	-45.7	≤-41.20	PASS
				AV	2500.000	-47.4	≤-41.20	PASS
				Peak	2483.500	-39.91	≤-21.20	PASS
				Peak	2492.240	-38.37	≤-21.20	PASS
				Peak	2500.000	-40.94	≤-21.20	PASS

Note:

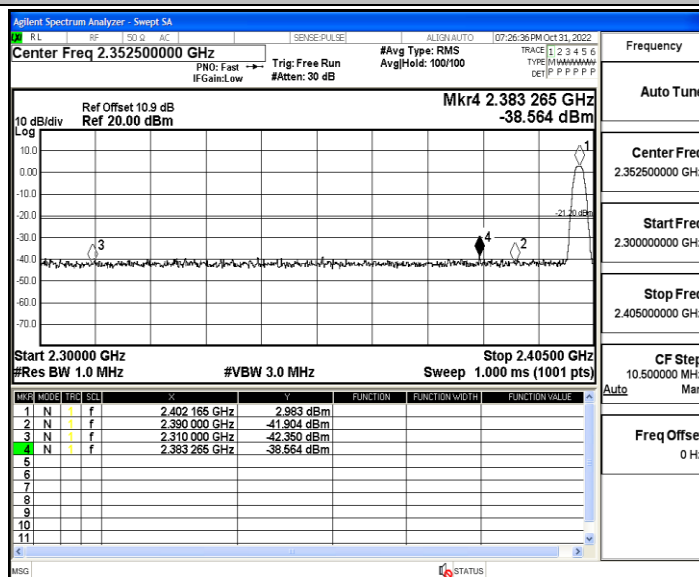
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

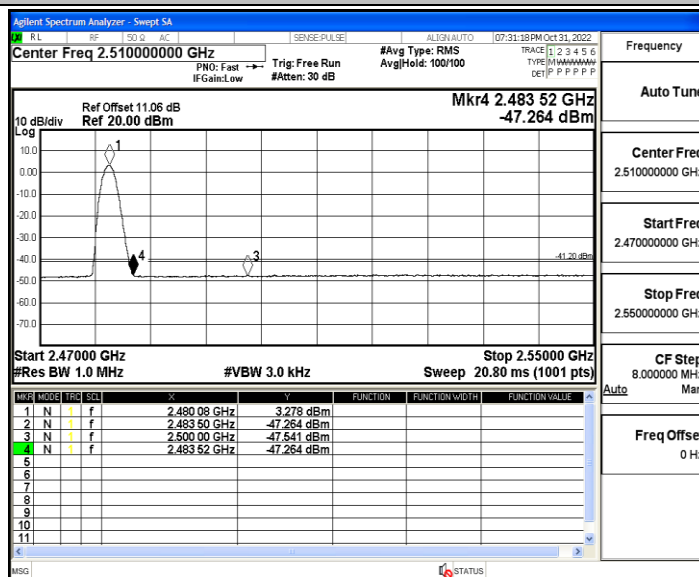
BLE_1M_Ant1_Low_2402_AV



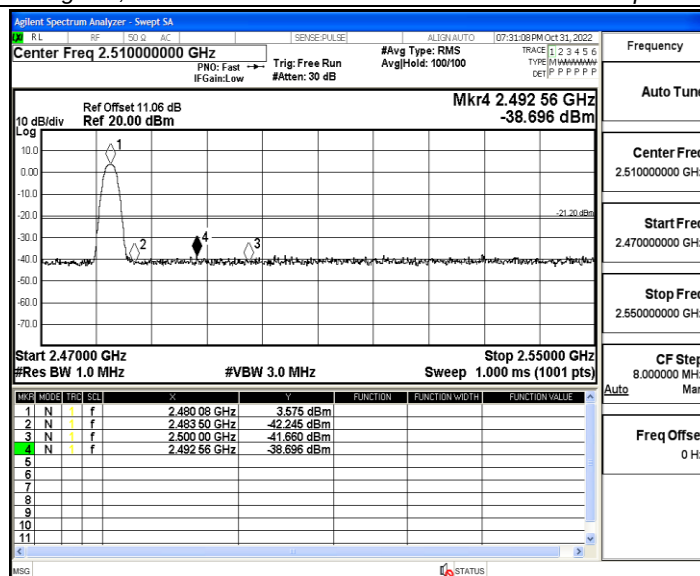
BLE_1M_Ant1_Low_2402_Peak



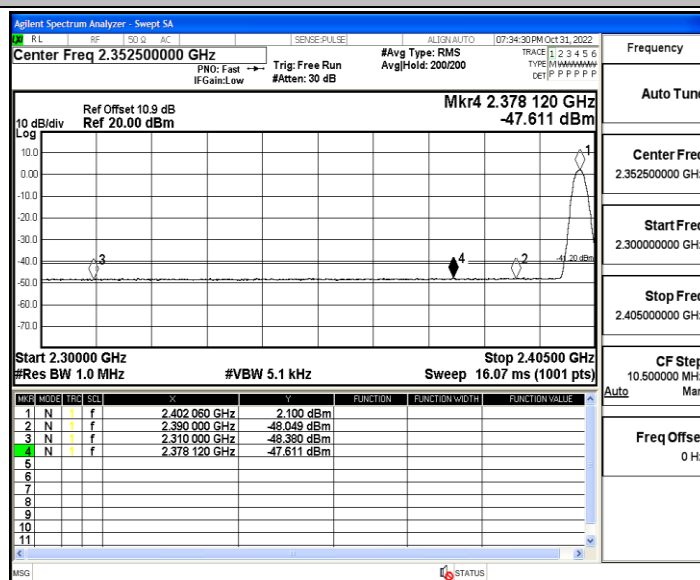
BLE_1M_Ant1_High_2480_AV



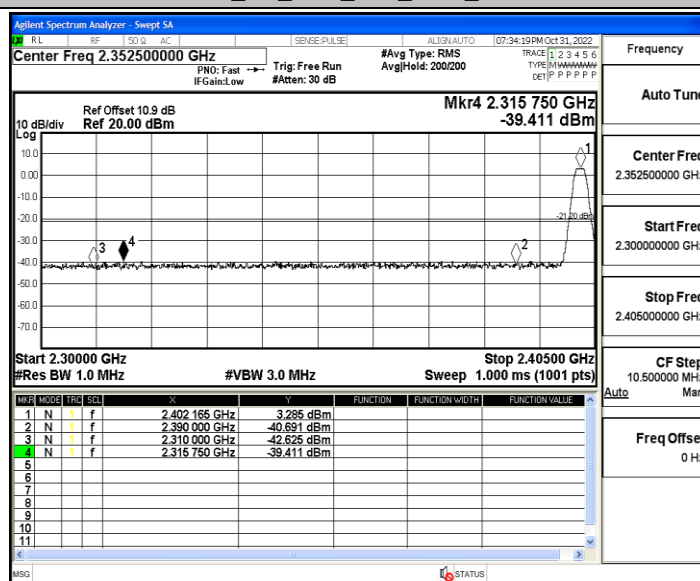
BLE_1M_Ant1_High_2480_Peak



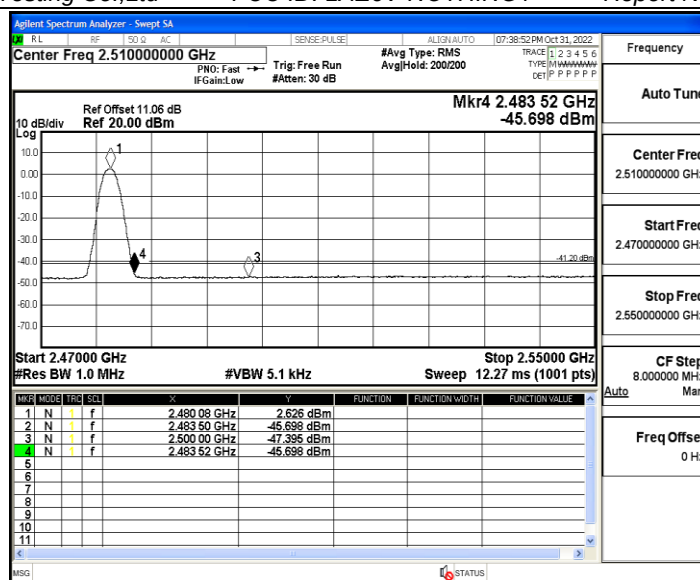
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

