

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

Product Name: Smart Watch

Trade Mark:  XINJI

Test Model: C1 PROS

FCC ID: 2AE8V-C1PROS

Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	56%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

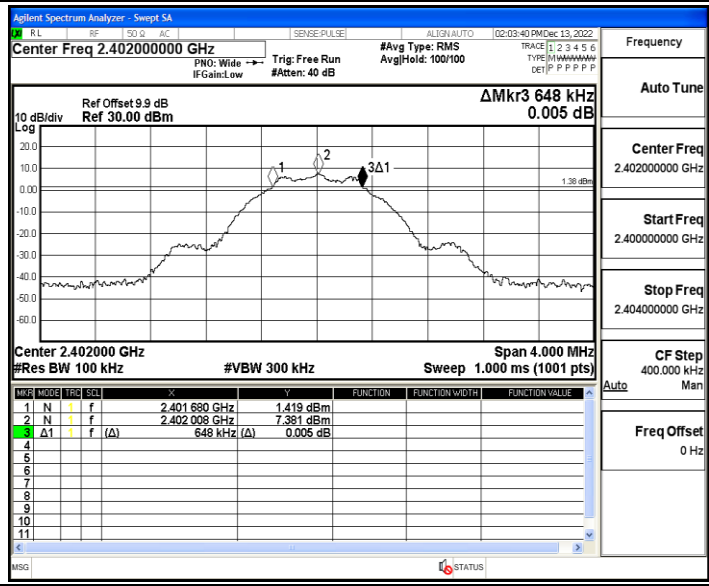
Appendix A: DTS Bandwidth

Test Result

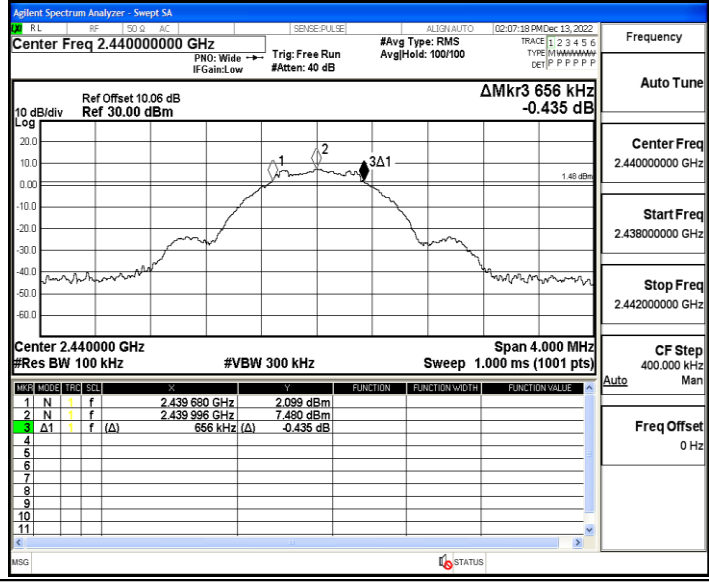
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.648	2401.680	2402.328	0.5	PASS
		2440	0.656	2439.680	2440.336	0.5	PASS
		2480	0.652	2479.680	2480.332	0.5	PASS
BLE_2M	Ant1	2402	1.132	2401.456	2402.588	0.5	PASS
		2440	1.288	2439.388	2440.676	0.5	PASS
		2480	1.020	2479.476	2480.496	0.5	PASS

Test Graphs

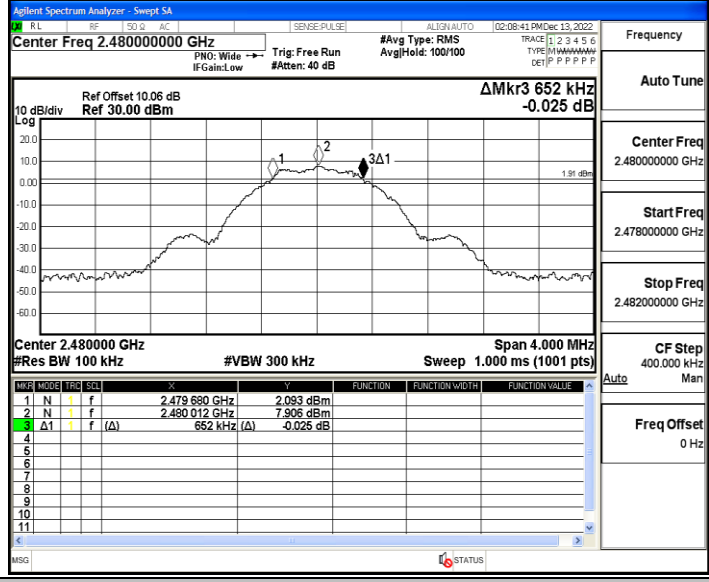
BLE_1M_Ant1_2402



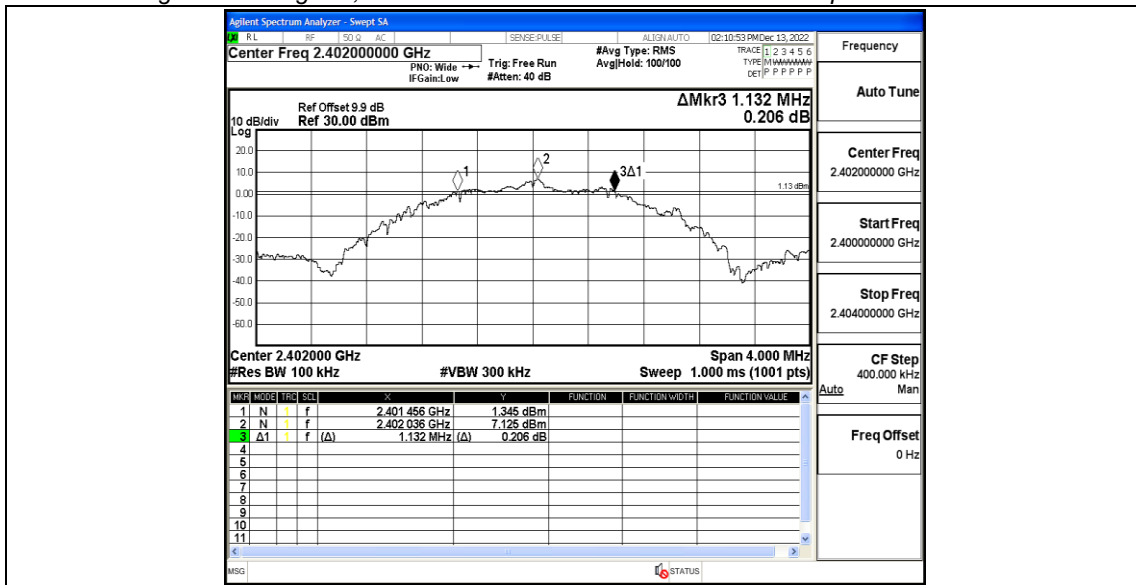
BLE_1M_Ant1_2440



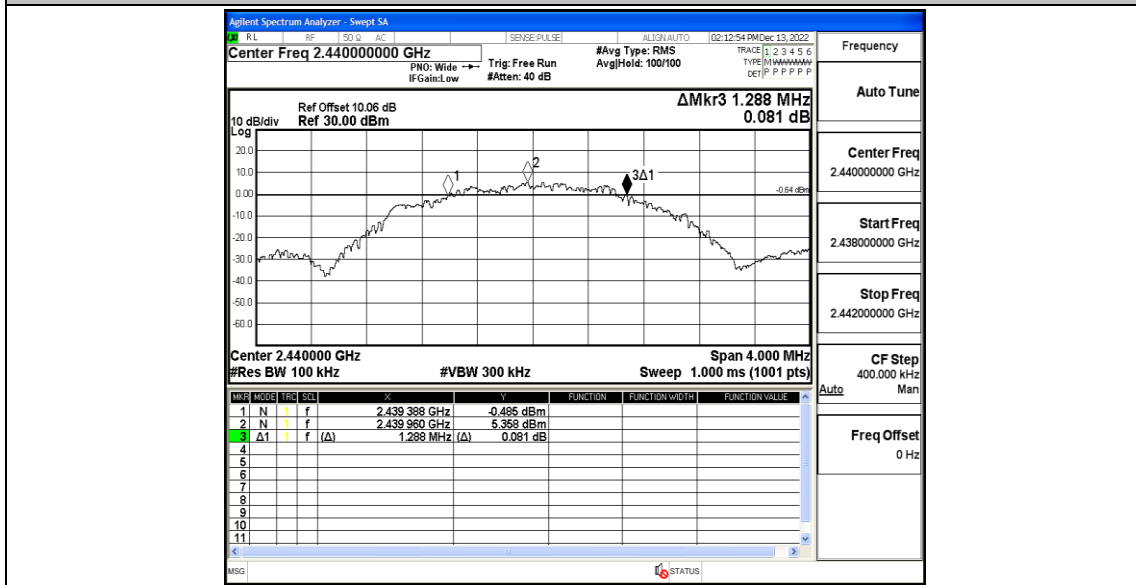
BLE_1M_Ant1_2480



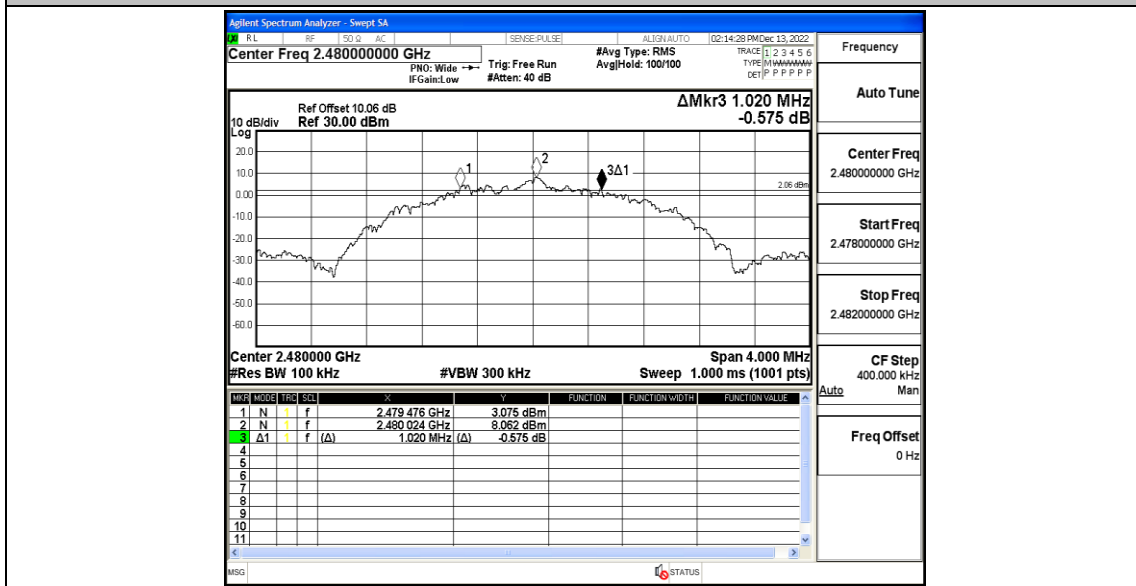
BLE_2M_Ant1_2402



BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

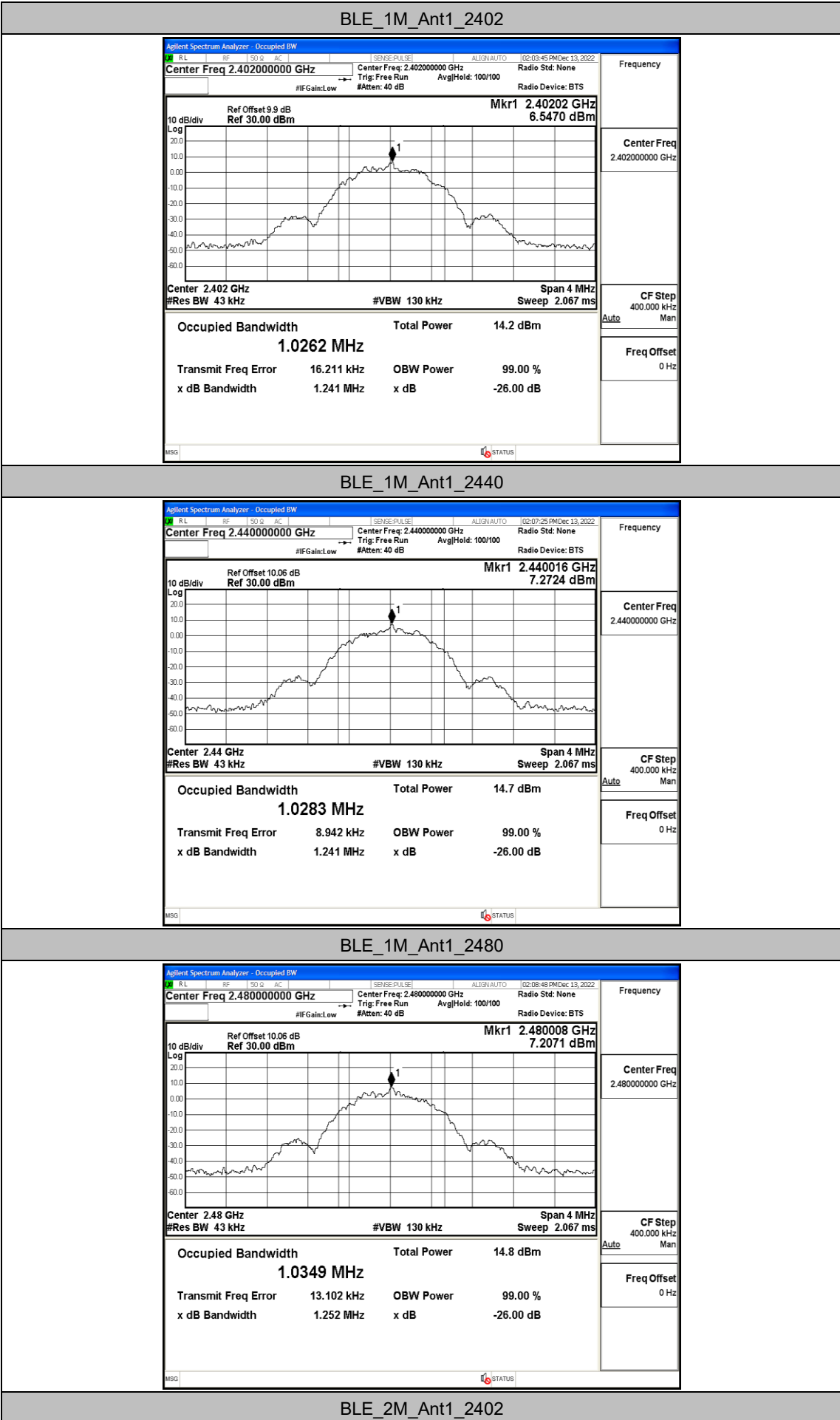


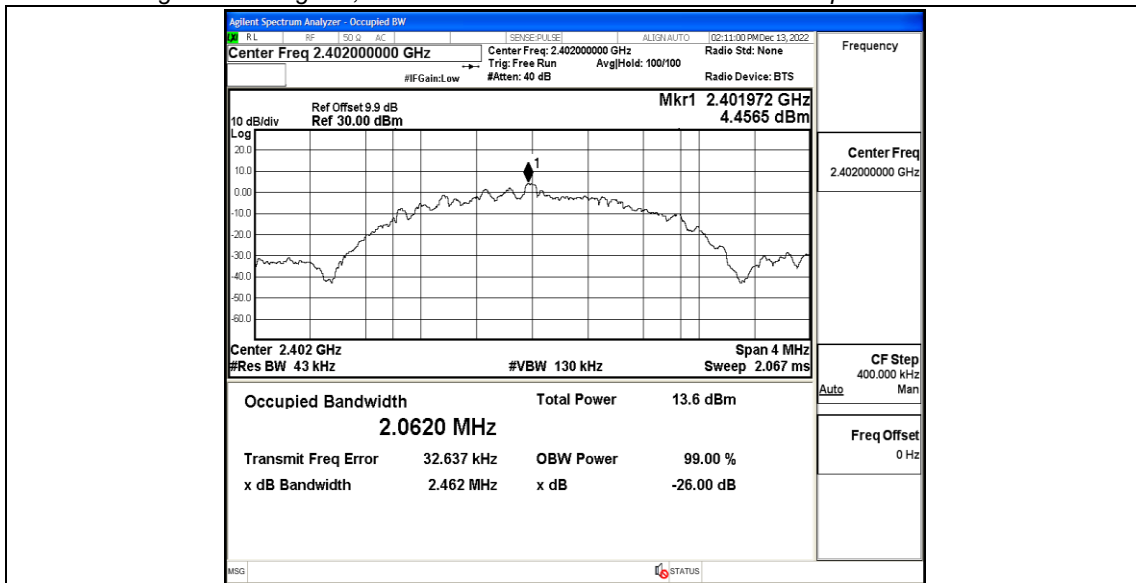
Appendix B: Occupied Channel Bandwidth

Test Result

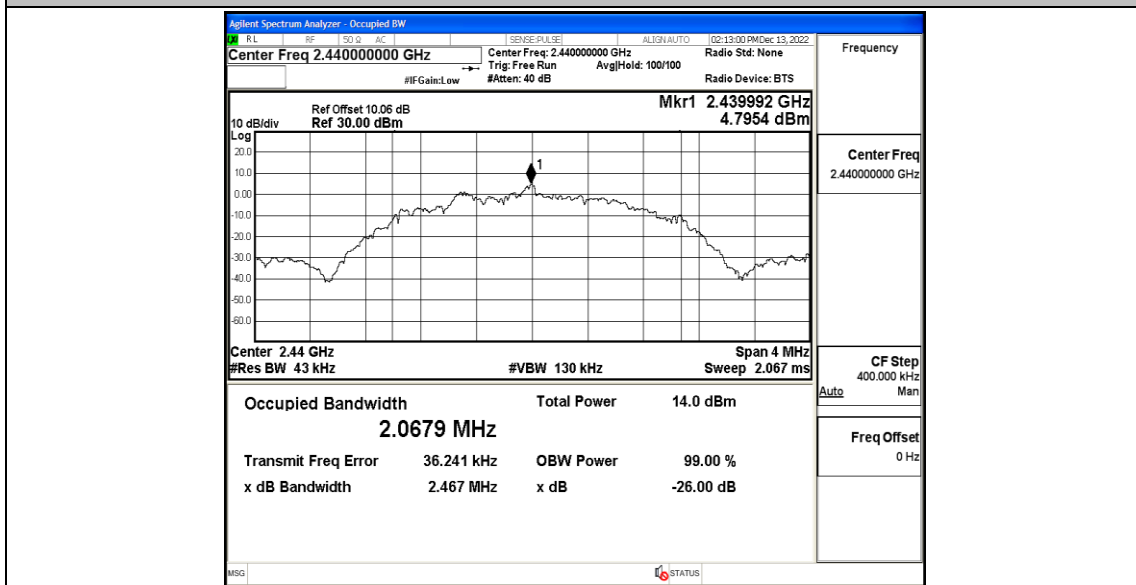
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0262	2401.5031	2402.5293	---	---
		2440	1.0283	2439.4948	2440.5231	---	---
		2480	1.0349	2479.4957	2480.5306	---	---
BLE_2M	Ant1	2402	2.0620	2401.0016	2403.0636	---	---
		2440	2.0679	2439.0023	2441.0702	---	---
		2480	2.0592	2479.0075	2481.0667	---	---

Test Graphs

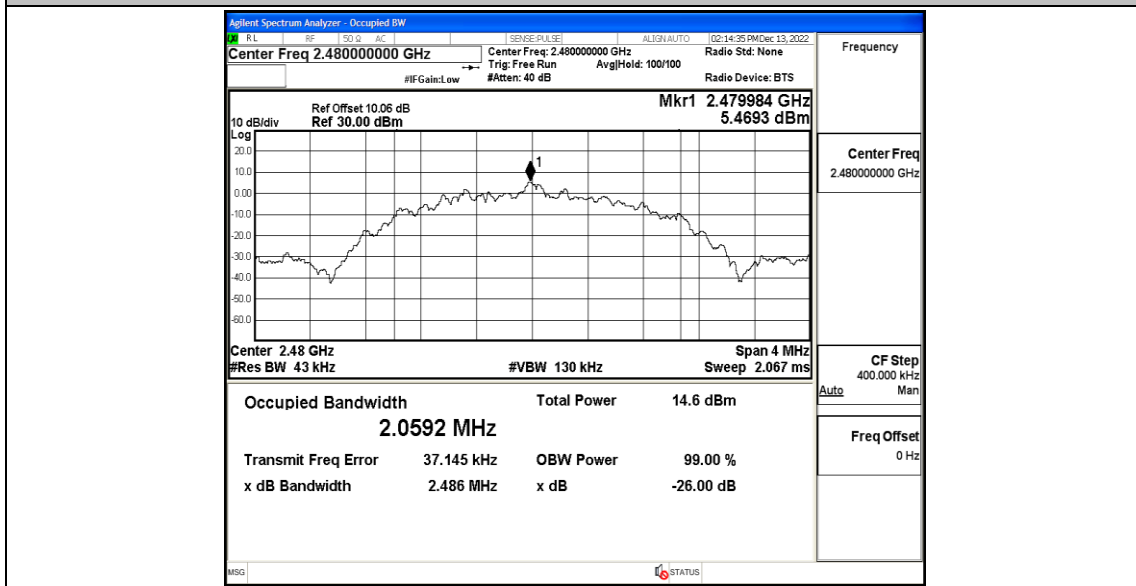




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

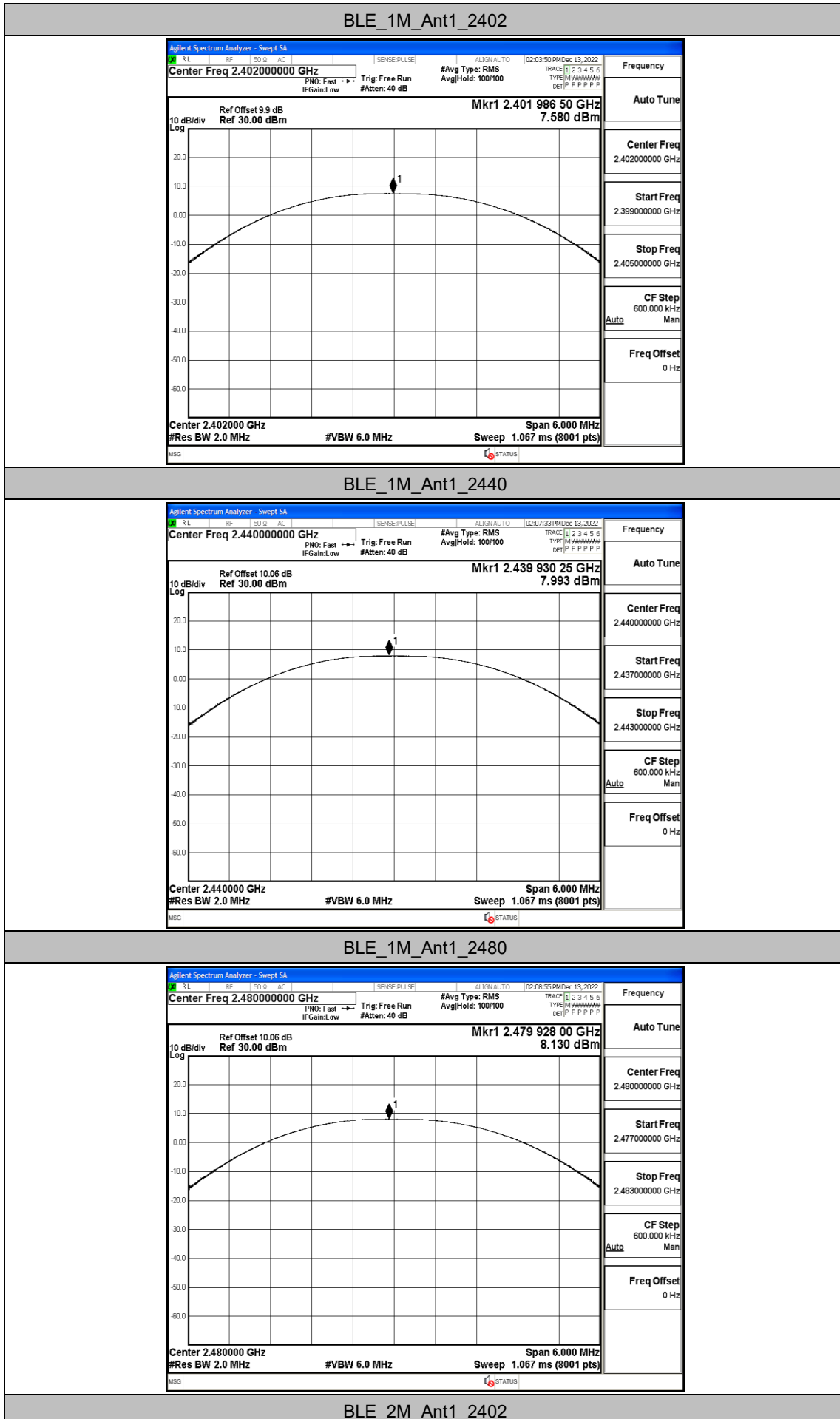


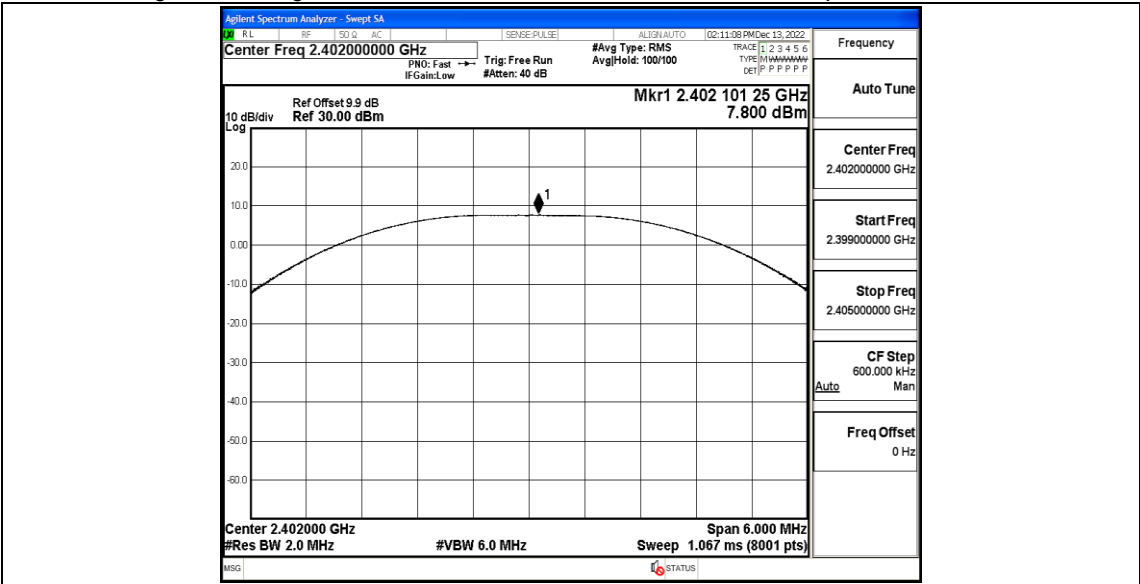
Appendix C: Maximum Peak conducted output power

Test Result

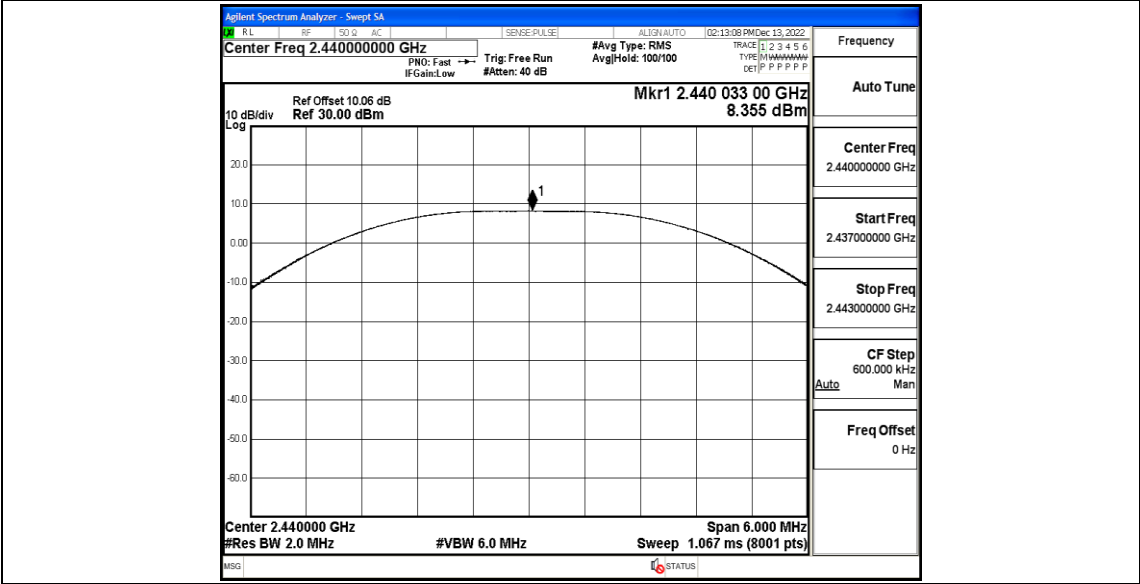
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	7.58	≤30	PASS
		2440	7.99	≤30	PASS
		2480	8.13	≤30	PASS
BLE_2M	Ant1	2402	7.8	≤30	PASS
		2440	8.36	≤30	PASS
		2480	8.45	≤30	PASS

Test Graphs

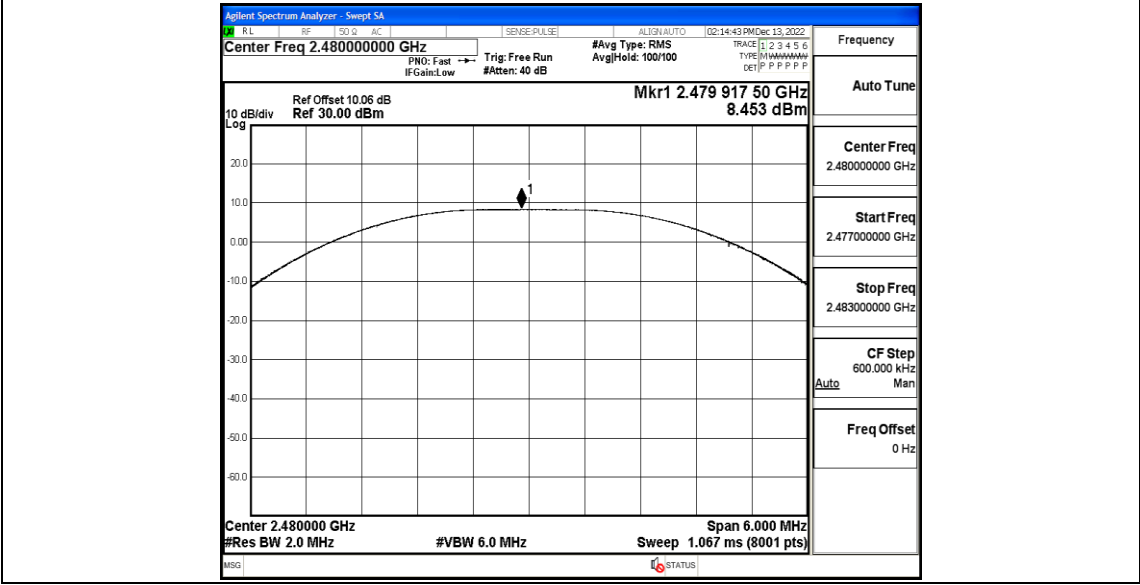




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

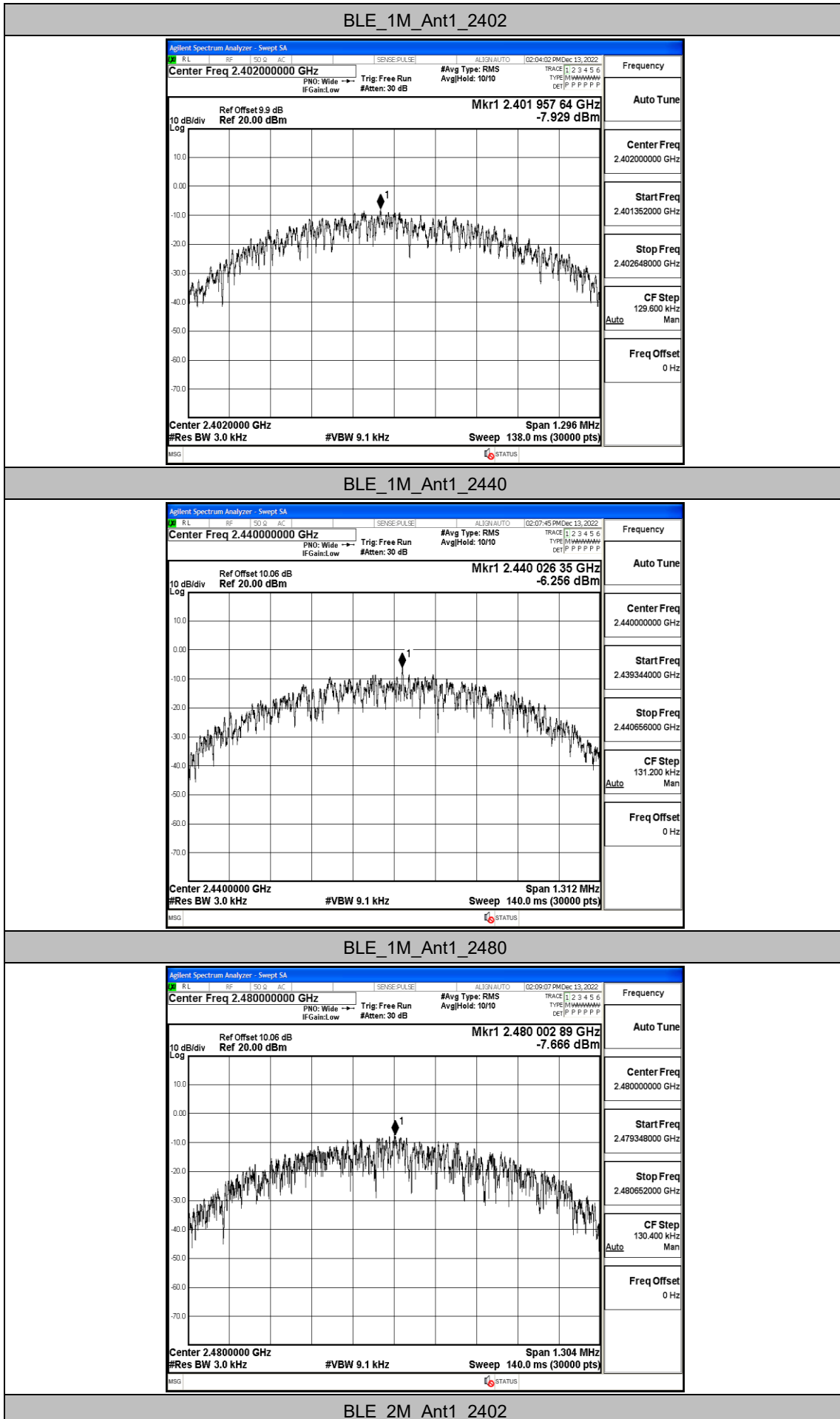


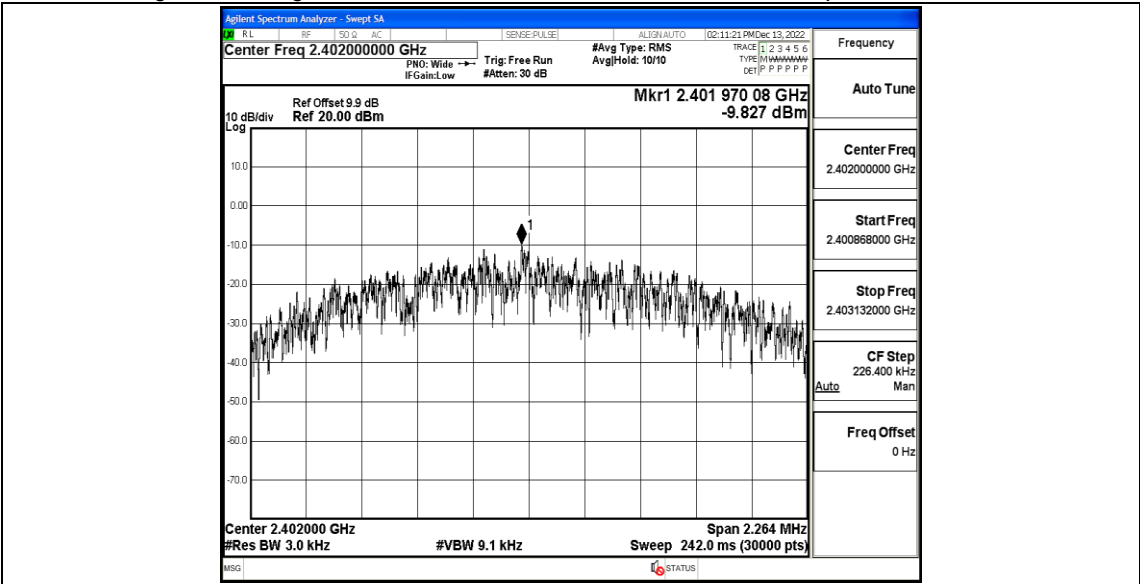
Appendix D: Maximum power spectral density

Test Result

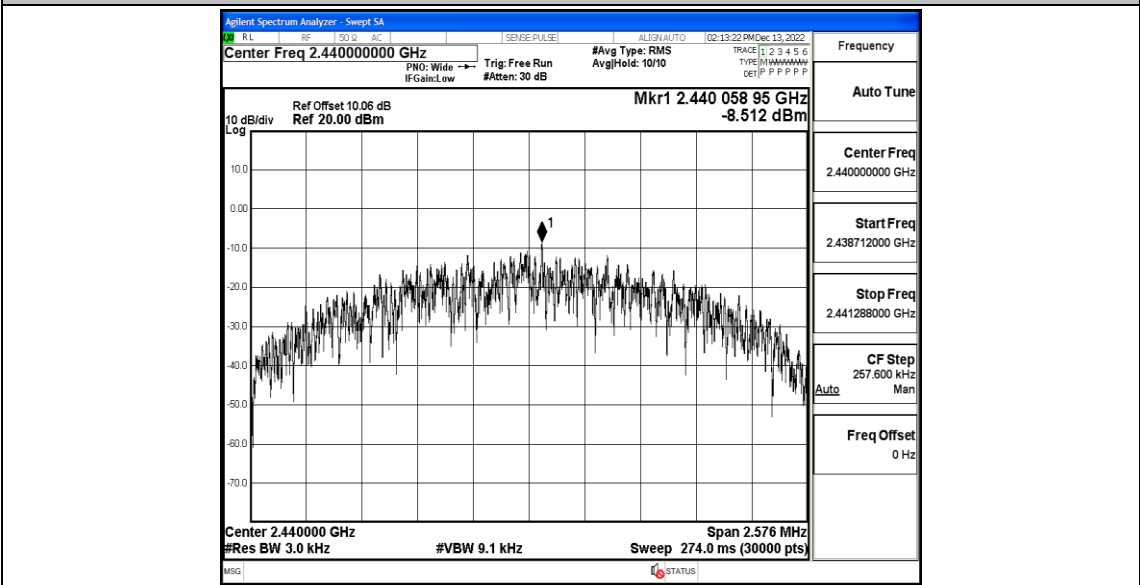
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-7.93	≤8.00	PASS
		2440	-6.26	≤8.00	PASS
		2480	-7.67	≤8.00	PASS
BLE_2M	Ant1	2402	-9.83	≤8.00	PASS
		2440	-8.51	≤8.00	PASS
		2480	-9.42	≤8.00	PASS

Test Graphs

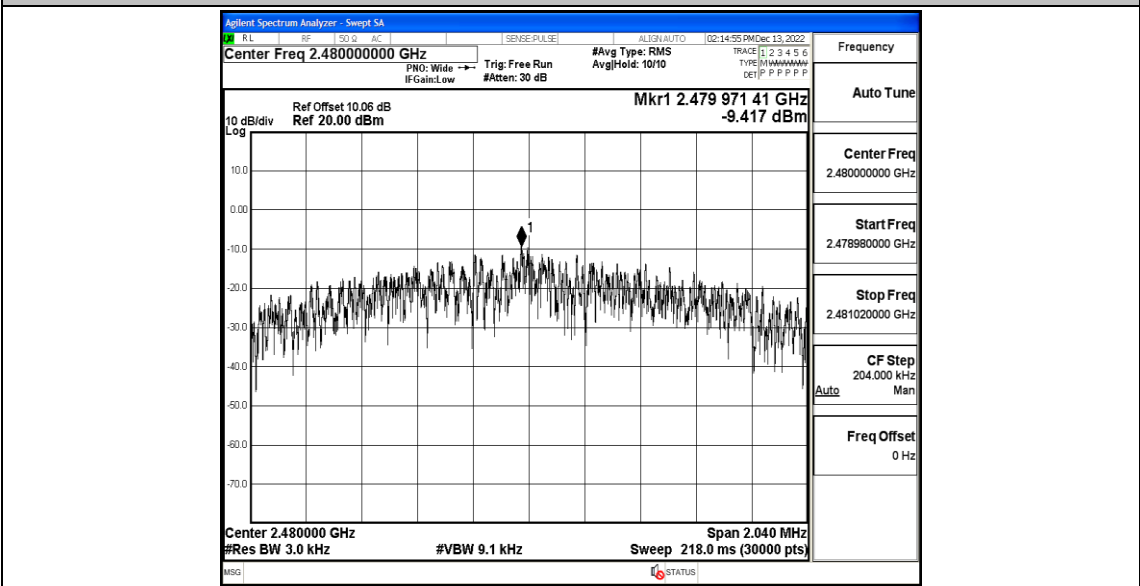




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



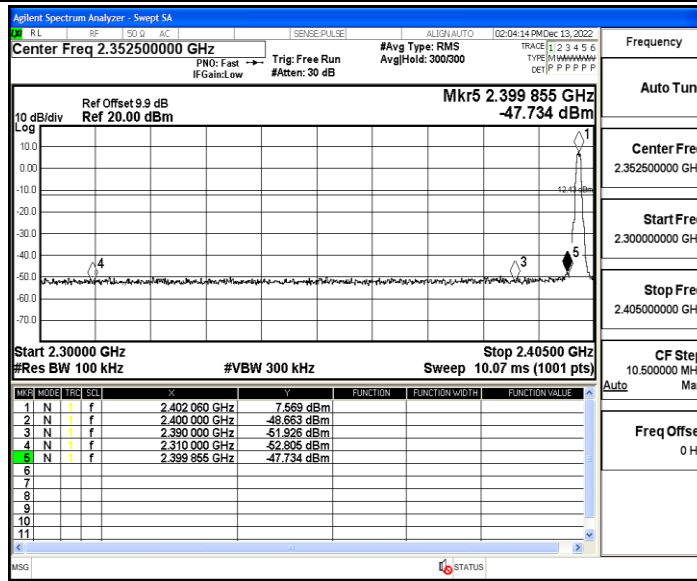
Appendix E: Band edge measurements

Test Result

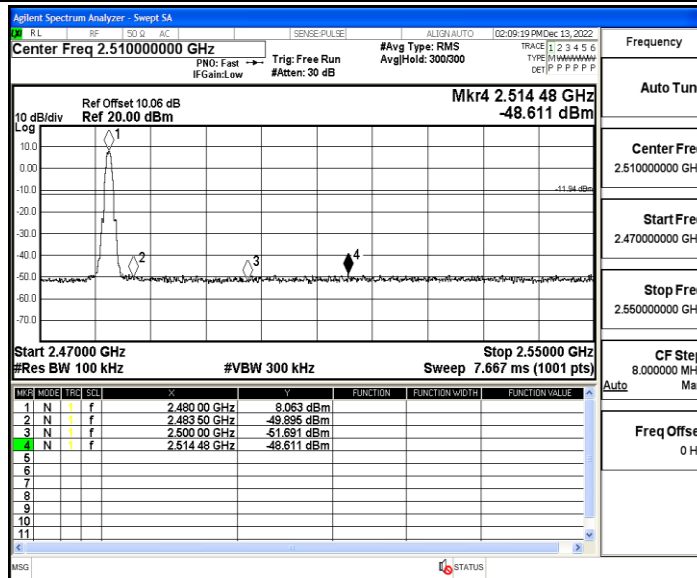
TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	7.57	-47.73	≤-12.43	PASS
		High	2480	8.06	-48.61	≤-11.94	PASS
BLE_2M	Ant1	Low	2402	7.29	-25.84	≤-12.71	PASS
		High	2480	8.02	-48.37	≤-11.99	PASS

Test Graphs

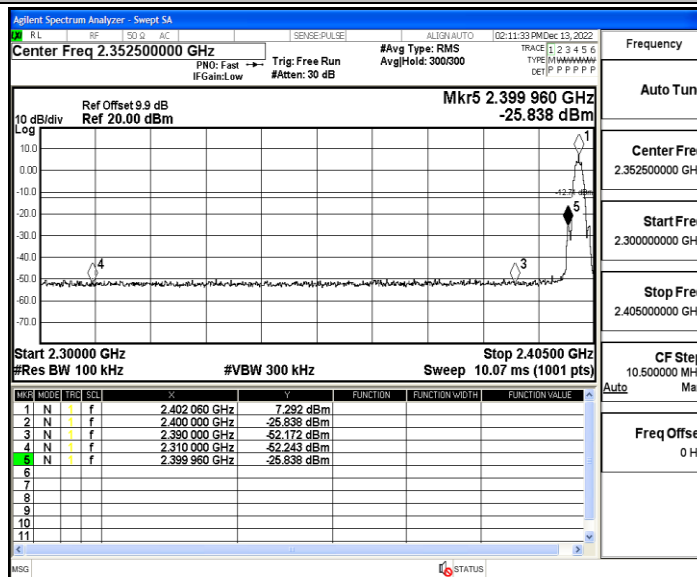
BLE_1M_Ant1_Low_2402



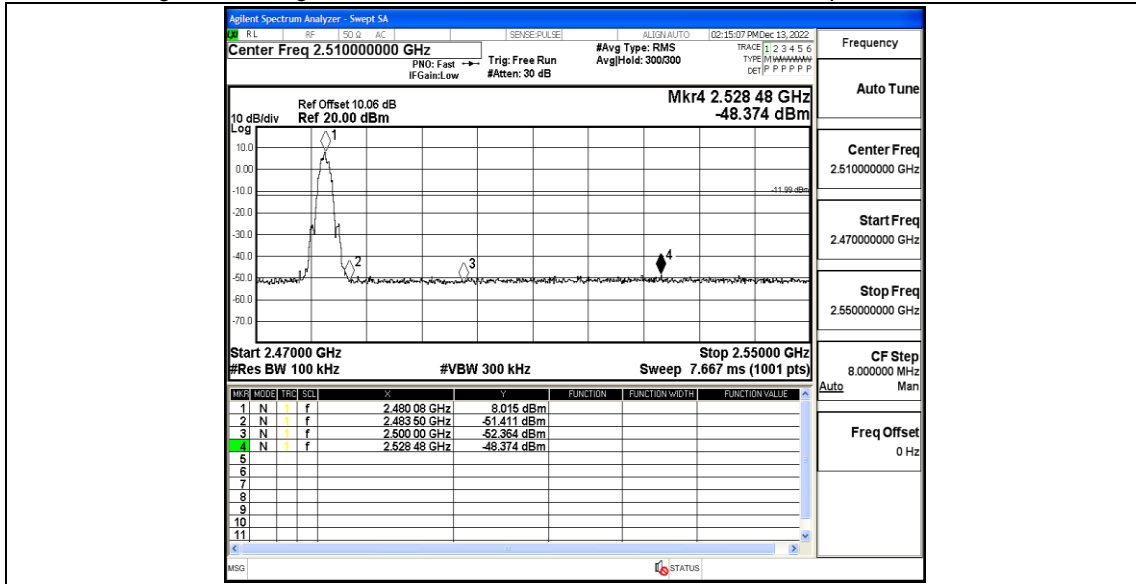
BLE_1M_Ant1_High_2480



BLE_2M_Ant1_Low_2402



BLE_2M_Ant1_High_2480

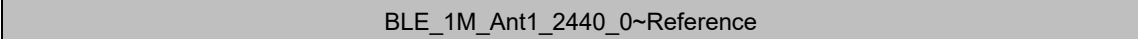
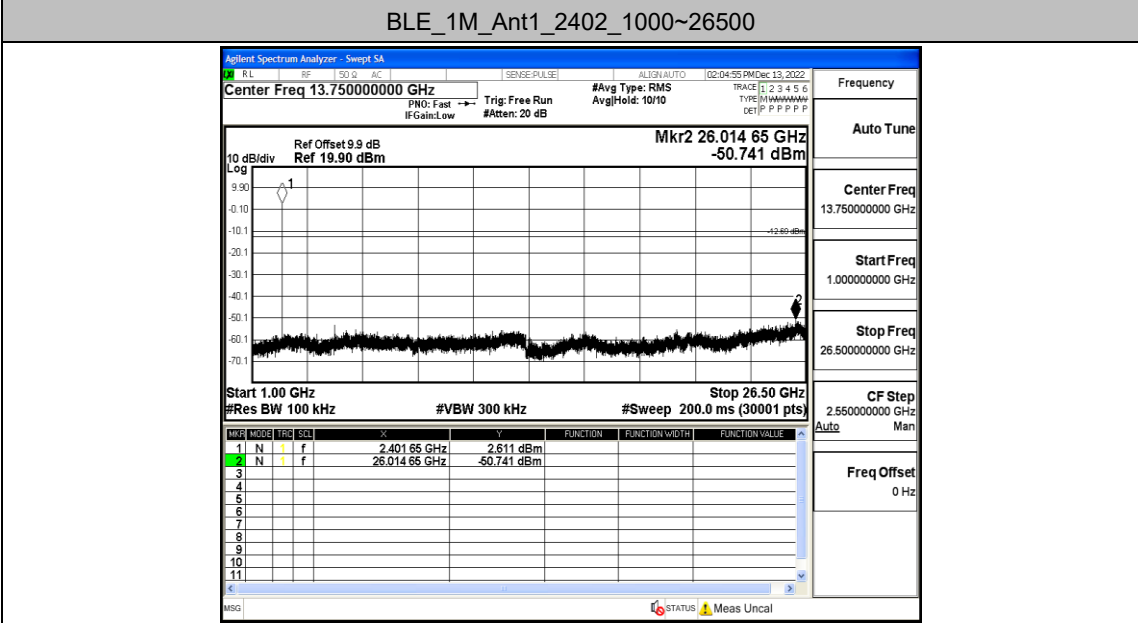
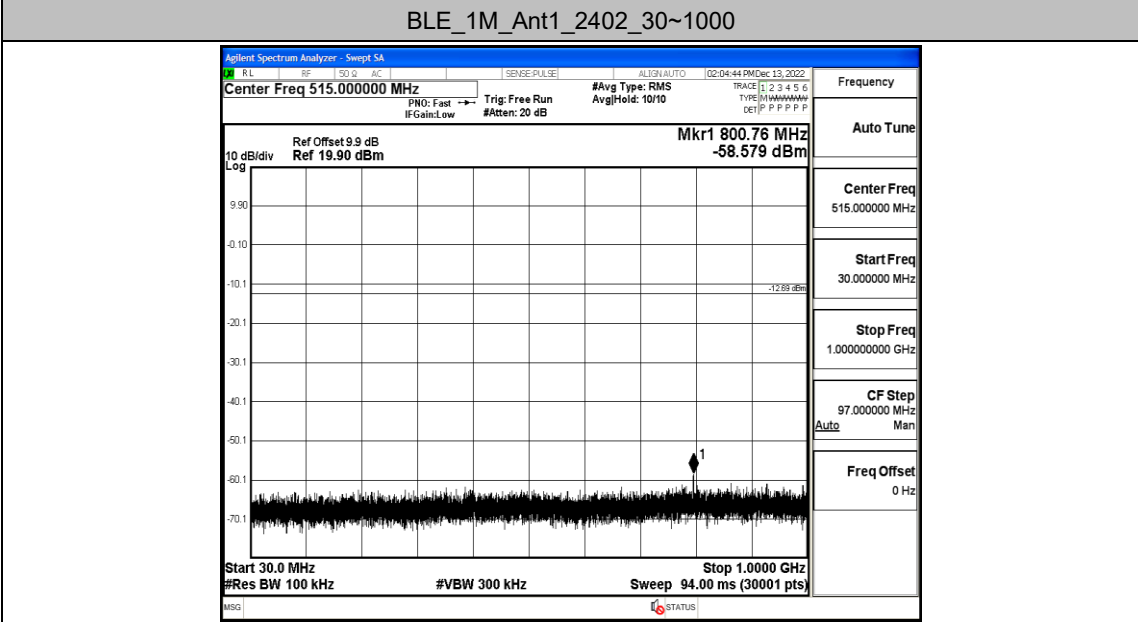
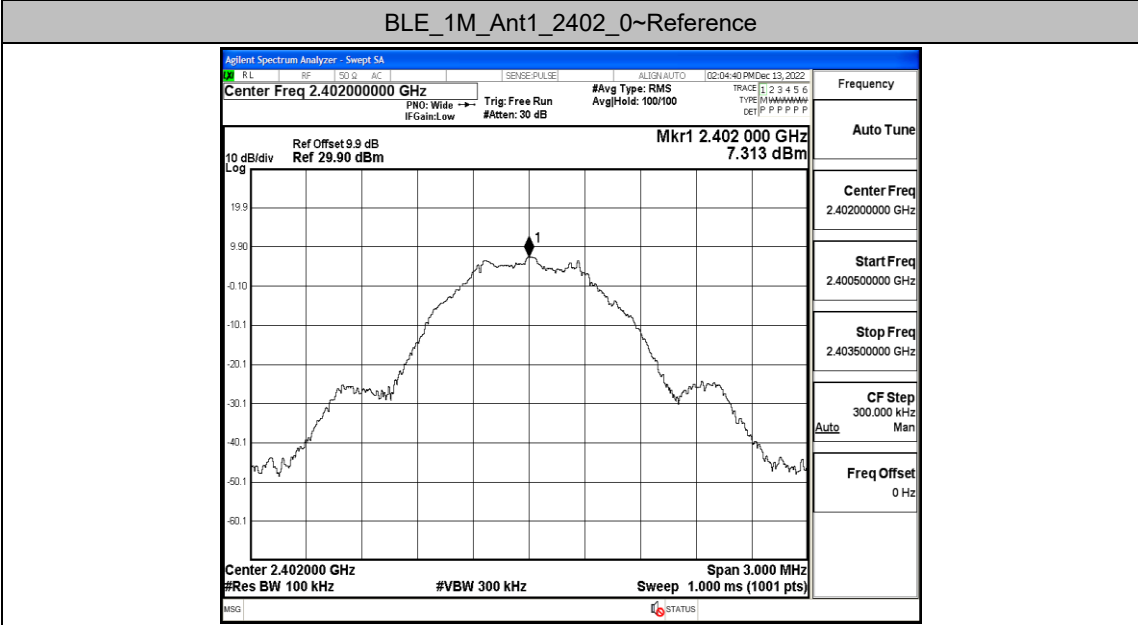


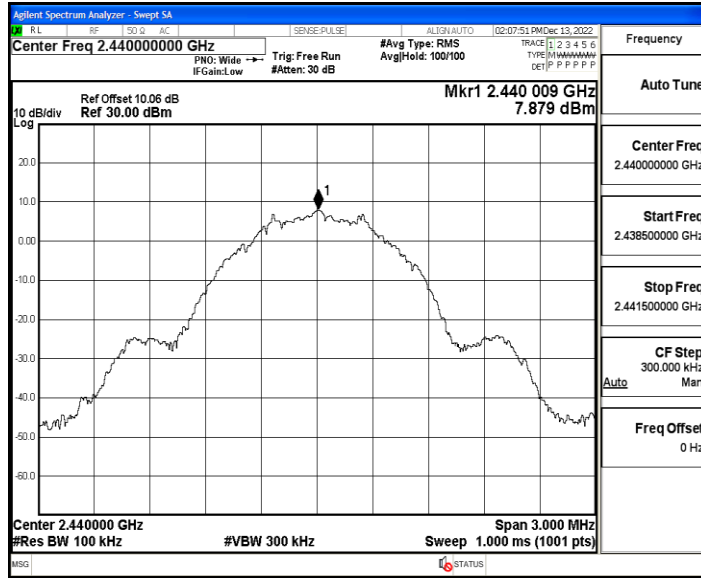
Appendix F: Conducted Spurious Emission

Test Result

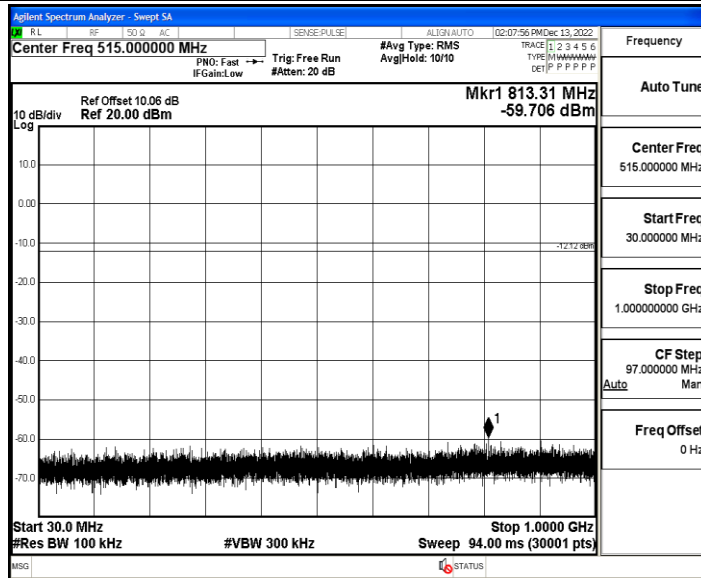
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	7.31	7.31	---	PASS
			30~1000	7.31	-58.58	≤-12.69	PASS
			1000~26500	7.31	-50.74	≤-12.69	PASS
		2440	Reference	7.88	7.88	---	PASS
			30~1000	7.88	-59.71	≤-12.12	PASS
			1000~26500	7.88	-50.49	≤-12.12	PASS
		2480	Reference	8.00	8.00	---	PASS
			30~1000	8.00	-60.1	≤-12	PASS
			1000~26500	8.00	-50.57	≤-12	PASS
BLE_2M	Ant1	2402	Reference	7.42	7.42	---	PASS
			30~1000	7.42	-60.89	≤-12.58	PASS
			1000~26500	7.42	-48.85	≤-12.58	PASS
		2440	Reference	7.89	7.89	---	PASS
			30~1000	7.89	-60.44	≤-12.11	PASS
			1000~26500	7.89	-51.55	≤-12.11	PASS
		2480	Reference	7.16	7.16	---	PASS
			30~1000	7.16	-60.31	≤-12.84	PASS
			1000~26500	7.16	-50.5	≤-12.84	PASS

Test Graphs

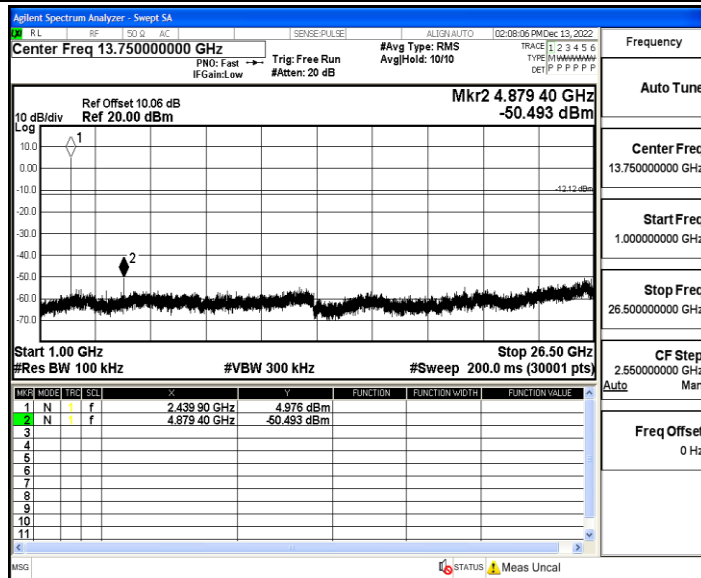




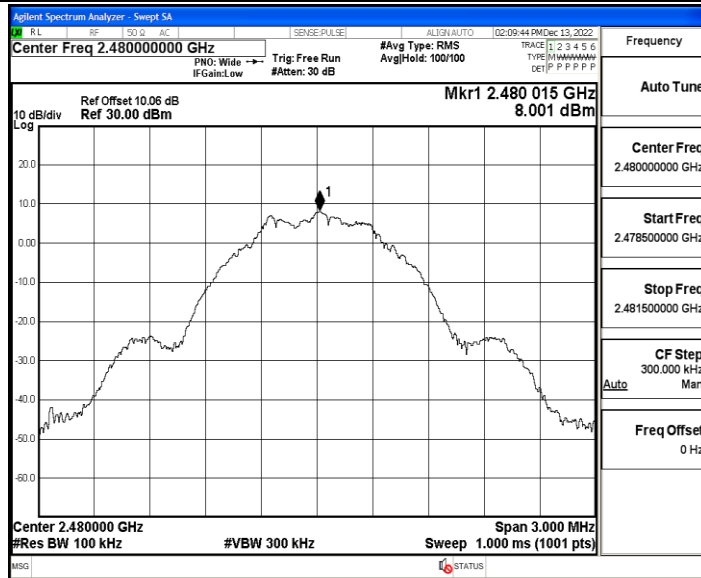
BLE_1M_Ant1_2440_30~1000



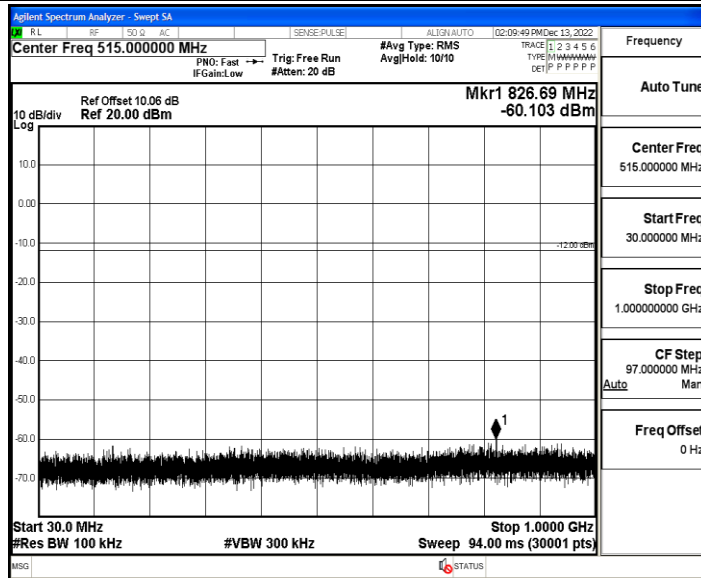
BLE_1M_Ant1_2440_1000~26500



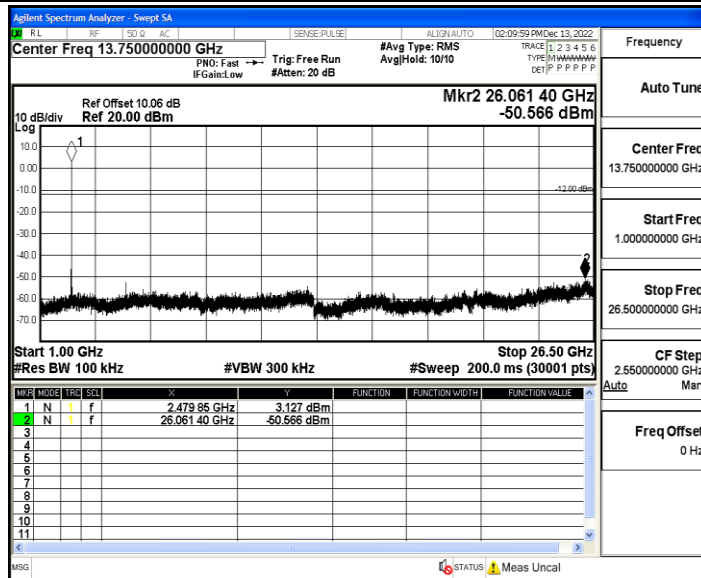
BLE_1M_Ant1_2480_0~Reference



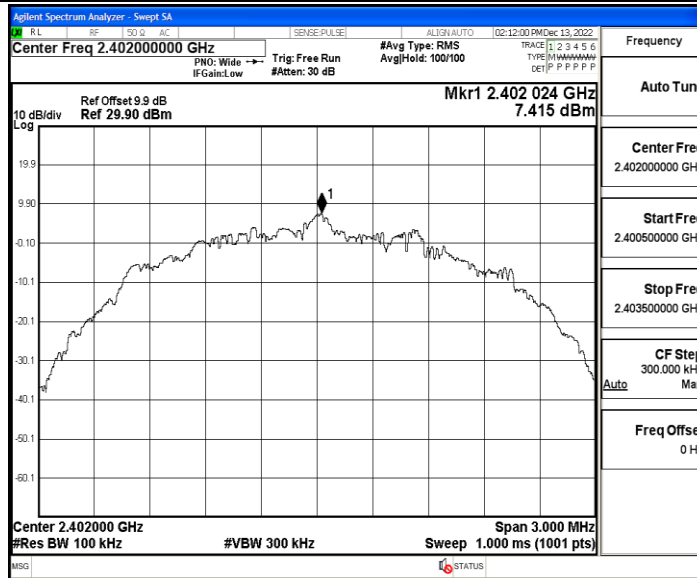
BLE_1M_Ant1_2480_30~1000



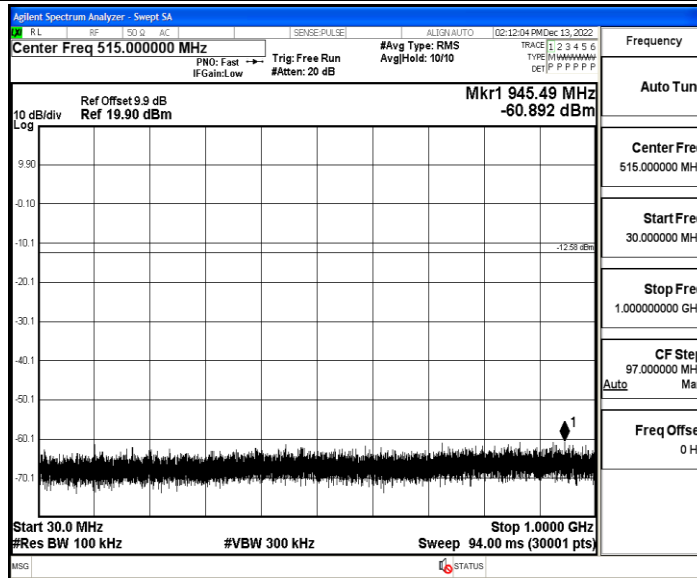
BLE_1M_Ant1_2480_1000~26500



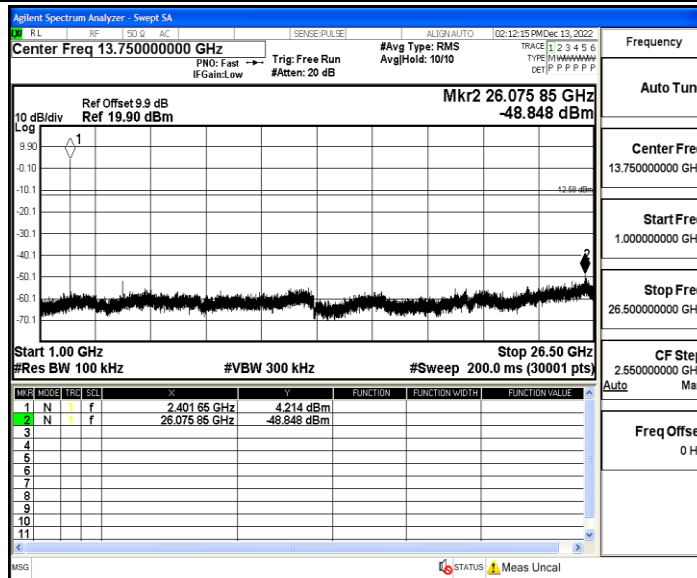
BLE_2M_Ant1_2402_0~Reference



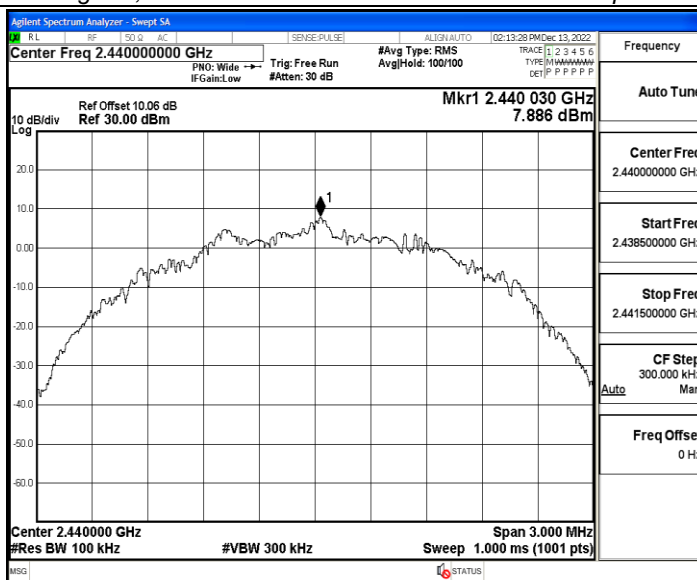
BLE_2M_Ant1_2402_30~1000



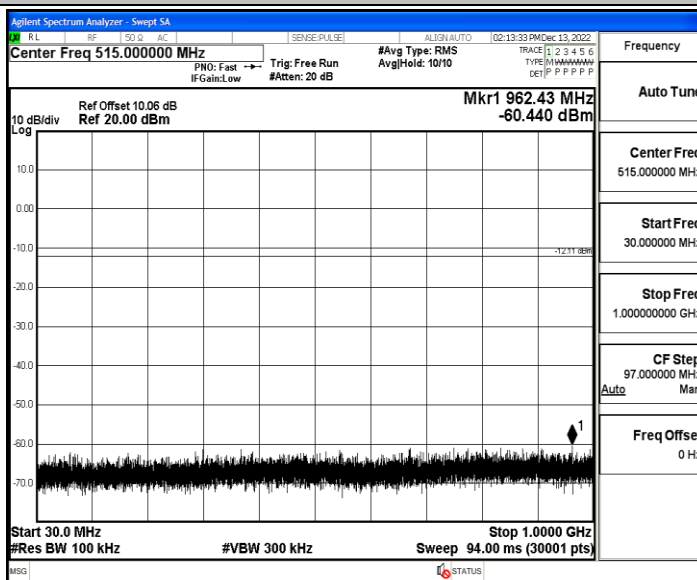
BLE_2M_Ant1_2402_1000~26500



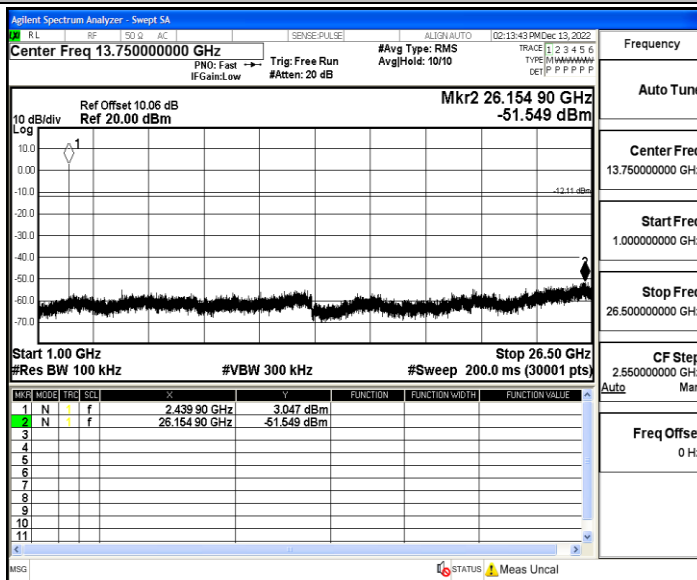
BLE_2M_Ant1_2440_0~Reference



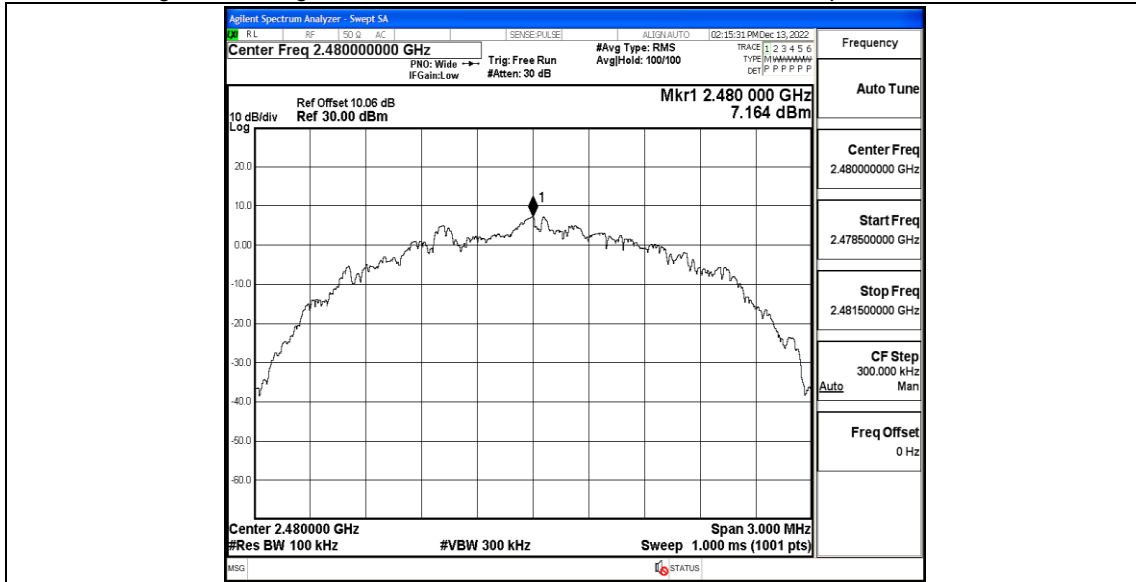
BLE_2M_Ant1_2440_30~1000



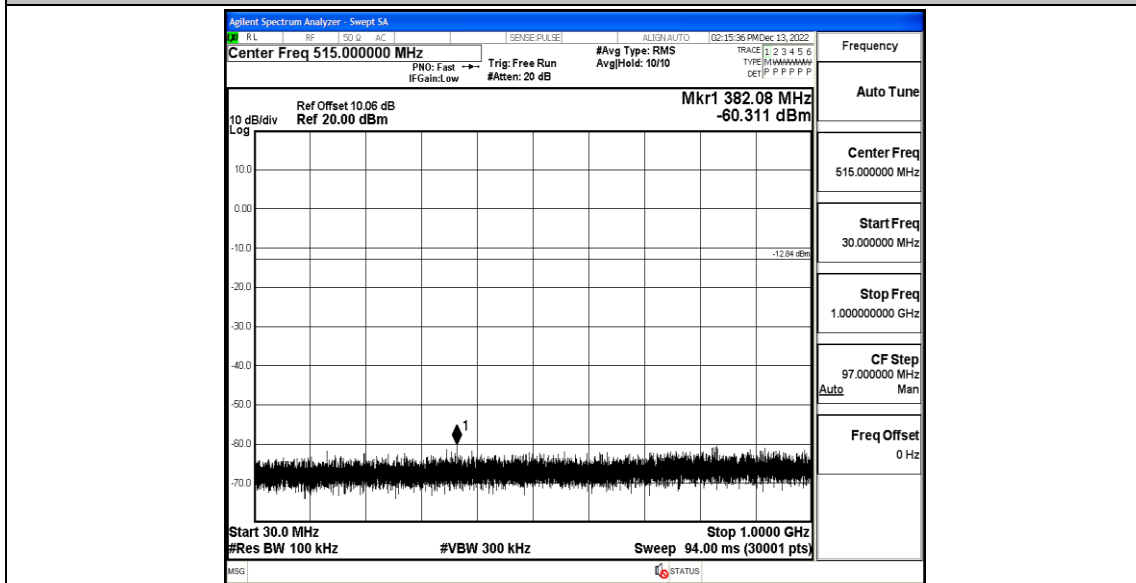
BLE_2M_Ant1_2440_1000~26500



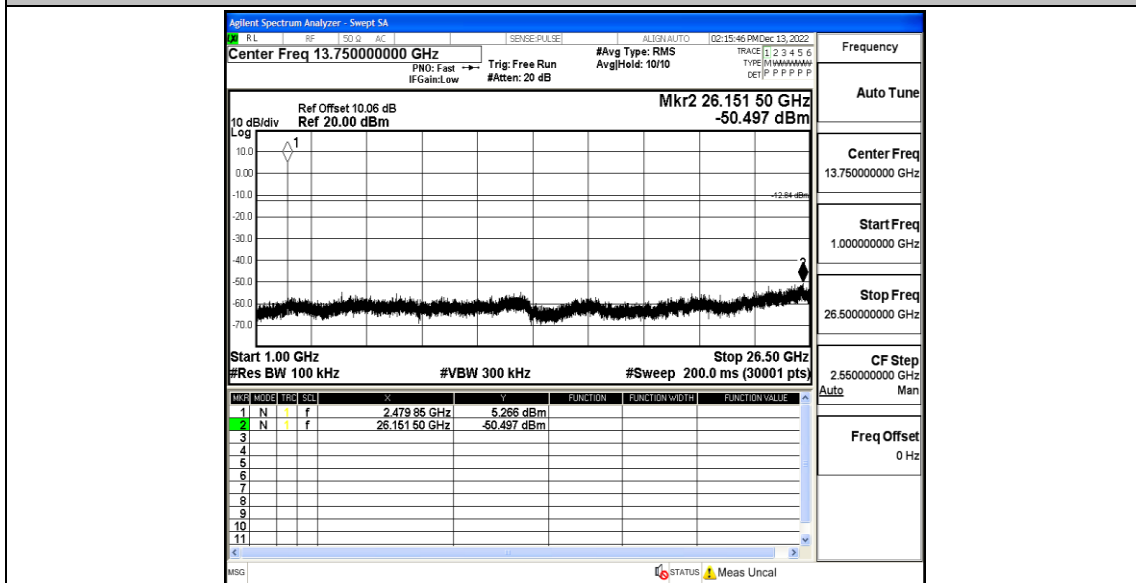
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500

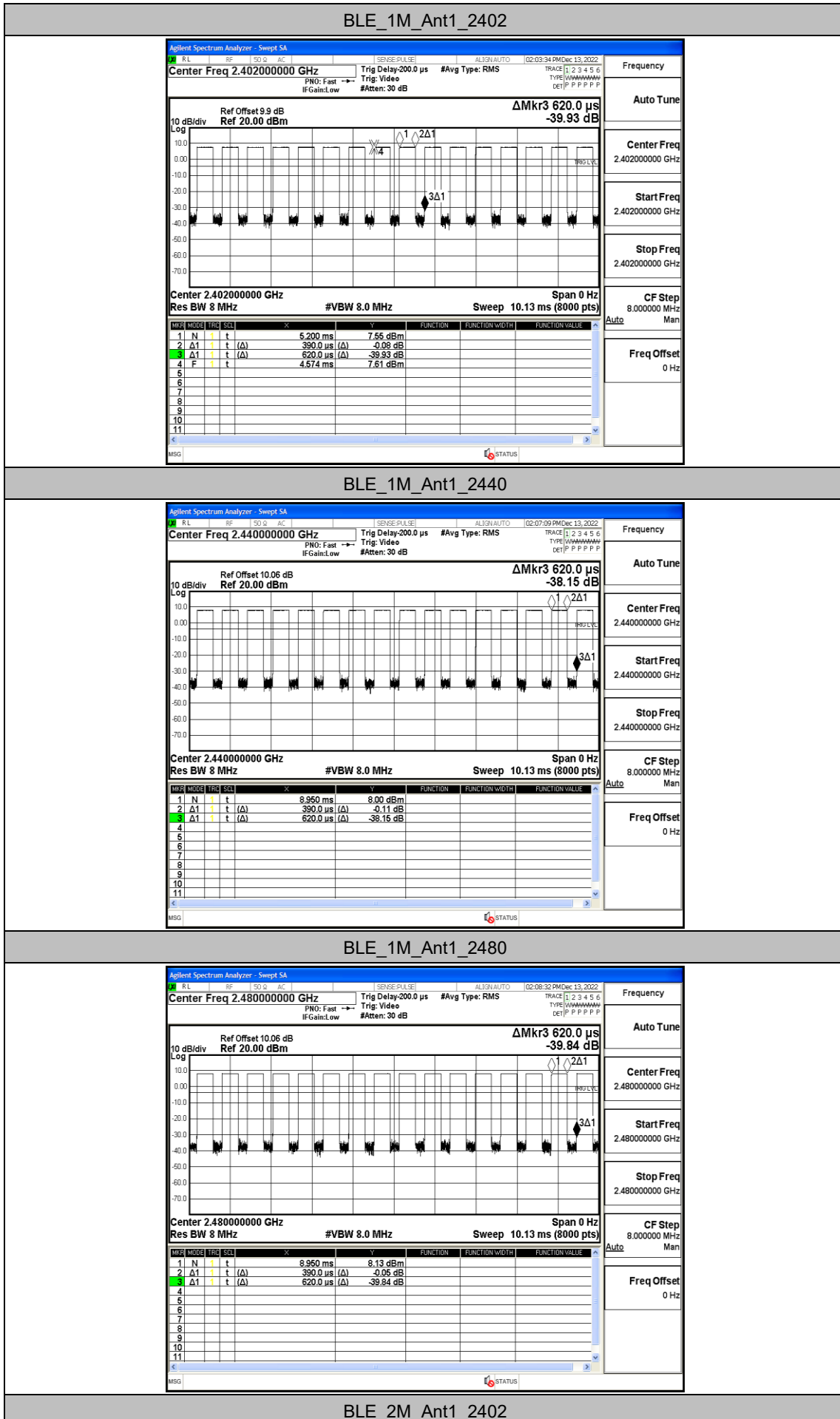


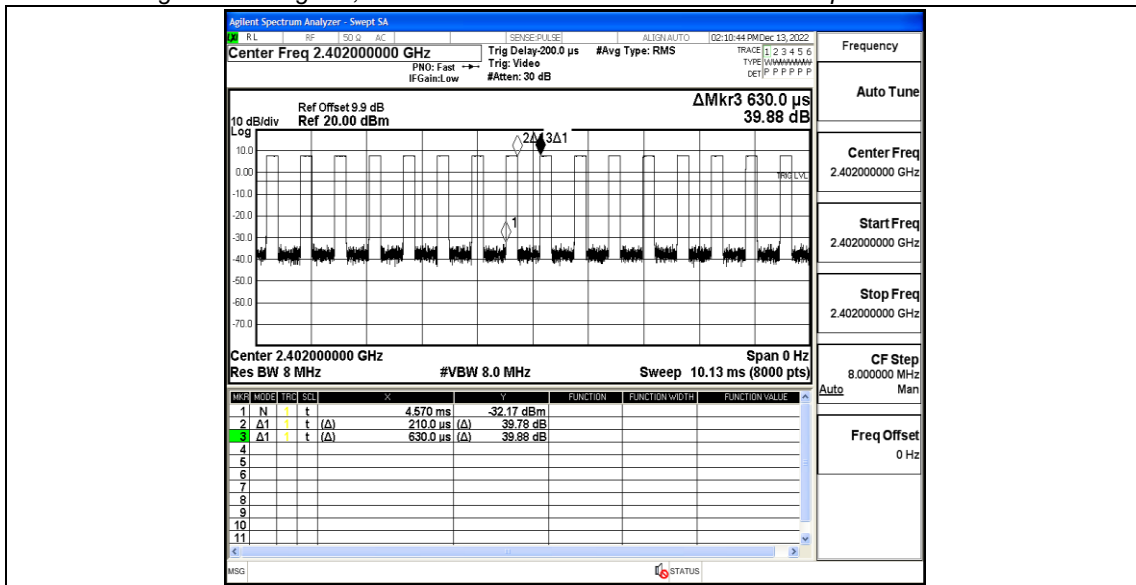
Appendix G: Duty Cycle

Test Result

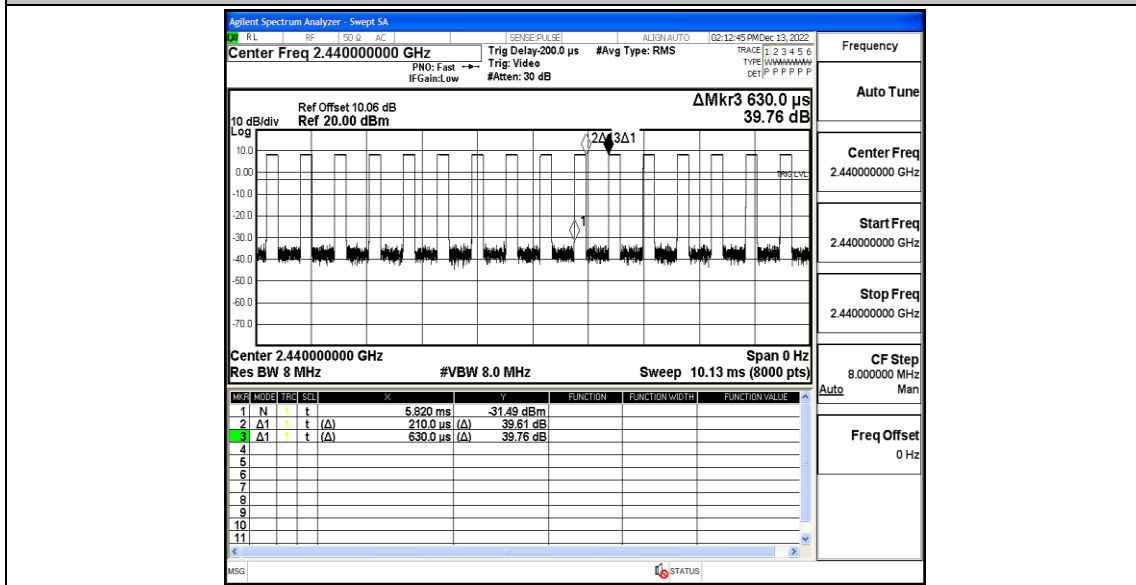
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.39	0.62	62.90	2.56
		2440	0.39	0.62	62.90	2.56
		2480	0.39	0.62	62.90	2.56
BLE_2M	Ant1	2402	0.21	0.63	33.33	4.76
		2440	0.21	0.63	33.33	4.76
		2480	0.21	0.62	33.87	4.76

Test Graphs

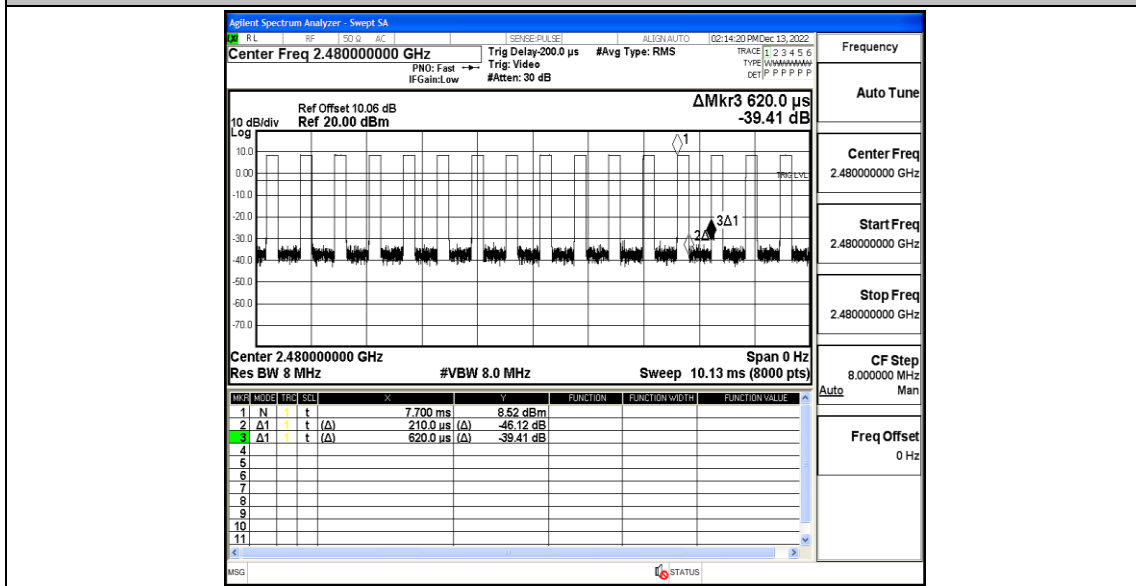




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



Appendix H: Emissions in Restricted Bands

Test Result

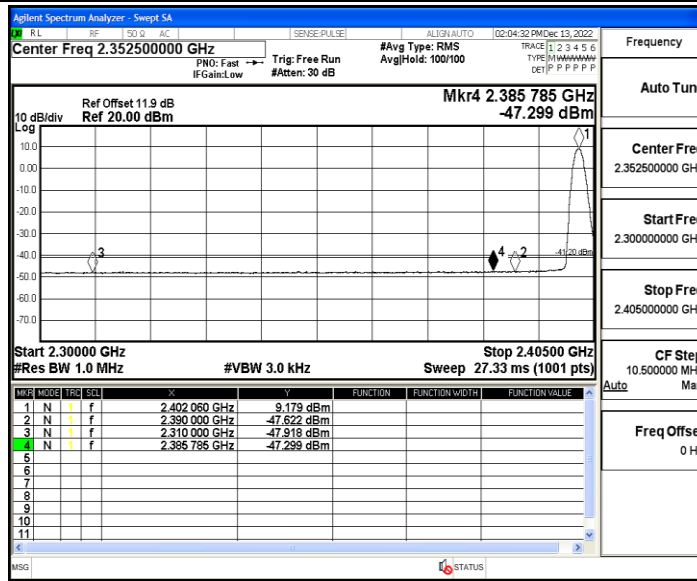
TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-47.92	≤-41.20	PASS
				AV	2385.785	-47.3	≤-41.20	PASS
				AV	2390.000	-47.62	≤-41.20	PASS
				Peak	2310.000	-40.3	≤-21.20	PASS
				Peak	2339.375	-38.5	≤-21.20	PASS
				Peak	2390.000	-40.45	≤-21.20	PASS
		High	2480	AV	2483.500	-44	≤-41.20	PASS
				AV	2483.520	-44	≤-41.20	PASS
				AV	2500.000	-47.28	≤-41.20	PASS
				Peak	2483.500	-39.02	≤-21.20	PASS
				Peak	2487.760	-37.92	≤-21.20	PASS
				Peak	2500.000	-40.52	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-47.64	≤-41.20	PASS
				AV	2352.920	-46.77	≤-41.20	PASS
				AV	2390.000	-47.09	≤-41.20	PASS
				Peak	2310.000	-41.36	≤-21.20	PASS
				Peak	2370.560	-37.46	≤-21.20	PASS
				Peak	2390.000	-40.93	≤-21.20	PASS
		High	2480	AV	2483.500	-41.32	≤-41.20	PASS
				AV	2483.520	-41.32	≤-41.20	PASS
				AV	2500.000	-46.78	≤-41.20	PASS
				Peak	2483.500	-37.51	≤-21.20	PASS
				Peak	2483.520	-37.51	≤-21.20	PASS
				Peak	2500.000	-39.75	≤-21.20	PASS

Note:

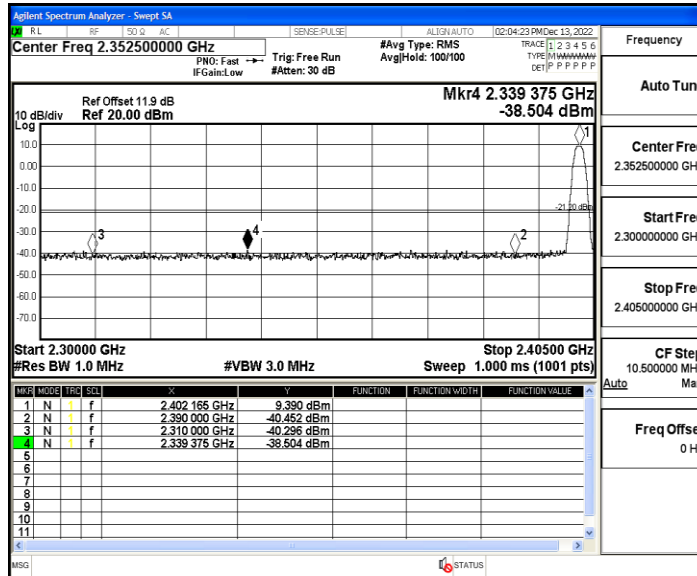
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

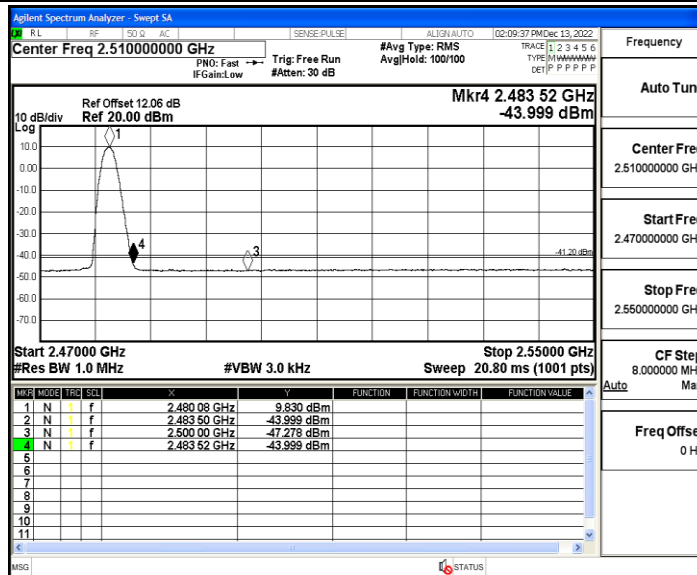
BLE_1M_Ant1_Low_2402_AV



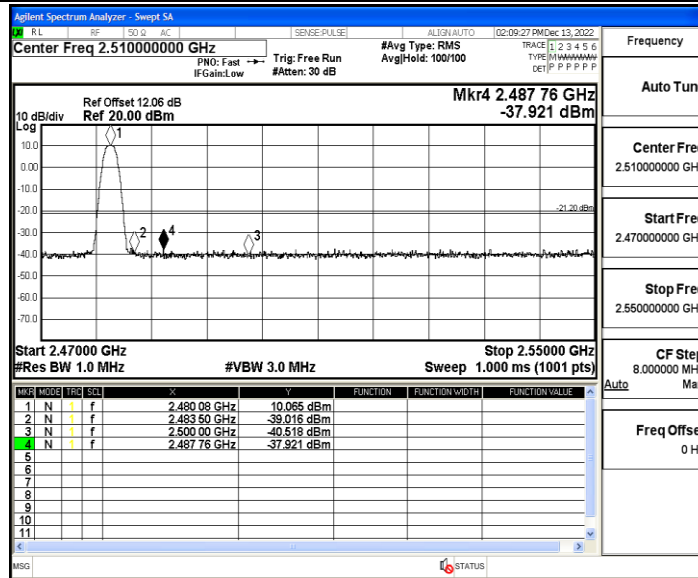
BLE_1M_Ant1_Low_2402_Peak



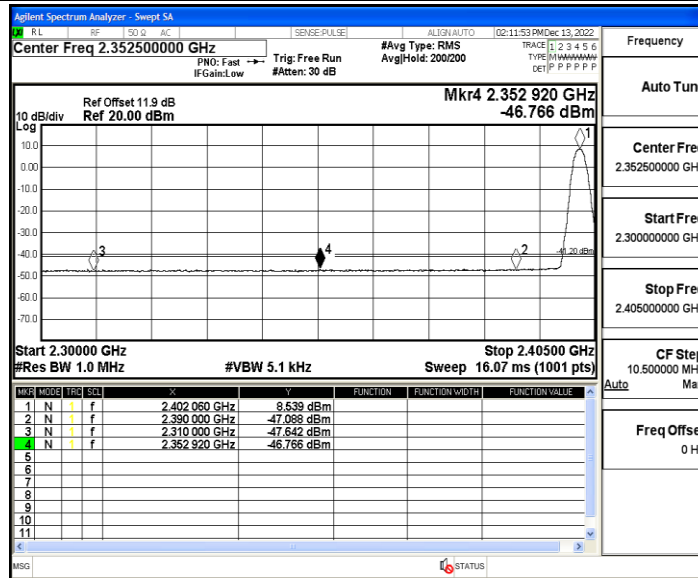
BLE_1M_Ant1_High_2480_AV



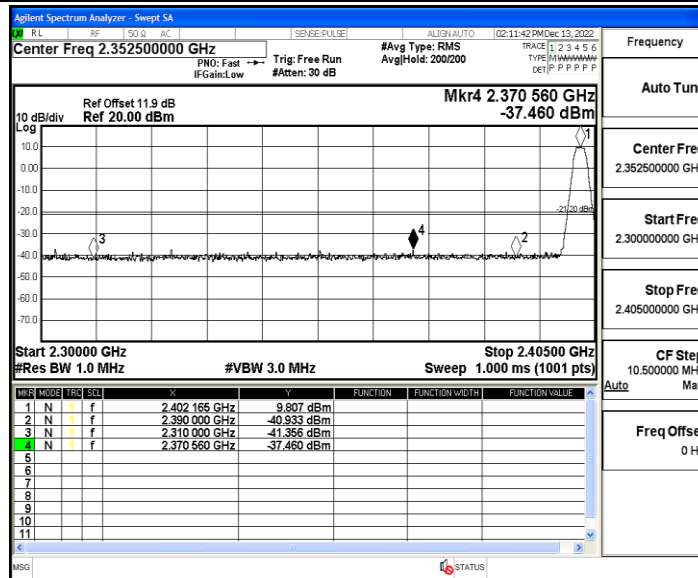
BLE_1M_Ant1_High_2480_Peak



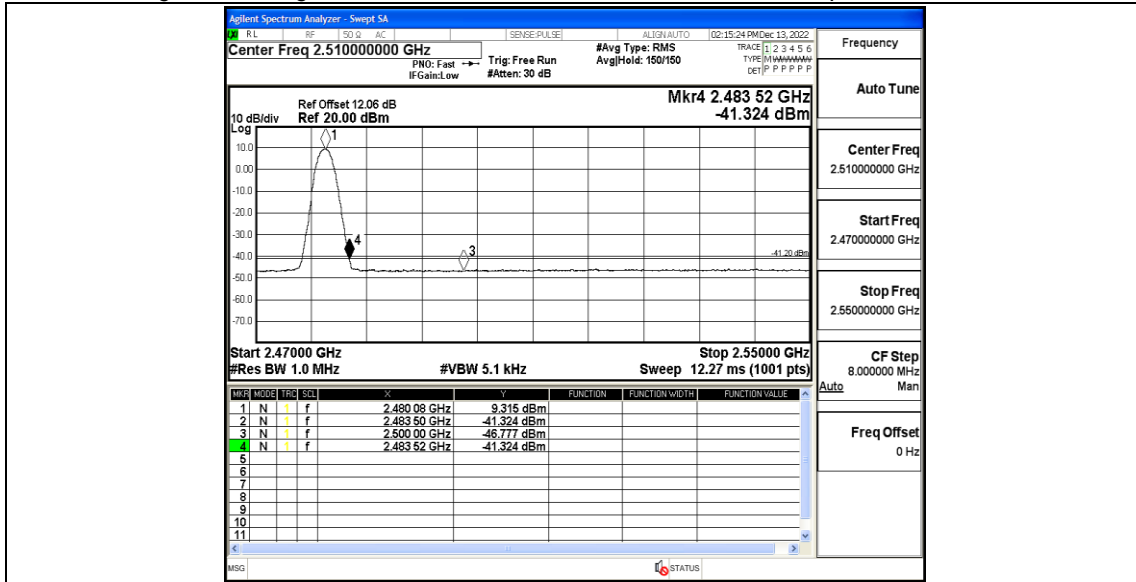
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

