

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

Product Name: Smart Watch

Trade Mark: N/A

Test Model: NOTHING2

FCC ID: 2AE8V-NOTHING2

Environmental Conditions

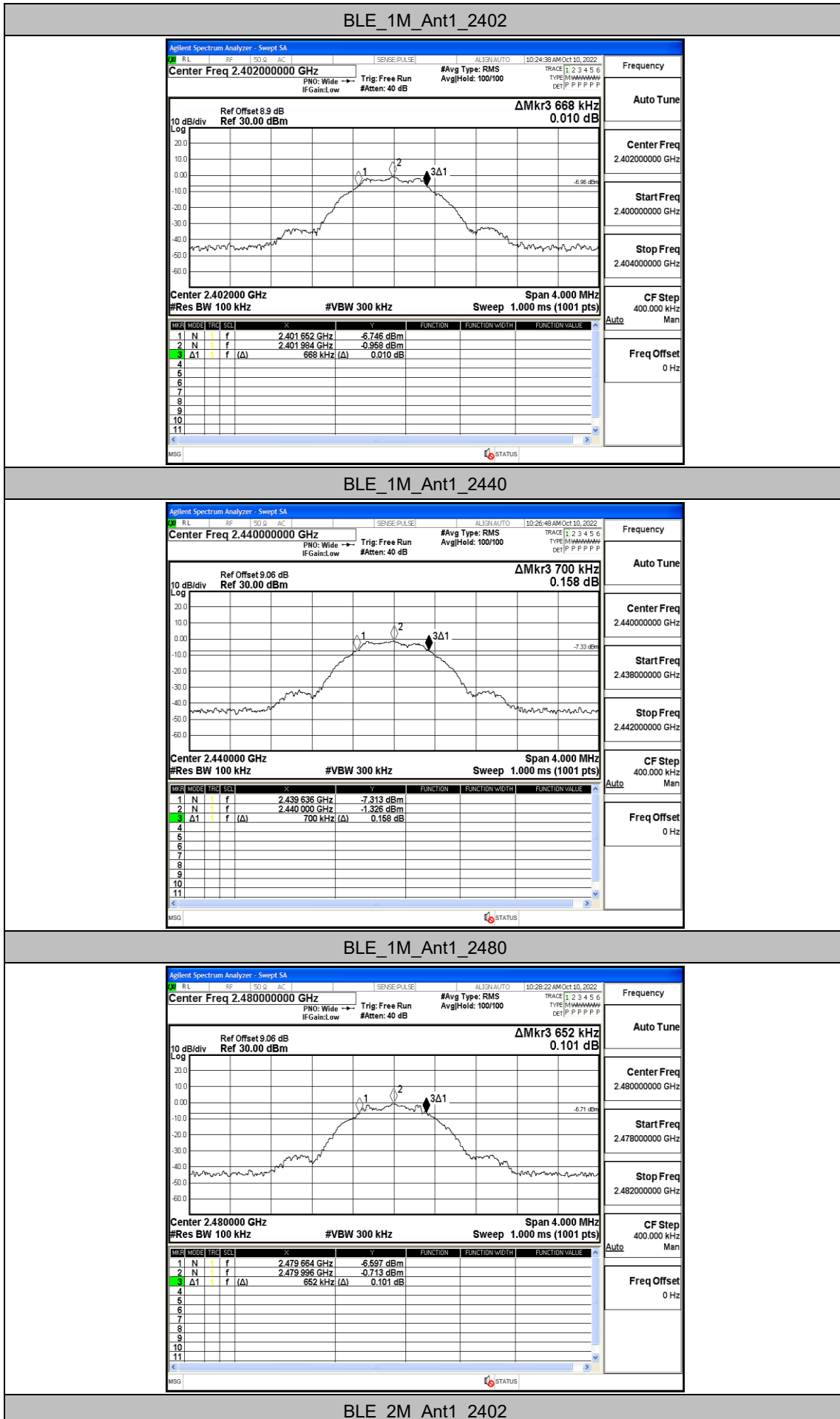
Temperature:	22.8° C
Relative Humidity:	60%
ATM Pressure:	100.0 kPa
Test Engineer:	Nancy Li
Supervised by:	Hugo Chen
NOTE	N/A

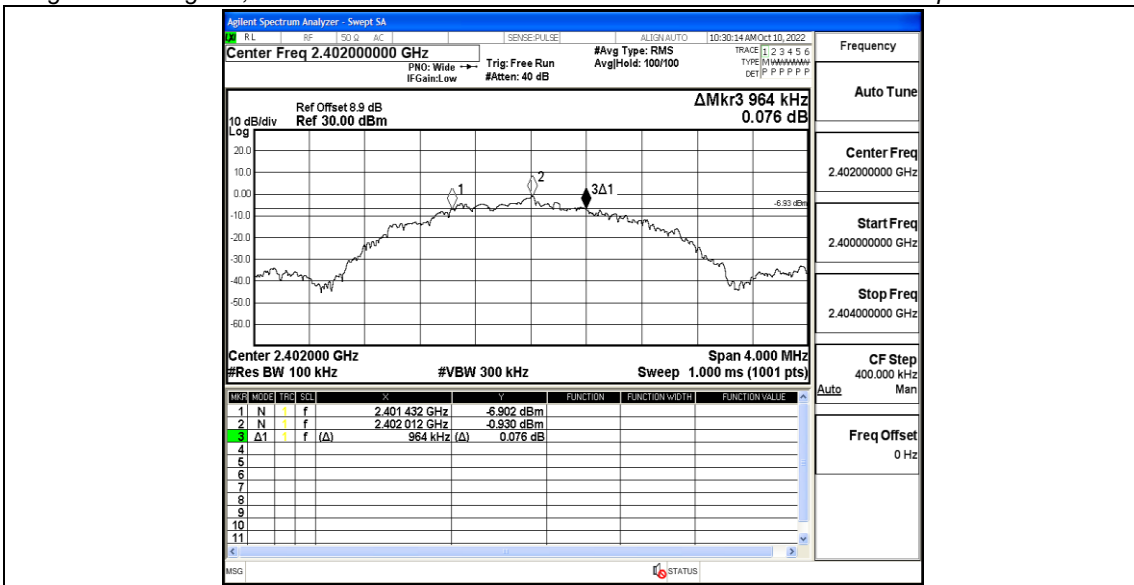
Appendix A: DTS Bandwidth

Test Result

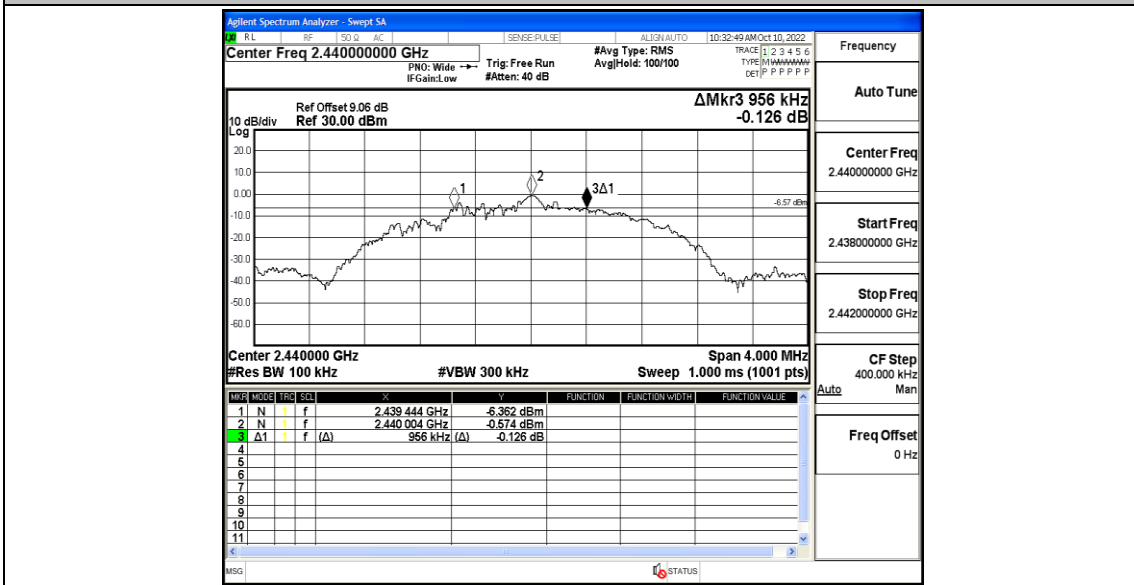
TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.668	2401.652	2402.320	0.5	PASS
		2440	0.700	2439.636	2440.336	0.5	PASS
		2480	0.652	2479.664	2480.316	0.5	PASS
BLE_2M	Ant1	2402	0.964	2401.432	2402.396	0.5	PASS
		2440	0.956	2439.444	2440.400	0.5	PASS
		2480	1.240	2479.356	2480.596	0.5	PASS

Test Graphs

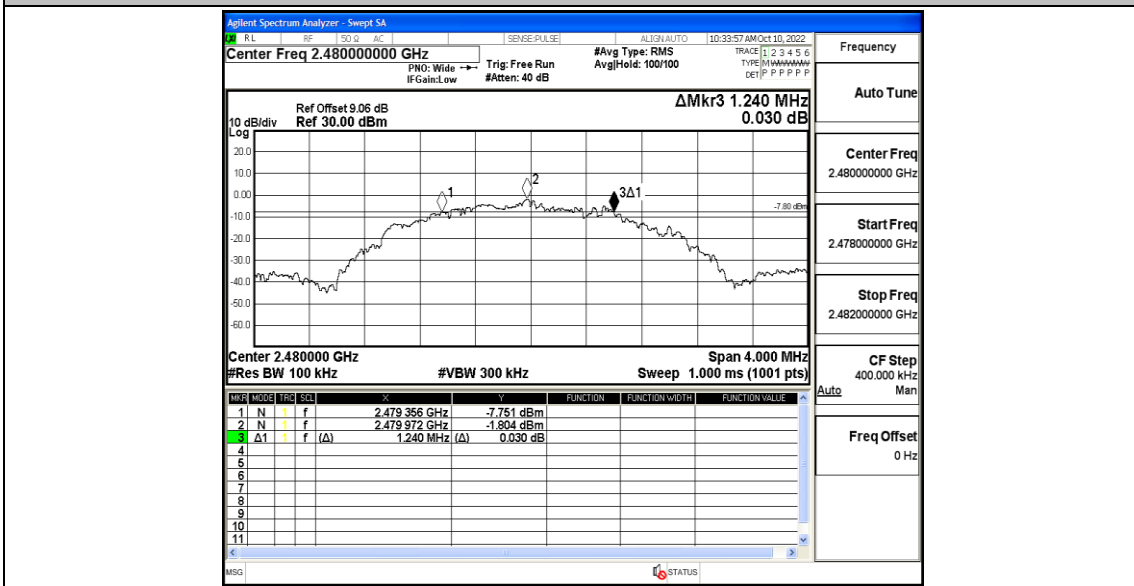




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

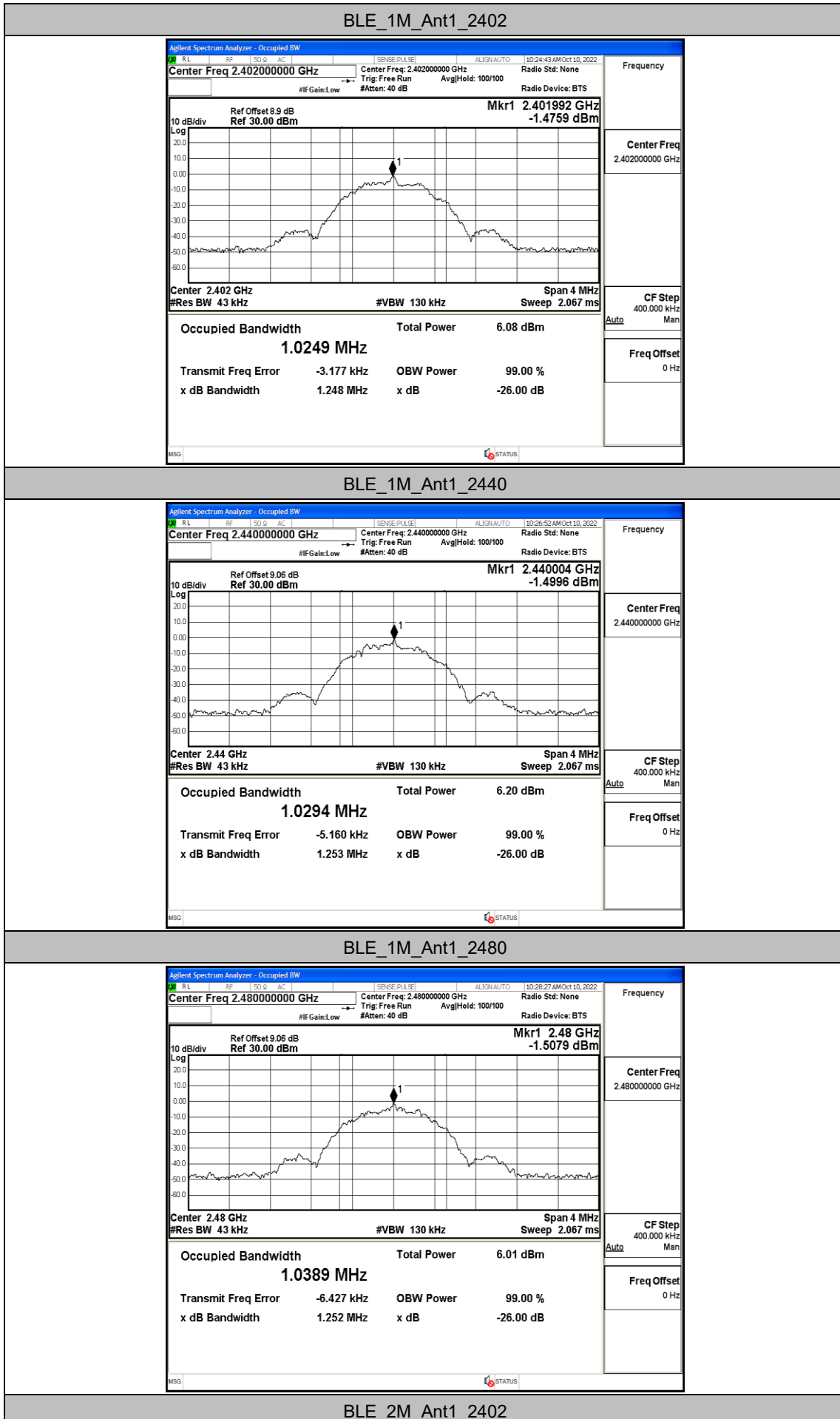


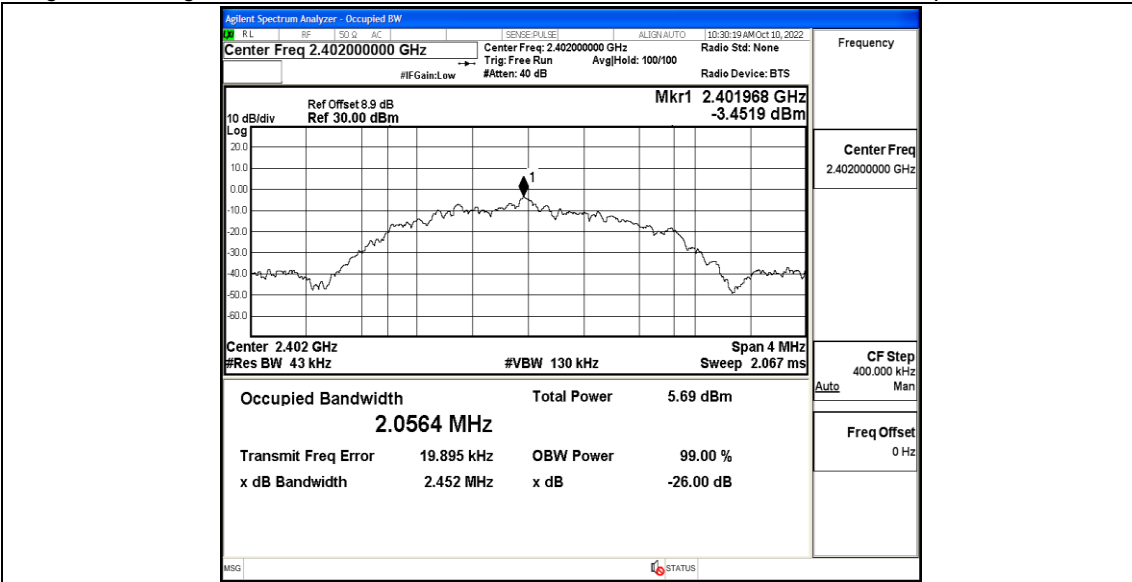
Appendix B: Occupied Channel Bandwidth

Test Result

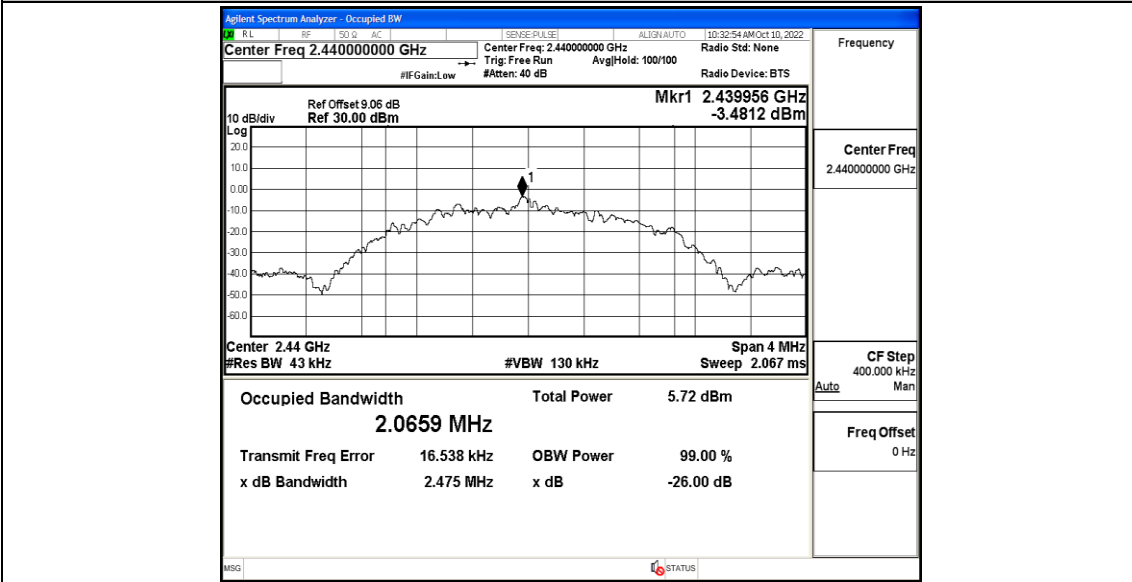
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0249	2401.4844	2402.5093	---	---
		2440	1.0294	2439.4801	2440.5095	---	---
		2480	1.0389	2479.4741	2480.5130	---	---
BLE_2M	Ant1	2402	2.0564	2400.9917	2403.0481	---	---
		2440	2.0659	2438.9836	2441.0495	---	---
		2480	2.0472	2478.9980	2481.0452	---	---

Test Graphs

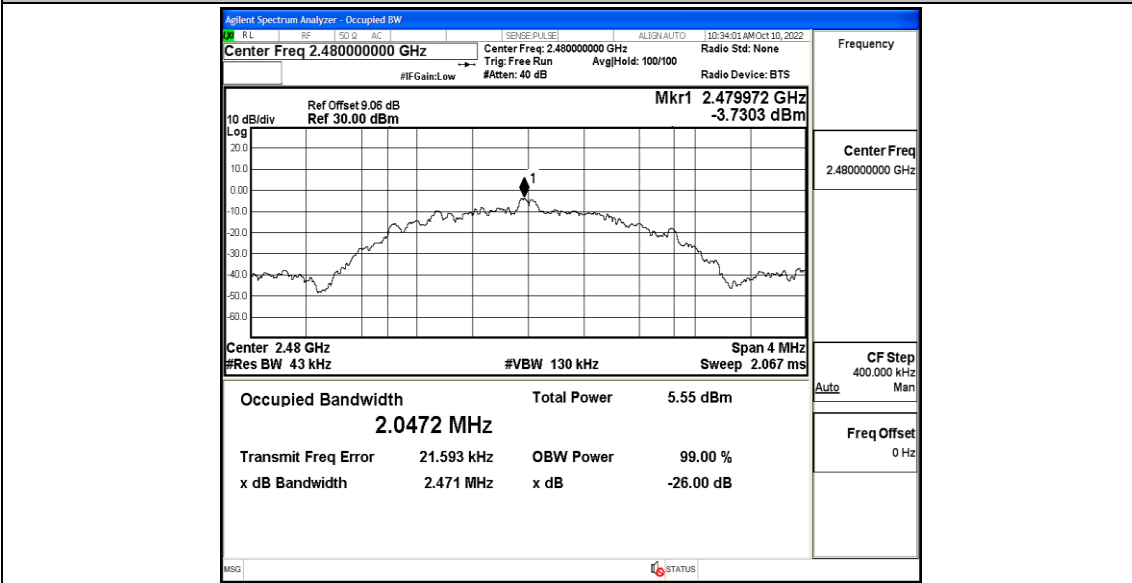




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

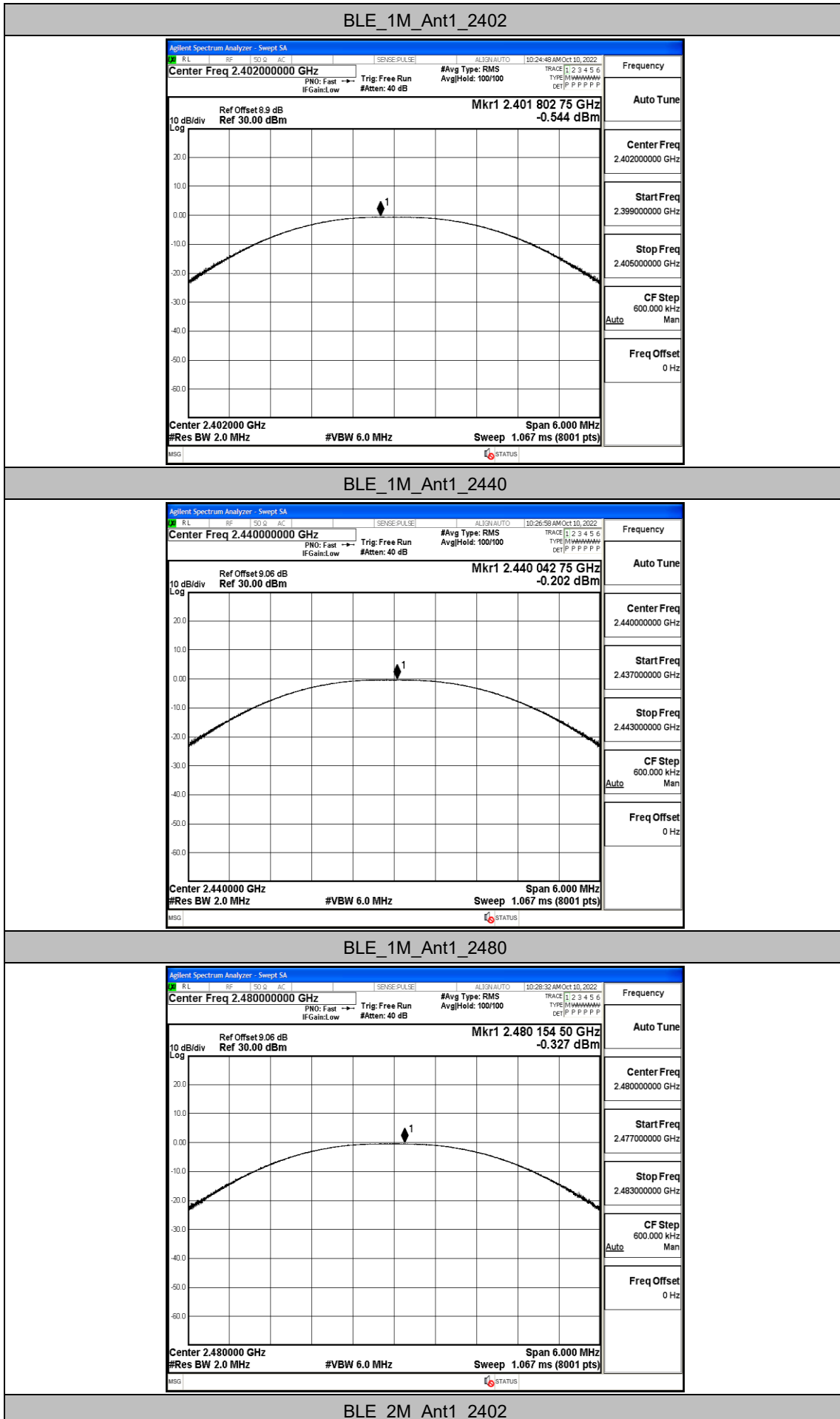


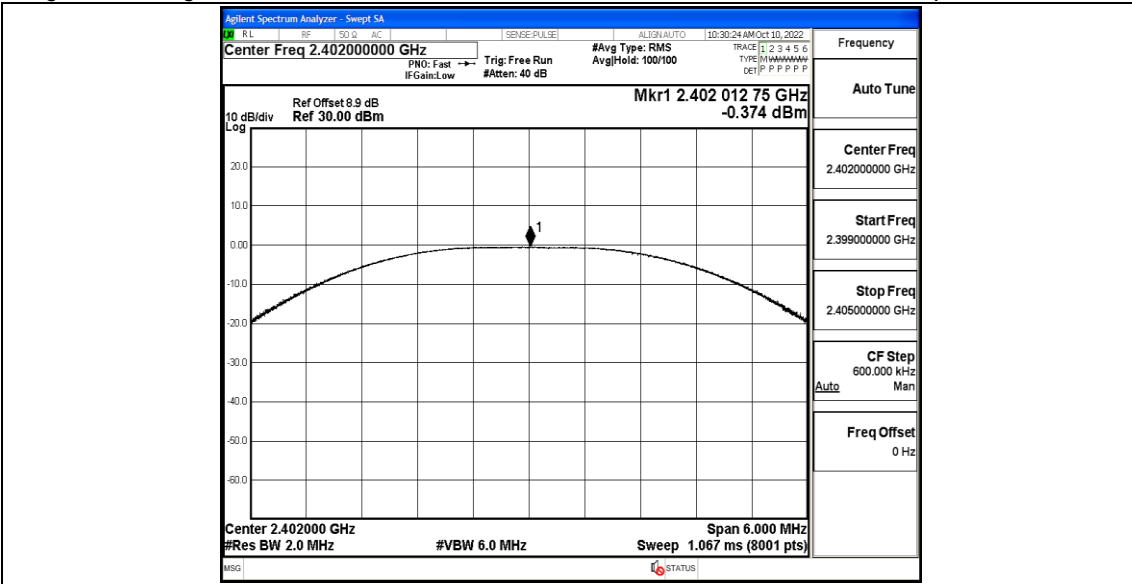
Appendix C: Maximum Peak conducted output power

Test Result

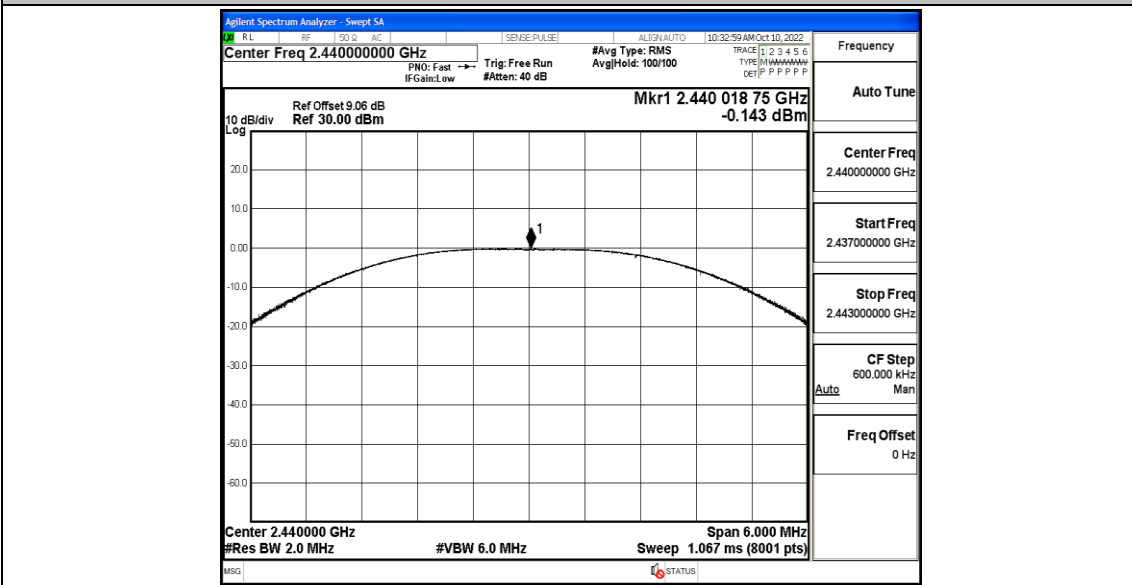
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	-0.54	≤30	PASS
		2440	-0.2	≤30	PASS
		2480	-0.33	≤30	PASS
BLE_2M	Ant1	2402	-0.37	≤30	PASS
		2440	-0.14	≤30	PASS
		2480	-0.23	≤30	PASS

Test Graphs

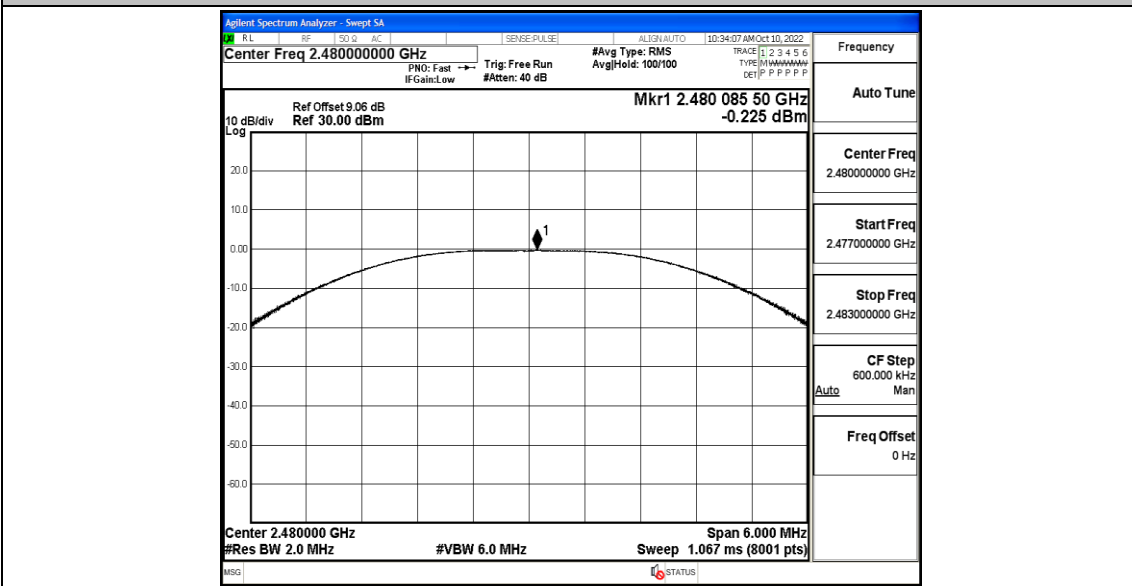




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

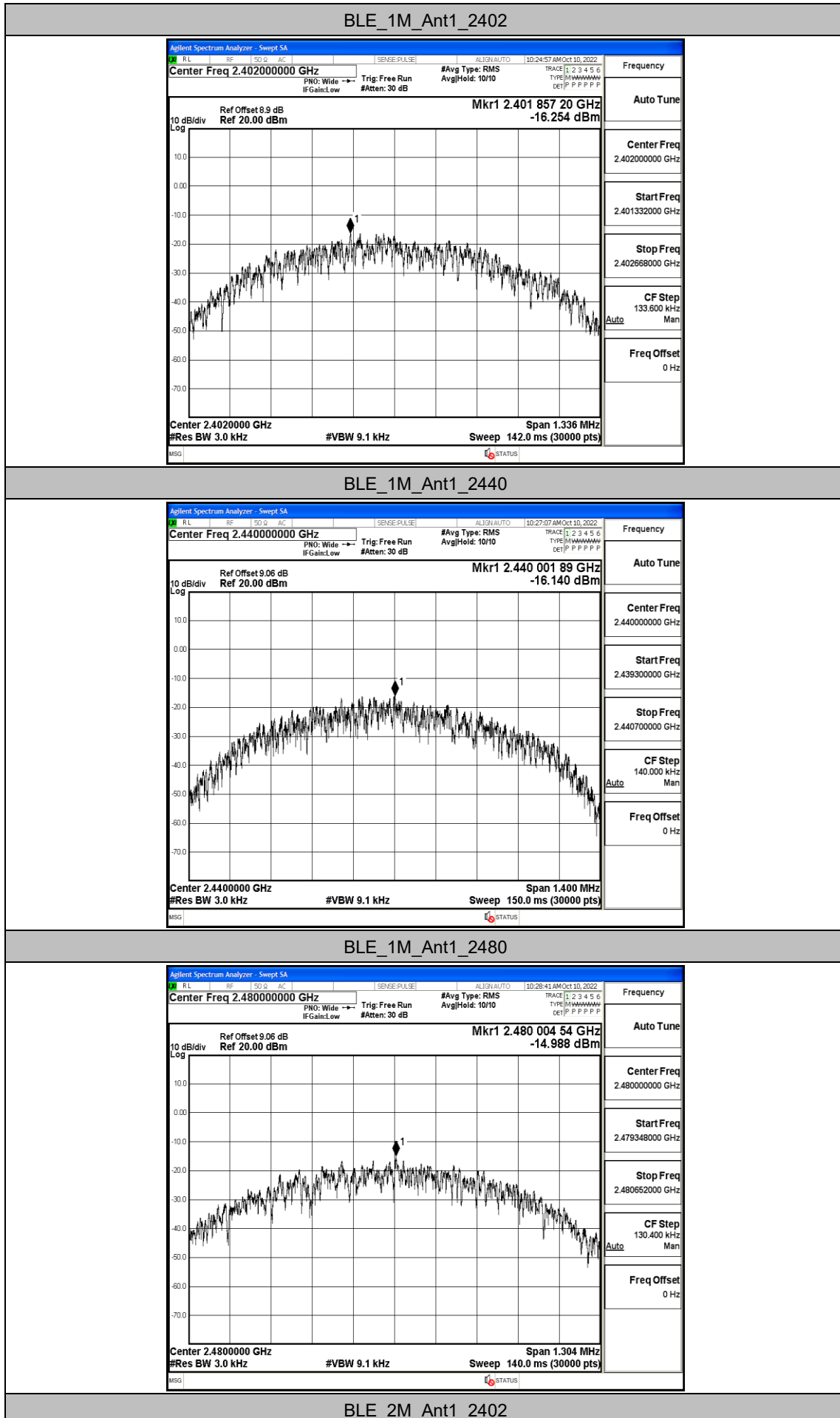


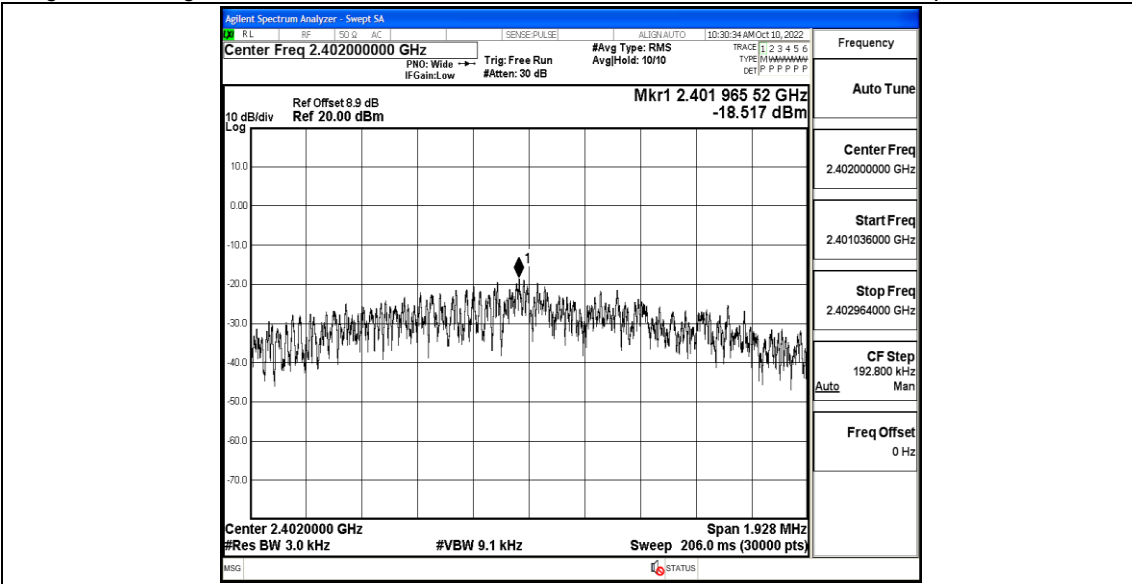
Appendix D: Maximum power spectral density

Test Result

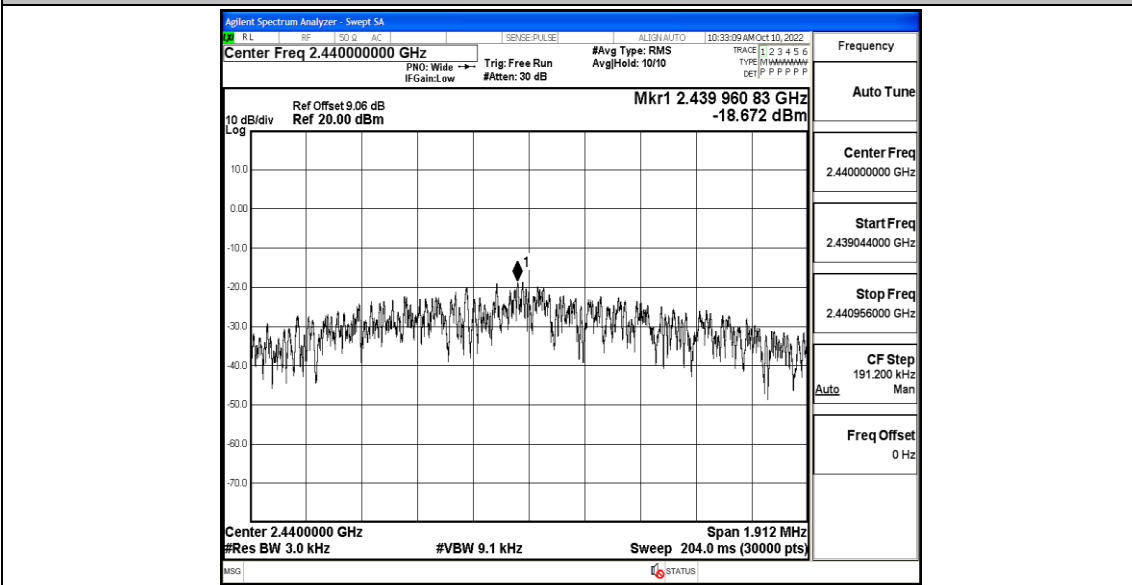
TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-16.25	≤8.00	PASS
		2440	-16.14	≤8.00	PASS
		2480	-14.99	≤8.00	PASS
BLE_2M	Ant1	2402	-18.52	≤8.00	PASS
		2440	-18.67	≤8.00	PASS
		2480	-19.49	≤8.00	PASS

Test Graphs

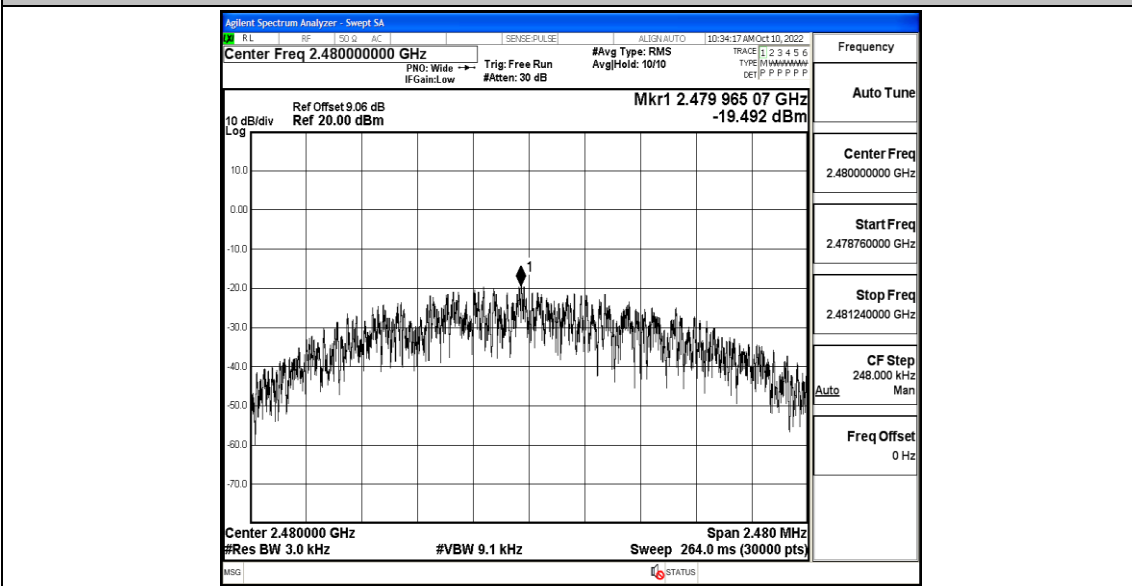




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480

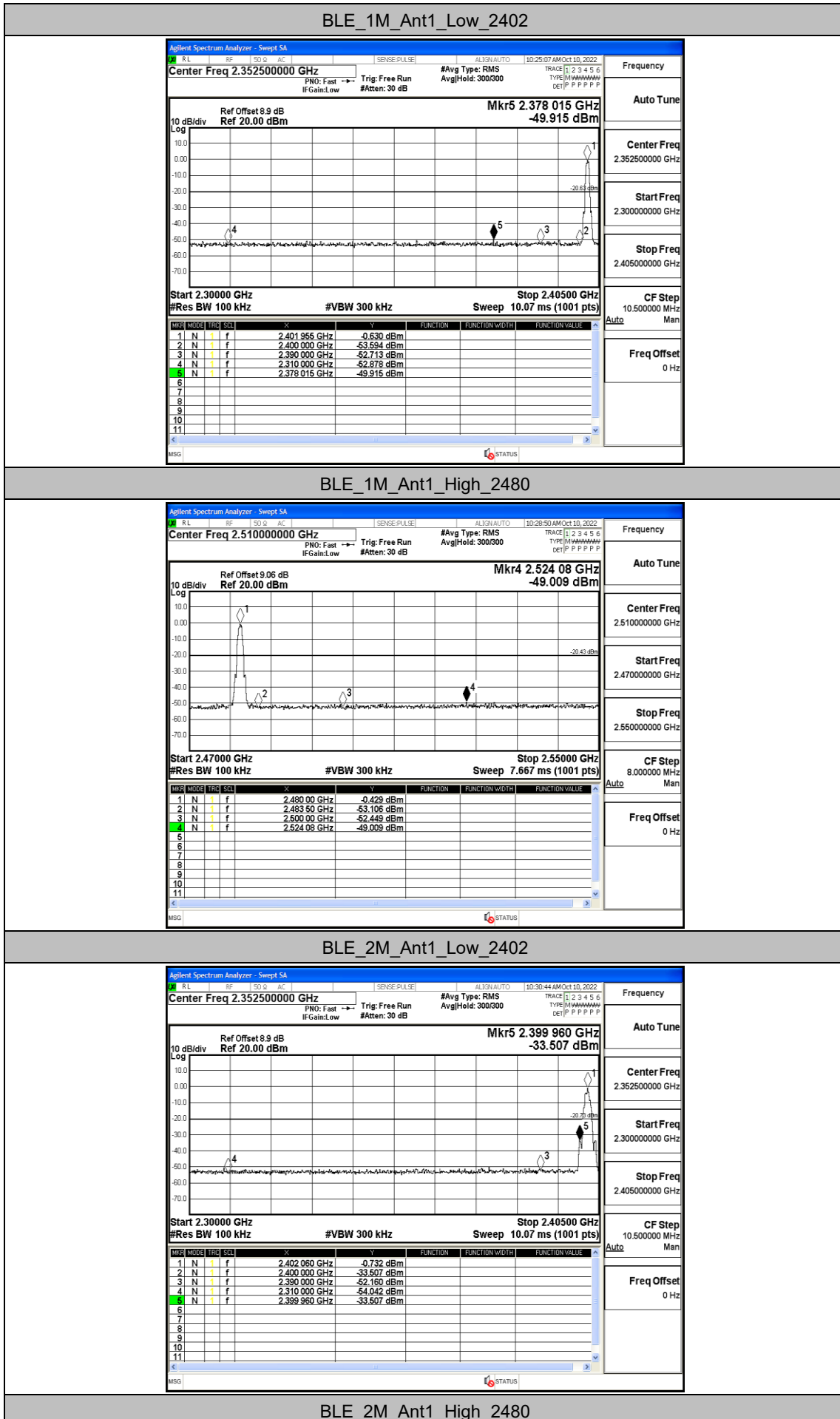


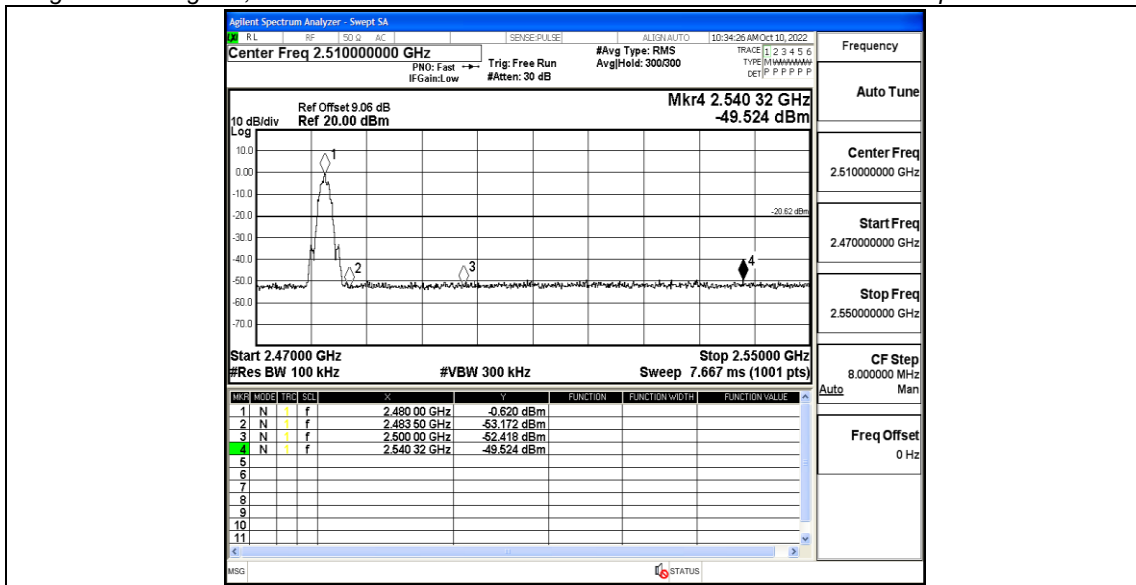
Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	-0.63	-49.92	≤-20.63	PASS
		High	2480	-0.43	-49.01	≤-20.43	PASS
BLE_2M	Ant1	Low	2402	-0.73	-33.51	≤-20.73	PASS
		High	2480	-0.62	-49.52	≤-20.62	PASS

Test Graphs



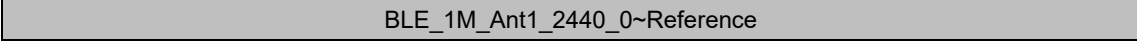
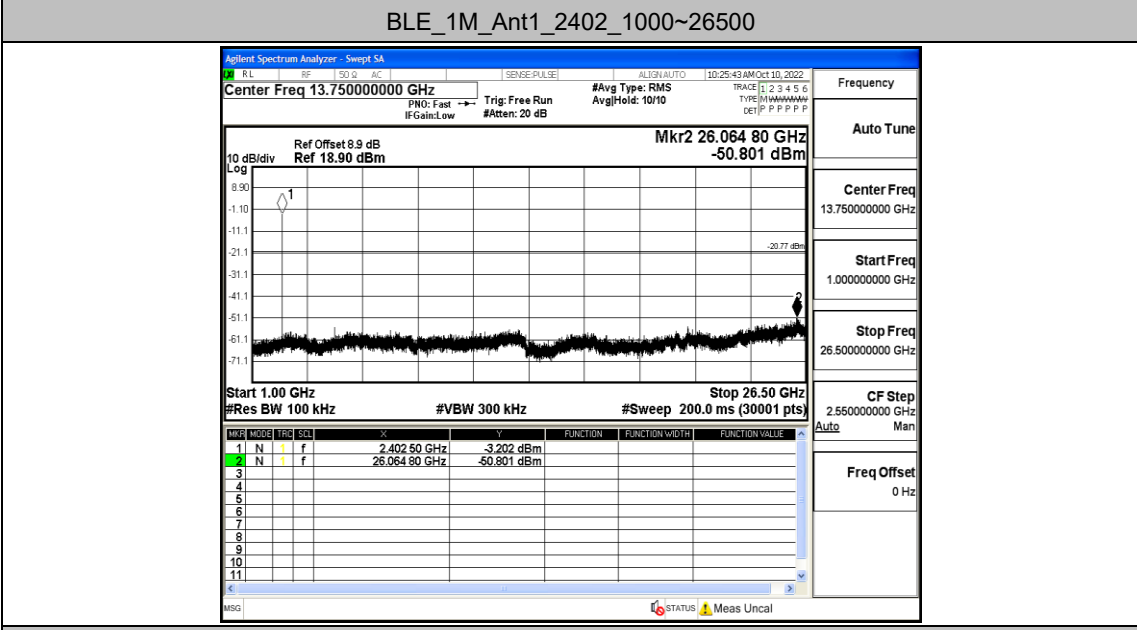
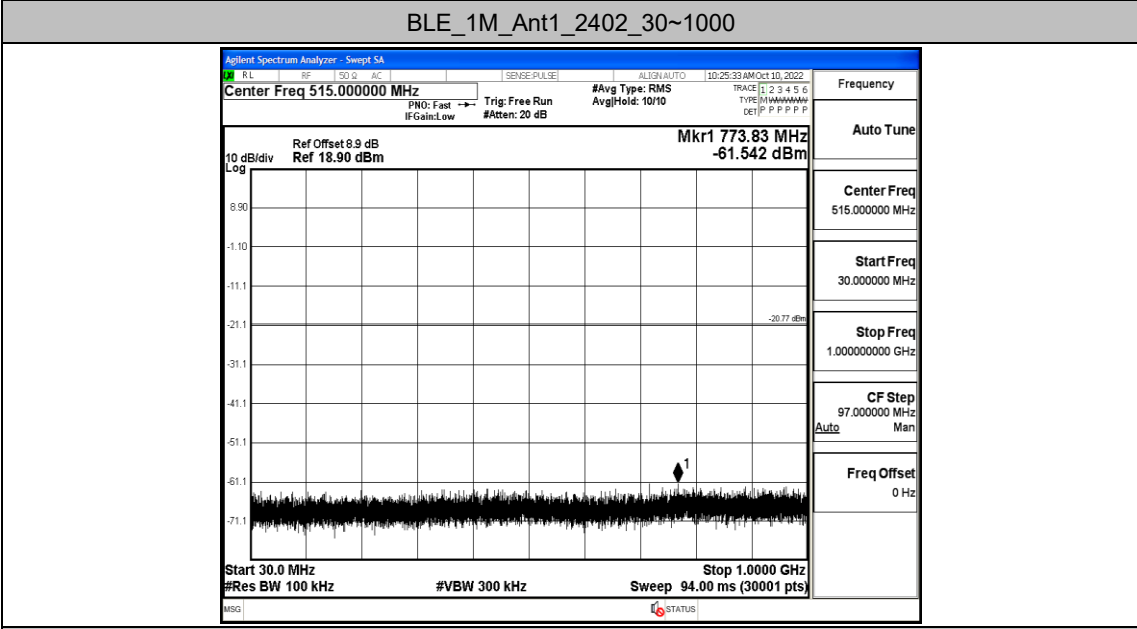
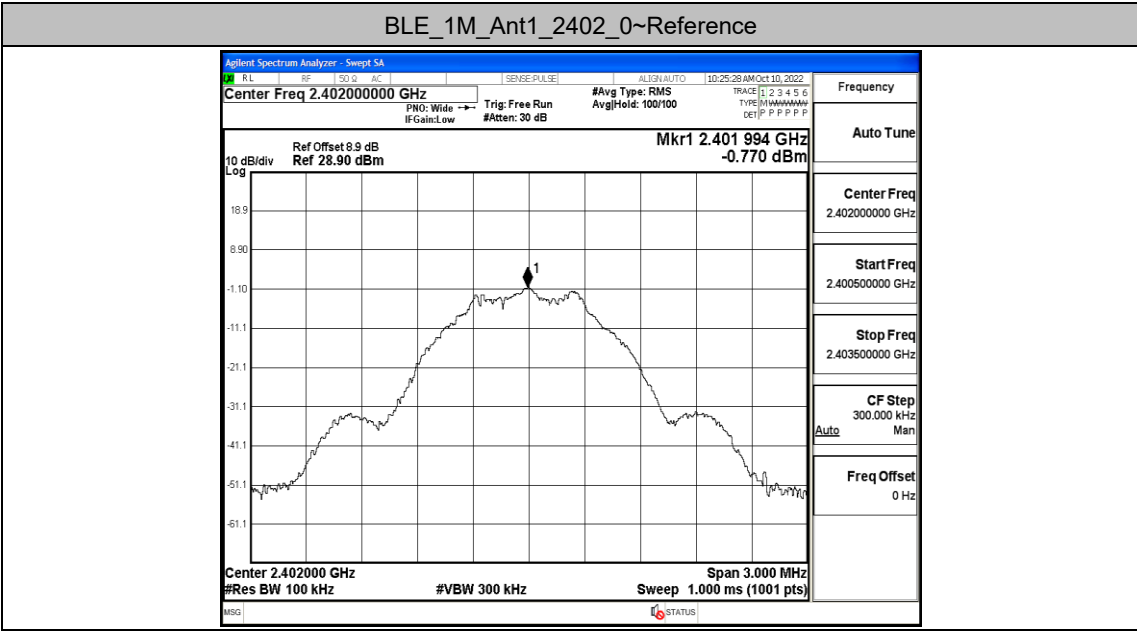


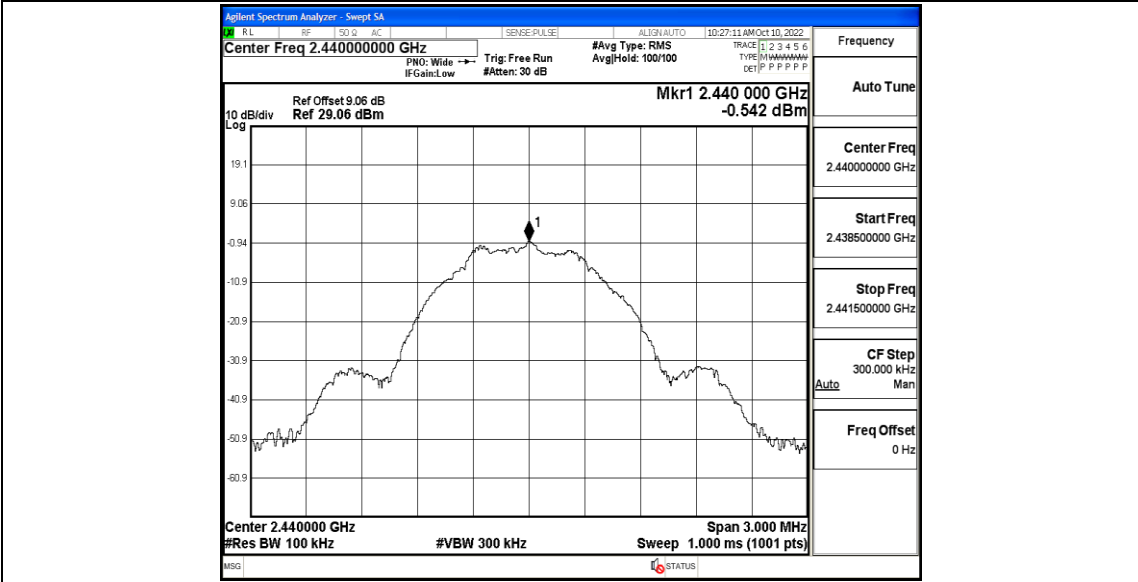
Appendix F: Conducted Spurious Emission

Test Result

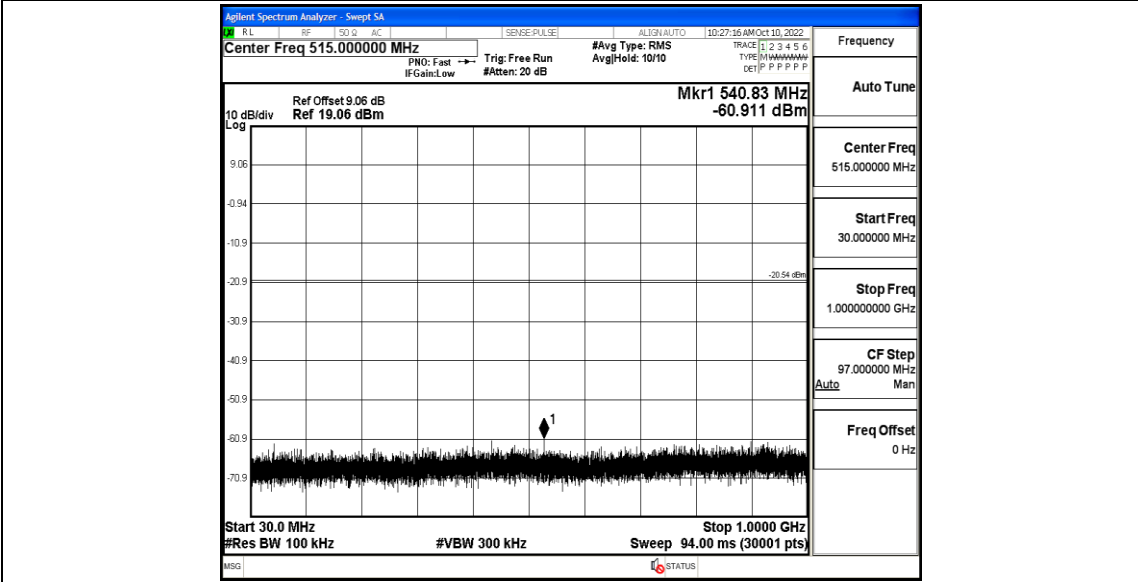
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	-0.77	-0.77	---	PASS
			30~1000	-0.77	-61.54	≤-20.77	PASS
			1000~26500	-0.77	-50.8	≤-20.77	PASS
		2440	Reference	-0.54	-0.54	---	PASS
			30~1000	-0.54	-60.91	≤-20.54	PASS
			1000~26500	-0.54	-51.53	≤-20.54	PASS
		2480	Reference	-0.57	-0.57	---	PASS
			30~1000	-0.57	-60.78	≤-20.57	PASS
			1000~26500	-0.57	-51.63	≤-20.57	PASS
BLE_2M	Ant1	2402	Reference	-0.76	-0.76	---	PASS
			30~1000	-0.76	-62.26	≤-20.76	PASS
			1000~26500	-0.76	-51.43	≤-20.76	PASS
		2440	Reference	-0.54	-0.54	---	PASS
			30~1000	-0.54	-61.36	≤-20.54	PASS
			1000~26500	-0.54	-51.34	≤-20.54	PASS
		2480	Reference	-0.59	-0.59	---	PASS
			30~1000	-0.59	-61.84	≤-20.59	PASS
			1000~26500	-0.59	-51.7	≤-20.59	PASS

Test Graphs

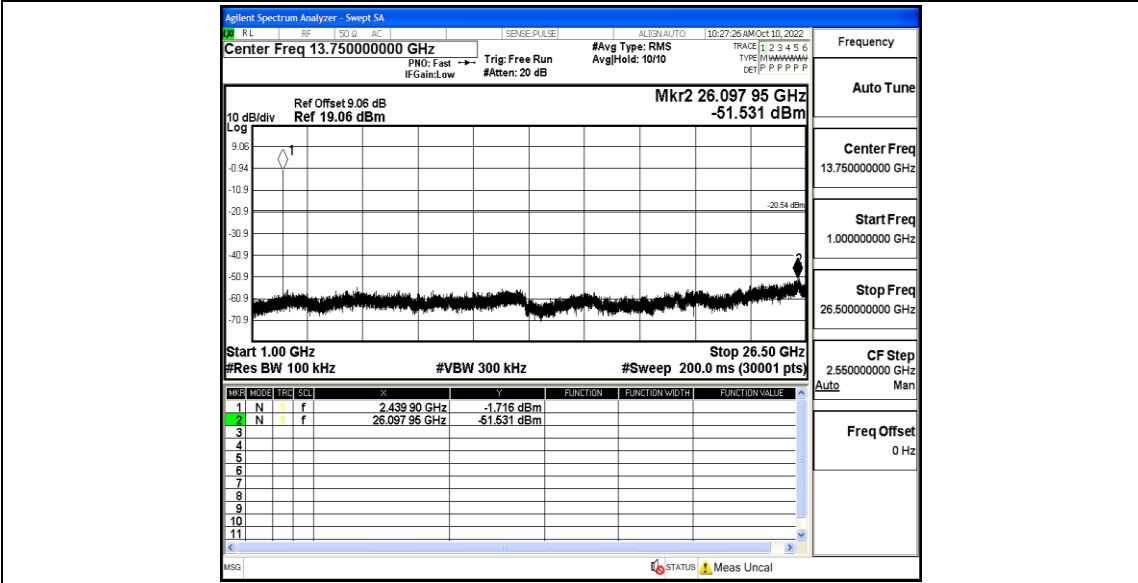




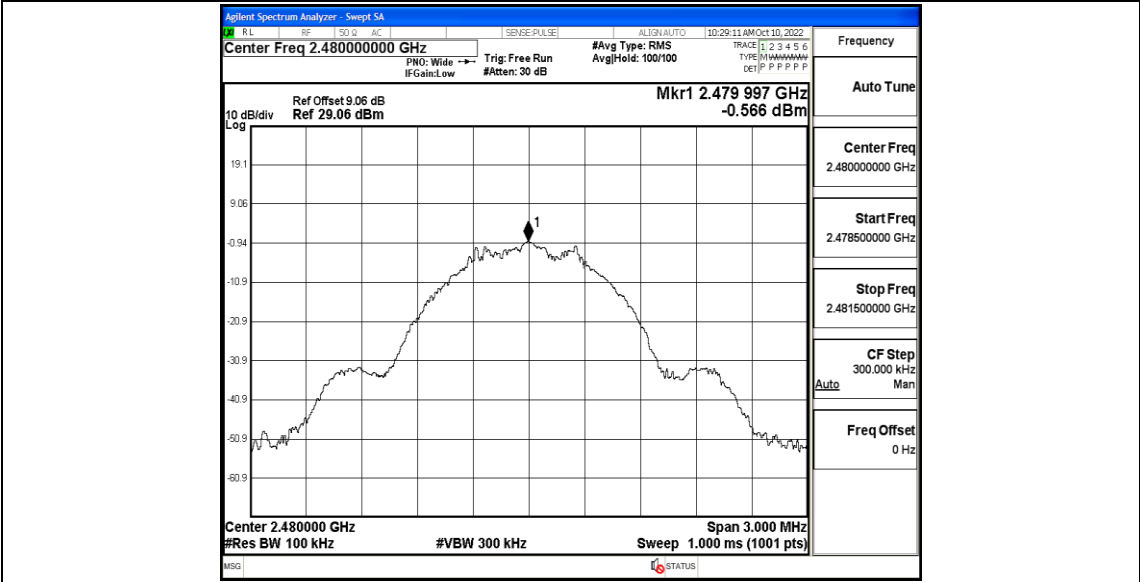
BLE_1M_Ant1_2440_30~1000



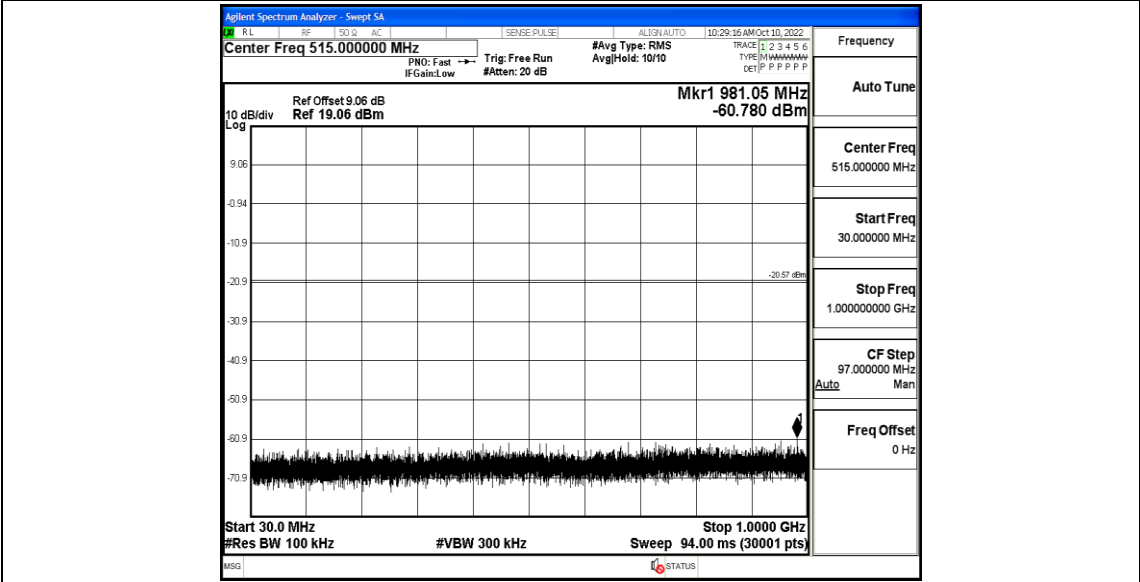
BLE_1M_Ant1_2440_1000~26500



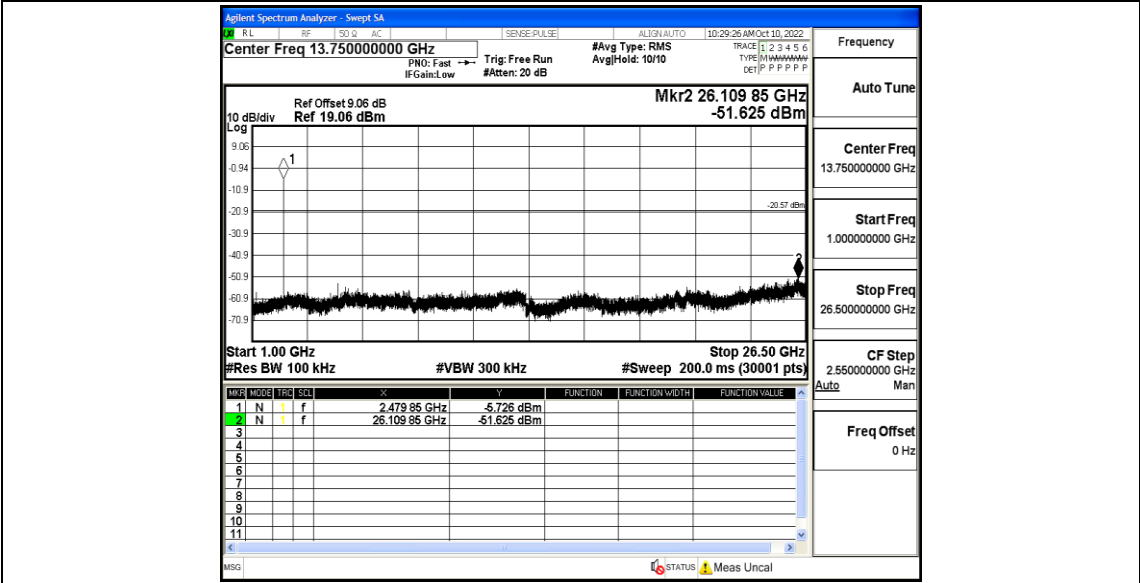
BLE_1M_Ant1_2480_0~Reference



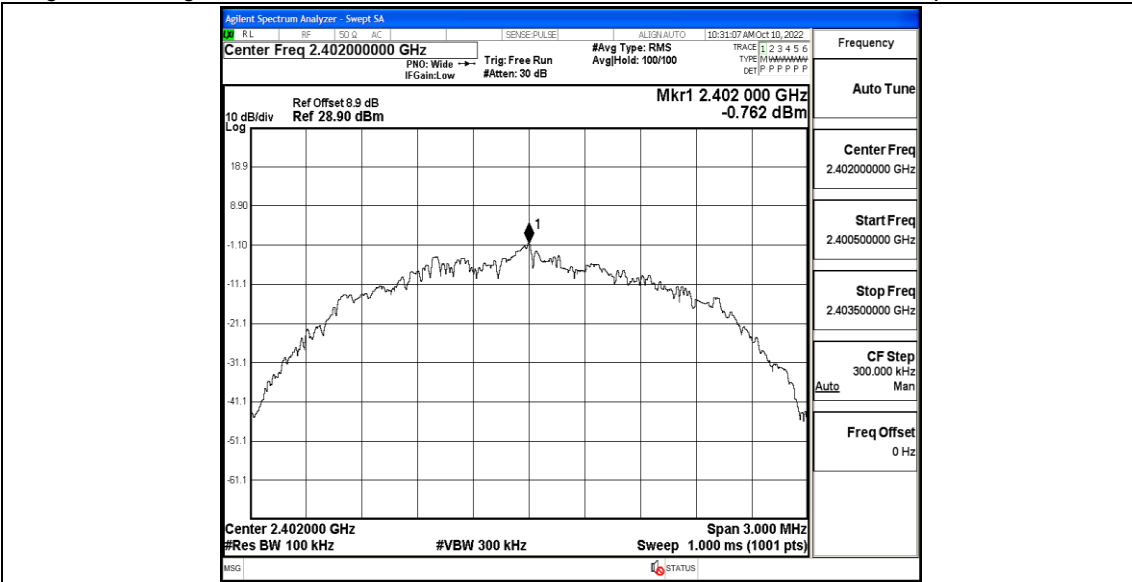
BLE_1M_Ant1_2480_30~1000



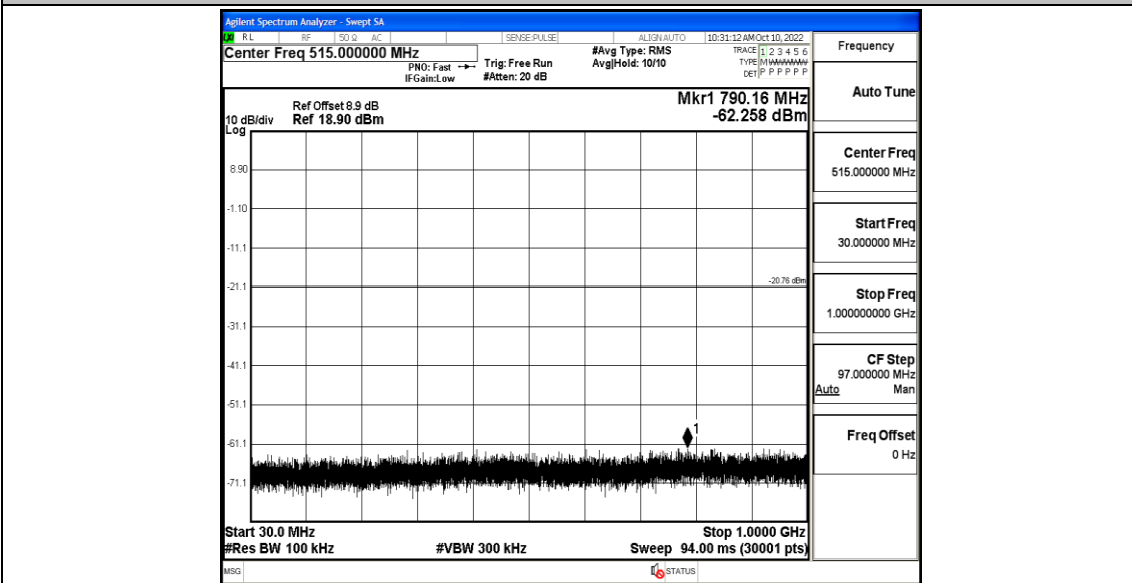
BLE_1M_Ant1_2480_1000~26500



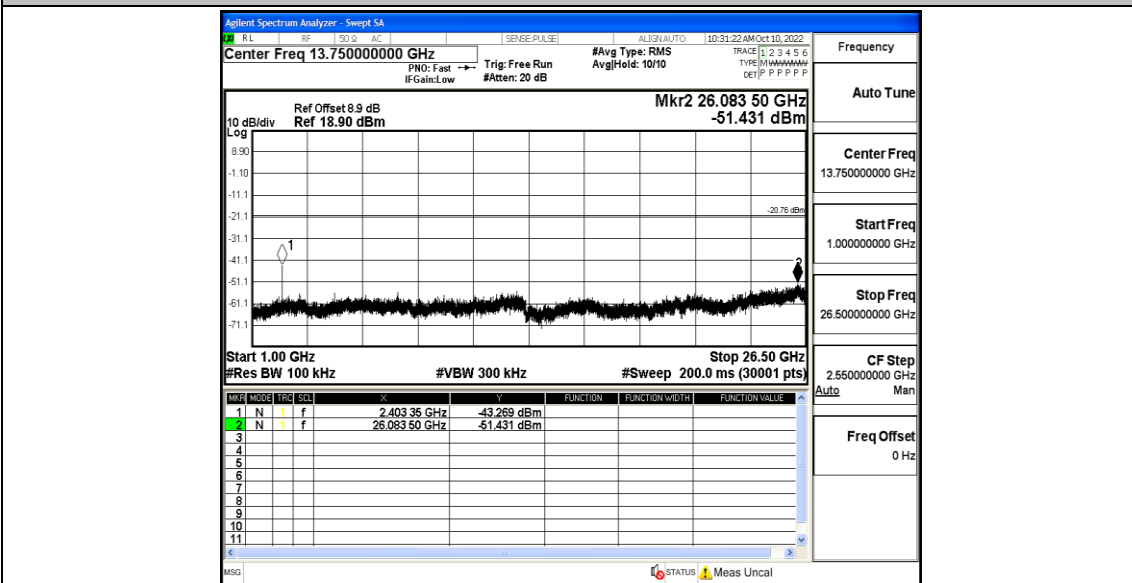
BLE_2M_Ant1_2402_0~Reference



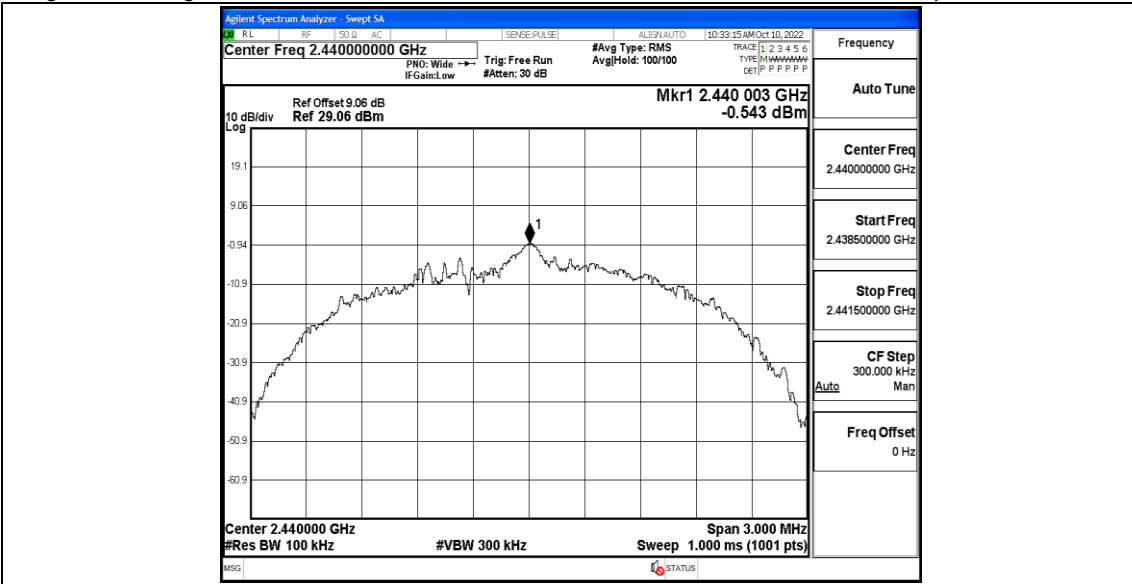
BLE_2M_Ant1_2402_30~1000



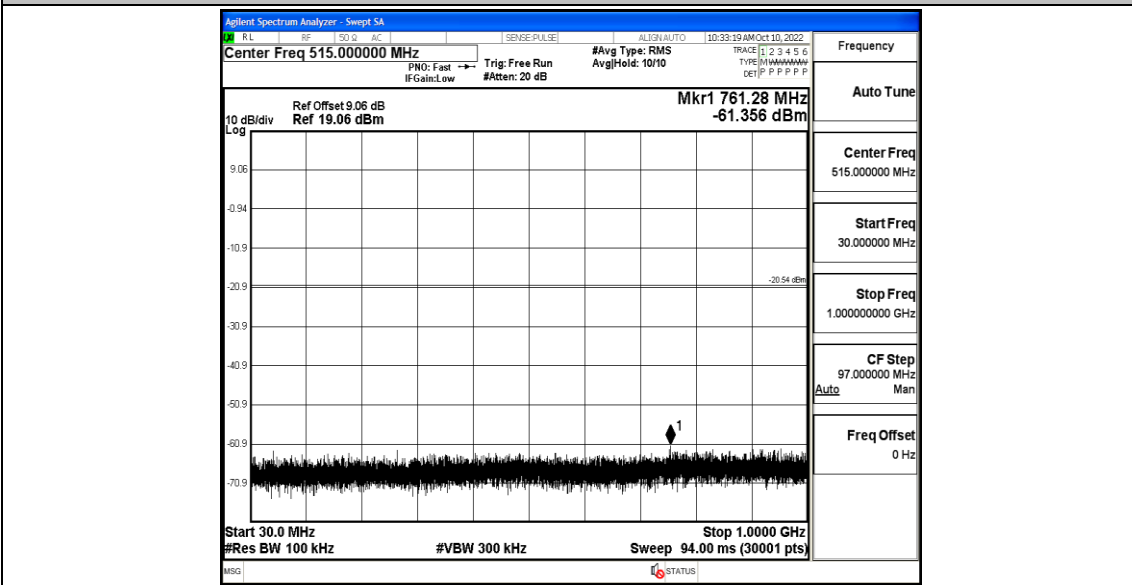
BLE_2M_Ant1_2402_1000~26500



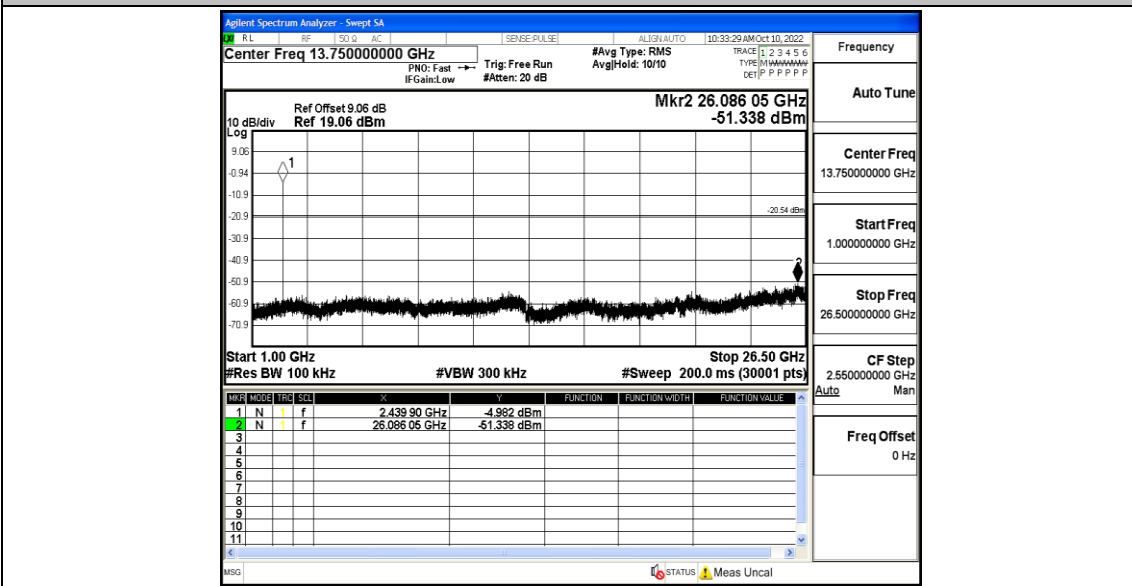
BLE_2M_Ant1_2440_0~Reference



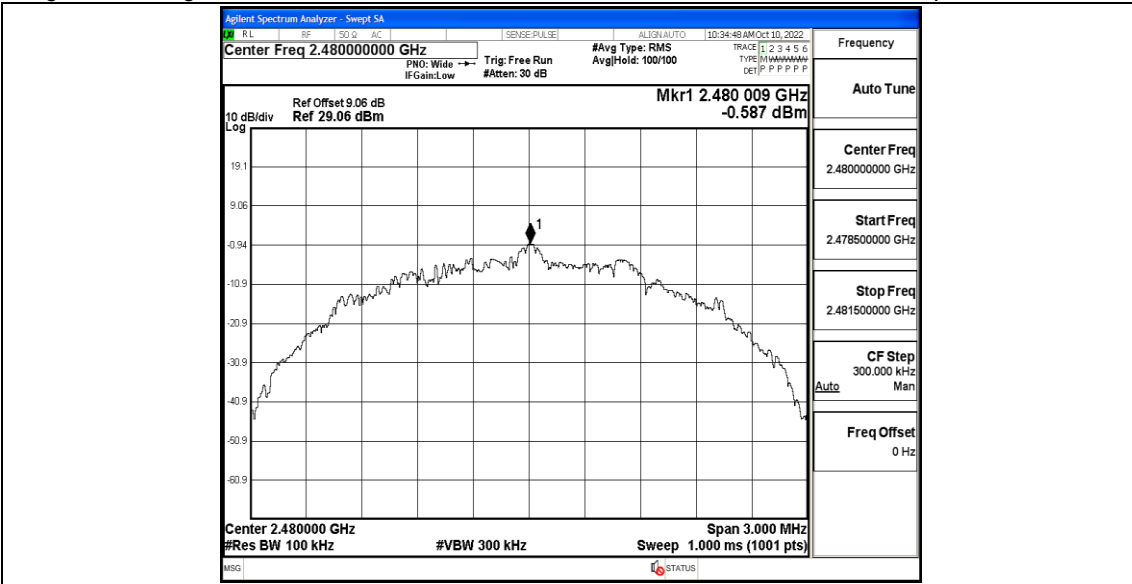
BLE_2M_Ant1_2440_30~1000



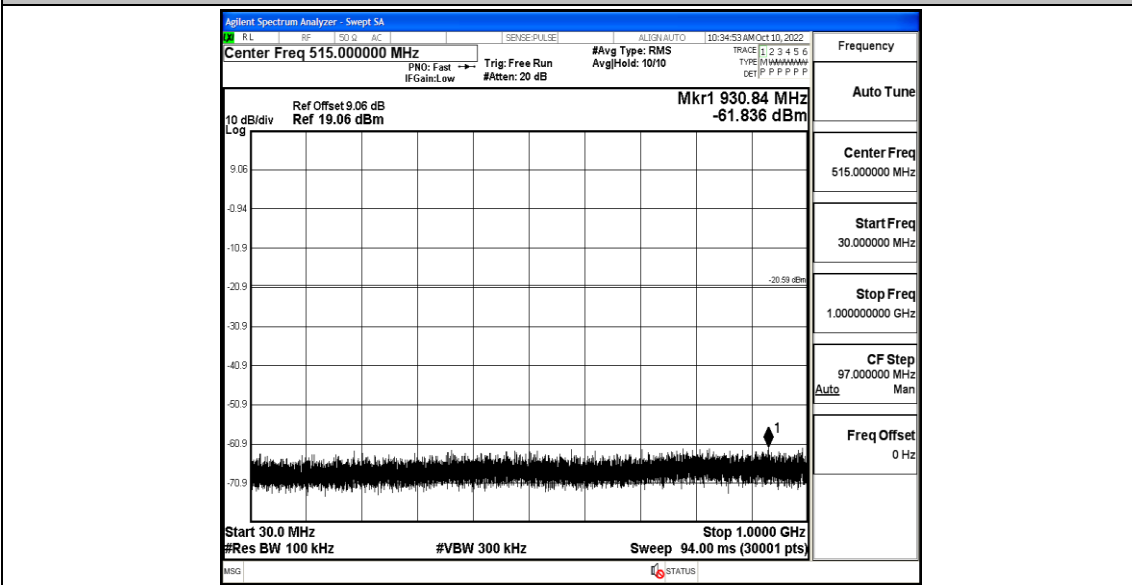
BLE_2M_Ant1_2440_1000~26500



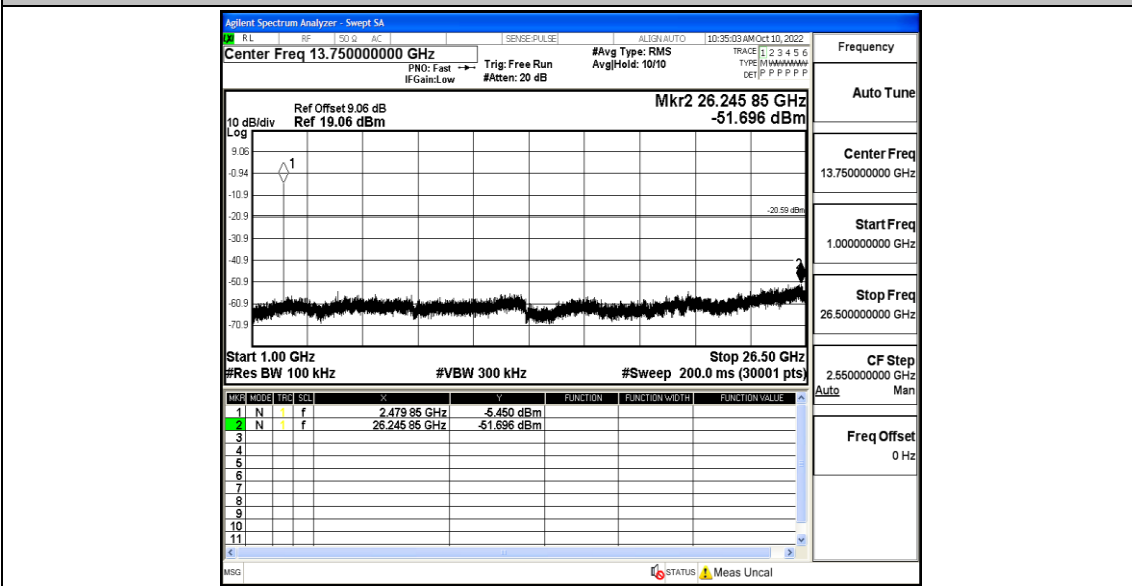
BLE_2M_Ant1_2480_0~Reference



BLE_2M_Ant1_2480_30~1000



BLE_2M_Ant1_2480_1000~26500

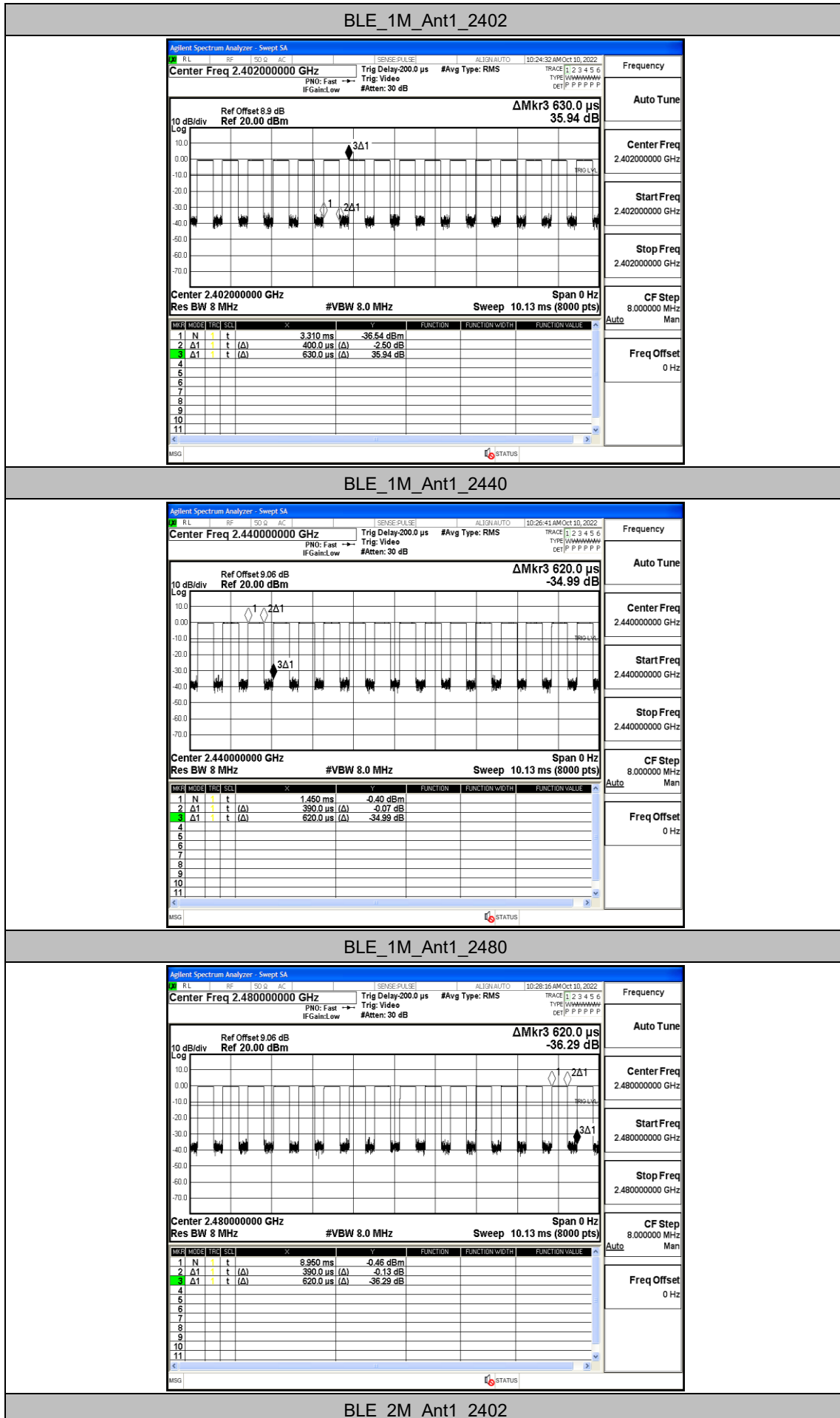


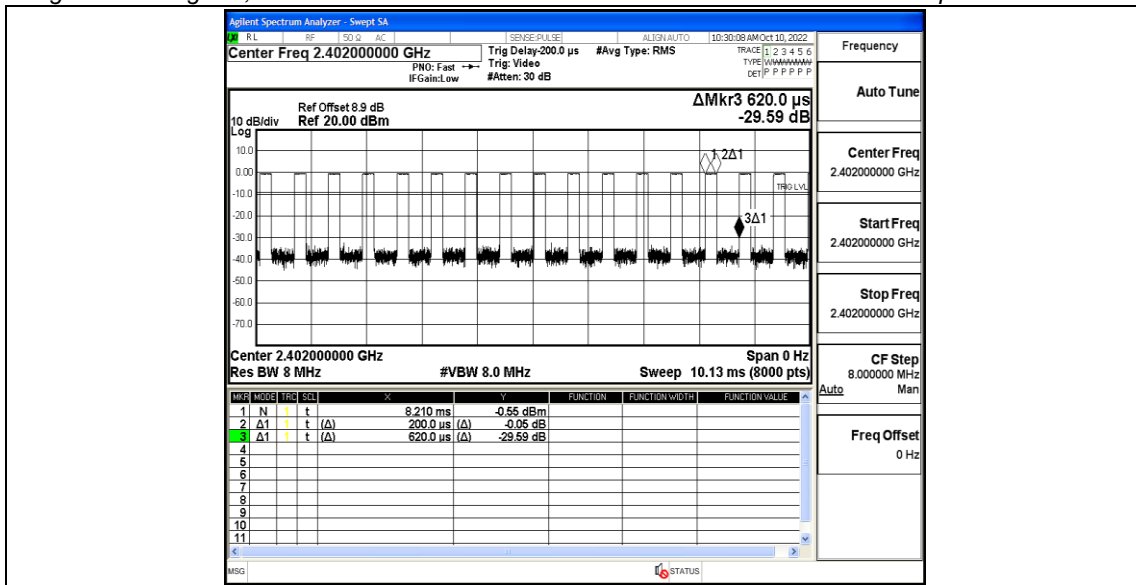
Appendix G: Duty Cycle

Test Result

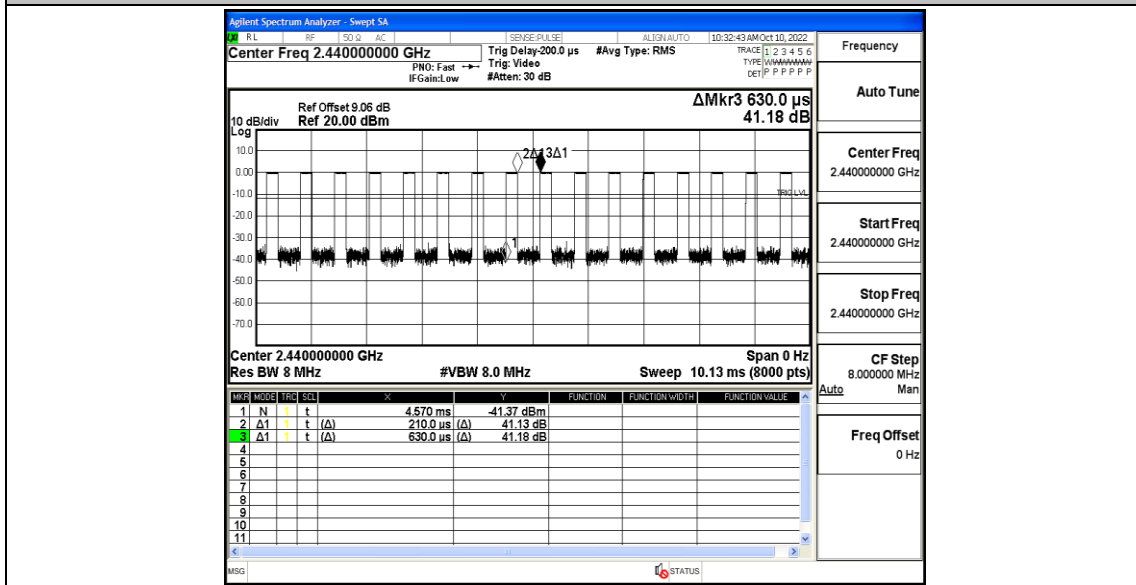
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.40	0.63	63.49	2.50
		2440	0.39	0.62	62.90	2.56
		2480	0.39	0.62	62.90	2.56
BLE_2M	Ant1	2402	0.20	0.62	32.26	5.00
		2440	0.21	0.63	33.33	4.76
		2480	0.21	0.63	33.33	4.76

Test Graphs

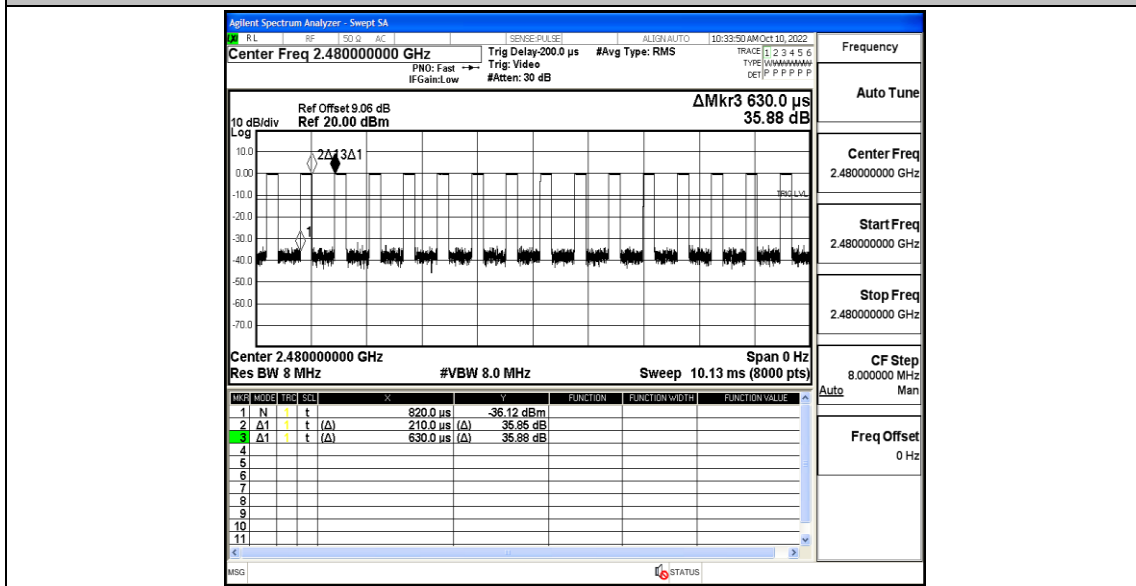




BLE_2M_Ant1_2440



BLE_2M_Ant1_2480



Appendix H: Emissions in Restricted Bands

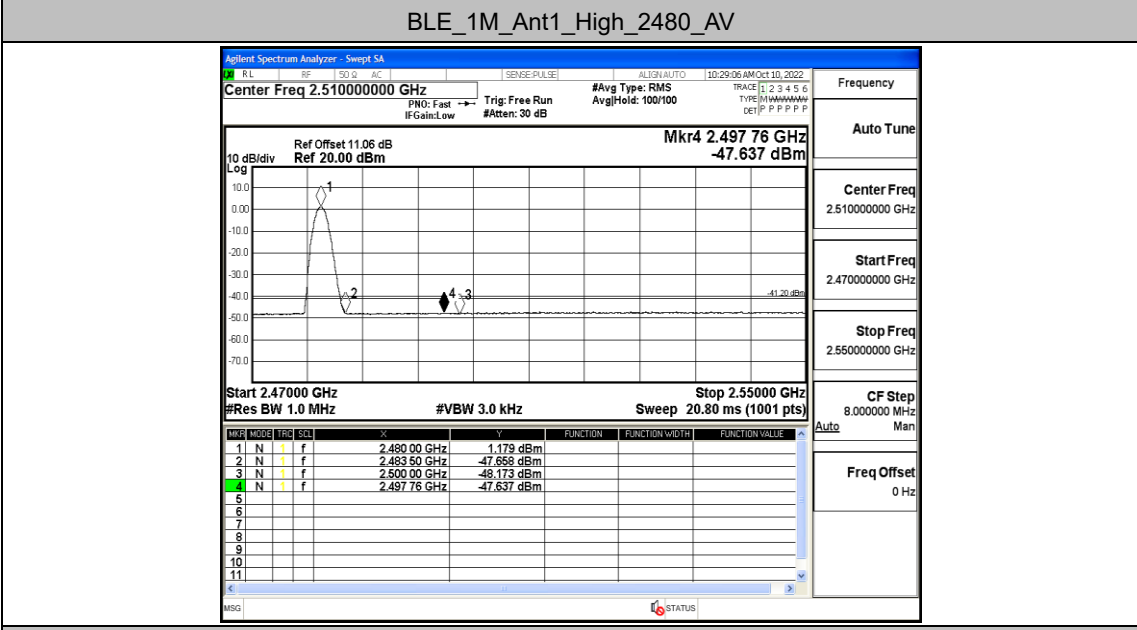
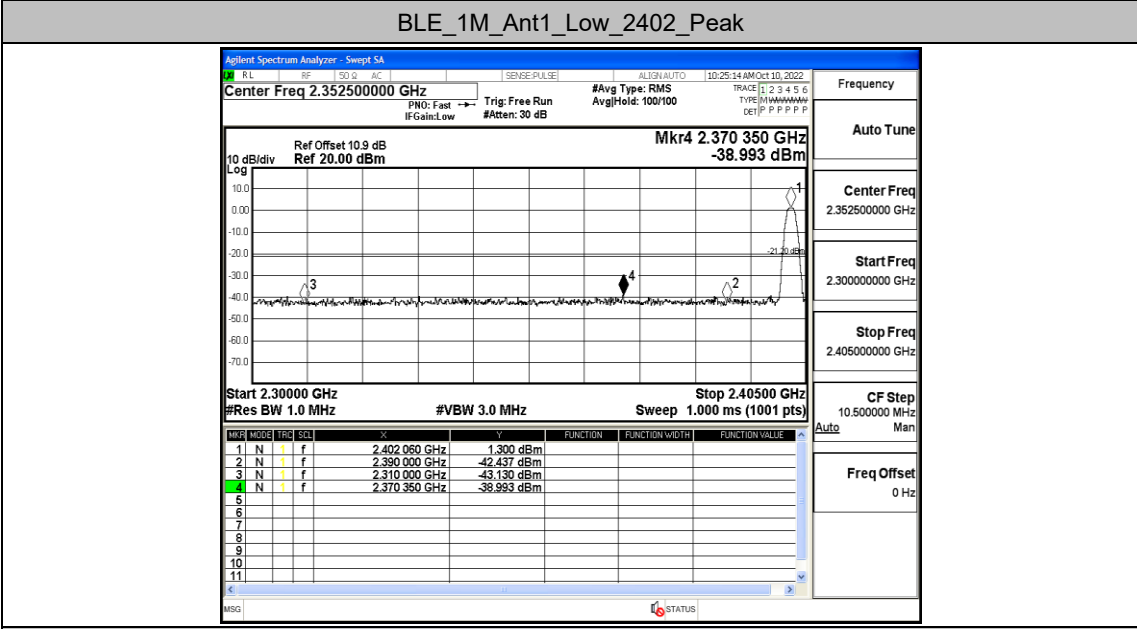
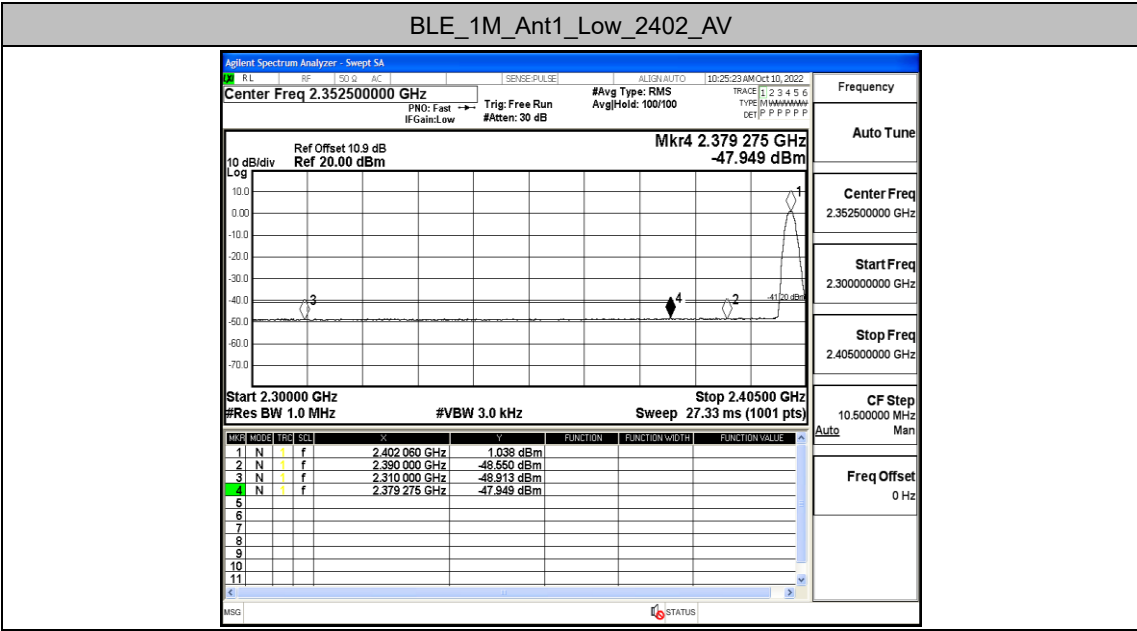
Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Verdict
BLE_1M	Ant1	Low	2402	AV	2310.000	-48.91	≤-41.20	PASS
				AV	2379.275	-47.95	≤-41.20	PASS
				AV	2390.000	-48.55	≤-41.20	PASS
				Peak	2310.000	-43.13	≤-21.20	PASS
				Peak	2370.350	-38.99	≤-21.20	PASS
				Peak	2390.000	-42.44	≤-21.20	PASS
		High	2480	AV	2483.500	-47.66	≤-41.20	PASS
				AV	2497.760	-47.64	≤-41.20	PASS
				AV	2500.000	-48.17	≤-41.20	PASS
				Peak	2483.500	-40.18	≤-21.20	PASS
				Peak	2498.320	-39.32	≤-21.20	PASS
				Peak	2500.000	-42.66	≤-21.20	PASS
BLE_2M	Ant1	Low	2402	AV	2310.000	-48.49	≤-41.20	PASS
				AV	2373.290	-47.35	≤-41.20	PASS
				AV	2390.000	-48.03	≤-41.20	PASS
				Peak	2310.000	-39.8	≤-21.20	PASS
				Peak	2377.805	-38.82	≤-21.20	PASS
				Peak	2390.000	-41.27	≤-21.20	PASS
		High	2480	AV	2483.500	-46.19	≤-41.20	PASS
				AV	2483.520	-46.19	≤-41.20	PASS
				AV	2500.000	-47.23	≤-41.20	PASS
				Peak	2483.500	-40.65	≤-21.20	PASS
				Peak	2486.880	-38.15	≤-21.20	PASS
				Peak	2500.000	-41.77	≤-21.20	PASS

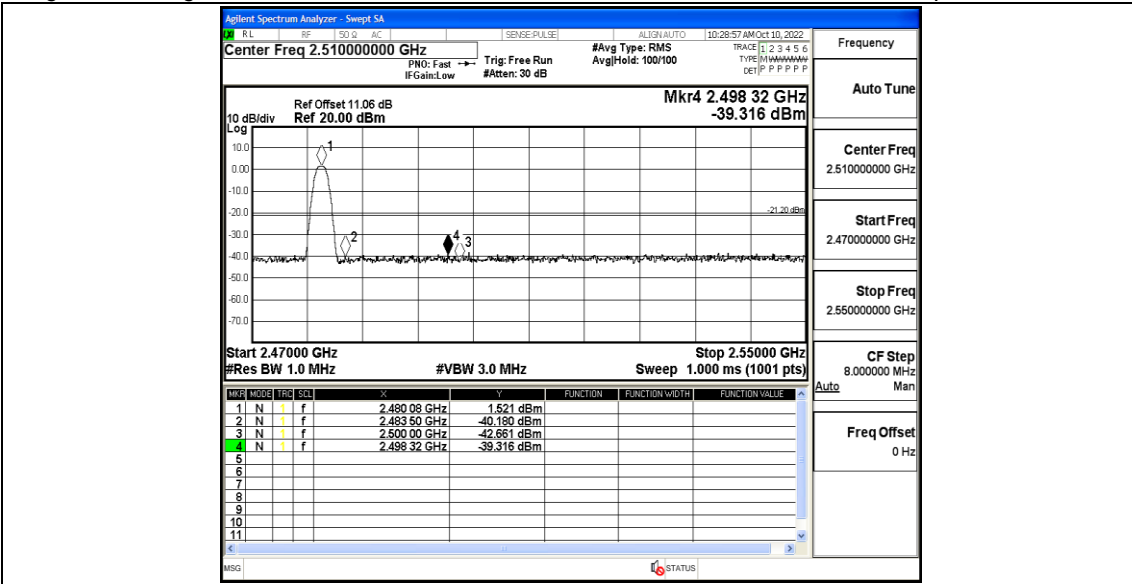
Note:

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.

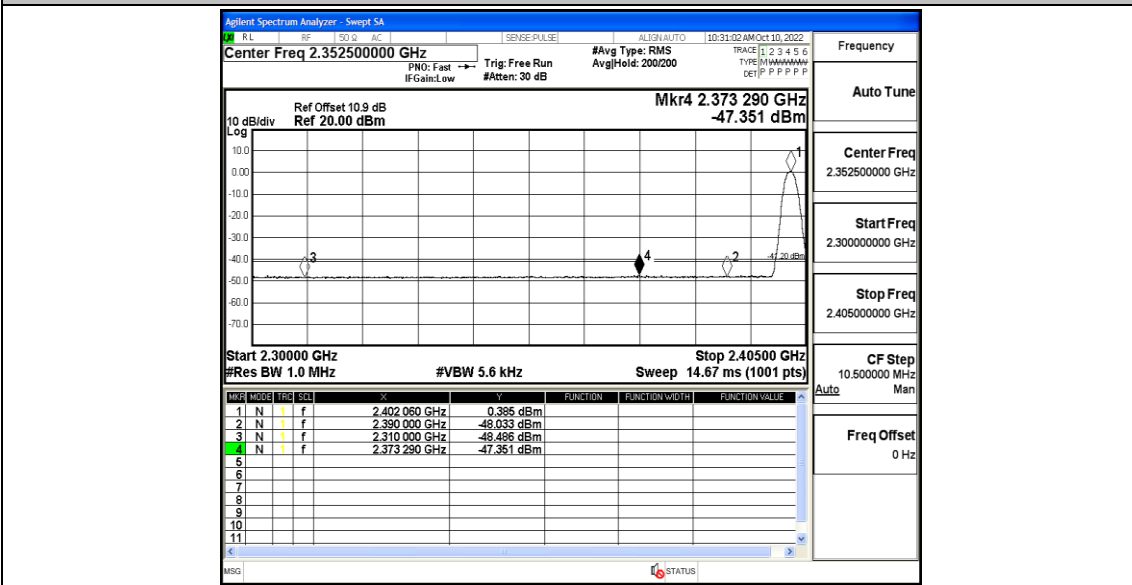
Test Graphs



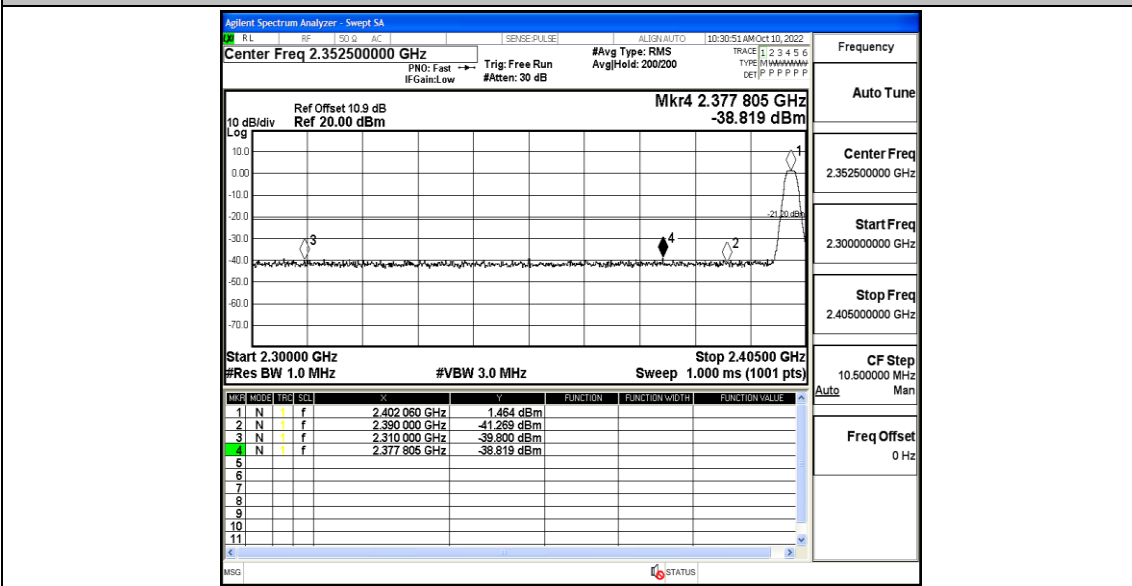
BLE_1M_Ant1_High_2480_Peak



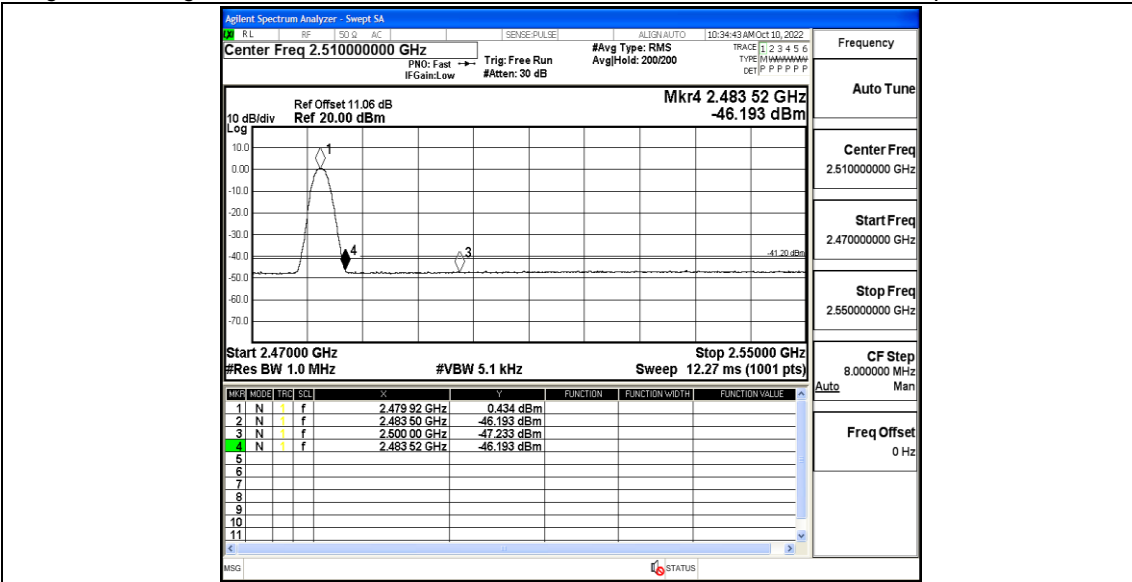
BLE_2M_Ant1_Low_2402_AV



BLE_2M_Ant1_Low_2402_Peak



BLE_2M_Ant1_High_2480_AV



BLE_2M_Ant1_High_2480_Peak

