

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

Product Name: RGB LED controller

Trade Mark: RECOIL

Test Model: RGBLED-4C

FCC ID: 2A6RGRGBLED-4C

Environmental Conditions

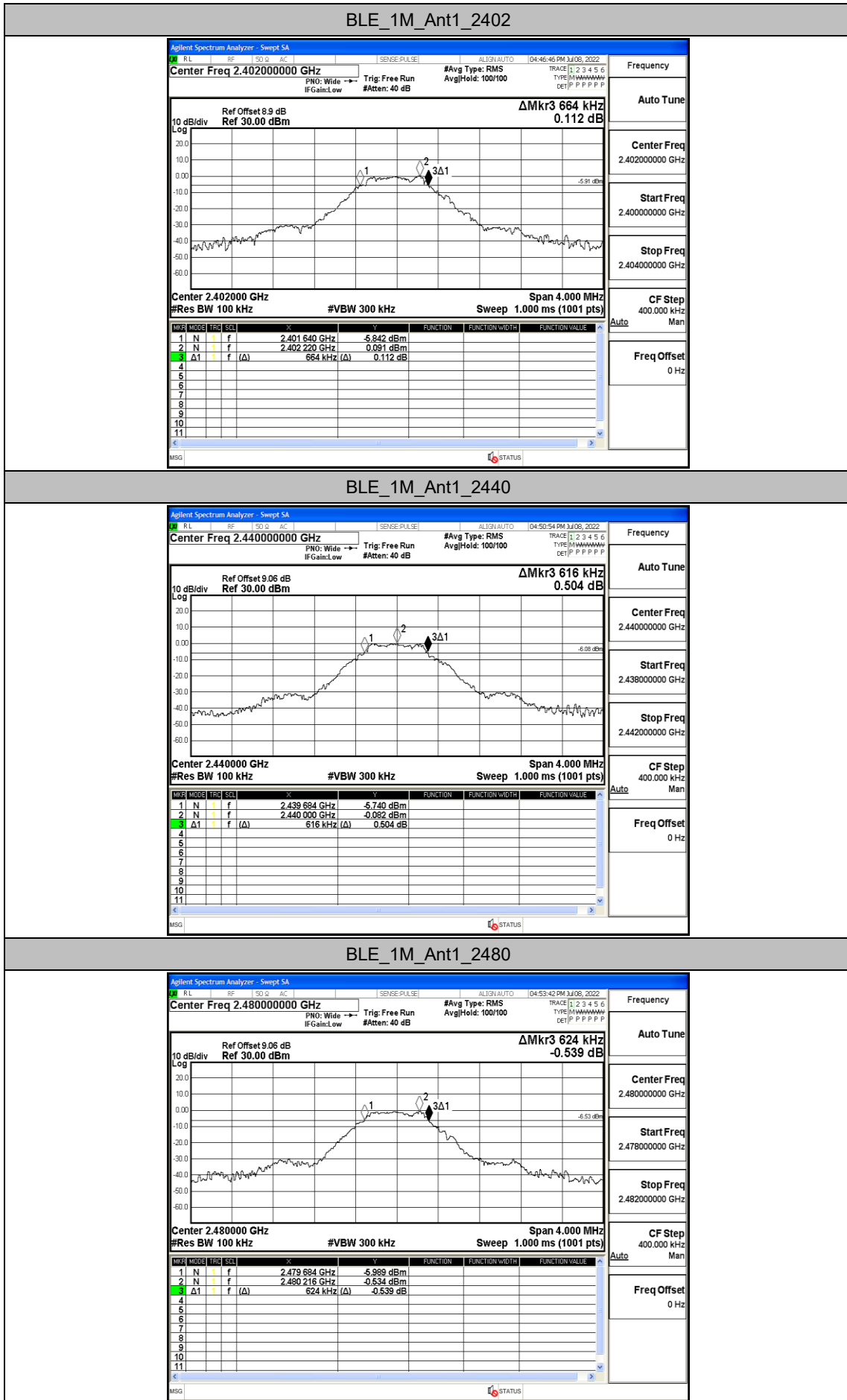
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Channel	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.664	2401.640	2402.304	0.5	PASS
		2440	0.616	2439.684	2440.300	0.5	PASS
		2480	0.624	2479.684	2480.308	0.5	PASS

Test Graphs

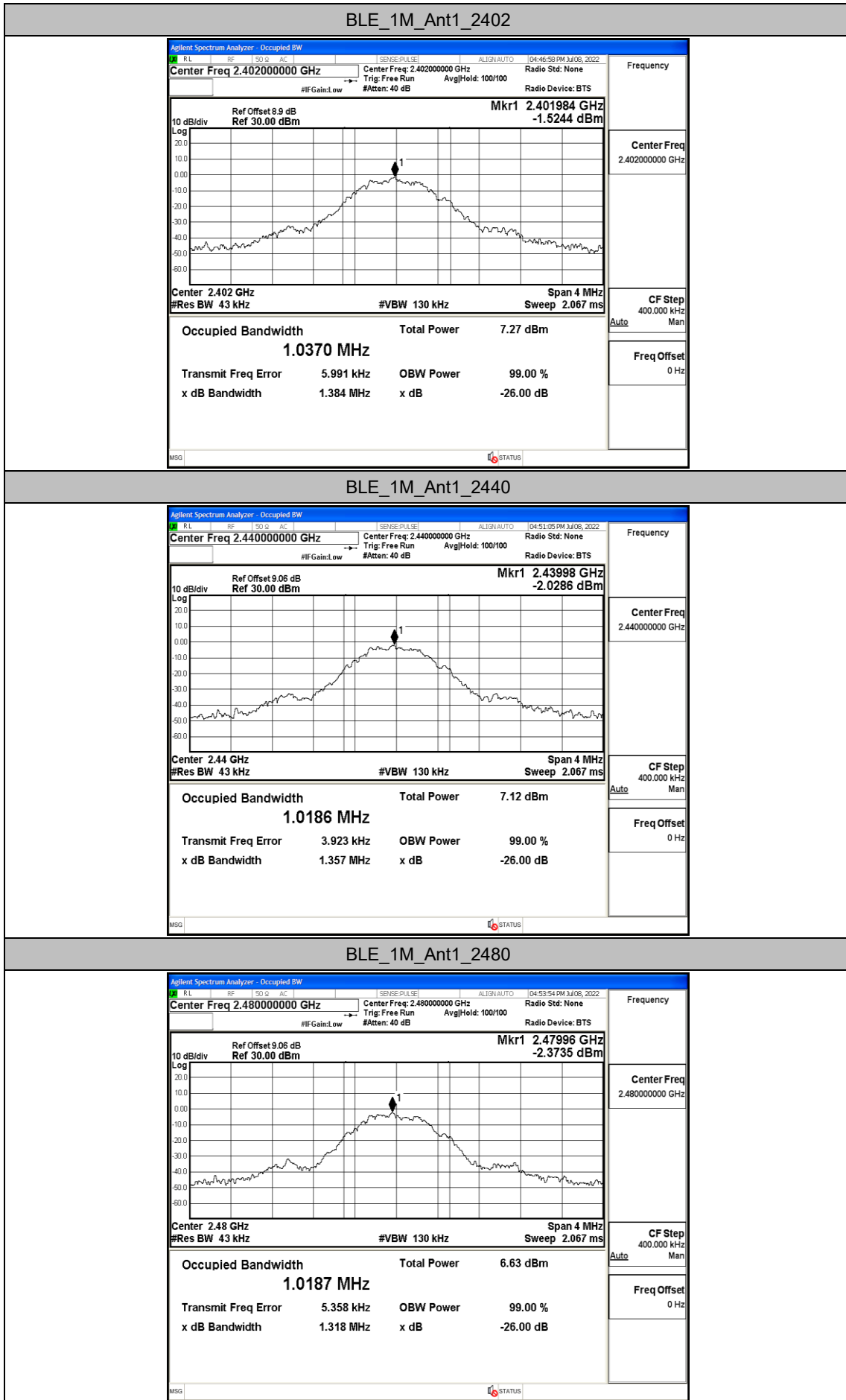


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	1.0370	2401.487	2402.524	---	---
		2440	1.0186	2439.495	2440.513	---	---
		2480	1.0187	2479.496	2480.515	---	---

Test Graphs

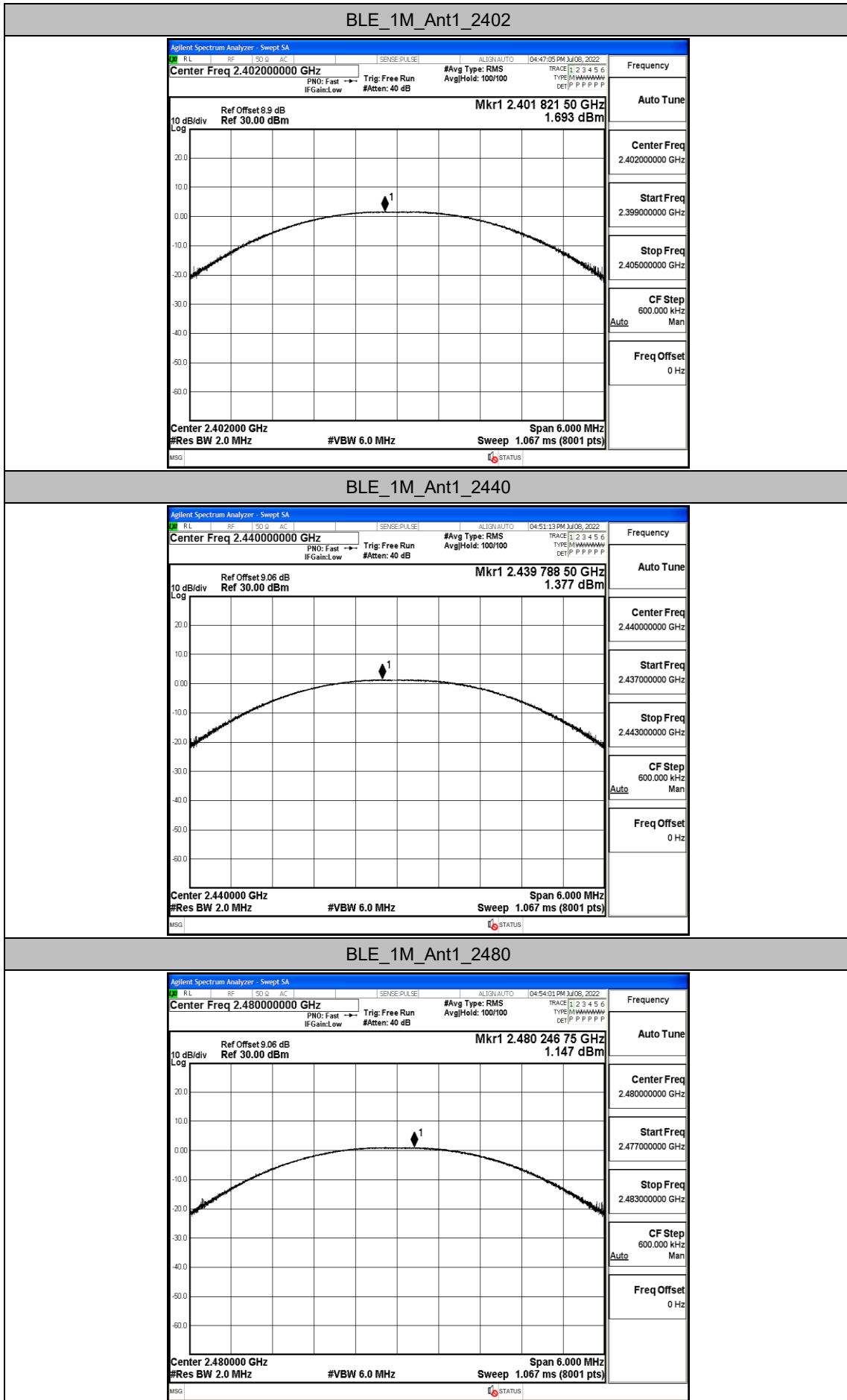


Appendix C: Maximum Peak conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	1.69	≤30	PASS
		2440	1.38	≤30	PASS
		2480	1.15	≤30	PASS

Test Graphs

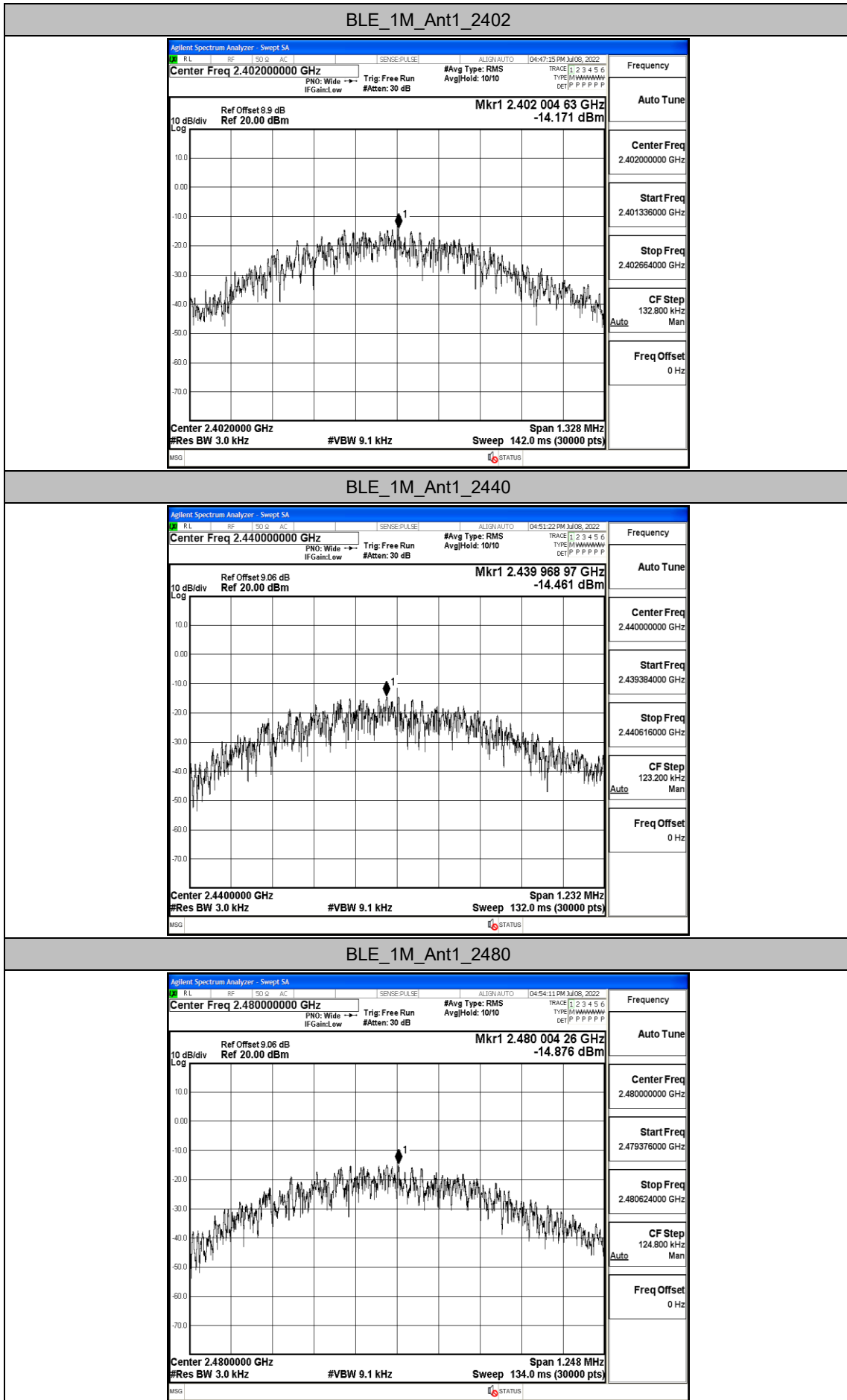


Appendix D: Maximum power spectral density

Test Result

TestMode	Antenna	Channel	Result[dBm/3-100kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-14.17	≤8.00	PASS
		2440	-14.46	≤8.00	PASS
		2480	-14.88	≤8.00	PASS

Test Graphs

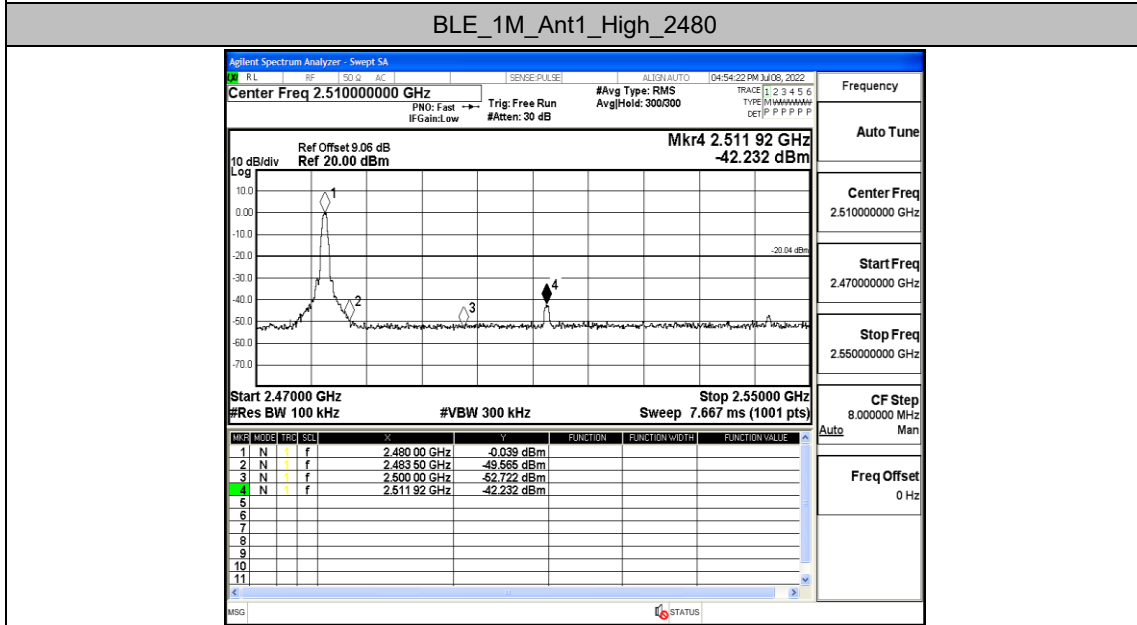
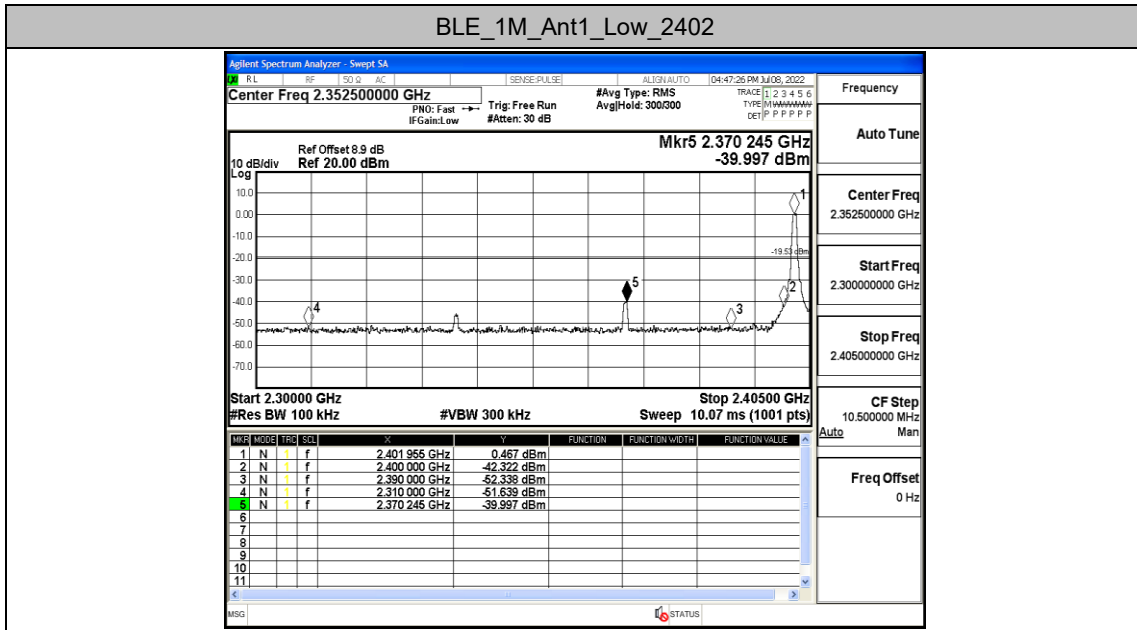


Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	0.47	-40	≤ -19.53	PASS
		High	2480	-0.04	-42.23	≤ -20.04	PASS

Test Graphs

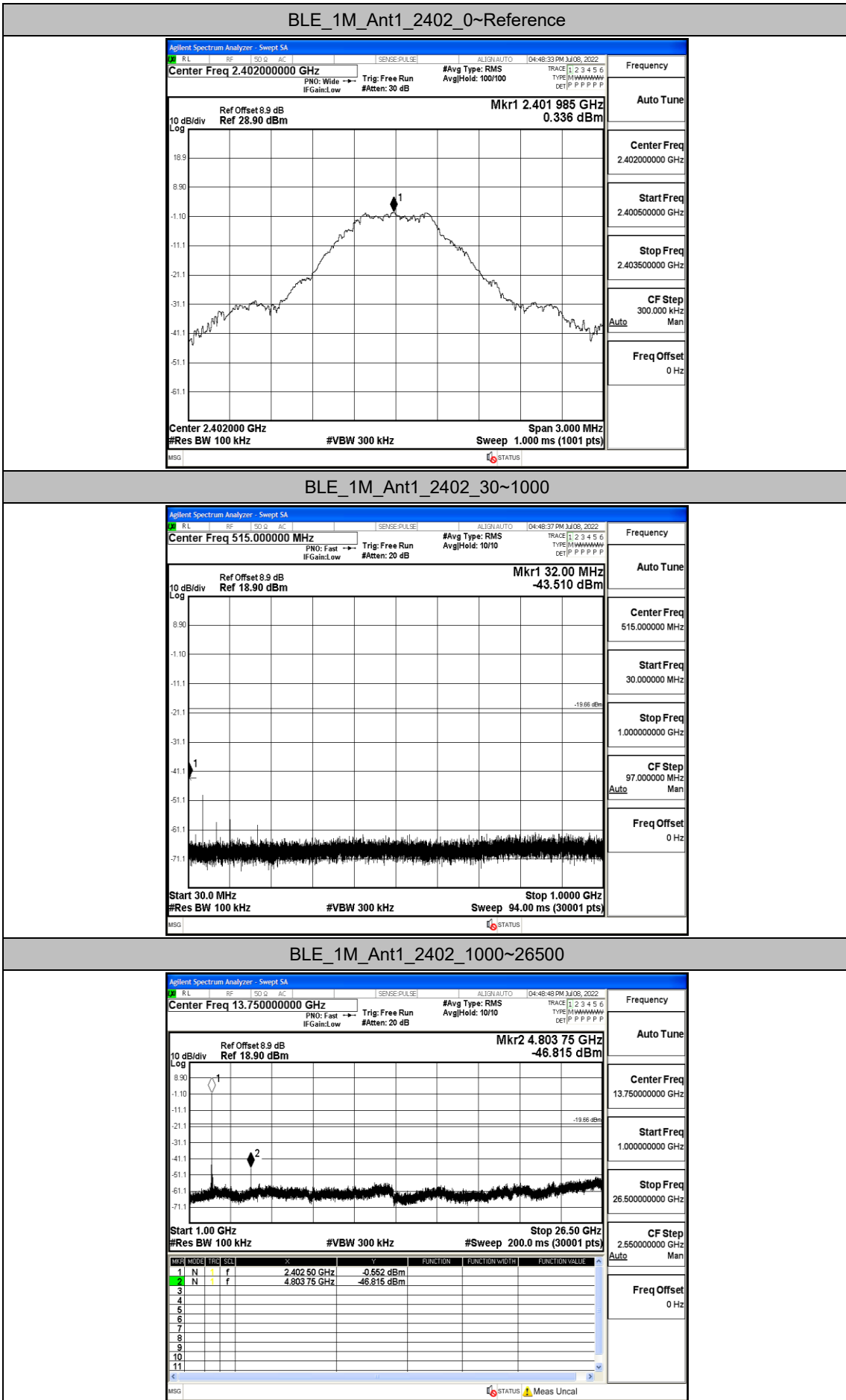


Appendix F: Conducted Spurious Emission

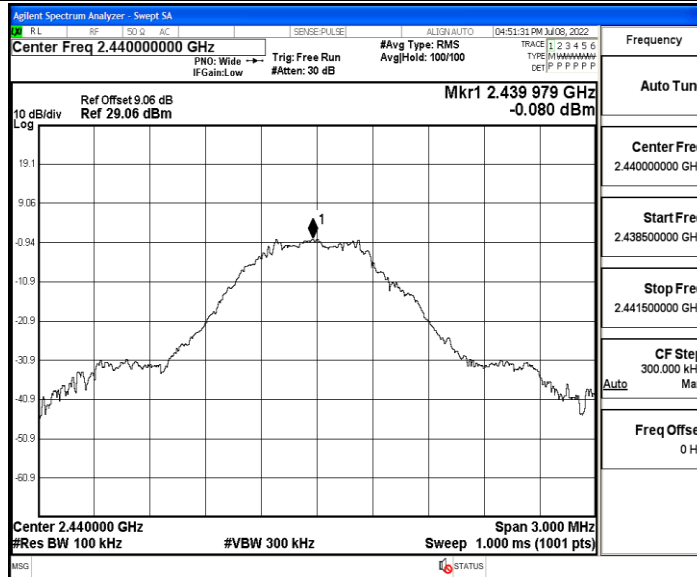
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	2402	Reference	0.34	0.34	---	PASS
			30~1000	0.34	-43.51	≤-19.66	PASS
			1000~26500	0.34	-46.82	≤-19.66	PASS
		2440	Reference	-0.08	-0.08	---	PASS
			30~1000	-0.08	-43.73	≤-20.08	PASS
			1000~26500	-0.08	-46.04	≤-20.08	PASS
		2480	Reference	-0.50	-0.50	---	PASS
			30~1000	-0.50	-43.45	≤-20.5	PASS
			1000~26500	-0.50	-48.54	≤-20.5	PASS

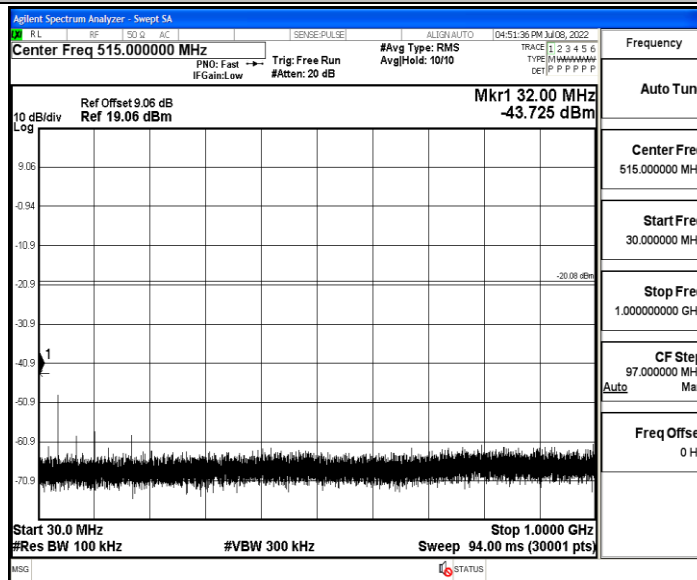
Test Graphs



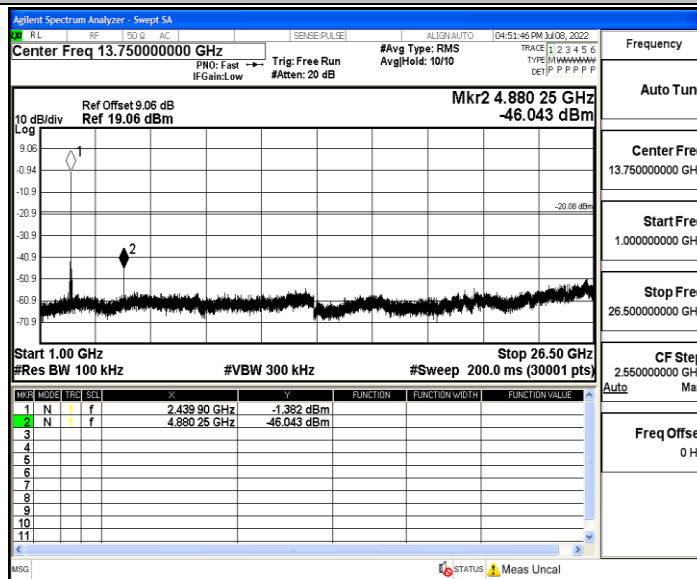
BLE_1M_Ant1_2440_0~Reference



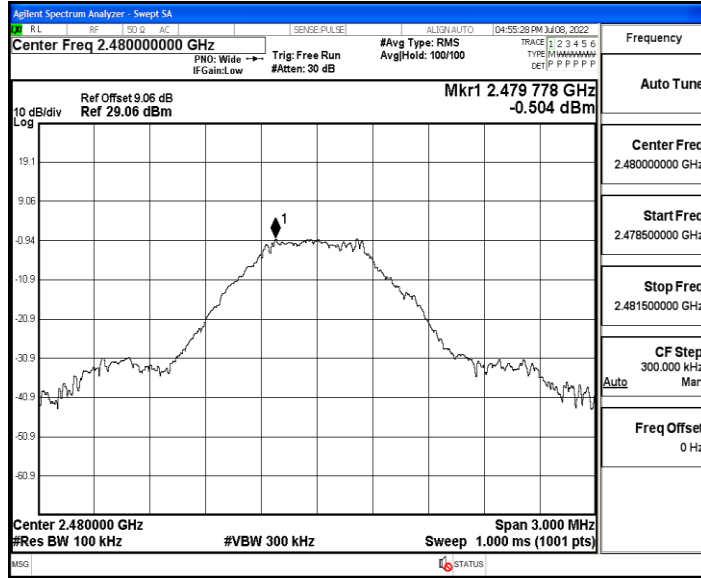
BLE_1M_Ant1_2440_30~1000



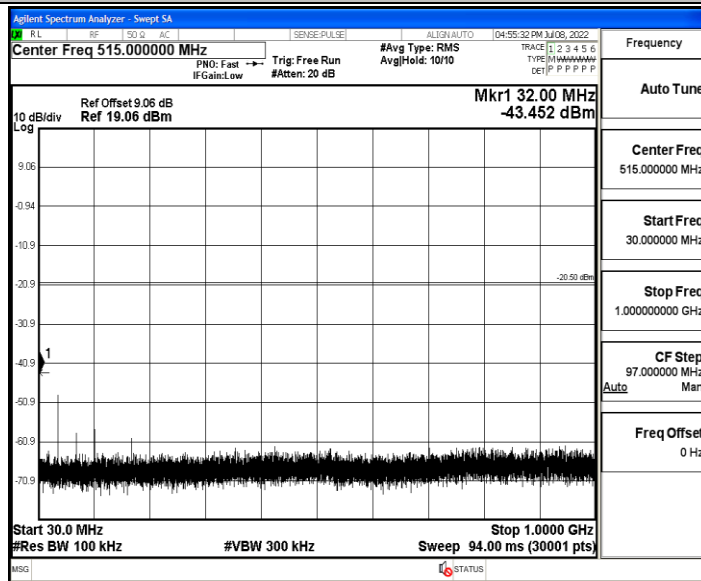
BLE_1M_Ant1_2440_1000~26500



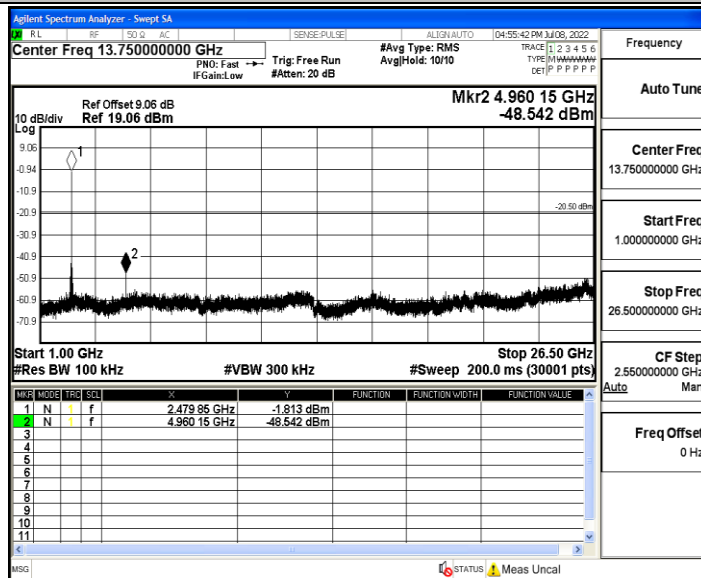
BLE_1M_Ant1_2480_0~Reference



BLE_1M_Ant1_2480_30~1000



BLE_1M_Ant1_2480_1000~26500



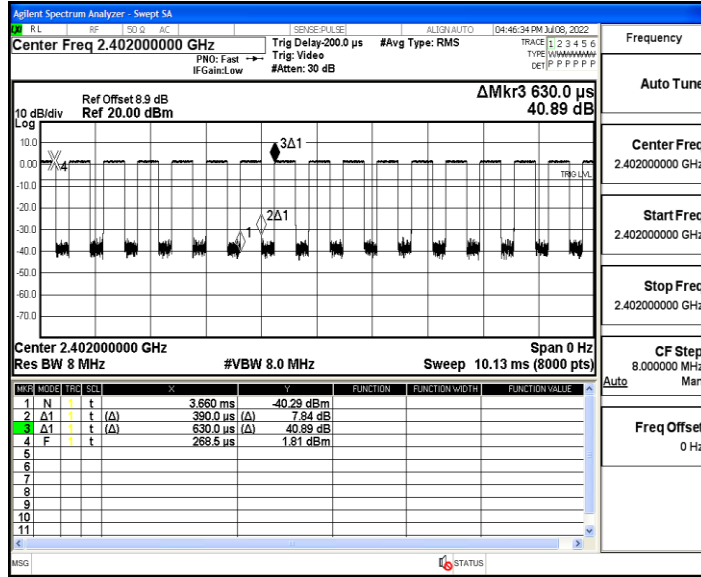
Appendix G: Duty Cycle

Test Result

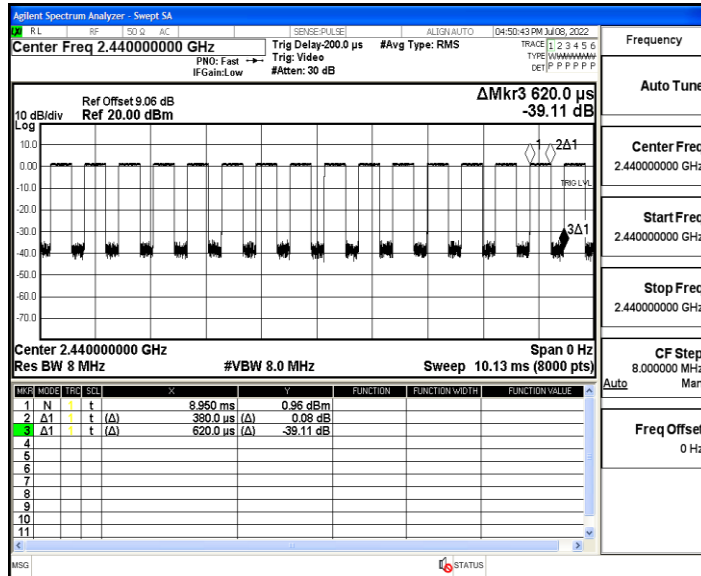
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
BLE_1M	Ant1	2402	0.39	0.63	61.90	2.56
		2440	0.38	0.62	61.29	2.63
		2480	0.39	0.63	61.90	2.56

Test Graphs

BLE_1M_Ant1_2402



BLE_1M_Ant1_2440



BLE_1M_Ant1_2480

