

Appendix for Bluetooth BLE mode

Product Name: Access Control Keypad
Model No: S23

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.692	2401.660	2402.352	0.5	PASS
BLE_1M	Ant1	2440	0.720	2439.644	2440.364	0.5	PASS
BLE_1M	Ant1	2480	0.756	2479.628	2480.384	0.5	PASS
BLE_2M	Ant1	2402	1.148	2401.440	2402.588	0.5	PASS
BLE_2M	Ant1	2440	1.148	2439.444	2440.592	0.5	PASS
BLE_2M	Ant1	2480	1.096	2479.456	2480.552	0.5	PASS

Test Graphs



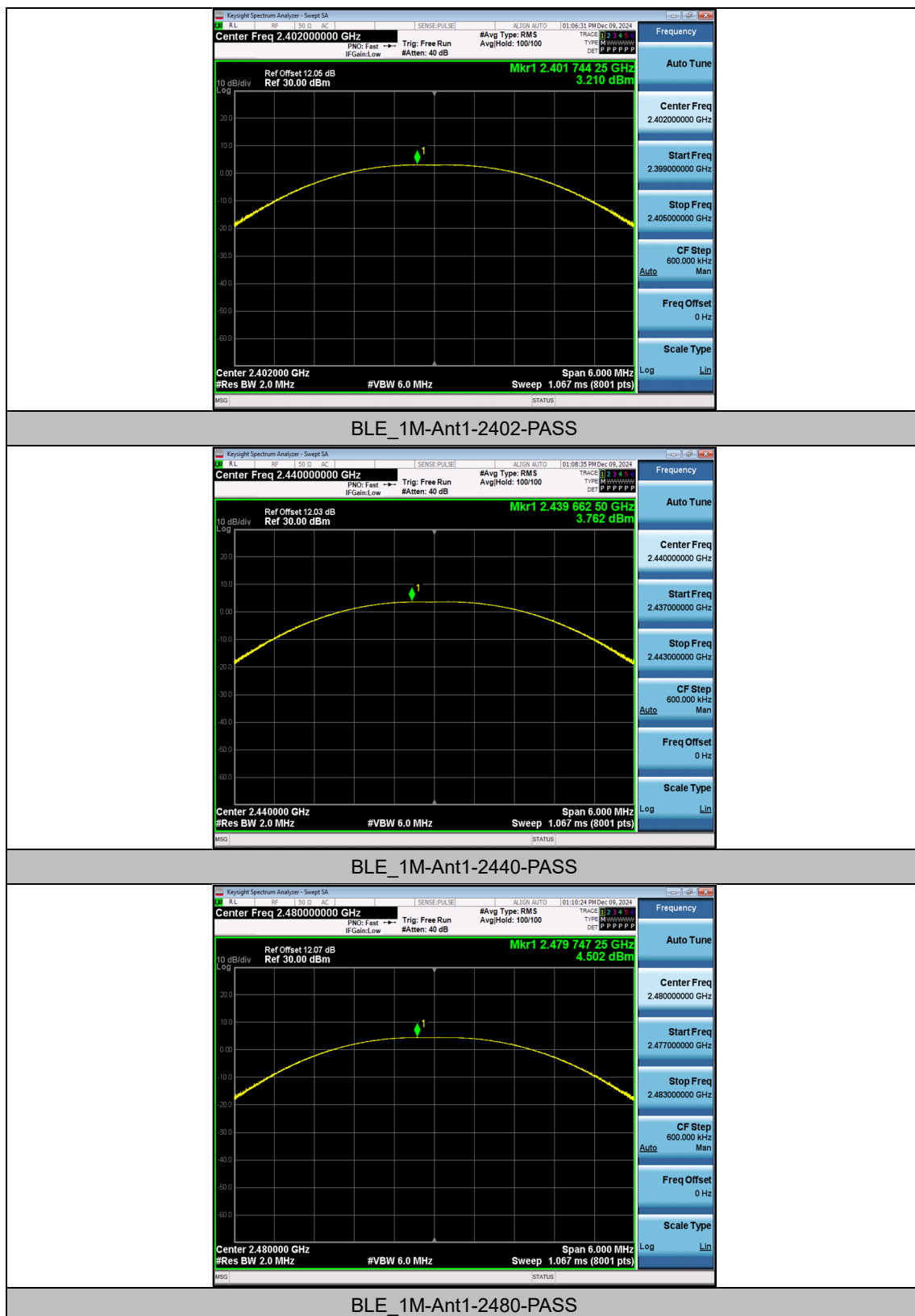


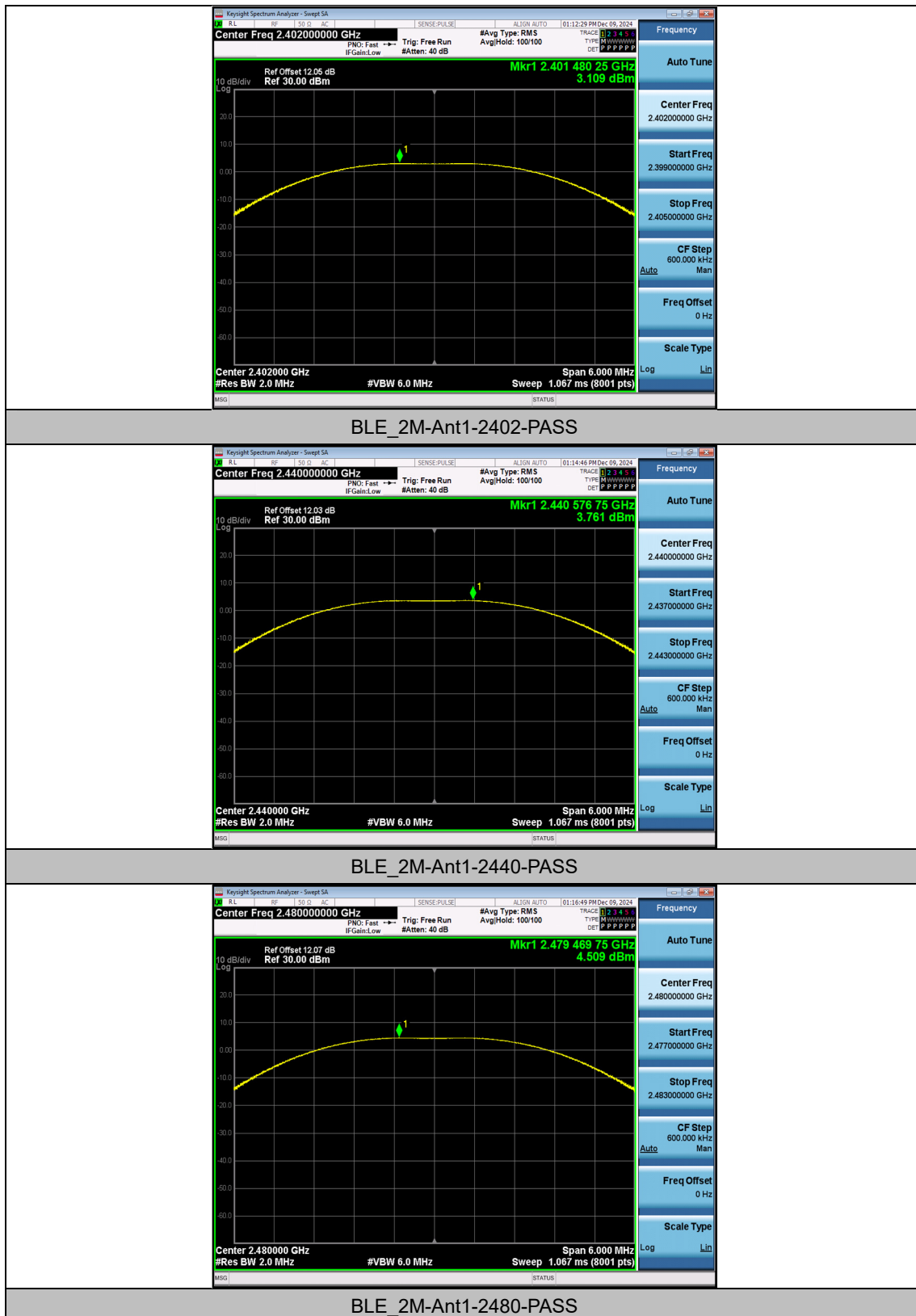
Appendix B: Maximum conducted output power

Test Result Peak

TestMode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	EIRP[dBm]	EIRP Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.21	≤30	3.21	≤36	PASS
BLE_1M	Ant1	2440	3.76	≤30	3.76	≤36	PASS
BLE_1M	Ant1	2480	4.50	≤30	4.50	≤36	PASS
BLE_2M	Ant1	2402	3.11	≤30	3.11	≤36	PASS
BLE_2M	Ant1	2440	3.76	≤30	3.76	≤36	PASS
BLE_2M	Ant1	2480	4.51	≤30	4.51	≤36	PASS

Test Graphs Peak



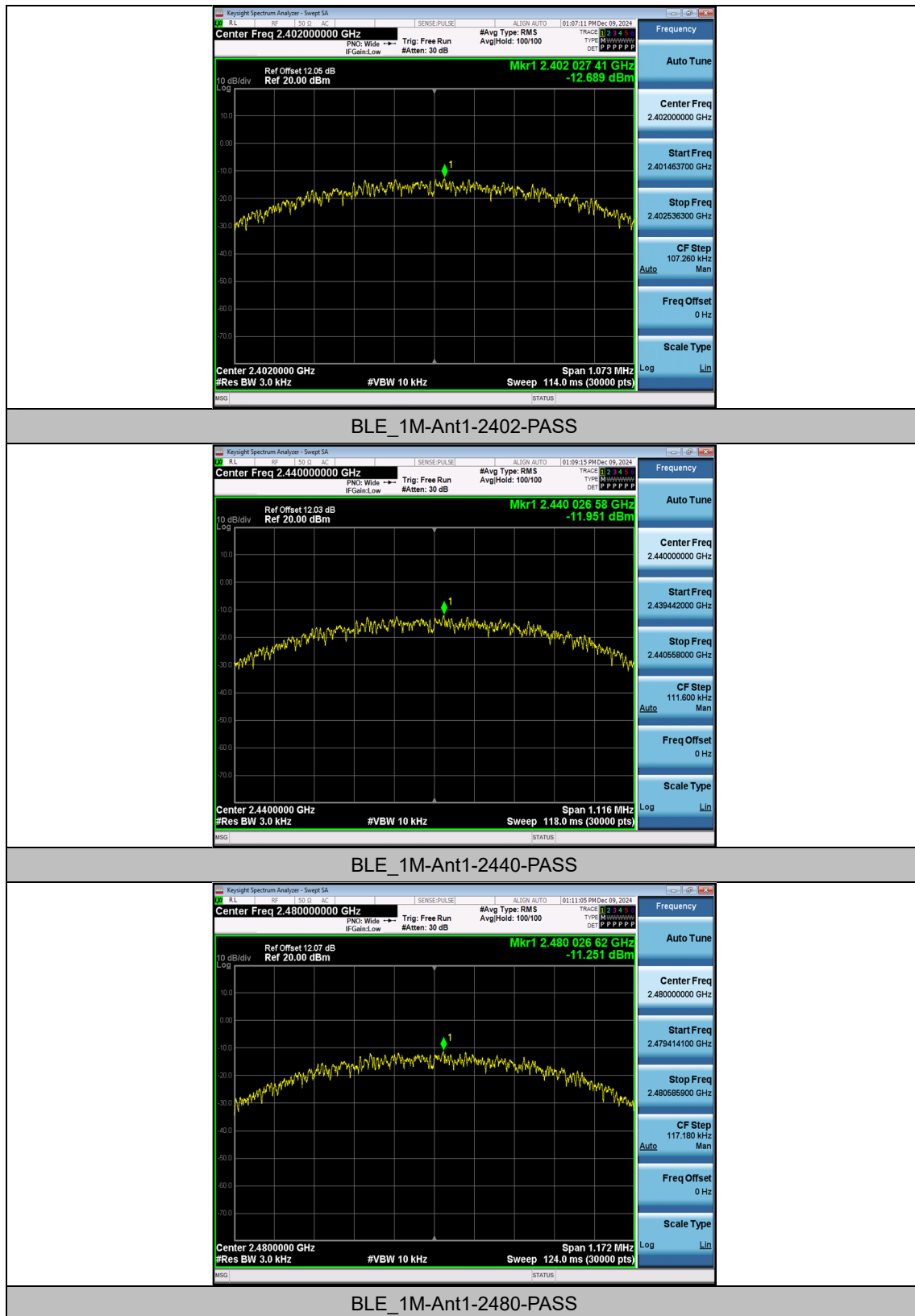


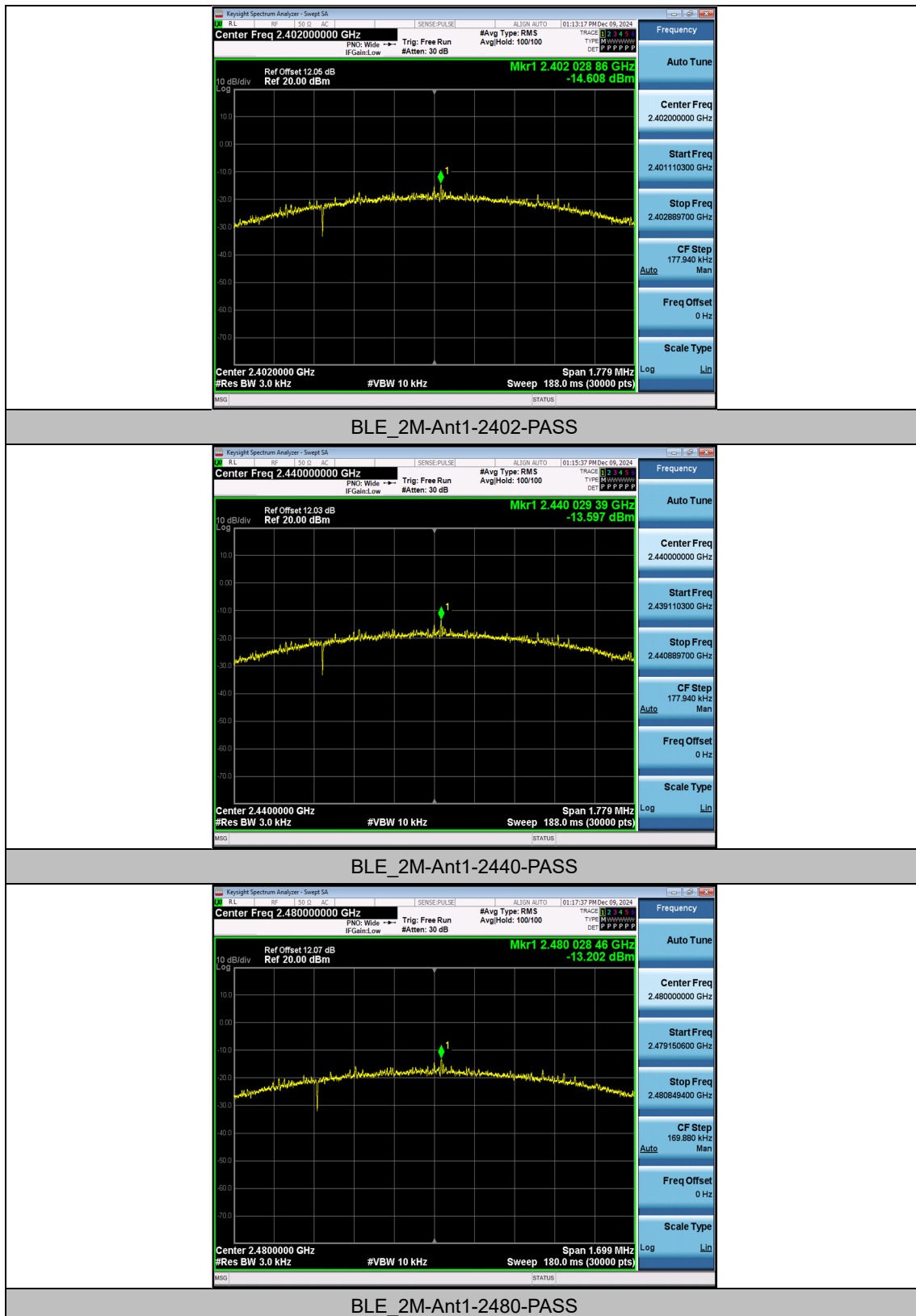
Appendix C: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.69	≤8.00	PASS
BLE_1M	Ant1	2440	-11.95	≤8.00	PASS
BLE_1M	Ant1	2480	-11.25	≤8.00	PASS
BLE_2M	Ant1	2402	-14.61	≤8.00	PASS
BLE_2M	Ant1	2440	-13.60	≤8.00	PASS
BLE_2M	Ant1	2480	-13.20	≤8.00	PASS

Test Graphs





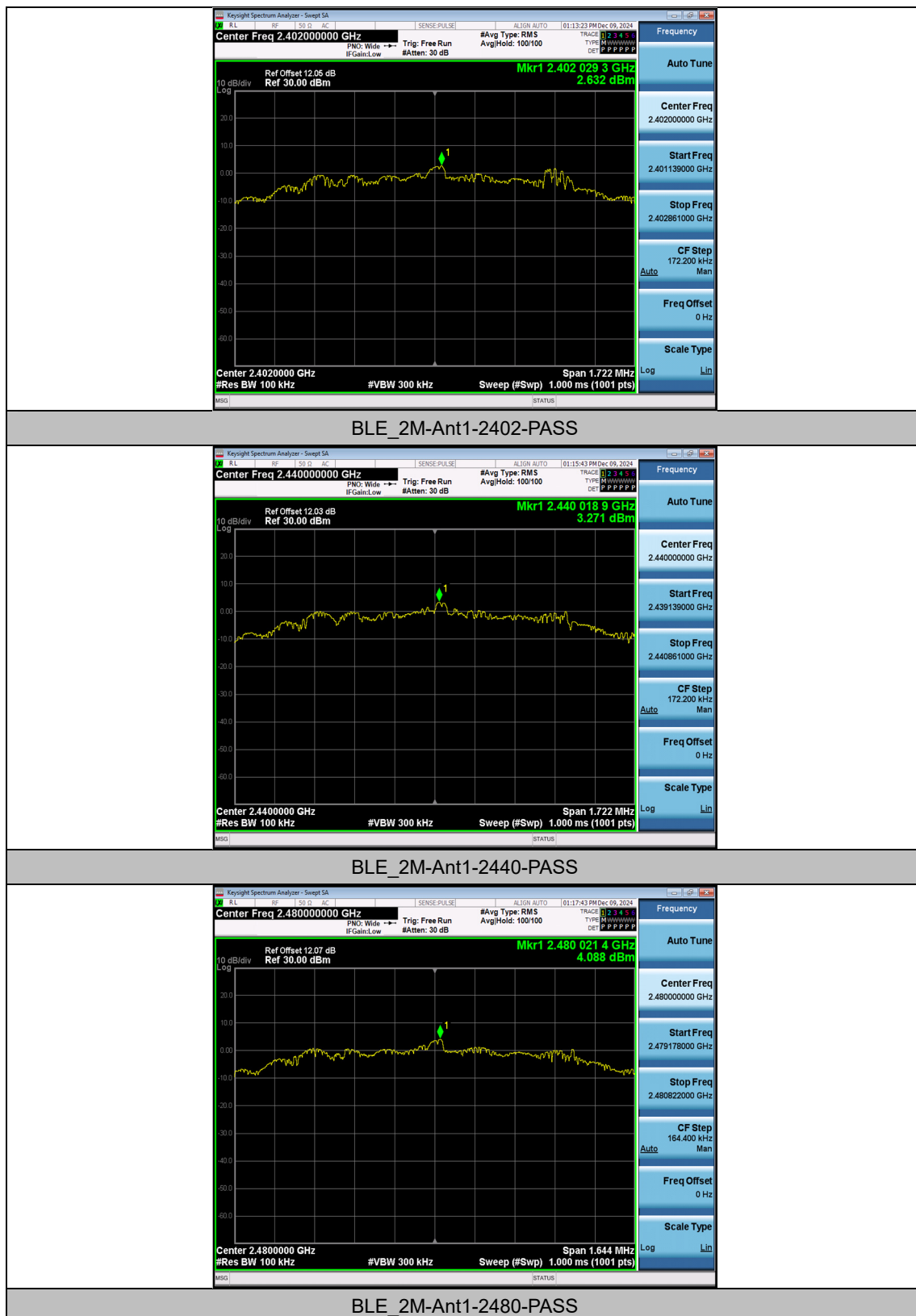
Appendix D: Reference level measurement

Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2402.28	2.68
BLE_1M	Ant1	2440	2440.26	3.47
BLE_1M	Ant1	2480	2480.25	4.08
BLE_2M	Ant1	2402	2402.03	2.63
BLE_2M	Ant1	2440	2440.02	3.27
BLE_2M	Ant1	2480	2480.02	4.09

Test Graphs





Appendix E: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency [MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
BLE_1M	Ant1	Low	2402	2.68	-45.48	≤-17.32	PASS
BLE_1M	Ant1	High	2480	4.08	-46.63	≤-15.92	PASS
BLE_2M	Ant1	Low	2402	2.63	-32.71	≤-17.37	PASS
BLE_2M	Ant1	High	2480	4.09	-46.71	≤-15.91	PASS