

Appendix Bluetooth BLE mode

Product Name: Access Control Keypad
Model No: S33

Appendix A: DTS Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	DTS BW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
BLE_1M	Ant1	2402	0.668	2401.684	2402.352	0.5	PASS
BLE_1M	Ant1	2440	0.676	2439.676	2440.352	0.5	PASS
BLE_1M	Ant1	2480	0.692	2479.660	2480.352	0.5	PASS
BLE_2M	Ant1	2402	1.092	2401.480	2402.572	0.5	PASS
BLE_2M	Ant1	2440	1.232	2439.360	2440.592	0.5	PASS
BLE_2M	Ant1	2480	1.356	2479.328	2480.684	0.5	PASS

Test Graphs

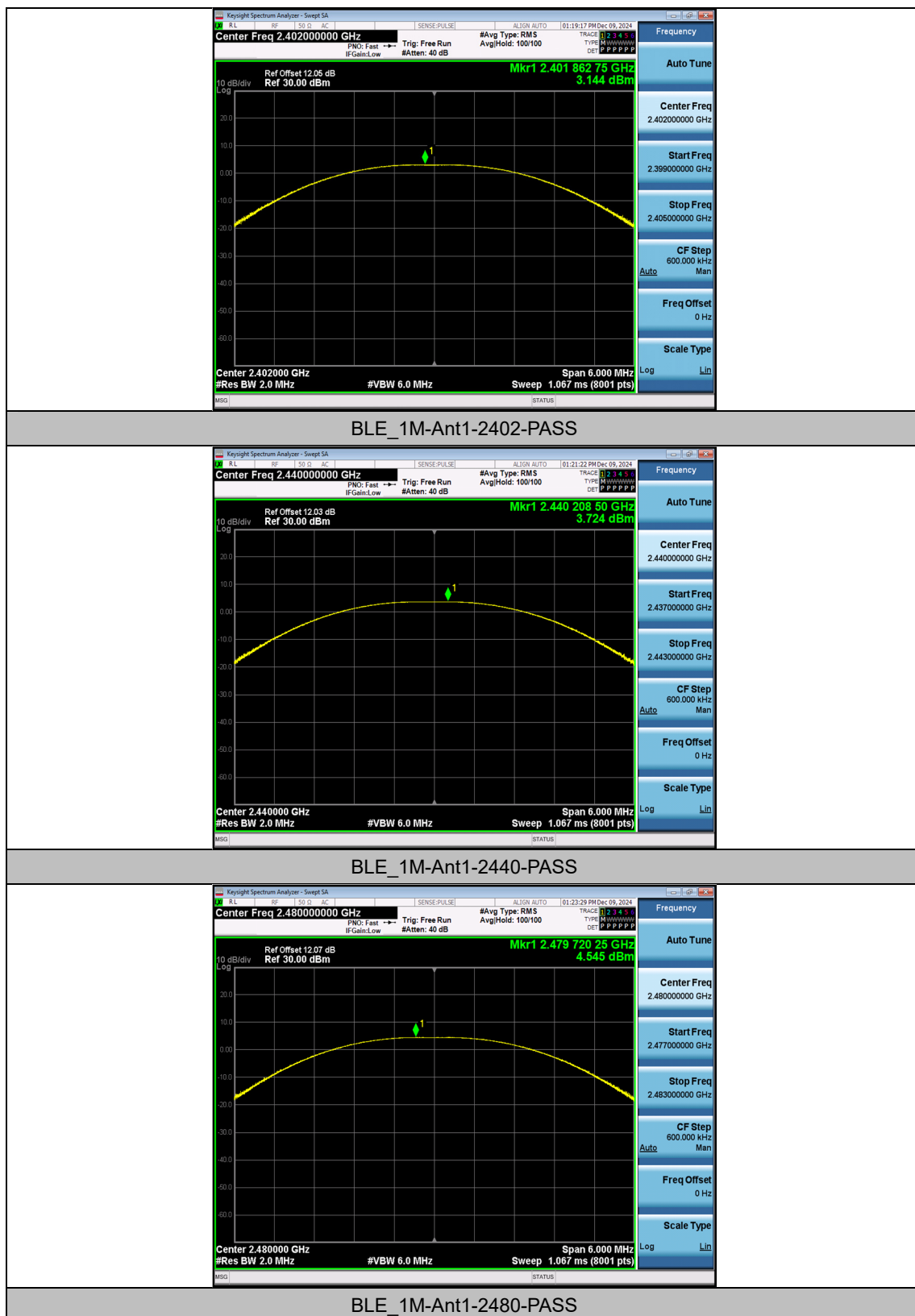


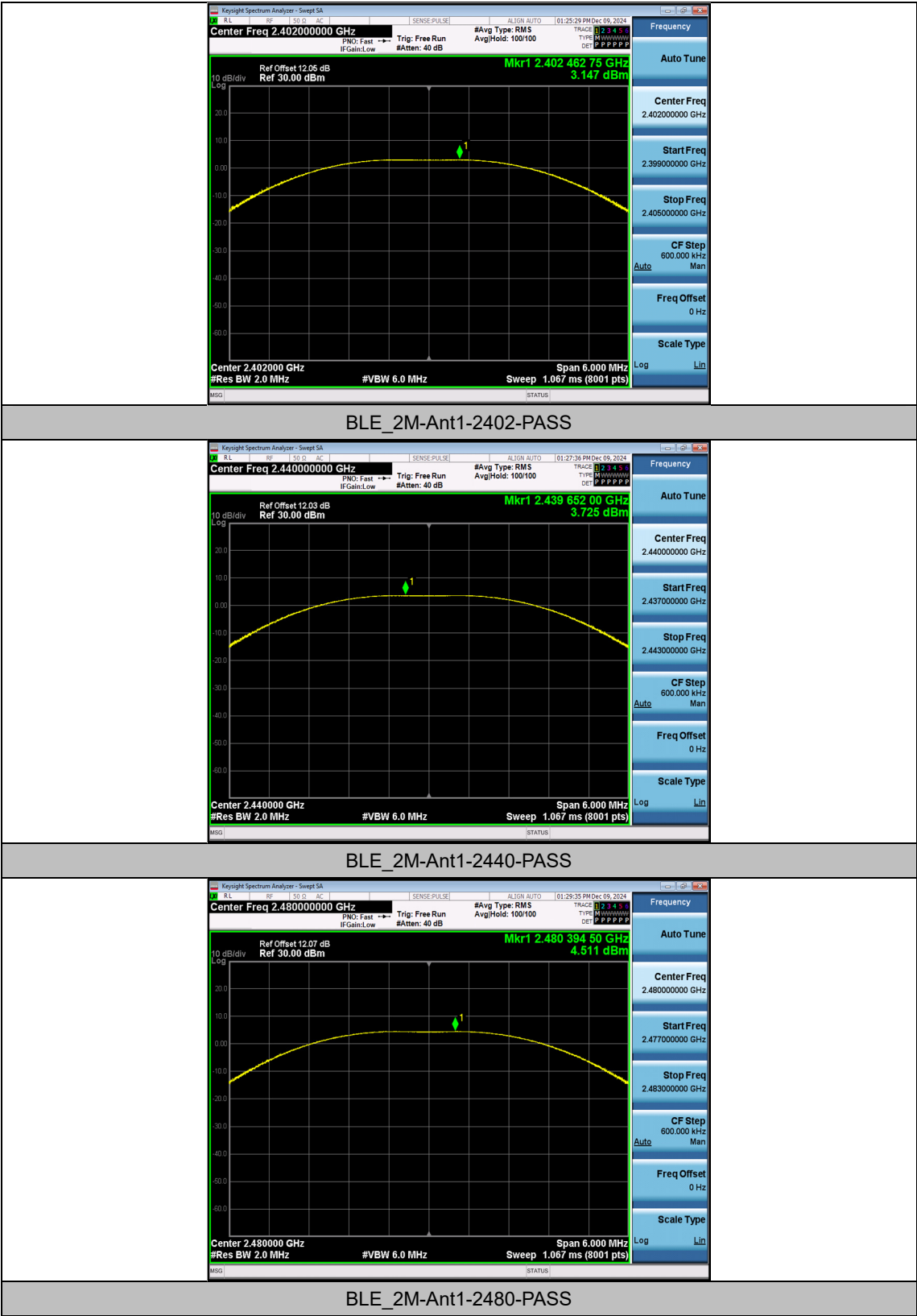


Appendix B: Maximum conducted output power**Test Result Peak**

TestMode	Antenna	Frequency [MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
BLE_1M	Ant1	2402	3.14	≤30	PASS
BLE_1M	Ant1	2440	3.72	≤30	PASS
BLE_1M	Ant1	2480	4.55	≤30	PASS
BLE_2M	Ant1	2402	3.15	≤30	PASS
BLE_2M	Ant1	2440	3.73	≤30	PASS
BLE_2M	Ant1	2480	4.51	≤30	PASS

Test Graphs Peak



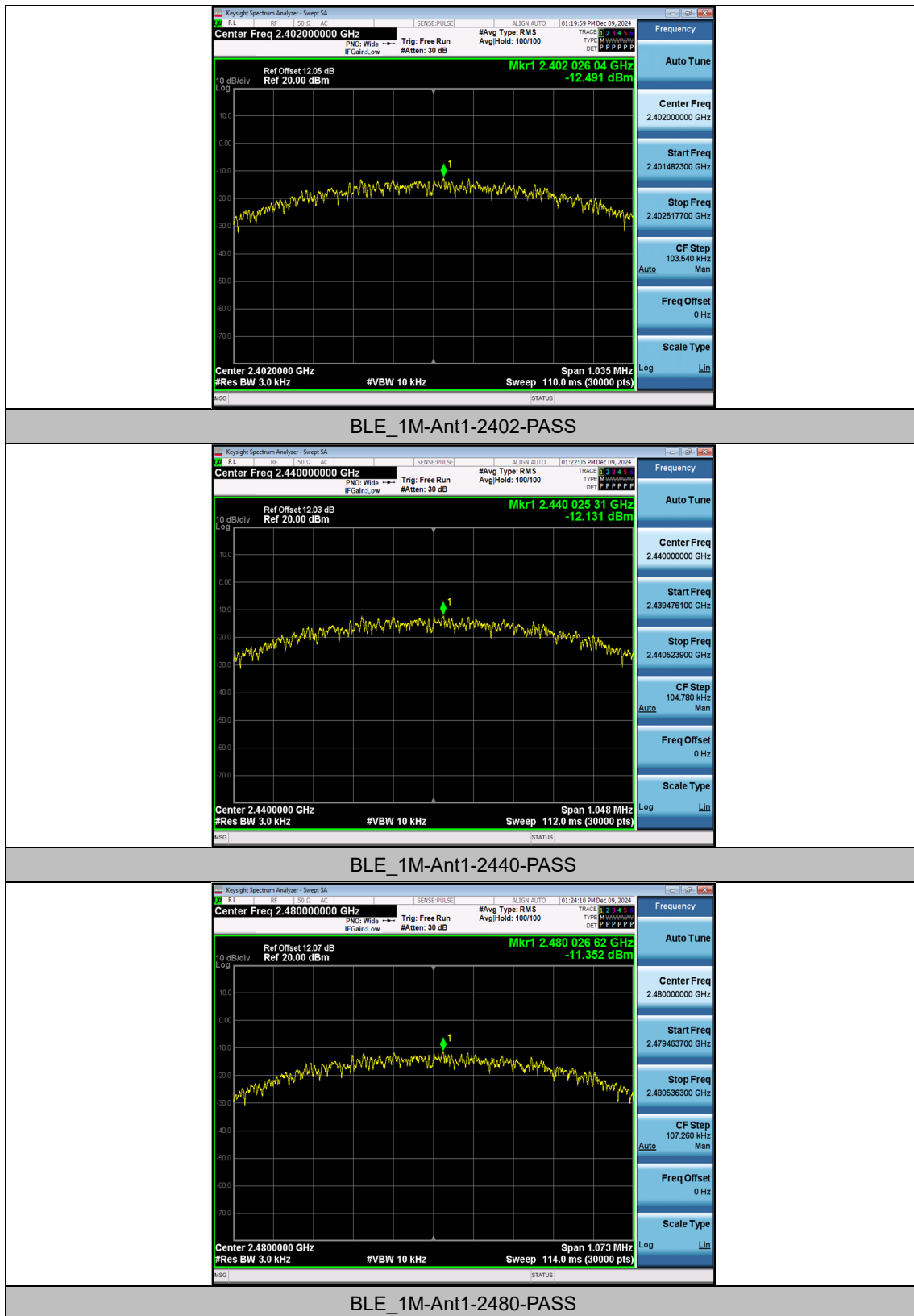


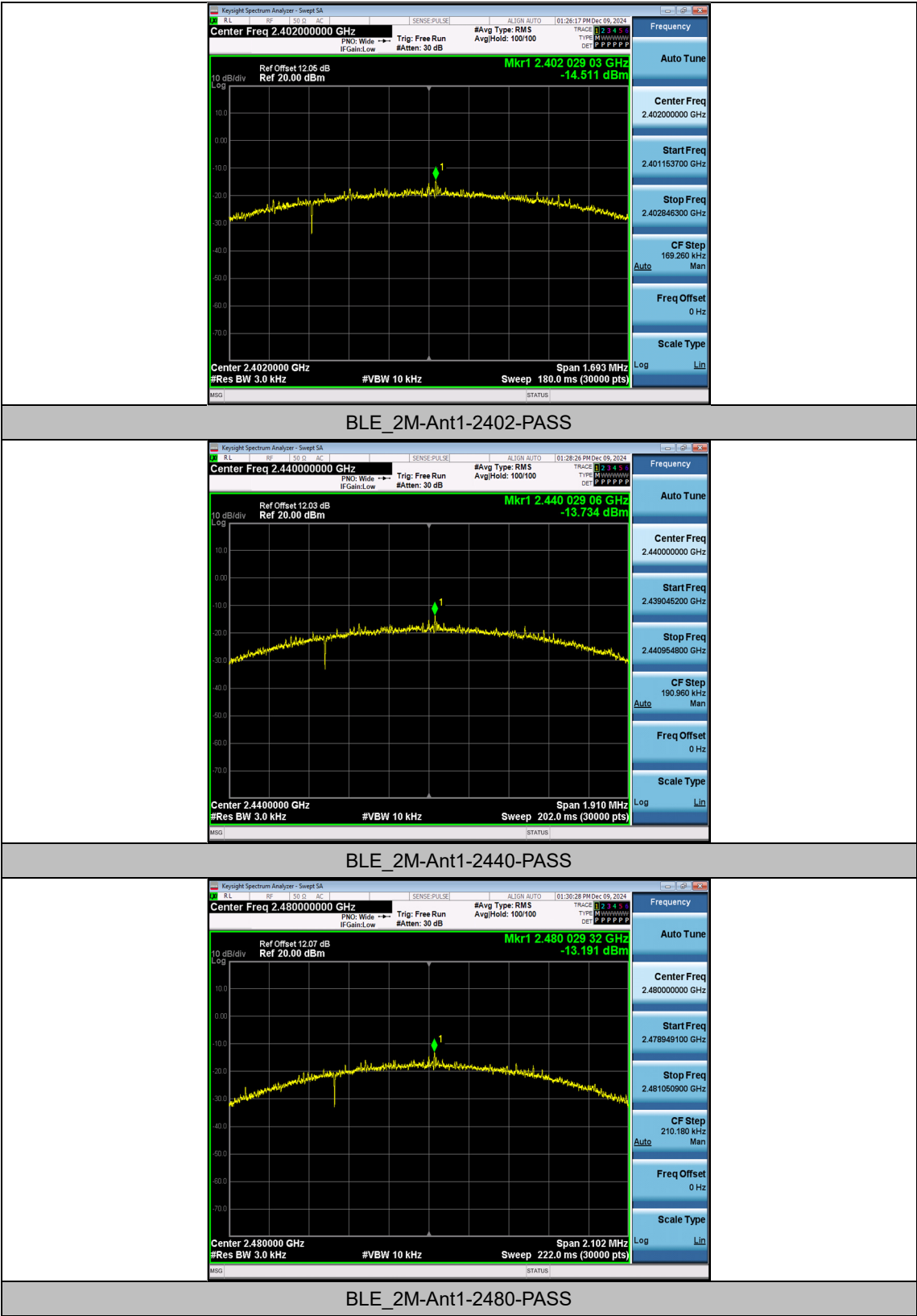
Appendix C: Maximum power spectral density

Test Result

TestMode	Antenna	Frequency[MHz]	Result[dBm/3kHz]	Limit[dBm/3kHz]	Verdict
BLE_1M	Ant1	2402	-12.49	≤8.00	PASS
BLE_1M	Ant1	2440	-12.13	≤8.00	PASS
BLE_1M	Ant1	2480	-11.35	≤8.00	PASS
BLE_2M	Ant1	2402	-14.51	≤8.00	PASS
BLE_2M	Ant1	2440	-13.73	≤8.00	PASS
BLE_2M	Ant1	2480	-13.19	≤8.00	PASS

Test Graphs



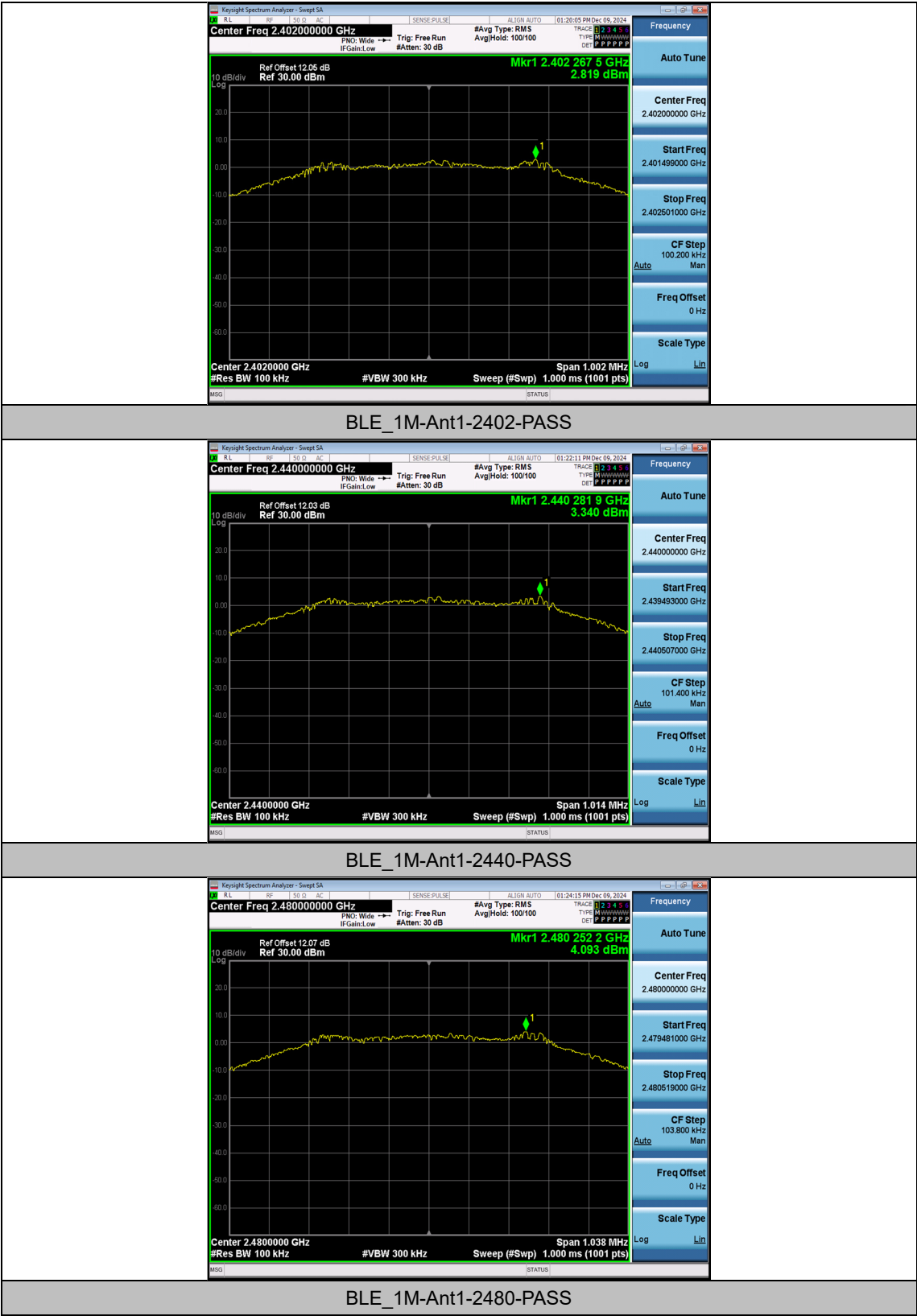


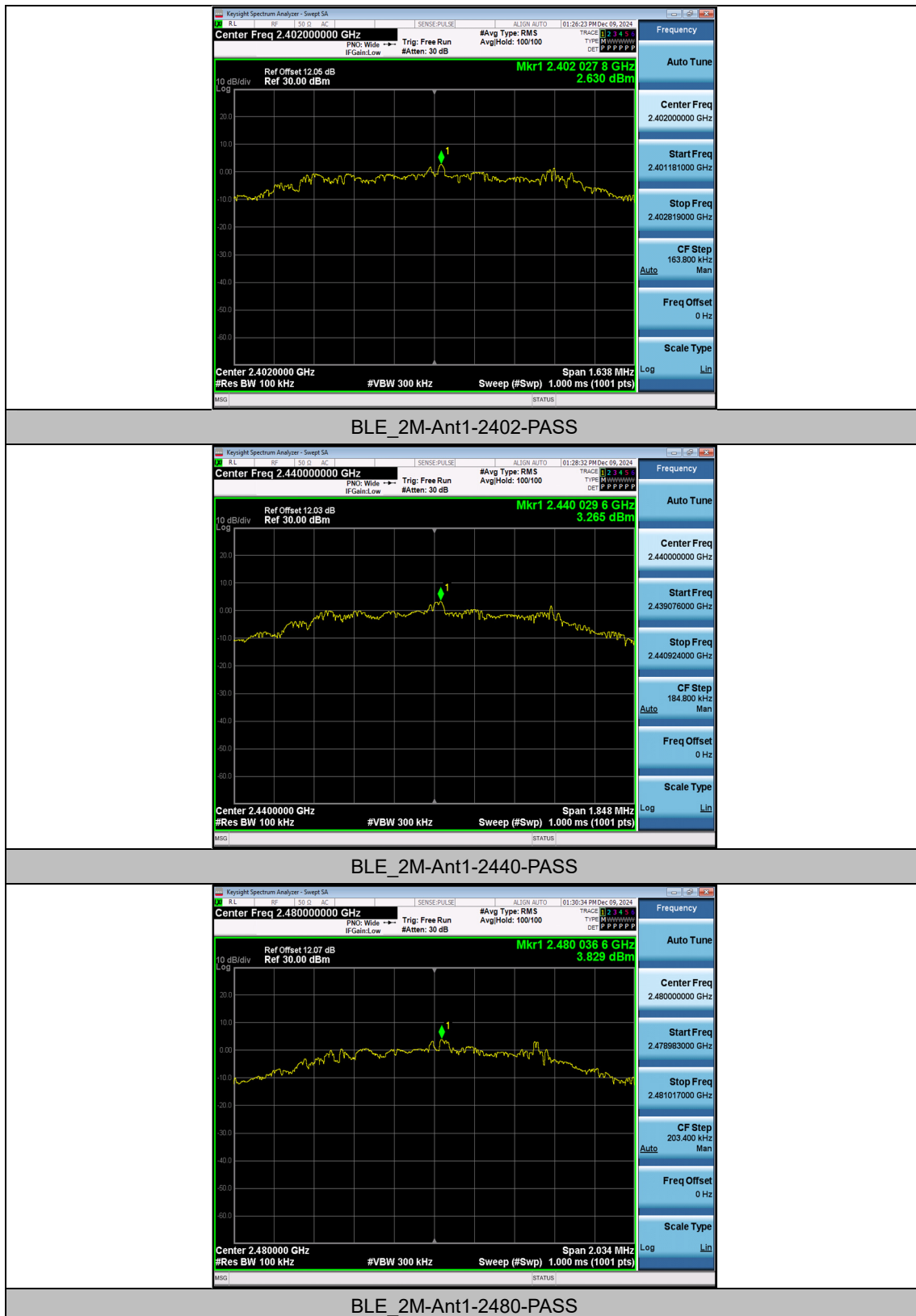
Appendix D: Reference level measurement

Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
BLE_1M	Ant1	2402	2402.27	2.82
BLE_1M	Ant1	2440	2440.28	3.34
BLE_1M	Ant1	2480	2480.25	4.09
BLE_2M	Ant1	2402	2402.03	2.63
BLE_2M	Ant1	2440	2440.03	3.27
BLE_2M	Ant1	2480	2480.04	3.83

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	2.82	-46.1	≤-17.18	PASS
BLE_1M	Ant1	High	2480	4.09	-46.97	≤-15.91	PASS
BLE_2M	Ant1	Low	2402	2.63	-30.47	≤-17.37	PASS
BLE_2M	Ant1	High	2480	3.83	-46.7	≤-16.17	PASS