

Appendix 2.4GHz-Hopping

Product Name: Access Control Keypad
Model No: S33

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Frequency [MHz]	20dbEBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
2.4GHz-HOPPING	Ant1	2402	1.206	2401.406	2402.612	---	---
2.4GHz-HOPPING	Ant1	2441	1.188	2440.415	2441.603	---	---
2.4GHz-HOPPING	Ant1	2480	1.185	2479.412	2480.597	---	---

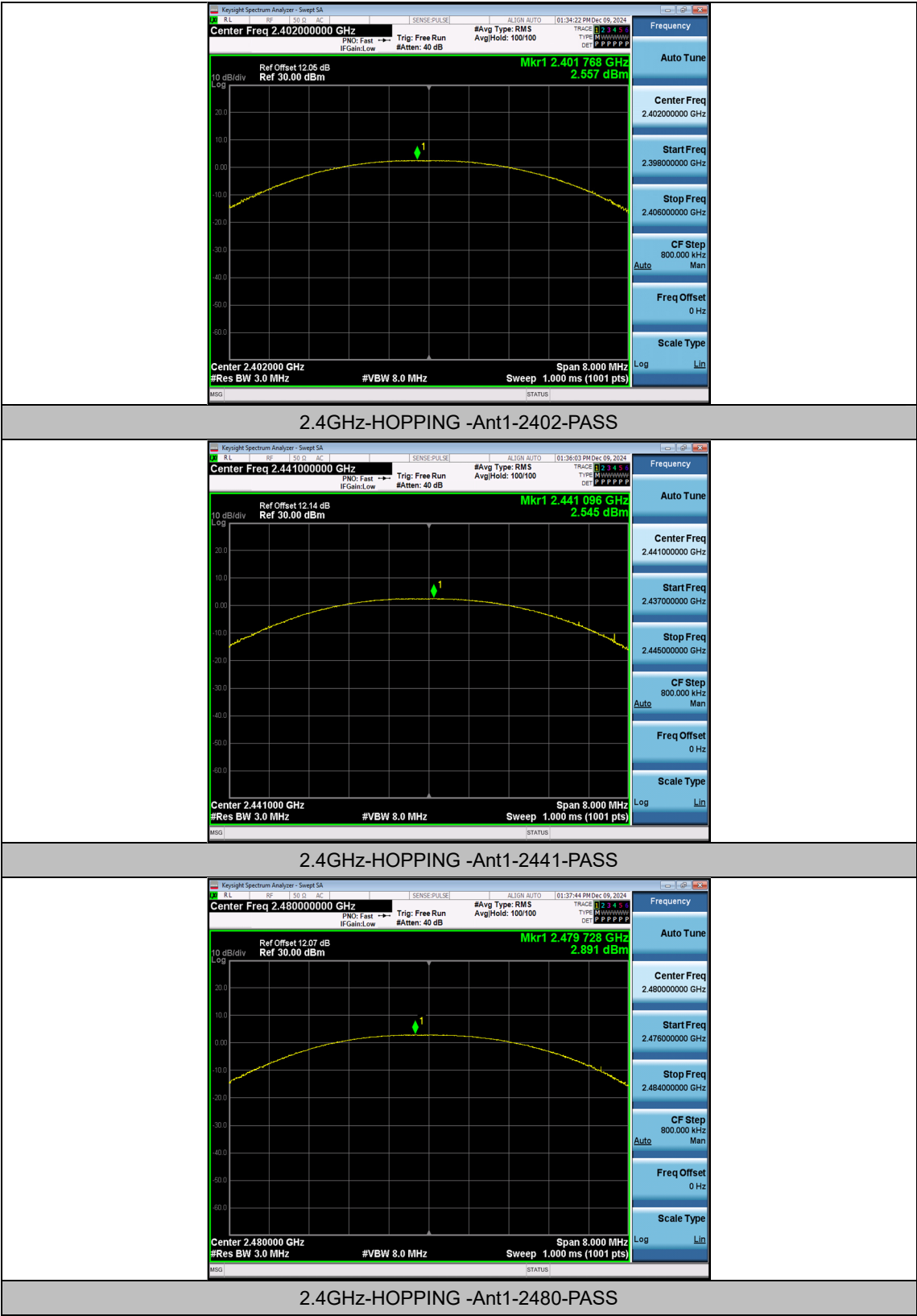
Test Graphs



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

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
2.4GHz-HOPPING	Ant1	2402	2.56	≤20.97	PASS
2.4GHz-HOPPING	Ant1	2441	2.55	≤20.97	PASS
2.4GHz-HOPPING	Ant1	2480	2.89	≤20.97	PASS

Test Graphs

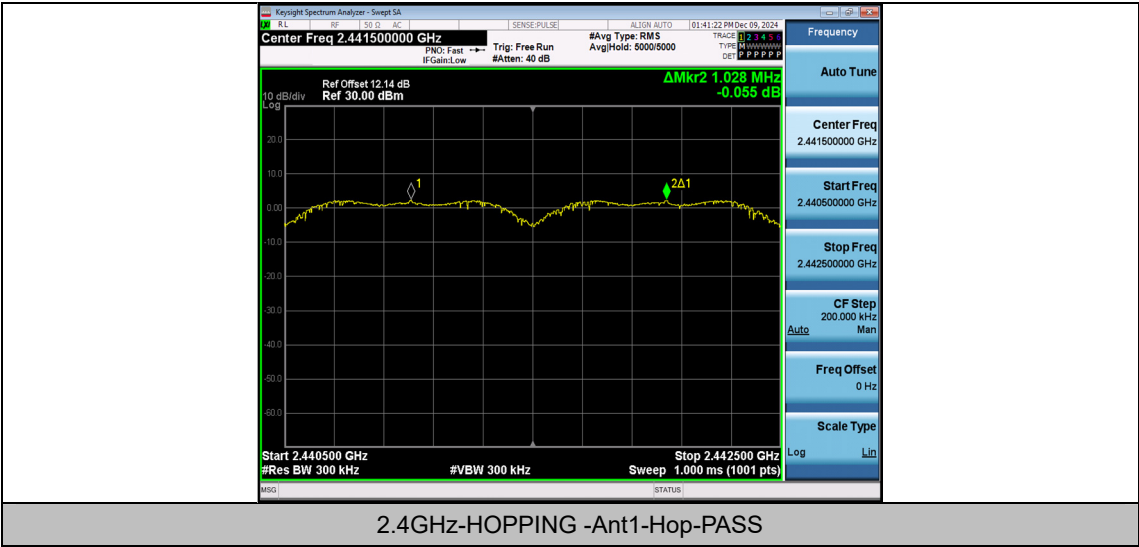


Appendix C: Carrier frequency separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
2.4GHz-HOPPING	Ant1	Hop	1.028	≥ 0.804	PASS

Test Graphs

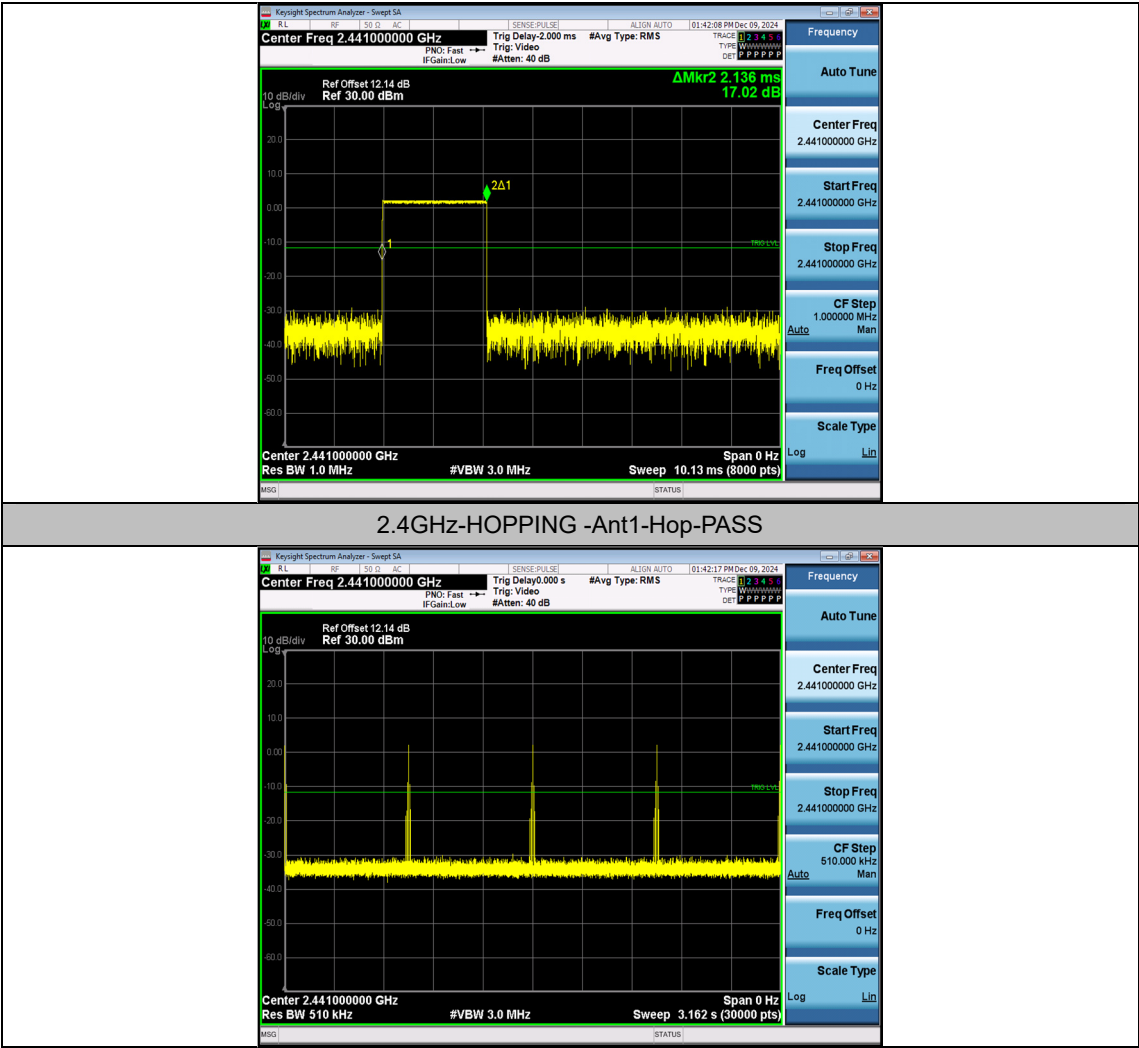


Appendix D: Time of occupancy

Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
2.4GHz-HOPPING	Ant1	Hop	2.136	40	0.085	≤0.4	PASS

Test Graphs

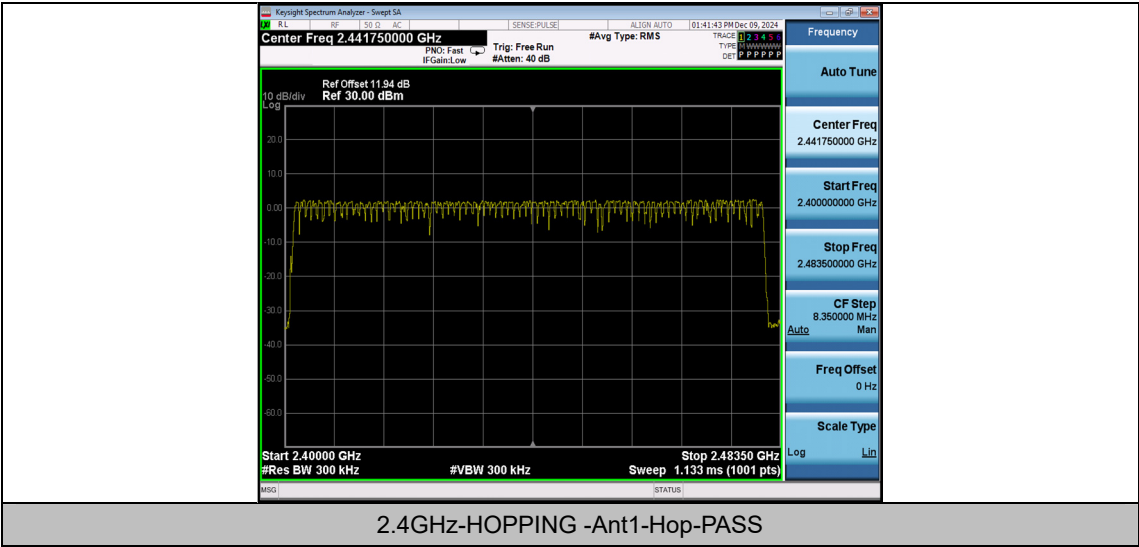


Appendix E: Number of hopping channels

Test Result

TestMode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
2.4GHz-HOPPING	Ant1	Hop	79	≥15	PASS

Test Graphs

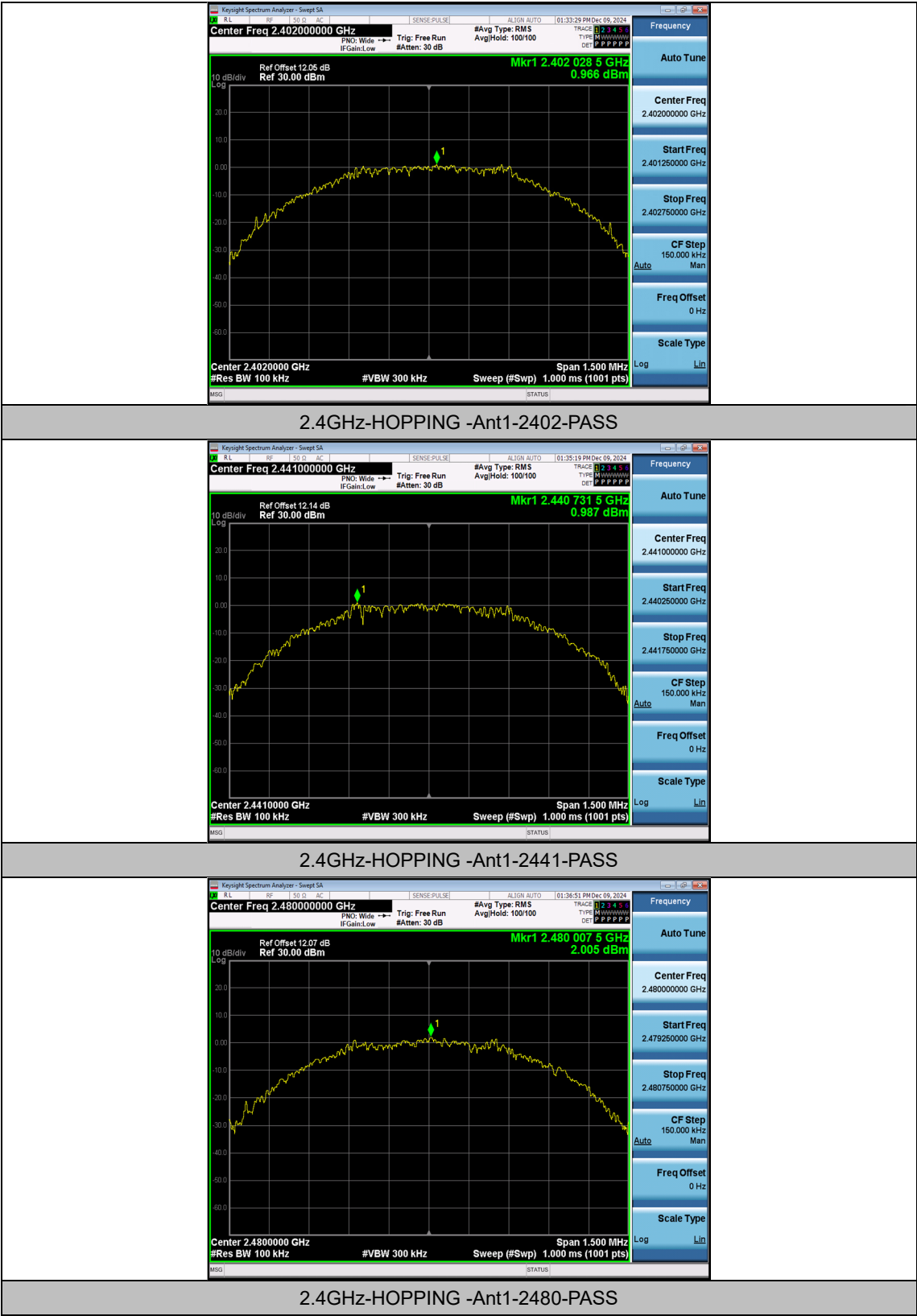


Appendix F: Reference level measurement

Test Result

TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
2.4GHz-HOPPING	Ant1	2402	2402.03	0.97
2.4GHz-HOPPING	Ant1	2441	2440.73	0.99
2.4GHz-HOPPING	Ant1	2480	2480.01	2.01

Test Graphs

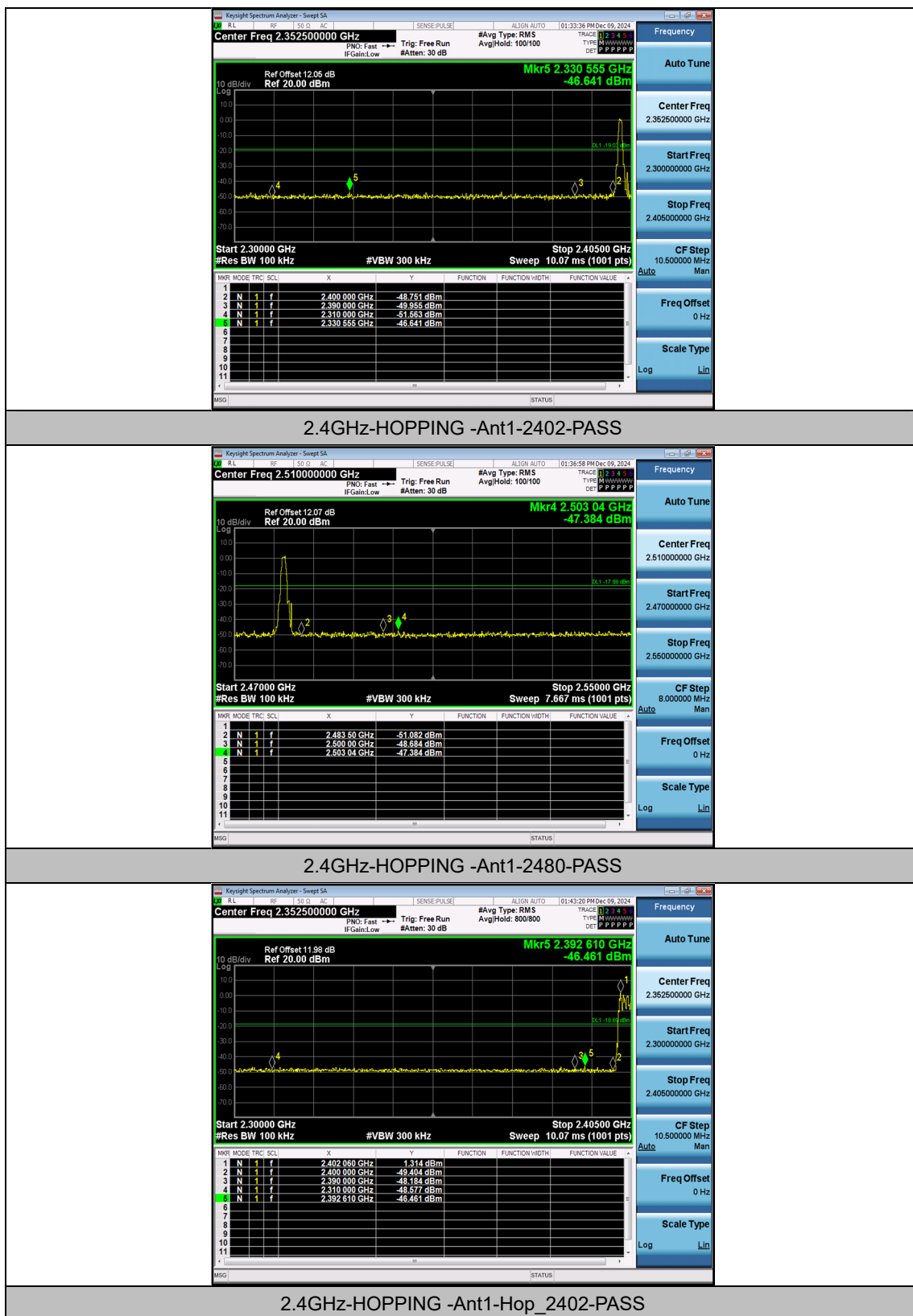


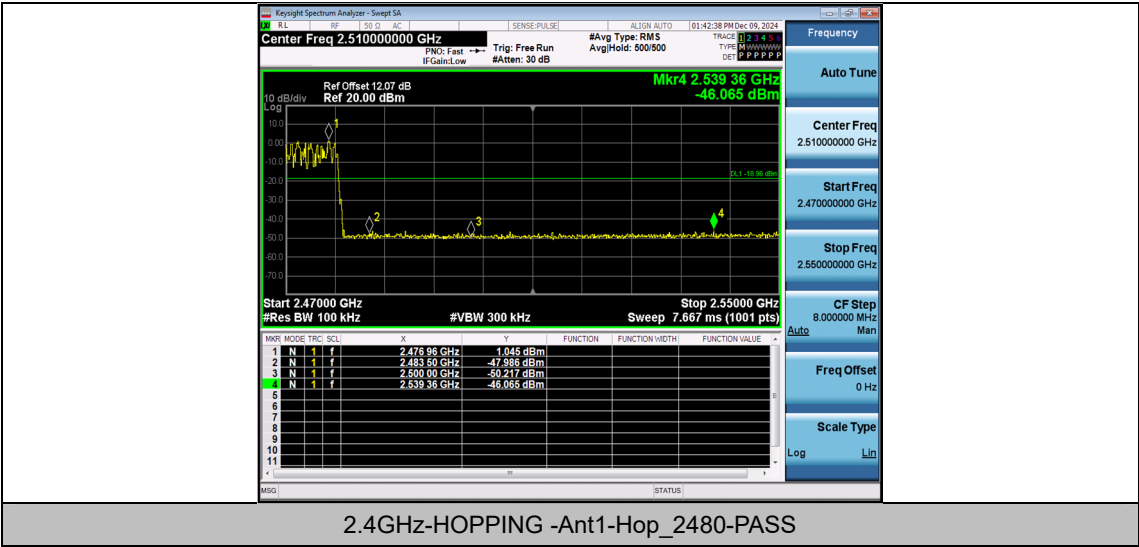
Appendix G: Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
2.4GHz-HOPPING	Ant1	Low	2402	0.97	-46.64	≤-19.03	PASS
2.4GHz-HOPPING	Ant1	High	2480	2.01	-47.38	≤-17.99	PASS
2.4GHz-HOPPING	Ant1	Low	Hop_2402	1.31	-46.46	≤-18.69	PASS
2.4GHz-HOPPING	Ant1	High	Hop_2480	1.05	-46.07	≤-18.96	PASS

Test Graphs





Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency [MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
2.4GHz-HOPPING	Ant1	2402	30~1000	0.97	-58.75	≤-19.03	PASS
2.4GHz-HOPPING	Ant1	2402	1000~26500	0.97	-43.17	≤-19.03	PASS
2.4GHz-HOPPING	Ant1	2441	30~1000	0.99	-57.98	≤-19.01	PASS
2.4GHz-HOPPING	Ant1	2441	1000~26500	0.99	-44.32	≤-19.01	PASS
2.4GHz-HOPPING	Ant1	2480	30~1000	2.01	-59.42	≤-17.99	PASS
2.4GHz-HOPPING	Ant1	2480	1000~26500	2.01	-44.16	≤-17.99	PASS

Test Graphs

