

FCC Appendix RF Test Data for BT

FCC ID : 2AYZG-DS2268

Company : ShenZhen litian technology Co.,Ltd

EUT : Alarm Clock with Wireless Charging

Model Number : DS2268

Report No. : CTA26092002401

Reviewed By : Eric Wang

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.939	2401.550	2402.489	---	---
		2441	0.942	2440.553	2441.495	---	---
		2480	0.945	2479.550	2480.495	---	---
2DH5	Ant1	2402	1.335	2401.340	2402.675	---	---
		2441	1.293	2440.373	2441.666	---	---
		2480	1.311	2479.355	2480.666	---	---

Test Graphs

DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480



2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

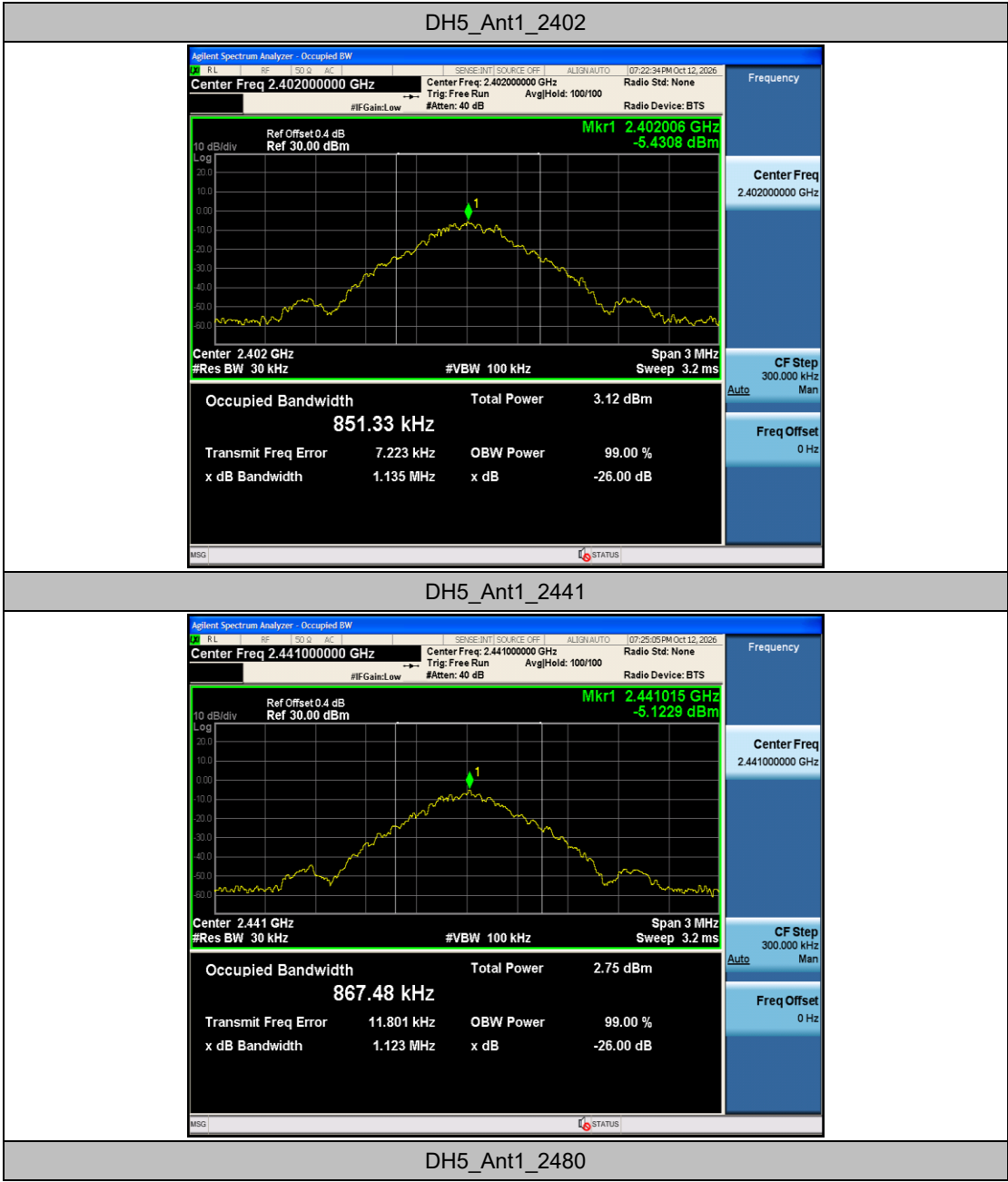


Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.85133	2401.5816	2402.4329	---	---
		2441	0.86748	2440.5781	2441.4455	---	---
		2480	0.87125	2479.5748	2480.4461	---	---
2DH5	Ant1	2402	1.1826	2401.4172	2402.5998	---	---
		2441	1.1932	2440.4133	2441.6065	---	---
		2480	1.1829	2479.4204	2480.6033	---	---

Test Graphs





2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix C: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-3.46	≤20.97	PASS
		2441	-3.56	≤20.97	PASS
		2480	-3.88	≤20.97	PASS
2DH5	Ant1	2402	-0.82	≤20.97	PASS
		2441	-1.01	≤20.97	PASS
		2480	-1.26	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.012	≥ 0.945	PASS
2DH5	Ant1	Hop	1.026	≥ 0.890	PASS

Test Graphs

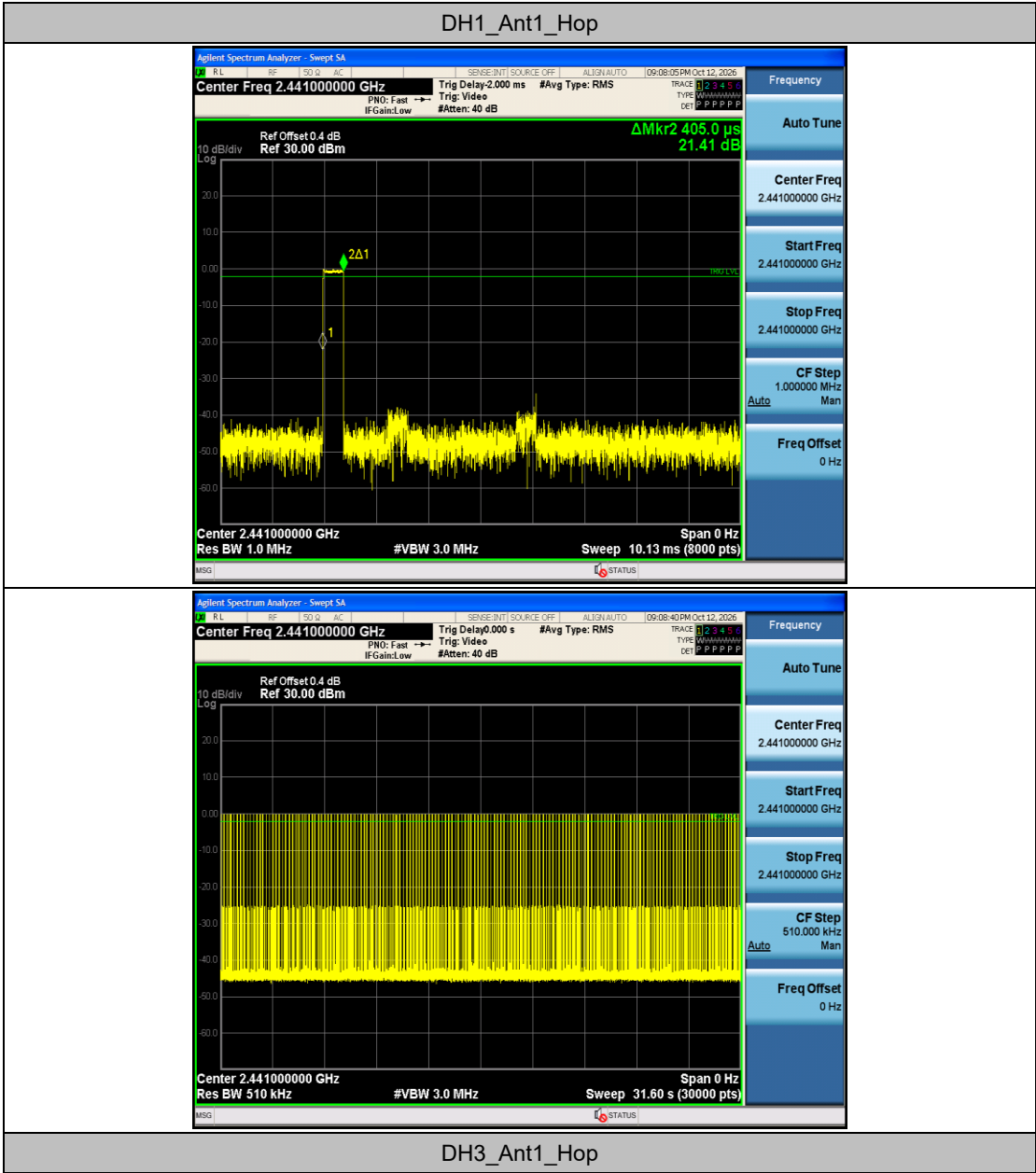


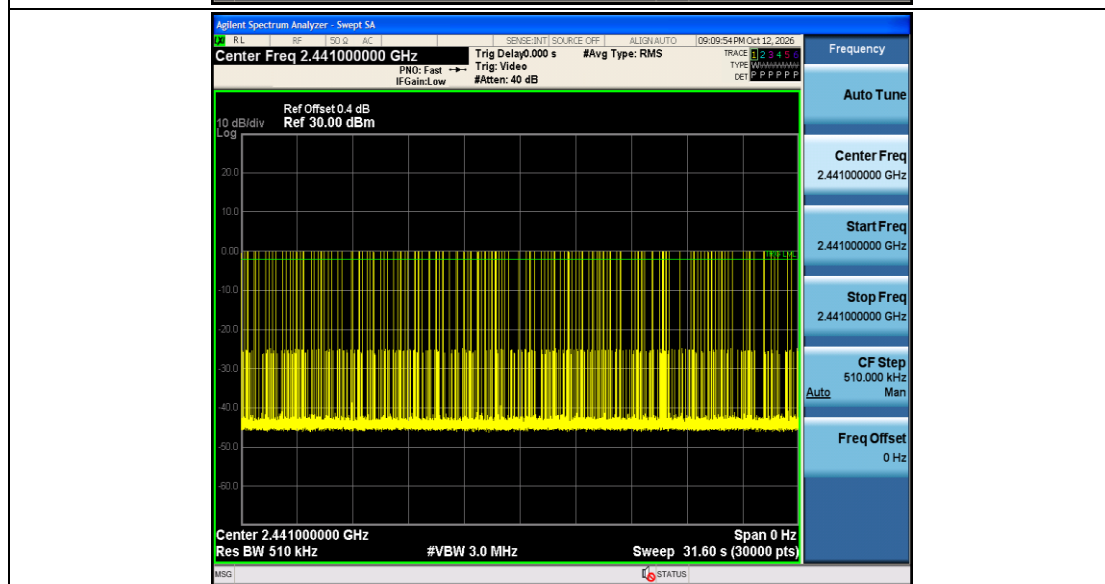
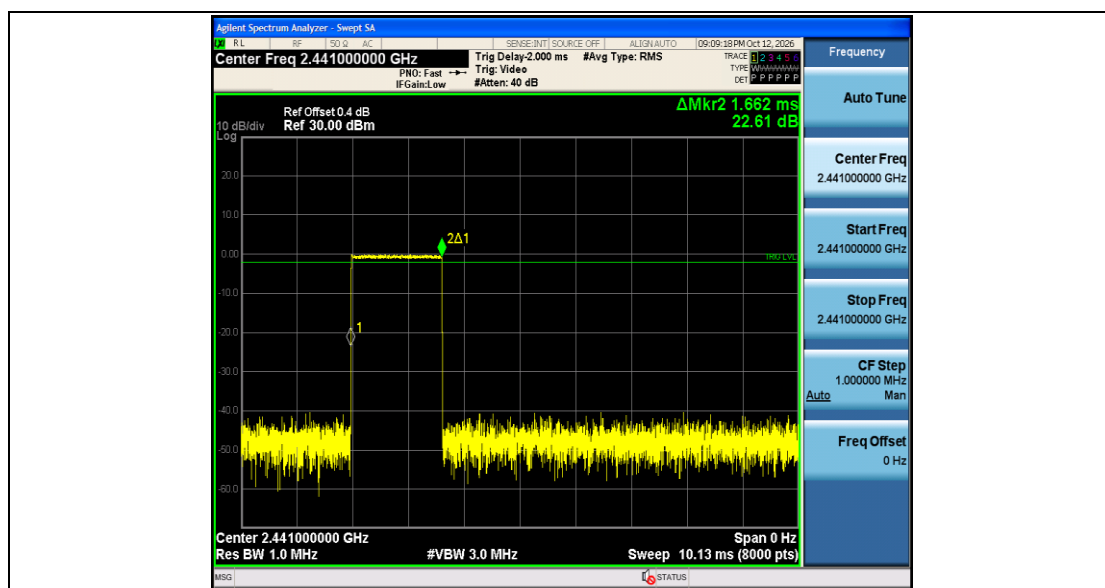
Appendix E: Time of occupancy

Test Result

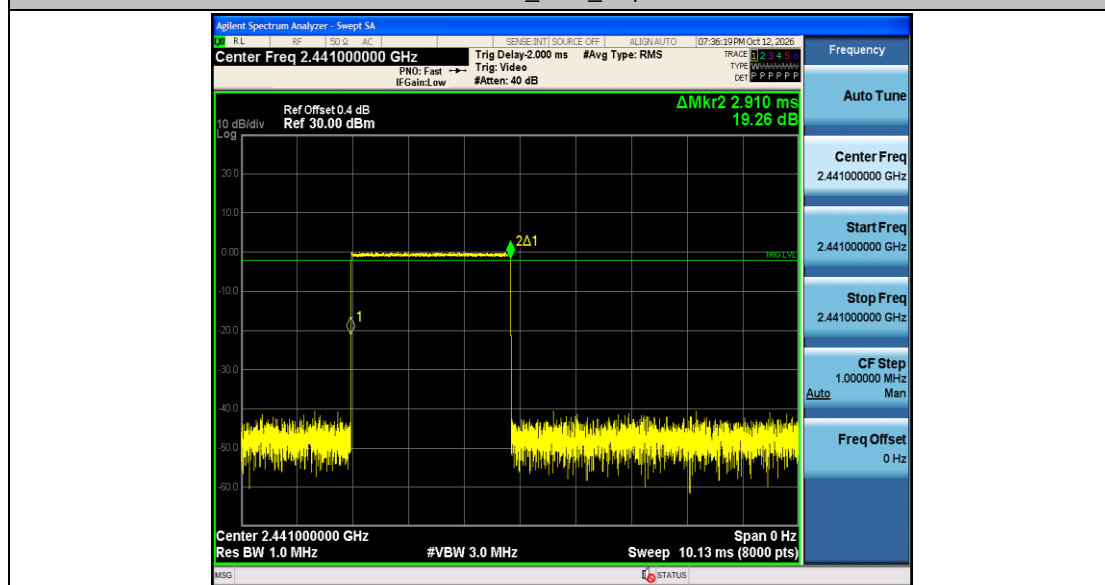
TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.405	317	0.128	≤0.4	PASS
DH3	Ant1	Hop	1.662	167	0.278	≤0.4	PASS
DH5	Ant1	Hop	2.910	110	0.32	≤0.4	PASS
2DH1	Ant1	Hop	0.415	320	0.133	≤0.4	PASS
2DH3	Ant1	Hop	1.667	165	0.275	≤0.4	PASS
2DH5	Ant1	Hop	2.915	102	0.297	≤0.4	PASS

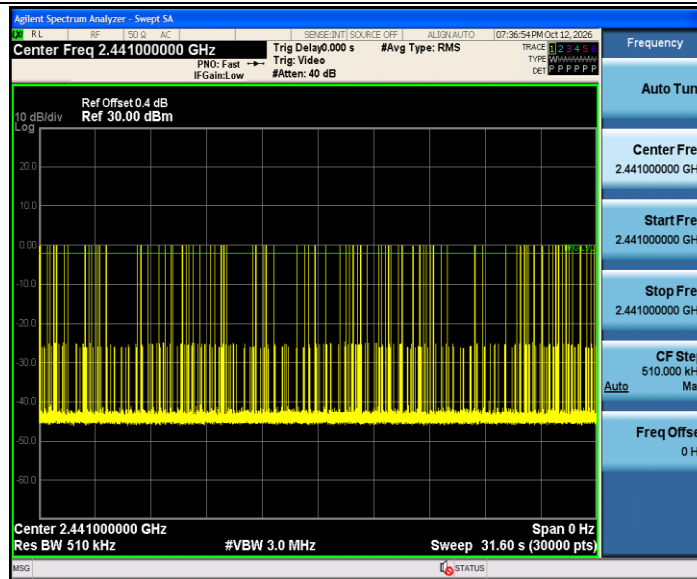
Test Graphs



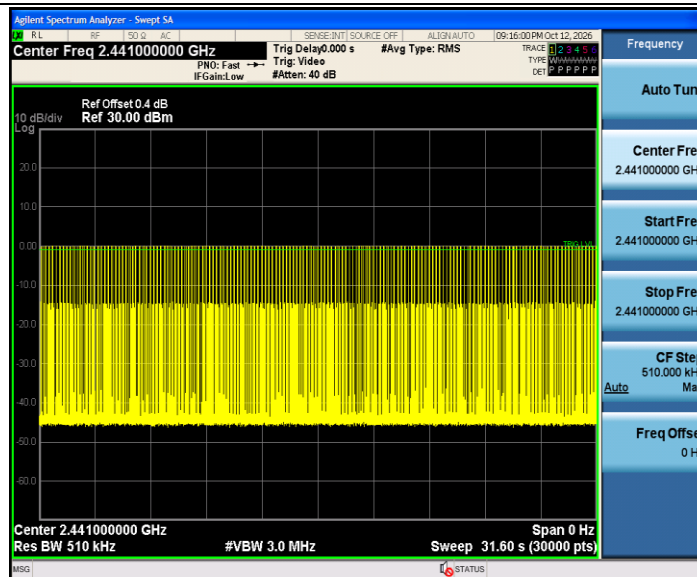
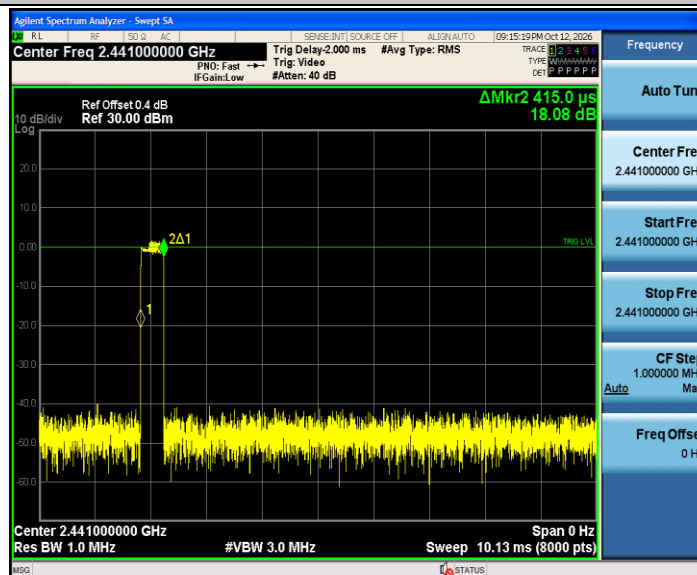


DH5_Ant1_Hop

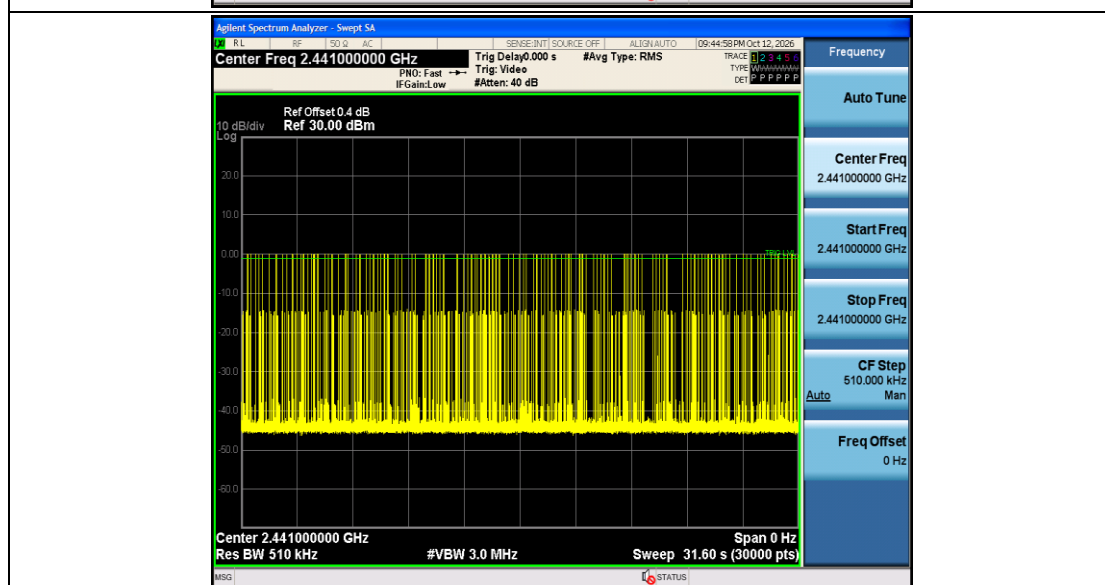
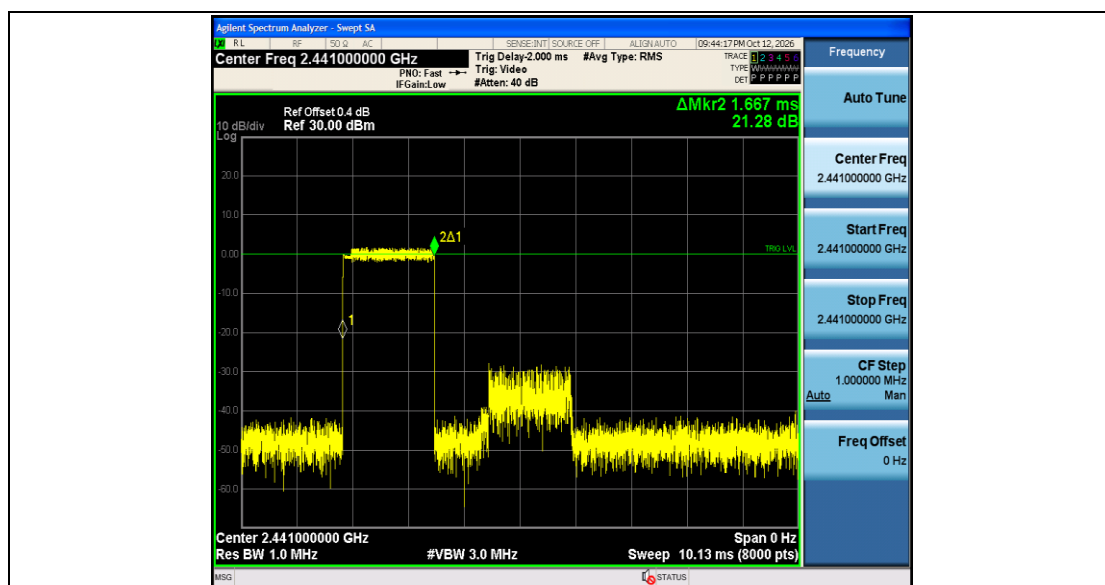




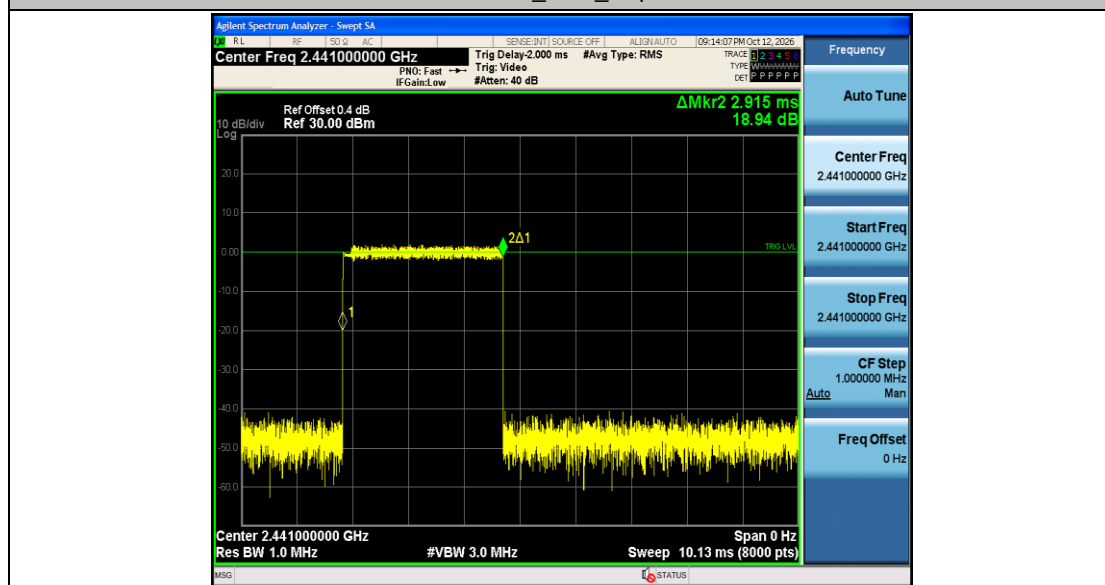
2DH1_Ant1_Hop

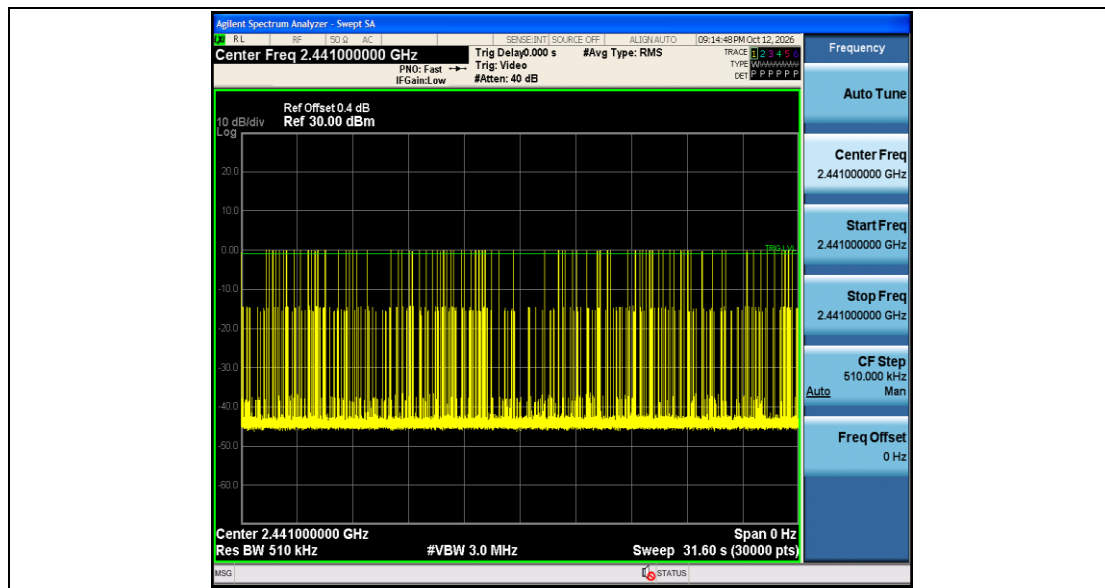


2DH3_Ant1_Hop



2DH5_Ant1_Hop



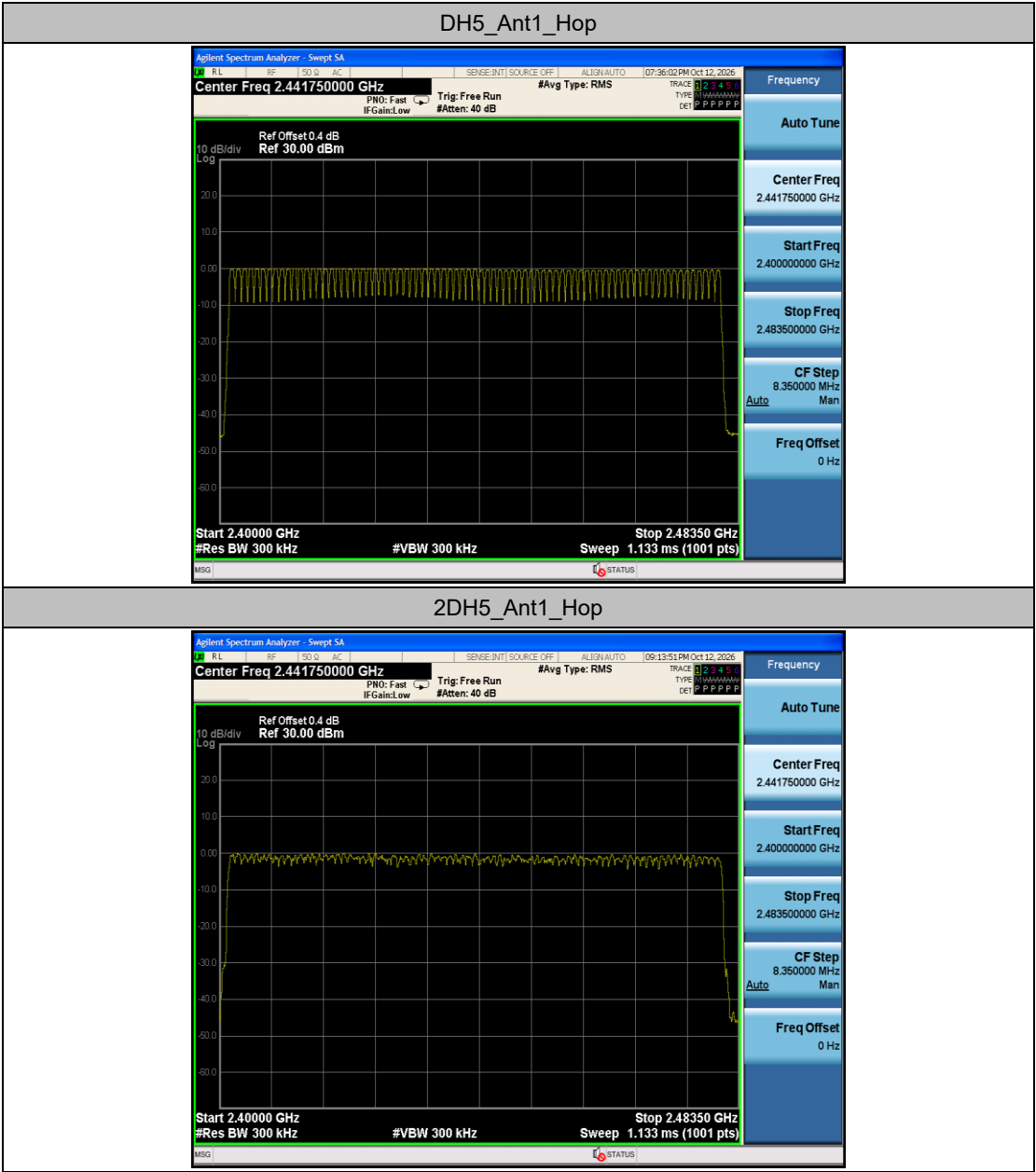


Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

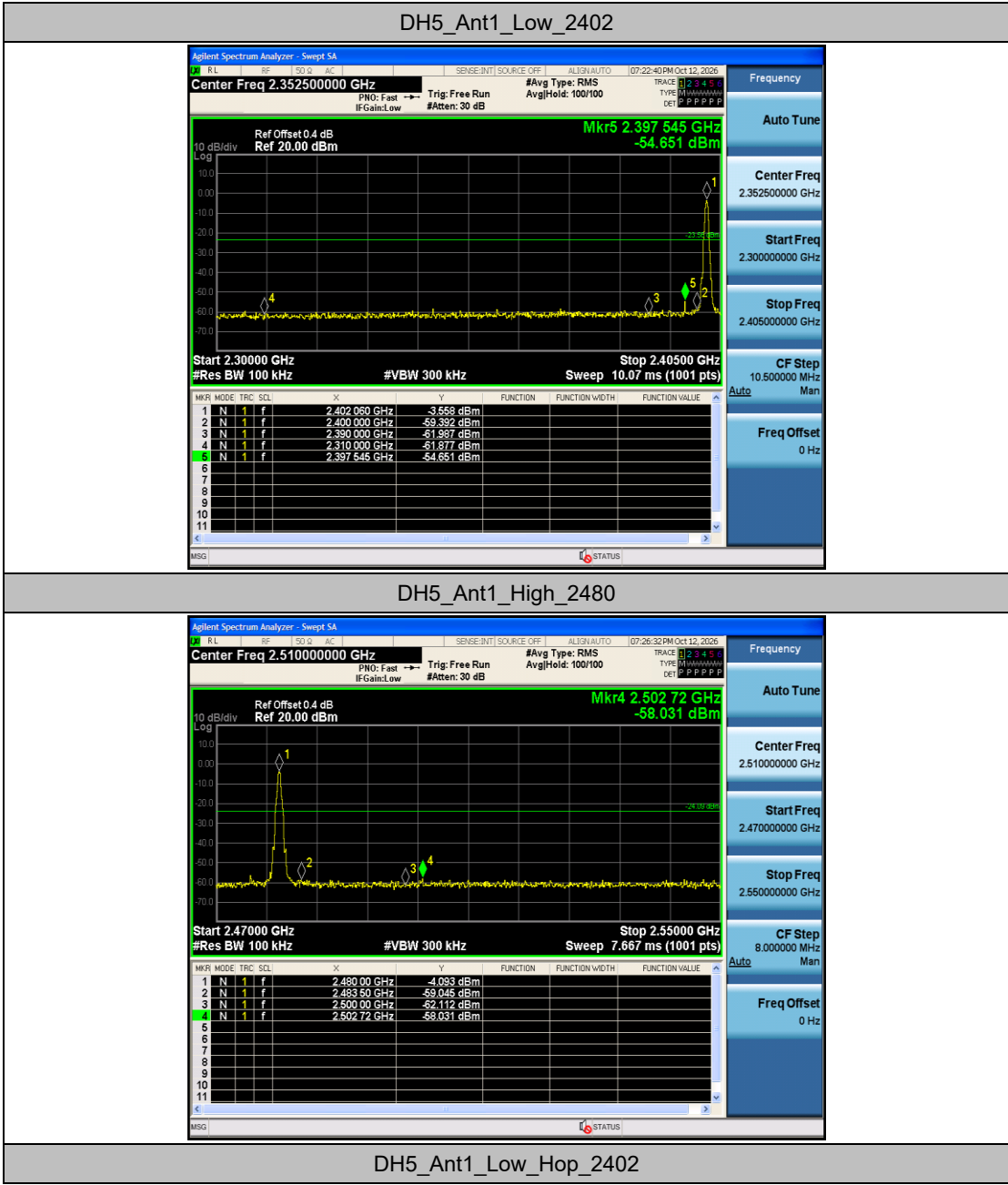


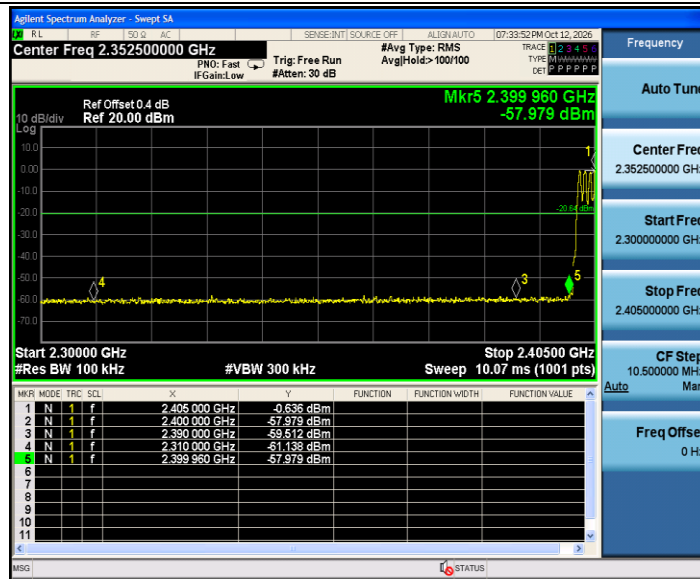
Appendix G: Band edge measurements

Test Result

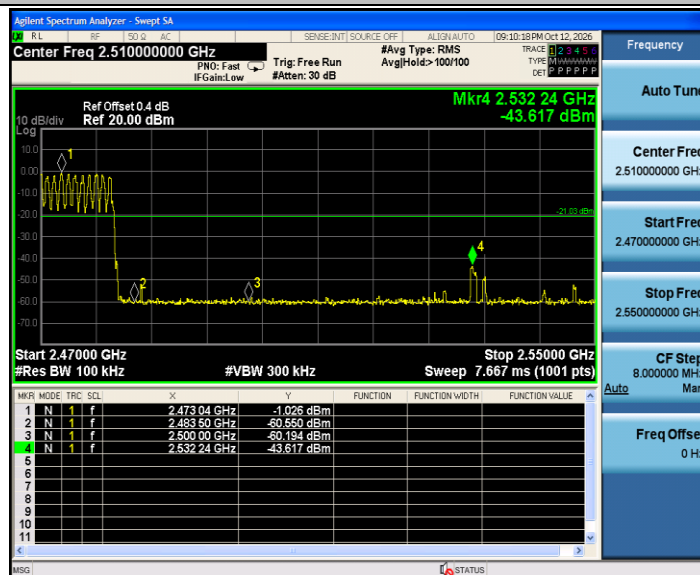
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.56	-54.65	≤-23.56	PASS
		High	2480	-4.09	-58.03	≤-24.09	PASS
		Low	Hop_2402	-0.64	-57.98	≤-20.64	PASS
		High	Hop_2480	-1.03	-43.62	≤-21.03	PASS
2DH5	Ant1	Low	2402	-4.76	-58.36	≤-24.76	PASS
		High	2480	-3.91	-58.17	≤-23.91	PASS
		Low	Hop_2402	-1.16	-50.4	≤-21.16	PASS
		High	Hop_2480	-1.26	-57.5	≤-21.26	PASS

Test Graphs

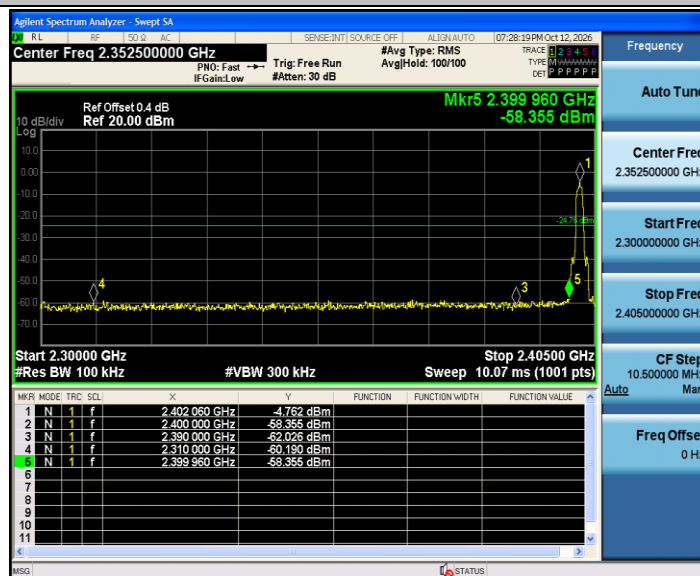




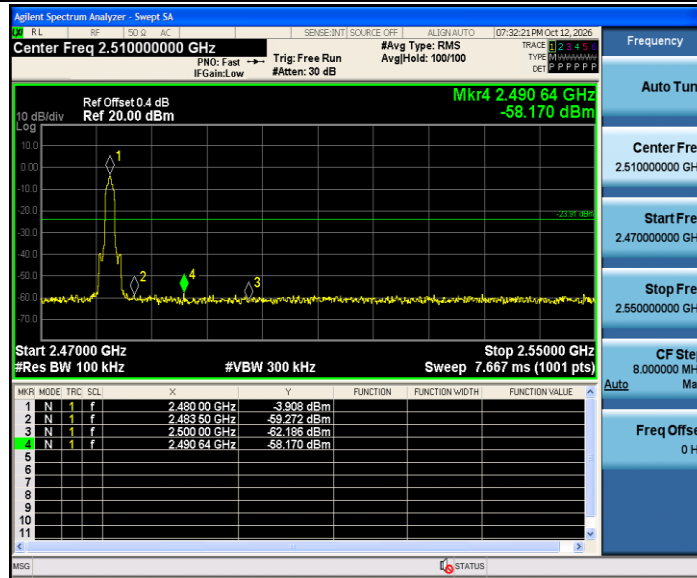
DH5_Ant1_High_Hop_2480



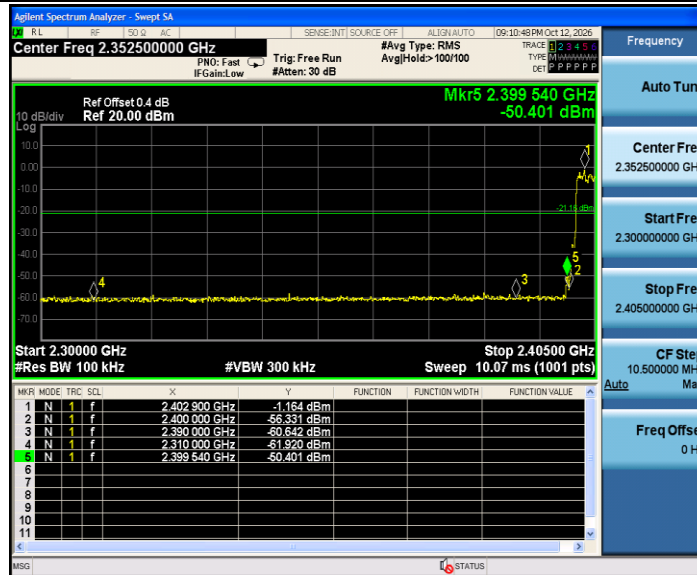
2DH5_Ant1_Low_2402



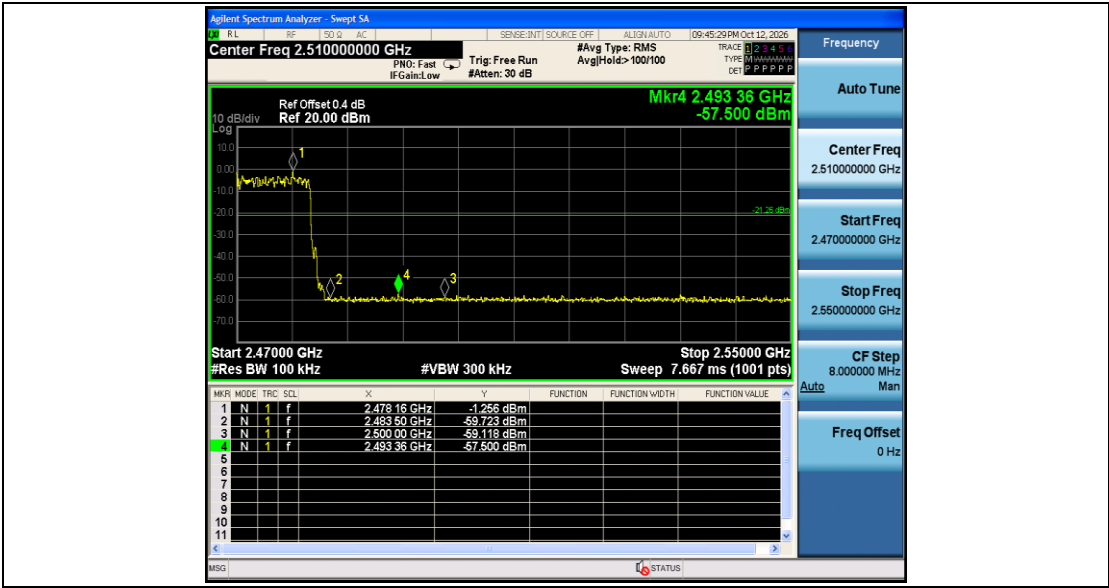
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

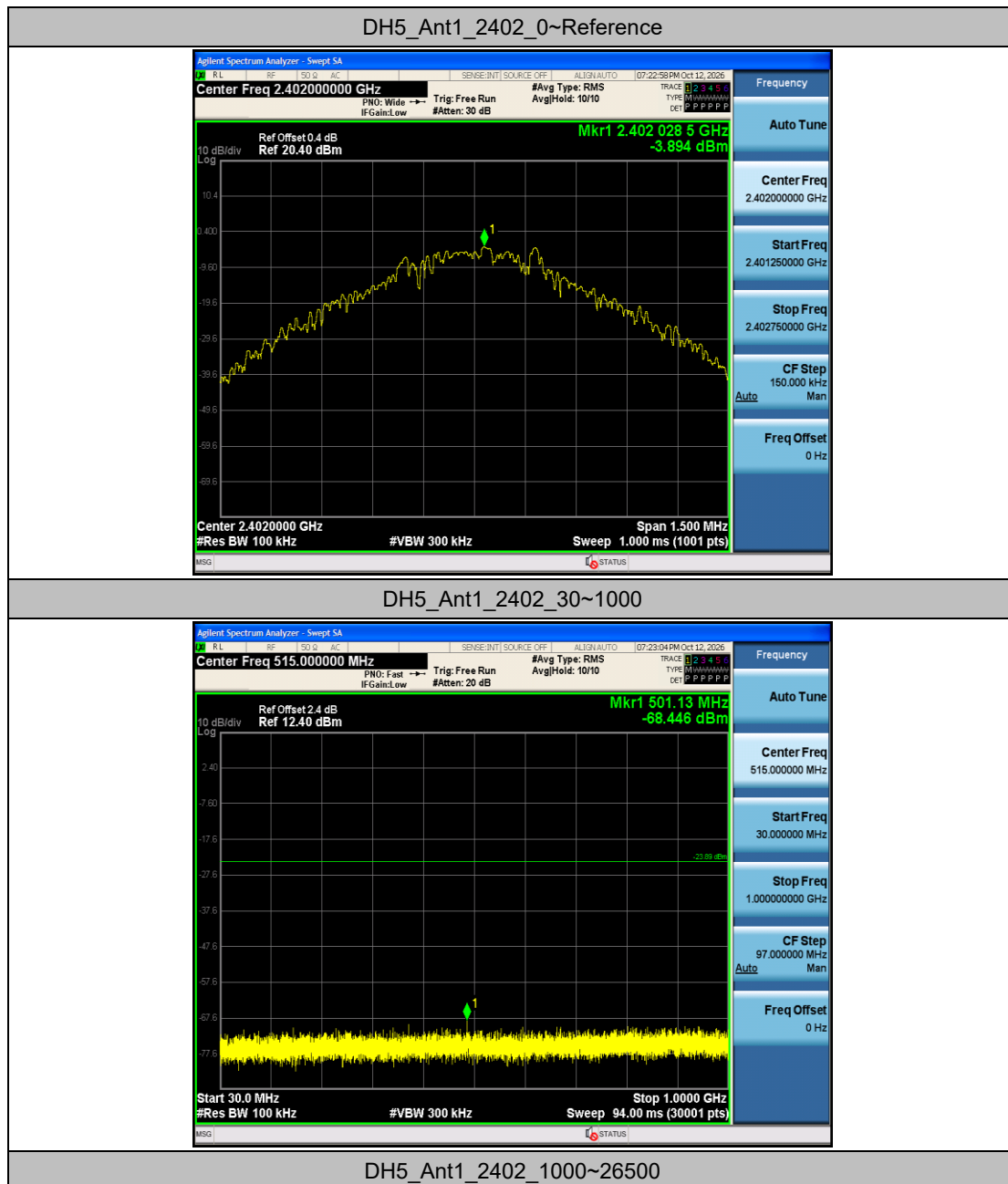


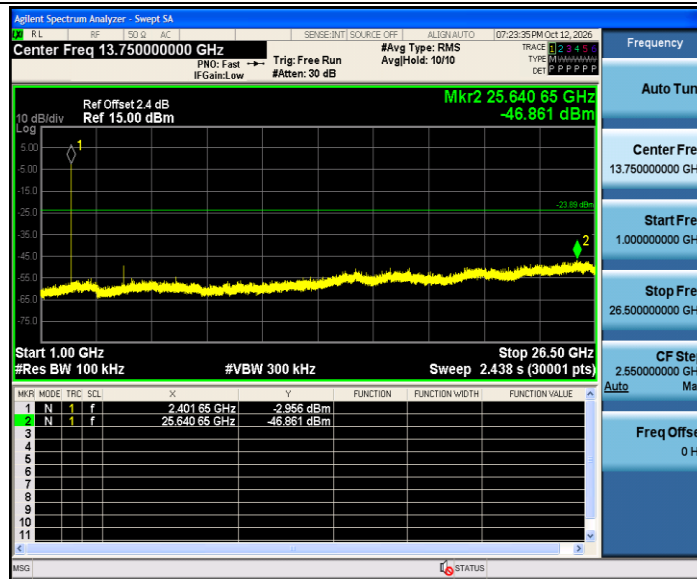
Appendix H: Conducted Spurious Emission

Test Result

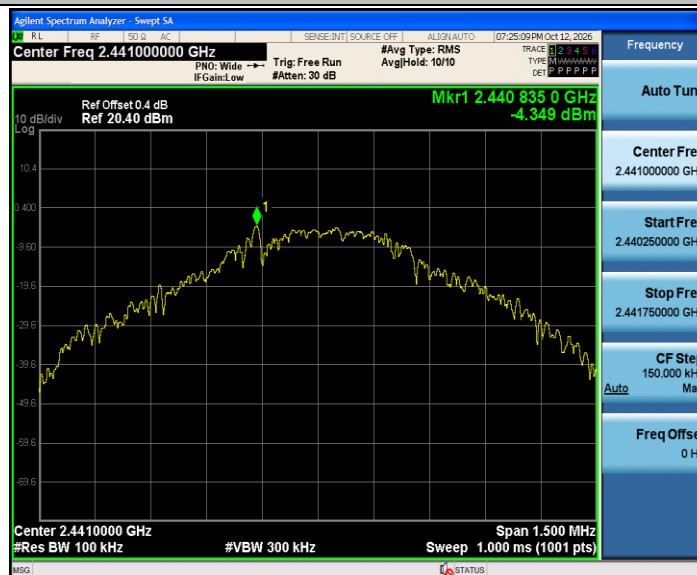
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-3.89	-3.89	---	PASS
			30~1000	-3.89	-68.45	≤-23.89	PASS
			1000~26500	-3.89	-46.86	≤-23.89	PASS
		2441	Reference	-4.35	-4.35	---	PASS
			30~1000	-4.35	-68.58	≤-24.35	PASS
			1000~26500	-4.35	-46.64	≤-24.35	PASS
		2480	Reference	-4.86	-4.86	---	PASS
			30~1000	-4.86	-68.91	≤-24.86	PASS
			1000~26500	-4.86	-46.99	≤-24.86	PASS
2DH5	Ant1	2402	Reference	-5.41	-5.41	---	PASS
			30~1000	-5.41	-68.5	≤-25.41	PASS
			1000~26500	-5.41	-46.05	≤-25.41	PASS
		2441	Reference	-4.91	-4.91	---	PASS
			30~1000	-4.91	-63.58	≤-24.91	PASS
			1000~26500	-4.91	-46.12	≤-24.91	PASS
		2480	Reference	-7.50	-7.50	---	PASS
			30~1000	-7.50	-65	≤-27.5	PASS
			1000~26500	-7.50	-46.94	≤-27.5	PASS

Test Graphs

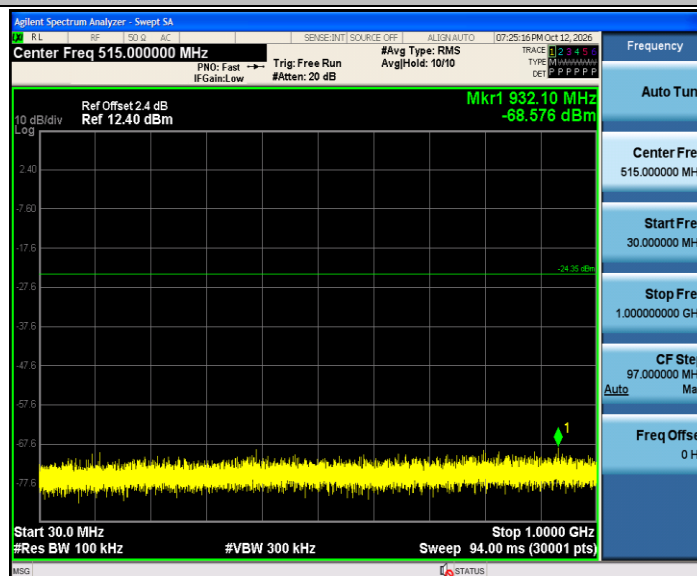




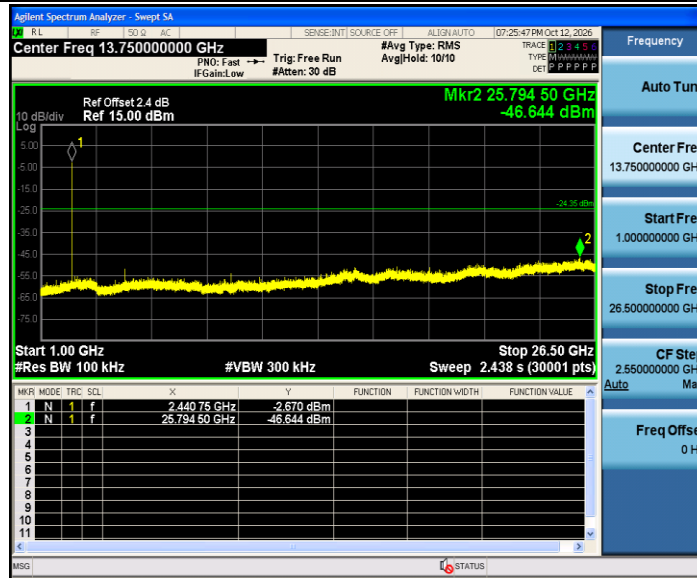
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



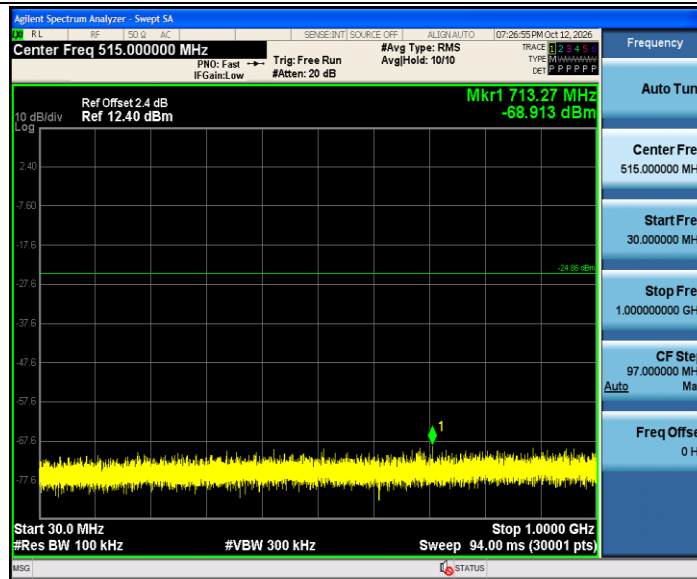
DH5_Ant1_2441_1000~26500



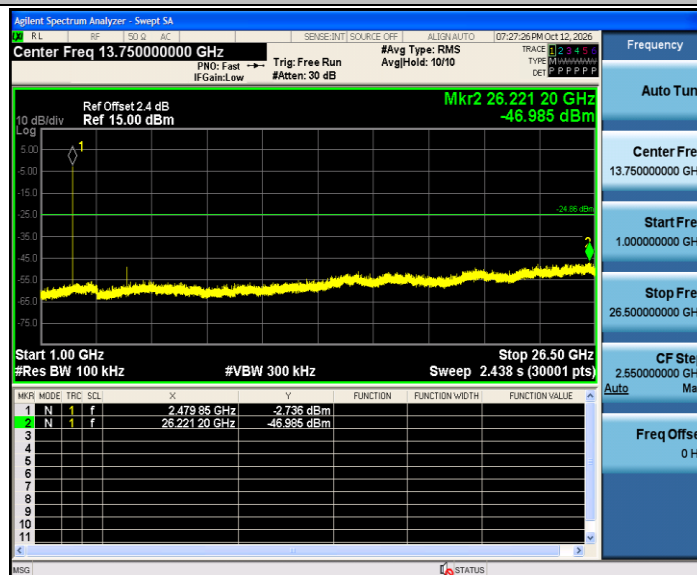
DH5_Ant1_2480_0~Reference



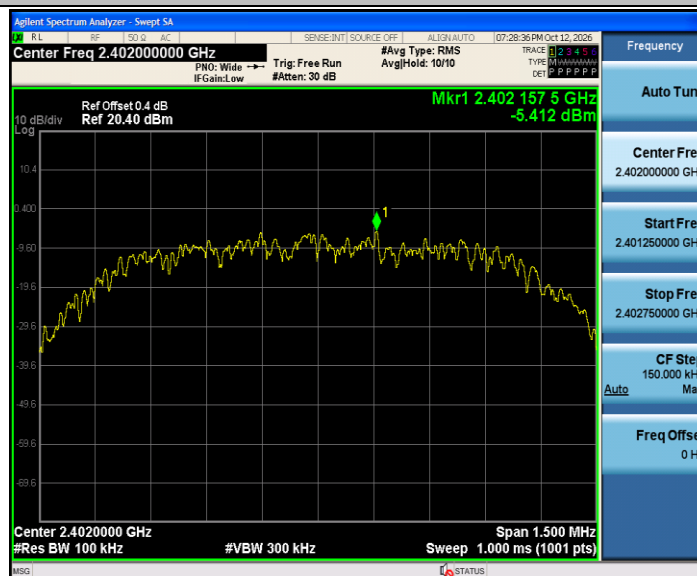
DH5_Ant1_2480_30~1000



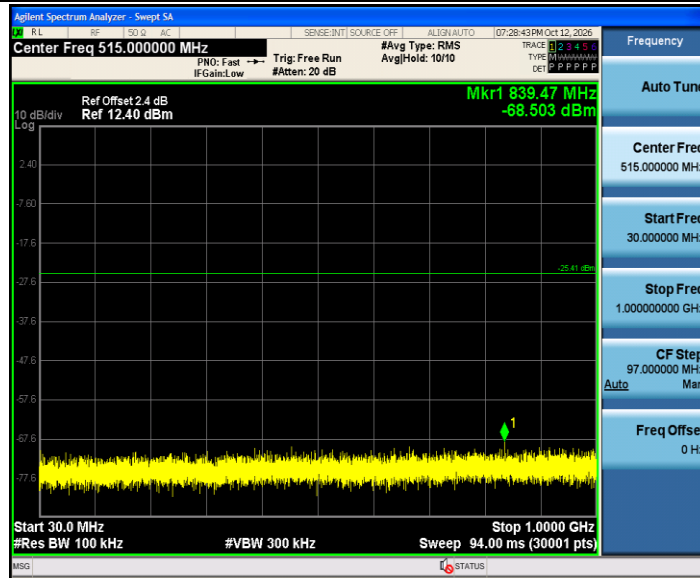
DH5_Ant1_2480_1000~26500



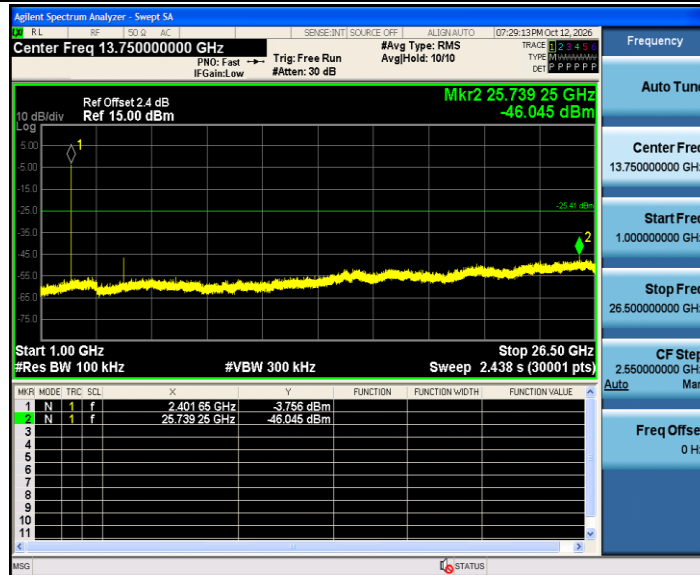
2DH5_Ant1_2402_0~Reference



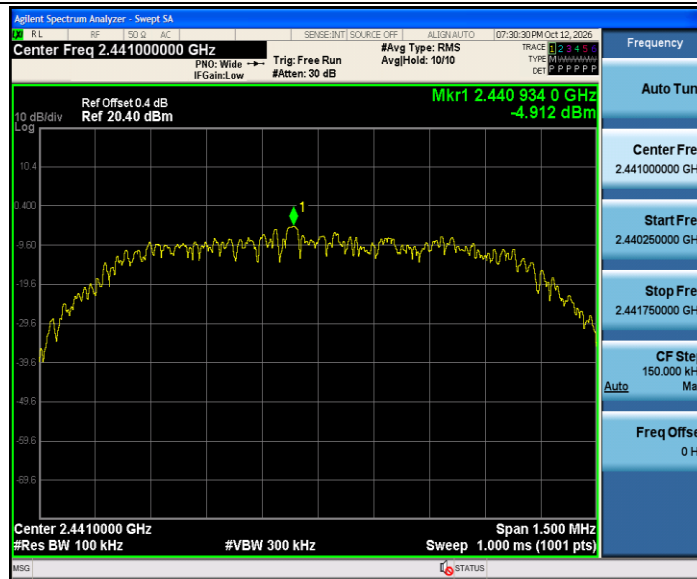
2DH5_Ant1_2402_30~1000



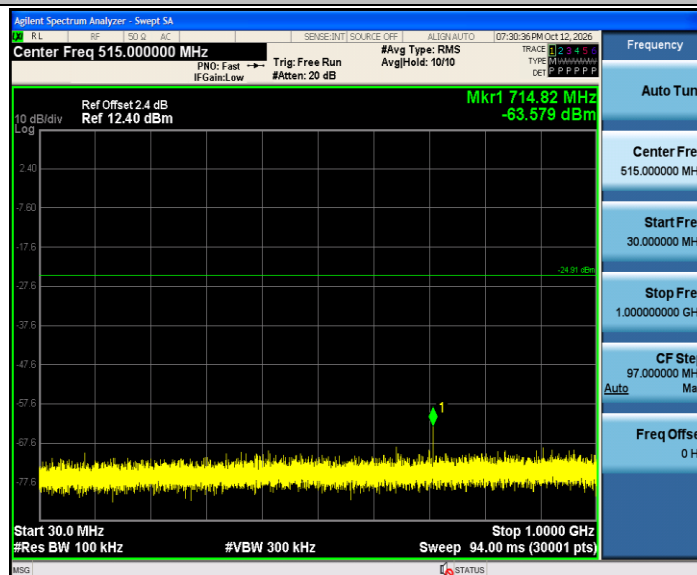
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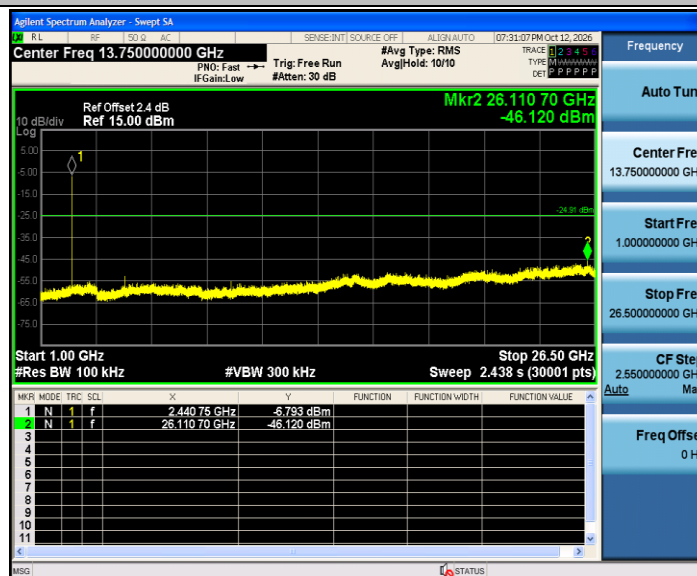
2DH5_Ant1_2441_0~Reference



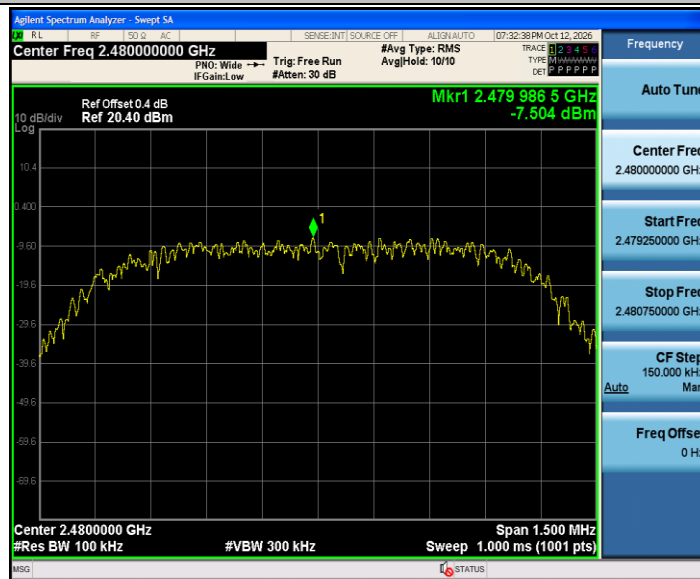
2DH5_Ant1_2441_30~1000



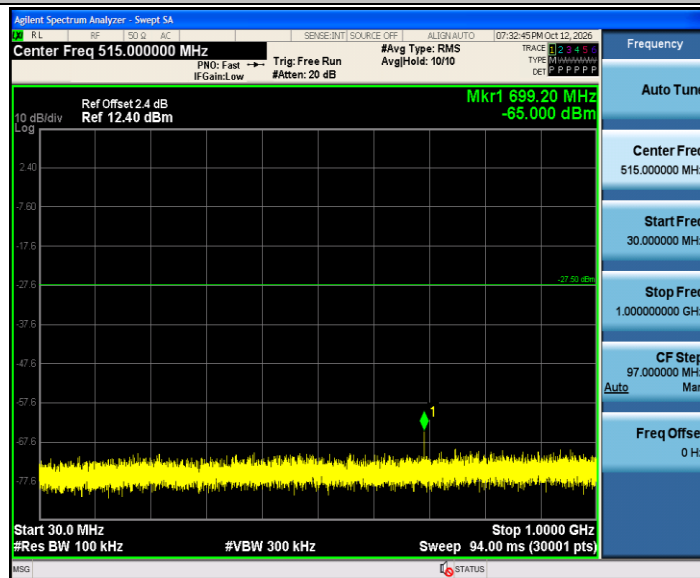
2DH5_Ant1_2441_1000~26500



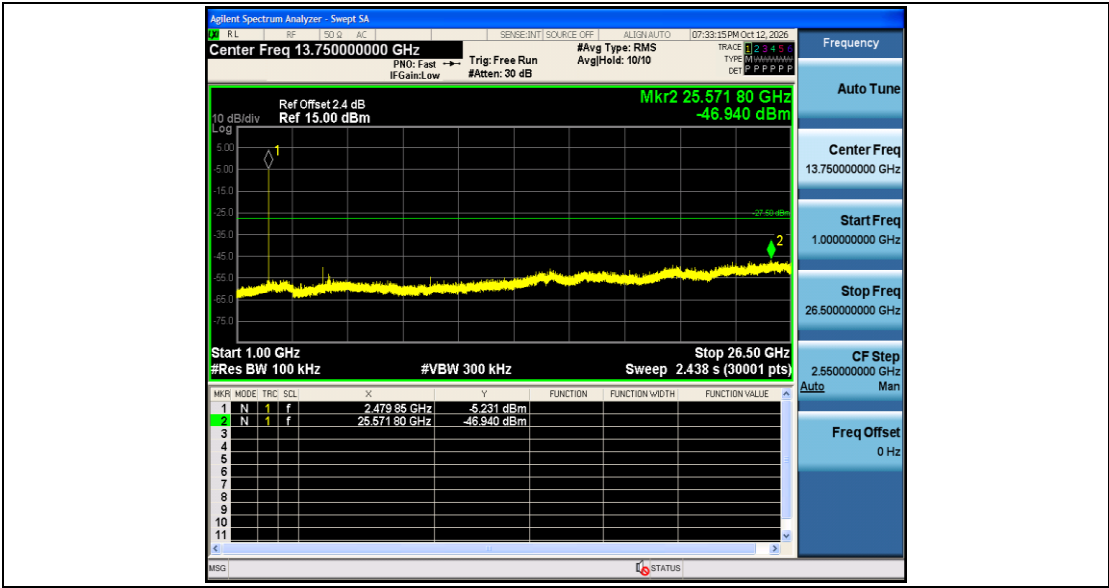
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



Appendix I: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.92	3.76	77.66	1.10	---	---
		2441	2.91	3.75	77.60	1.10	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.92	3.74	78.07	1.08	---	---
		2441	2.92	3.75	77.87	1.09	---	---
		2480	2.92	3.75	77.87	1.09	---	---