Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Autom8

Trade Mark: /

Test Model: Autom8-100

FCC ID: 2BLC3-AUTOM8100

Environmental Conditions

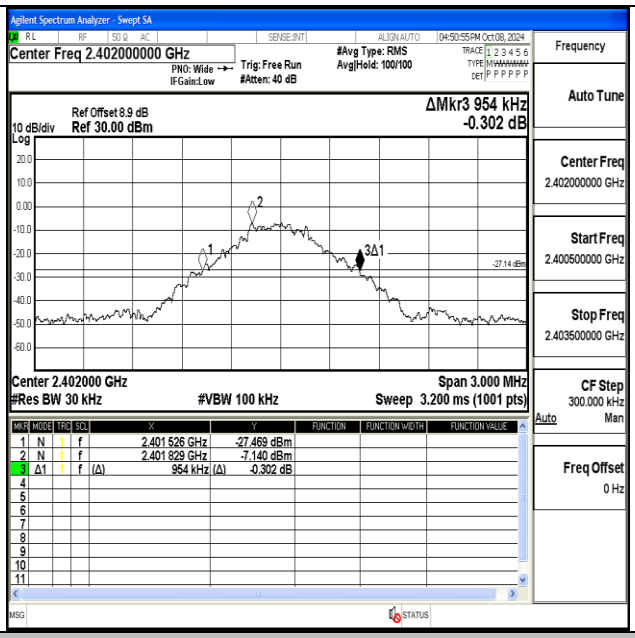
Temperature:	23.8℃
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: 20dB Emission Bandwidth

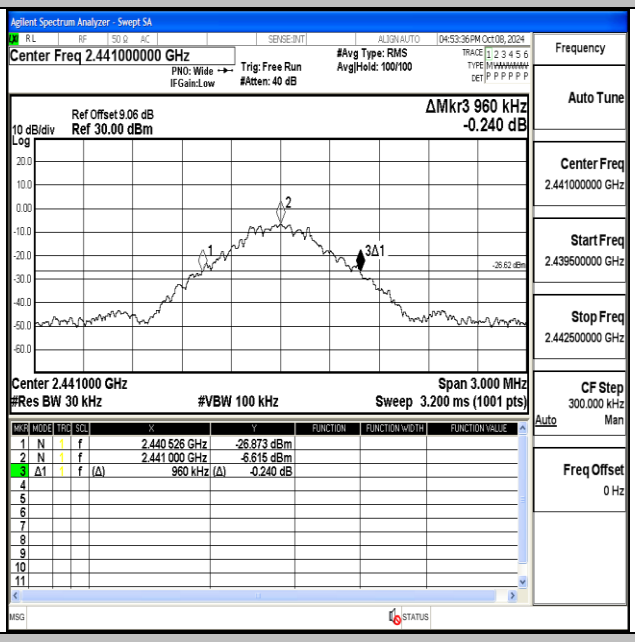
Test Result

Test Mode	Antenna	Frequency [MHz]	20db EBW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.954	2401.526	2402.480	---	---
DH5	Ant1	2441	0.960	2440.526	2441.486	---	---
DH5	Ant1	2480	0.960	2479.523	2480.483	---	---
2DH5	Ant1	2402	1.293	2401.355	2402.648	---	---
2DH5	Ant1	2441	1.314	2440.334	2441.648	---	---
2DH5	Ant1	2480	1.347	2479.316	2480.663	---	---
3DH5	Ant1	2402	1.296	2401.337	2402.633	---	---
3DH5	Ant1	2441	1.311	2440.337	2441.648	---	---
3DH5	Ant1	2480	1.317	2479.337	2480.654	---	---

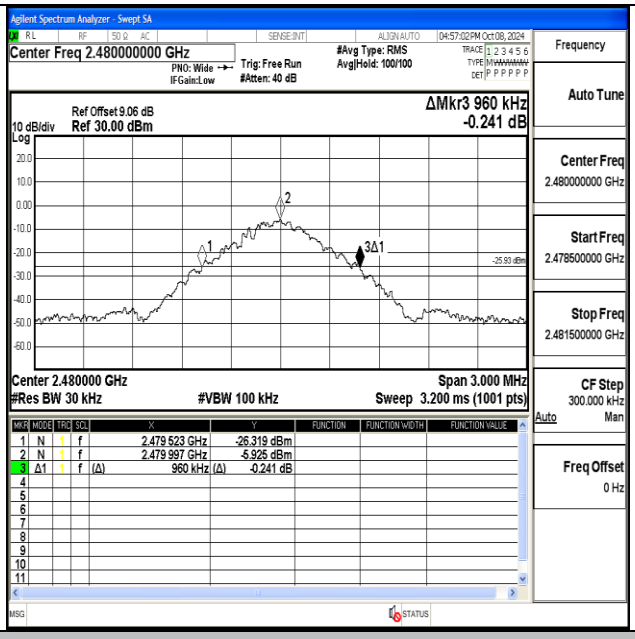
Test Graphs



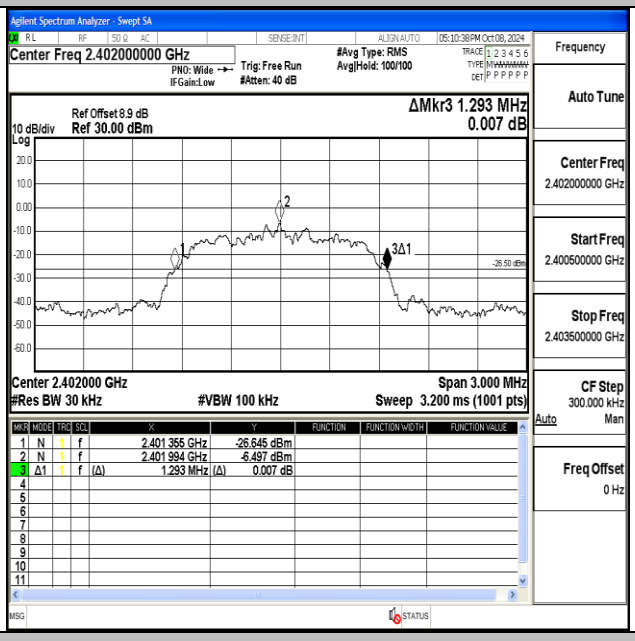
DH5-Ant1-2402



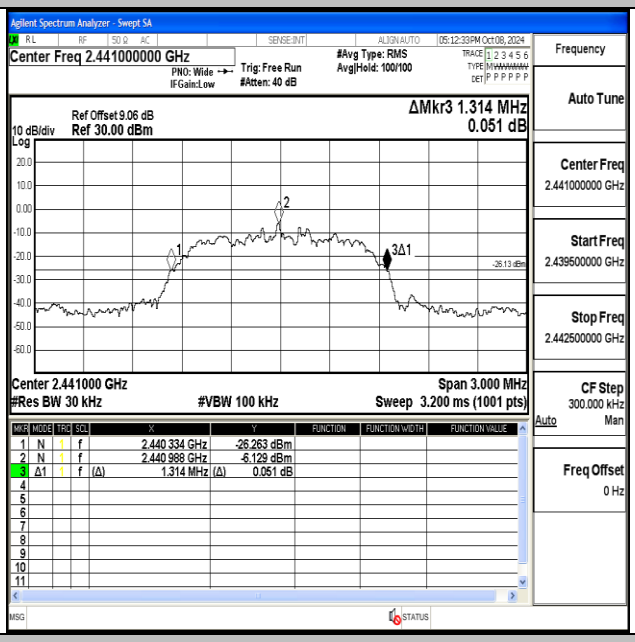
DH5-Ant1-2441



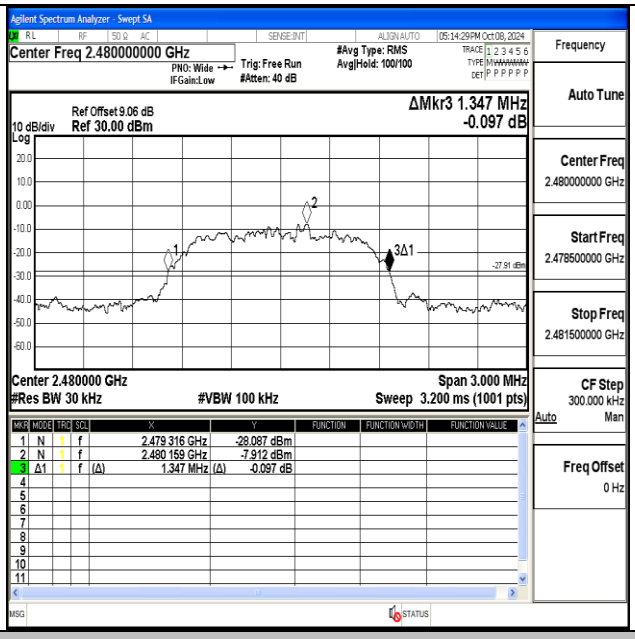
DH5-Ant1-2480



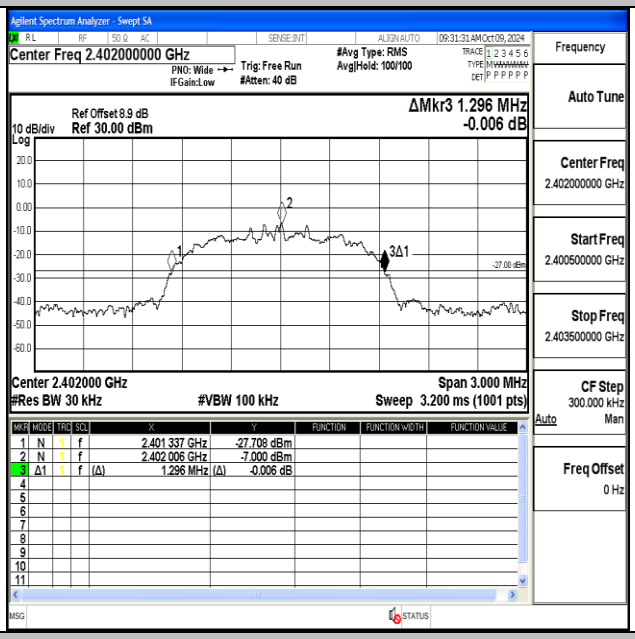
2DH5-Ant1-2402



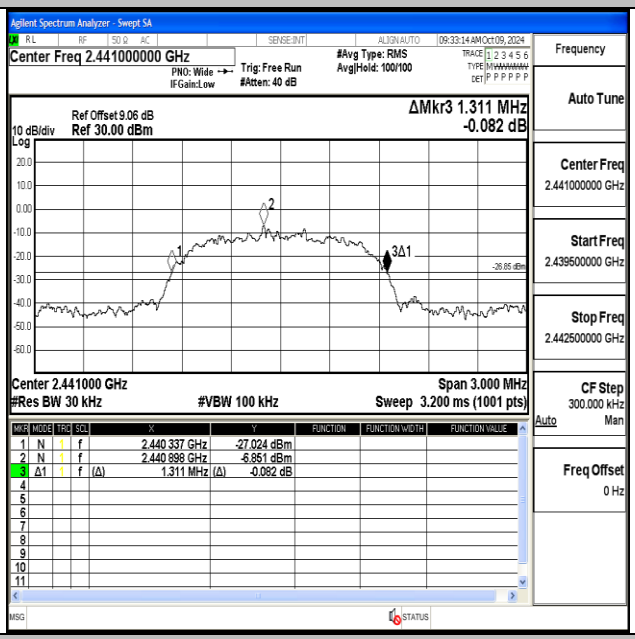
2DH5-Ant1-2441



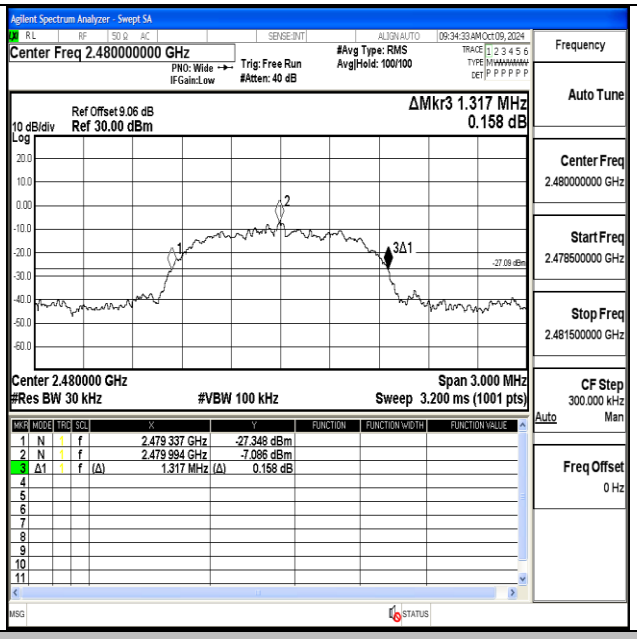
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



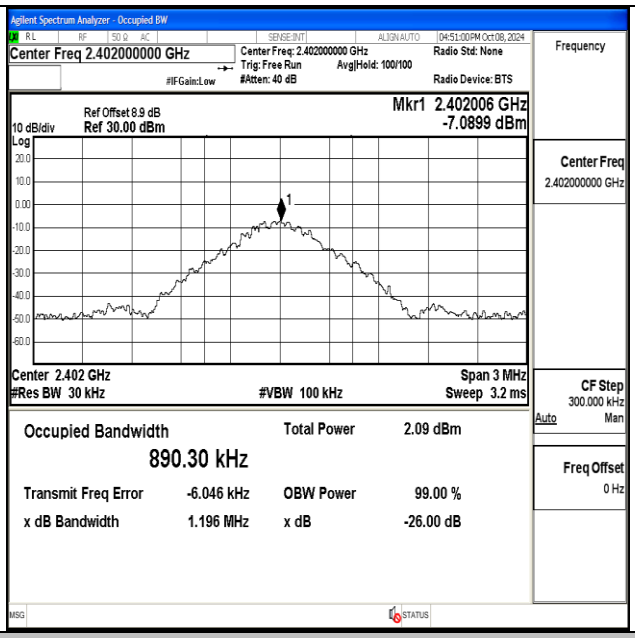
3DH5-Ant1-2480

Appendix B: Occupied Channel Bandwidth

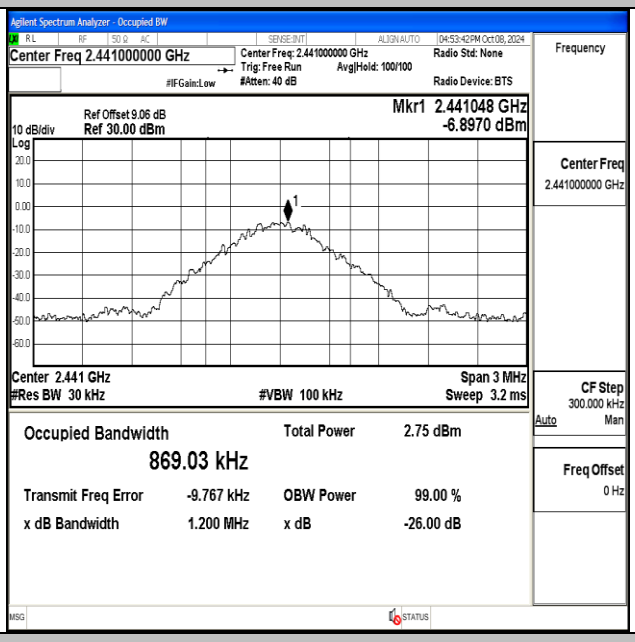
Test Result

Test Mode	Antenna	Frequency [MHz]	OCB [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
DH5	Ant1	2402	0.89030	2401.5488	2402.4391	---	---
DH5	Ant1	2441	0.86903	2440.5557	2441.4247	---	---
DH5	Ant1	2480	0.86989	2479.5585	2480.4284	---	---
2DH5	Ant1	2402	1.2041	2401.3909	2402.5950	---	---
2DH5	Ant1	2441	1.1901	2440.3950	2441.5851	---	---
2DH5	Ant1	2480	1.2012	2479.3925	2480.5937	---	---
3DH5	Ant1	2402	1.1923	2401.3959	2402.5882	---	---
3DH5	Ant1	2441	1.1872	2440.3998	2441.5870	---	---
3DH5	Ant1	2480	1.1996	2479.3918	2480.5914	---	---

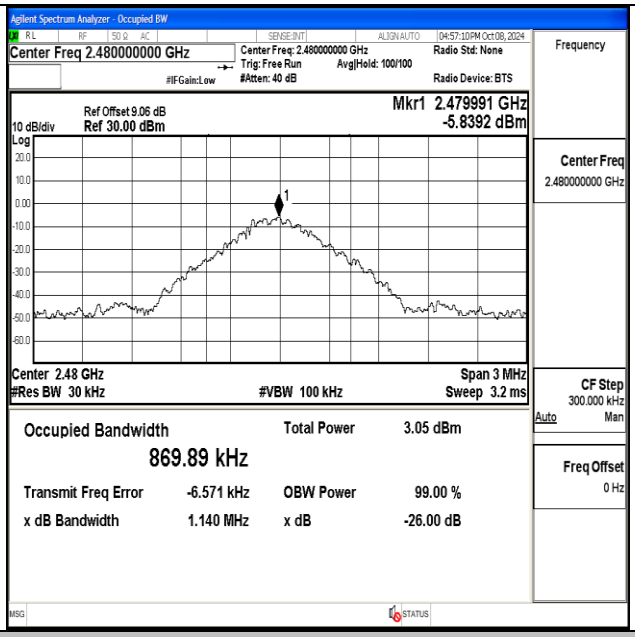
Test Graphs



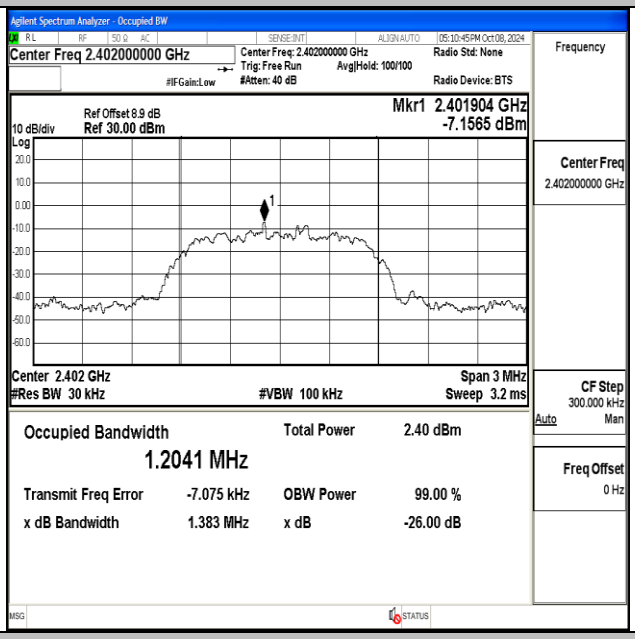
DH5-Ant1-2402



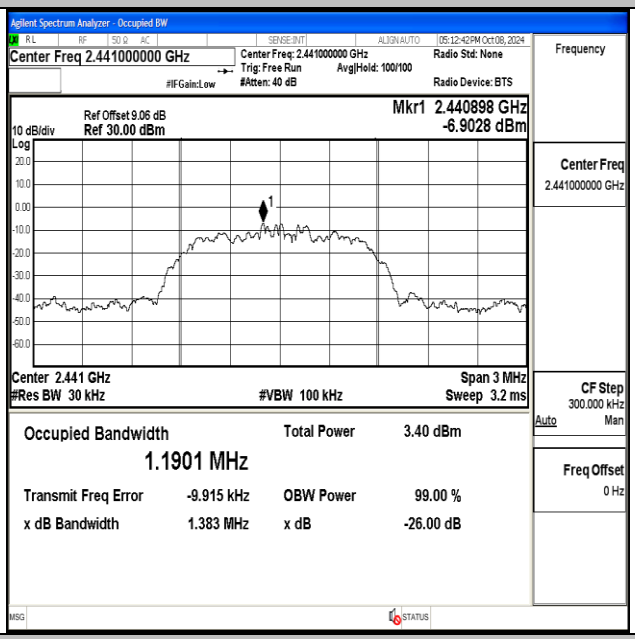
DH5-Ant1-2441



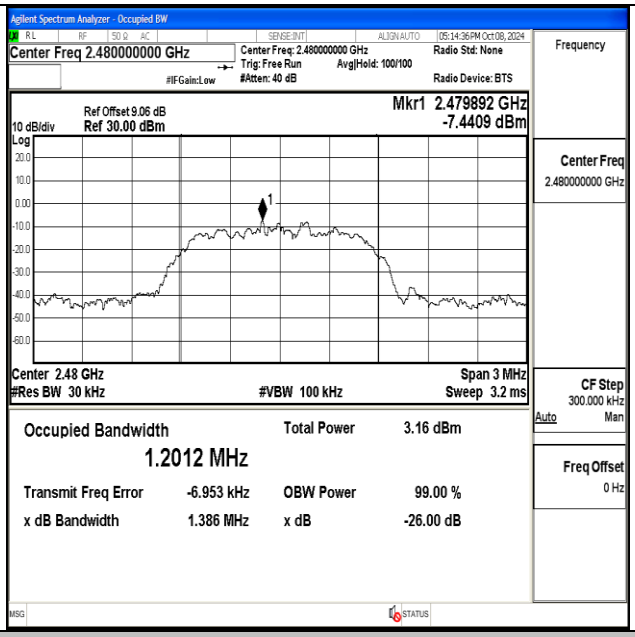
DH5-Ant1-2480



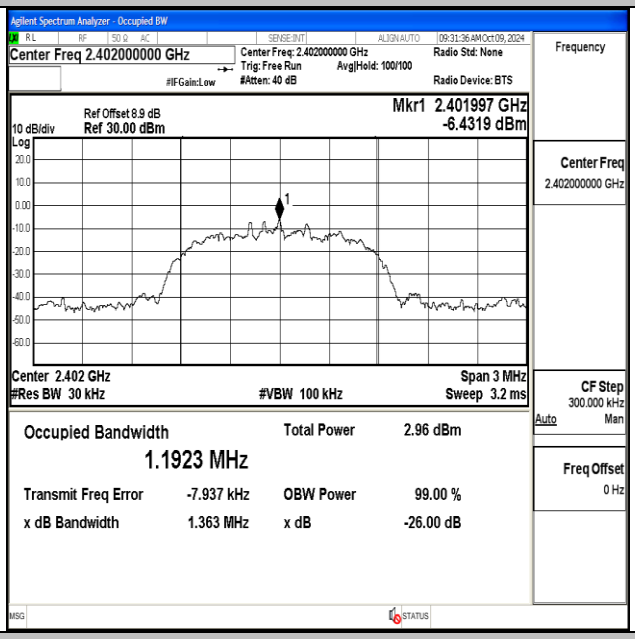
2DH5-Ant1-2402



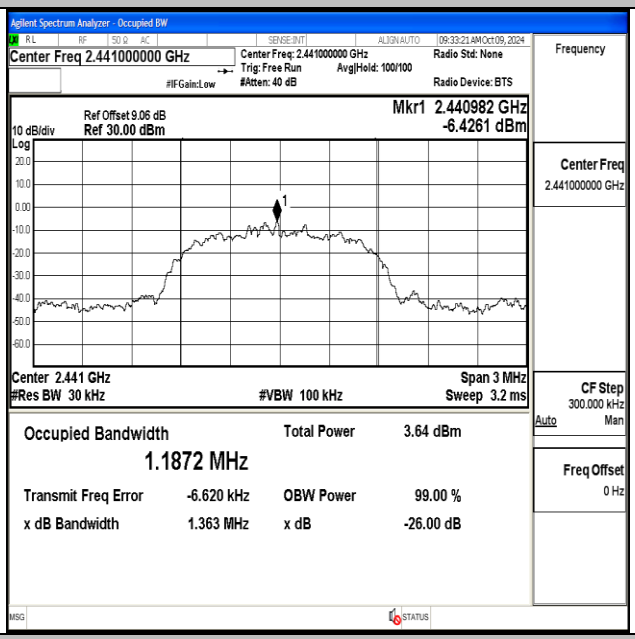
2DH5-Ant1-2441



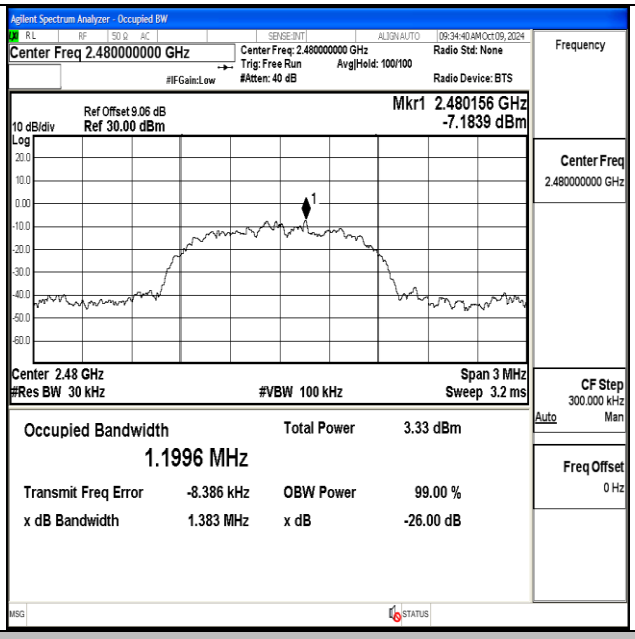
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441



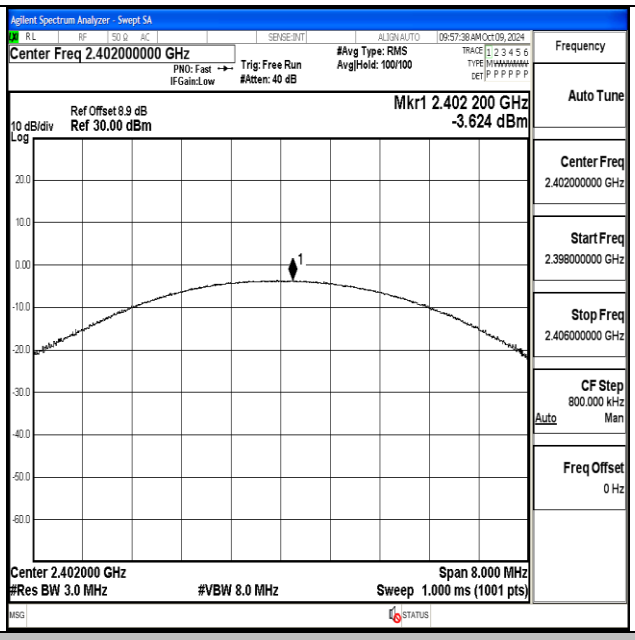
3DH5-Ant1-2480

Appendix C: Maximum peak conducted output power

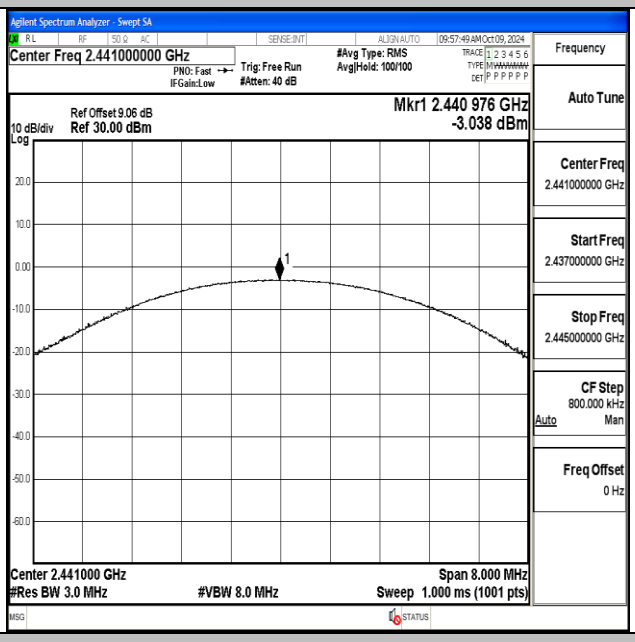
Test Result

Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Conducted Limit [dBm]	Verdict
DH5	Ant1	2402	-3.62	≤30	PASS
DH5	Ant1	2441	-3.04	≤30	PASS
DH5	Ant1	2480	-3.02	≤30	PASS
2DH5	Ant1	2402	-1.19	≤20.97	PASS
2DH5	Ant1	2441	-0.40	≤20.97	PASS
2DH5	Ant1	2480	-0.35	≤20.97	PASS
3DH5	Ant1	2402	-0.39	≤20.97	PASS
3DH5	Ant1	2441	0.10	≤20.97	PASS
3DH5	Ant1	2480	0.10	≤20.97	PASS

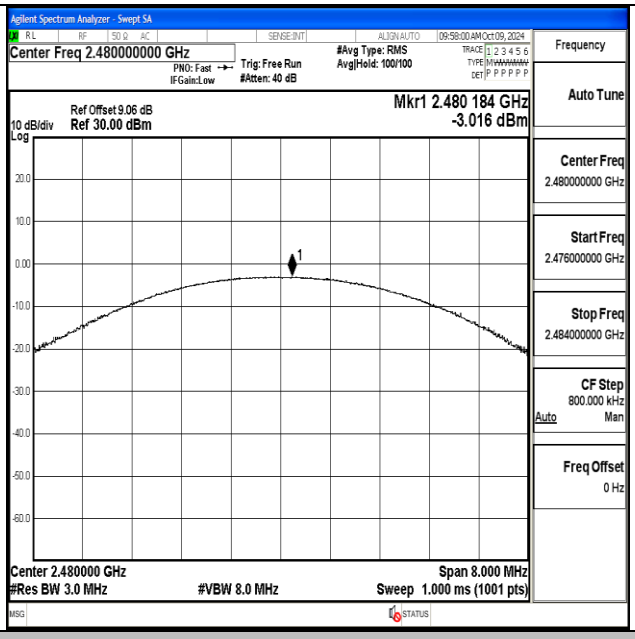
Test Graphs



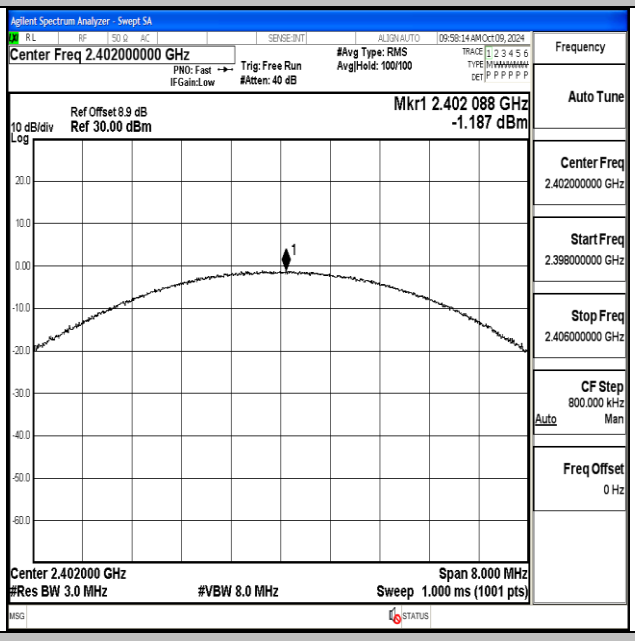
DH5-Ant1-2402-PASS



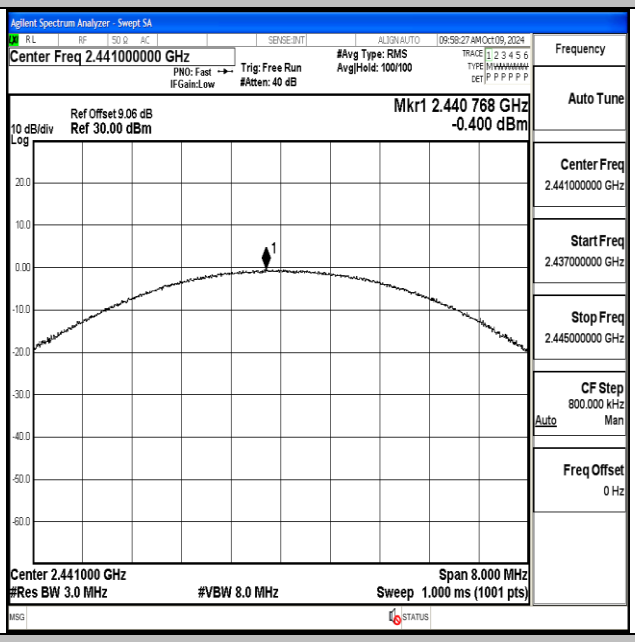
DH5-Ant1-2441-PASS



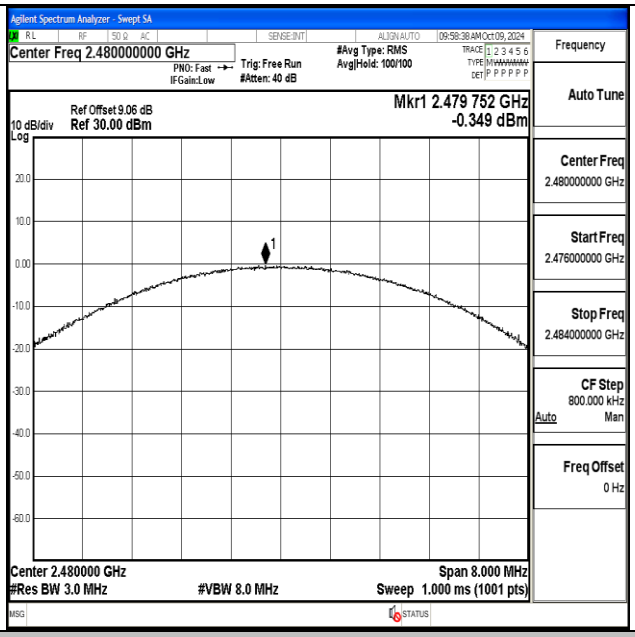
DH5-Ant1-2480-PASS



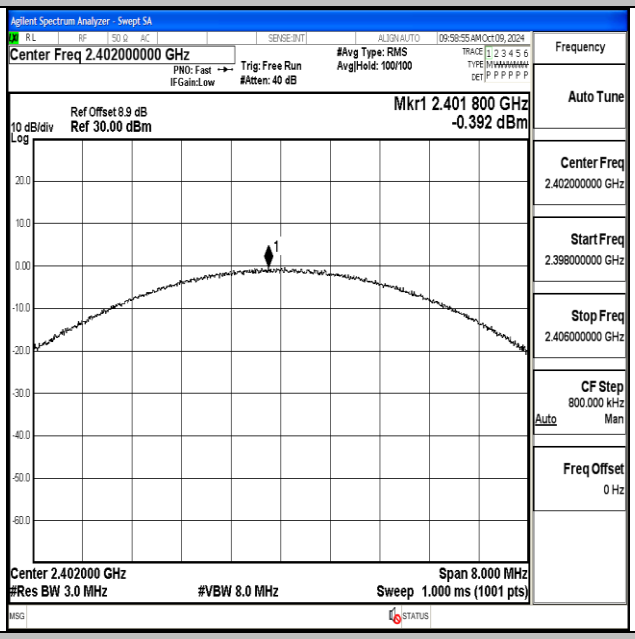
2DH5-Ant1-2402-PASS



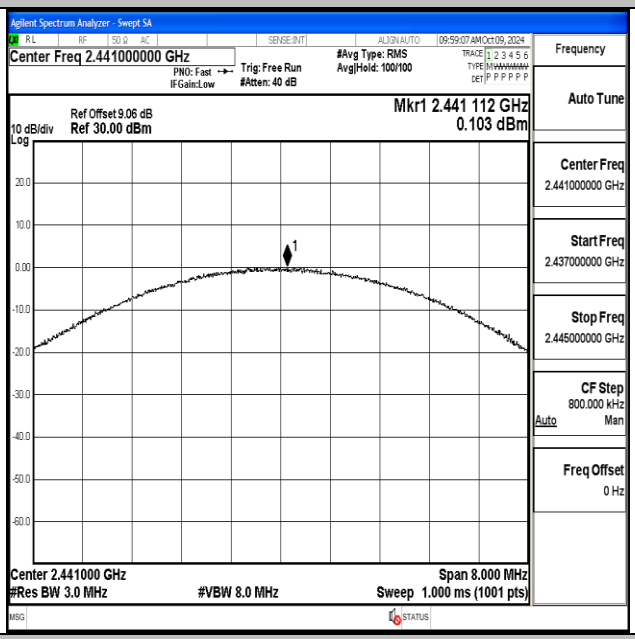
2DH5-Ant1-2441-PASS



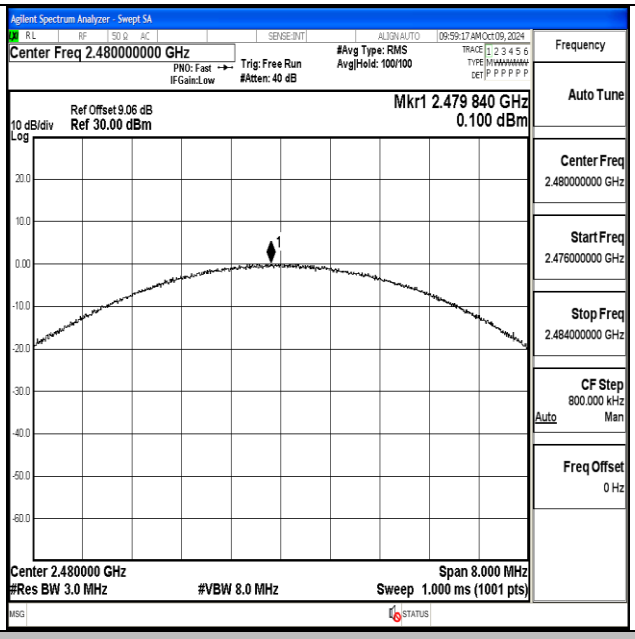
2DH5-Ant1-2480-PASS



3DH5-Ant1-2402-PASS



3DH5-Ant1-2441-PASS



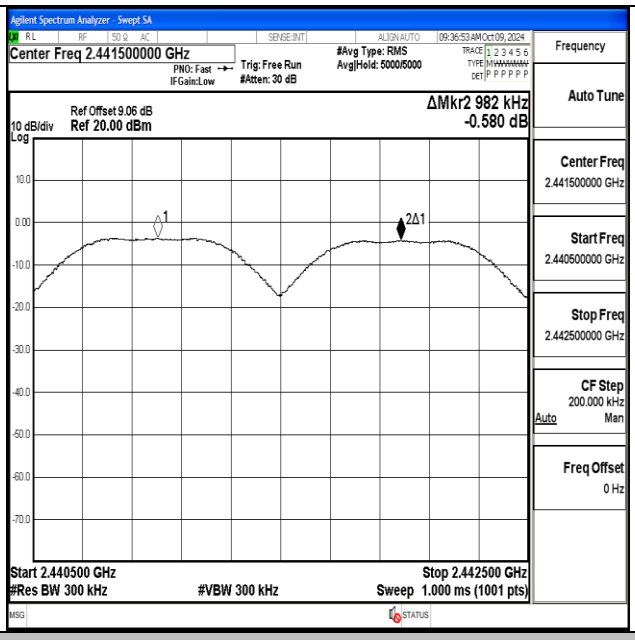
3DH5-Ant1-2480-PASS

Appendix D: Carrier frequency separation

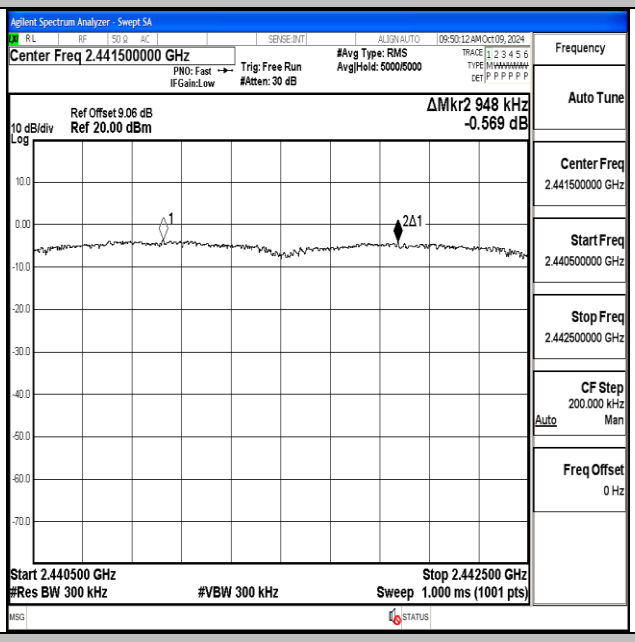
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	0.982	≥0.960	PASS
2DH5	Ant1	Hop	0.948	≥0.898	PASS
3DH5	Ant1	Hop	0.972	≥0.878	PASS

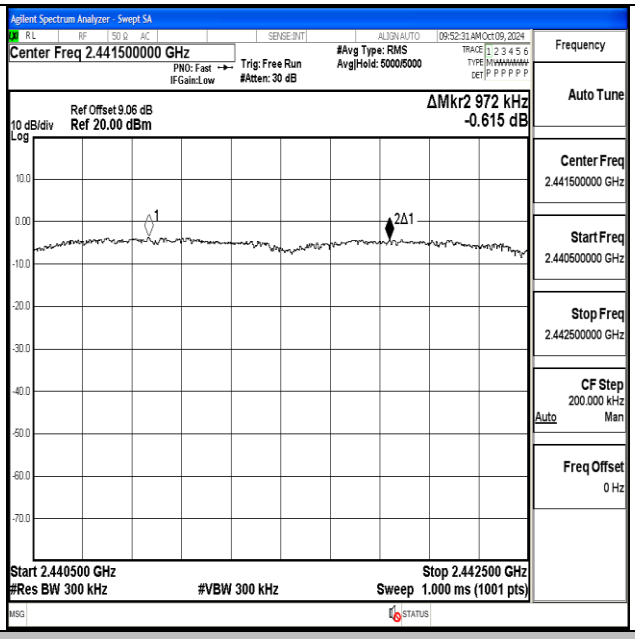
Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS



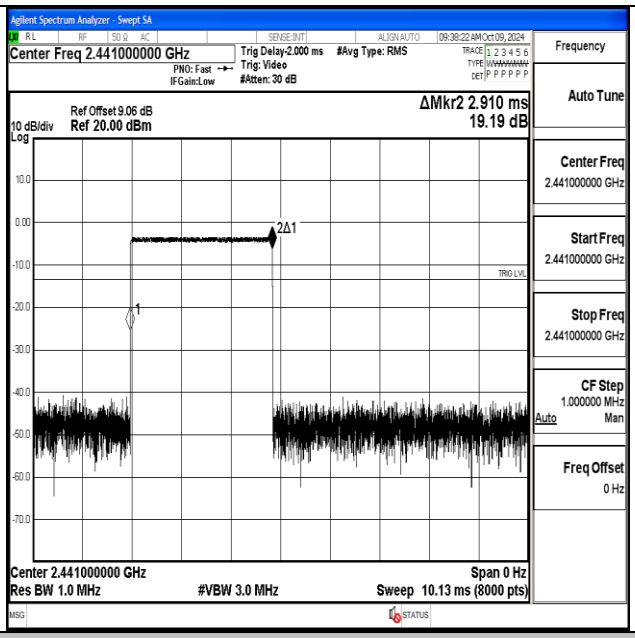
3DH5-Ant1-Hop-PASS

Appendix E: Time of occupancy

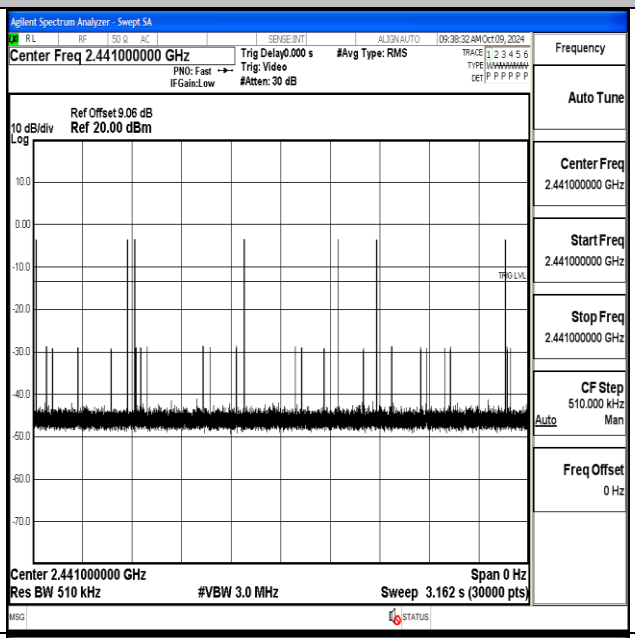
Test Result

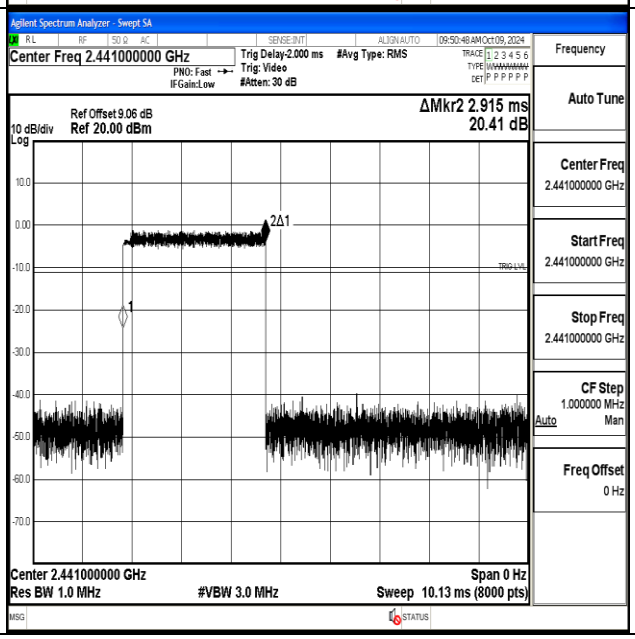
Test Mode	Antenna	Frequency [MHz]	Burst Width [ms]	TotalHops [Num]	Result [s]	Limit [s]	Verdict
DH5	Ant1	Hop	2.910	80	0.233	≤0.4	PASS
2DH5	Ant1	Hop	2.915	110	0.321	≤0.4	PASS
3DH5	Ant1	Hop	2.915	100	0.292	≤0.4	PASS

Test Graphs

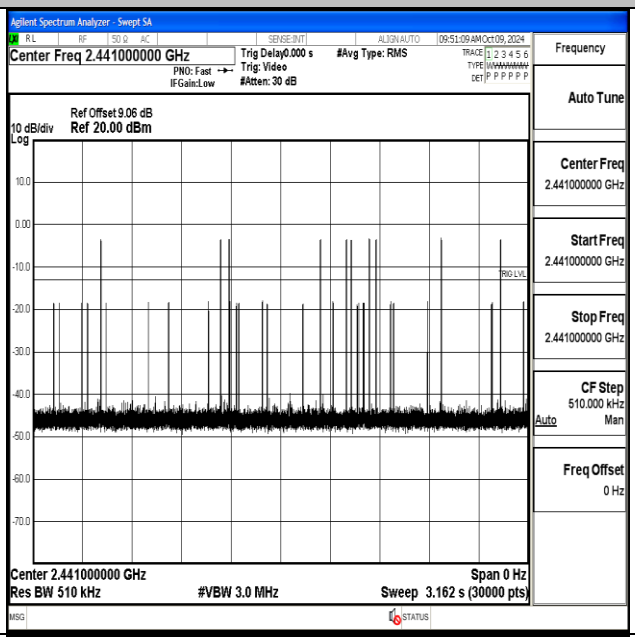


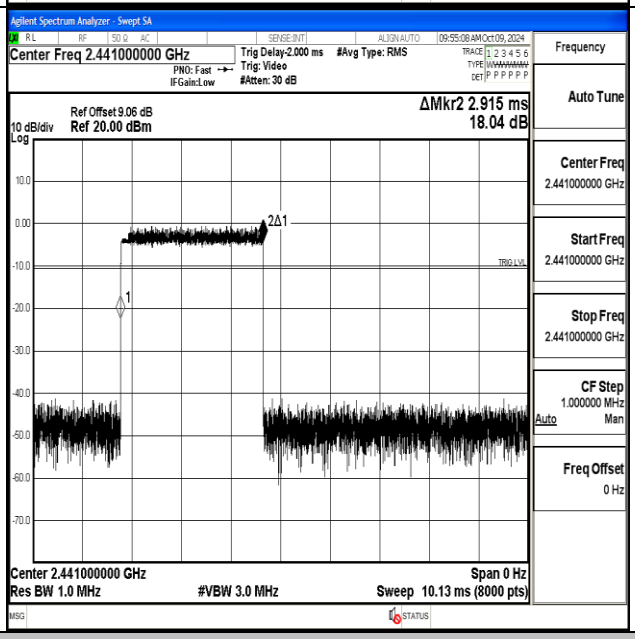
DH5-Ant1-Hop-PASS



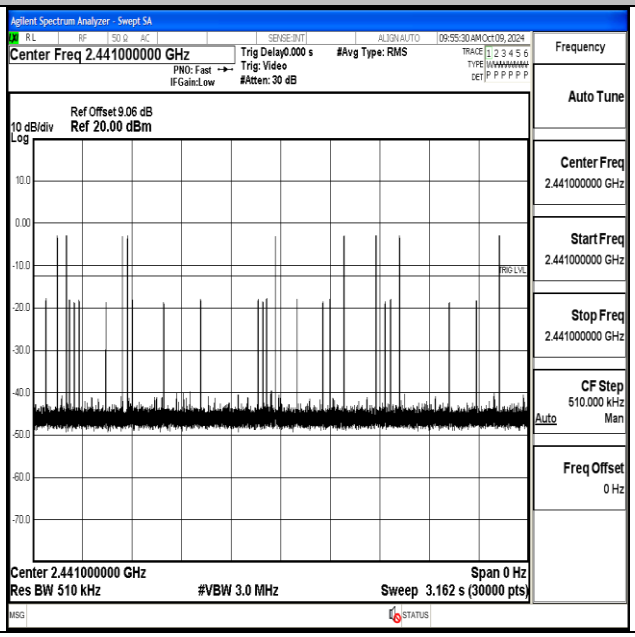


2DH5-Ant1-Hop-PASS





3DH5-Ant1-Hop-PASS

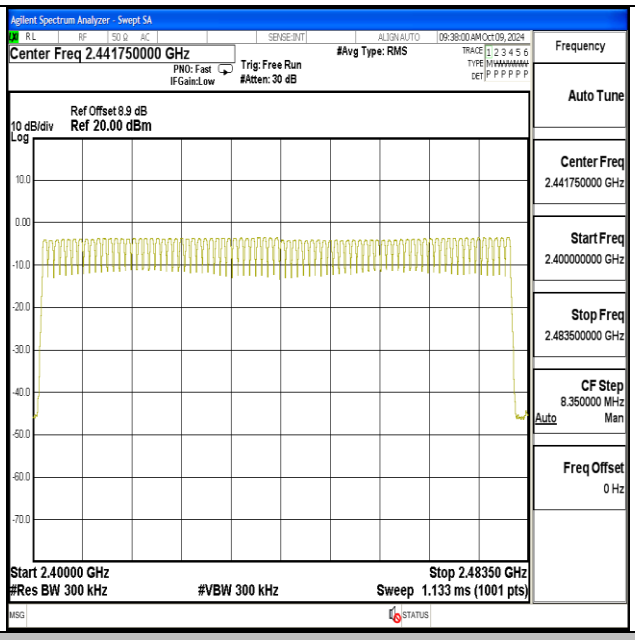


Appendix F: Number of hopping channels

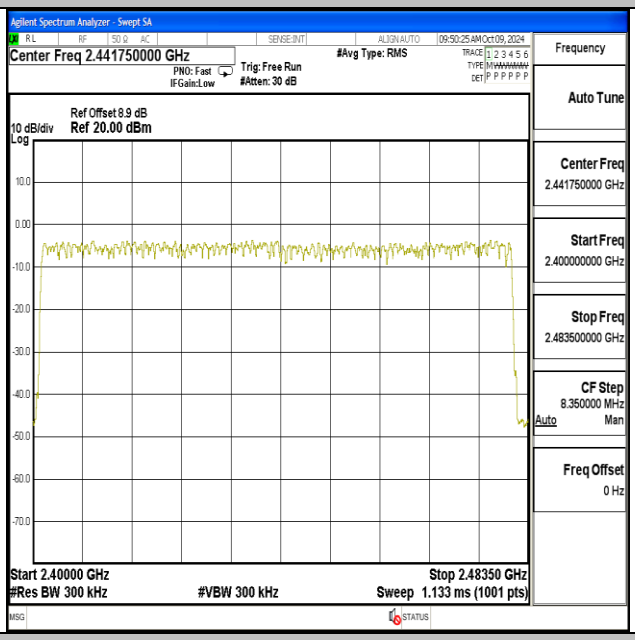
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [Num]	Limit [Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

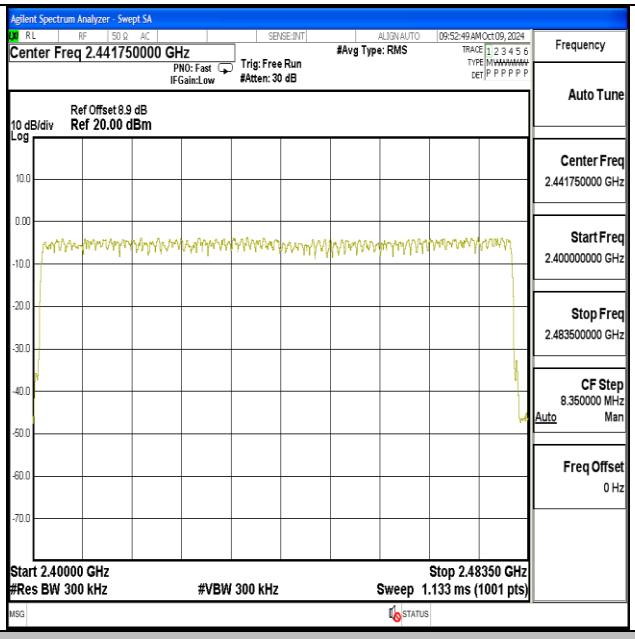
Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS



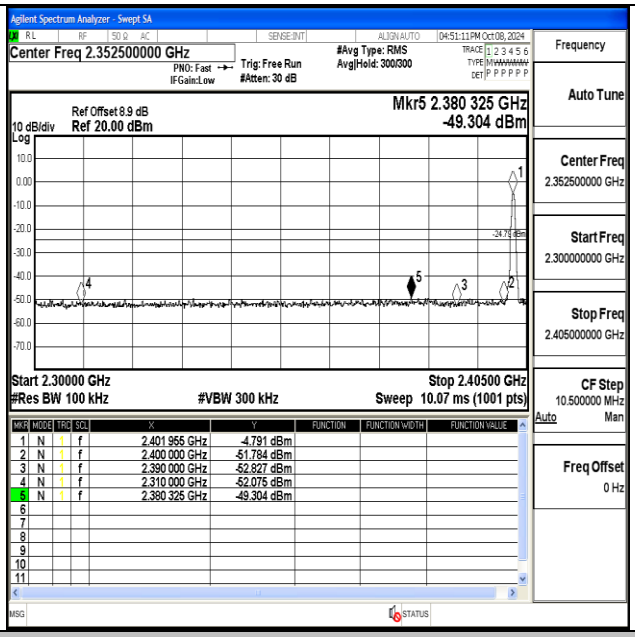
3DH5-Ant1-Hop-PASS

Appendix G: Band edge measurements

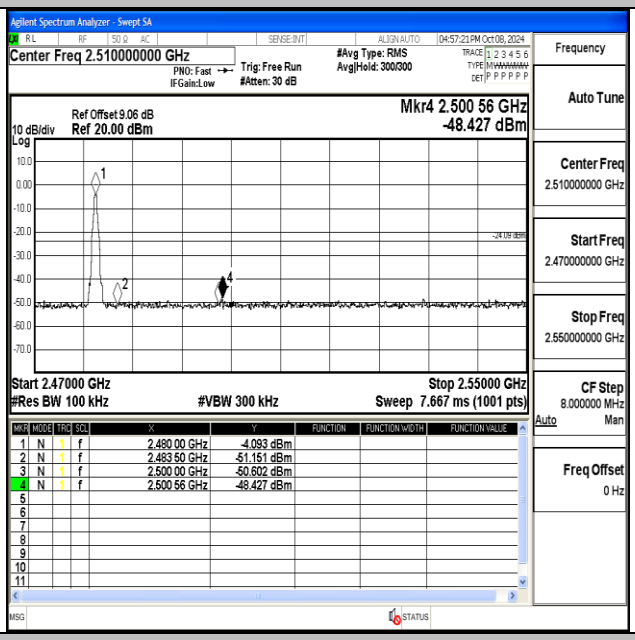
Test Result

Test Mode	Antenna	Ch.Name	Frequency [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-4.79	-49.3	≤-24.79	PASS
DH5	Ant1	High	2480	-4.09	-48.43	≤-24.09	PASS
DH5	Ant1	Low	Hop_2402	-5.45	-49.46	≤-25.45	PASS
DH5	Ant1	High	Hop_2480	-4.32	-48.39	≤-24.32	PASS
2DH5	Ant1	Low	2402	-4.82	-49.05	≤-24.82	PASS
2DH5	Ant1	High	2480	-4.39	-47.98	≤-24.39	PASS
2DH5	Ant1	Low	Hop_2402	-5.18	-48.51	≤-25.18	PASS
2DH5	Ant1	High	Hop_2480	-4.19	-48.56	≤-24.19	PASS
3DH5	Ant1	Low	2402	-4.42	-49.1	≤-24.42	PASS
3DH5	Ant1	High	2480	-3.90	-48.06	≤-23.9	PASS
3DH5	Ant1	Low	Hop_2402	-5.48	-48.98	≤-25.48	PASS
3DH5	Ant1	High	Hop_2480	-4.23	-48.6	≤-24.23	PASS

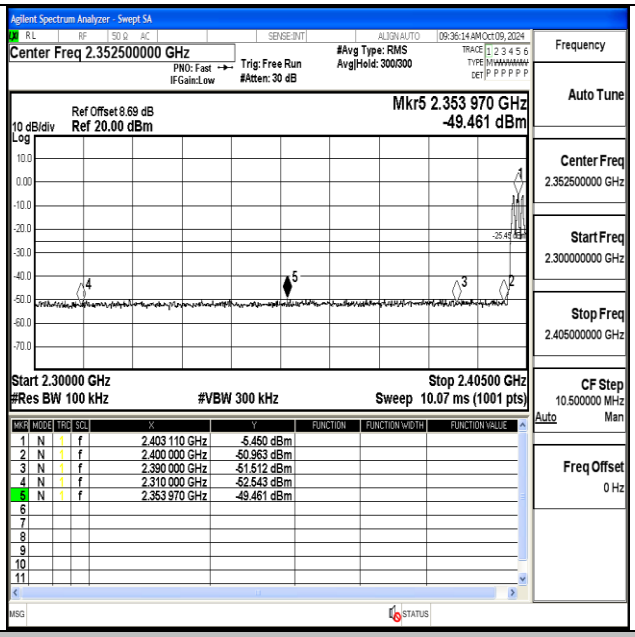
Test Graphs



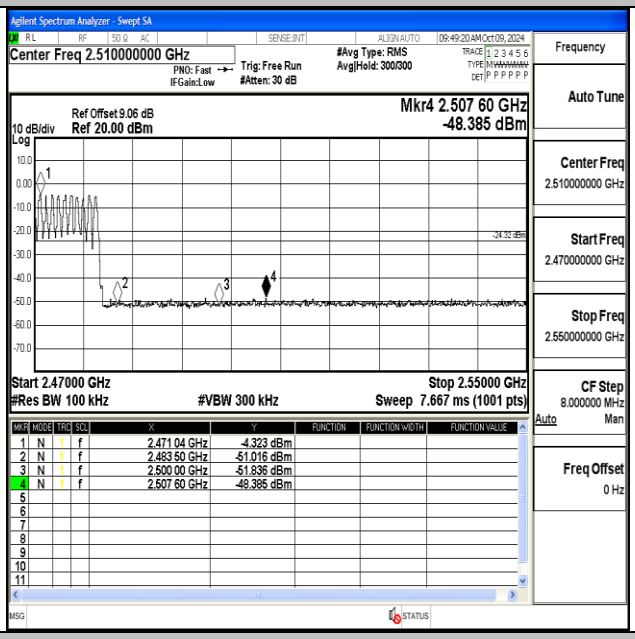
DH5-Ant1-2402-PASS



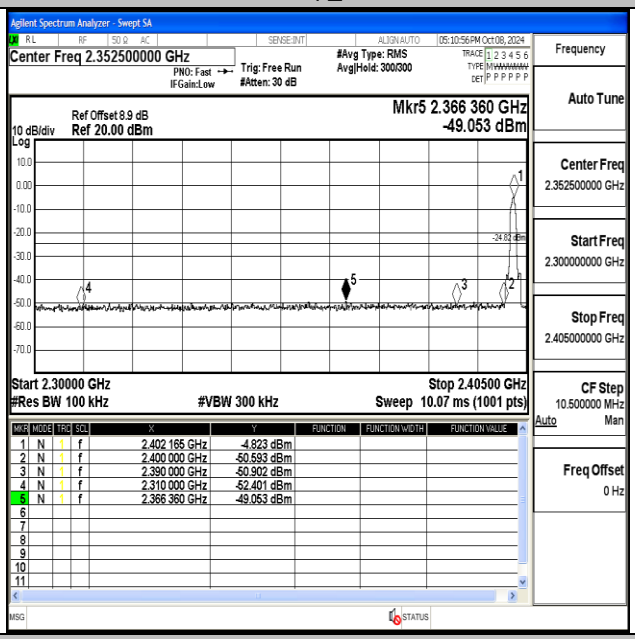
DH5-Ant1-2480-PASS



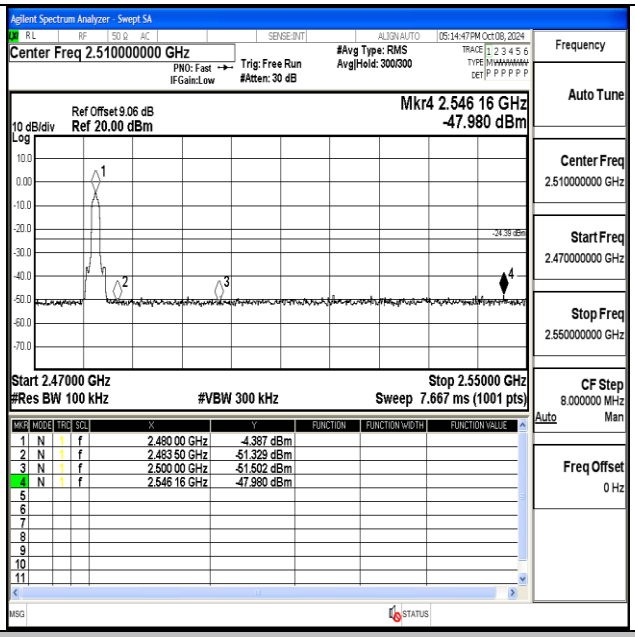
DH5-Ant1-Hop_2402-PASS



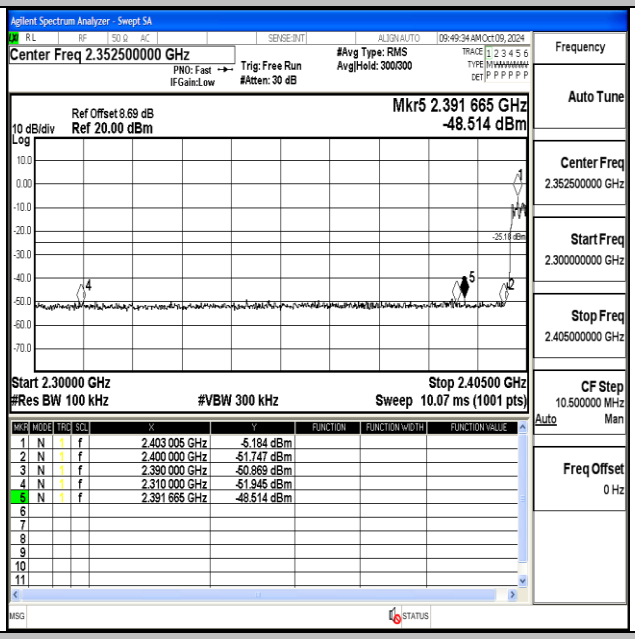
DH5-Ant1-Hop_2480-PASS



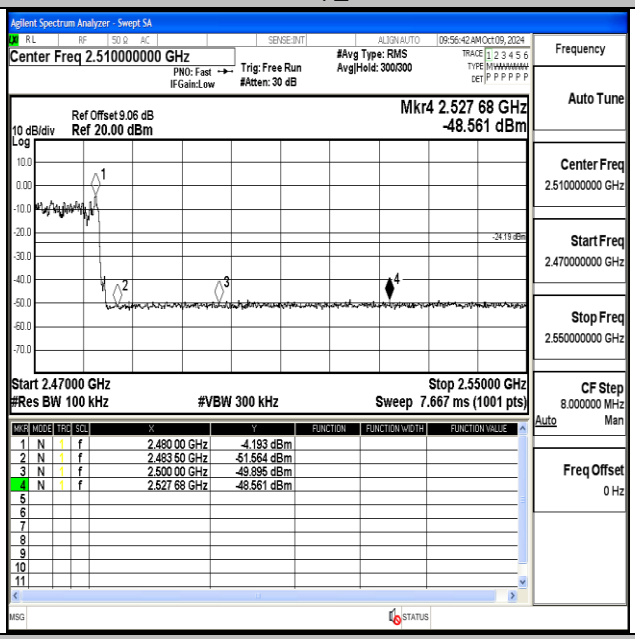
2DH5-Ant1-2402-PASS



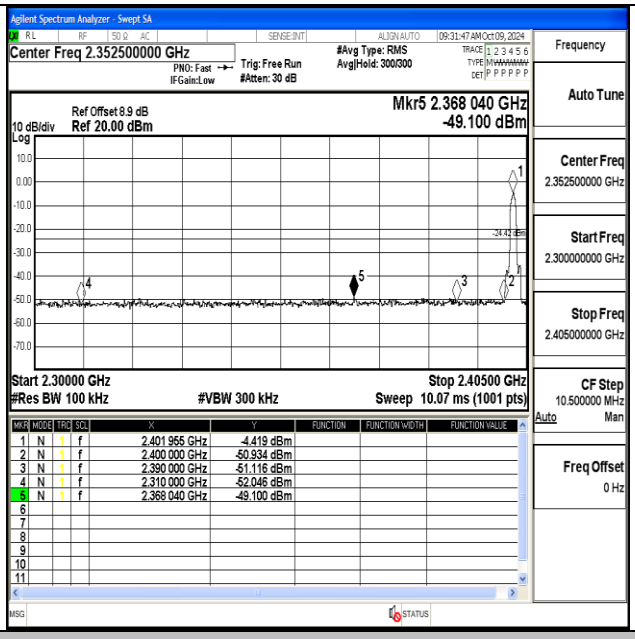
2DH5-Ant1-2480-PASS



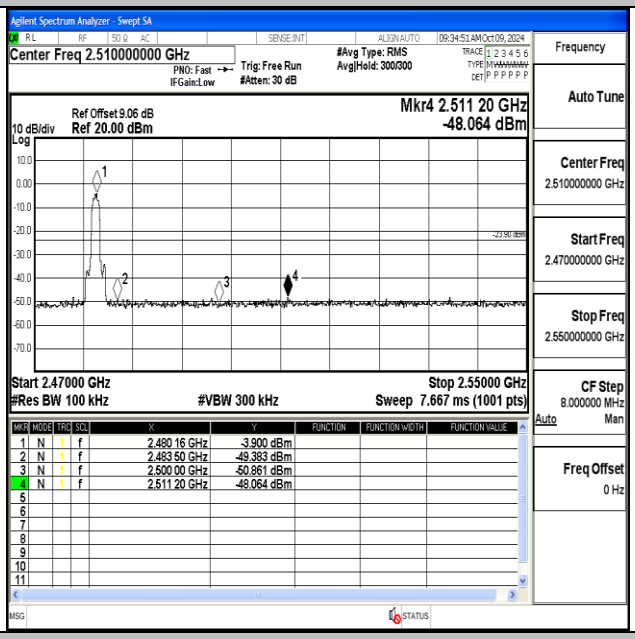
2DH5-Ant1-Hop_2402-PASS



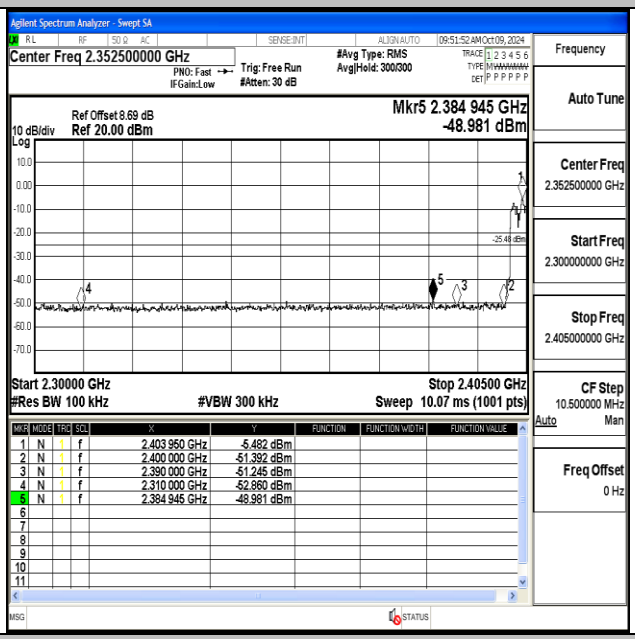
2DH5-Ant1-Hop_2480-PASS



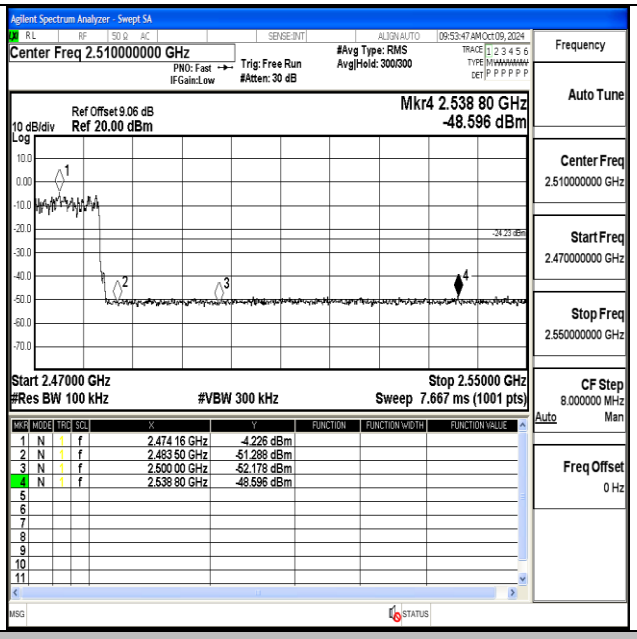
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop_2402-PASS



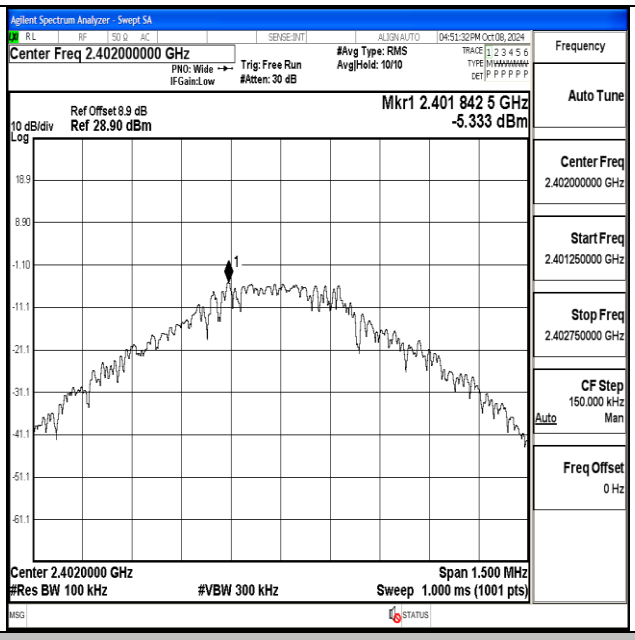
3DH5-Ant1-Hop_2480-PASS

Appendix H: Conducted Spurious Emission

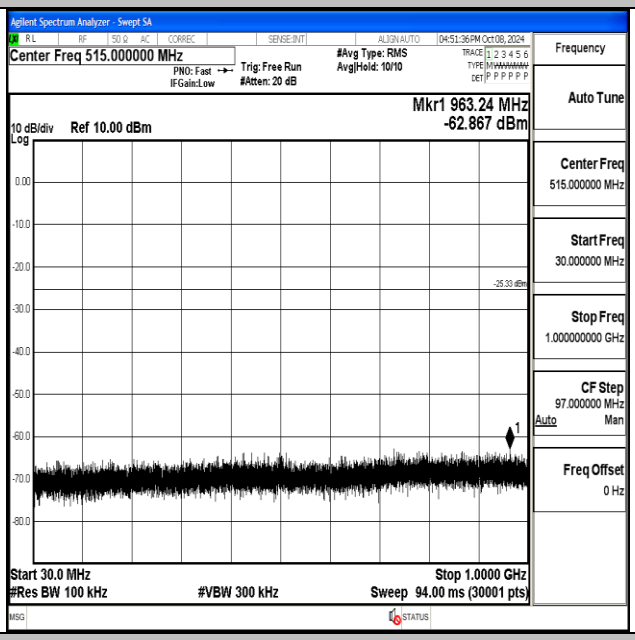
Test Result

Test Mode	Antenna	Frequency [MHz]	Freq. Range [MHz]	Ref. Level [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-5.33	-5.33	---	PASS
DH5	Ant1	2402	30~1000	-5.33	-62.87	≤-25.33	PASS
DH5	Ant1	2402	1000~26500	-5.33	-45.81	≤-25.33	PASS
DH5	Ant1	2441	0~Reference	-4.52	-4.52	---	PASS
DH5	Ant1	2441	30~1000	-4.52	-62.96	≤-24.52	PASS
DH5	Ant1	2441	1000~26500	-4.52	-45.01	≤-24.52	PASS
DH5	Ant1	2480	0~Reference	-4.34	-4.34	---	PASS
DH5	Ant1	2480	30~1000	-4.34	-62.11	≤-24.34	PASS
DH5	Ant1	2480	1000~26500	-4.34	-44.37	≤-24.34	PASS
2DH5	Ant1	2402	0~Reference	-7.18	-7.18	---	PASS
2DH5	Ant1	2402	30~1000	-7.18	-62.59	≤-27.18	PASS
2DH5	Ant1	2402	1000~26500	-7.18	-45.06	≤-27.18	PASS
2DH5	Ant1	2441	0~Reference	-6.74	-6.74	---	PASS
2DH5	Ant1	2441	30~1000	-6.74	-62.85	≤-26.74	PASS
2DH5	Ant1	2441	1000~26500	-6.74	-43.76	≤-26.74	PASS
2DH5	Ant1	2480	0~Reference	-5.34	-5.34	---	PASS
2DH5	Ant1	2480	30~1000	-5.34	-60.86	≤-25.34	PASS
2DH5	Ant1	2480	1000~26500	-5.34	-44.68	≤-25.34	PASS
3DH5	Ant1	2402	0~Reference	-7.17	-7.17	---	PASS
3DH5	Ant1	2402	30~1000	-7.17	-62.27	≤-27.17	PASS
3DH5	Ant1	2402	1000~26500	-7.17	-45.18	≤-27.17	PASS
3DH5	Ant1	2441	0~Reference	-6.19	-6.19	---	PASS
3DH5	Ant1	2441	30~1000	-6.19	-62.19	≤-26.19	PASS
3DH5	Ant1	2441	1000~26500	-6.19	-44.56	≤-26.19	PASS
3DH5	Ant1	2480	0~Reference	-4.95	-4.95	---	PASS
3DH5	Ant1	2480	30~1000	-4.95	-62.41	≤-24.95	PASS
3DH5	Ant1	2480	1000~26500	-4.95	-45.41	≤-24.95	PASS

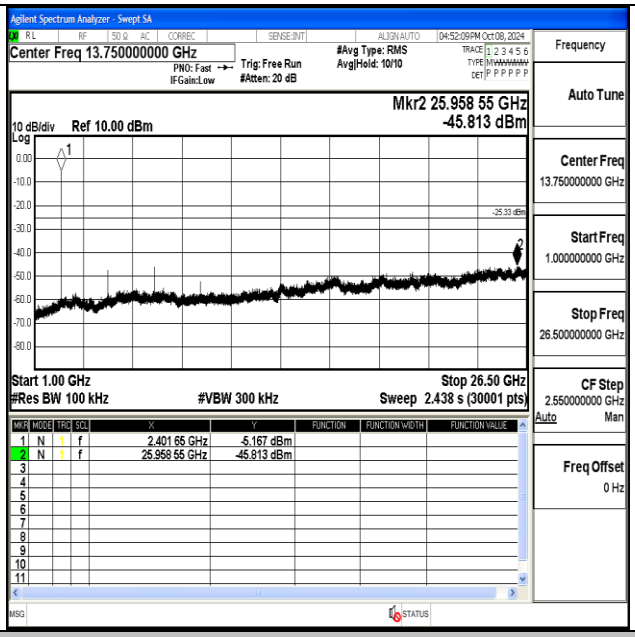
Test Graphs



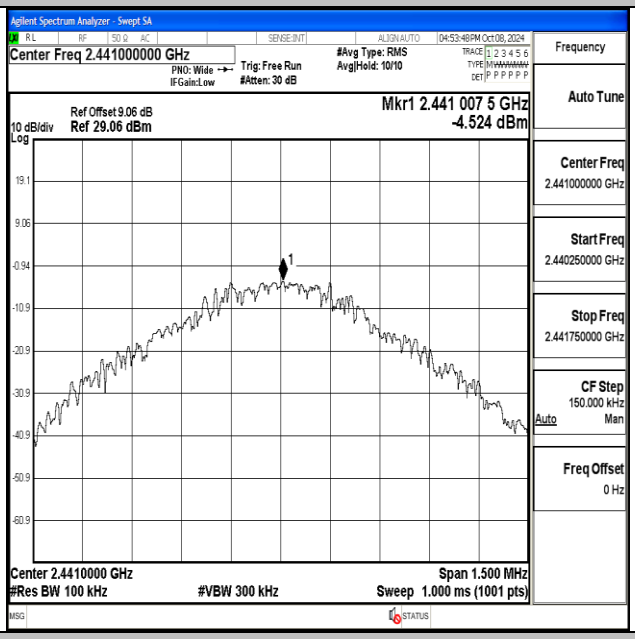
DH5-Ant1-2402-0~Reference-PASS



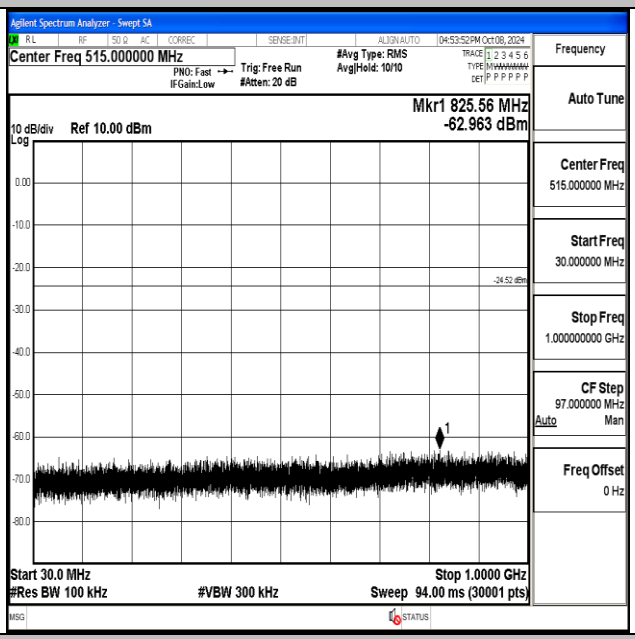
DH5-Ant1-2402-30~1000-PASS



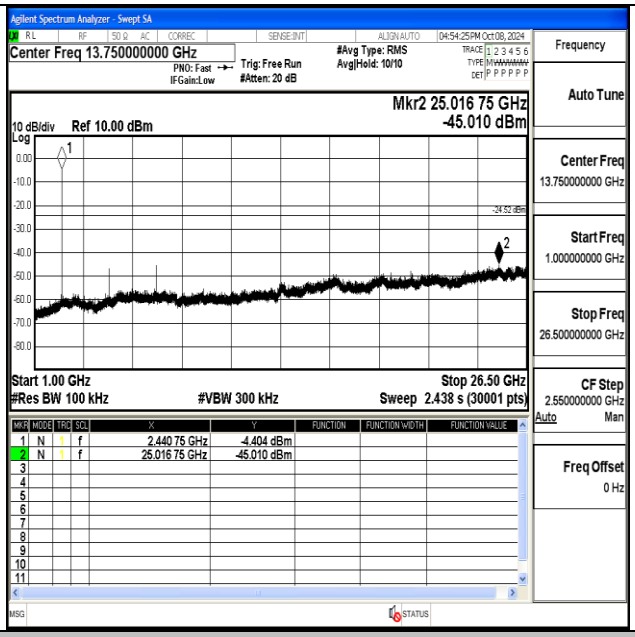
DH5-Ant1-2402-1000~26500-PASS



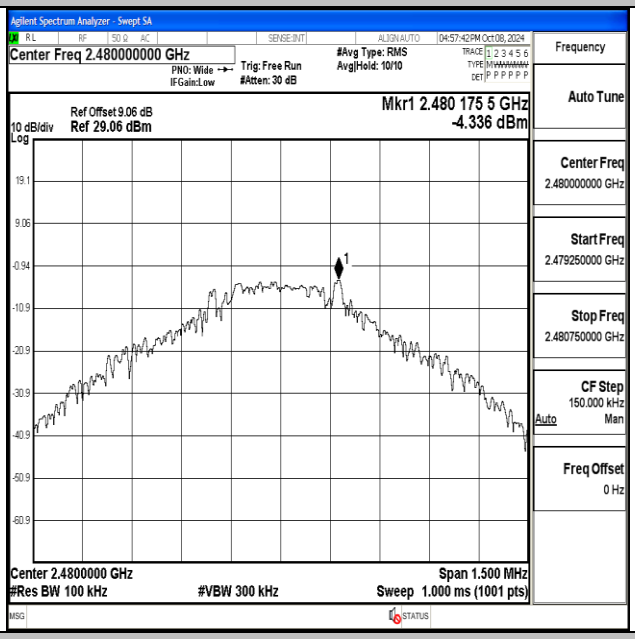
DH5-Ant1-2441-0~Reference-PASS



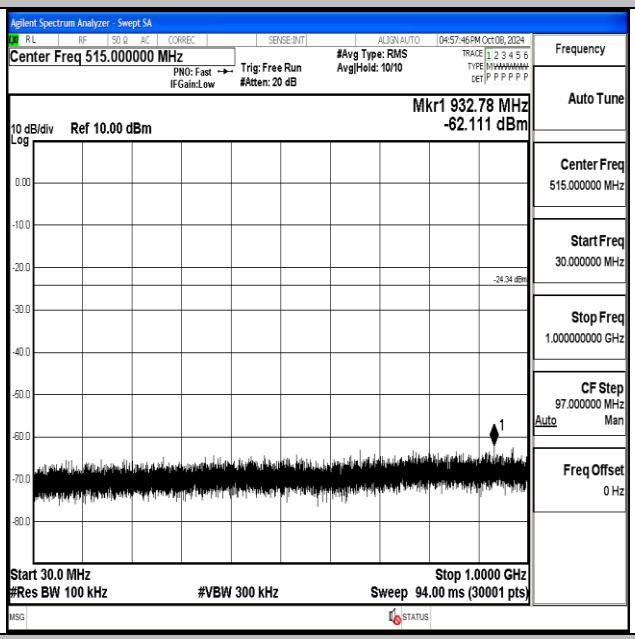
DH5-Ant1-2441-30~1000-PASS



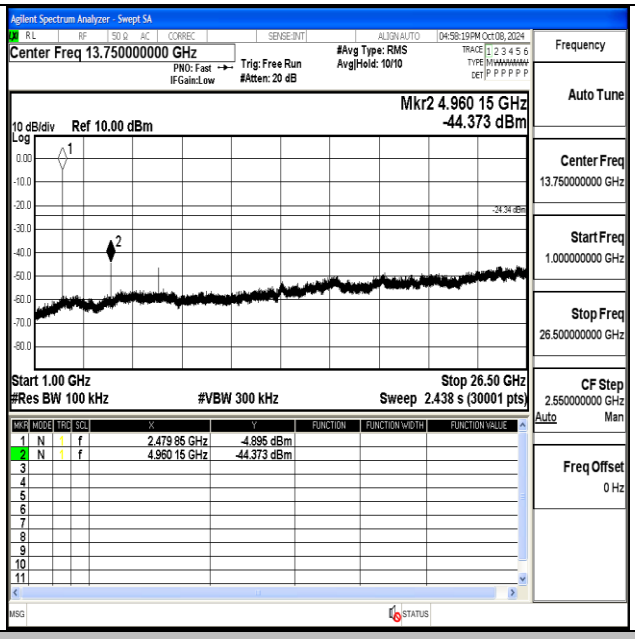
DH5-Ant1-2441-1000~26500-PASS



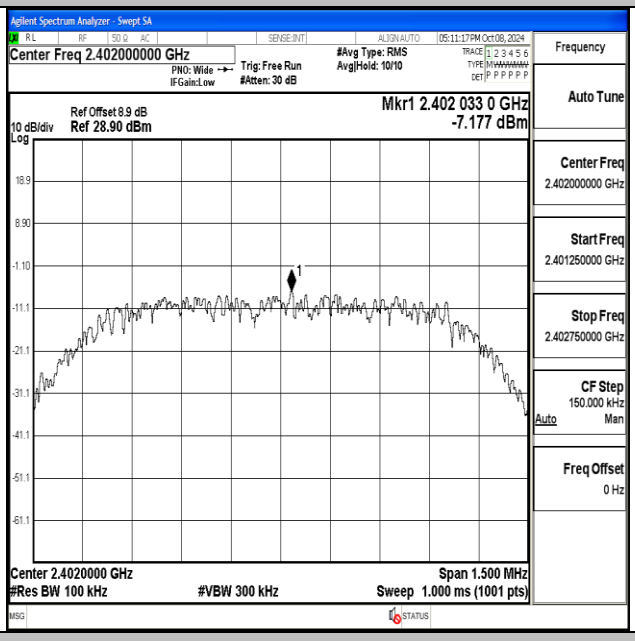
DH5-Ant1-2480-0~Reference-PASS



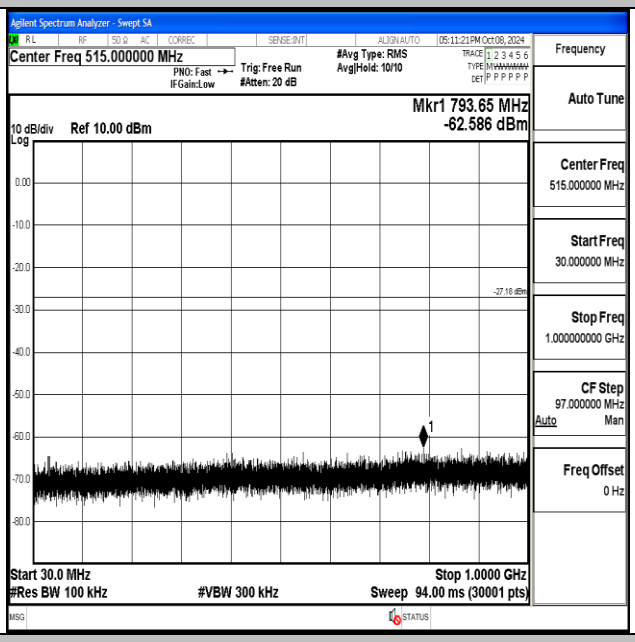
DH5-Ant1-2480-30~1000-PASS



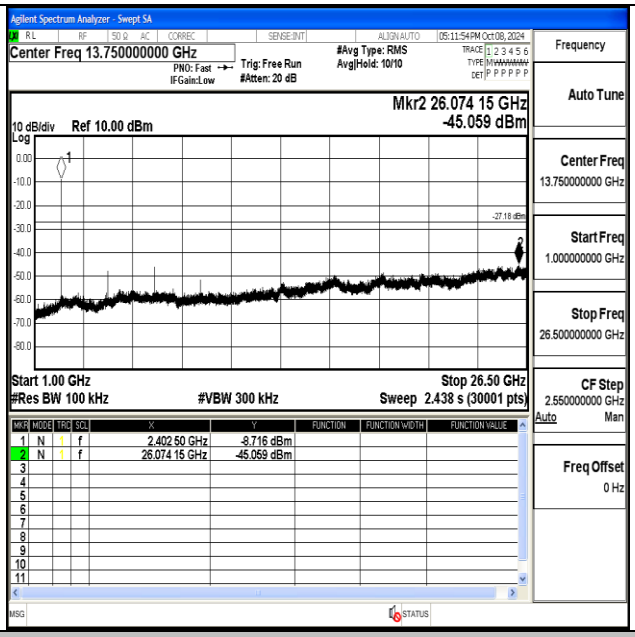
DH5-Ant1-2480-1000~26500-PASS



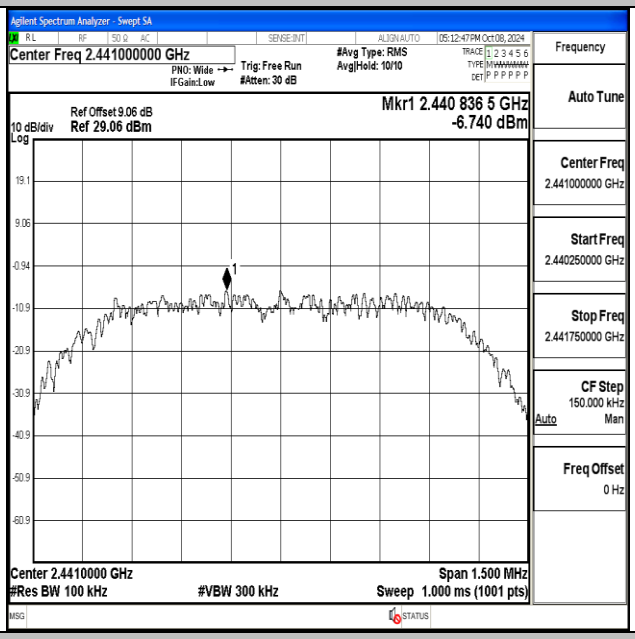
2DH5-Ant1-2402-0~Reference-PASS



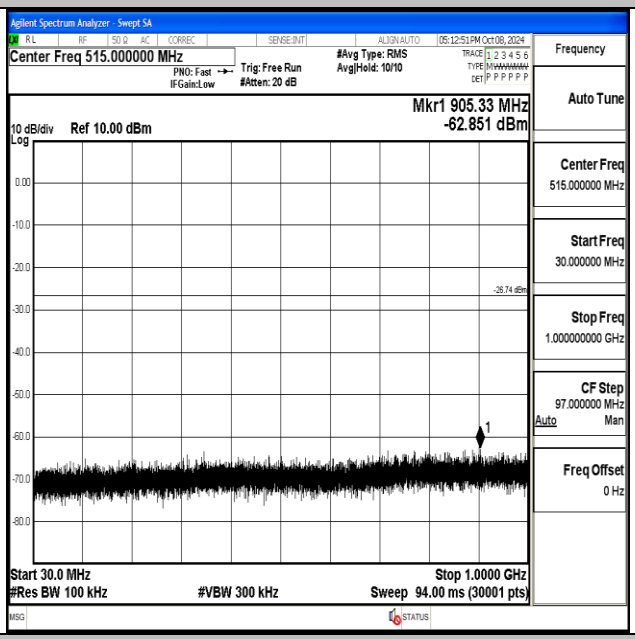
2DH5-Ant1-2402-30~1000-PASS



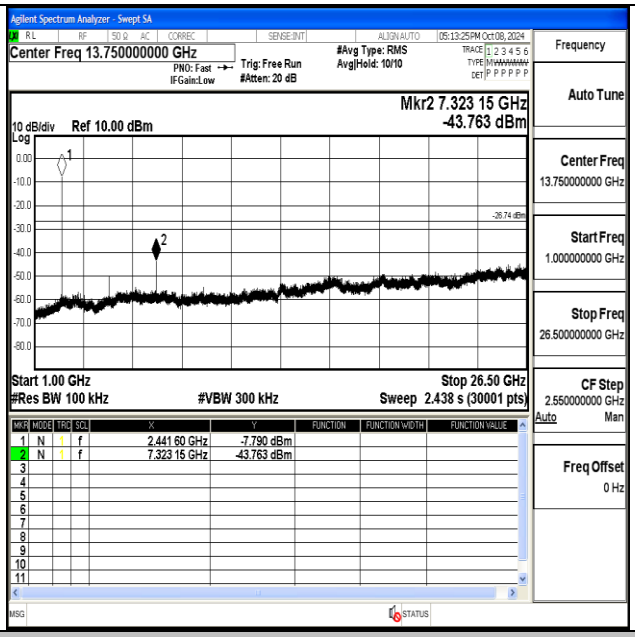
2DH5-Ant1-2402-1000~26500-PASS



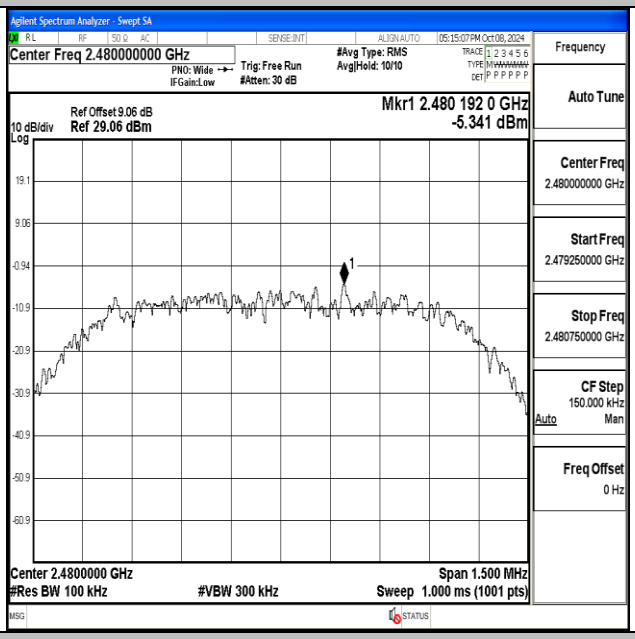
2DH5-Ant1-2441-0~Reference-PASS



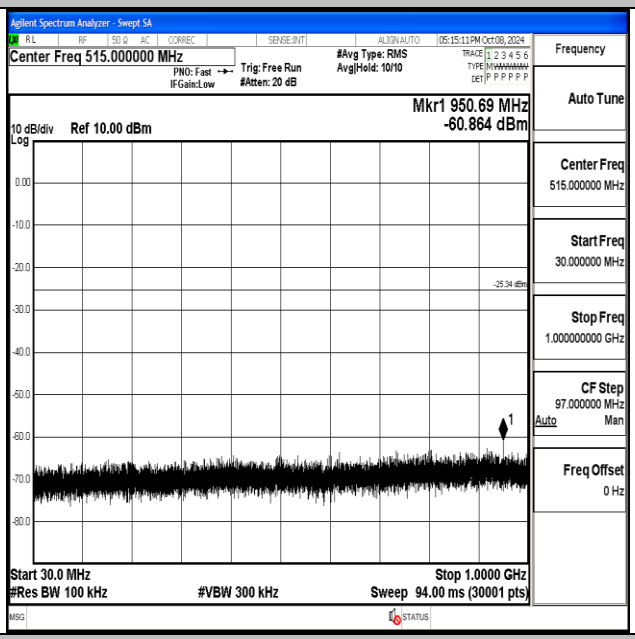
2DH5-Ant1-2441-30~1000-PASS



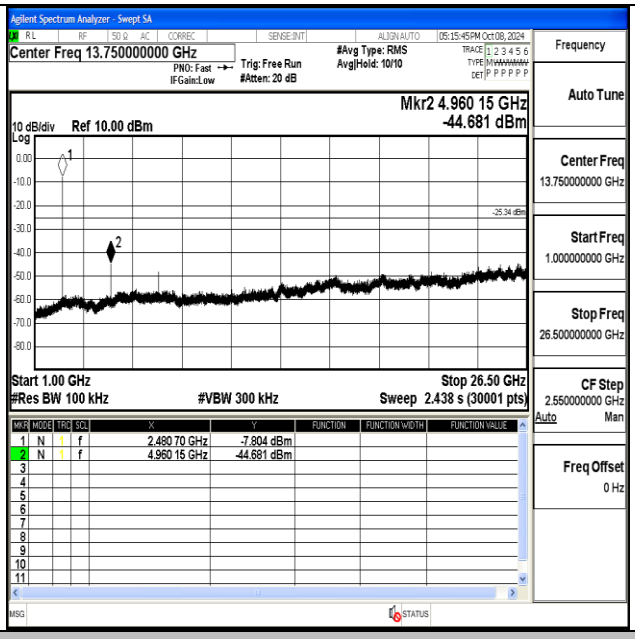
2DH5-Ant1-2441-1000~26500-PASS



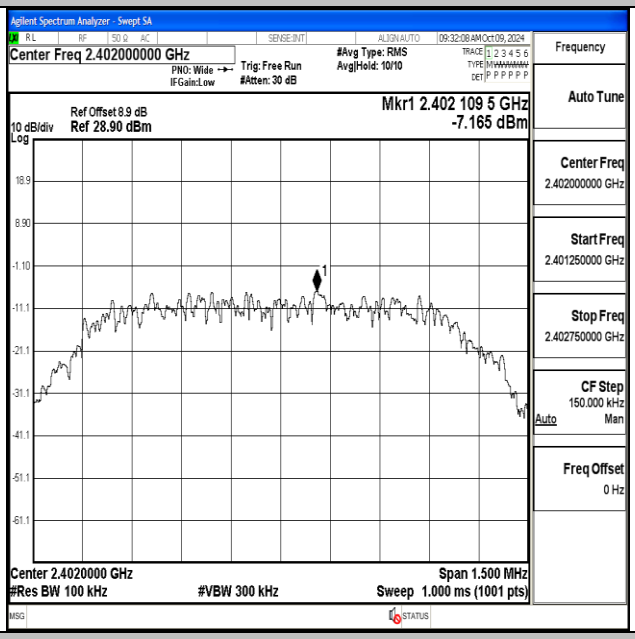
2DH5-Ant1-2480-0~Reference-PASS



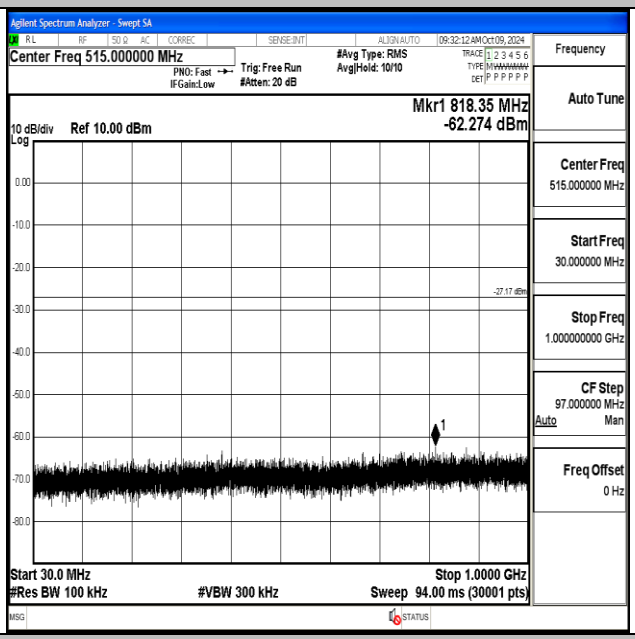
2DH5-Ant1-2480-30~1000-PASS



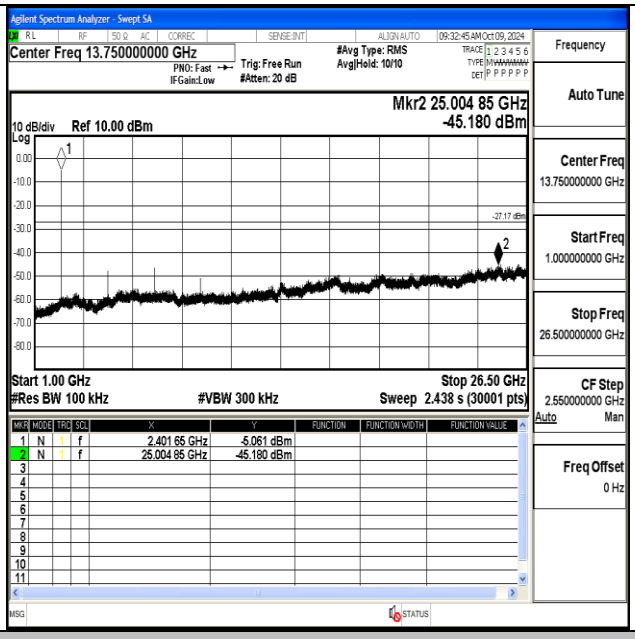
2DH5-Ant1-2480-1000~26500-PASS



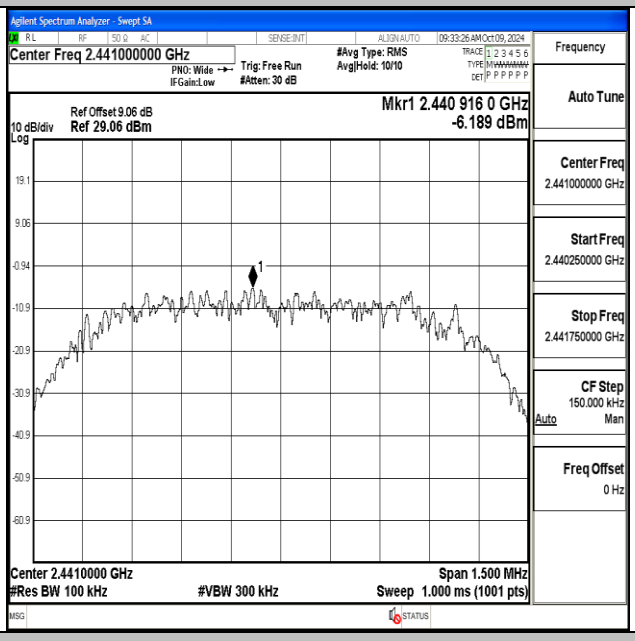
3DH5-Ant1-2402-0~Reference-PASS



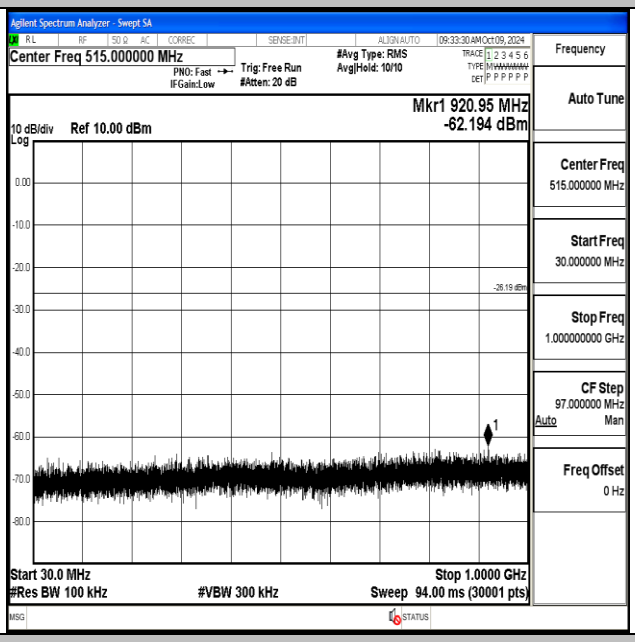
3DH5-Ant1-2402-30~1000-PASS



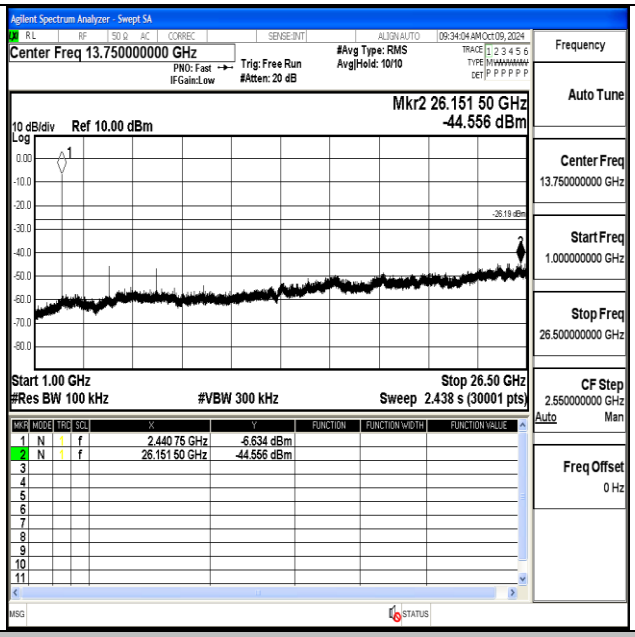
3DH5-Ant1-2402-1000~26500-PASS



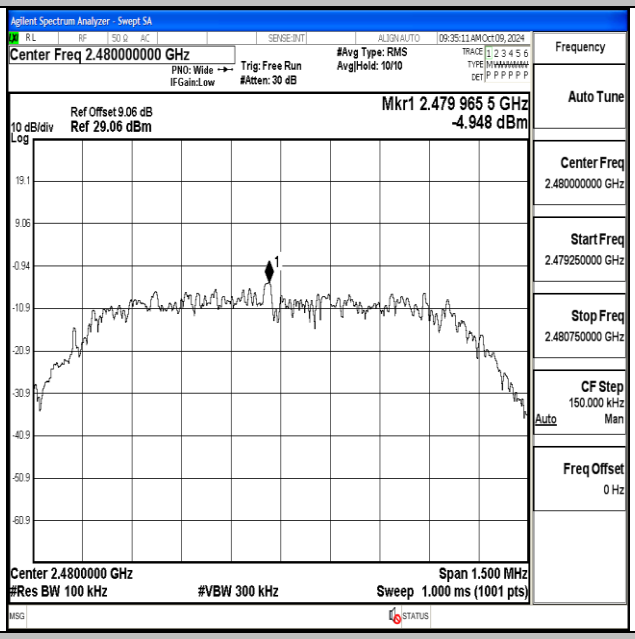
3DH5-Ant1-2441-0~Reference-PASS



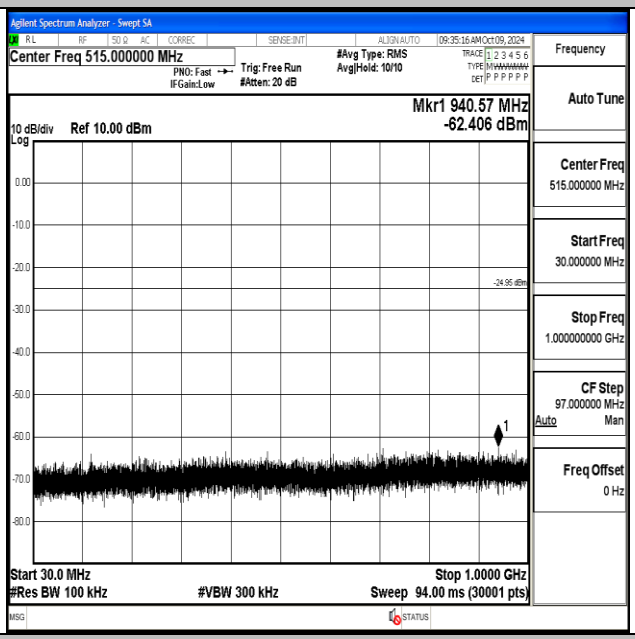
3DH5-Ant1-2441-30~1000-PASS



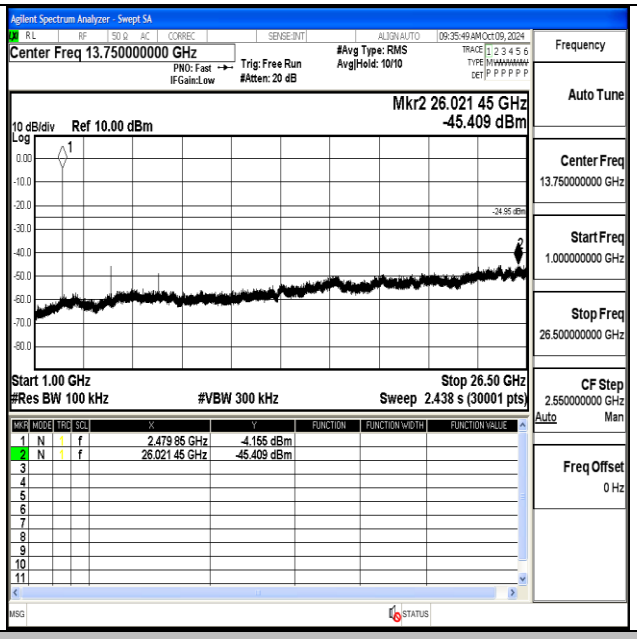
3DH5-Ant1-2441-1000~26500-PASS



3DH5-Ant1-2480-0~Reference-PASS



3DH5-Ant1-2480-30~1000-PASS



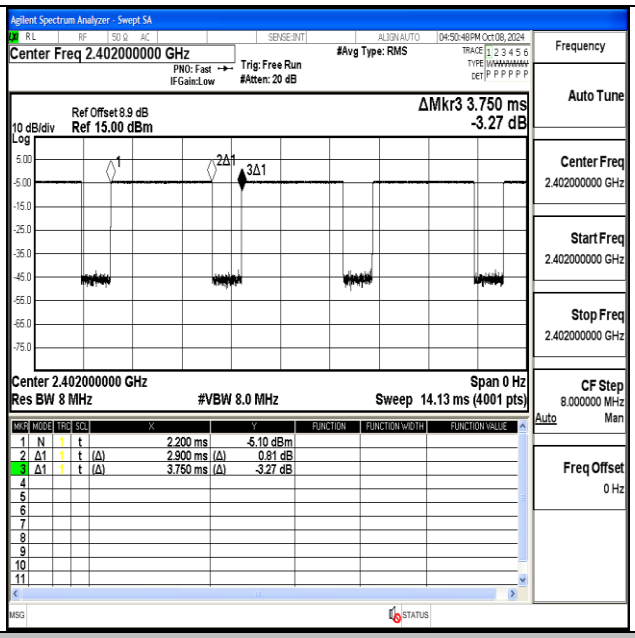
3DH5-Ant1-2480-1000~26500-PASS

Appendix I: Duty Cycle

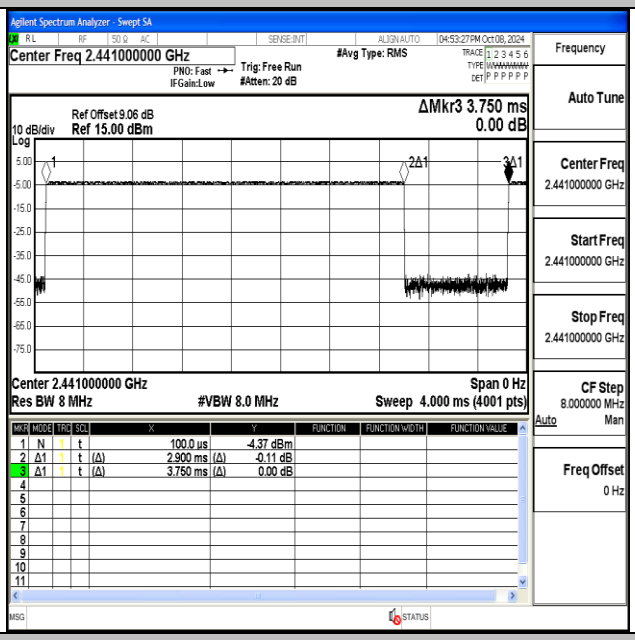
Test Result

Test Mode	Antenna	Frequency [MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor [dB]
DH5	Ant1	2402	2.90	3.75	77.33	1.12
DH5	Ant1	2441	2.90	3.75	77.33	1.12
DH5	Ant1	2480	2.90	3.75	77.33	1.12
2DH5	Ant1	2402	2.91	3.75	77.60	1.10
2DH5	Ant1	2441	2.91	3.75	77.60	1.10
2DH5	Ant1	2480	2.90	3.75	77.33	1.12
3DH5	Ant1	2402	2.91	3.75	77.60	1.10
3DH5	Ant1	2441	2.91	3.75	77.60	1.10
3DH5	Ant1	2480	2.91	3.75	77.60	1.10

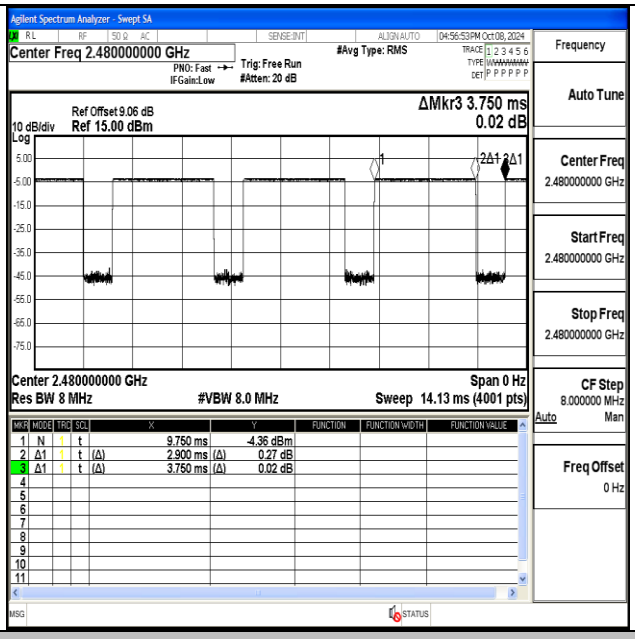
Test Graphs



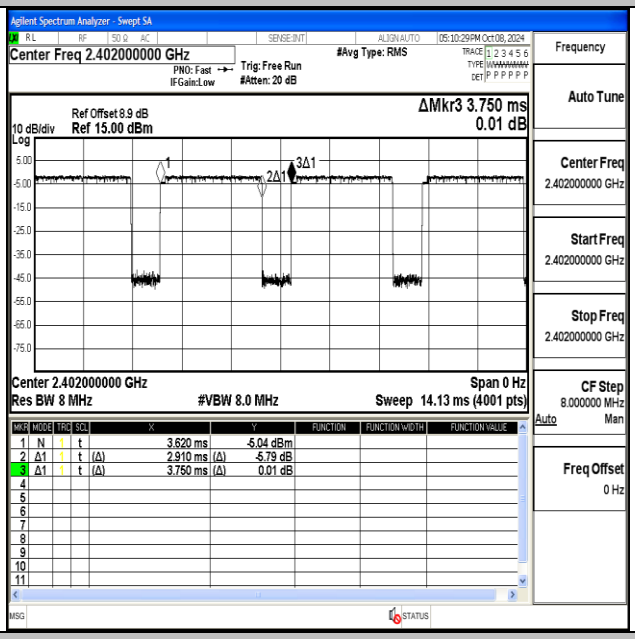
NTNV-DH5-Ant1-2402



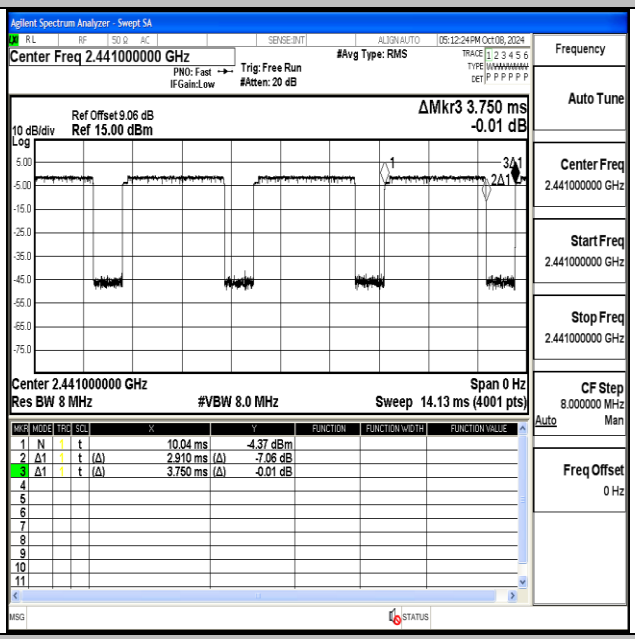
NTNV-DH5-Ant1-2441



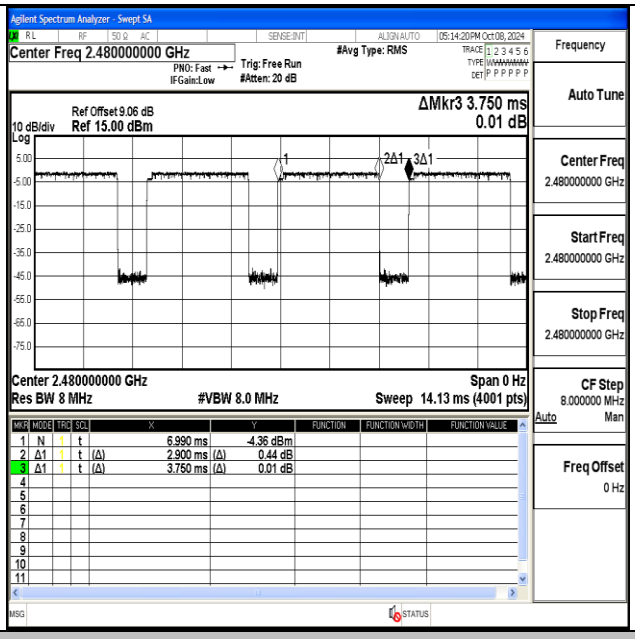
NTNV-DH5-Ant1-2480



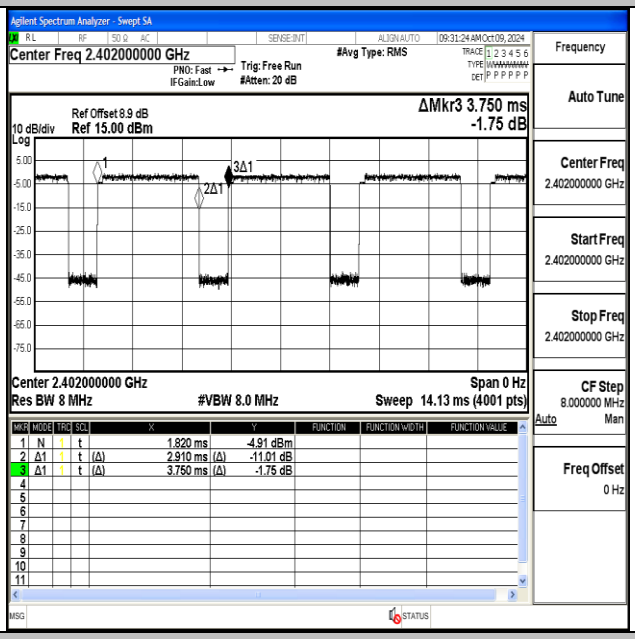
NTNV-2DH5-Ant1-2402



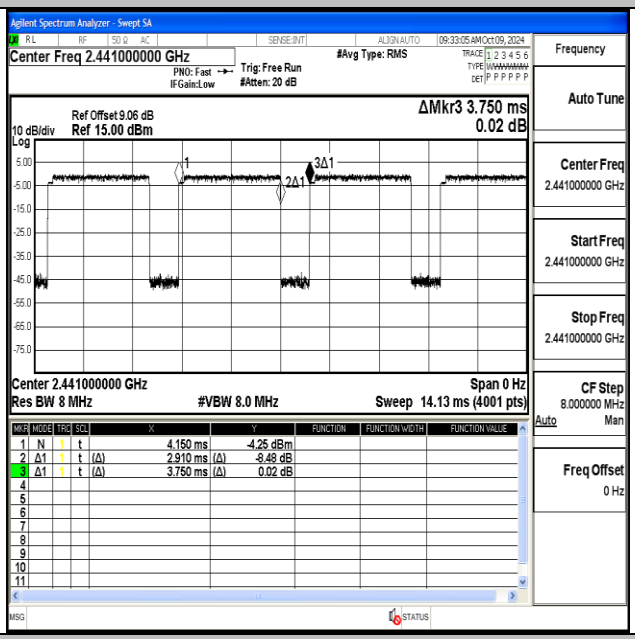
NTNV-2DH5-Ant1-2441



NTNV-2DH5-Ant1-2480



NTNV-3DH5-Ant1-2402



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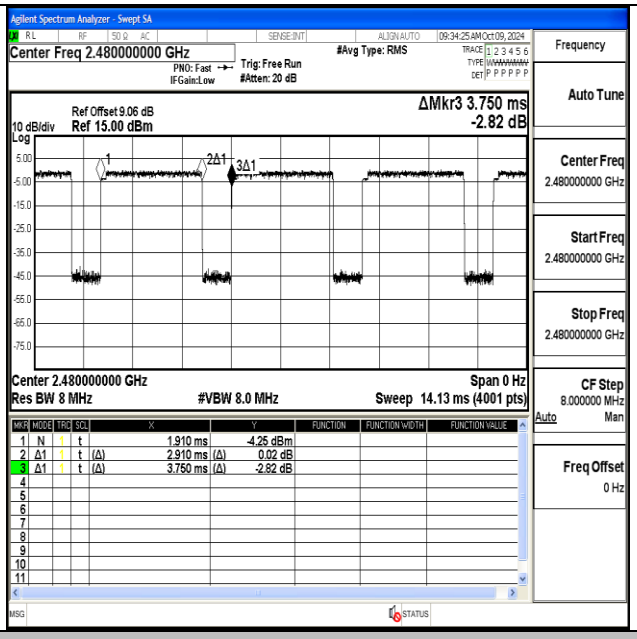

NTNV-3DH5-Ant1-2480