

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

Product Name: smart watch

Trade Mark: N/A

Test Model: KW39

FCC ID: 2A047-KW39

Environmental Conditions

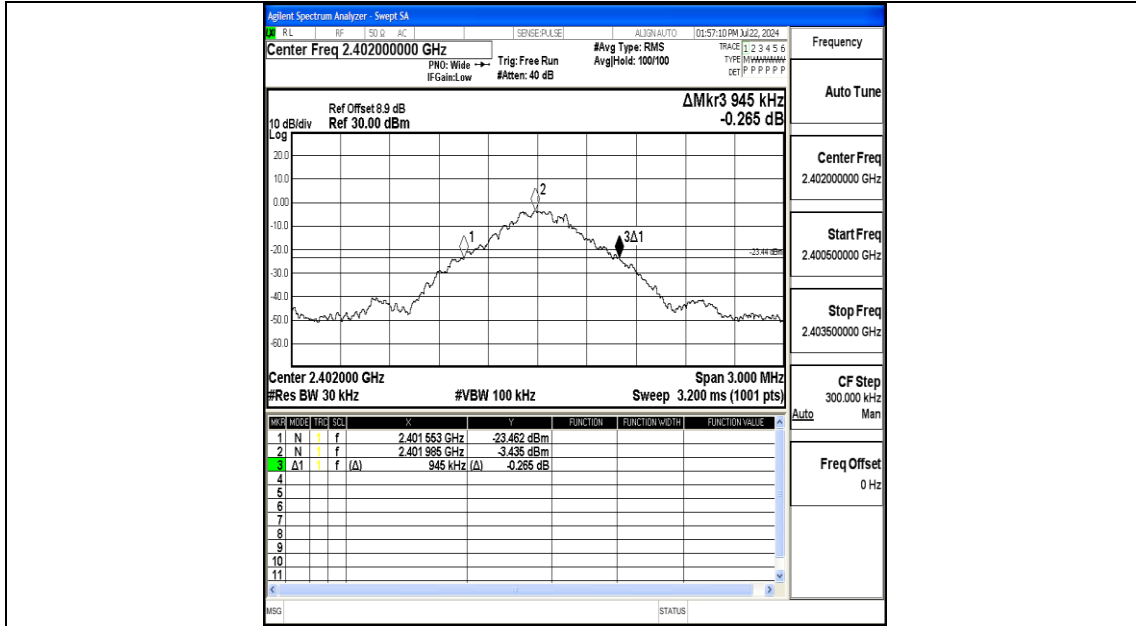
Temperature:	23.8°C
Relative Humidity:	58%
ATM Pressure:	100.0 kPa
Test Engineer:	Allen Lai
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: 20dB Emission Bandwidth

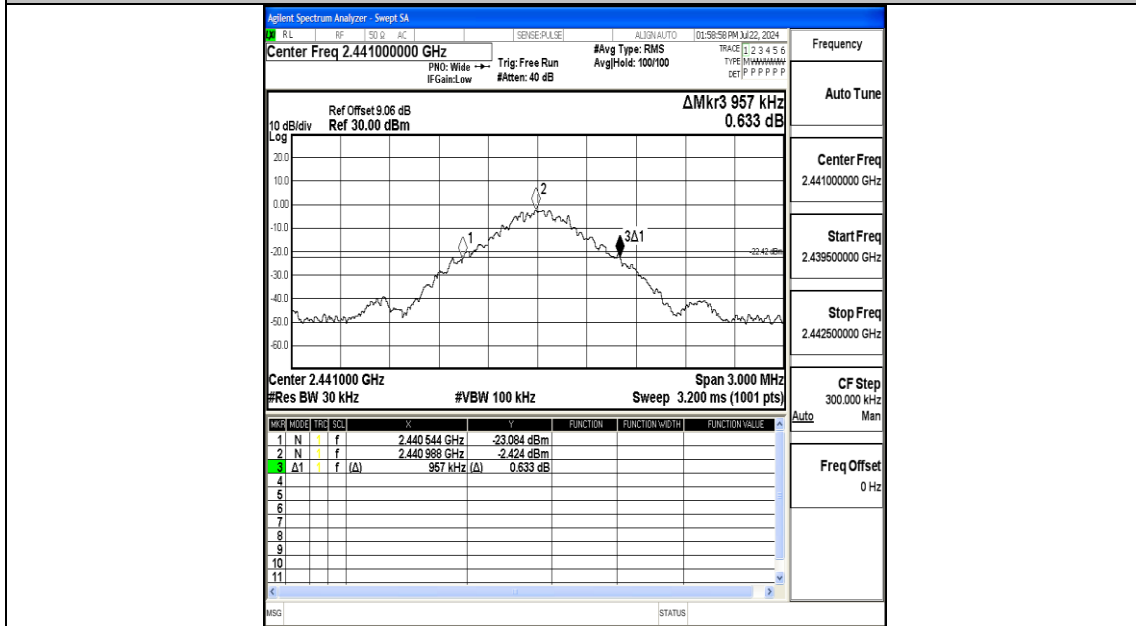
Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.945	2401.553	2402.498	---	---
DH5	Ant1	2441	0.957	2440.544	2441.501	---	---
DH5	Ant1	2480	0.945	2479.553	2480.498	---	---
2DH5	Ant1	2402	1.305	2401.361	2402.666	---	---
2DH5	Ant1	2441	1.287	2440.382	2441.669	---	---
2DH5	Ant1	2480	1.278	2479.388	2480.666	---	---
3DH5	Ant1	2402	1.287	2401.364	2402.651	---	---
3DH5	Ant1	2441	1.305	2440.364	2441.669	---	---
3DH5	Ant1	2480	1.284	2479.370	2480.654	---	---

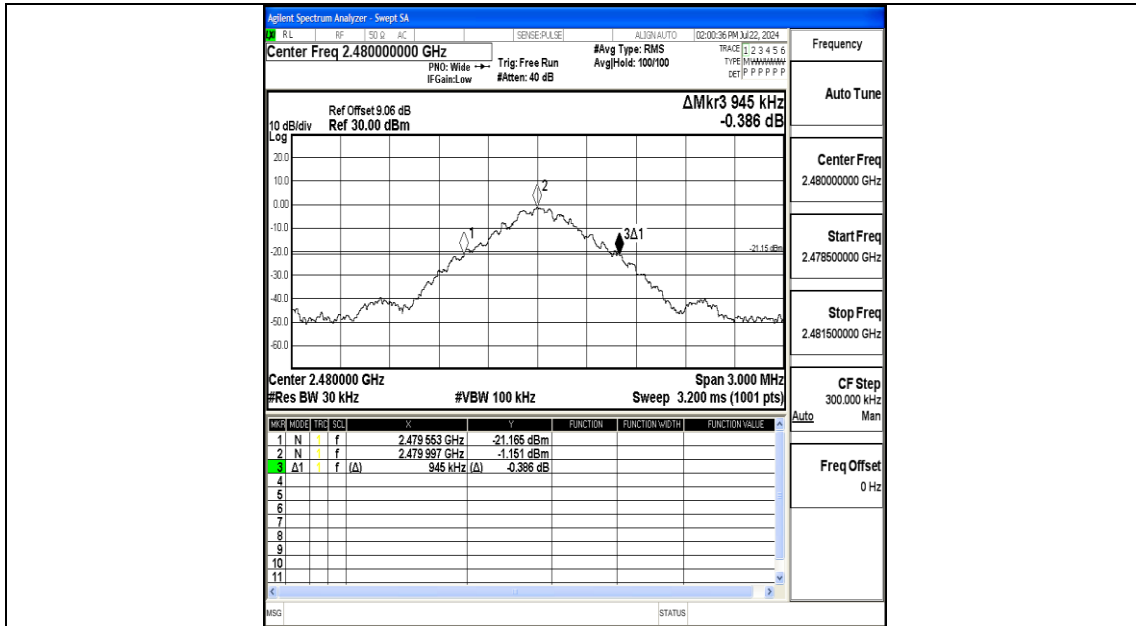
Test Graphs



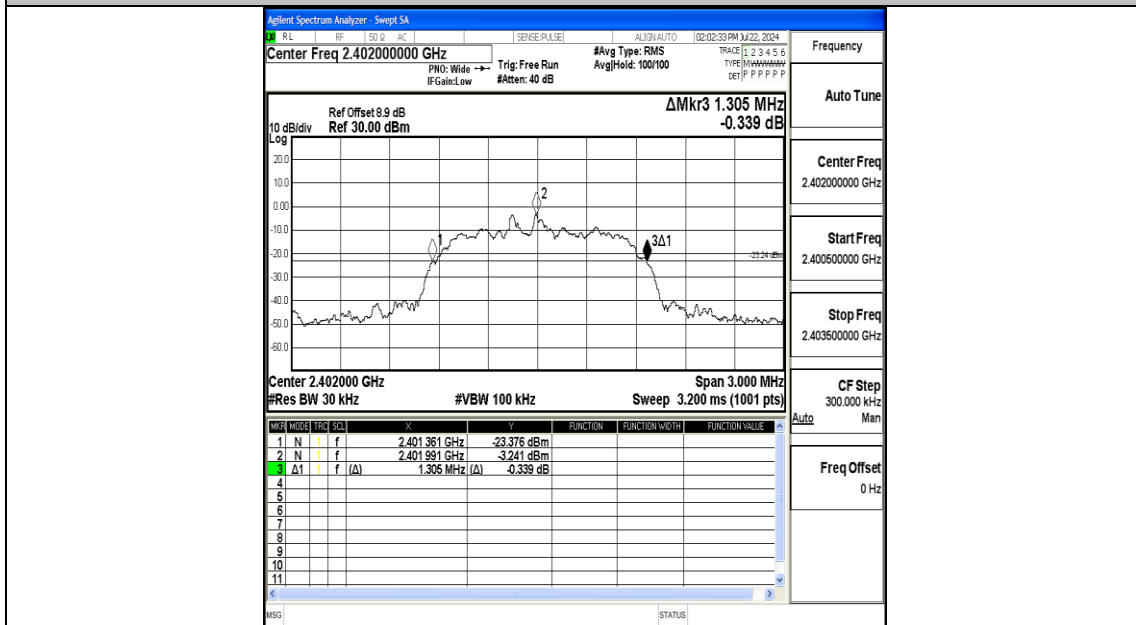
DH5-Ant1-2402



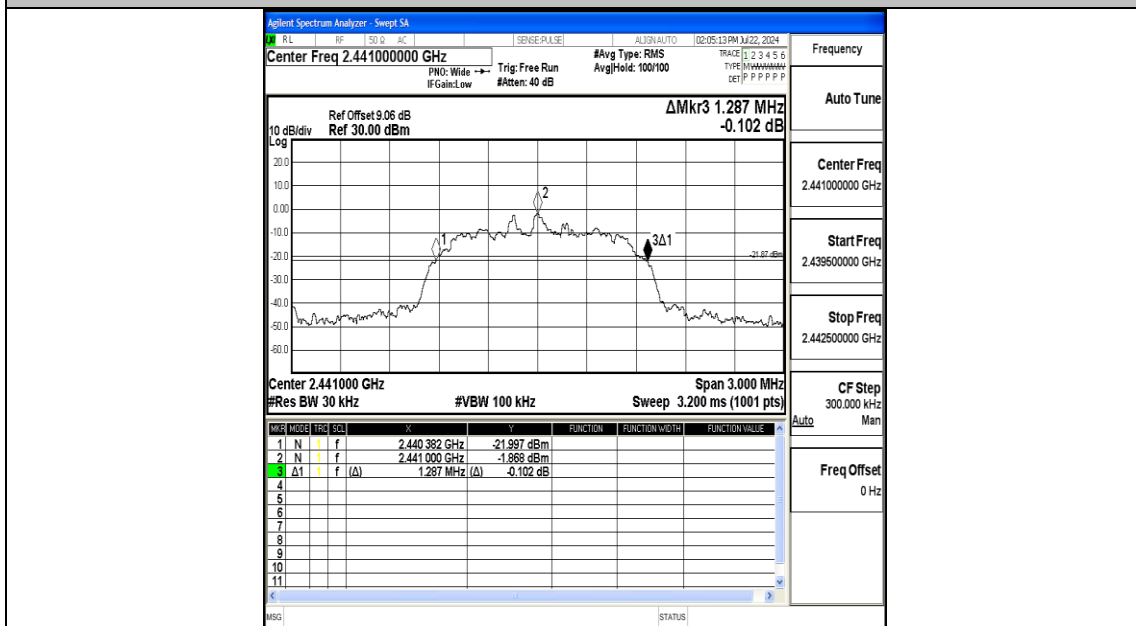
DH5-Ant1-2441



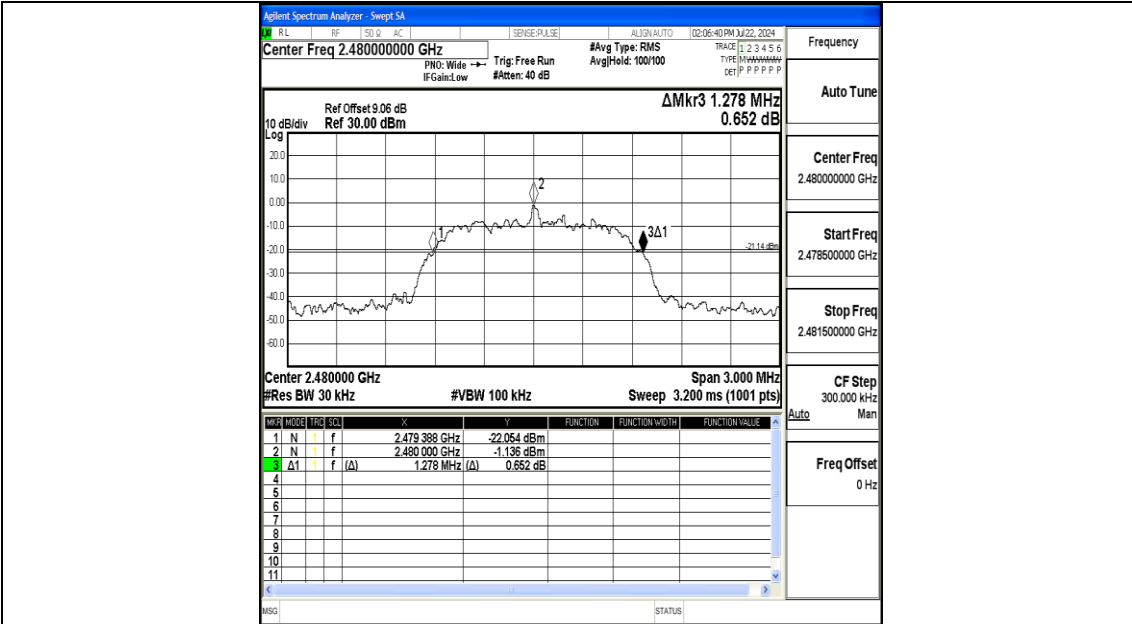
DH5-Ant1-2480



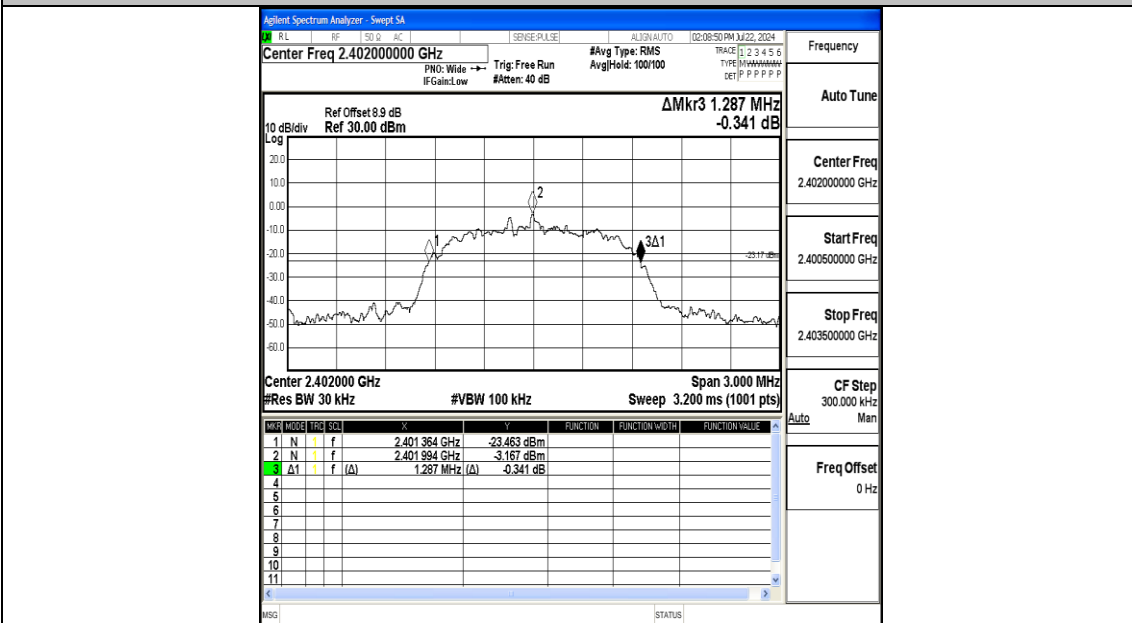
2DH5-Ant1-2402



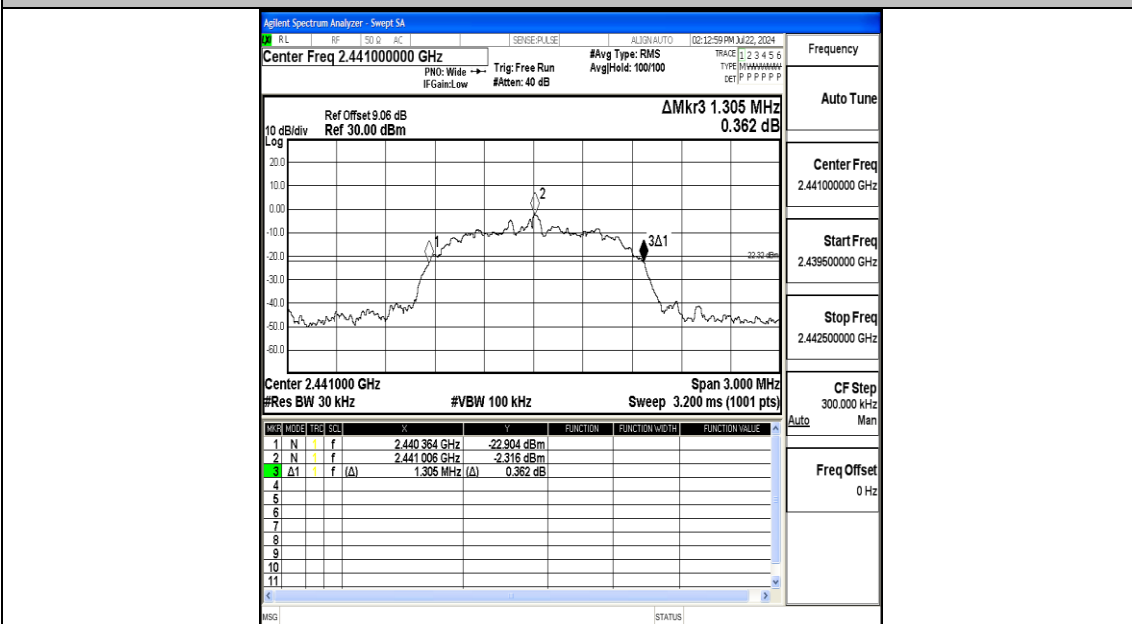
2DH5-Ant1-2441



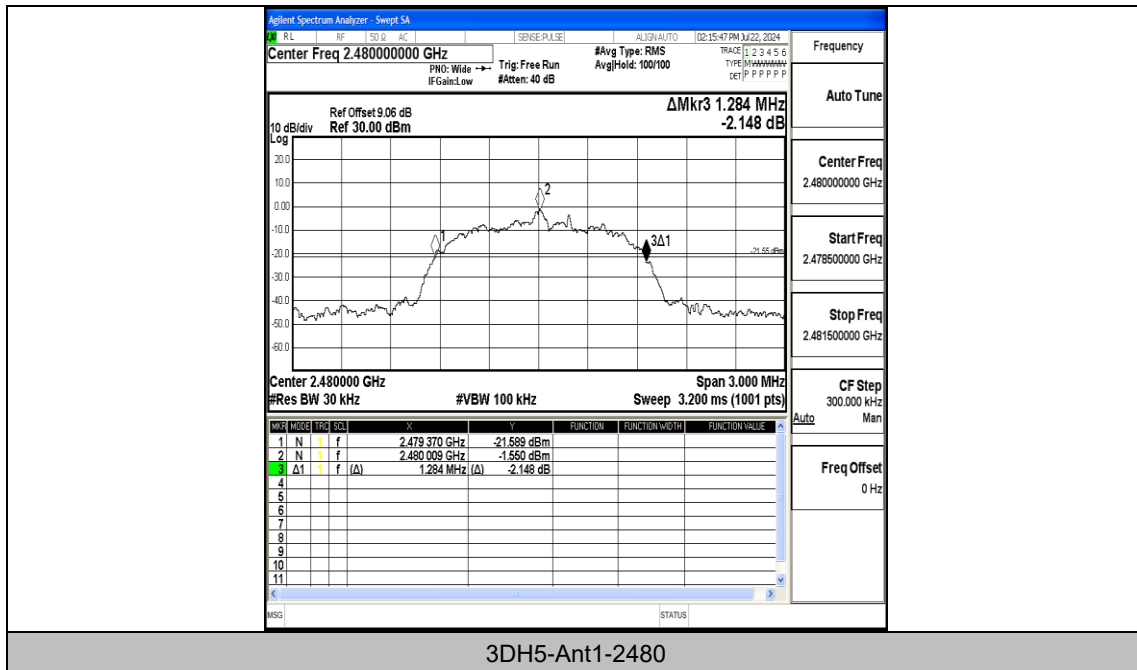
2DH5-Ant1-2480



3DH5-Ant1-2402



3DH5-Ant1-2441

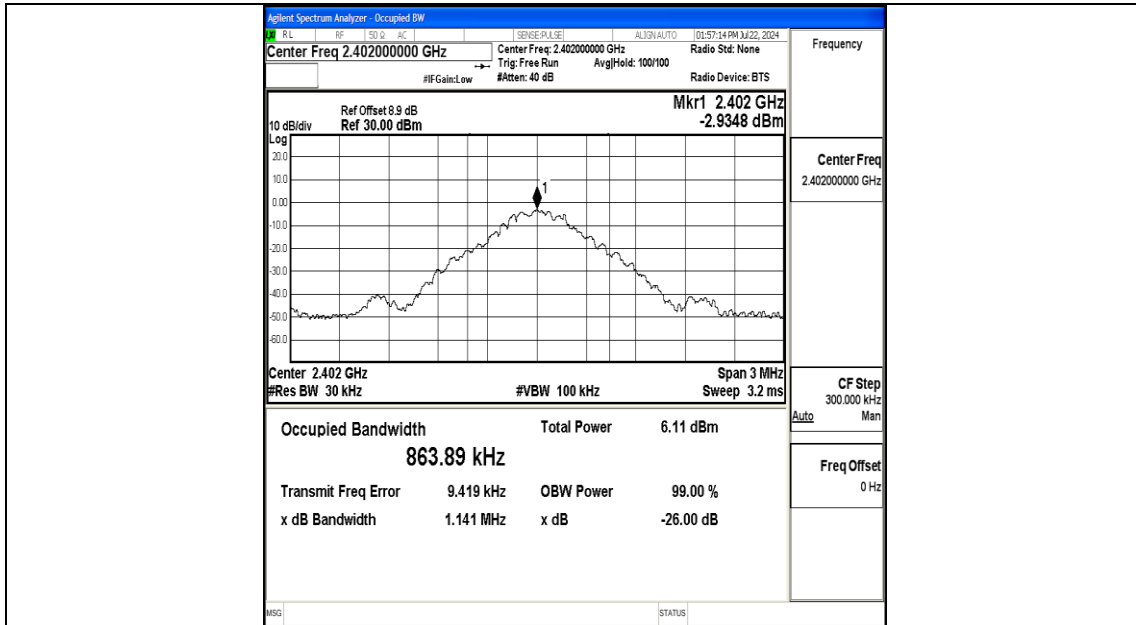


Appendix B: Occupied Channel Bandwidth

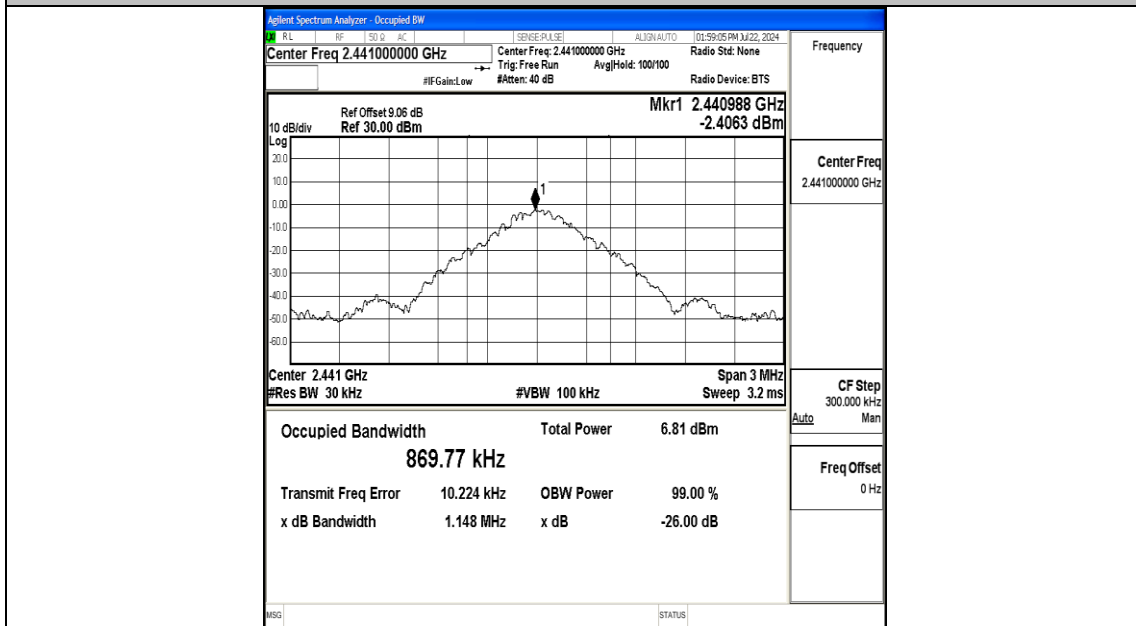
Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86389	2401.5775	2402.4414	---	---
DH5	Ant1	2441	0.86977	2440.5753	2441.4451	---	---
DH5	Ant1	2480	0.87222	2479.5795	2480.4517	---	---
2DH5	Ant1	2402	1.1772	2401.4245	2402.6017	---	---
2DH5	Ant1	2441	1.1860	2440.4228	2441.6088	---	---
2DH5	Ant1	2480	1.1830	2479.4197	2480.6027	---	---
3DH5	Ant1	2402	1.1988	2401.4147	2402.6135	---	---
3DH5	Ant1	2441	1.1876	2440.4172	2441.6048	---	---
3DH5	Ant1	2480	1.2064	2479.4059	2480.6123	---	---

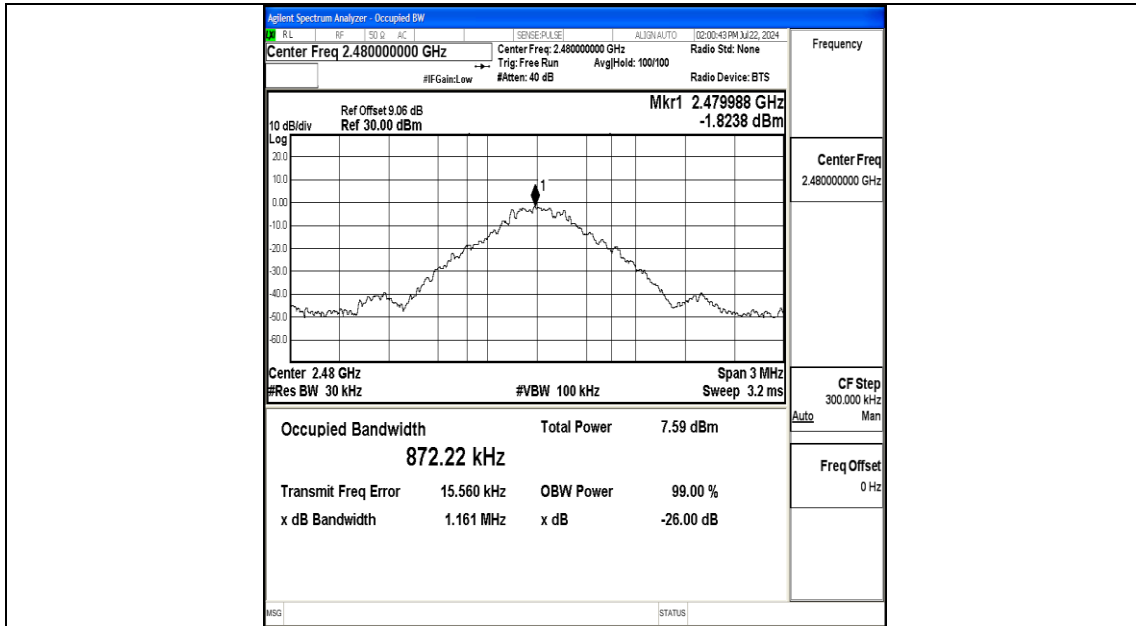
Test Graphs



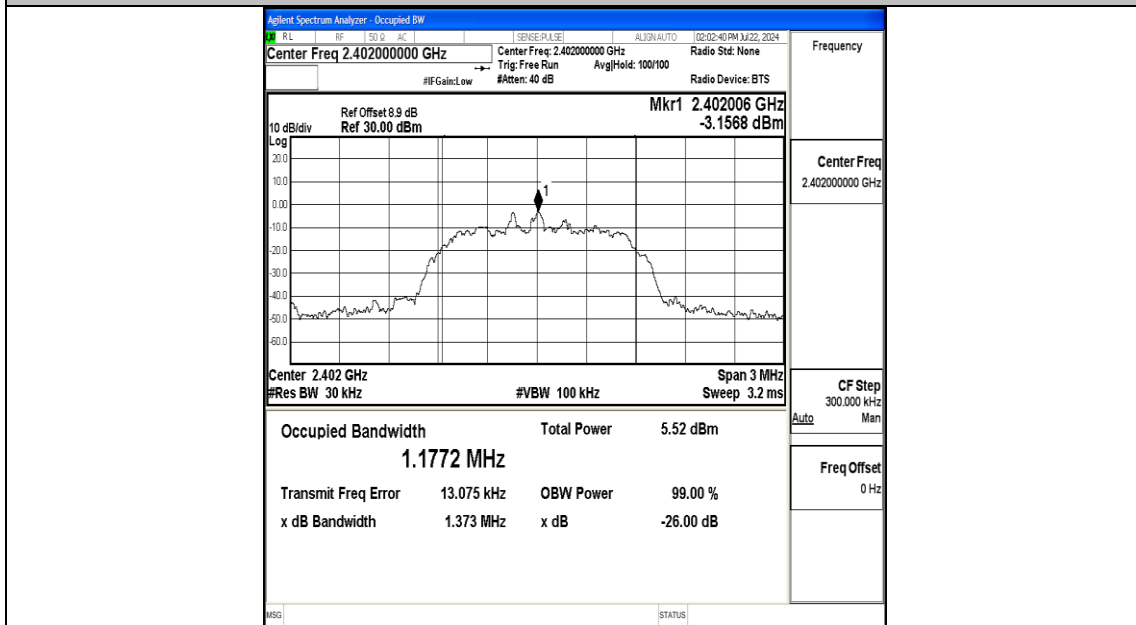
DH5-Ant1-2402



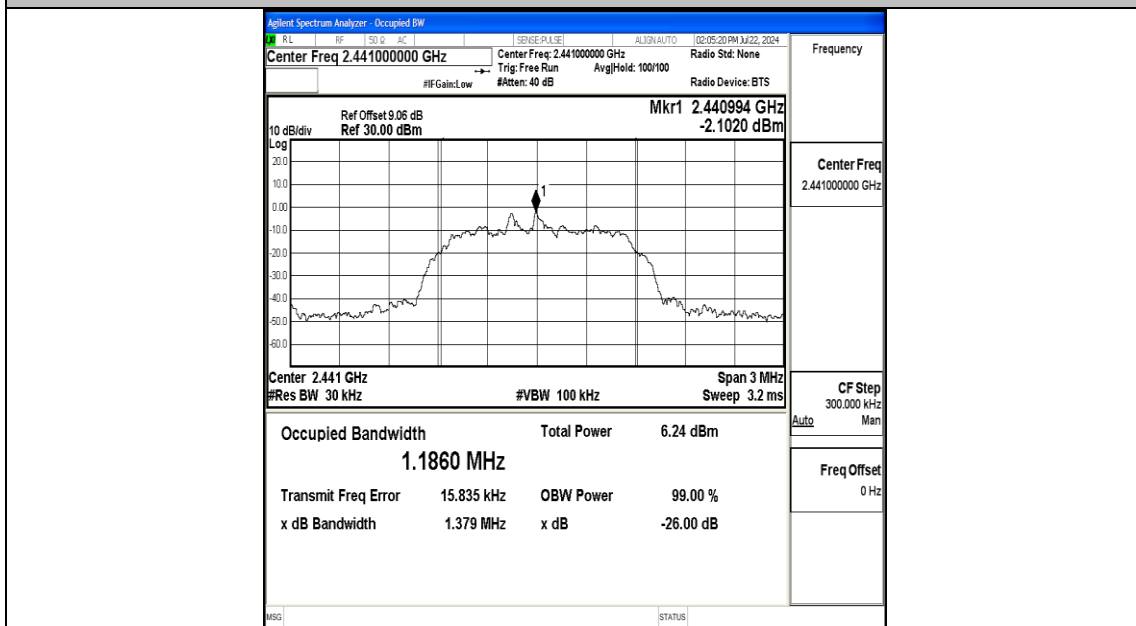
DH5-Ant1-2441



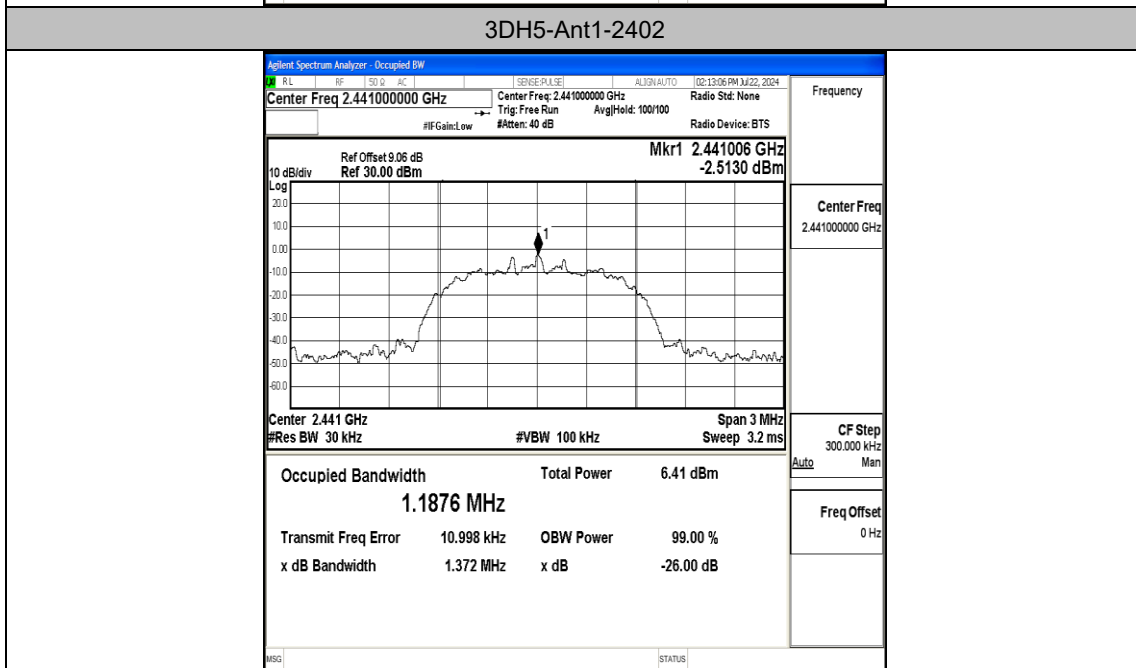
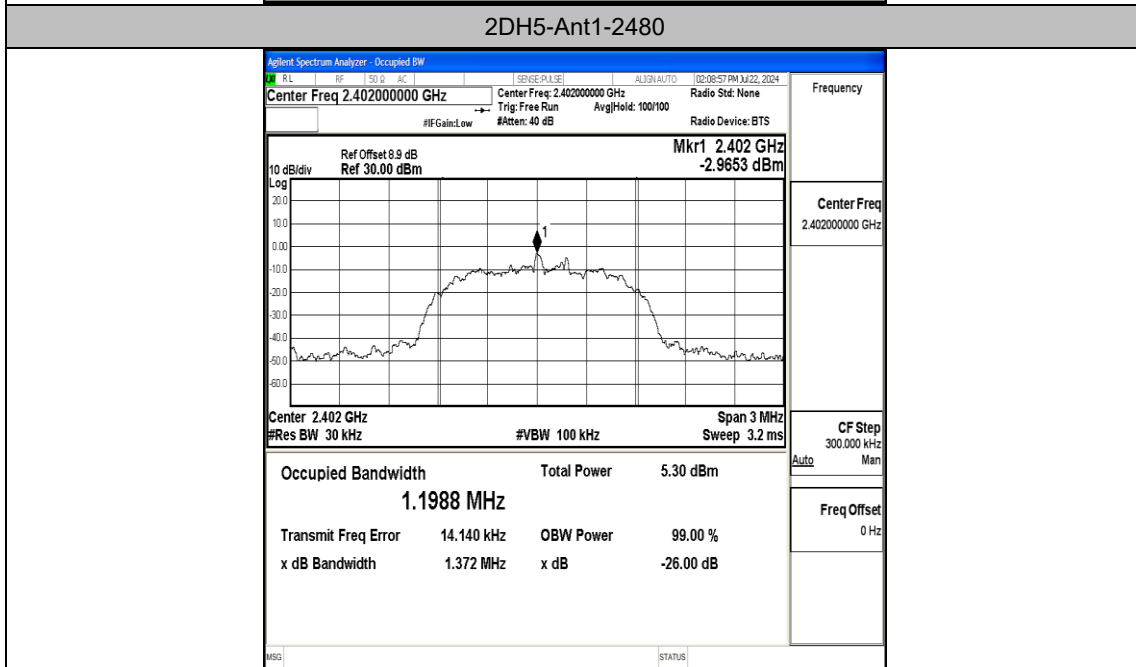
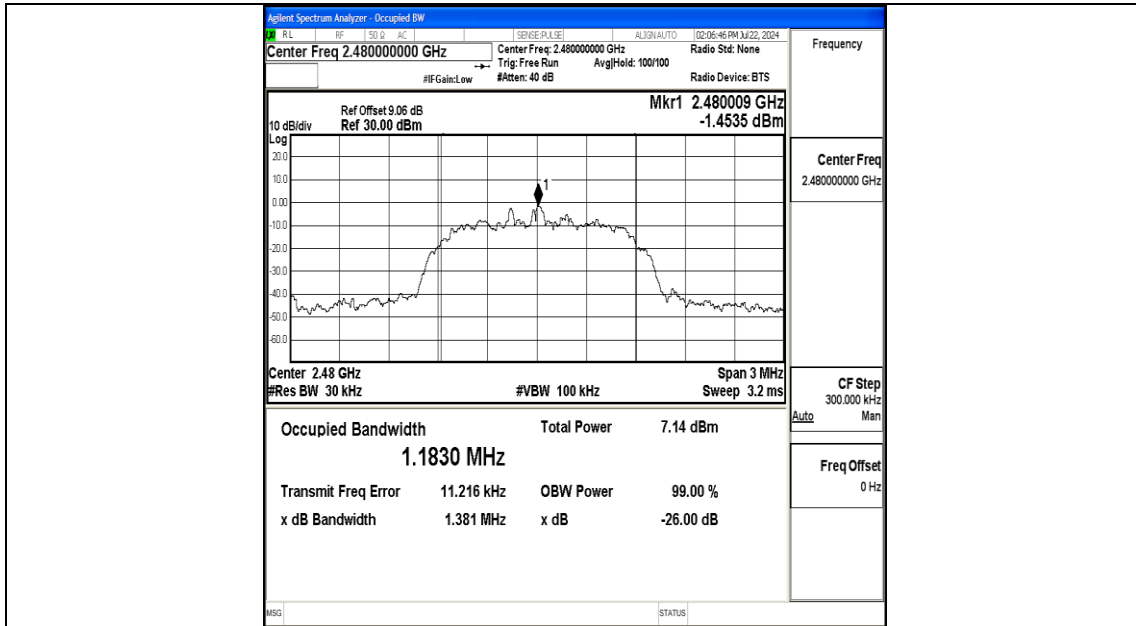
DH5-Ant1-2480

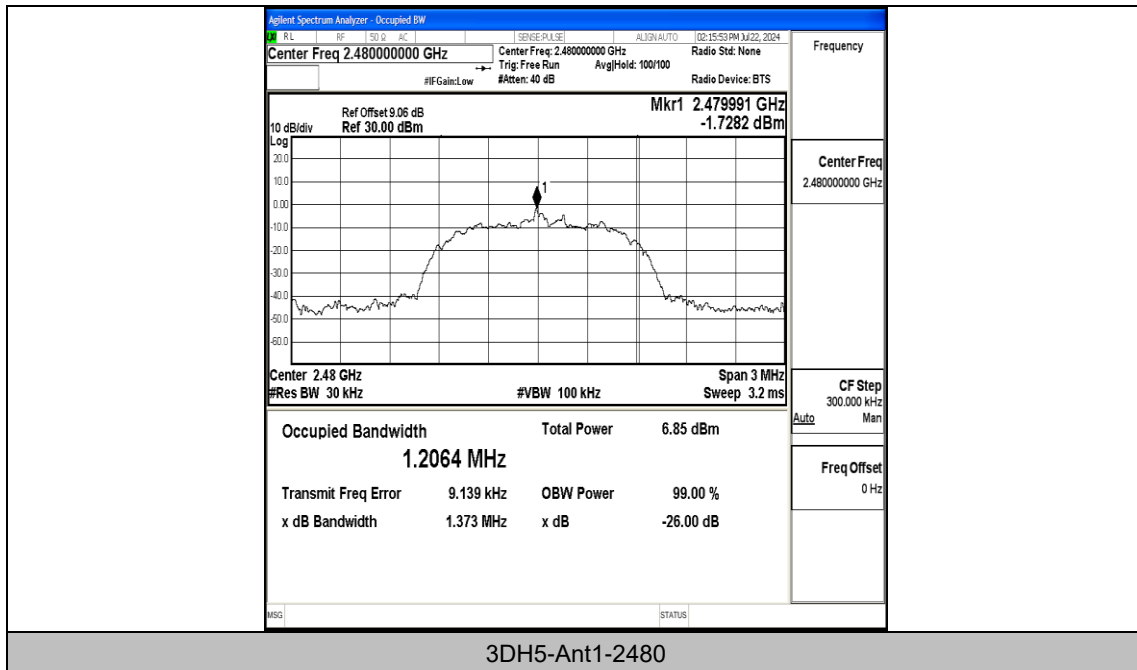


2DH5-Ant1-2402



2DH5-Ant1-2441



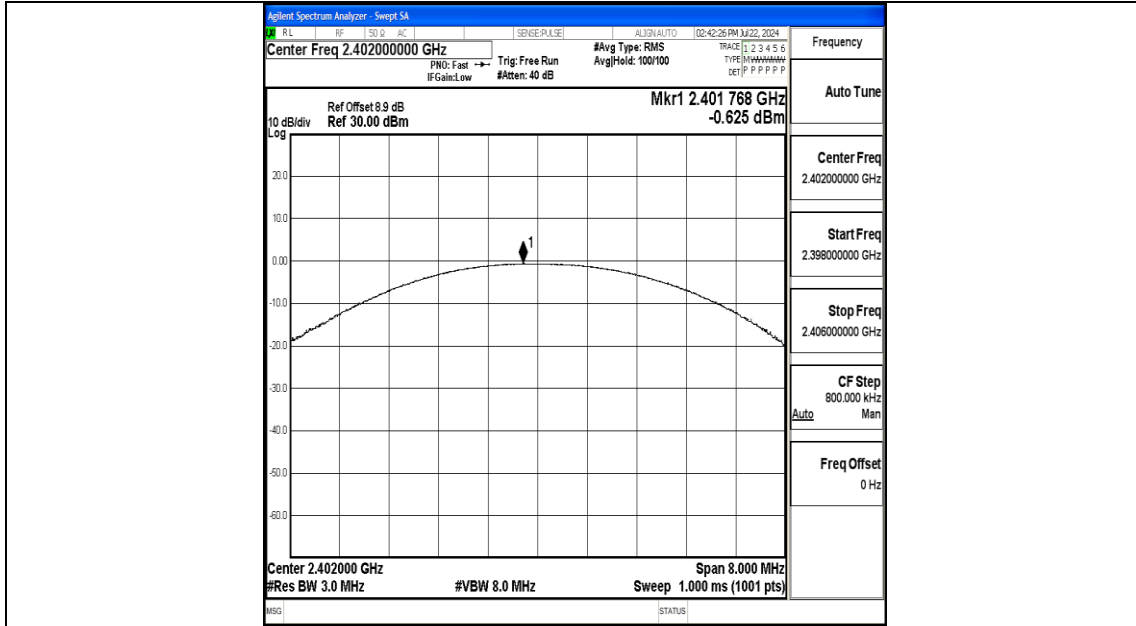


Appendix C: Maximum peak conducted output power

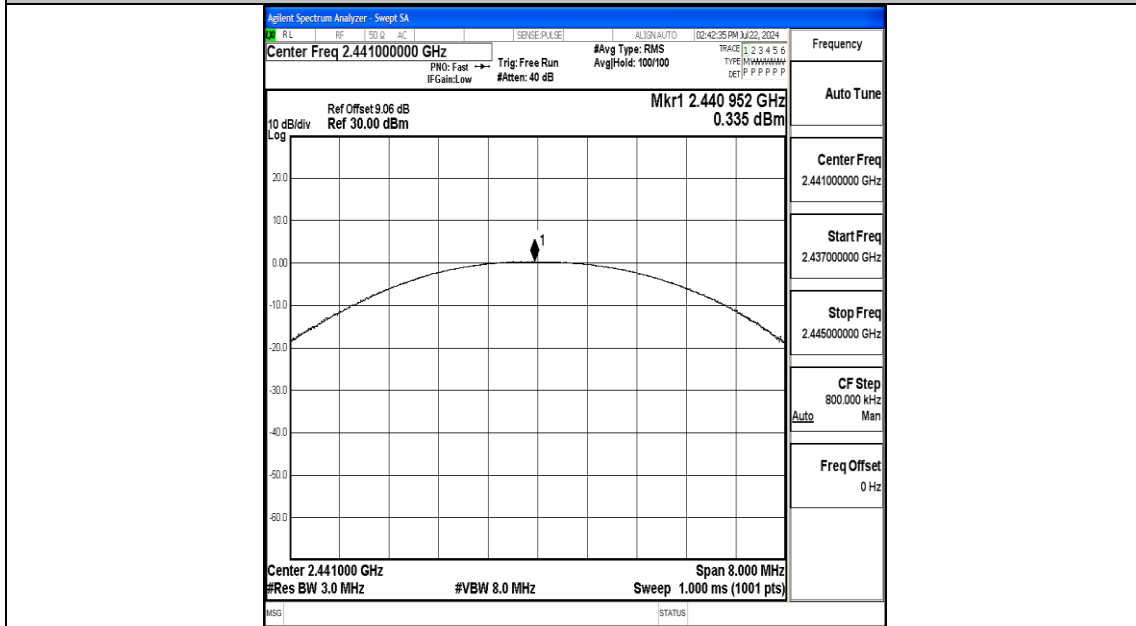
Test Result

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-0.63	≤30	PASS
DH5	Ant1	2441	0.34	≤30	PASS
DH5	Ant1	2480	1.03	≤30	PASS
2DH5	Ant1	2402	0.17	≤20.97	PASS
2DH5	Ant1	2441	1.13	≤20.97	PASS
2DH5	Ant1	2480	1.76	≤20.97	PASS
3DH5	Ant1	2402	0.54	≤30	PASS
3DH5	Ant1	2441	1.46	≤30	PASS
3DH5	Ant1	2480	2.20	≤30	PASS

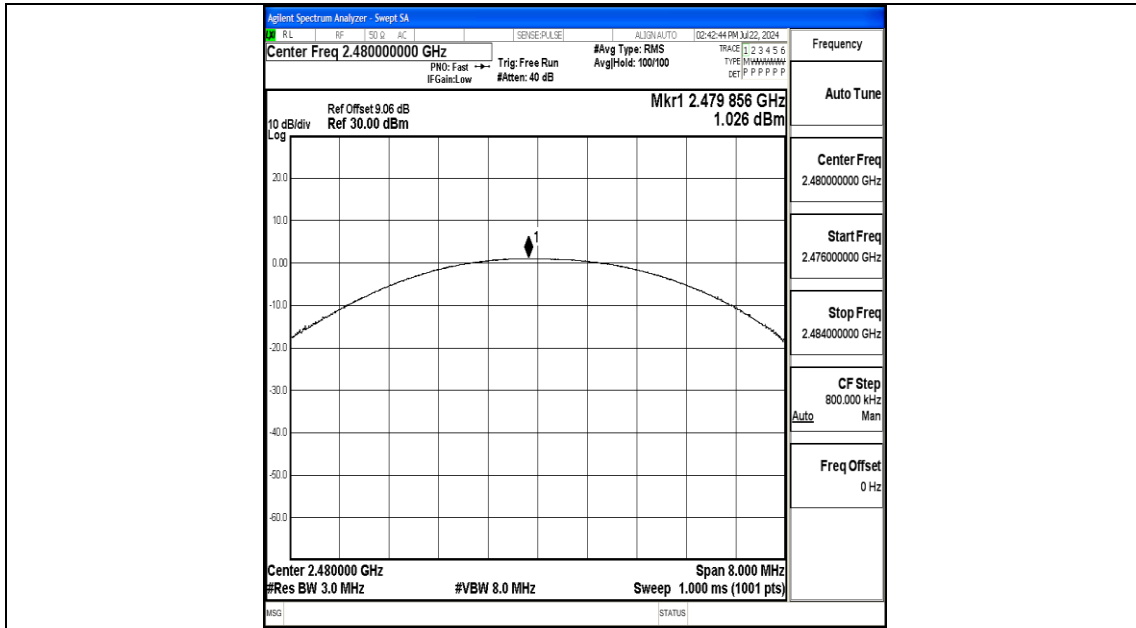
Test Graphs



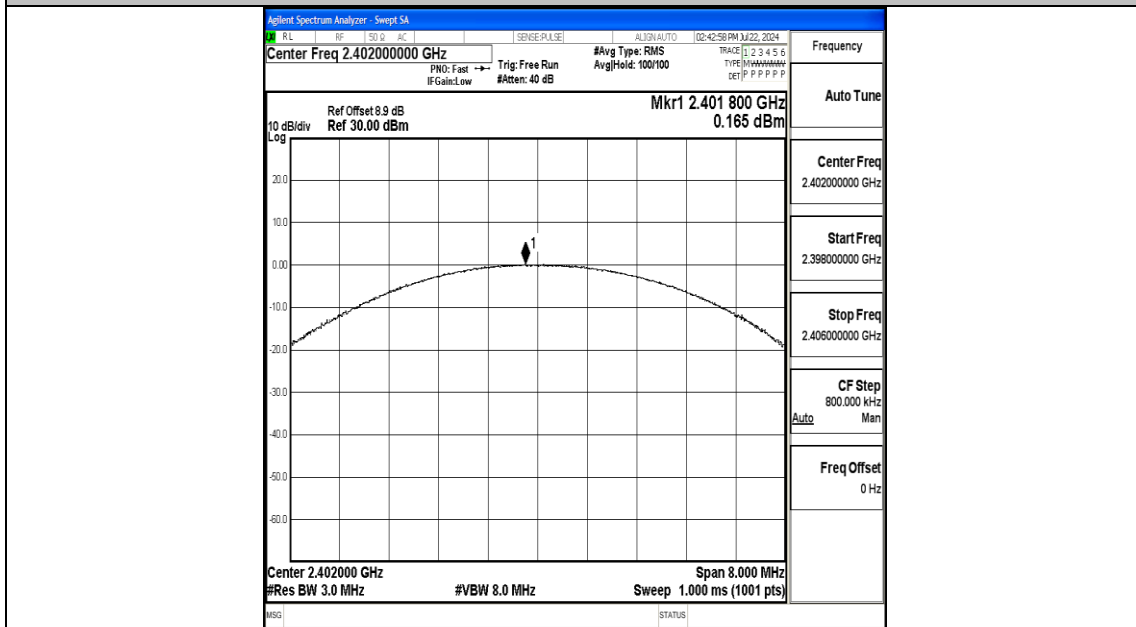
DH5-Ant1-2402-PASS



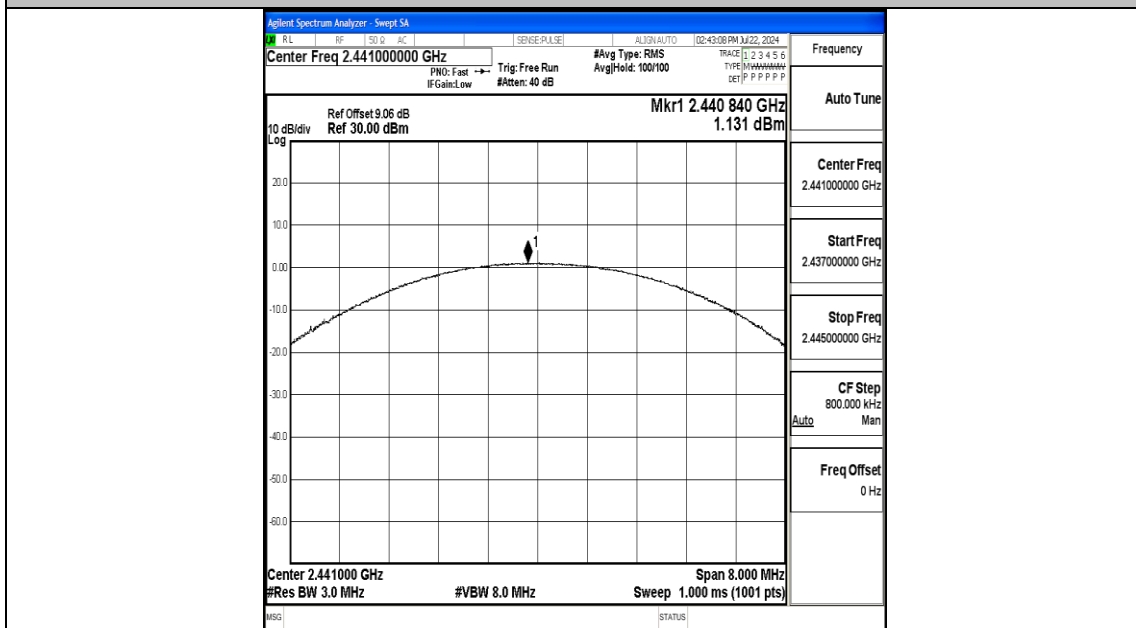
DH5-Ant1-2441-PASS



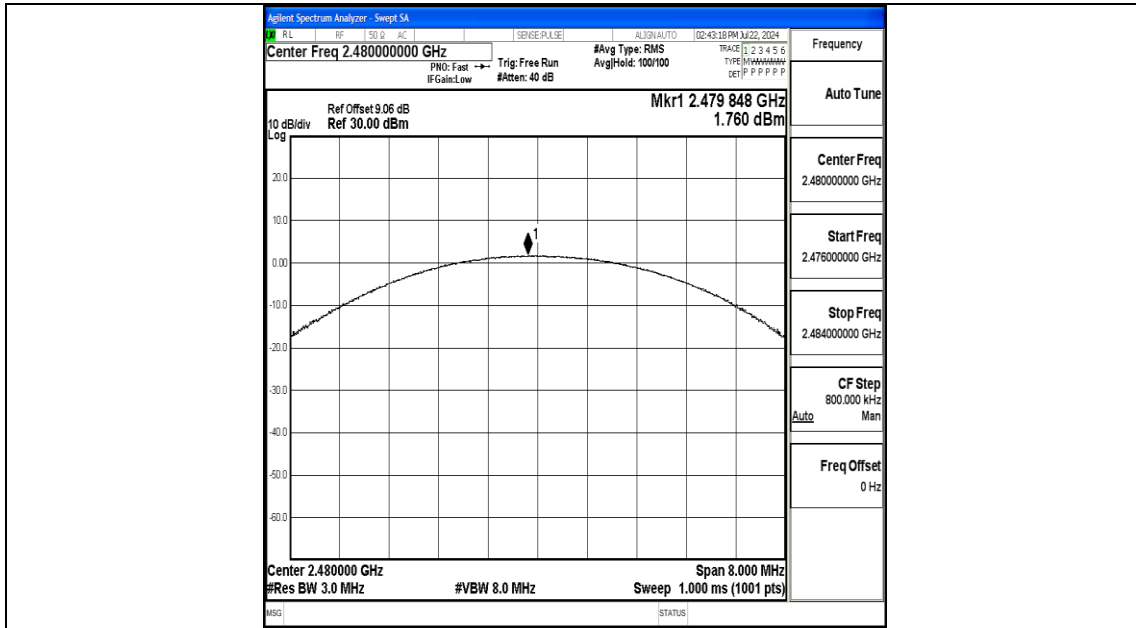
DH5-Ant1-2480-PASS



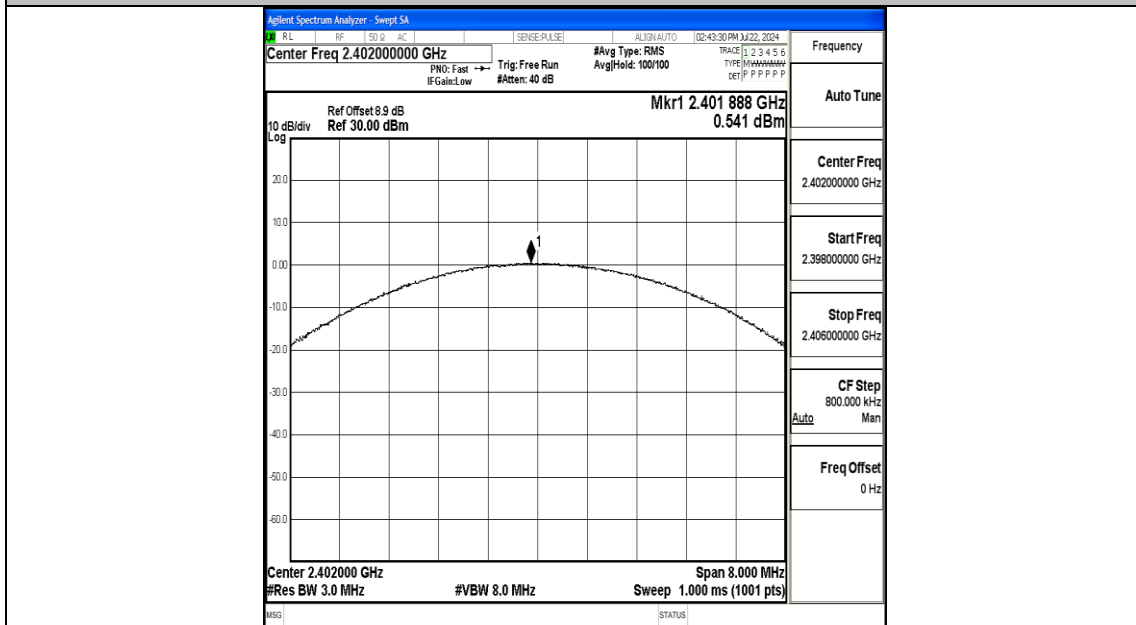
2DH5-Ant1-2402-PASS



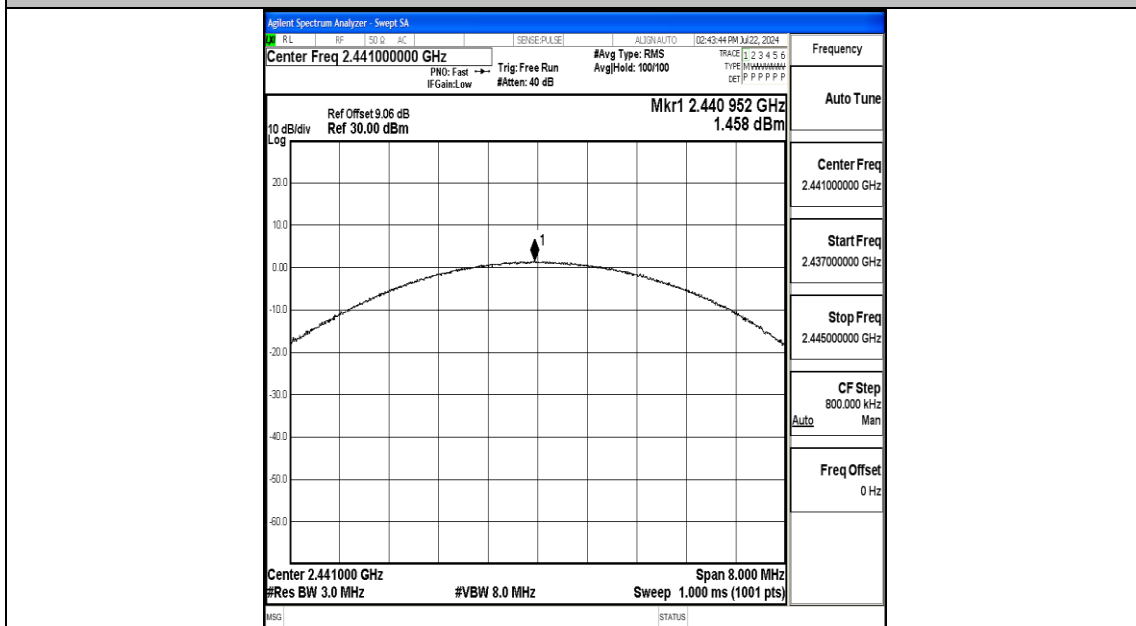
2DH5-Ant1-2441-PASS



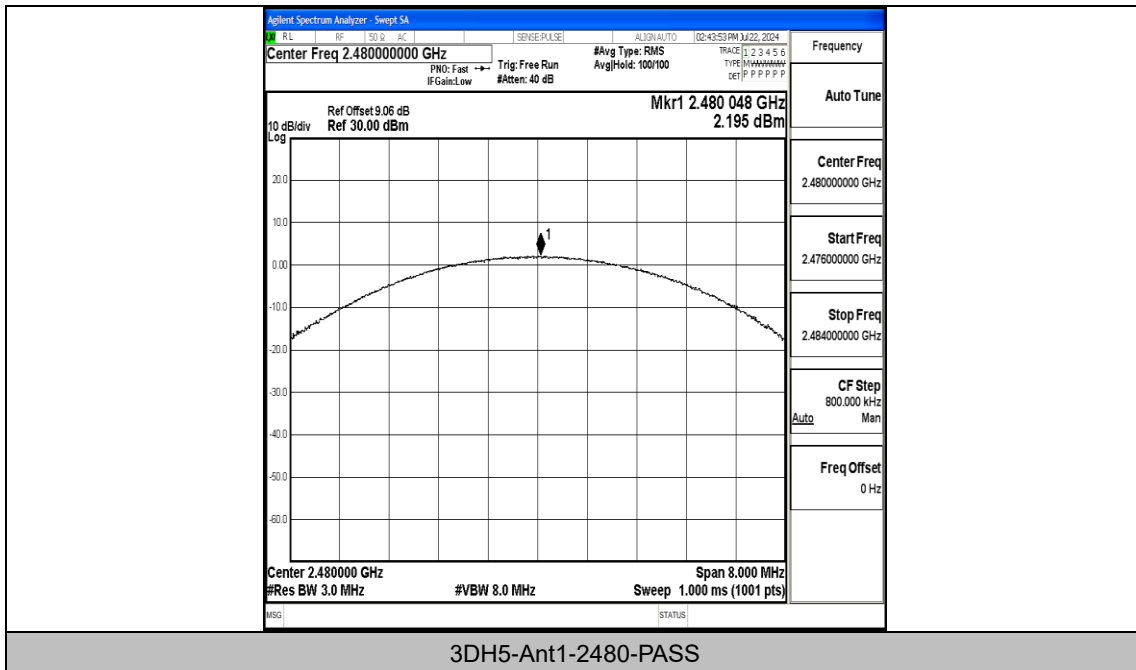
2D H5-Ant1-2480-PASS



3D H5-Ant1-2402-PASS



3D H5-Ant1-2441-PASS

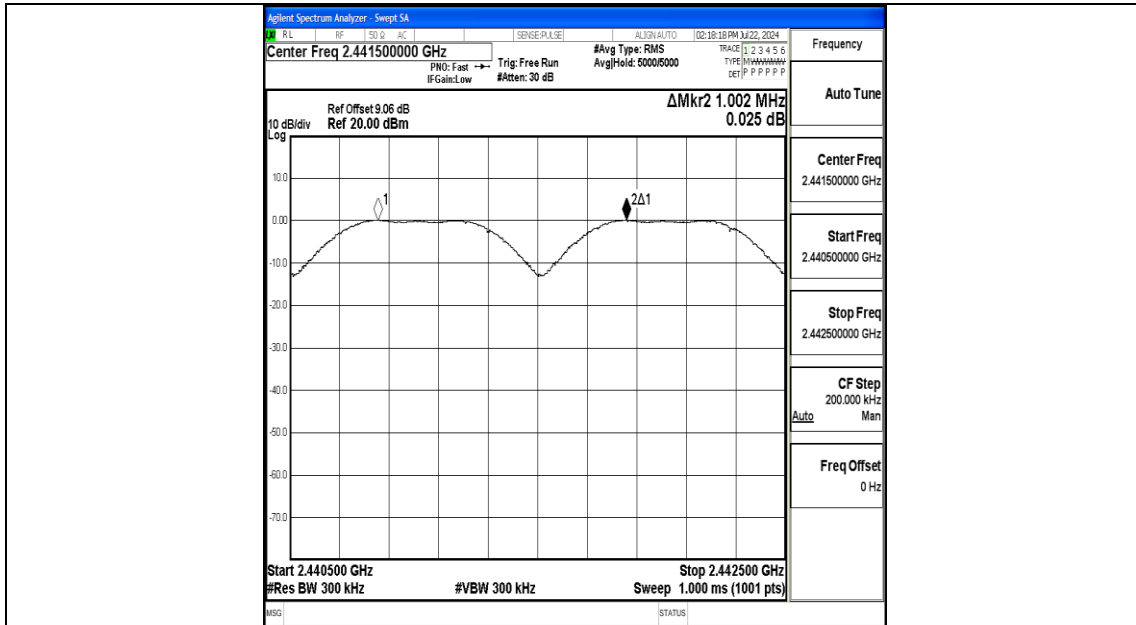


Appendix D: Carrier frequency separation

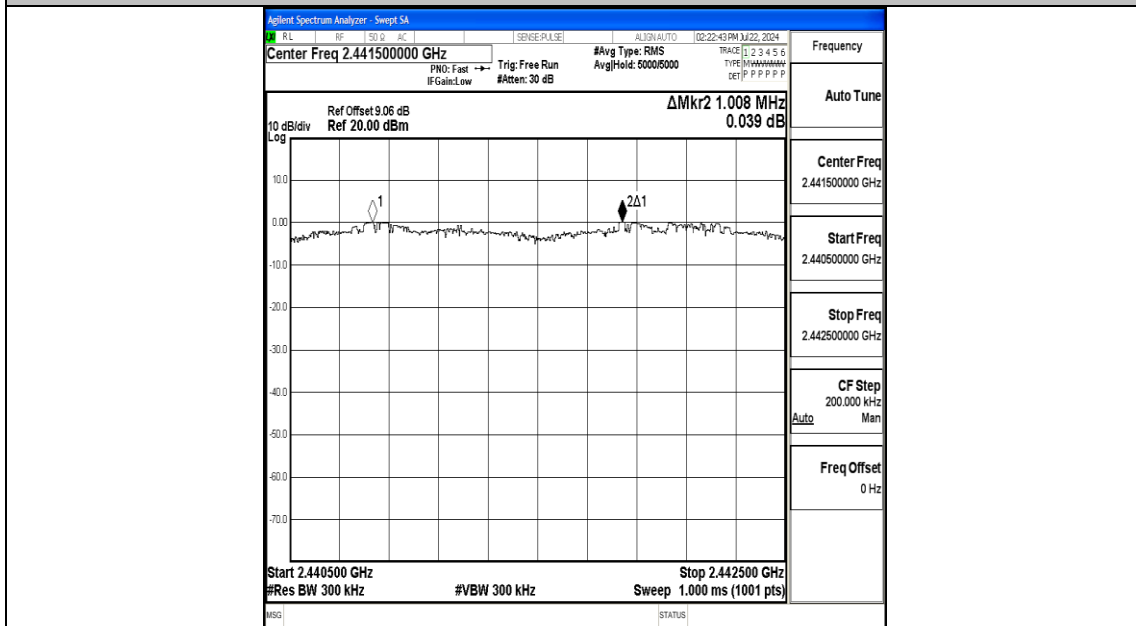
Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.002	≥ 0.957	PASS
2DH5	Ant1	Hop	1.008	≥ 0.870	PASS
3DH5	Ant1	Hop	1.322	≥ 1.305	PASS

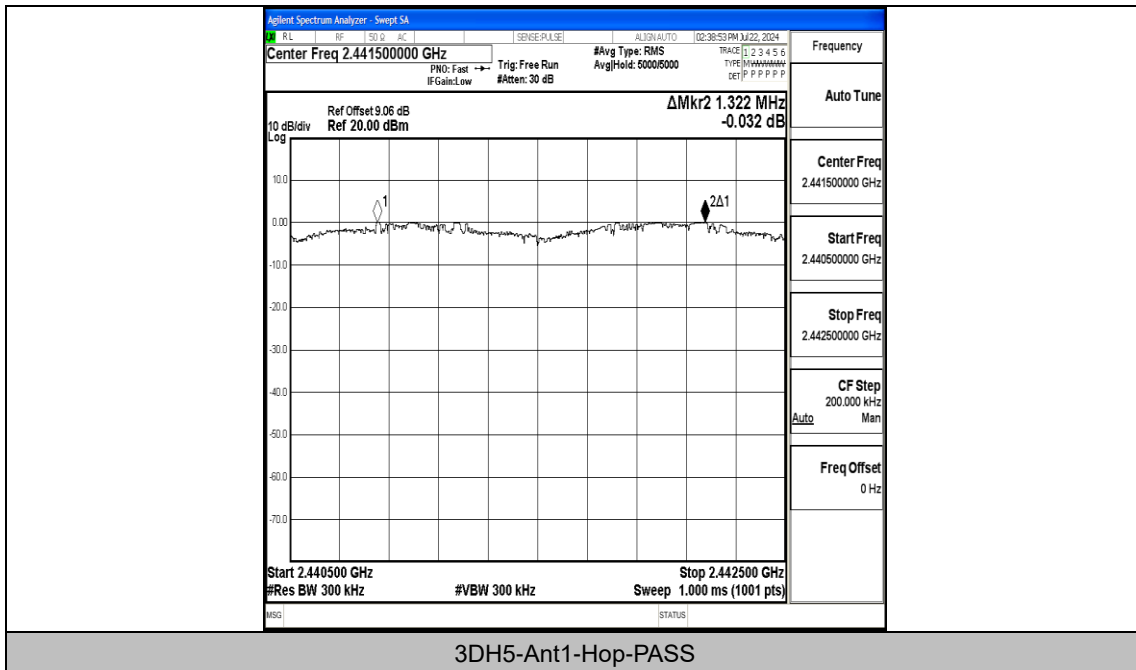
Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS

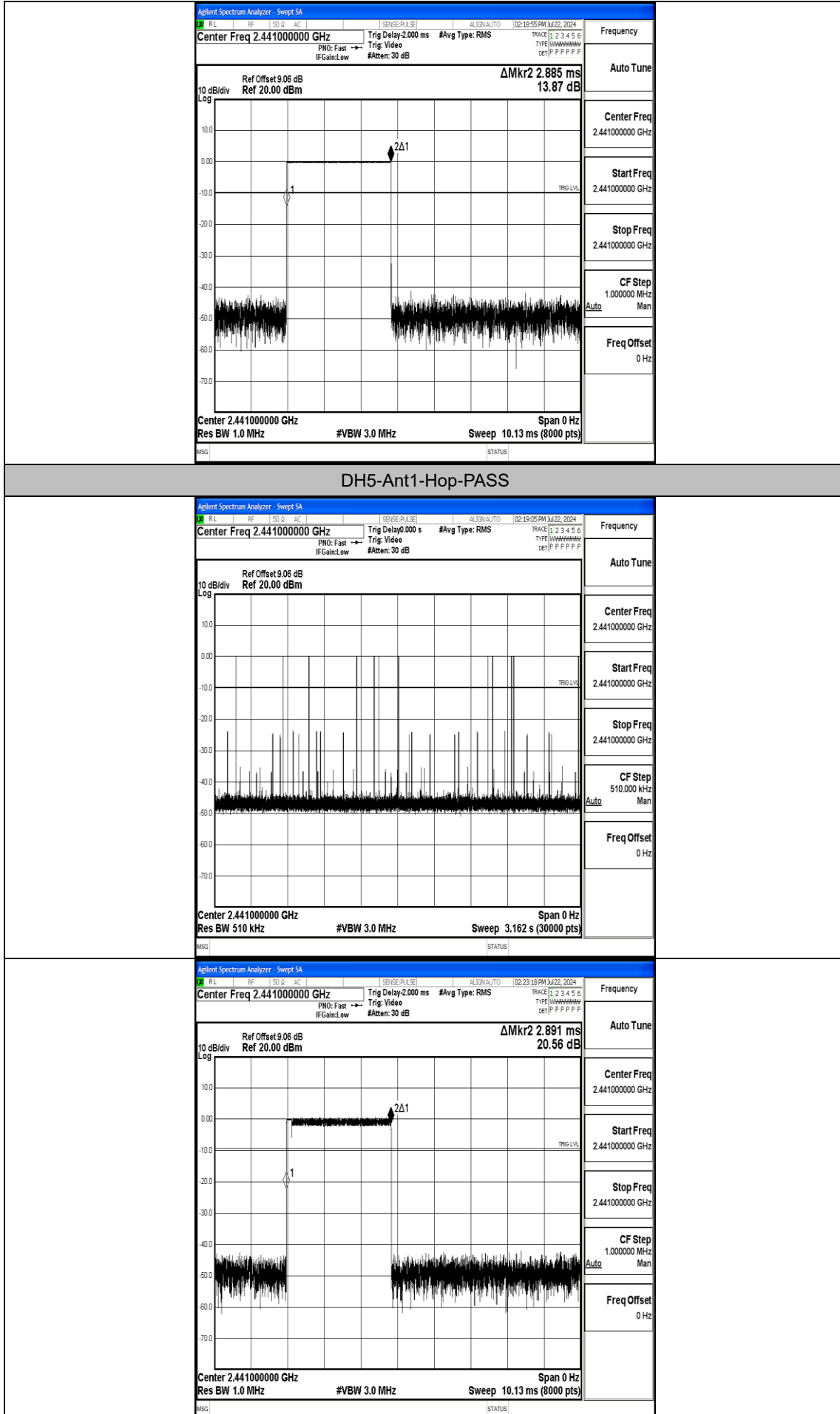


Appendix E: Time of occupancy

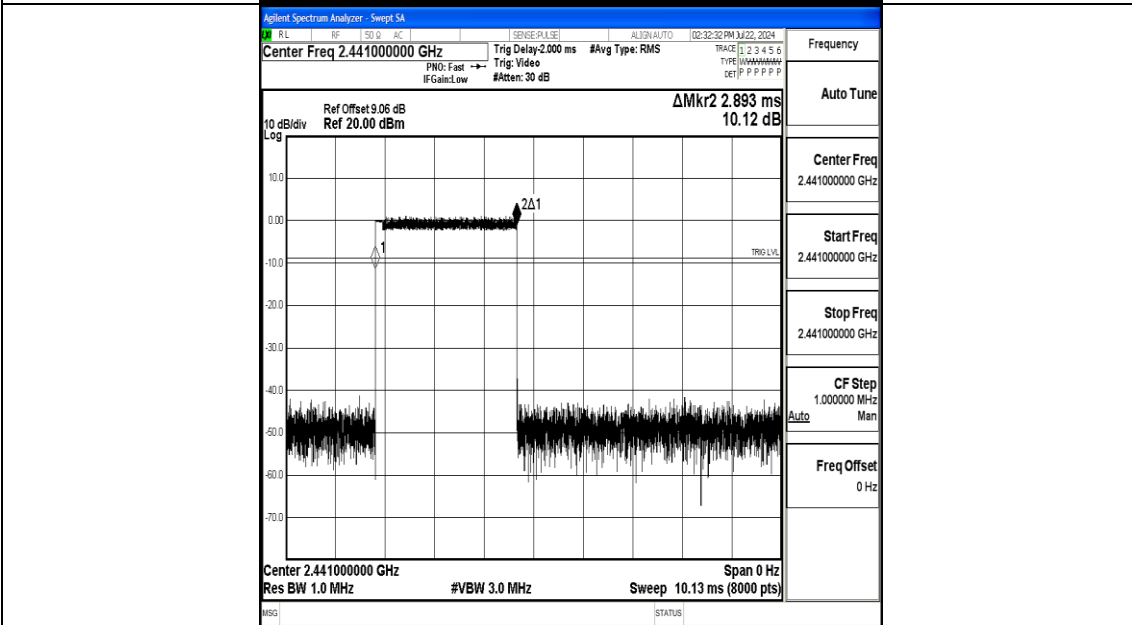
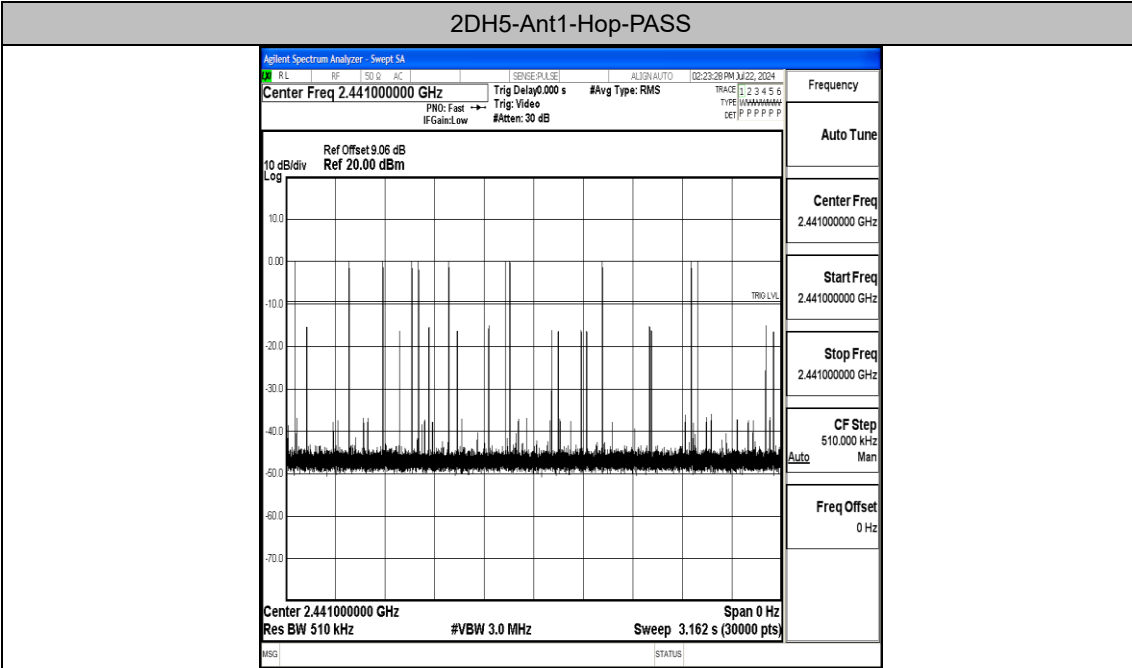
Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.885	130	0.375	≤0.4	PASS
2DH5	Ant1	Hop	2.891	120	0.347	≤0.4	PASS
3DH5	Ant1	Hop	2.893	110	0.318	≤0.4	PASS

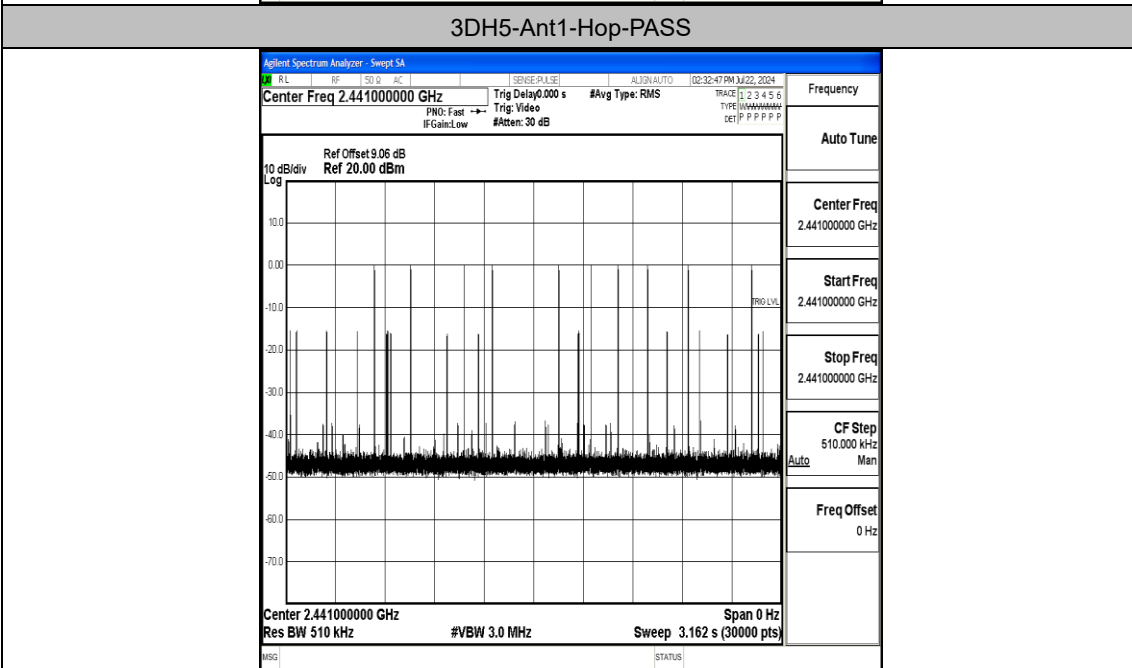
Test Graphs



2DH5-Ant1-Hop-PASS



3DH5-Ant1-Hop-PASS

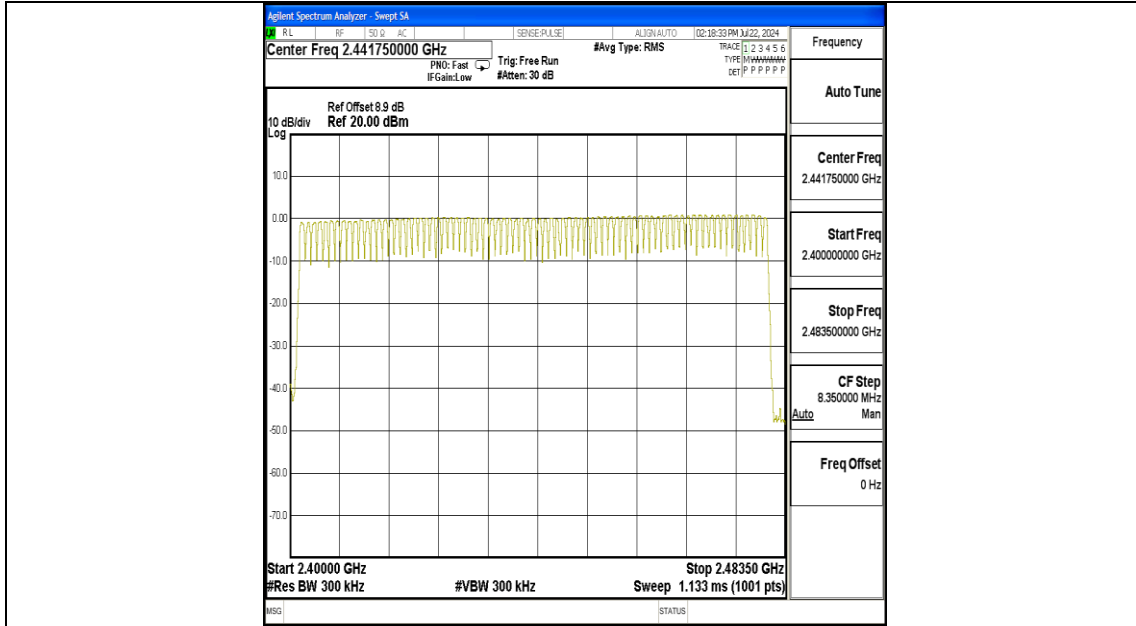


Appendix F: Number of hopping channels

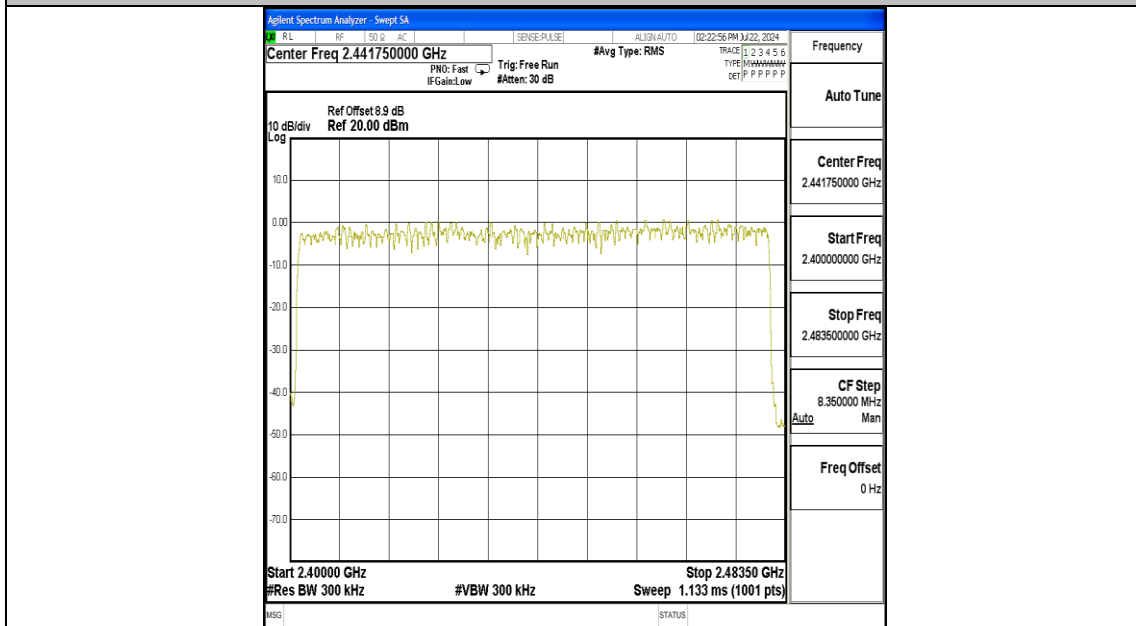
Test Result

TestMode	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

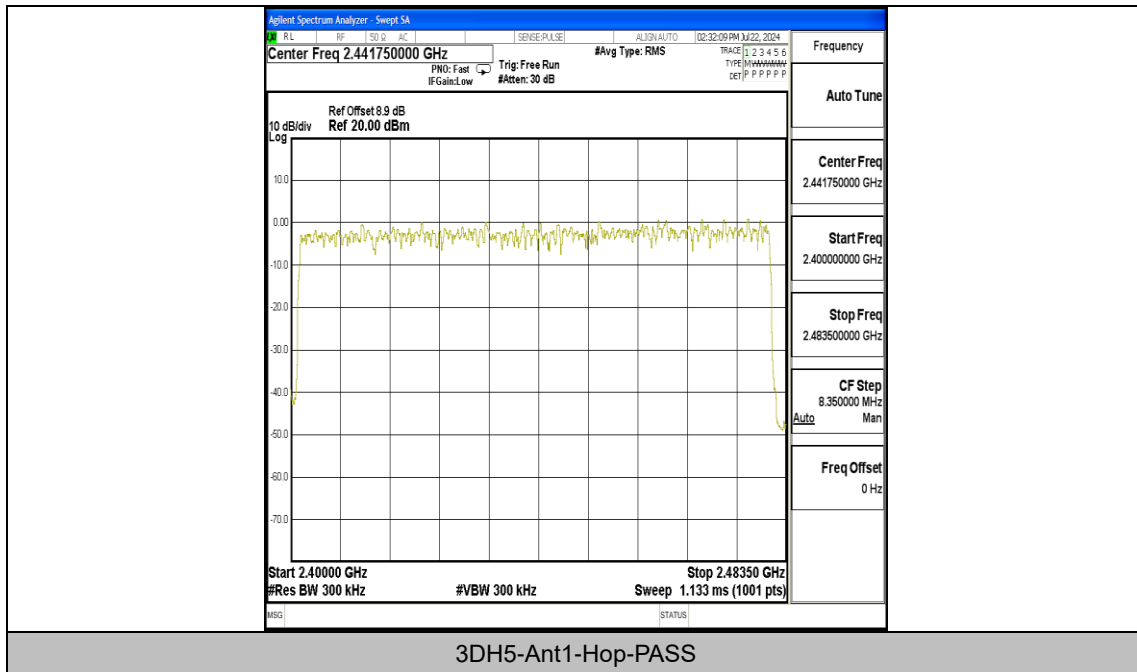
Test Graphs



DH5-Ant1-Hop-PASS



2DH5-Ant1-Hop-PASS

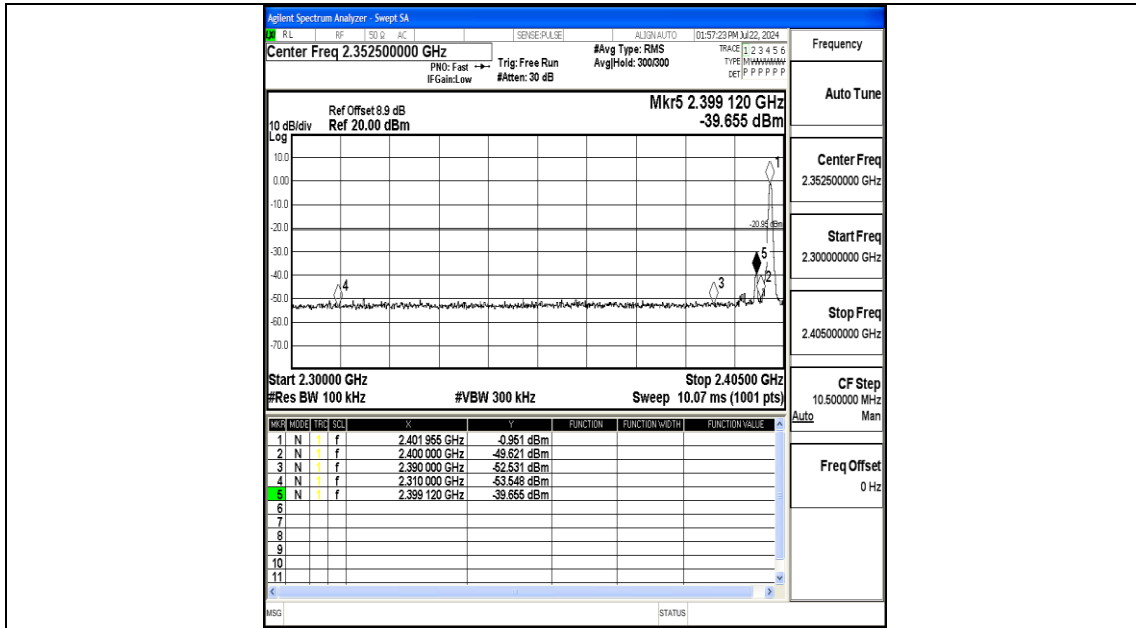


Appendix G: Band edge measurements

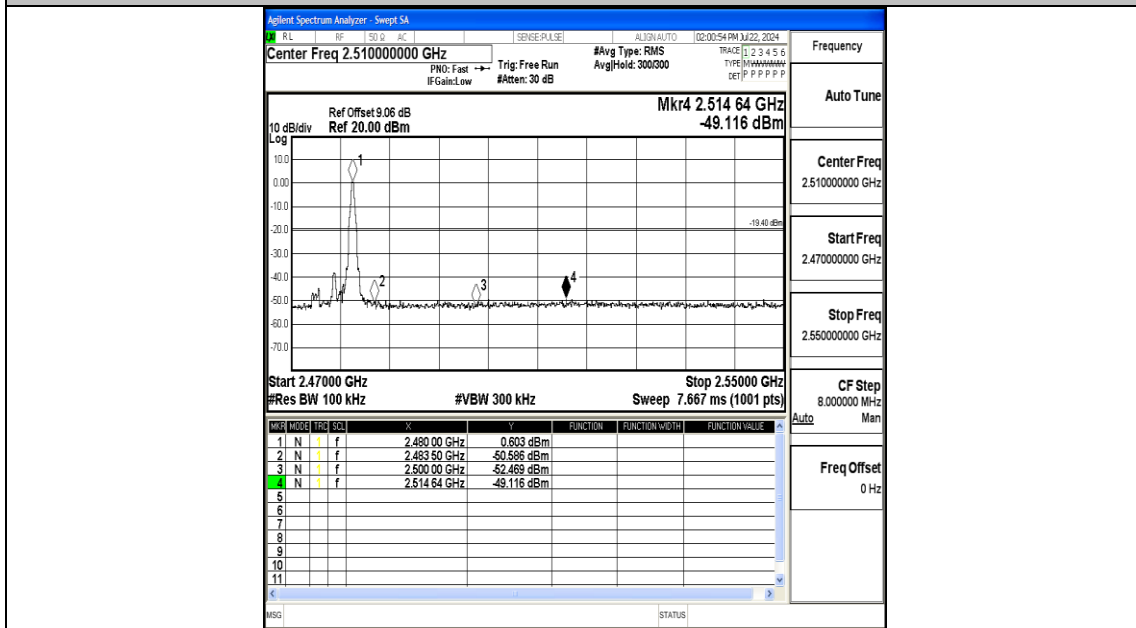
Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.95	-39.66	≤-20.95	PASS
DH5	Ant1	High	2480	0.60	-49.12	≤-19.4	PASS
DH5	Ant1	Low	Hop_2402	-1.67	-40.34	≤-21.67	PASS
DH5	Ant1	High	Hop_2480	0.70	-48.19	≤-19.3	PASS
2DH5	Ant1	Low	2402	-3.09	-40.48	≤-23.09	PASS
2DH5	Ant1	High	2480	0.74	-49.18	≤-19.26	PASS
2DH5	Ant1	Low	Hop_2402	-4.35	-43.62	≤-24.35	PASS
2DH5	Ant1	High	Hop_2480	-2.82	-49.35	≤-22.82	PASS
3DH5	Ant1	Low	2402	-1.45	-39.64	≤-21.45	PASS
3DH5	Ant1	High	2480	0.85	-48.7	≤-19.15	PASS
3DH5	Ant1	Low	Hop_2402	-4.54	-41.89	≤-24.54	PASS
3DH5	Ant1	High	Hop_2480	-0.72	-49.23	≤-20.72	PASS

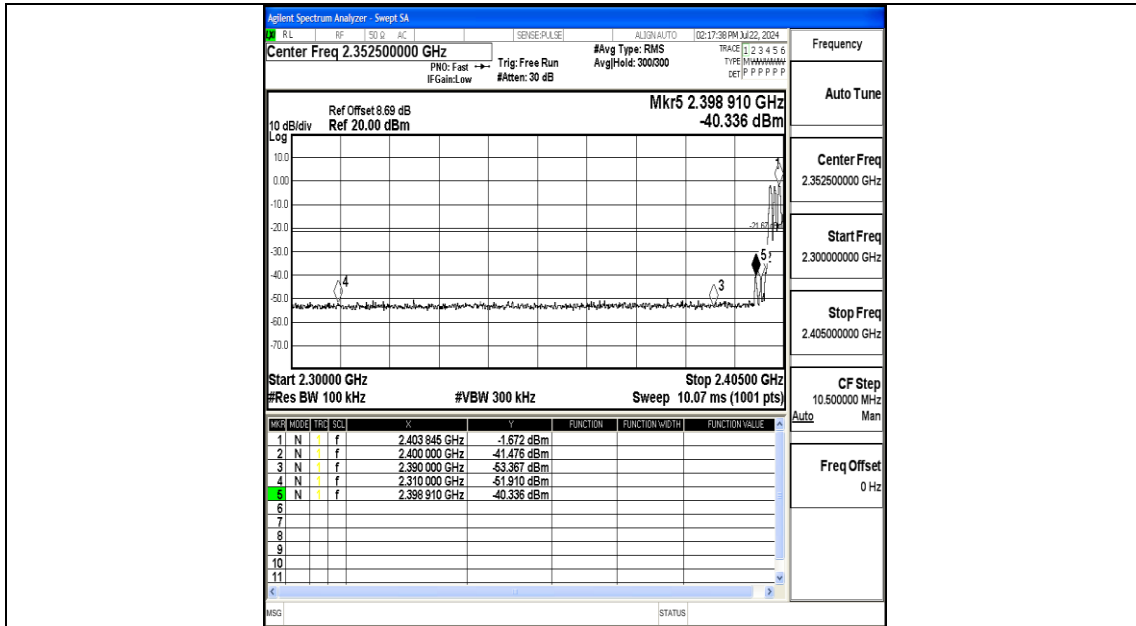
Test Graphs



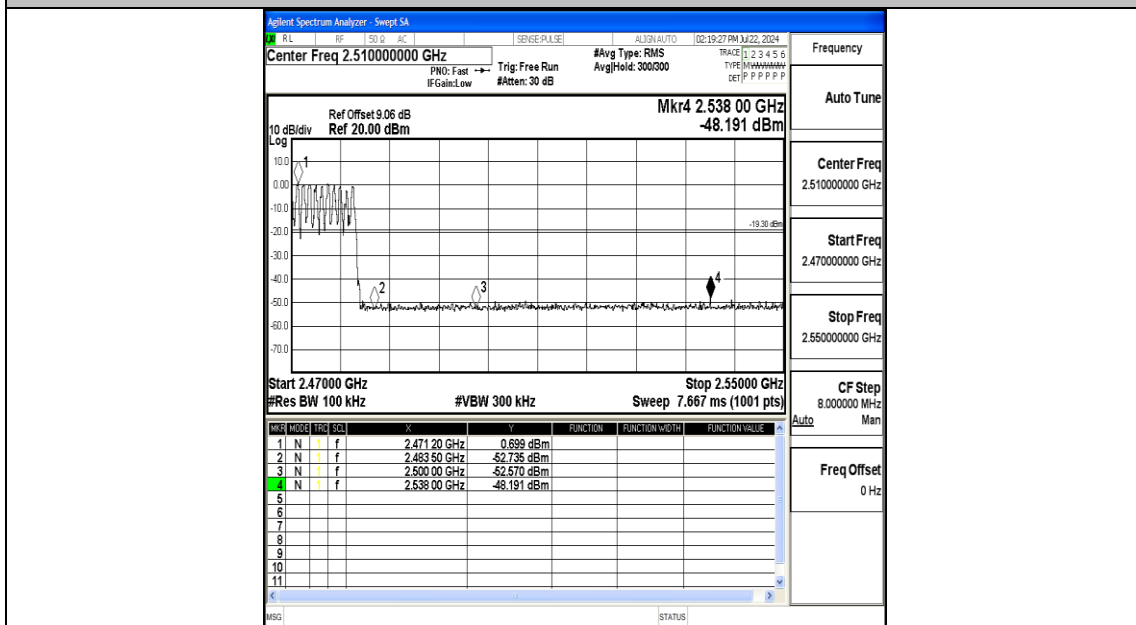
DH5-Ant1-2402-PASS



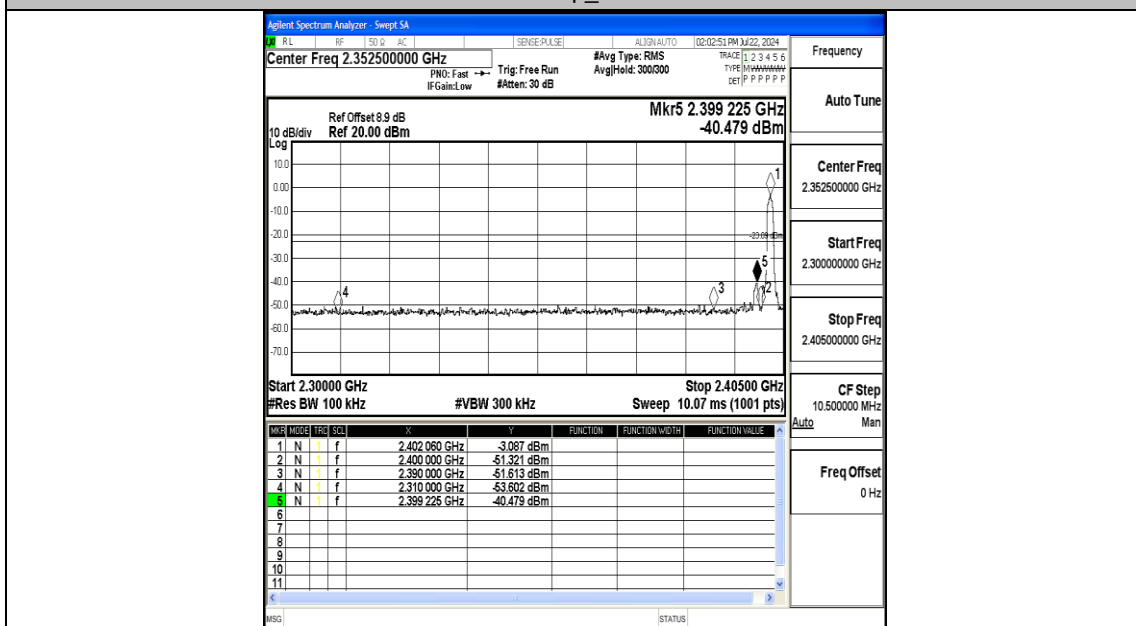
DH5-Ant1-2480-PASS



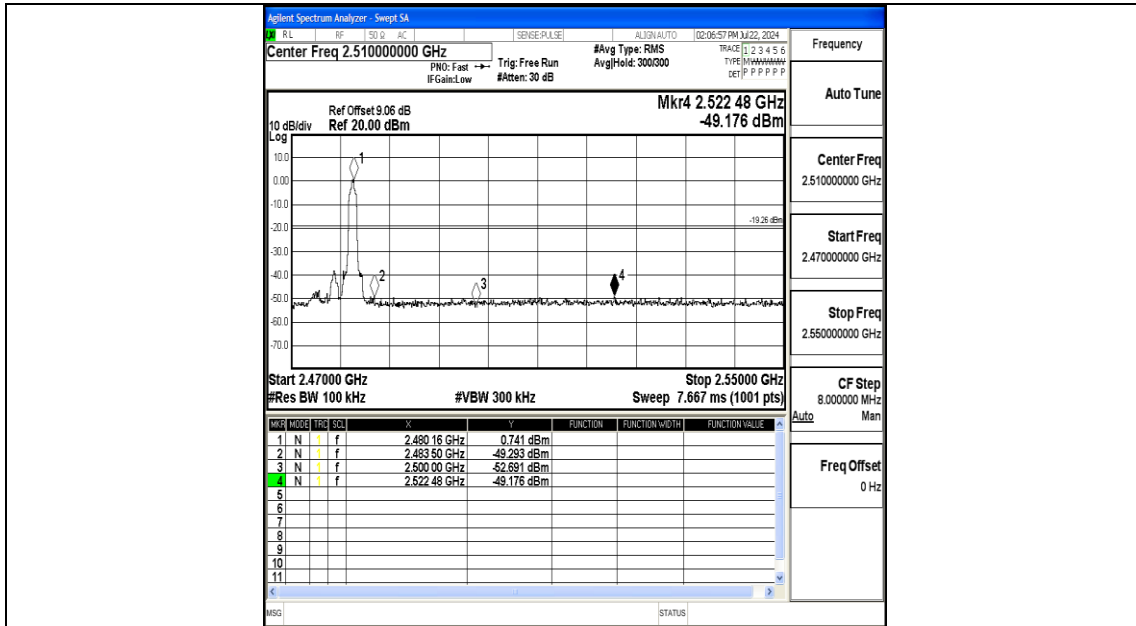
DH5-Ant1-Hop_2402-PASS



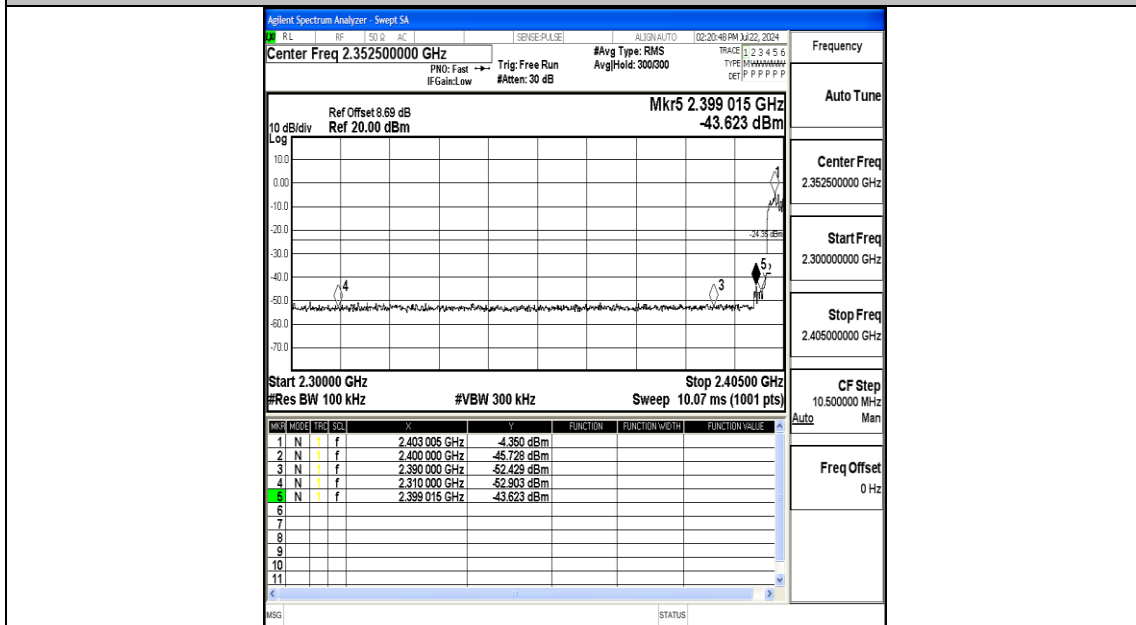
DH5-Ant1-Hop_2480-PASS



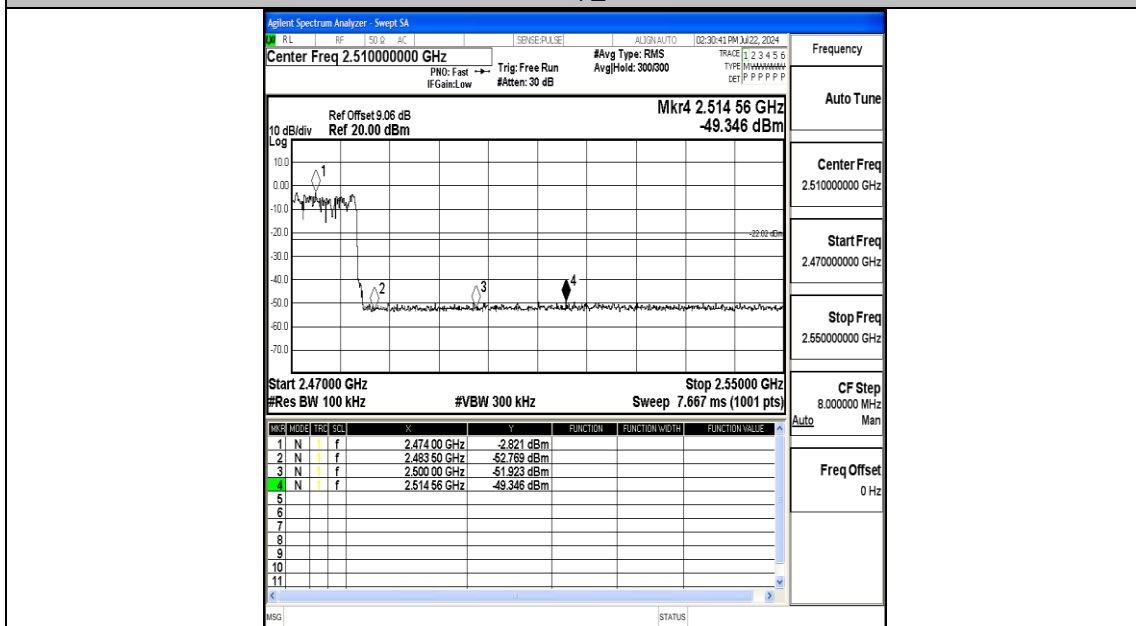
2DH5-Ant1-2402-PASS



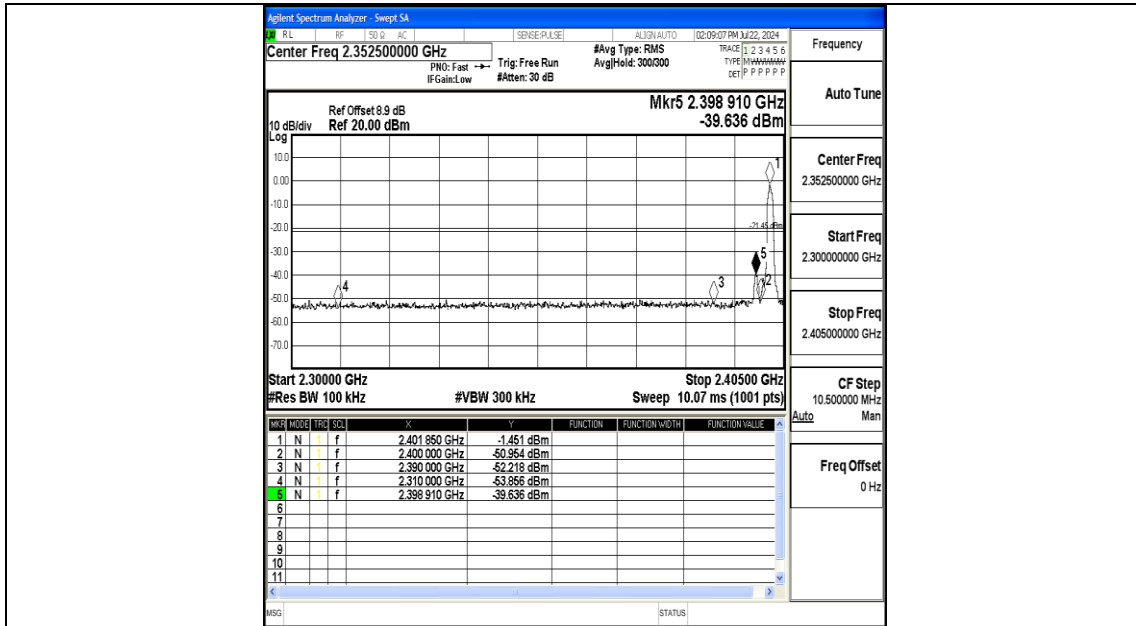
2DH5-Ant1-2480-PASS



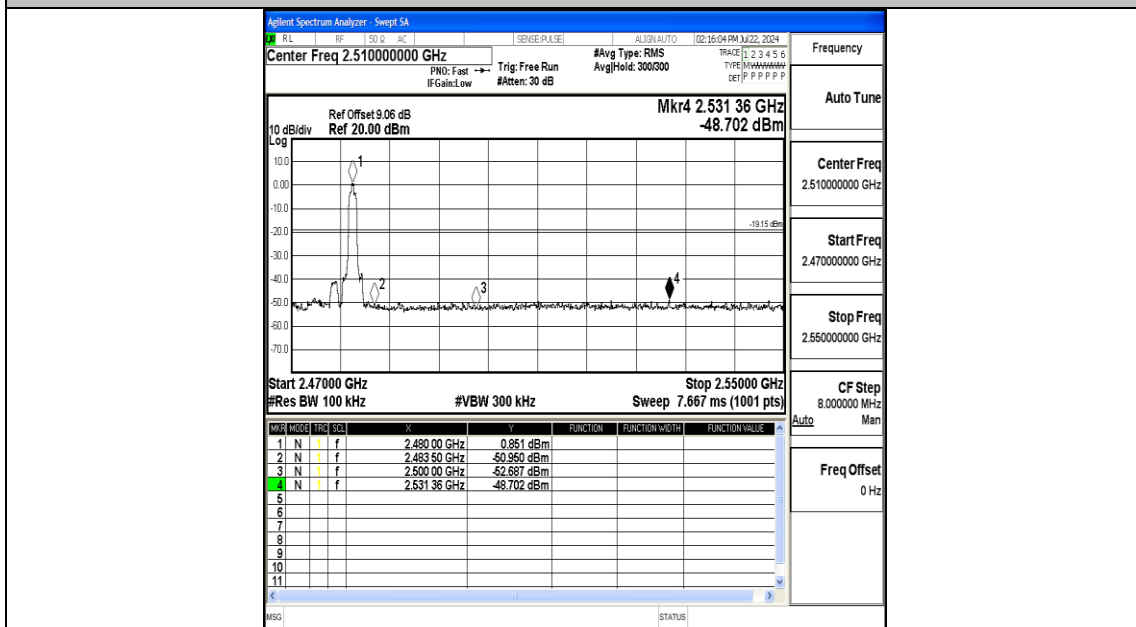
2DH5-Ant1-Hop_2402-PASS



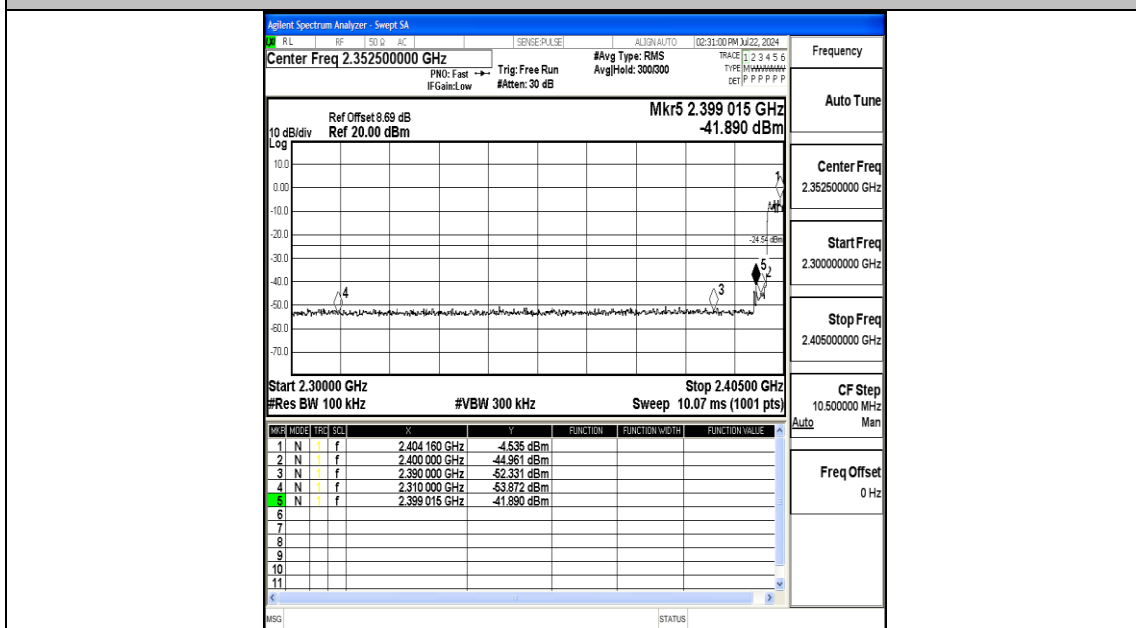
2DH5-Ant1-Hop_2480-PASS



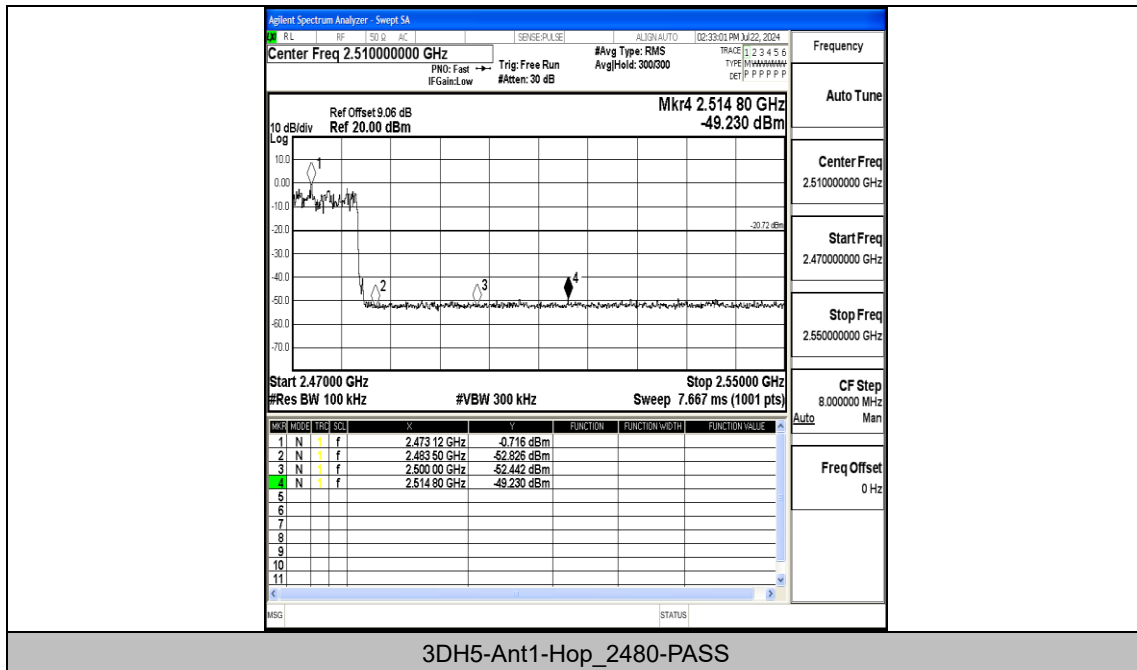
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop_2402-PASS



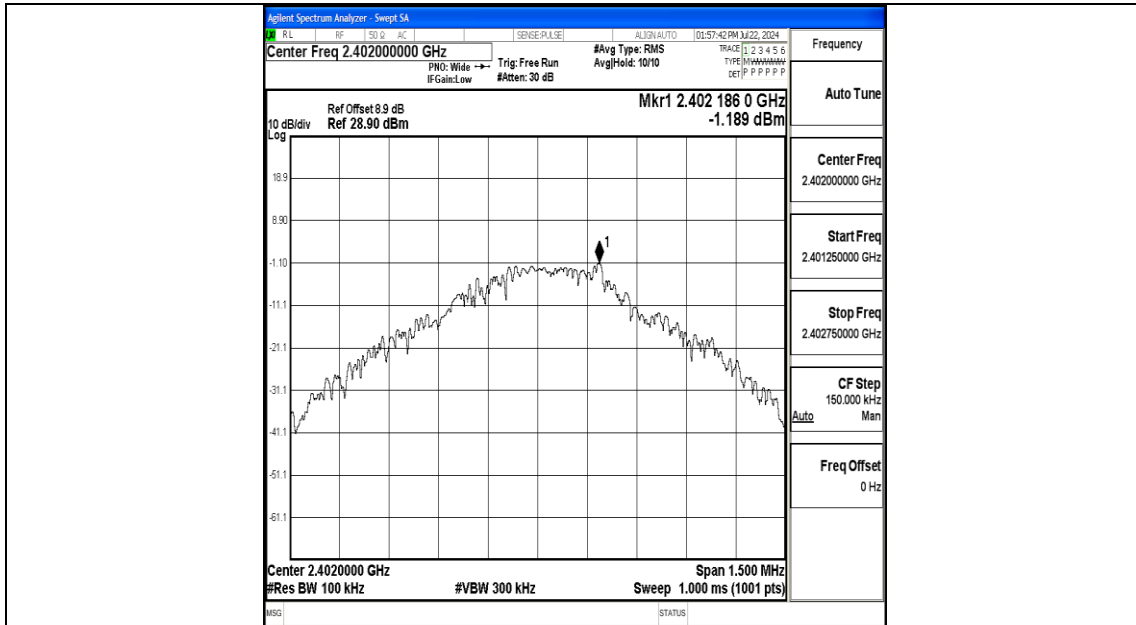
3DH5-Ant1-Hop_2480-PASS

Appendix H: Conducted Spurious Emission

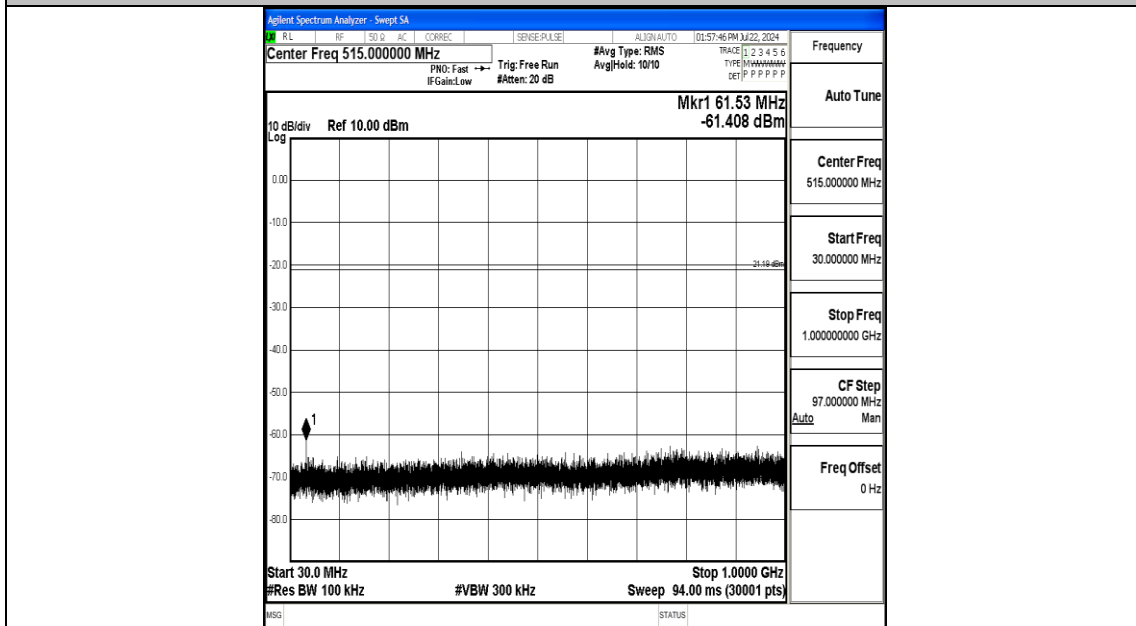
Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	0~Reference	-1.19	-1.19	---	PASS
DH5	Ant1	2402	30~1000	-1.19	-61.41	≤-21.19	PASS
DH5	Ant1	2402	1000~26500	-1.19	-44.37	≤-21.19	PASS
DH5	Ant1	2441	0~Reference	-0.73	-0.73	---	PASS
DH5	Ant1	2441	30~1000	-0.73	-61.53	≤-20.73	PASS
DH5	Ant1	2441	1000~26500	-0.73	-45.76	≤-20.73	PASS
DH5	Ant1	2480	0~Reference	0.00	0.00	---	PASS
DH5	Ant1	2480	30~1000	0.00	-61.13	≤-20	PASS
DH5	Ant1	2480	1000~26500	0.00	-47.19	≤-20	PASS
2DH5	Ant1	2402	0~Reference	-4.27	-4.27	---	PASS
2DH5	Ant1	2402	30~1000	-4.27	-61.53	≤-24.27	PASS
2DH5	Ant1	2402	1000~26500	-4.27	-45.46	≤-24.27	PASS
2DH5	Ant1	2441	0~Reference	-3.89	-3.89	---	PASS
2DH5	Ant1	2441	30~1000	-3.89	-61.75	≤-23.89	PASS
2DH5	Ant1	2441	1000~26500	-3.89	-46.09	≤-23.89	PASS
2DH5	Ant1	2480	0~Reference	-2.31	-2.31	---	PASS
2DH5	Ant1	2480	30~1000	-2.31	-62.06	≤-22.31	PASS
2DH5	Ant1	2480	1000~26500	-2.31	-46.92	≤-22.31	PASS
3DH5	Ant1	2402	0~Reference	-2.28	-2.28	---	PASS
3DH5	Ant1	2402	30~1000	-2.28	-62.02	≤-22.28	PASS
3DH5	Ant1	2402	1000~26500	-2.28	-47.66	≤-22.28	PASS
3DH5	Ant1	2441	0~Reference	-0.63	-0.63	---	PASS
3DH5	Ant1	2441	30~1000	-0.63	-62.32	≤-20.63	PASS
3DH5	Ant1	2441	1000~26500	-0.63	-47.15	≤-20.63	PASS
3DH5	Ant1	2480	0~Reference	0.06	0.06	---	PASS
3DH5	Ant1	2480	30~1000	0.06	-61.26	≤-19.94	PASS
3DH5	Ant1	2480	1000~26500	0.06	-48.52	≤-19.94	PASS

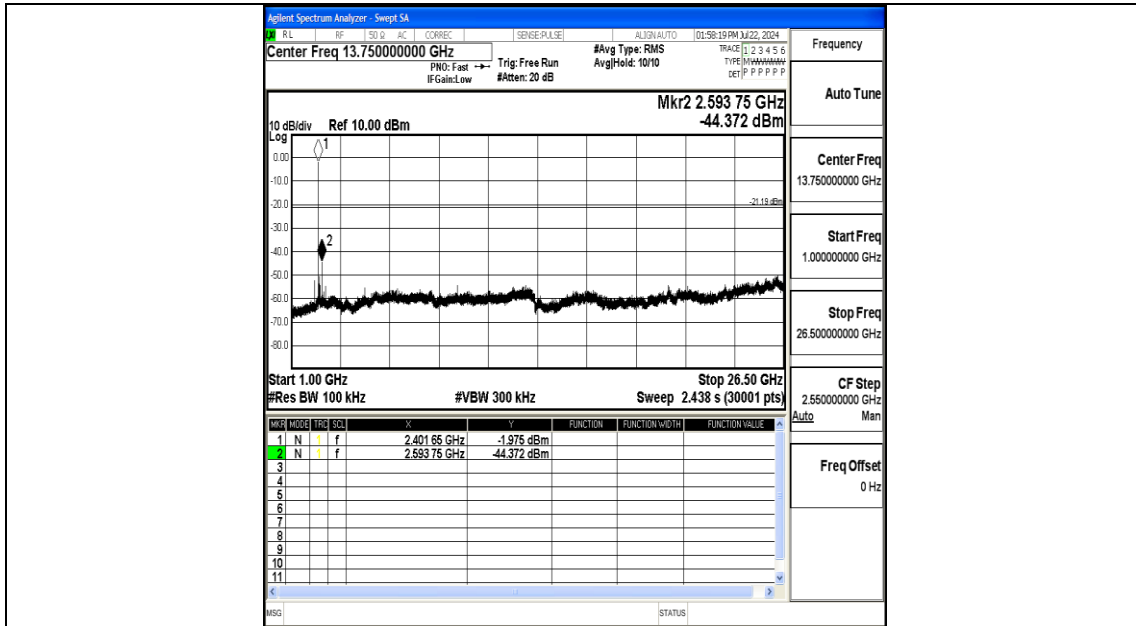
Test Graphs



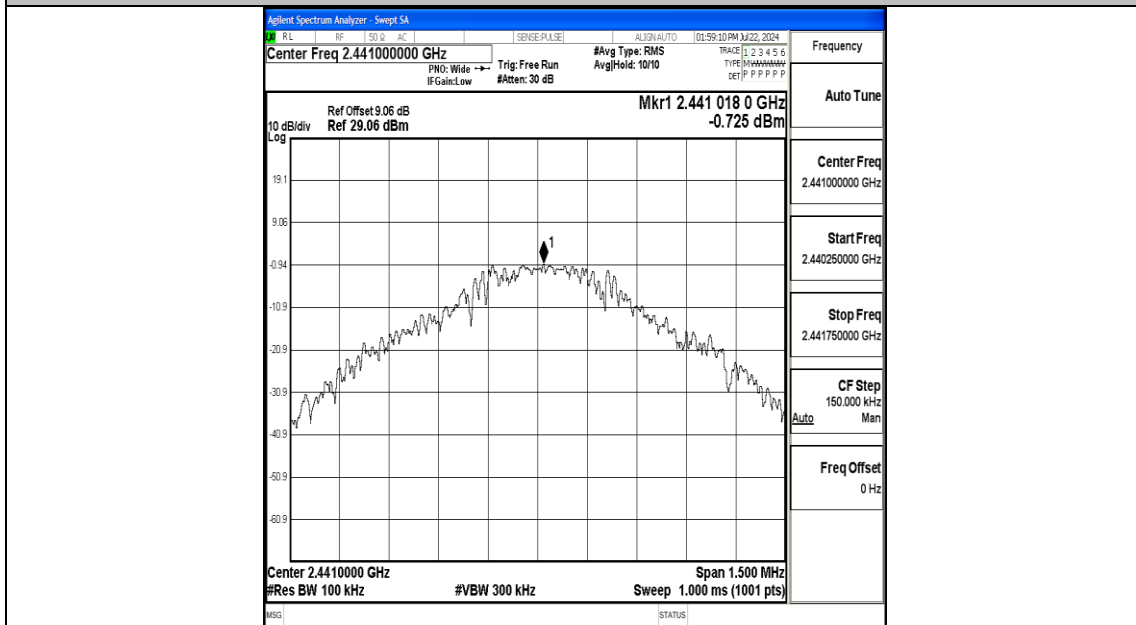
DH5-Ant1-2402-0~Reference-PASS



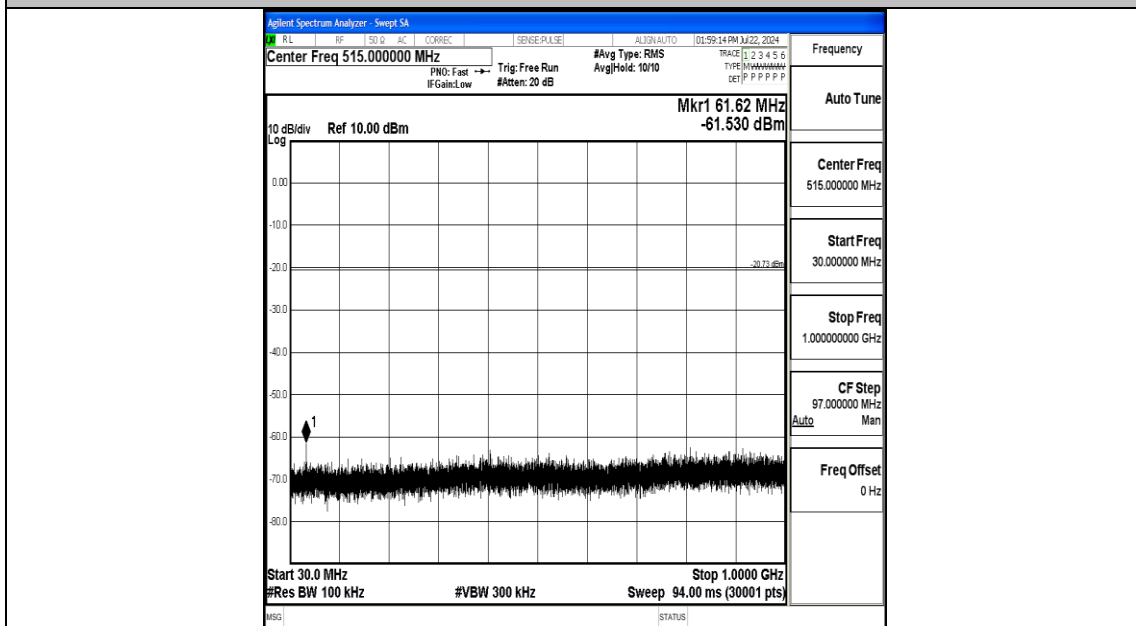
DH5-Ant1-2402-30~1000-PASS



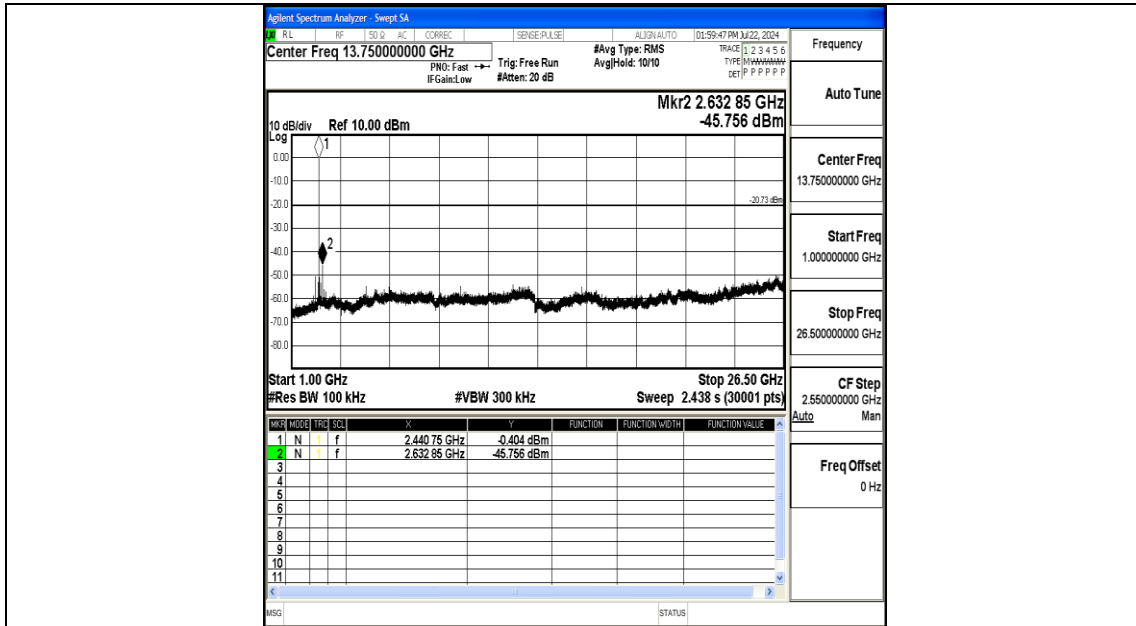
DH5-Ant1-2402-1000~26500-PASS



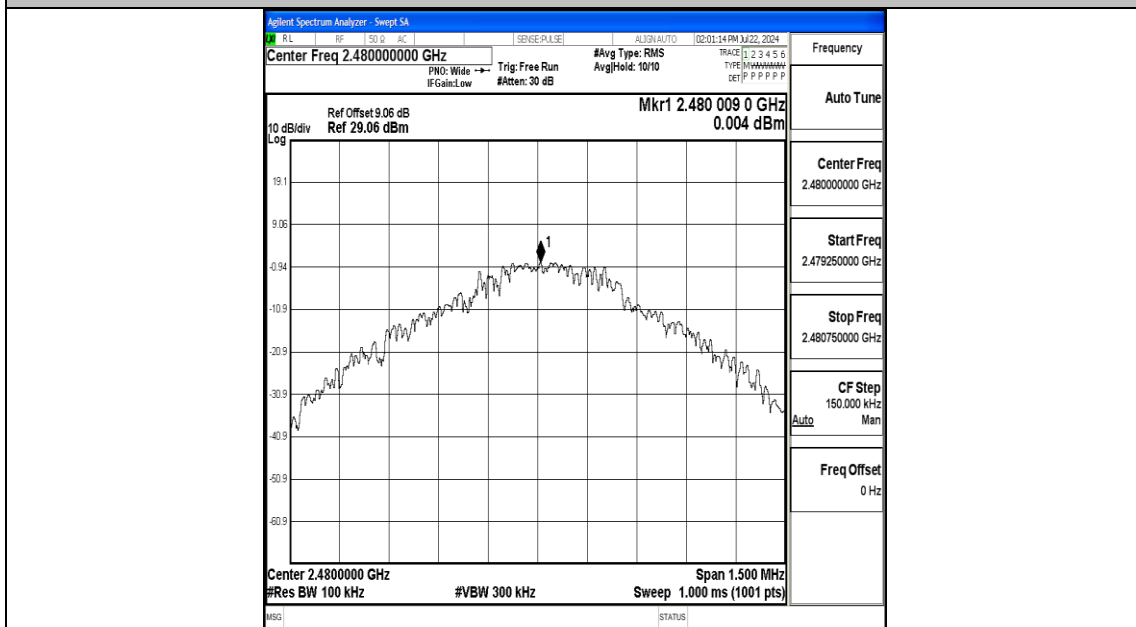
DH5-Ant1-2441-0~Reference-PASS



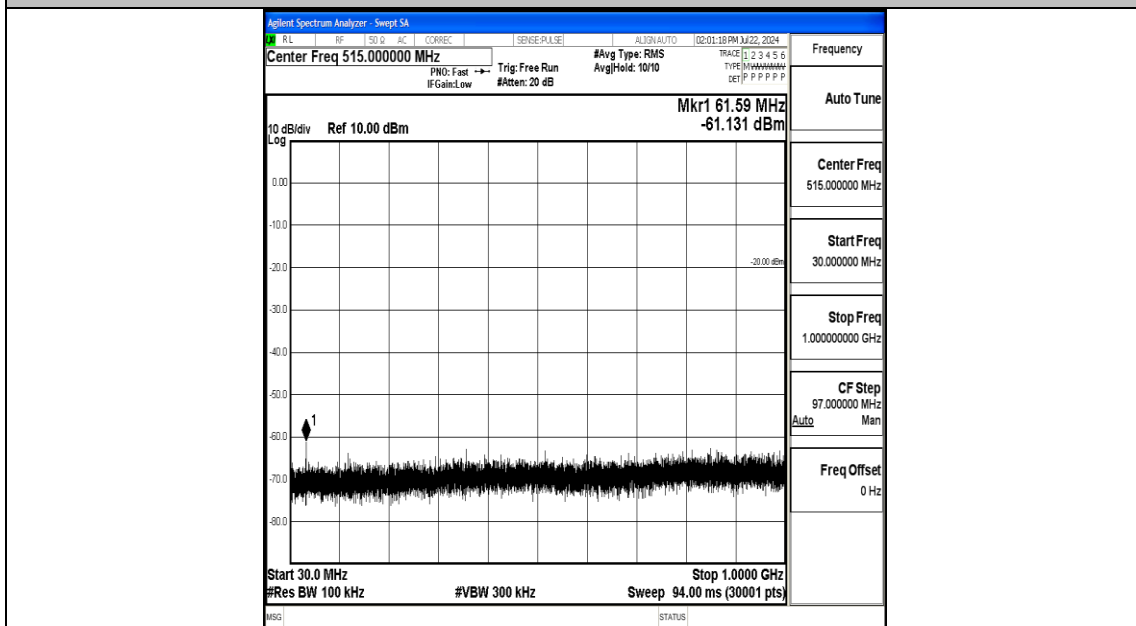
DH5-Ant1-2441-30~1000-PASS



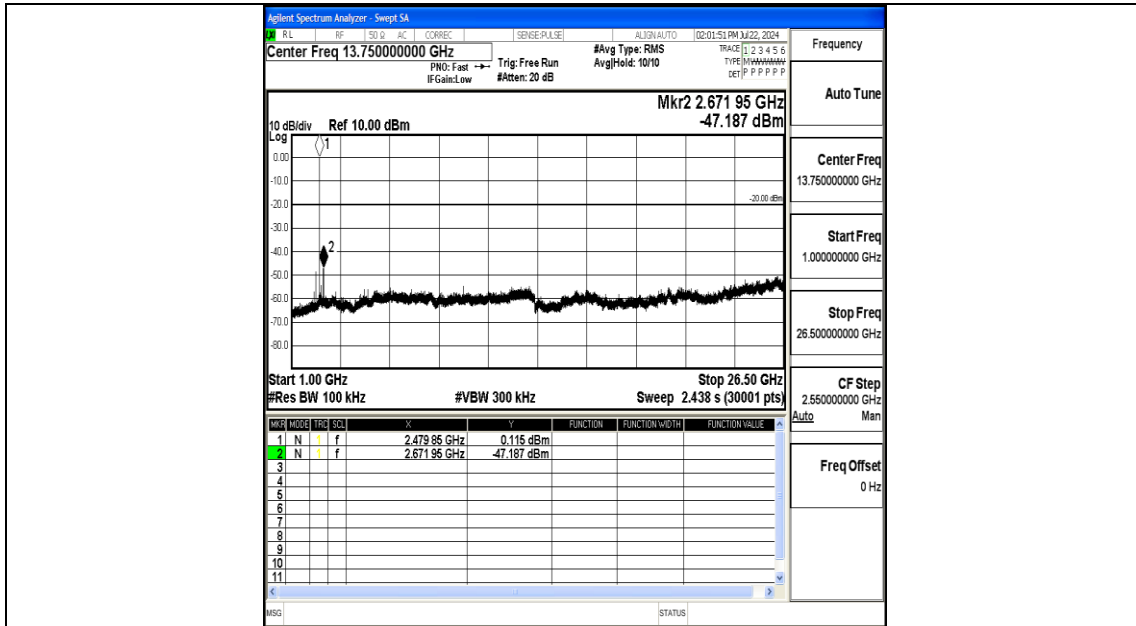
DH5-Ant1-2441-1000~26500-PASS



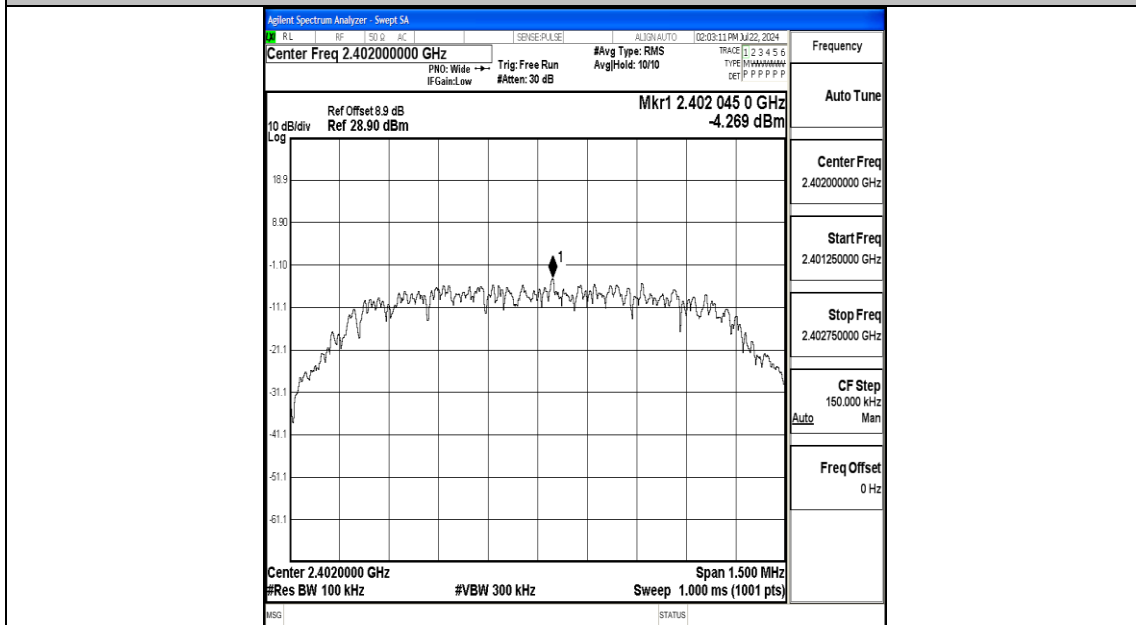
DH5-Ant1-2480-0~Reference-PASS



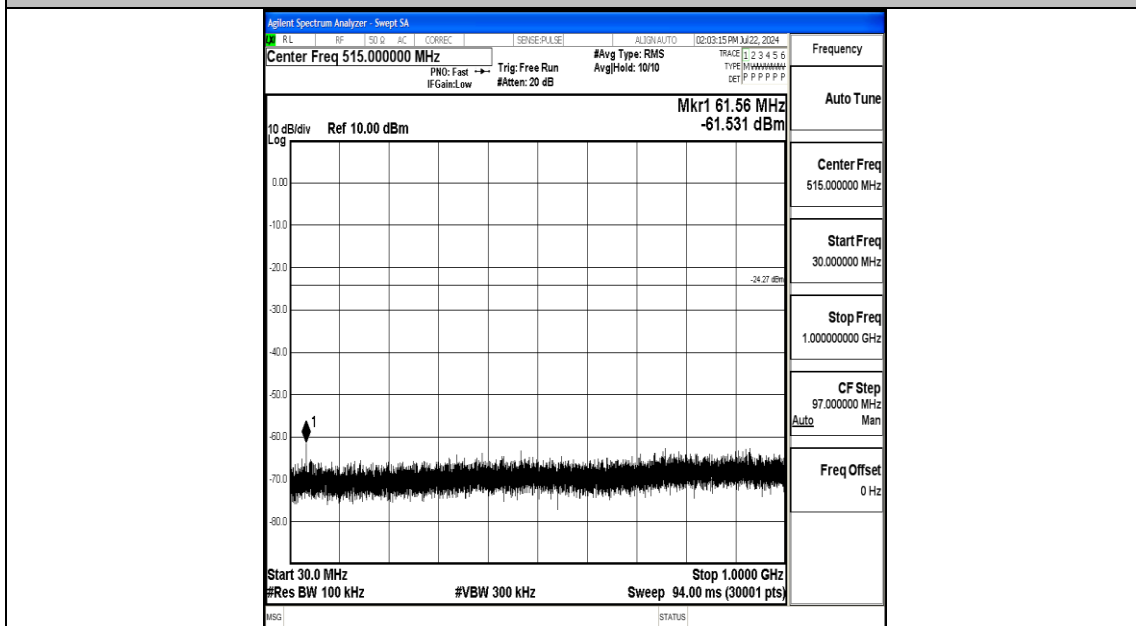
DH5-Ant1-2480-30~1000-PASS



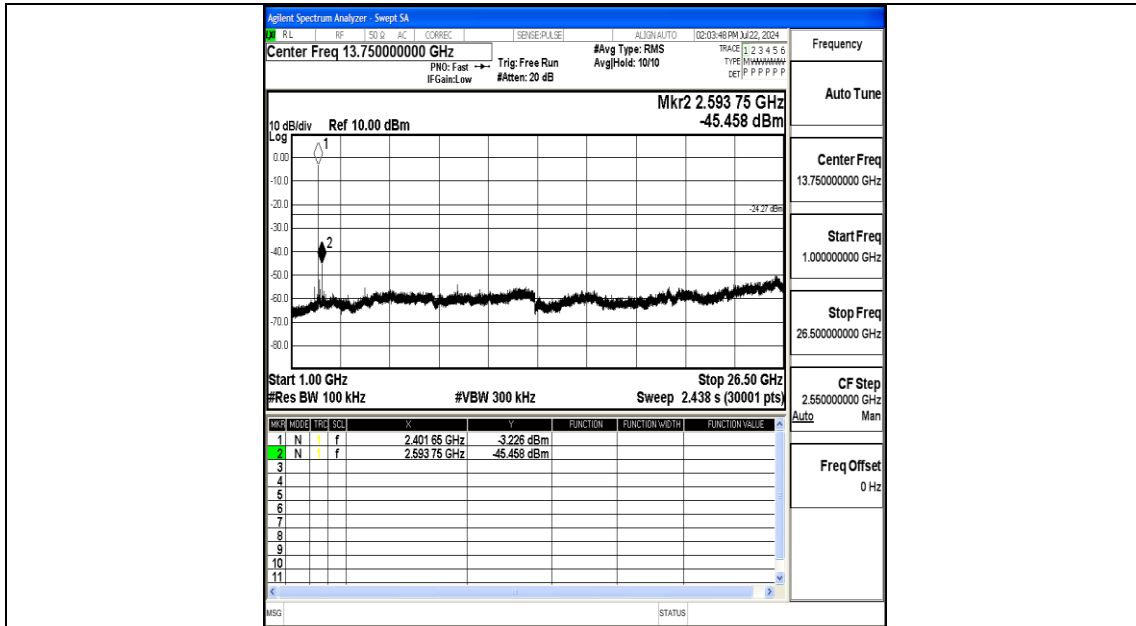
DH5-Ant1-2480-1000~26500-PASS



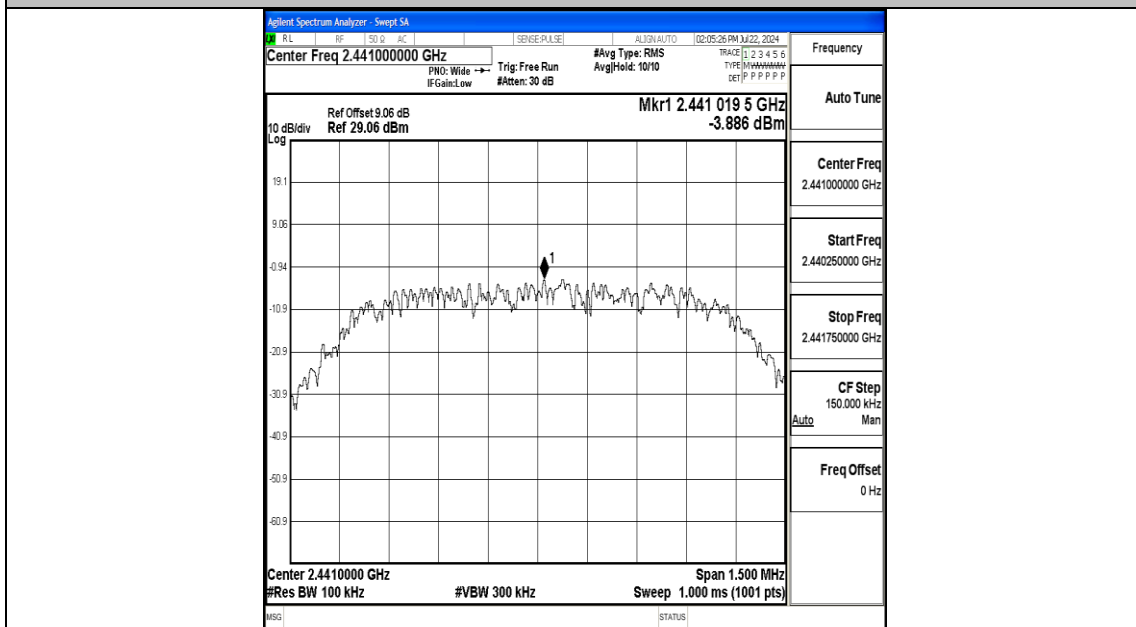
2DH5-Ant1-2402-0~Reference-PASS



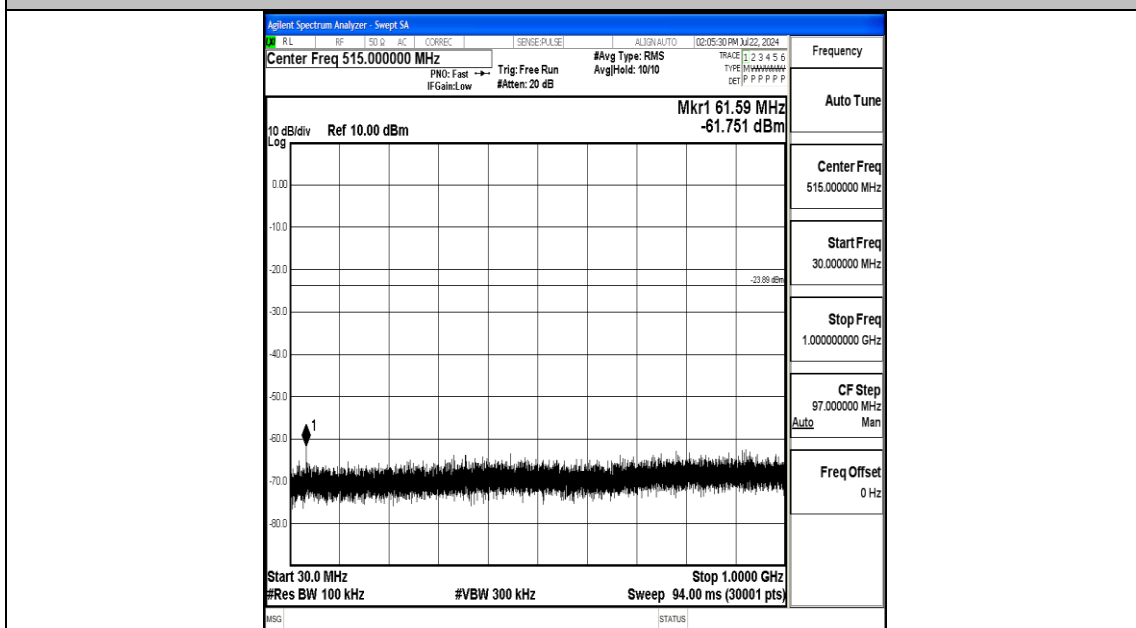
2DH5-Ant1-2402-30~1000-PASS



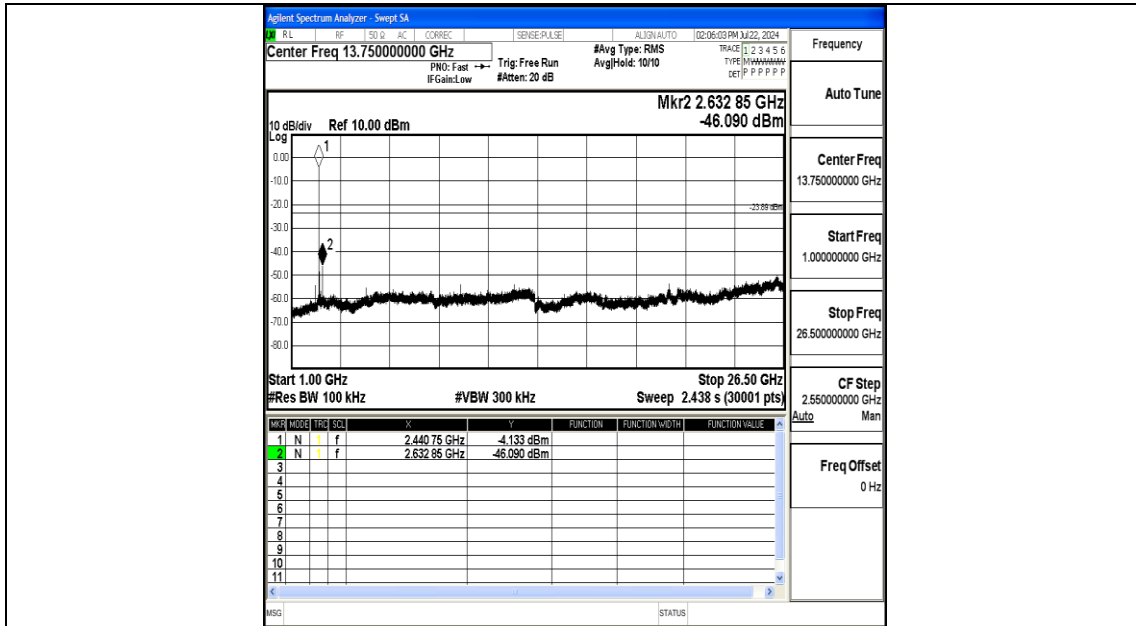
2DH5-Ant1-2402-1000~26500-PASS



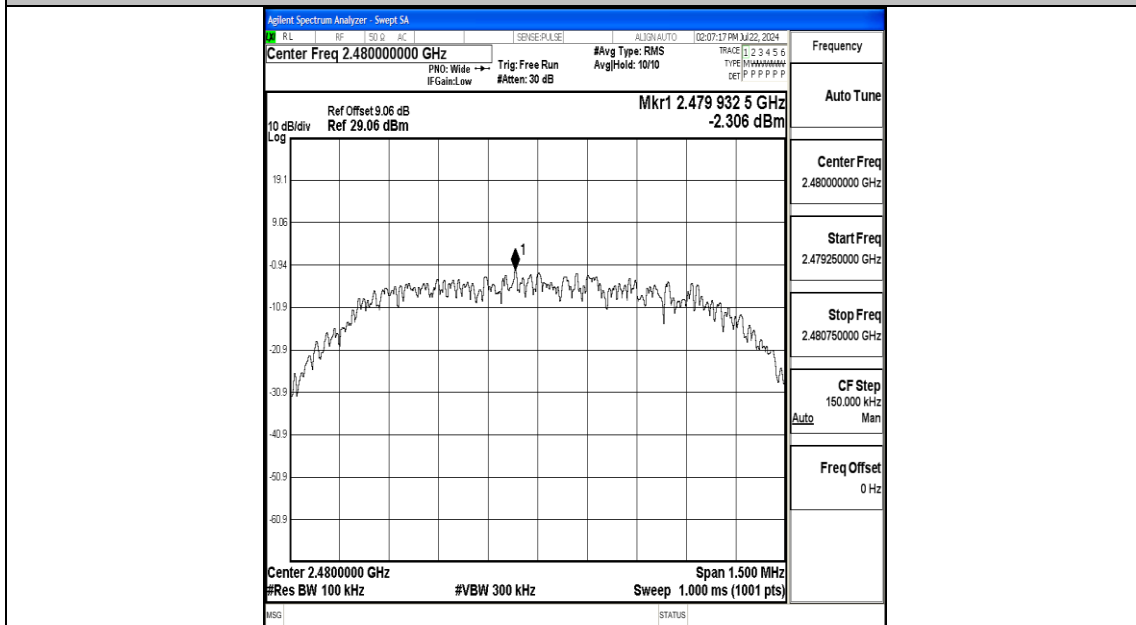
2DH5-Ant1-2441-0~Reference-PASS



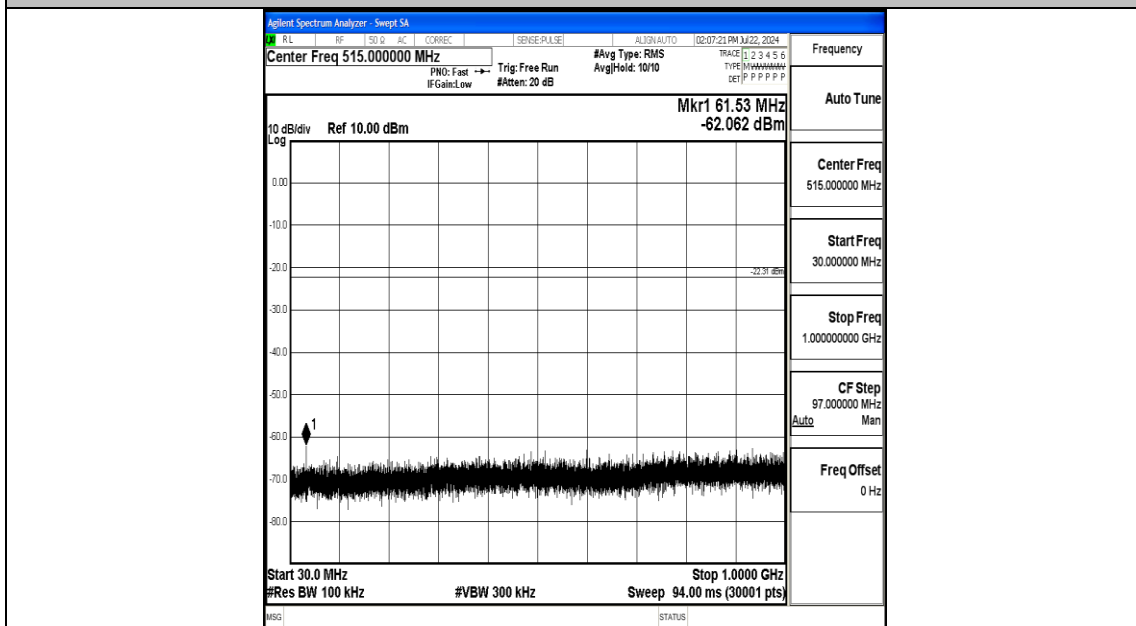
2DH5-Ant1-2441-30~1000-PASS



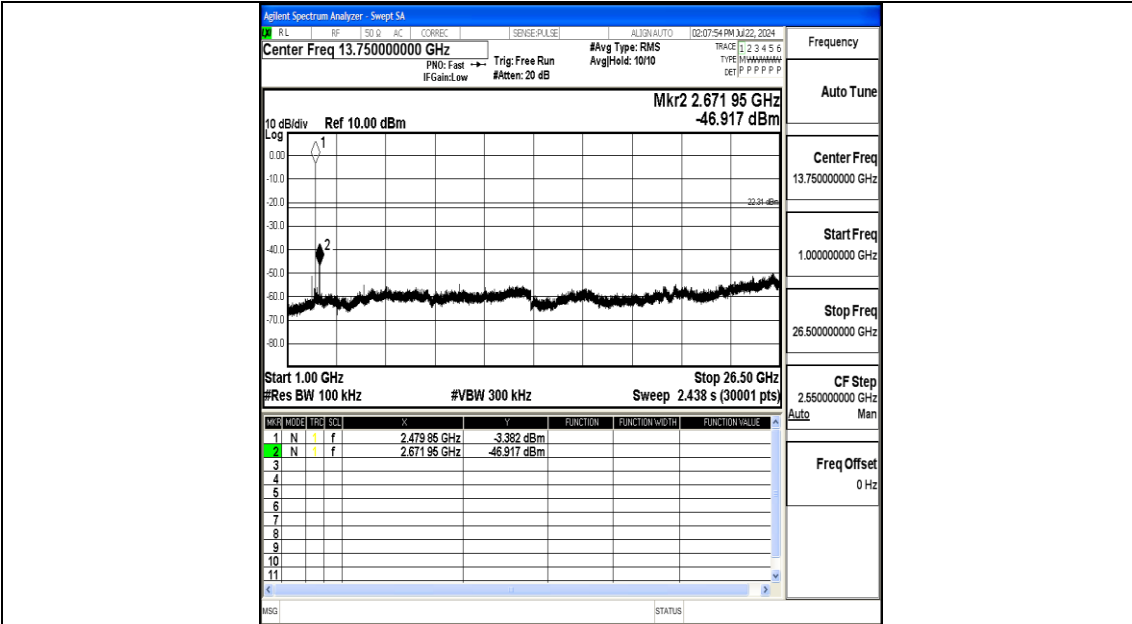
2DH5-Ant1-2441-1000~26500-PASS



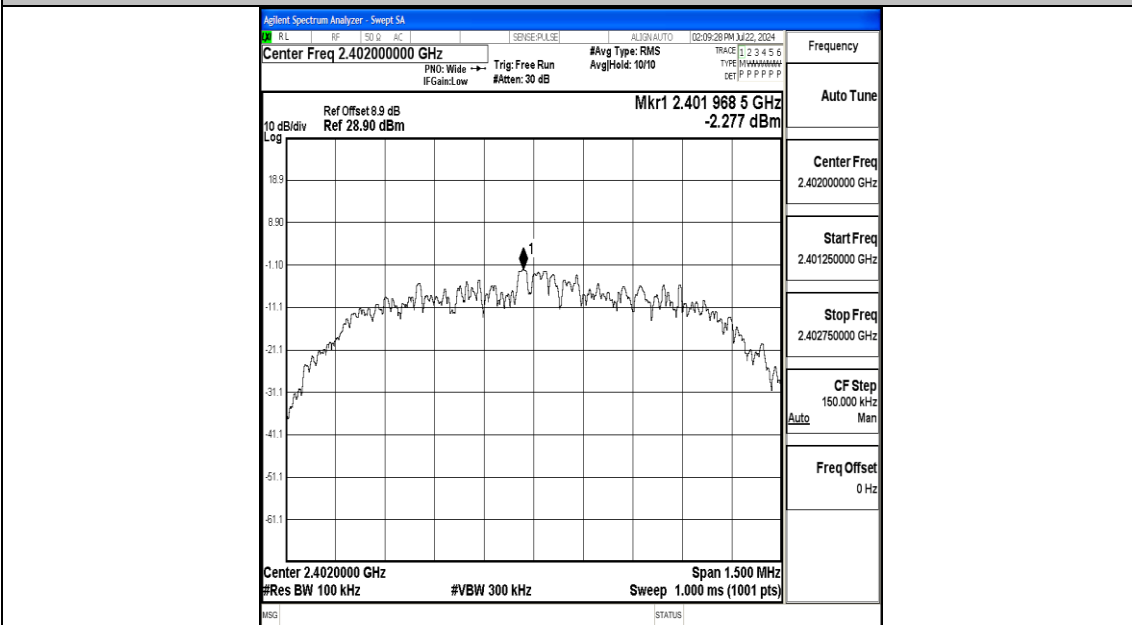
2DH5-Ant1-2480-0~Reference-PASS



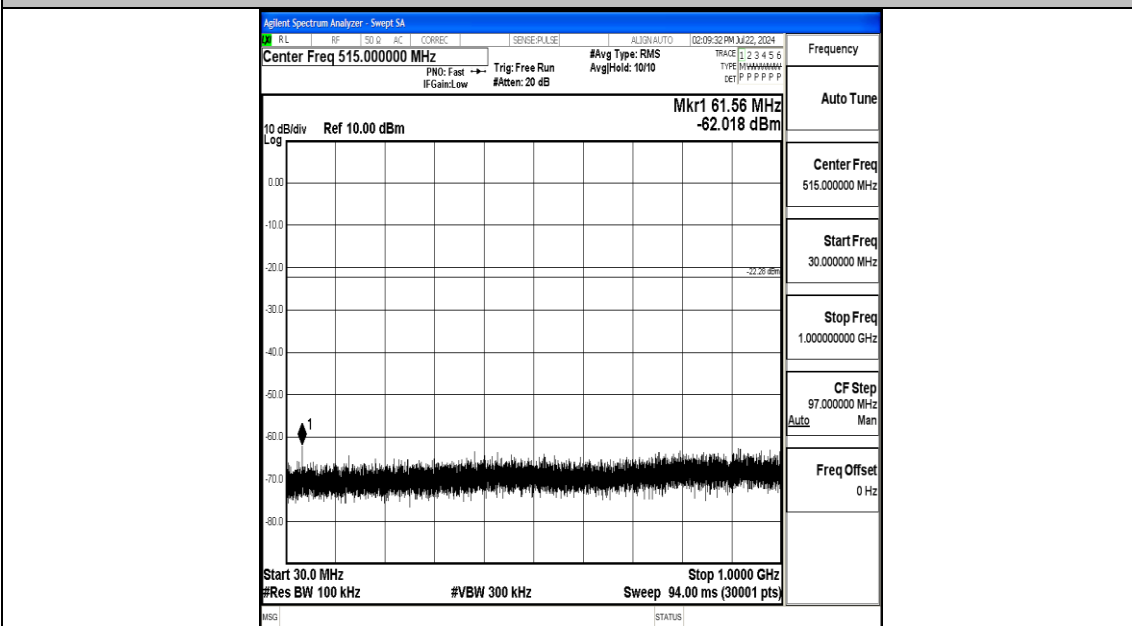
2DH5-Ant1-2480-30~1000-PASS



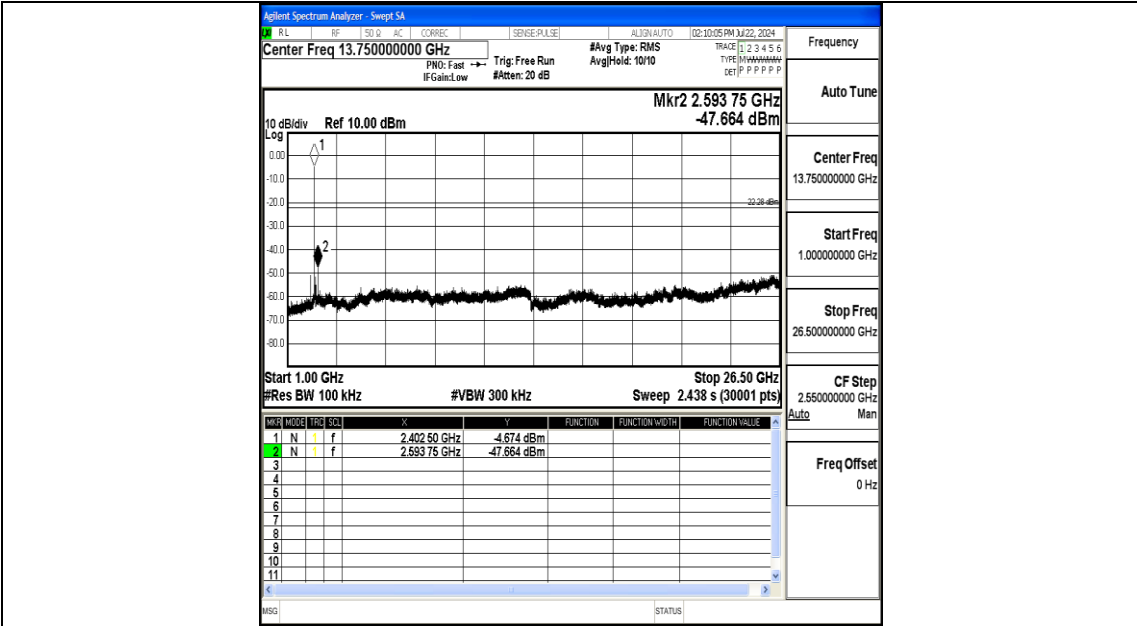
2DH5-Ant1-2480-1000~26500-PASS



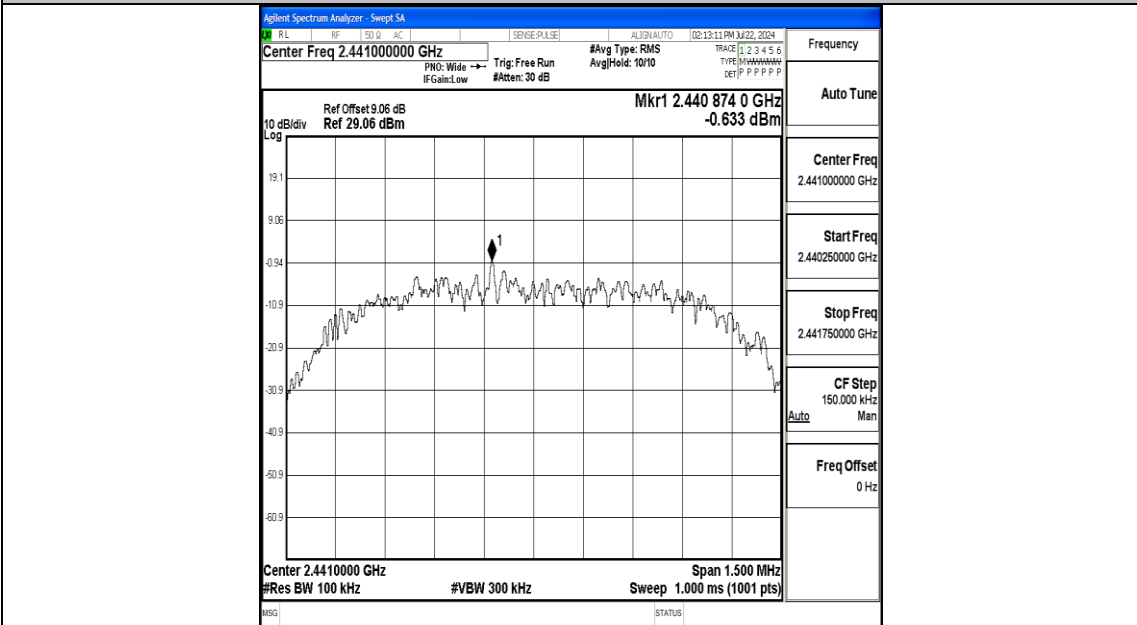
3DH5-Ant1-2402-0~Reference-PASS



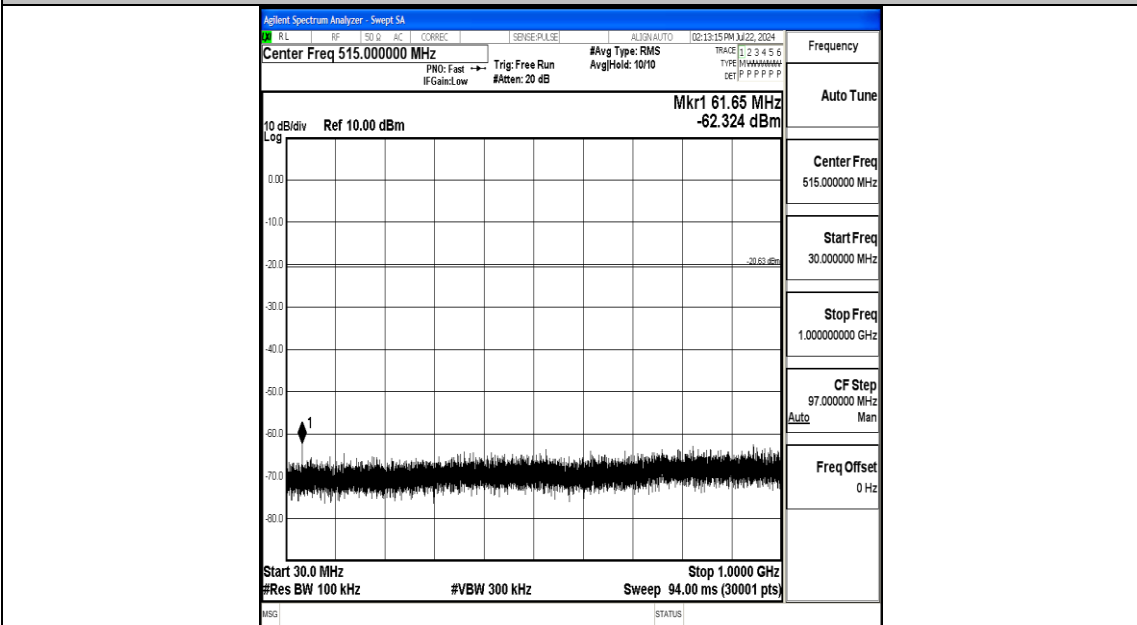
3DH5-Ant1-2402-30~1000-PASS



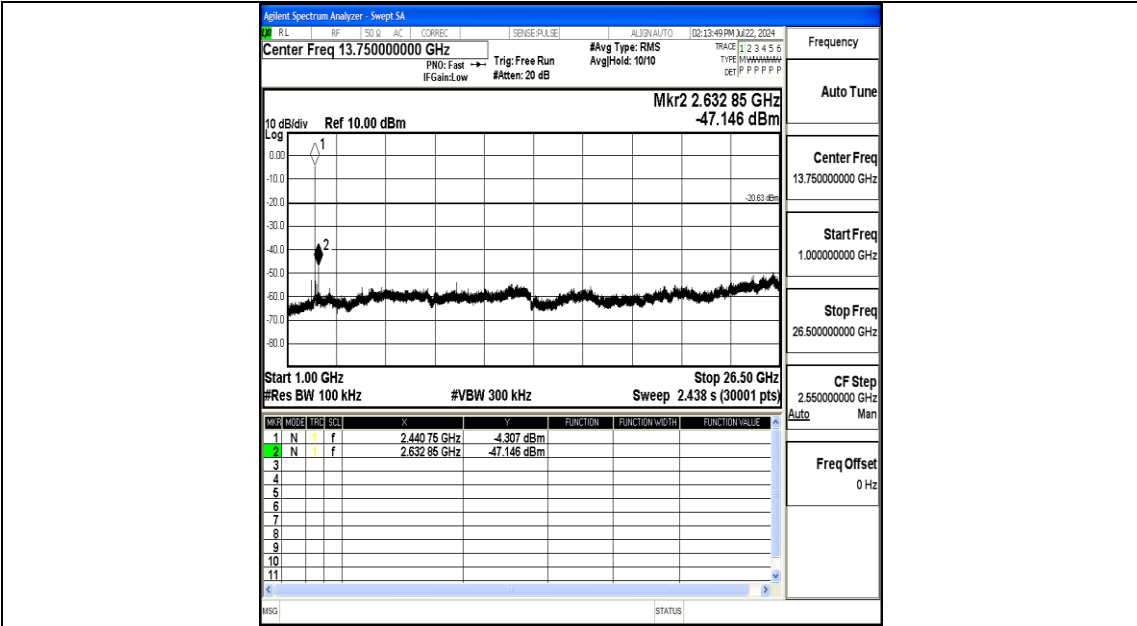
3DH5-Ant1-2402-1000~26500-PASS



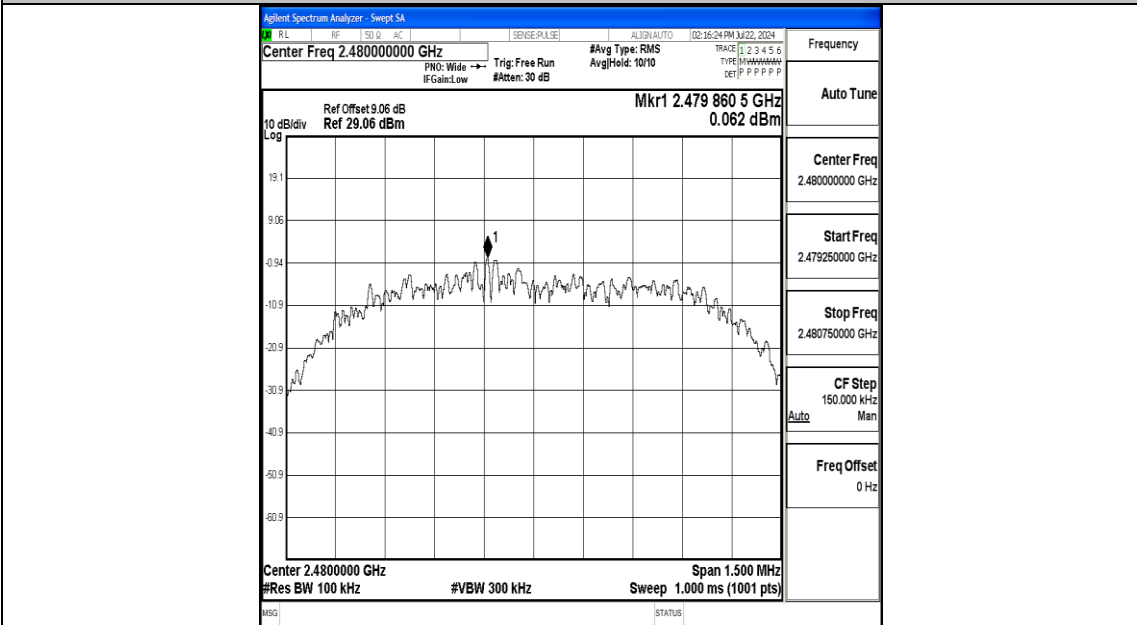
3DH5-Ant1-2441-0~Reference-PASS



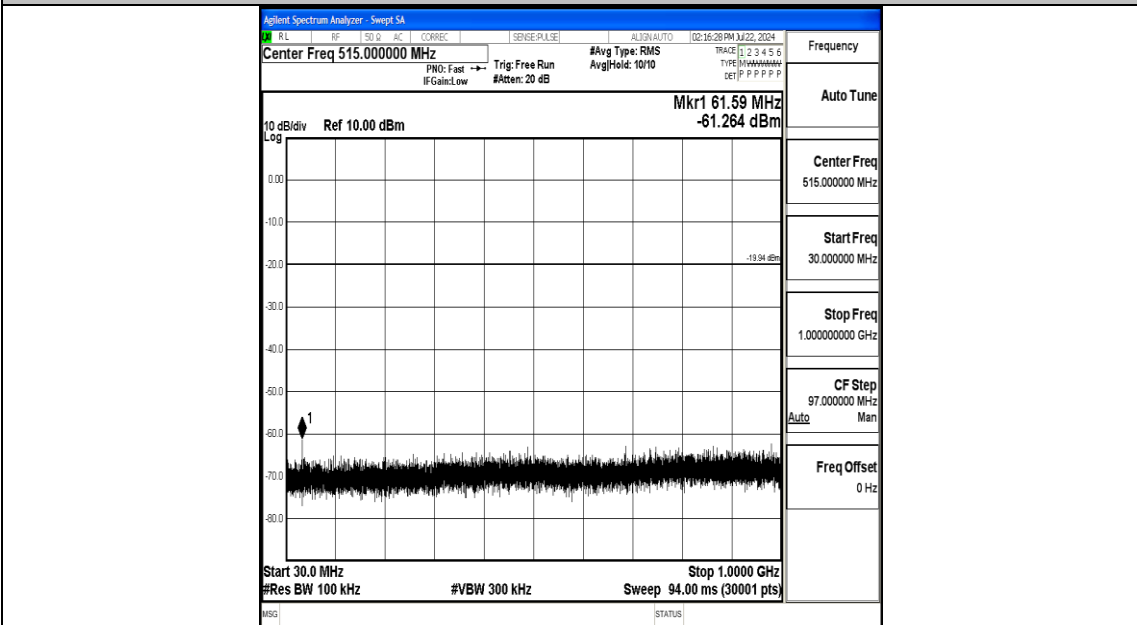
3DH5-Ant1-2441-30~1000-PASS



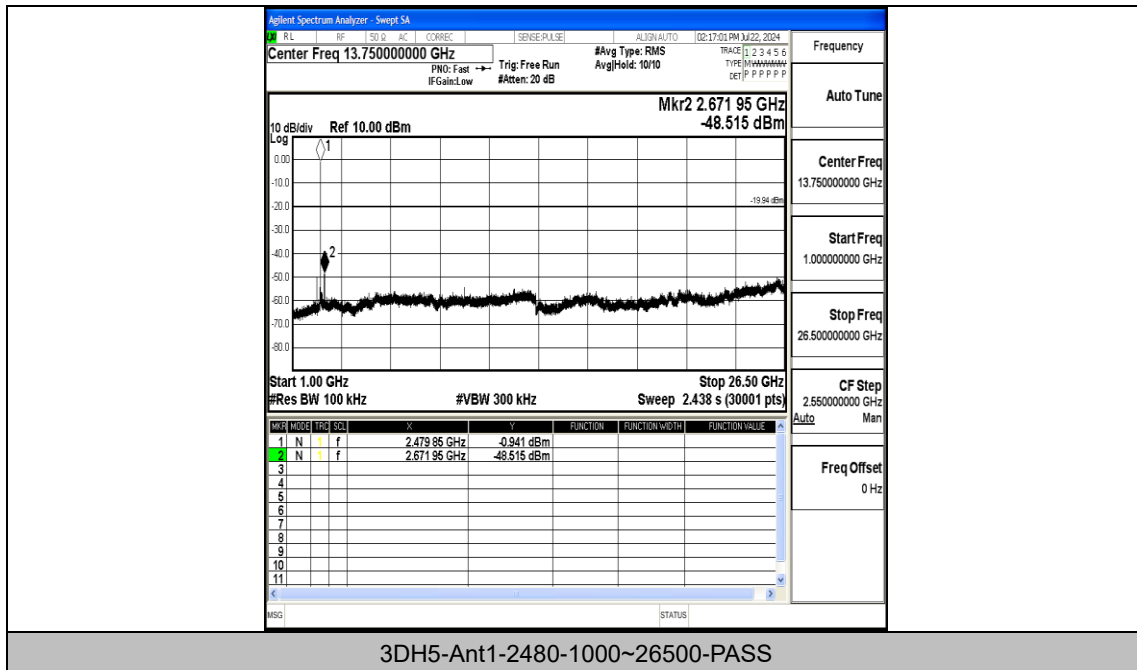
3DH5-Ant1-2441-1000~26500-PASS



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



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

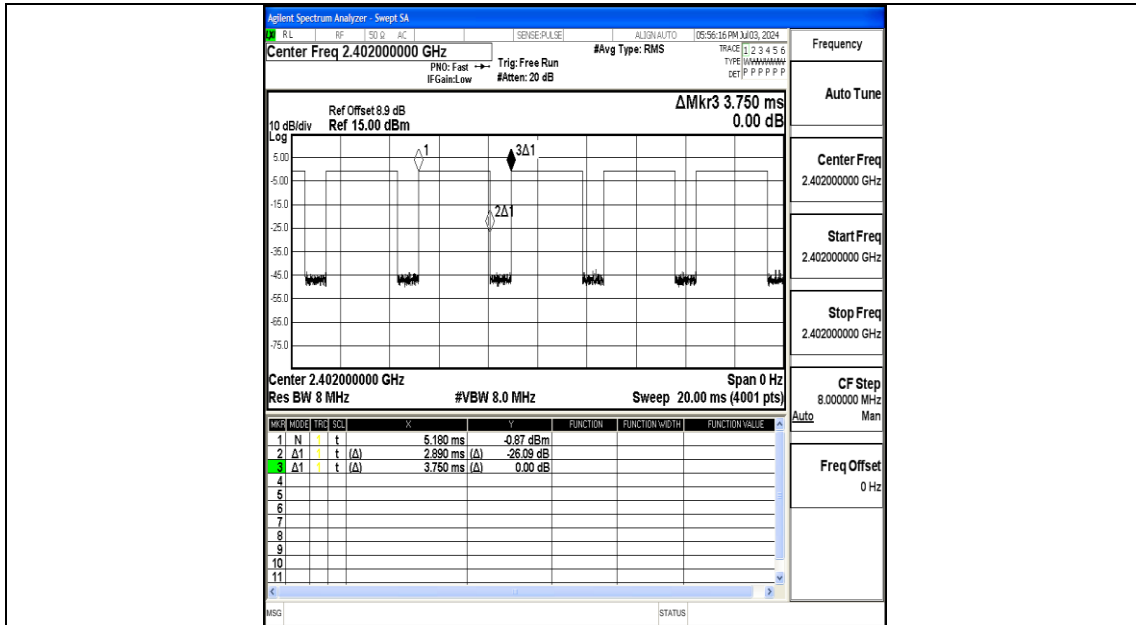


Appendix I: Duty Cycle

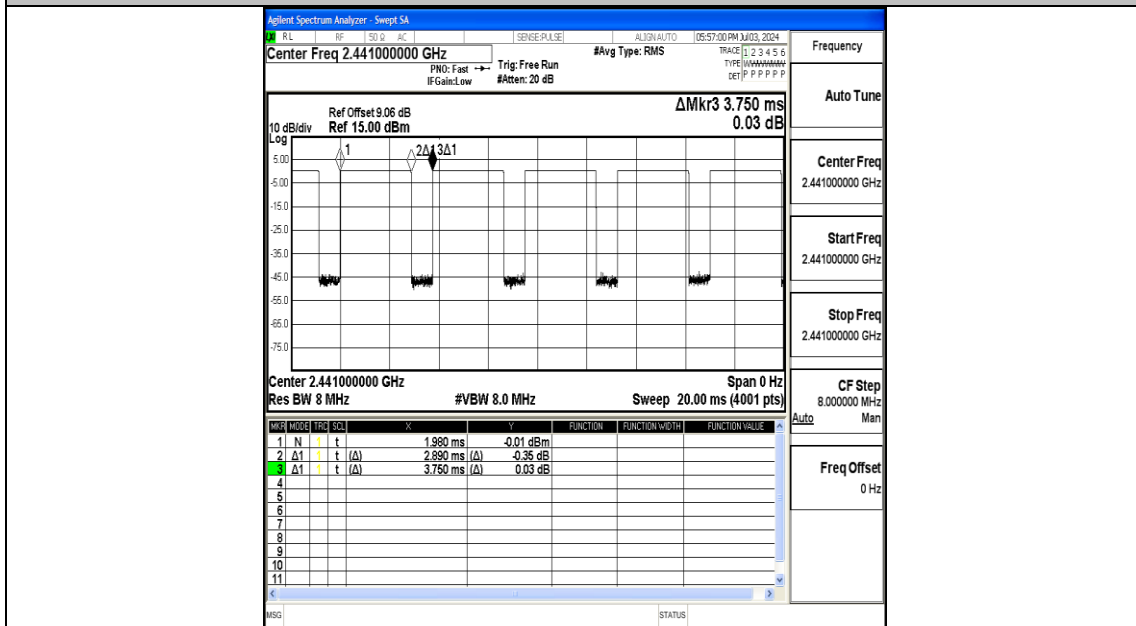
Test Result

TestMode	Antenna	Frequency[MHz]	ON Time [ms]	Period [ms]	Duty Cycle [%]	Duty Cycle Factor[dB]
DH5	Ant1	2402	2.89	3.75	77.07	1.13
DH5	Ant1	2441	2.89	3.75	77.07	1.13
DH5	Ant1	2480	2.89	3.75	77.07	1.13
2DH5	Ant1	2402	2.90	3.75	77.33	1.12
2DH5	Ant1	2441	2.89	3.75	77.07	1.13
2DH5	Ant1	2480	2.89	3.75	77.07	1.13
3DH5	Ant1	2402	2.89	3.75	77.07	1.13
3DH5	Ant1	2441	2.90	3.75	77.33	1.12
3DH5	Ant1	2480	2.90	3.75	77.33	1.12

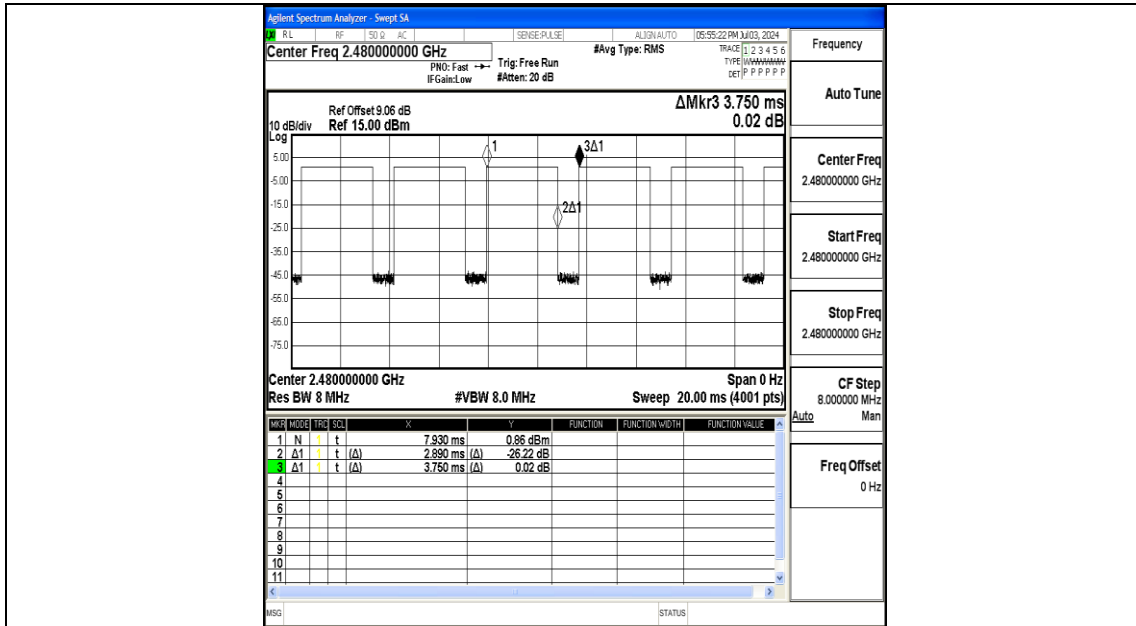
Test Graphs



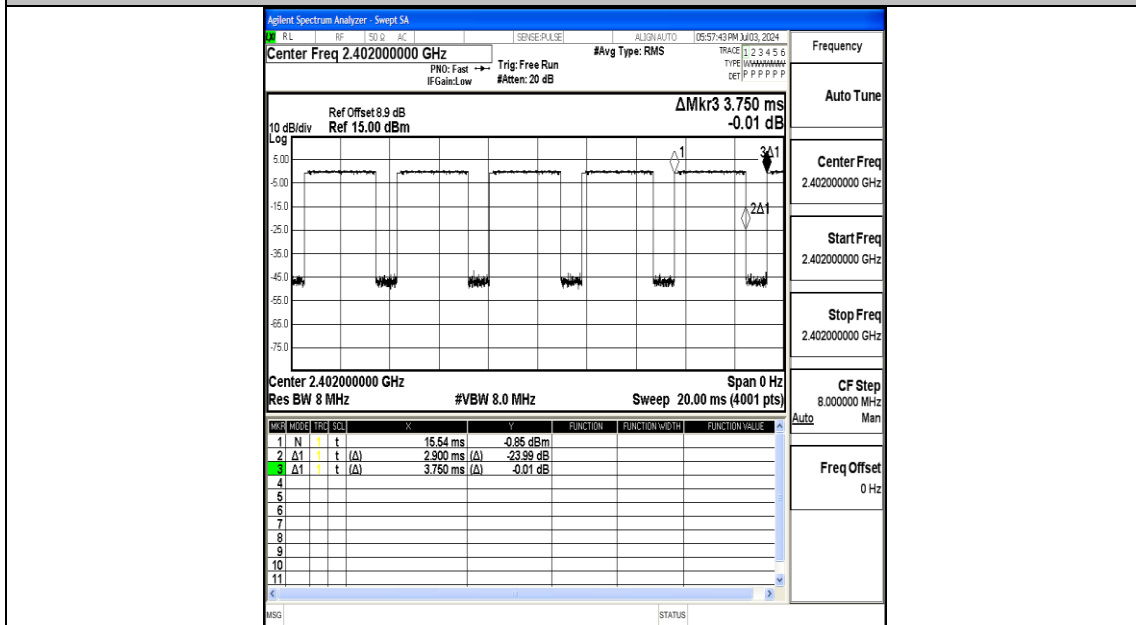
NTVN-DH5-Ant1-2402



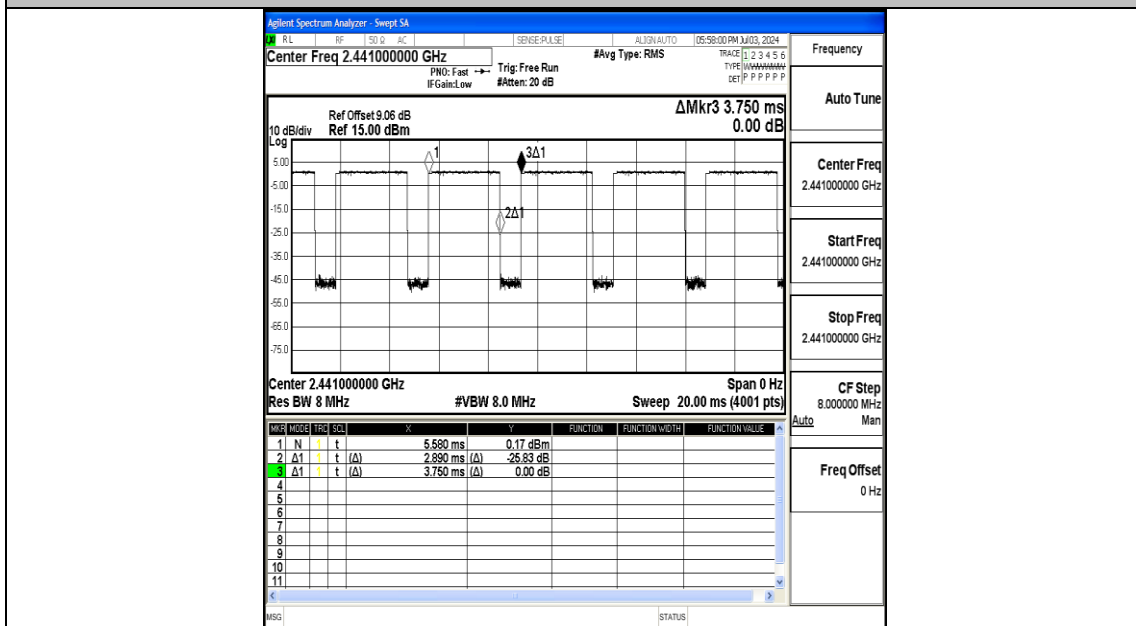
NTVN-DH5-Ant1-2441



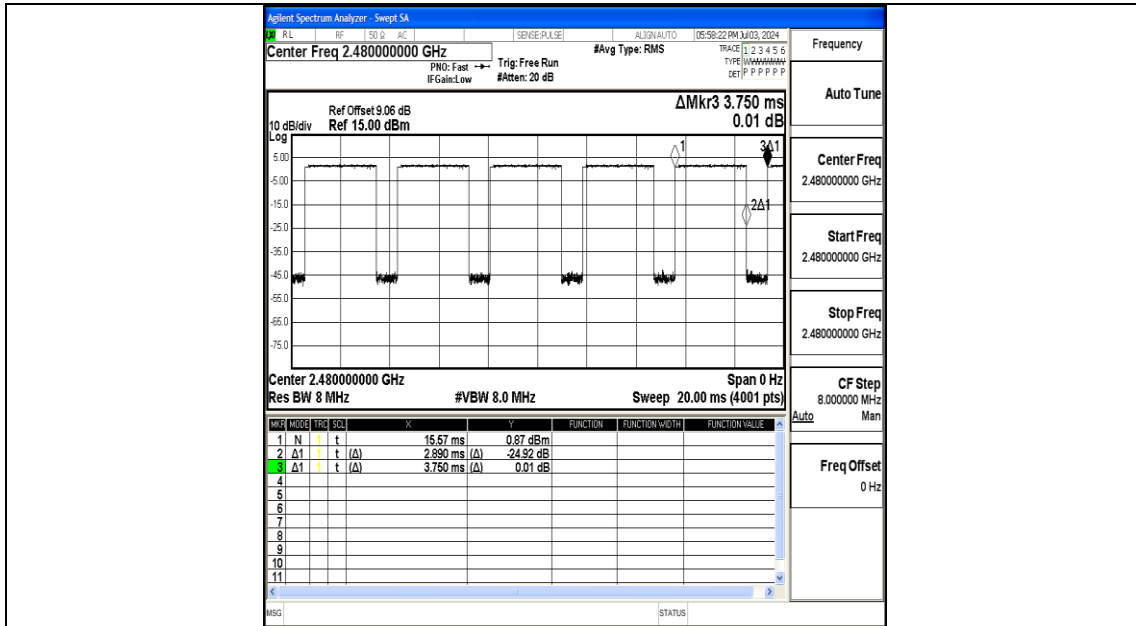
NTNV-DH5-Ant1-2480



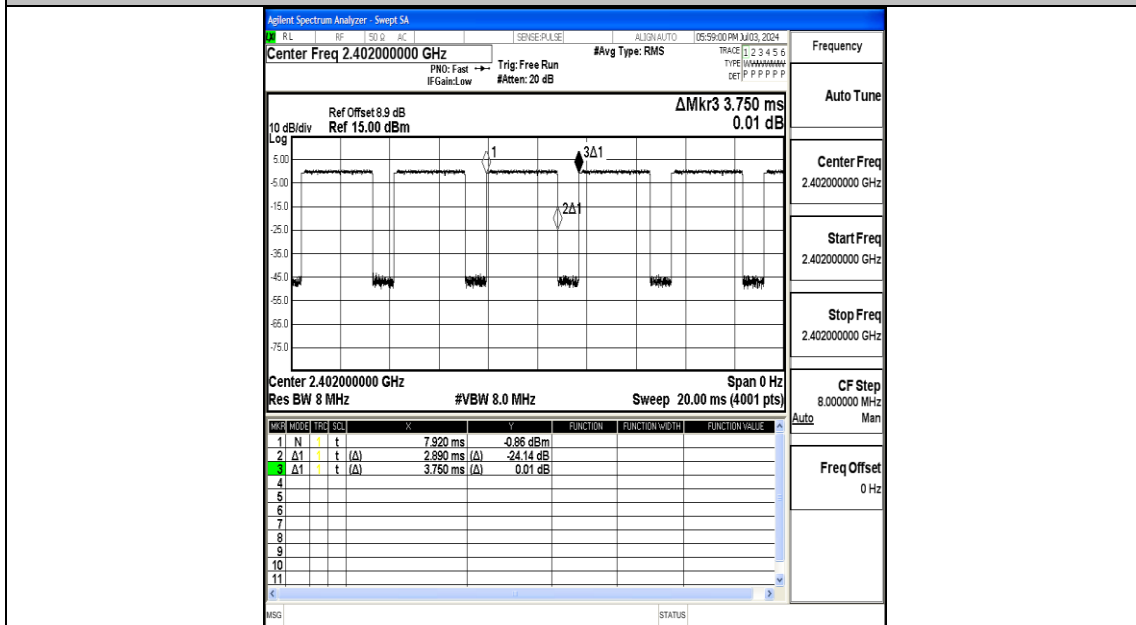
NTNV-2DH5-Ant1-2402



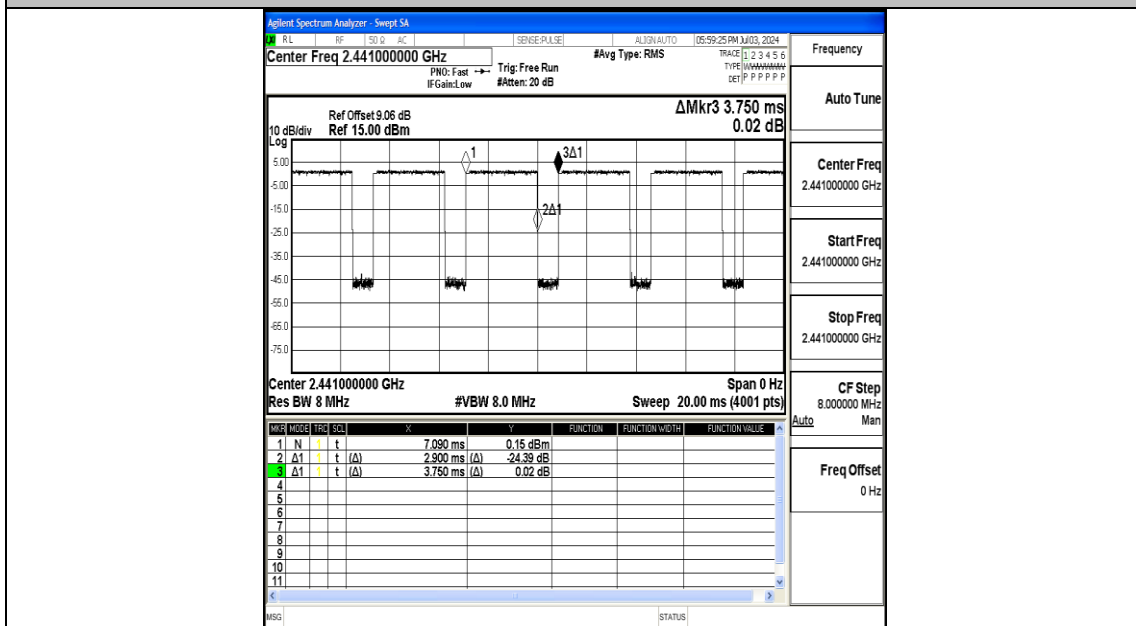
NTNV-2DH5-Ant1-2441



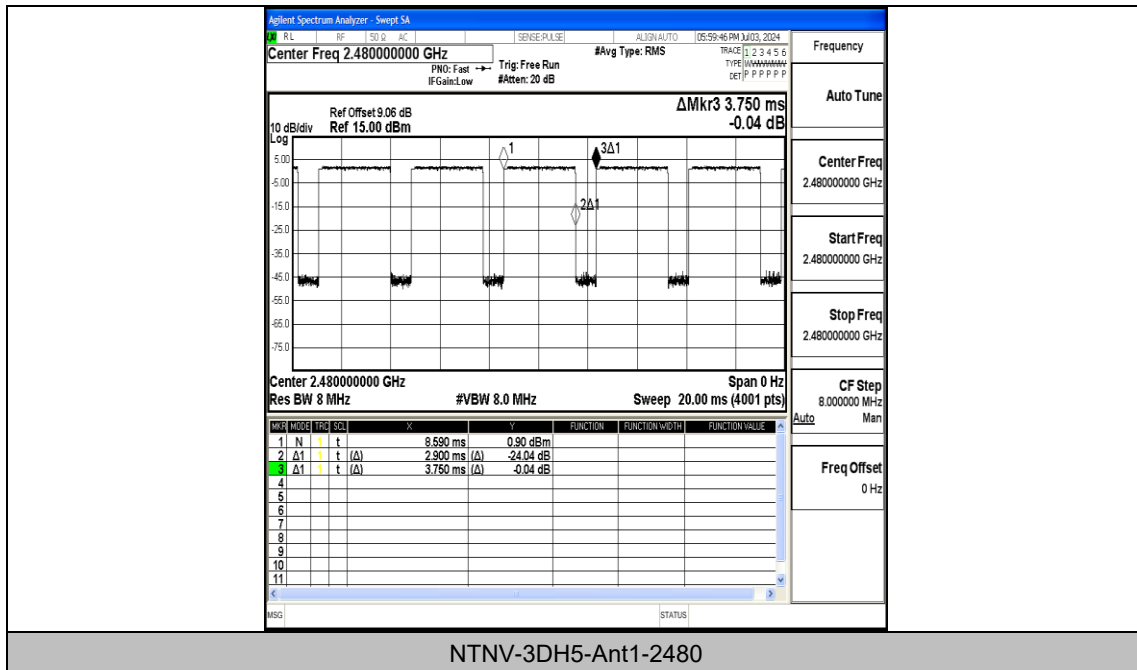
NTVN-2DH5-Ant1-2480



NTVN-3DH5-Ant1-2402



NTVN-3DH5-Ant1-2441



NTNV-3DH5-Ant1-2480