

Appendix Test Data for BT(BDR/EDR) (Conducted Measurement)**Product Name:** Bluetooth earphones**Trade Mark:** N/A**Test Model:** T158**FCC ID:** 2BDB3-T158**Environmental Conditions**

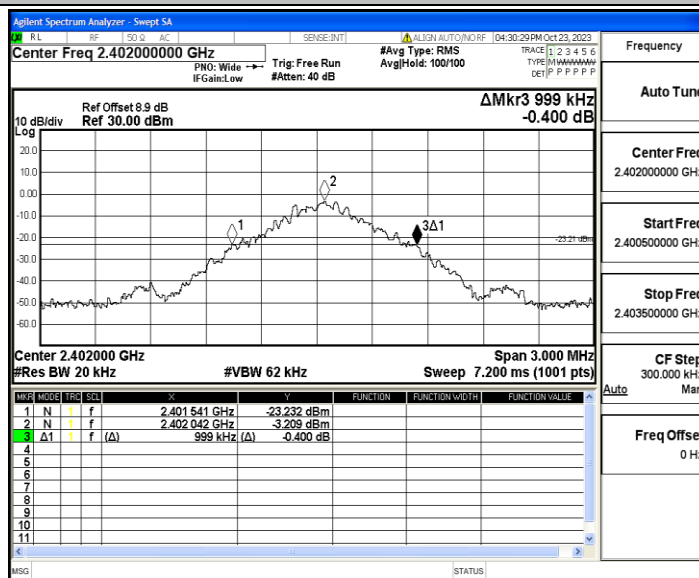
Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

Appendix A: 20dB Emission Bandwidth**Test Result**

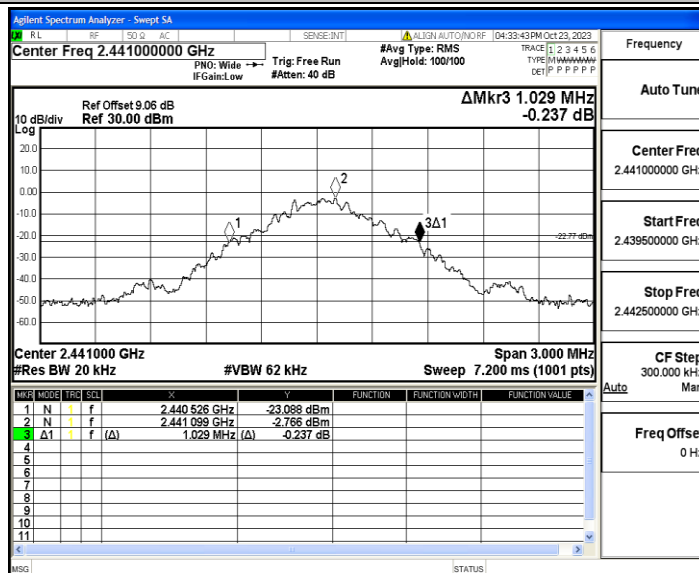
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.999	2401.541	2402.540	---	---
		2441	1.029	2440.526	2441.555	---	---
		2480	0.990	2479.535	2480.525	---	---
2DH5	Ant1	2402	1.287	2401.418	2402.705	---	---
		2441	1.326	2440.382	2441.708	---	---
		2480	1.242	2479.421	2480.663	---	---

Test Graphs

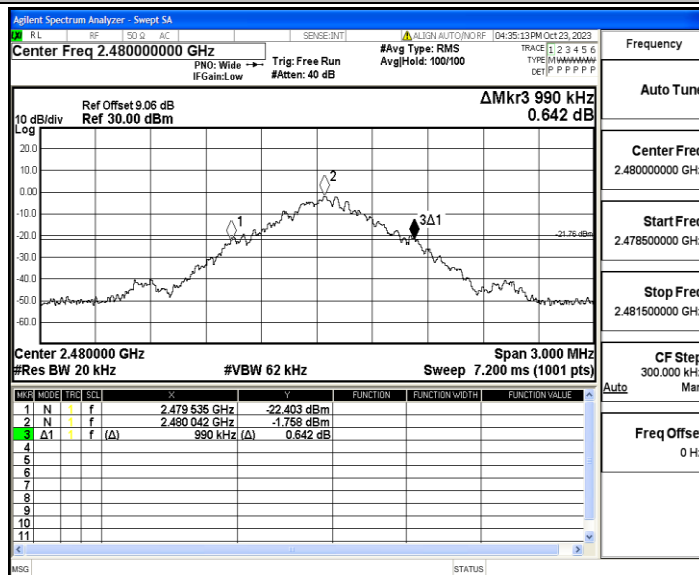
DH5_Ant1_2402



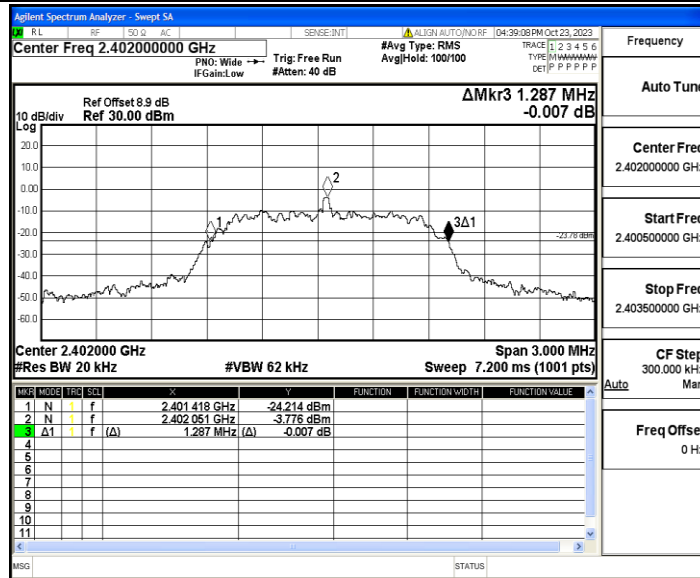
DH5_Ant1_2441



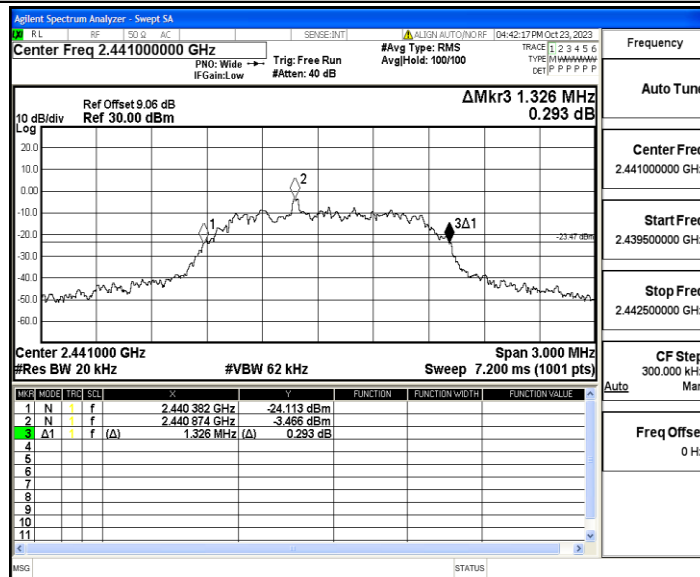
DH5_Ant1_2480



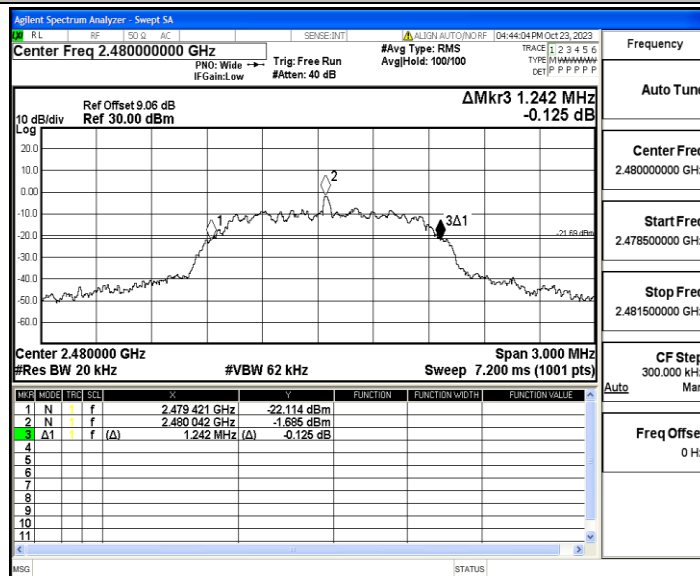
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



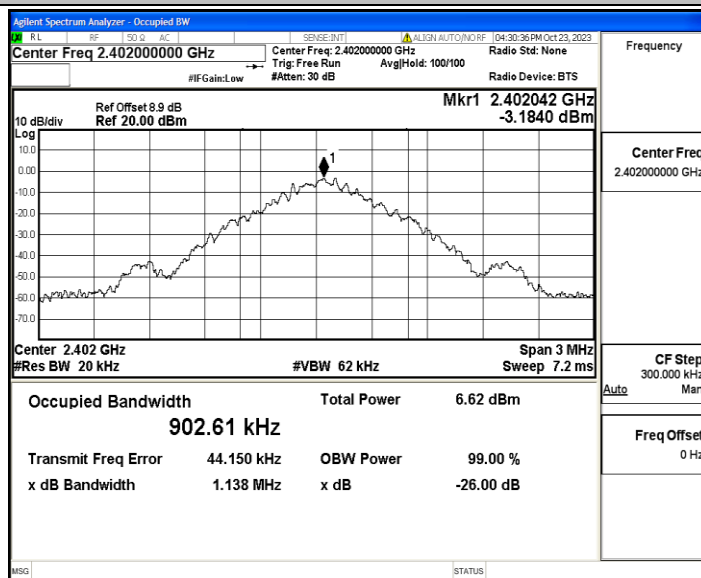
Appendix B: Occupied Channel Bandwidth

Test Result

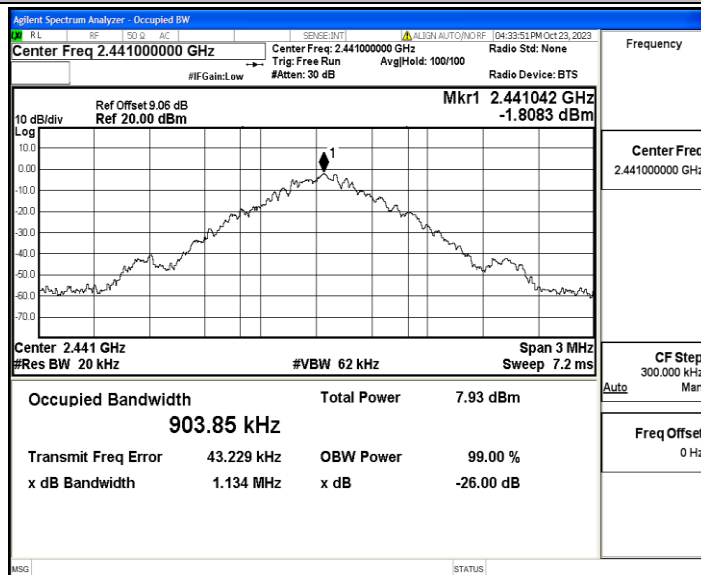
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.90261	2401.5928	2402.4955	---	---
		2441	0.90385	2440.5913	2441.4952	---	---
		2480	0.90167	2479.5921	2480.4938	---	---
2DH5	Ant1	2402	1.2034	2401.4438	2402.6472	---	---
		2441	1.2117	2440.4436	2441.6553	---	---
		2480	1.2144	2479.4430	2480.6574	---	---

Test Graphs

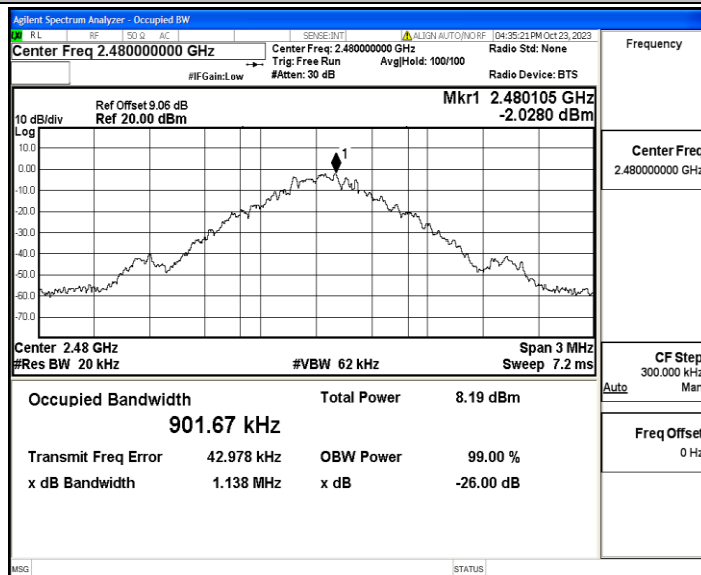
DH5_Ant1_2402



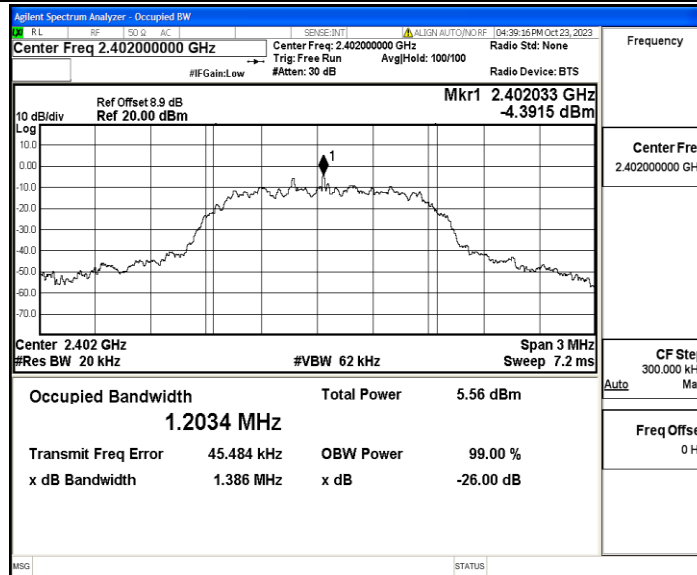
DH5_Ant1_2441



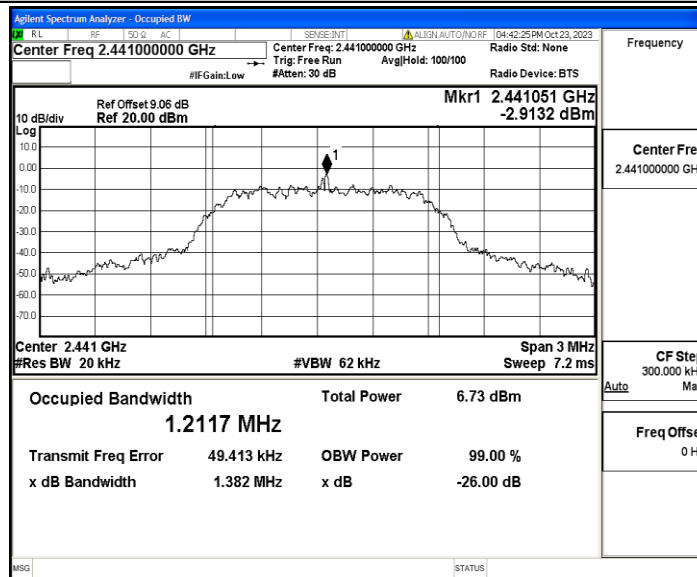
DH5_Ant1_2480



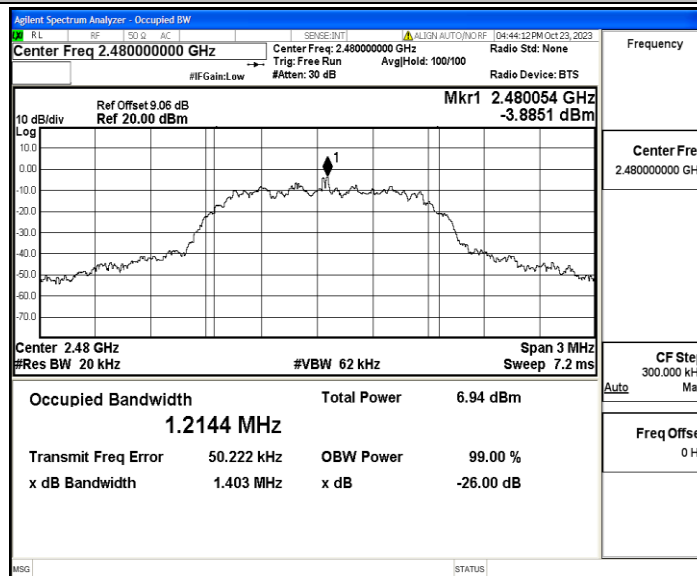
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



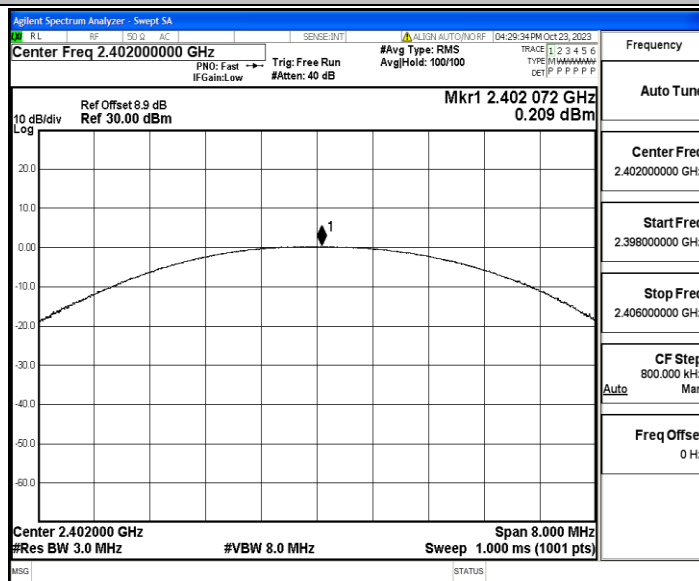
Appendix C: Maximum Peak conducted output power

Test Result

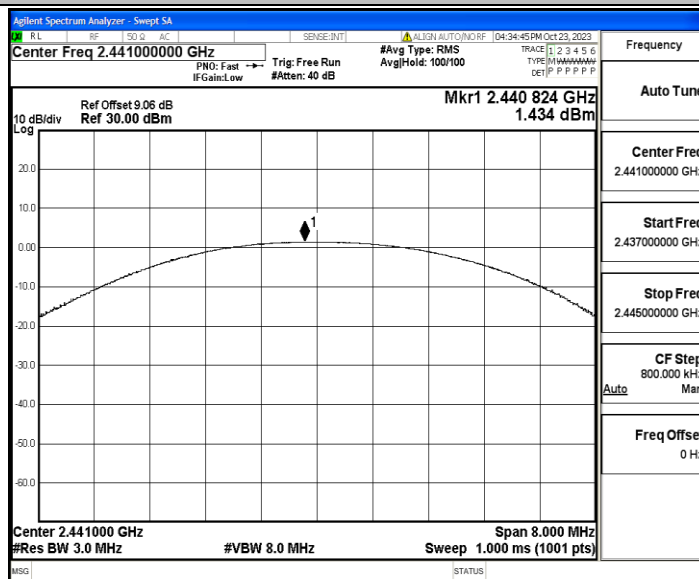
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	0.21	≤30	PASS
		2441	1.43	≤30	PASS
		2480	1.53	≤30	PASS
2DH5	Ant1	2402	-0.48	≤20.97	PASS
		2441	0.73	≤20.97	PASS
		2480	0.92	≤20.97	PASS

Test Graphs

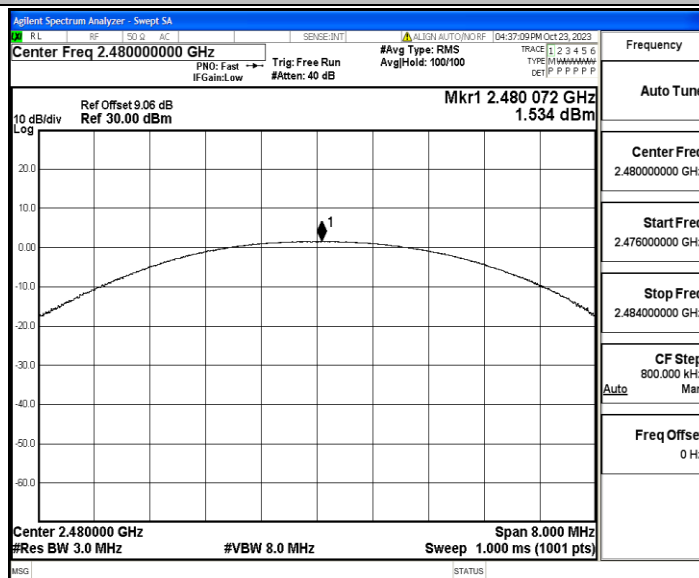
DH5_Ant1_2402



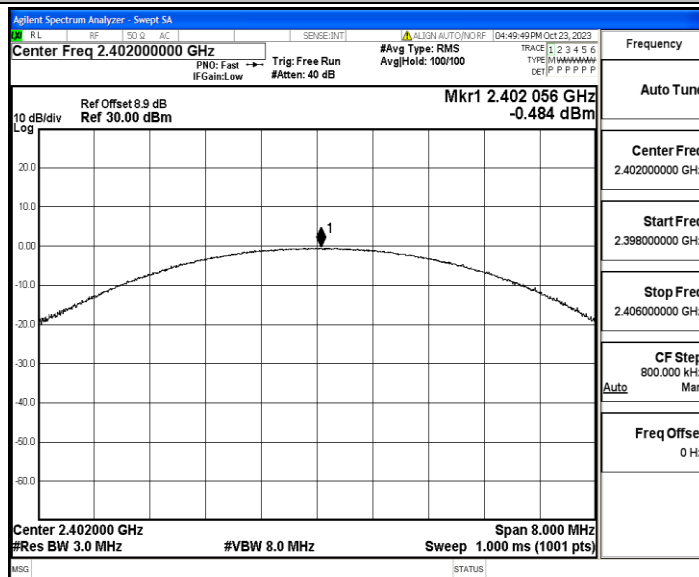
DH5_Ant1_2441



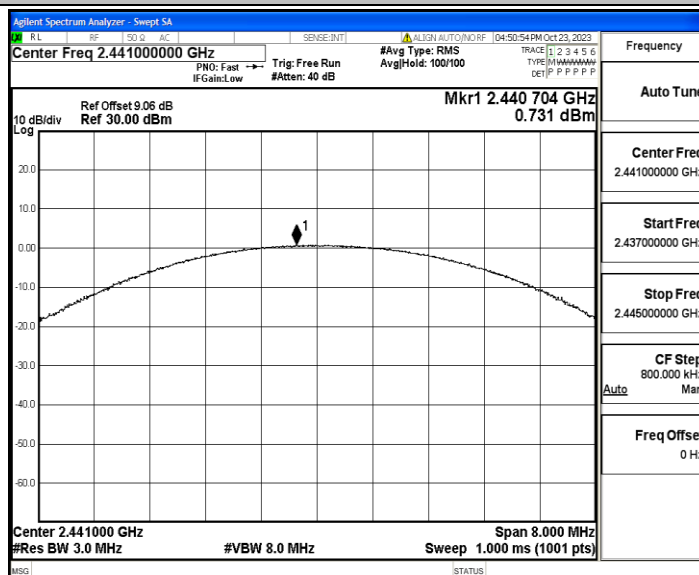
DH5_Ant1_2480



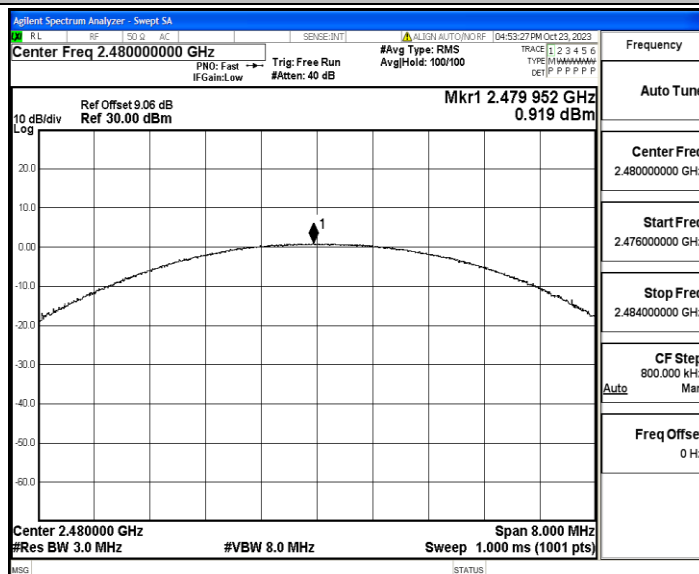
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480

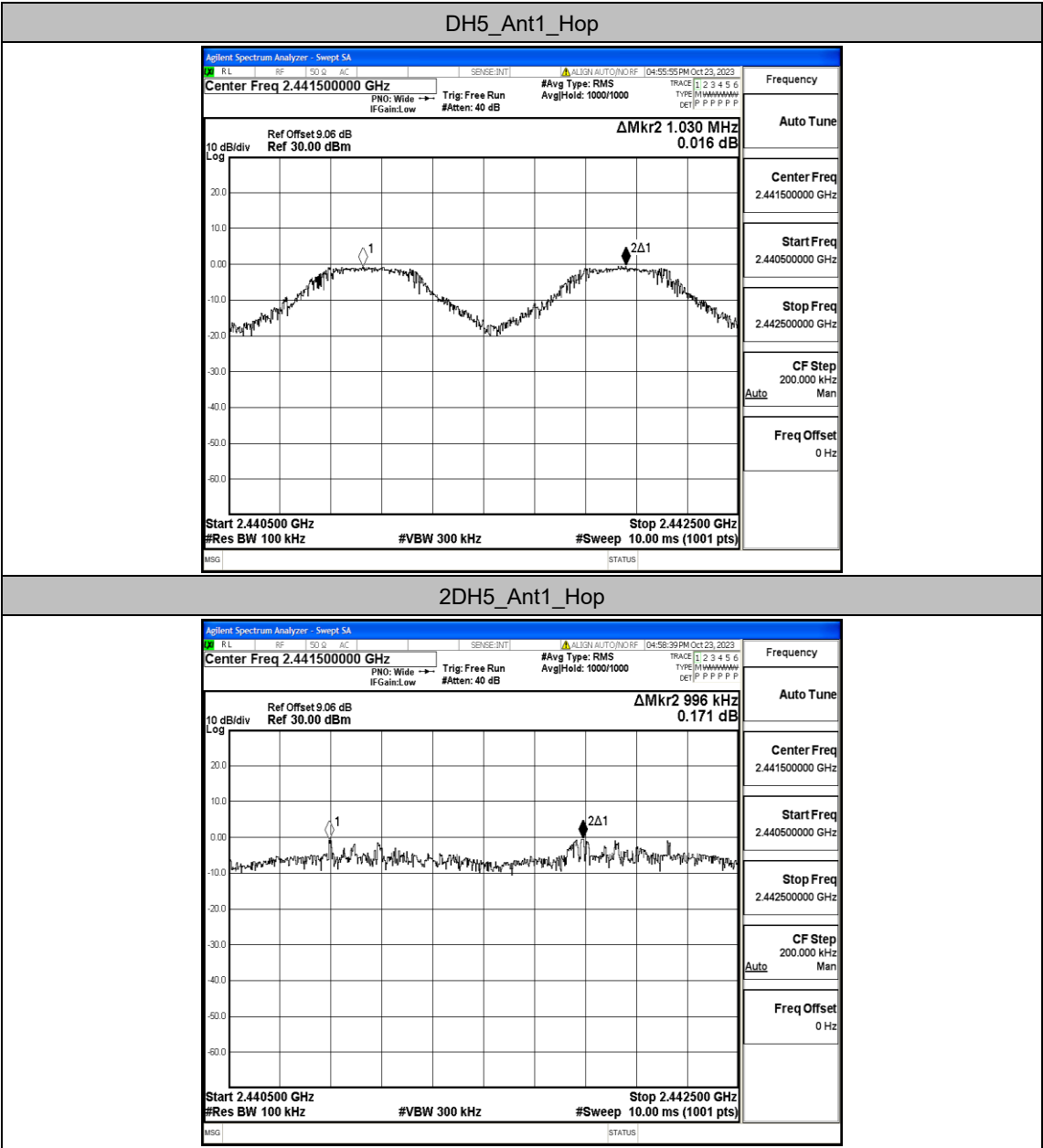


Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.03	≥ 1.029	PASS
2DH5	Ant1	Hop	0.996	≥ 0.884	PASS

Test Graphs

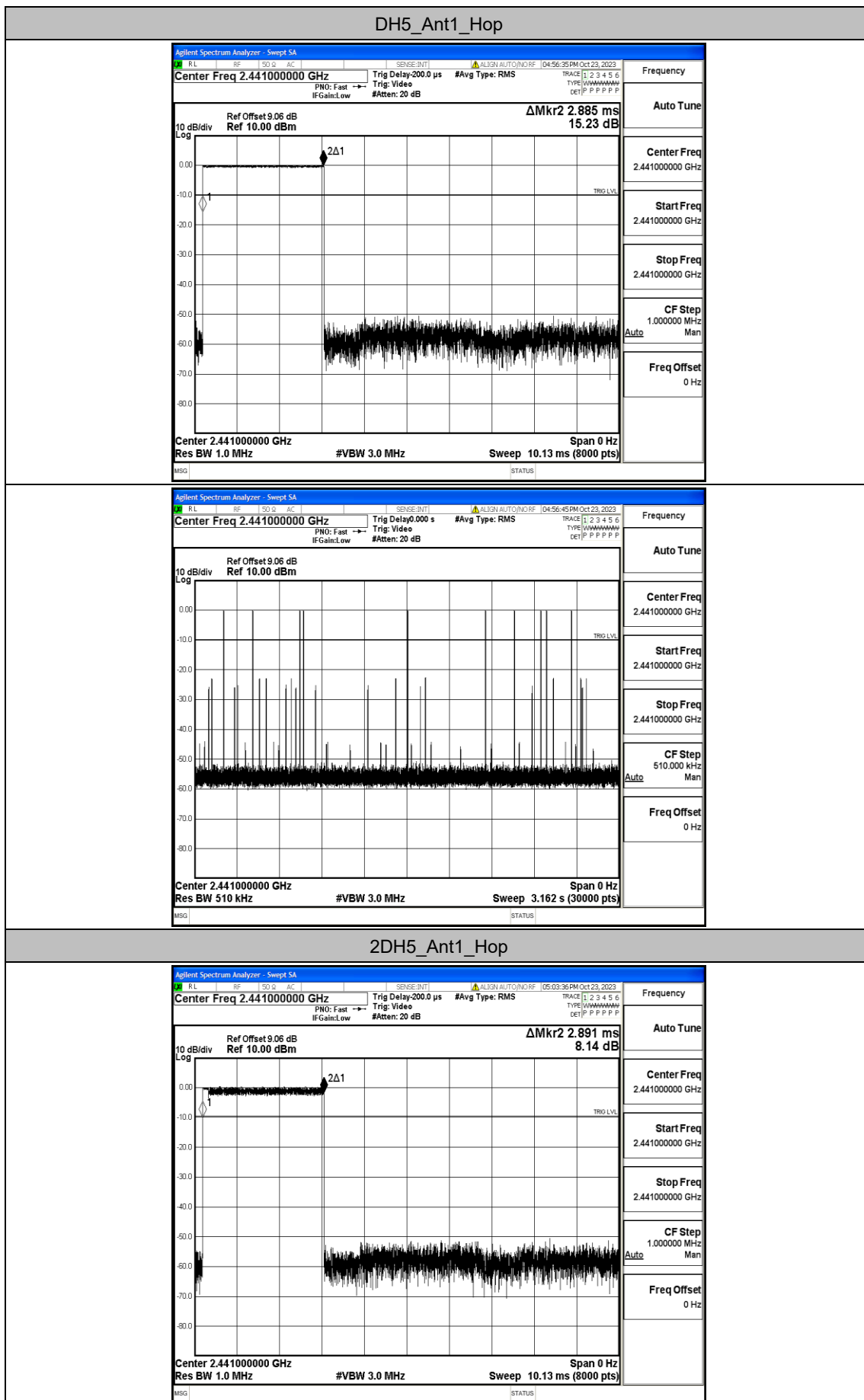


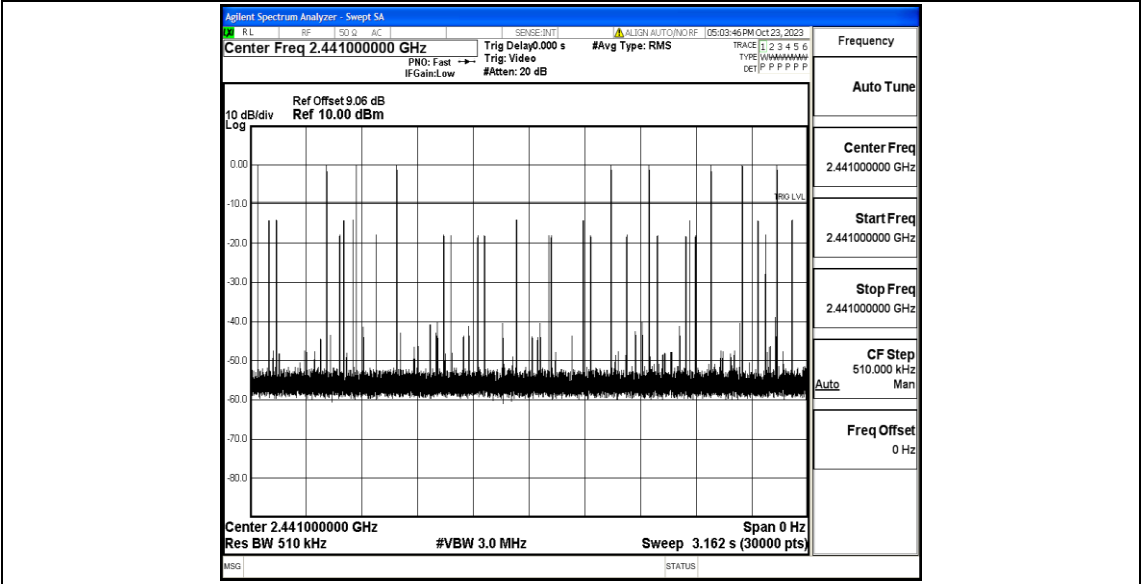
Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.885	110	0.317	≤0.4	PASS
2DH5	Ant1	Hop	2.891	100	0.289	≤0.4	PASS

Test Graphs



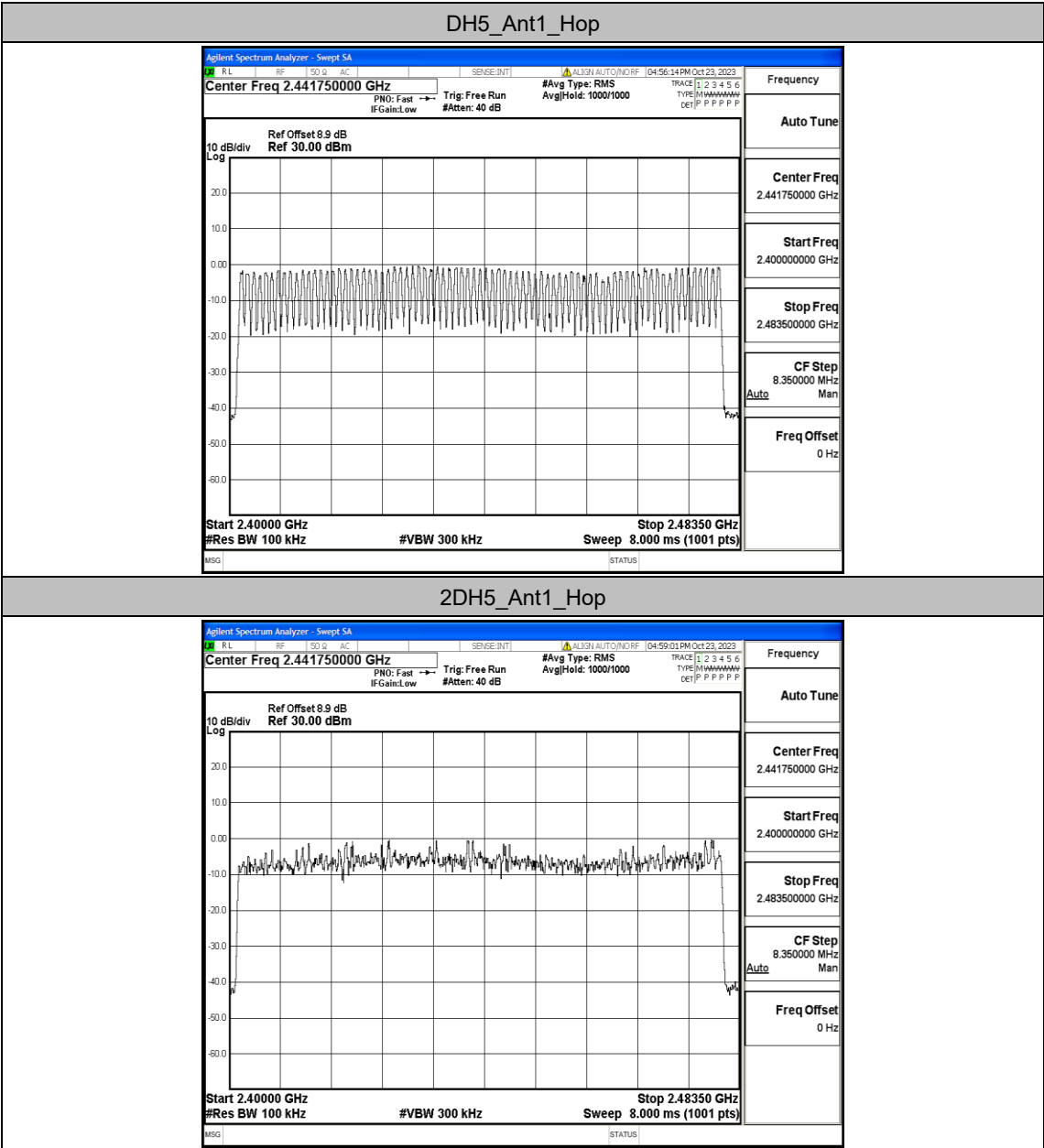


Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



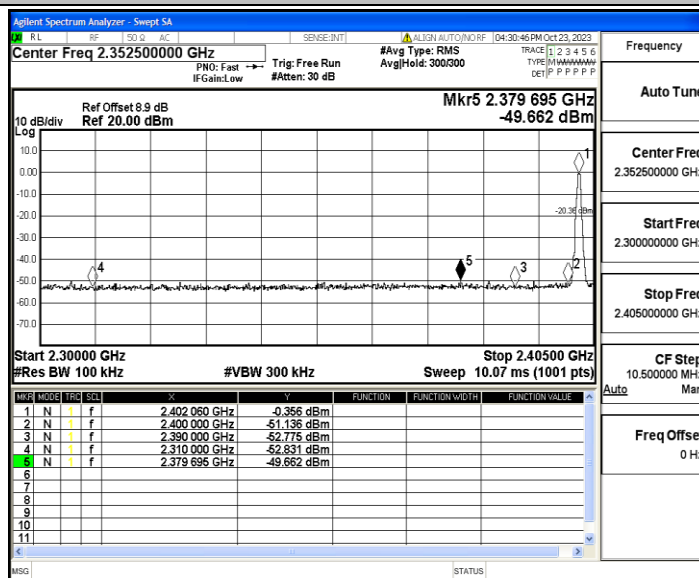
Appendix G: Band edge measurements

Test Result

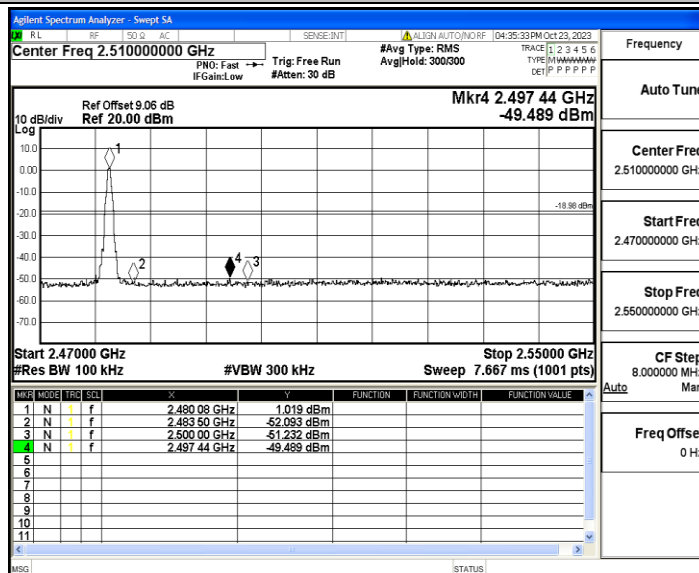
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.36	-49.66	≤ -20.36	PASS
		High	2480	1.02	-49.49	≤ -18.98	PASS
		Low	Hop_2402	-2.45	-50	≤ -22.45	PASS
		High	Hop_2480	-0.23	-47.55	≤ -20.23	PASS
2DH5	Ant1	Low	2402	-4.53	-50.42	≤ -24.53	PASS
		High	2480	-0.20	-49.8	≤ -20.2	PASS
		Low	Hop_2402	-5.53	-50.67	≤ -25.53	PASS
		High	Hop_2480	-0.42	-48.91	≤ -20.42	PASS

Test Graphs

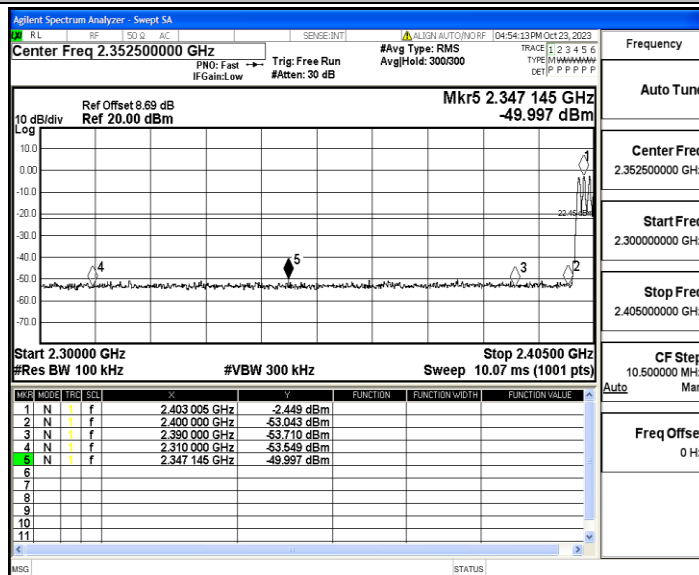
DH5_Ant1_Low_2402



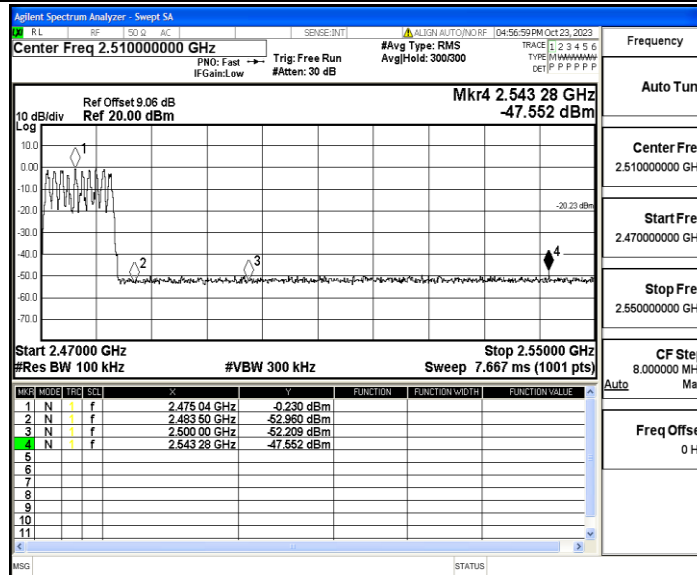
DH5_Ant1_High_2480



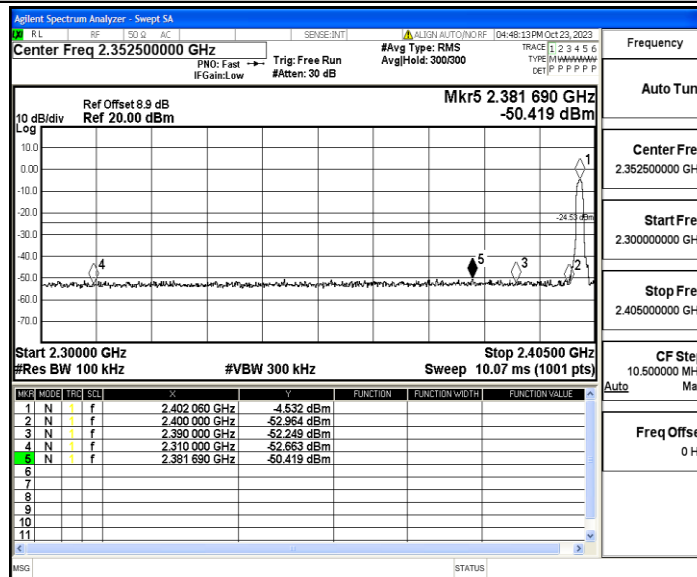
DH5_Ant1_Low_Hop_2402



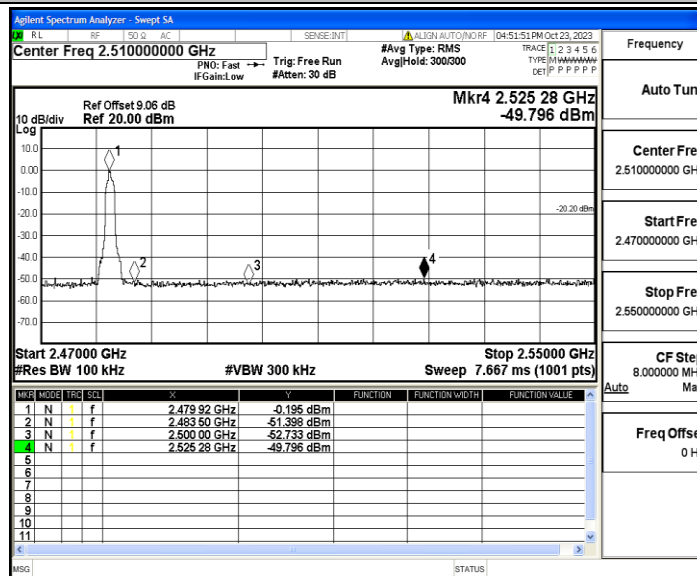
DH5_Ant1_High_Hop_2480



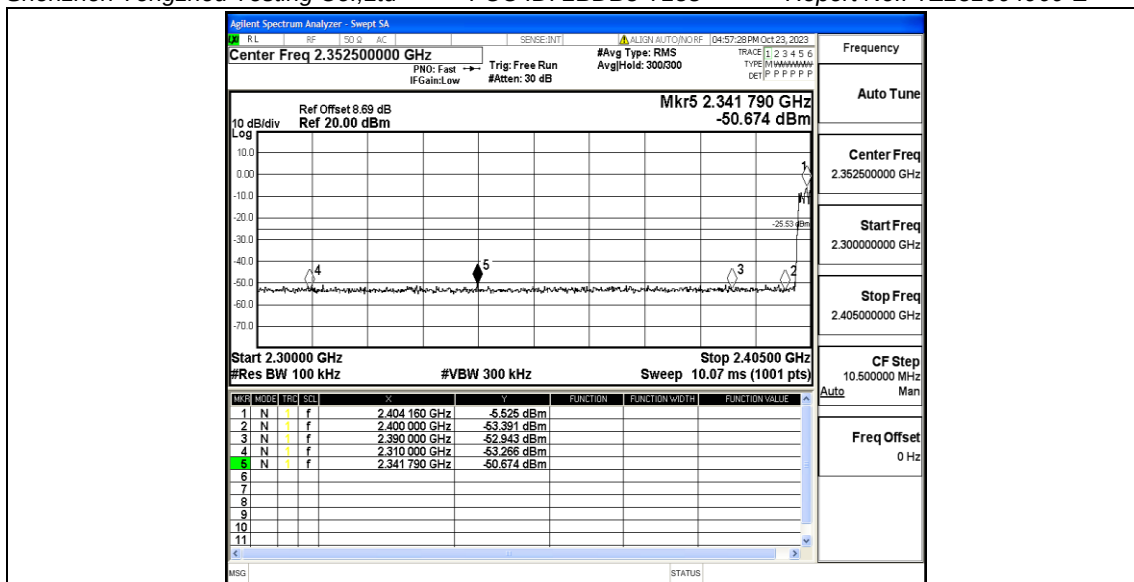
2DH5_Ant1_Low_2402



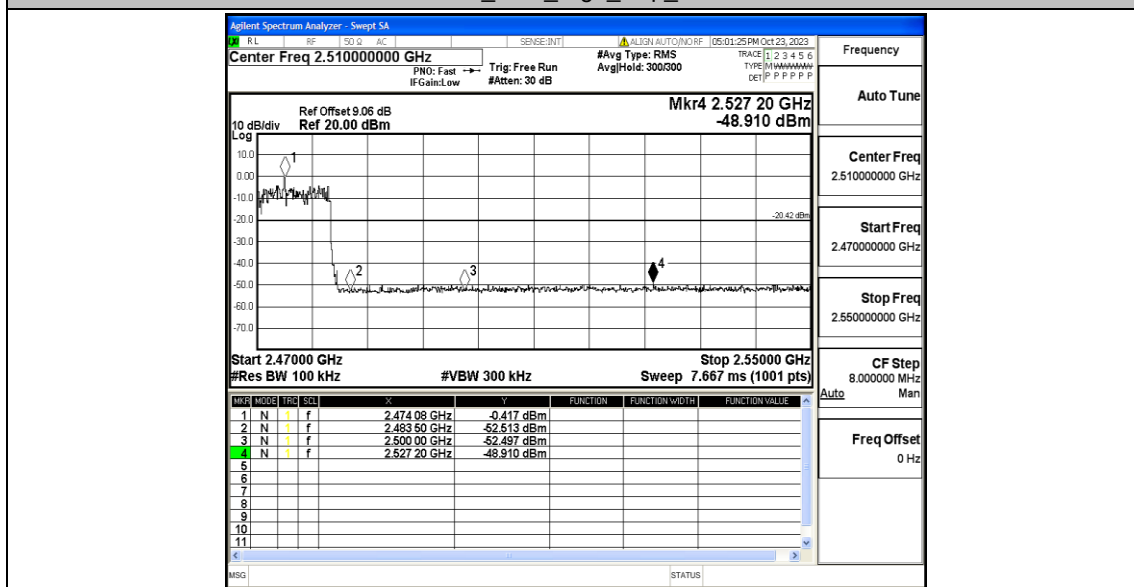
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



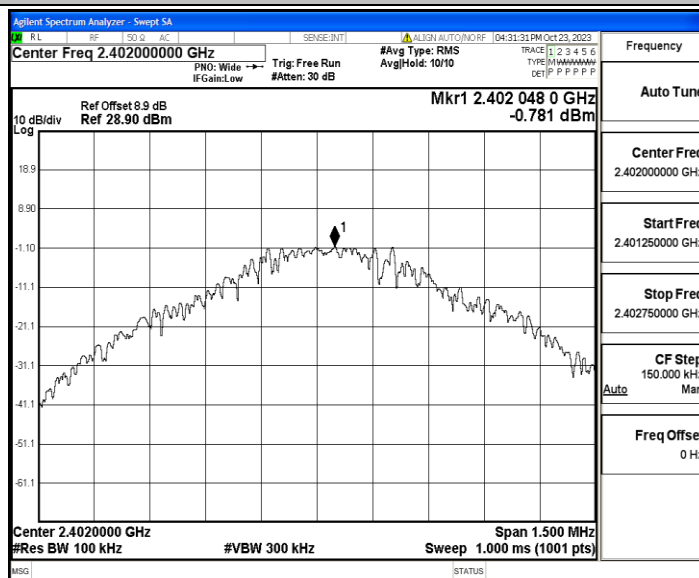
Appendix H: Conducted Spurious Emission

Test Result

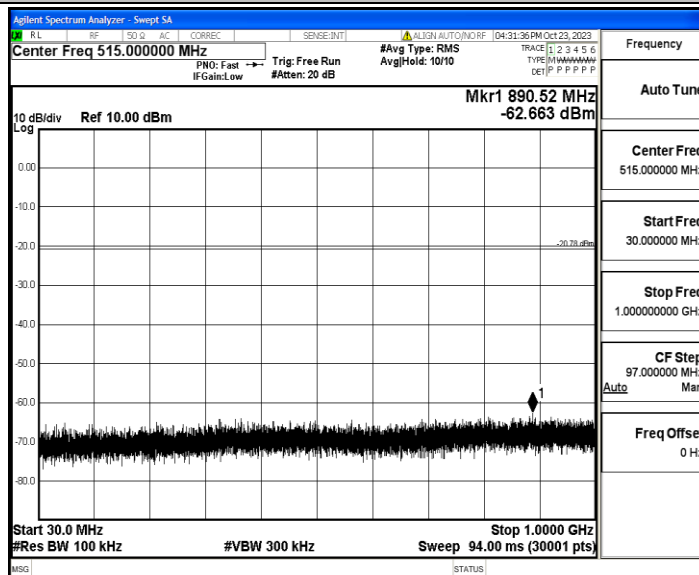
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.78	-0.78	---	PASS
			30~1000	-0.78	-62.66	≤-20.78	PASS
			1000~26500	-0.78	-44.71	≤-20.78	PASS
		2441	Reference	0.56	0.56	---	PASS
			30~1000	0.56	-61.13	≤-19.44	PASS
			1000~26500	0.56	-43.53	≤-19.44	PASS
		2480	Reference	0.43	0.43	---	PASS
			30~1000	0.43	-63.1	≤-19.57	PASS
			1000~26500	0.43	-42.35	≤-19.57	PASS
2DH5	Ant1	2402	Reference	-5.50	-5.50	---	PASS
			30~1000	-5.50	-62.03	≤-25.5	PASS
			1000~26500	-5.50	-47.65	≤-25.5	PASS
		2441	Reference	-1.64	-1.64	---	PASS
			30~1000	-1.64	-61.46	≤-21.64	PASS
			1000~26500	-1.64	-44.41	≤-21.64	PASS
		2480	Reference	-3.88	-3.88	---	PASS
			30~1000	-3.88	-62.97	≤-23.88	PASS
			1000~26500	-3.88	-41.75	≤-23.88	PASS

Test Graphs

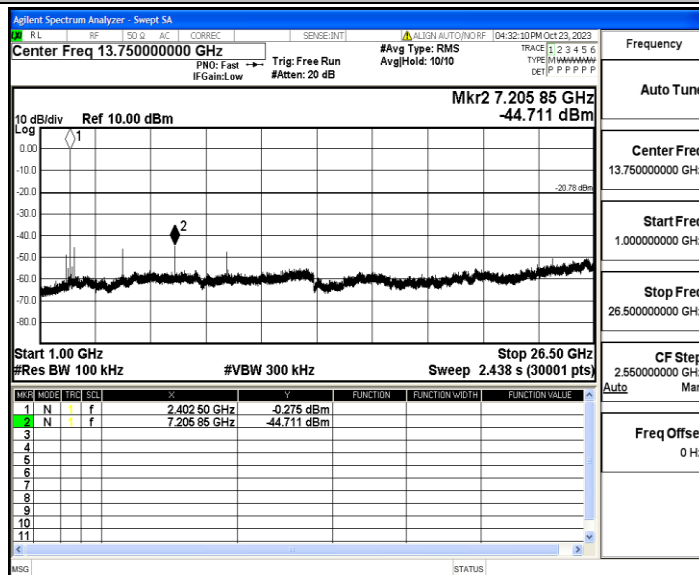
DH5_Ant1_2402_0~Reference



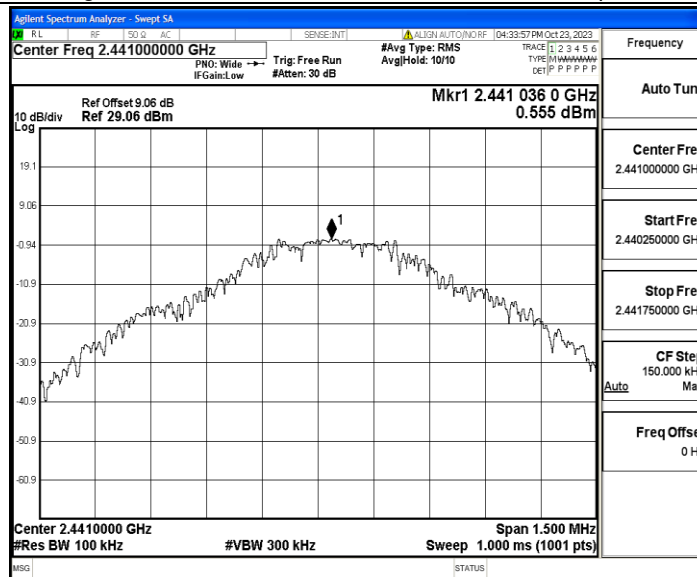
DH5_Ant1_2402_30~1000



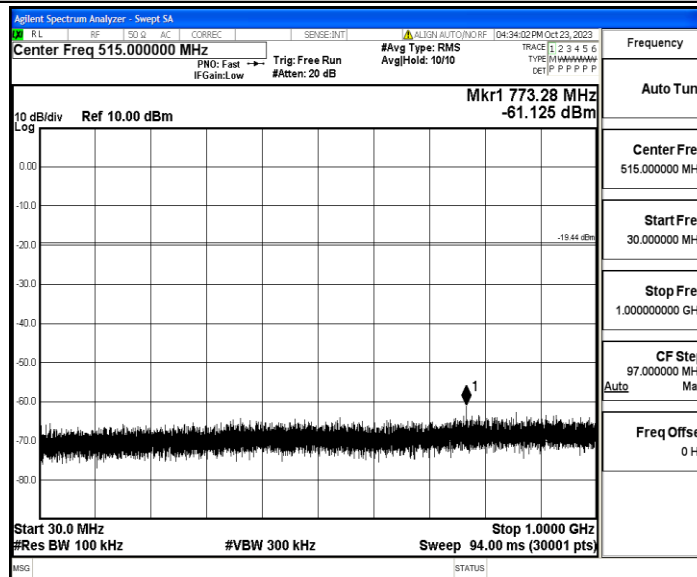
DH5_Ant1_2402_1000~26500



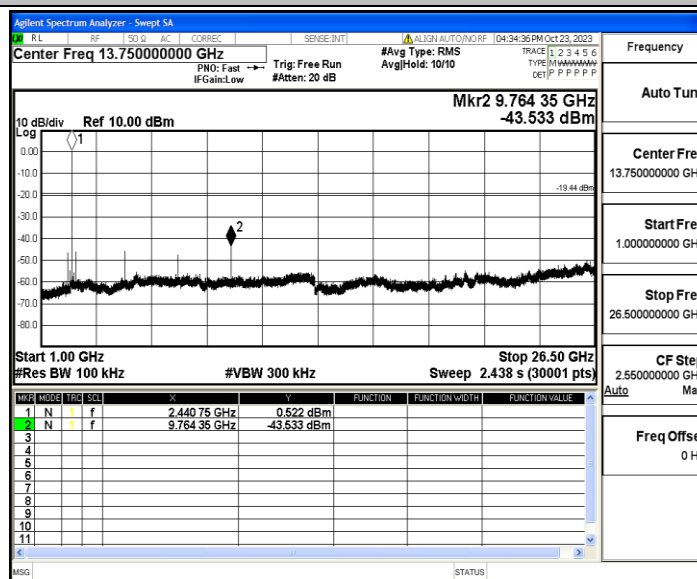
DH5_Ant1_2441_0~Reference



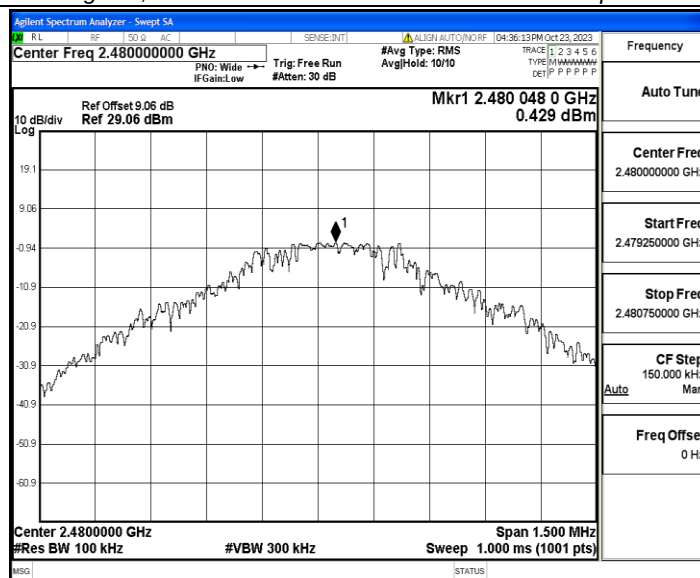
DH5_Ant1_2441_30~1000



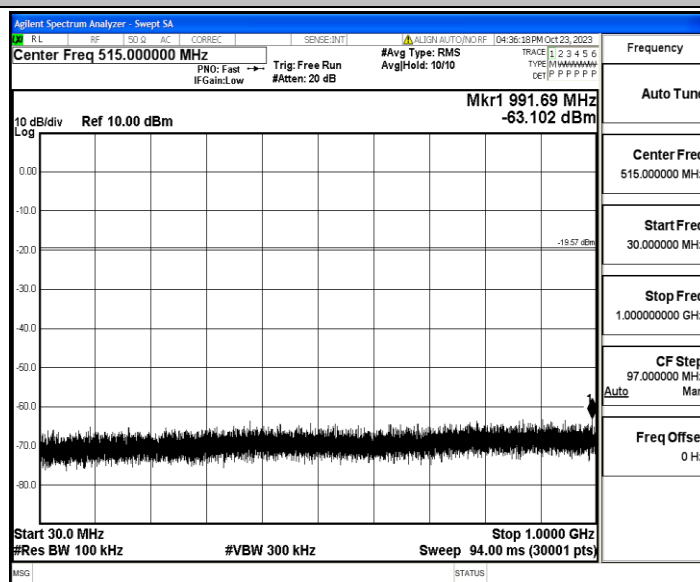
DH5_Ant1_2441_1000~26500



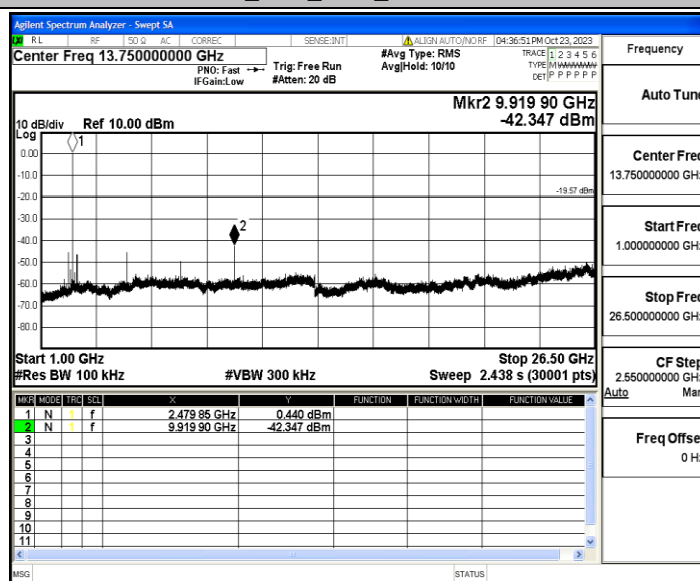
DH5_Ant1_2480_0~Reference



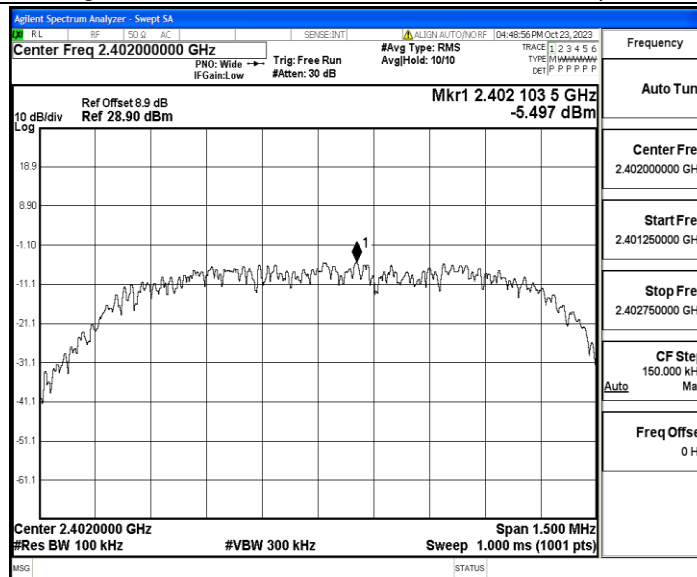
DH5_Ant1_2480_30~1000



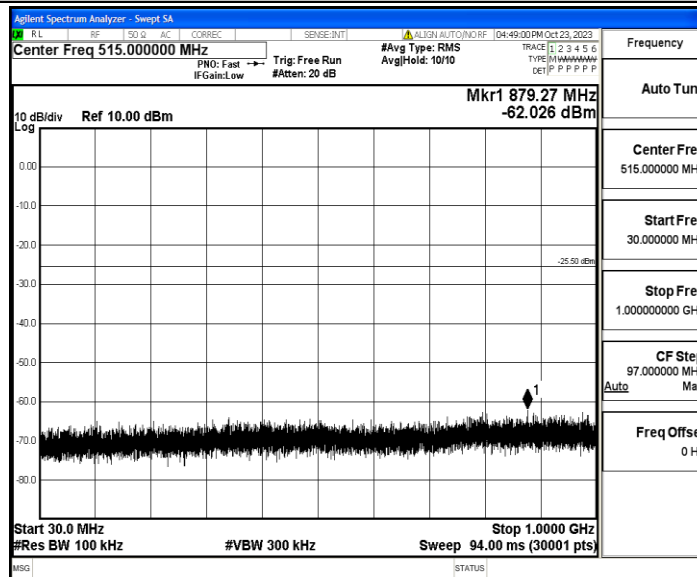
DH5_Ant1_2480_1000~26500



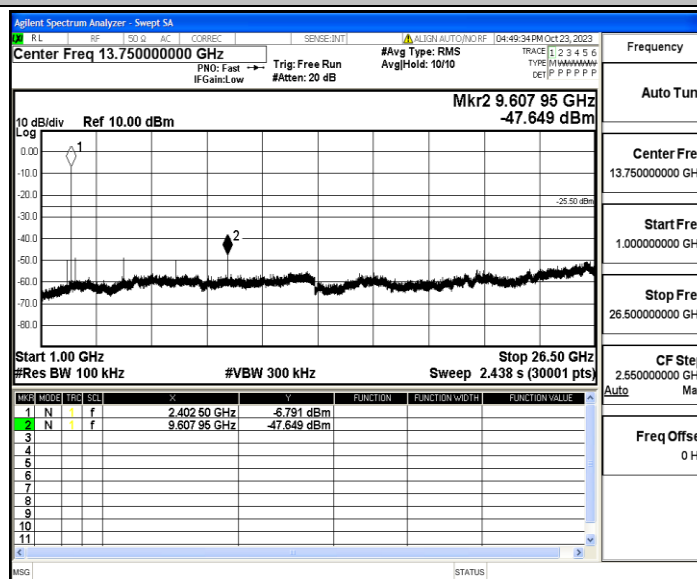
2DH5_Ant1_2402_0~Reference



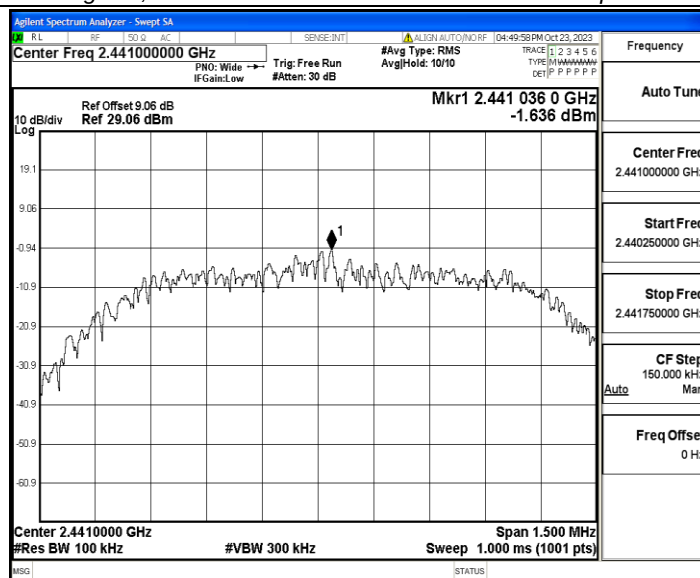
2DH5_Ant1_2402_30~1000



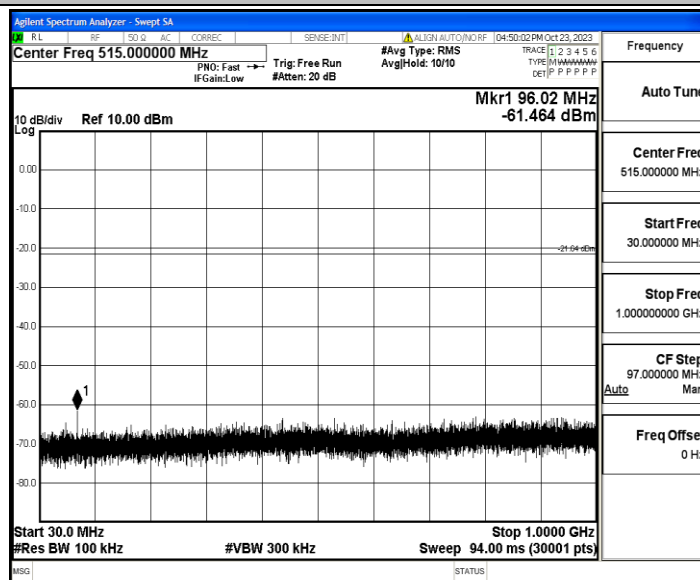
2DH5_Ant1_2402_1000~26500



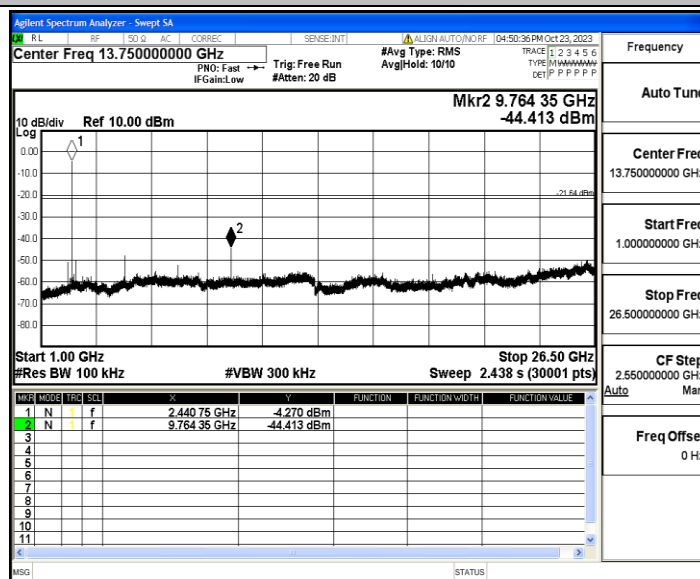
2DH5_Ant1_2441_0~Reference



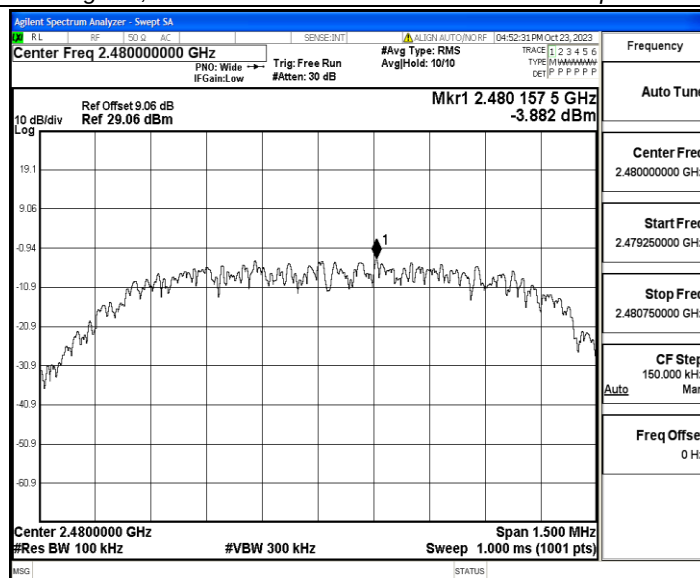
2DH5_Ant1_2441_30~1000



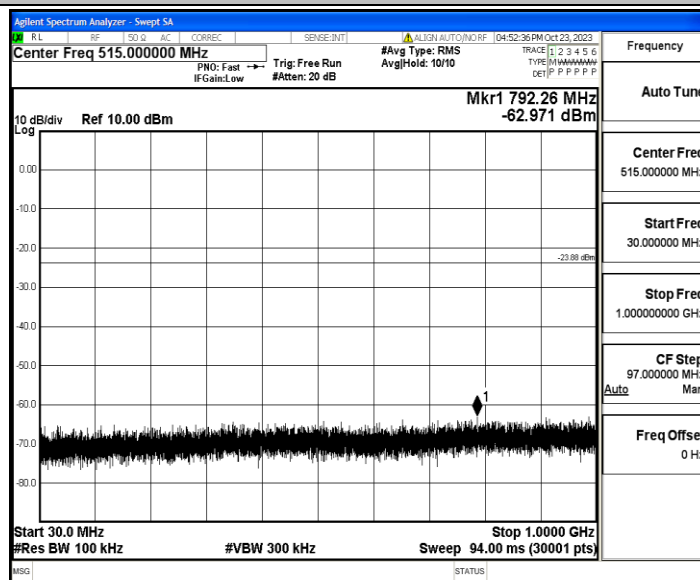
2DH5_Ant1_2441_1000~26500



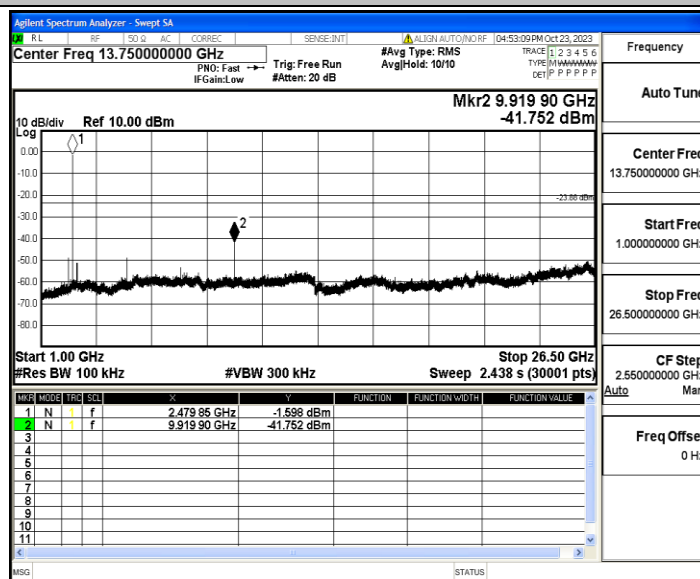
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



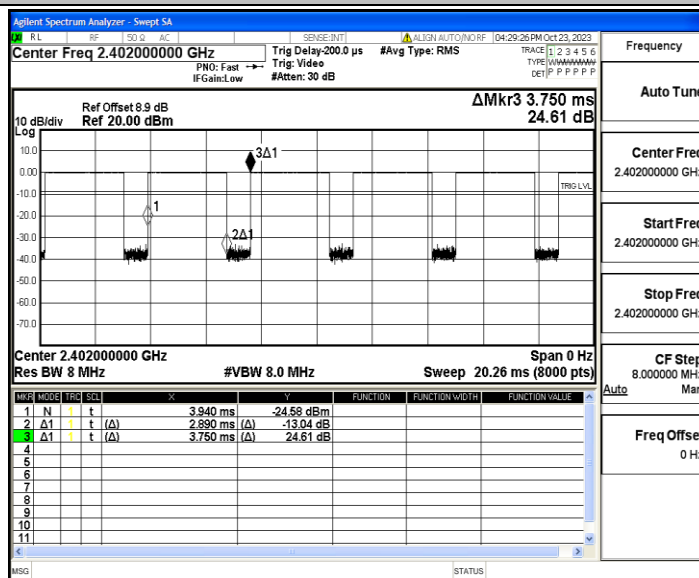
Appendix I: Duty Cycle

Test Result

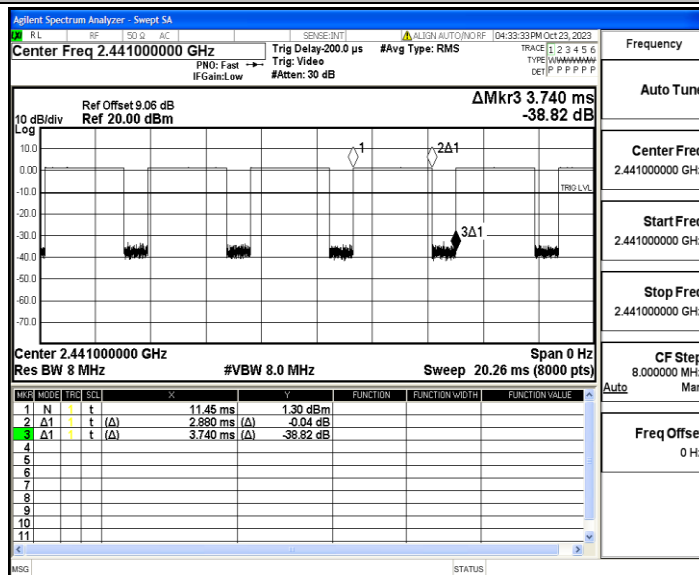
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T[kHz]
DH5	Ant1	2402	2.89	3.75	77.07	0.35
		2441	2.88	3.74	77.01	0.35
		2480	2.88	3.74	77.01	0.35
2DH5	Ant1	2402	2.89	3.75	77.07	0.35
		2441	2.89	3.75	77.07	0.35
		2480	2.89	3.75	77.07	0.35

Test Graphs

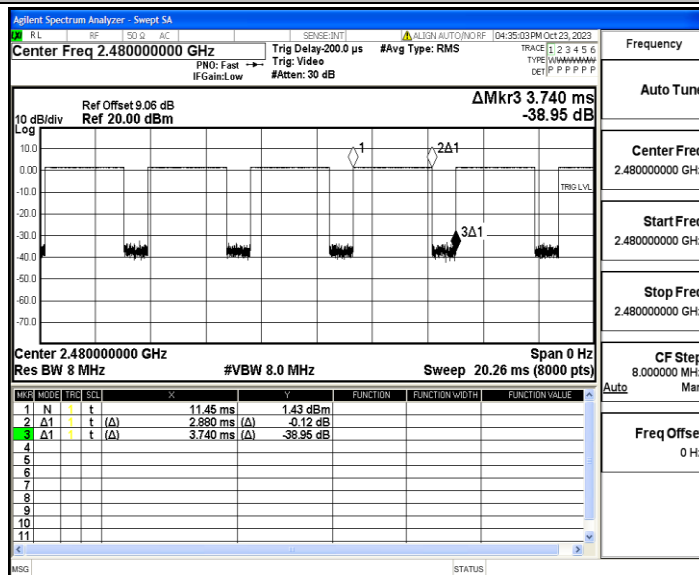
DH5_Ant1_2402



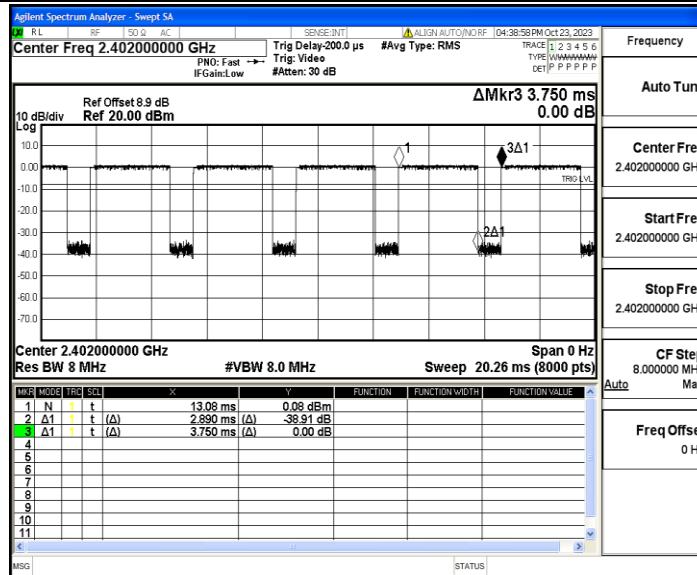
DH5_Ant1_2441



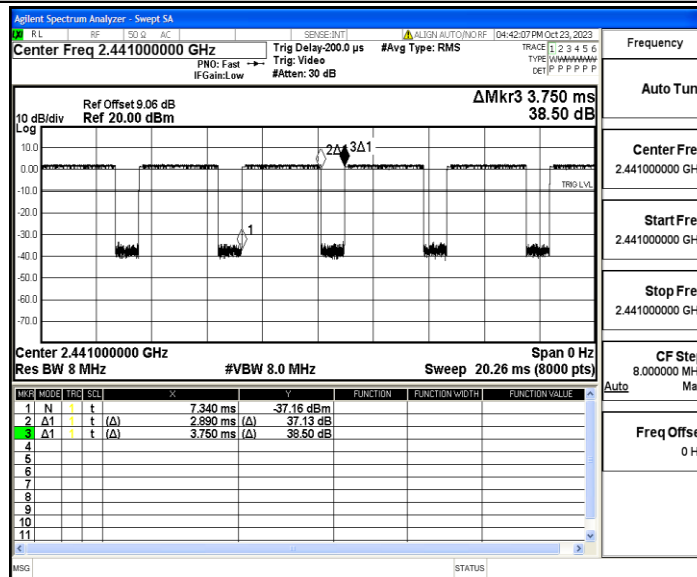
DH5_Ant1_2480



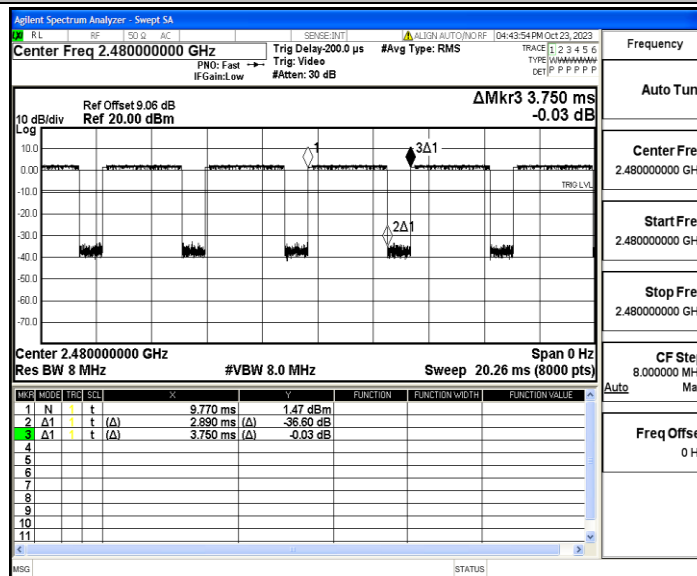
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



Appendix J: Emissions in Restricted Bands

Test Result

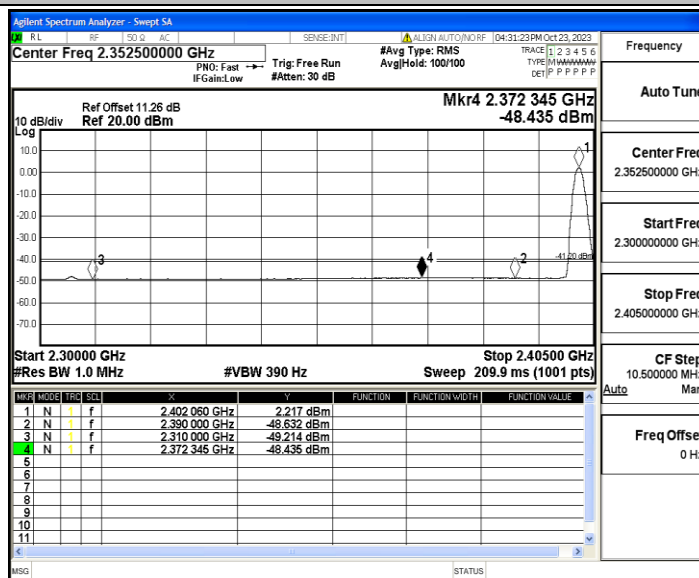
TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49.21	≤-41.20	PASS
				AV	2372.345	-48.43	≤-41.20	PASS
				AV	2390.000	-48.63	≤-41.20	PASS
				Peak	2310.000	-42.92	≤-21.20	PASS
				Peak	2357.540	-38.63	≤-21.20	PASS
				Peak	2390.000	-40.29	≤-21.20	PASS
		High	2480	AV	2483.500	-47.63	≤-41.20	PASS
				AV	2483.520	-47.63	≤-41.20	PASS
				AV	2500.000	-47.91	≤-41.20	PASS
				Peak	2483.500	-40.97	≤-21.20	PASS
				Peak	2491.200	-37.49	≤-21.20	PASS
				Peak	2500.000	-40.87	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.18	≤-41.20	PASS
				AV	2369.720	-48.51	≤-41.20	PASS
				AV	2390.000	-48.8	≤-41.20	PASS
				Peak	2310.000	-42.93	≤-21.20	PASS
				Peak	2376.755	-38.75	≤-21.20	PASS
				Peak	2390.000	-40.79	≤-21.20	PASS
		High	2480	AV	2483.500	-47.7	≤-41.20	PASS
				AV	2483.520	-47.7	≤-41.20	PASS
				AV	2500.000	-48.05	≤-41.20	PASS
				Peak	2483.500	-41.49	≤-21.20	PASS
				Peak	2495.040	-38.09	≤-21.20	PASS
				Peak	2500.000	-40.21	≤-21.20	PASS

Note:

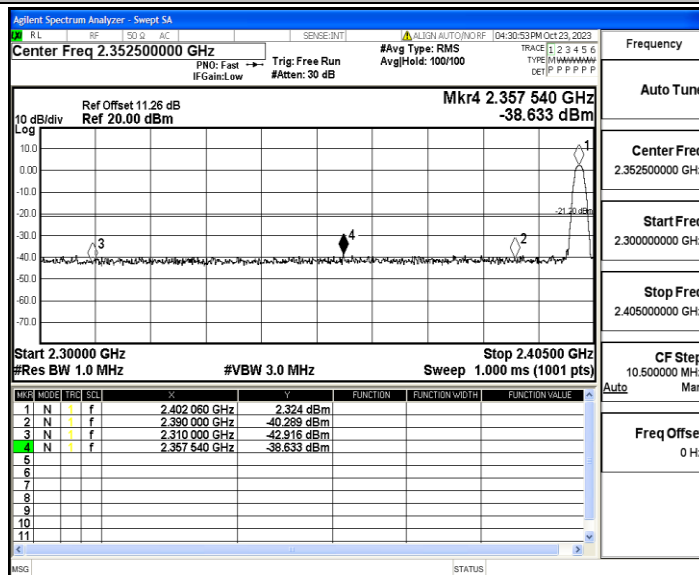
1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

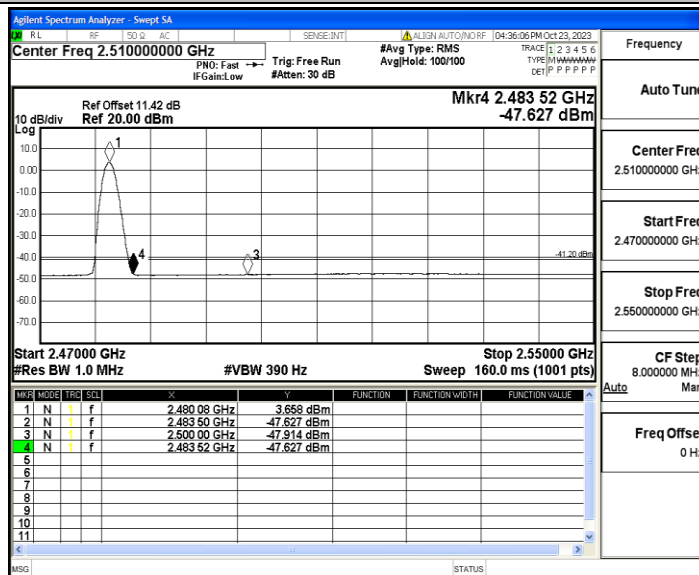
DH5_Ant1_Low_2402_AV



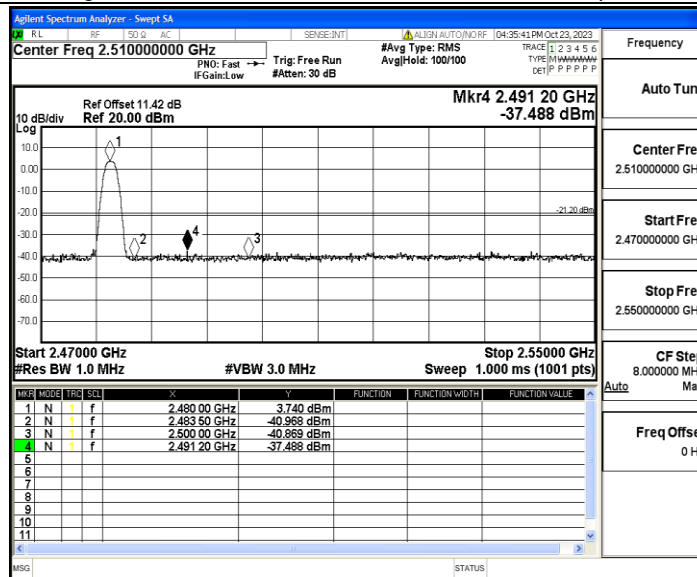
DH5_Ant1_Low_2402_Peak



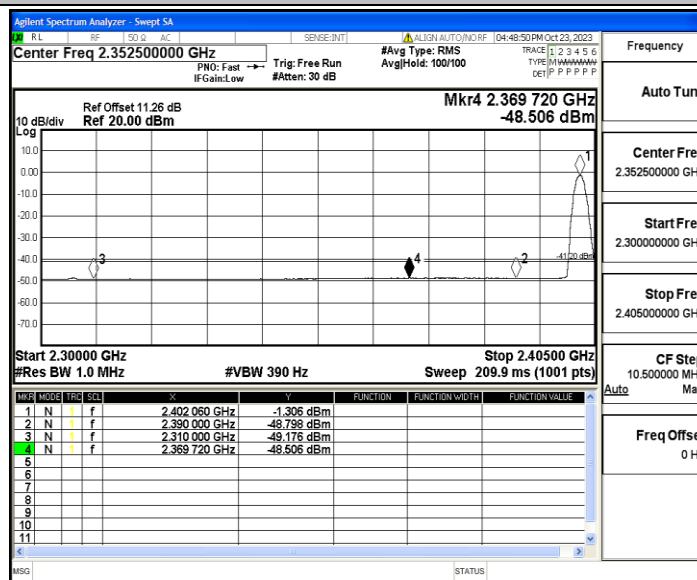
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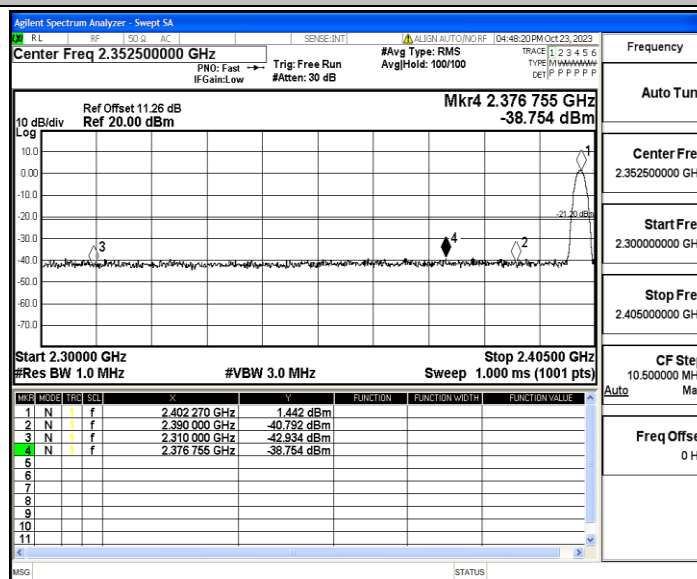
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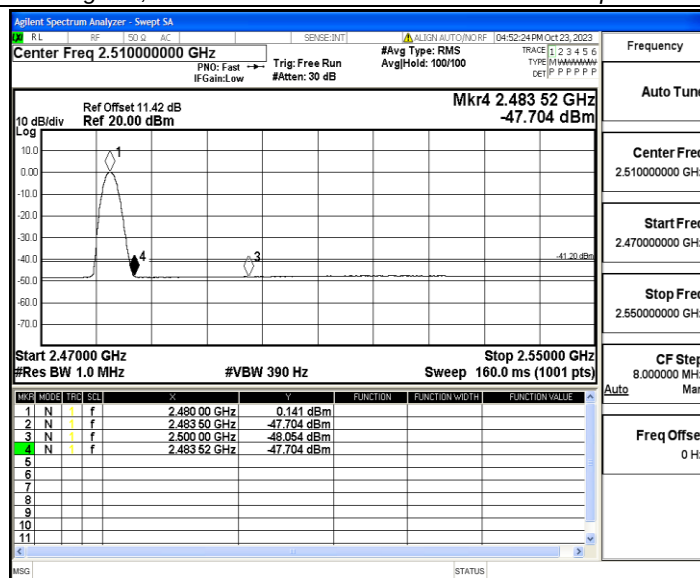
2DH5_Ant1_Low_2402_AV



2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV



2DH5_Ant1_High_2480_Peak

