



Appendix for Bluetooth BR/EDR mode

Product Name: Transmitter Duplex

Model No: DS-24 II

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Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.942	2401.541	2402.483	---	---
DH5	Ant1	2441	0.951	2440.532	2441.483	---	---
DH5	Ant1	2480	0.945	2479.541	2480.486	---	---
2DH5	Ant1	2402	1.320	2401.340	2402.660	---	---
2DH5	Ant1	2441	1.314	2440.343	2441.657	---	---
2DH5	Ant1	2480	1.290	2479.367	2480.657	---	---
3DH5	Ant1	2402	1.314	2401.346	2402.660	---	---
3DH5	Ant1	2441	1.314	2440.346	2441.660	---	---
3DH5	Ant1	2480	1.314	2479.346	2480.660	---	---

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Test Graphs





2DH5-Ant1-2402



2DH5-Ant1-2441



2DH5-Ant1-2480





Appendix B: Maximum conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	8.97	≤ 20.97	PASS
DH5	Ant1	2441	8.95	≤ 20.97	PASS
DH5	Ant1	2480	9.49	≤ 20.97	PASS
2DH5	Ant1	2402	11.20	≤ 30	PASS
2DH5	Ant1	2441	11.31	≤ 30	PASS
2DH5	Ant1	2480	11.70	≤ 30	PASS
3DH5	Ant1	2402	11.68	≤ 30	PASS
3DH5	Ant1	2441	11.74	≤ 30	PASS
3DH5	Ant1	2480	12.12	≤ 30	PASS

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Test Graphs









Appendix C: Carrier frequency separation

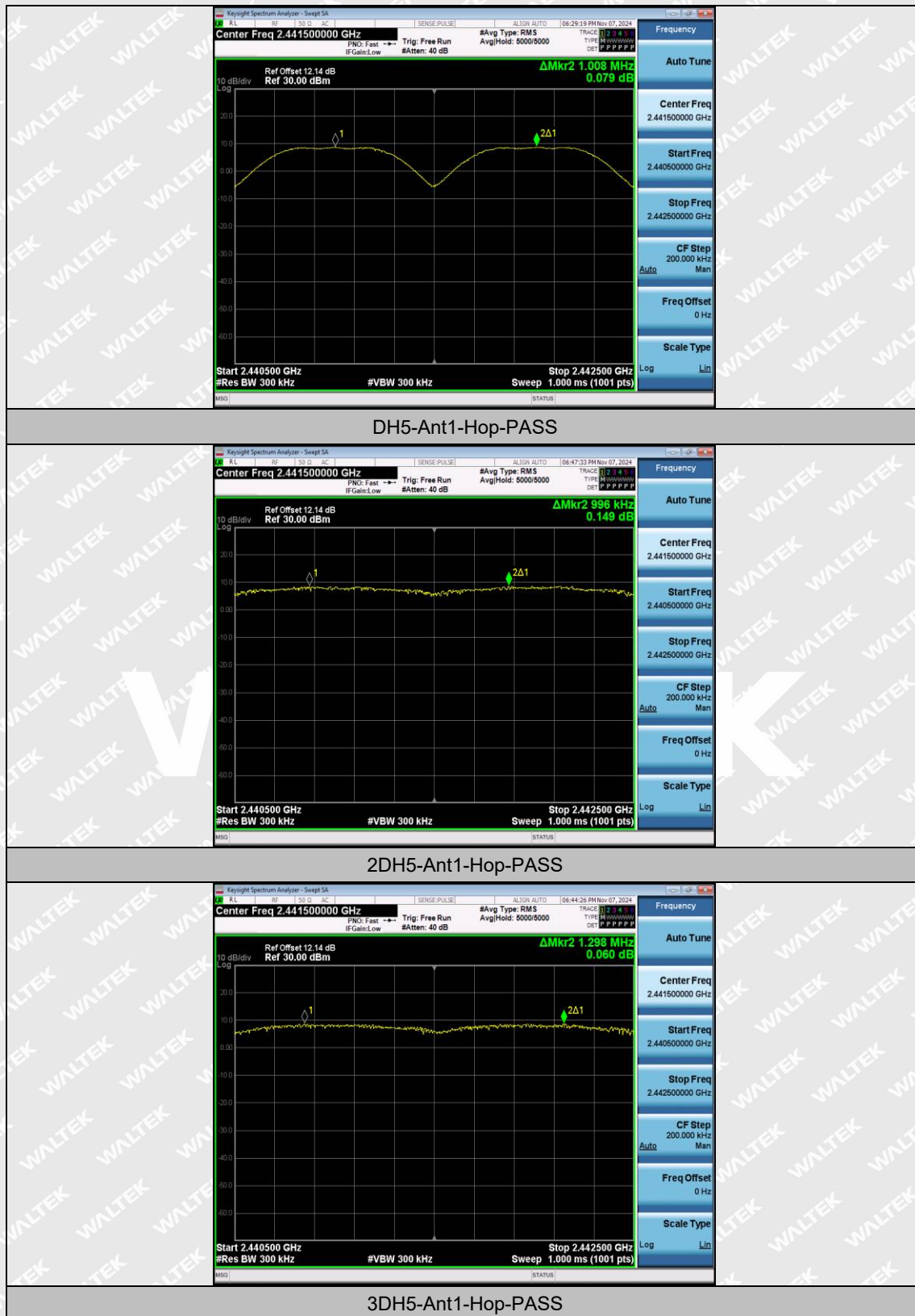
Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.008	≥ 0.951	PASS
2DH5	Ant1	Hop	0.996	≥ 0.880	PASS
3DH5	Ant1	Hop	1.298	≥ 0.876	PASS

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Test Graphs





Appendix D: Time of occupancy

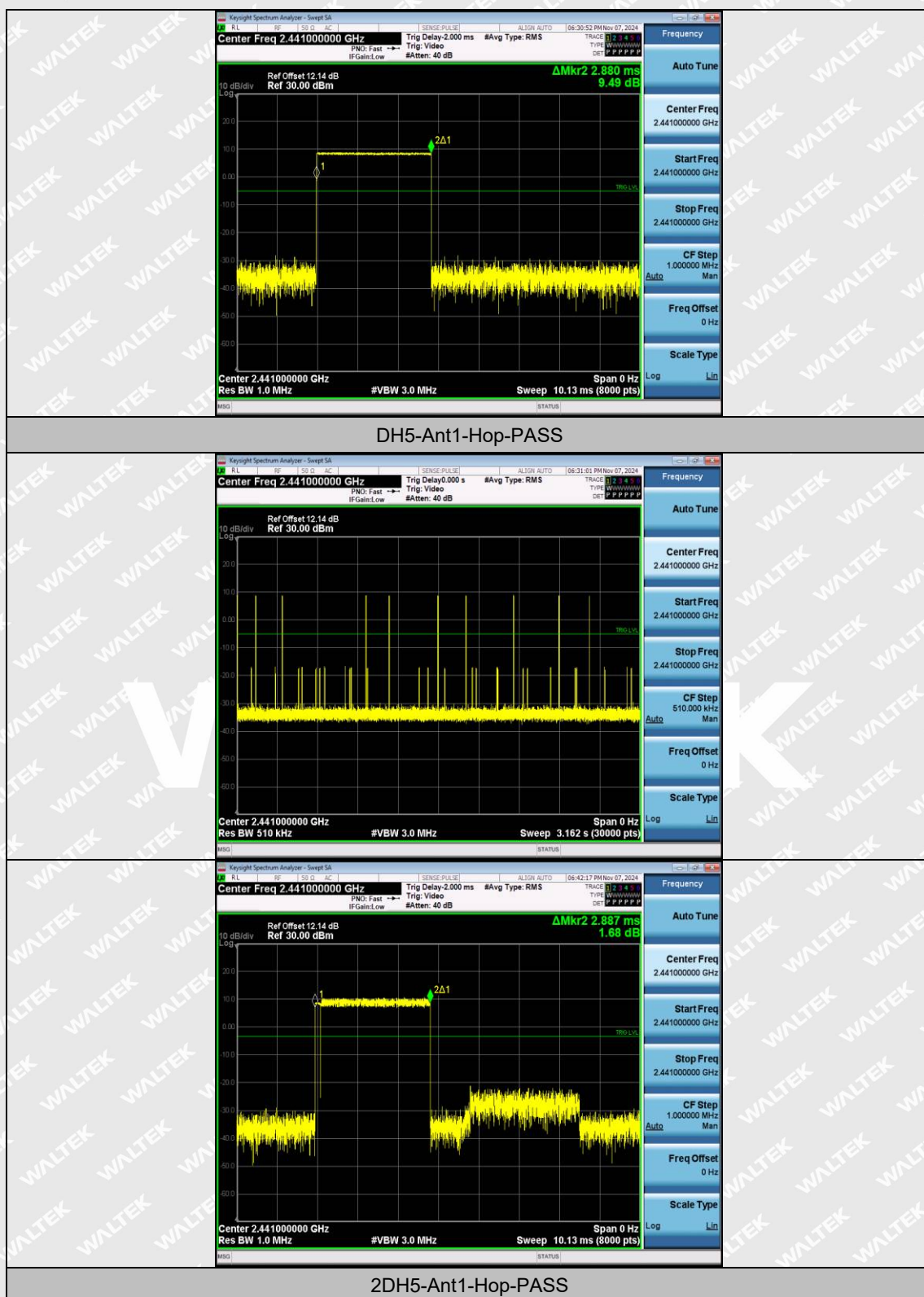
Test Result

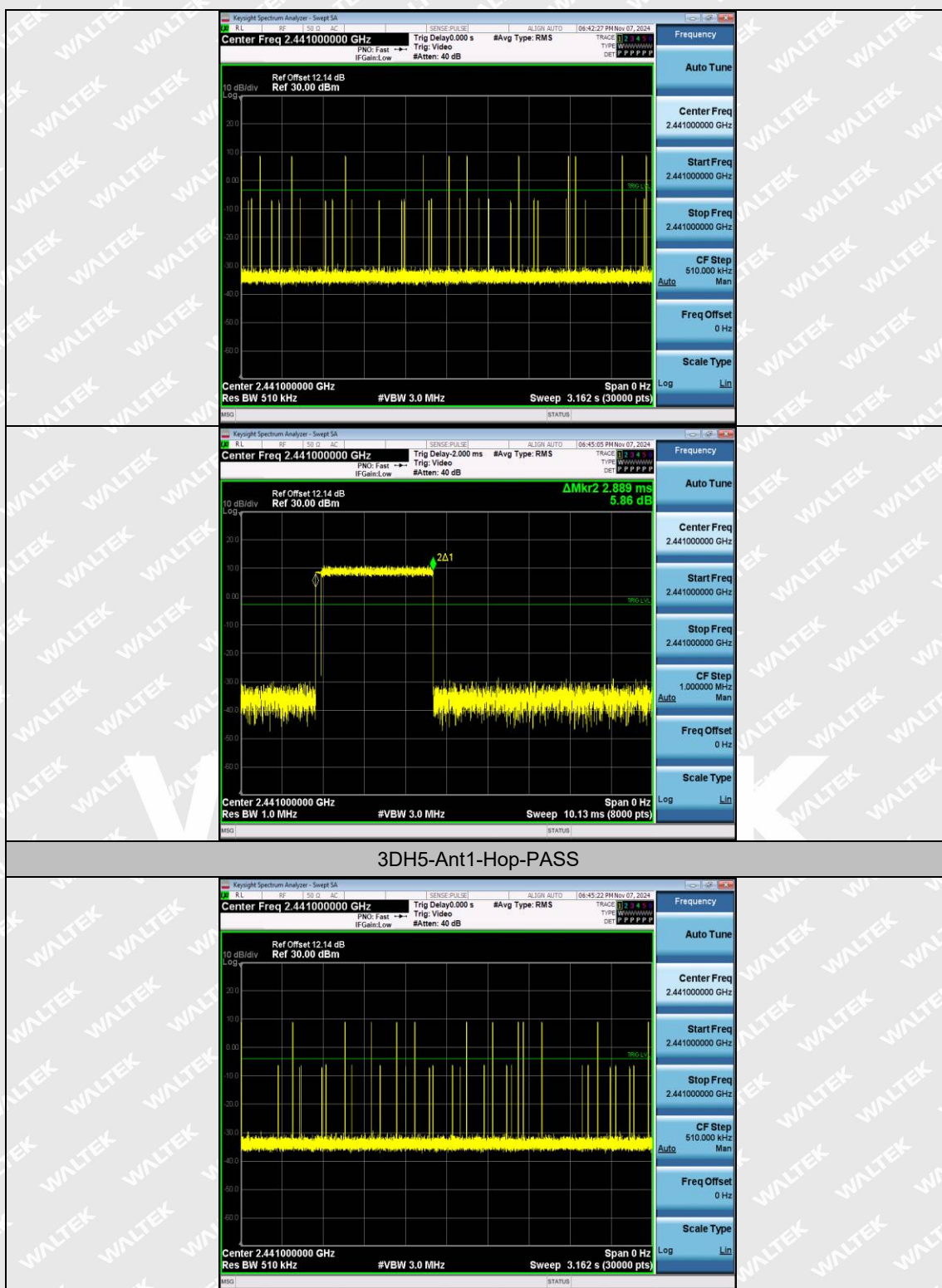
TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.880	100	0.288	≤0.4	PASS
2DH5	Ant1	Hop	2.887	120	0.346	≤0.4	PASS
3DH5	Ant1	Hop	2.889	130	0.376	≤0.4	PASS

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Test Graphs







Appendix E: 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

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Test Graphs





Appendix F: Reference level measurement

Test Result

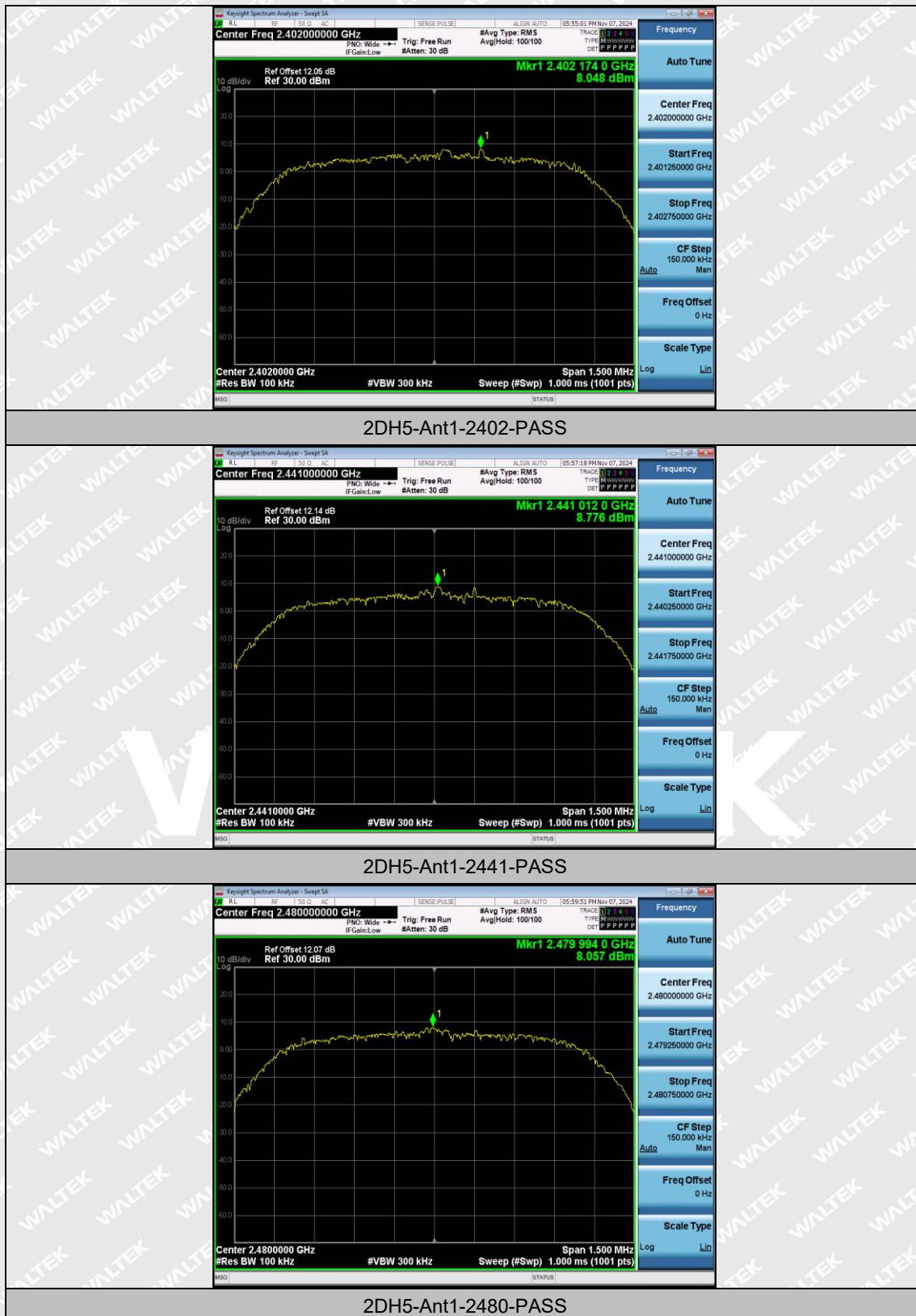
TestMode	Antenna	Freq(MHz)	Max.Point[MHz]	Result[dBm]
DH5	Ant1	2402	2402.00	8.23
DH5	Ant1	2441	2440.99	8.04
DH5	Ant1	2480	2479.99	8.53
2DH5	Ant1	2402	2402.17	8.05
2DH5	Ant1	2441	2441.01	8.78
2DH5	Ant1	2480	2479.99	8.06
3DH5	Ant1	2402	2402.16	7.83
3DH5	Ant1	2441	2441.00	8.65
3DH5	Ant1	2480	2480.18	8.39

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Test Graphs









Appendix G: Band edge measurements

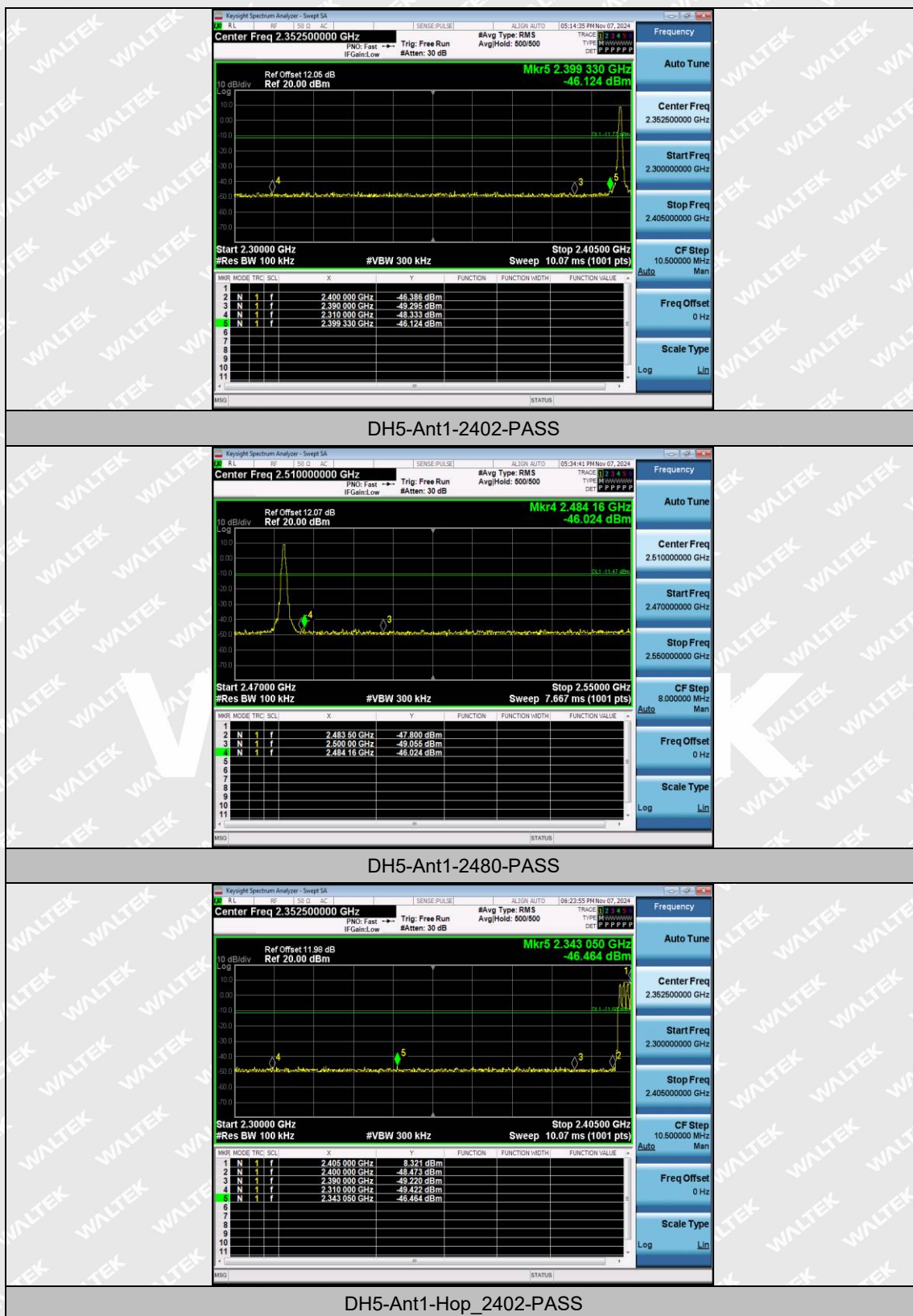
Test Result

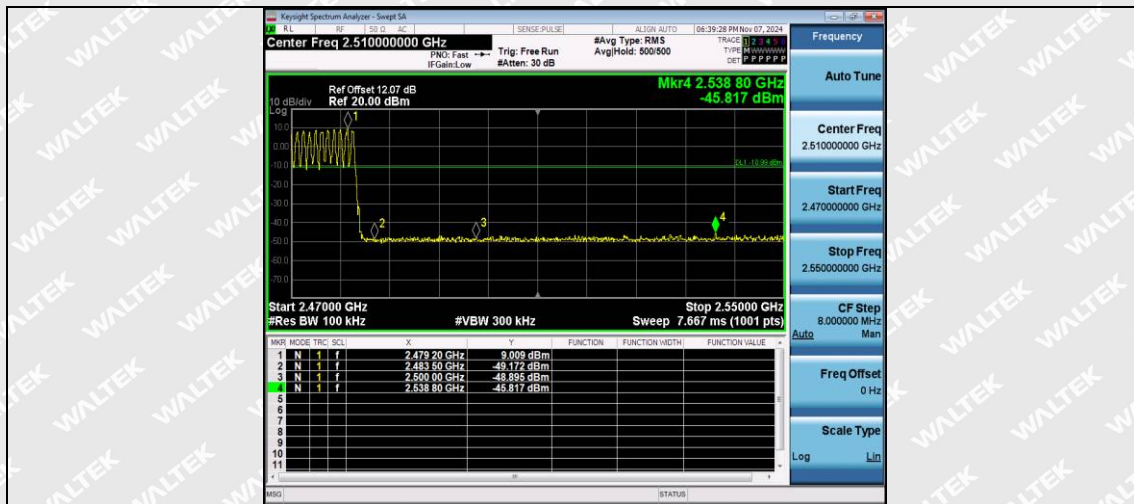
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	8.23	-46.12	≤ -11.77	PASS
DH5	Ant1	High	2480	8.53	-46.02	≤ -11.47	PASS
DH5	Ant1	Low	Hop_2402	8.32	-46.46	≤ -11.68	PASS
DH5	Ant1	High	Hop_2480	9.01	-45.82	≤ -10.99	PASS
2DH5	Ant1	Low	2402	8.05	-45.23	≤ -11.95	PASS
2DH5	Ant1	High	2480	8.06	-45.51	≤ -11.94	PASS
2DH5	Ant1	Low	Hop_2402	8.46	-46.81	≤ -11.54	PASS
2DH5	Ant1	High	Hop_2480	6.77	-45.53	≤ -13.24	PASS
3DH5	Ant1	Low	2402	7.83	-44.8	≤ -12.17	PASS
3DH5	Ant1	High	2480	8.39	-44.44	≤ -11.61	PASS
3DH5	Ant1	Low	Hop_2402	5.93	-46.45	≤ -14.07	PASS
3DH5	Ant1	High	Hop_2480	9.05	-46.15	≤ -10.95	PASS

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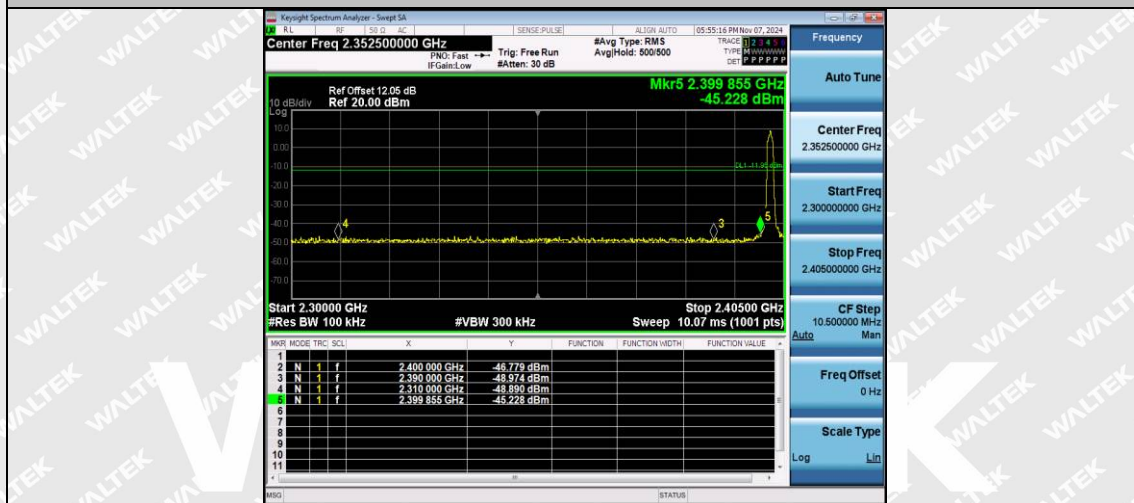


Test Graphs

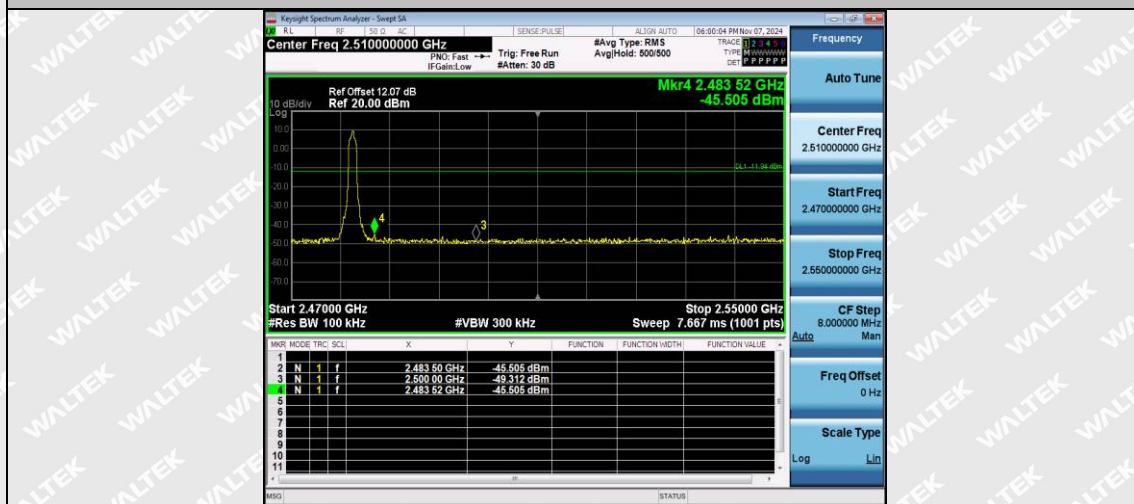




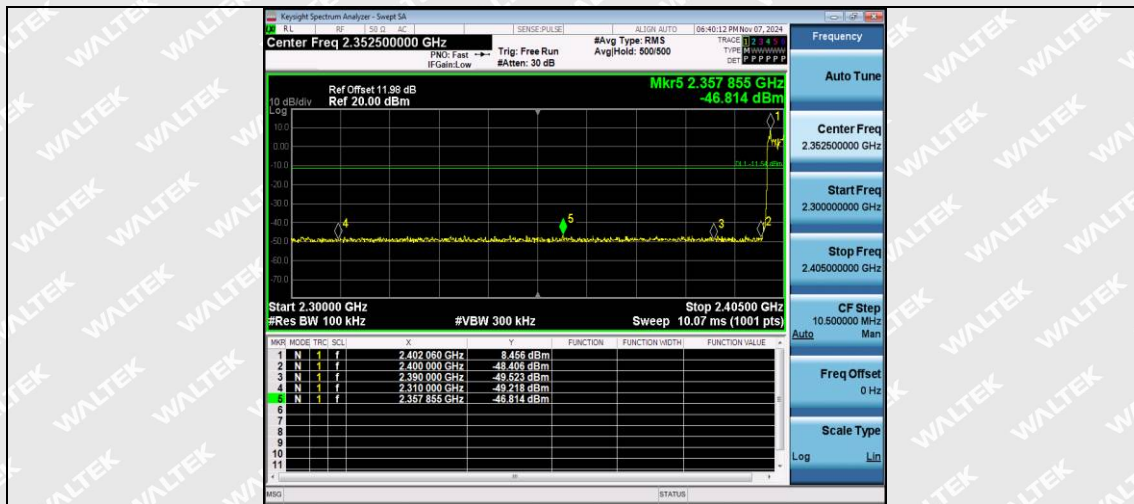
DH5-Ant1-Hop_2480-PASS



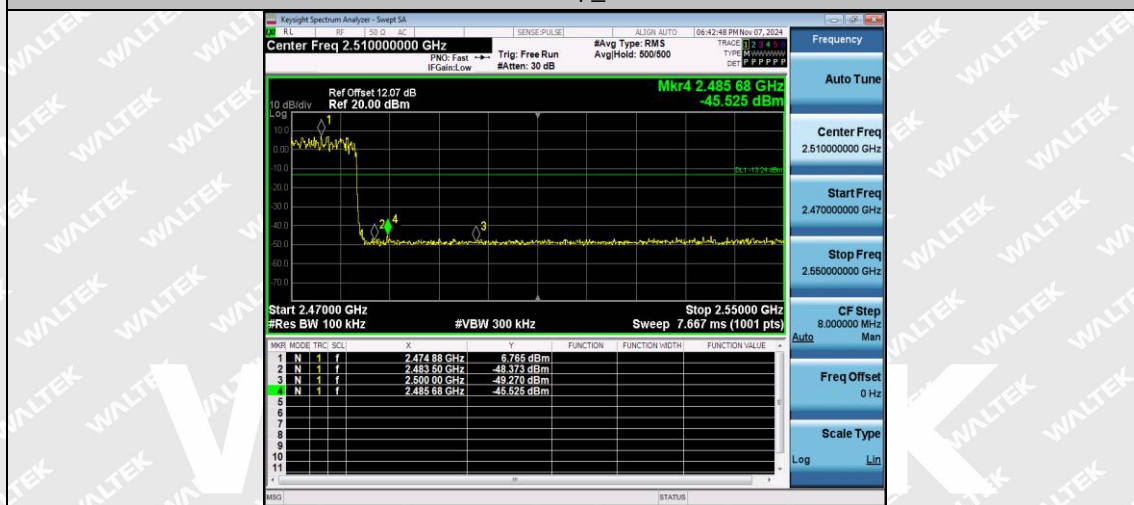
2DH5-Ant1-2402-PASS



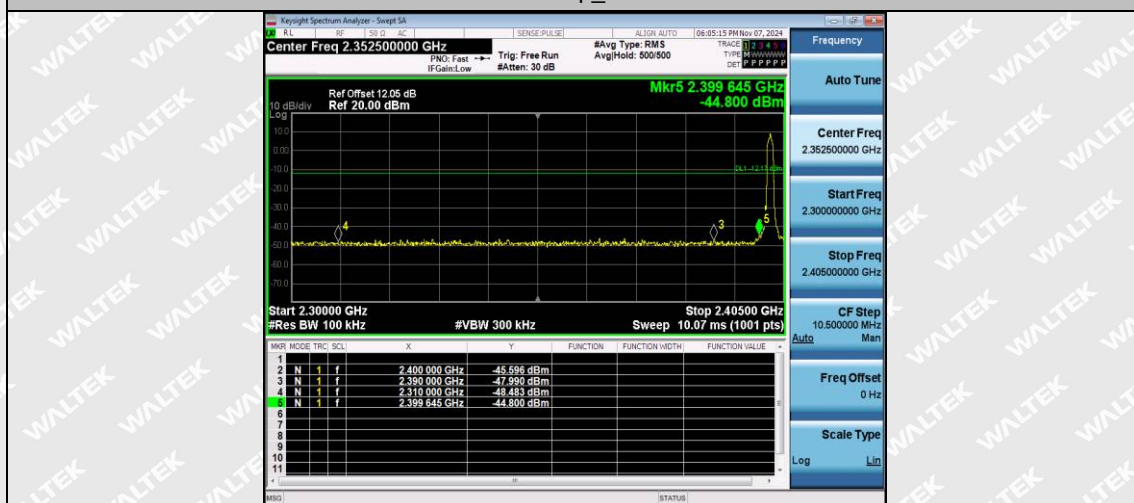
2DH5-Ant1-2480-PASS



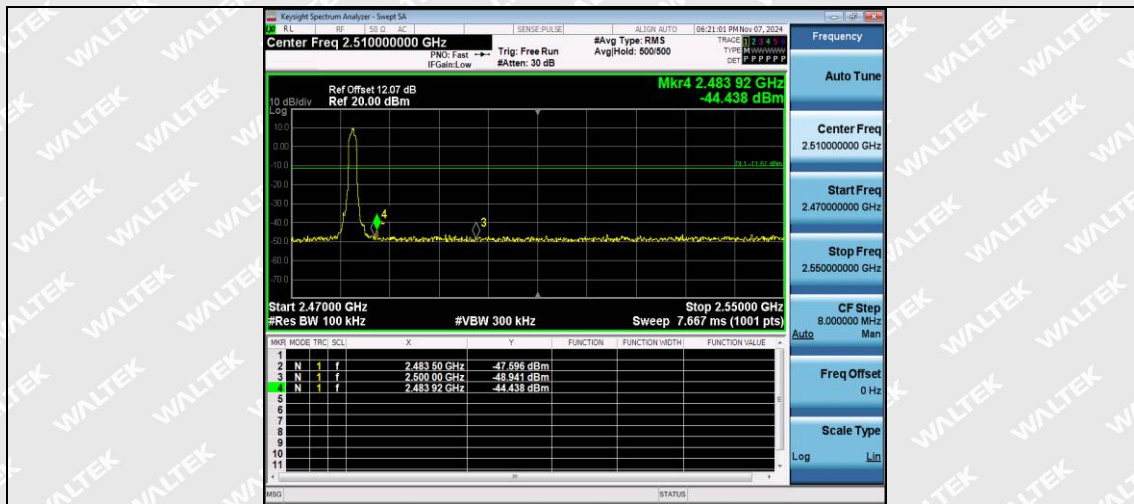
2DH5-Ant1-Hop_2402-PASS



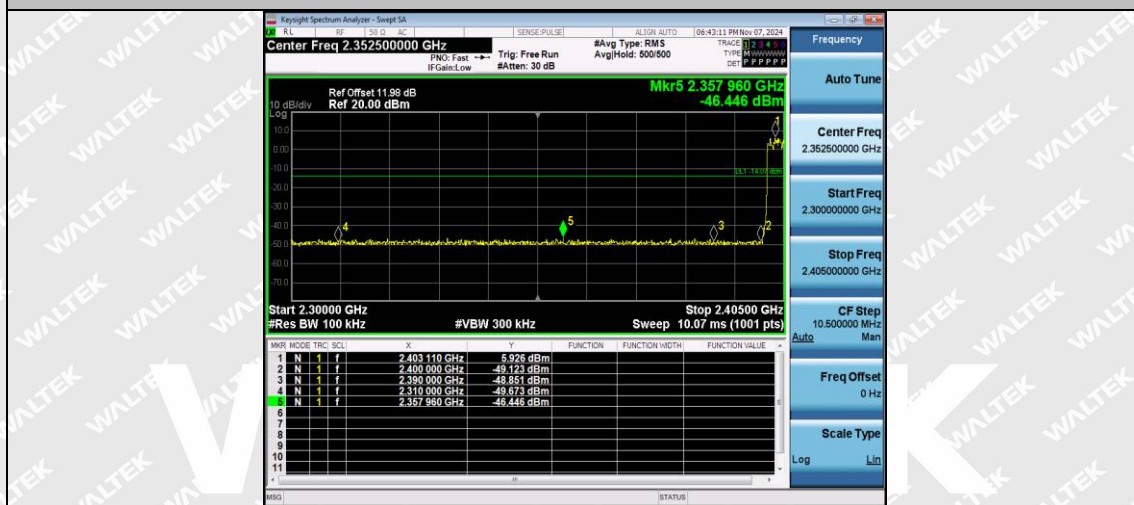
2DH5-Ant1-Hop_2480-PASS



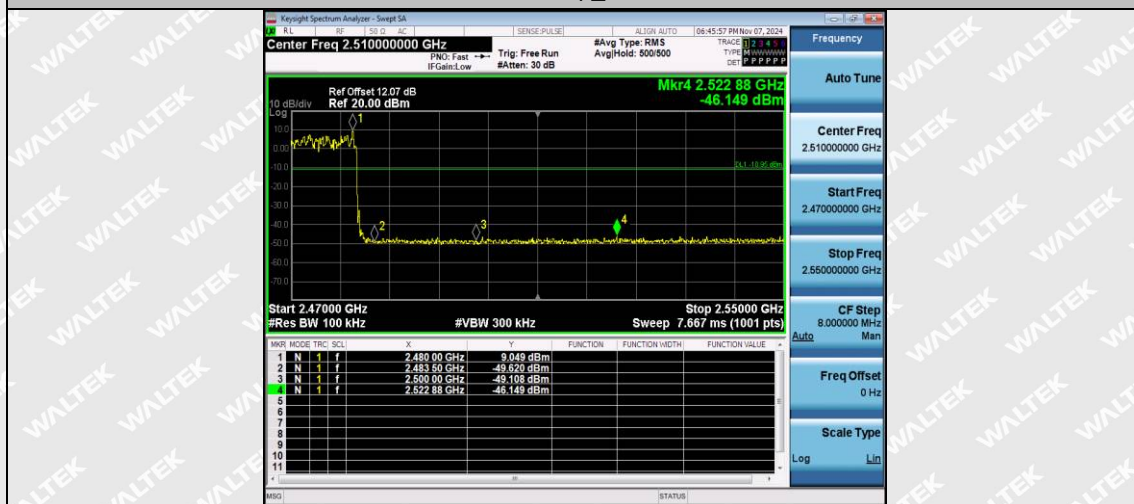
3DH5-Ant1-2402-PASS



3DH5-Ant1-2480-PASS



3DH5-Ant1-Hop_2402-PASS



3DH5-Ant1-Hop_2480-PASS



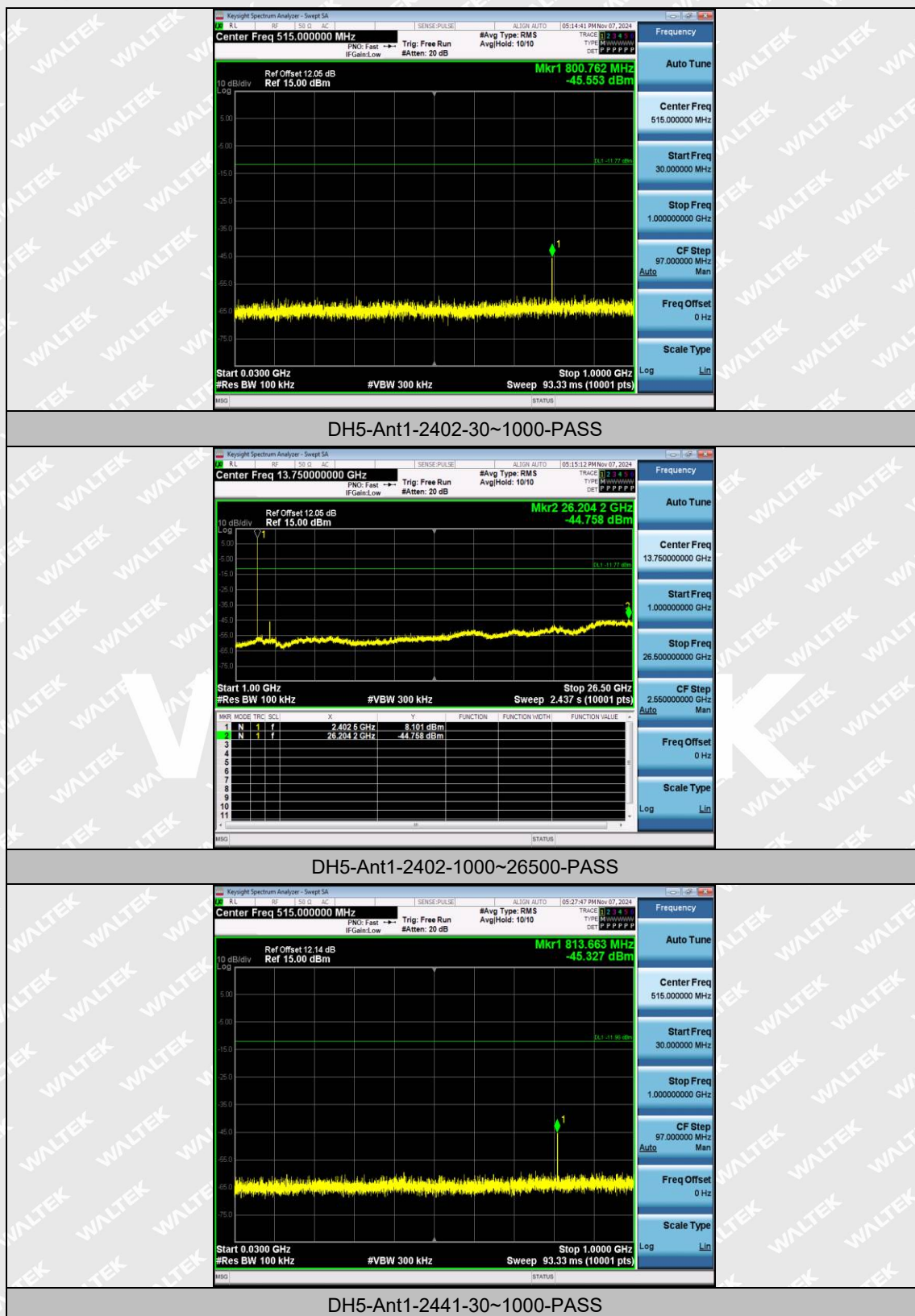
Appendix H: Conducted Spurious Emission

Test Result

TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	8.23	-45.55	≤-11.77	PASS
DH5	Ant1	2402	1000~26500	8.23	-44.76	≤-11.77	PASS
DH5	Ant1	2441	30~1000	8.04	-45.33	≤-11.96	PASS
DH5	Ant1	2441	1000~26500	8.04	-43.98	≤-11.96	PASS
DH5	Ant1	2480	30~1000	8.53	-44.75	≤-11.47	PASS
DH5	Ant1	2480	1000~26500	8.53	-44.65	≤-11.47	PASS
2DH5	Ant1	2402	30~1000	8.05	-48.31	≤-11.95	PASS
2DH5	Ant1	2402	1000~26500	8.05	-42.85	≤-11.95	PASS
2DH5	Ant1	2441	30~1000	8.78	-45.48	≤-11.22	PASS
2DH5	Ant1	2441	1000~26500	8.78	-43.35	≤-11.22	PASS
2DH5	Ant1	2480	30~1000	8.06	-45.87	≤-11.94	PASS
2DH5	Ant1	2480	1000~26500	8.06	-43.24	≤-11.94	PASS
3DH5	Ant1	2402	30~1000	7.83	-49.17	≤-12.17	PASS
3DH5	Ant1	2402	1000~26500	7.83	-44.67	≤-12.17	PASS
3DH5	Ant1	2441	30~1000	8.65	-48.67	≤-11.35	PASS
3DH5	Ant1	2441	1000~26500	8.65	-41.82	≤-11.35	PASS
3DH5	Ant1	2480	30~1000	8.39	-46.61	≤-11.61	PASS
3DH5	Ant1	2480	1000~26500	8.39	-44.06	≤-11.61	PASS

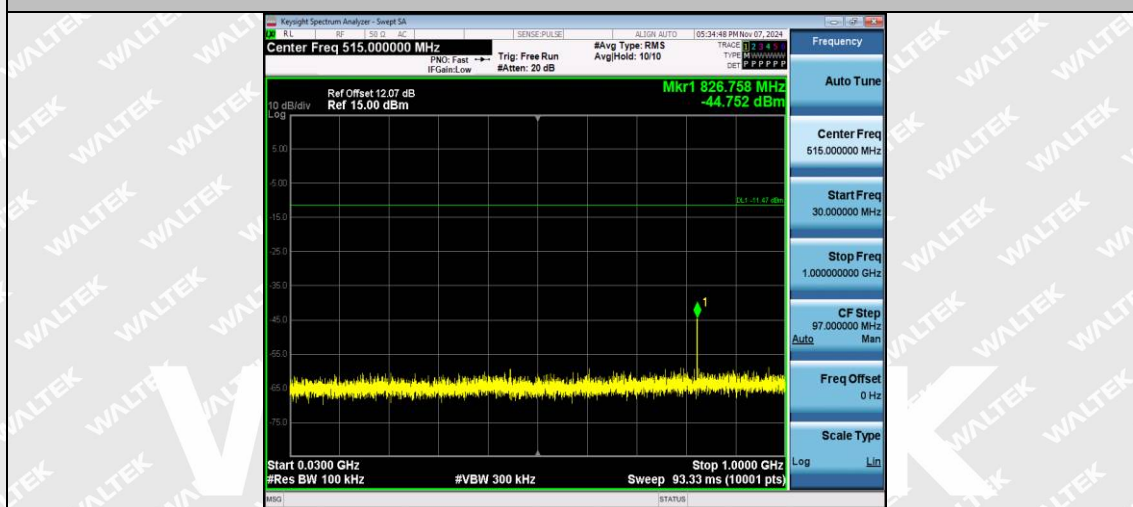


Test Graphs





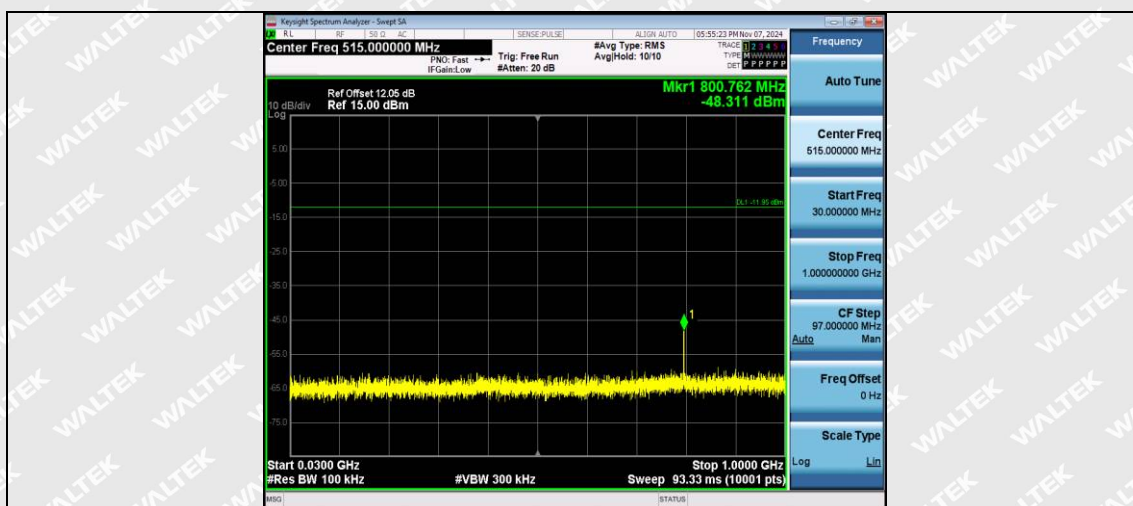
DH5-Ant1-2441-1000~26500-PASS



DH5-Ant1-2480-30~1000-PASS



DH5-Ant1-2480-1000~26500-PASS



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



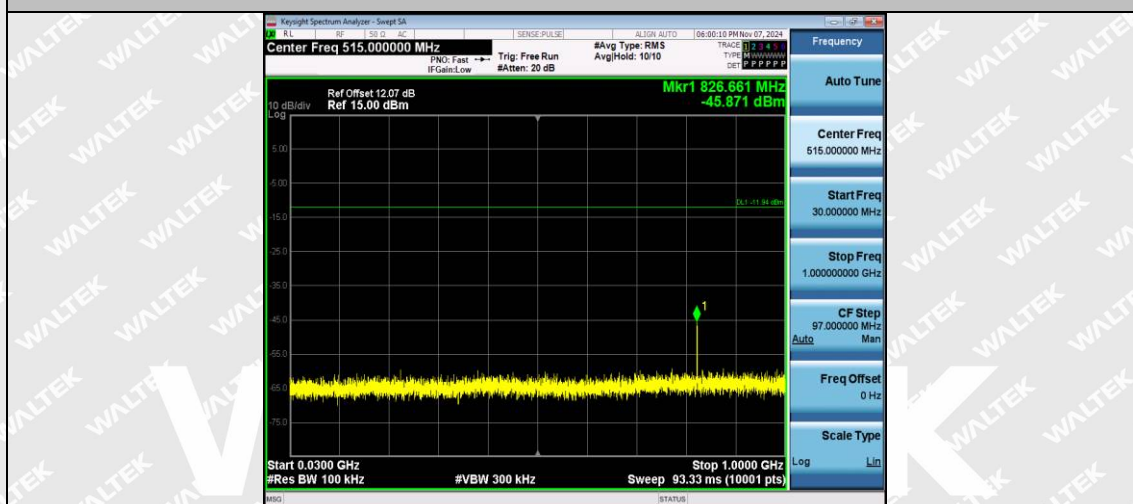
2DH5-Ant1-2402-1000~26500-PASS



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



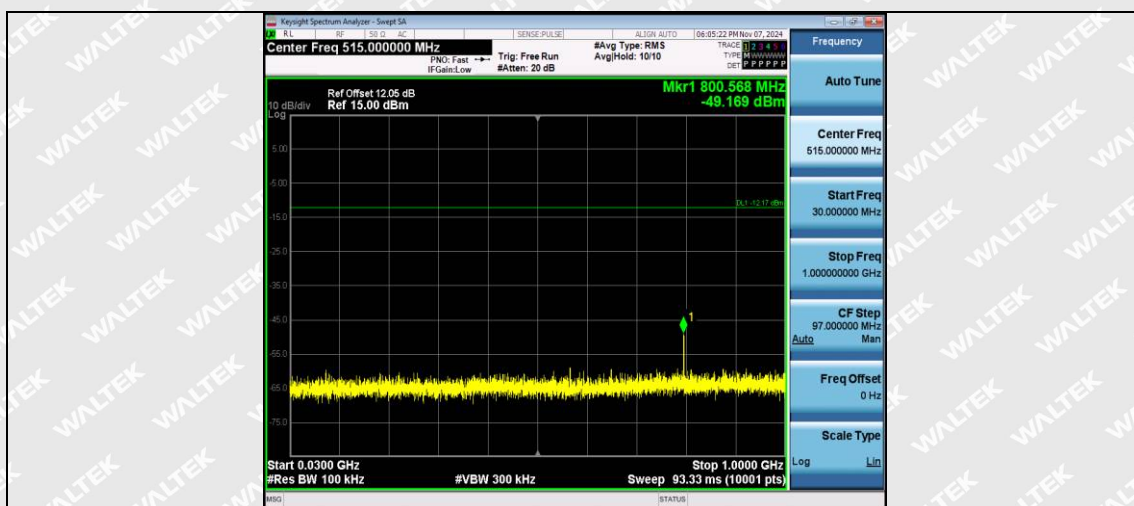
2DH5-Ant1-2441-1000~26500-PASS



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



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



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



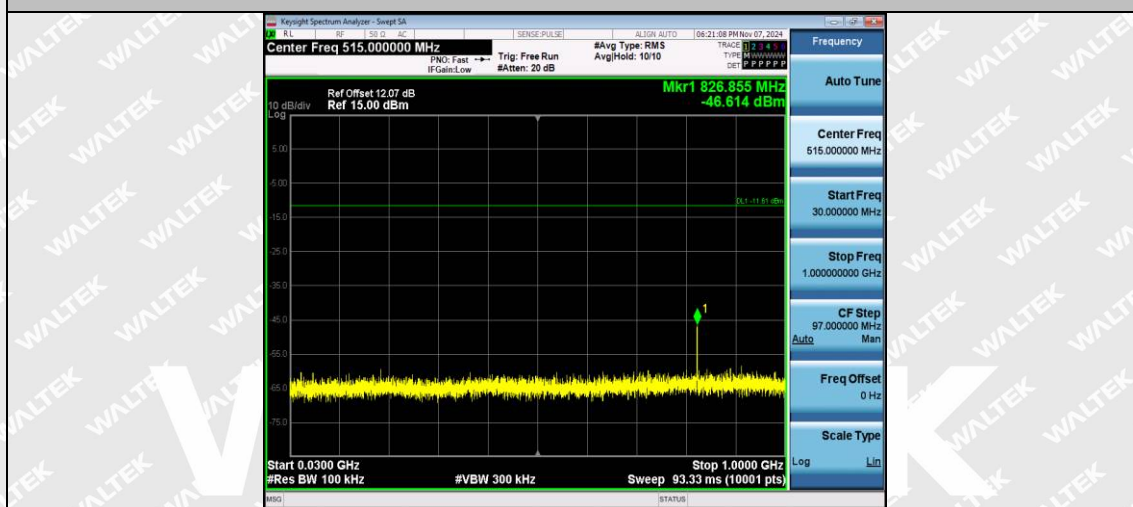
3DH5-Ant1-2402-1000~26500-PASS



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



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



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



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