

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Portable Speaker

Test Model: Ultra Pro

Environmental Conditions

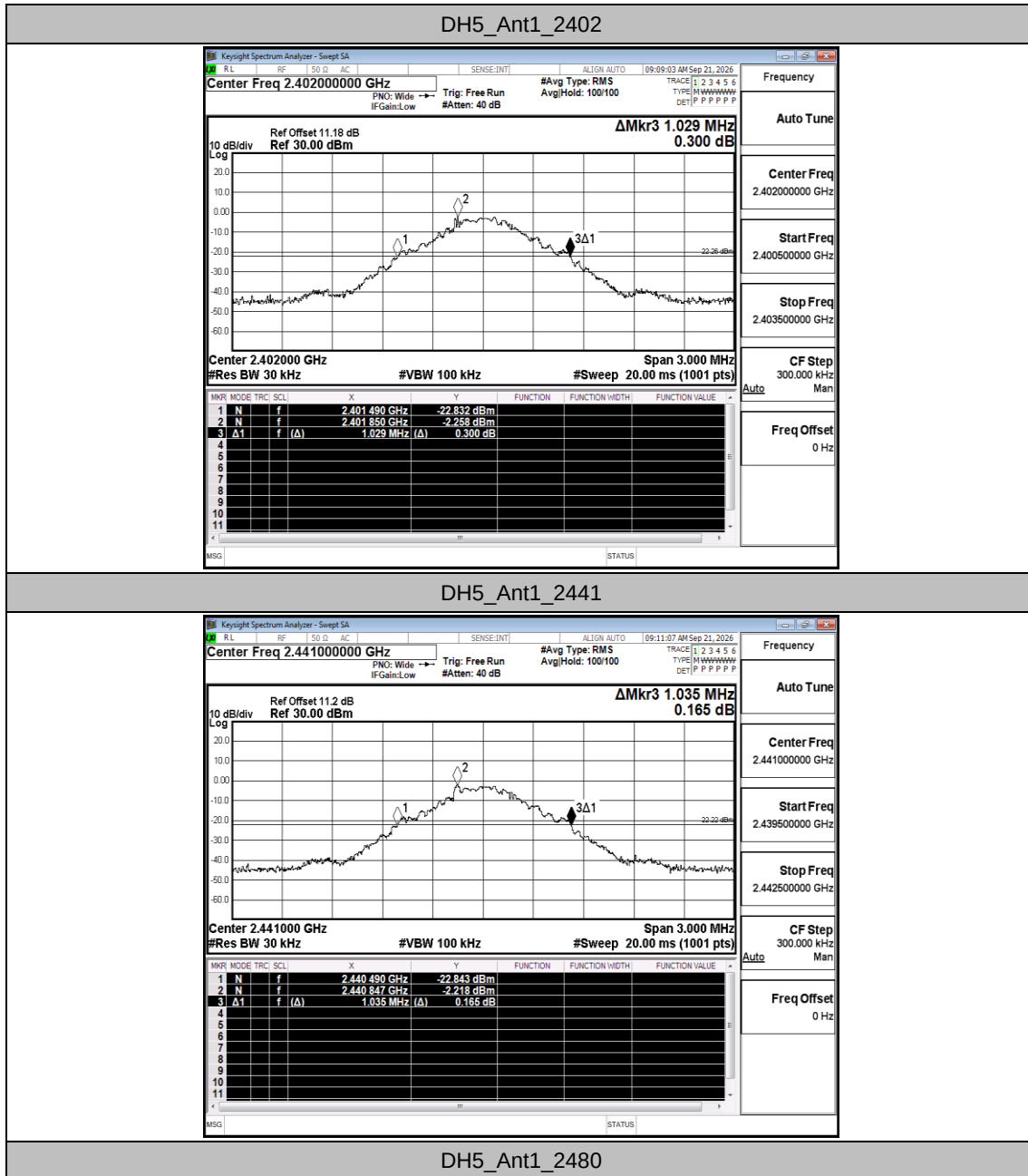
Temperature:	24.6°C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhao xing hai
Supervised by:	Fengliu Tang

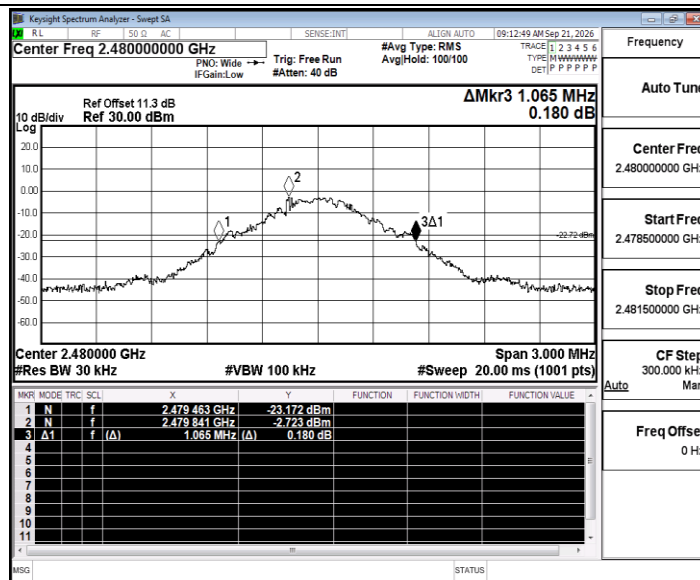
A.1 20dB Emission Bandwidth

Test Result

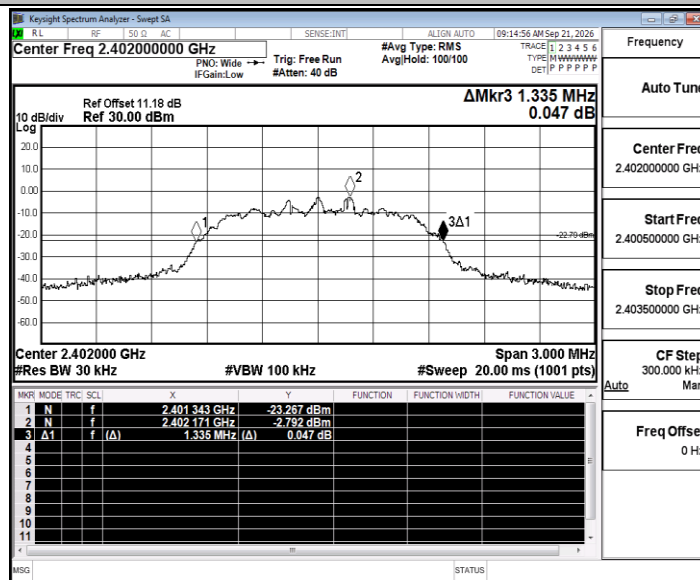
TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.029	2401.490	2402.519	---	---
		2441	1.035	2440.490	2441.525	---	---
		2480	1.065	2479.463	2480.528	---	---
2DH5	Ant1	2402	1.335	2401.343	2402.678	---	---
		2441	1.335	2440.346	2441.681	---	---
		2480	1.341	2479.343	2480.684	---	---
3DH5	Ant1	2402	1.296	2401.361	2402.657	---	---
		2441	1.290	2440.364	2441.654	---	---
		2480	1.290	2479.358	2480.648	---	---

Test Graphs

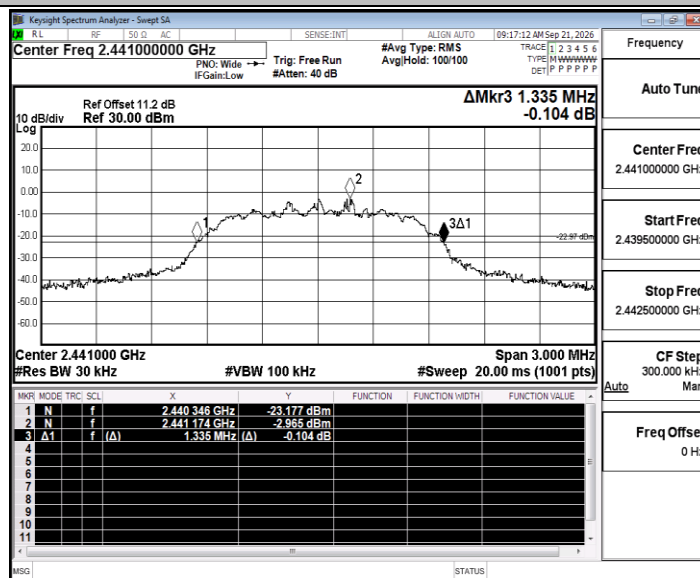




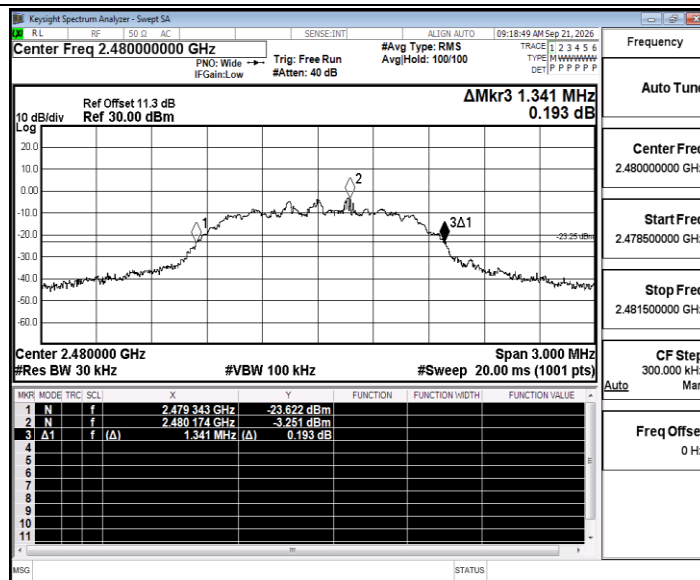
2DH5_Ant1_2402



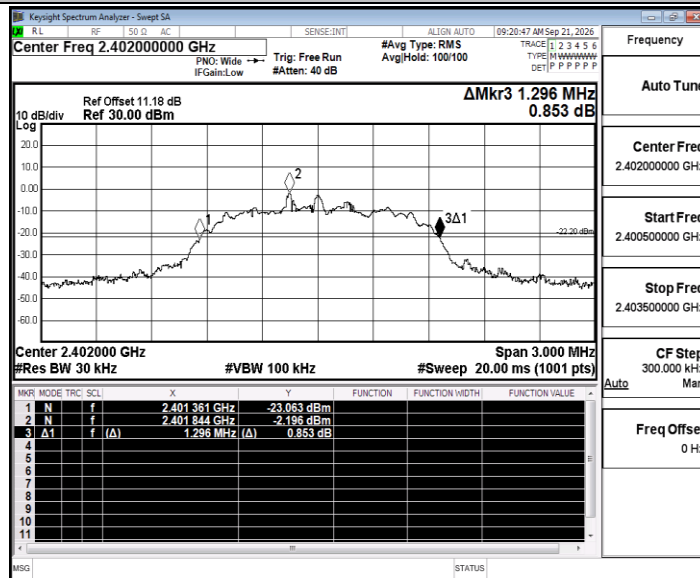
2DH5_Ant1_2441



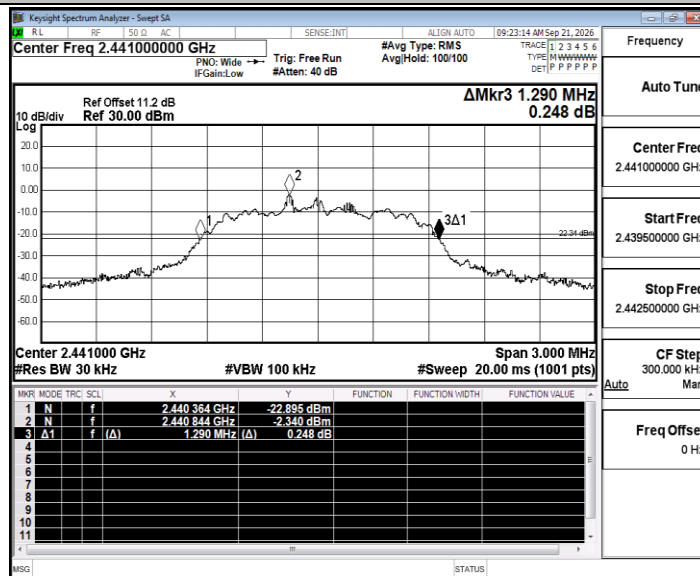
2DH5_Ant1_2480



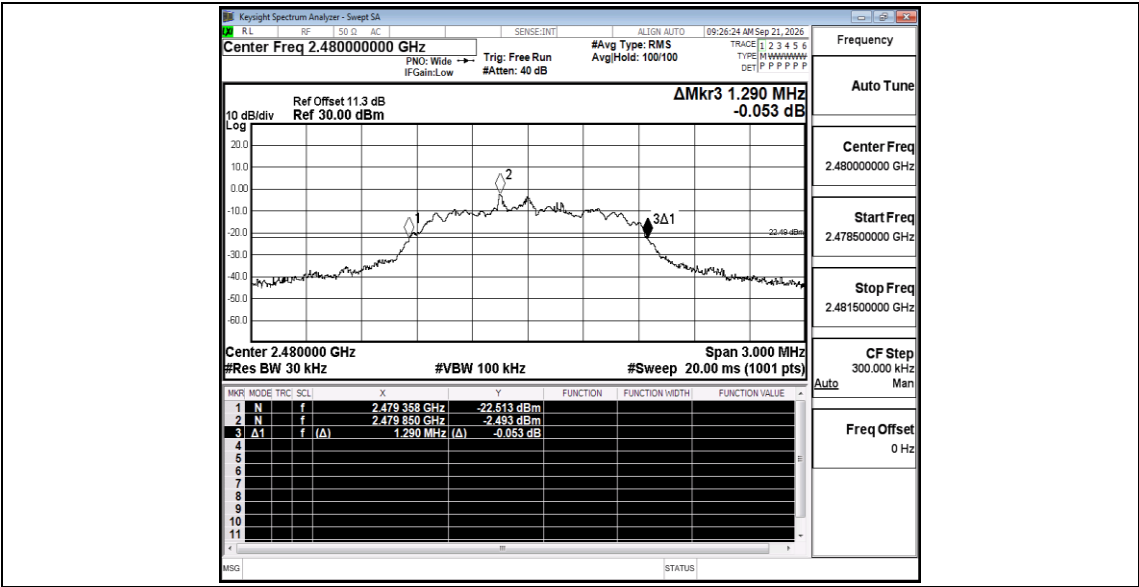
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

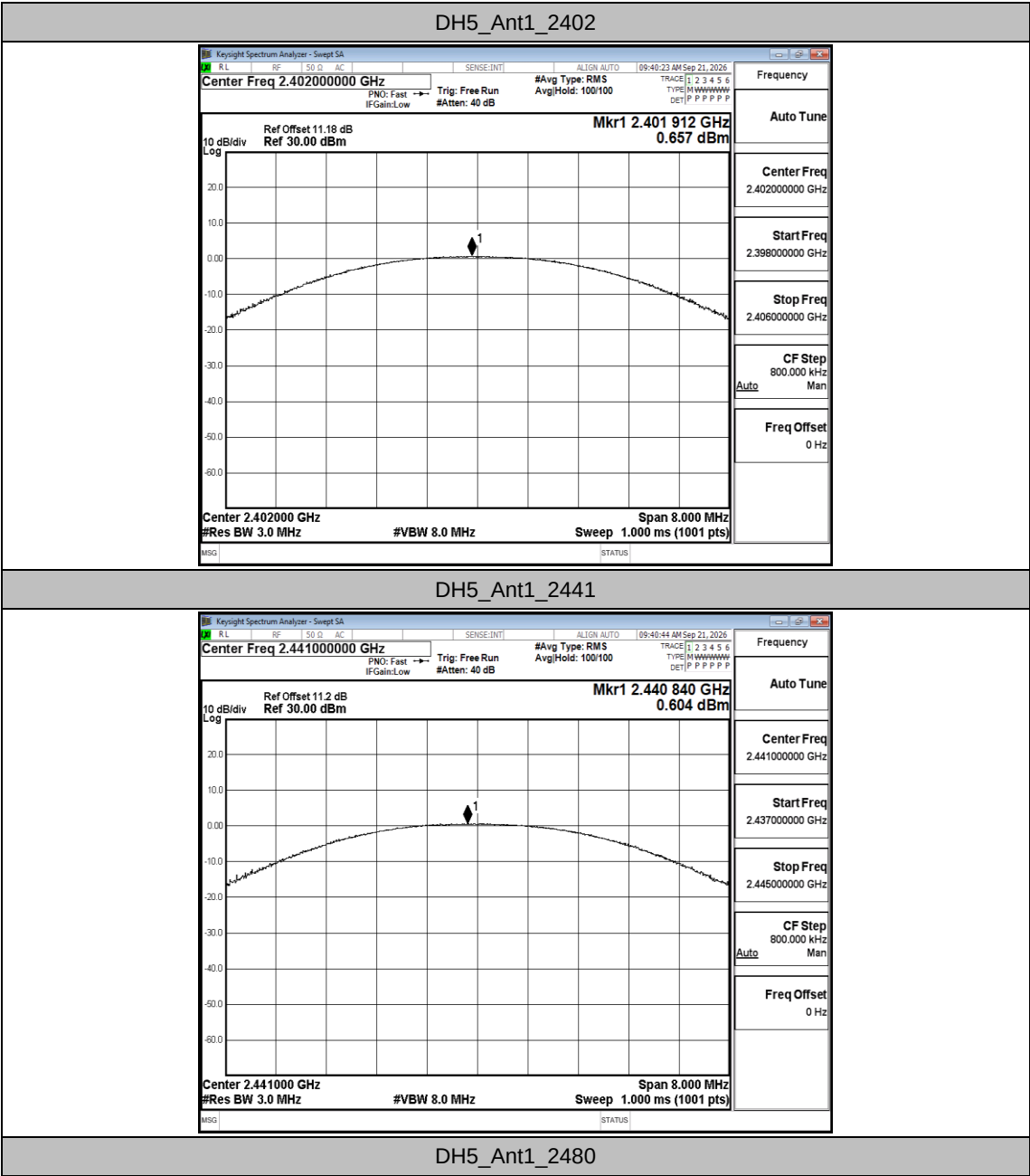


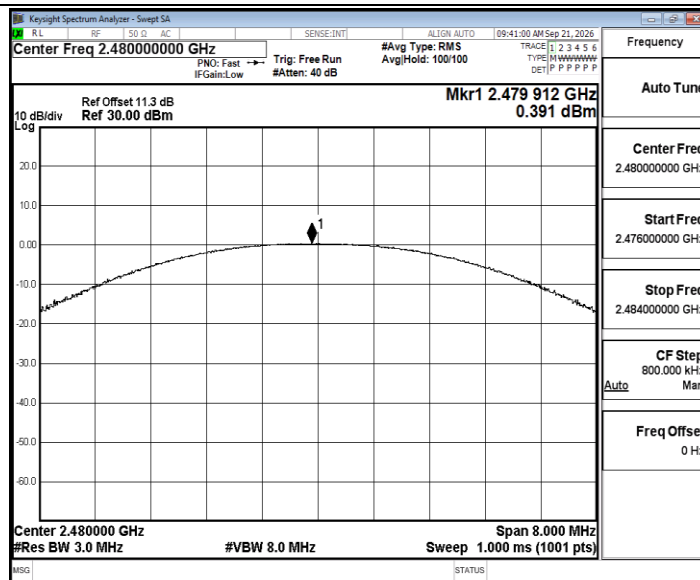
A.2 Maximum Peak conducted output power

Test Result Peak

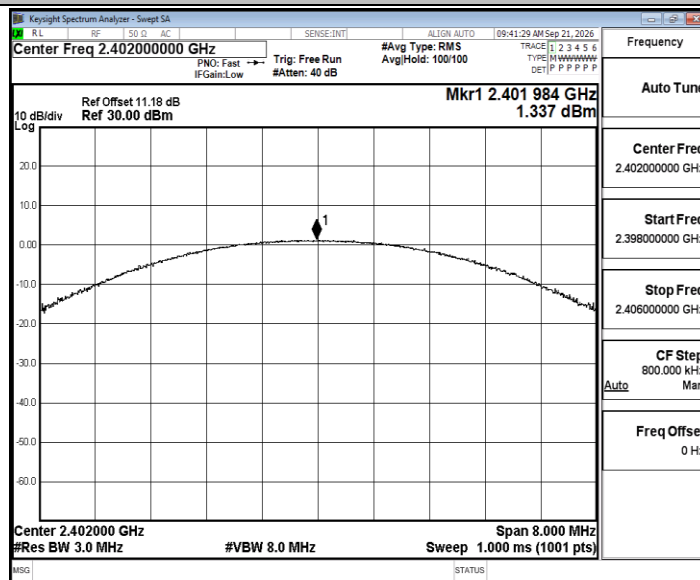
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.66	≤30	PASS
		2441	0.60	≤30	PASS
		2480	0.39	≤30	PASS
2DH5	Ant1	2402	1.34	≤20.97	PASS
		2441	1.22	≤20.97	PASS
		2480	1.01	≤20.97	PASS
3DH5	Ant1	2402	1.68	≤20.97	PASS
		2441	1.61	≤20.97	PASS
		2480	1.39	≤20.97	PASS

Test Graphs

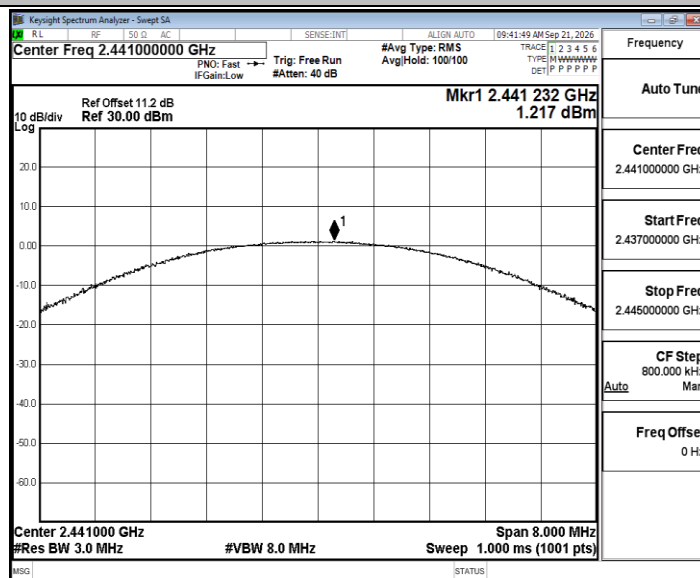




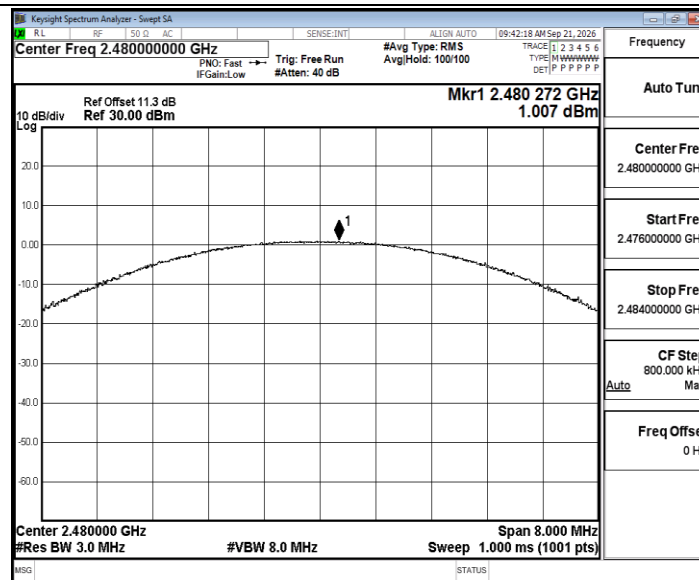
2DH5_Ant1_2402



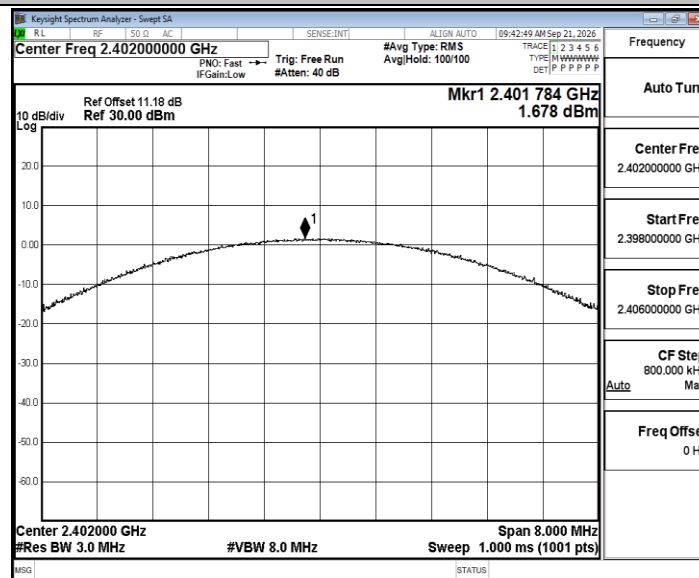
2DH5_Ant1_2441



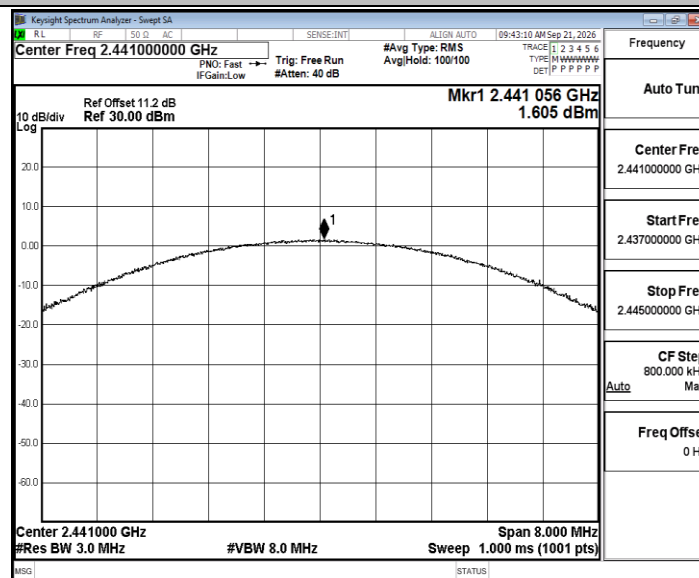
2DH5_Ant1_2480



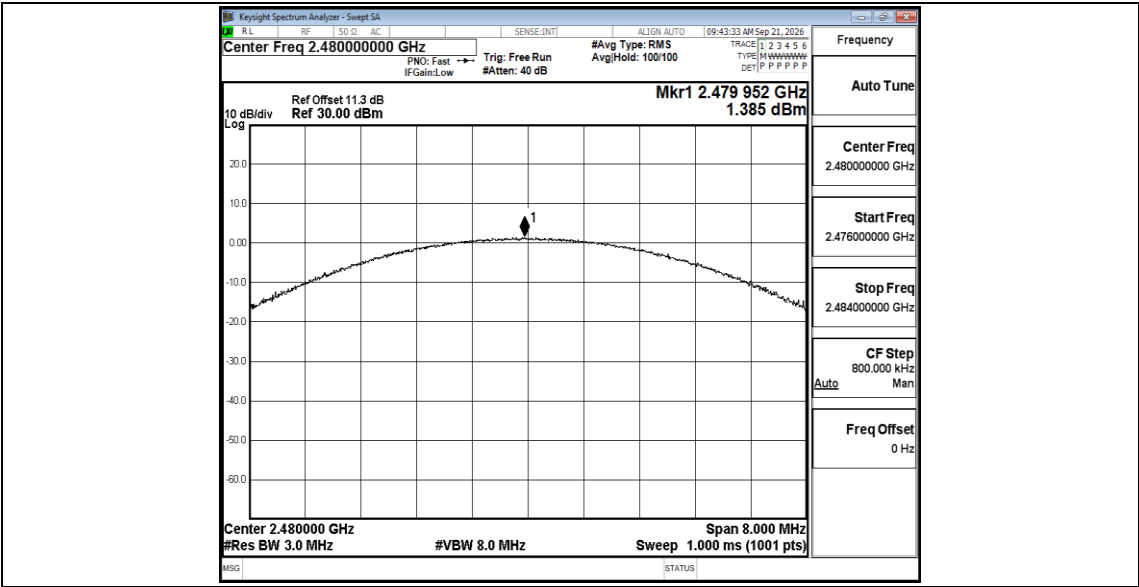
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480

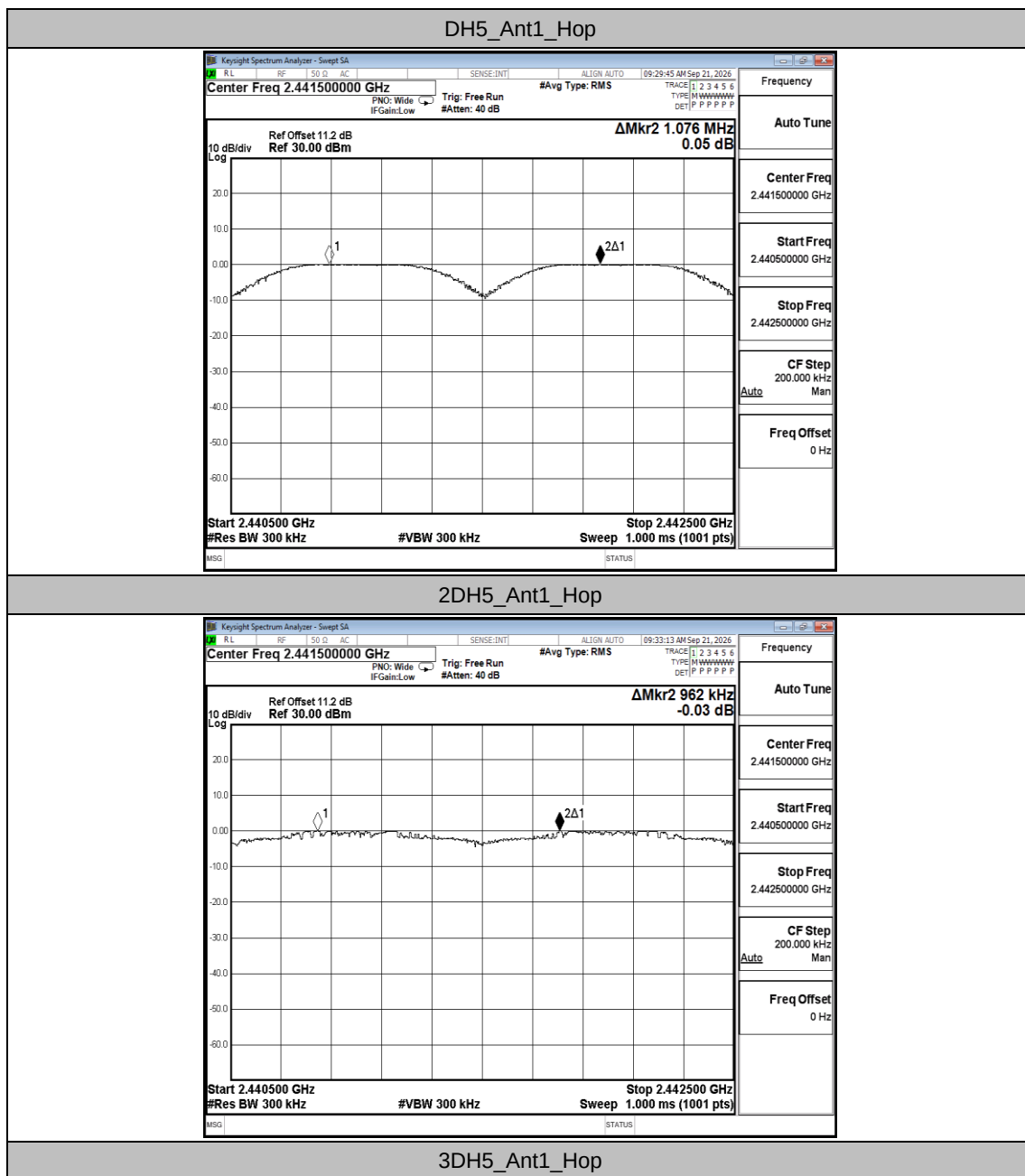


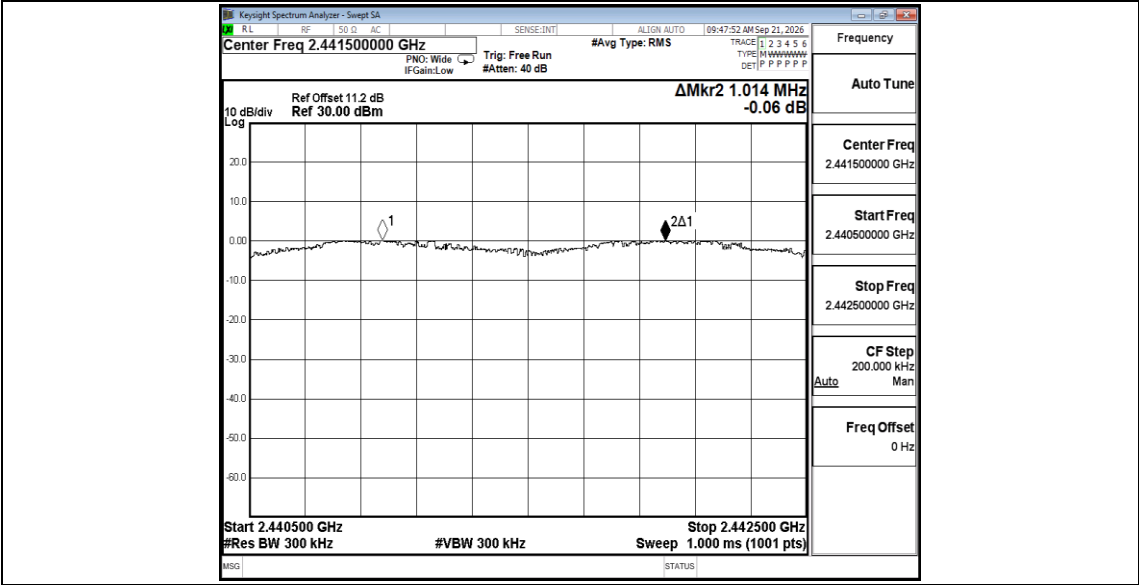
A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.076	≥ 0.710	PASS
2DH5	Ant1	Hop	0.962	≥ 0.894	PASS
3DH5	Ant1	Hop	1.014	≥ 0.864	PASS

Test Graphs



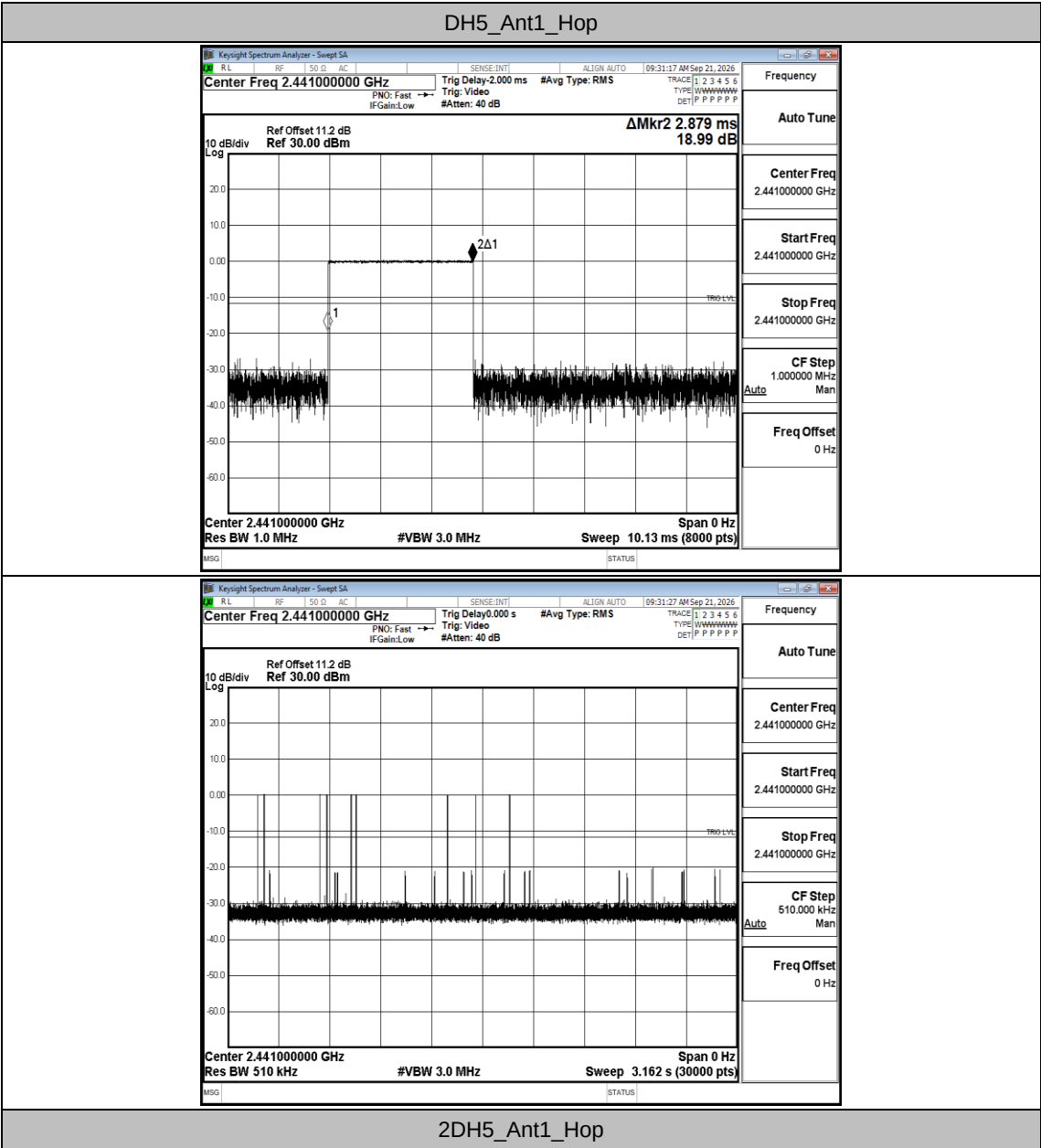


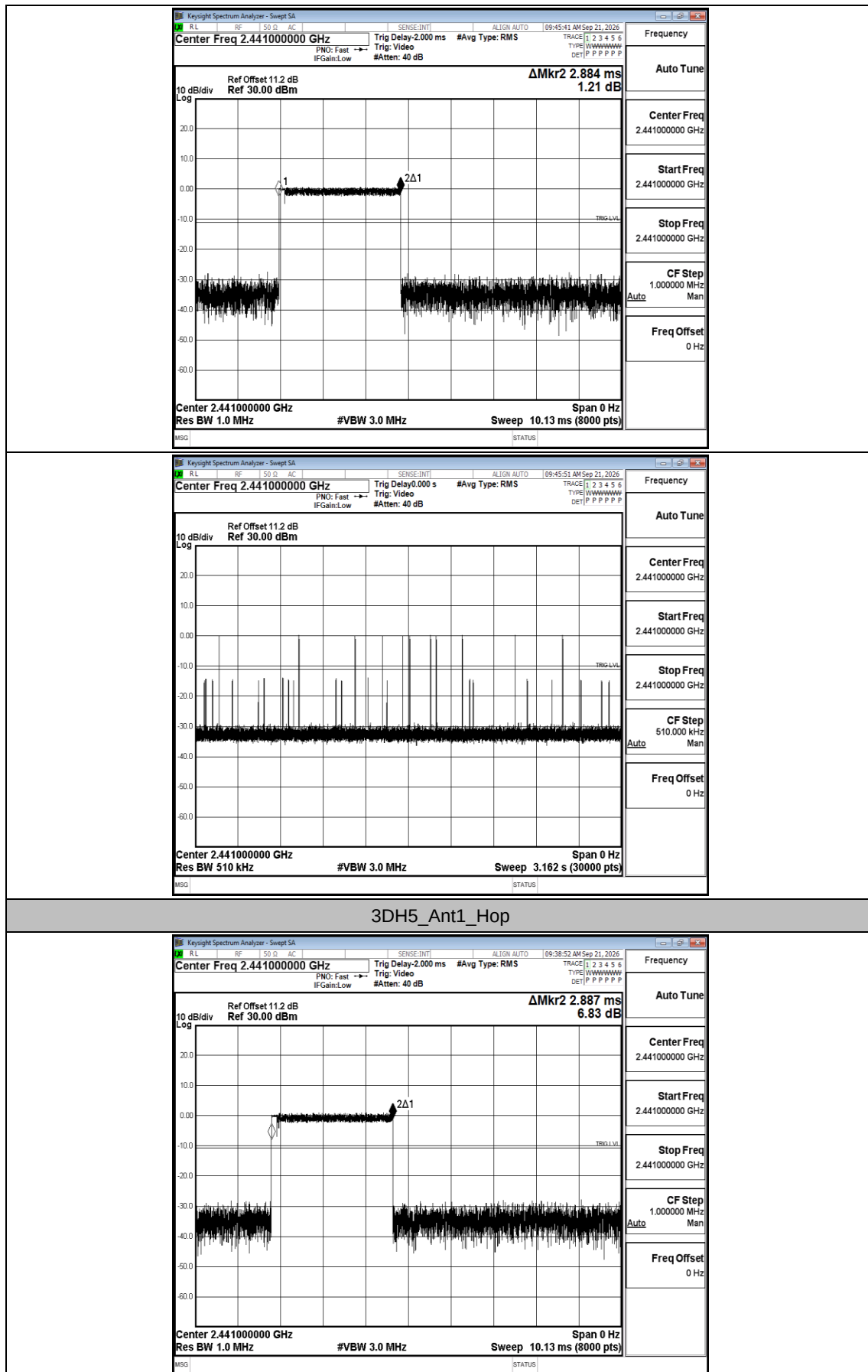
A.4 Time of occupancy

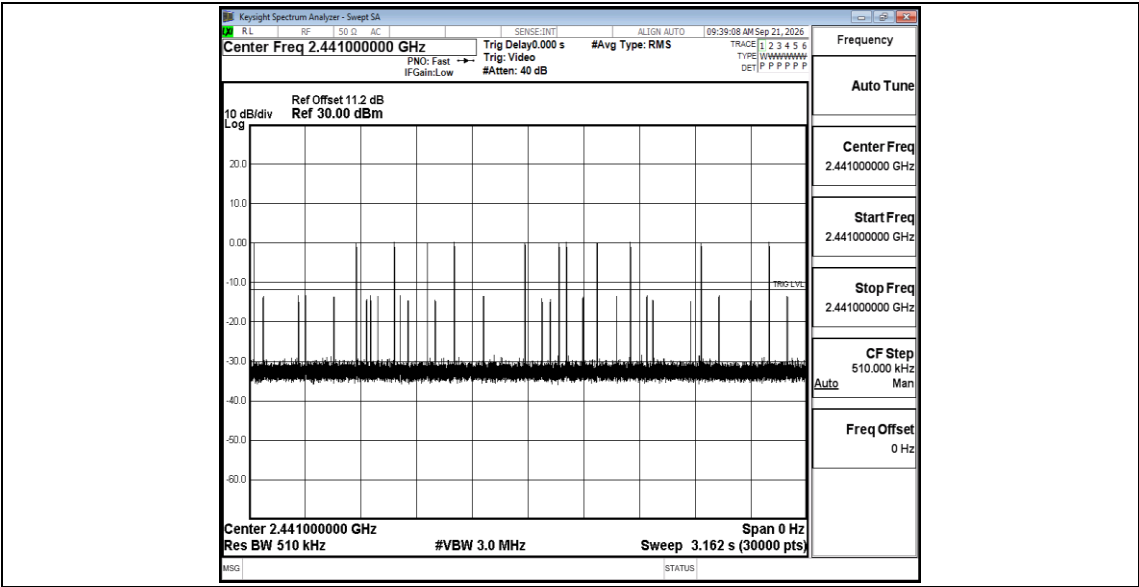
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.879	100	0.288	≤0.4	PASS
2DH5	Ant1	Hop	2.884	120	0.346	≤0.4	PASS
3DH5	Ant1	Hop	2.887	130	0.375	≤0.4	PASS

Test Graphs





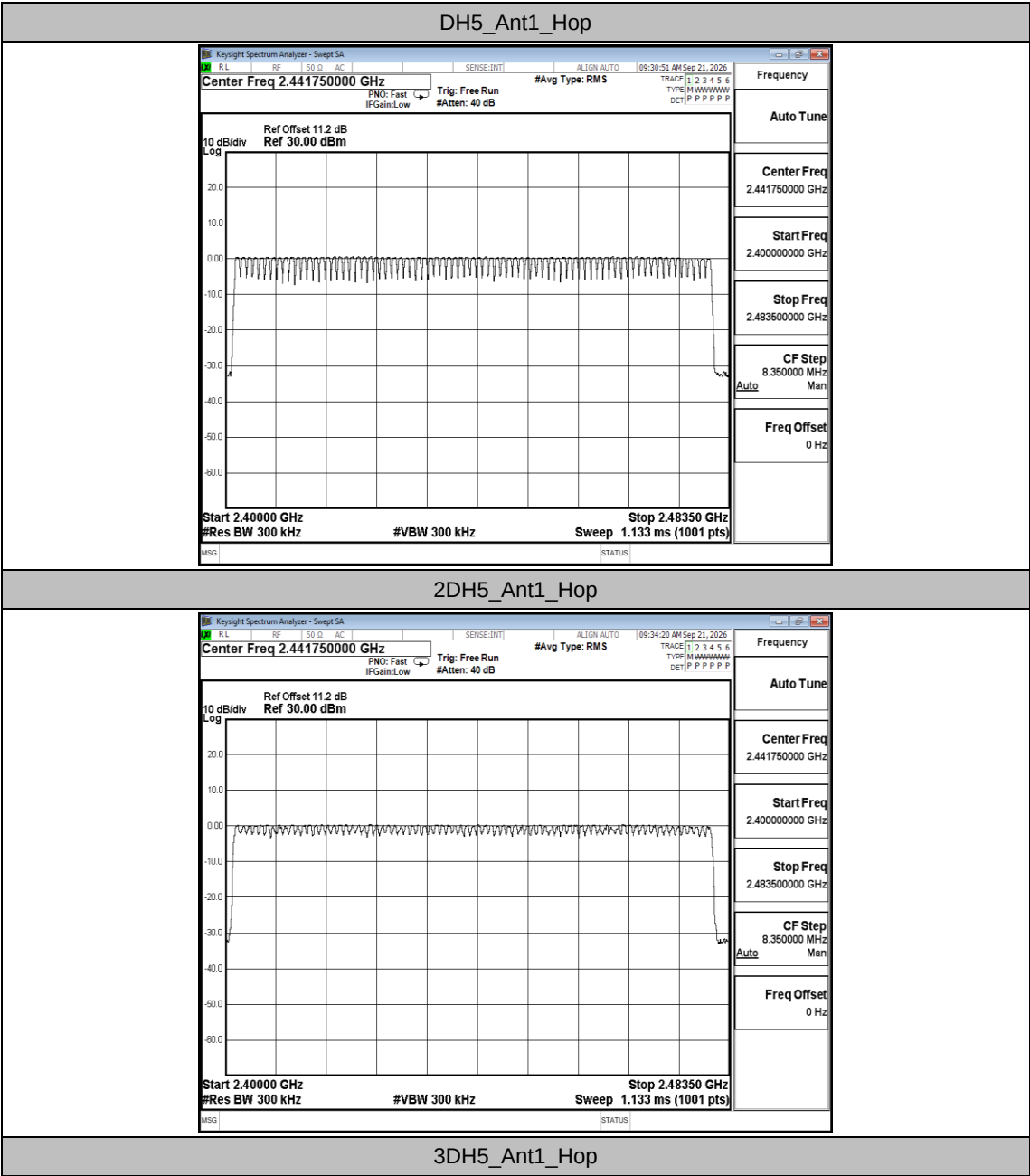


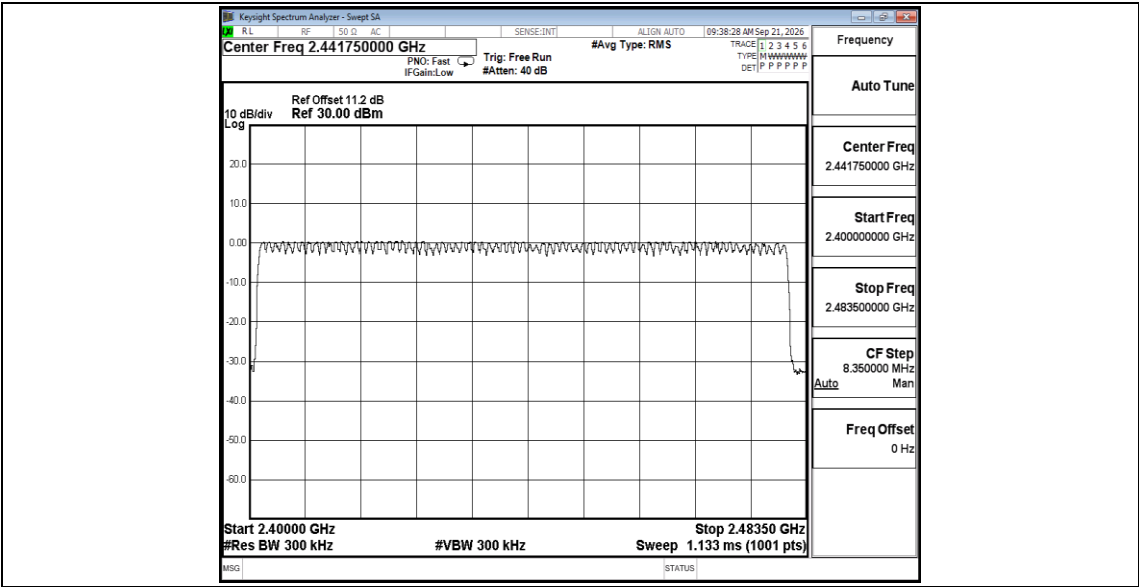
A.5 Number of hopping channels

Test Result

TestMode	Antenna	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs



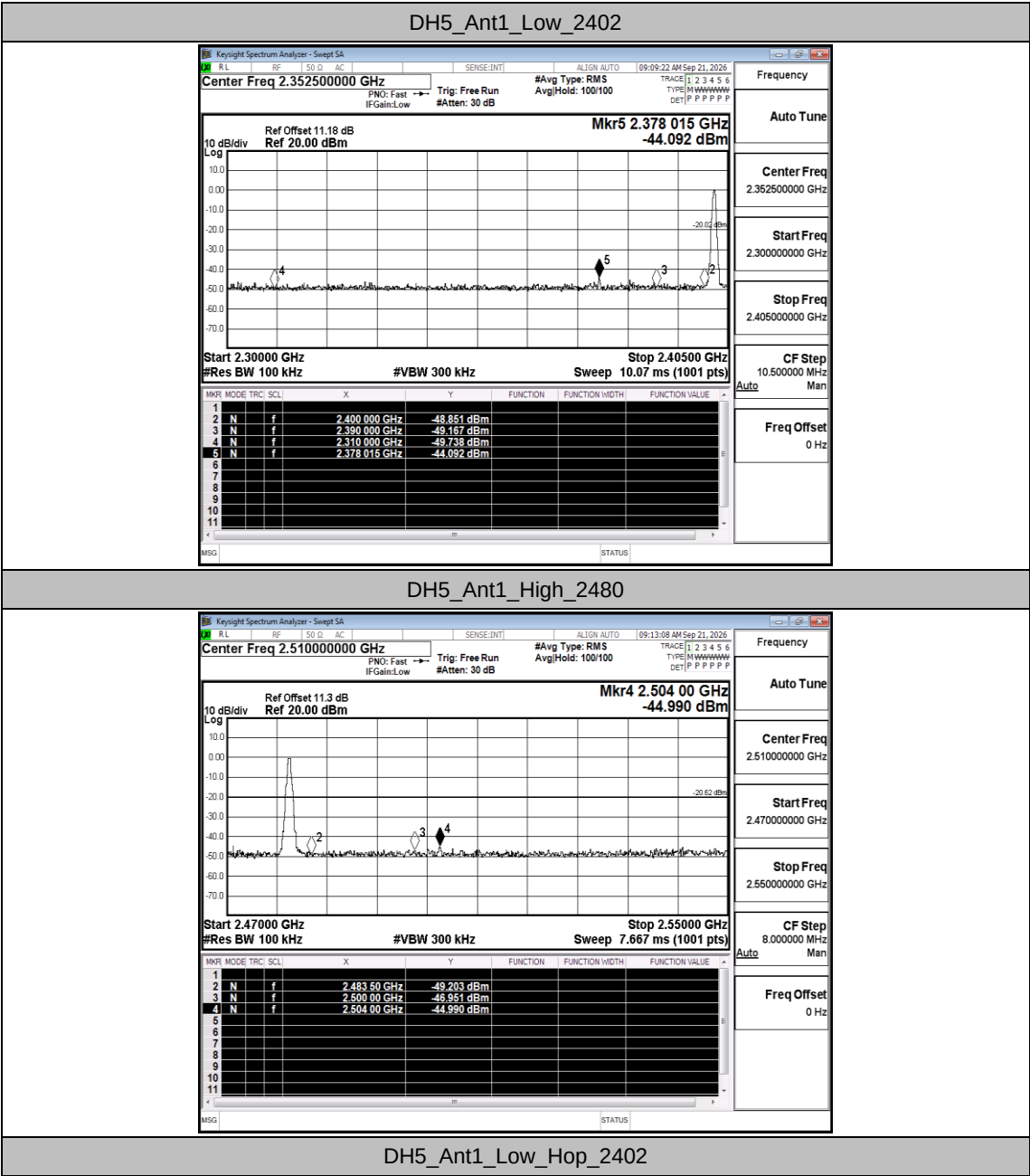


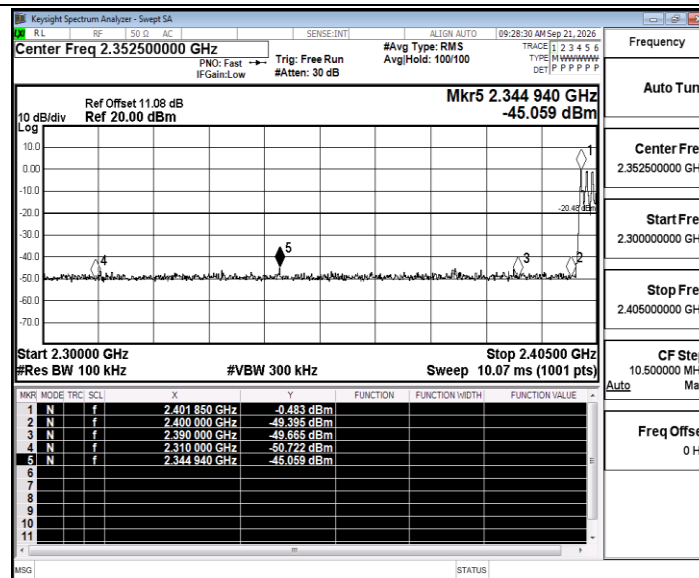
A.6 Band edge measurements

Test Result

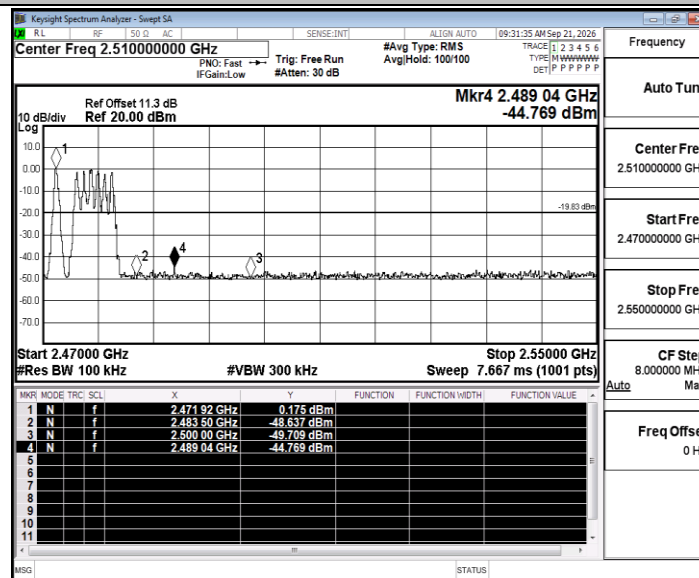
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.02	-44.09	≤ -20.02	PASS
		High	2480	-0.62	-44.99	≤ -20.62	PASS
		Low	Hop_2402	-0.48	-45.06	≤ -20.48	PASS
		High	Hop_2480	0.18	-44.77	≤ -19.83	PASS
2DH5	Ant1	Low	2402	-0.22	-45.99	≤ -20.22	PASS
		High	2480	-0.84	-45.23	≤ -20.84	PASS
		Low	Hop_2402	-3.13	-45.89	≤ -23.13	PASS
		High	Hop_2480	-0.86	-45.83	≤ -20.86	PASS
3DH5	Ant1	Low	2402	-0.39	-44.55	≤ -20.39	PASS
		High	2480	-2.44	-45.14	≤ -22.44	PASS
		Low	Hop_2402	-5.64	-44.12	≤ -25.64	PASS
		High	Hop_2480	-3.85	-45.43	≤ -23.85	PASS

Test Graphs

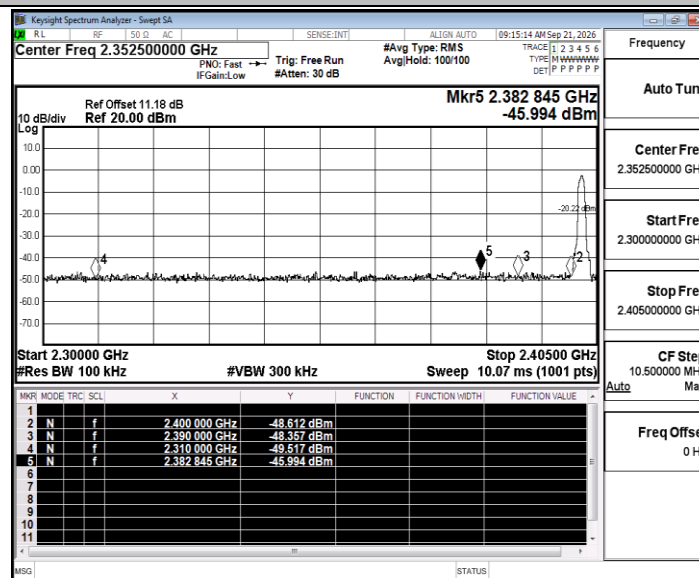




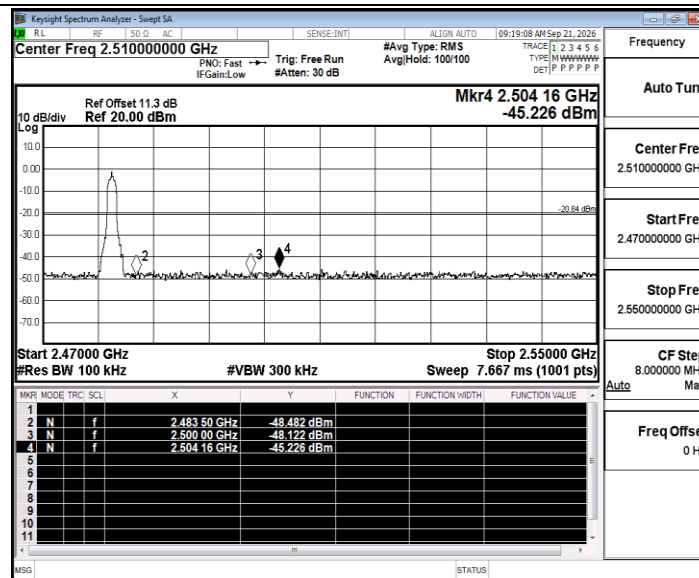
DH5_Ant1_High_Hop_2480



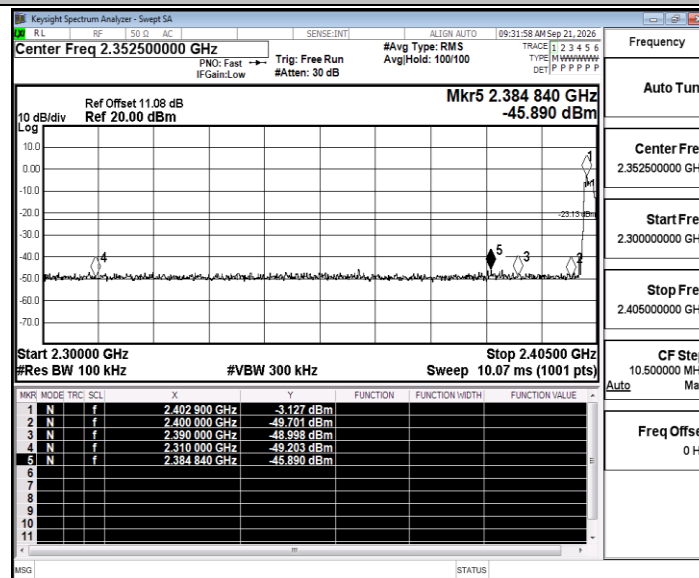
2DH5_Ant1_Low_2402



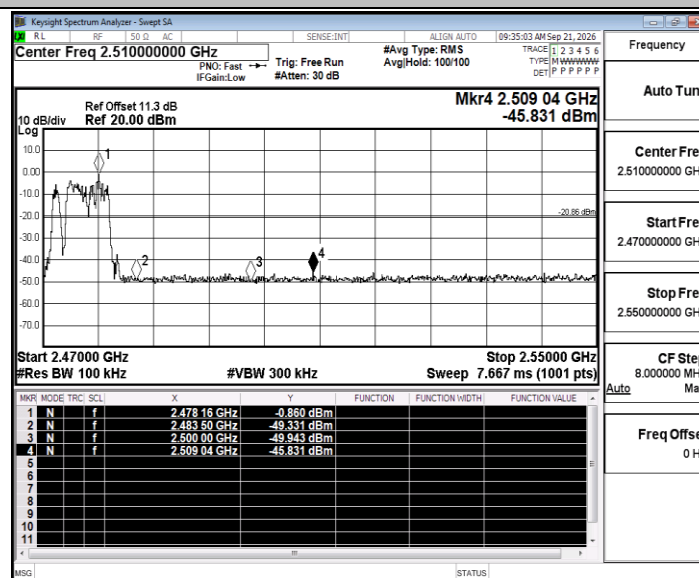
2DH5_Ant1_High_2480



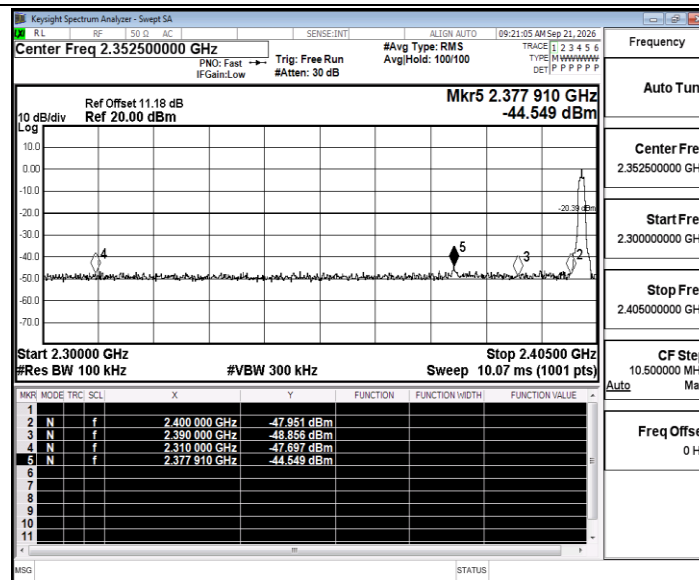
2DH5_Ant1_Low_Hop_2402



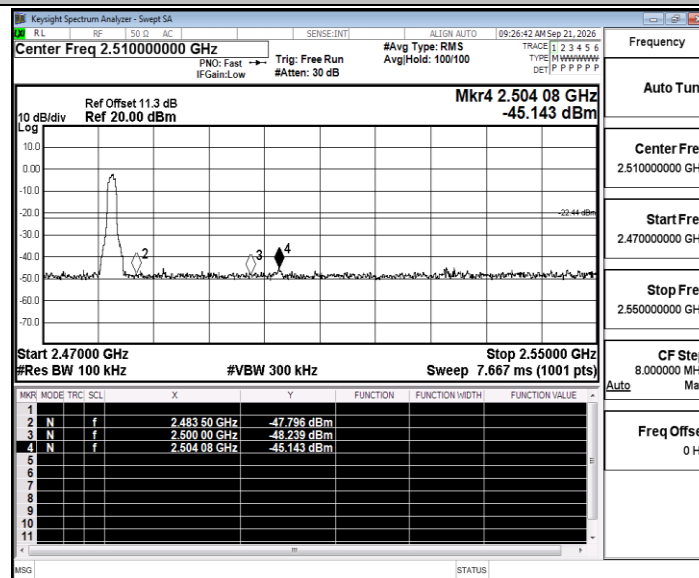
2DH5_Ant1_High_Hop_2480



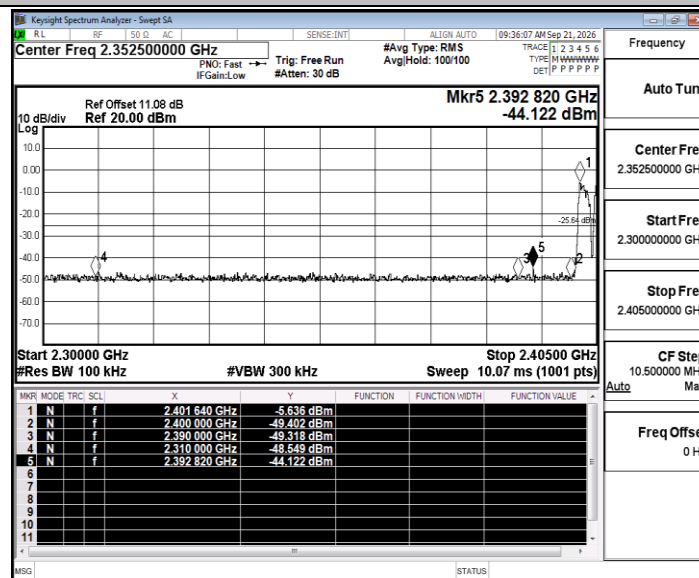
3DH5_Ant1_Low_2402



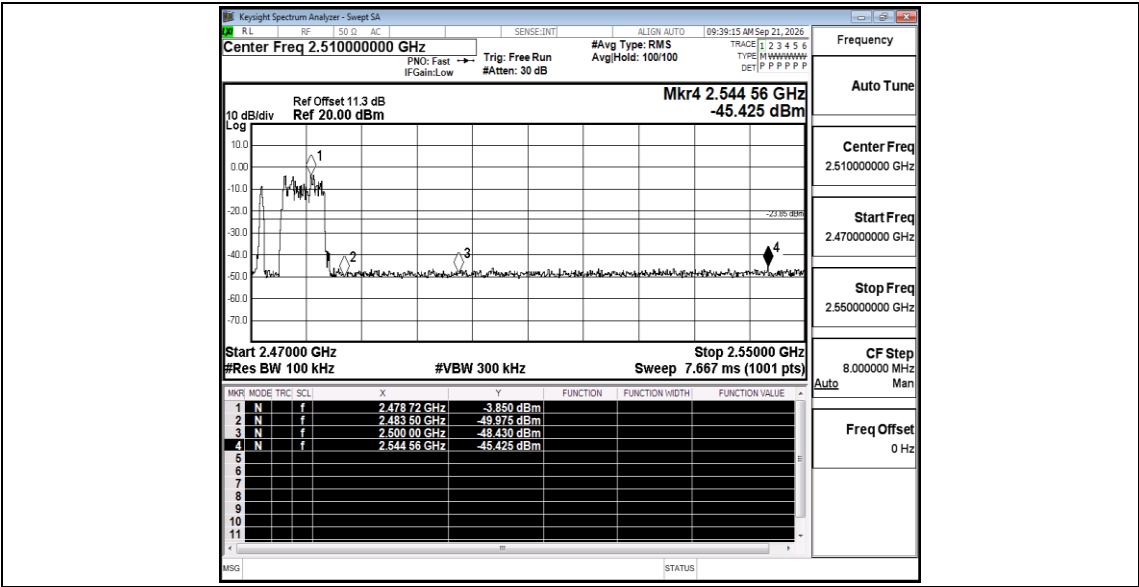
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

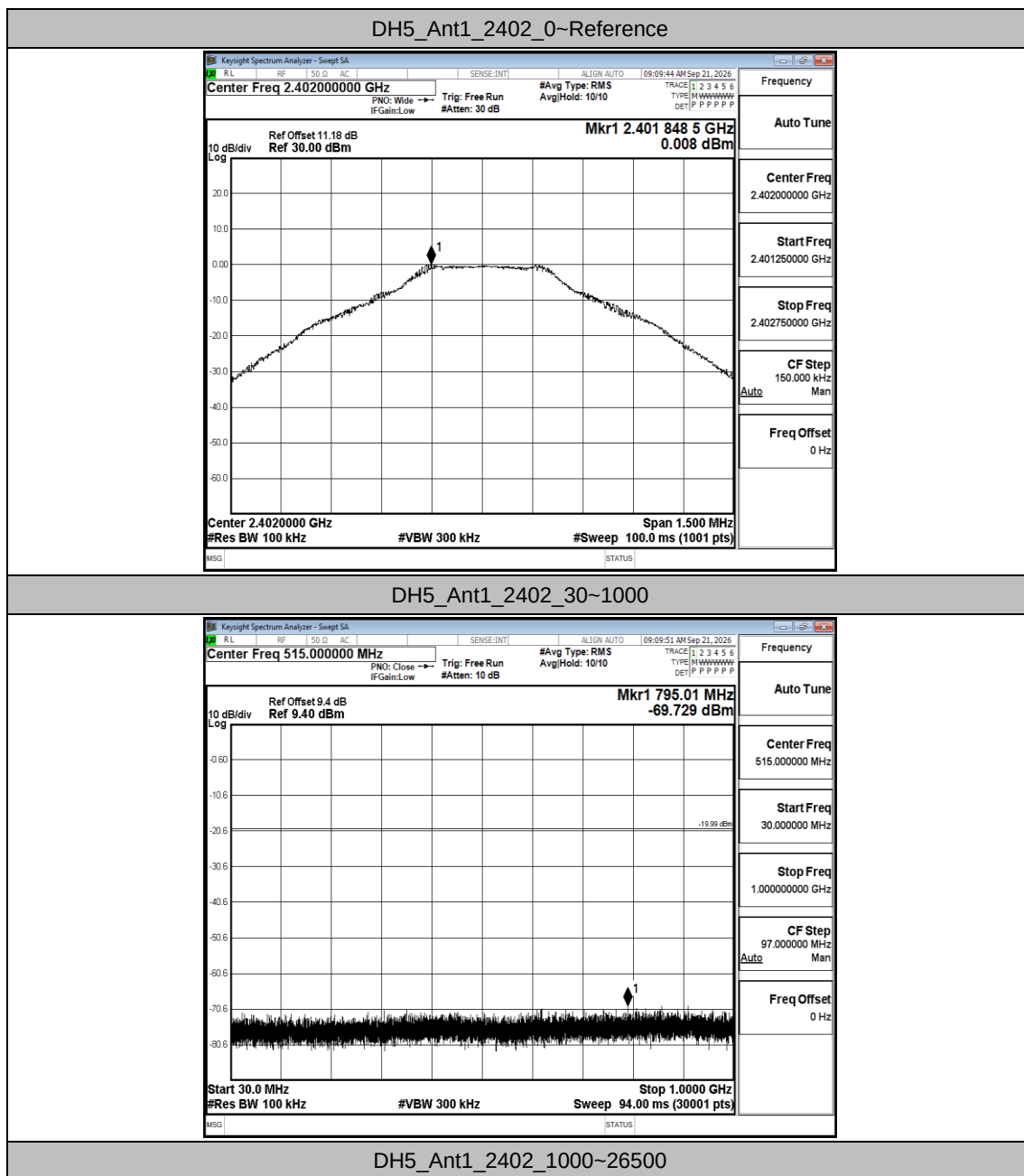


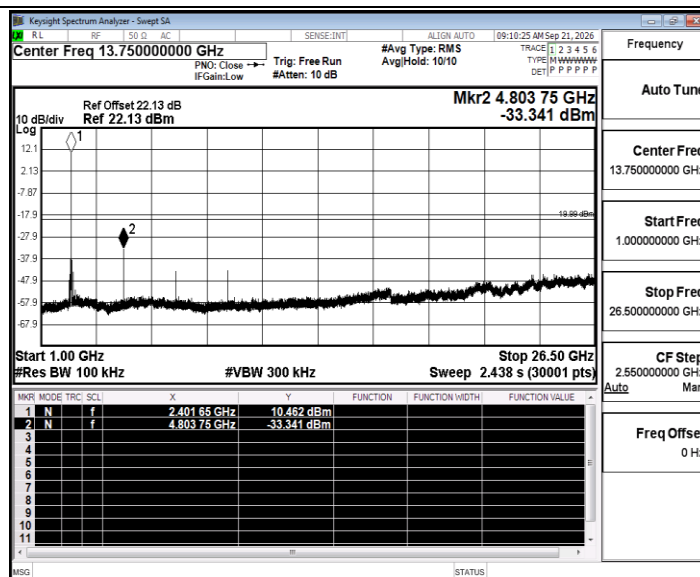
A.7 Conducted Spurious Emission

Test Result

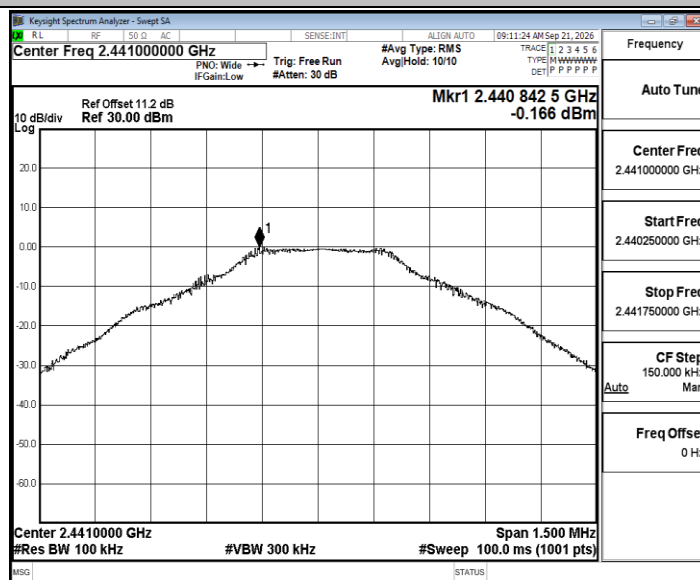
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.01	0.01	---	PASS
			30~1000	0.01	-69.73	≤-19.99	PASS
			1000~26500	0.01	-33.34	≤-19.99	PASS
		2441	Reference	-0.17	-0.17	---	PASS
			30~1000	-0.17	-69.76	≤-20.17	PASS
			1000~26500	-0.17	-31.51	≤-20.17	PASS
		2480	Reference	-0.38	-0.38	---	PASS
			30~1000	-0.38	-69.32	≤-20.38	PASS
			1000~26500	-0.38	-31.12	≤-20.38	PASS
2DH5	Ant1	2402	Reference	-0.01	-0.01	---	PASS
			30~1000	-0.01	-69.22	≤-20.01	PASS
			1000~26500	-0.01	-37.3	≤-20.01	PASS
		2441	Reference	-0.18	-0.18	---	PASS
			30~1000	-0.18	-69.39	≤-20.18	PASS
			1000~26500	-0.18	-32.22	≤-20.18	PASS
		2480	Reference	-0.43	-0.43	---	PASS
			30~1000	-0.43	-69.77	≤-20.43	PASS
			1000~26500	-0.43	-34.75	≤-20.43	PASS
3DH5	Ant1	2402	Reference	-0.01	-0.01	---	PASS
			30~1000	-0.01	-69.17	≤-20.01	PASS
			1000~26500	-0.01	-36.15	≤-20.01	PASS
		2441	Reference	-0.20	-0.20	---	PASS
			30~1000	-0.20	-69.52	≤-20.2	PASS
			1000~26500	-0.20	-32.48	≤-20.2	PASS
		2480	Reference	-0.40	-0.40	---	PASS
			30~1000	-0.40	-70.21	≤-20.4	PASS
			1000~26500	-0.40	-34.32	≤-20.4	PASS

Test Graphs

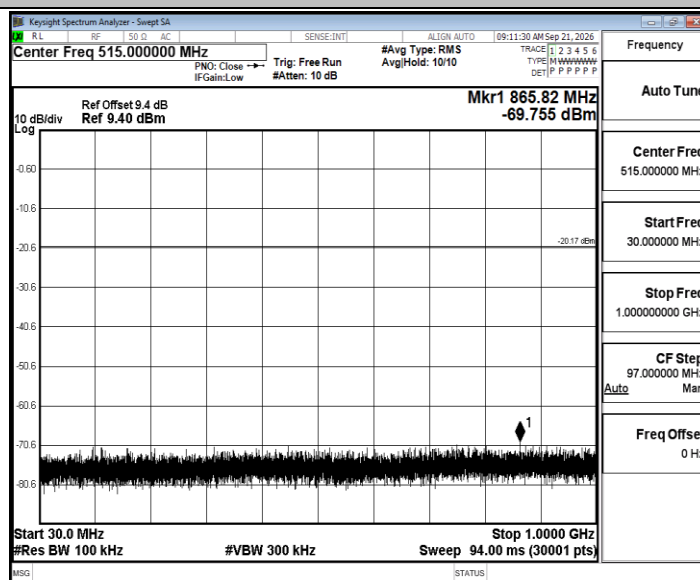




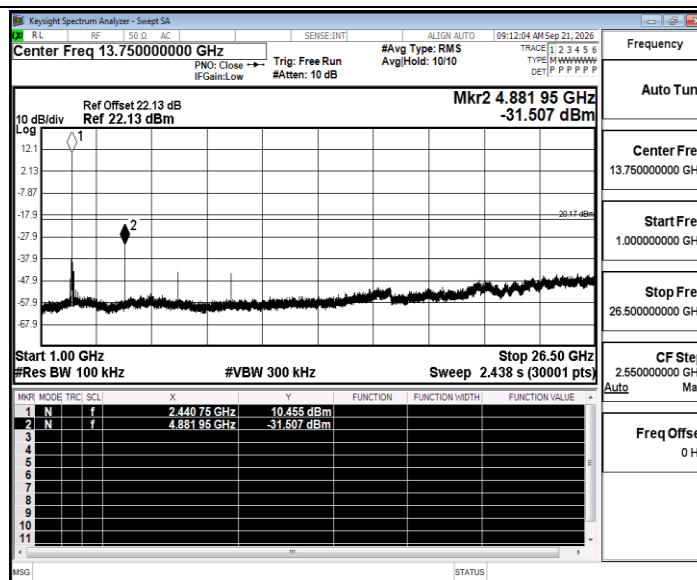
DH5_Ant1_2441_0~Reference



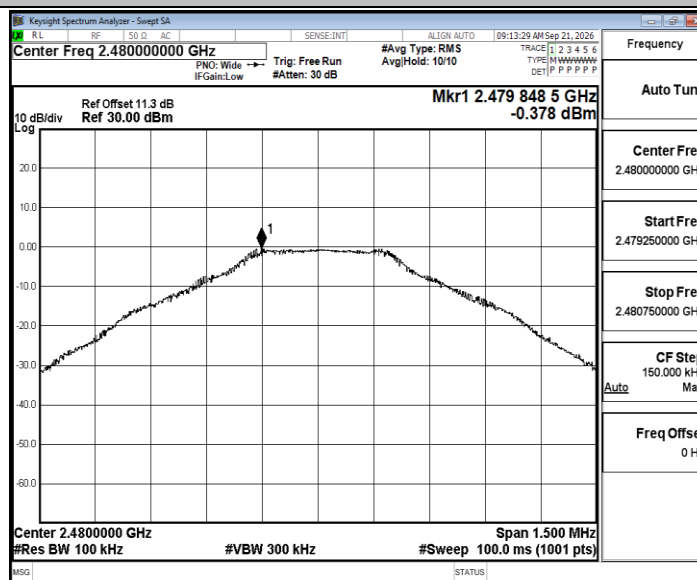
DH5_Ant1_2441_30~1000



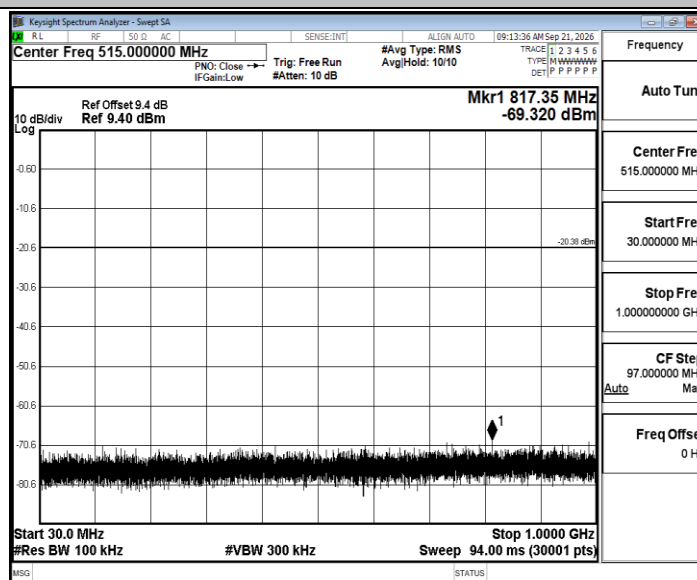
DH5_Ant1_2441_1000~26500



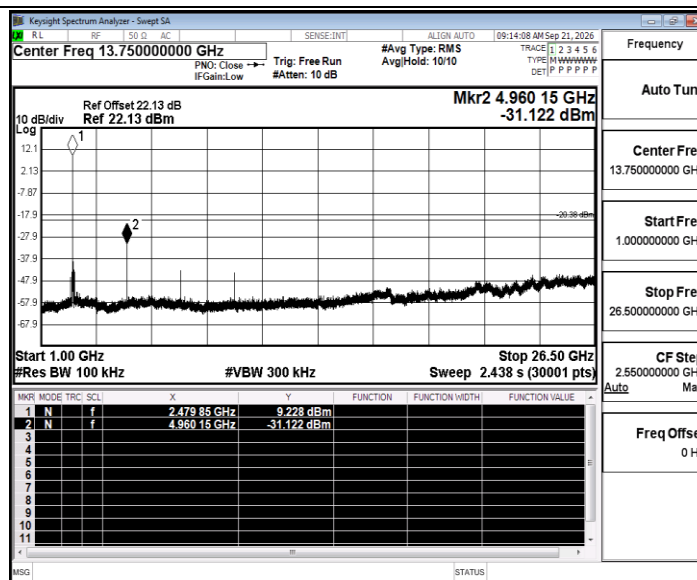
DH5_Ant1_2480_0~Reference



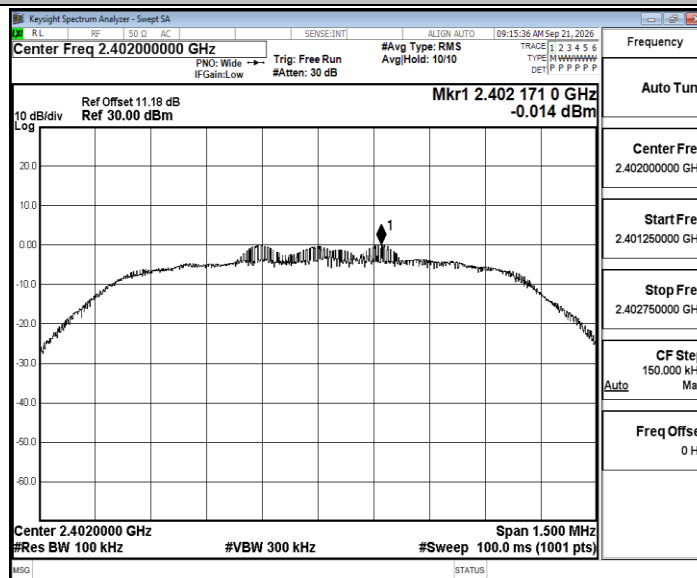
DH5_Ant1_2480_30~1000



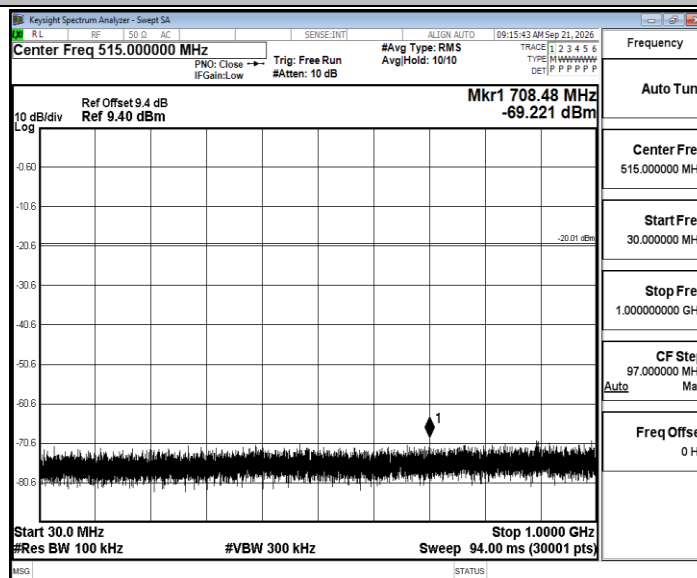
DH5_Ant1_2480_1000~26500



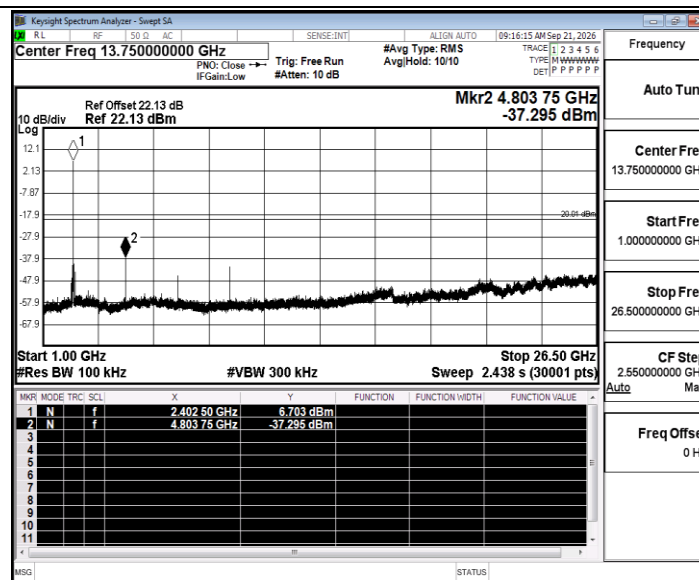
2DH5_Ant1_2402_0~Reference



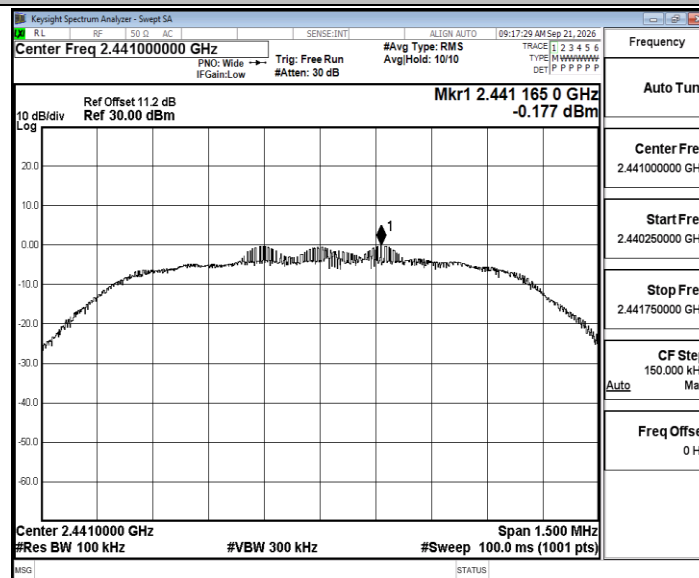
2DH5_Ant1_2402_30~1000



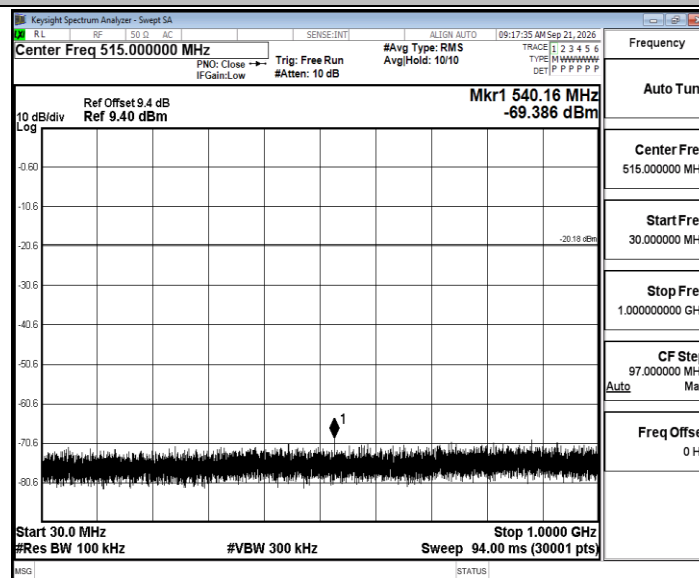
2DH5_Ant1_2402_1000~26500



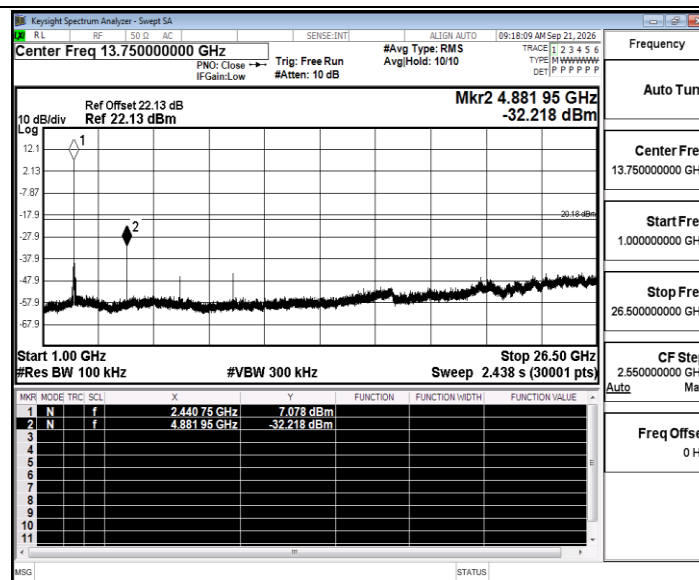
2DH5_Ant1_2441_0~Reference



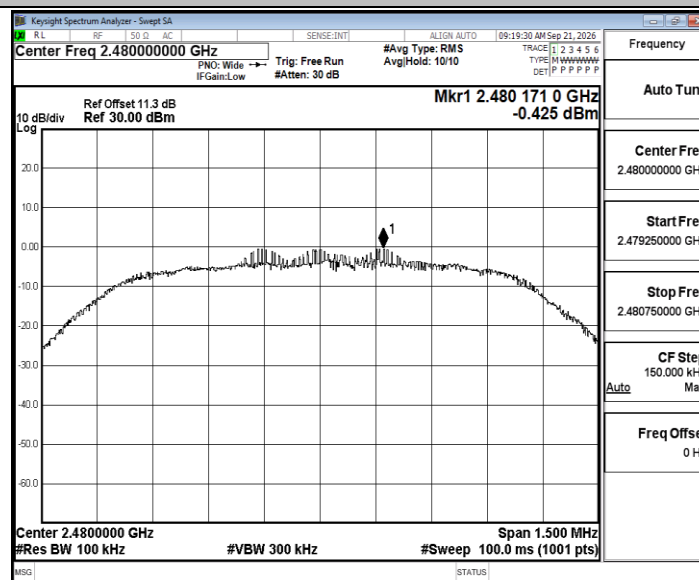
2DH5_Ant1_2441_30~1000



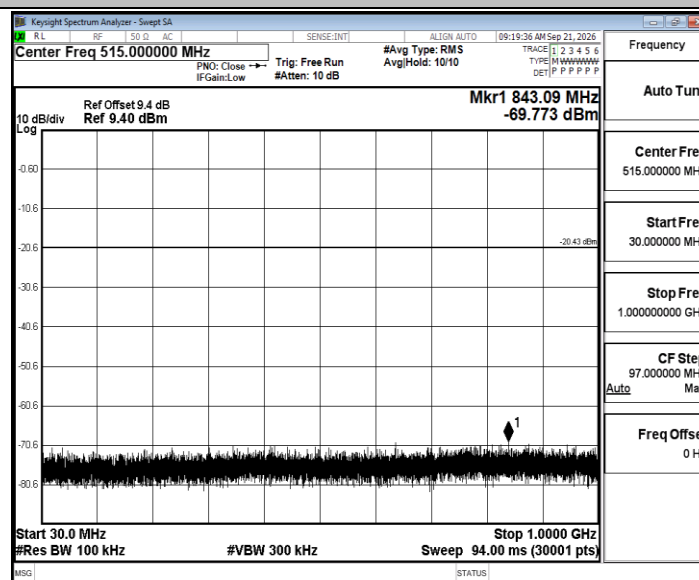
2DH5_Ant1_2441_1000~26500



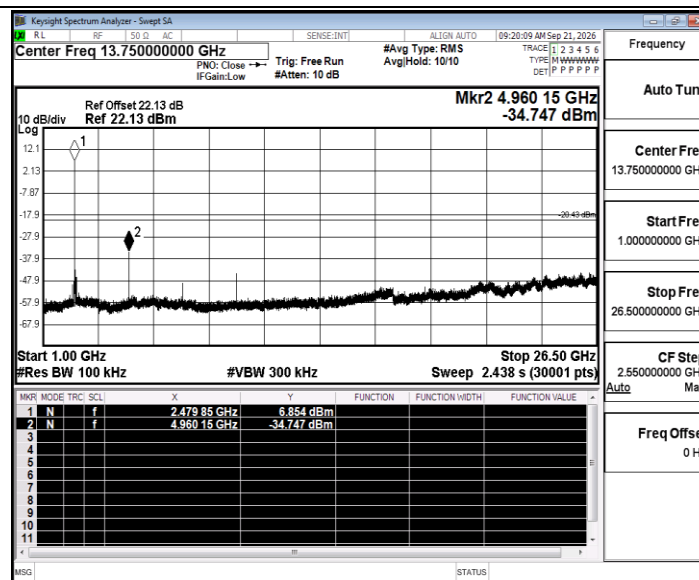
2DH5_Ant1_2480_0~Reference



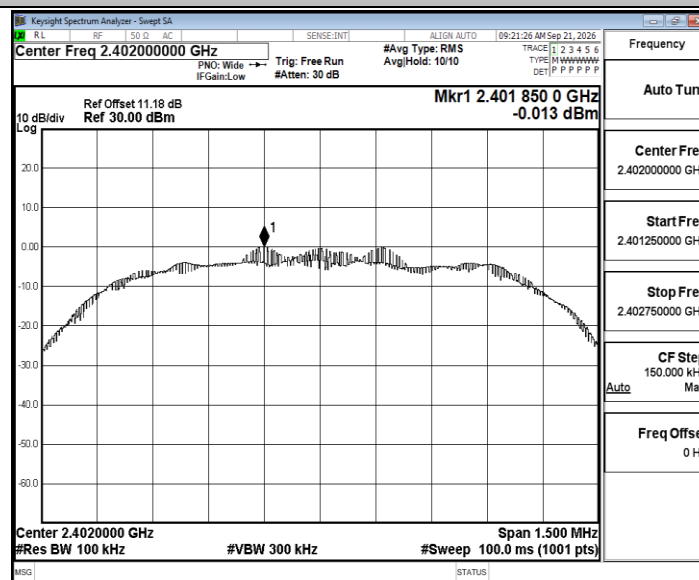
2DH5_Ant1_2480_30~1000



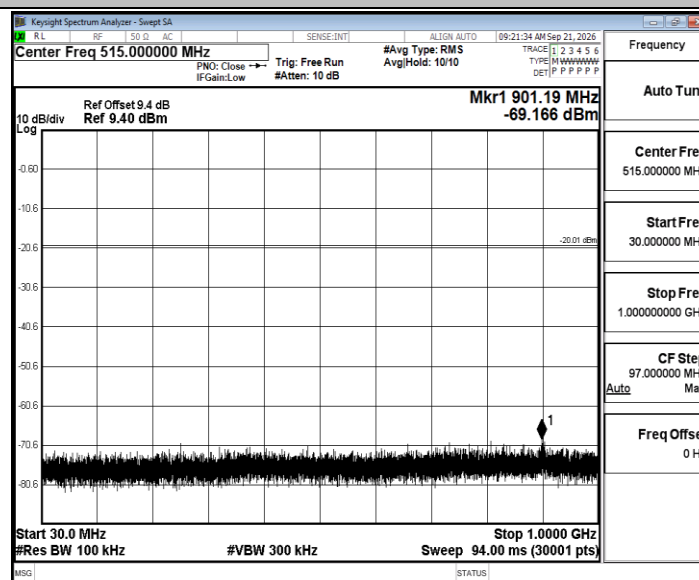
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference



3DH5_Ant1_2402_30~1000



3DH5_Ant1_2402_1000~26500