

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Bluetooth speaker

Test Model: OS-3000B

Environmental Conditions

Temperature:	24.5°C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

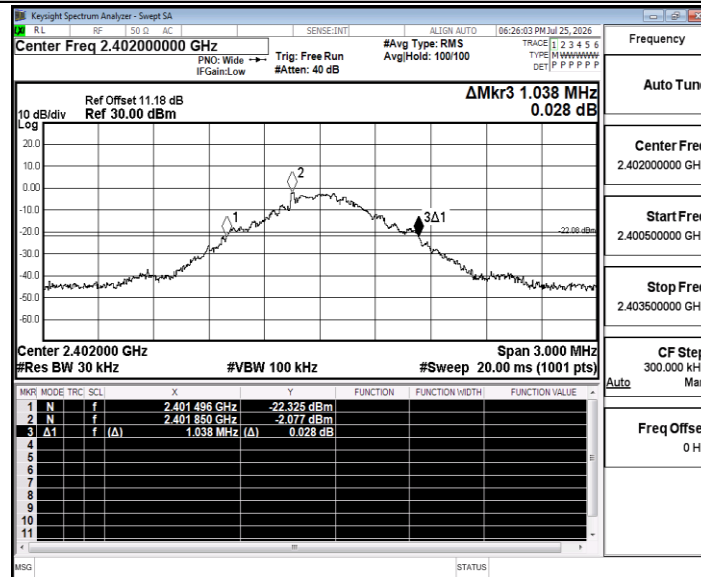
A.1 20dB Emission Bandwidth

Test Result

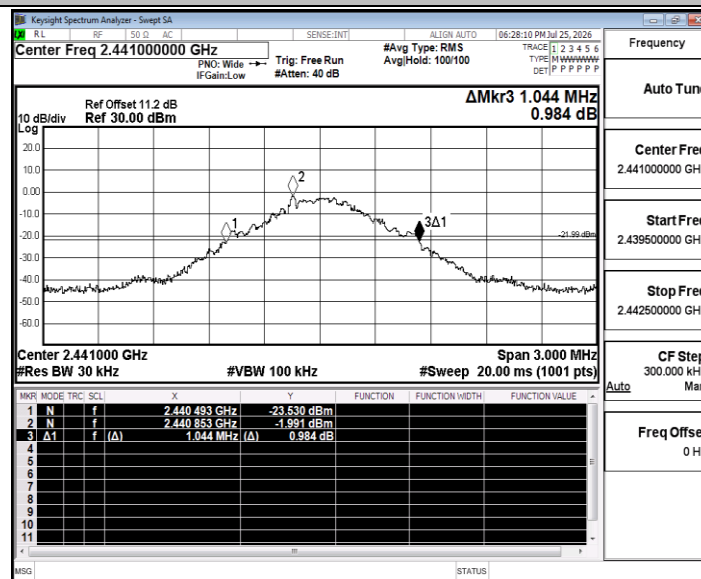
TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.038	2401.496	2402.534	---	---
		2441	1.044	2440.493	2441.537	---	---
		2480	1.071	2479.469	2480.540	---	---
2DH5	Ant1	2402	1.335	2401.349	2402.684	---	---
		2441	1.335	2440.349	2441.684	---	---
		2480	1.344	2479.352	2480.696	---	---
3DH5	Ant1	2402	1.302	2401.367	2402.669	---	---
		2441	1.290	2440.370	2441.660	---	---
		2480	1.293	2479.367	2480.660	---	---

Test Graphs

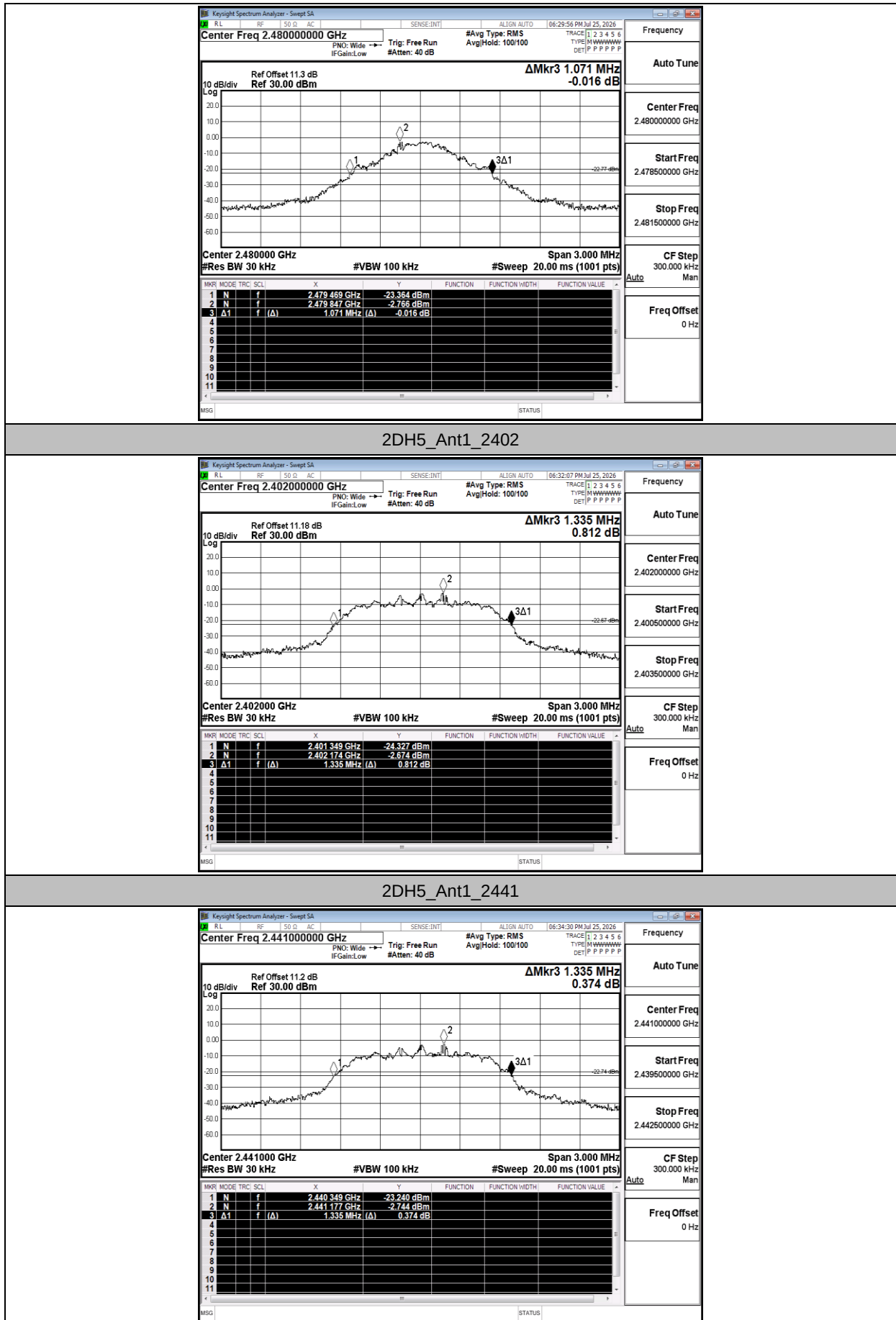
DH5_Ant1_2402



DH5_Ant1_2441



DH5_Ant1_2480

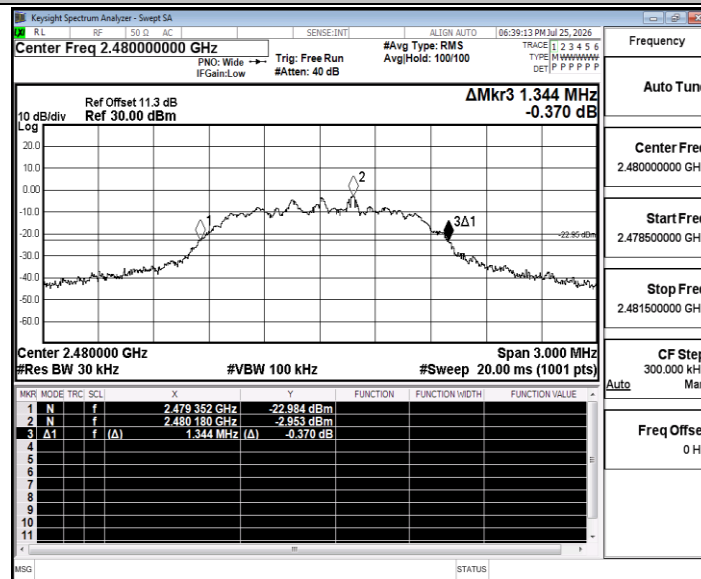


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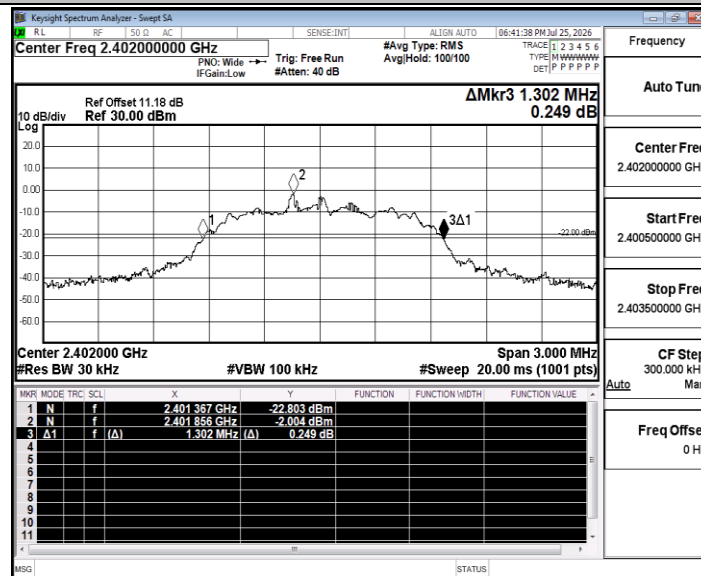
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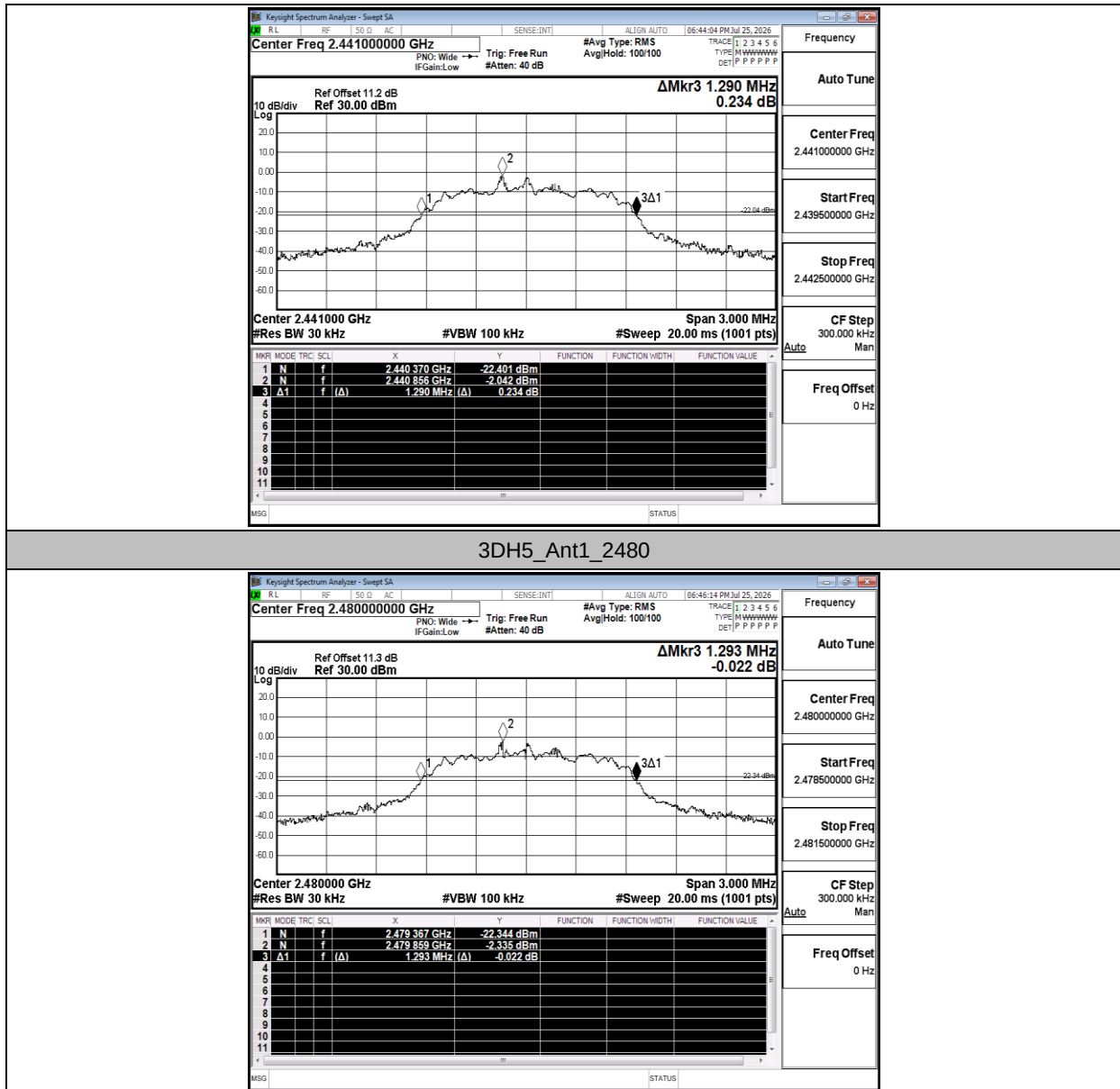
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441

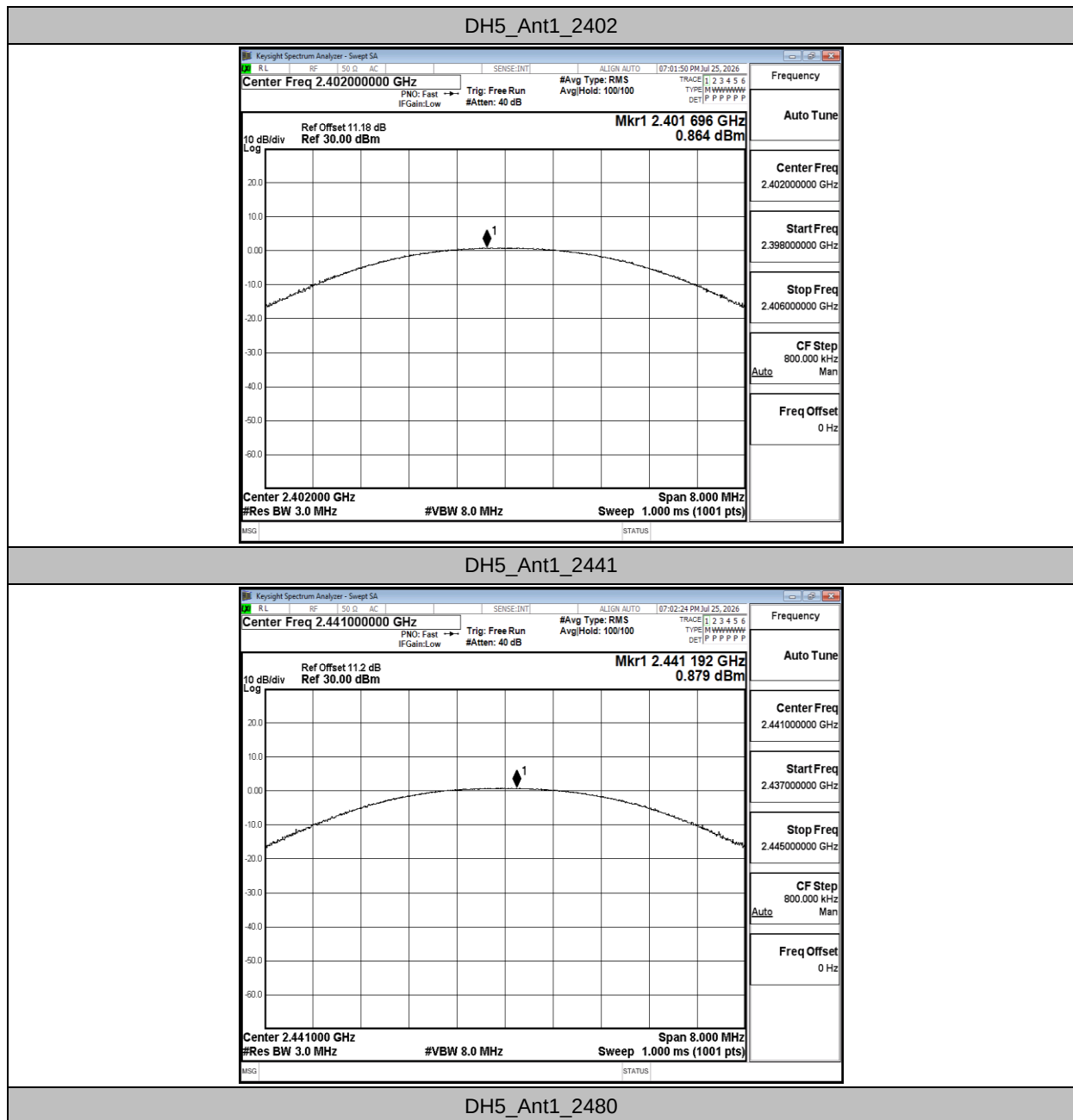


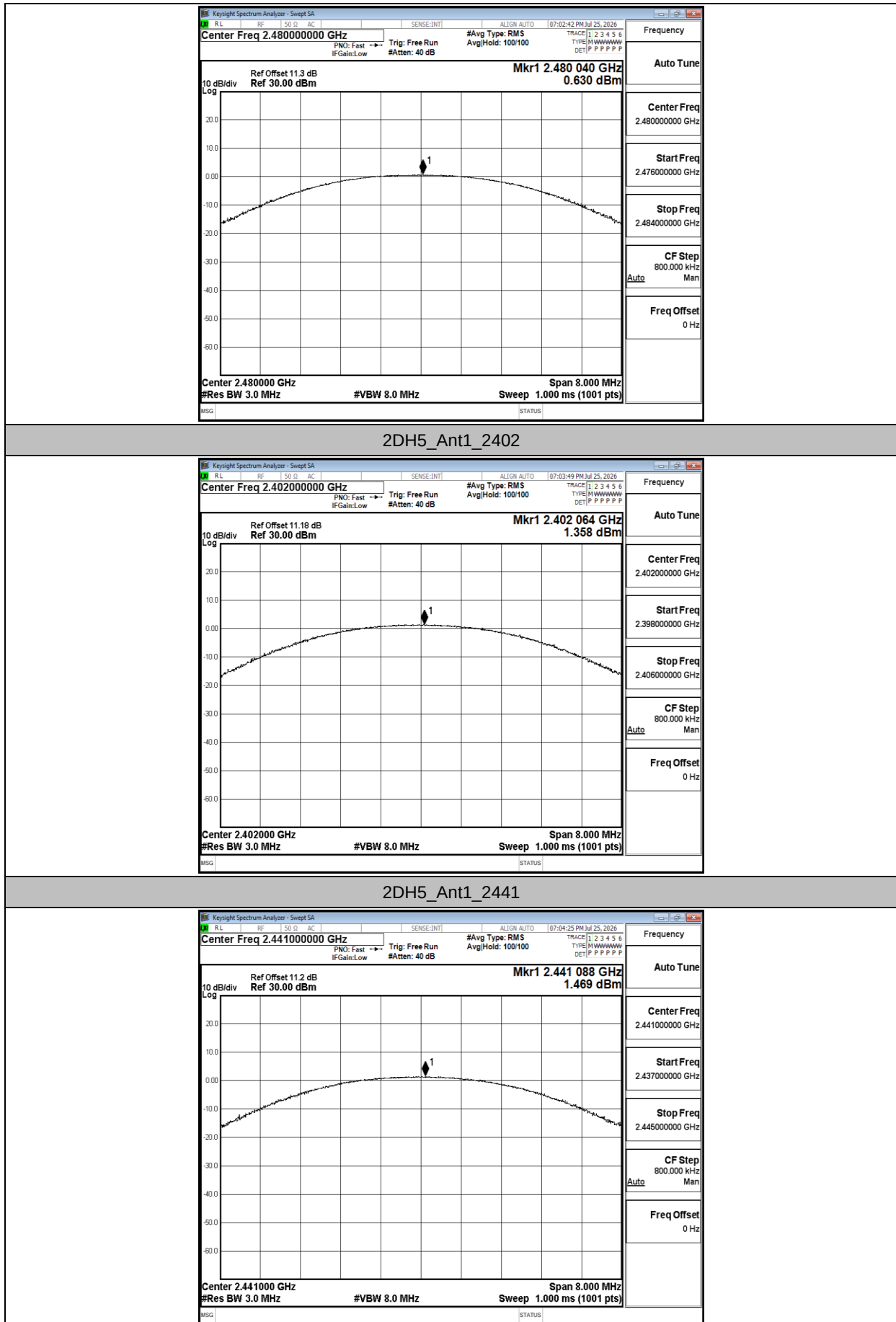
A.2 Maximum Peak conducted output power

Test Result Peak

Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	0.86	≤20.97	PASS
		2441	0.88	≤20.97	PASS
		2480	0.63	≤20.97	PASS
2DH5	Ant1	2402	1.36	≤20.97	PASS
		2441	1.47	≤20.97	PASS
		2480	1.19	≤20.97	PASS
3DH5	Ant1	2402	1.71	≤20.97	PASS
		2441	1.75	≤20.97	PASS
		2480	1.56	≤20.97	PASS

Test Graphs



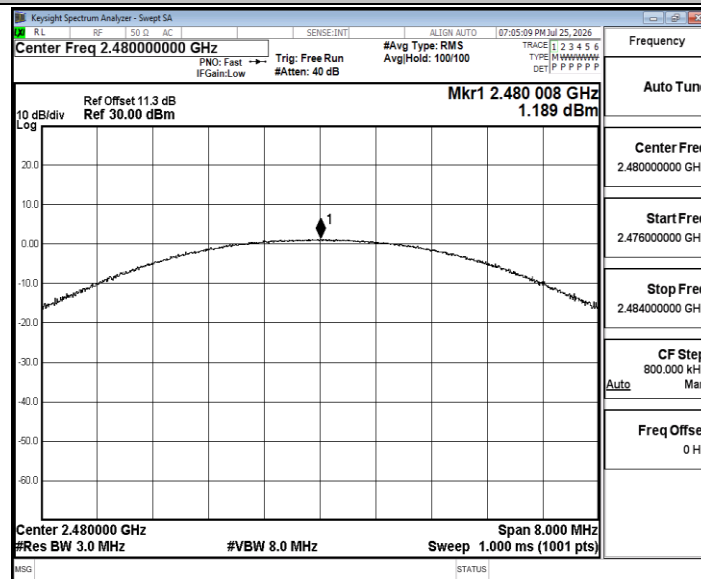


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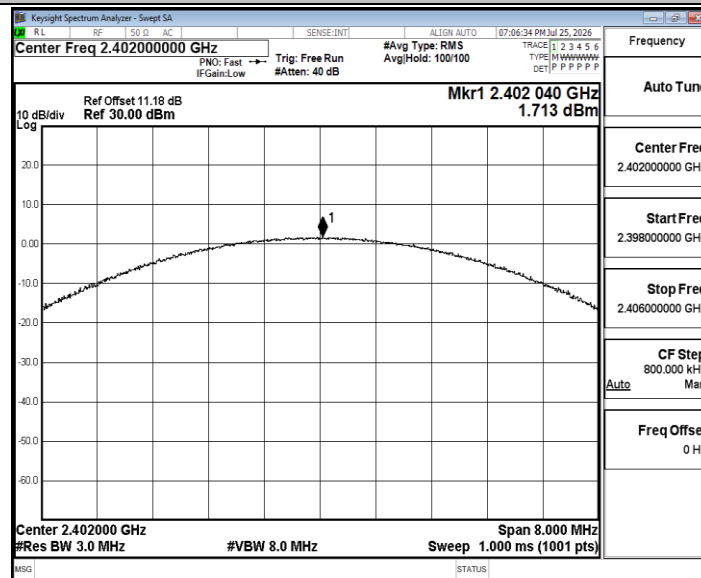
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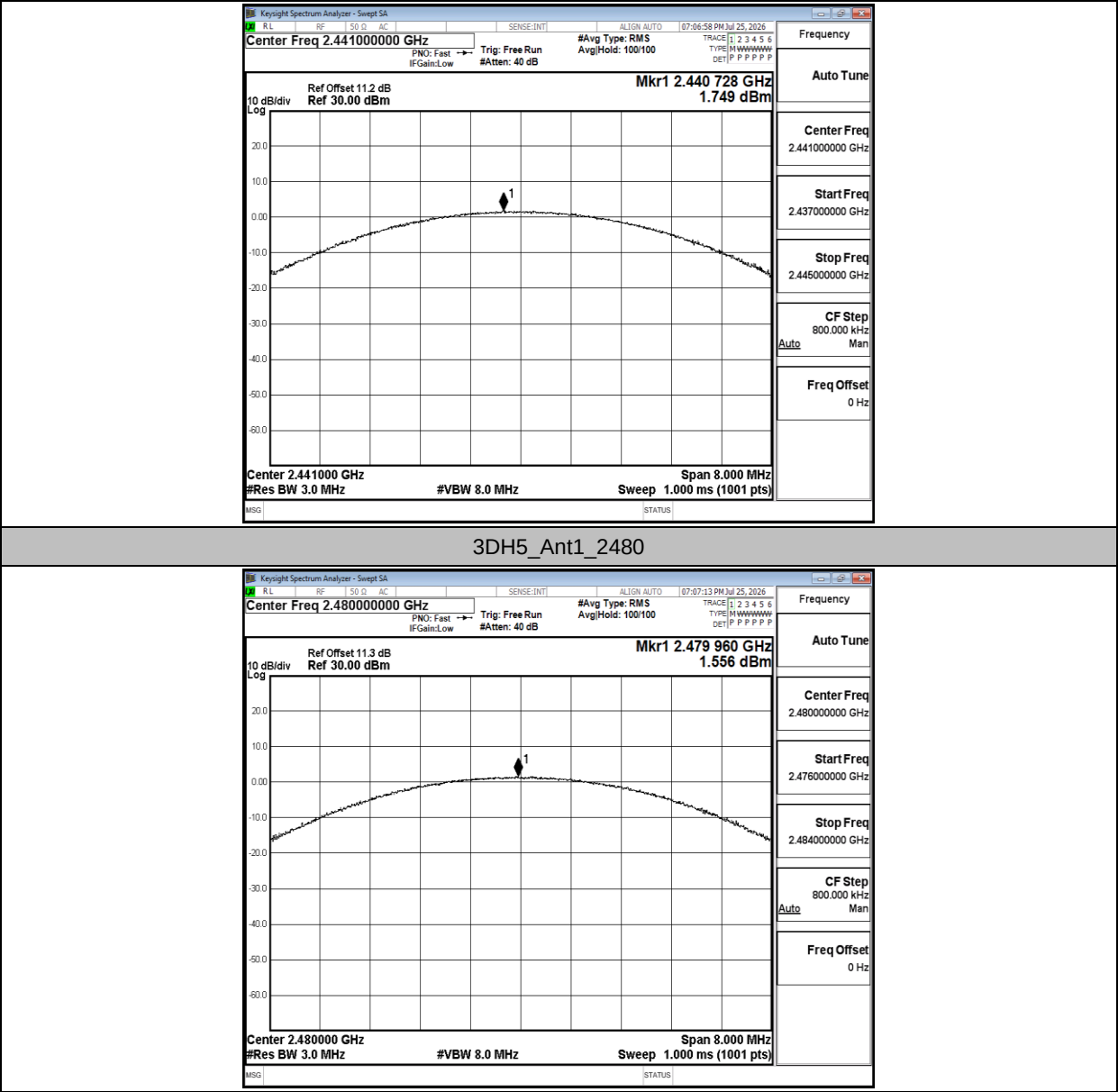
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441

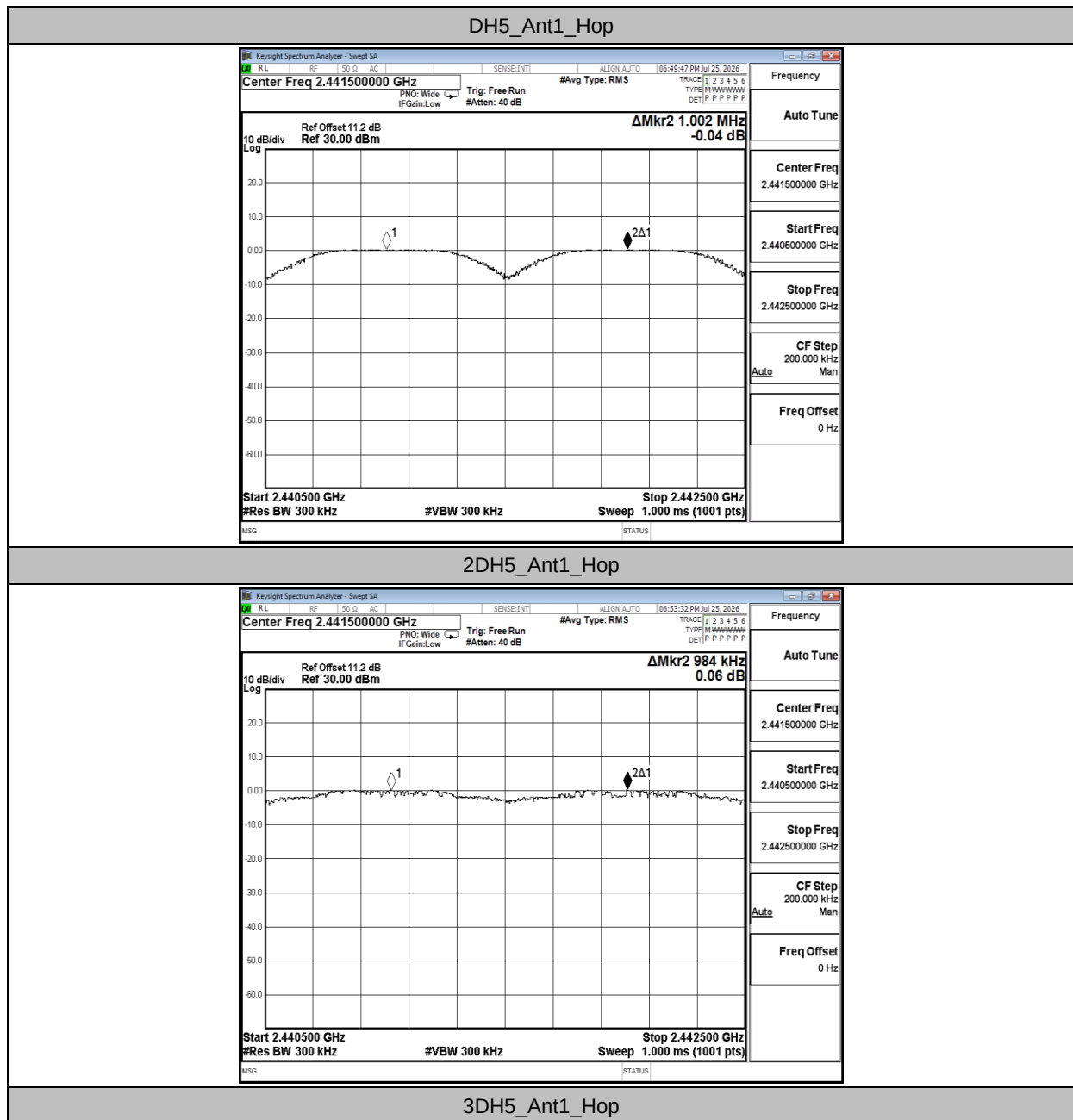


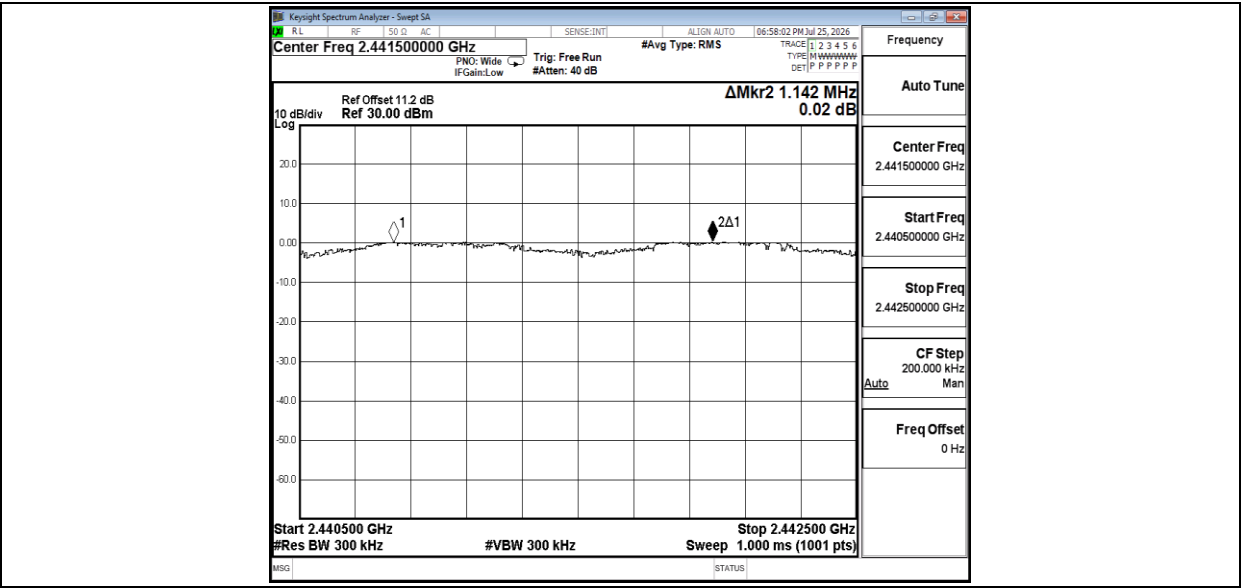
A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.002	≥ 0.714	PASS
2DH5	Ant1	Hop	0.984	≥ 0.896	PASS
3DH5	Ant1	Hop	1.142	≥ 0.868	PASS

Test Graphs



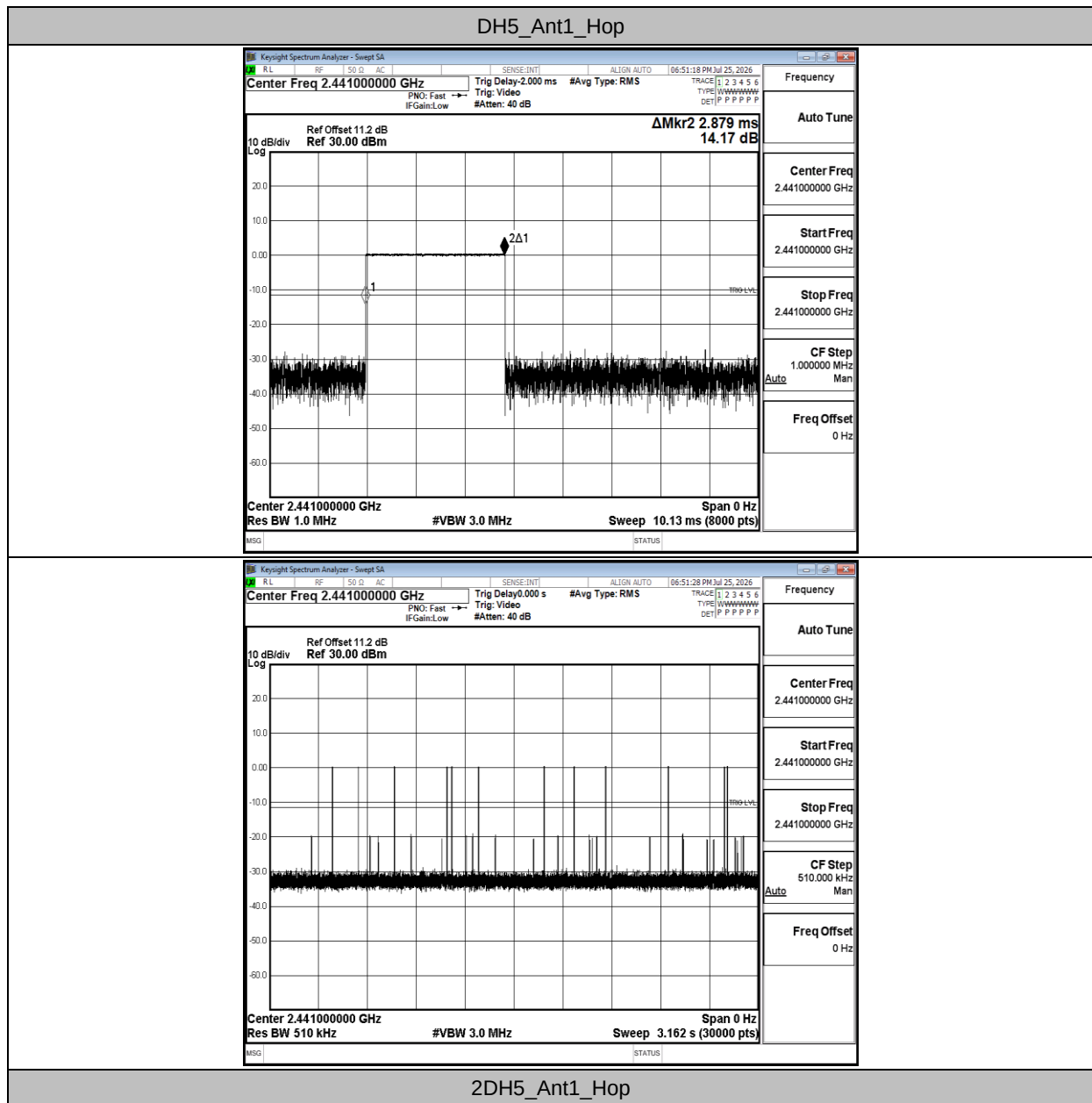


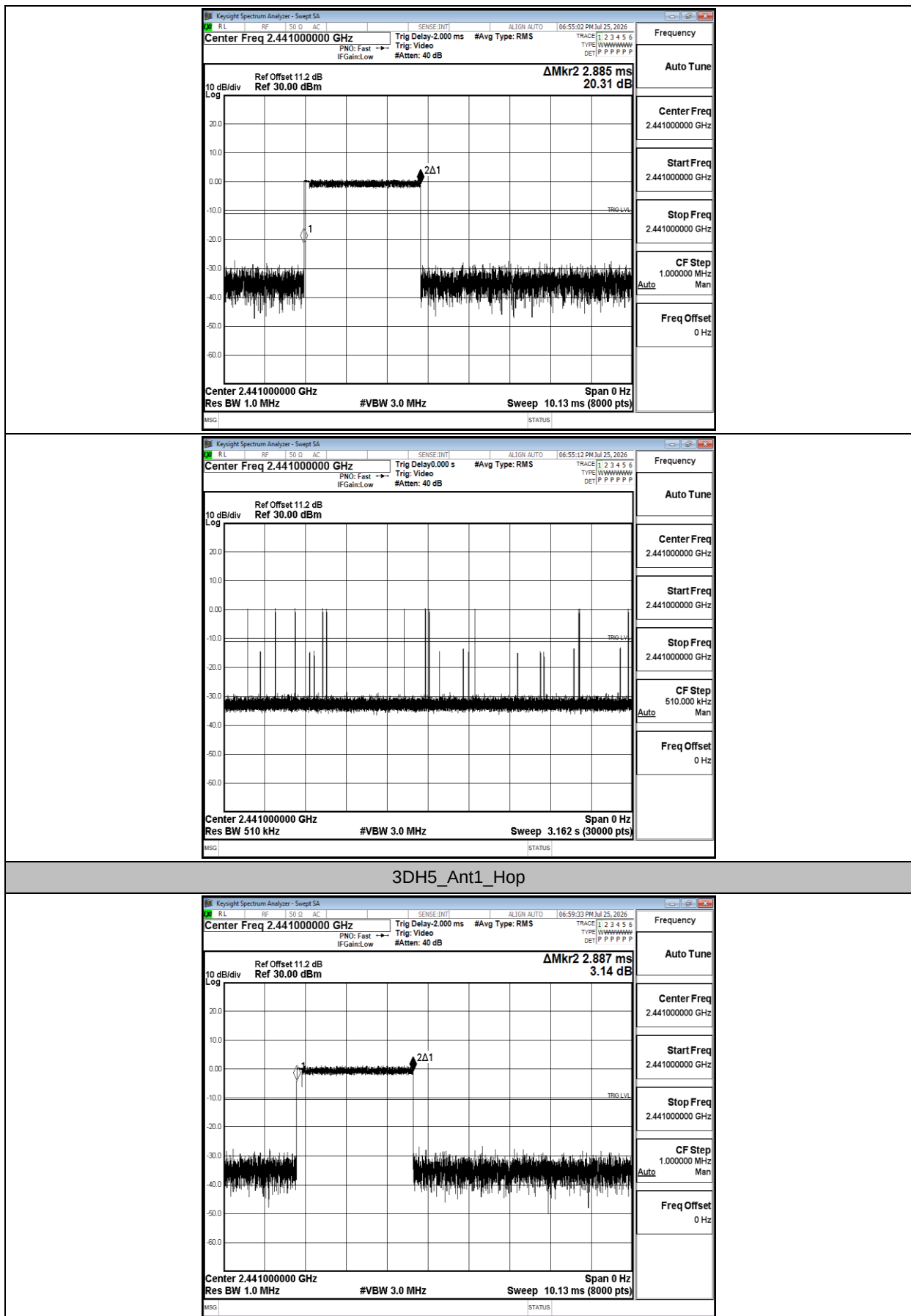
A4 Time of occupancy

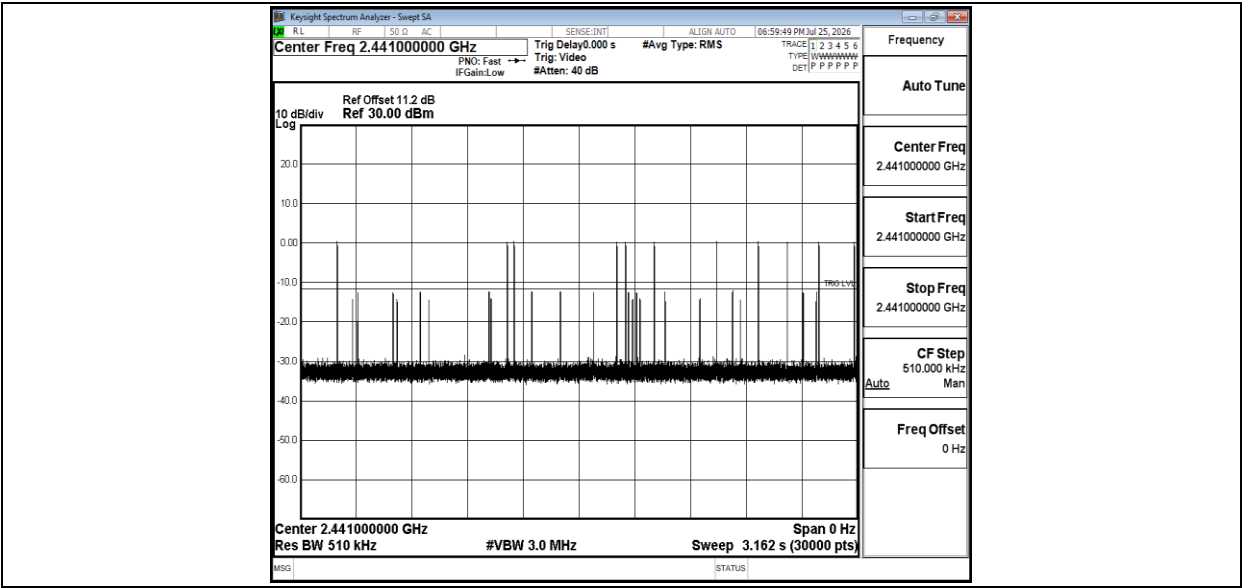
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.879	130	0.374	≤0.4	PASS
2DH5	Ant1	Hop	2.885	130	0.375	≤0.4	PASS
3DH5	Ant1	Hop	2.887	120	0.346	≤0.4	PASS

Test Graphs





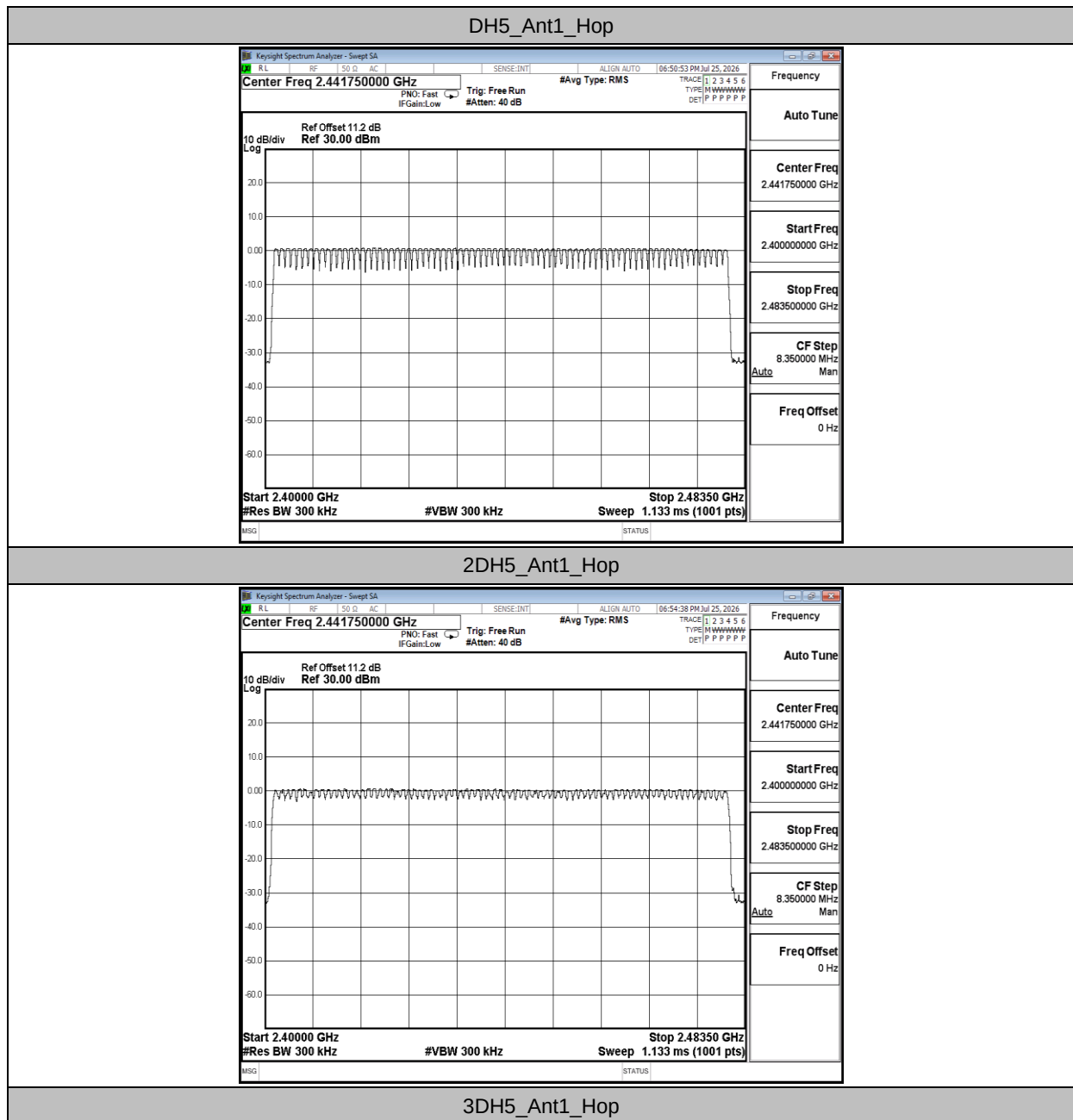


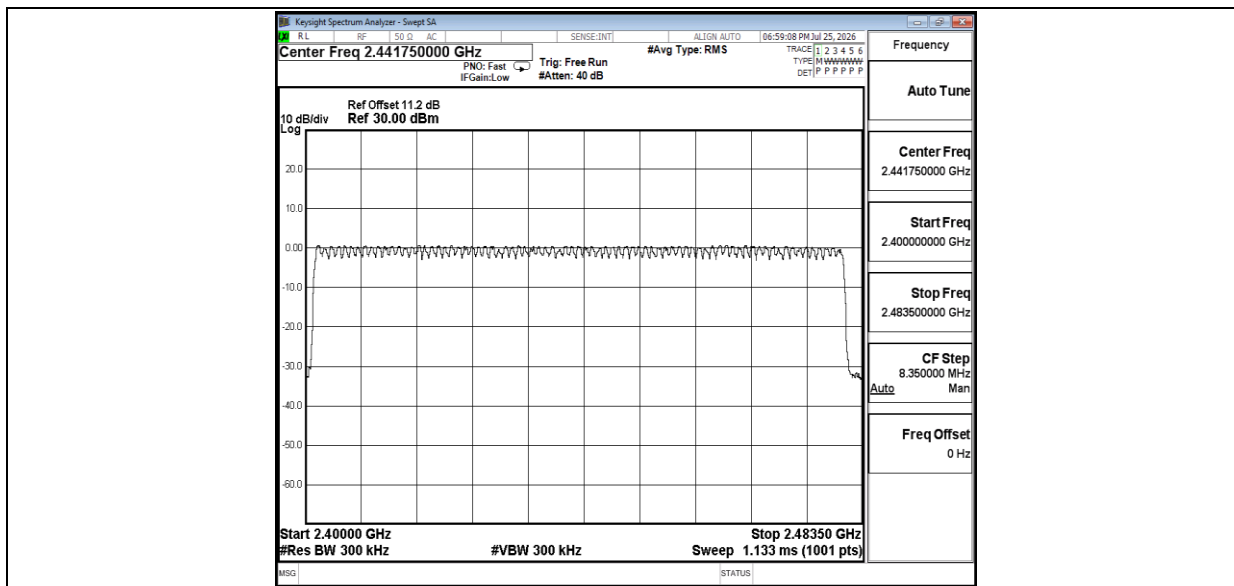
A.5 Number of hopping channels

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





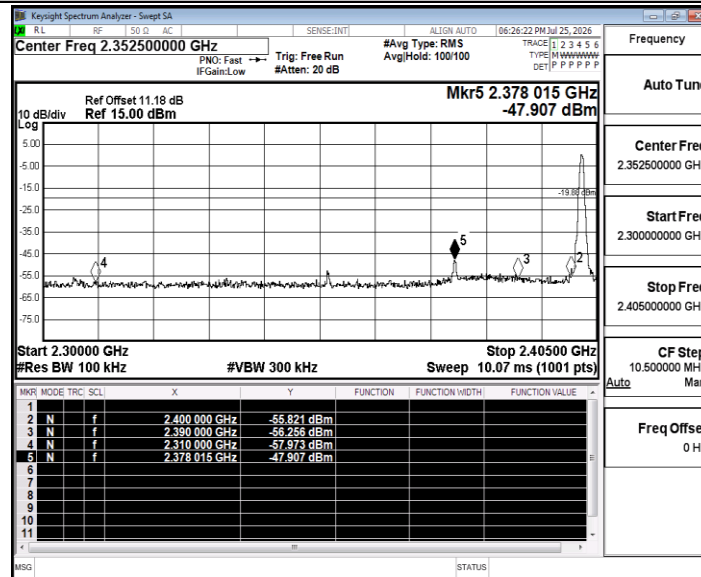
A.6 Band edge measurements

Test Result

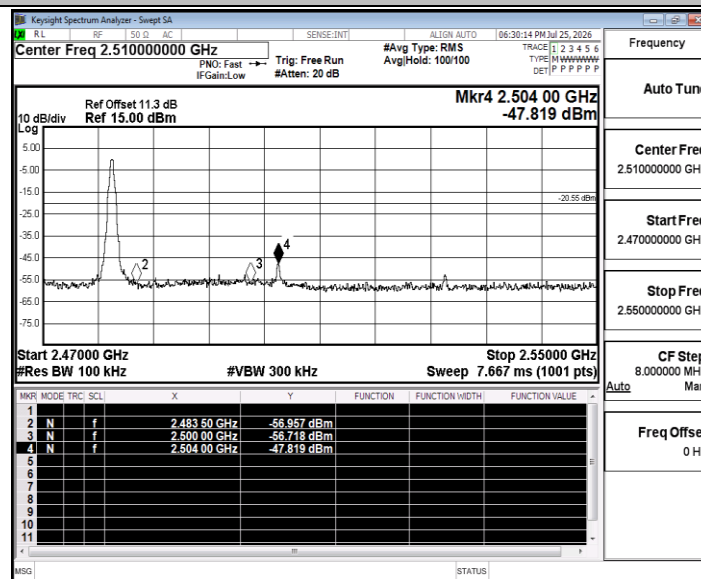
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.12	-47.91	≤ -19.88	PASS
		High	2480	-0.55	-47.82	≤ -20.55	PASS
		Low	Hop_2402	-1.17	-47.32	≤ -21.17	PASS
		High	Hop_2480	-0.05	-47.8	≤ -20.05	PASS
2DH5	Ant1	Low	2402	0.14	-48.94	≤ -19.86	PASS
		High	2480	-2.84	-50.31	≤ -22.84	PASS
		Low	Hop_2402	-4.92	-49.82	≤ -24.92	PASS
		High	Hop_2480	-4.12	-50.93	≤ -24.12	PASS
3DH5	Ant1	Low	2402	-0.49	-49.19	≤ -20.49	PASS
		High	2480	-0.36	-49.98	≤ -20.36	PASS
		Low	Hop_2402	-4.36	-49.37	≤ -24.36	PASS
		High	Hop_2480	-3.76	-51.21	≤ -23.76	PASS

Test Graphs

DH5_Ant1_Low_2402

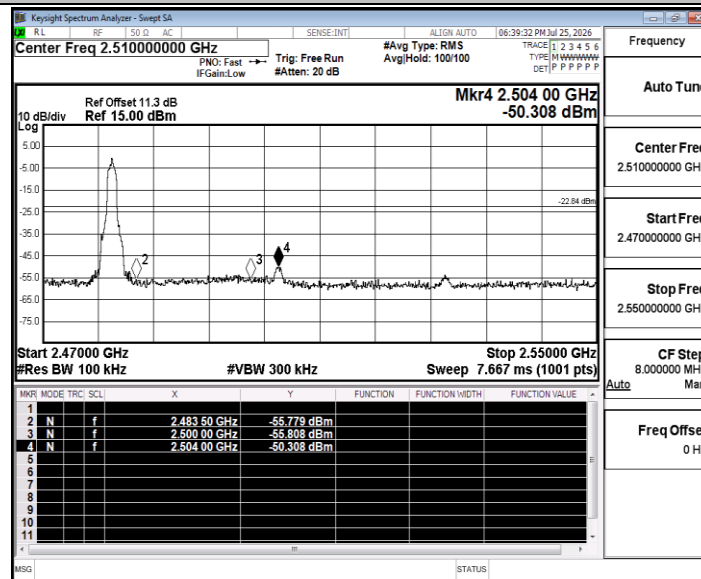


DH5_Ant1_High_2480

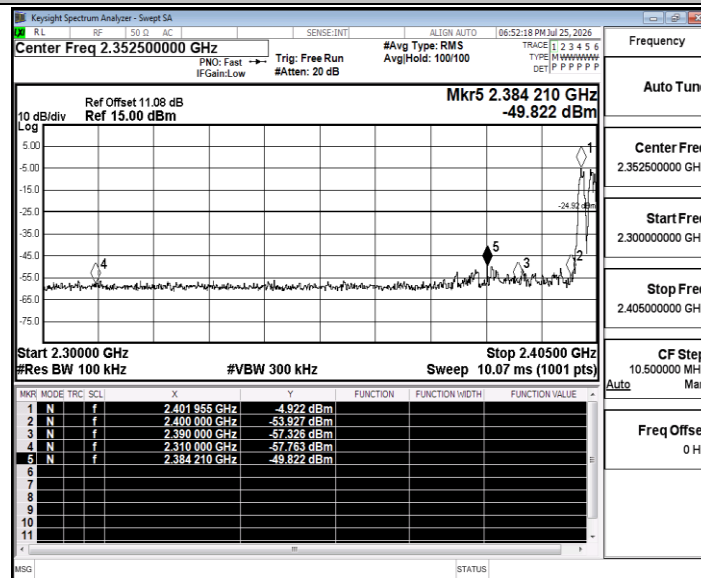


DH5_Ant1_Low_Hop_2402

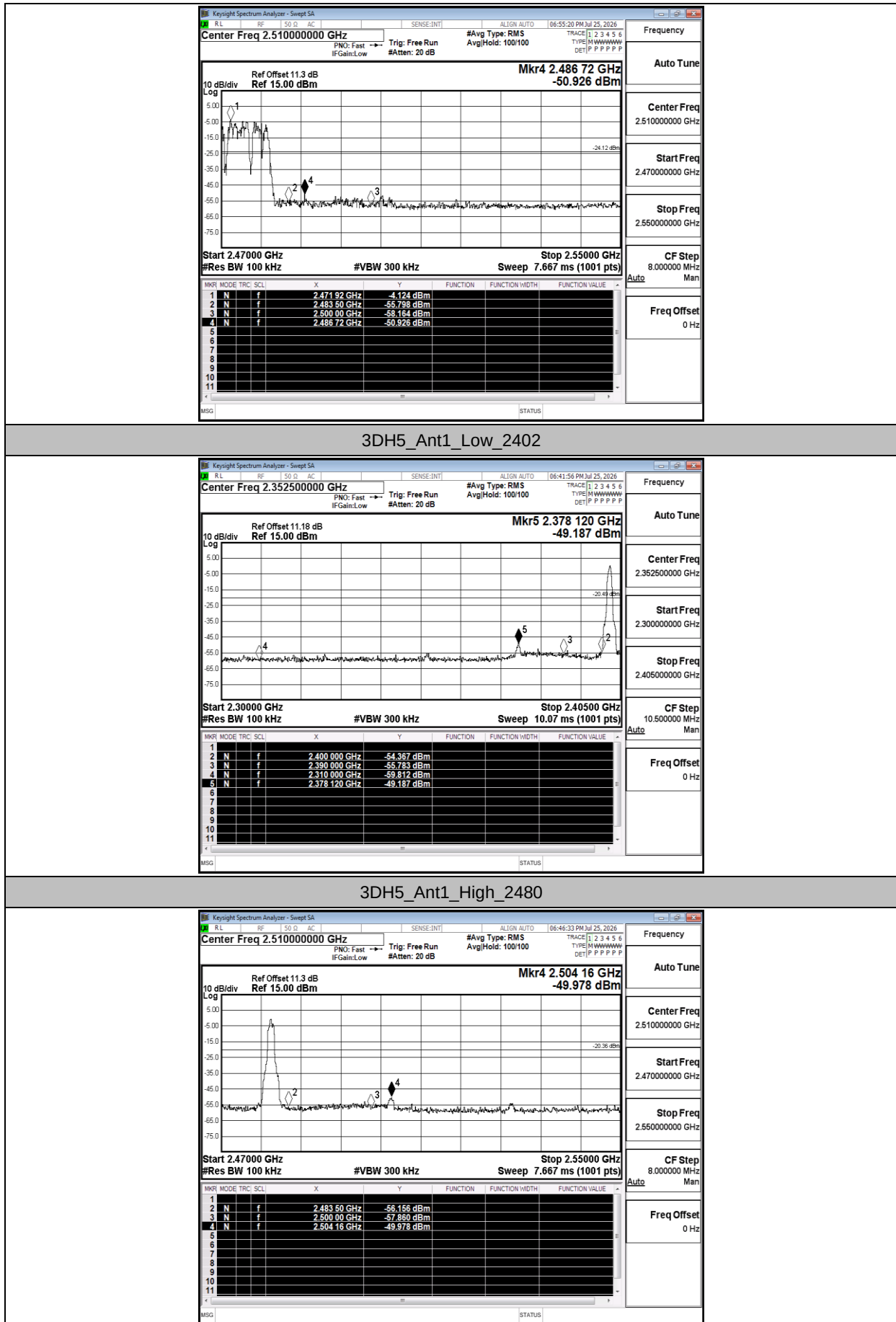
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

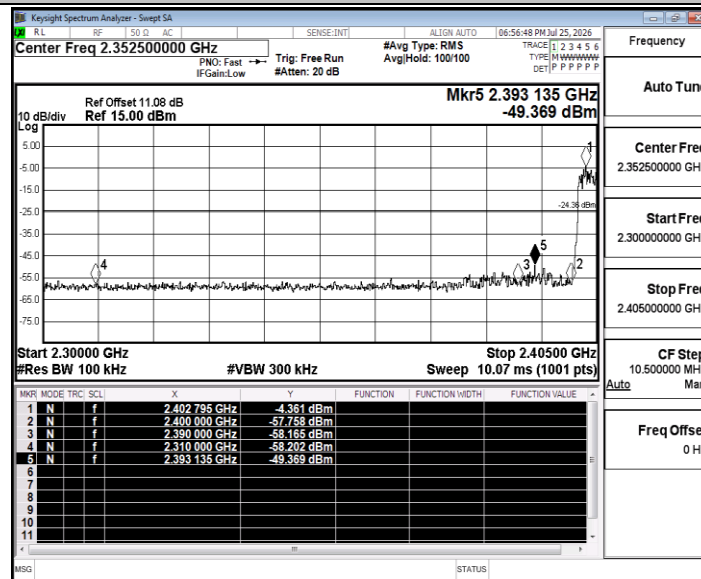


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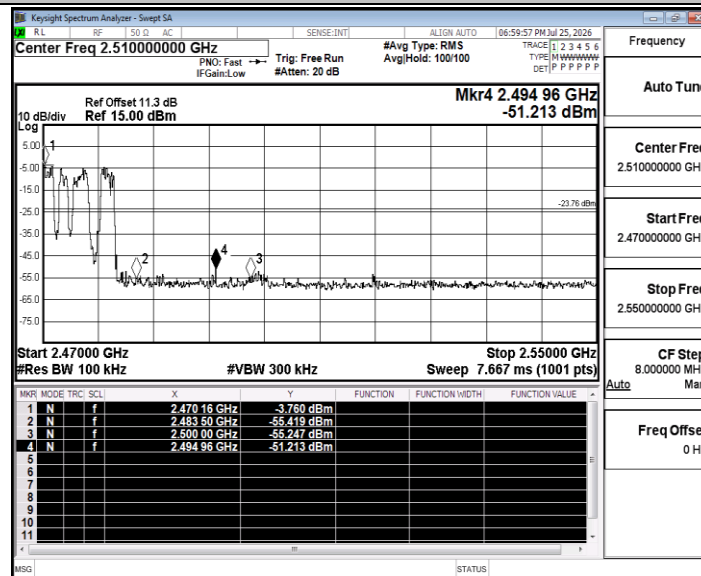
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3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

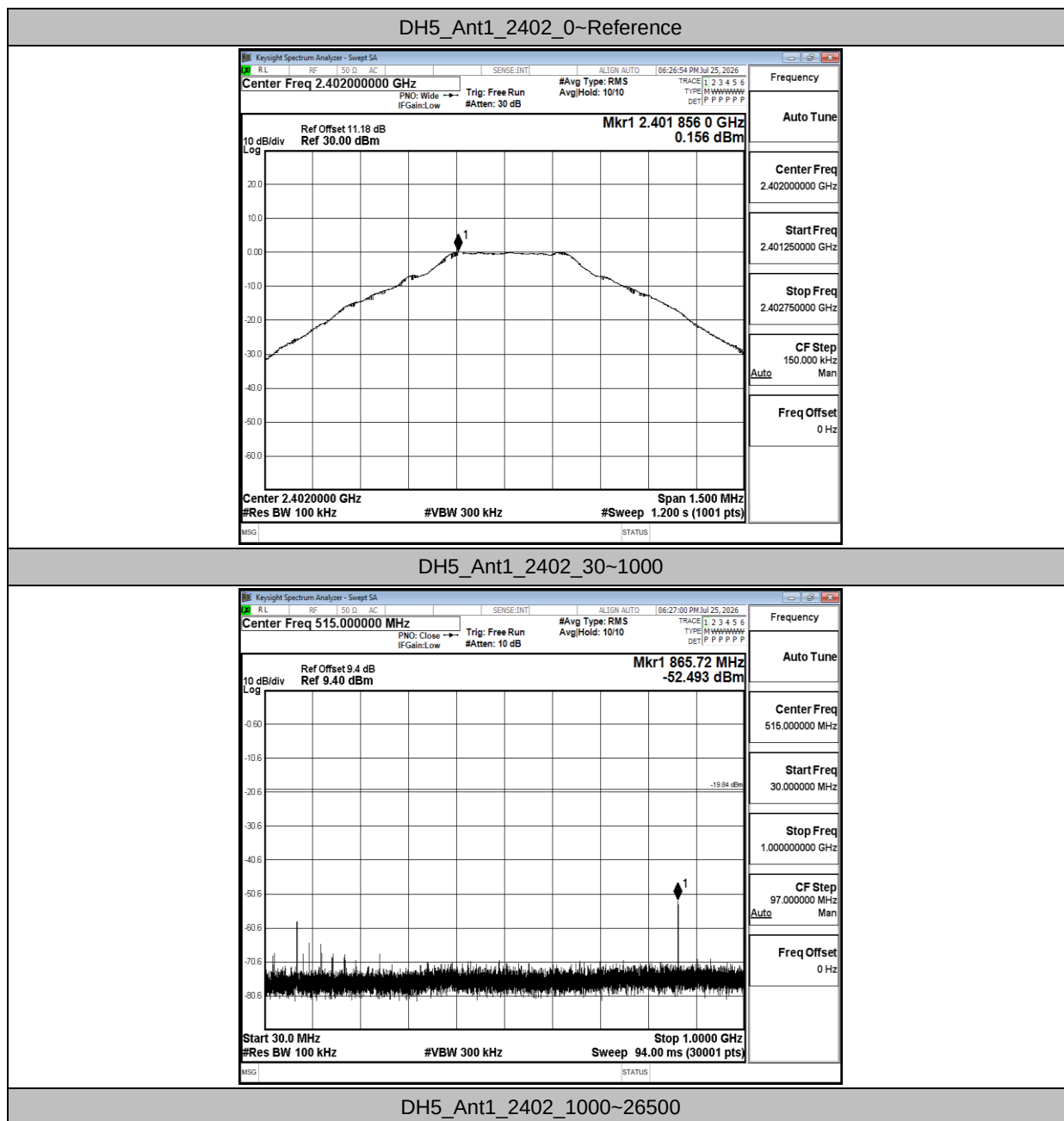


A.7 Conducted Spurious Emission

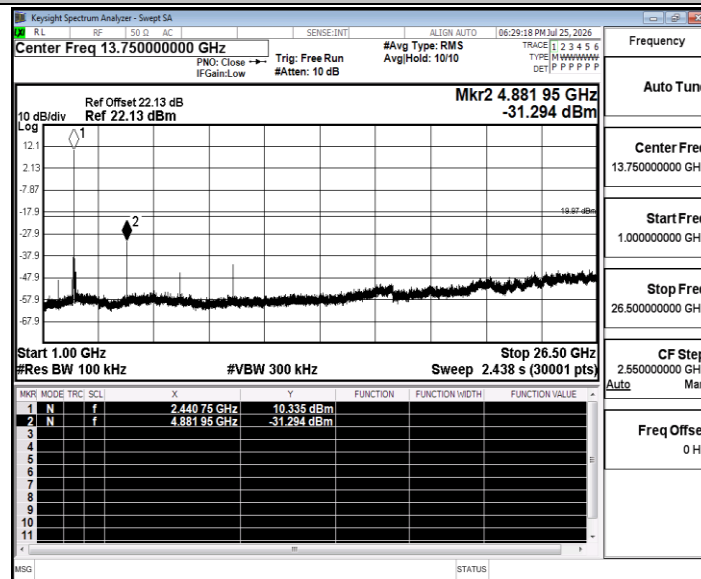
Test Result

TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.16	0.16	---	PASS
			30~1000	0.16	-52.49	≤-19.84	PASS
			1000~26500	0.16	-32.16	≤-19.84	PASS
		2441	Reference	0.03	0.03	---	PASS
			30~1000	0.03	-51.84	≤-19.97	PASS
			1000~26500	0.03	-31.29	≤-19.97	PASS
		2480	Reference	-0.17	-0.17	---	PASS
			30~1000	-0.17	-52.48	≤-20.17	PASS
			1000~26500	-0.17	-28.39	≤-20.17	PASS
2DH5	Ant1	2402	Reference	0.14	0.14	---	PASS
			30~1000	0.14	-51.8	≤-19.86	PASS
			1000~26500	0.14	-33.53	≤-19.86	PASS
		2441	Reference	0.00	0.00	---	PASS
			30~1000	0.00	-51.87	≤-20	PASS
			1000~26500	0.00	-32.29	≤-20	PASS
		2480	Reference	-0.19	-0.19	---	PASS
			30~1000	-0.19	-51.32	≤-20.19	PASS
			1000~26500	-0.19	-32.15	≤-20.19	PASS
3DH5	Ant1	2402	Reference	0.13	0.13	---	PASS
			30~1000	0.13	-51.43	≤-19.87	PASS
			1000~26500	0.13	-32.38	≤-19.87	PASS
		2441	Reference	0.02	0.02	---	PASS
			30~1000	0.02	-50.69	≤-19.98	PASS
			1000~26500	0.02	-32.38	≤-19.98	PASS
		2480	Reference	-0.18	-0.18	---	PASS
			30~1000	-0.18	-52.36	≤-20.18	PASS
			1000~26500	-0.18	-31.62	≤-20.18	PASS

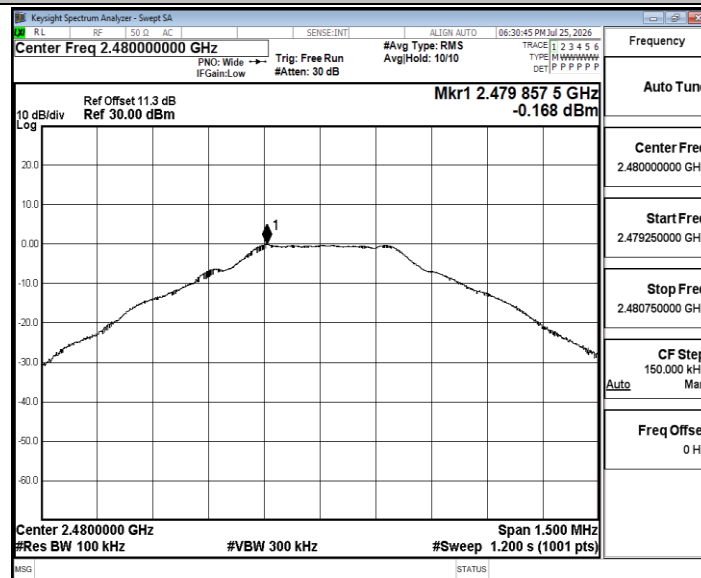
Test Graphs



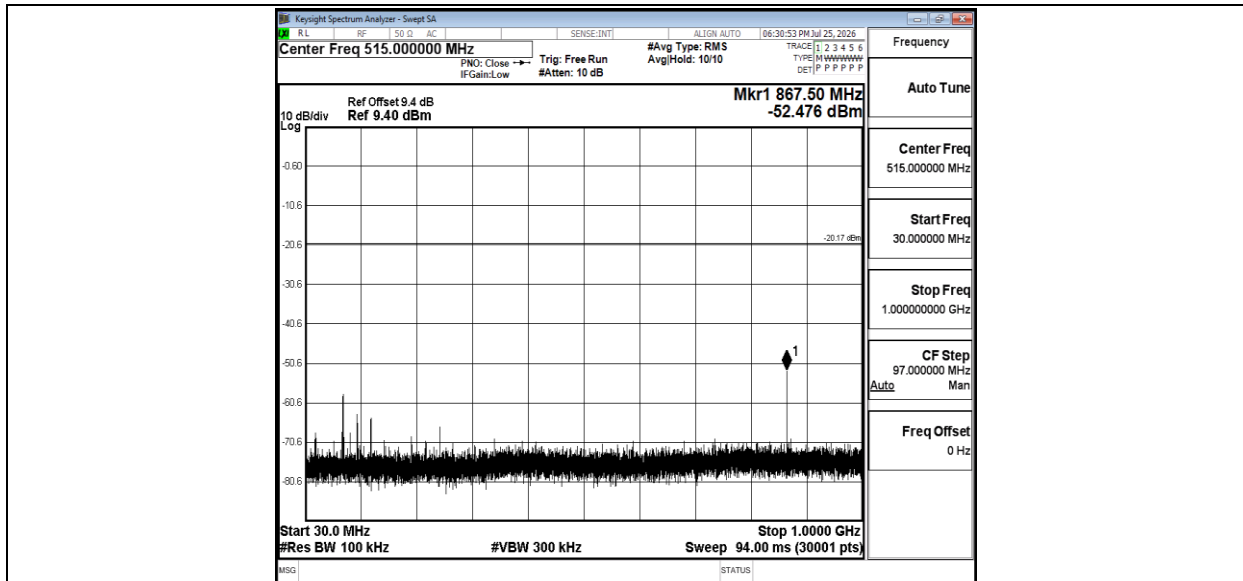
DH5_Ant1_2441_1000~26500



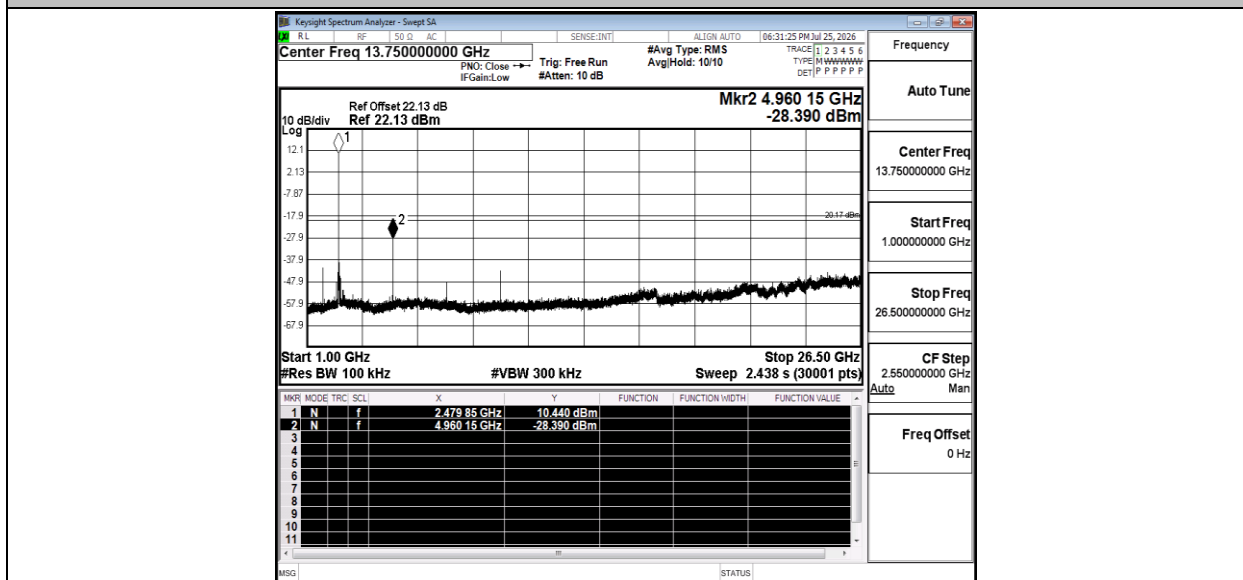
DH5_Ant1_2480_0~Reference



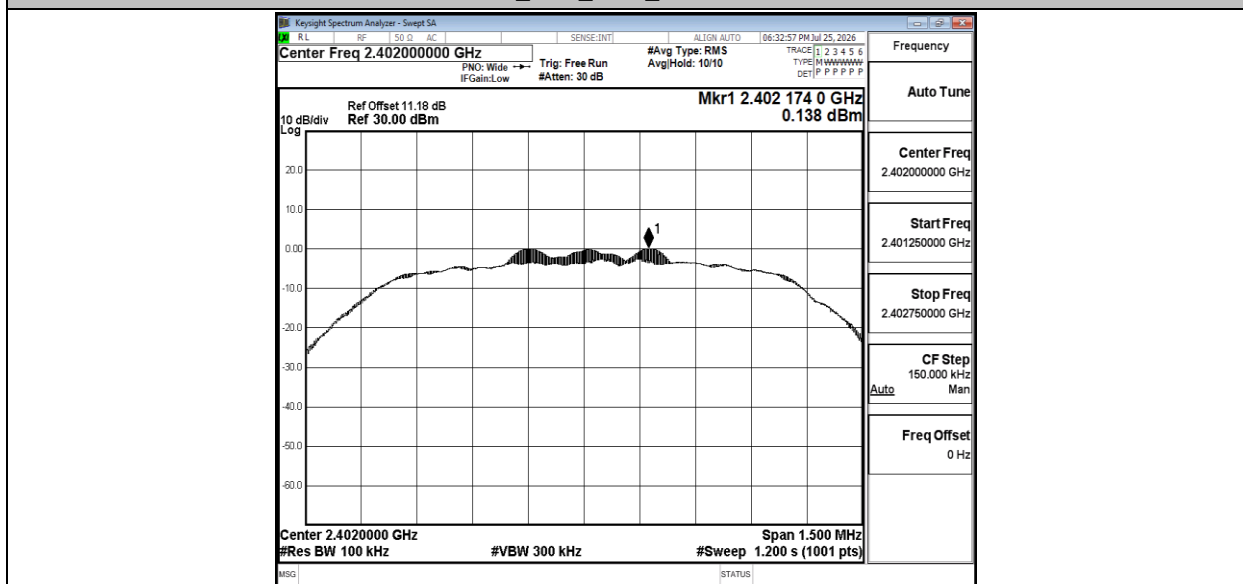
DH5_Ant1_2480_30~1000



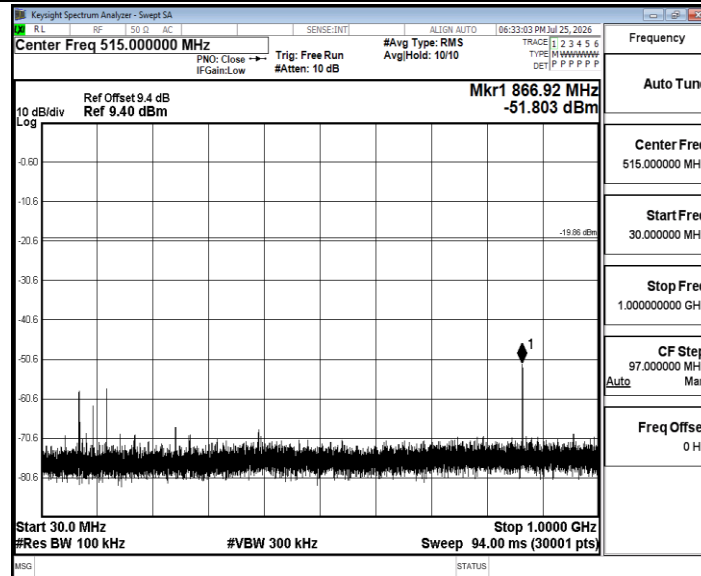
DH5_Ant1_2480_1000~26500



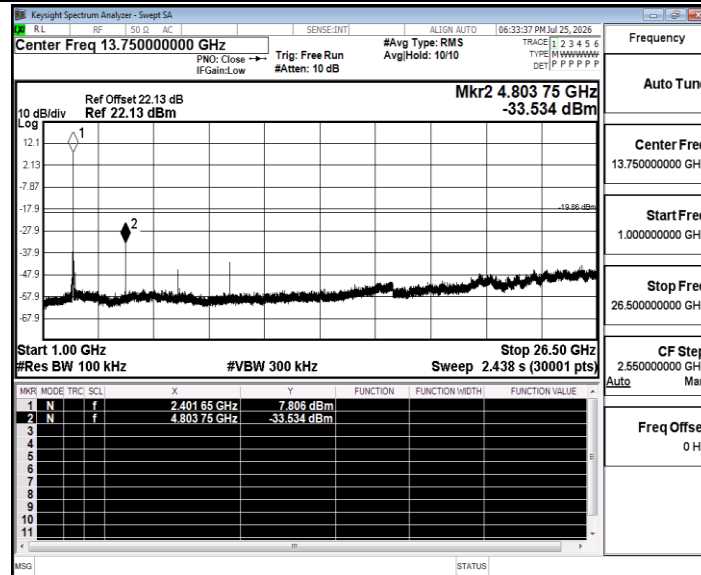
2DH5_Ant1_2402_0~Reference



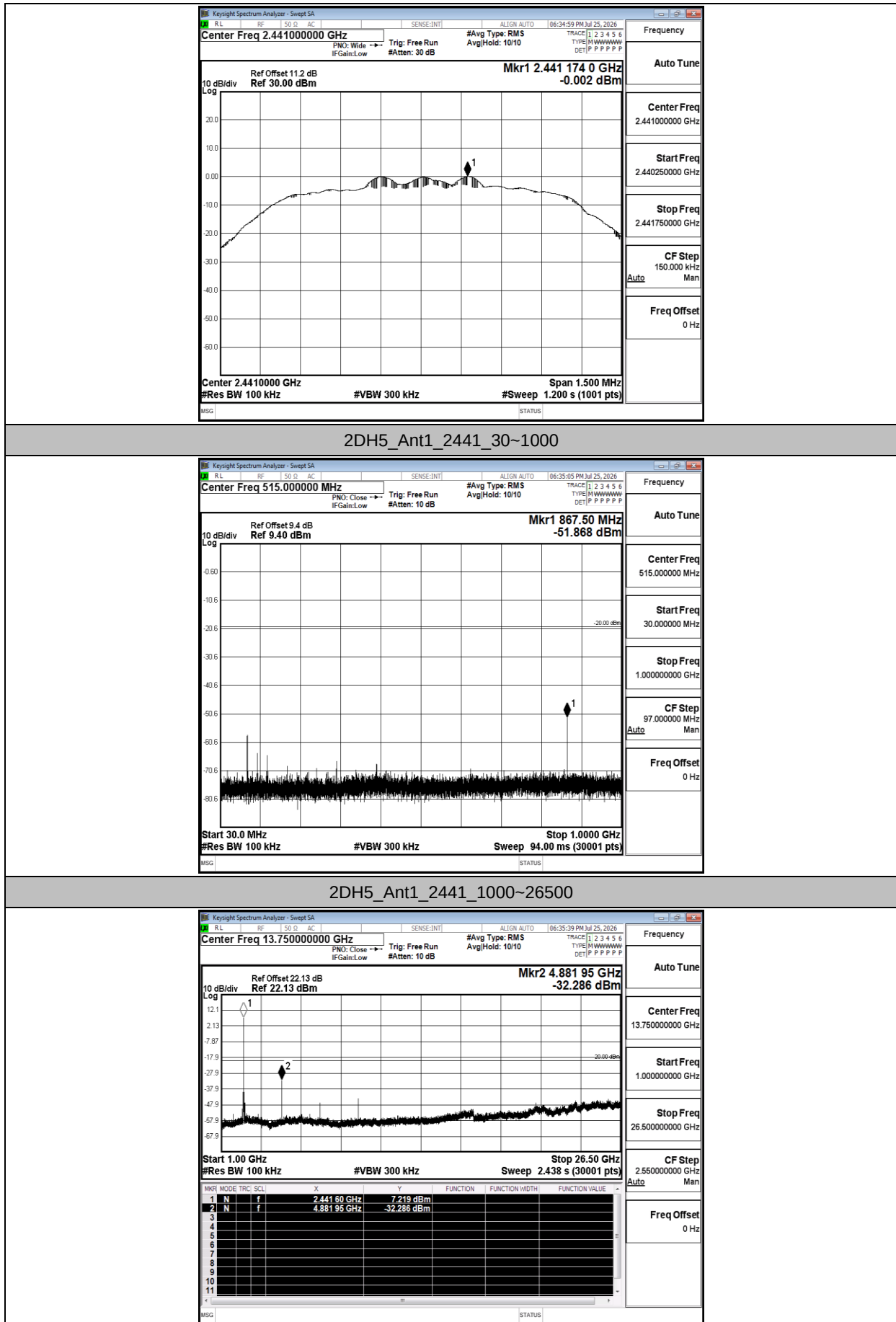
2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500



2DH5_Ant1_2441_0~Reference

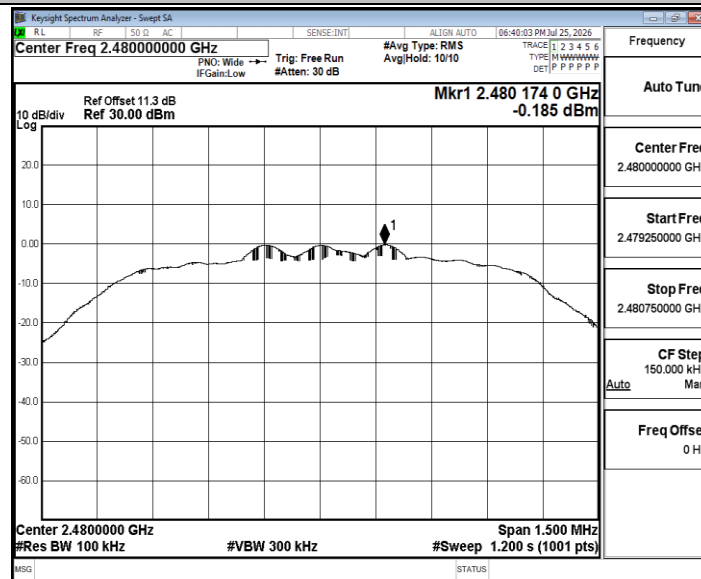


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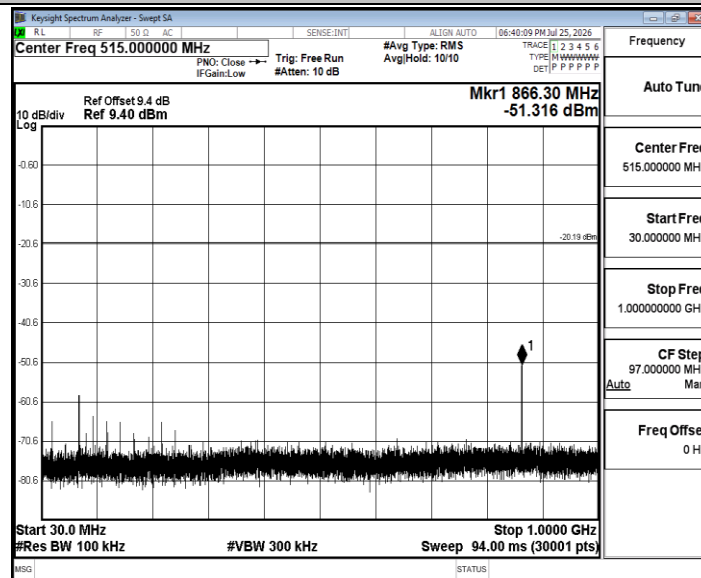
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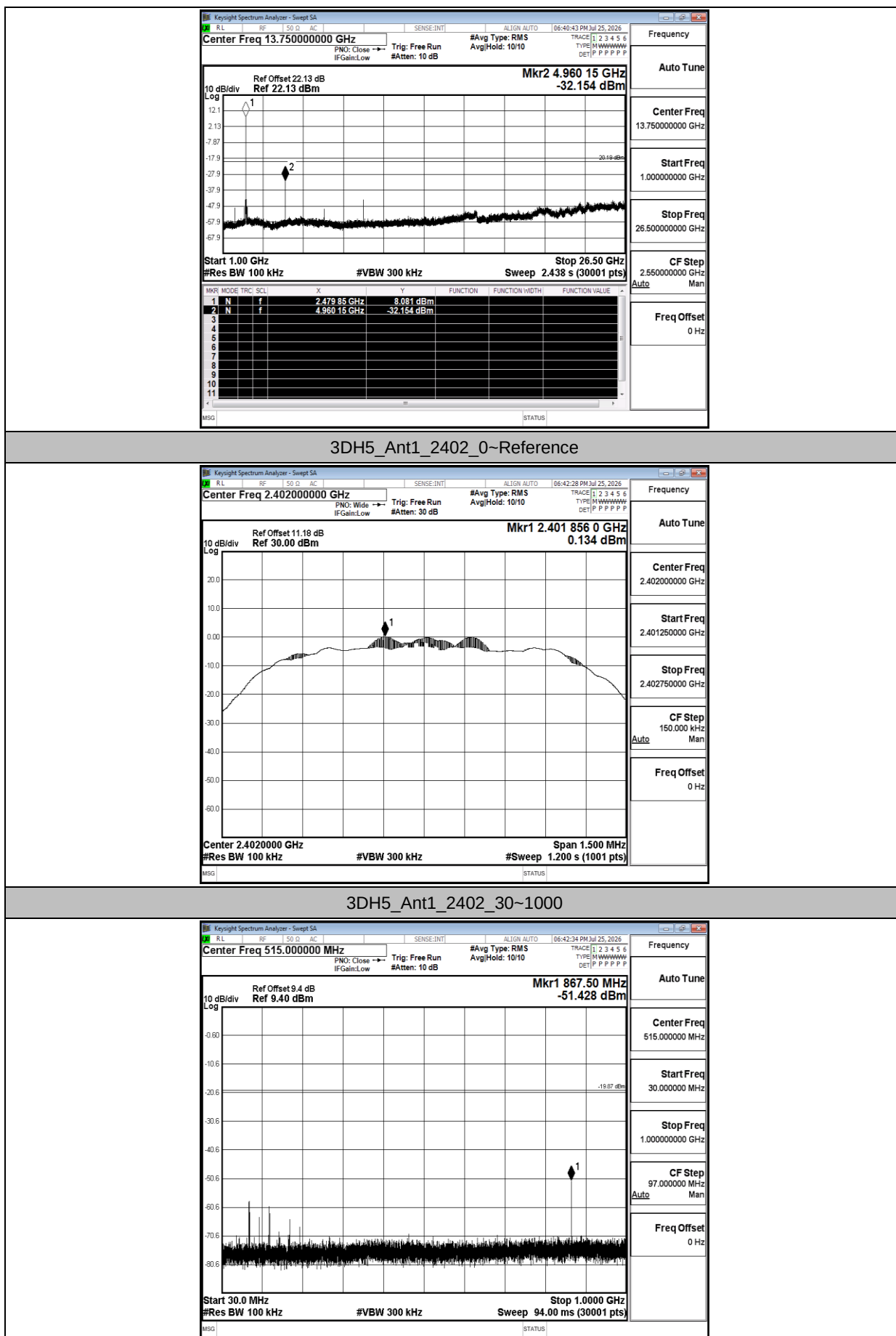
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500

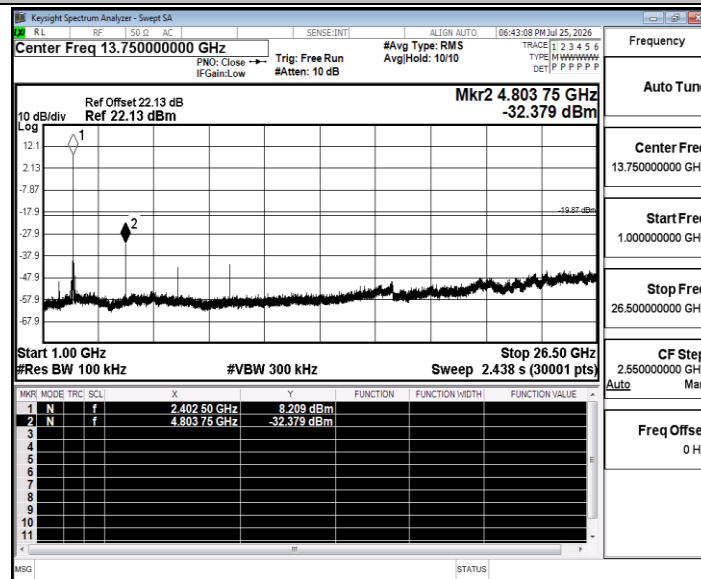


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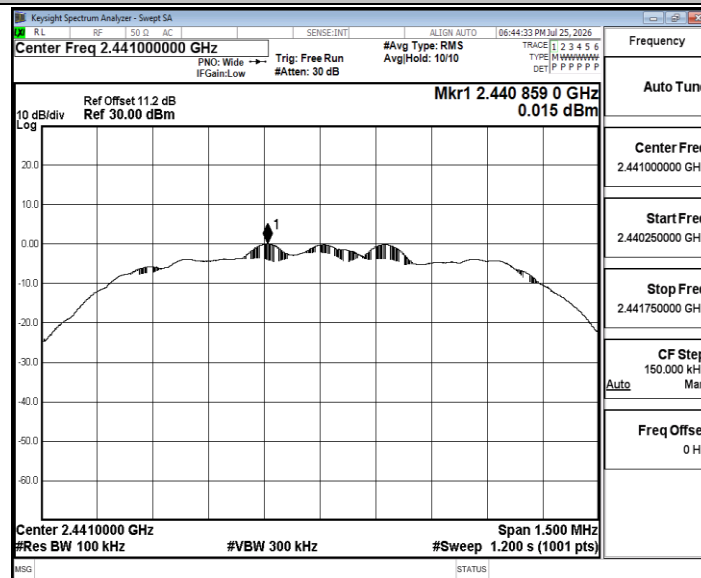
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3DH5_Ant1_2402_1000~26500



3DH5_Ant1_2441_0~Reference



3DH5_Ant1_2441_30~1000