

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Open Ear Clip-On Earbuds

Test Model: S1010

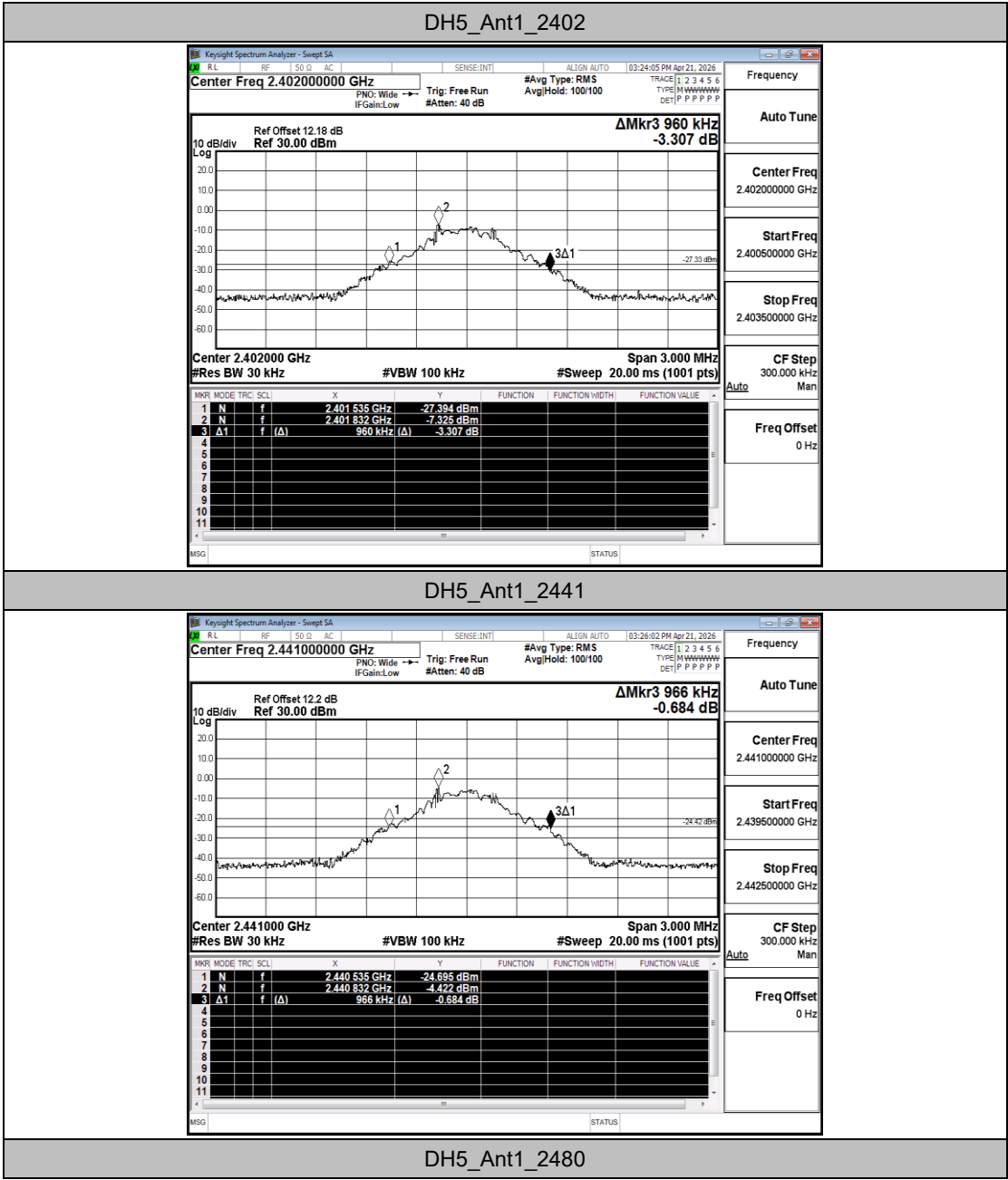
Environmental Conditions	
Temperature:	25.1°C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Zhang hai
Supervised by:	Fengliu Tang

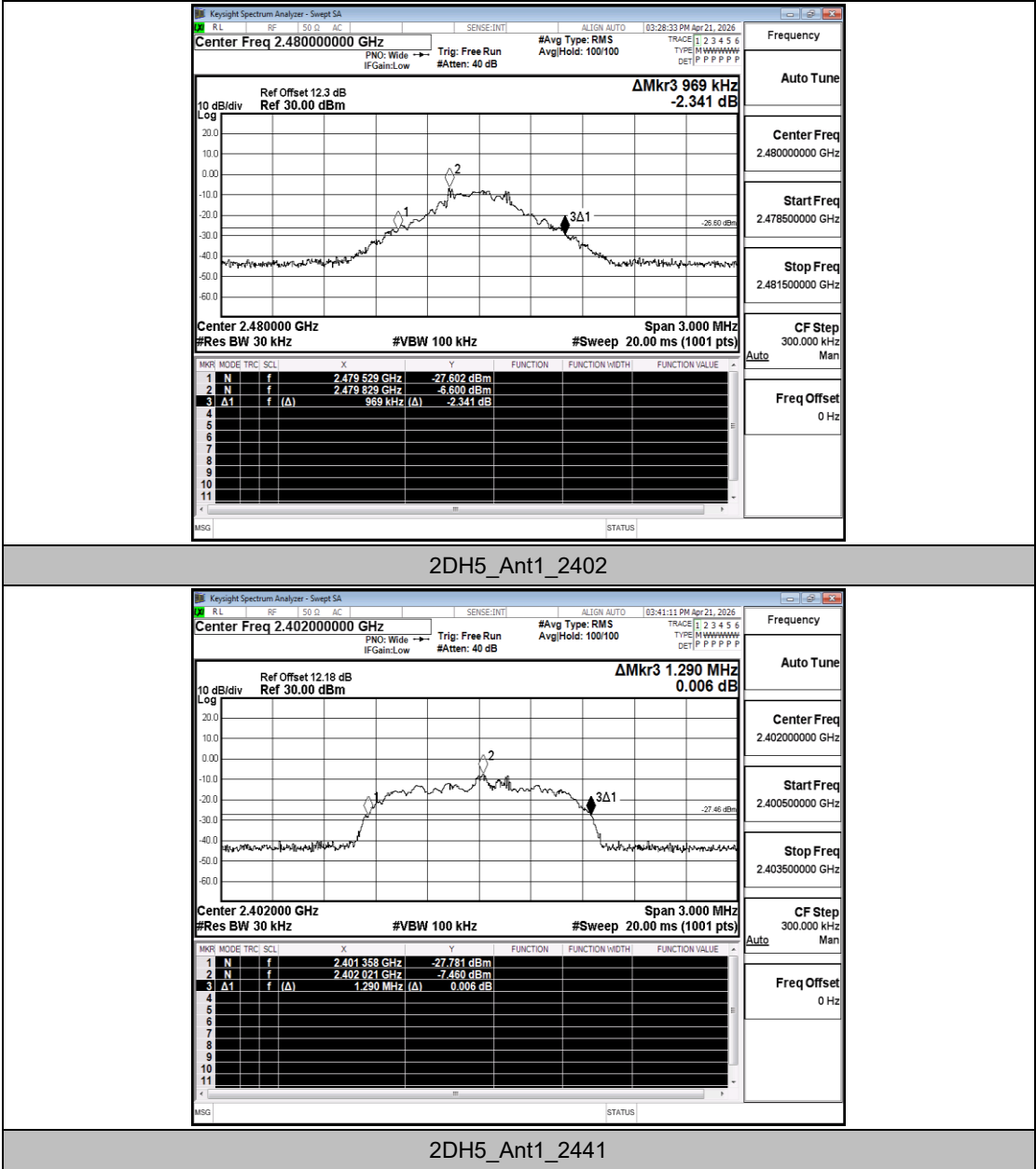
A.1 20dB Emission Bandwidth

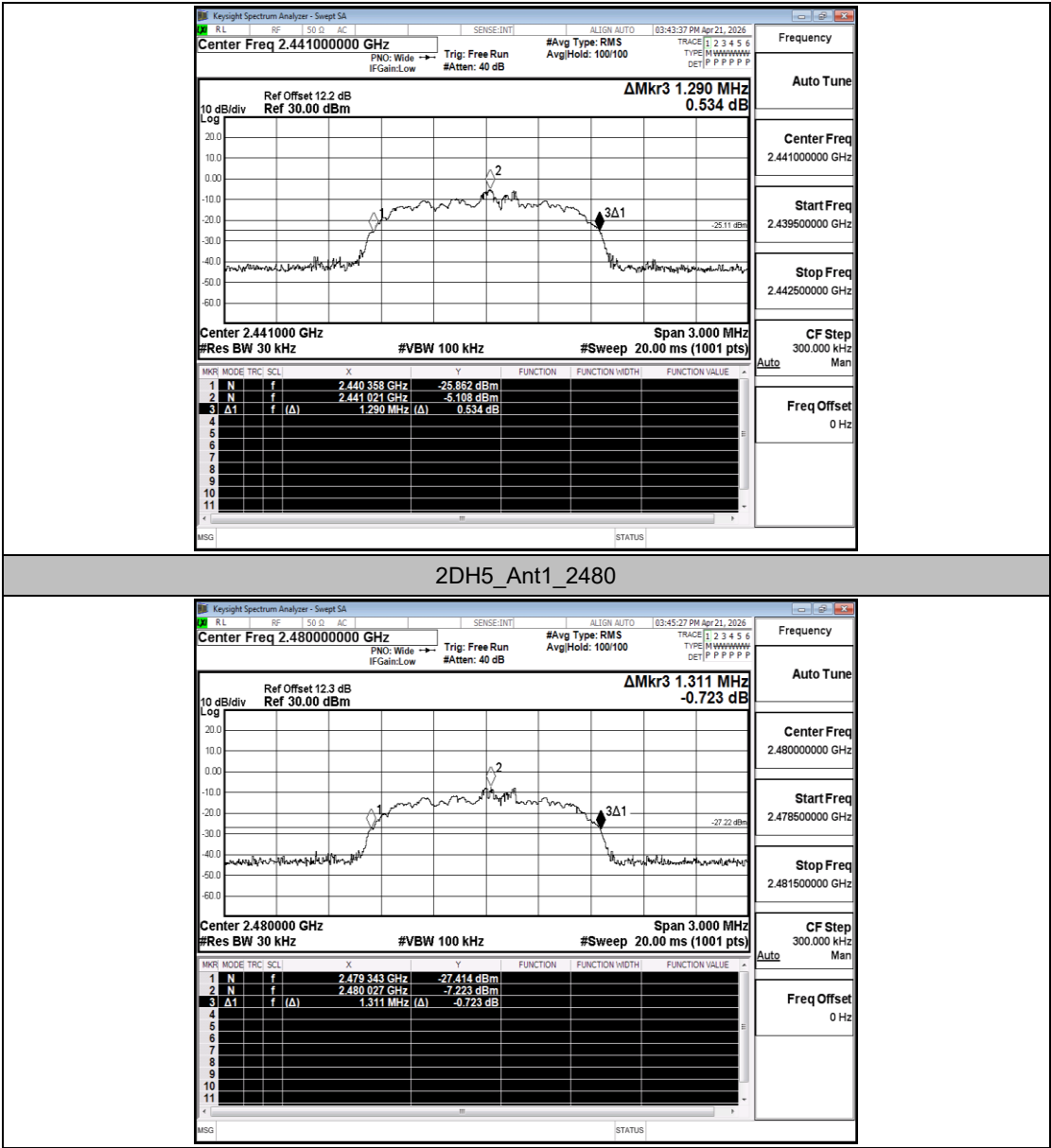
Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.960	2401.535	2402.495	---	---
		2441	0.966	2440.535	2441.501	---	---
		2480	0.969	2479.529	2480.498	---	---
2DH5	Ant1	2402	1.290	2401.358	2402.648	---	---
		2441	1.290	2440.358	2441.648	---	---
		2480	1.311	2479.343	2480.654	---	---

Test Graphs





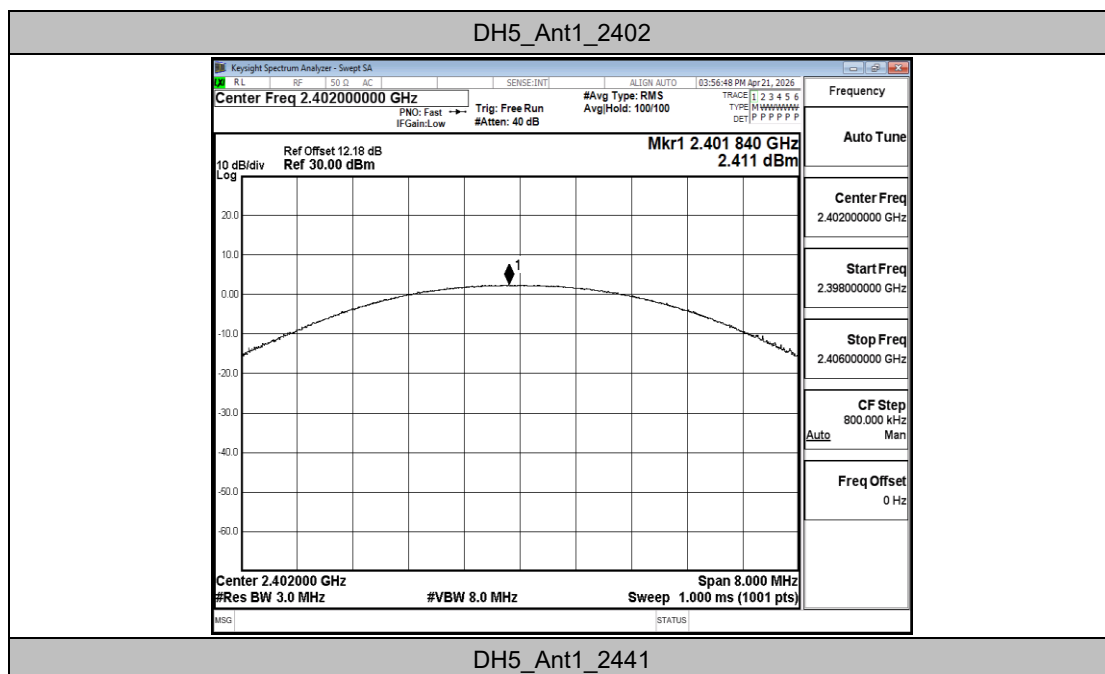


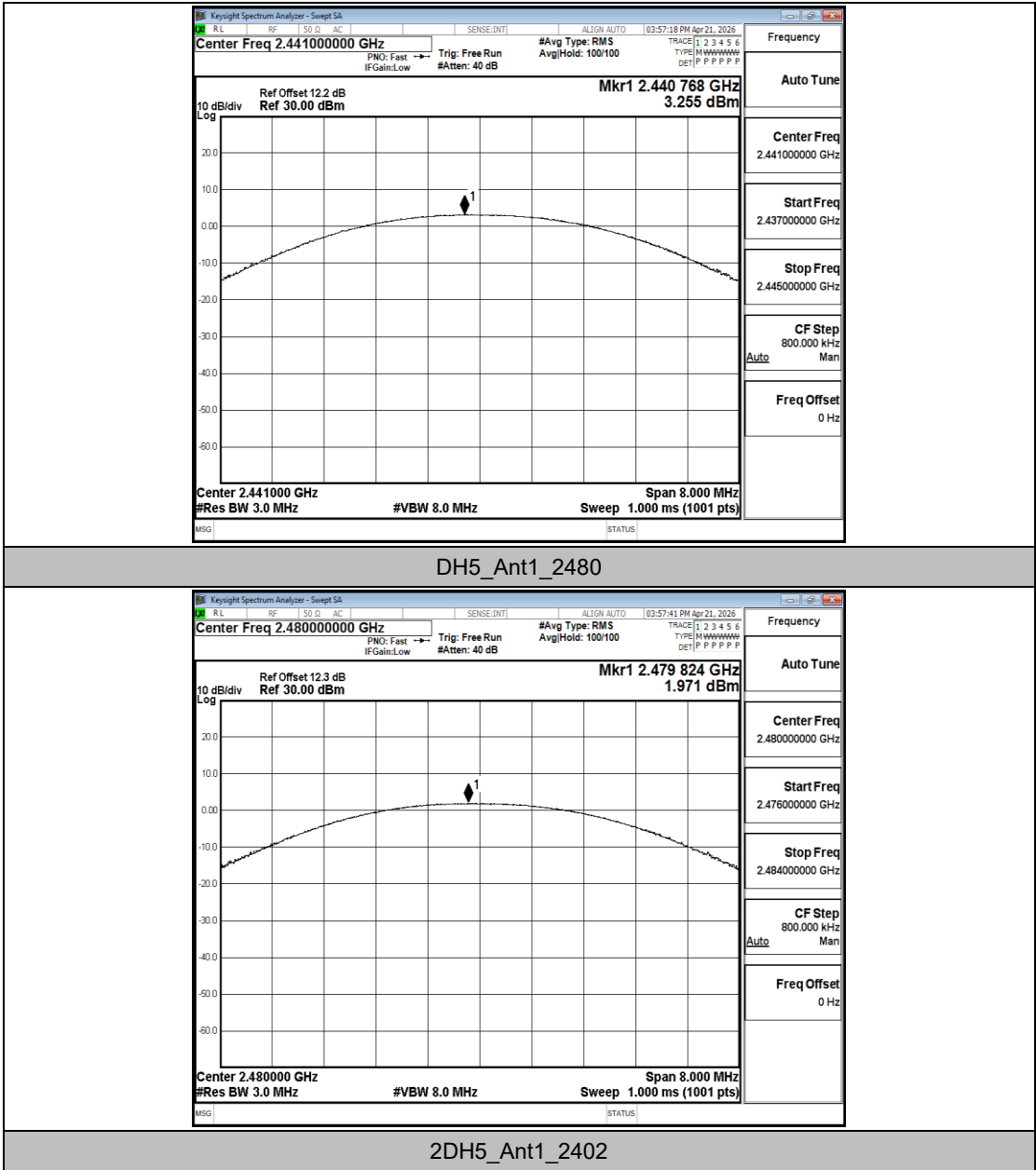
A.2 Maximum Peak conducted output power

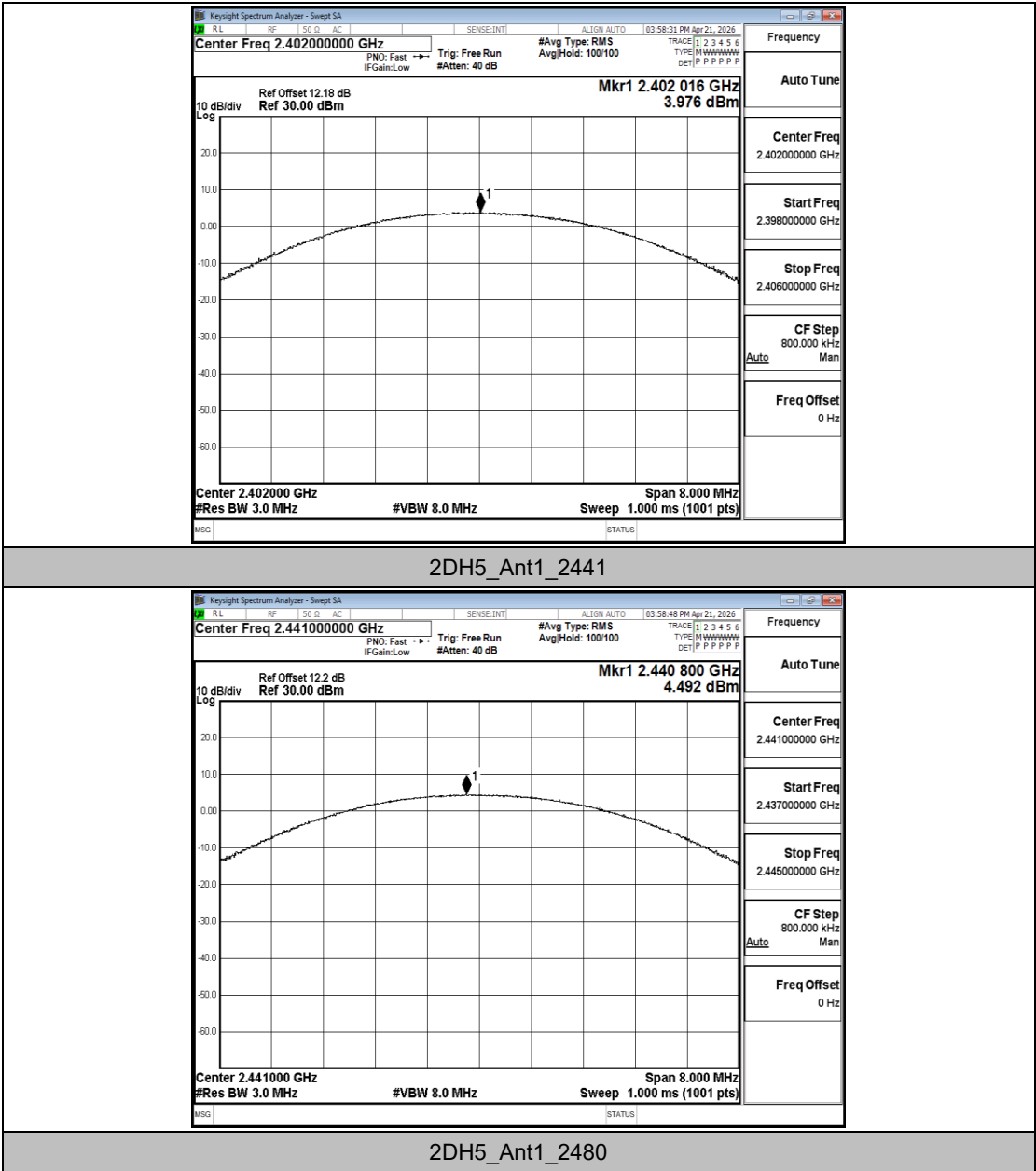
Test Result Peak

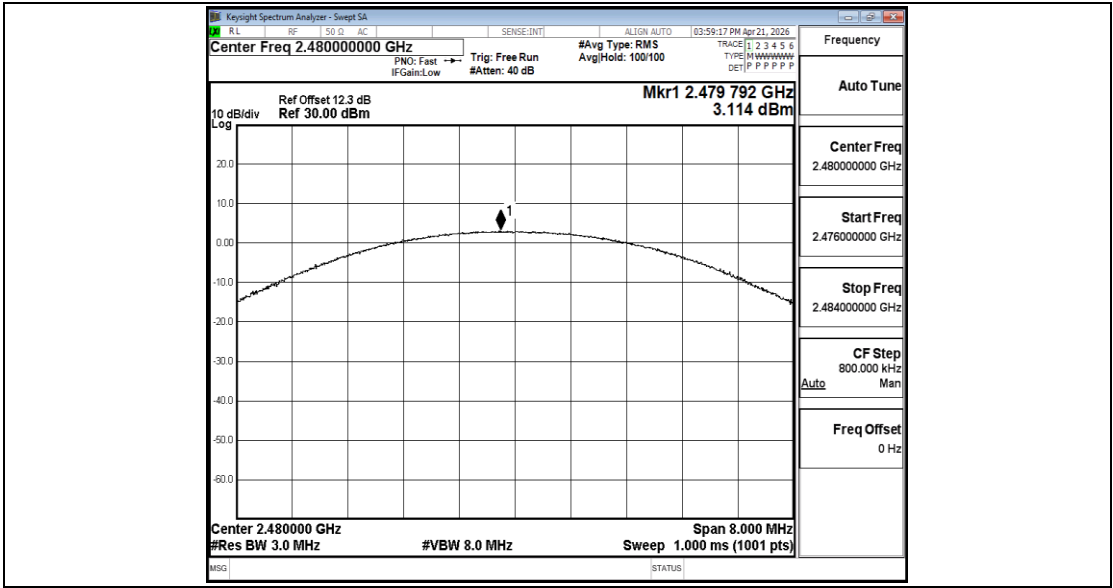
Test Mode	Antenna	Freq(MHz)	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	2.41	≤30	PASS
		2441	3.26	≤30	PASS
		2480	1.97	≤30	PASS
2DH5	Ant1	2402	3.98	≤30	PASS
		2441	4.49	≤30	PASS
		2480	3.11	≤30	PASS

Test Graphs







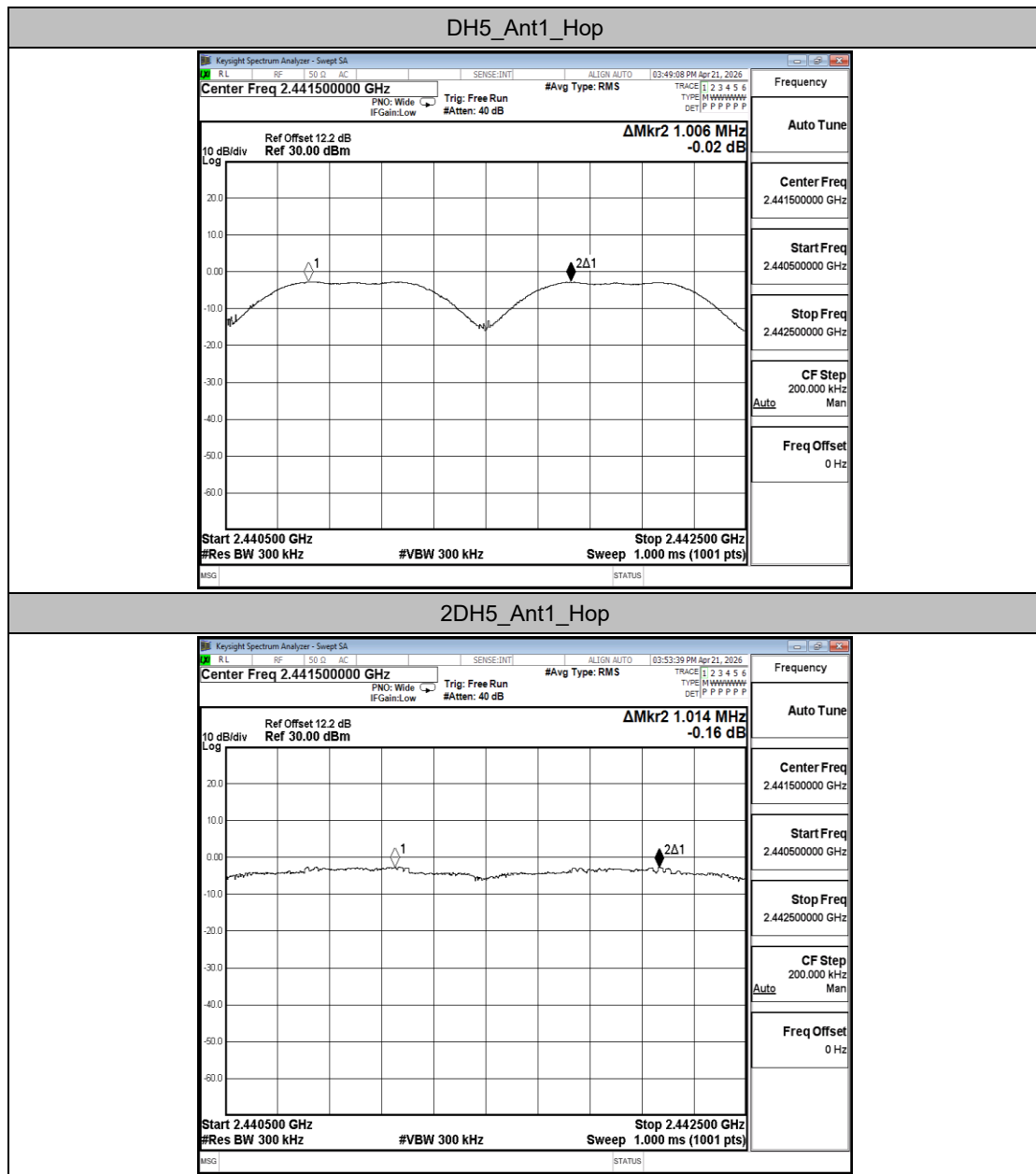


A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.006	≥0.969	PASS
2DH5	Ant1	Hop	1.014	≥0.874	PASS

Test Graphs

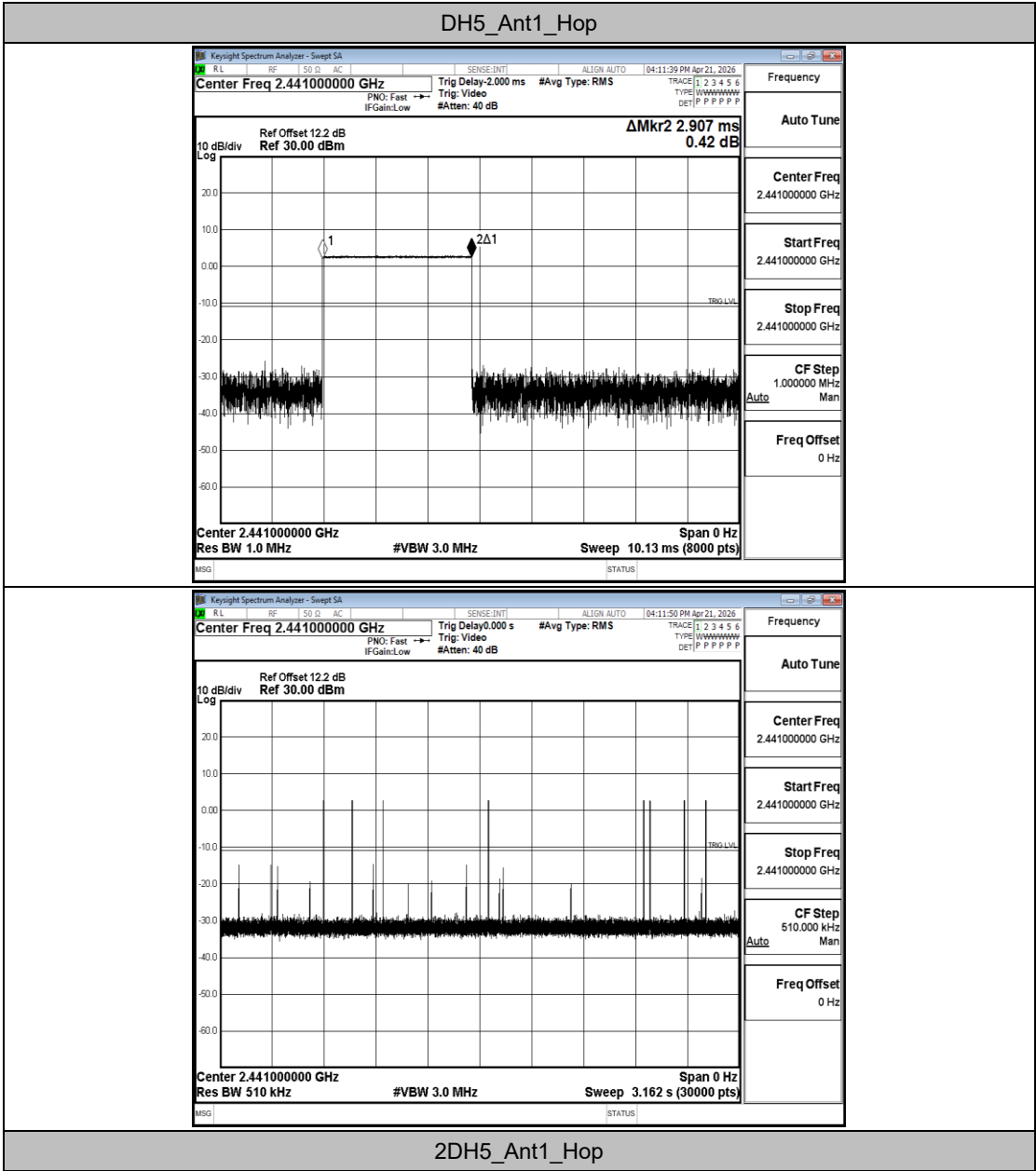


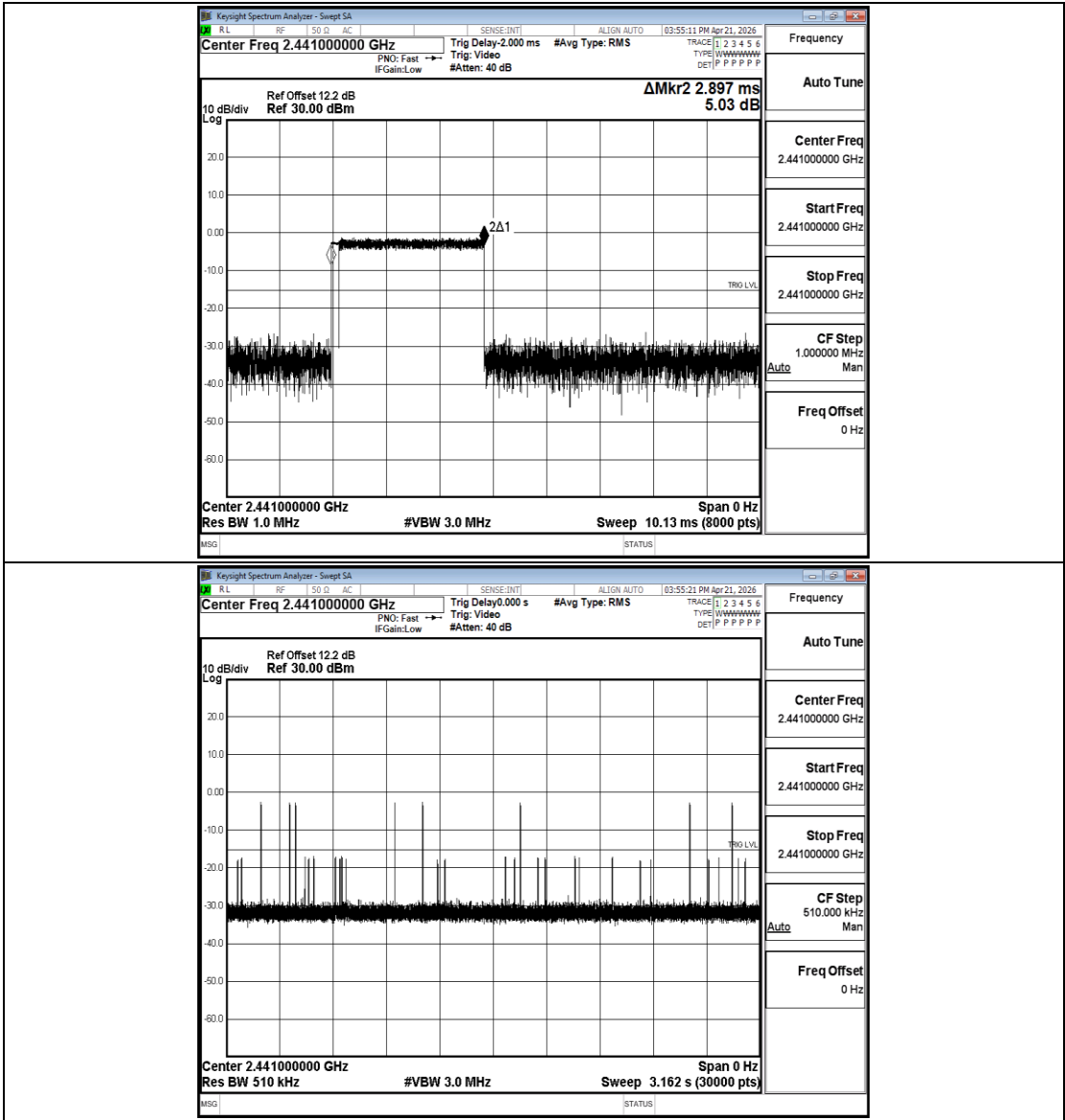
A.4 Time of occupancy

Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.907	100	0.291	≤0.4	PASS
2DH5	Ant1	Hop	2.897	90	0.261	≤0.4	PASS

Test Graphs



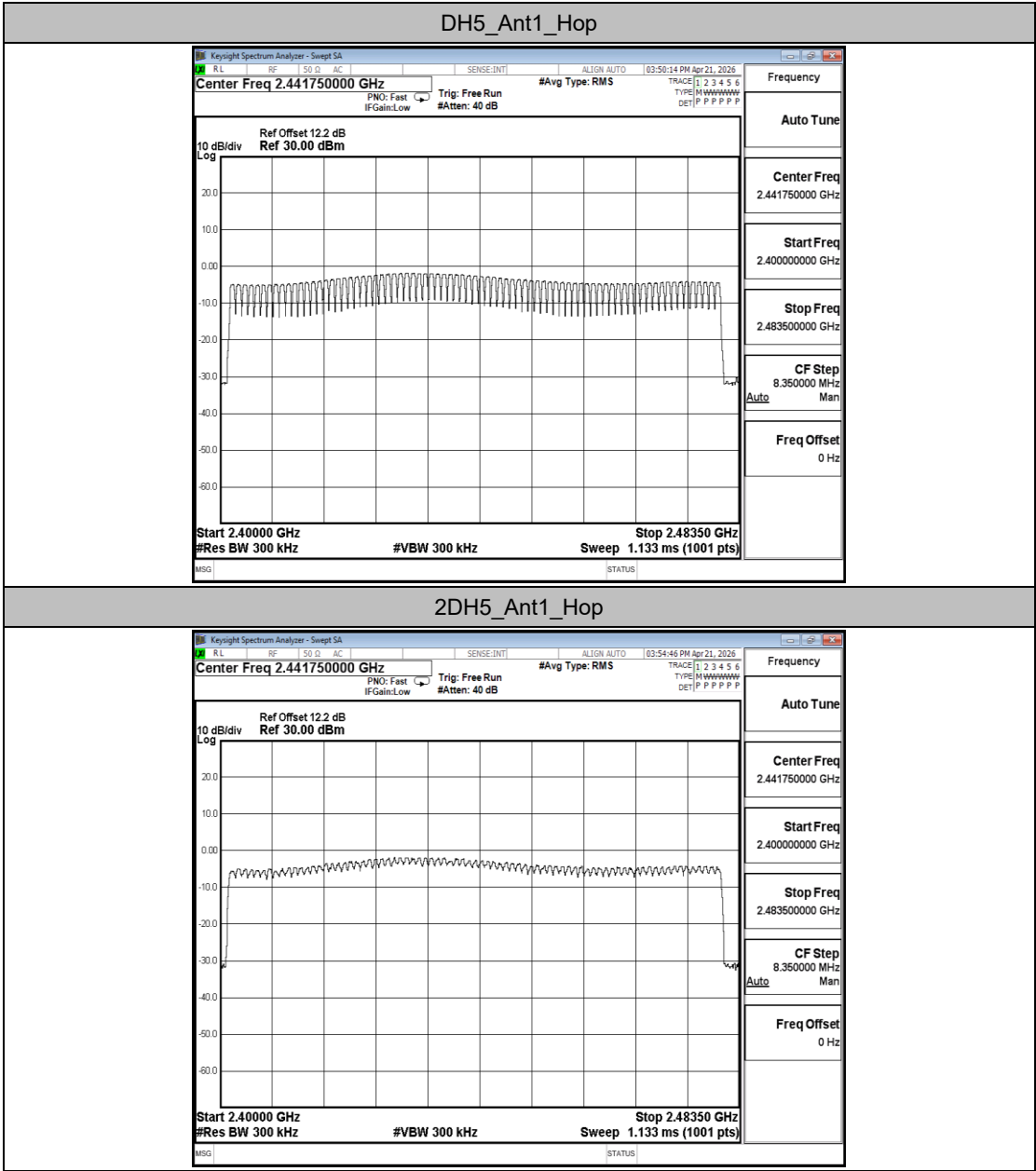


A.5 Number of hopping channels

Test Result

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

Test Graphs

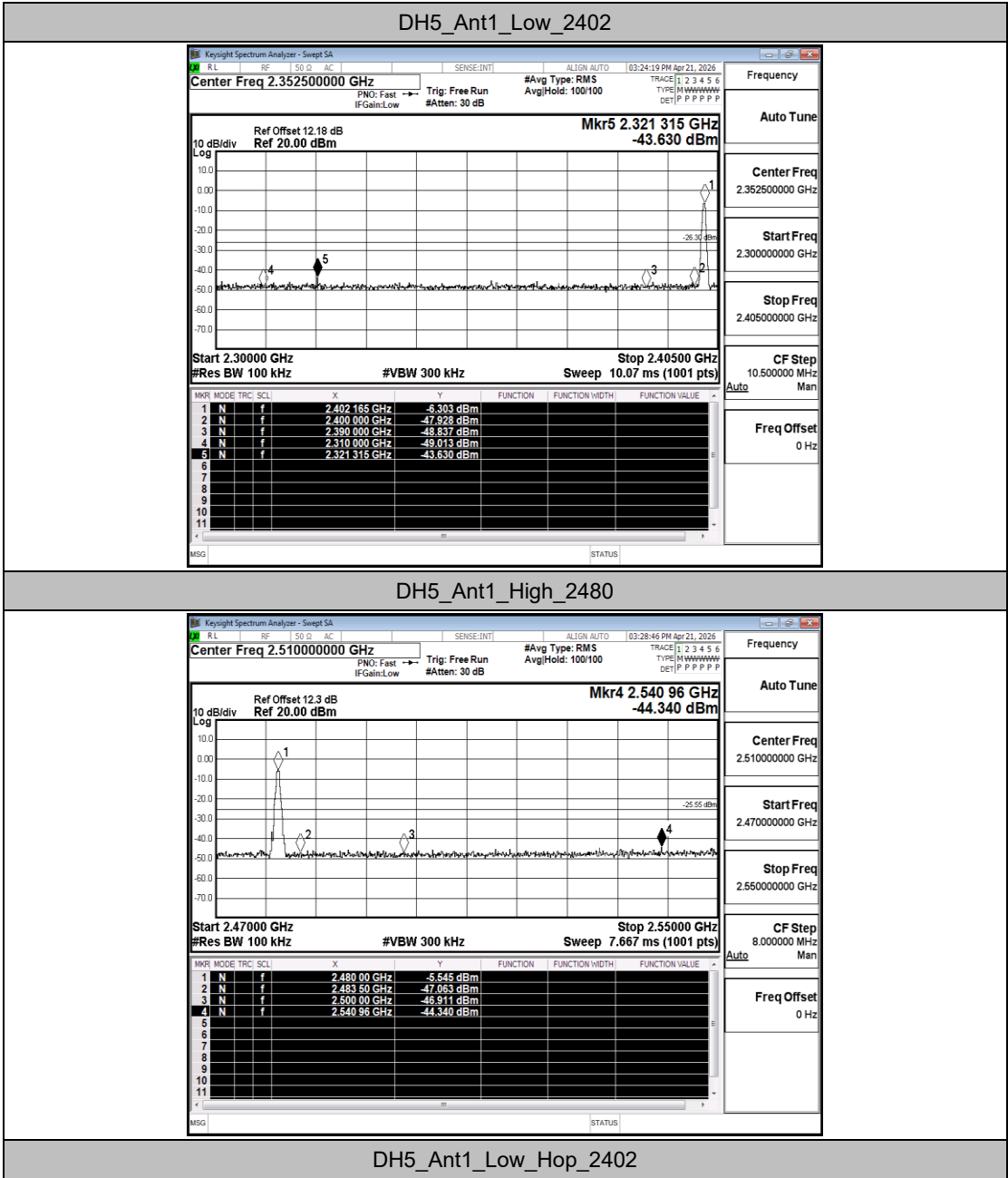


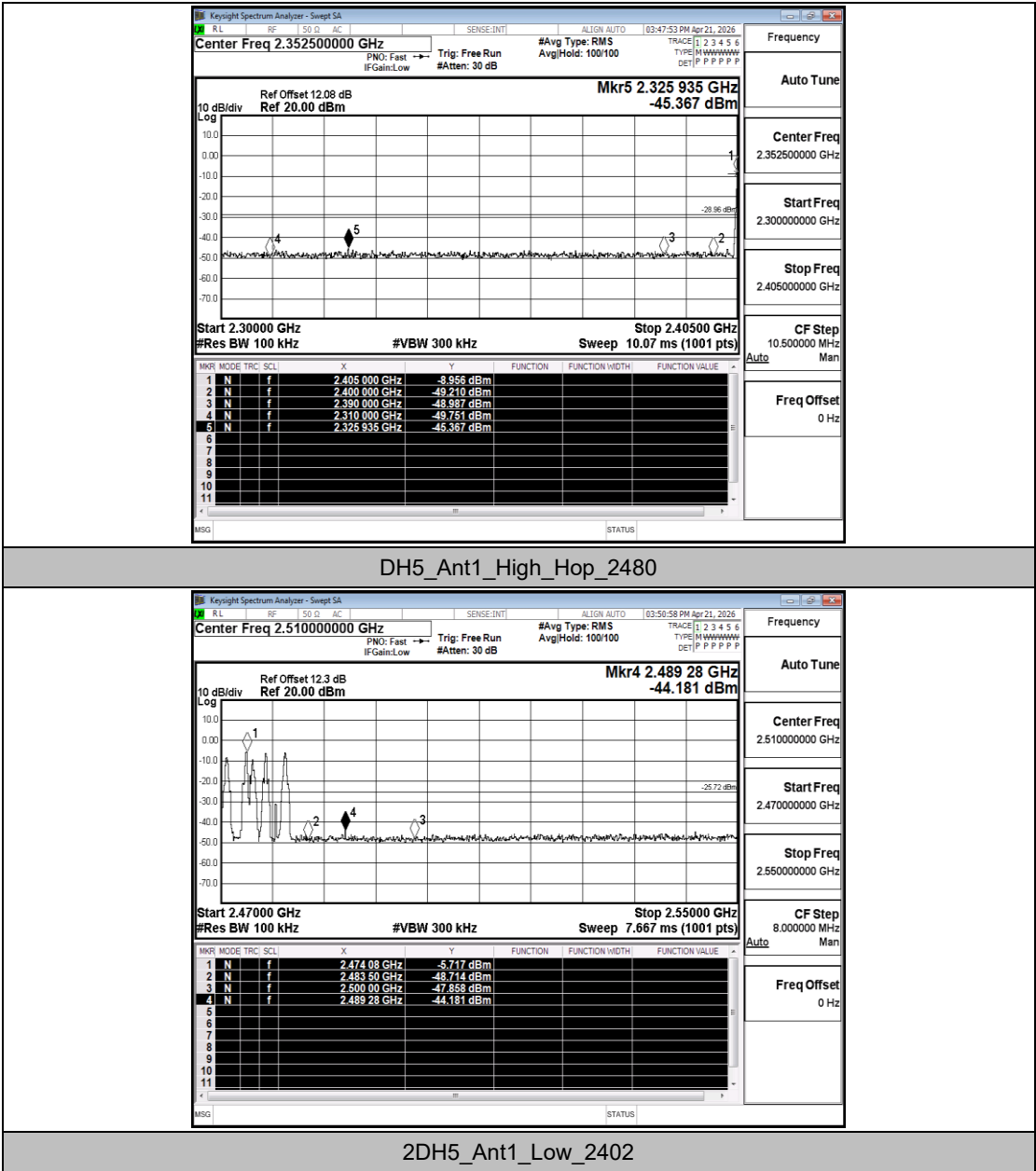
A.6 Band edge measurements

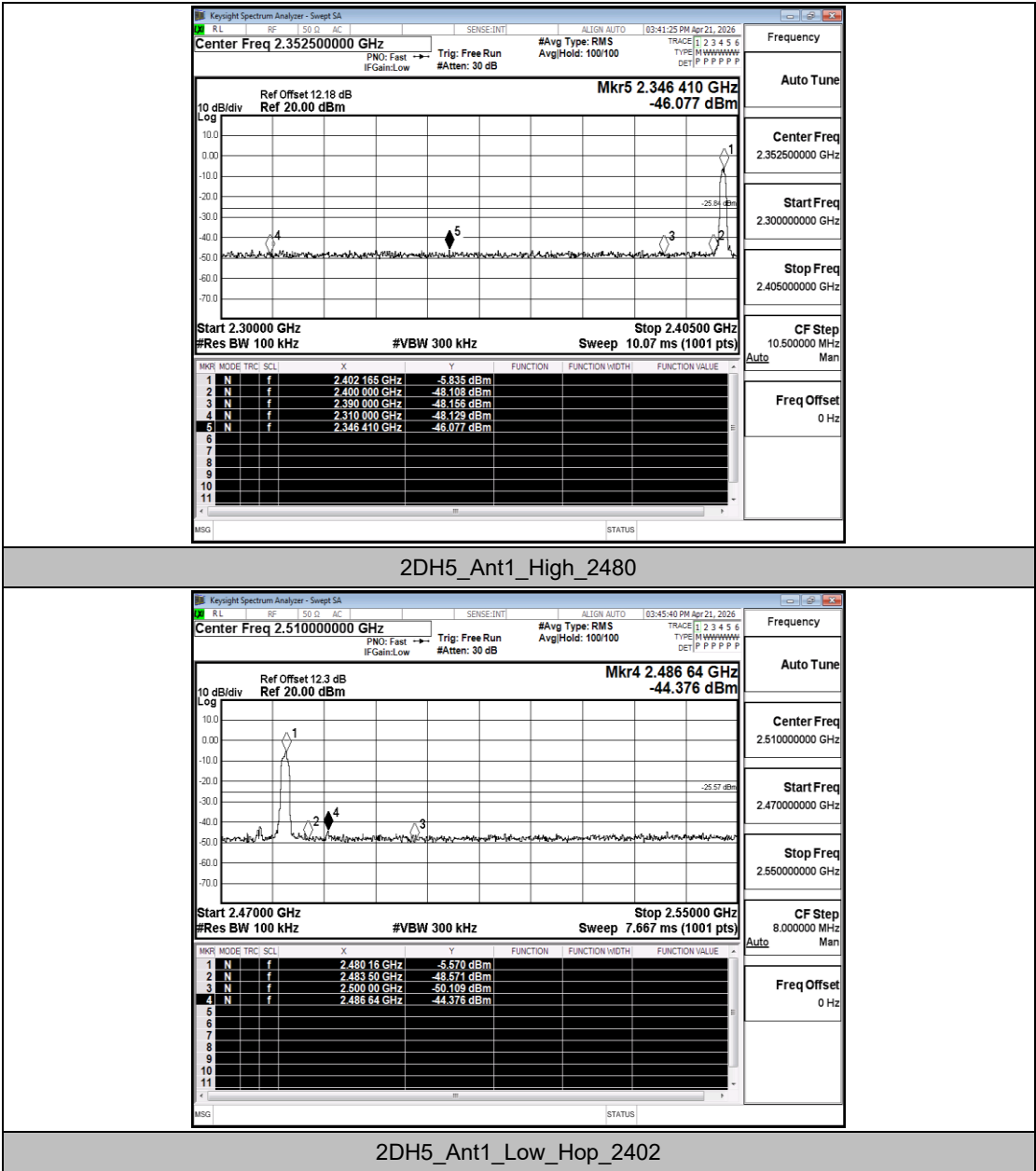
Test Result

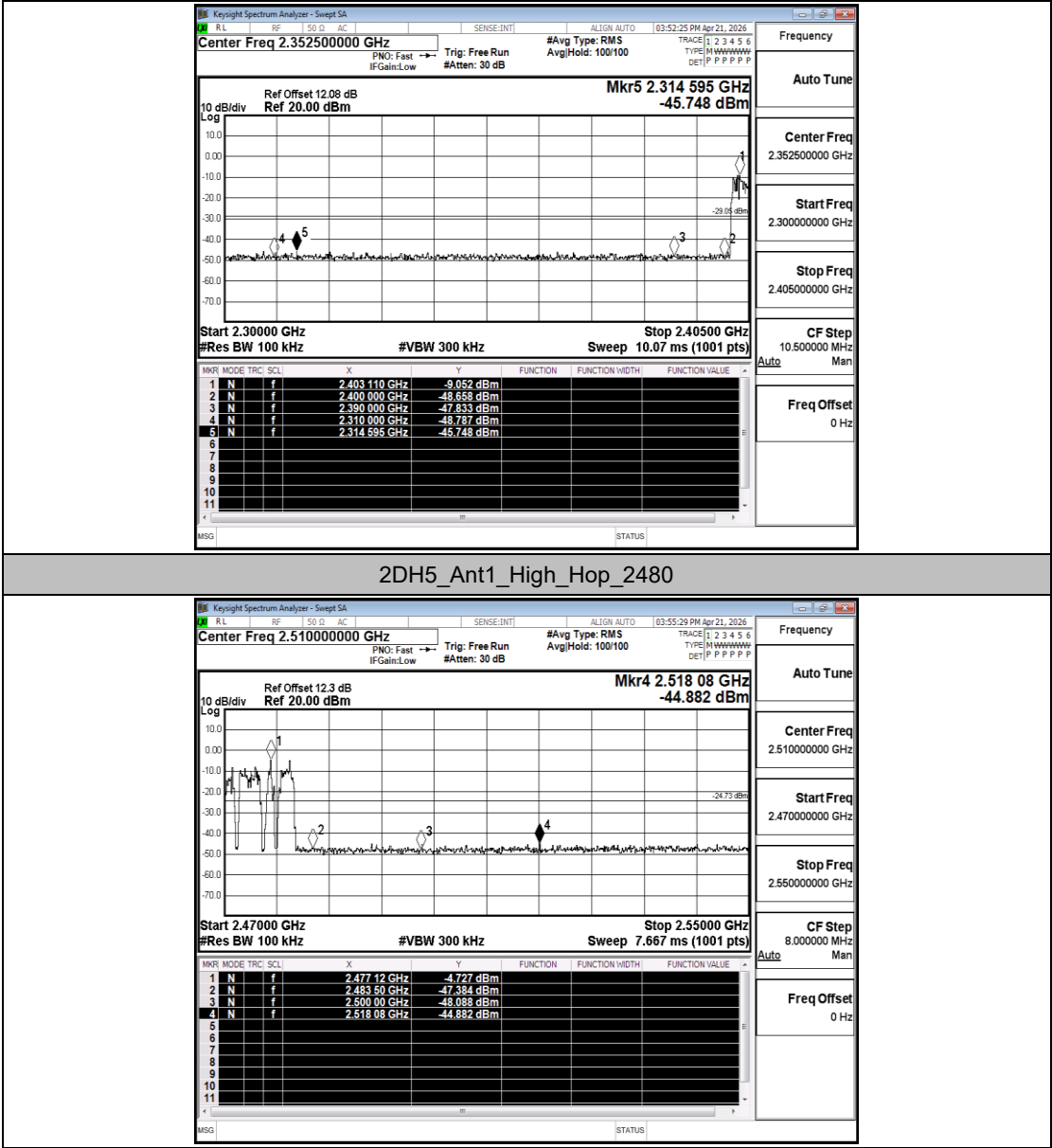
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-6.30	-43.63	≤-26.3	PASS
		High	2480	-5.55	-44.34	≤-25.55	PASS
		Low	Hop_2402	-8.96	-45.37	≤-28.96	PASS
		High	Hop_2480	-5.72	-44.18	≤-25.72	PASS
2DH5	Ant1	Low	2402	-5.84	-46.08	≤-25.84	PASS
		High	2480	-5.57	-44.38	≤-25.57	PASS
		Low	Hop_2402	-9.05	-45.75	≤-29.05	PASS
		High	Hop_2480	-4.73	-44.88	≤-24.73	PASS

Test Graphs







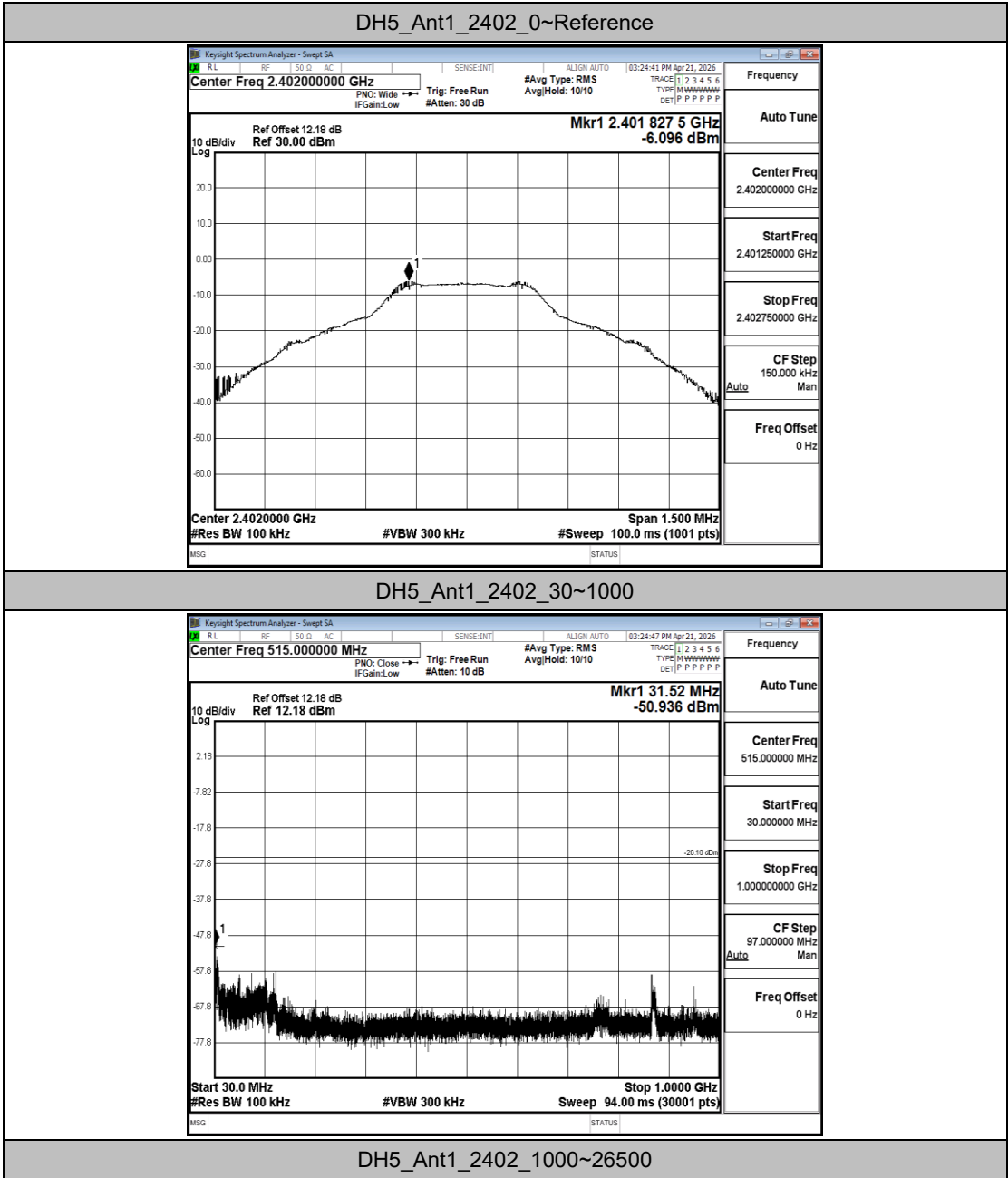


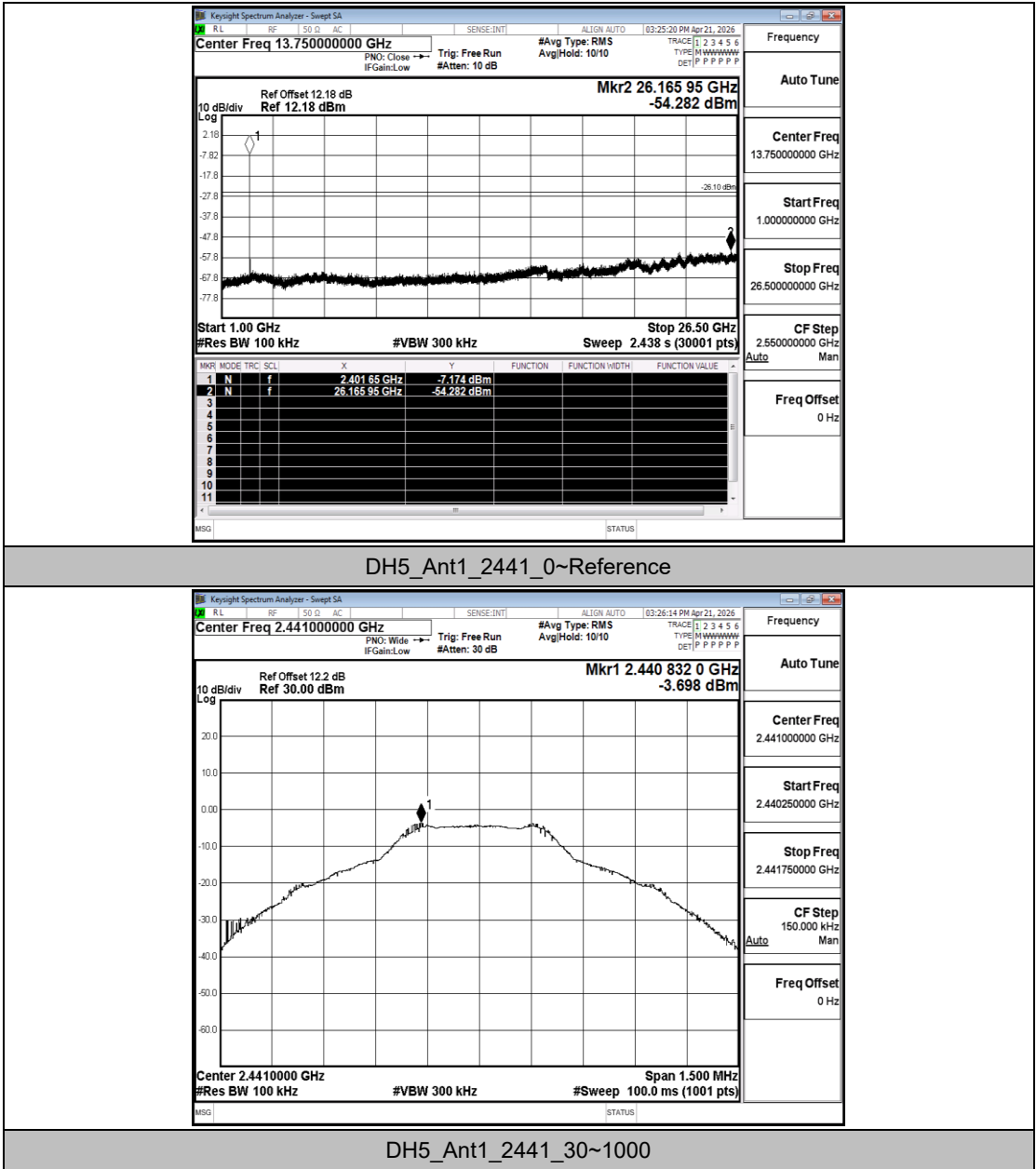
A.7 Conducted Spurious Emission

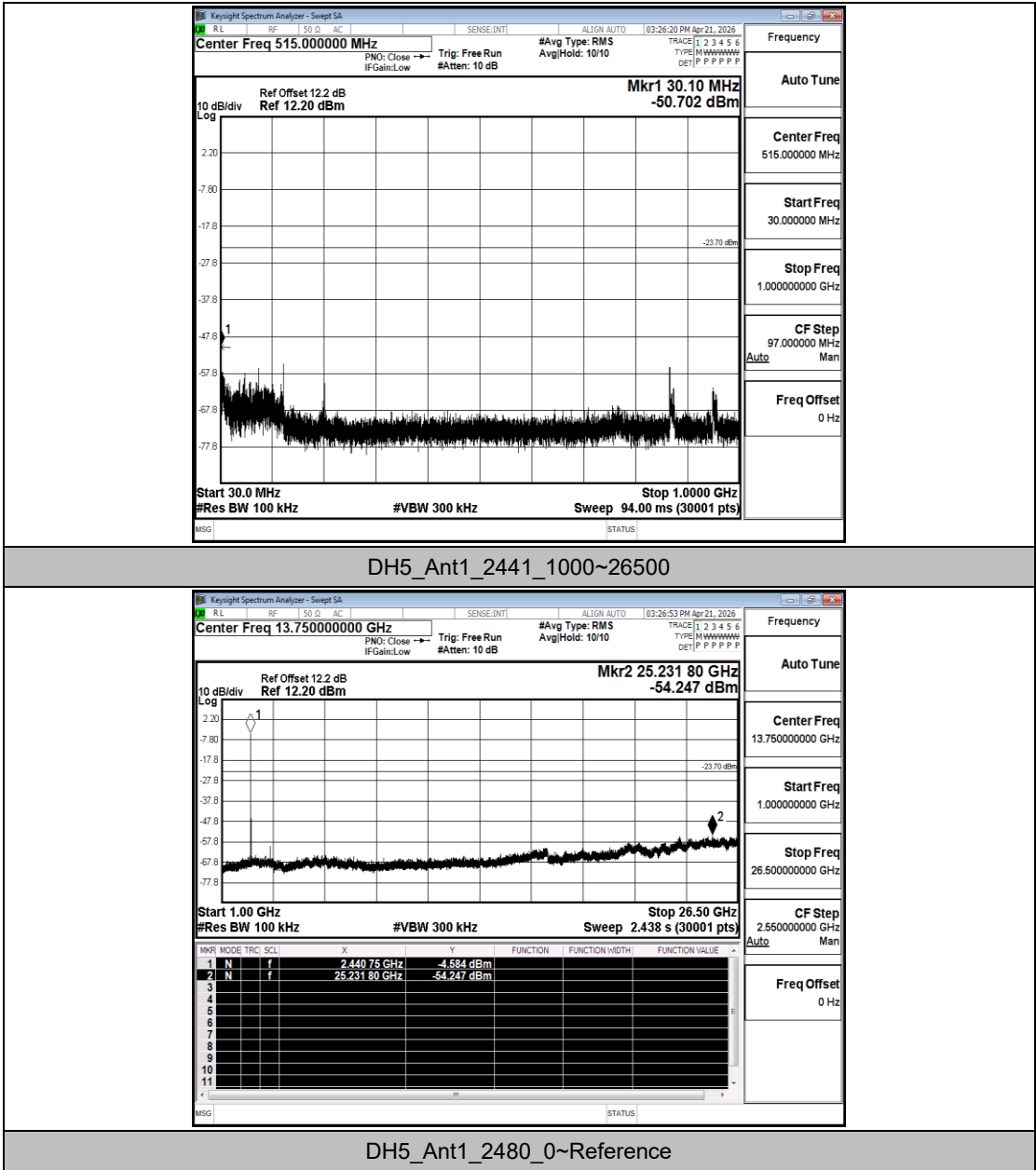
Test Result

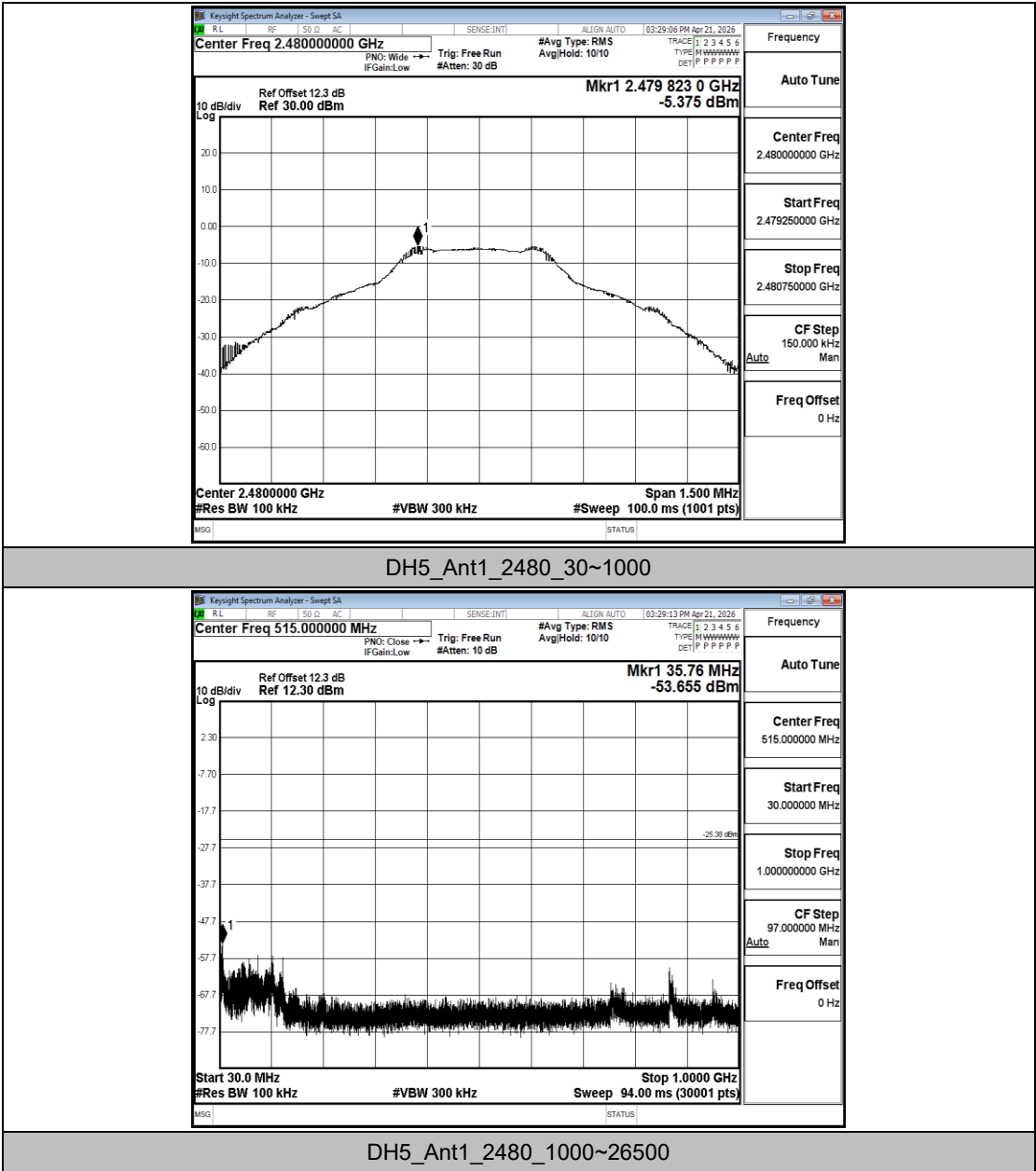
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-6.10	-6.10	---	PASS
			30~1000	-6.10	-50.94	≤-26.1	PASS
			1000~26500	-6.10	-54.28	≤-26.1	PASS
		2441	Reference	-3.70	-3.70	---	PASS
			30~1000	-3.70	-50.7	≤-23.7	PASS
			1000~26500	-3.70	-54.25	≤-23.7	PASS
		2480	Reference	-5.38	-5.38	---	PASS
			30~1000	-5.38	-53.66	≤-25.38	PASS
			1000~26500	-5.38	-54.69	≤-25.38	PASS
2DH5	Ant1	2402	Reference	-5.52	-5.52	---	PASS
			30~1000	-5.52	-54.35	≤-25.52	PASS
			1000~26500	-5.52	-54.3	≤-25.52	PASS
		2441	Reference	-3.19	-3.19	---	PASS
			30~1000	-3.19	-52.36	≤-23.19	PASS
			1000~26500	-3.19	-54.37	≤-23.19	PASS
		2480	Reference	-5.04	-5.04	---	PASS
			30~1000	-5.04	-51.99	≤-25.04	PASS
			1000~26500	-5.04	-54.28	≤-25.04	PASS

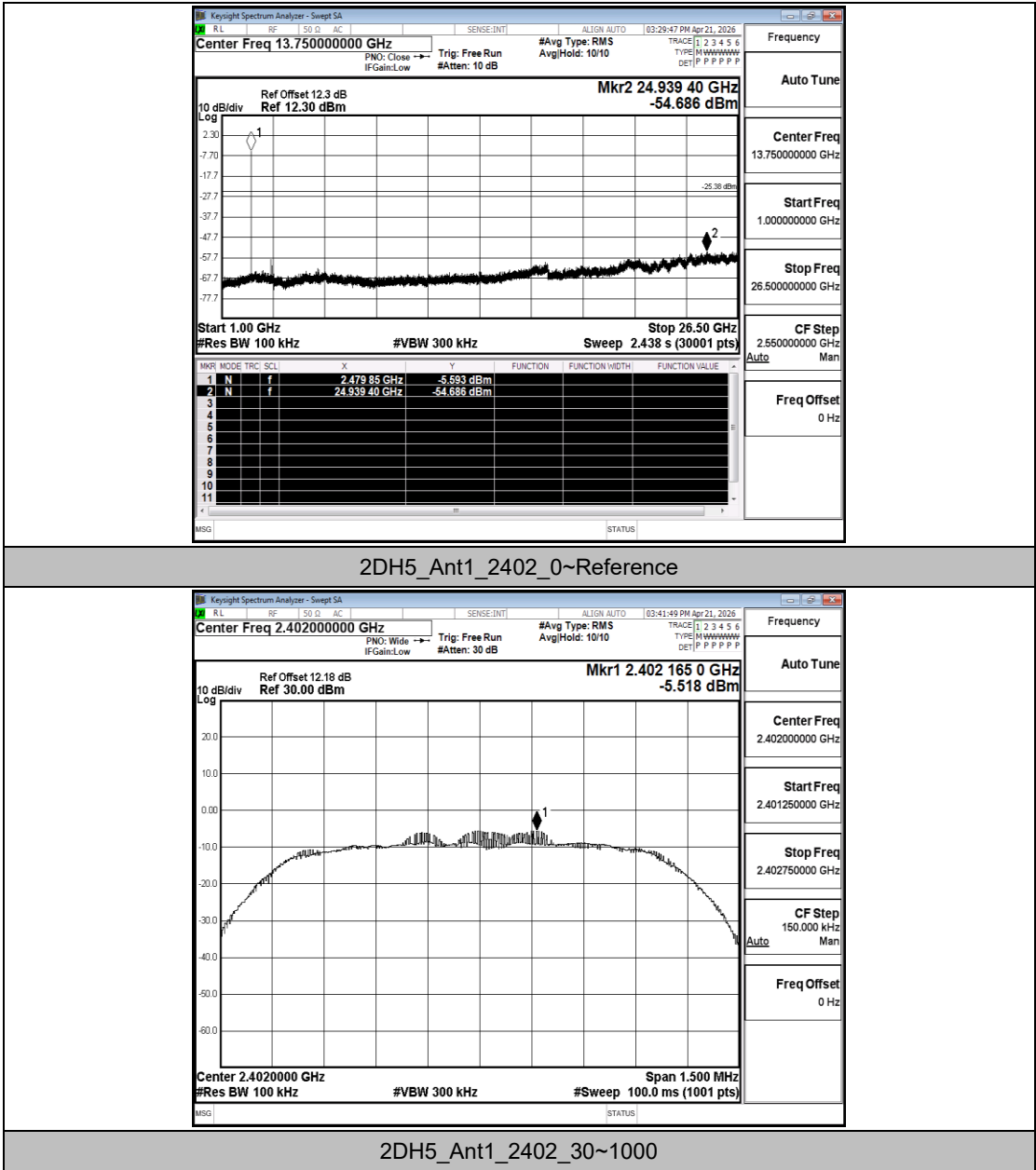
Test Graphs

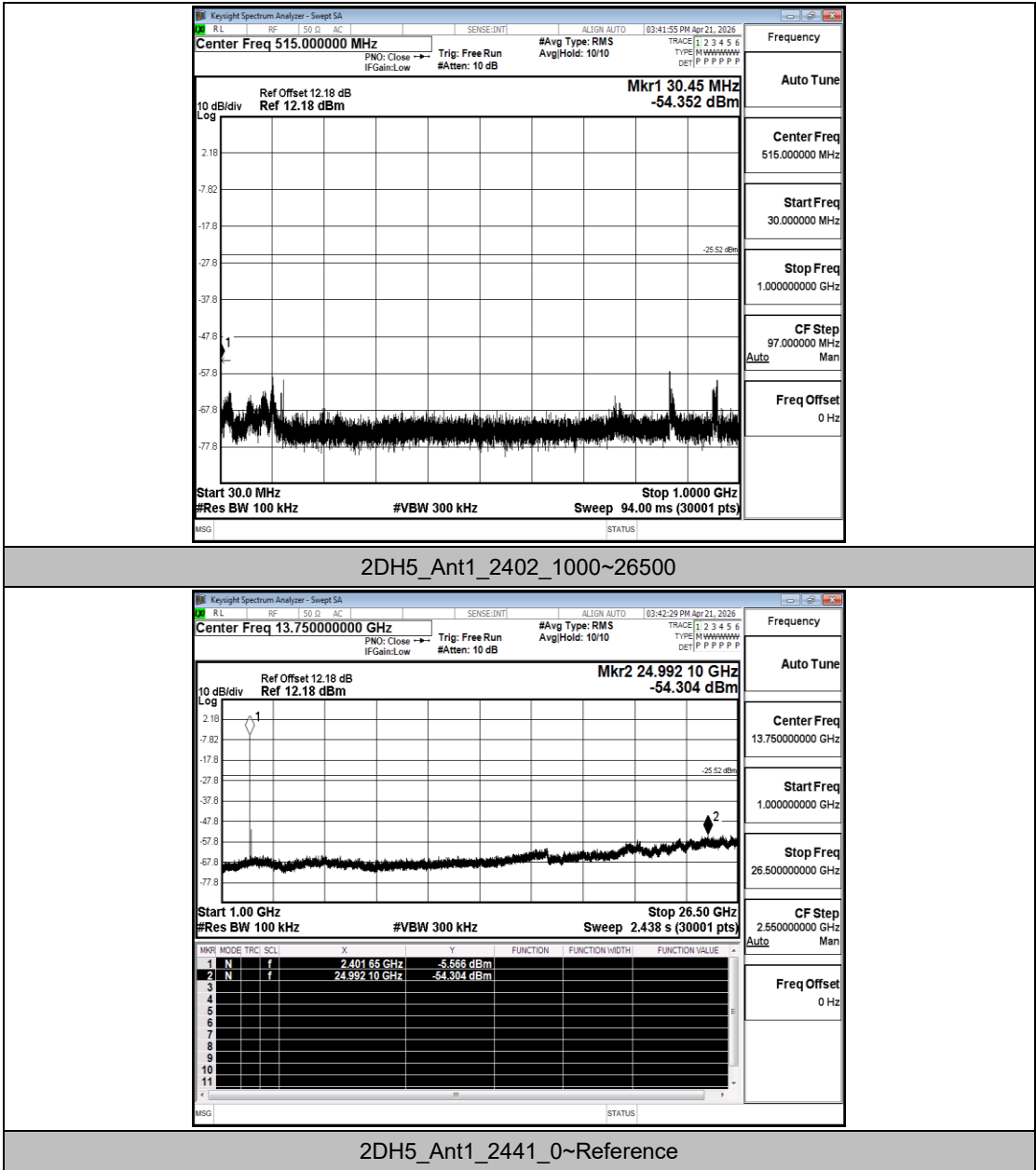


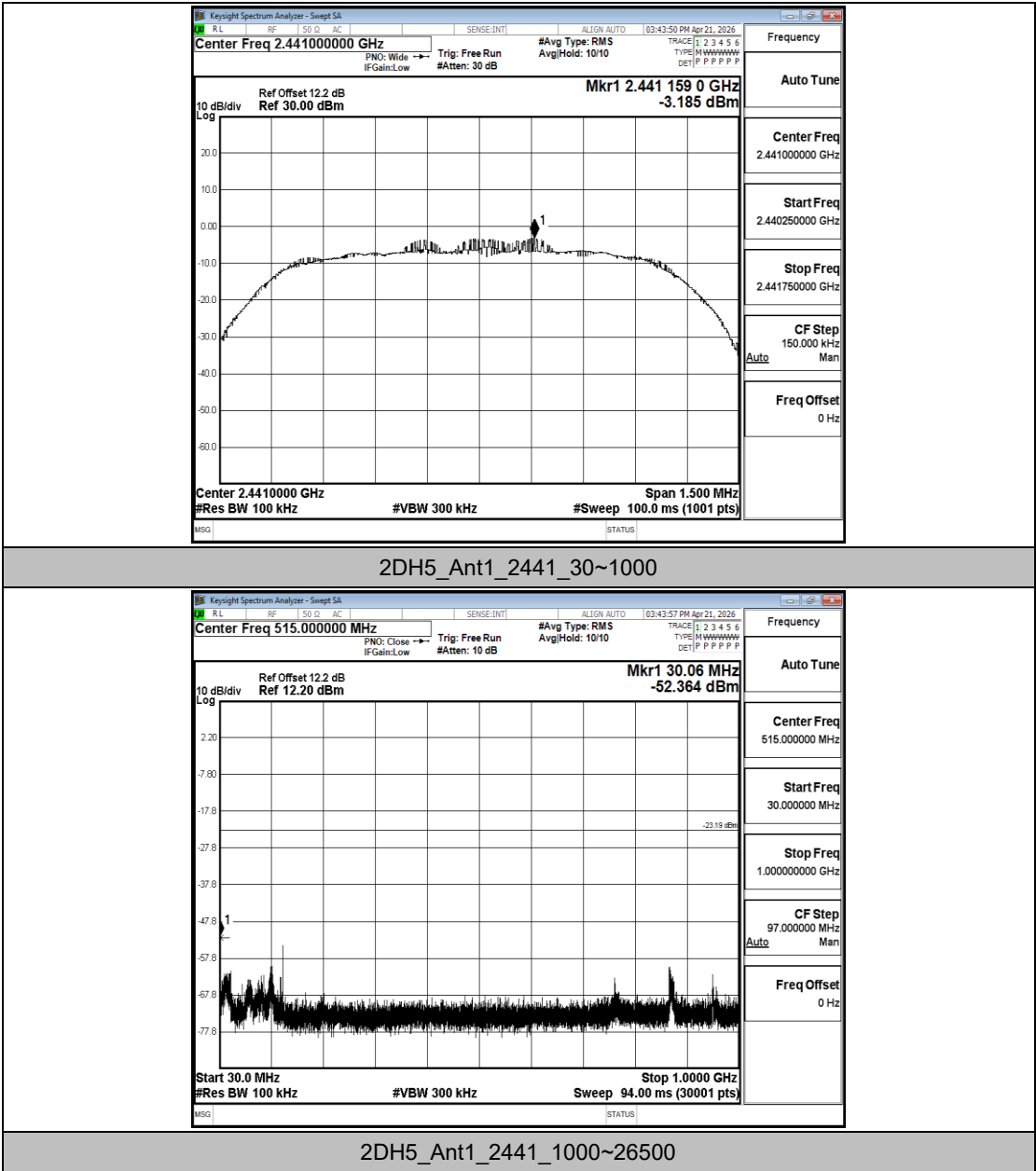


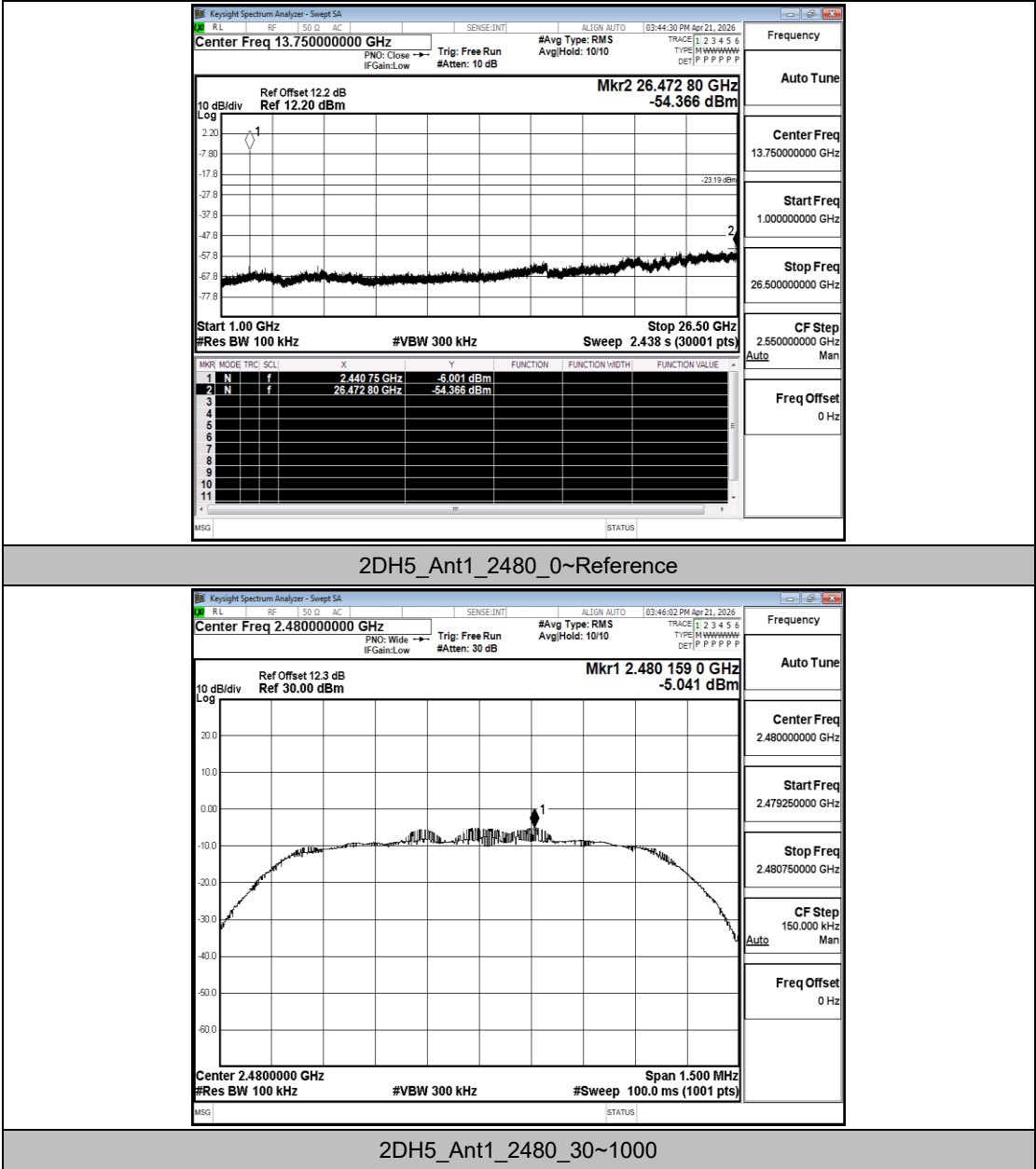


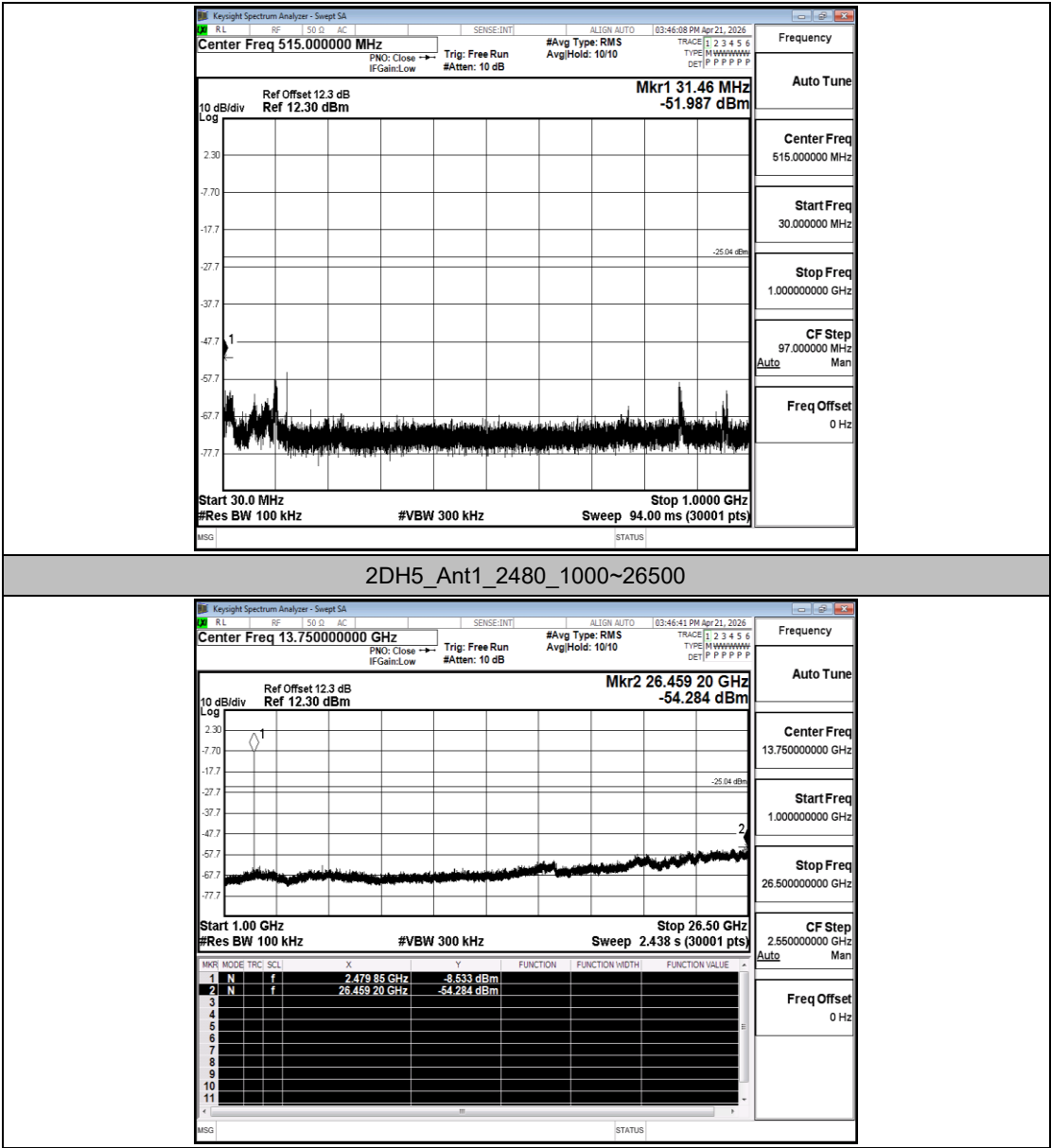










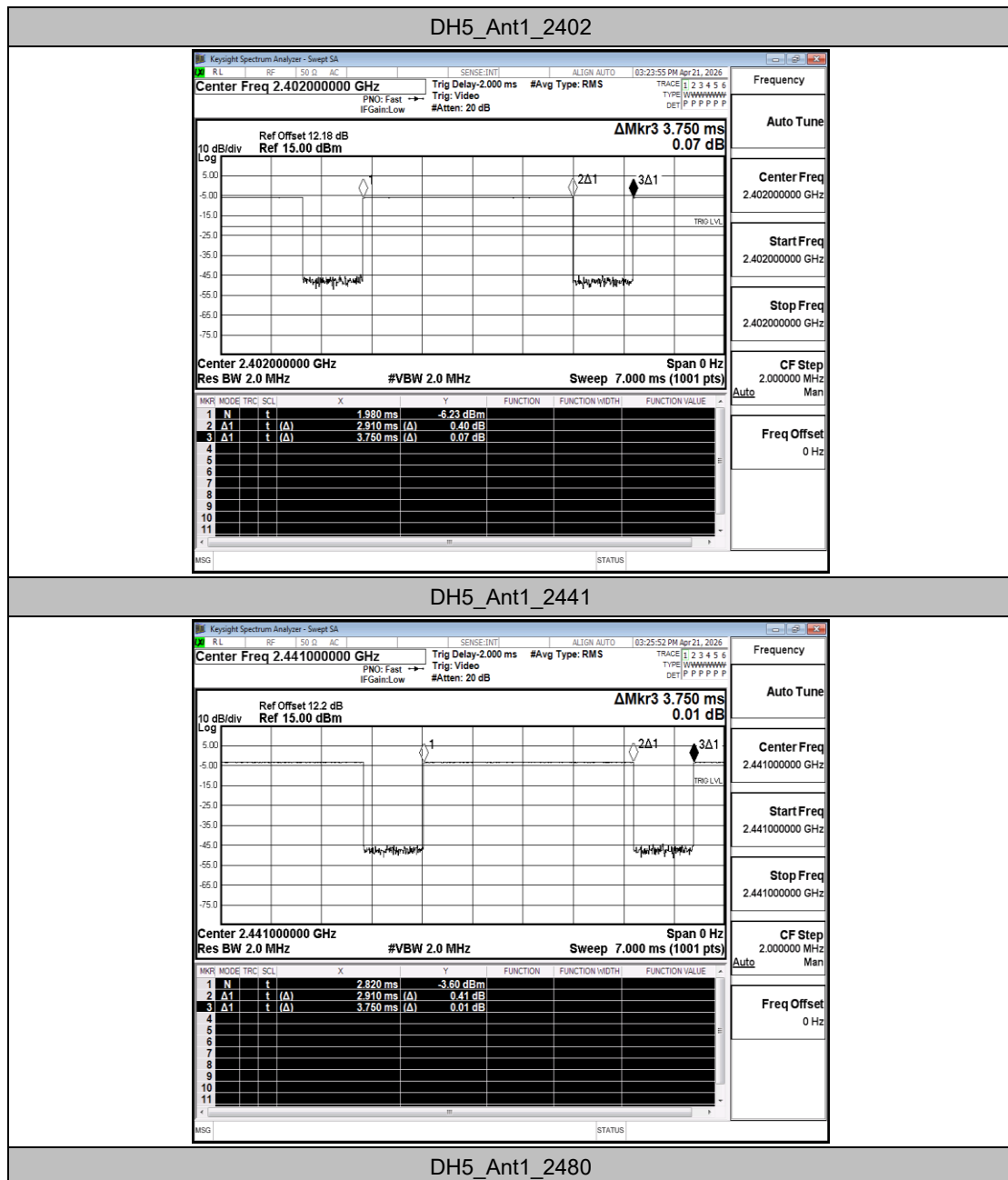


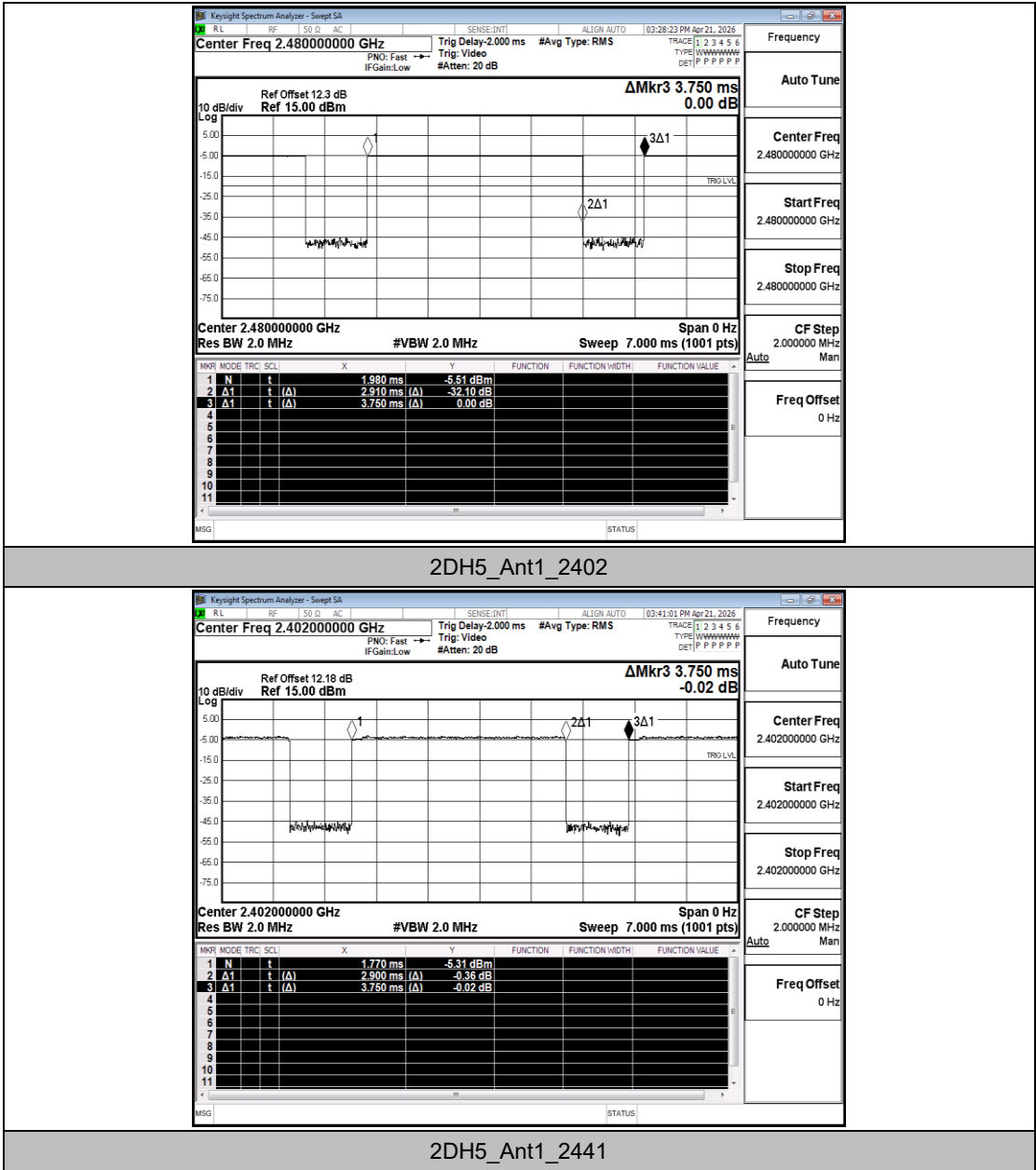
A.8 Duty Cycle

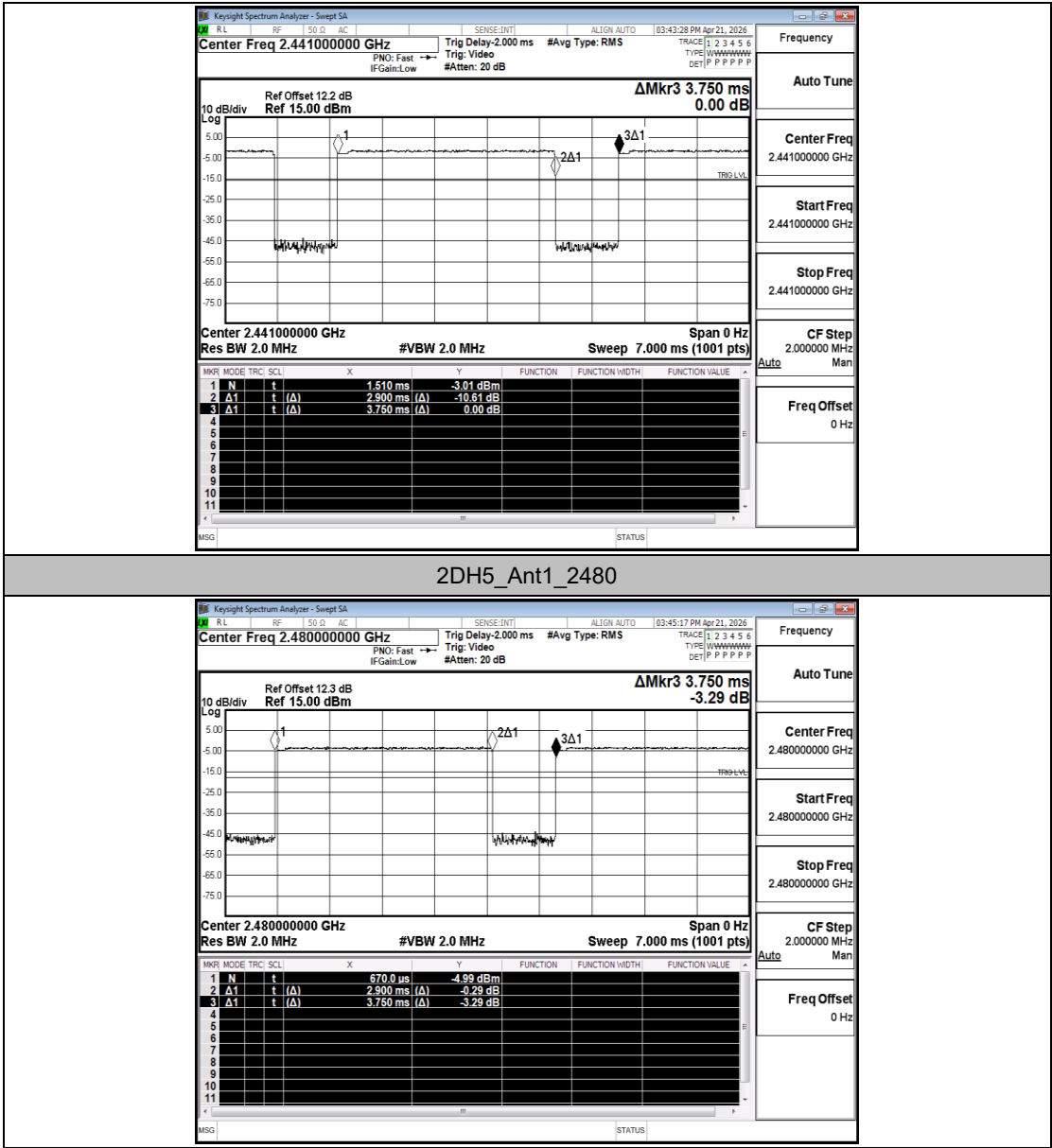
Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.91	3.75	77.60	1.10	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.90	3.75	77.33	1.12	---	---
		2441	2.90	3.75	77.33	1.12	---	---
		2480	2.90	3.75	77.33	1.12	---	---

Test Graphs







A.9 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Freq (MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Gain [dBi]	DC Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-60.95	≤-44.30	2.00	1.10	37.35	≤54	PASS
				AV	2349.980	-60.06	≤-44.30	2.00	1.10	38.24	≤54	PASS
				AV	2390.000	-60.54	≤-44.30	2.00	1.10	37.76	≤54	PASS
				Peak	2310.000	-54.68	≤-23.20	2.00	0.00	42.52	≤74	PASS
				Peak	2389.985	-50.12	≤-23.20	2.00	0.00	47.08	≤74	PASS
				Peak	2390.000	-50.12	≤-23.20	2.00	0.00	47.08	≤74	PASS
		High	2480	AV	2483.500	-60.75	≤-44.30	2.00	1.10	37.55	≤54	PASS
				AV	2483.760	-59.51	≤-44.30	2.00	1.10	38.79	≤54	PASS
				AV	2500.000	-60.76	≤-44.30	2.00	1.10	37.54	≤54	PASS
				Peak	2483.500	-51.98	≤-23.20	2.00	0.00	45.22	≤74	PASS
				Peak	2485.760	-49.14	≤-23.20	2.00	0.00	48.06	≤74	PASS
				Peak	2500.000	-51.18	≤-23.20	2.00	0.00	46.02	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-53.65	≤-23.20	2.00	0.00	43.55	≤74	PASS
				Peak	2373.605	-49.58	≤-23.20	2.00	0.00	47.62	≤74	PASS
				Peak	2390.000	-53.28	≤-23.20	2.00	0.00	43.92	≤74	PASS
		High	Hop_2480	Peak	2483.500	-51.38	≤-23.20	2.00	0.00	45.82	≤74	PASS
				Peak	2490.560	-50.04	≤-23.20	2.00	0.00	47.16	≤74	PASS
				Peak	2500.000	-52.63	≤-	2.00	0.00	44.57	≤74	PASS

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							23.20					
2DH5	Ant1	Low	2402	AV	2310.000	-61.23	≤- 44.32	2.00	1.12	37.09	≤54	PASS
				AV	2323.310	-59.97	≤- 44.32	2.00	1.12	38.35	≤54	PASS
				AV	2390.000	-60.87	≤- 44.32	2.00	1.12	37.45	≤54	PASS
				Peak	2310.000	-54.63	≤- 23.20	2.00	0.00	42.57	≤74	PASS
				Peak	2360.375	-49.5	≤- 23.20	2.00	0.00	47.70	≤74	PASS
				Peak	2390.000	-53.58	≤- 23.20	2.00	0.00	43.62	≤74	PASS
		High	2480	AV	2483.500	-59.8	≤- 44.32	2.00	1.12	38.52	≤54	PASS
				AV	2484.320	-59.5	≤- 44.32	2.00	1.12	38.82	≤54	PASS
				AV	2500.000	-60.13	≤- 44.32	2.00	1.12	38.19	≤54	PASS
				Peak	2483.500	-49.94	≤- 23.20	2.00	0.00	47.26	≤74	PASS
				Peak	2484.000	-49.86	≤- 23.20	2.00	0.00	47.34	≤74	PASS
				Peak	2500.000	-51.4	≤- 23.20	2.00	0.00	45.80	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-52.61	≤- 23.20	2.00	0.00	44.59	≤74	PASS
				Peak	2343.050	-50.53	≤- 23.20	2.00	0.00	46.67	≤74	PASS
				Peak	2390.000	-53.7	≤- 23.20	2.00	0.00	43.50	≤74	PASS
		High	Hop_2480	Peak	2483.500	-51.66	≤- 23.20	2.00	0.00	45.54	≤74	PASS
				Peak	2499.440	-49.98	≤- 23.20	2.00	0.00	47.22	≤74	PASS
				Peak	2500.000	-52.81	≤- 23.20	2.00	0.00	44.39	≤74	PASS

Note:

1. The Antenna Gain is compensated in the graph.
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

