

Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: MINI SPEAKER

Test Model: C01

Environmental Conditions

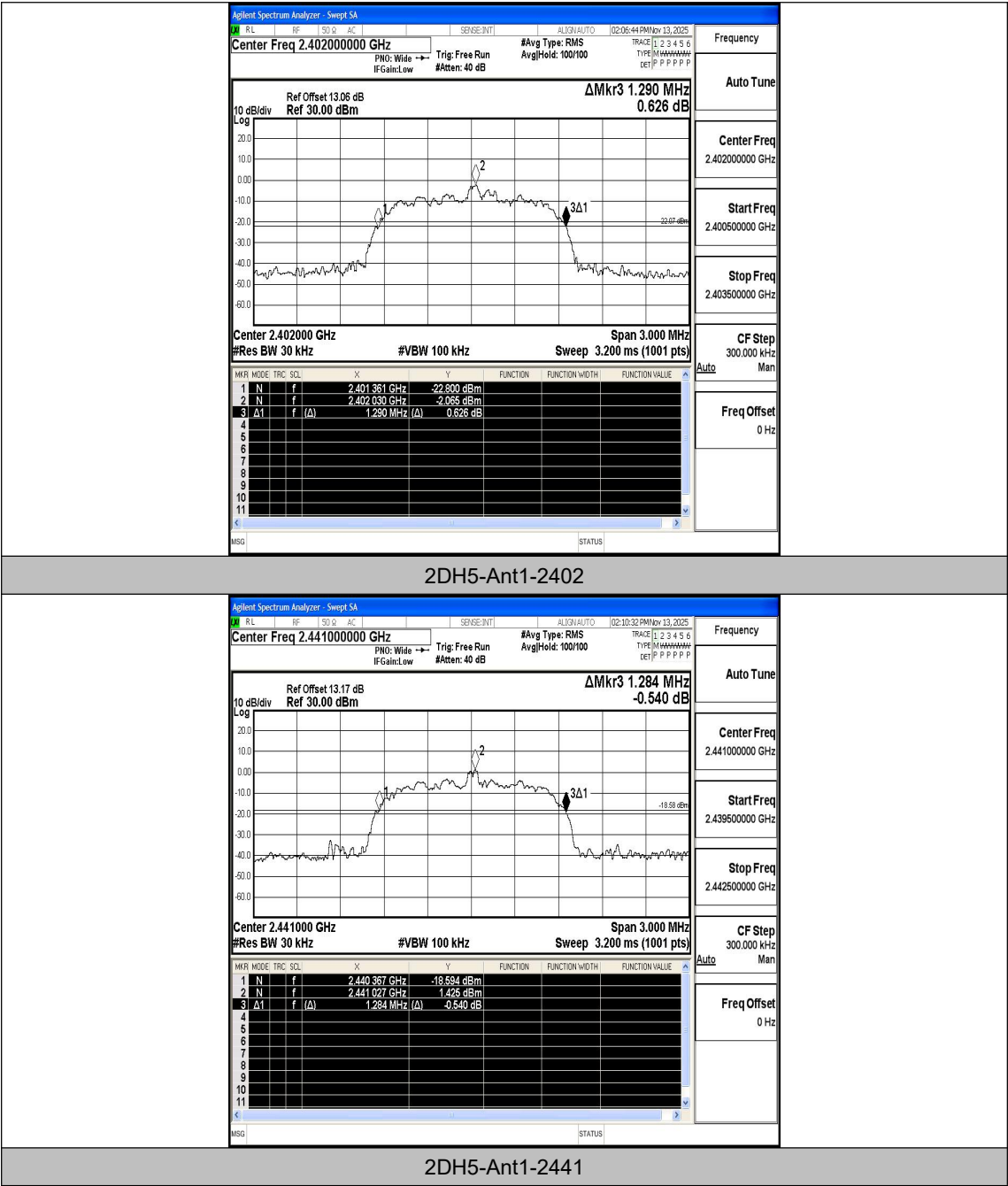
Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Suichao Lai
Supervised by:	Fengliu Tang

A.1 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
2DH5	Ant1	2402	1.290	2401.361	2402.651	---	---
2DH5	Ant1	2441	1.284	2440.367	2441.651	---	---
2DH5	Ant1	2480	1.314	2479.340	2480.654	---	---

Test Graphs



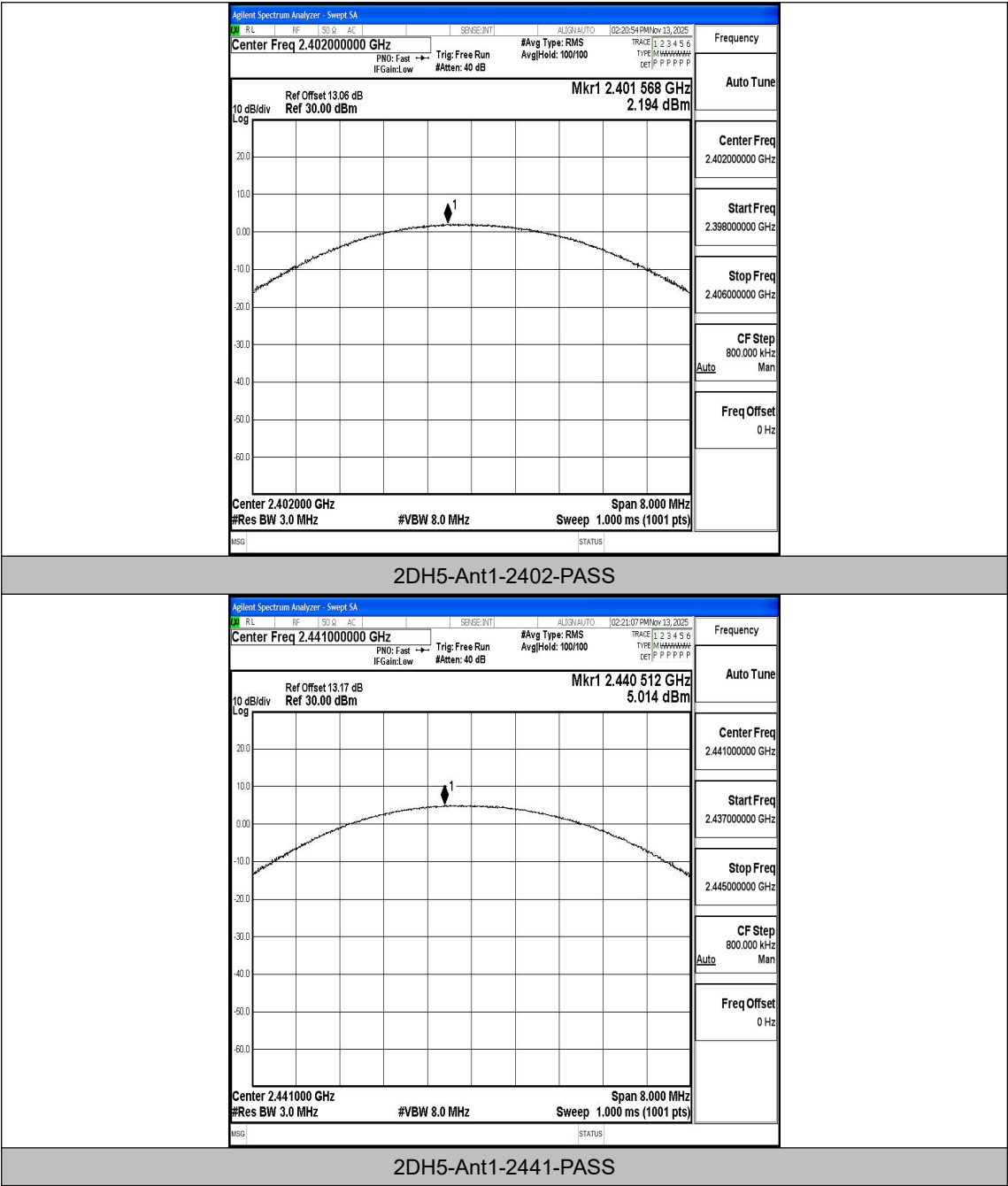


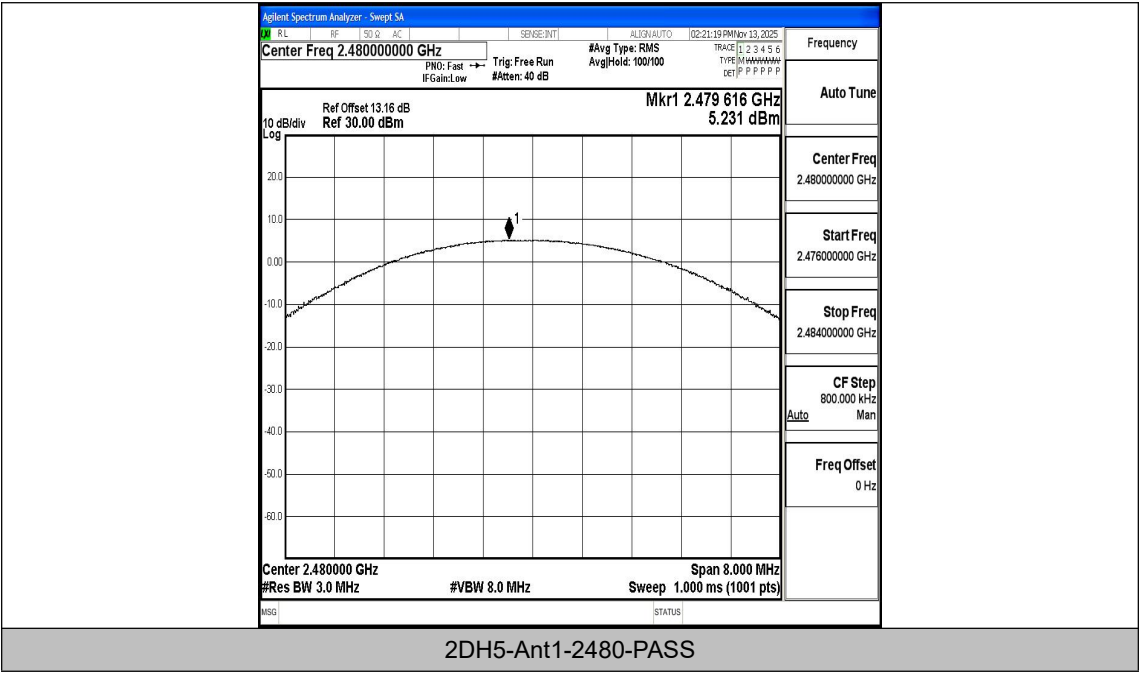
A.2 Maximum Peak conducted output power

Test Result Peak

Test Mode	Antenna	Frequency[MHz]	Conducted Peak Power[dBm]	Conducted Limit[dBm]	Verdict
2DH5	Ant1	2402	2.19	≤20.97	PASS
2DH5	Ant1	2441	5.01	≤20.97	PASS
2DH5	Ant1	2480	5.23	≤20.97	PASS

Test Graphs



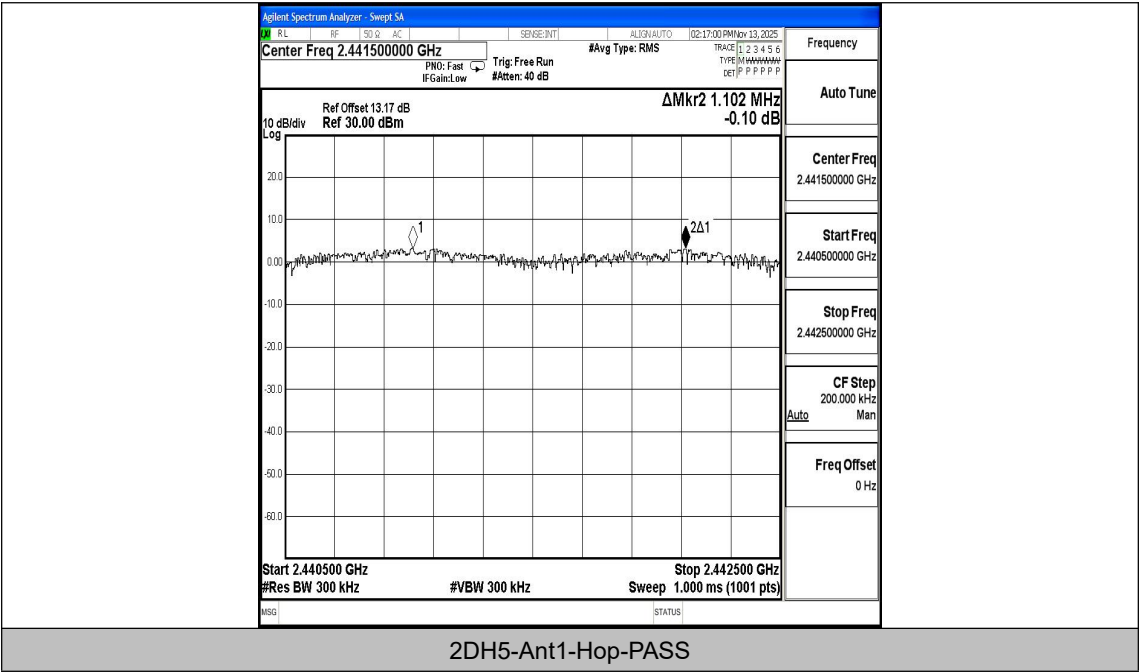


A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
2DH5	Ant1	Hop	1.102	≥0.876	PASS

Test Graphs

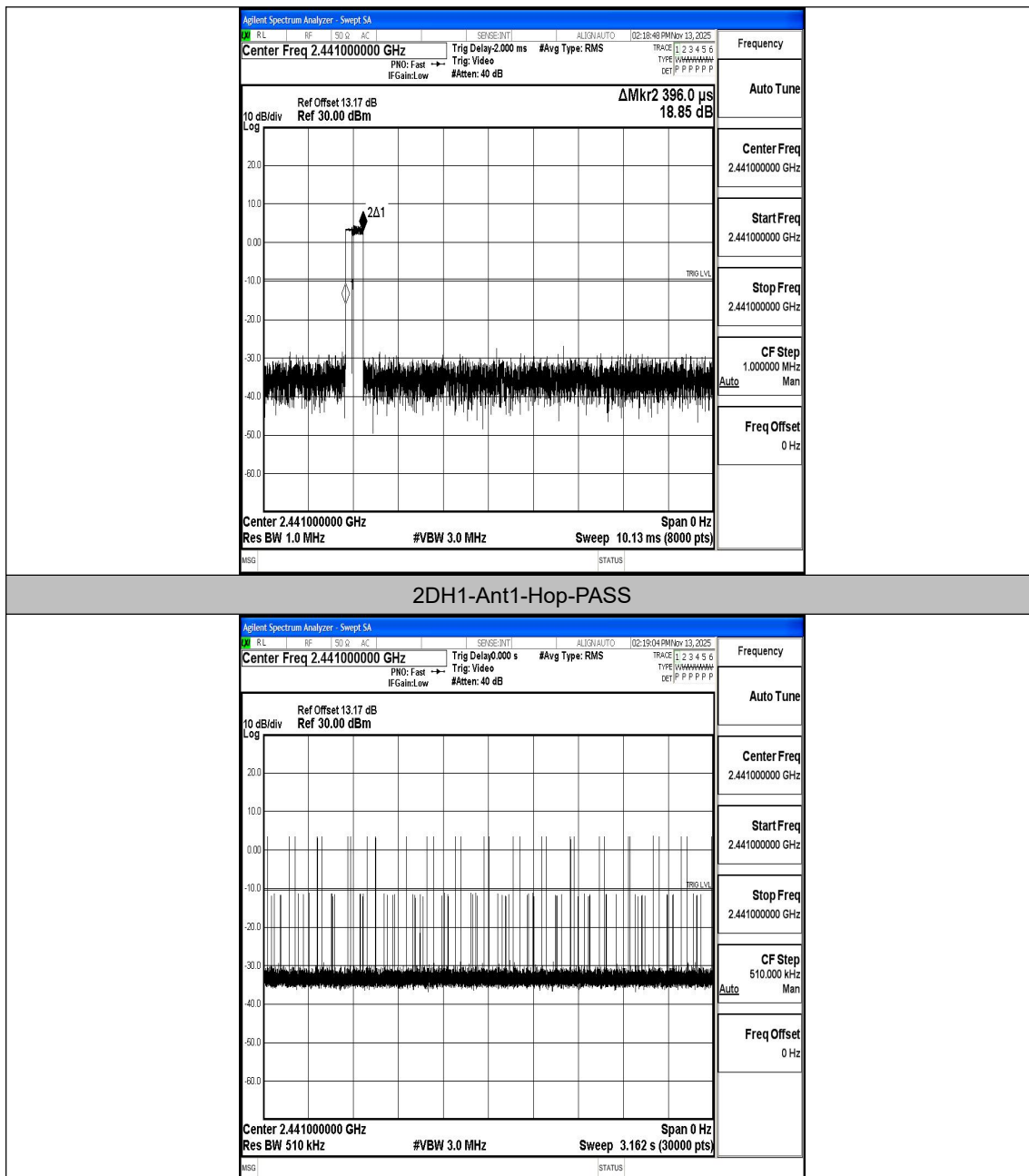


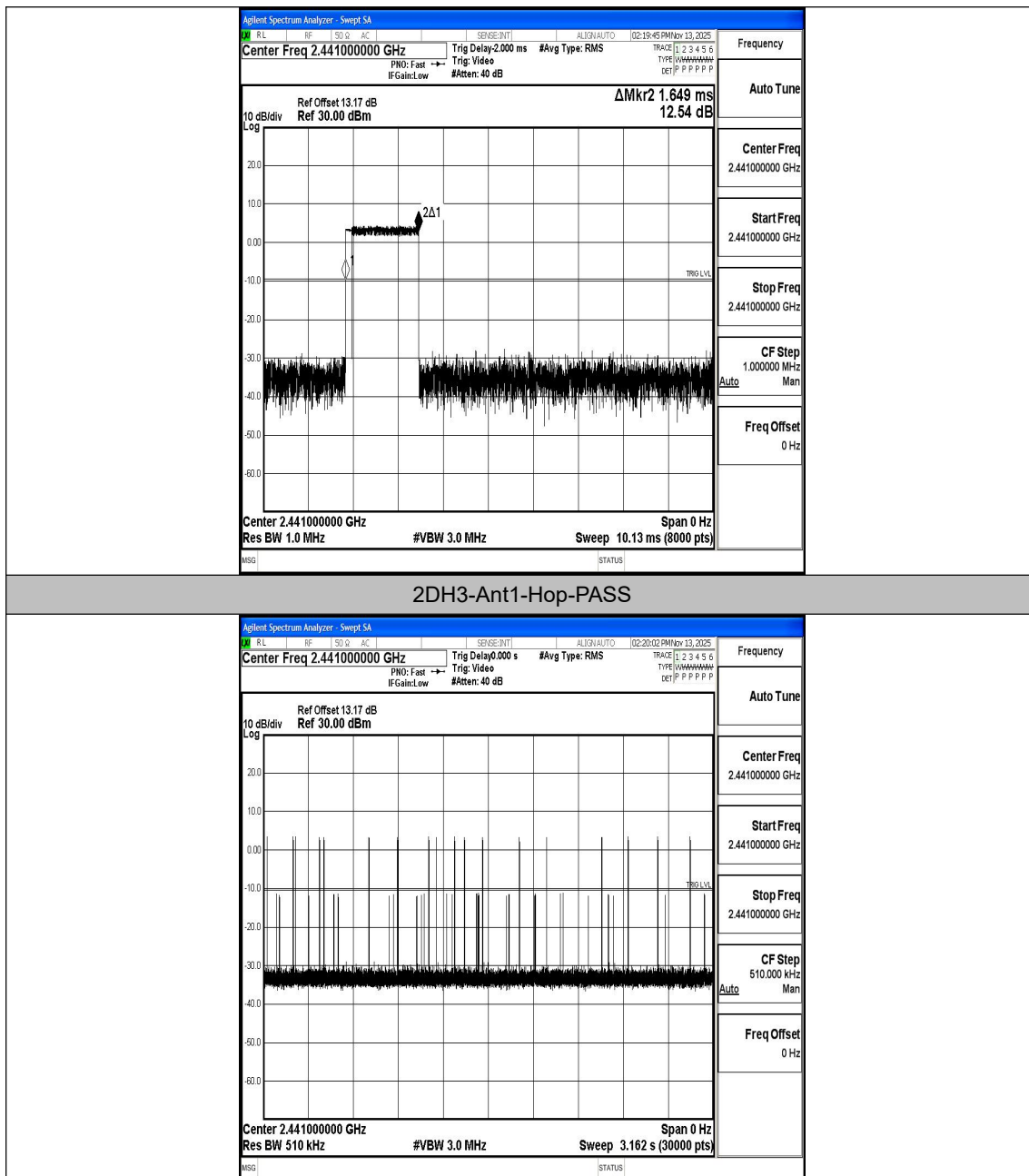
A.4 Time of occupancy

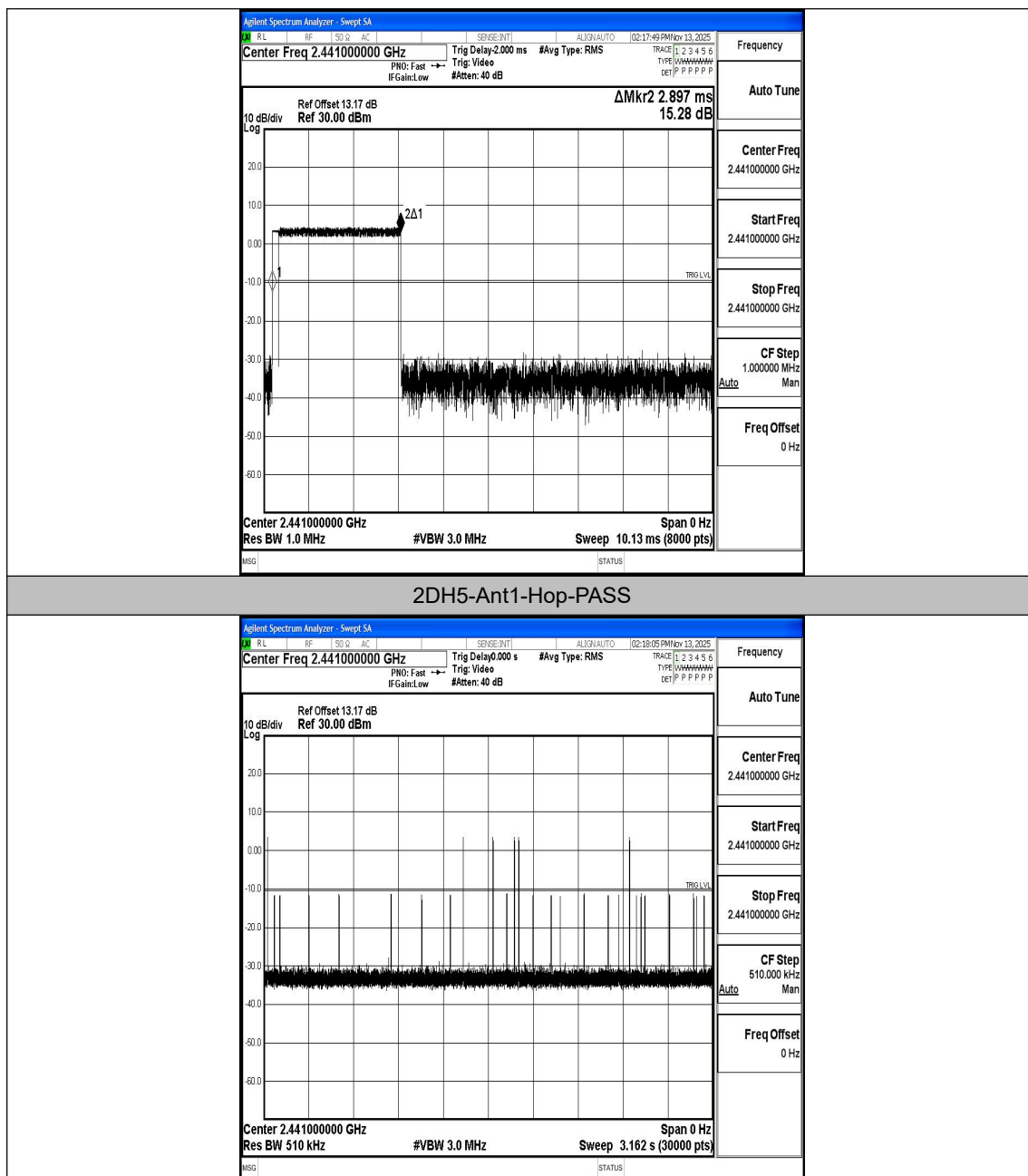
Test Result

TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
2DH1	Ant1	Hop	0.396	330	0.131	≤0.4	PASS
2DH3	Ant1	Hop	1.649	190	0.313	≤0.4	PASS
2DH5	Ant1	Hop	2.897	80	0.232	≤0.4	PASS

Test Graphs





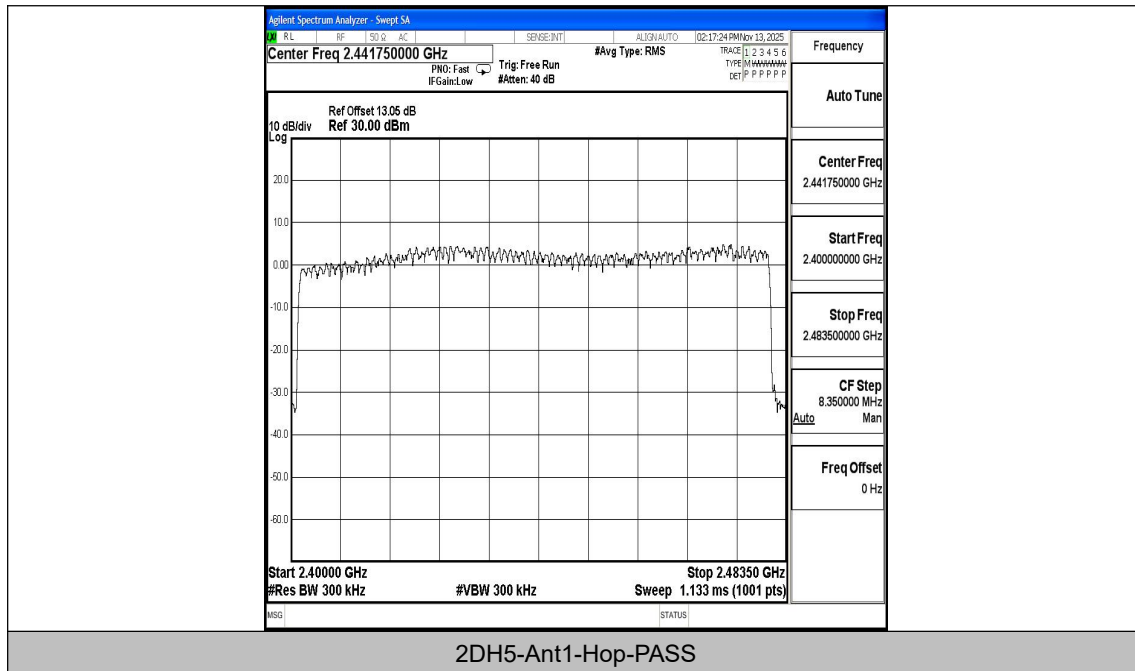


A.5 Number of hopping channels

Test Result

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

Test Graphs

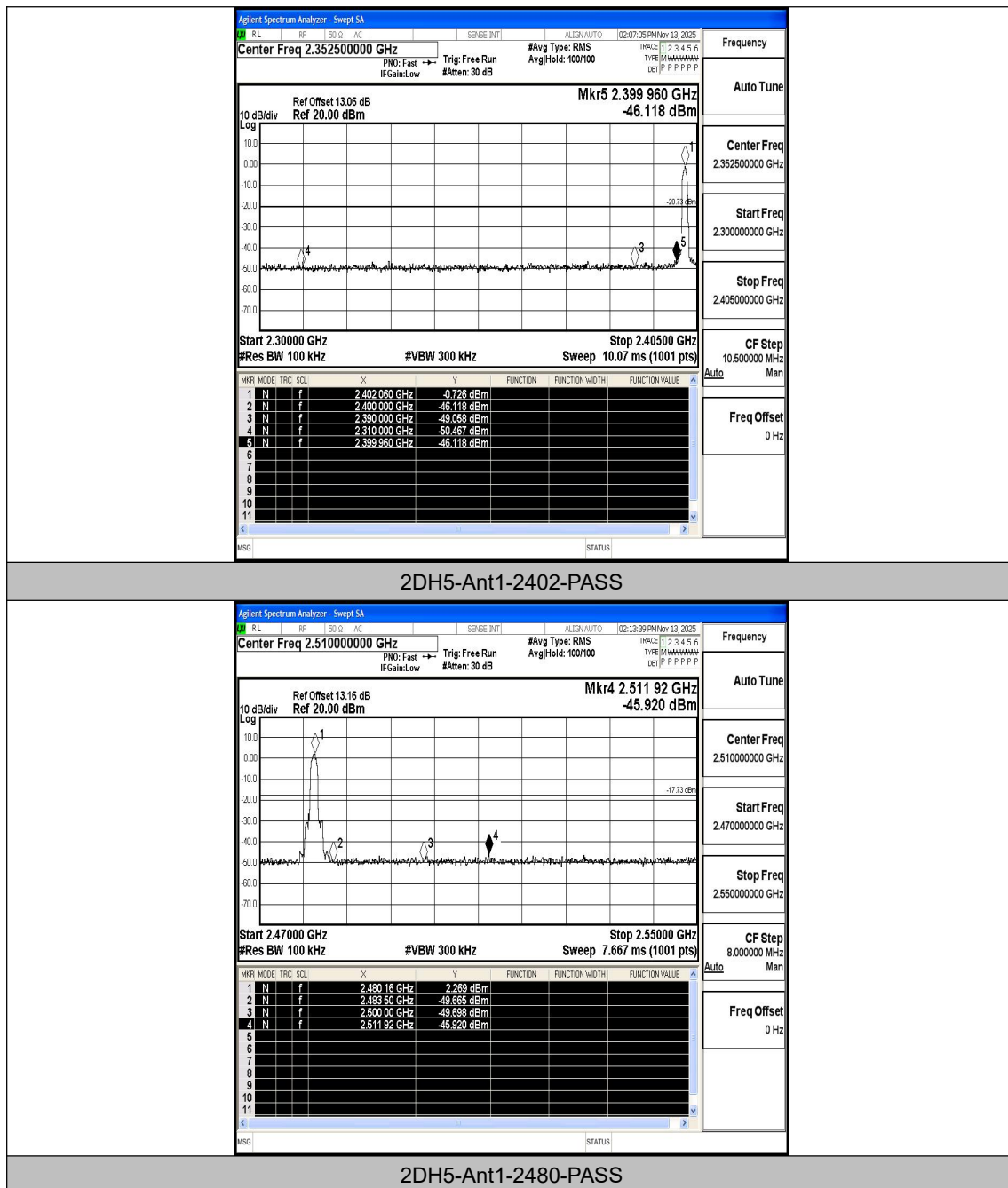


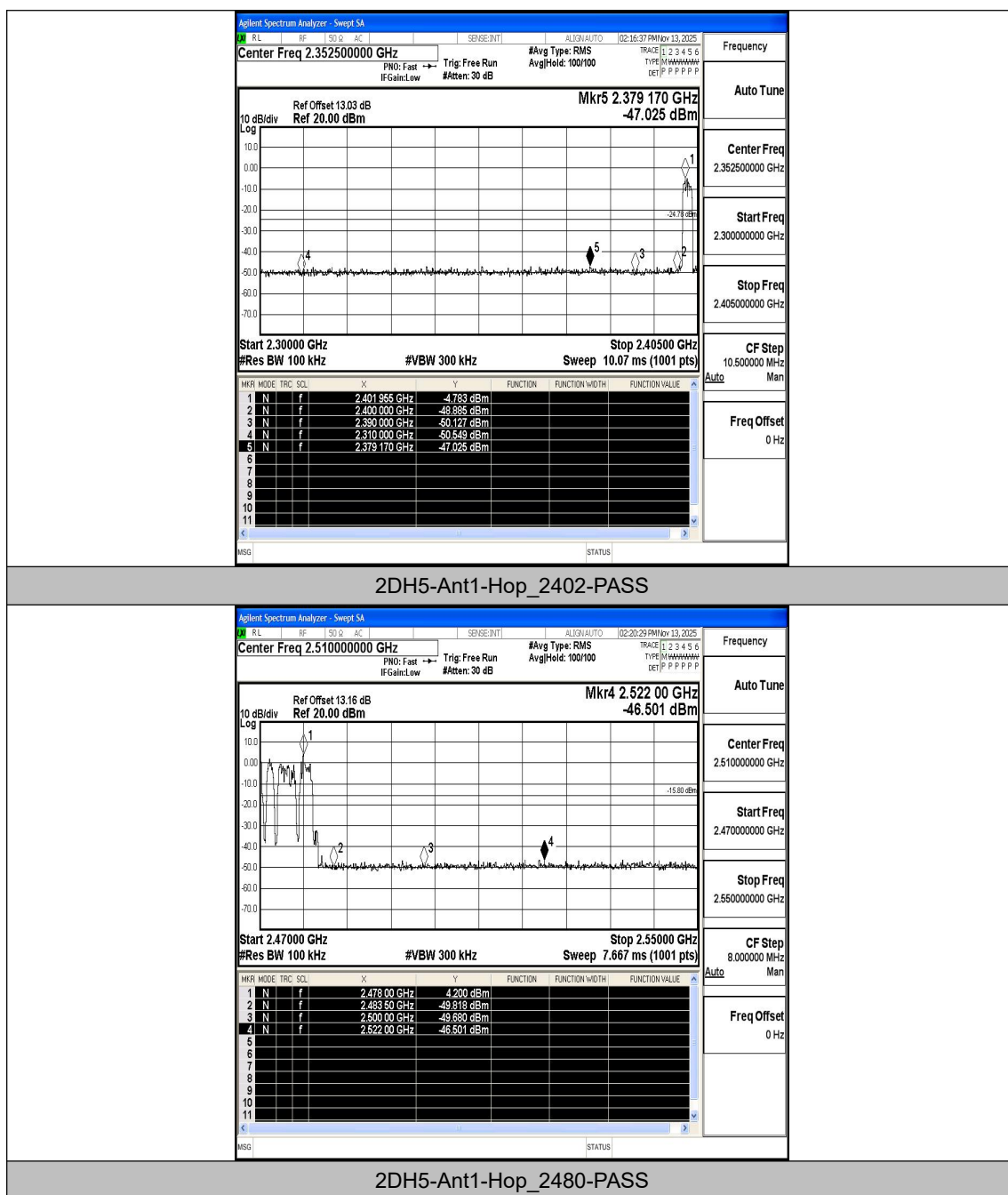
A.6 Band edge measurements

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
2DH5	Ant1	Low	2402	-0.73	-46.12	≤ -20.73	PASS
2DH5	Ant1	High	2480	2.27	-45.92	≤ -17.73	PASS
2DH5	Ant1	Low	Hop_2402	-4.78	-47.03	≤ -24.78	PASS
2DH5	Ant1	High	Hop_2480	4.20	-46.5	≤ -15.8	PASS

Test Graphs



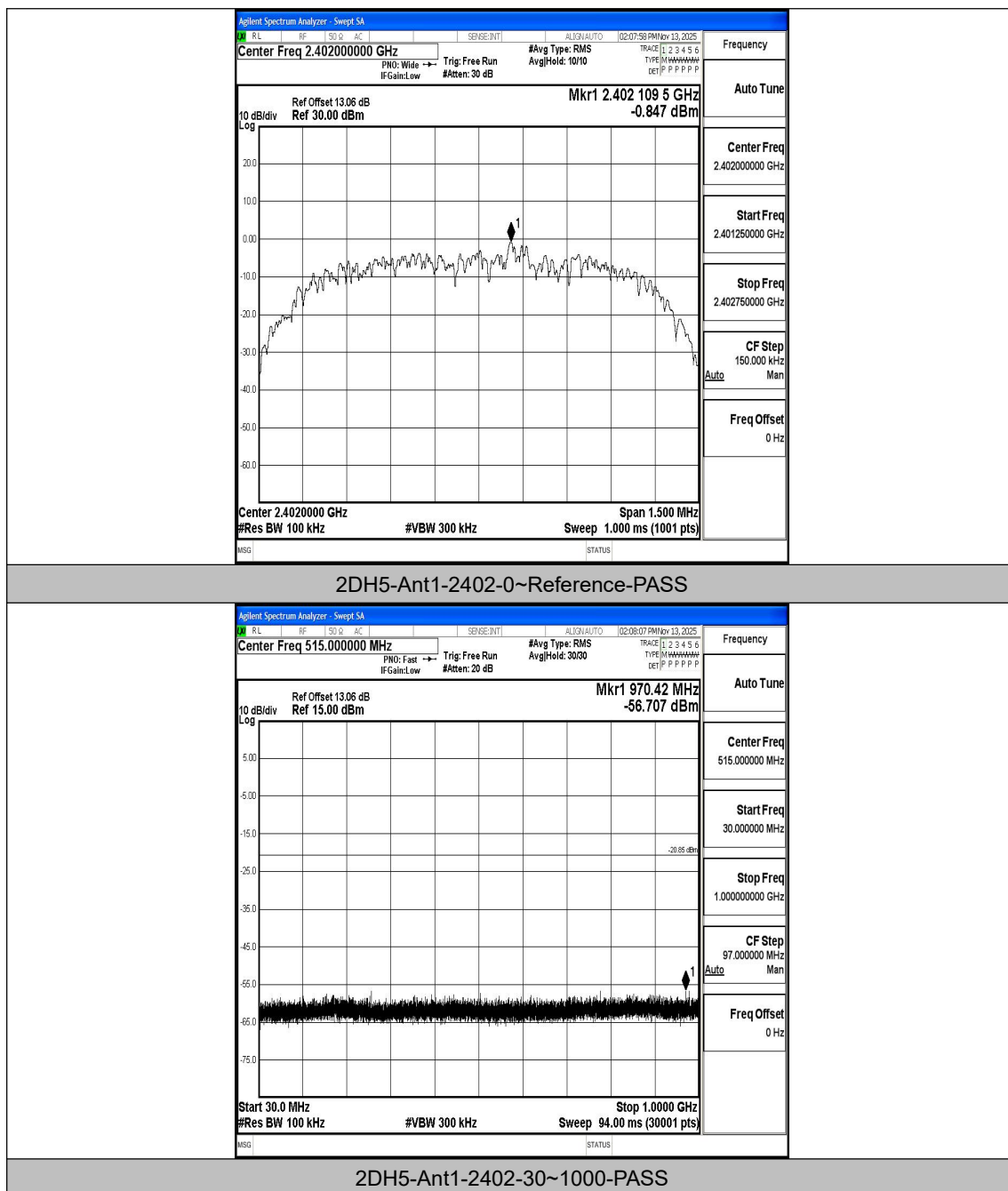


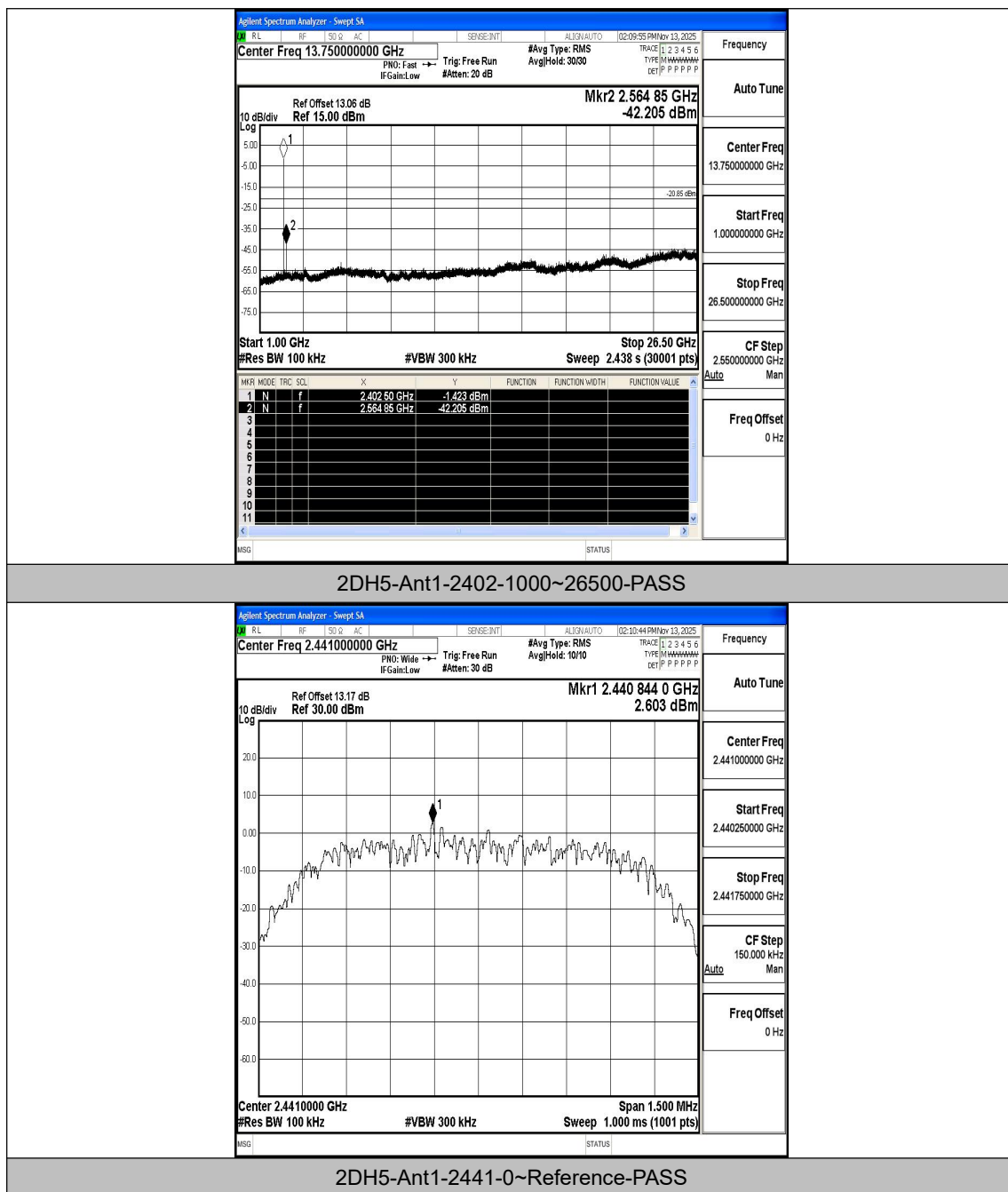
A.7 Conducted Spurious Emission

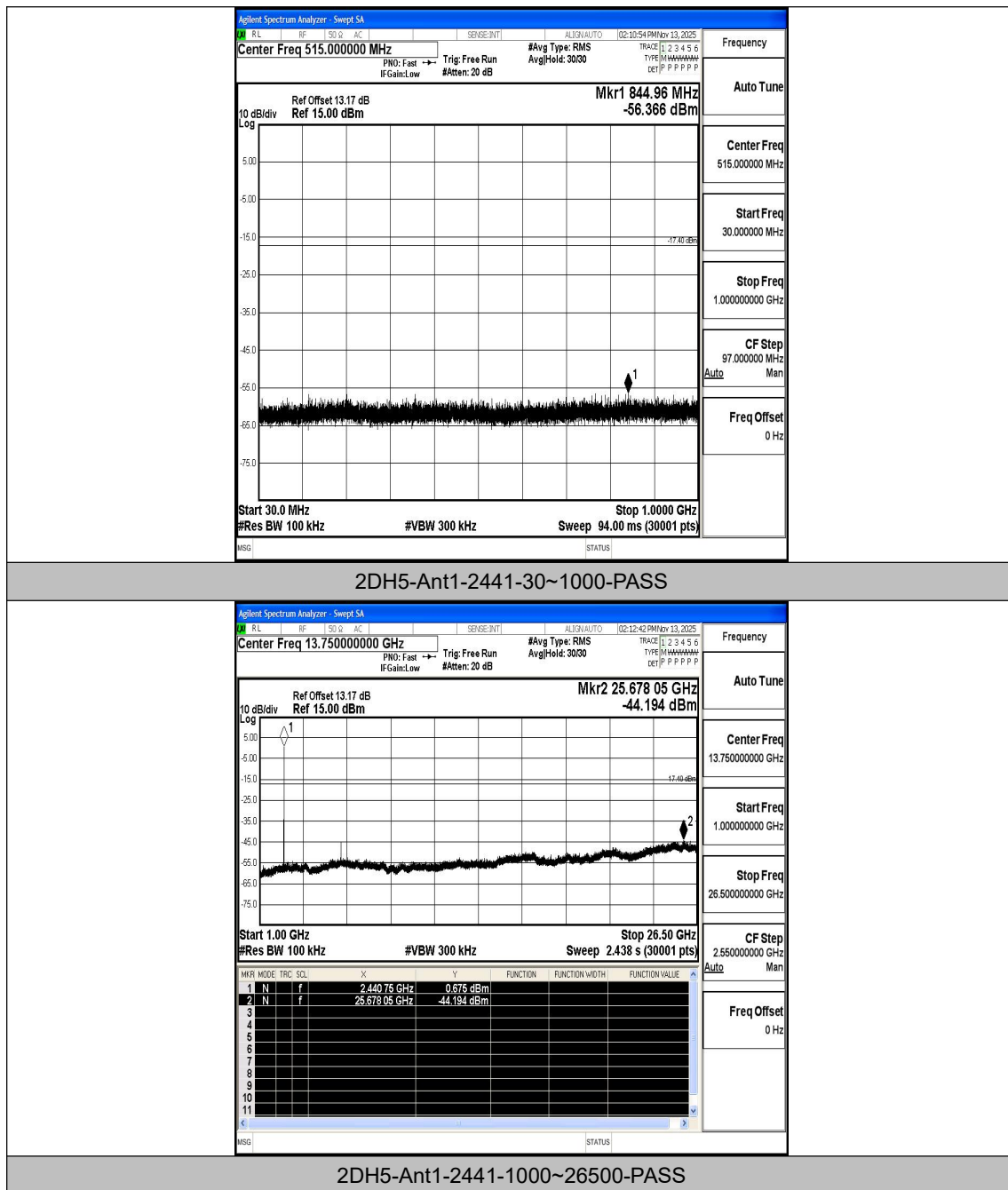
Test Result

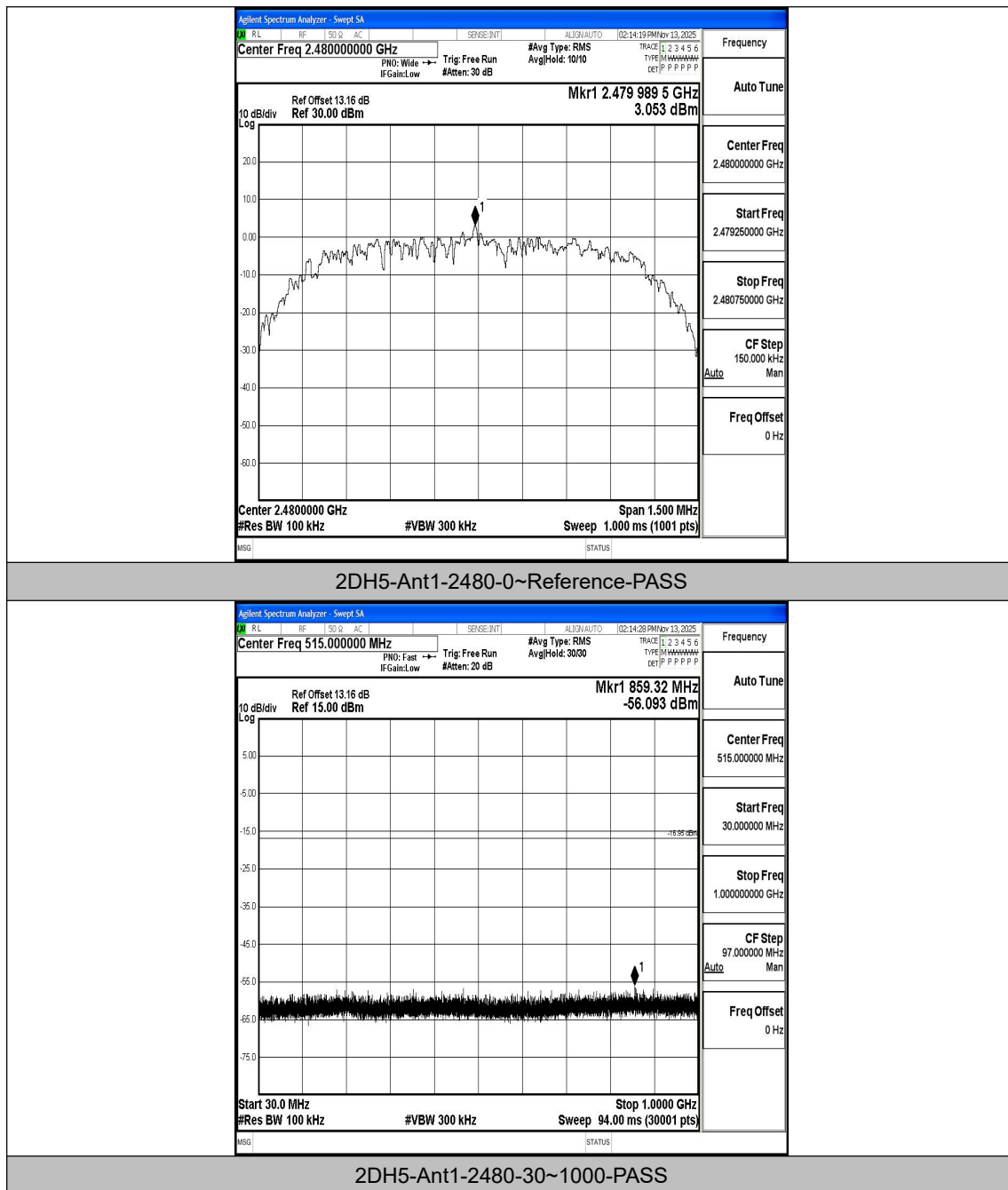
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
2DH5	Ant1	2402	0~Reference	-0.85	-0.85	---	PASS
2DH5	Ant1	2402	30~1000	-0.85	-56.71	≤-20.85	PASS
2DH5	Ant1	2402	1000~26500	-0.85	-42.21	≤-20.85	PASS
2DH5	Ant1	2441	0~Reference	2.60	2.60	---	PASS
2DH5	Ant1	2441	30~1000	2.60	-56.37	≤-17.4	PASS
2DH5	Ant1	2441	1000~26500	2.60	-44.19	≤-17.4	PASS
2DH5	Ant1	2480	0~Reference	3.05	3.05	---	PASS
2DH5	Ant1	2480	30~1000	3.05	-56.09	≤-16.95	PASS
2DH5	Ant1	2480	1000~26500	3.05	-44.27	≤-16.95	PASS

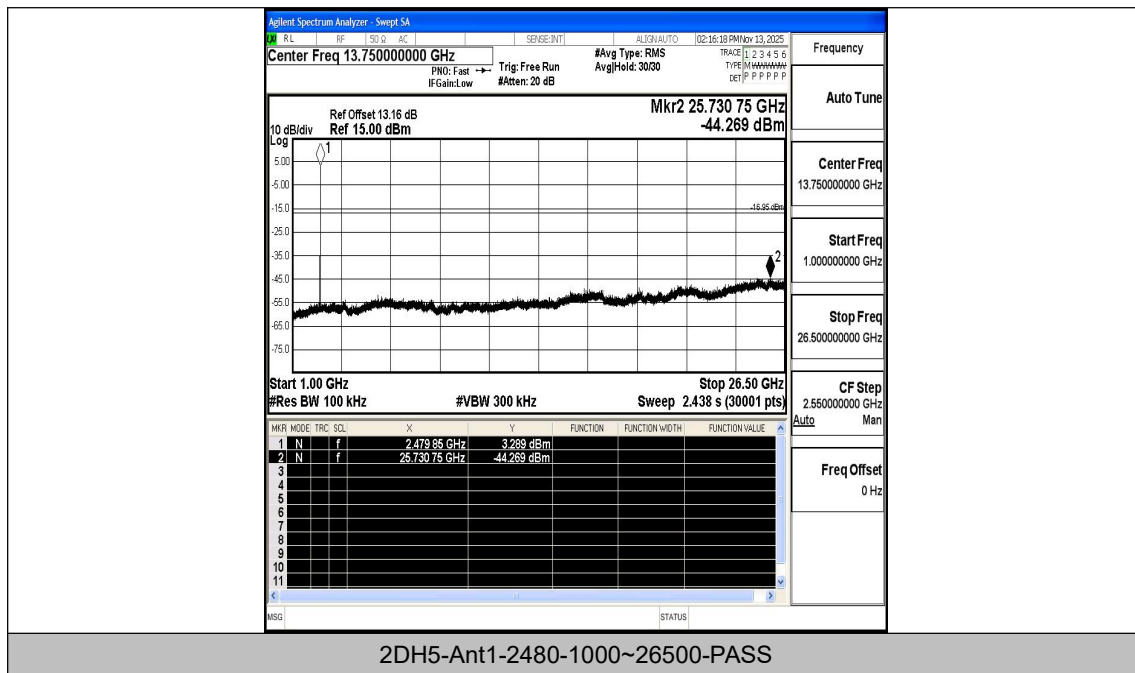
Test Graphs









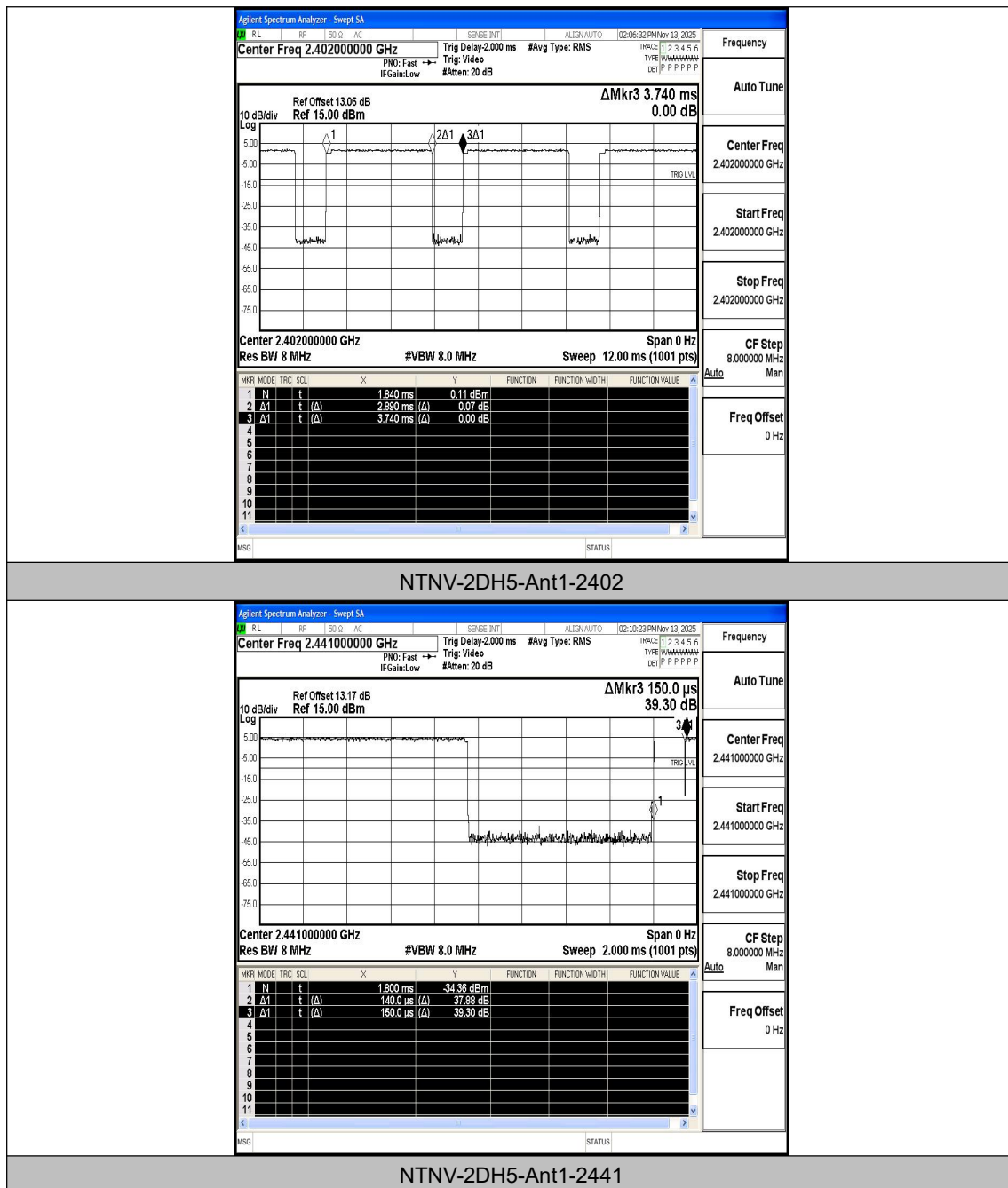


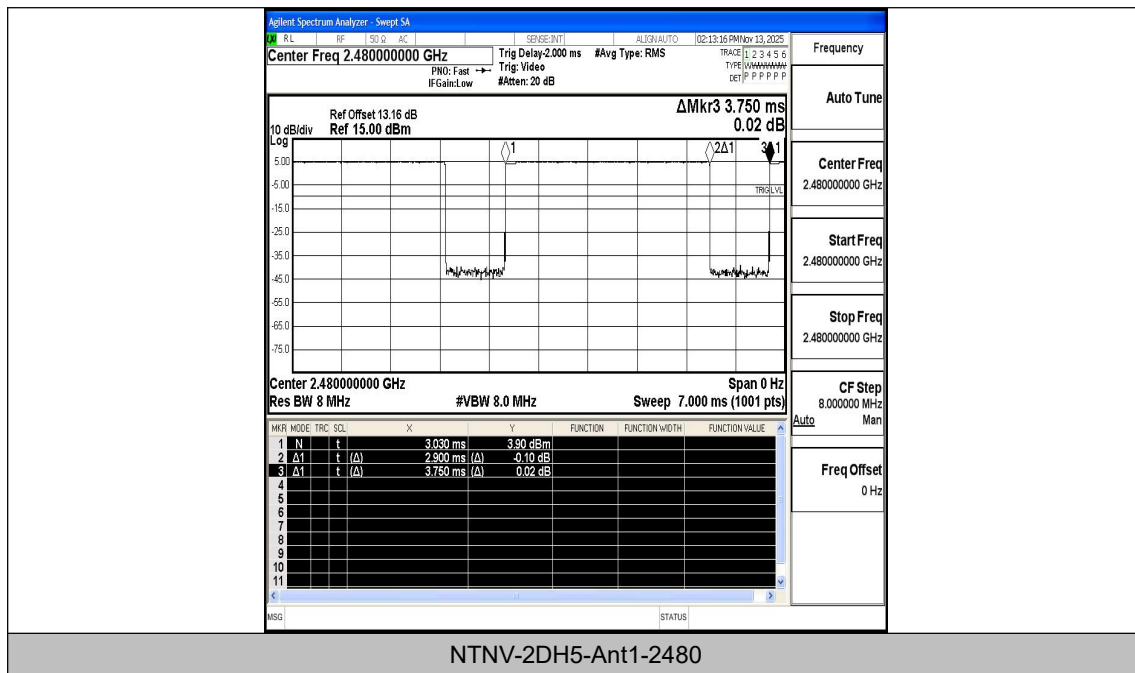
A.8 Duty Cycle

Test Result

TestMode	Antenna	Frequency[MHz]	ON Time[ms]	Period[ms]	Duty Cycle[%]	Duty Cycle Factor[dB]
2DH5	Ant1	2402	2.89	3.74	77.27	1.12
2DH5	Ant1	2441	0.14	0.15	93.33	0.30
2DH5	Ant1	2480	2.90	3.75	77.33	1.12

Test Graphs





A.9 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequency [MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
2DH5	Ant1	Low	2402	Peak	2390.000	-37.39	≤-21.20	57.81	≤74	PASS
2DH5	Ant1	Low	2402	Peak	2310.000	-38.55	≤-21.20	56.65	≤74	PASS
2DH5	Ant1	Low	2402	Peak	2375.600	-34.39	≤-21.20	60.81	≤74	PASS
2DH5	Ant1	Low	2402	AV	2390.000	-44.84	≤-41.20	50.36	≤54	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-45.32	≤-41.20	49.88	≤54	PASS
2DH5	Ant1	Low	2402	AV	2383.580	-44.74	≤-41.20	50.46	≤54	PASS
2DH5	Ant1	High	2480	Peak	2483.500	-38.42	≤-21.20	56.78	≤74	PASS
2DH5	Ant1	High	2480	Peak	2500.000	-38.74	≤-21.20	56.46	≤74	PASS
2DH5	Ant1	High	2480	Peak	2496.240	-35.56	≤-21.20	59.64	≤74	PASS
2DH5	Ant1	High	2480	AV	2483.500	-44.14	≤-41.20	51.06	≤54	PASS
2DH5	Ant1	High	2480	AV	2500.000	-44.96	≤-41.20	50.24	≤54	PASS
2DH5	Ant1	High	2480	AV	2483.520	-44.13	≤-41.20	51.07	≤54	PASS
2DH5	Ant1	Low	Hop_2402	Peak	2390.000	-38.63	≤-21.20	56.57	≤74	PASS
2DH5	Ant1	Low	Hop_2402	Peak	2310.000	-39.88	≤-21.20	55.32	≤74	PASS
2DH5	Ant1	Low	Hop_2402	Peak	2332.865	-35.16	≤-21.20	60.04	≤74	PASS
2DH5	Ant1	High	Hop_2480	Peak	2483.500	-37.47	≤-21.20	57.73	≤74	PASS
2DH5	Ant1	High	Hop_2480	Peak	2500.000	-38.56	≤-21.20	56.64	≤74	PASS
2DH5	Ant1	High	Hop_2480	Peak	2492.320	-34.6	≤-21.20	60.60	≤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

