



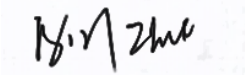
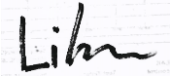
Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: BUDS BOT

Test Model: LV09JL

Environmental Conditions

Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	
Supervised by:	

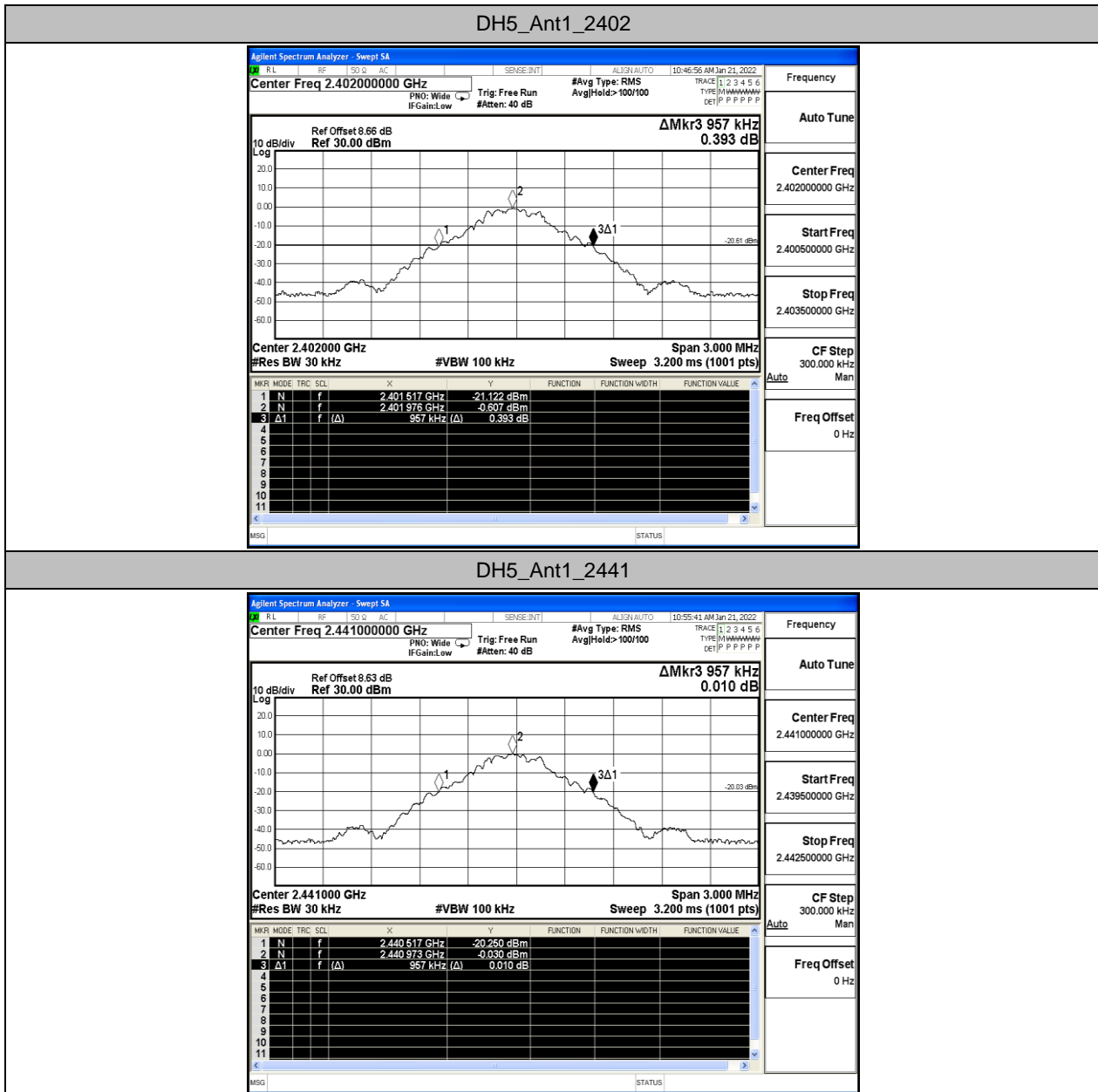


A.1 20dB Emission Bandwidth

Test Result

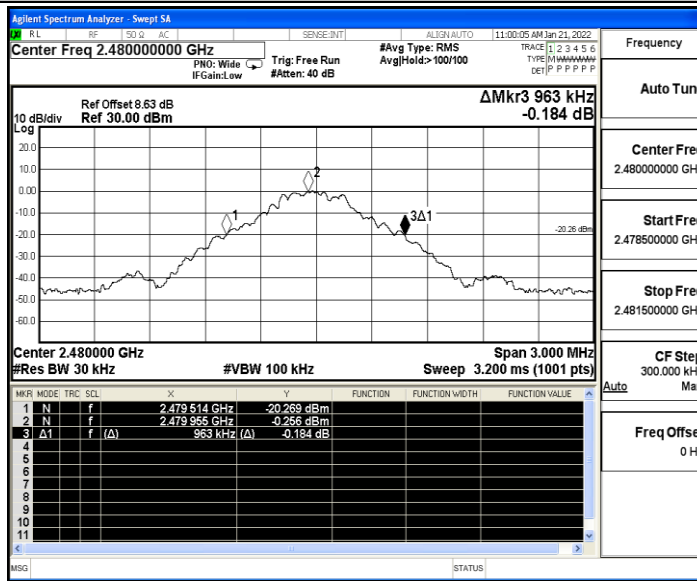
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.957	2401.517	2402.474	---	---
		2441	0.957	2440.517	2441.474	---	---
		2480	0.963	2479.514	2480.477	---	---
2DH5	Ant1	2402	1.314	2401.322	2402.636	---	---
		2441	1.284	2440.349	2441.633	---	---
		2480	1.326	2479.316	2480.642	---	---

Test Graphs

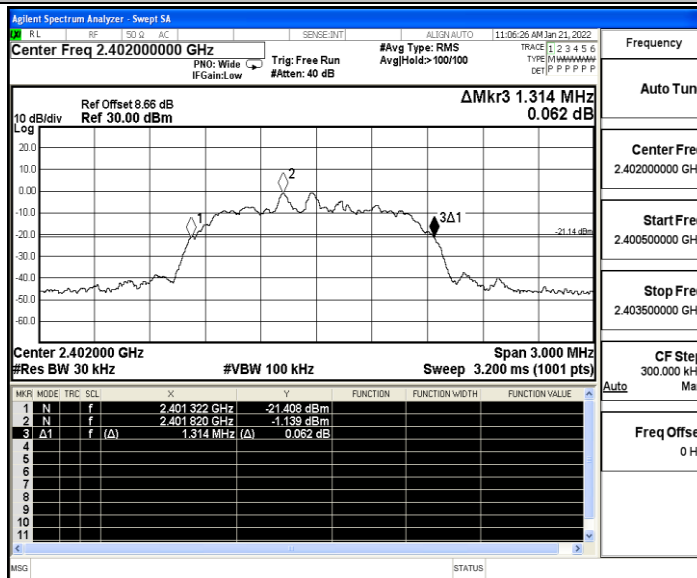




DH5_Ant1_2480

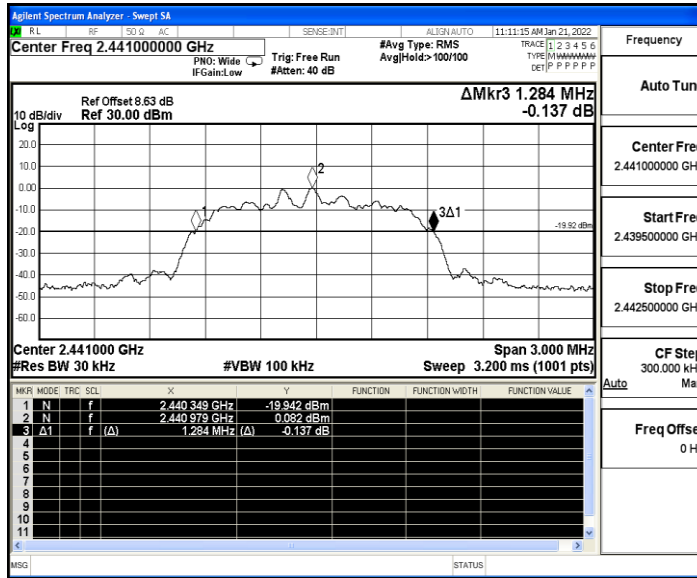


2DH5_Ant1_2402

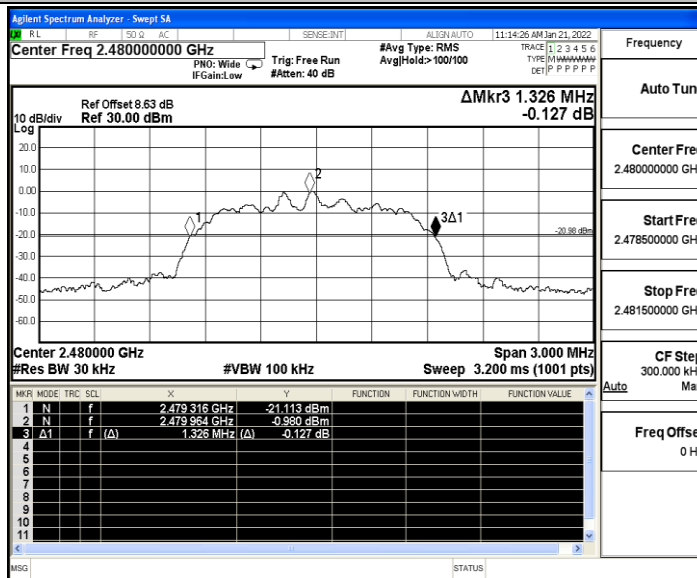




2DH5_Ant1_2441



2DH5_Ant1_2480





A.2 Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.69	≤20.97	PASS
		2441	2.44	≤20.97	PASS
		2480	2.51	≤20.97	PASS
2DH5	Ant1	2402	2.45	≤20.97	PASS
		2441	3.17	≤20.97	PASS
		2480	3.36	≤20.97	PASS

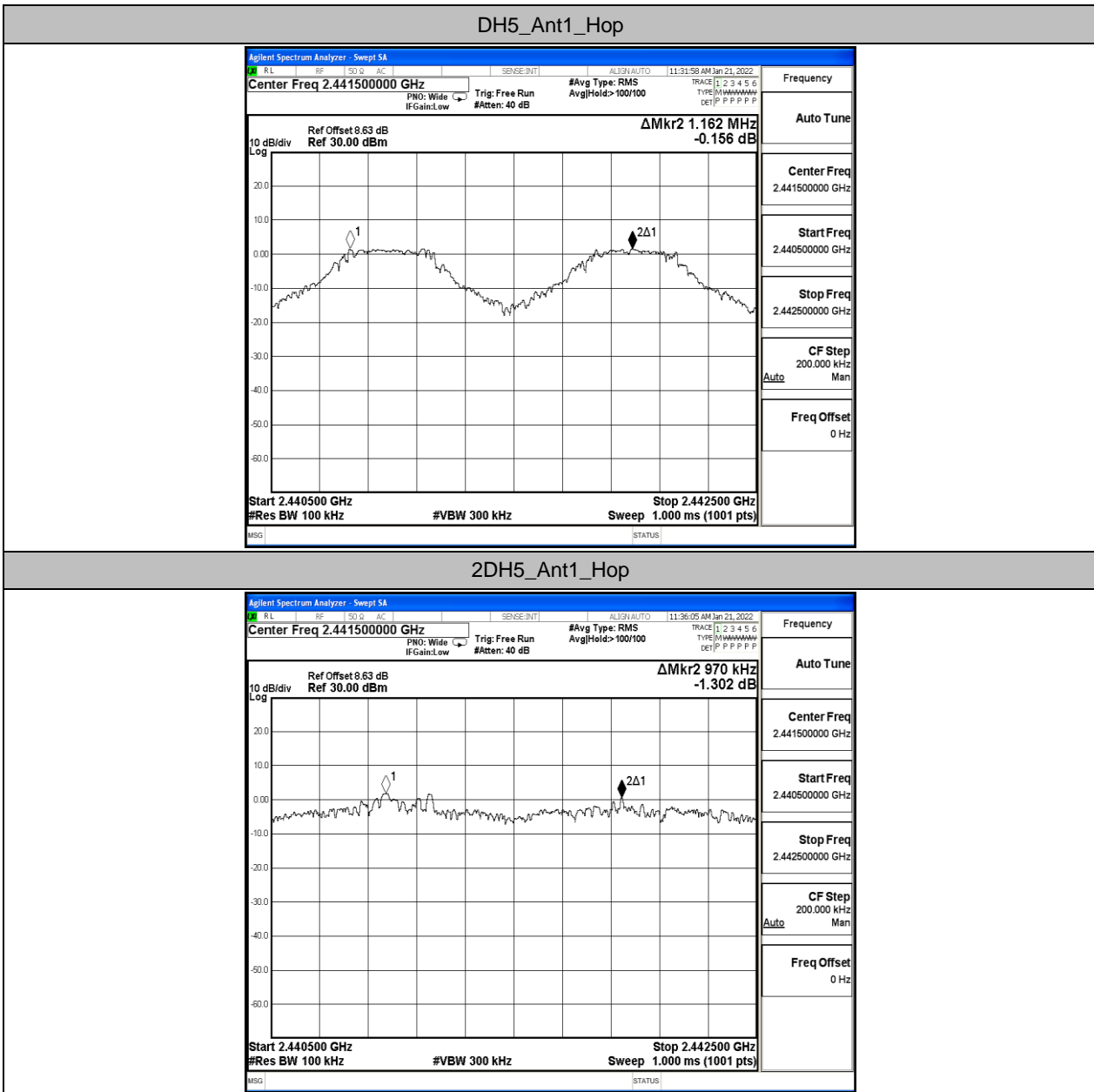


A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.162	≥0.642	PASS
2DH5	Ant1	Hop	0.97	≥0.884	PASS

Test Graphs



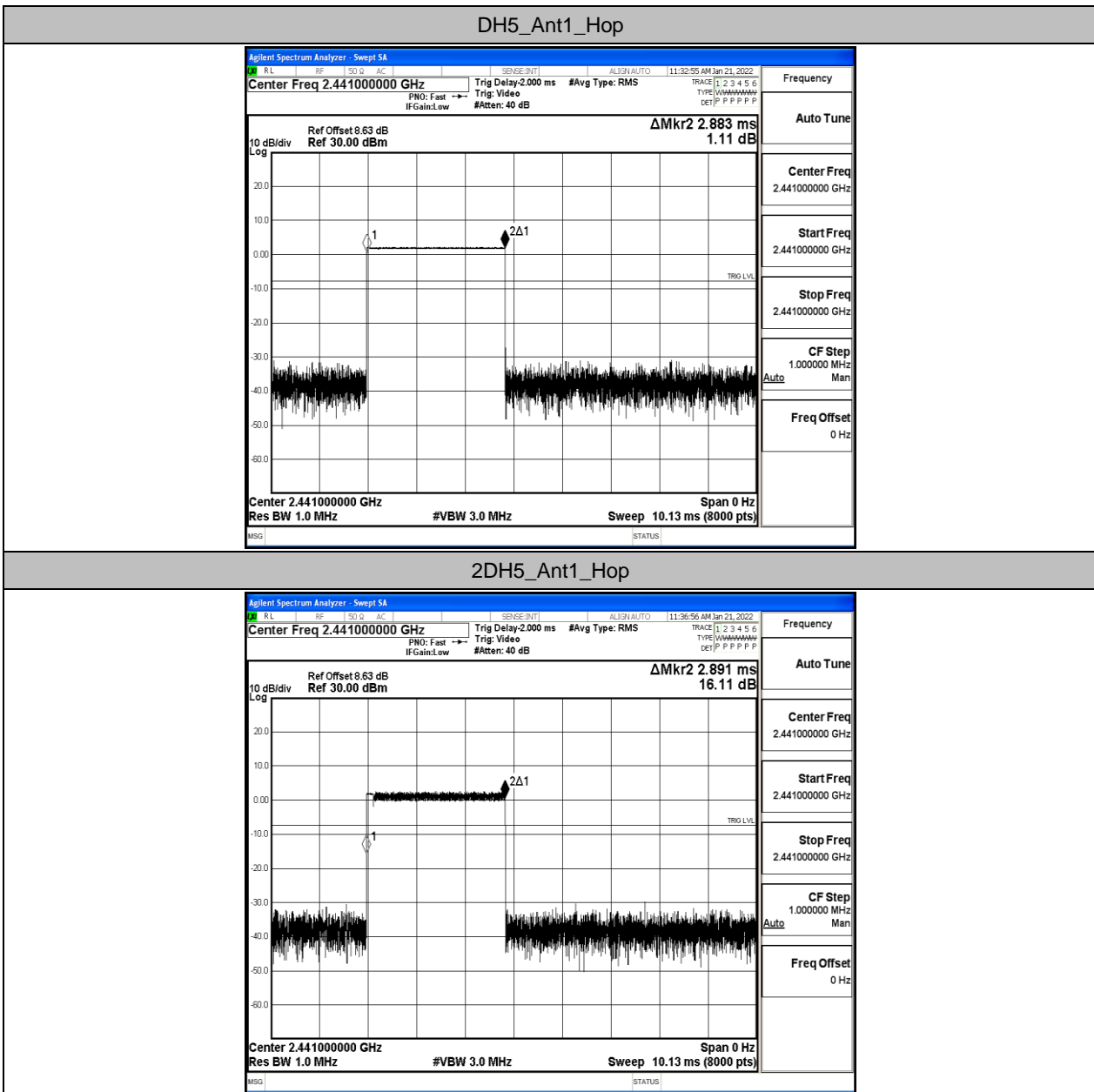


A.4 Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.308	≤0.4	PASS
2DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS

Test Graphs



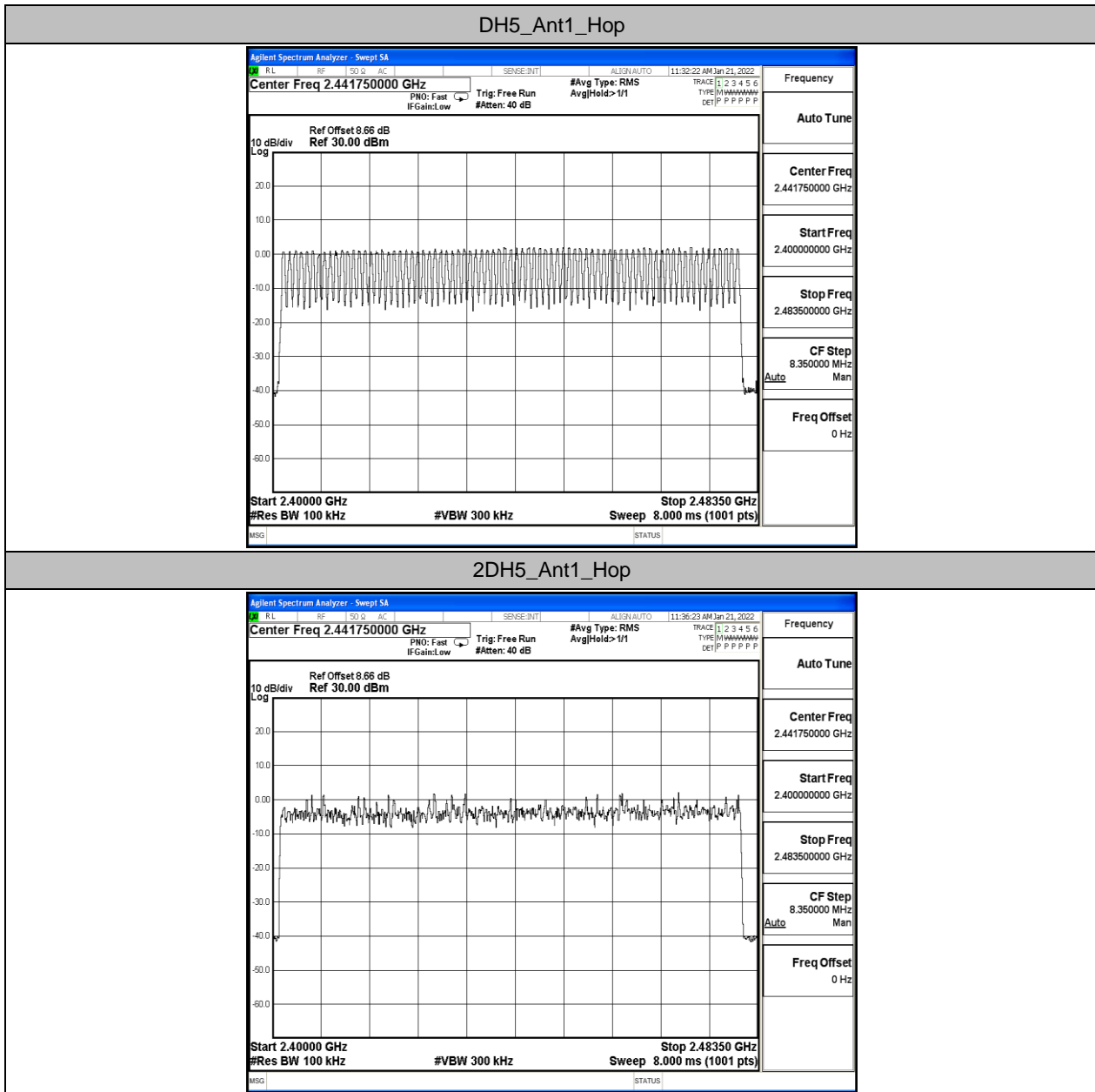


A.5 Number of hopping channels

Test Result

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

Test Graphs



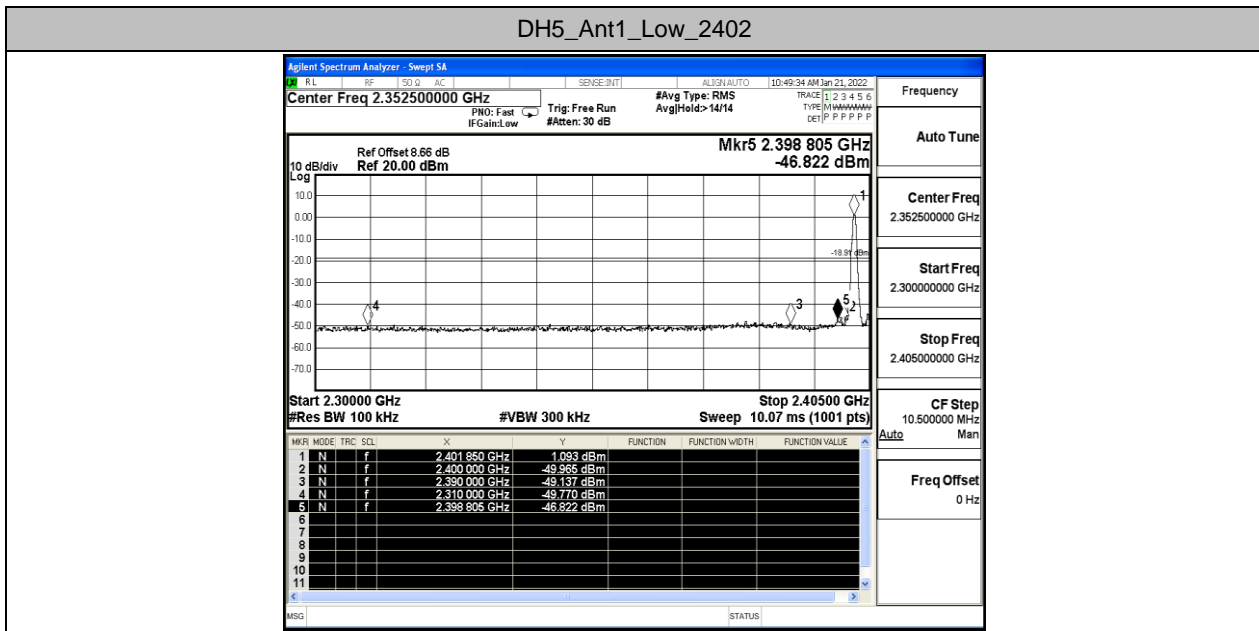


A.6 Band edge measurements

Test Result

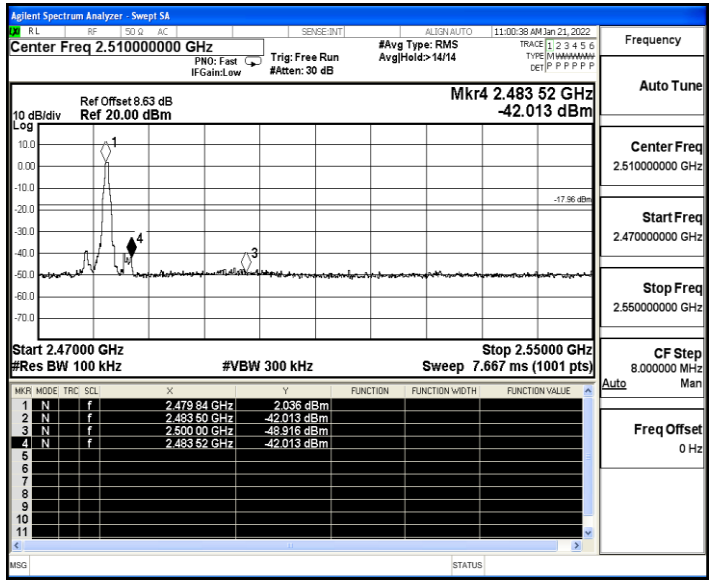
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	1.09	-46.82	≤-18.91	PASS
		High	2480	2.04	-42.01	≤-17.96	PASS
		Low	Hop_2402	0.64	-46.7	≤-19.36	PASS
		High	Hop_2480	1.76	-47.96	≤-18.24	PASS
2DH5	Ant1	Low	2402	-0.89	-46.28	≤-20.89	PASS
		High	2480	1.88	-42.79	≤-18.12	PASS
		Low	Hop_2402	-0.31	-48.65	≤-20.31	PASS
		High	Hop_2480	1.54	-47.99	≤-18.47	PASS

Test Graphs

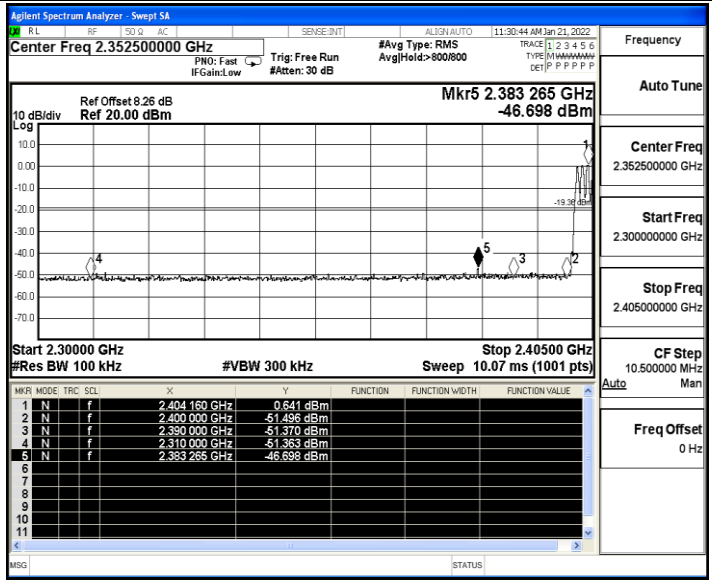




DH5_Ant1_High_2480

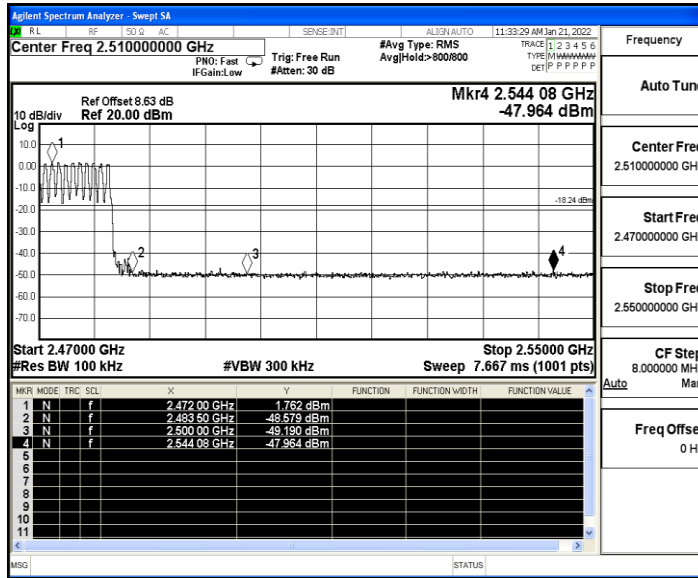


DH5_Ant1_Low_Hop_2402

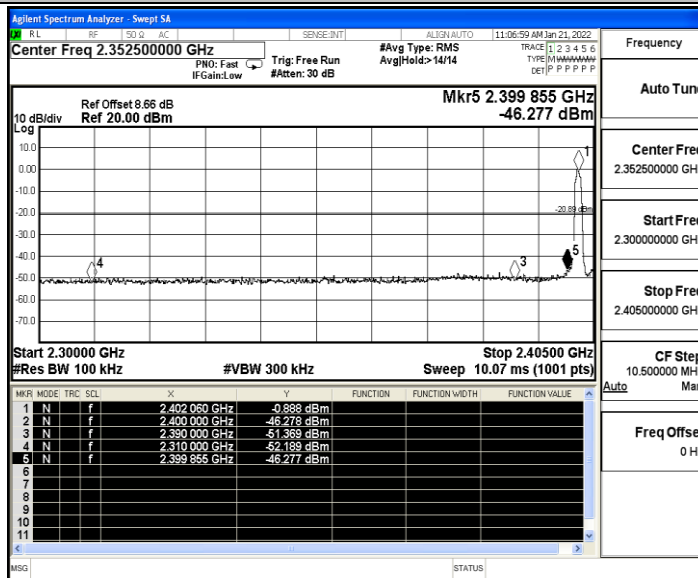




DH5_Ant1_High_Hop_2480

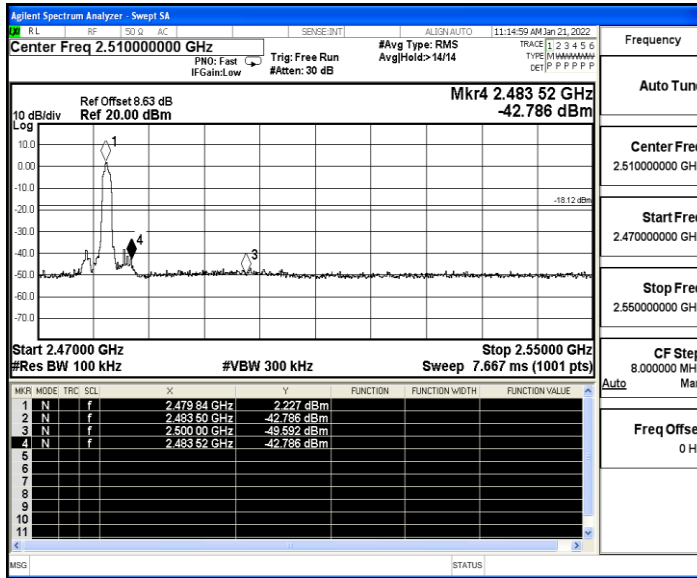


2DH5_Ant1_Low_2402

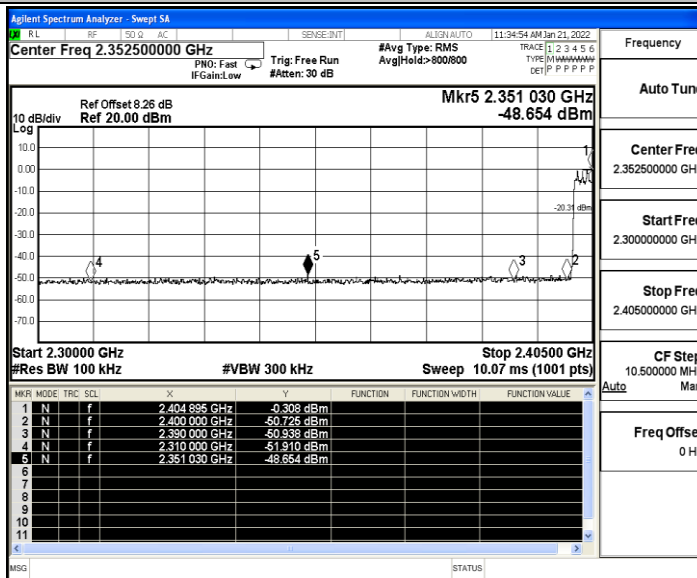




2DH5_Ant1_High_2480

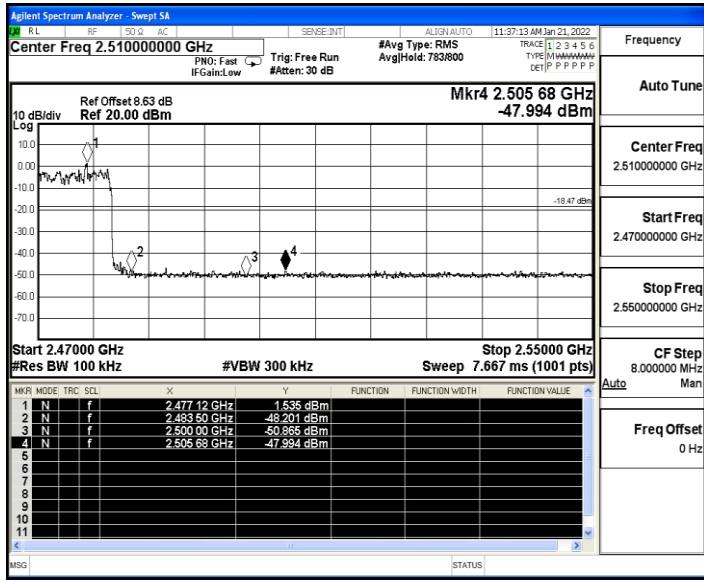


2DH5_Ant1_Low_Hop_2402





2DH5_Ant1_High_Hop_2480





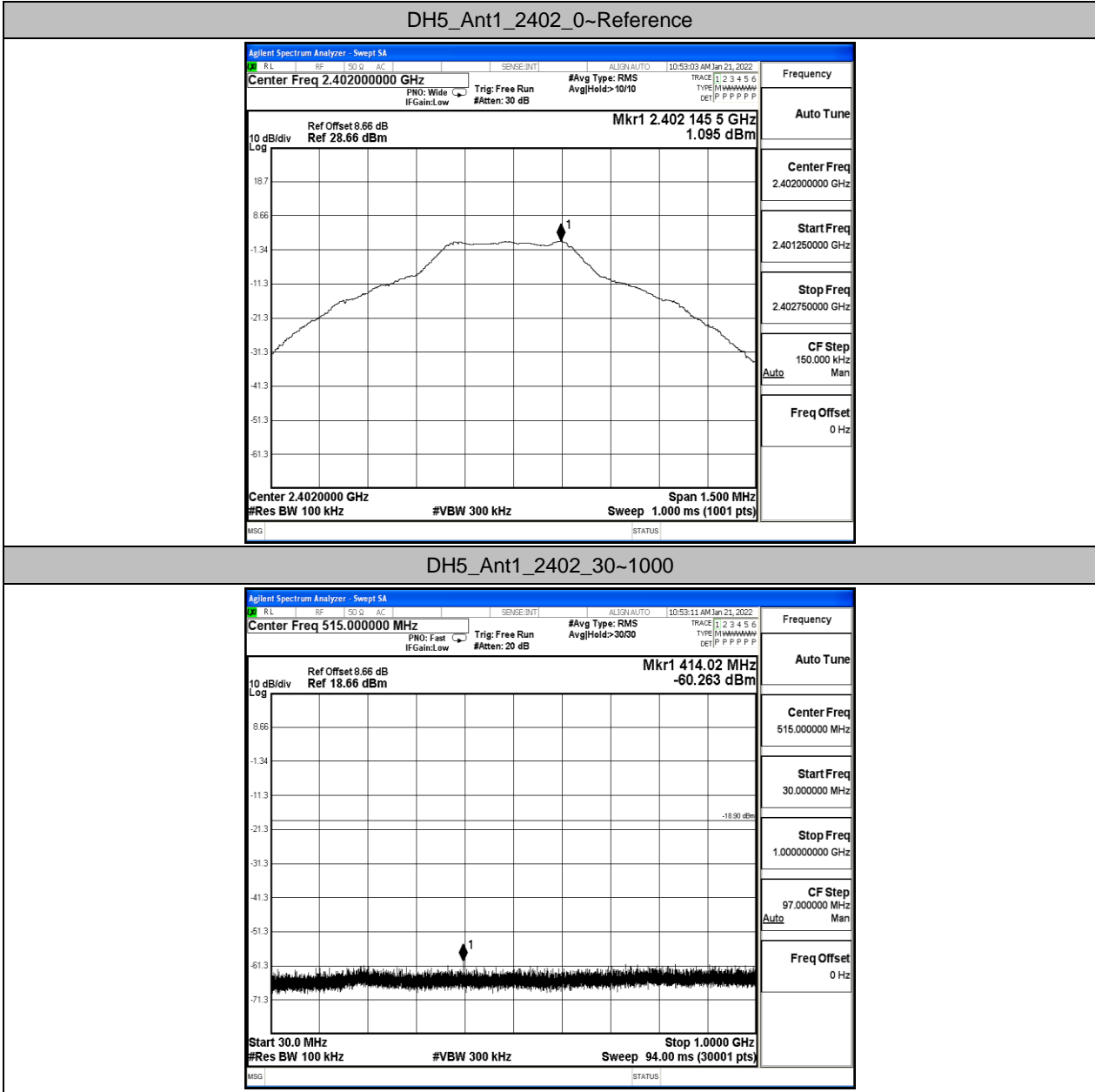
A.7 Conducted Spurious Emission

Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.10	1.10	---	PASS
			30~1000	1.10	-60.26	≤-18.9	PASS
			1000~26500	1.10	-45.34	≤-18.9	PASS
		2441	Reference	1.83	1.83	---	PASS
			30~1000	1.83	-59.57	≤-18.17	PASS
			1000~26500	1.83	-45.97	≤-18.17	PASS
		2480	Reference	1.95	1.95	---	PASS
			30~1000	1.95	-60.14	≤-18.05	PASS
			1000~26500	1.95	-45.86	≤-18.05	PASS
2DH5	Ant1	2402	Reference	1.12	1.12	---	PASS
			30~1000	1.12	-60.54	≤-18.88	PASS
			1000~26500	1.12	-46	≤-18.88	PASS
		2441	Reference	1.92	1.92	---	PASS
			30~1000	1.92	-60.03	≤-18.08	PASS
			1000~26500	1.92	-45.94	≤-18.08	PASS
		2480	Reference	2.16	2.16	---	PASS
			30~1000	2.16	-60.97	≤-17.84	PASS
			1000~26500	2.16	-46.25	≤-17.84	PASS

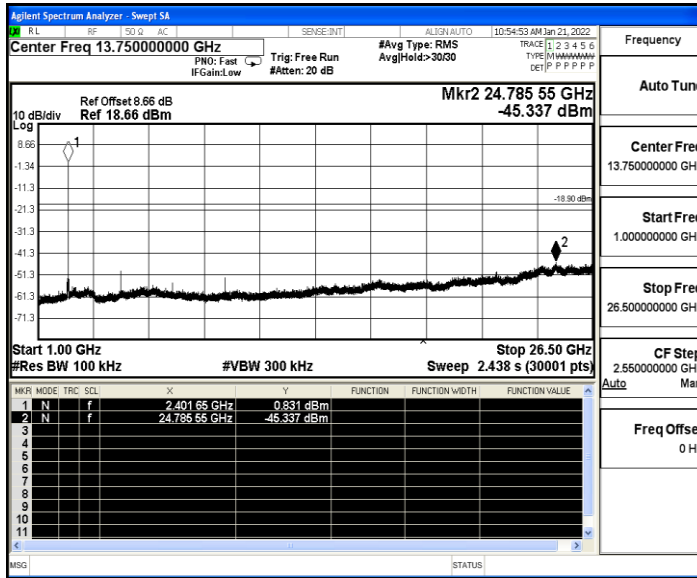


Test Graphs

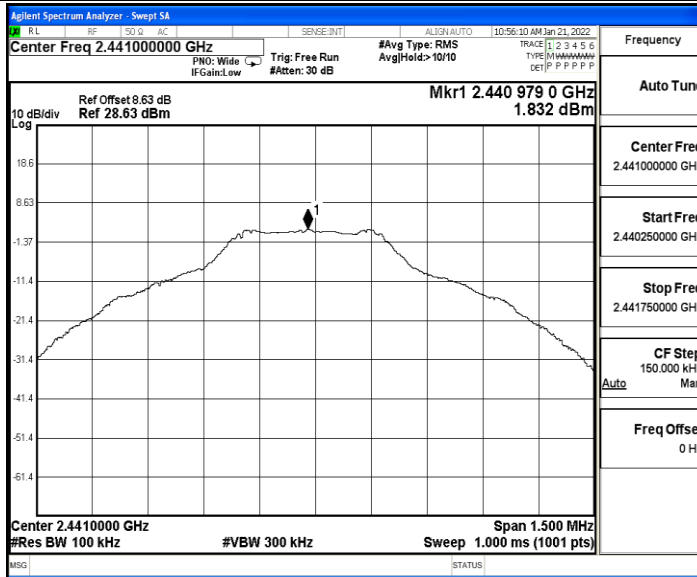




DH5_Ant1_2402_1000~26500

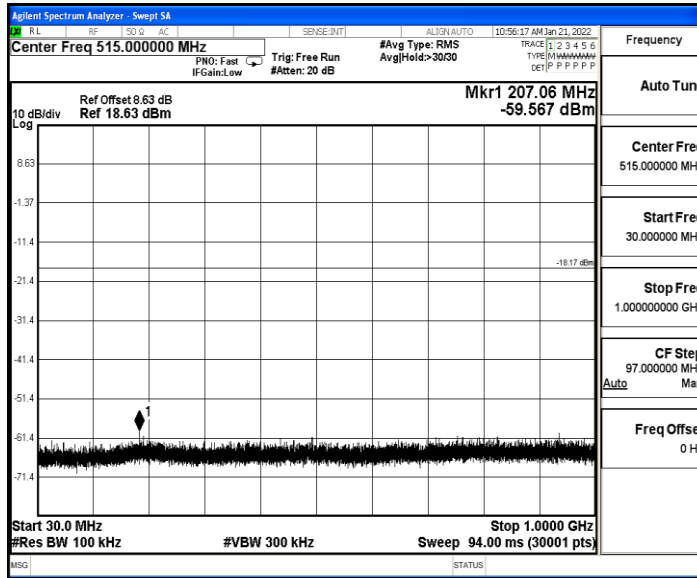


DH5_Ant1_2441_0~Reference

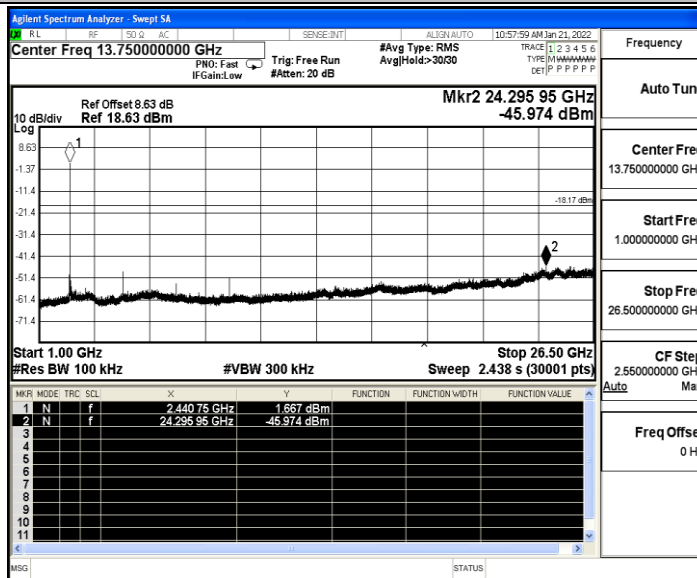




DH5_Ant1_2441_30~1000

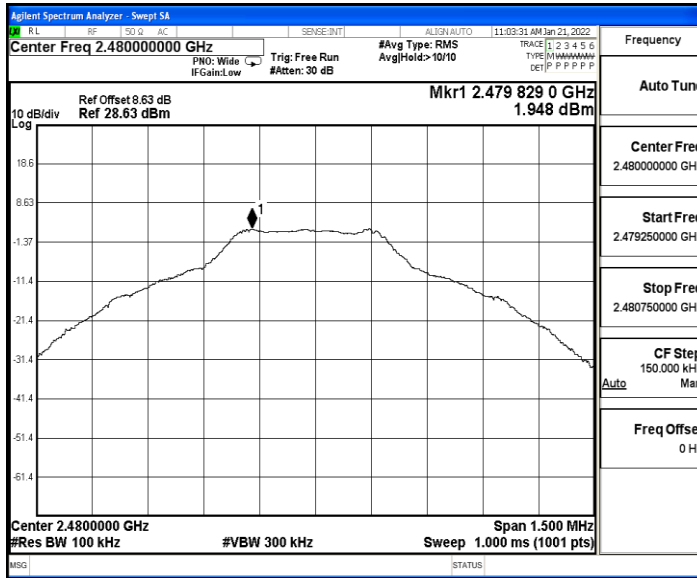


DH5_Ant1_2441_1000~26500

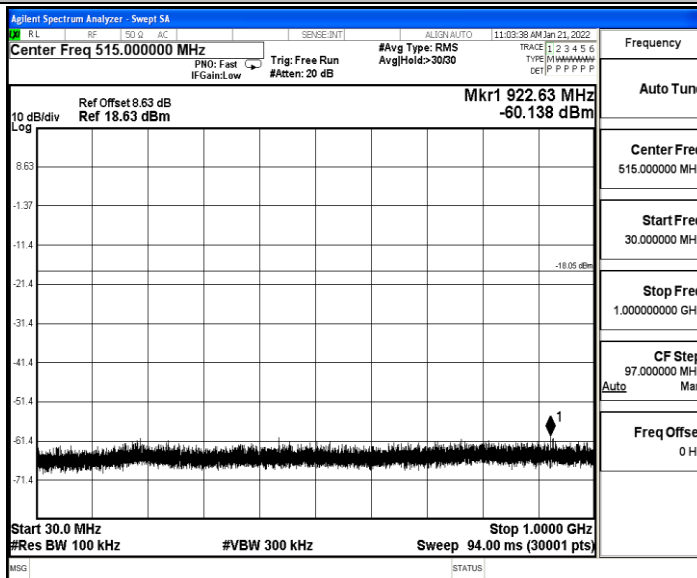




DH5_Ant1_2480_0~Reference

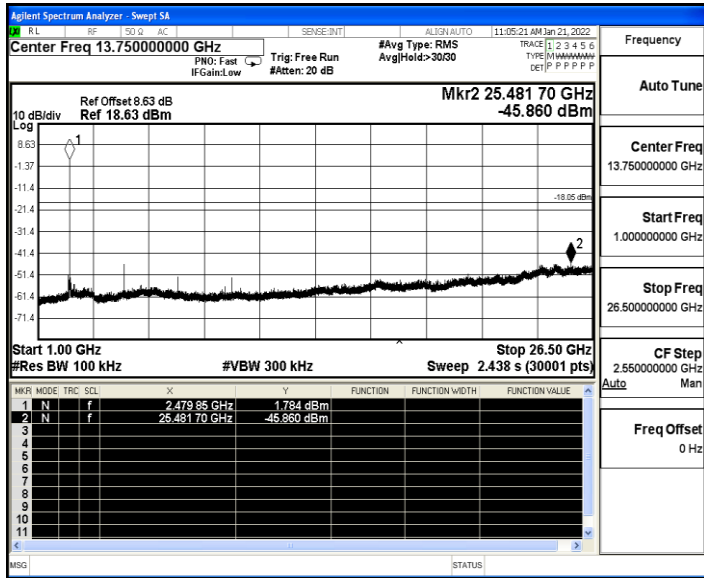


DH5_Ant1_2480_30~1000

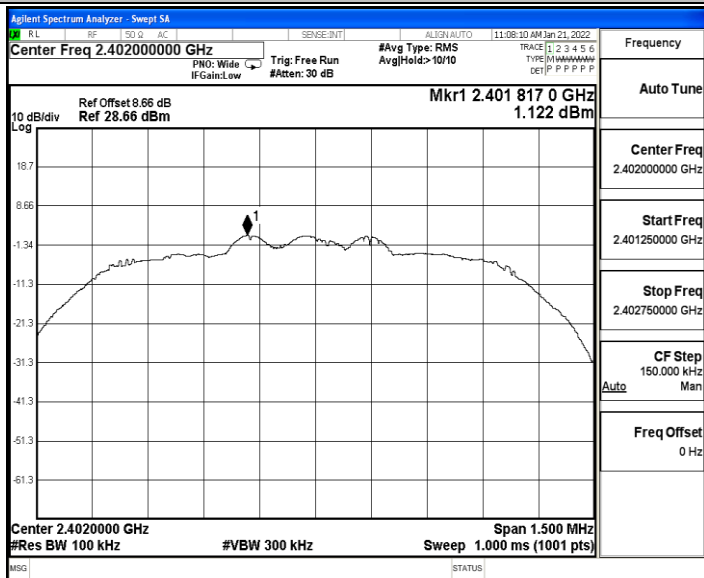




DH5_Ant1_2480_1000~26500

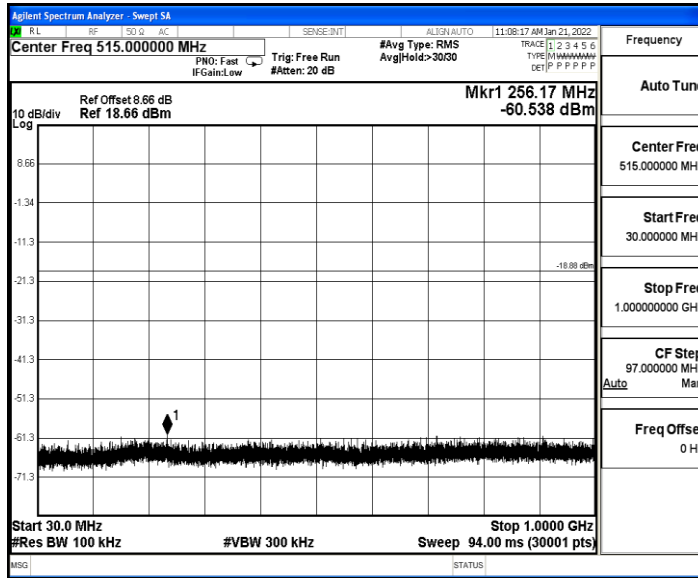


2DH5_Ant1_2402_0~Reference

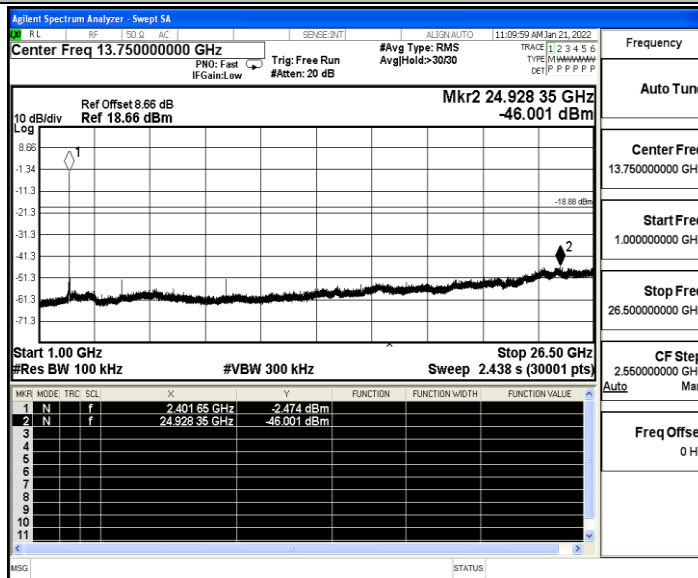




2DH5_Ant1_2402_30~1000

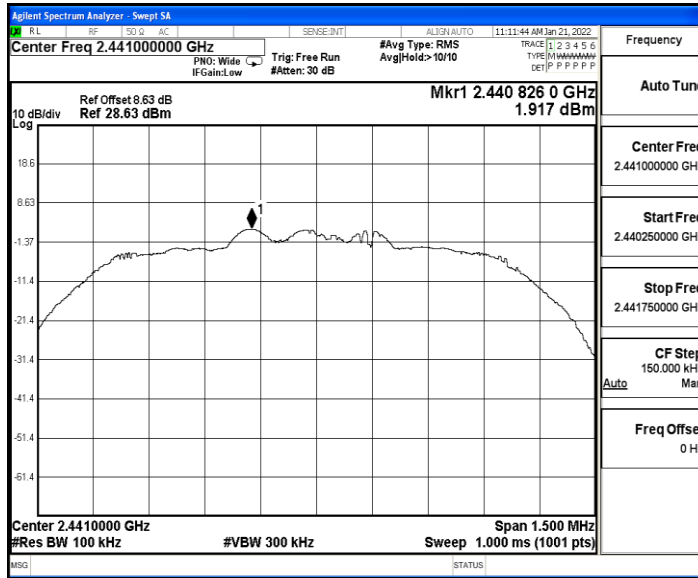


2DH5_Ant1_2402_1000~26500

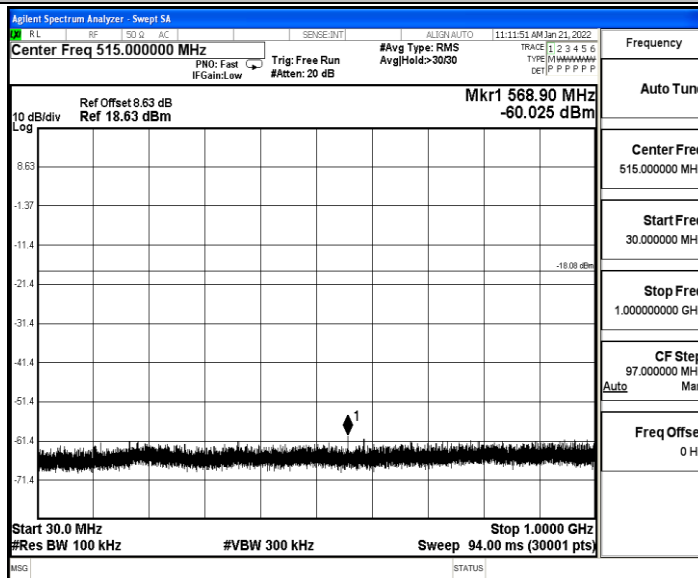




2DH5_Ant1_2441_0~Reference

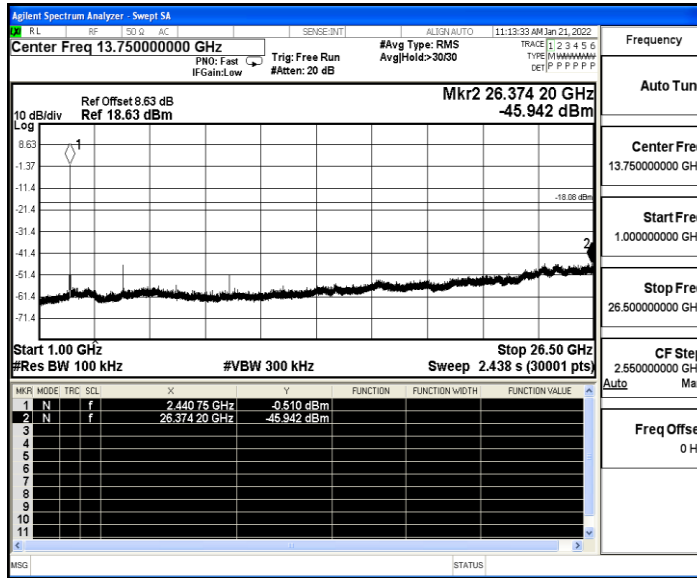


2DH5_Ant1_2441_30~1000

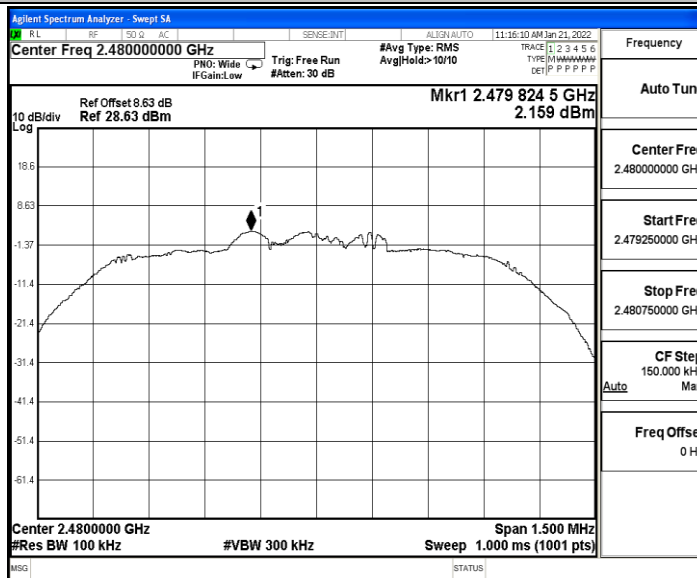




2DH5_Ant1_2441_1000~26500

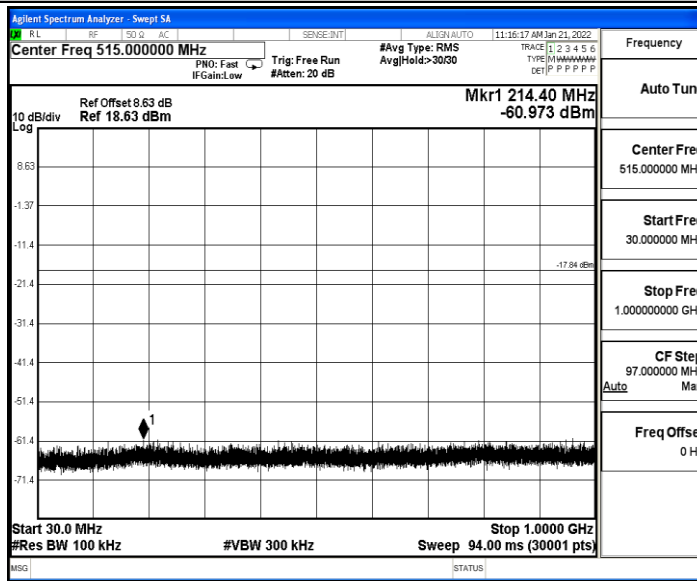


2DH5_Ant1_2480_0~Reference

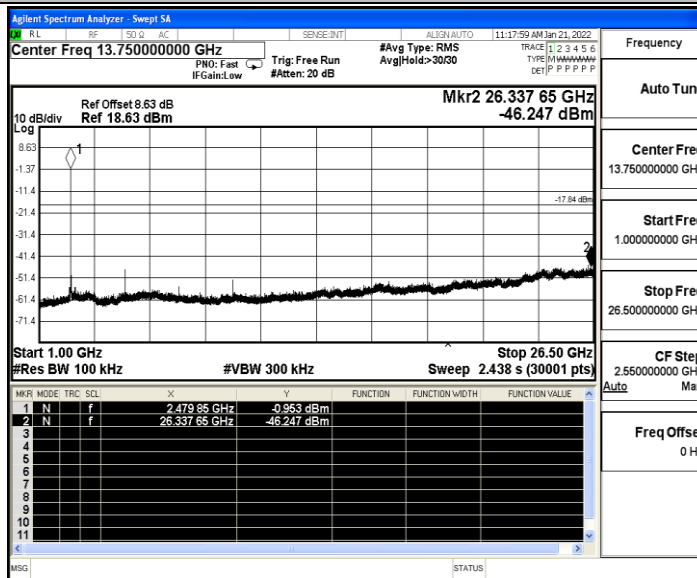




2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500





A.8 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict		
DH5	Ant1	Low	2402	AV	2310.000	-58.01	≤-41.20	37.19	≤54	PASS		
				AV	2389.985	-57.47	≤-41.20	37.73	≤54	PASS		
				AV	2390.000	-57.47	≤-41.20	37.73	≤54	PASS		
				Peak	2310.000	-48.37	≤-21.20	46.83	≤74	PASS		
				Peak	2375.180	-46.06	≤-21.20	49.14	≤74	PASS		
				Peak	2390.000	-48.53	≤-21.20	46.67	≤74	PASS		
		High	2480	AV	2483.500	-54.48	≤-41.20	40.72	≤54	PASS		
				AV	2483.520	-54.48	≤-41.20	40.72	≤54	PASS		
				AV	2500.000	-57.00	≤-41.20	38.20	≤54	PASS		
				Peak	2483.500	-47.02	≤-21.20	48.18	≤74	PASS		
				Peak	2486.400	-45.59	≤-21.20	49.61	≤74	PASS		
				Peak	2500.000	-47.35	≤-21.20	47.85	≤74	PASS		
		Low	Hop_24 02	Peak	2310.000	-38.52	≤-21.20	56.68	≤74	PASS		
				Peak	2385.575	-36.00	≤-21.20	59.20	≤74	PASS		
				Peak	2390.000	-37.64	≤-21.20	57.56	≤74	PASS		
		High	Hop_24 80	Peak	2483.500	-36.09	≤-21.20	59.11	≤74	PASS		
				Peak	2483.840	-34.07	≤-21.20	61.13	≤74	PASS		
				Peak	2500.000	-36.89	≤-21.20	58.31	≤74	PASS		
		2DH5	Ant1	Low	2402	AV	2310.000	-48.26	≤-41.20	46.94	≤54	PASS
						AV	2382.005	-46.23	≤-41.20	48.97	≤54	PASS
						AV	2390.000	-47.04	≤-41.20	48.16	≤54	PASS
Peak	2310.000					-38.86	≤-21.20	56.34	≤74	PASS		
Peak	2389.145					-35.3	≤-21.20	59.90	≤74	PASS		
Peak	2390.000					-36.73	≤-21.20	58.47	≤74	PASS		
High	2480			AV	2483.500	-42.85	≤-41.20	52.35	≤54	PASS		
				AV	2483.520	-42.85	≤-41.20	52.35	≤54	PASS		
				AV	2500.000	-45.37	≤-41.20	49.83	≤54	PASS		
				Peak	2483.500	-33.54	≤-21.20	61.66	≤74	PASS		
				Peak	2483.760	-33.24	≤-21.20	61.96	≤74	PASS		
				Peak	2500.000	-36.07	≤-21.20	59.13	≤74	PASS		
Low	Hop_24 02			Peak	2310.000	-37.77	≤-21.20	57.43	≤74	PASS		
				Peak	2381.165	-36.36	≤-21.20	58.84	≤74	PASS		
				Peak	2390.000	-38.34	≤-21.20	56.86	≤74	PASS		
High	Hop_24 80			Peak	2483.500	-35.48	≤-21.20	59.72	≤74	PASS		
				Peak	2484.240	-35.19	≤-21.20	60.01	≤74	PASS		



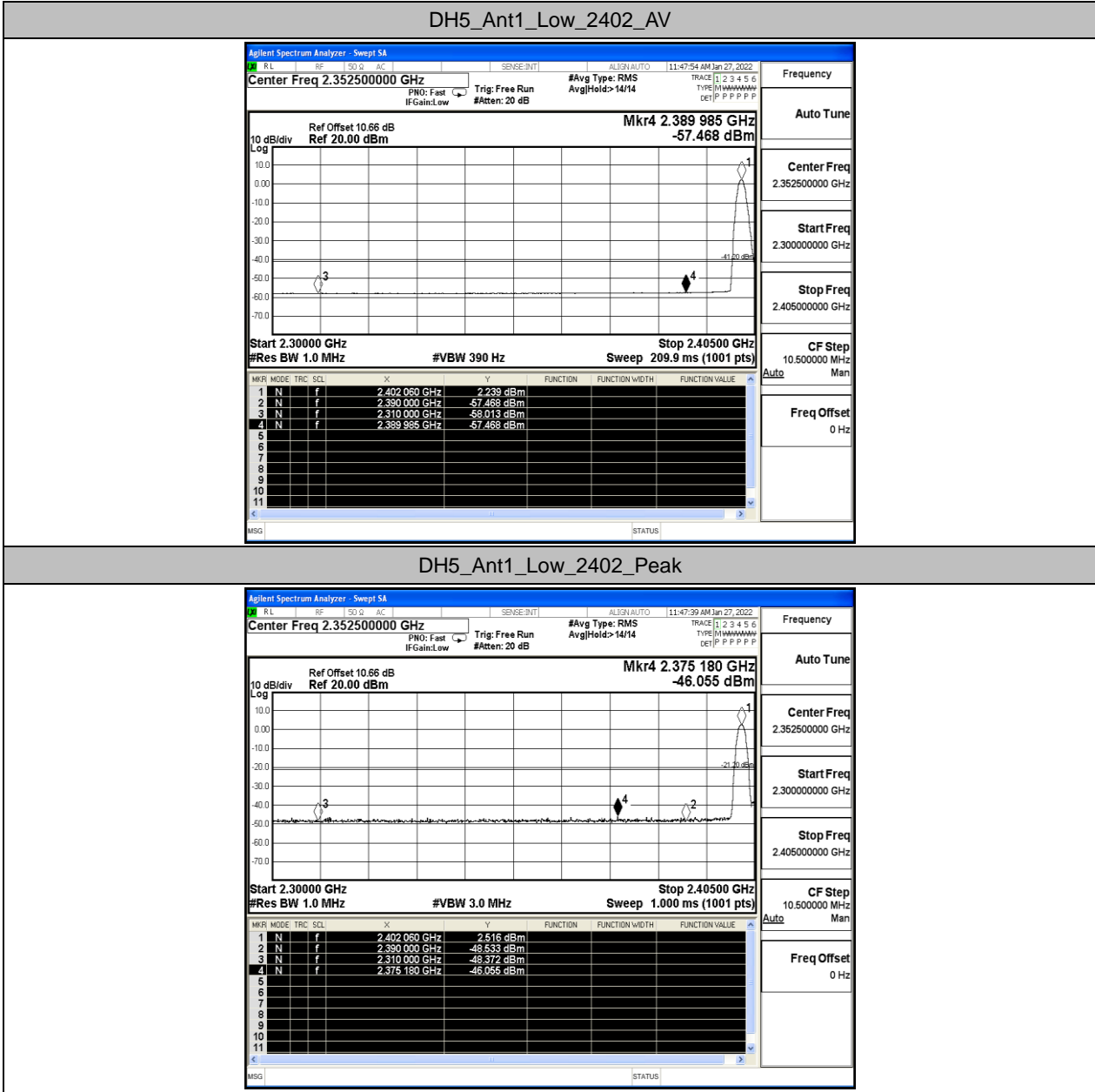
				Peak	2500.000	-37.4	≤-21.20	57.80	≤74	PASS
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Note:

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.

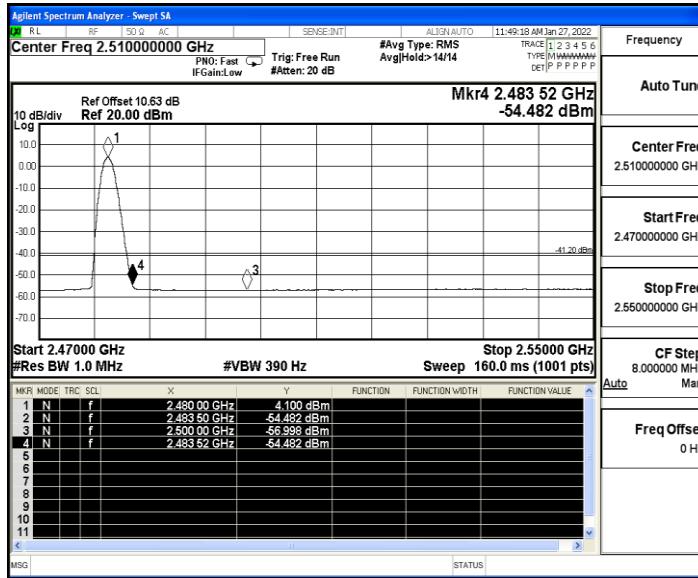


Test Graphs

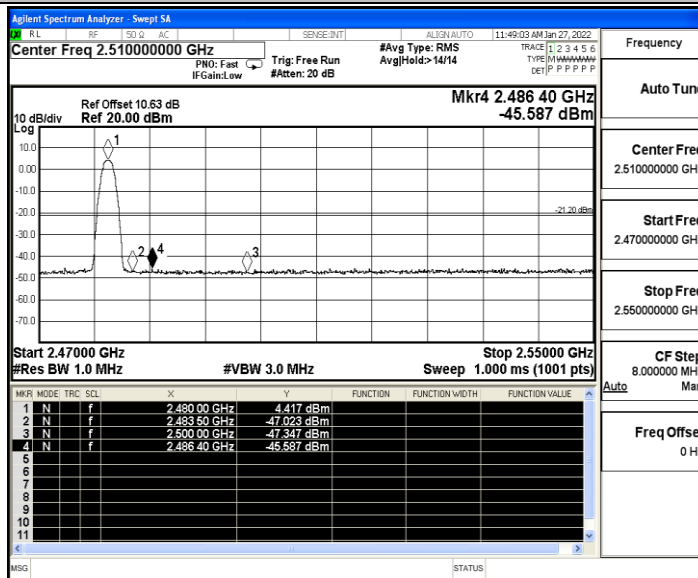




DH5_Ant1_High_2480_AV

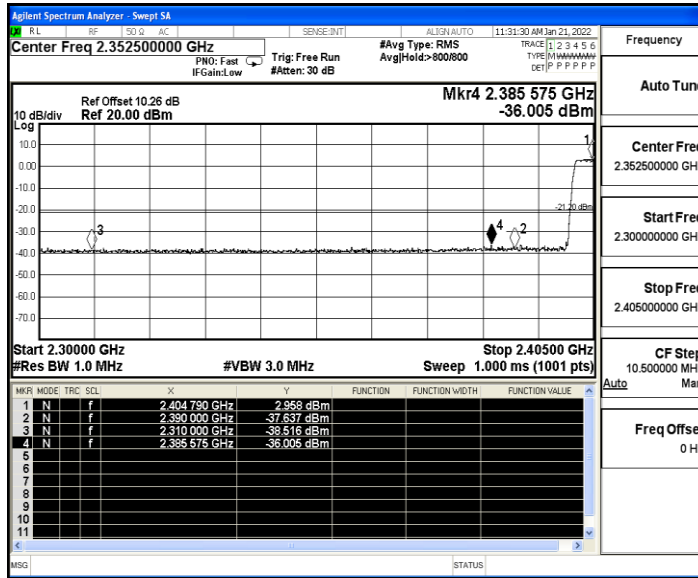


DH5_Ant1_High_2480_Peak

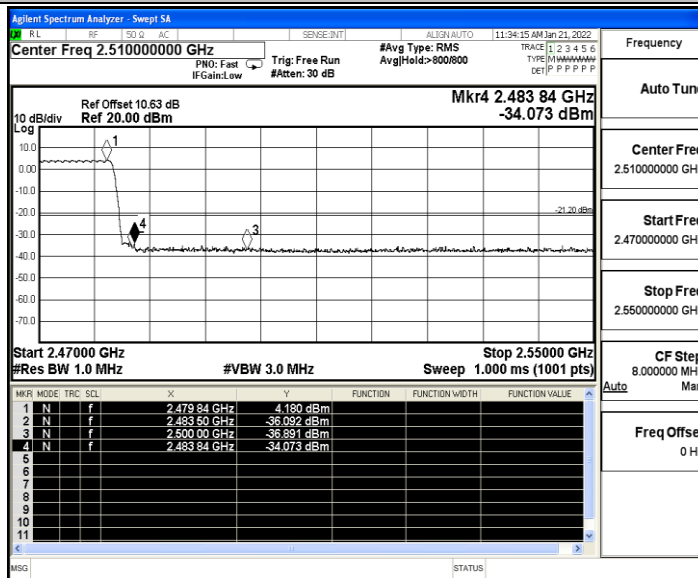




DH5_Ant1_Low_Hop_2402_Peak

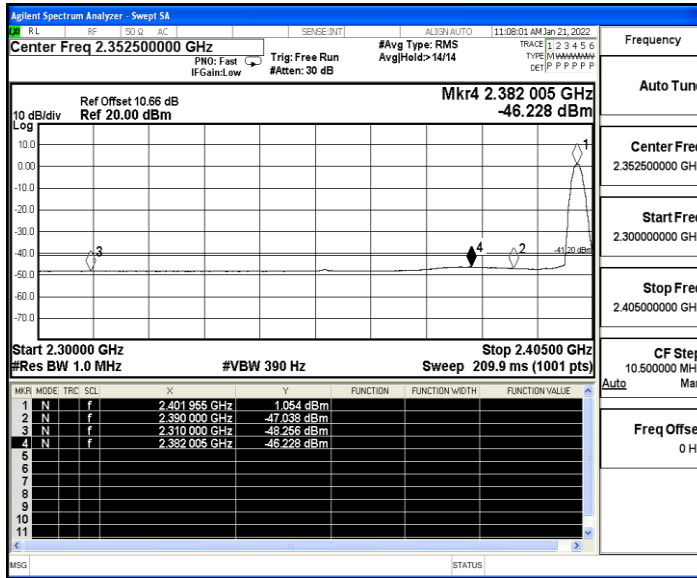


DH5_Ant1_High_Hop_2480_Peak

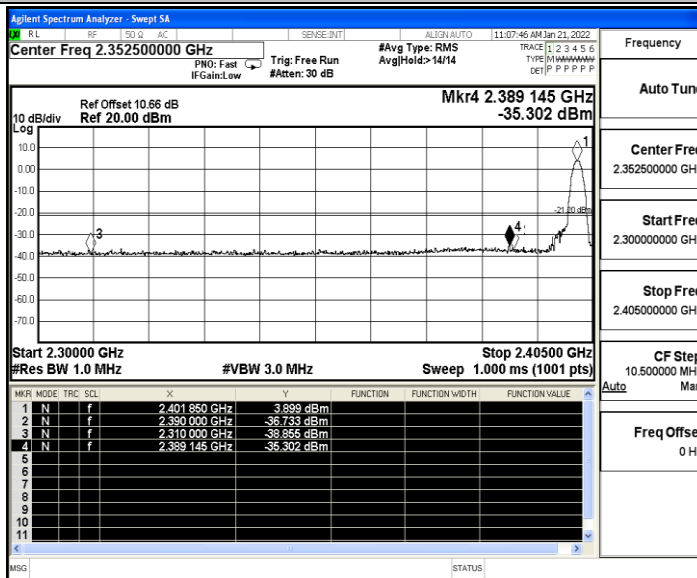




2DH5_Ant1_Low_2402_AV

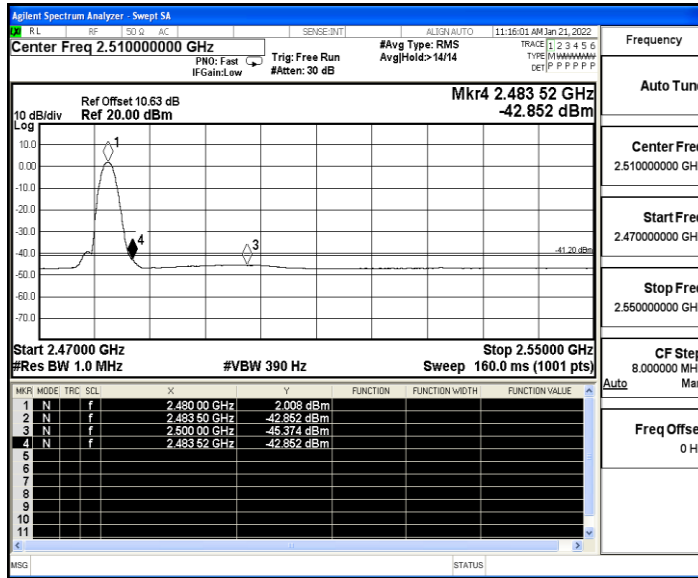


2DH5_Ant1_Low_2402_Peak

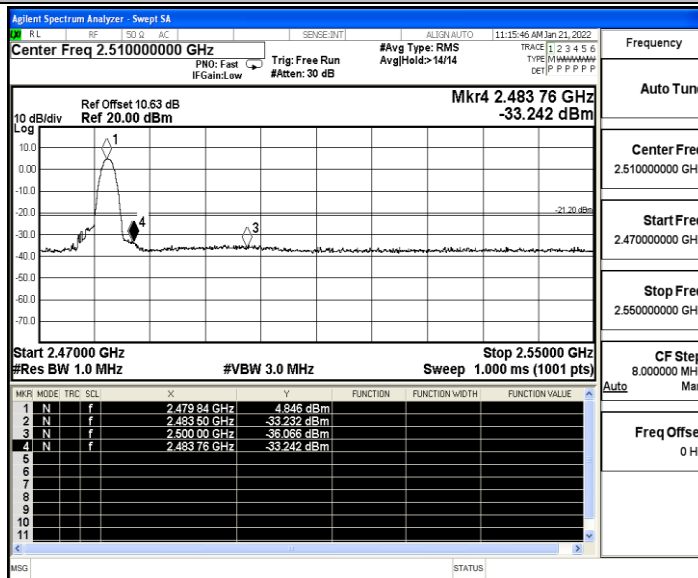




2DH5_Ant1_High_2480_AV

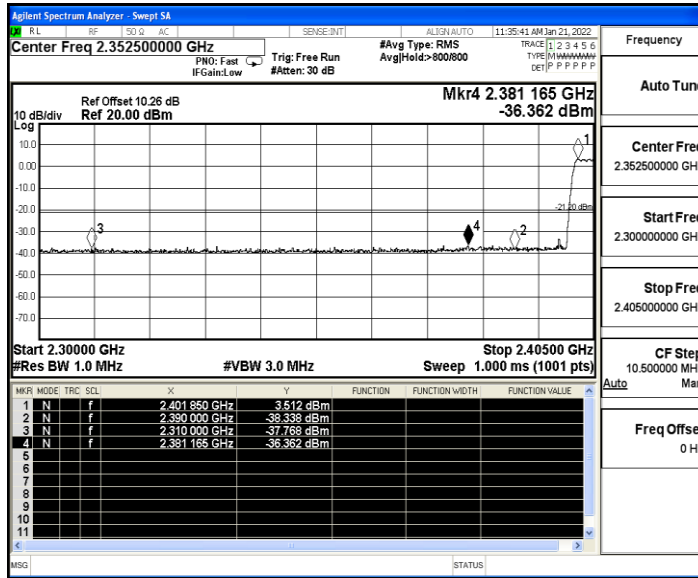


2DH5_Ant1_High_2480_Peak





2DH5_Ant1_Low_Hop_2402_Peak



2DH5_Ant1_High_Hop_2480_Peak

