



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: SPACE

Trade Mark: BAMiNi

Test Model: SPACE

Environmental Conditions

Temperature:	23.5 ° C
Relative Humidity:	54.0%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li Huan



Appendix A.1: Maximum conducted output power

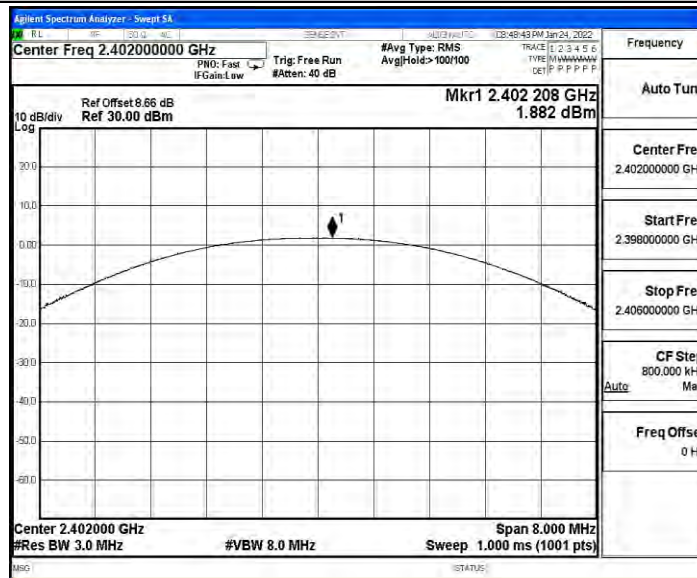
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.88	≤20.97	PASS
		2441	3.25	≤20.97	PASS
		2480	1.72	≤20.97	PASS
2DH5	Ant1	2402	1.03	≤20.97	PASS
		2441	2.43	≤20.97	PASS
		2480	0.96	≤20.97	PASS
3DH5	Ant1	2402	1.24	≤20.97	PASS
		2441	2.64	≤20.97	PASS
		2480	1.21	≤20.97	PASS

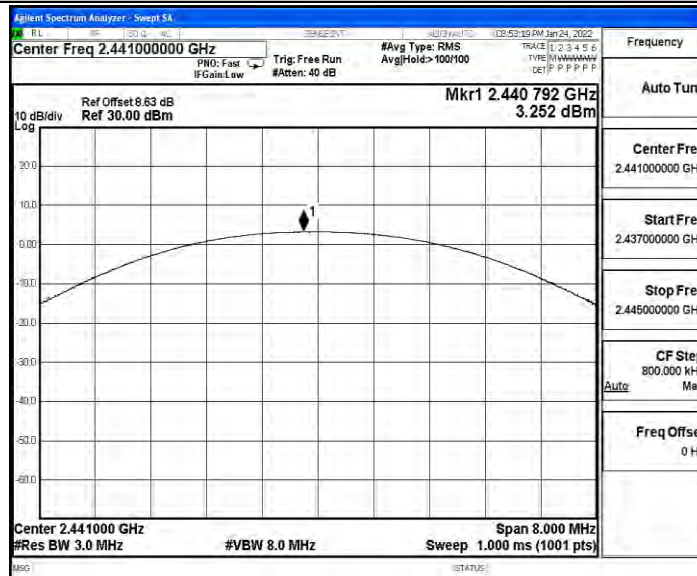


Test Graphs

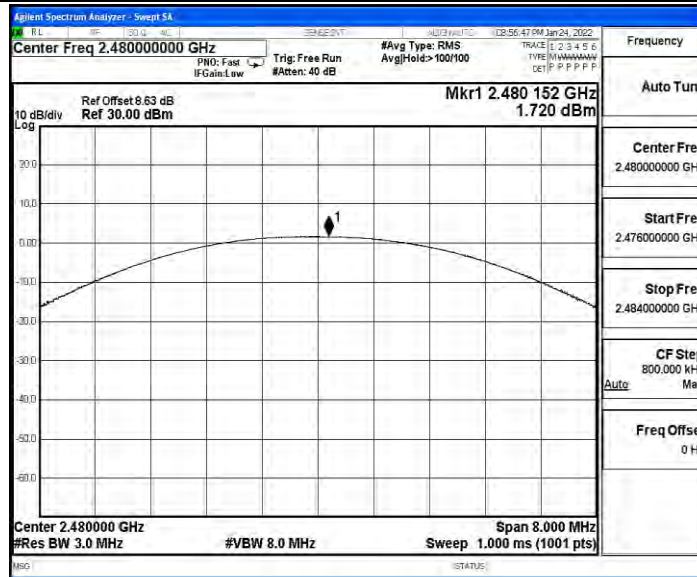
DH5_Ant1_2402



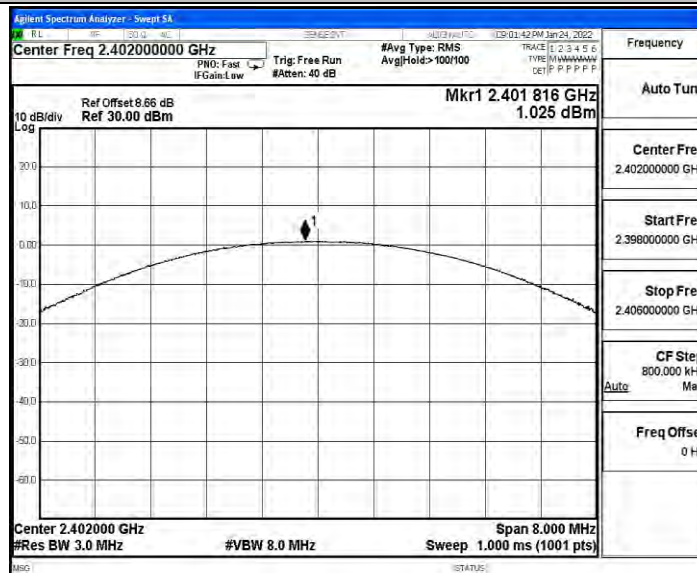
DH5_Ant1_2441



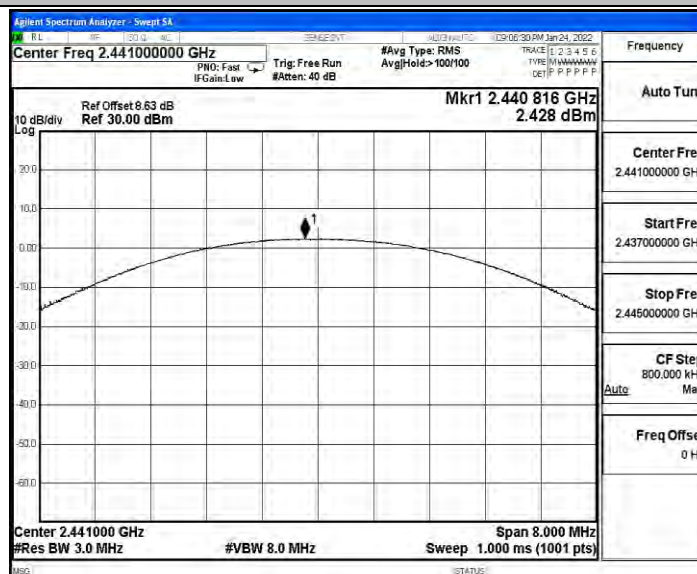
DH5_Ant1_2480



2DH5_Ant1_2402

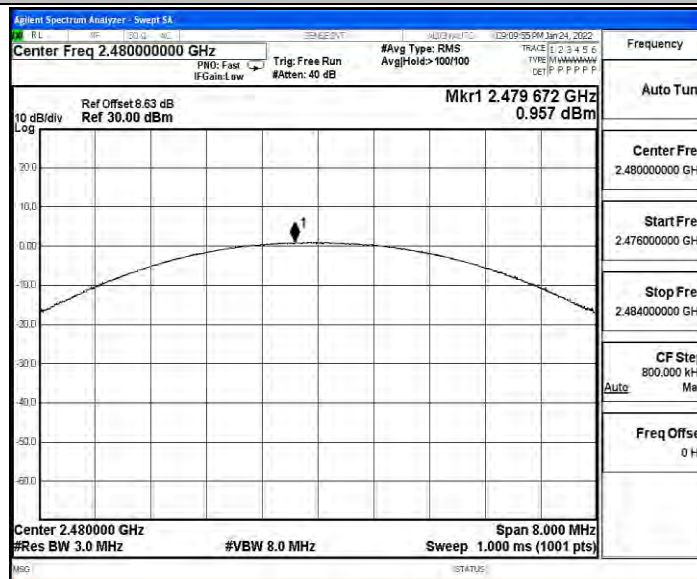


2DH5_Ant1_2441

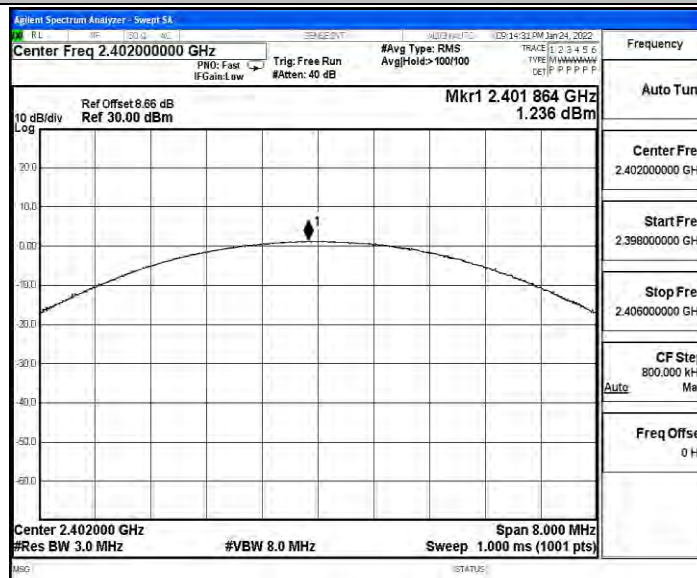




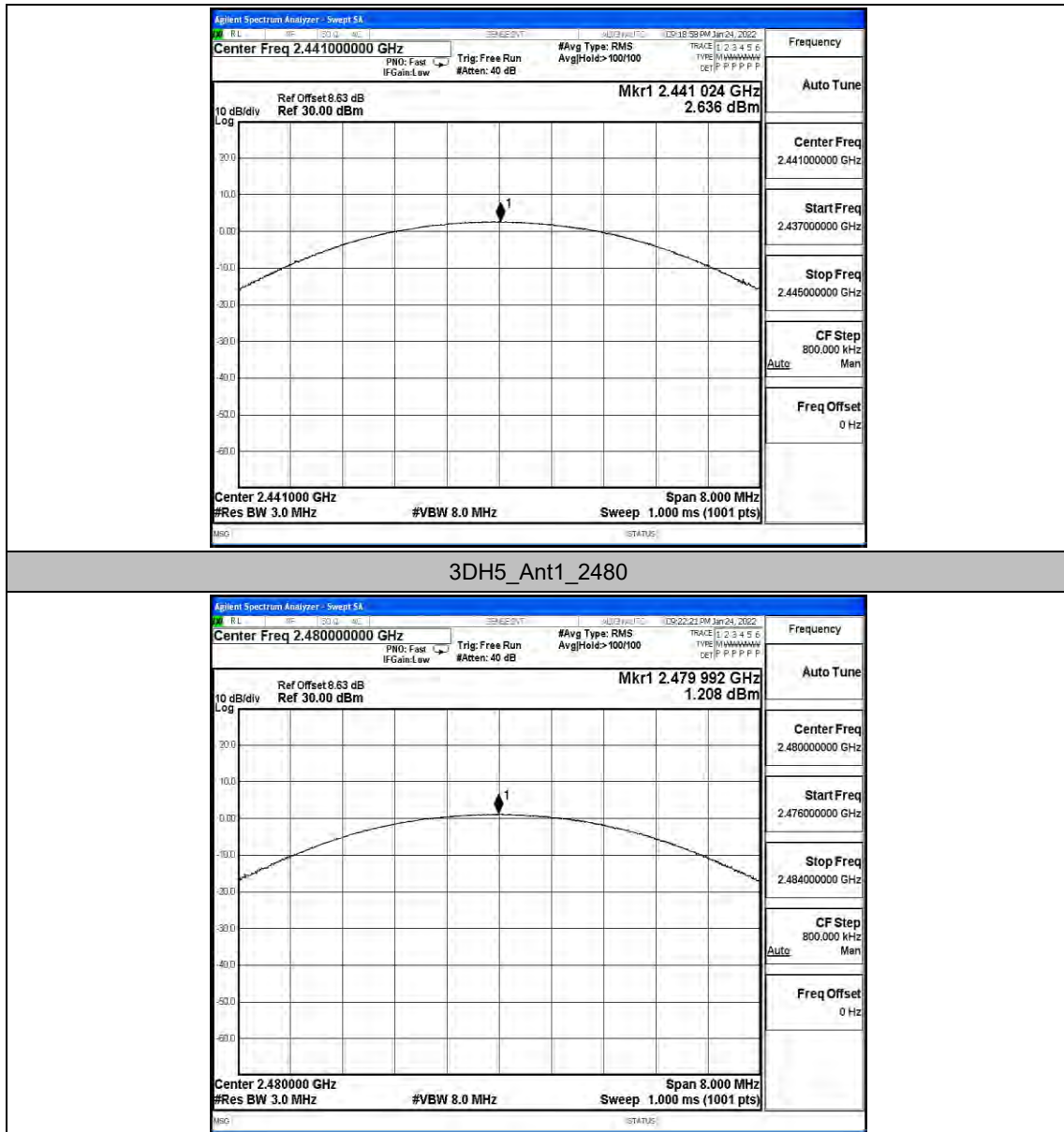
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441





Appendix A.2.1: 20dB Emission Bandwidth

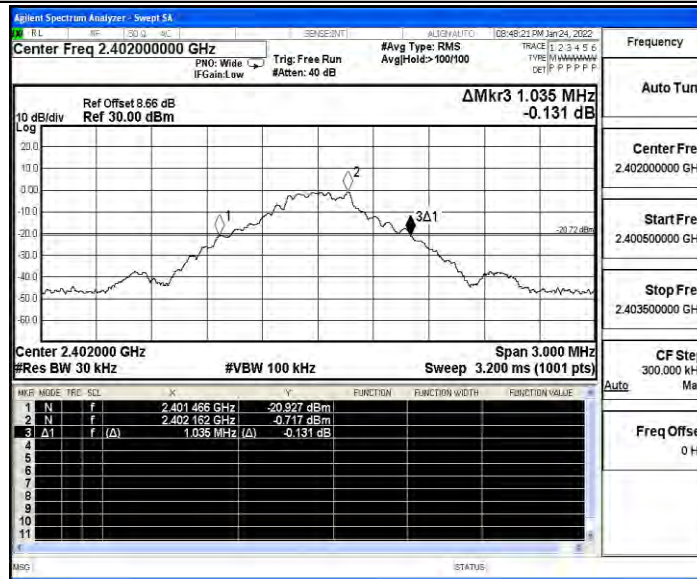
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.035	2401.466	2402.501	---	---
		2441	1.041	2440.463	2441.504	---	---
		2480	0.972	2479.529	2480.501	---	---
2DH5	Ant1	2402	1.290	2401.361	2402.651	---	---
		2441	1.293	2440.361	2441.654	---	---
		2480	1.293	2479.361	2480.654	---	---
3DH5	Ant1	2402	1.299	2401.349	2402.648	---	---
		2441	1.296	2440.349	2441.645	---	---
		2480	1.302	2479.349	2480.651	---	---

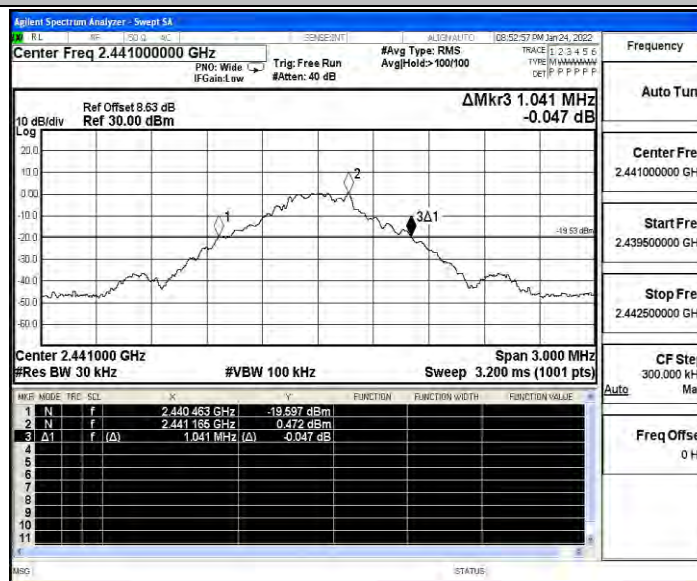


Test Graphs

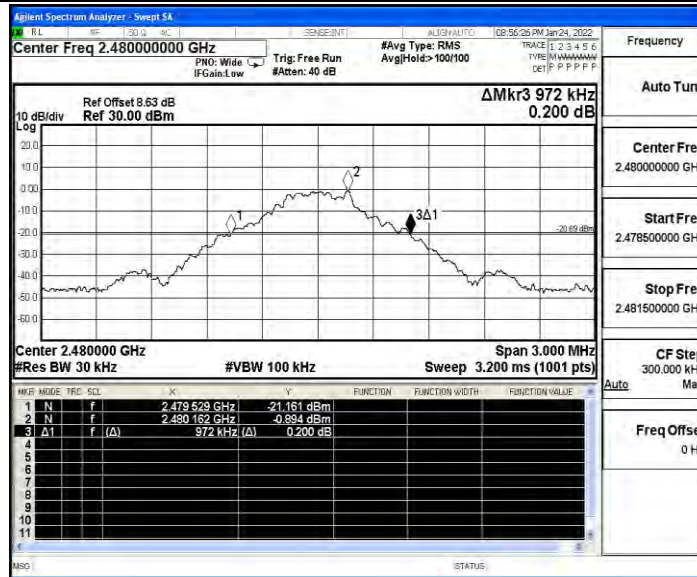
DH5_Ant1_2402



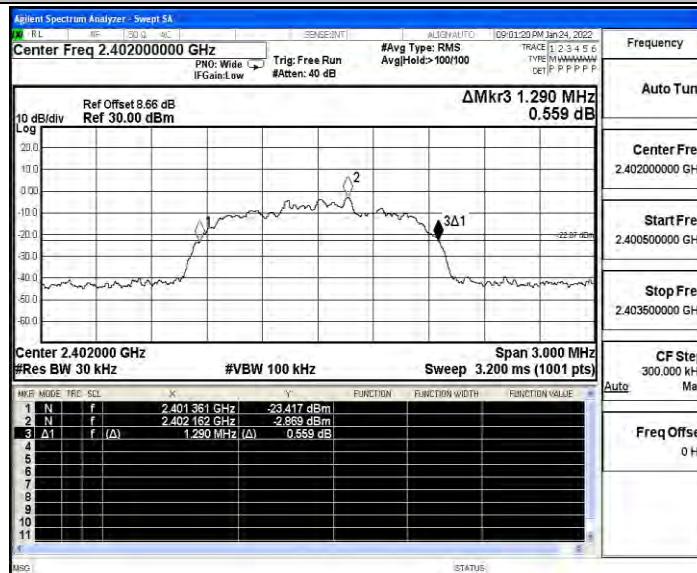
DH5_Ant1_2441



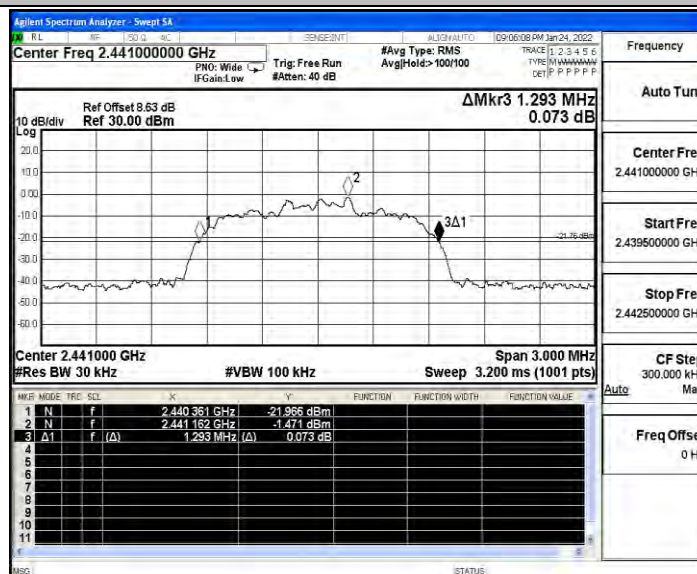
DH5_Ant1_2480



2DH5_Ant1_2402

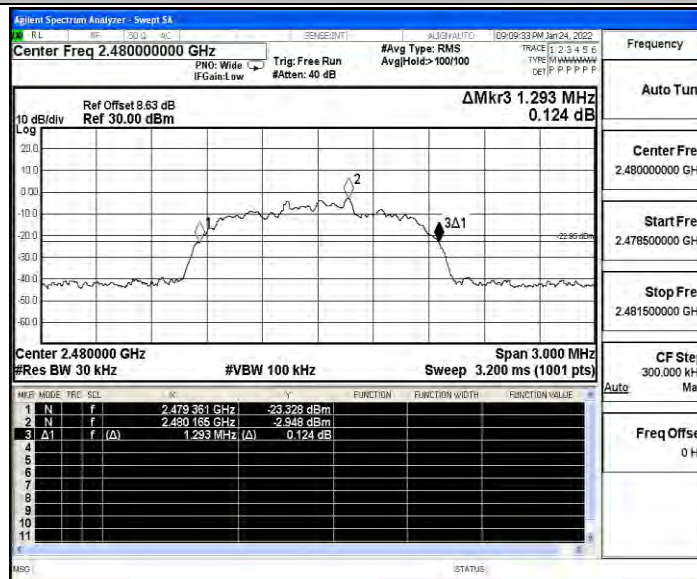


2DH5_Ant1_2441

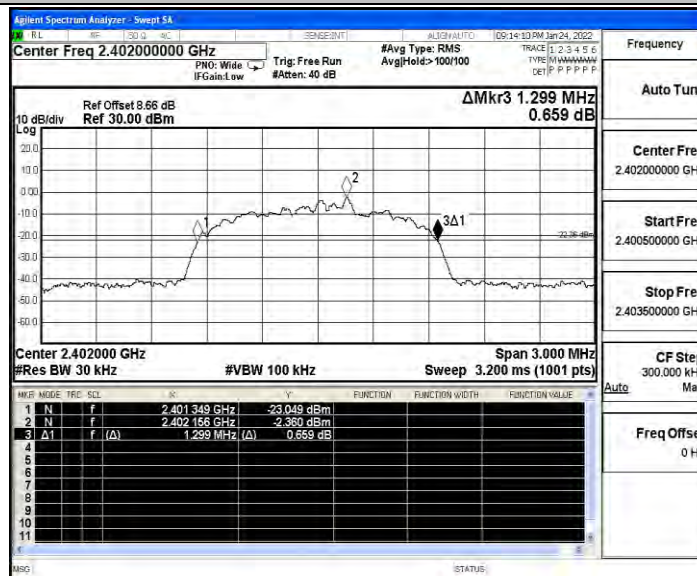




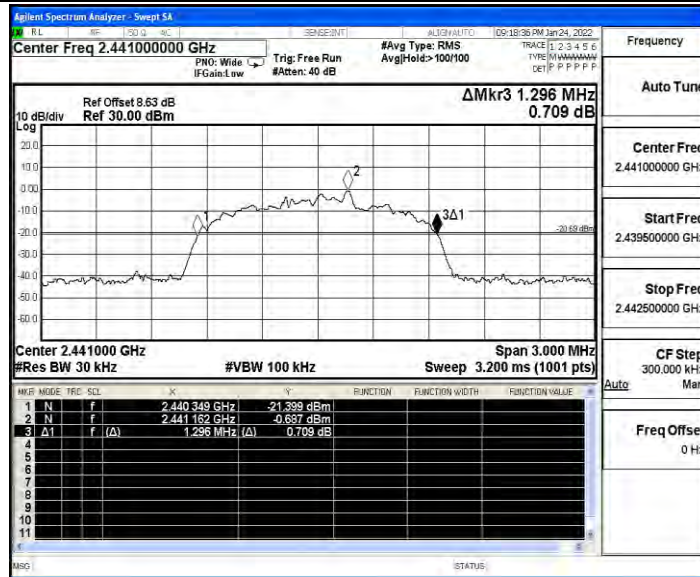
2DH5_Ant1_2480



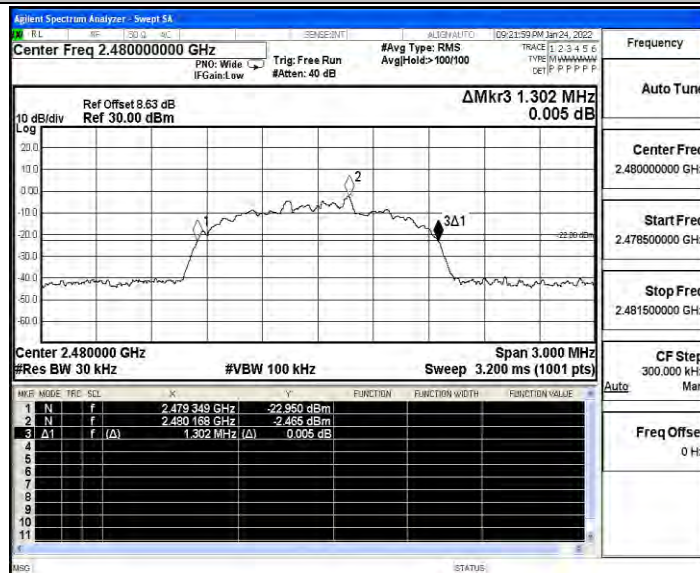
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





Appendix A.2.2: Occupied Channel Bandwidth

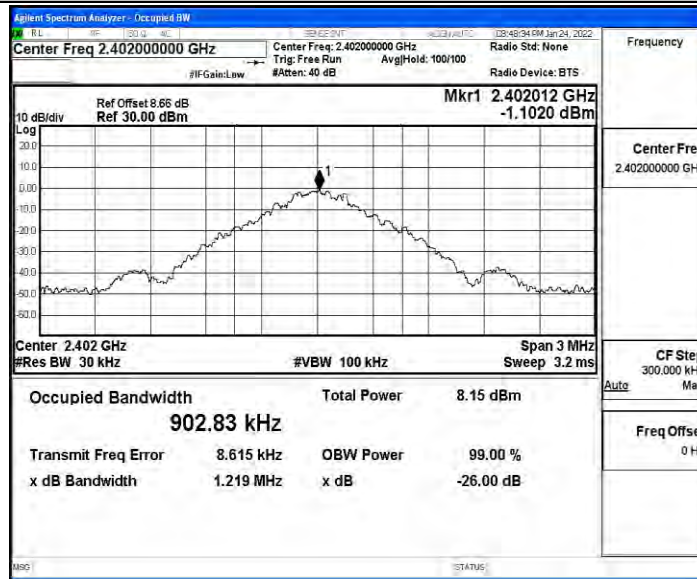
Test Result

TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.90283	2401.557	2402.460	---	---
		2441	0.91337	2440.546	2441.459	---	---
		2480	0.91476	2479.544	2480.458	---	---
2DH5	Ant1	2402	1.1817	2401.410	2402.592	---	---
		2441	1.1786	2440.408	2441.587	---	---
		2480	1.1988	2479.401	2480.600	---	---
3DH5	Ant1	2402	1.1991	2401.398	2402.597	---	---
		2441	1.1946	2440.399	2441.593	---	---
		2480	1.1935	2479.401	2480.594	---	---

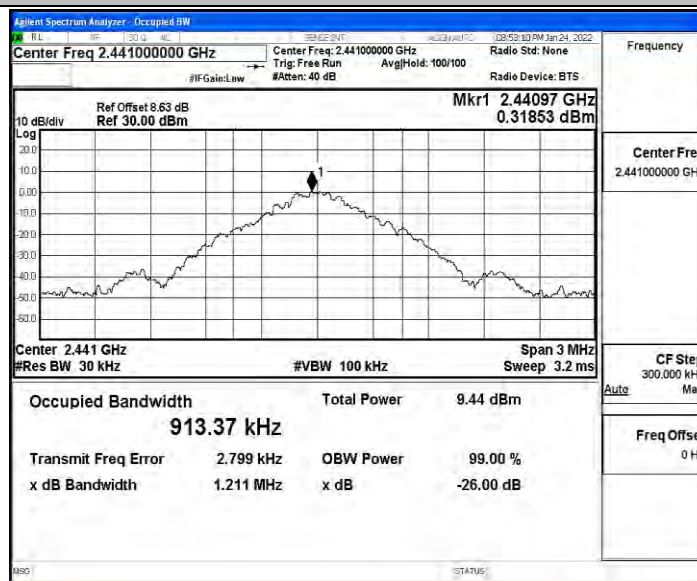


Test Graphs

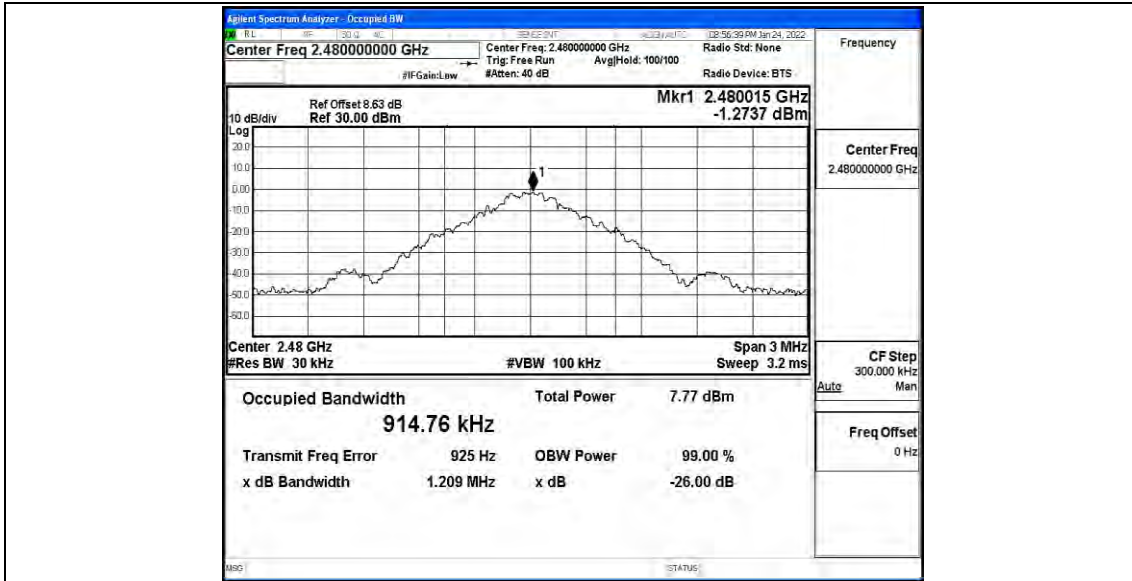
DH5_Ant1_2402



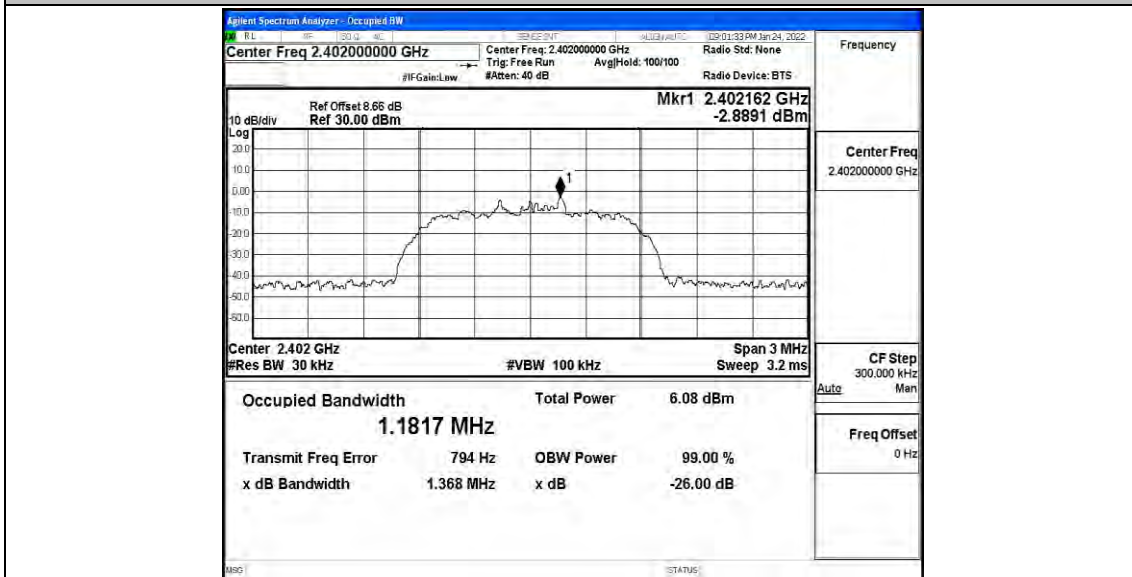
DH5_Ant1_2441



DH5_Ant1_2480



2DH5_Ant1_2402

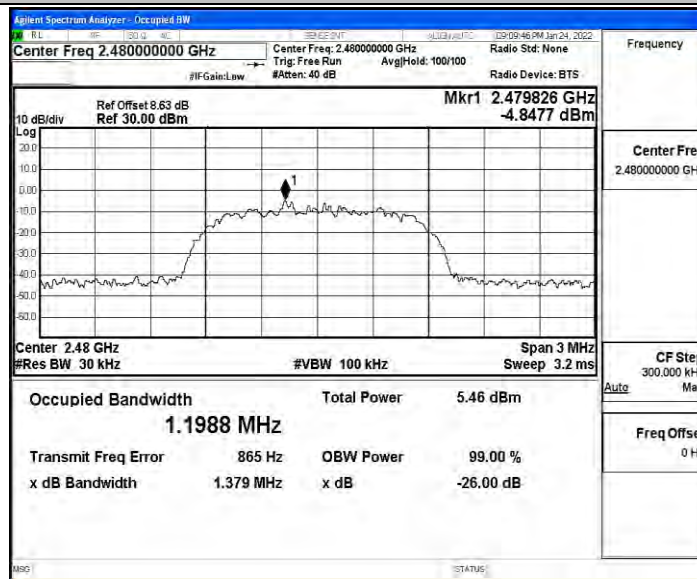


2DH5_Ant1_2441

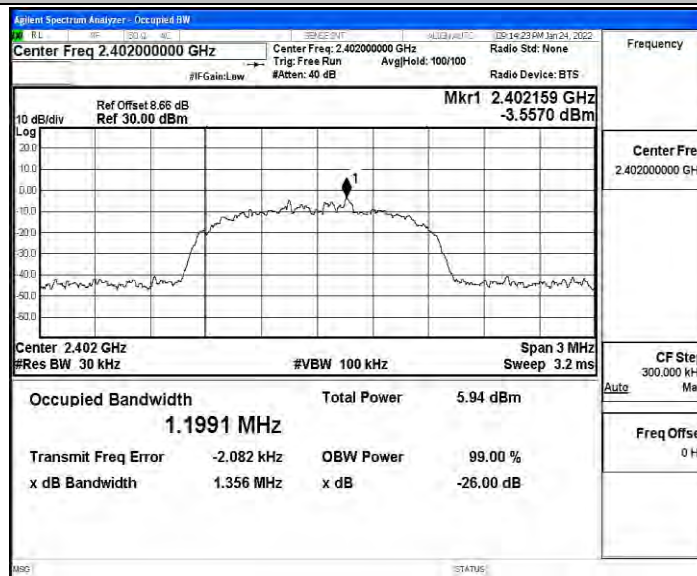




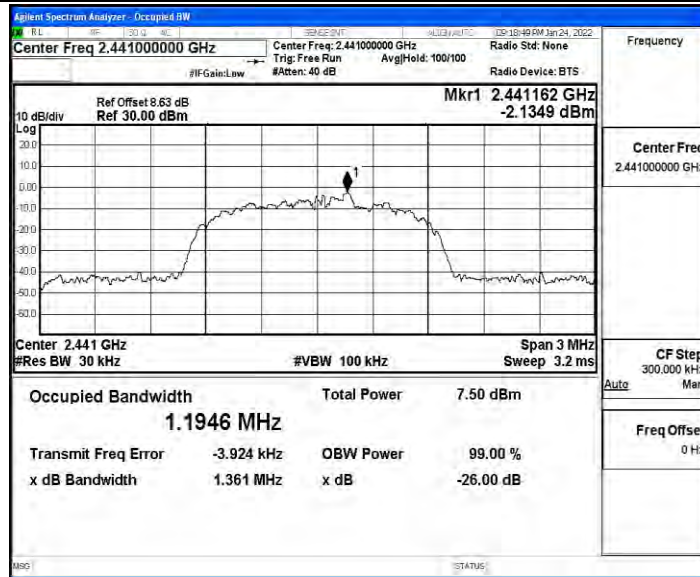
2DH5_Ant1_2480



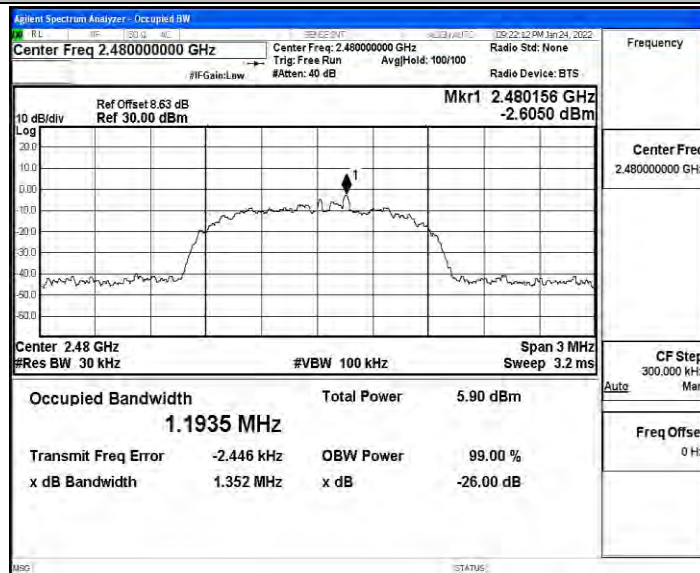
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





Appendix A.3: Carrier frequency separation

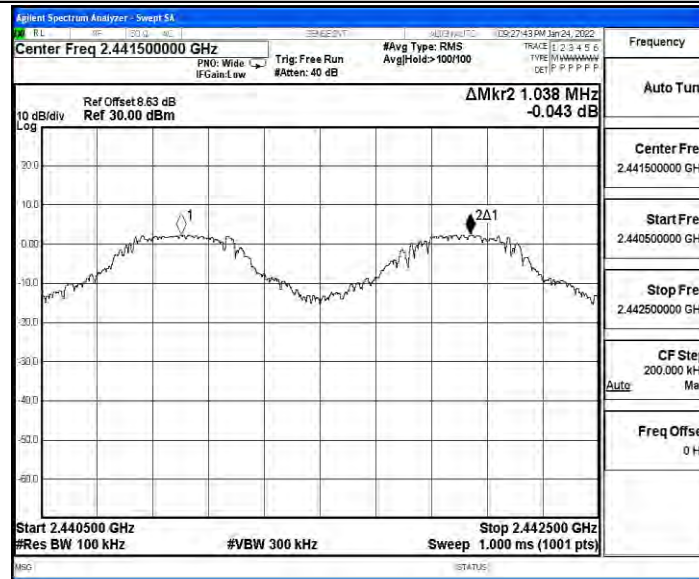
Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.038	≥ 0.694	PASS
2DH5	Ant1	Hop	1.084	≥ 0.862	PASS
3DH5	Ant1	Hop	1.002	≥ 0.868	PASS

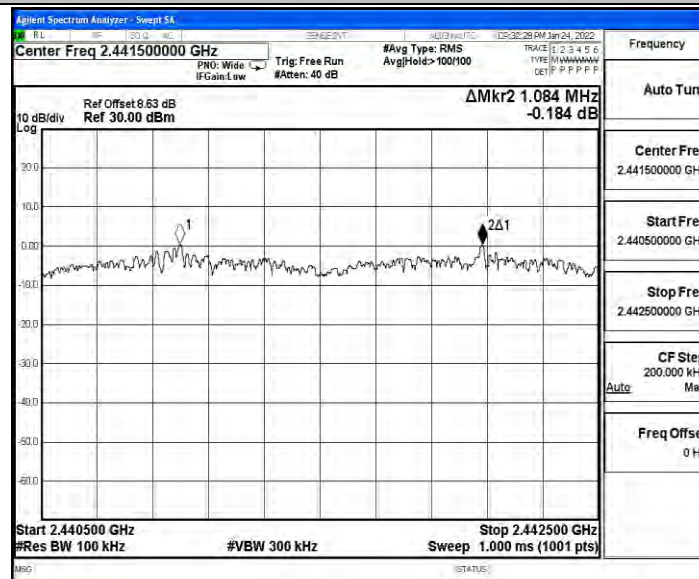


Test Graphs

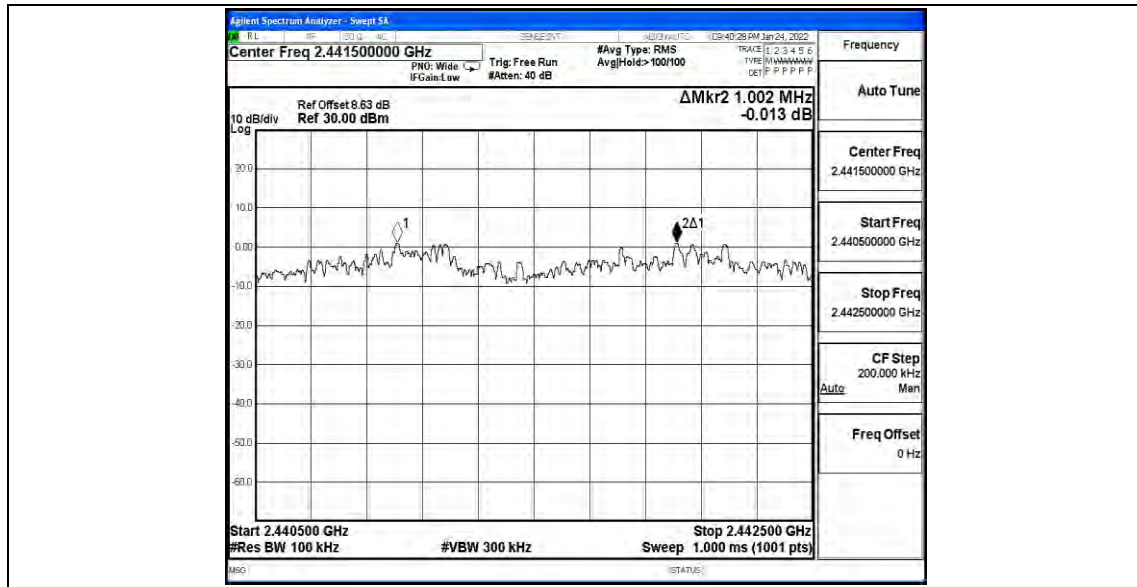
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





Appendix A.4: Number of hopping channels

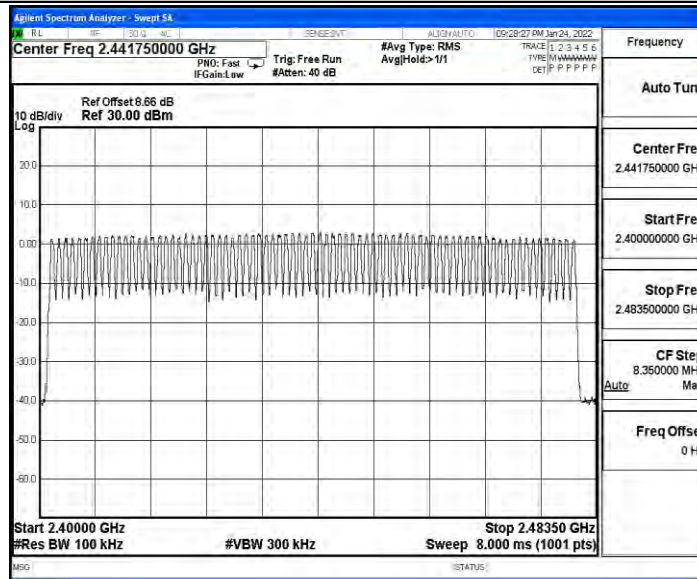
Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

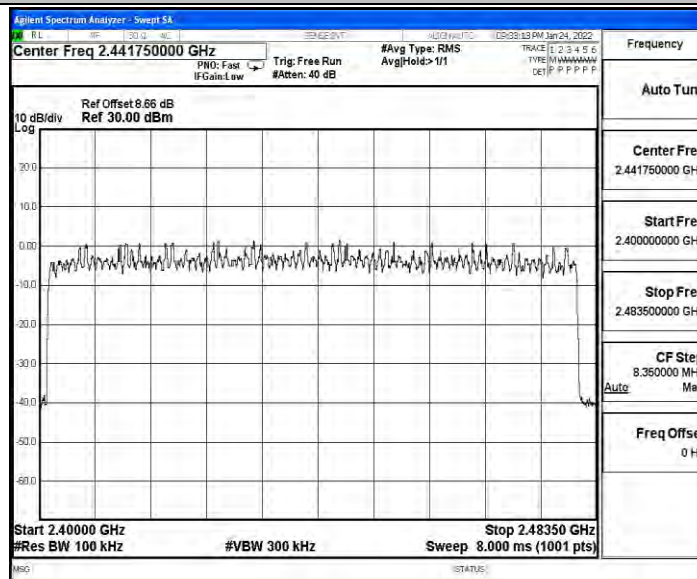


Test Graphs

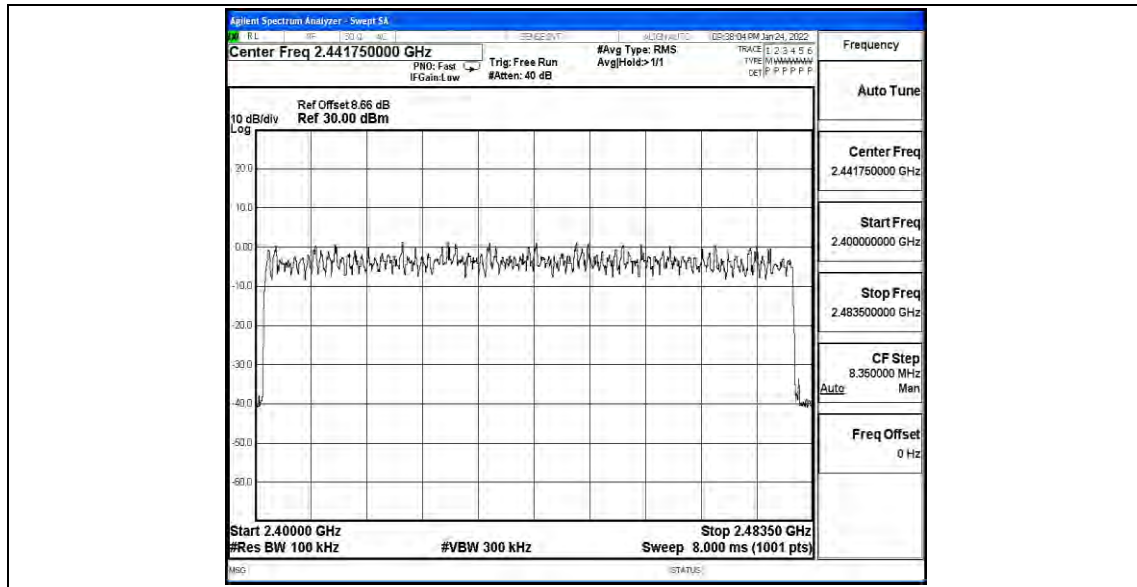
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





Appendix A.5.1: Time of occupancy

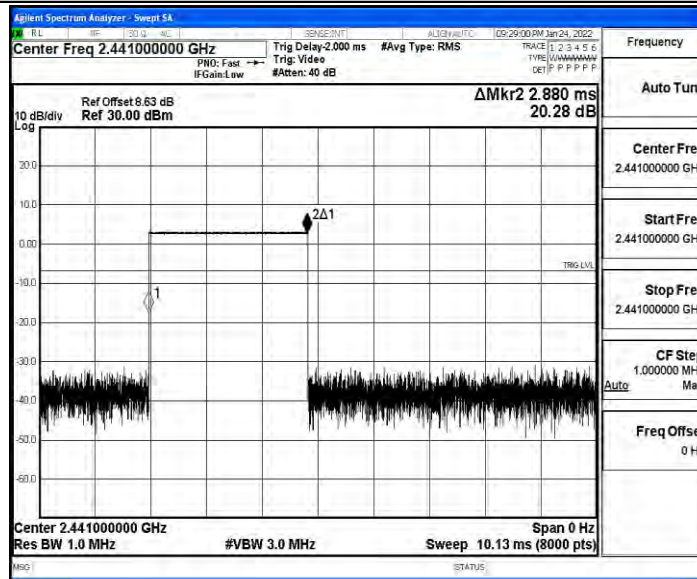
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.88	106.67	0.308	≤0.4	PASS
3DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS

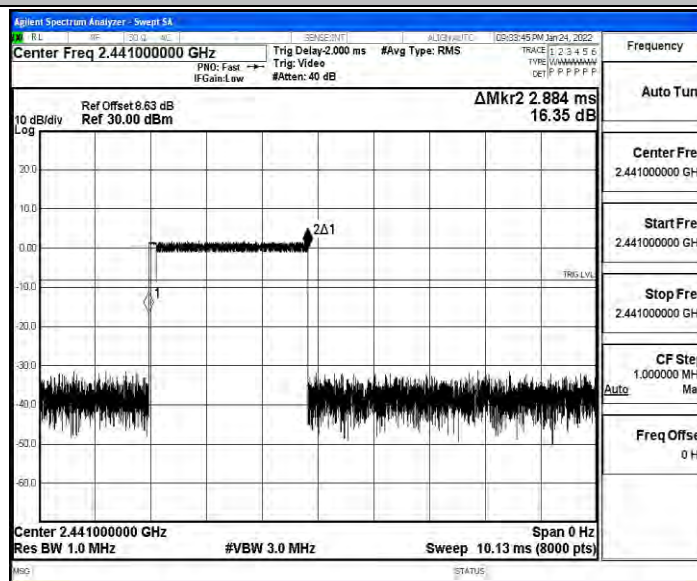


Test Graphs

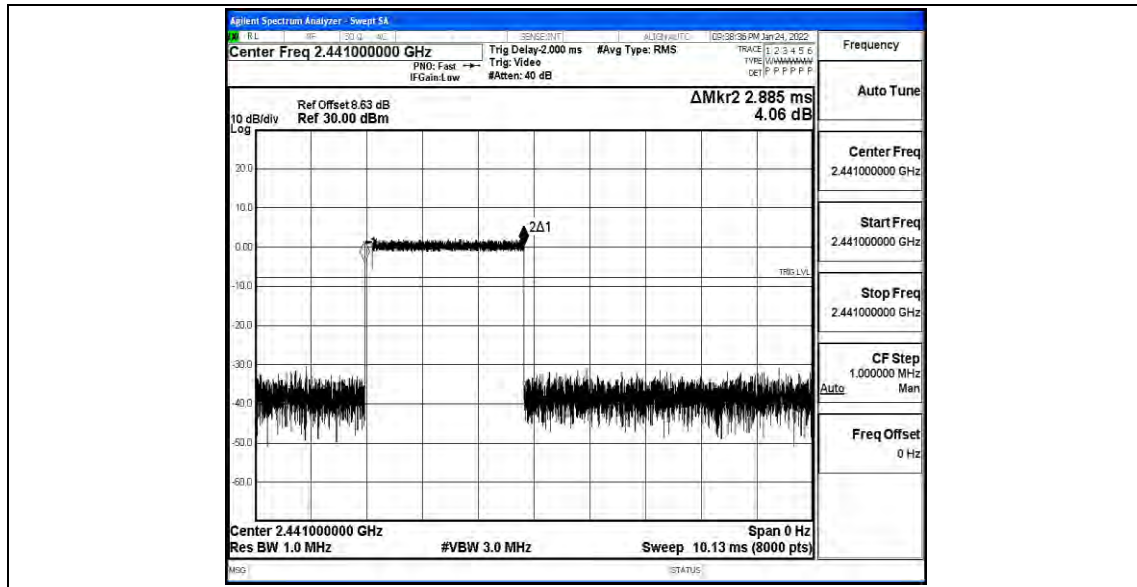
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





Appendix A.5.2: Duty Cycle

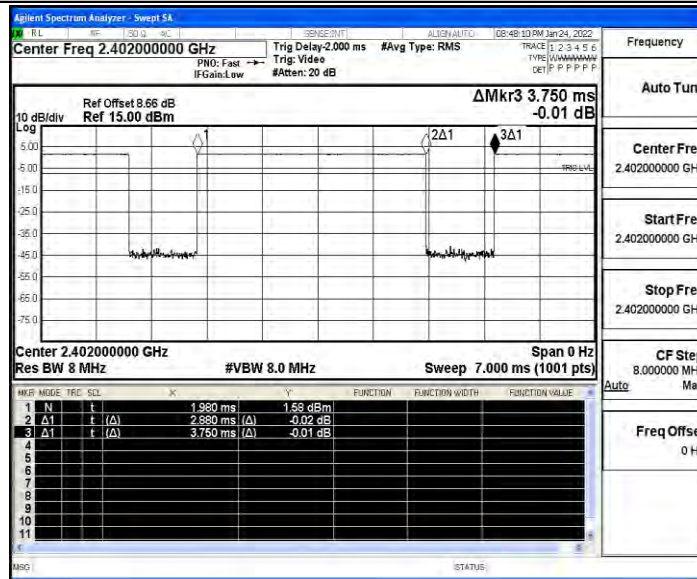
Test Result

TestMode	Antenna	Channel	ON Time [ms]	Period [ms]	X	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.88	3.75	0.7680	76.80	1.15	---	---
		2441	2.89	3.75	0.7707	77.07	1.13	---	---
		2480	2.89	3.75	0.7707	77.07	1.13	---	---
2DH5	Ant1	2402	2.88	3.74	0.7701	77.01	1.13	---	---
		2441	2.89	3.75	0.7707	77.07	1.13	---	---
		2480	2.88	3.75	0.7680	76.80	1.15	---	---
3DH5	Ant1	2402	2.89	3.75	0.7707	77.07	1.13	---	---
		2441	2.89	3.75	0.7707	77.07	1.13	---	---
		2480	2.89	3.75	0.7707	77.07	1.13	---	---

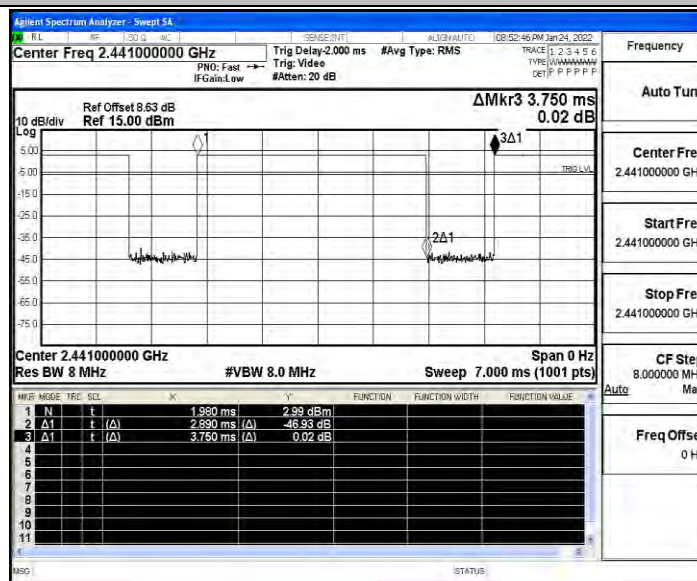


Test Graphs

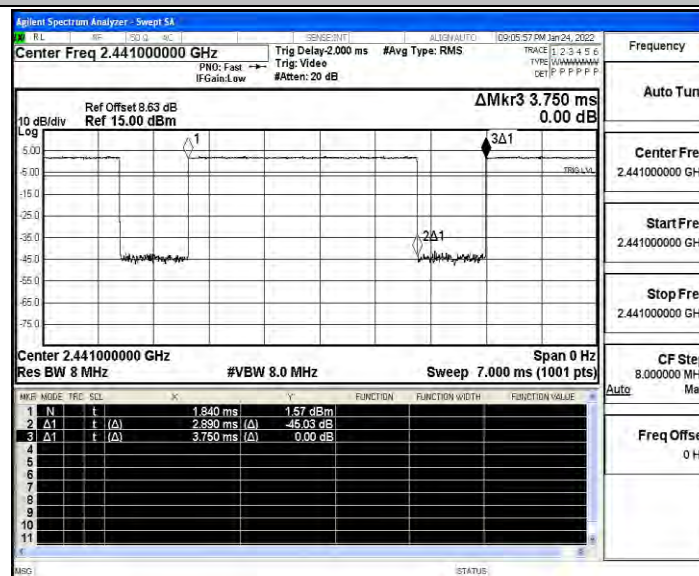
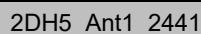
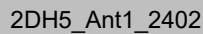
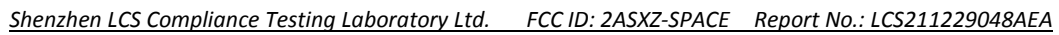
DH5_Ant1_2402



DH5_Ant1_2441

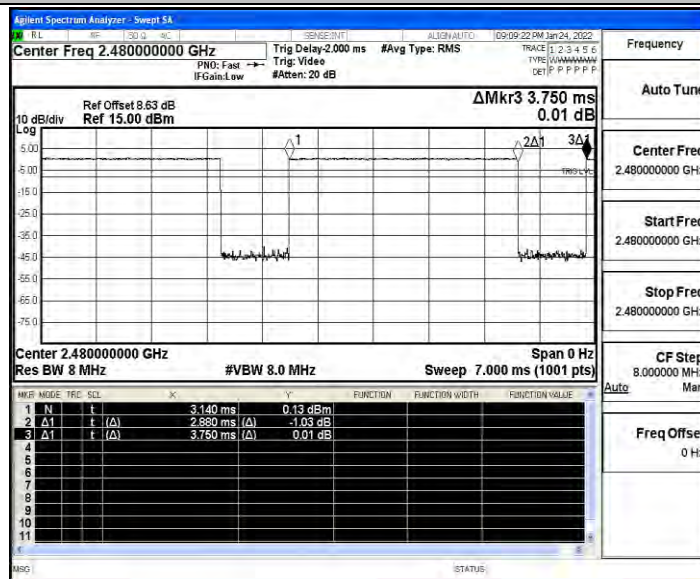


DH5_Ant1_2480

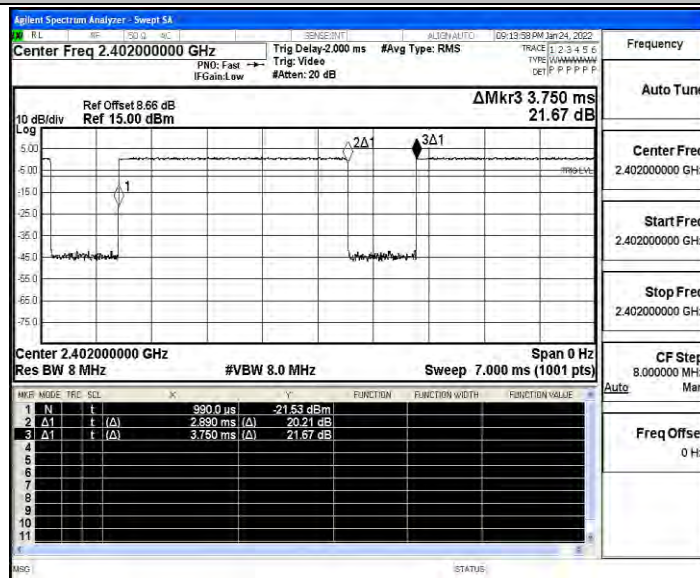




2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



Appendix A.6: Conducted Spurious Emission

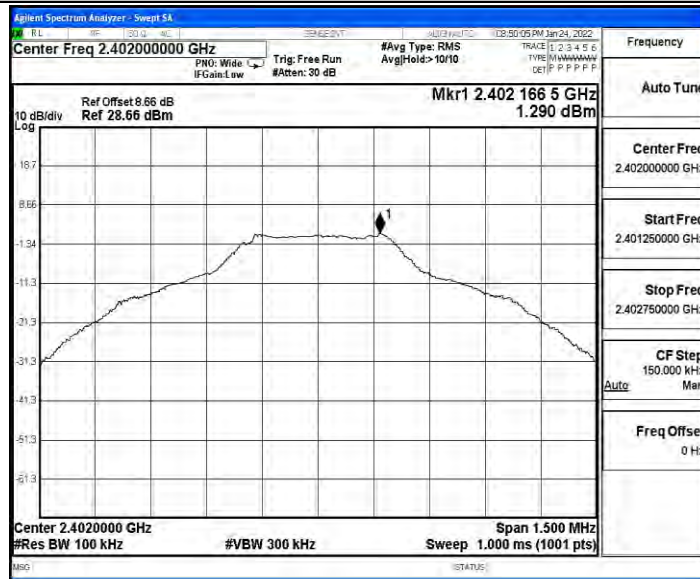
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	1.29	1.29	---	PASS
			30~1000	1.29	-58.87	≤-18.71	PASS
			1000~26500	1.29	-46.02	≤-18.71	PASS
		2441	Reference	2.73	2.73	---	PASS
			30~1000	2.73	-58.45	≤-17.27	PASS
			1000~26500	2.73	-45.89	≤-17.27	PASS
		2480	Reference	1.17	1.17	---	PASS
			30~1000	1.17	-59.59	≤-18.83	PASS
			1000~26500	1.17	-46.33	≤-18.83	PASS
2DH5	Ant1	2402	Reference	-0.17	-0.17	---	PASS
			30~1000	-0.17	-59.38	≤-20.17	PASS
			1000~26500	-0.17	-45.91	≤-20.17	PASS
		2441	Reference	1.17	1.17	---	PASS
			30~1000	1.17	-58.66	≤-18.83	PASS
			1000~26500	1.17	-46.21	≤-18.83	PASS
		2480	Reference	-0.10	-0.10	---	PASS
			30~1000	-0.10	-58.09	≤-20.1	PASS
			1000~26500	-0.10	-45.32	≤-20.1	PASS
3DH5	Ant1	2402	Reference	-0.03	-0.03	---	PASS
			30~1000	-0.03	-59.95	≤-20.03	PASS
			1000~26500	-0.03	-46.52	≤-20.03	PASS
		2441	Reference	1.36	1.36	---	PASS
			30~1000	1.36	-59.09	≤-18.64	PASS
			1000~26500	1.36	-45.83	≤-18.64	PASS
		2480	Reference	-0.16	-0.16	---	PASS
			30~1000	-0.16	-58.57	≤-20.16	PASS
			1000~26500	-0.16	-46.08	≤-20.16	PASS

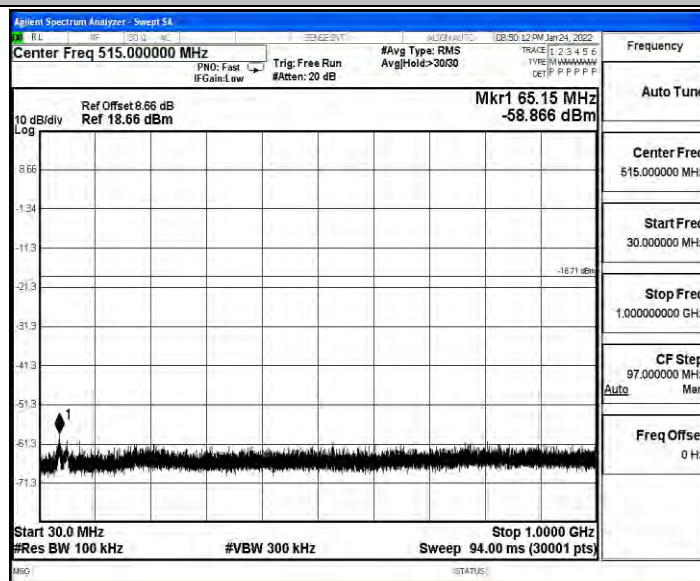


Test Graphs

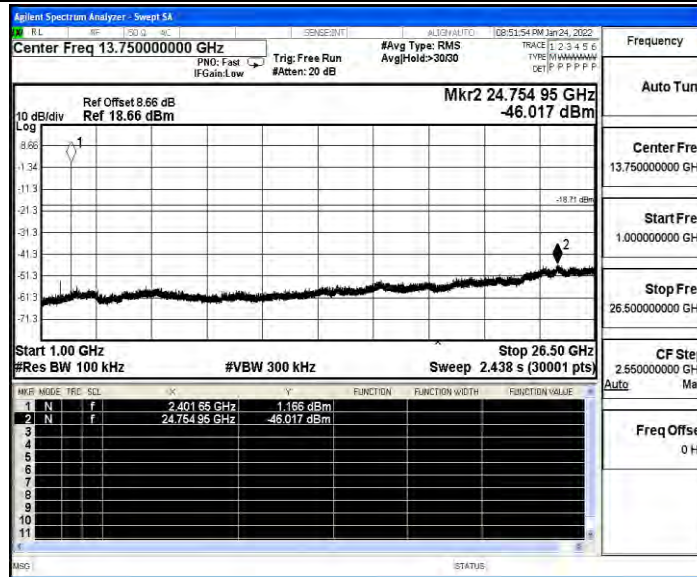
DH5_Ant1_2402_0~Reference



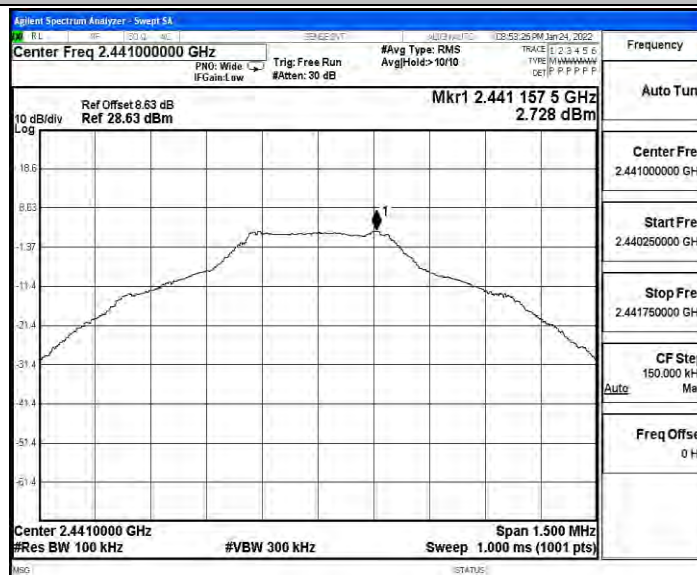
DH5_Ant1_2402_30~1000



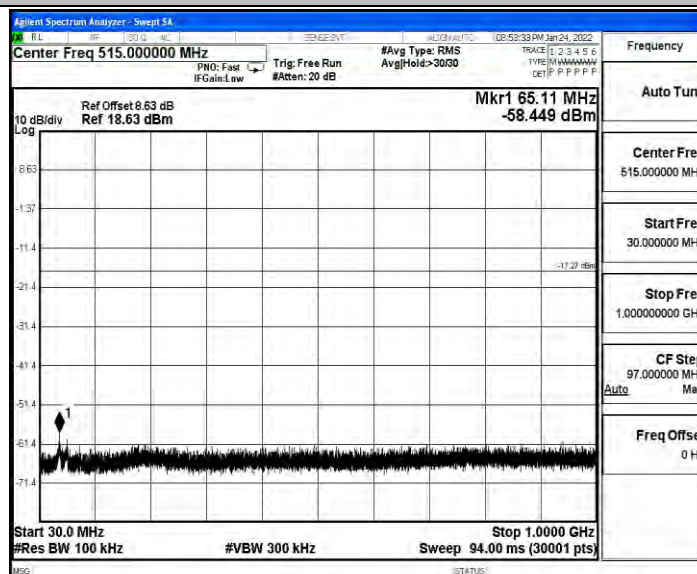
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

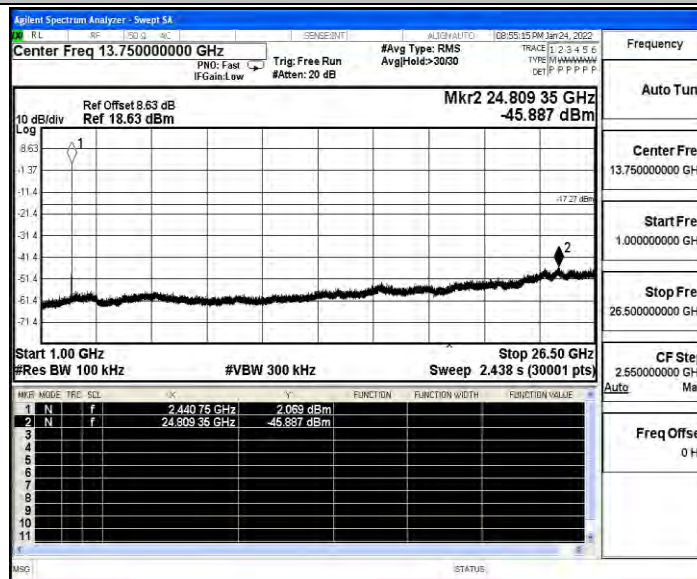


DH5_Ant1_2441_30~1000

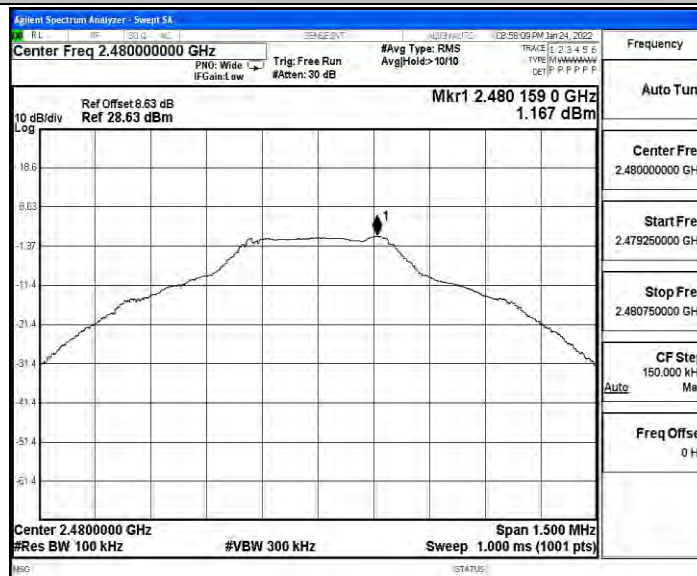




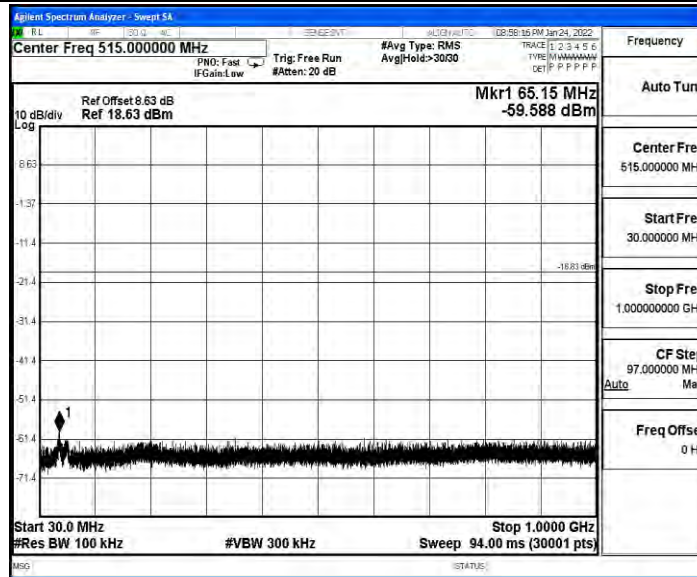
DH5_Ant1_2441_1000~26500



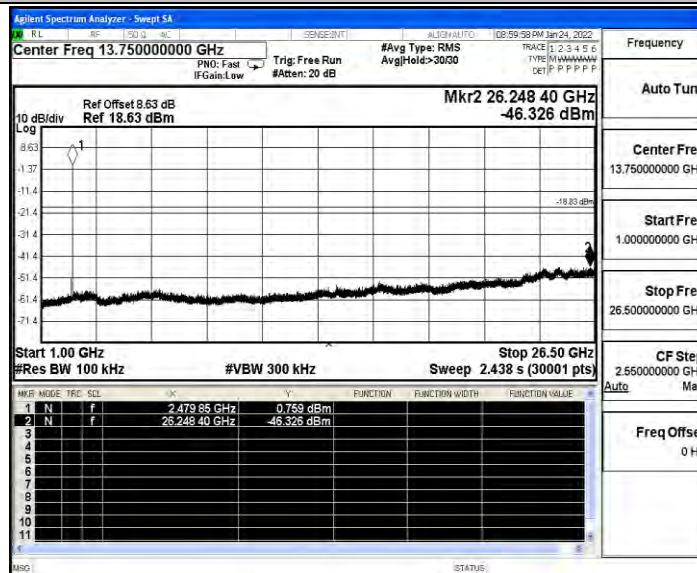
DH5_Ant1_2480_0~Reference



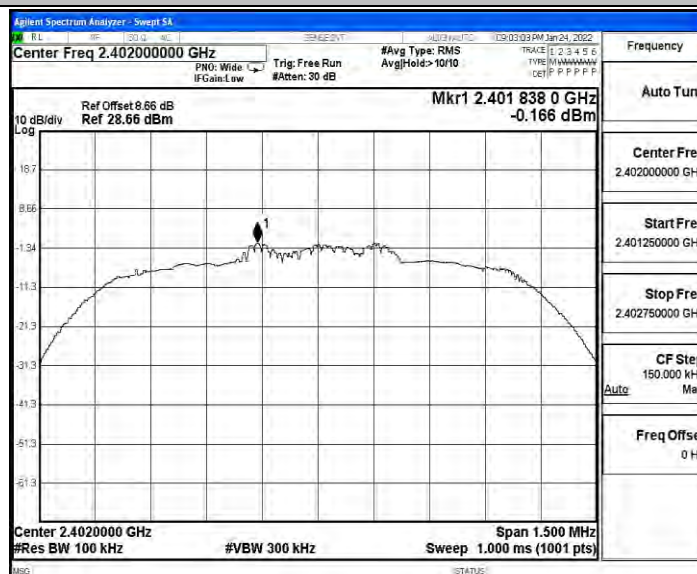
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

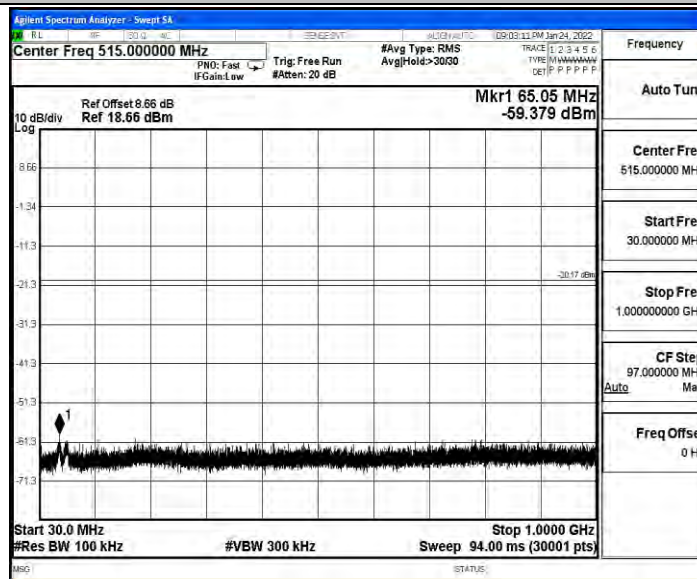


2DH5_Ant1_2402_0~Reference

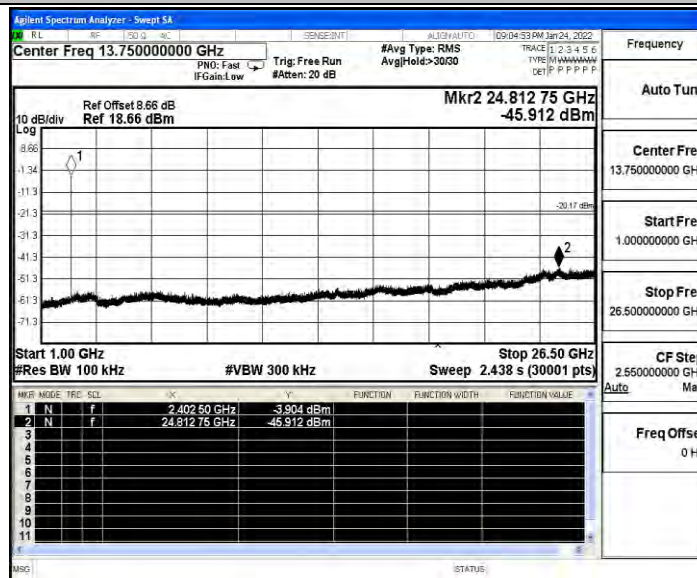




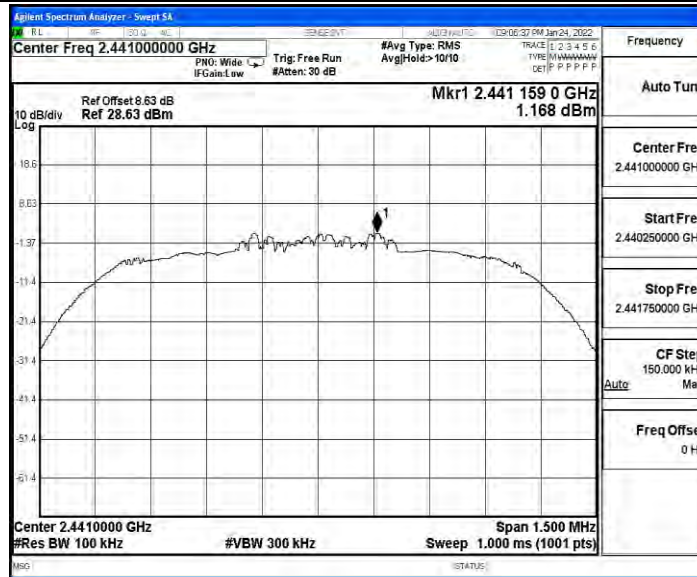
2DH5_Ant1_2402_30~1000



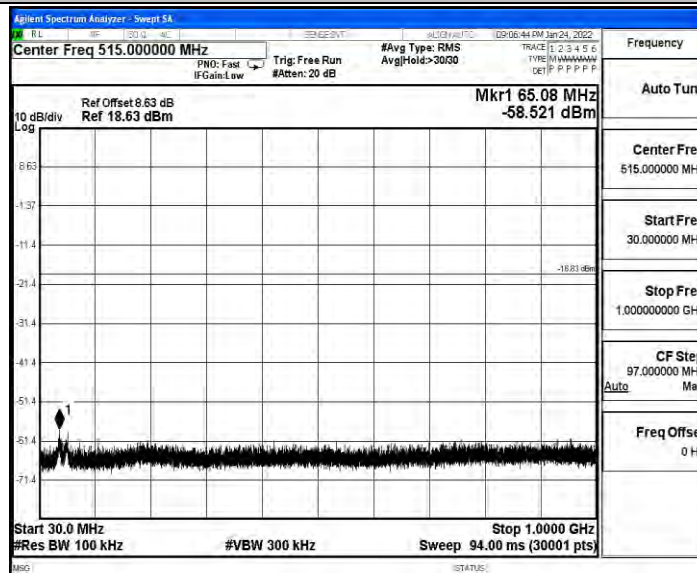
2DH5_Ant1_2402_1000~26500



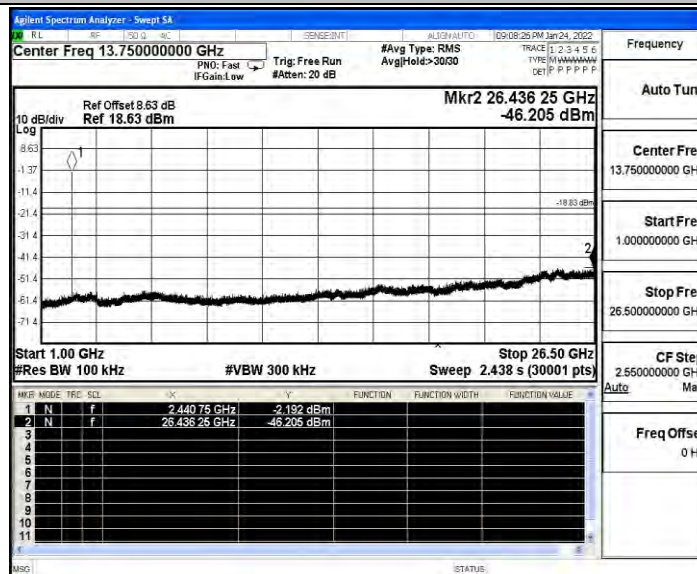
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

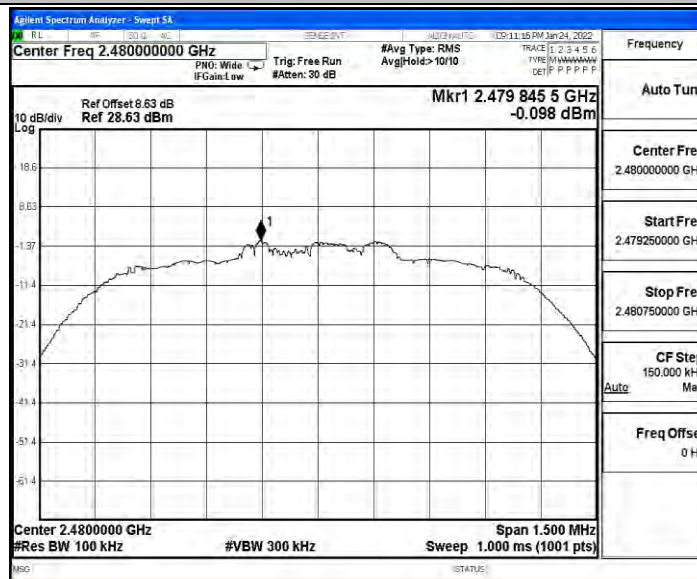


2DH5_Ant1_2441_1000~26500

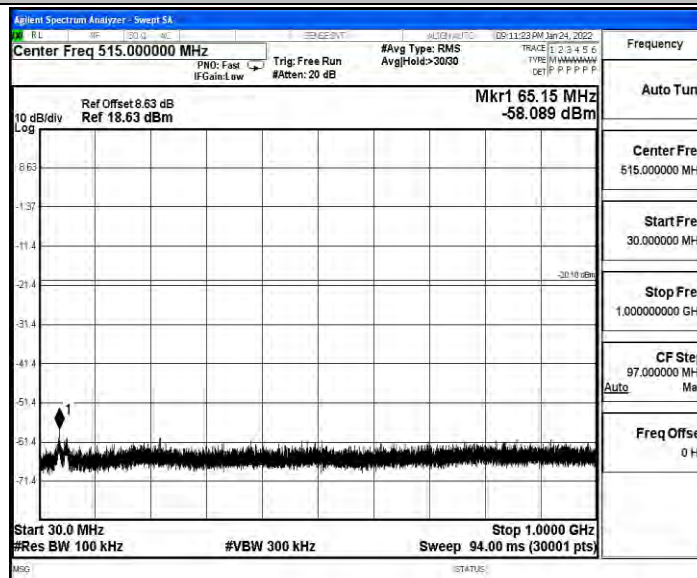




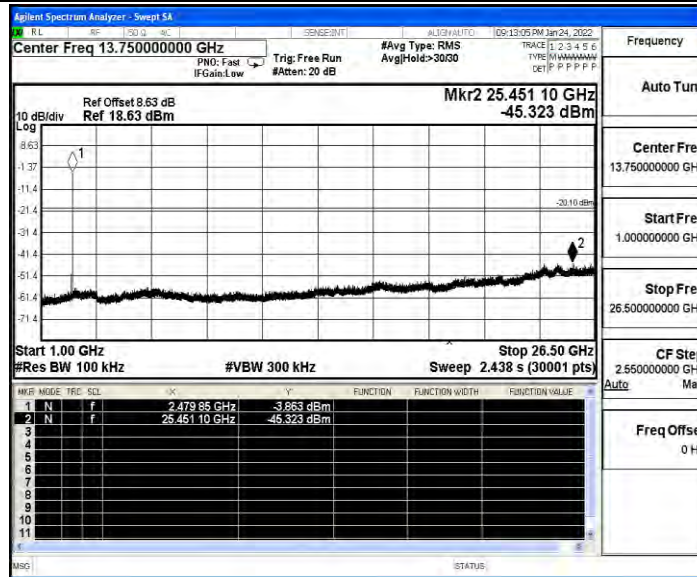
2DH5_Ant1_2480_0~Reference



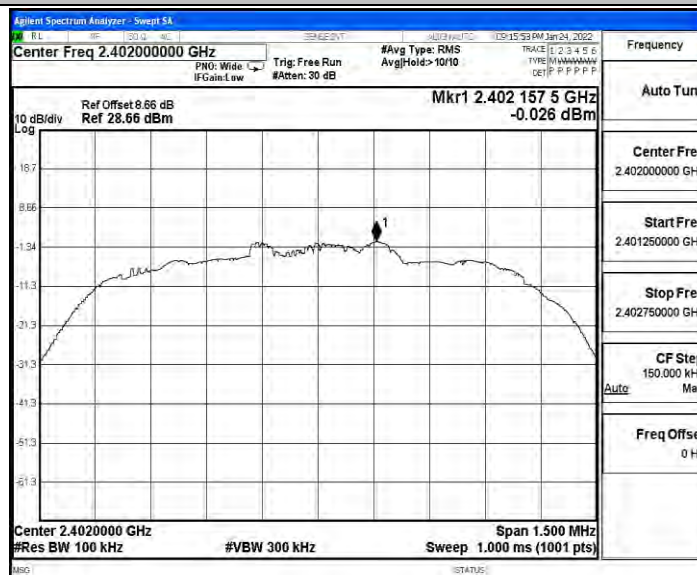
2DH5_Ant1_2480_30~1000



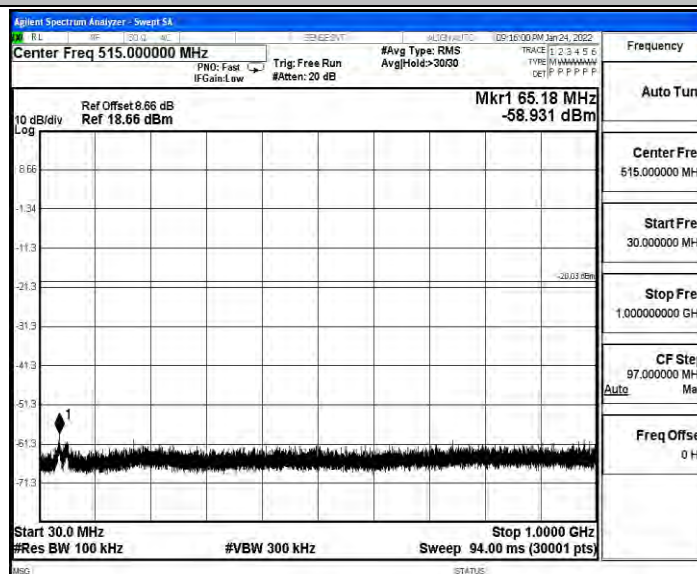
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

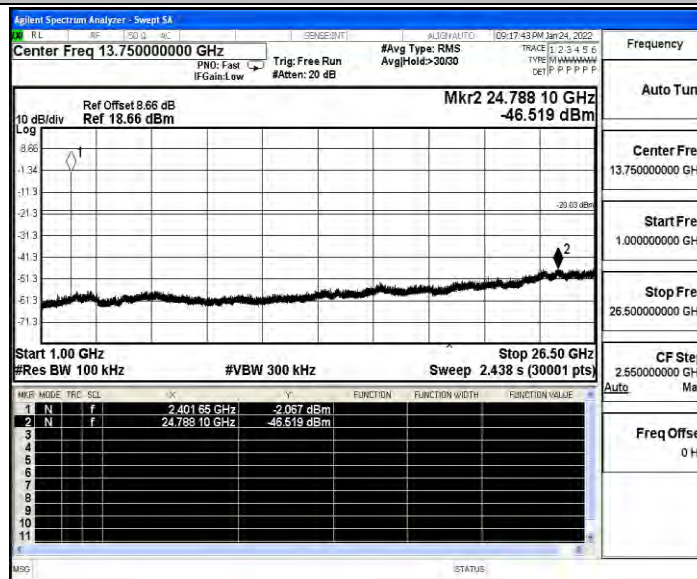


3DH5_Ant1_2402_30~1000

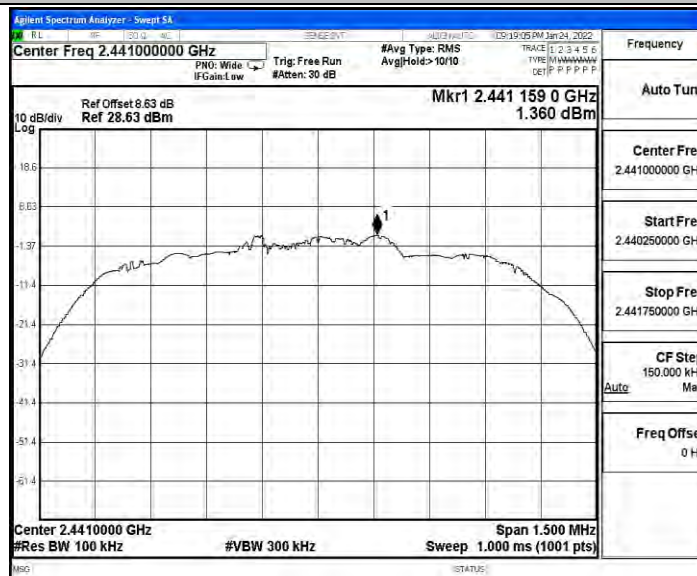




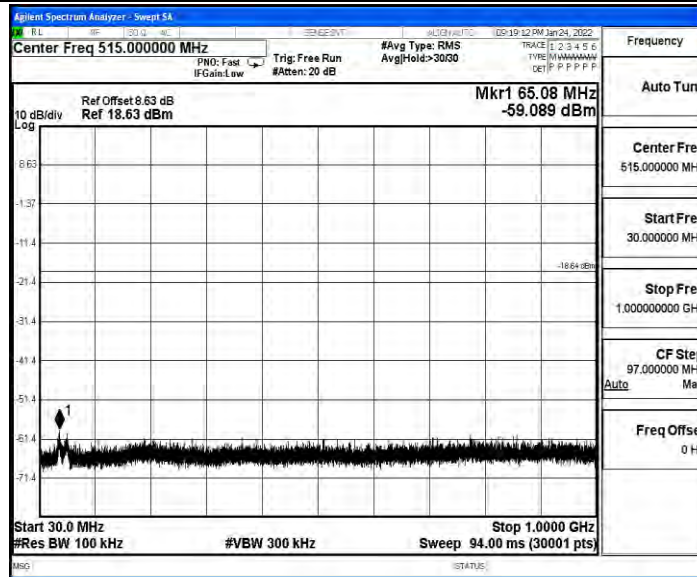
3DH5_Ant1_2402_1000~26500



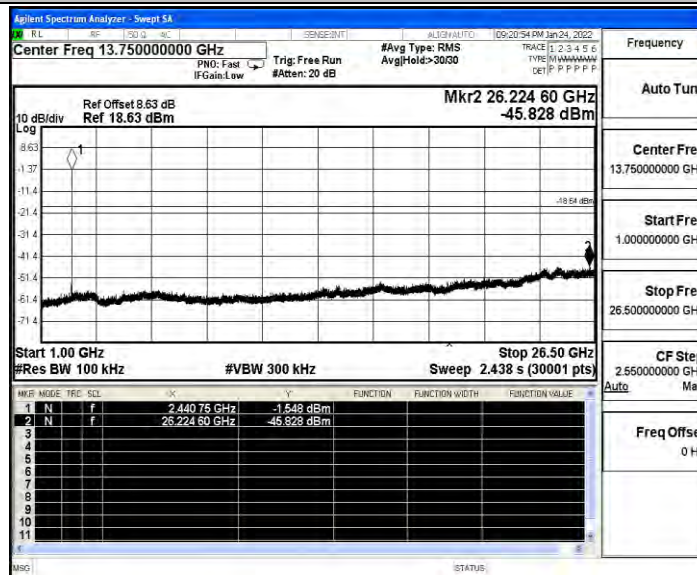
3DH5_Ant1_2441_0~Reference



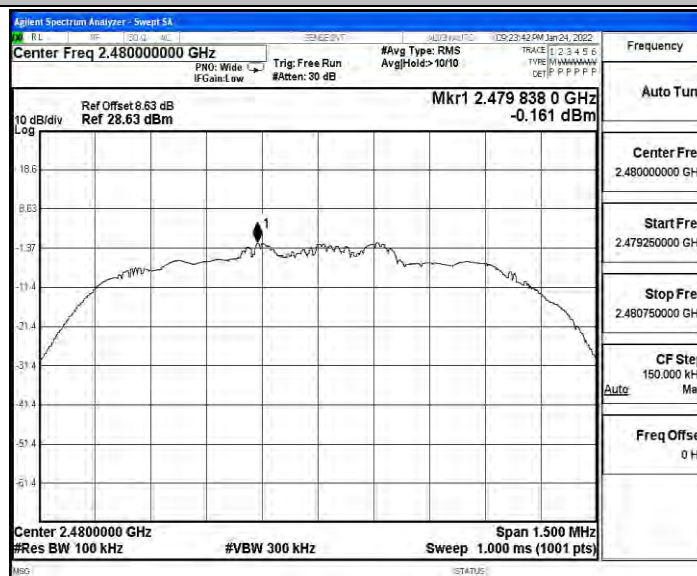
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

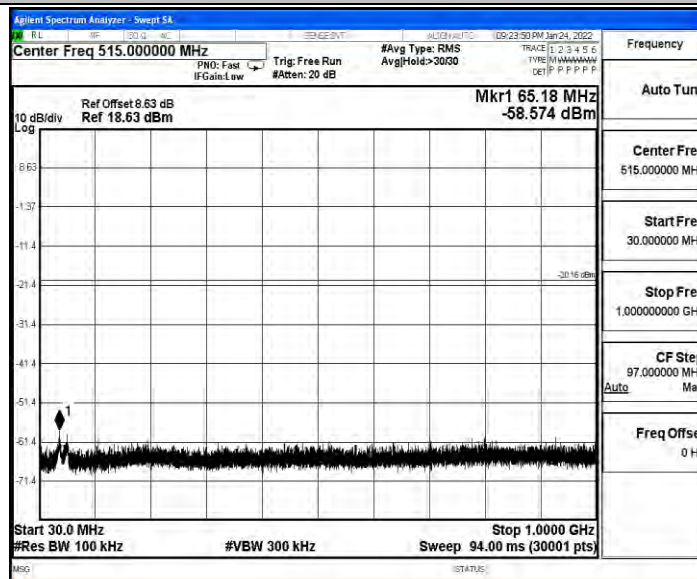


3DH5_Ant1_2480_0~Reference

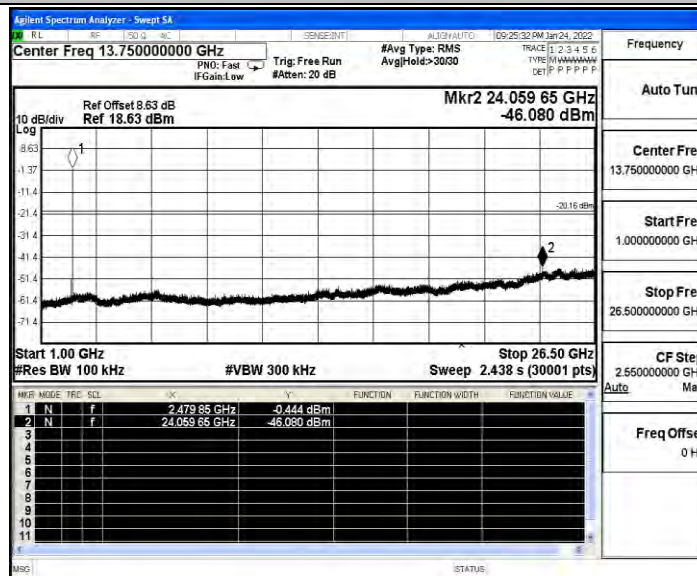




3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500





Appendix A.7: Band edge measurements

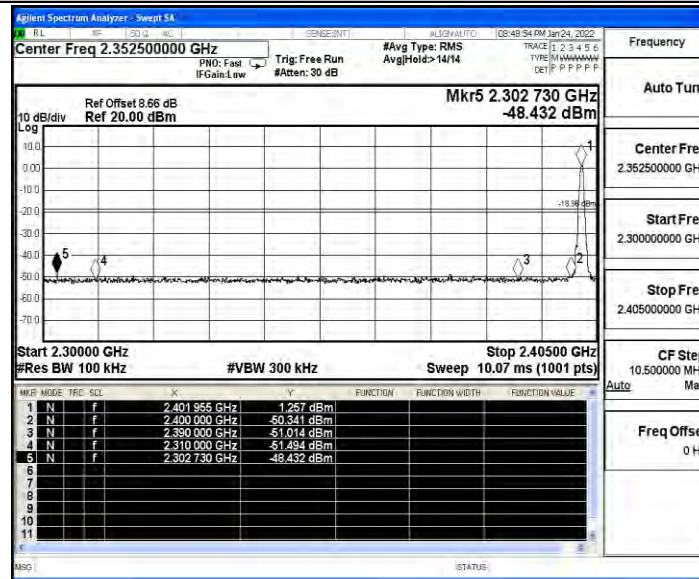
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	1.04	-48.43	≤ -18.96	PASS
		High	2480	1.24	-47.91	≤ -18.76	PASS
		Low	Hop_2402	0.58	-49.2	≤ -19.42	PASS
		High	Hop_2480	1.54	-47.28	≤ -18.46	PASS
2DH5	Ant1	Low	2402	-0.08	-49.23	≤ -20.08	PASS
		High	2480	-0.03	-47.95	≤ -20.03	PASS
		Low	Hop_2402	-1.19	-49.54	≤ -21.19	PASS
		High	Hop_2480	-0.51	-48.08	≤ -20.51	PASS
3DH5	Ant1	Low	2402	-1.38	-49.13	≤ -21.38	PASS
		High	2480	-0.03	-47.92	≤ -20.03	PASS
		Low	Hop_2402	-3.37	-49.28	≤ -23.37	PASS
		High	Hop_2480	-1.30	-48.07	≤ -21.3	PASS

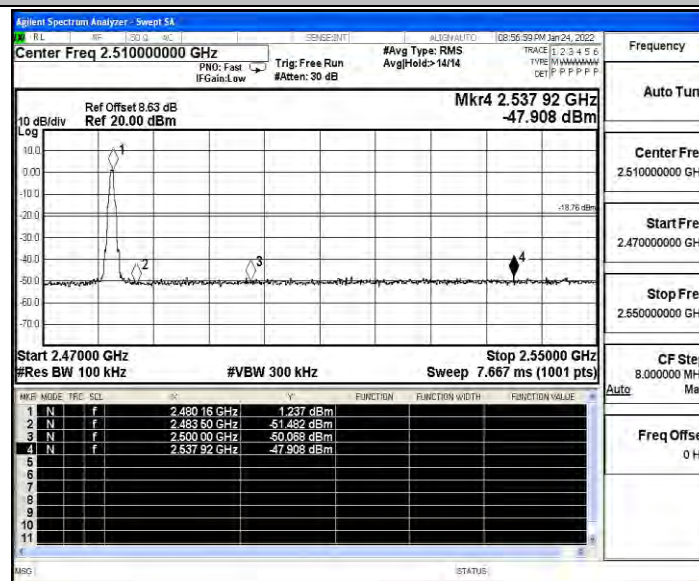


Test Graphs

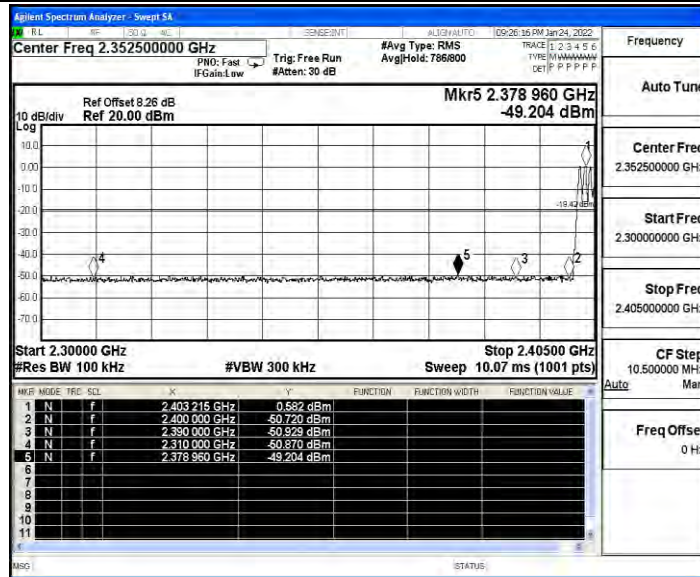
DH5_Ant1_Low_2402



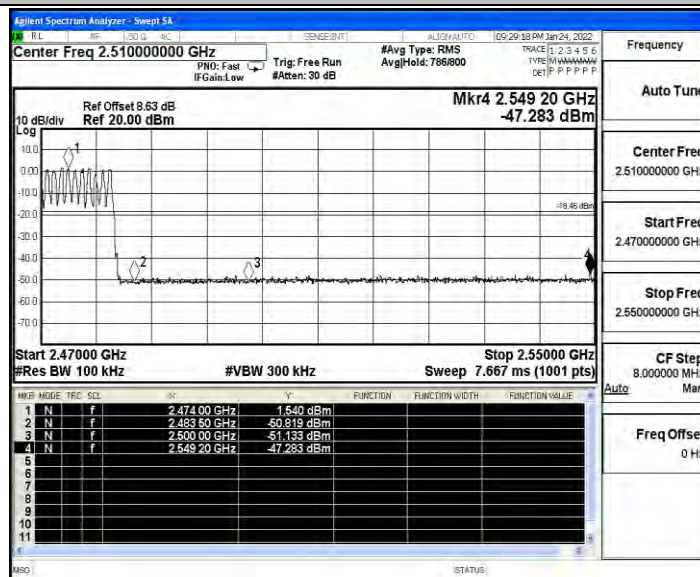
DH5_Ant1_High_2480



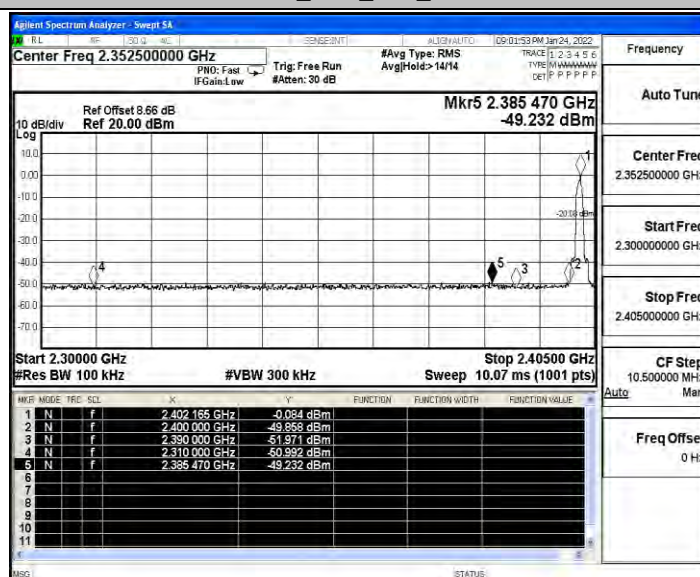
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

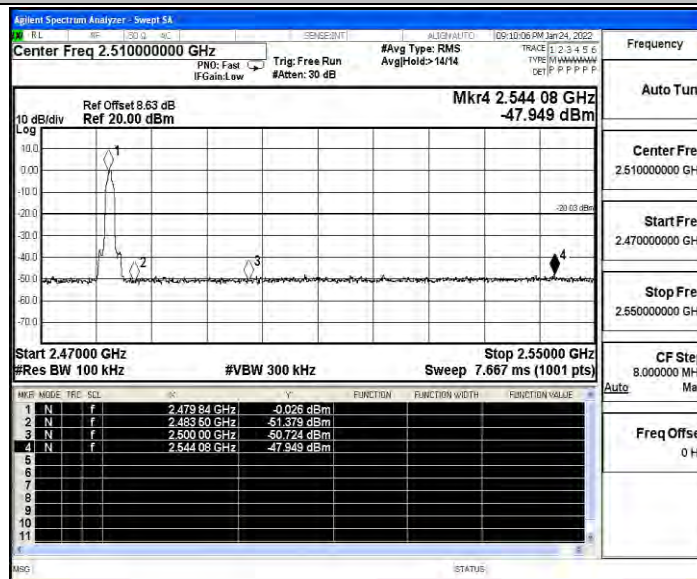


2DH5_Ant1_Low_2402

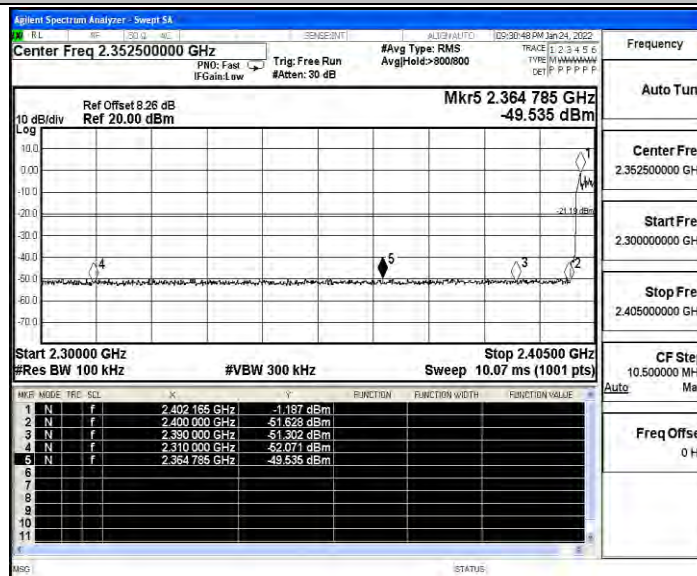




2DH5_Ant1_High_2480



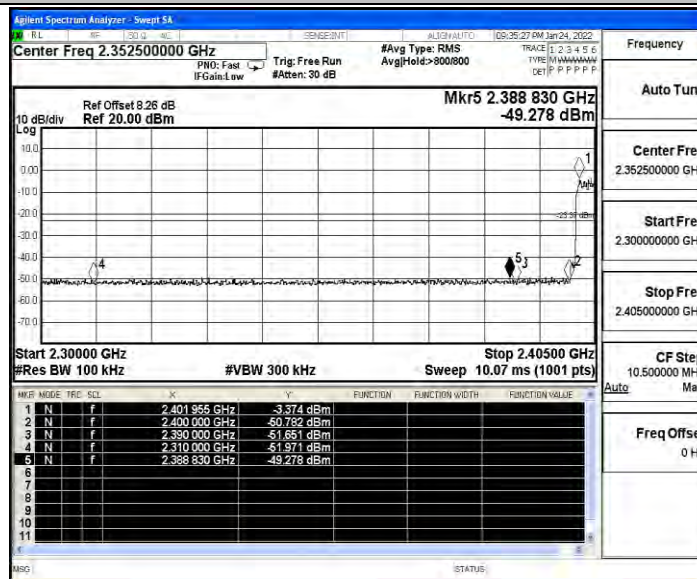
2DH5_Ant1_Low_Hop_2402



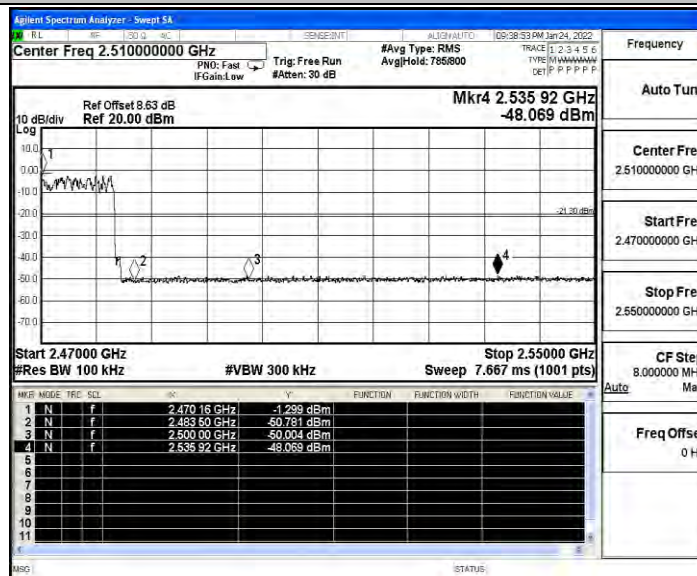
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





Appendix 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	-48.23	≤-41.20	46.97	≤54	PASS
				AV	2385.365	-47.84	≤-41.20	47.36	≤54	PASS
				AV	2390.000	-48.03	≤-41.20	47.17	≤54	PASS
				Peak	2310.000	-39.2	≤-21.20	56.00	≤74	PASS
				Peak	2376.020	-36.73	≤-21.20	58.47	≤74	PASS
				Peak	2390.000	-38.66	≤-21.20	56.54	≤74	PASS
		High	2480	AV	2483.500	-47.33	≤-41.20	47.87	≤54	PASS
				AV	2499.360	-47.26	≤-41.20	47.94	≤54	PASS
				AV	2500.000	-47.34	≤-41.20	47.86	≤54	PASS
				Peak	2483.500	-37.37	≤-21.20	57.83	≤74	PASS
				Peak	2492.960	-36.9	≤-21.20	58.30	≤74	PASS
				Peak	2500.000	-38.17	≤-21.20	57.03	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-39.33	≤-21.20	55.87	≤74	PASS
				Peak	2338.325	-36.39	≤-21.20	58.81	≤74	PASS
				Peak	2390.000	-38.95	≤-21.20	56.25	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-38.48	≤-21.20	56.72	≤74	PASS
				Peak	2491.600	-36.22	≤-21.20	58.98	≤74	PASS
				Peak	2500.000	-37.74	≤-21.20	57.46	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.26	≤-41.20	46.94	≤54	PASS
				AV	2388.620	-47.67	≤-41.20	47.53	≤54	PASS
				AV	2390.000	-47.92	≤-41.20	47.28	≤54	PASS
				Peak	2310.000	-37.85	≤-21.20	57.35	≤74	PASS
				Peak	2389.880	-36.85	≤-21.20	58.35	≤74	PASS
				Peak	2390.000	-38.15	≤-21.20	57.05	≤74	PASS
		High	2480	AV	2483.500	-47.27	≤-41.20	47.93	≤54	PASS
				AV	2493.920	-47.22	≤-41.20	47.98	≤54	PASS
				AV	2500.000	-47.35	≤-41.20	47.85	≤54	PASS
				Peak	2483.500	-38.3	≤-21.20	56.90	≤74	PASS
				Peak	2496.640	-35.45	≤-21.20	59.75	≤74	PASS
				Peak	2500.000	-38.32	≤-21.20	56.88	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-38.93	≤-21.20	56.27	≤74	PASS
				Peak	2346.305	-36.92	≤-21.20	58.28	≤74	PASS
				Peak	2390.000	-38.48	≤-21.20	56.72	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-38.46	≤-21.20	56.74	≤74	PASS
				Peak	2498.560	-36.08	≤-21.20	59.12	≤74	PASS
				Peak	2500.000	-37.51	≤-21.20	57.69	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.28	≤-41.20	46.92	≤54	PASS



				AV	2388.515	-47.73	≤ -41.20	47.47	≤ 54	PASS
				AV	2390.000	-47.93	≤ -41.20	47.27	≤ 54	PASS
				Peak	2310.000	-38.21	≤ -21.20	56.99	≤ 74	PASS
				Peak	2311.445	-36.6	≤ -21.20	58.60	≤ 74	PASS
				Peak	2390.000	-38.44	≤ -21.20	56.76	≤ 74	PASS
		High	2480	AV	2483.500	-47.2	≤ -41.20	48.00	≤ 54	PASS
				AV	2483.520	-47.2	≤ -41.20	48.00	≤ 54	PASS
				AV	2500.000	-47.28	≤ -41.20	47.92	≤ 54	PASS
				Peak	2483.500	-37.94	≤ -21.20	57.26	≤ 74	PASS
				Peak	2486.000	-36.33	≤ -21.20	58.87	≤ 74	PASS
				Peak	2500.000	-37.81	≤ -21.20	57.39	≤ 74	PASS
		Low	Hop_24 02	Peak	2310.000	-39.35	≤ -21.20	55.85	≤ 74	PASS
				Peak	2372.765	-37.07	≤ -21.20	58.13	≤ 74	PASS
				Peak	2390.000	-39.3	≤ -21.20	55.90	≤ 74	PASS
		High	Hop_24 80	Peak	2483.500	-38.43	≤ -21.20	56.77	≤ 74	PASS
				Peak	2487.520	-36.28	≤ -21.20	58.92	≤ 74	PASS
				Peak	2500.000	-38.23	≤ -21.20	56.97	≤ 74	PASS

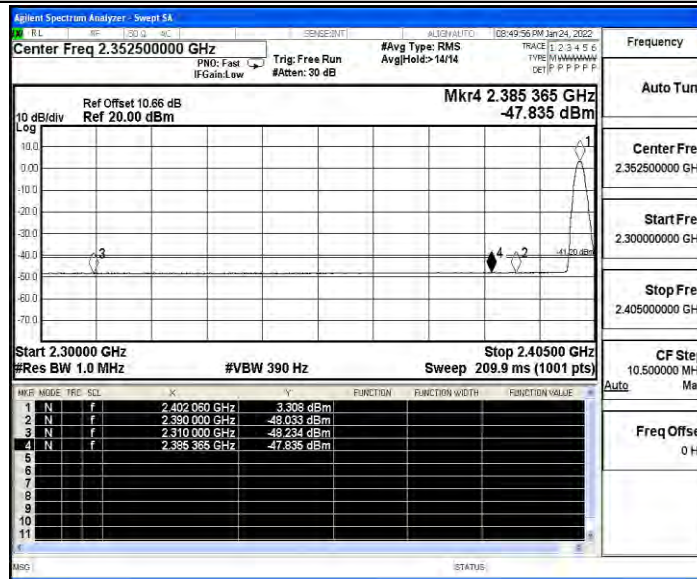
Note:

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.

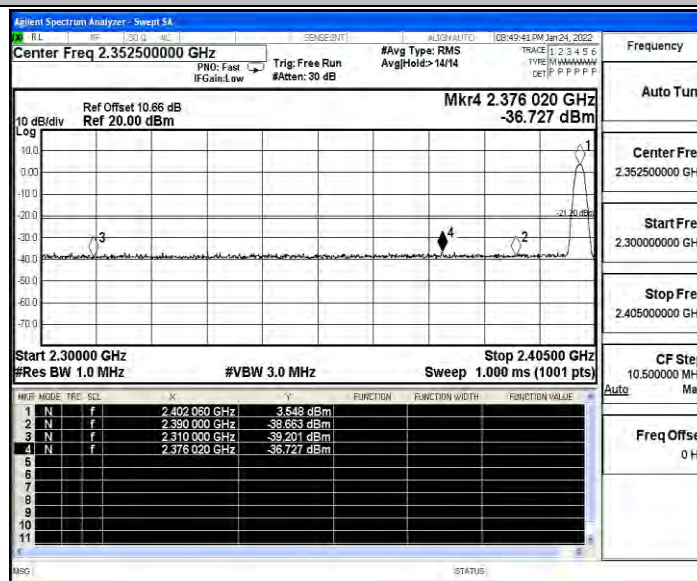


Test Graphs

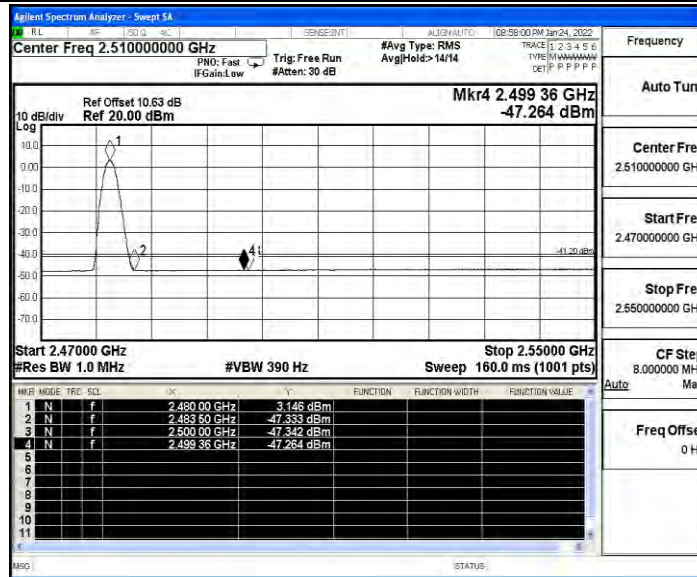
DH5_Ant1_Low_2402_AV



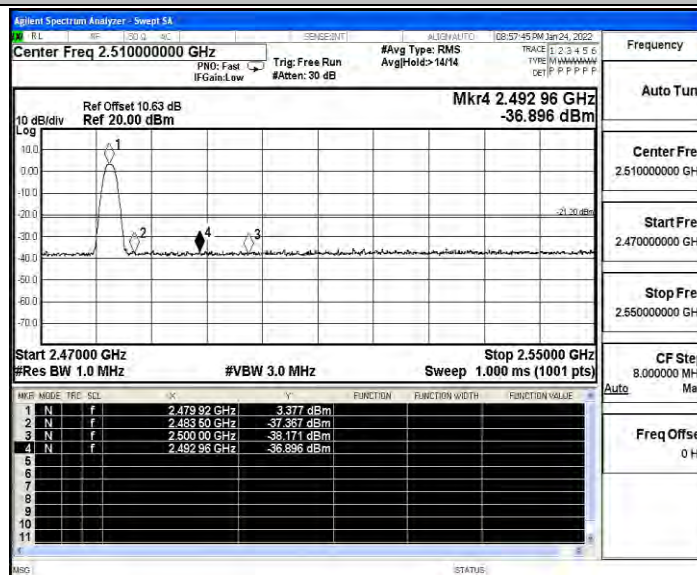
DH5_Ant1_Low_2402_Peak



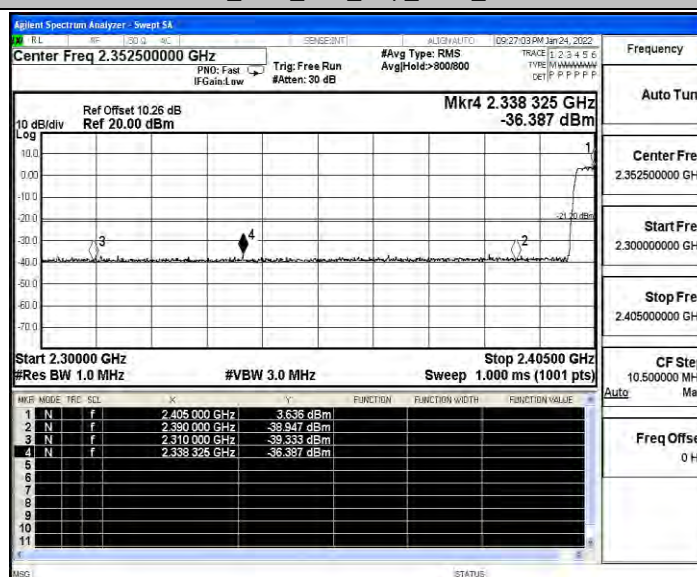
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

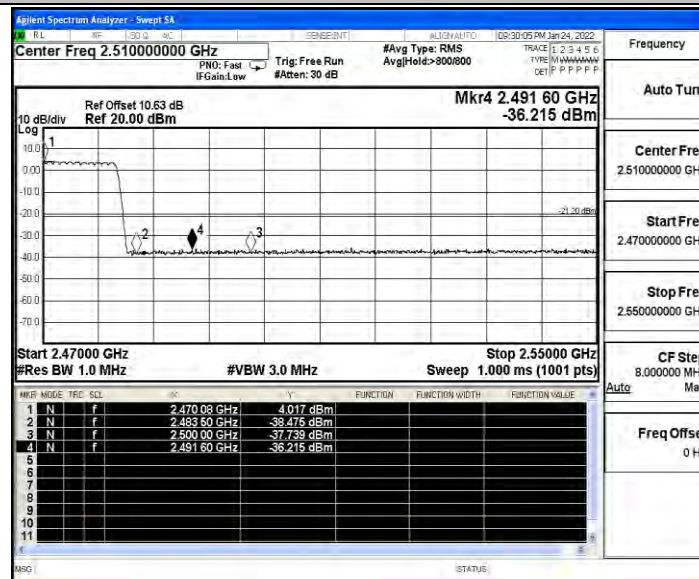


DH5_Ant1_Low_Hop_2402_Peak

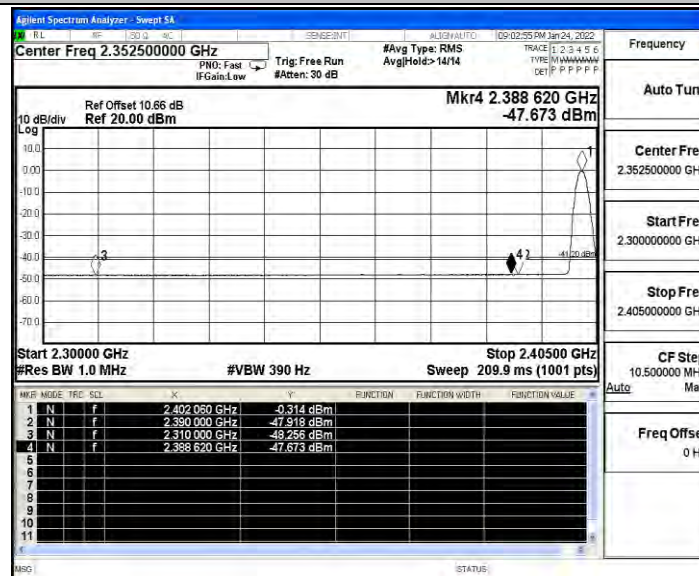




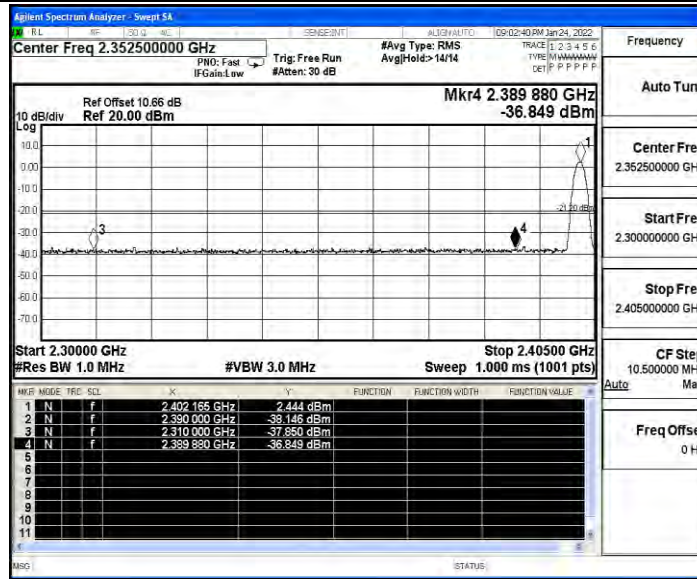
DH5_Ant1_High_Hop_2480_Peak



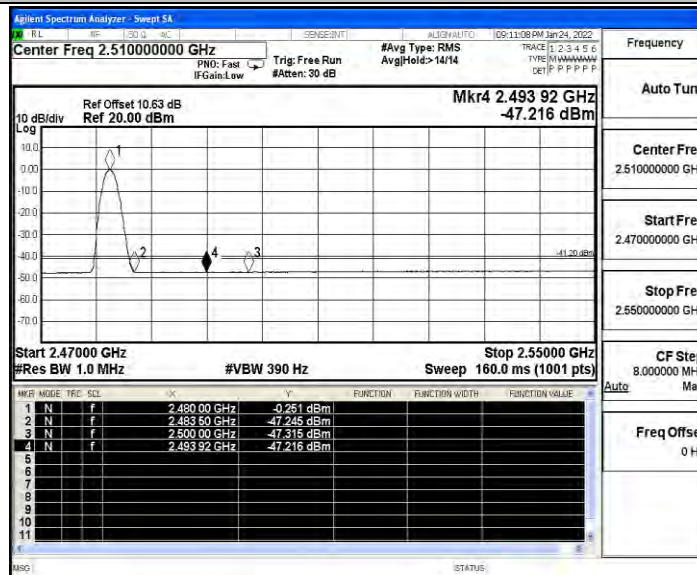
2DH5_Ant1_Low_2402_AV



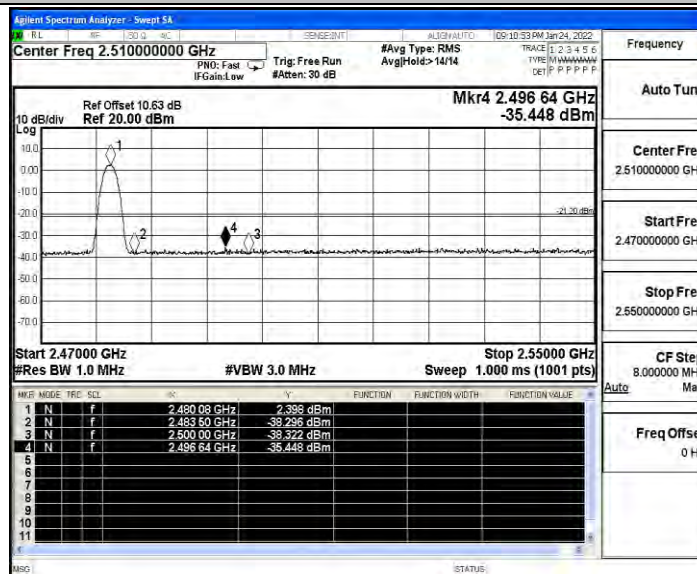
2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV

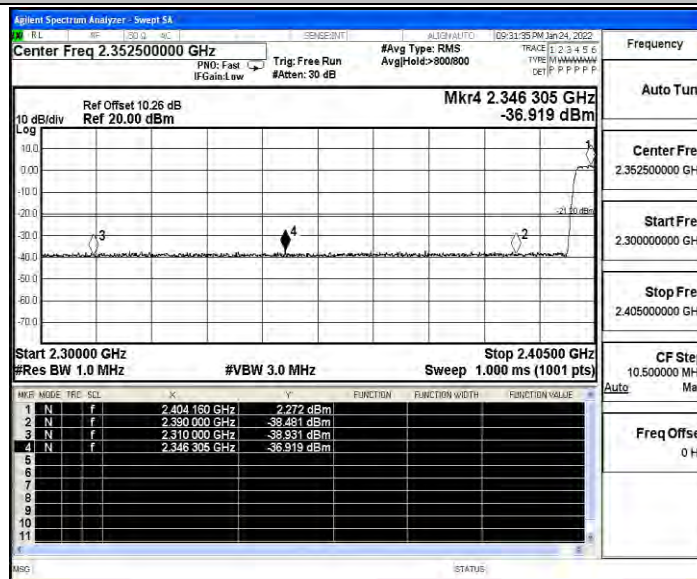


2DH5_Ant1_High_2480_Peak

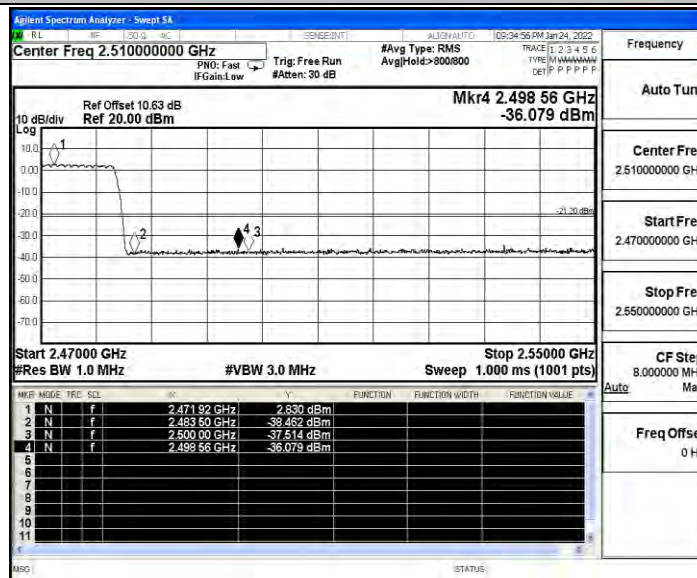




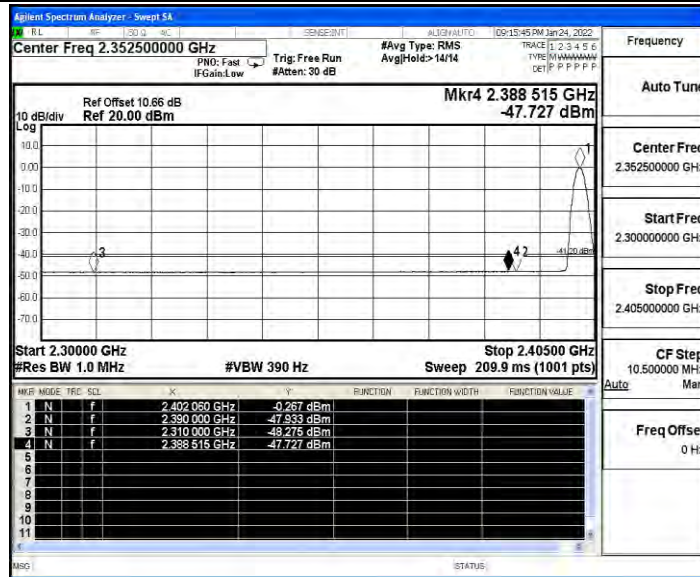
2DH5_Ant1_Low_Hop_2402_Peak



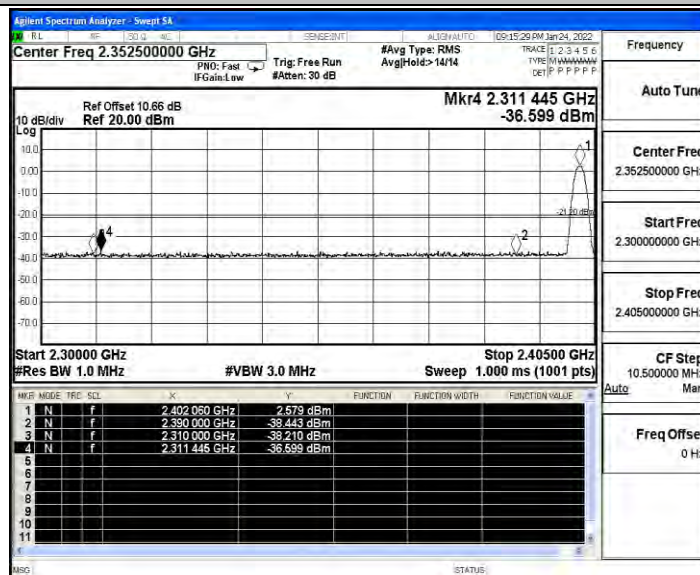
2DH5_Ant1_High_Hop_2480_Peak



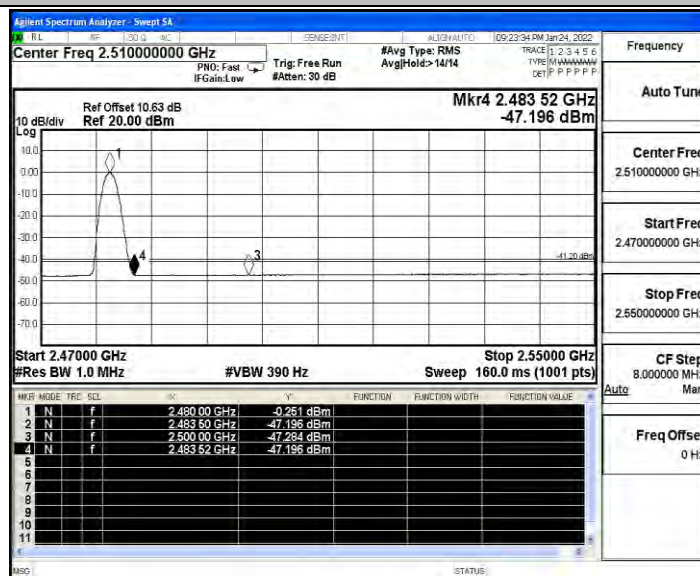
3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak

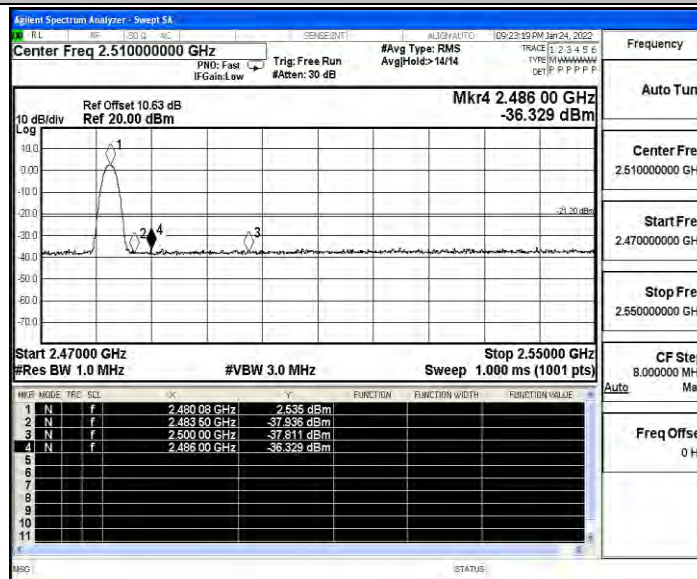


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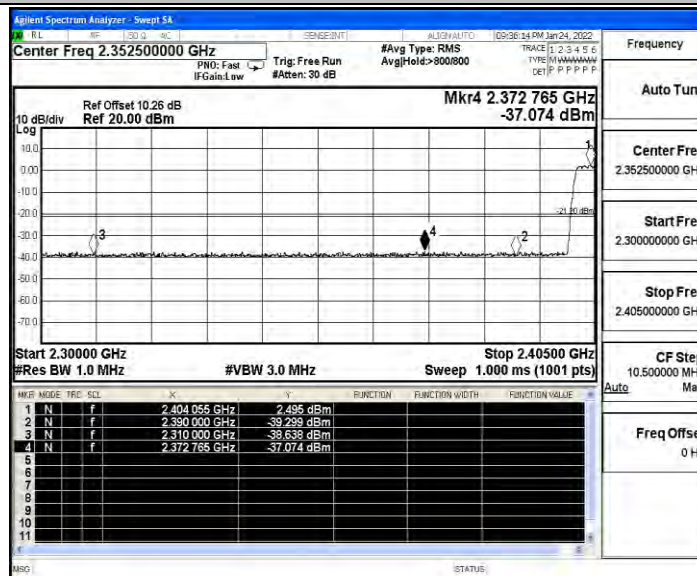




3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak

