



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Single Board Computer

Test Model: IEC-EDGE2-0432

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Bill Zhu
Supervised by:	Li huan



A.1 20dB Emission Bandwidth

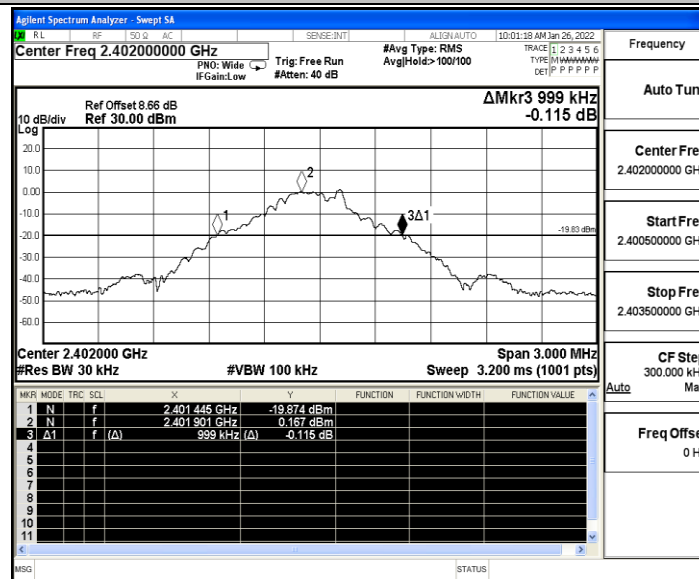
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant0	2402	0.999	2401.445	2402.444	---	---
		2441	0.981	2440.445	2441.426	---	---
		2480	0.972	2479.445	2480.417	---	---
2DH5	Ant0	2402	1.356	2401.271	2402.627	---	---
		2441	1.359	2440.262	2441.621	---	---
		2480	1.359	2479.256	2480.615	---	---
3DH5	Ant0	2402	1.314	2401.295	2402.609	---	---
		2441	1.317	2440.286	2441.603	---	---
		2480	1.344	2479.259	2480.603	---	---

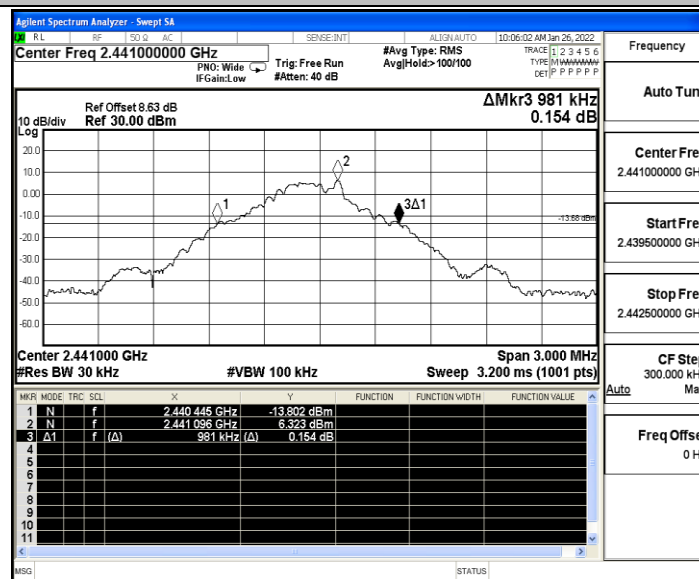


Test Graphs

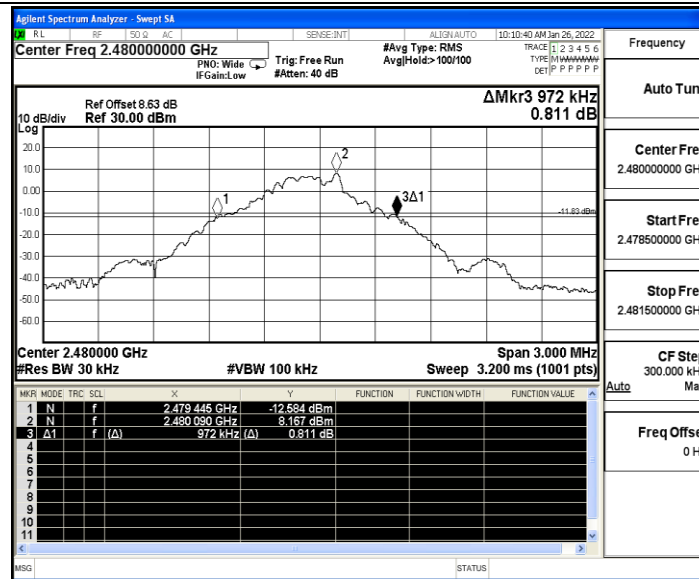
DH5_Ant0_2402



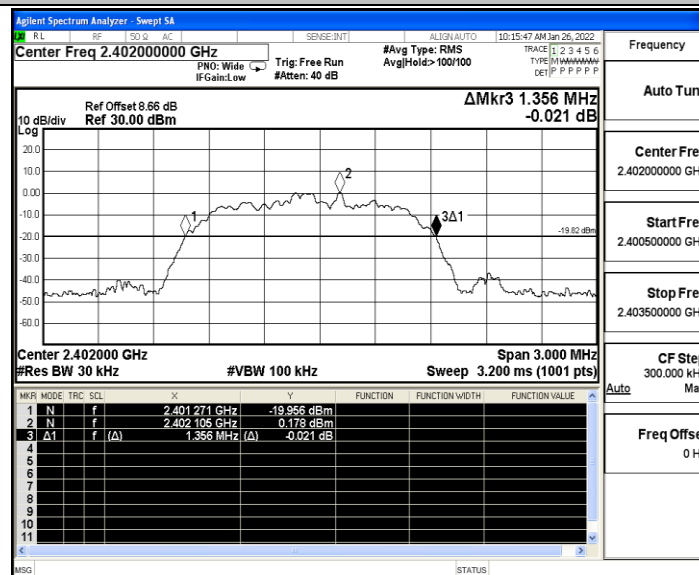
DH5_Ant0_2441



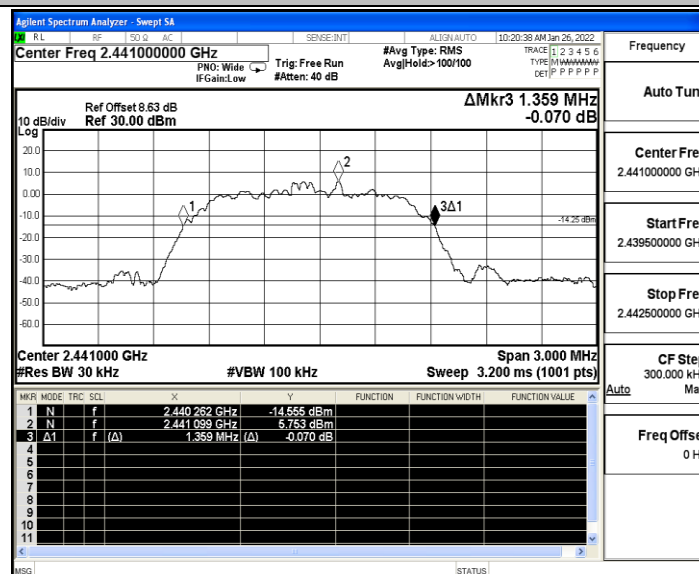
DH5_Ant0_2480



2DH5_Ant0_2402

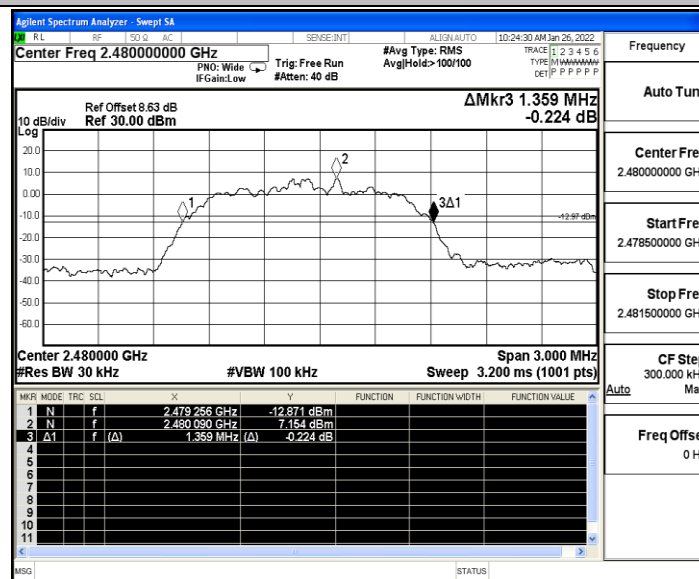


2DH5_Ant0_2441

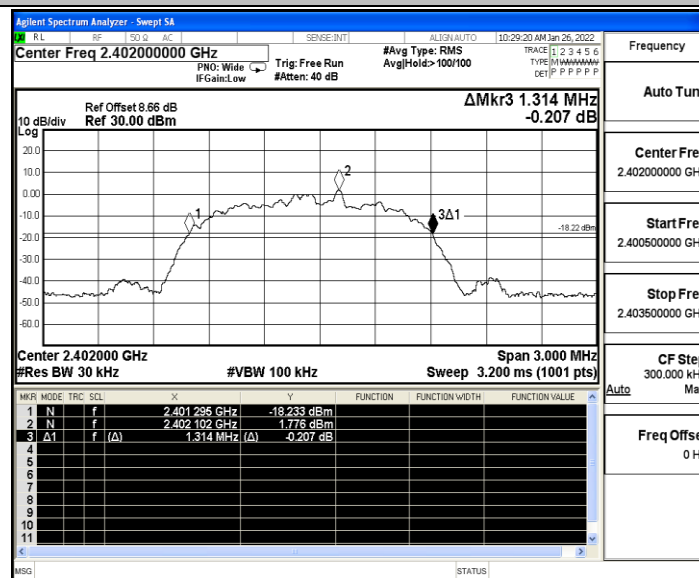




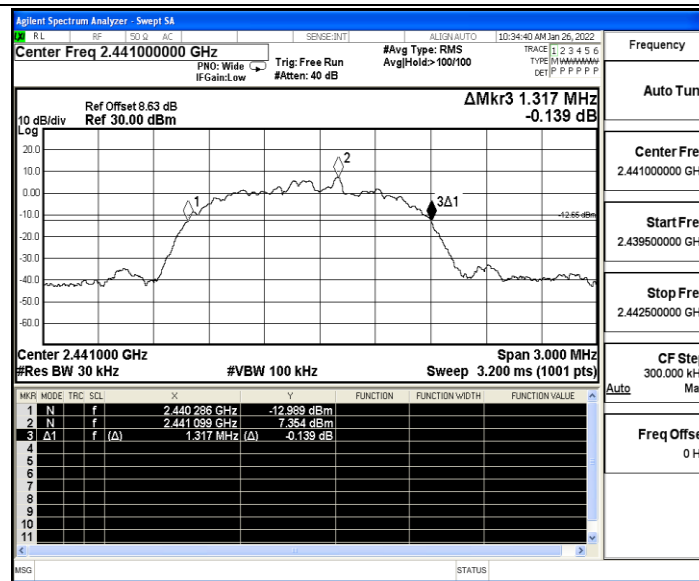
2DH5_Ant0_2480



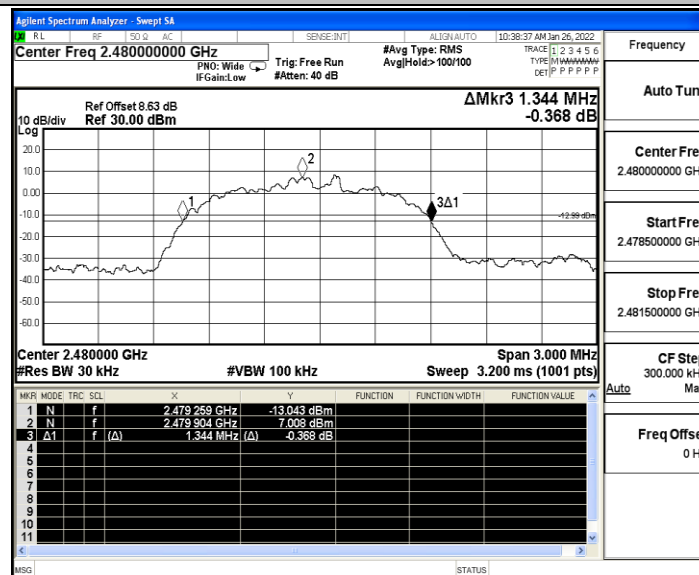
3DH5_Ant0_2402



3DH5_Ant0_2441



3DH5_Ant0_2480





A.2 Maximum conducted output power

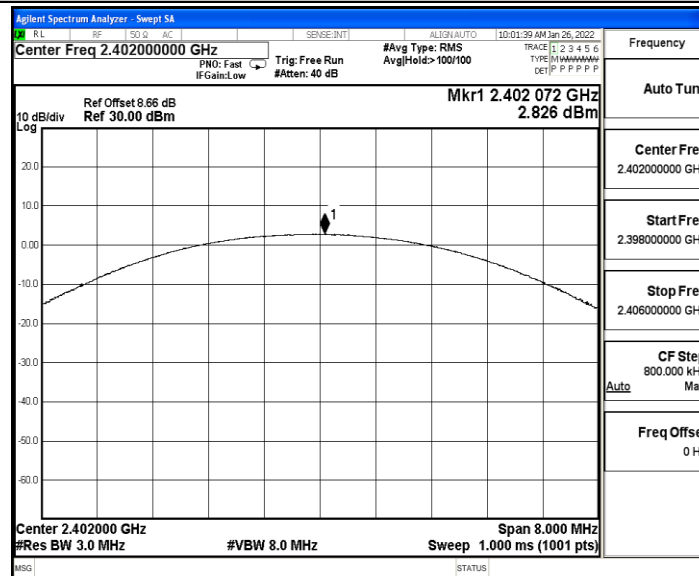
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant0	2402	2.83	≤ 20.97	PASS
		2441	7.8	≤ 20.97	PASS
		2480	9.48	≤ 20.97	PASS
2DH5	Ant0	2402	5.67	≤ 20.97	PASS
		2441	10.97	≤ 20.97	PASS
		2480	11.91	≤ 20.97	PASS
3DH5	Ant0	2402	6.06	≤ 20.97	PASS
		2441	11.37	≤ 20.97	PASS
		2480	12.16	≤ 20.97	PASS

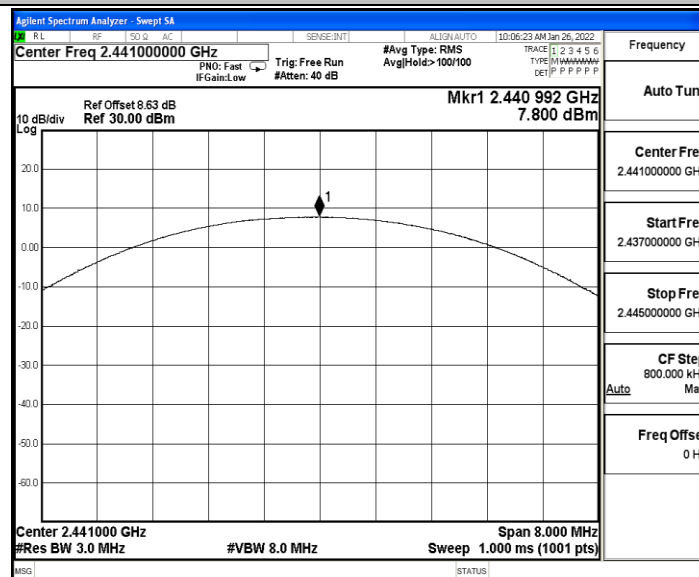


Test Graphs

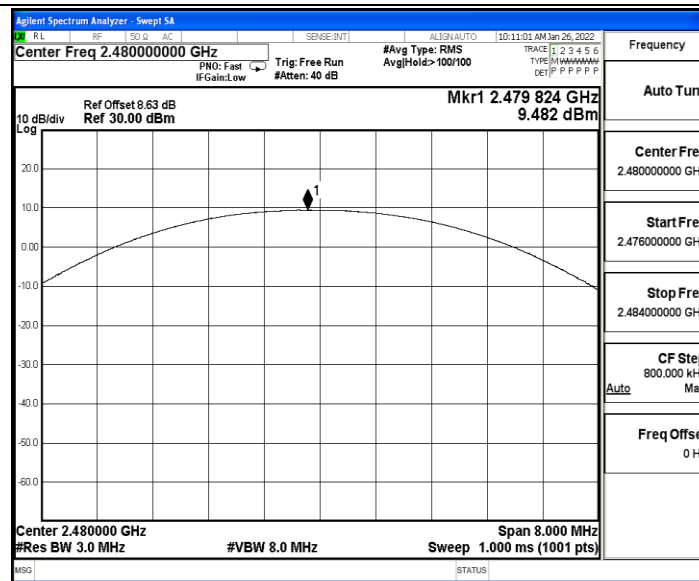
DH5_Ant0_2402



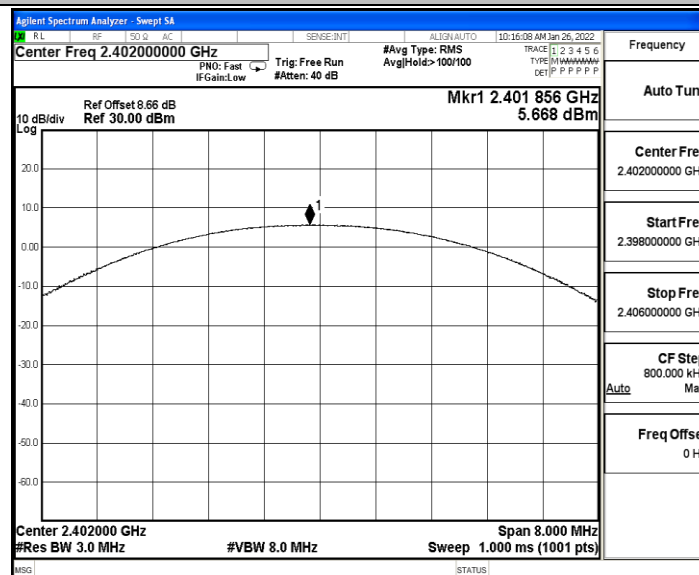
DH5_Ant0_2441



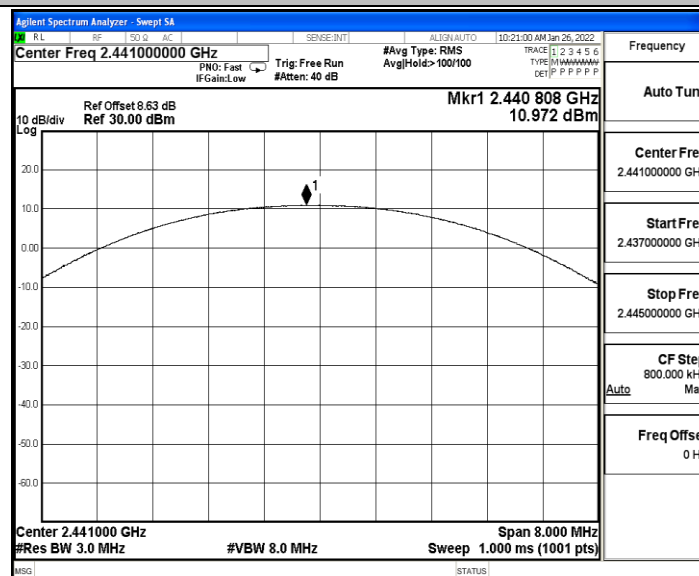
DH5_Ant0_2480



2DH5_Ant0_2402

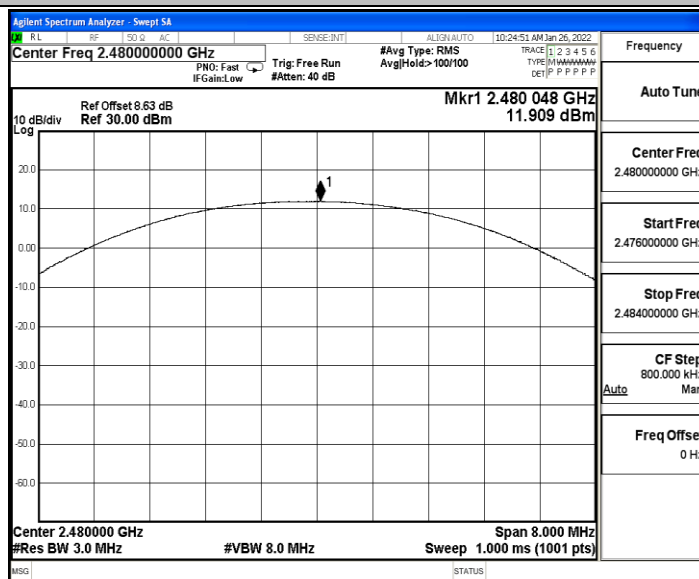


2DH5_Ant0_2441

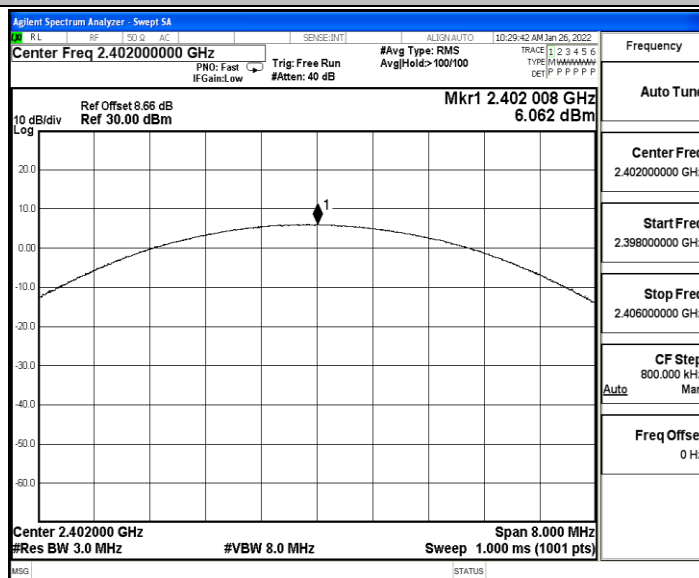




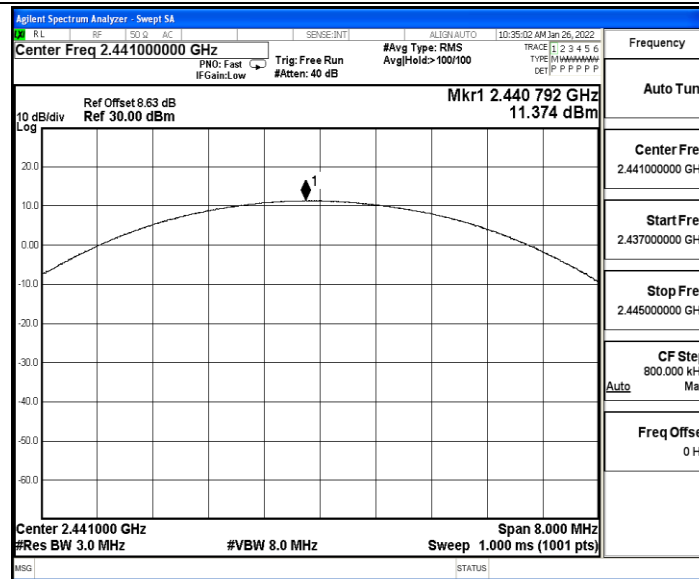
2DH5_Ant0_2480



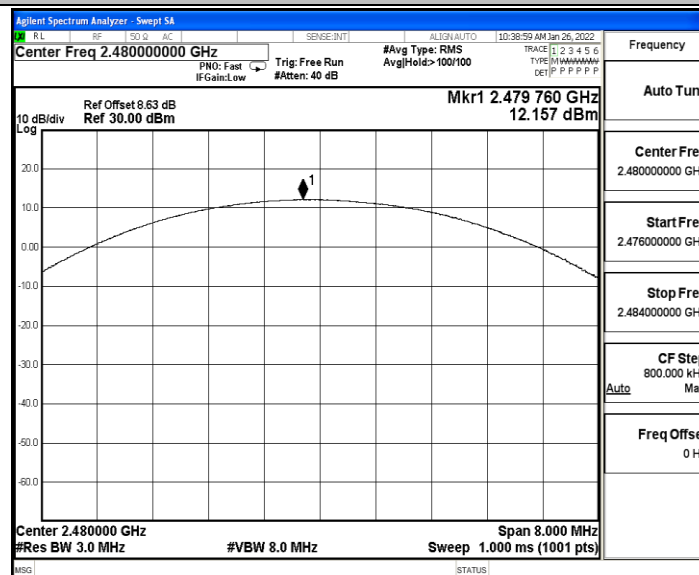
3DH5_Ant0_2402



3DH5_Ant0_2441



3DH5_Ant0_2480





A.3 Carrier frequency separation

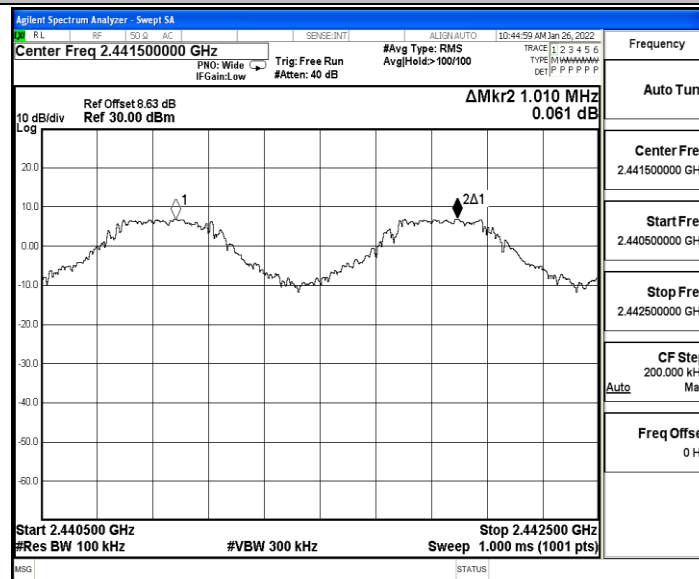
Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant0	Hop	1.01	≥ 0.999	PASS
2DH5	Ant0	Hop	0.986	≥ 0.906	PASS
3DH5	Ant0	Hop	1.012	≥ 0.896	PASS

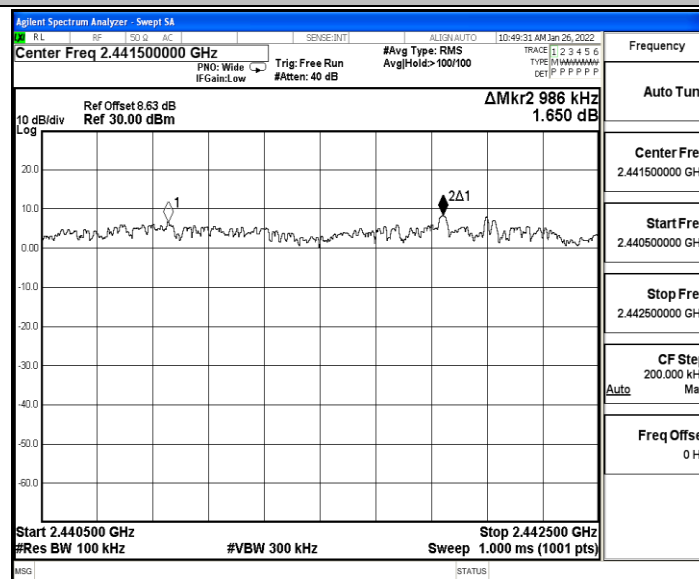


Test Graphs

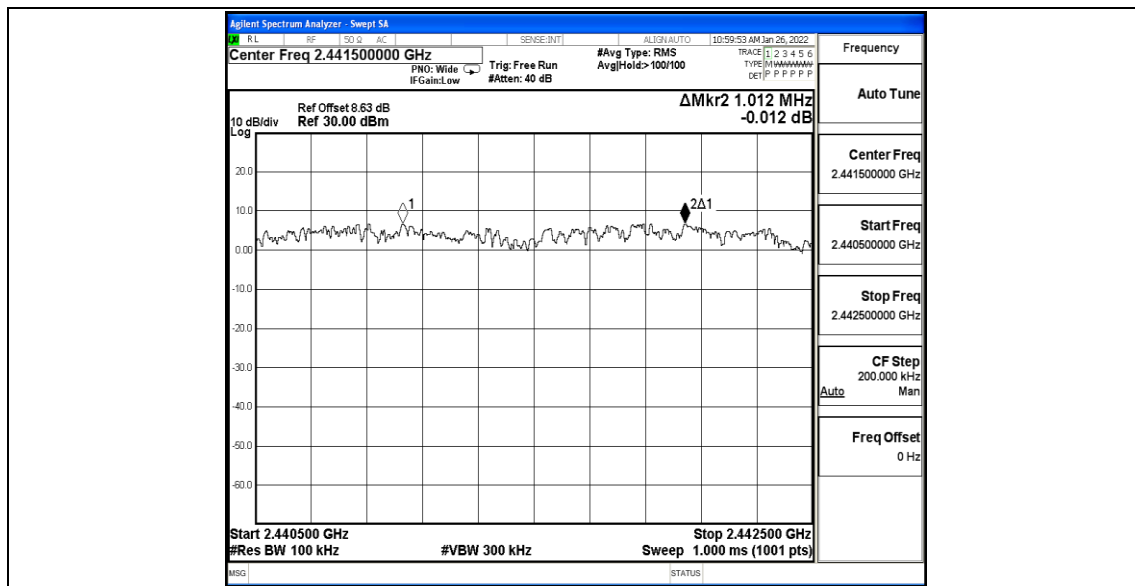
DH5_Ant0_Hop



2DH5_Ant0_Hop



3DH5_Ant0_Hop

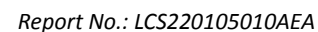


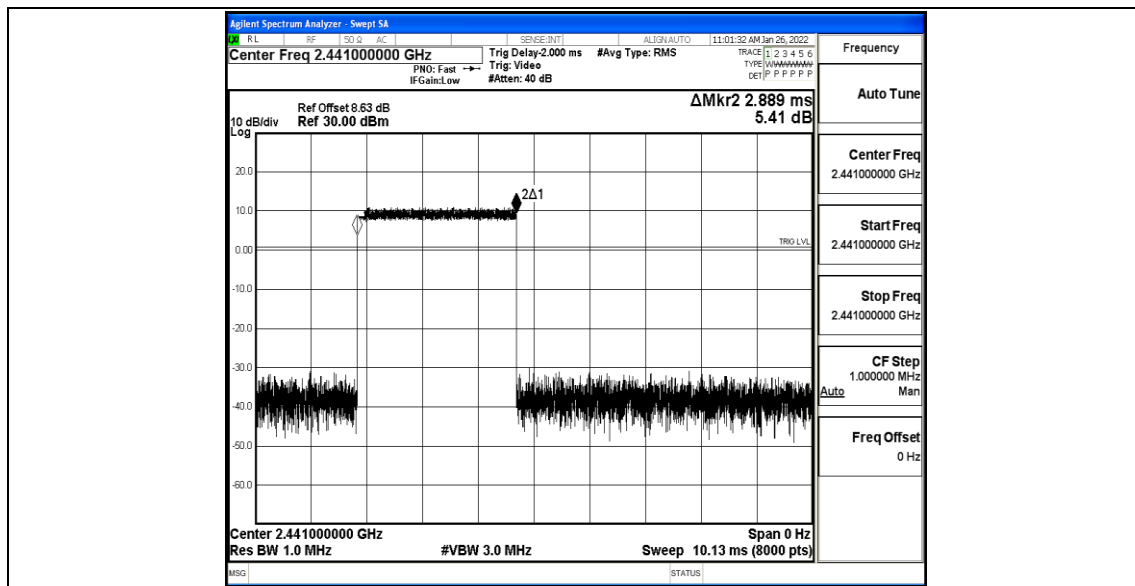


A.4 Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant0	Hop	2.89	106.67	0.308	≤0.4	PASS
2DH5	Ant0	Hop	2.89	106.67	0.308	≤0.4	PASS
3DH5	Ant0	Hop	2.89	106.67	0.308	≤0.4	PASS







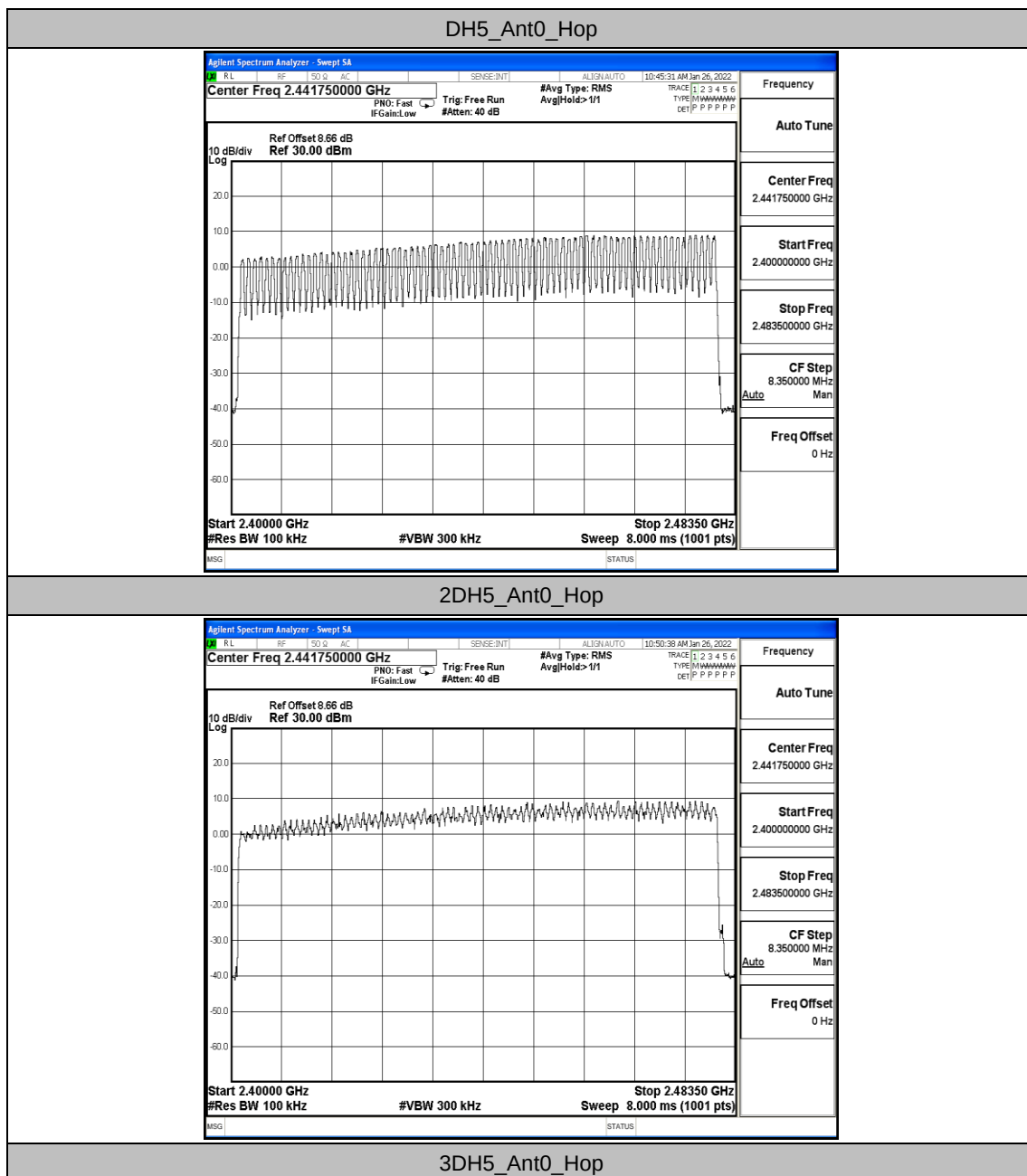
A.5 Number of hopping channels

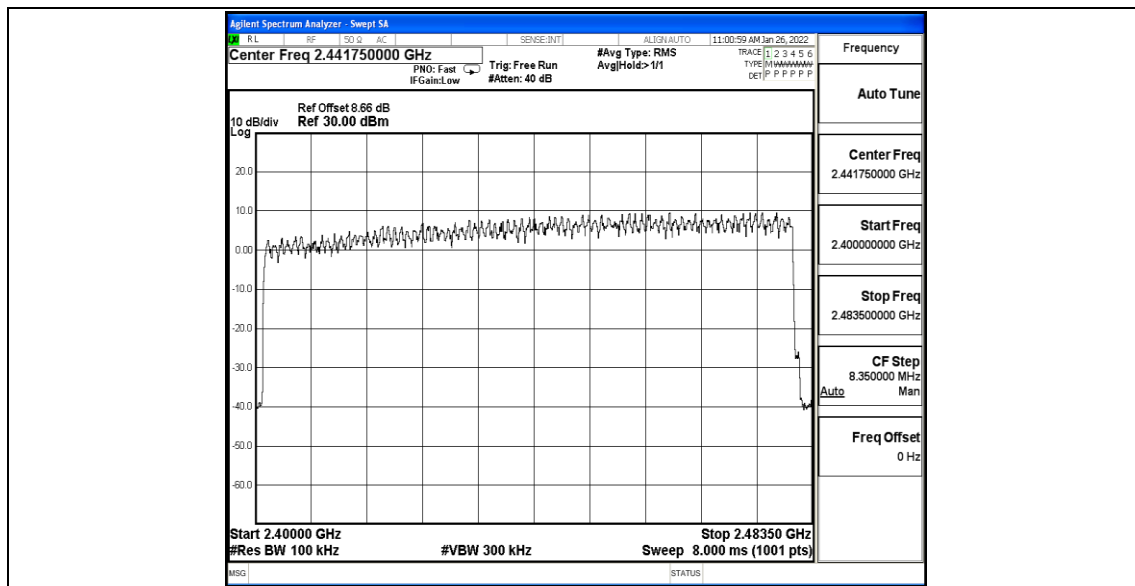
Test Result

TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant0	Hop	79	≥ 15	PASS
2DH5	Ant0	Hop	79	≥ 15	PASS
3DH5	Ant0	Hop	79	≥ 15	PASS



Test Graphs







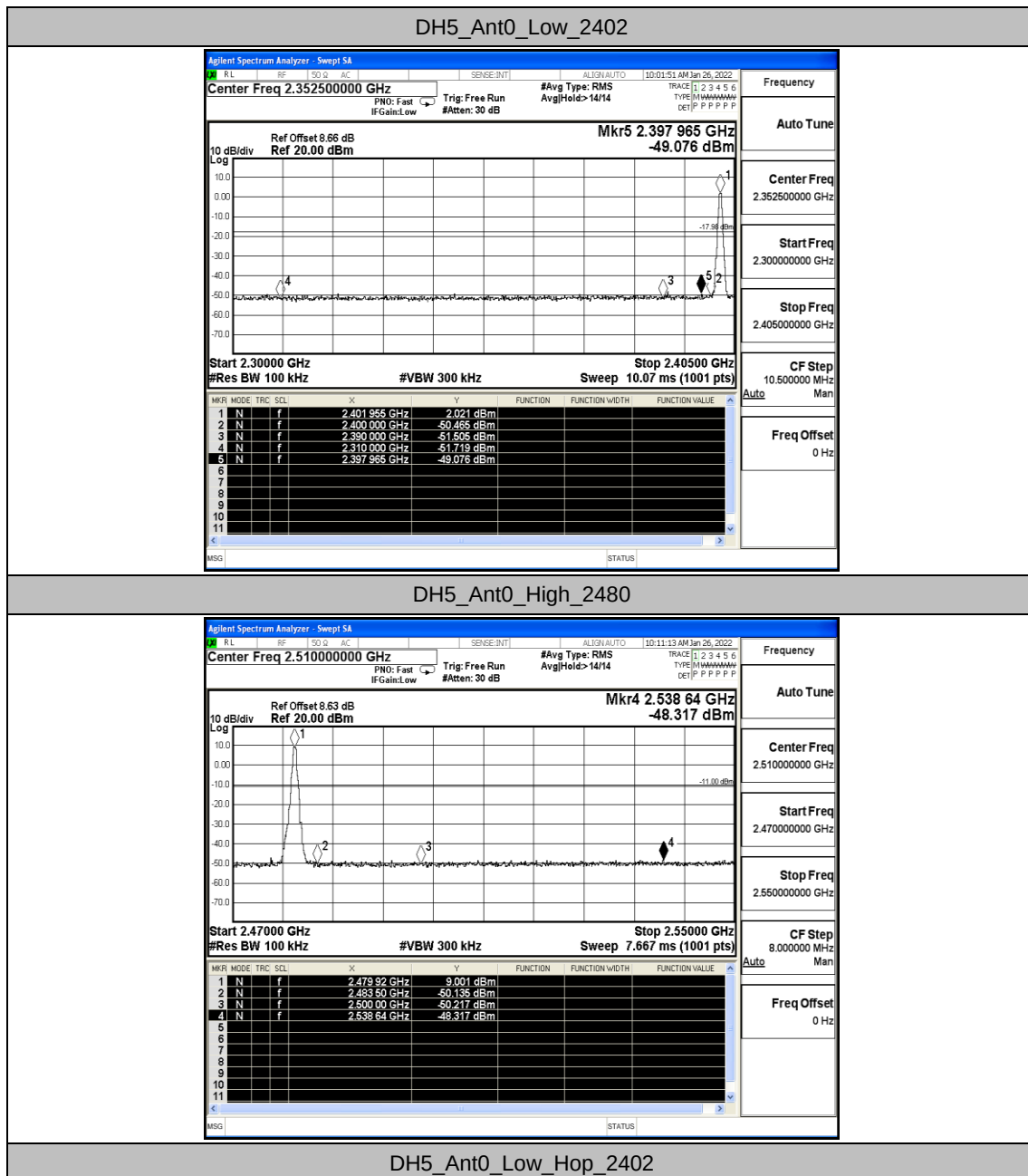
A.6 Band edge measurements

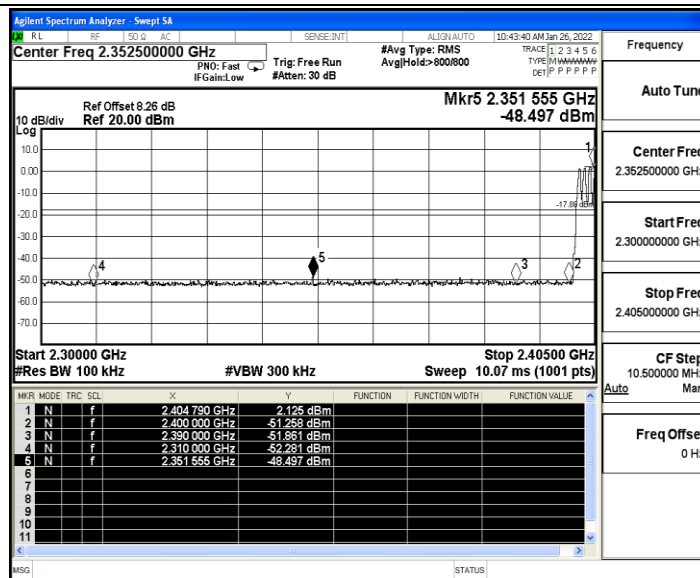
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant0	Low	2402	2.02	-49.08	≤ -17.98	PASS
		High	2480	9.00	-48.32	≤ -11	PASS
		Low	Hop_2402	2.13	-48.5	≤ -17.88	PASS
		High	Hop_2480	9.12	-47.41	≤ -10.88	PASS
2DH5	Ant0	Low	2402	1.77	-48.8	≤ -18.23	PASS
		High	2480	9.52	-47.95	≤ -10.48	PASS
		Low	Hop_2402	1.60	-48.3	≤ -18.4	PASS
		High	Hop_2480	9.51	-48.16	≤ -10.49	PASS
3DH5	Ant0	Low	2402	2.77	-48.67	≤ -17.23	PASS
		High	2480	9.59	-48.04	≤ -10.41	PASS
		Low	Hop_2402	0.83	-49.19	≤ -19.17	PASS
		High	Hop_2480	9.47	-47.91	≤ -10.53	PASS

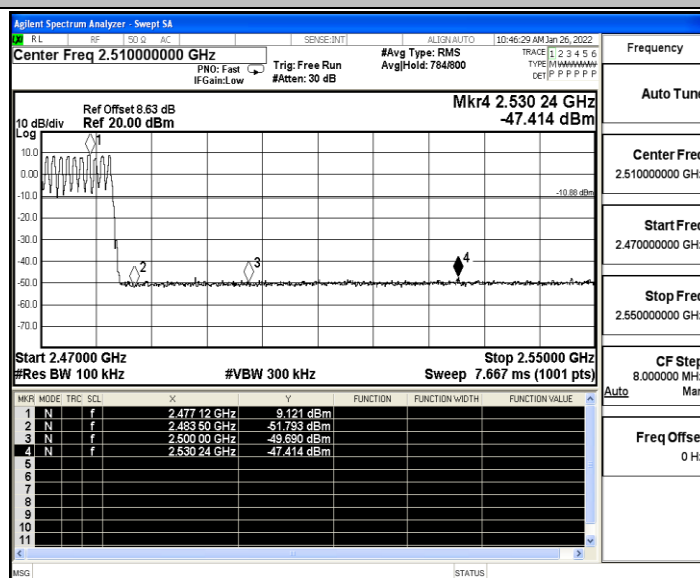


Test Graphs

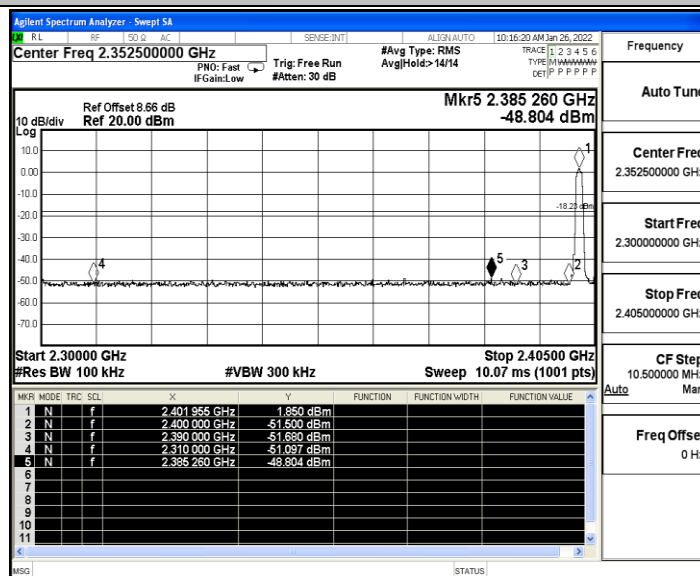




DH5_Ant0_High_Hop_2480

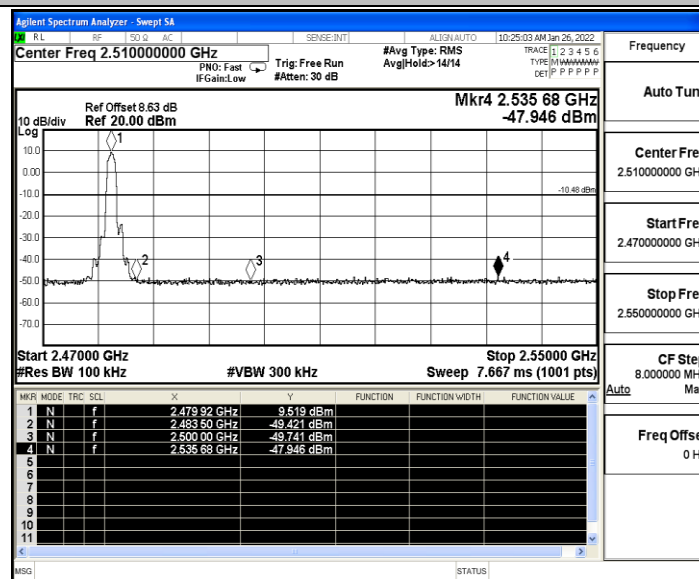


2DH5_Ant0_Low_2402

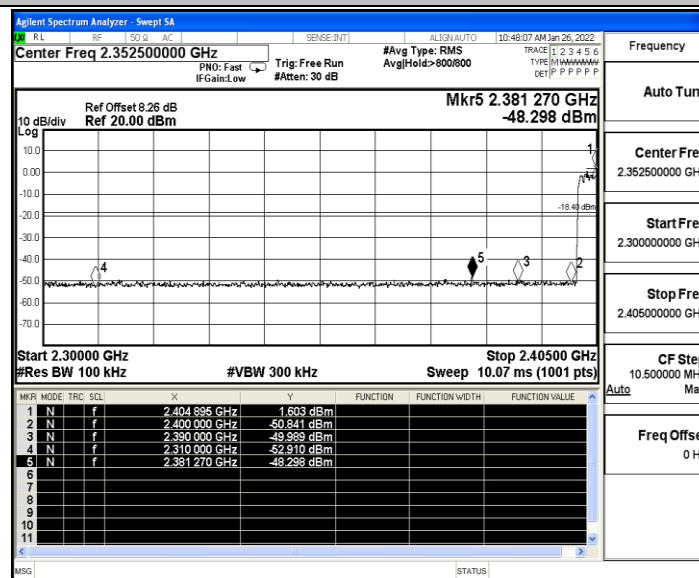




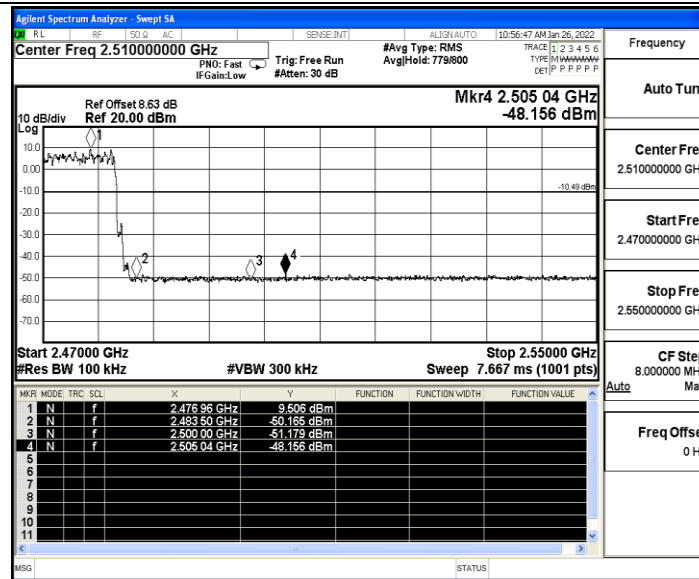
2DH5_Ant0_High_2480



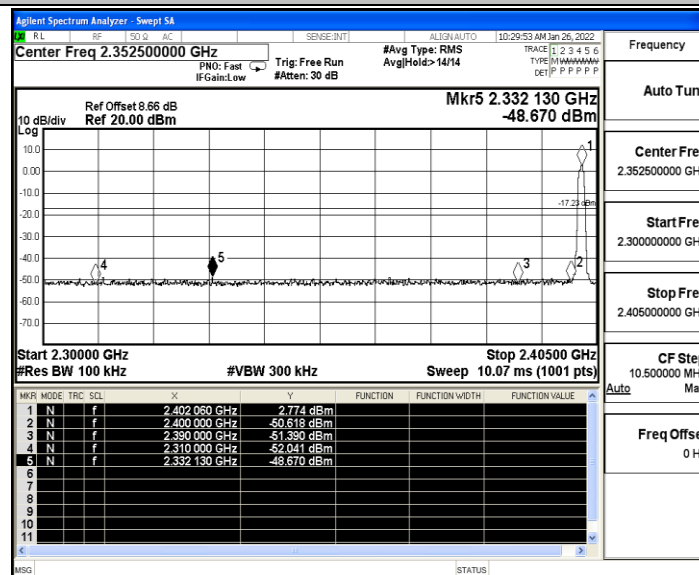
2DH5_Ant0_Low_Hop_2402



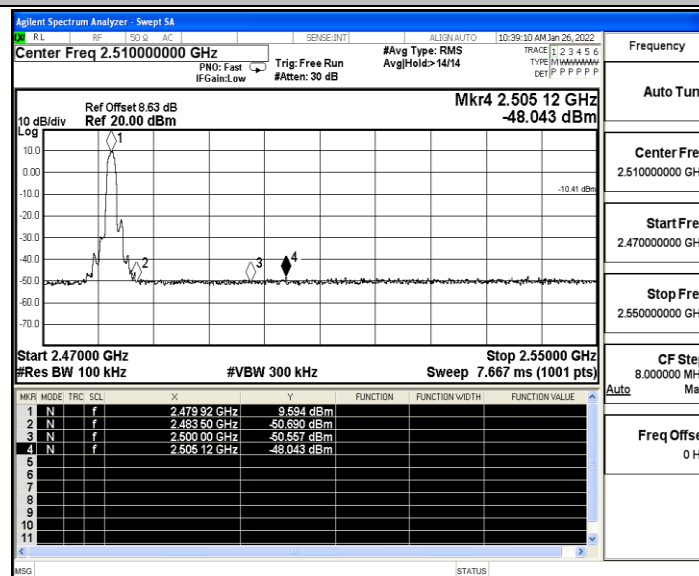
2DH5_Ant0_High_Hop_2480



3DH5_Ant0_Low_2402

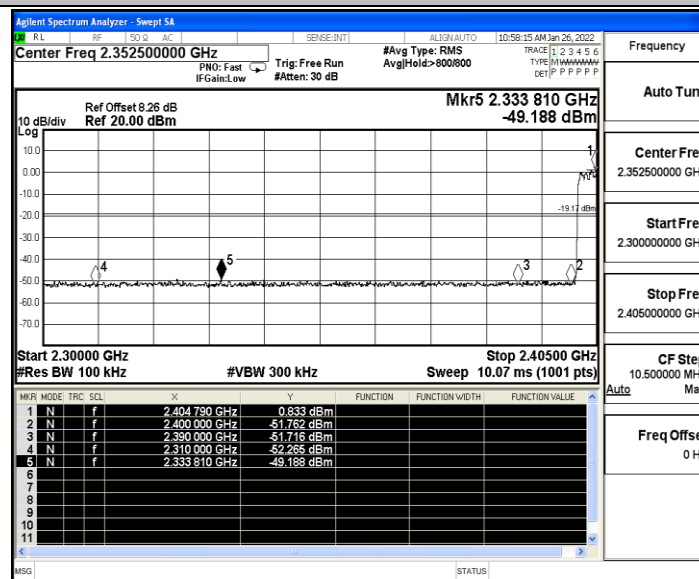


3DH5_Ant0_High_2480

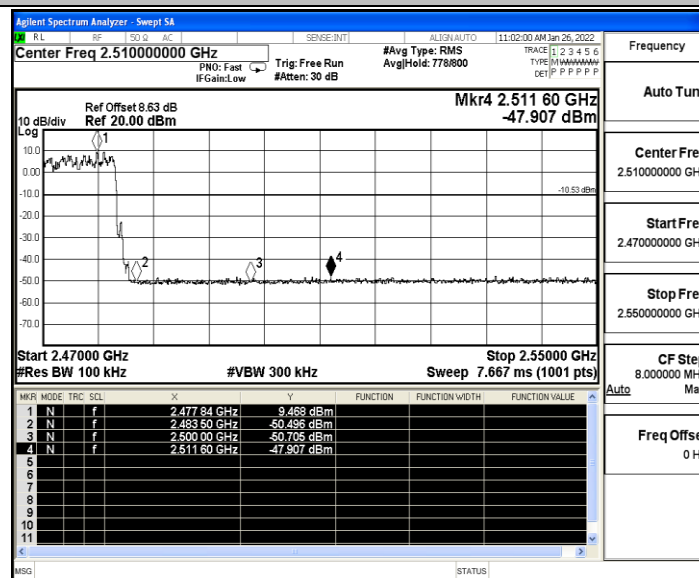




3DH5_Ant0_Low_Hop_2402



3DH5_Ant0_High_Hop_2480





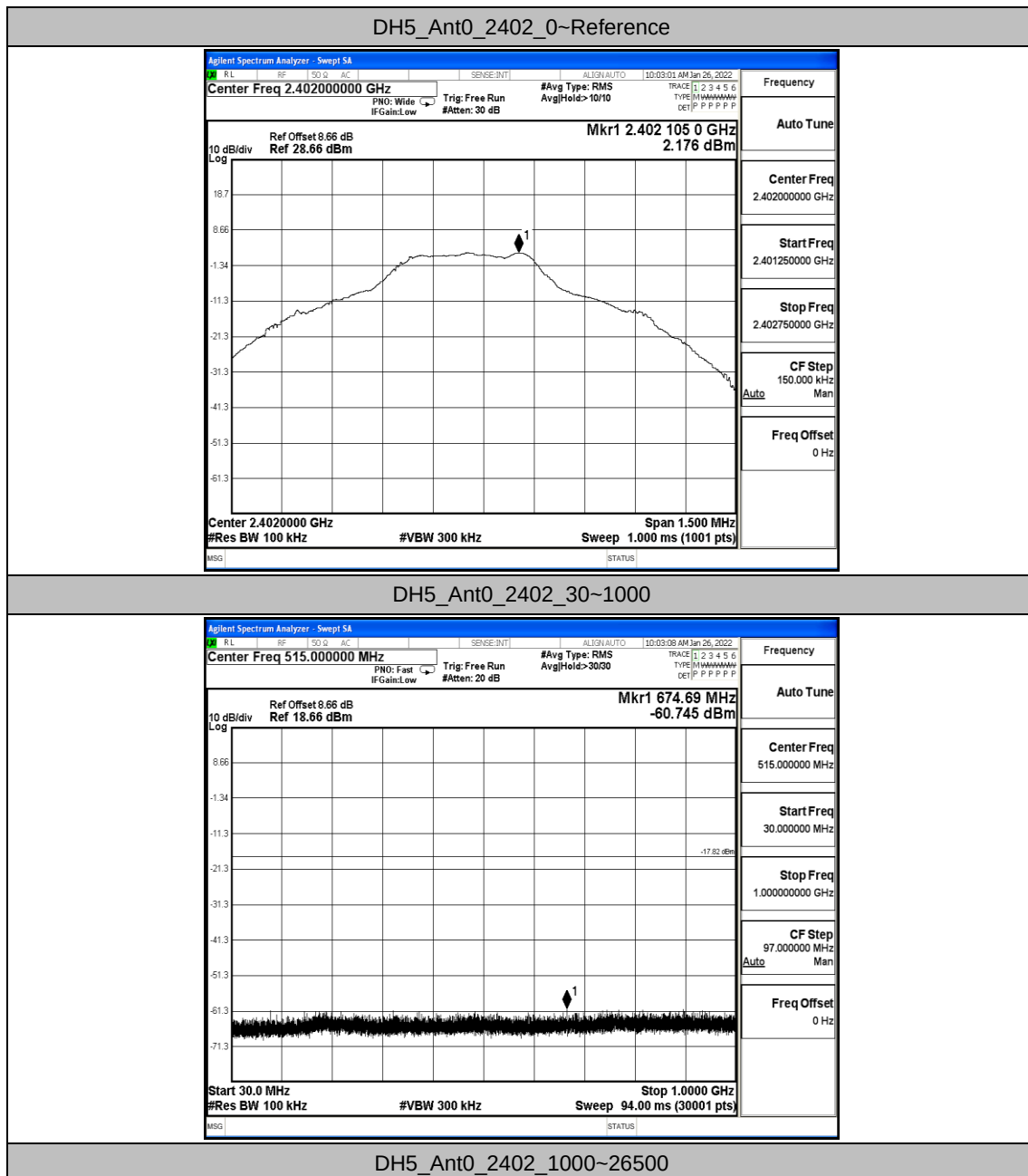
A.7 Conducted Spurious Emission

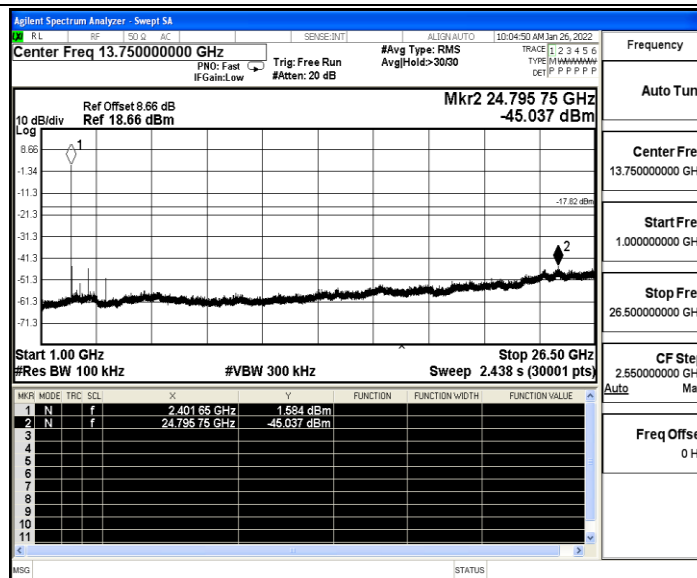
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant0	2402	Reference	2.18	2.18	---	PASS
			30~1000	2.18	-60.75	≤-17.82	PASS
			1000~26500	2.18	-45.04	≤-17.82	PASS
		2441	Reference	7.22	7.22	---	PASS
			30~1000	7.22	-60.34	≤-12.78	PASS
			1000~26500	7.22	-45.77	≤-12.78	PASS
		2480	Reference	9.07	9.07	---	PASS
			30~1000	9.07	-60.58	≤-10.93	PASS
			1000~26500	9.07	-45.89	≤-10.93	PASS
2DH5	Ant0	2402	Reference	2.82	2.82	---	PASS
			30~1000	2.82	-60.64	≤-17.18	PASS
			1000~26500	2.82	-43.61	≤-17.18	PASS
		2441	Reference	8.25	8.25	---	PASS
			30~1000	8.25	-60.42	≤-11.75	PASS
			1000~26500	8.25	-42.63	≤-11.75	PASS
		2480	Reference	9.69	9.69	---	PASS
			30~1000	9.69	-60.9	≤-10.31	PASS
			1000~26500	9.69	-43.71	≤-10.31	PASS
3DH5	Ant0	2402	Reference	2.79	2.79	---	PASS
			30~1000	2.79	-60.22	≤-17.21	PASS
			1000~26500	2.79	-43.12	≤-17.21	PASS
		2441	Reference	8.39	8.39	---	PASS
			30~1000	8.39	-60.4	≤-11.61	PASS
			1000~26500	8.39	-42.77	≤-11.61	PASS
		2480	Reference	9.80	9.80	---	PASS
			30~1000	9.80	-36.22	≤-10.2	PASS
			1000~26500	9.80	-43.76	≤-10.2	PASS

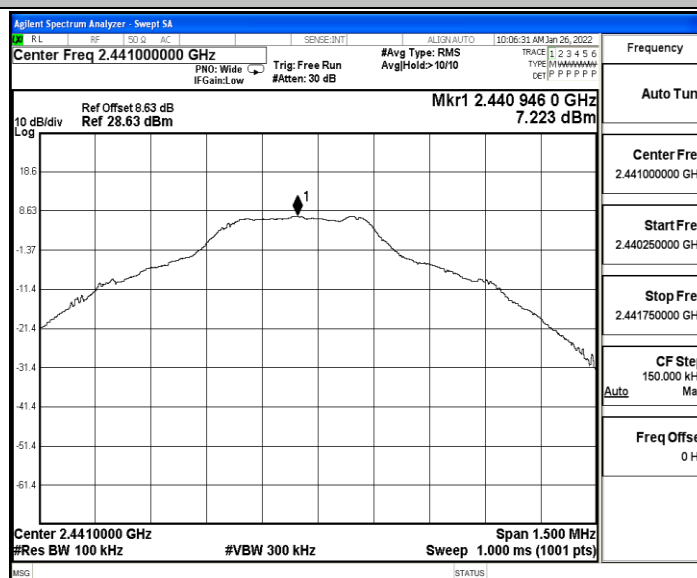


Test Graphs

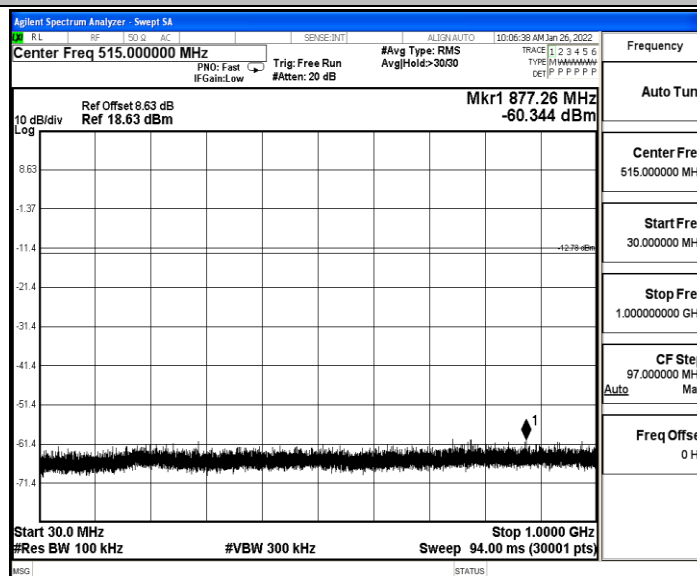




DH5_Ant0_2441_0~Reference

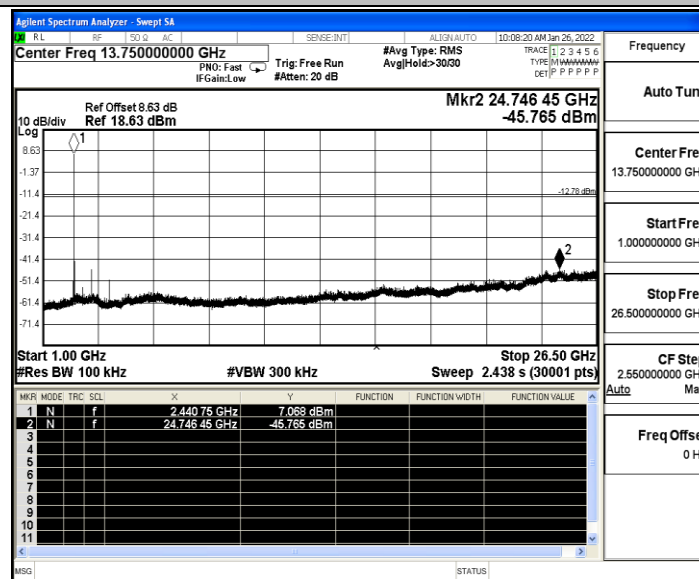


DH5_Ant0_2441_30~1000

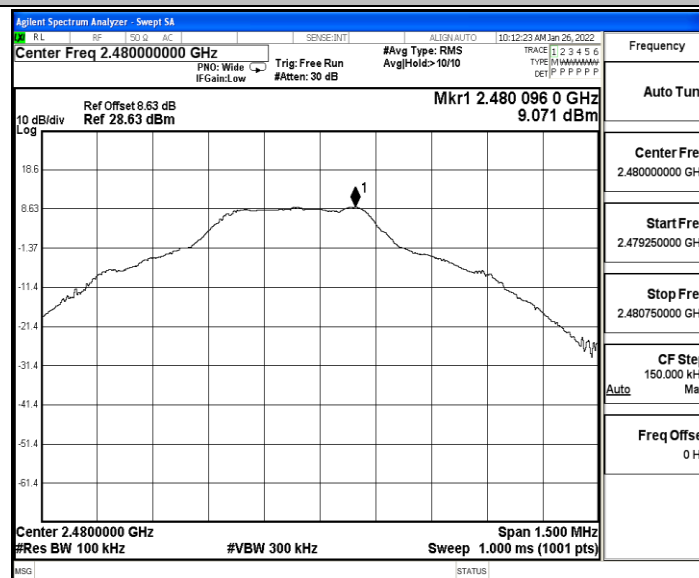




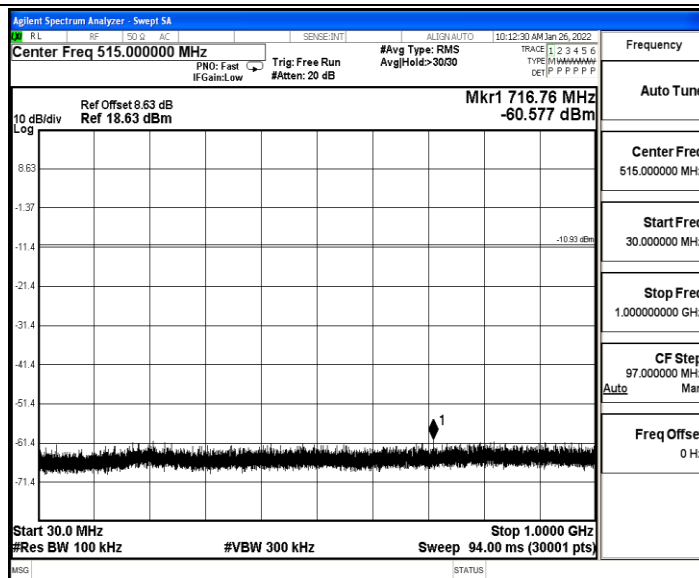
DH5_Ant0_2441_1000~26500



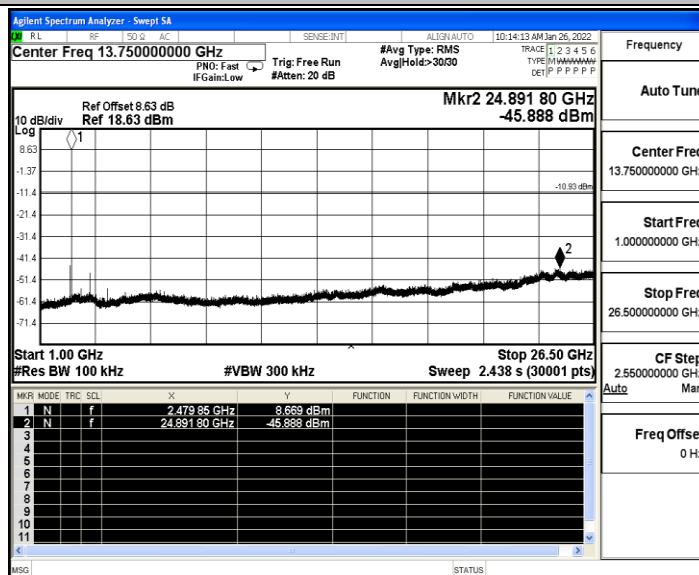
DH5_Ant0_2480_0~Reference



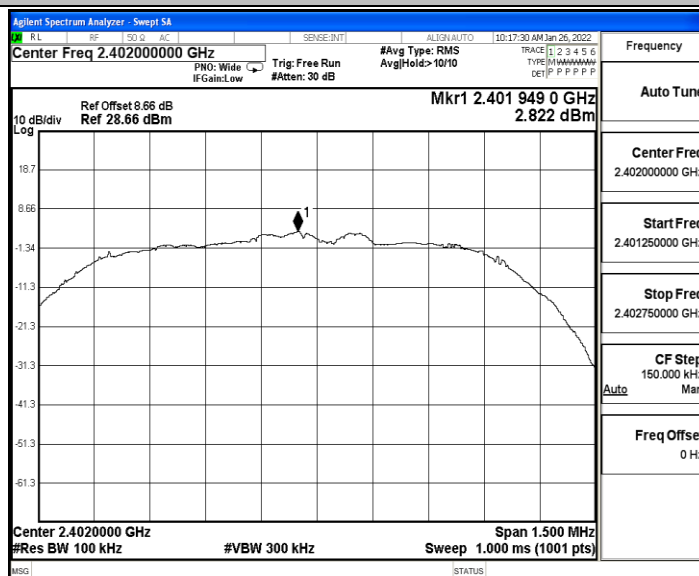
DH5_Ant0_2480_30~1000



DH5_Ant0_2480_1000~26500

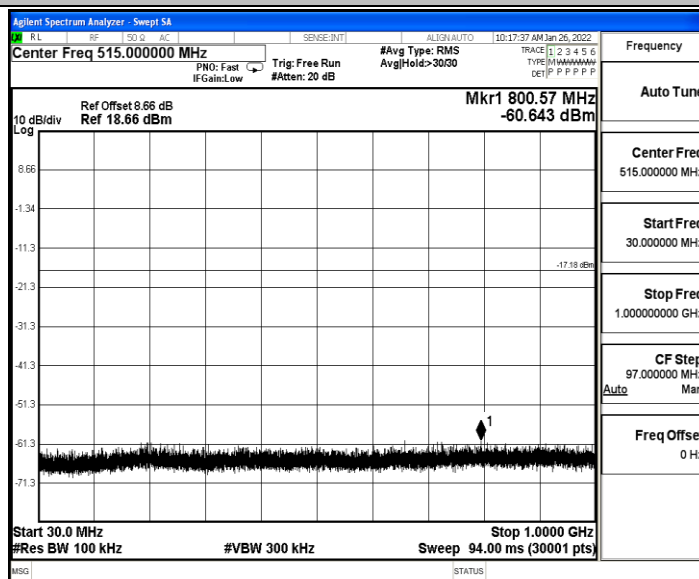


2DH5_Ant0_2402_0~Reference

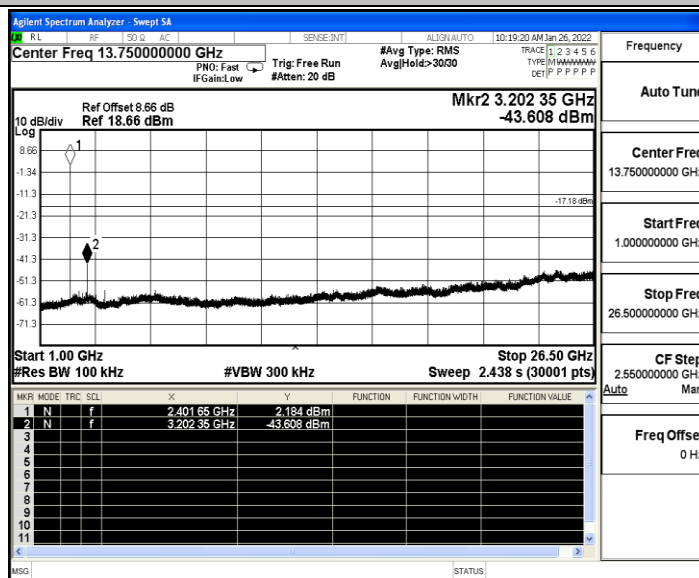




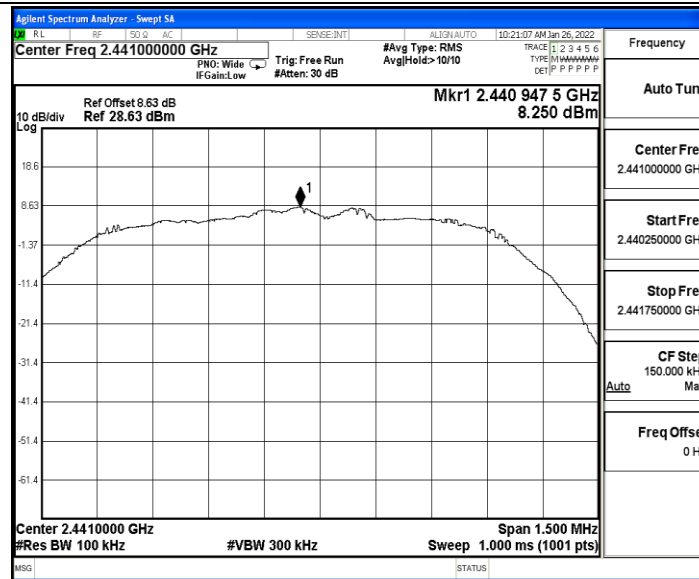
2DH5_Ant0_2402_30~1000



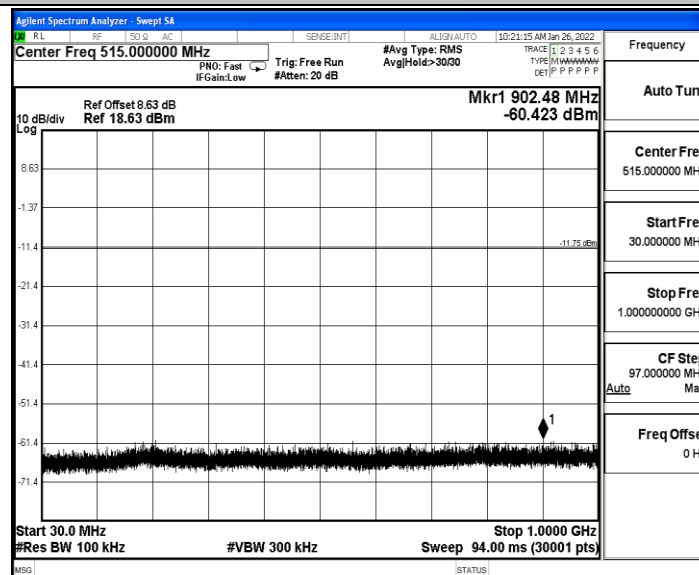
2DH5_Ant0_2402_1000~26500



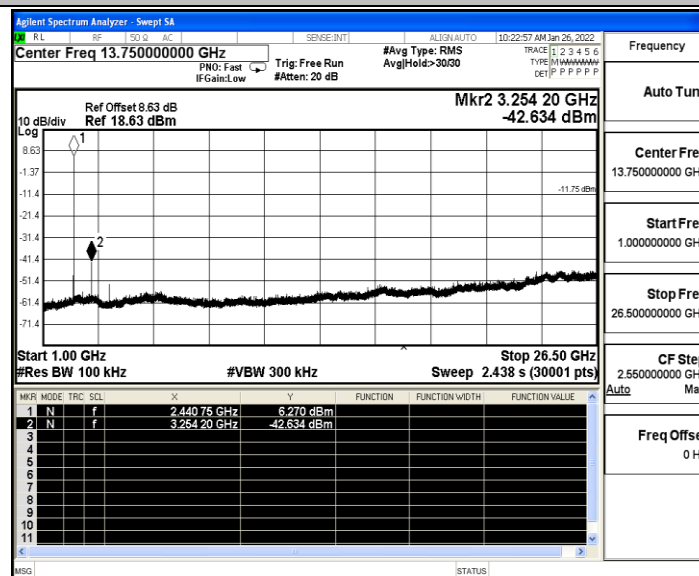
2DH5_Ant0_2441_0~Reference



2DH5_Ant0_2441_30~1000

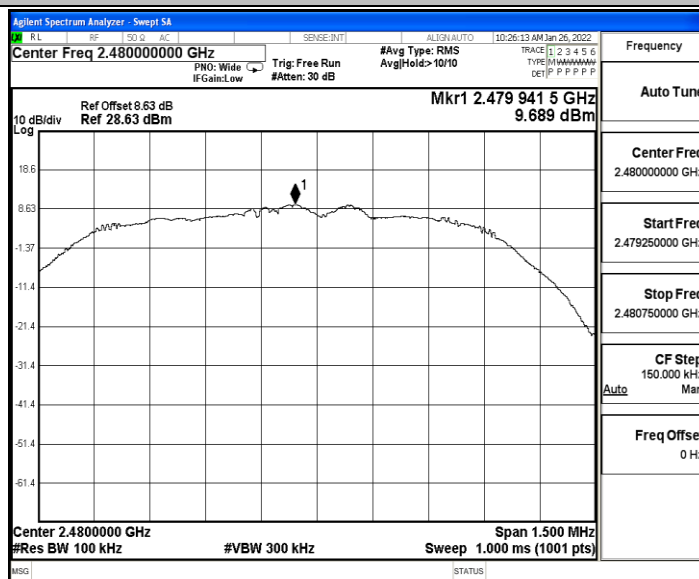


2DH5_Ant0_2441_1000~26500

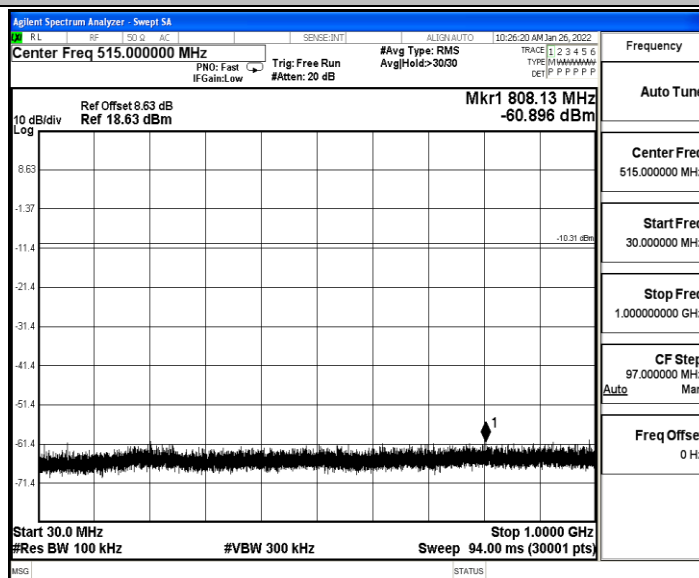




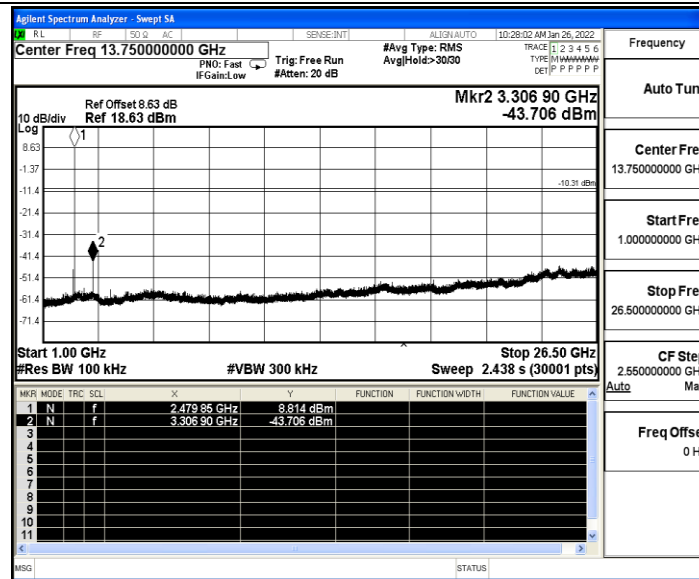
2DH5_Ant0_2480_0~Reference



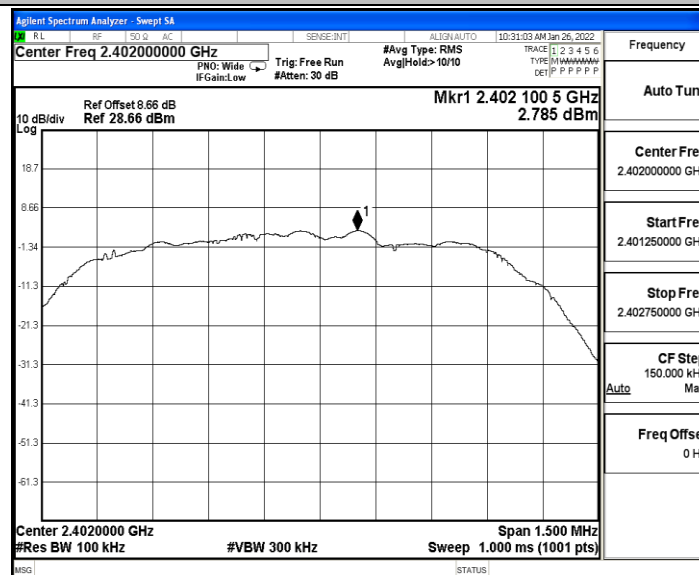
2DH5_Ant0_2480_30~1000



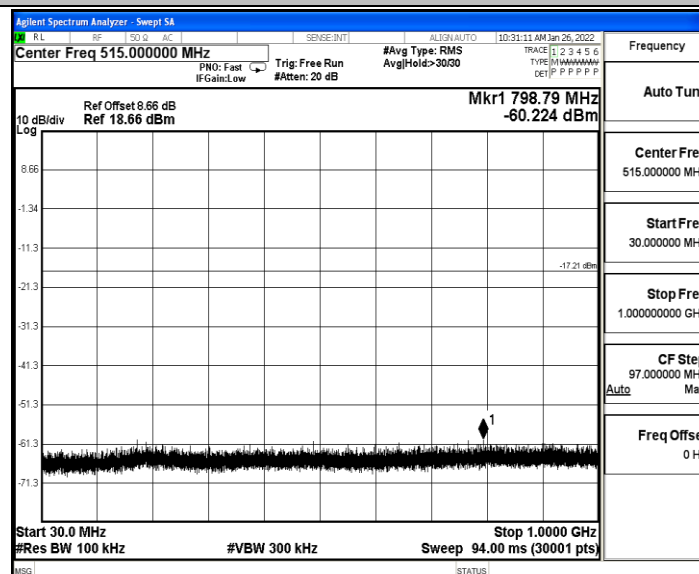
2DH5_Ant0_2480_1000~26500

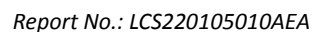


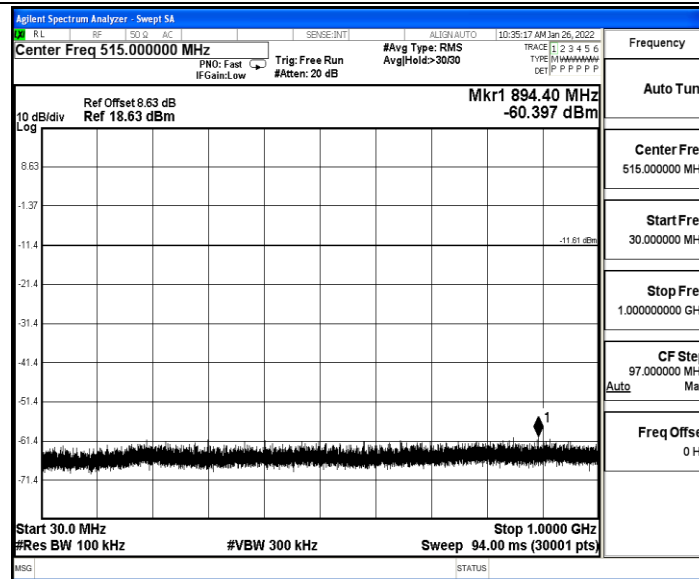
3DH5_Ant0_2402_0~Reference



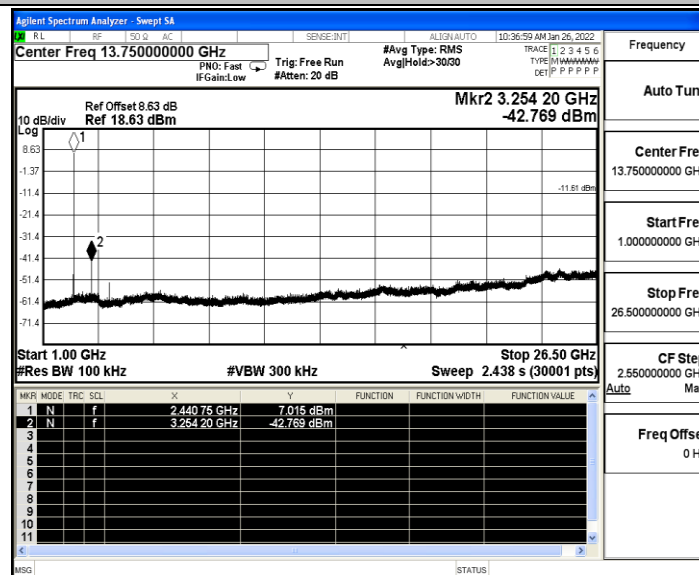
3DH5_Ant0_2402_30~1000



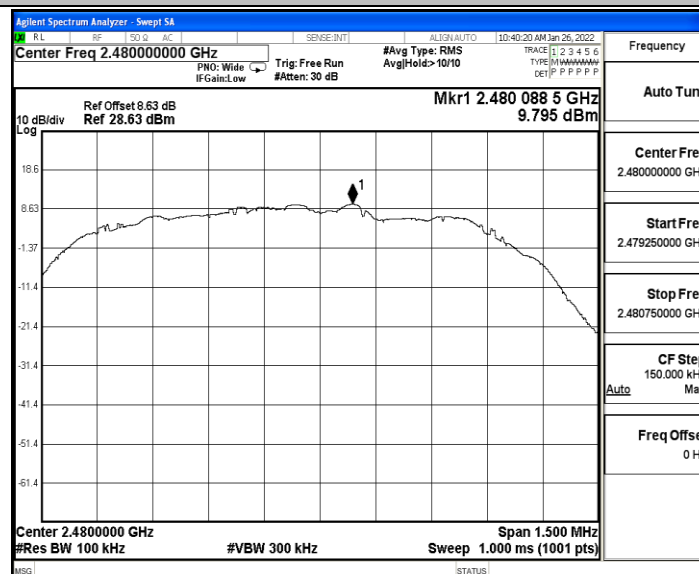




3DH5_Ant0_2441_1000~26500

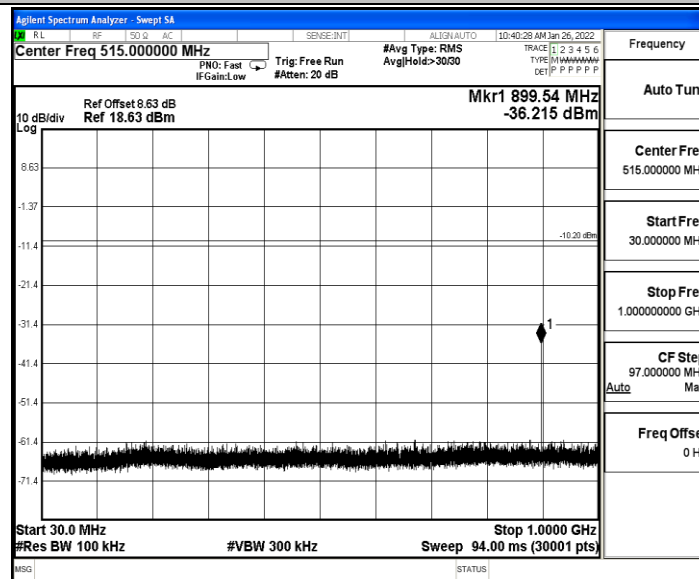


3DH5_Ant0_2480_0~Reference

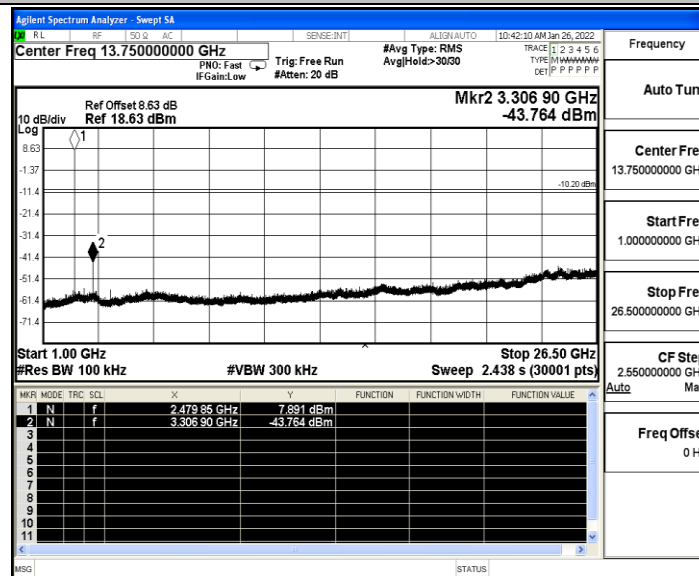




3DH5_Ant0_2480_30~1000



3DH5_Ant0_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	Ant0	Low	2402	AV	2310.000	-48.28	≤-41.20	46.92	≤54	PASS
				AV	2385.470	-47.73	≤-41.20	47.47	≤54	PASS
				AV	2390.000	-47.95	≤-41.20	47.25	≤54	PASS
				Peak	2310.000	-38.13	≤-21.20	57.07	≤74	PASS
				Peak	2379.905	-36.54	≤-21.20	58.66	≤74	PASS
				Peak	2390.000	-38.52	≤-21.20	56.68	≤74	PASS
		High	2480	AV	2483.500	-46.04	≤-41.20	49.16	≤54	PASS
				AV	2483.520	-46.04	≤-41.20	49.16	≤54	PASS
				AV	2500.000	-47.22	≤-41.20	47.98	≤54	PASS
				Peak	2483.500	-37.49	≤-21.20	57.71	≤74	PASS
				Peak	2488.240	-36.11	≤-21.20	59.09	≤74	PASS
				Peak	2500.000	-38.77	≤-21.20	56.43	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-39.64	≤-21.20	55.56	≤74	PASS
				Peak	2370.980	-37.19	≤-21.20	58.01	≤74	PASS
				Peak	2390.000	-39.22	≤-21.20	55.98	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-37.87	≤-21.20	57.33	≤74	PASS
				Peak	2495.280	-36.37	≤-21.20	58.83	≤74	PASS
				Peak	2500.000	-37.71	≤-21.20	57.49	≤74	PASS
2DH5	Ant0	Low	2402	AV	2310.000	-48.17	≤-41.20	47.03	≤54	PASS
				AV	2385.575	-47.72	≤-41.20	47.48	≤54	PASS
				AV	2390.000	-47.8	≤-41.20	47.40	≤54	PASS
				Peak	2310.000	-38.71	≤-21.20	56.49	≤74	PASS
				Peak	2370.875	-36.29	≤-21.20	58.91	≤74	PASS
				Peak	2390.000	-37.56	≤-21.20	57.64	≤74	PASS
		High	2480	AV	2483.500	-43.87	≤-41.20	51.33	≤54	PASS
				AV	2483.520	-43.87	≤-41.20	51.33	≤54	PASS
				AV	2500.000	-47.21	≤-41.20	47.99	≤54	PASS
				Peak	2483.500	-36.06	≤-21.20	59.14	≤74	PASS
				Peak	2483.600	-35.19	≤-21.20	60.01	≤74	PASS
				Peak	2500.000	-38.1	≤-21.20	57.10	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-39.06	≤-21.20	56.14	≤74	PASS
				Peak	2374.340	-36.39	≤-21.20	58.81	≤74	PASS
				Peak	2390.000	-38.96	≤-21.20	56.24	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-37.74	≤-21.20	57.46	≤74	PASS
				Peak	2499.440	-36.09	≤-21.20	59.11	≤74	PASS
				Peak	2500.000	-37.85	≤-21.20	57.35	≤74	PASS
3DH5	Ant0	Low	2402	AV	2310.000	-48.17	≤-41.20	47.03	≤54	PASS



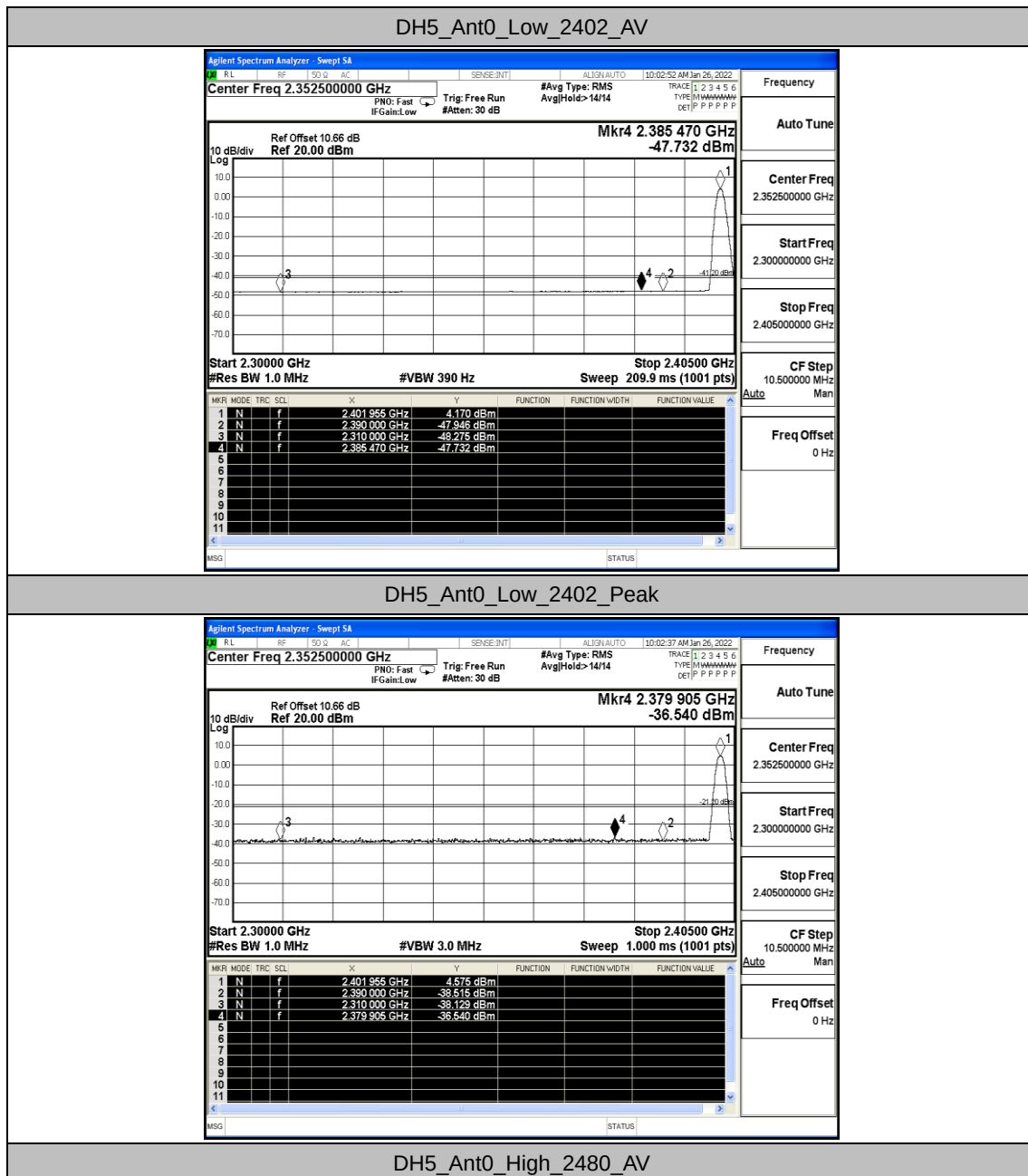
				AV	2389.250	-47.71	≤ -41.20	47.49	≤ 54	PASS
				AV	2390.000	-47.82	≤ -41.20	47.38	≤ 54	PASS
				Peak	2310.000	-39.17	≤ -21.20	56.03	≤ 74	PASS
				Peak	2384.630	-36.54	≤ -21.20	58.66	≤ 74	PASS
				Peak	2390.000	-38.84	≤ -21.20	56.36	≤ 74	PASS
		High	2480	AV	2483.500	-43.73	≤ -41.20	51.47	≤ 54	PASS
				AV	2483.520	-43.73	≤ -41.20	51.47	≤ 54	PASS
				AV	2500.000	-47.21	≤ -41.20	47.99	≤ 54	PASS
				Peak	2483.500	-34.52	≤ -21.20	60.68	≤ 74	PASS
				Peak	2483.520	-34.52	≤ -21.20	60.68	≤ 74	PASS
				Peak	2500.000	-37.96	≤ -21.20	57.24	≤ 74	PASS
		Low	Hop_24 02	Peak	2310.000	-38.67	≤ -21.20	56.53	≤ 74	PASS
				Peak	2375.180	-37.21	≤ -21.20	57.99	≤ 74	PASS
				Peak	2390.000	-37.93	≤ -21.20	57.27	≤ 74	PASS
		High	Hop_24 80	Peak	2483.500	-35.52	≤ -21.20	59.68	≤ 74	PASS
				Peak	2500.000	-38.31	≤ -21.20	56.89	≤ 74	PASS

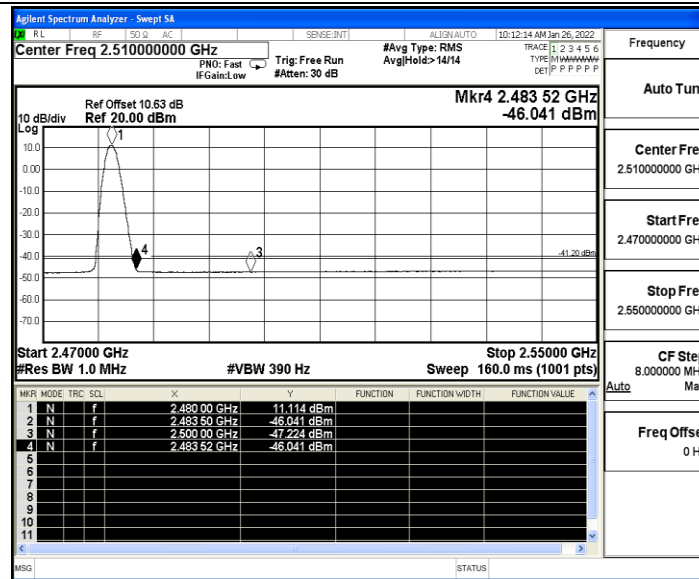
Note:

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.

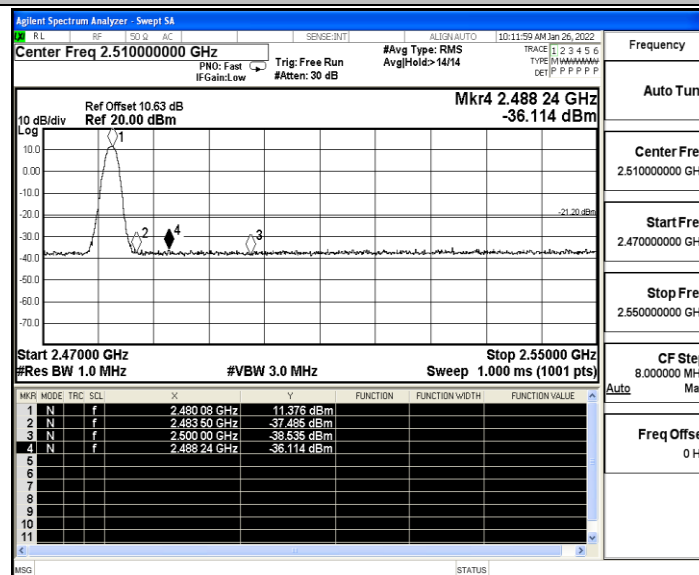


Test Graphs

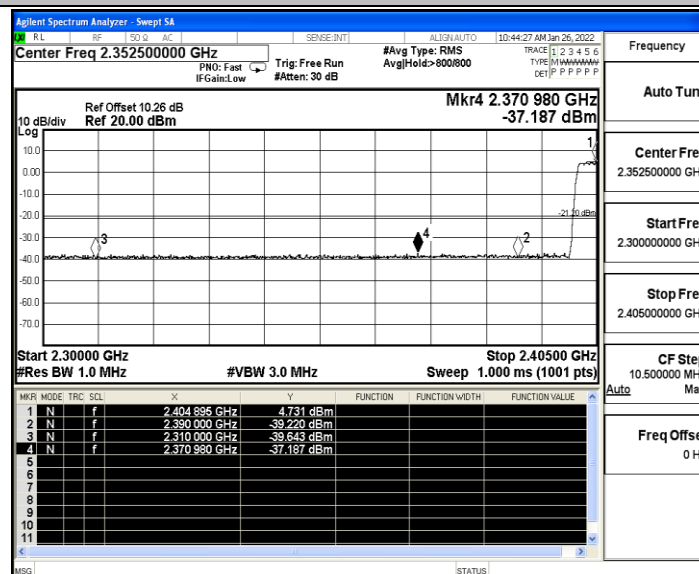




DH5_Ant0_High_2480_Peak

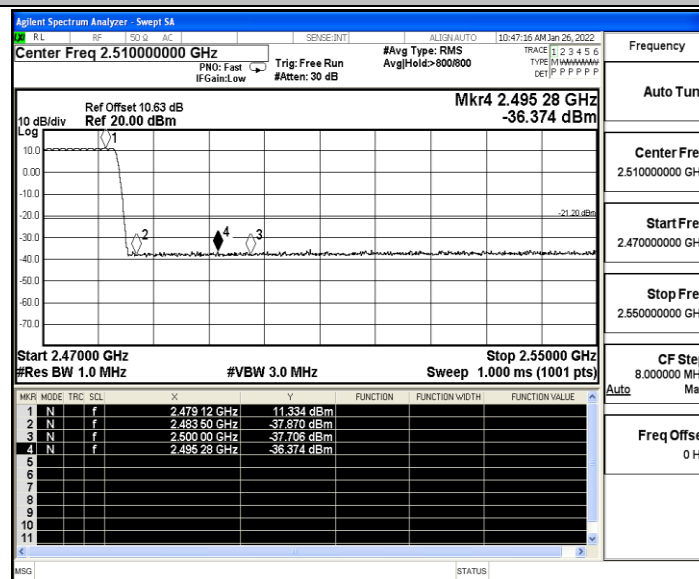


DH5_Ant0_Low_Hop_2402_Peak

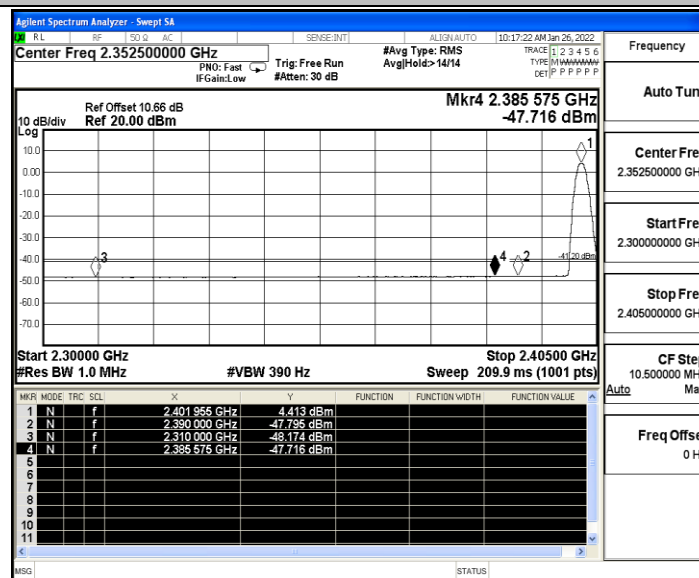




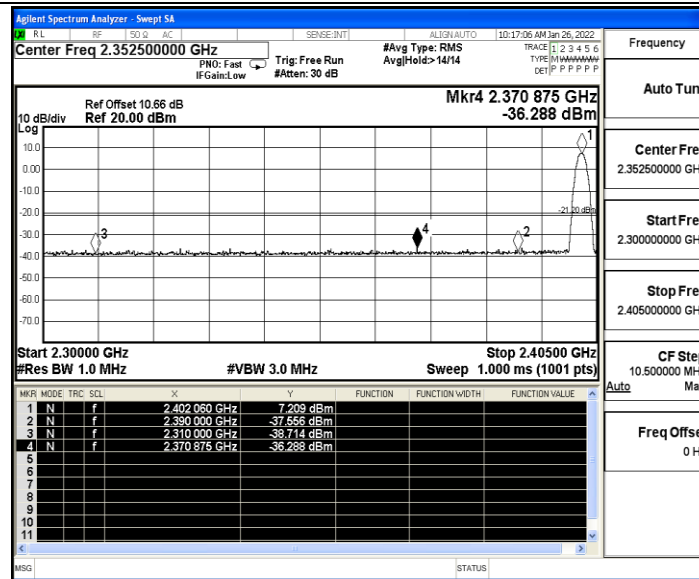
DH5_Ant0_High_Hop_2480_Peak



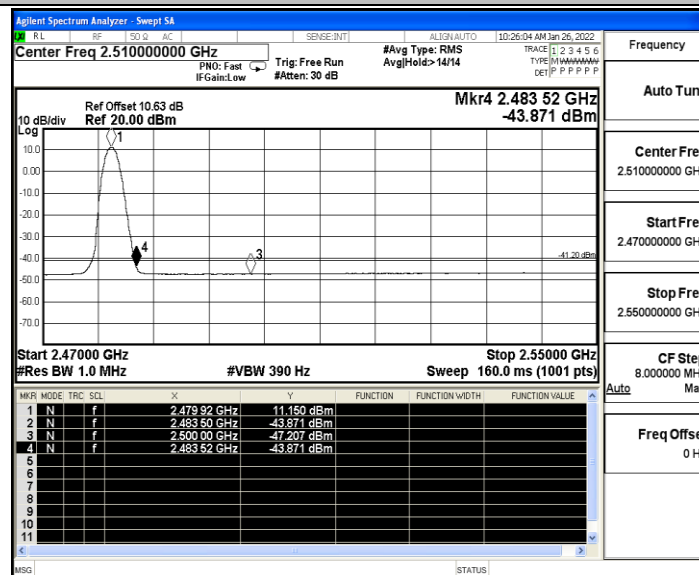
2DH5_Ant0_Low_2402_AV



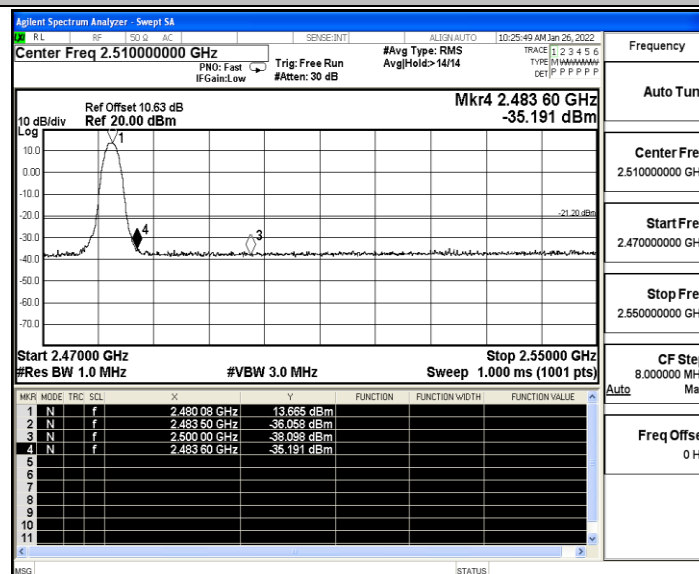
2DH5_Ant0_Low_2402_Peak



2DH5_Ant0_High_2480_AV

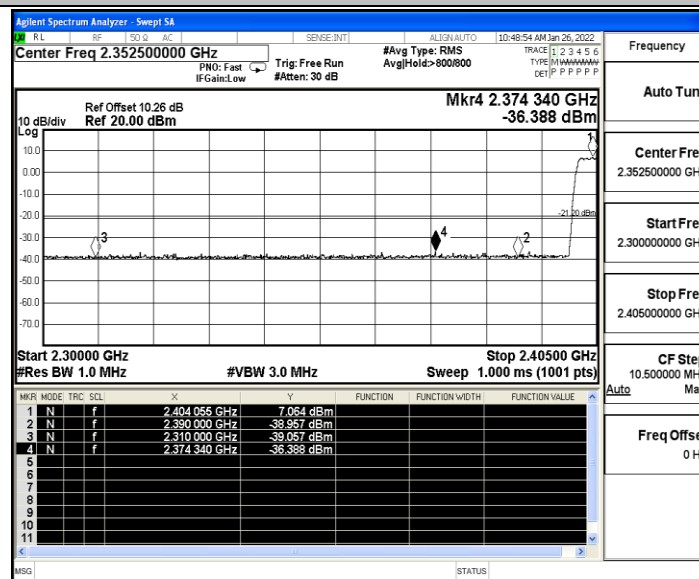


2DH5_Ant0_High_2480_Peak

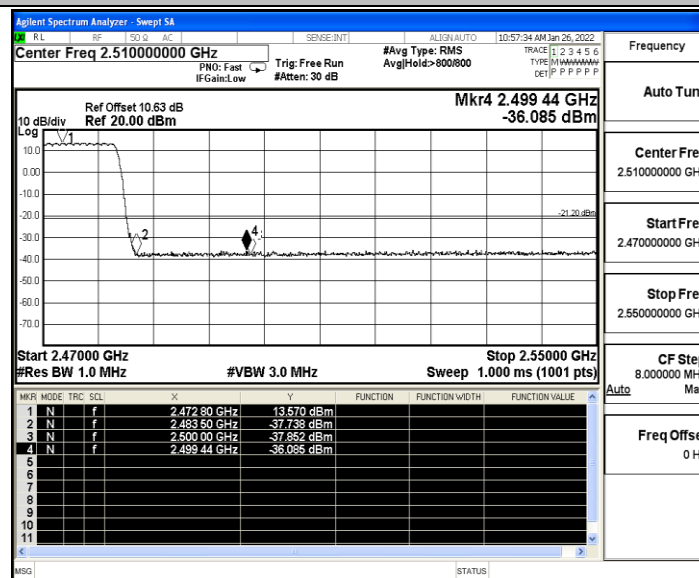




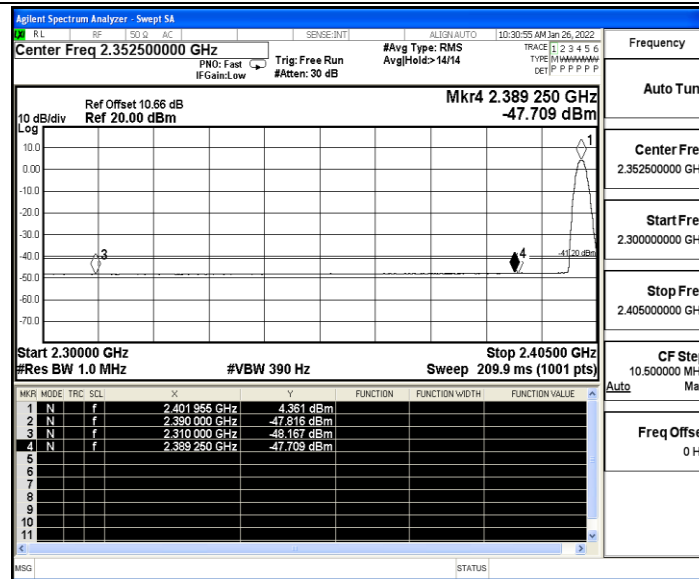
2DH5_Ant0_Low_Hop_2402_Peak



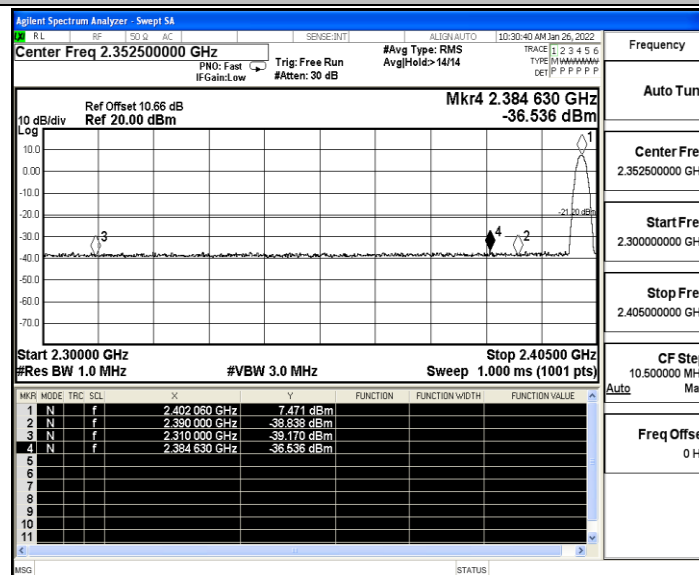
2DH5_Ant0_High_Hop_2480_Peak



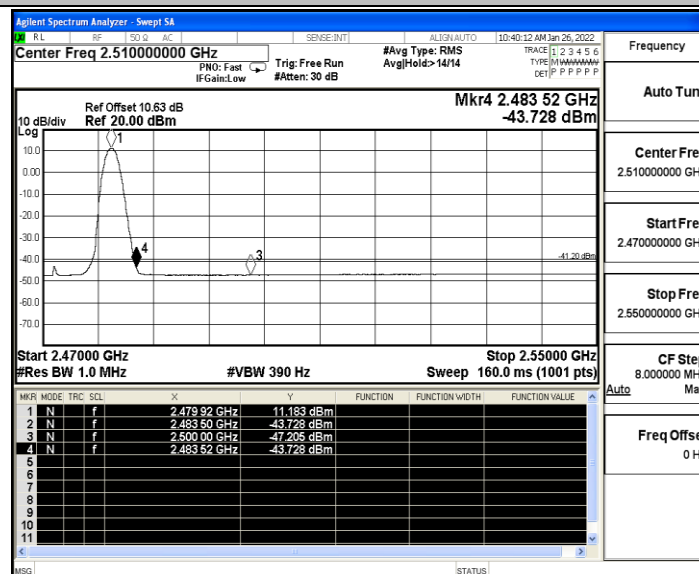
3DH5_Ant0_Low_2402_AV



3DH5_Ant0_Low_2402_Peak

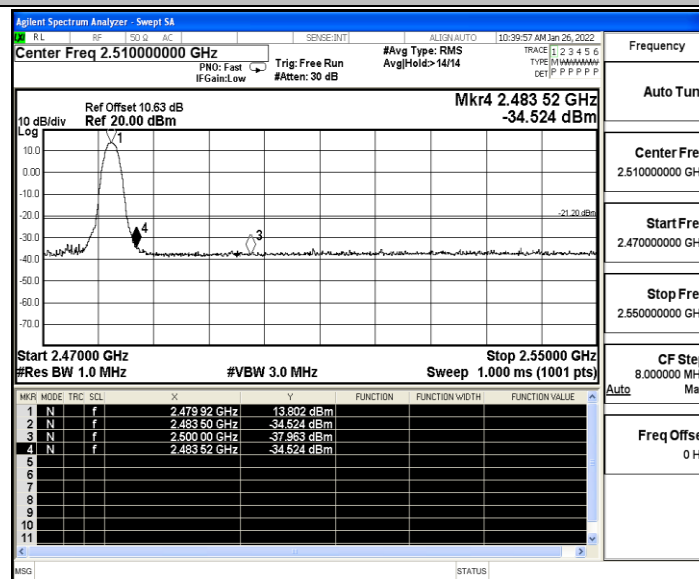


3DH5_Ant0_High_2480_AV

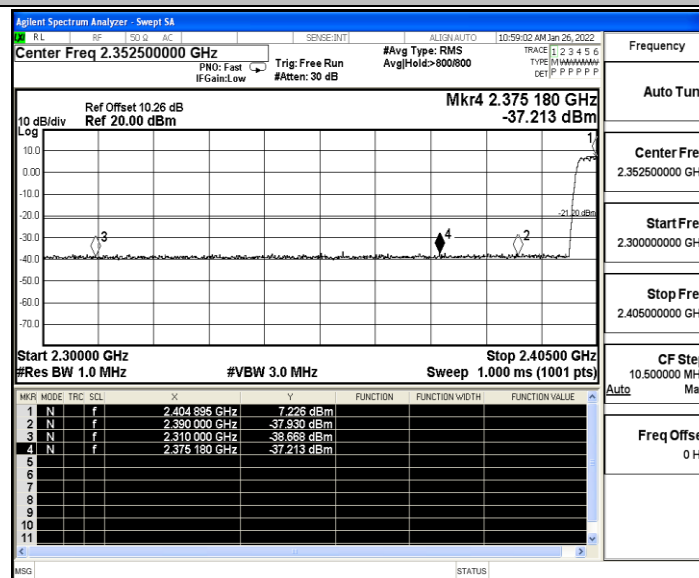




3DH5_Ant0_High_2480_Peak



3DH5_Ant0_Low_Hop_2402_Peak



3DH5_Ant0_High_Hop_2480_Peak

