



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: PS4 wireless controller

Test Model: HS-PS4125

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

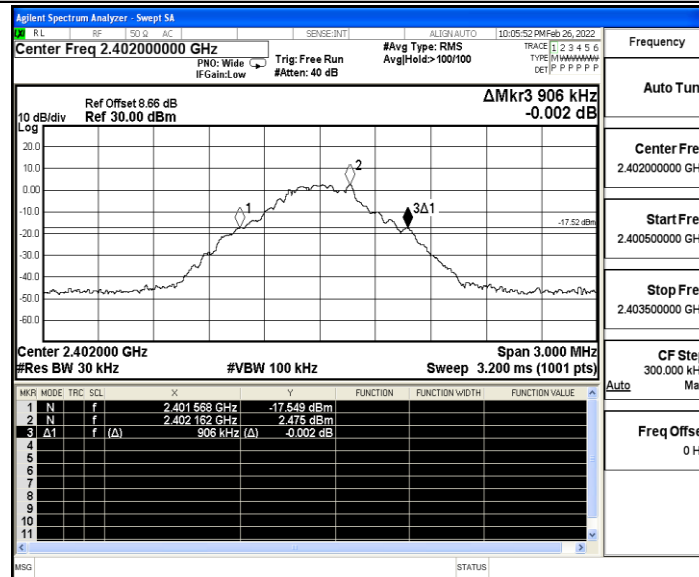
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.906	2401.568	2402.474	---	---
		2441	0.852	2440.562	2441.414	---	---
		2480	0.852	2479.562	2480.414	---	---
2DH5	Ant1	2402	1.287	2401.364	2402.651	---	---
		2441	1.287	2440.361	2441.648	---	---
		2480	1.281	2479.364	2480.645	---	---
3DH5	Ant1	2402	1.308	2401.346	2402.654	---	---
		2441	1.272	2440.355	2441.627	---	---
		2480	1.302	2479.346	2480.648	---	---

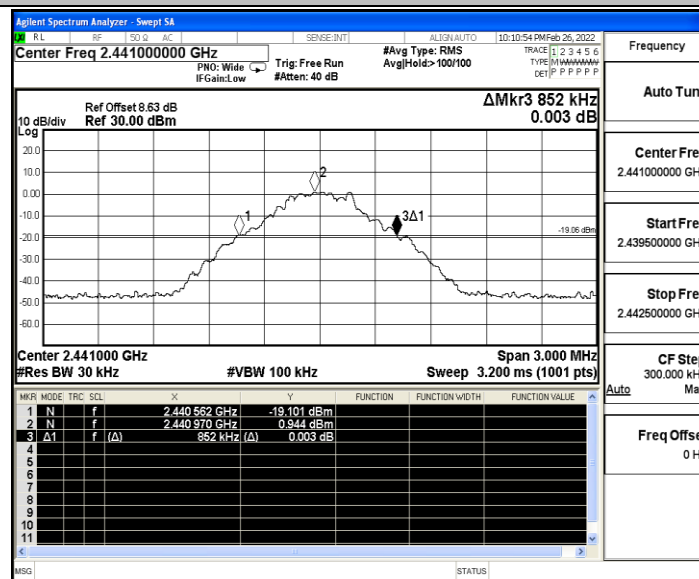


Test Graphs

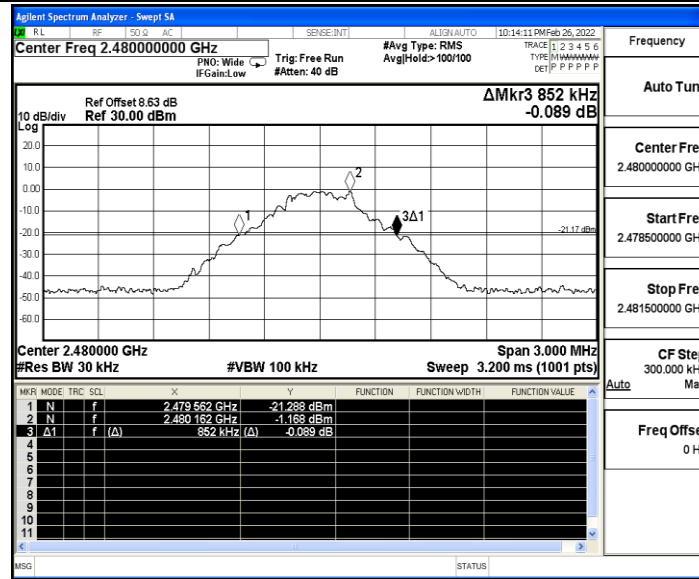
DH5_Ant1_2402



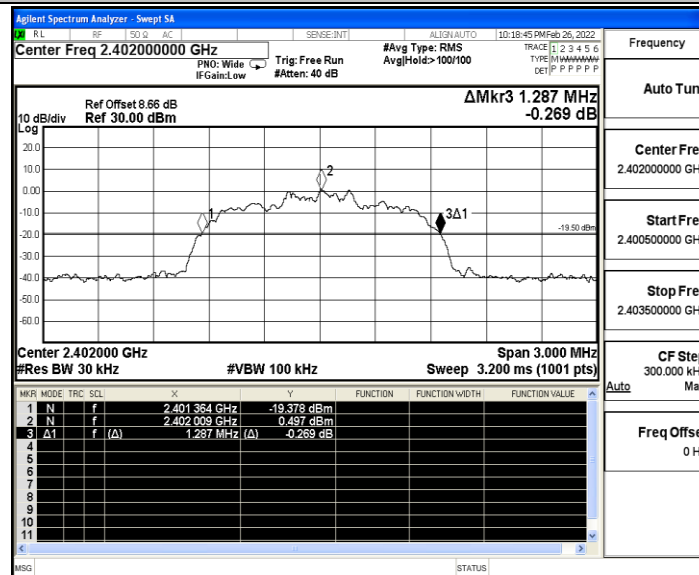
DH5_Ant1_2441



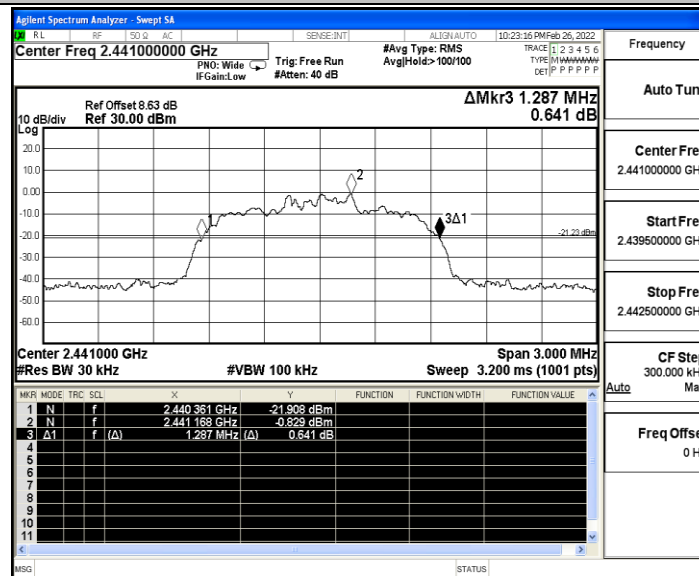
DH5_Ant1_2480



2DH5_Ant1_2402

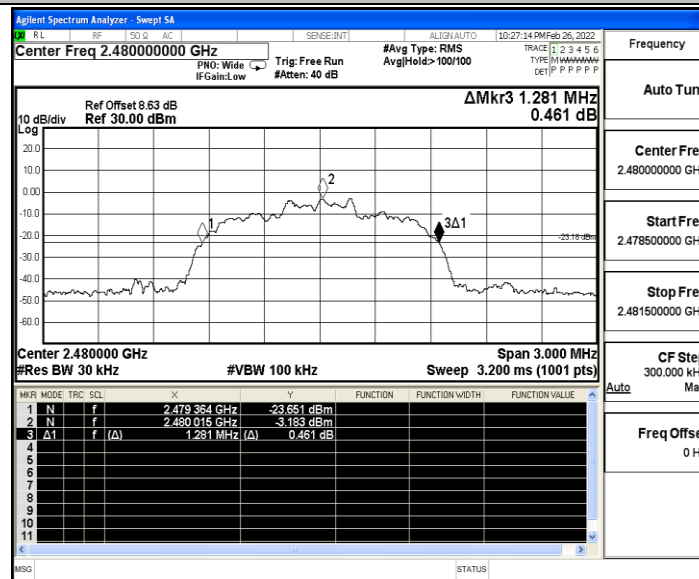


2DH5_Ant1_2441

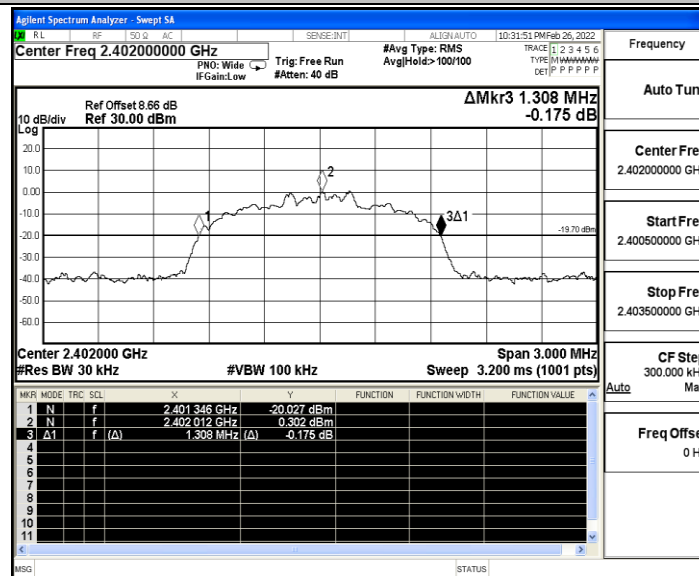




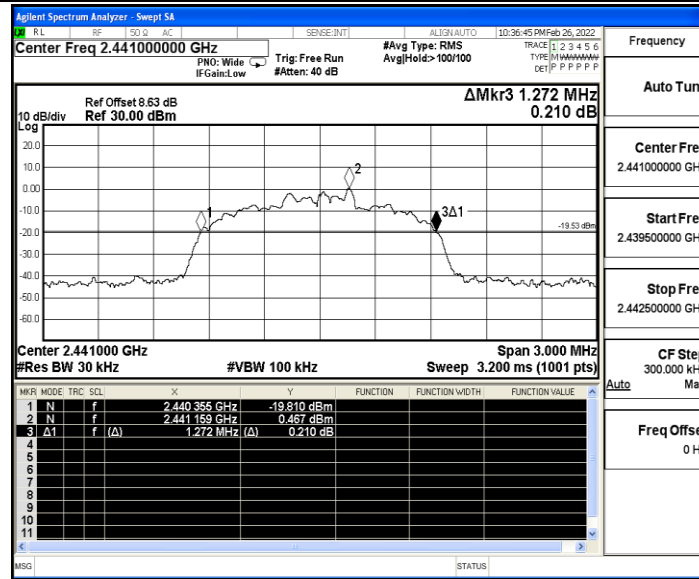
2DH5_Ant1_2480



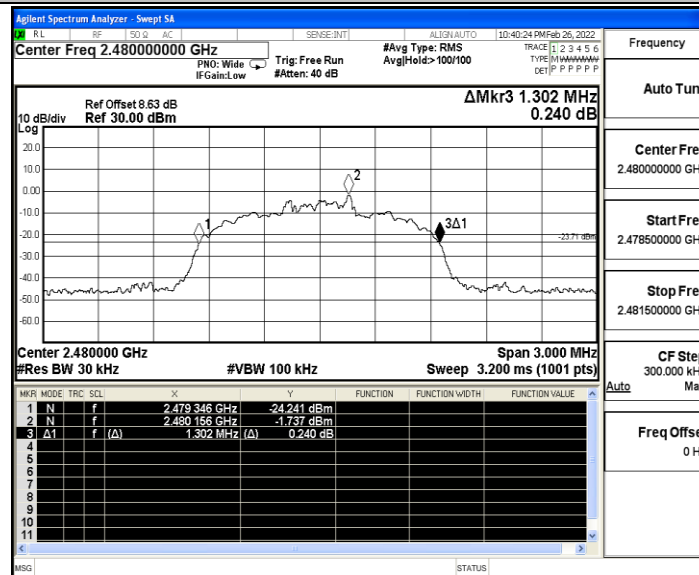
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.2 Maximum conducted output power

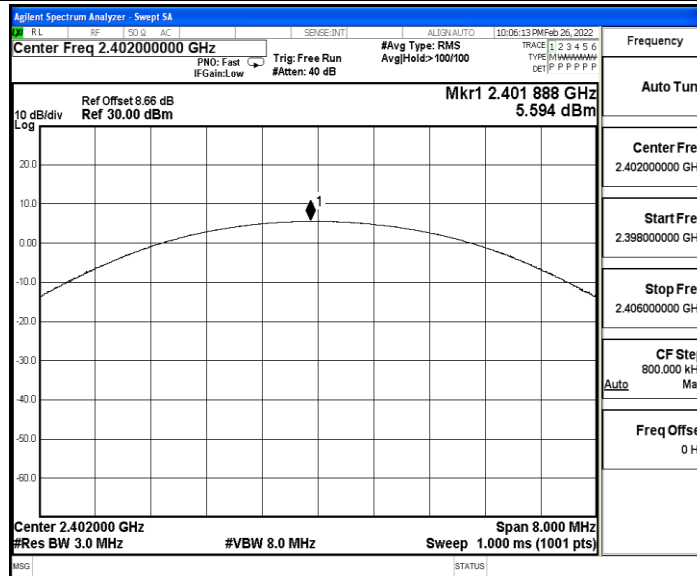
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	5.59	≤30	PASS
		2441	3.79	≤30	PASS
		2480	1.68	≤30	PASS
2DH5	Ant1	2402	4.62	≤21	PASS
		2441	3.00	≤21	PASS
		2480	0.82	≤21	PASS
3DH5	Ant1	2402	4.62	≤21	PASS
		2441	2.98	≤21	PASS
		2480	0.82	≤21	PASS

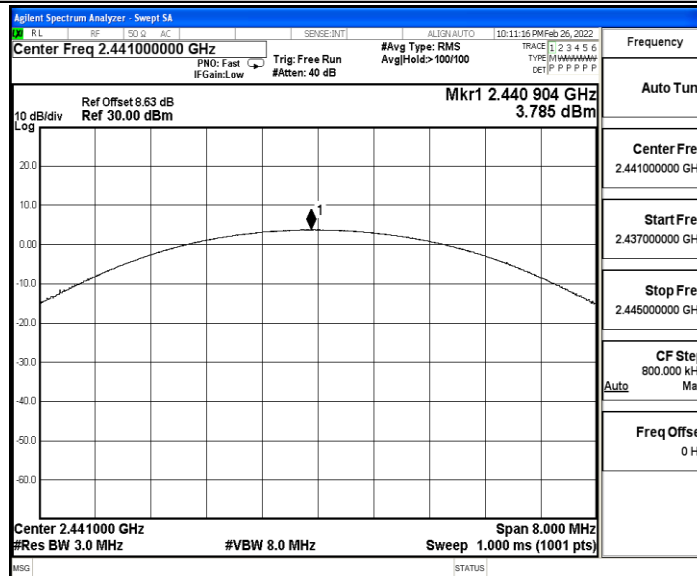


Test Graphs

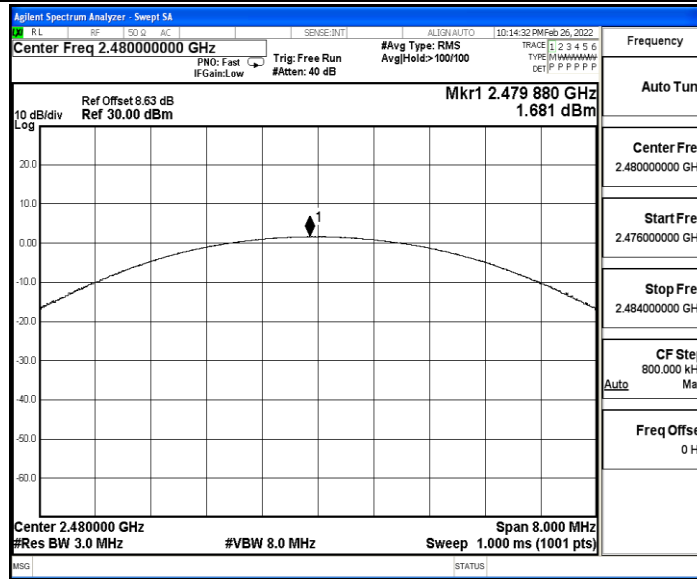
DH5_Ant1_2402



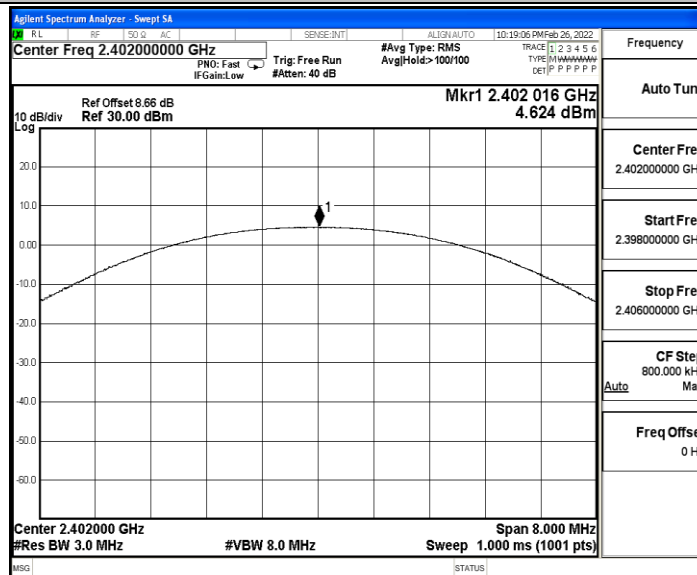
DH5_Ant1_2441



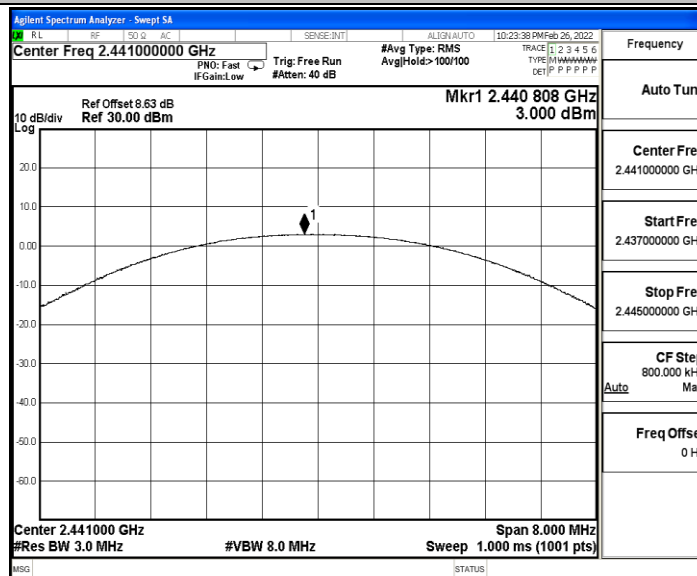
DH5_Ant1_2480



2DH5_Ant1_2402

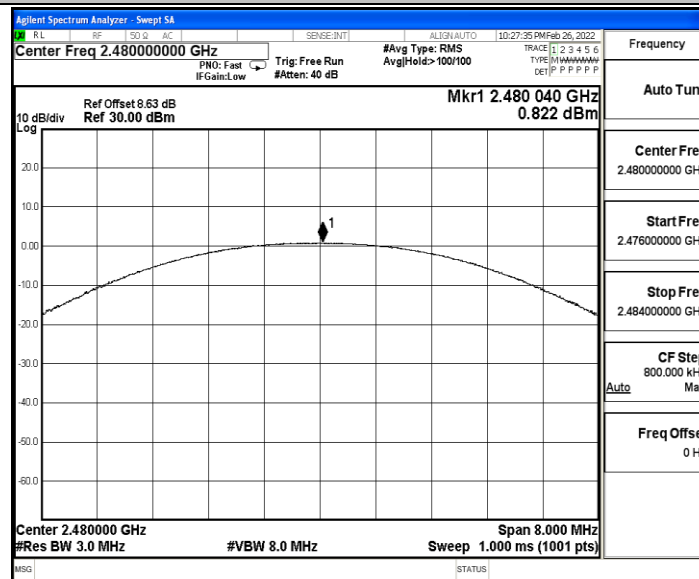


2DH5_Ant1_2441

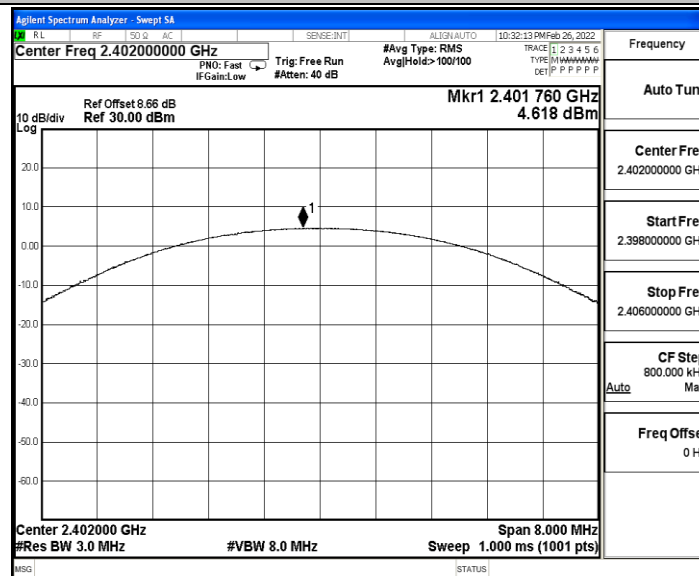




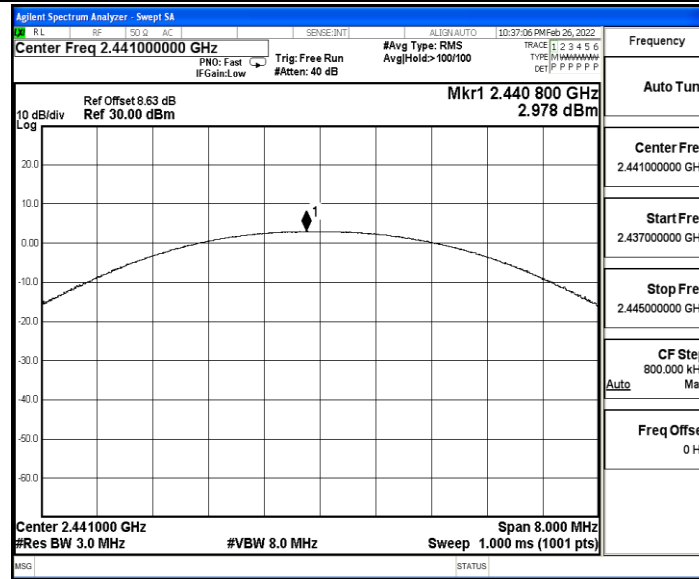
2DH5_Ant1_2480



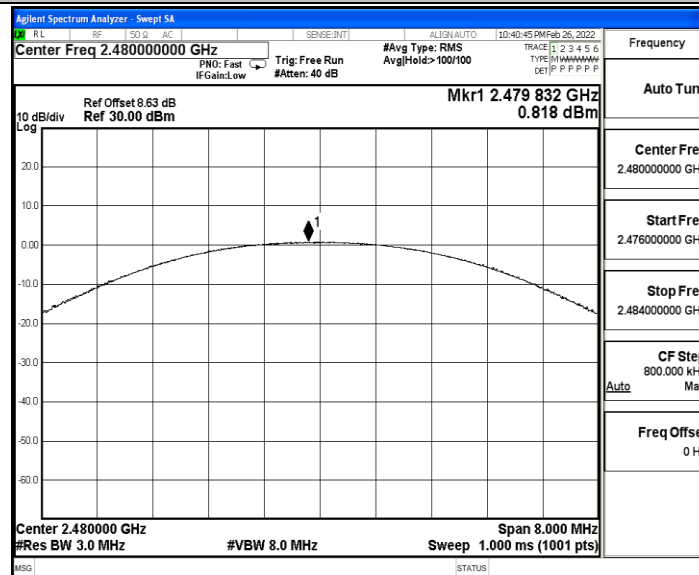
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.3 Carrier frequency separation

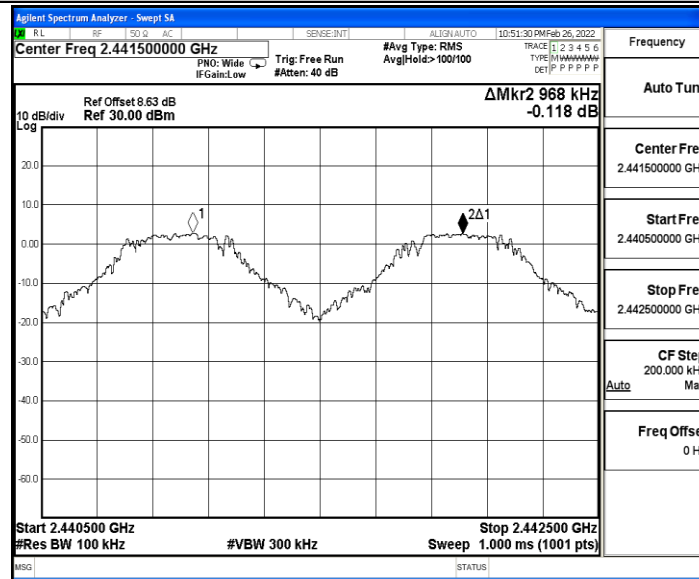
Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.968	≥ 0.906	PASS
2DH5	Ant1	Hop	0.98	≥ 0.858	PASS
3DH5	Ant1	Hop	0.998	≥ 0.872	PASS

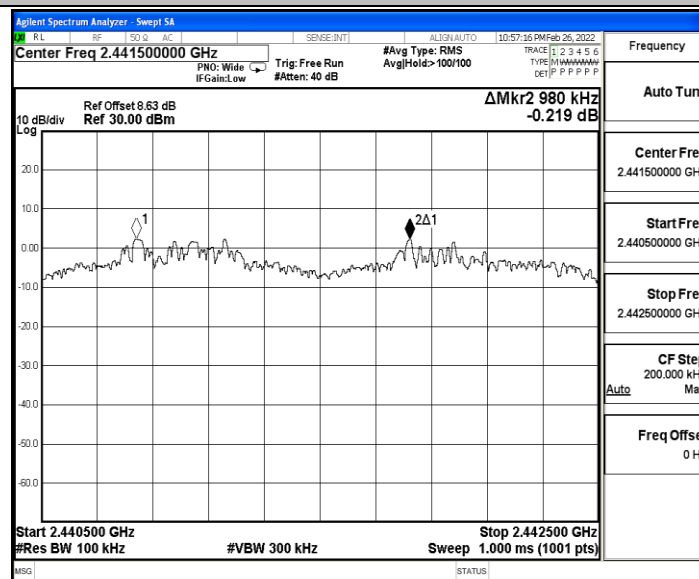


Test Graphs

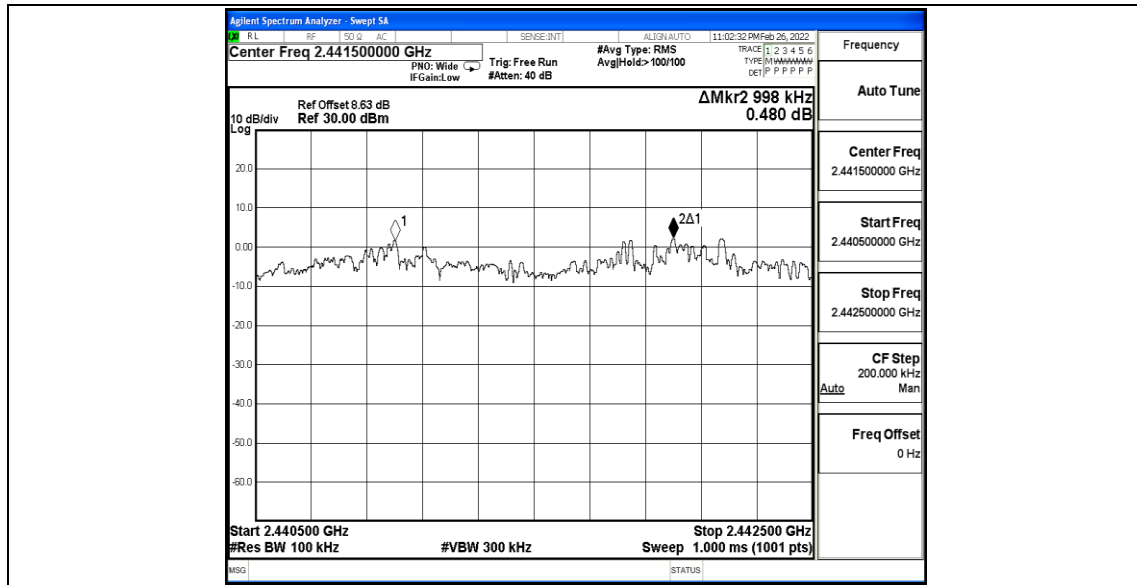
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





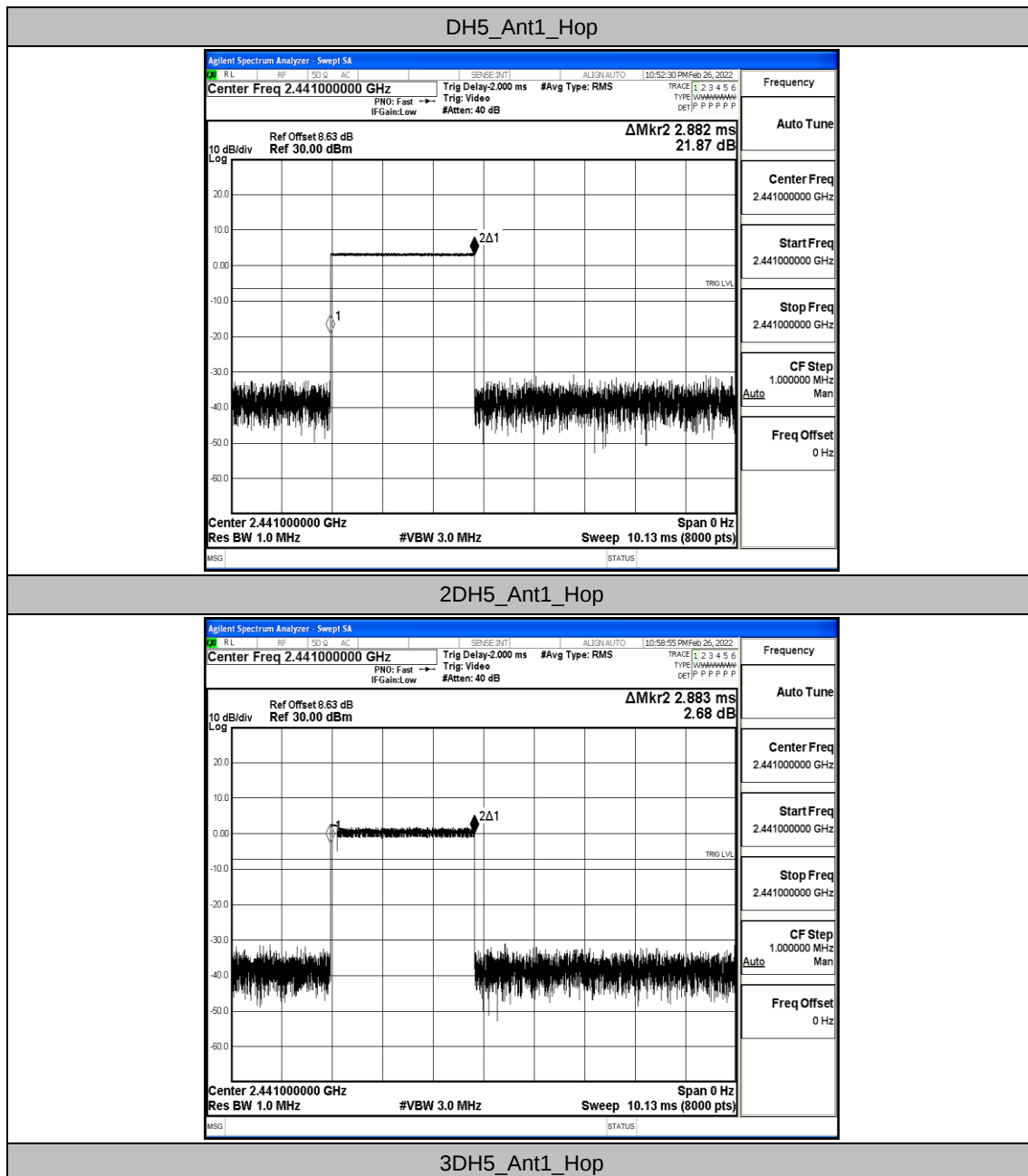
A.4 Time of occupancy

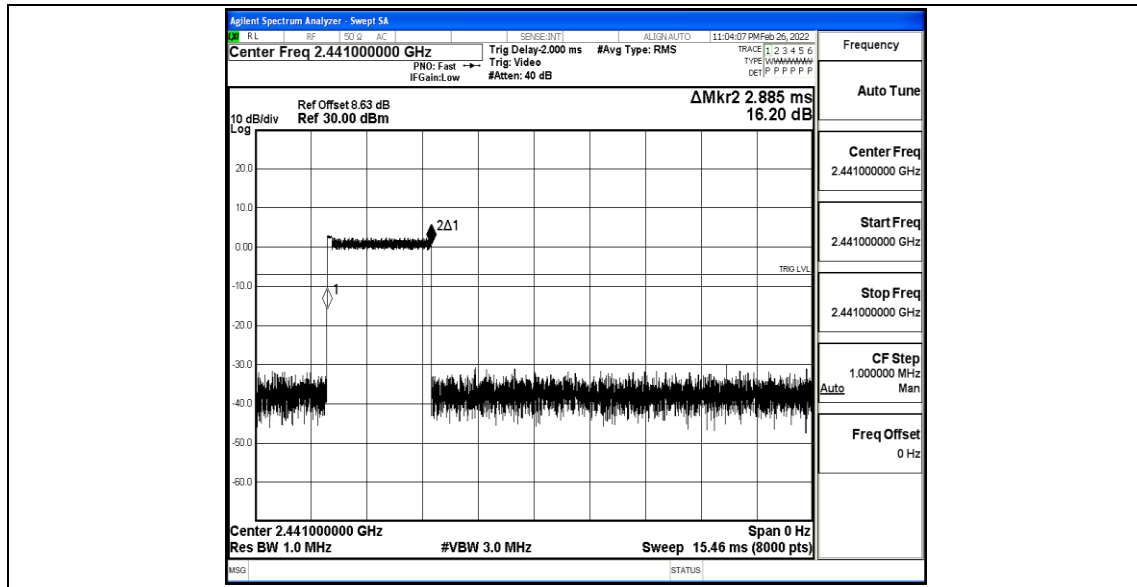
Test Result

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



Test Graphs







A.5 Number of hopping channels

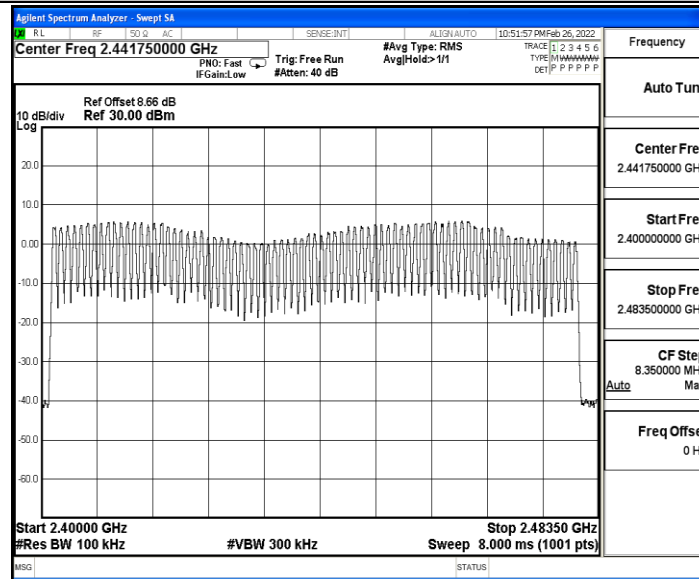
Test Result

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

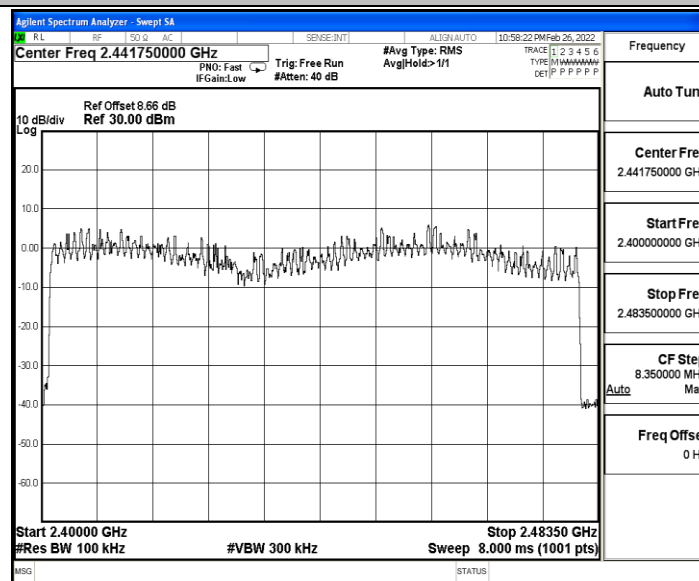


Test Graphs

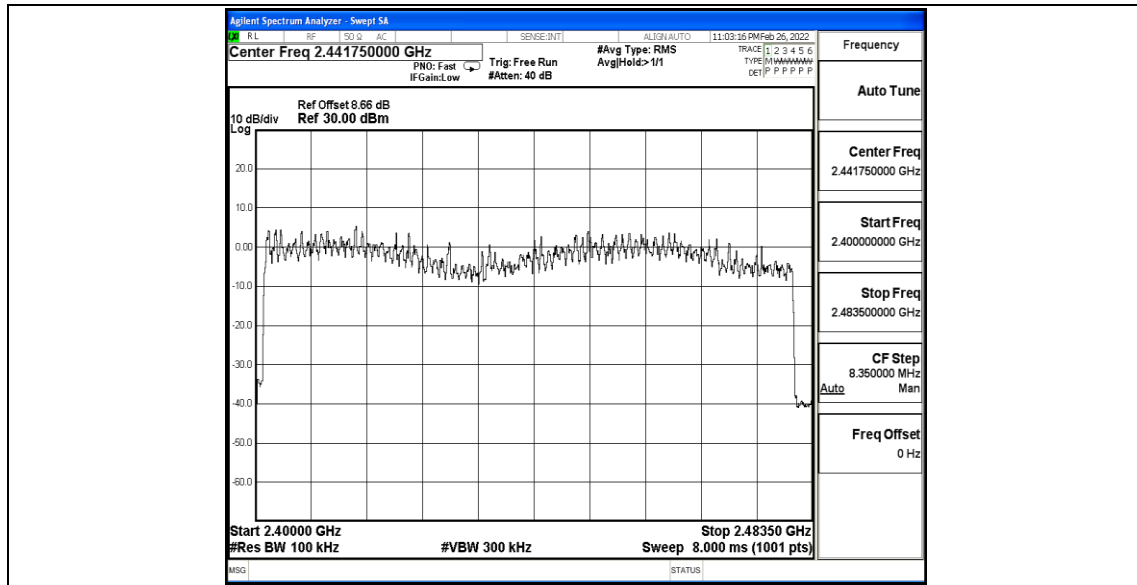
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop





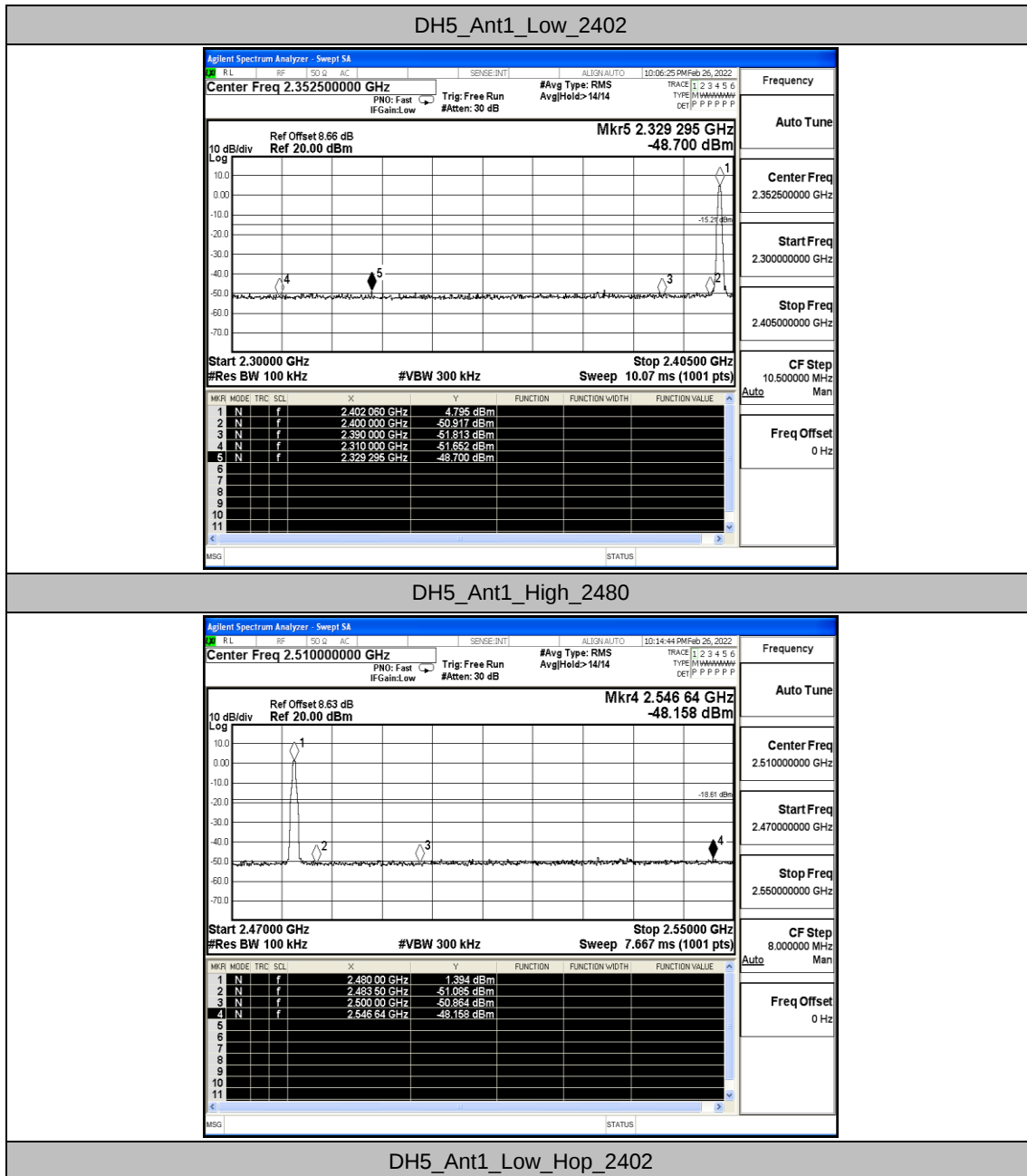
A.6 Band edge measurements

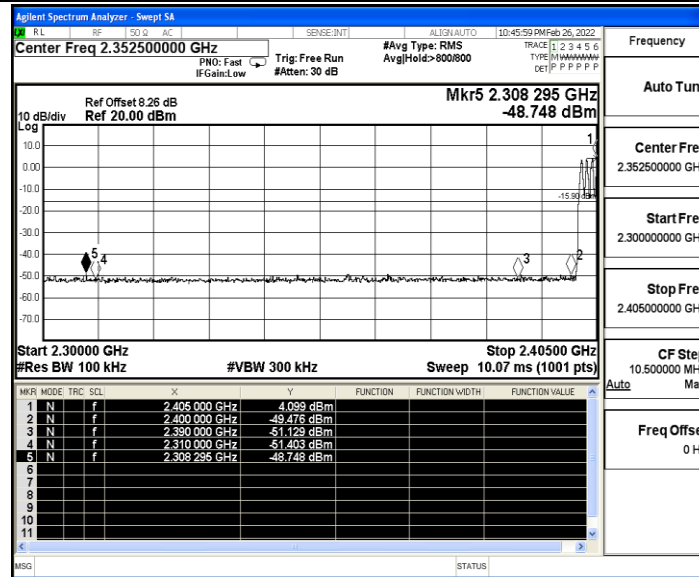
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.80	-48.7	≤ -15.21	PASS
		High	2480	1.39	-48.16	≤ -18.61	PASS
		Low	Hop_2402	4.10	-48.75	≤ -15.9	PASS
		High	Hop_2480	1.90	-47.37	≤ -18.1	PASS
2DH5	Ant1	Low	2402	0.38	-48.95	≤ -19.62	PASS
		High	2480	0.35	-48.23	≤ -19.65	PASS
		Low	Hop_2402	-1.56	-49.03	≤ -21.56	PASS
		High	Hop_2480	1.04	-48.41	≤ -18.96	PASS
3DH5	Ant1	Low	2402	0.81	-48.95	≤ -19.19	PASS
		High	2480	0.39	-48.29	≤ -19.61	PASS
		Low	Hop_2402	2.09	-47.36	≤ -17.91	PASS
		High	Hop_2480	-1.49	-48.15	≤ -21.49	PASS

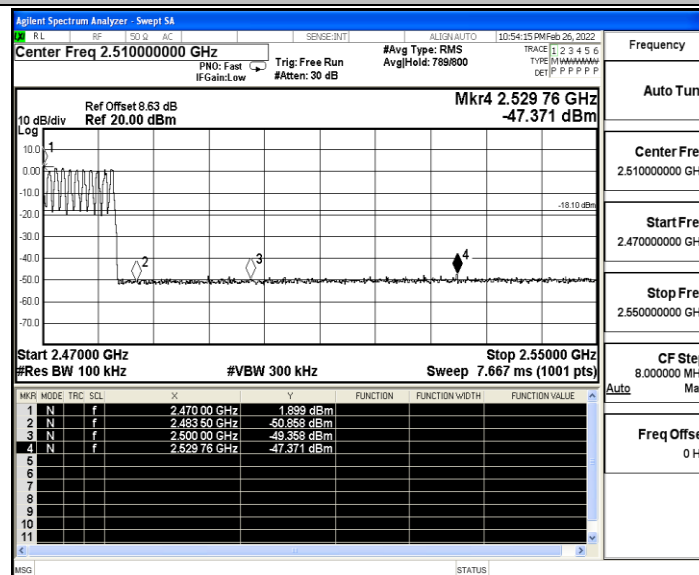


Test Graphs

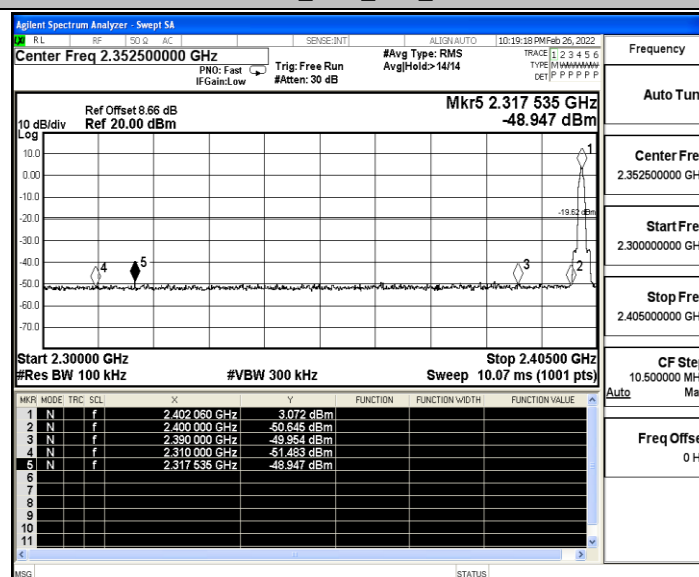




DH5_Ant1_High_Hop_2480

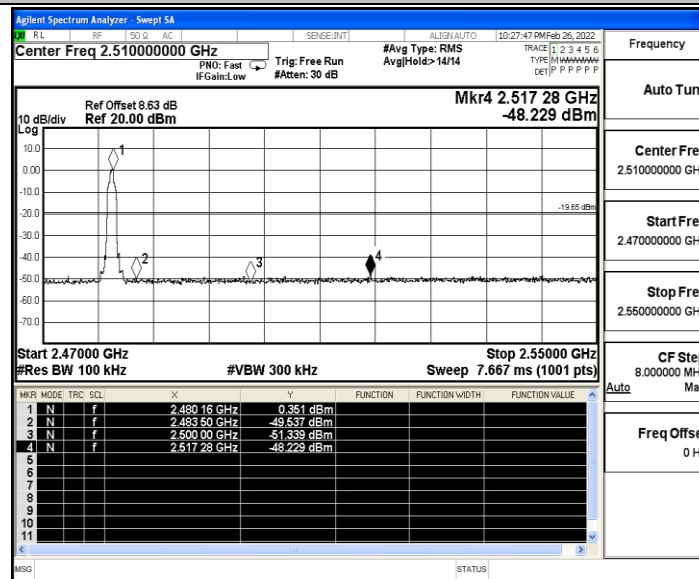


2DH5_Ant1_Low_2402

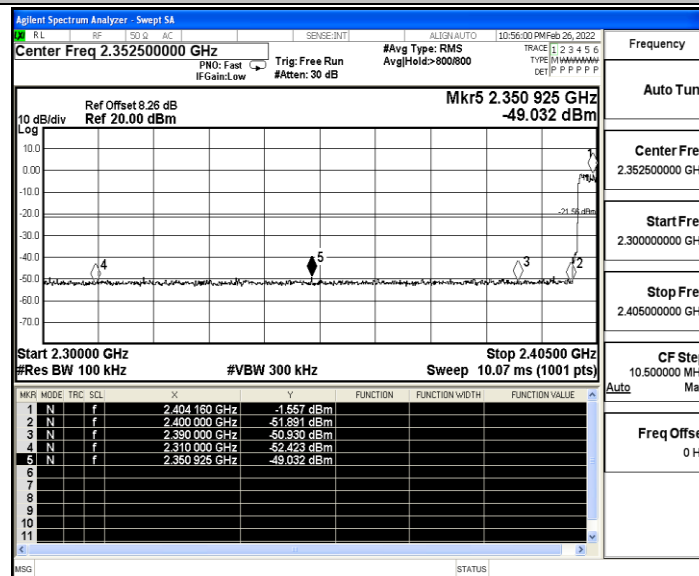




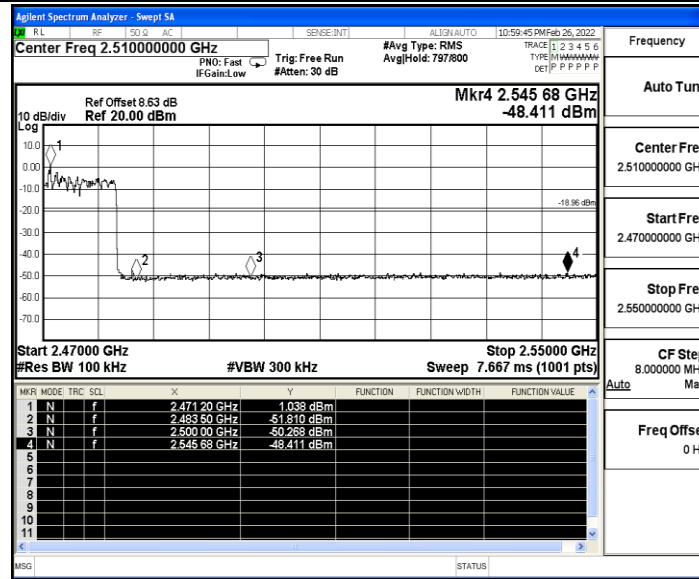
2DH5_Ant1_High_2480



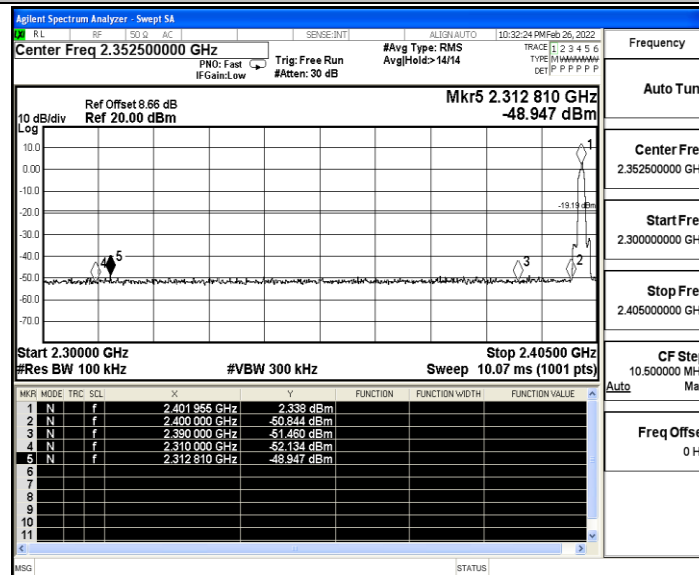
2DH5_Ant1_Low_Hop_2402



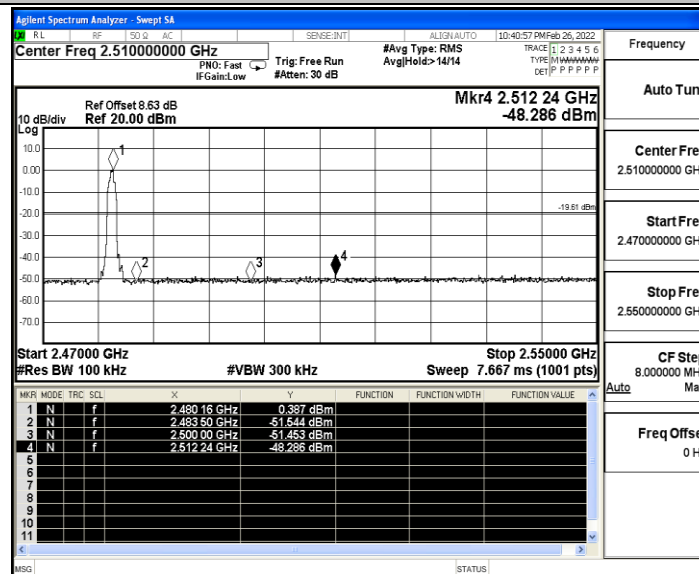
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

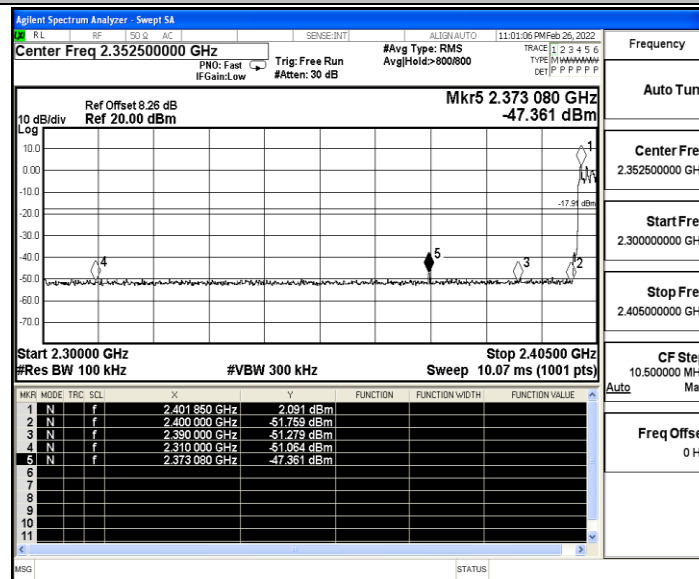


3DH5_Ant1_High_2480

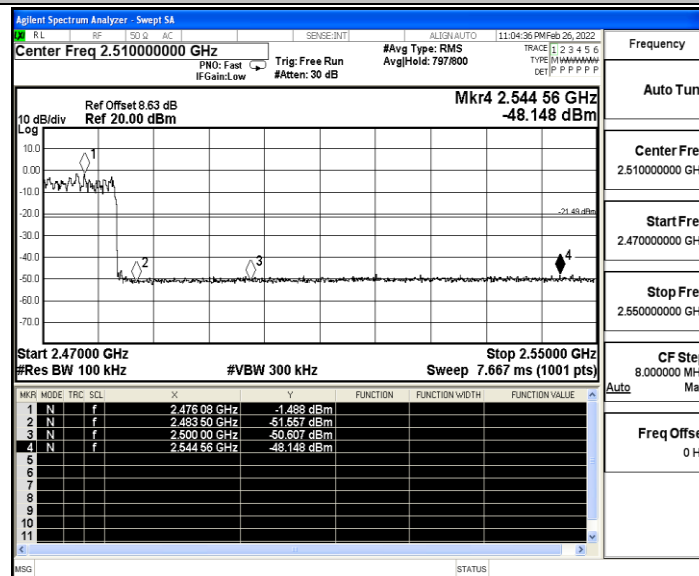




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





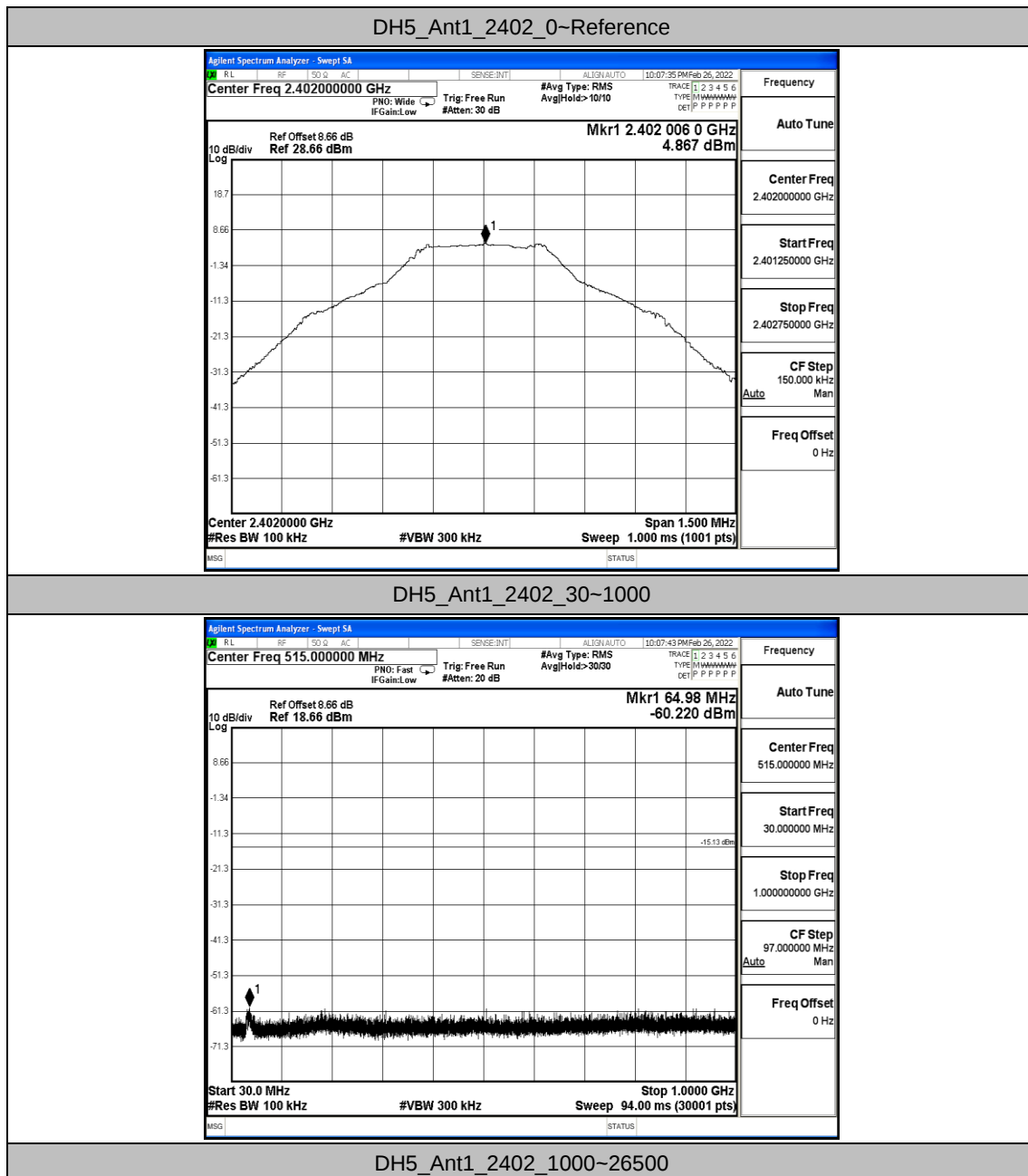
A.7 Conducted Spurious Emission

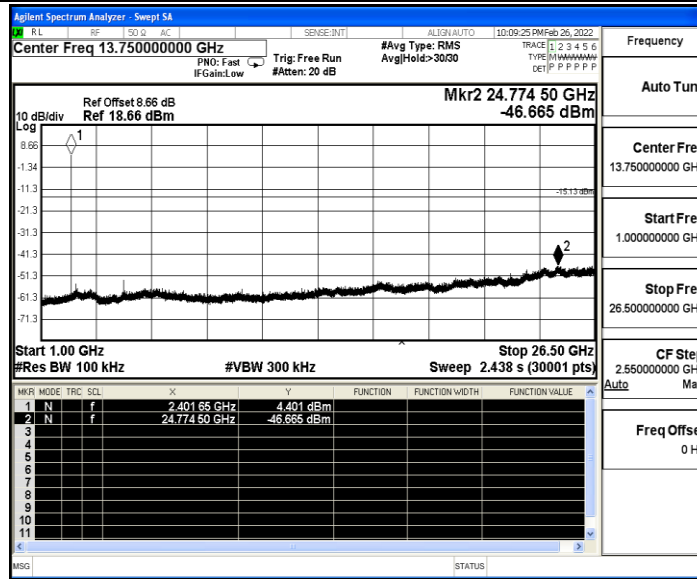
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.87	4.87	---	PASS
			30~1000	4.87	-60.22	≤-15.13	PASS
			1000~26500	4.87	-46.67	≤-15.13	PASS
		2441	Reference	2.95	2.95	---	PASS
			30~1000	2.95	-59.54	≤-17.05	PASS
			1000~26500	2.95	-46.26	≤-17.05	PASS
		2480	Reference	0.91	0.91	---	PASS
			30~1000	0.91	-60.34	≤-19.09	PASS
			1000~26500	0.91	-46.28	≤-19.09	PASS
2DH5	Ant1	2402	Reference	4.03	4.03	---	PASS
			30~1000	4.03	-59.83	≤-15.97	PASS
			1000~26500	4.03	-46.32	≤-15.97	PASS
		2441	Reference	2.52	2.52	---	PASS
			30~1000	2.52	-59.92	≤-17.48	PASS
			1000~26500	2.52	-46.55	≤-17.48	PASS
		2480	Reference	0.17	0.17	---	PASS
			30~1000	0.17	-60.81	≤-19.83	PASS
			1000~26500	0.17	-46.43	≤-19.83	PASS
3DH5	Ant1	2402	Reference	4.06	4.06	---	PASS
			30~1000	4.06	-59.79	≤-15.94	PASS
			1000~26500	4.06	-46.63	≤-15.94	PASS
		2441	Reference	2.44	2.44	---	PASS
			30~1000	2.44	-60.04	≤-17.56	PASS
			1000~26500	2.44	-45.98	≤-17.56	PASS
		2480	Reference	0.26	0.26	---	PASS
			30~1000	0.26	-60.75	≤-19.74	PASS
			1000~26500	0.26	-46.44	≤-19.74	PASS

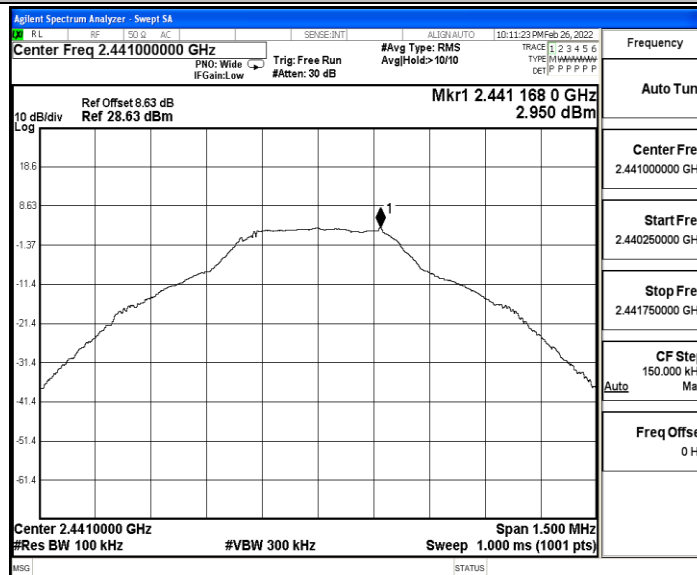


Test Graphs

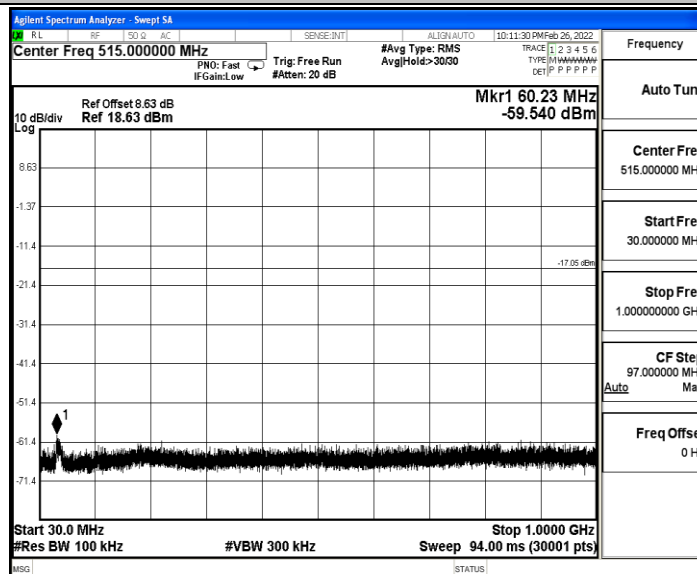




DH5_Ant1_2441_0-Reference

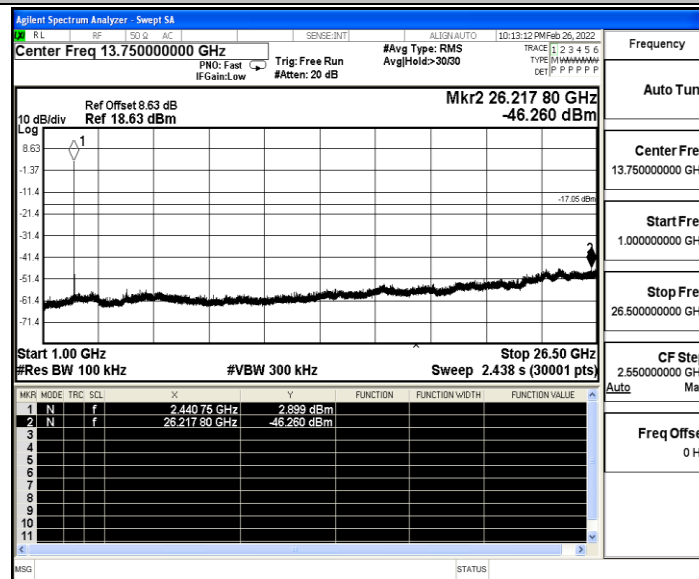


DH5_Ant1_2441_30~1000

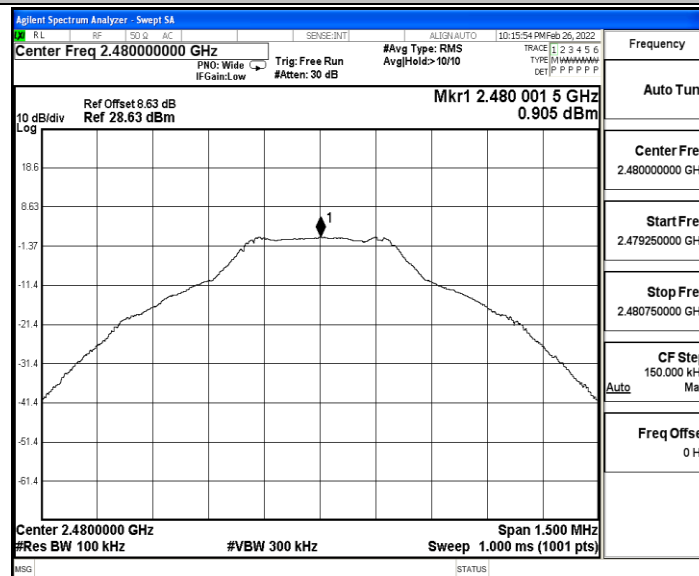




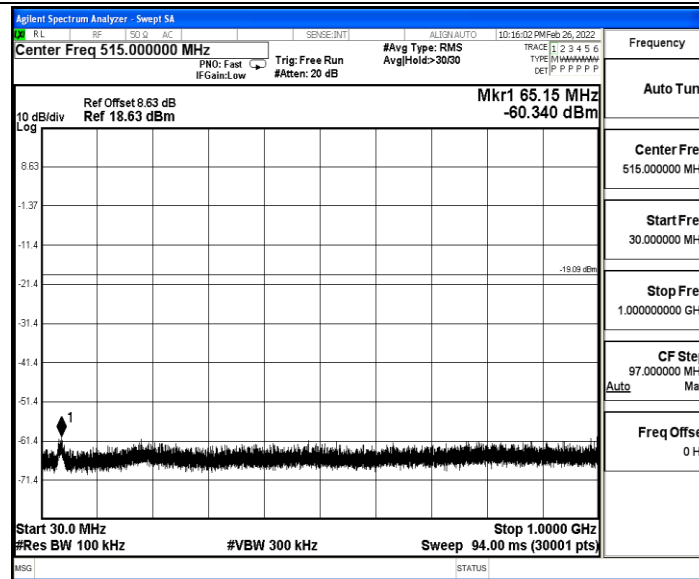
DH5_Ant1_2441_1000~26500



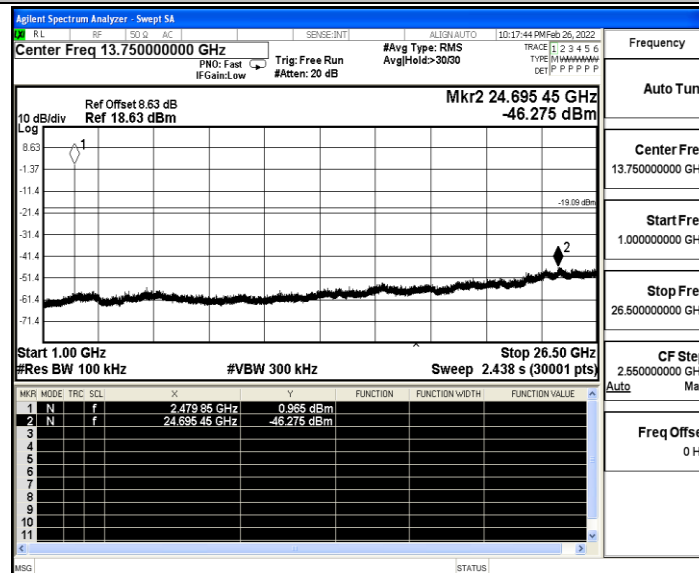
DH5_Ant1_2480_0~Reference



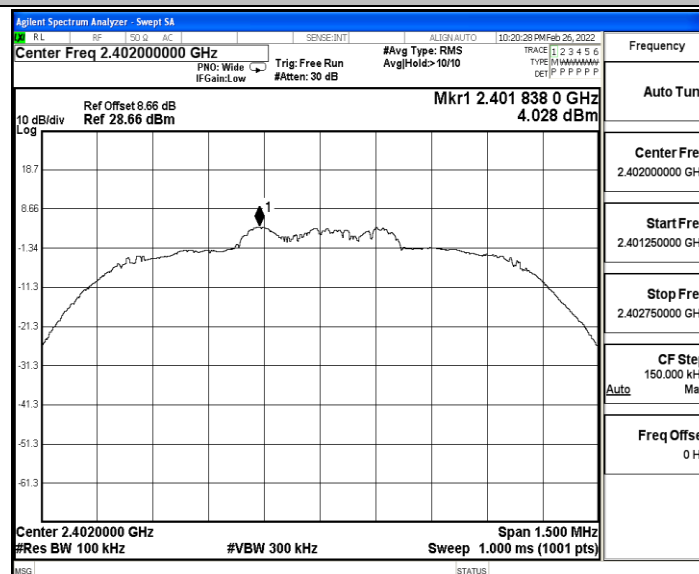
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

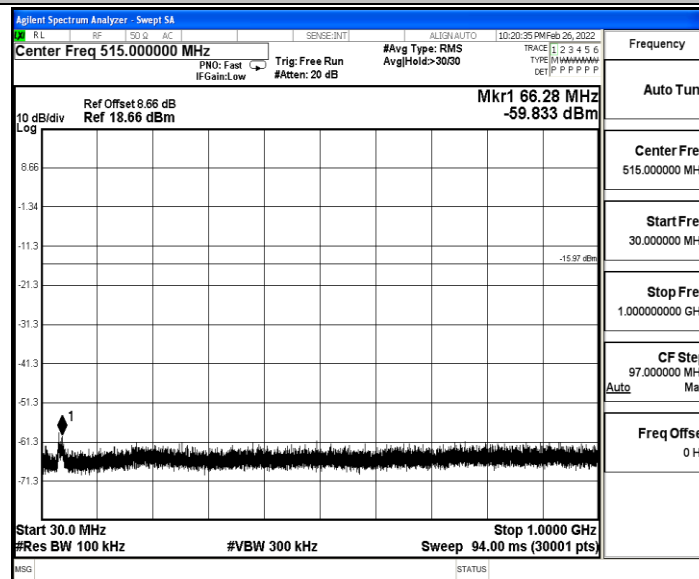


2DH5_Ant1_2402_0~Reference

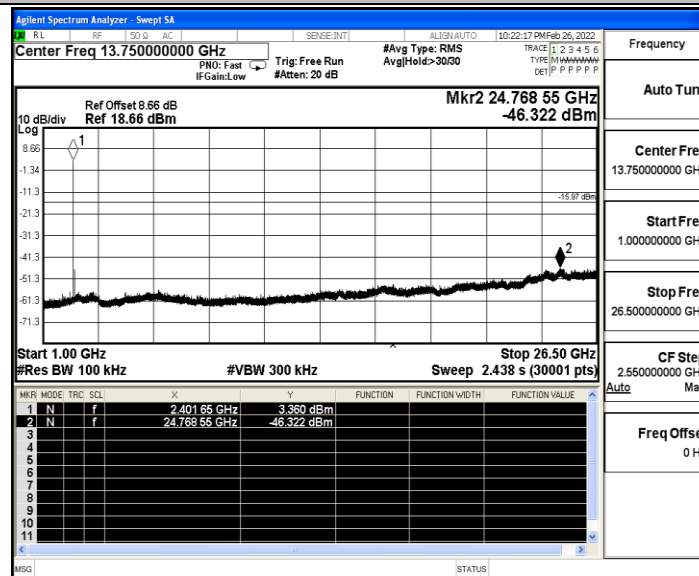




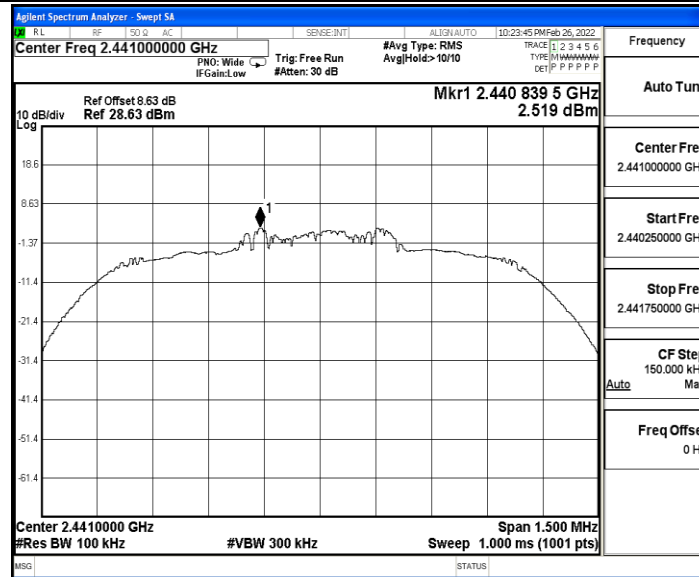
2DH5_Ant1_2402_30~1000



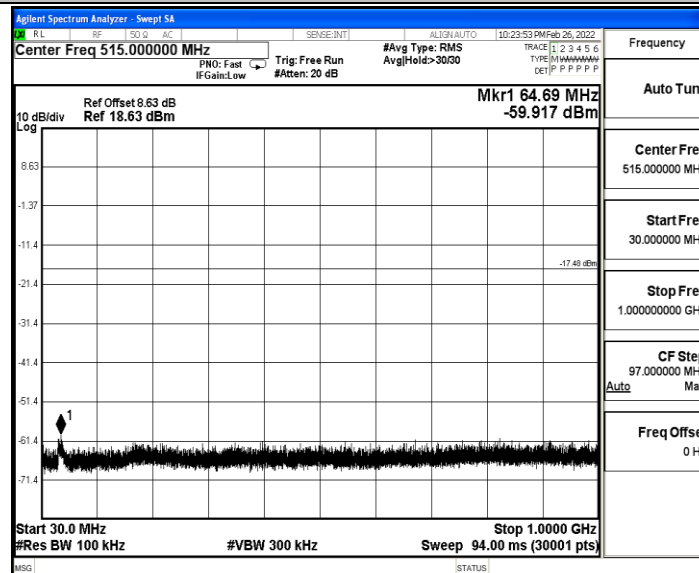
2DH5_Ant1_2402_1000~26500



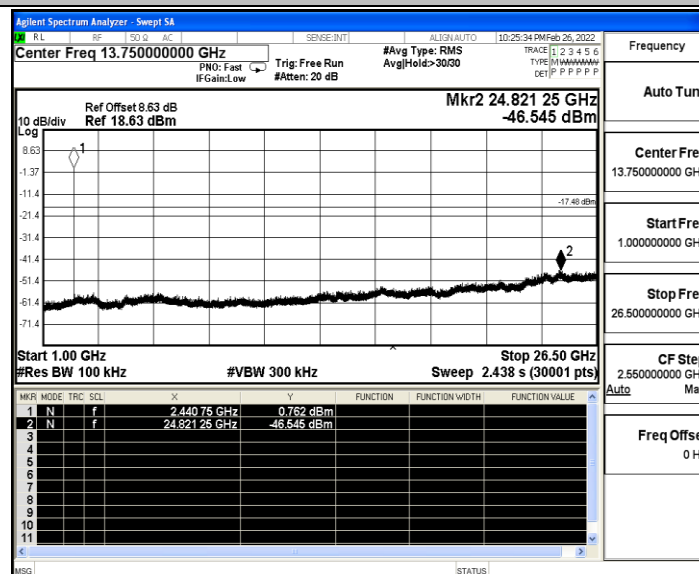
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

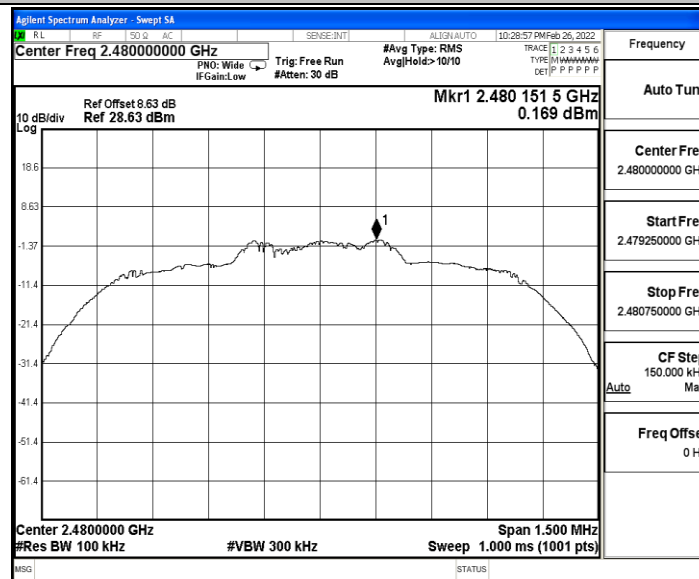


2DH5_Ant1_2441_1000~26500

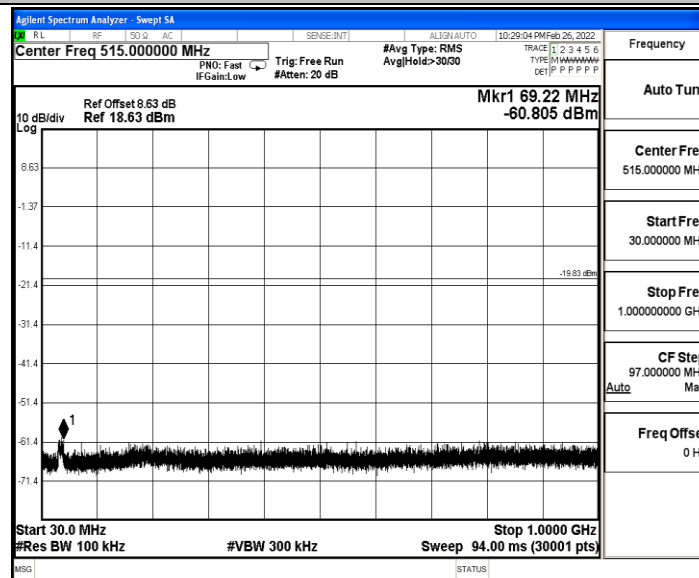




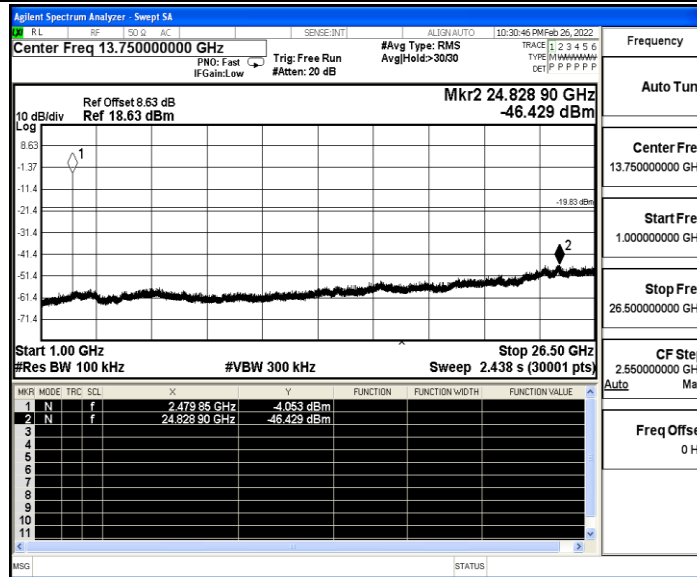
2DH5_Ant1_2480_0~Reference



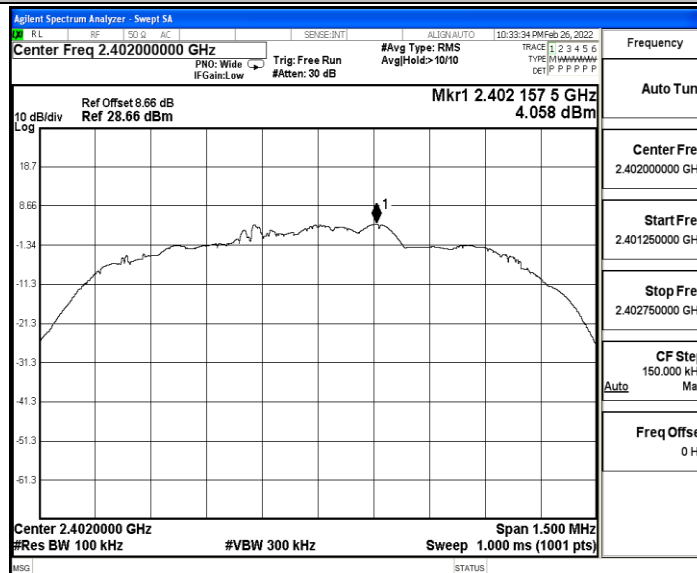
2DH5_Ant1_2480_30~1000



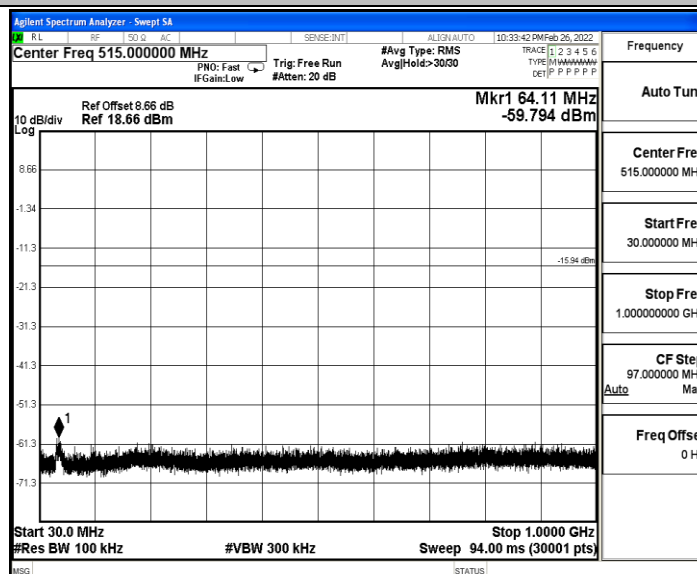
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

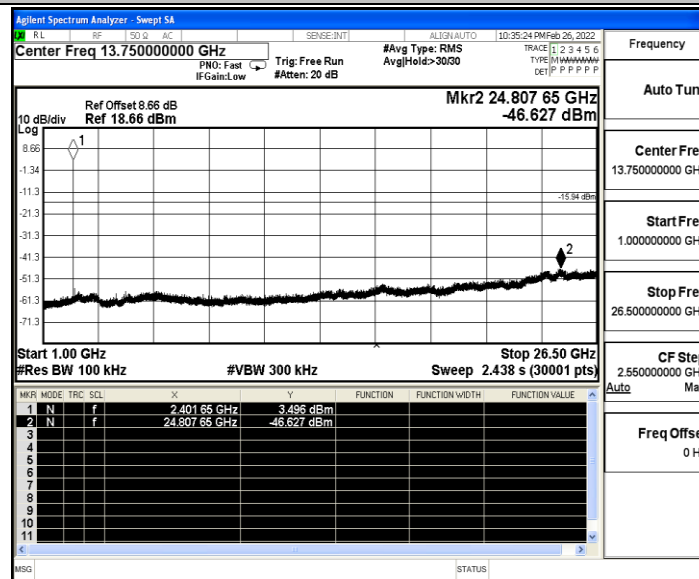


3DH5_Ant1_2402_30~1000

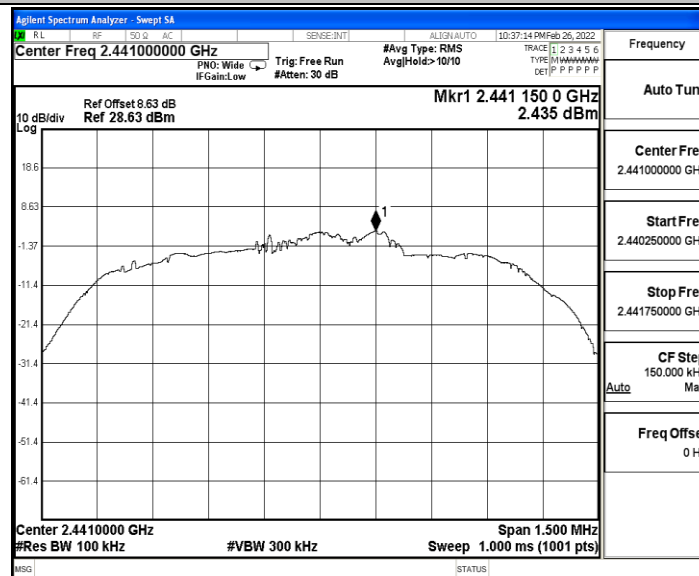




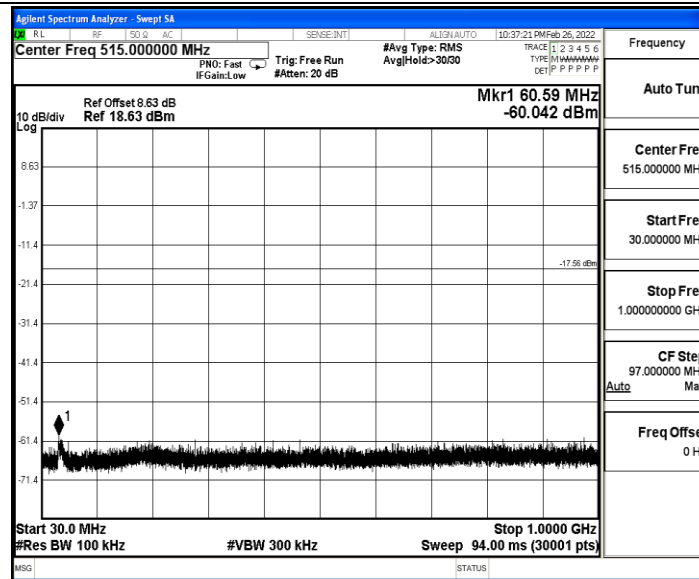
3DH5_Ant1_2402_1000~26500



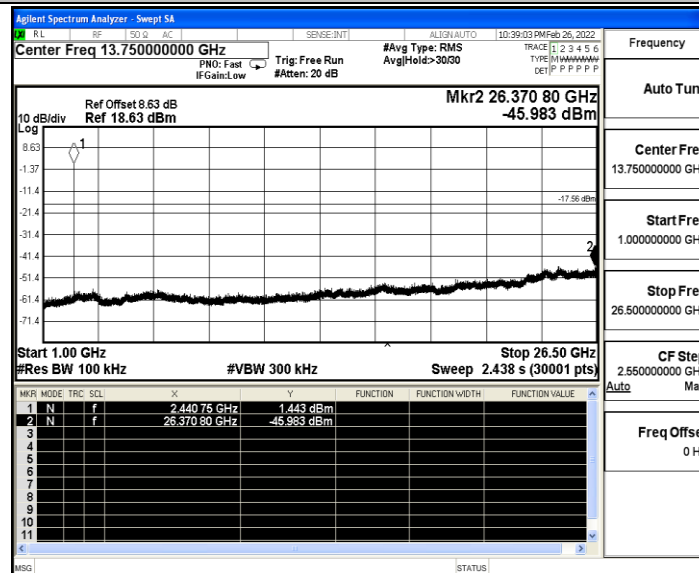
3DH5_Ant1_2441_0~Reference



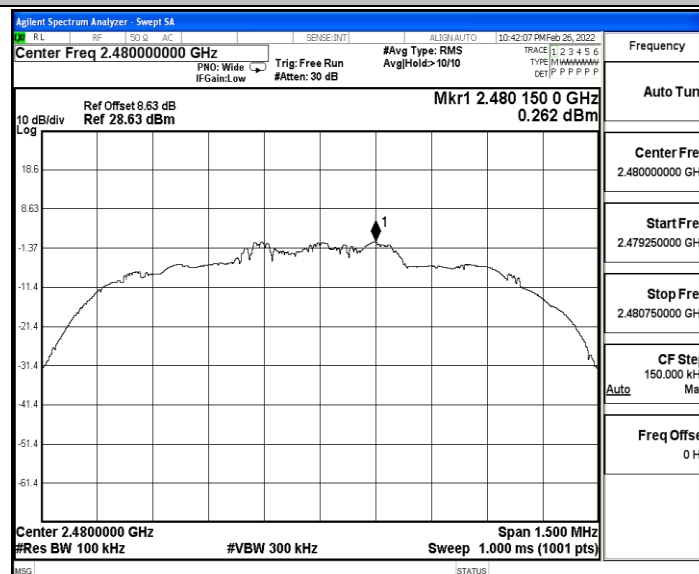
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

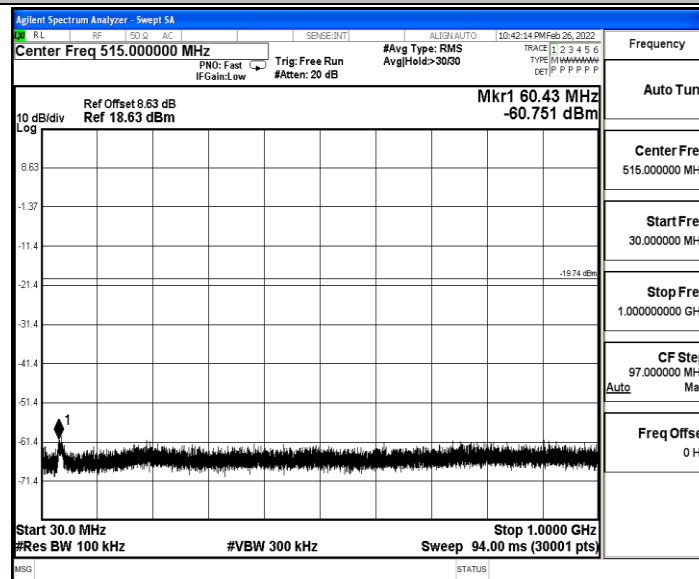


3DH5_Ant1_2480_0~Reference

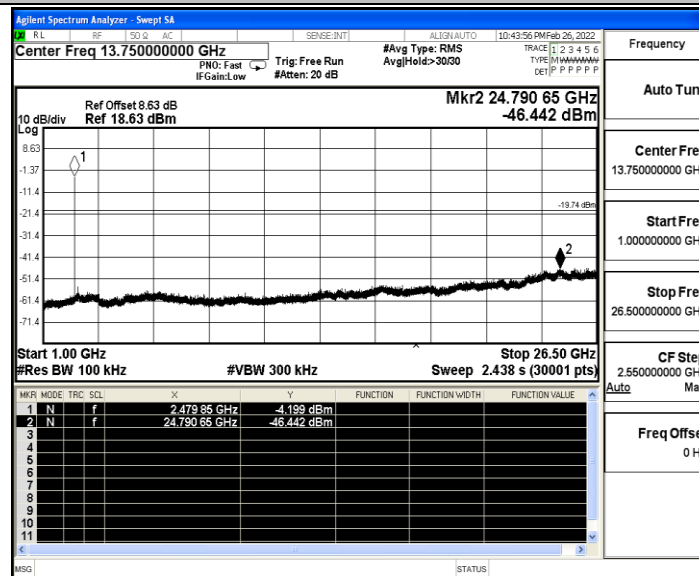




3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500





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	-48.51	≤-41.20	46.69	≤54	PASS
				AV	2388.830	-47.95	≤-41.20	47.25	≤54	PASS
				AV	2390.000	-48.12	≤-41.20	47.08	≤54	PASS
				Peak	2310.000	-38.54	≤-21.20	56.66	≤74	PASS
				Peak	2352.815	-36.98	≤-21.20	58.22	≤74	PASS
				Peak	2390.000	-38.87	≤-21.20	56.33	≤74	PASS
		High	2480	AV	2483.500	-47.43	≤-41.20	47.77	≤54	PASS
				AV	2498.160	-47.38	≤-41.20	47.82	≤54	PASS
				AV	2500.000	-47.57	≤-41.20	47.63	≤54	PASS
				Peak	2483.500	-37.99	≤-21.20	57.21	≤74	PASS
				Peak	2496.000	-36.02	≤-21.20	59.18	≤74	PASS
				Peak	2500.000	-38.1	≤-21.20	57.10	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-38.65	≤-21.20	56.55	≤74	PASS
				Peak	2383.265	-37.35	≤-21.20	57.85	≤74	PASS
				Peak	2390.000	-39.82	≤-21.20	55.38	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-38.69	≤-21.20	56.51	≤74	PASS
				Peak	2499.600	-36.43	≤-21.20	58.77	≤74	PASS
				Peak	2500.000	-38.3	≤-21.20	56.90	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.51	≤-41.20	46.69	≤54	PASS
				AV	2378.330	-48.02	≤-41.20	47.18	≤54	PASS
				AV	2390.000	-48.2	≤-41.20	47.00	≤54	PASS
				Peak	2310.000	-39.89	≤-21.20	55.31	≤74	PASS
				Peak	2359.955	-36.54	≤-21.20	58.66	≤74	PASS
				Peak	2390.000	-38.37	≤-21.20	56.83	≤74	PASS
		High	2480	AV	2483.500	-47.46	≤-41.20	47.74	≤54	PASS
				AV	2499.600	-47.31	≤-41.20	47.89	≤54	PASS
				AV	2500.000	-47.51	≤-41.20	47.69	≤54	PASS
				Peak	2483.500	-38.81	≤-21.20	56.39	≤74	PASS
				Peak	2497.680	-35.55	≤-21.20	59.65	≤74	PASS
				Peak	2500.000	-37.15	≤-21.20	58.05	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-39.88	≤-21.20	55.32	≤74	PASS
				Peak	2364.050	-37.15	≤-21.20	58.05	≤74	PASS
				Peak	2390.000	-38.27	≤-21.20	56.93	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-38.14	≤-21.20	57.06	≤74	PASS
				Peak	2496.000	-36.26	≤-21.20	58.94	≤74	PASS
				Peak	2500.000	-37.6	≤-21.20	57.60	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.4	≤-41.20	46.80	≤54	PASS



				AV	2389.250	-47.93	≤ -41.20	47.27	≤ 54	PASS
				AV	2390.000	-48.14	≤ -41.20	47.06	≤ 54	PASS
				Peak	2310.000	-38.39	≤ -21.20	56.81	≤ 74	PASS
				Peak	2380.115	-37	≤ -21.20	58.20	≤ 74	PASS
				Peak	2390.000	-38.27	≤ -21.20	56.93	≤ 74	PASS
		High	2480	AV	2483.500	-47.4	≤ -41.20	47.80	≤ 54	PASS
				AV	2497.600	-47.34	≤ -41.20	47.86	≤ 54	PASS
				AV	2500.000	-47.48	≤ -41.20	47.72	≤ 54	PASS
				Peak	2483.500	-37.84	≤ -21.20	57.36	≤ 74	PASS
				Peak	2498.720	-36.71	≤ -21.20	58.49	≤ 74	PASS
				Peak	2500.000	-38.49	≤ -21.20	56.71	≤ 74	PASS
		Low	Hop_24 02	Peak	2310.000	-39.16	≤ -21.20	56.04	≤ 74	PASS
				Peak	2360.795	-37.43	≤ -21.20	57.77	≤ 74	PASS
				Peak	2390.000	-38.03	≤ -21.20	57.17	≤ 74	PASS
		High	Hop_24 80	Peak	2483.500	-38.1	≤ -21.20	57.10	≤ 74	PASS
				Peak	2491.280	-36.58	≤ -21.20	58.62	≤ 74	PASS
				Peak	2500.000	-38.27	≤ -21.20	56.93	≤ 74	PASS

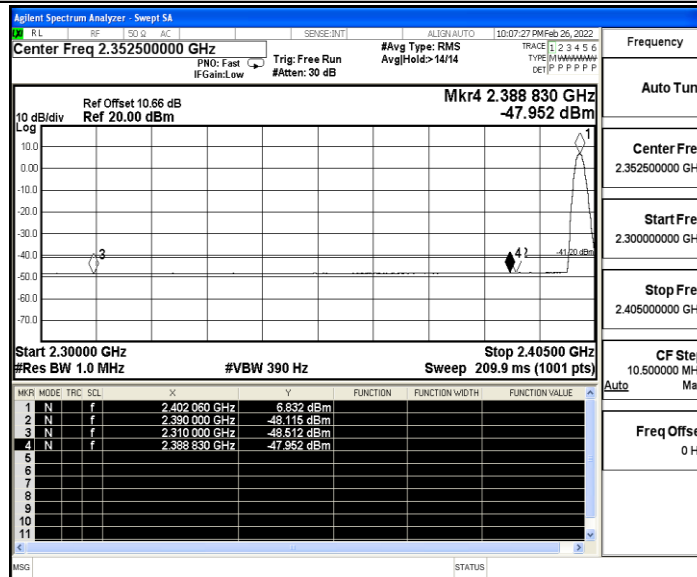
Note:

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.

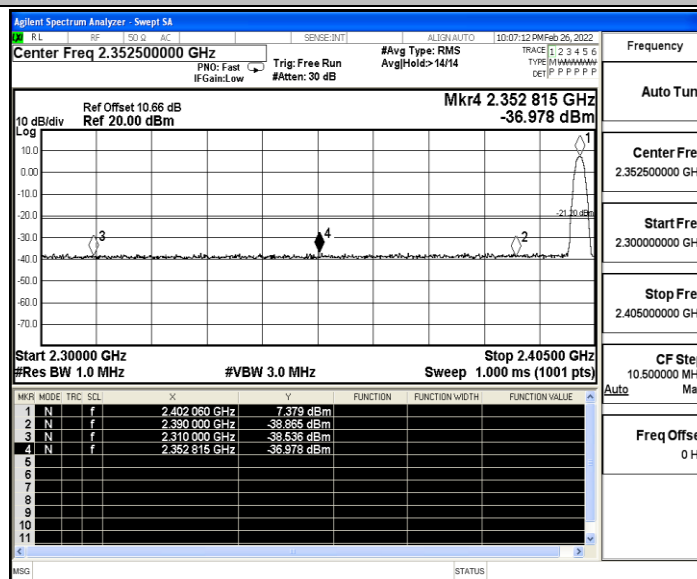


Test Graphs

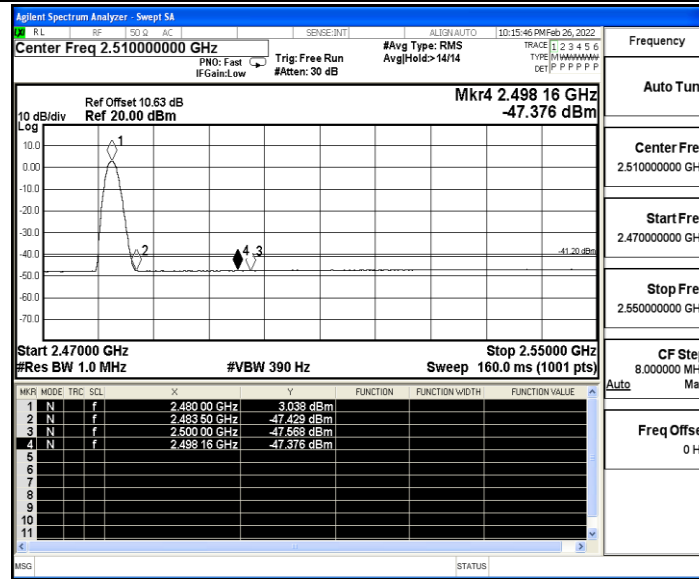
DH5_Ant1_Low_2402_AV



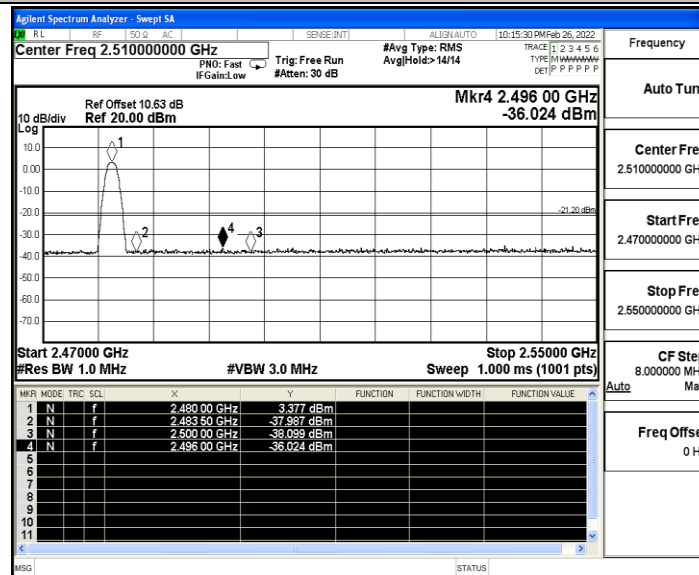
DH5_Ant1_Low_2402_Peak



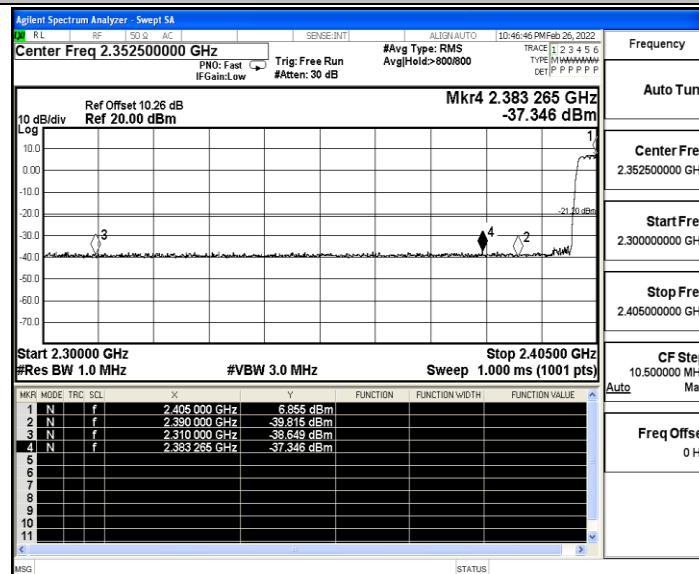
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

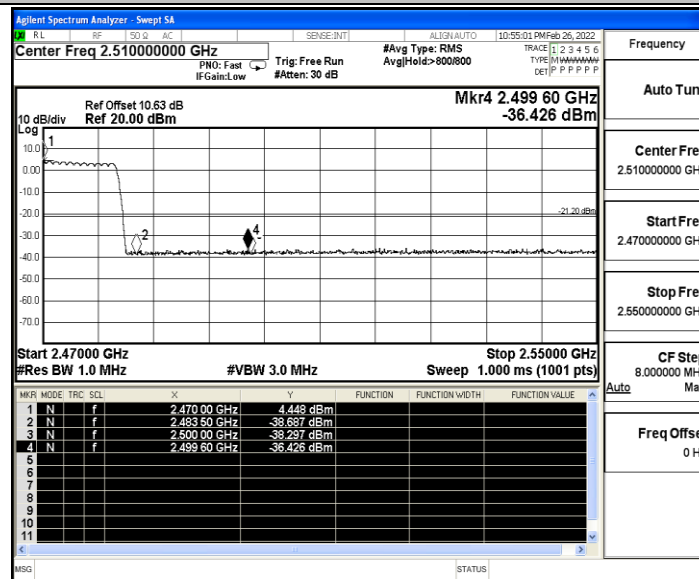


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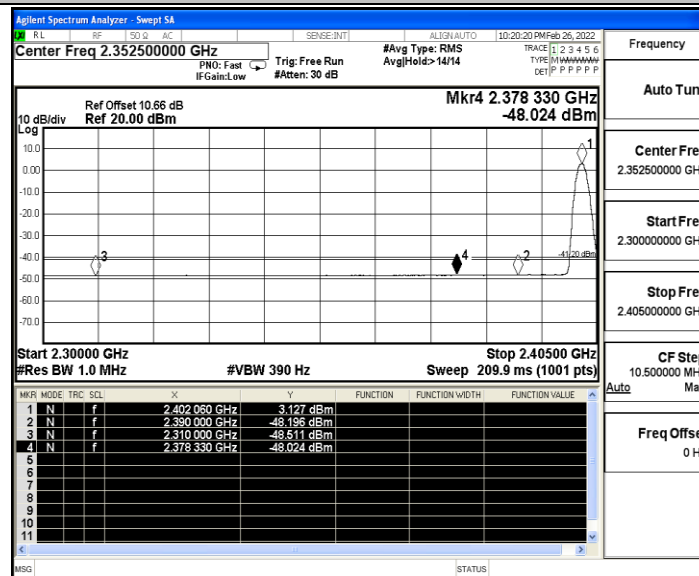




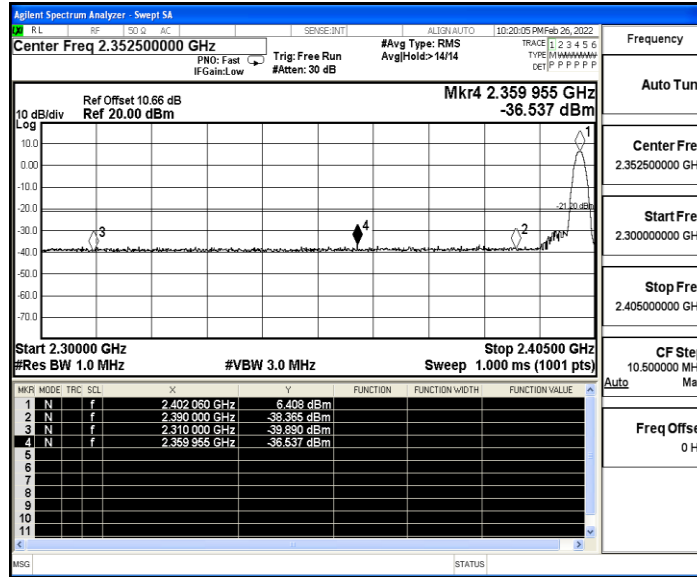
DH5_Ant1_High_Hop_2480_Peak



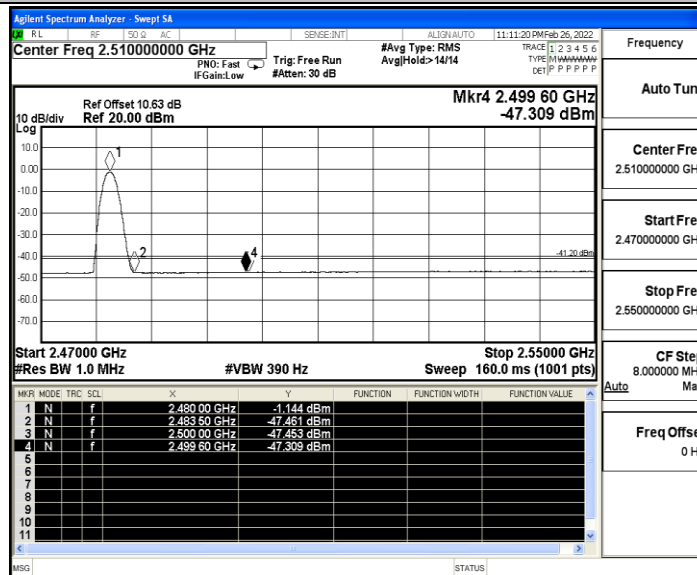
2DH5_Ant1_Low_2402_AV



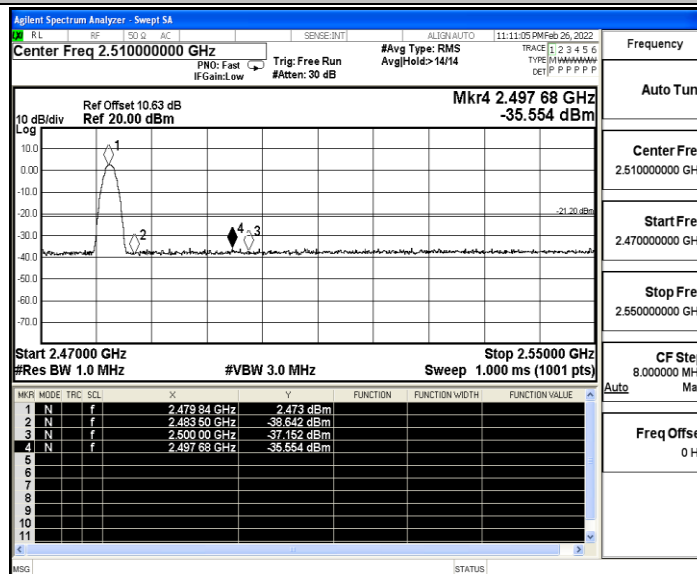
2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV

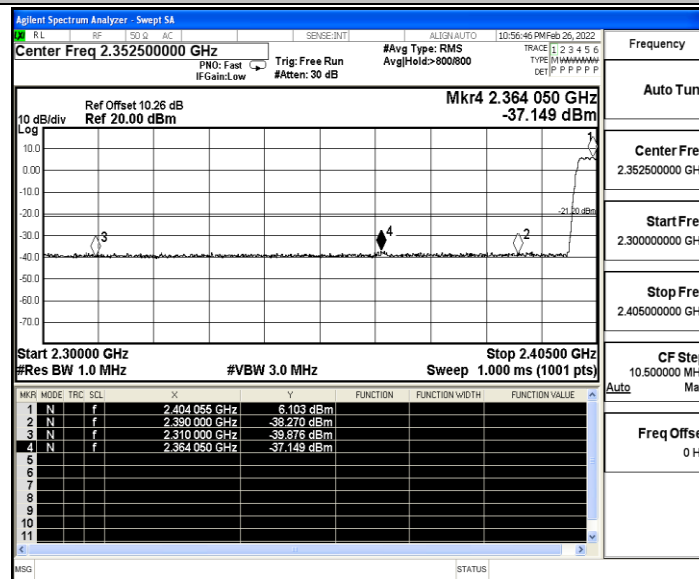


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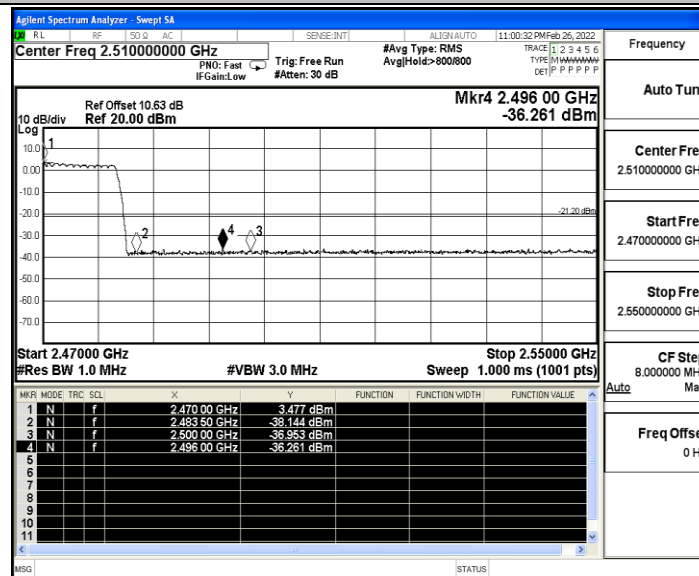




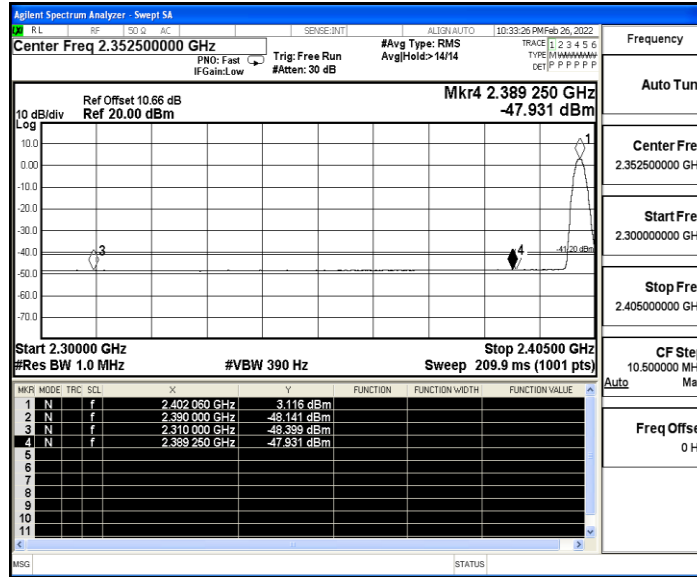
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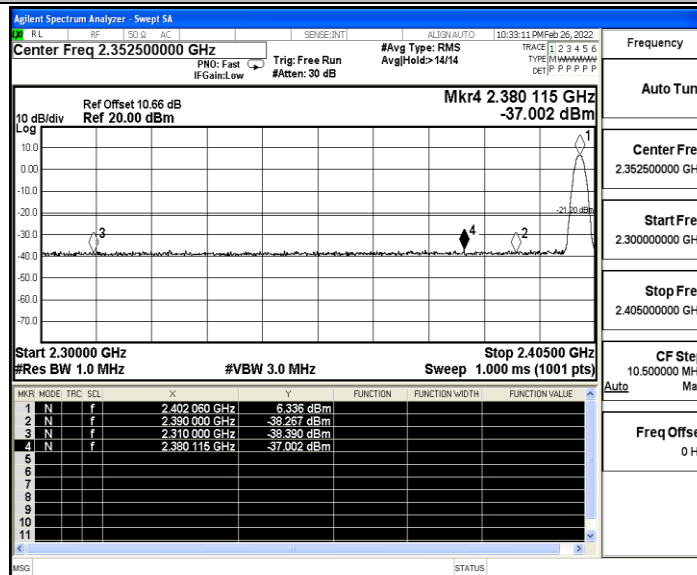
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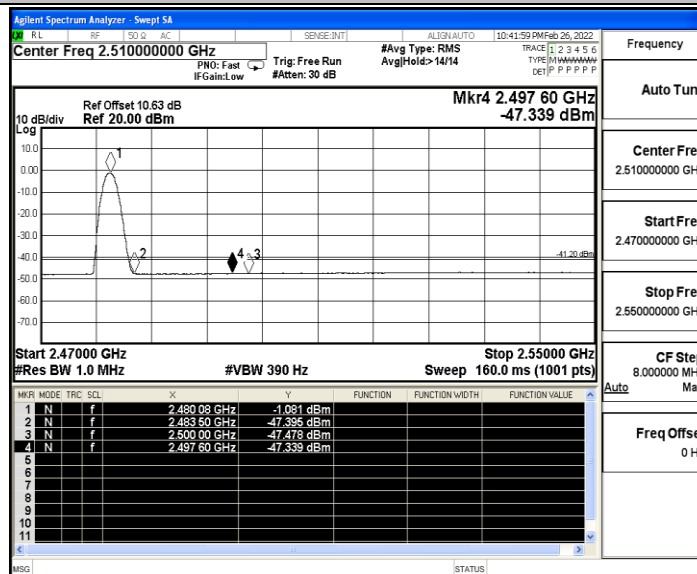
3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak

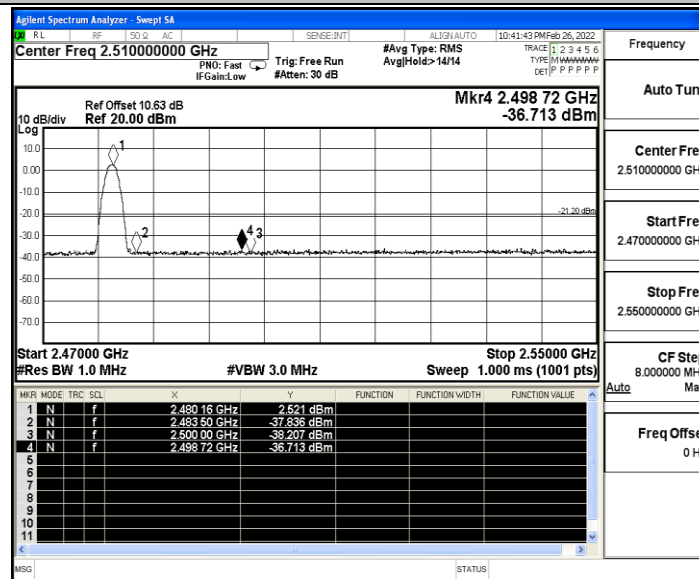


3DH5_Ant1_High_2480_AV

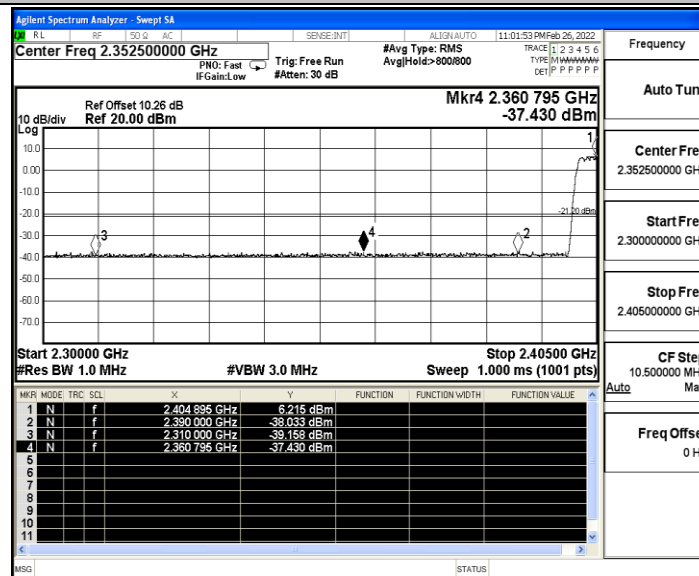




3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak

