



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: GNSS RECEIVER

Test Model: G2

Environmental Conditions

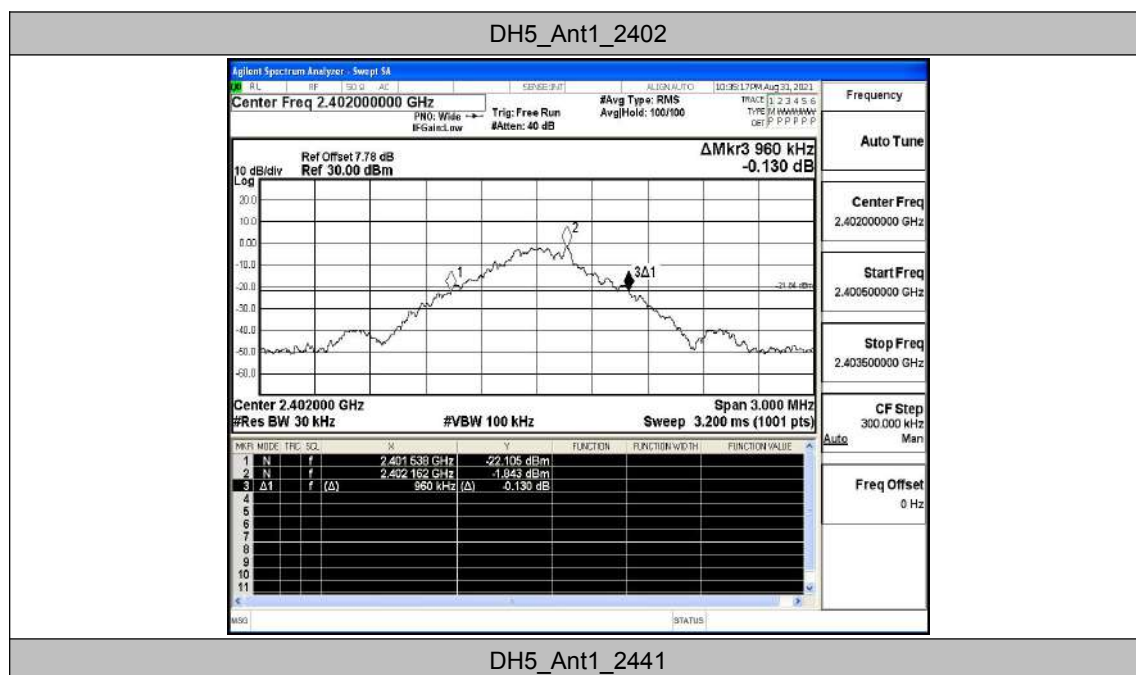
Temperature:	21.1° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Carl Fu
Supervised by:	Li Huan

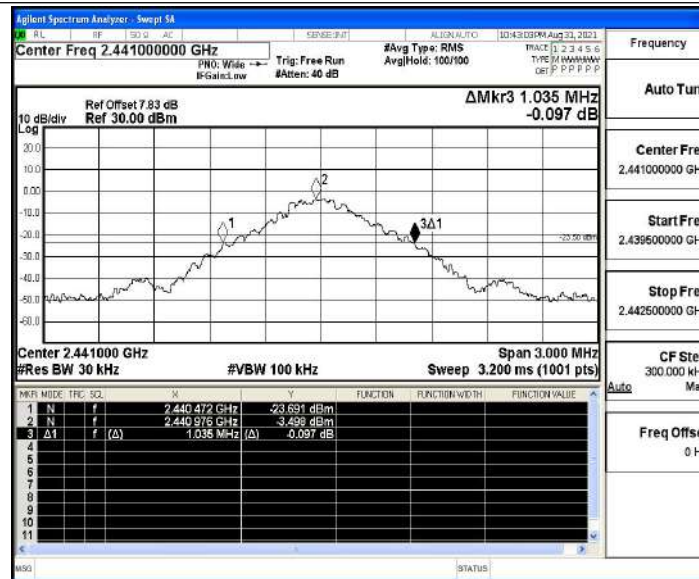
A.1 20dB Emission Bandwidth

Test Result

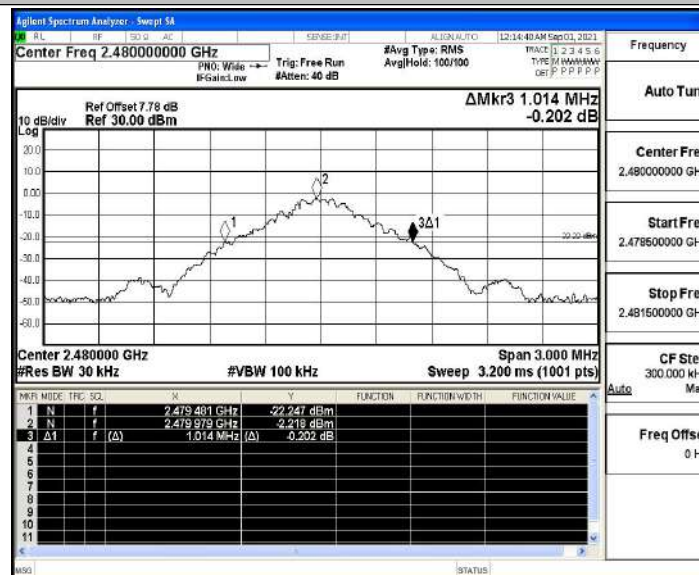
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.960	2401.538	2402.498	---	PASS
		2441	1.035	2440.472	2441.507	---	PASS
		2480	1.014	2479.481	2480.495	---	PASS
2DH5	Ant1	2402	1.296	2401.361	2402.657	---	PASS
		2441	1.323	2440.337	2441.660	---	PASS
		2480	1.362	2479.322	2480.684	---	PASS
3DH5	Ant1	2402	1.314	2401.349	2402.663	---	PASS
		2441	1.320	2440.343	2441.663	---	PASS
		2480	1.302	2479.349	2480.651	---	PASS

Test Graphs

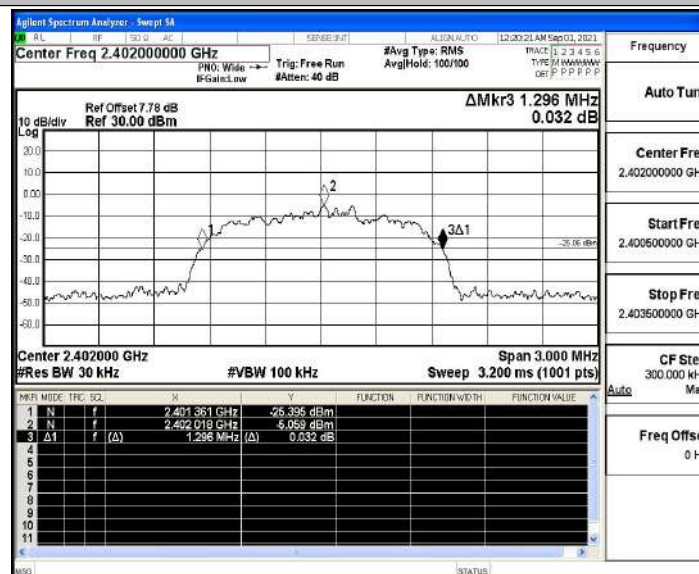




DH5_Ant1_2480

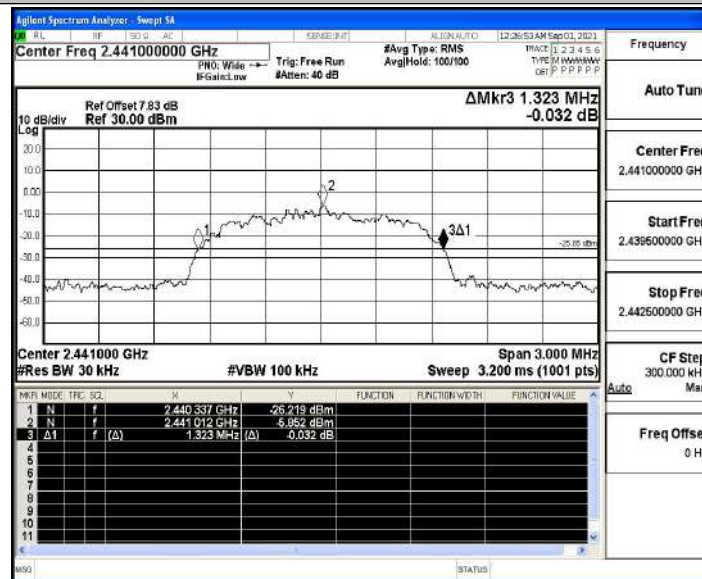


2DH5_Ant1_2402

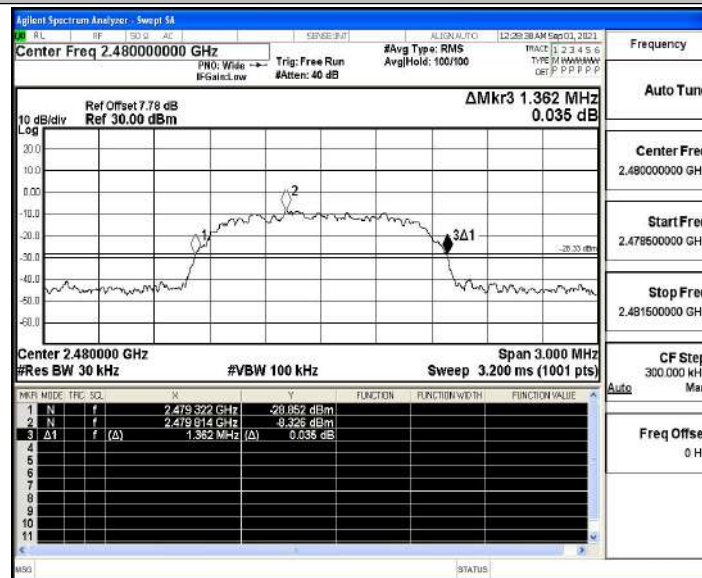




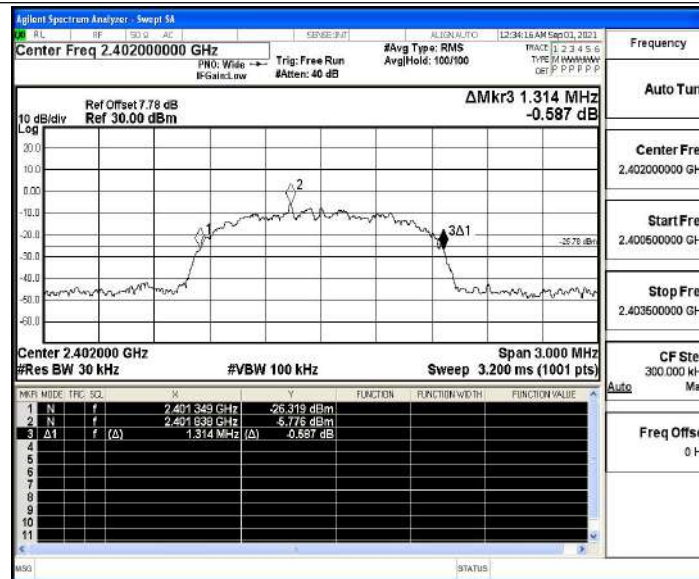
2DH5_Ant1_2441



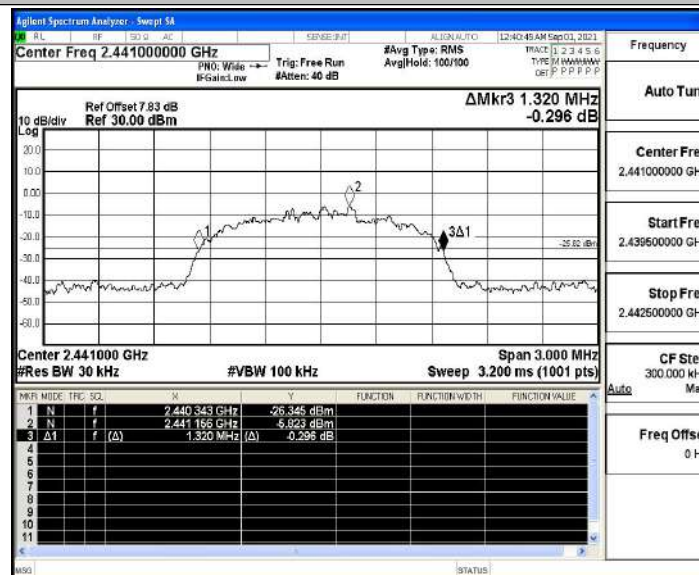
2DH5_Ant1_2480



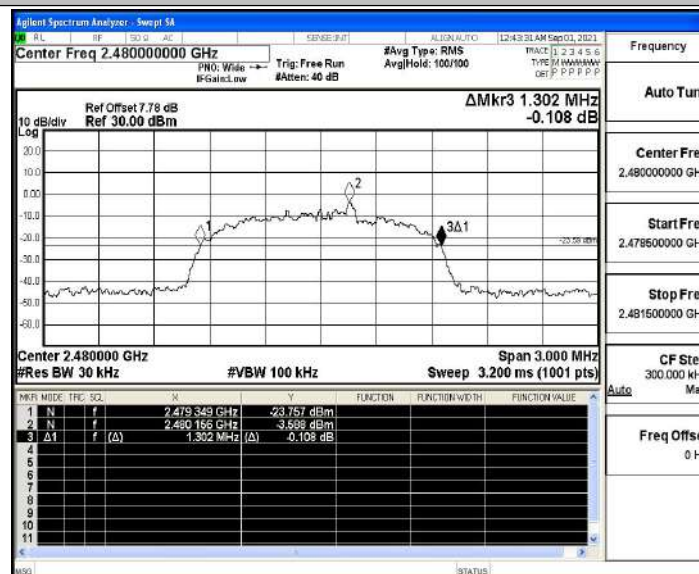
3DH5_Ant1_2402

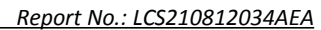


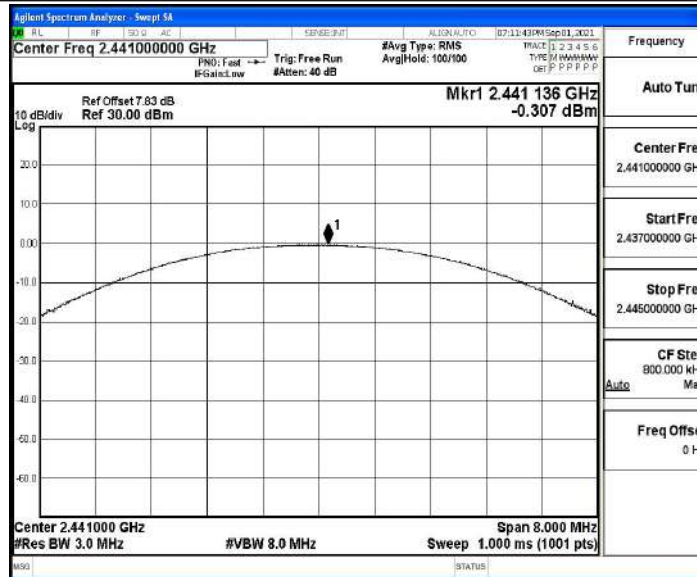
3DH5_Ant1_2441



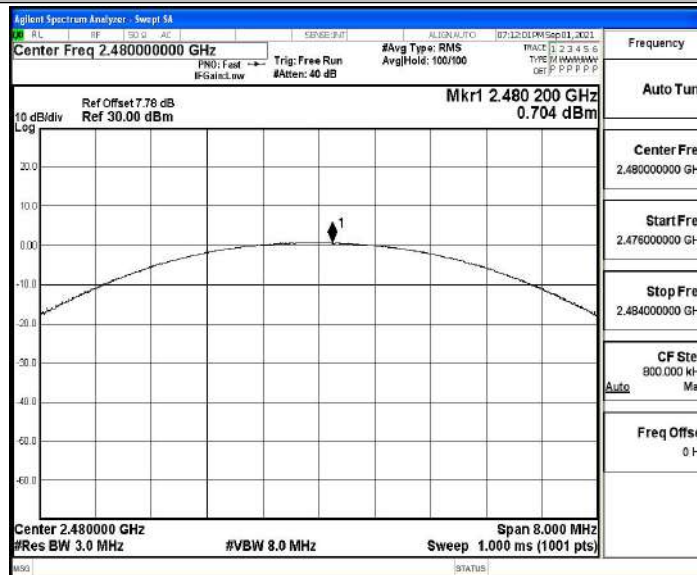
3DH5_Ant1_2480



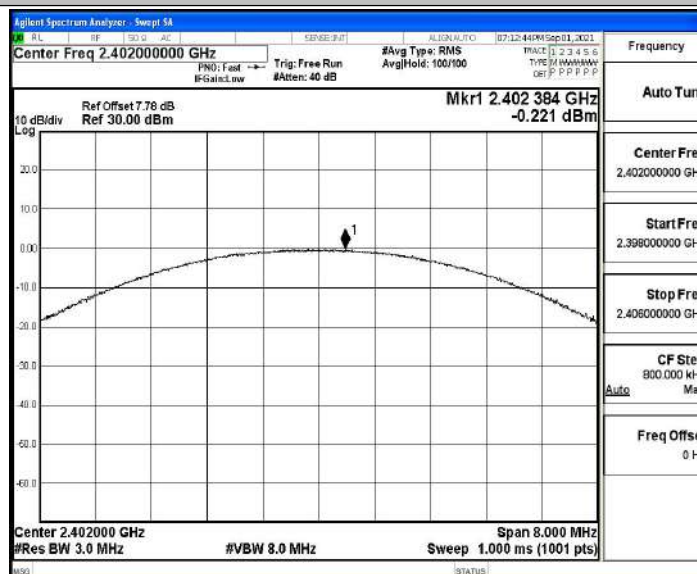




DH5_Ant1_2480

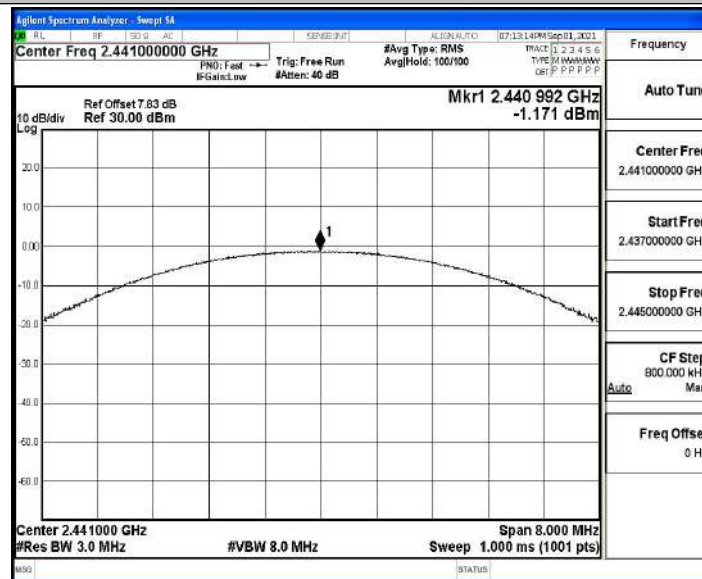


2DH5_Ant1_2402

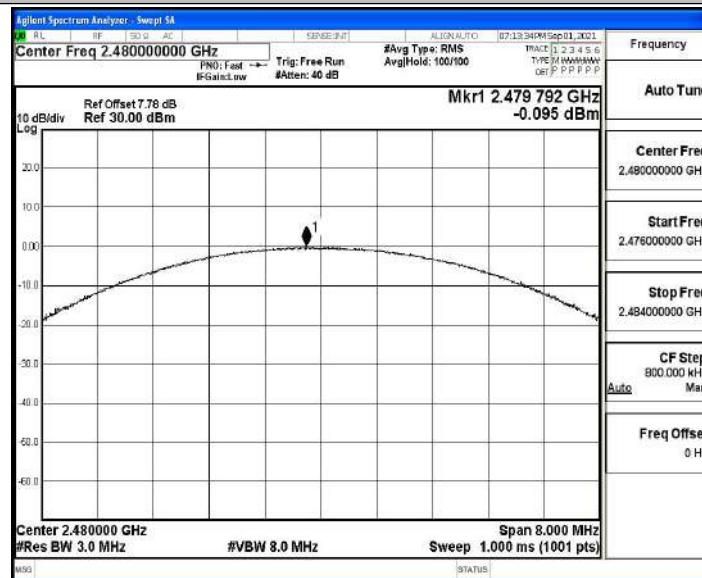




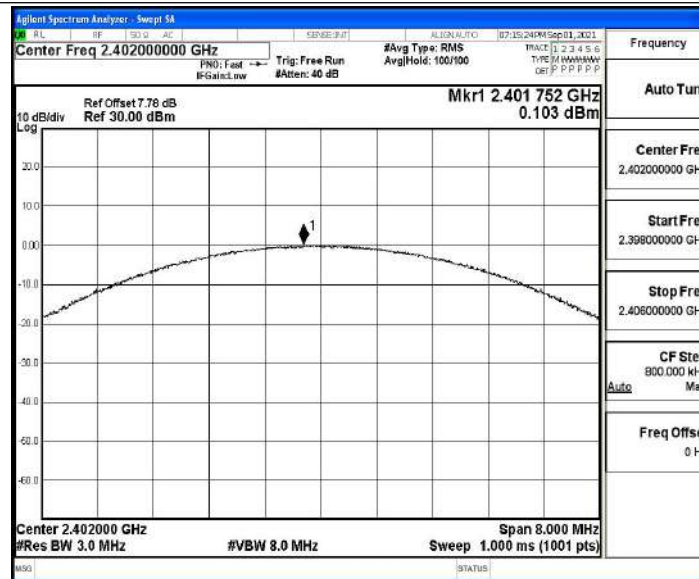
2DH5_Ant1_2441



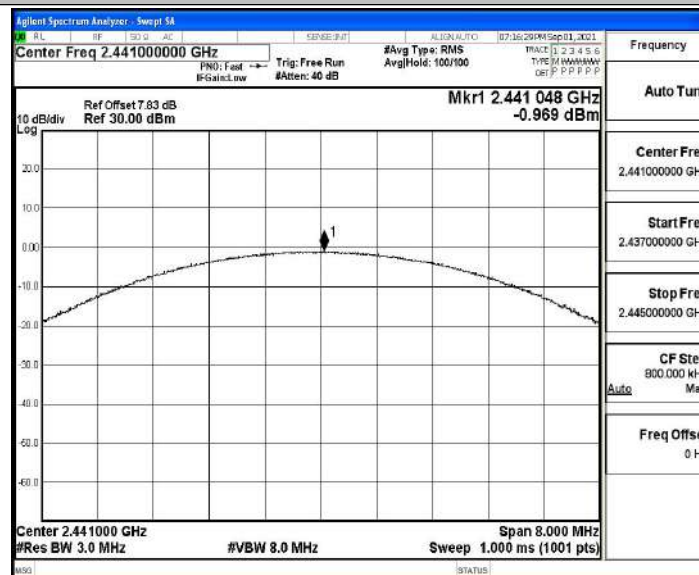
2DH5_Ant1_2480



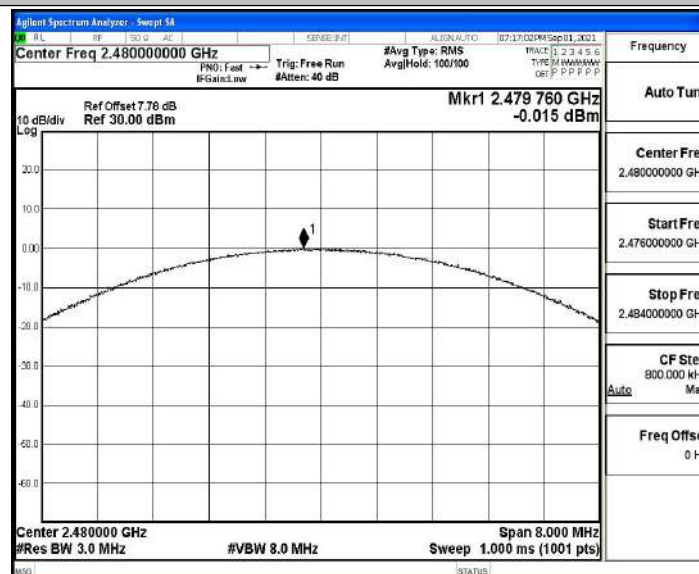
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



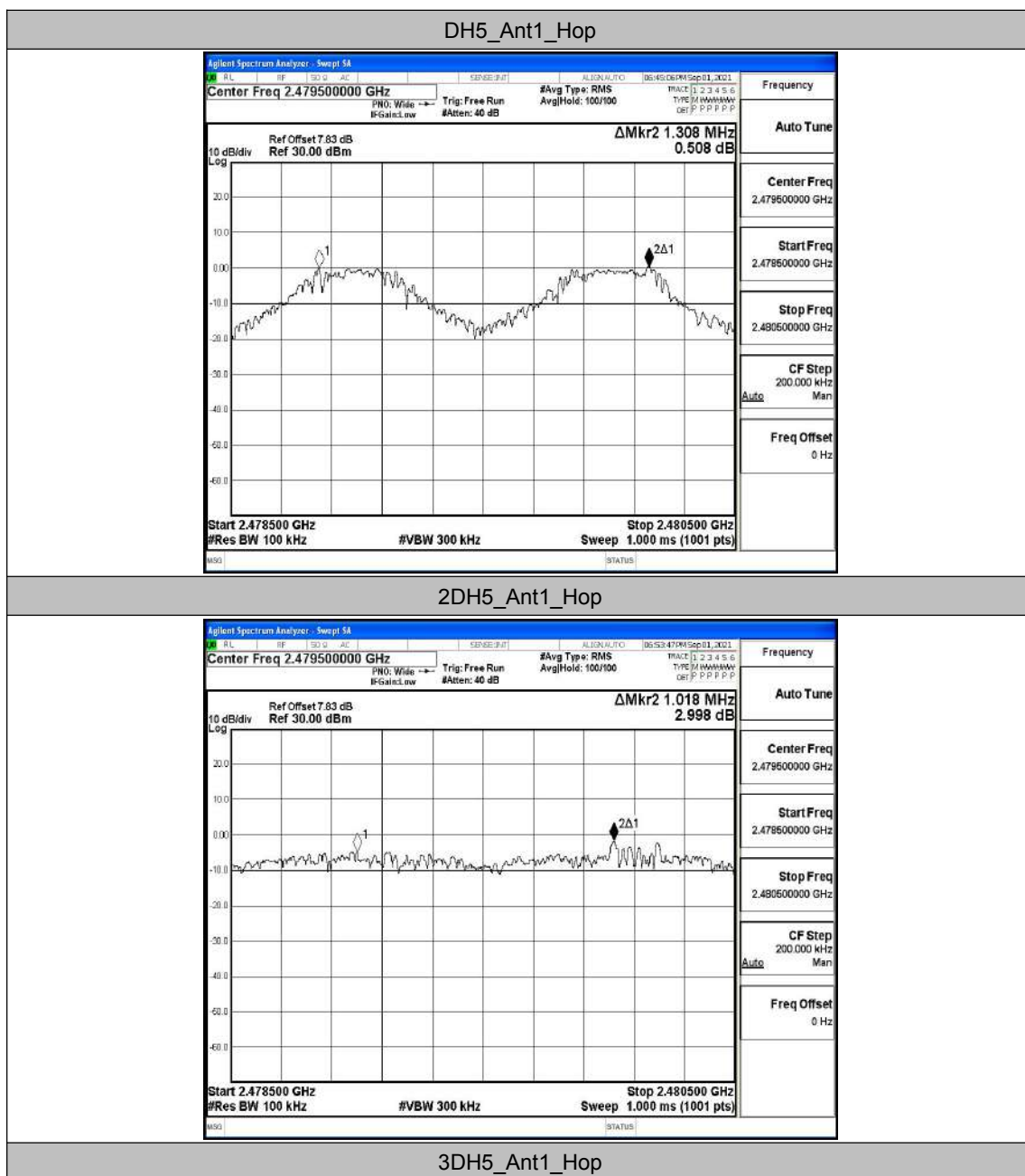


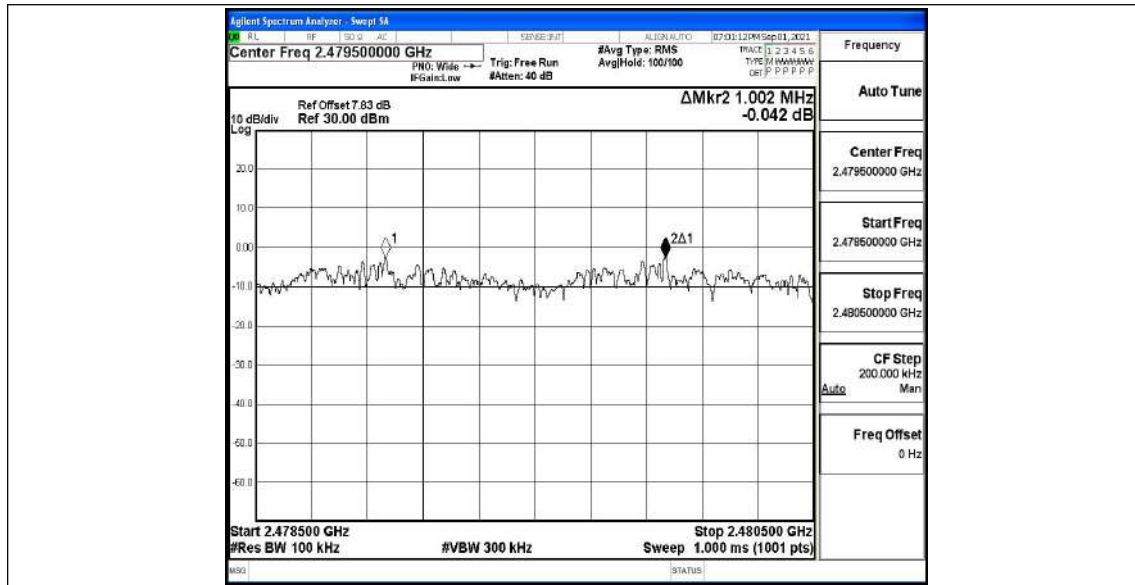
A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.308	≥ 0.690	PASS
2DH5	Ant1	Hop	1.018	≥ 0.908	PASS
3DH5	Ant1	Hop	1.002	≥ 0.880	PASS

Test Graphs





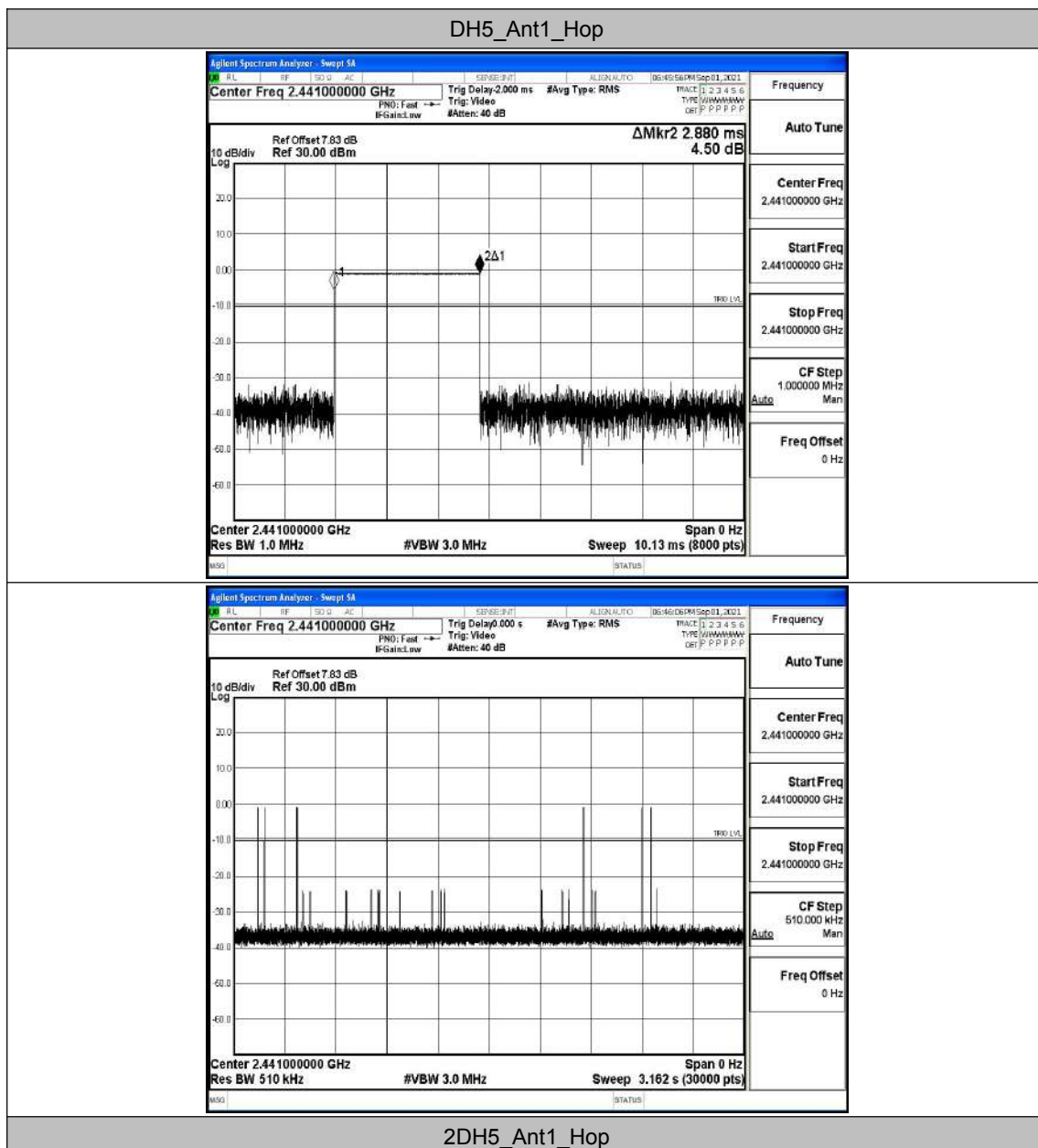


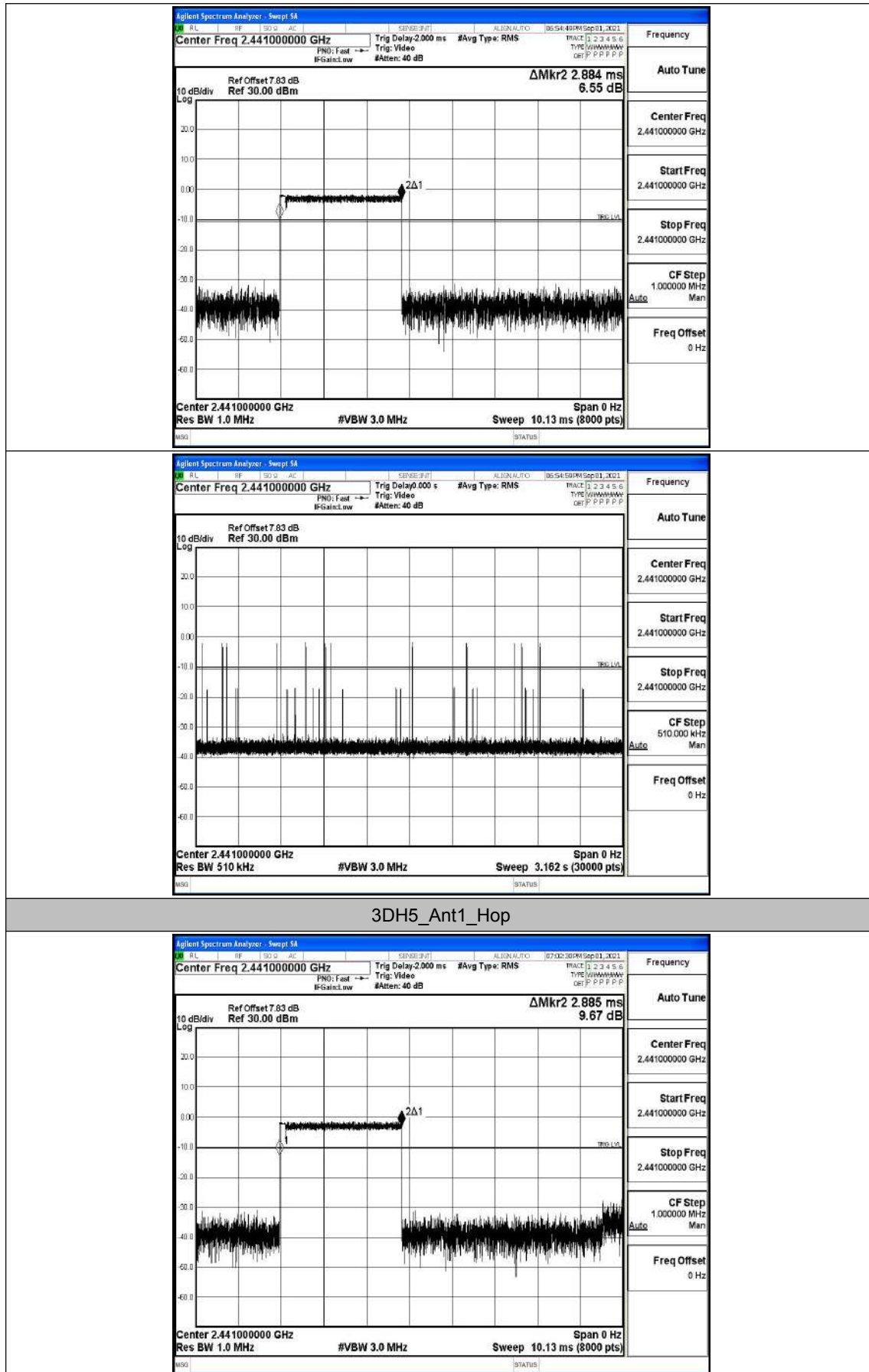
A.4 Time of occupancy

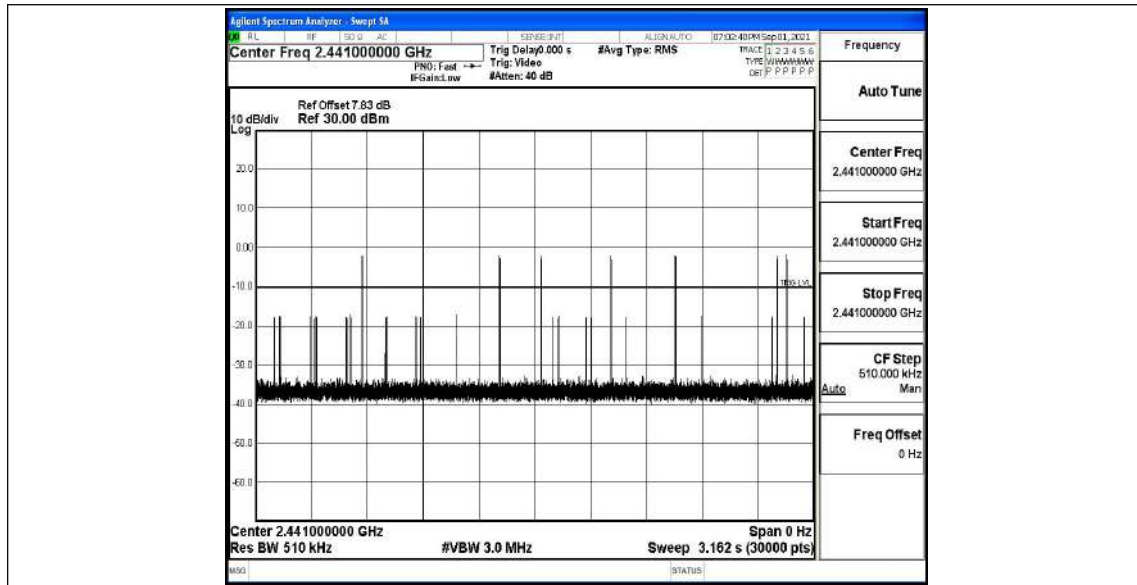
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	70	0.202	≤0.4	PASS
2DH5	Ant1	Hop	2.88	130	0.375	≤0.4	PASS
3DH5	Ant1	Hop	2.89	80	0.232	≤0.4	PASS

Test Graphs







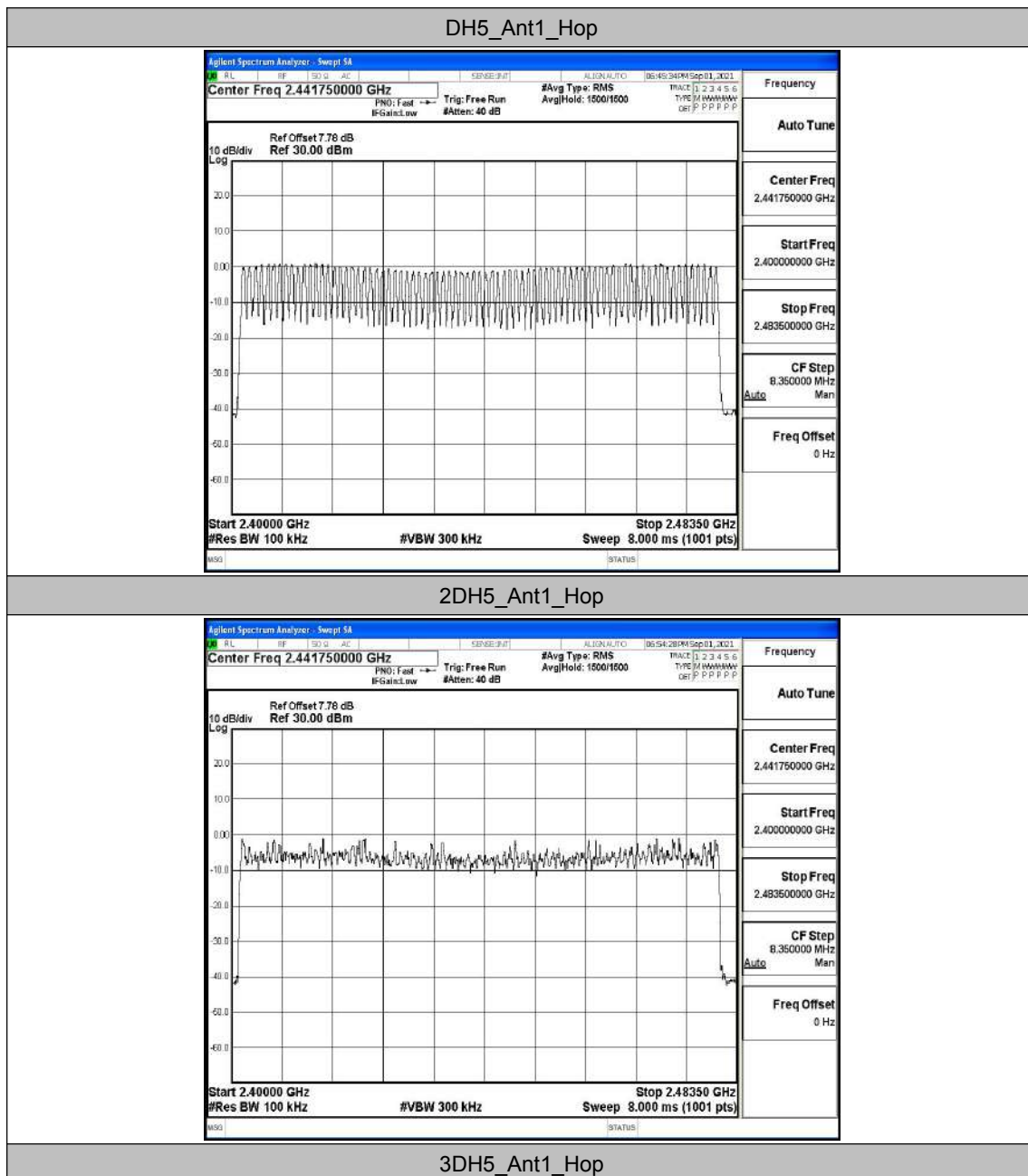


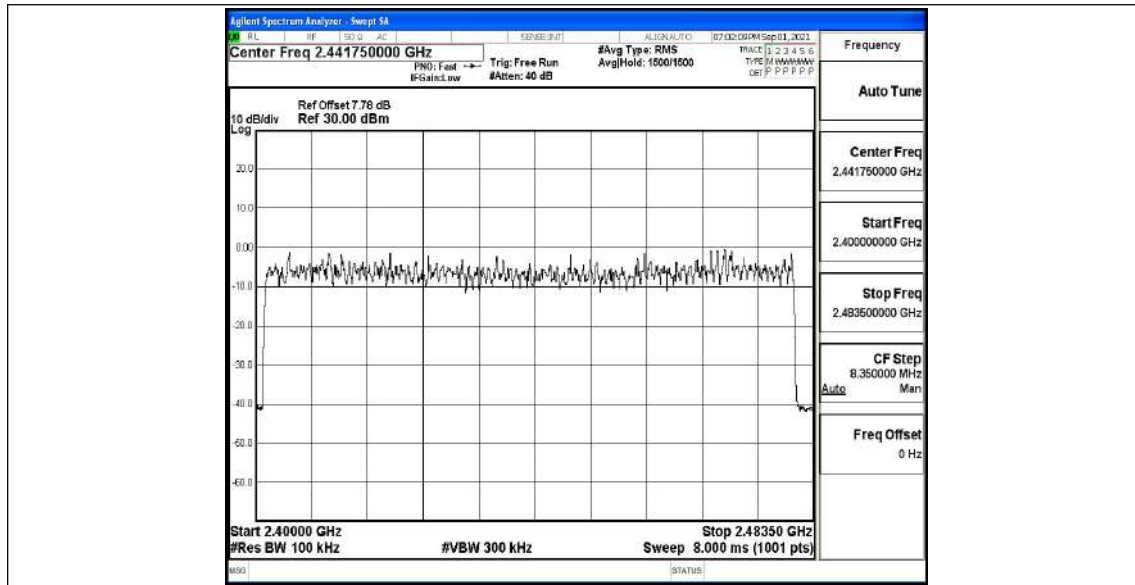
A.5 Number of hopping channels

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





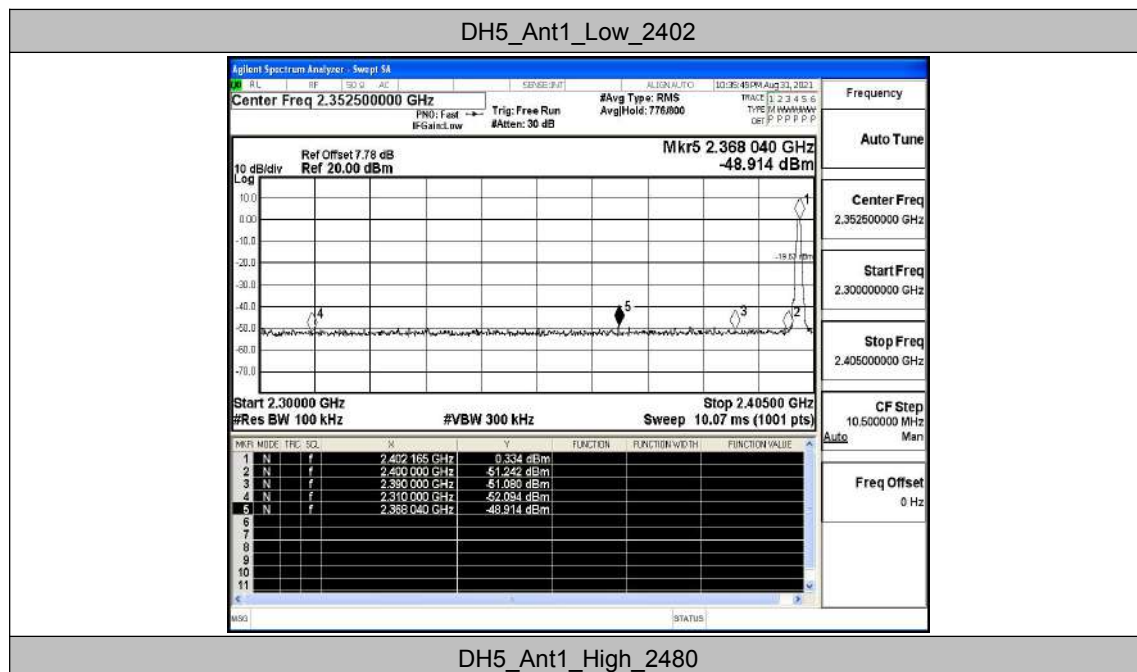


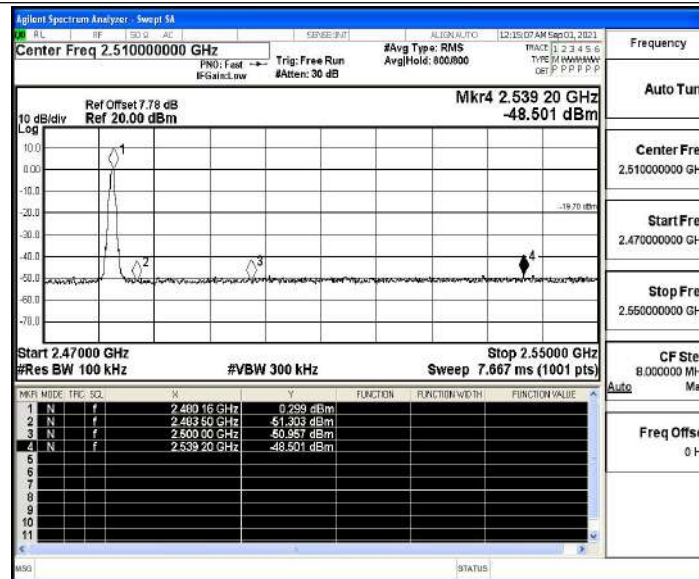
A.6 Band edge measurements

Test Result

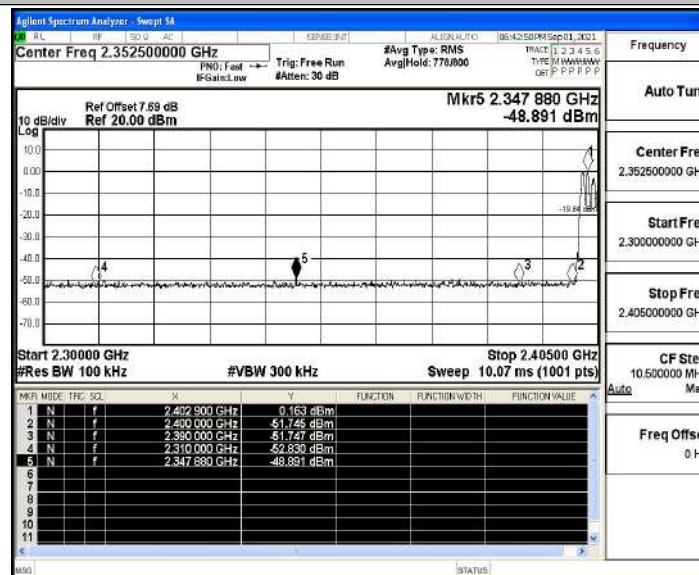
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.33	-48.91	≤-19.67	PASS
		High	2480	0.30	-48.5	≤-19.7	PASS
		Low	Hop_2402	0.16	-48.89	≤-19.84	PASS
		High	Hop_2480	0.85	-48.43	≤-19.15	PASS
2DH5	Ant1	Low	2402	-1.25	-49.46	≤-21.25	PASS
		High	2480	-1.24	-48.43	≤-21.24	PASS
		Low	Hop_2402	-4.98	-49.89	≤-24.98	PASS
		High	Hop_2480	-3.99	-48.79	≤-23.99	PASS
3DH5	Ant1	Low	2402	-1.34	-49.73	≤-21.34	PASS
		High	2480	-1.32	-48.15	≤-21.32	PASS
		Low	Hop_2402	-5.10	-50.01	≤-25.1	PASS
		High	Hop_2480	-3.75	-48.69	≤-23.75	PASS

Test Graphs

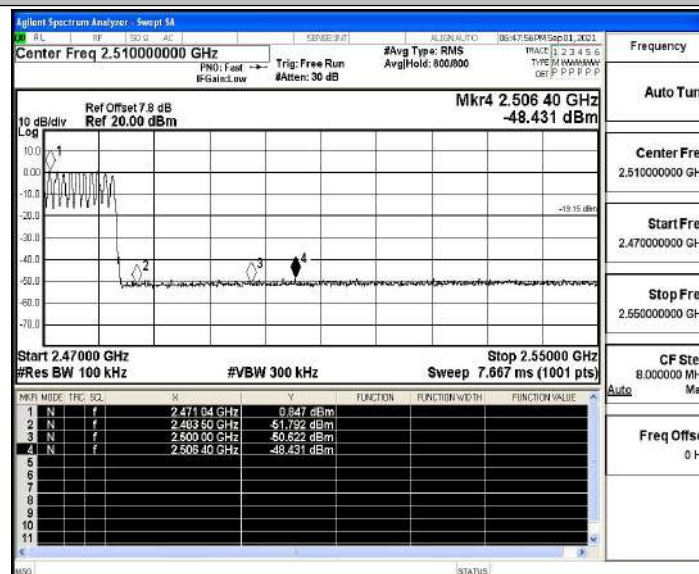




DH5_Ant1_Low_Hop_2402

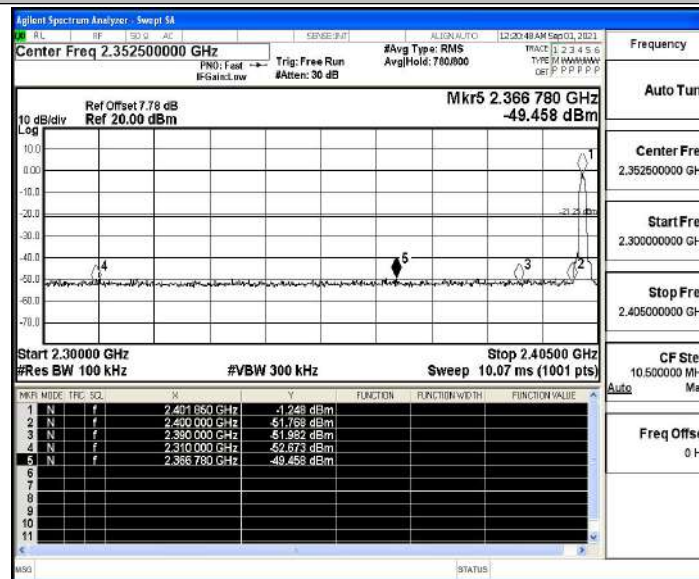


DH5_Ant1_High_Hop_2480

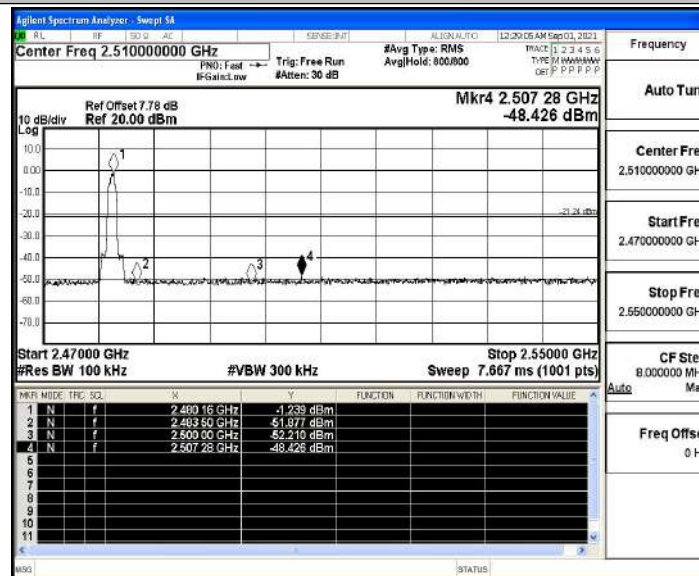




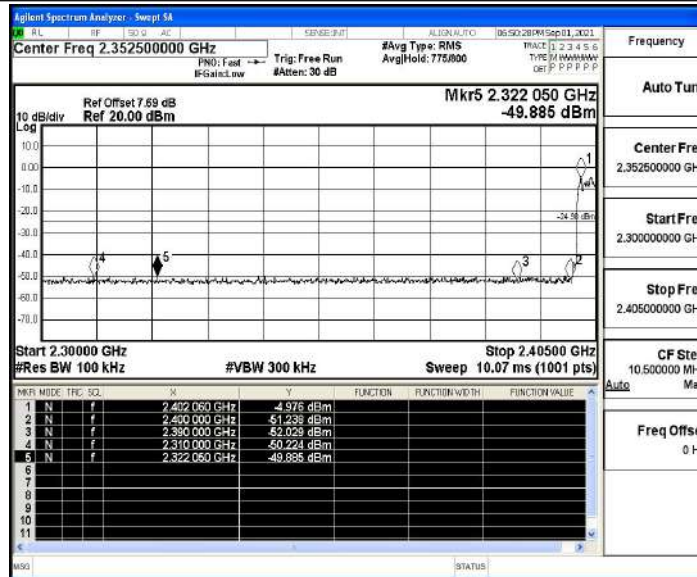
2DH5_Ant1_Low_2402



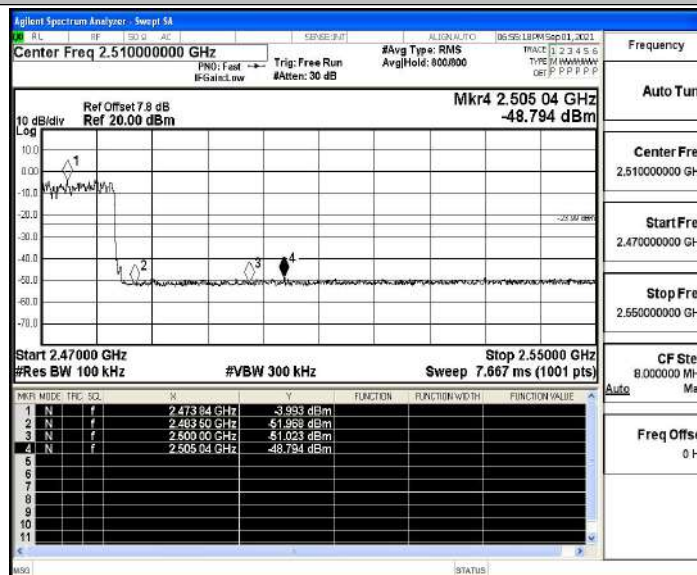
2DH5_Ant1_High_2480



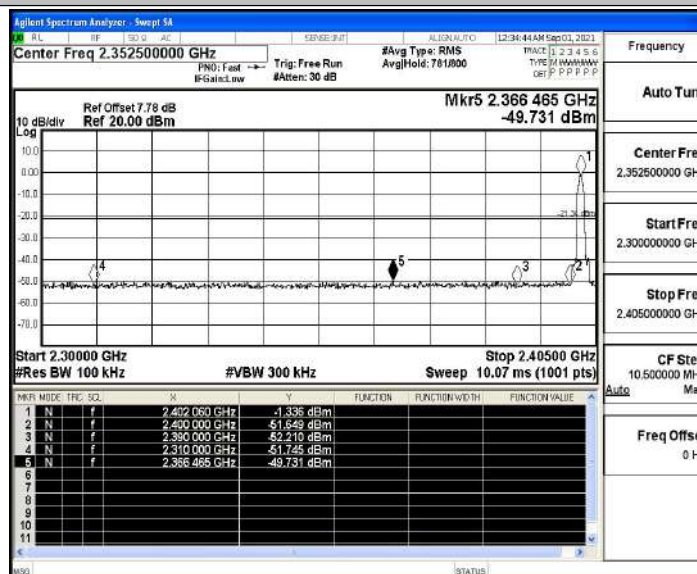
2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

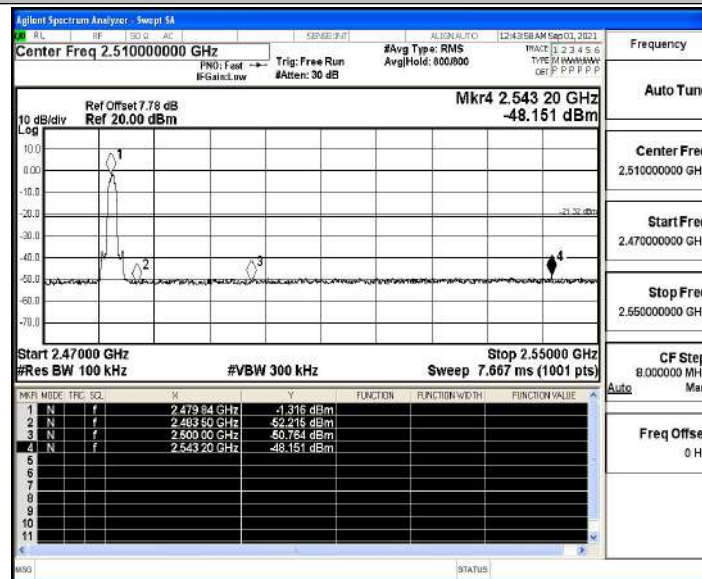


3DH5_Ant1_Low_2402

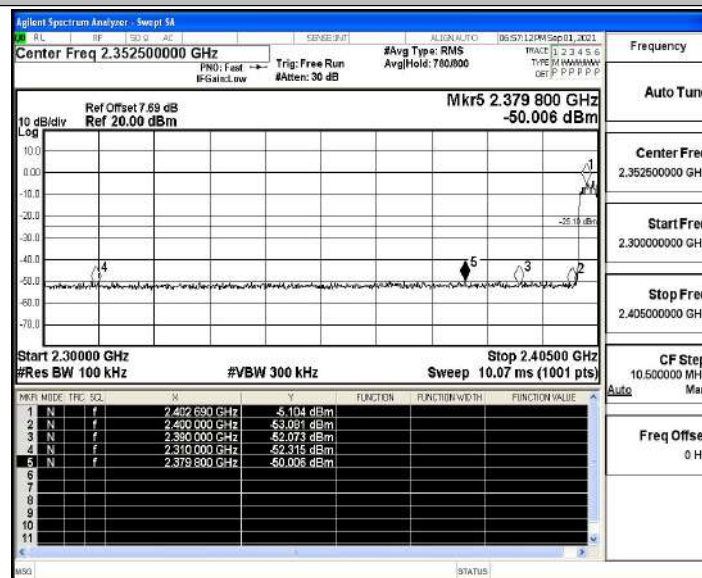




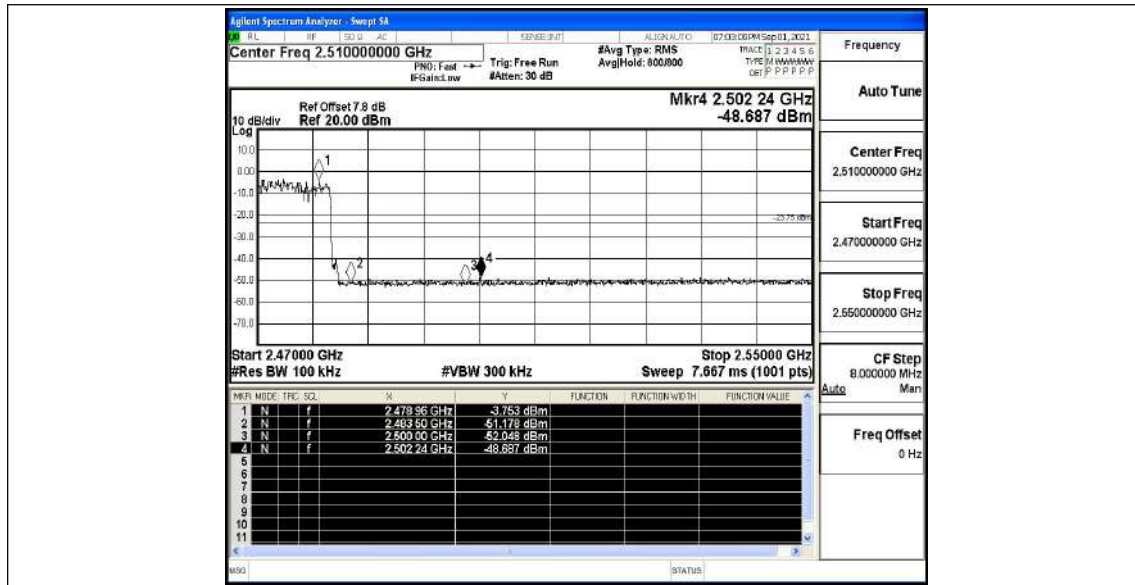
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

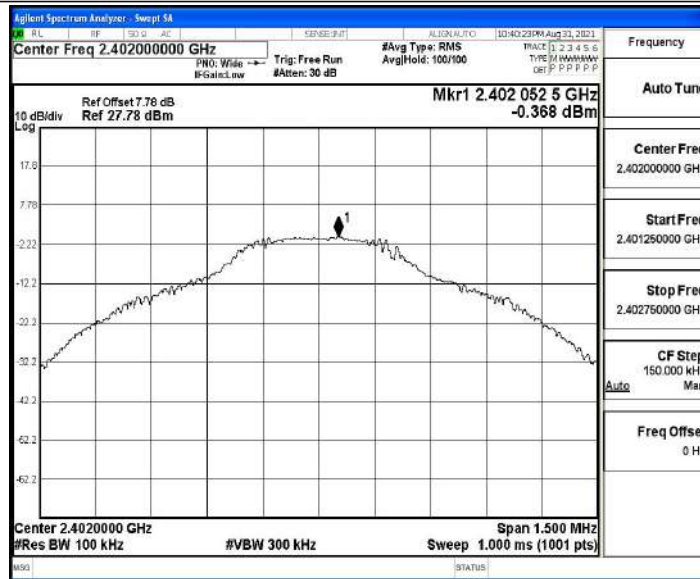
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.37	-0.37	---	PASS
			30~1000	-0.37	-61.77	≤-20.37	PASS
			1000~26500	-0.37	-47.05	≤-20.37	PASS
		2441	Reference	-1.61	-1.61	---	PASS
			30~1000	-1.61	-62.15	≤-21.61	PASS
			1000~26500	-1.61	-47.6	≤-21.61	PASS
		2480	Reference	-0.28	-0.28	---	PASS
			30~1000	-0.28	-61.96	≤-20.28	PASS
			1000~26500	-0.28	-47.38	≤-20.28	PASS
2DH5	Ant1	2402	Reference	-2.02	-2.02	---	PASS
			30~1000	-2.02	-61.6	≤-22.02	PASS
			1000~26500	-2.02	-47.88	≤-22.02	PASS
		2441	Reference	-3.17	-3.17	---	PASS
			30~1000	-3.17	-61.38	≤-23.17	PASS
			1000~26500	-3.17	-47.14	≤-23.17	PASS
		2480	Reference	-1.44	-1.44	---	PASS
			30~1000	-1.44	-61.26	≤-21.44	PASS
			1000~26500	-1.44	-47.47	≤-21.44	PASS
3DH5	Ant1	2402	Reference	-1.33	-1.33	---	PASS
			30~1000	-1.33	-61.95	≤-21.33	PASS
			1000~26500	-1.33	-47.23	≤-21.33	PASS
		2441	Reference	-4.94	-4.94	---	PASS
			30~1000	-4.94	-62.04	≤-24.94	PASS
			1000~26500	-4.94	-47.67	≤-24.94	PASS
		2480	Reference	-1.28	-1.28	---	PASS
			30~1000	-1.28	-60.54	≤-21.28	PASS
			1000~26500	-1.28	-47.85	≤-21.28	PASS

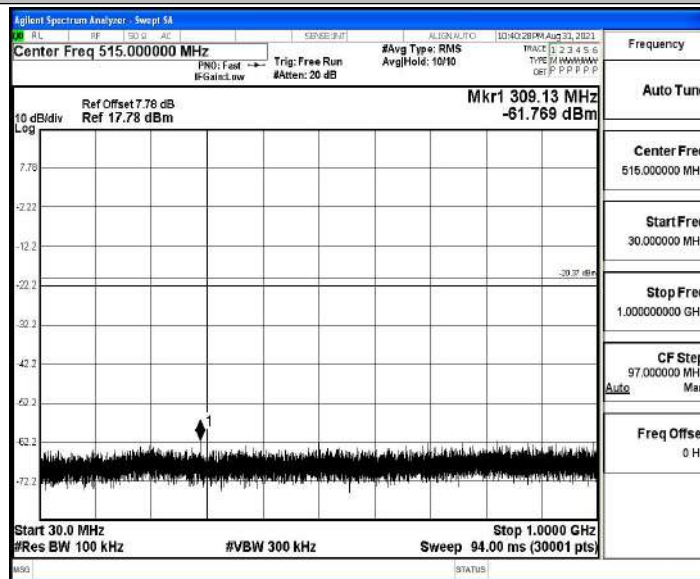


Test Graphs

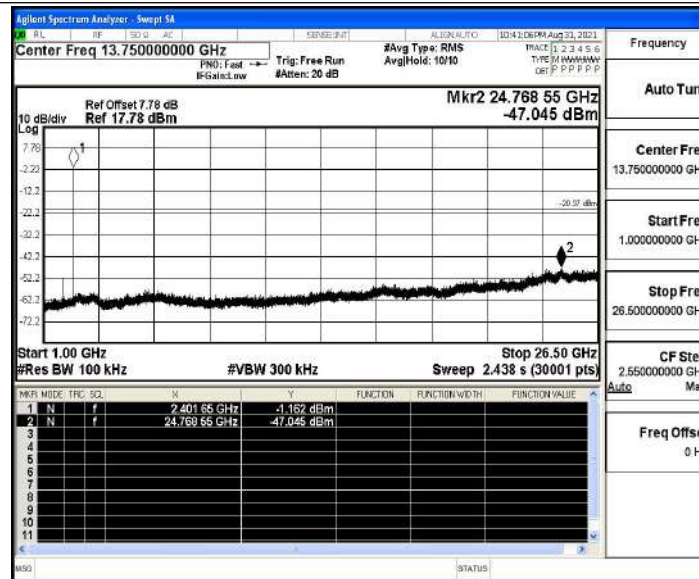
DH5_Ant1_2402_0~Reference



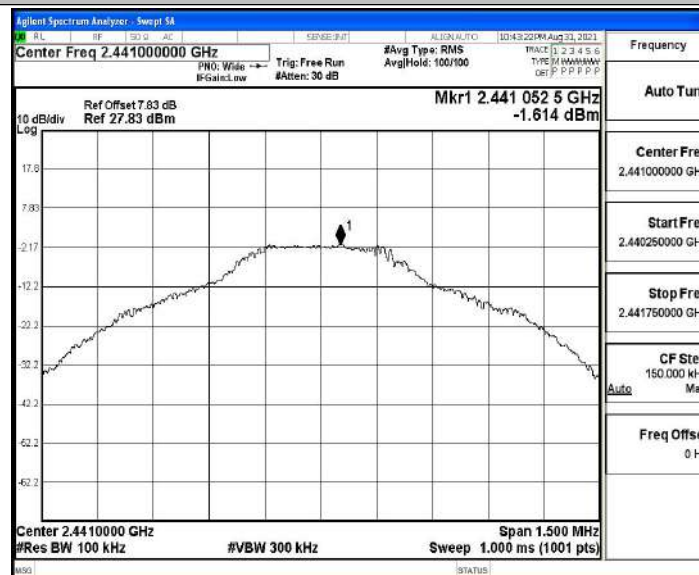
DH5_Ant1_2402_30~1000



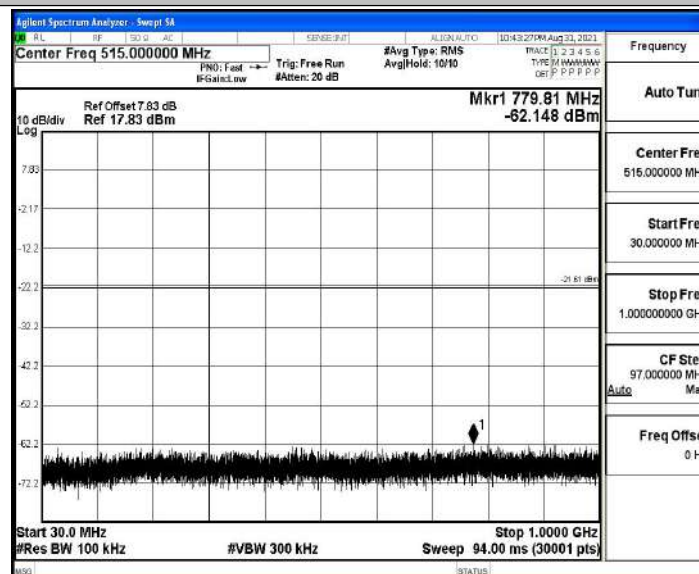
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

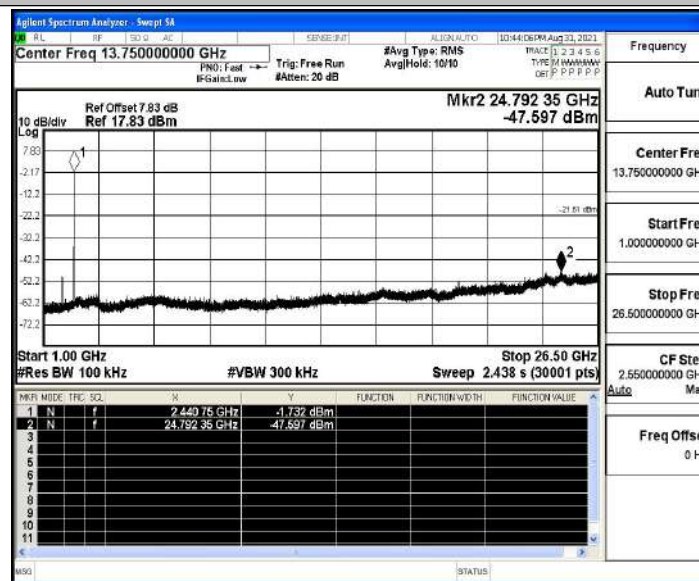


DH5_Ant1_2441_30~1000

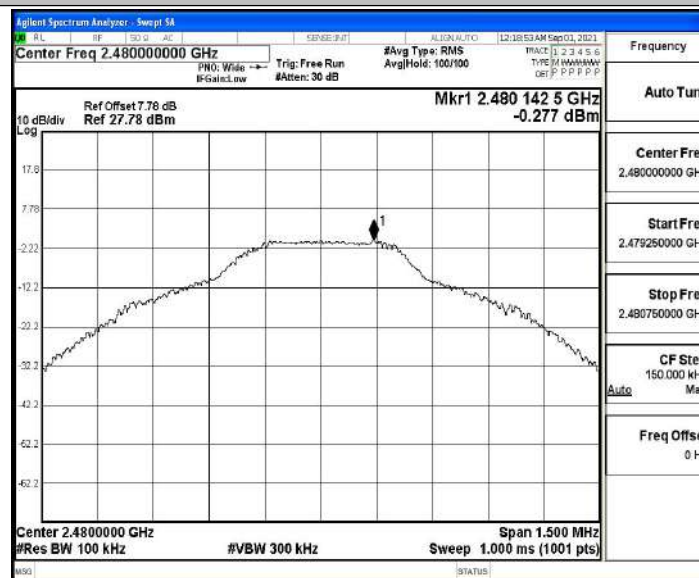




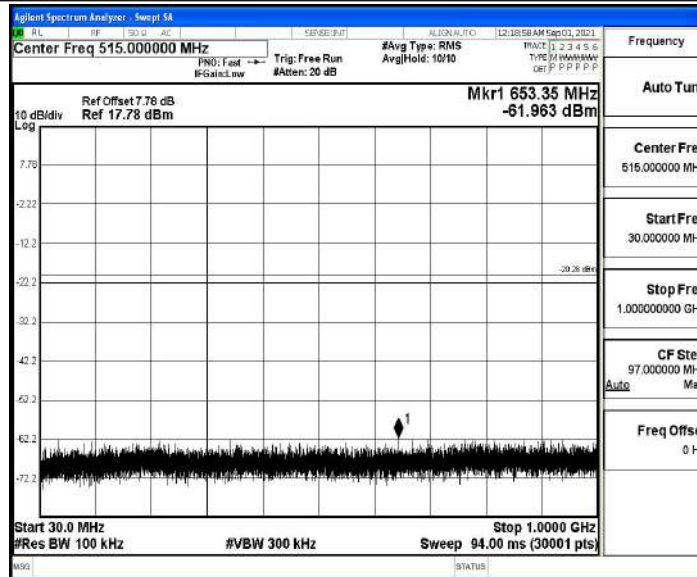
DH5_Ant1_2441_1000~26500



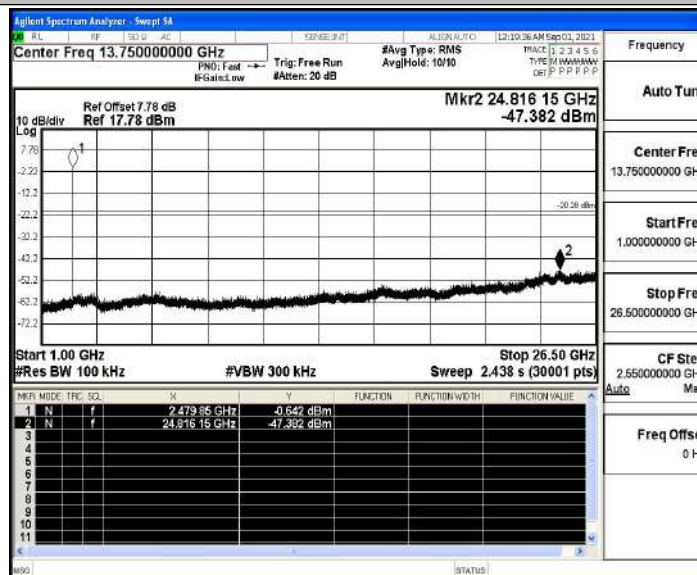
DH5_Ant1_2480_0~Reference



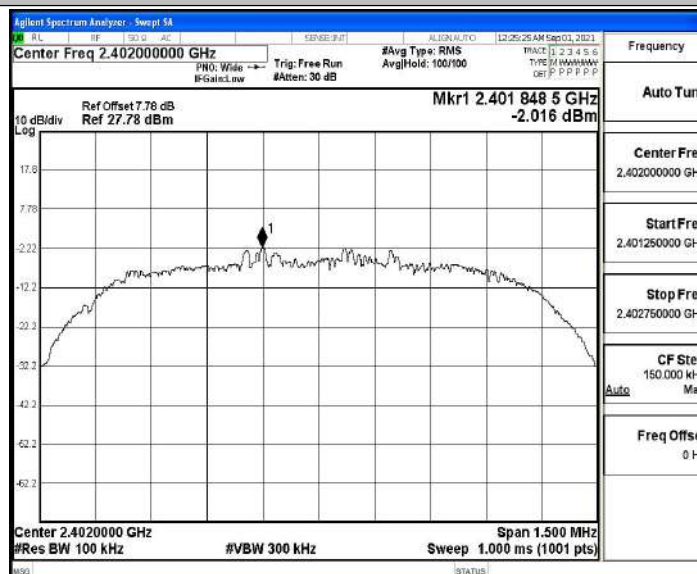
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

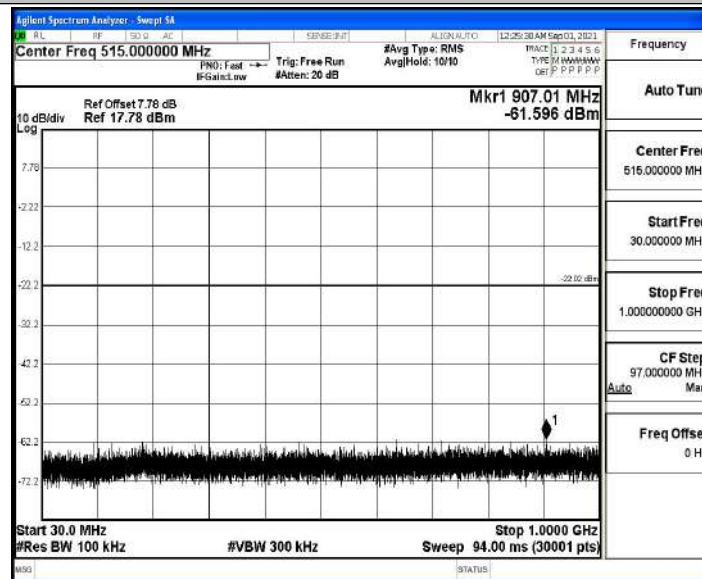


2DH5_Ant1_2402_0~Reference

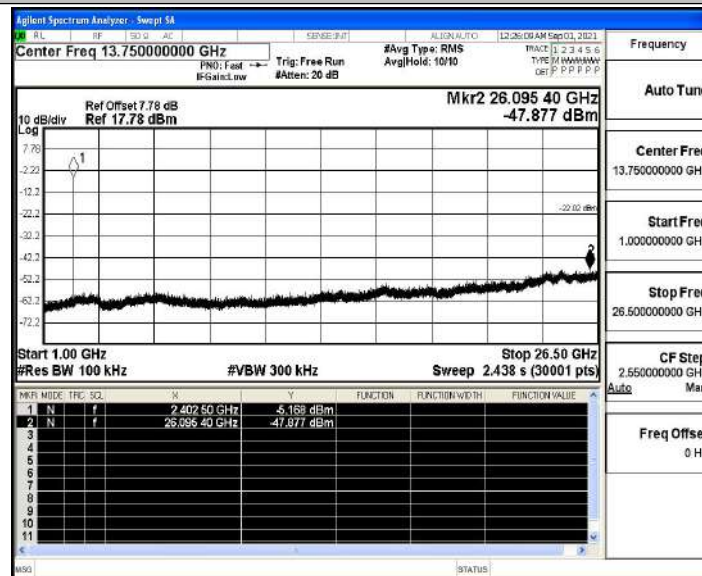




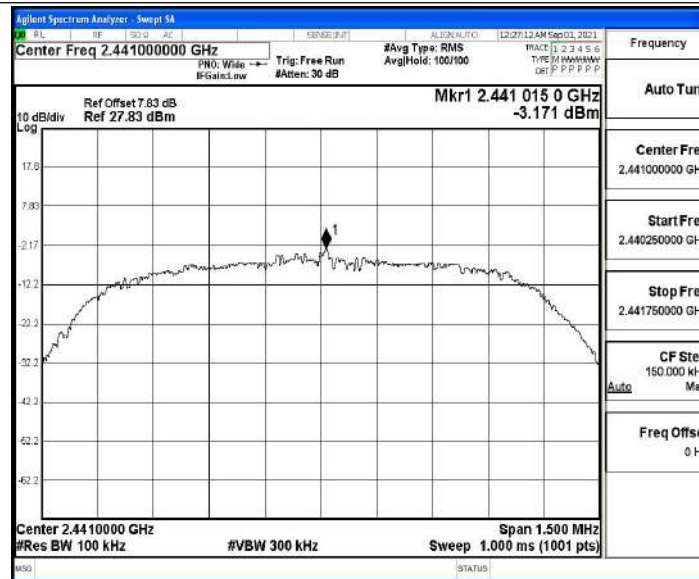
2DH5_Ant1_2402_30~1000



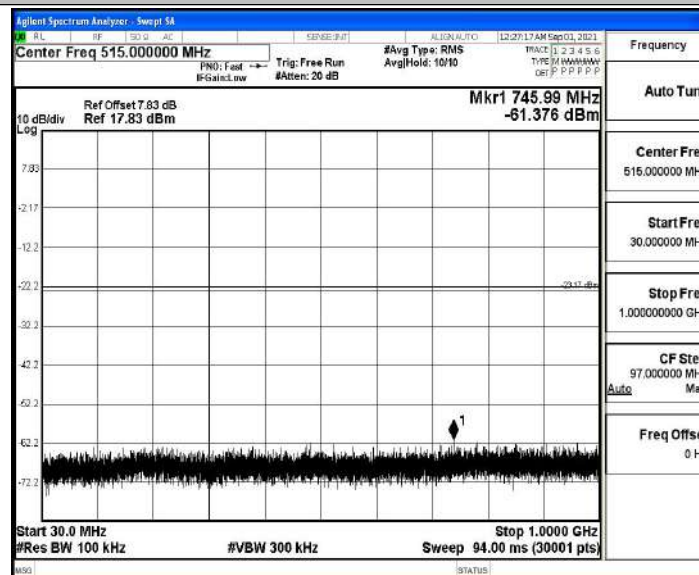
2DH5_Ant1_2402_1000~26500



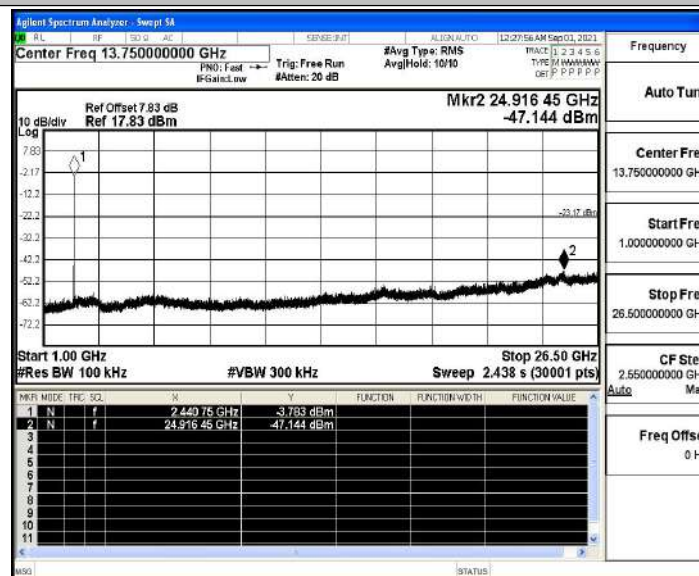
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

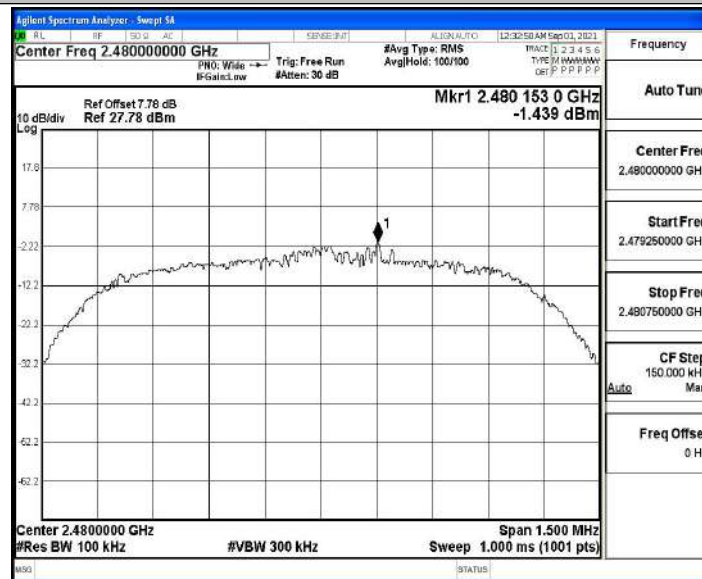


2DH5_Ant1_2441_1000~26500

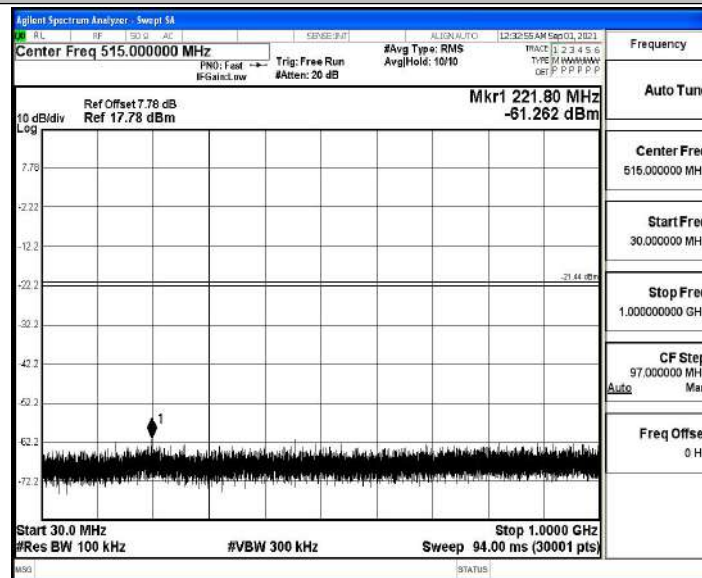




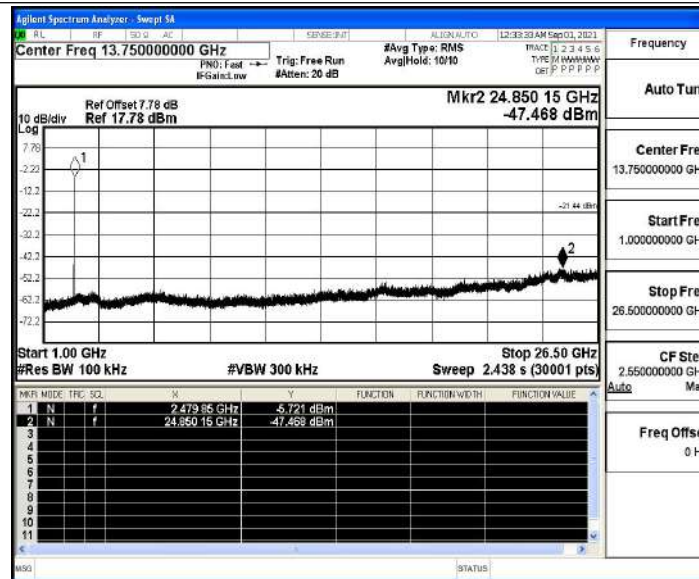
2DH5_Ant1_2480_0~Reference



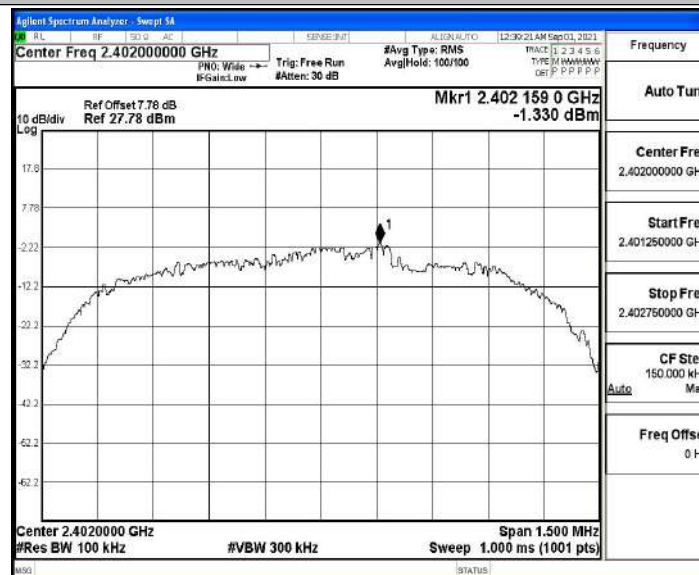
2DH5_Ant1_2480_30~1000



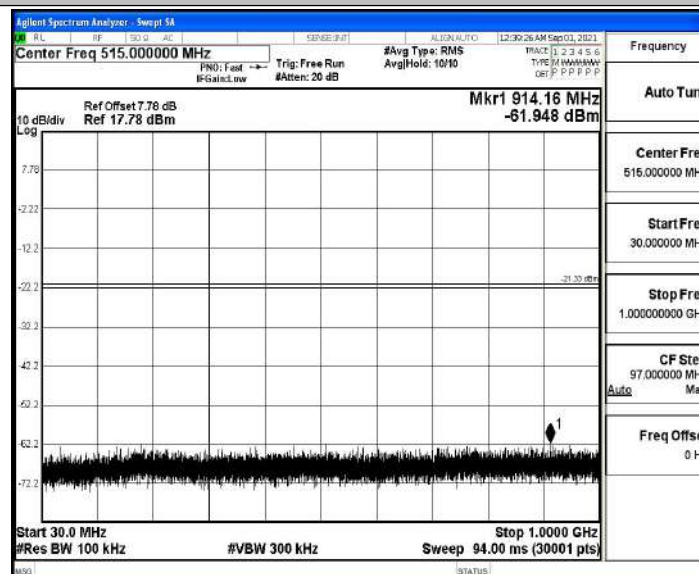
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

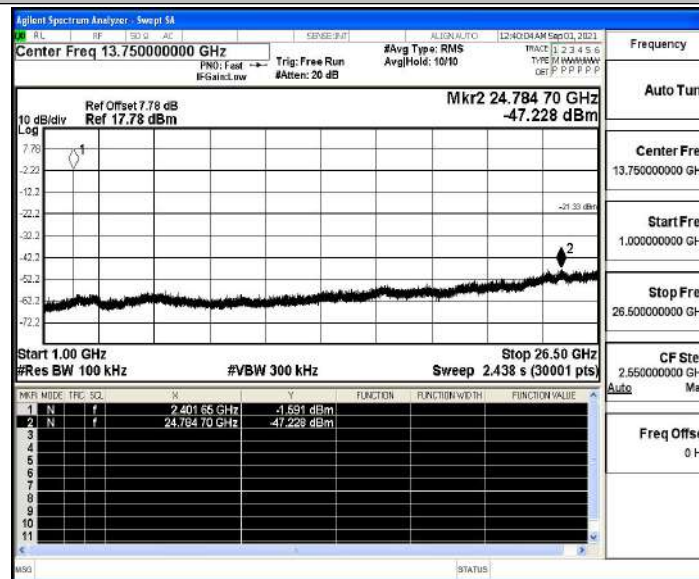


3DH5_Ant1_2402_30~1000

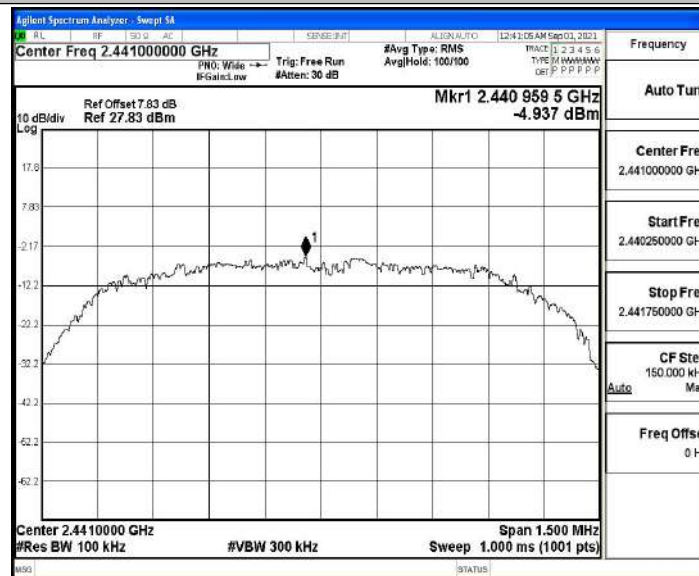




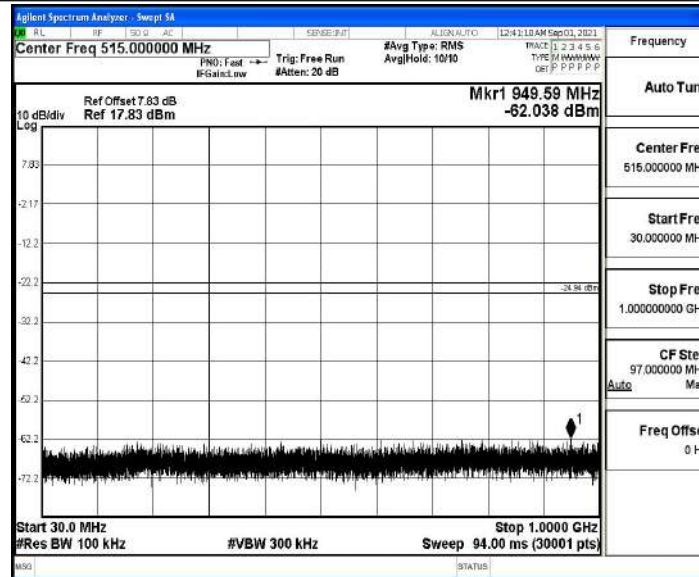
3DH5_Ant1_2402_1000~26500



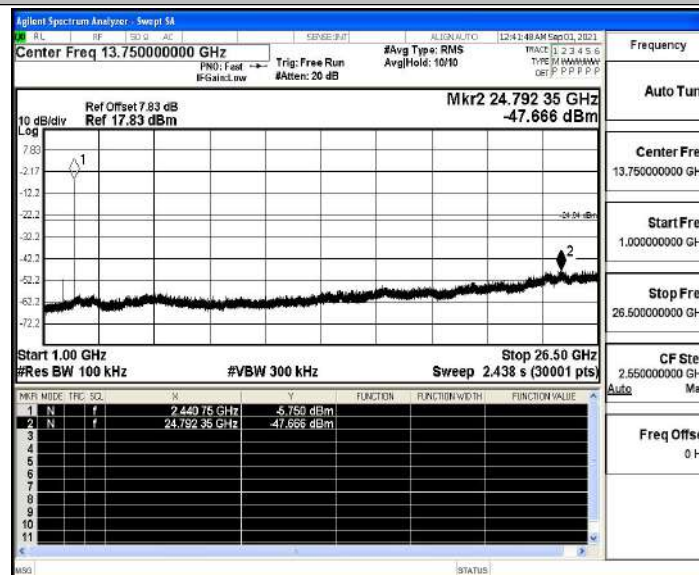
3DH5_Ant1_2441_0~Reference



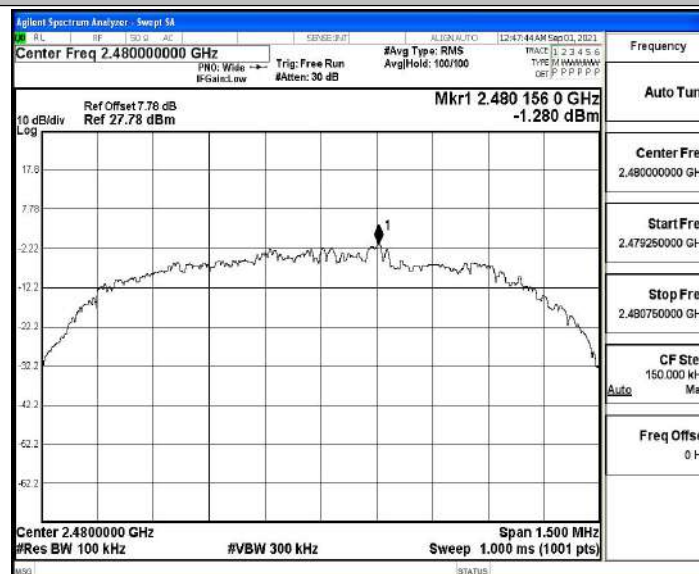
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

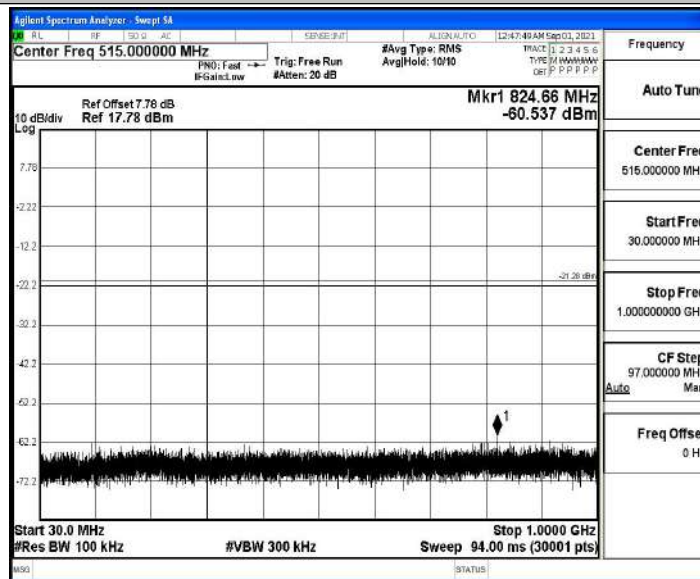


3DH5_Ant1_2480_0~Reference

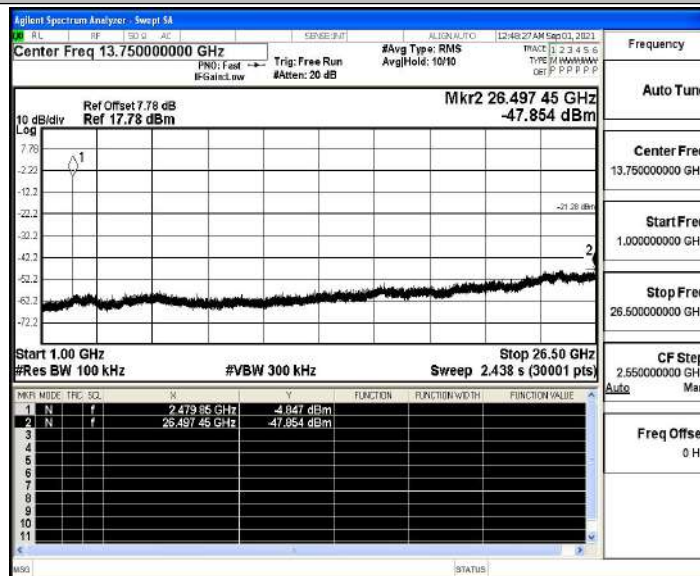




3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500





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	-49.11	≤-41.20	46.09	≤54	PASS
				AV	2389.355	-48.66	≤-41.20	46.54	≤54	PASS
				AV	2390.000	-48.76	≤-41.20	46.44	≤54	PASS
				Peak	2310.000	-41.31	≤-21.20	53.89	≤74	PASS
				Peak	2348.195	-37.93	≤-21.20	57.27	≤74	PASS
				Peak	2390.000	-40.42	≤-21.20	54.78	≤74	PASS
		High	2480	AV	2483.500	-47.88	≤-41.20	47.32	≤54	PASS
				AV	2483.520	-47.88	≤-41.20	47.32	≤54	PASS
				AV	2500.000	-47.99	≤-41.20	47.21	≤54	PASS
				Peak	2483.500	-39.79	≤-21.20	55.41	≤74	PASS
				Peak	2492.400	-37.57	≤-21.20	57.63	≤74	PASS
				Peak	2500.000	-39.94	≤-21.20	55.26	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.9	≤-41.20	46.30	≤54	PASS
				AV	2381.480	-48.43	≤-41.20	46.77	≤54	PASS
				AV	2390.000	-48.63	≤-41.20	46.57	≤54	PASS
				Peak	2310.000	-41.27	≤-21.20	53.93	≤74	PASS
				Peak	2378.225	-37.95	≤-21.20	57.25	≤74	PASS
				Peak	2390.000	-40.98	≤-21.20	54.22	≤74	PASS
		High	2480	AV	2483.500	-47.91	≤-41.20	47.29	≤54	PASS
				AV	2499.920	-47.87	≤-41.20	47.33	≤54	PASS
				AV	2500.000	-47.93	≤-41.20	47.27	≤54	PASS
				Peak	2483.500	-40.7	≤-21.20	54.50	≤74	PASS
				Peak	2489.520	-37.24	≤-21.20	57.96	≤74	PASS
				Peak	2500.000	-38.45	≤-21.20	56.75	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.98	≤-41.20	46.22	≤54	PASS
				AV	2389.670	-48.48	≤-41.20	46.72	≤54	PASS
				AV	2390.000	-48.6	≤-41.20	46.60	≤54	PASS
				Peak	2310.000	-40.77	≤-21.20	54.43	≤74	PASS
				Peak	2364.680	-38.14	≤-21.20	57.06	≤74	PASS
				Peak	2390.000	-41.42	≤-21.20	53.78	≤74	PASS
		High	2480	AV	2483.500	-47.86	≤-41.20	47.34	≤54	PASS
				AV	2494.160	-47.82	≤-41.20	47.38	≤54	PASS
				AV	2500.000	-47.88	≤-41.20	47.32	≤54	PASS
				Peak	2483.500	-39	≤-21.20	56.20	≤74	PASS
				Peak	2496.240	-36.41	≤-21.20	58.79	≤74	PASS
				Peak	2500.000	-39.42	≤-21.20	55.78	≤74	PASS



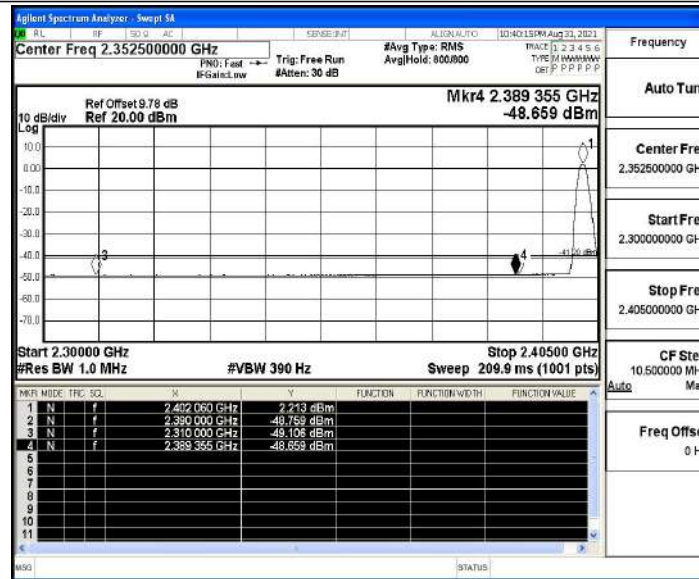
Note:

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.

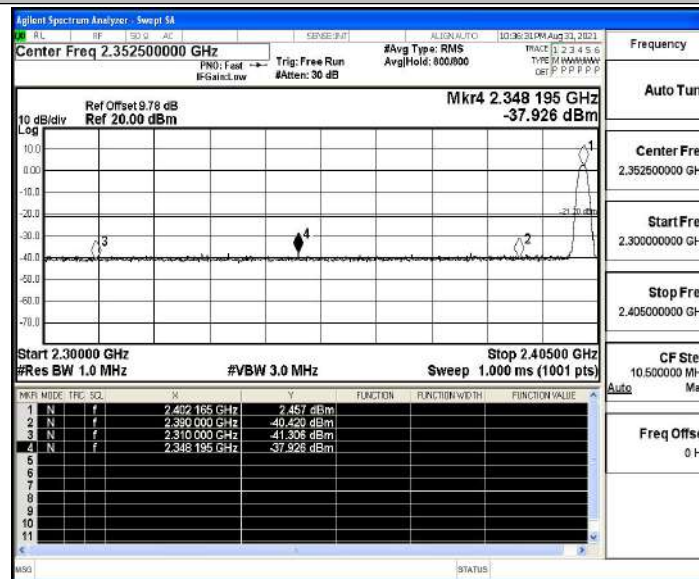


Test Graphs

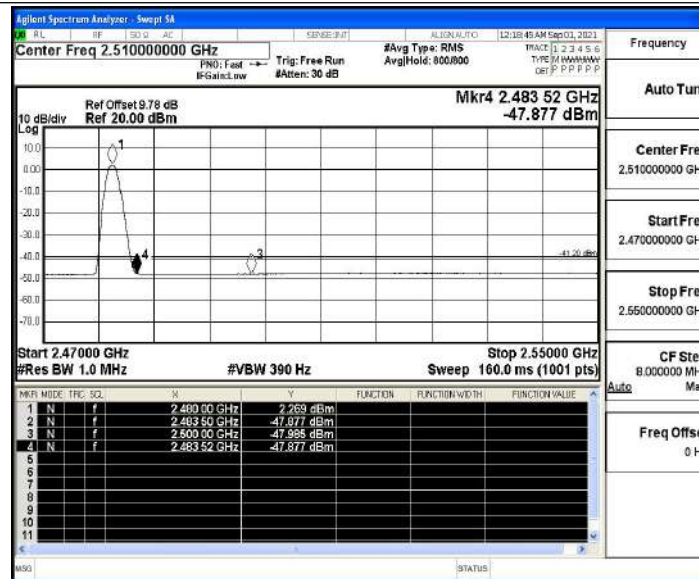
DH5_Ant1_Low_2402_AV



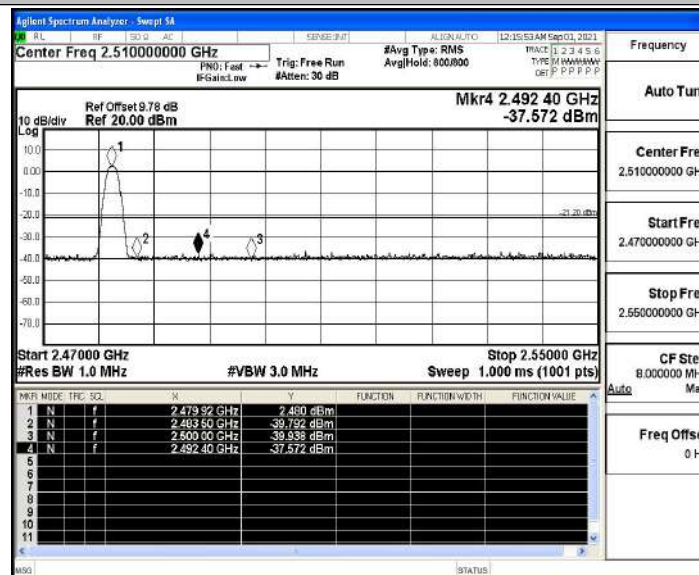
DH5_Ant1_Low_2402_Peak



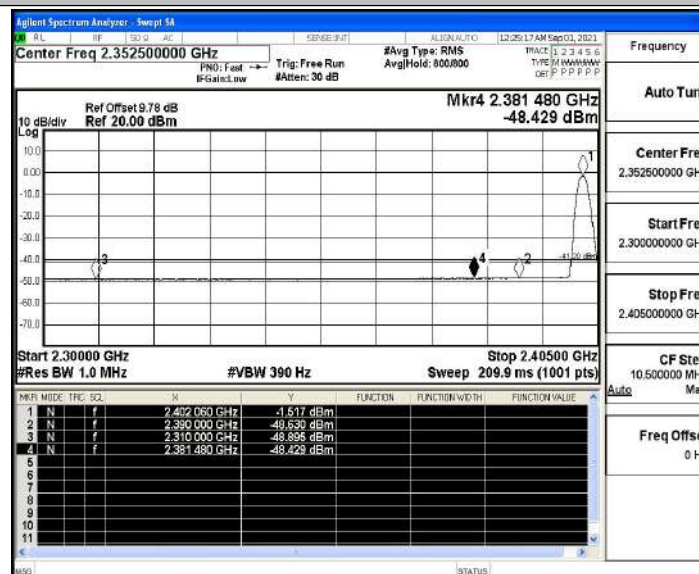
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

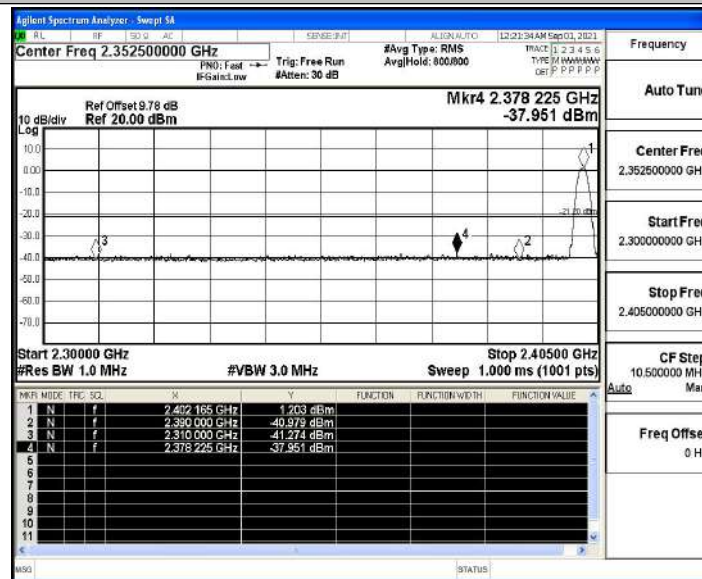


2DH5_Ant1_Low_2402_AV

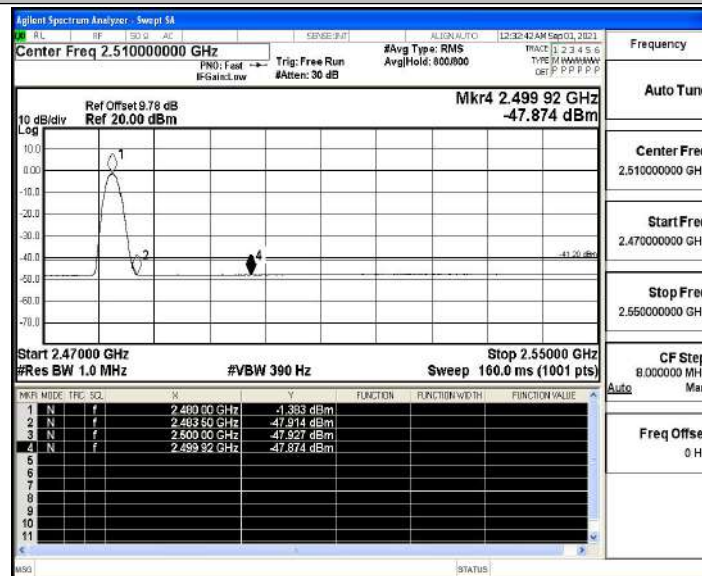




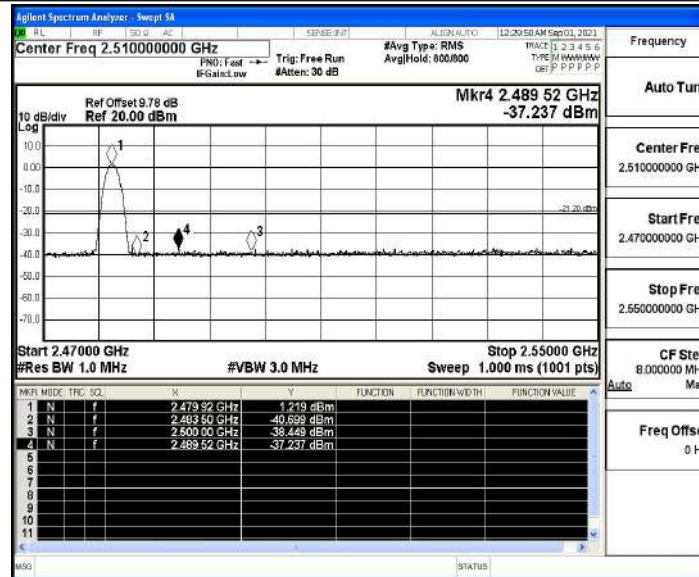
2DH5_Ant1_Low_2402_Peak



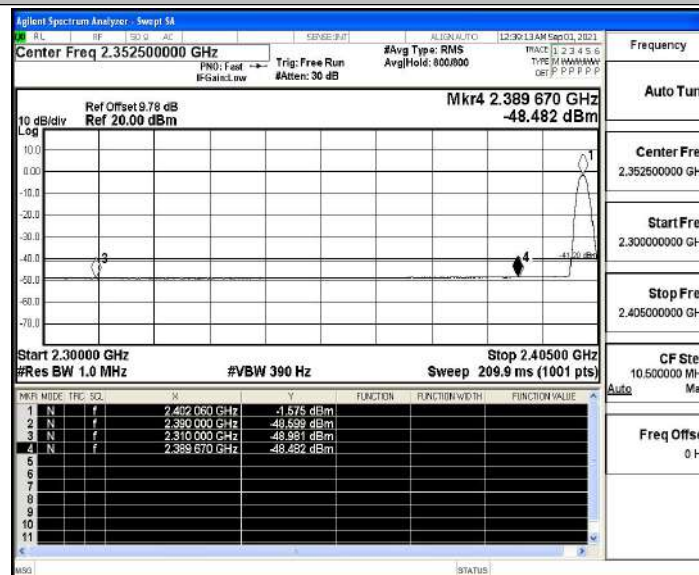
2DH5_Ant1_High_2480_AV



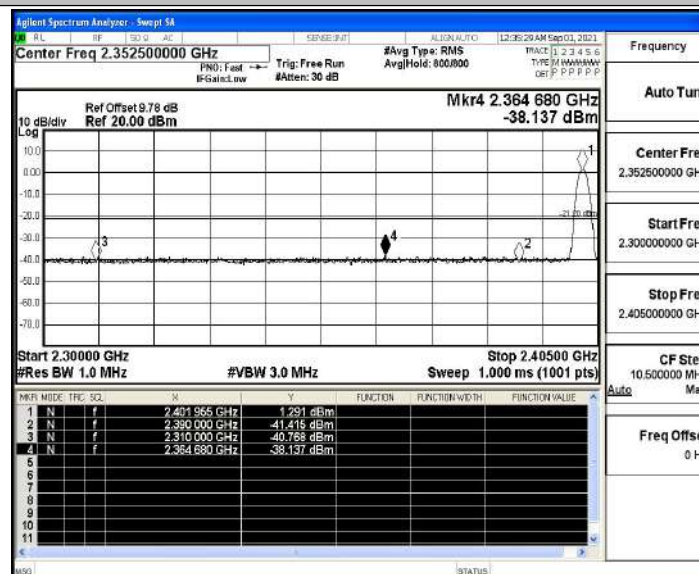
2DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_2402_AV

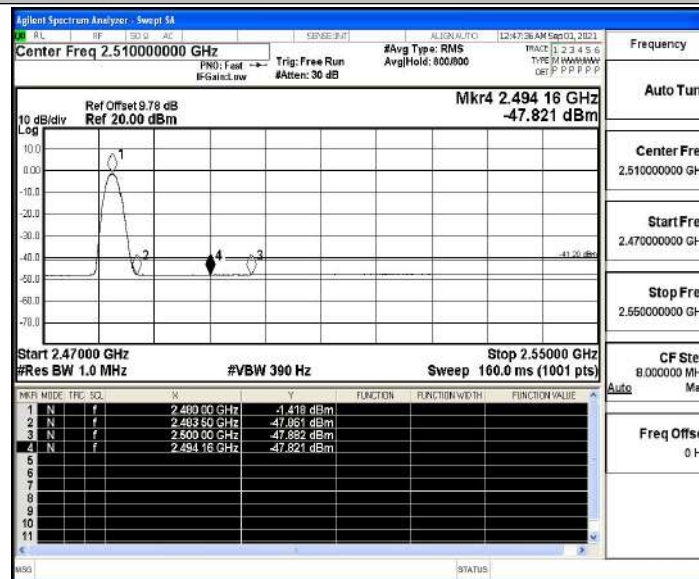


3DH5_Ant1_Low_2402_Peak





3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak

