



Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Smart LED Flood Light

Test Model: NTF77

Environmental Conditions

Temperature:	23.4° C
Relative Humidity:	51.3%
ATM Pressure:	100.0 kPa
Test Engineer:	monkey.Li
Supervised by:	Libu



A.1 20dB Emission Bandwidth

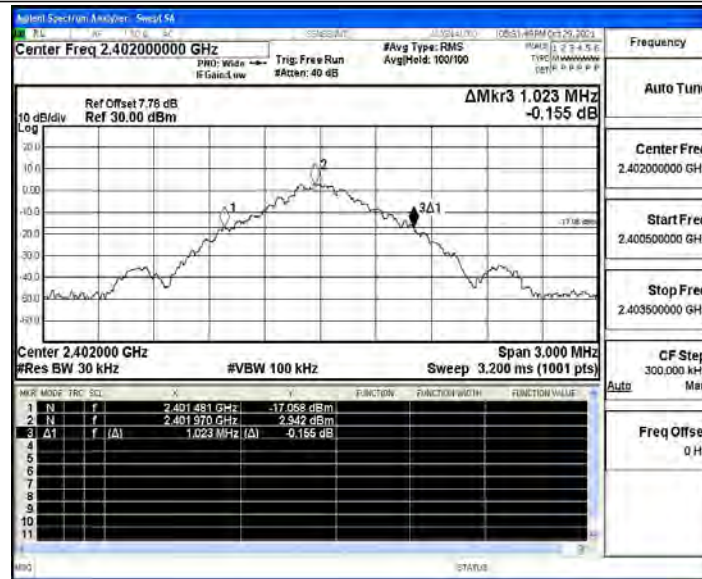
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.023	2401.481	2402.504	---	PASS
		2441	1.038	2440.466	2441.504	---	PASS
		2480	1.026	2479.472	2480.498	---	PASS
2DH5	Ant1	2402	1.326	2401.334	2402.660	---	PASS
		2441	1.362	2440.319	2441.681	---	PASS
		2480	1.287	2479.364	2480.651	---	PASS
3DH5	Ant1	2402	1.317	2401.343	2402.660	---	PASS
		2441	1.308	2440.349	2441.657	---	PASS
		2480	1.275	2479.364	2480.639	---	PASS

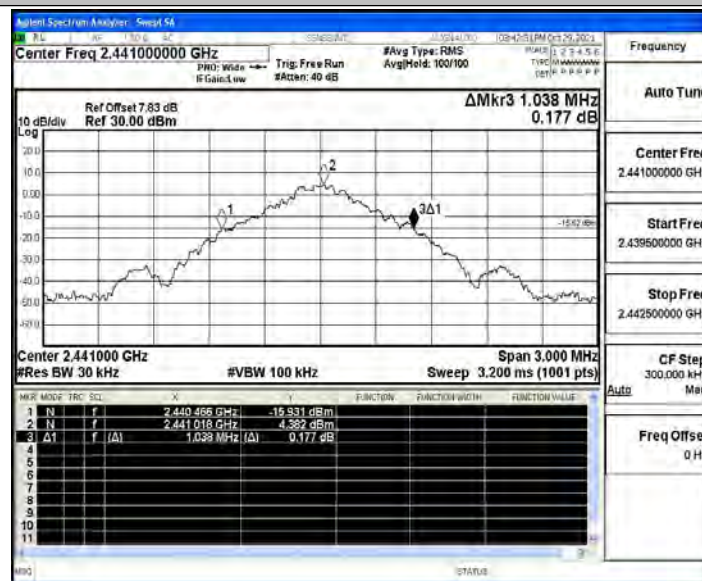


Test Graphs

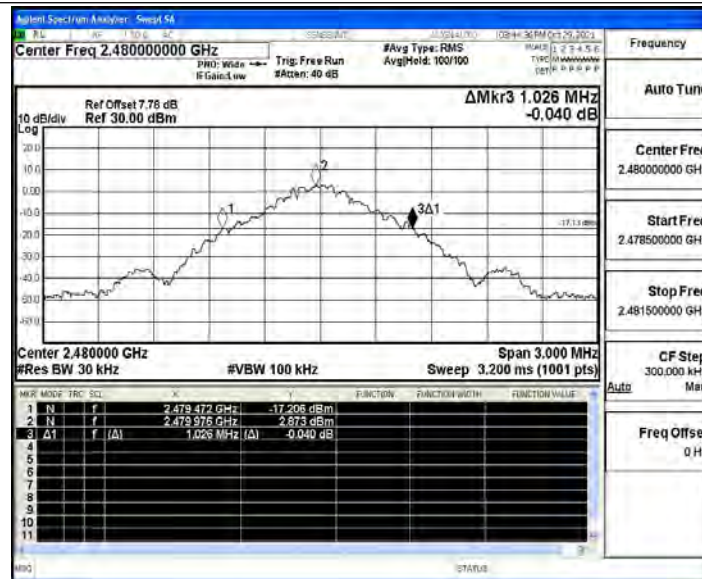
DH5_Ant1_2402



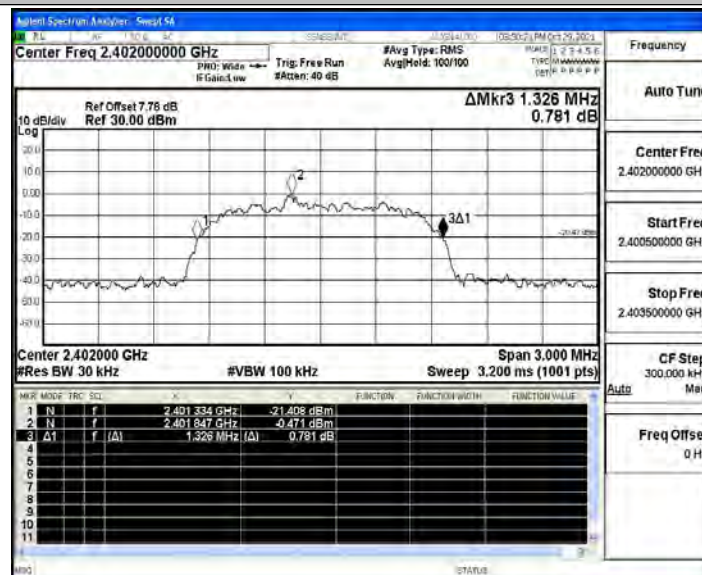
DH5_Ant1_2441



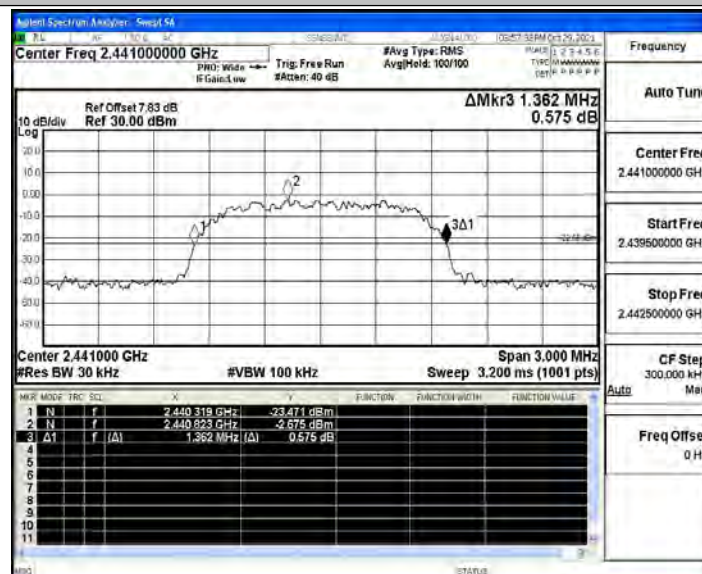
DH5_Ant1_2480



2DH5_Ant1_2402

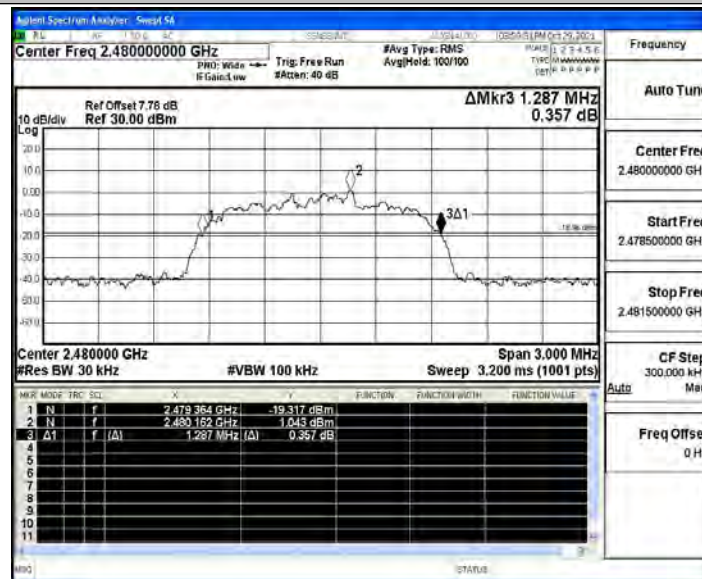


2DH5_Ant1_2441

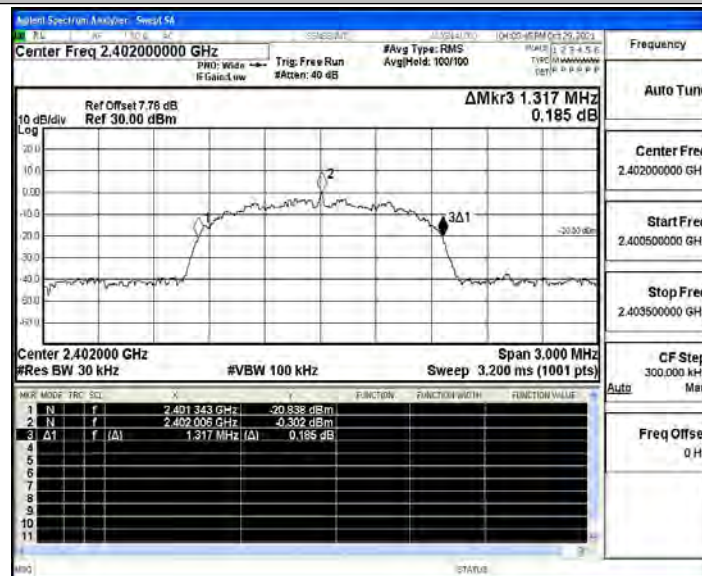




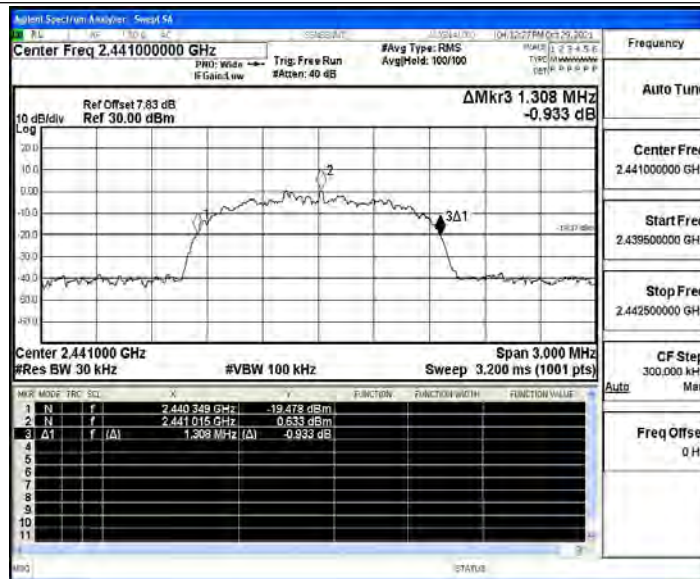
2DH5_Ant1_2480



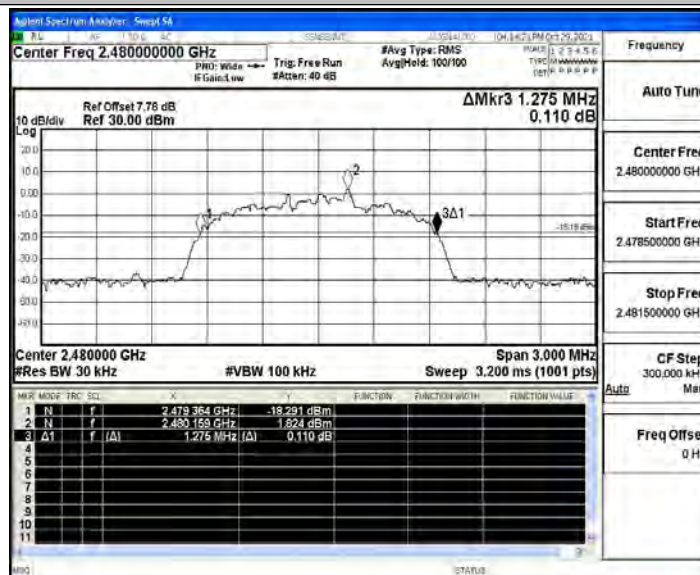
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





A.2 Maximum conducted output power

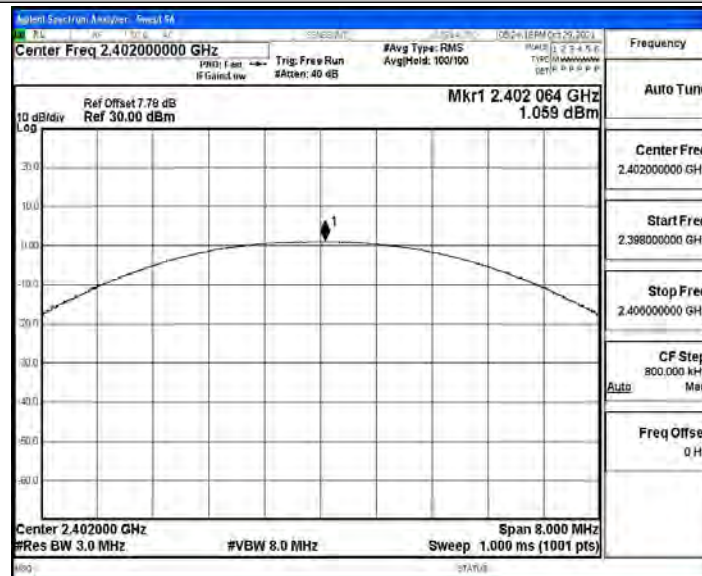
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.06	≤30	PASS
		2441	2.2	≤30	PASS
		2480	0.66	≤30	PASS
2DH5	Ant1	2402	0.07	≤20.97	PASS
		2441	1.24	≤20.97	PASS
		2480	-0.3	≤20.97	PASS
3DH5	Ant1	2402	0.26	≤20.97	PASS
		2441	1.49	≤20.97	PASS
		2480	-0.05	≤20.97	PASS

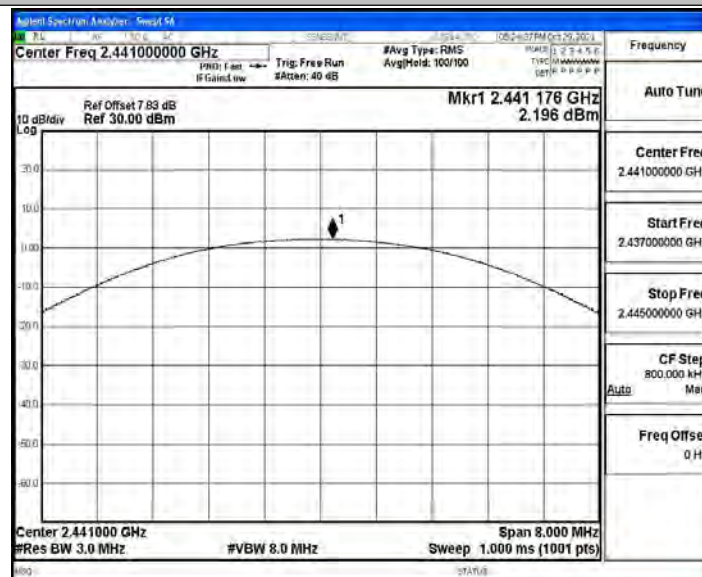


Test Graphs

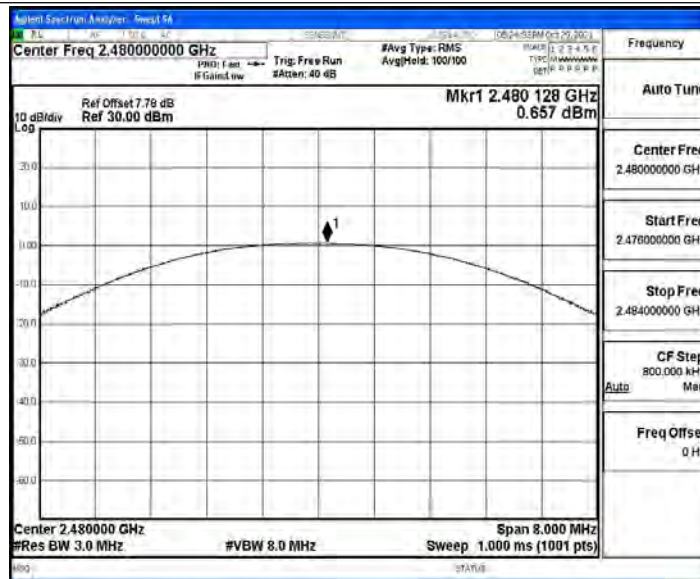
DH5_Ant1_2402



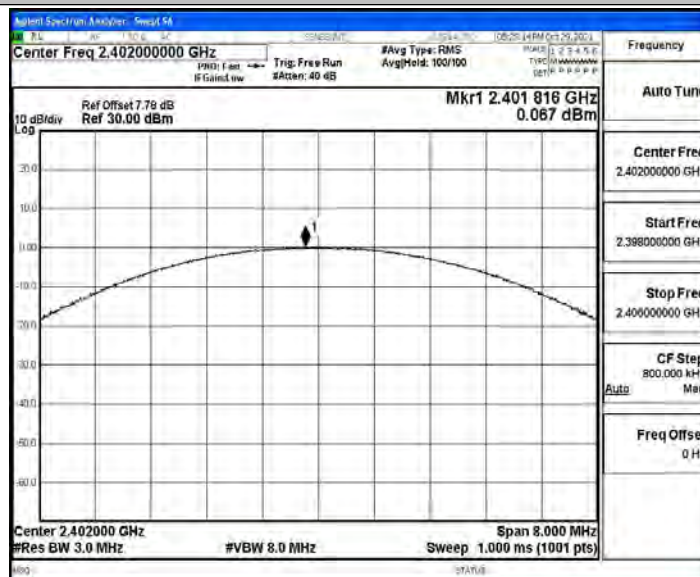
DH5_Ant1_2441



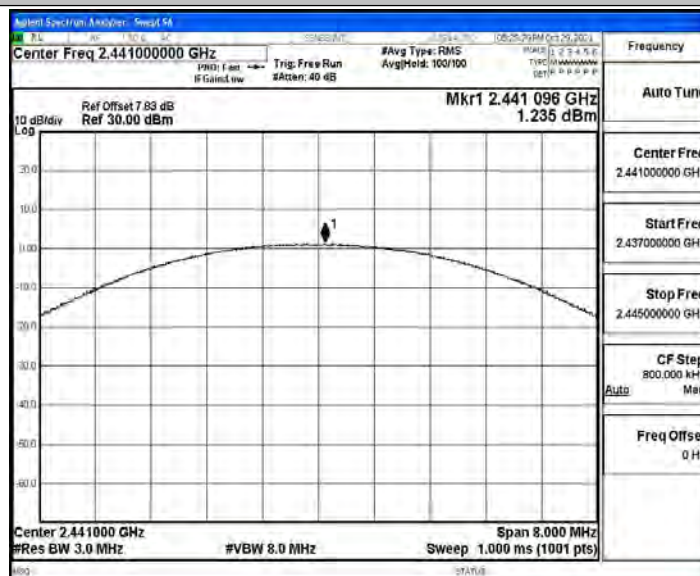
DH5_Ant1_2480



2DH5_Ant1_2402

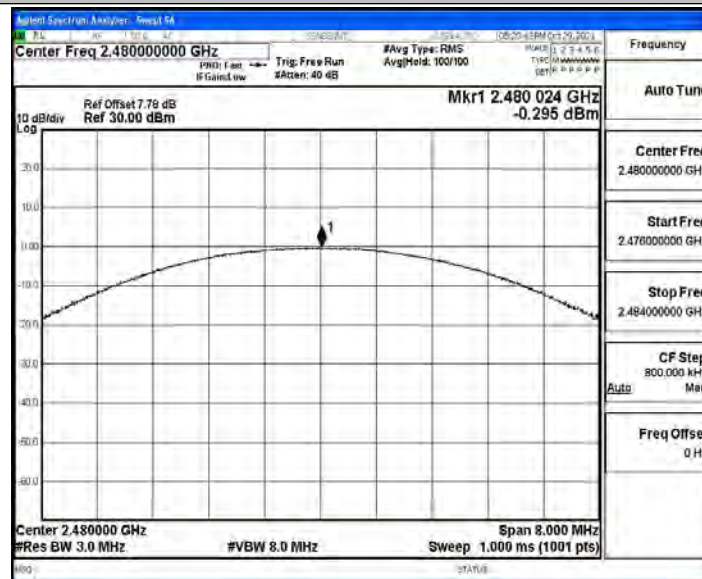


2DH5_Ant1_2441

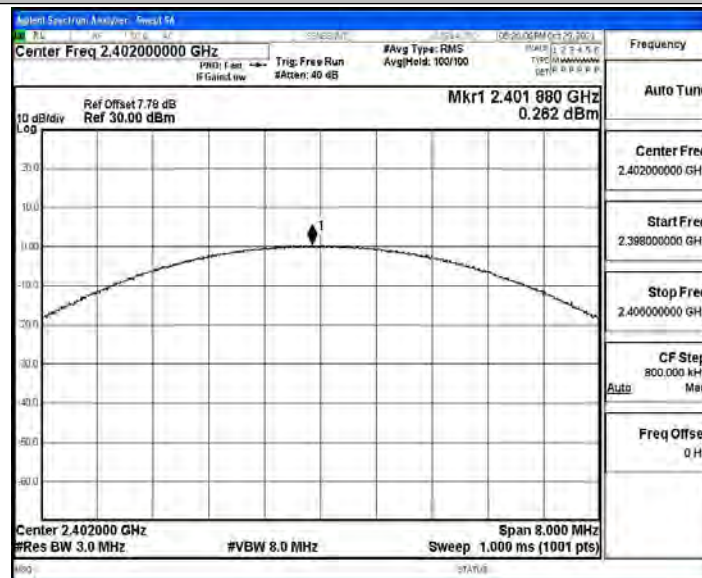




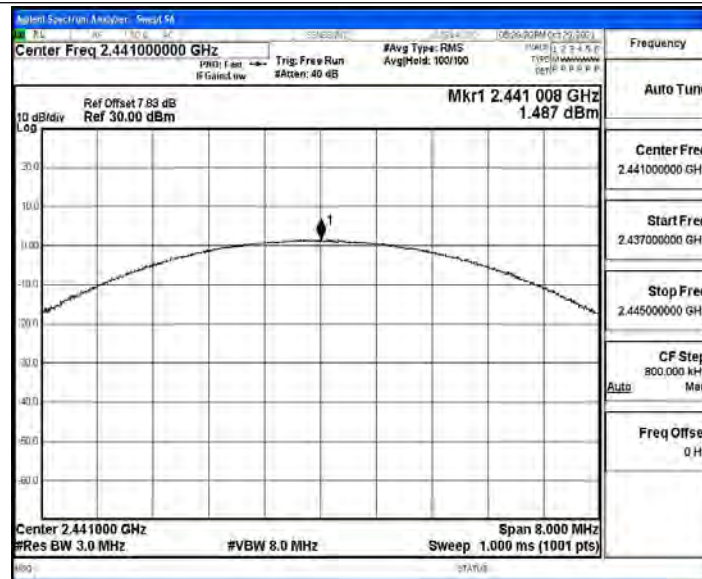
2DH5_Ant1_2480



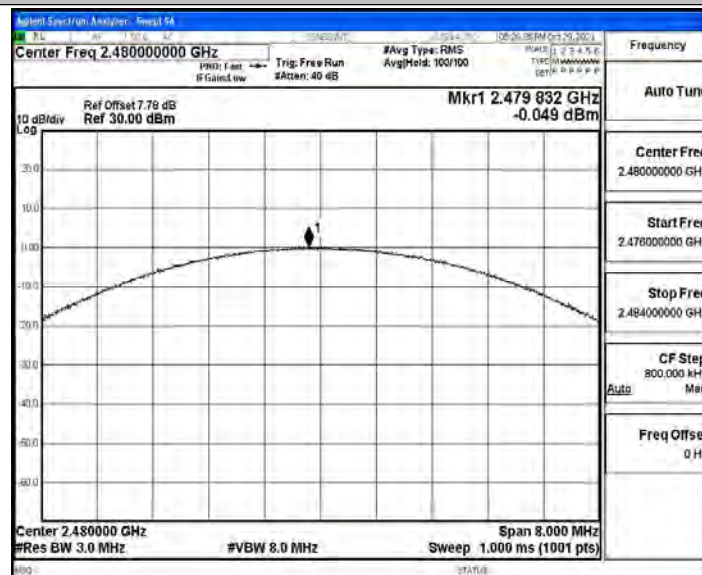
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480





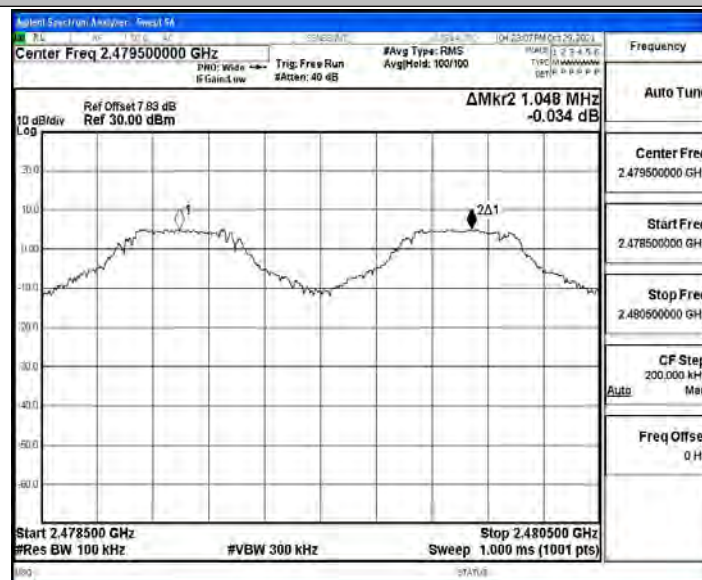
A.3 Carrier frequency separation

Test Result

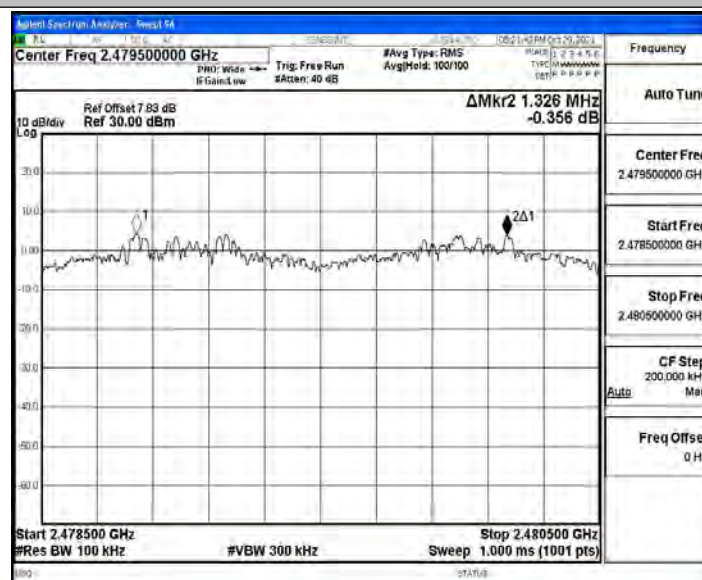
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.048	≥ 1.038	PASS
2DH5	Ant1	Hop	1.326	≥ 0.908	PASS
3DH5	Ant1	Hop	0.998	≥ 0.878	PASS

Test Graphs

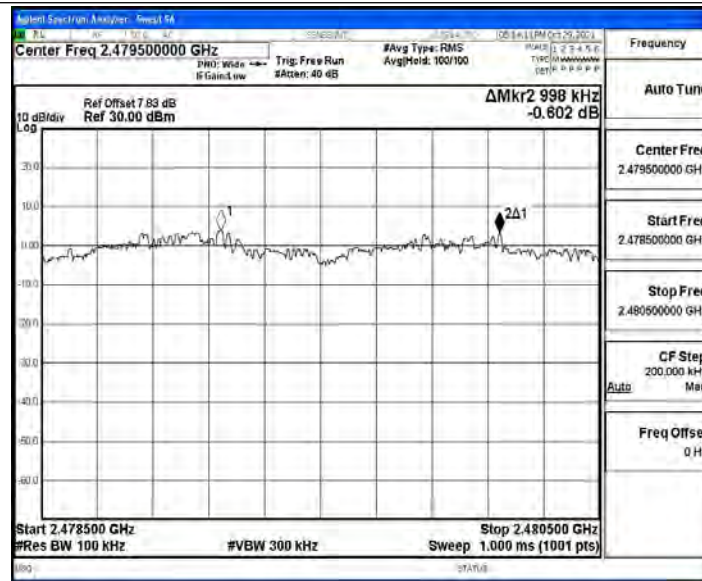
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



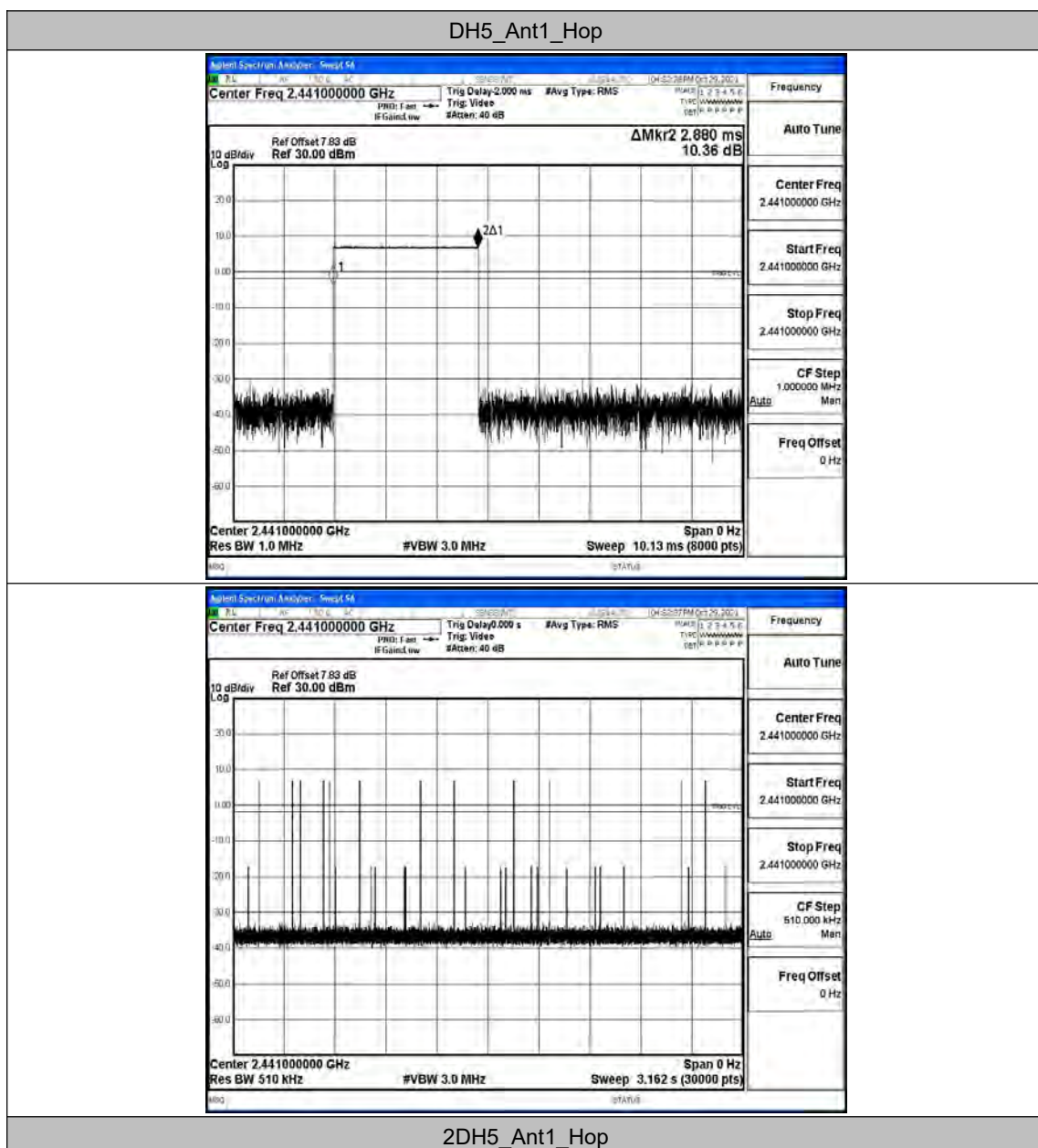


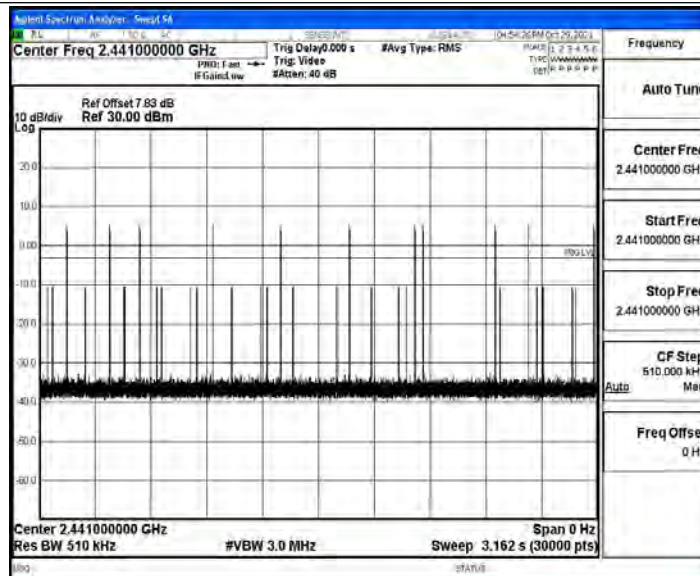
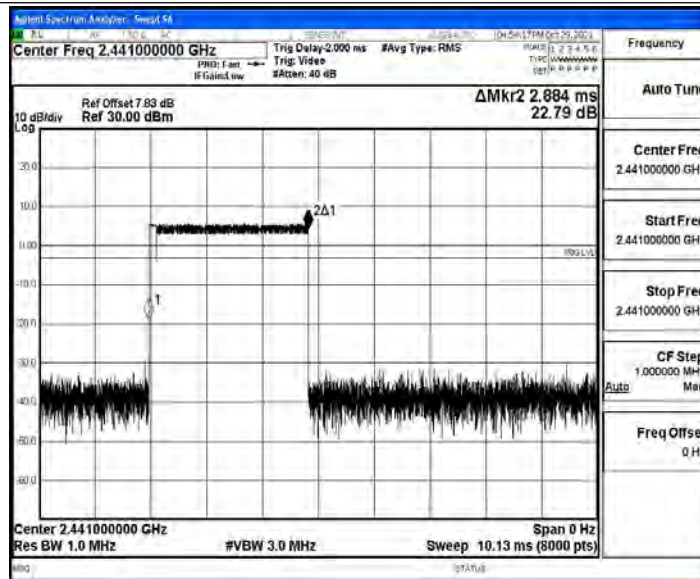
A.4 Time of occupancy

Test Result

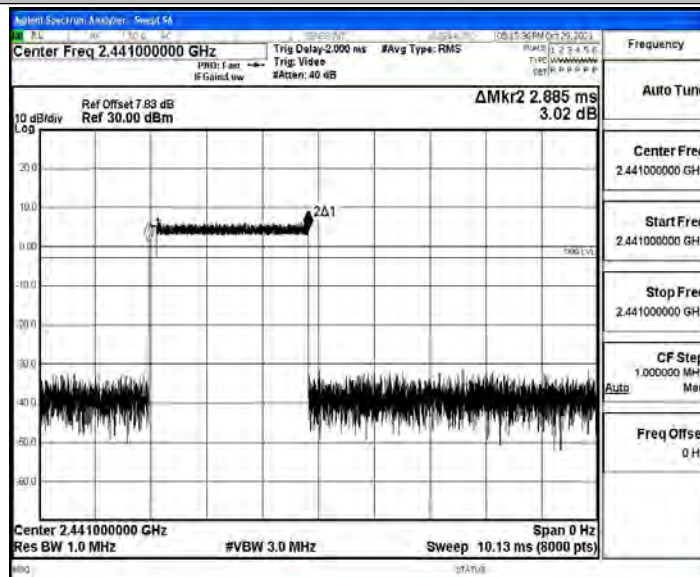
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	130	0.374	≤0.4	PASS
2DH5	Ant1	Hop	2.88	120	0.346	≤0.4	PASS
3DH5	Ant1	Hop	2.89	110	0.317	≤0.4	PASS

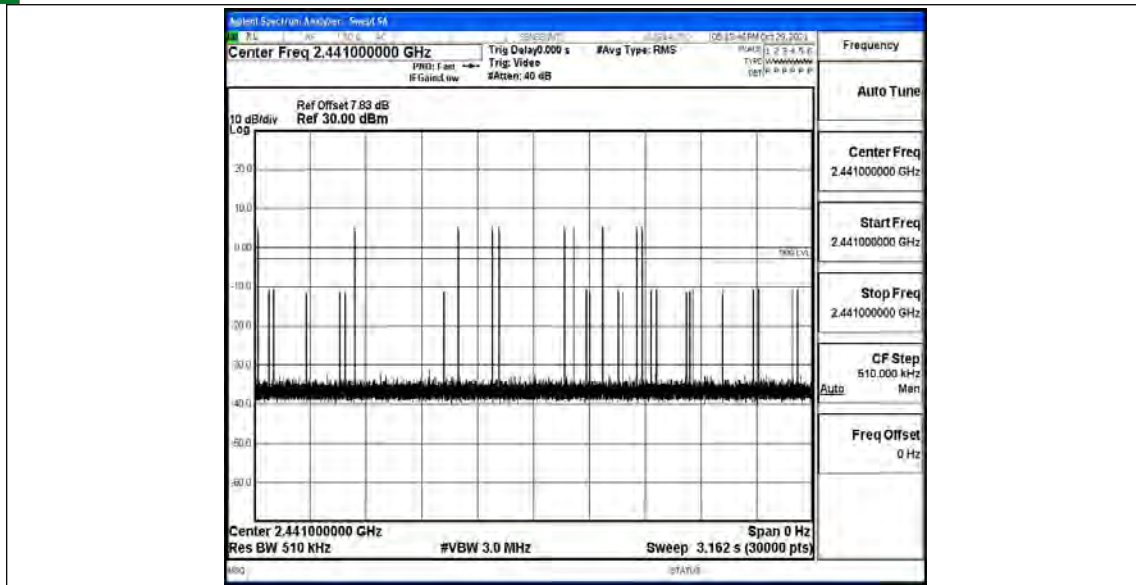
Test Graphs

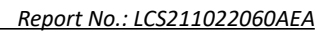


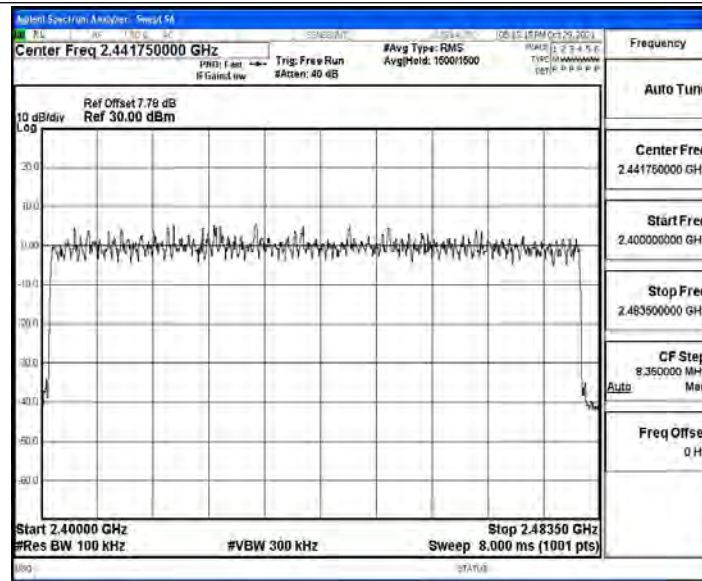


3DH5_Ant1_Hop











A.6 Band edge measurements

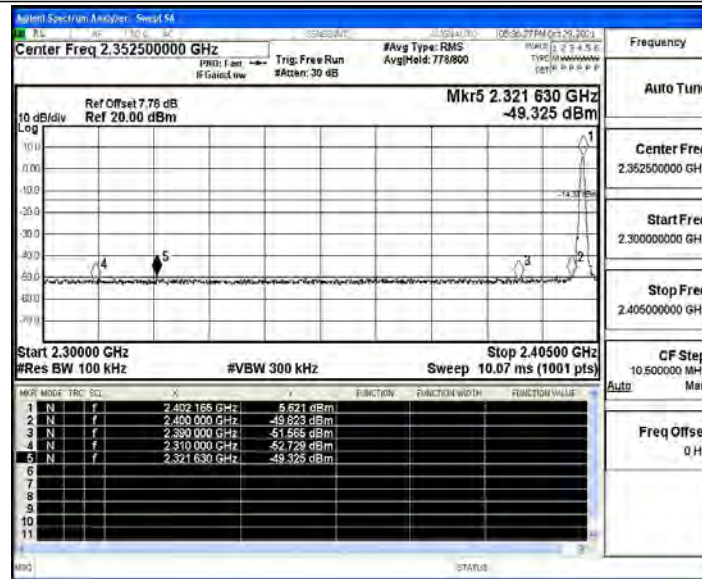
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	5.62	-49.33	≤ -14.38	PASS
		High	2480	5.54	-48.46	≤ -14.46	PASS
		Low	Hop_2402	5.46	-49.86	≤ -14.54	PASS
		High	Hop_2480	5.47	-48.29	≤ -14.53	PASS
2DH5	Ant1	Low	2402	3.90	-49.29	≤ -16.1	PASS
		High	2480	3.72	-48.29	≤ -16.28	PASS
		Low	Hop_2402	0.69	-49.75	≤ -19.31	PASS
		High	Hop_2480	1.08	-41.71	≤ -18.92	PASS
3DH5	Ant1	Low	2402	3.55	-48.94	≤ -16.45	PASS
		High	2480	4.00	-48.17	≤ -16	PASS
		Low	Hop_2402	0.90	-49.45	≤ -19.1	PASS
		High	Hop_2480	4.11	-47.59	≤ -15.89	PASS

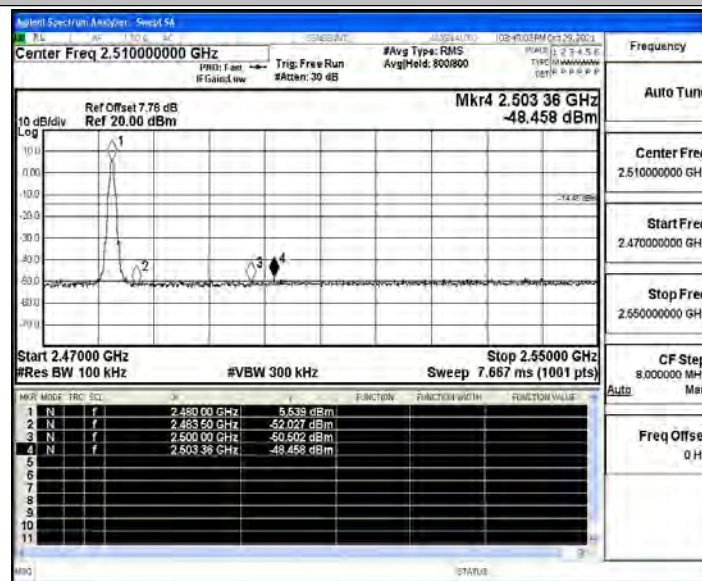


Test Graphs

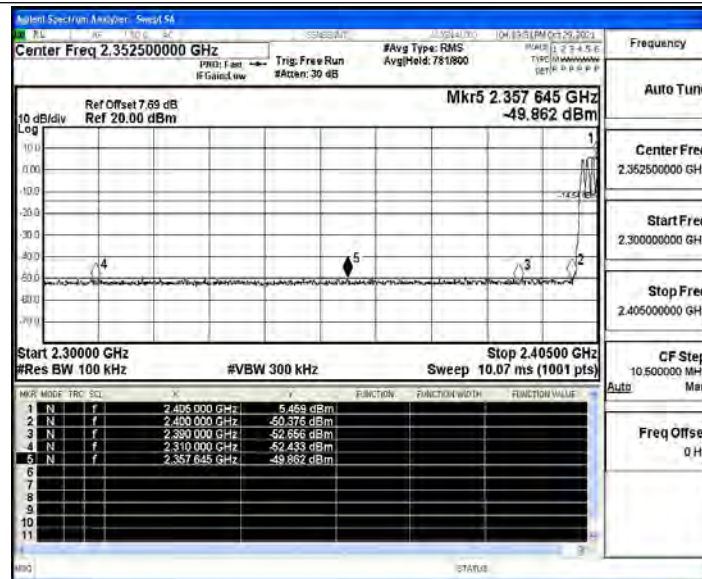
DH5_Ant1_Low_2402



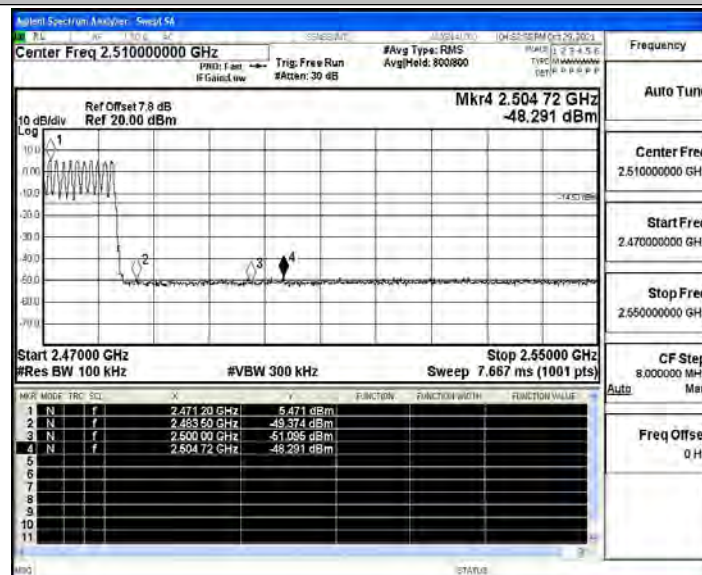
DH5_Ant1_High_2480



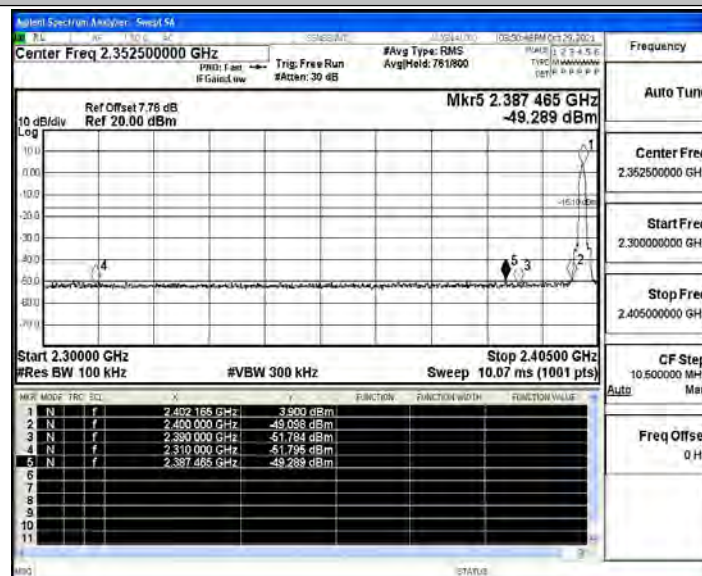
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

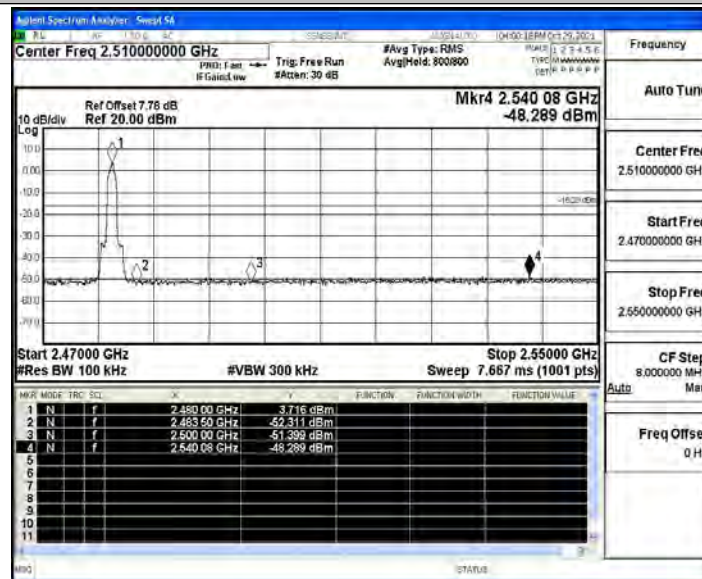


2DH5_Ant1_Low_2402

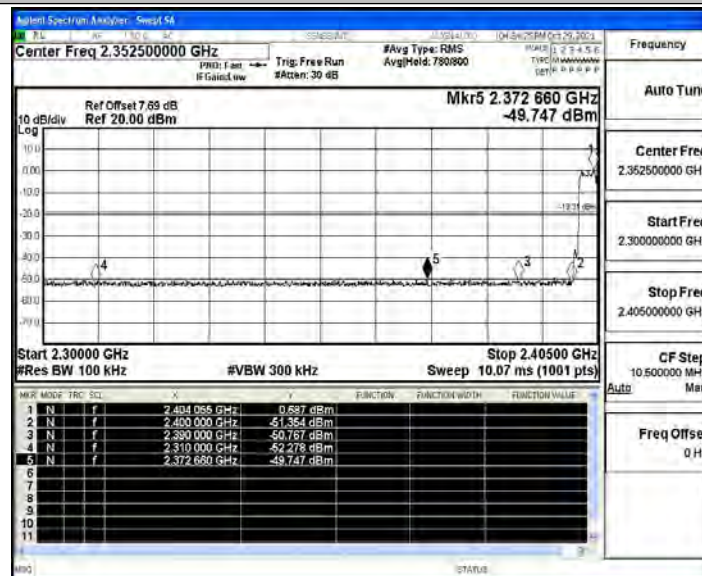




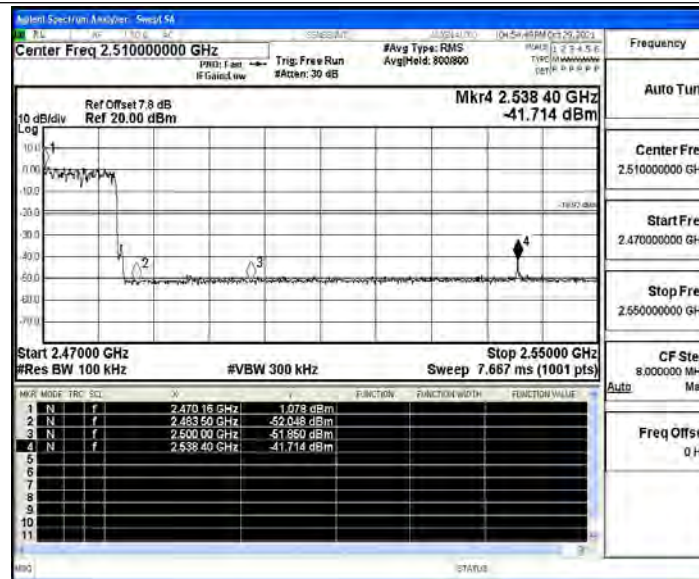
2DH5_Ant1_High_2480



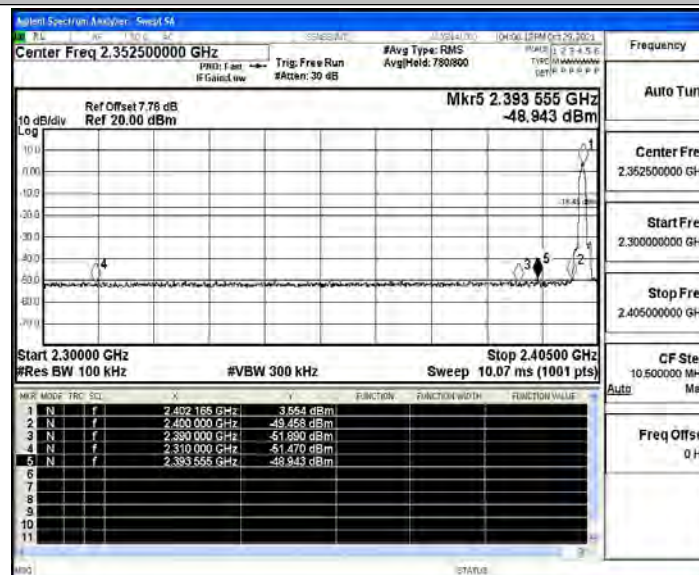
2DH5_Ant1_Low_Hop_2402



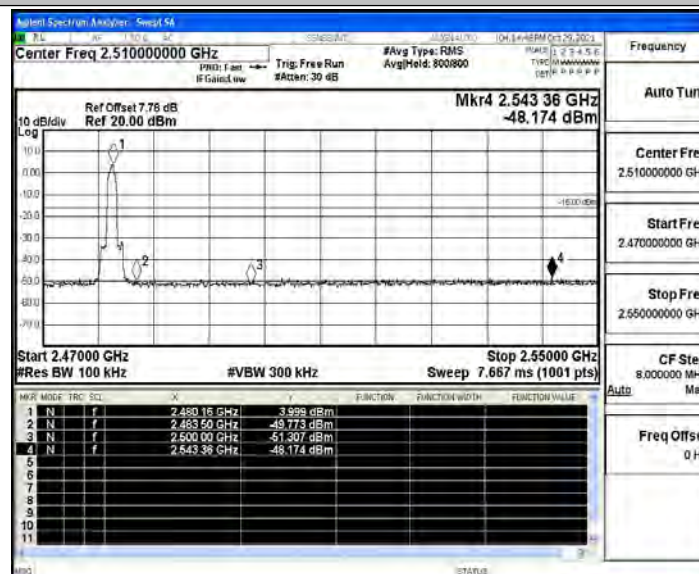
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

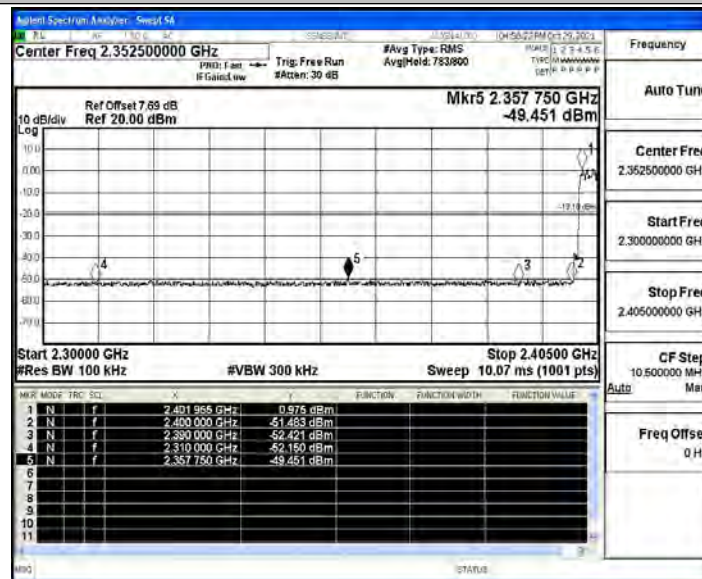


3DH5_Ant1_High_2480

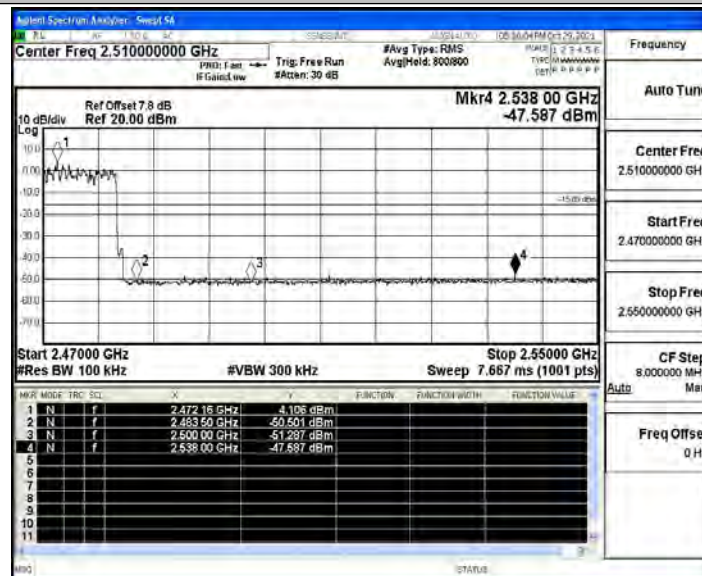




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

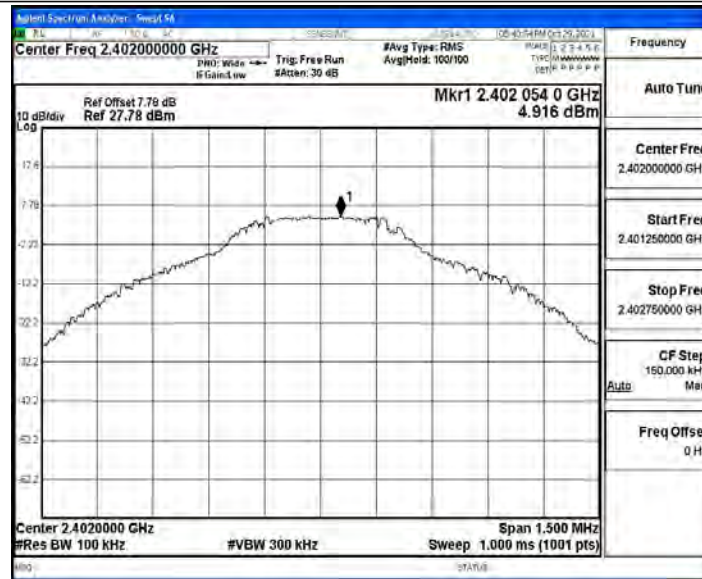
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.92	4.92	---	PASS
			30~1000	4.92	-62.26	≤-15.08	PASS
			1000~26500	4.92	-47.25	≤-15.08	PASS
		2441	Reference	6.77	6.77	---	PASS
			30~1000	6.77	-60.1	≤-13.24	PASS
			1000~26500	6.77	-47.6	≤-13.24	PASS
		2480	Reference	4.85	4.85	---	PASS
			30~1000	4.85	-61.2	≤-15.15	PASS
			1000~26500	4.85	-47.22	≤-15.15	PASS
2DH5	Ant1	2402	Reference	3.17	3.17	---	PASS
			30~1000	3.17	-61.86	≤-16.83	PASS
			1000~26500	3.17	-47.34	≤-16.83	PASS
		2441	Reference	4.63	4.63	---	PASS
			30~1000	4.63	-61.54	≤-15.37	PASS
			1000~26500	4.63	-47.51	≤-15.37	PASS
		2480	Reference	3.27	3.27	---	PASS
			30~1000	3.27	-55.57	≤-16.73	PASS
			1000~26500	3.27	-47.43	≤-16.73	PASS
3DH5	Ant1	2402	Reference	4.03	4.03	---	PASS
			30~1000	4.03	-62.27	≤-15.97	PASS
			1000~26500	4.03	-47.68	≤-15.97	PASS
		2441	Reference	5.19	5.19	---	PASS
			30~1000	5.19	-62.17	≤-14.81	PASS
			1000~26500	5.19	-47.02	≤-14.81	PASS
		2480	Reference	3.67	3.67	---	PASS
			30~1000	3.67	-62.24	≤-16.33	PASS
			1000~26500	3.67	-46.24	≤-16.33	PASS

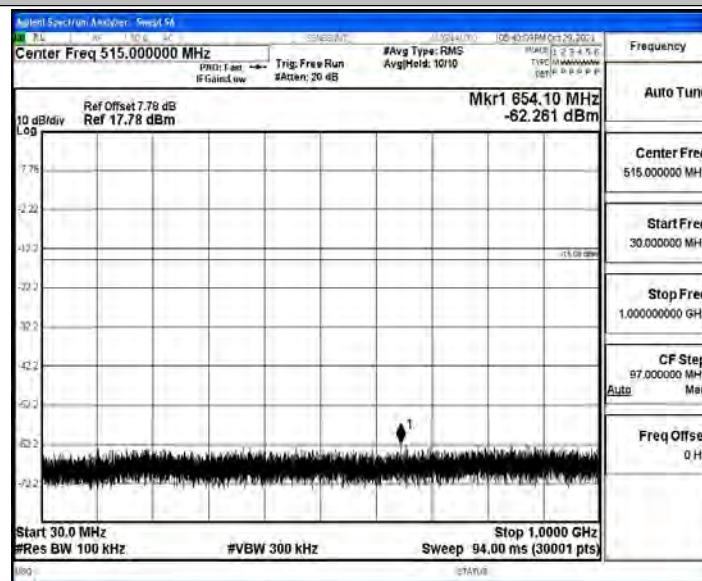


Test Graphs

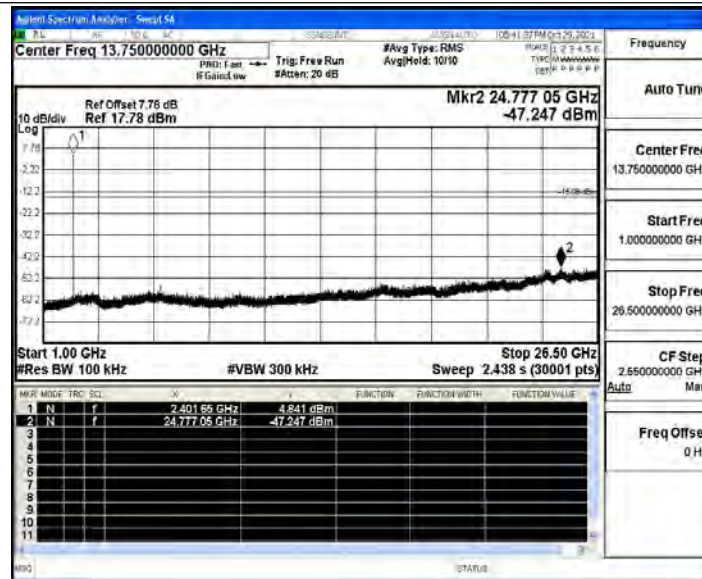
DH5_Ant1_2402_0~Reference



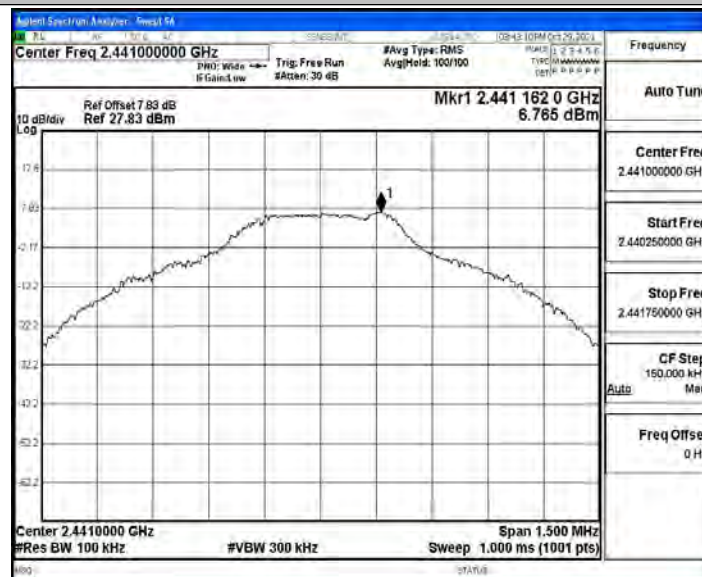
DH5_Ant1_2402_30~1000



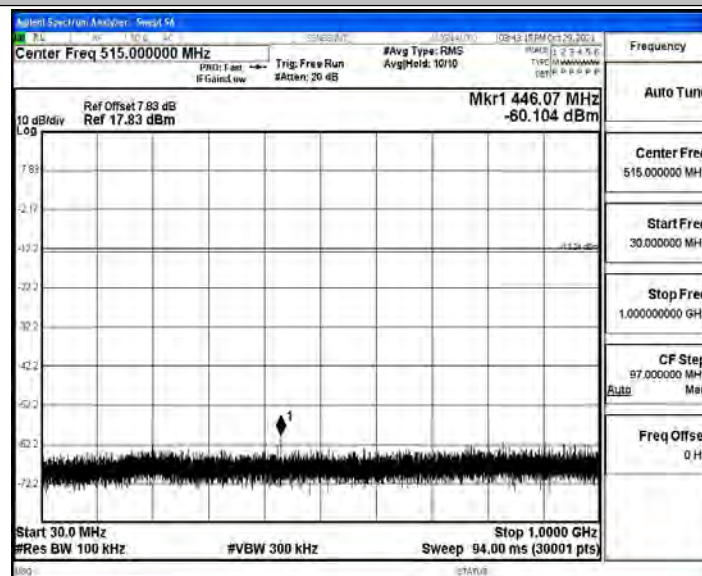
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

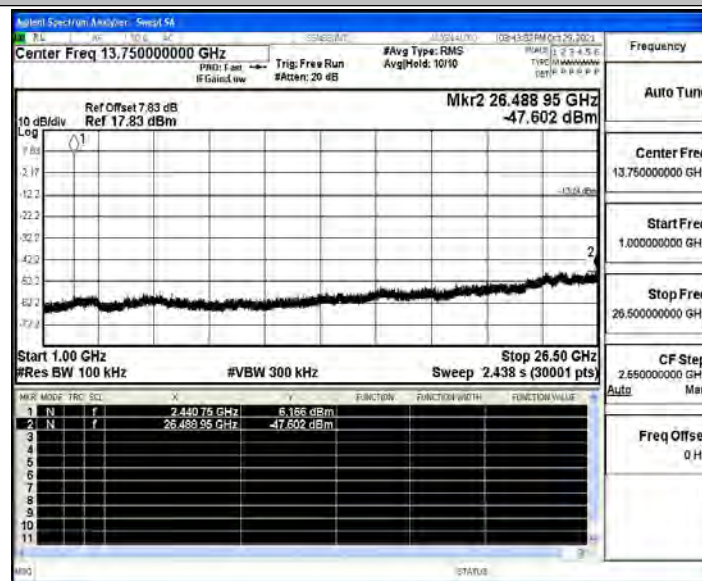


DH5_Ant1_2441_30~1000

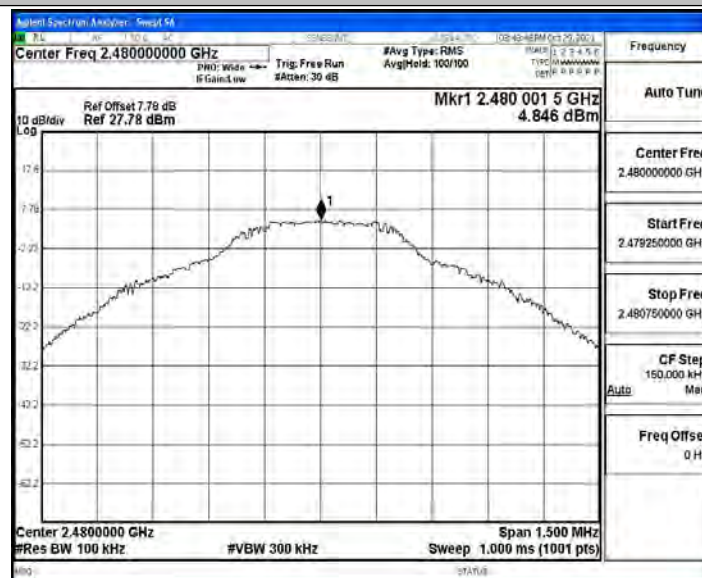




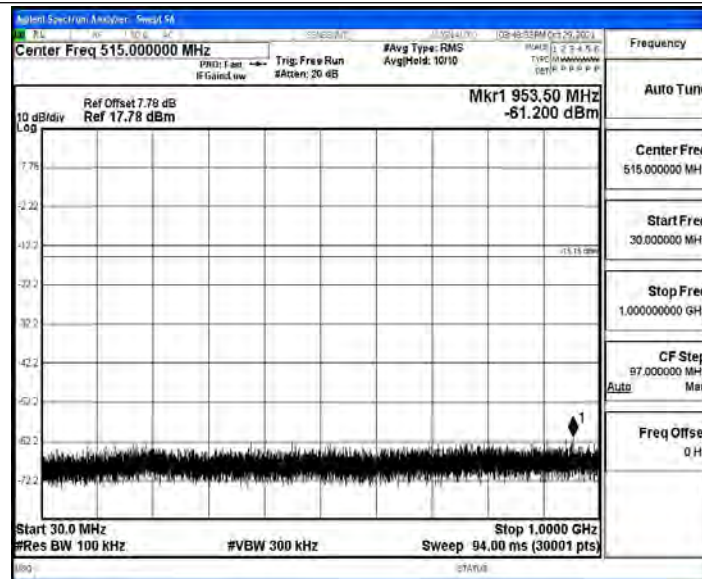
DH5_Ant1_2441_1000~26500



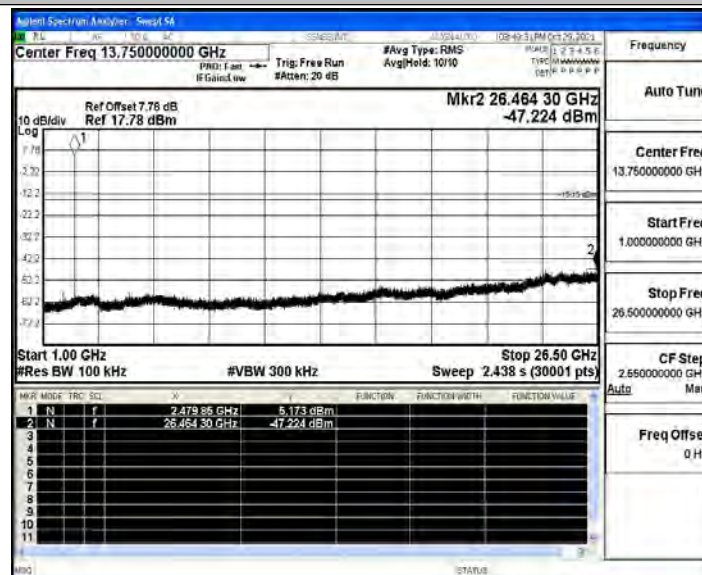
DH5_Ant1_2480_0~Reference



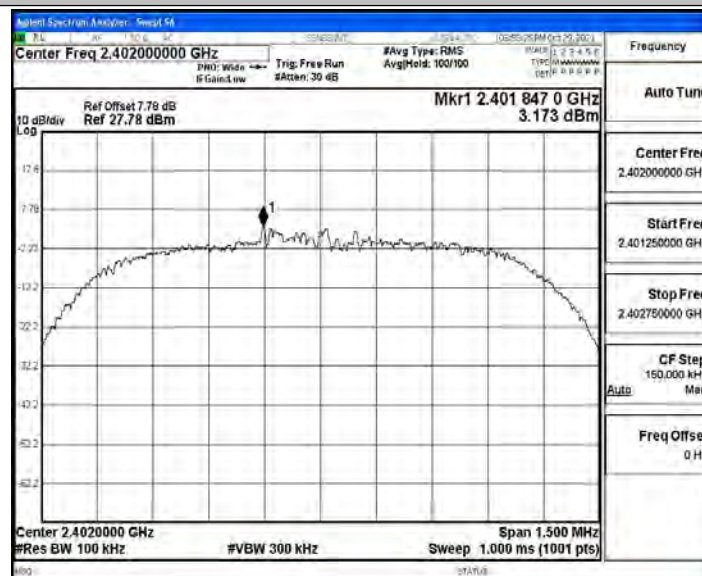
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

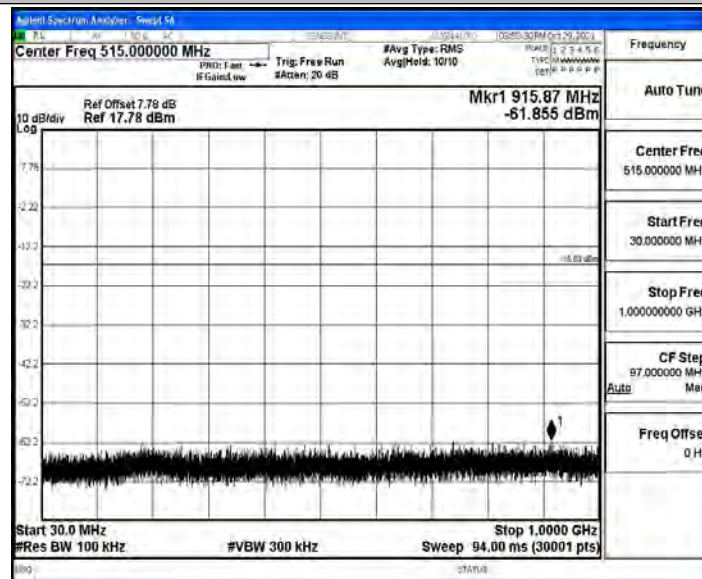


2DH5_Ant1_2402_0~Reference

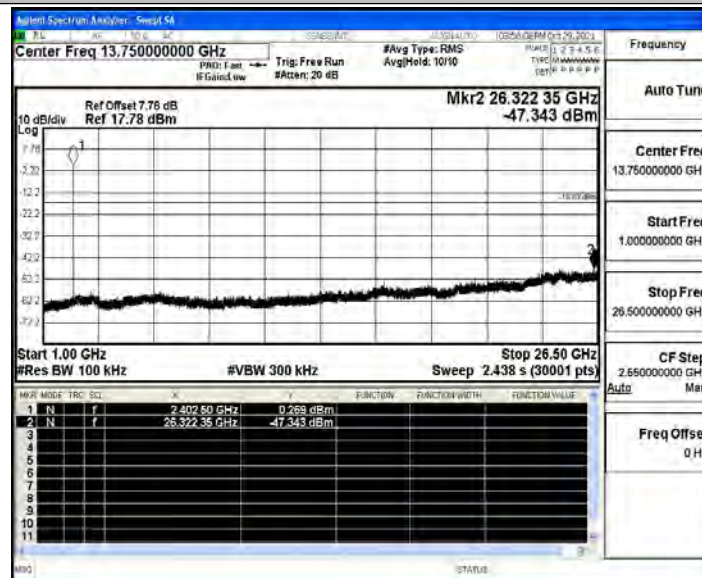




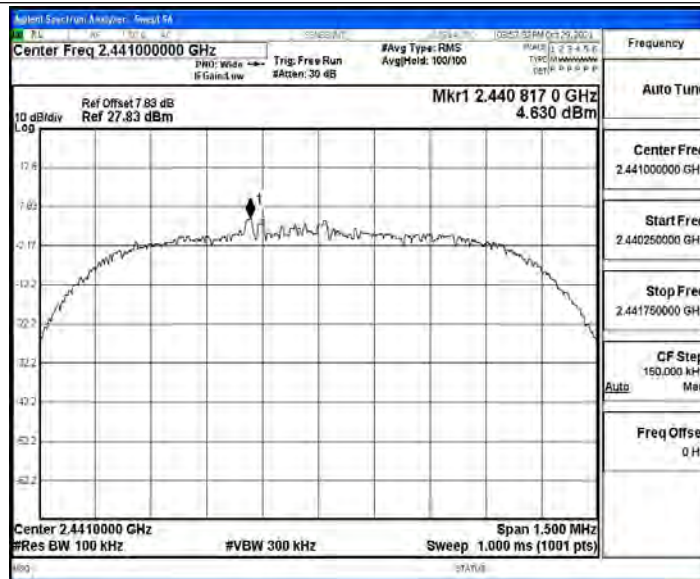
2DH5_Ant1_2402_30~1000



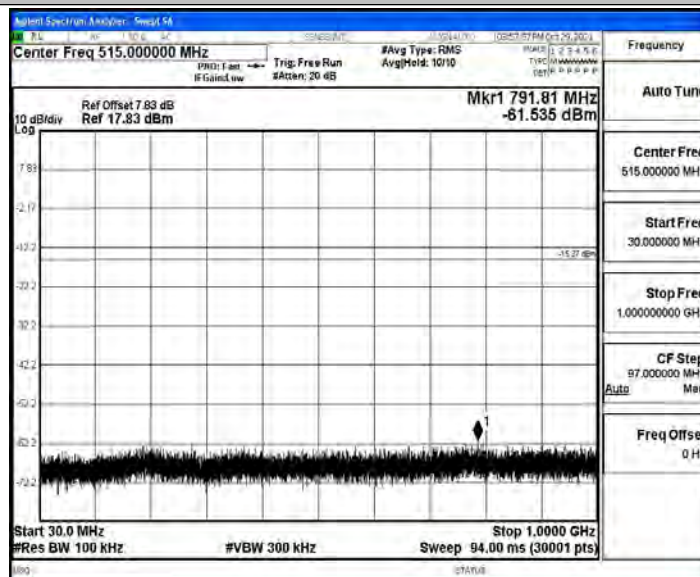
2DH5_Ant1_2402_1000~26500



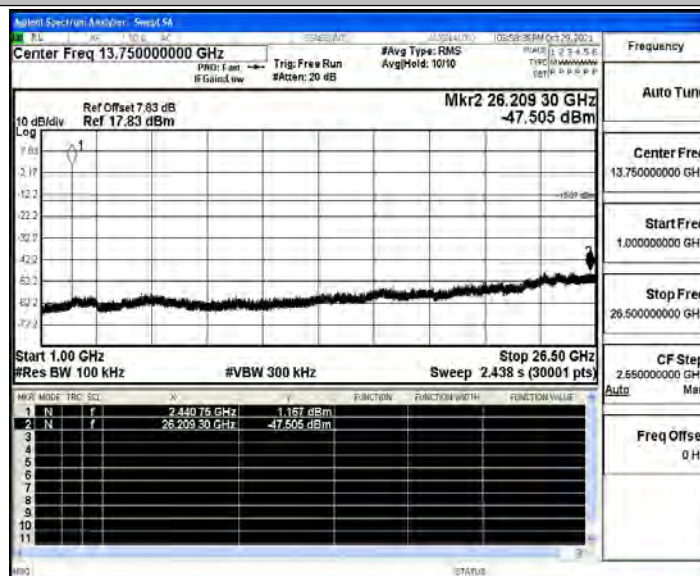
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

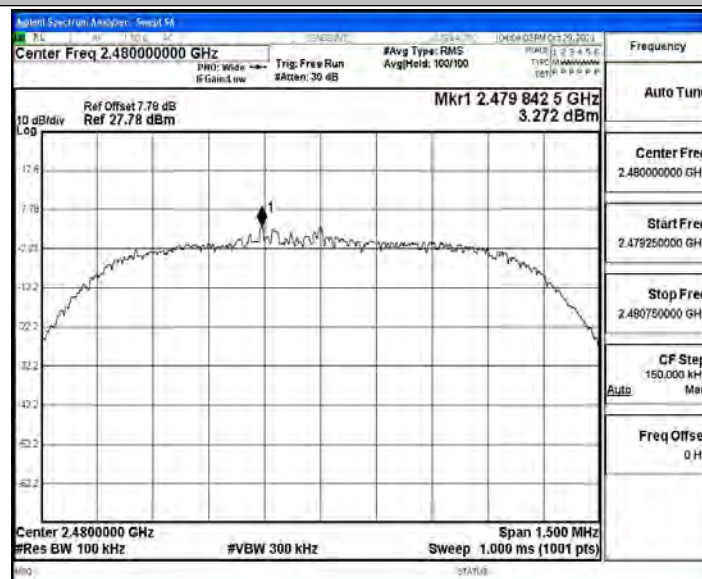


2DH5_Ant1_2441_1000~26500

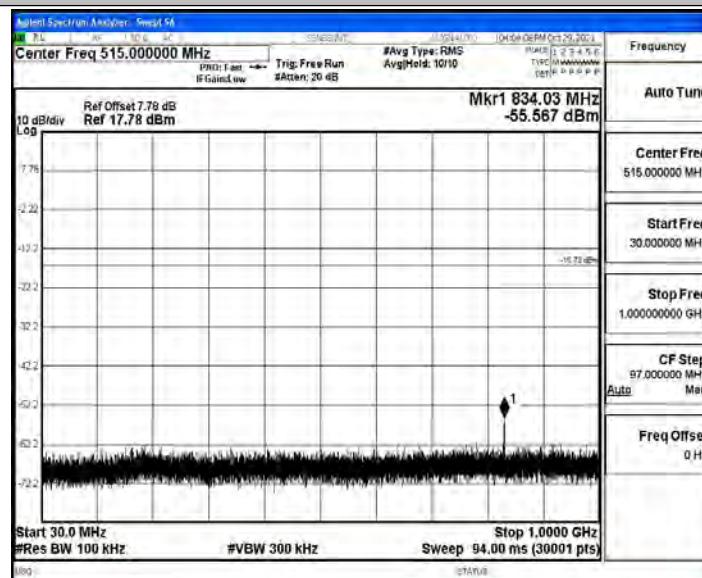




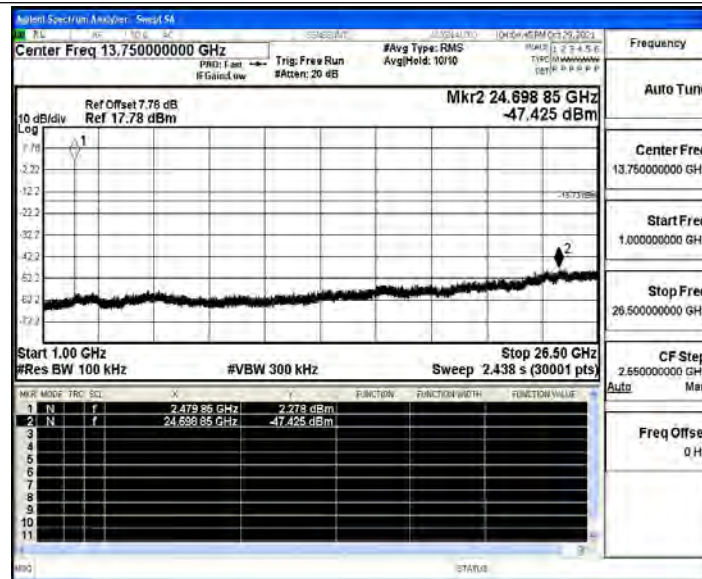
2DH5_Ant1_2480_0~Reference



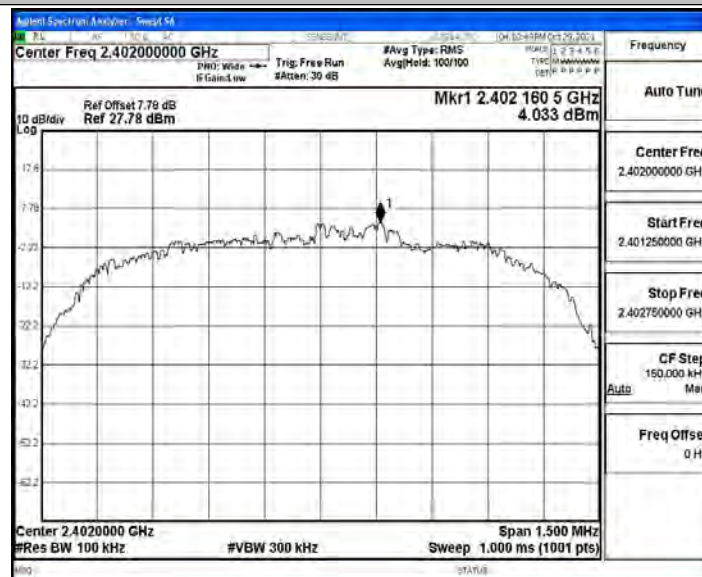
2DH5_Ant1_2480_30~1000



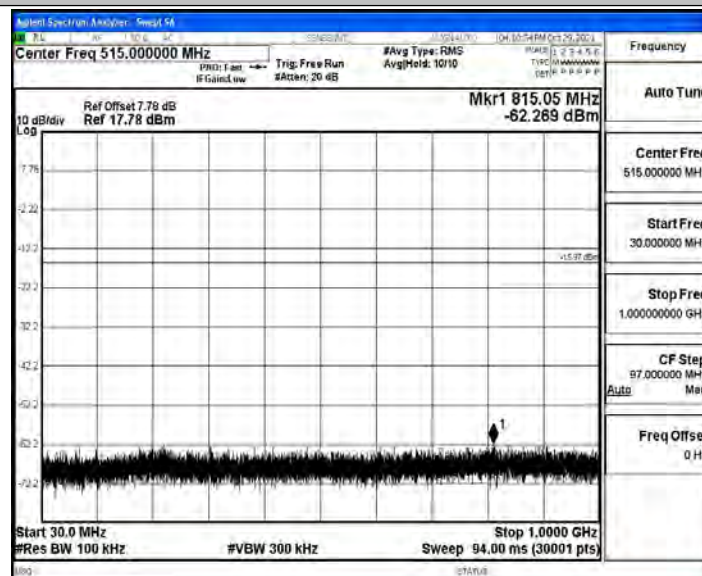
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

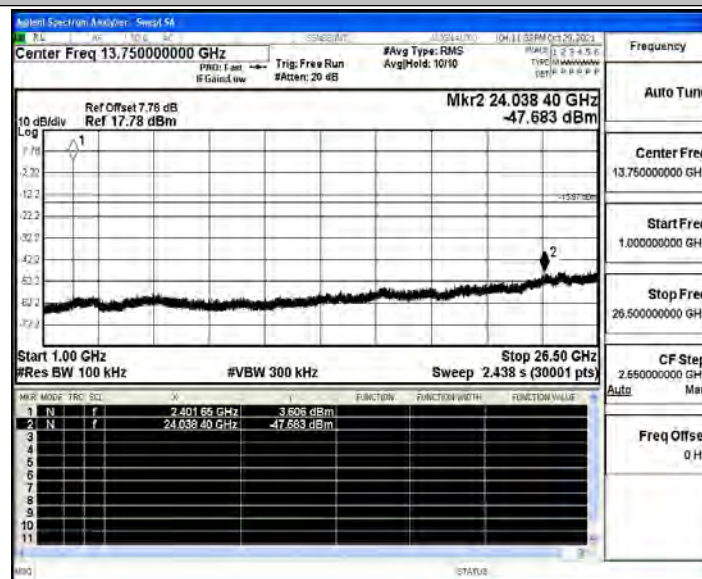


3DH5_Ant1_2402_30~1000

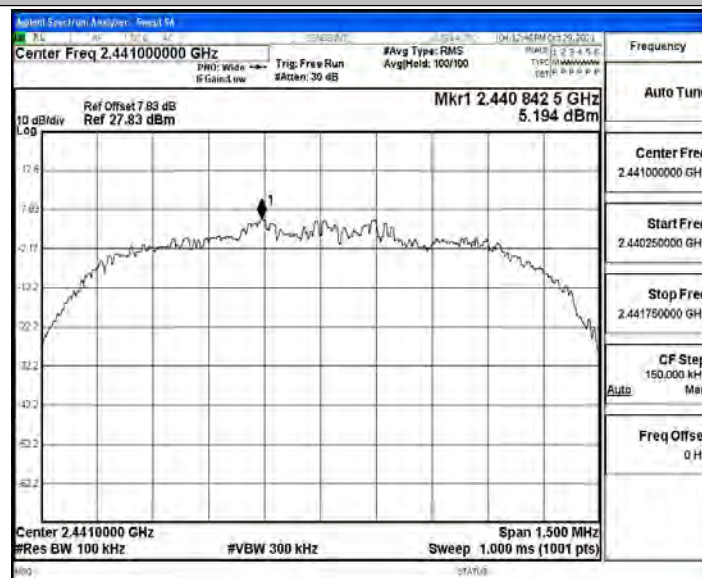




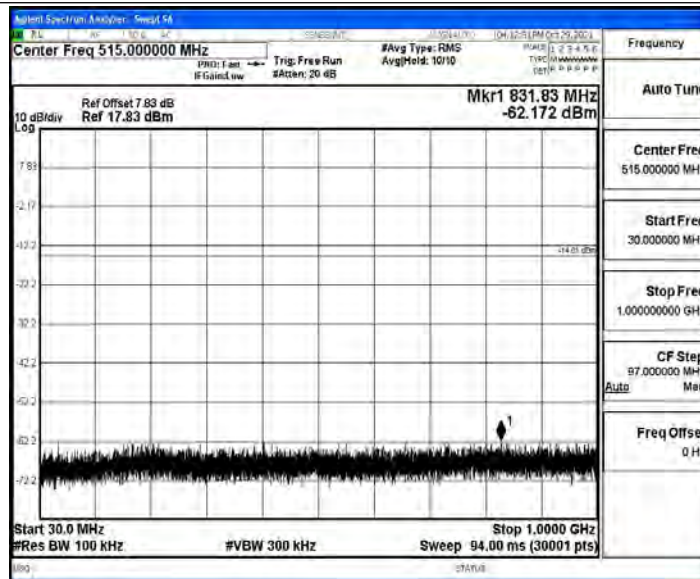
3DH5_Ant1_2402_1000~26500



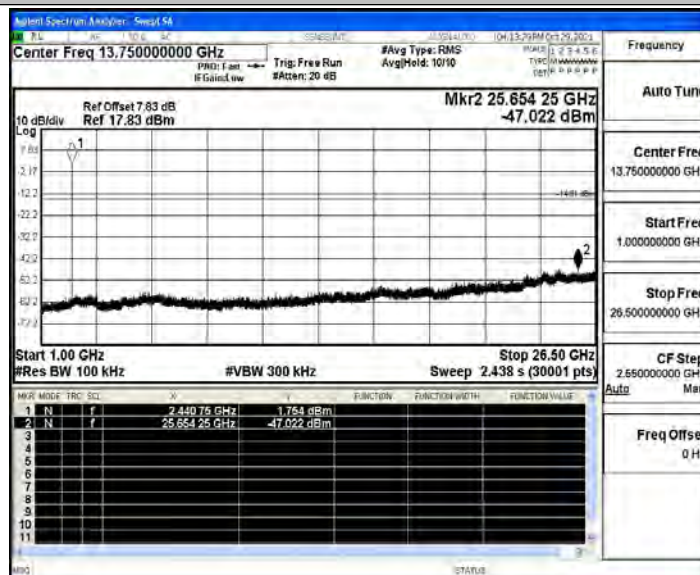
3DH5_Ant1_2441_0~Reference



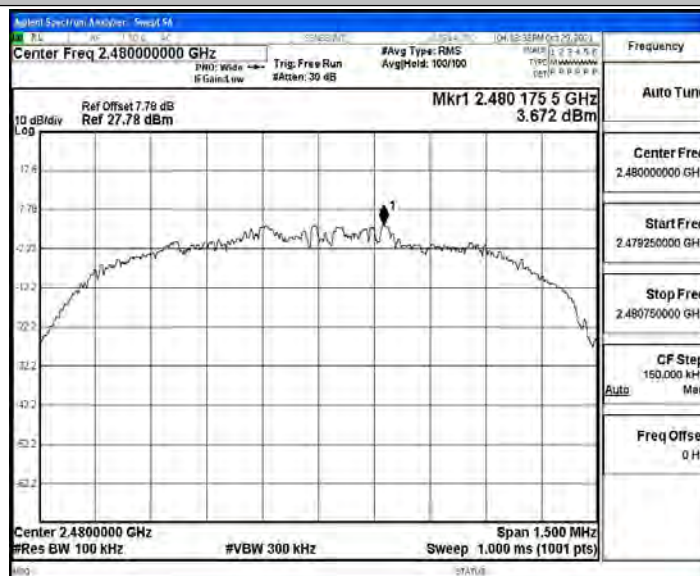
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

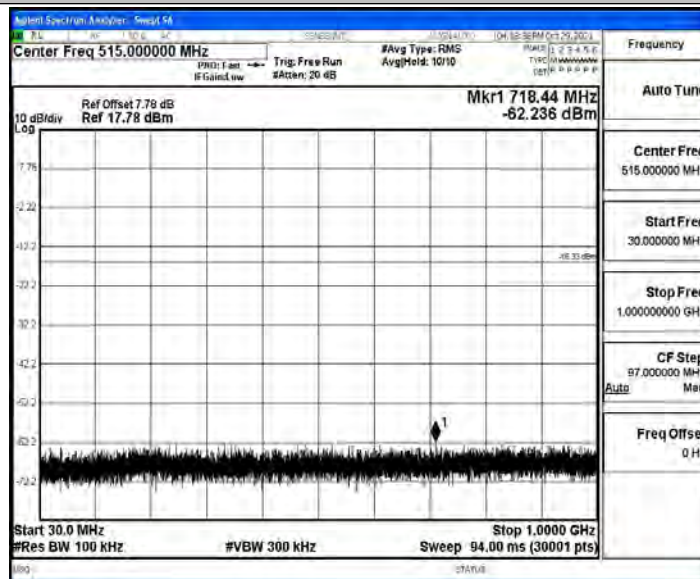


3DH5_Ant1_2480_0~Reference

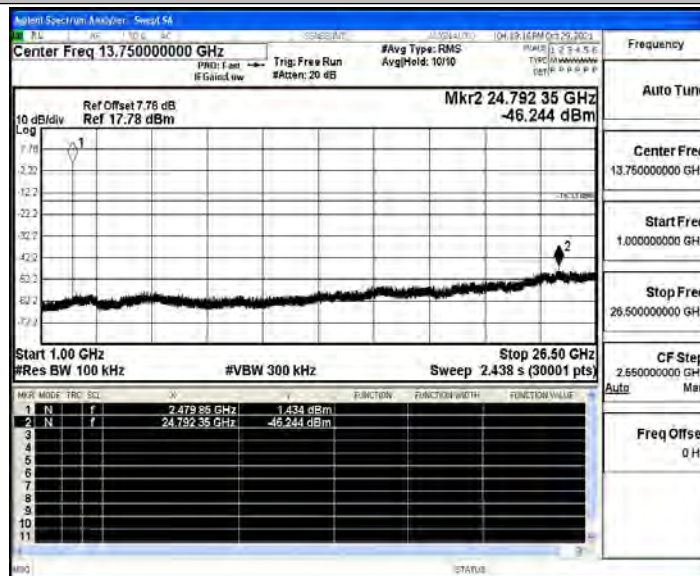




3DH5_Ant1_2480_30~1000



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	-48.86	≤-41.20	46.34	≤54	PASS
				AV	2389.670	-48.48	≤-41.20	46.72	≤54	PASS
				AV	2390.000	-48.57	≤-41.20	46.63	≤54	PASS
				Peak	2310.000	-40.94	≤-21.20	54.26	≤74	PASS
				Peak	2357.750	-37.89	≤-21.20	57.31	≤74	PASS
				Peak	2390.000	-39.93	≤-21.20	55.27	≤74	PASS
		High	2480	AV	2483.500	-47.21	≤-41.20	47.99	≤54	PASS
				AV	2483.520	-47.21	≤-41.20	47.99	≤54	PASS
				AV	2500.000	-48.06	≤-41.20	47.14	≤54	PASS
				Peak	2483.500	-39.96	≤-21.20	55.24	≤74	PASS
				Peak	2484.000	-37.89	≤-21.20	57.31	≤74	PASS
				Peak	2500.000	-39.11	≤-21.20	56.09	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-40.76	≤-21.20	54.44	≤74	PASS
				Peak	2370.350	-38.11	≤-21.20	57.09	≤74	PASS
				Peak	2390.000	-40.45	≤-21.20	54.75	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-40.25	≤-21.20	54.95	≤74	PASS
				Peak	2489.360	-37.52	≤-21.20	57.68	≤74	PASS
				Peak	2500.000	-39.91	≤-21.20	55.29	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.02	≤-41.20	46.18	≤54	PASS
				AV	2389.985	-48.38	≤-41.20	46.82	≤54	PASS
				AV	2390.000	-48.38	≤-41.20	46.82	≤54	PASS
				Peak	2310.000	-41.04	≤-21.20	54.16	≤74	PASS
				Peak	2377.280	-38.1	≤-21.20	57.10	≤74	PASS
				Peak	2390.000	-40.01	≤-21.20	55.19	≤74	PASS
		High	2480	AV	2483.500	-47.11	≤-41.20	48.09	≤54	PASS
				AV	2483.520	-47.11	≤-41.20	48.09	≤54	PASS
				AV	2500.000	-47.94	≤-41.20	47.26	≤54	PASS
				Peak	2483.500	-38.51	≤-21.20	56.69	≤74	PASS
				Peak	2484.800	-37.97	≤-21.20	57.23	≤74	PASS
				Peak	2500.000	-39.53	≤-21.20	55.67	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-41.09	≤-21.20	54.11	≤74	PASS
				Peak	2311.340	-38.27	≤-21.20	56.93	≤74	PASS
				Peak	2390.000	-40.15	≤-21.20	55.05	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-40.25	≤-21.20	54.95	≤74	PASS
				Peak	2499.760	-37.92	≤-21.20	57.28	≤74	PASS
				Peak	2500.000	-39.76	≤-21.20	55.44	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.91	≤-41.20	46.29	≤54	PASS



				AV	2388.935	-48.39	≤ -41.20	46.81	≤ 54	PASS
				AV	2390.000	-48.57	≤ -41.20	46.63	≤ 54	PASS
				Peak	2310.000	-40.65	≤ -21.20	54.55	≤ 74	PASS
				Peak	2380.430	-37.68	≤ -21.20	57.52	≤ 74	PASS
				Peak	2390.000	-40.58	≤ -21.20	54.62	≤ 74	PASS
		High	2480	AV	2483.500	-47	≤ -41.20	48.20	≤ 54	PASS
				AV	2483.520	-47	≤ -41.20	48.20	≤ 54	PASS
				AV	2500.000	-47.98	≤ -41.20	47.22	≤ 54	PASS
				Peak	2483.500	-39.22	≤ -21.20	55.98	≤ 74	PASS
				Peak	2487.280	-37.88	≤ -21.20	57.32	≤ 74	PASS
				Peak	2500.000	-38.79	≤ -21.20	56.41	≤ 74	PASS
		Low	Hop_24 02	Peak	2310.000	-41.1	≤ -21.20	54.10	≤ 74	PASS
				Peak	2320.790	-37.26	≤ -21.20	57.94	≤ 74	PASS
				Peak	2390.000	-39.57	≤ -21.20	55.63	≤ 74	PASS
		High	Hop_24 80	Peak	2483.500	-40	≤ -21.20	55.20	≤ 74	PASS
				Peak	2485.440	-37.55	≤ -21.20	57.65	≤ 74	PASS
				Peak	2500.000	-40.05	≤ -21.20	55.15	≤ 74	PASS

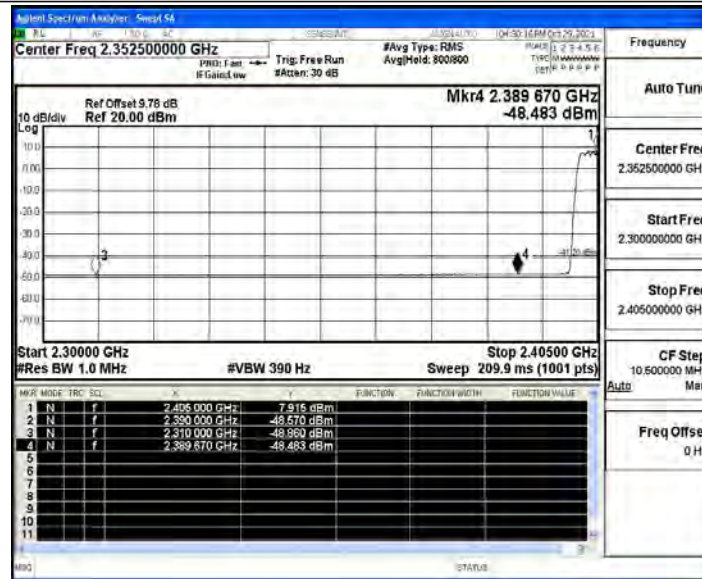
Note:

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.

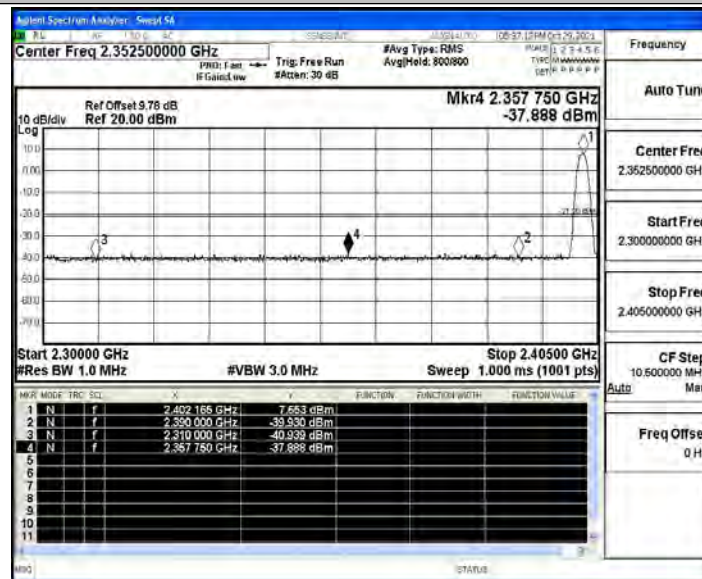


Test Graphs

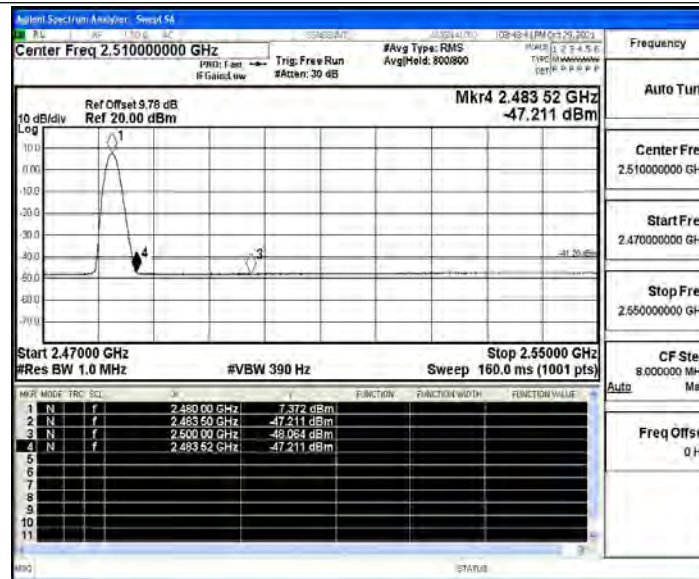
DH5_Ant1_Low_2402_AV



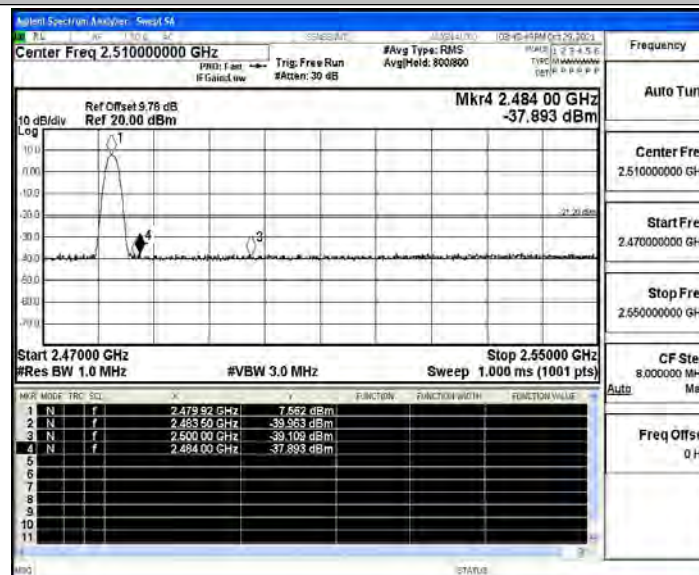
DH5_Ant1_Low_2402_Peak



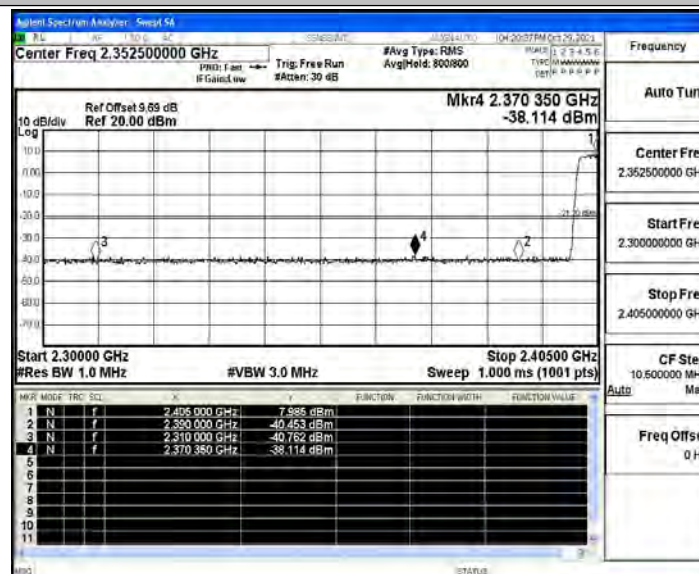
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

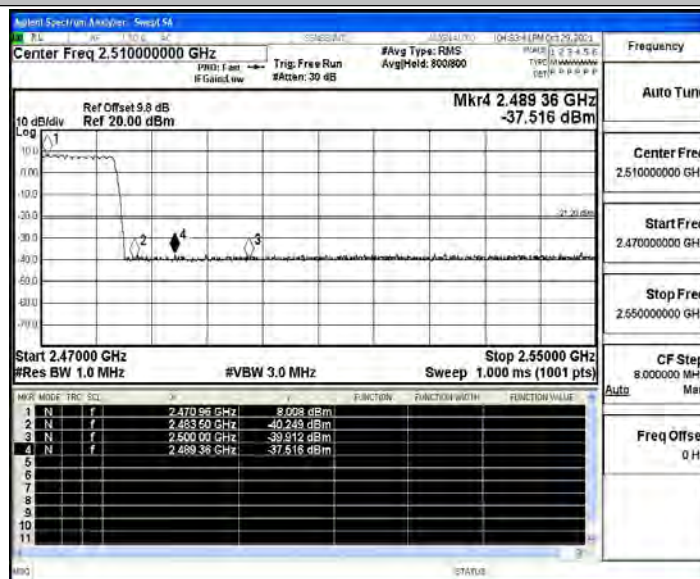


DH5_Ant1_Low_Hop_2402_Peak

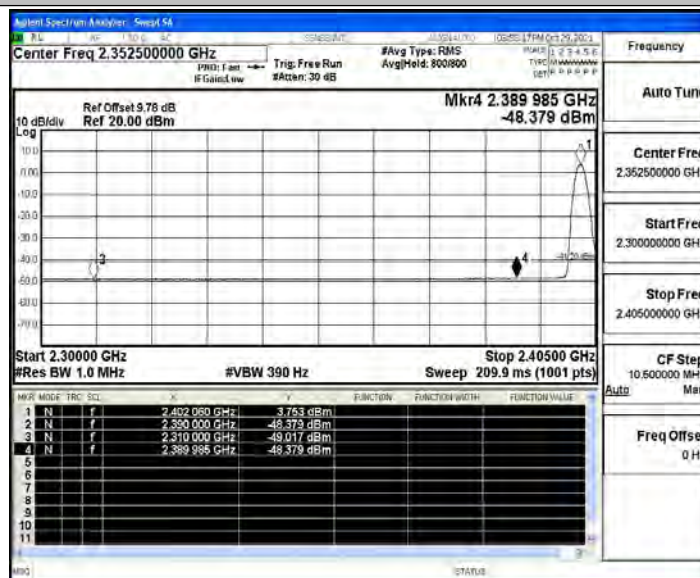




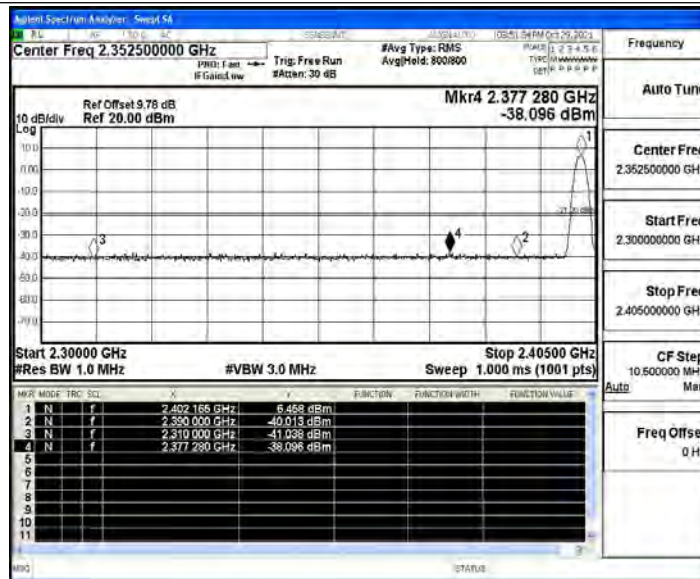
DH5_Ant1_High_Hop_2480_Peak



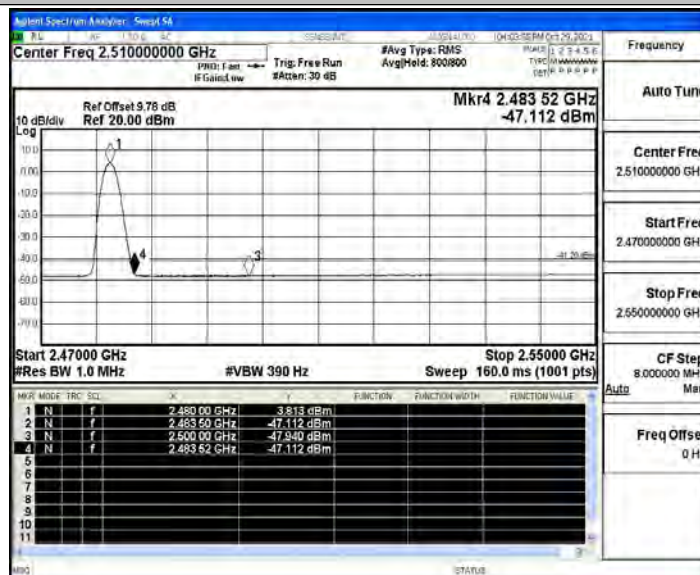
2DH5_Ant1_Low_2402_AV



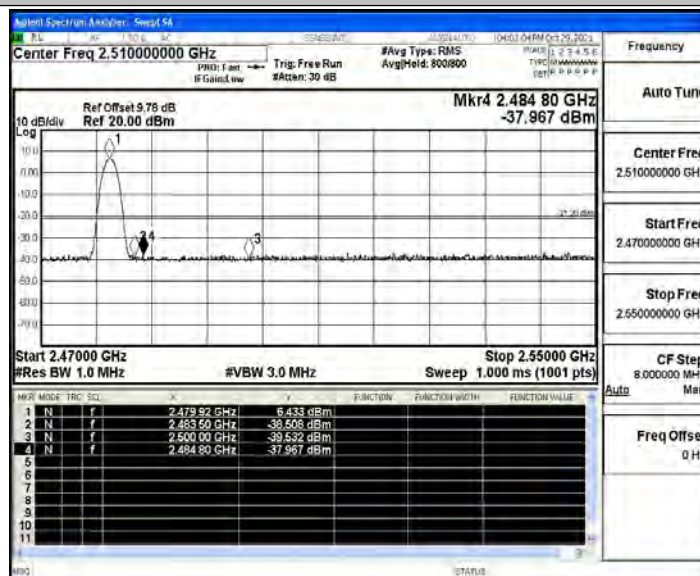
2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV

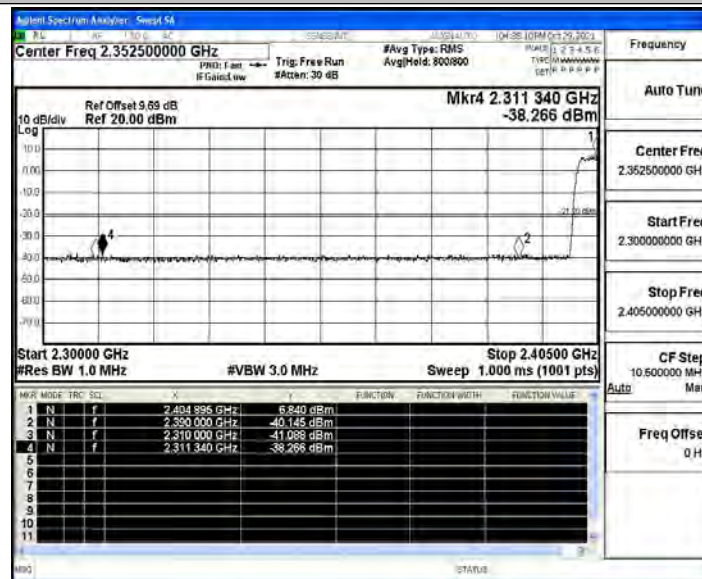


2DH5_Ant1_High_2480_Peak

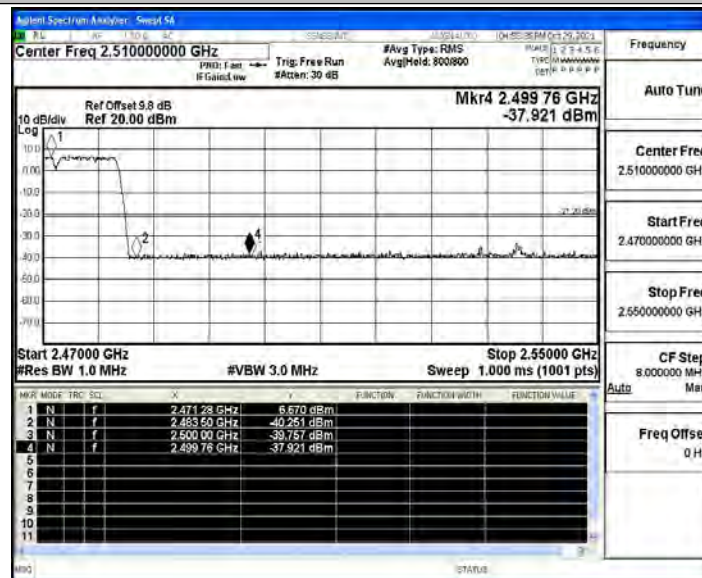




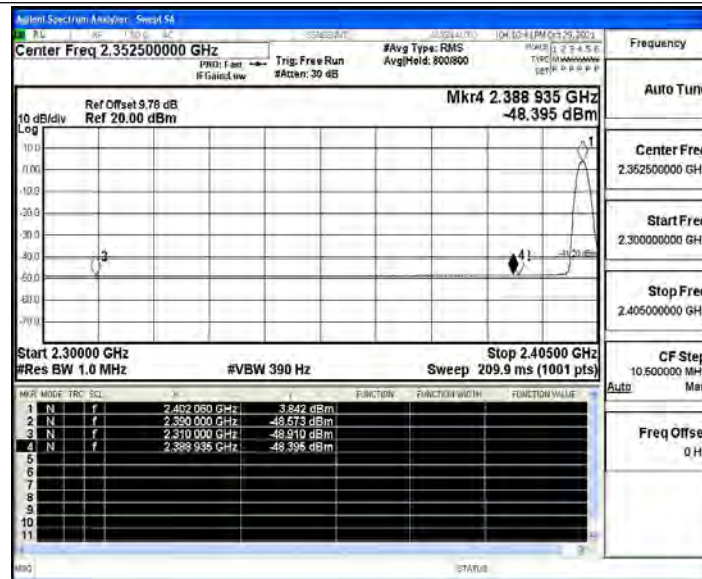
2DH5_Ant1_Low_Hop_2402_Peak



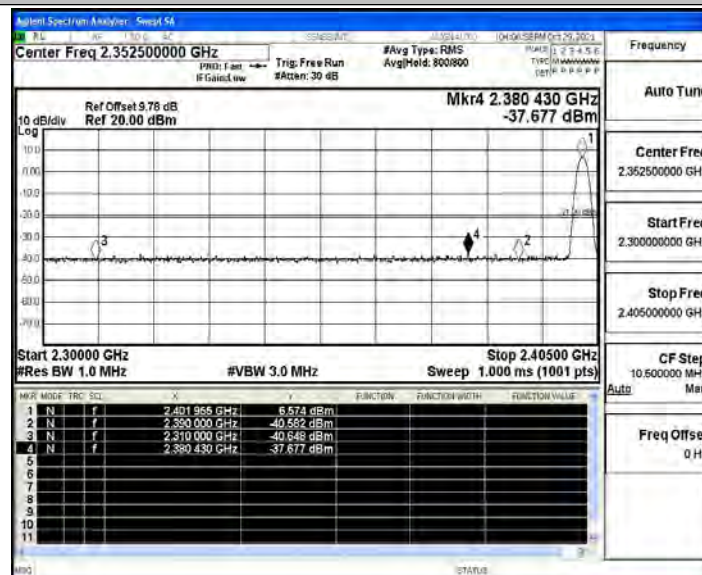
2DH5_Ant1_High_Hop_2480_Peak



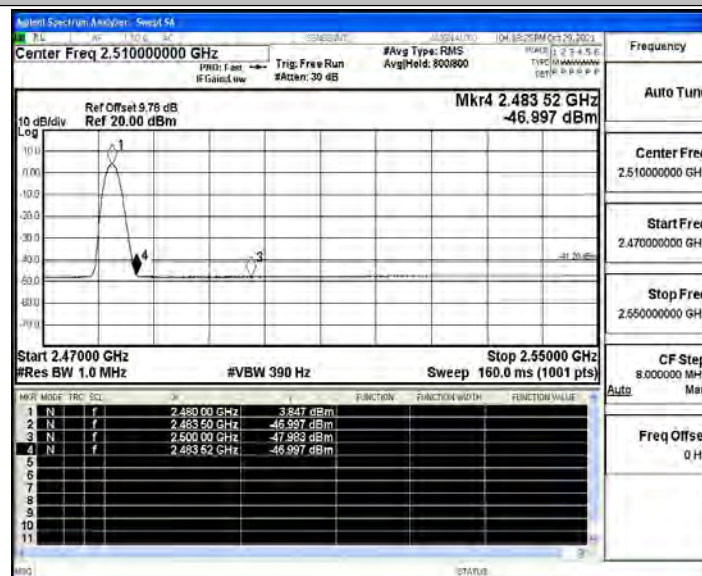
3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak

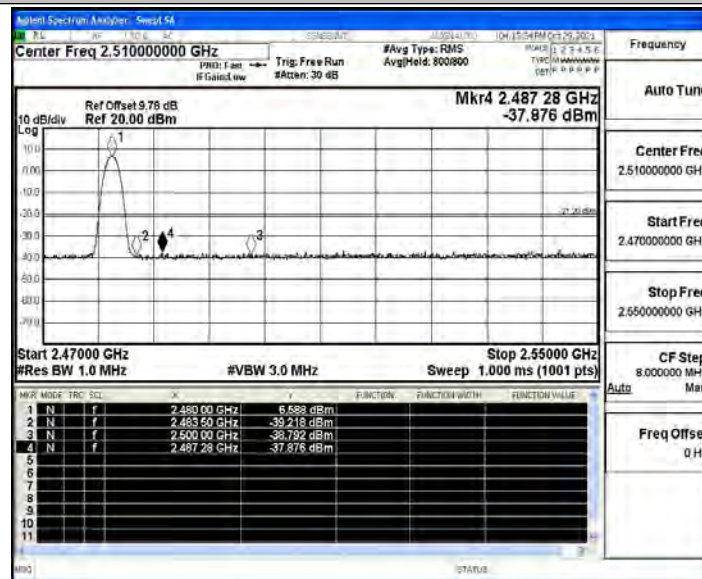


3DH5_Ant1_High_2480_AV

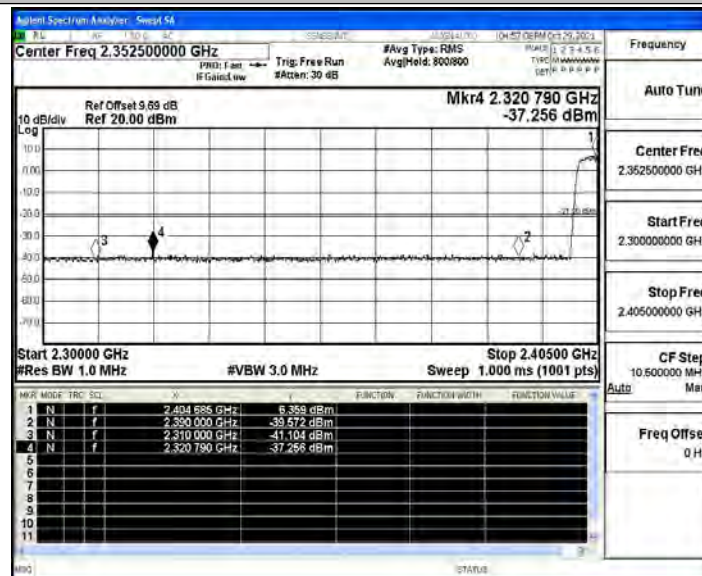




3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak

