



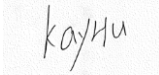
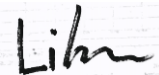
Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: H2O STREAM DM

Test Model: H2O STREAM DM

Environmental Conditions

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



A.1 20dB Emission Bandwidth

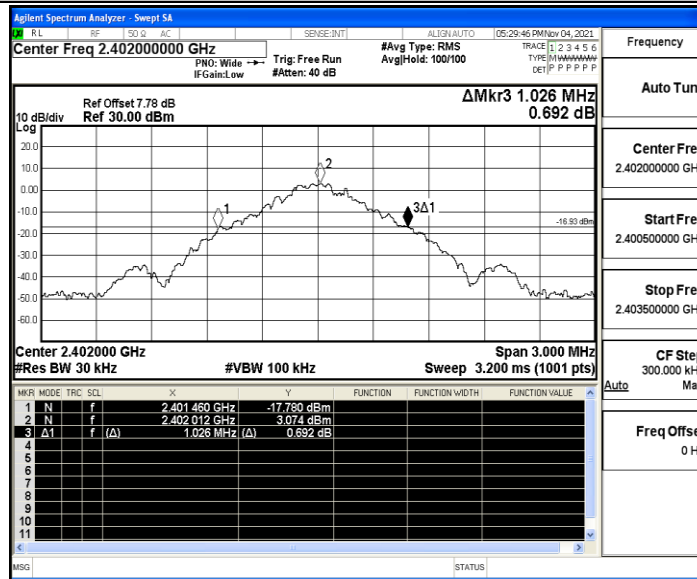
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.026	2401.460	2402.486	---	PASS
		2441	0.960	2440.532	2441.492	---	PASS
		2480	0.954	2479.532	2480.486	---	PASS
2DH5	Ant1	2402	1.296	2401.361	2402.657	---	PASS
		2441	1.290	2440.364	2441.654	---	PASS
		2480	1.293	2479.361	2480.654	---	PASS
3DH5	Ant1	2402	1.296	2401.349	2402.645	---	PASS
		2441	1.311	2440.346	2441.657	---	PASS
		2480	1.317	2479.343	2480.660	---	PASS

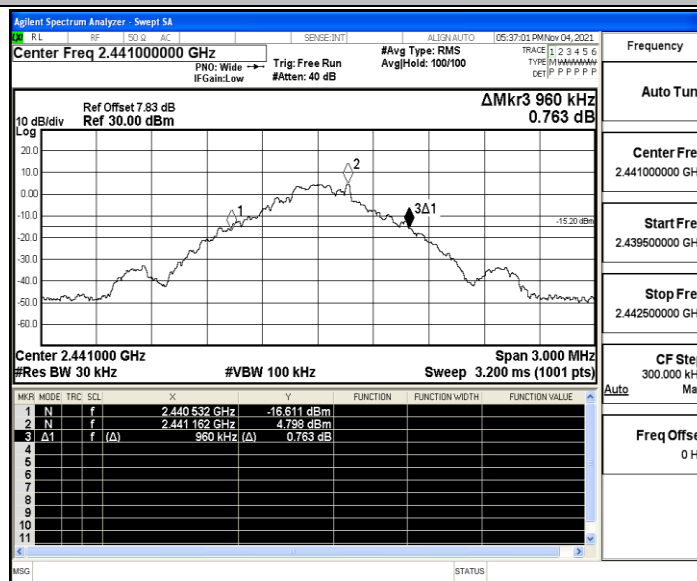


Test Graphs

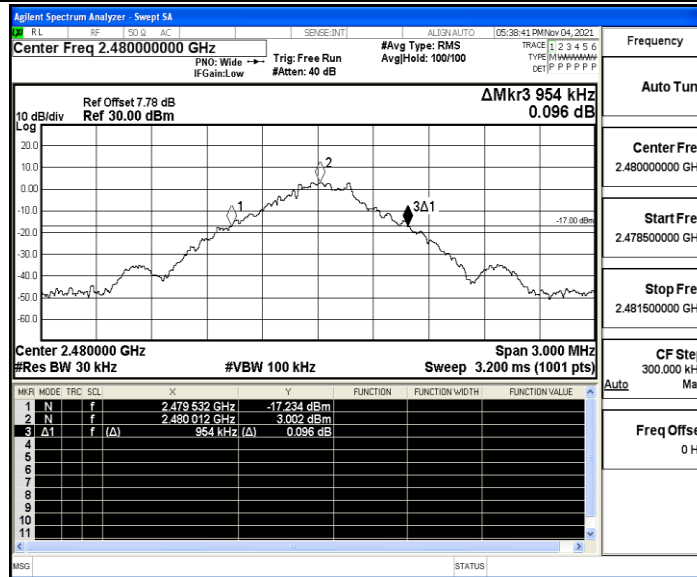
DH5_Ant1_2402



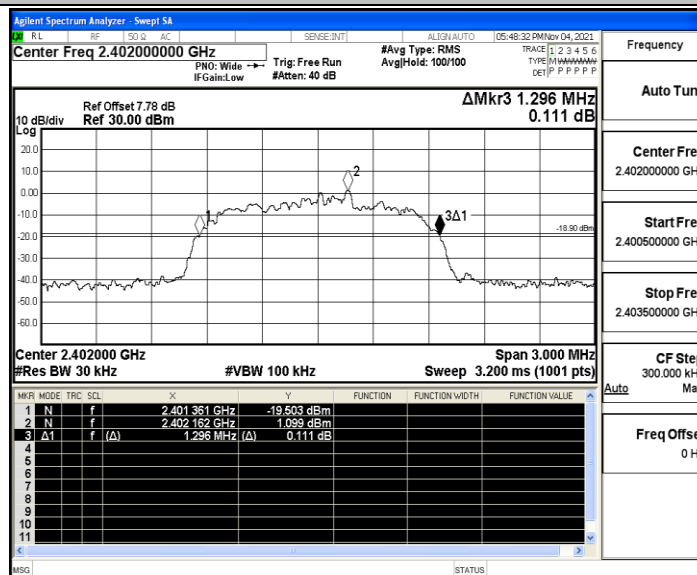
DH5_Ant1_2441



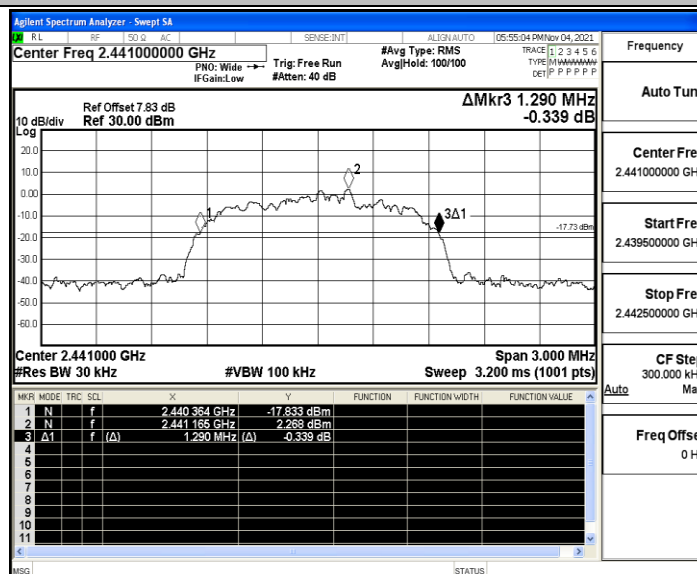
DH5_Ant1_2480



2DH5_Ant1_2402

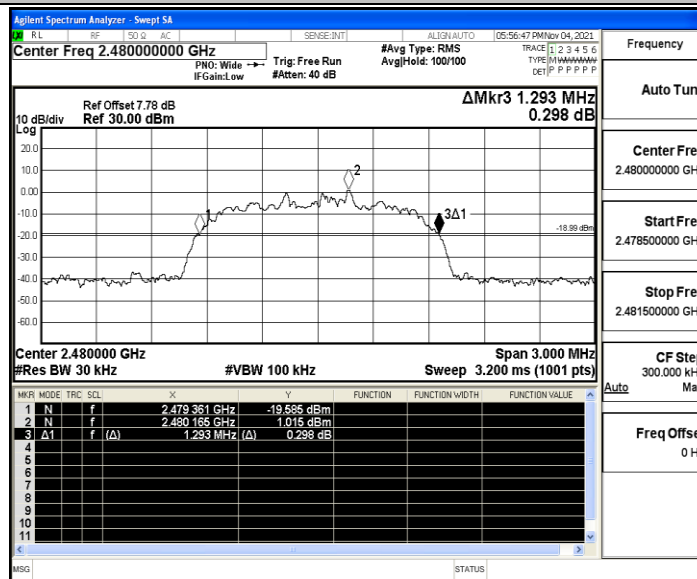


2DH5_Ant1_2441

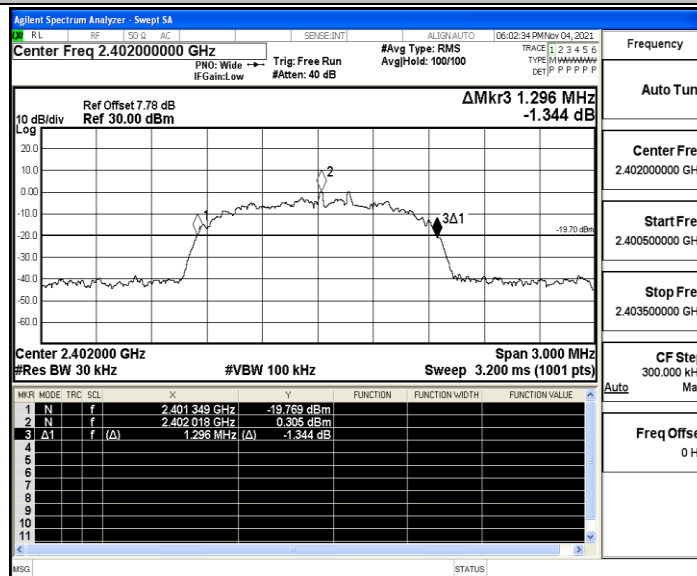




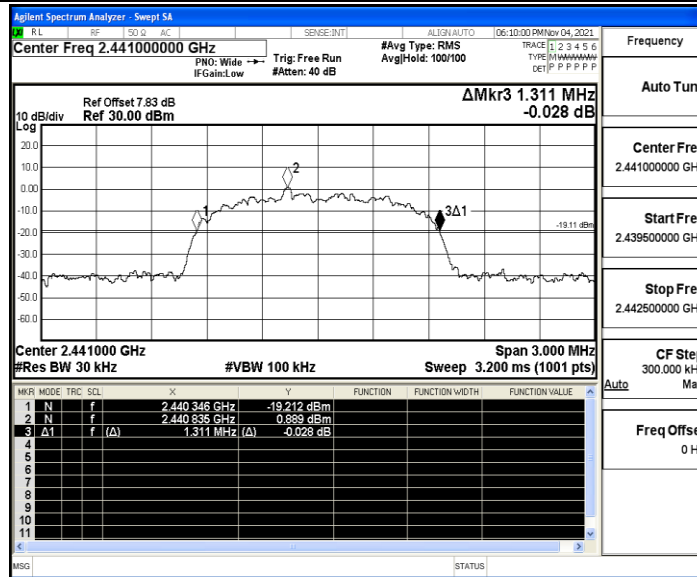
2DH5_Ant1_2480



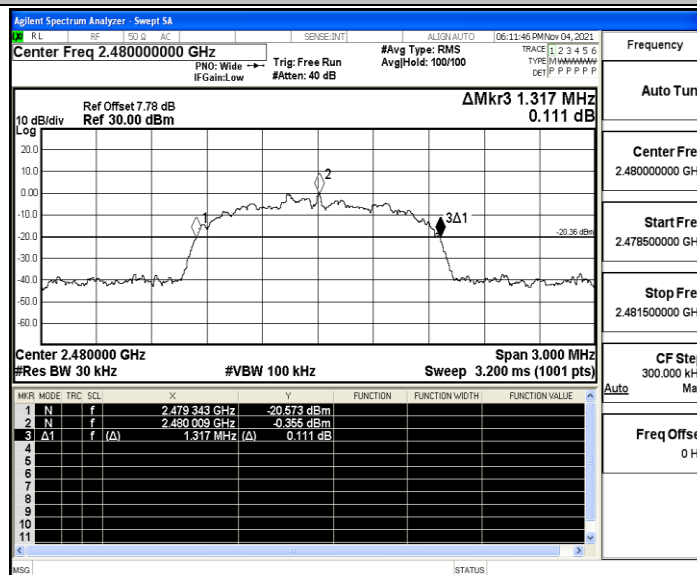
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



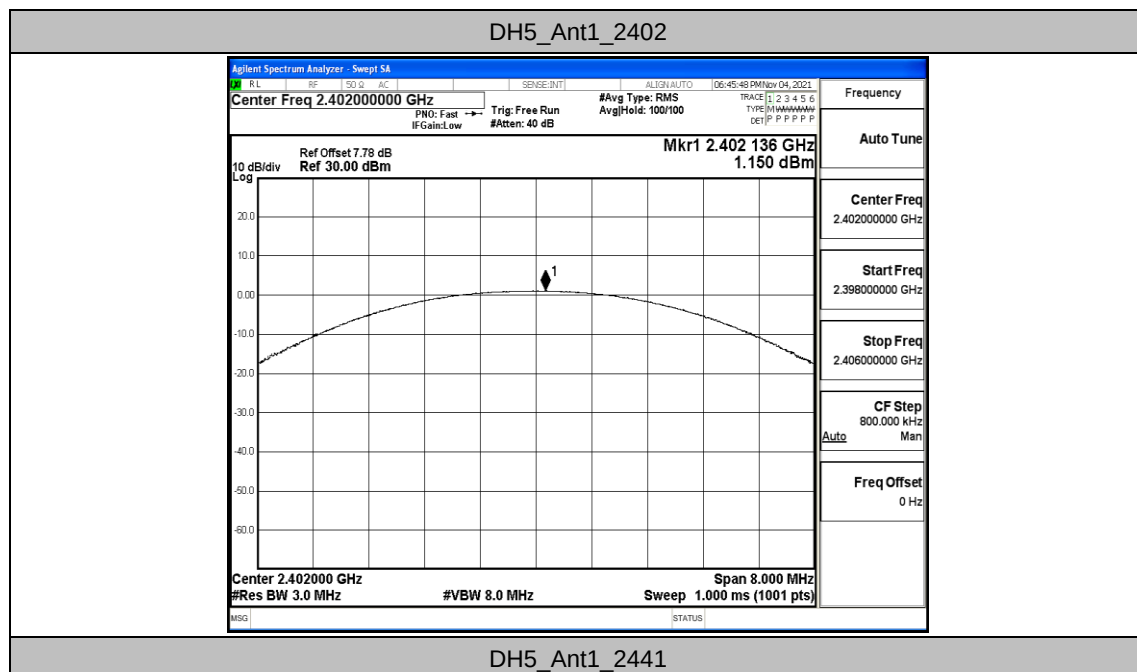


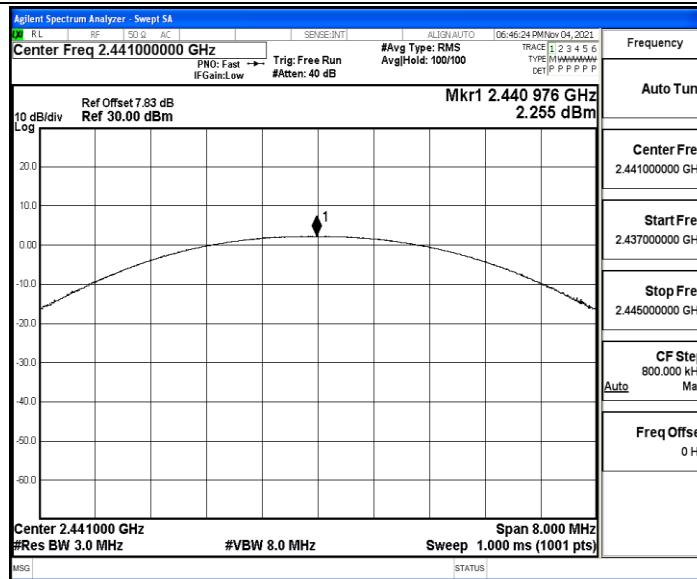
A.2 Maximum conducted output power

Test Result

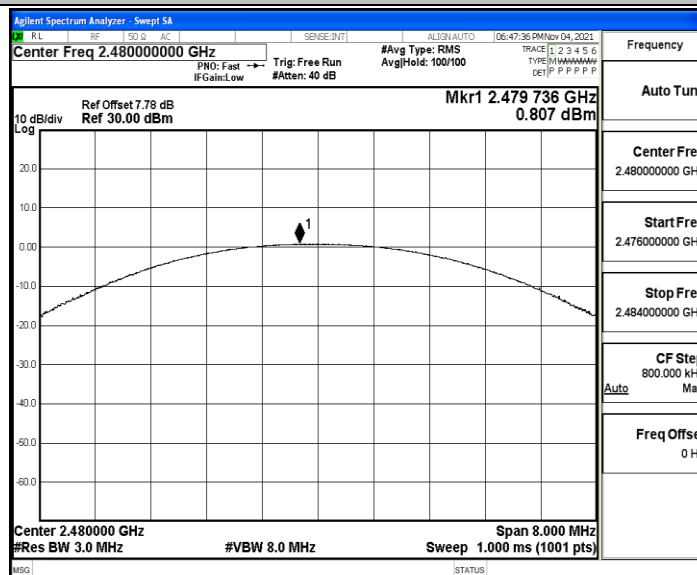
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.15	≤20.97	PASS
		2441	2.26	≤20.97	PASS
		2480	0.81	≤20.97	PASS
2DH5	Ant1	2402	0.2	≤20.97	PASS
		2441	1.39	≤20.97	PASS
		2480	-0.18	≤20.97	PASS
3DH5	Ant1	2402	0.28	≤20.97	PASS
		2441	1.53	≤20.97	PASS
		2480	0.07	≤20.97	PASS

Test Graphs

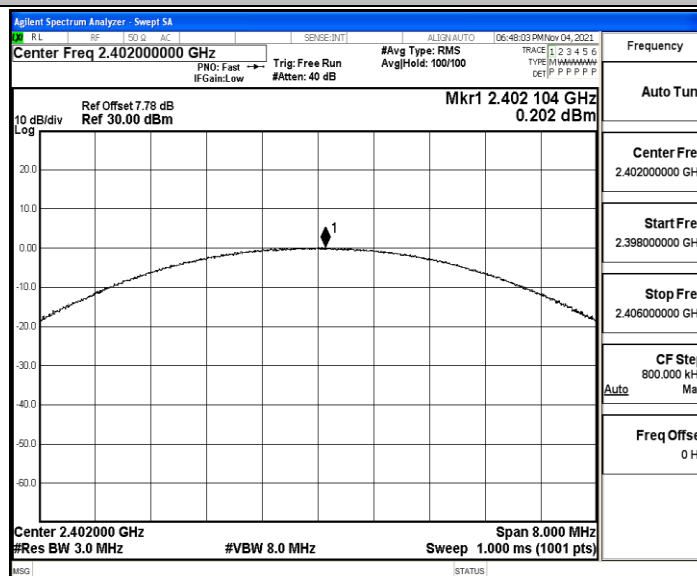




DH5_Ant1_2480

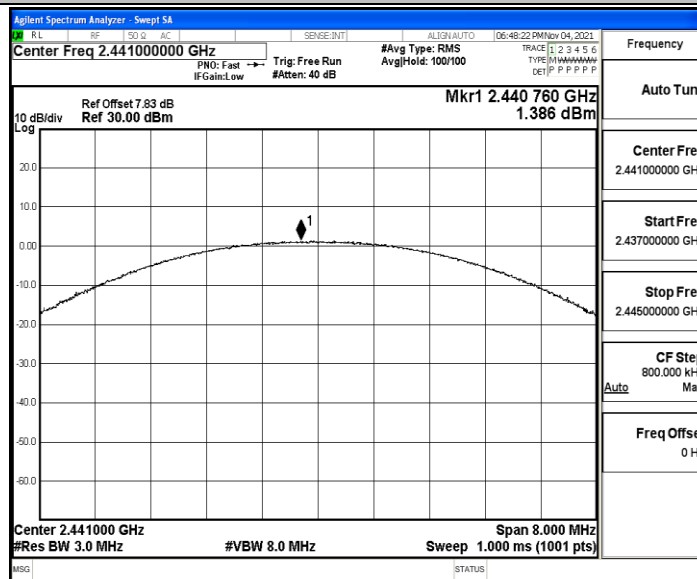


2DH5_Ant1_2402

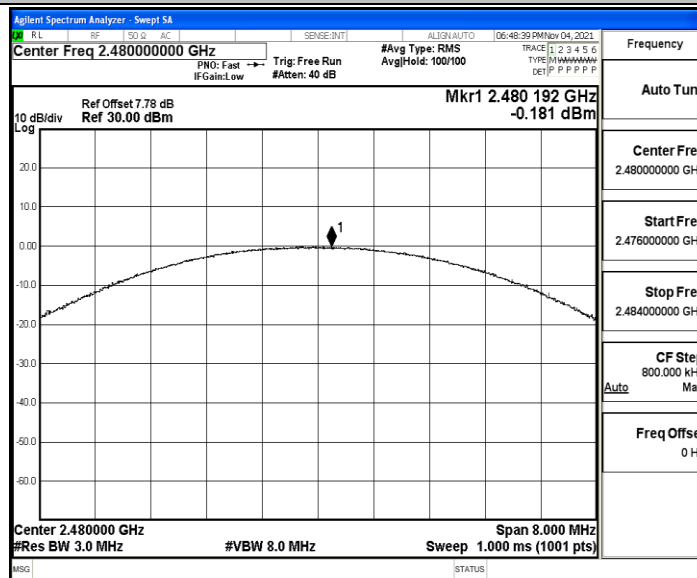




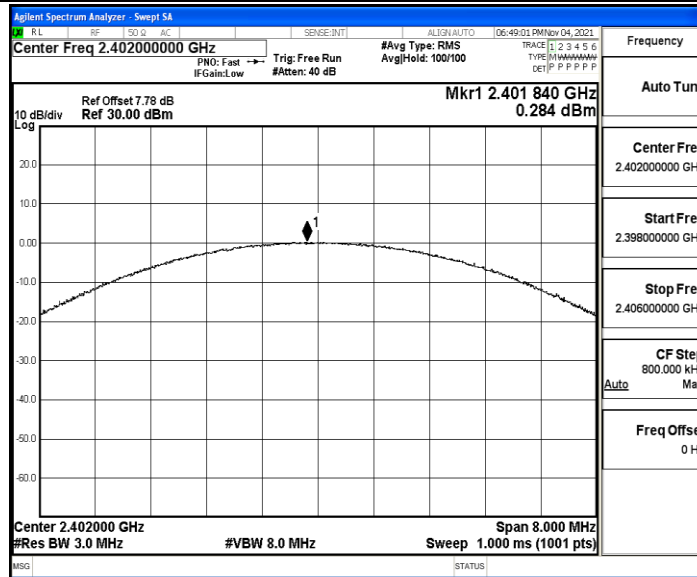
2DH5_Ant1_2441



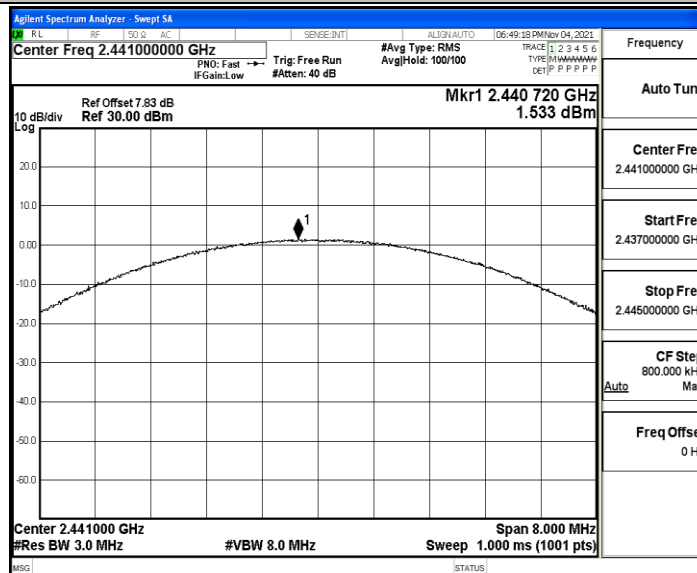
2DH5_Ant1_2480



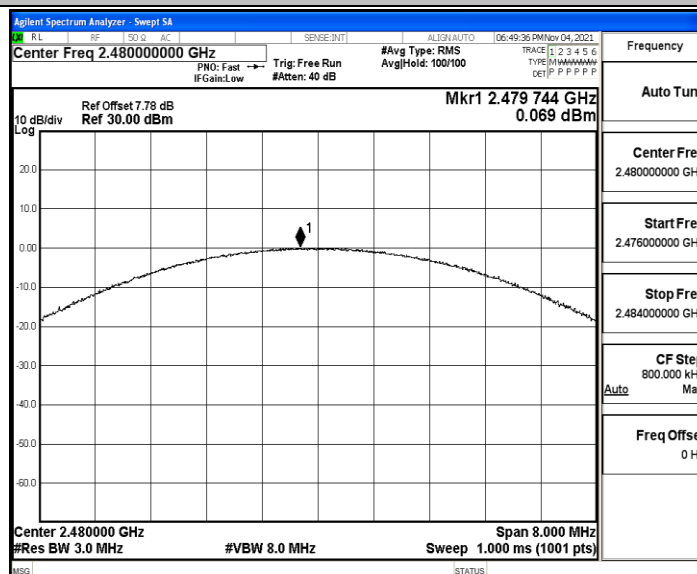
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



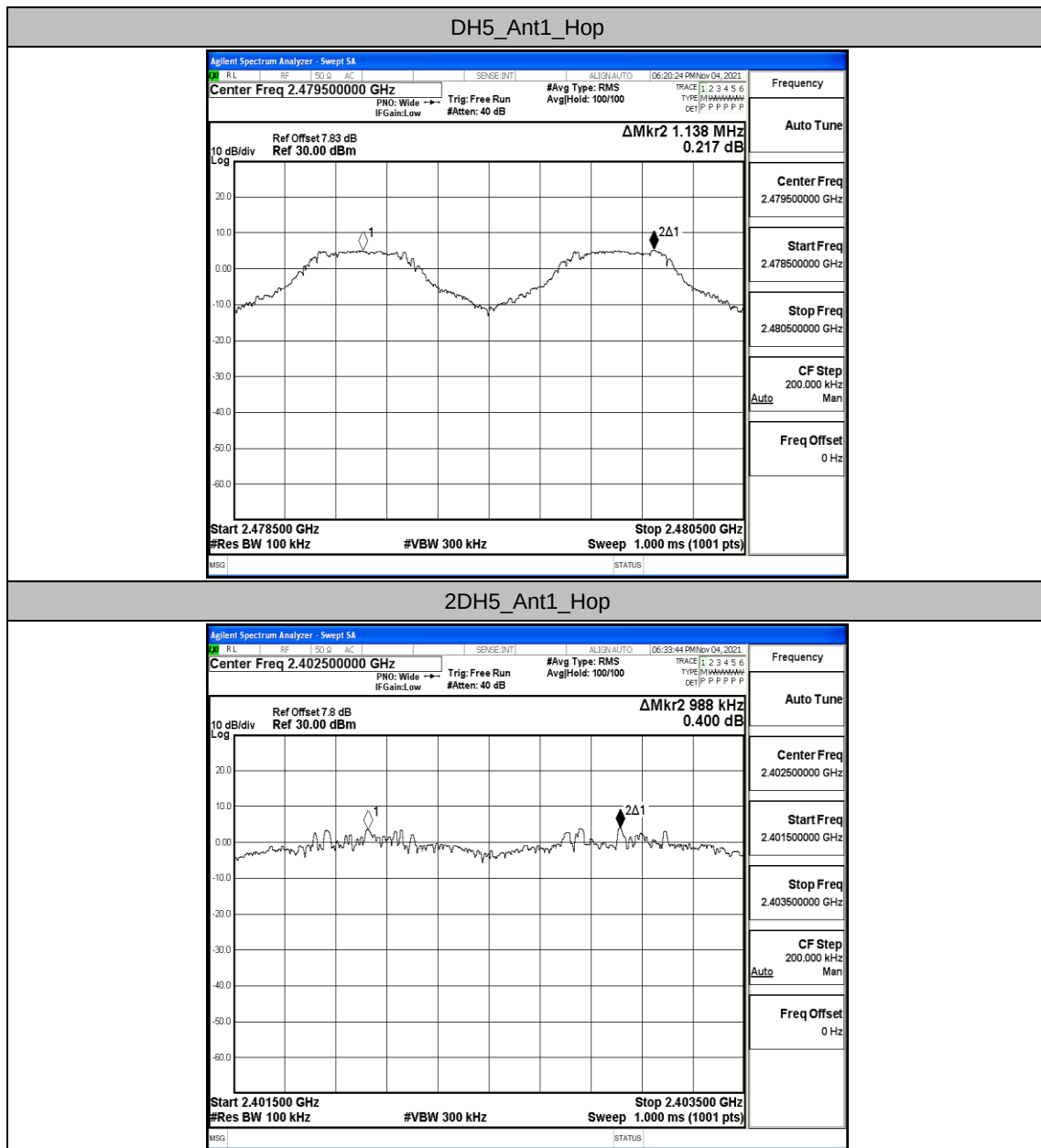


A.3 Carrier frequency separation

Test Result

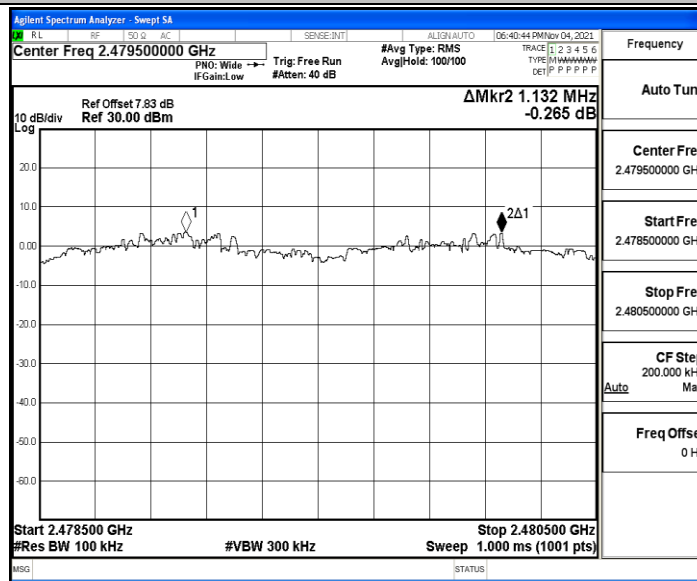
TestMode	Antenna	Channel	Result[M/Hz]	Limit[M/Hz]	Verdict
DH5	Ant1	Hop	1.138	≥ 0.68	PASS
2DH5	Ant1	Hop	0.988	≥ 0.86	PASS
3DH5	Ant1	Hop	1.132	≥ 0.88	PASS

Test Graphs





3DH5_Ant1_Hop



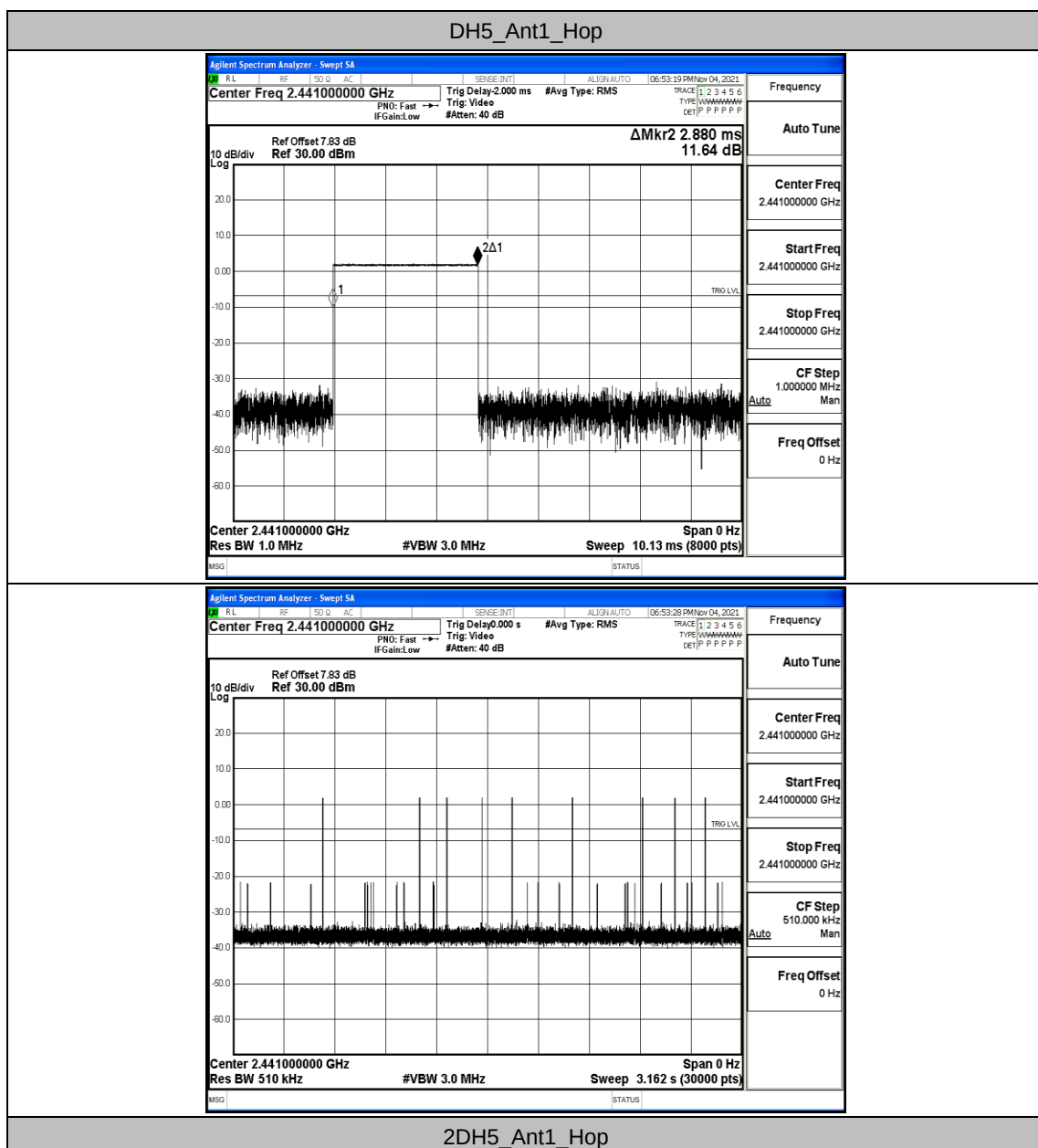


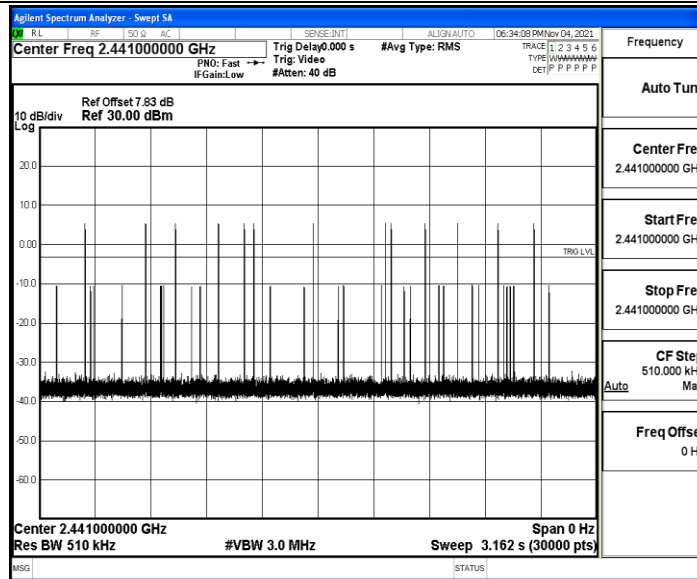
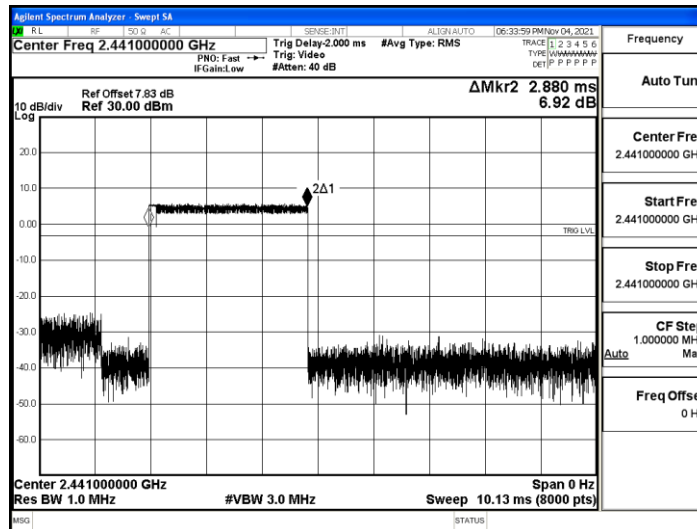
A.4 Time of occupancy

Test Result

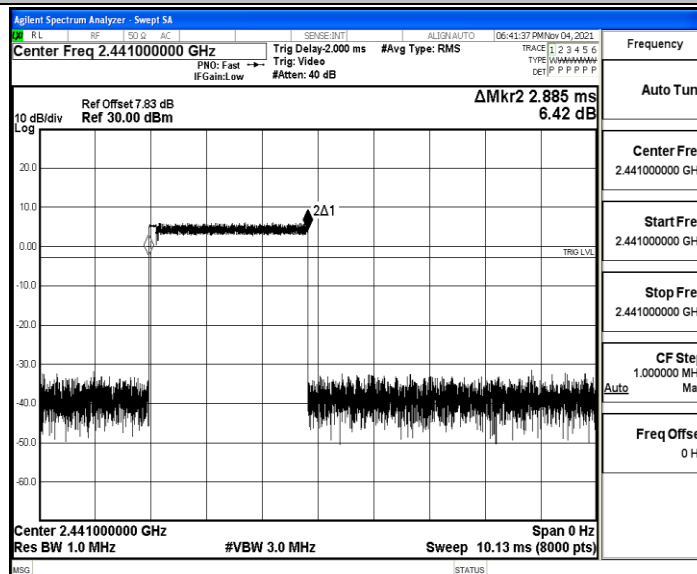
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	100	0.288	≤0.4	PASS
2DH5	Ant1	Hop	2.88	100	0.288	≤0.4	PASS
3DH5	Ant1	Hop	2.89	110	0.318	≤0.4	PASS

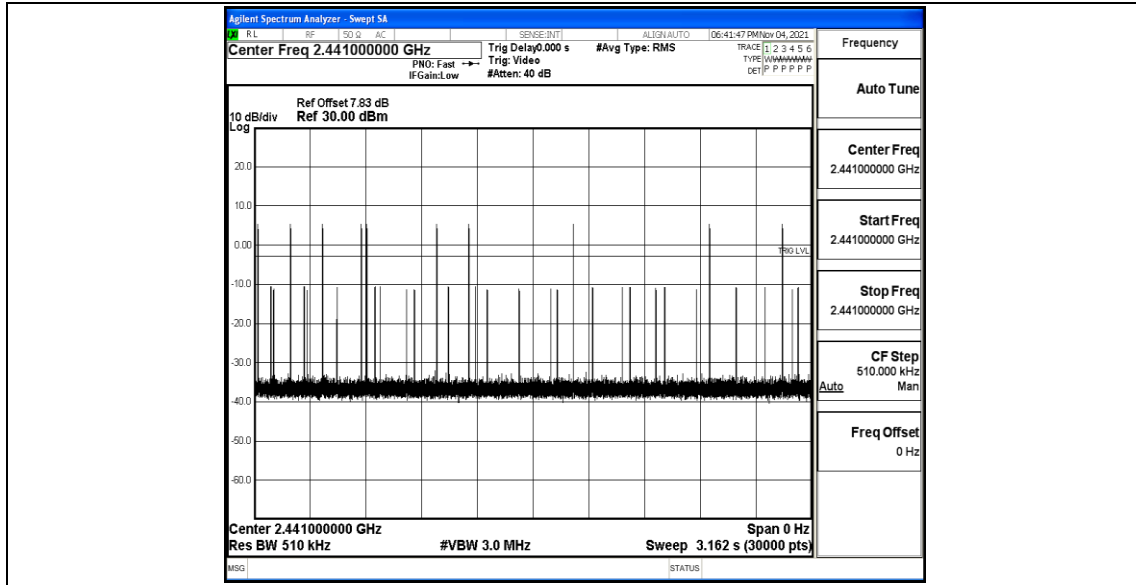
Test Graphs





3DH5_Ant1_Hop





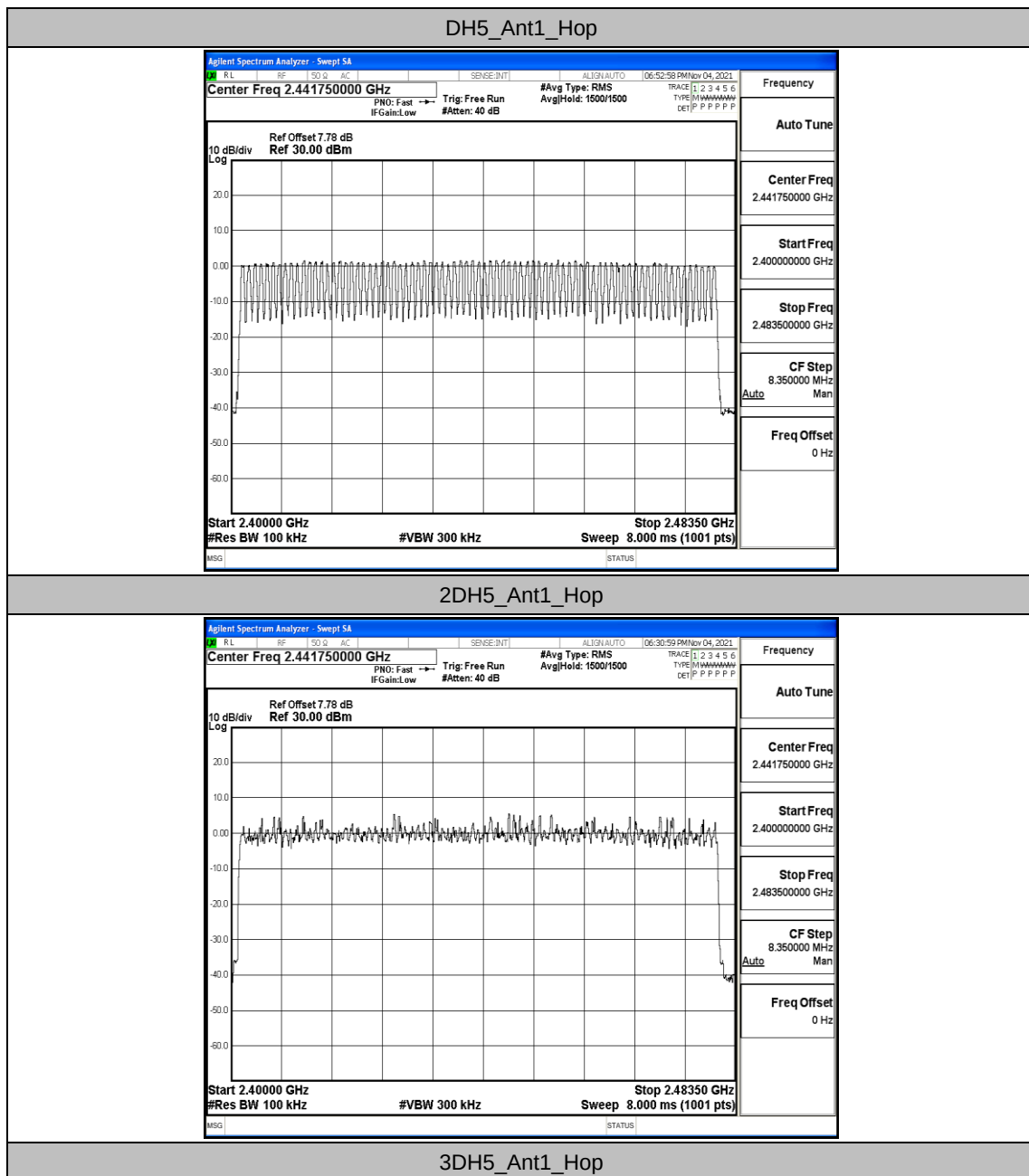


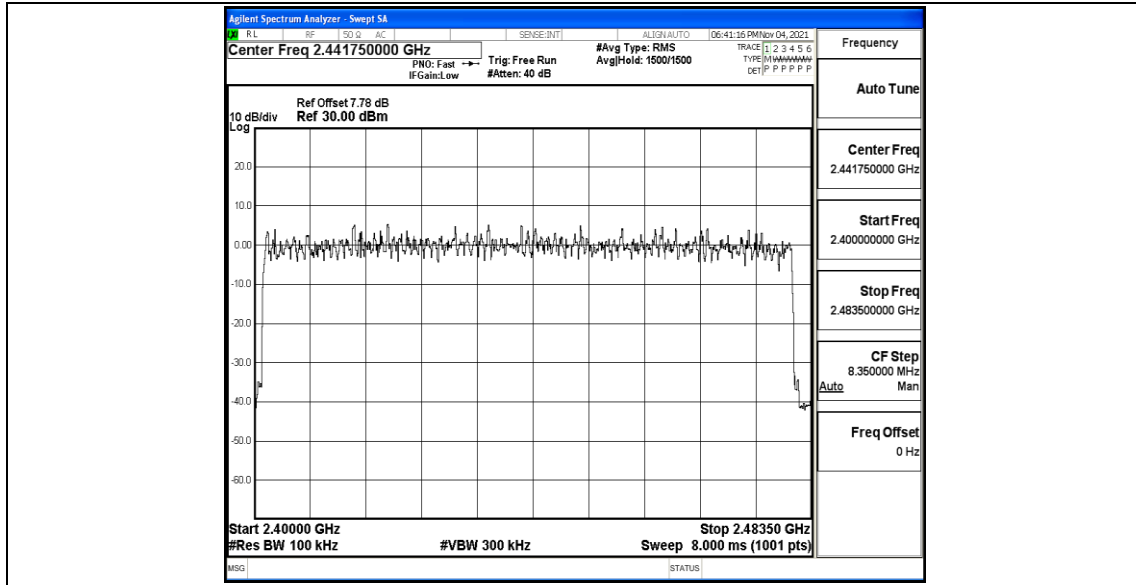
A.5 Number of hopping channels

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

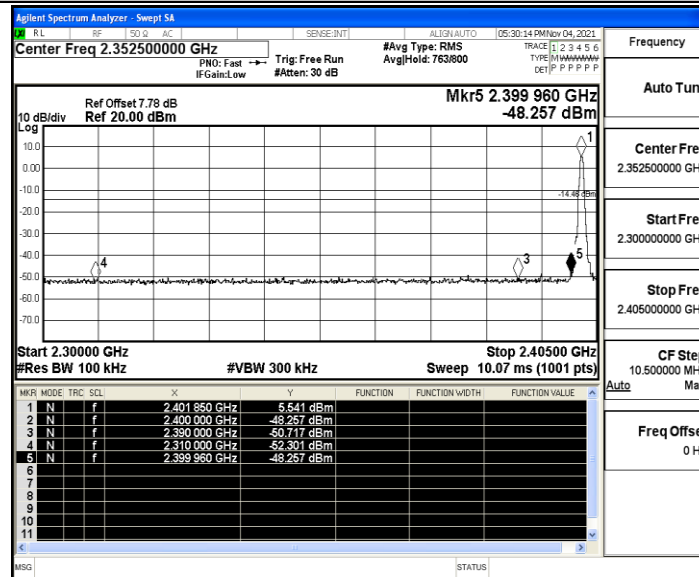
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	5.54	-48.26	≤ -14.46	PASS
		High	2480	5.54	-45.09	≤ -14.46	PASS
		Low	Hop_2402	5.50	-49.79	≤ -14.5	PASS
		High	Hop_2480	5.62	-47.76	≤ -14.38	PASS
2DH5	Ant1	Low	2402	3.98	-49.26	≤ -16.03	PASS
		High	2480	3.76	-48.36	≤ -16.24	PASS
		Low	Hop_2402	3.81	-49.41	≤ -16.19	PASS
		High	Hop_2480	3.78	-48.43	≤ -16.22	PASS
3DH5	Ant1	Low	2402	3.71	-49.16	≤ -16.3	PASS
		High	2480	4.10	-48.39	≤ -15.9	PASS
		Low	Hop_2402	3.79	-49.75	≤ -16.21	PASS
		High	Hop_2480	3.99	-48.51	≤ -16.01	PASS

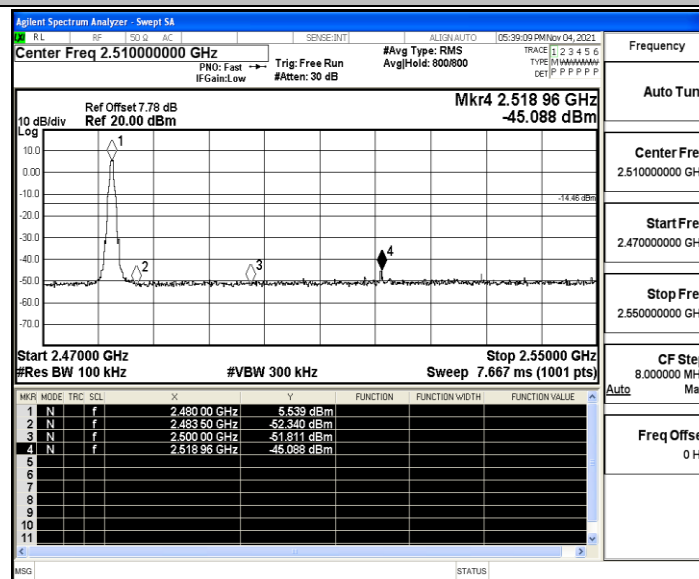


Test Graphs

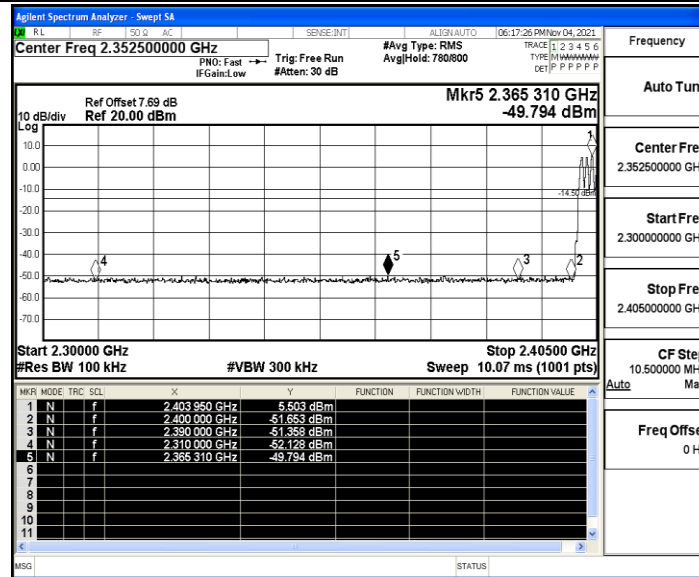
DH5_Ant1_Low_2402



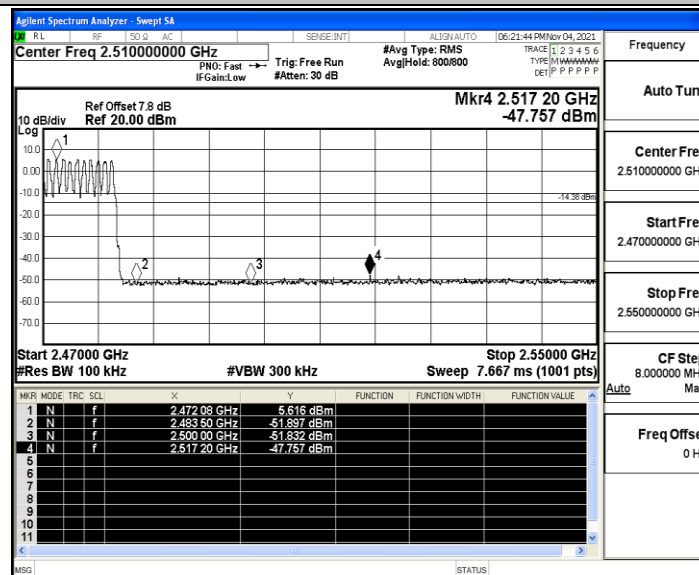
DH5_Ant1_High_2480



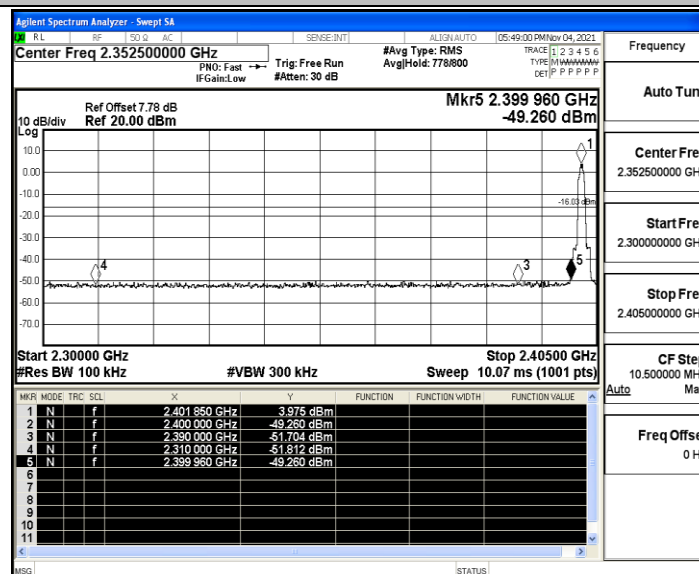
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

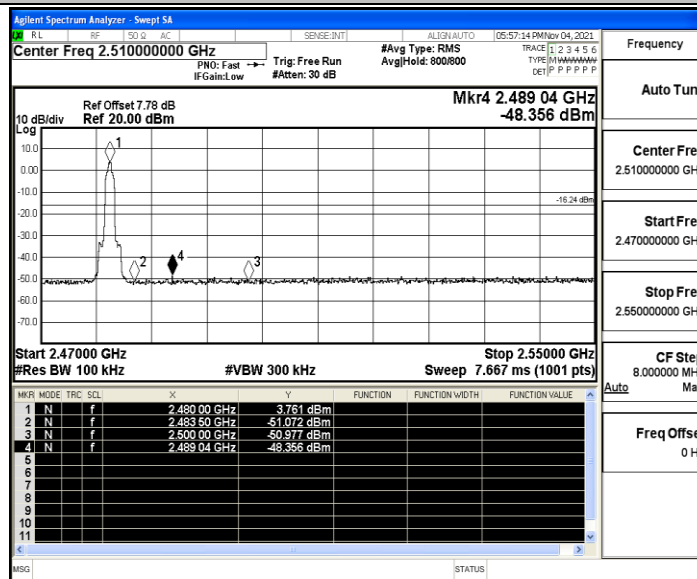


2DH5_Ant1_Low_2402

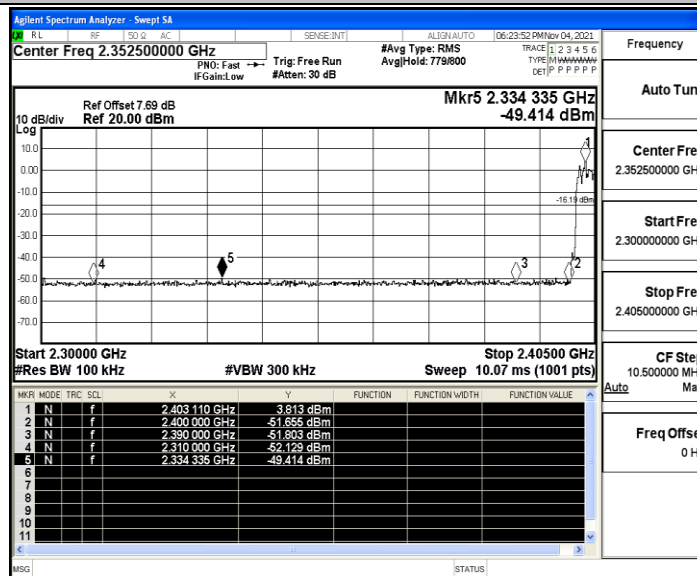




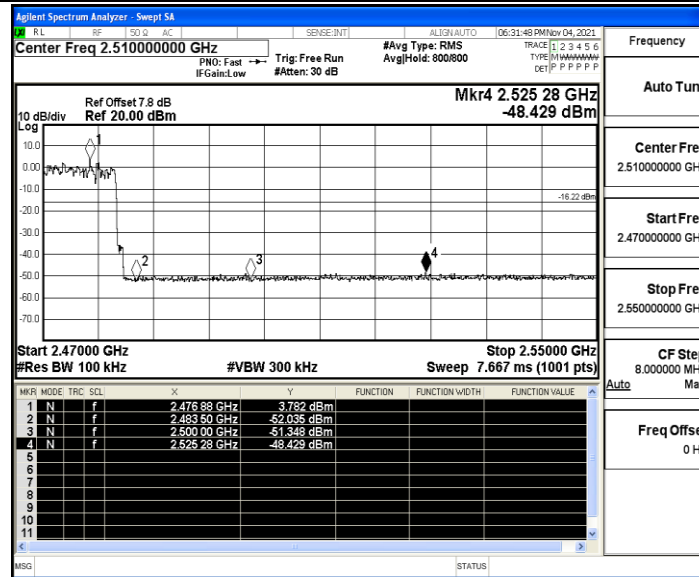
2DH5_Ant1_High_2480



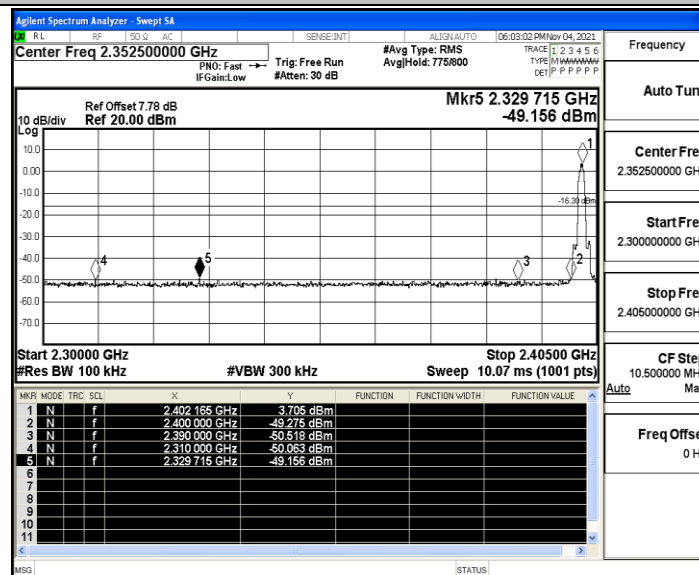
2DH5_Ant1_Low_Hop_2402



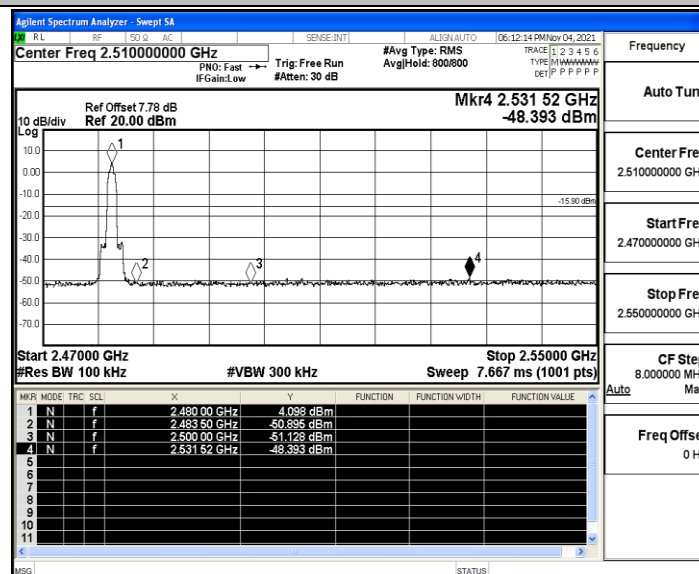
2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402

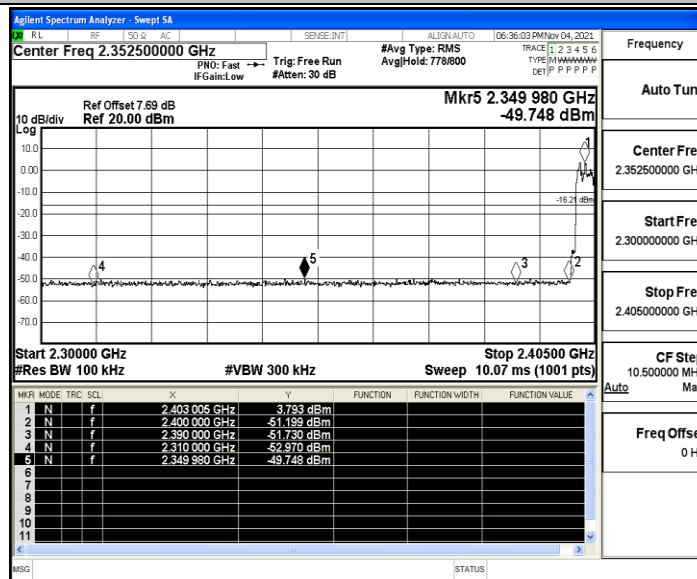


3DH5_Ant1_High_2480

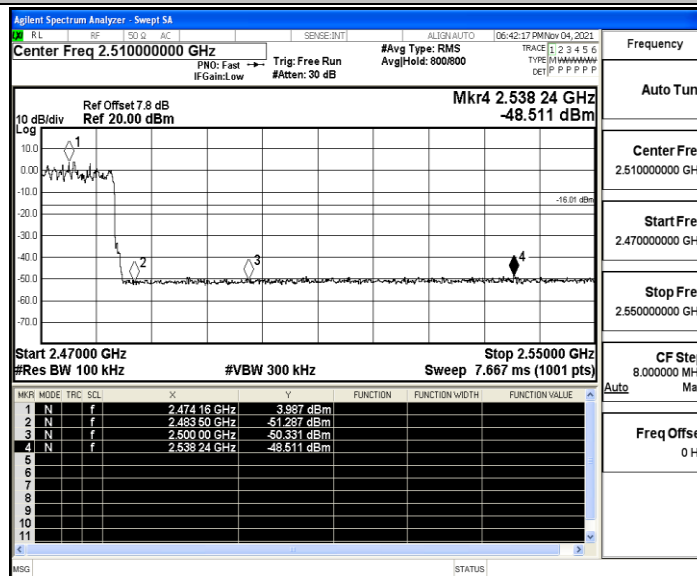




3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

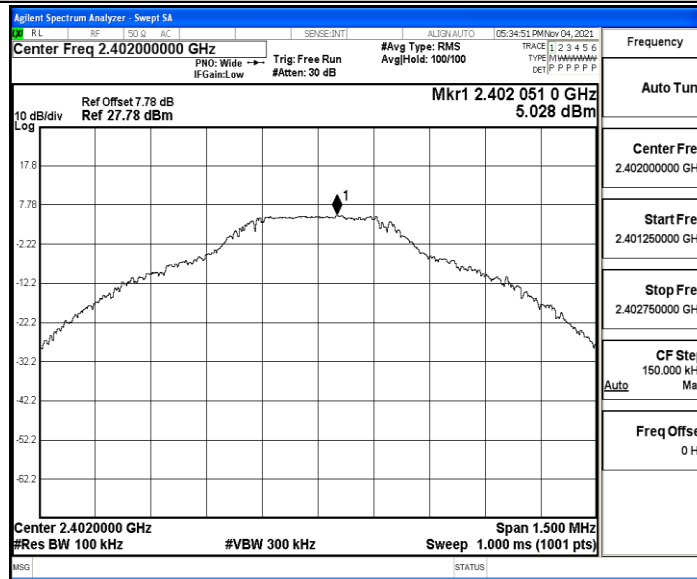
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	5.03	5.03	---	PASS
			30~1000	5.03	-44.81	≤-14.97	PASS
			1000~26500	5.03	-47.44	≤-14.97	PASS
		2441	Reference	6.78	6.78	---	PASS
			30~1000	6.78	-47.83	≤-13.23	PASS
			1000~26500	6.78	-47.38	≤-13.23	PASS
		2480	Reference	4.82	4.82	---	PASS
			30~1000	4.82	-60.7	≤-15.18	PASS
			1000~26500	4.82	-47.76	≤-15.18	PASS
2DH5	Ant1	2402	Reference	3.32	3.32	---	PASS
			30~1000	3.32	-61.5	≤-16.68	PASS
			1000~26500	3.32	-47.07	≤-16.68	PASS
		2441	Reference	4.48	4.48	---	PASS
			30~1000	4.48	-61.39	≤-15.52	PASS
			1000~26500	4.48	-47.57	≤-15.52	PASS
		2480	Reference	3.70	3.70	---	PASS
			30~1000	3.70	-61.68	≤-16.3	PASS
			1000~26500	3.70	-47.2	≤-16.3	PASS
3DH5	Ant1	2402	Reference	0.80	0.80	---	PASS
			30~1000	0.80	-61.19	≤-19.2	PASS
			1000~26500	0.80	-47.63	≤-19.2	PASS
		2441	Reference	5.26	5.26	---	PASS
			30~1000	5.26	-60.88	≤-14.74	PASS
			1000~26500	5.26	-47.77	≤-14.74	PASS
		2480	Reference	3.13	3.13	---	PASS
			30~1000	3.13	-60.88	≤-16.87	PASS
			1000~26500	3.13	-47.36	≤-16.87	PASS

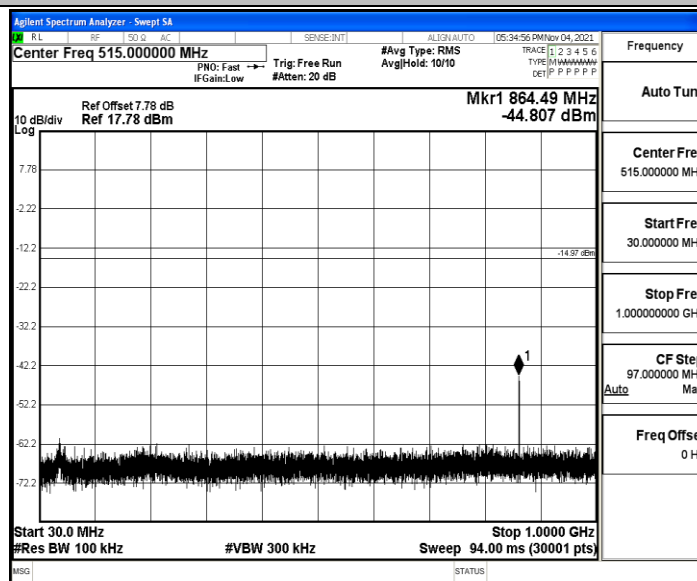


Test Graphs

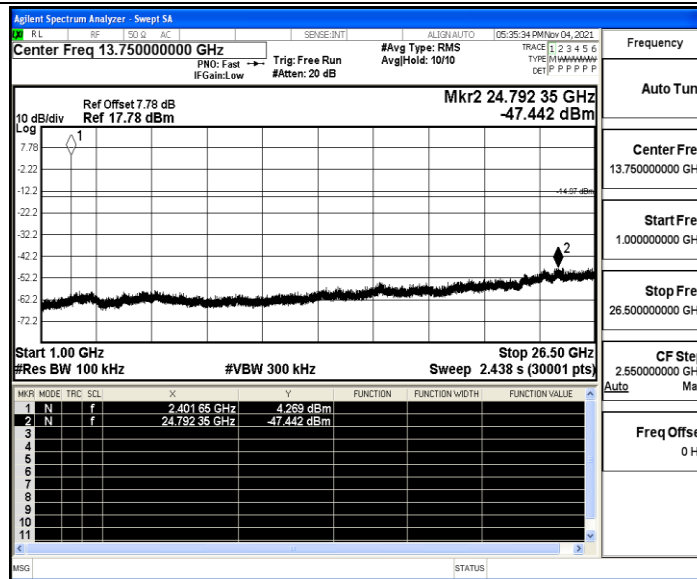
DH5_Ant1_2402_0~Reference



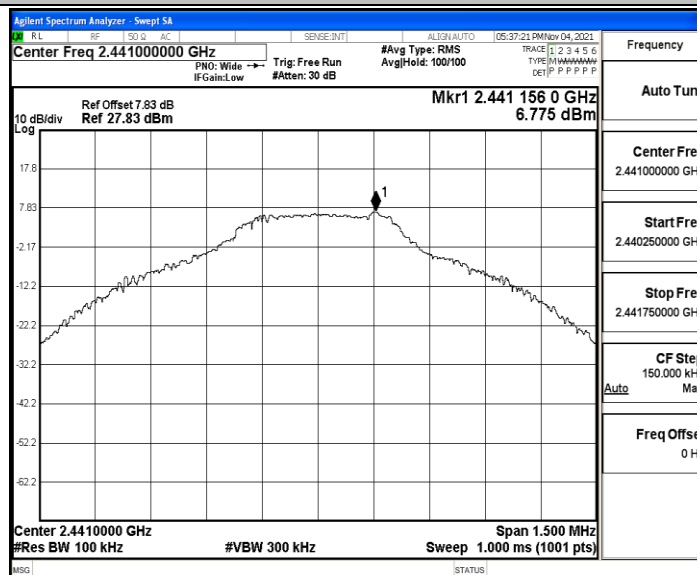
DH5_Ant1_2402_30~1000



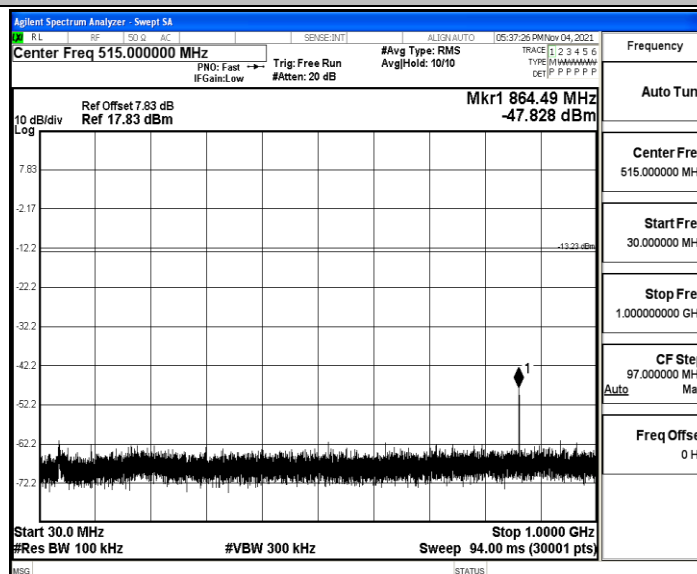
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

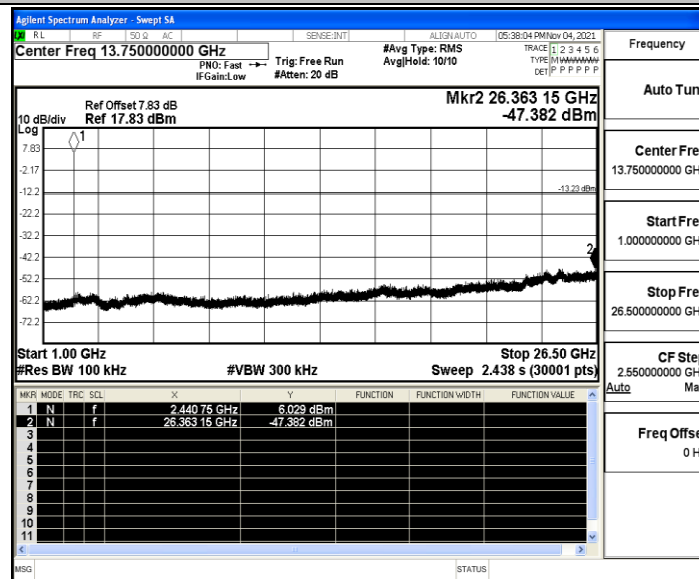


DH5_Ant1_2441_30~1000

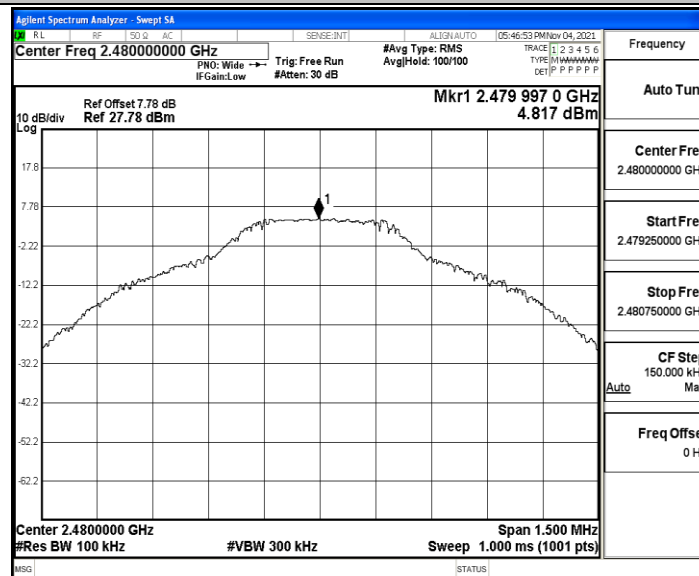




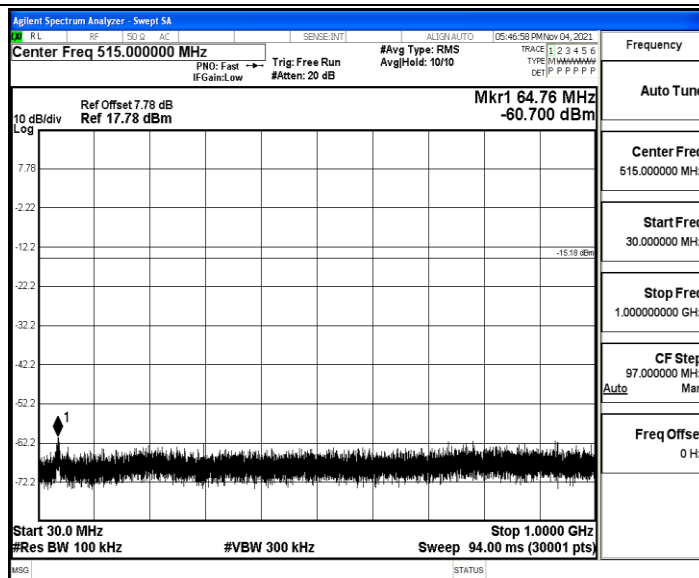
DH5_Ant1_2441_1000~26500



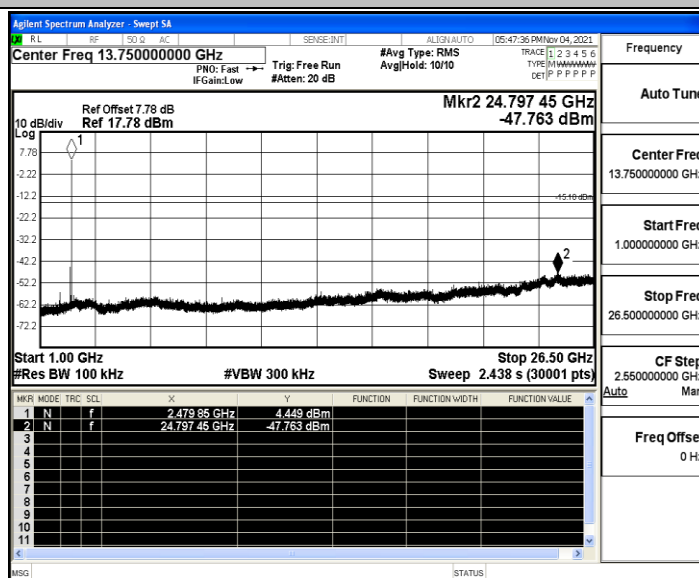
DH5_Ant1_2480_0~Reference



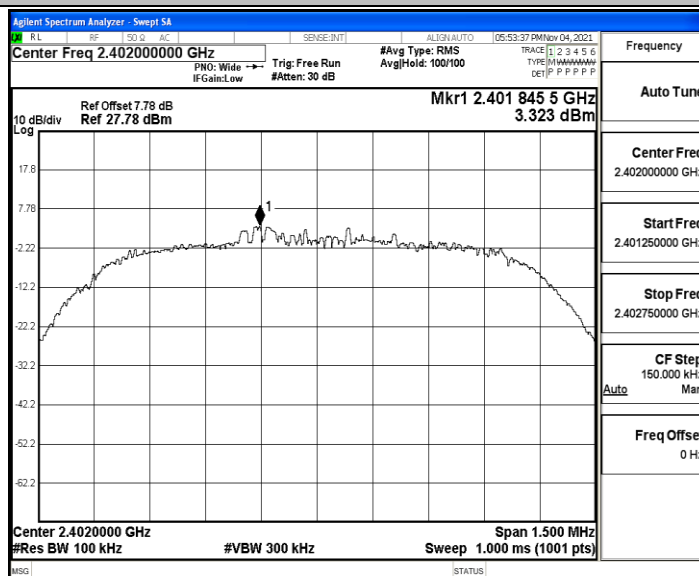
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

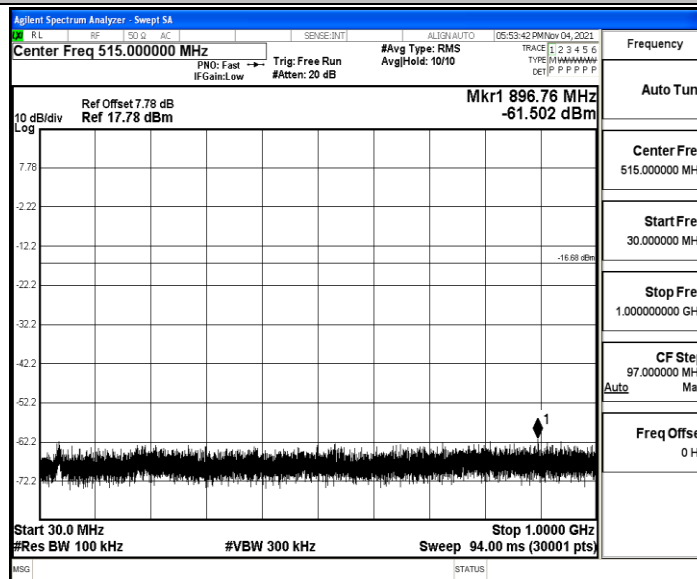


2DH5_Ant1_2402_0~Reference

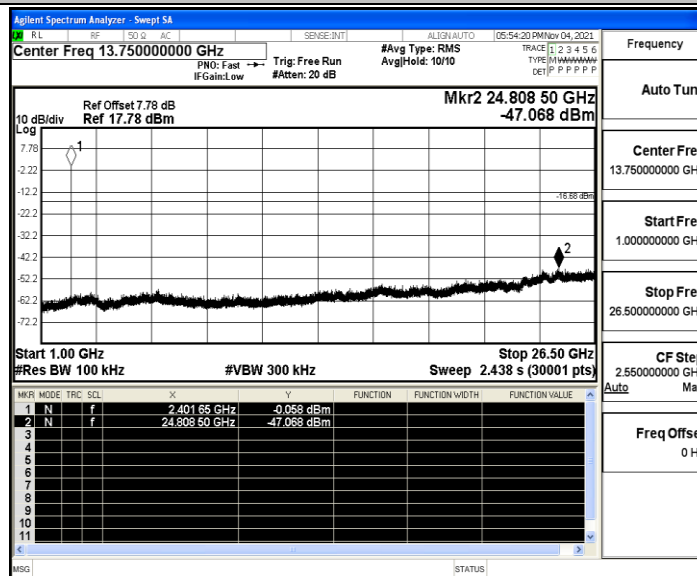




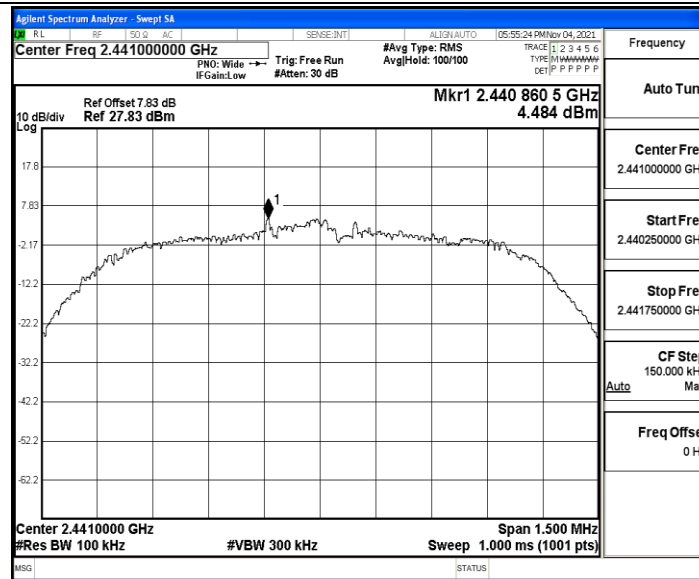
2DH5_Ant1_2402_30~1000



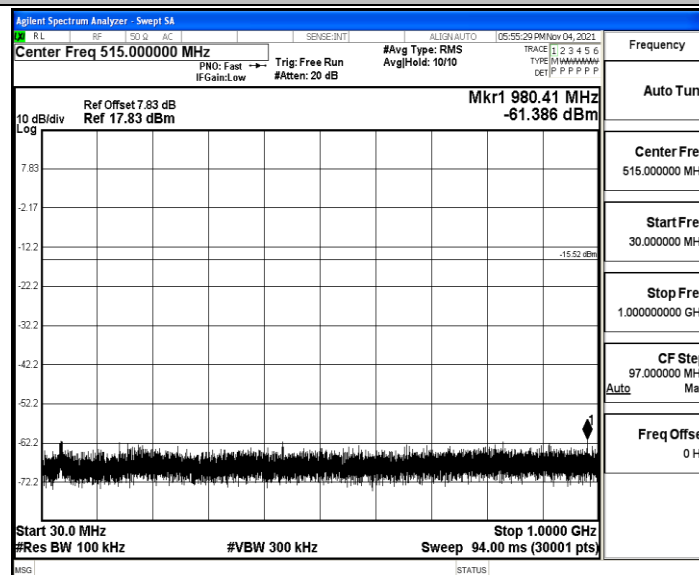
2DH5_Ant1_2402_1000~26500



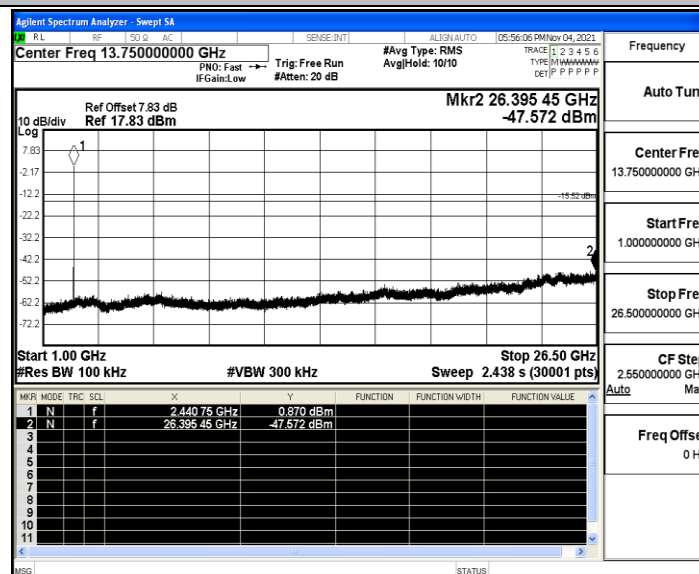
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

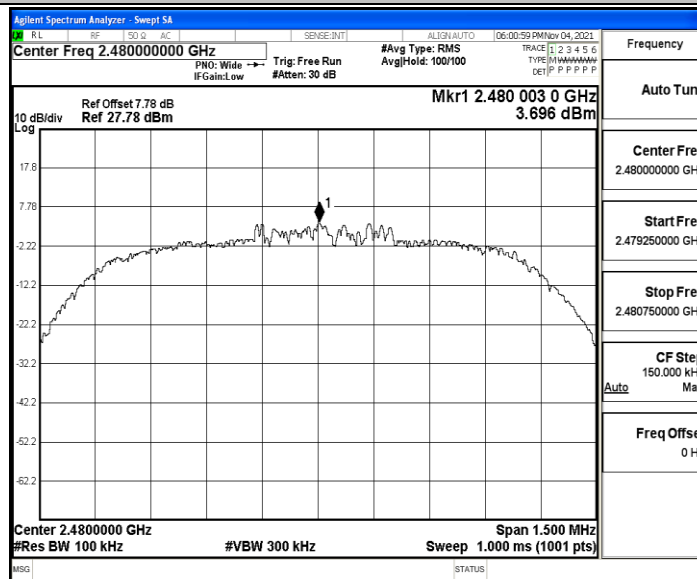


2DH5_Ant1_2441_1000~26500

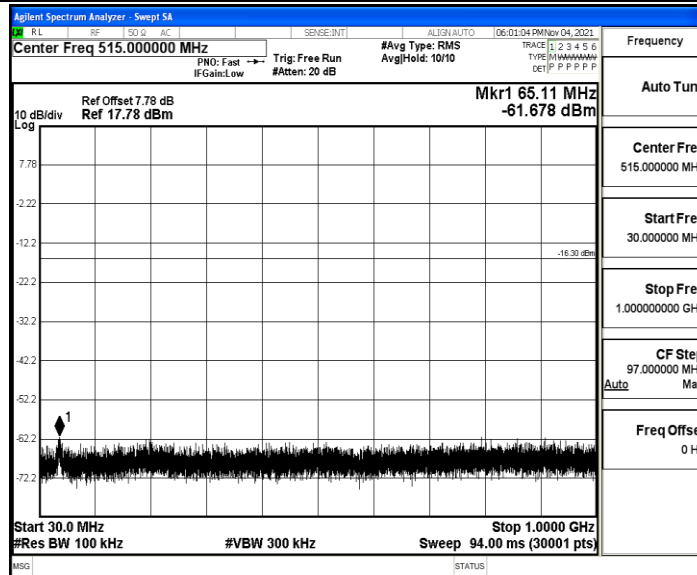




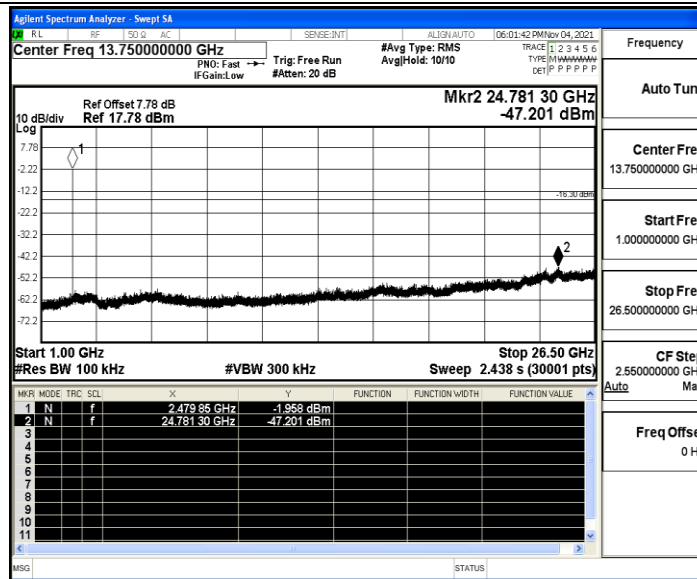
2DH5_Ant1_2480_0~Reference



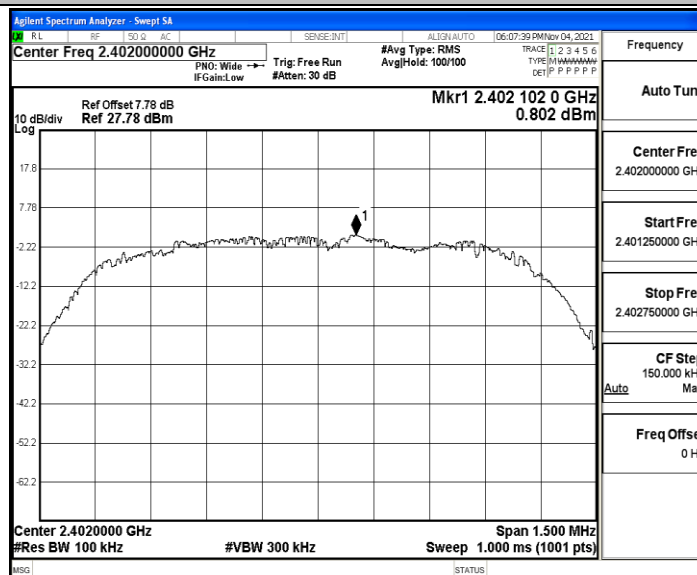
2DH5_Ant1_2480_30~1000



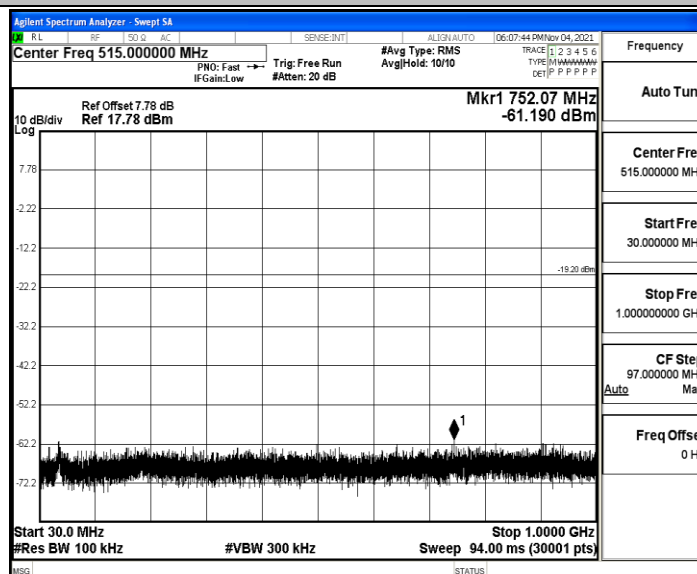
2DH5_Ant1_2480_1000~26500



3DH5_Ant1_2402_0~Reference

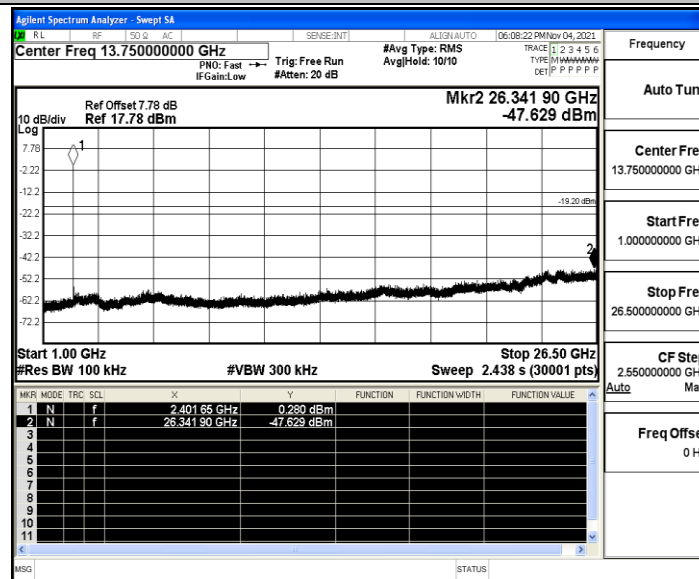


3DH5_Ant1_2402_30~1000

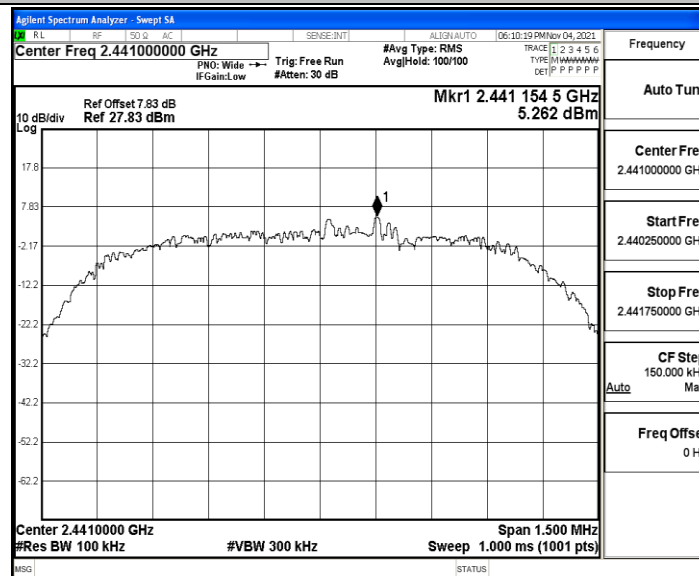




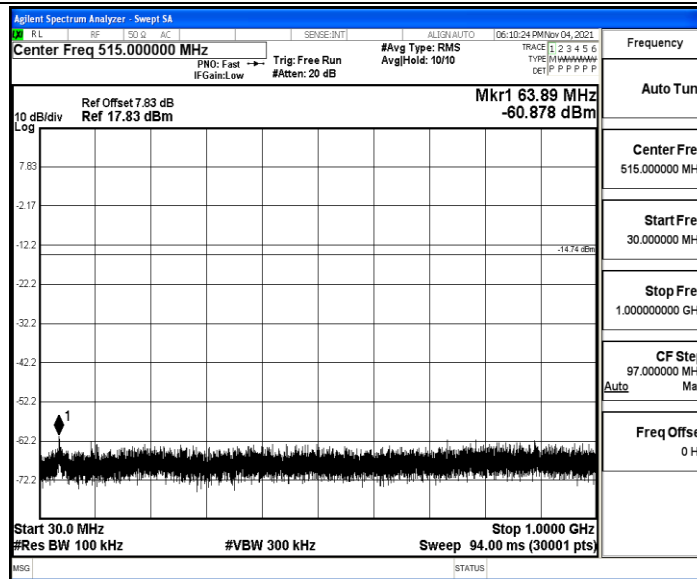
3DH5_Ant1_2402_1000~26500



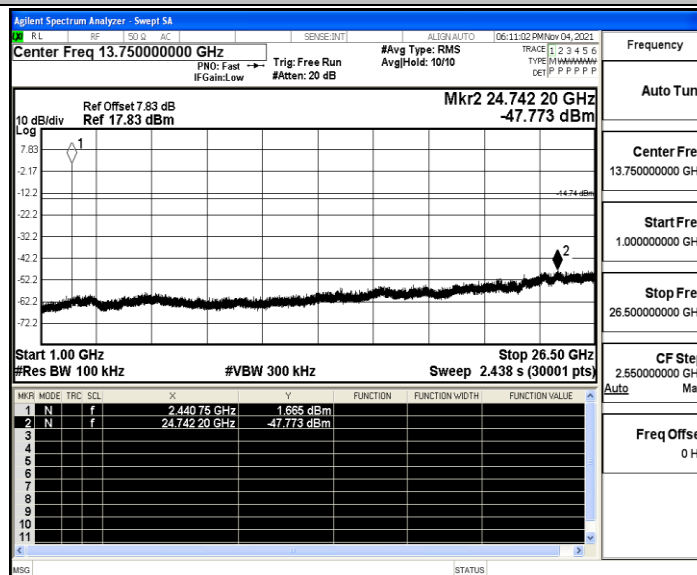
3DH5_Ant1_2441_0~Reference



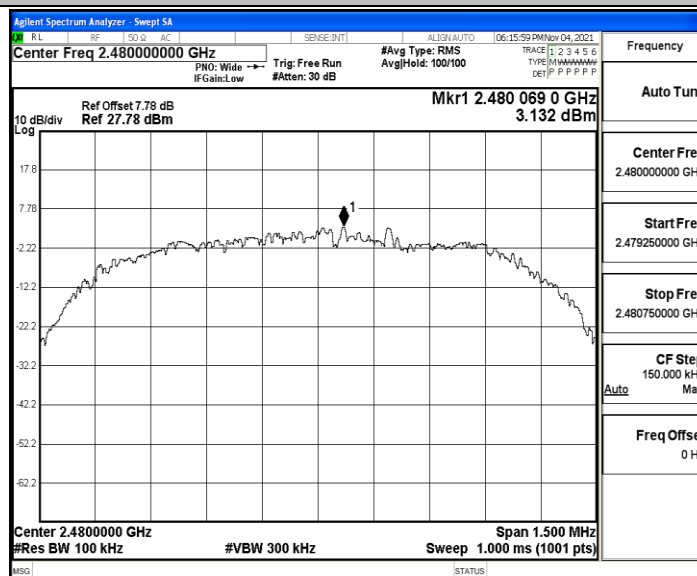
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

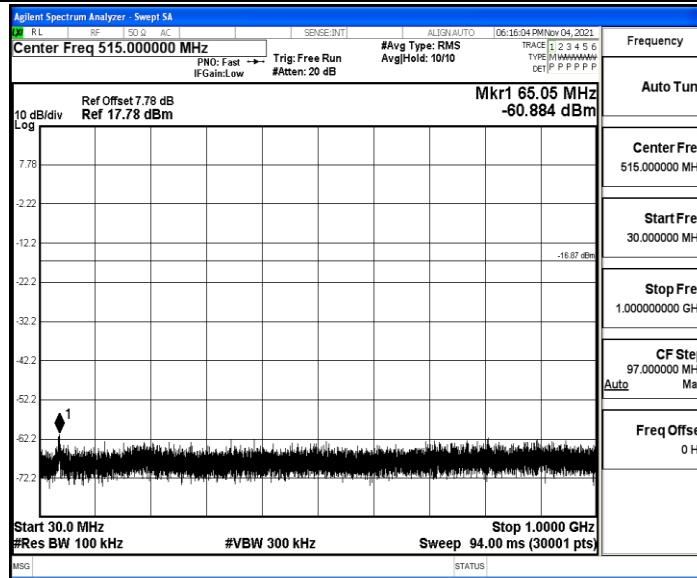


3DH5_Ant1_2480_0~Reference

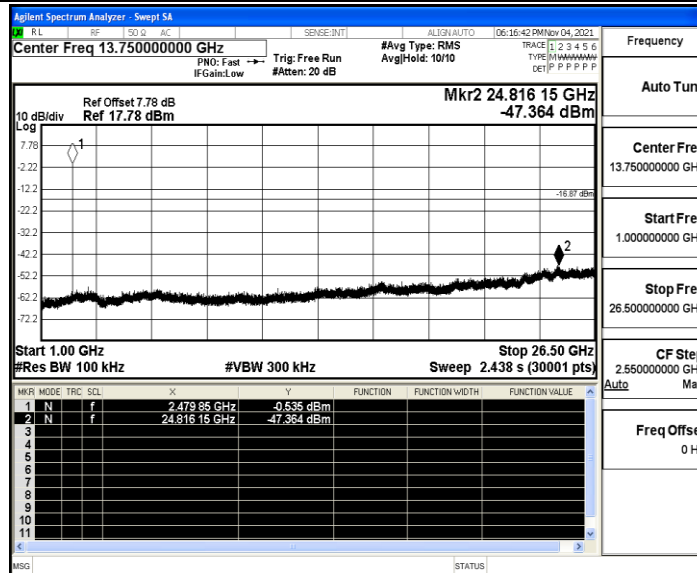




3DH5_Ant1_2480_30~1000



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	-48.98	≤-41.20	46.22	≤54	PASS
				AV	2387.360	-48.47	≤-41.20	46.73	≤54	PASS
				AV	2390.000	-48.6	≤-41.20	46.60	≤54	PASS
				Peak	2310.000	-39.89	≤-21.20	55.31	≤74	PASS
				Peak	2382.950	-38.44	≤-21.20	56.76	≤74	PASS
				Peak	2390.000	-40.26	≤-21.20	54.94	≤74	PASS
		High	2480	AV	2483.500	-47.16	≤-41.20	48.04	≤54	PASS
				AV	2483.520	-47.16	≤-41.20	48.04	≤54	PASS
				AV	2500.000	-48.03	≤-41.20	47.17	≤54	PASS
				Peak	2483.500	-38.6	≤-21.20	56.60	≤74	PASS
				Peak	2484.160	-37.28	≤-21.20	57.92	≤74	PASS
				Peak	2500.000	-39.78	≤-21.20	55.42	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-40.83	≤-21.20	54.37	≤74	PASS
				Peak	2382.635	-37.67	≤-21.20	57.53	≤74	PASS
				Peak	2390.000	-39.69	≤-21.20	55.51	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-39.27	≤-21.20	55.93	≤74	PASS
				Peak	2487.840	-37.2	≤-21.20	58.00	≤74	PASS
				Peak	2500.000	-39.3	≤-21.20	55.90	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.96	≤-41.20	46.24	≤54	PASS
				AV	2386.730	-48.47	≤-41.20	46.73	≤54	PASS
				AV	2390.000	-48.63	≤-41.20	46.57	≤54	PASS
				Peak	2310.000	-41.47	≤-21.20	53.73	≤74	PASS
				Peak	2377.280	-37.87	≤-21.20	57.33	≤74	PASS
				Peak	2390.000	-40.03	≤-21.20	55.17	≤74	PASS
		High	2480	AV	2483.500	-47.03	≤-41.20	48.17	≤54	PASS
				AV	2483.520	-47.03	≤-41.20	48.17	≤54	PASS
				AV	2500.000	-47.91	≤-41.20	47.29	≤54	PASS
				Peak	2483.500	-39.54	≤-21.20	55.66	≤74	PASS
				Peak	2499.280	-36.5	≤-21.20	58.70	≤74	PASS
				Peak	2500.000	-39.37	≤-21.20	55.83	≤74	PASS
		Low	Hop_24 02	Peak	2310.000	-41	≤-21.20	54.20	≤74	PASS
				Peak	2377.175	-38.46	≤-21.20	56.74	≤74	PASS
				Peak	2390.000	-40.84	≤-21.20	54.36	≤74	PASS
		High	Hop_24 80	Peak	2483.500	-39.93	≤-21.20	55.27	≤74	PASS
				Peak	2494.800	-37.86	≤-21.20	57.34	≤74	PASS
				Peak	2500.000	-39.67	≤-21.20	55.53	≤74	PASS



3DH5	Ant1	Low	2402	AV	2310.000	-48.96	≤ -41.20	46.24	≤ 54	PASS
				AV	2386.730	-48.44	≤ -41.20	46.76	≤ 54	PASS
				AV	2390.000	-48.55	≤ -41.20	46.65	≤ 54	PASS
				Peak	2310.000	-39.75	≤ -21.20	55.45	≤ 74	PASS
				Peak	2373.500	-37.85	≤ -21.20	57.35	≤ 74	PASS
				Peak	2390.000	-40.29	≤ -21.20	54.91	≤ 74	PASS
		High	2480	AV	2483.500	-47.1	≤ -41.20	48.10	≤ 54	PASS
				AV	2483.520	-47.1	≤ -41.20	48.10	≤ 54	PASS
				AV	2500.000	-48.04	≤ -41.20	47.16	≤ 54	PASS
				Peak	2483.500	-39.45	≤ -21.20	55.75	≤ 74	PASS
				Peak	2491.040	-37.25	≤ -21.20	57.95	≤ 74	PASS
				Peak	2500.000	-38.07	≤ -21.20	57.13	≤ 74	PASS
		Low	Hop_2402	Peak	2310.000	-40.57	≤ -21.20	54.63	≤ 74	PASS
				Peak	2387.360	-38.18	≤ -21.20	57.02	≤ 74	PASS
				Peak	2390.000	-39.78	≤ -21.20	55.42	≤ 74	PASS
		High	Hop_2480	Peak	2483.500	-40.2	≤ -21.20	55.00	≤ 74	PASS
				Peak	2495.280	-37.77	≤ -21.20	57.43	≤ 74	PASS
				Peak	2500.000	-40.03	≤ -21.20	55.17	≤ 74	PASS

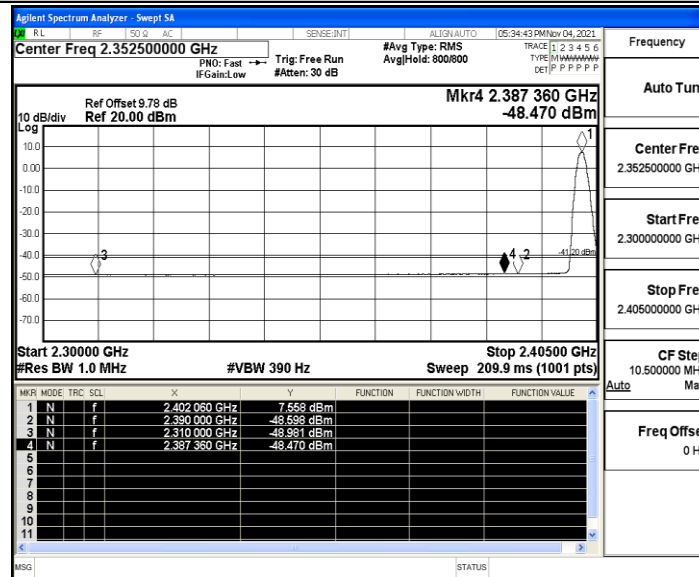
Note:

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.

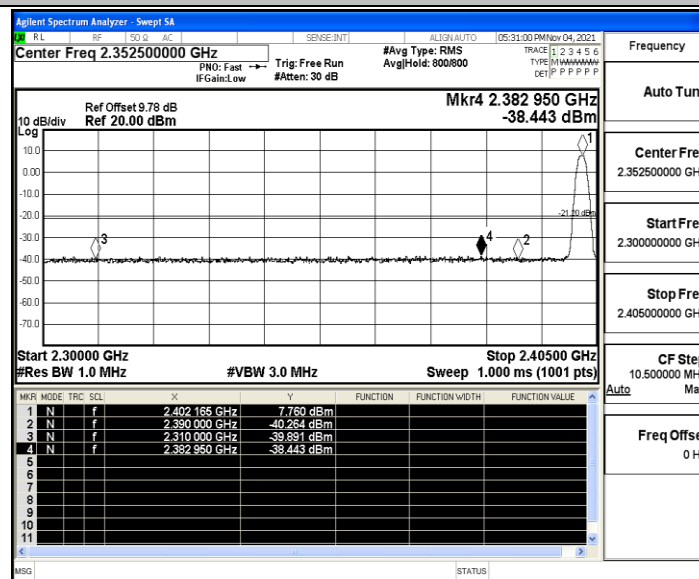


Test Graphs

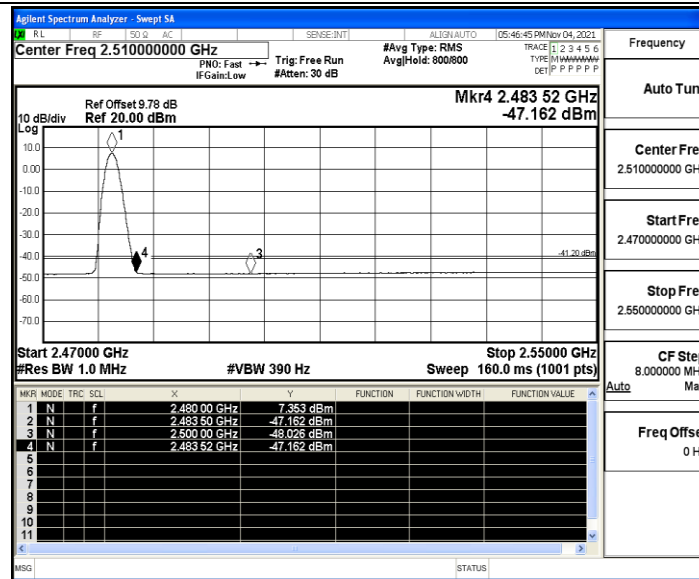
DH5_Ant1_Low_2402_AV



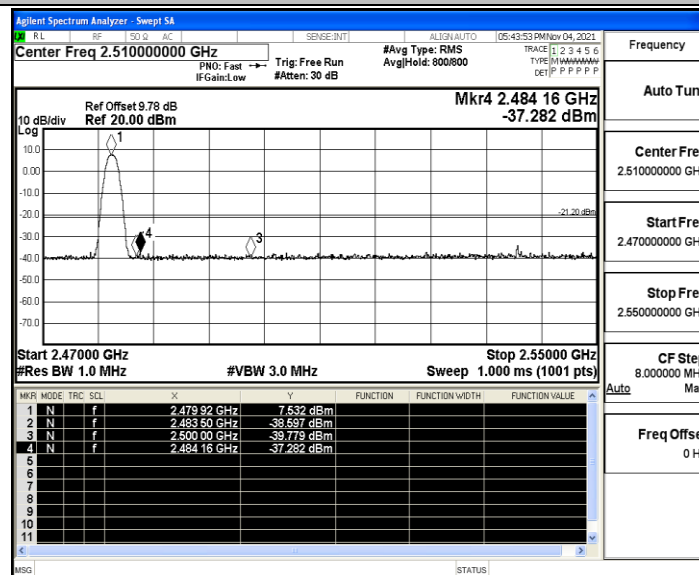
DH5_Ant1_Low_2402_Peak



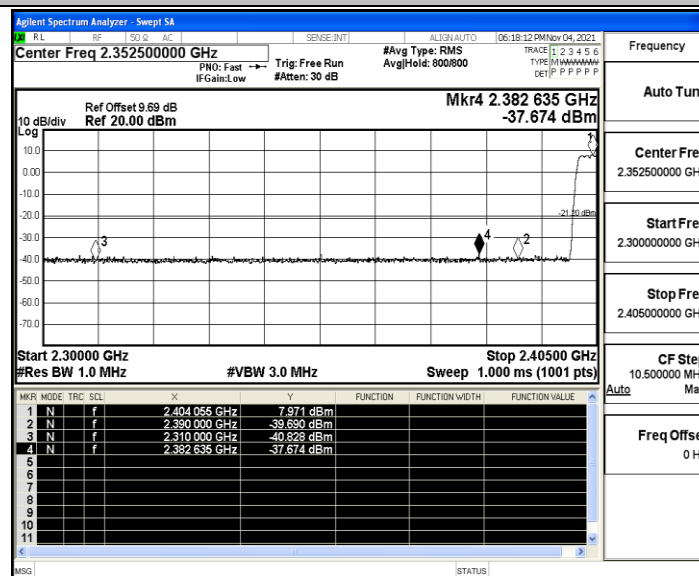
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

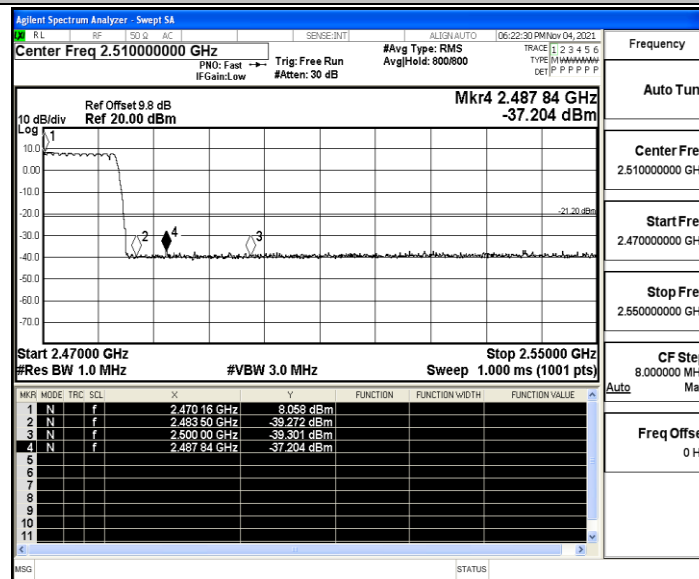


DH5_Ant1_Low_Hop_2402_Peak

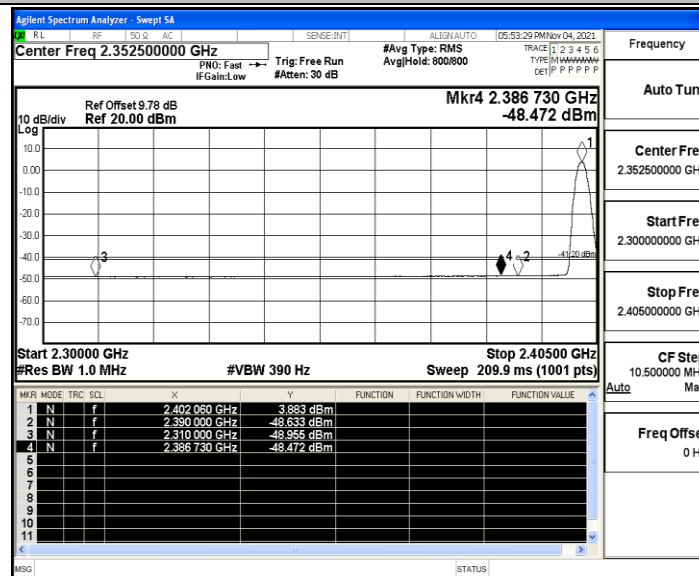




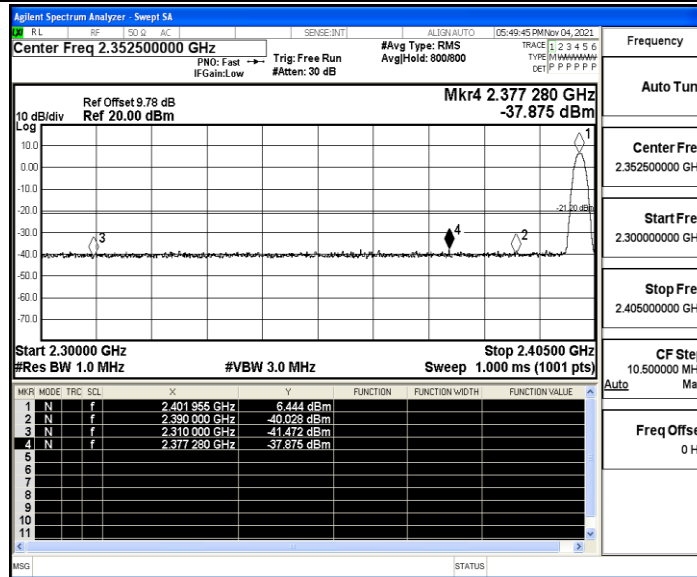
DH5_Ant1_High_Hop_2480_Peak



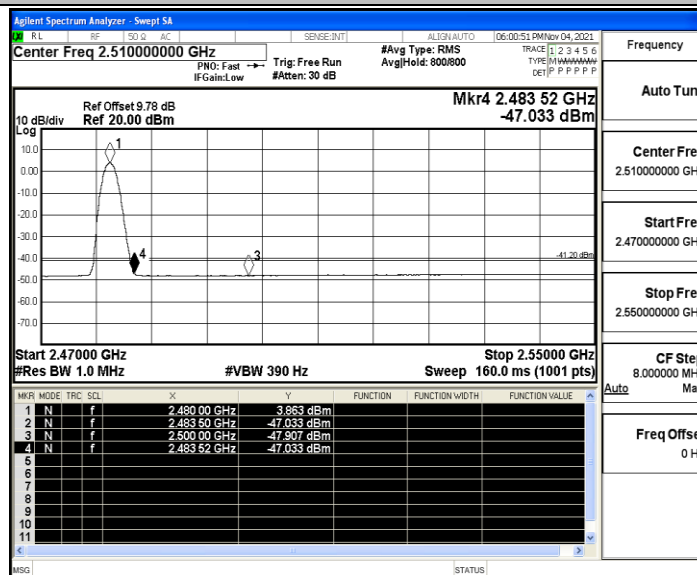
2DH5_Ant1_Low_2402_AV



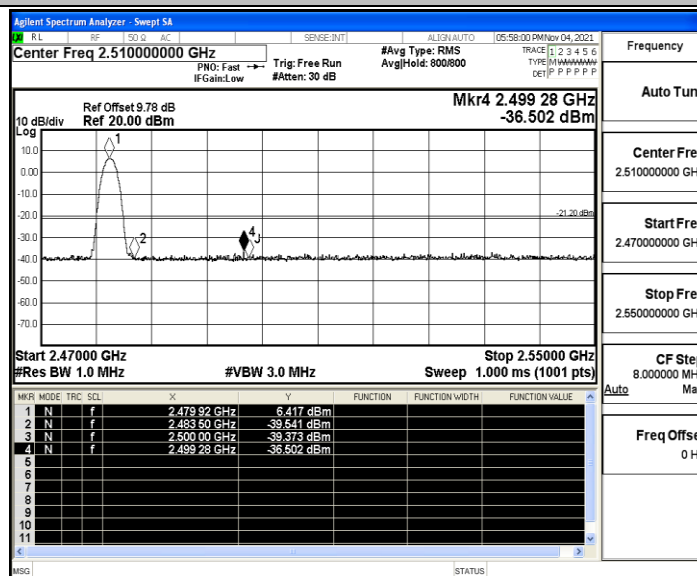
2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV

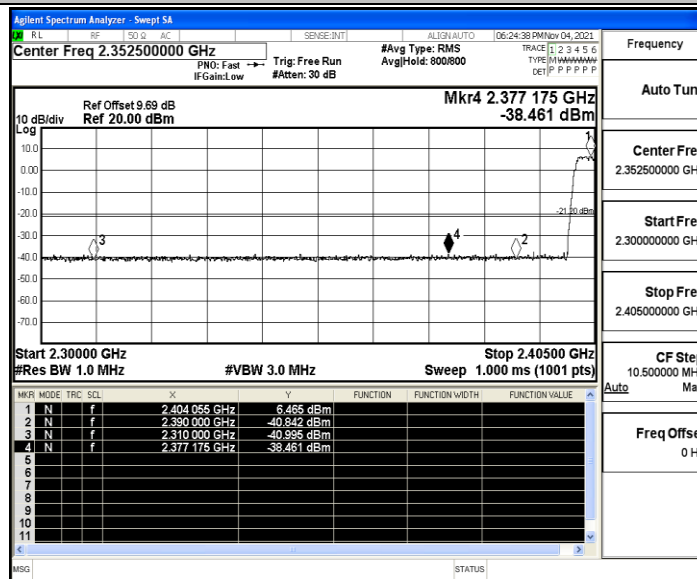


2DH5_Ant1_High_2480_Peak

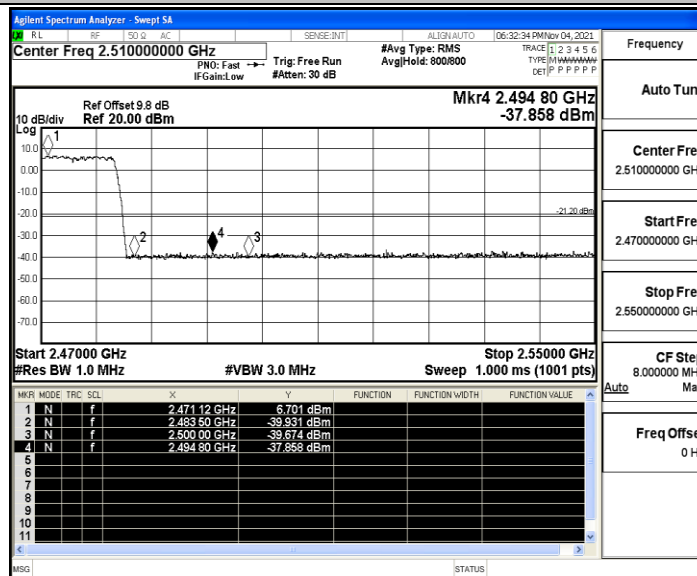




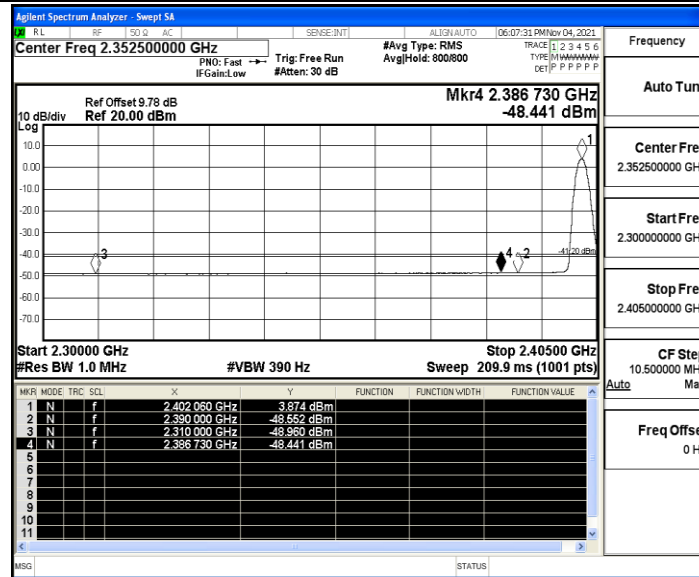
2DH5_Ant1_Low_Hop_2402_Peak



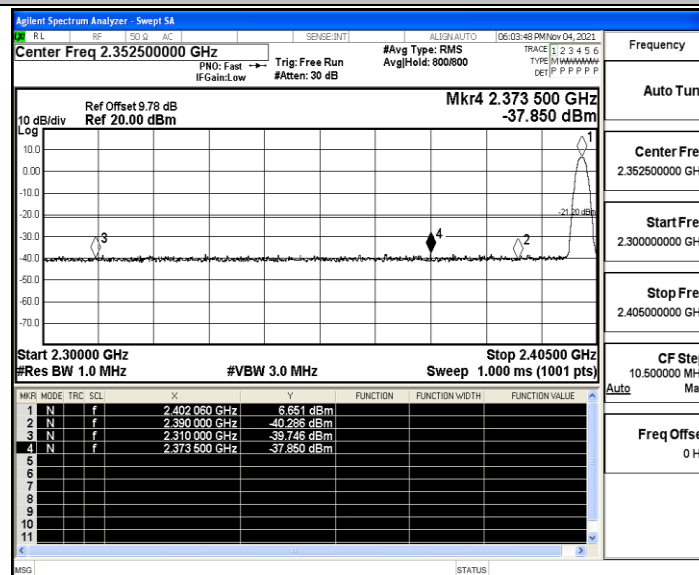
2DH5_Ant1_High_Hop_2480_Peak



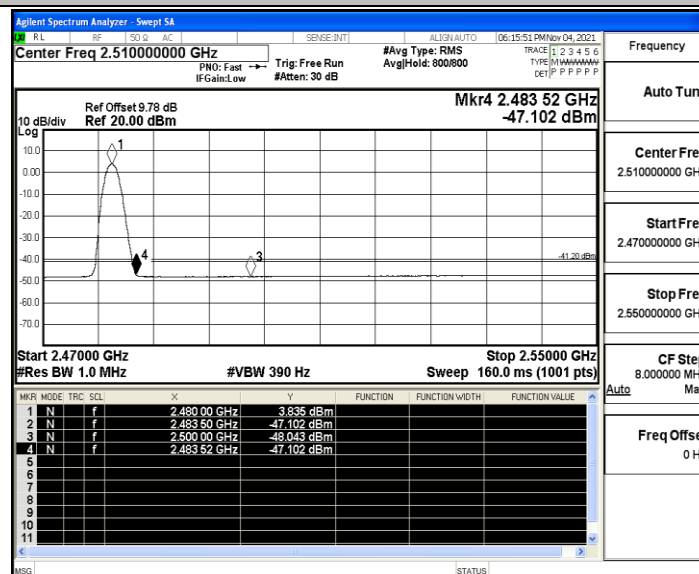
3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak

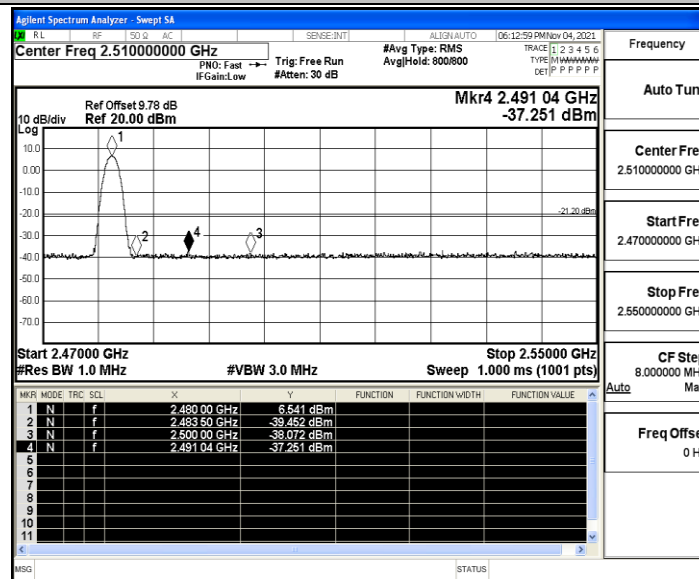


3DH5_Ant1_High_2480_AV

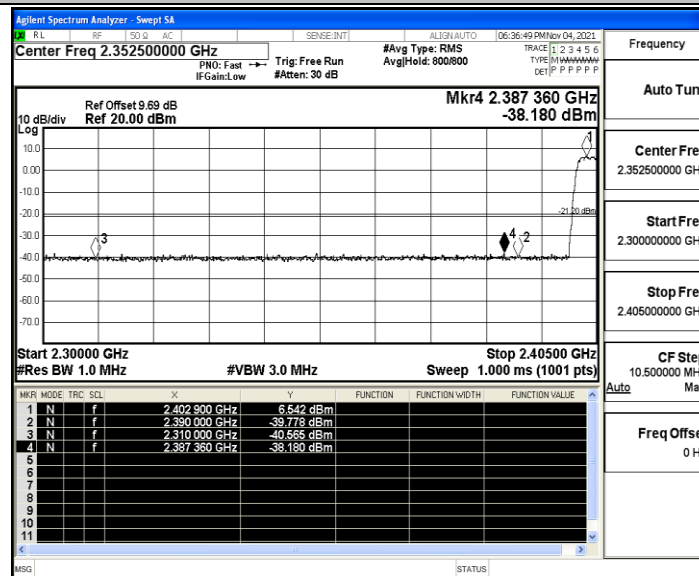




3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak

