



Appendix A

RF Test Data for BT V5.2(DSS) (Conducted Measurement)

Product Name: Stick Type TWS

Test Model: JX91

Environmental Conditions

Temperature:	21.1℃
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Ling.zhu
Supervised by:	Libin



A.1 20dB Emission Bandwidth

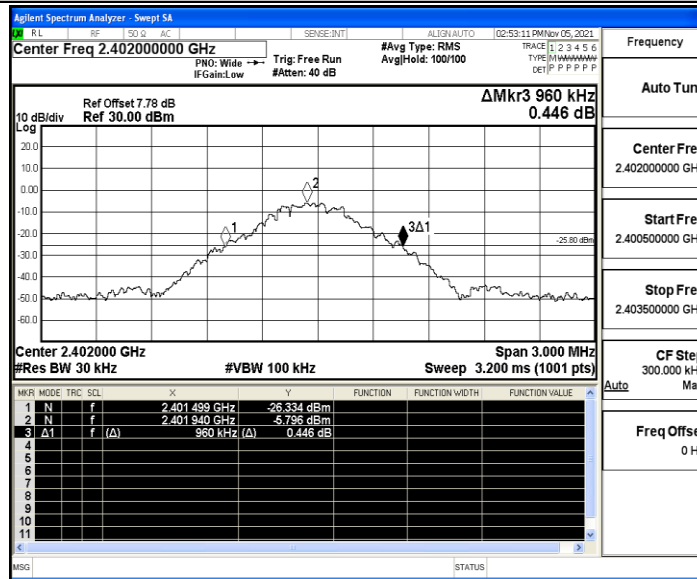
Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.960	2401.499	2402.459	---	PASS
		2441	0.942	2440.505	2441.447	---	PASS
		2480	0.930	2479.508	2480.438	---	PASS
2DH5	Ant1	2402	1.353	2401.289	2402.642	---	PASS
		2441	1.281	2440.334	2441.615	---	PASS
		2480	1.329	2479.298	2480.627	---	PASS

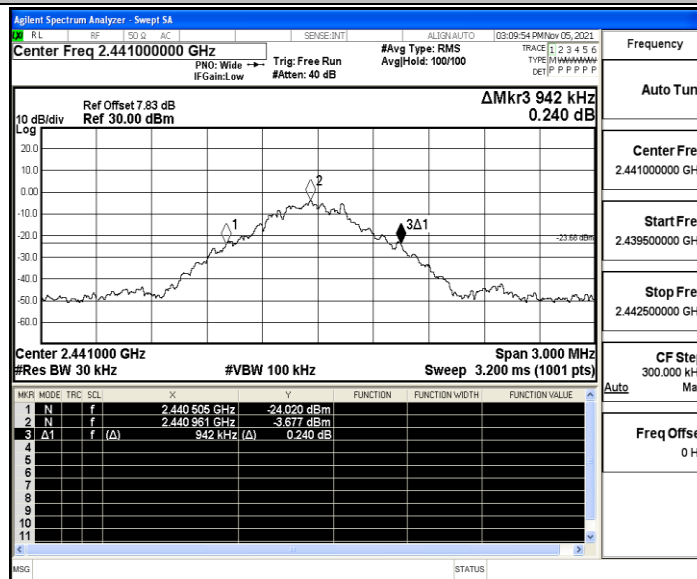


Test Graphs

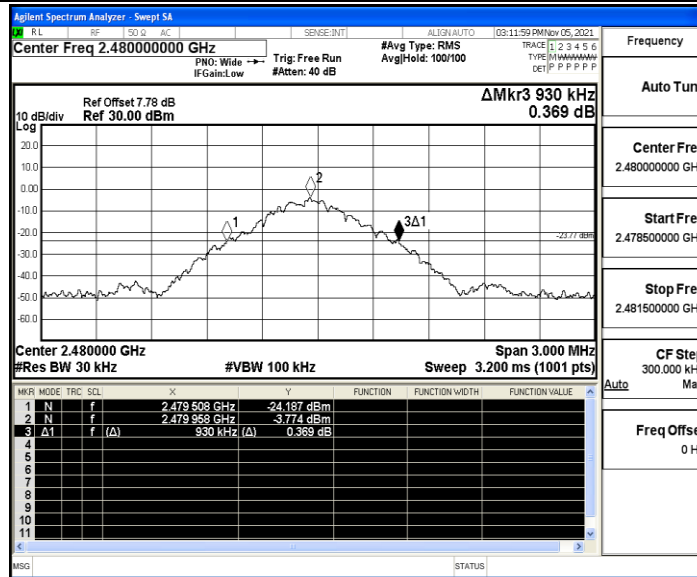
DH5_Ant1_2402



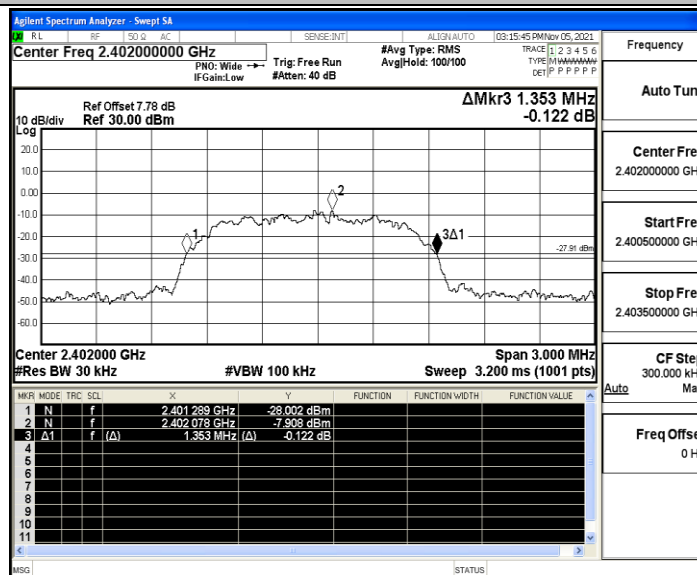
DH5_Ant1_2441



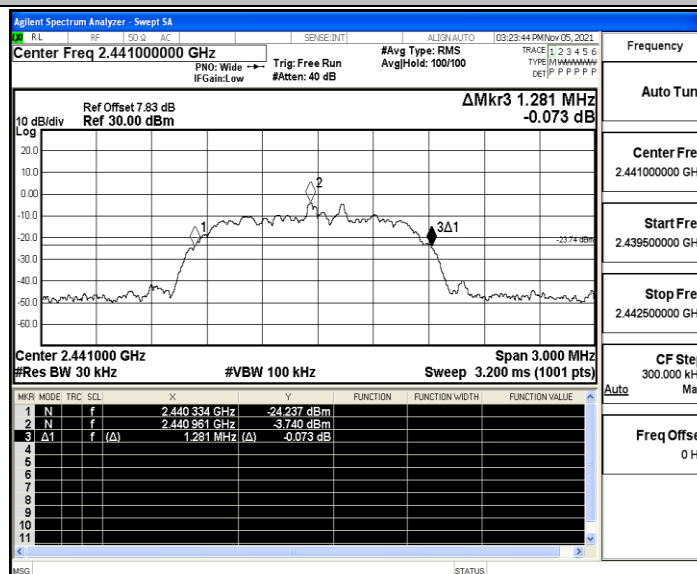
DH5_Ant1_2480



2DH5_Ant1_2402

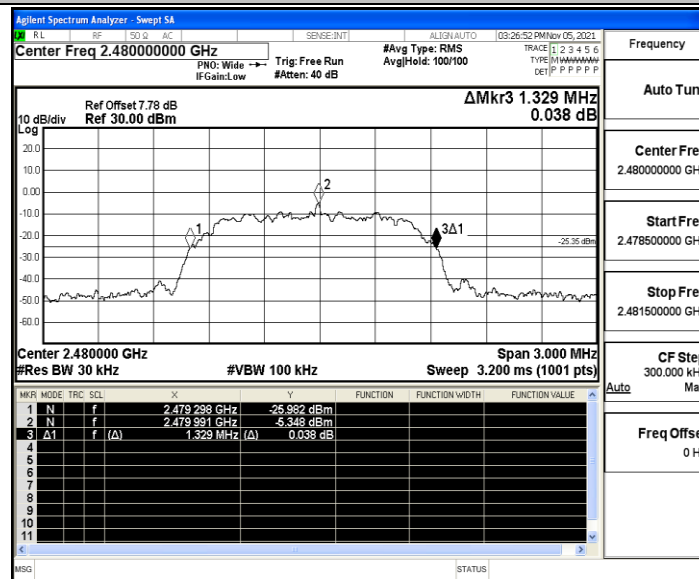


2DH5_Ant1_2441





2DH5_Ant1_2480





A.2 Maximum conducted output power

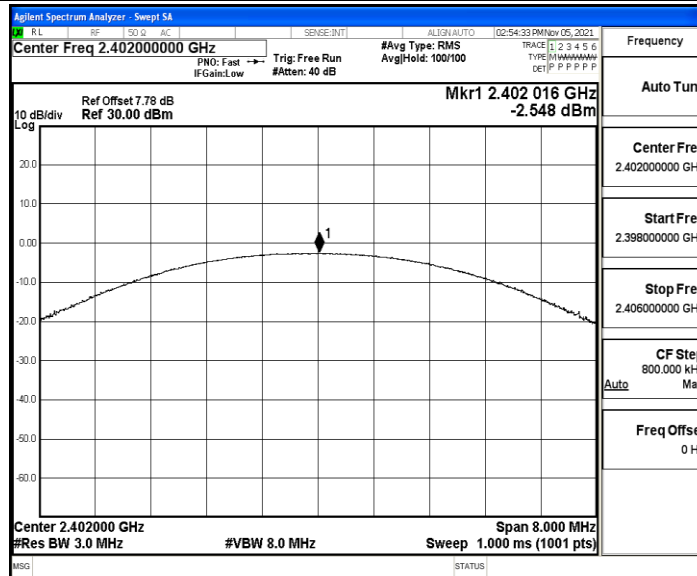
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-2.55	≤ 20.97	PASS
		2441	-2.26	≤ 20.97	PASS
		2480	-1.91	≤ 20.97	PASS
2DH5	Ant1	2402	-0.67	≤ 20.97	PASS
		2441	-0.08	≤ 20.97	PASS
		2480	0.06	≤ 20.97	PASS

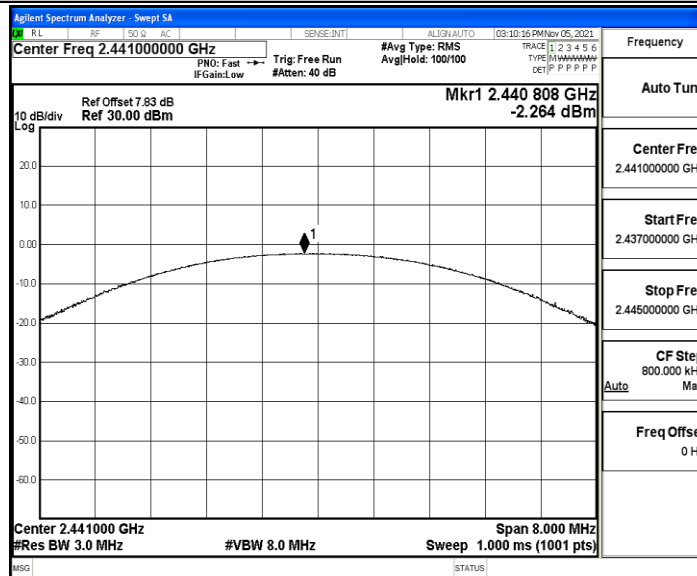


Test Graphs

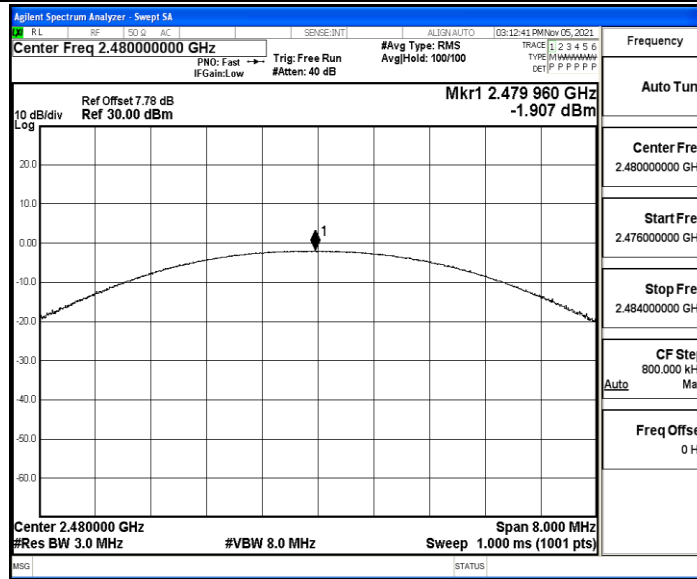
DH5_Ant1_2402



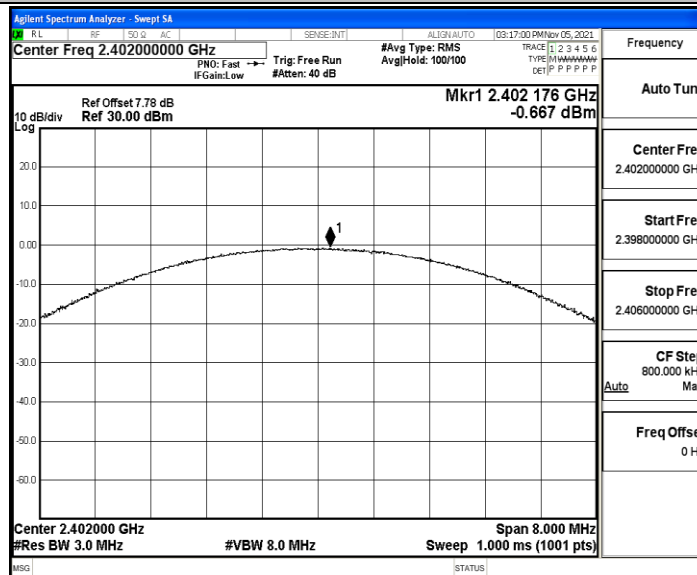
DH5_Ant1_2441



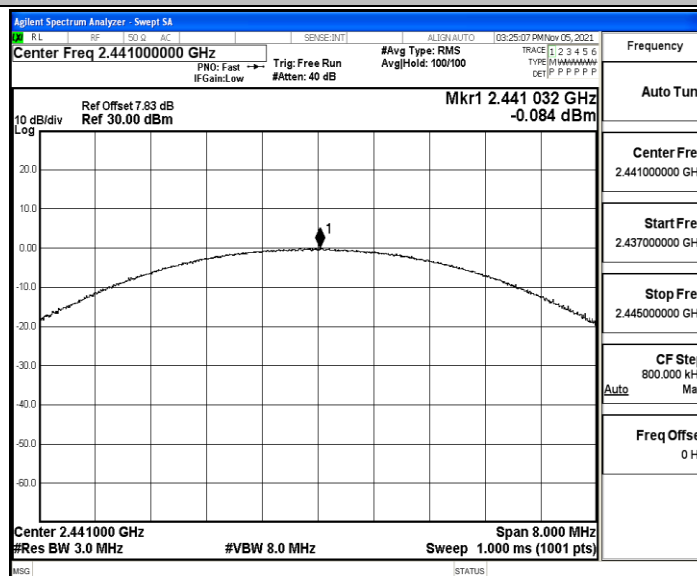
DH5_Ant1_2480



2DH5_Ant1_2402

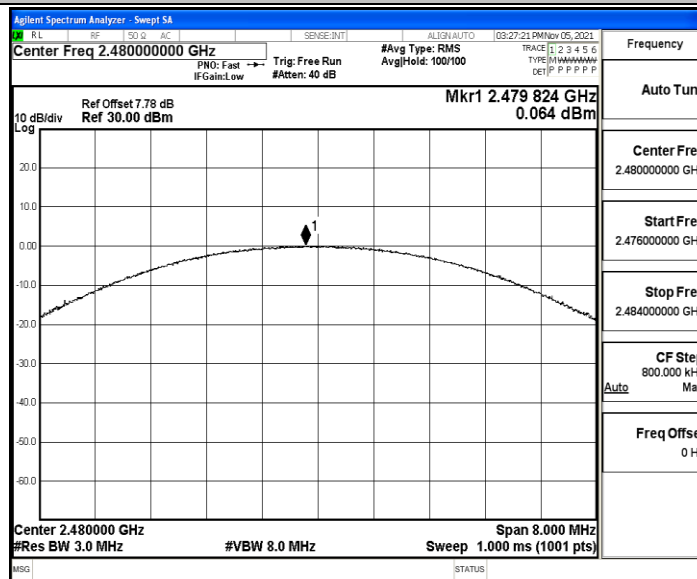


2DH5_Ant1_2441





2DH5_Ant1_2480



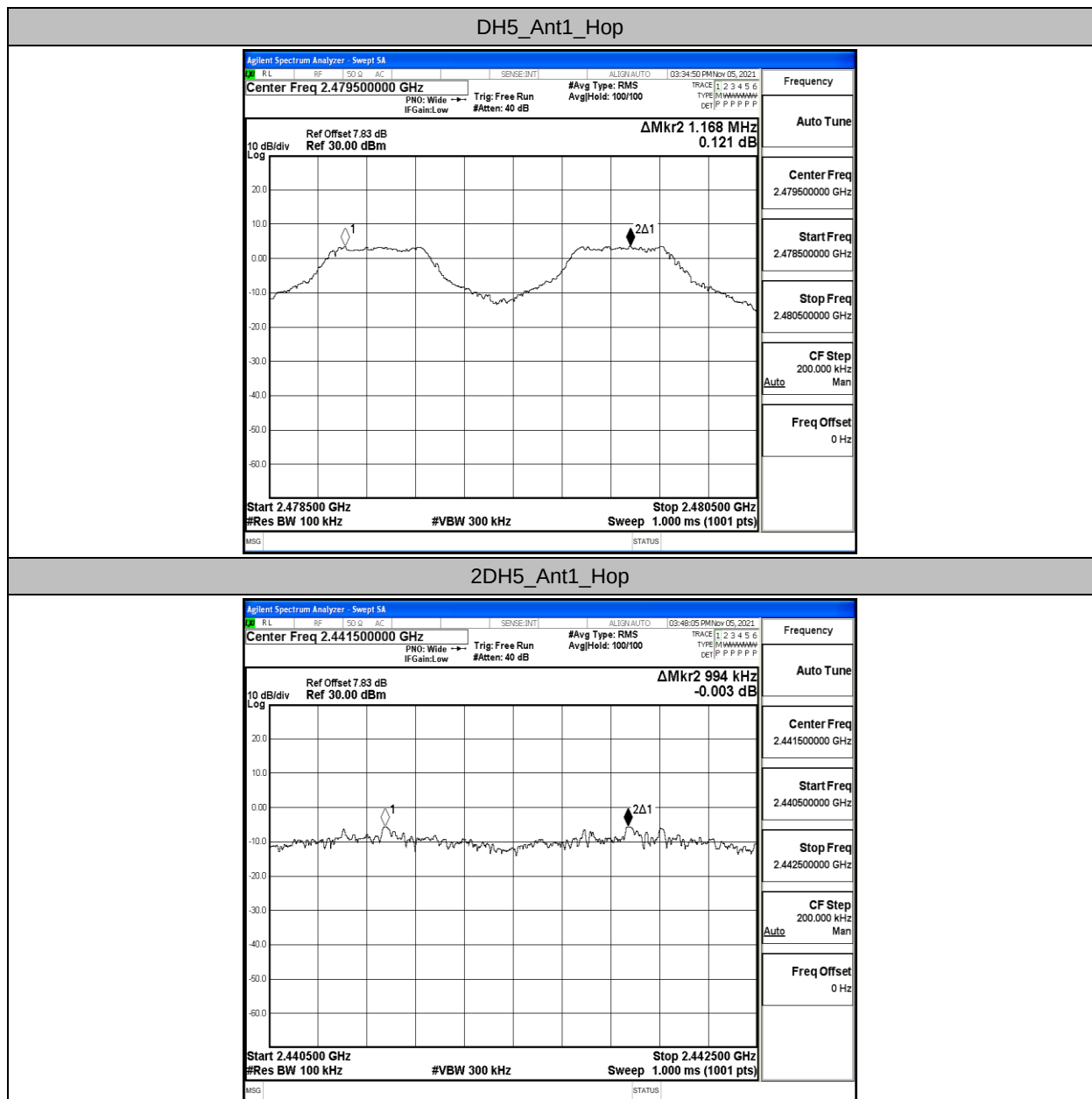


A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.168	≥ 0.640	PASS
2DH5	Ant1	Hop	0.994	≥ 0.902	PASS

Test Graphs



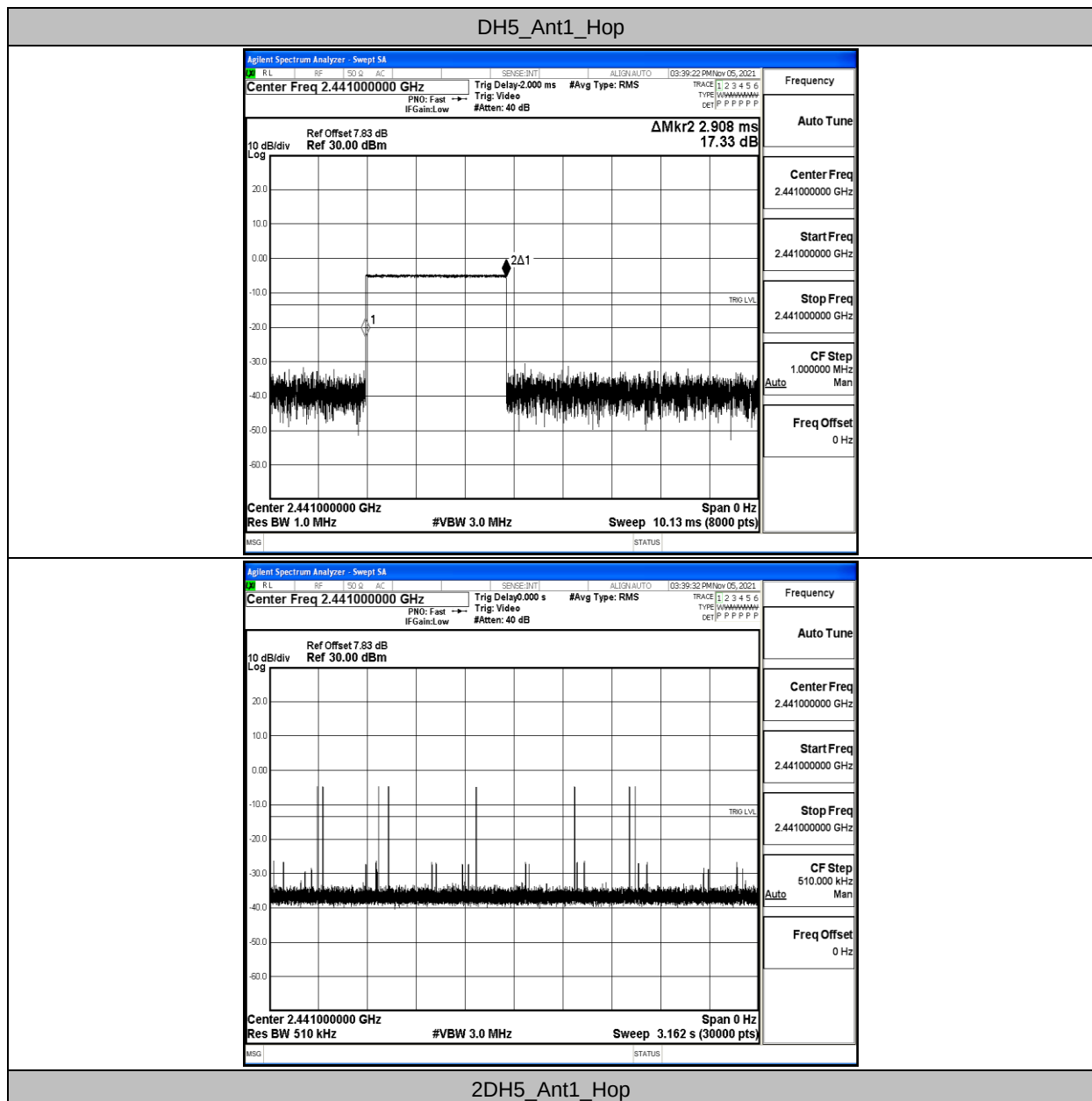


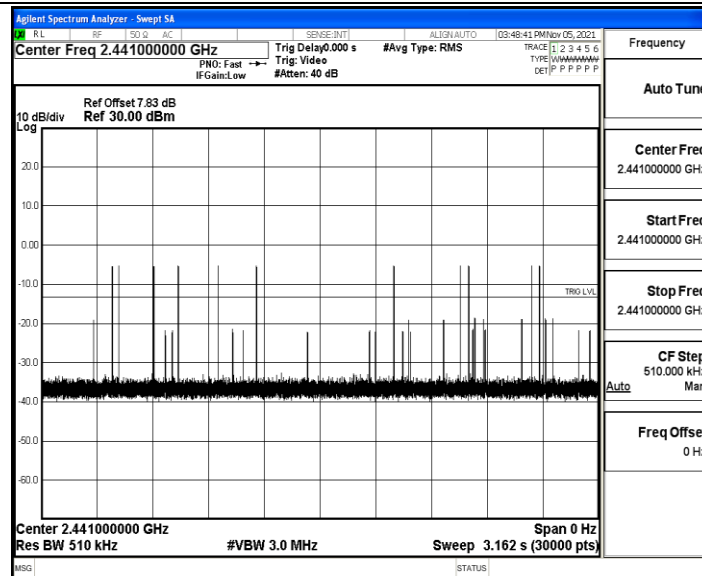
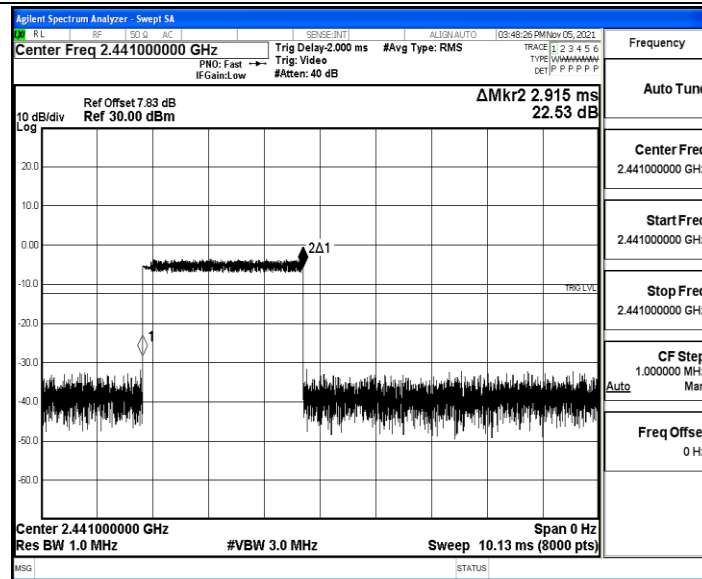
A.4 Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.91	90	0.262	≤0.4	PASS
2DH5	Ant1	Hop	2.91	120	0.35	≤0.4	PASS

Test Graphs





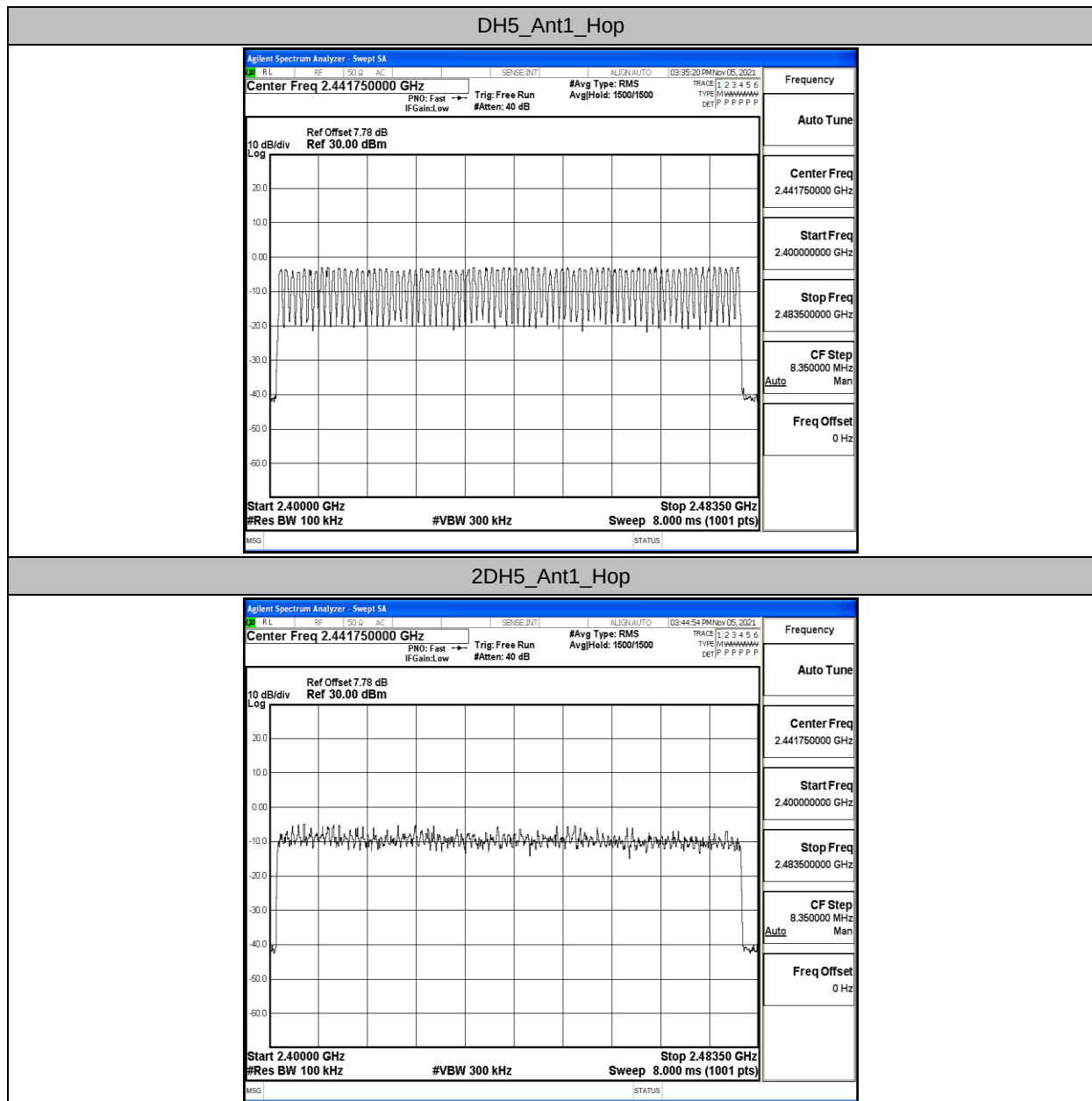


A.5 Number of hopping channels

Test Result

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

Test Graphs





A.6 Band edge measurements

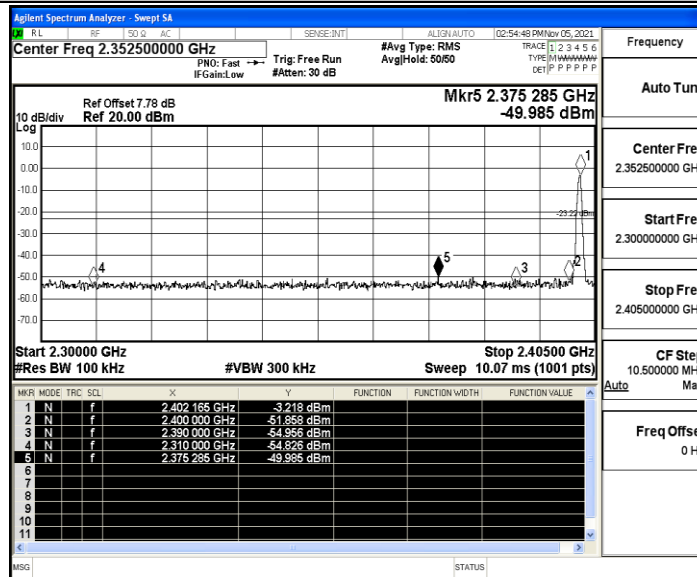
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-3.22	-49.99	≤ -23.22	PASS
		High	2480	-2.84	-49.71	≤ -22.84	PASS
		Low	Hop_2402	-3.57	-49.51	≤ -23.57	PASS
		High	Hop_2480	-2.64	-26.62	≤ -22.64	PASS
2DH5	Ant1	Low	2402	-3.32	-50.33	≤ -23.32	PASS
		High	2480	-3.24	-27.05	≤ -23.24	PASS
		Low	Hop_2402	-6.61	-50.3	≤ -26.61	PASS
		High	Hop_2480	-6.63	-48.41	≤ -26.63	PASS

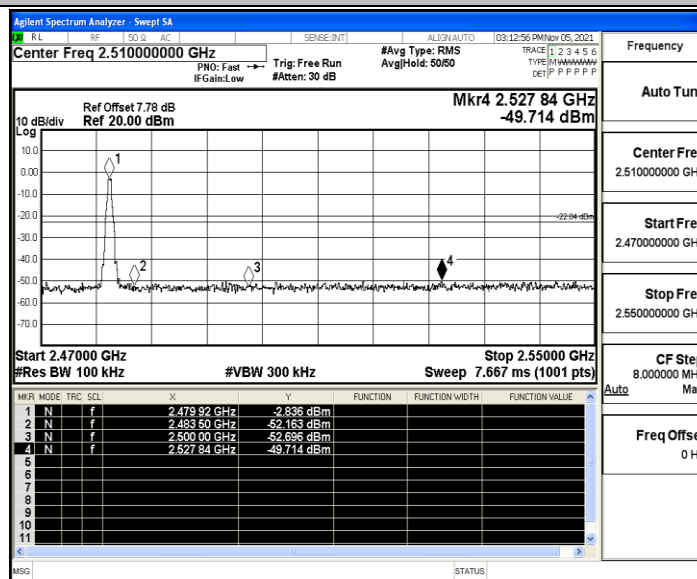


Test Graphs

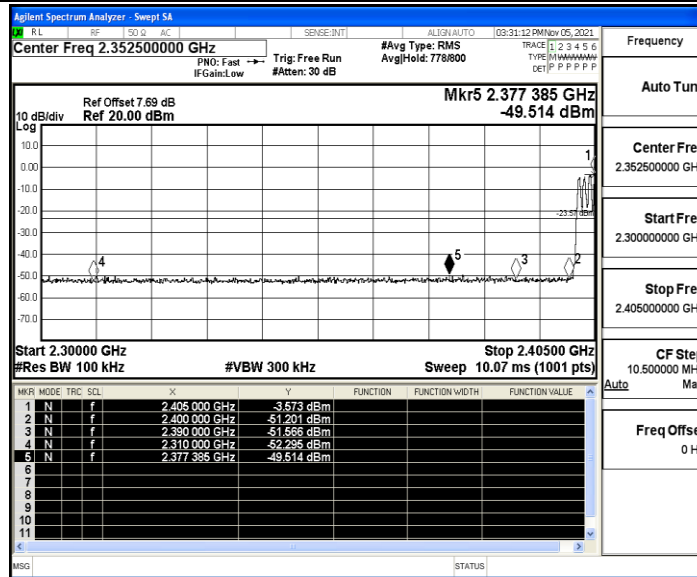
DH5_Ant1_Low_2402



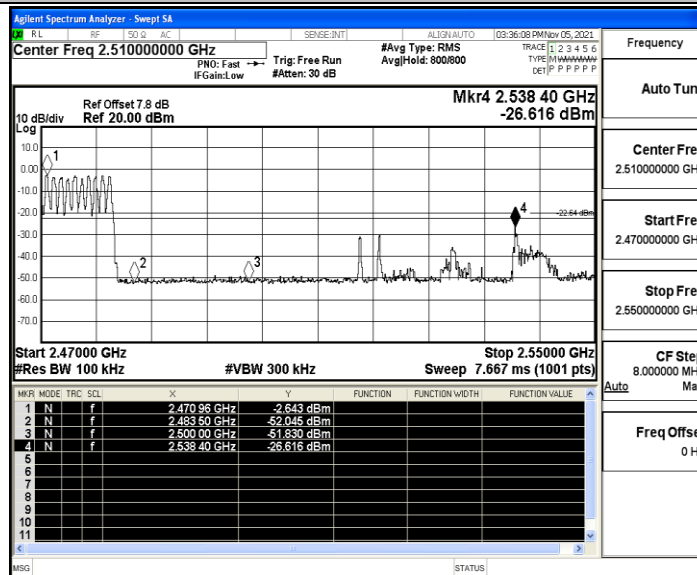
DH5_Ant1_High_2480



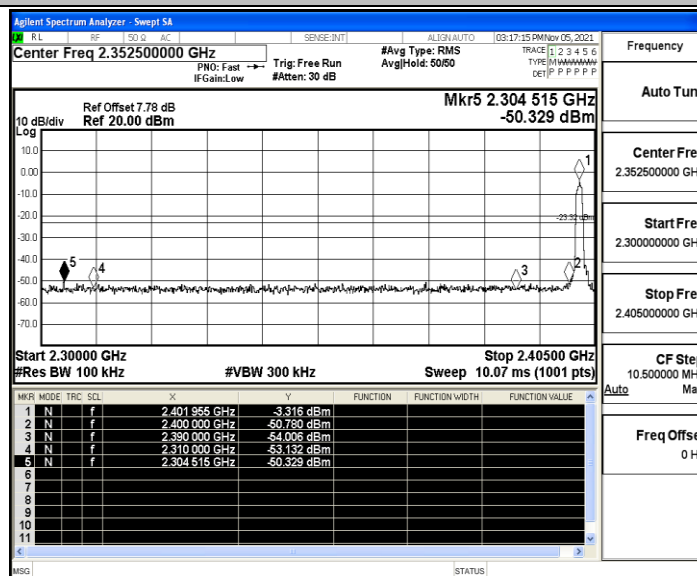
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480

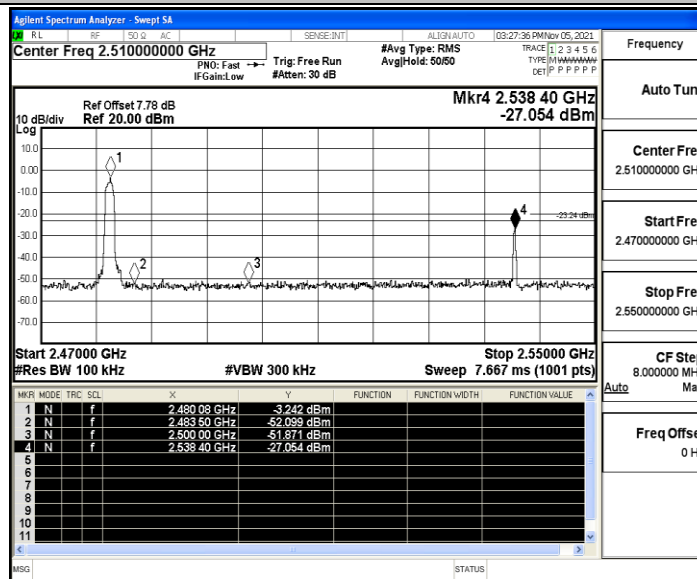


2DH5_Ant1_Low_2402

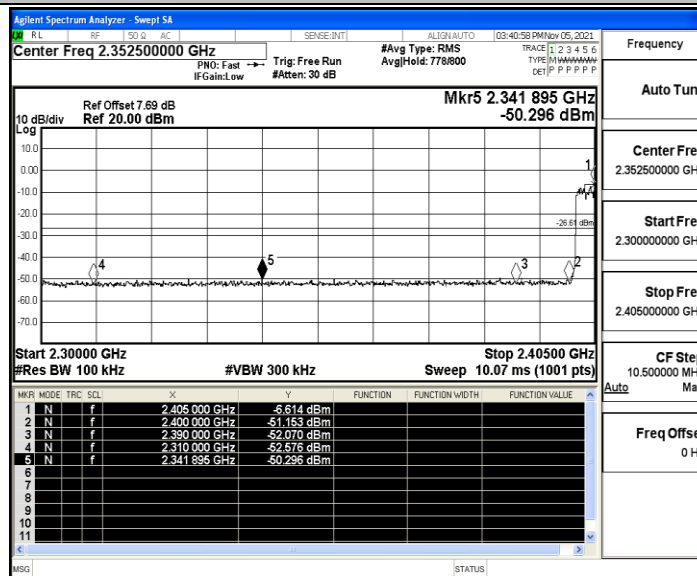




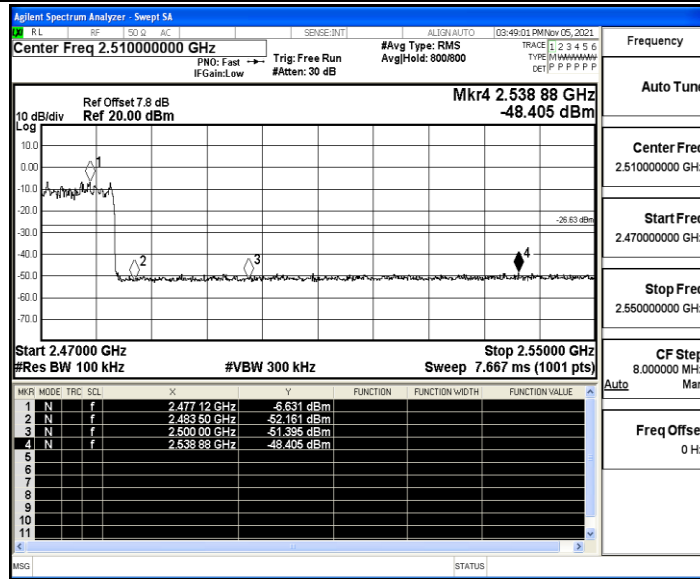
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480





A.7 Conducted Spurious Emission

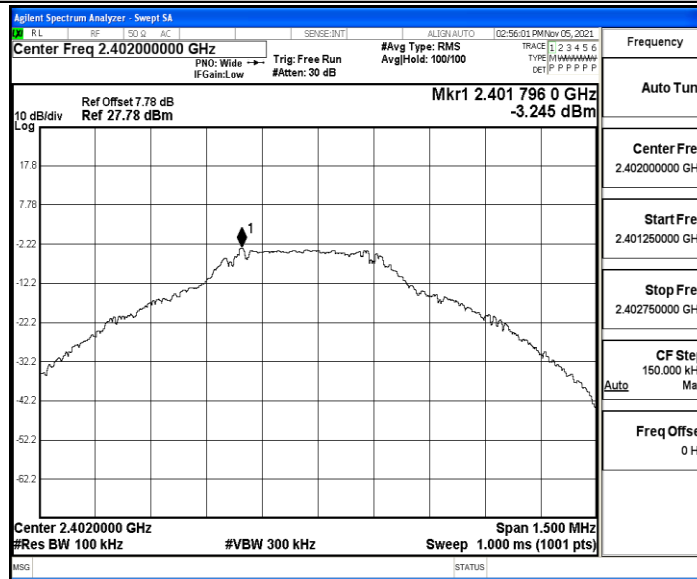
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-3.25	-3.25	---	PASS
			30~1000	-3.25	-62.02	≤ -23.25	PASS
			1000~26500	-3.25	-34.05	≤ -23.25	PASS
		2441	Reference	-2.91	-2.91	---	PASS
			30~1000	-2.91	-61.73	≤ -22.91	PASS
			1000~26500	-2.91	-35.2	≤ -22.91	PASS
		2480	Reference	-2.79	-2.79	---	PASS
			30~1000	-2.79	-61.57	≤ -22.79	PASS
			1000~26500	-2.79	-39.81	≤ -22.79	PASS
2DH5	Ant1	2402	Reference	-3.43	-3.43	---	PASS
			30~1000	-3.43	-61.3	≤ -23.43	PASS
			1000~26500	-3.43	-33.85	≤ -23.43	PASS
		2441	Reference	-2.79	-2.79	---	PASS
			30~1000	-2.79	-62.04	≤ -22.79	PASS
			1000~26500	-2.79	-37.9	≤ -22.79	PASS
		2480	Reference	-3.36	-3.36	---	PASS
			30~1000	-3.36	-61.45	≤ -23.36	PASS
			1000~26500	-3.36	-37.45	≤ -23.36	PASS

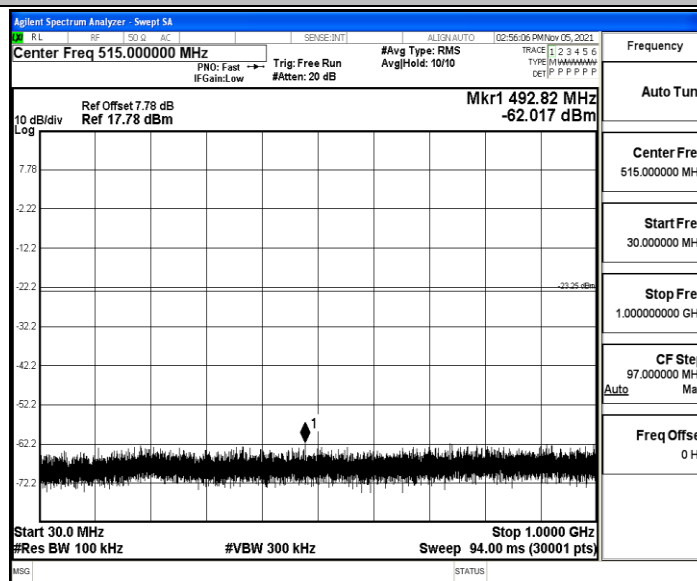


Test Graphs

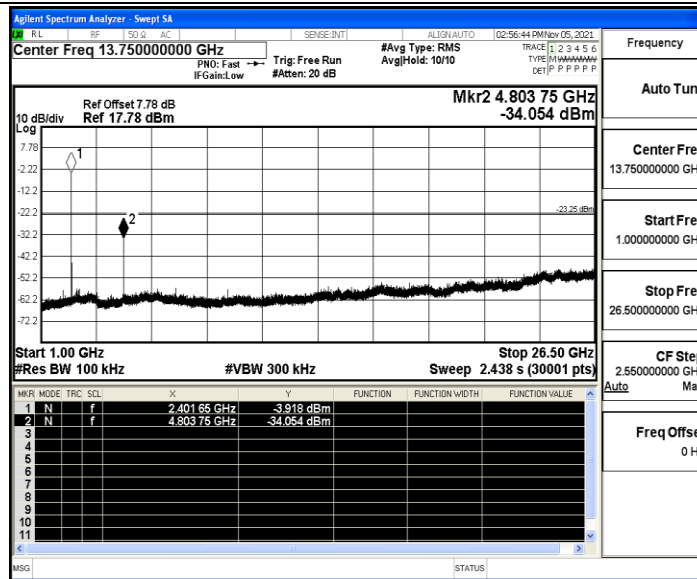
DH5_Ant1_2402_0~Reference



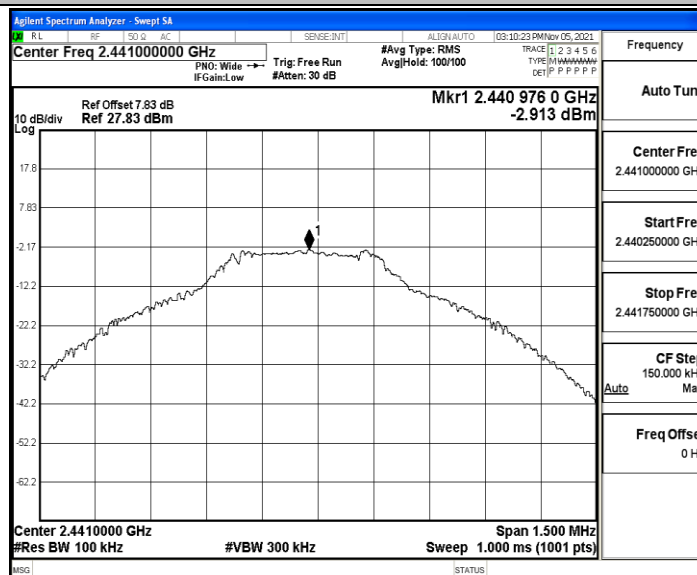
DH5_Ant1_2402_30~1000



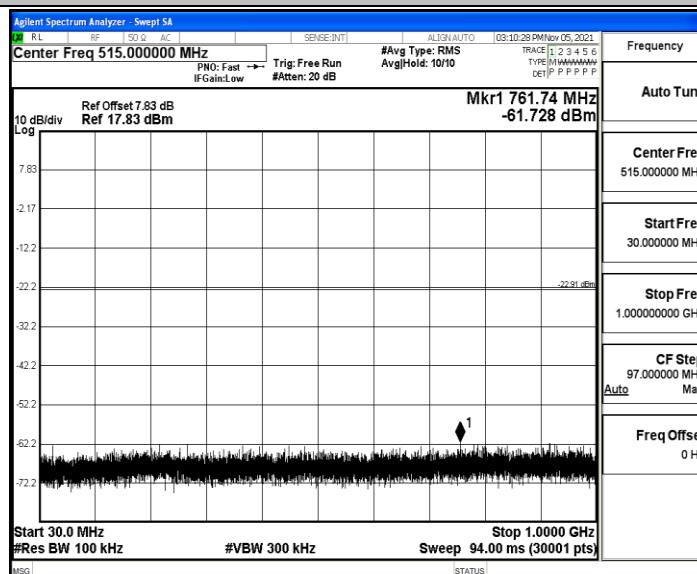
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference

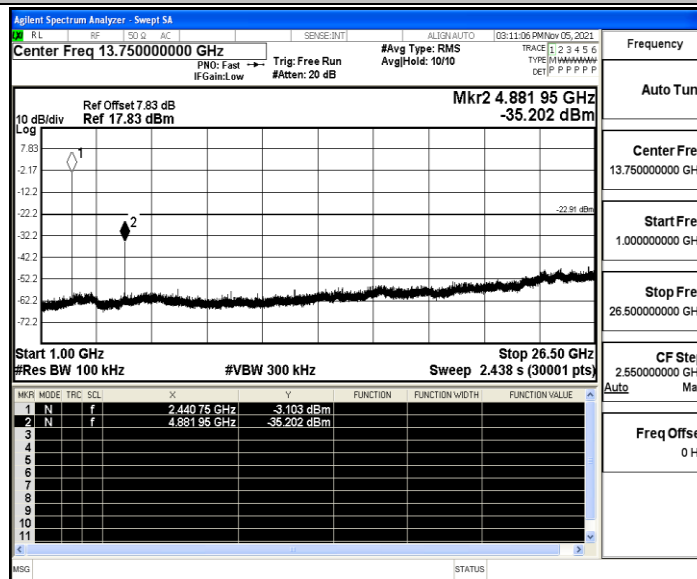


DH5_Ant1_2441_30~1000

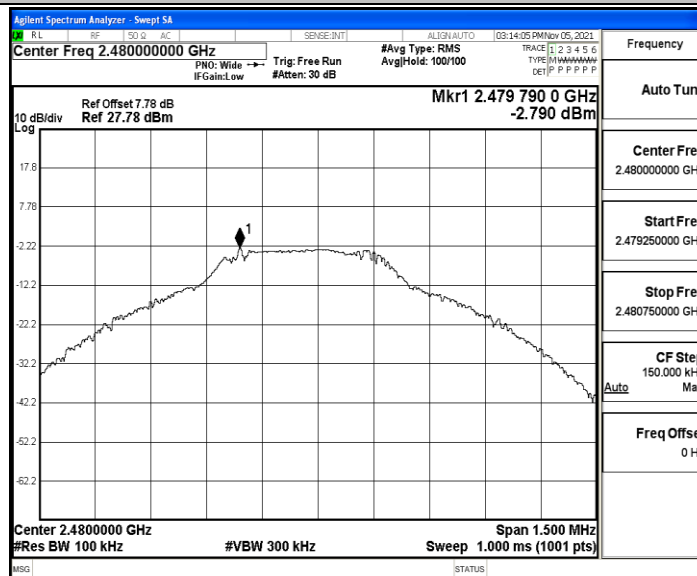




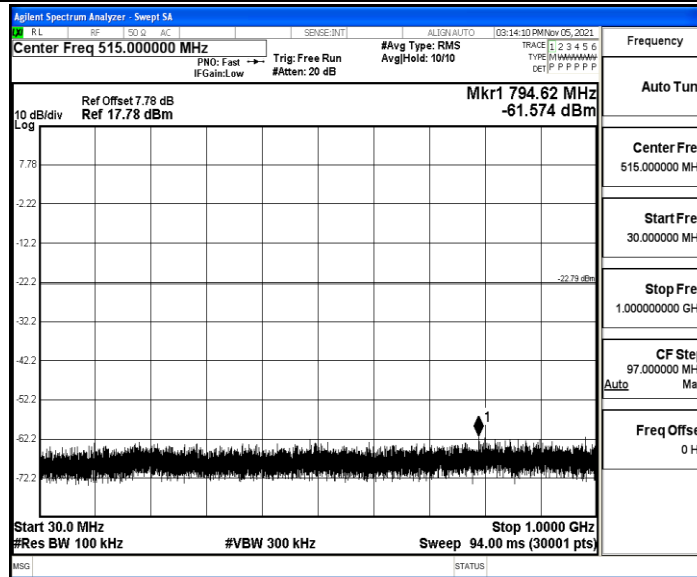
DH5_Ant1_2441_1000~26500



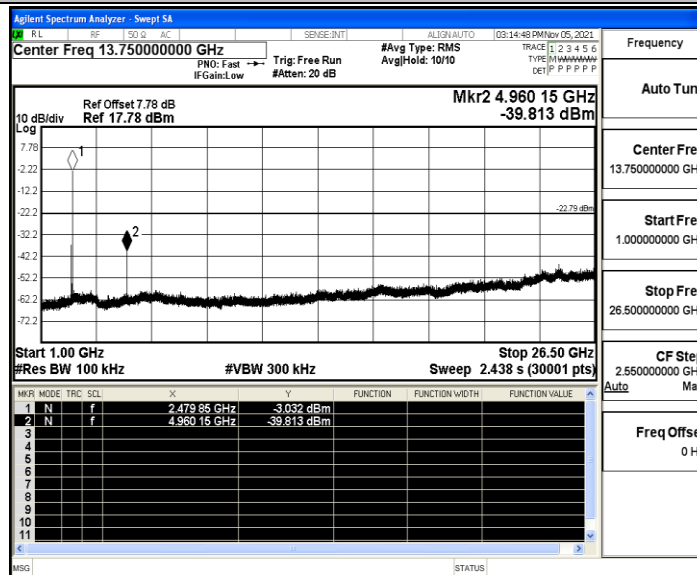
DH5_Ant1_2480_0~Reference



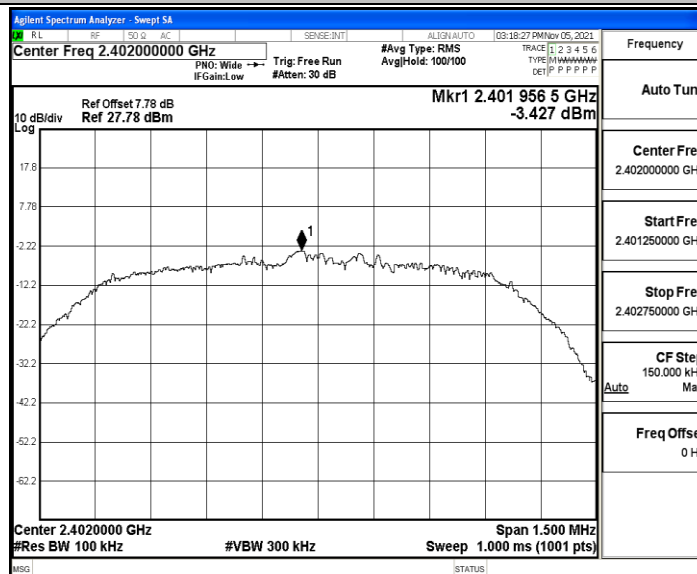
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500

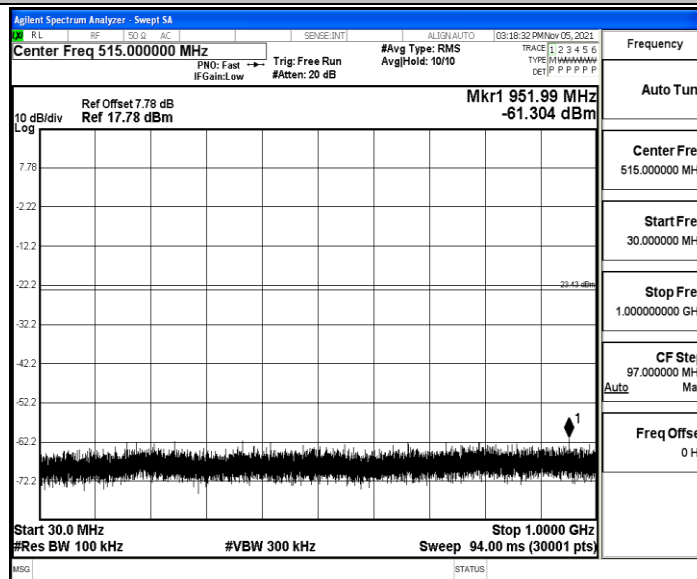


2DH5_Ant1_2402_0~Reference

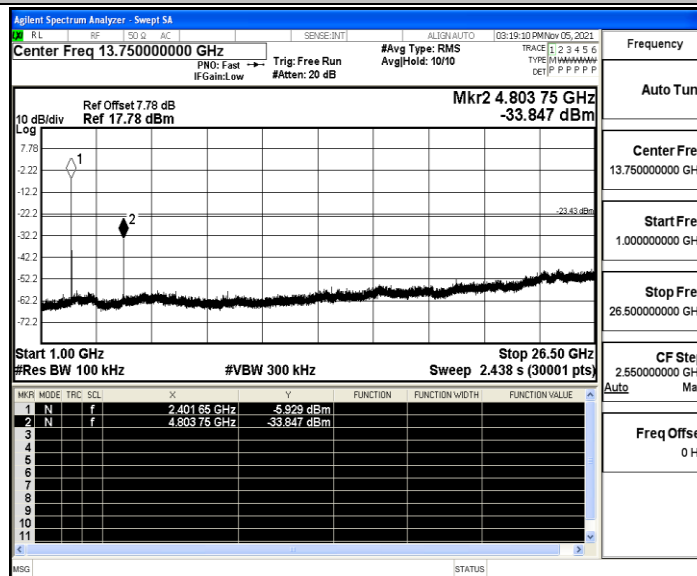




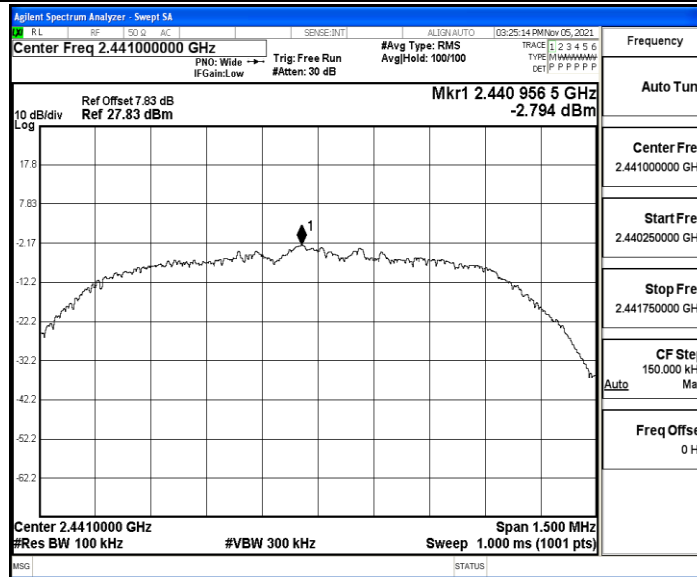
2DH5_Ant1_2402_30~1000



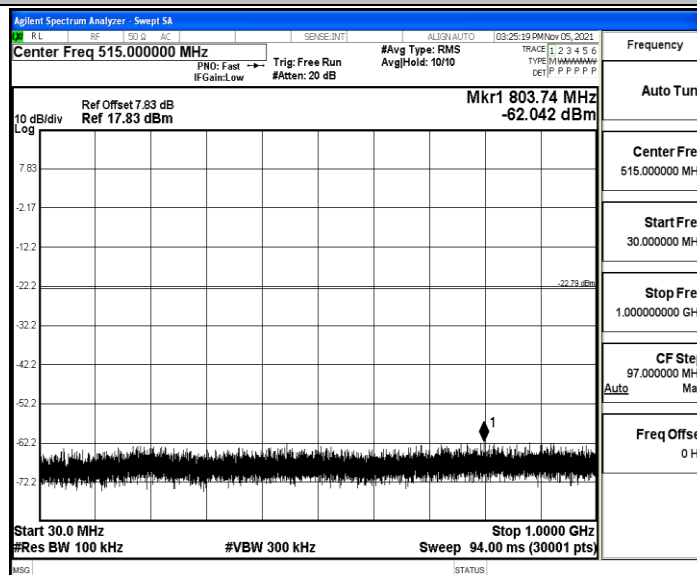
2DH5_Ant1_2402_1000~26500



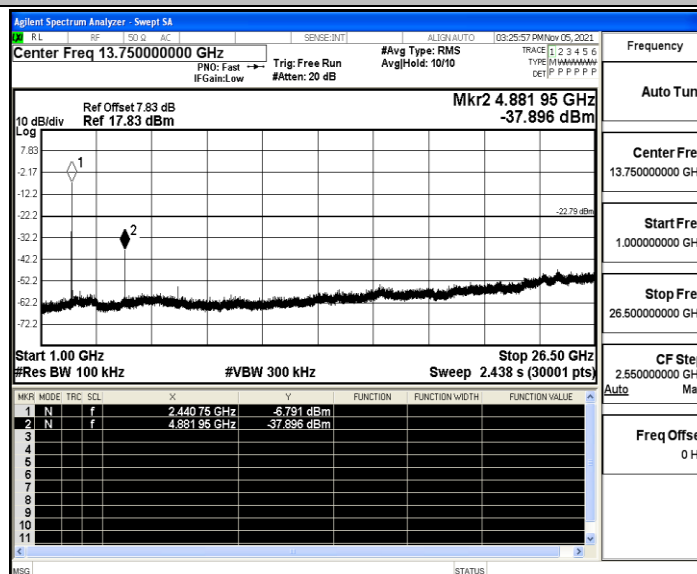
2DH5_Ant1_2441_0~Reference



2DH5_Ant1_2441_30~1000

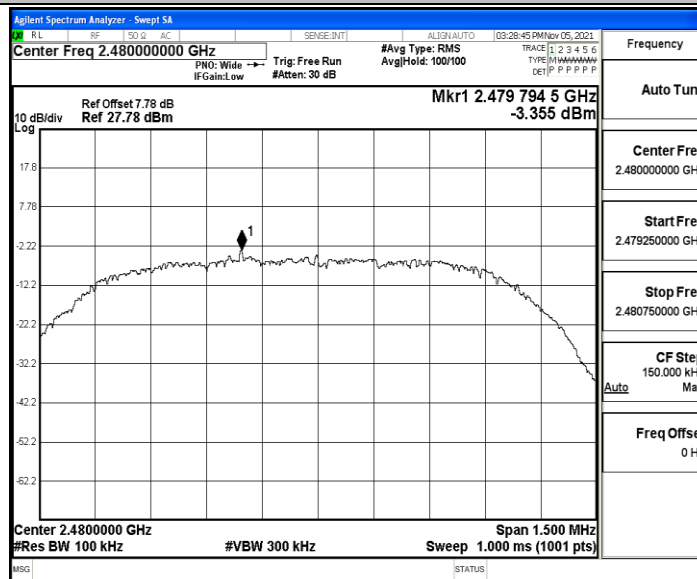


2DH5_Ant1_2441_1000~26500

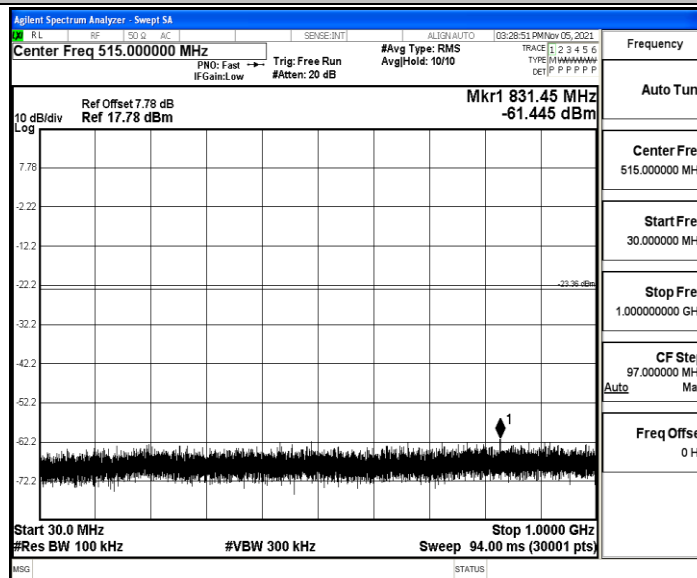




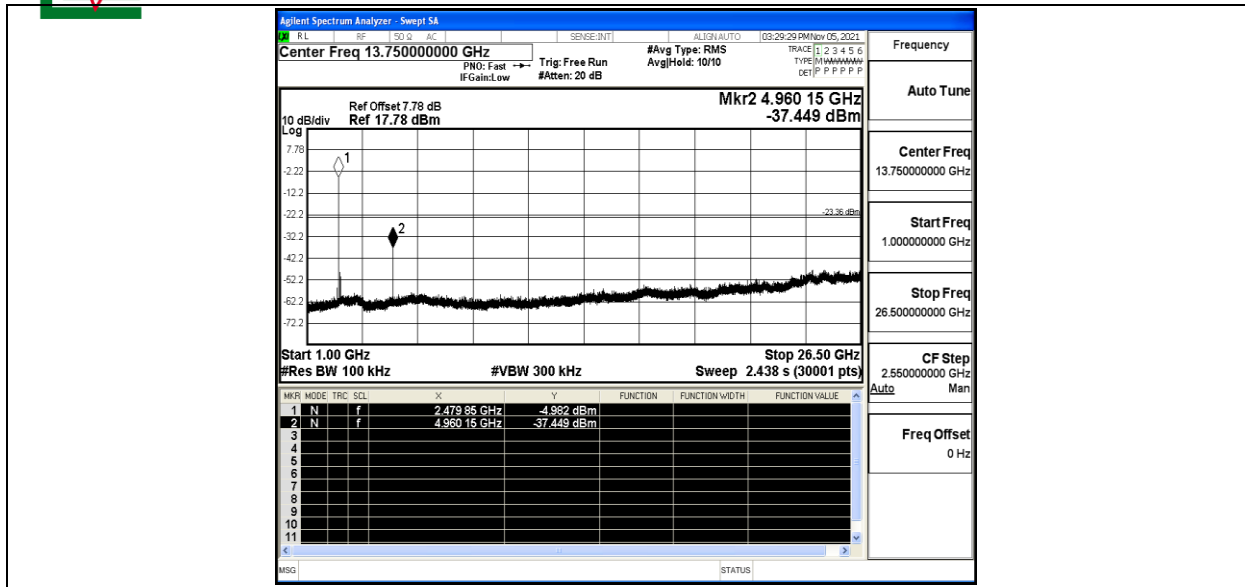
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500





A.8 Emissions in Restricted Bands

Test Result

TestMode	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	2402	AV	2310.000	-49.05	≤-41.20	46.15	≤54	PASS
		AV	2386.415	-48.52	≤-41.20	46.68	≤54	PASS
		AV	2390.000	-48.72	≤-41.20	46.48	≤54	PASS
		Peak	2310.000	-40.29	≤-21.20	54.91	≤74	PASS
		Peak	2345.885	-38.74	≤-21.20	56.46	≤74	PASS
		Peak	2390.000	-41.74	≤-21.20	53.46	≤74	PASS
	2480	AV	2483.500	-47.99	≤-41.20	47.21	≤54	PASS
		AV	2483.520	-47.99	≤-41.20	47.21	≤54	PASS
		AV	2500.000	-48.16	≤-41.20	47.04	≤54	PASS
		Peak	2483.500	-39.75	≤-21.20	55.45	≤74	PASS
		Peak	2485.760	-38.31	≤-21.20	56.89	≤74	PASS
		Peak	2500.000	-42.06	≤-21.20	53.14	≤74	PASS
	Hop_24 02	Peak	2310.000	-40.45	≤-21.20	54.75	≤74	PASS
		Peak	2369.615	-38.08	≤-21.20	57.12	≤74	PASS
		Peak	2390.000	-40.62	≤-21.20	54.58	≤74	PASS
	Hop_24 80	Peak	2483.500	-39.91	≤-21.20	55.29	≤74	PASS
		Peak	2491.440	-38.14	≤-21.20	57.06	≤74	PASS
		Peak	2500.000	-40.75	≤-21.20	54.45	≤74	PASS
2DH5	2402	AV	2310.000	-49.14	≤-41.20	46.06	≤54	PASS
		AV	2385.155	-48.53	≤-41.20	46.67	≤54	PASS
		AV	2390.000	-48.67	≤-41.20	46.53	≤54	PASS
		Peak	2310.000	-42.1	≤-21.20	53.10	≤74	PASS
		Peak	2328.980	-39.09	≤-21.20	56.11	≤74	PASS
		Peak	2390.000	-40.87	≤-21.20	54.33	≤74	PASS
	2480	AV	2483.500	-47.99	≤-41.20	47.21	≤54	PASS
		AV	2499.040	-47.95	≤-41.20	47.25	≤54	PASS
		AV	2500.000	-48.18	≤-41.20	47.02	≤54	PASS
		Peak	2483.500	-40.26	≤-21.20	54.94	≤74	PASS
		Peak	2484.080	-38.83	≤-21.20	56.37	≤74	PASS
		Peak	2500.000	-42.53	≤-21.20	52.67	≤74	PASS
	Hop_24 02	Peak	2310.000	-41.5	≤-21.20	53.70	≤74	PASS
		Peak	2369.930	-37.27	≤-21.20	57.93	≤74	PASS
		Peak	2390.000	-40.62	≤-21.20	54.58	≤74	PASS
	Hop_24	Peak	2483.500	-39.33	≤-21.20	55.87	≤74	PASS



	80	Peak	2495.280	-37.67	≤ -21.20	57.53	≤ 74	PASS
		Peak	2500.000	-39.24	≤ -21.20	55.96	≤ 74	PASS

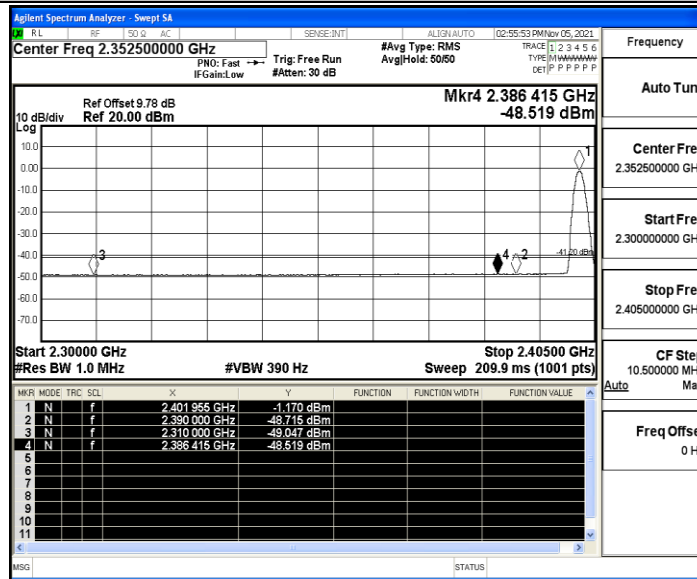
Note:

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.

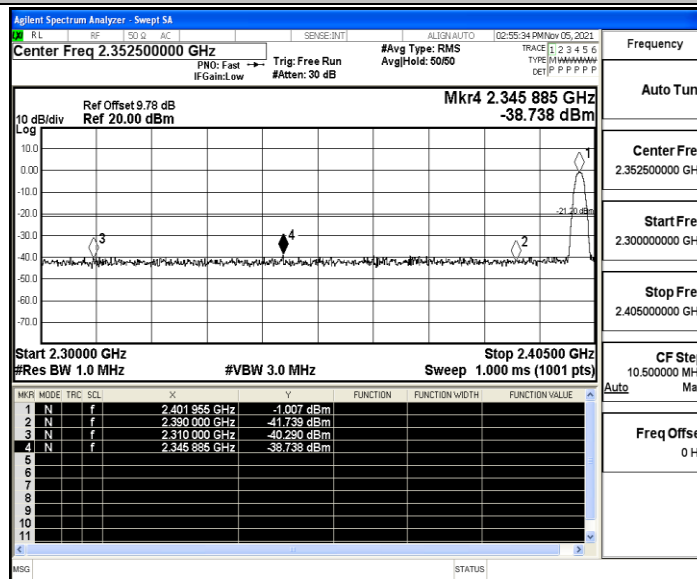


Test Graphs

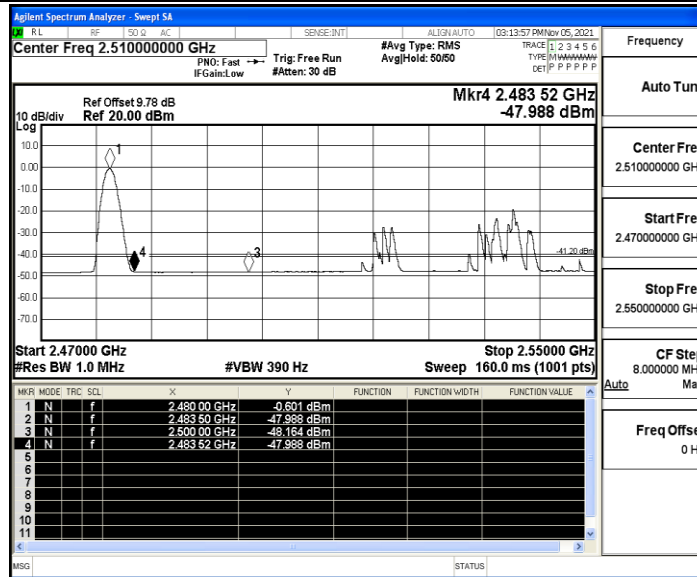
DH5_Ant1_Low_2402_AV



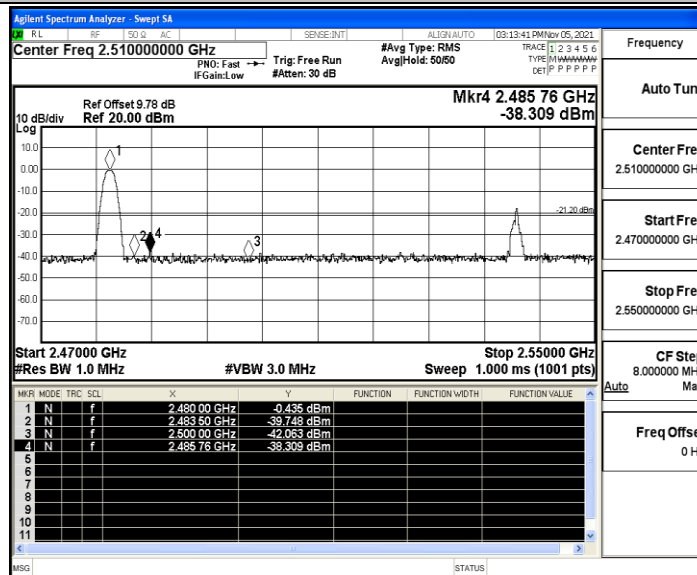
DH5_Ant1_Low_2402_Peak



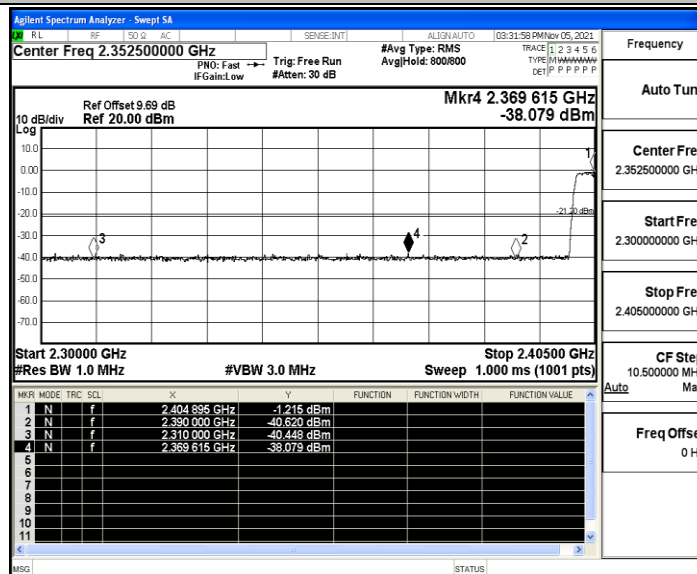
DH5_Ant1_High_2480_AV



DH5_Ant1_High_2480_Peak

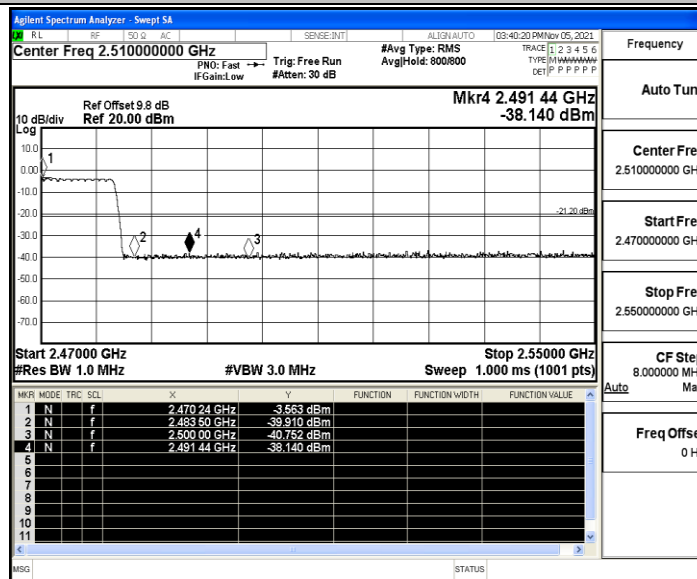


DH5_Ant1_Low_Hop_2402_Peak

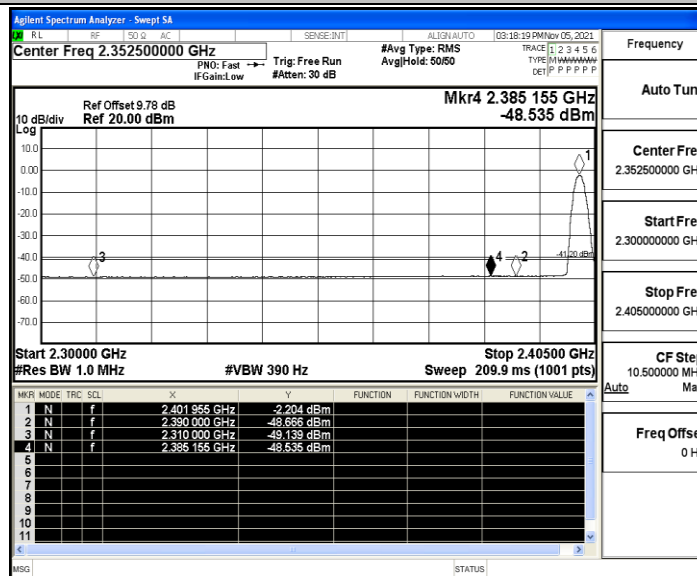




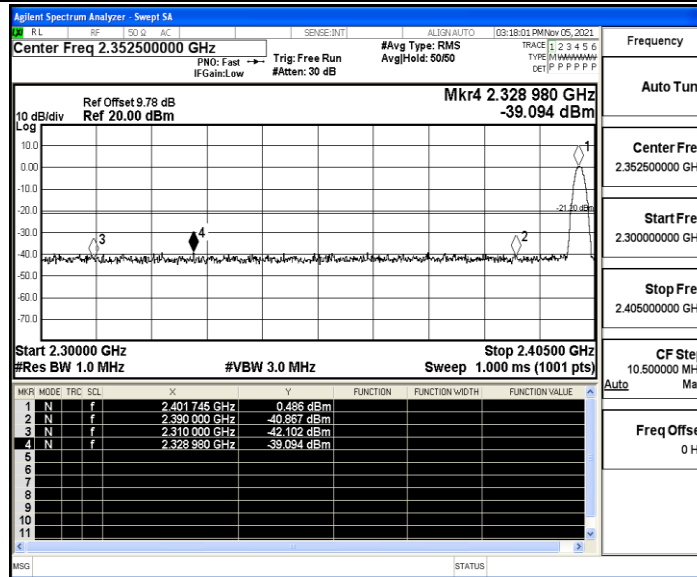
DH5_Ant1_High_Hop_2480_Peak



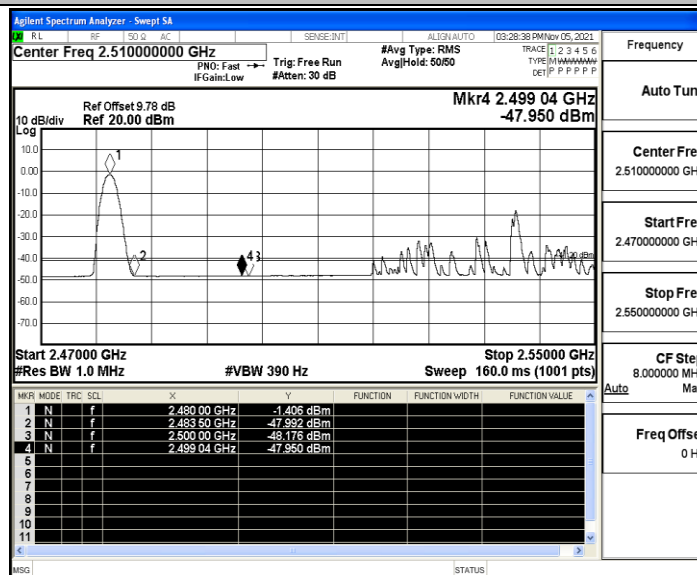
2DH5_Ant1_Low_2402_AV



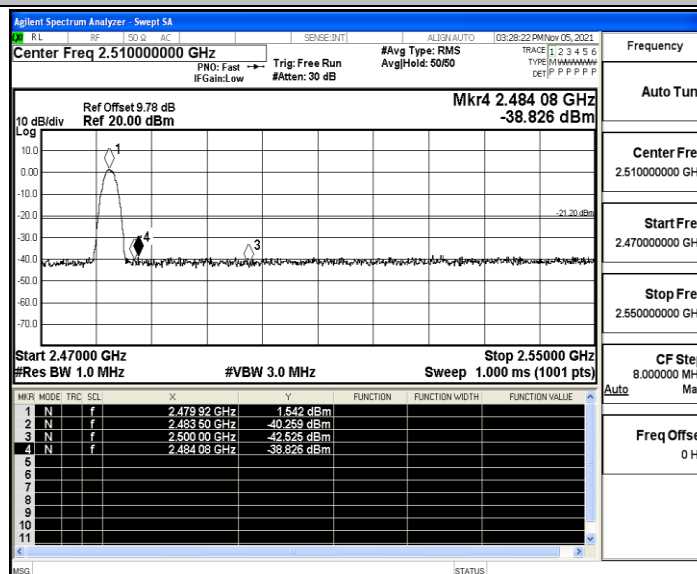
2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV

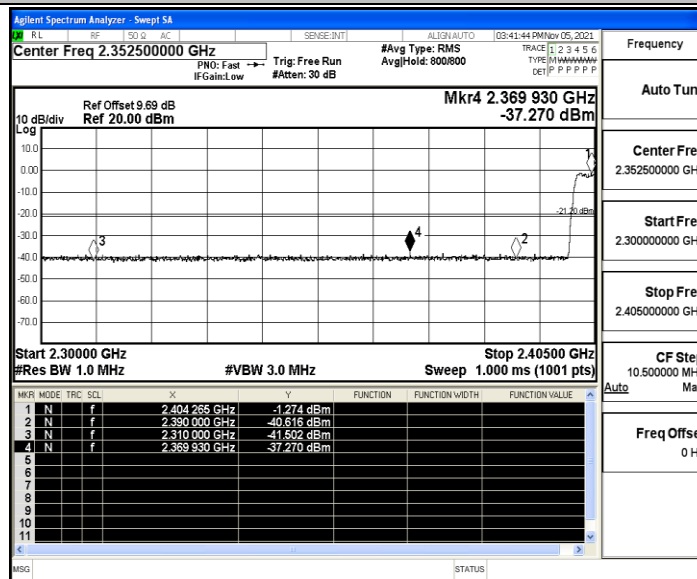


2DH5_Ant1_High_2480_Peak





2DH5_Ant1_Low_Hop_2402_Peak



2DH5_Ant1_High_Hop_2480_Peak

