



Appendix A

RF Test Data for BT V5.0(BDR/EDR) (Conducted Measurement)

Product Name: Music Lamp

Test Model: D1000

Environmental Conditions

Temperature:	24.6℃
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Huan Li

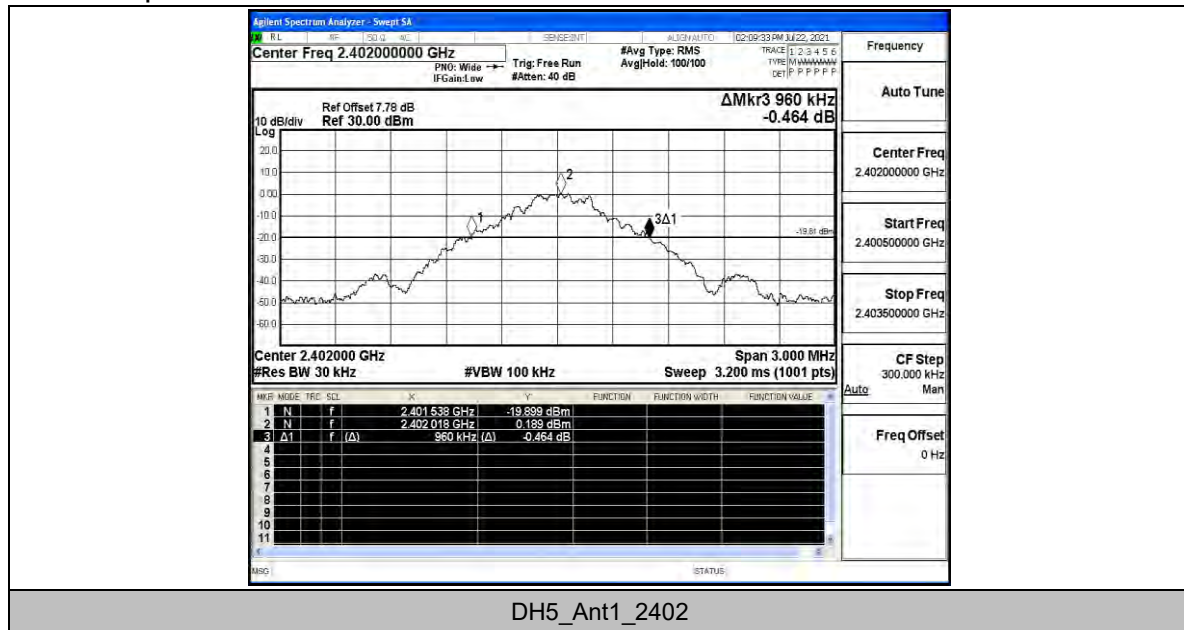


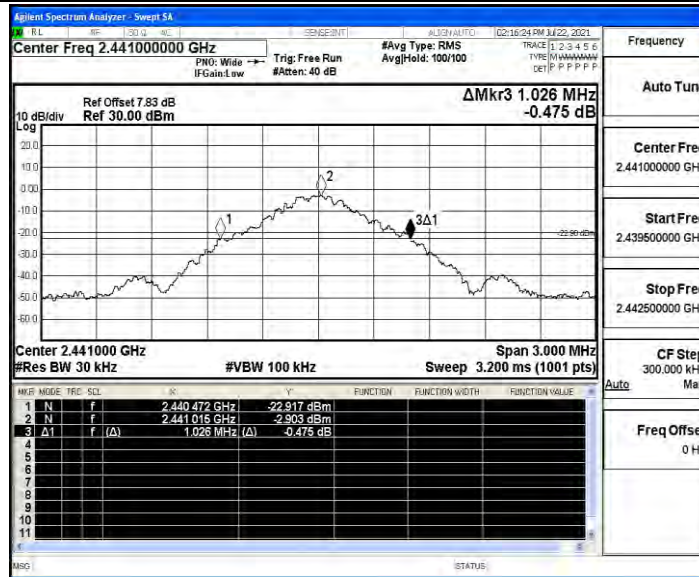
A.1 20dB Emission Bandwidth

Test Result

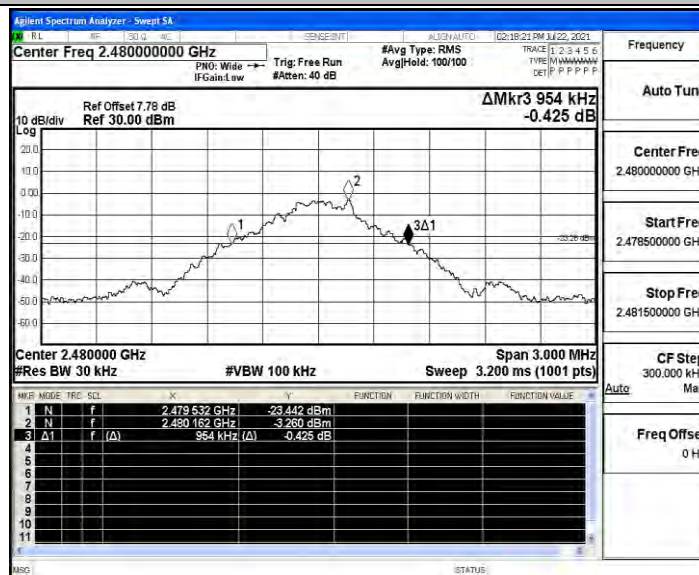
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.960	2401.538	2402.498	---	PASS
		2441	1.026	2440.472	2441.498	---	PASS
		2480	0.954	2479.532	2480.486	---	PASS
2DH5	Ant1	2402	1.335	2401.334	2402.669	---	PASS
		2441	1.320	2440.337	2441.657	---	PASS
		2480	1.311	2479.346	2480.657	---	PASS
3DH5	Ant1	2402	1.308	2401.346	2402.654	---	PASS
		2441	1.293	2440.352	2441.645	---	PASS
		2480	1.314	2479.346	2480.660	---	PASS

Test Graphs

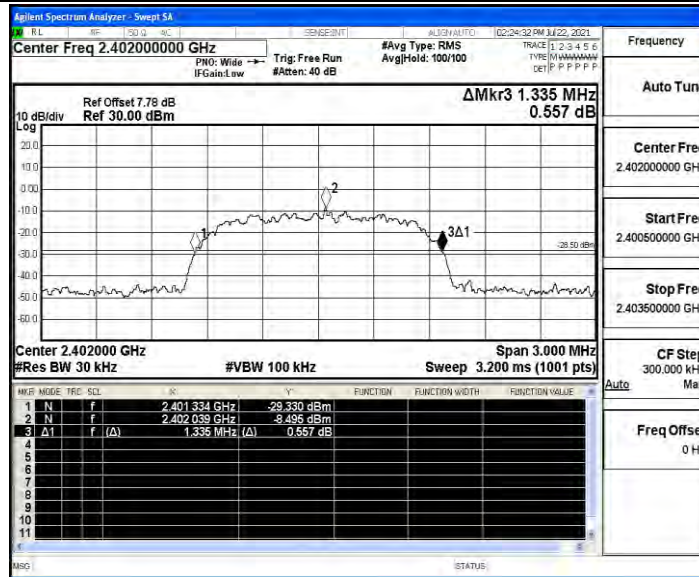




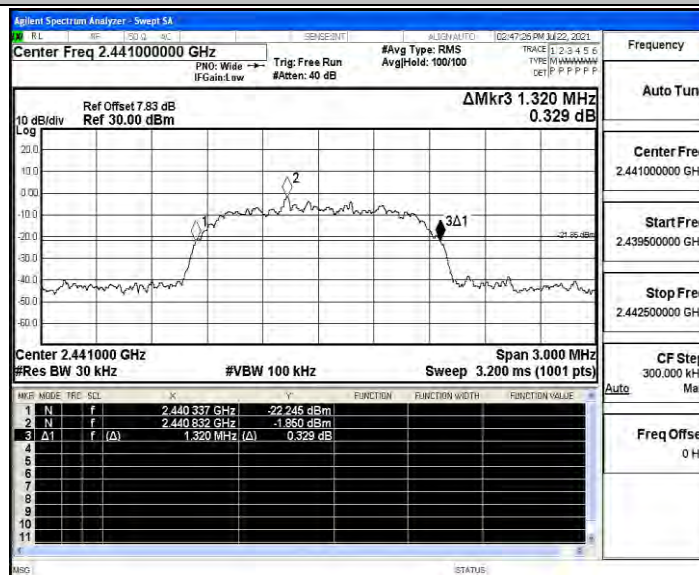
DH5_Ant1_2441



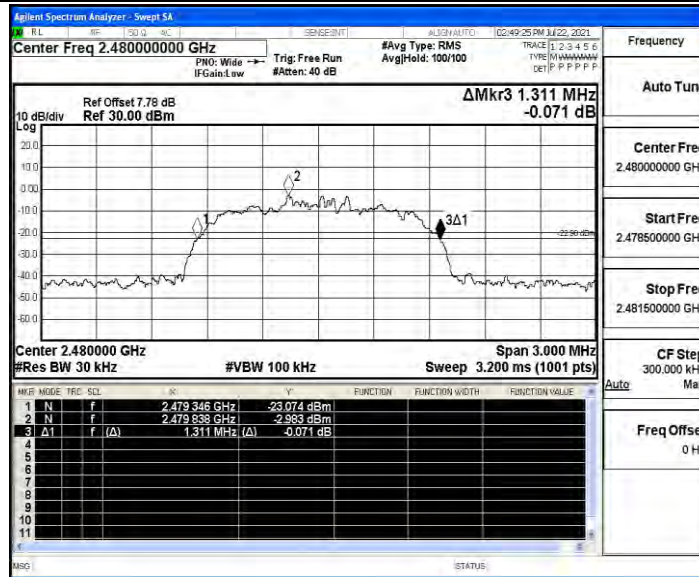
DH5_Ant1_2480



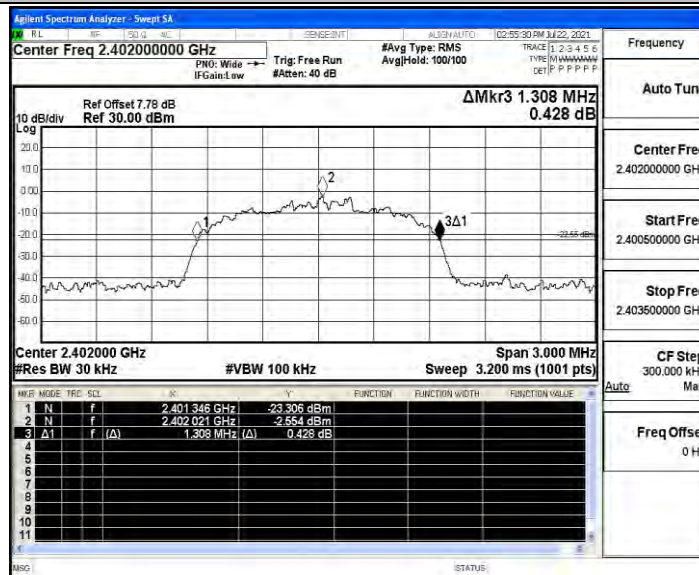
2DH5_Ant1_2402



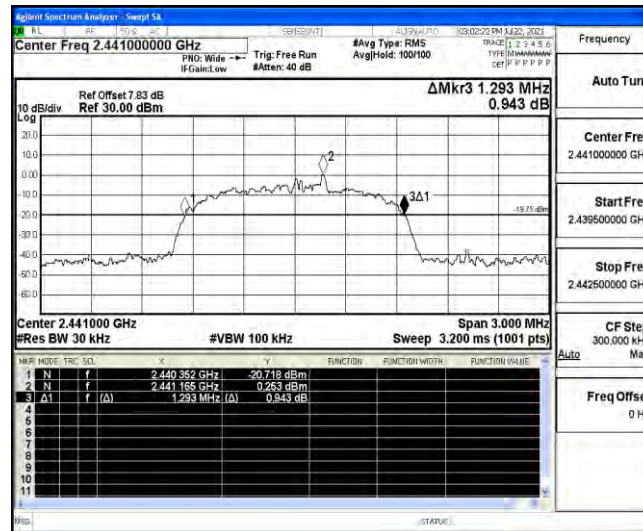
2DH5_Ant1_2441



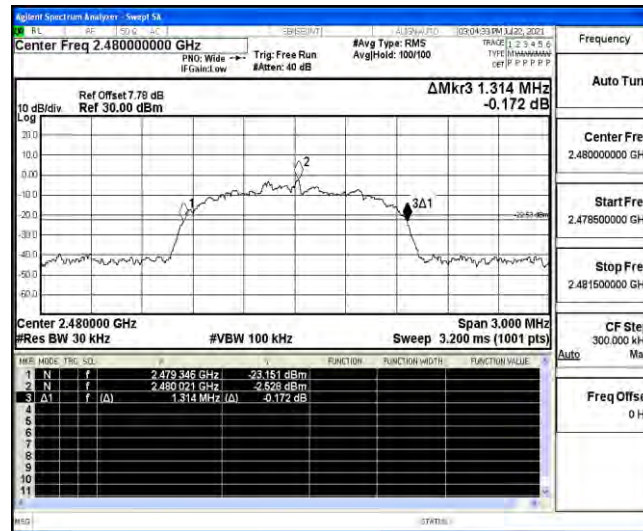
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



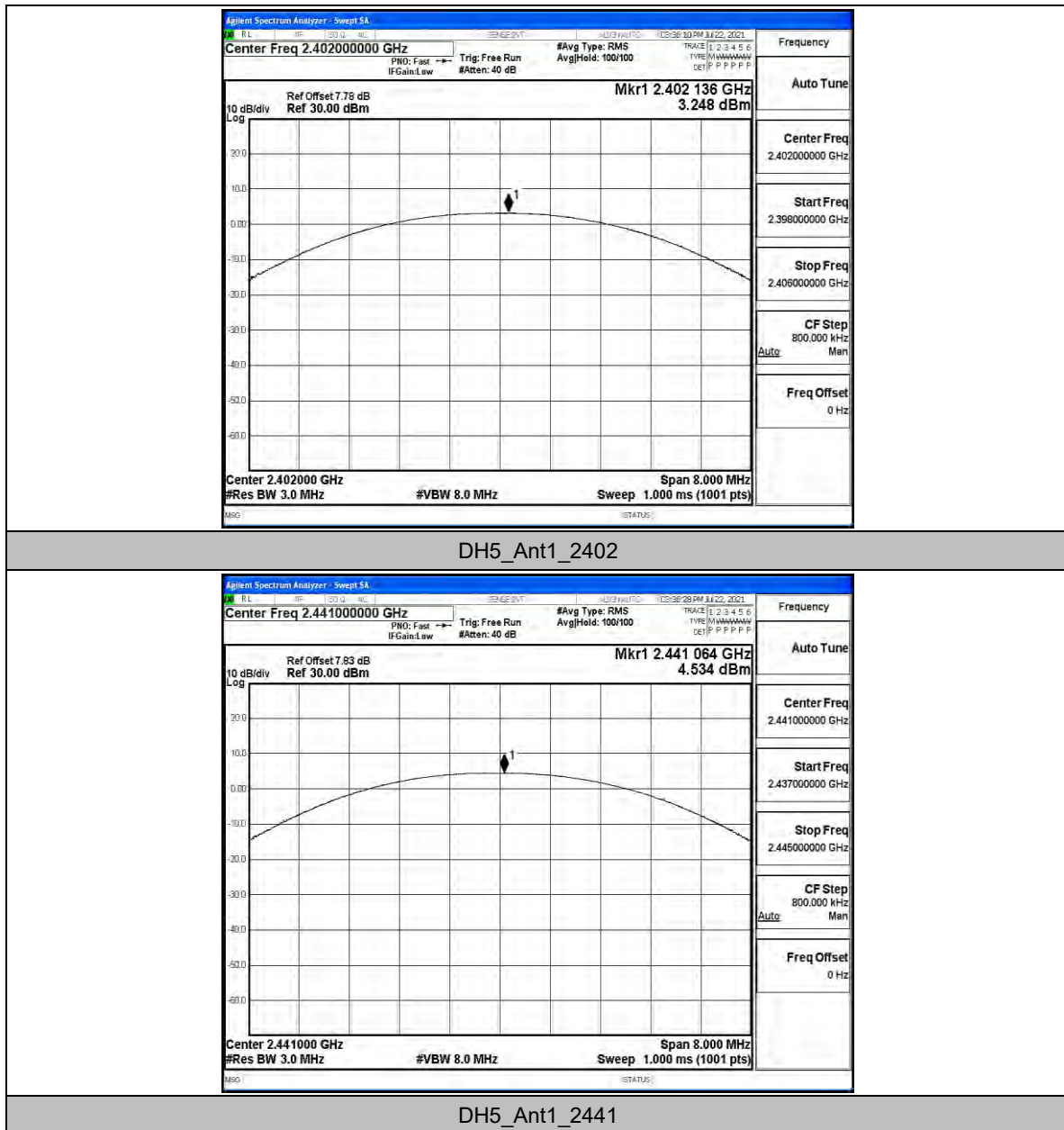
A.2 Maximum conducted output power

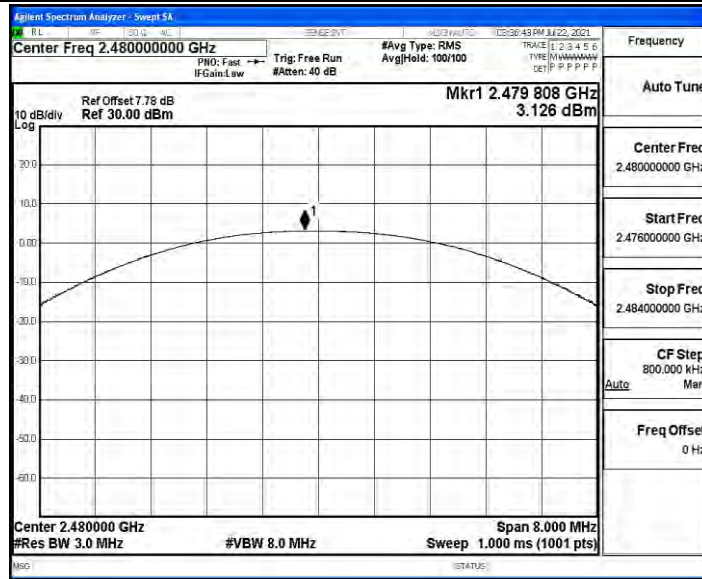
Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	3.25	≤ 20.97	PASS
		2441	4.53	≤ 20.97	PASS
		2480	3.13	≤ 20.97	PASS
2DH5	Ant1	2402	2.33	≤ 20.97	PASS
		2441	3.57	≤ 20.97	PASS
		2480	2.32	≤ 20.97	PASS
3DH5	Ant1	2402	2.53	≤ 20.97	PASS
		2441	3.77	≤ 20.97	PASS
		2480	2.49	≤ 20.97	PASS

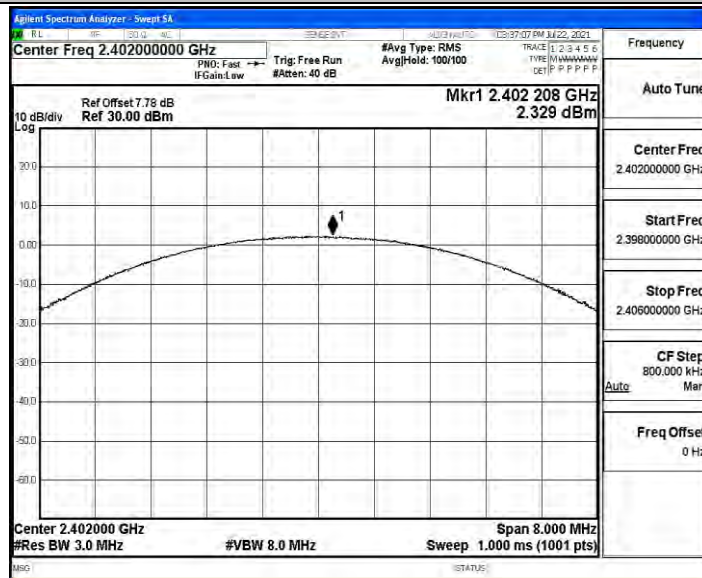


Test Graphs

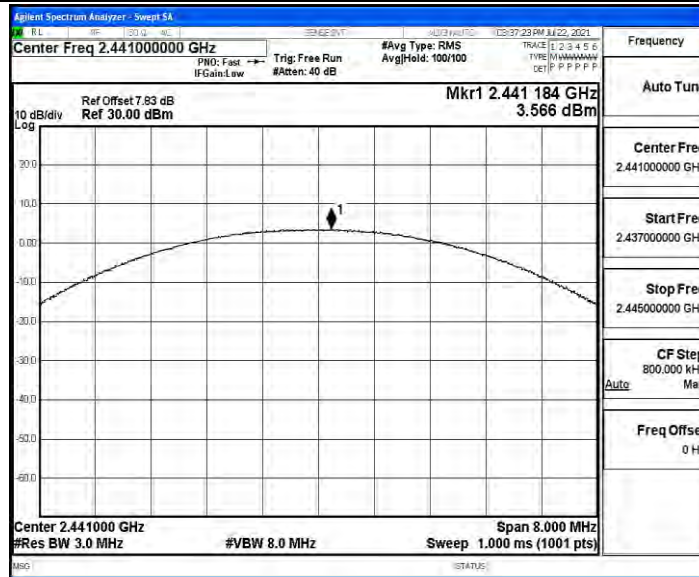




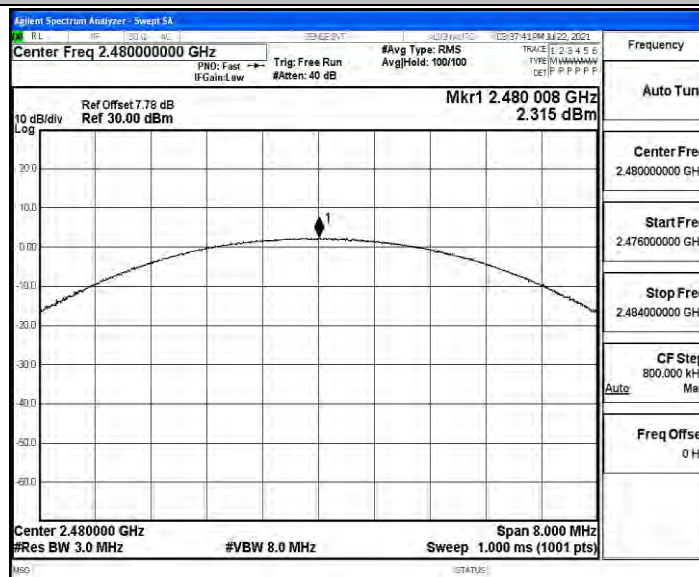
DH5_Ant1_2480



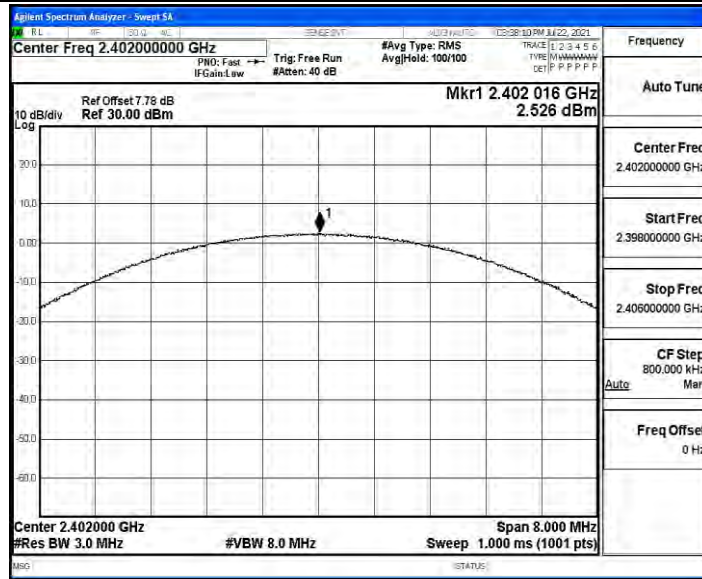
2DH5_Ant1_2402



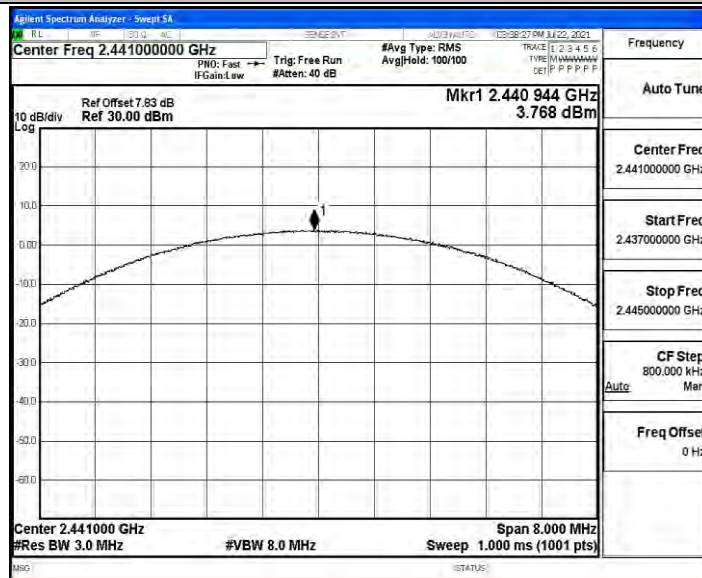
2DH5_Ant1_2441



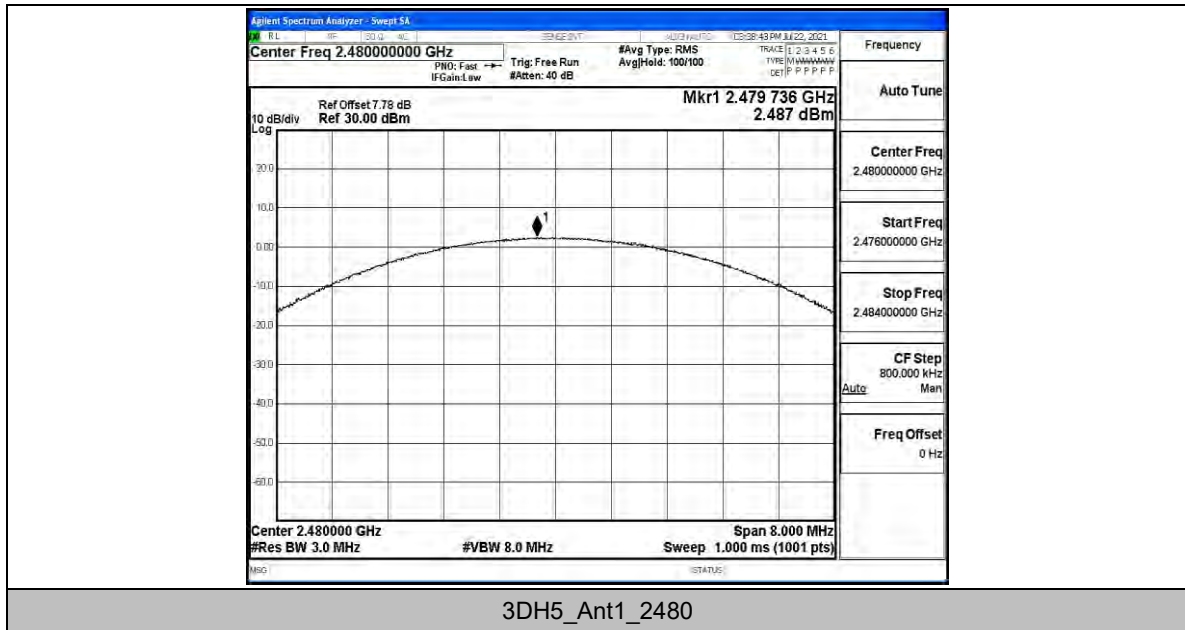
2DH5_Ant1_2480



3DH5_Ant1_2402



3DH5_Ant1_2441



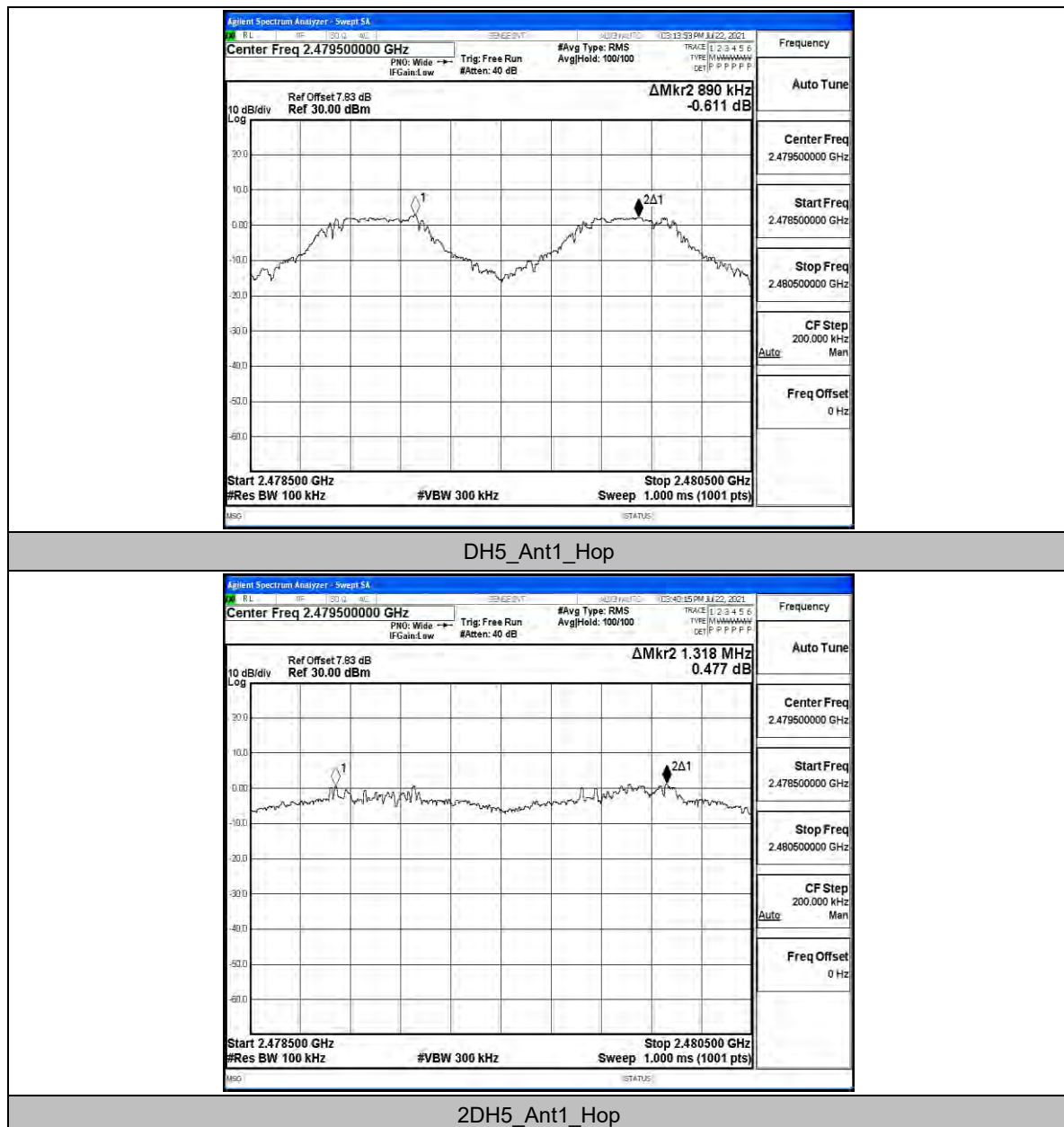


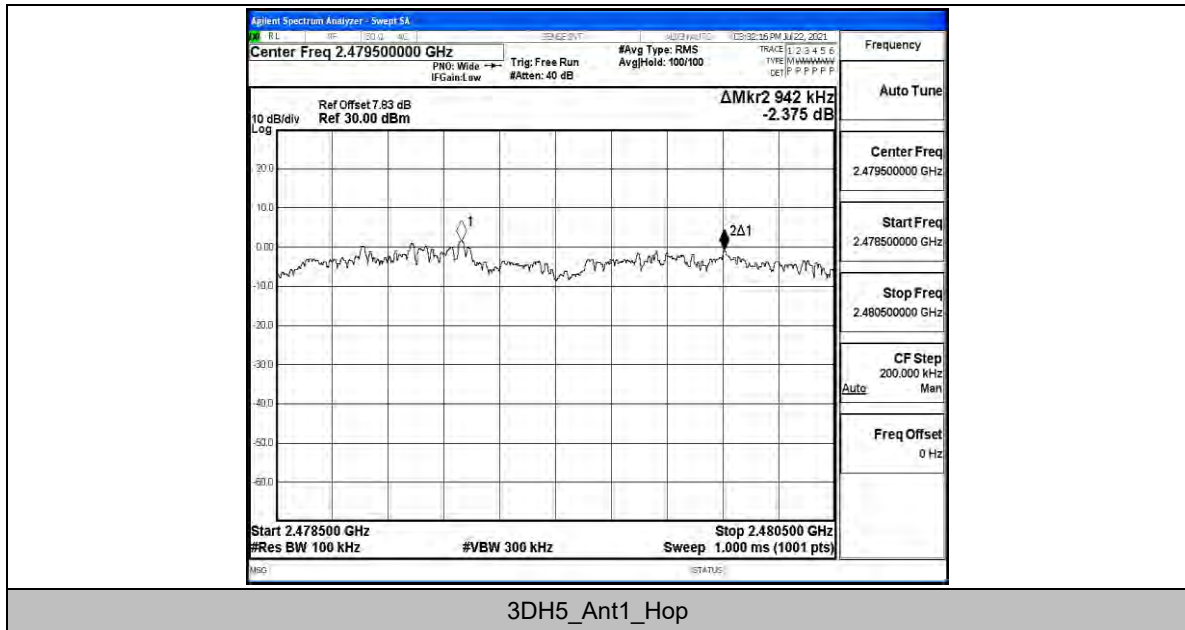
A.3 Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	0.89	≥ 0.684	PASS
2DH5	Ant1	Hop	1.318	≥ 0.890	PASS
3DH5	Ant1	Hop	0.942	≥ 0.876	PASS

Test Graphs







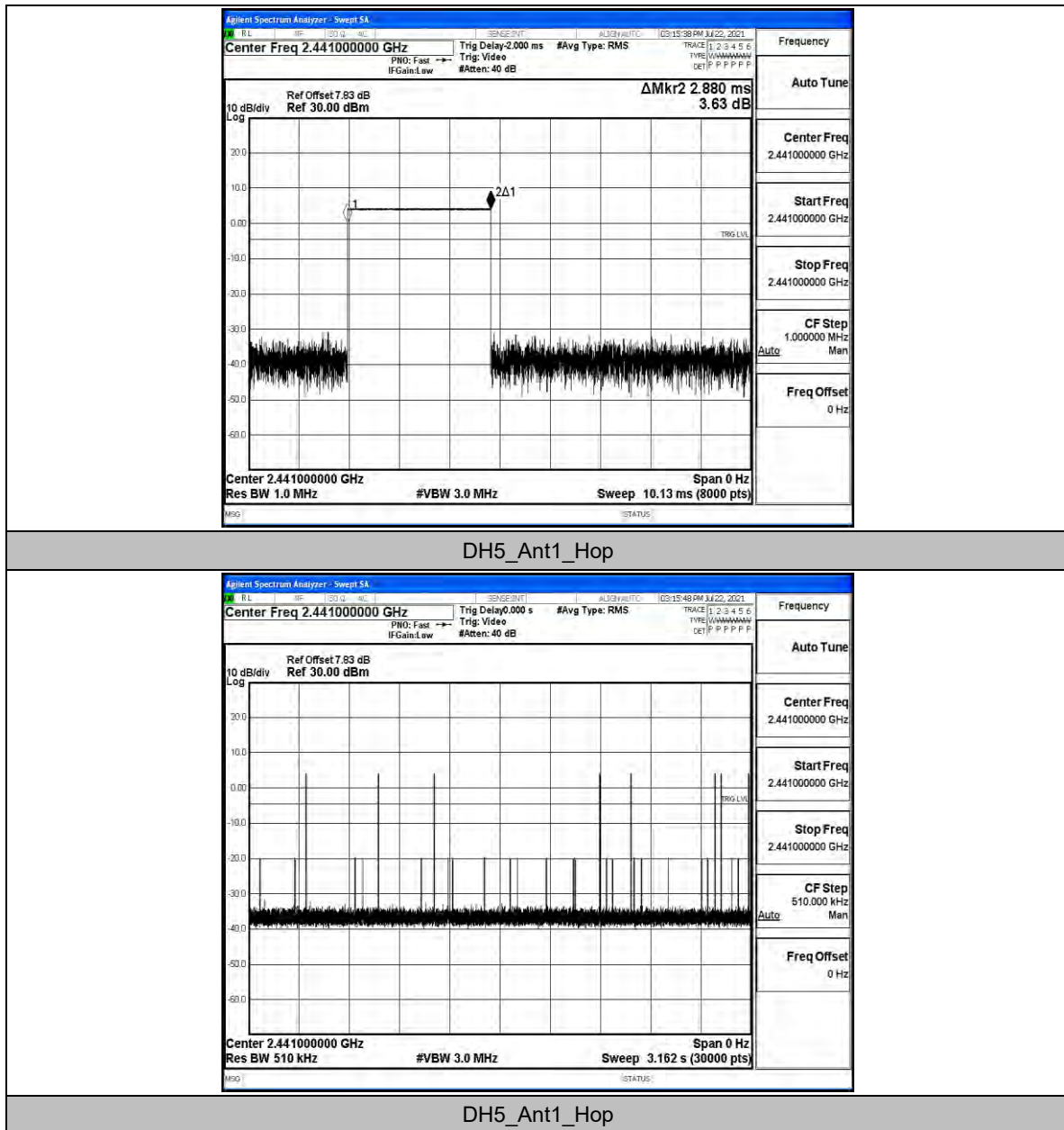
A.4 Time of occupancy

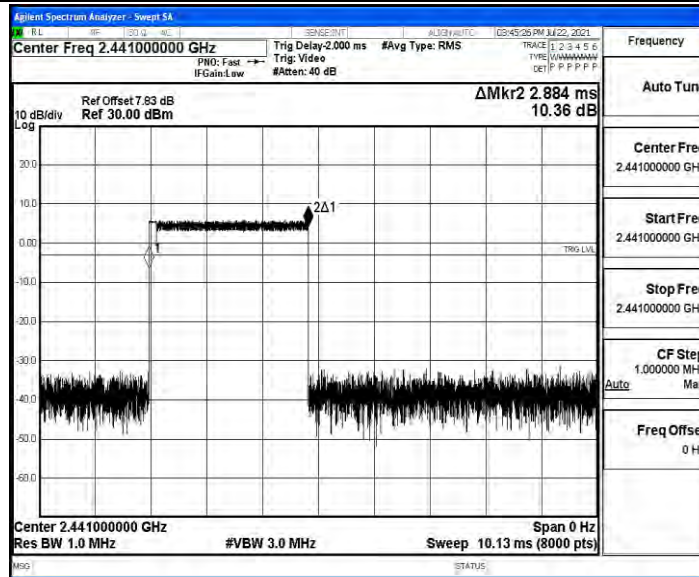
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	90	0.259	≤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

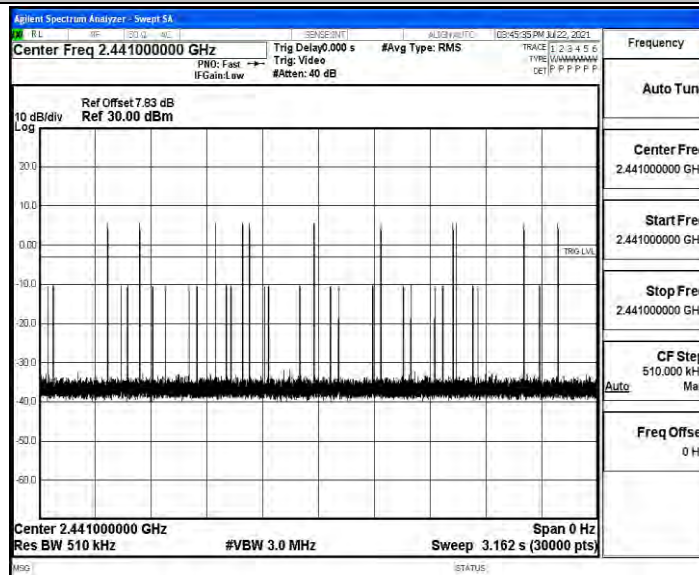


Test Graphs

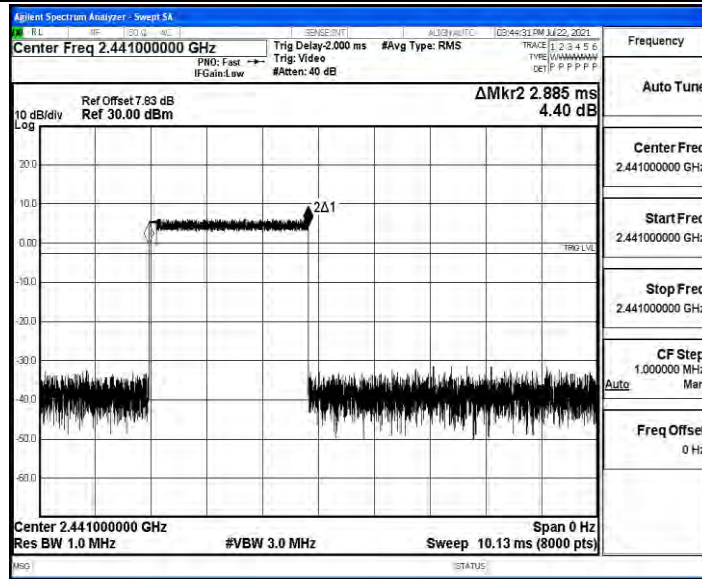




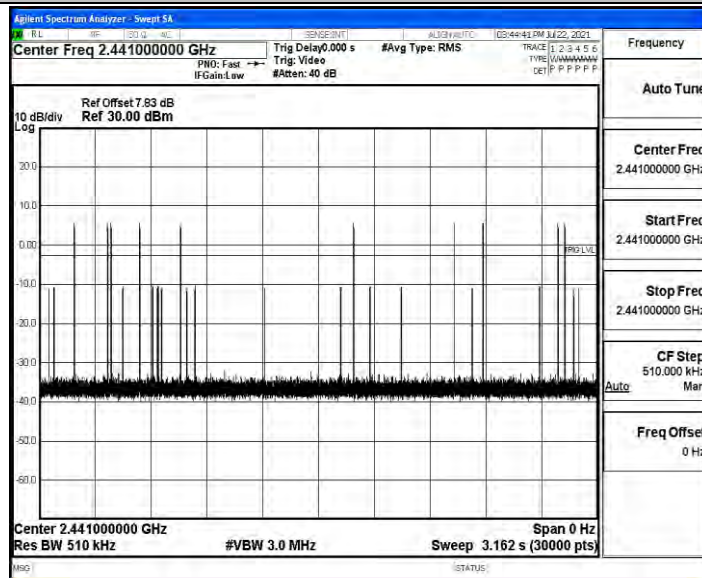
2DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



3DH5_Ant1_Hop



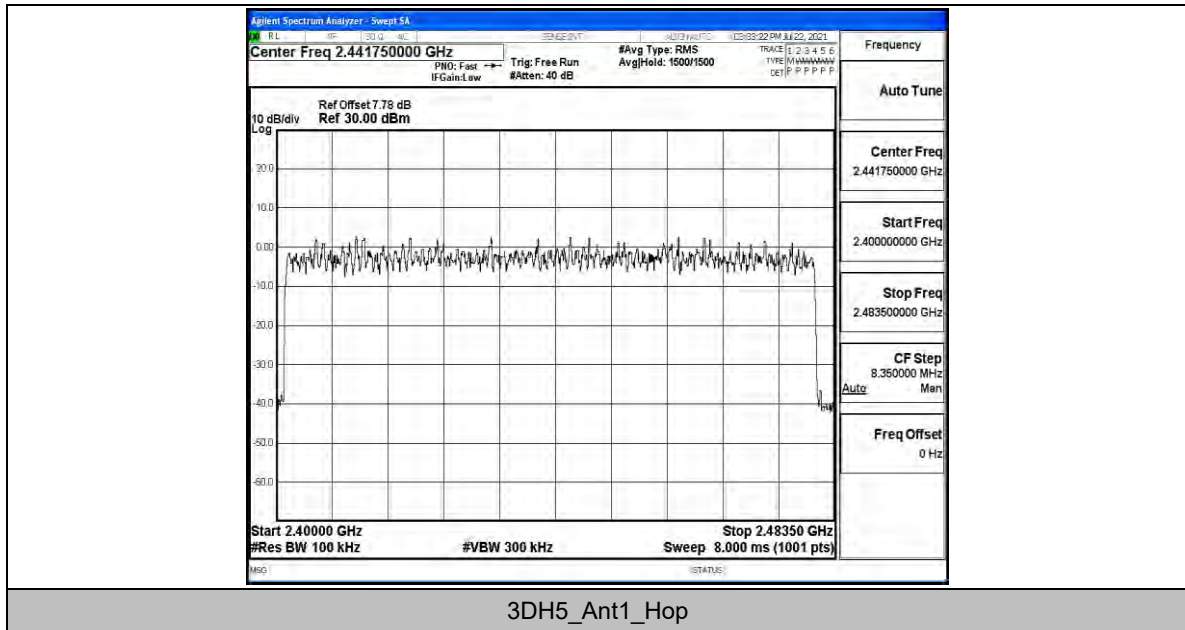
A.5 Number of hopping channels

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







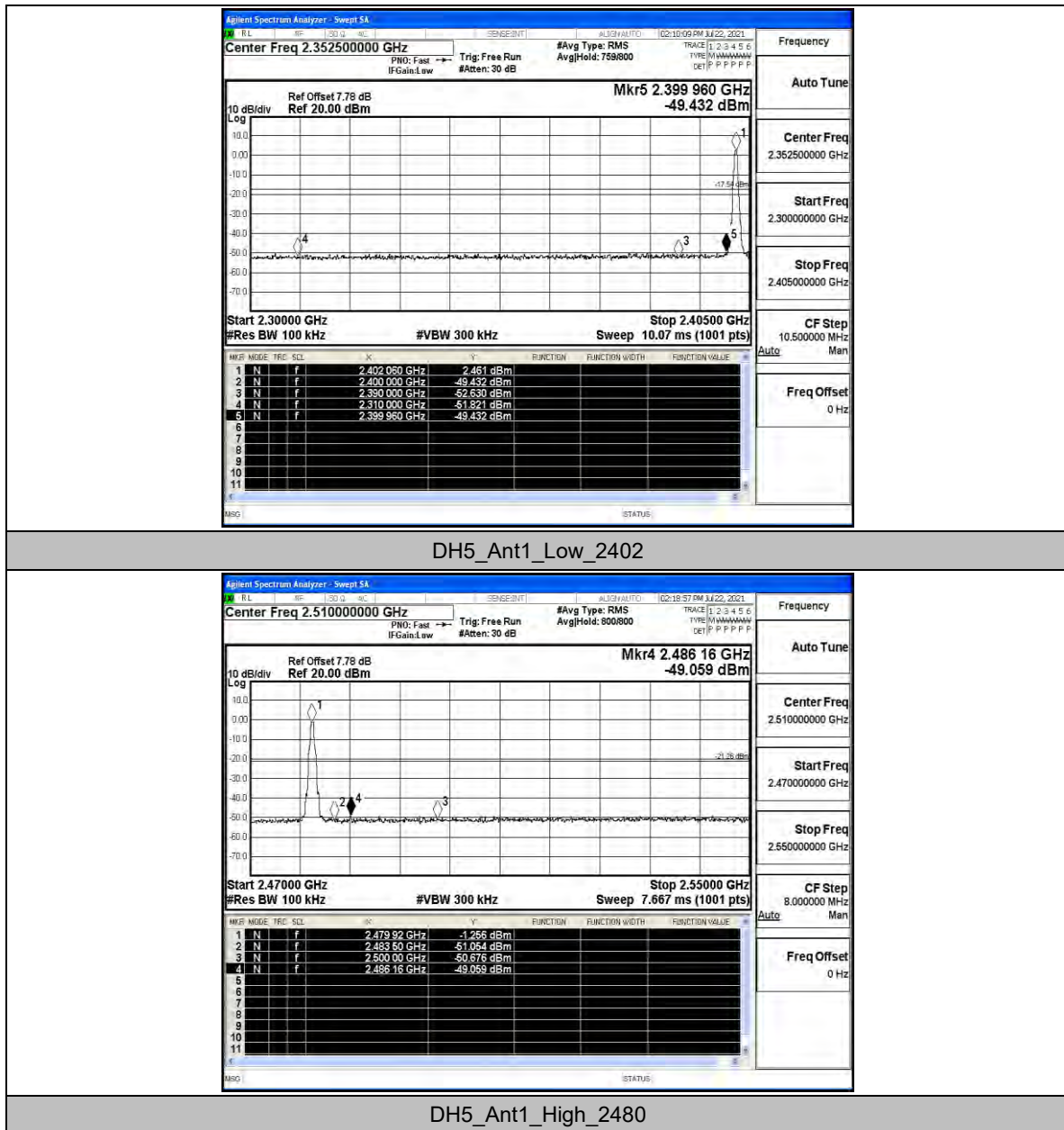
A.6 Band edge measurements

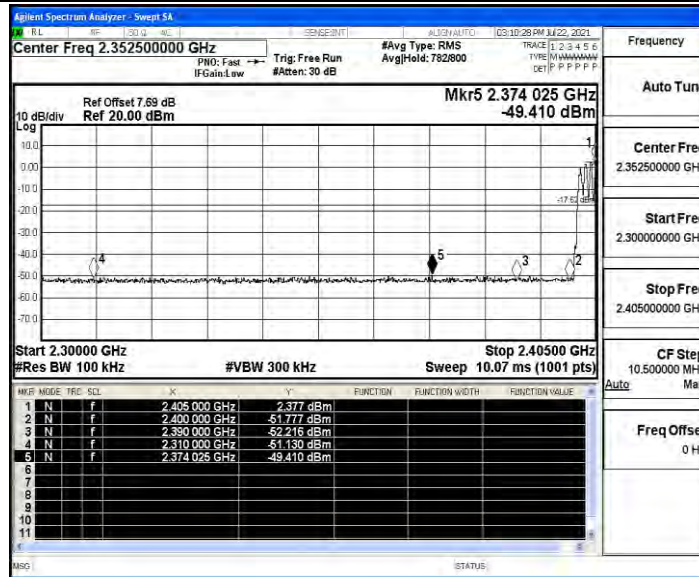
Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	2.46	-49.43	≤ -17.54	PASS
		High	2480	-1.26	-49.06	≤ -21.26	PASS
		Low	Hop_2402	2.38	-49.41	≤ -17.62	PASS
		High	Hop_2480	2.98	-47.99	≤ -17.02	PASS
2DH5	Ant1	Low	2402	-3.28	-49.97	≤ -23.28	PASS
		High	2480	1.25	-48.59	≤ -18.75	PASS
		Low	Hop_2402	-0.91	-49.05	≤ -20.91	PASS
		High	Hop_2480	1.07	-48.66	≤ -18.93	PASS
3DH5	Ant1	Low	2402	1.33	-49.73	≤ -18.67	PASS
		High	2480	1.35	-48.42	≤ -18.65	PASS
		Low	Hop_2402	-0.16	-48.49	≤ -20.16	PASS
		High	Hop_2480	-0.11	-48.23	≤ -20.11	PASS

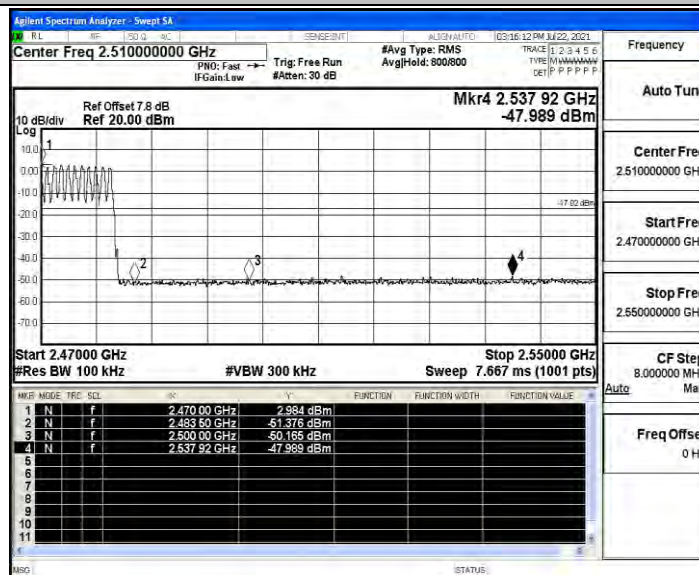


Test Graphs

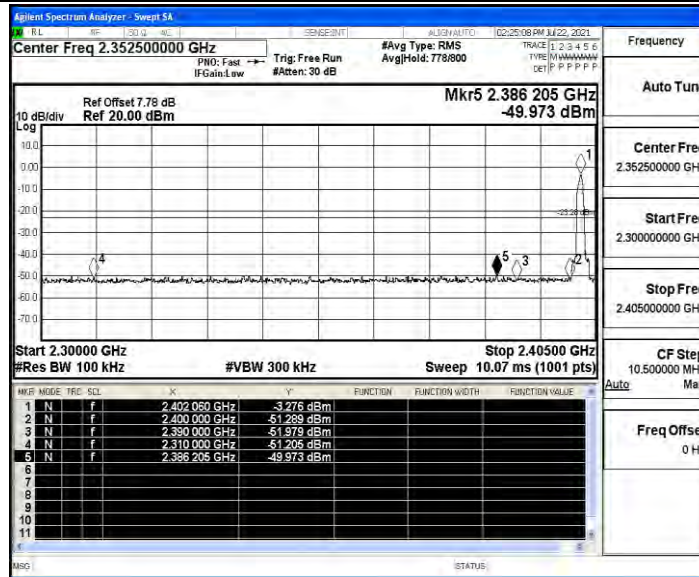




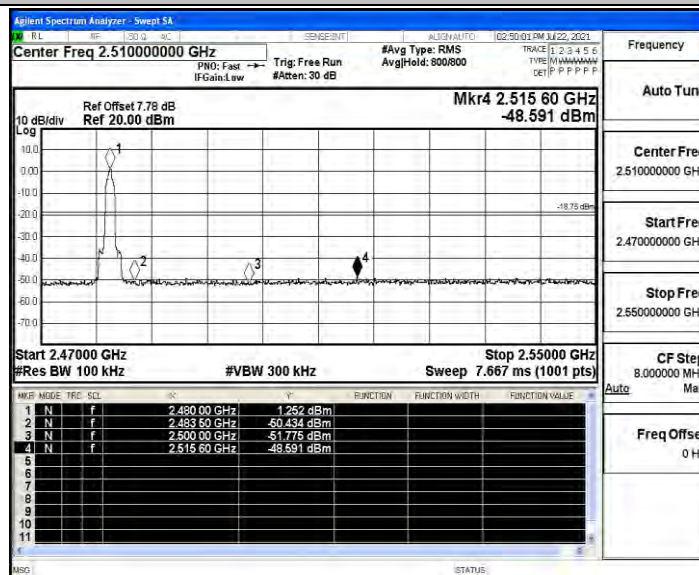
DH5_Ant1_Low_Hop_2402



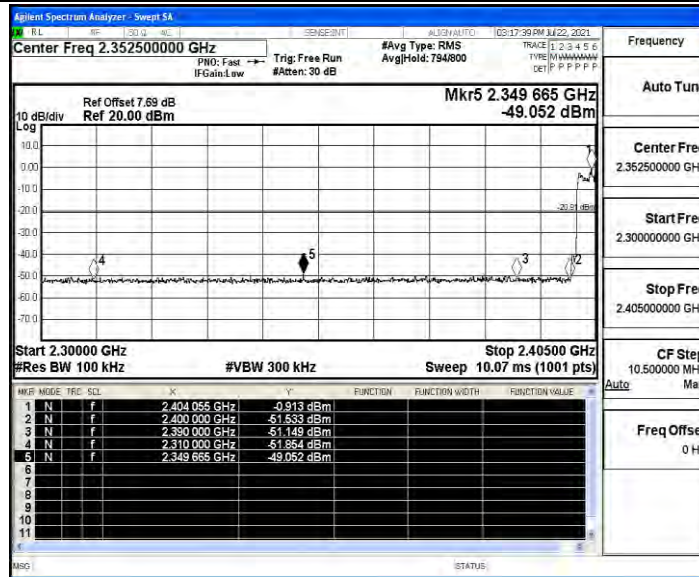
DH5_Ant1_High_Hop_2480



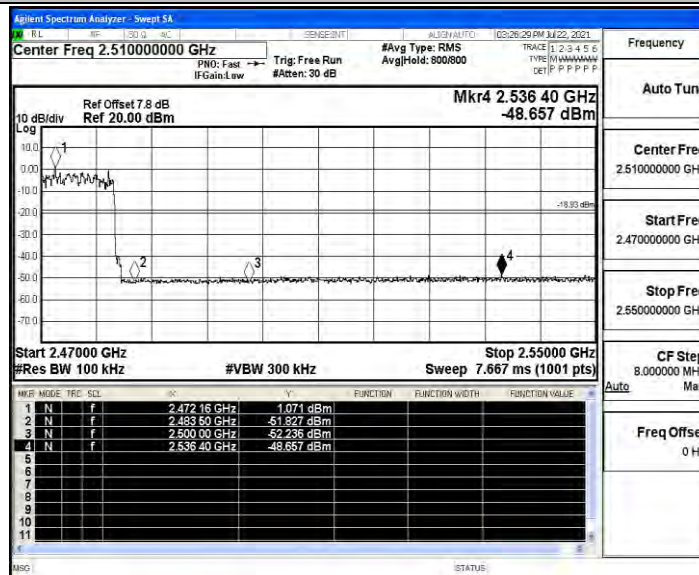
2DH5_Ant1_Low_2402



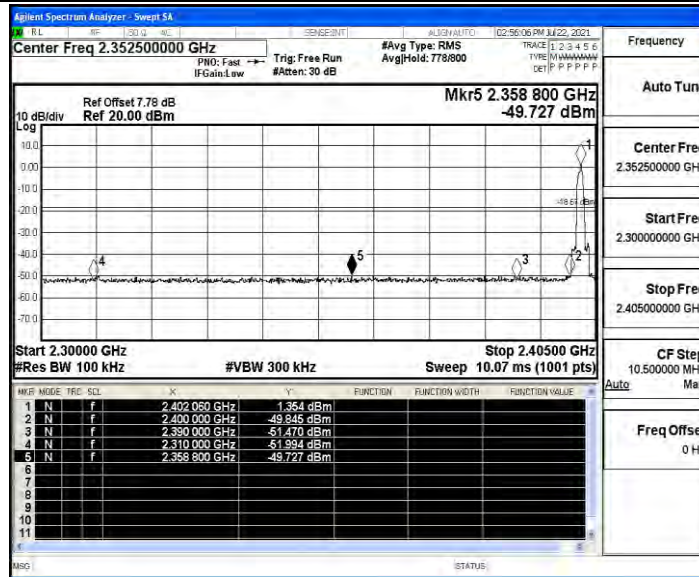
2DH5_Ant1_High_2480



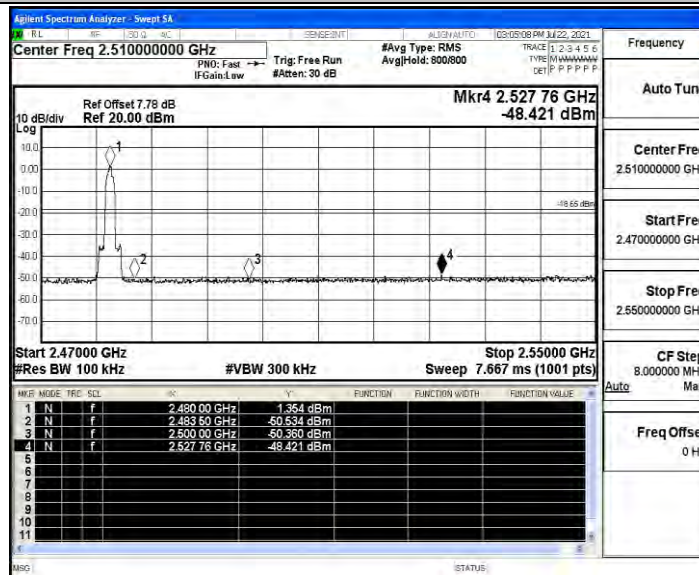
2DH5_Ant1_Low_Hop_2402



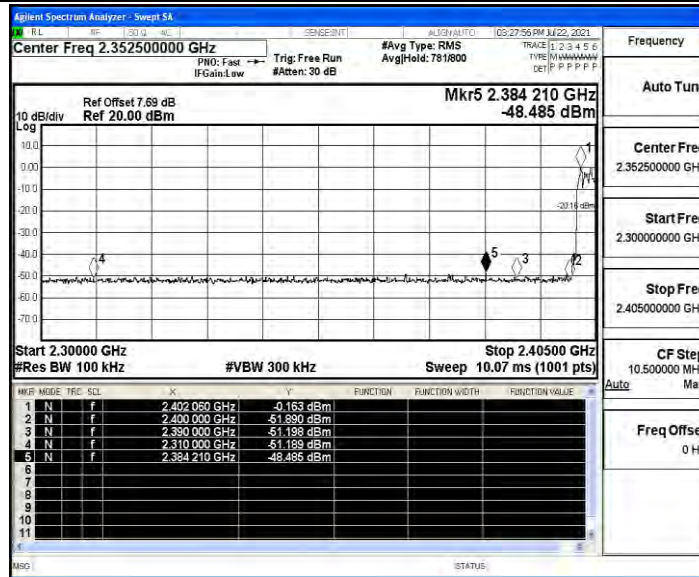
2DH5_Ant1_High_Hop_2480



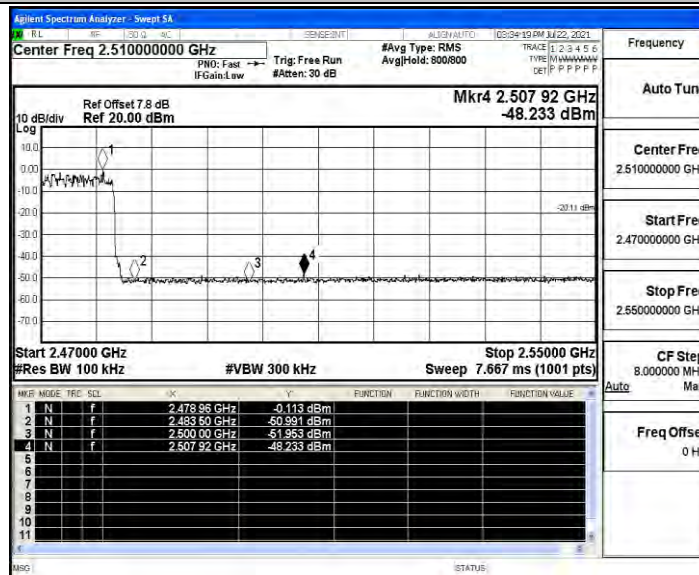
3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



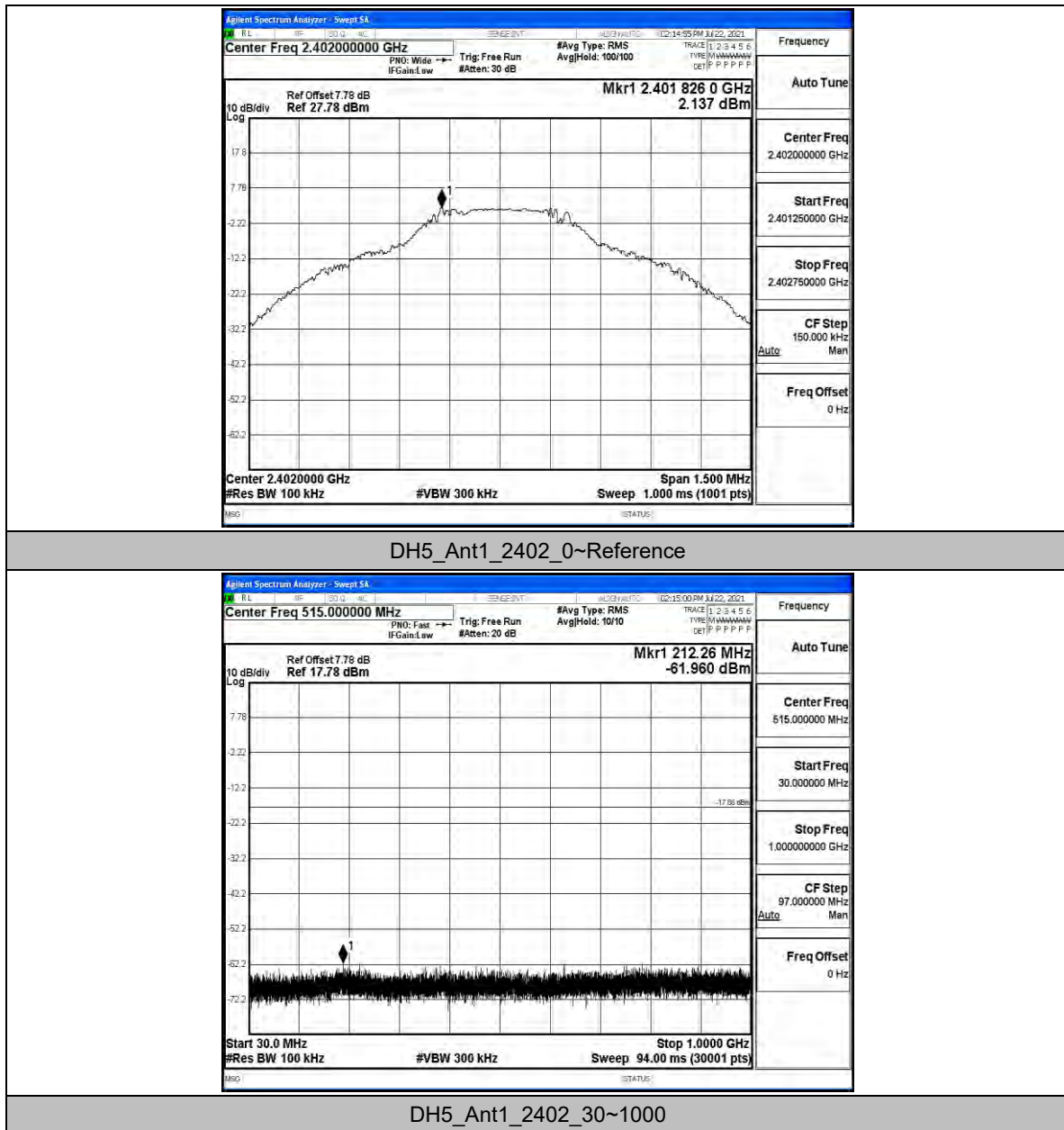
A.7 Conducted Spurious Emission

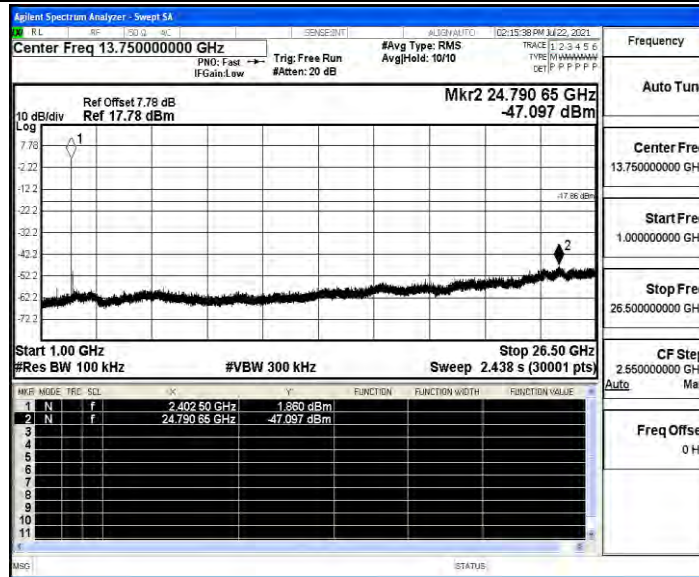
Test Result

TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	2.14	2.14	---	PASS
			30~1000	2.14	-61.96	≤-17.86	PASS
			1000~26500	2.14	-47.1	≤-17.86	PASS
		2441	Reference	-1.07	-1.07	---	PASS
			30~1000	-1.07	-62.07	≤-21.07	PASS
			1000~26500	-1.07	-47.92	≤-21.07	PASS
		2480	Reference	-1.76	-1.76	---	PASS
			30~1000	-1.76	-61.52	≤-21.76	PASS
			1000~26500	-1.76	-47.18	≤-21.76	PASS
2DH5	Ant1	2402	Reference	-3.79	-3.79	---	PASS
			30~1000	-3.79	-61.5	≤-23.79	PASS
			1000~26500	-3.79	-47.25	≤-23.79	PASS
		2441	Reference	1.85	1.85	---	PASS
			30~1000	1.85	-61.99	≤-18.15	PASS
			1000~26500	1.85	-46.62	≤-18.15	PASS
		2480	Reference	0.97	0.97	---	PASS
			30~1000	0.97	-61.6	≤-19.03	PASS
			1000~26500	0.97	-46.75	≤-19.03	PASS
3DH5	Ant1	2402	Reference	-0.48	-0.48	---	PASS
			30~1000	-0.48	-61.84	≤-20.48	PASS
			1000~26500	-0.48	-47.32	≤-20.48	PASS
		2441	Reference	-0.44	-0.44	---	PASS
			30~1000	-0.44	-61.65	≤-20.44	PASS
			1000~26500	-0.44	-47.49	≤-20.44	PASS
		2480	Reference	-2.08	-2.08	---	PASS
			30~1000	-2.08	-61.93	≤-22.08	PASS
			1000~26500	-2.08	-47.48	≤-22.08	PASS

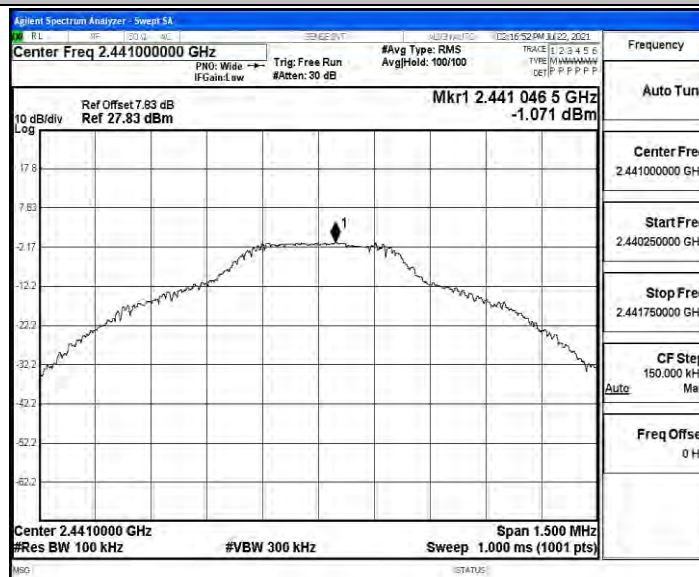


Test Graphs

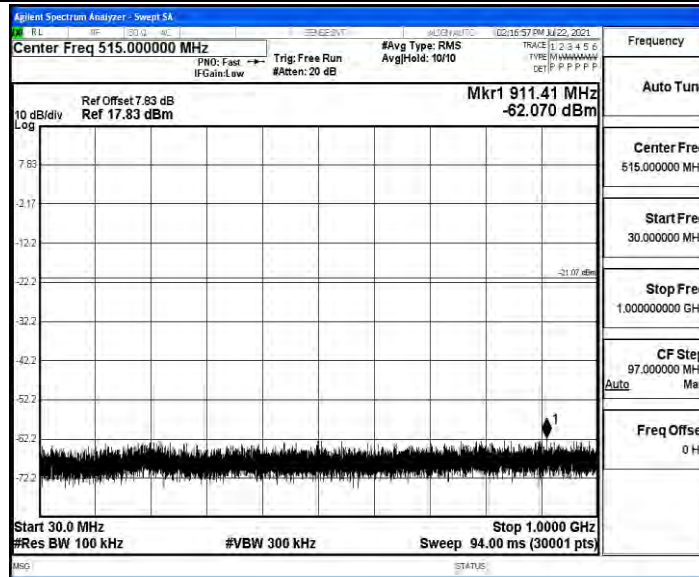




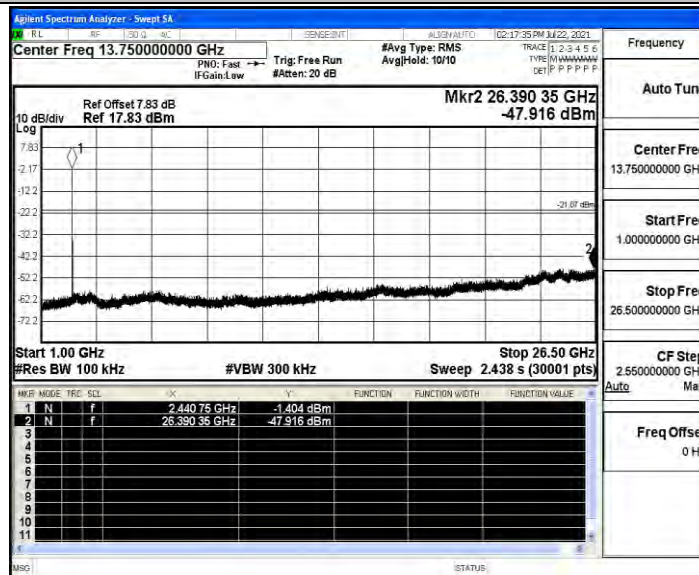
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference



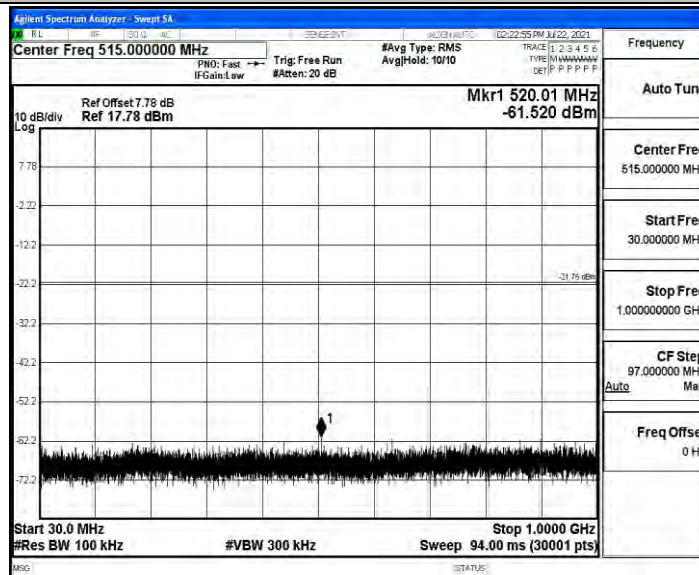
DH5_Ant1_2441_30~1000



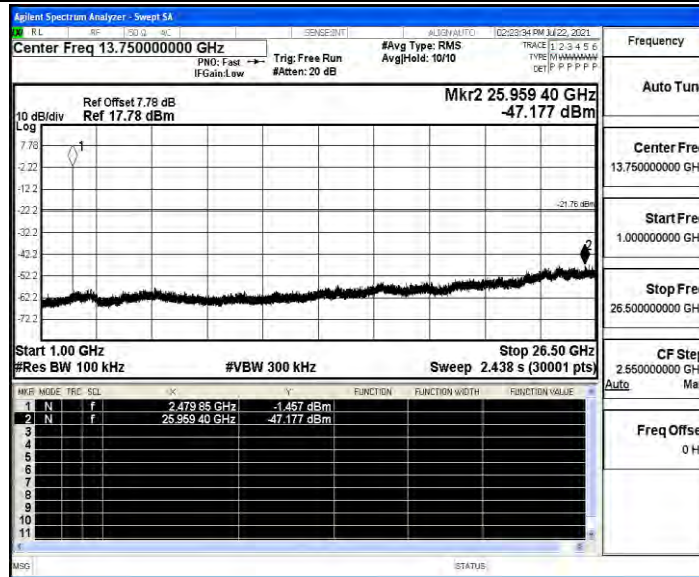
DH5_Ant1_2441_1000~26500



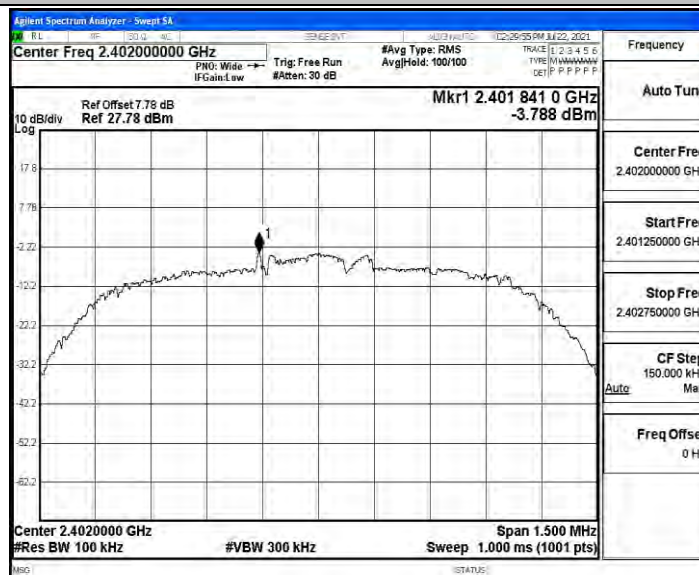
DH5_Ant1_2480_0~Reference



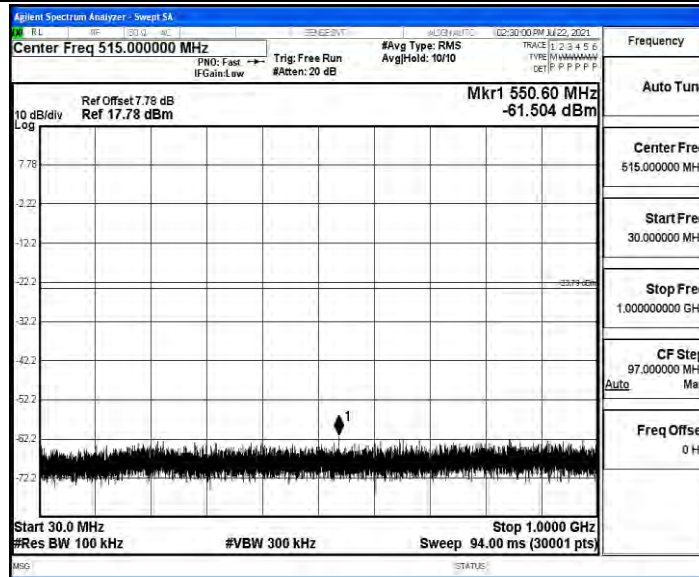
DH5_Ant1_2480_30~1000



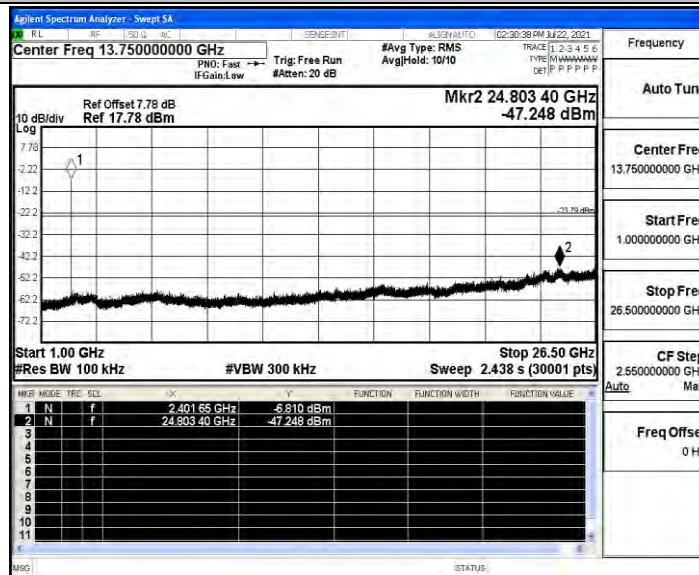
DH5_Ant1_2480_1000~26500



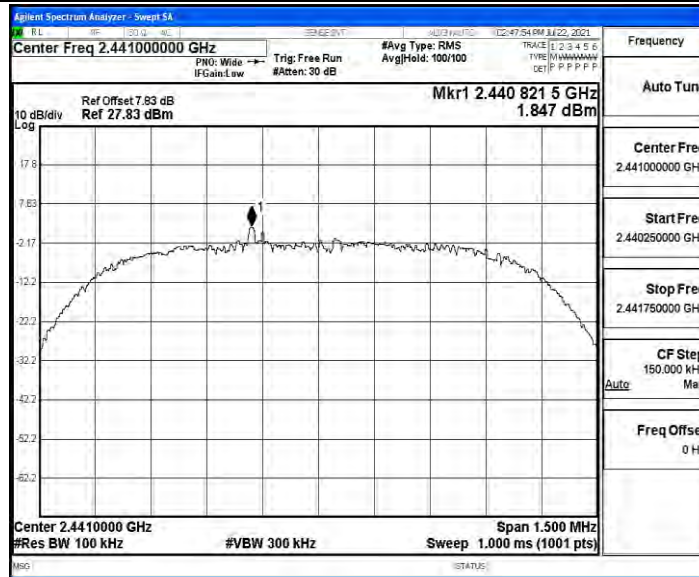
2DH5_Ant1_2402_0~Reference



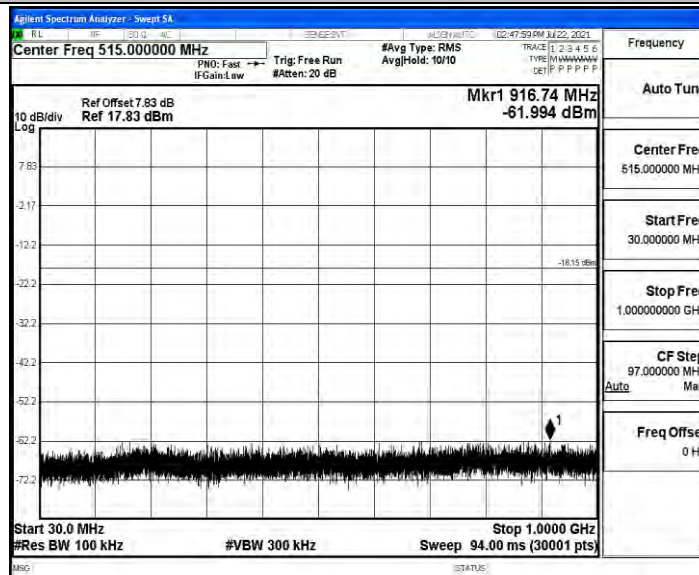
2DH5_Ant1_2402_30~1000



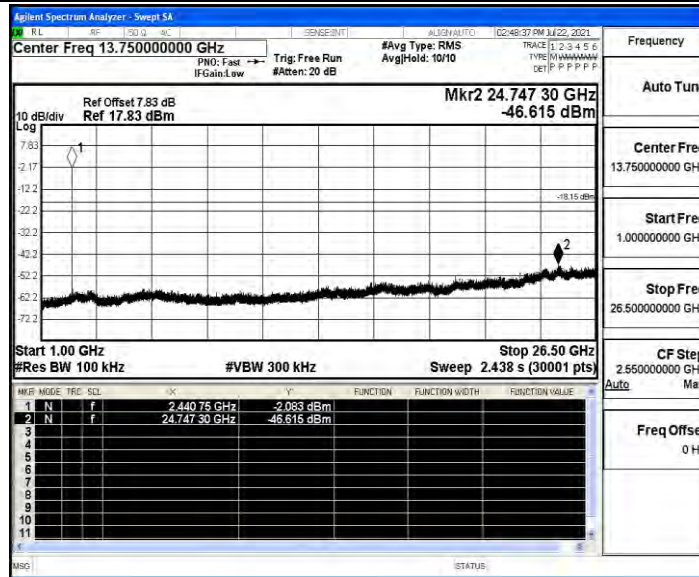
2DH5_Ant1_2402_1000~26500



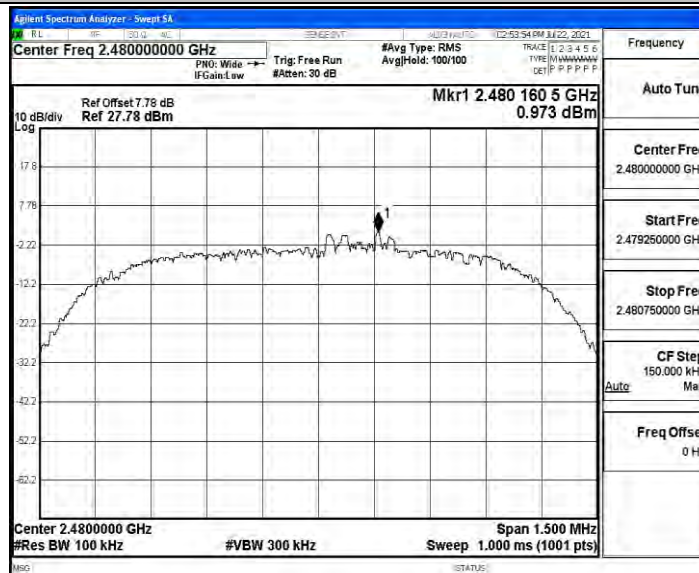
2DH5_Ant1_2441_0~Reference



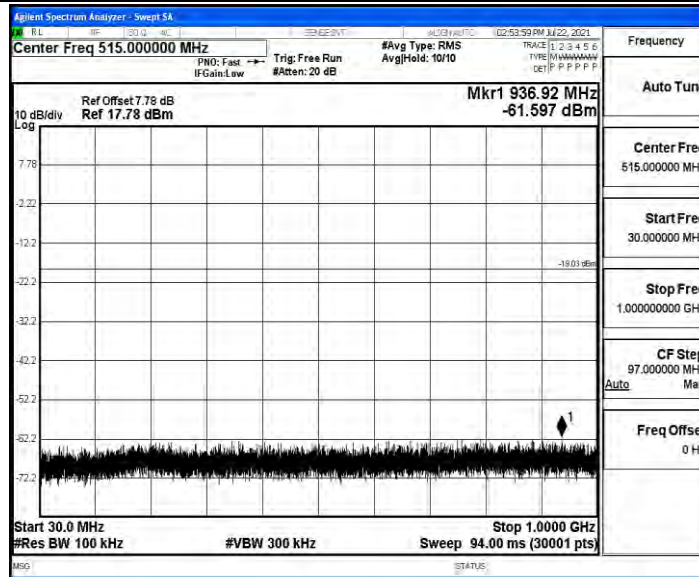
2DH5_Ant1_2441_30~1000



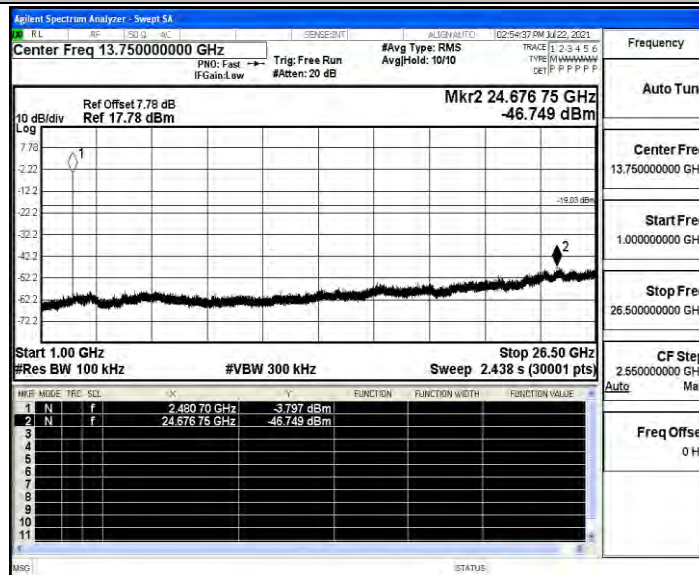
2DH5_Ant1_2441_1000~26500



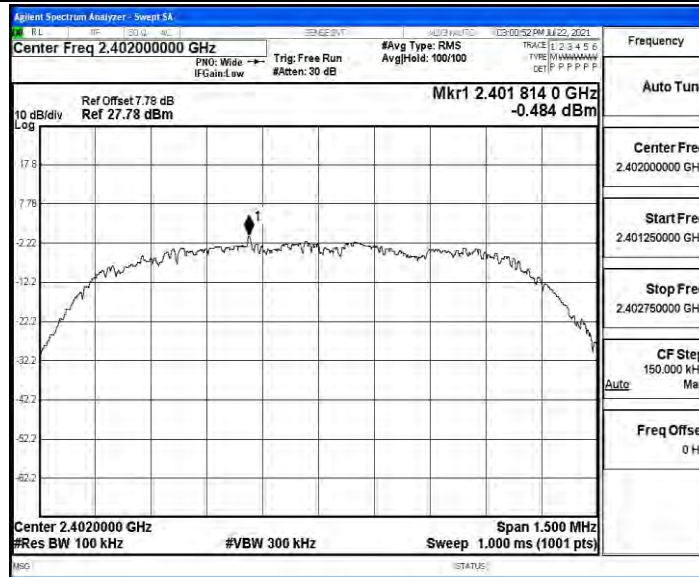
2DH5_Ant1_2480_0~Reference



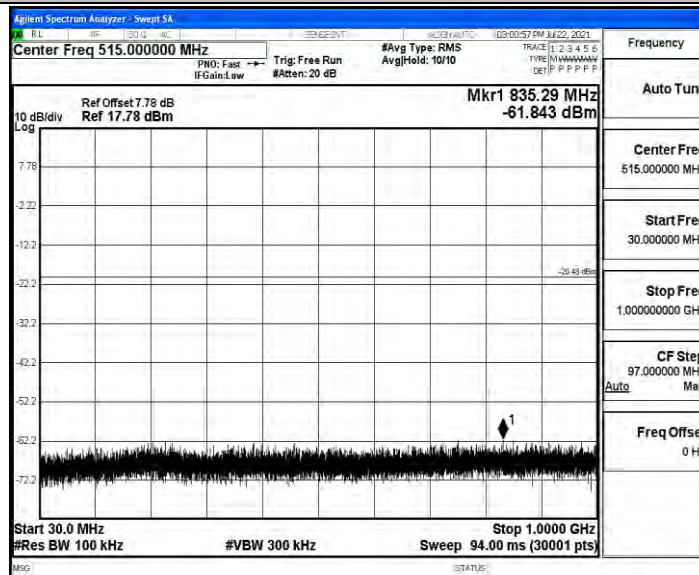
2DH5_Ant1_2480_30~1000



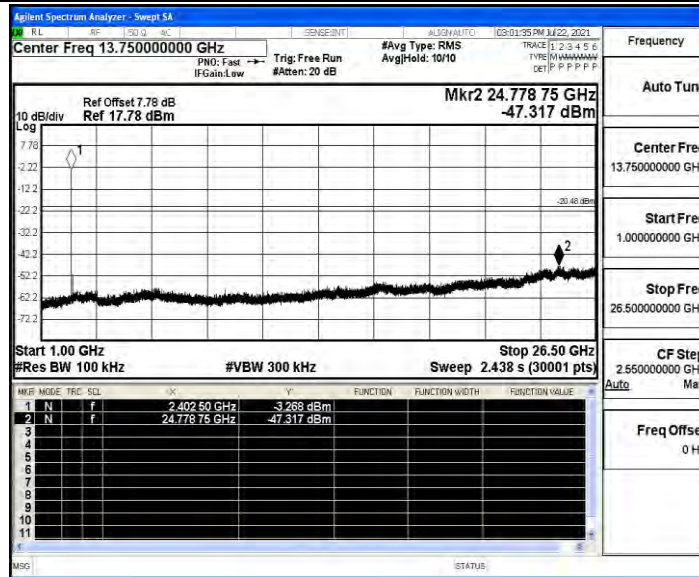
2DH5_Ant1_2480_1000~26500



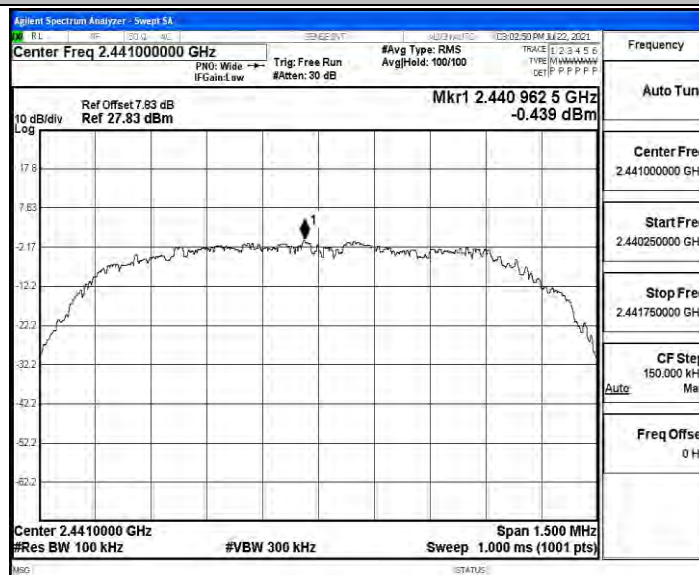
3DH5_Ant1_2402_0~Reference



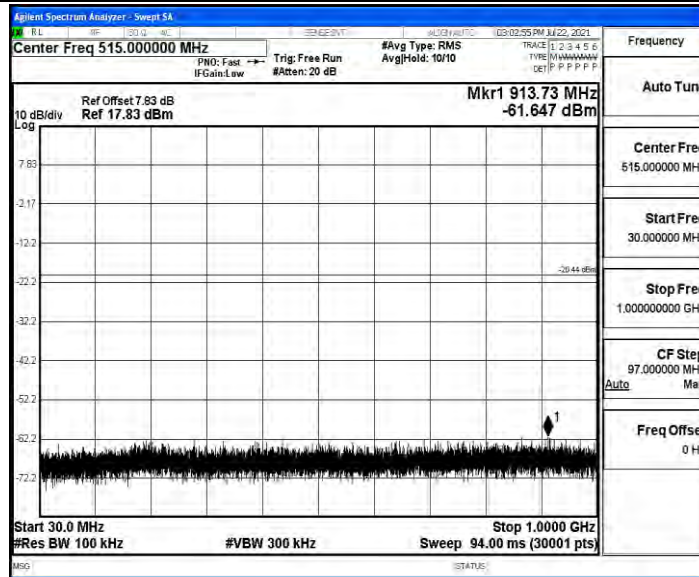
3DH5_Ant1_2402_30~1000



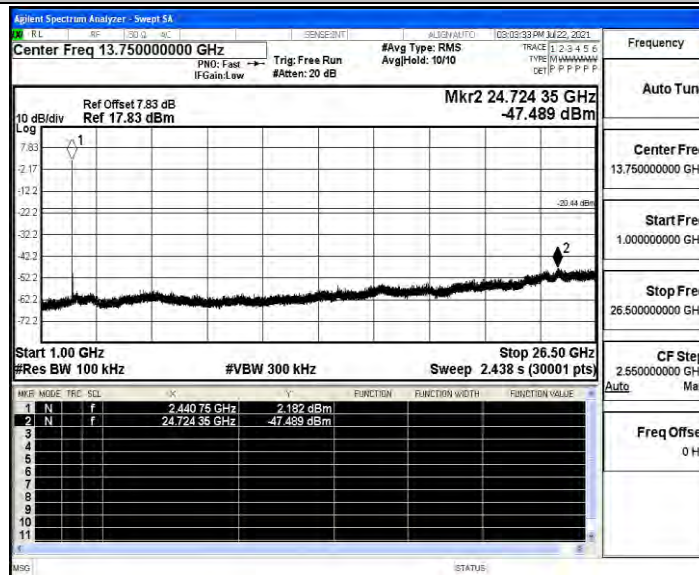
3DH5_Ant1_2402_1000~26500



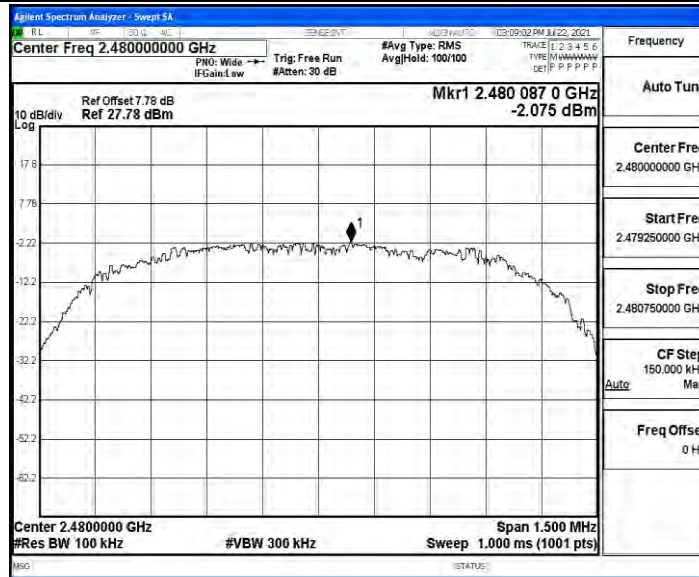
3DH5_Ant1_2441_0~Reference



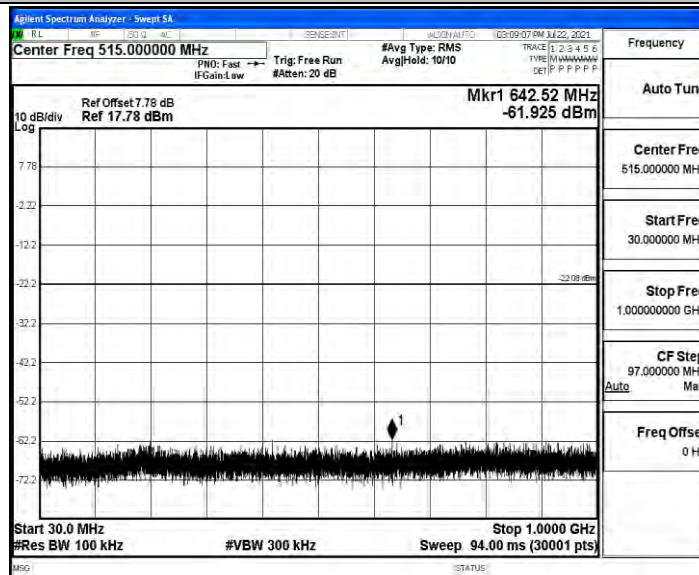
3DH5_Ant1_2441_30~1000



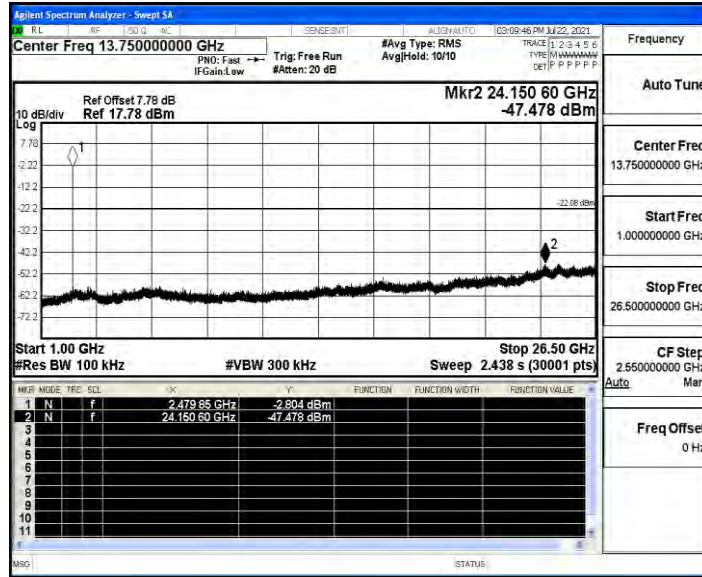
3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



A.8 Emissions in Restricted Bands

Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-49.02	≤-41.20	46.18	≤54	PASS
				AV	2384.630	-48.59	≤-41.20	46.61	≤54	PASS
				AV	2390.000	-48.67	≤-41.20	46.53	≤54	PASS
				Peak	2310.000	-40.75	≤-21.20	54.45	≤74	PASS
				Peak	2330.240	-38.18	≤-21.20	57.02	≤74	PASS
				Peak	2390.000	-40.37	≤-21.20	54.83	≤74	PASS
		High	2480	AV	2483.500	-48.03	≤-41.20	47.17	≤54	PASS
				AV	2497.360	-47.99	≤-41.20	47.21	≤54	PASS
				AV	2500.000	-48.04	≤-41.20	47.16	≤54	PASS
				Peak	2483.500	-38.27	≤-21.20	56.93	≤74	PASS
				Peak	2490.160	-37.8	≤-21.20	57.40	≤74	PASS
				Peak	2500.000	-39.63	≤-21.20	55.57	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.59	≤-21.20	54.61	≤74	PASS
				Peak	2381.585	-38.37	≤-21.20	56.83	≤74	PASS
				Peak	2390.000	-39.13	≤-21.20	56.07	≤74	PASS
		High	Hop_2480	Peak	2483.500	-38.75	≤-21.20	56.45	≤74	PASS
				Peak	2488.000	-37.95	≤-21.20	57.25	≤74	PASS
				Peak	2500.000	-38.97	≤-21.20	56.23	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-49.07	≤-41.20	46.13	≤54	PASS
				AV	2379.485	-48.56	≤-41.20	46.64	≤54	PASS
				AV	2390.000	-48.71	≤-41.20	46.49	≤54	PASS
				Peak	2310.000	-41.71	≤-21.20	53.49	≤74	PASS
				Peak	2374.760	-38.14	≤-21.20	57.06	≤74	PASS
				Peak	2390.000	-40.78	≤-21.20	54.42	≤74	PASS
		High	2480	AV	2483.500	-47.63	≤-41.20	47.57	≤54	PASS
				AV	2483.520	-47.63	≤-41.20	47.57	≤54	PASS
				AV	2500.000	-47.98	≤-41.20	47.22	≤54	PASS
				Peak	2483.500	-39.5	≤-21.20	55.70	≤74	PASS
				Peak	2499.120	-37.51	≤-21.20	57.69	≤74	PASS
				Peak	2500.000	-39.13	≤-21.20	56.07	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.79	≤-21.20	54.41	≤74	PASS
				Peak	2310.815	-37.71	≤-21.20	57.49	≤74	PASS
				Peak	2390.000	-40.07	≤-21.20	55.13	≤74	PASS
		High	Hop_2480	Peak	2483.500	-39.79	≤-21.20	55.41	≤74	PASS



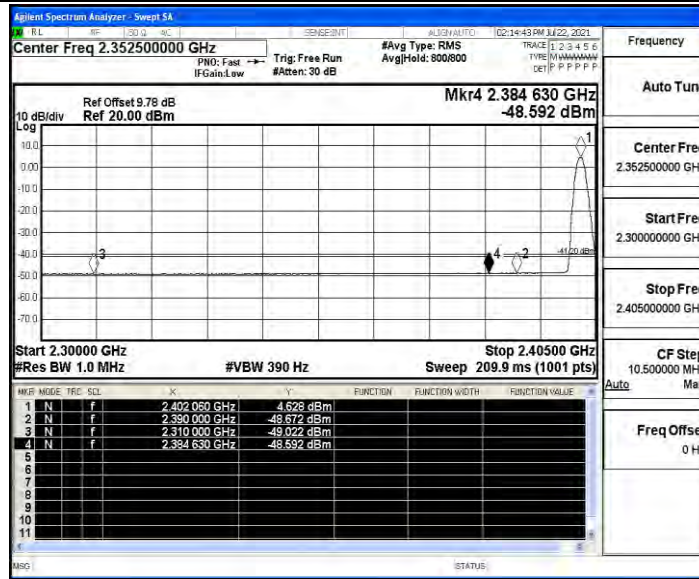
3DH5	Ant1	Low	2402	Peak	2489.680	-37.5	≤-21.20	57.70	≤74	PASS
				Peak	2500.000	-39.35	≤-21.20	55.85	≤74	PASS
		High	2402	AV	2310.000	-48.95	≤-41.20	46.25	≤54	PASS
				AV	2388.095	-48.45	≤-41.20	46.75	≤54	PASS
				AV	2390.000	-48.61	≤-41.20	46.59	≤54	PASS
				Peak	2310.000	-40.48	≤-21.20	54.72	≤74	PASS
				Peak	2361.005	-37.95	≤-21.20	57.25	≤74	PASS
				Peak	2390.000	-38.76	≤-21.20	56.44	≤74	PASS
			2480	AV	2483.500	-47.6	≤-41.20	47.60	≤54	PASS
				AV	2483.520	-47.6	≤-41.20	47.60	≤54	PASS
				AV	2500.000	-47.97	≤-41.20	47.23	≤54	PASS
				Peak	2483.500	-40.47	≤-21.20	54.73	≤74	PASS
				Peak	2497.520	-37.84	≤-21.20	57.36	≤74	PASS
				Peak	2500.000	-39.37	≤-21.20	55.83	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.61	≤-21.20	54.59	≤74	PASS
				Peak	2326.985	-37.55	≤-21.20	57.65	≤74	PASS
				Peak	2390.000	-40.5	≤-21.20	54.70	≤74	PASS
		High	Hop_2480	Peak	2483.500	-40	≤-21.20	55.20	≤74	PASS
				Peak	2497.680	-37.71	≤-21.20	57.49	≤74	PASS
				Peak	2500.000	-40.46	≤-21.20	54.74	≤74	PASS

Note:

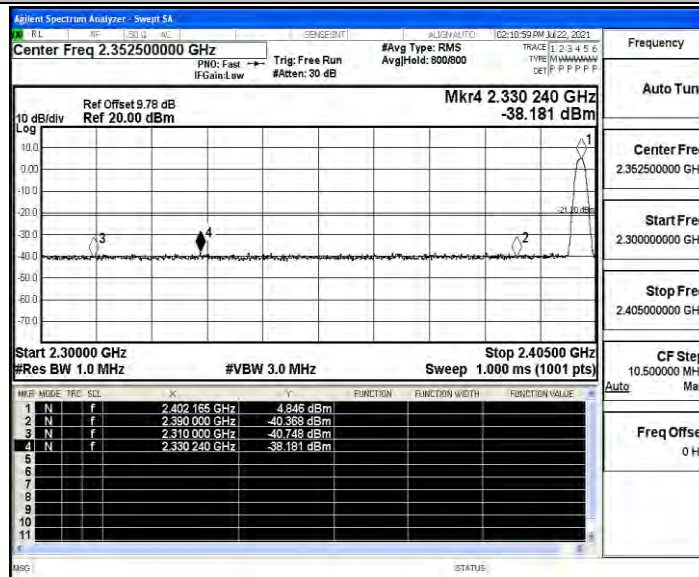
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.



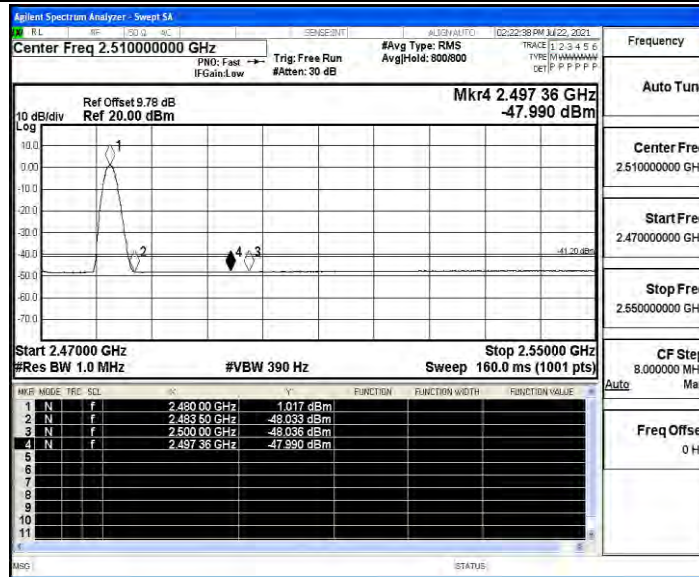
Test Graphs



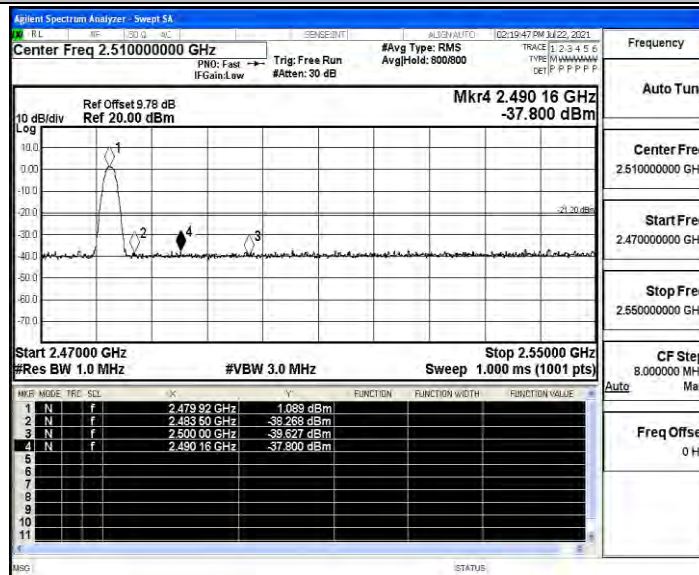
DH5_Ant1_Low_2402_AV



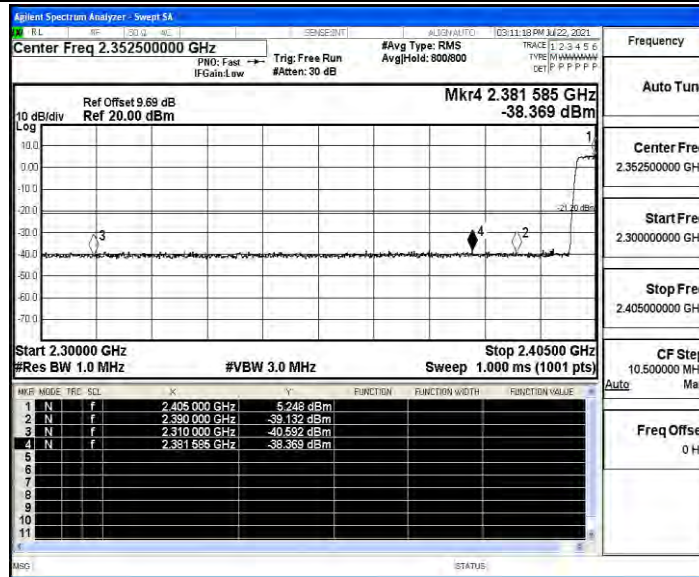
DH5_Ant1_Low_2402_Peak



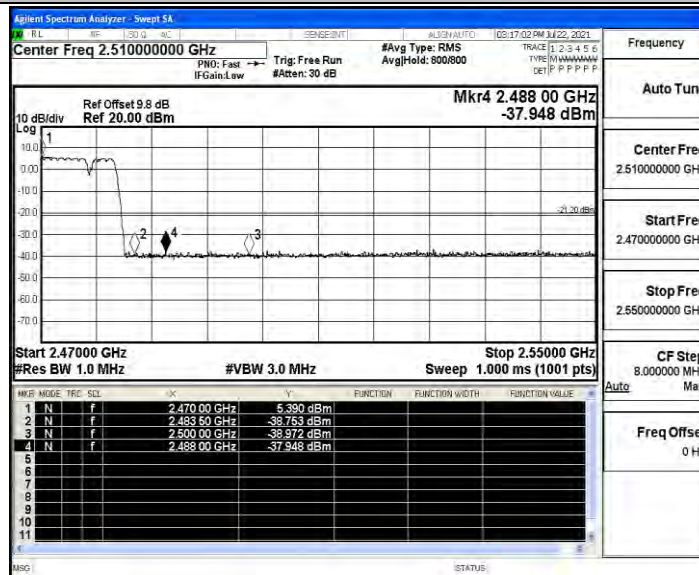
DH5_Ant1_High_2480_AV



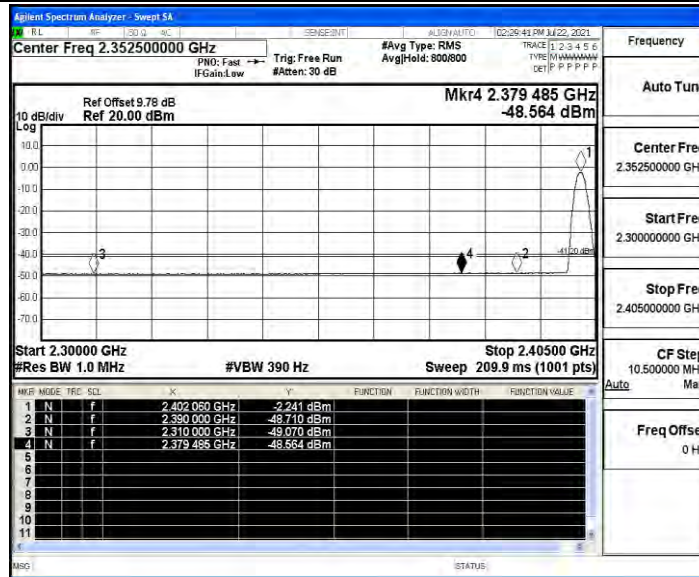
DH5_Ant1_High_2480_Peak



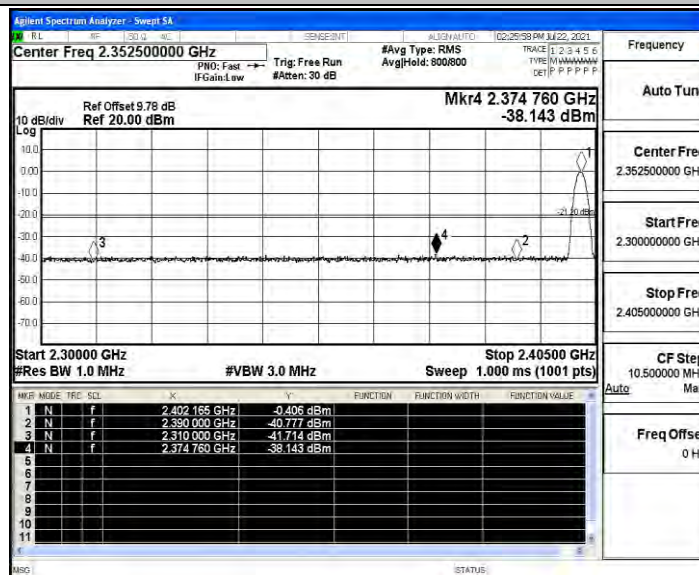
DH5_Ant1_Low_Hop_2402_Peak



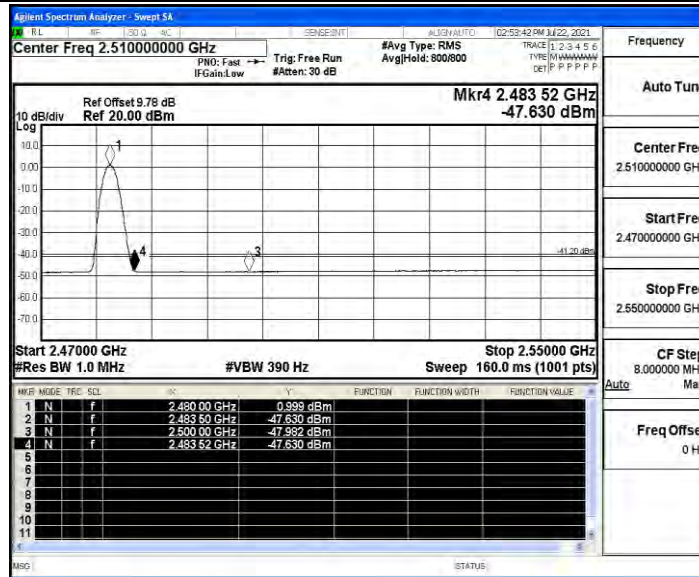
DH5_Ant1_High_Hop_2480_Peak



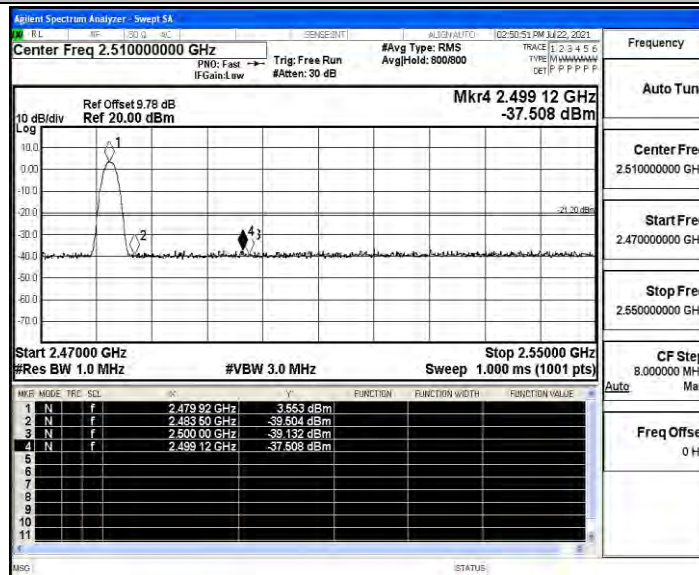
2DH5_Ant1_Low_2402_AV



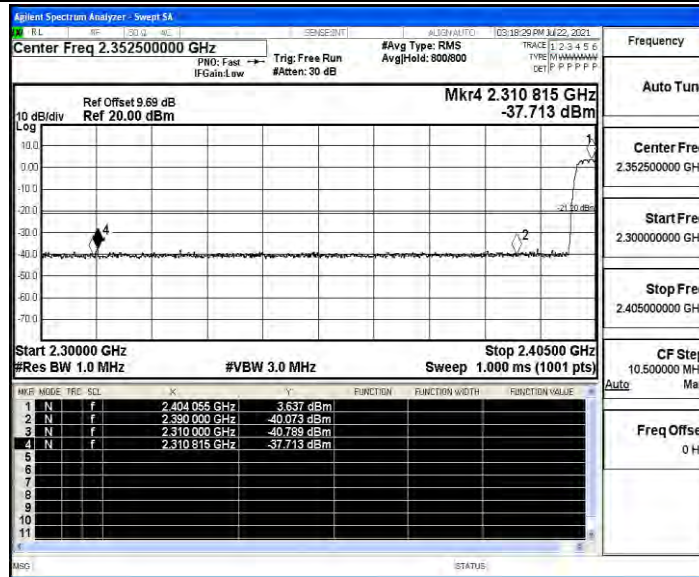
2DH5_Ant1_Low_2402_Peak



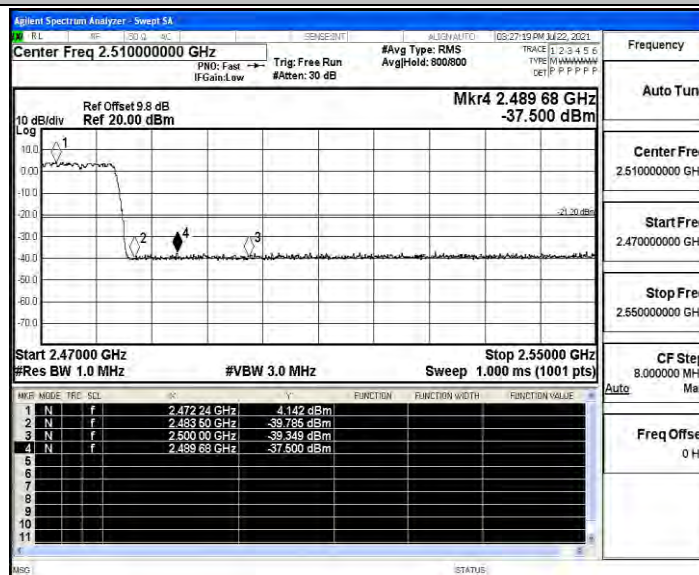
2DH5_Ant1_High_2480_AV



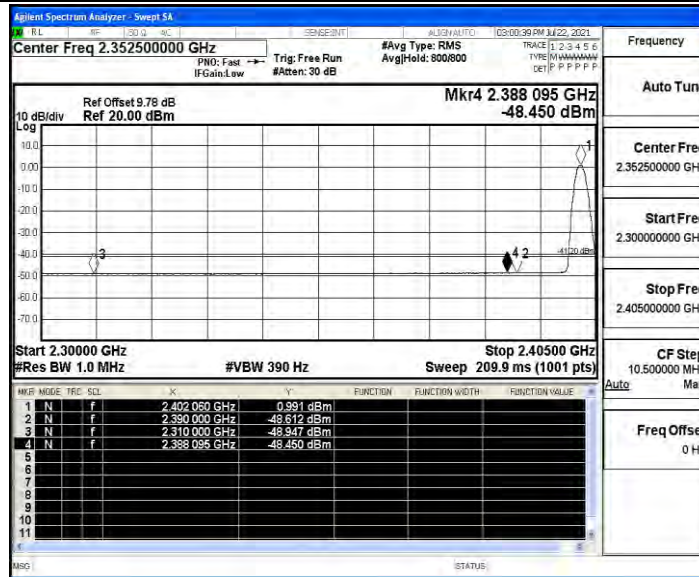
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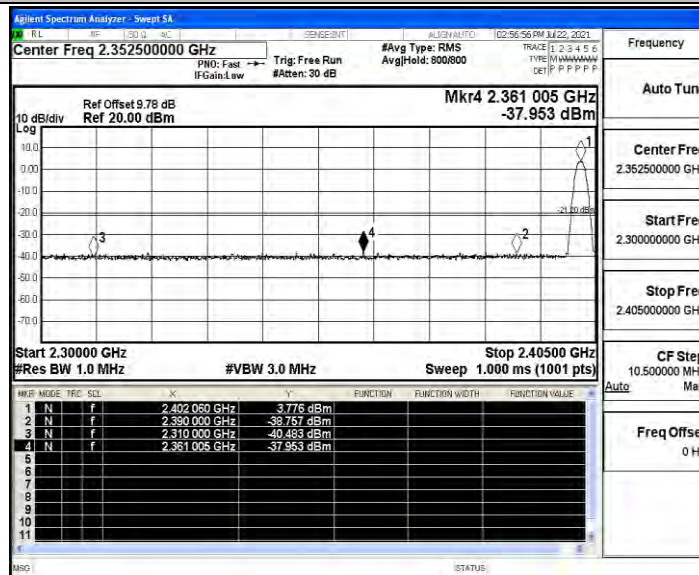
2DH5_Ant1_Low_Hop_2402_Peak



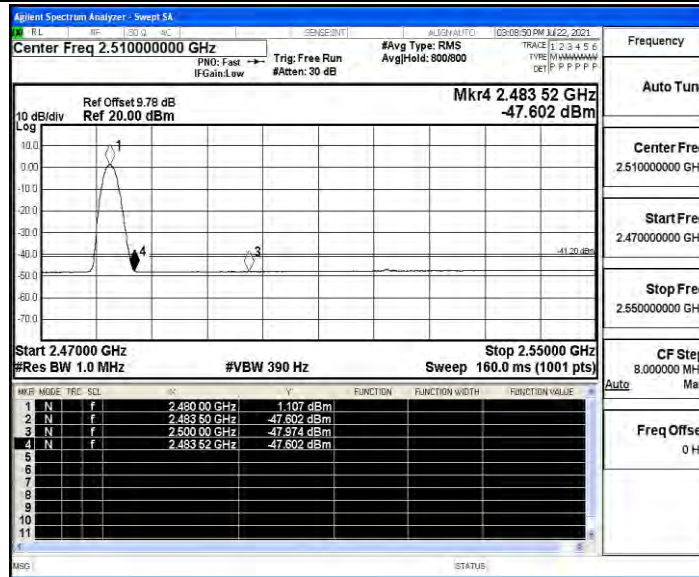
2DH5_Ant1_High_Hop_2480_Peak



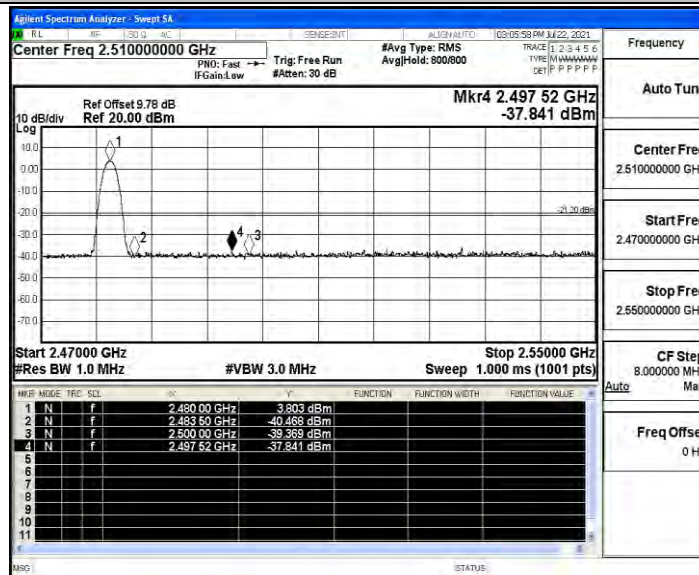
3DH5_Ant1_Low_2402_AV



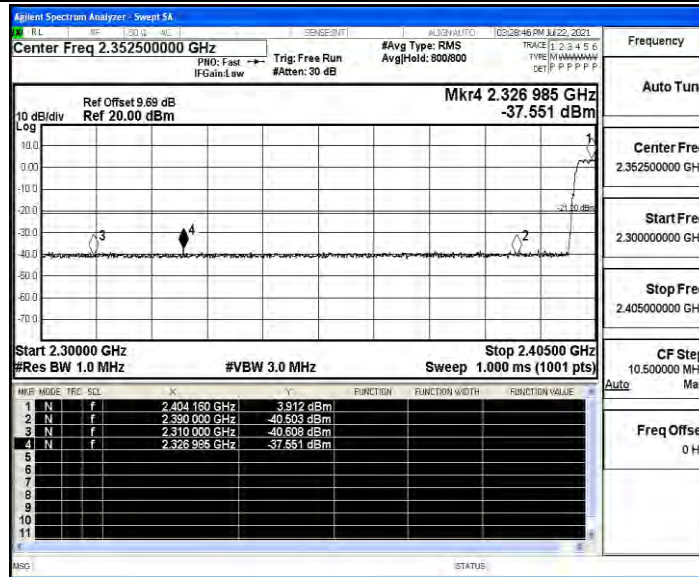
3DH5_Ant1_Low_2402_Peak



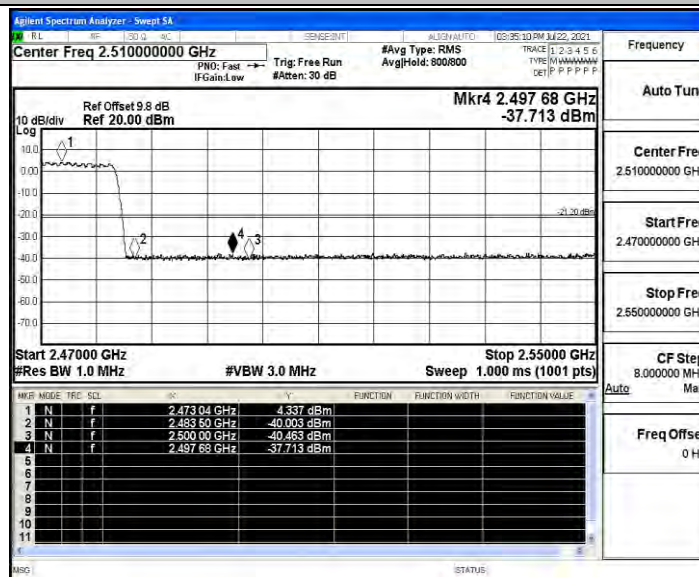
3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak