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

Product Name: MAIrobotics Gatekeeper

Trade Mark: MAIrobotics

Test Model: Gatekeeper

FCC ID: 2AZYE-GATEKEEPER

rEnvironmental Conditions

Temperature:	25.5°C
Relative Humidity:	55.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

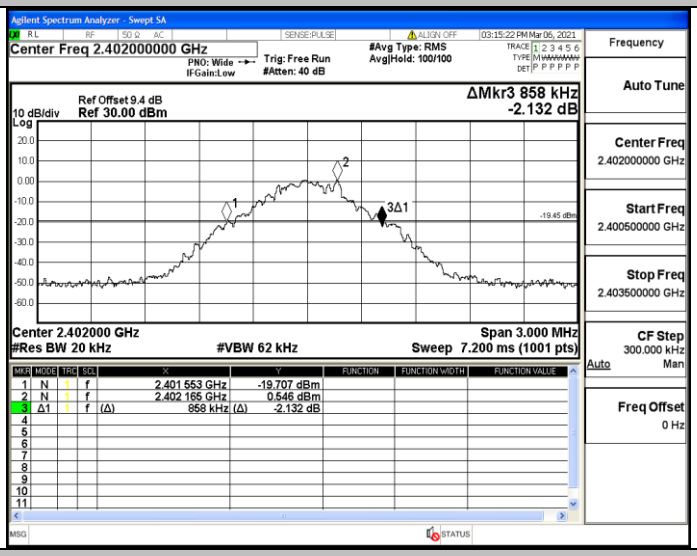
Appendix A: 20dB Emission Bandwidth

Test Result

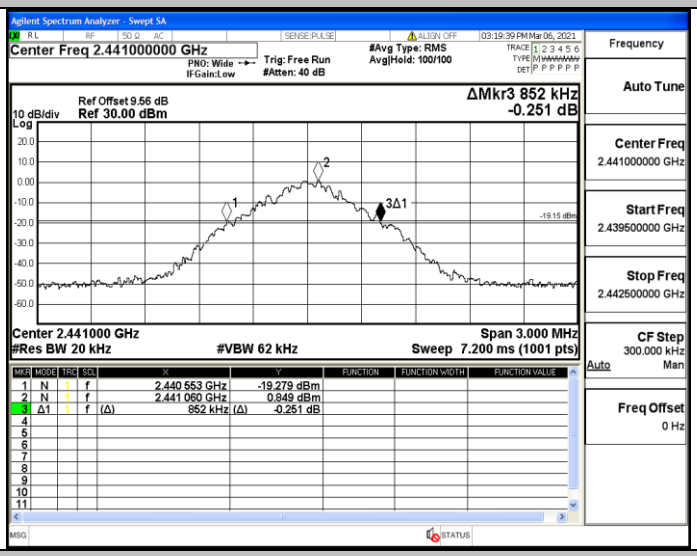
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.858	2401.553	2402.411	Not Specified	PASS
		2441	0.852	2440.553	2441.405	Not Specified	PASS
		2480	0.801	2479.601	2480.402	Not Specified	PASS
2DH5	Ant1	2402	1.263	2401.370	2402.633	Not Specified	PASS
		2441	1.278	2440.370	2441.648	Not Specified	PASS
		2480	1.266	2479.370	2480.636	Not Specified	PASS
3DH5	Ant1	2402	1.329	2401.334	2402.663	Not Specified	PASS
		2441	1.308	2440.349	2441.657	Not Specified	PASS
		2480	1.251	2479.367	2480.618	Not Specified	PASS

Test Graphs

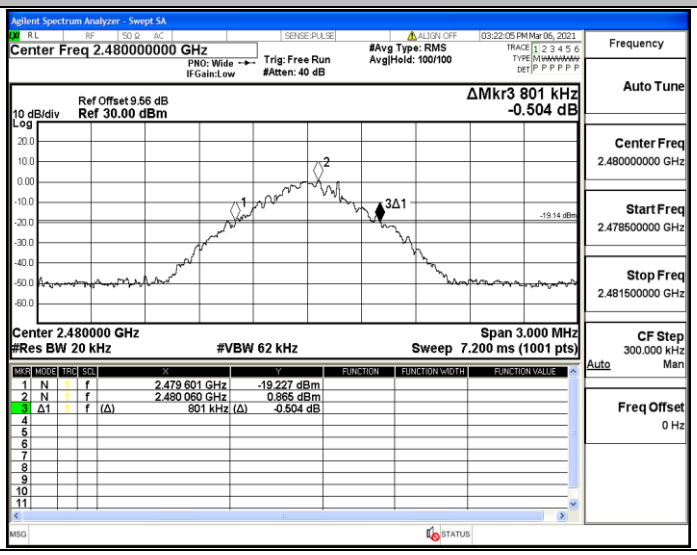
DH5_Ant1_2402



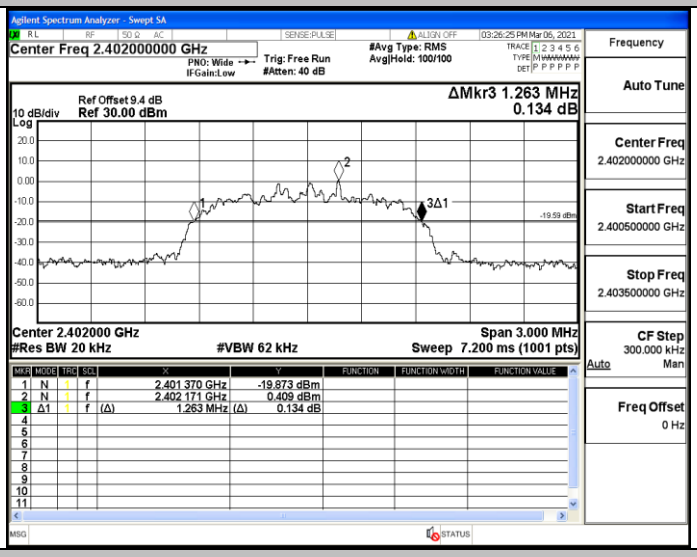
DH5_Ant1_2441



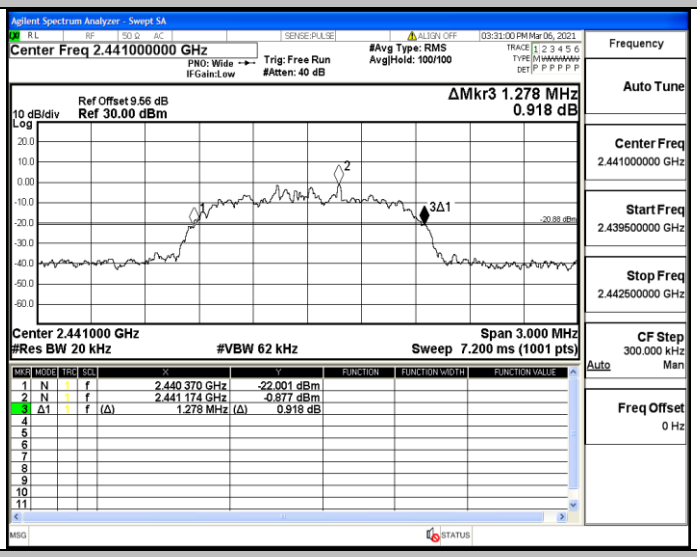
DH5_Ant1_2480



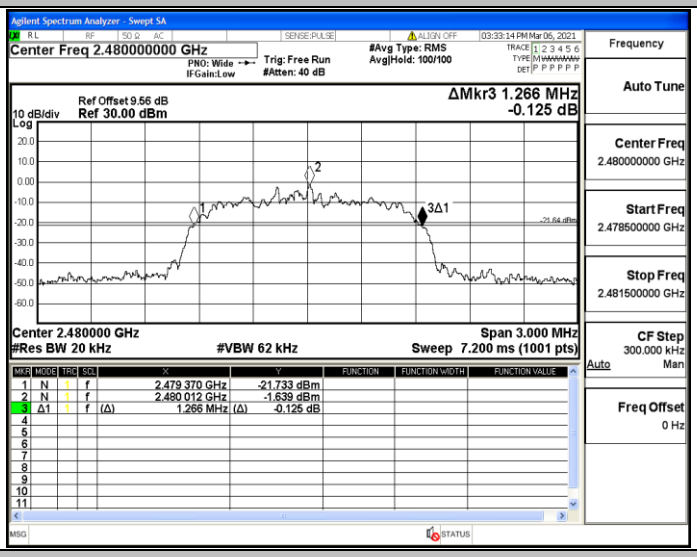
2DH5_Ant1_2402



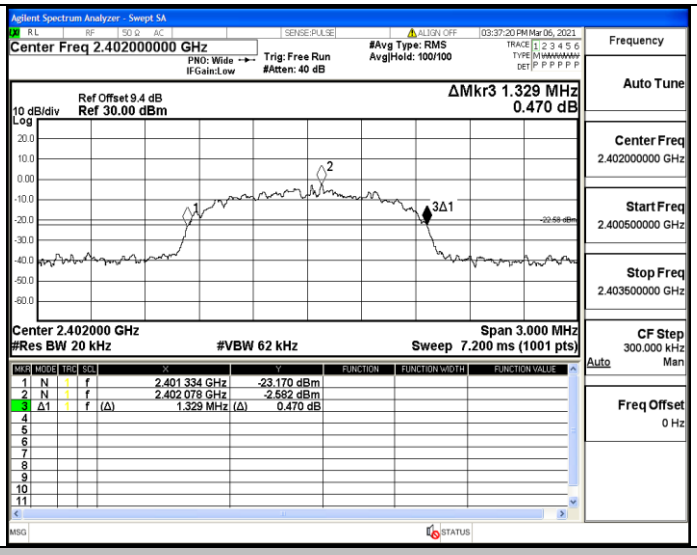
2DH5_Ant1_2441



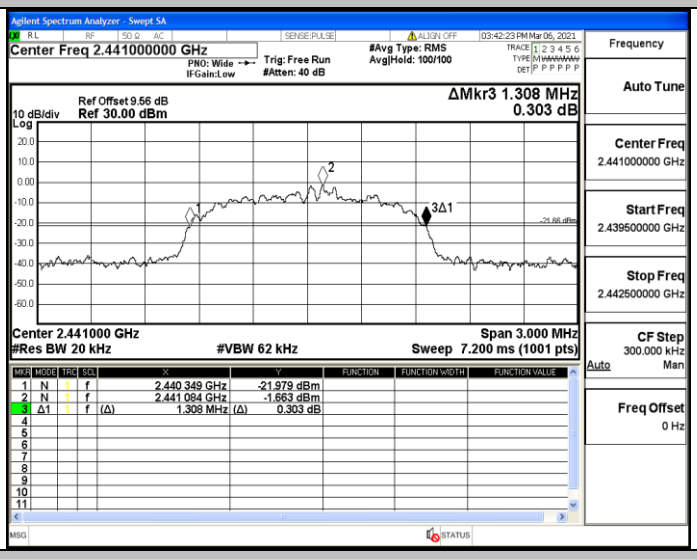
2DH5_Ant1_2480



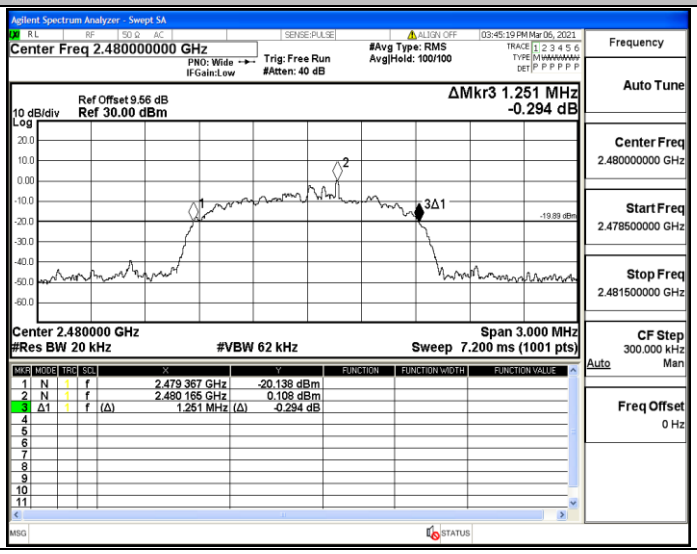
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



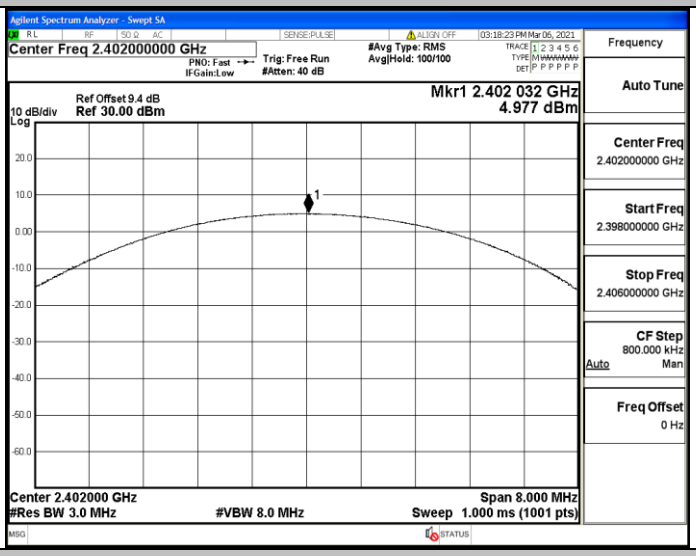
Appendix B: Maximum conducted output power

Test Result

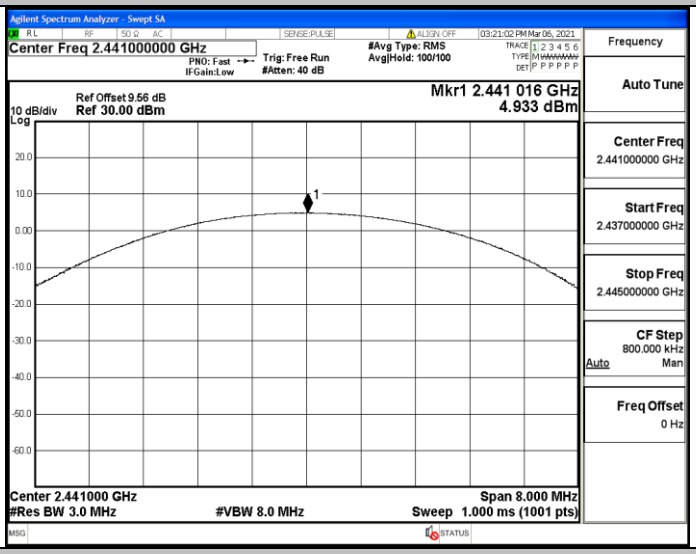
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	4.98	<=30	PASS
		2441	4.93	<=30	PASS
		2480	4.66	<=30	PASS
2DH5	Ant1	2402	5.16	<=20.97	PASS
		2441	5	<=20.97	PASS
		2480	3.92	<=20.97	PASS
3DH5	Ant1	2402	5.14	<=20.97	PASS
		2441	5.11	<=20.97	PASS
		2480	4.13	<=20.97	PASS

Test Graphs

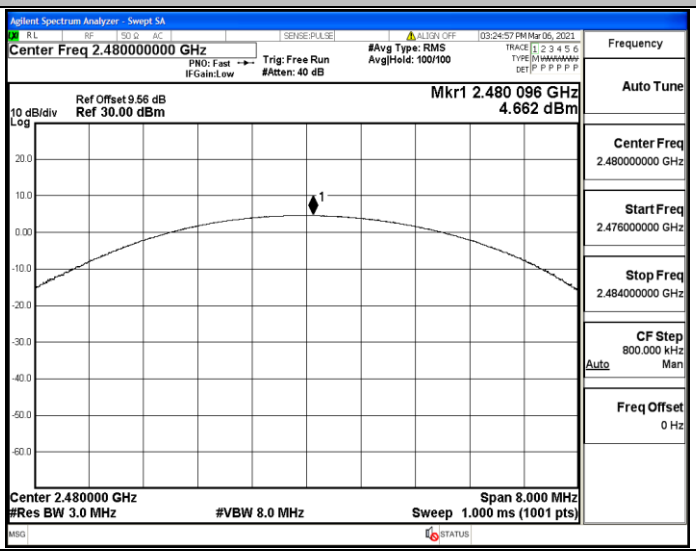
DH5_Ant1_2402



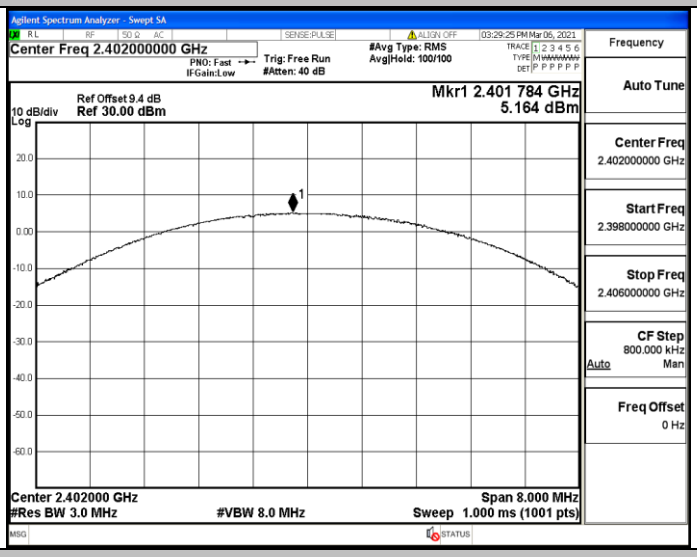
DH5_Ant1_2441



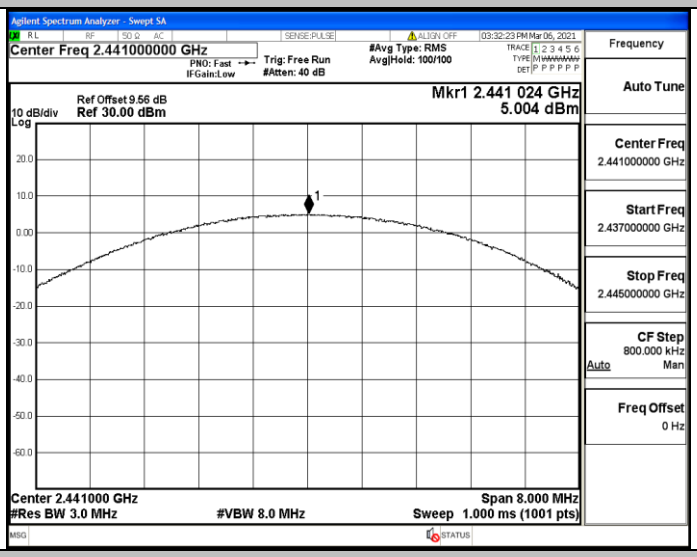
DH5_Ant1_2480



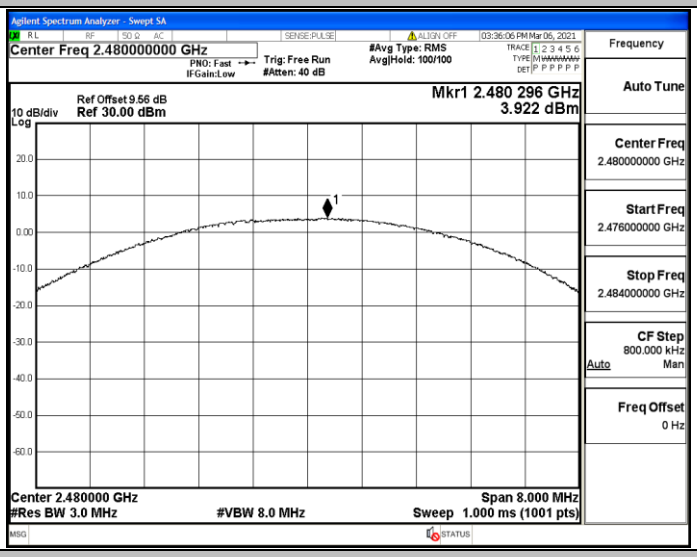
2DH5_Ant1_2402



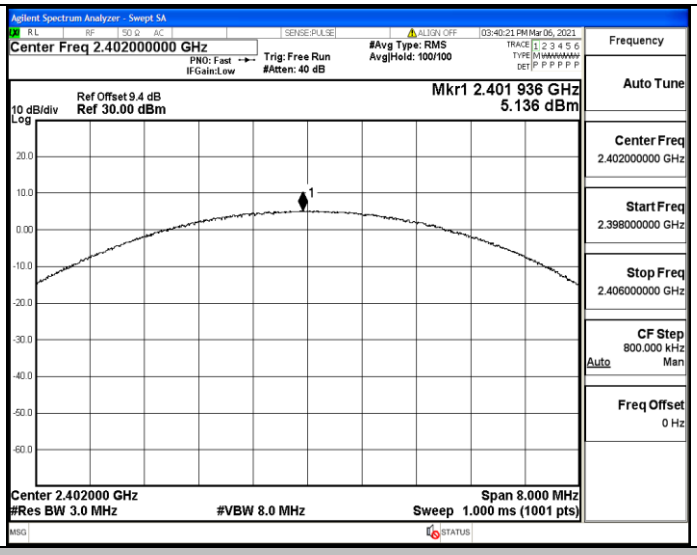
2DH5_Ant1_2441



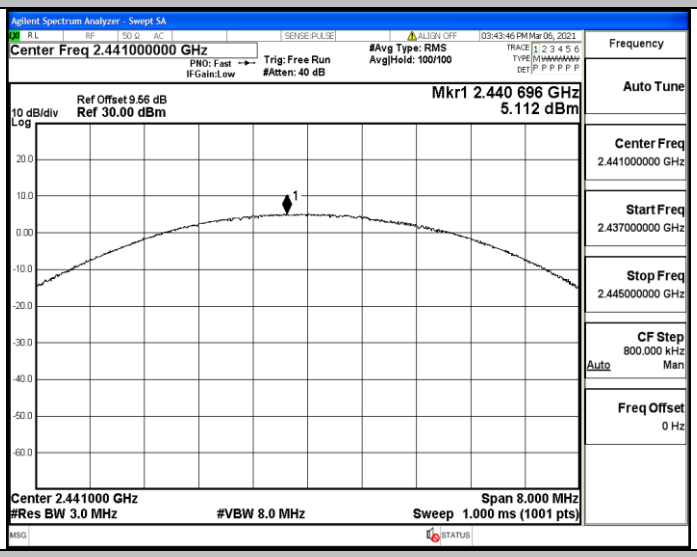
2DH5_Ant1_2480



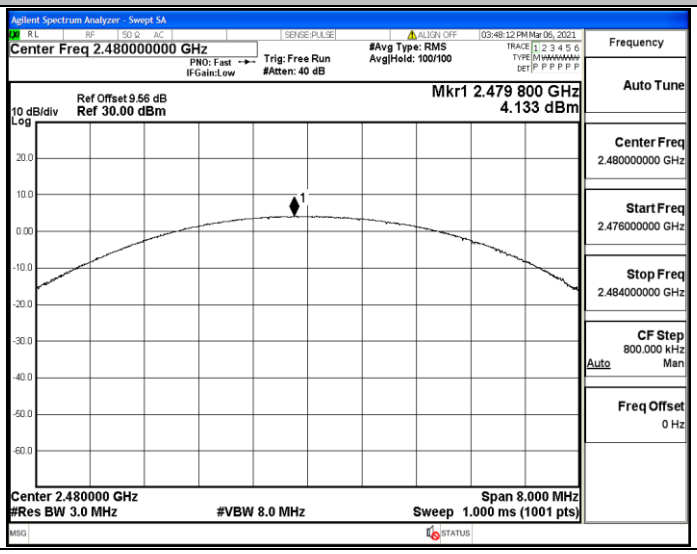
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



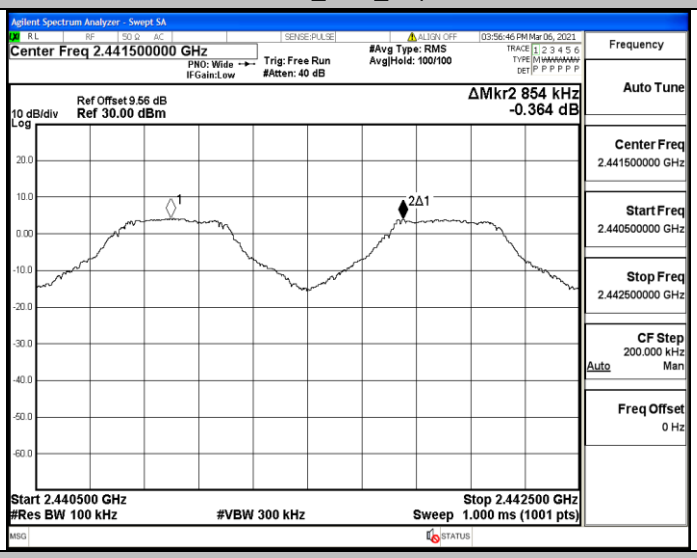
Appendix C: Carrier frequency separation

Test Result

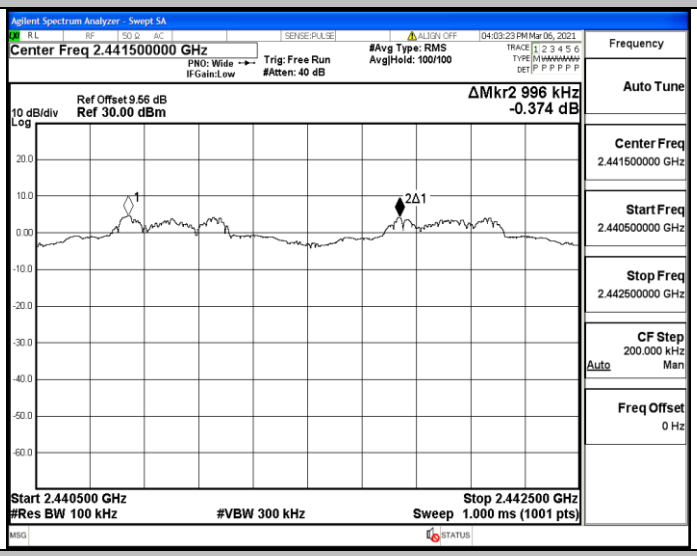
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.854	>=0.572	PASS
2DH5	Ant1	Hop	0.996	>=0.852	PASS
3DH5	Ant1	Hop	0.972	>=0.886	PASS

Test Graphs

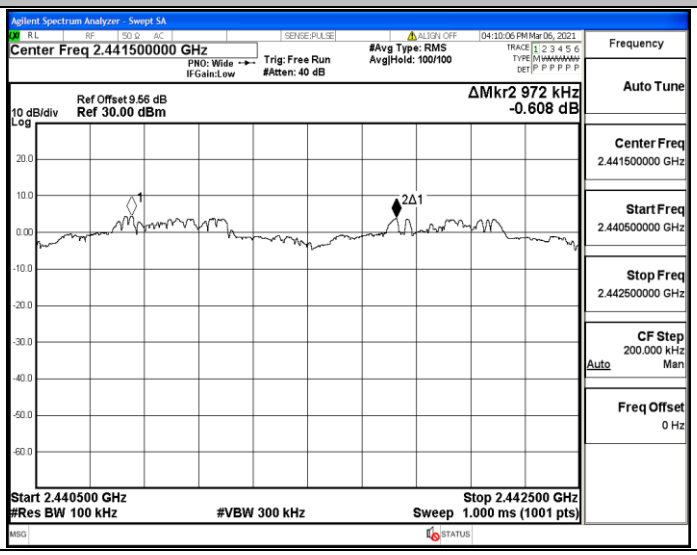
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



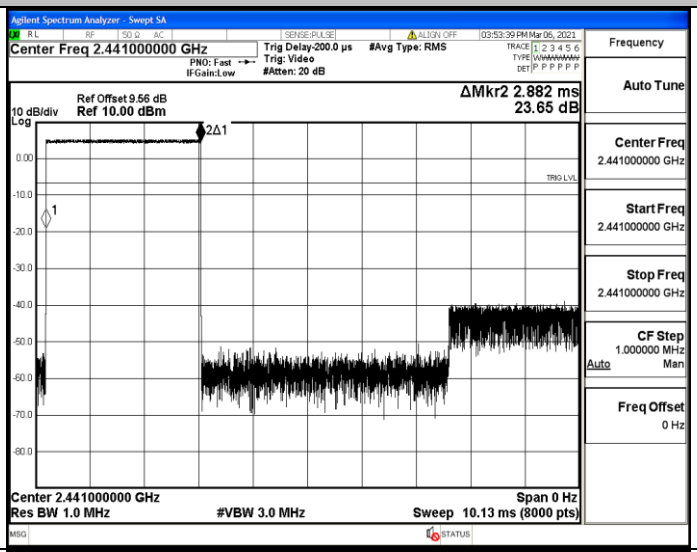
Appendix D: Time of occupancy

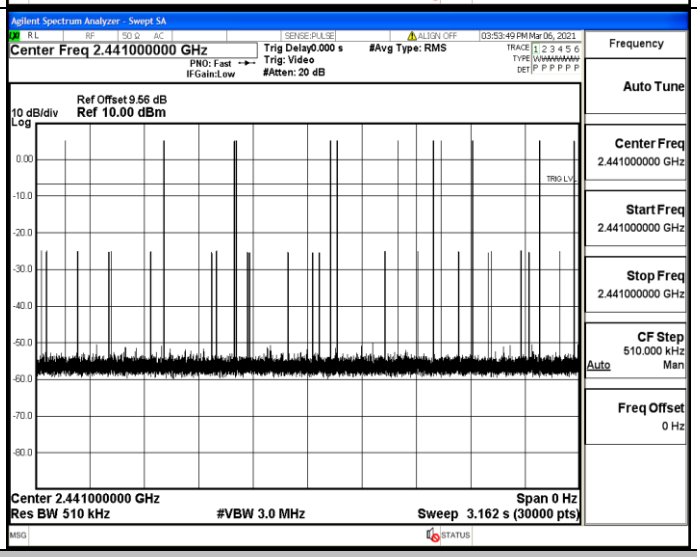
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	130	0.375	<=0.4	PASS
2DH5	Ant1	Hop	2.88	130	0.375	<=0.4	PASS
3DH5	Ant1	Hop	2.89	120	0.346	<=0.4	PASS

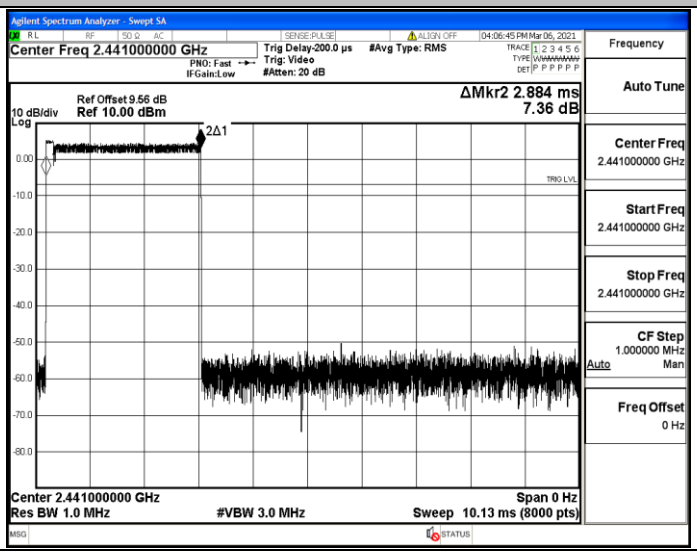
Test Graphs

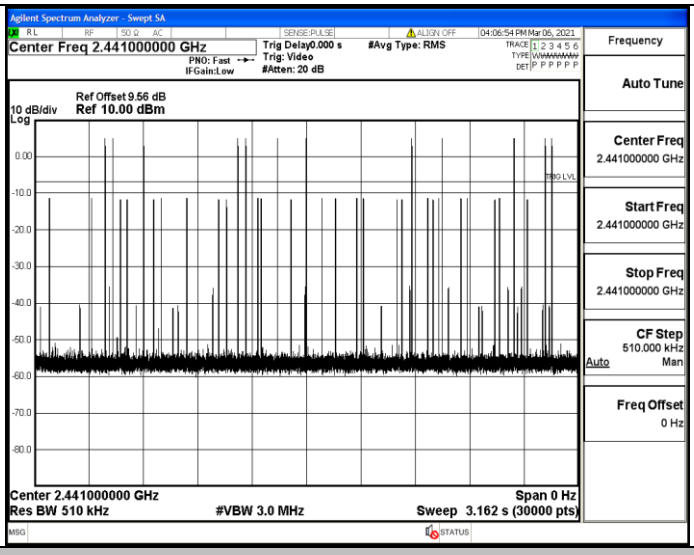
DH5_Ant1_Hop



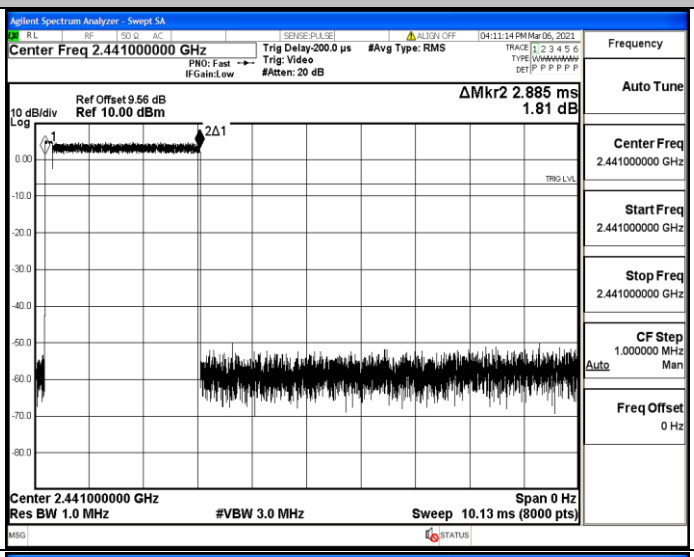


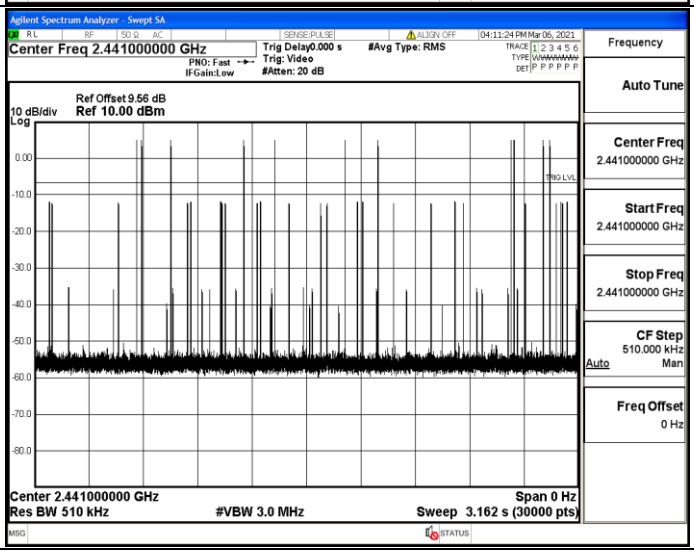
2DH5_Ant1_Hop





3DH5_Ant1_Hop





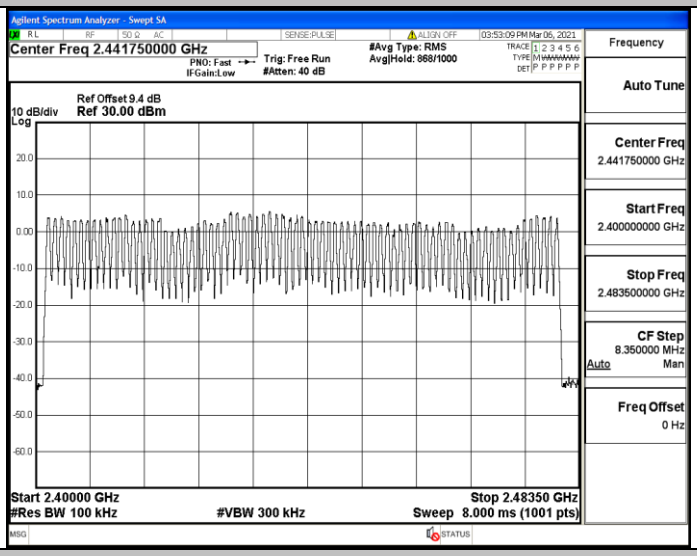
Appendix E: Number of hopping channels

Test Result

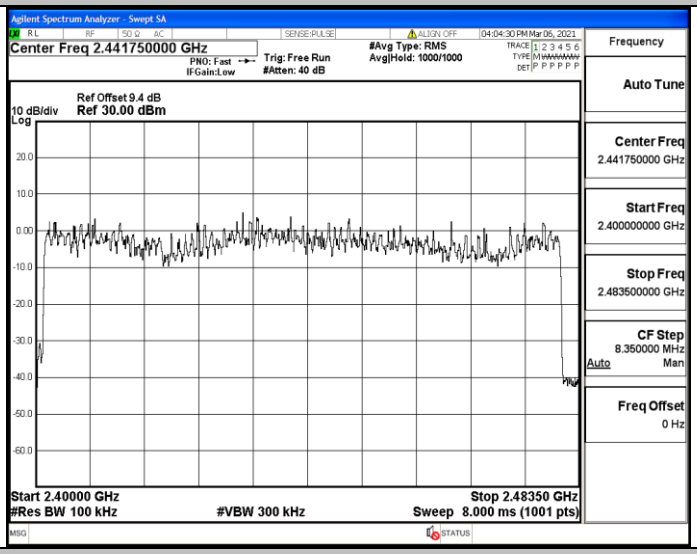
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS
3DH5	Ant1	Hop	79	>=15	PASS

Test Graphs

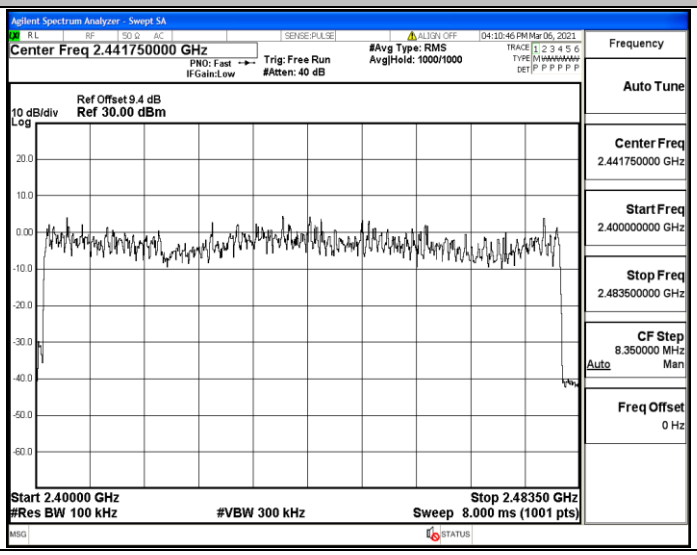
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



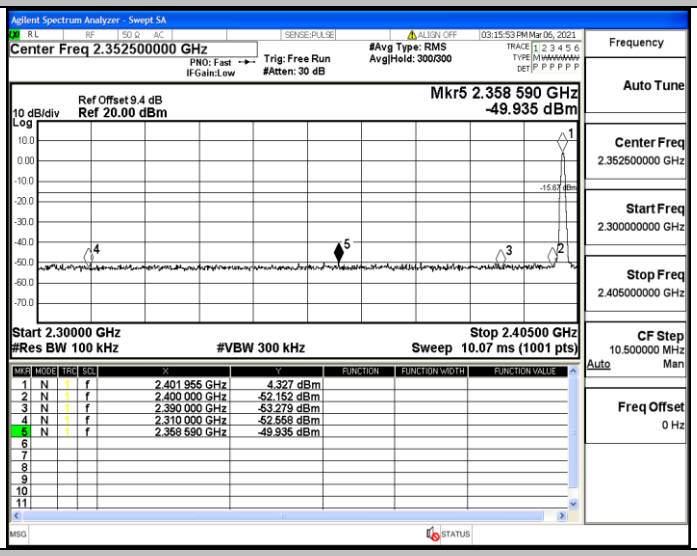
Appendix F: Band edge measurements

Test Result

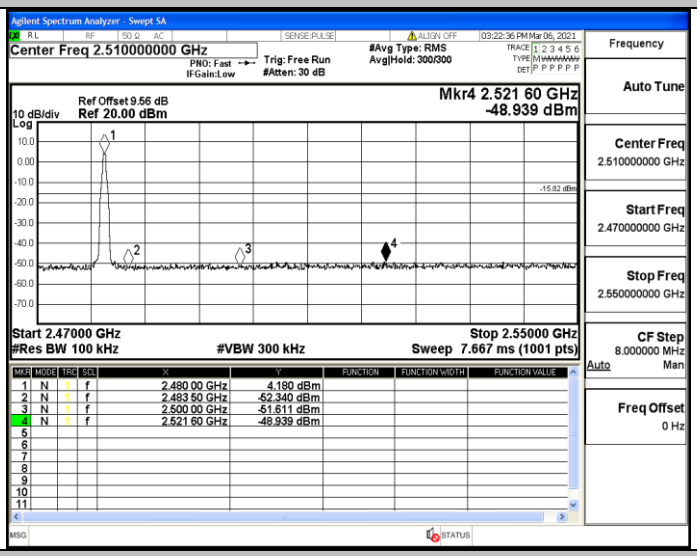
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.33	-49.94	<=-15.67	PASS
		High	2480	4.18	-48.94	<=-15.82	PASS
		Low	Hop_2402	3.81	-50.53	<=-16.2	PASS
		High	Hop_2480	3.89	-48.09	<=-16.11	PASS
2DH5	Ant1	Low	2402	4.35	-48.04	<=-15.65	PASS
		High	2480	3.58	-48.72	<=-16.42	PASS
		Low	Hop_2402	1.59	-50.11	<=-18.41	PASS
		High	Hop_2480	1.60	-48.73	<=-18.4	PASS
3DH5	Ant1	Low	2402	4.26	-47.06	<=-15.74	PASS
		High	2480	3.64	-48.65	<=-16.36	PASS
		Low	Hop_2402	-0.91	-50.15	<=-20.91	PASS
		High	Hop_2480	1.84	-49.19	<=-18.16	PASS

Test Graphs

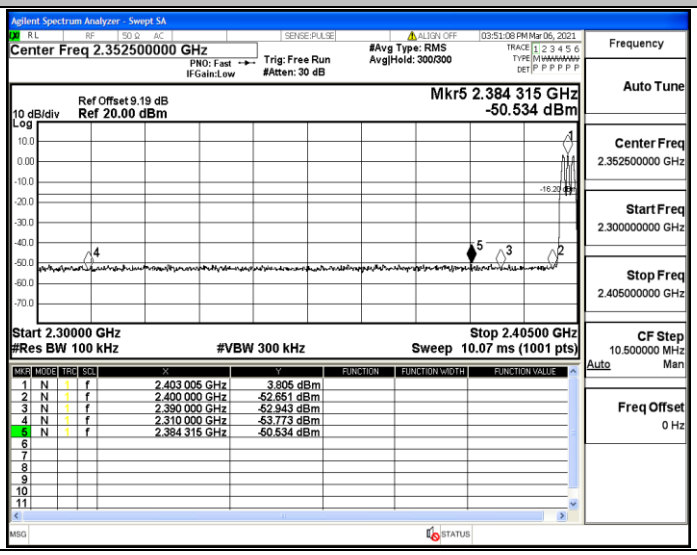
DH5_Ant1_Low_2402



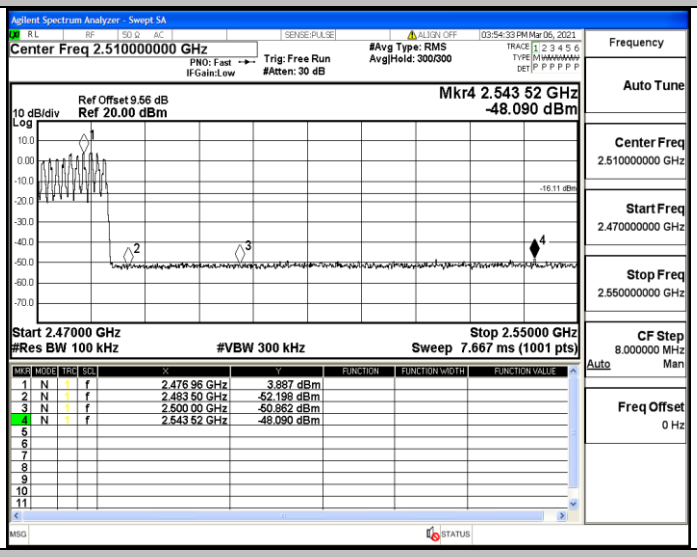
DH5_Ant1_High_2480



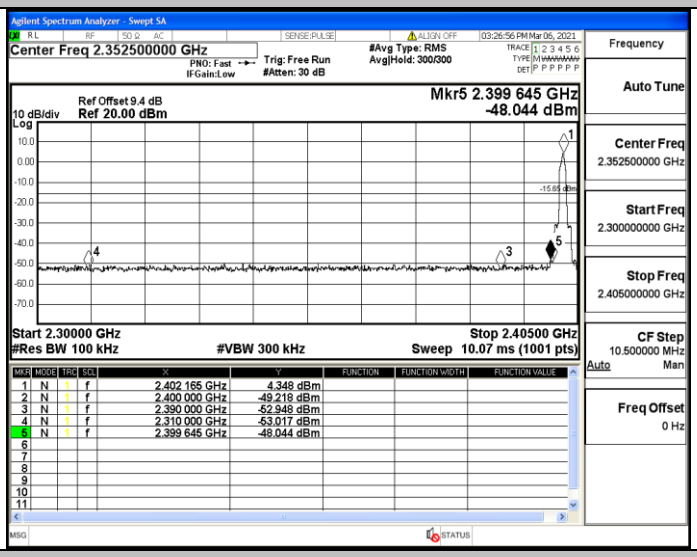
DH5_Ant1_Low_Hop_2402



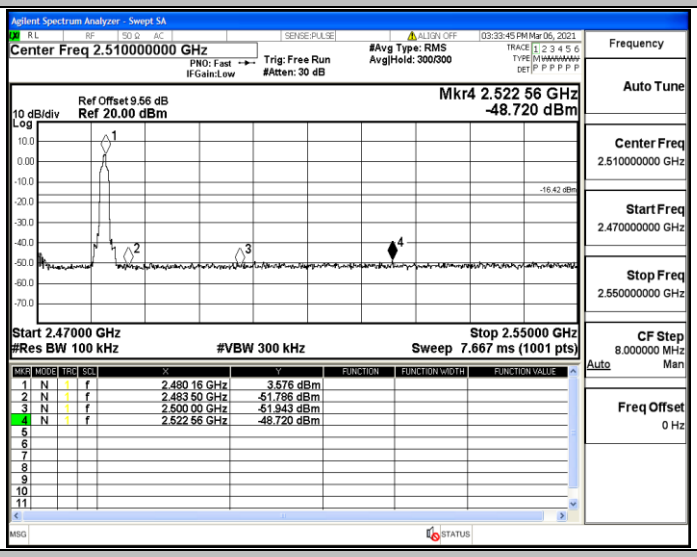
DH5_Ant1_High_Hop_2480



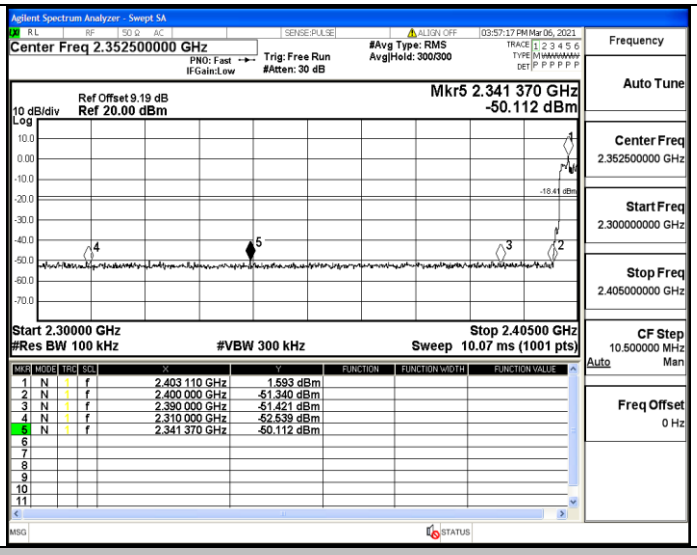
2DH5_Ant1_Low_2402



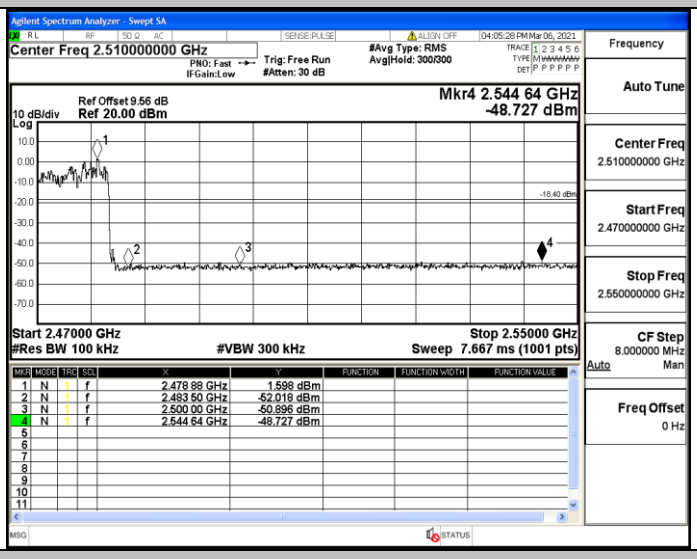
2DH5_Ant1_High_2480



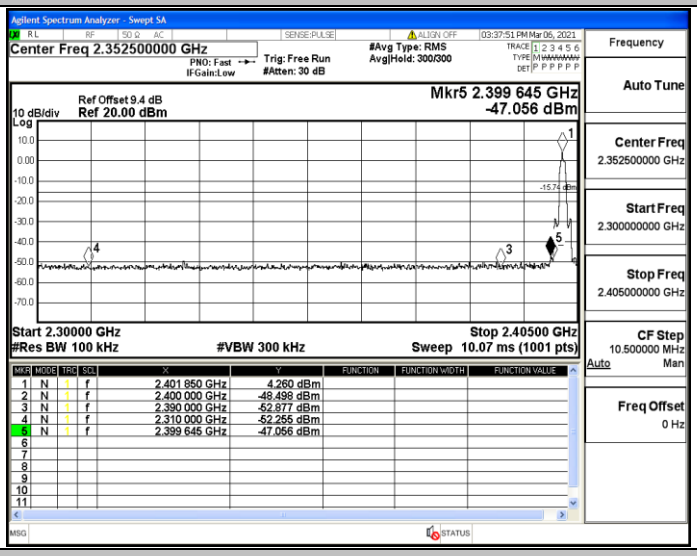
2DH5_Ant1_Low_Hop_2402



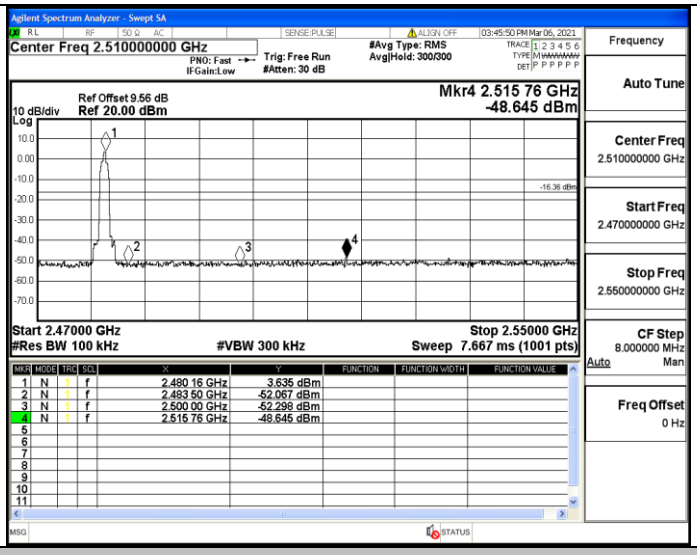
2DH5_Ant1_High_Hop_2480



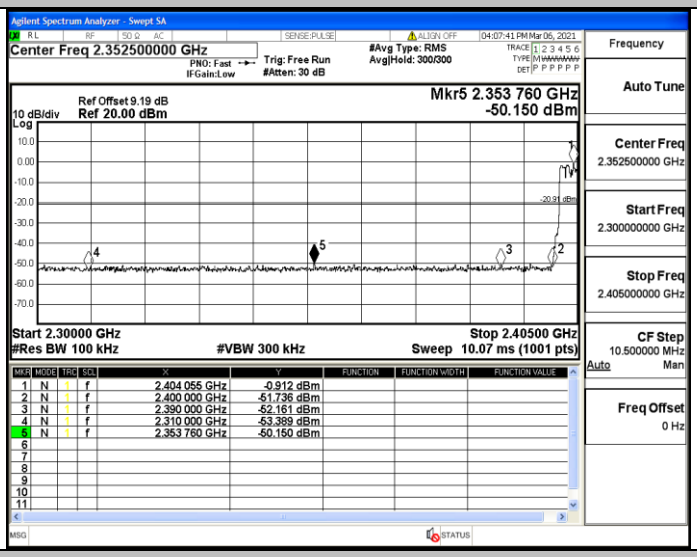
3DH5_Ant1_Low_2402



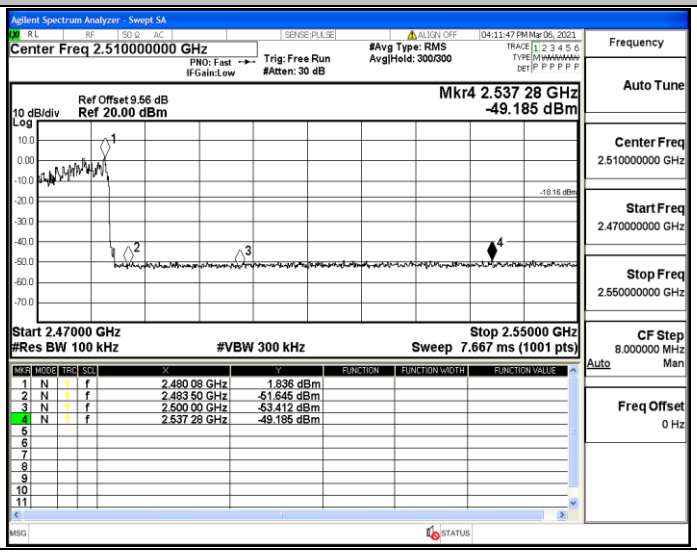
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



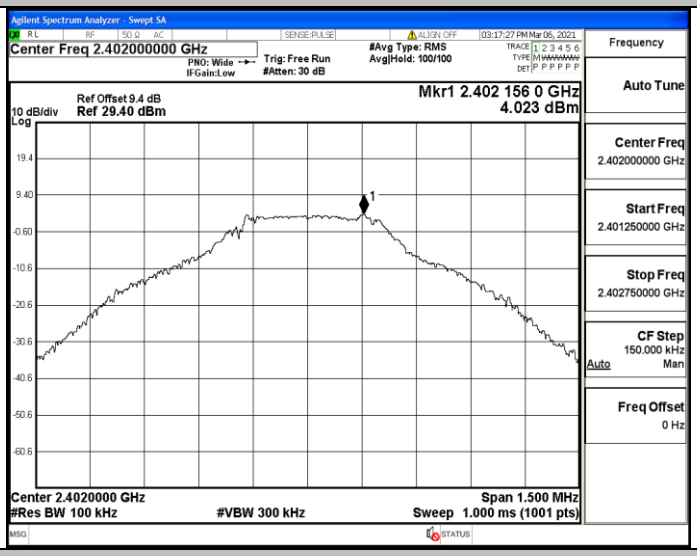
Appendix G: Conducted Spurious Emission

Test Result

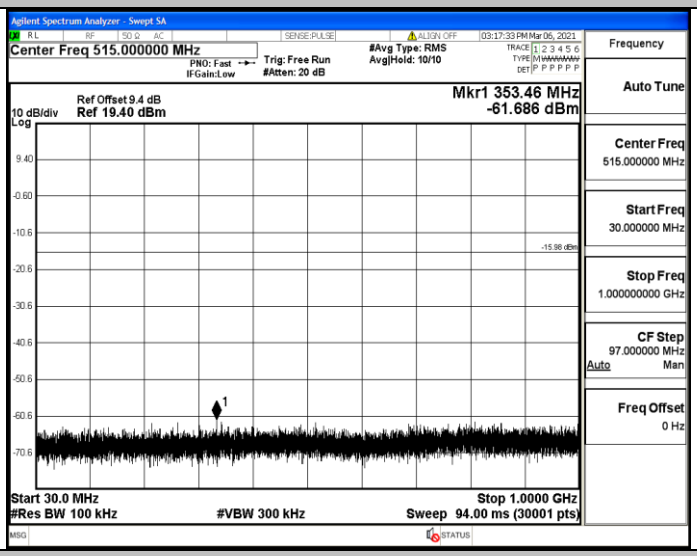
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	4.02	4.02	---	PASS
			30~1000	4.02	-61.69	<=-15.98	PASS
			1000~26500	4.02	-52.73	<=-15.98	PASS
		2441	Reference	3.99	3.99	---	PASS
			30~1000	3.99	-61.87	<=-16.02	PASS
			1000~26500	3.99	-51.83	<=-16.02	PASS
		2480	Reference	3.71	3.71	---	PASS
			30~1000	3.71	-61.73	<=-16.29	PASS
			1000~26500	3.71	-52.57	<=-16.29	PASS
2DH5	Ant1	2402	Reference	4.17	4.17	---	PASS
			30~1000	4.17	-61.89	<=-15.83	PASS
			1000~26500	4.17	-52.55	<=-15.83	PASS
		2441	Reference	4.18	4.18	---	PASS
			30~1000	4.18	-61.51	<=-15.82	PASS
			1000~26500	4.18	-52.31	<=-15.82	PASS
		2480	Reference	2.49	2.49	---	PASS
			30~1000	2.49	-61.82	<=-17.51	PASS
			1000~26500	2.49	-52.74	<=-17.51	PASS
3DH5	Ant1	2402	Reference	4.35	4.35	---	PASS
			30~1000	4.35	-61.4	<=-15.65	PASS
			1000~26500	4.35	-52.57	<=-15.65	PASS
		2441	Reference	3.69	3.69	---	PASS
			30~1000	3.69	-61.3	<=-16.31	PASS
			1000~26500	3.69	-51.41	<=-16.31	PASS
		2480	Reference	-0.38	-0.38	---	PASS
			30~1000	-0.38	-61.59	<=-20.38	PASS
			1000~26500	-0.38	-51.61	<=-20.38	PASS

Test Graphs

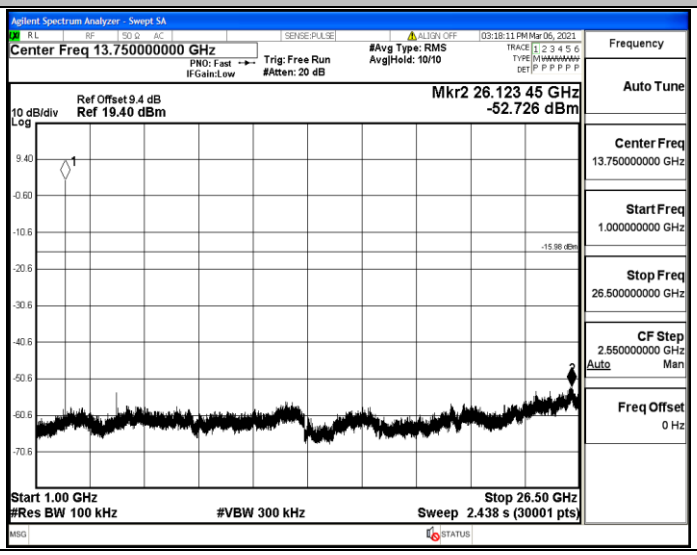
DH5_Ant1_2402_0~Reference



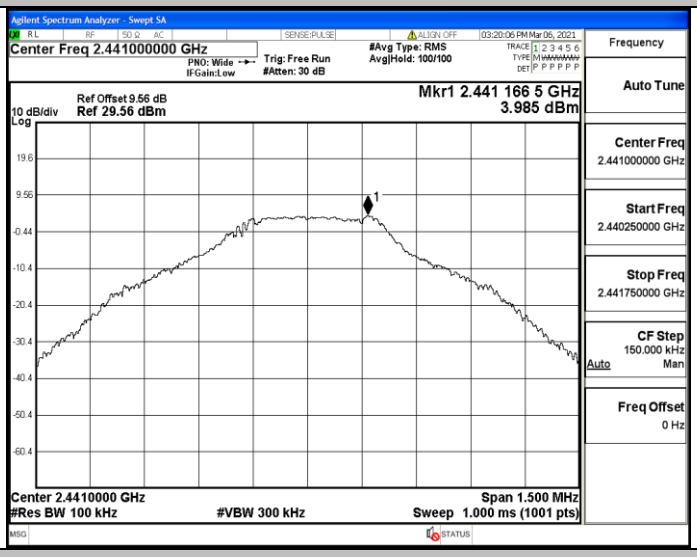
DH5_Ant1_2402_30~1000



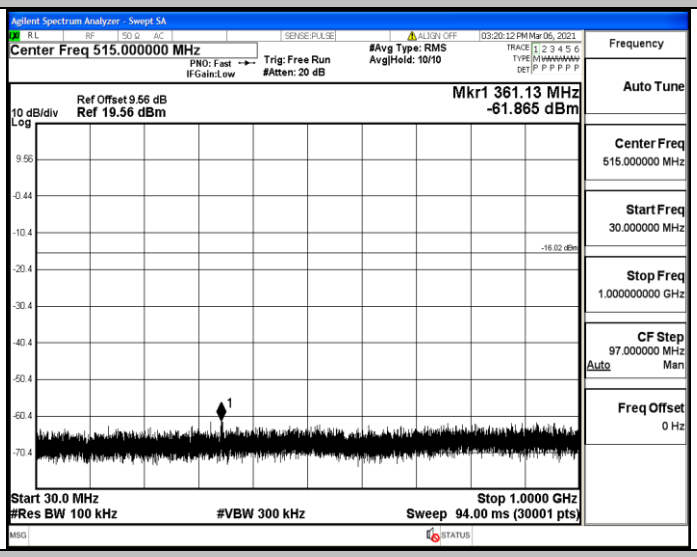
DH5_Ant1_2402_1000~26500



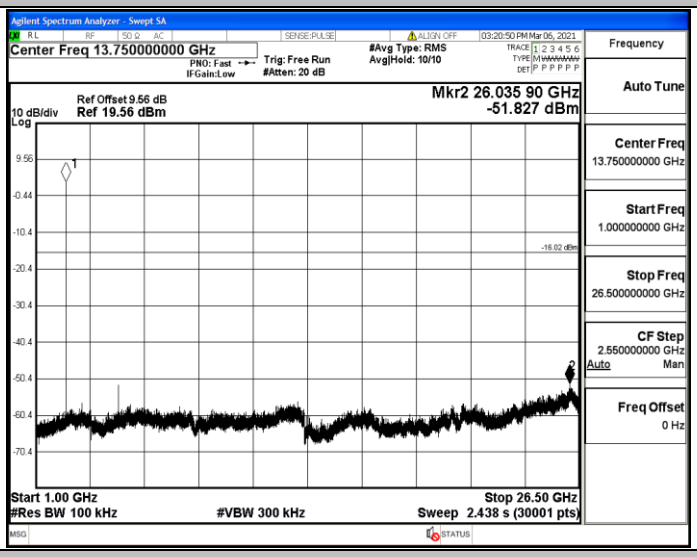
DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference