

Appendix A

RF Test Data for BT V5.0(DSS) (Conducted Measurement)

Product Name: Tiki Torch speaker

Test Model: XO-9533-1

Environmental Conditions

Temperature:	24.6 ° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Jay Li
Supervised by:	Li Huan

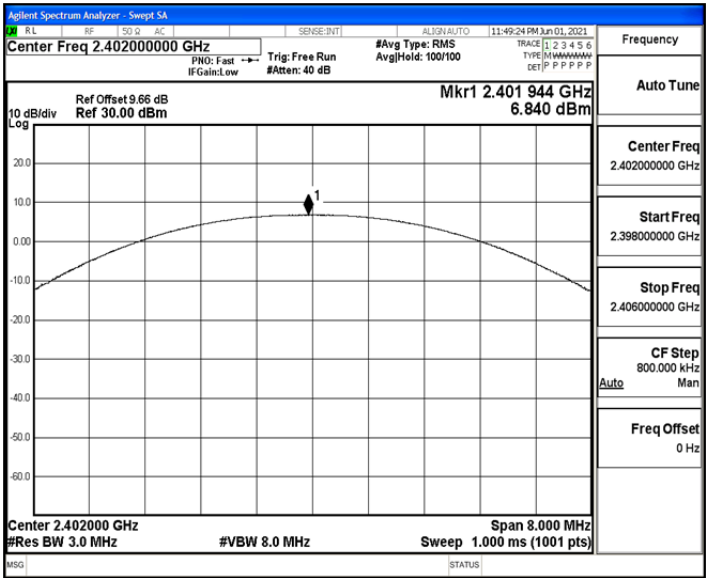
Appendix A.1: The maximum peak conducted output power

Test Result

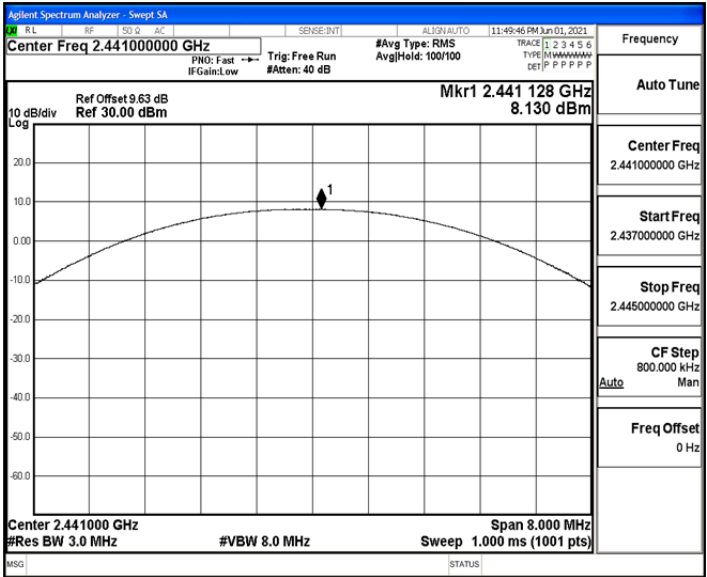
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	6.84	<=21	PASS
		2441	8.13	<=21	PASS
		2480	6.68	<=21	PASS
2DH5	Ant1	2402	6.03	<=21	PASS
		2441	7.39	<=21	PASS
		2480	5.87	<=21	PASS

Test Graphs

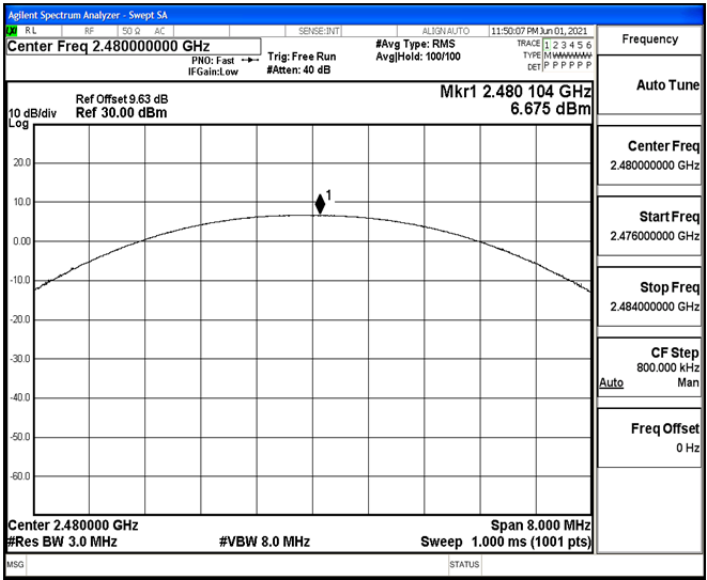
DH5_Ant1_2402



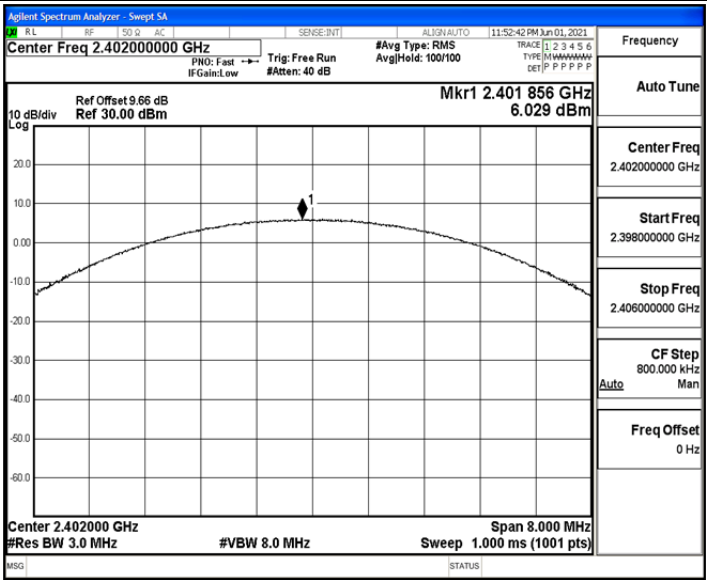
DH5_Ant1_2441



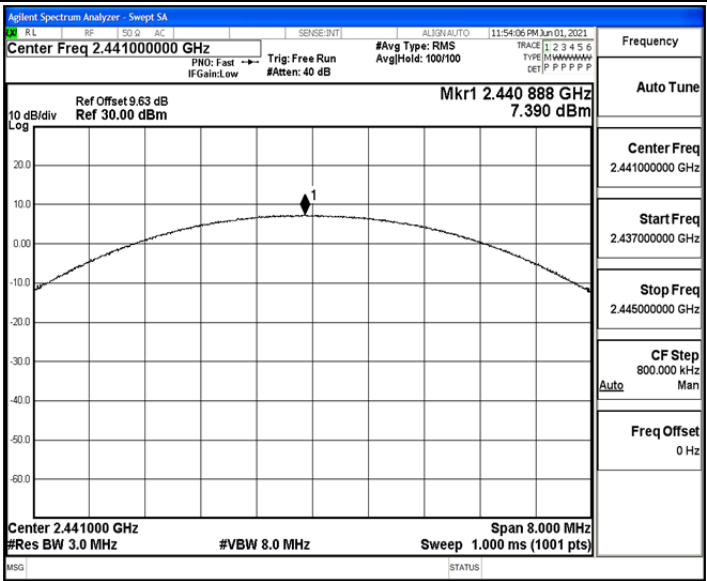
DH5_Ant1_2480



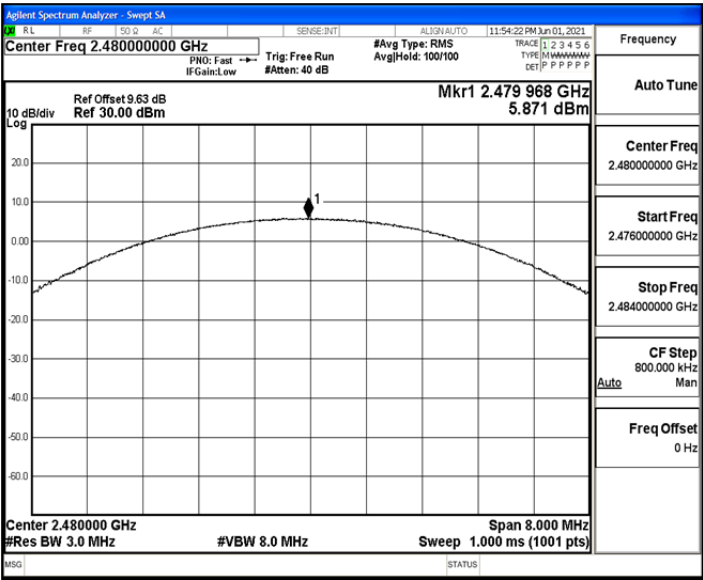
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



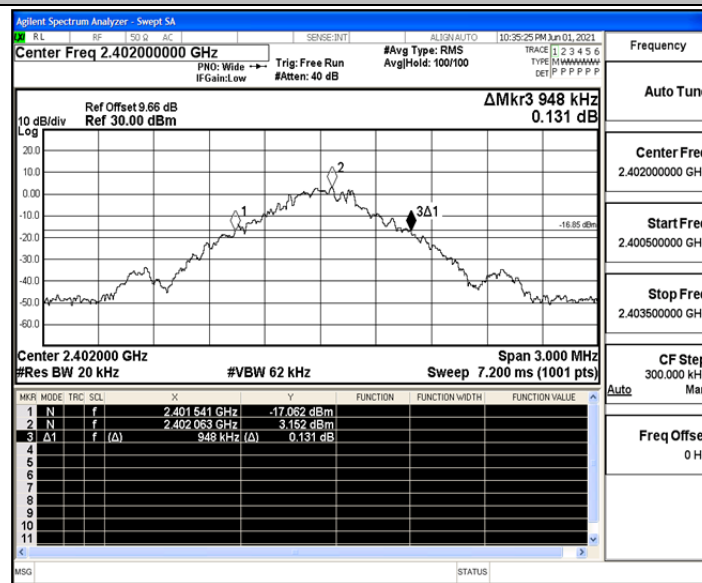
Appendix A.2: 20dB Emission Bandwidth

Test Result

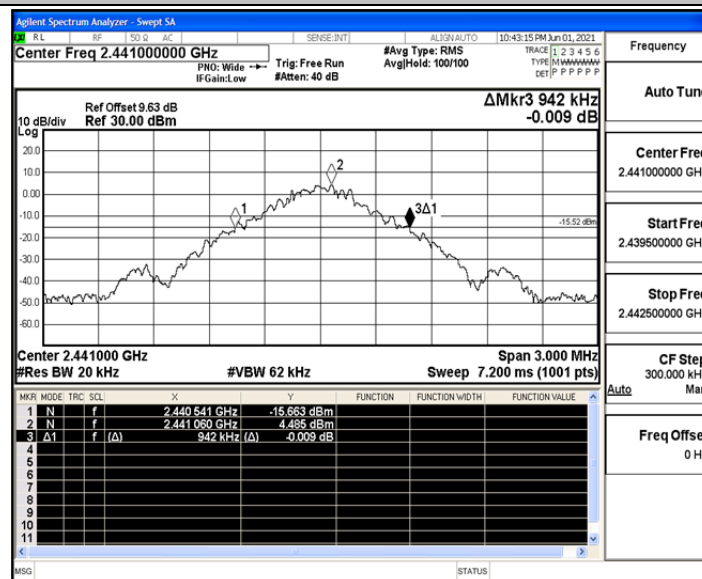
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.948	2401.541	2402.489	---	PASS
		2441	0.942	2440.541	2441.483	---	PASS
		2480	0.945	2479.538	2480.483	---	PASS
2DH5	Ant1	2402	1.326	2401.340	2402.666	---	PASS
		2441	1.320	2440.340	2441.660	---	PASS
		2480	1.266	2479.370	2480.636	---	PASS

Test Graphs

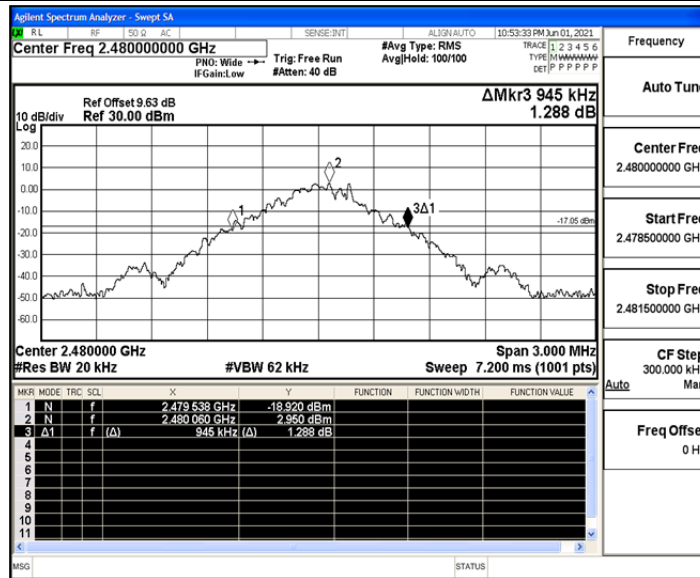
DH5_Ant1_2402



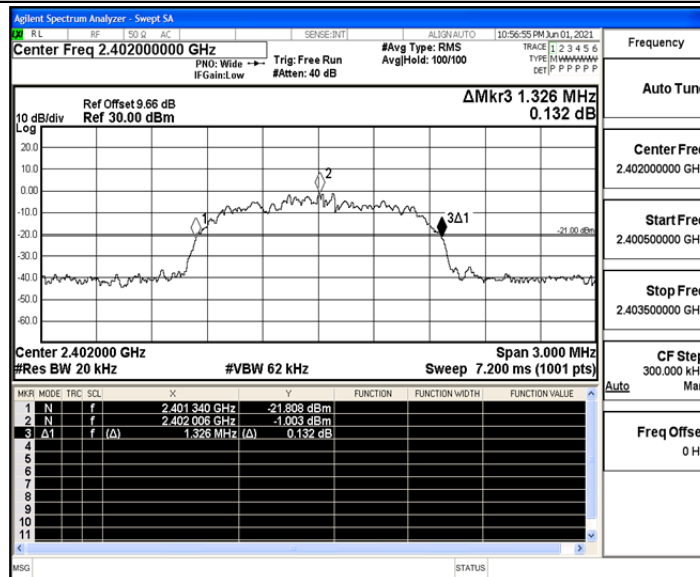
DH5_Ant1_2441



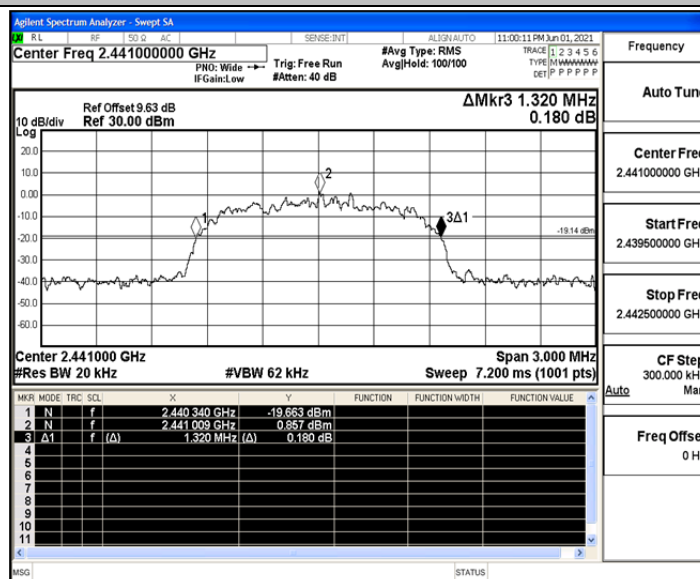
DH5_Ant1_2480



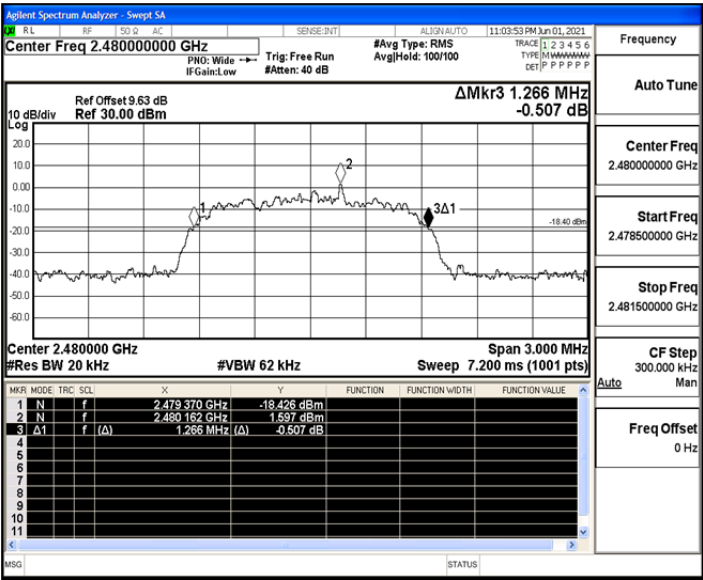
2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480



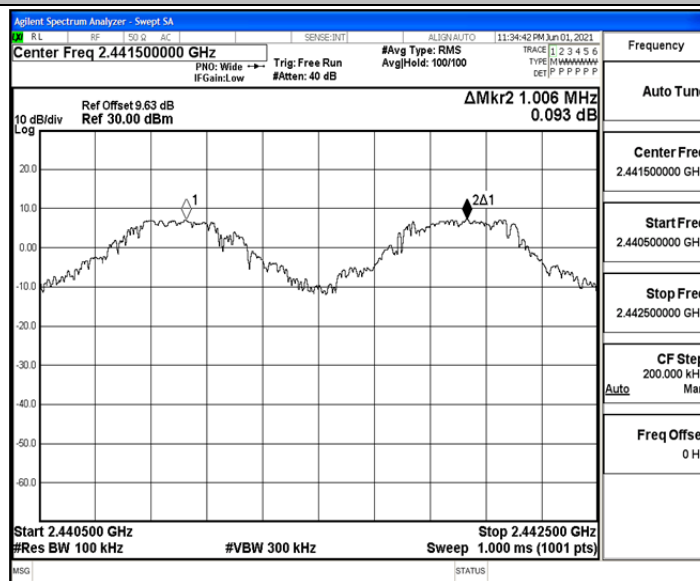
Appendix A.3: Carrier frequency separation

Test Result

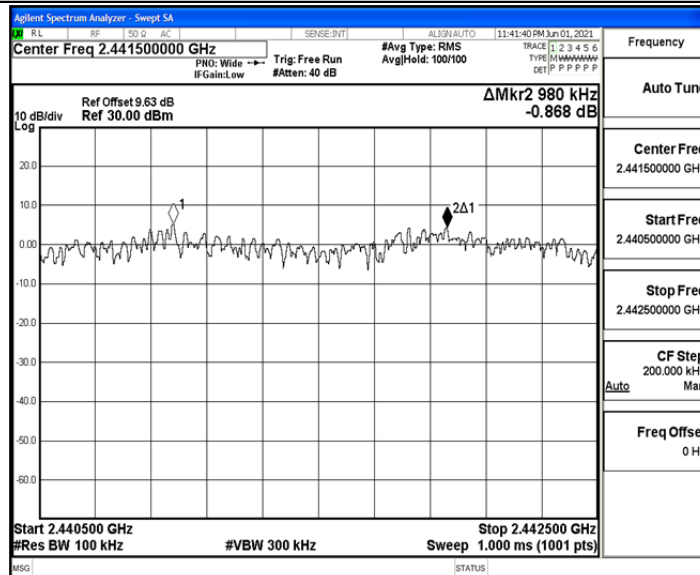
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	Hop	1.006	≥ -0.632	PASS
2DH5	Ant1	Hop	0.98	≥ -0.884	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



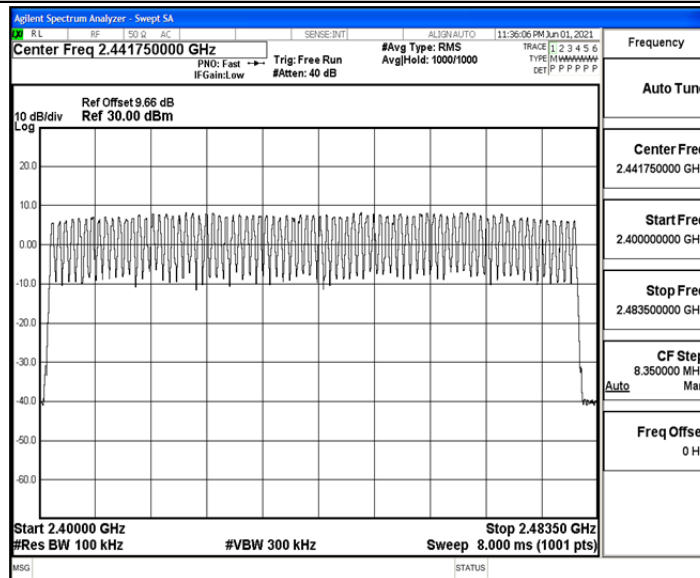
Appendix A.4: Number of hopping channels

Test Result

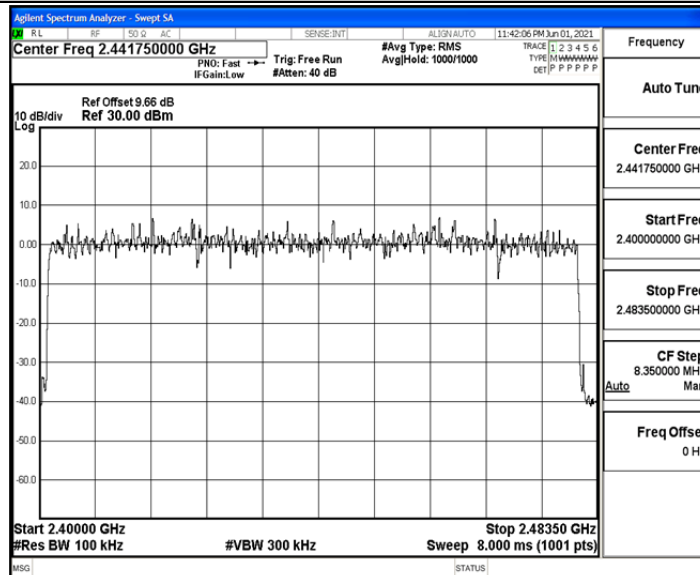
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



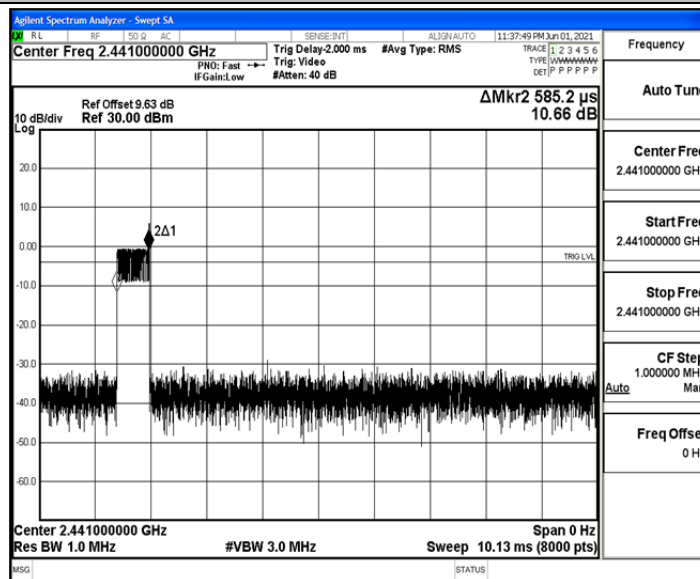
Appendix A.5: Time of occupancy

Test Result

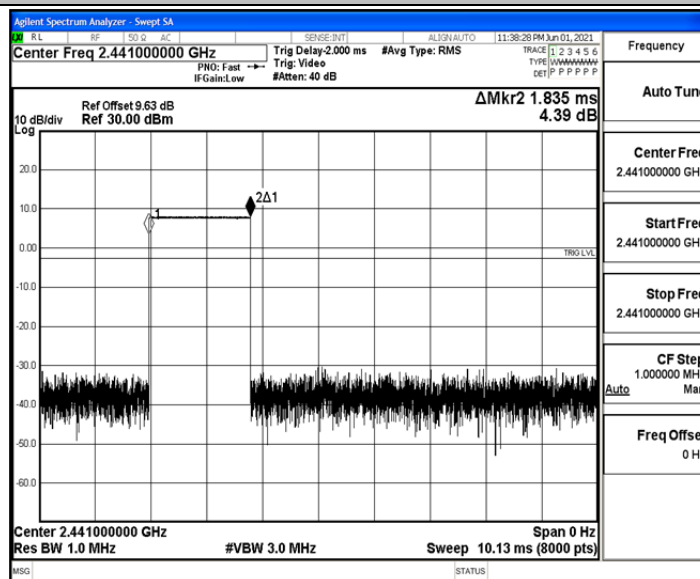
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.59	90	0.053	<=0.4	PASS
DH3	Ant1	Hop	1.84	250	0.459	<=0.4	FAIL
DH5	Ant1	Hop	2.88	80	0.23	<=0.4	PASS
2DH5	Ant1	Hop	2.88	120	0.346	<=0.4	PASS

Test Graphs

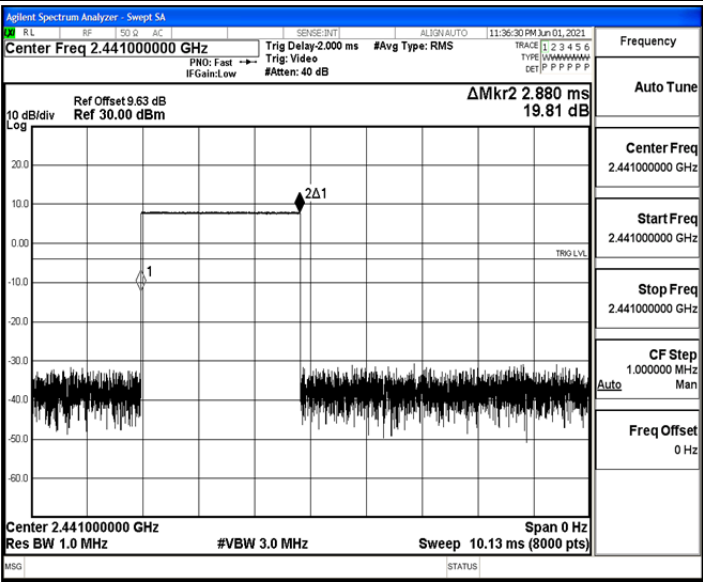
DH1_Ant1_Hop



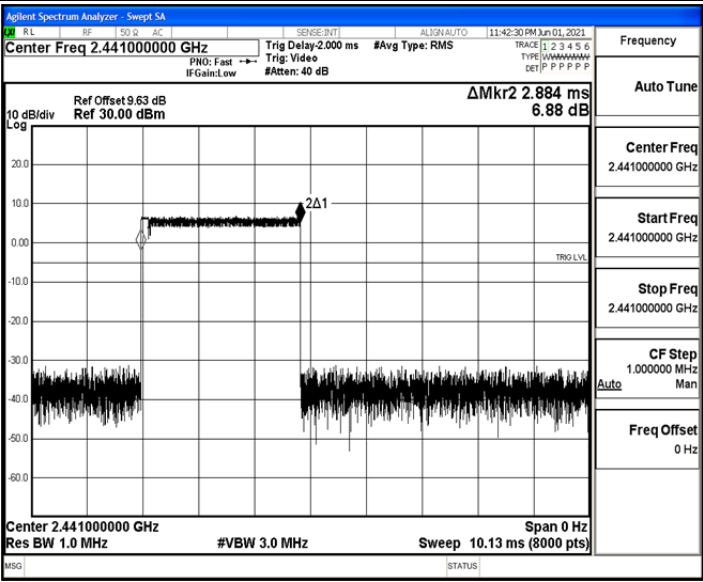
DH3_Ant1_Hop



DH5_Ant1_Hop



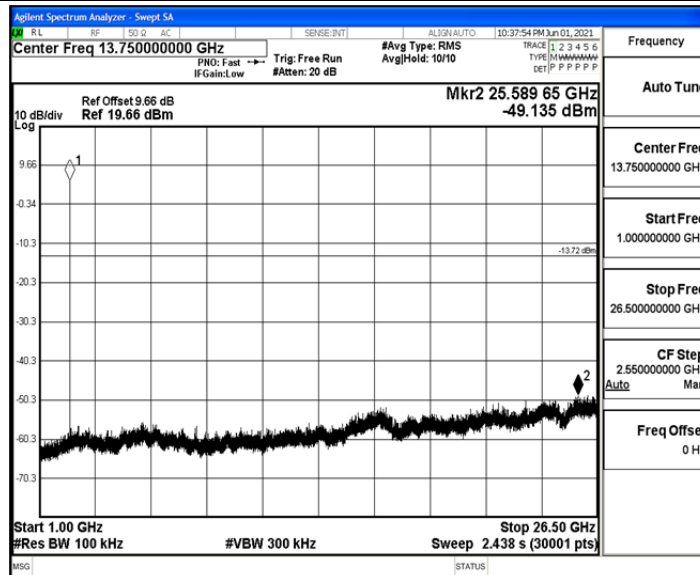
2DH5_Ant1_Hop



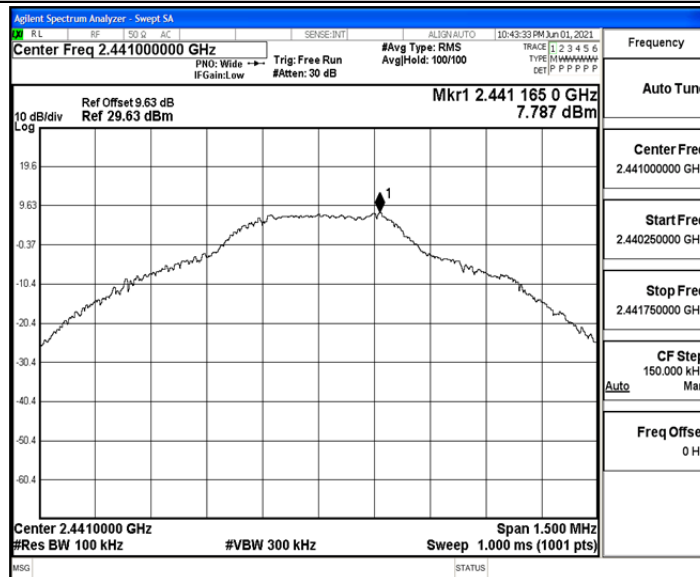
Appendix A.6: Conducted Spurious Emission

Test Result

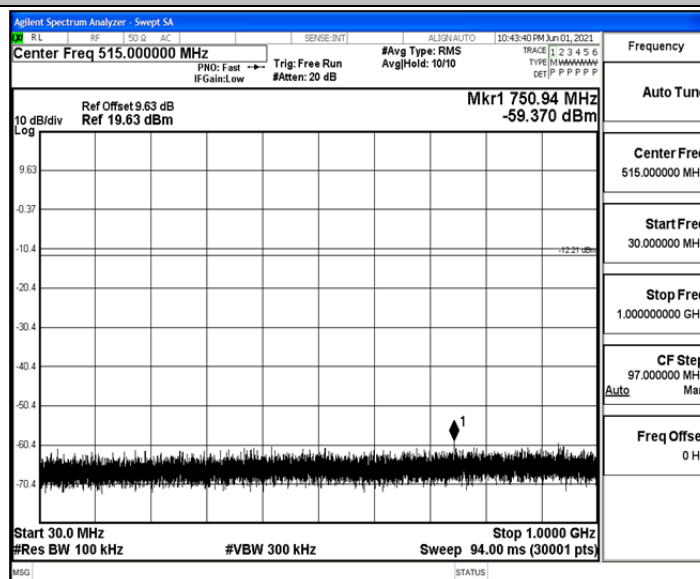
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	6.28	6.28	---	PASS
			30~1000	6.28	-60.17	<=-13.72	PASS
			1000~26500	6.28	-49.14	<=-13.72	PASS
		2441	Reference	7.79	7.79	---	PASS
			30~1000	7.79	-59.37	<=-12.21	PASS
			1000~26500	7.79	-48.58	<=-12.21	PASS
		2480	Reference	6.12	6.12	---	PASS
			30~1000	6.12	-59.82	<=-13.88	PASS
			1000~26500	6.12	-49.29	<=-13.88	PASS
2DH5	Ant1	2402	Reference	4.03	4.03	---	PASS
			30~1000	4.03	-60.52	<=-15.98	PASS
			1000~26500	4.03	-49.1	<=-15.98	PASS
		2441	Reference	6.41	6.41	---	PASS
			30~1000	6.41	-60.5	<=-13.59	PASS
			1000~26500	6.41	-48.42	<=-13.59	PASS
		2480	Reference	4.71	4.71	---	PASS
			30~1000	4.71	-59.99	<=-15.29	PASS
			1000~26500	4.71	-48.26	<=-15.29	PASS



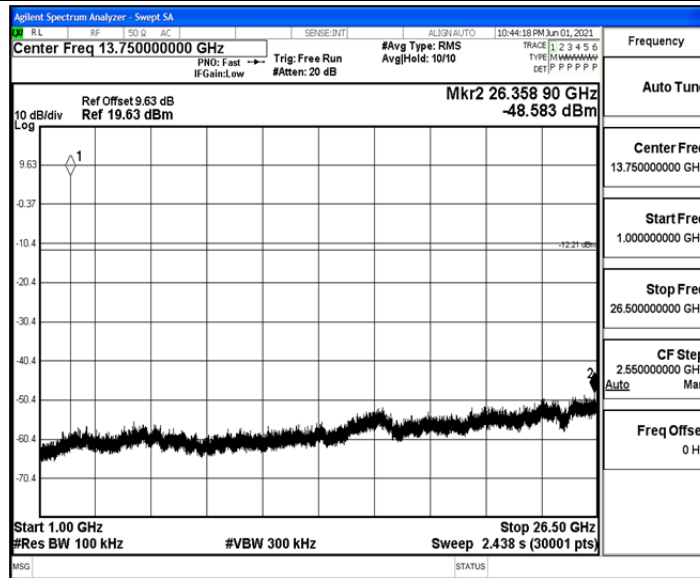
DH5_Ant1_2441_0~Reference



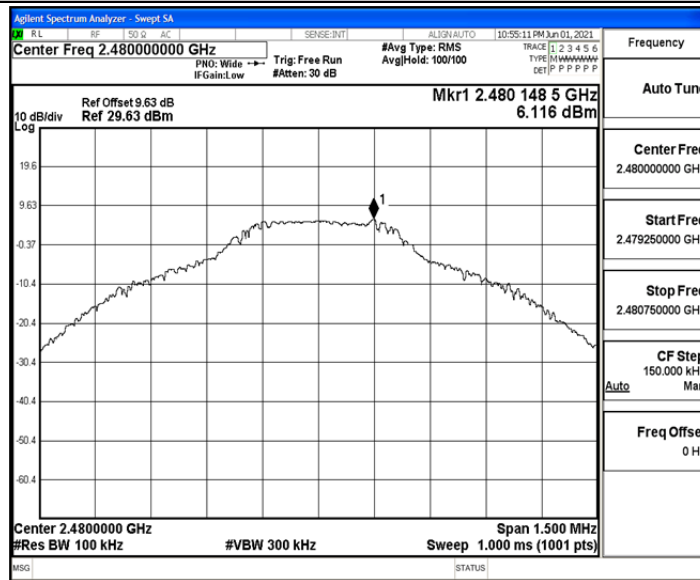
DH5_Ant1_2441_30~1000



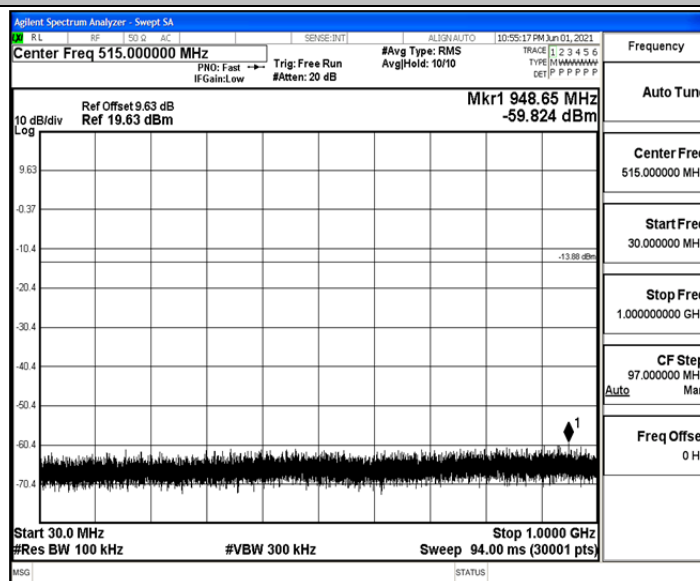
DH5_Ant1_2441_1000~26500



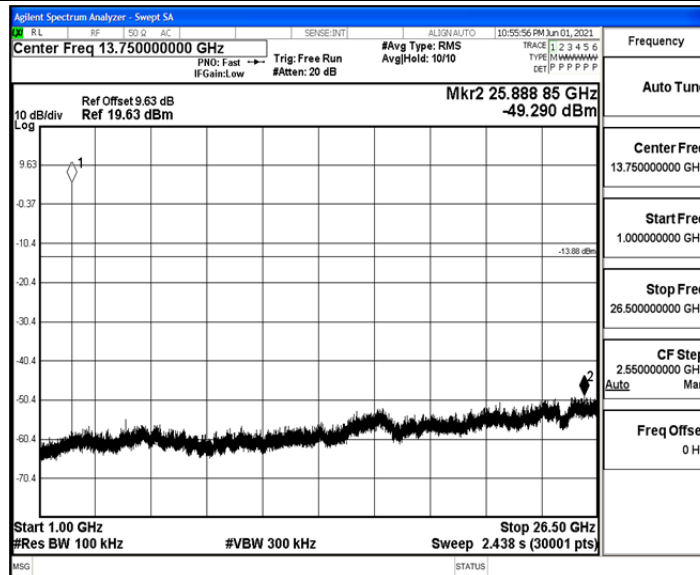
DH5_Ant1_2480_0~Reference



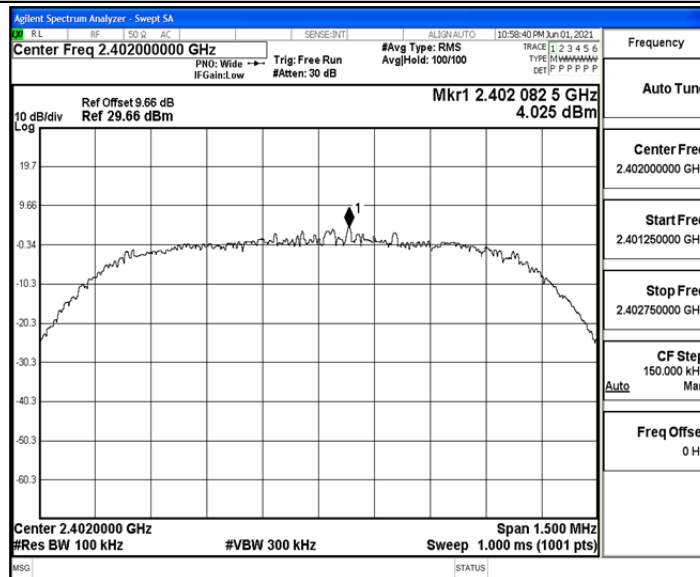
DH5_Ant1_2480_30~1000



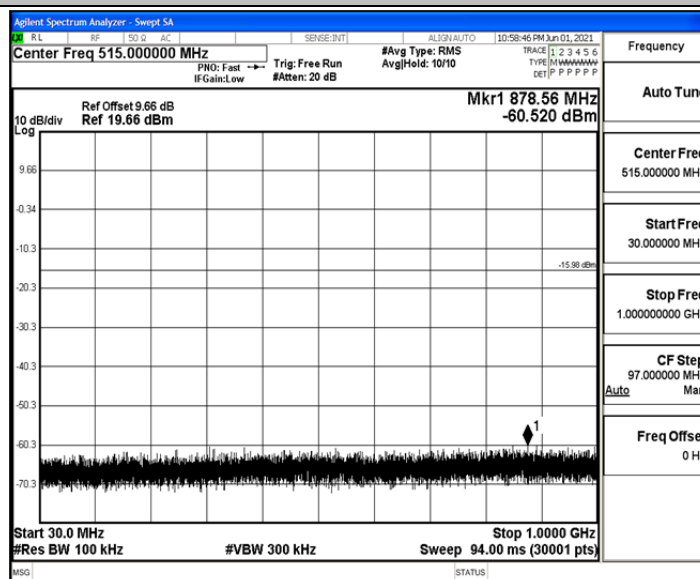
DH5_Ant1_2480_1000~26500



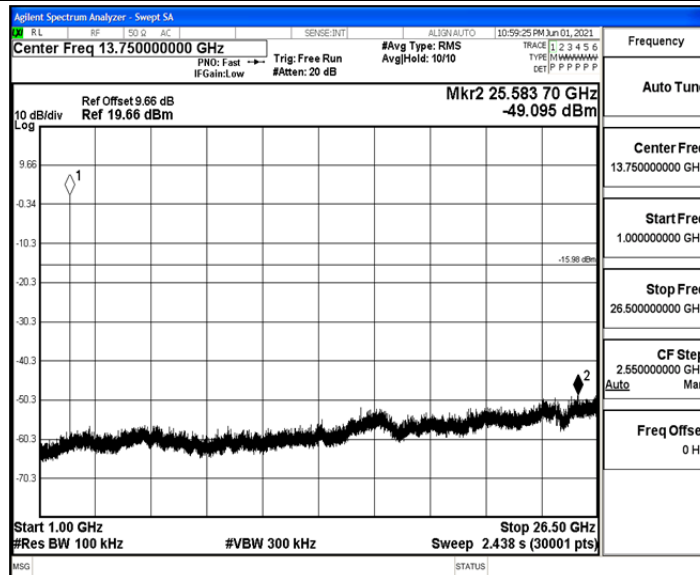
2DH5_Ant1_2402_0~Reference



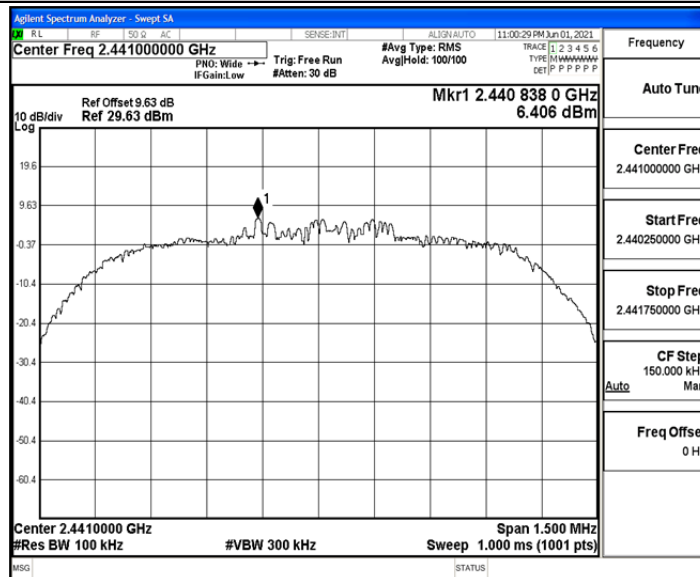
2DH5_Ant1_2402_30~1000



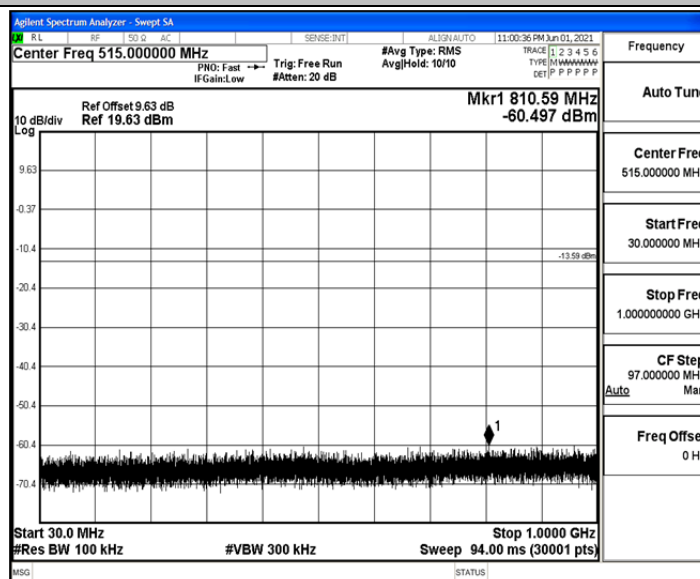
2DH5_Ant1_2402_1000~26500



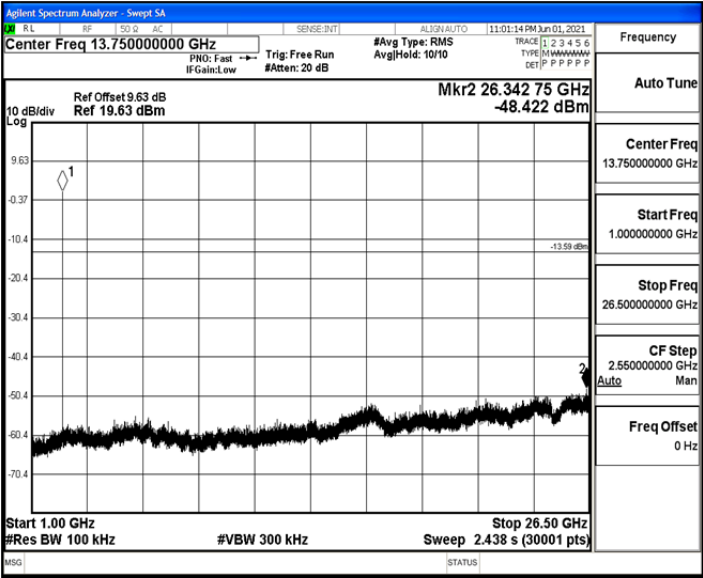
2DH5_Ant1_2441_0~Reference



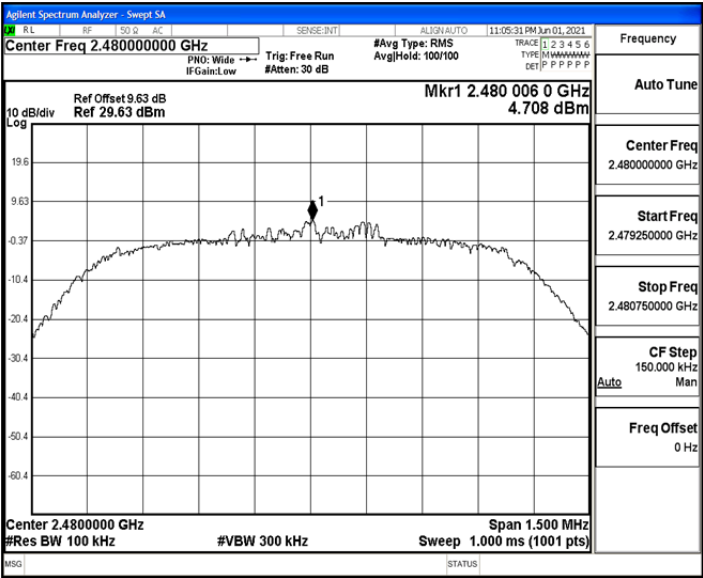
2DH5_Ant1_2441_30~1000



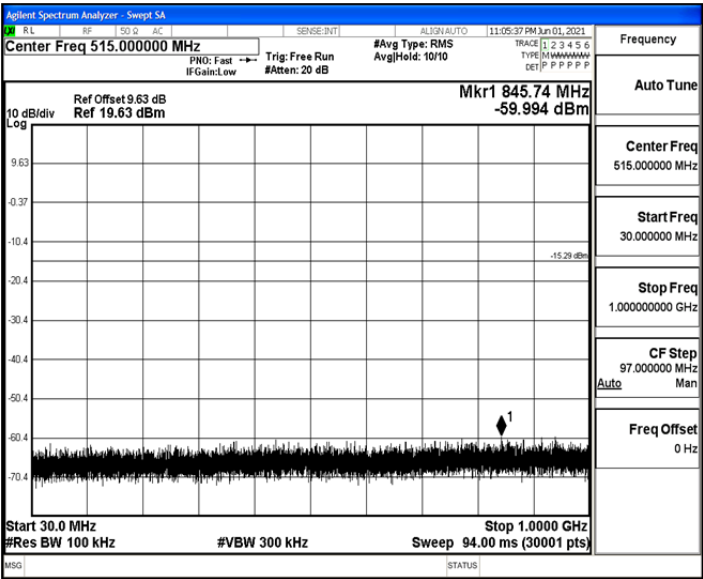
2DH5_Ant1_2441_1000~26500



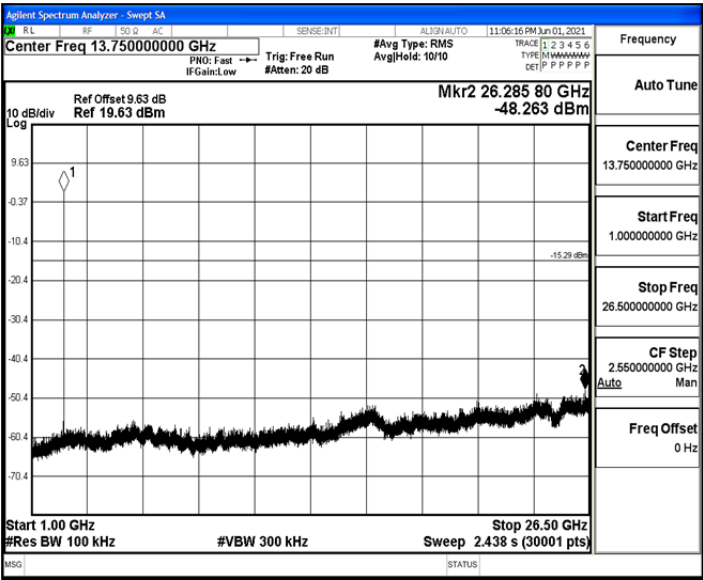
2DH5_Ant1_2480_0~Reference



2DH5_Ant1_2480_30~1000



2DH5_Ant1_2480_1000~26500



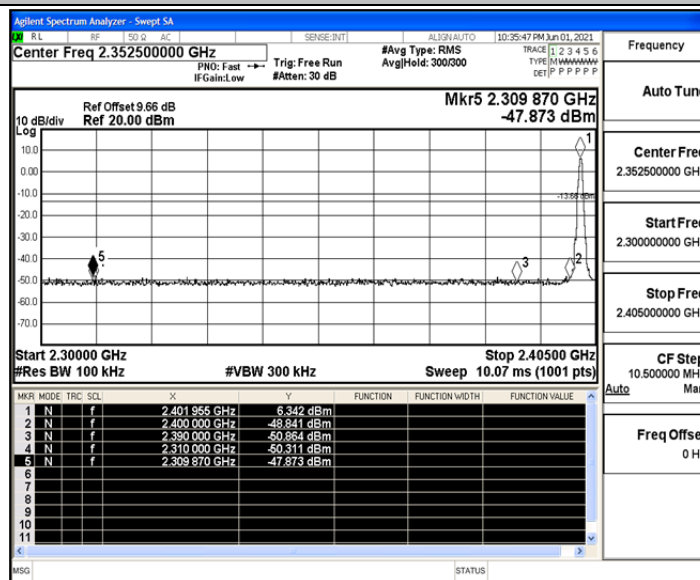
Appendix A.7: Band edge measurements

Test Result

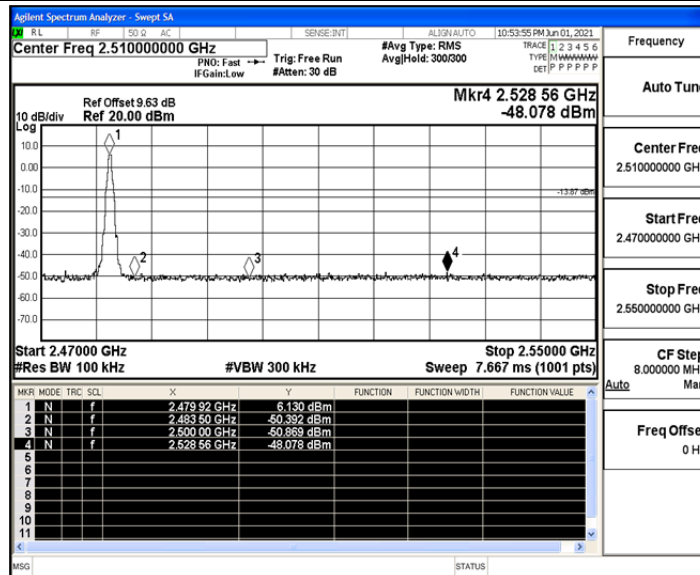
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	6.34	-47.87	<=-13.66	PASS
		High	2480	6.13	-48.08	<=-13.87	PASS
		Low	Hop_2402	5.53	-48.79	<=-14.47	PASS
		High	Hop_2480	6.89	-47.63	<=-13.11	PASS
2DH5	Ant1	Low	2402	5.10	-47.35	<=-14.9	PASS
		High	2480	5.08	-47.53	<=-14.92	PASS
		Low	Hop_2402	3.42	-48.88	<=-16.58	PASS
		High	Hop_2480	2.22	-48.28	<=-17.78	PASS

Test Graphs

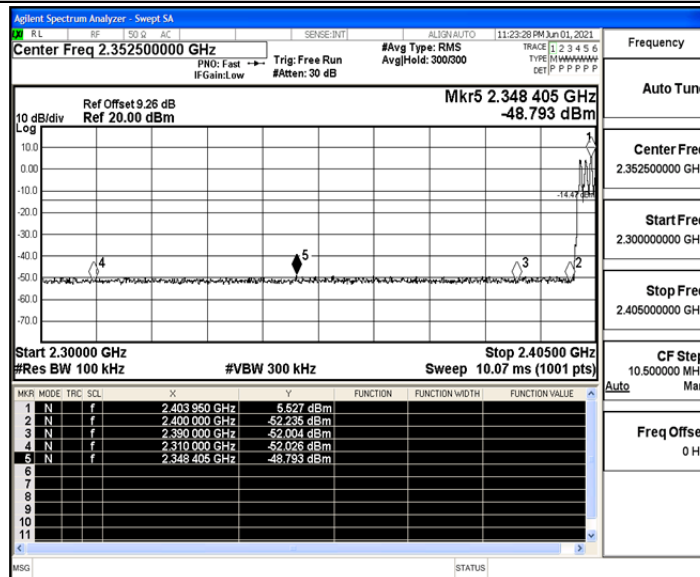
DH5_Ant1_Low_2402



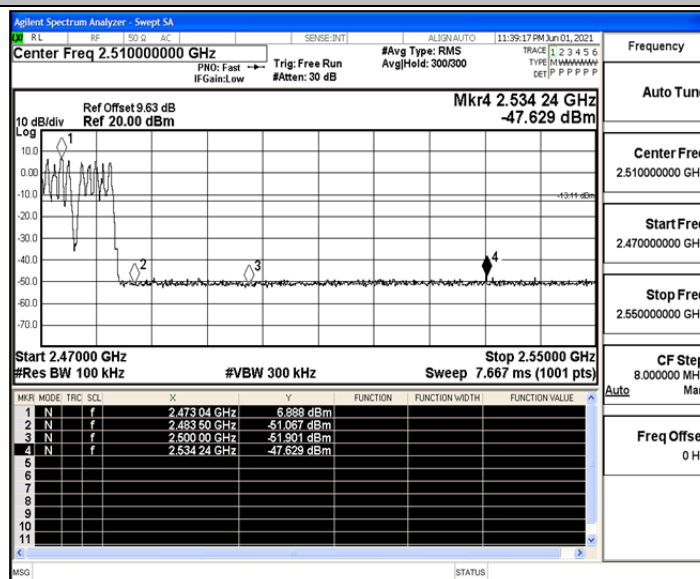
DH5_Ant1_High_2480



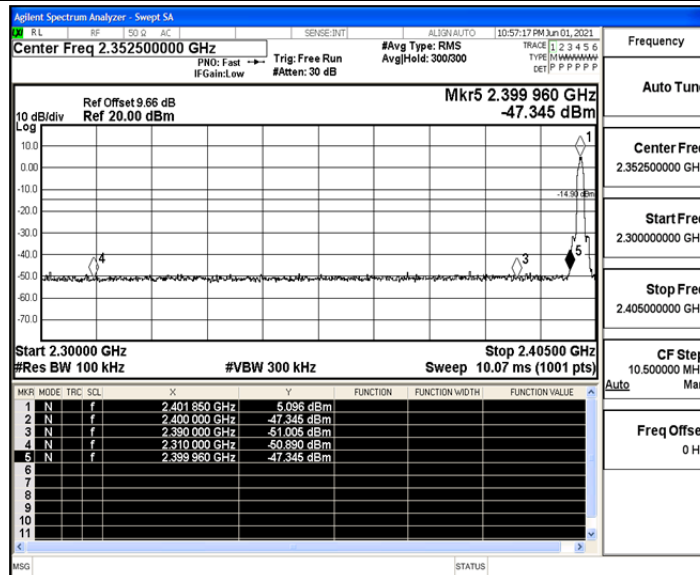
DH5_Ant1_Low_Hop_2402



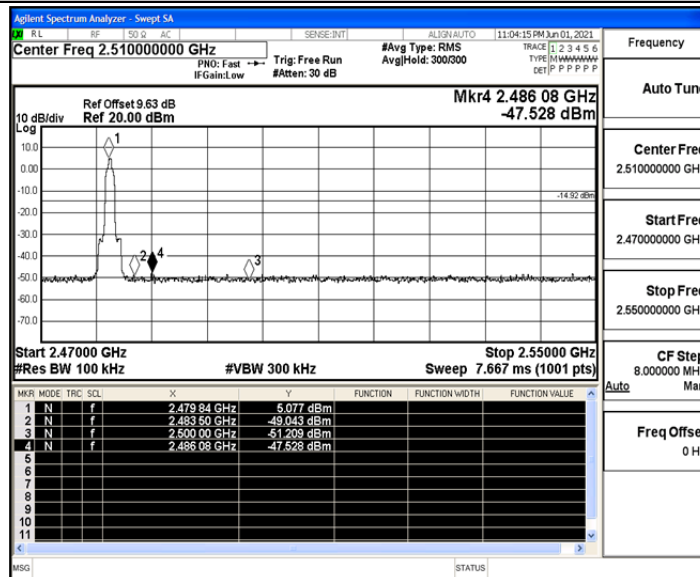
DH5_Ant1_High_Hop_2480



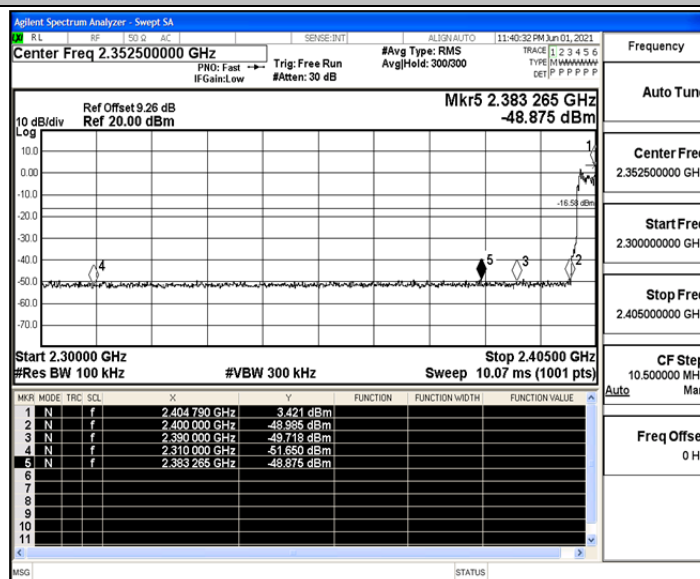
2DH5_Ant1_Low_2402



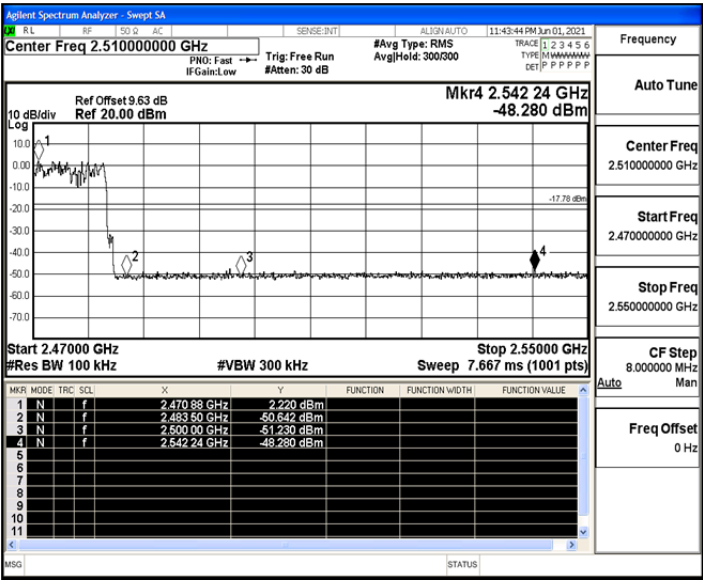
2DH5_Ant1_High_2480



2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480

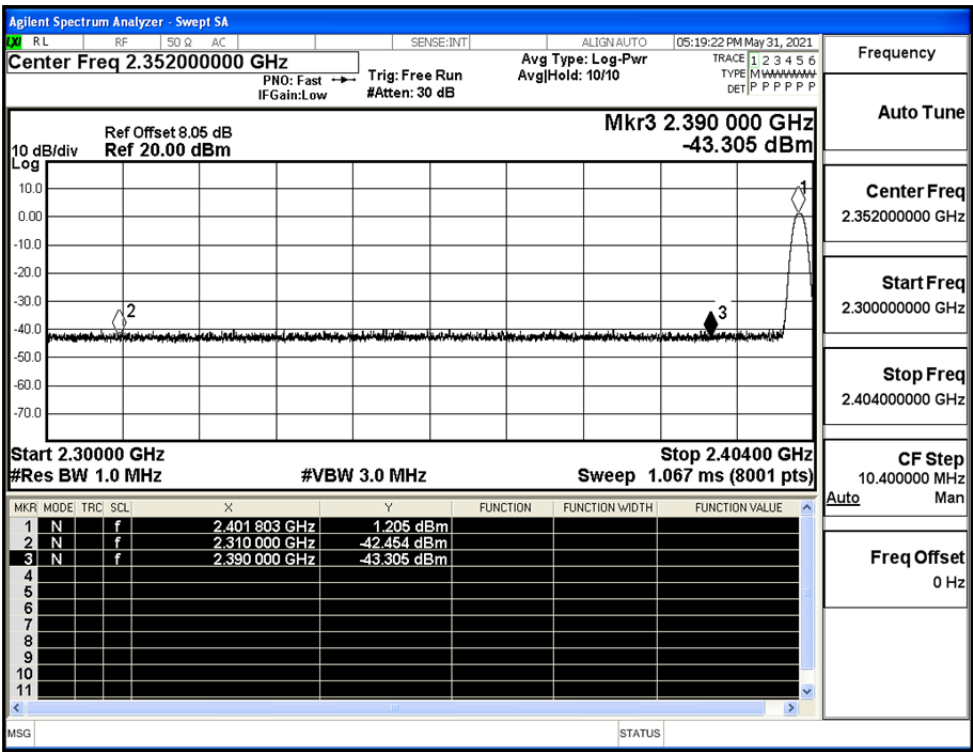


Appendix A.8: Emissions in Restricted Bands

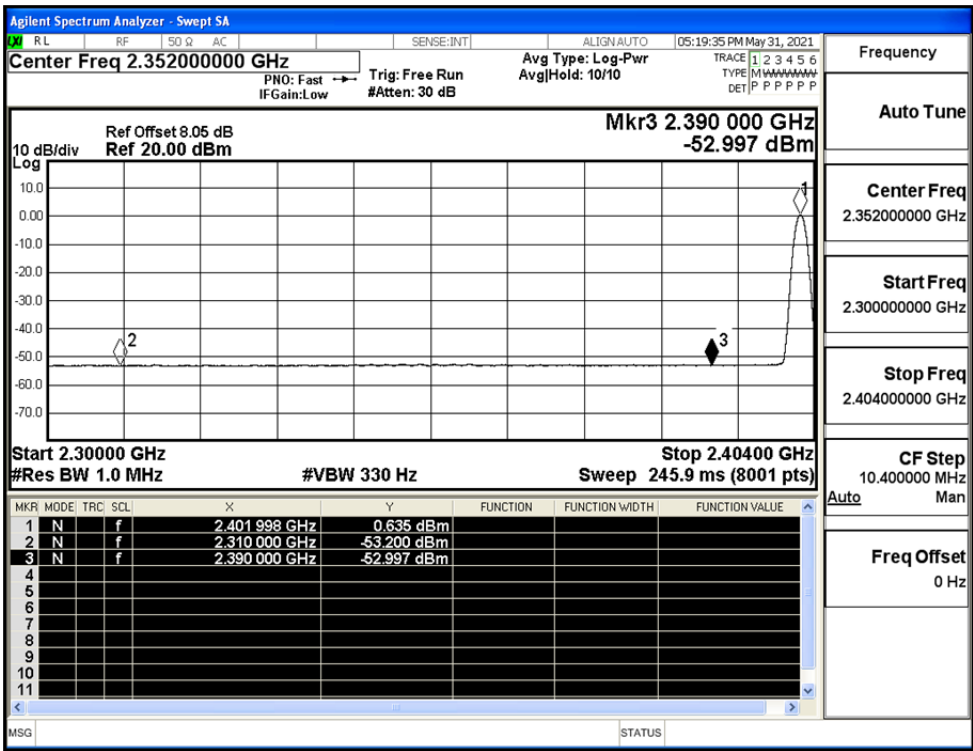
Test Result

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-42.45	2.0	0	54.78	PEAK	74	PASS
	Off	2310.0	-53.20	2.0	0	44.03	AV	54	PASS
	Off	2390.0	-43.31	2.0	0	53.92	PEAK	74	PASS
	Off	2390.0	-53.00	2.0	0	44.23	AV	54	PASS
	Off	2483.5	-42.37	2.0	0	54.86	PEAK	74	PASS
	Off	2483.5	-52.49	2.0	0	44.74	AV	54	PASS
	Off	2500.0	-42.46	2.0	0	54.77	PEAK	74	PASS
	Off	2500.0	-52.42	2.0	0	44.81	AV	54	PASS
$\pi/4$ DQPSK	Off	2310.0	-42.83	2.0	0	54.40	PEAK	74	PASS
	Off	2310.0	-53.27	2.0	0	43.96	AV	54	PASS
	Off	2390.0	-42.56	2.0	0	54.67	PEAK	74	PASS
	Off	2390.0	-53.05	2.0	0	44.18	AV	54	PASS
	Off	2483.5	-43.08	2.0	0	54.15	PEAK	74	PASS
	Off	2483.5	-52.32	2.0	0	44.91	AV	54	PASS
	Off	2500.0	-42.72	2.0	0	54.51	PEAK	74	PASS
	Off	2500.0	-52.38	2.0	0	44.85	AV	54	PASS

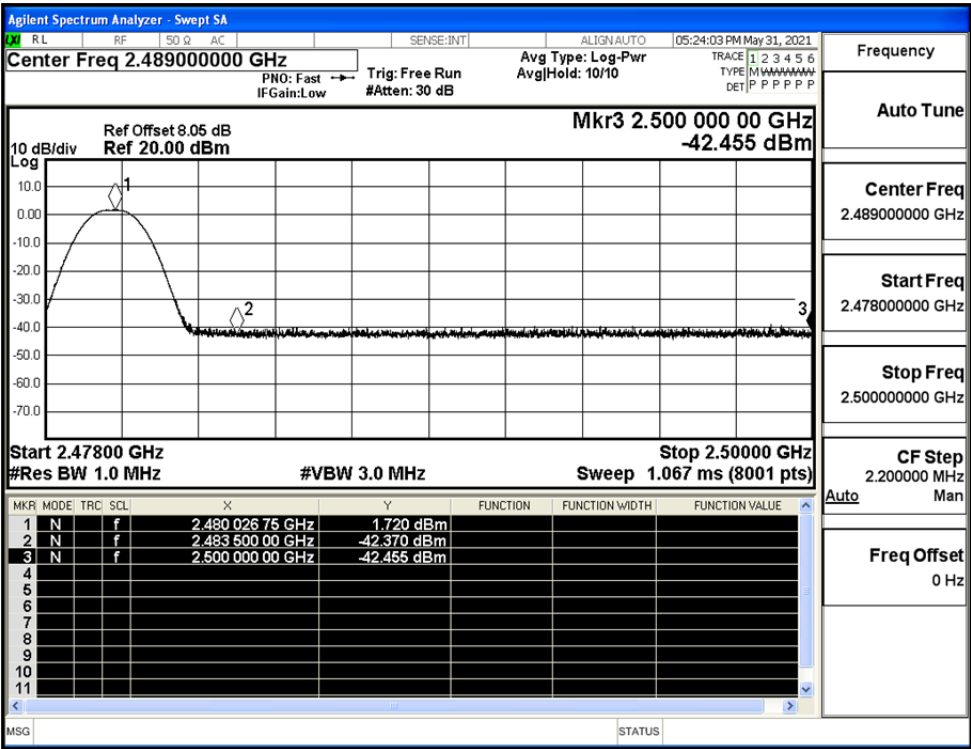
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



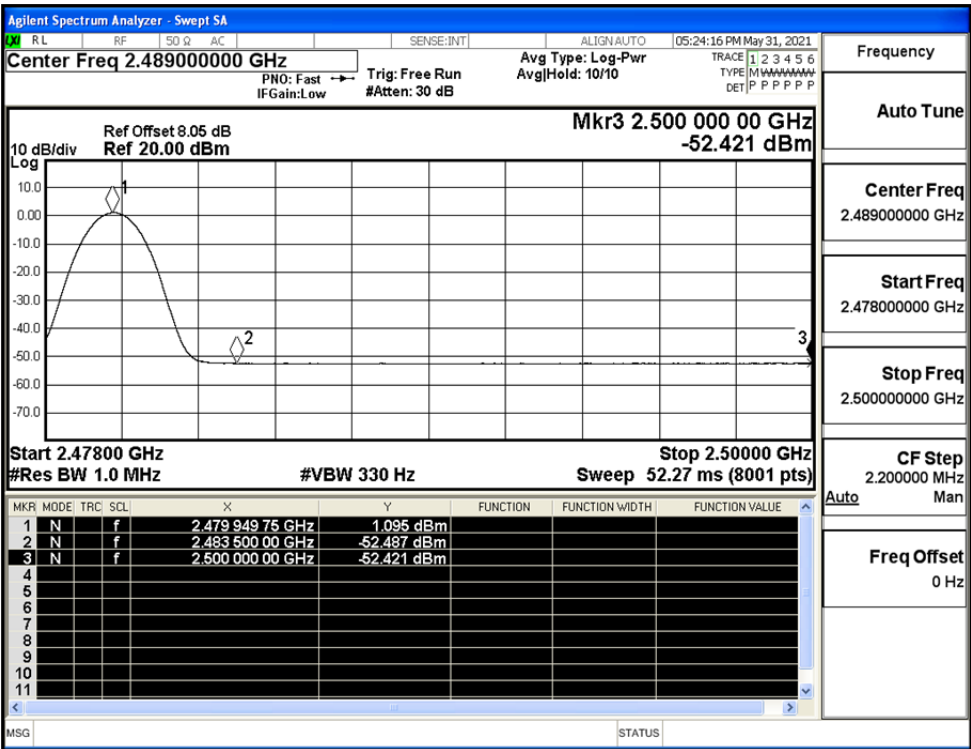
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



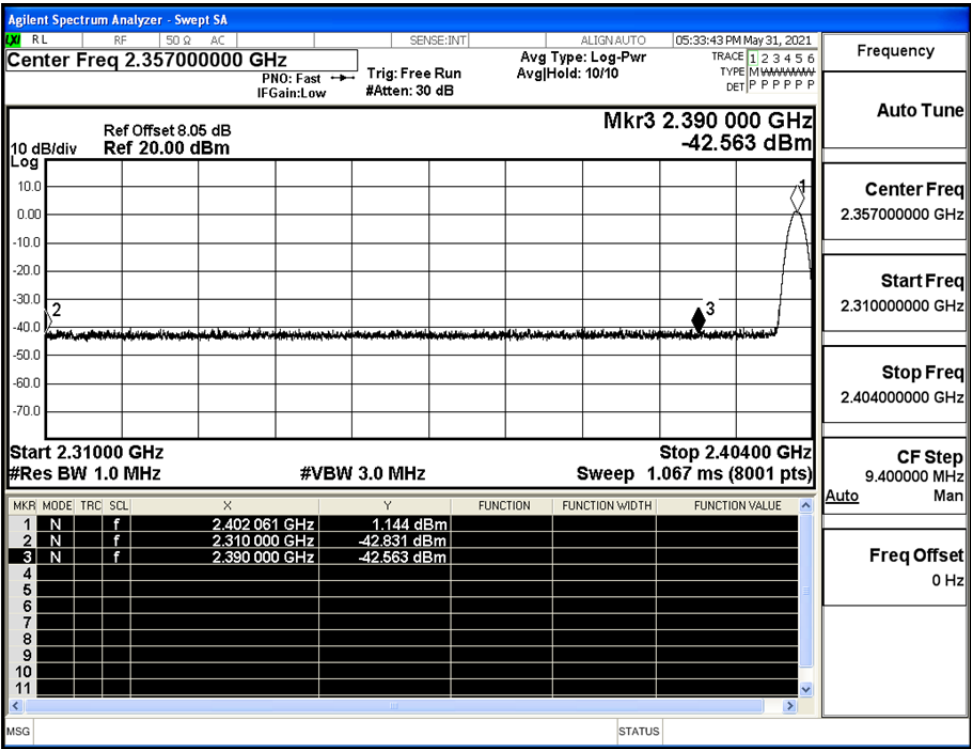
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



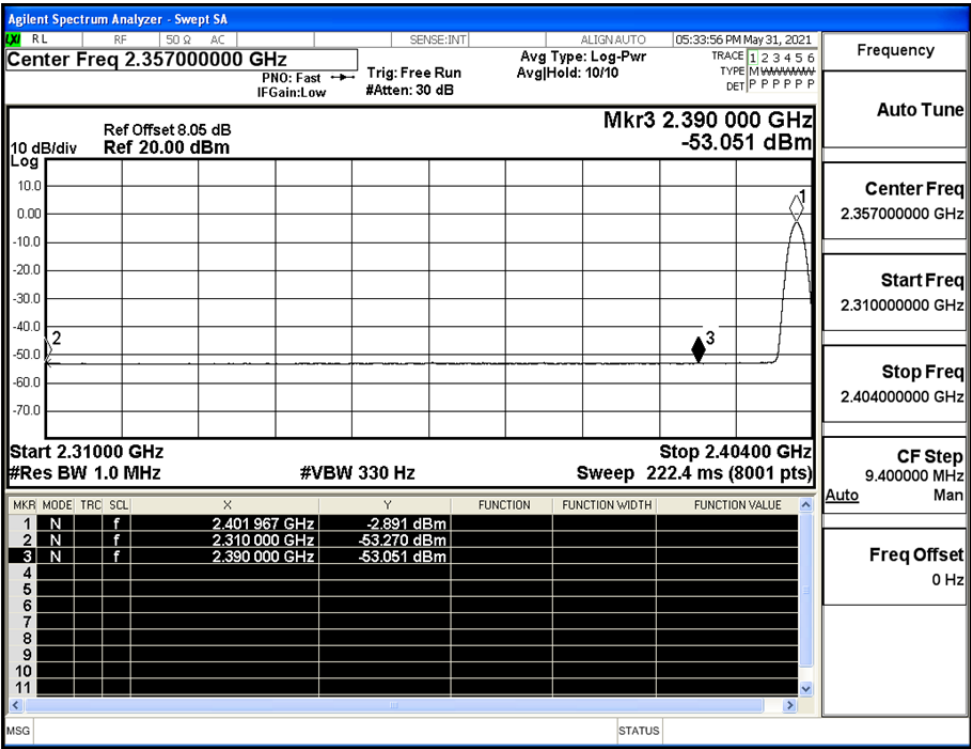
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



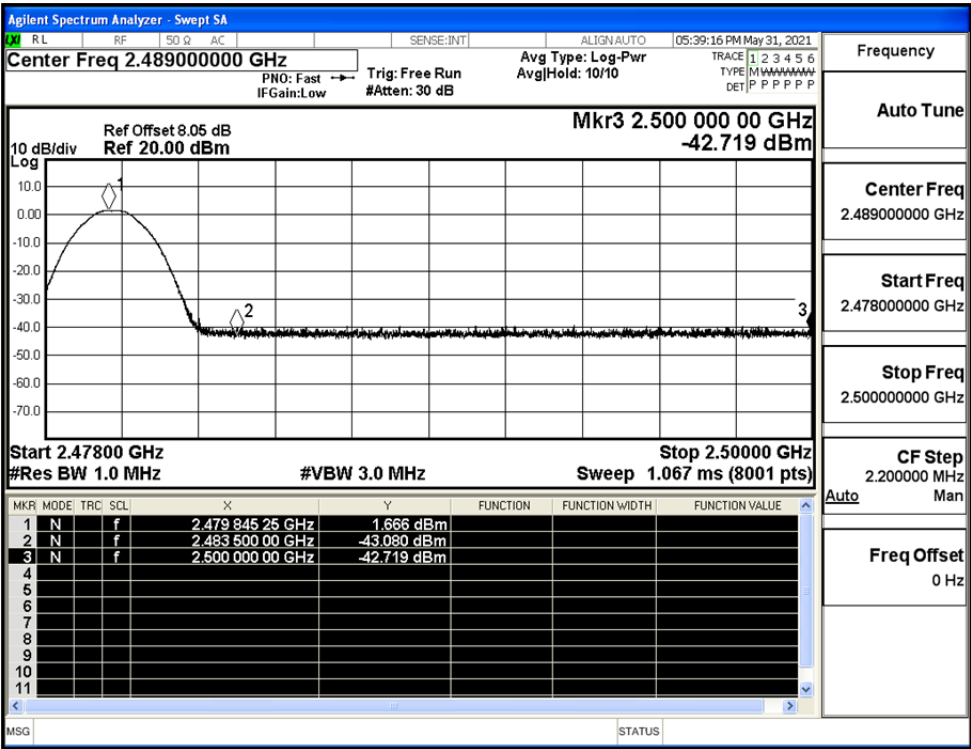
Restrict-band band-edge measurements_Hopping Off_ $\pi/4$ -DQPSK_PEAK (Low Channel)



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)

