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

Product Name: Wireless Microphone

Trade Mark: N/A

Test Model: iLive

FCC ID: R2M-ILIVE1

Environmental Conditions

Temperature:	25.5°C
Relative Humidity:	55%
ATM Pressure:	100.0 kPa
Test Engineer:	Anna Hu
Supervised by:	Hugo Chen
NOTE	N/A

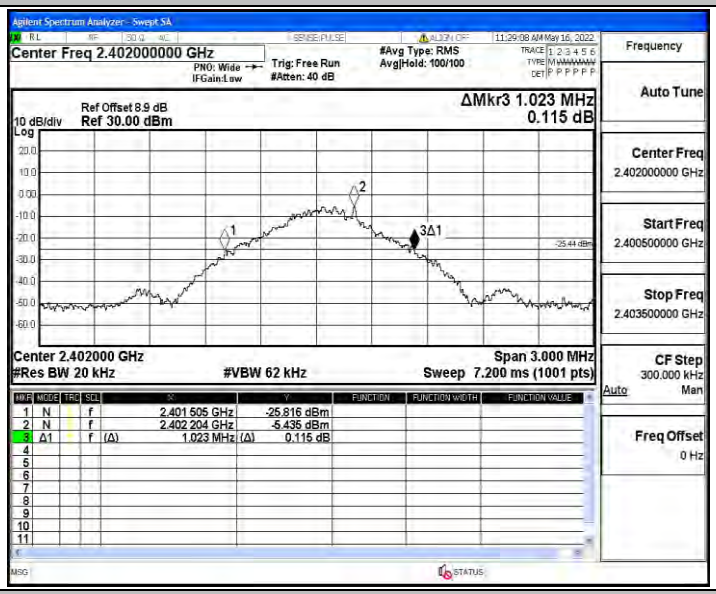
Appendix A: 20dB Emission Bandwidth

Test Result

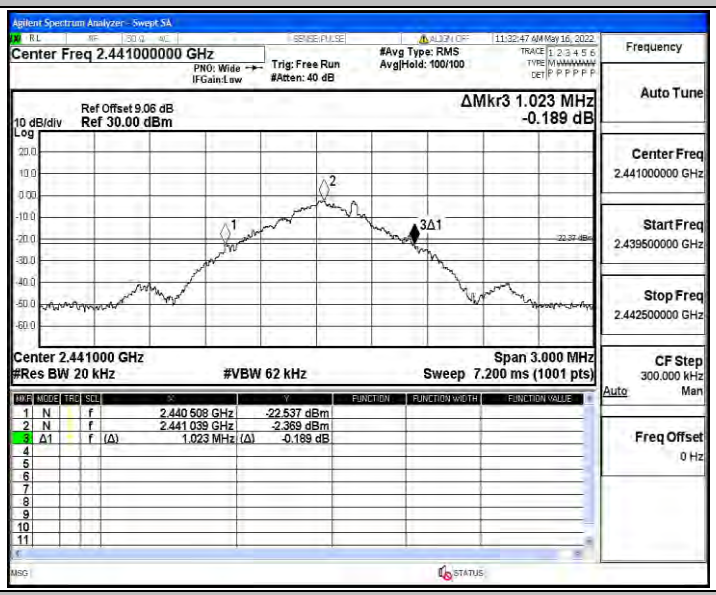
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.023	2401.505	2402.528	---	---
		2441	1.023	2440.508	2441.531	---	---
		2480	1.032	2479.502	2480.534	---	---
2DH5	Ant1	2402	1.308	2401.382	2402.690	---	---
		2441	1.299	2440.394	2441.693	---	---
		2480	1.320	2479.382	2480.702	---	---
3DH5	Ant1	2402	1.284	2401.388	2402.672	---	---
		2441	1.290	2440.391	2441.681	---	---
		2480	1.293	2479.394	2480.687	---	---

Test Graphs

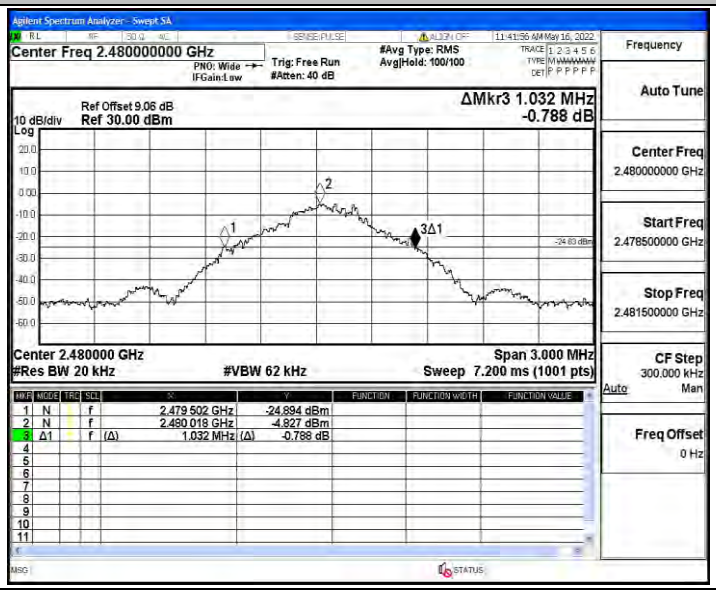
DH5_Ant1_2402



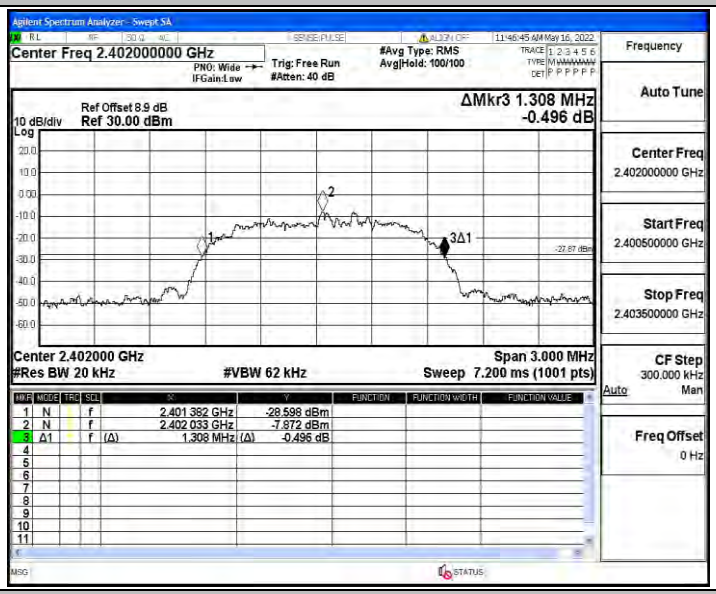
DH5_Ant1_2441



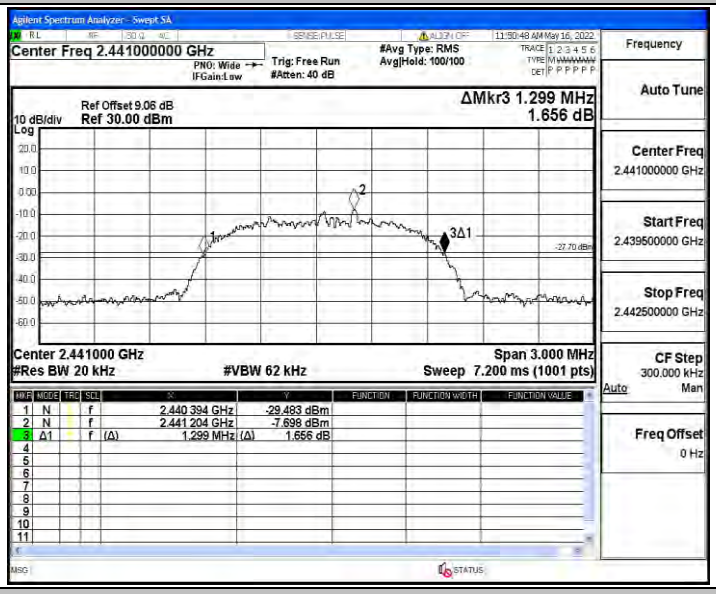
DH5_Ant1_2480



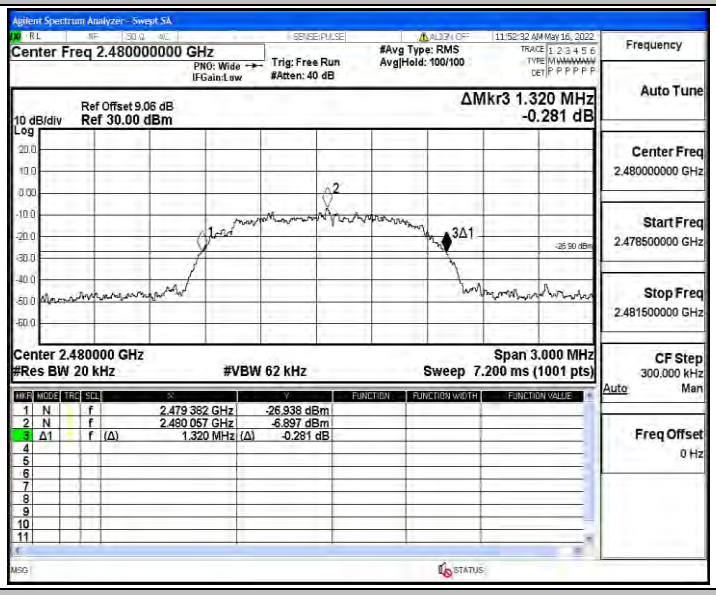
2DH5_Ant1_2402



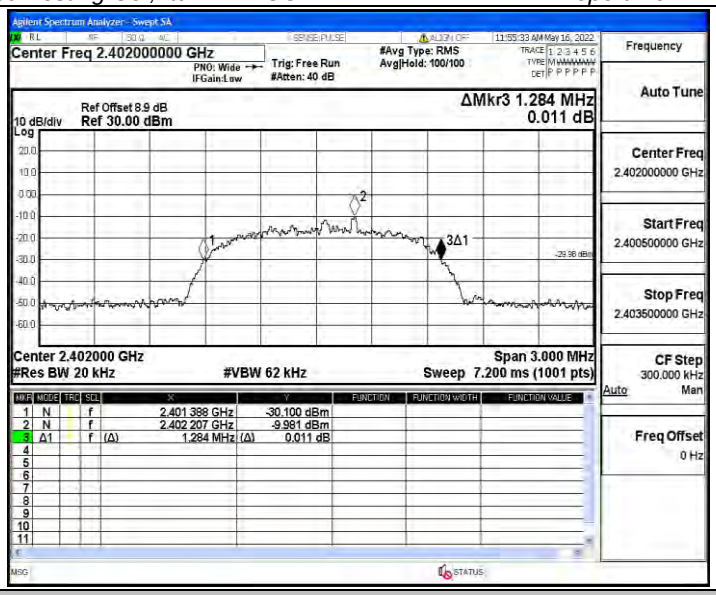
2DH5_Ant1_2441



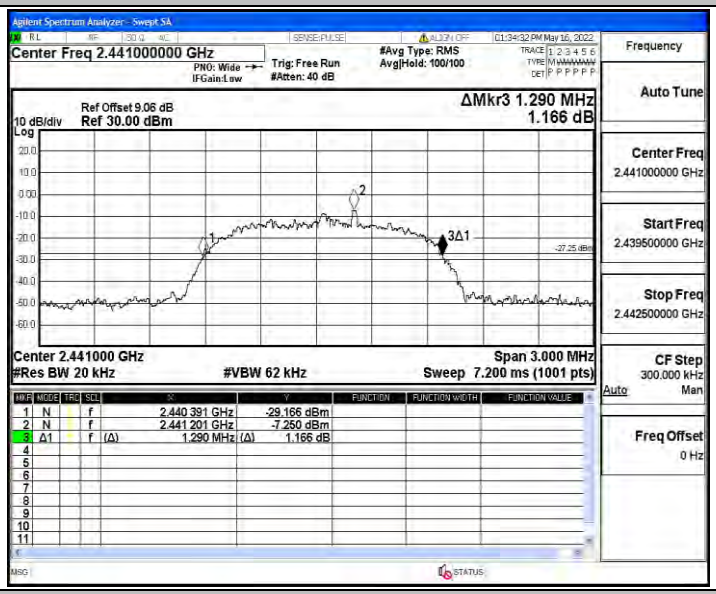
2DH5_Ant1_2480



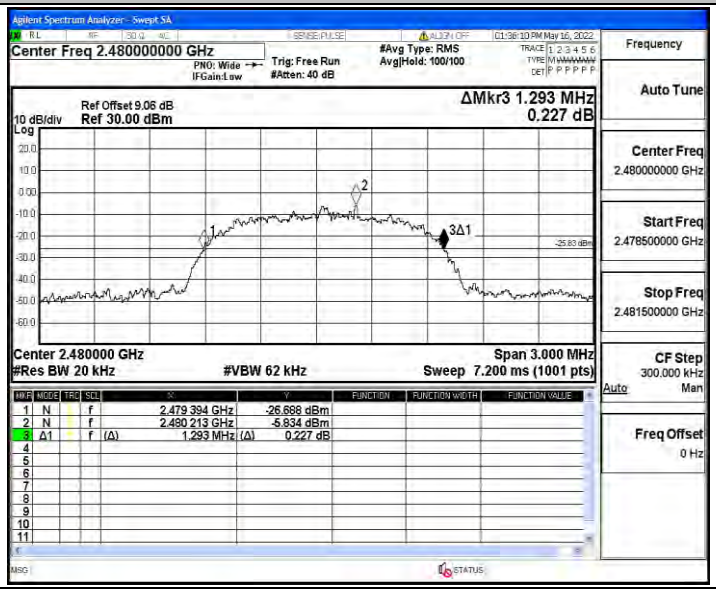
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



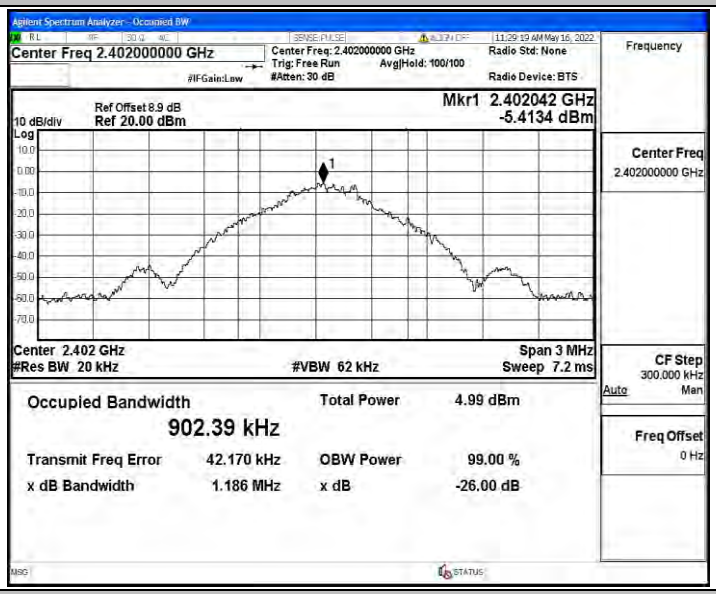
Appendix B: Occupied Channel Bandwidth

Test Result

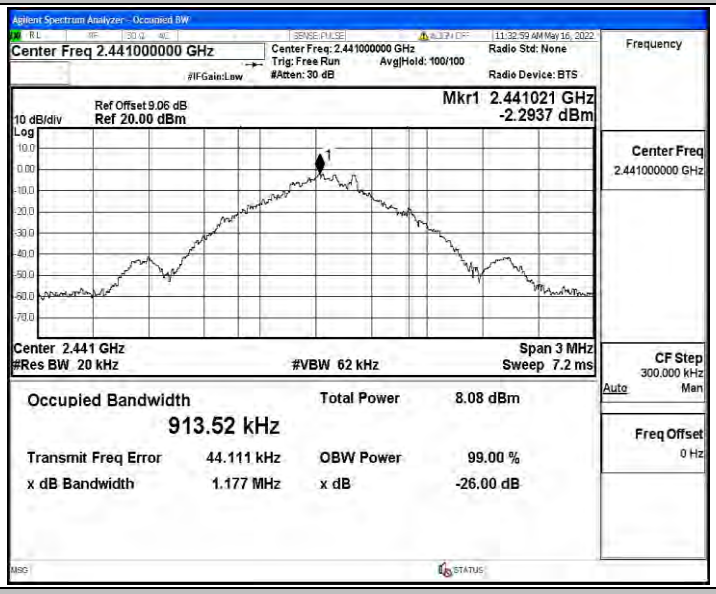
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.90239	2401.591	2402.493	---	---
		2441	0.91352	2440.587	2441.501	---	---
		2480	0.92703	2479.578	2480.505	---	---
2DH5	Ant1	2402	1.1877	2401.440	2402.628	---	---
		2441	1.1890	2440.443	2441.632	---	---
		2480	1.1902	2479.445	2480.636	---	---
3DH5	Ant1	2402	1.1857	2401.446	2402.632	---	---
		2441	1.1871	2440.451	2441.638	---	---
		2480	1.1840	2479.446	2480.630	---	---

Test Graphs

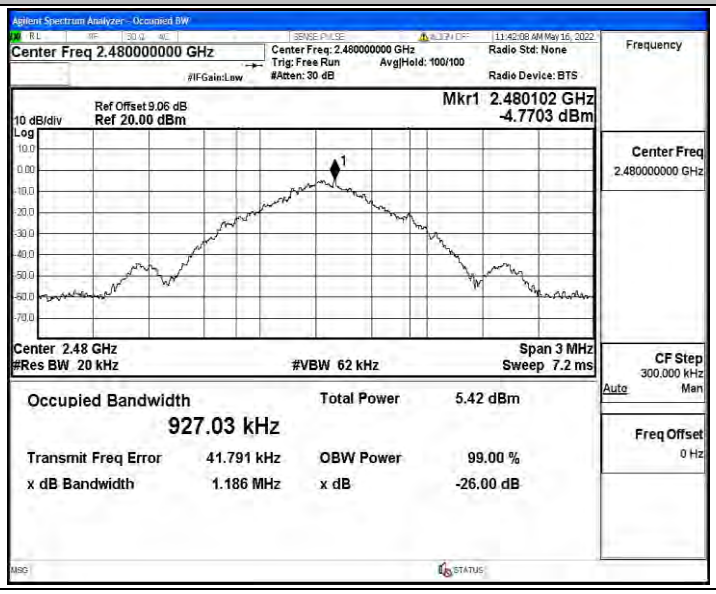
DH5_Ant1_2402



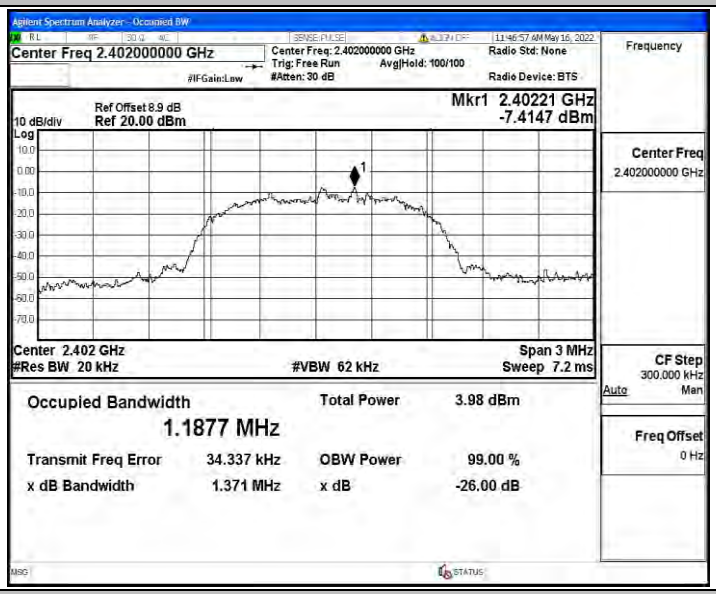
DH5_Ant1_2441



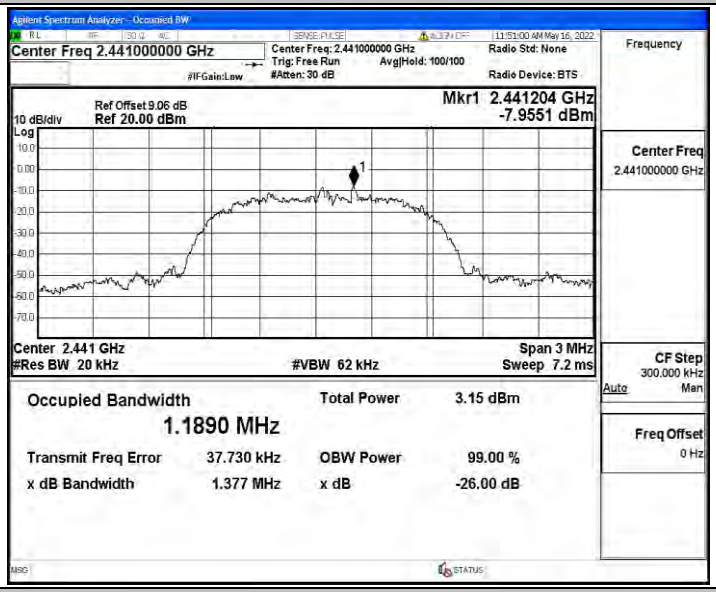
DH5_Ant1_2480



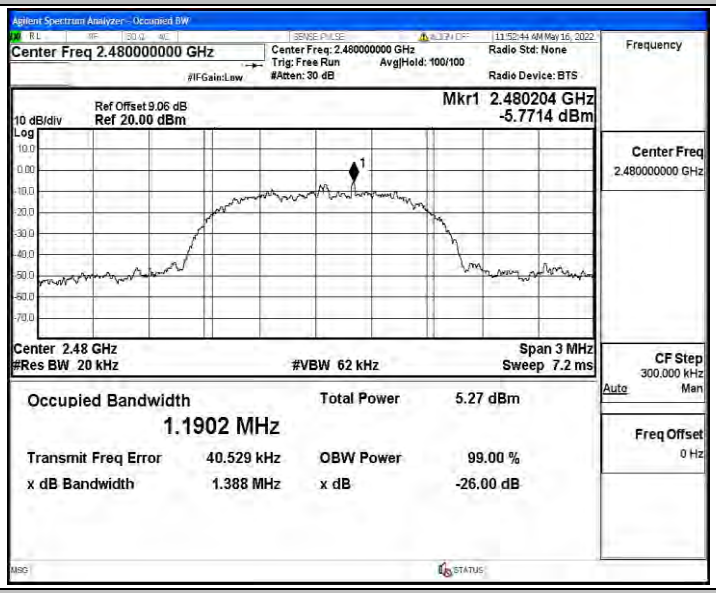
2DH5_Ant1_2402



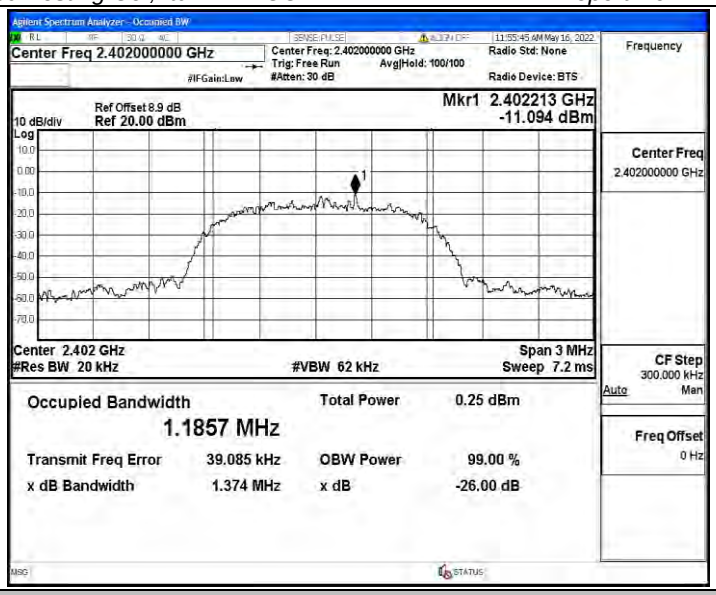
2DH5_Ant1_2441



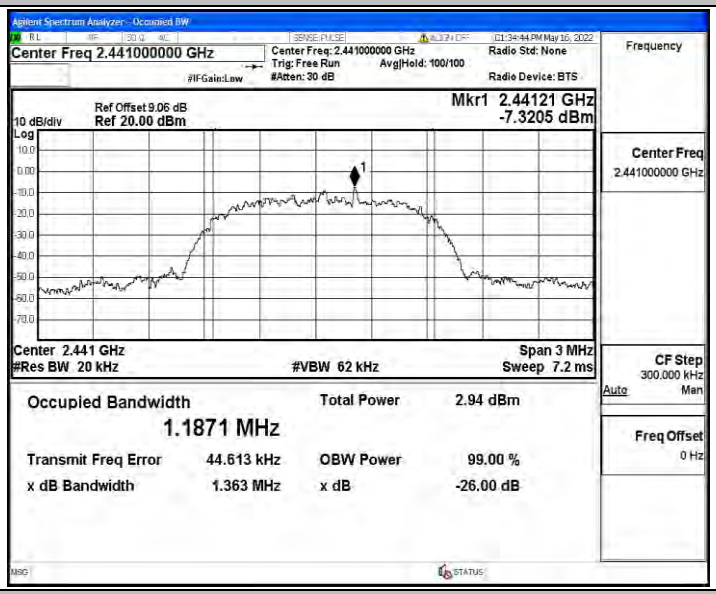
2DH5_Ant1_2480



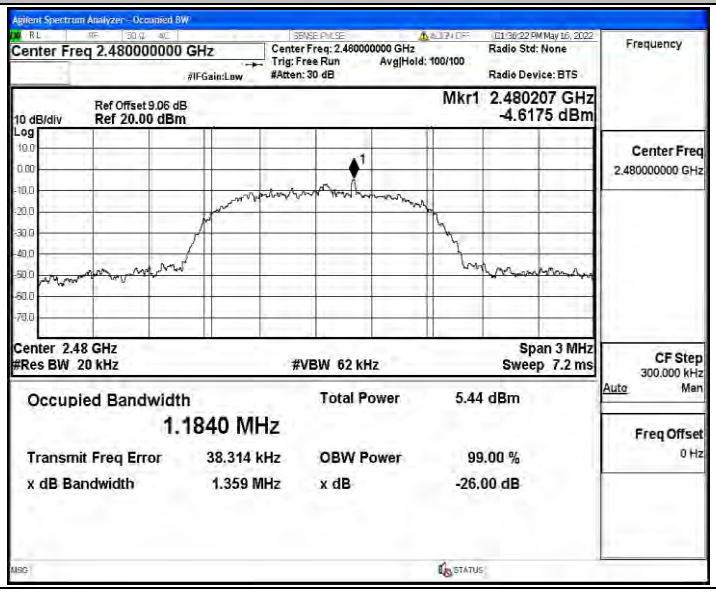
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



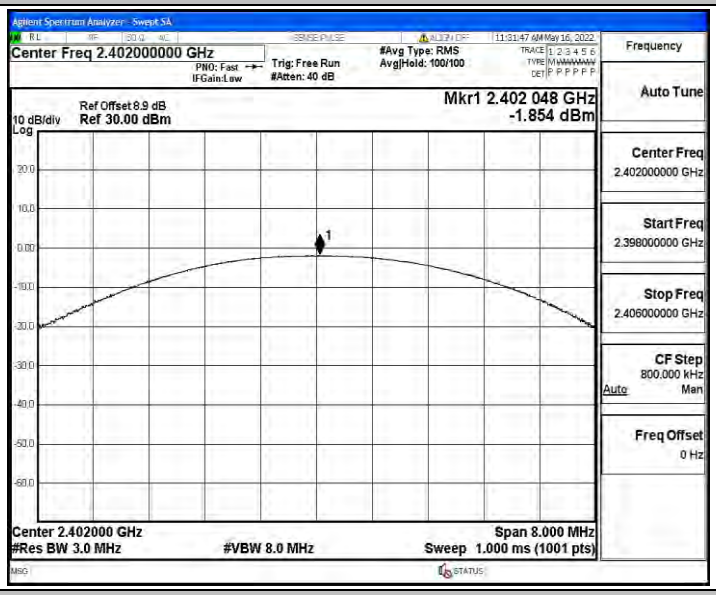
Appendix C: Maximum conducted output power

Test Result

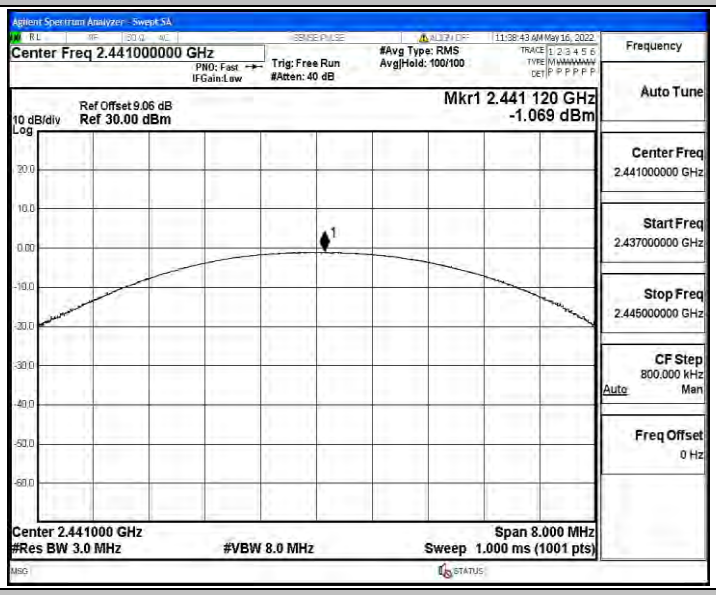
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	-1.85	≤30	PASS
		2441	-1.07	≤30	PASS
		2480	-1.22	≤30	PASS
2DH5	Ant1	2402	-1.47	≤20.97	PASS
		2441	-2.26	≤20.97	PASS
		2480	-0.08	≤20.97	PASS
3DH5	Ant1	2402	-4.64	≤20.97	PASS
		2441	-1.92	≤20.97	PASS
		2480	0.35	≤20.97	PASS

Test Graphs

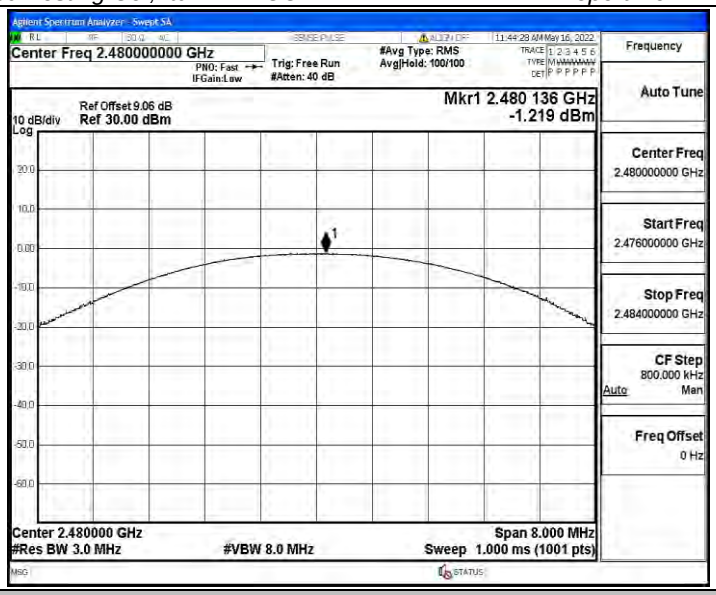
DH5_Ant1_2402



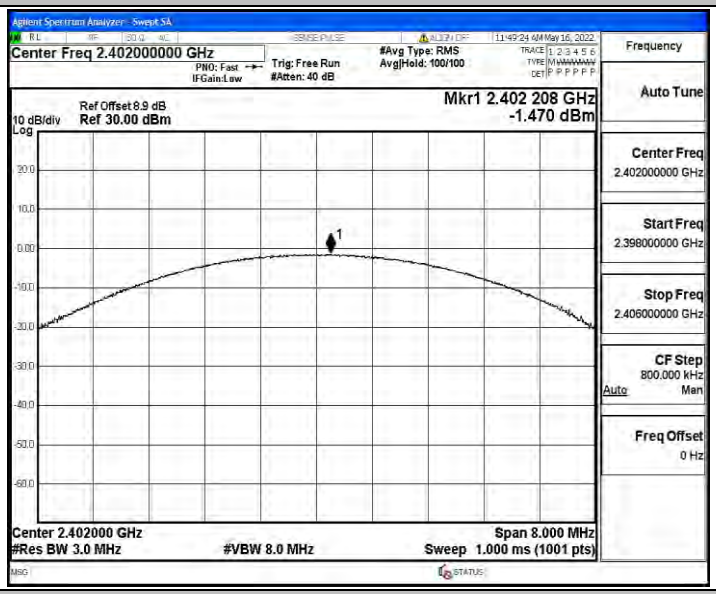
DH5_Ant1_2441



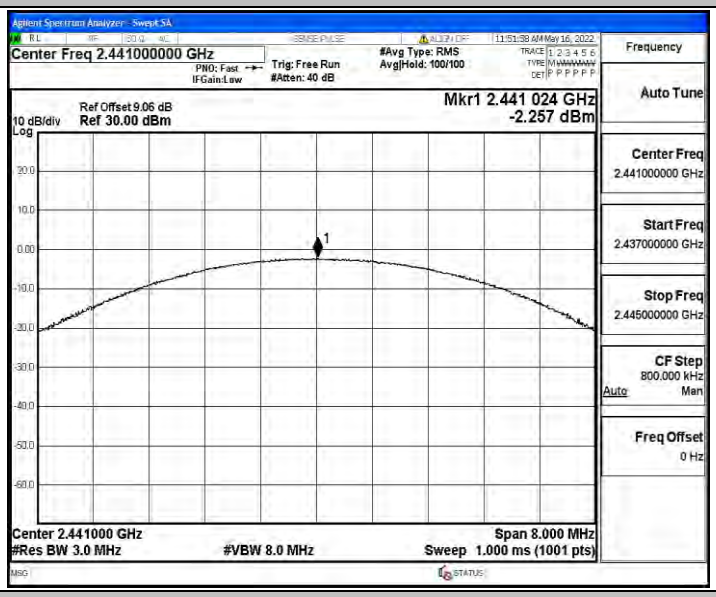
DH5_Ant1_2480



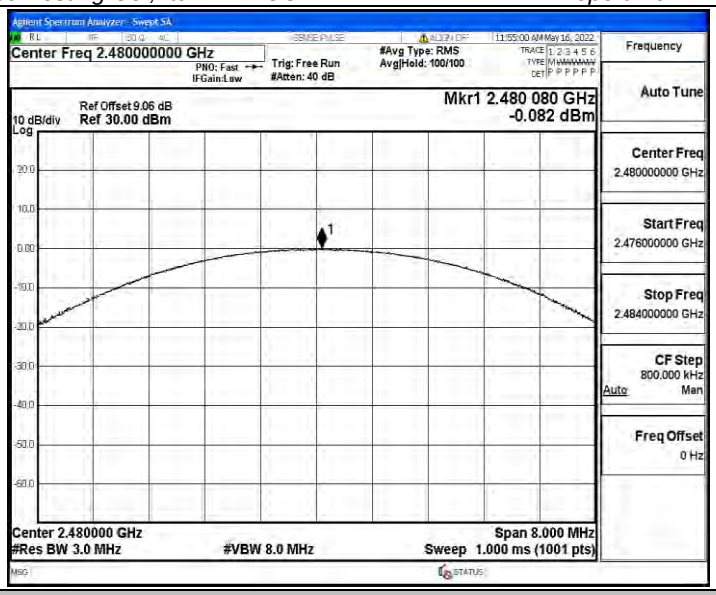
2DH5_Ant1_2402



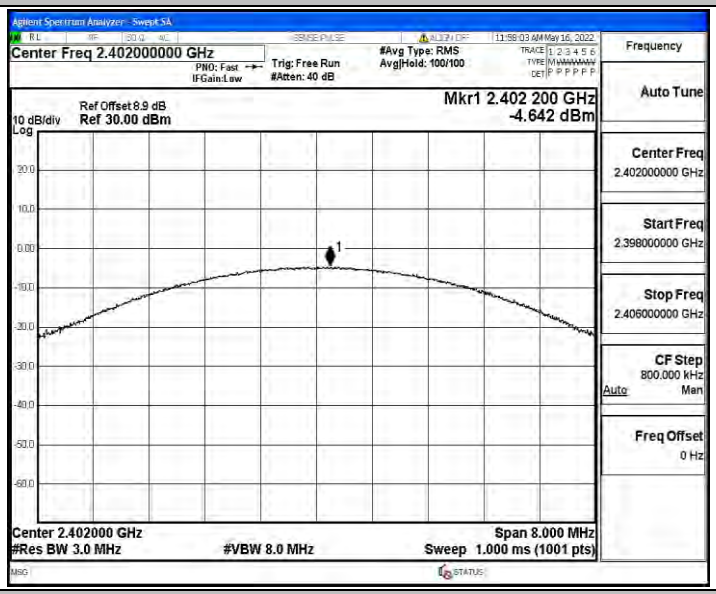
2DH5_Ant1_2441



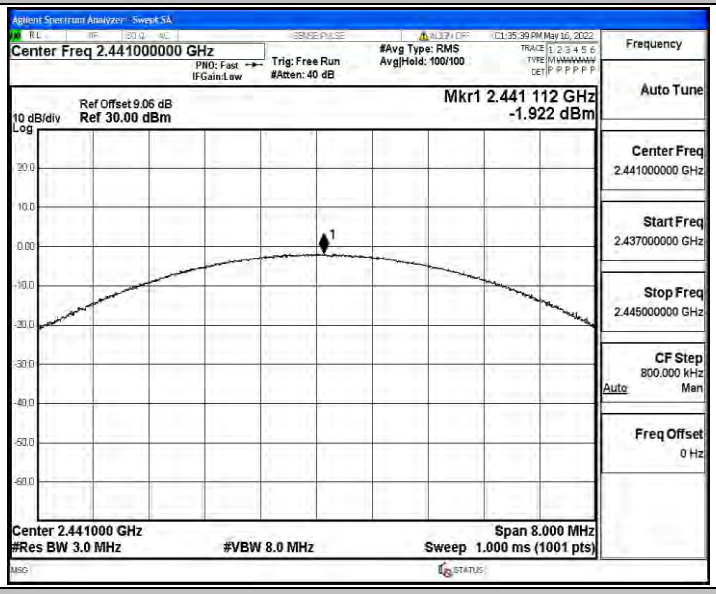
2DH5_Ant1_2480



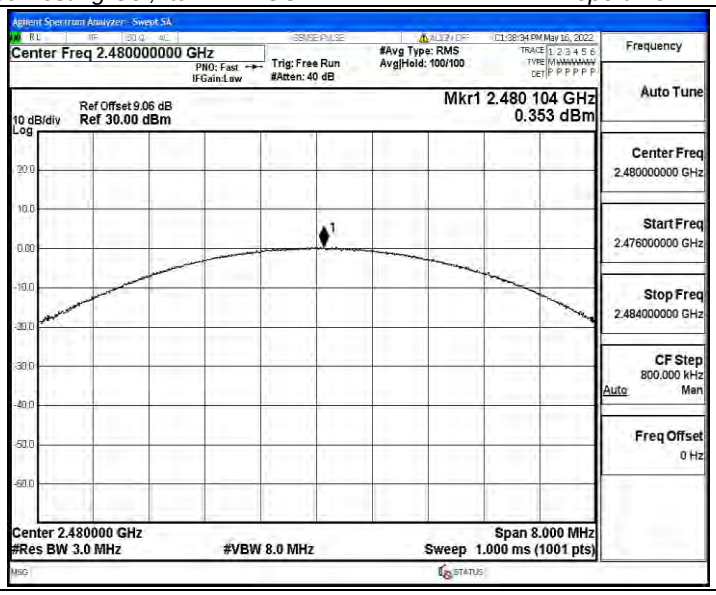
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 100/100
Ref Offset 9.06 dB
10 dB/div Ref 30.00 dBm
Log
Mkr1 2.480 104 GHz
0.353 dBm
Center 2.480000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 8.000 MHz
Sweep 1.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.476000000 GHz
Stop Freq
2.484000000 GHz
CF Step
800.000 kHz
Auto
Man
Freq Offset
0 Hz

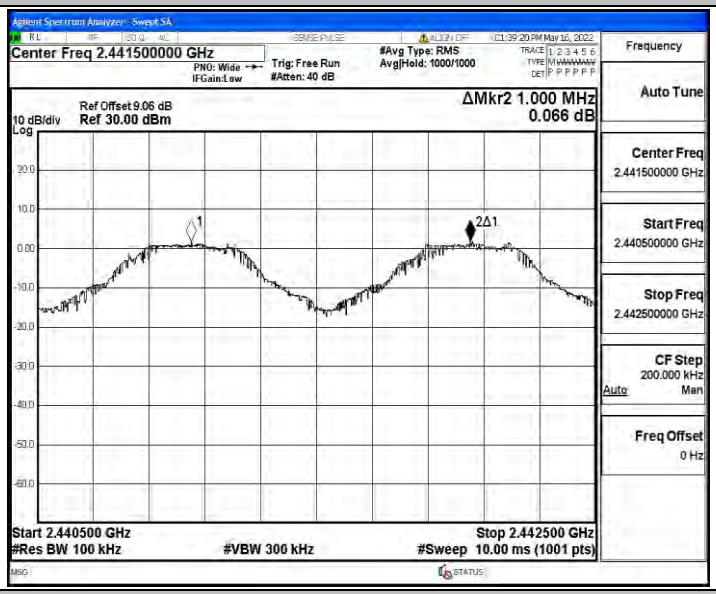
Appendix D: Carrier frequency separation

Test Result

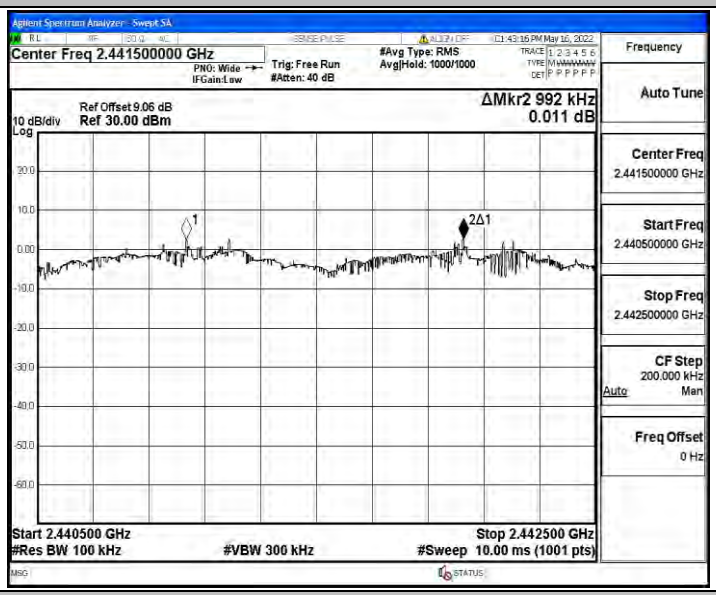
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1	≥0.688	PASS
2DH5	Ant1	Hop	0.992	≥0.880	PASS
3DH5	Ant1	Hop	1.078	≥0.862	PASS

Test Graphs

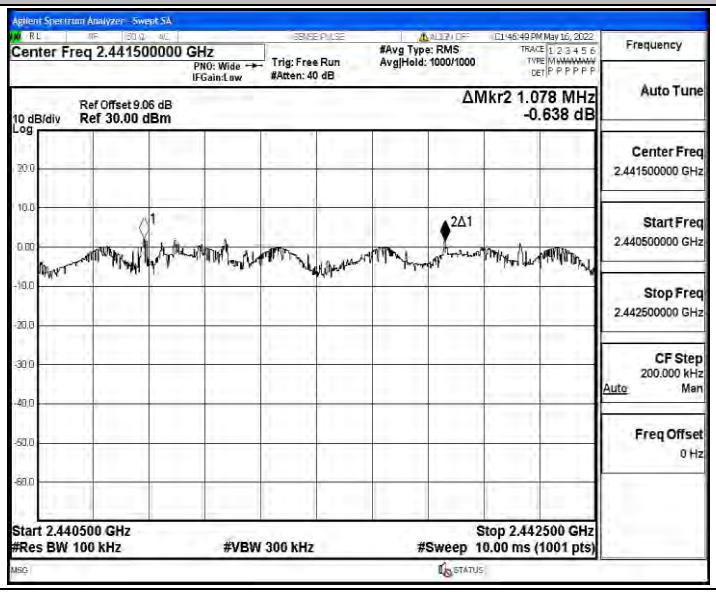
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



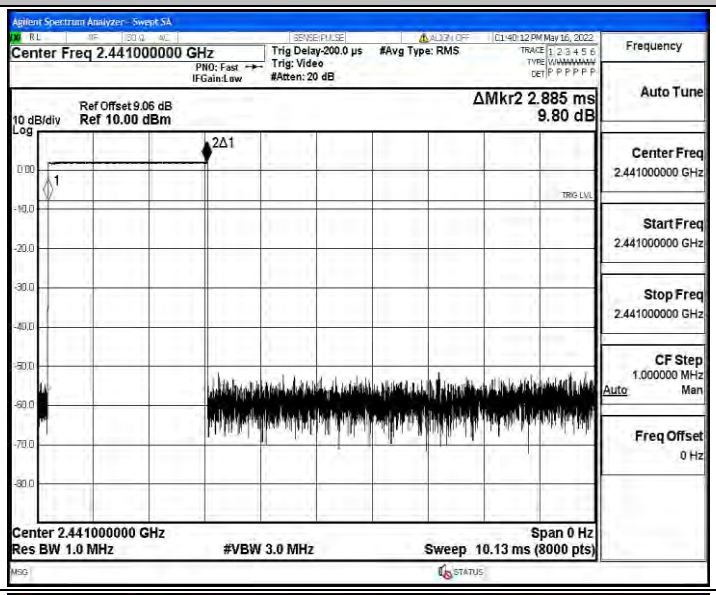
Appendix E: Time of occupancy

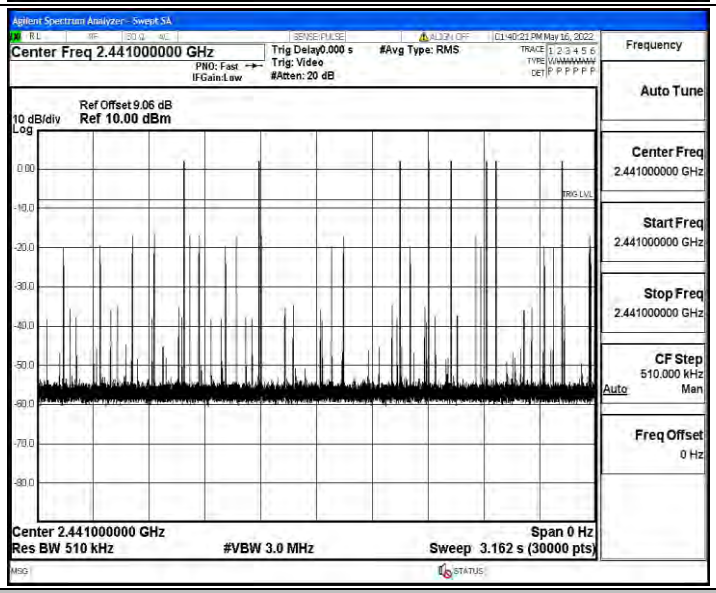
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.89	90	0.26	≤0.4	PASS
2DH5	Ant1	Hop	2.89	80	0.231	≤0.4	PASS
3DH5	Ant1	Hop	2.89	130	0.376	≤0.4	PASS

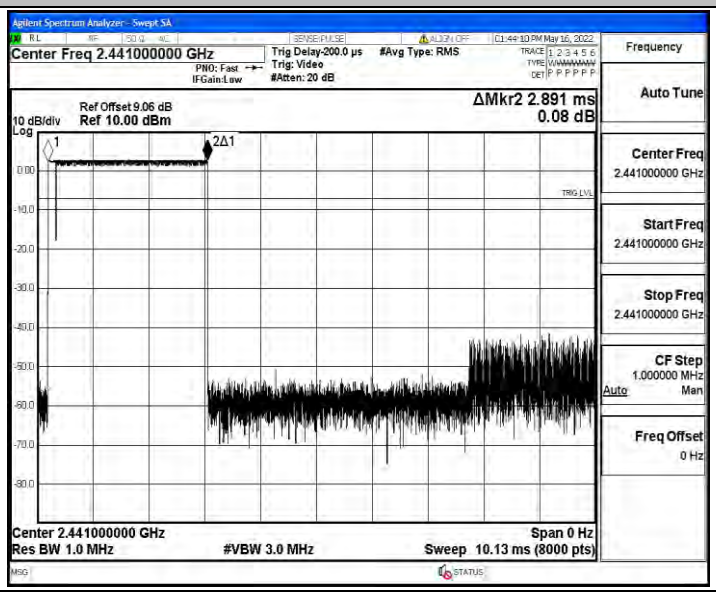
Test Graphs

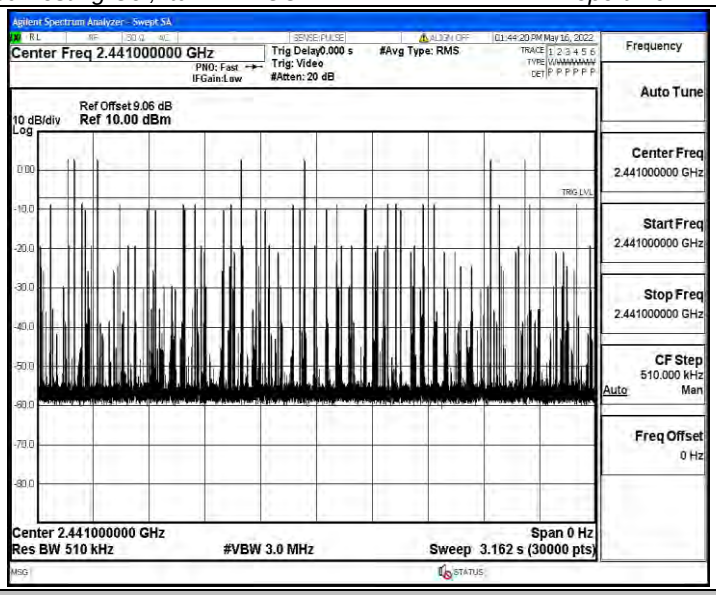
DH5_Ant1_Hop



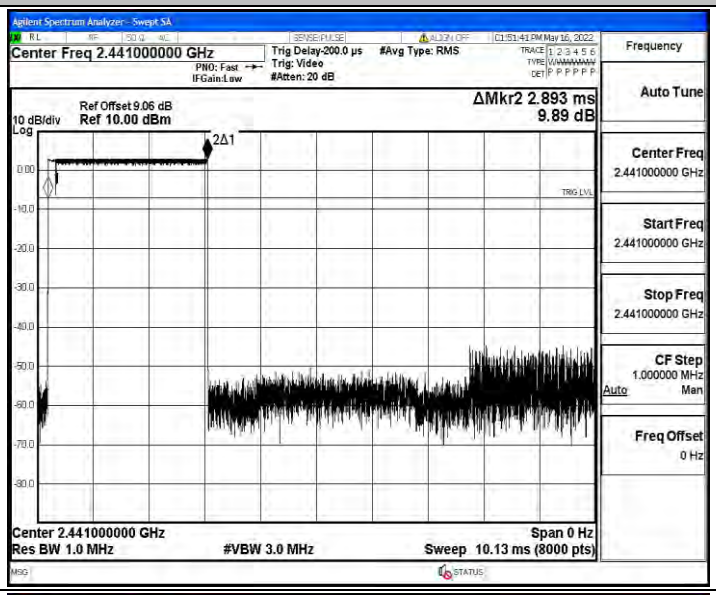


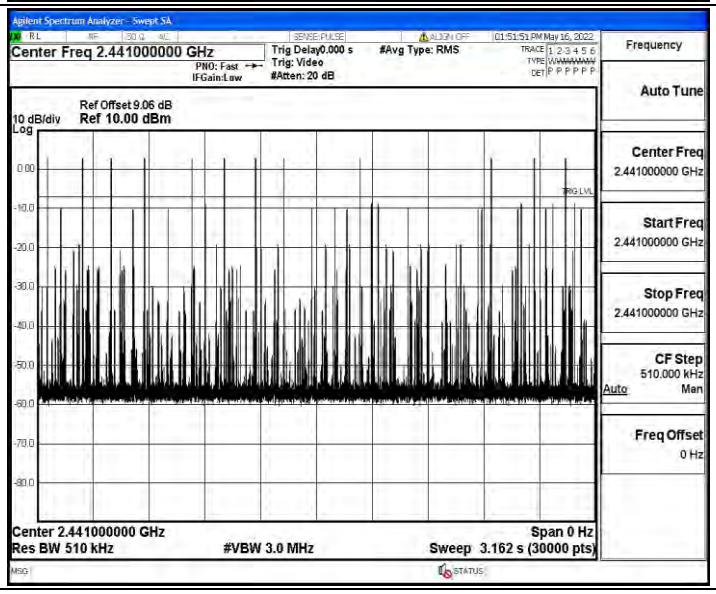
2DH5_Ant1_Hop





3DH5_Ant1_Hop





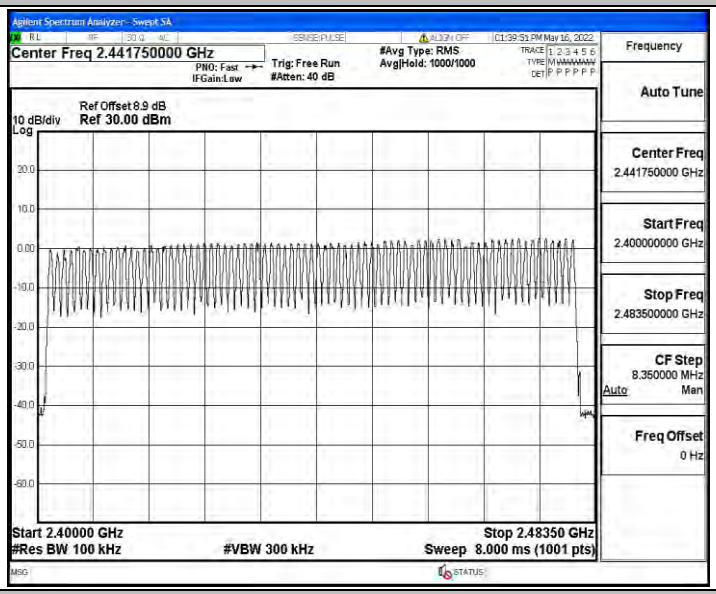
Appendix F: Number of hopping channels

Test Result

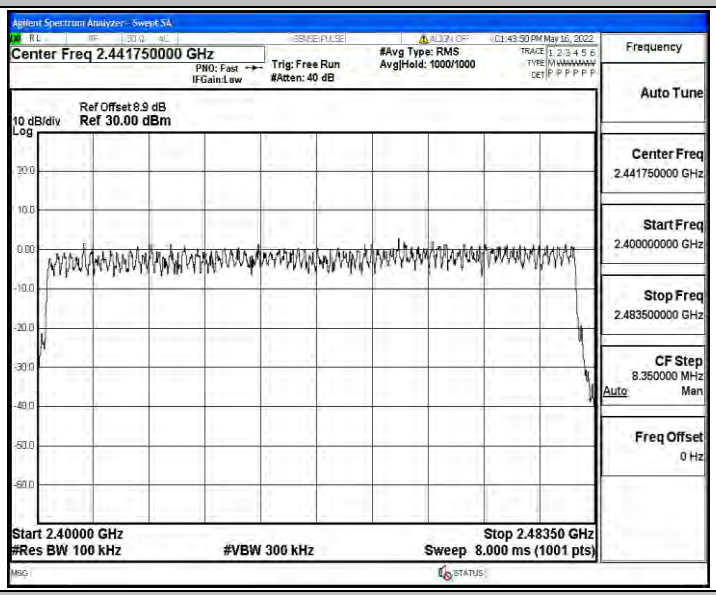
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

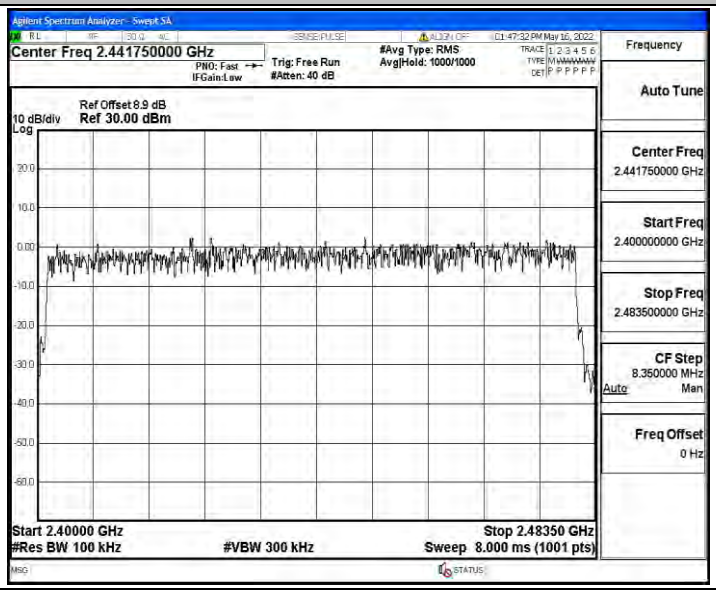
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop



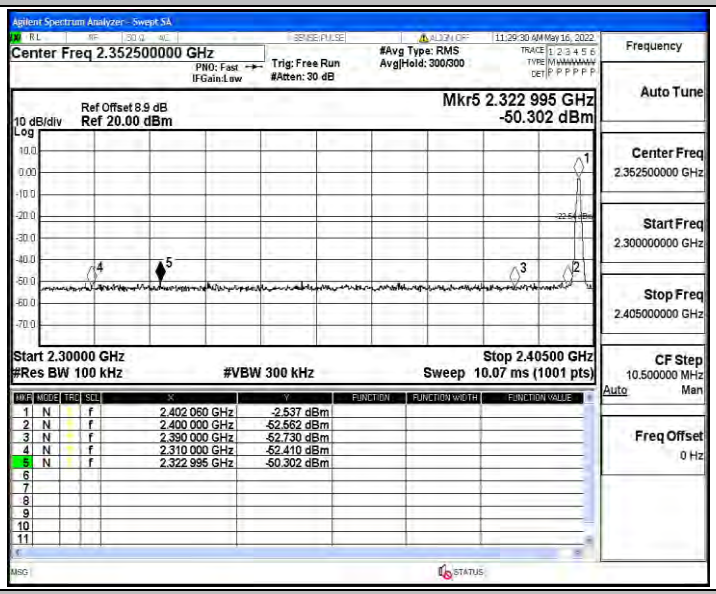
Appendix G: Band edge measurements

Test Result

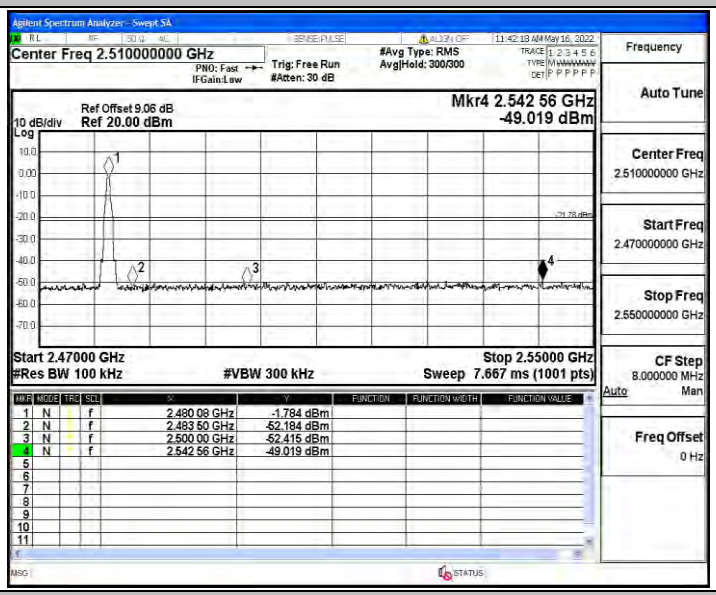
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-2.54	-50.3	≤-22.54	PASS
		High	2480	-1.78	-49.02	≤-21.78	PASS
		Low	Hop_2402	-0.35	-49.68	≤-20.35	PASS
		High	Hop_2480	2.87	-47.36	≤-17.13	PASS
2DH5	Ant1	Low	2402	-3.36	-50.12	≤-23.36	PASS
		High	2480	-1.48	-49.32	≤-21.48	PASS
		Low	Hop_2402	-1.95	-50.39	≤-21.95	PASS
		High	Hop_2480	3.26	-48.24	≤-16.75	PASS
3DH5	Ant1	Low	2402	-6.71	-50.5	≤-26.71	PASS
		High	2480	-1.51	-49.13	≤-21.51	PASS
		Low	Hop_2402	-0.96	-51.02	≤-20.96	PASS
		High	Hop_2480	1.57	-49.55	≤-18.44	PASS

Test Graphs

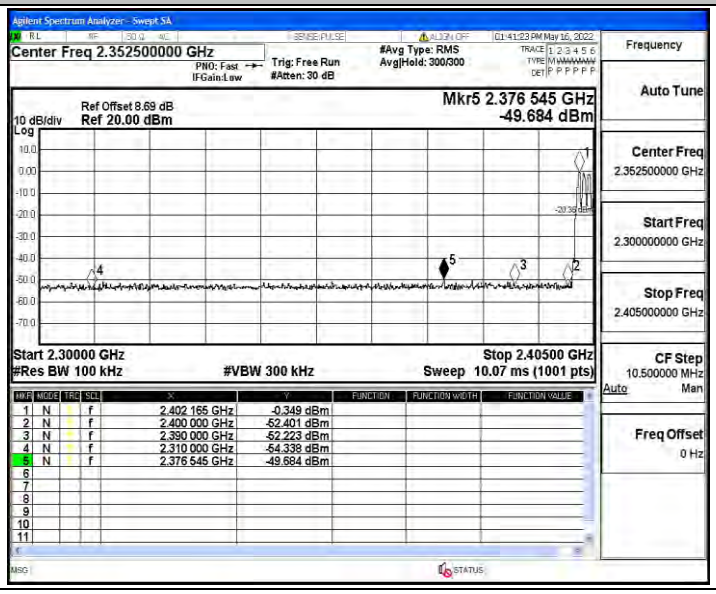
DH5_Ant1_Low_2402



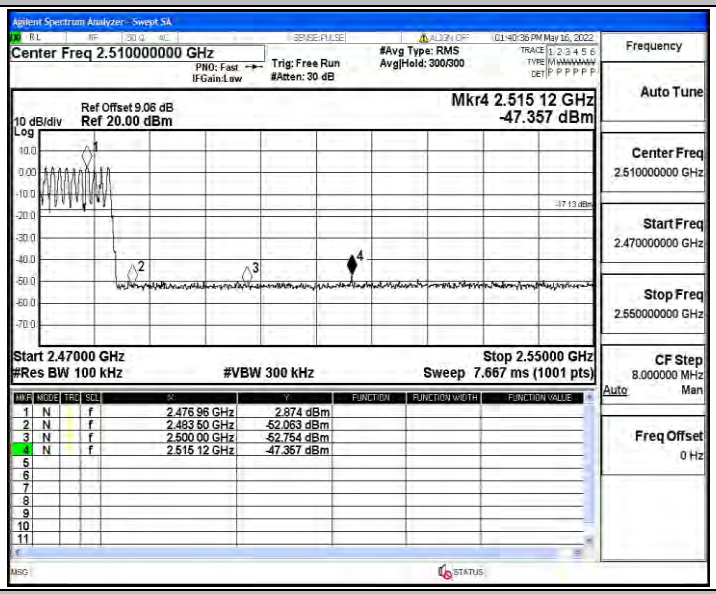
DH5_Ant1_High_2480



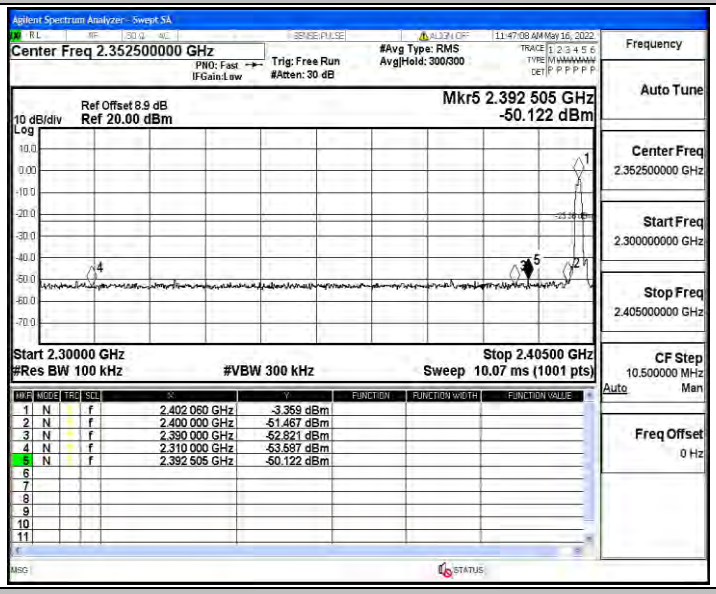
DH5_Ant1_Low_Hop_2402



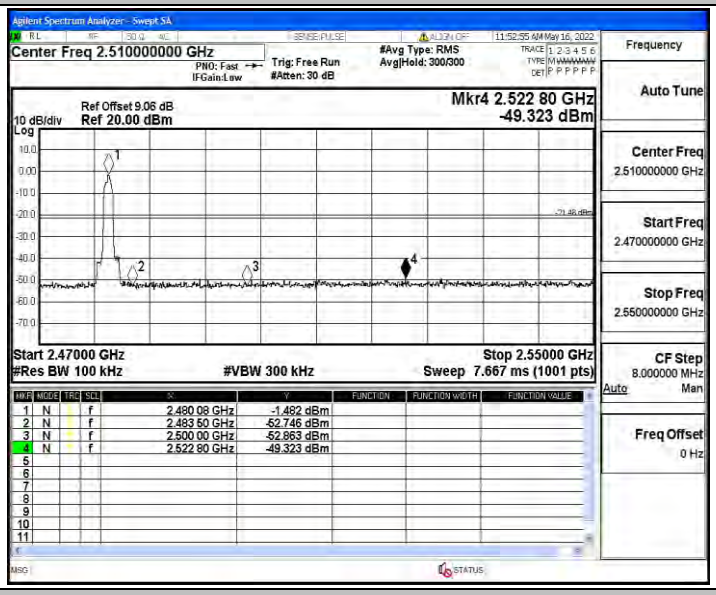
DH5_Ant1_High_Hop_2480



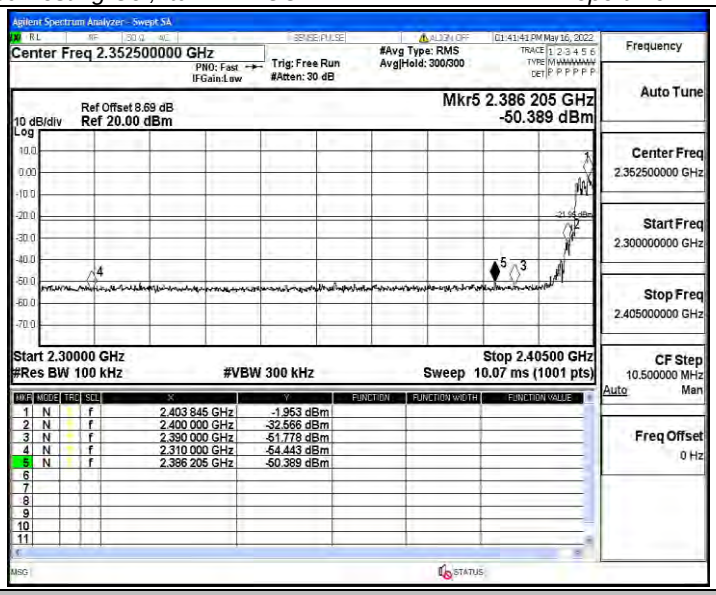
2DH5_Ant1_Low_2402



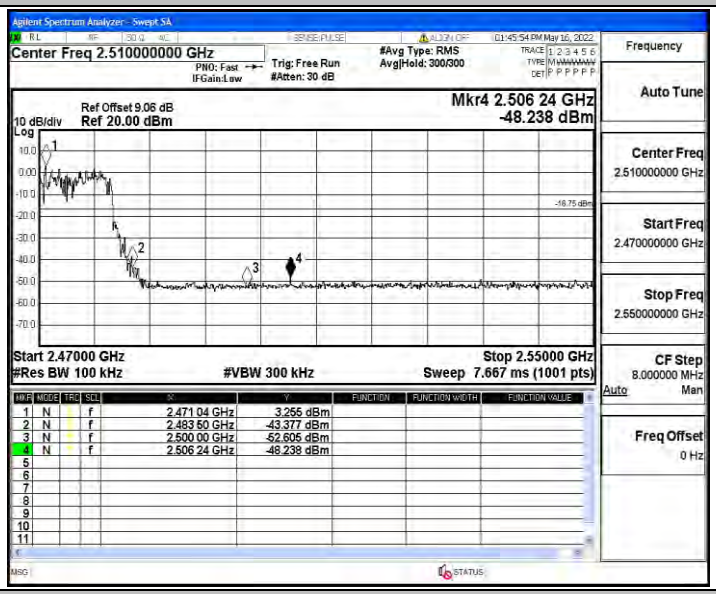
2DH5_Ant1_High_2480



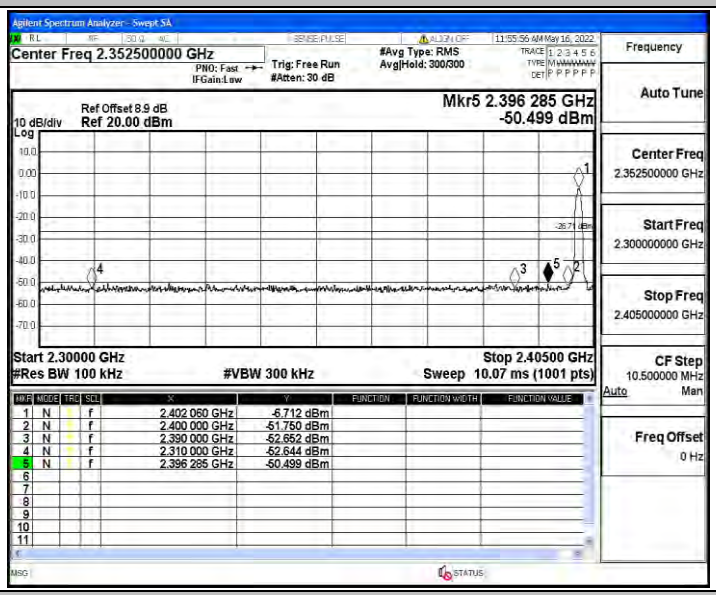
2DH5_Ant1_Low_Hop_2402



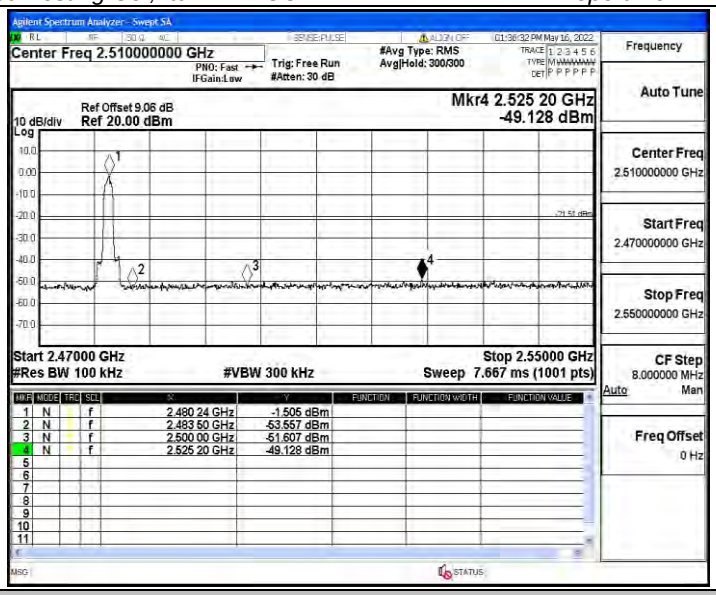
2DH5_Ant1_High_Hop_2480



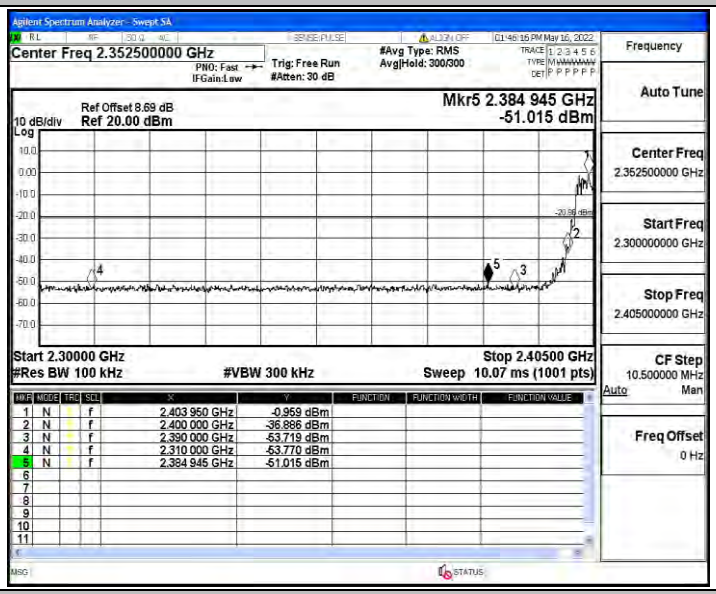
3DH5_Ant1_Low_2402



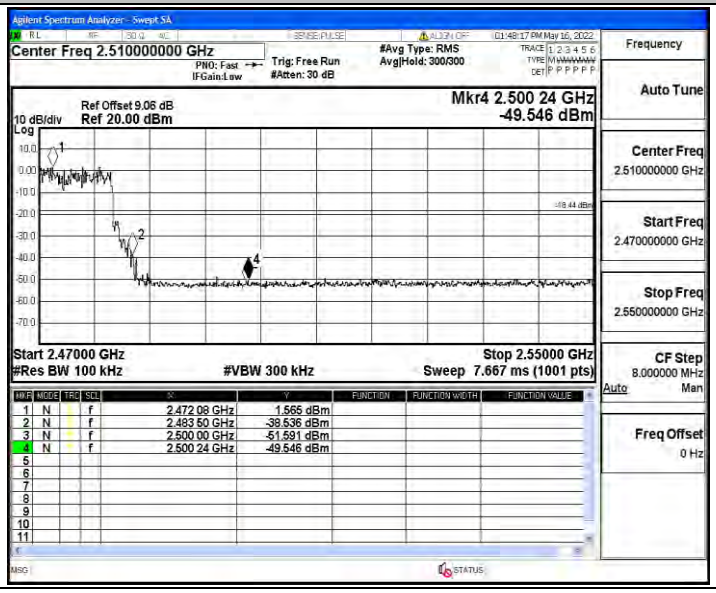
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



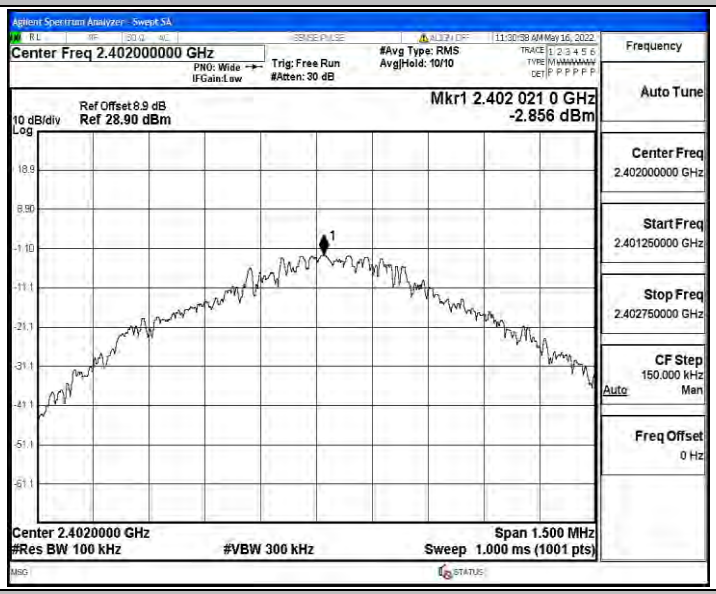
Appendix H: Conducted Spurious Emission

Test Result

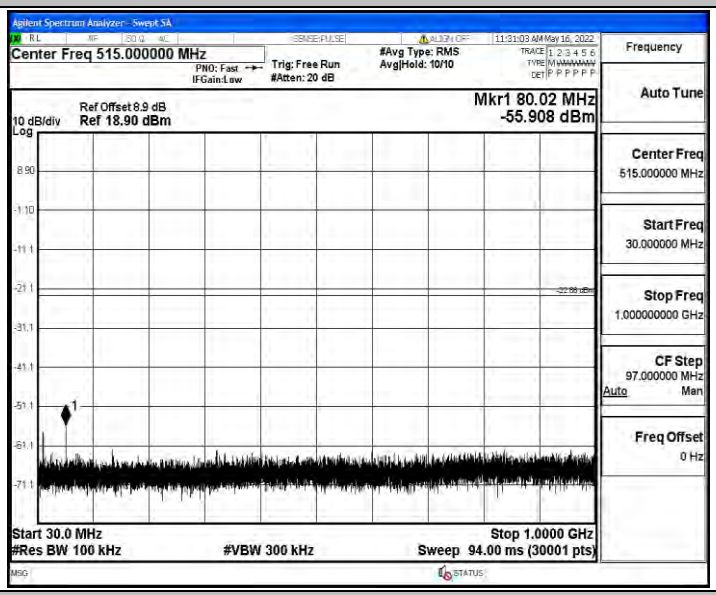
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-2.86	-2.86	---	PASS
			30~1000	-2.86	-55.91	≤-22.86	PASS
			1000~26500	-2.86	-40.04	≤-22.86	PASS
		2441	Reference	-0.33	-0.33	---	PASS
			30~1000	-0.33	-55.72	≤-20.33	PASS
			1000~26500	-0.33	-35.54	≤-20.33	PASS
		2480	Reference	-2.38	-2.38	---	PASS
			30~1000	-2.38	-56.45	≤-22.38	PASS
			1000~26500	-2.38	-42.68	≤-22.38	PASS
2DH5	Ant1	2402	Reference	-4.33	-4.33	---	PASS
			30~1000	-4.33	-56.54	≤-24.33	PASS
			1000~26500	-4.33	-41.84	≤-24.33	PASS
		2441	Reference	-6.78	-6.78	---	PASS
			30~1000	-6.78	-55.86	≤-26.78	PASS
			1000~26500	-6.78	-47.74	≤-26.78	PASS
		2480	Reference	-5.17	-5.17	---	PASS
			30~1000	-5.17	-55.89	≤-25.17	PASS
			1000~26500	-5.17	-48.64	≤-25.17	PASS
3DH5	Ant1	2402	Reference	-10.17	-10.17	---	PASS
			30~1000	-10.17	-56.02	≤-30.17	PASS
			1000~26500	-10.17	-46.83	≤-30.17	PASS
		2441	Reference	-7.02	-7.02	---	PASS
			30~1000	-7.02	-53.68	≤-27.02	PASS
			1000~26500	-7.02	-49.19	≤-27.02	PASS
		2480	Reference	-3.87	-3.87	---	PASS
			30~1000	-3.87	-56.04	≤-23.87	PASS
			1000~26500	-3.87	-47.25	≤-23.87	PASS

Test Graphs

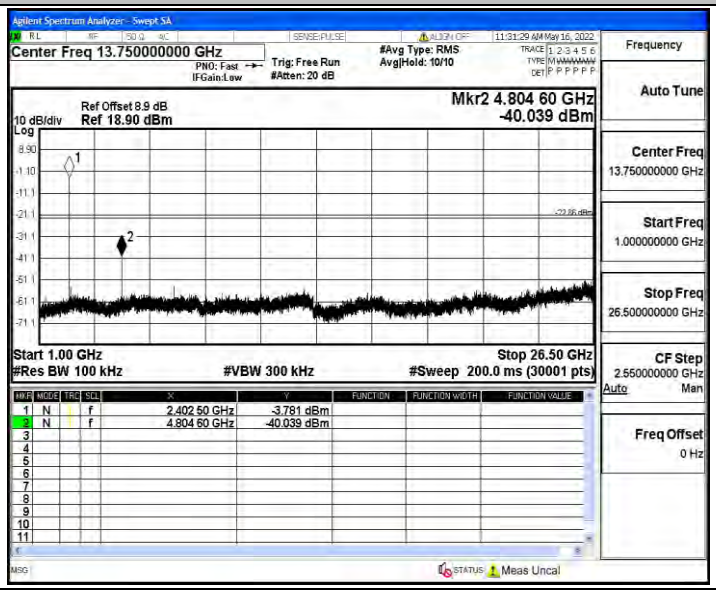
DH5_Ant1_2402_0~Reference



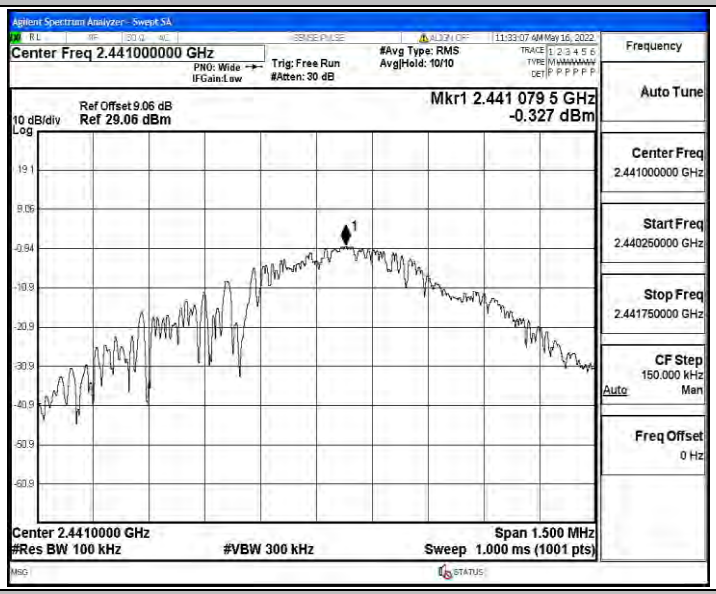
DH5_Ant1_2402_30~1000



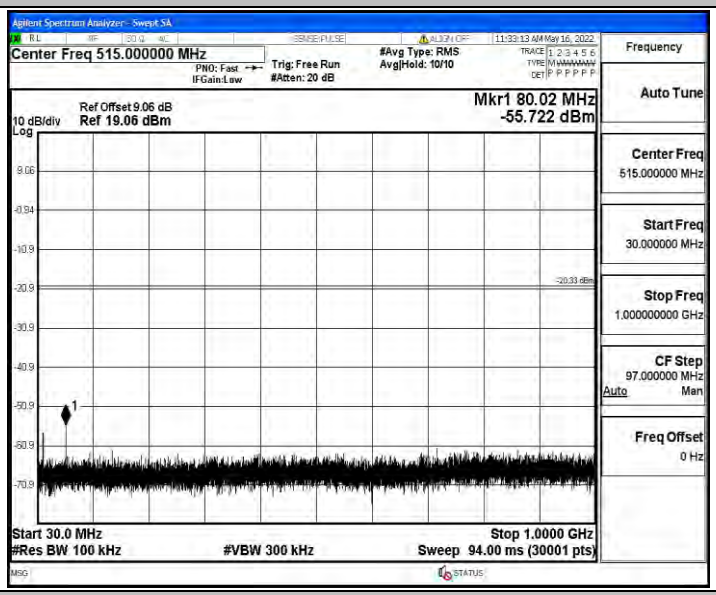
DH5_Ant1_2402_1000~26500



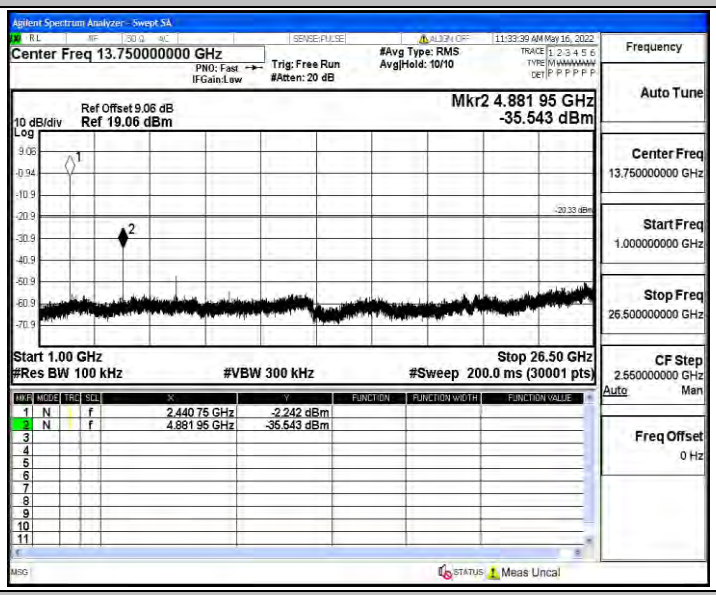
DH5_Ant1_2441_0~Reference



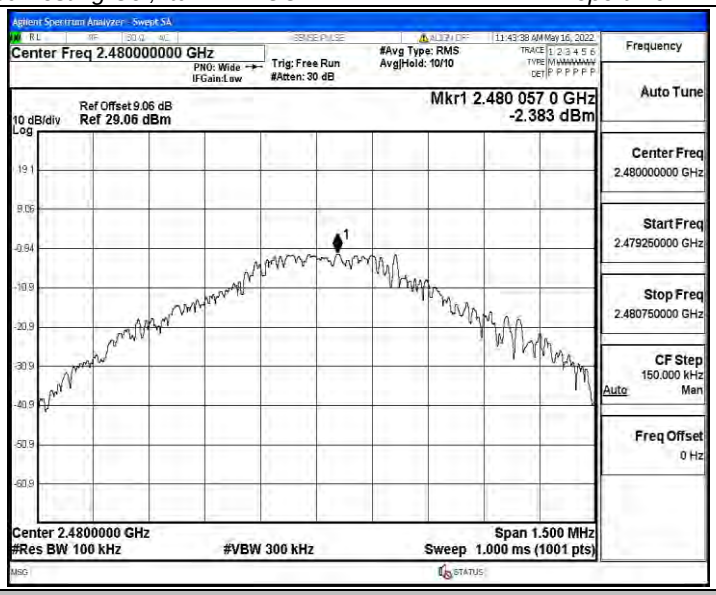
DH5_Ant1_2441_30~1000



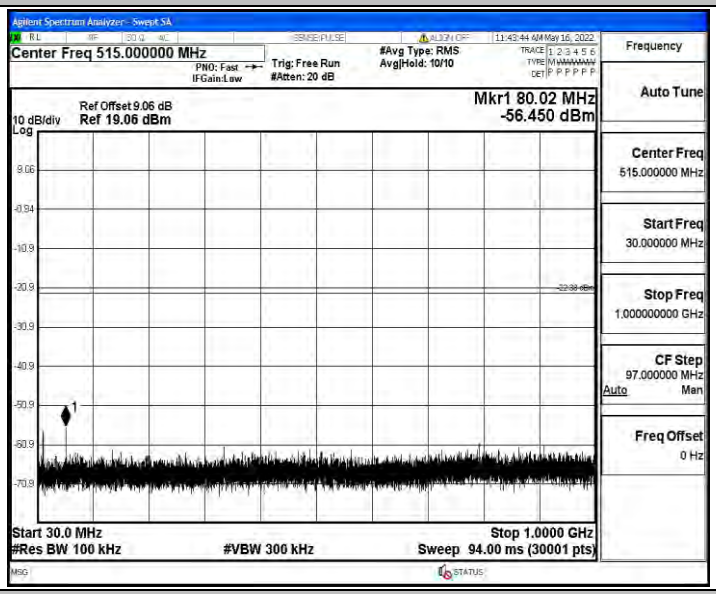
DH5_Ant1_2441_1000~26500



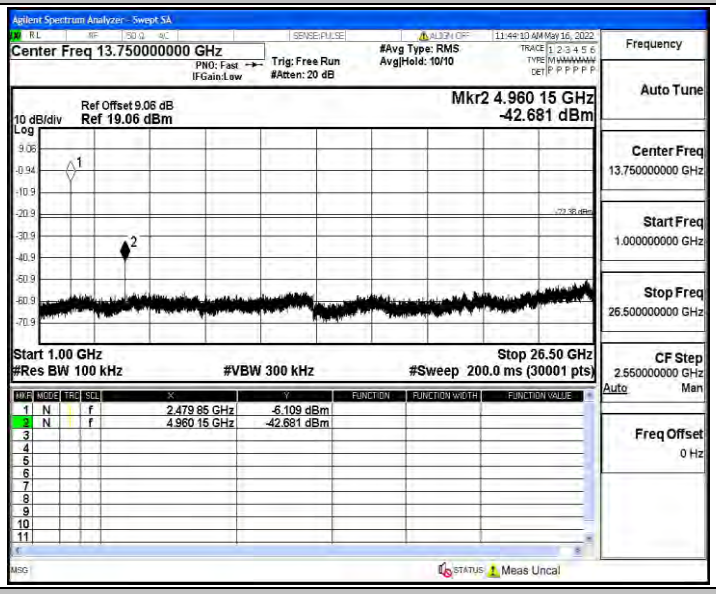
DH5_Ant1_2480_0~Reference



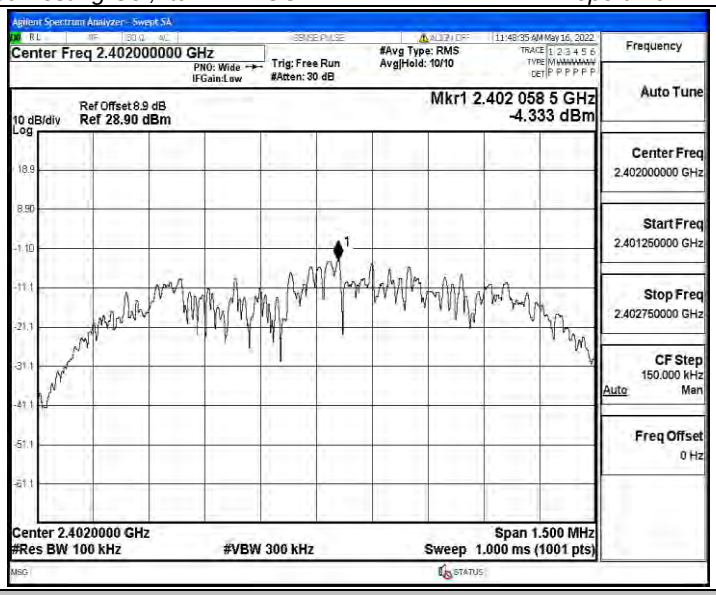
DH5_Ant1_2480_30~1000



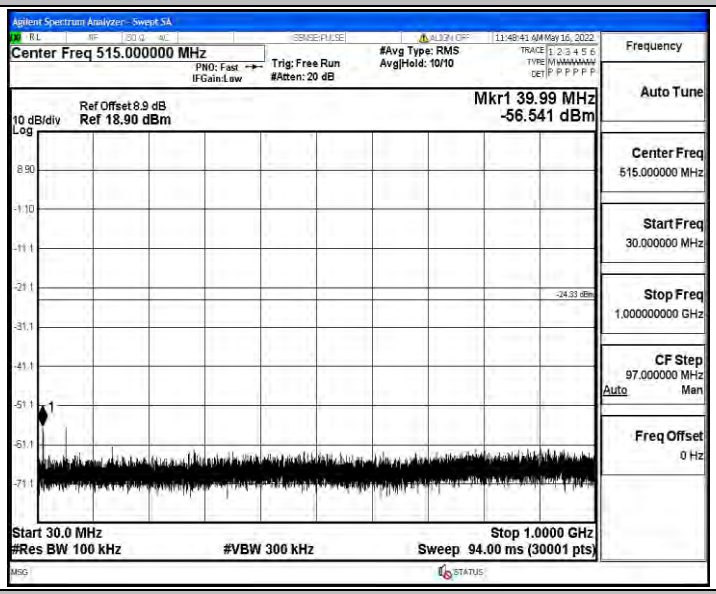
DH5_Ant1_2480_1000~26500



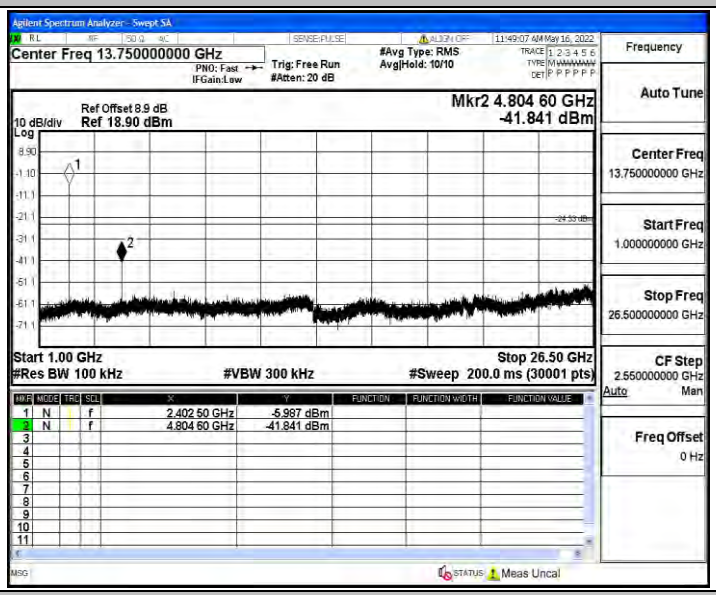
2DH5_Ant1_2402_0~Reference



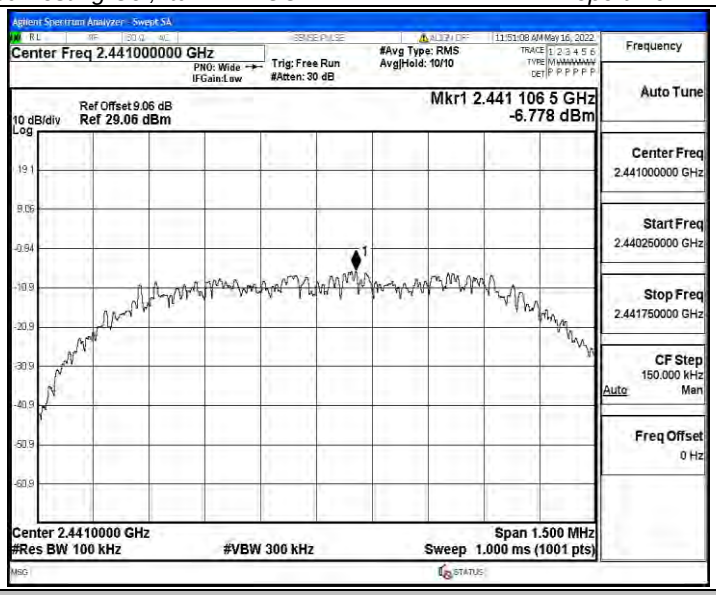
2DH5_Ant1_2402_30~1000



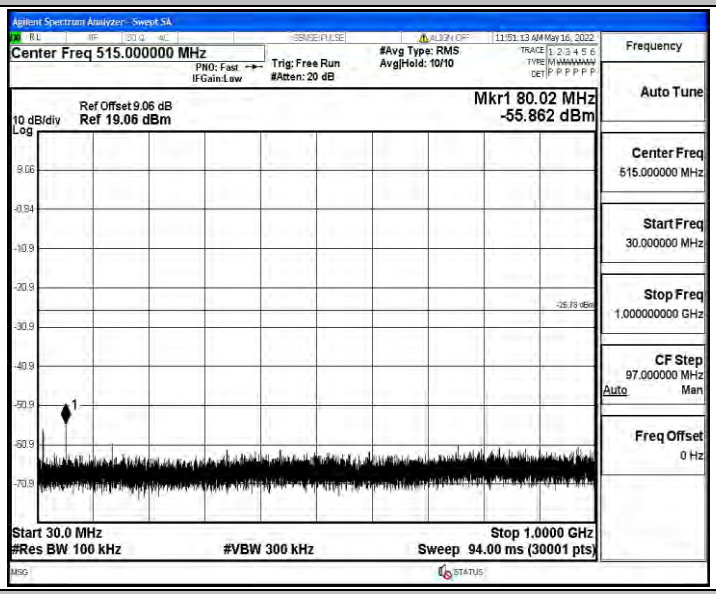
2DH5_Ant1_2402_1000~26500



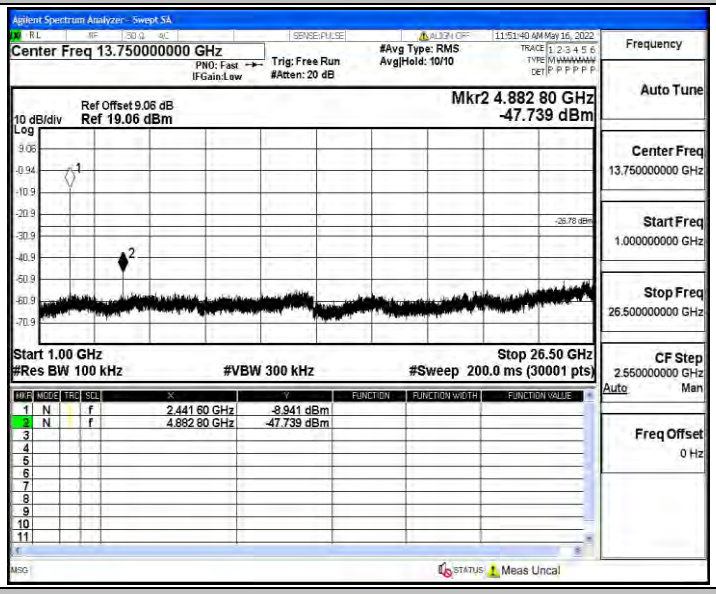
2DH5_Ant1_2441_0~Reference



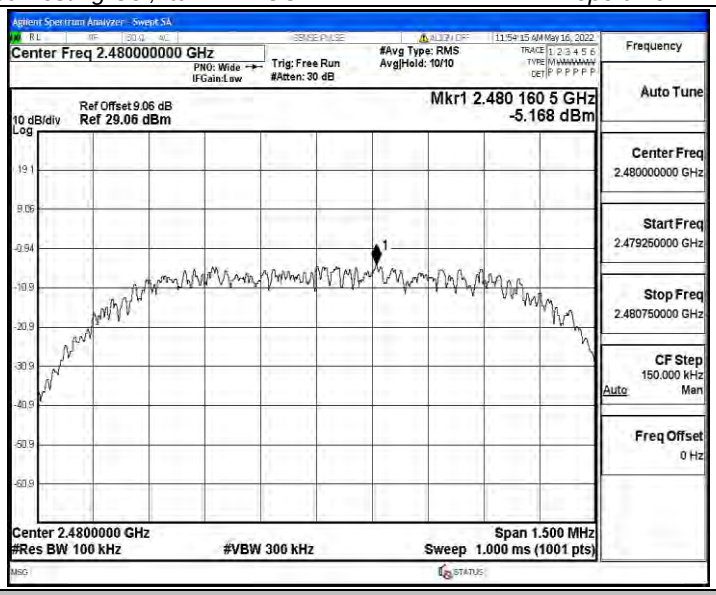
2DH5_Ant1_2441_30~1000



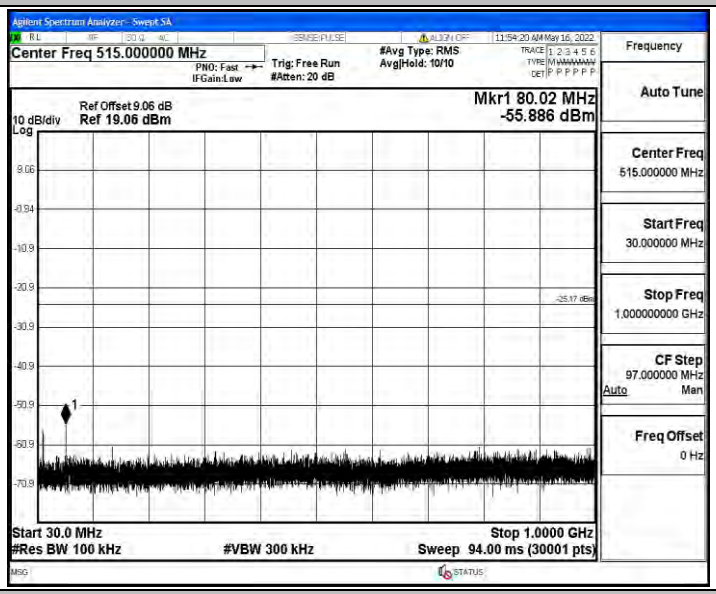
2DH5_Ant1_2441_1000~26500



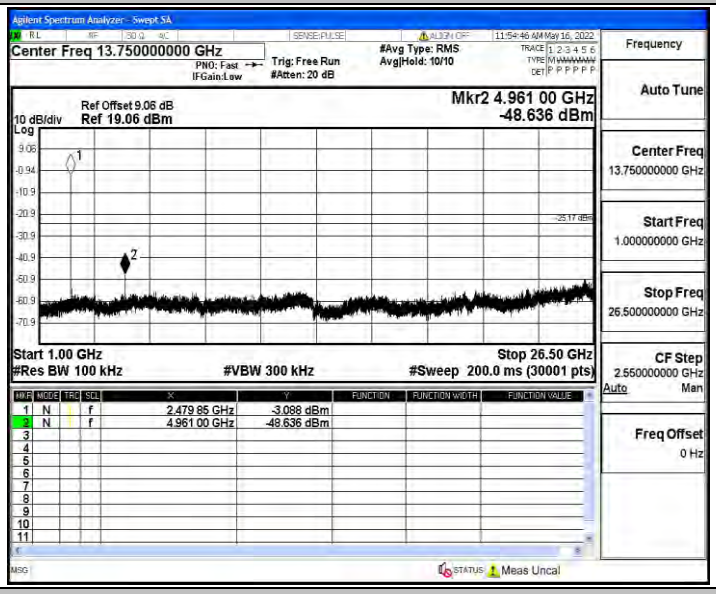
2DH5_Ant1_2480_0~Reference



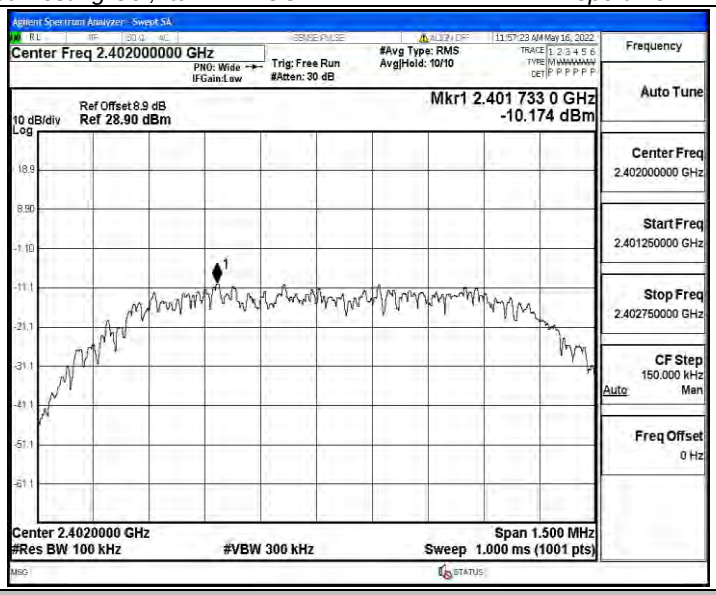
2DH5_Ant1_2480_30~1000



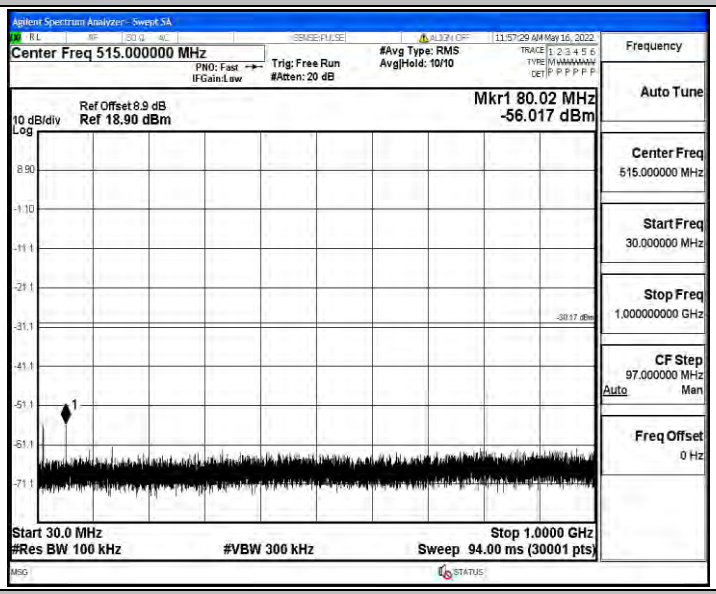
2DH5_Ant1_2480_1000~26500



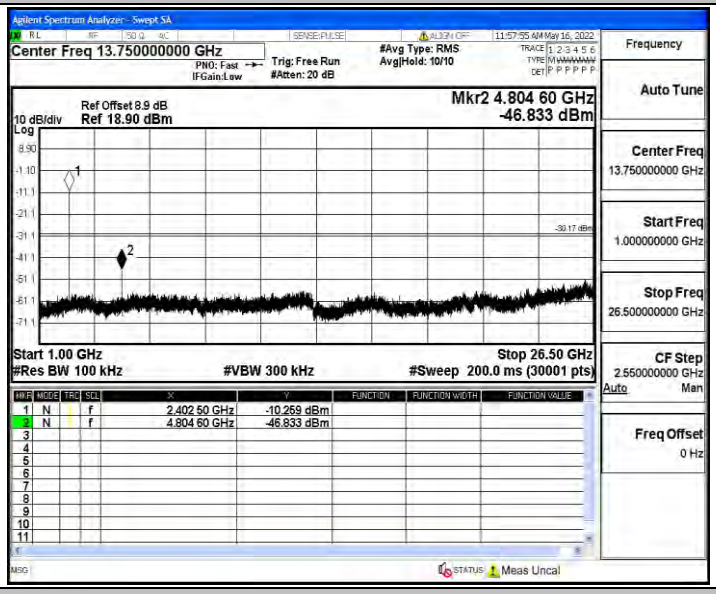
3DH5_Ant1_2402_0~Reference



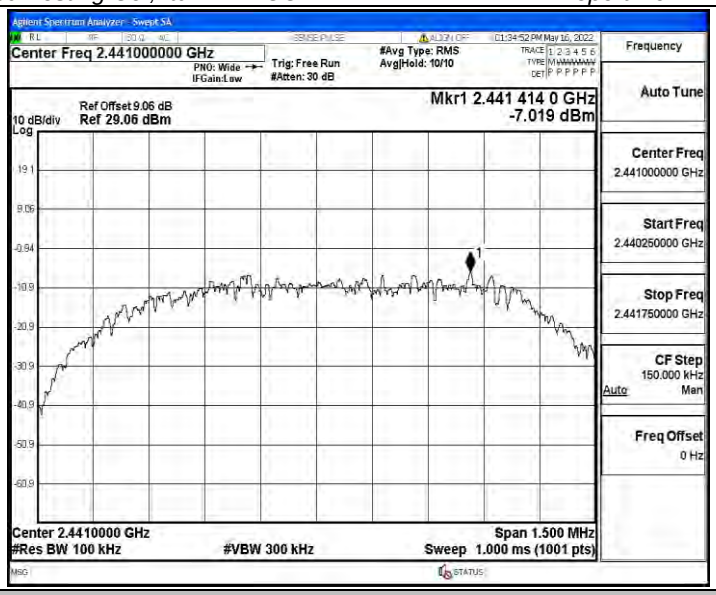
3DH5_Ant1_2402_30~1000



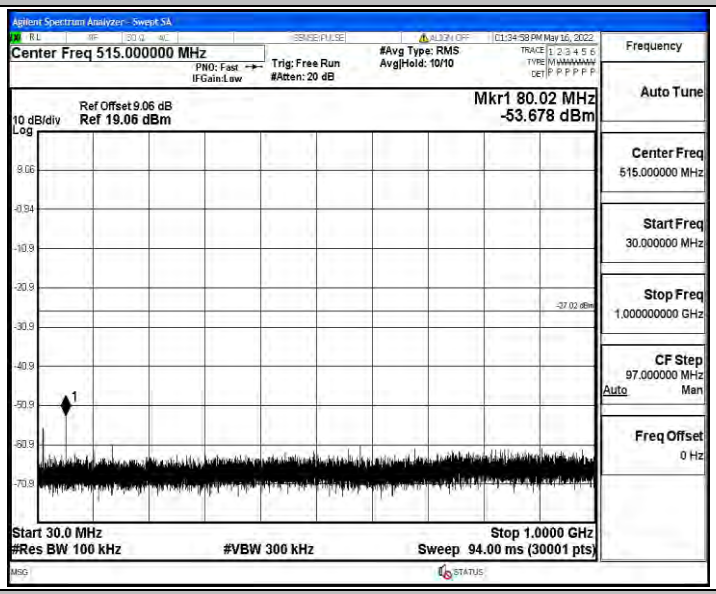
3DH5_Ant1_2402_1000~26500



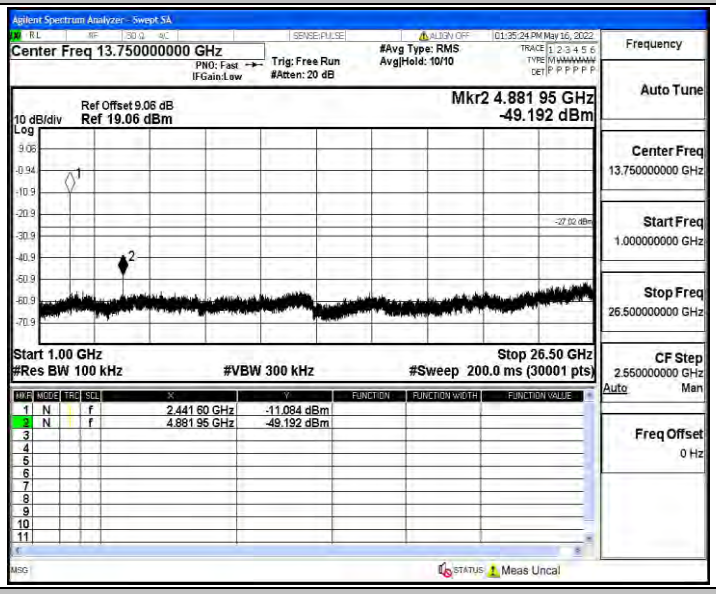
3DH5_Ant1_2441_0~Reference



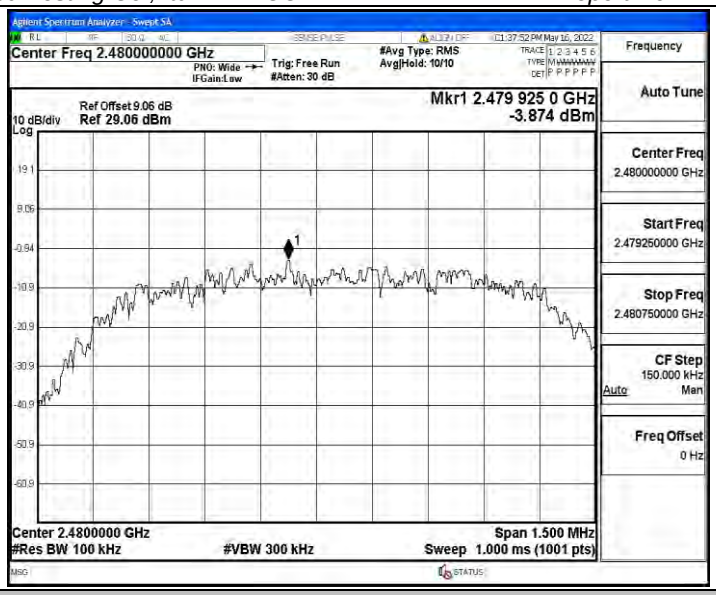
3DH5_Ant1_2441_30~1000



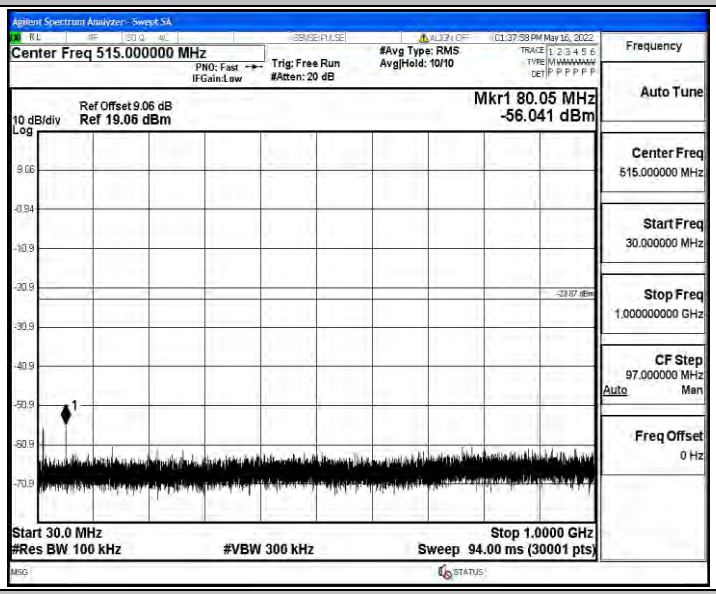
3DH5_Ant1_2441_1000~26500



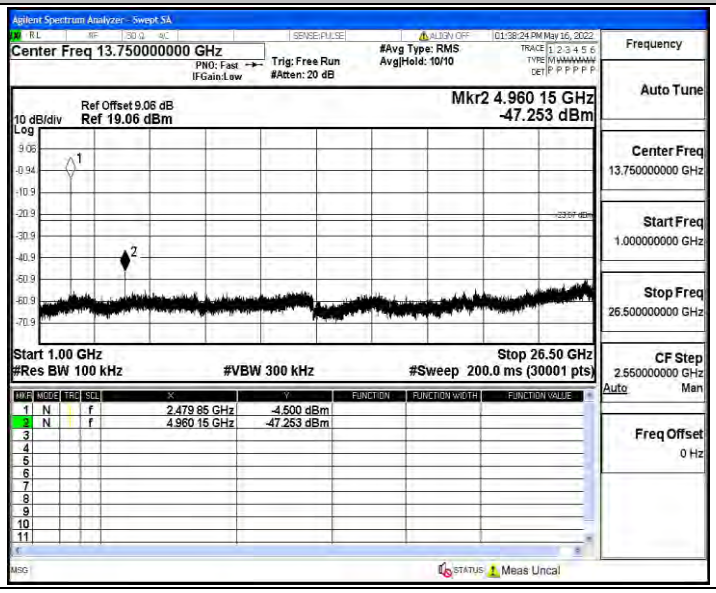
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



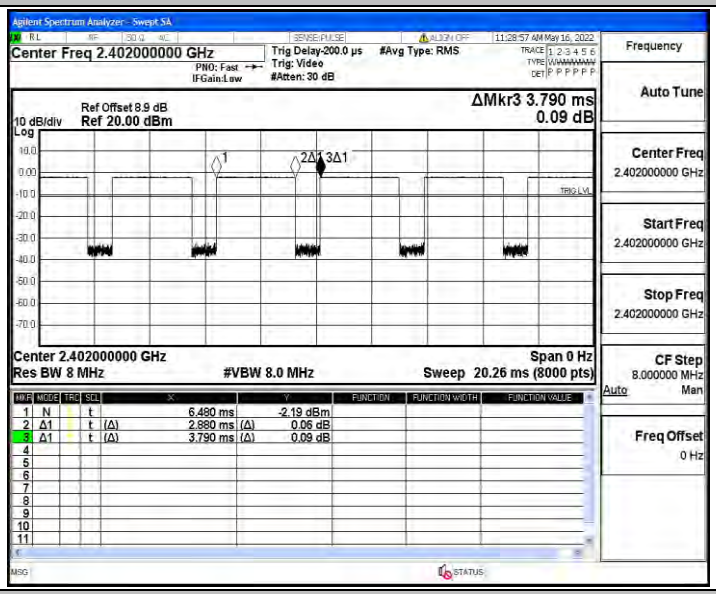
Appendix I: Duty Cycle

Test Result

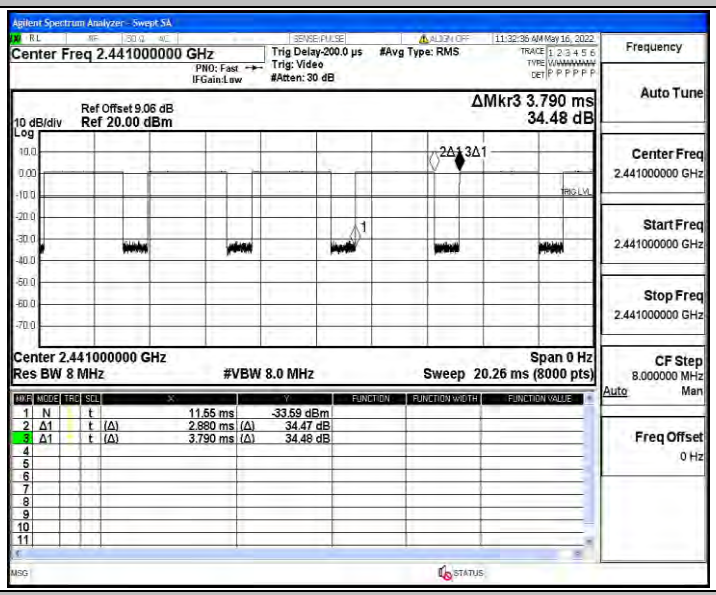
TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	1/T
DH5	Ant1	2402	2.88	3.79	75.99	0.35
		2441	2.88	3.79	75.99	0.35
		2480	2.88	3.78	76.19	0.35
2DH5	Ant1	2402	2.89	3.79	76.25	0.35
		2441	2.89	3.79	76.25	0.35
		2480	2.88	3.79	75.99	0.35
3DH5	Ant1	2402	2.89	3.80	76.05	0.35
		2441	2.89	3.80	76.05	0.35
		2480	2.89	3.80	76.05	0.35

Test Graphs

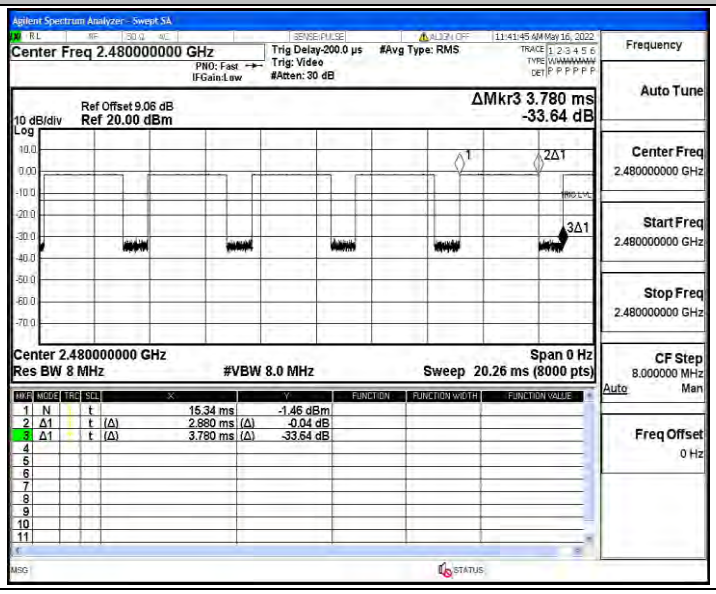
DH5_Ant1_2402



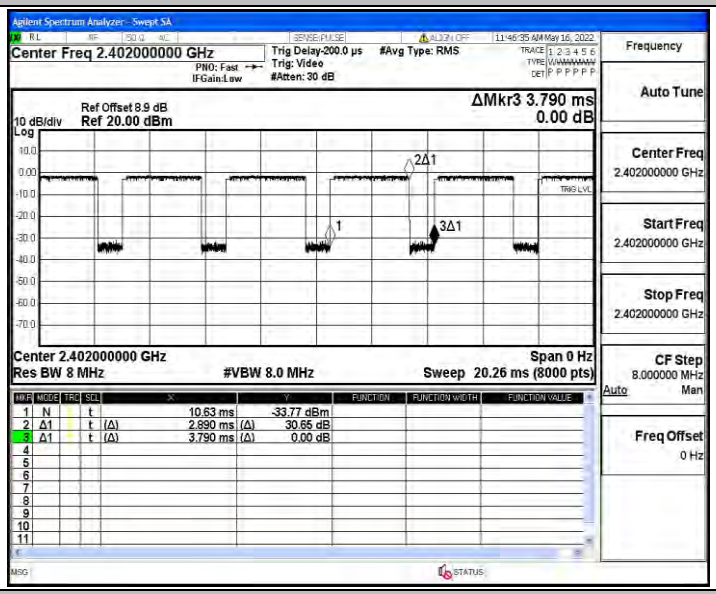
DH5_Ant1_2441



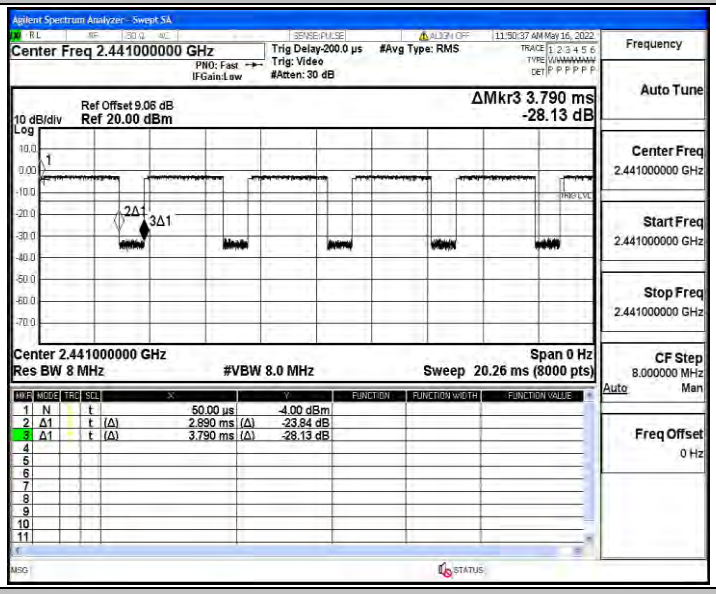
DH5_Ant1_2480



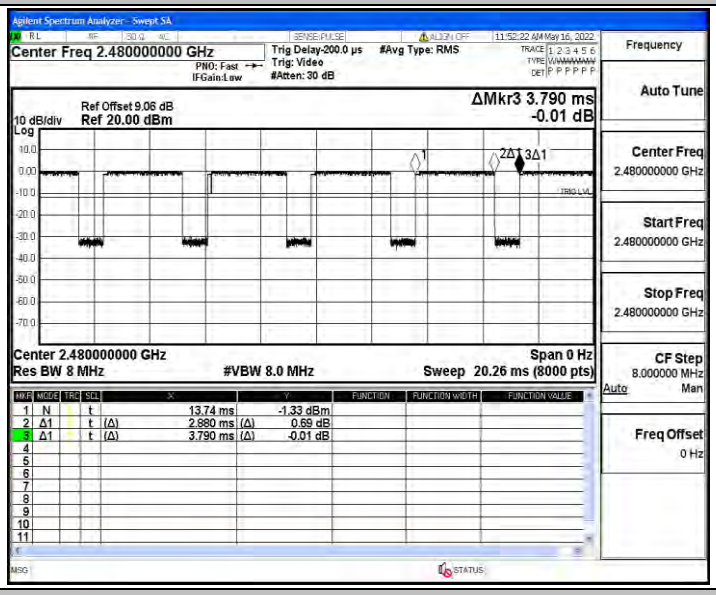
2DH5_Ant1_2402



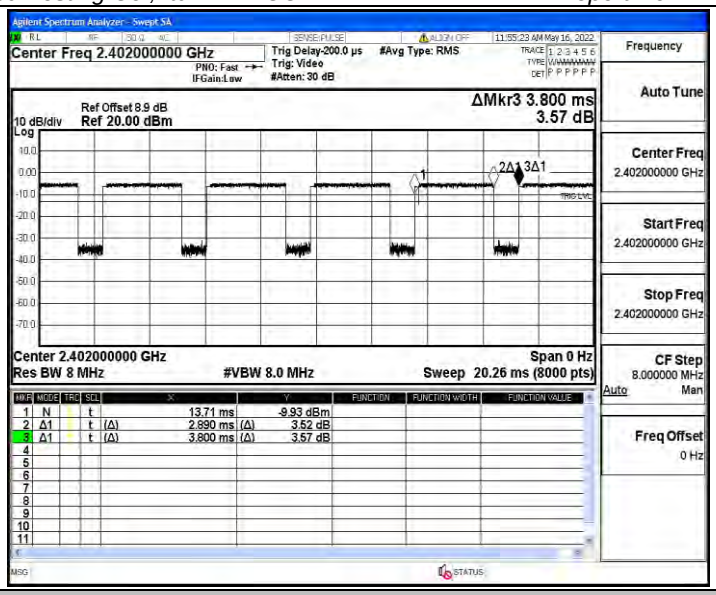
2DH5_Ant1_2441



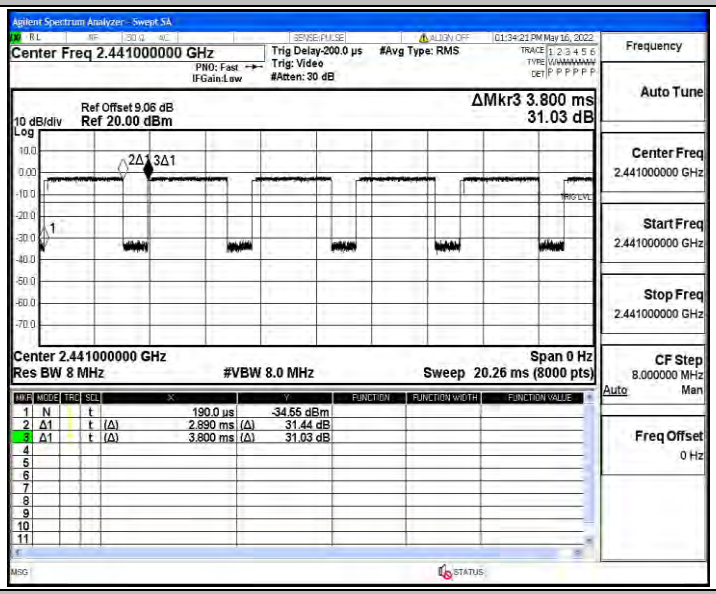
2DH5_Ant1_2480



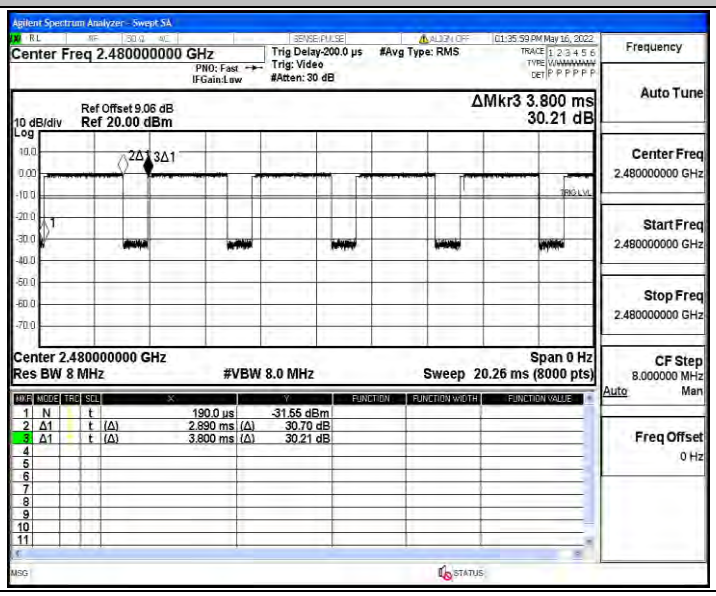
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



Appendix J: Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Channel	Detector	Freq(MHz)	Result(dBm)	Limit(dBm)	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.01	≤-41.20	PASS
				AV	2361.950	-47.54	≤-41.20	PASS
				AV	2390.000	-47.68	≤-41.20	PASS
				Peak	2310.000	-41.75	≤-21.20	PASS
				Peak	2342.420	-38.31	≤-21.20	PASS
				Peak	2390.000	-42.34	≤-21.20	PASS
		High	2480	AV	2483.500	-47.05	≤-41.20	PASS
				AV	2498.640	-46.93	≤-41.20	PASS
				AV	2500.000	-47.1	≤-41.20	PASS
				Peak	2483.500	-38.98	≤-21.20	PASS
				Peak	2484.560	-37.8	≤-21.20	PASS
				Peak	2500.000	-40.9	≤-21.20	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.03	≤-41.20	PASS
				AV	2362.055	-47.64	≤-41.20	PASS
				AV	2390.000	-47.82	≤-41.20	PASS
				Peak	2310.000	-41.41	≤-21.20	PASS
				Peak	2344.730	-37.46	≤-21.20	PASS
				Peak	2390.000	-40.71	≤-21.20	PASS
		High	2480	AV	2483.500	-46.77	≤-41.20	PASS
				AV	2483.520	-46.77	≤-41.20	PASS
				AV	2500.000	-47.04	≤-41.20	PASS
				Peak	2483.500	-39.11	≤-21.20	PASS
				Peak	2495.840	-37.55	≤-21.20	PASS
				Peak	2500.000	-40.86	≤-21.20	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.01	≤-41.20	PASS
				AV	2362.580	-47.61	≤-41.20	PASS
				AV	2390.000	-47.82	≤-41.20	PASS
				Peak	2310.000	-40.97	≤-21.20	PASS
				Peak	2337.170	-37.87	≤-21.20	PASS
				Peak	2390.000	-40.56	≤-21.20	PASS
		High	2480	AV	2483.500	-46.8	≤-41.20	PASS
				AV	2483.520	-46.8	≤-41.20	PASS
				AV	2500.000	-46.96	≤-41.20	PASS
				Peak	2483.500	-39.26	≤-21.20	PASS
				Peak	2494.560	-37.46	≤-21.20	PASS
				Peak	2500.000	-41.03	≤-21.20	PASS

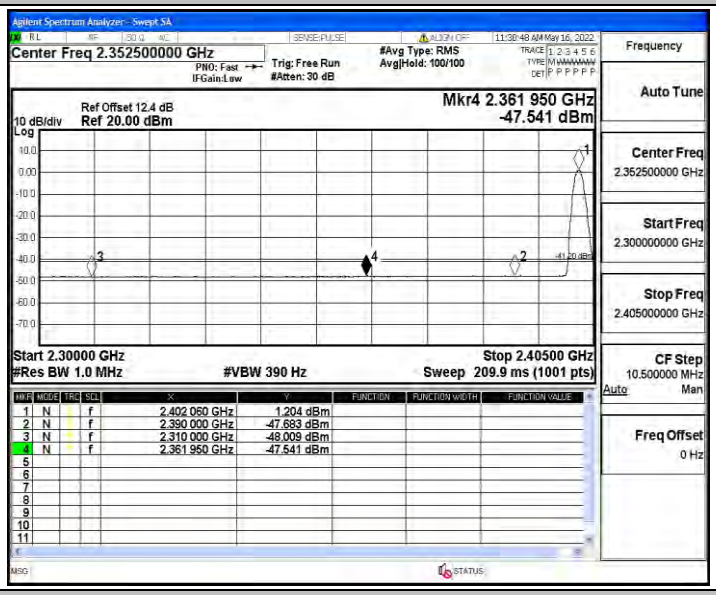
Note：

1. The Antenna Gain is compensated in the graph with 2dBi and Antenna Gain which is Higher.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in

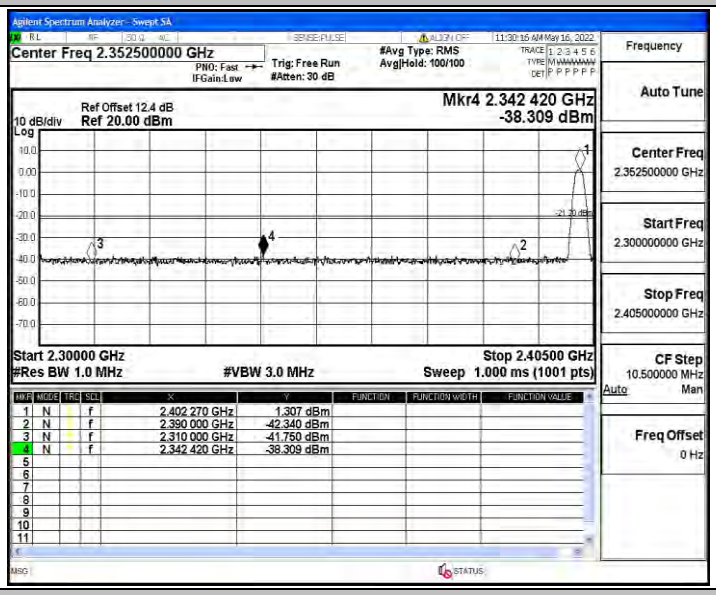
dBm for peak detector is 20dB above the limit of average detector in

Test Graphs

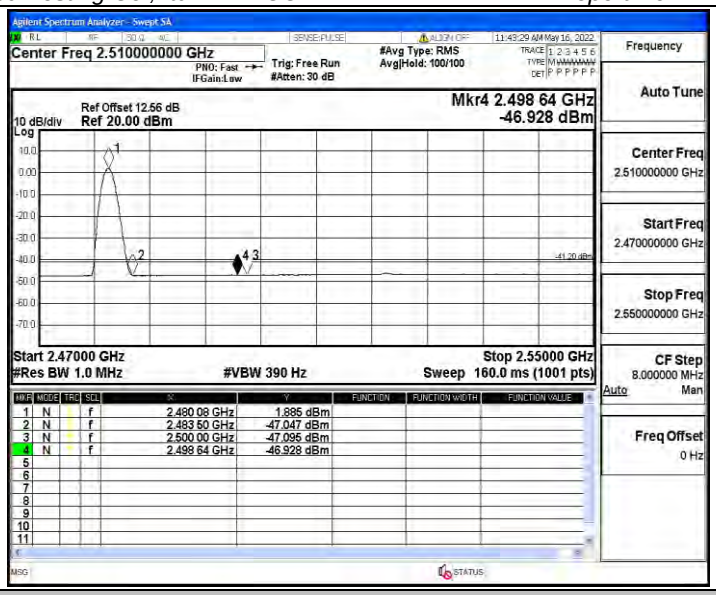
DH5_Ant1_Low_2402_AV



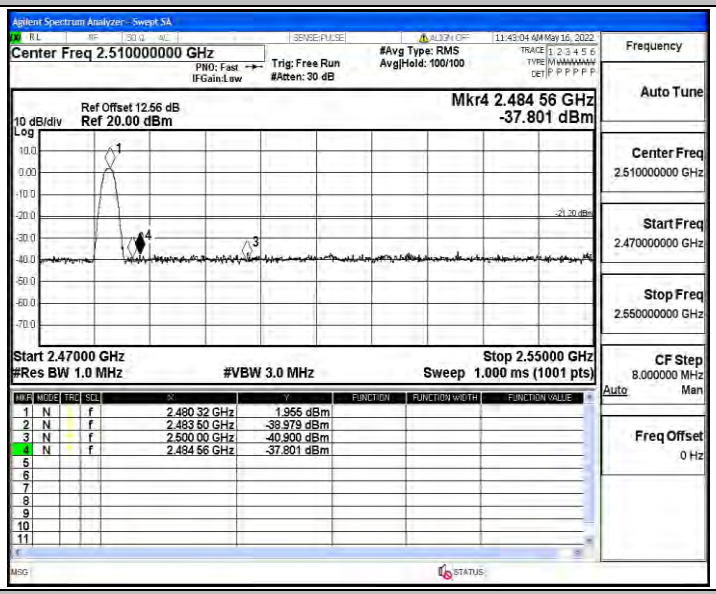
DH5_Ant1_Low_2402_Peak



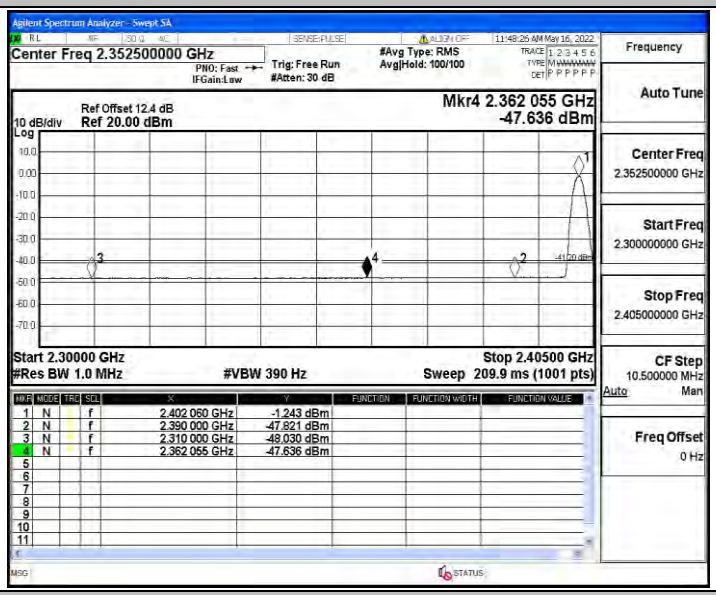
DH5_Ant1_High_2480_AV



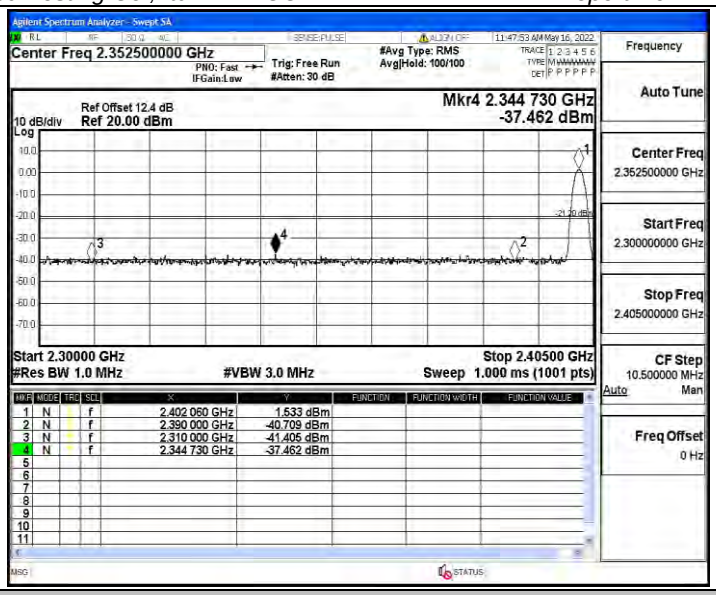
DH5_Ant1_High_2480_Peak



2DH5_Ant1_Low_2402_AV



2DH5_Ant1_Low_2402_Peak



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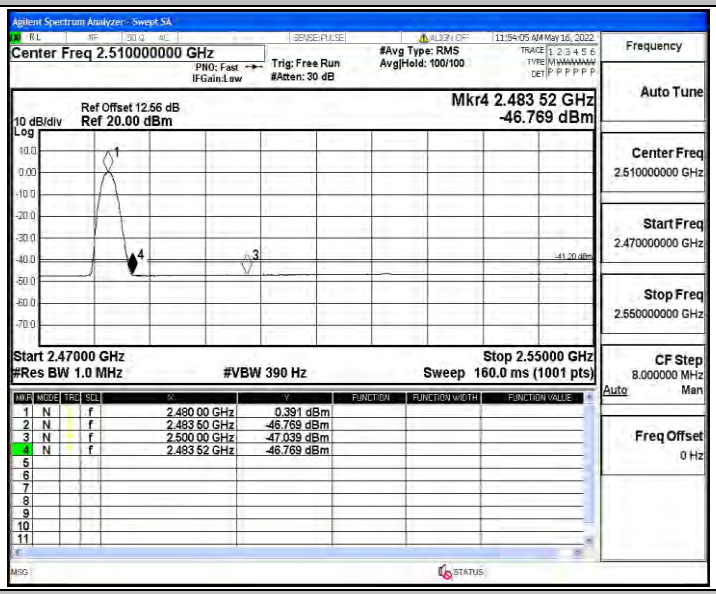
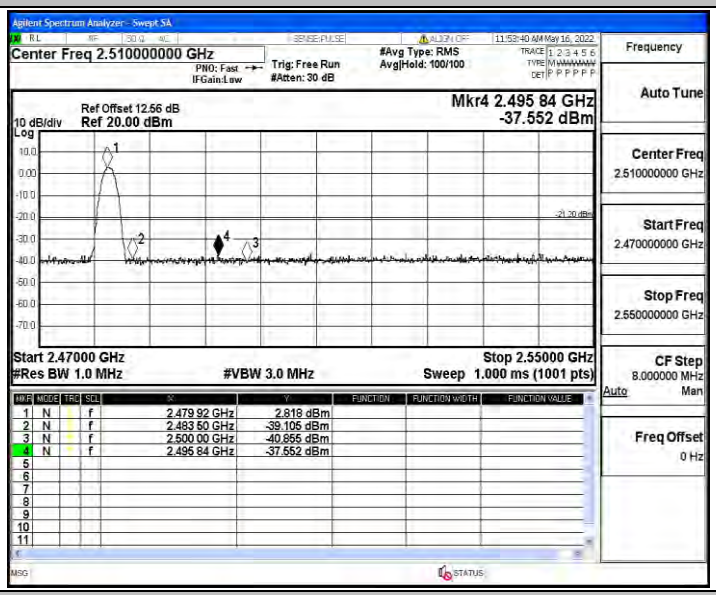
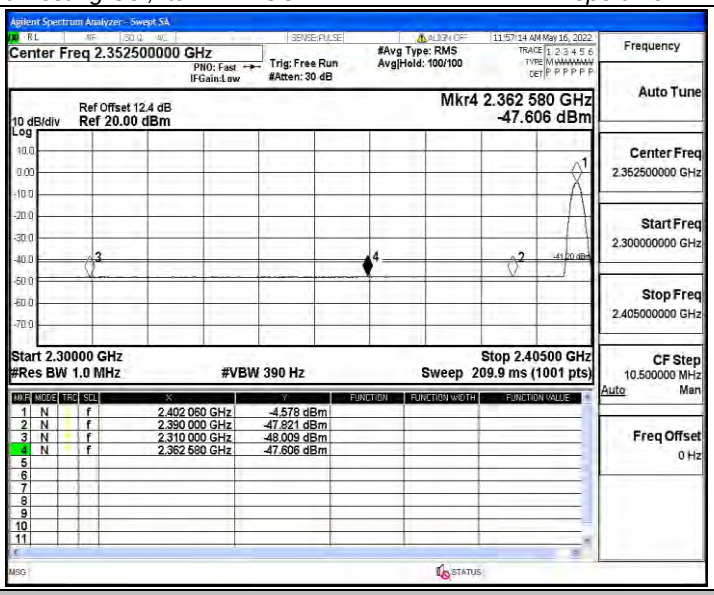


2DH5_Ant1_High_2480_Peak



3DH5_Ant1_Low_2402_AV



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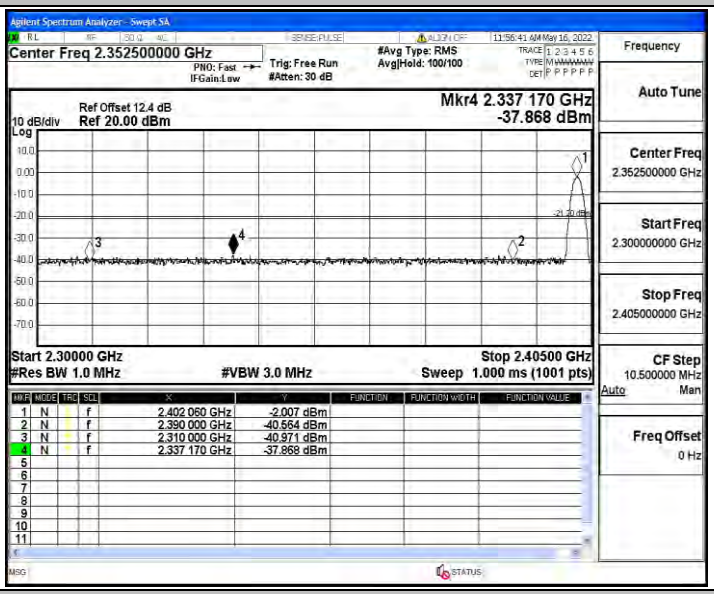
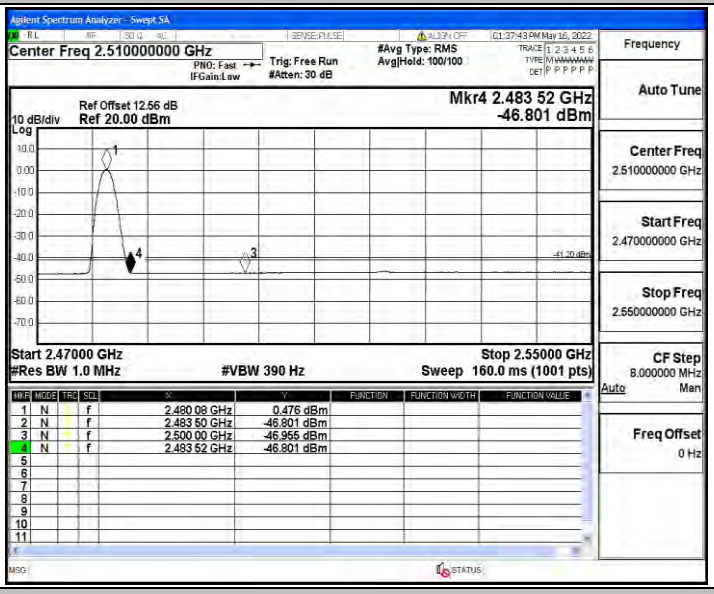
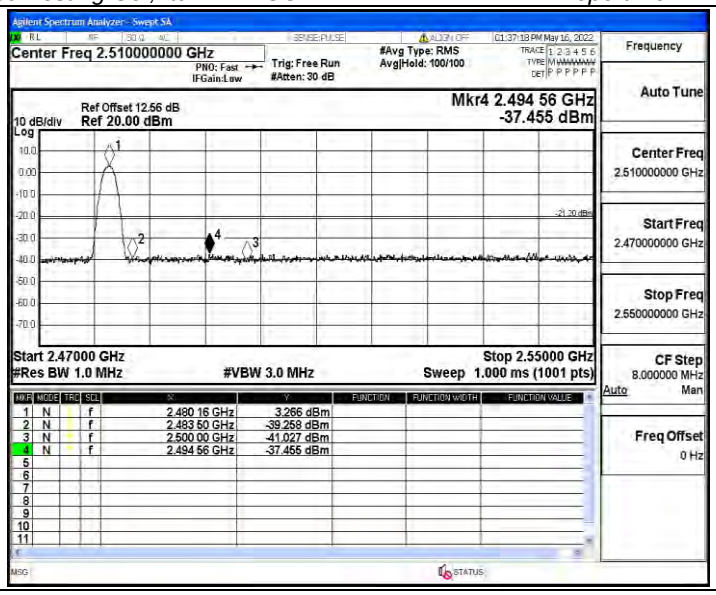


3DH5_Ant1_High_2480_AV



3DH5_Ant1_High_2480_Peak


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.510000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 100/100
01:37:18 PM May 16, 2022
Frequency
Auto Tune
Ref Offset 12.56 dB
10 dB/div
Ref 20.00 dBm
Log
Mkr4 2.494 56 GHz
-37.455 dBm
-21.20 dBm
Center Freq
2.510000000 GHz
Start Freq
2.470000000 GHz
Stop Freq
2.550000000 GHz
Start 2.47000 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 2.55000 GHz
Sweep 1.000 ms (1001 pts)
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
1 N f 2.480 16 GHz 3.266 dBm
2 N f 2.483 50 GHz -39.258 dBm
3 N f 2.500 00 GHz -41.027 dBm
4 N f 2.494 56 GHz -37.455 dBm
MSG
STATUS