FCC Appendix RF Test Data for BT

FCC ID	**:**	**2BTSW-DHP-104**
Company	**:**	**Shenzhen Monokaro Technology Co., Ltd.**
EUT	**:**	**Electronic Perler Bead Board**
Model Number	**:**	**DHP-104**
Report No.	**:**	**CTA26092101401**
Reviewed By	**:**	**Eric Wang**

Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.945	2401.550	2402.495	---	---
		2441	0.954	2440.544	2441.498	---	---
		2480	0.957	2479.541	2480.498	---	---
2DH5	Ant1	2402	1.323	2401.346	2402.669	---	---
		2441	1.323	2440.346	2441.669	---	---
		2480	1.341	2479.337	2480.678	---	---

Test Graphs

DH5_Ant1_2402

DH5_Ant1_2441

DH5_Ant1_2480

2DH5_Ant1_2402

2DH5_Ant1_2441

2DH5_Ant1_2480

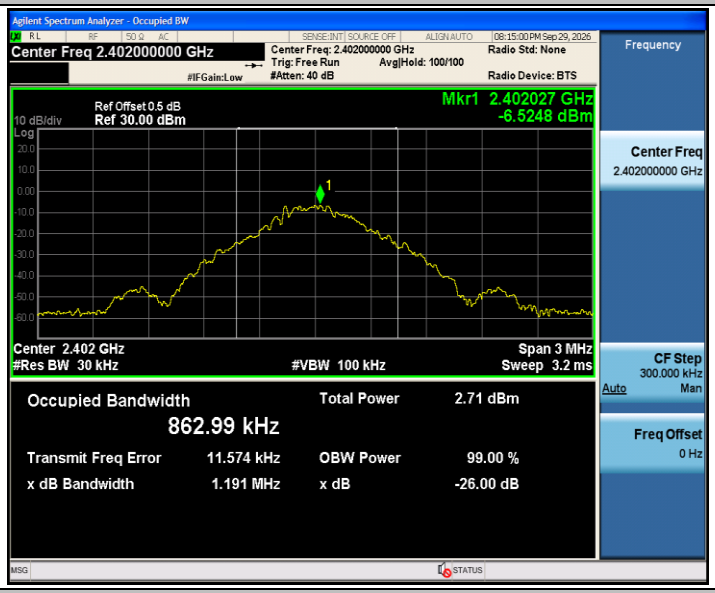
Appendix B: Occupied Channel Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.86299	2401.5801	2402.4431	---	---
		2441	0.87084	2440.5749	2441.4457	---	---
		2480	0.85465	2479.5821	2480.4368	---	---
2DH5	Ant1	2402	1.1816	2401.4194	2402.6010	---	---
		2441	1.1903	2440.4149	2441.6052	---	---
		2480	1.1873	2479.4187	2480.6060	---	---

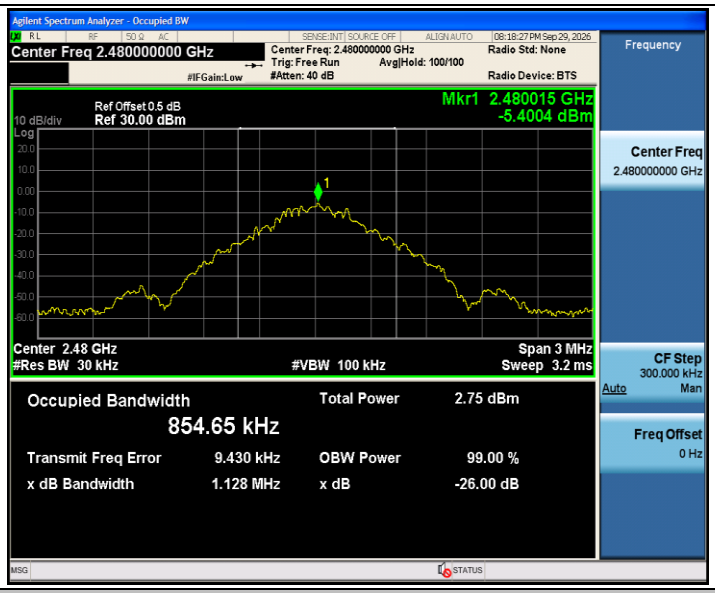
Test Graphs

DH5_Ant1_2402

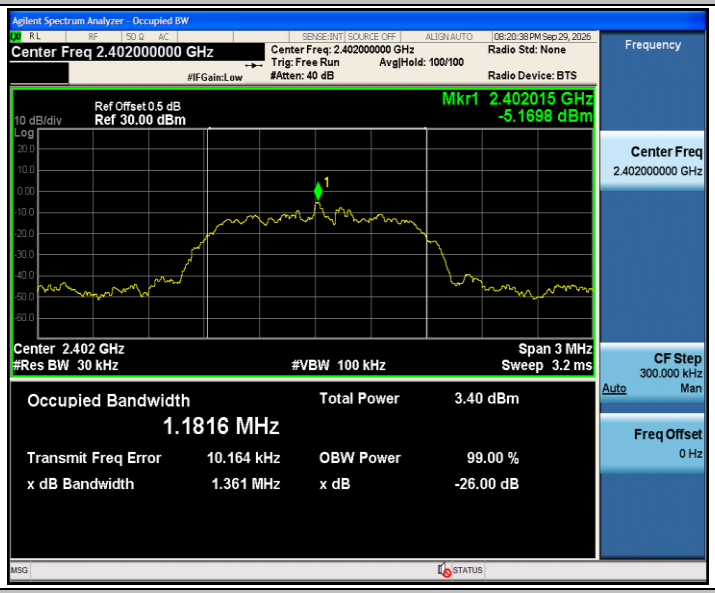


DH5_Ant1_2441

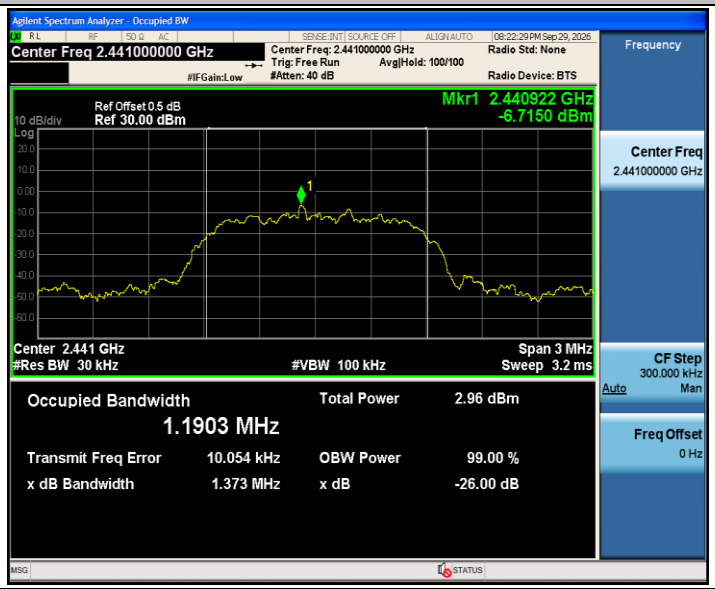
DH5_Ant1_2480

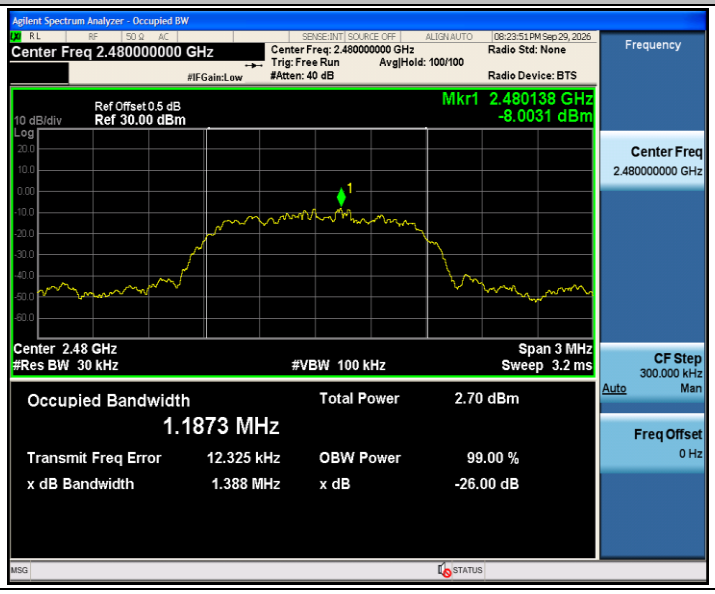


2DH5_Ant1_2402



2DH5_Ant1_2441



2DH5_Ant1_2480


Appendix C: Maximum conducted output power

Test Result Peak

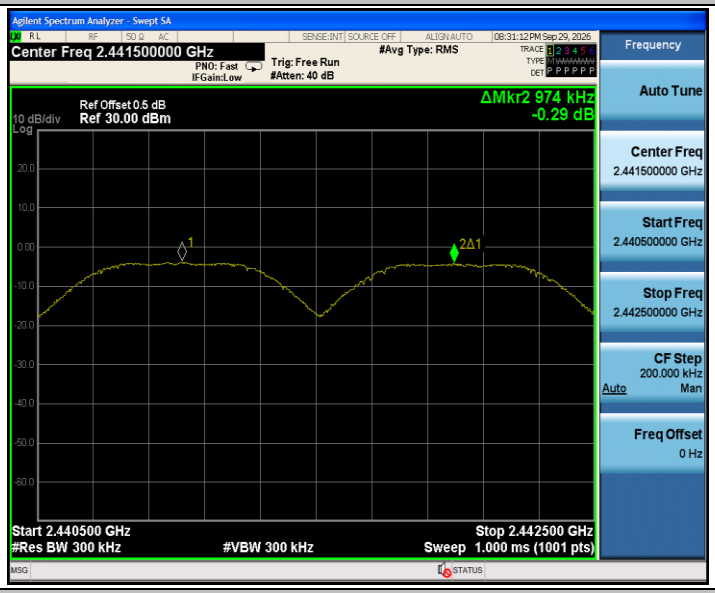
Test Mode	Antenna	Freq(MHz)	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-3.57	≤20.97	PASS
		2441	-3.66	≤20.97	PASS
		2480	-3.83	≤20.97	PASS
2DH5	Ant1	2402	-0.93	≤20.97	PASS
		2441	-1.00	≤20.97	PASS
		2480	-1.29	≤20.97	PASS

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.974	≥0.957	PASS
2DH5	Ant1	Hop	1.038	≥0.894	PASS

Test Graphs

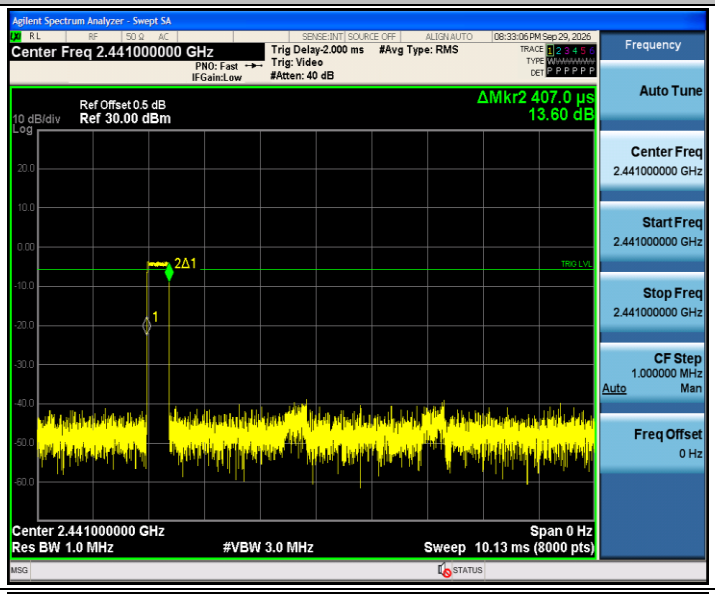
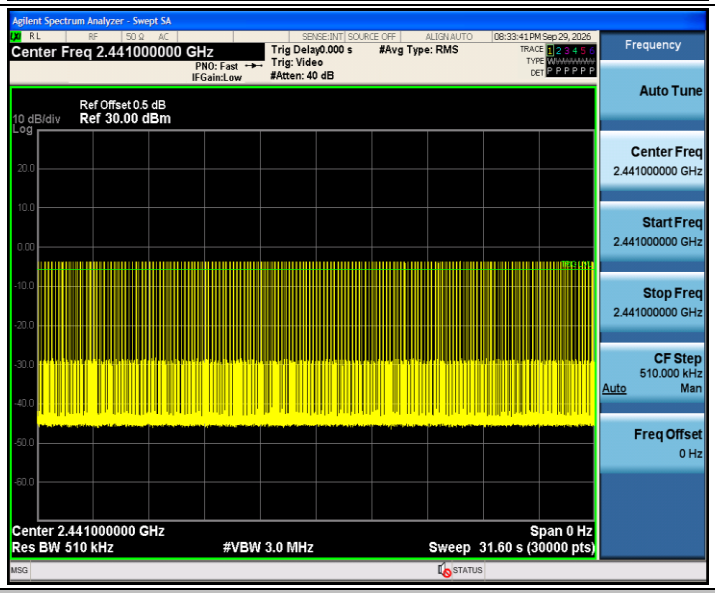
DH5_Ant1_Hop

2DH5_Ant1_Hop

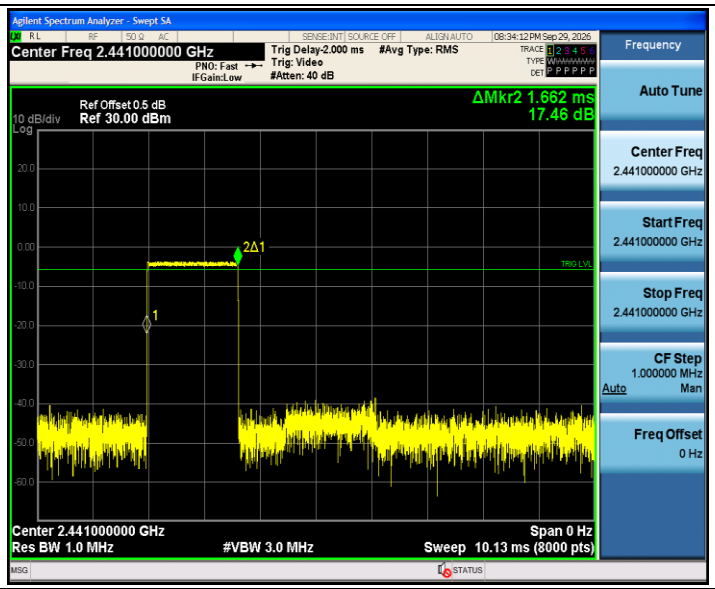
Appendix E: Time of occupancy

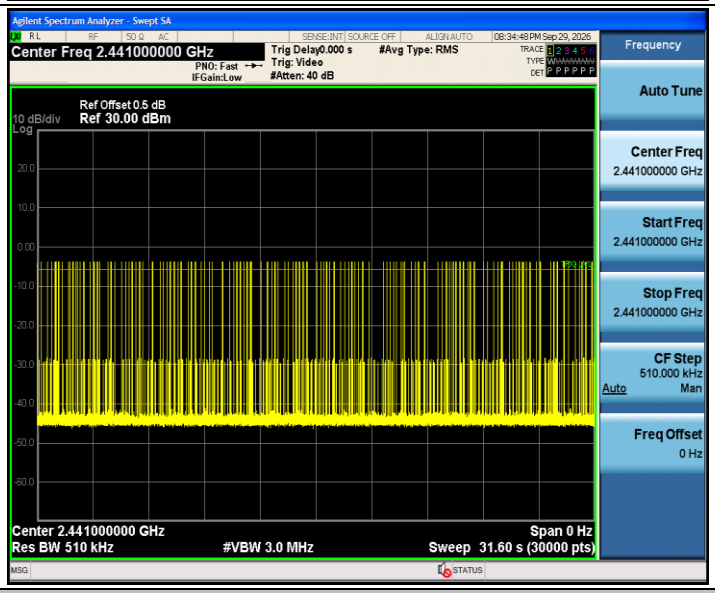
Test Result

TestMode	Antenna	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.407	318	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.662	166	0.276	≤0.4	PASS
DH5	Ant1	Hop	2.911	106	0.309	≤0.4	PASS
2DH1	Ant1	Hop	0.415	317	0.132	≤0.4	PASS
2DH3	Ant1	Hop	1.667	158	0.263	≤0.4	PASS
2DH5	Ant1	Hop	2.916	107	0.312	≤0.4	PASS

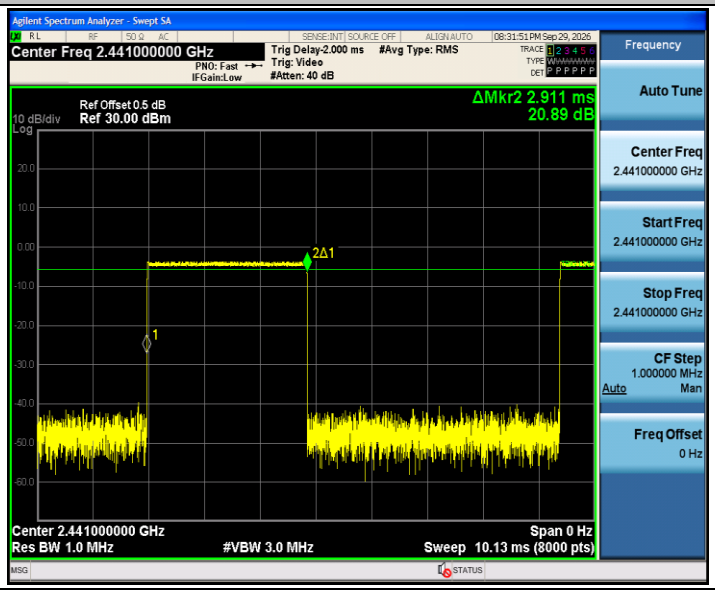
Test Graphs

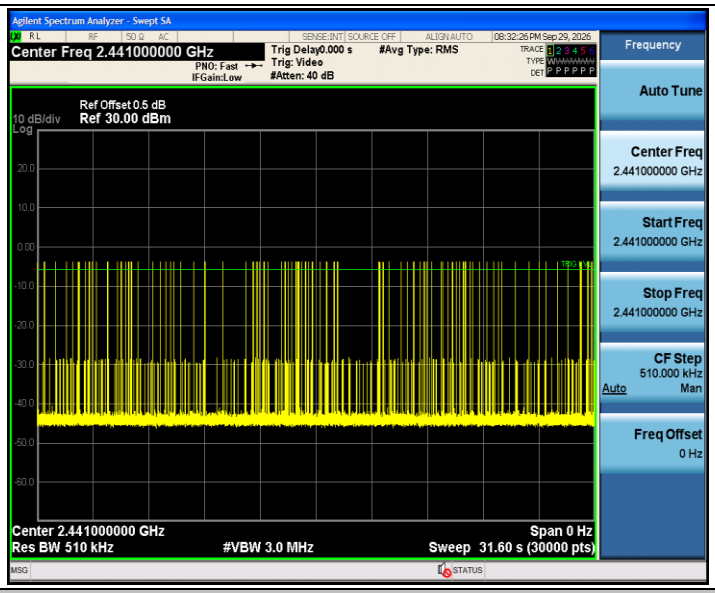
DH1_Ant1_Hop


DH3_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
PNO: Fast
IFGain:Low
Trig Delay-2.000 ms
Trig: Video
#Avg Type: RMS
#Atten: 40 dB
08:34:12 PM Sep 29, 2026
Ref Offset 0.5 dB
10 dB/div
Ref 30.00 dBm
ΔMkr2 1.662 ms
17.46 dB
Center 2.441000000 GHz
Res BW 1.0 MHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 10.13 ms (8000 pts)
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz

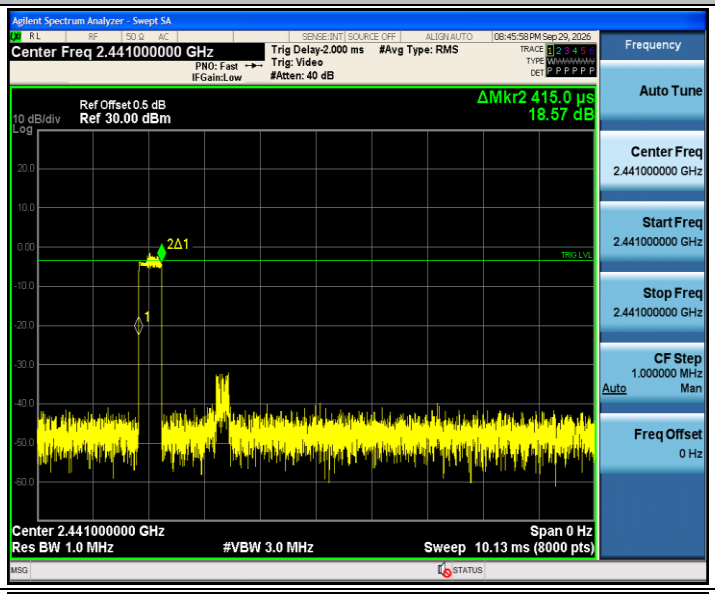

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
PNO: Fast
IFGain:Low
Trig Delay0.000 s
Trig: Video
#Avg Type: RMS
#Atten: 40 dB
08:34:48 PM Sep 29, 2026
Ref Offset 0.5 dB
10 dB/div
Ref 30.00 dBm
Center 2.441000000 GHz
Res BW 510 kHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 31.60 s (30000 pts)
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
510.000 kHz
Auto
Man
Freq Offset
0 Hz

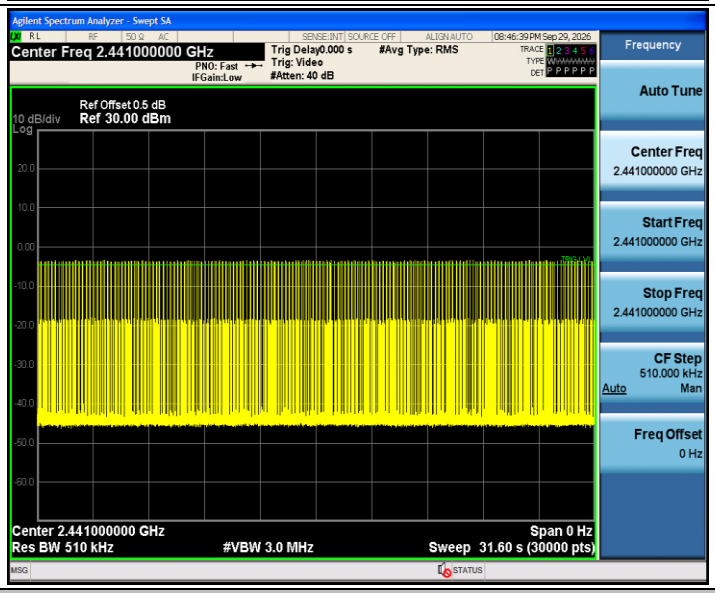
DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
PNO: Fast
IFGain:Low
Trig Delay-2.000 ms
Trig: Video
#Avg Type: RMS
#Atten: 40 dB
08:31:51 PM Sep 29, 2026
Ref Offset 0.5 dB
10 dB/div
Ref 30.00 dBm
ΔMkr2 2.911 ms
20.89 dB
Center 2.441000000 GHz
Res BW 1.0 MHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 10.13 ms (8000 pts)
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz

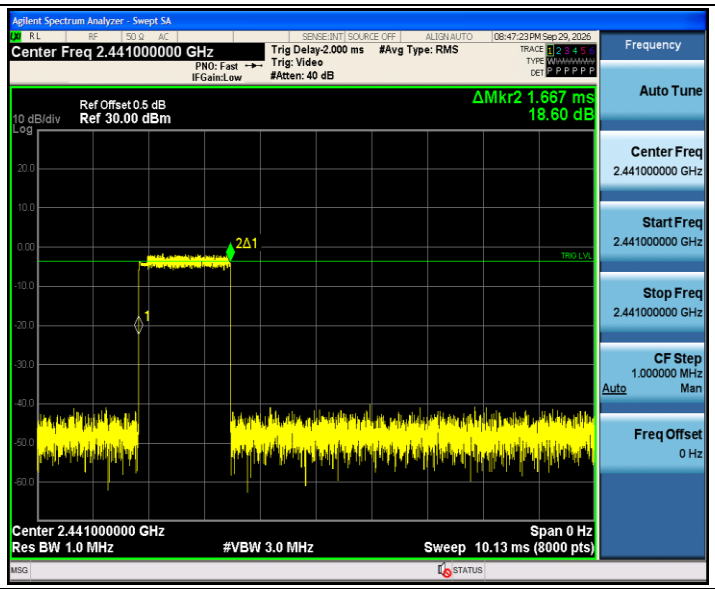


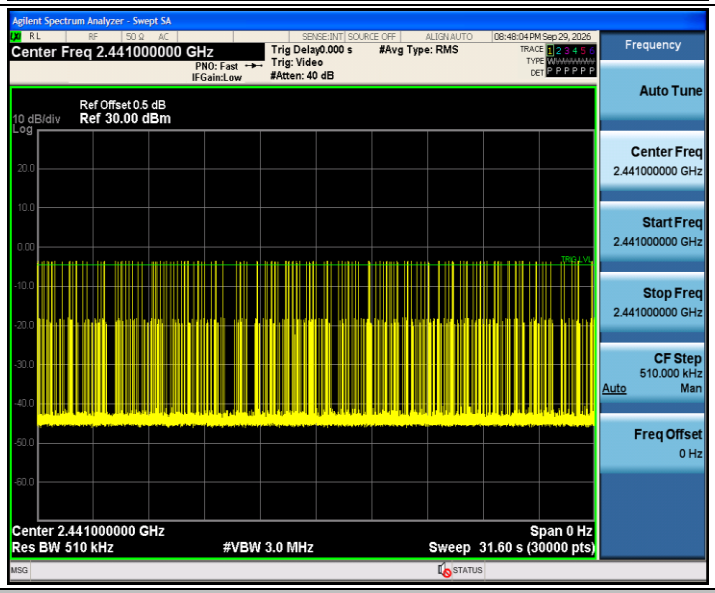
2DH1_Ant1_Hop



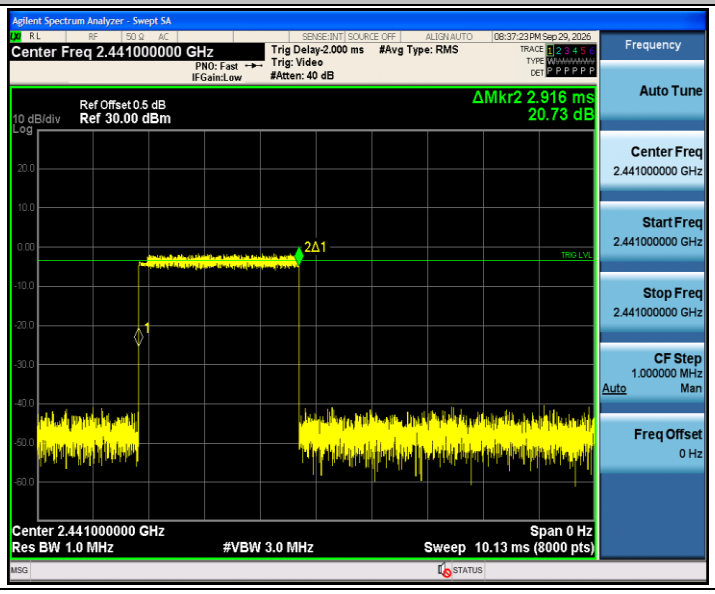


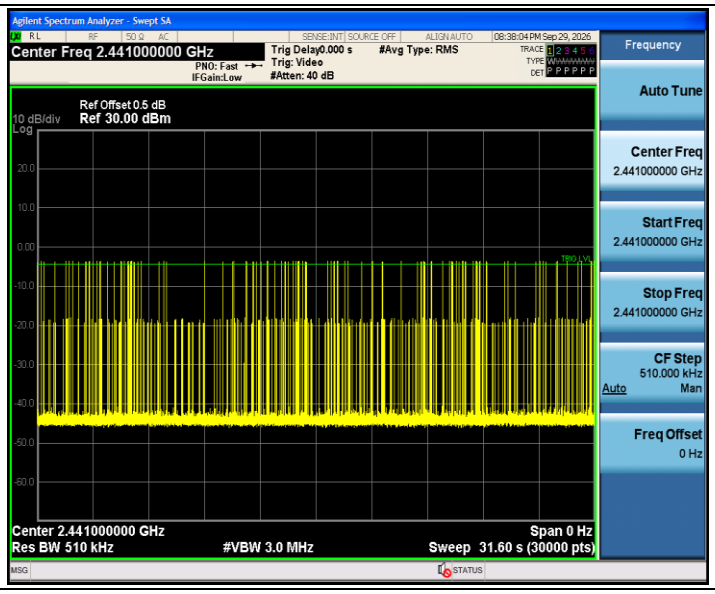
2DH3_Ant1_Hop





2DH5_Ant1_Hop



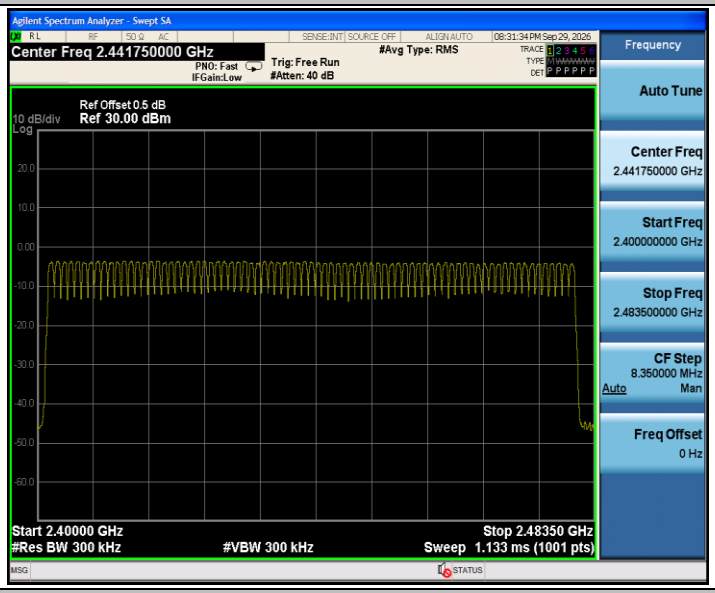
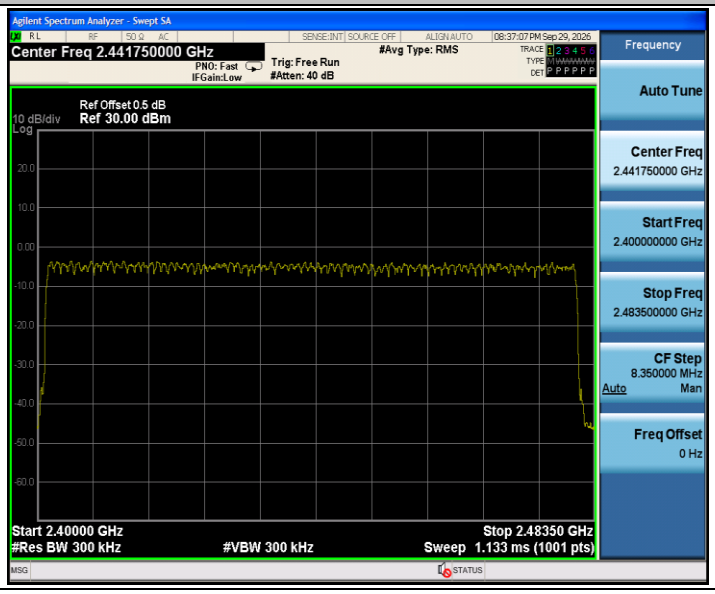

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
PNO: Fast
IFGain:Low
Trig Delay 0.000 s
Trig: Video
#Avg Type: RMS
#Atten: 40 dB
08:38:04 PM Sep 29, 2026
Ref Offset 0.5 dB
10 dB/div
Log
Ref 30.00 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
Center 2.441000000 GHz
Res BW 510 kHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 31.60 s (30000 pts)
Frequency
Auto Tune
Center Freq
2.441000000 GHz
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
CF Step
510.000 kHz
Auto
Man
Freq Offset
0 Hz

Appendix F: Number of hopping channels

Test Result

TestMode	Antenna	Freq(MHz)	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


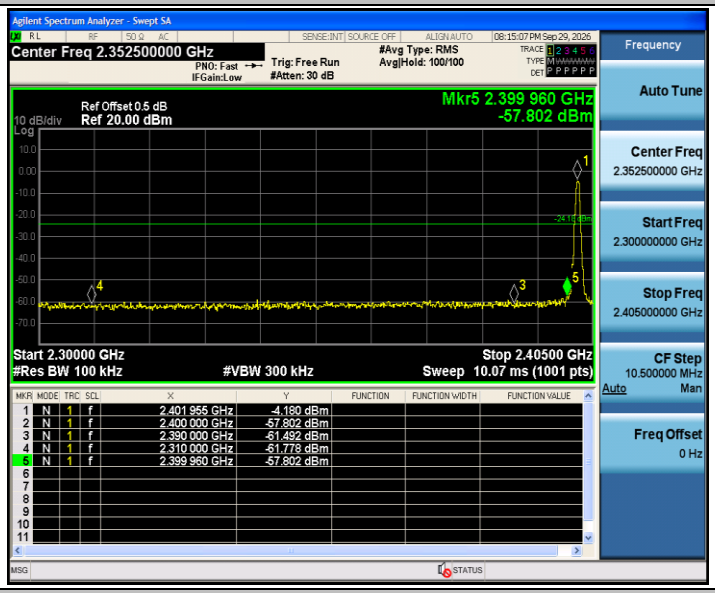
Appendix G: Band edge measurements

Test Result

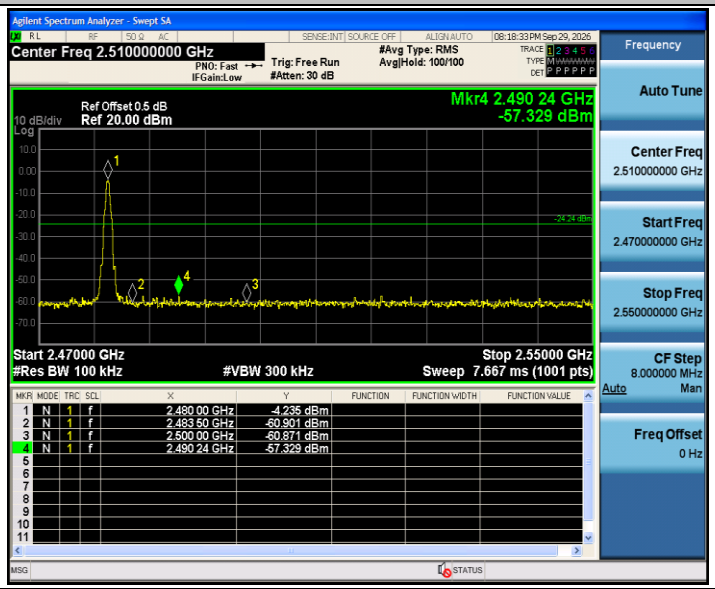
TestMode	Antenna	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-4.18	-57.8	≤-24.18	PASS
		High	2480	-4.24	-57.33	≤-24.24	PASS
		Low	Hop_2402	-4.30	-56.32	≤-24.3	PASS
		High	Hop_2480	-4.96	-57.16	≤-24.96	PASS
2DH5	Ant1	Low	2402	-4.47	-57.76	≤-24.47	PASS
		High	2480	-4.02	-57.84	≤-24.02	PASS
		Low	Hop_2402	-7.43	-58.64	≤-27.43	PASS
		High	Hop_2480	-5.85	-57.93	≤-25.85	PASS

Test Graphs

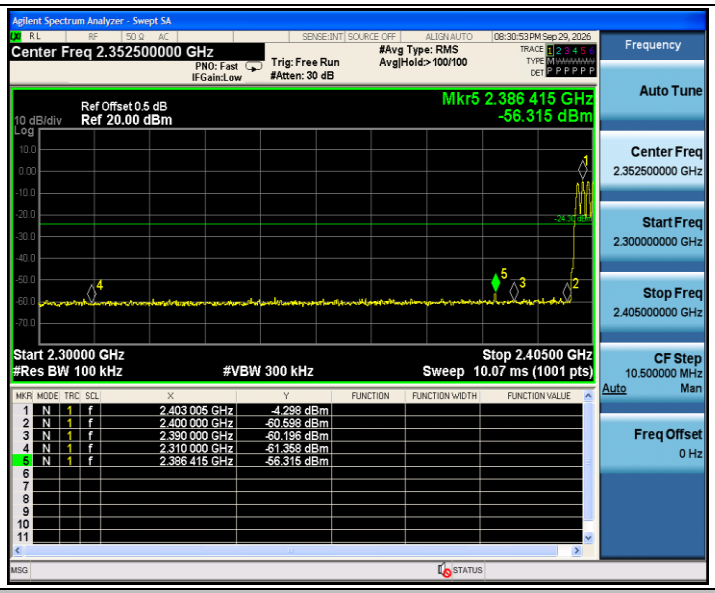
DH5_Ant1_Low_2402



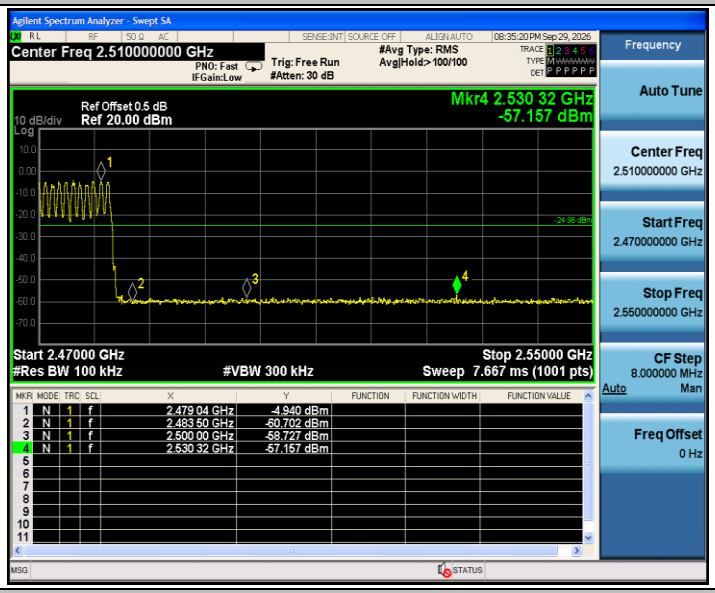
DH5_Ant1_High_2480



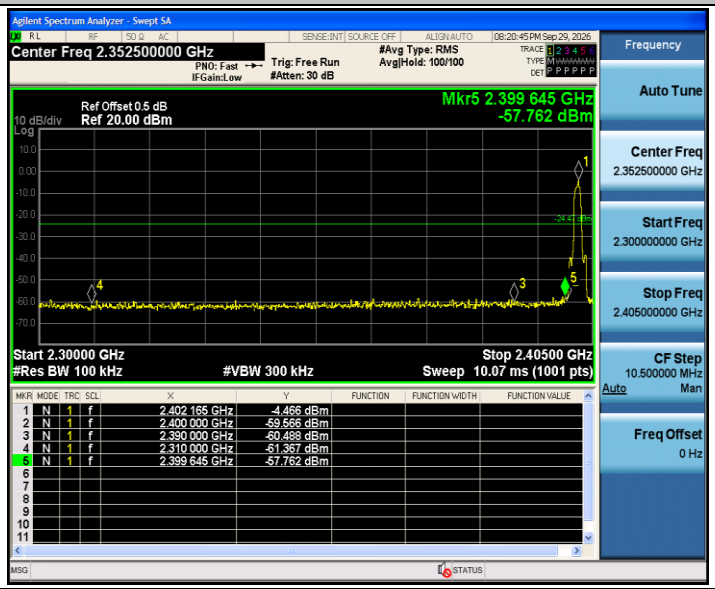
DH5_Ant1_Low_Hop_2402

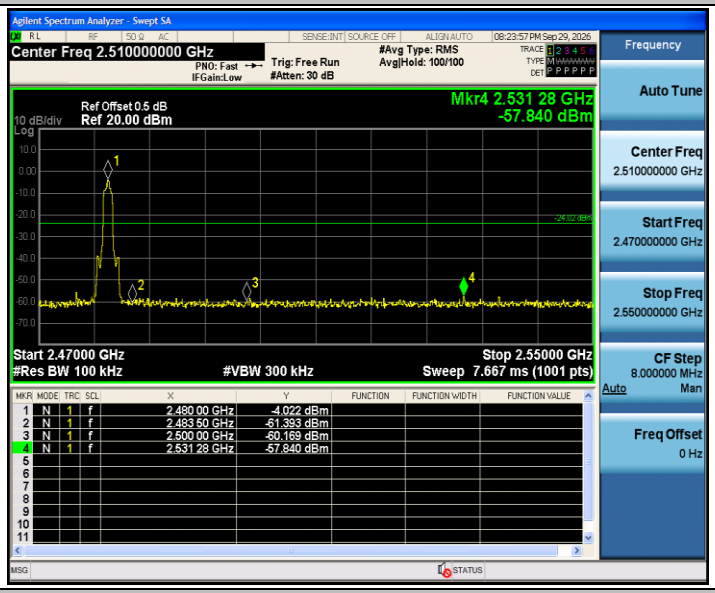
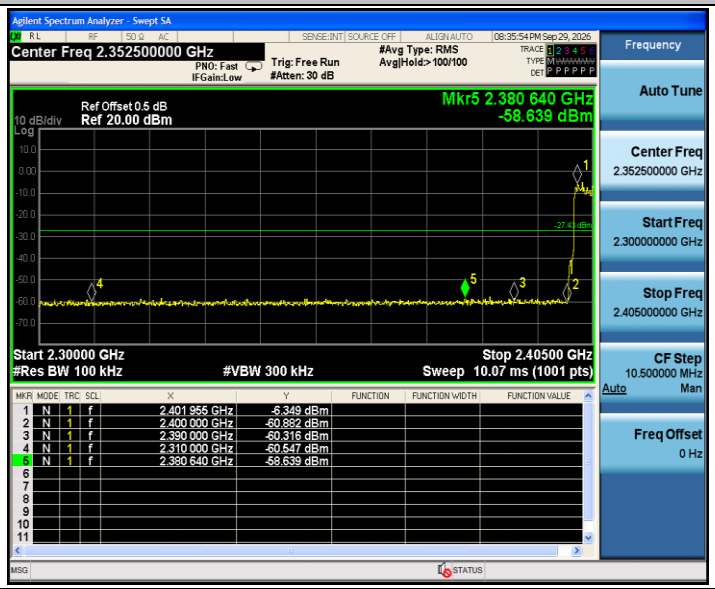


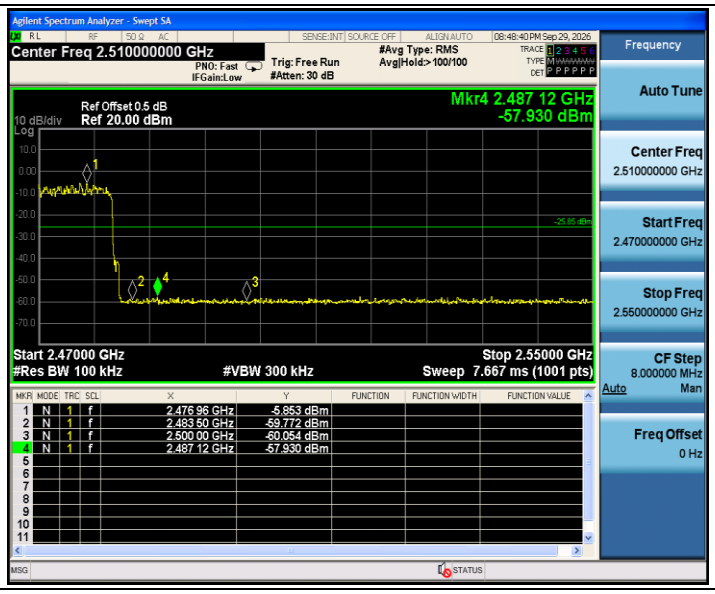
DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402



2DH5_Ant1_High_2480

2DH5_Ant1_Low_Hop_2402

2DH5_Ant1_High_Hop_2480


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
08:48:40 PM Sep 29, 2026
Ref Offset 0.5 dB
10 dB/div
Ref 20.00 dBm
Mkr4 2.487 12 GHz
-57.930 dBm
-25.85 dBm
Start 2.47000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.55000 GHz
Sweep 7.667 ms (1001 pts)
1 N 1 f 2.476 96 GHz -5.853 dBm
2 N 1 f 2.483 50 GHz -59.772 dBm
3 N 1 f 2.500 00 GHz -60.054 dBm
4 N 1 f 2.487 12 GHz -57.930 dBm
Frequency
Auto Tune
Center Freq
2.510000000 GHz
Start Freq
2.470000000 GHz
Stop Freq
2.550000000 GHz
CF Step
8.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

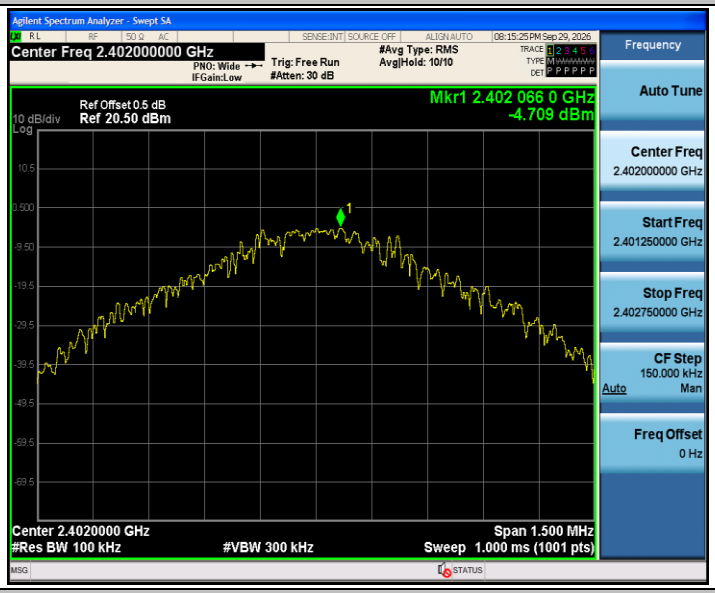
Appendix H: Conducted Spurious Emission

Test Result

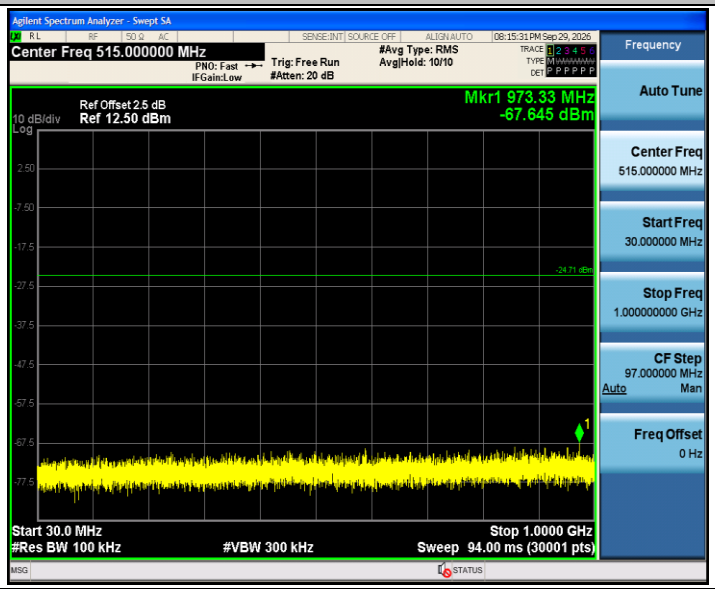
TestMode	Antenna	Freq(MHz)	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-4.71	-4.71	---	PASS
			30~1000	-4.71	-67.65	≤-24.71	PASS
			1000~26500	-4.71	-42.5	≤-24.71	PASS
		2441	Reference	-5.07	-5.07	---	PASS
			30~1000	-5.07	-68.88	≤-25.07	PASS
			1000~26500	-5.07	-45.72	≤-25.07	PASS
		2480	Reference	-5.17	-5.17	---	PASS
			30~1000	-5.17	-68.54	≤-25.17	PASS
			1000~26500	-5.17	-46.02	≤-25.17	PASS
2DH5	Ant1	2402	Reference	-6.36	-6.36	---	PASS
			30~1000	-6.36	-68.82	≤-26.36	PASS
			1000~26500	-6.36	-46.91	≤-26.36	PASS
		2441	Reference	-7.40	-7.40	---	PASS
			30~1000	-7.40	-68.67	≤-27.4	PASS
			1000~26500	-7.40	-46.08	≤-27.4	PASS
		2480	Reference	-4.84	-4.84	---	PASS
			30~1000	-4.84	-67.54	≤-24.84	PASS
			1000~26500	-4.84	-45.81	≤-24.84	PASS

Test Graphs

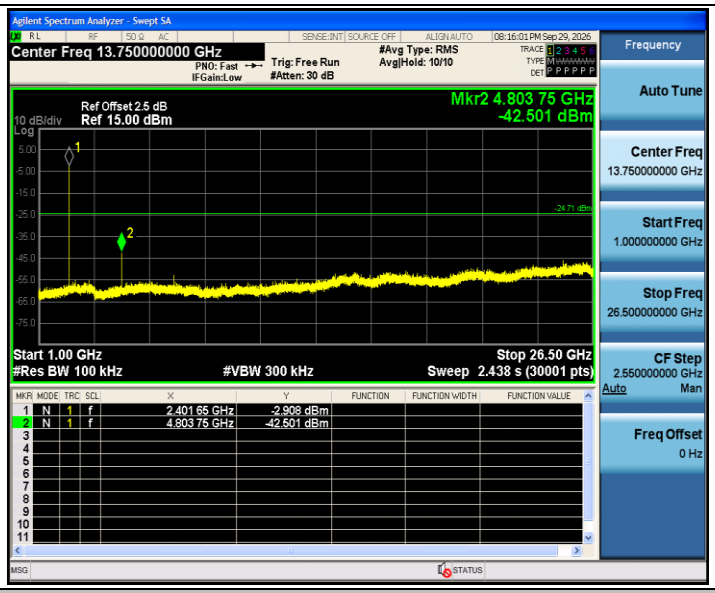
DH5_Ant1_2402_0~Reference



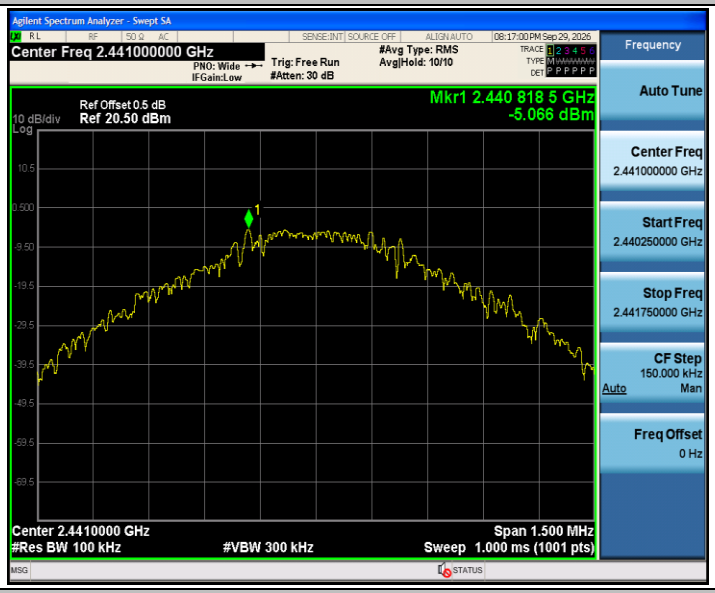
DH5_Ant1_2402_30~1000



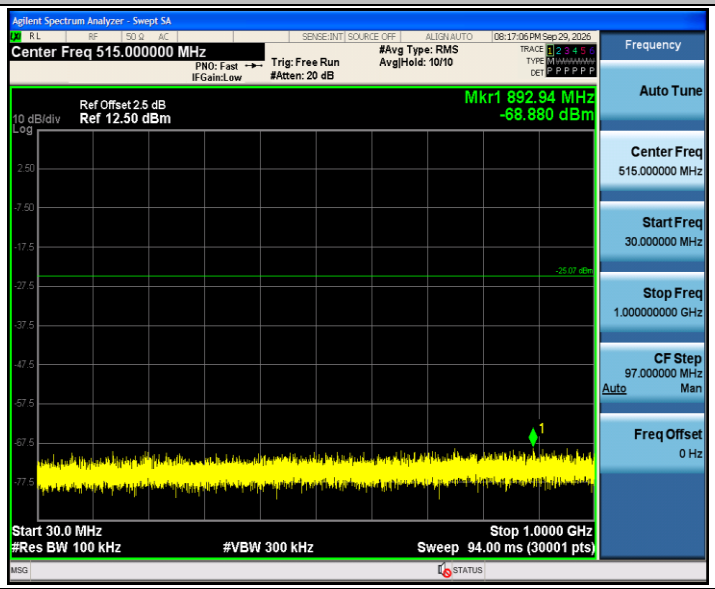
DH5_Ant1_2402_1000~26500

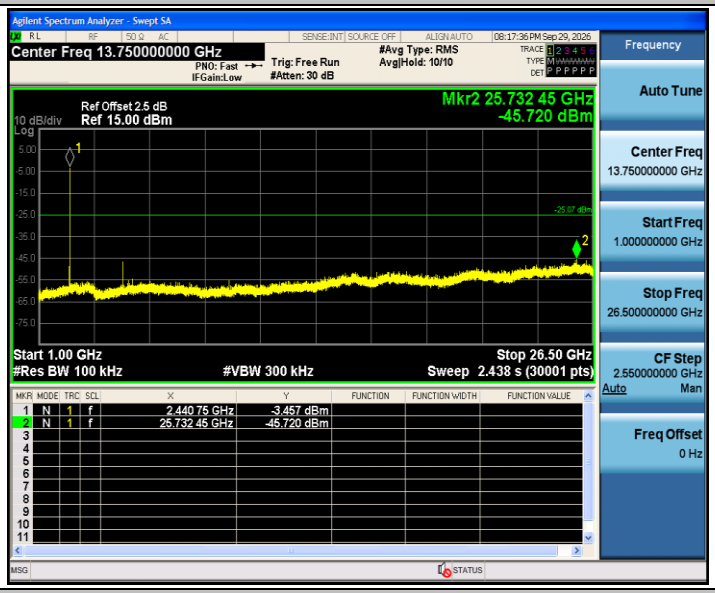


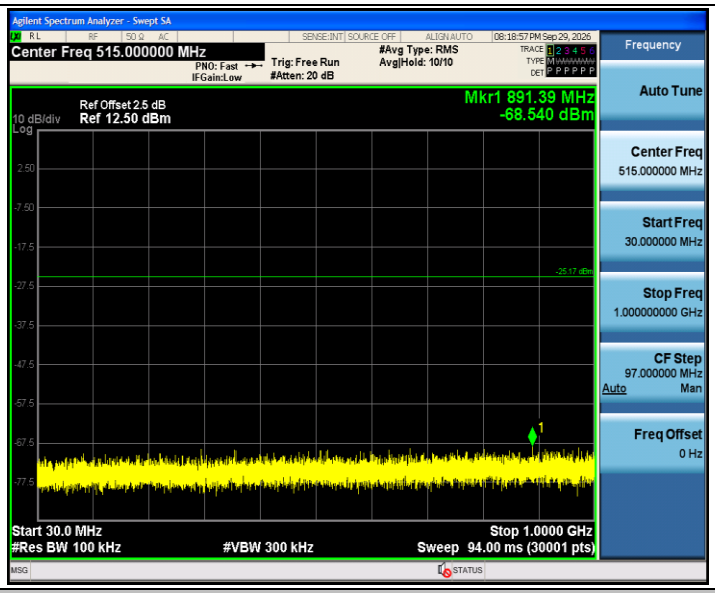
DH5_Ant1_2441_0~Reference



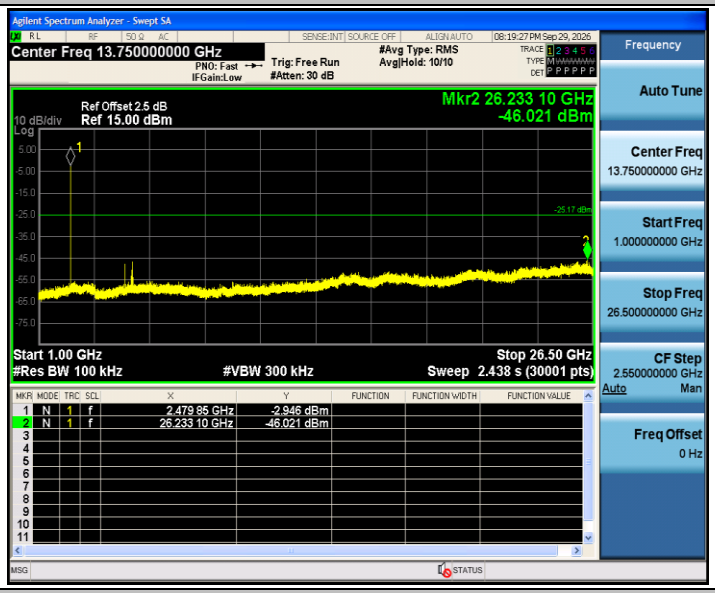
DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500

DH5_Ant1_2480_0~Reference
DH5_Ant1_2480_30~1000



DH5_Ant1_2480_1000~26500



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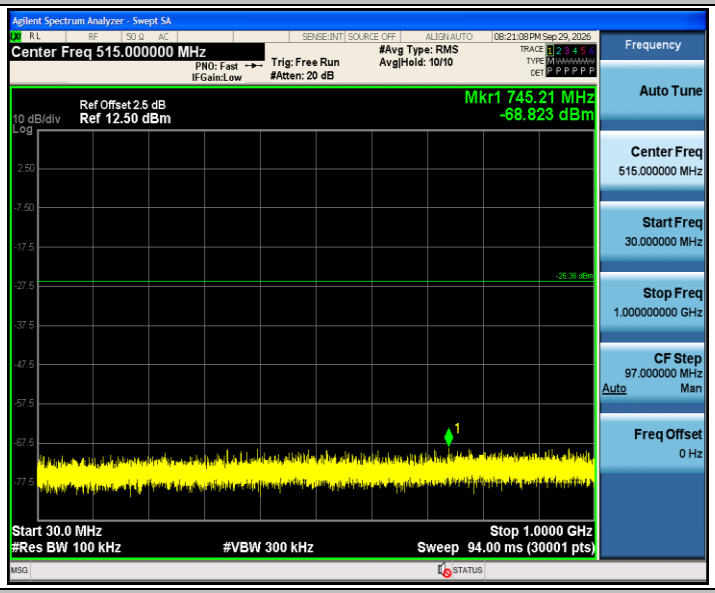
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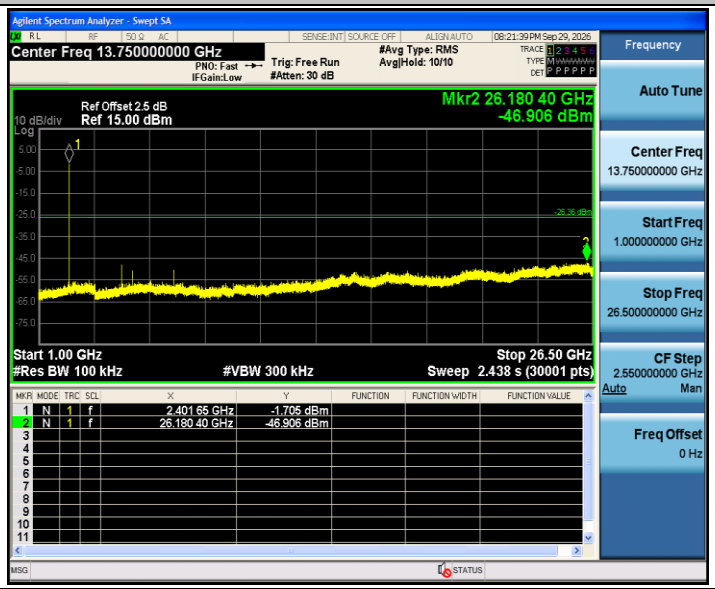
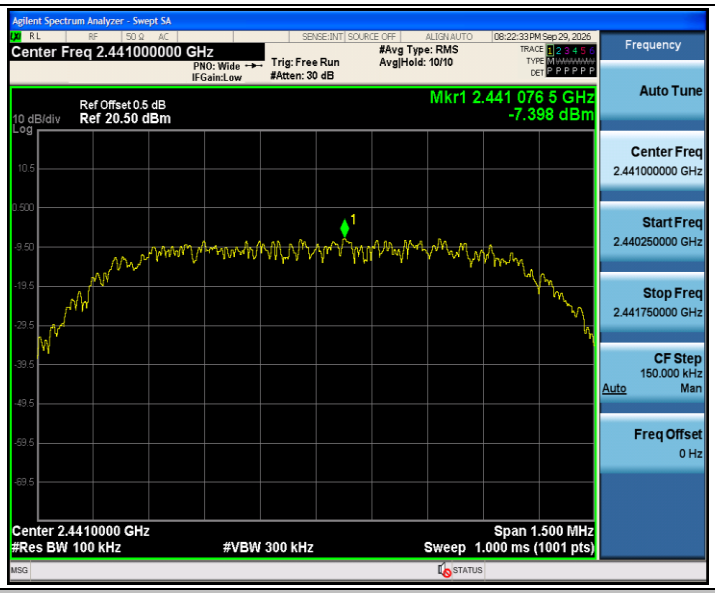
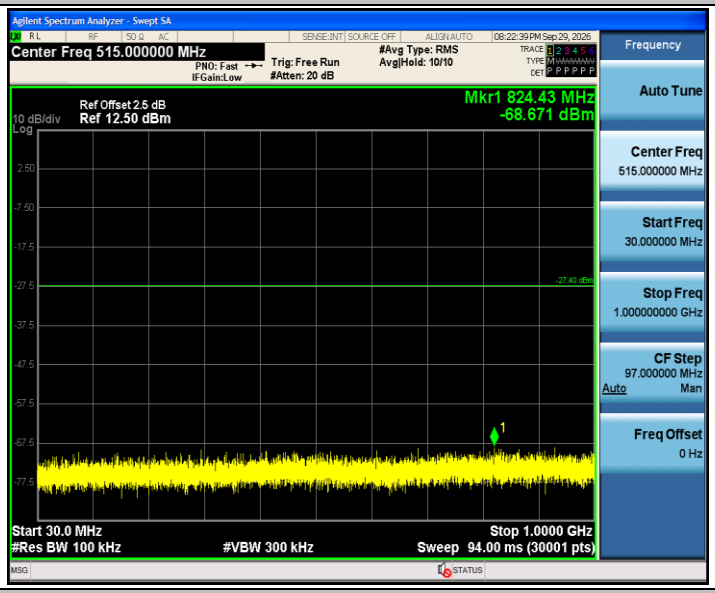
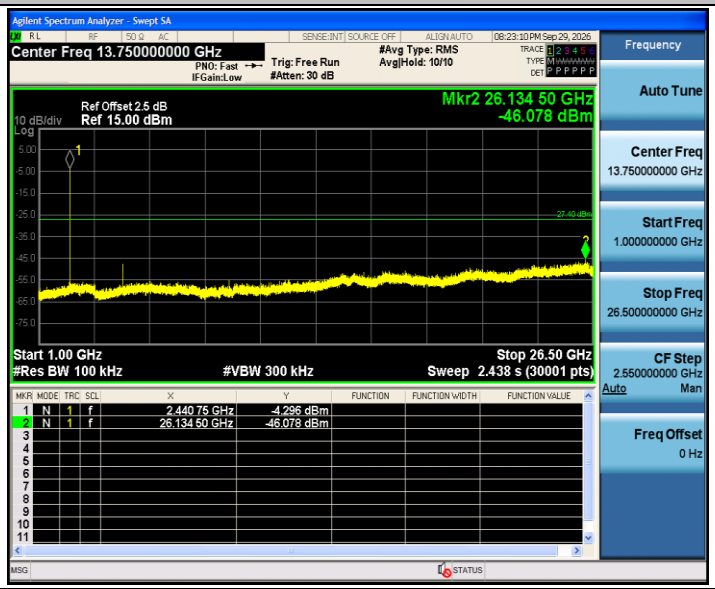

2DH5_Ant1_2441_0~Reference

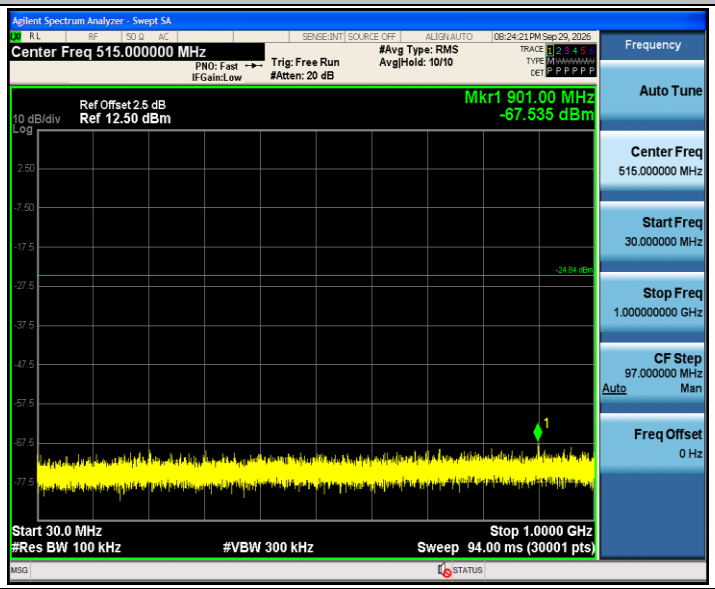


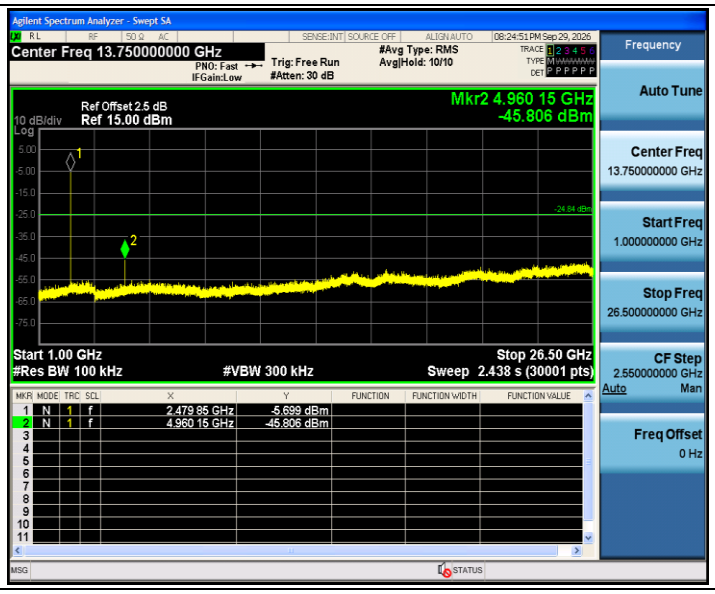
2DH5_Ant1_2441_30~1000



2DH5_Ant1_2441_1000~26500



2DH5_Ant1_2480_0~Reference
2DH5_Ant1_2480_30~1000

2DH5_Ant1_2480_1000~26500


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 10/10
08:24:51 PM Sep 29, 2026
Ref Offset 2.5 dB
10 dB/div
Ref 15.00 dBm
Mkr2 4.960 15 GHz
-45.806 dBm
-24.84 dBm
Start 1.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.50 GHz
Sweep 2.438 s (30001 pts)
1 N 1 f 2.479 85 GHz -5.699 dBm
2 N 1 f 4.960 15 GHz -45.806 dBm
Frequency
Auto Tune
Center Freq
13.750000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
26.500000000 GHz
CF Step
2.550000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Appendix I: Duty Cycle

Test Result

TestMode	Antenna	Freq(MHz)	ON Time [ms]	Period [ms]	DC [%]	xFactor	Limit	Verdict
DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.91	3.75	77.60	1.10	---	---
		2480	2.91	3.75	77.60	1.10	---	---
2DH5	Ant1	2402	2.91	3.75	77.60	1.10	---	---
		2441	2.92	3.76	77.66	1.10	---	---
		2480	2.92	3.75	77.87	1.09	---	---