Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Tablet PC

Test Model: MBW100

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Joker Hu
	Joker.Hu
Supervised by:	Ling Zhu
	Ling.Zhu

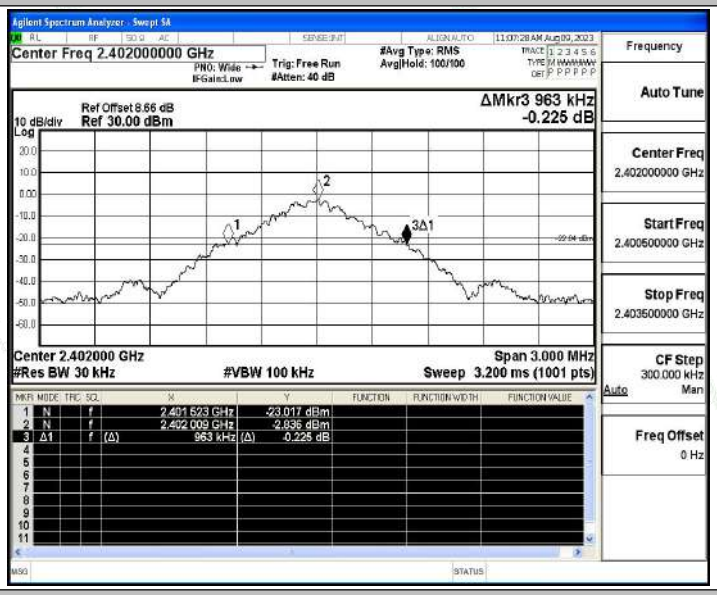
A.1 20dB Emission Bandwidth

Test Result

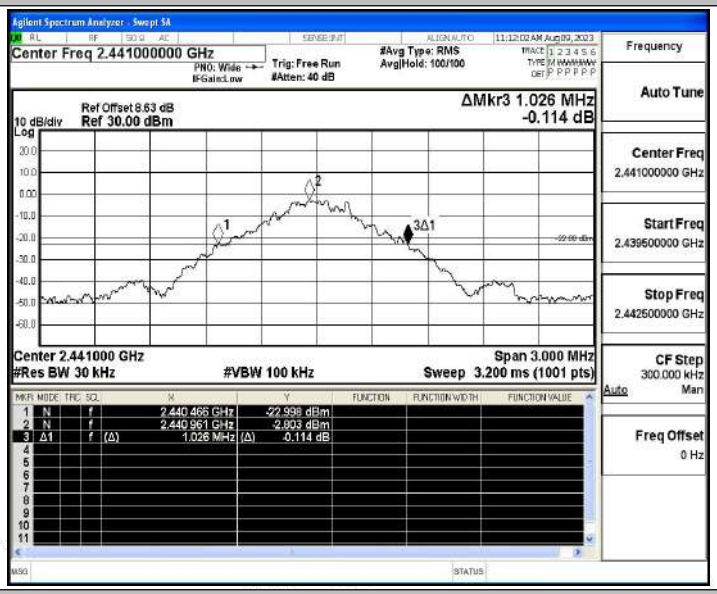
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	0.963	2401.523	2402.486	---
		2441	1.026	2440.466	2441.492	---
		2480	0.963	2479.520	2480.483	---
2DH5	Ant1	2402	1.326	2401.331	2402.657	---
		2441	1.293	2440.355	2441.648	---
		2480	1.296	2479.352	2480.648	---
3DH5	Ant1	2402	1.296	2401.340	2402.636	---
		2441	1.314	2440.340	2441.654	---
		2480	1.305	2479.340	2480.645	---

Test Graphs

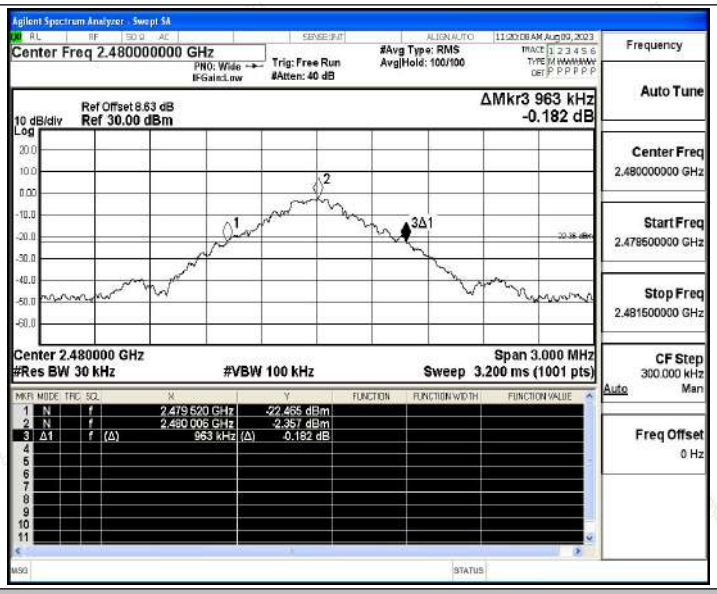
DH5_Ant1_2402



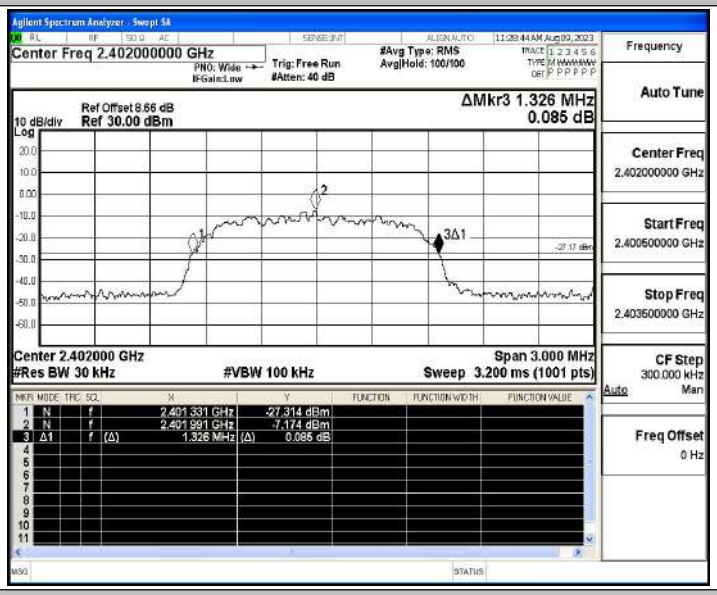
DH5_Ant1_2441



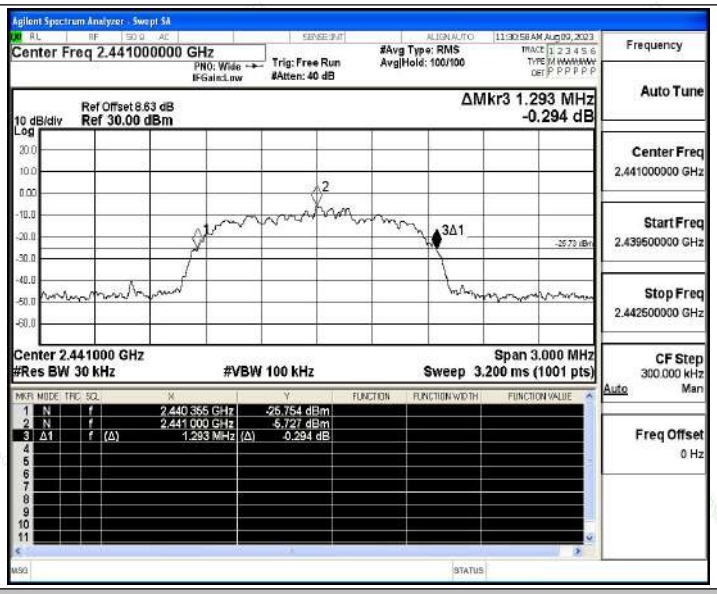
DH5_Ant1_2480



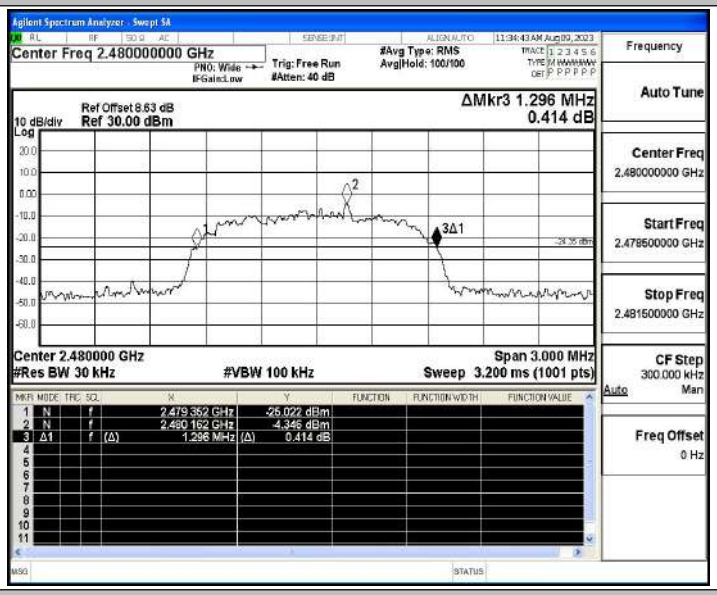
2DH5_Ant1_2402



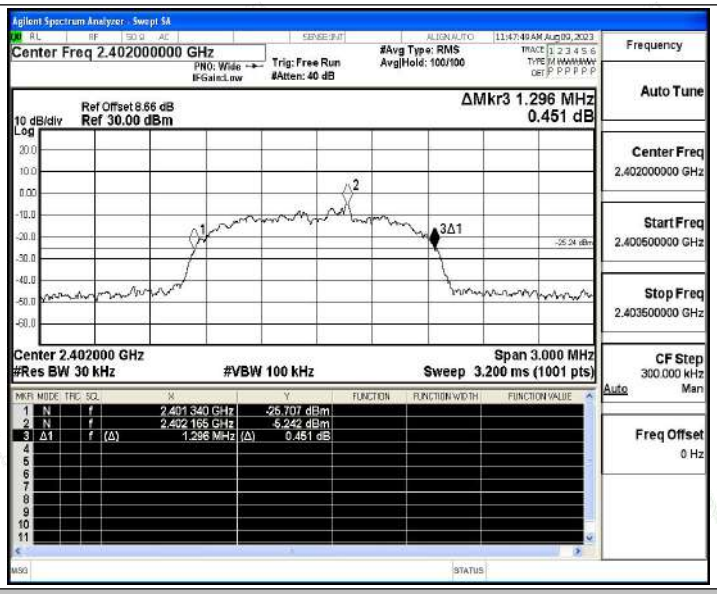
2DH5_Ant1_2441



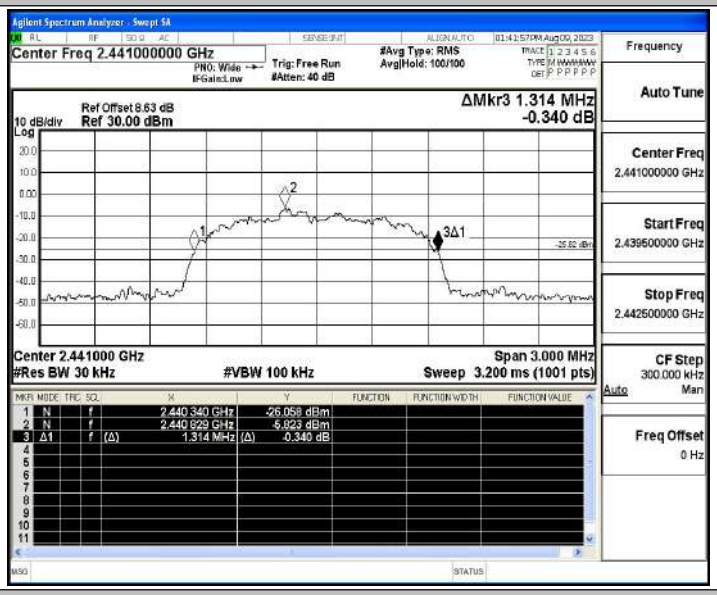
2DH5_Ant1_2480



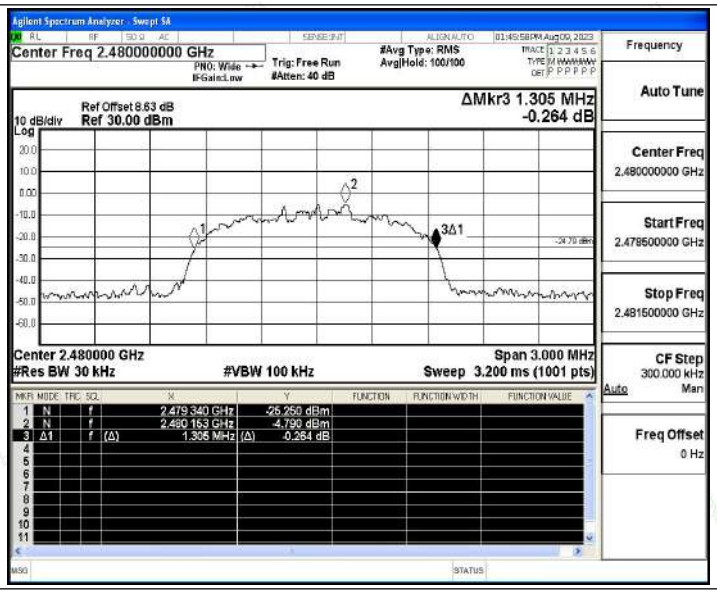
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 100/100
01:45:58 PM Aug 09, 2023
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div
Ref 30.00 dBm
ΔMkr3 1.305 MHz
-0.264 dB
Center Freq
2.480000000 GHz
Start Freq
2.478500000 GHz
Stop Freq
2.481500000 GHz
Center 2.480000 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz
1 N 1 f 2.479 340 GHz -25.250 dBm
2 N 1 f 2.480 153 GHz -4.799 dBm
3 Δ1 1 f (Δ) 1.305 MHz (Δ) -0.264 dB
MSG
STATUS

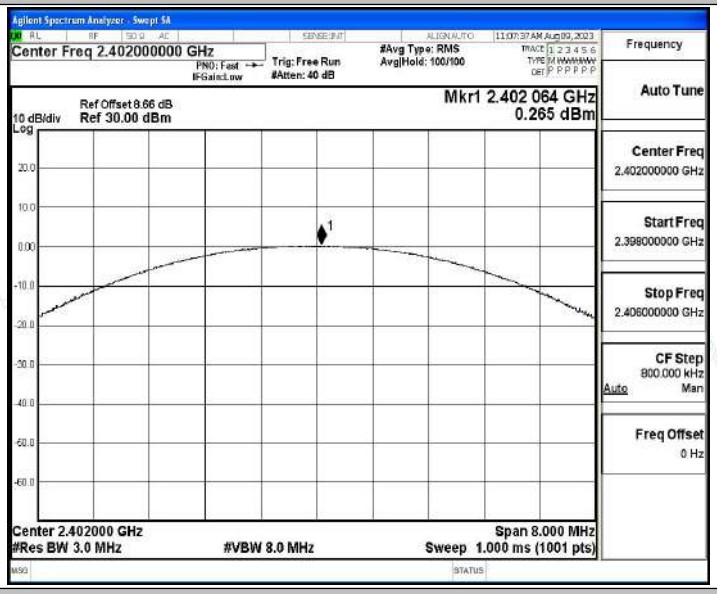
A.2 Maximum conducted output power

Test Result

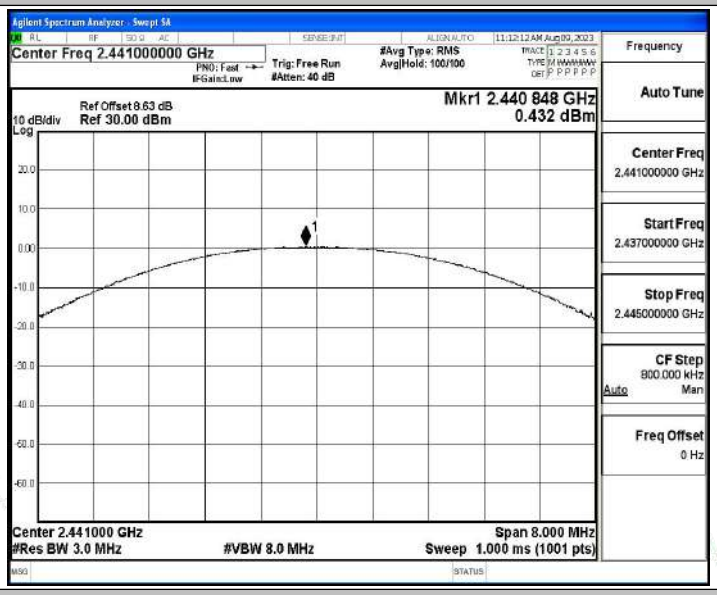
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	0.27	≤20.97	PASS
		2441	0.43	≤20.97	PASS
		2480	0.32	≤20.97	PASS
2DH5	Ant1	2402	-0.25	≤20.97	PASS
		2441	-0.19	≤20.97	PASS
		2480	0.31	≤20.97	PASS
3DH5	Ant1	2402	-0.07	≤20.97	PASS
		2441	0.22	≤20.97	PASS
		2480	0.07	≤20.97	PASS

Test Graphs

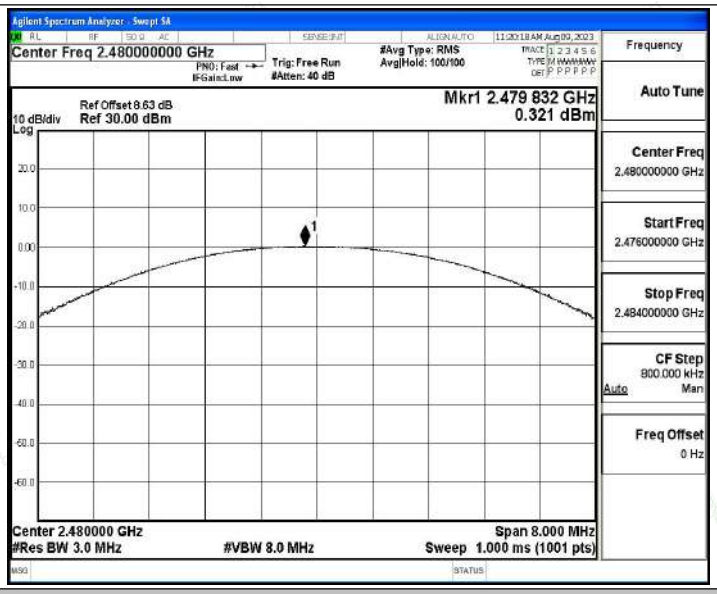
DH5_Ant1_2402



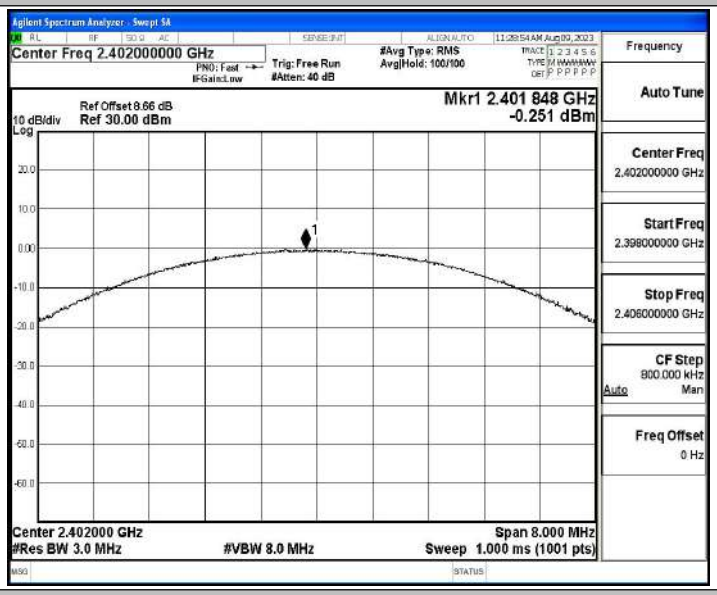
DH5_Ant1_2441



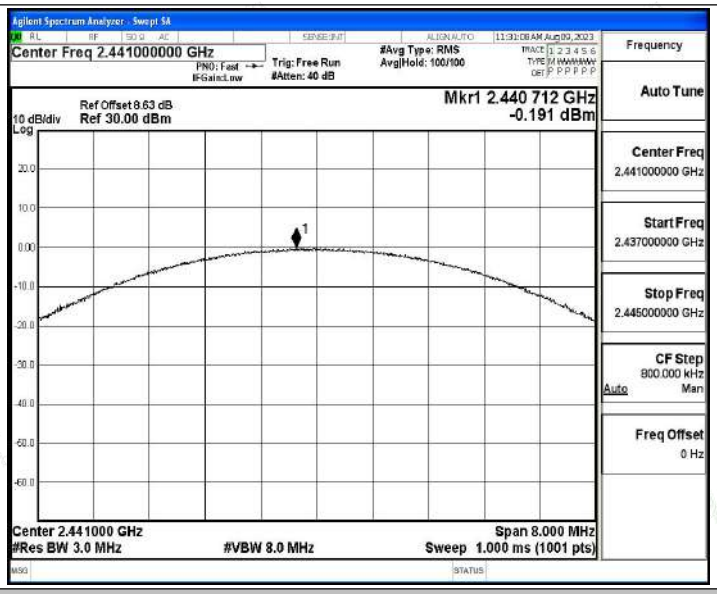
DH5_Ant1_2480



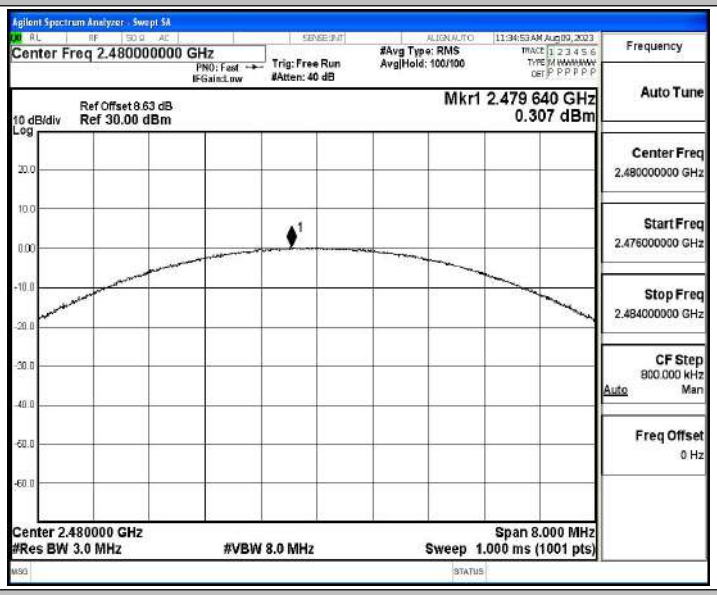
2DH5_Ant1_2402



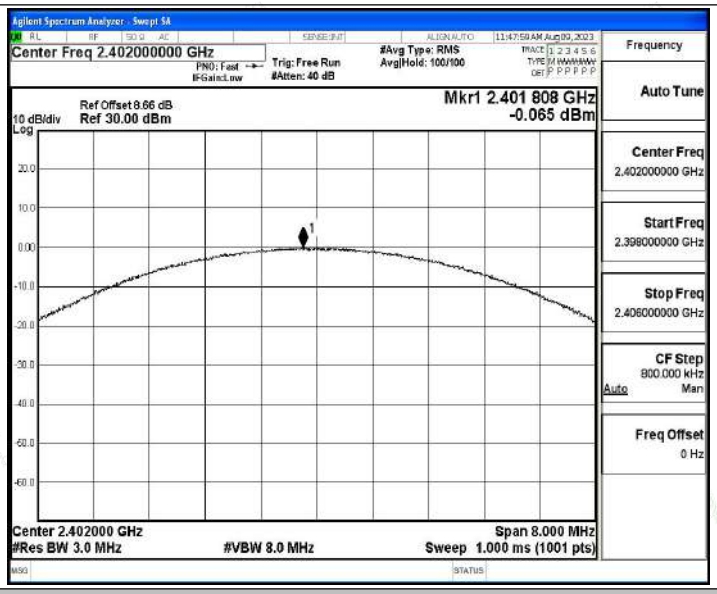
2DH5_Ant1_2441



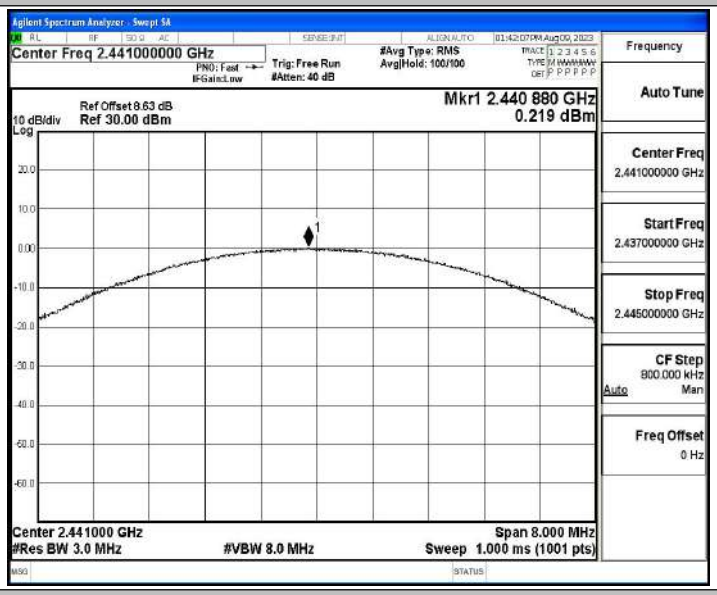
2DH5_Ant1_2480



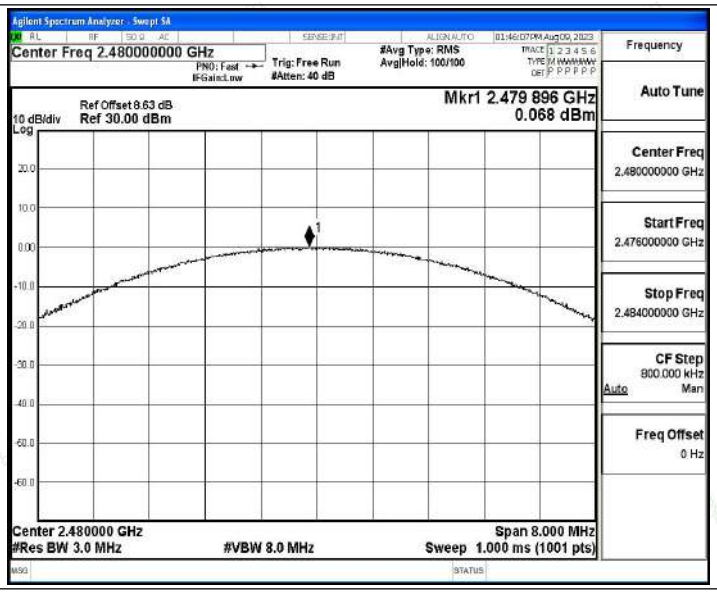
3DH5_Ant1_2402



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
01:46:07 PM Aug 09, 2023
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div Ref 30.00 dBm
Log
Mkr1 2.479 896 GHz
0.068 dBm
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
Center 2.480000 GHz
#Res BW 3.0 MHz
#VBW 8.0 MHz
Span 8.000 MHz
Sweep 1.000 ms (1001 pts)

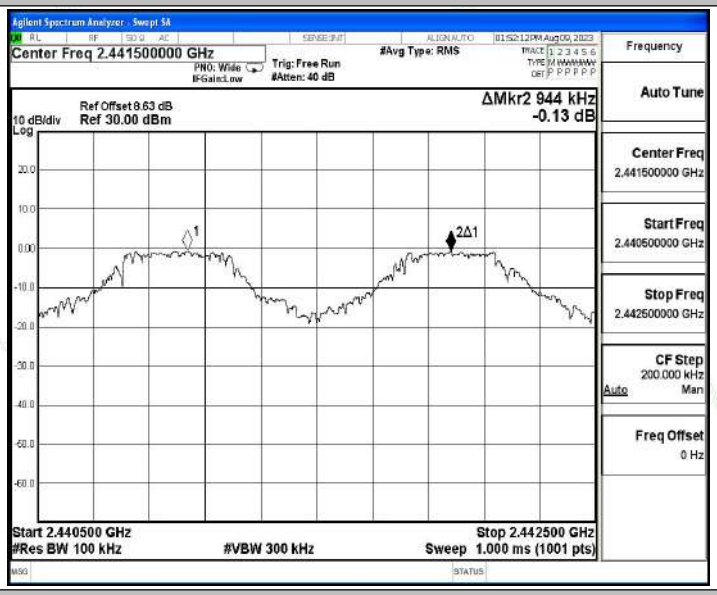
A.3 Carrier frequency separation

Test Result

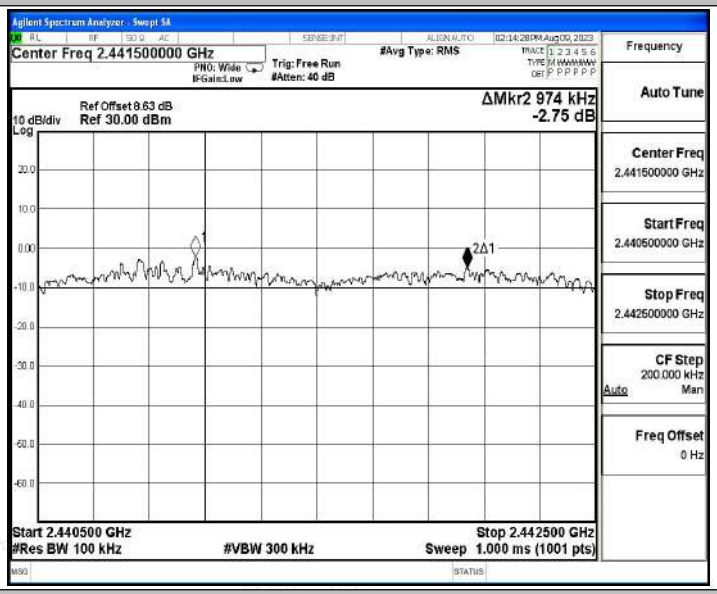
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.944	≥0.684	PASS
2DH5	Ant1	Hop	0.974	≥0.884	PASS
3DH5	Ant1	Hop	0.924	≥0.876	PASS

Test Graphs

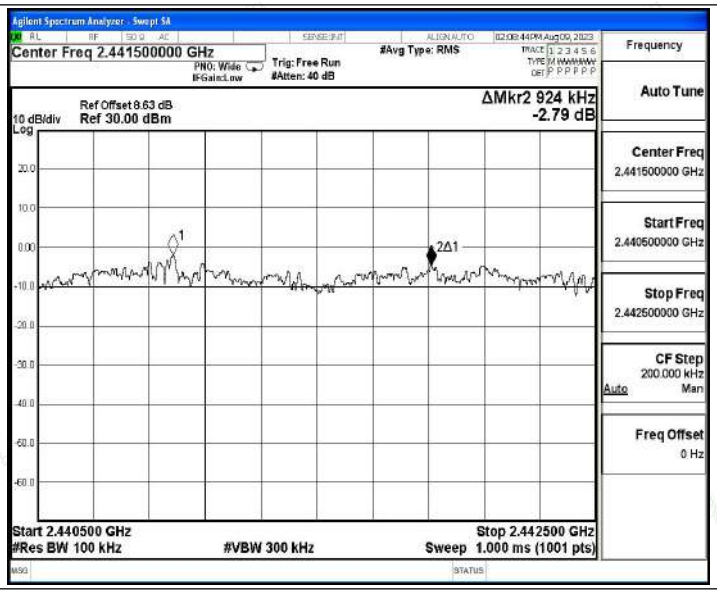
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441500000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div Ref 30.00 dBm
Log
ΔMkr2 924 kHz
-2.79 dB
Center Freq
2.441500000 GHz
Start Freq
2.440500000 GHz
Stop Freq
2.442500000 GHz
CF Step
200.000 kHz
Auto Man
Freq Offset
0 Hz
Start 2.440500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.442500 GHz
Sweep 1.000 ms (1001 pts)

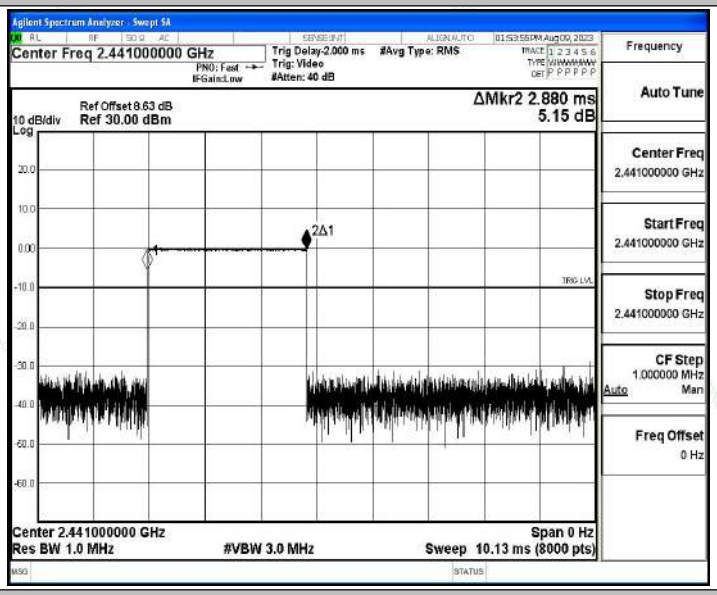
A.4 Time of occupancy

Test Result

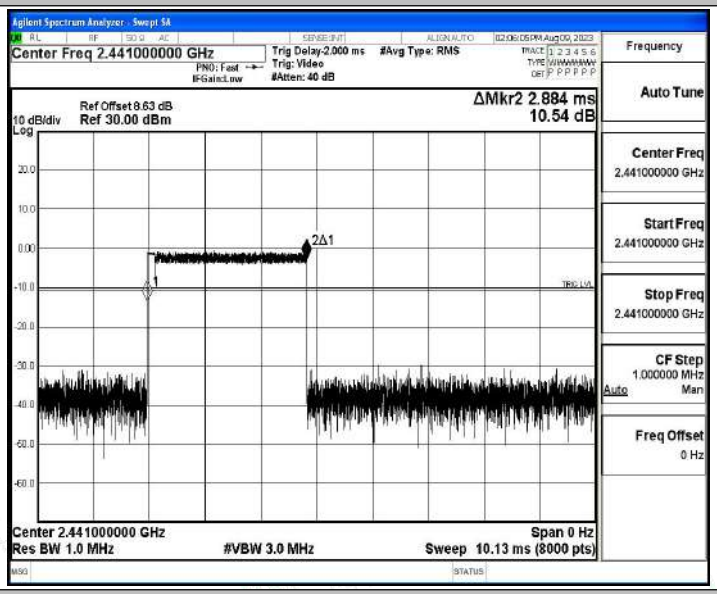
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.880	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.884	106.67	0.308	≤0.4	PASS
3DH5	Ant1	Hop	2.887	106.67	0.308	≤0.4	PASS

Test Graphs

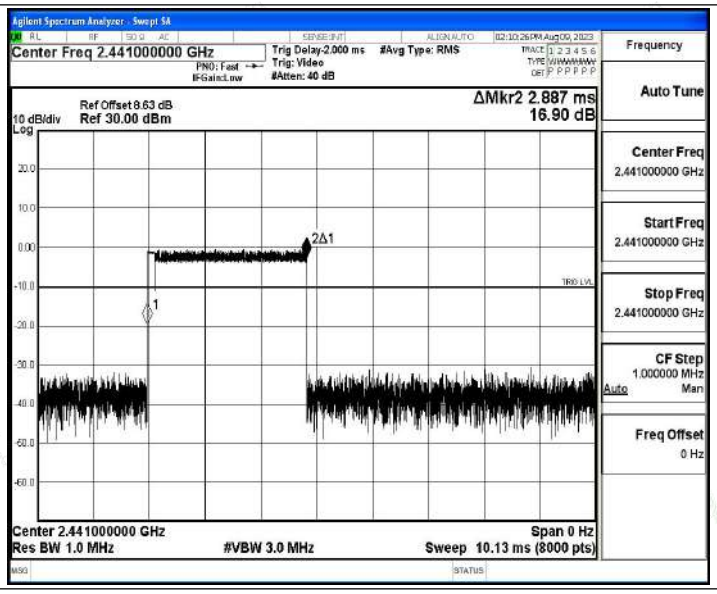
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay-2.000 ms
Trig: Video
#Atten: 40 dB
#Avg Type: RMS
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div Ref 30.00 dBm
ΔMkr2 2.887 ms
16.90 dB
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
Center 2.441000000 GHz
Res BW 1.0 MHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 10.13 ms (8000 pts)

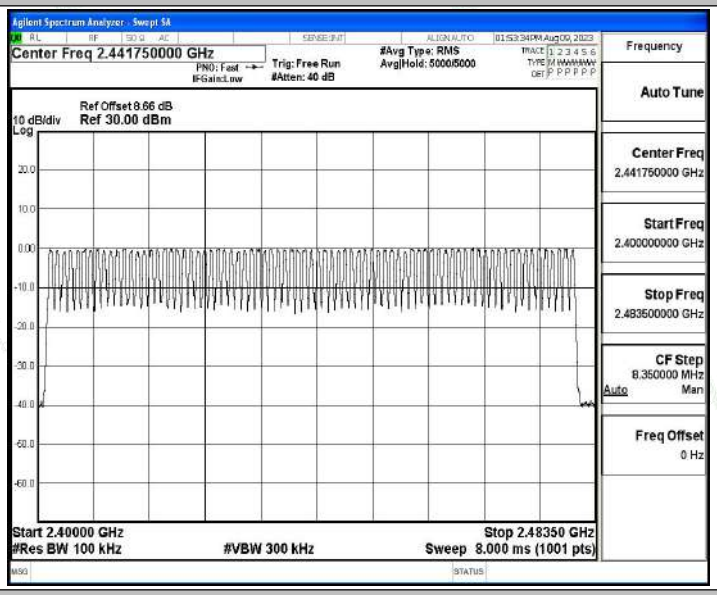
A.5 Number of hopping channels

Test Result

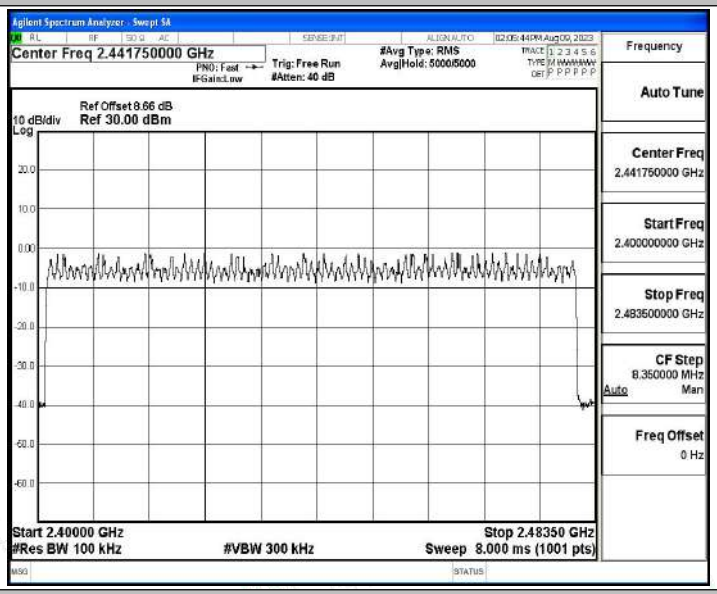
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

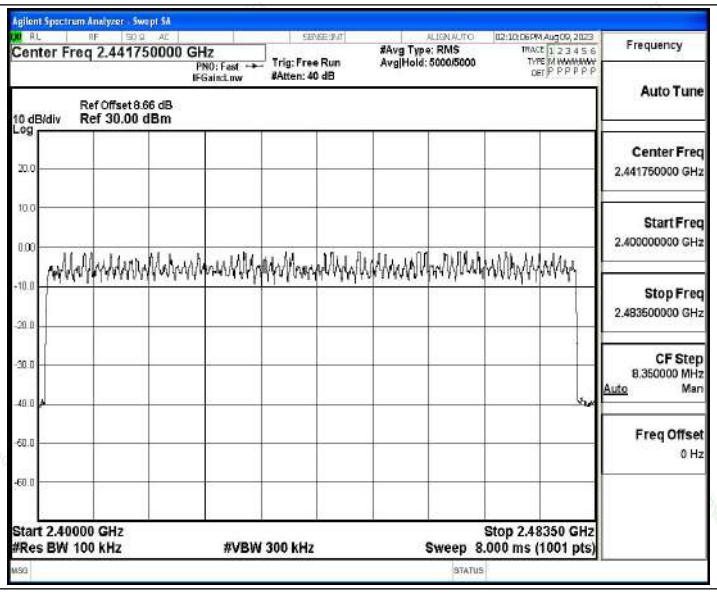
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441750000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 5000/5000
02:10:06 PM Aug 09, 2023
Frequency
Auto Tune
Ref Offset 8.66 dB
10 dB/div
Ref 30.00 dBm
Log
Center Freq
2.441750000 GHz
Start Freq
2.400000000 GHz
Stop Freq
2.483500000 GHz
CF Step
8.350000 MHz
Auto
Man
Freq Offset
0 Hz
Start 2.40000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep 8.000 ms (1001 pts)

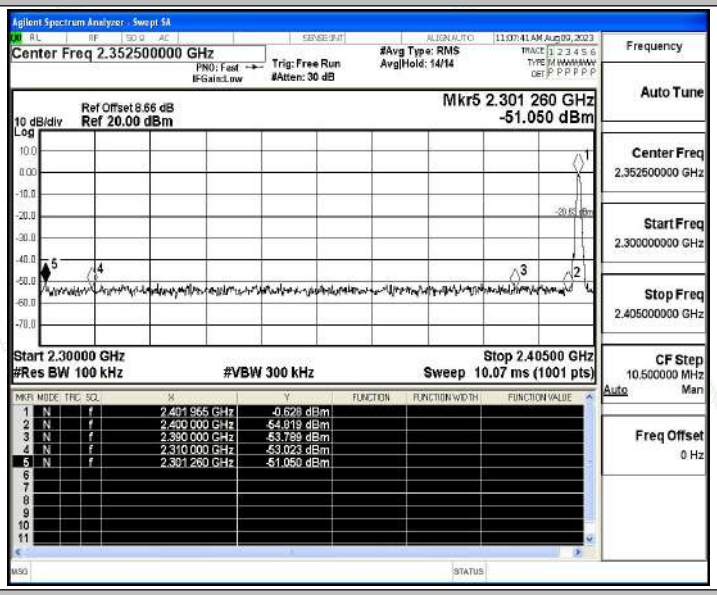
A.6 Band edge measurements

Test Result

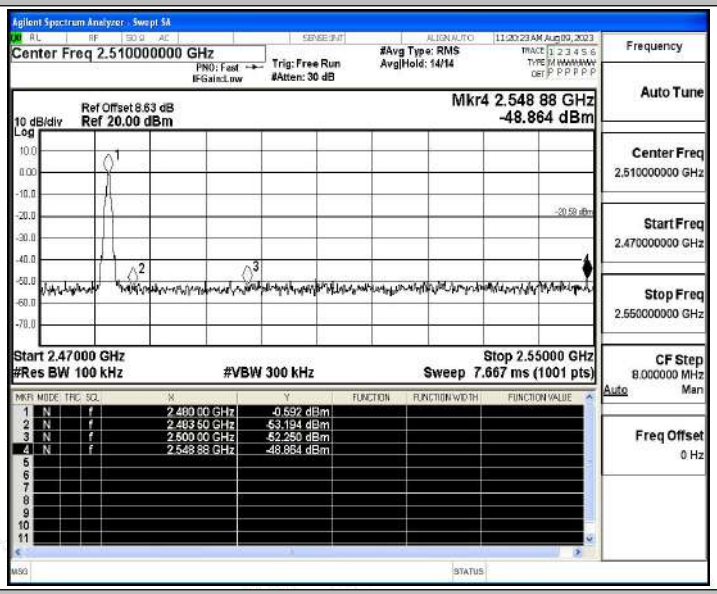
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-0.63	-51.05	≤-20.63	PASS
		High	2480	-0.59	-48.86	≤-20.59	PASS
		Low	Hop_2402	-0.91	-48.34	≤-20.91	PASS
		High	Hop_2480	-0.23	-46.21	≤-20.23	PASS
2DH5	Ant1	Low	2402	-4.65	-49.39	≤-24.65	PASS
		High	2480	-4.99	-49.45	≤-24.99	PASS
		Low	Hop_2402	-3.59	-47.89	≤-23.59	PASS
		High	Hop_2480	-2.52	-48.01	≤-22.52	PASS
3DH5	Ant1	Low	2402	-6.29	-50.25	≤-26.29	PASS
		High	2480	-5.49	-49.25	≤-25.49	PASS
		Low	Hop_2402	-4.36	-49.02	≤-24.36	PASS
		High	Hop_2480	-1.15	-47.74	≤-21.15	PASS

Test Graphs

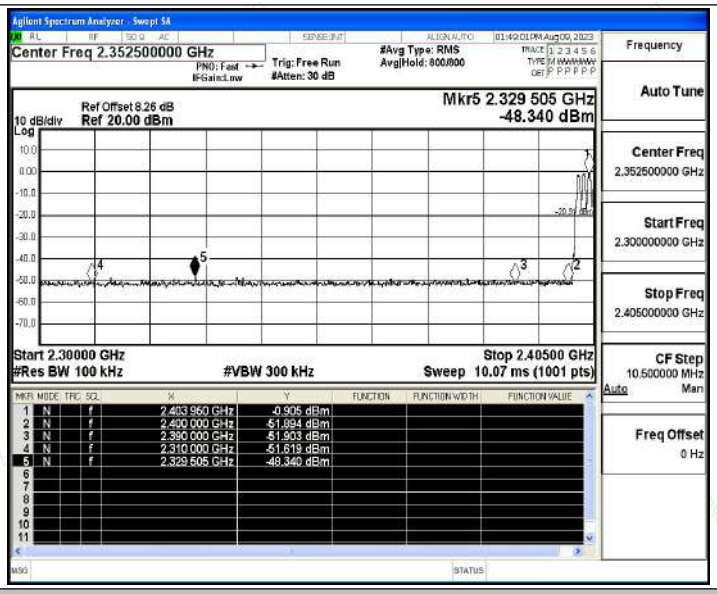
DH5_Ant1_Low_2402



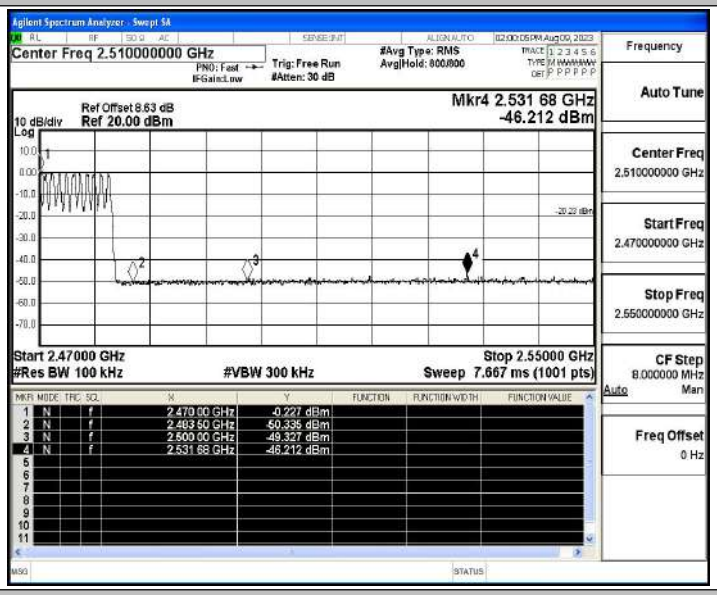
DH5_Ant1_High_2480



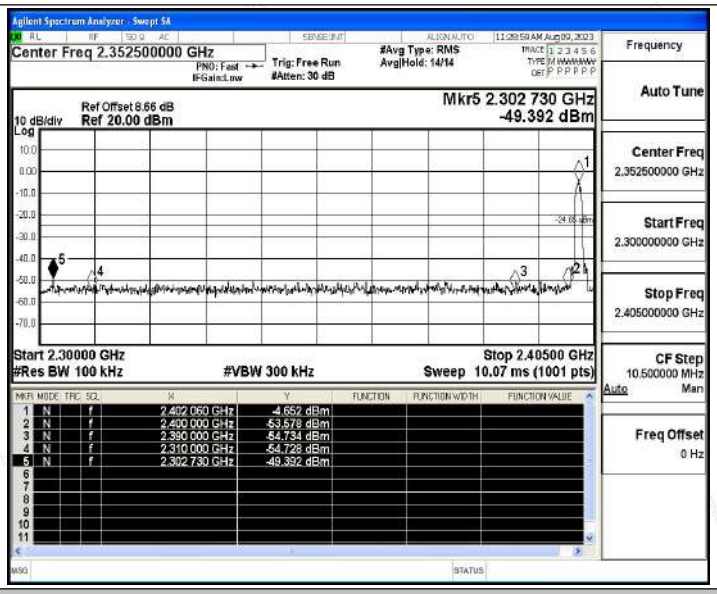
DH5_Ant1_Low_Hop_2402



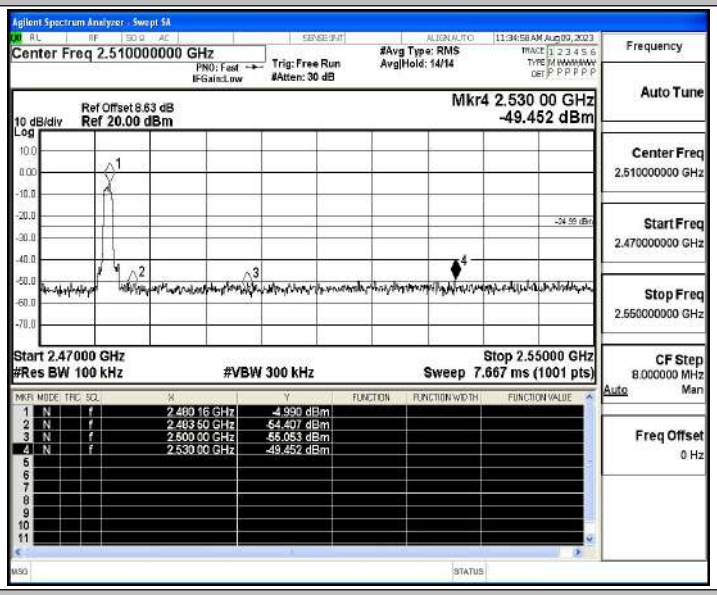
DH5_Ant1_High_Hop_2480



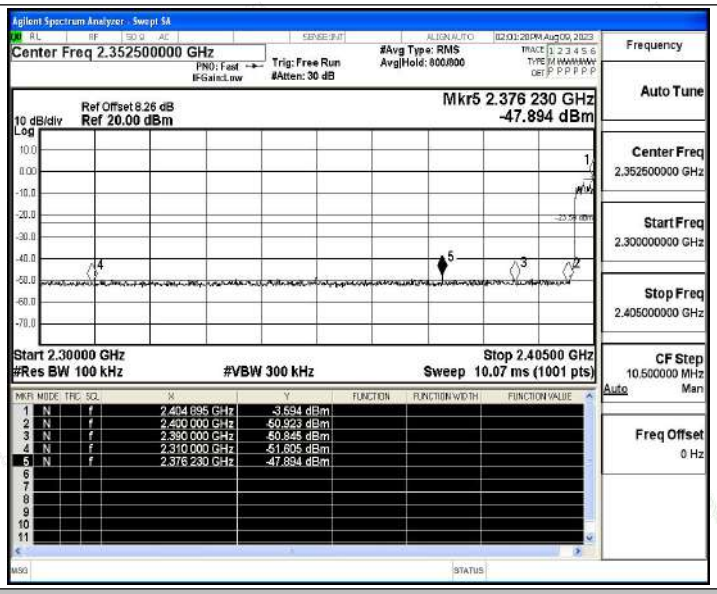
2DH5_Ant1_Low_2402



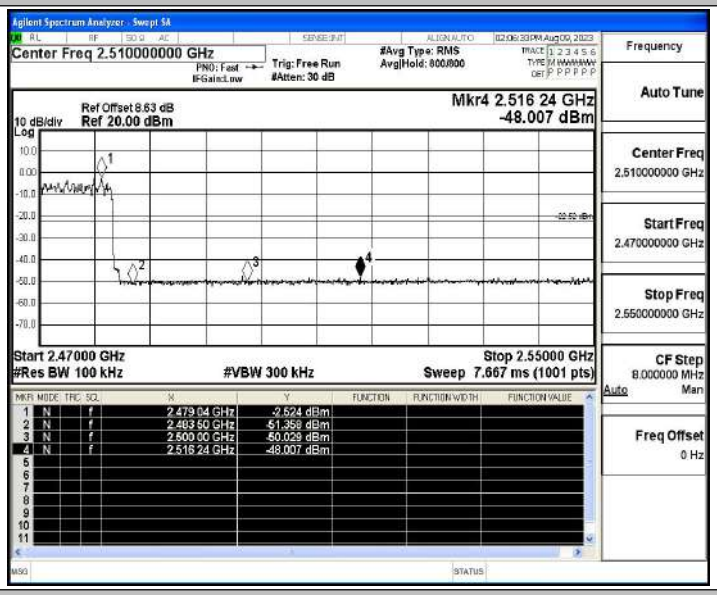
2DH5_Ant1_High_2480



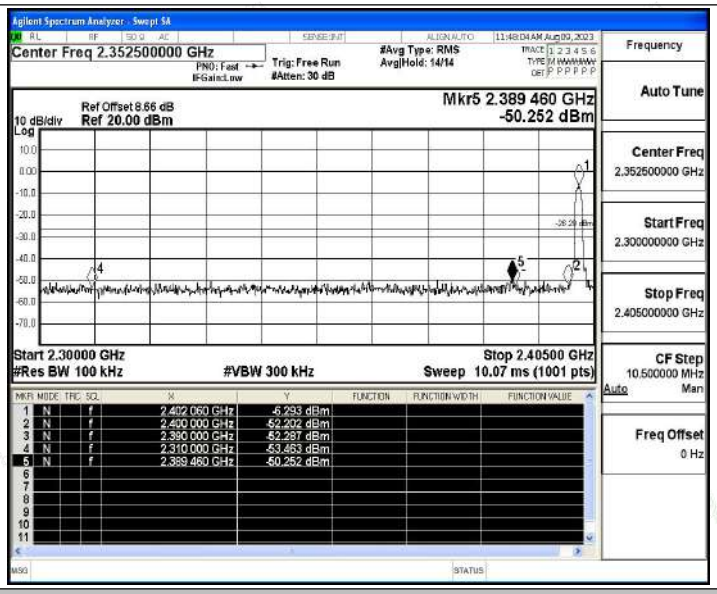
2DH5_Ant1_Low_Hop_2402



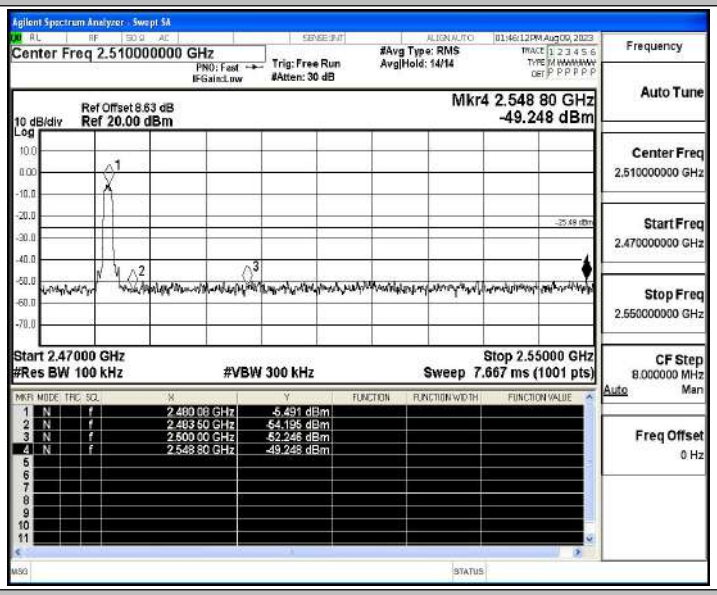
2DH5_Ant1_High_Hop_2480



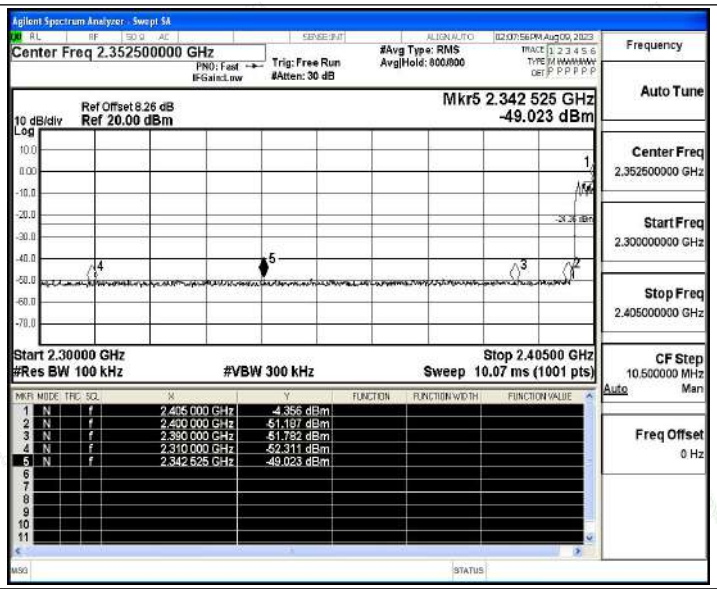
3DH5_Ant1_Low_2402



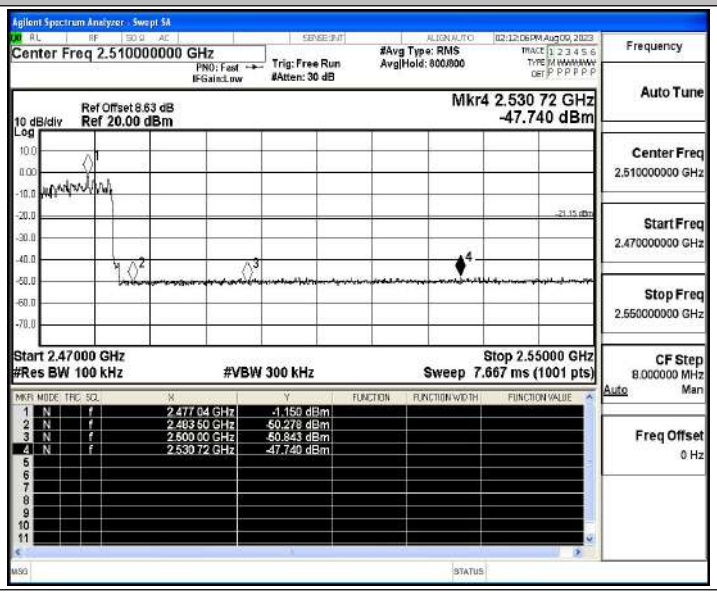
3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480



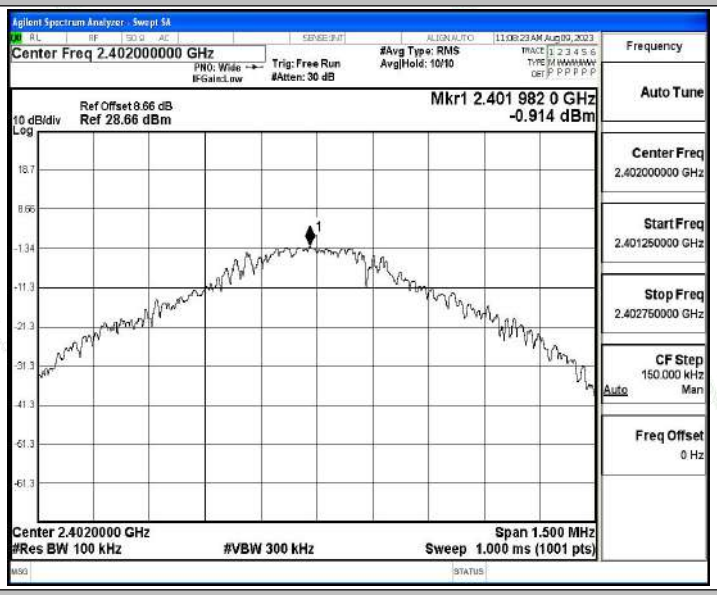
A.7 Conducted Spurious Emission

Test Result

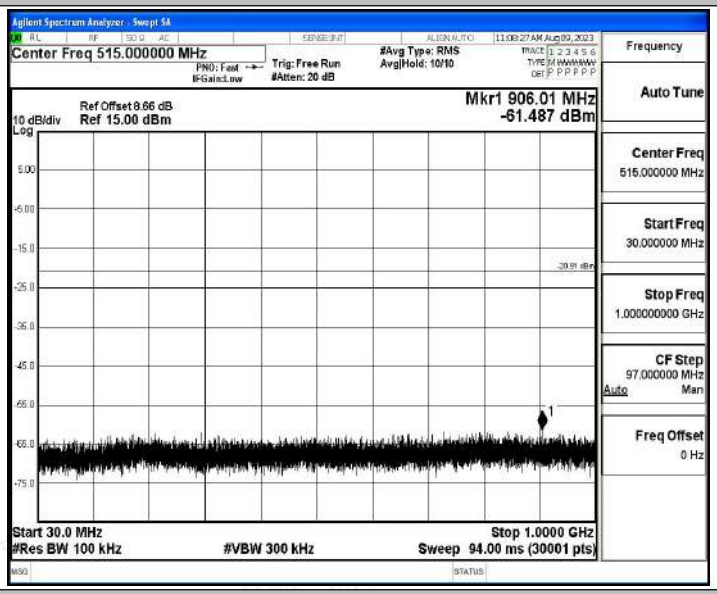
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	-0.91	-0.91	---	PASS
			30~1000	-0.91	-61.49	≤-20.91	PASS
			1000~26500	-0.91	-47.28	≤-20.91	PASS
		2441	Reference	-0.67	-0.67	---	PASS
			30~1000	-0.67	-61.04	≤-20.67	PASS
			1000~26500	-0.67	-47.23	≤-20.67	PASS
		2480	Reference	-1.06	-1.06	---	PASS
			30~1000	-1.06	-60.63	≤-21.06	PASS
			1000~26500	-1.06	-46.81	≤-21.06	PASS
2DH5	Ant1	2402	Reference	-3.74	-3.74	---	PASS
			30~1000	-3.74	-61.06	≤-23.74	PASS
			1000~26500	-3.74	-46.94	≤-23.74	PASS
		2441	Reference	-6.07	-6.07	---	PASS
			30~1000	-6.07	-61.17	≤-26.07	PASS
			1000~26500	-6.07	-45.7	≤-26.07	PASS
		2480	Reference	-4.85	-4.85	---	PASS
			30~1000	-4.85	-61.61	≤-24.85	PASS
			1000~26500	-4.85	-46.94	≤-24.85	PASS
3DH5	Ant1	2402	Reference	-5.47	-5.47	---	PASS
			30~1000	-5.47	-60.56	≤-25.47	PASS
			1000~26500	-5.47	-47.24	≤-25.47	PASS
		2441	Reference	-5.28	-5.28	---	PASS
			30~1000	-5.28	-60.3	≤-25.28	PASS
			1000~26500	-5.28	-46.71	≤-25.28	PASS
		2480	Reference	-4.65	-4.65	---	PASS
			30~1000	-4.65	-60.68	≤-24.65	PASS
			1000~26500	-4.65	-46.3	≤-24.65	PASS

Test Graphs

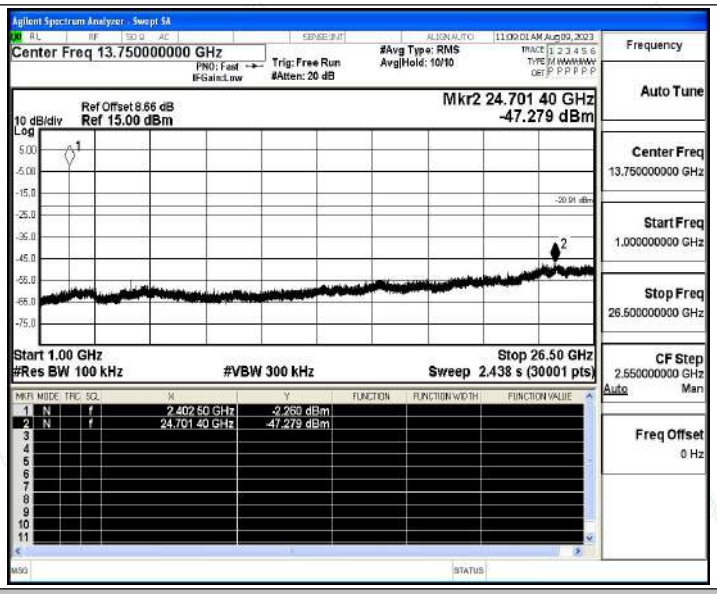
DH5_Ant1_2402_0~Reference



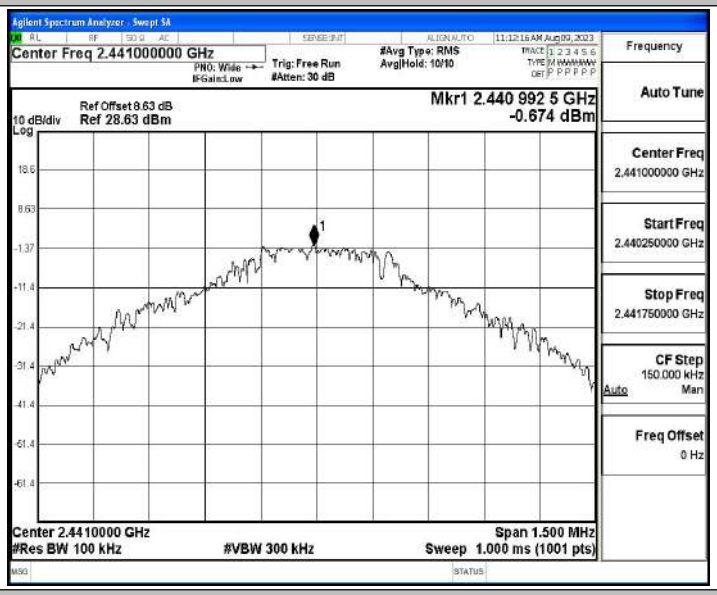
DH5_Ant1_2402_30~1000



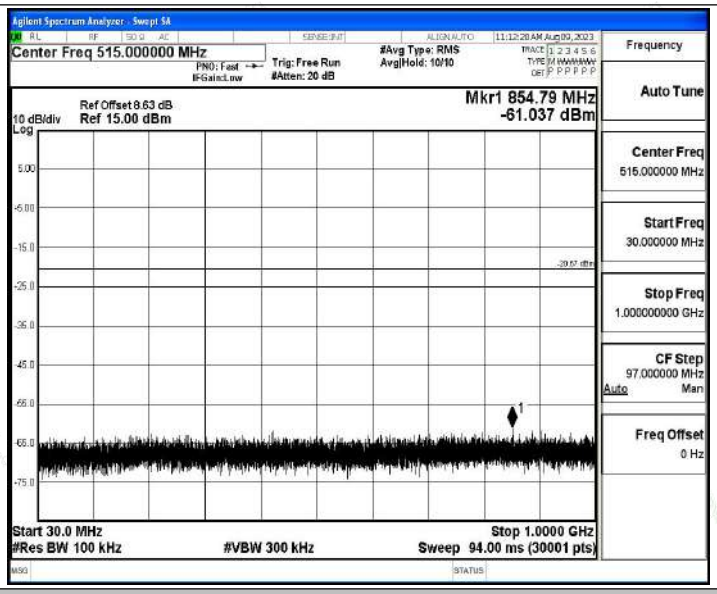
DH5_Ant1_2402_1000~26500



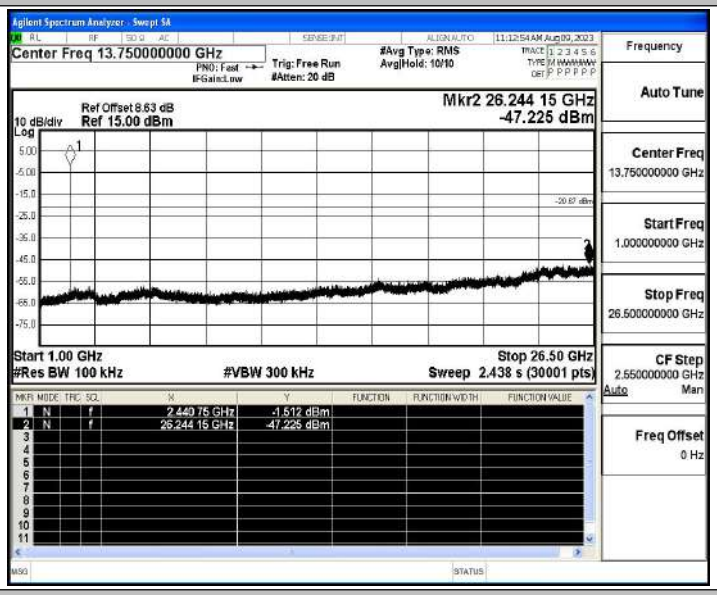
DH5_Ant1_2441_0~Reference



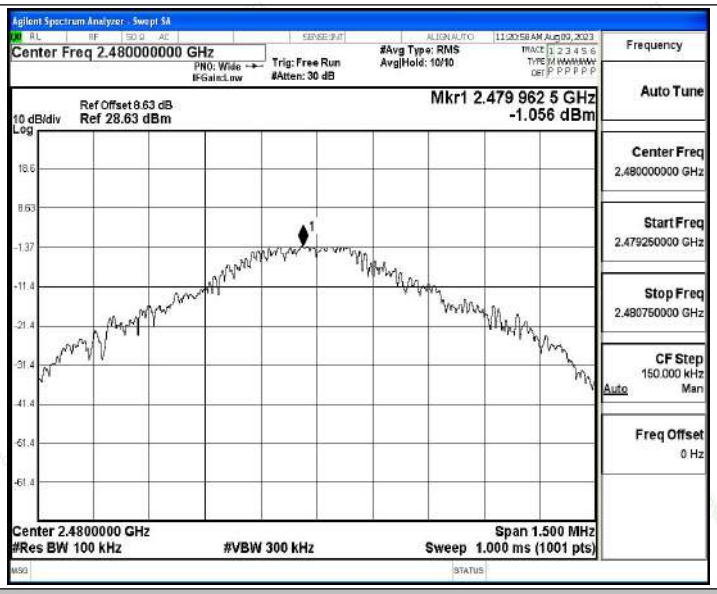
DH5_Ant1_2441_30~1000



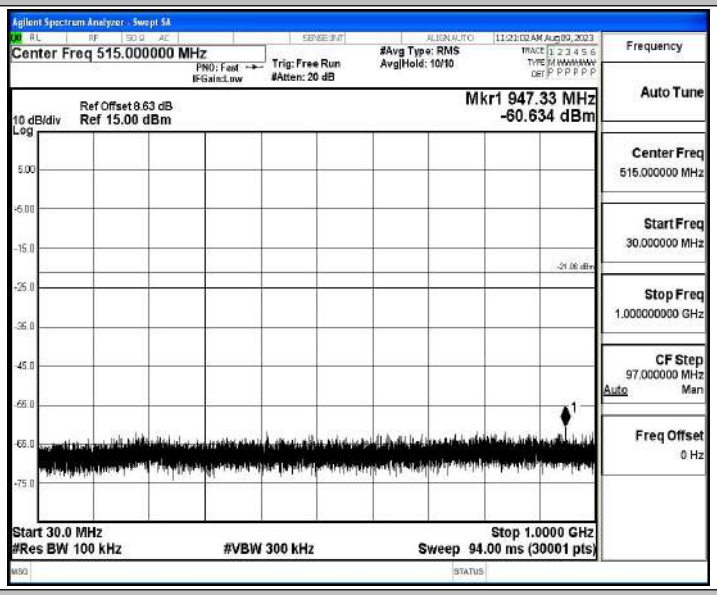
DH5_Ant1_2441_1000~26500



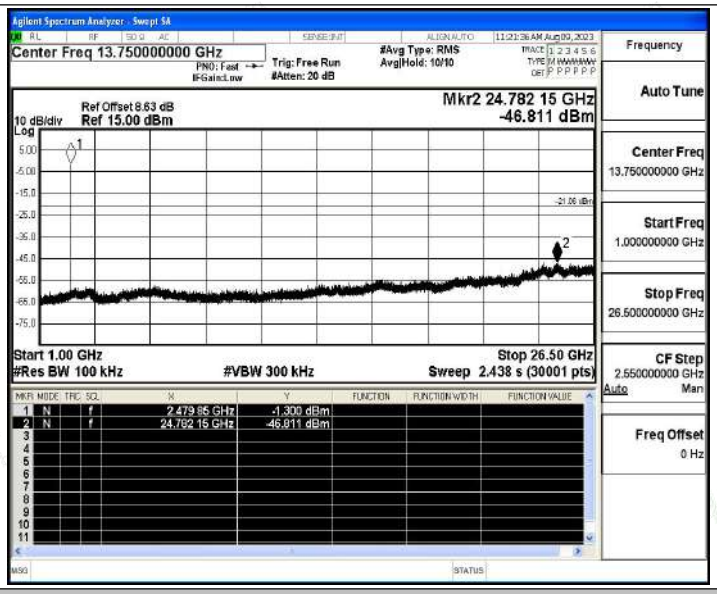
DH5_Ant1_2480_0~Reference



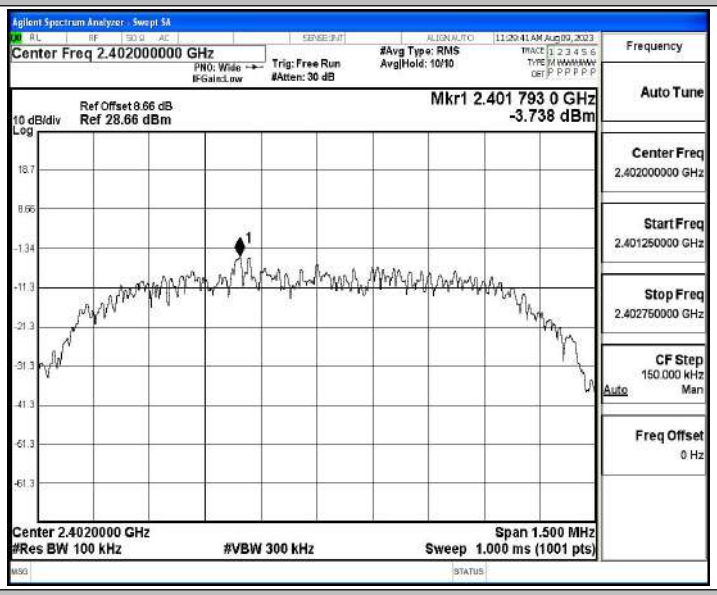
DH5_Ant1_2480_30~1000



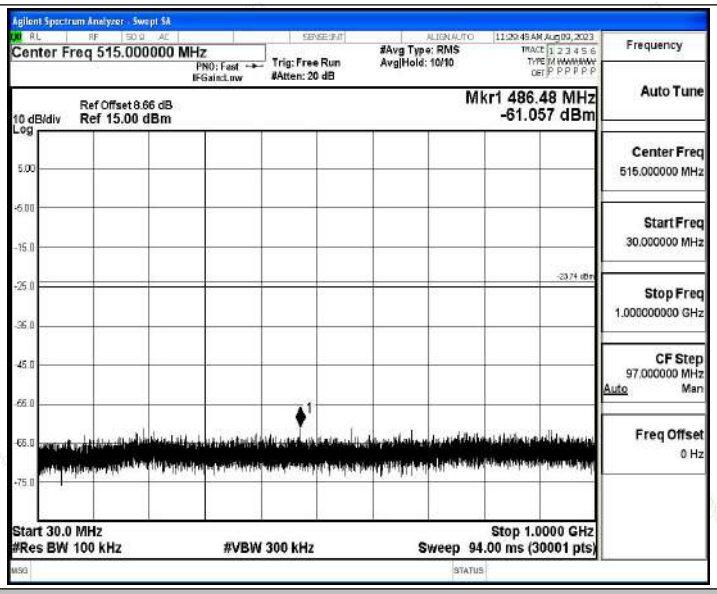
DH5_Ant1_2480_1000~26500



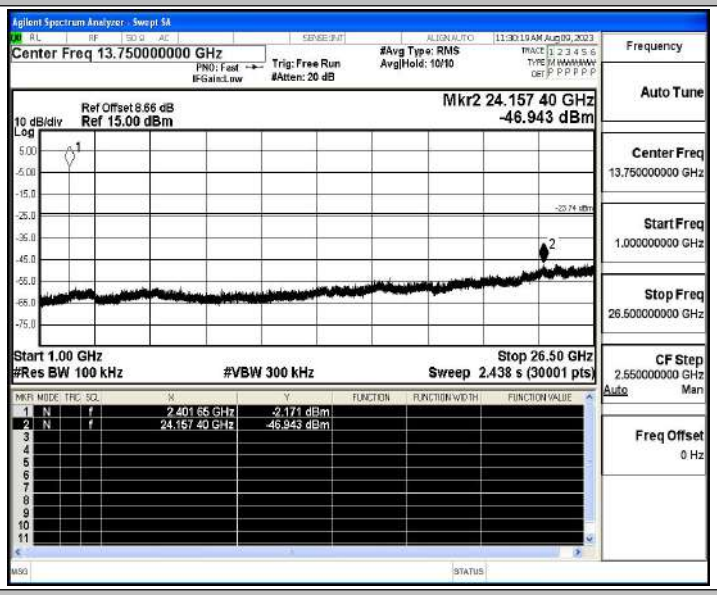
2DH5_Ant1_2402_0~Reference



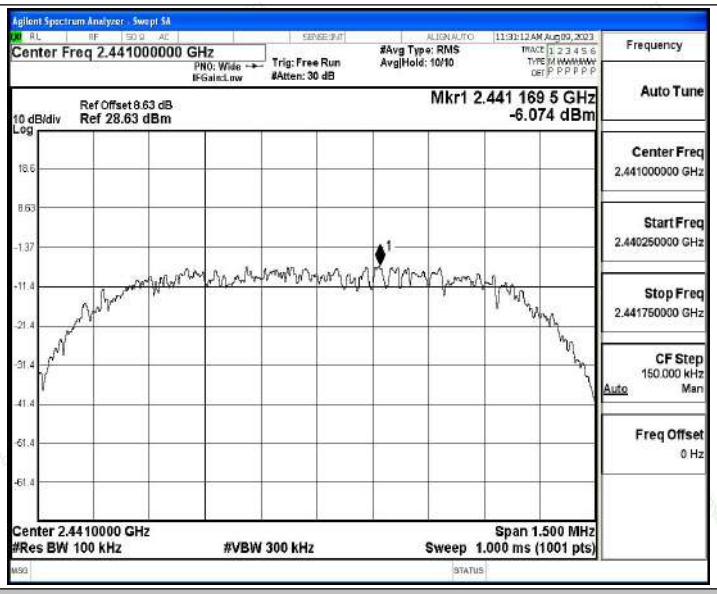
2DH5_Ant1_2402_30~1000



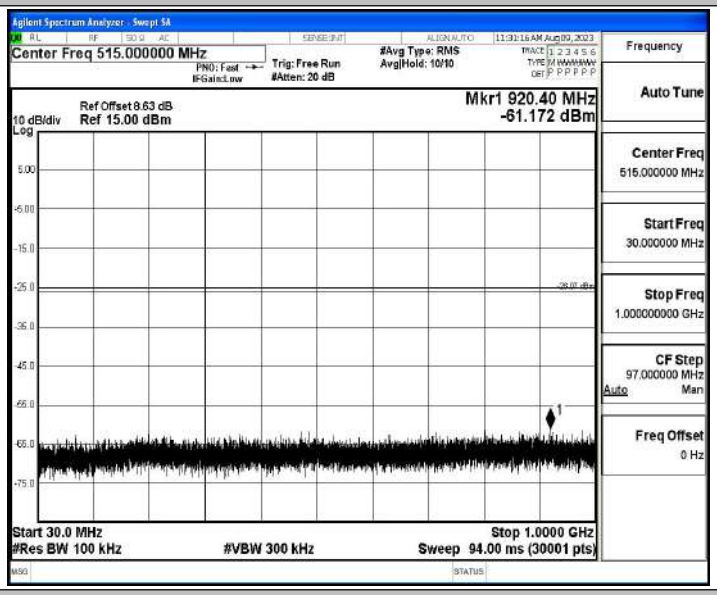
2DH5_Ant1_2402_1000~26500



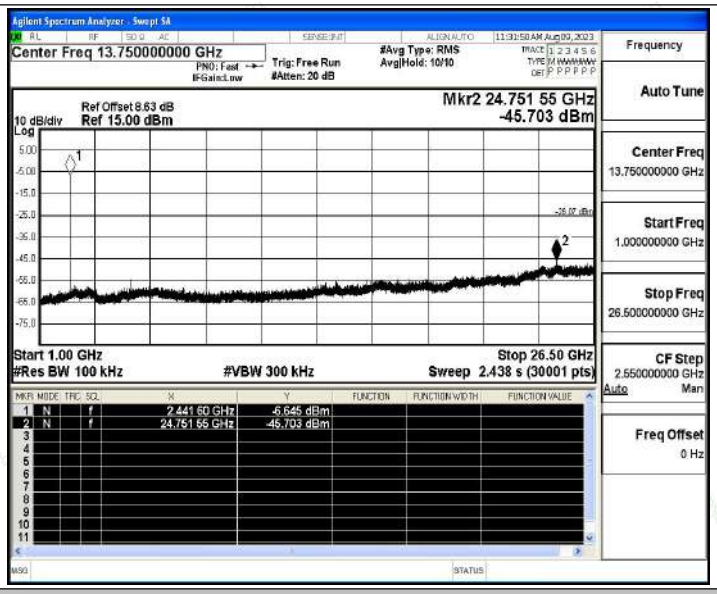
2DH5_Ant1_2441_0~Reference



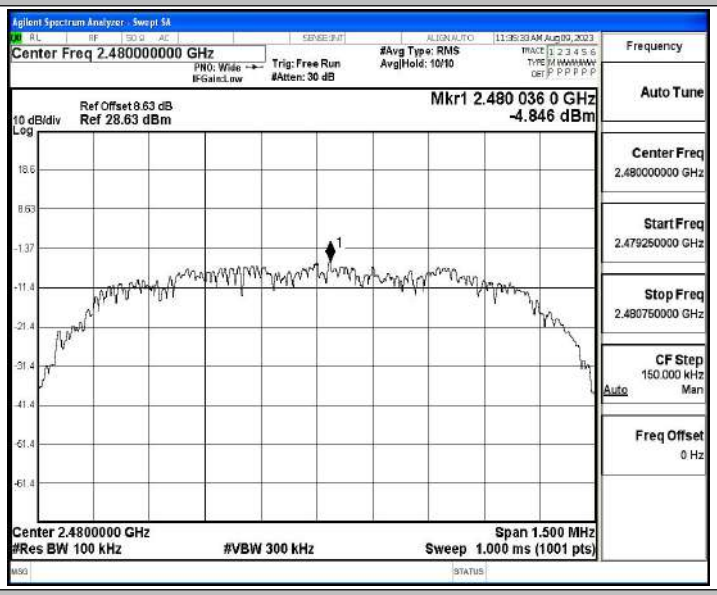
2DH5_Ant1_2441_30~1000



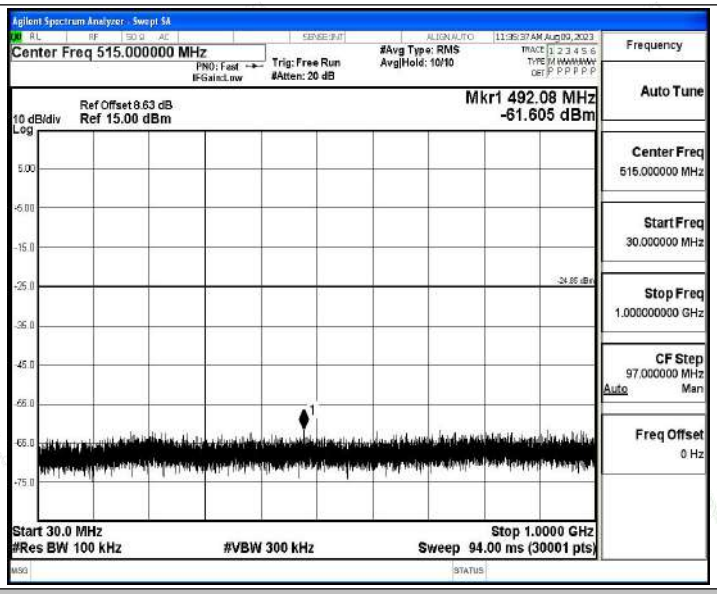
2DH5_Ant1_2441_1000~26500



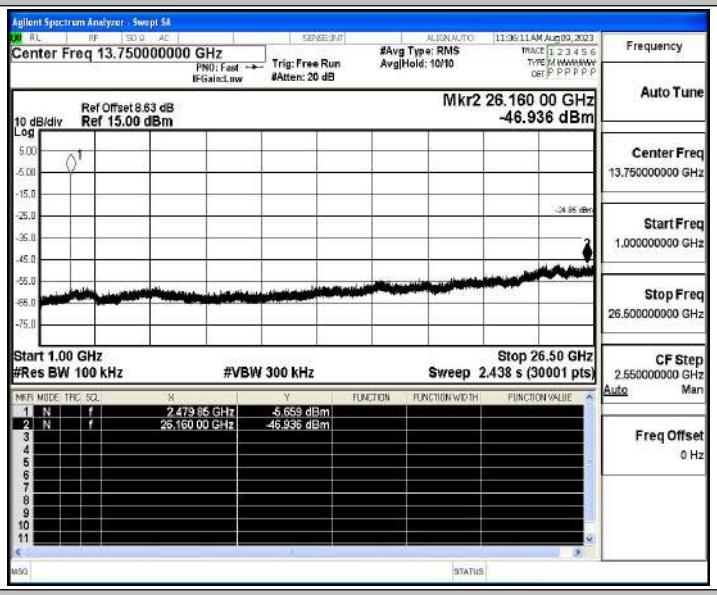
2DH5_Ant1_2480_0~Reference



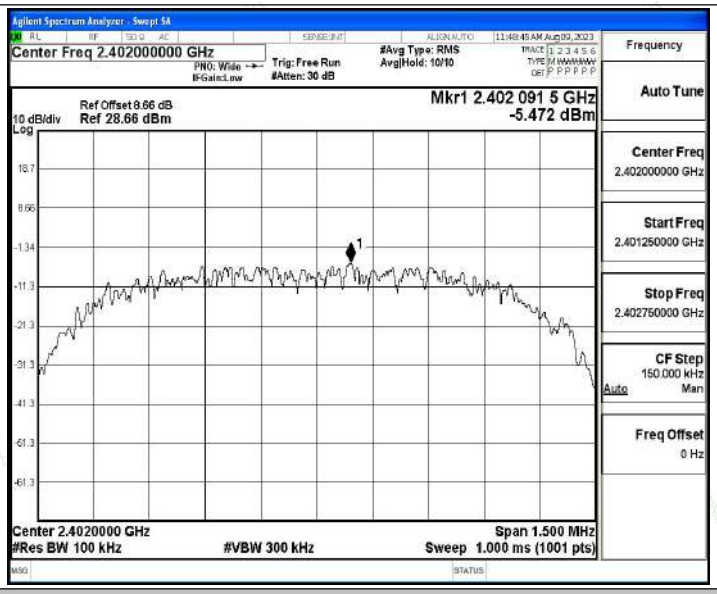
2DH5_Ant1_2480_30~1000



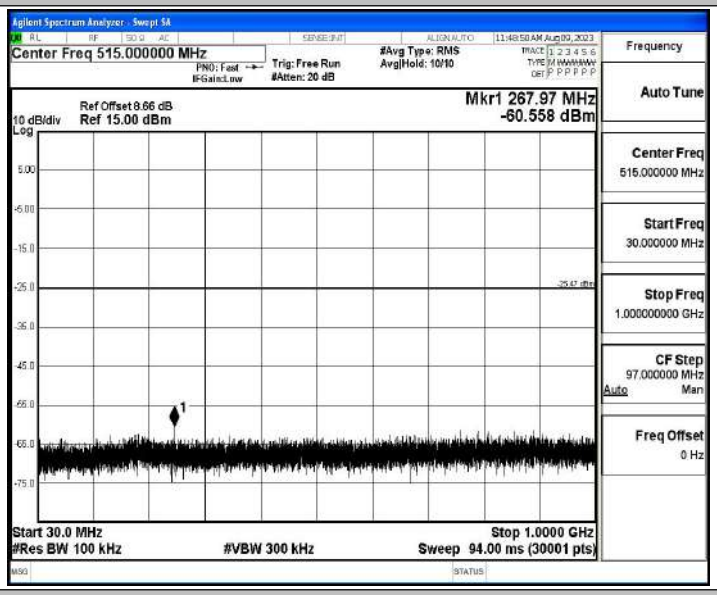
2DH5_Ant1_2480_1000~26500



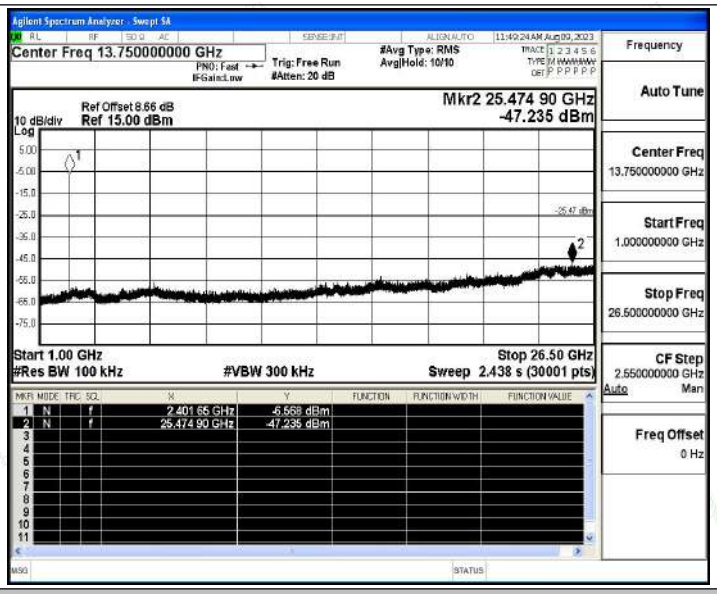
3DH5_Ant1_2402_0~Reference



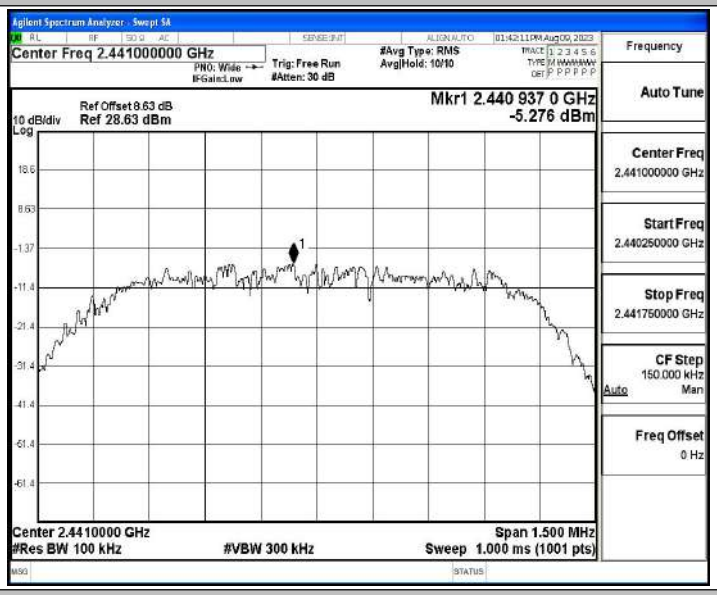
3DH5_Ant1_2402_30~1000



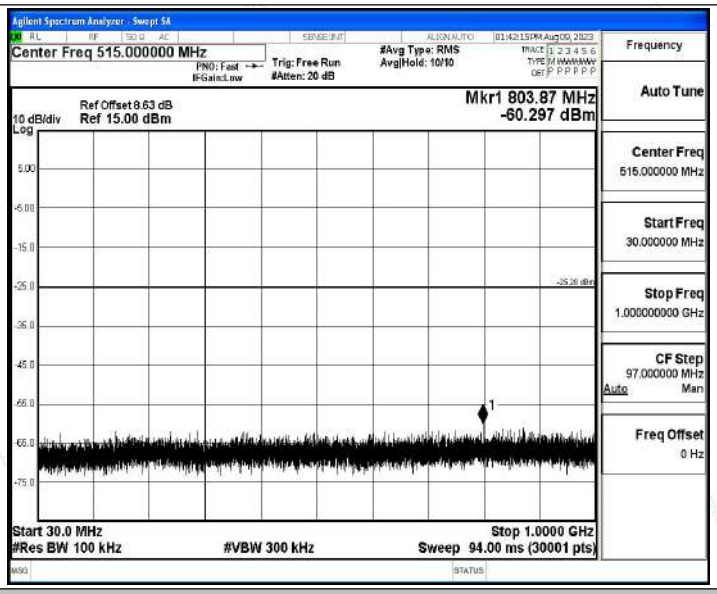
3DH5_Ant1_2402_1000~26500



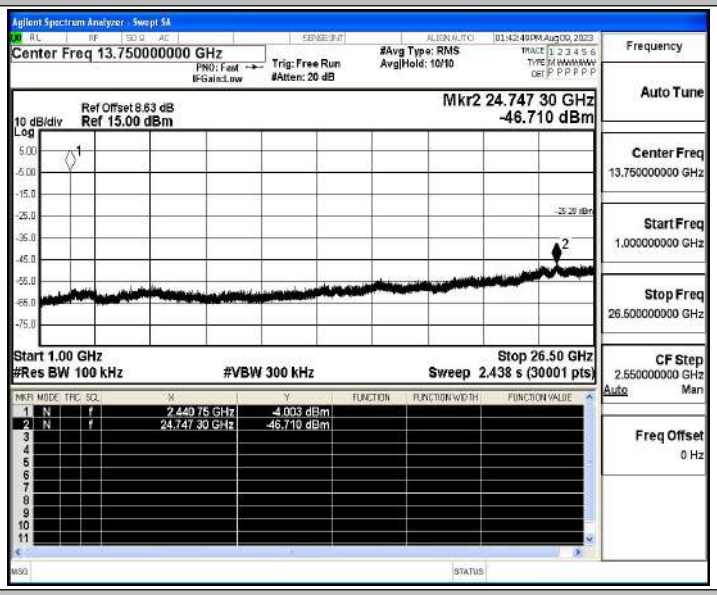
3DH5_Ant1_2441_0~Reference



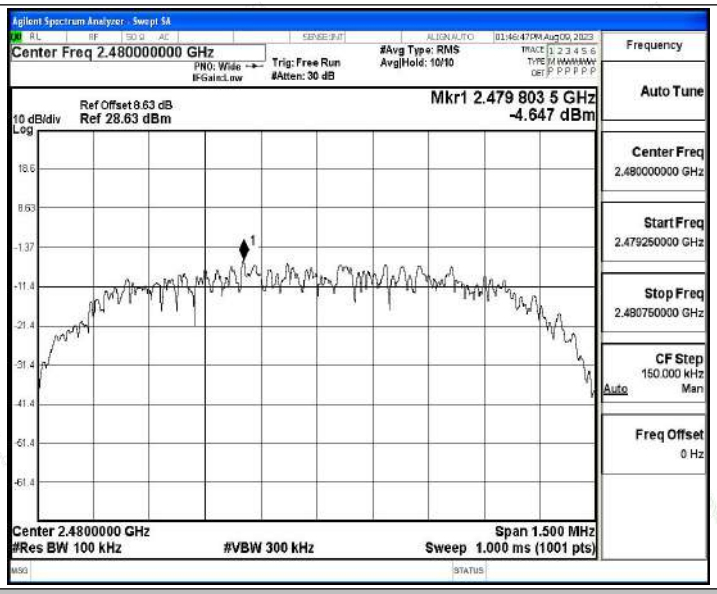
3DH5_Ant1_2441_30~1000



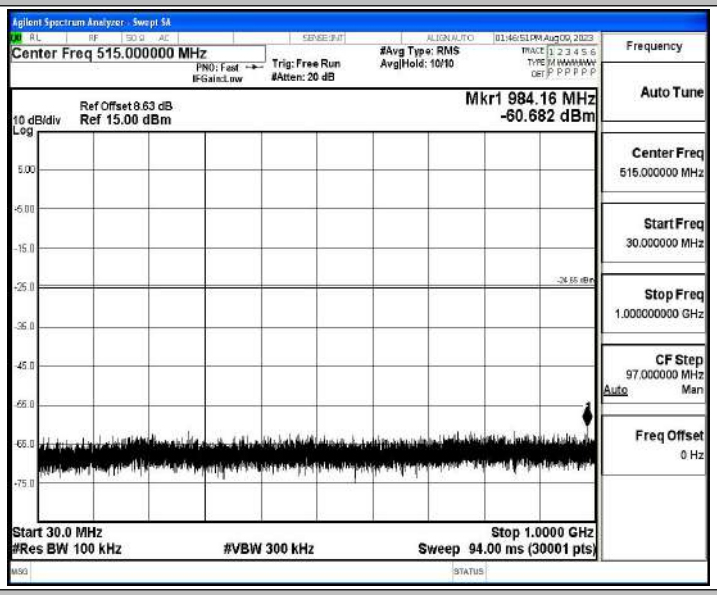
3DH5_Ant1_2441_1000~26500



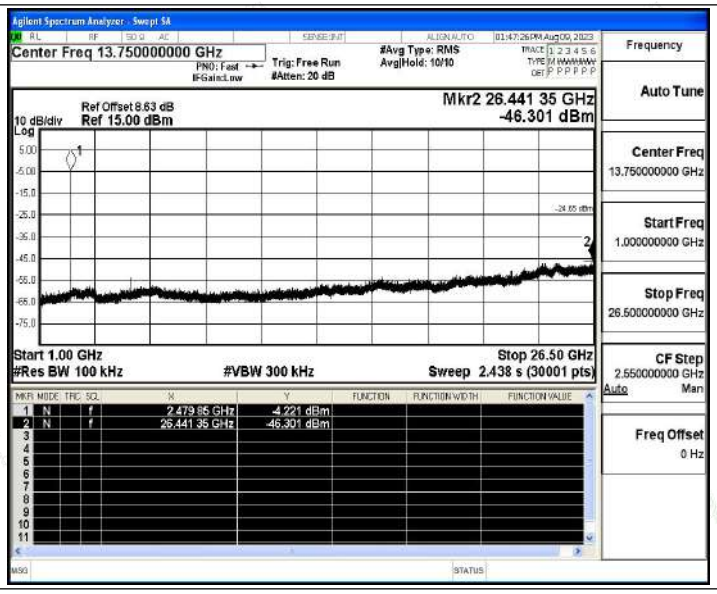
3DH5_Ant1_2480_0~Reference



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500


Agilent Spectrum Analyzer - Swept SA
Center Freq 13.750000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 10/10
01:47:26 PM Aug 09, 2023
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div
Ref 15.00 dBm
Mkr2 26.441 35 GHz
-46.301 dBm
Center Freq
13.750000000 GHz
Start Freq
1.000000000 GHz
Stop Freq
26.500000000 GHz
Start 1.00 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26.50 GHz
Sweep 2.438 s (30001 pts)
CF Step
2.550000000 GHz
Auto
Man
Freq Offset
0 Hz
1 N f 2.479 95 GHz -4.221 dBm
2 N f 26.441 35 GHz -46.301 dBm
MSG
STATUS

A.8 Emissions in Restricted Bands

Test Result

Test Mode	Antenna	ChName	Channel	Detector	Freq. [MHz]	Result [dBm]	Gain (dBi)	E (dBuV/m)	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-48.27	2.60	49.20	≤54	PASS
				AV	2389.250	-47.72	2.60	49.75	≤54	PASS
				AV	2390.000	-48.03	2.60	49.44	≤54	PASS
				Peak	2310.000	-43.2	2.60	54.27	≤74	PASS
				Peak	2378.015	-39.2	2.60	58.27	≤74	PASS
				Peak	2390.000	-42.74	2.60	54.73	≤74	PASS
		High	2480	AV	2483.500	-47.42	2.60	50.05	≤54	PASS
				AV	2496.240	-47.3	2.60	50.17	≤54	PASS
				AV	2500.000	-47.39	2.60	50.08	≤54	PASS
				Peak	2483.500	-41.68	2.60	55.79	≤74	PASS
				Peak	2496.160	-39.04	2.60	58.43	≤74	PASS
				Peak	2500.000	-43.11	2.60	54.36	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.35	2.60	57.12	≤74	PASS
				Peak	2386.625	-36.43	2.60	61.04	≤74	PASS
				Peak	2390.000	-39.97	2.60	57.50	≤74	PASS
		High	Hop_2480	Peak	2483.500	-39.09	2.60	58.38	≤74	PASS
				Peak	2497.920	-36.82	2.60	60.65	≤74	PASS
				Peak	2500.000	-38.7	2.60	58.77	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-48.32	2.60	49.15	≤54	PASS
				AV	2385.470	-47.8	2.60	49.67	≤54	PASS
				AV	2390.000	-47.99	2.60	49.48	≤54	PASS
				Peak	2310.000	-43.5	2.60	53.97	≤74	PASS
				Peak	2384.735	-39.12	2.60	58.35	≤74	PASS
				Peak	2390.000	-41.18	2.60	56.29	≤74	PASS
		High	2480	AV	2483.500	-47.45	2.60	50.02	≤54	PASS
				AV	2498.640	-47.26	2.60	50.21	≤54	PASS
				AV	2500.000	-47.41	2.60	50.06	≤54	PASS
				Peak	2483.500	-42.04	2.60	55.43	≤74	PASS
				Peak	2494.320	-37.93	2.60	59.54	≤74	PASS
				Peak	2500.000	-42.61	2.60	54.86	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-40.76	2.60	56.71	≤74	PASS
				Peak	2329.820	-37.65	2.60	59.82	≤74	PASS
				Peak	2390.000	-39.14	2.60	58.33	≤74	PASS
		High	Hop_2480	Peak	2483.500	-38.82	2.60	58.65	≤74	PASS
				Peak	2499.680	-36.58	2.60	60.89	≤74	PASS

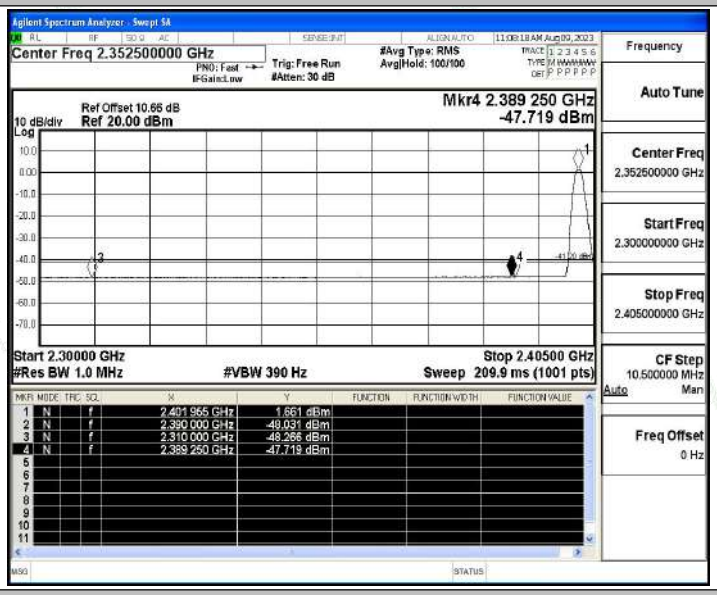
				Peak	2500.000	-38.67	2.60	58.80	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-48.28	2.60	49.19	≤54	PASS
				AV	2389.565	-47.77	2.60	49.70	≤54	PASS
				AV	2390.000	-48.01	2.60	49.46	≤54	PASS
				Peak	2310.000	-43.49	2.60	53.98	≤74	PASS
				Peak	2349.455	-38.69	2.60	58.78	≤74	PASS
				Peak	2390.000	-43.32	2.60	54.15	≤74	PASS
		High	2480	AV	2483.500	-47.25	2.60	50.22	≤54	PASS
				AV	2499.120	-47.12	2.60	50.35	≤54	PASS
				AV	2500.000	-47.29	2.60	50.18	≤54	PASS
				Peak	2483.500	-43.58	2.60	53.89	≤74	PASS
				Peak	2484.160	-38.38	2.60	59.09	≤74	PASS
				Peak	2500.000	-41.13	2.60	56.34	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-39.96	2.60	57.51	≤74	PASS
				Peak	2370.035	-37.83	2.60	59.64	≤74	PASS
				Peak	2390.000	-40.15	2.60	57.32	≤74	PASS
		High	Hop_2480	Peak	2483.500	-38.81	2.60	58.66	≤74	PASS
				Peak	2484.080	-36.97	2.60	60.50	≤74	PASS
				Peak	2500.000	-38.96	2.60	58.51	≤74	PASS

Note:

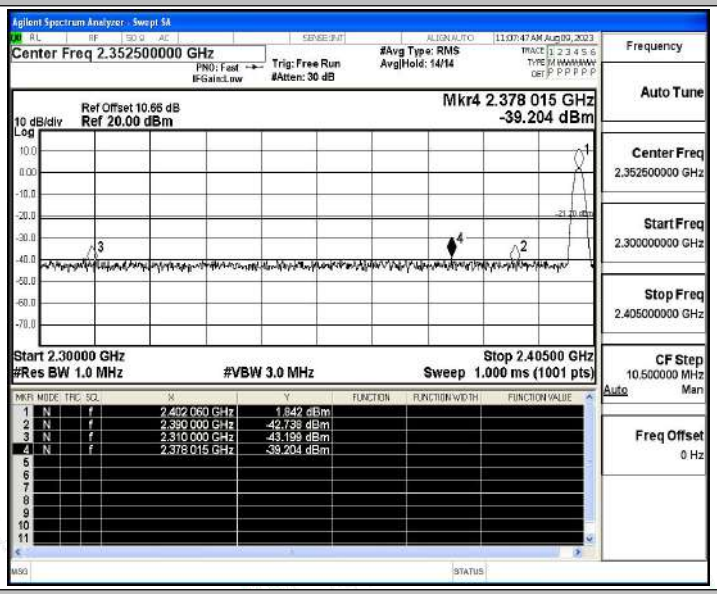
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

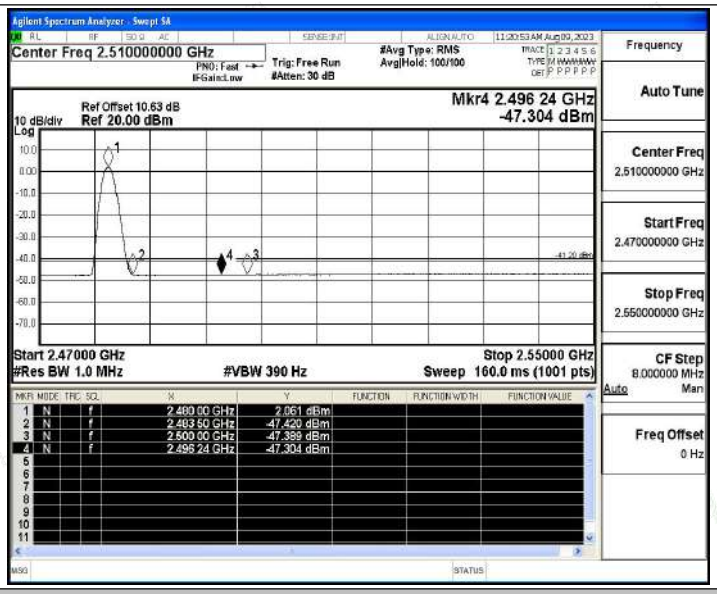
DH5_Ant1_Low_2402_AV



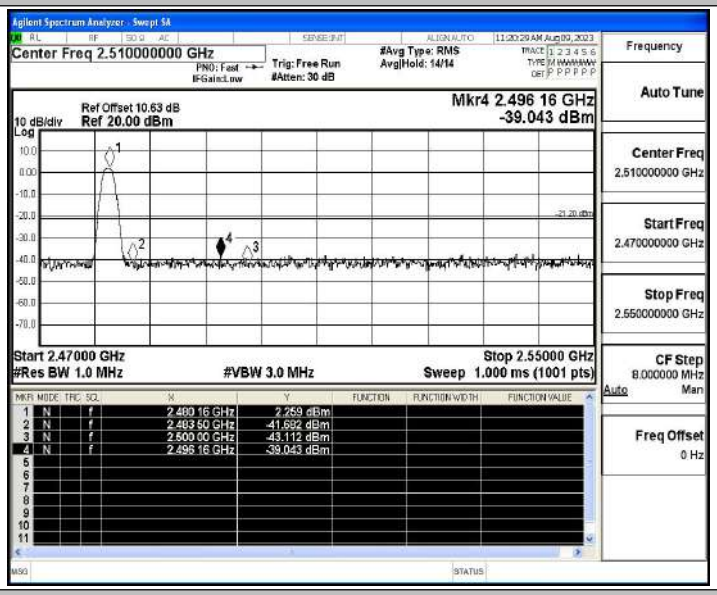
DH5_Ant1_Low_2402_Peak



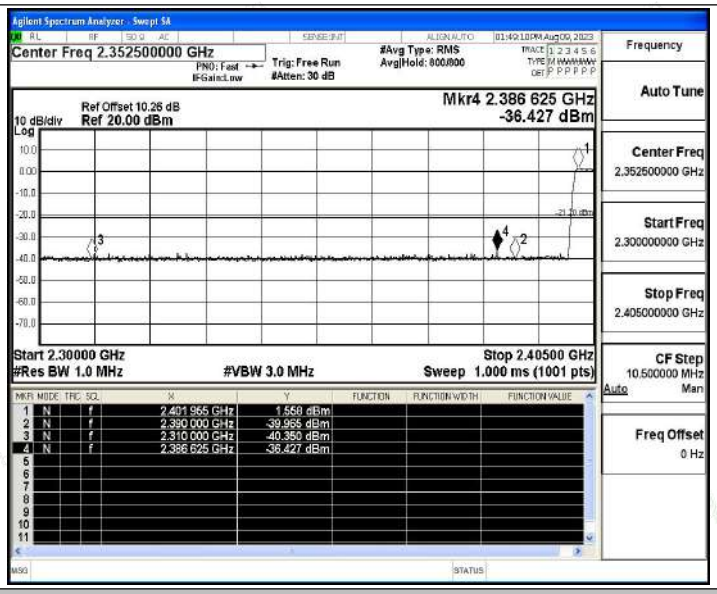
DH5_Ant1_High_2480_AV



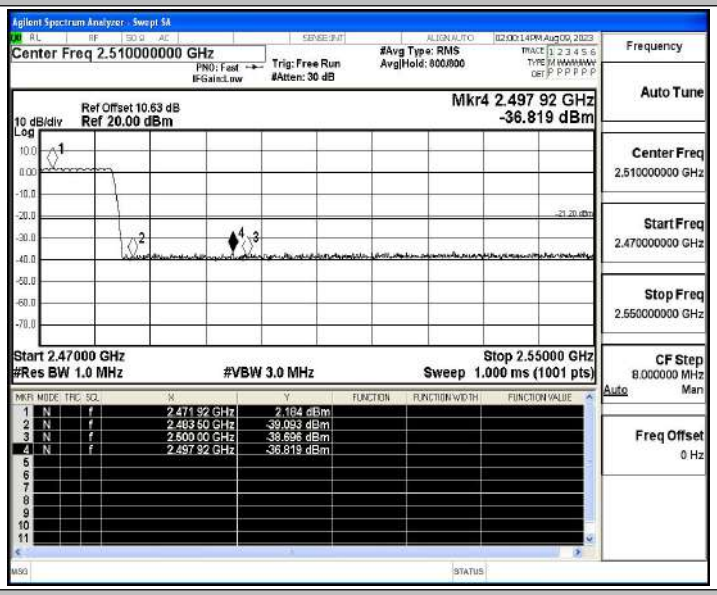
DH5_Ant1_High_2480_Peak



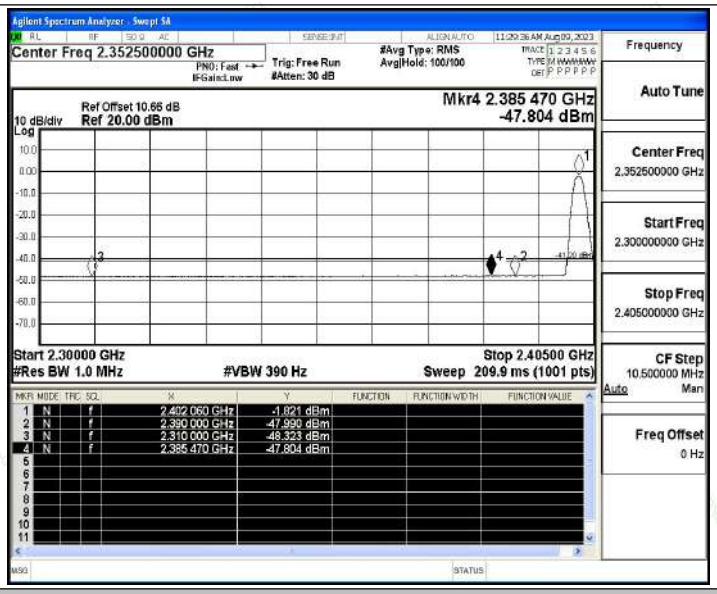
DH5_Ant1_Low_Hop_2402_Peak



DH5_Ant1_High_Hop_2480_Peak



2DH5_Ant1_Low_2402_AV



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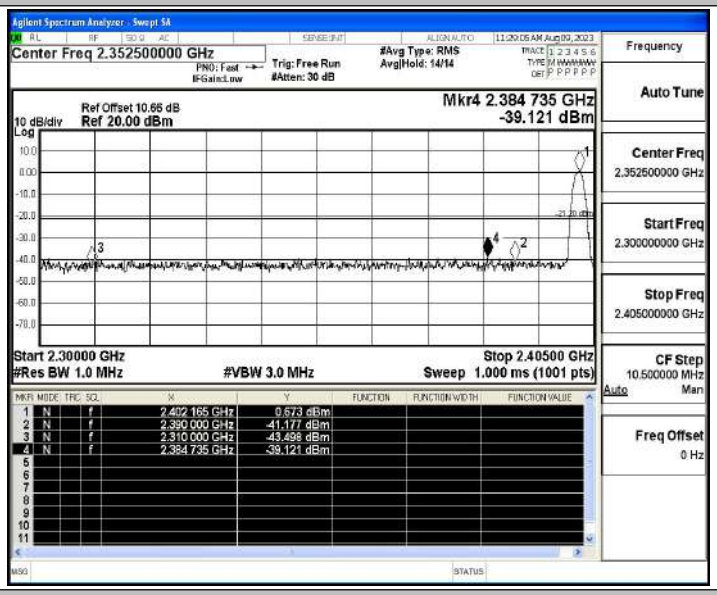

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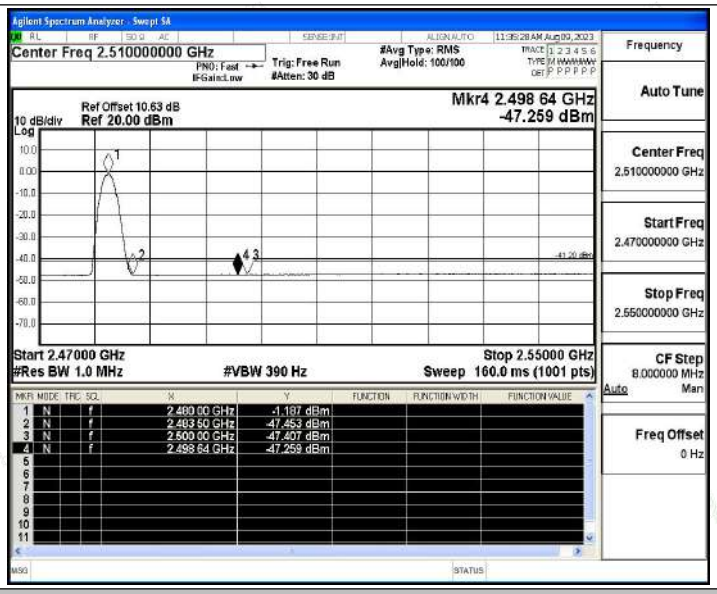

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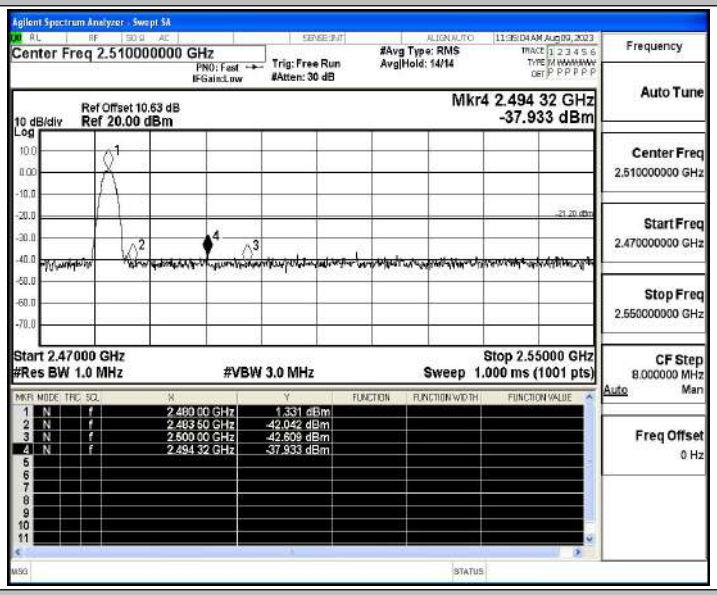

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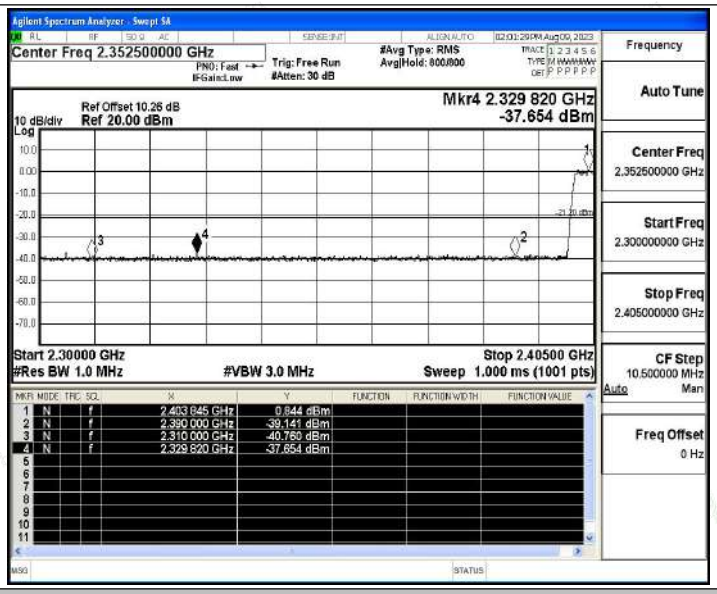

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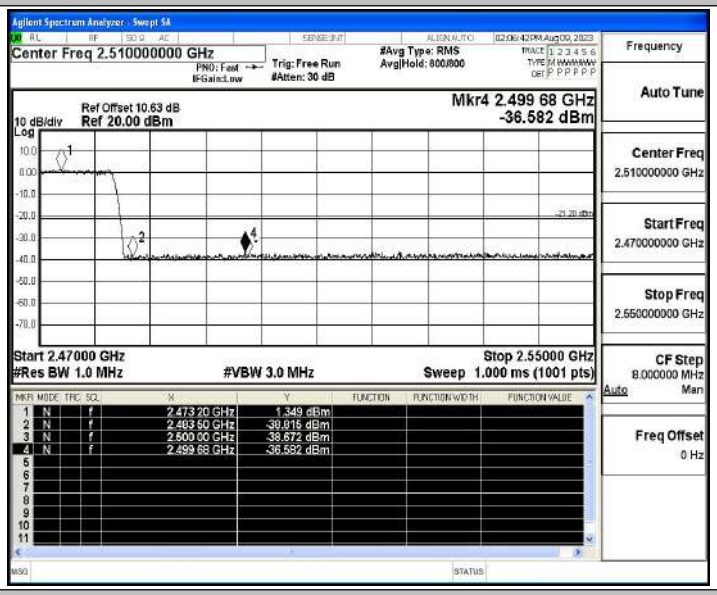

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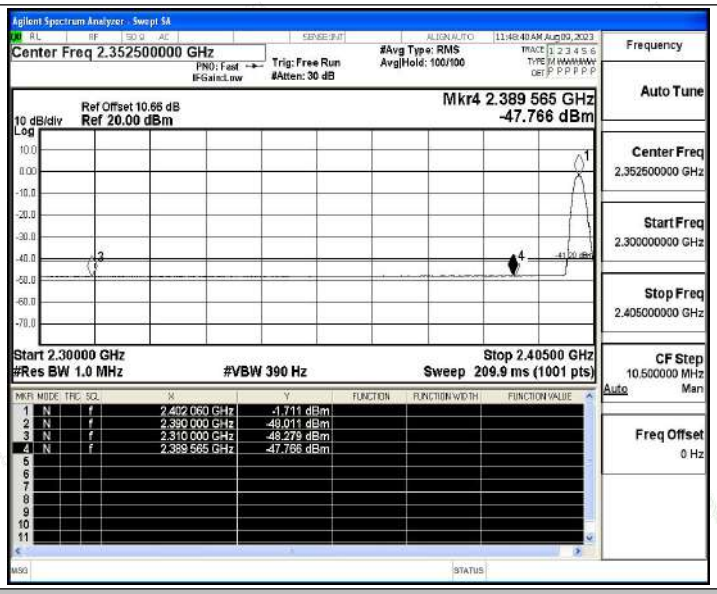

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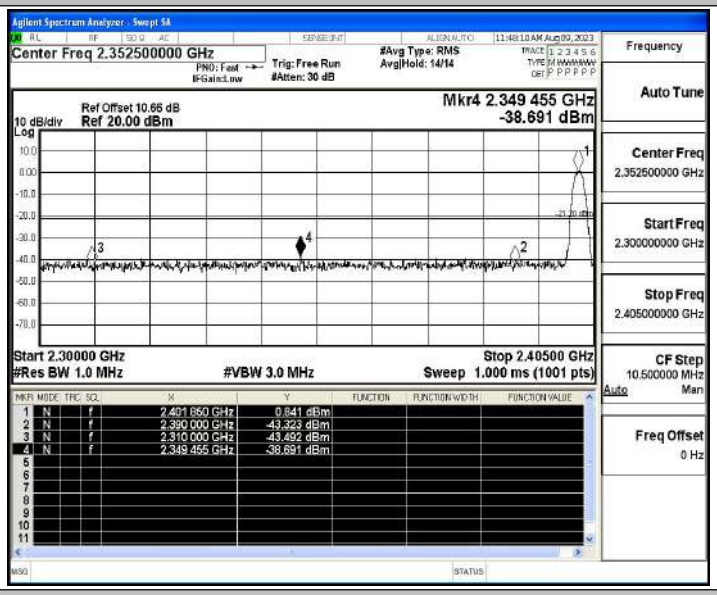

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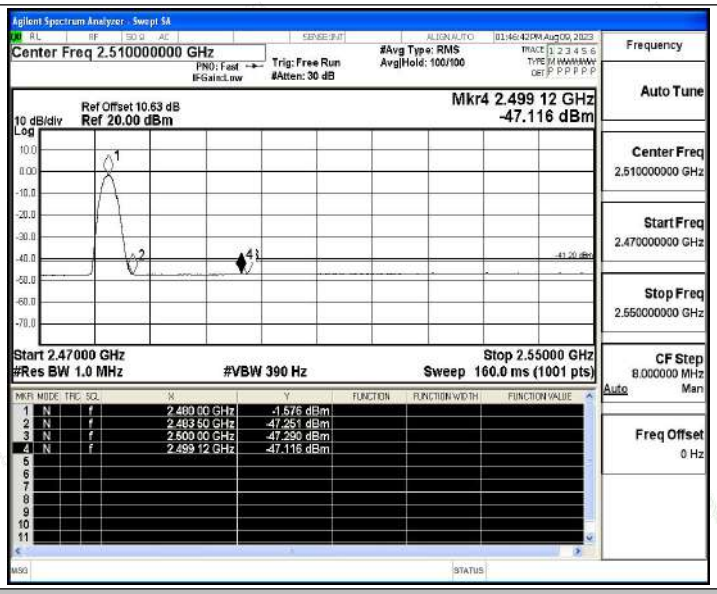

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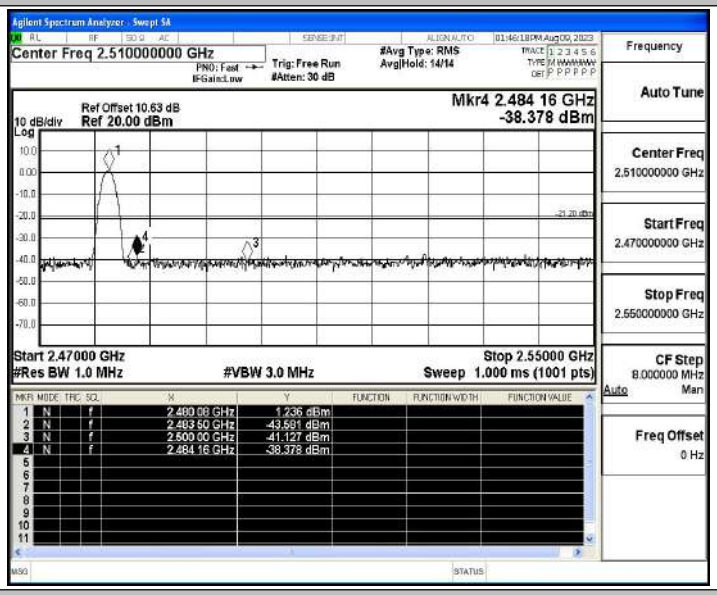

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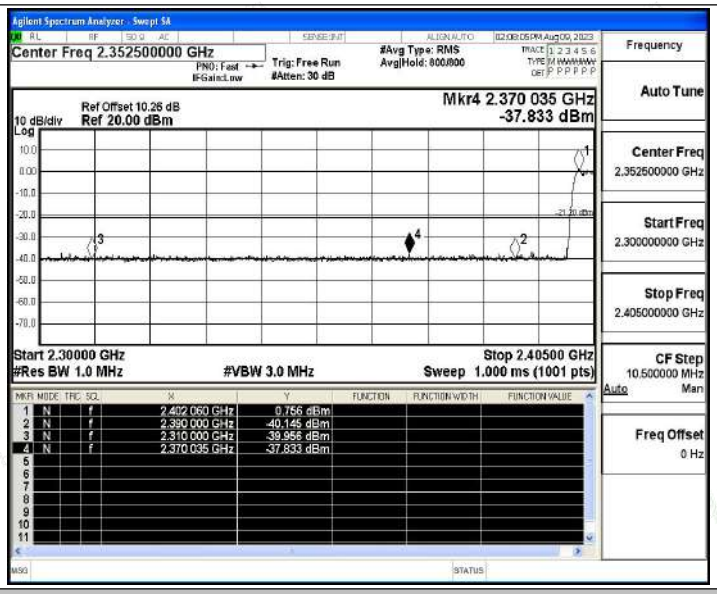
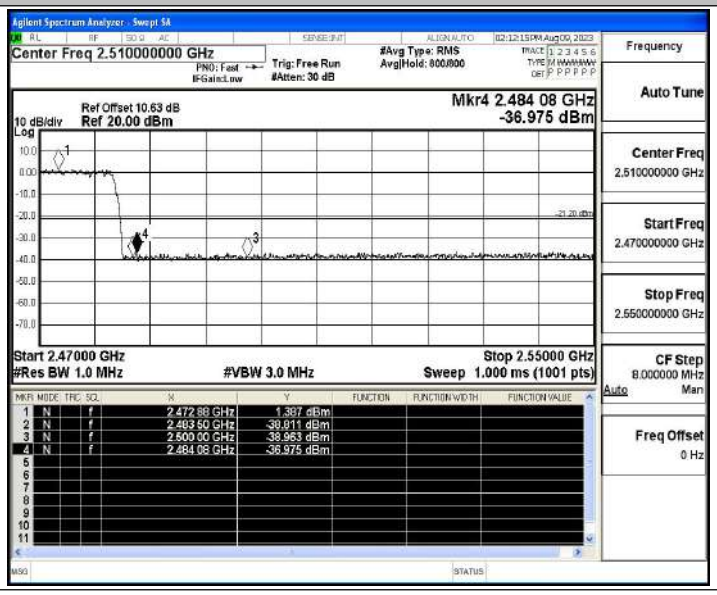
3DH5_Ant1_High_Hop_2480_Peak