Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: P060Eye Massager

Test Model: HXR-P060

Environmental Conditions

Temperature:	23.8 ° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Nick Peng
Supervised by:	Ling Zhu

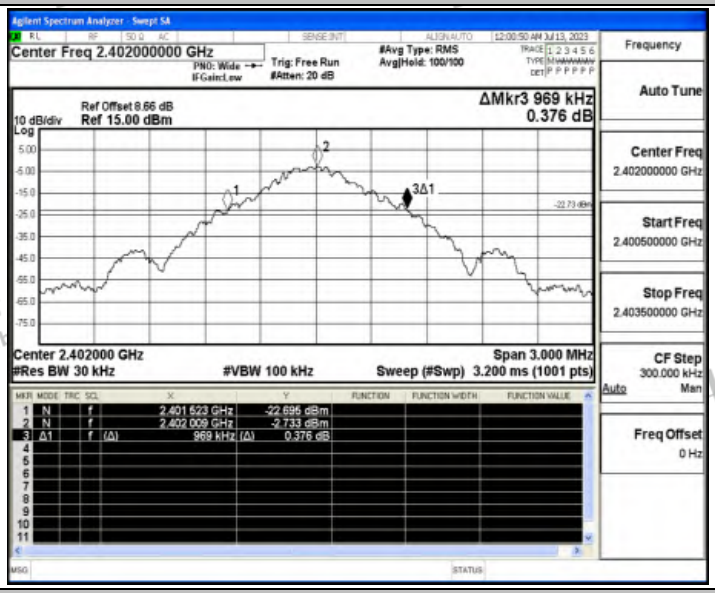
A.1 20dB Emission Bandwidth

Test Result

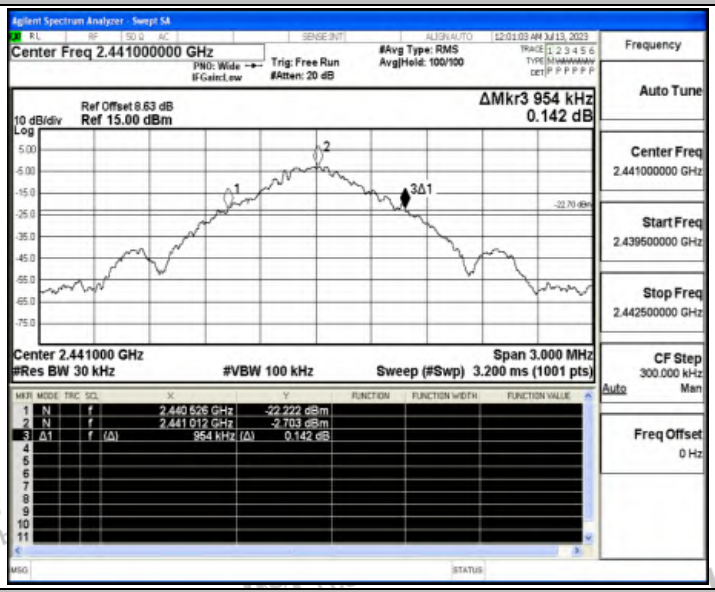
TestMode	Antenna	Frequency[MHz]	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.969	2401.523	2402.492	---	PASS
		2441	0.954	2440.526	2441.480	---	PASS
		2480	1.029	2479.463	2480.492	---	PASS
2DH5	Ant1	2402	1.332	2401.328	2402.660	---	PASS
		2441	1.284	2440.361	2441.645	---	PASS
		2480	1.287	2479.361	2480.648	---	PASS
3DH5	Ant1	2402	1.305	2401.343	2402.648	---	PASS
		2441	1.332	2440.331	2441.663	---	PASS
		2480	1.284	2479.352	2480.636	---	PASS

Test Graphs

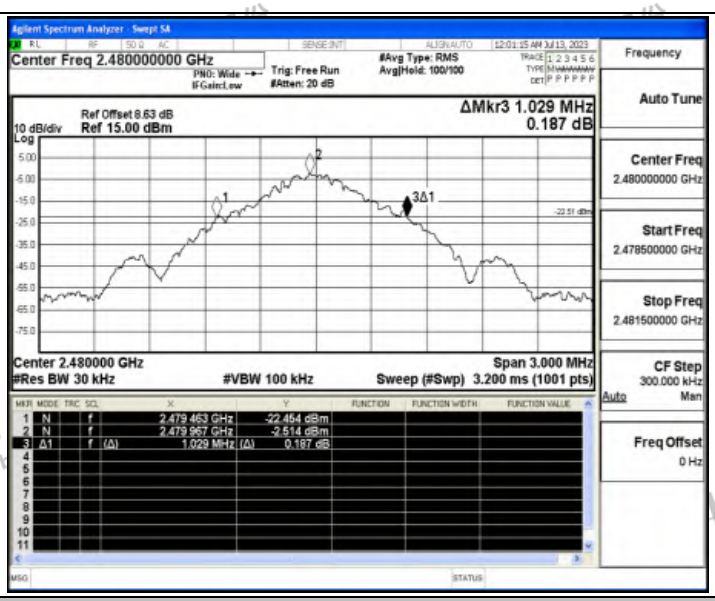
DH5_Ant1_2402



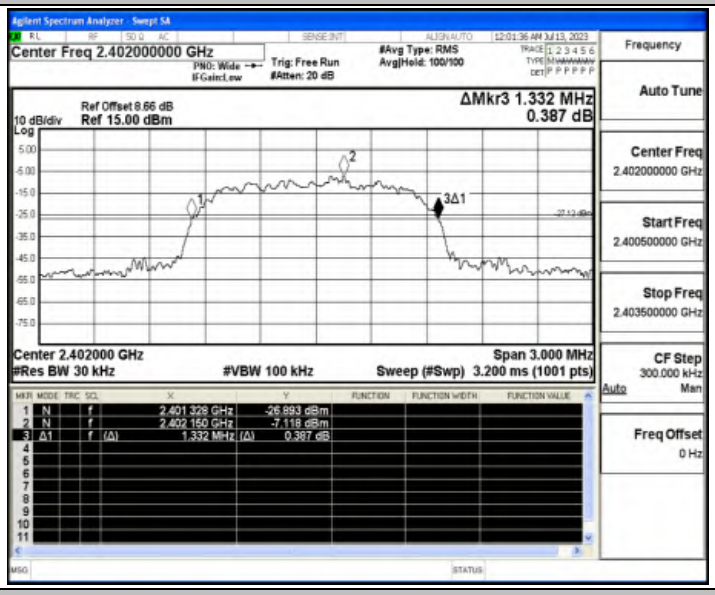
DH5_Ant1_2441



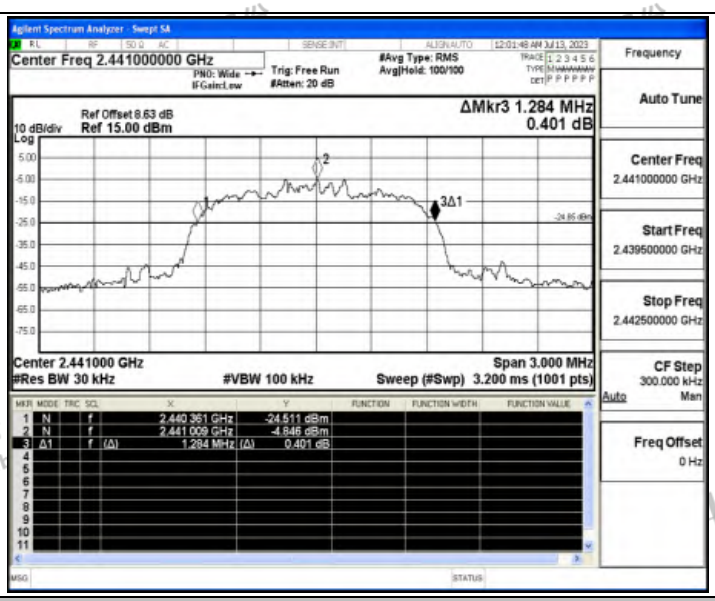
DH5_Ant1_2480



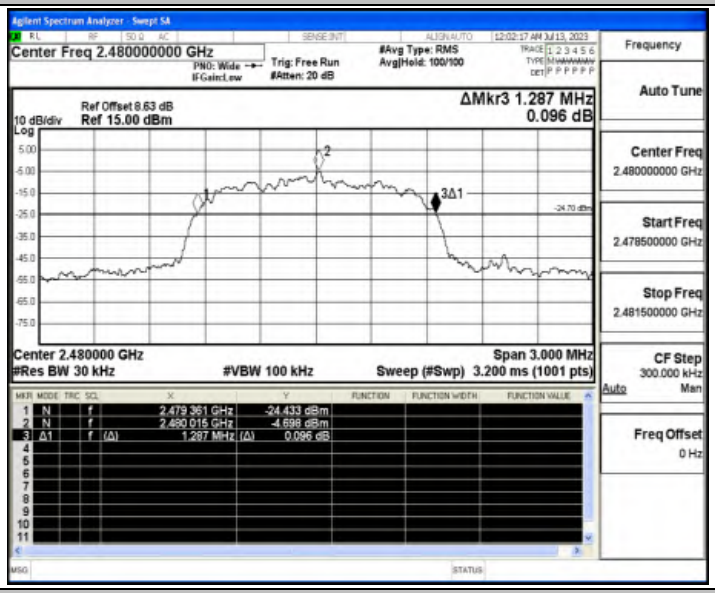
2DH5_Ant1_2402



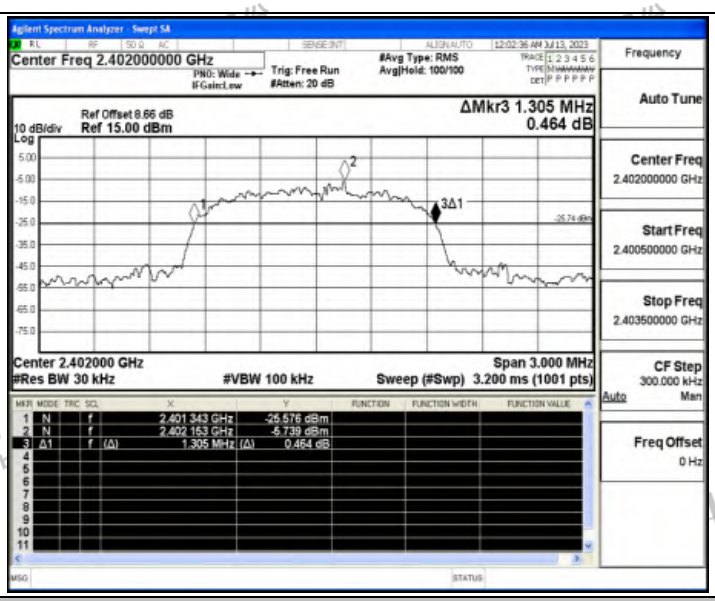
2DH5_Ant1_2441



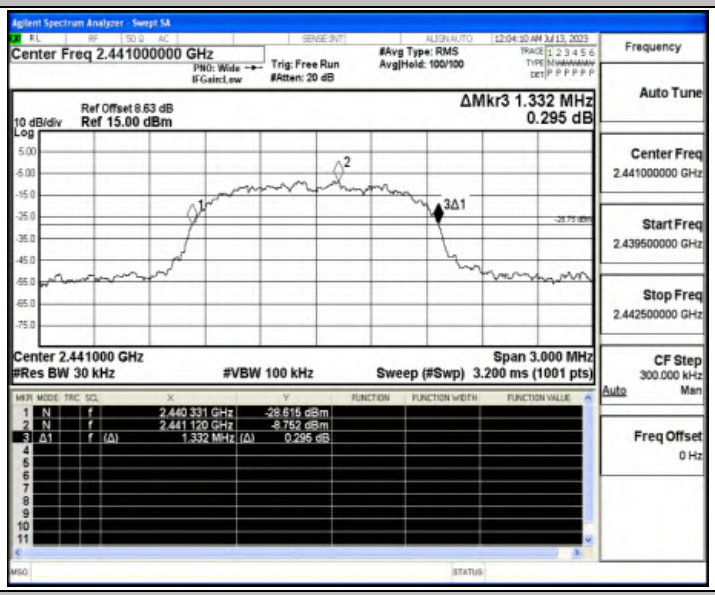
2DH5_Ant1_2480



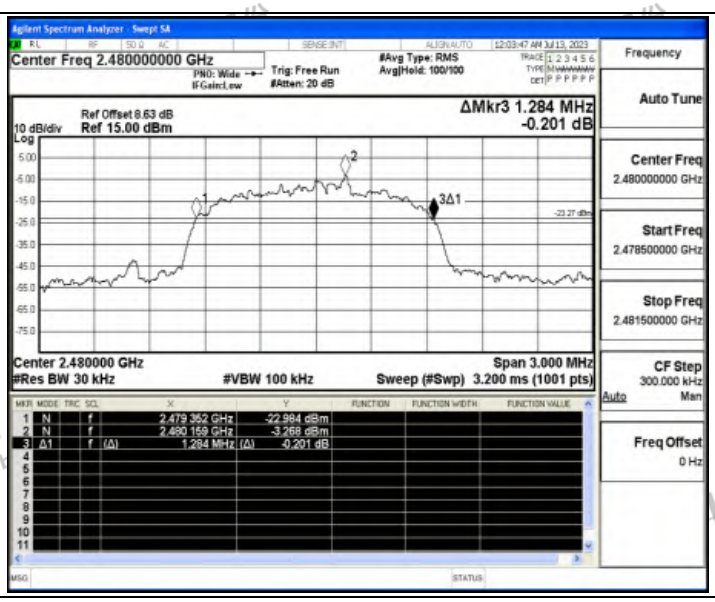
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 100/100
12:03:47 AM Jul 13, 2023
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div Ref 15.00 dBm
Log
ΔMkr3 1.284 MHz
-0.201 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 (#Swp) 3.200 ms (1001 pts)
CF Step
300.000 kHz
Auto Man
Freq Offset
0 Hz
1 N f 2.479 362 GHz -22.984 dBm
2 N f 2.480 159 GHz -3.268 dBm
3 Δ1 f (Δ) 1.284 MHz (Δ) -0.201 dB
MSG
STATUS

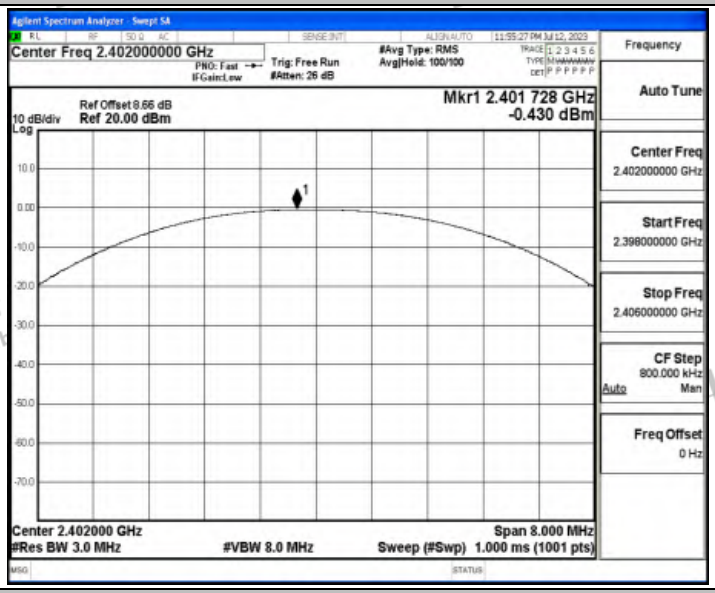
A.2 Maximum conducted output power

Test Result Peak

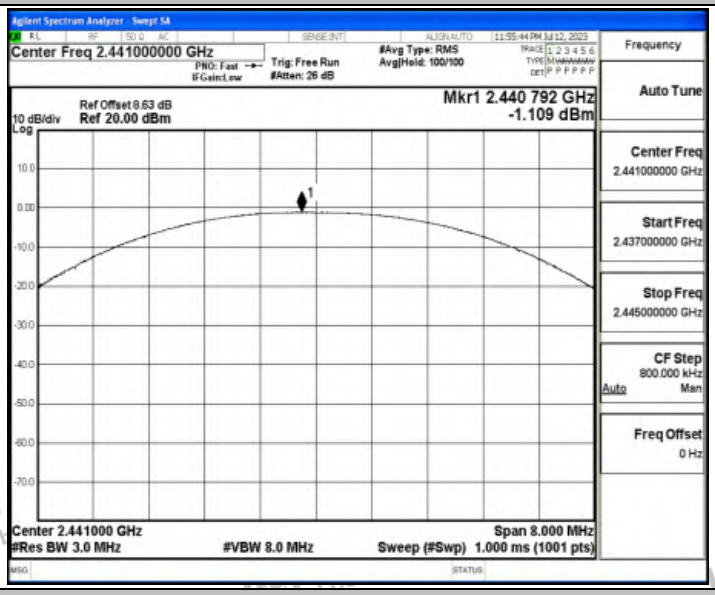
Test Mode	Antenna	Frequency[MHz]	Conducted Peak Powert[dBm]	Conducted Limit[dBm]	Verdict
DH5	Ant1	2402	-0.43	≤20.97	PASS
		2441	-1.11	≤20.97	PASS
		2480	-1.75	≤20.97	PASS
2DH5	Ant1	2402	0.27	≤20.97	PASS
		2441	-0.40	≤20.97	PASS
		2480	-1.03	≤20.97	PASS
3DH5	Ant1	2402	0.70	≤20.97	PASS
		2441	0.09	≤20.97	PASS
		2480	-0.59	≤20.97	PASS

Test Graphs

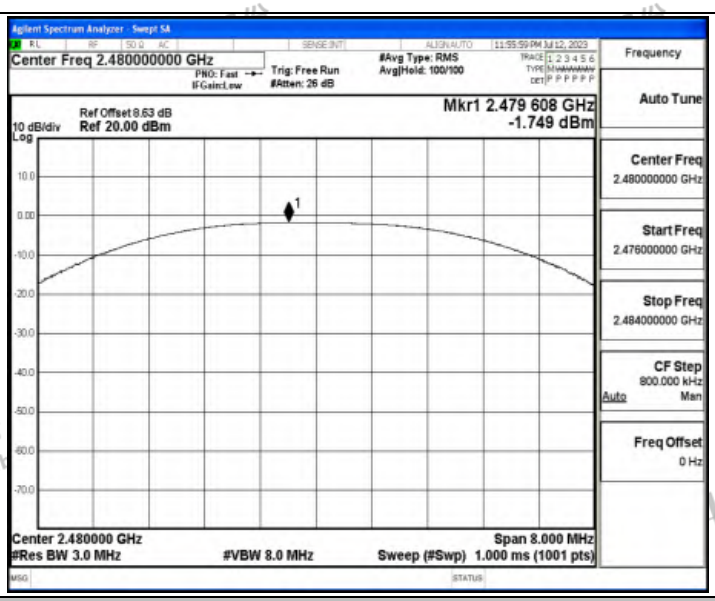
DH5_Ant1_2402



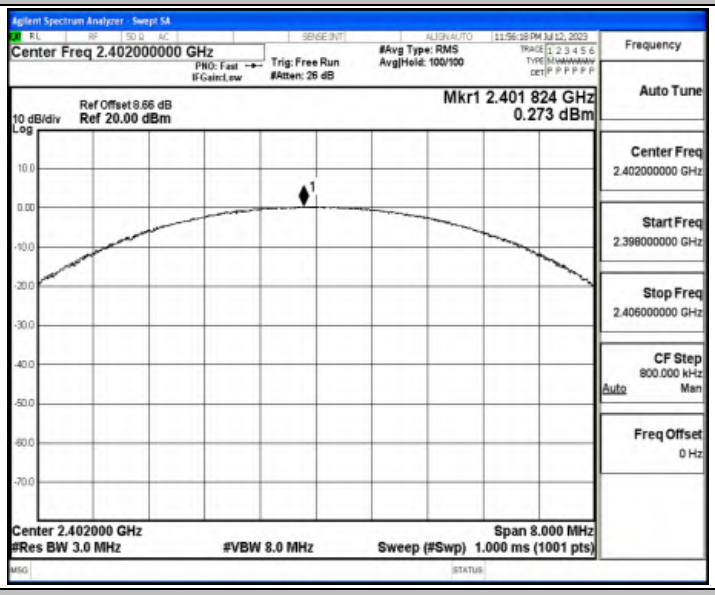
DH5_Ant1_2441



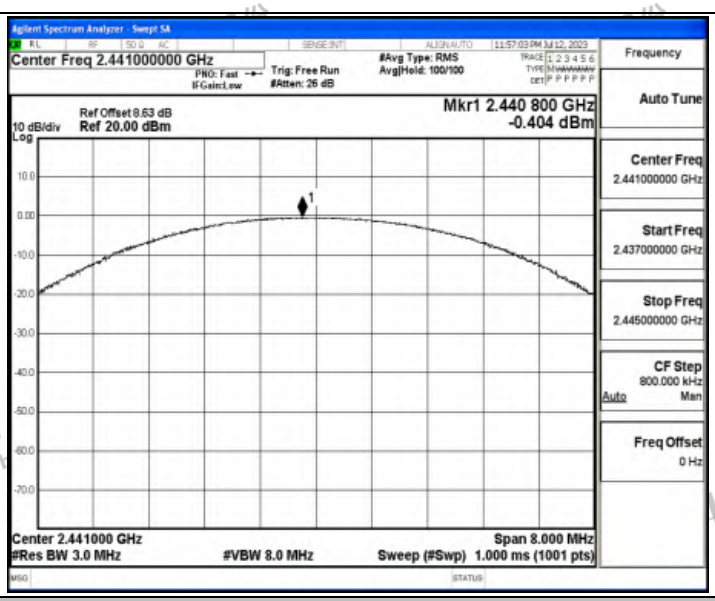
DH5_Ant1_2480



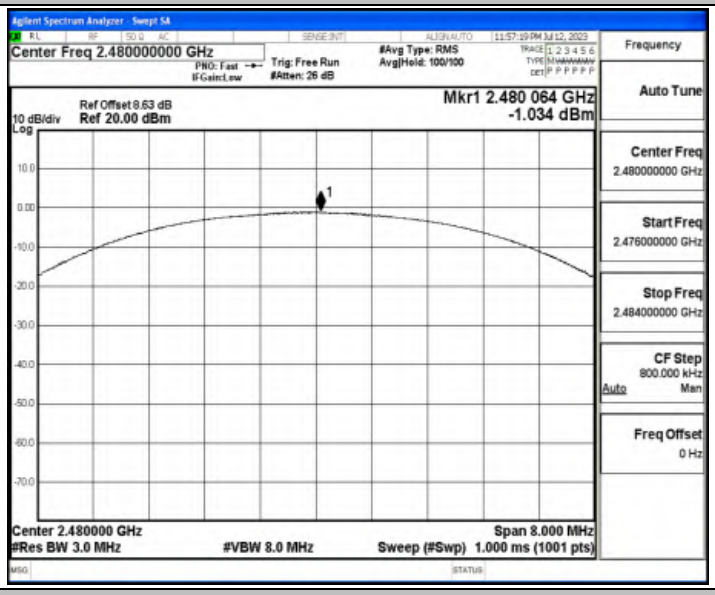
2DH5_Ant1_2402



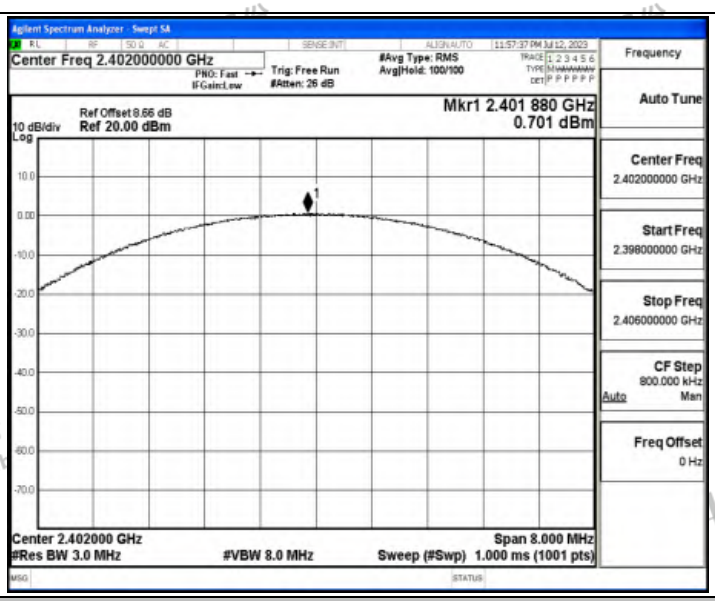
2DH5_Ant1_2441



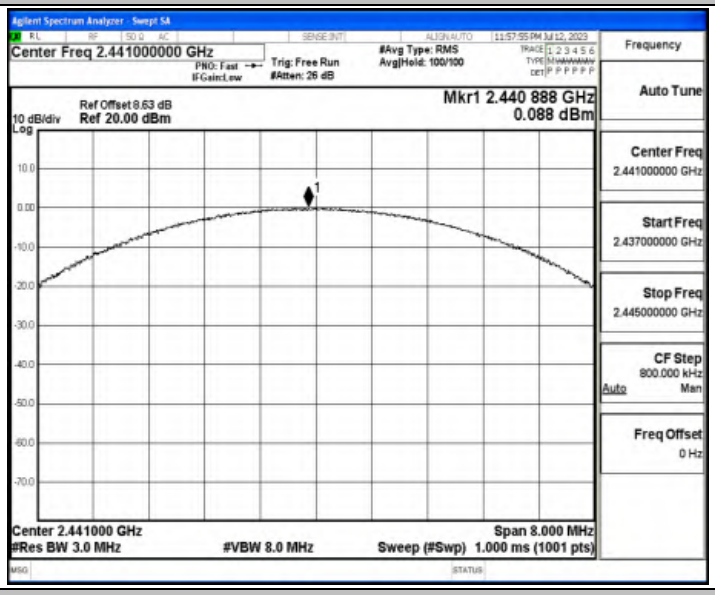
2DH5_Ant1_2480



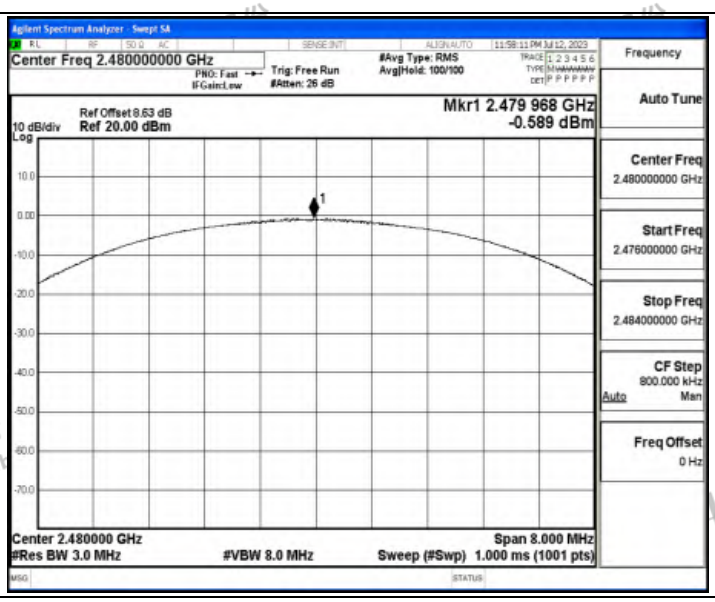
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 26 dB
#Avg Type: RMS
Avg|Hold: 100/100
11:58:11 PM Jul 12, 2023
Frequency
Auto Tune
Ref Offset 8.63 dB
10 dB/div Ref 20.00 dBm
Log
Mkr1 2.479 968 GHz
-0.589 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 (#Swp) 1.000 ms (1001 pts)

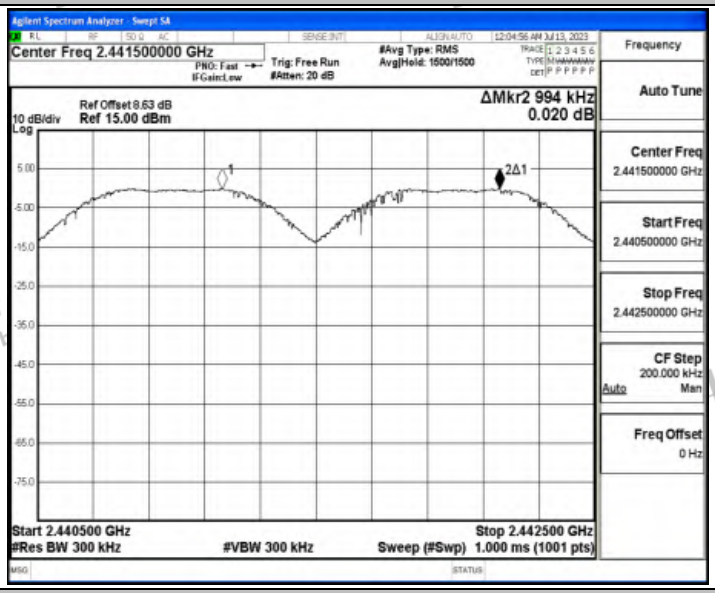
A.3 Carrier frequency separation

Test Result

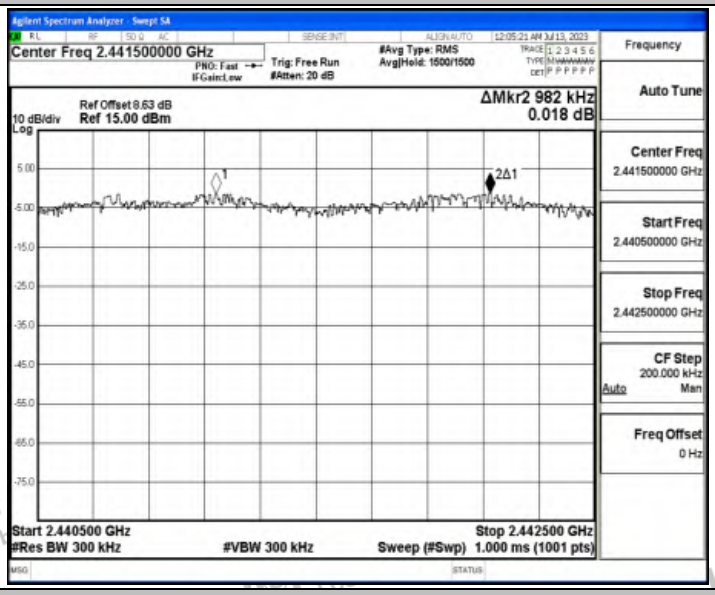
TestMode	Antenna	Frequency[MHz]	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.994	≥0.686	PASS
2DH5	Ant1	Hop	0.982	≥0.888	PASS
3DH5	Ant1	Hop	1.014	≥0.888	PASS

Test Graphs

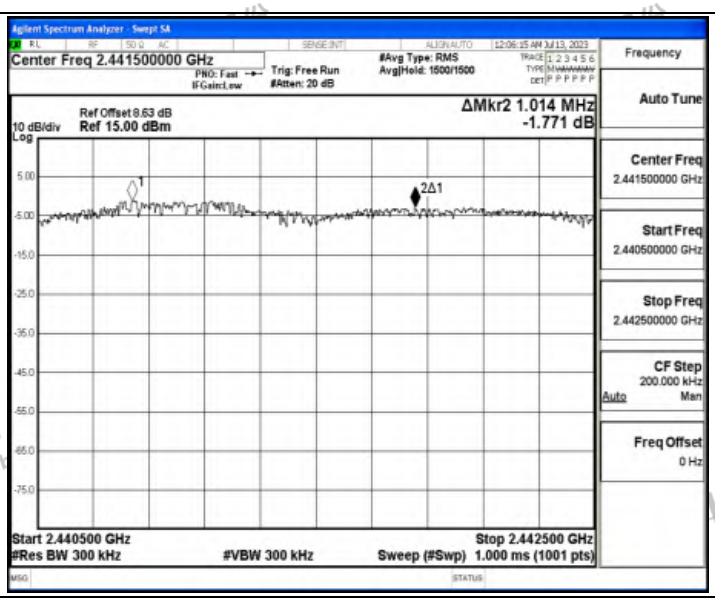
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441500000 GHz
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 15/00/1500
Ref Offset 8.63 dB
10 dB/div Ref 15.00 dBm
Log
ΔMkr2 1.014 MHz
-1.771 dB
Start 2.440500 GHz
#Res BW 300 kHz
#VBW 300 kHz
Stop 2.442500 GHz
Sweep (#Swp) 1.000 ms (1001 pts)
Frequency
Auto Tune
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

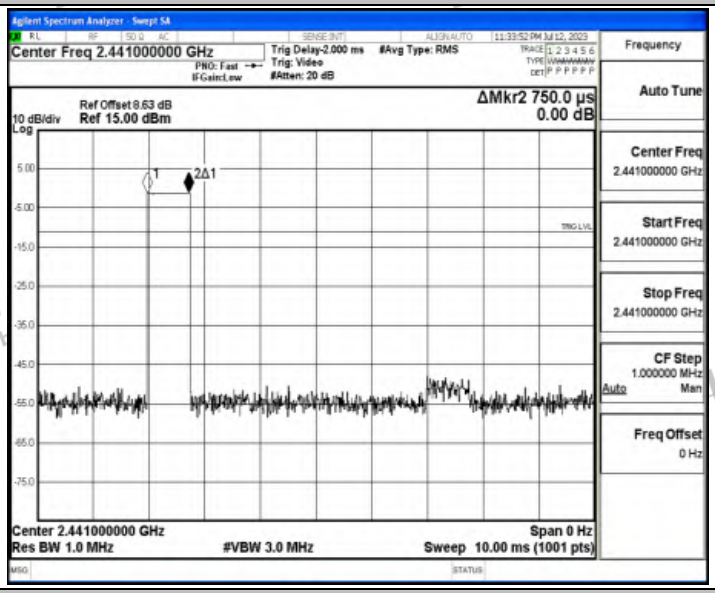
A.4 Time of occupancy

Test Result

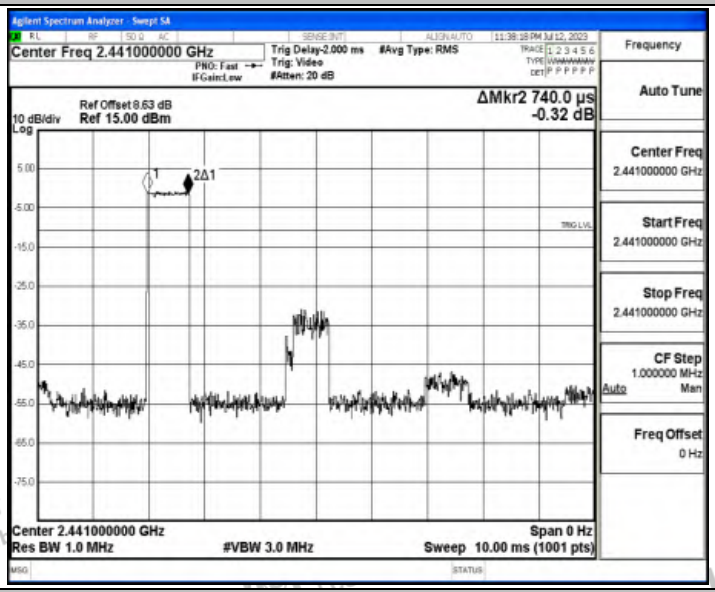
TestMode	Antenna	Frequency[MHz]	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	0.750	106.67	0.08	≤0.4	PASS
2DH5	Ant1	Hop	0.740	106.67	0.079	≤0.4	PASS
3DH5	Ant1	Hop	0.750	106.67	0.08	≤0.4	PASS

Test Graphs

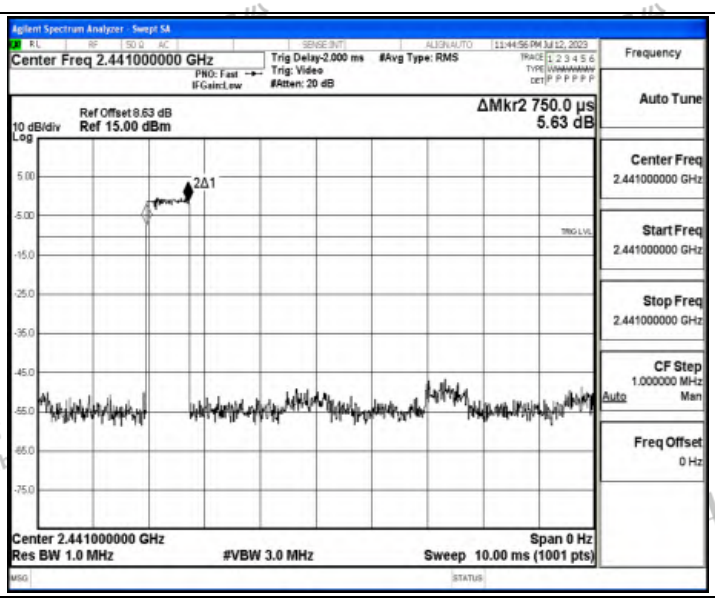
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay-2.000 ms
Trig: Video
#Atten: 20 dB
#Avg Type: RMS
Ref Offset 8.63 dB
10 dB/div Ref 15.00 dBm
Log
ΔMkr2 750.0 µs
5.63 dB
2Δ1
Center 2.441000000 GHz
Res BW 1.0 MHz
#VBW 3.0 MHz
Span 0 Hz
Sweep 10.00 ms (1001 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

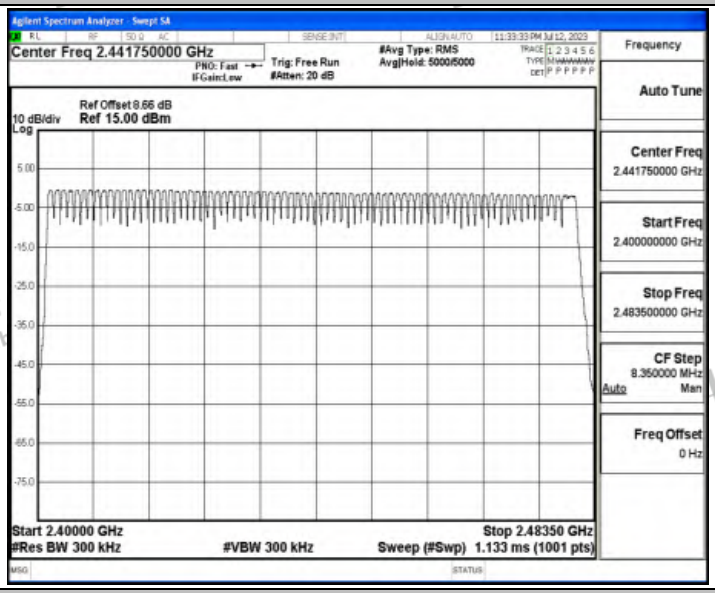
A.5 Number of hopping channels

Test Result

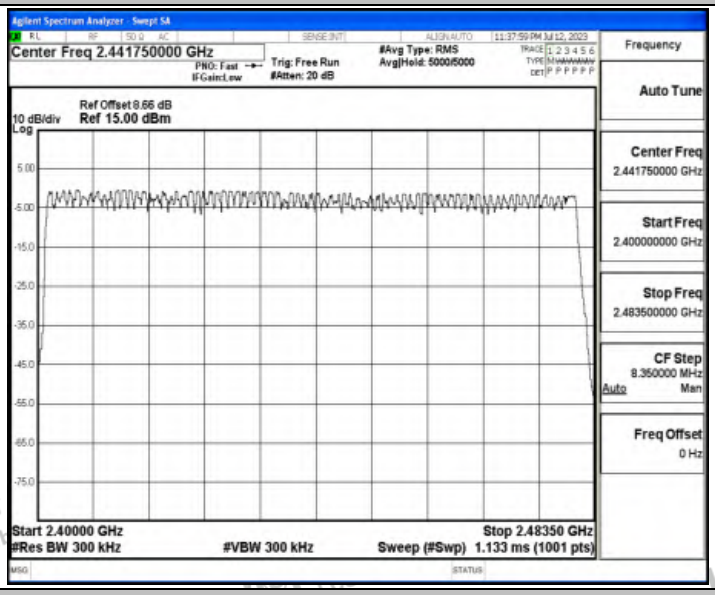
TestMode	Antenna	Frequency[MHz]	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

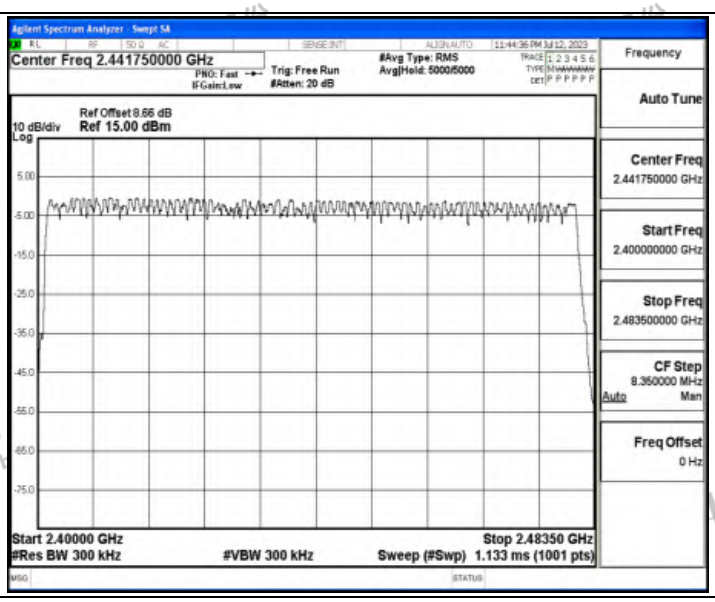
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441750000 GHz
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 5000/5000
11:44:36 PM Jul 12, 2023
Frequency
Auto Tune
Ref Offset 8.66 dB
10 dB/div Ref 15.00 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 300 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep (#Swp) 1.133 ms (1001 pts)

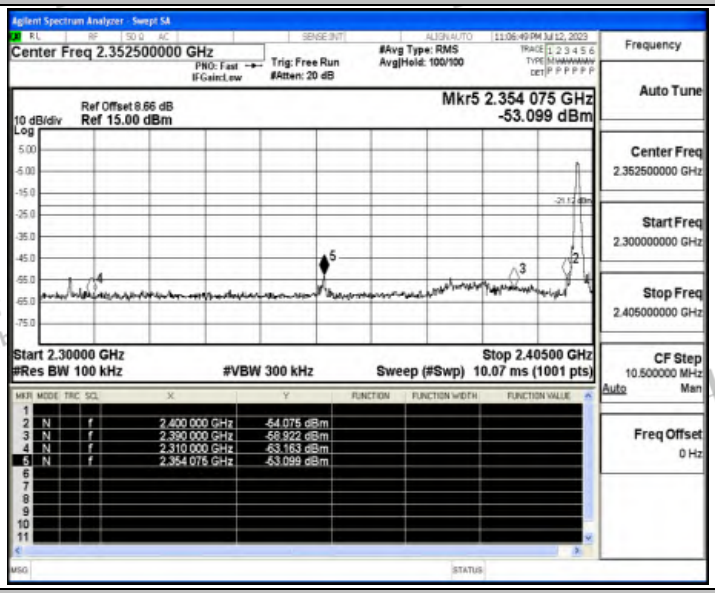
A.6 Band edge measurements

Test Result

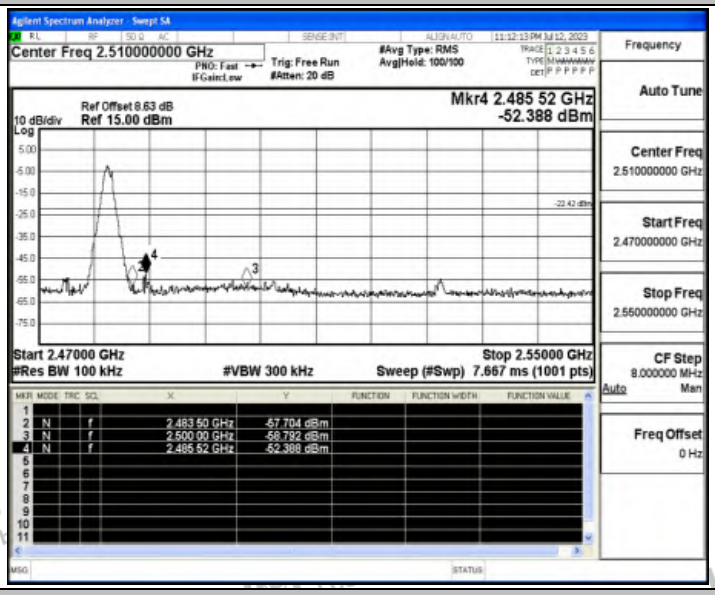
TestMode	Antenna	ChName	Frequency[MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	-1.12	-53.1	≤-21.12	PASS
		High	2480	-2.42	-52.39	≤-22.42	PASS
		Low	Hop_2402	-2.02	-53.5	≤-22.02	PASS
		High	Hop_2480	-1.88	-52.48	≤-21.88	PASS
2DH5	Ant1	Low	2402	-0.81	-51.43	≤-20.81	PASS
		High	2480	-2.21	-53.63	≤-22.21	PASS
		Low	Hop_2402	-3.16	-52.91	≤-23.16	PASS
		High	Hop_2480	-2.10	-53.42	≤-22.1	PASS
3DH5	Ant1	Low	2402	-0.88	-53.22	≤-20.88	PASS
		High	2480	-2.17	-52.89	≤-22.17	PASS
		Low	Hop_2402	-2.02	-51.42	≤-22.02	PASS
		High	Hop_2480	-2.07	-51.12	≤-22.07	PASS

Test Graphs

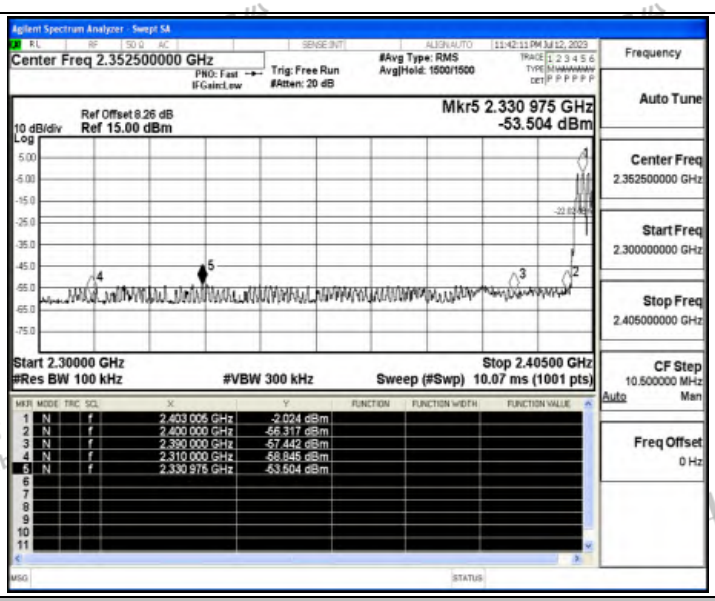
DH5_Ant1_Low_2402



DH5_Ant1_High_2480

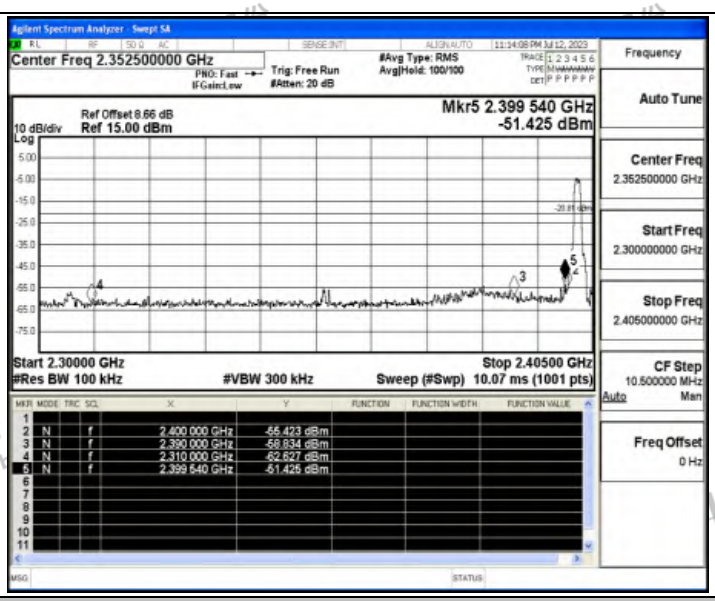


DH5_Ant1_Low_Hop_2402



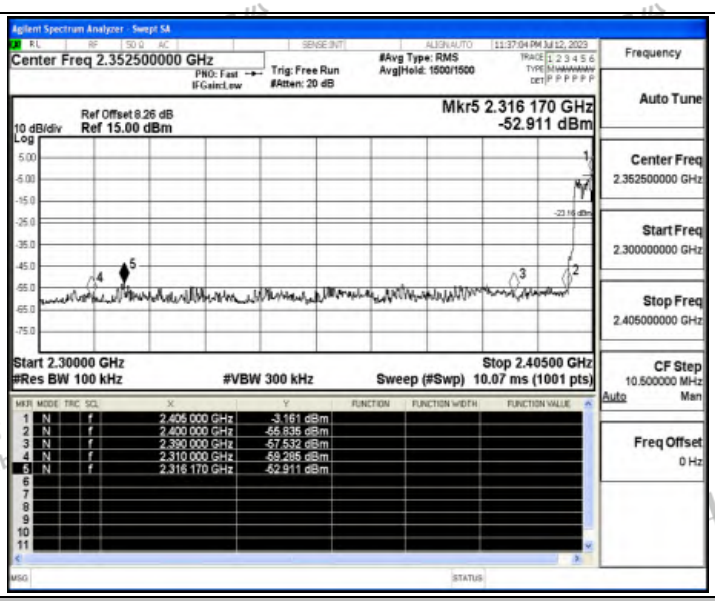
DH5_Ant1_High_Hop_2480

2DH5_Ant1_Low_2402

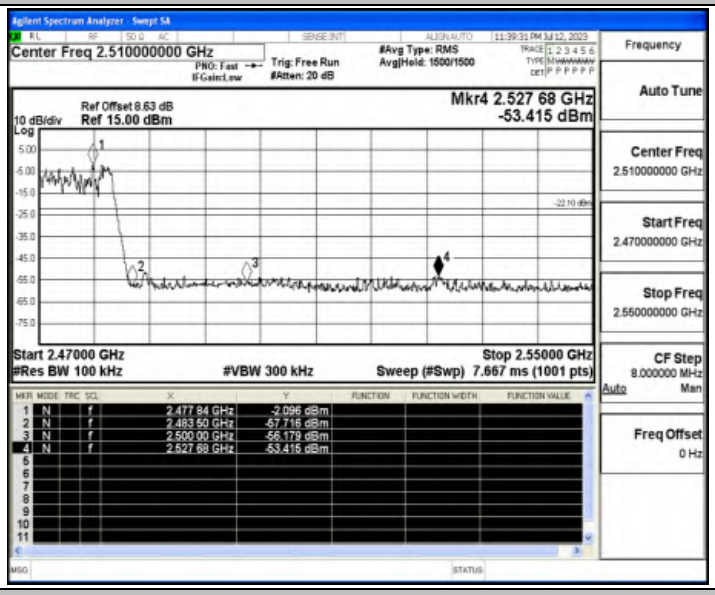


2DH5_Ant1_High_2480

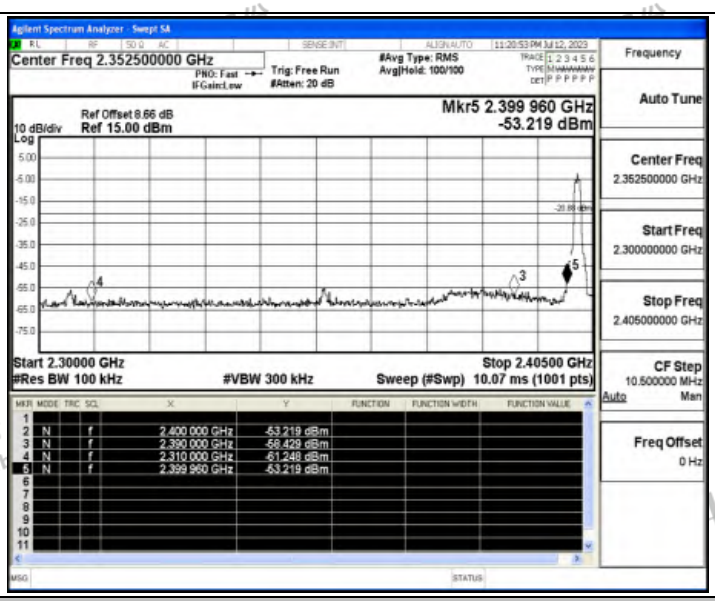
2DH5_Ant1_Low_Hop_2402



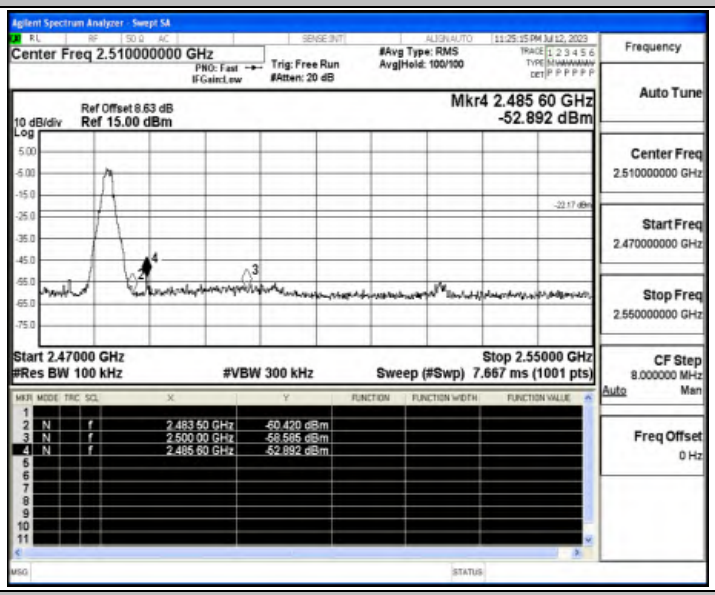
2DH5_Ant1_High_Hop_2480



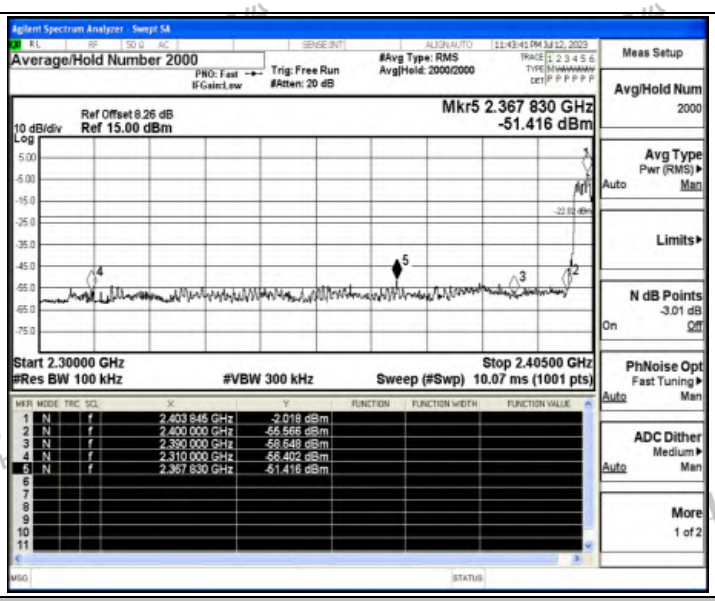
3DH5_Ant1_Low_2402



3DH5_Ant1_High_2480



3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480

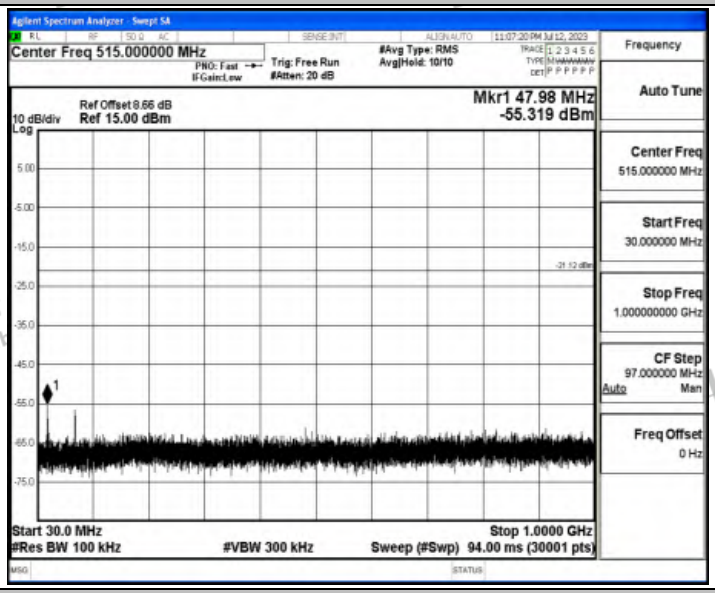
A.7 Conducted Spurious Emission

Test Result

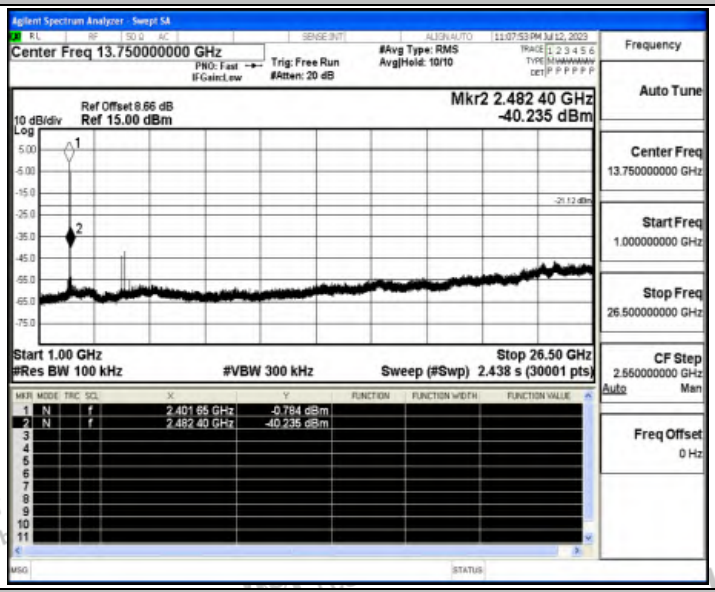
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	30~1000	-1.12	-55.32	≤-21.12	PASS
			1000~26500	-1.12	-40.24	≤-21.12	PASS
		2441	30~1000	-1.50	-57.29	≤-21.5	PASS
			1000~26500	-1.50	-44	≤-21.5	PASS
		2480	30~1000	-2.42	-56.09	≤-22.42	PASS
			1000~26500	-2.42	-41.66	≤-22.42	PASS
2DH5	Ant1	2402	30~1000	-0.81	-54.85	≤-20.81	PASS
			1000~26500	-0.81	-38.15	≤-20.81	PASS
		2441	30~1000	-2.36	-58.27	≤-22.36	PASS
			1000~26500	-2.36	-42.72	≤-22.36	PASS
		2480	30~1000	-2.21	-57.09	≤-22.21	PASS
			1000~26500	-2.21	-40.92	≤-22.21	PASS
3DH5	Ant1	2402	30~1000	-0.88	-57.23	≤-20.88	PASS
			1000~26500	-0.88	-36.02	≤-20.88	PASS
		2441	30~1000	-1.67	-55.48	≤-21.67	PASS
			1000~26500	-1.67	-40.81	≤-21.67	PASS
		2480	30~1000	-2.17	-56.75	≤-22.17	PASS
			1000~26500	-2.17	-42.1	≤-22.17	PASS

Test Graphs

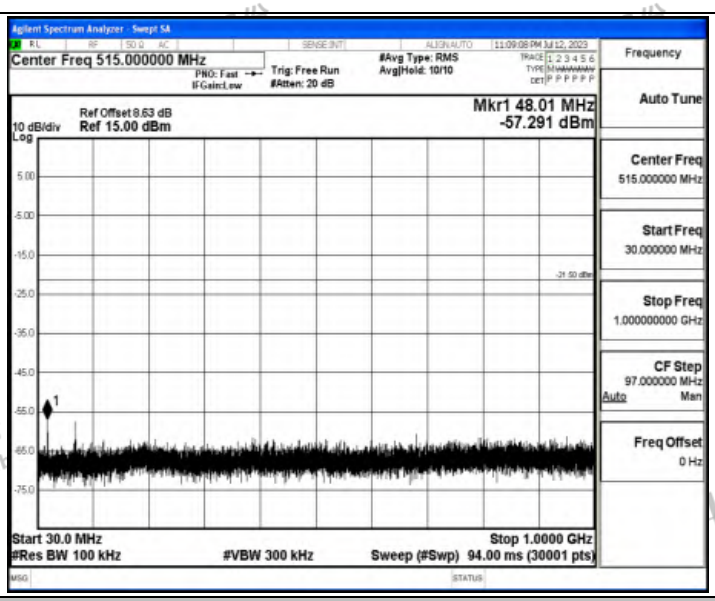
DH5_Ant1_2402_30~1000



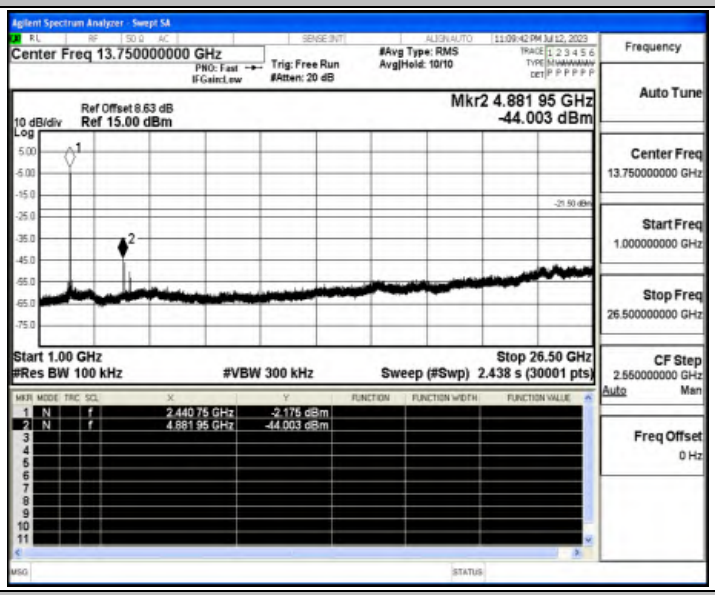
DH5_Ant1_2402_1000~26500



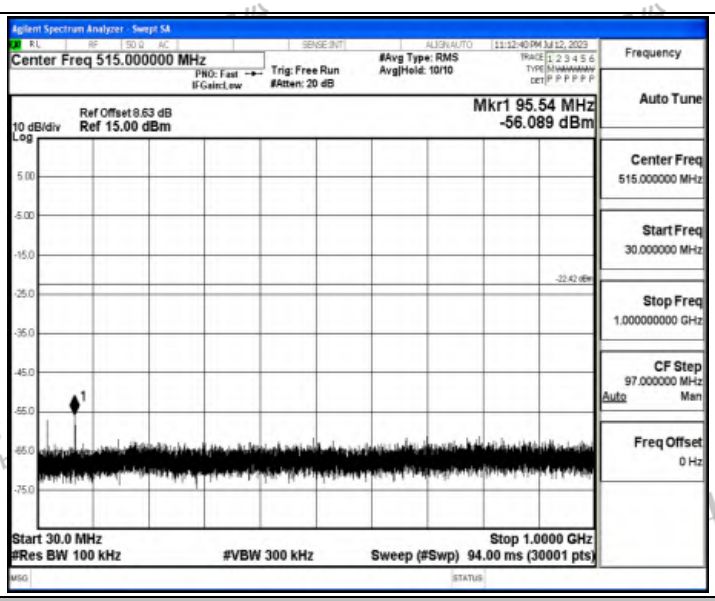
DH5_Ant1_2441_30~1000



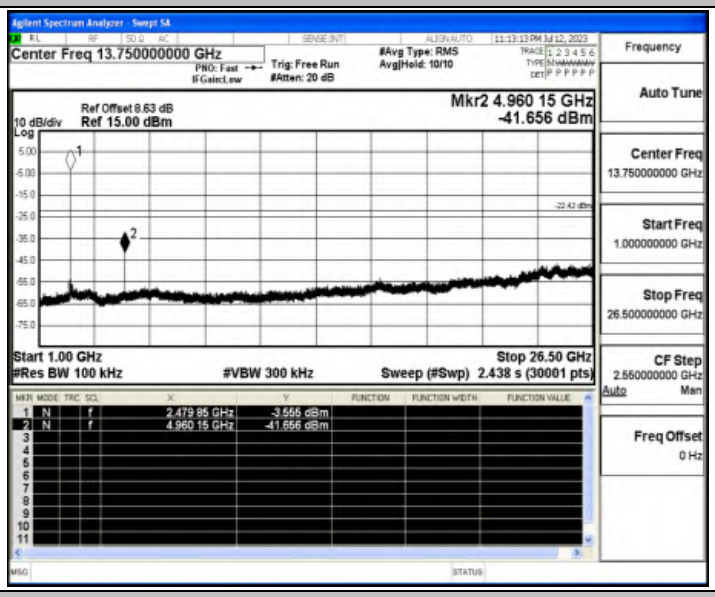
DH5_Ant1_2441_1000~26500



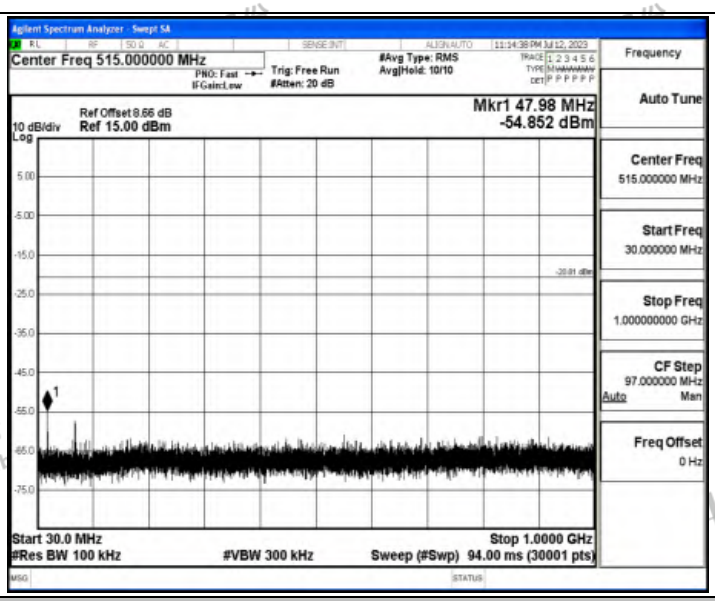
DH5_Ant1_2480_30~1000



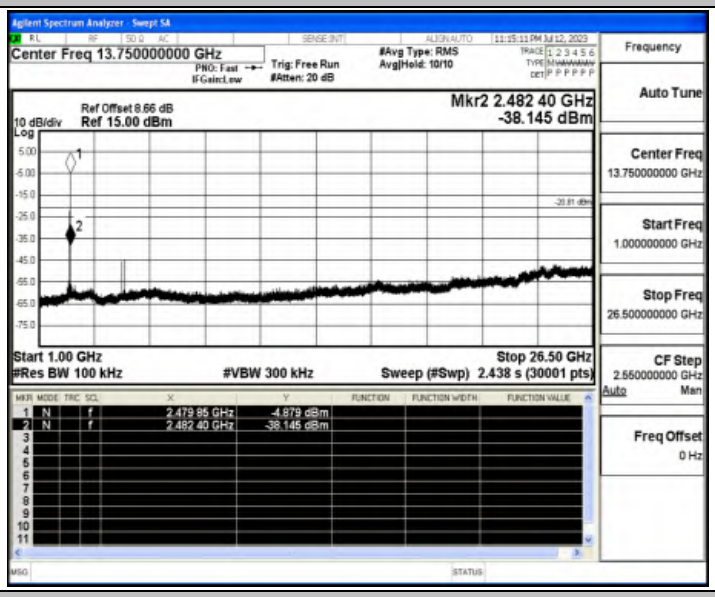
DH5_Ant1_2480_1000~26500



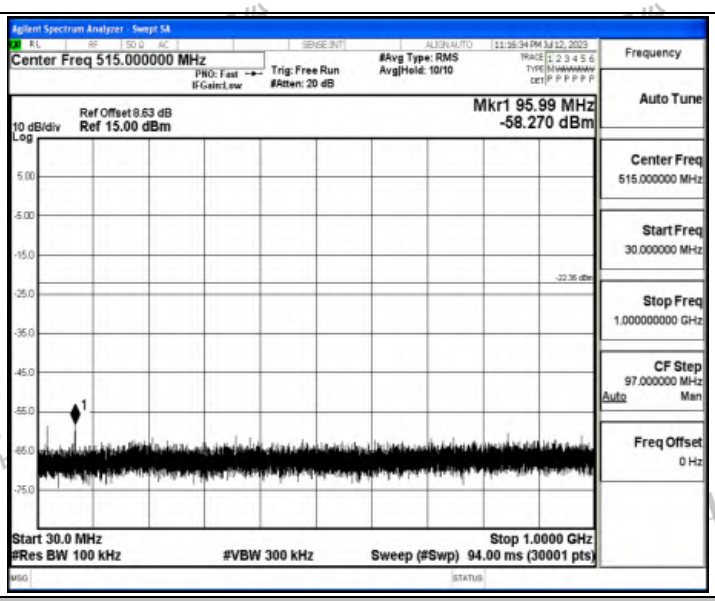
2DH5_Ant1_2402_30~1000



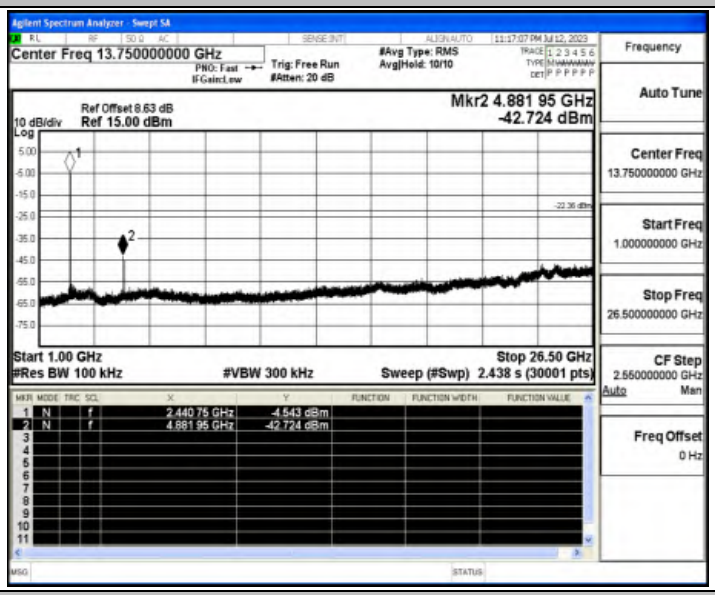
2DH5_Ant1_2402_1000~26500



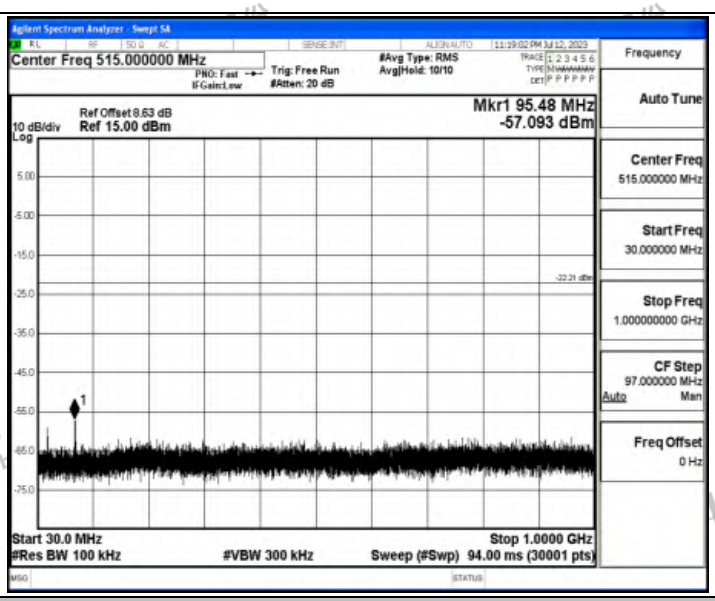
2DH5_Ant1_2441_30~1000



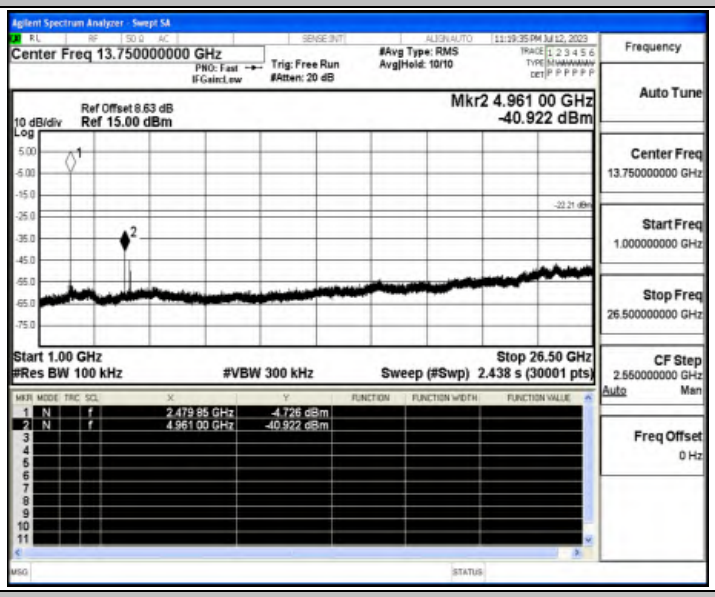
2DH5_Ant1_2441_1000~26500



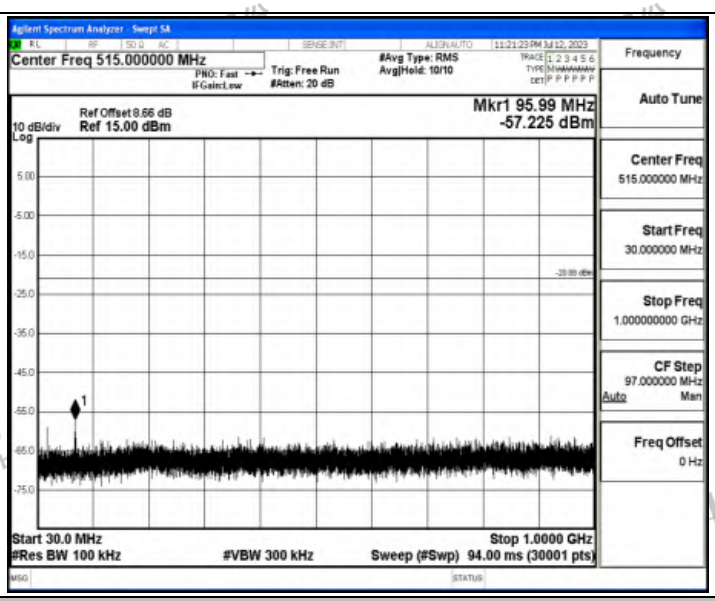
2DH5_Ant1_2480_30~1000



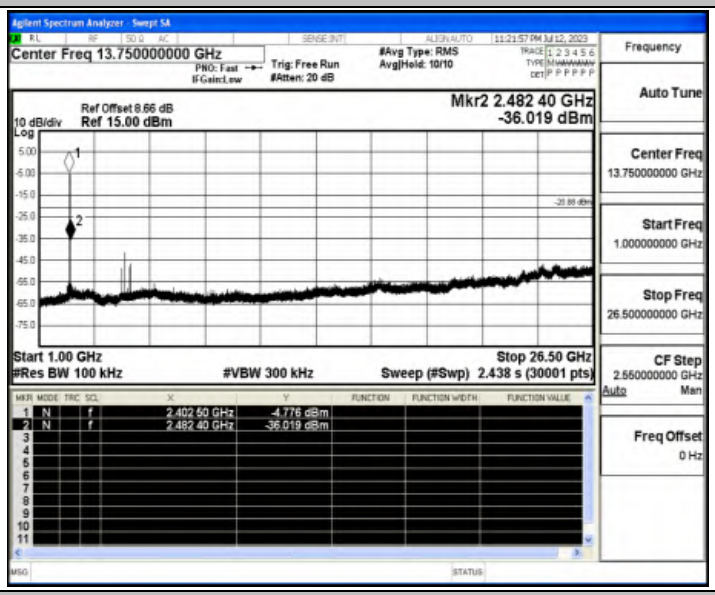
2DH5_Ant1_2480_1000~26500



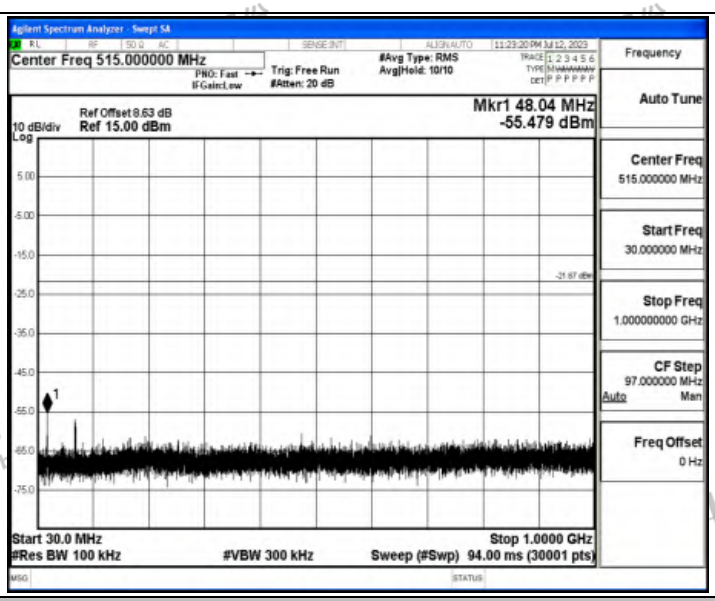
3DH5_Ant1_2402_30~1000



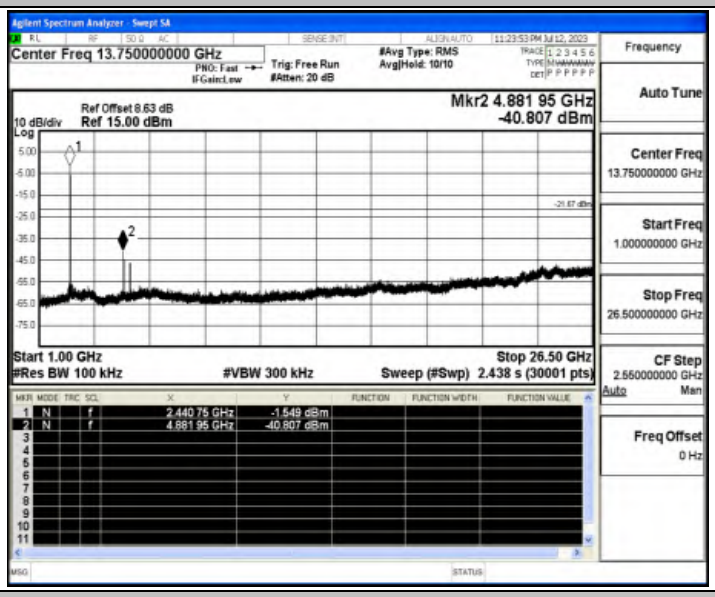
3DH5_Ant1_2402_1000~26500



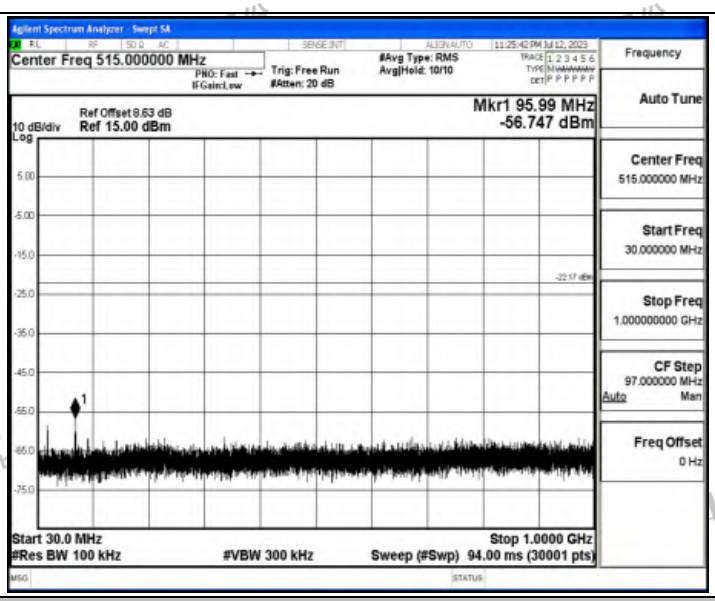
3DH5_Ant1_2441_30~1000



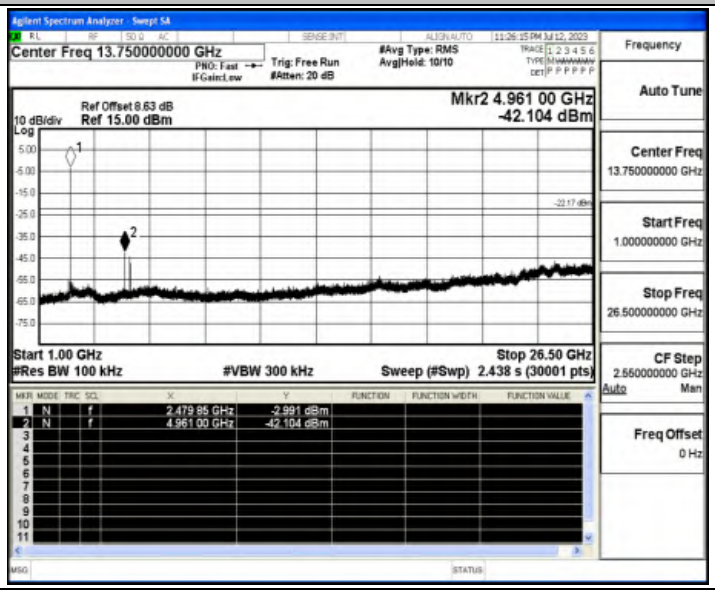
3DH5_Ant1_2441_1000~26500



3DH5_Ant1_2480_30~1000



3DH5_Ant1_2480_1000~26500



A.8 Emissions in Restricted Bands

Test Result

TestMode	Antenna	ChName	Frequency[MHz]	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
DH5	Ant1	Low	2402	AV	2310.000	-57.62	≤-41.20	37.58	≤54	PASS
				AV	2353.970	-50.67	≤-41.20	44.53	≤54	PASS
				AV	2390.000	-53.41	≤-41.20	41.79	≤54	PASS
				Peak	2310.000	-52.75	≤-21.20	42.45	≤74	PASS
				Peak	2354.285	-43.04	≤-21.20	52.16	≤74	PASS
				Peak	2390.000	-48.08	≤-21.20	47.12	≤74	PASS
		High	2480	AV	2483.500	-50.52	≤-41.20	44.68	≤54	PASS
				AV	2483.520	-50.51	≤-41.20	44.69	≤54	PASS
				AV	2500.000	-53.73	≤-41.20	41.47	≤54	PASS
				Peak	2483.500	-44.45	≤-21.20	50.75	≤74	PASS
				Peak	2483.520	-44.45	≤-21.20	50.75	≤74	PASS
				Peak	2500.000	-51.67	≤-21.20	43.53	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-49.67	≤-21.20	45.53	≤74	PASS
				Peak	2362.475	-45.14	≤-21.20	50.06	≤74	PASS
				Peak	2390.000	-49.61	≤-21.20	45.59	≤74	PASS
		High	Hop_2480	Peak	2483.500	-44.35	≤-21.20	50.85	≤74	PASS
				Peak	2485.440	-37.53	≤-21.20	57.67	≤74	PASS
				Peak	2500.000	-45.93	≤-21.20	49.27	≤74	PASS
2DH5	Ant1	Low	2402	AV	2310.000	-57.66	≤-41.20	37.54	≤54	PASS
				AV	2383.895	-51.44	≤-41.20	43.76	≤54	PASS
				AV	2390.000	-53.33	≤-41.20	41.87	≤54	PASS
				Peak	2310.000	-51.4	≤-21.20	43.80	≤74	PASS
				Peak	2380.640	-45.29	≤-21.20	49.91	≤74	PASS
				Peak	2390.000	-52.2	≤-21.20	43.00	≤74	PASS
		High	2480	AV	2483.500	-49.78	≤-41.20	45.42	≤54	PASS
				AV	2483.520	-49.77	≤-41.20	45.43	≤54	PASS
				AV	2500.000	-53.57	≤-41.20	41.63	≤54	PASS
				Peak	2483.500	-48.49	≤-21.20	46.71	≤74	PASS
				Peak	2484.400	-42.2	≤-21.20	53.00	≤74	PASS
				Peak	2500.000	-48.8	≤-21.20	46.40	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-49.34	≤-21.20	45.86	≤74	PASS
				Peak	2358.380	-41.08	≤-21.20	54.12	≤74	PASS
				Peak	2390.000	-46.57	≤-21.20	48.63	≤74	PASS
		High	Hop_2480	Peak	2483.500	-44.91	≤-21.20	50.29	≤74	PASS
				Peak	2485.520	-38.18	≤-21.20	57.02	≤74	PASS

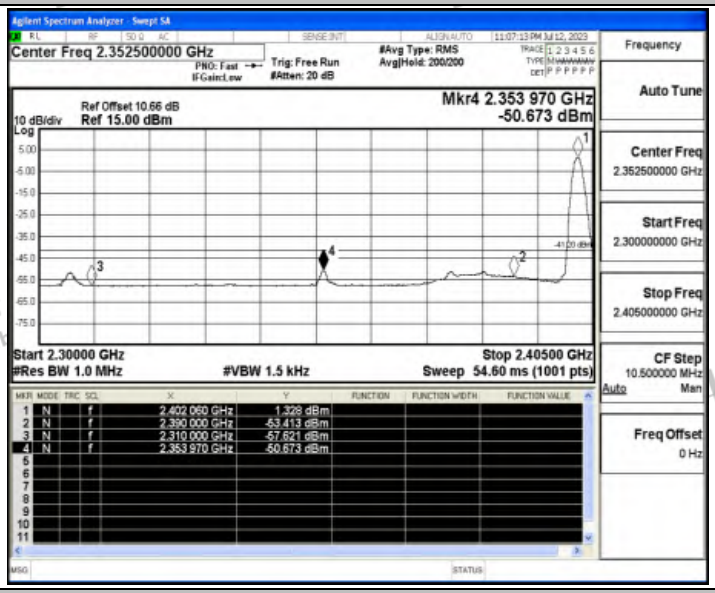
				Peak	2500.000	-45.53	≤-21.20	49.67	≤74	PASS
3DH5	Ant1	Low	2402	AV	2310.000	-57.48	≤-41.20	37.72	≤54	PASS
				AV	2384.210	-51.31	≤-41.20	43.89	≤54	PASS
				AV	2390.000	-53.4	≤-41.20	41.80	≤54	PASS
				Peak	2310.000	-52.52	≤-21.20	42.68	≤74	PASS
				Peak	2383.580	-44.33	≤-21.20	50.87	≤74	PASS
				Peak	2390.000	-50.01	≤-21.20	45.19	≤74	PASS
		High	2480	AV	2483.500	-49.96	≤-41.20	45.24	≤54	PASS
				AV	2483.520	-49.96	≤-41.20	45.24	≤54	PASS
				AV	2500.000	-53.37	≤-41.20	41.83	≤54	PASS
				Peak	2483.500	-50.05	≤-21.20	45.15	≤74	PASS
				Peak	2493.360	-45.69	≤-21.20	49.51	≤74	PASS
				Peak	2500.000	-49.26	≤-21.20	45.94	≤74	PASS
		Low	Hop_2402	Peak	2310.000	-49.75	≤-21.20	45.45	≤74	PASS
				Peak	2372.555	-41.45	≤-21.20	53.75	≤74	PASS
				Peak	2390.000	-45.72	≤-21.20	49.48	≤74	PASS
		High	Hop_2480	Peak	2483.500	-43.35	≤-21.20	51.85	≤74	PASS
				Peak	2485.520	-37.17	≤-21.20	58.03	≤74	PASS
				Peak	2500.000	-45.53	≤-21.20	49.67	≤74	PASS

Note：

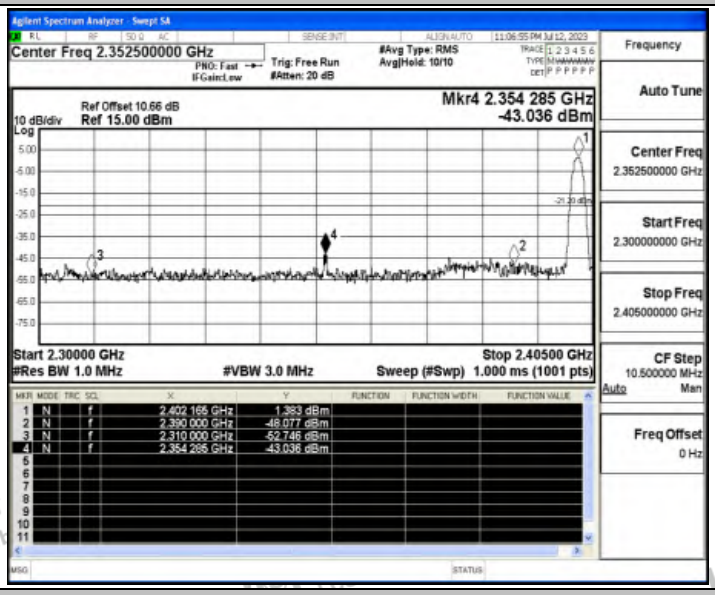
1. The Antenna Gain is compensated in the graph.
2. The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

Test Graphs

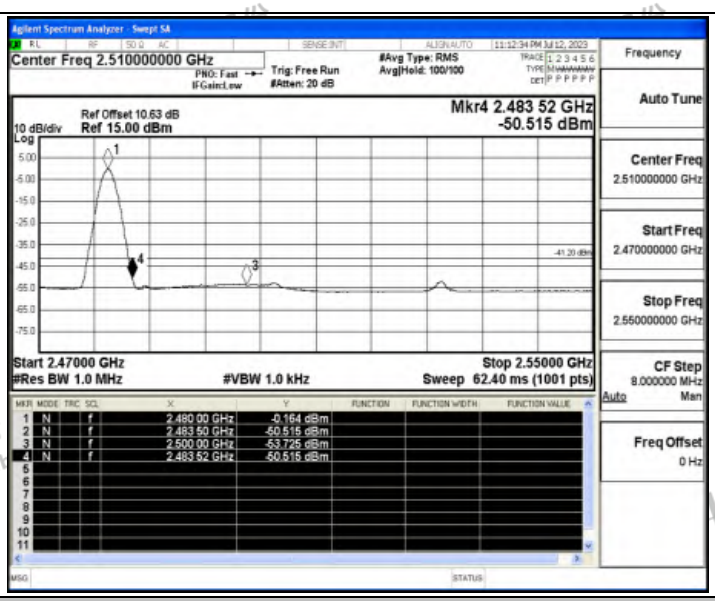
DH5_Ant1_Low_2402_AV



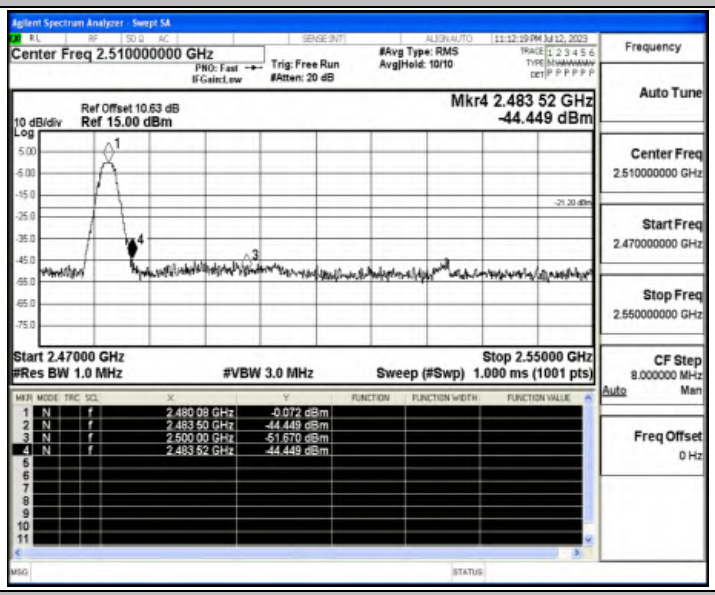
DH5_Ant1_Low_2402_Peak



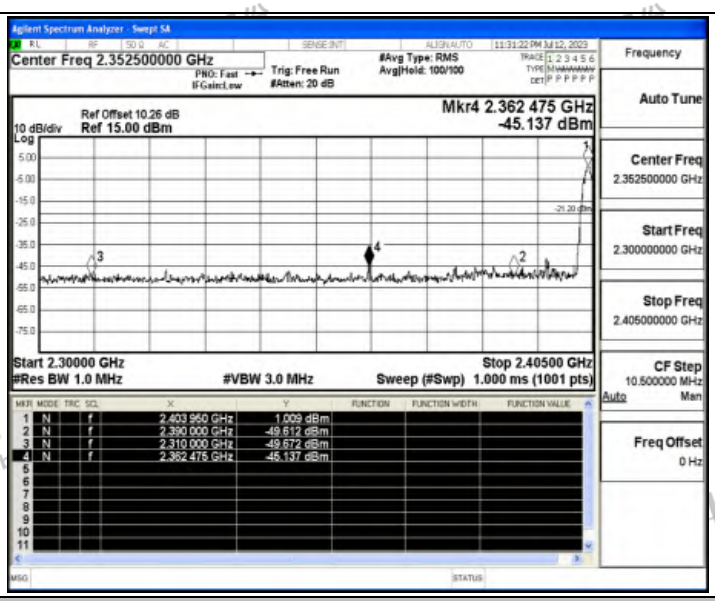
DH5_Ant1_High_2480_AV



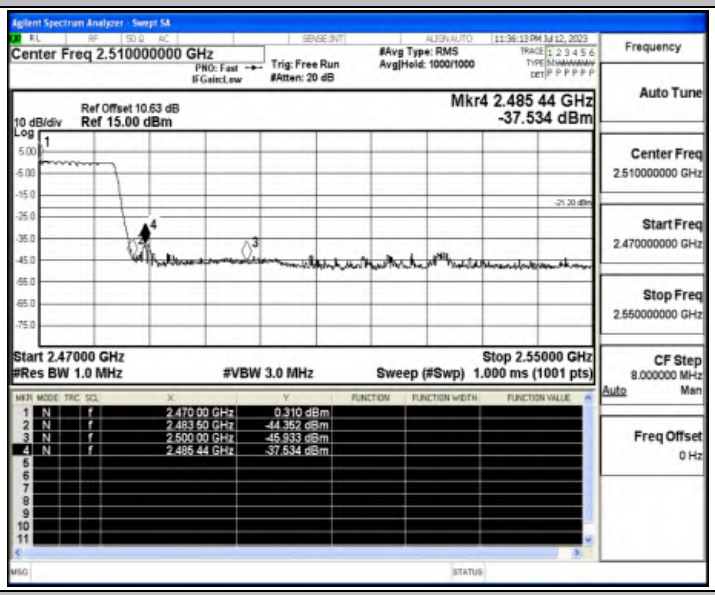
DH5_Ant1_High_2480_Peak



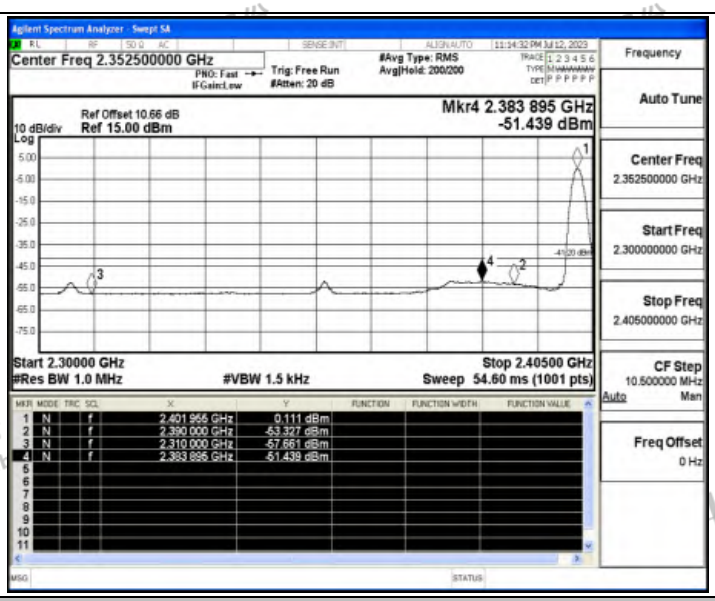
DH5_Ant1_Low_Hop_2402_Peak



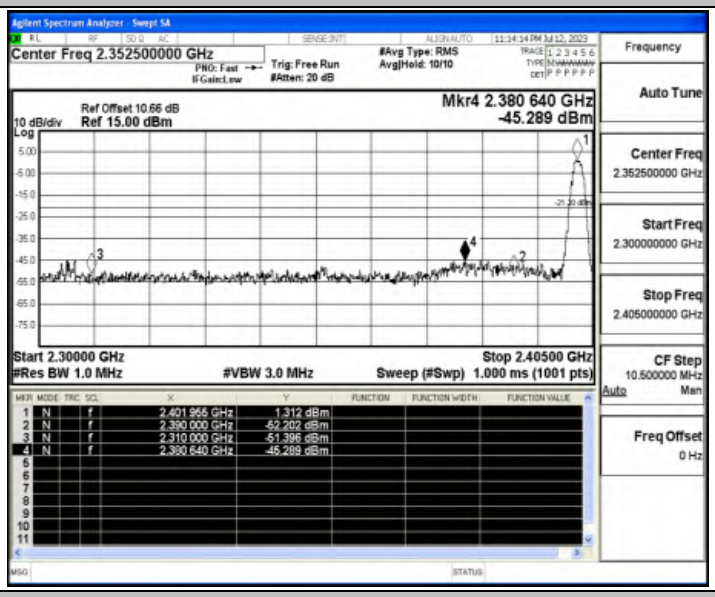
DH5_Ant1_High_Hop_2480_Peak



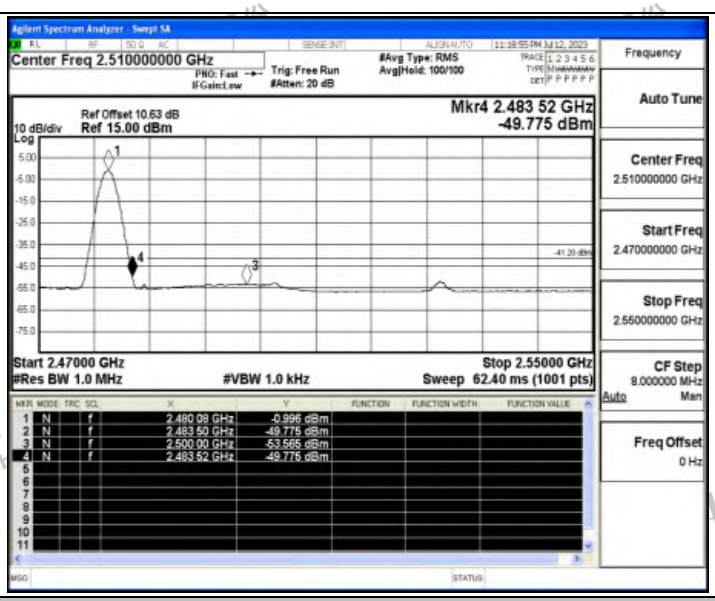
2DH5_Ant1_Low_2402_AV



2DH5_Ant1_Low_2402_Peak



2DH5_Ant1_High_2480_AV



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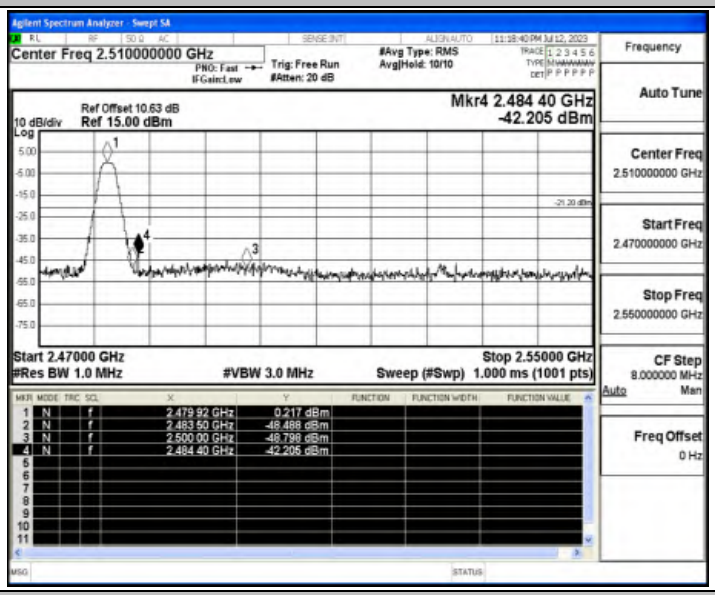
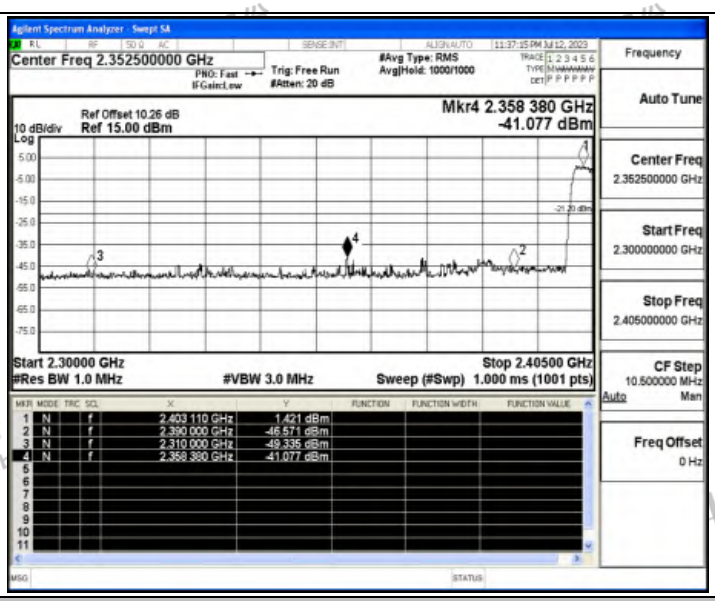
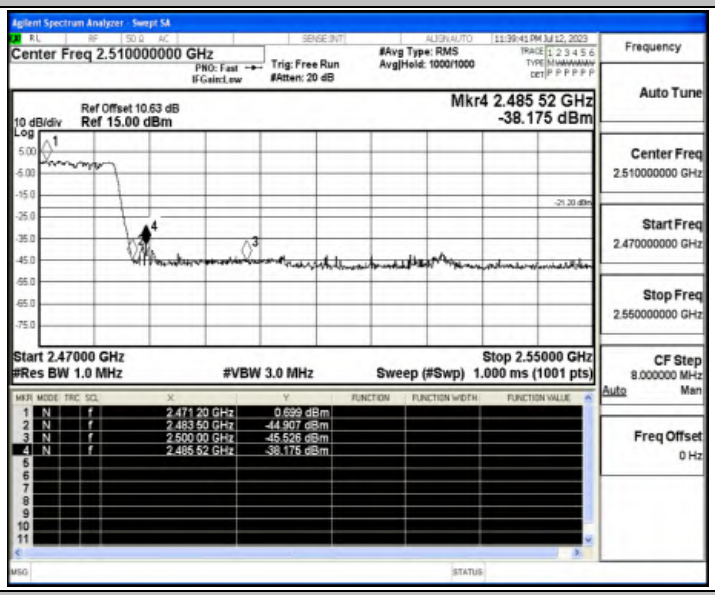


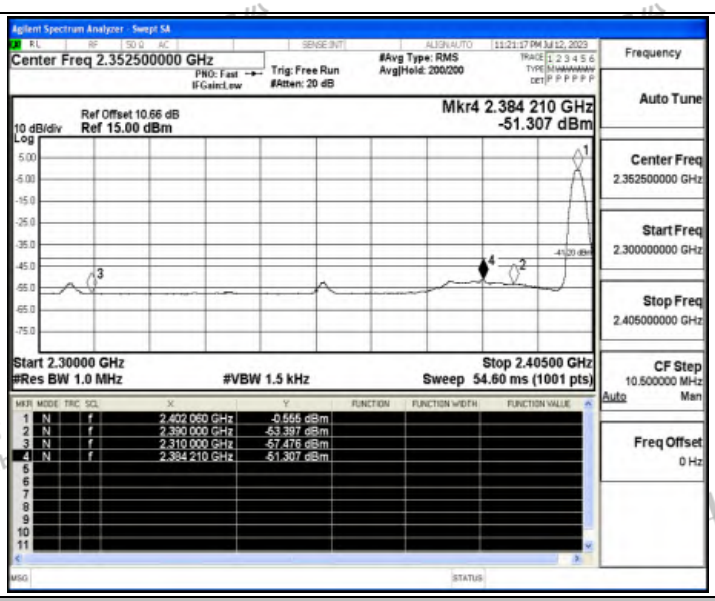
2DH5_Ant1_Low_Hop_2402_Peak



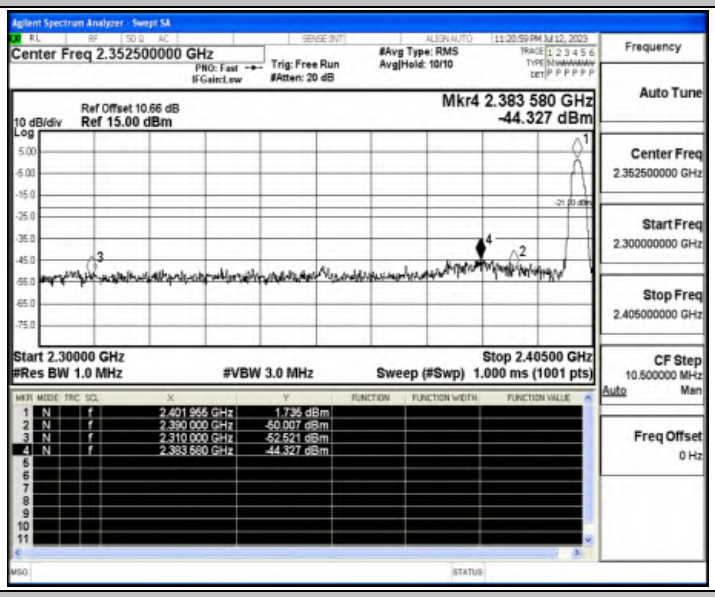
2DH5_Ant1_High_Hop_2480_Peak



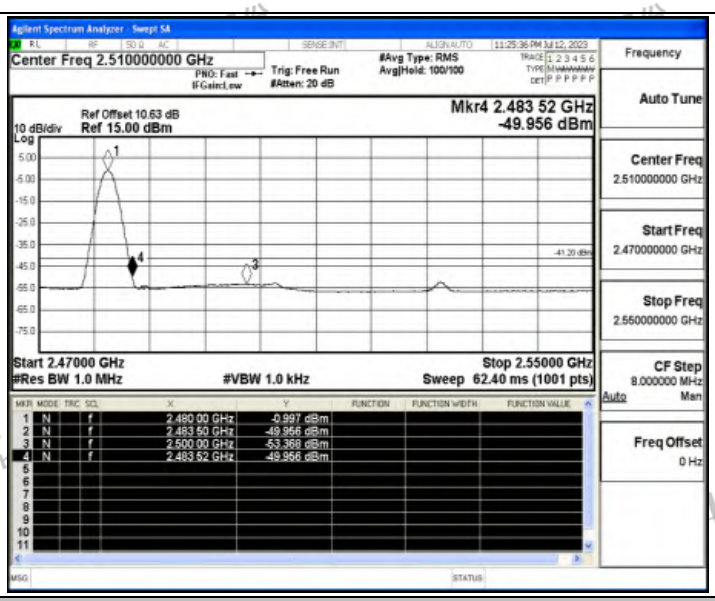
3DH5_Ant1_Low_2402_AV



3DH5_Ant1_Low_2402_Peak



3DH5_Ant1_High_2480_AV



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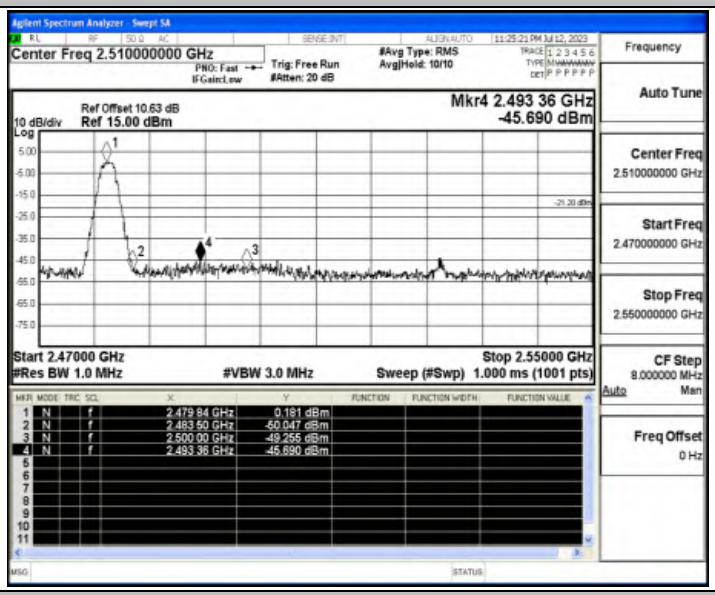
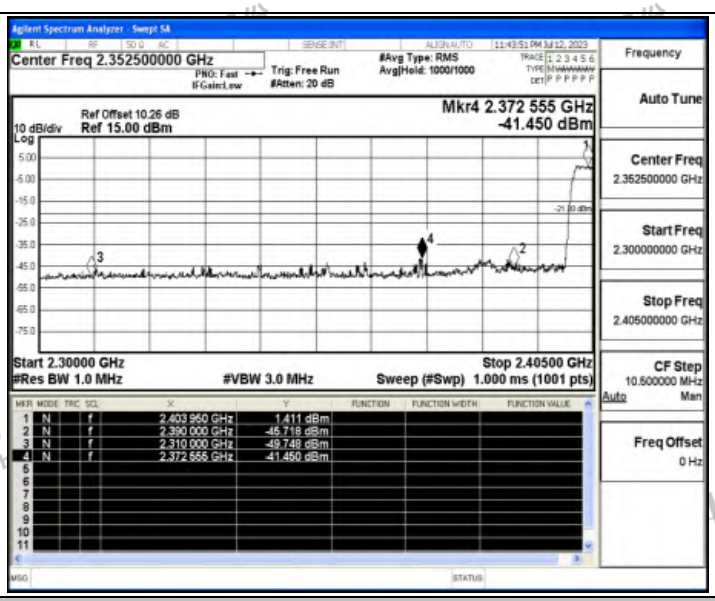


3DH5_Ant1_Low_Hop_2402_Peak



3DH5_Ant1_High_Hop_2480_Peak