Appendix A

RF Test Data for BT (Conducted Measurement)

Product Name: Fitness Walker

Test Model: CS-WP3

Environmental Conditions

Temperature:	23.5° C
Relative Humidity:	52.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Monkey Li
Supervised by:	Ling Zhu

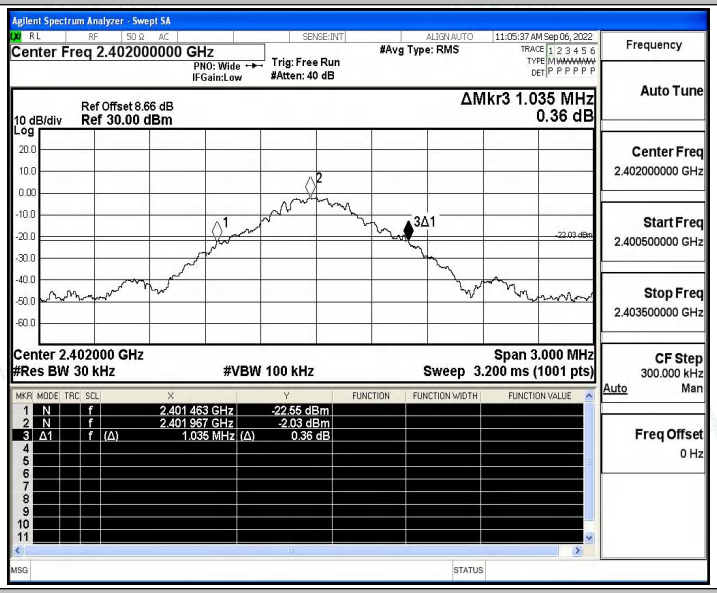
A.1 20dB Emission Bandwidth

Test Result

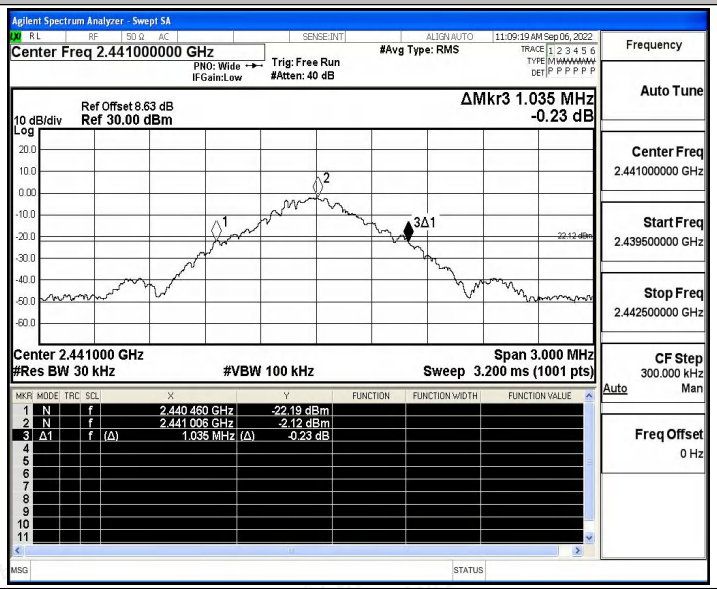
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Verdict
DH5	Ant1	2402	1.035	2401.463	2402.498	---
		2441	1.035	2440.460	2441.495	---
		2480	0.984	2479.517	2480.501	---
2DH5	Ant1	2402	1.335	2401.319	2402.654	---
		2441	1.290	2440.355	2441.645	---
		2480	1.293	2479.352	2480.645	---
3DH5	Ant1	2402	1.335	2401.322	2402.657	---
		2441	1.326	2440.328	2441.654	---
		2480	1.293	2479.340	2480.633	---

Test Graphs

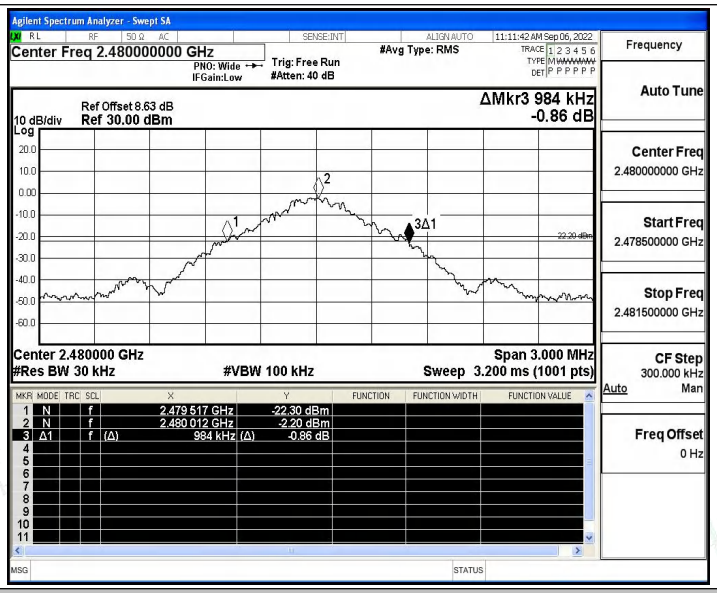
DH5_Ant1_2402



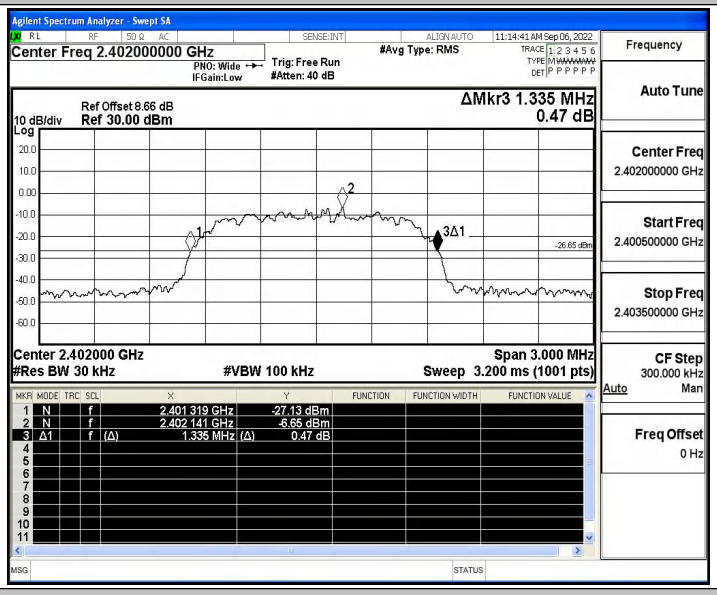
DH5_Ant1_2441



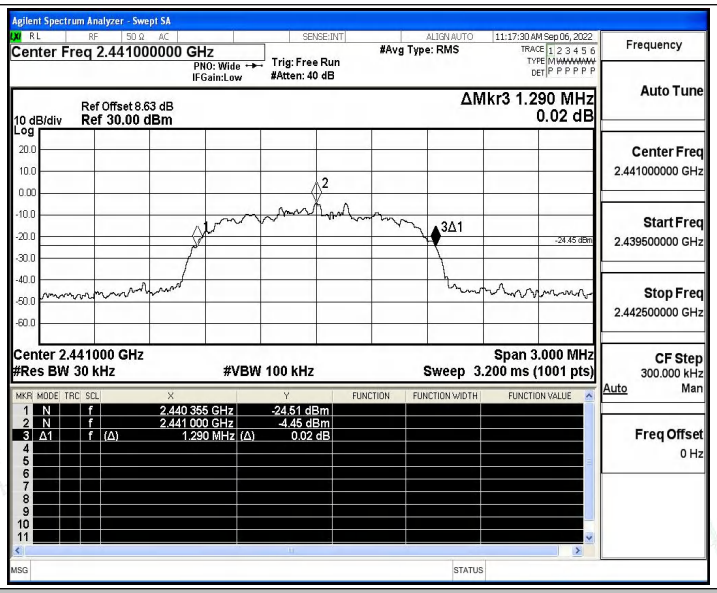
DH5_Ant1_2480



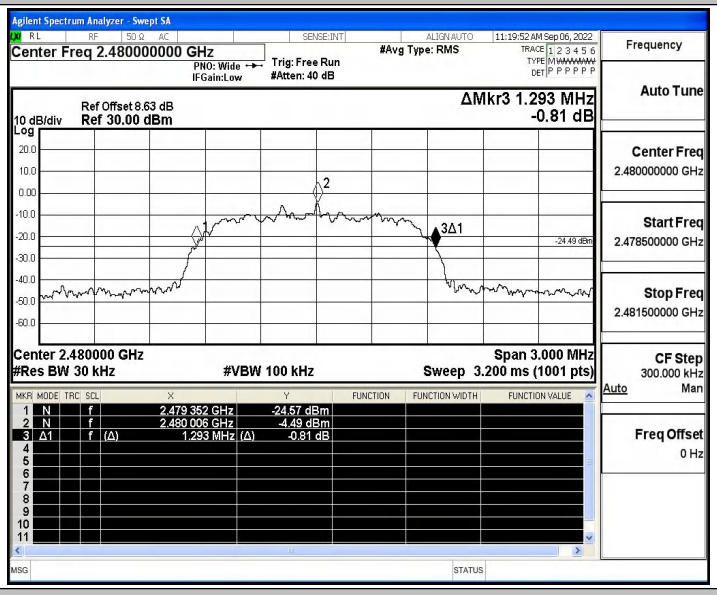
2DH5_Ant1_2402



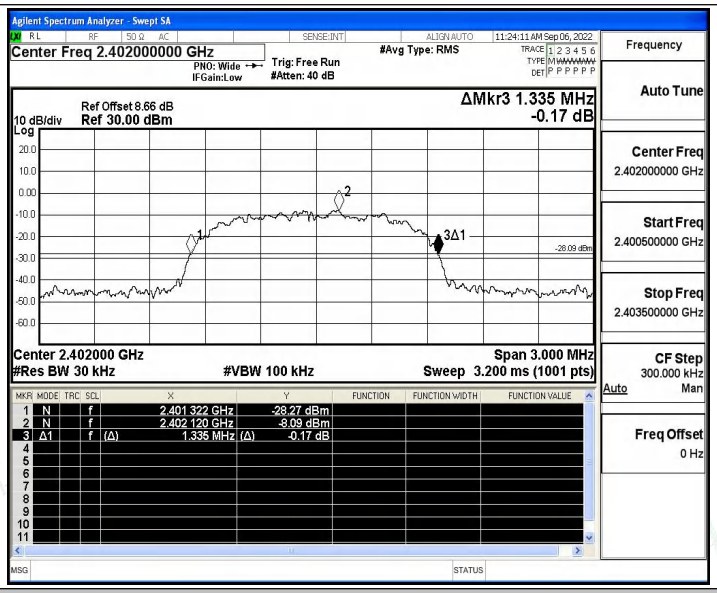
2DH5_Ant1_2441



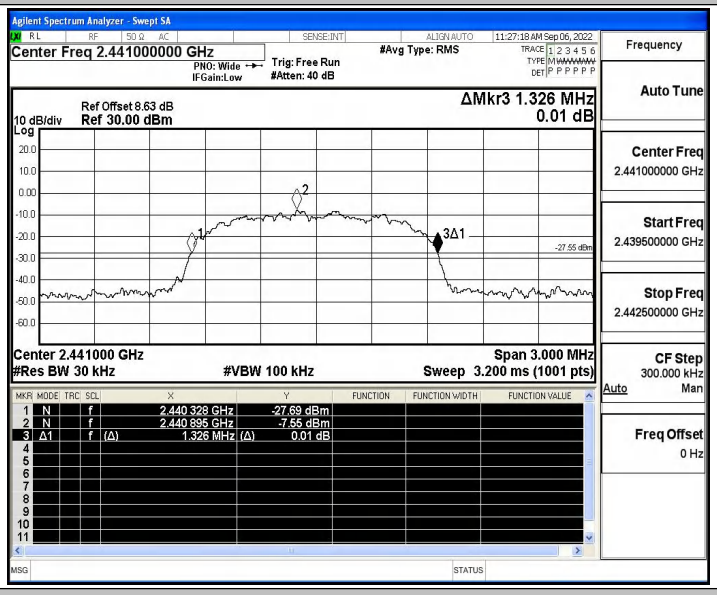
2DH5_Ant1_2480



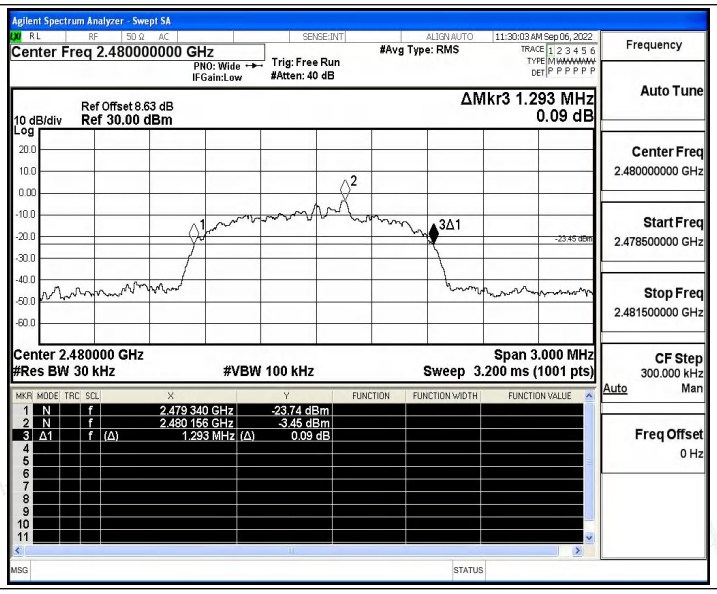
3DH5_Ant1_2402



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
11:30:03 AM Sep 06, 2022
Ref Offset 8.63 dB
10 dB/div
Log
Ref 30.00 dBm
ΔMkr3 1.293 MHz
0.09 dB
Center 2.480000 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3.000 MHz
Sweep 3.200 ms (1001 pts)
1 N 1 f 2.479 340 GHz -23.74 dBm
2 N 1 f 2.480 156 GHz -3.45 dBm
3 Δ1 1 f (Δ) 1.293 MHz (Δ) 0.09 dB
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.478500000 GHz
Stop Freq
2.481500000 GHz
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz

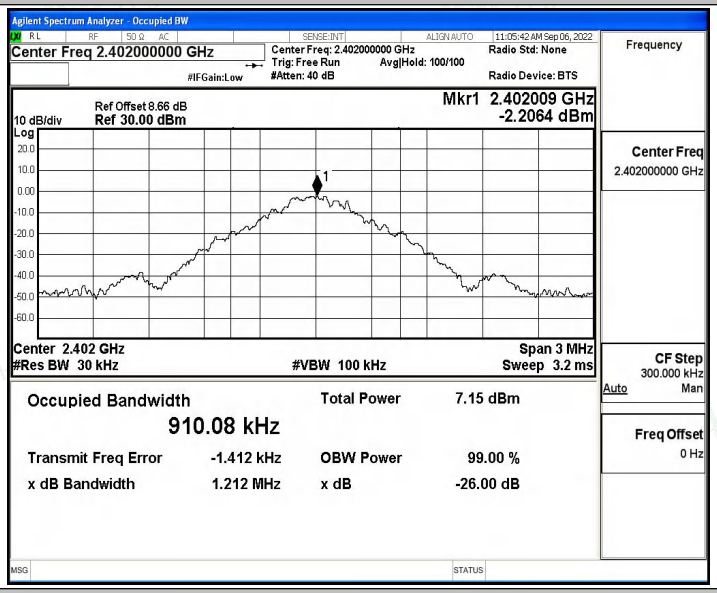
A.2 Occupied Channel Bandwidth

Test Result

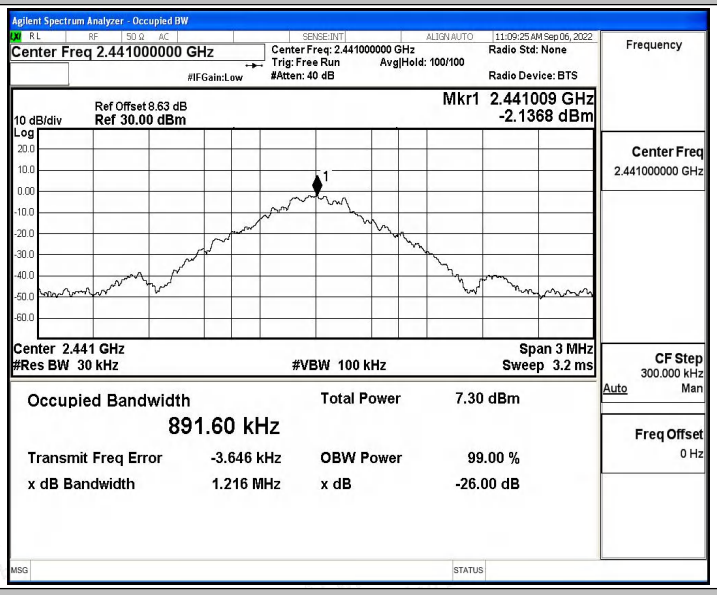
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.91008	2401.5436	2402.4536	---	---
		2441	0.89160	2440.5506	2441.4422	---	---
		2480	0.91077	2479.5429	2480.4537	---	---
2DH5	Ant1	2402	1.1779	2401.3998	2402.5777	---	---
		2441	1.1771	2440.3991	2441.5762	---	---
		2480	1.1877	2479.3943	2480.5820	---	---
3DH5	Ant1	2402	1.1816	2401.3991	2402.5807	---	---
		2441	1.1920	2440.3909	2441.5829	---	---
		2480	1.1879	2479.3934	2480.5813	---	---

Test Graphs

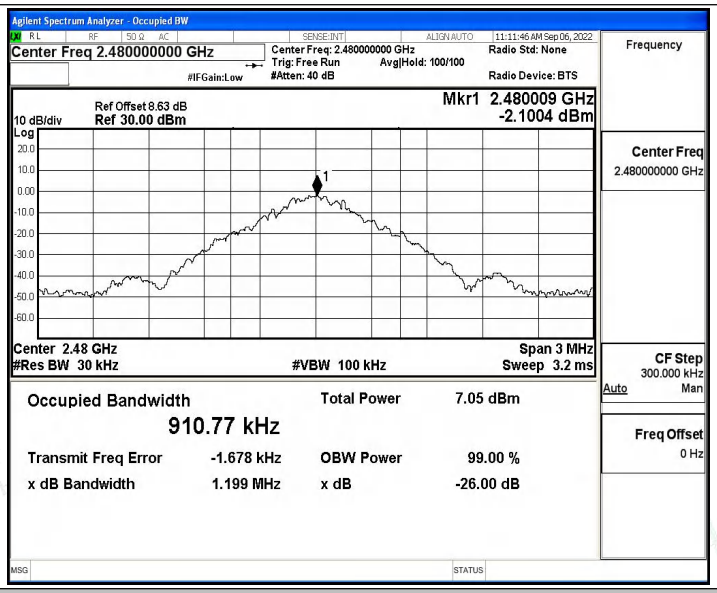
DH5_Ant1_2402



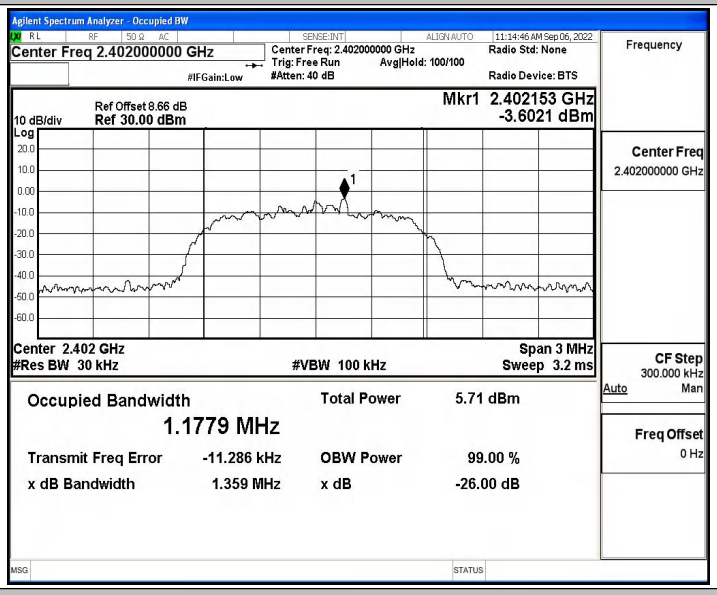
DH5_Ant1_2441



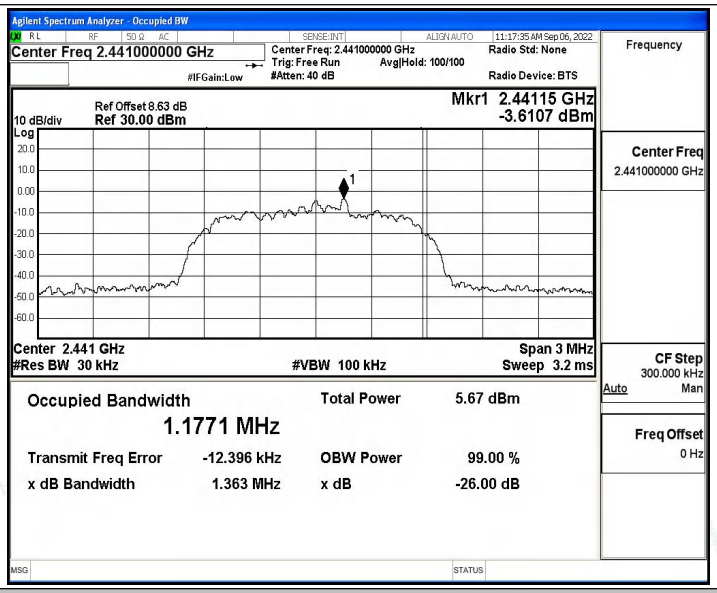
DH5_Ant1_2480



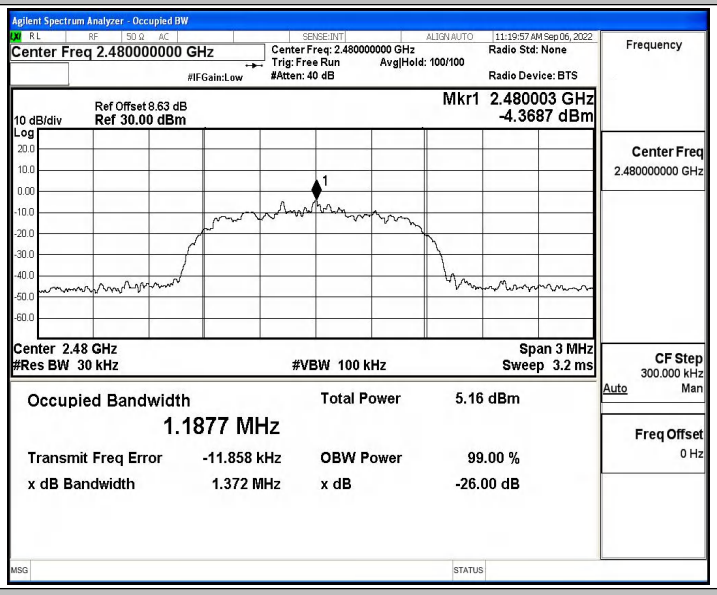
2DH5_Ant1_2402



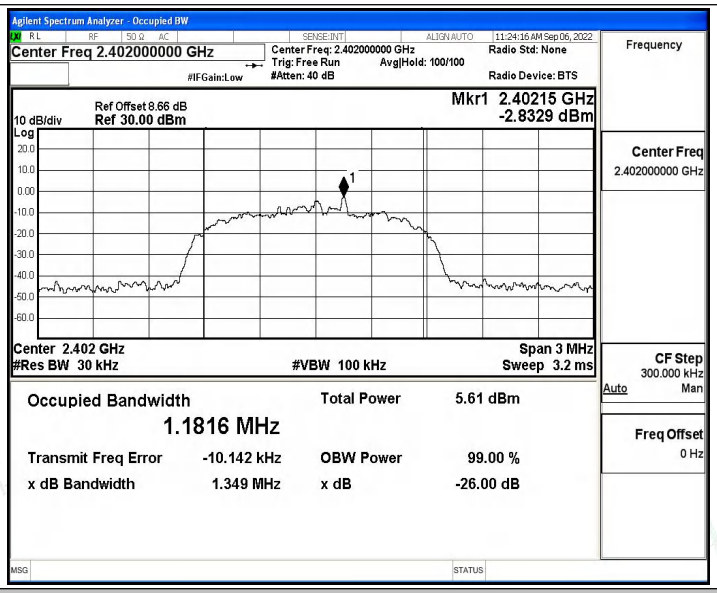
2DH5_Ant1_2441



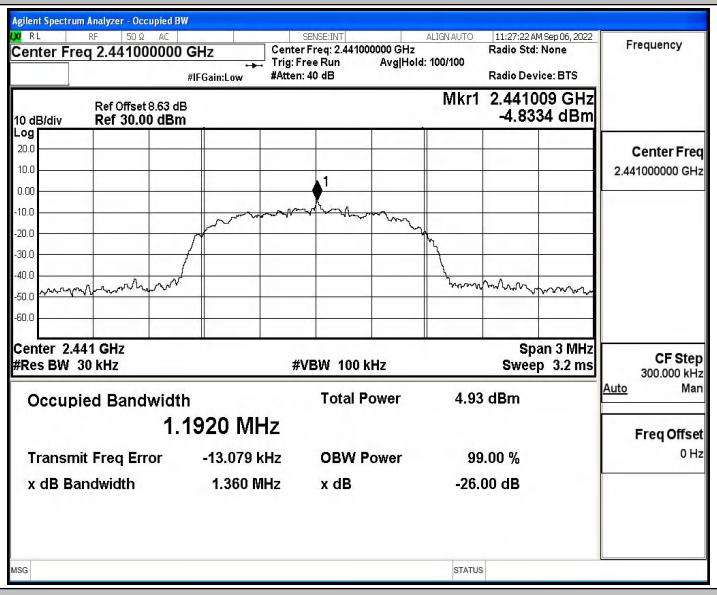
2DH5_Ant1_2480



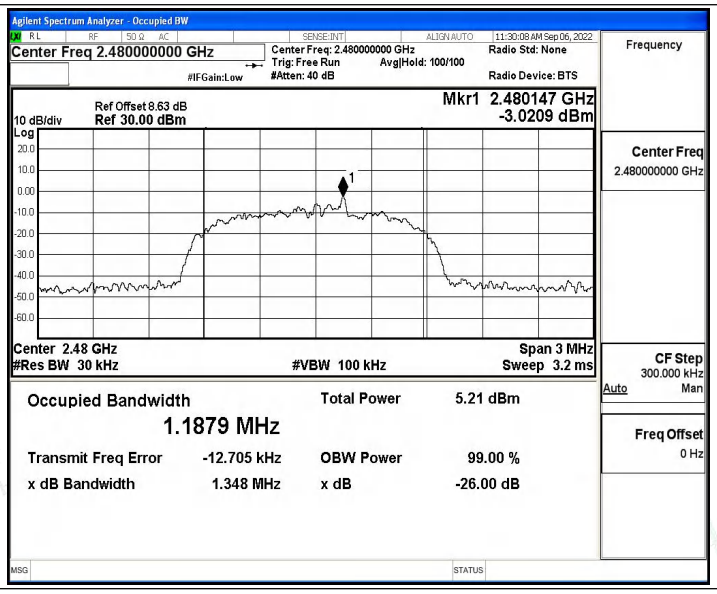
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480


Agilent Spectrum Analyzer - Occupied BW
Center Freq 2.480000000 GHz
Center Freq: 2.480000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#IFGain:Low
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
11:30:08 AM Sep 06, 2022
Frequency
Ref Offset 8.63 dB
10 dB/div
Ref 30.00 dBm
Log
Mkr1 2.480147 GHz
-3.0209 dBm
Center Freq
2.480000000 GHz
Center 2.48 GHz
#Res BW 30 kHz
#VBW 100 kHz
Span 3 MHz
Sweep 3.2 ms
CF Step
300.000 kHz
Auto
Man
Freq Offset
0 Hz
Occupied Bandwidth
1.1879 MHz
Total Power 5.21 dBm
Transmit Freq Error -12.705 kHz
OBW Power 99.00 %
x dB Bandwidth 1.348 MHz
x dB -26.00 dB
MSG
STATUS

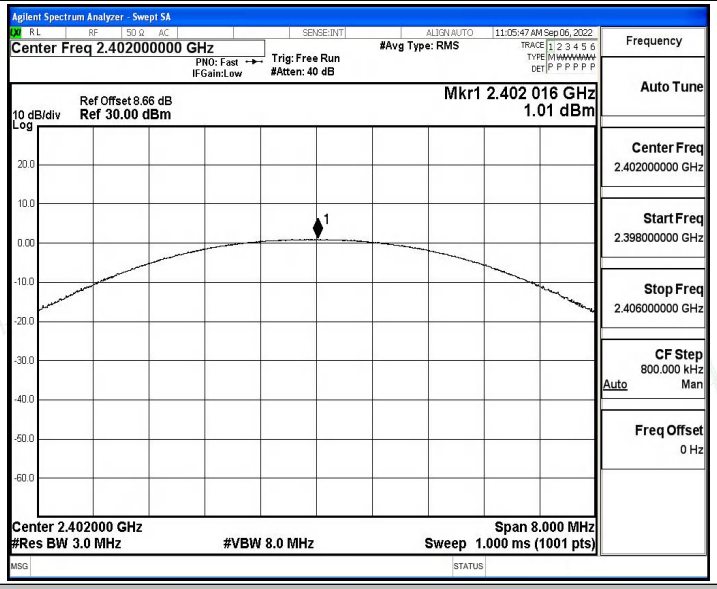
A.3 Maximum conducted output power

Test Result

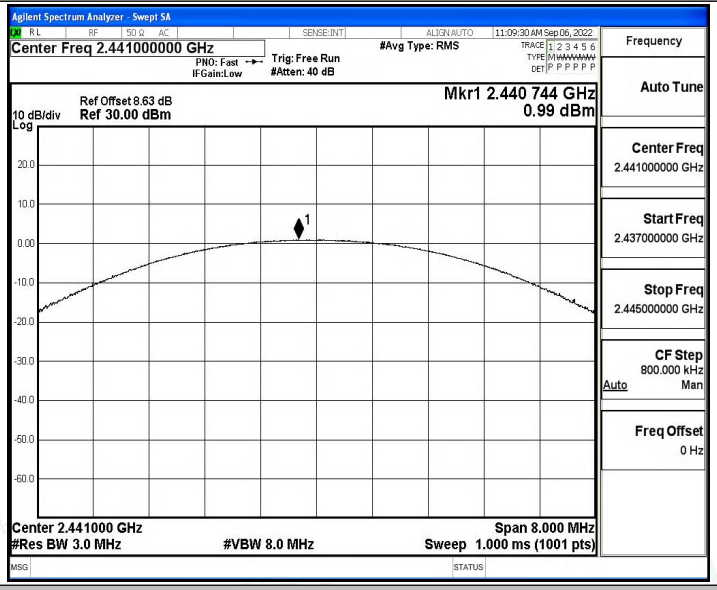
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.01	≤20.97	PASS
		2441	0.99	≤20.97	PASS
		2480	0.91	≤20.97	PASS
2DH5	Ant1	2402	0.52	≤20.97	PASS
		2441	0.49	≤20.97	PASS
		2480	0.44	≤20.97	PASS
3DH5	Ant1	2402	0.53	≤20.97	PASS
		2441	0.55	≤20.97	PASS
		2480	0.49	≤20.97	PASS

Test Graphs

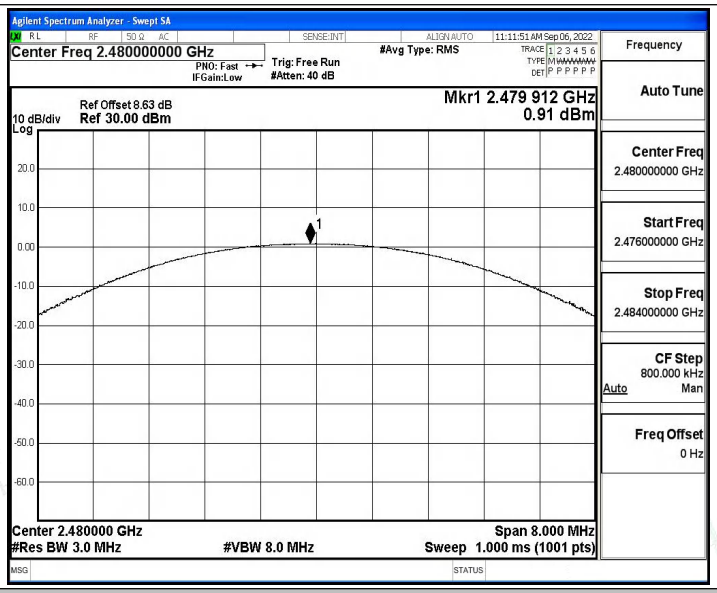
DH5_Ant1_2402



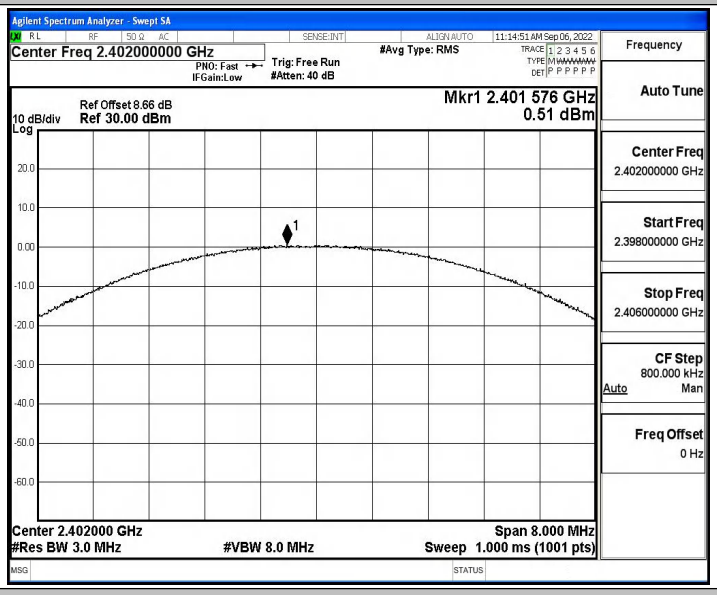
DH5_Ant1_2441



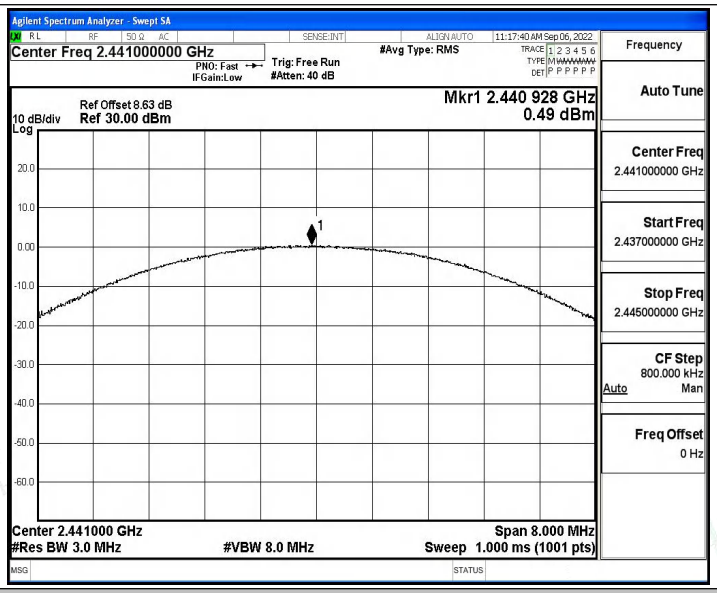
DH5_Ant1_2480



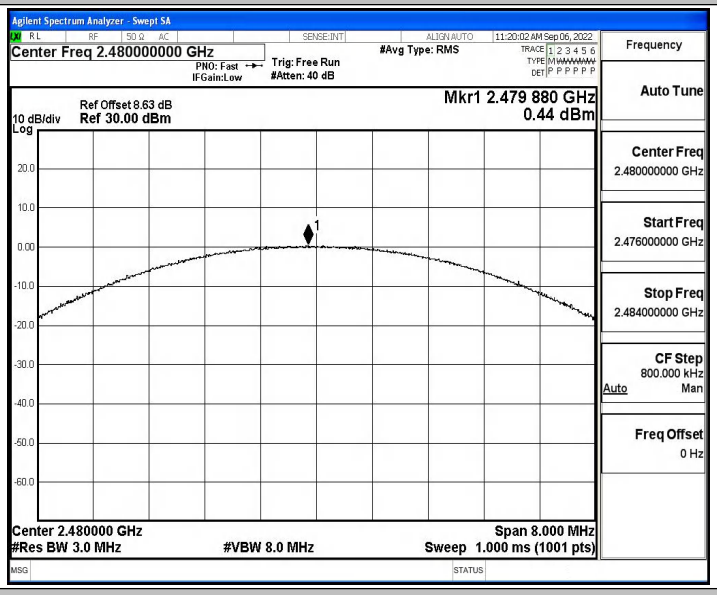
2DH5_Ant1_2402



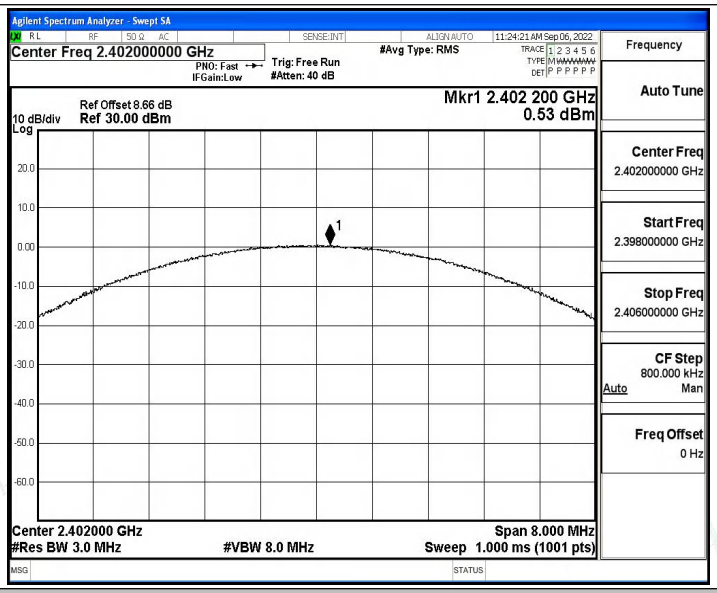
2DH5_Ant1_2441



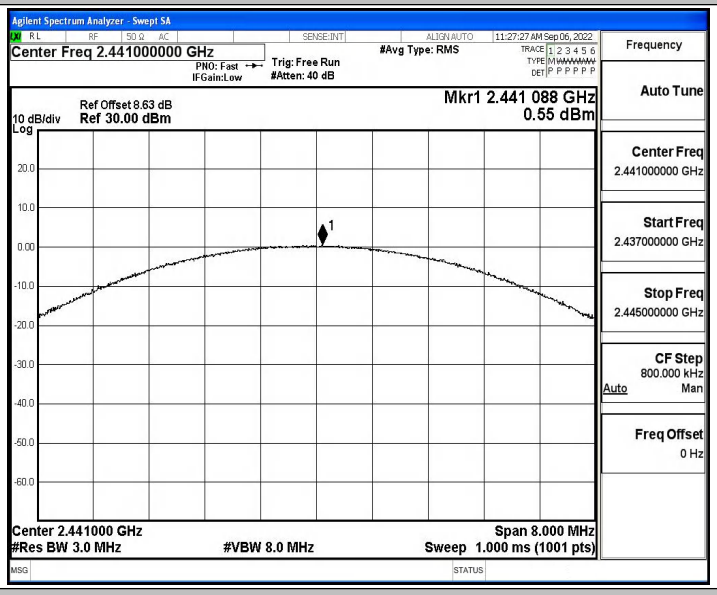
2DH5_Ant1_2480



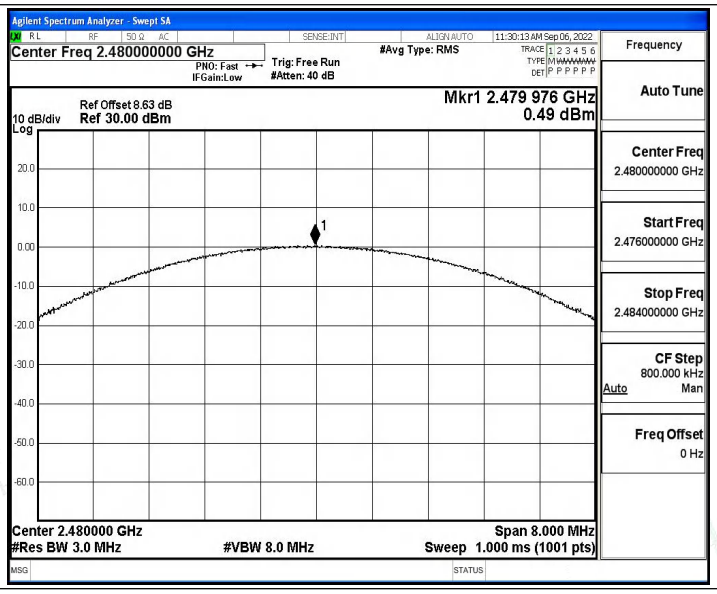
3DH5_Ant1_2402



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
11:30:13 AM Sep 06, 2022
Ref Offset 8.63 dB
10 dB/div Ref 30.00 dBm
Log
Mkr1 2.479 976 GHz
0.49 dBm
20.0
10.0
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
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

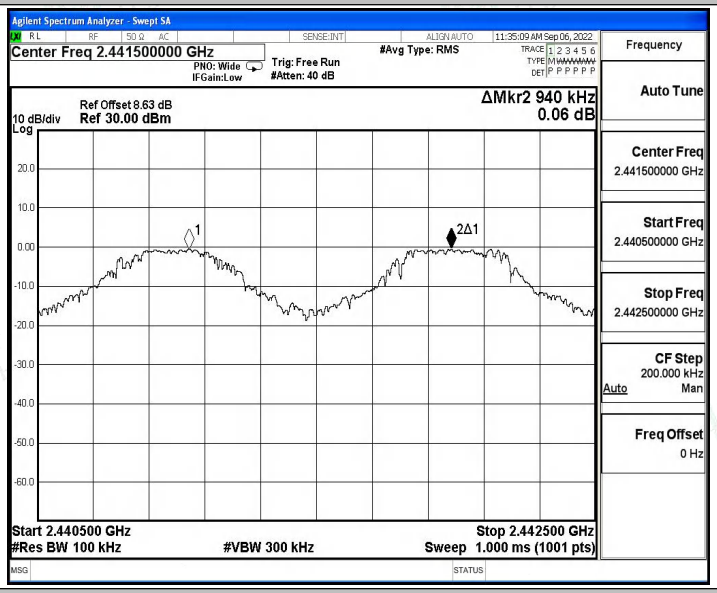
A.4 Carrier frequency separation

Test Result

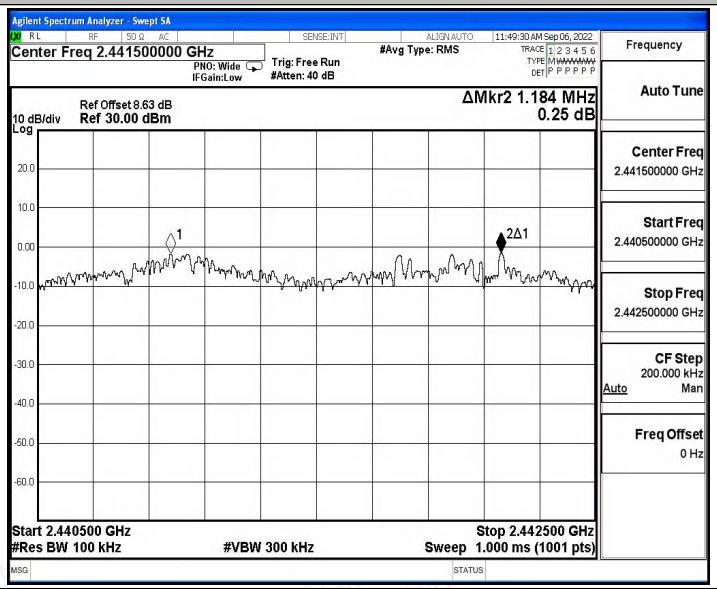
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	0.94	≥0.690	PASS
2DH5	Ant1	Hop	1.184	≥0.890	PASS
3DH5	Ant1	Hop	1.288	≥0.890	PASS

Test Graphs

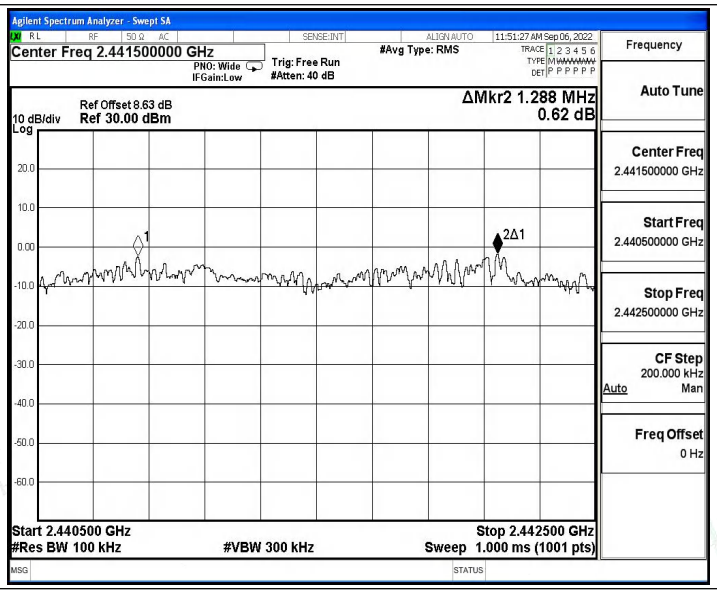
DH5_Ant1_Hop



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
11:51:27 AM Sep 06, 2022
Ref Offset 8.63 dB
10 dB/div Ref 30.00 dBm
Log
ΔMkr2 1.288 MHz
0.62 dB
Start 2.440500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.442500 GHz
Sweep 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

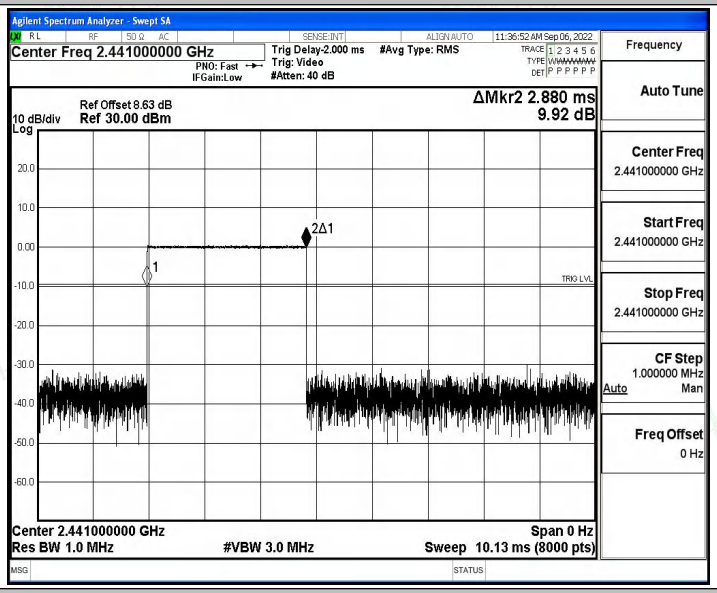
A.5 Time of occupancy

Test Result

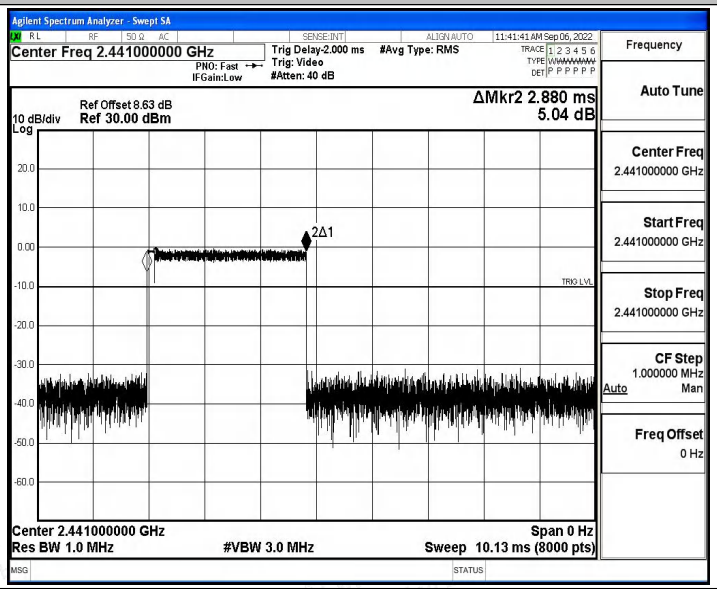
TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
2DH5	Ant1	Hop	2.88	106.67	0.307	≤0.4	PASS
3DH5	Ant1	Hop	2.89	106.67	0.308	≤0.4	PASS

Test Graphs

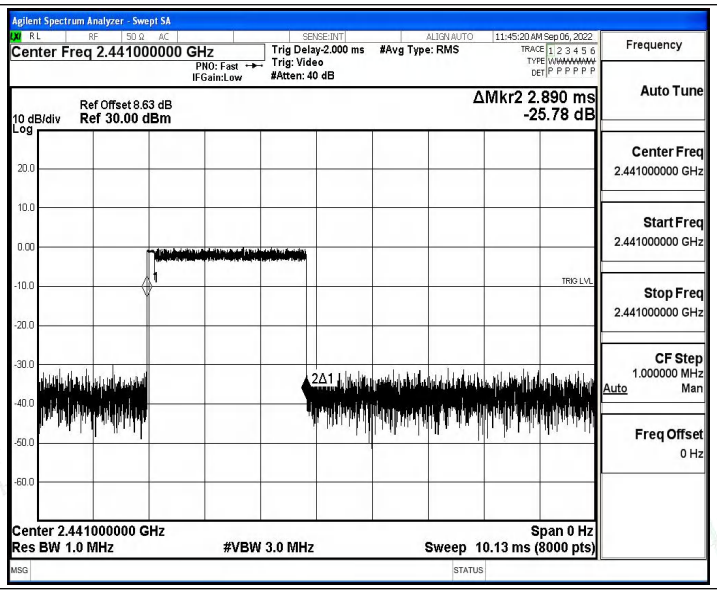
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
PNO: Fast
IFGain:Low
Trig Delay-2.000 ms
Trig: Video
#Avg Type: RMS
#Atten: 40 dB
11:45:20 AM Sep 06, 2022
Ref Offset 8.63 dB
10 dB/div Ref 30.00 dBm
Log
ΔMkr2 2.890 ms
-25.78 dB
TRIG LVL
2Δ1
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

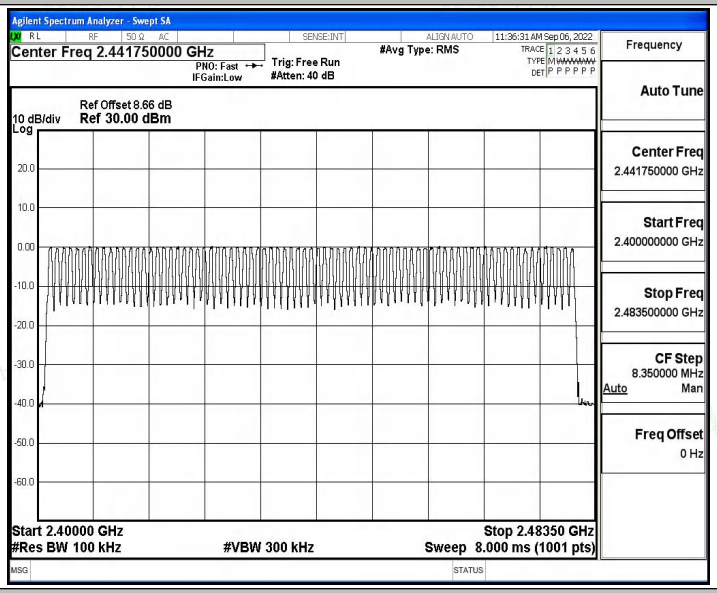
A.6 Number of hopping channels

Test Result

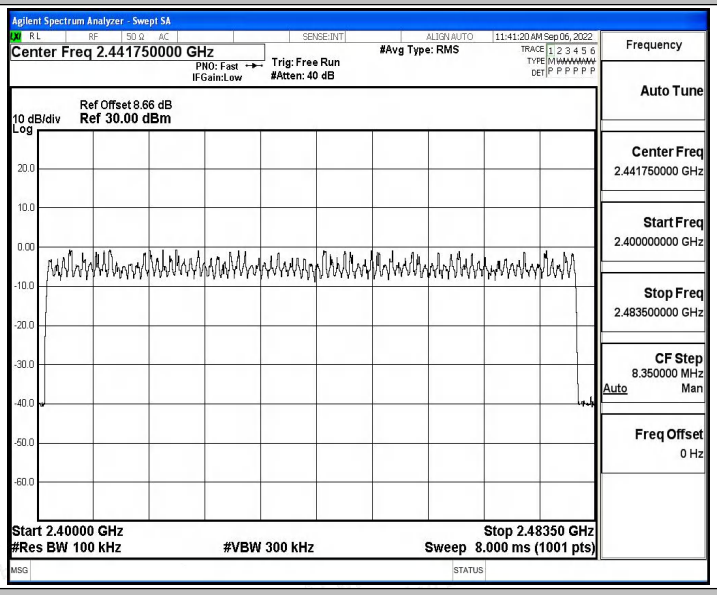
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

Test Graphs

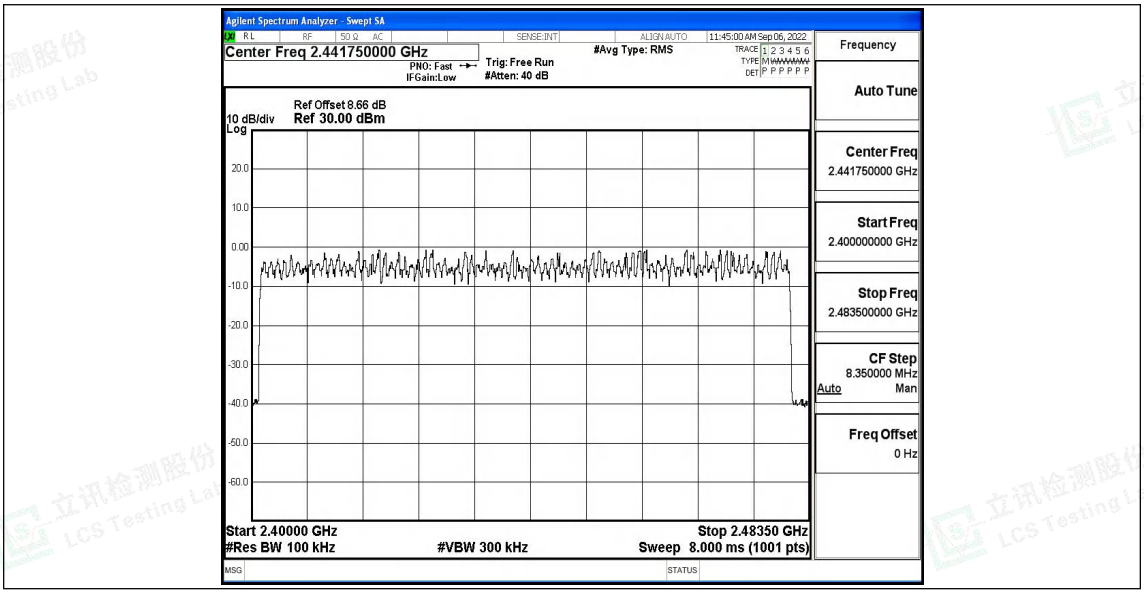
DH5_Ant1_Hop



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
11:45:00 AM Sep 06, 2022
Ref Offset 8.66 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
Start 2.40000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.48350 GHz
Sweep 8.000 ms (1001 pts)
Frequency
Auto Tune
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
MSG
STATUS

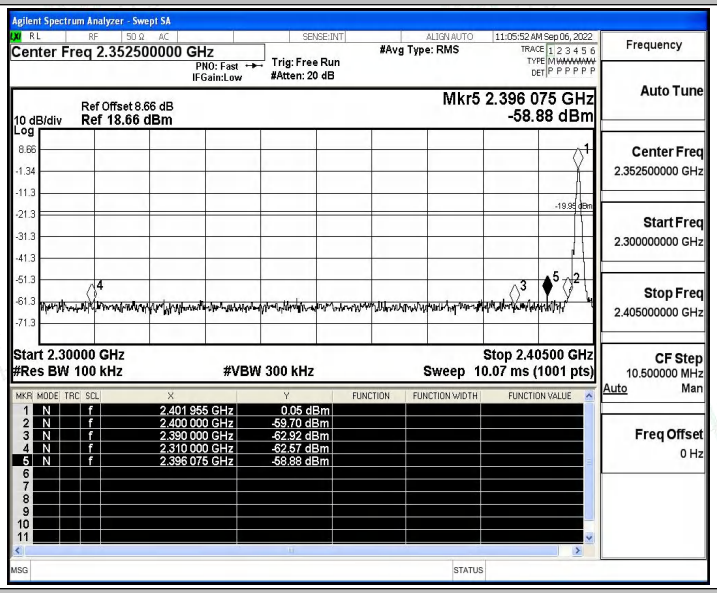
A.7 Band edge measurements

Test Result

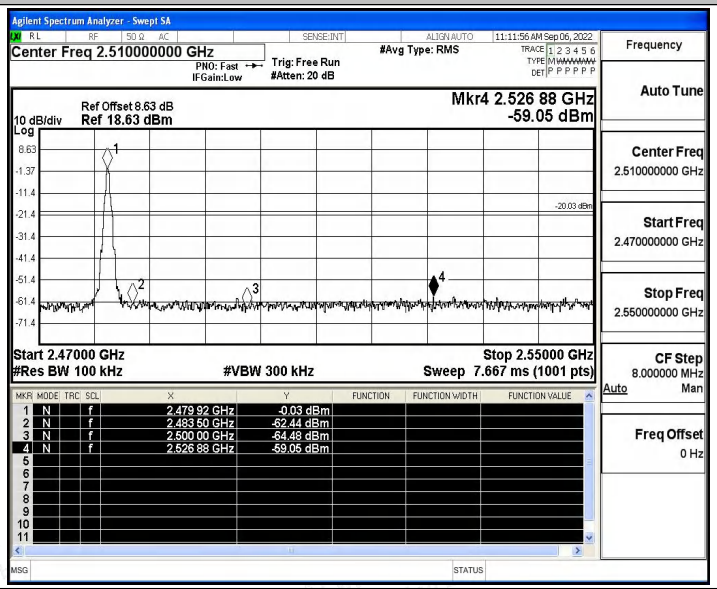
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.05	-58.88	≤-19.95	PASS
		High	2480	-0.03	-59.05	≤-20.03	PASS
		Low	Hop_2402	-0.80	-57.98	≤-20.8	PASS
		High	Hop_2480	-0.13	-57.34	≤-20.13	PASS
2DH5	Ant1	Low	2402	-3.83	-58.08	≤-23.83	PASS
		High	2480	-0.95	-58.75	≤-20.95	PASS
		Low	Hop_2402	-4.57	-59.33	≤-24.57	PASS
		High	Hop_2480	-0.90	-57.91	≤-20.9	PASS
3DH5	Ant1	Low	2402	-4.39	-58.44	≤-24.39	PASS
		High	2480	-4.98	-58.97	≤-24.98	PASS
		Low	Hop_2402	-1.48	-58.54	≤-21.48	PASS
		High	Hop_2480	-2.63	-57.67	≤-22.63	PASS

Test Graphs

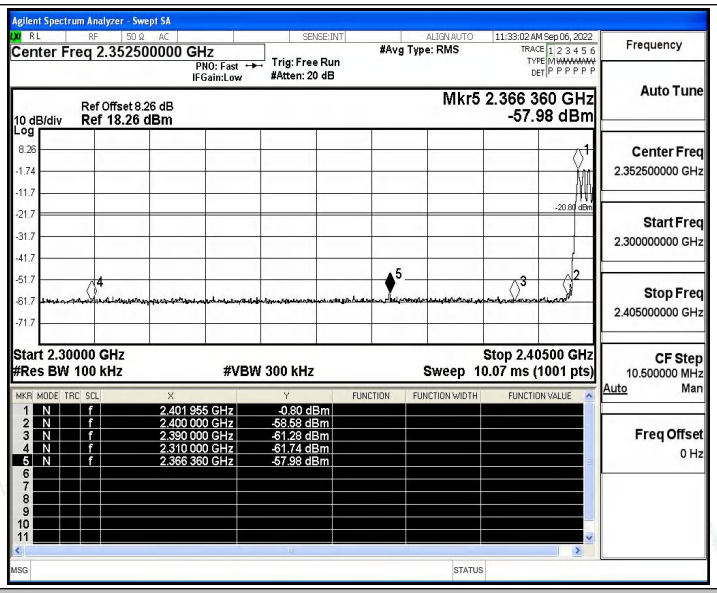
DH5_Ant1_Low_2402



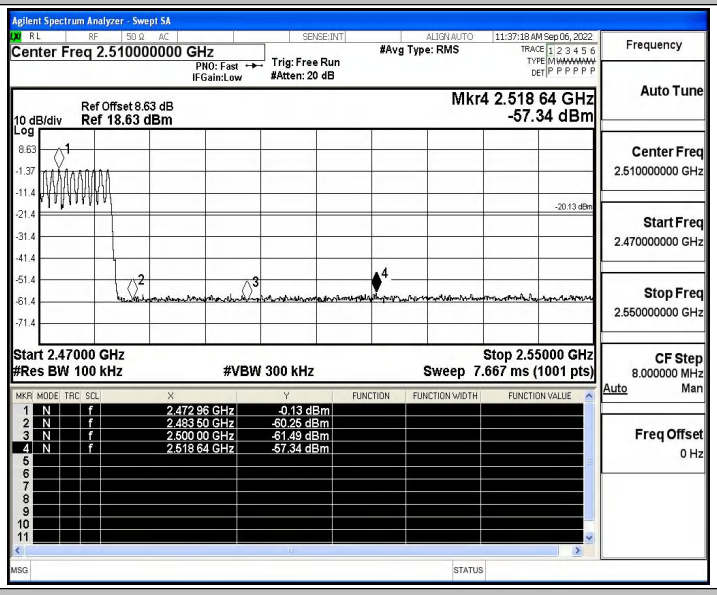
DH5_Ant1_High_2480



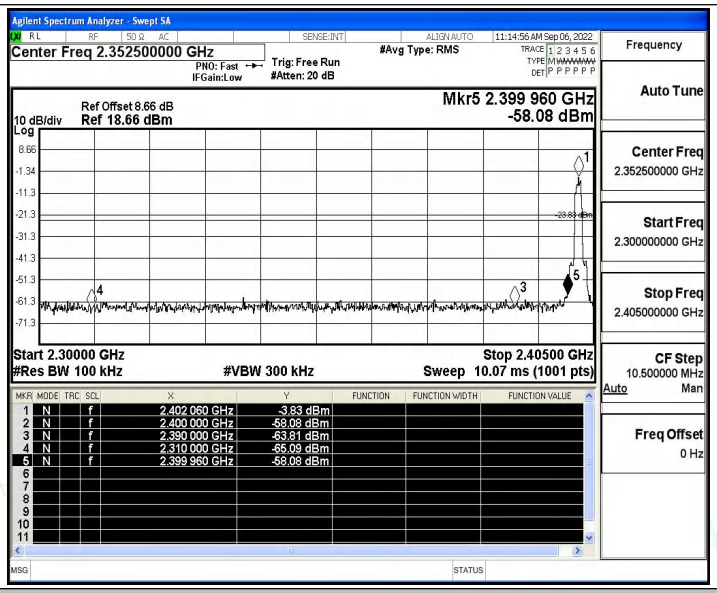
DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402



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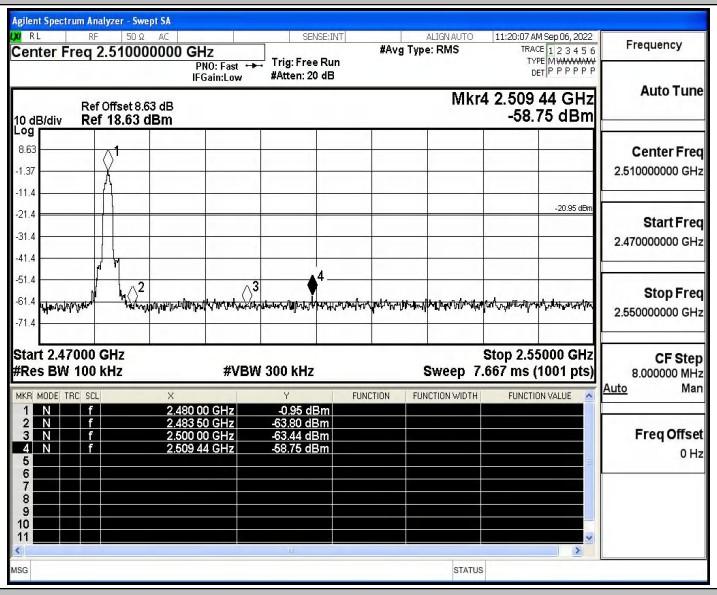
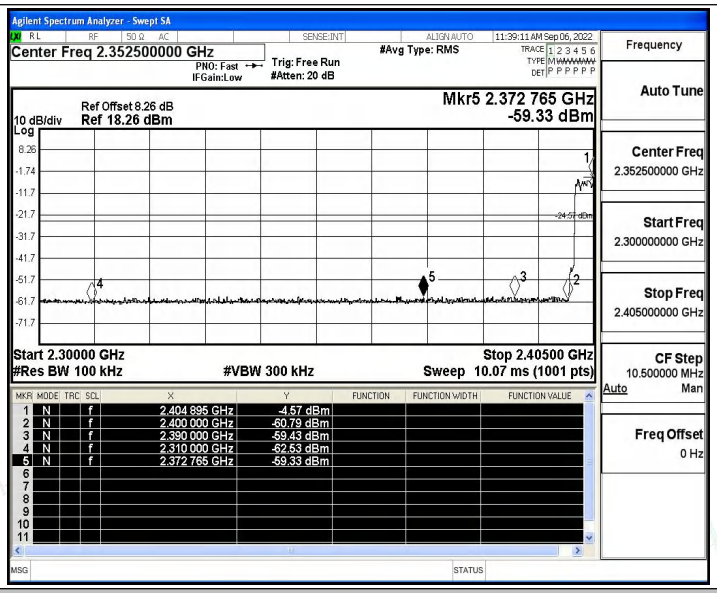
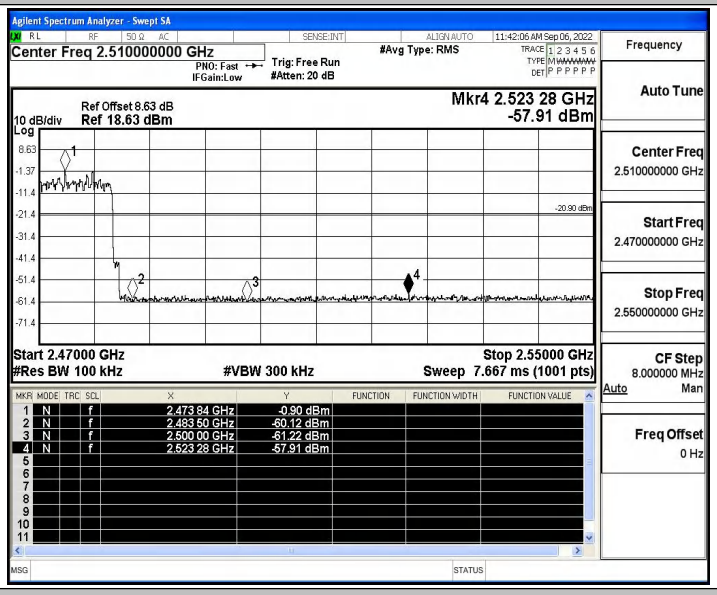


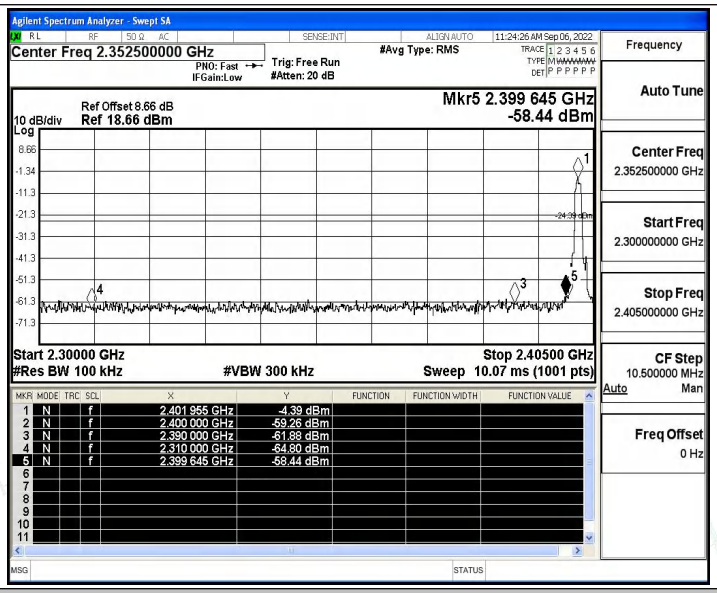
2DH5_Ant1_Low_Hop_2402



2DH5_Ant1_High_Hop_2480



3DH5_Ant1_Low_2402



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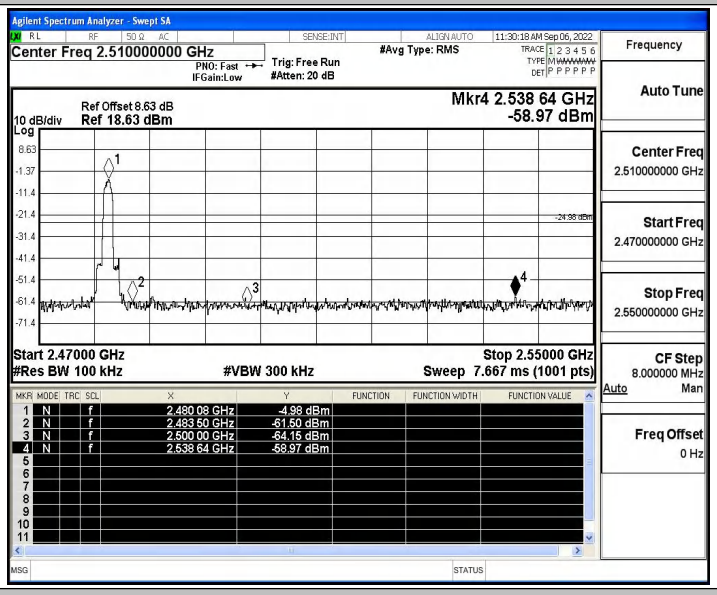
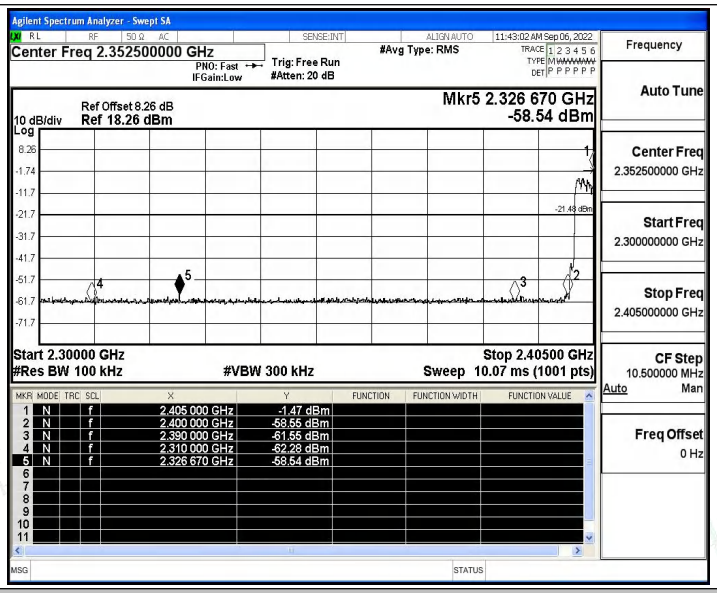
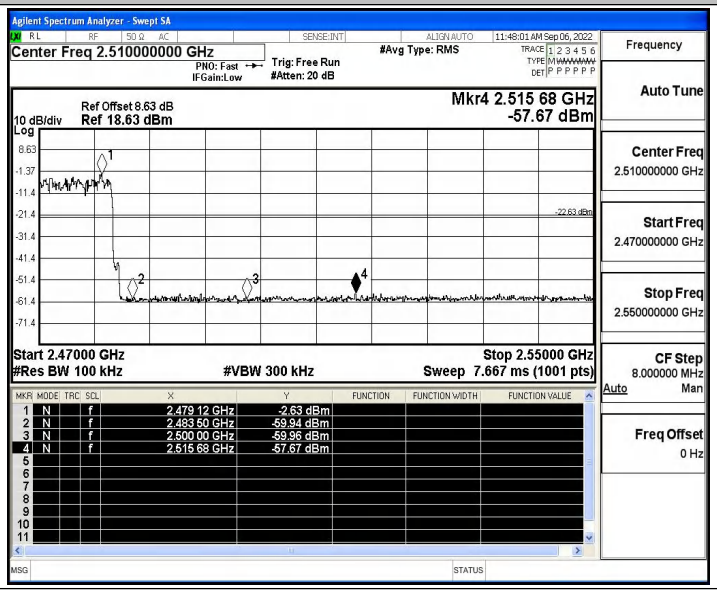


3DH5_Ant1_Low_Hop_2402



3DH5_Ant1_High_Hop_2480