Appendix A

RF Test Data for BT V5.0(DSS) (Conducted Measurement)

Product Name: Speaker box

Test Model: PWRP3

Environmental Conditions

Temperature:	23.7℃
Relative Humidity:	52.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Kay Hu
Supervised by:	Li Huan

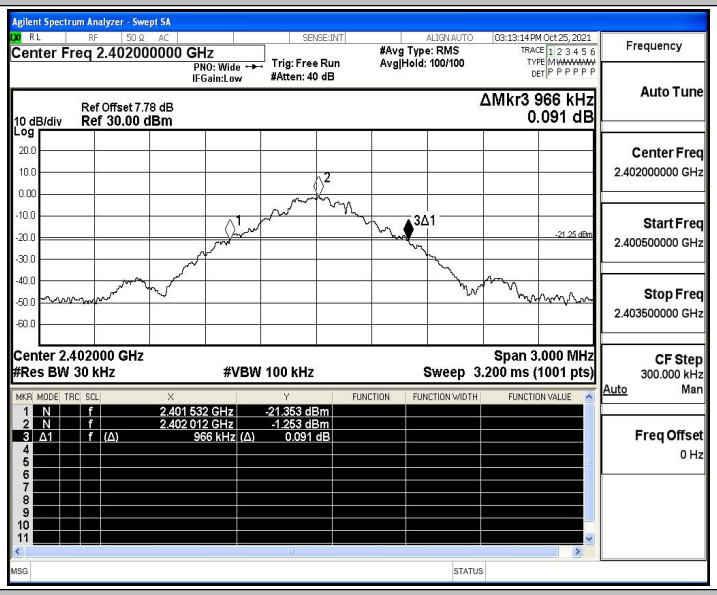
A.1 20dB Emission Bandwidth

Test Result

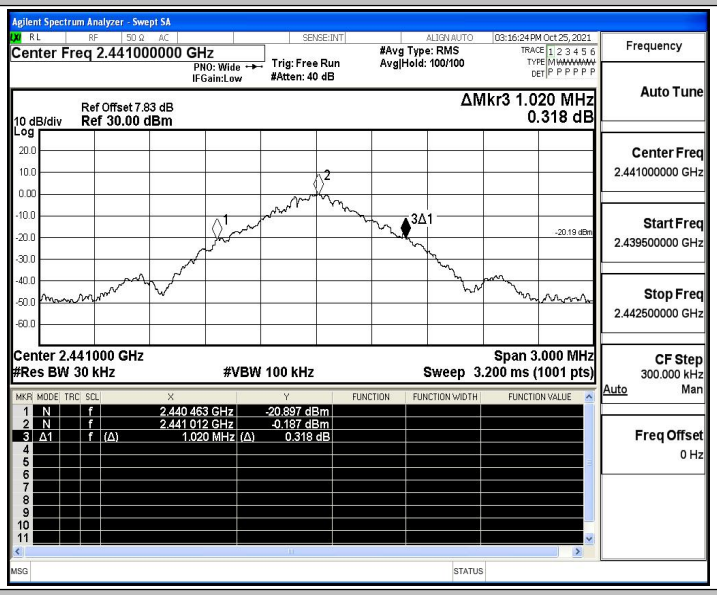
TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.966	2401.532	2402.498	---	PASS
		2441	1.020	2440.463	2441.483	---	PASS
		2480	1.044	2479.460	2480.504	---	PASS
2DH5	Ant1	2402	1.323	2401.337	2402.660	---	PASS
		2441	1.311	2440.343	2441.654	---	PASS
		2480	1.341	2479.325	2480.666	---	PASS
3DH5	Ant1	2402	1.293	2401.349	2402.642	---	PASS
		2441	1.347	2440.322	2441.669	---	PASS
		2480	1.350	2479.322	2480.672	---	PASS

Test Graphs

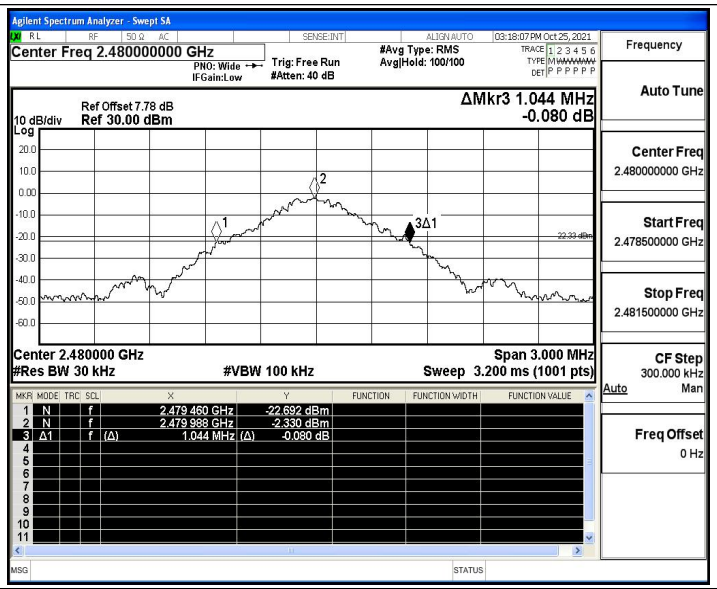
DH5_Ant1_2402



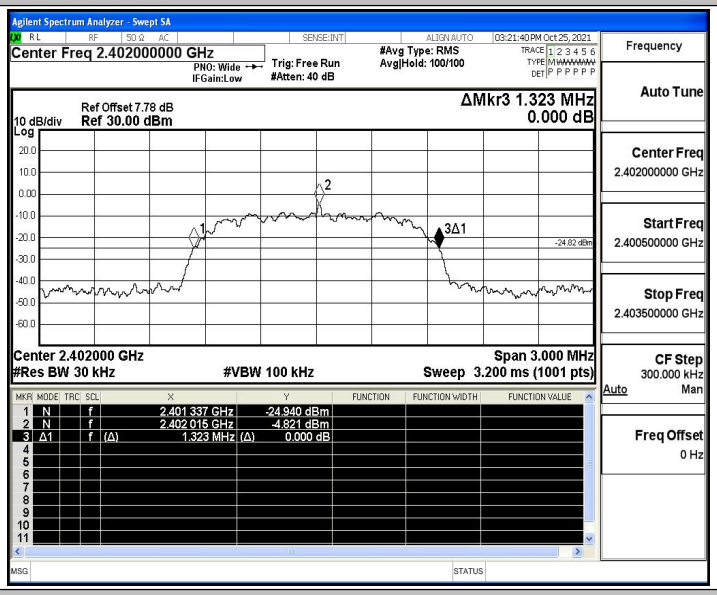
DH5_Ant1_2441



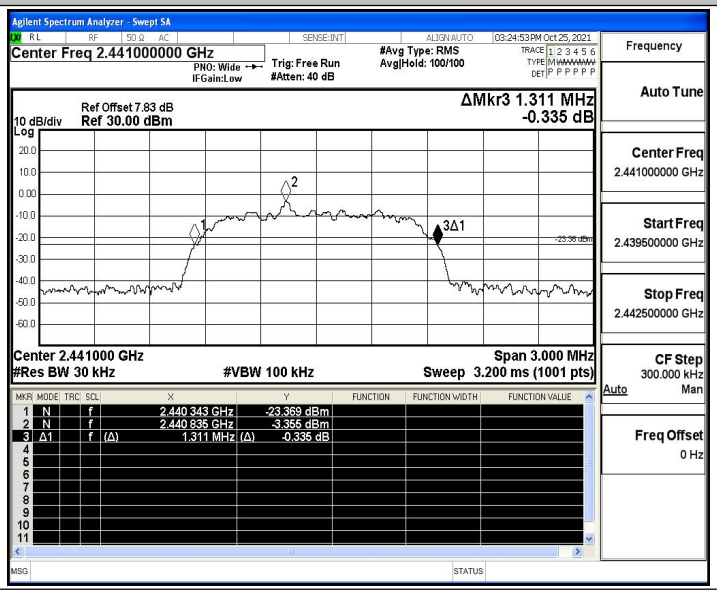
DH5_Ant1_2480



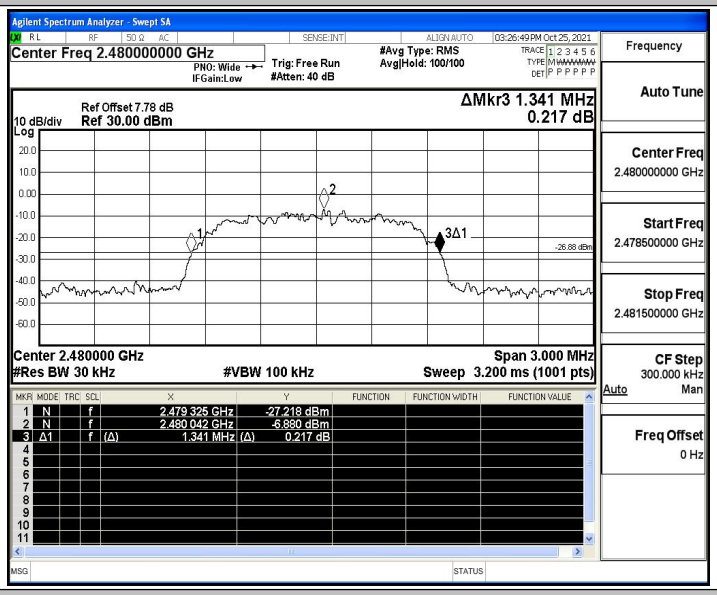
2DH5_Ant1_2402



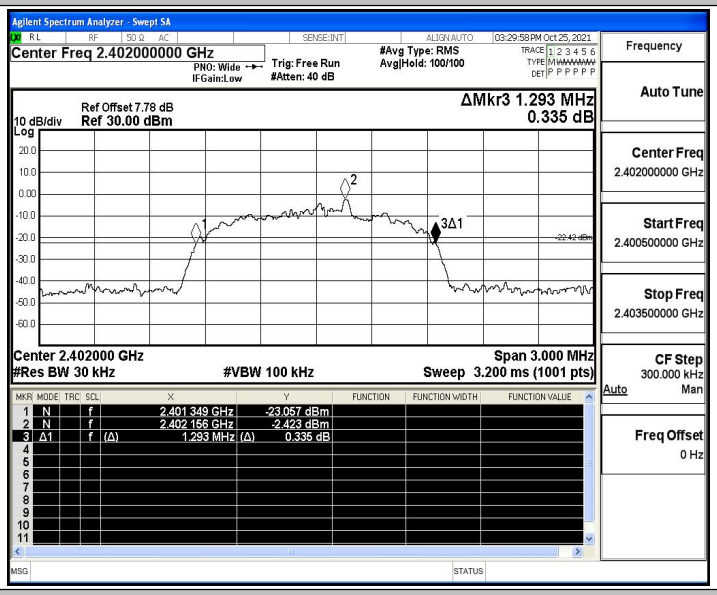
2DH5_Ant1_2441



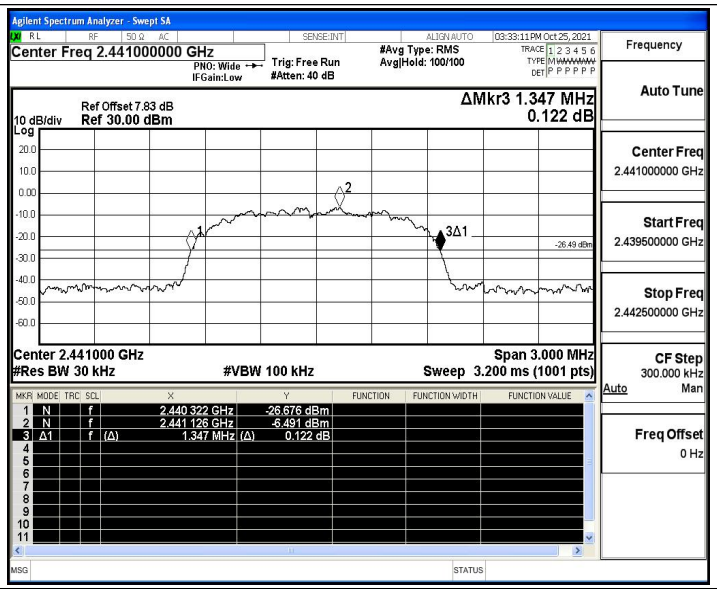
2DH5_Ant1_2480



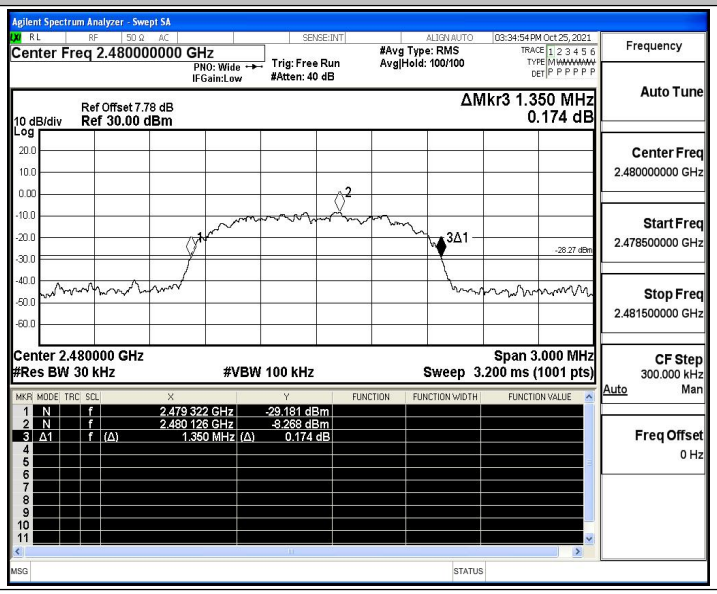
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



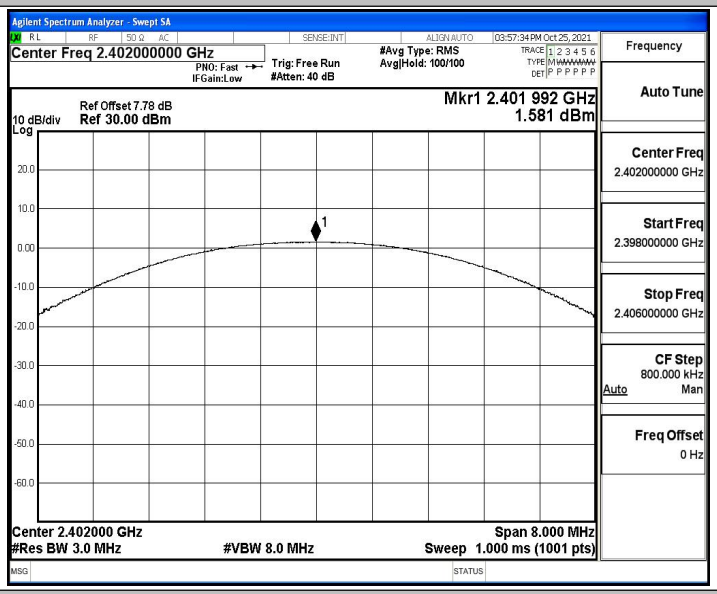
A.2 Maximum peak conducted output power

Test Result

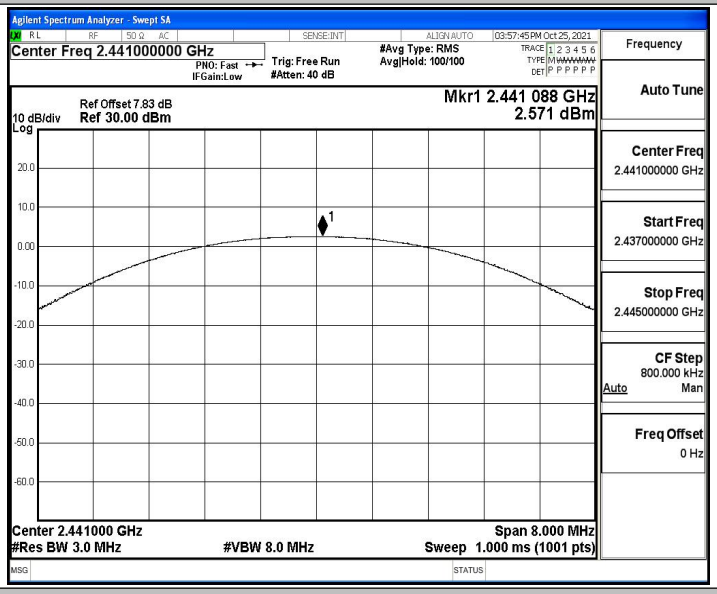
TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.58	≤20.97	PASS
		2441	2.57	≤20.97	PASS
		2480	0.73	≤20.97	PASS
2DH5	Ant1	2402	0.73	≤20.97	PASS
		2441	1.63	≤20.97	PASS
		2480	0.01	≤20.97	PASS
3DH5	Ant1	2402	0.88	≤20.97	PASS
		2441	1.85	≤20.97	PASS
		2480	0.07	≤20.97	PASS

Test Graphs

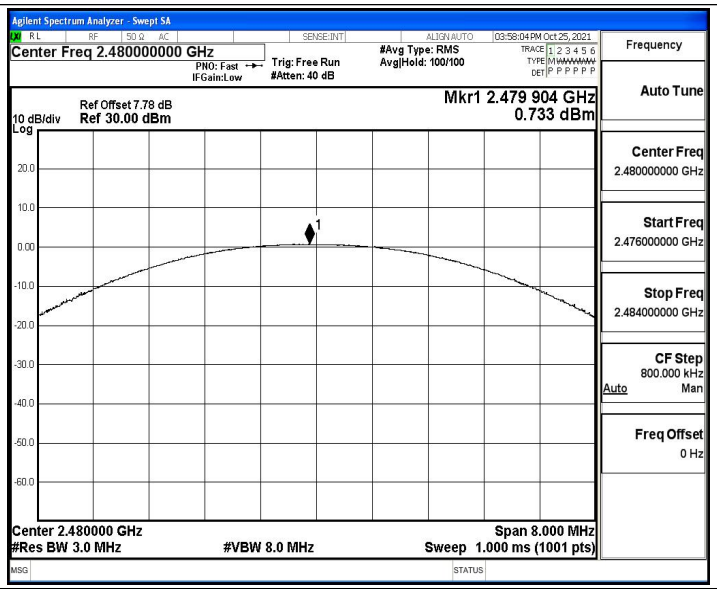
DH5_Ant1_2402



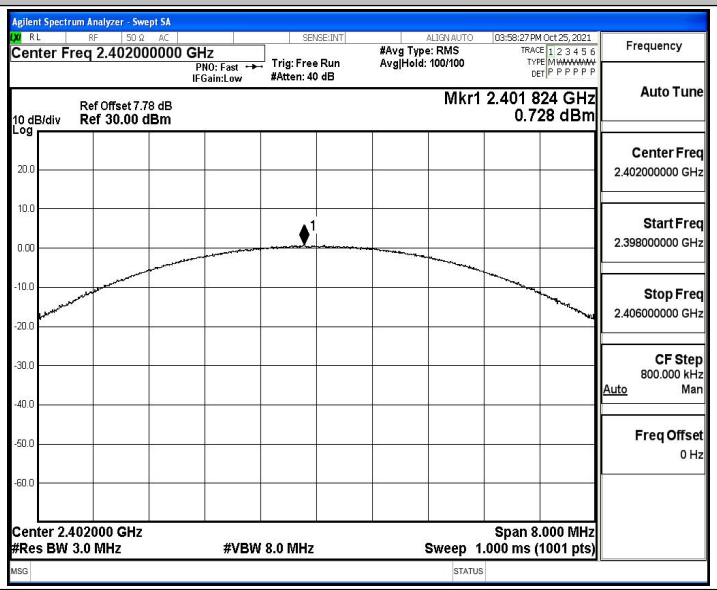
DH5_Ant1_2441



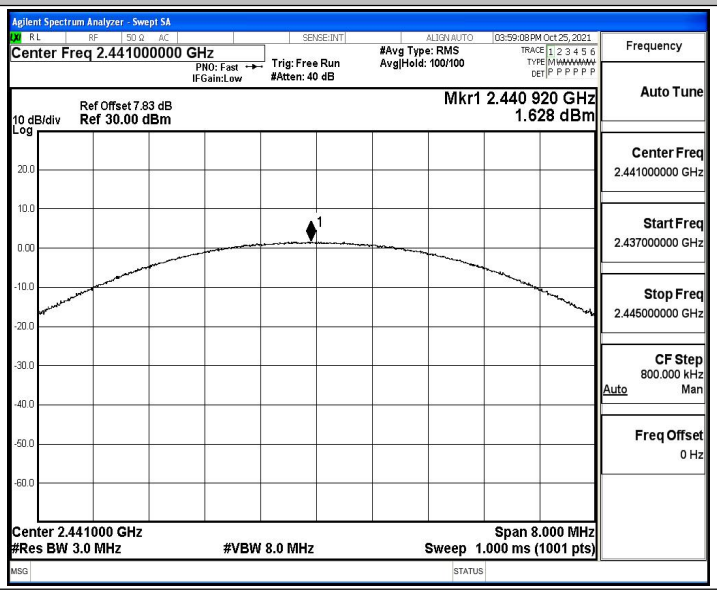
DH5_Ant1_2480



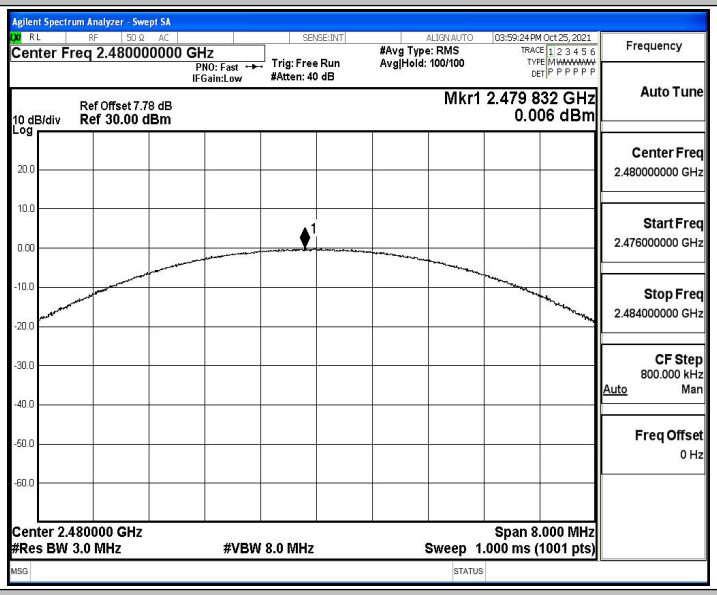
2DH5_Ant1_2402



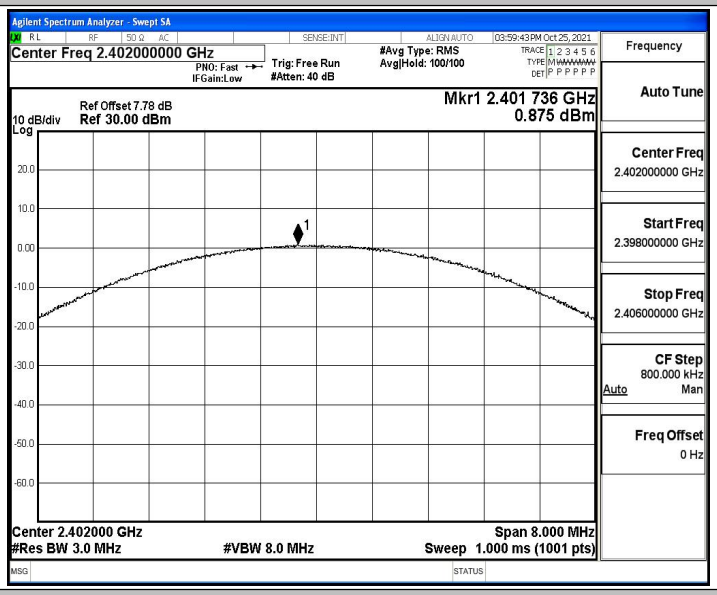
2DH5_Ant1_2441



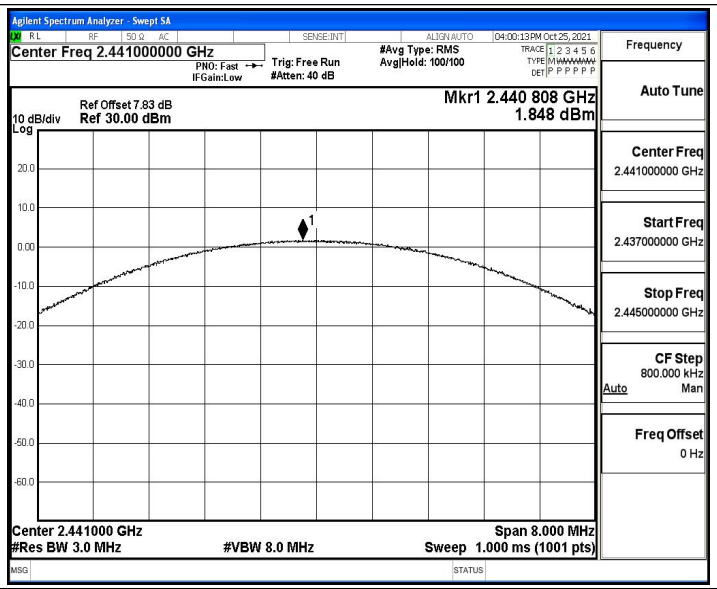
2DH5_Ant1_2480



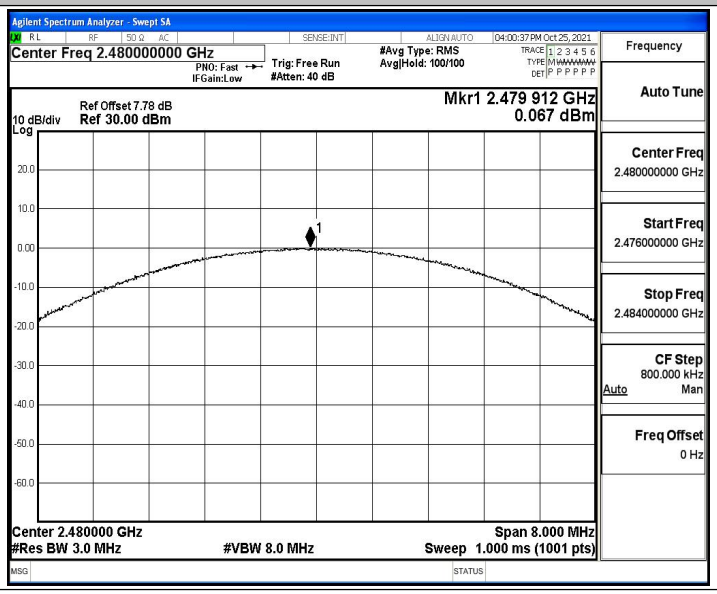
3DH5_Ant1_2402



3DH5_Ant1_2441



3DH5_Ant1_2480



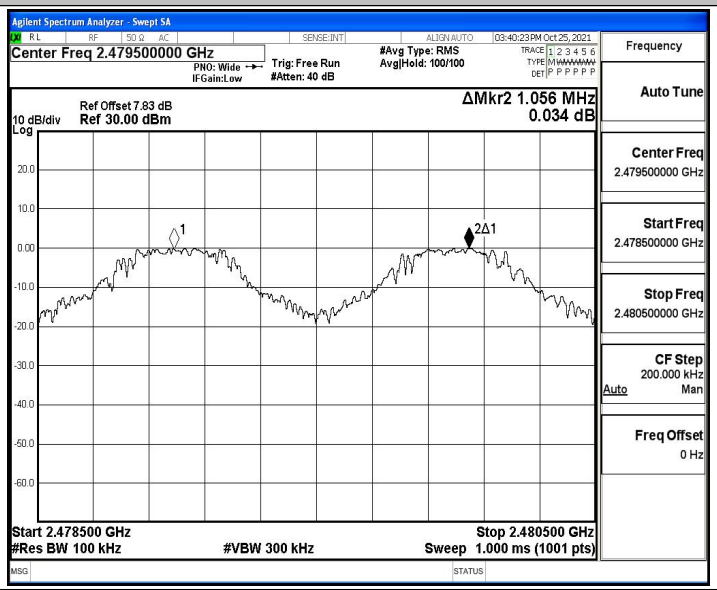
A.3 Carrier frequency separation

Test Result

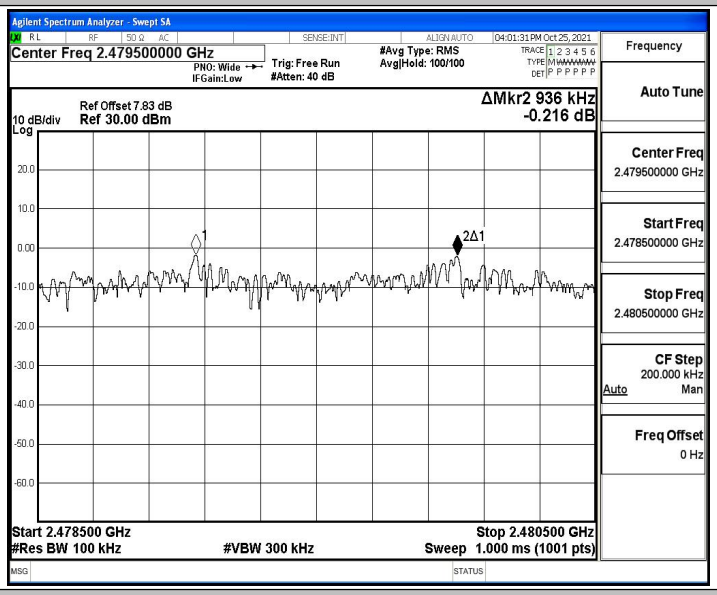
TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.056	≥0.696	PASS
2DH5	Ant1	Hop	0.936	≥0.894	PASS
3DH5	Ant1	Hop	1.158	≥0.900	PASS

Test Graphs

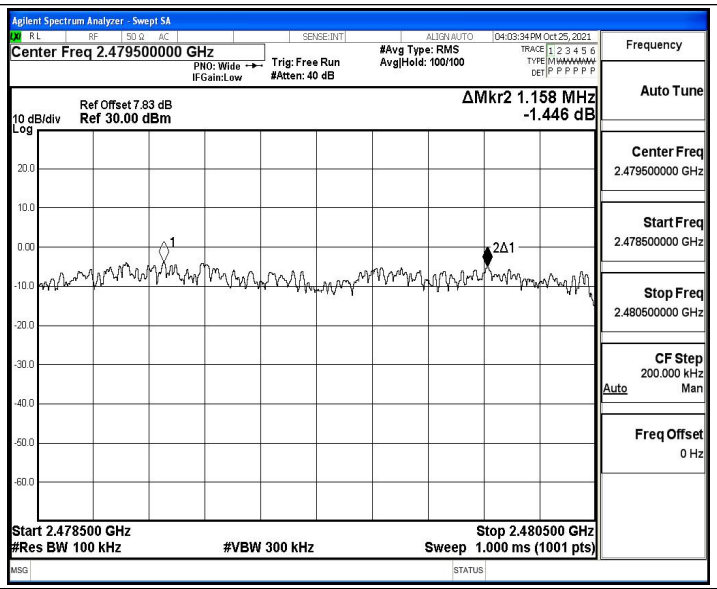
DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

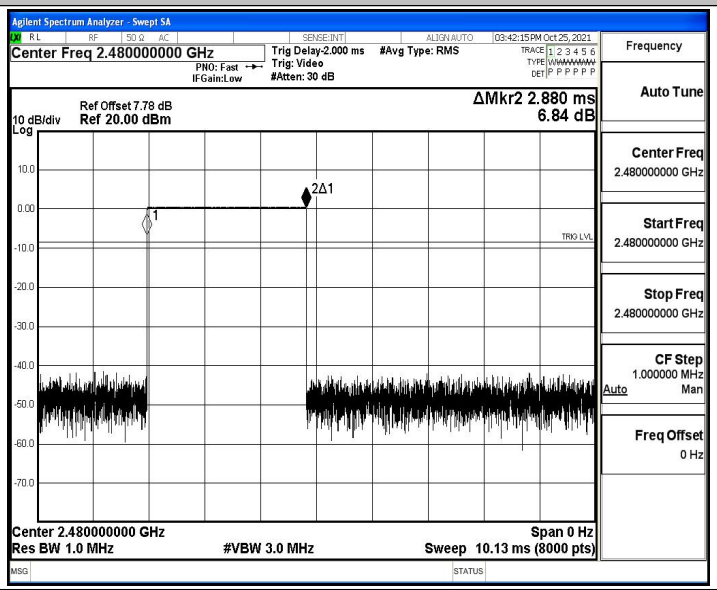
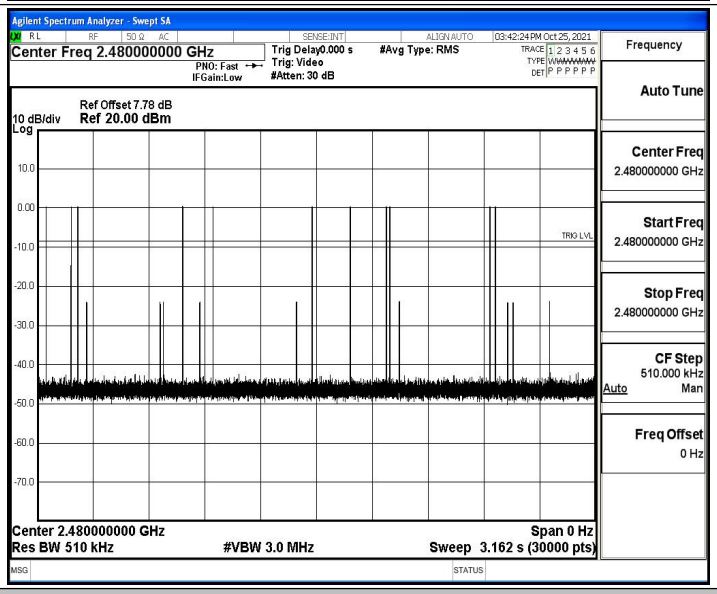

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.479500000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 100/100
04:03:34 PM Oct 25, 2021
Ref Offset 7.83 dB
10 dB/div
Ref 30.00 dBm
Log
ΔMkr2 1.158 MHz
-1.446 dB
Start 2.478500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.480500 GHz
Sweep 1.000 ms (1001 pts)
Frequency
Auto Tune
Center Freq
2.479500000 GHz
Start Freq
2.478500000 GHz
Stop Freq
2.480500000 GHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz

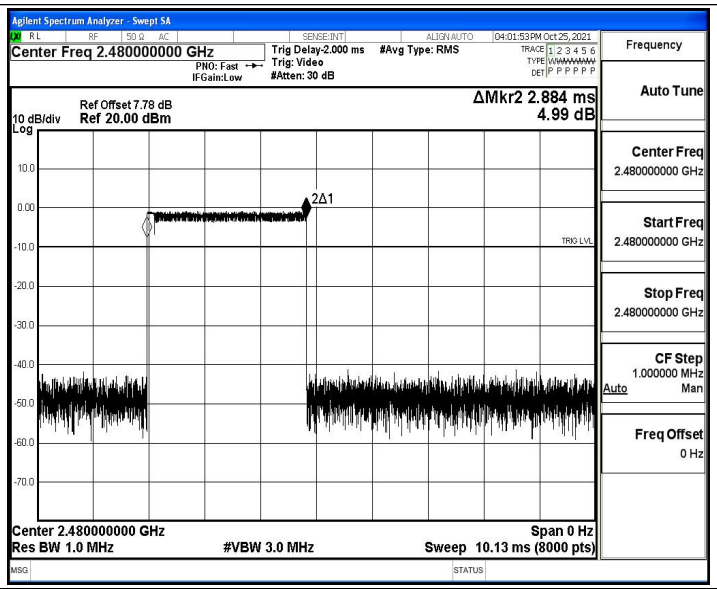
A.4 Time of occupancy

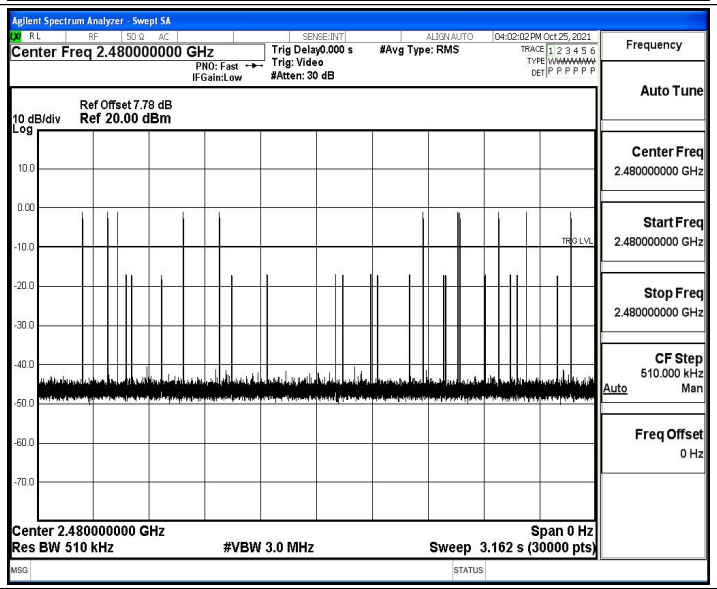
Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH5	Ant1	Hop	2.88	120	0.346	≤0.4	PASS
2DH5	Ant1	Hop	2.88	120	0.346	≤0.4	PASS
3DH5	Ant1	Hop	2.89	120	0.346	≤0.4	PASS

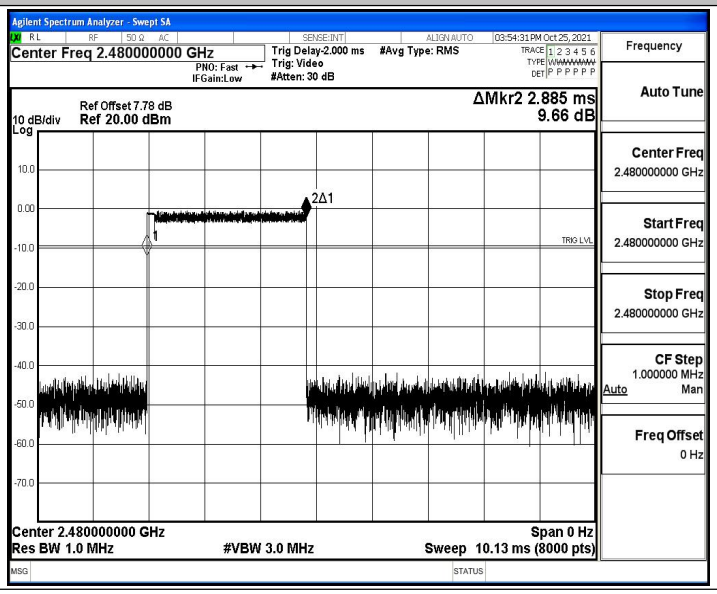
Test Graphs

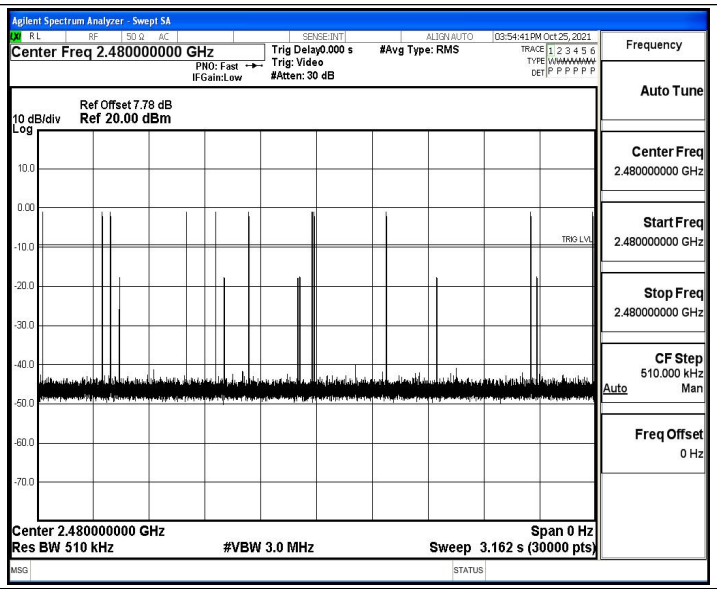
DH5_Ant1_Hop


2DH5_Ant1_Hop





3DH5_Ant1_Hop



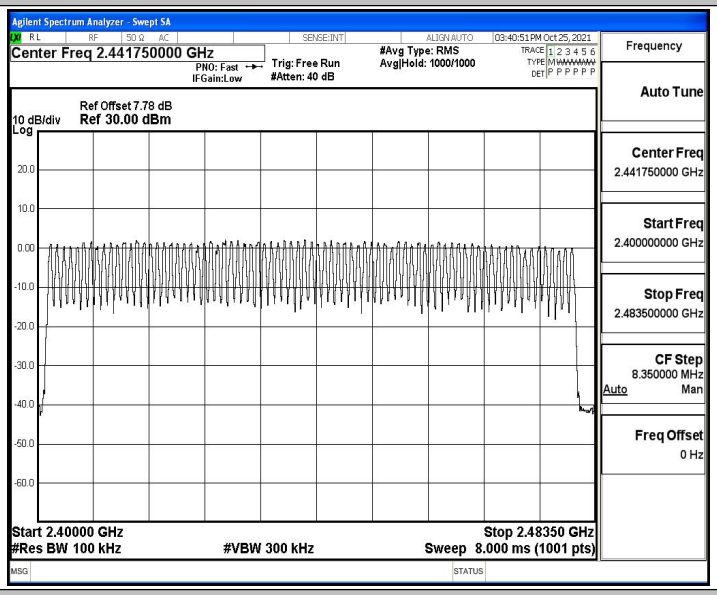

Agilent Spectrum Analyzer - Swept SA
Center Freq 2.480000000 GHz
Trig Delay0.000 s
Trig: Video
#Atten: 30 dB
#Avg Type: RMS
03:54:41 PM Oct 25, 2021
Ref Offset 7.78 dB
10 dB/div
Ref 20.00 dBm
Log
Center 2.480000000 GHz
Span 0 Hz
Res BW 510 kHz
#VBW 3.0 MHz
Sweep 3.162 s (30000 pts)
Frequency
Auto Tune
Center Freq
2.480000000 GHz
Start Freq
2.480000000 GHz
Stop Freq
2.480000000 GHz
CF Step
510.000 kHz
Auto
Man
Freq Offset
0 Hz

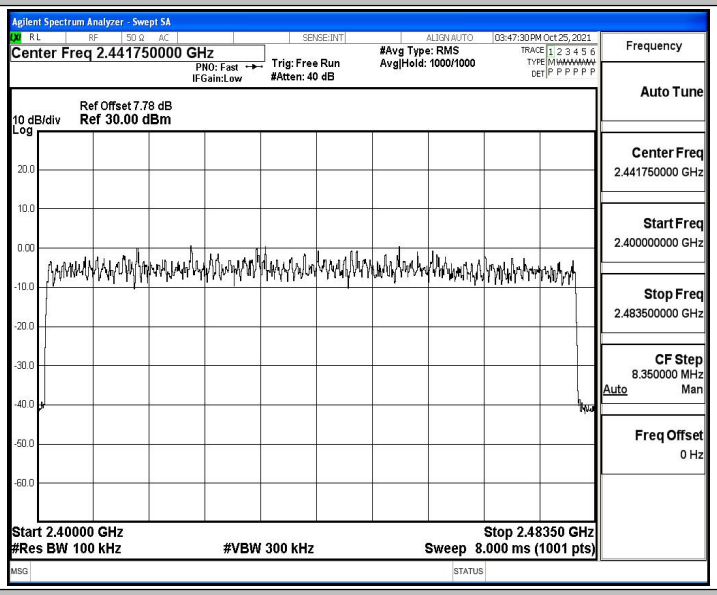
A.5 Number of hopping channels

Test Result

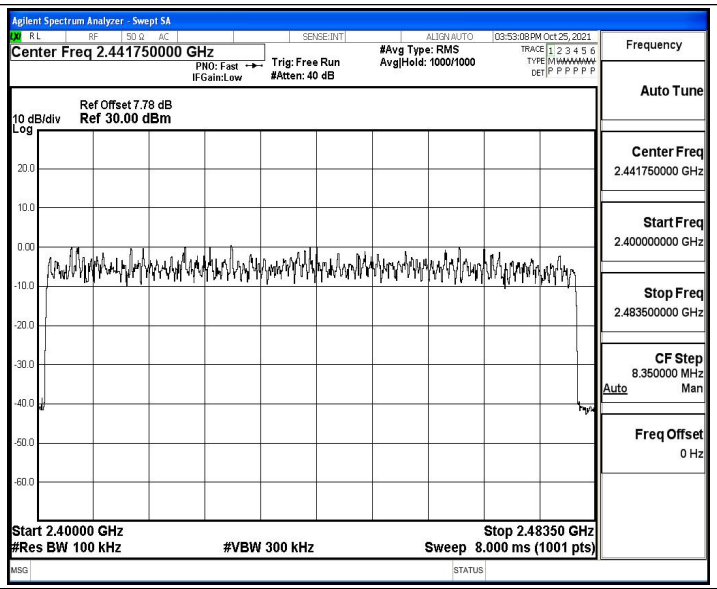
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	≥15	PASS
2DH5	Ant1	Hop	79	≥15	PASS
3DH5	Ant1	Hop	79	≥15	PASS

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: 1000/1000
03:53:08 PM Oct 25, 2021
Ref Offset 7.78 dB
10 dB/div
Ref 30.00 dBm
Log
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

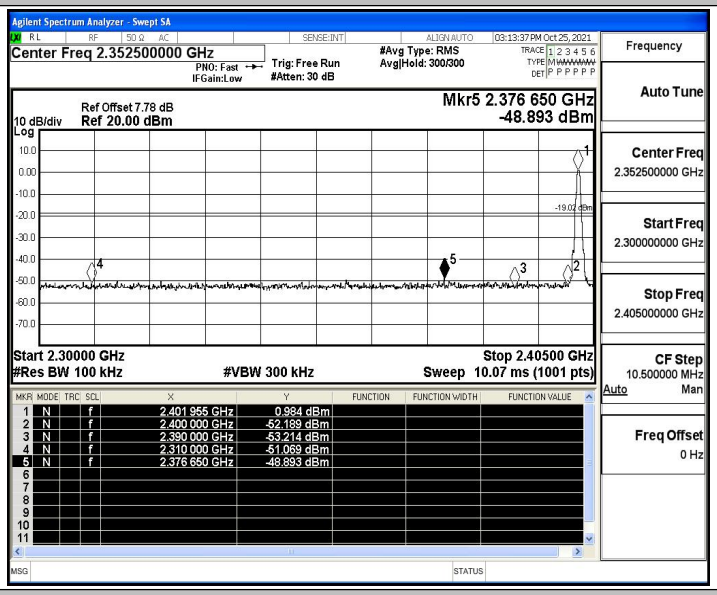
A.6 Band edge measurements

Test Result

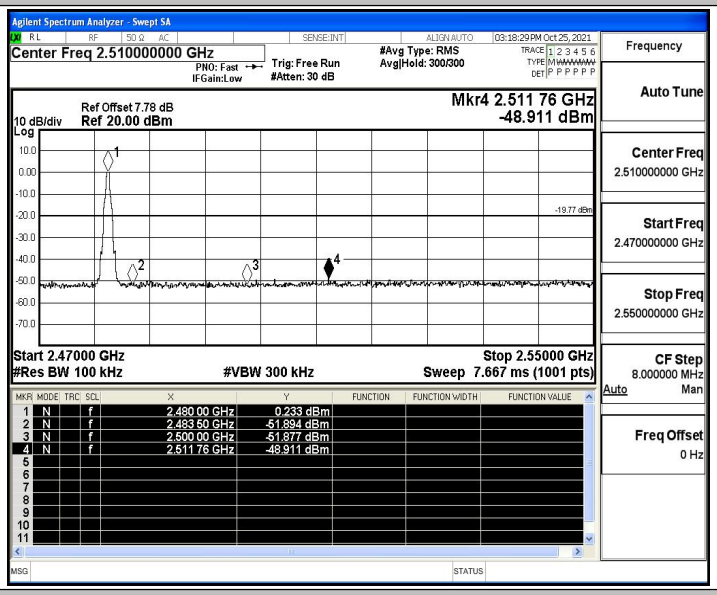
TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	0.98	-48.89	≤-19.02	PASS
		High	2480	0.23	-48.91	≤-19.77	PASS
		Low	Hop_2402	0.87	-49.05	≤-19.13	PASS
		High	Hop_2480	2.01	-47.8	≤-17.99	PASS
2DH5	Ant1	Low	2402	-1.15	-49.23	≤-21.15	PASS
		High	2480	-1.30	-49.08	≤-21.3	PASS
		Low	Hop_2402	-4.06	-49.99	≤-24.06	PASS
		High	Hop_2480	-1.93	-48.39	≤-21.93	PASS
3DH5	Ant1	Low	2402	-0.27	-49.55	≤-20.27	PASS
		High	2480	-1.47	-48.7	≤-21.47	PASS
		Low	Hop_2402	-4.09	-49.98	≤-24.09	PASS
		High	Hop_2480	-0.98	-48.36	≤-20.98	PASS

Test Graphs

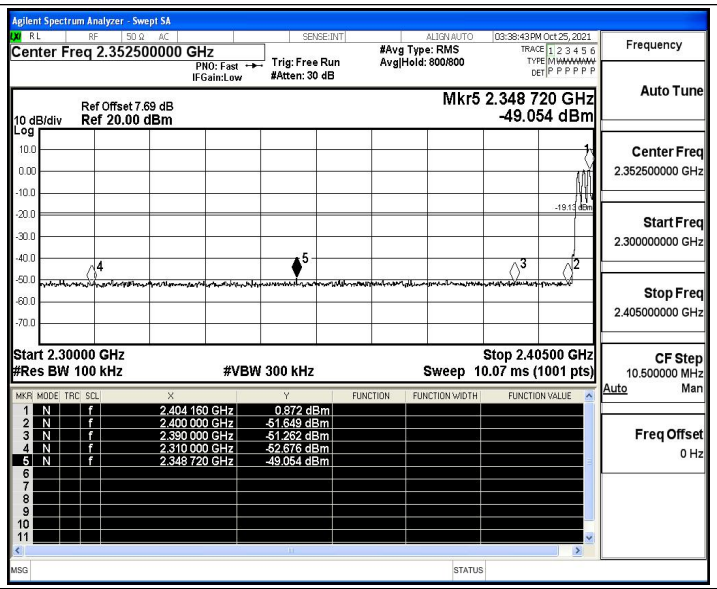
DH5_Ant1_Low_2402



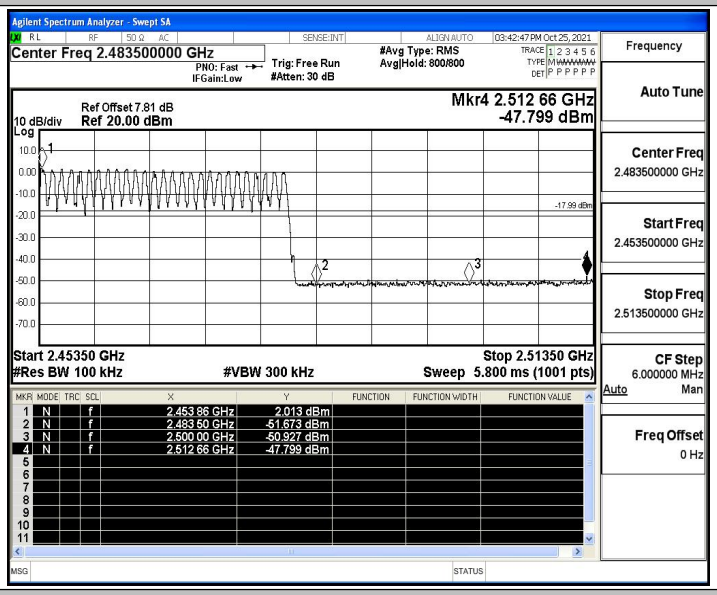
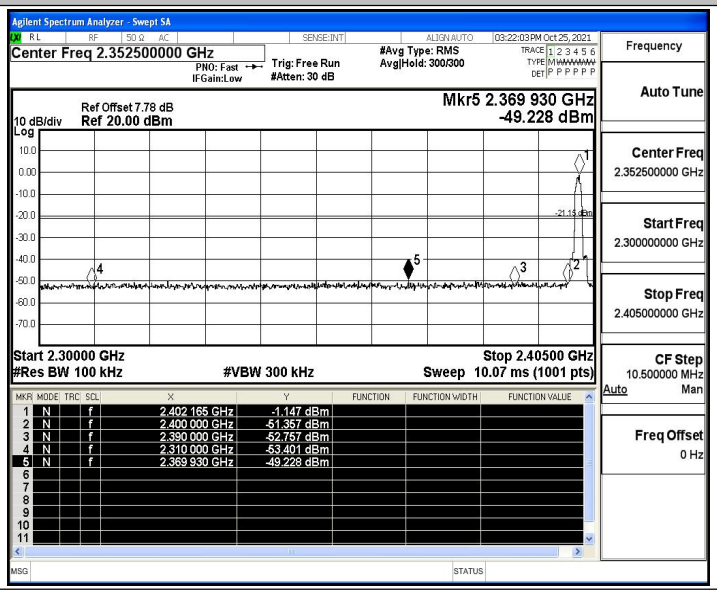
DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402



DH5_Ant1_High_Hop_2480



2DH5_Ant1_Low_2402