Appendix A: 20dB Emission Bandwidth

Test Result

TestMode	Antenna	Channel	20db EBW[MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	1.068	2401.442	2402.510	---	PASS
		2441	1.068	2440.454	2441.522	---	PASS
		2480	1.059	2479.442	2480.501	---	PASS
2DH5	Ant1	2402	1.416	2401.274	2402.690	---	PASS
		2441	1.365	2440.295	2441.660	---	PASS
		2480	1.419	2479.268	2480.687	---	PASS
3DH5	Ant1	2402	1.365	2401.301	2402.666	---	PASS
		2441	1.398	2440.289	2441.687	---	PASS
		2480	1.374	2479.292	2480.666	---	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

Appendix B: Occupied Channel Bandwidth

Test Result

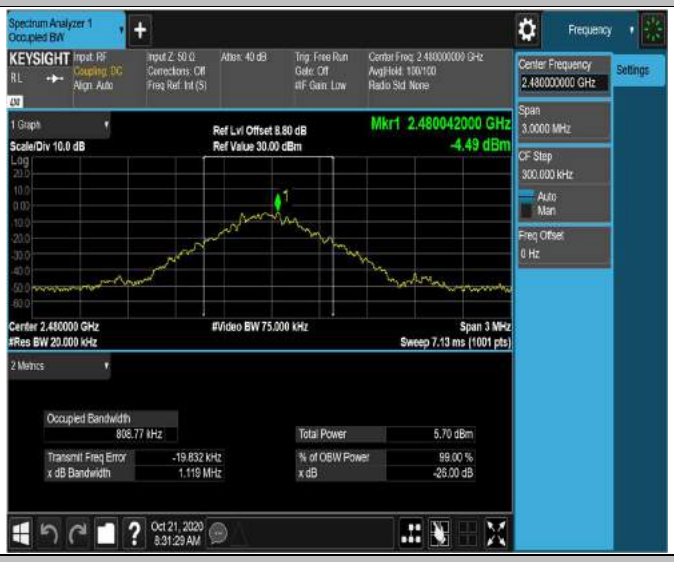
TestMode	Antenna	Channel	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
DH5	Ant1	2402	0.82119	2401.571	2402.392	---	PASS
		2441	0.82699	2440.565	2441.392	---	PASS
		2480	0.80877	2479.576	2480.385	---	PASS
2DH5	Ant1	2402	1.1928	2401.386	2402.579	---	PASS
		2441	1.1826	2440.389	2441.572	---	PASS
		2480	1.1804	2479.391	2480.572	---	PASS
3DH5	Ant1	2402	1.1929	2401.382	2402.575	---	PASS
		2441	1.1945	2440.376	2441.571	---	PASS
		2480	1.1787	2479.384	2480.563	---	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

Appendix C: Maximum conducted output power

Test Result

TestMode	Antenna	Channel	Result[dBm]	Limit[dBm]	Verdict
DH5	Ant1	2402	1.3	<=20.97	PASS
		2441	0.6	<=20.97	PASS
		2480	-0.49	<=20.97	PASS
2DH5	Ant1	2402	3.85	<=20.97	PASS
		2441	3.01	<=20.97	PASS
		2480	1.95	<=20.97	PASS
3DH5	Ant1	2402	4.62	<=20.97	PASS
		2441	3.66	<=20.97	PASS
		2480	2.55	<=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

Appendix D: Carrier frequency separation

Test Result

TestMode	Antenna	Channel	Result[MHz]	Limit[MHz]	Verdict
DH5	Ant1	Hop	1.006	>=0.712	PASS
2DH5	Ant1	Hop	0.996	>=0.946	PASS
3DH5	Ant1	Hop	0.998	>=0.932	PASS

Test Graphs

DH5_Ant1_Hop

2DH5_Ant1_Hop

3DH5_Ant1_Hop

Appendix E: Time of occupancy

Test Result

TestMode	Antenna	Channel	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Ant1	Hop	0.40	320	0.126	<=0.4	PASS
DH3	Ant1	Hop	1.65	140	0.231	<=0.4	PASS
DH5	Ant1	Hop	2.90	110	0.319	<=0.4	PASS
2DH1	Ant1	Hop	0.41	320	0.13	<=0.4	PASS
2DH3	Ant1	Hop	1.66	150	0.249	<=0.4	PASS
2DH5	Ant1	Hop	2.90	80	0.232	<=0.4	PASS
3DH1	Ant1	Hop	0.41	330	0.134	<=0.4	PASS
3DH3	Ant1	Hop	1.66	140	0.232	<=0.4	PASS
3DH5	Ant1	Hop	2.91	90	0.262	<=0.4	PASS

Test Graphs

DH1_Ant1_Hop

DH3_Ant1_Hop

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Frequency
Settings
Center Frequency
2.441000000 GHz
Span
0.00000000 Hz
Swept Span
Zero Span
Full Span
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
AUTO TUNE
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
1 Spectrum
Scale/Div 10 dB
Ref Level 23.00 dBm
ΔMkr2 1.650 ms
21.16 dB
2Δ1
Center 2.441000000 GHz
Res BW 1.0 MHz
#Video BW 3.0 MHz
Span 0 Hz
Sweep 10.1 ms (8000 pts)
Oct 21, 2020
9:23:33 AM
Spectrum Analyzer 1
Swept SA
KEYSIGHT
Frequency
Settings
Center Frequency
2.441000000 GHz
Span
0.00000000 Hz
Swept Span
Zero Span
Full Span
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
AUTO TUNE
CF Step
510.000 kHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
1 Spectrum
Scale/Div 10 dB
Ref Level 23.00 dBm
Center 2.441000000 GHz
Res BW 510 kHz
#Video BW 3.0 MHz
Span 0 Hz
Sweep 3.16 s (30000 pts)
Oct 21, 2020
9:23:39 AM

DH5_Ant1_Hop

Spectrum Analyzer 1
Swept SA
KEYSIGHT
Frequency
Settings
Center Frequency
2.441000000 GHz
Span
0.00000000 Hz
Swept Span
Zero Span
Full Span
Start Freq
2.441000000 GHz
Stop Freq
2.441000000 GHz
AUTO TUNE
CF Step
1.000000 MHz
Auto
Man
Freq Offset
0 Hz
X Axis Scale
Log
Lin
1 Spectrum
Scale/Div 10 dB
Ref Level 23.00 dBm
ΔMkr2 2.899 ms
23.65 dB
2Δ1
Δ1
Center 2.441000000 GHz
Res BW 1.0 MHz
#Video BW 3.0 MHz
Span 0 Hz
Sweep 10.1 ms (8000 pts)
Oct 21, 2020
9:22:27 AM
Center 2.441000000 GHz
Res BW 510 kHz
#Video BW 3.0 MHz
Span 0 Hz
Sweep 3.16 s (30000 pts)
Oct 21, 2020
9:22:33 AM

2DH1_Ant1_Hop

2DH3_Ant1_Hop

2DH5_Ant1_Hop

3DH1_Ant1_Hop

3DH3_Ant1_Hop

3DH5_Ant1_Hop

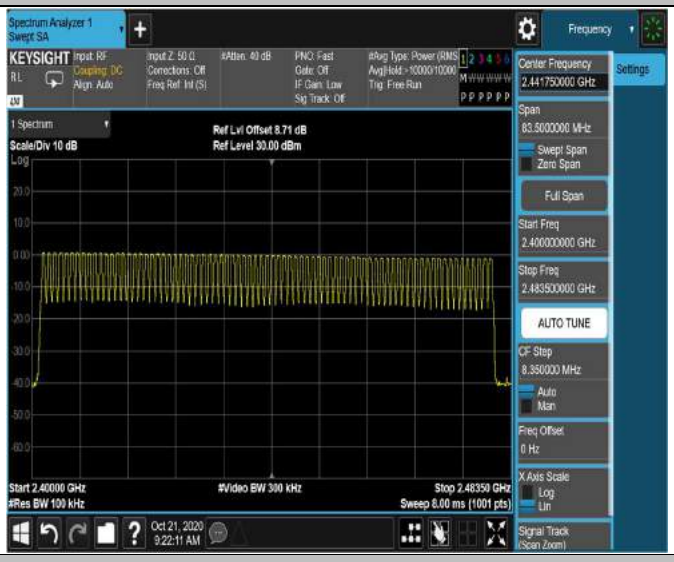
Appendix F: Number of hopping channels

Test Result

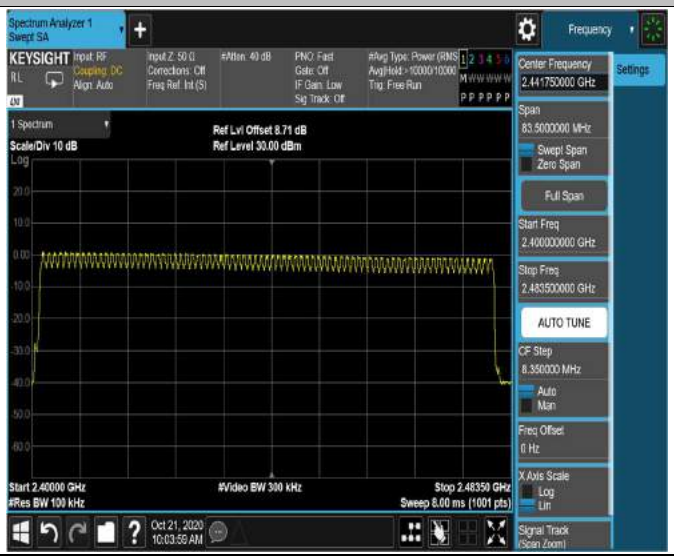
TestMode	Antenna	Channel	Result[Num]	Limit[Num]	Verdict
DH5	Ant1	Hop	79	>=15	PASS
2DH5	Ant1	Hop	79	>=15	PASS
3DH5	Ant1	Hop	79	>=15	PASS

Test Graphs

DH5_Ant1_Hop



2DH5_Ant1_Hop



3DH5_Ant1_Hop

Appendix G: Band edge measurements

Test Result

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	3.96	-47.51	<=-16.04	PASS
		High	2480	-1.20	-50.69	<=-21.2	PASS
		Low	Hop_2402	0.66	-49.67	-19.34	PASS
		High	Hop_2480	-1.23	-49.85	-21.23	PASS
2DH5	Ant1	Low	2402	0.58	-45.5	<=-19.42	PASS
		High	2480	-1.27	-49.84	<=-21.28	PASS
		Low	Hop_2402	-1.92	-43.54	-21.92	PASS
		High	Hop_2480	-0.59	-50.28	-20.59	PASS
3DH5	Ant1	Low	2402	0.63	-42.4	<=-19.37	PASS
		High	2480	-1.23	-49.76	<=-21.23	PASS
		Low	Hop_2402	-2.28	-49.65	-22.28	PASS
		High	Hop_2480	-1.63	-49.78	-21.63	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

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

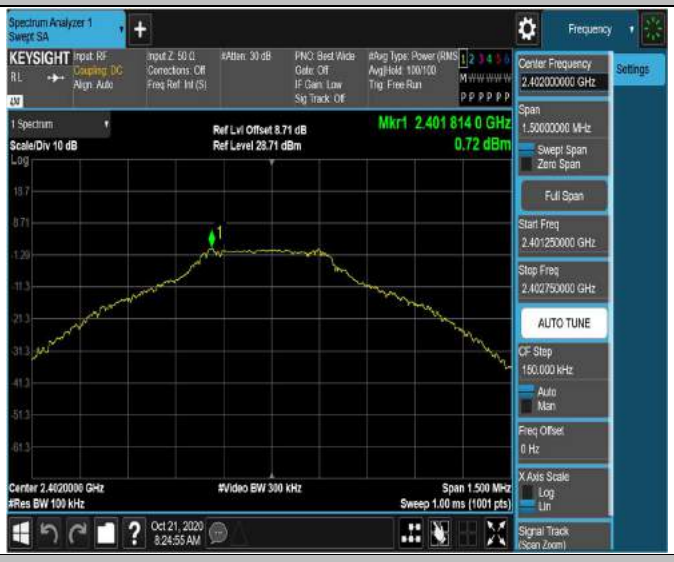
Appendix H: Conducted Spurious Emission

Test Result

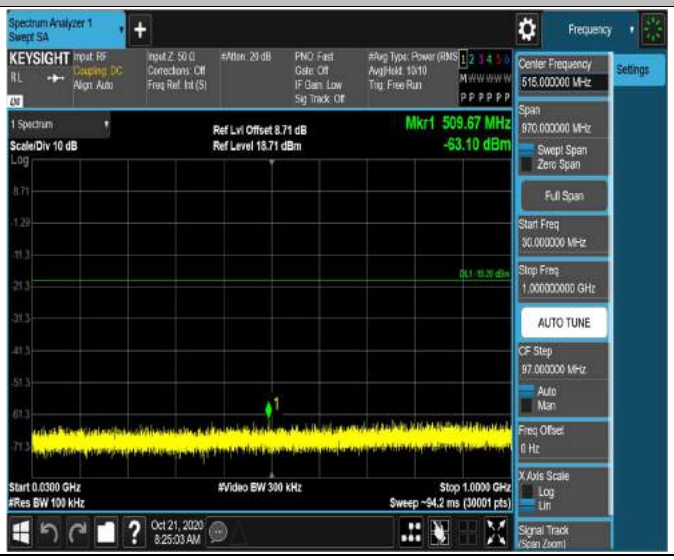
TestMode	Antenna	Channel	FreqRange [MHz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	Reference	0.72	0.72	---	PASS
			30~1000	30~1000	-63.105	<=-19.279	PASS
			1000~26500	1000~26500	-39.647	<=-19.279	PASS
		2441	Reference	-0.22	-0.22	---	PASS
			30~1000	30~1000	-62.171	<=-20.223	PASS
			1000~26500	1000~26500	-41.407	<=-20.223	PASS
		2480	Reference	-1.43	-1.43	---	PASS
			30~1000	30~1000	-62.306	<=-21.425	PASS
			1000~26500	1000~26500	-42.685	<=-21.425	PASS
2DH5	Ant1	2402	Reference	0.72	0.72	---	PASS
			30~1000	30~1000	-61.694	<=-19.28	PASS
			1000~26500	1000~26500	-42.412	<=-19.28	PASS
		2441	Reference	0.04	0.04	---	PASS
			30~1000	30~1000	-61.38	<=-19.96	PASS
			1000~26500	1000~26500	-44.474	<=-19.96	PASS
		2480	Reference	-1.10	-1.10	---	PASS
			30~1000	30~1000	-62.224	<=-21.103	PASS
			1000~26500	1000~26500	-42.764	<=-21.103	PASS
3DH5	Ant1	2402	Reference	0.76	0.76	---	PASS
			30~1000	30~1000	-62.284	<=-19.237	PASS
			1000~26500	1000~26500	-41.679	<=-19.237	PASS
		2441	Reference	2.67	2.67	---	PASS
			30~1000	30~1000	-62.367	<=-17.332	PASS
			1000~26500	1000~26500	-48.075	<=-17.332	PASS
		2480	Reference	-1.24	-1.24	---	PASS
			30~1000	30~1000	-62.152	<=-21.244	PASS
			1000~26500	1000~26500	-42.787	<=-21.244	PASS

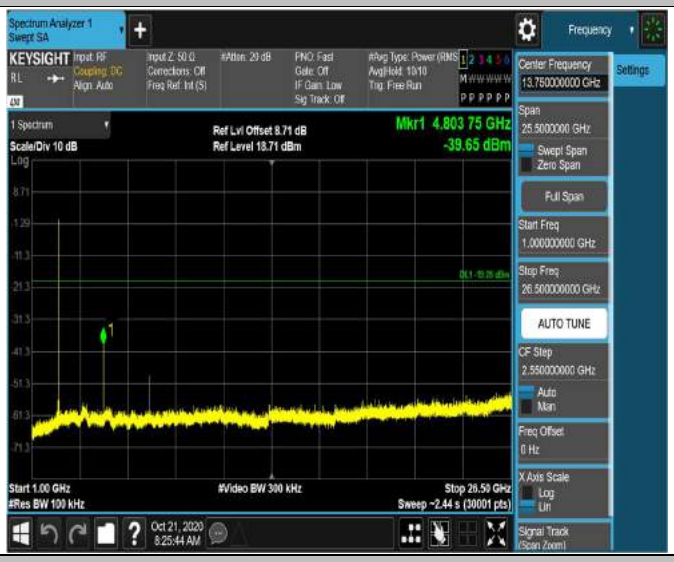
Test Graphs

DH5_Ant1_2402_0~Reference



DH5_Ant1_2402_30~1000

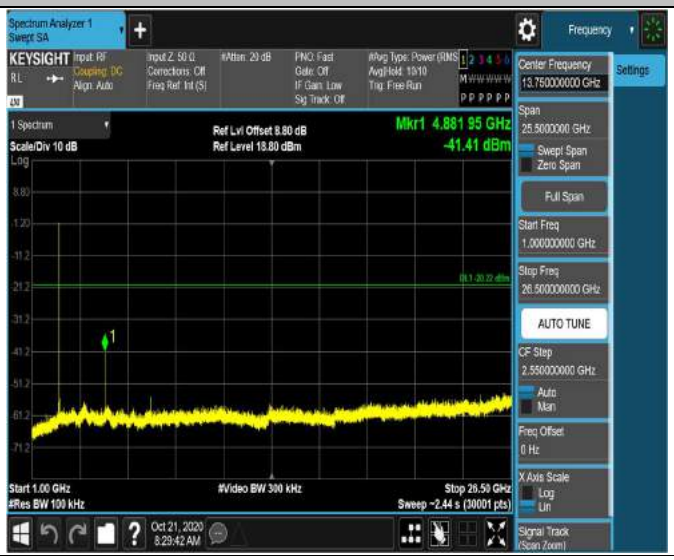


DH5_Ant1_2402_1000~26500


DH5_Ant1_2441_0~Reference

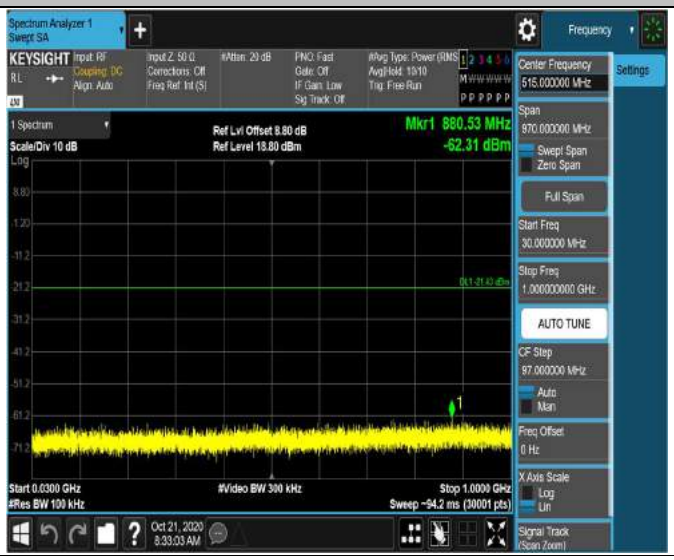
DH5_Ant1_2441_30~1000

DH5_Ant1_2441_1000~26500

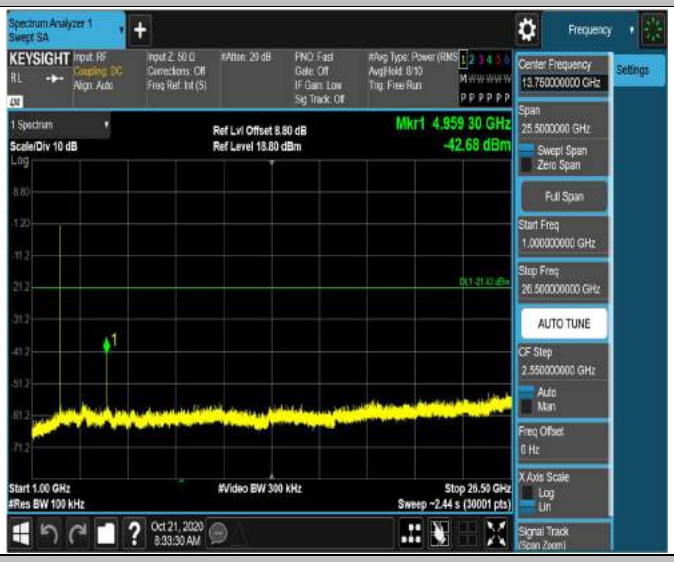


DH5_Ant1_2480_0~Reference

DH5_Ant1_2480_30~1000

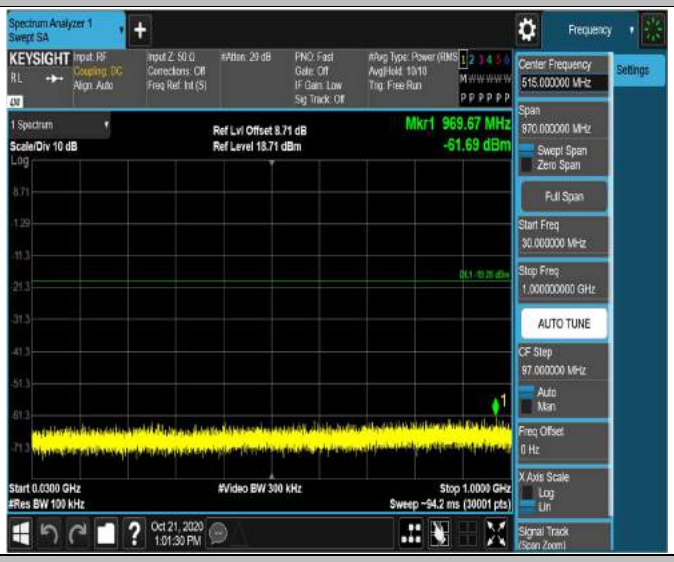


DH5_Ant1_2480_1000~26500

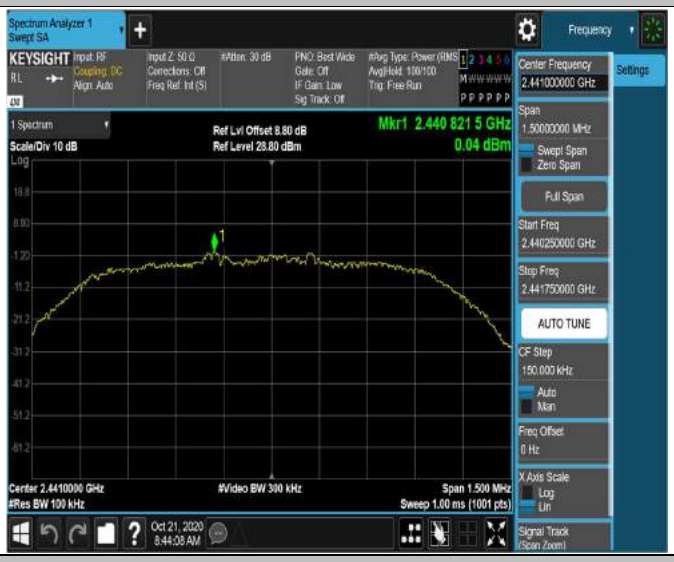


2DH5_Ant1_2402_0~Reference

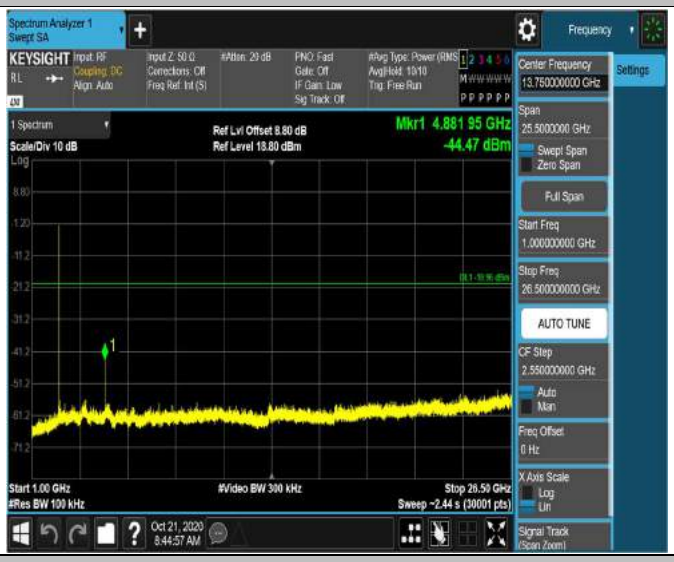
2DH5_Ant1_2402_30~1000



2DH5_Ant1_2402_1000~26500

2DH5_Ant1_2441_0~Reference


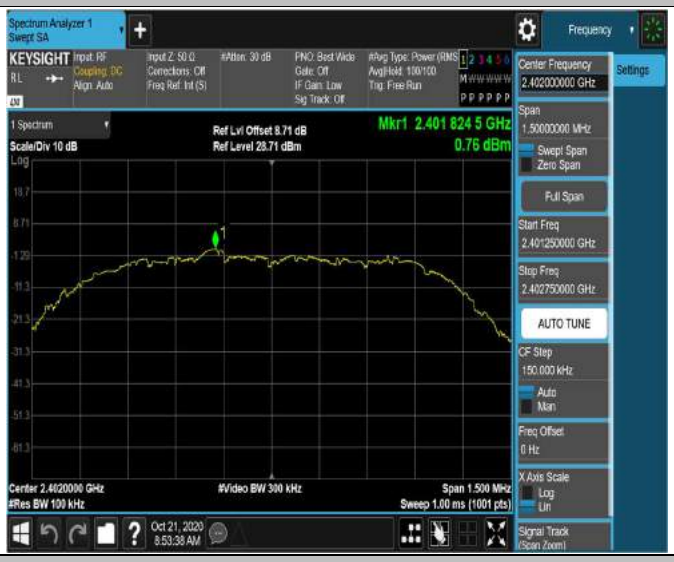
2DH5_Ant1_2441_30~1000

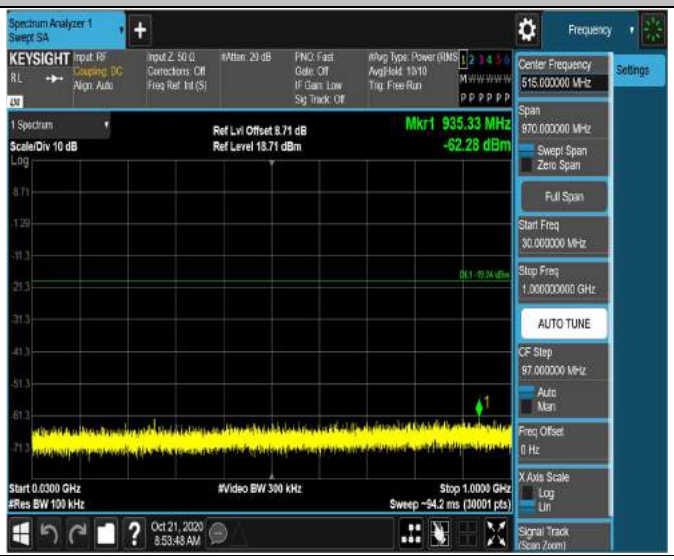
2DH5_Ant1_2441_1000~26500


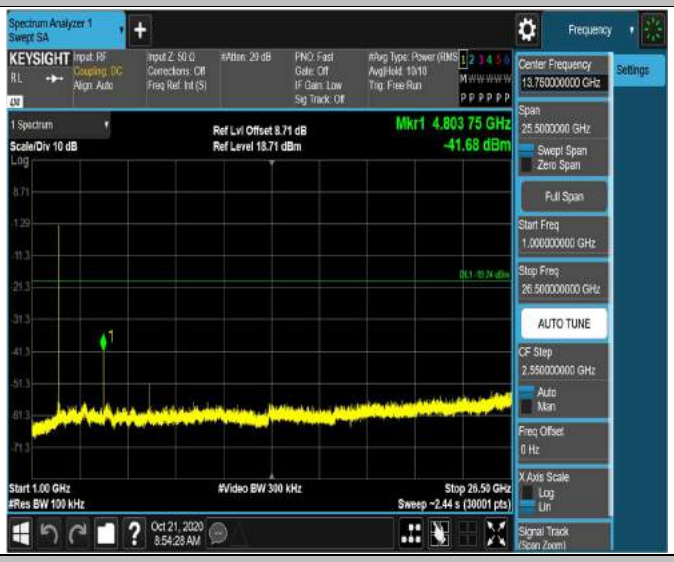
2DH5_Ant1_2480_0~Reference

2DH5_Ant1_2480_30~1000

2DH5_Ant1_2480_1000~26500

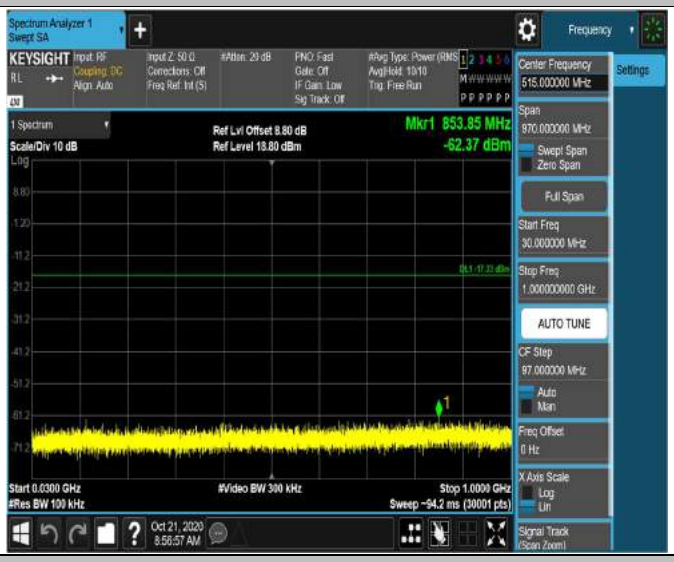
3DH5_Ant1_2402_0~Reference


3DH5_Ant1_2402_30~1000


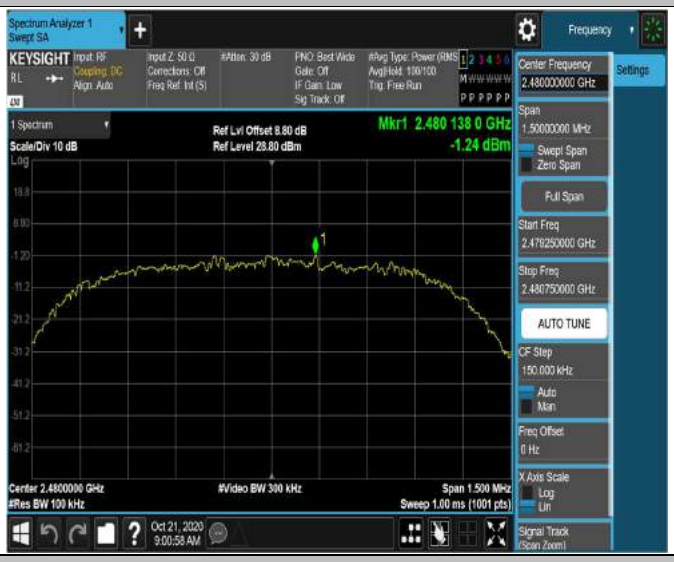
3DH5_Ant1_2402_1000~26500


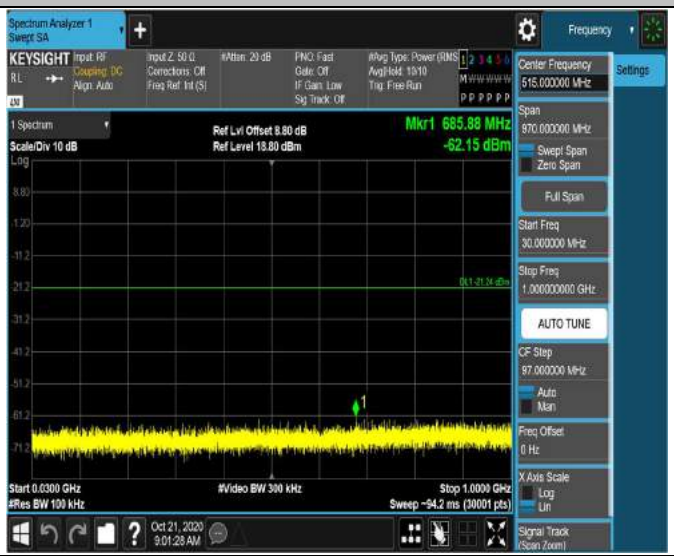
3DH5_Ant1_2441_0~Reference

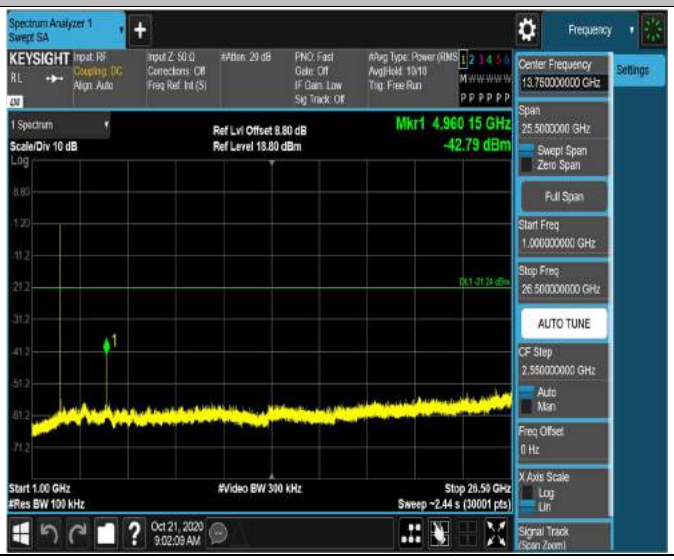
3DH5_Ant1_2441_30~1000



3DH5_Ant1_2441_1000~26500

3DH5_Ant1_2480_0~Reference


3DH5_Ant1_2480_30~1000


3DH5_Ant1_2480_1000~26500


Appendix I: Duty Cycle

Test Result

TestMode	Antenna	Channel	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
DH5	Ant1	2402	2.90	3.75	77.33
		2441	2.90	3.75	77.30
		2480	2.90	3.75	77.30
2DH5	Ant1	2402	2.90	3.75	77.44
		2441	2.90	3.75	77.44
		2480	2.90	3.75	77.47
3DH5	Ant1	2402	2.91	3.75	77.53
		2441	2.91	3.75	77.54
		2480	2.91	3.75	77.53

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