Measurement Data

TestMode	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Hop	0.380	330	0.125	≤0.4	PASS
DH3	Hop	1.628	170	0.277	≤0.4	PASS
DH5	Hop	2.868	130	0.373	≤0.4	PASS
2DH1	Hop	0.388	320	0.124	≤0.4	PASS
2DH3	Hop	1.633	170	0.278	≤0.4	PASS
2DH5	Hop	2.873	130	0.373	≤0.4	PASS
3DH1	Hop	0.389	330	0.128	≤0.4	PASS
3DH3	Hop	1.631	180	0.294	≤0.4	PASS
3DH5	Hop	2.875	80	0.23	≤0.4	PASS

Remark:

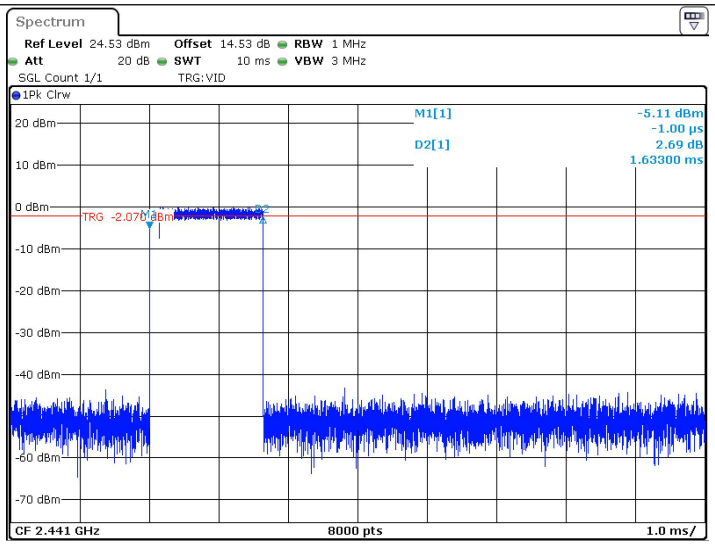
The test period: T= 0.4 Second/Channel x 79 Channel = 31.6 s

DH1/2DH1/3DH1 Dwell time = Burst Width(ms)*[1600/ (2*79)]*31.6

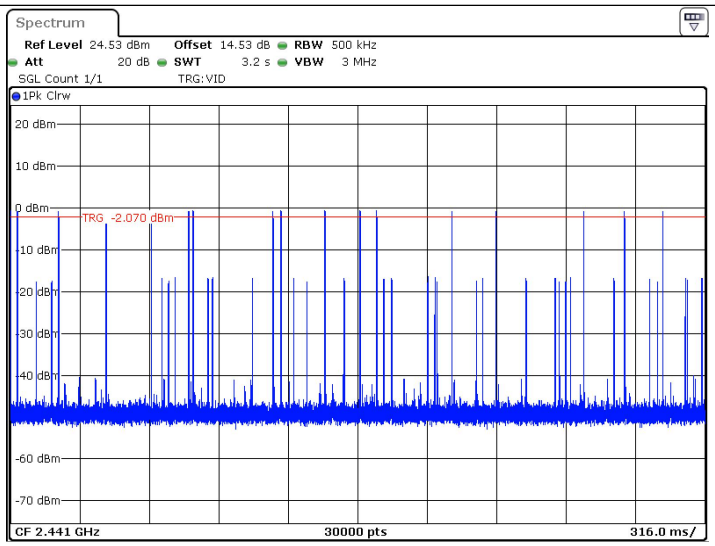
DH3/2DH3/3DH3 Dwell time = Burst Width (ms)*[1600/ (4*79)]*31.6

DH5/2DH5/3DH5 Dwell time = Burst Width (ms)*[1600/ (6*79)]*31.6

Test plot as follows:

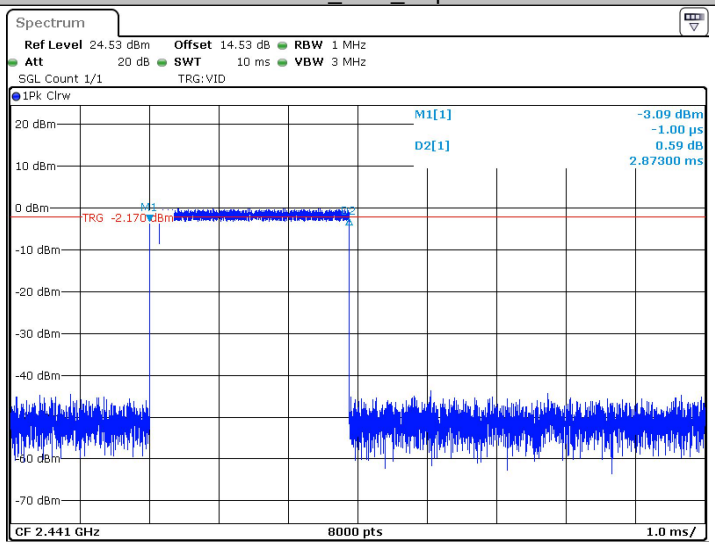


Date: 24.DEC.2024 19:14:47

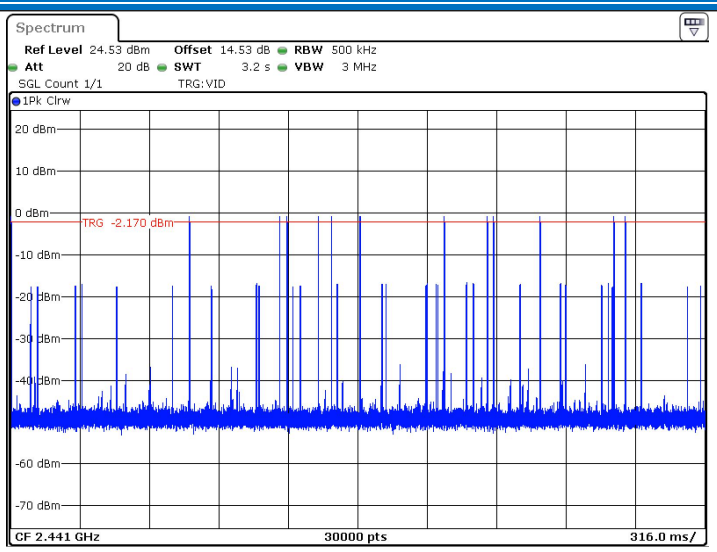


Date: 24.DEC.2024 19:14:52

2DH5_Ant1_Hop

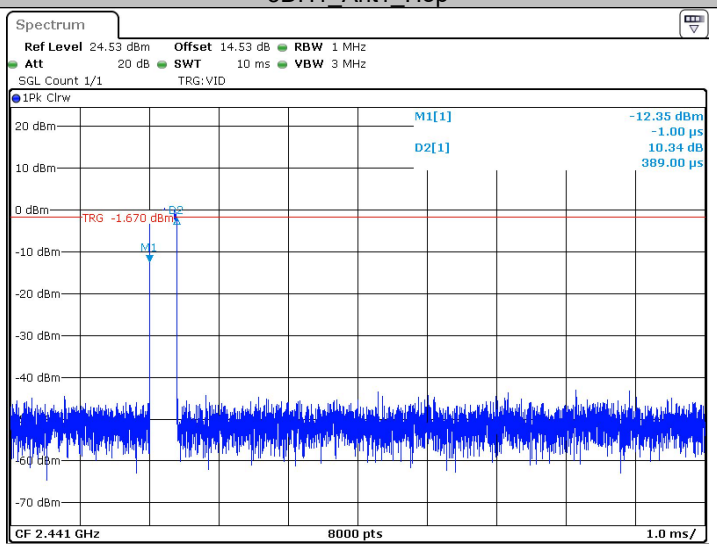


Date: 24.DEC.2024 19:12:37

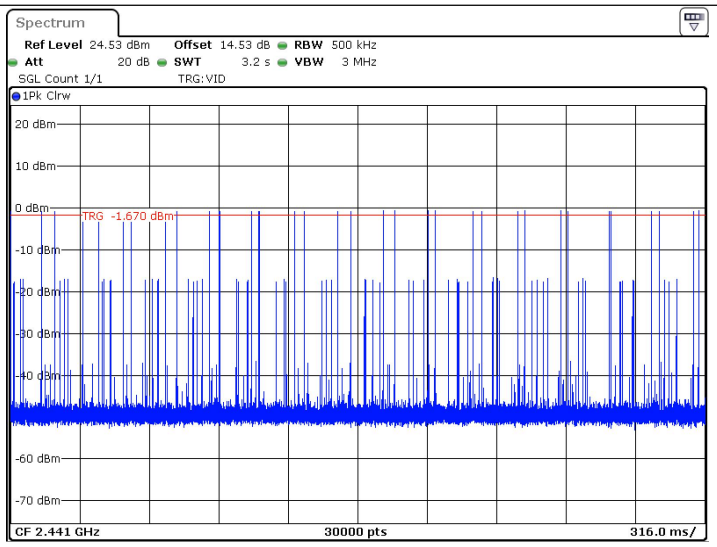


Date: 24.DEC.2024 19:12:43

3DH1_Ant1_Hop

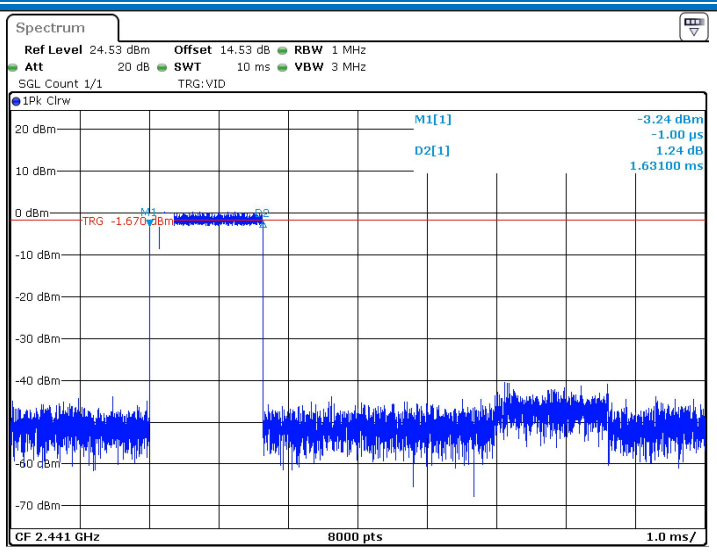


Date: 24.DEC.2024 19:21:01

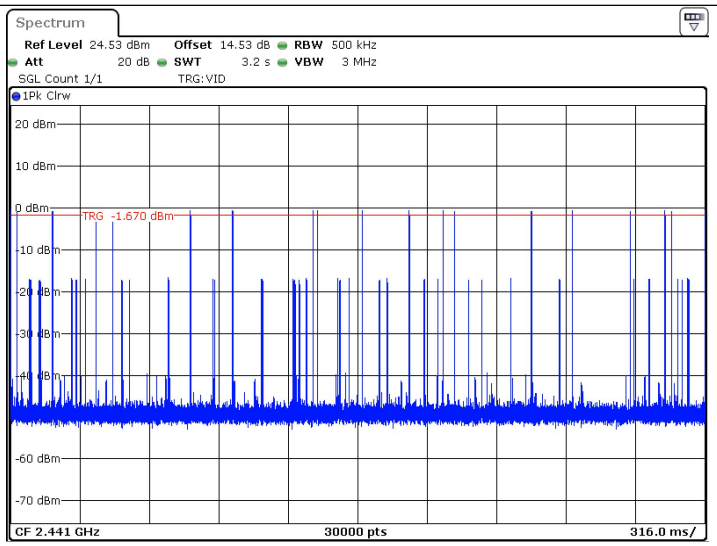


Date: 24.DEC.2024 19:21:06

3DH3_Ant1_Hop

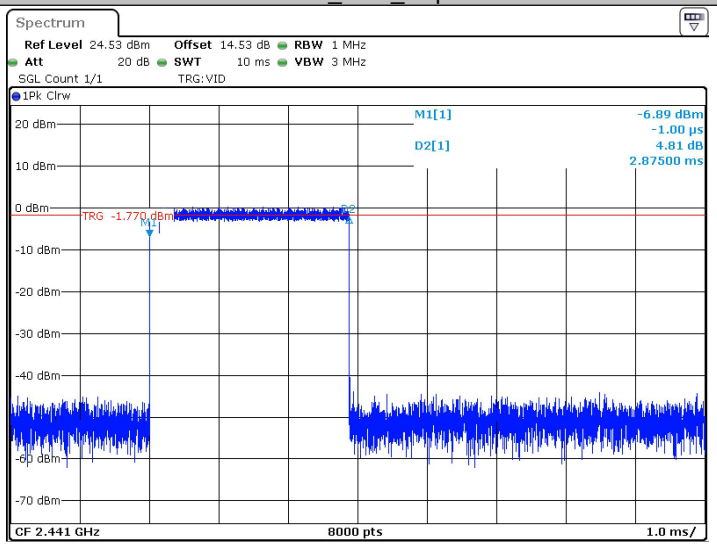


Date: 24.DEC.2024 19:22:10

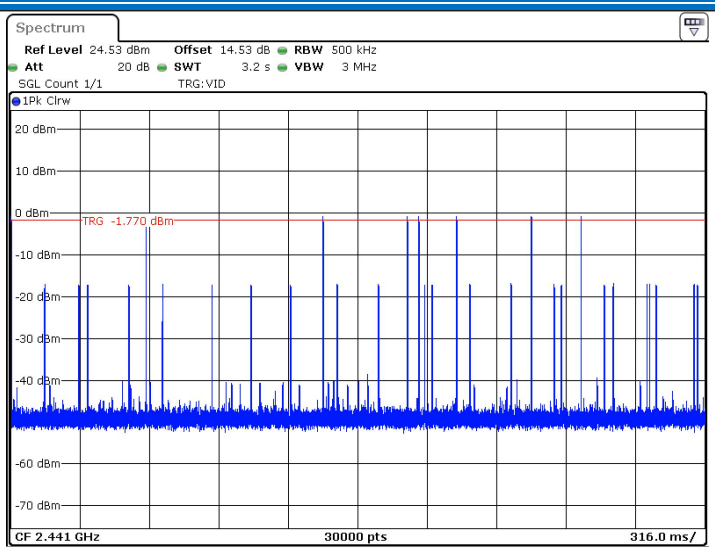


Date: 24.DEC.2024 19:22:16

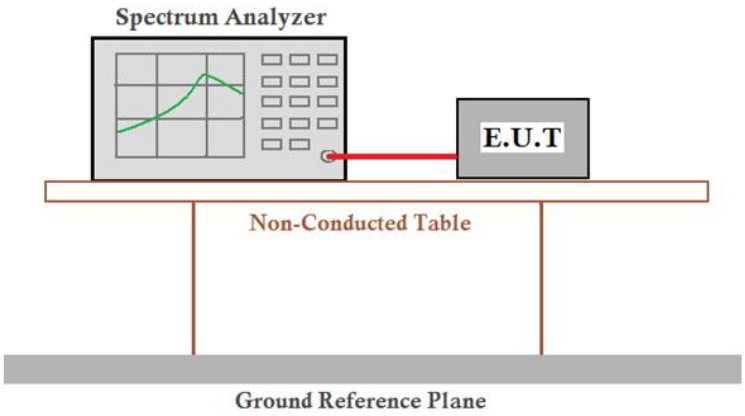
3DH5_Ant1_Hop



Date: 24.DEC.2024 19:19:39


Spectrum
Ref Level 24.53 dBm Offset 14.53 dB RBW 500 kHz
Att 20 dB SWT 3.2 s VBW 3 MHz
SGL Count 1/1 TRG:VID
1Pk Clrw
20 dBm
10 dBm
0 dBm
TRG -1.770 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-60 dBm
-70 dBm
CF 2.441 GHz
30000 pts
316.0 ms/
Date: 24.DEC.2024 19:19:45

5.8 Band-edge for RF Conducted Emissions

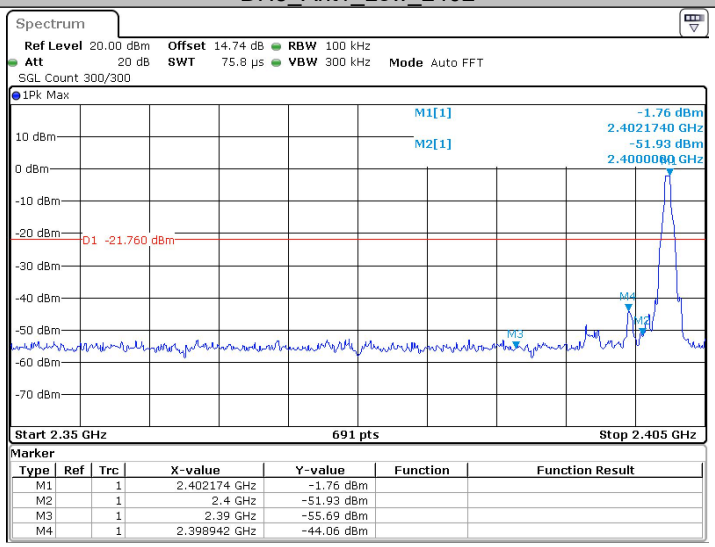
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Exploratory Test Mode:	Hopping and Non-hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Only the worst case is recorded in the report.
Test Results:	Pass

Measurement Data

TestMode	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Low	2402	-1.76	-44.06	≤-21.76	PASS
	High	2480	-1.31	-50.97	≤-21.31	PASS
	Low	Hop_2402	-2.70	-46.94	≤-22.7	PASS
	High	Hop_2480	-1.20	-51.59	≤-21.2	PASS
2DH5	Low	2402	-1.71	-44.8	≤-21.71	PASS
	High	2480	-0.86	-50.74	≤-20.86	PASS
	Low	Hop_2402	-5.26	-48.69	≤-25.26	PASS
	High	Hop_2480	-0.84	-51.43	≤-20.84	PASS
3DH5	Low	2402	-1.68	-45.05	≤-21.68	PASS
	High	2480	-0.72	-50.81	≤-20.72	PASS
	Low	Hop_2402	-6.10	-49.67	≤-26.1	PASS
	High	Hop_2480	-0.81	-51.6	≤-20.81	PASS

Test plot as follows:

DH5_Ant1_Low_2402

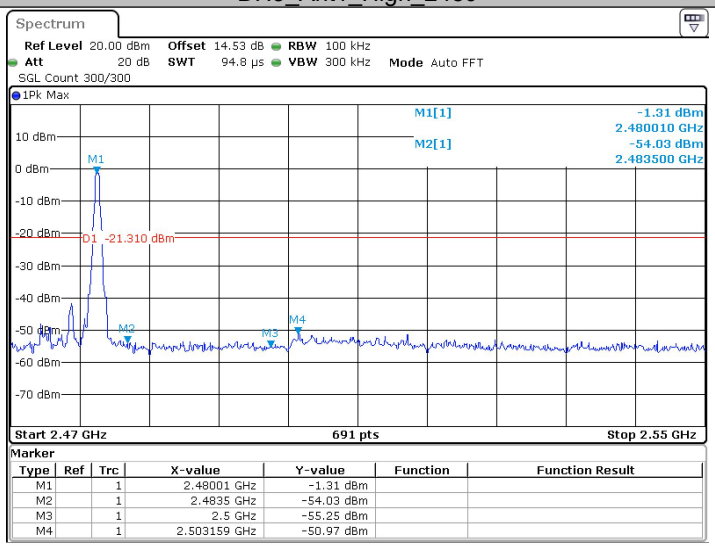


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402174 GHz	-1.76 dBm		
M2		1	2.4 GHz	-51.93 dBm		
M3		1	2.39 GHz	-55.69 dBm		
M4		1	2.398942 GHz	-44.06 dBm		

Date: 24.DEC.2024 18:44:25

DH5_Ant1_High_2480

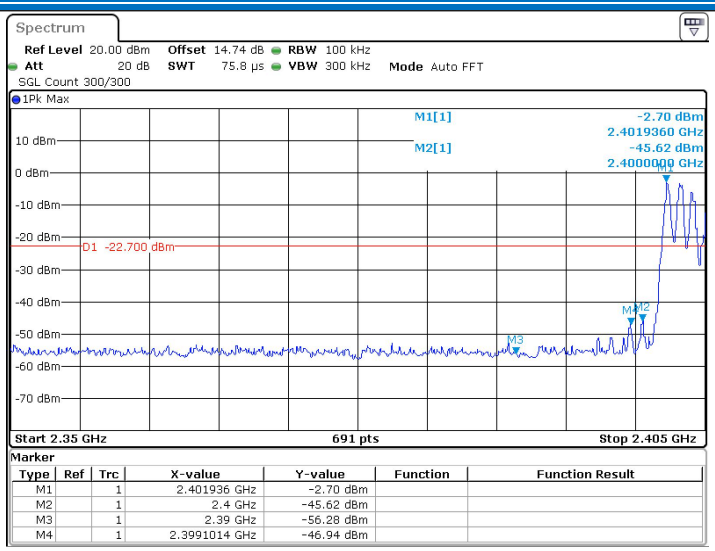


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48001 GHz	-1.31 dBm		
M2		1	2.4835 GHz	-54.03 dBm		
M3		1	2.5 GHz	-55.25 dBm		
M4		1	2.503159 GHz	-50.97 dBm		

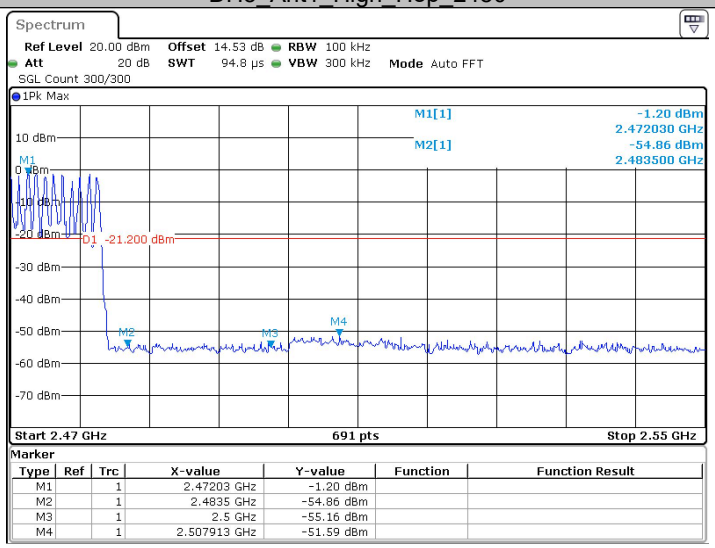
Date: 24.DEC.2024 18:48:09

DH5_Ant1_Low_Hop_2402



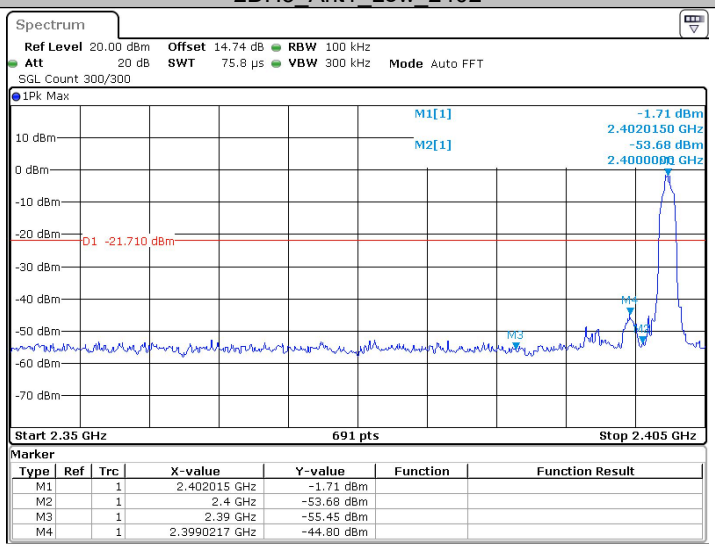
Date: 24.DEC.2024 19:04:46

DH5_Ant1_High_Hop_2480



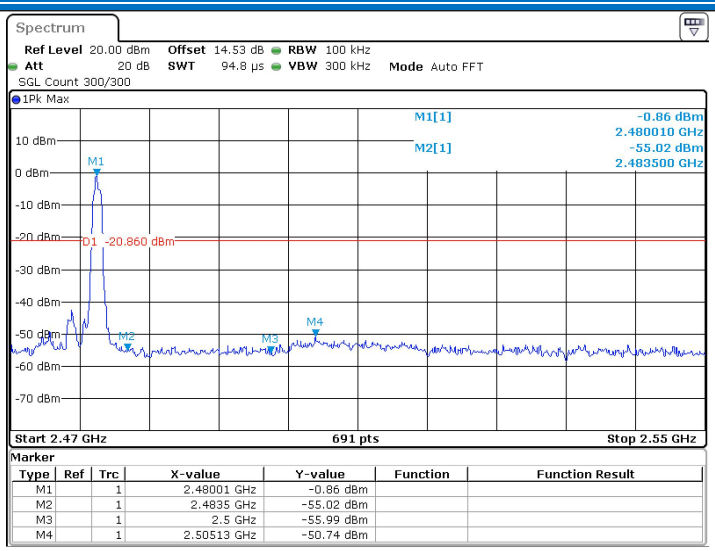
Date: 24.DEC.2024 19:09:24

2DH5_Ant1_Low_2402



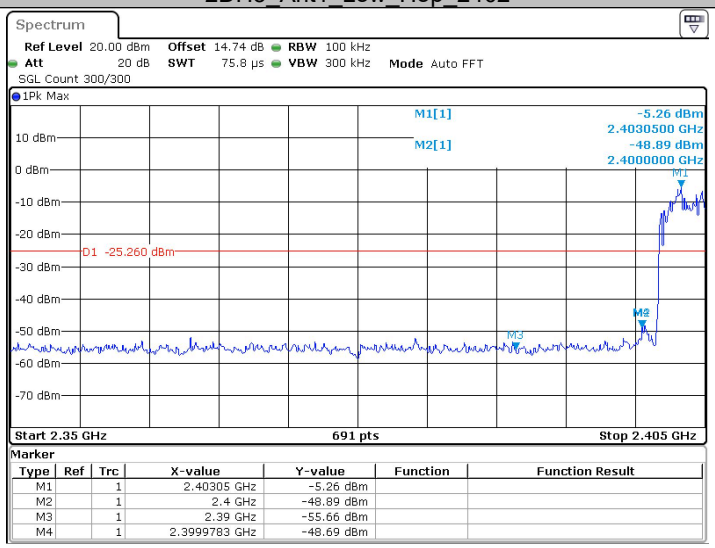
Date: 24.DEC.2024 18:51:21

2DH5_Ant1_High_2480



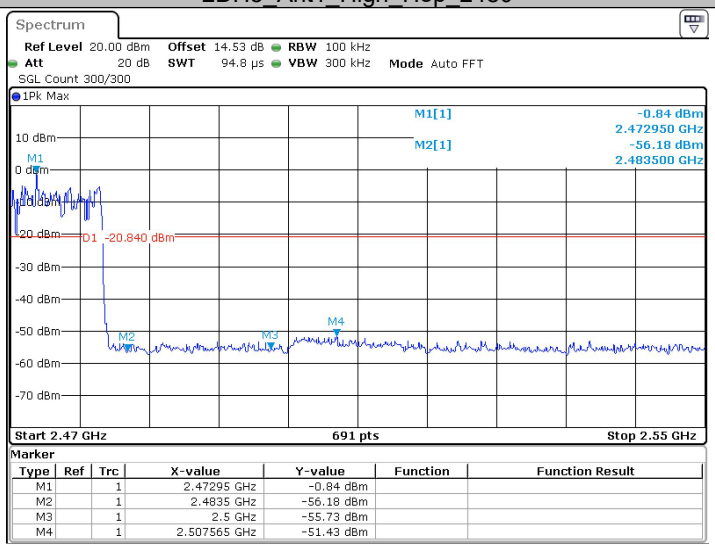
Date: 24.DEC.2024 18:55:30

2DH5_Ant1_Low_Hop_2402



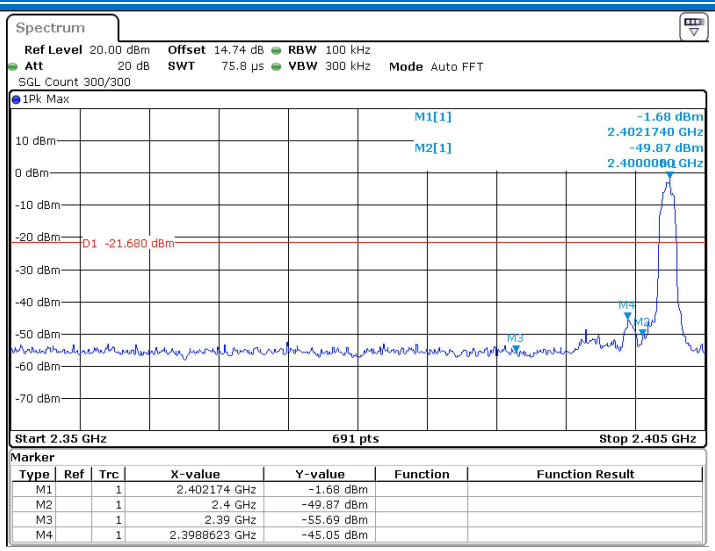
Date: 24.DEC.2024 19:10:53

2DH5_Ant1_High_Hop_2480



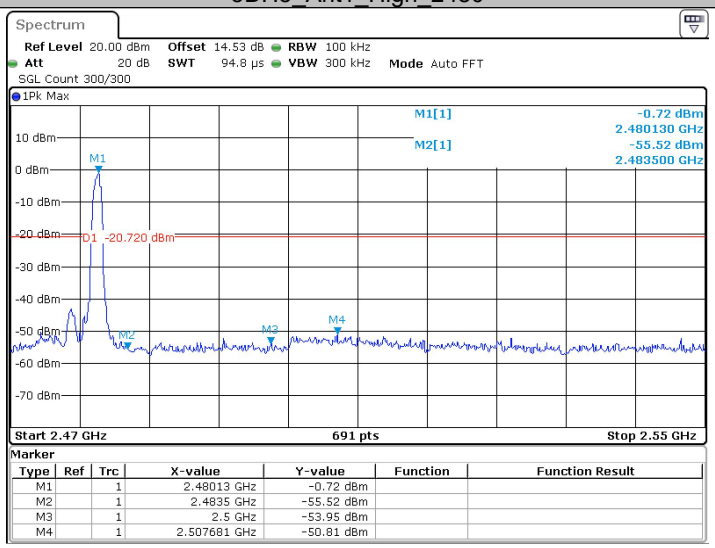
Date: 24.DEC.2024 19:15:43

3DH5_Ant1_Low_2402



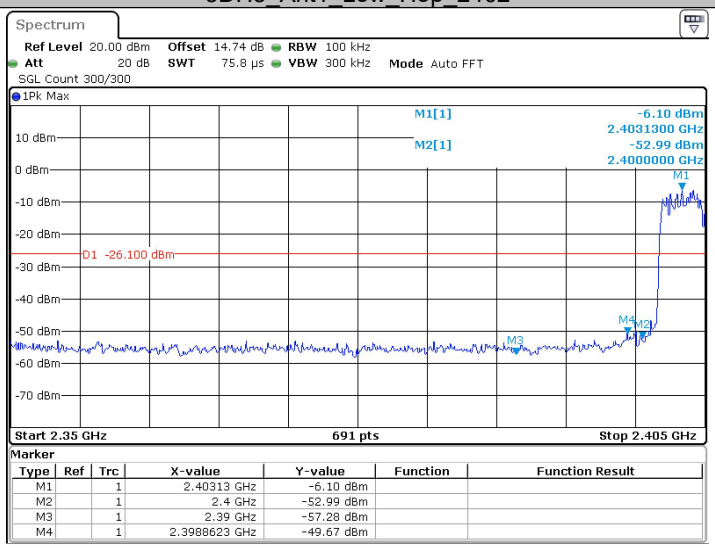
Date: 24.DEC.2024 18:57:47

3DH5_Ant1_High_2480



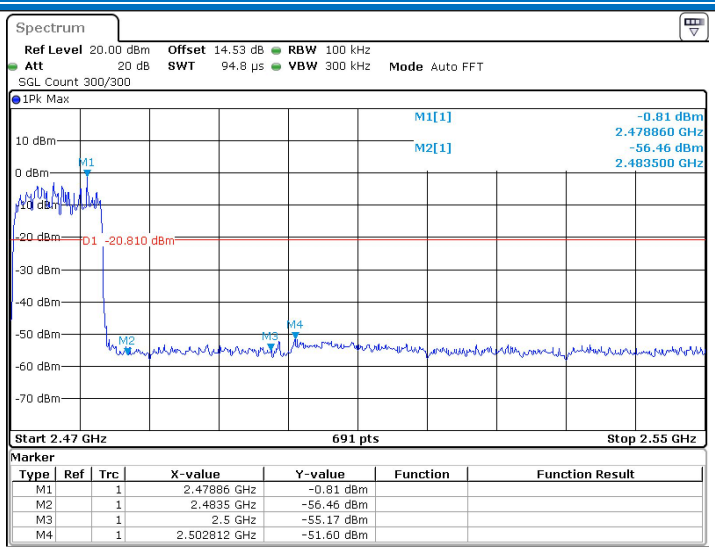
Date: 24.DEC.2024 19:02:19

3DH5_Ant1_Low_Hop_2402



Date: 24.DEC.2024 19:17:23

3DH5_Ant1_High_Hop_2480

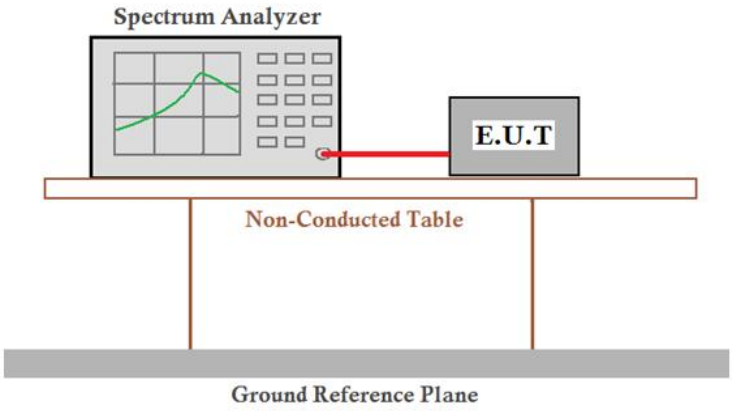


Marker

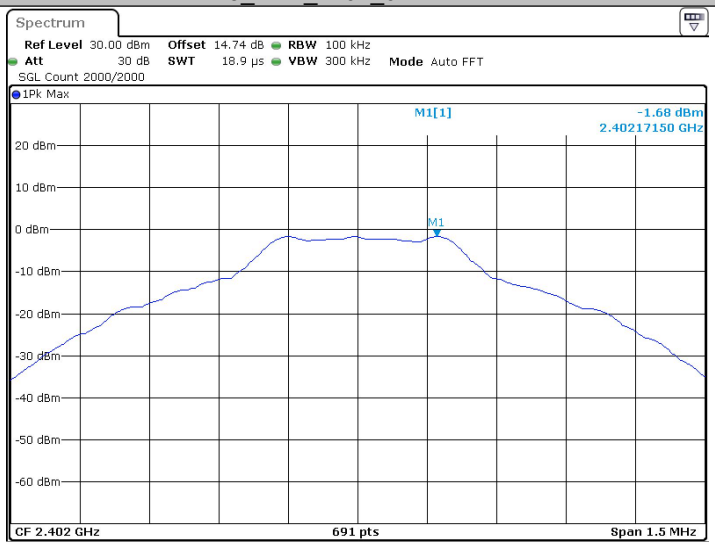
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47886 GHz	-0.81 dBm		
M2		1	2.4835 GHz	-56.46 dBm		
M3		1	2.5 GHz	-55.17 dBm		
M4		1	2.502812 GHz	-51.60 dBm		

Date: 24.DEC.2024 19:24:17

5.9 Spurious RF Conducted Emissions

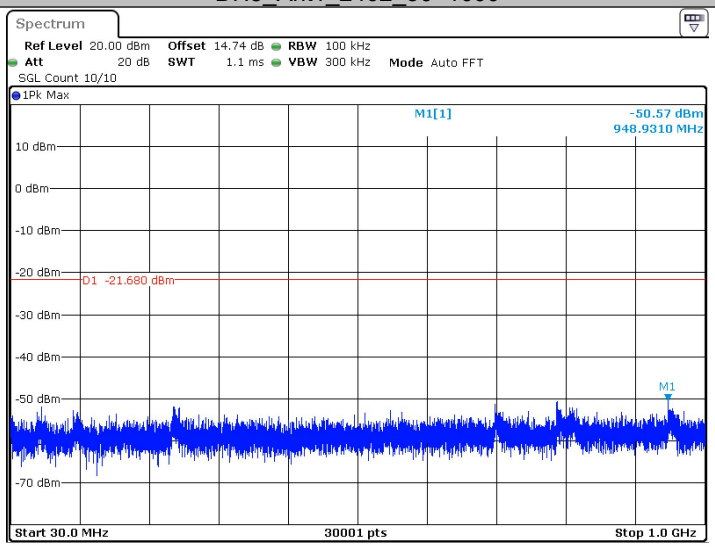
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Exploratory Test Mode:	Non-hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Through Pre-scan, find the DH5 of data type is the worst case of GFSK modulation type, 2-DH5 of data type is the worst case of π/4DQPSK modulation type, 3-DH5 of data type is the worst case of 8DPSK modulation type.
Test Results:	Pass

DH5_Ant1_2402_0~Reference



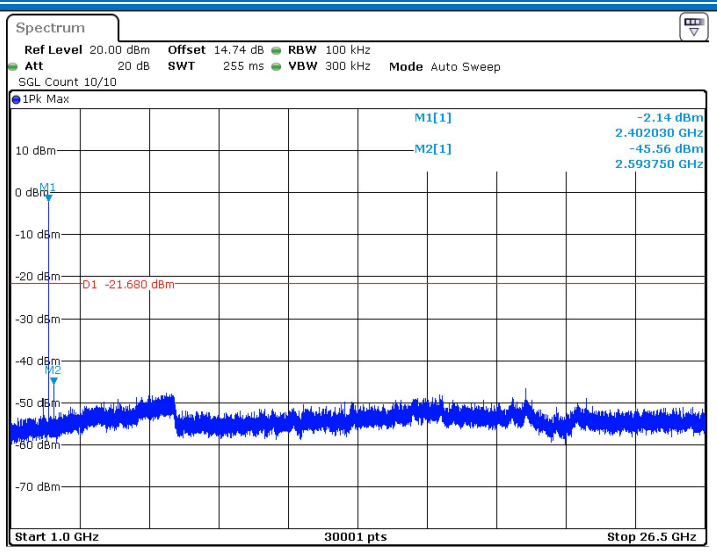
Date: 24.DEC.2024 18:46:42

DH5_Ant1_2402_30~1000

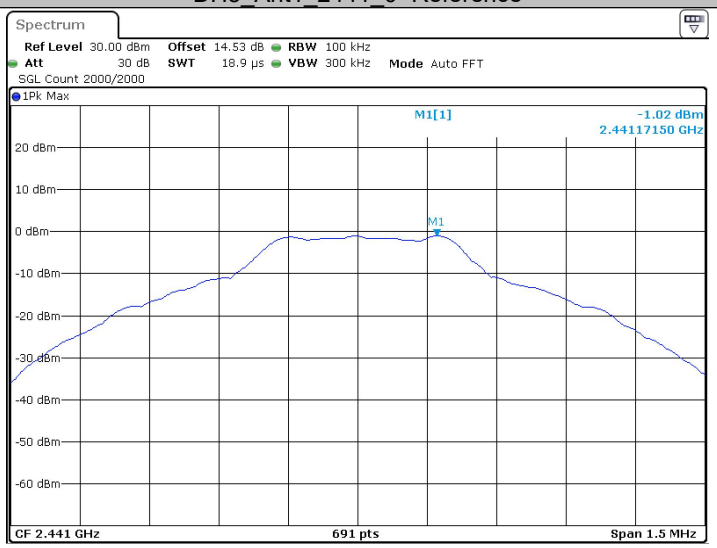


Date: 24.DEC.2024 18:46:46

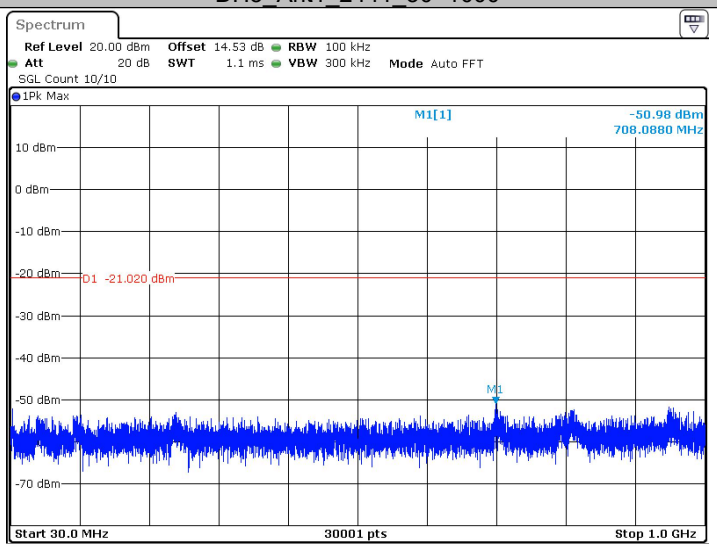
DH5_Ant1_2402_1000~26500



DH5_Ant1_2441_0~Reference



DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500