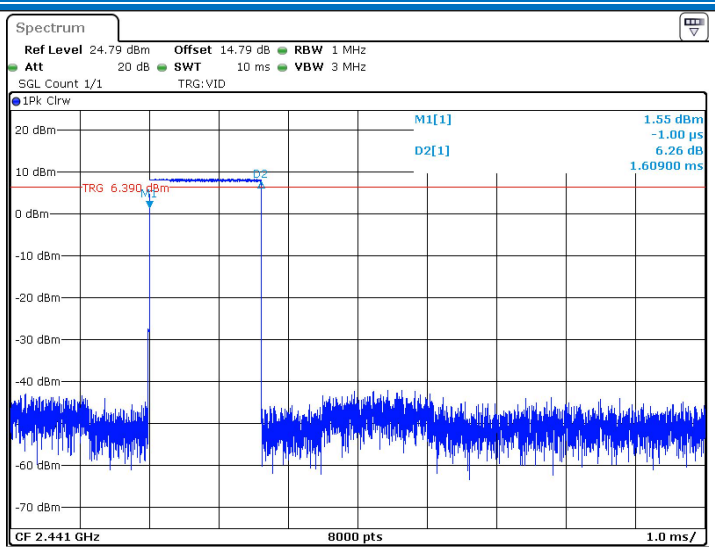
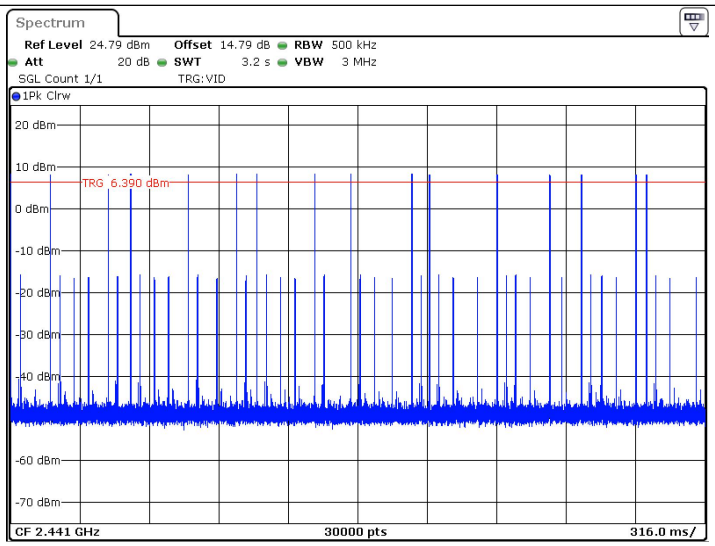
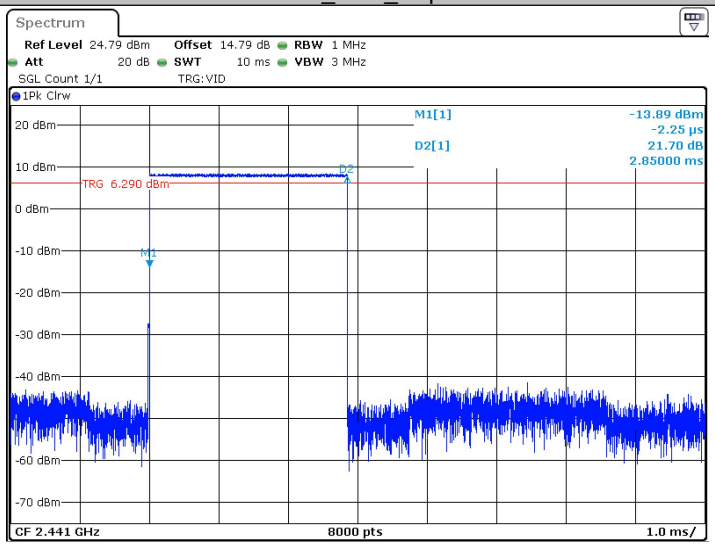


Date: 9.JAN.2025 14:12:00

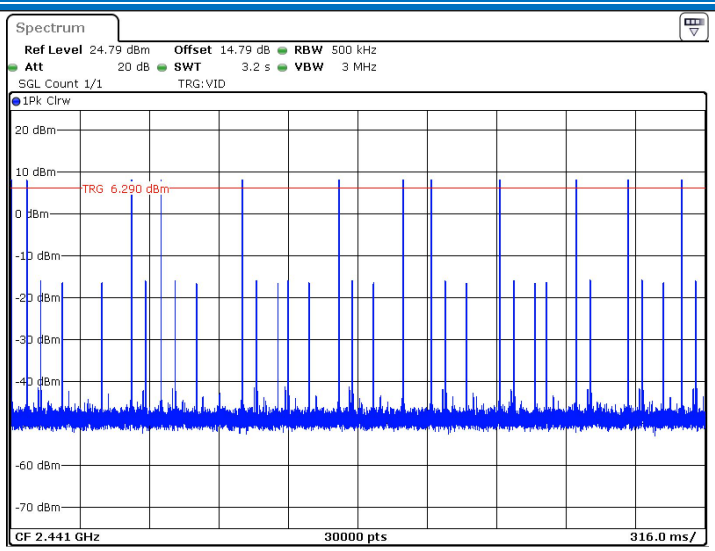


Date: 9.JAN.2025 14:12:05

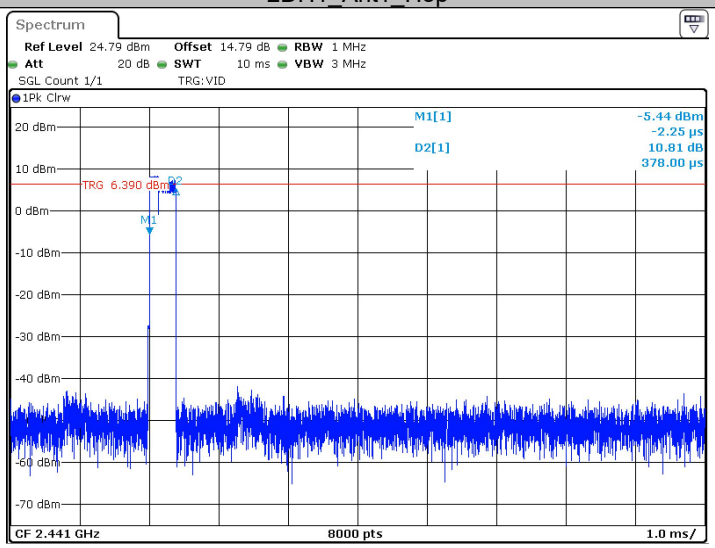
DH5_Ant1_Hop

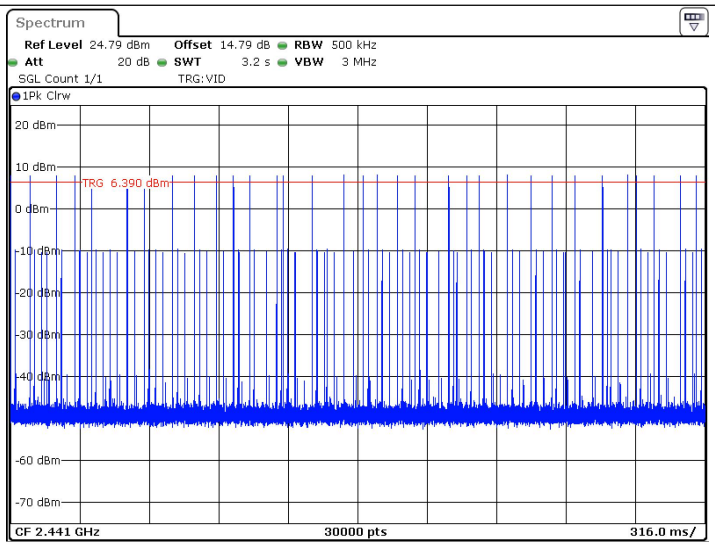


Date: 9.JAN.2025 14:06:31

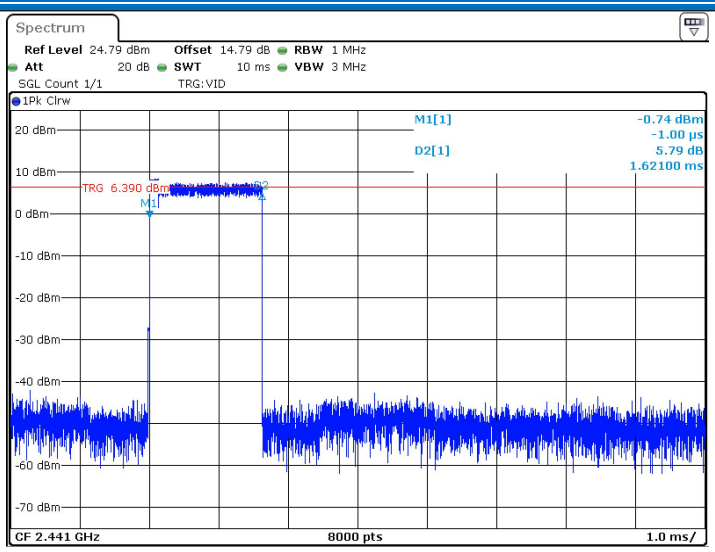


2DH1_Ant1_Hop

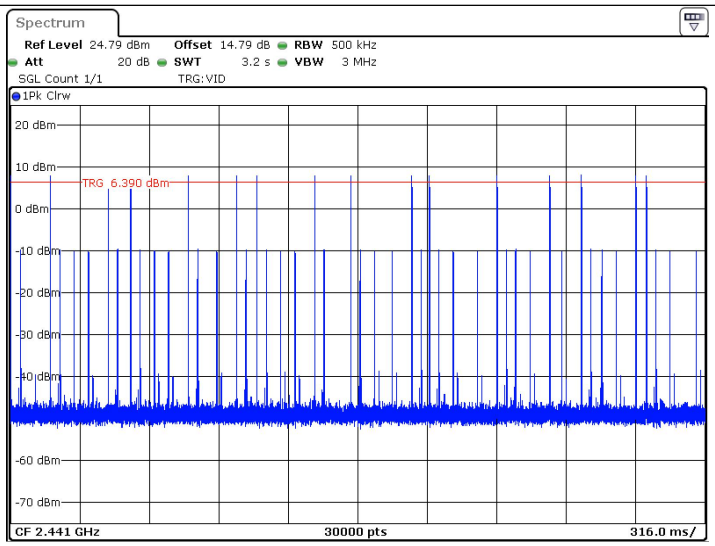




2DH3_Ant1_Hop

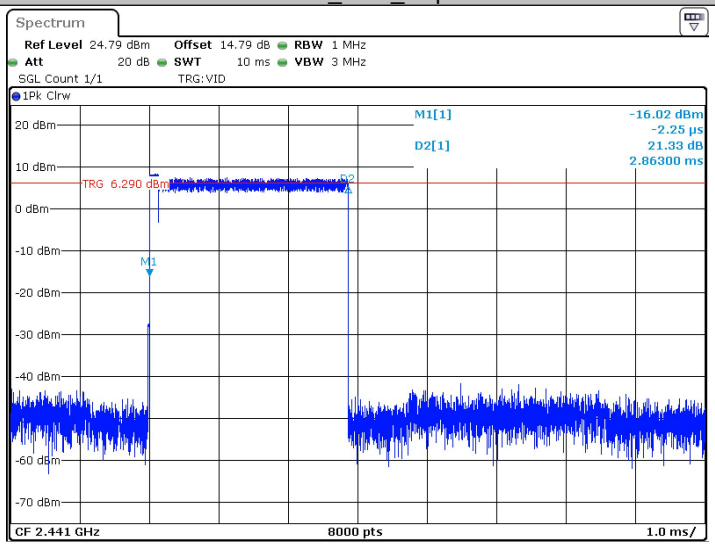


Date: 9.JAN.2025 14:27:13

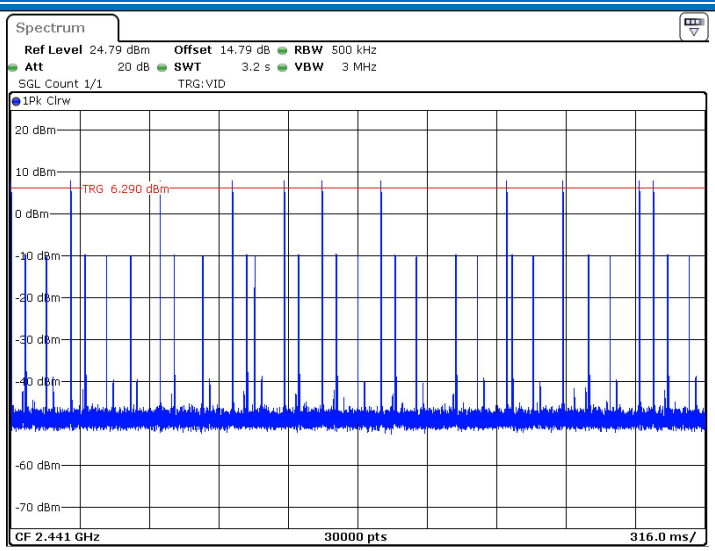


Date: 9.JAN.2025 14:27:19

2DH5_Ant1_Hop

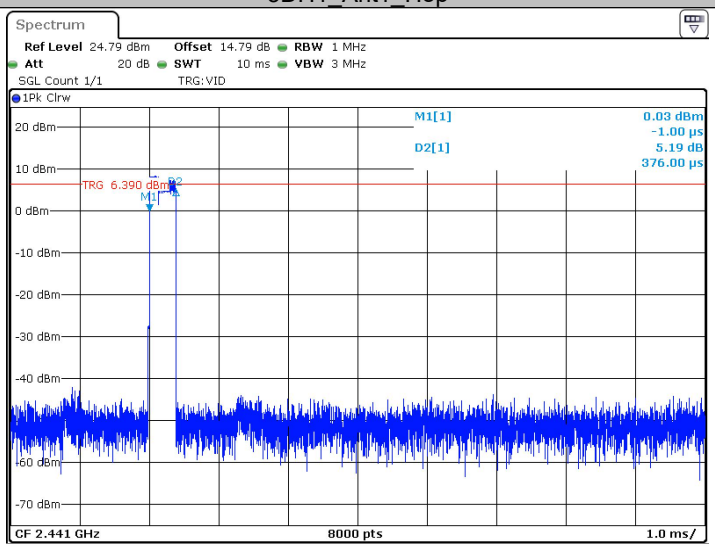


Date: 9.JAN.2025 14:22:25

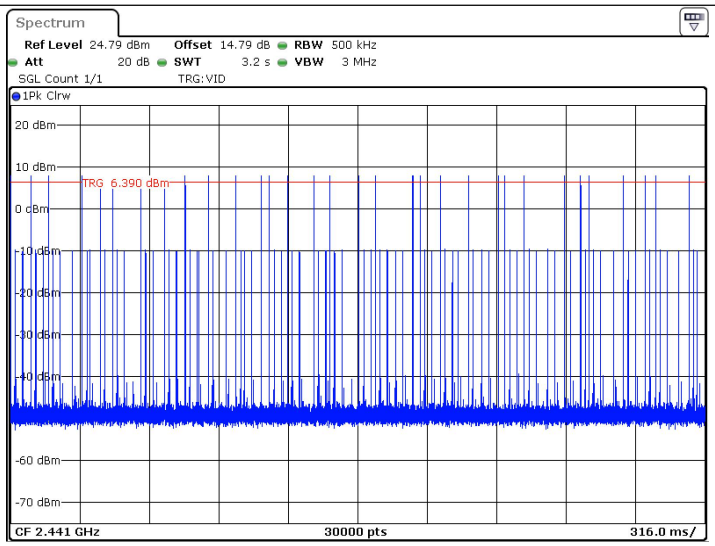


Date: 9.JAN.2025 14:22:30

3DH1_Ant1_Hop

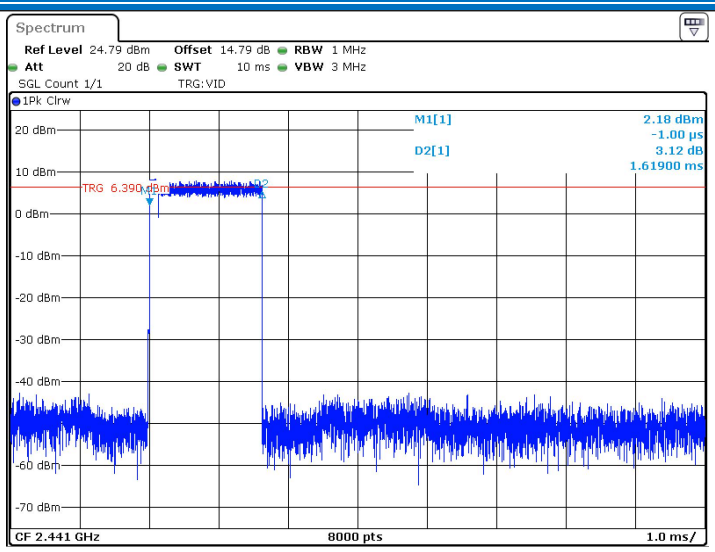


Date: 9.JAN.2025 14:46:47

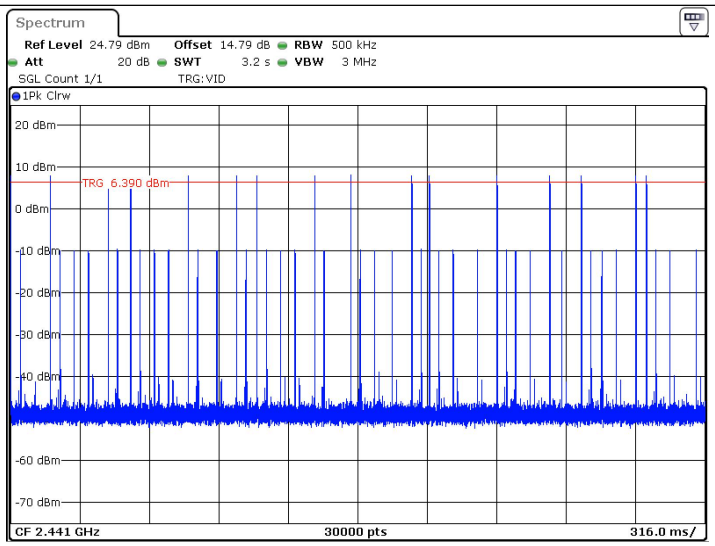


Date: 9.JAN.2025 14:46:53

3DH3_Ant1_Hop

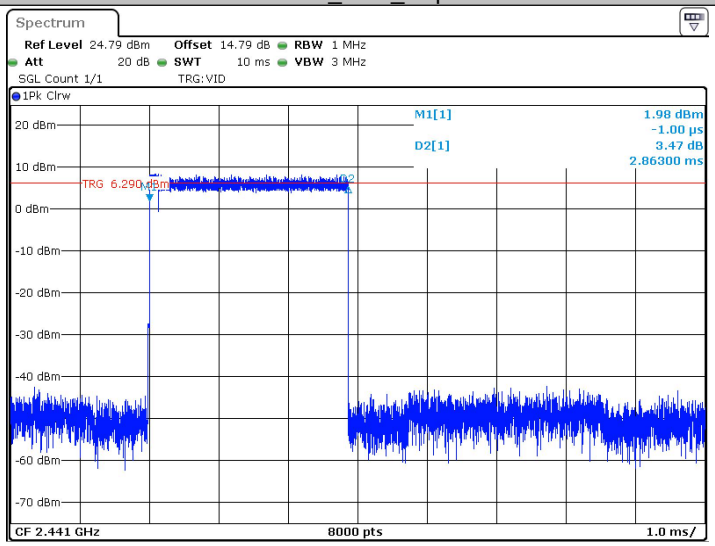


Date: 9.JAN.2025 14:47:19

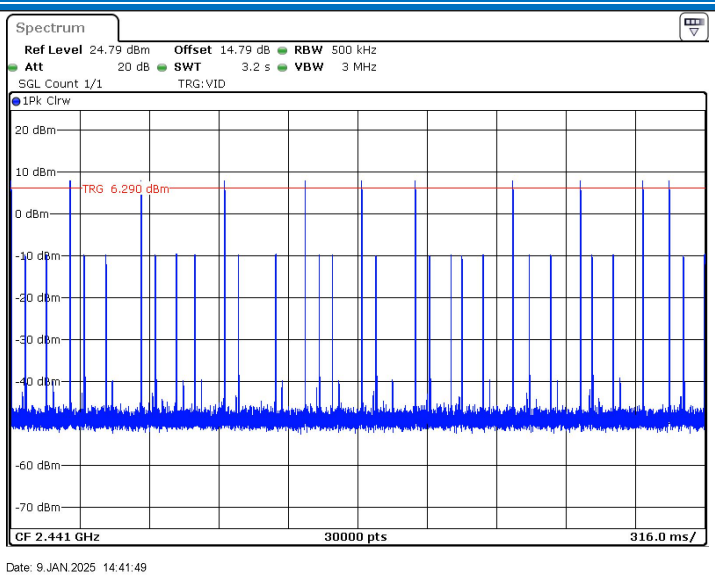


Date: 9.JAN.2025 14:47:24

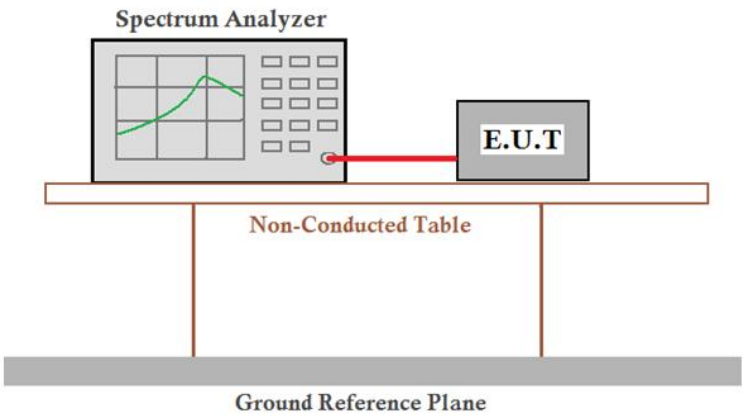
3DH5_Ant1_Hop



Date: 9.JAN.2025 14:41:43


Spectrum
Ref Level 24.79 dBm Offset 14.79 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
TRG 6.290 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-60 dBm
-70 dBm
CF 2.441 GHz
30000 pts
316.0 ms/
Date: 9.JAN.2025 14:41:49

4.8 Band-edge for RF Conducted Emissions

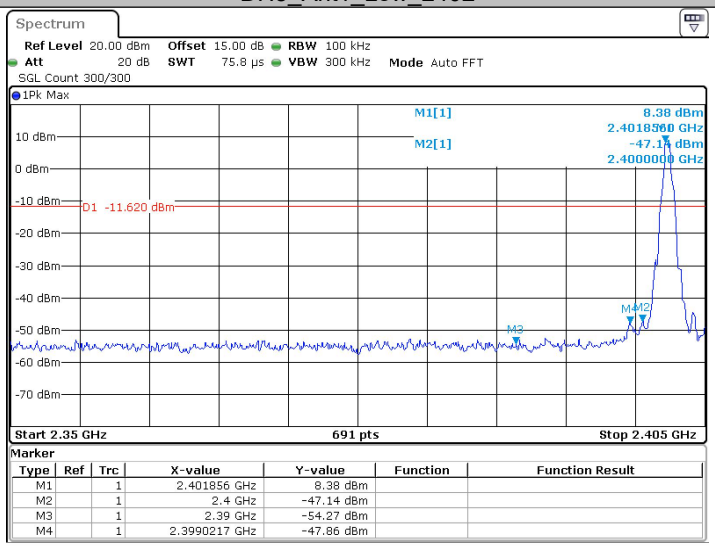
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is 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

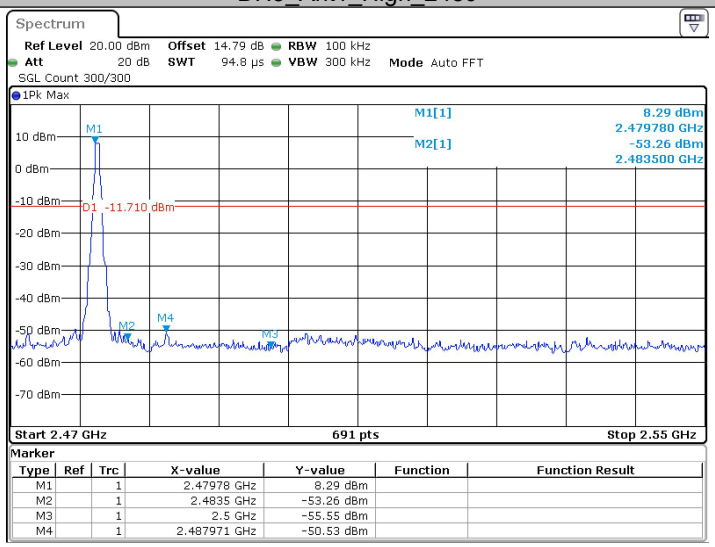
TestMode	ChName	Freq(MHz)	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Low	2402	8.38	-47.86	≤-11.62	PASS
	High	2480	8.29	-50.53	≤-11.71	PASS
	Low	Hop_2402	7.26	-50.25	≤-12.74	PASS
	High	Hop_2480	7.81	-51.38	≤-12.19	PASS
2DH5	Low	2402	6.94	-47.47	≤-13.06	PASS
	High	2480	7.62	-51.73	≤-12.38	PASS
	Low	Hop_2402	5.72	-50.03	≤-14.28	PASS
	High	Hop_2480	7.45	-51.72	≤-12.55	PASS
3DH5	Low	2402	8.22	-46.98	≤-11.78	PASS
	High	2480	8.32	-51.82	≤-11.68	PASS
	Low	Hop_2402	6.67	-47.93	≤-13.33	PASS
	High	Hop_2480	7.19	-51.23	≤-12.81	PASS

Test plot as follows:

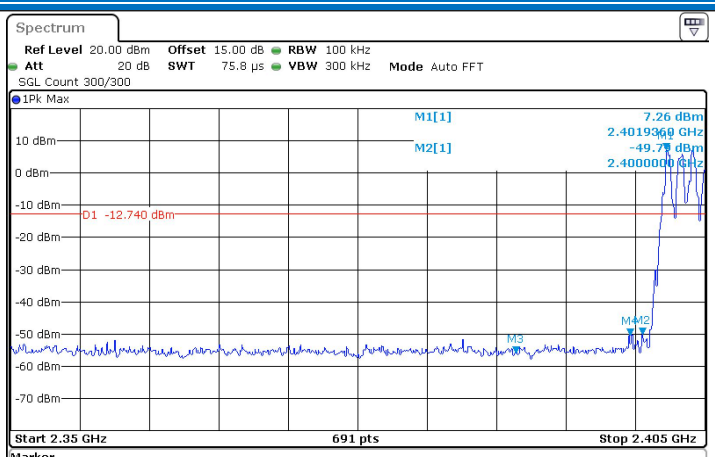
DH5_Ant1_Low_2402



DH5_Ant1_High_2480



DH5_Ant1_Low_Hop_2402



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.401936 GHz	7.26 dBm		
M2		1	2.4 GHz	-49.79 dBm		
M3		1	2.39 GHz	-55.77 dBm		
M4		1	2.3990217 GHz	-50.25 dBm		

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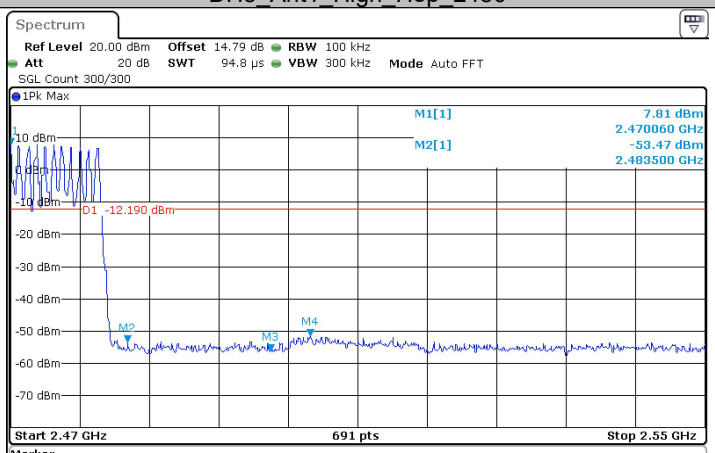
DH5_Ant1_High_Hop_2480

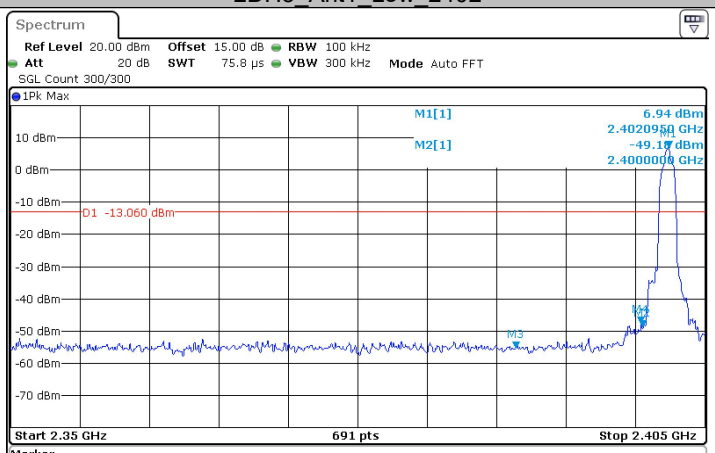


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47006 GHz	7.81 dBm		
M2		1	2.4835 GHz	-53.47 dBm		
M3		1	2.5 GHz	-56.25 dBm		
M4		1	2.504551 GHz	-51.38 dBm		

Date: 9.JAN.2025 14:13:39

2DH5_Ant1_Low_2402

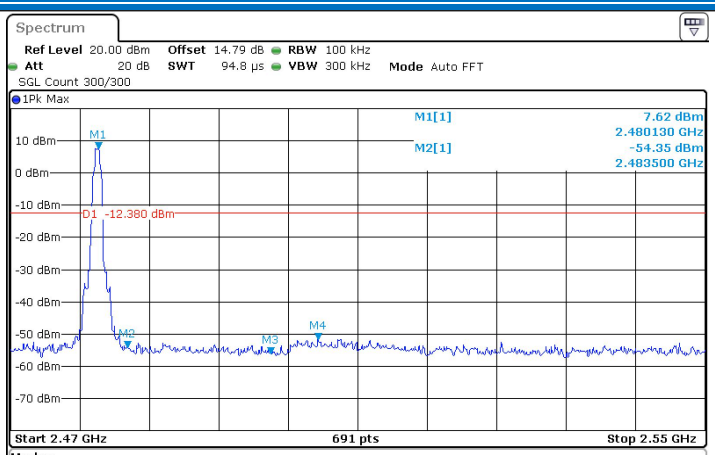


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402095 GHz	6.94 dBm		
M2		1	2.4 GHz	-49.18 dBm		
M3		1	2.39 GHz	-55.43 dBm		
M4		1	2.3998986 GHz	-47.47 dBm		

Date: 9.JAN.2025 11:48:06

2DH5_Ant1_High_2480



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48013 GHz	7.62 dBm		
M2		1	2.4835 GHz	-54.35 dBm		
M3		1	2.5 GHz	-56.09 dBm		
M4		1	2.505478 GHz	-51.73 dBm		

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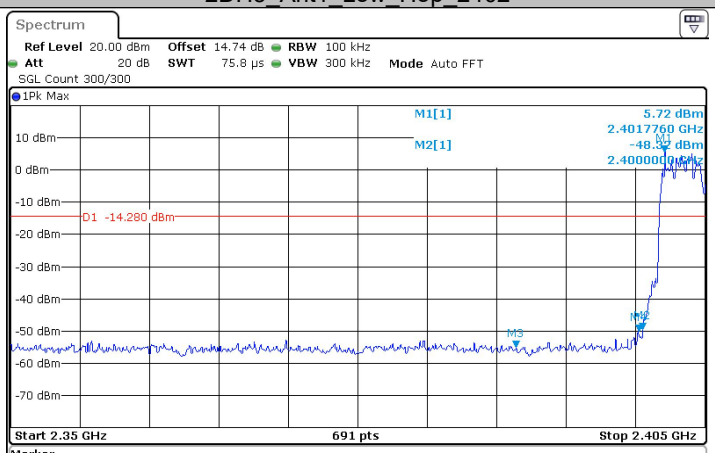
2DH5_Ant1_Low_Hop_2402

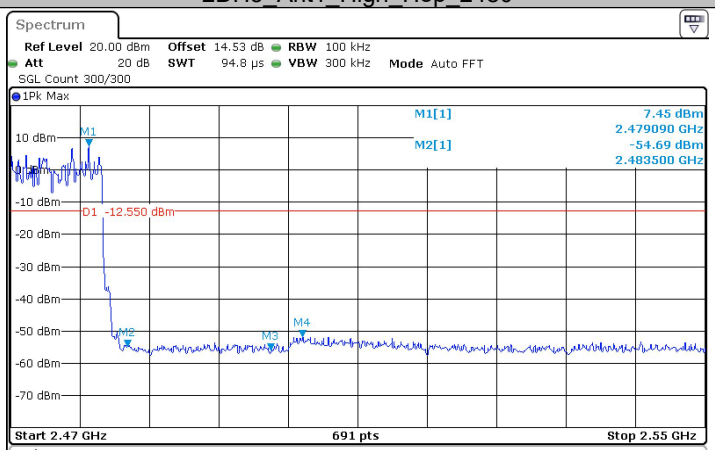


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.401776 GHz	5.72 dBm		
M2		1	2.4 GHz	-48.32 dBm		
M3		1	2.39 GHz	-55.12 dBm		
M4		1	2.3997391 GHz	-50.03 dBm		

Date: 13.JAN.2025 16:48:39

2DH5_Ant1_High_Hop_2480



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47909 GHz	7.45 dBm		
M2		1	2.4835 GHz	-54.69 dBm		
M3		1	2.5 GHz	-56.01 dBm		
M4		1	2.503623 GHz	-51.72 dBm		

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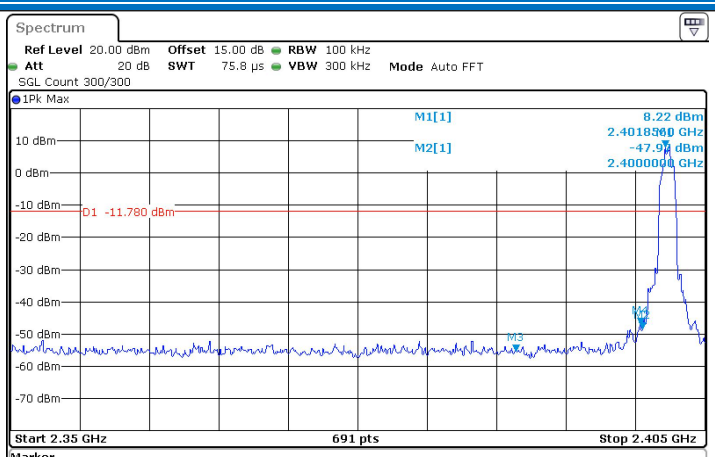
3DH5_Ant1_Low_2402

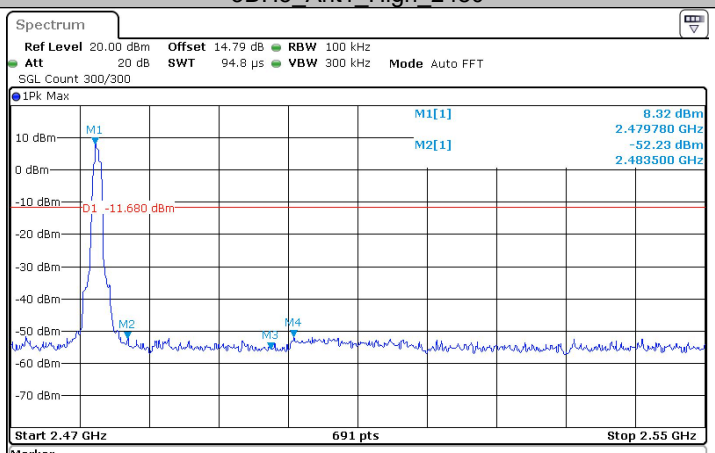


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.401856 GHz	8.22 dBm		
M2		1	2.4 GHz	-47.97 dBm		
M3		1	2.39 GHz	-55.33 dBm		
M4		1	2.3998986 GHz	-46.98 dBm		

Date: 9.JAN.2025 12:10:11

3DH5_Ant1_High_2480



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47978 GHz	8.32 dBm		
M2		1	2.4835 GHz	-52.23 dBm		
M3		1	2.5 GHz	-55.66 dBm		
M4		1	2.50258 GHz	-51.82 dBm		

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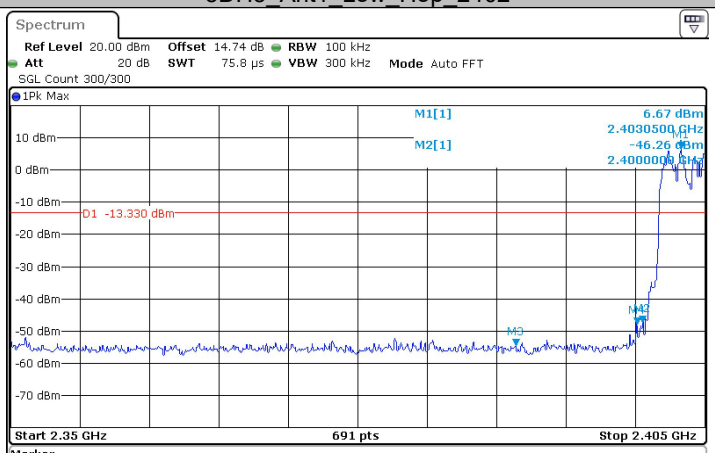
3DH5_Ant1_Low_Hop_2402



Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40305 GHz	6.67 dBm		
M2		1	2.4 GHz	-46.26 dBm		
M3		1	2.39 GHz	-54.43 dBm		
M4		1	2.3995797 GHz	-47.93 dBm		

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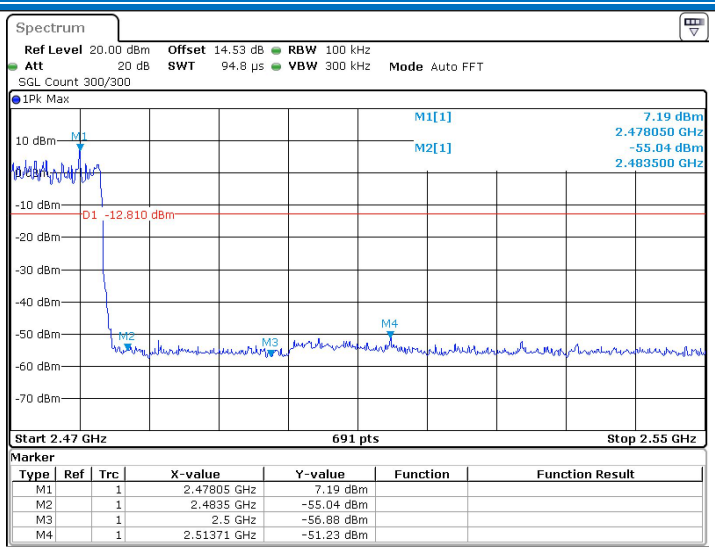
3DH5_Ant1_High_Hop_2480

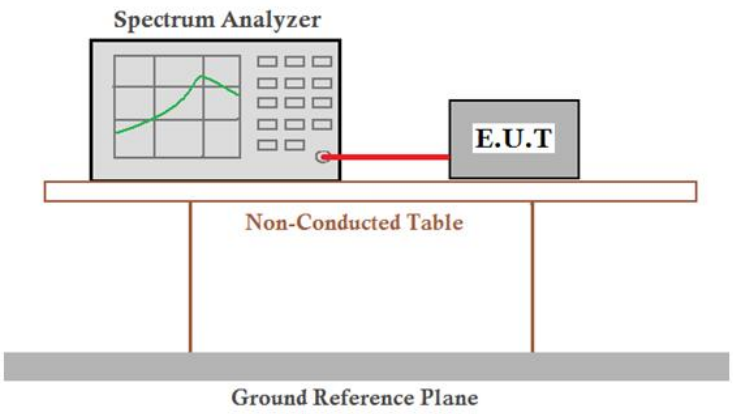


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47805 GHz	7.19 dBm		
M2		1	2.4835 GHz	-55.04 dBm		
M3		1	2.5 GHz	-56.88 dBm		
M4		1	2.51371 GHz	-51.23 dBm		

Date: 13.JAN.2025 16:47:02

4.9 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