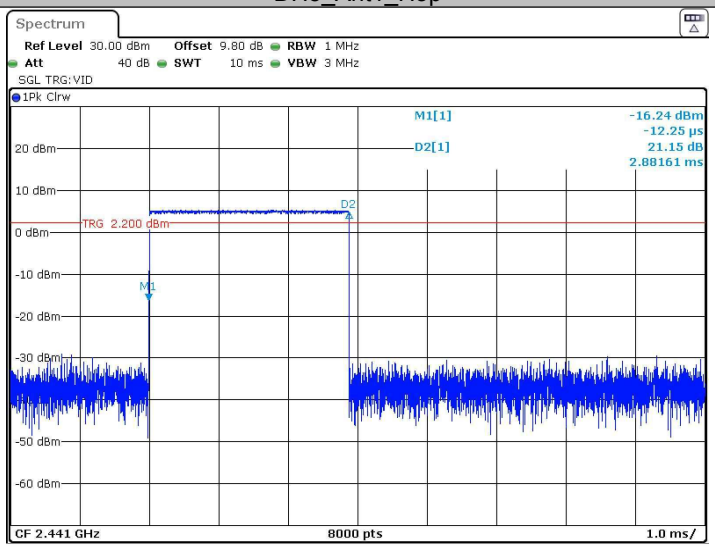
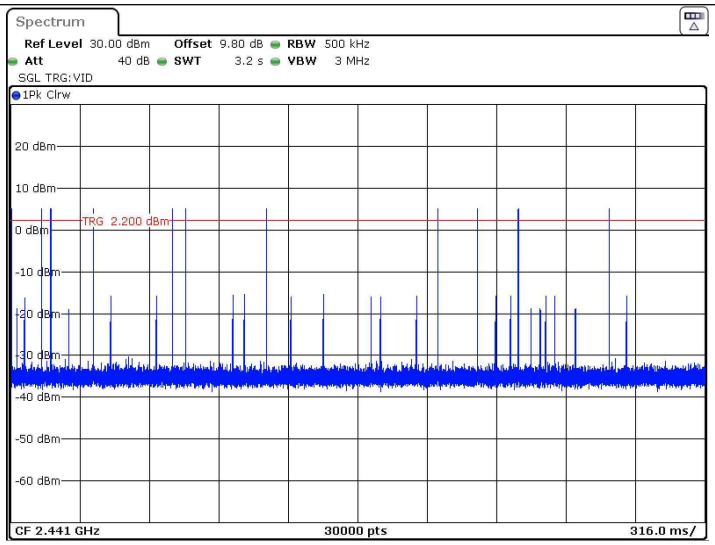
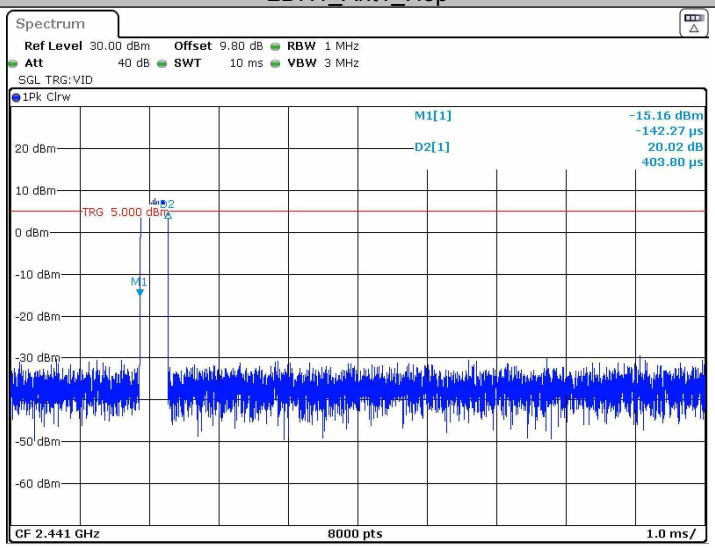
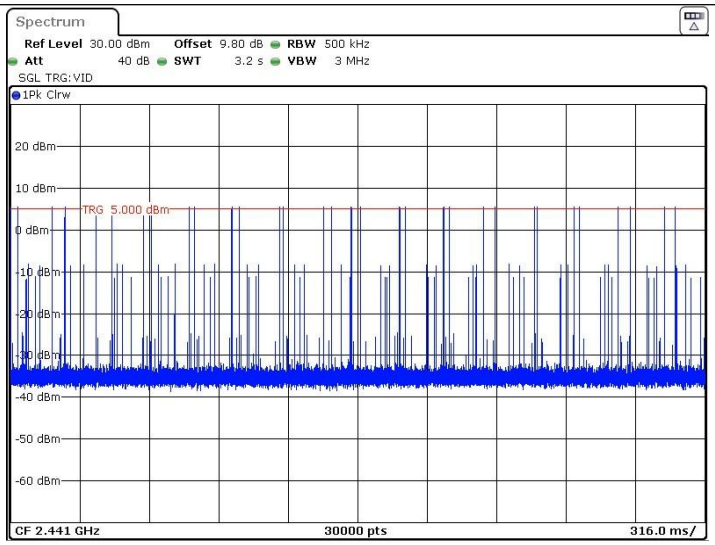
DH5_Ant1_Hop



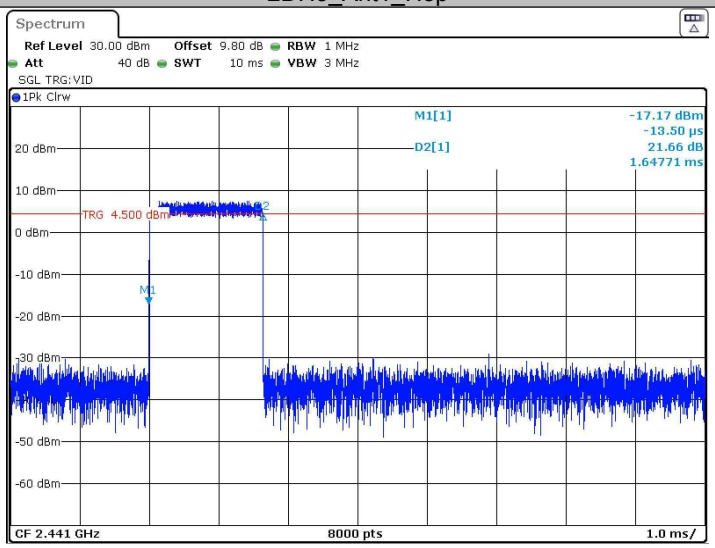
Date: 22.FEB.2022 10:01:06



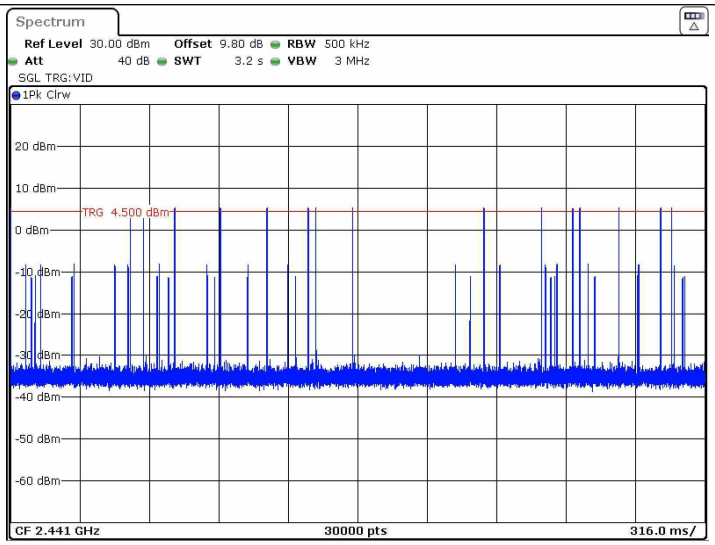
Date: 22.FEB.2022 10:01:12

2DH1_Ant1_Hop



2DH3_Ant1_Hop

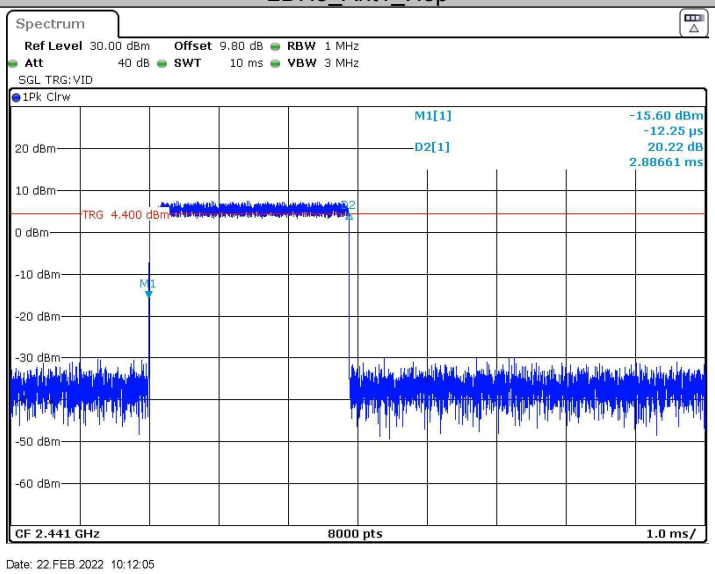


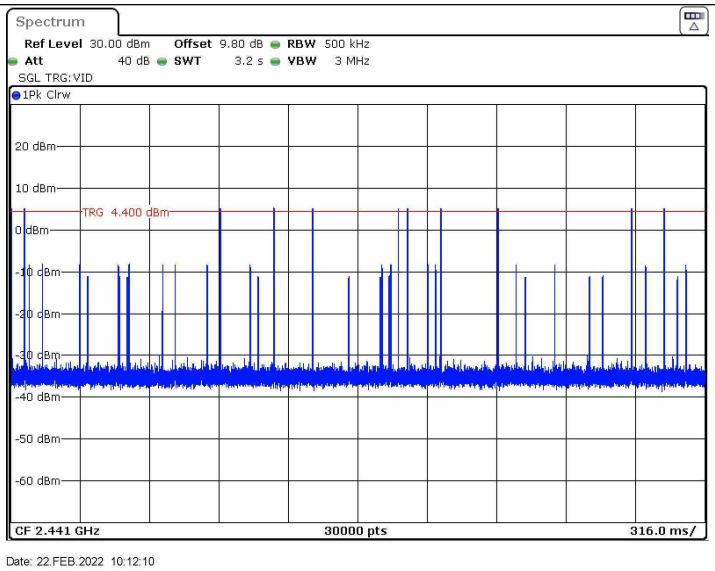
Date: 22.FEB.2022 10:14:18



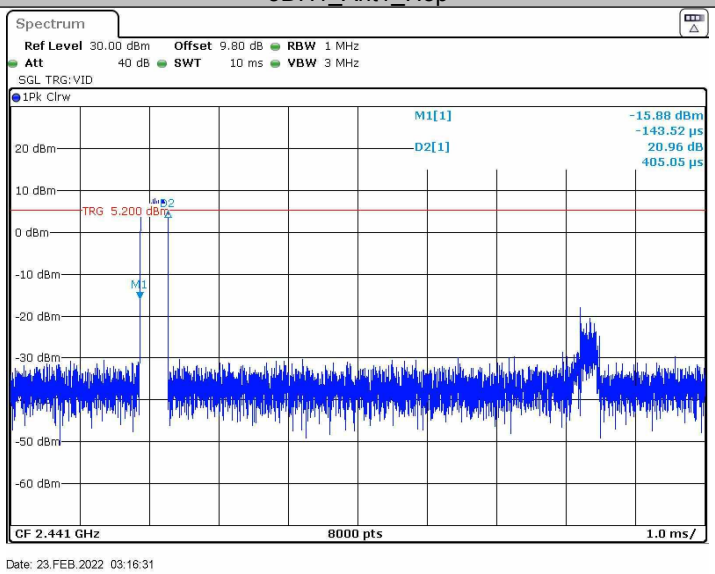
Date: 22.FEB.2022 10:14:24

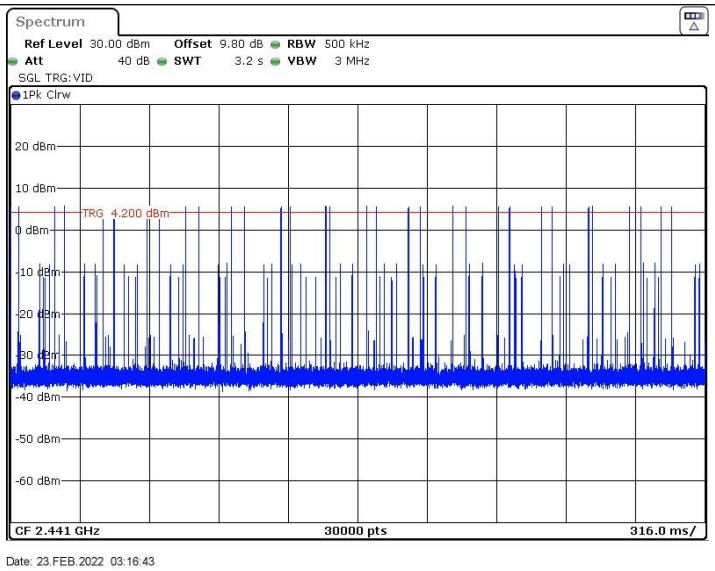
2DH5_Ant1_Hop



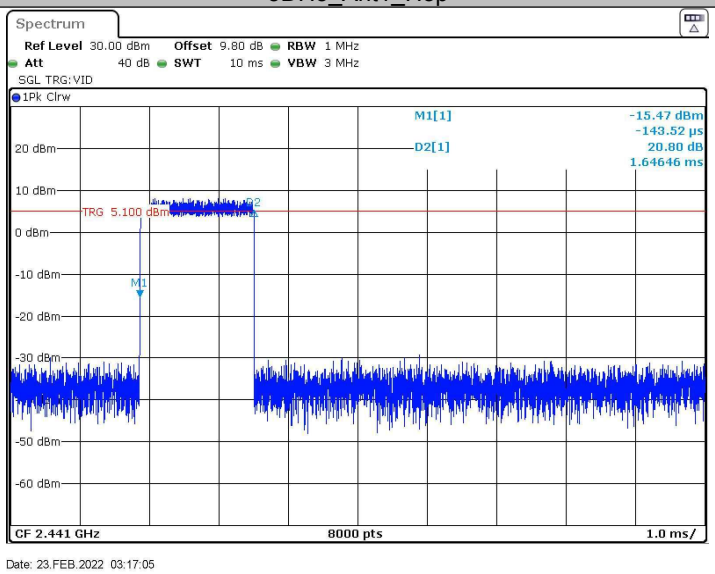


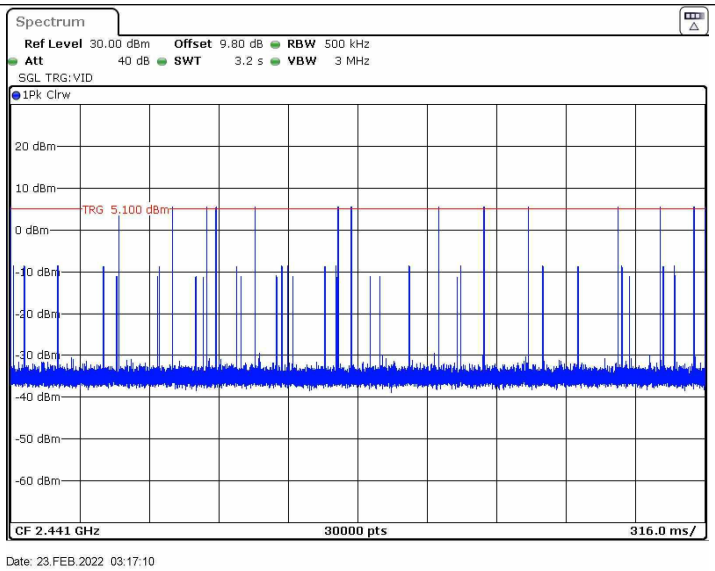
3DH1_Ant1_Hop

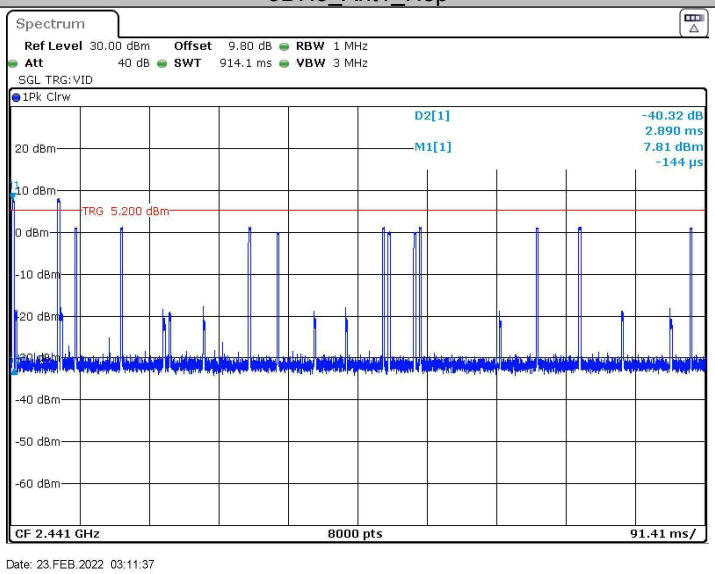
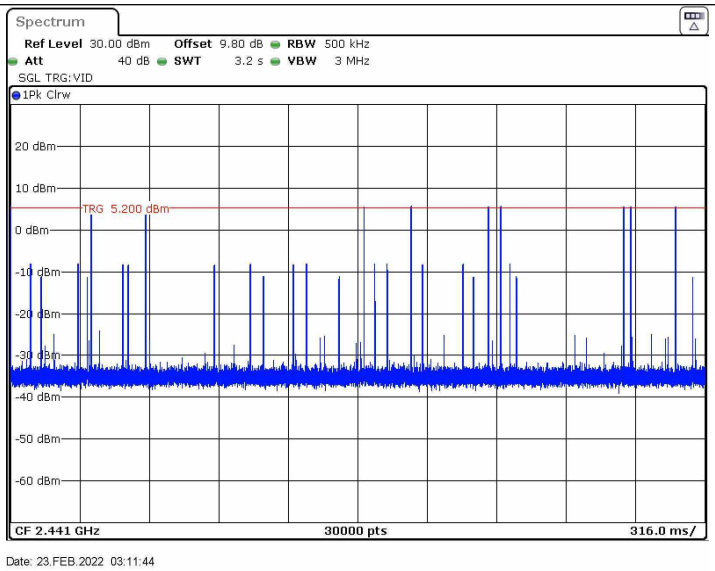




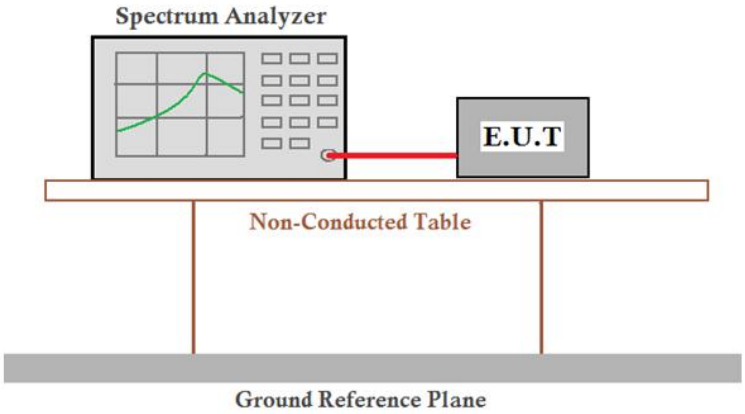
3DH3_Ant1_Hop





3DH5_Ant1_Hop



5.8 Band-edge for RF Conducted Emissions

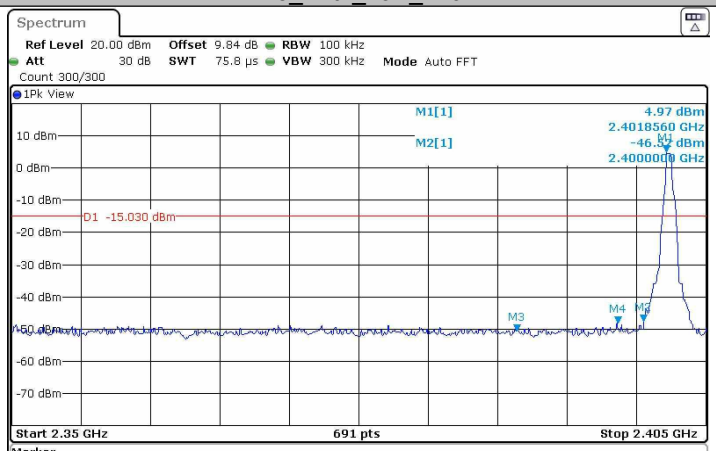
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is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

Measurement Data

TestMode	Antenna	ChName	Channel	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
DH5	Ant1	Low	2402	4.97	-48.06	≤-15.03	PASS
		High	2480	4.32	-47.38	≤-15.68	PASS
		Low	Hop_2402	4.42	-48.69	≤-15.58	PASS
		High	Hop_2480	3.87	-46.99	≤-16.13	PASS
2DH5	Ant1	Low	2402	5.06	-48.47	≤-14.94	PASS
		High	2480	4.30	-47.55	≤-15.7	PASS
		Low	Hop_2402	3.34	-48.45	≤-16.66	PASS
		High	Hop_2480	3.24	-47.31	≤-16.76	PASS
3DH5	Ant1	Low	2402	5.01	-44.73	≤-14.99	PASS
		High	2480	4.53	-47.48	≤-15.47	PASS
		Low	Hop_2402	3.39	-48.11	≤-16.61	PASS
		High	Hop_2480	4.29	-46.87	≤-15.71	PASS

Test plot as follows:

DH5_Ant1_Low_2402

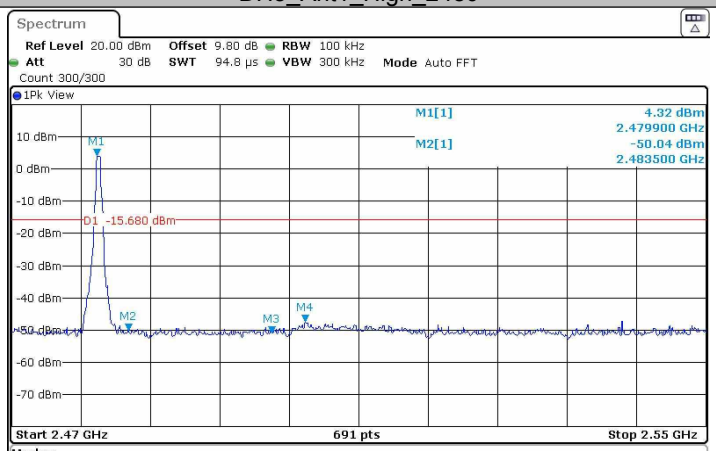


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.401856 GHz	4.97 dBm		
M2		1	2.4 GHz	-46.52 dBm		
M3		1	2.39 GHz	-50.76 dBm		
M4		1	2.3979855 GHz	-48.06 dBm		

Date: 22.FEB.2022 09:04:32

DH5_Ant1_High_2480

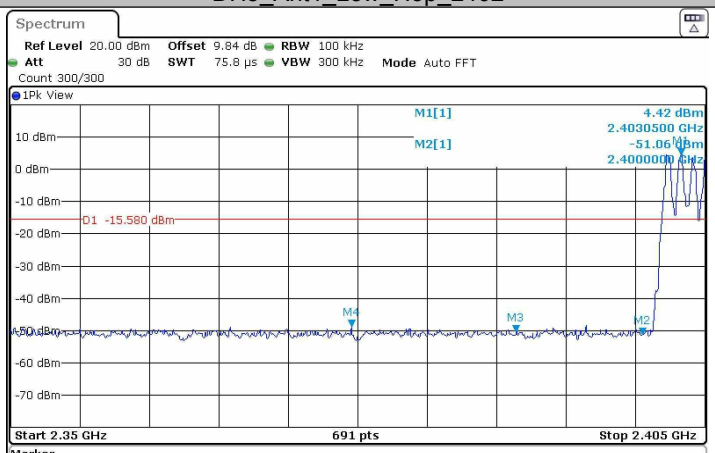


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4799 GHz	4.32 dBm		
M2		1	2.4835 GHz	-50.04 dBm		
M3		1	2.5 GHz	-50.79 dBm		
M4		1	2.503855 GHz	-47.38 dBm		

Date: 22.FEB.2022 09:16:02

DH5_Ant1_Low_Hop_2402

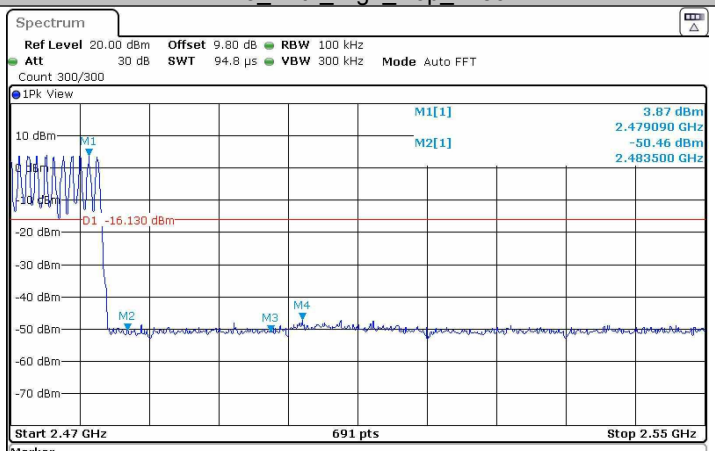


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40305 GHz	4.42 dBm		
M2		1	2.4 GHz	-51.06 dBm		
M3		1	2.39 GHz	-50.29 dBm		
M4		1	2.3770217 GHz	-48.69 dBm		

Date: 22.FEB.2022 09:49:52

DH5_Ant1_High_Hop_2480

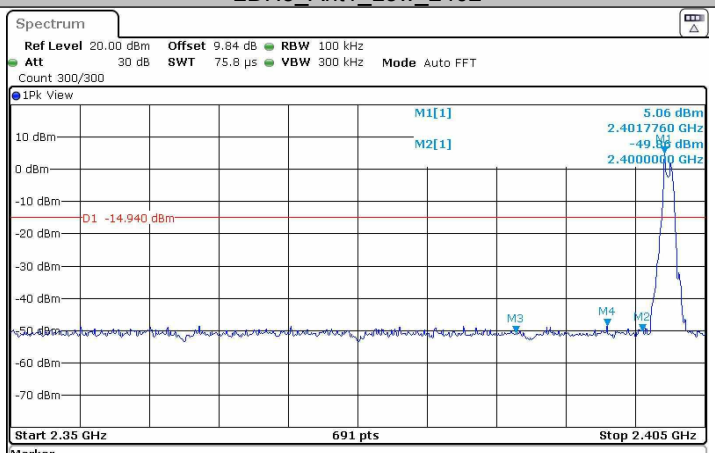


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47909 GHz	3.87 dBm		
M2		1	2.4835 GHz	-50.46 dBm		
M3		1	2.5 GHz	-50.85 dBm		
M4		1	2.503623 GHz	-46.99 dBm		

Date: 22.FEB.2022 10:05:38

2DH5_Ant1_Low_2402

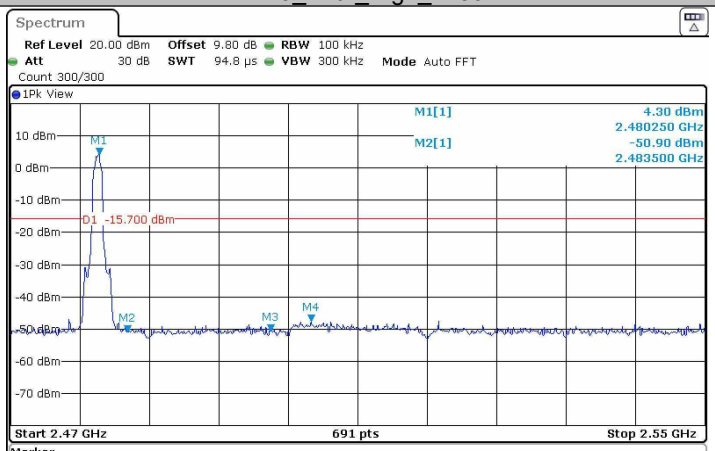


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.401776 GHz	5.06 dBm		
M2		1	2.4 GHz	-49.86 dBm		
M3		1	2.39 GHz	-50.50 dBm		
M4		1	2.3972681 GHz	-48.47 dBm		

Date: 22.FEB.2022 09:21:24

2DH5_Ant1_High_2480

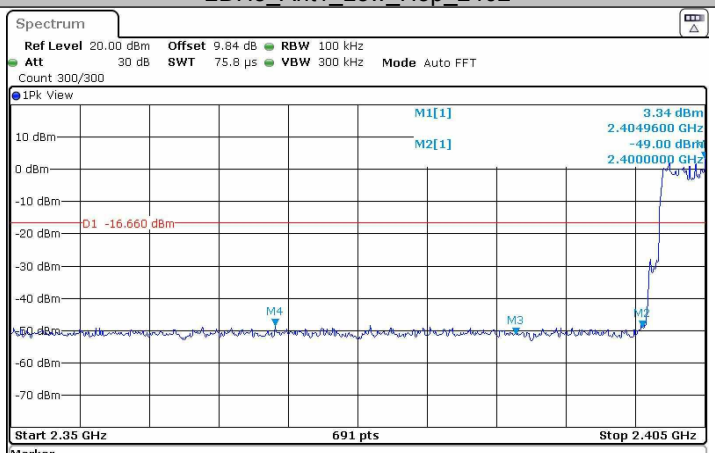


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48025 GHz	4.30 dBm		
M2		1	2.4835 GHz	-50.90 dBm		
M3		1	2.5 GHz	-50.54 dBm		
M4		1	2.504667 GHz	-47.55 dBm		

Date: 22.FEB.2022 09:28:31

2DH5_Ant1_Low_Hop_2402

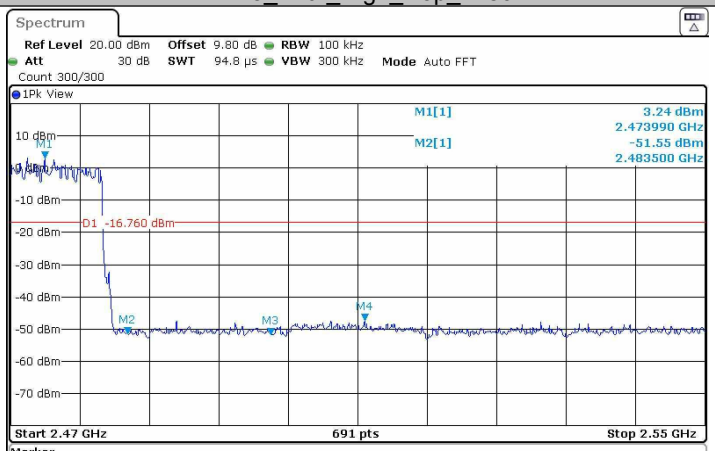


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40496 GHz	3.34 dBm		
M2		1	2.4 GHz	-49.00 dBm		
M3		1	2.39 GHz	-51.19 dBm		
M4		1	2.3709638 GHz	-48.45 dBm		

Date: 22.FEB.2022 10:08:33

2DH5_Ant1_High_Hop_2480

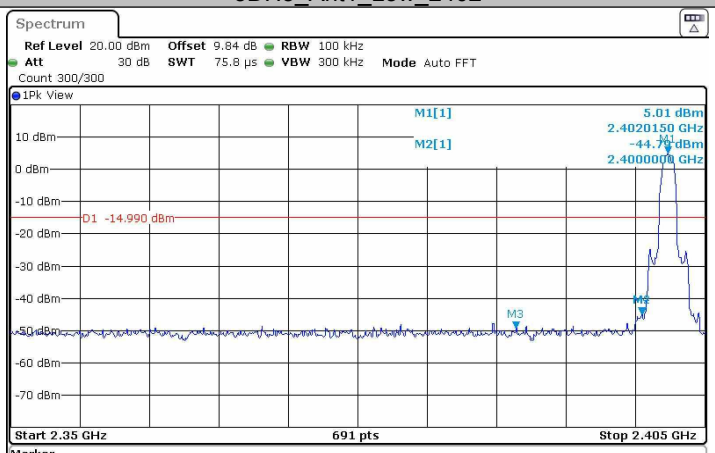


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47399 GHz	3.24 dBm		
M2		1	2.4835 GHz	-51.55 dBm		
M3		1	2.5 GHz	-51.78 dBm		
M4		1	2.510812 GHz	-47.31 dBm		

Date: 22.FEB.2022 10:15:29

3DH5_Ant1_Low_2402

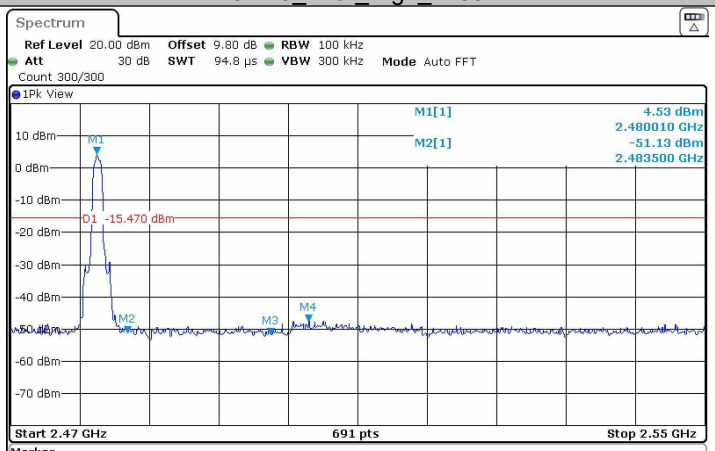


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402015 GHz	5.01 dBm		
M2		1	2.4 GHz	-44.79 dBm		
M3		1	2.39 GHz	-49.30 dBm		
M4		1	2.3999783 GHz	-44.73 dBm		

Date: 22.FEB.2022 09:39:33

3DH5_Ant1_High_2480

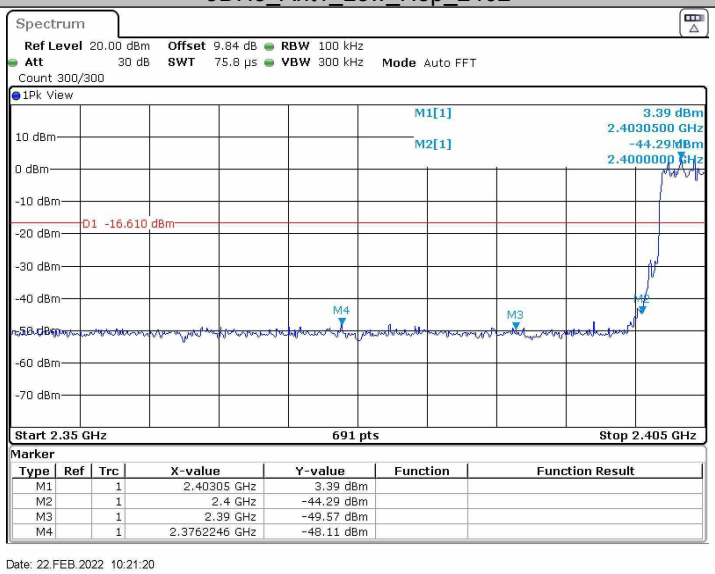


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48001 GHz	4.53 dBm		
M2		1	2.4835 GHz	-51.13 dBm		
M3		1	2.5 GHz	-51.62 dBm		
M4		1	2.504319 GHz	-47.48 dBm		

Date: 22.FEB.2022 09:46:04

3DH5_Ant1_Low_Hop_2402

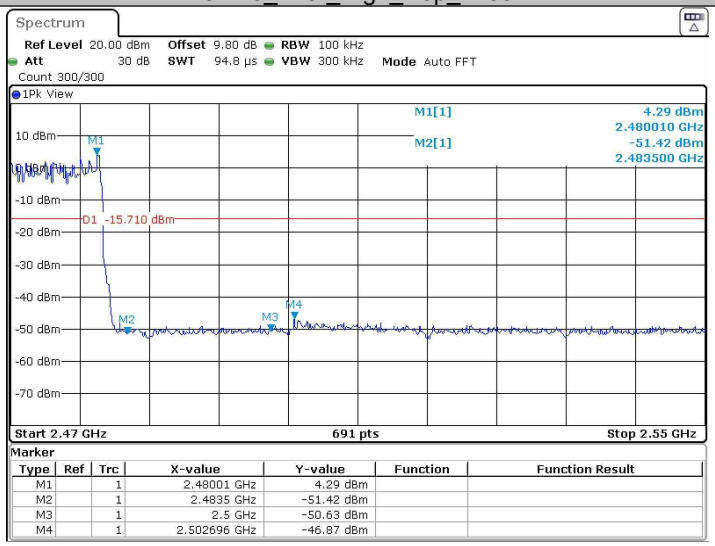


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40305 GHz	3.39 dBm		
M2		1	2.4 GHz	-44.29 dBm		
M3		1	2.39 GHz	-49.57 dBm		
M4		1	2.3762246 GHz	-48.11 dBm		

Date: 22.FEB.2022 10:21:20

3DH5_Ant1_High_Hop_2480

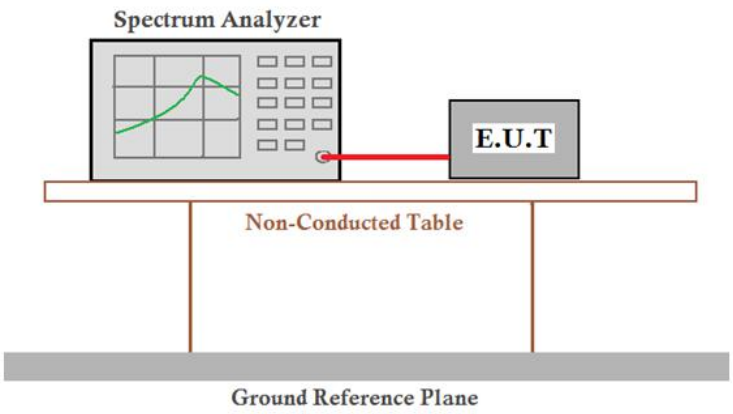


Marker

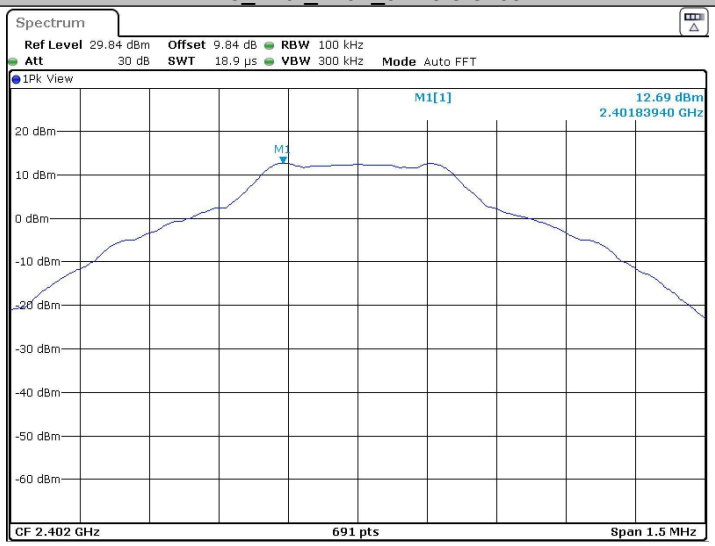
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48001 GHz	4.29 dBm		
M2		1	2.4835 GHz	-51.42 dBm		
M3		1	2.5 GHz	-50.63 dBm		
M4		1	2.502696 GHz	-46.87 dBm		

Date: 23.FEB.2022 03:17:32

5.9 Spurious RF Conducted Emissions

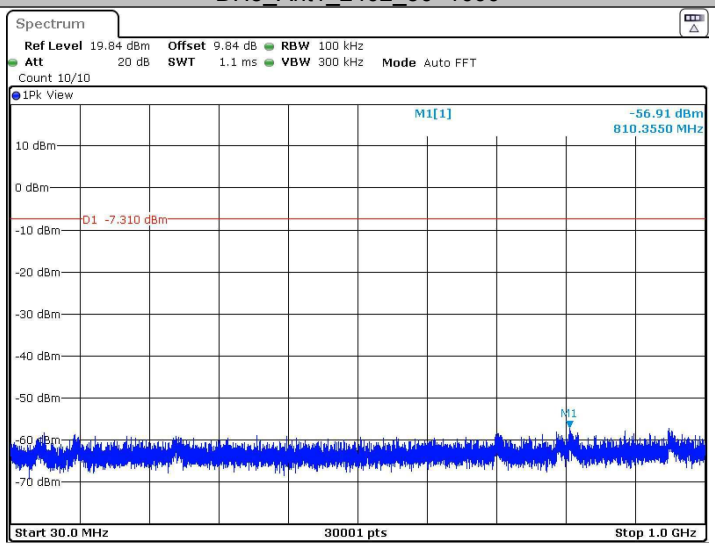
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is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



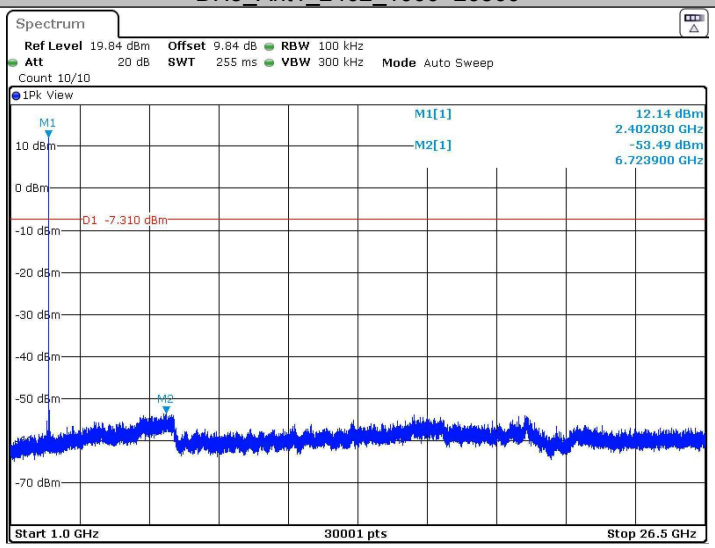
Date: 28.FEB.2022 02:15:28

DH5_Ant1_2402_30~1000



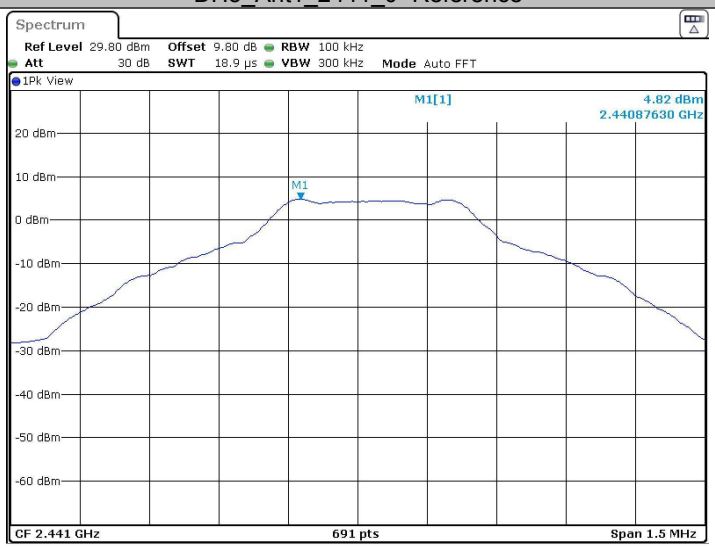
Date: 28.FEB.2022 02:15:33

DH5_Ant1_2402_1000~26500



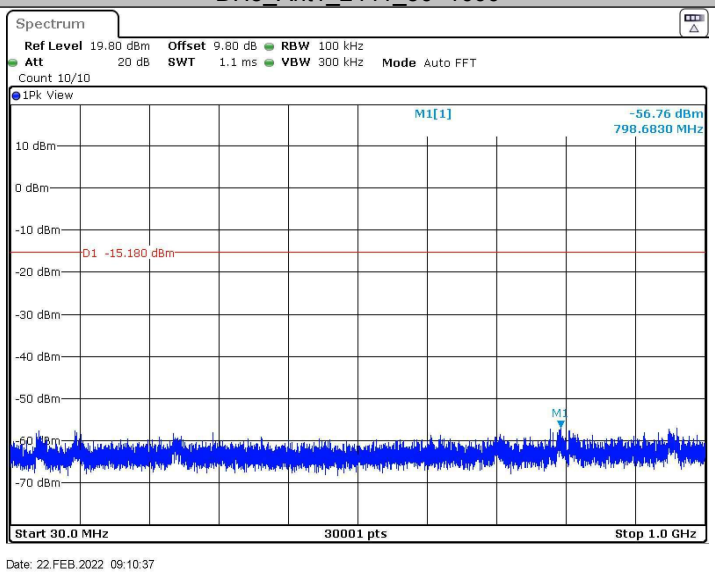
Date: 28.FEB.2022 02:15:55

DH5_Ant1_2441_0~Reference

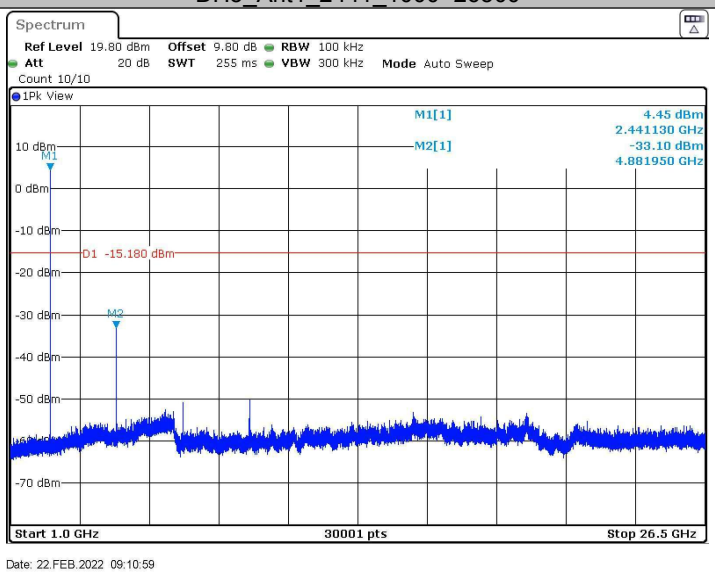


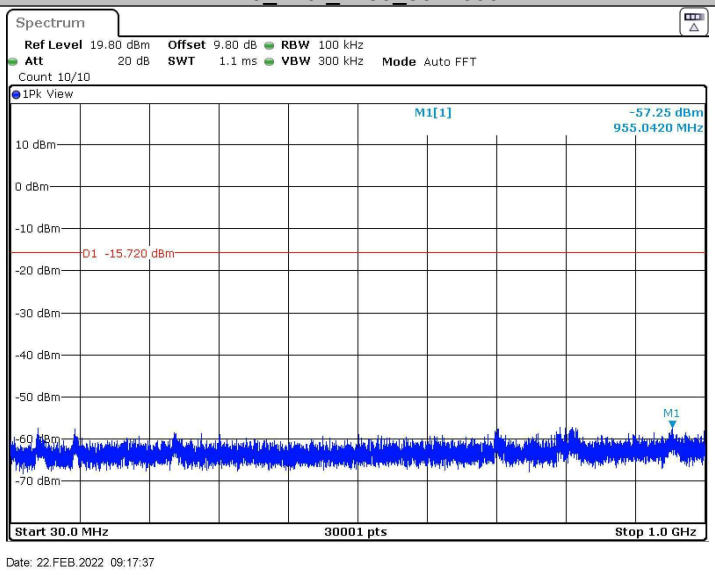
Date: 22.FEB.2022 09:10:33

DH5_Ant1_2441_30~1000



DH5_Ant1_2441_1000~26500



DH5_Ant1_2480_0~Reference

DH5_Ant1_2480_30~1000