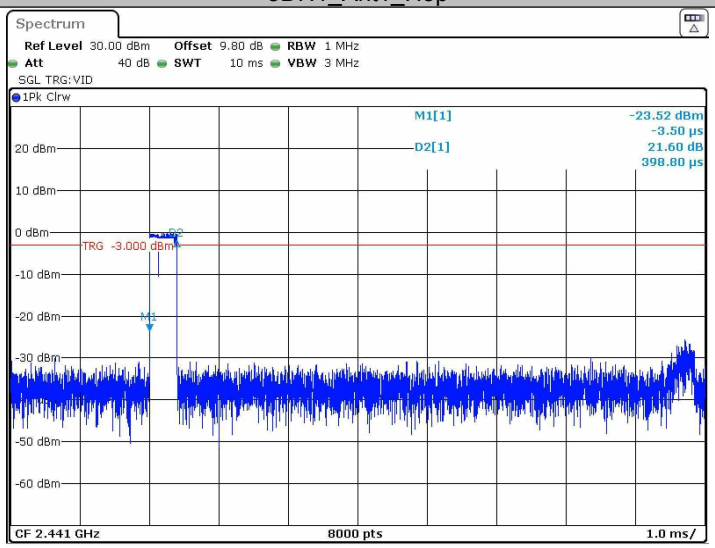
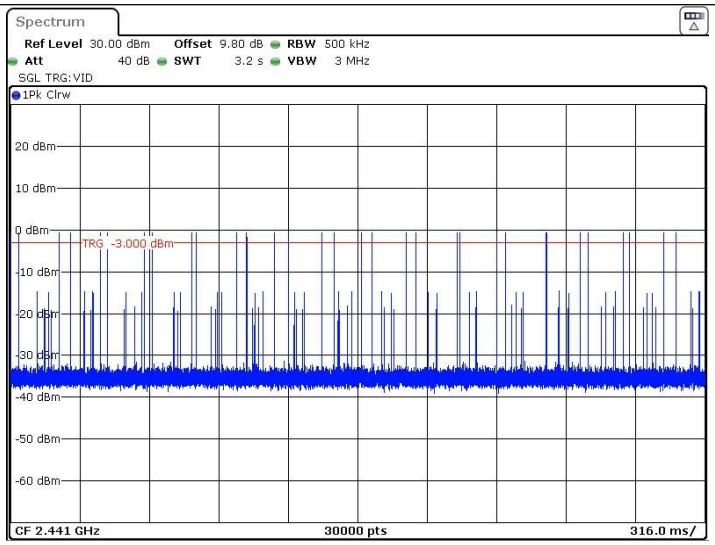
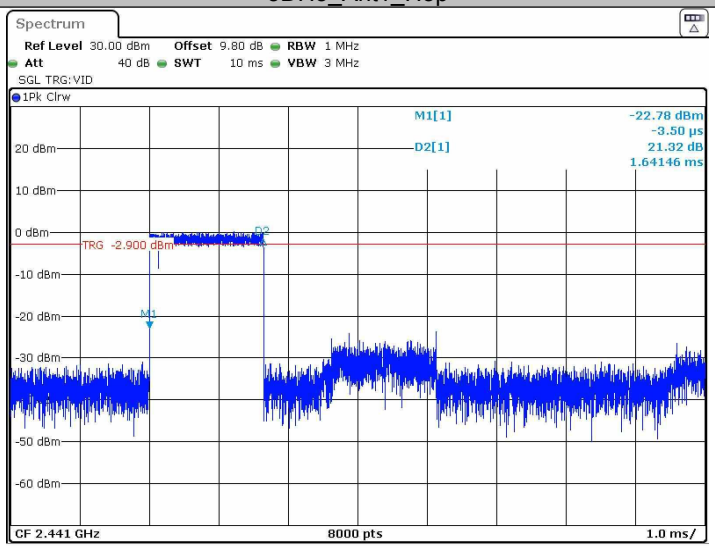
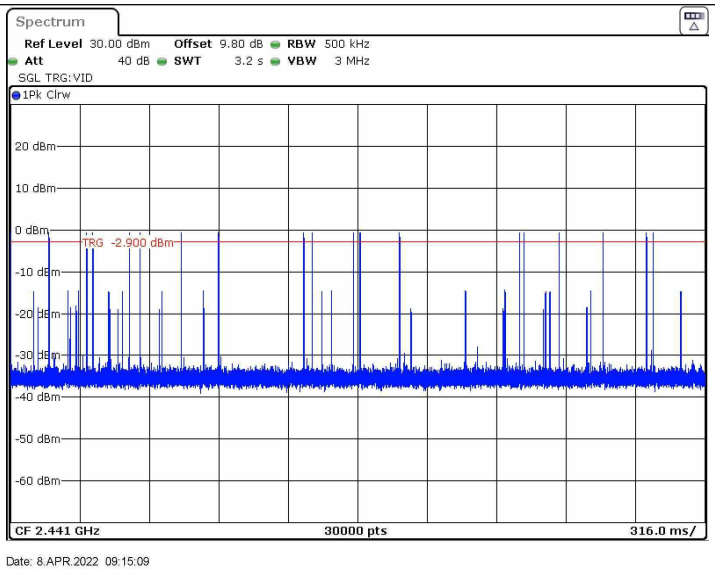
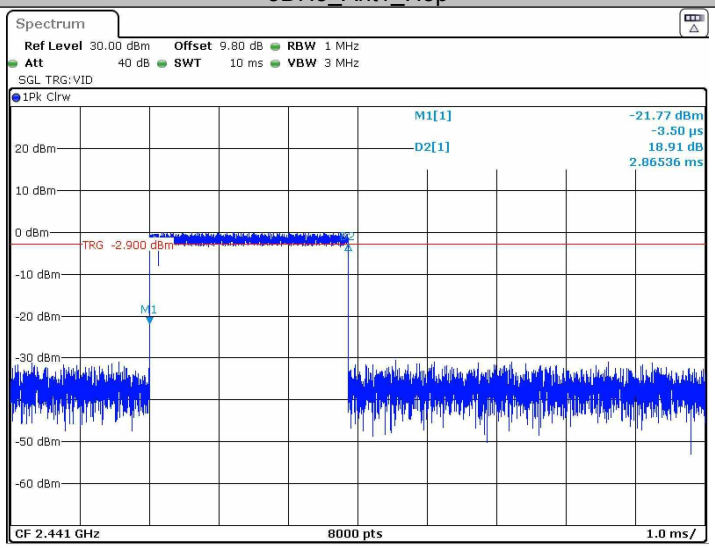
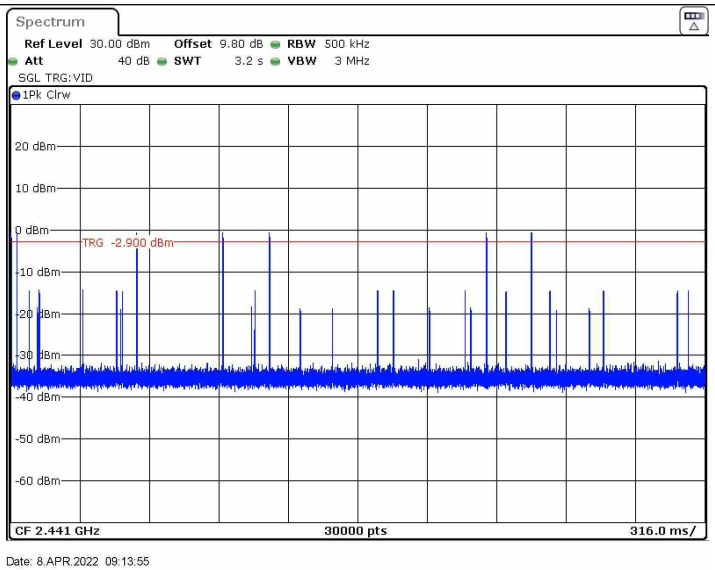
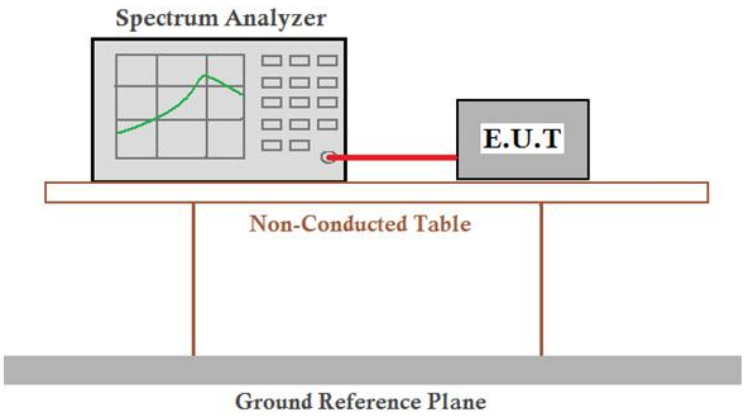
3DH1_Ant1_Hop
 Date: 8.APR.2022 09:14:23
 Date: 8.APR.2022 09:14:28

3DH3_Ant1_Hop



3DH5_Ant1_Hop



5.7 Band-edge for RF Conducted Emissions

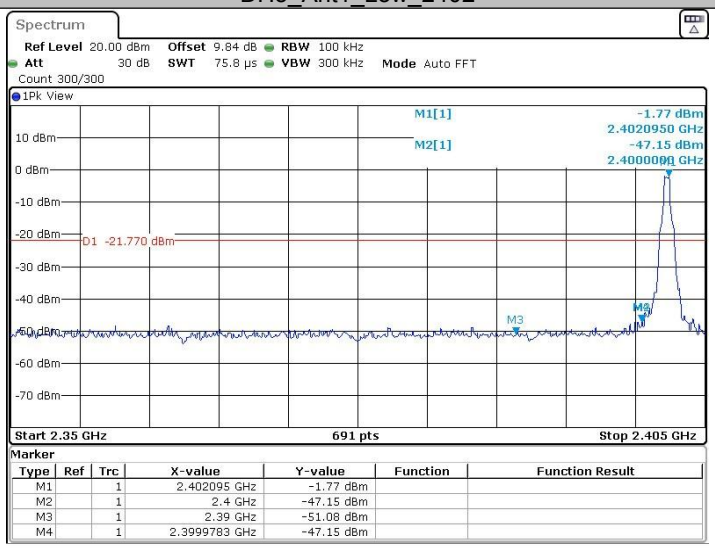
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is 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	-1.77	-47.15	≤-21.77	PASS
		High	2480	-0.14	-47.55	≤-20.14	PASS
		Low	Hop_2402	-2.48	-48.54	≤-22.48	PASS
		High	Hop_2480	-0.61	-46.88	≤-20.61	PASS
2DH5	Ant1	Low	2402	-2.81	-45.34	≤-22.81	PASS
		High	2480	-1.32	-47.75	≤-21.32	PASS
		Low	Hop_2402	-5.33	-48.54	≤-25.33	PASS
		High	Hop_2480	-1.30	-46.95	≤-21.3	PASS
3DH5	Ant1	Low	2402	-2.65	-48.82	≤-22.65	PASS
		High	2480	-1.09	-47.15	≤-21.09	PASS
		Low	Hop_2402	-5.95	-47.67	≤-25.95	PASS
		High	Hop_2480	-2.09	-47.39	≤-22.09	PASS

Test plot as follows:

DH5_Ant1_Low_2402

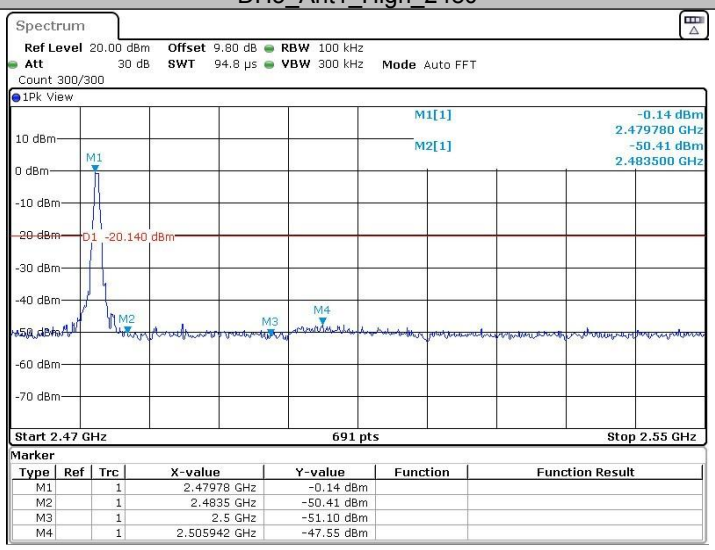


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402095 GHz	-1.77 dBm		
M2		1	2.4 GHz	-47.15 dBm		
M3		1	2.39 GHz	-51.08 dBm		
M4		1	2.3999783 GHz	-47.15 dBm		

Date: 7.APR.2022 08:52:22

DH5_Ant1_High_2480

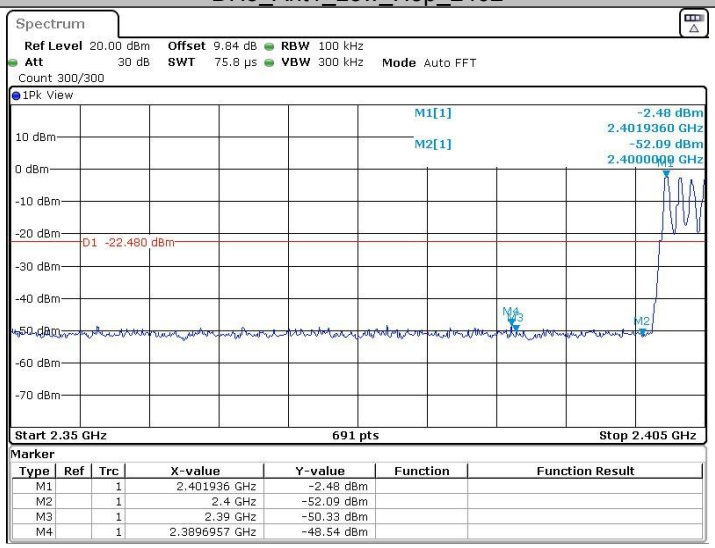


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47978 GHz	-0.14 dBm		
M2		1	2.4835 GHz	-50.41 dBm		
M3		1	2.5 GHz	-51.10 dBm		
M4		1	2.505942 GHz	-47.55 dBm		

Date: 7.APR.2022 08:57:05

DH5_Ant1_Low_Hop_2402

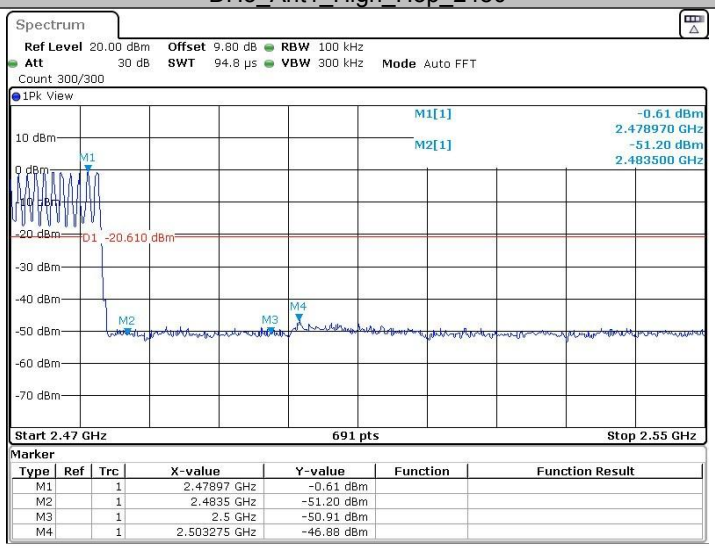


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.401936 GHz	-2.48 dBm		
M2		1	2.4 GHz	-52.09 dBm		
M3		1	2.39 GHz	-50.33 dBm		
M4		1	2.3896957 GHz	-48.54 dBm		

Date: 7.APR.2022 09:16:54

DH5_Ant1_High_Hop_2480

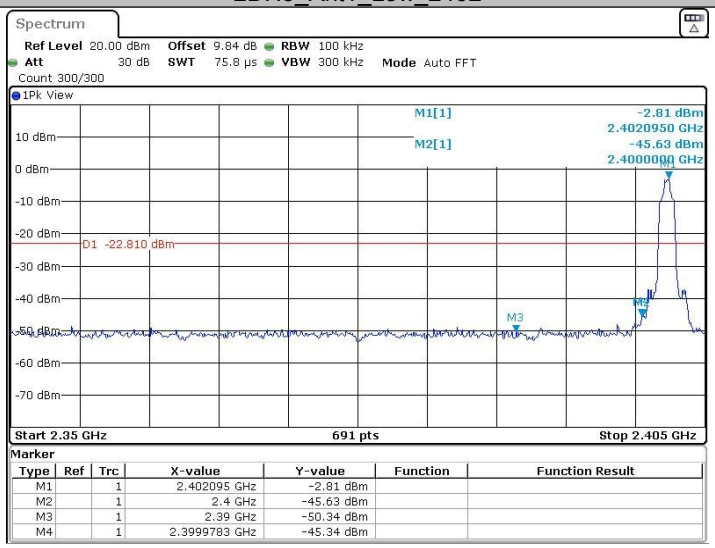


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47897 GHz	-0.61 dBm		
M2		1	2.4835 GHz	-51.20 dBm		
M3		1	2.5 GHz	-50.91 dBm		
M4		1	2.503275 GHz	-46.88 dBm		

Date: 7.APR.2022 09:38:48

2DH5_Ant1_Low_2402

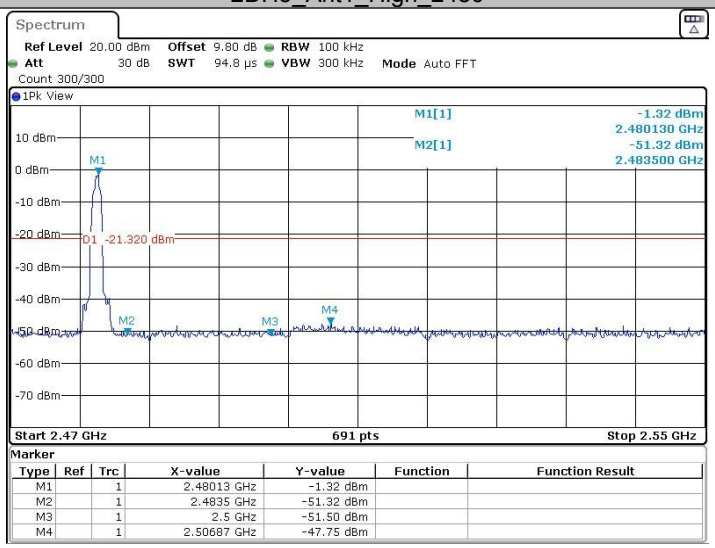


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402095 GHz	-2.81 dBm		
M2		1	2.4 GHz	-45.63 dBm		
M3		1	2.39 GHz	-50.34 dBm		
M4		1	2.3999783 GHz	-45.34 dBm		

Date: 7.APR.2022 08:59:44

2DH5_Ant1_High_2480

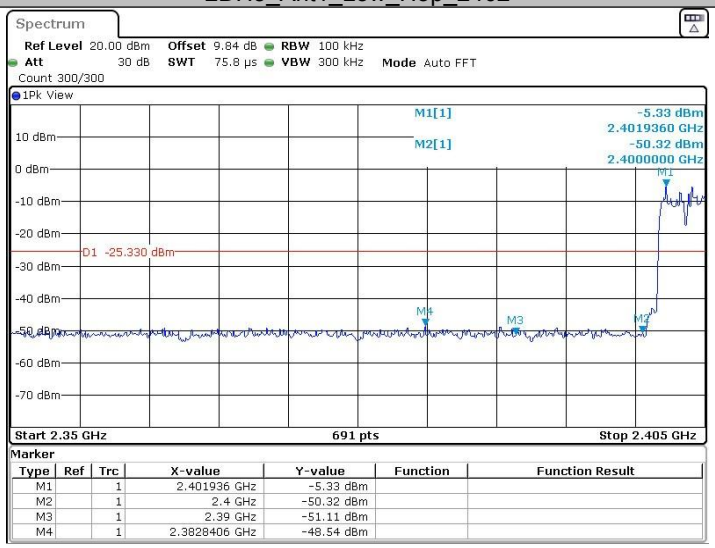


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48013 GHz	-1.32 dBm		
M2		1	2.4835 GHz	-51.32 dBm		
M3		1	2.5 GHz	-51.50 dBm		
M4		1	2.50687 GHz	-47.75 dBm		

Date: 7.APR.2022 09:03:57

2DH5_Ant1_Low_Hop_2402

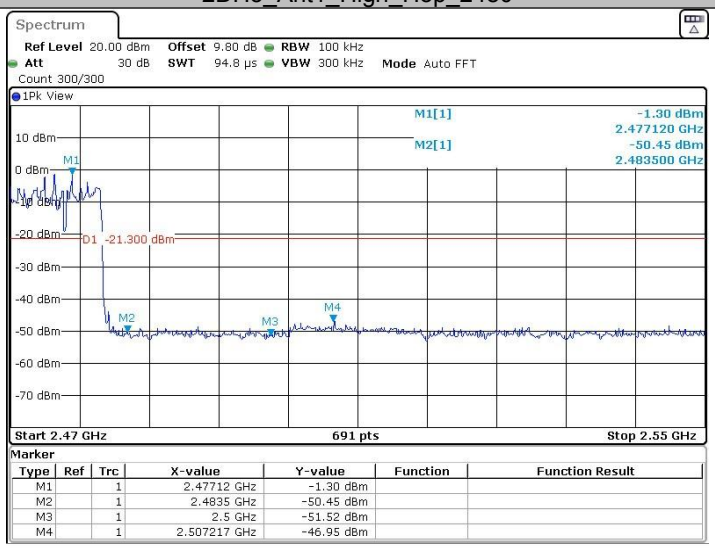


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.401936 GHz	-5.33 dBm		
M2		1	2.4 GHz	-50.32 dBm		
M3		1	2.39 GHz	-51.11 dBm		
M4		1	2.3828406 GHz	-48.54 dBm		

Date: 7.APR.2022 09:39:59

2DH5_Ant1_High_Hop_2480

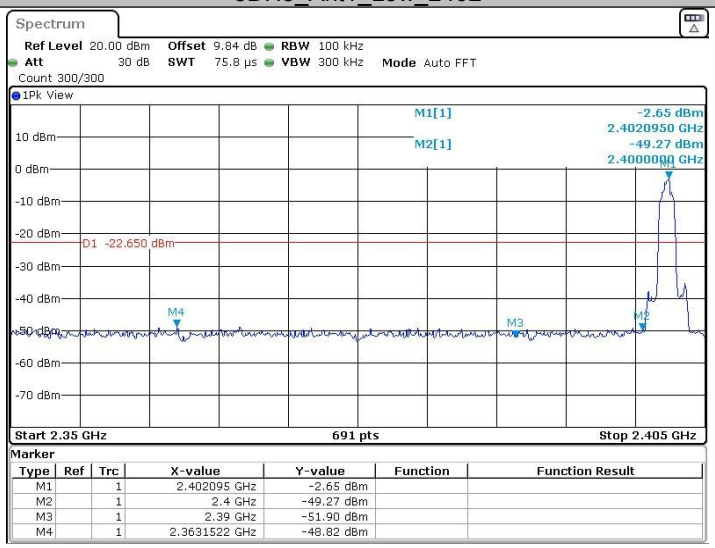


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47712 GHz	-1.30 dBm		
M2		1	2.4835 GHz	-50.45 dBm		
M3		1	2.5 GHz	-51.52 dBm		
M4		1	2.507217 GHz	-46.95 dBm		

Date: 7.APR.2022 09:47:40

3DH5_Ant1_Low_2402

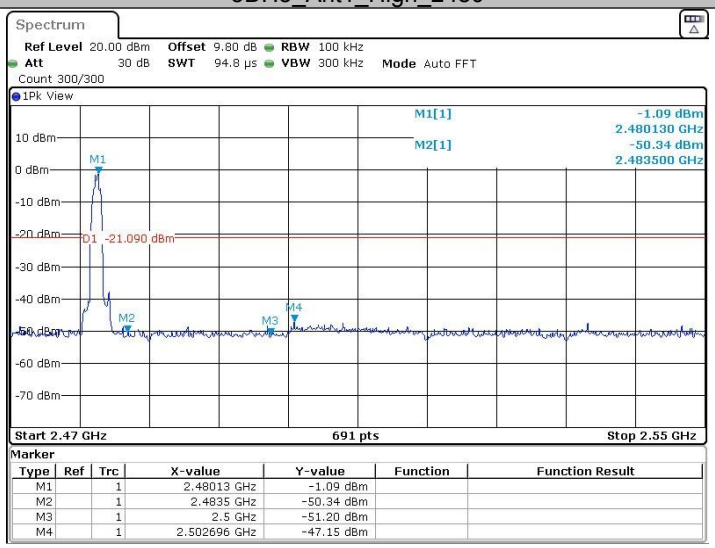


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402095 GHz	-2.65 dBm		
M2		1	2.4 GHz	-49.27 dBm		
M3		1	2.39 GHz	-51.90 dBm		
M4		1	2.3631522 GHz	-48.82 dBm		

Date: 7.APR.2022 09:07:38

3DH5_Ant1_High_2480

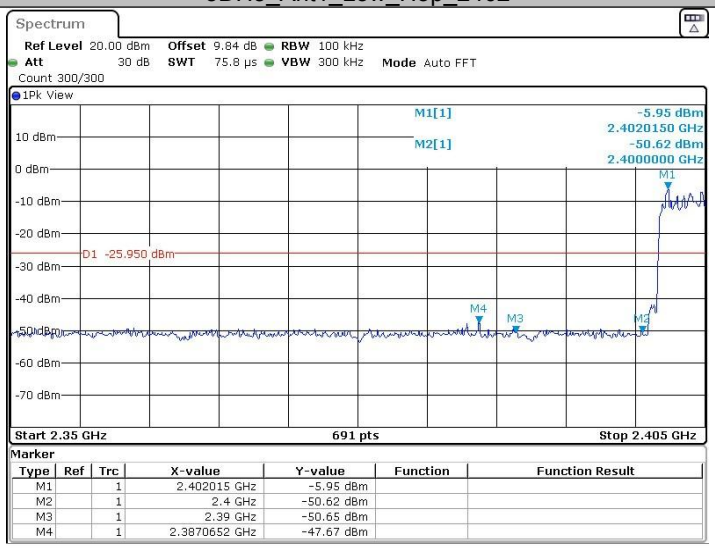


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48013 GHz	-1.09 dBm		
M2		1	2.4835 GHz	-50.34 dBm		
M3		1	2.5 GHz	-51.20 dBm		
M4		1	2.502696 GHz	-47.15 dBm		

Date: 7.APR.2022 09:13:44

3DH5_Ant1_Low_Hop_2402

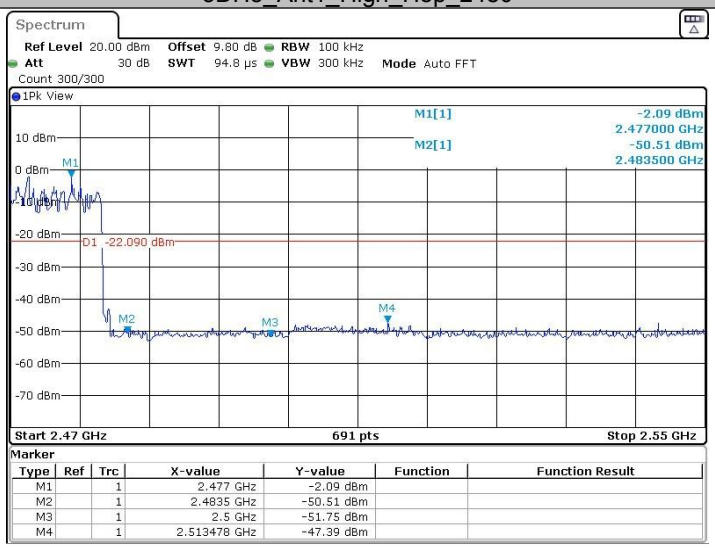


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402015 GHz	-5.95 dBm		
M2		1	2.4 GHz	-50.62 dBm		
M3		1	2.39 GHz	-50.65 dBm		
M4		1	2.3870652 GHz	-47.67 dBm		

Date: 7.APR.2022 09:48:47

3DH5_Ant1_High_Hop_2480

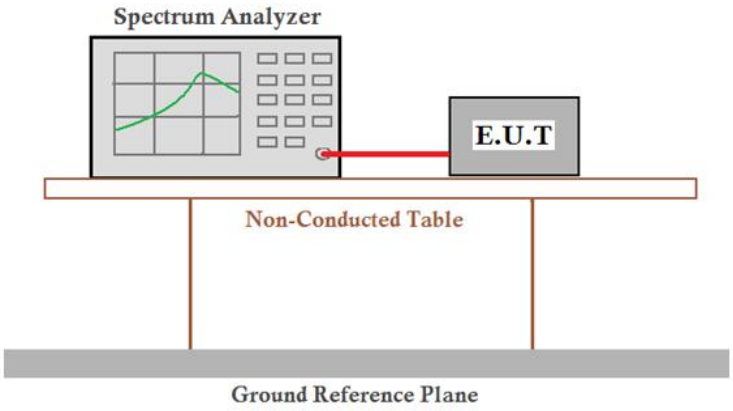


Marker

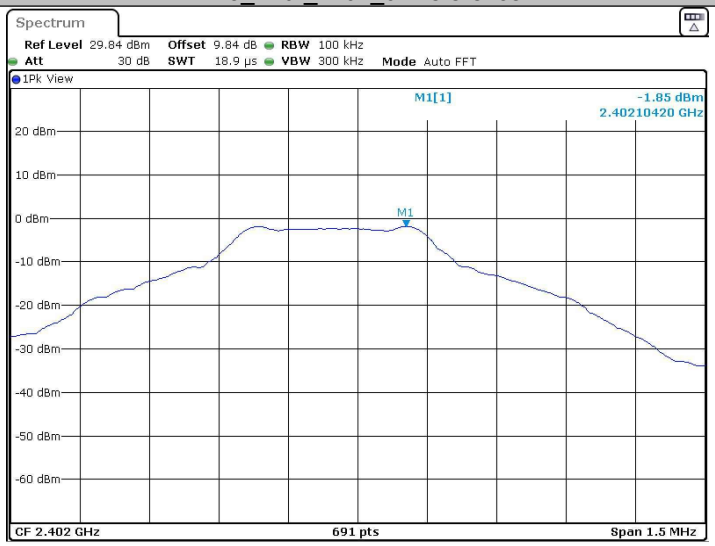
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.477 GHz	-2.09 dBm		
M2		1	2.4835 GHz	-50.51 dBm		
M3		1	2.5 GHz	-51.75 dBm		
M4		1	2.513478 GHz	-47.39 dBm		

Date: 7.APR.2022 09:55:25

5.8 Spurious RF Conducted Emissions

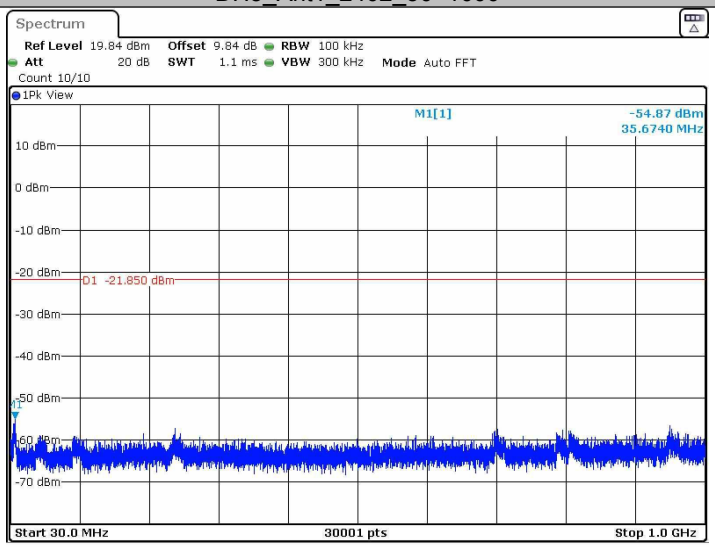
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is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



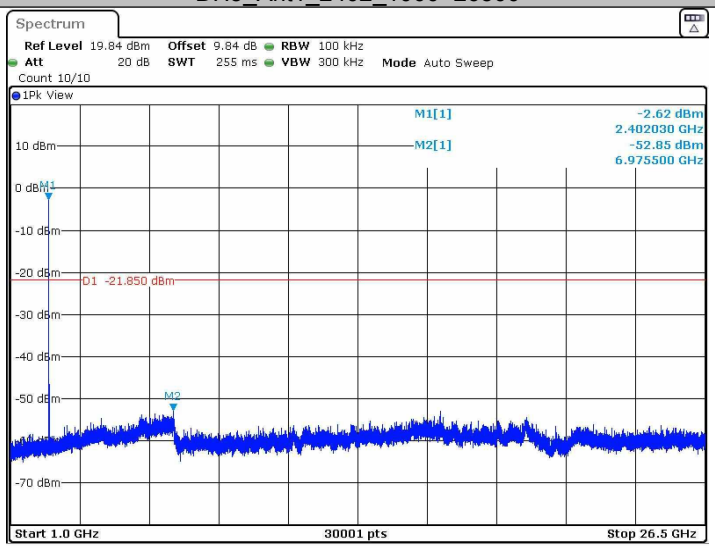
Date: 7.APR.2022 08:53:23

DH5_Ant1_2402_30~1000



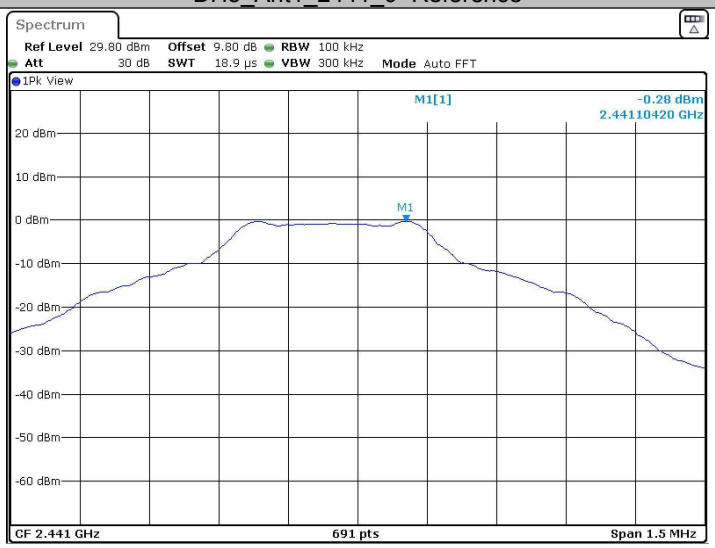
Date: 7.APR.2022 08:53:28

DH5_Ant1_2402_1000~26500



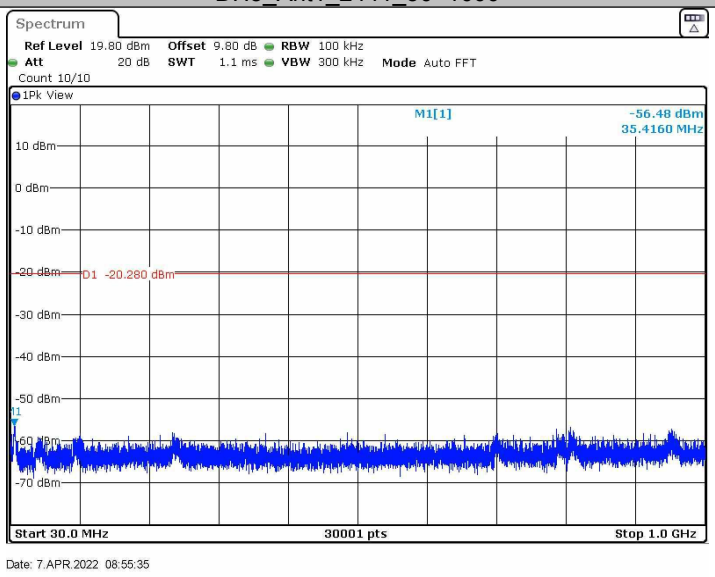
Date: 7.APR.2022 08:53:50

DH5_Ant1_2441_0~Reference



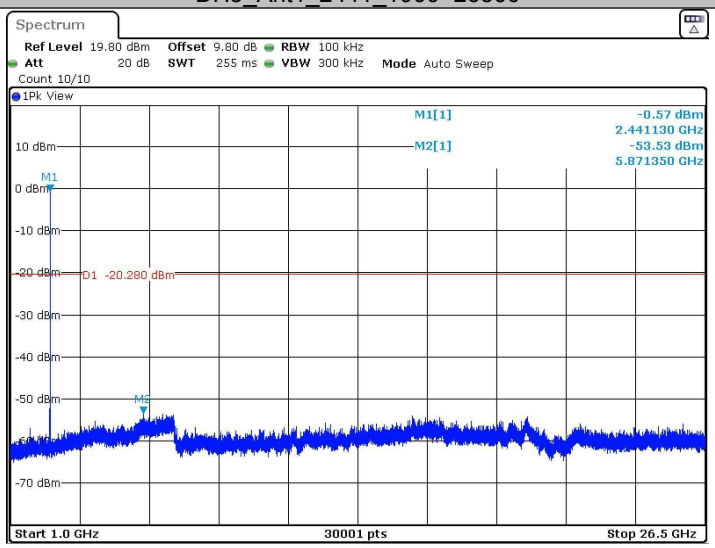
Date: 7.APR.2022 08:55:31

DH5_Ant1_2441_30~1000



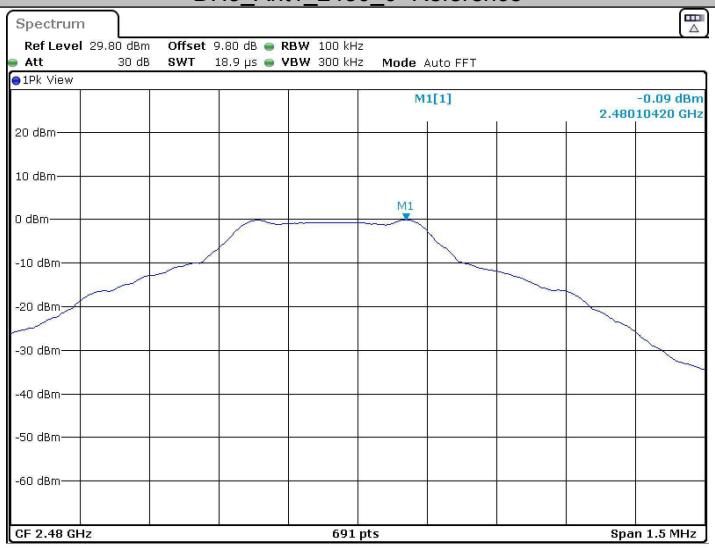
Date: 7.APR.2022 08:55:35

DH5_Ant1_2441_1000~26500



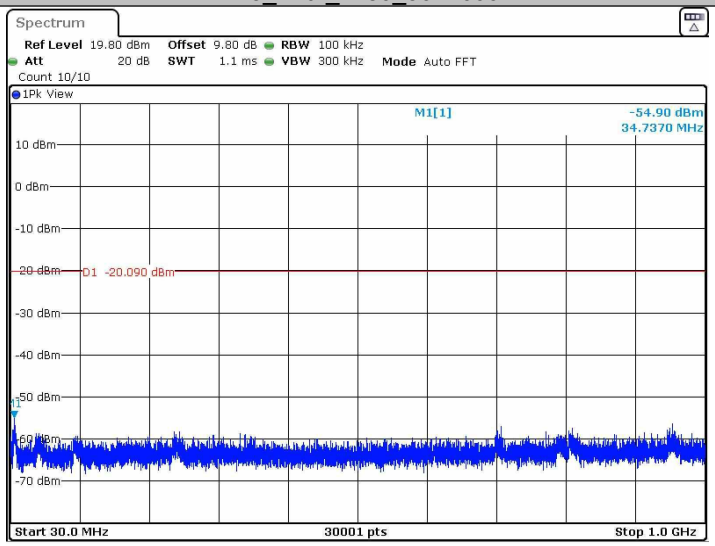
Date: 7.APR.2022 08:55:57

DH5_Ant1_2480_0~Reference



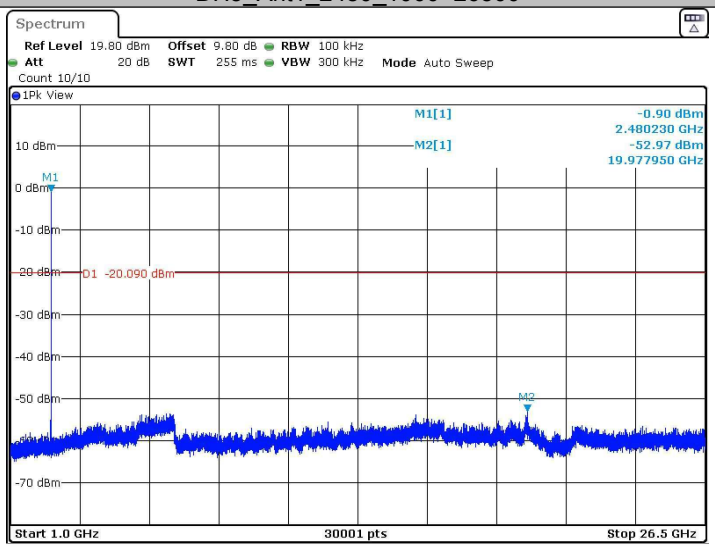
Date: 7.APR.2022 08:58:06

DH5_Ant1_2480_30~1000



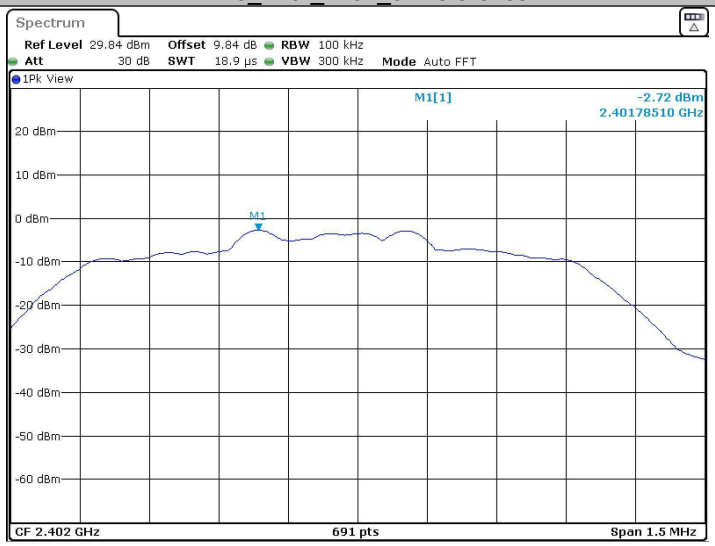
Date: 7.APR.2022 08:58:10

DH5_Ant1_2480_1000~26500



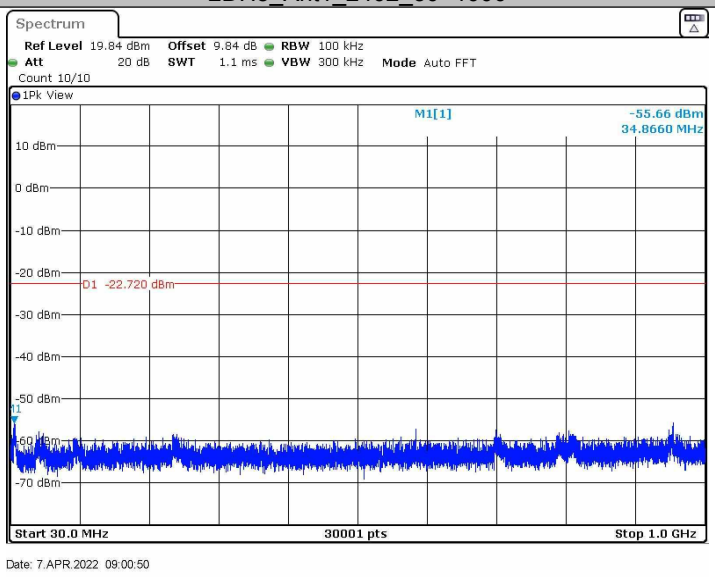
Date: 7.APR.2022 08:58:32

2DH5_Ant1_2402_0~Reference



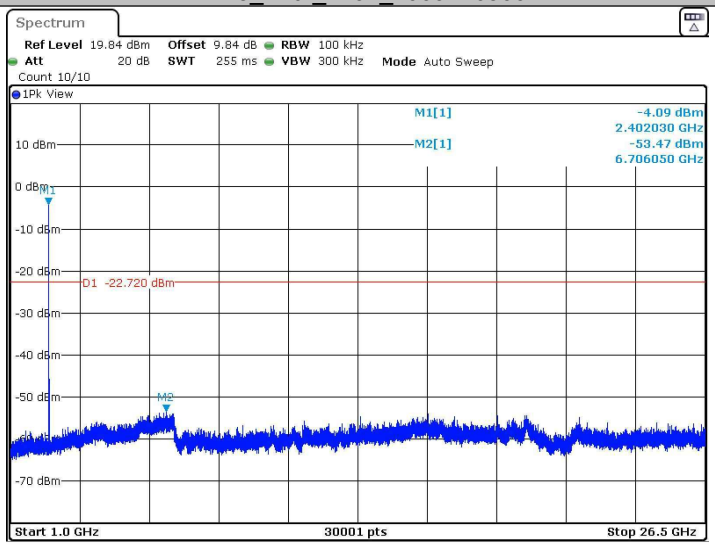
Date: 7.APR.2022 09:00:46

2DH5_Ant1_2402_30~1000



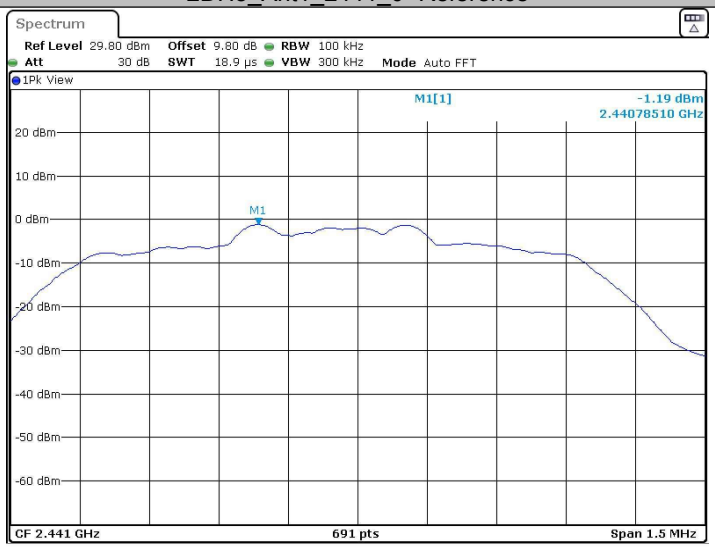
Date: 7.APR.2022 09:00:50

2DH5_Ant1_2402_1000~26500



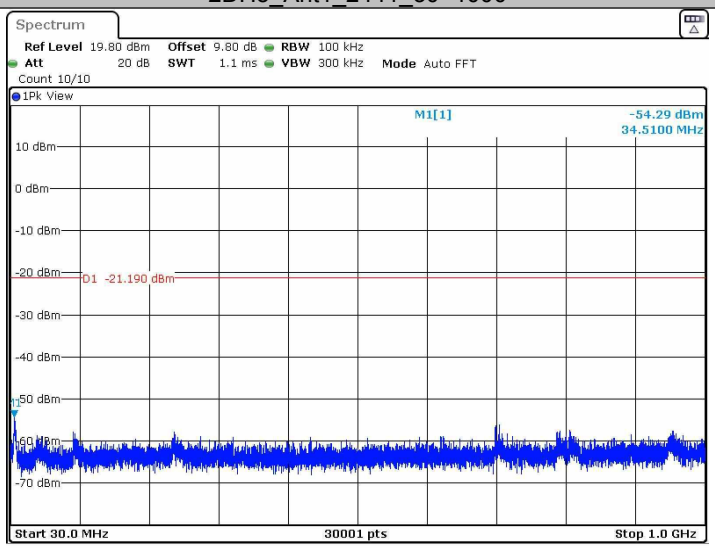
Date: 7.APR.2022 09:01:12

2DH5_Ant1_2441_0~Reference



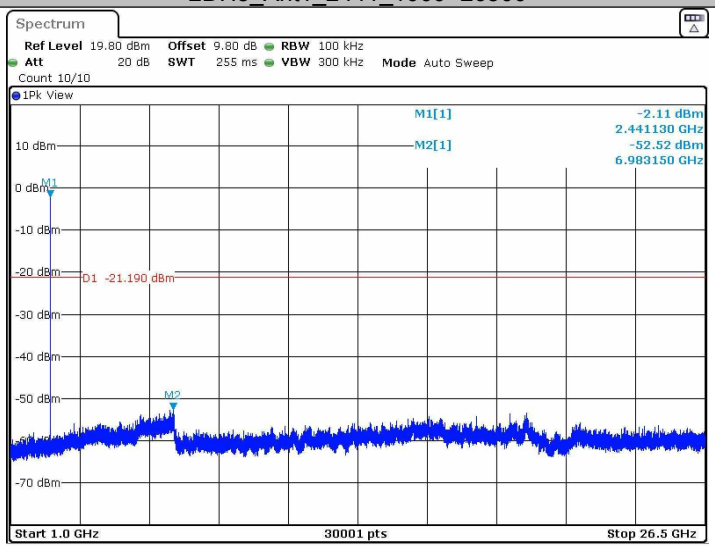
Date: 7.APR.2022 09:02:14

2DH5_Ant1_2441_30~1000



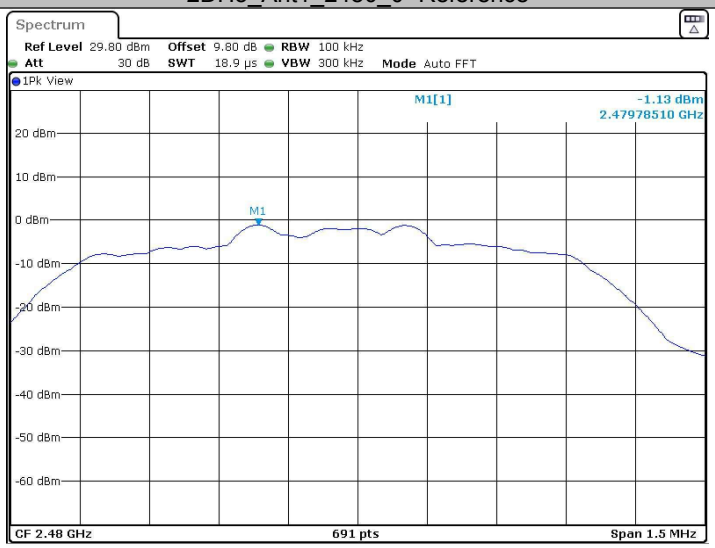
Date: 7.APR.2022 09:02:18

2DH5_Ant1_2441_1000~26500



Date: 7.APR.2022 09:02:40

2DH5_Ant1_2480_0~Reference



Date: 7.APR.2022 09:04:59