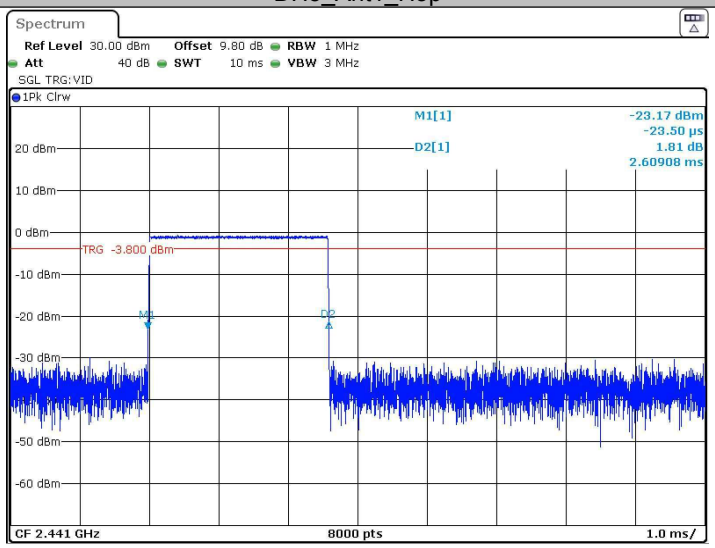
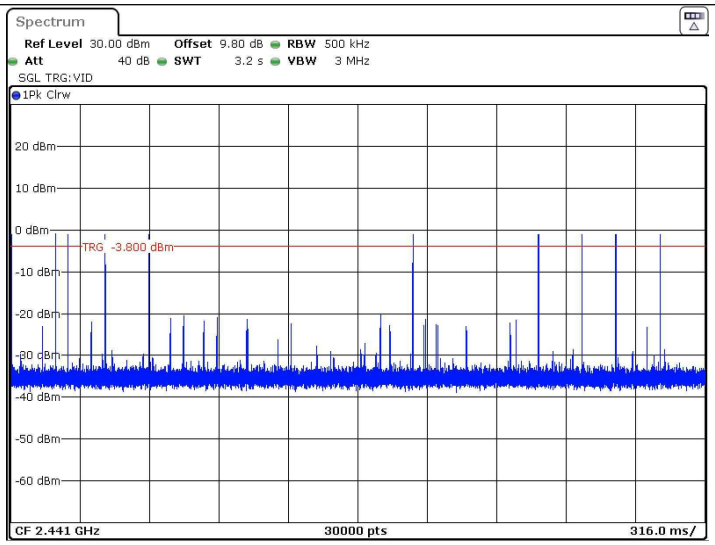
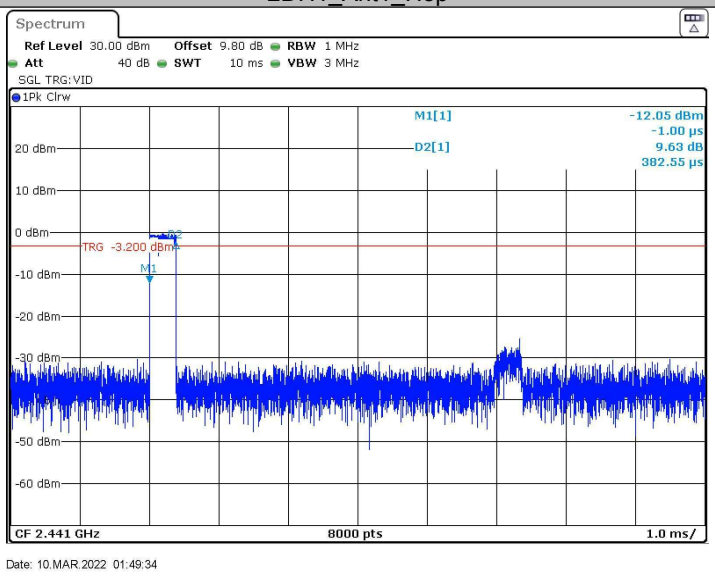
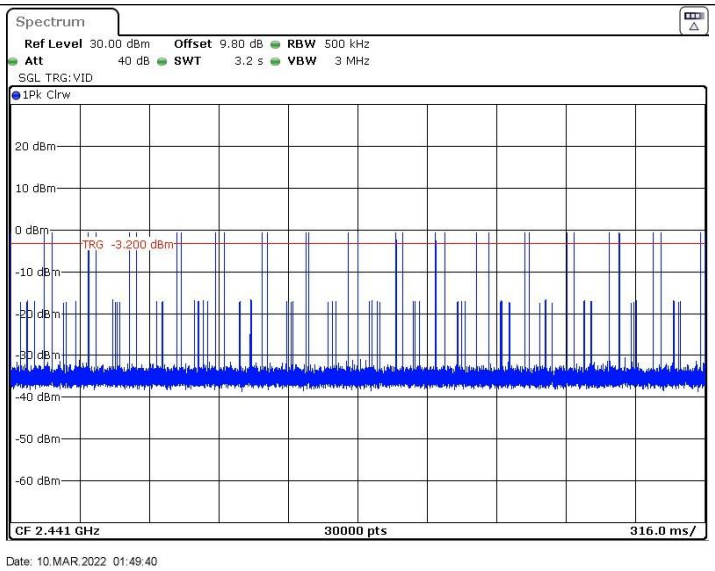
DH5_Ant1_Hop



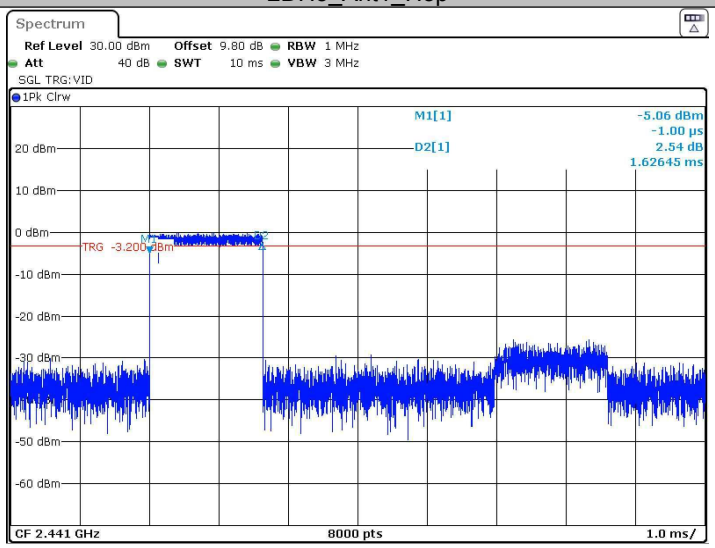
Date: 24.MAR.2022 03:02:09



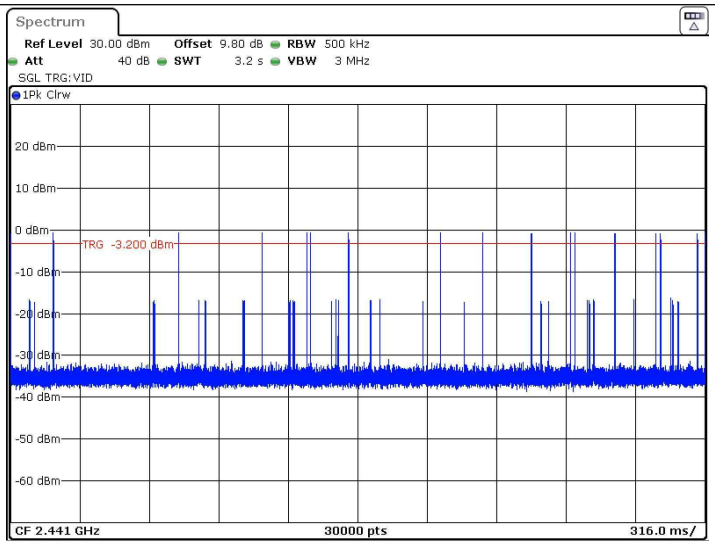
Date: 24.MAR.2022 03:02:14

2DH1_Ant1_Hop



2DH3_Ant1_Hop

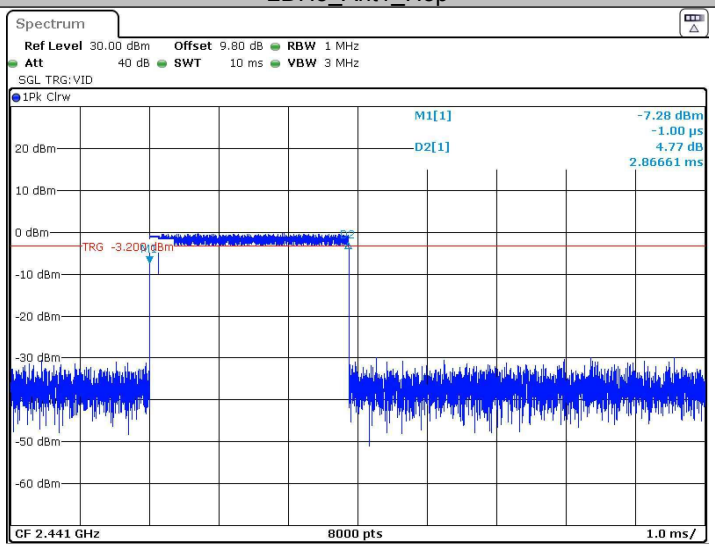


Date: 10.MAR.2022 01:50:12

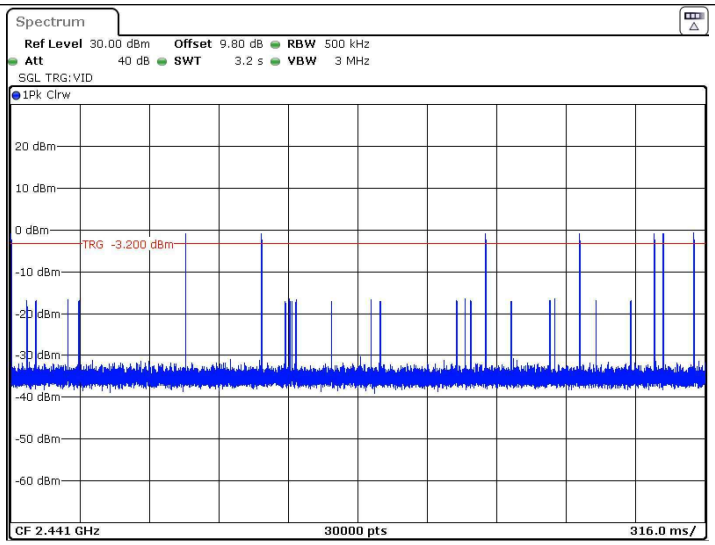


Date: 10.MAR.2022 01:50:17

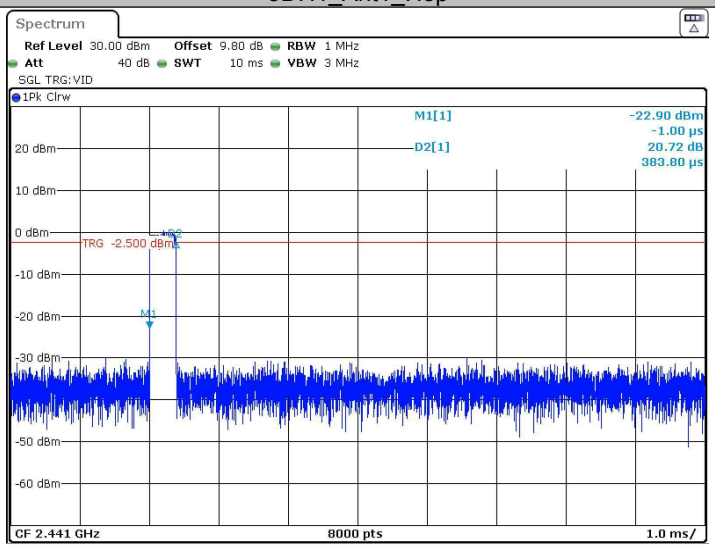
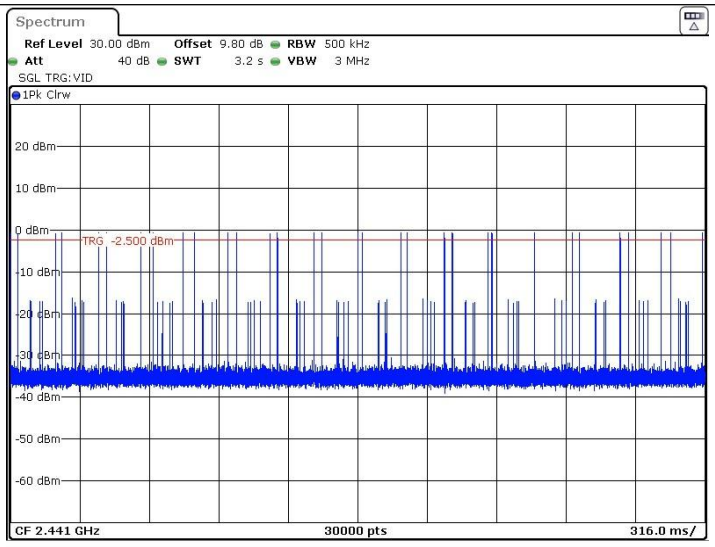
2DH5_Ant1_Hop

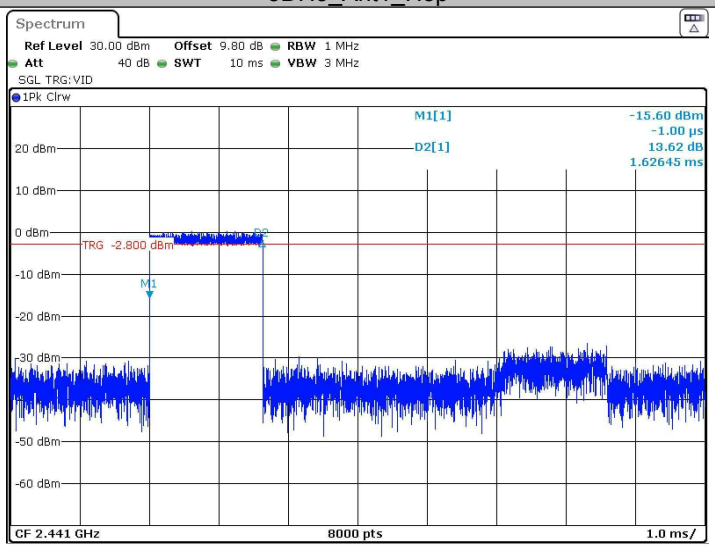
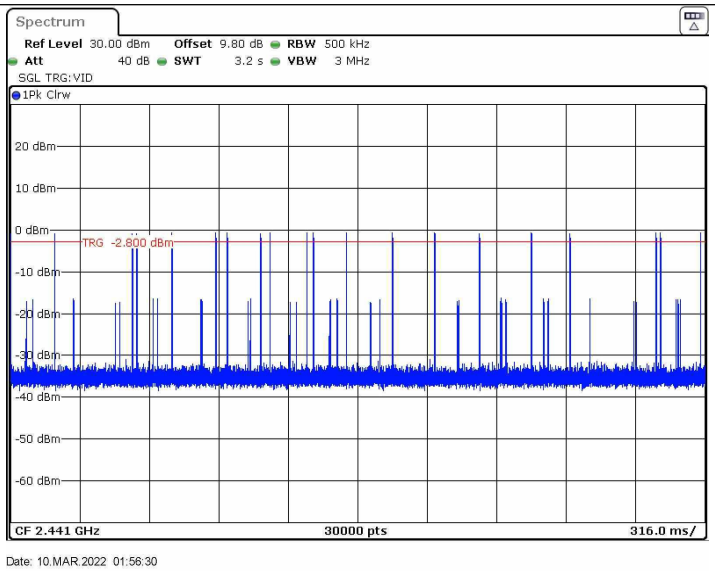


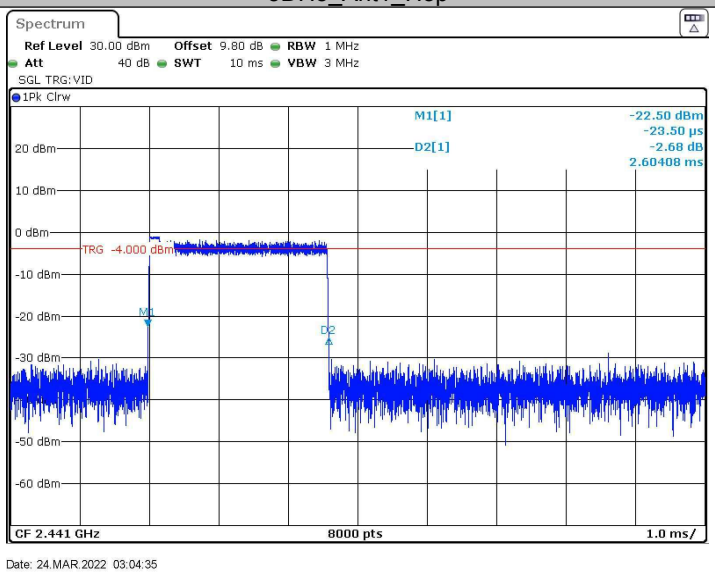
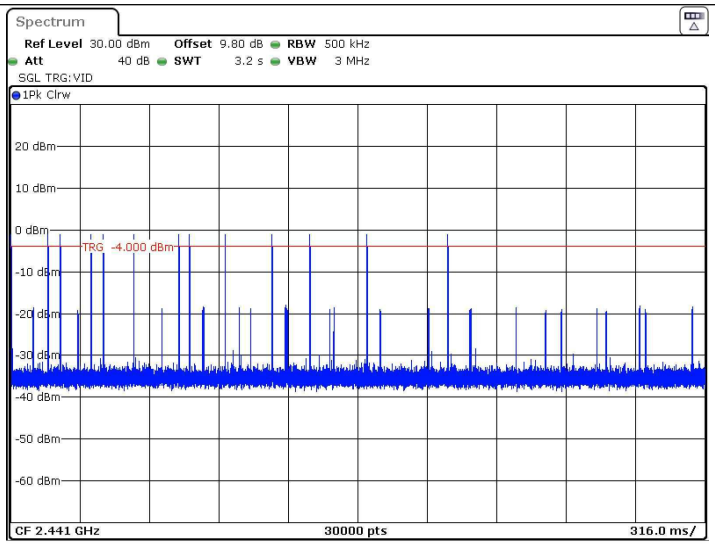
Date: 10.MAR.2022 01:48:37



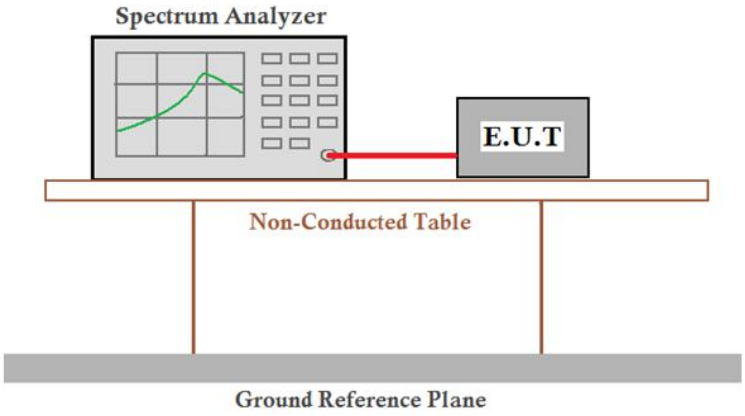
Date: 10.MAR.2022 01:48:43

3DH1_Ant1_Hop



3DH3_Ant1_Hop



3DH5_Ant1_Hop



5.8 Band-edge for RF Conducted Emissions

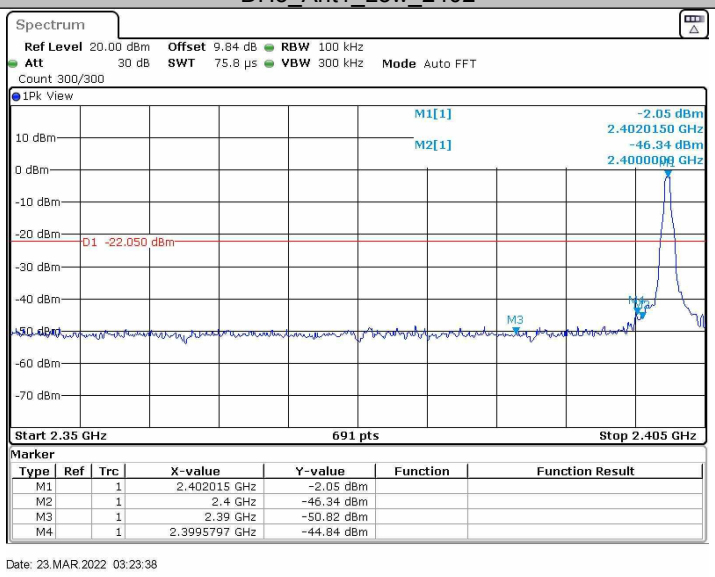
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is 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	-2.05	-44.84	≤-22.05	PASS
		High	2480	-0.10	-46.97	≤-20.1	PASS
		Low	Hop_2402	-2.19	-43.9	≤-22.19	PASS
		High	Hop_2480	-0.53	-45.02	≤-20.53	PASS
2DH5	Ant1	Low	2402	-1.63	-44.9	≤-21.63	PASS
		High	2480	0.03	-44.7	≤-19.97	PASS
		Low	Hop_2402	-4.39	-46.6	≤-24.39	PASS
		High	Hop_2480	-0.89	-46.8	≤-20.89	PASS
3DH5	Ant1	Low	2402	-1.56	-45.43	≤-21.56	PASS
		High	2480	0.04	-45.35	≤-19.96	PASS
		Low	Hop_2402	-2.42	-45.47	≤-22.42	PASS
		High	Hop_2480	-2.81	-47.26	≤-22.81	PASS

Test plot as follows:

DH5_Ant1_Low_2402

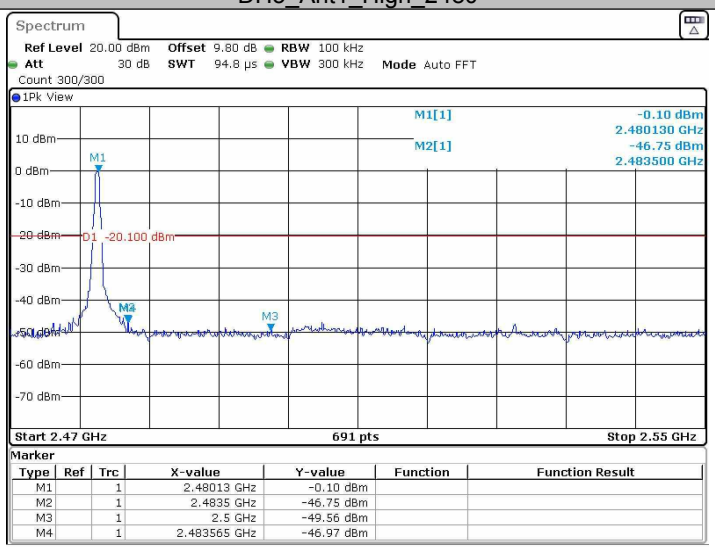


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402015 GHz	-2.05 dBm		
M2		1	2.4 GHz	-46.34 dBm		
M3		1	2.39 GHz	-50.82 dBm		
M4		1	2.3995797 GHz	-44.84 dBm		

Date: 23.MAR.2022 03:23:38

DH5_Ant1_High_2480

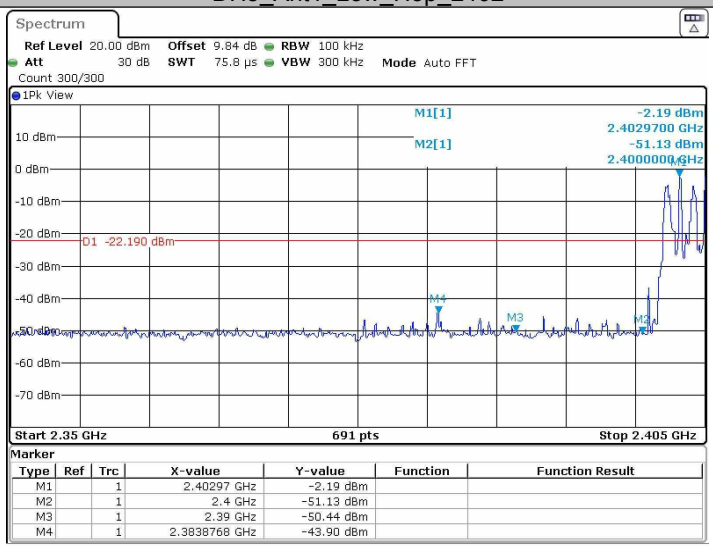


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48013 GHz	-0.10 dBm		
M2		1	2.4835 GHz	-46.75 dBm		
M3		1	2.5 GHz	-49.56 dBm		
M4		1	2.483565 GHz	-46.97 dBm		

Date: 23.MAR.2022 03:30:02

DH5_Ant1_Low_Hop_2402

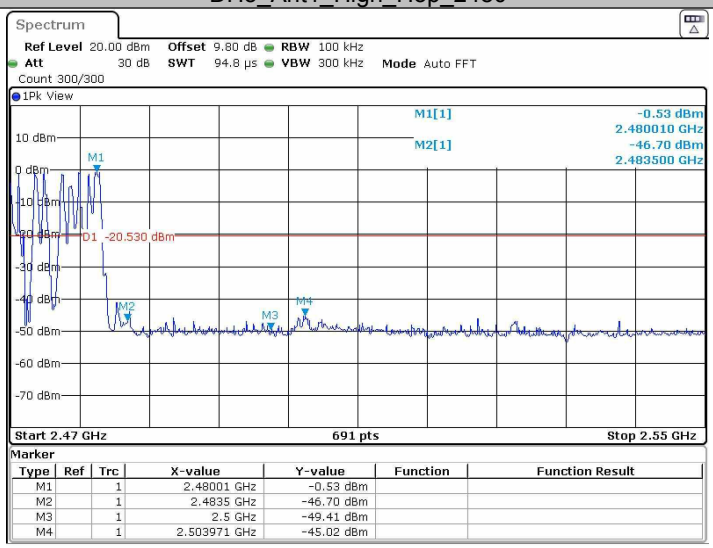


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.40297 GHz	-2.19 dBm		
M2		1	2.4 GHz	-51.13 dBm		
M3		1	2.39 GHz	-50.44 dBm		
M4		1	2.3838768 GHz	-43.90 dBm		

Date: 9.MAR.2022 12:36:35

DH5_Ant1_High_Hop_2480

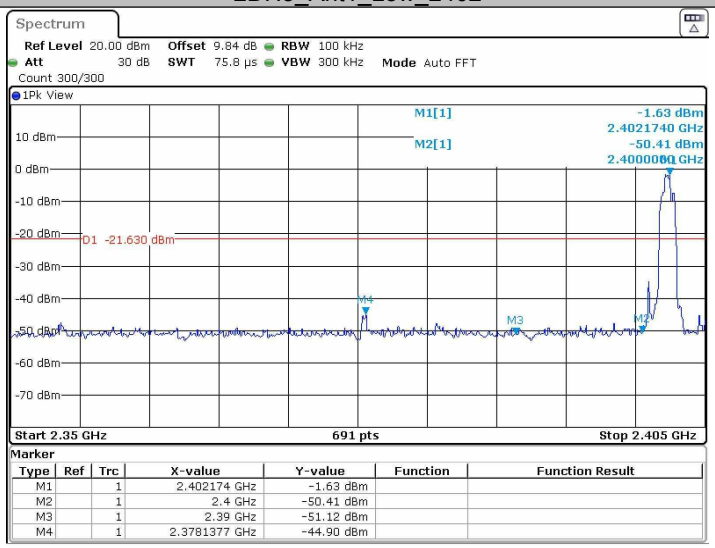


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48001 GHz	-0.53 dBm		
M2		1	2.4835 GHz	-46.70 dBm		
M3		1	2.5 GHz	-49.41 dBm		
M4		1	2.503971 GHz	-45.02 dBm		

Date: 9.MAR.2022 12:45:02

2DH5_Ant1_Low_2402

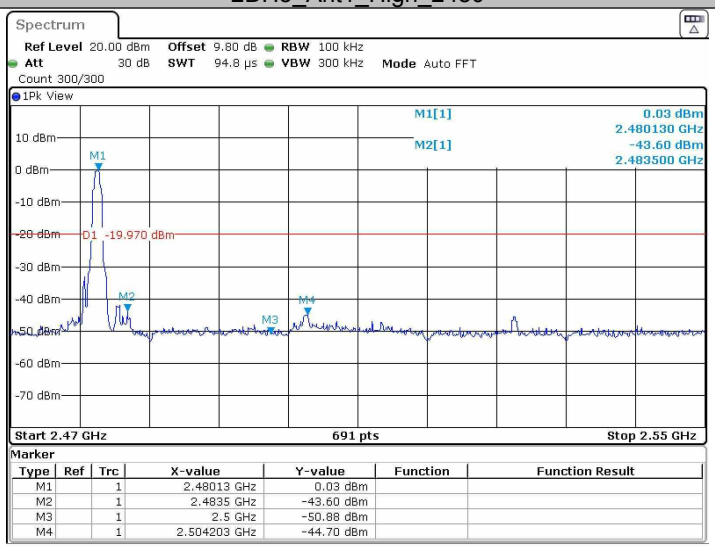


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402174 GHz	-1.63 dBm		
M2		1	2.4 GHz	-50.41 dBm		
M3		1	2.39 GHz	-51.12 dBm		
M4		1	2.3781377 GHz	-44.90 dBm		

Date: 9.MAR.2022 12:21:03

2DH5_Ant1_High_2480

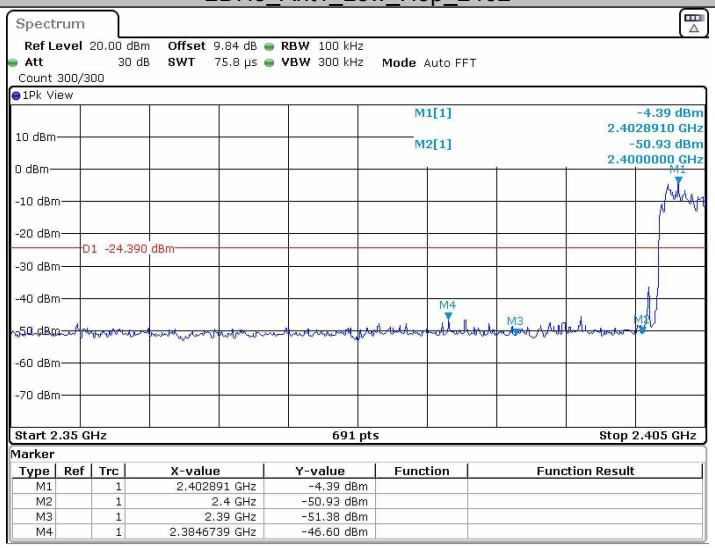


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.48013 GHz	0.03 dBm		
M2		1	2.4835 GHz	-43.60 dBm		
M3		1	2.5 GHz	-50.88 dBm		
M4		1	2.504203 GHz	-44.70 dBm		

Date: 9.MAR.2022 12:25:48

2DH5_Ant1_Low_Hop_2402

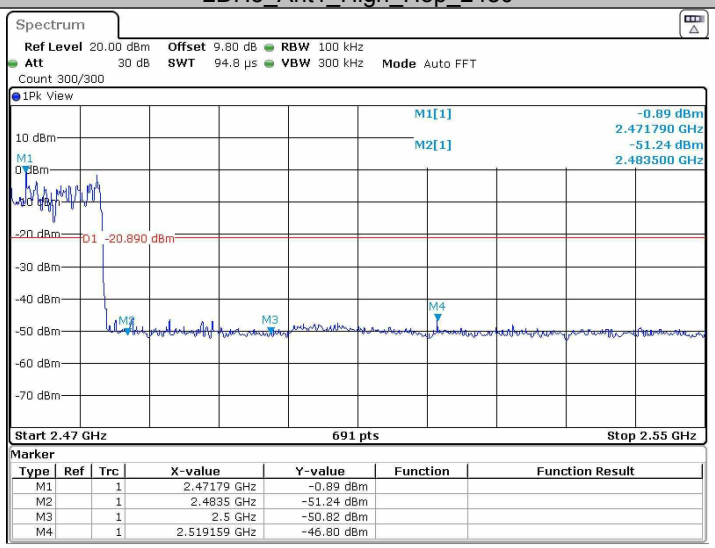


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.402891 GHz	-4.39 dBm		
M2		1	2.4 GHz	-50.93 dBm		
M3		1	2.39 GHz	-51.38 dBm		
M4		1	2.3846739 GHz	-46.60 dBm		

Date: 10.MAR.2022 01:44:50

2DH5_Ant1_High_Hop_2480

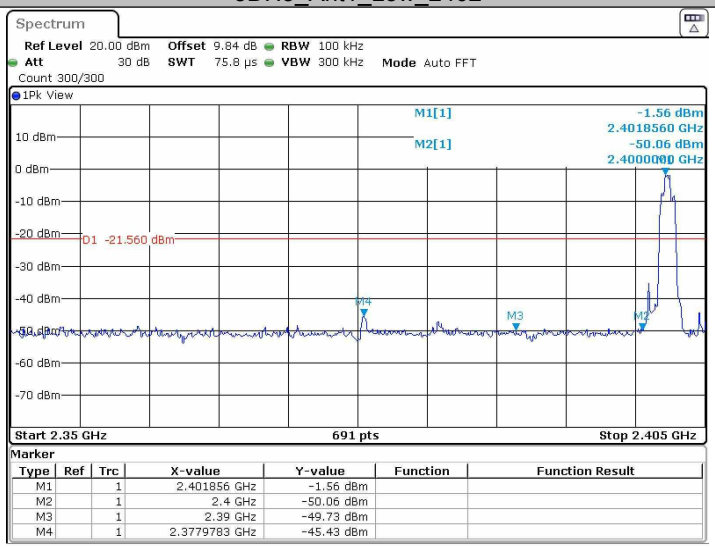


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47179 GHz	-0.89 dBm		
M2		1	2.4835 GHz	-51.24 dBm		
M3		1	2.5 GHz	-50.82 dBm		
M4		1	2.519159 GHz	-46.80 dBm		

Date: 10.MAR.2022 01:51:03

3DH5_Ant1_Low_2402

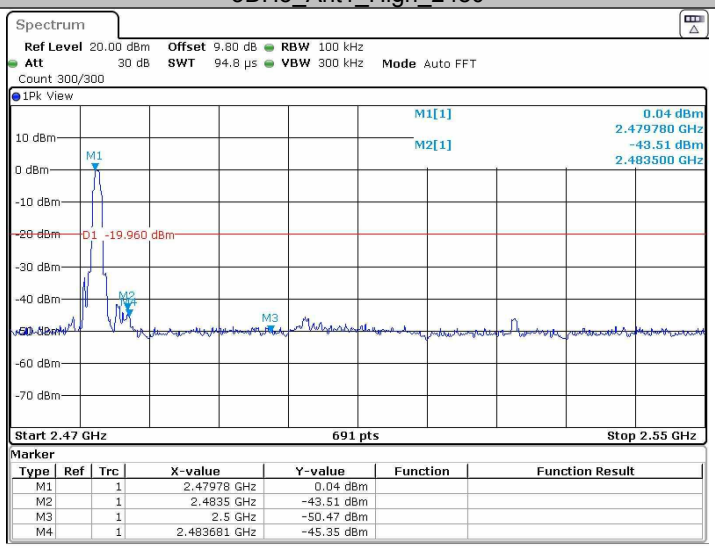


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.401856 GHz	-1.56 dBm		
M2		1	2.4 GHz	-50.06 dBm		
M3		1	2.39 GHz	-49.73 dBm		
M4		1	2.3779783 GHz	-45.43 dBm		

Date: 9.MAR.2022 12:28:54

3DH5_Ant1_High_2480

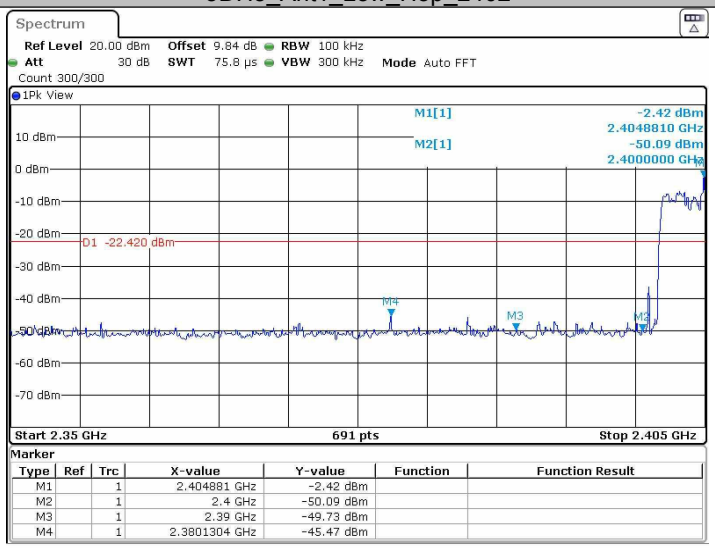


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.47978 GHz	0.04 dBm		
M2		1	2.4835 GHz	-43.51 dBm		
M3		1	2.5 GHz	-50.47 dBm		
M4		1	2.483681 GHz	-45.35 dBm		

Date: 9.MAR.2022 12:34:49

3DH5_Ant1_Low_Hop_2402

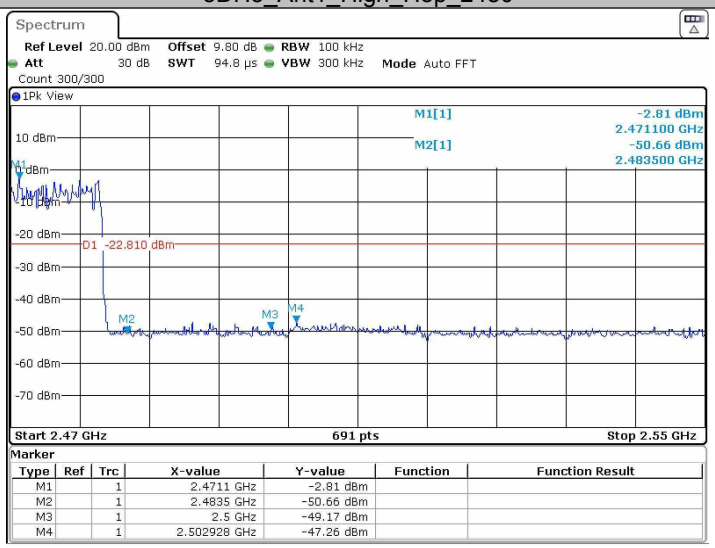


Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.404881 GHz	-2.42 dBm		
M2		1	2.4 GHz	-50.09 dBm		
M3		1	2.39 GHz	-49.73 dBm		
M4		1	2.3801304 GHz	-45.47 dBm		

Date: 10.MAR.2022 01:52:28

3DH5_Ant1_High_Hop_2480

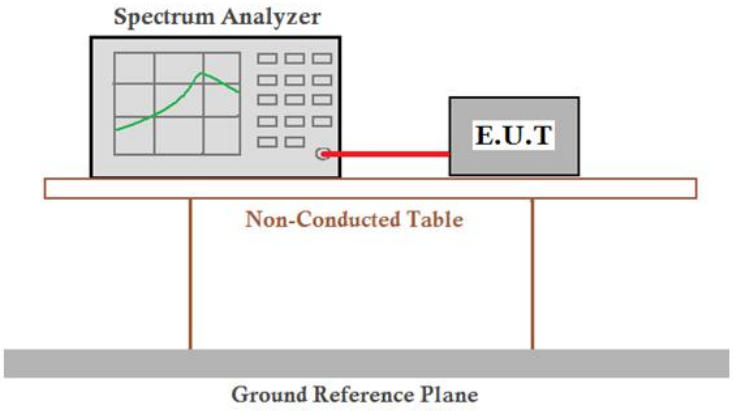


Marker

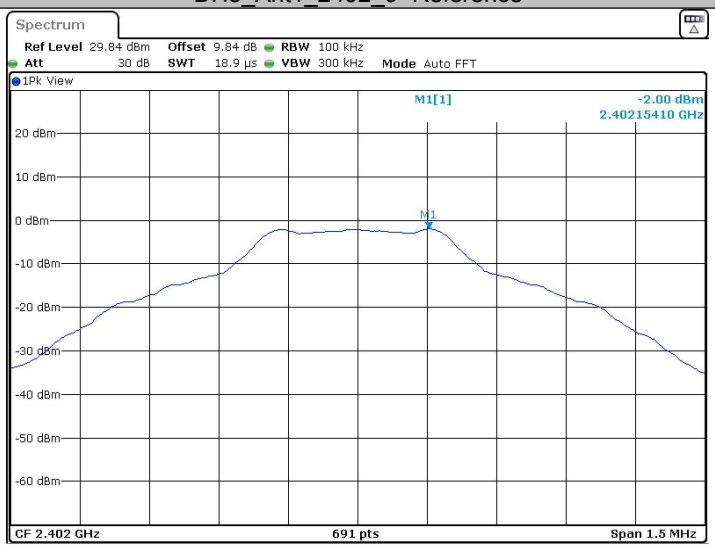
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.4711 GHz	-2.81 dBm		
M2		1	2.4835 GHz	-50.66 dBm		
M3		1	2.5 GHz	-49.17 dBm		
M4		1	2.502928 GHz	-47.26 dBm		

Date: 10.MAR.2022 01:57:01

5.9 Spurious RF Conducted Emissions

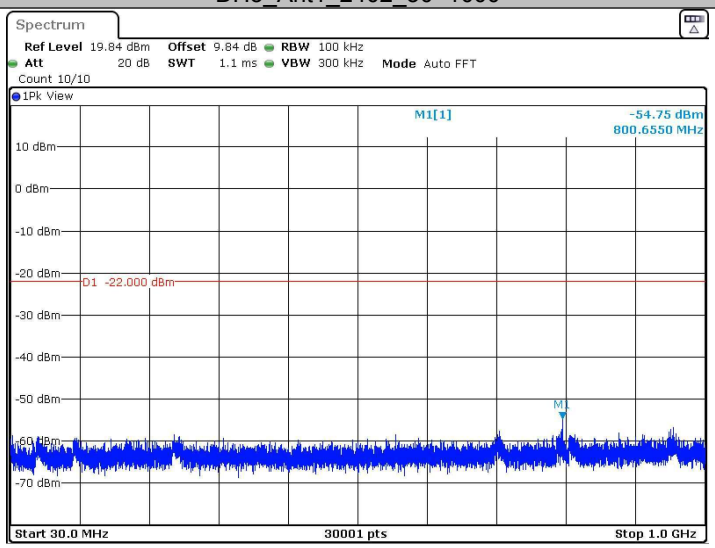
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 *Remark: Offset=cable loss+ attenuation factor.*
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is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



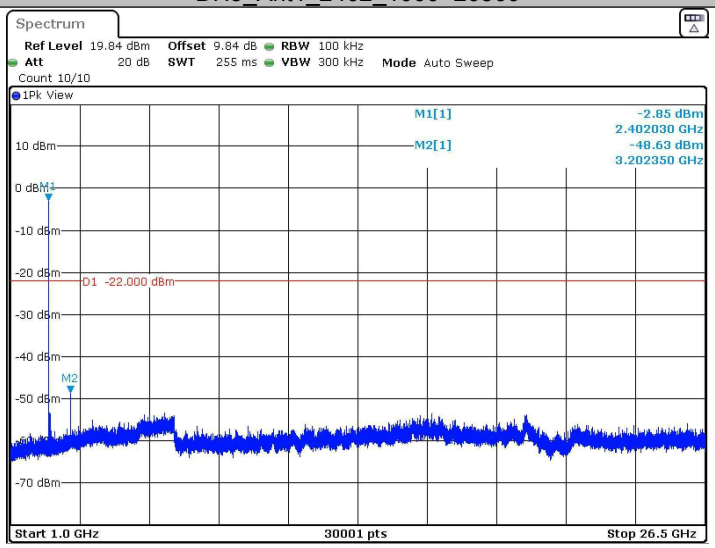
Date: 23.MAR.2022 03:24:41

DH5_Ant1_2402_30~1000



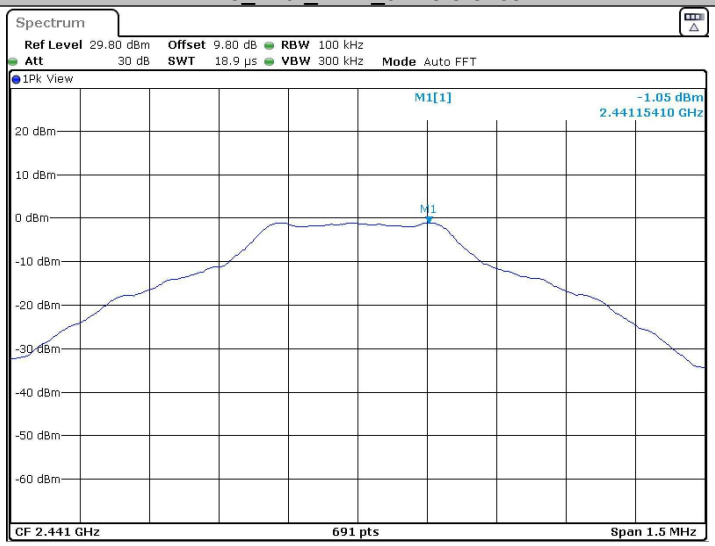
Date: 23.MAR.2022 03:24:45

DH5_Ant1_2402_1000~26500



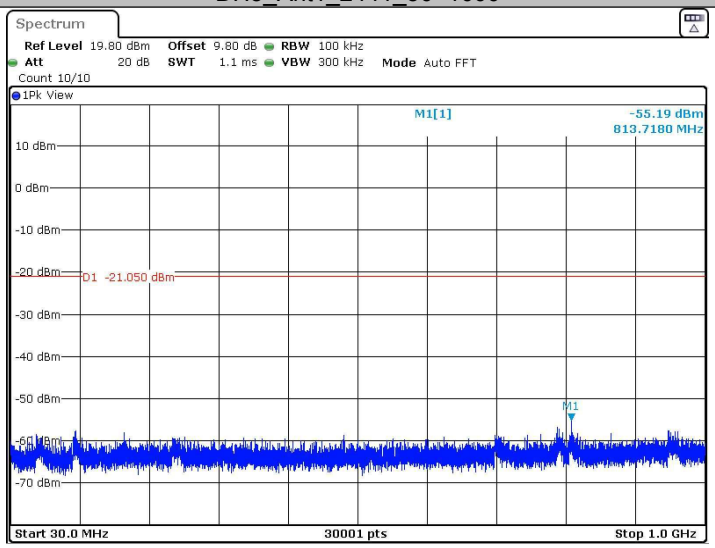
Date: 23.MAR.2022 03:25:07

DH5_Ant1_2441_0~Reference



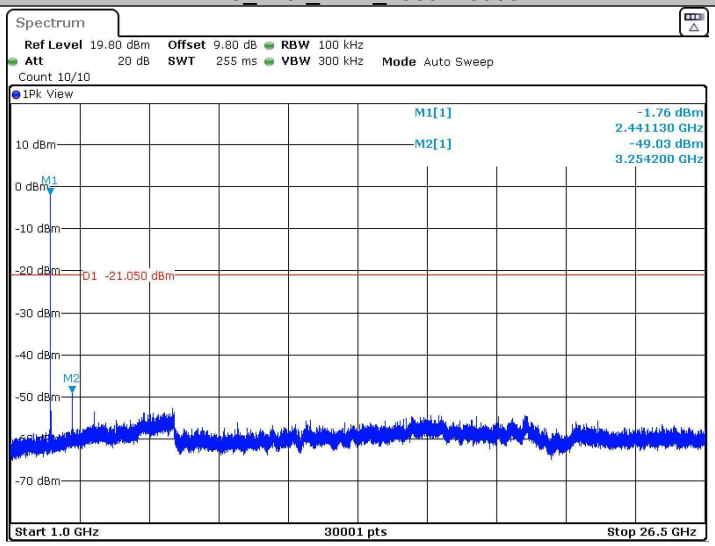
Date: 23.MAR.2022 03:25:59

DH5_Ant1_2441_30~1000



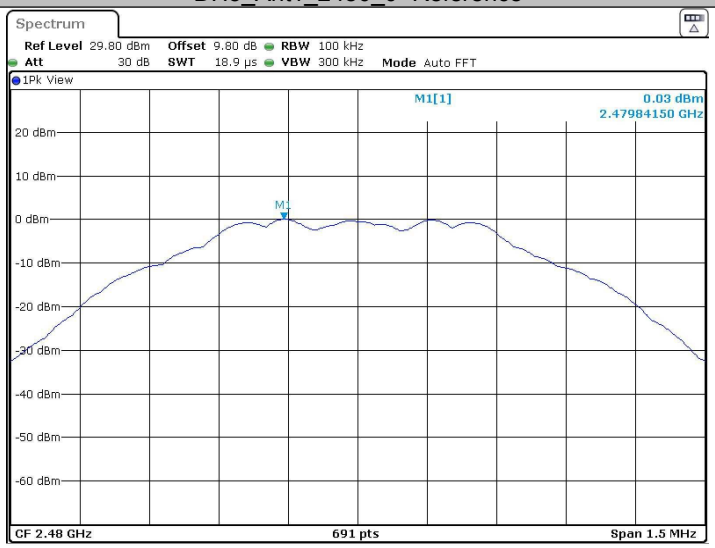
Date: 23.MAR.2022 03:26:03

DH5_Ant1_2441_1000~26500



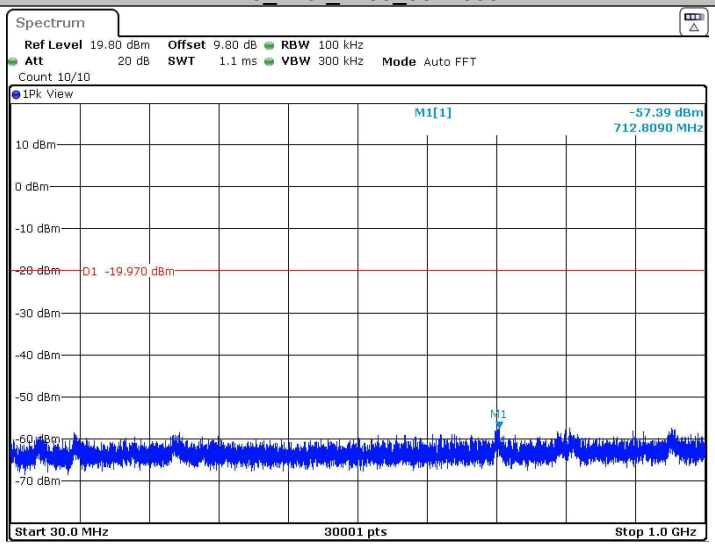
Date: 23.MAR.2022 03:26:25

DH5_Ant1_2480_0~Reference



Date: 9.MAR.2022 12:19:22

DH5_Ant1_2480_30~1000



Date: 9.MAR.2022 12:19:26