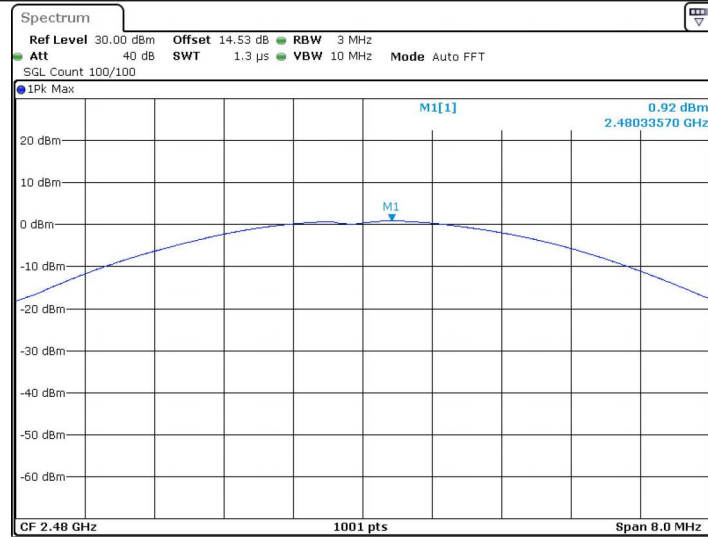
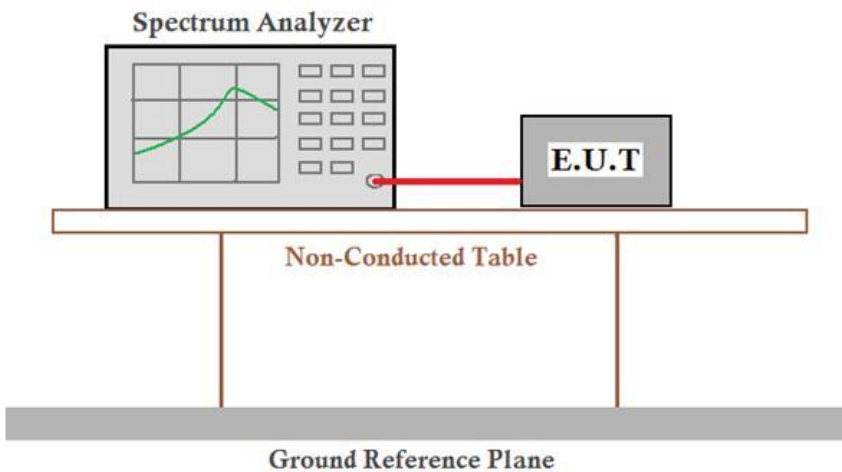




Date: 18.MAR.2025 11:45:29

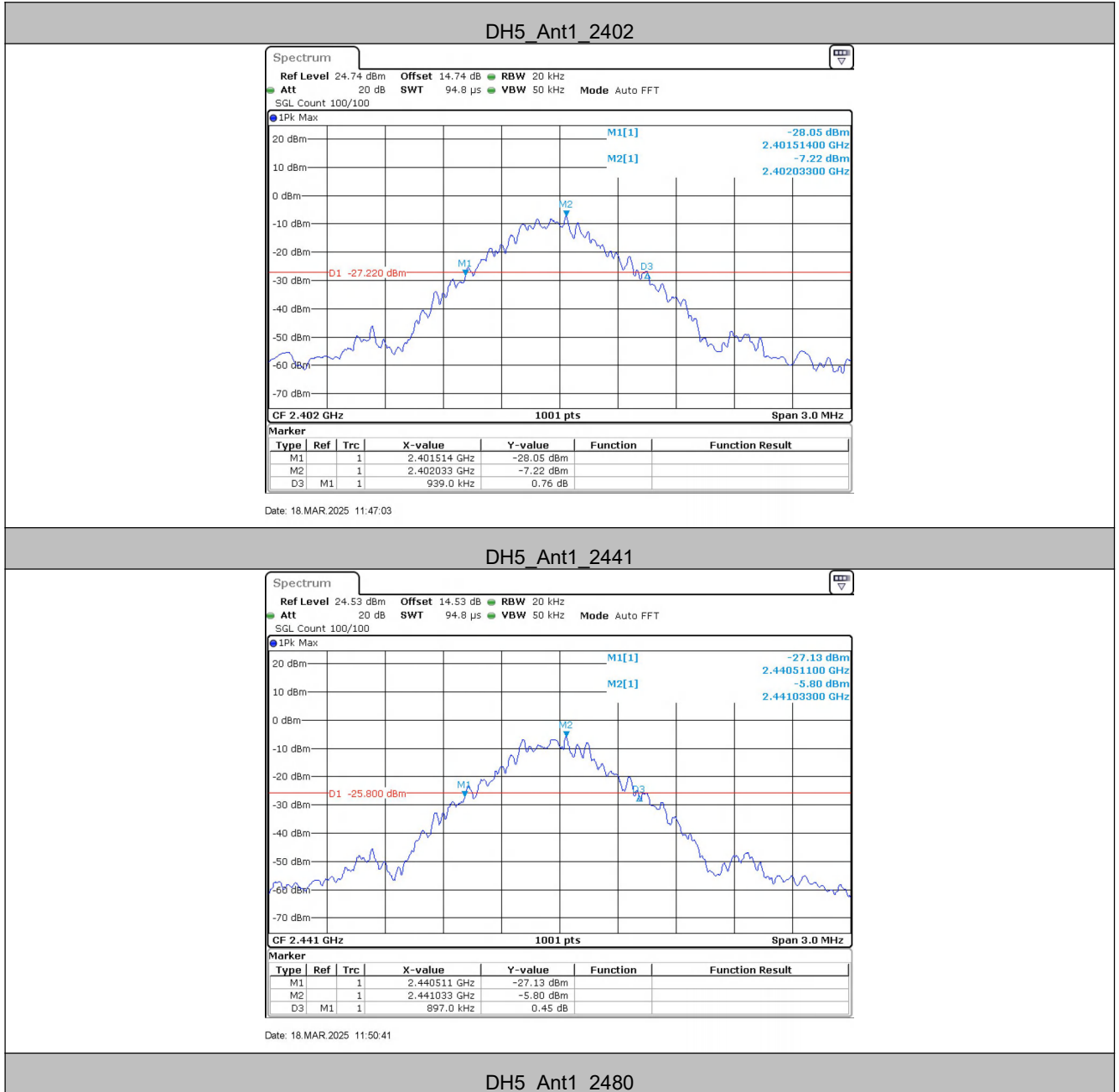
4.4 20dB Occupied Bandwidth

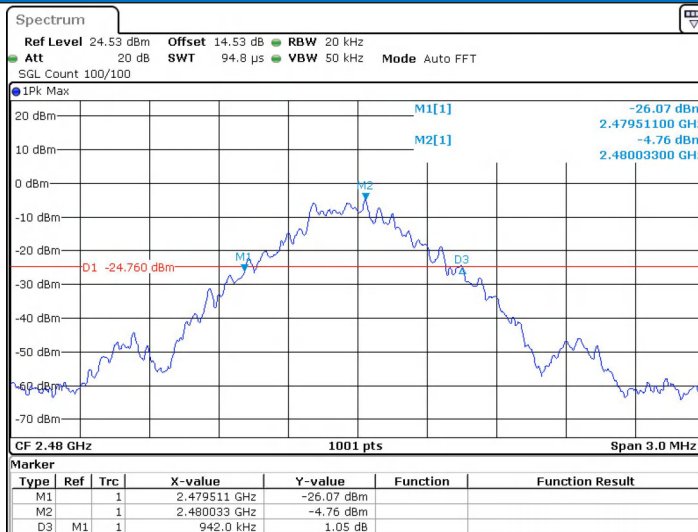
Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Limit:	NA
Exploratory Test Mode:	Non-hopping transmitting with all kind of modulation and all kind of data type
Final Test Mode:	Only the worst case is recorded in the report.
Test Results:	Pass

Measurement Data

TestMode	Antenna	Freq(MHz)	20dB EBW[MHz]	FL[MHz]	FH[MHz]
DH5	Ant1	2402	0.94	2401.51	2402.45
		2441	0.90	2440.51	2441.41
		2480	0.94	2479.51	2480.45
2DH5	Ant1	2402	1.32	2401.31	2402.64
		2441	1.33	2440.31	2441.64
		2480	1.33	2479.31	2480.64

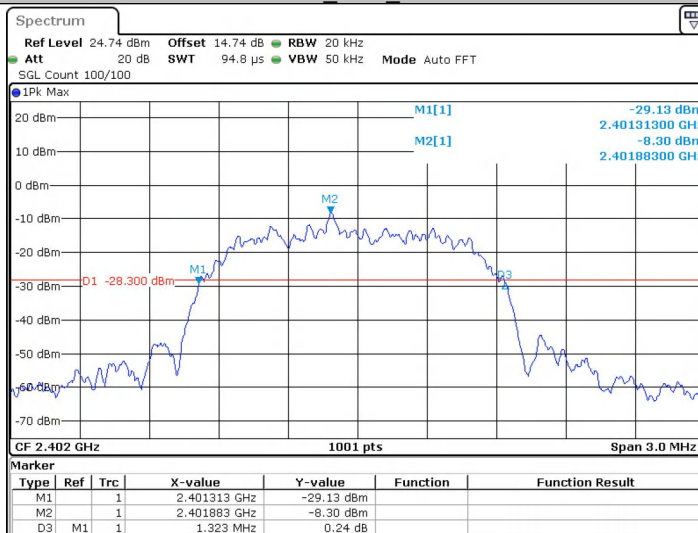
Test plot as follows:





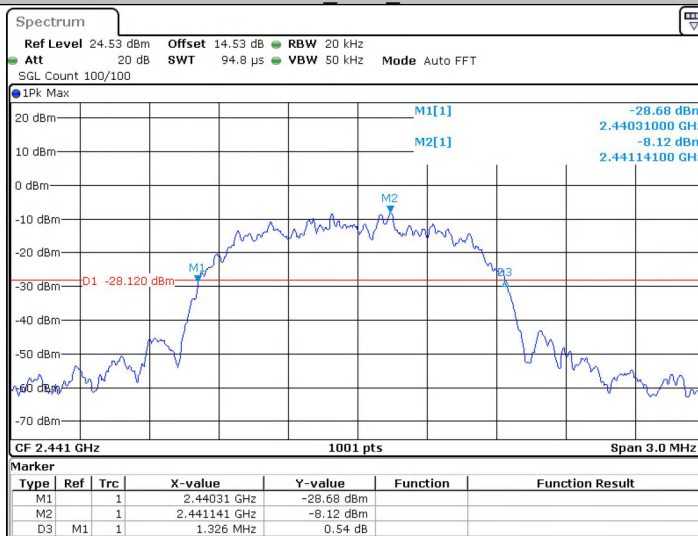
Date: 18.MAR.2025 11:51:42

2DH5_Ant1_2402



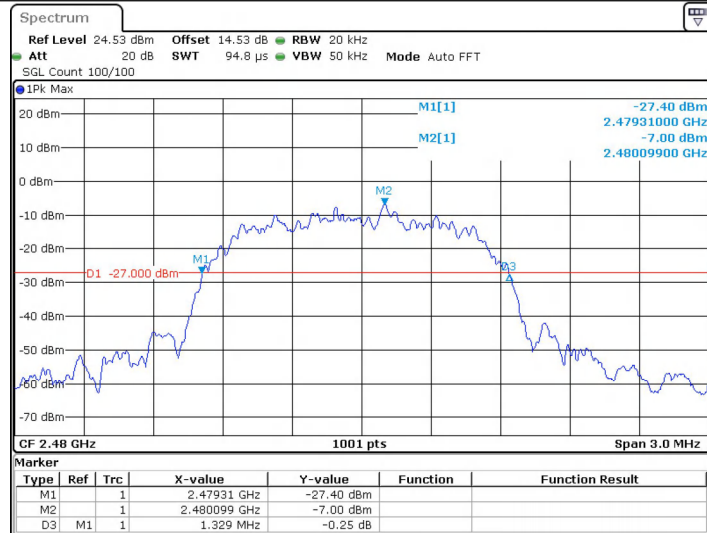
Date: 18.MAR.2025 11:53:26

2DH5_Ant1_2441



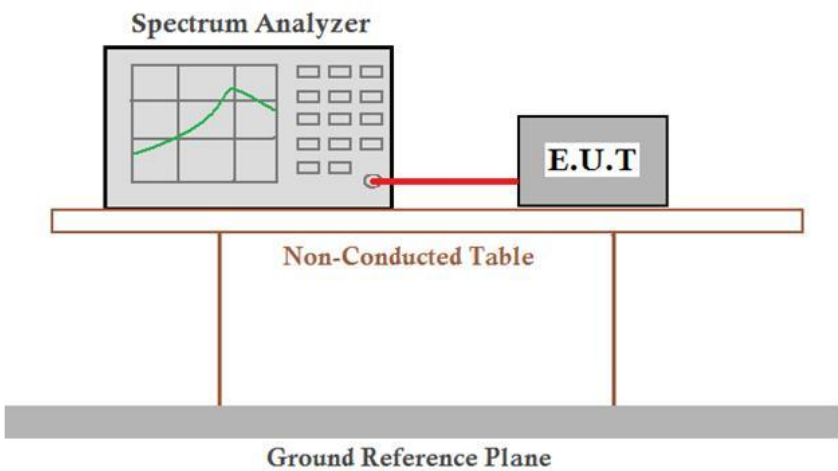
Date: 18.MAR.2025 11:54:49

2DH5_Ant1_2480



Date: 18.MAR.2025 11:56:20

4.5 Carrier Frequencies Separation

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: Offset=Cable loss+ attenuation factor.
Limit:	2/3 of the 20dB bandwidth
	Remark: the transmission power is less than 0.125W.
Exploratory Test Mode:	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

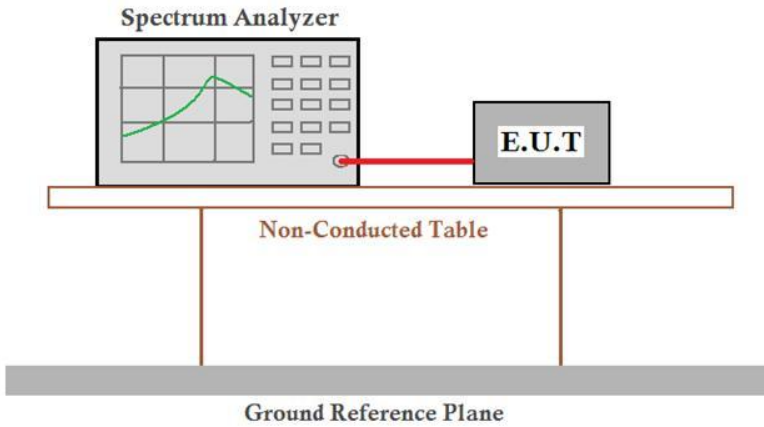
TestMode	Freq(MHz)	Result[MHz]	Limit[MHz]	Verdict
DH5	Hop	0.994	≥ 0.627	PASS
2DH5	Hop	0.962	≥ 0.887	PASS

Mode	20dB bandwidth (MHz) (worse case)	Limit (MHz) (Carrier Frequencies Separation)
GFSK	0.94	≥ 0.627
$\pi/4$ DQPSK	1.33	≥ 0.887

Test plot as follows:



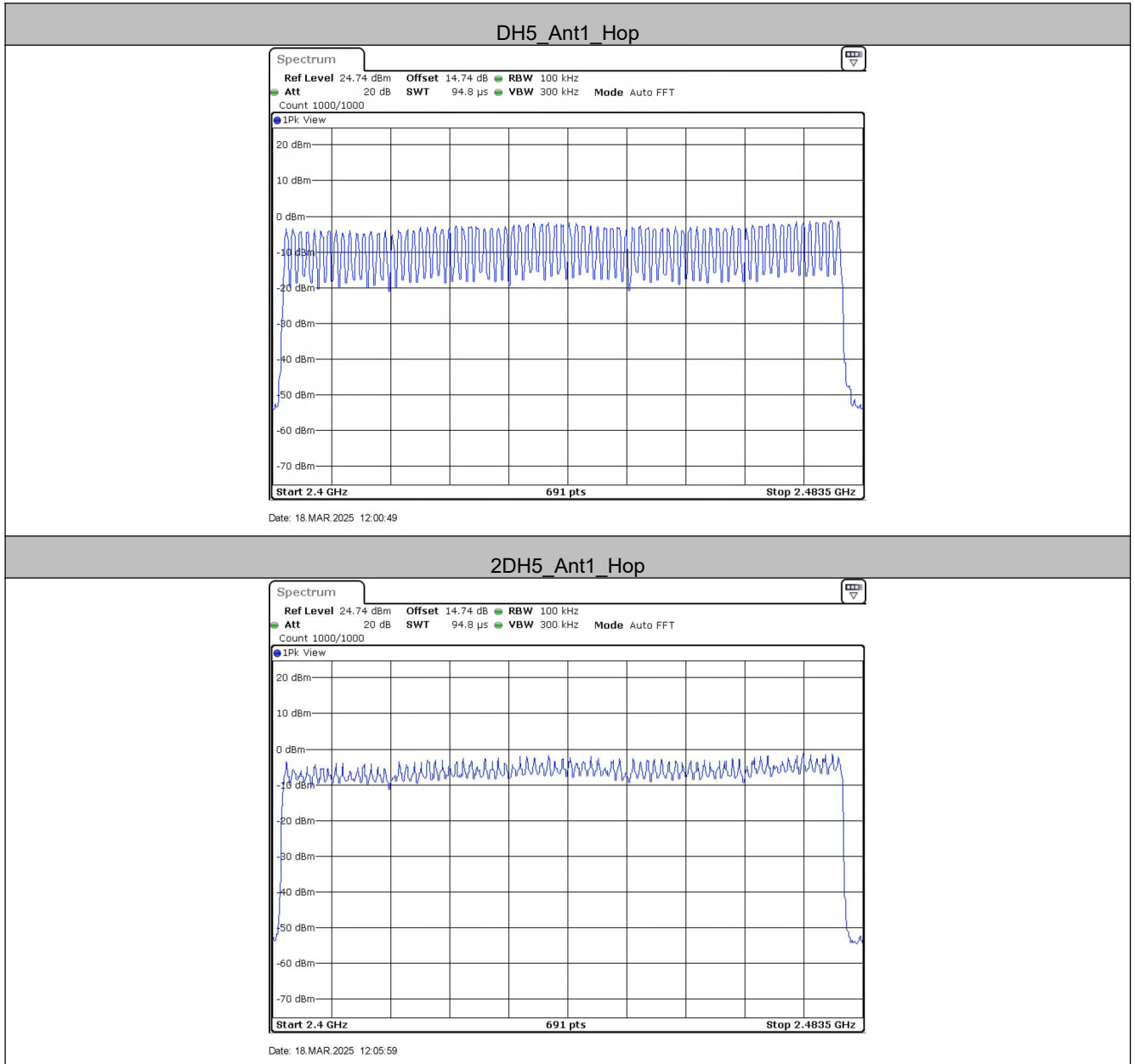
4.6 Hopping Channel Number

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 Remark: $Offset = \text{Cable loss} + \text{attenuation factor}$.
Limit:	At least 15 channels
Exploratory Test Mode:	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

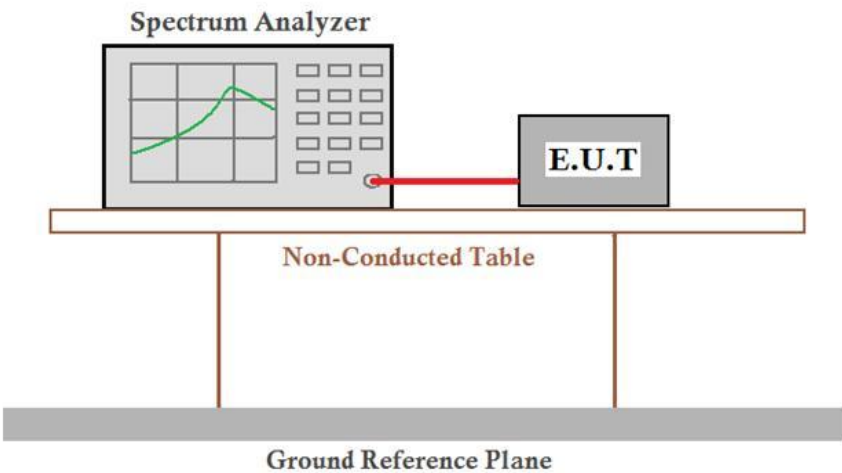
Measurement Data

TestMode	Freq(MHz)	Result[Num]	Limit[Num]	Verdict
DH5	Hop	79	≥ 15	PASS
2DH5	Hop	79	≥ 15	PASS

Test plot as follows:



4.7 Dwell Time

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(1)
Test Method:	ANSI C63.10:2013
Test Setup:	 <i>Remark: Offset=Cable loss+ attenuation factor.</i>
Test Mode:	Hopping transmitting with all kind of modulation and all kind of data type.
Limit:	0.4 Second
Test Results:	Pass

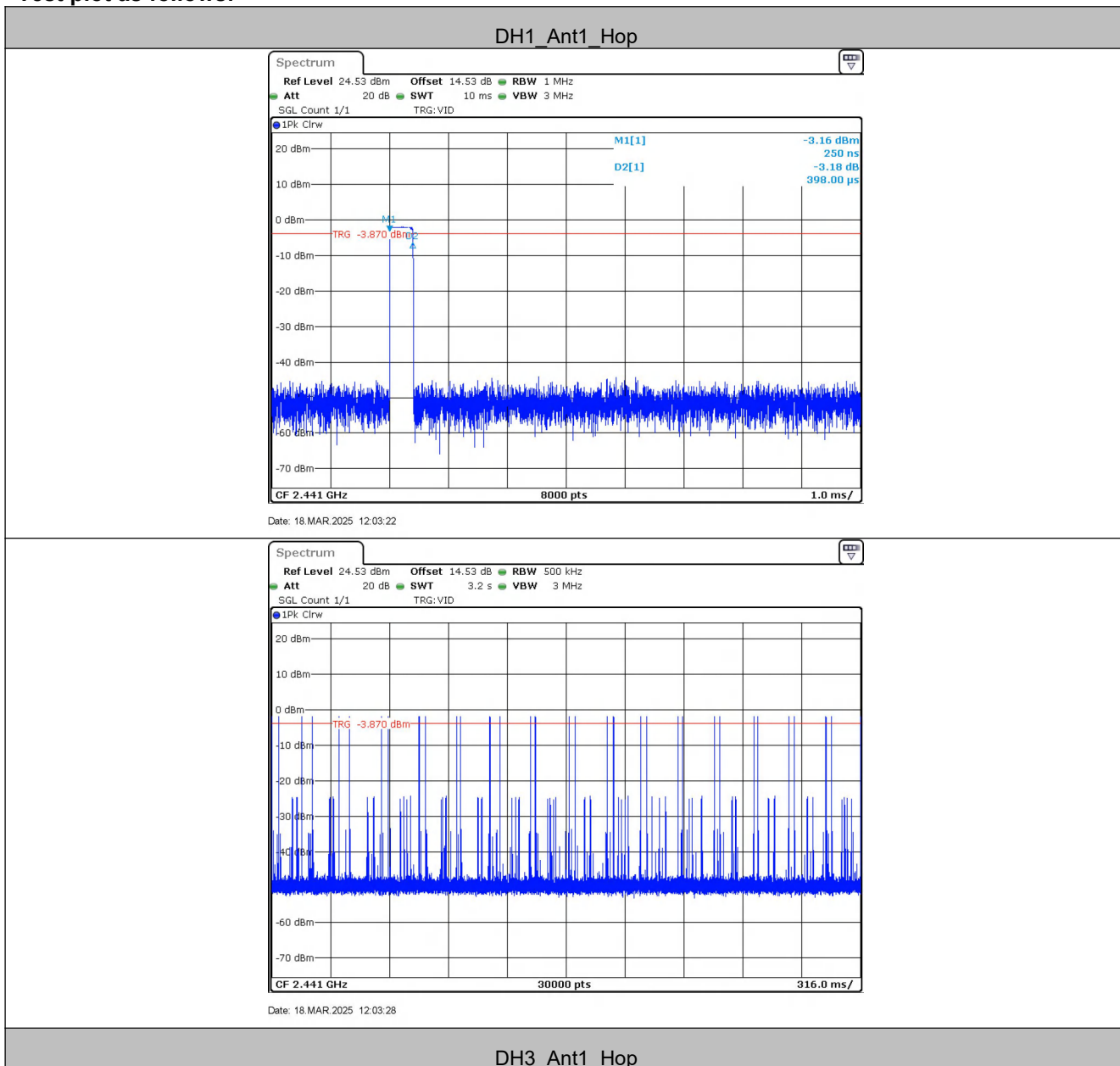
Measurement Data

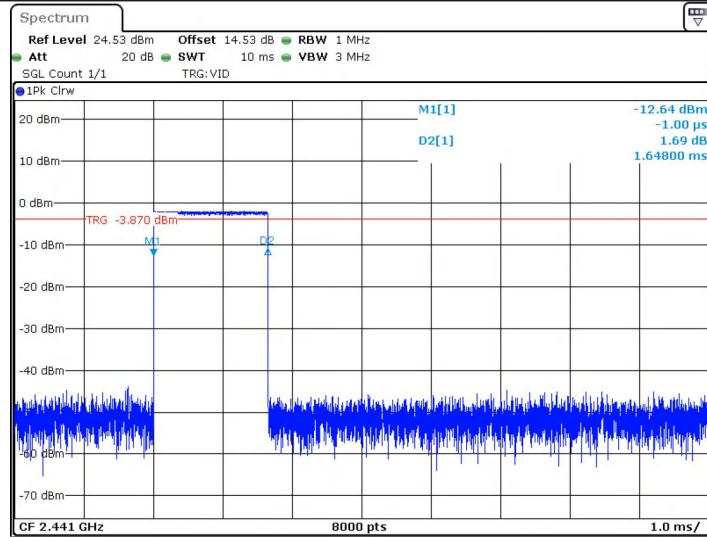
TestMode	Freq(MHz)	BurstWidth [ms]	TotalHops [Num]	Result[s]	Limit[s]	Verdict
DH1	Hop	0.398	320	0.127	≤0.4	PASS
DH3	Hop	1.648	160	0.264	≤0.4	PASS
DH5	Hop	2.887	130	0.375	≤0.4	PASS
2DH1	Hop	0.409	330	0.135	≤0.4	PASS
2DH3	Hop	1.653	160	0.264	≤0.4	PASS
2DH5	Hop	2.893	100	0.289	≤0.4	PASS

Remark:

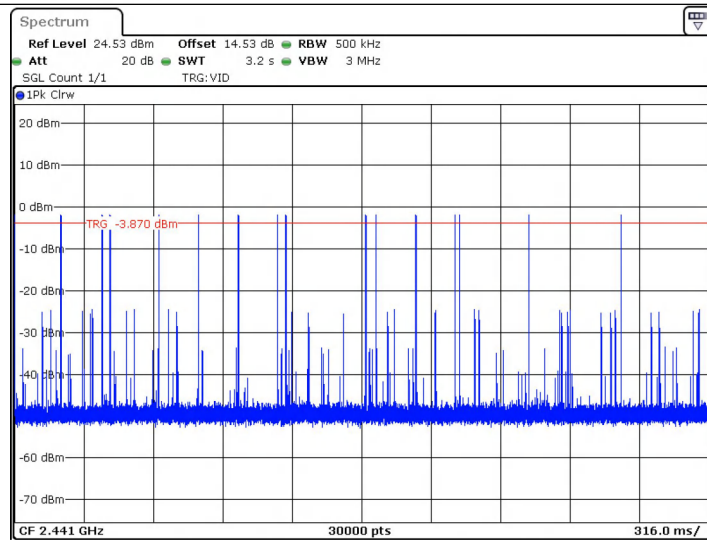
The test period: T= 0.4 Second/Channel x 79 Channel = 31.6 s

Test plot as follows:



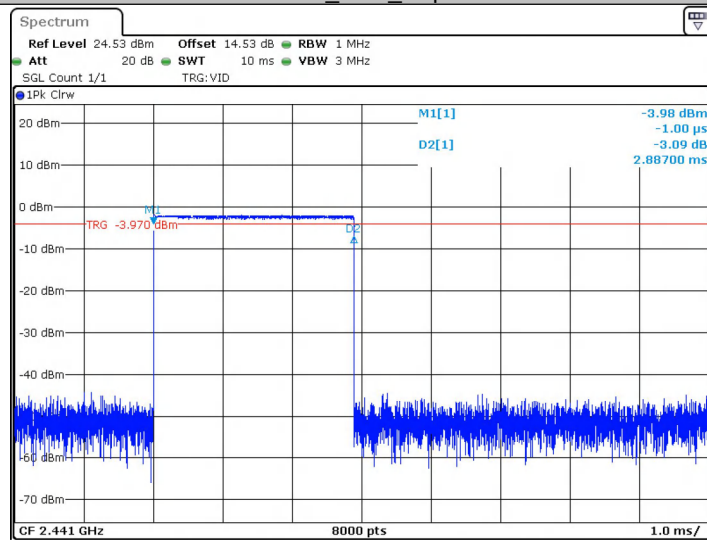


Date: 18.MAR.2025 12:03:52

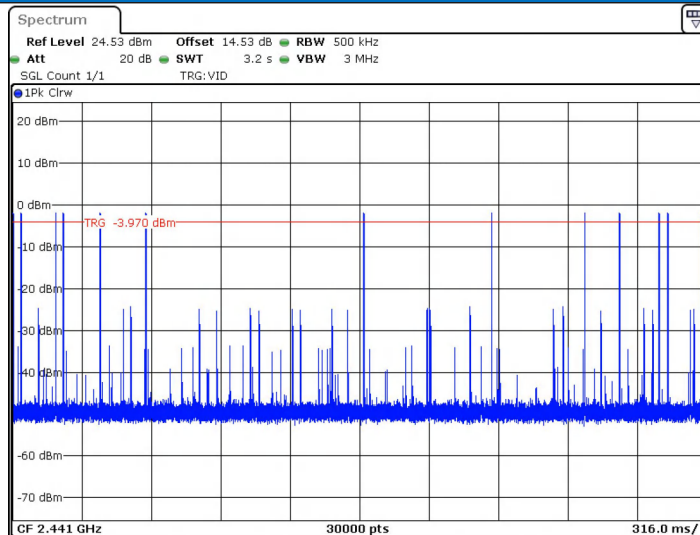


Date: 18.MAR.2025 12:03:57

DH5_Ant1_Hop

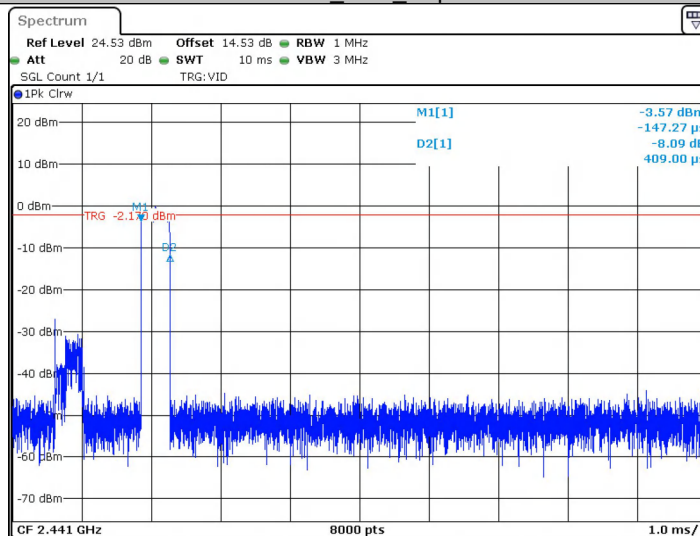


Date: 18.MAR.2025 12:01:04

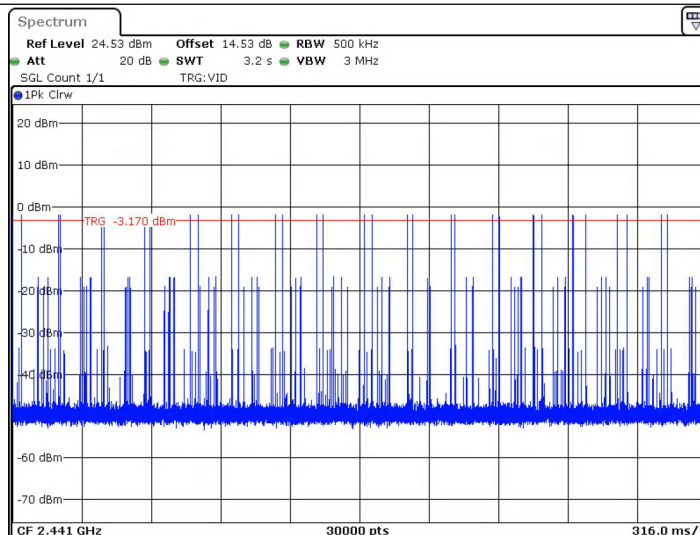


Date: 18.MAR.2025 12:01:10

2DH1_Ant1_Hop

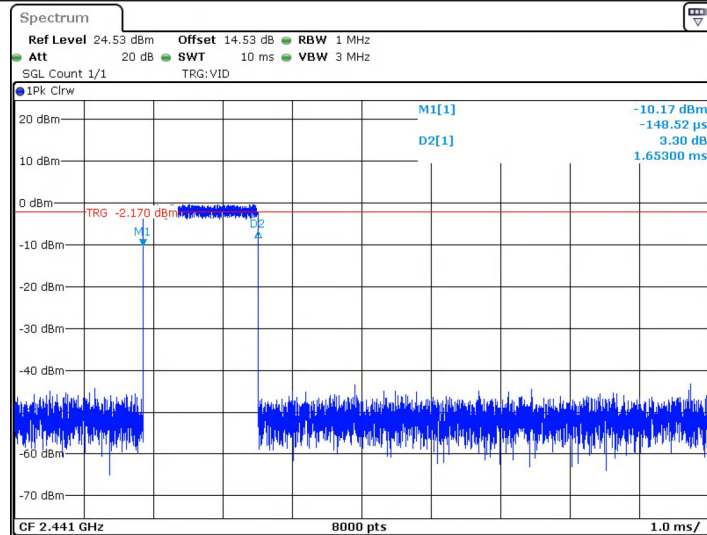


Date: 18.MAR.2025 12:08:27

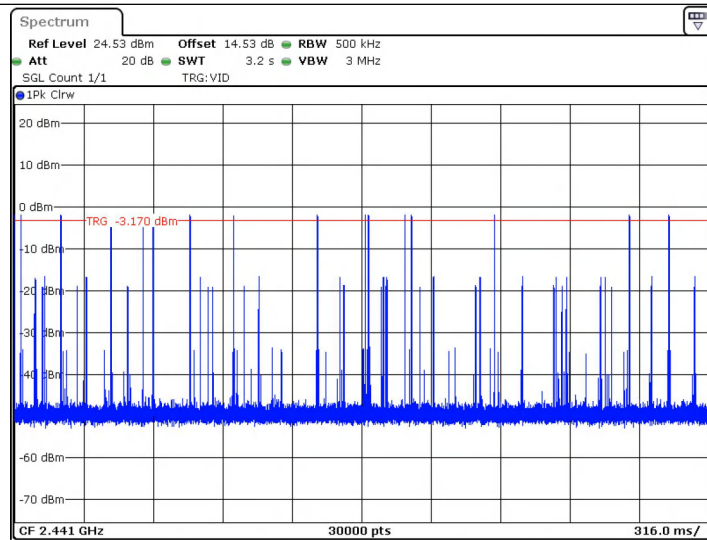


Date: 18.MAR.2025 12:08:38

2DH3_Ant1_Hop

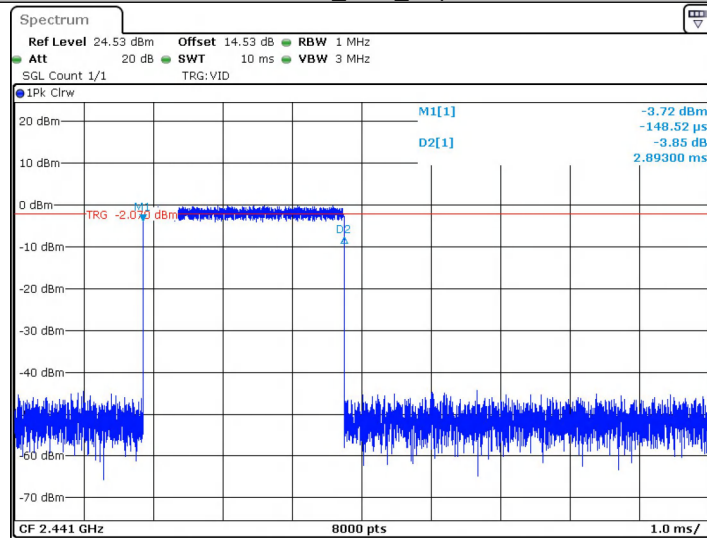


Date: 18.MAR.2025 12:08:59

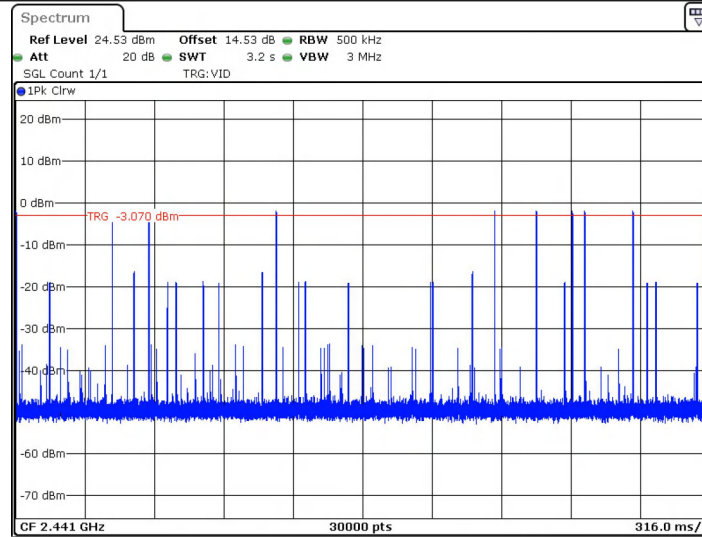


Date: 18.MAR.2025 12:09:10

2DH5_Ant1_Hop

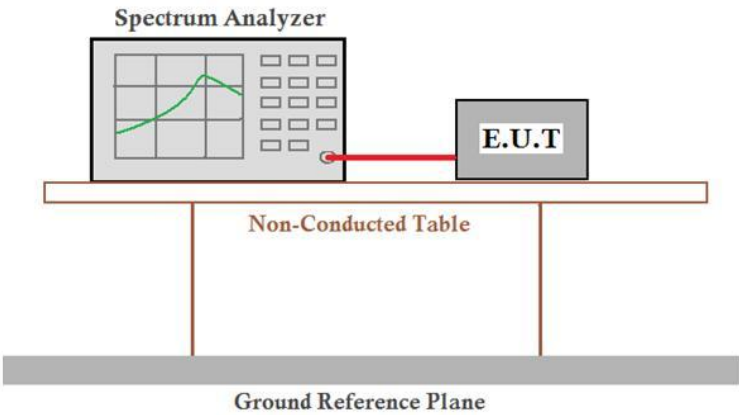


Date: 18.MAR.2025 12:06:14



Date: 18.MAR.2025 12:06:26

4.8 Band-edge for RF Conducted Emissions

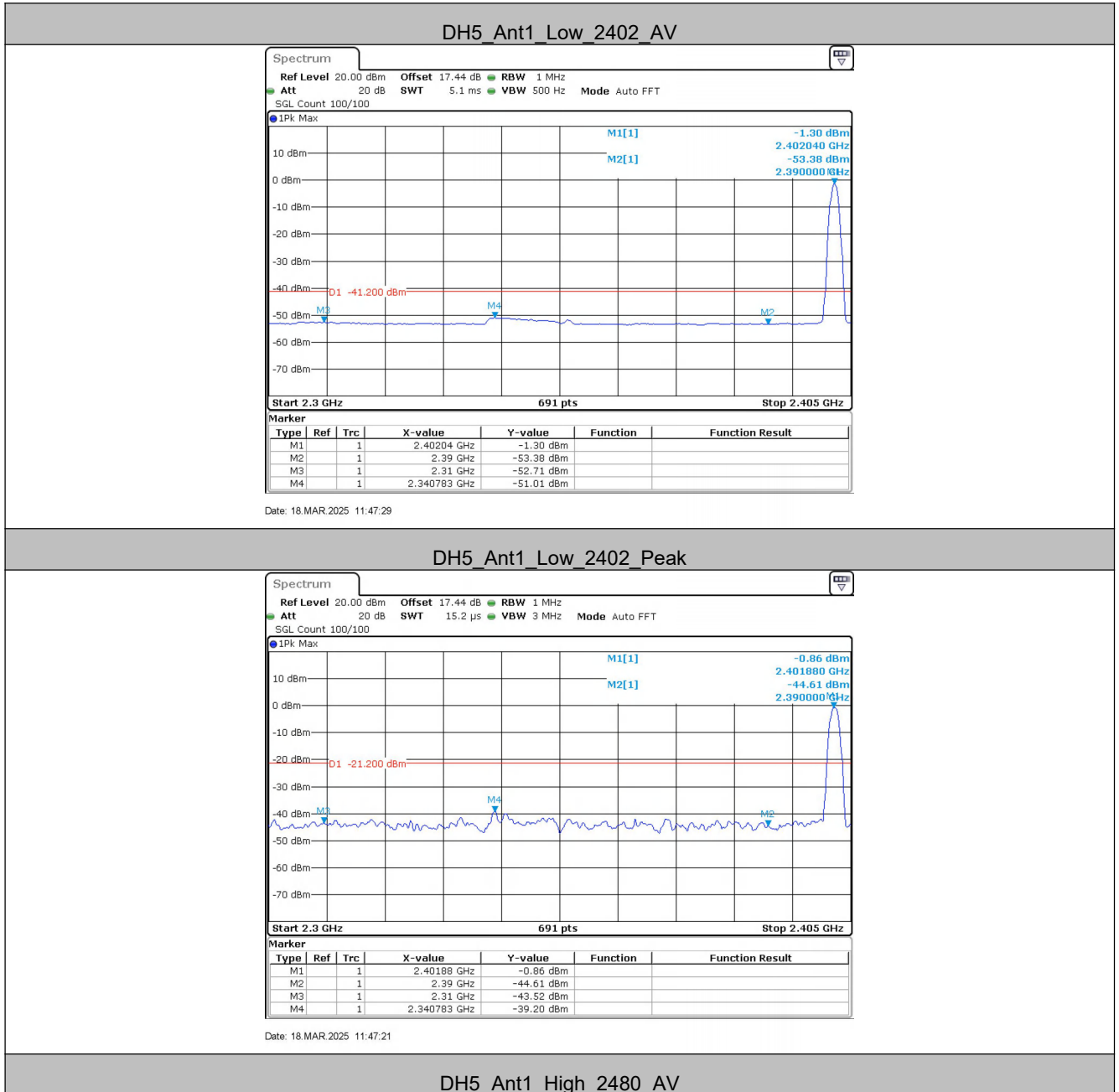
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 <i>Remark: Offset=cable loss+ attenuation factor.</i>
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that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

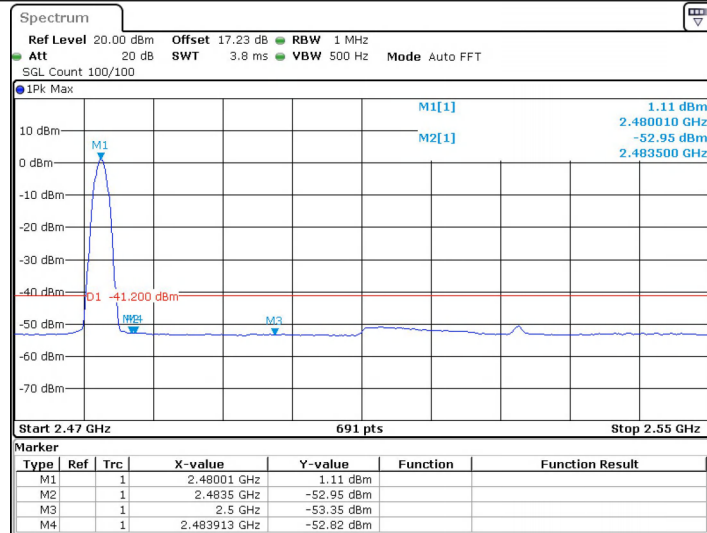
Measurement Data

ChName	Freq(MHz)	Detector	Freq [MHz]	Result [dBm]	Limit [dBm]	Result [dBuV/m]	Limit [dBuV/m]	Verdict
Low	2402	AV	2310.000	-52.71	≤-41.20	42.49	≤54	PASS
		AV	2340.783	-51.01	≤-41.20	44.19	≤54	PASS
		AV	2390.000	-53.38	≤-41.20	41.82	≤54	PASS
		Peak	2310.000	-43.52	≤-21.20	51.68	≤74	PASS
		Peak	2340.783	-39.2	≤-21.20	56.00	≤74	PASS
		Peak	2390.000	-44.61	≤-21.20	50.59	≤74	PASS
High	2480	AV	2483.500	-52.95	≤-41.20	42.25	≤54	PASS
		AV	2483.913	-52.82	≤-41.20	42.38	≤54	PASS
		AV	2500.000	-53.35	≤-41.20	41.85	≤54	PASS
		Peak	2483.500	-45.65	≤-21.20	49.55	≤74	PASS
		Peak	2499.797	-40.83	≤-21.20	54.37	≤74	PASS
		Peak	2500.000	-41.11	≤-21.20	54.09	≤74	PASS
Low	Hop_2402	Peak	2310.000	-45.56	≤-21.20	49.64	≤74	PASS
		Peak	2340.783	-40.8	≤-21.20	54.40	≤74	PASS
		Peak	2390.000	-42.93	≤-21.20	52.27	≤74	PASS
High	Hop_2480	Peak	2483.500	-46.91	≤-21.20	48.29	≤74	PASS
		Peak	2490.754	-42.49	≤-21.20	52.71	≤74	PASS
		Peak	2500.000	-44.4	≤-21.20	50.80	≤74	PASS
Low	2402	AV	2310.000	-52.88	≤-41.20	42.32	≤54	PASS
		AV	2340.174	-50.95	≤-41.20	44.25	≤54	PASS
		AV	2390.000	-53.47	≤-41.20	41.73	≤54	PASS
		Peak	2310.000	-42.98	≤-21.20	52.22	≤74	PASS
		Peak	2341.087	-40.92	≤-21.20	54.28	≤74	PASS
		Peak	2390.000	-44.77	≤-21.20	50.43	≤74	PASS
High	2480	AV	2483.500	-52.88	≤-41.20	42.32	≤54	PASS
		AV	2483.913	-52.78	≤-41.20	42.42	≤54	PASS
		AV	2500.000	-53.38	≤-41.20	41.82	≤54	PASS
		Peak	2483.500	-44.4	≤-21.20	50.80	≤74	PASS
		Peak	2484.029	-42.22	≤-21.20	52.98	≤74	PASS
		Peak	2500.000	-45.28	≤-21.20	49.92	≤74	PASS
Low	Hop_2402	Peak	2310.000	-44.74	≤-21.20	50.46	≤74	PASS
		Peak	2346.565	-39.83	≤-21.20	55.37	≤74	PASS
		Peak	2390.000	-44.72	≤-21.20	50.48	≤74	PASS
High	Hop_2480	Peak	2483.500	-45.96	≤-21.20	49.24	≤74	PASS
		Peak	2499.333	-39.9	≤-21.20	55.30	≤74	PASS

		Peak	2500.000	-42.38	≤-21.20	52.82	≤74	PASS
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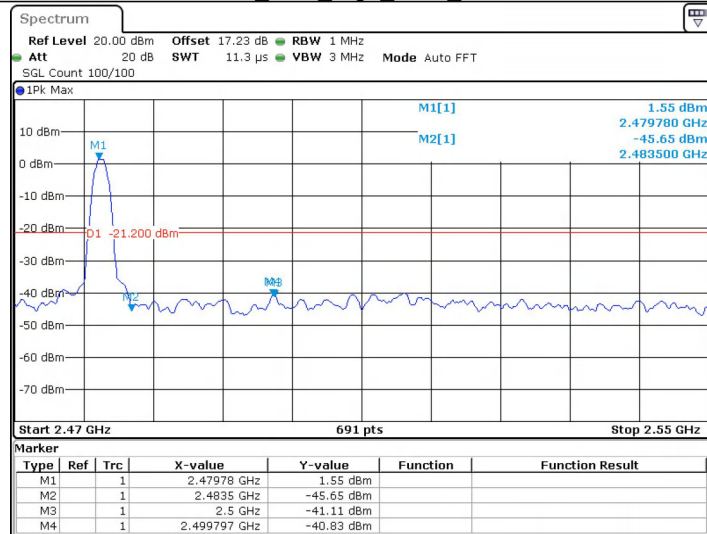
Test plot as follows:





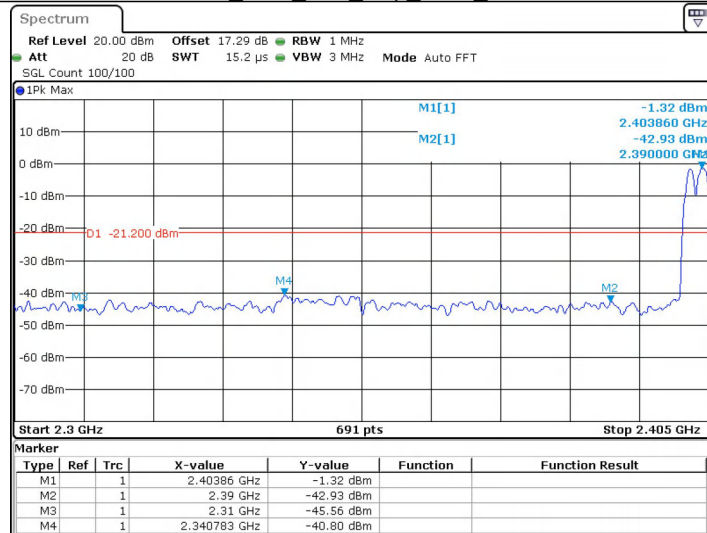
Date: 18.MAR.2025 11:52:06

DH5_Ant1_High_2480_Peak



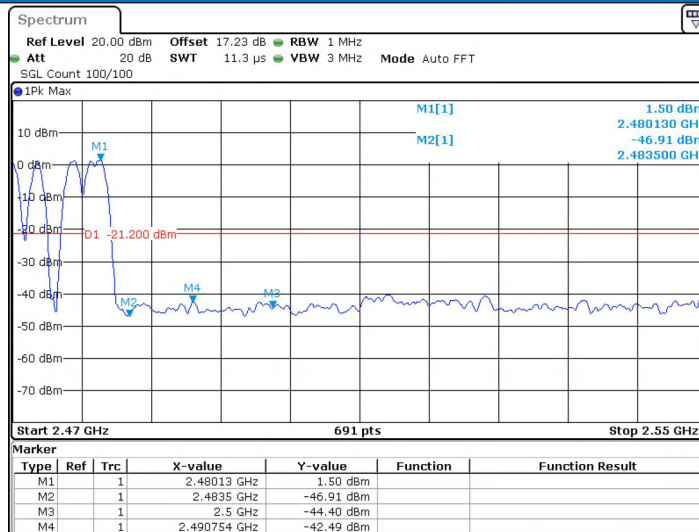
Date: 18.MAR.2025 11:52:00

DH5_Ant1_Low_Hop_2402_Peak



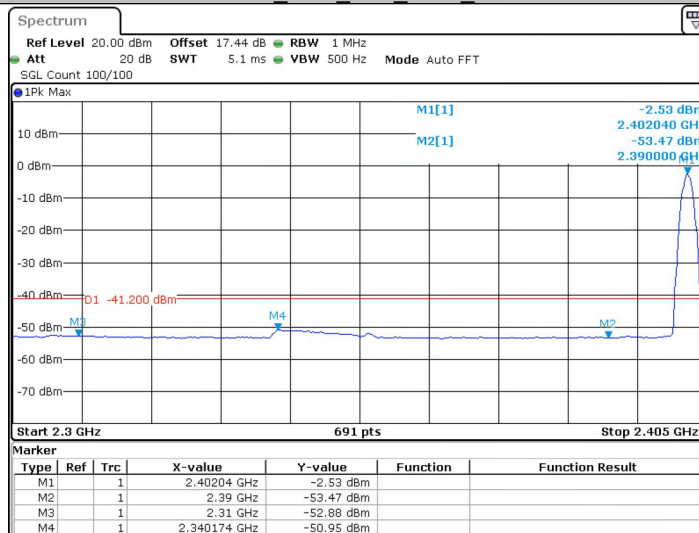
Date: 18.MAR.2025 11:57:29

DH5_Ant1_High_Hop_2480_Peak



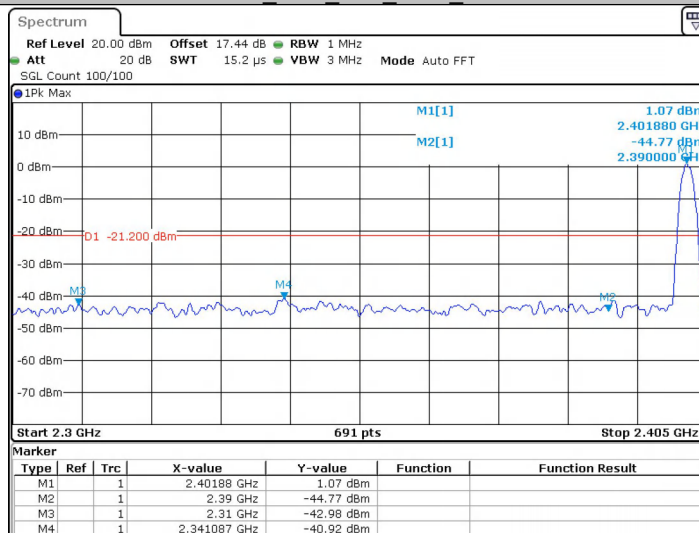
Date: 18.MAR.2025 12:04:17

2DH5_Ant1_Low_2402_AV



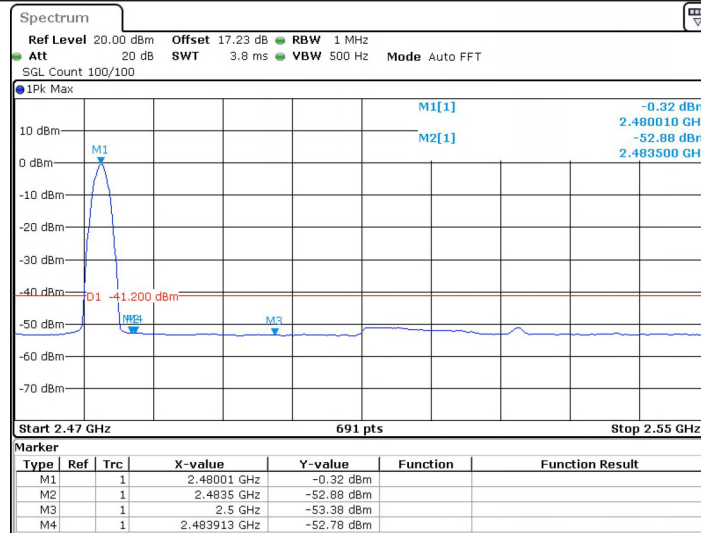
Date: 18.MAR.2025 11:53:51

2DH5_Ant1_Low_2402_Peak



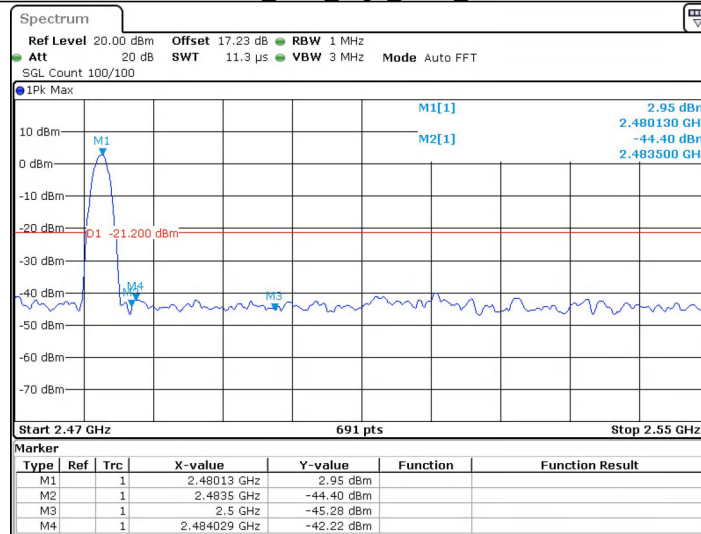
Date: 18.MAR.2025 11:53:43

2DH5_Ant1_High_2480_AV



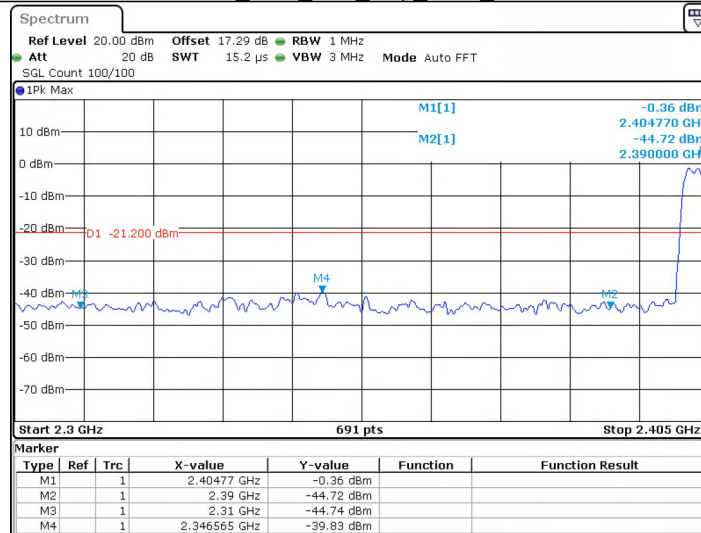
Date: 18.MAR.2025 11:56:44

2DH5_Ant1_High_2480_Peak



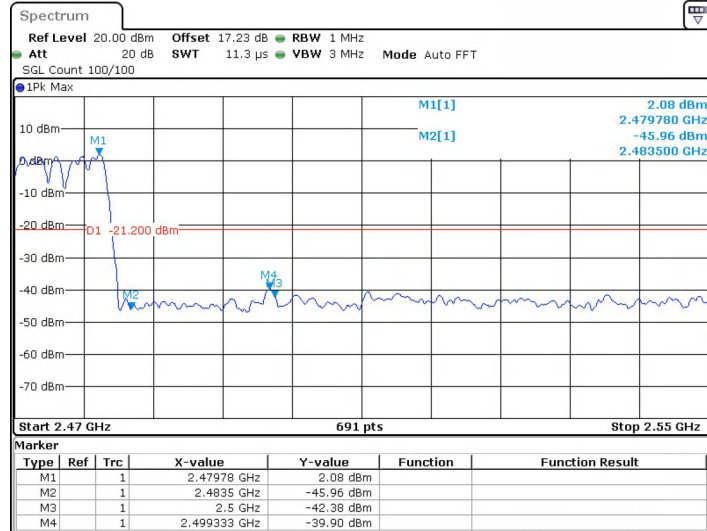
Date: 18.MAR.2025 11:56:37

2DH5_Ant1_Low_Hop_2402_Peak



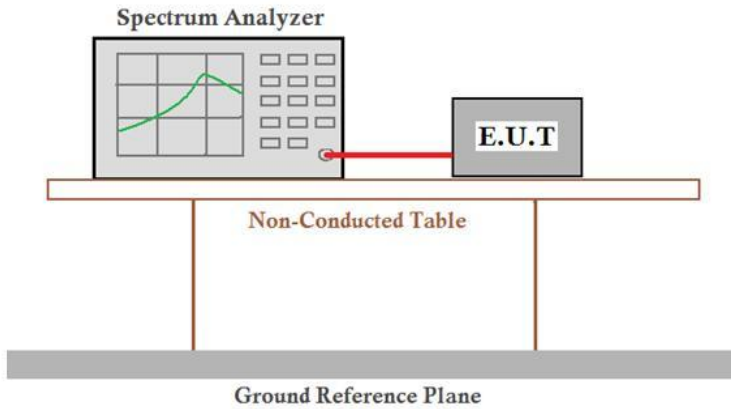
Date: 18.MAR.2025 12:04:43

2DH5_Ant1_High_Hop_2480_Peak

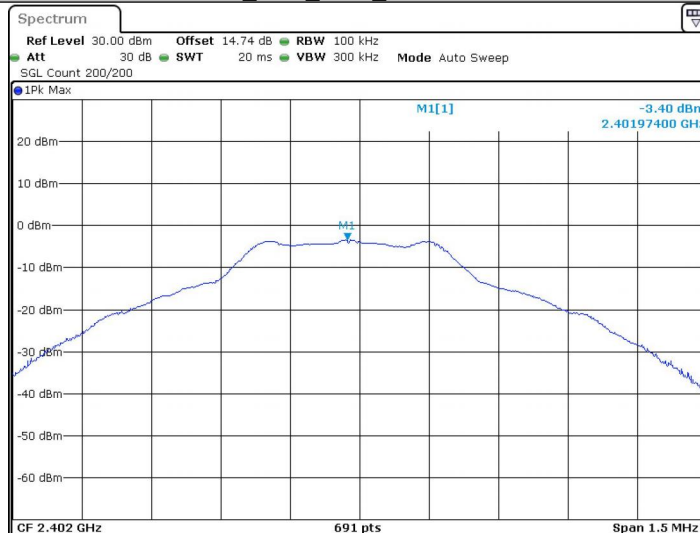


Date: 18.MAR.2025 12:10:00

4.9 Spurious RF Conducted Emissions

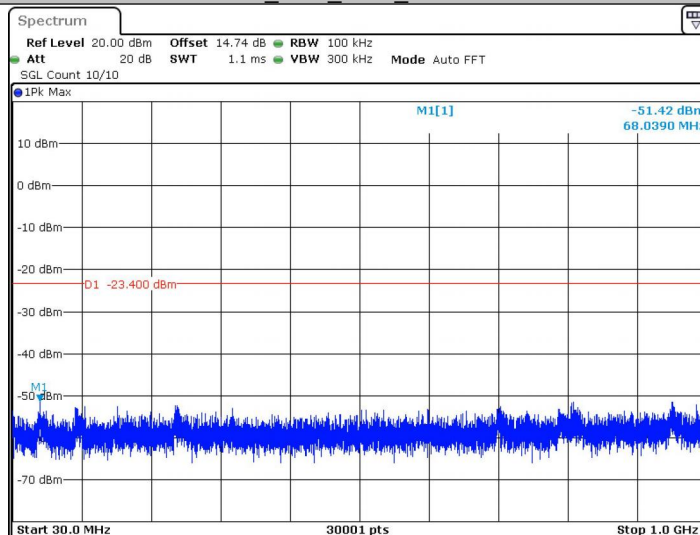
Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10:2013
Test Setup:	 <i>Remark: Offset=cable loss+ attenuation factor.</i>
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that 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 $\pi/4$ DQPSK modulation type, 3-DH5 of data type is the worst case of 8DPSK modulation type.
Test Results:	Pass

DH5_Ant1_2402_0~Reference



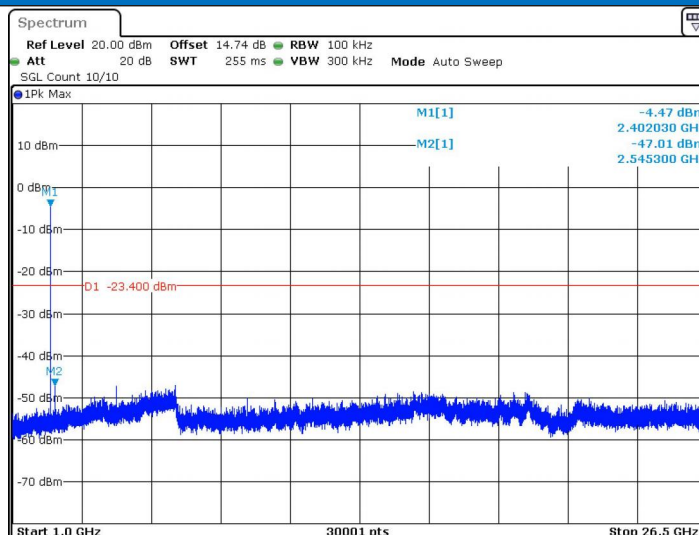
Date: 18.MAR.2025 11:47:38

DH5_Ant1_2402_30~1000



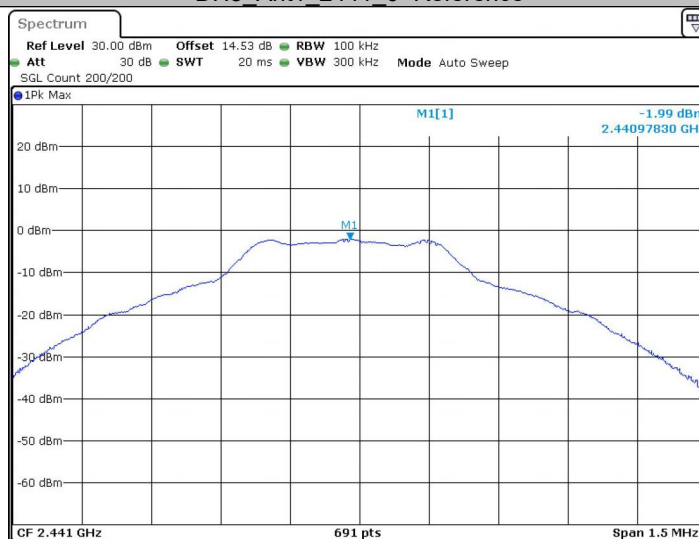
Date: 18.MAR.2025 11:47:43

DH5_Ant1_2402_1000~26500



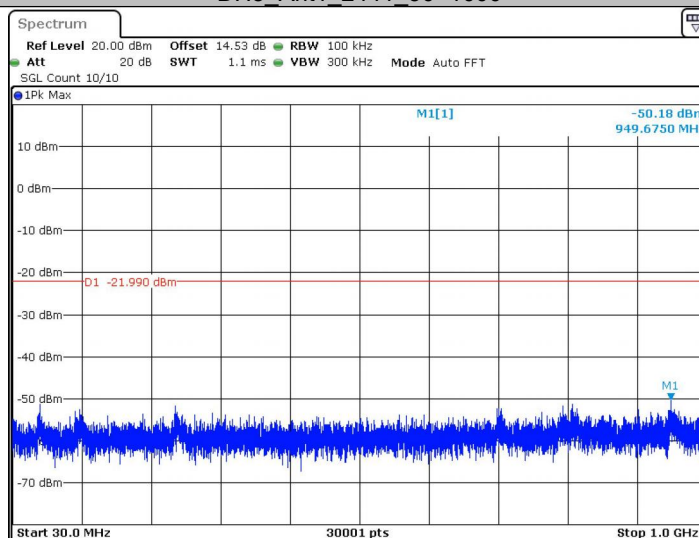
Date: 18.MAR.2025 11:47:53

DH5_Ant1_2441_0~Reference



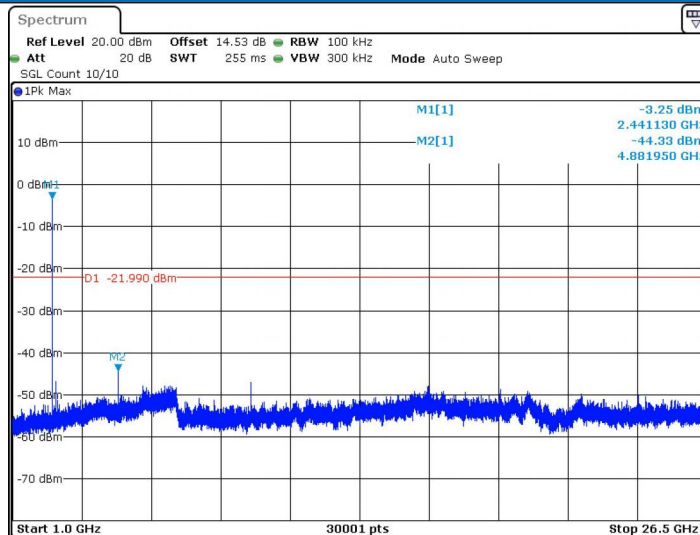
Date: 18.MAR.2025 11:50:54

DH5_Ant1_2441_30~1000



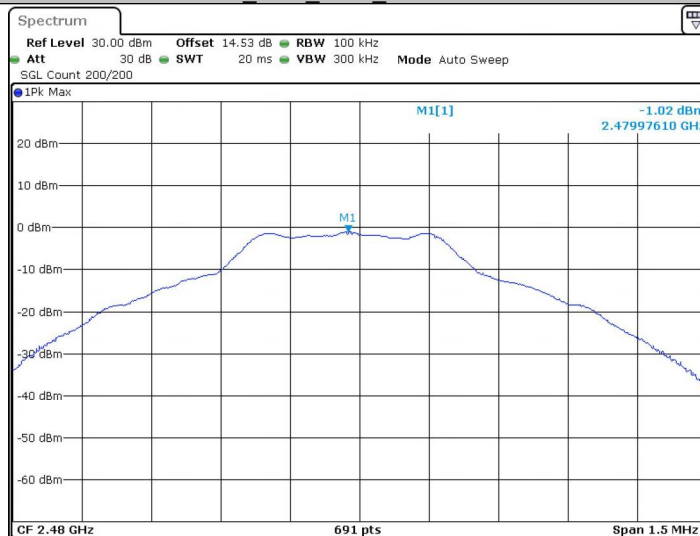
Date: 18.MAR.2025 11:50:58

DH5_Ant1_2441_1000~26500



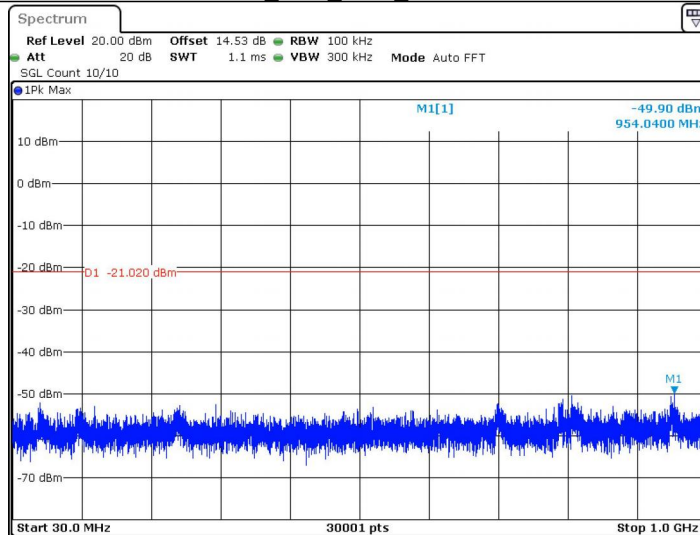
Date: 18.MAR.2025 11:51:09

DH5_Ant1_2480_0~Reference



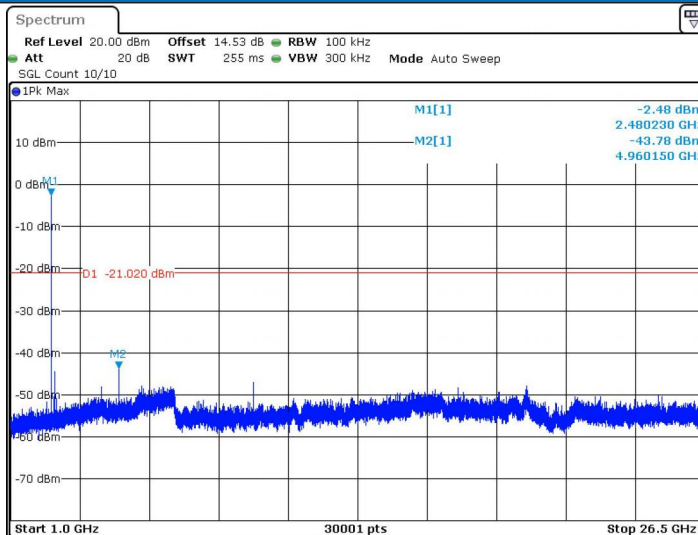
Date: 18.MAR.2025 11:52:15

DH5_Ant1_2480_30~1000



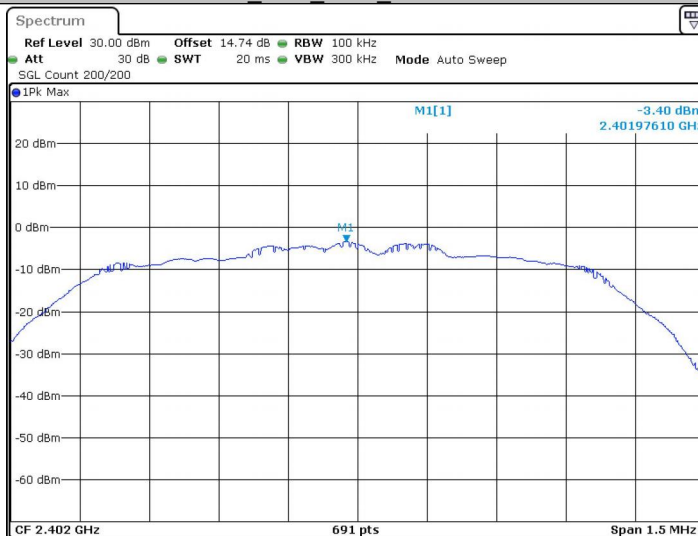
Date: 18.MAR.2025 11:52:20

DH5_Ant1_2480_1000~26500



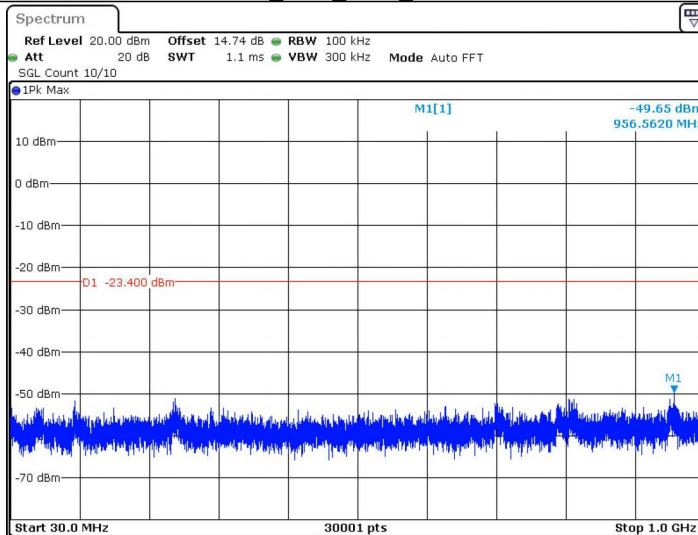
Date: 18.MAR.2025 11:52:30

2DH5_Ant1_2402_0~Reference



Date: 18.MAR.2025 11:54:01

2DH5_Ant1_2402_30~1000



Date: 18.MAR.2025 11:54:05

2DH5_Ant1_2402_1000~26500