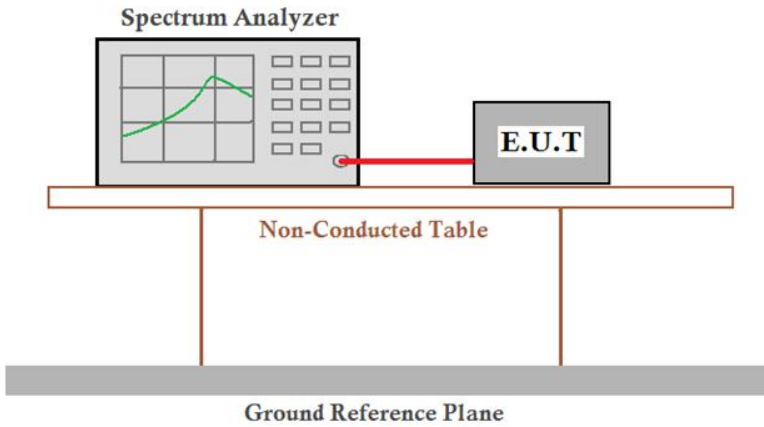


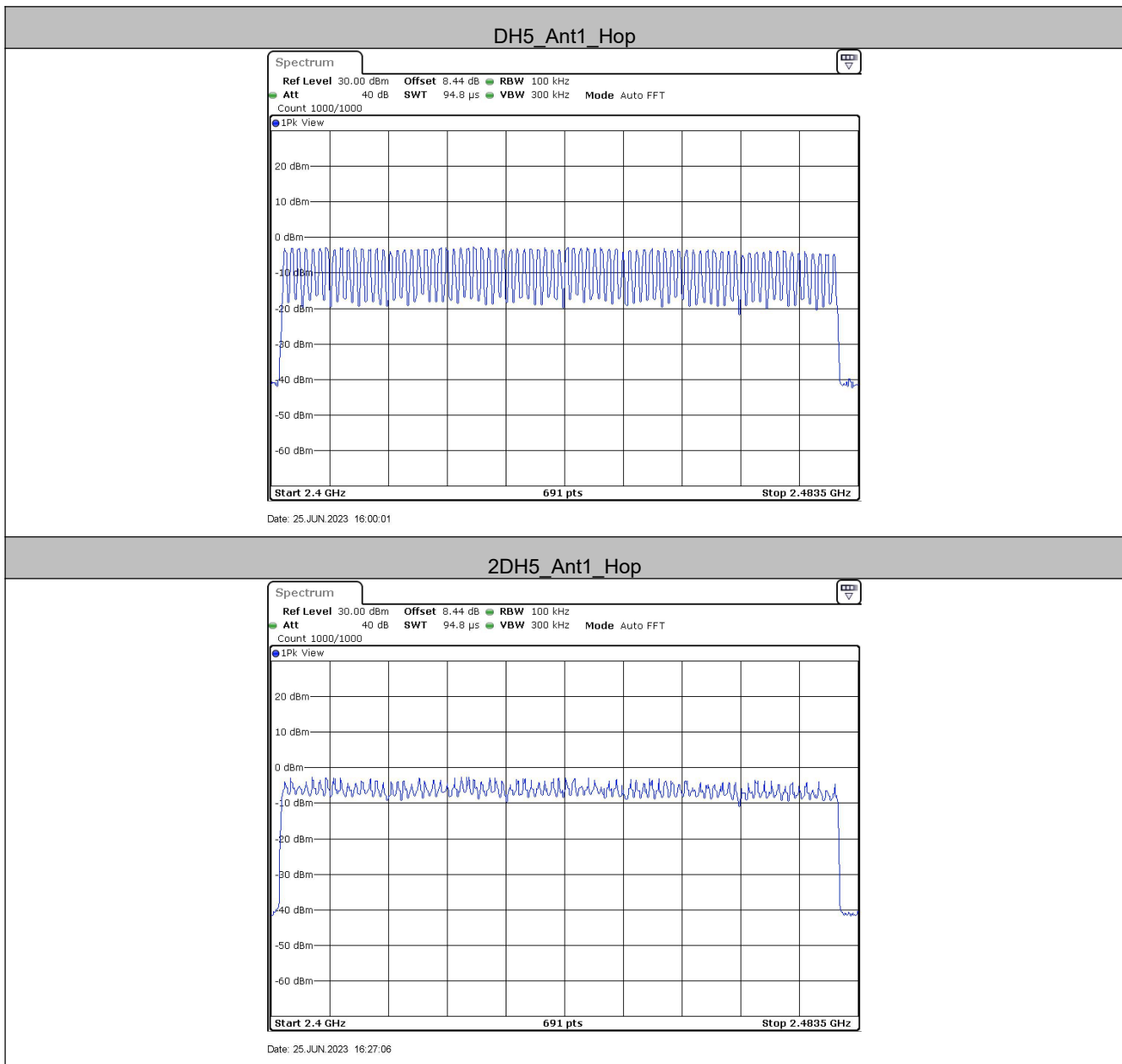
## 5.6 Hopping Channel Number

|                        |                                                                                                                                                                        |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement:      | 47 CFR Part 15C Section 15.247 (a)(1)                                                                                                                                  |
| Test Method:           | ANSI C63.10:2013                                                                                                                                                       |
| Test Setup:            |  <p>Remark: <math>Offset = \text{Cable loss} + \text{attenuation factor}</math>.</p> |
| 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                                                                                                                                                                   |

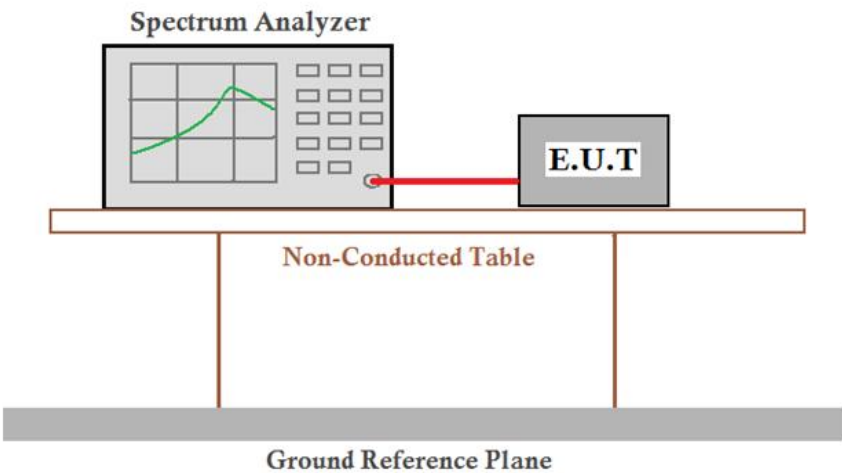
### Measurement Data

| Mode          | Hopping channel numbers | Limit     |
|---------------|-------------------------|-----------|
| GFSK          | 79                      | $\geq 15$ |
| $\pi/4$ DQPSK | 79                      | $\geq 15$ |

Test plot as follows:



## 5.7 Dwell Time

|                   |                                                                                                                                                                                                                                                                            |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | 47 CFR Part 15C Section 15.247 (a)(1)                                                                                                                                                                                                                                      |
| Test Method:      | ANSI C63.10:2013                                                                                                                                                                                                                                                           |
| Test Setup:       |  <p><b>Spectrum Analyzer</b></p> <p><b>E.U.T</b></p> <p><b>Non-Conducted Table</b></p> <p><b>Ground Reference Plane</b></p> <p><i>Remark: Offset=Cable loss+ attenuation factor.</i></p> |
| Test Mode:        | Hopping transmitting with all kind of modulation and all kind of data type.                                                                                                                                                                                                |
| Limit:            | 0.4 Second                                                                                                                                                                                                                                                                 |
| Test Results:     | Pass                                                                                                                                                                                                                                                                       |

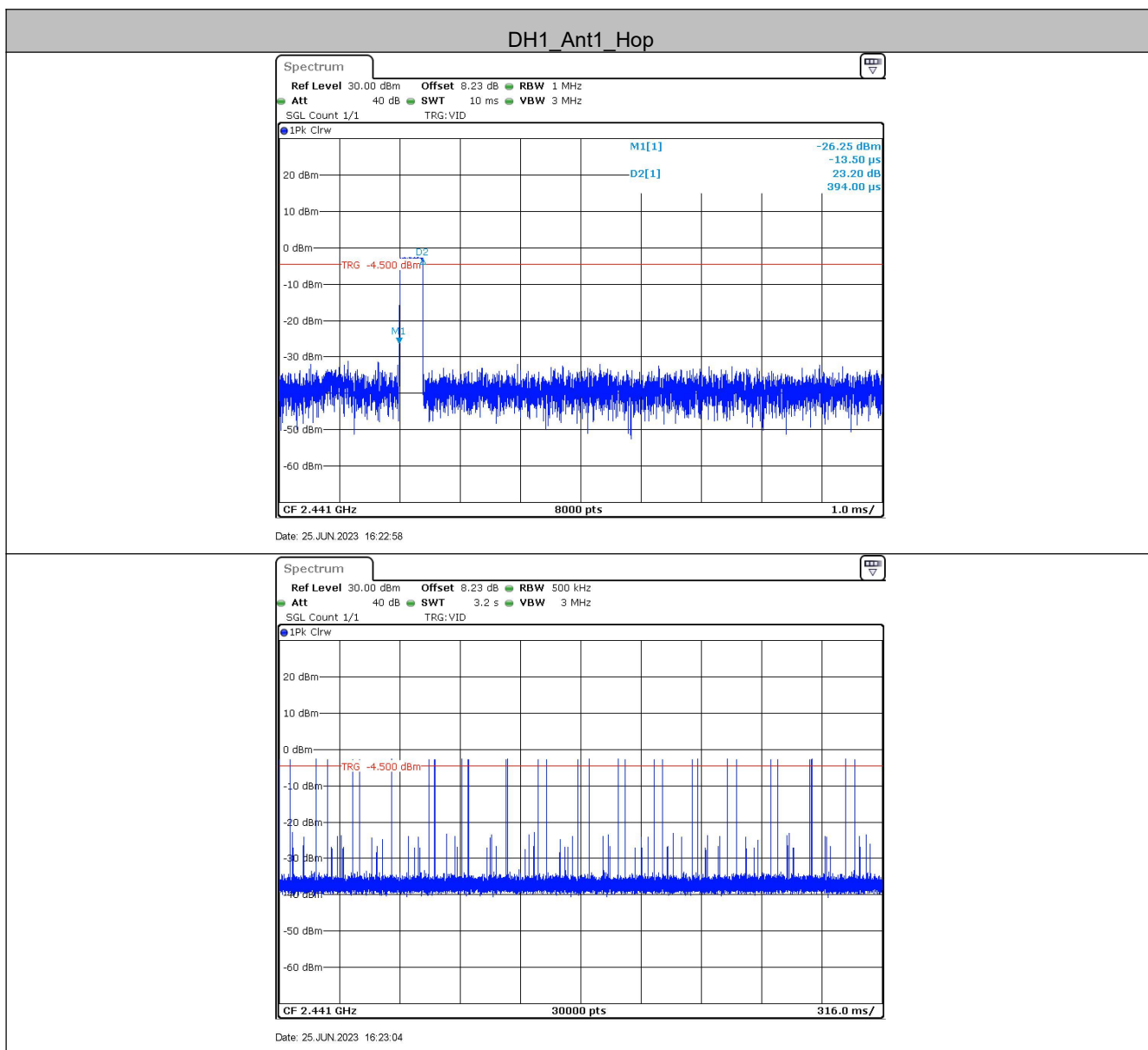
**Measurement Data**

| TestMode | Freq(MHz) | BurstWidth<br>[ms] | TotalHops<br>[Num] | Result[s] | Limit[s] | Verdict |
|----------|-----------|--------------------|--------------------|-----------|----------|---------|
| DH1      | Hop       | 0.394              | 320                | 0.126     | ≤0.4     | PASS    |
| DH3      | Hop       | 1.641              | 200                | 0.328     | ≤0.4     | PASS    |
| DH5      | Hop       | 2.882              | 90                 | 0.259     | ≤0.4     | PASS    |
| 2DH1     | Hop       | 0.403              | 320                | 0.129     | ≤0.4     | PASS    |
| 2DH3     | Hop       | 1.648              | 140                | 0.231     | ≤0.4     | PASS    |
| 2DH5     | Hop       | 2.888              | 90                 | 0.26      | ≤0.4     | PASS    |

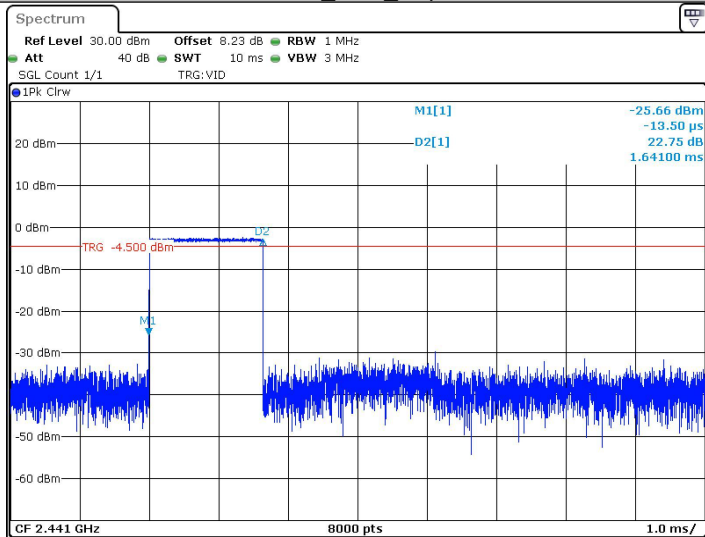
**Remark:**

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

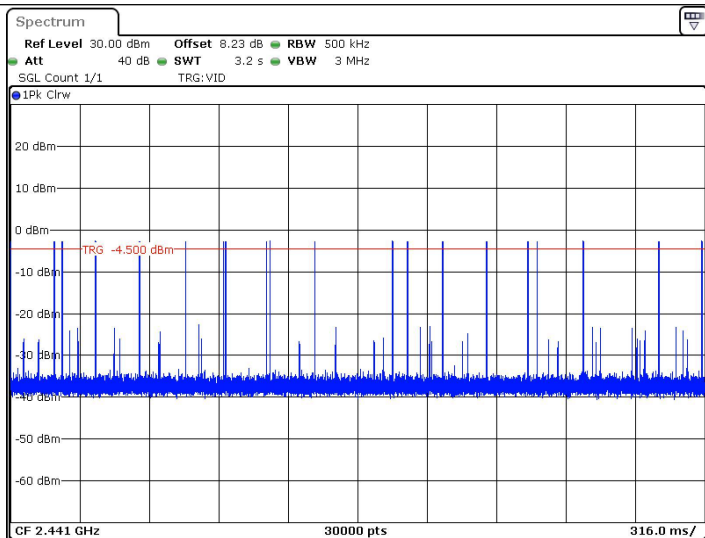
Test plot as follows:



DH3\_Ant1\_Hop

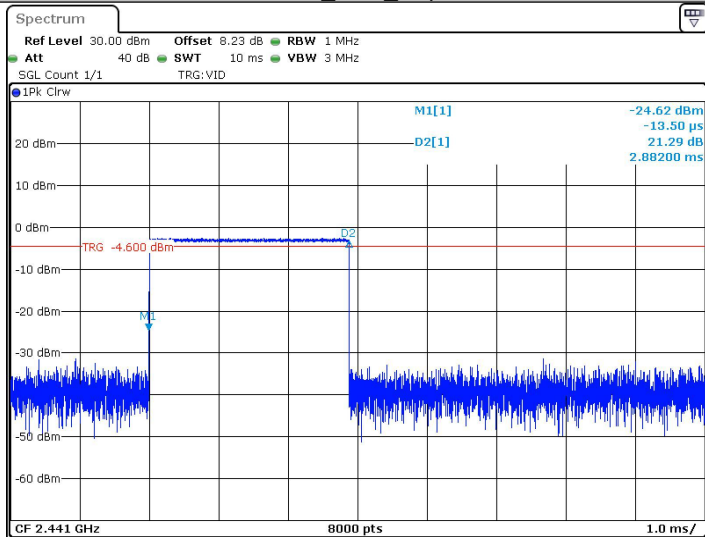


Date: 25 JUN 2023 16:23:26

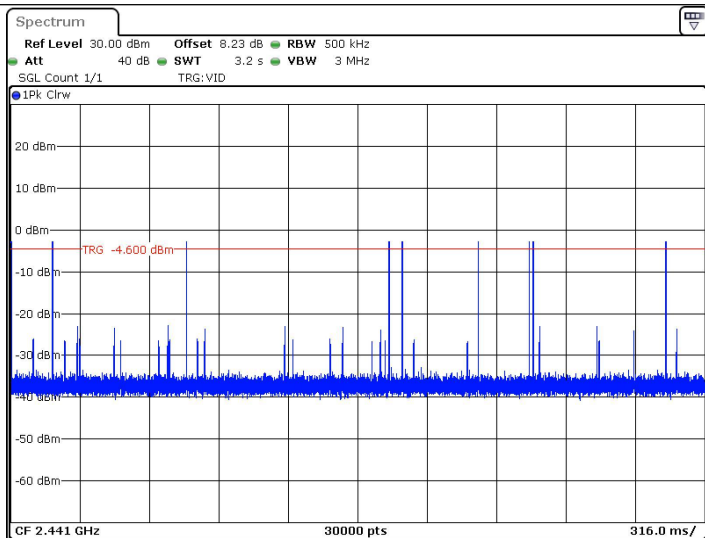


Date: 25 JUN 2023 16:23:32

DH5\_Ant1\_Hop

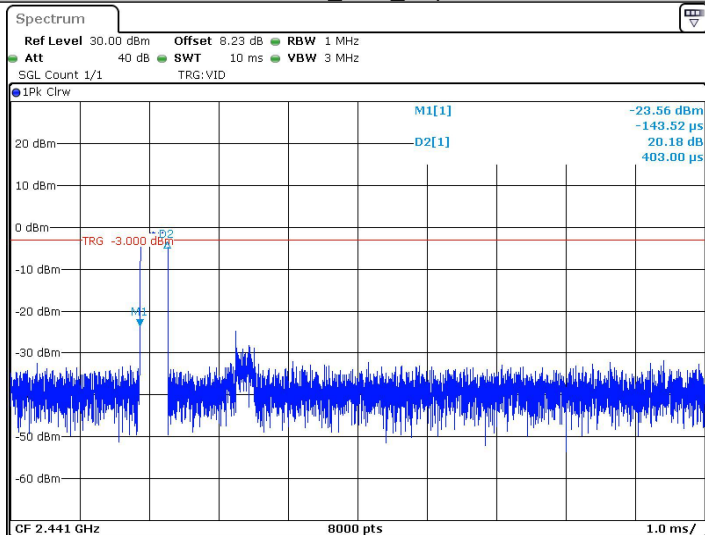


Date: 25 JUN 2023 16:00:16

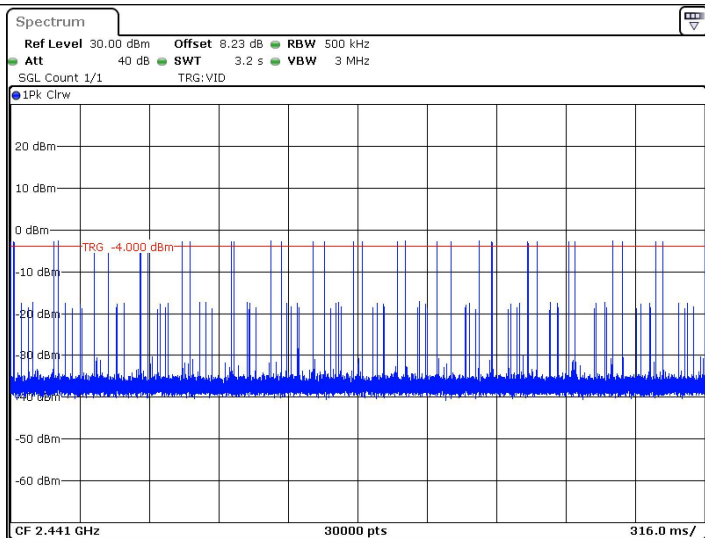


Date: 25 JUN 2023 16:00:22

2DH1\_Ant1\_Hop

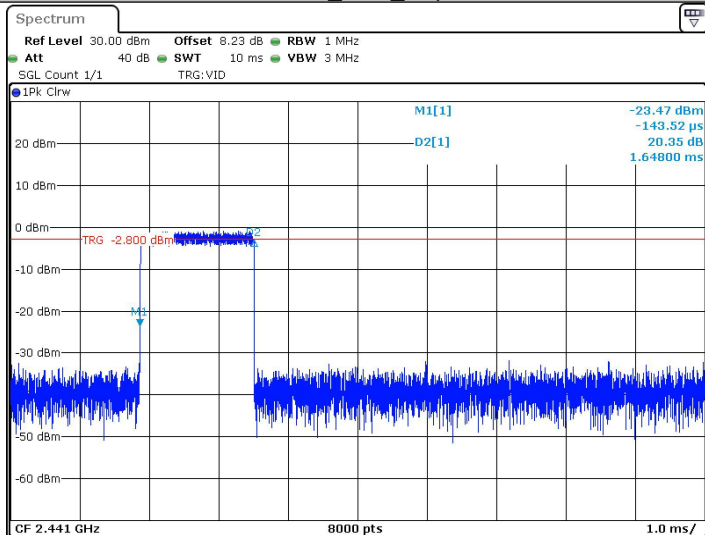


Date: 25 JUN 2023 16:28:19

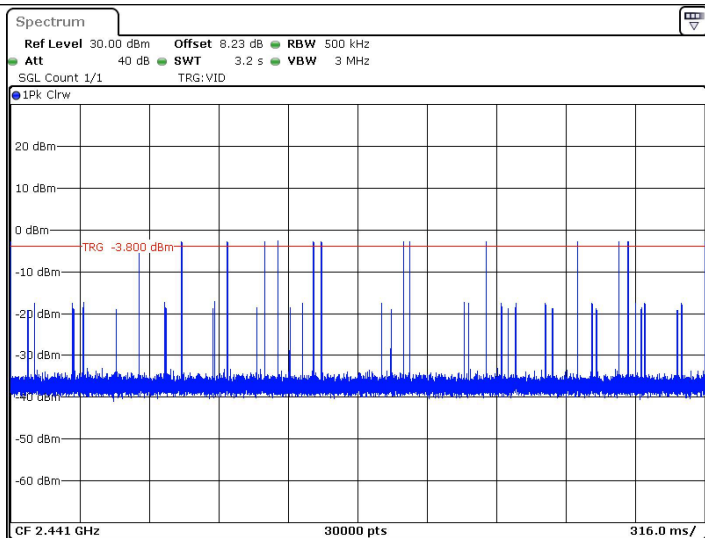


Date: 25 JUN 2023 16:28:31

2DH3\_Ant1\_Hop

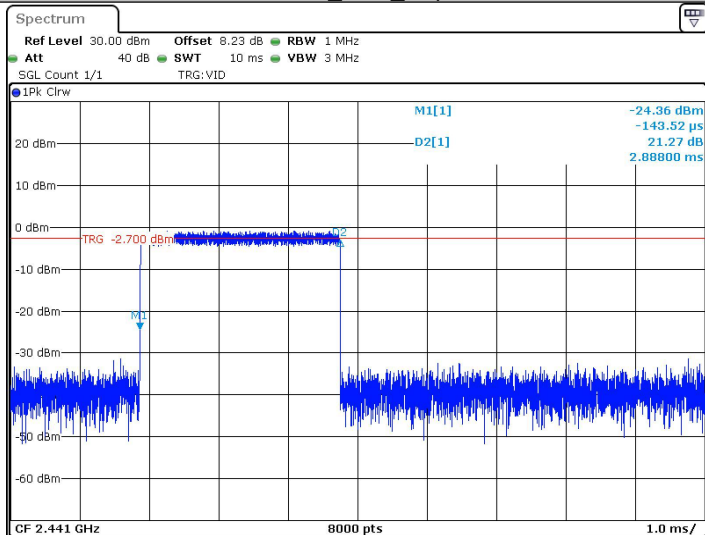


Date: 25 JUN 2023 16:29:07

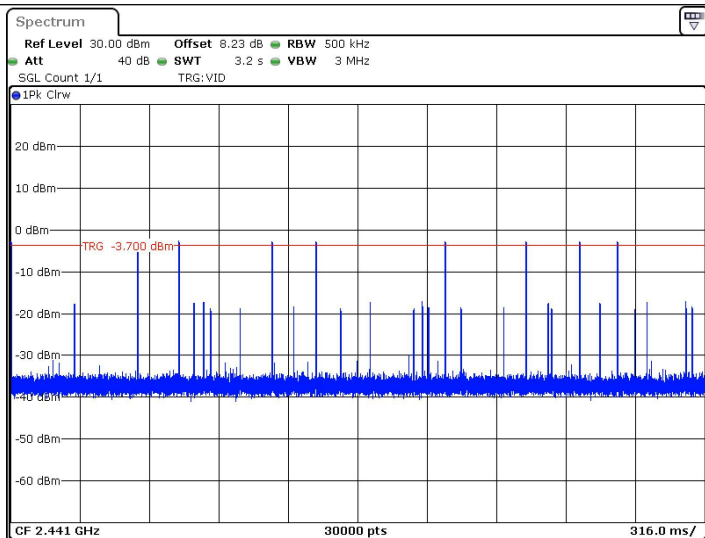


Date: 25 JUN 2023 16:29:19

2DH5\_Ant1\_Hop

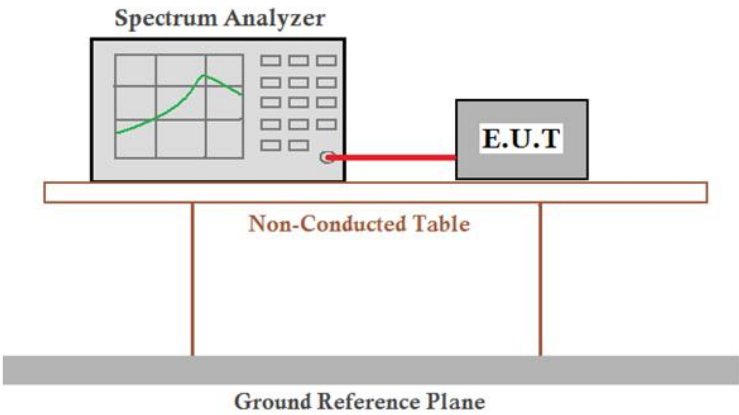


Date: 25 JUN 2023 16:27:22



Date: 25 JUN 2023 16:27:34

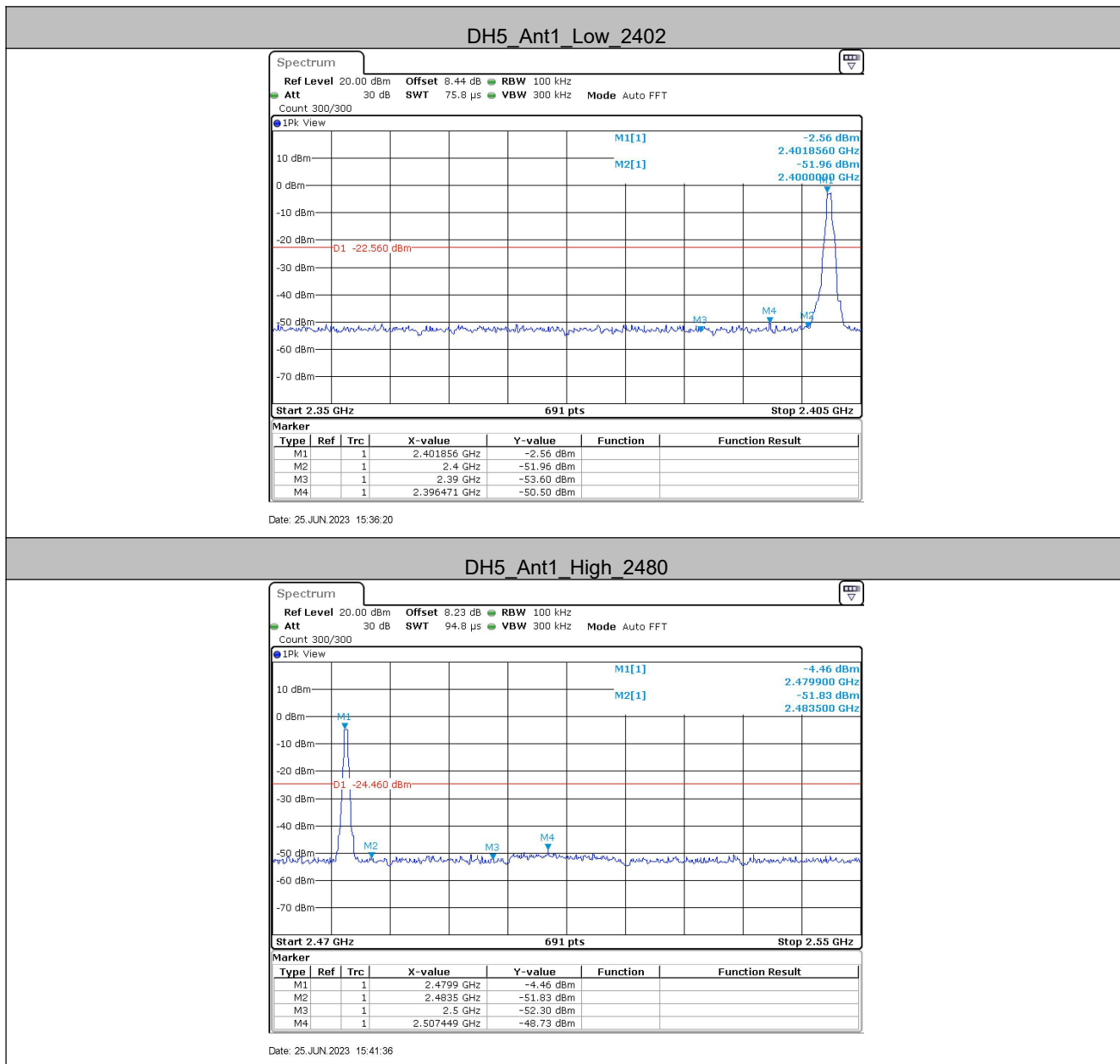
## 5.8 Band-edge for RF Conducted Emissions

|                        |                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement:      | 47 CFR Part 15C Section 15.247 (d)                                                                                                                                                                                                                                                                                                                                                      |
| Test Method:           | ANSI C63.10:2013                                                                                                                                                                                                                                                                                                                                                                        |
| Test Setup:            |  <p><i>Remark: Offset=cable loss+ attenuation factor.</i></p>                                                                                                                                                                                                                                         |
| 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                                                                                                                                                                                                                                                                                                                                                                                    |

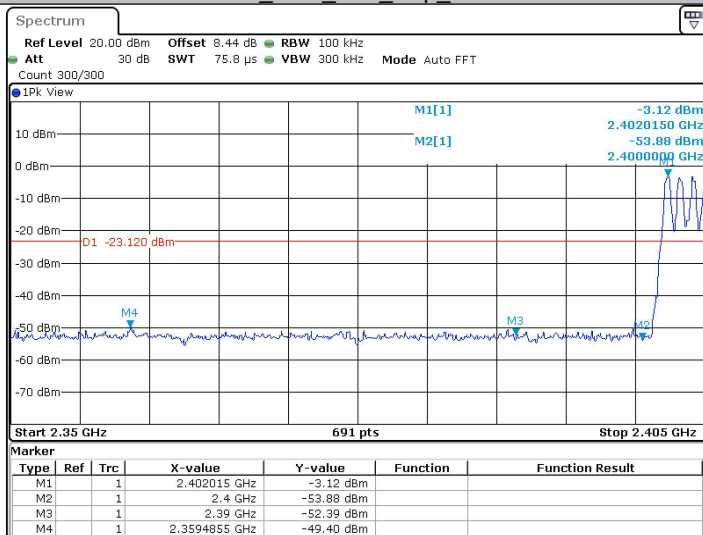
## Measurement Data

| TestMode | ChName | Freq(MHz) | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|----------|--------|-----------|-------------------|-----------------|----------------|---------|
| DH5      | Low    | 2402      | -2.56             | -50.5           | $\leq -22.56$  | PASS    |
|          | High   | 2480      | -4.46             | -48.73          | $\leq -24.46$  | PASS    |
|          | Low    | Hop_2402  | -3.12             | -49.4           | $\leq -23.12$  | PASS    |
|          | High   | Hop_2480  | -4.41             | -47.71          | $\leq -24.41$  | PASS    |
| 2DH5     | Low    | 2402      | -2.56             | -49.75          | $\leq -22.56$  | PASS    |
|          | High   | 2480      | -4.47             | -49.74          | $\leq -24.47$  | PASS    |
|          | Low    | Hop_2402  | -3.55             | -50.53          | $\leq -23.55$  | PASS    |
|          | High   | Hop_2480  | -4.19             | -49.39          | $\leq -24.19$  | PASS    |

Test plot as follows:

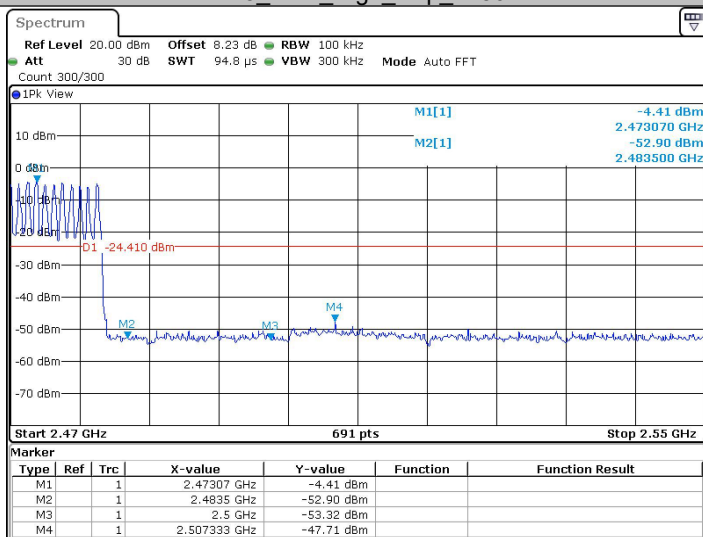


DH5\_Ant1\_Low\_Hop\_2402



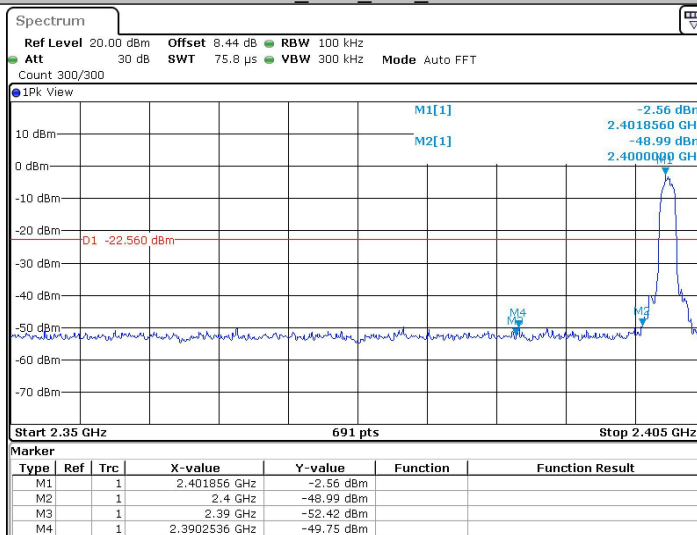
Date: 26 JUN 2023 17:58:35

DH5\_Ant1\_High\_Hop\_2480



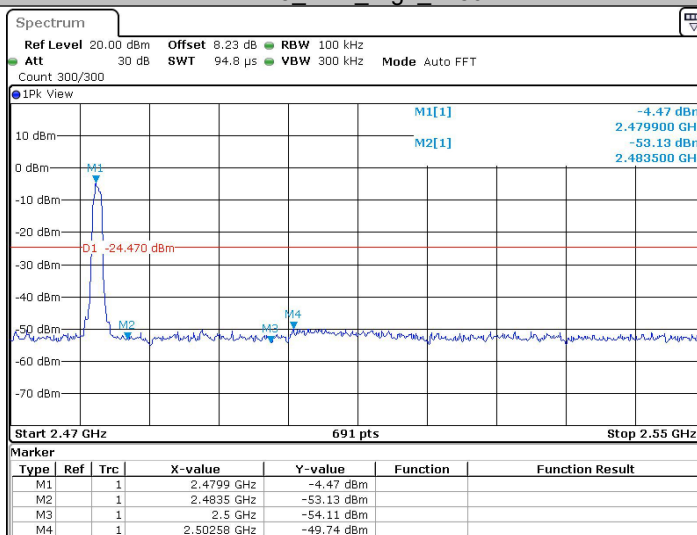
Date: 25 JUN 2023 16:23:51

2DH5\_Ant1\_Low\_2402



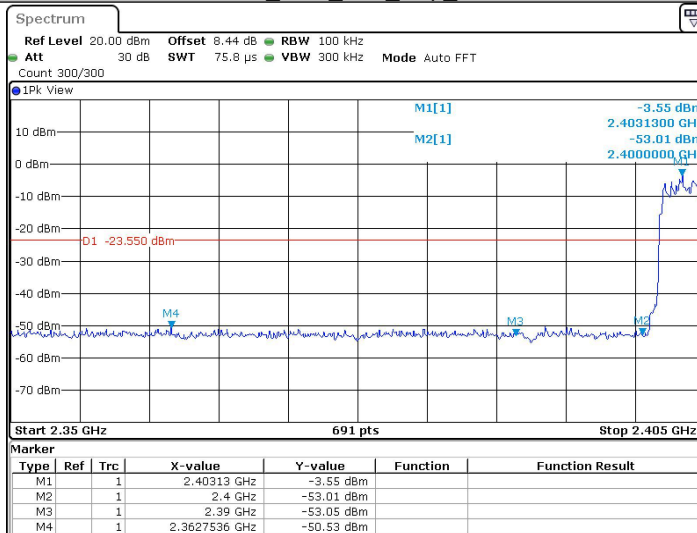
Date: 25 JUN 2023 15:44:26

2DH5\_Ant1\_High\_2480



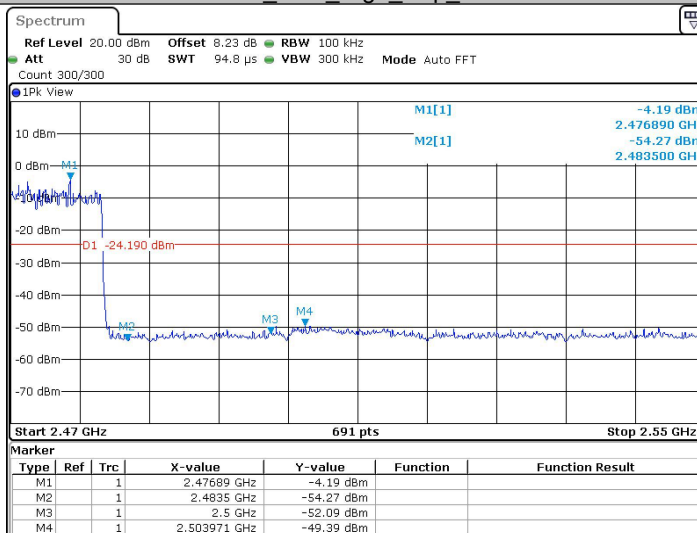
Date: 25 JUN 2023 15:52:54

2DH5\_Ant1\_Low\_Hop\_2402



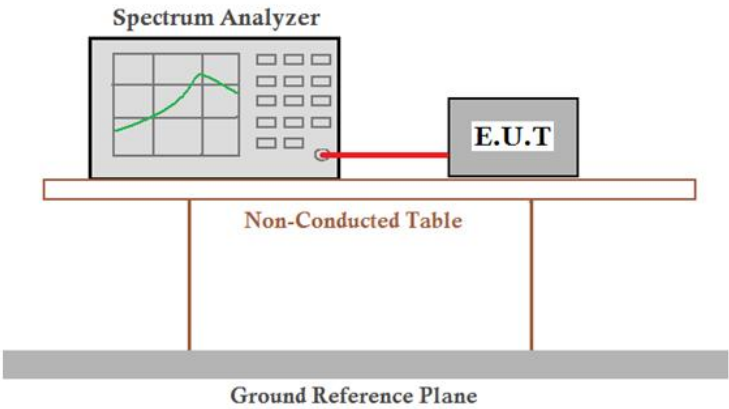
Date: 25 JUN 2023 16:25:00

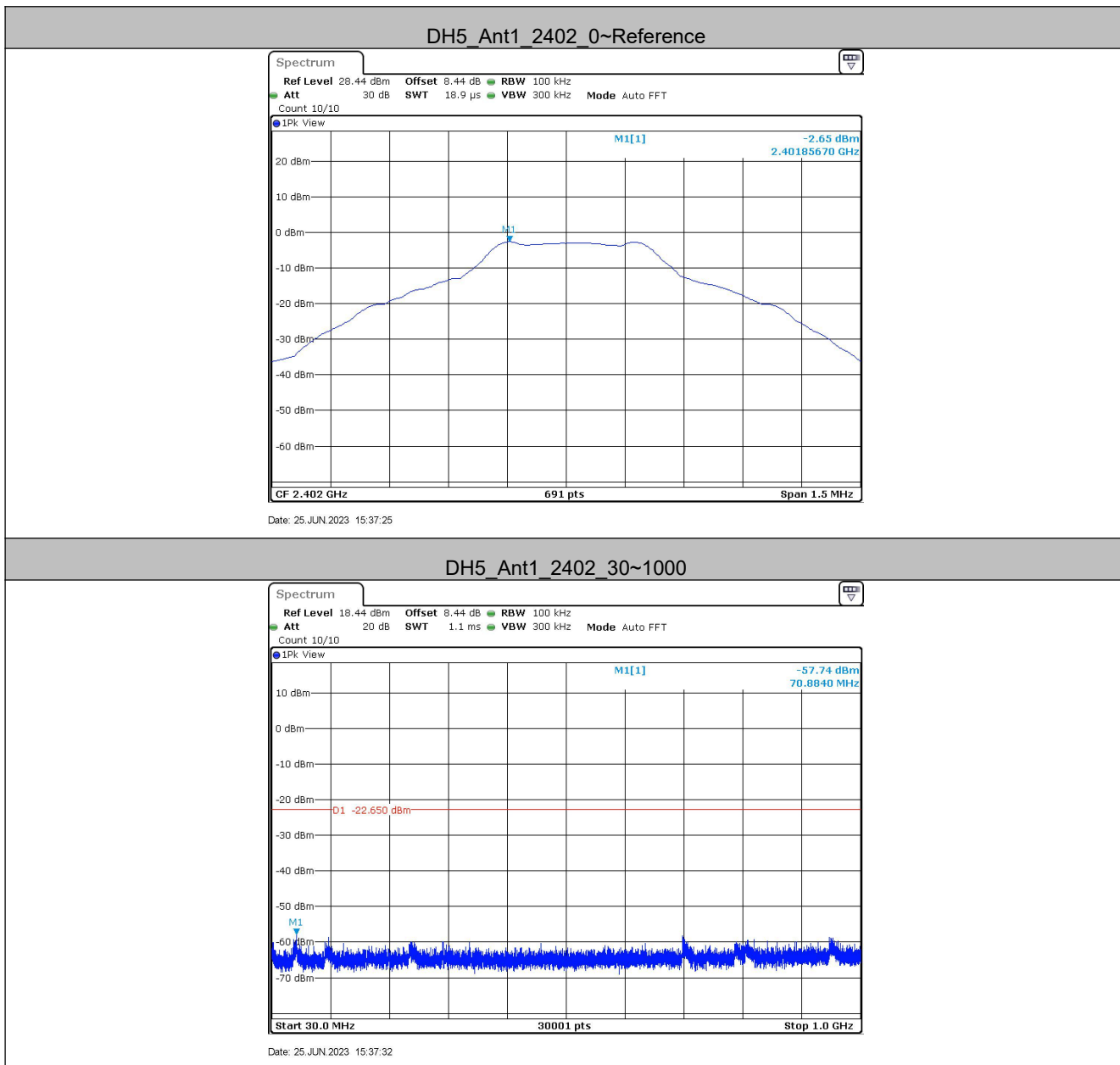
2DH5\_Ant1\_High\_Hop\_2480



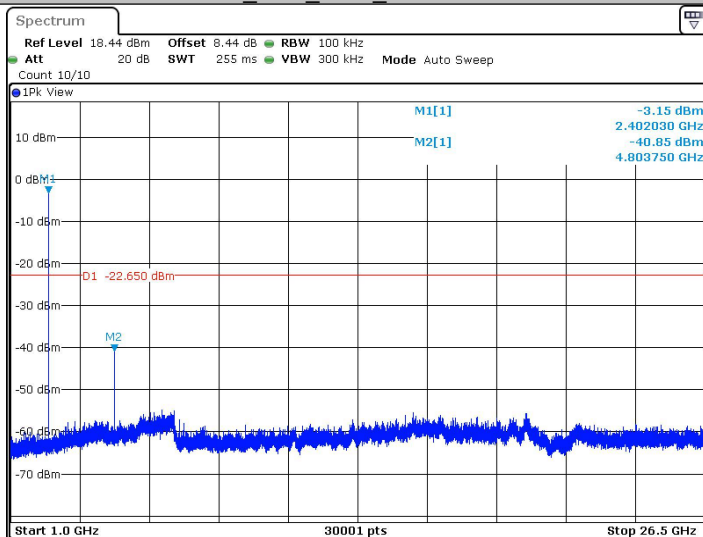
Date: 25 JUN 2023 16:29:42

## 5.9 Spurious RF Conducted Emissions

|                        |                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement:      | 47 CFR Part 15C Section 15.247 (d)                                                                                                                                                                                                                                                                                                                                                      |
| Test Method:           | ANSI C63.10:2013                                                                                                                                                                                                                                                                                                                                                                        |
| Test Setup:            |  <p><i>Remark: Offset=cable loss+ attenuation factor.</i></p>                                                                                                                                                                                                                                         |
| 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                                                                                                                                                                                                                                                                                                                                                                                    |

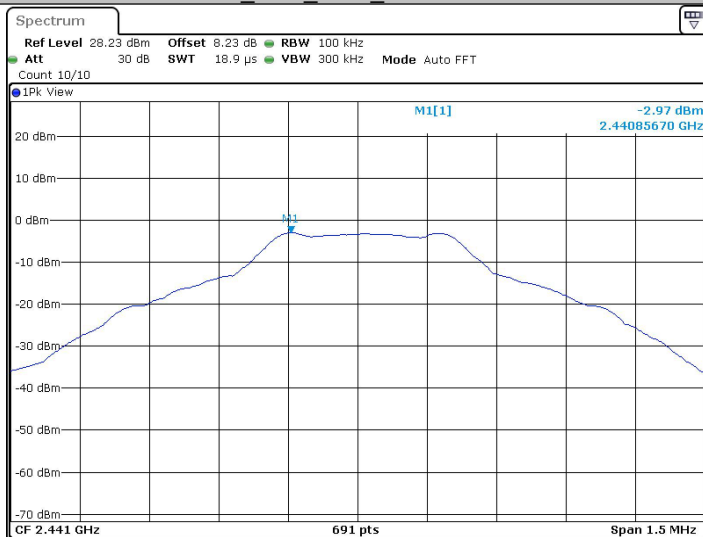


DH5\_Ant1\_2402\_1000~26500



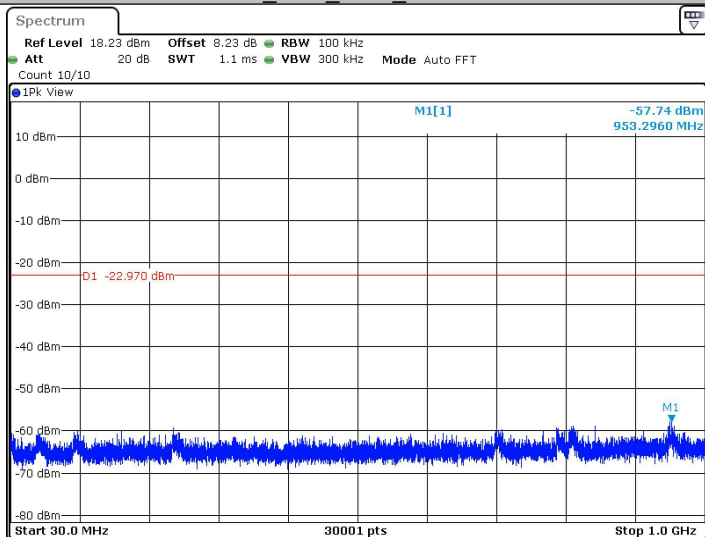
Date: 25 JUN 2023 15:37:54

DH5\_Ant1\_2441\_0~Reference



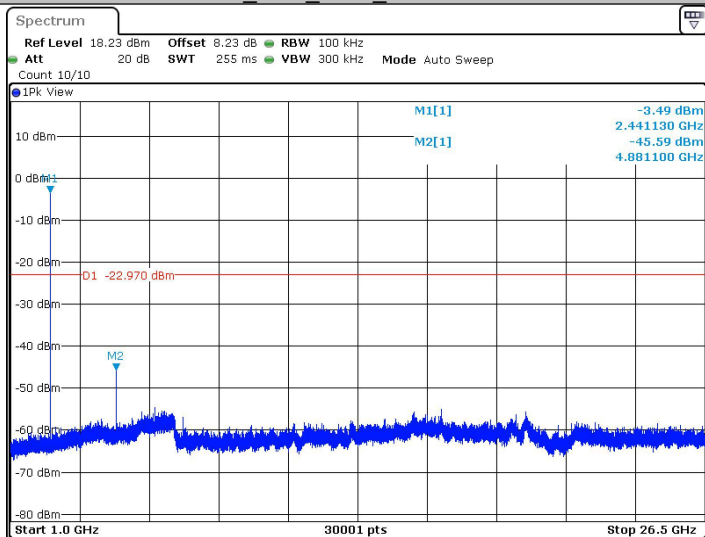
Date: 25 JUN 2023 15:39:05

DH5\_Ant1\_2441\_30~1000



Date: 25 JUN 2023 15:39:12

DH5\_Ant1\_2441\_1000~26500



Date: 25 JUN 2023 15:39:34