

# RF Test Data for 2.4G Wi-Fi (Conducted Measurements)

| General Description of EUT                                                                      |                       |
|-------------------------------------------------------------------------------------------------|-----------------------|
| Product Name:                                                                                   | Gateway               |
| Test Model:                                                                                     | BoHM A                |
| Sample ID:                                                                                      | RW-C-202203-0256-1-2# |
| Environmental Conditions                                                                        |                       |
| Temperature:                                                                                    | 23.8℃                 |
| Relative Humidity:                                                                              | 48%                   |
| Test Voltage:                                                                                   | DC 5V                 |
| Test Engineer:                                                                                  | Huang jian ping       |
| Note: For a more detailed features description, please refer to the report TBR-C-202203-0256-12 |                       |

## Contents

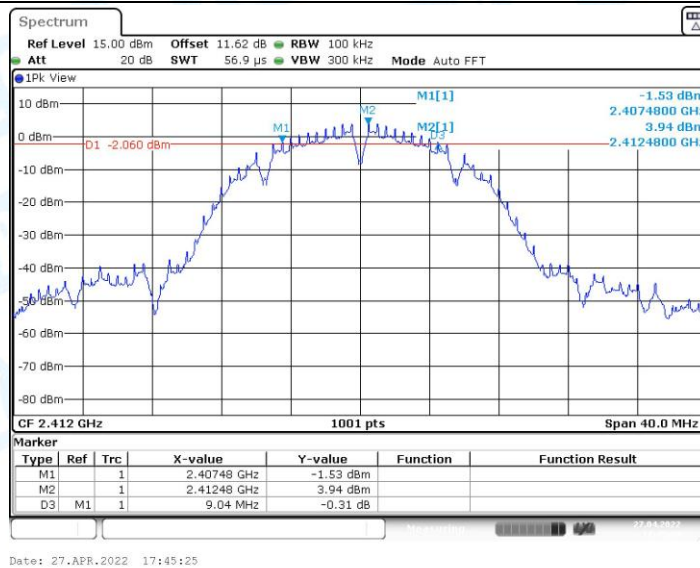
|                                         |    |
|-----------------------------------------|----|
| 1. DTS Bandwidth.....                   | 3  |
| 1.1.Test Result.....                    | 3  |
| 1.2.Test Graphs .....                   | 4  |
| 2. Occupied Channel Bandwidth.....      | 7  |
| 2.1.Test Result.....                    | 7  |
| 2.2.Test Graphs .....                   | 8  |
| 3. Maximum conducted output power.....  | 11 |
| 3.1.Test Result.....                    | 11 |
| 4. Maximum power spectral density ..... | 12 |
| 4.1.Test Result.....                    | 12 |
| 4.2.Test Graphs .....                   | 13 |
| 5. Band edge measurements .....         | 16 |
| 5.1.Test Result.....                    | 16 |
| 5.2.Test Graphs .....                   | 17 |
| 6. Conducted Spurious Emission.....     | 19 |
| 6.1.Test Result.....                    | 19 |
| 6.2.Test Graphs .....                   | 20 |
| 7. Duty Cycle .....                     | 29 |
| 7.1.Test Result.....                    | 29 |
| 7.2.Test Graphs .....                   | 30 |
| 8. Emissions in Restricted Bands.....   | 33 |
| 8.1.Test Result.....                    | 33 |
| 8.2.Test Graphs .....                   | 34 |

## 1. DTS Bandwidth

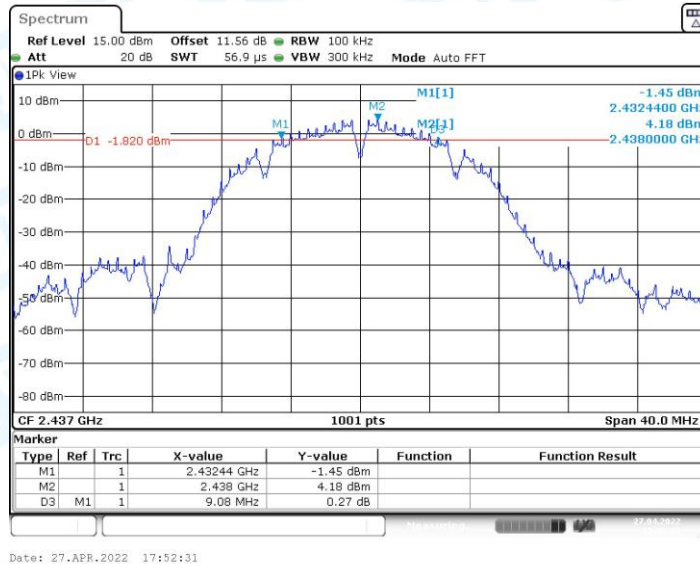
### 1.1. Test Result

| TestMode  | Antenna | Channel | DTS BW [MHz] | FL[MHz] | FH[MHz] | Limit[MHz] | Verdict |
|-----------|---------|---------|--------------|---------|---------|------------|---------|
| 11B       | Ant1    | 2412    | 9.04         | 2407.48 | 2416.52 | 0.5        | PASS    |
|           |         | 2437    | 9.08         | 2432.44 | 2441.52 | 0.5        | PASS    |
|           |         | 2462    | 9.04         | 2457.48 | 2466.52 | 0.5        | PASS    |
| 11G       | Ant1    | 2412    | 15.68        | 2404.16 | 2419.84 | 0.5        | PASS    |
|           |         | 2437    | 15.44        | 2429.40 | 2444.84 | 0.5        | PASS    |
|           |         | 2462    | 15.40        | 2454.44 | 2469.84 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412    | 15.40        | 2404.16 | 2419.56 | 0.5        | PASS    |
|           |         | 2437    | 15.12        | 2429.44 | 2444.56 | 0.5        | PASS    |
|           |         | 2462    | 15.36        | 2454.44 | 2469.80 | 0.5        | PASS    |

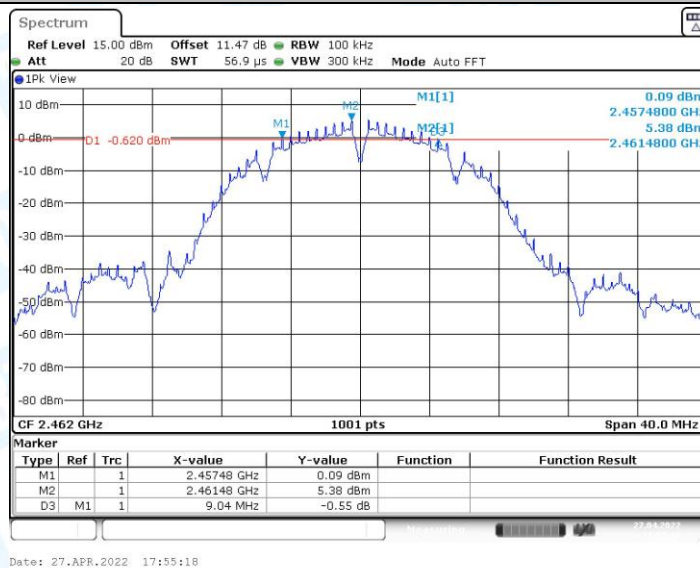
## 1.2. Test Graphs



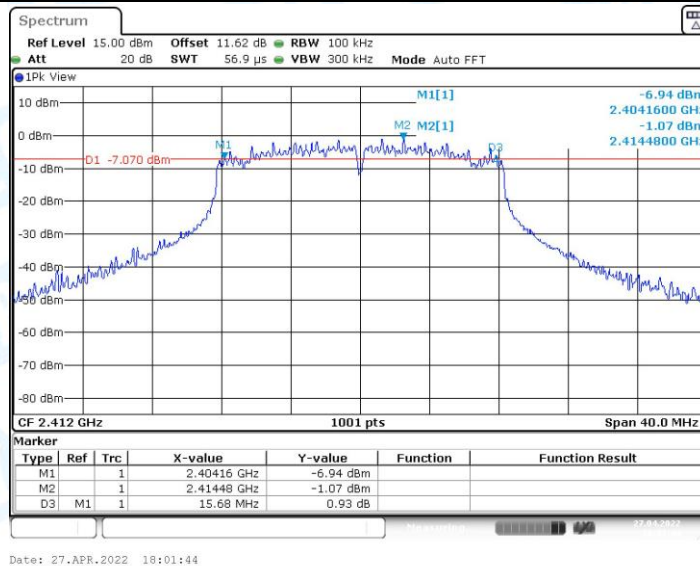
11B\_Ant1\_2412



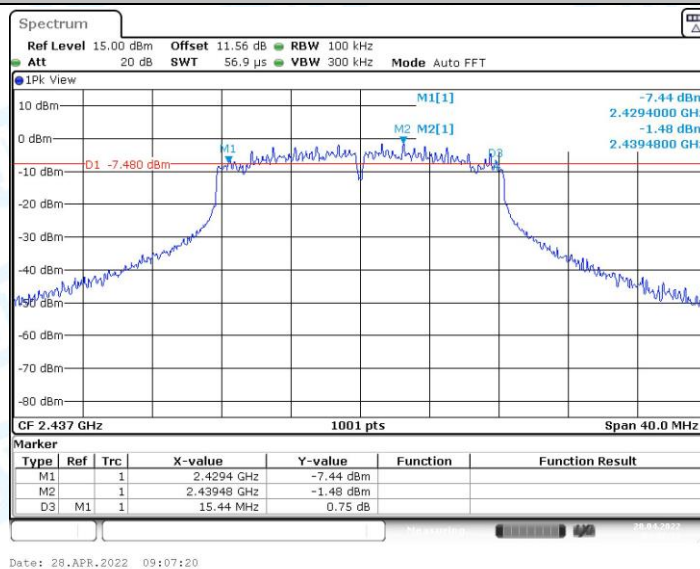
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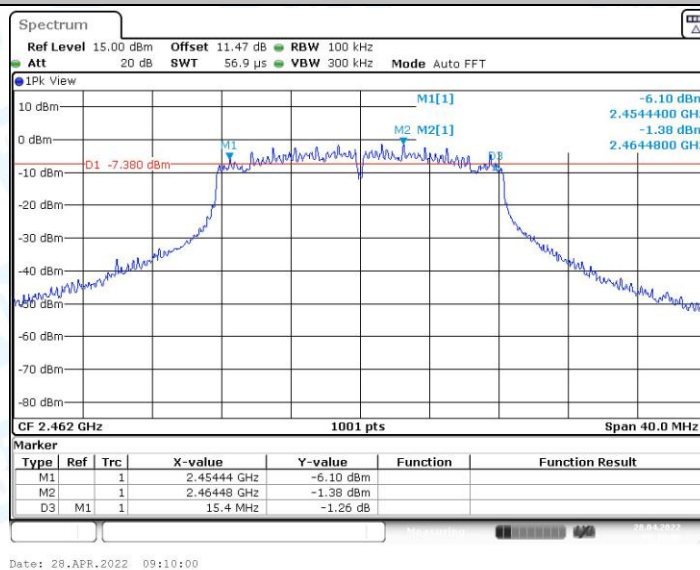
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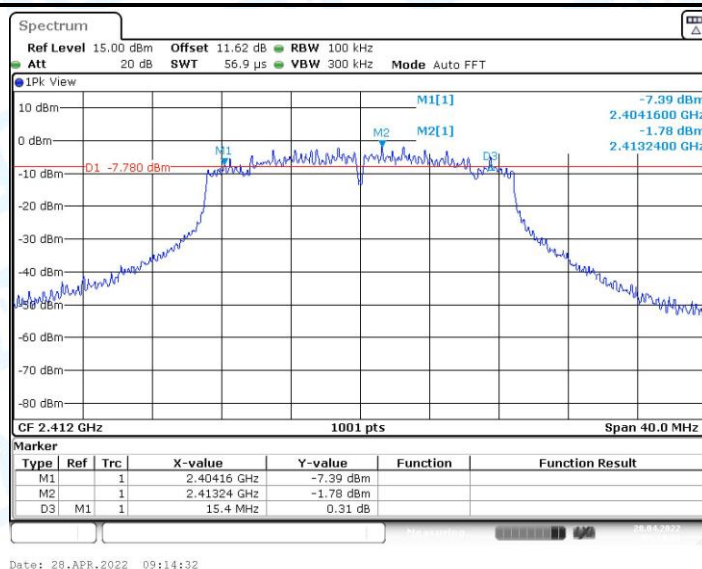
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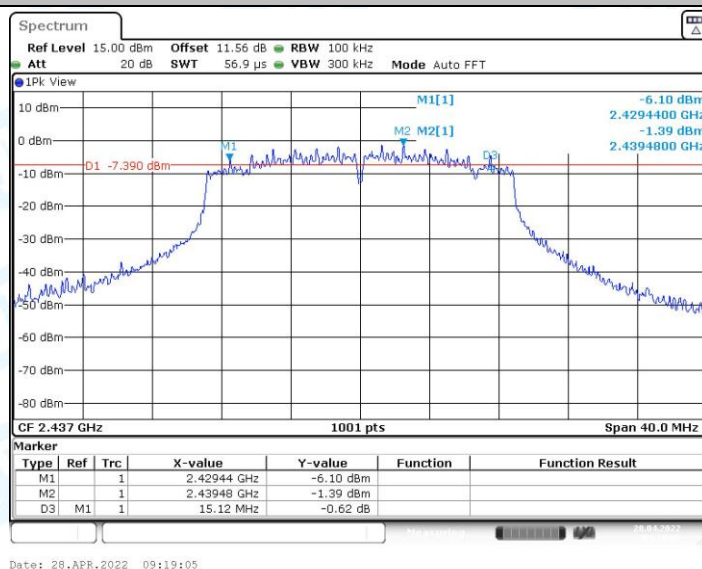
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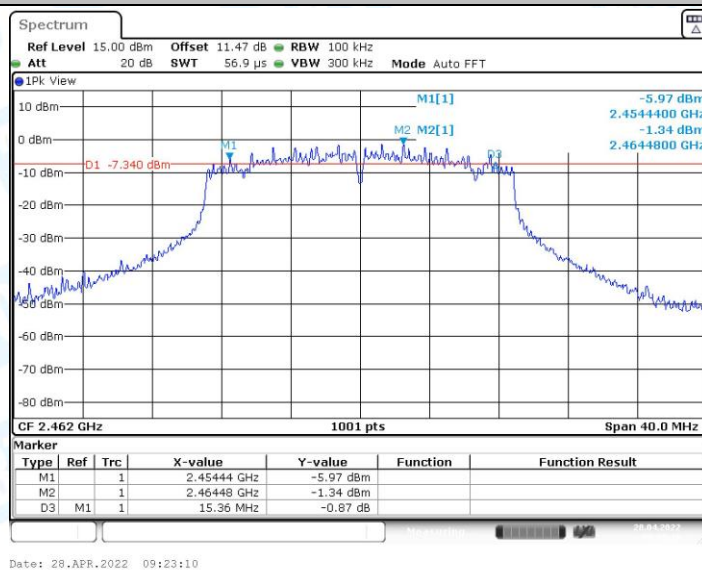
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11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437



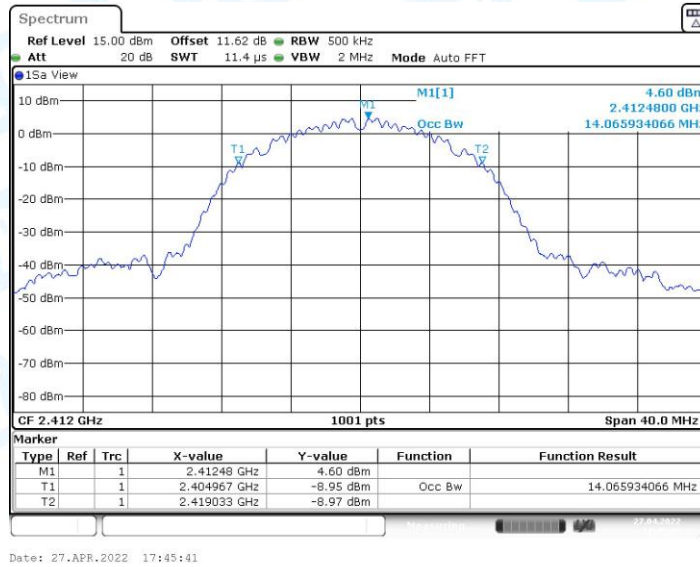
11N20SISO\_Ant1\_2462

## 2. Occupied Channel Bandwidth

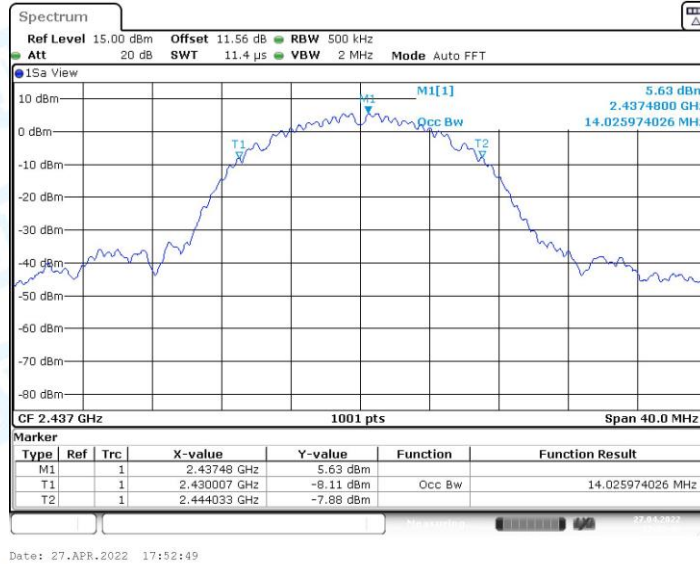
### 2.1. Test Result

| TestMode  | Antenna | Channel | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|-----------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 14.066    | 2404.967 | 2419.033 | ---        | ---     |
|           |         | 2437    | 14.026    | 2430.007 | 2444.033 | ---        | ---     |
|           |         | 2462    | 14.026    | 2454.967 | 2468.993 | ---        | ---     |
| 11G       | Ant1    | 2412    | 16.703    | 2403.608 | 2420.312 | ---        | ---     |
|           |         | 2437    | 16.623    | 2428.648 | 2445.272 | ---        | ---     |
|           |         | 2462    | 16.663    | 2453.648 | 2470.312 | ---        | ---     |
| 11N20SISO | Ant1    | 2412    | 17.902    | 2403.169 | 2421.071 | ---        | ---     |
|           |         | 2437    | 17.702    | 2428.089 | 2445.791 | ---        | ---     |
|           |         | 2462    | 17.782    | 2453.089 | 2470.871 | ---        | ---     |

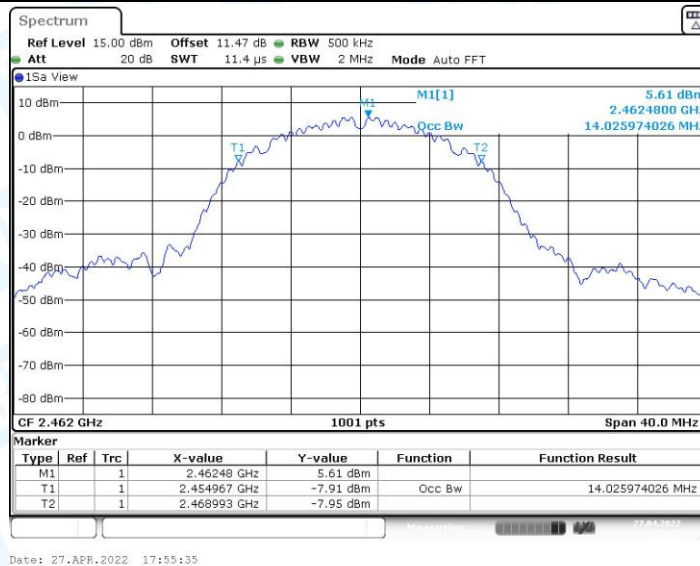
## 2.2. Test Graphs



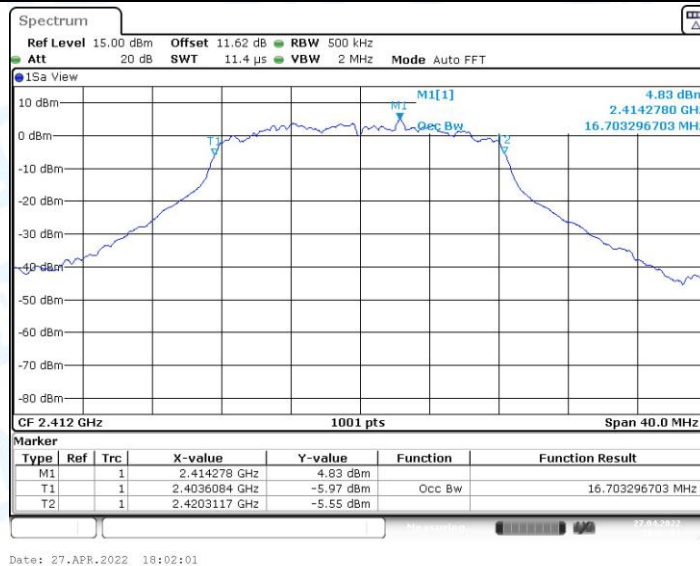
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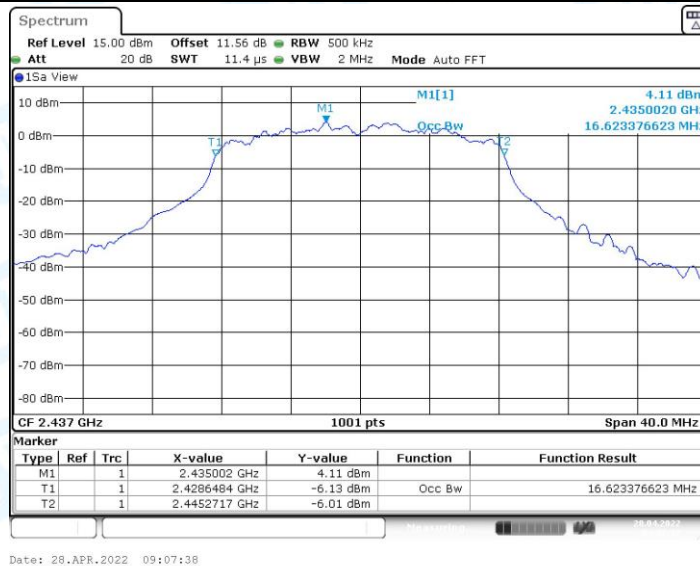
11B\_Ant1\_2437



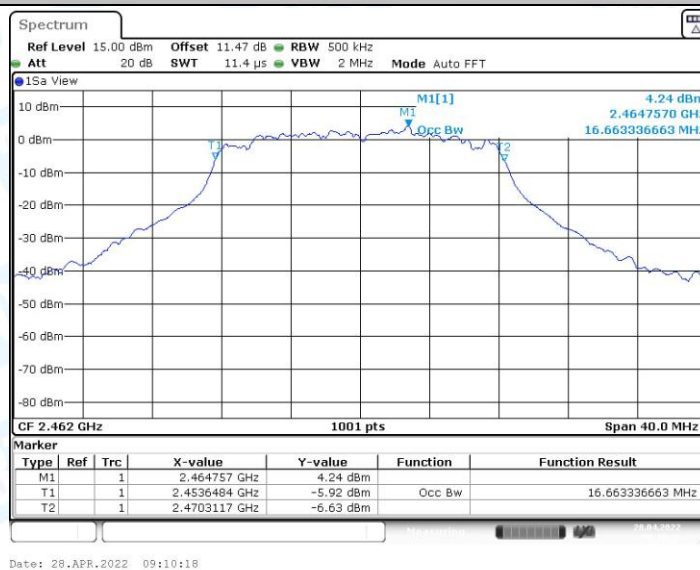
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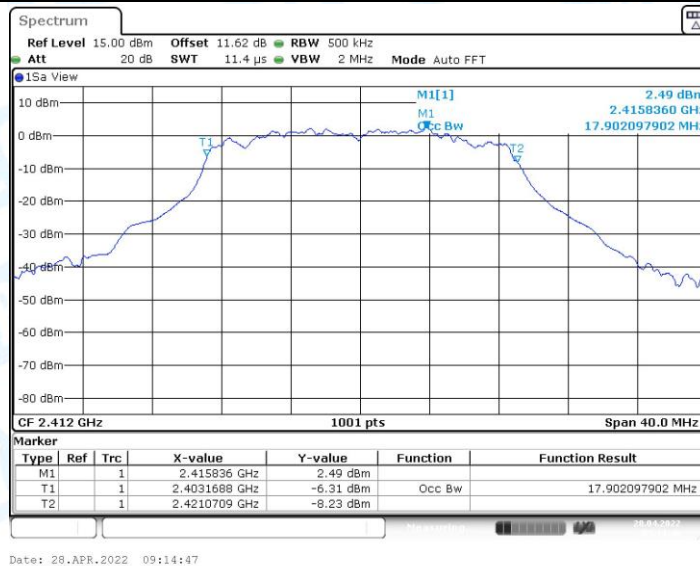
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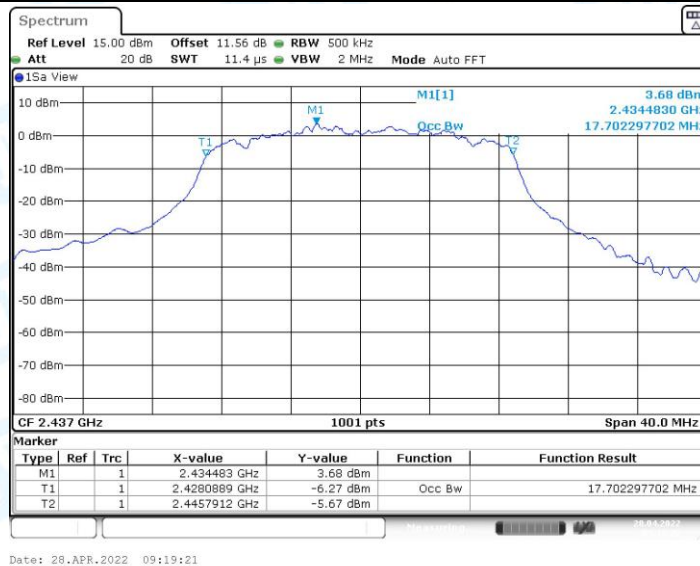
11G\_Ant1\_2437



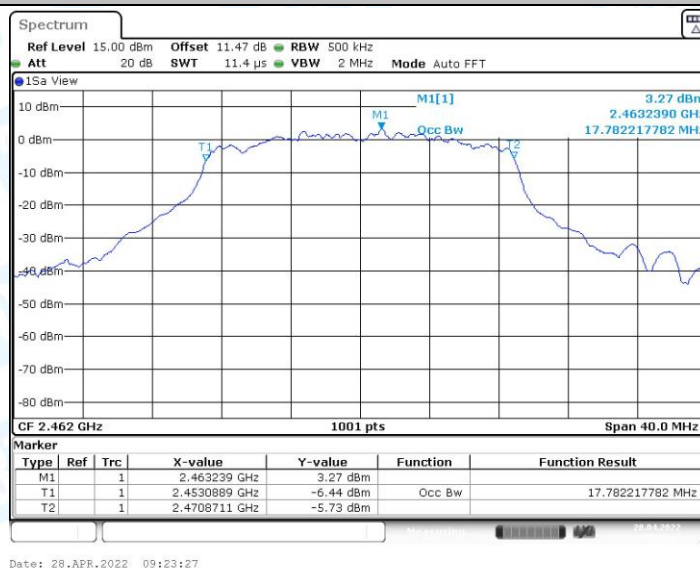
11G\_Ant1\_2462



## 11N20SISO\_Ant1\_2412



## 11N20SISO\_Ant1\_2437



## 11N20SISO\_Ant1\_2462

### 3. Maximum conducted output power

#### 3.1. Test Result

| TestMode  | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| 11B       | Ant1    | 2412    | 17.04       | ≤30.00     | PASS    |
|           |         | 2437    | 16.98       | ≤30.00     | PASS    |
|           |         | 2462    | 17.03       | ≤30.00     | PASS    |
| 11G       | Ant1    | 2412    | 17.23       | ≤30.00     | PASS    |
|           |         | 2437    | 17.19       | ≤30.00     | PASS    |
|           |         | 2462    | 17.29       | ≤30.00     | PASS    |
| 11N20SISO | Ant1    | 2412    | 16.87       | ≤30.00     | PASS    |
|           |         | 2437    | 16.95       | ≤30.00     | PASS    |
|           |         | 2462    | 16.94       | ≤30.00     | PASS    |

## 4. Maximum power spectral density

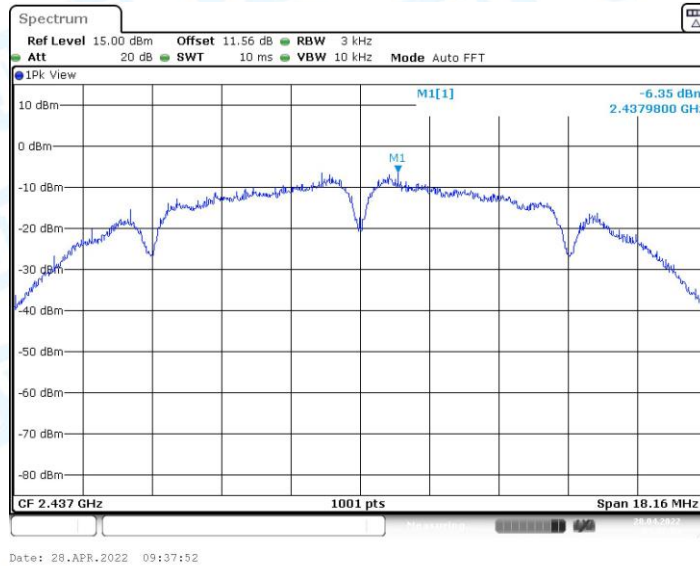
### 4.1. Test Result

| Test Mode | Antenna | Channel | Result[dBm/3kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|------------------|-----------------|---------|
| 11B       | Ant1    | 2412    | -7.59            | ≤8.00           | PASS    |
|           |         | 2437    | -6.35            | ≤8.00           | PASS    |
|           |         | 2462    | -6.24            | ≤8.00           | PASS    |
| 11G       | Ant1    | 2412    | -16.13           | ≤8.00           | PASS    |
|           |         | 2437    | -15.45           | ≤8.00           | PASS    |
|           |         | 2462    | -15.39           | ≤8.00           | PASS    |
| 11N20SISO | Ant1    | 2412    | -16.58           | ≤8.00           | PASS    |
|           |         | 2437    | -16.25           | ≤8.00           | PASS    |
|           |         | 2462    | -16.06           | ≤8.00           | PASS    |

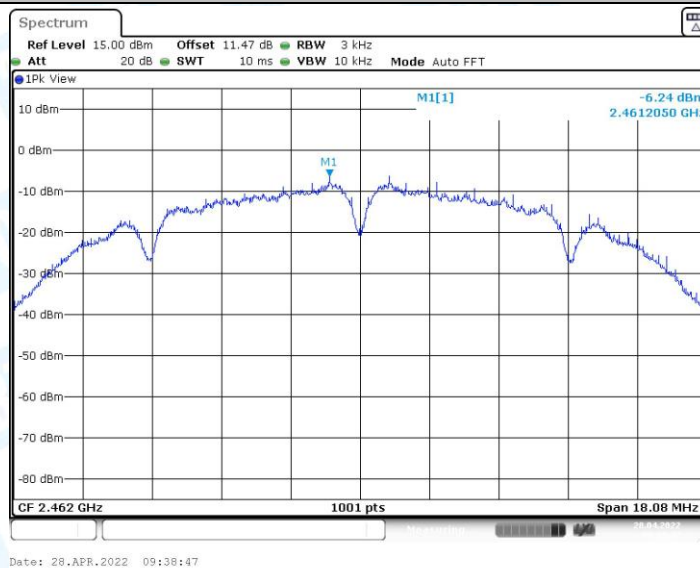
## 4.2. Test Graphs



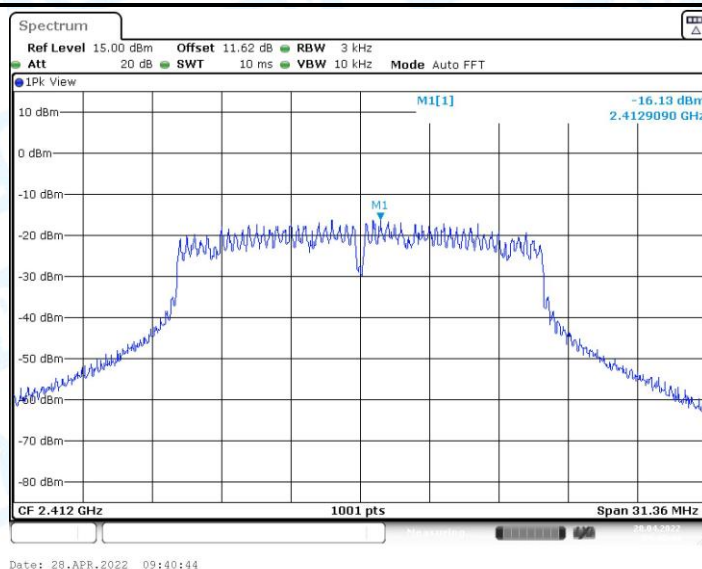
11B\_Ant1\_2412



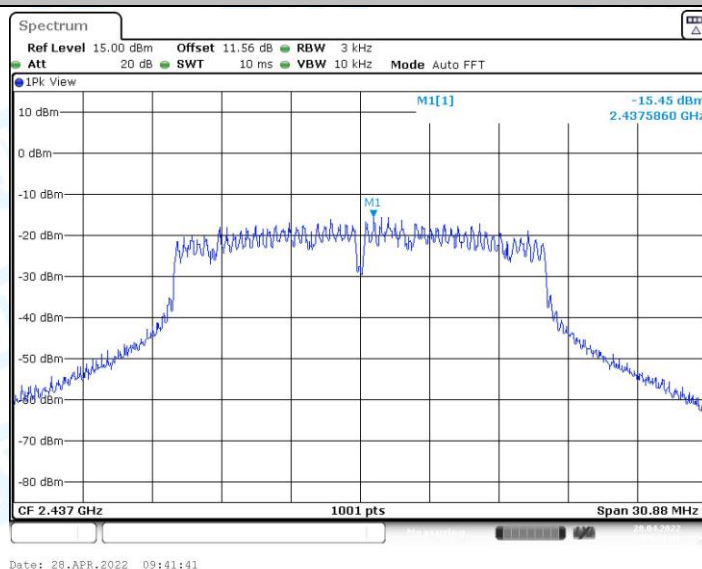
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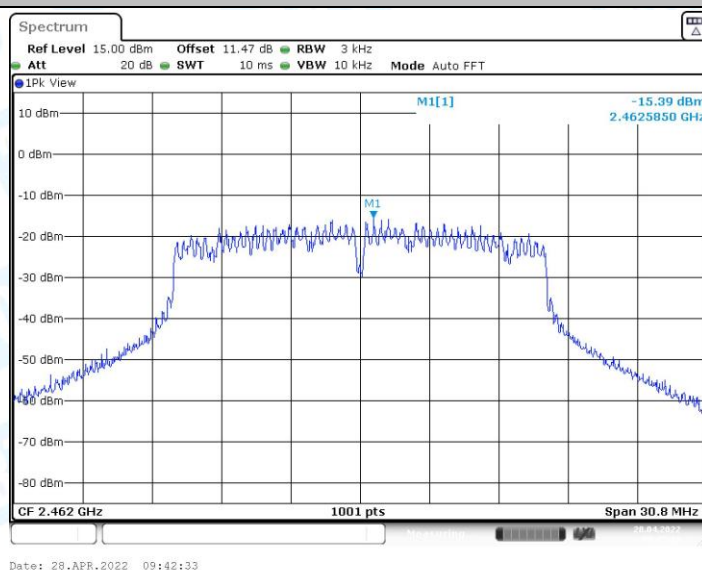
11B\_Ant1\_2462



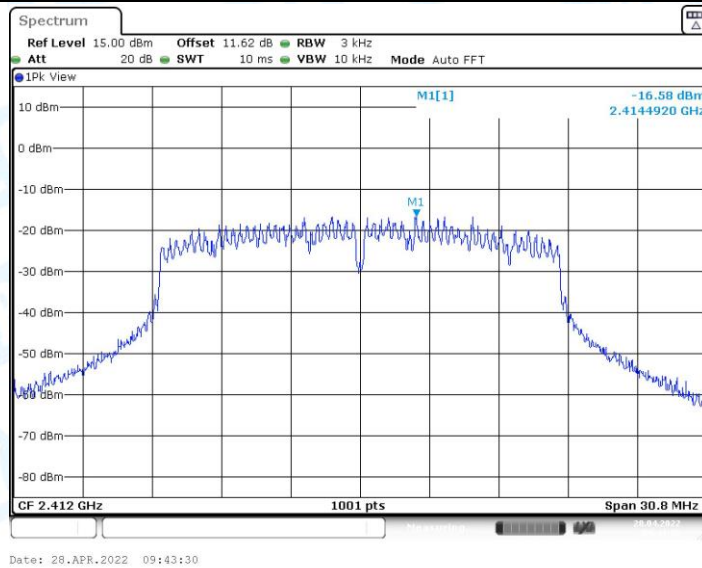
11G\_Ant1\_2412



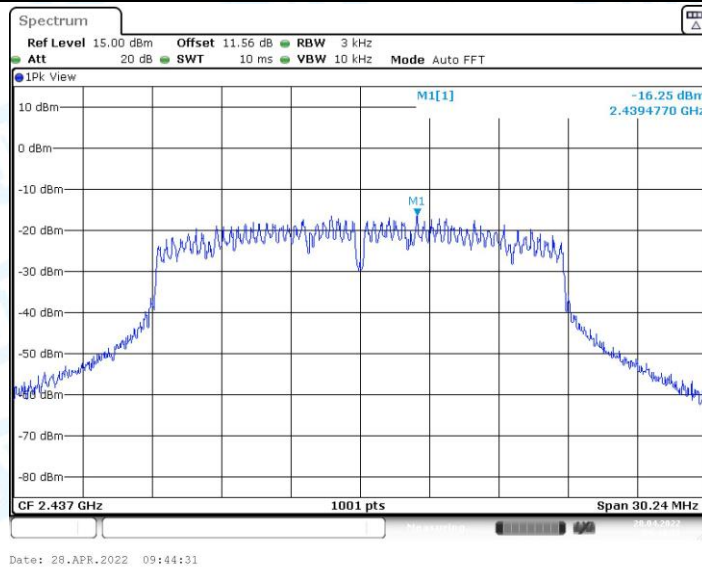
11G\_Ant1\_2437



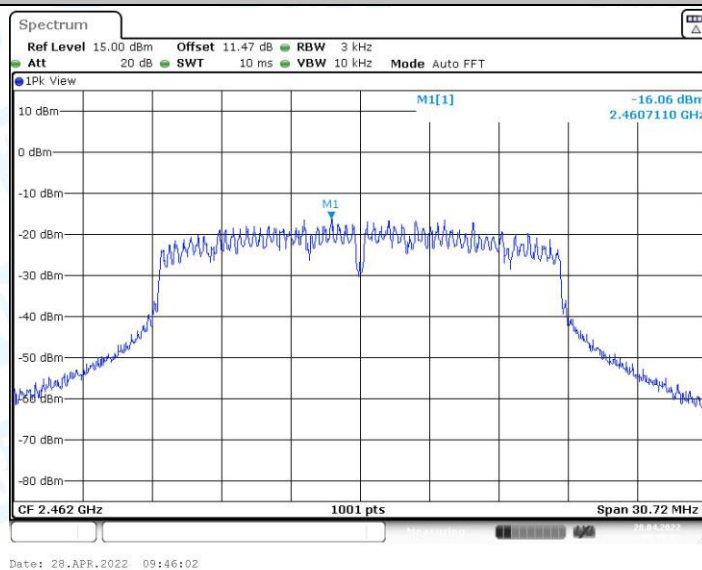
11G\_Ant1\_2462



11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437



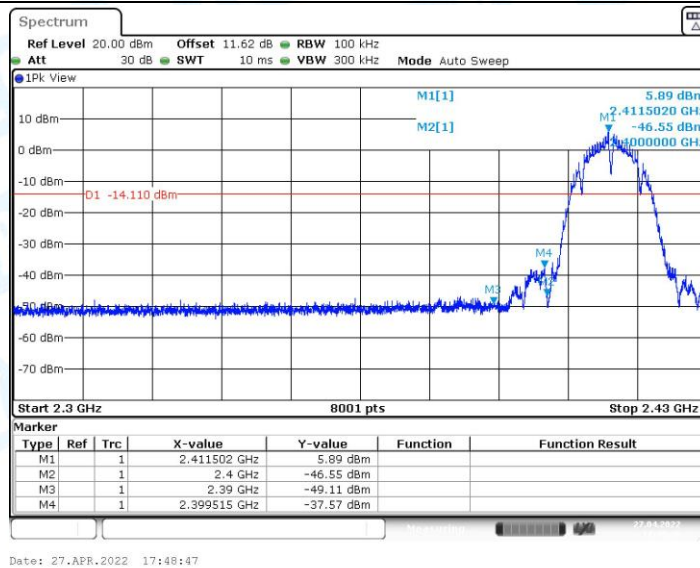
11N20SISO\_Ant1\_2462

## 5. Band edge measurements

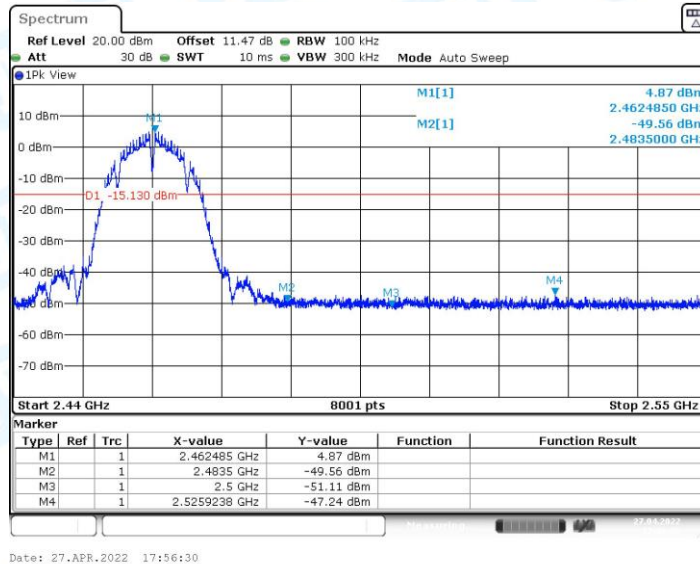
### 5.1. Test Result

| TestMode  | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm]    | Verdict |
|-----------|---------|--------|---------|---------------|-------------|---------------|---------|
| 11B       | Ant1    | Low    | 2412    | 5.89          | -37.57      | $\leq -14.11$ | PASS    |
|           |         | High   | 2462    | 4.87          | -47.24      | $\leq -15.13$ | PASS    |
| 11G       | Ant1    | Low    | 2412    | -0.81         | -35.82      | $\leq -20.81$ | PASS    |
|           |         | High   | 2462    | -1.93         | -46.24      | $\leq -21.93$ | PASS    |
| 11N20SISO | Ant1    | Low    | 2412    | -1.99         | -36.32      | $\leq -21.99$ | PASS    |
|           |         | High   | 2462    | -1.63         | -47.07      | $\leq -21.63$ | PASS    |

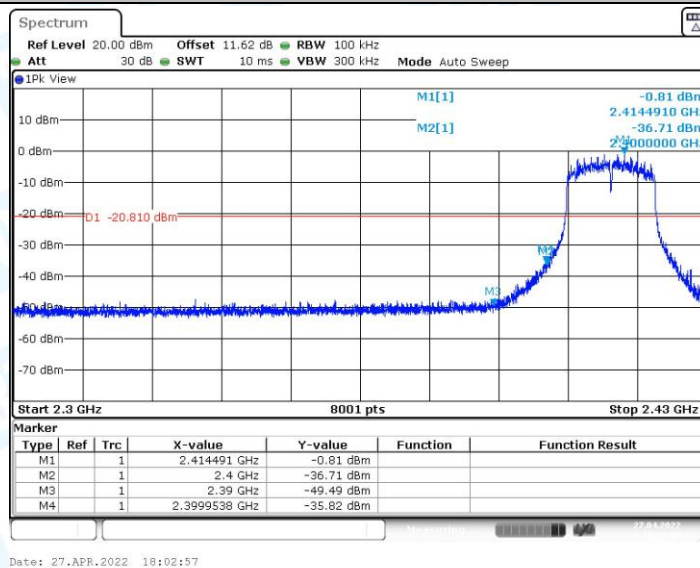
## 5.2. Test Graphs



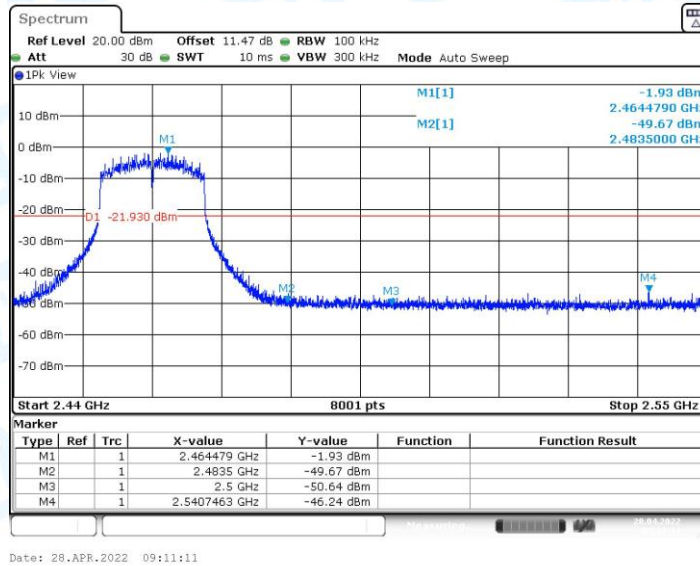
11B\_Ant1\_Low\_2412



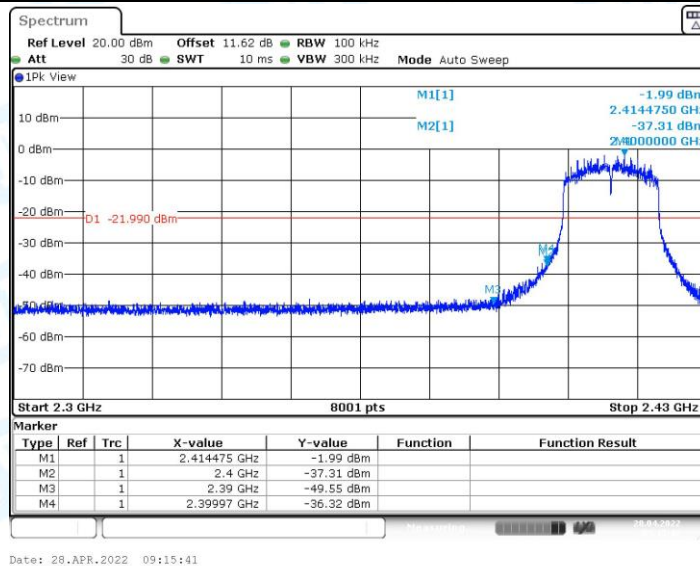
11B\_Ant1\_High\_2462



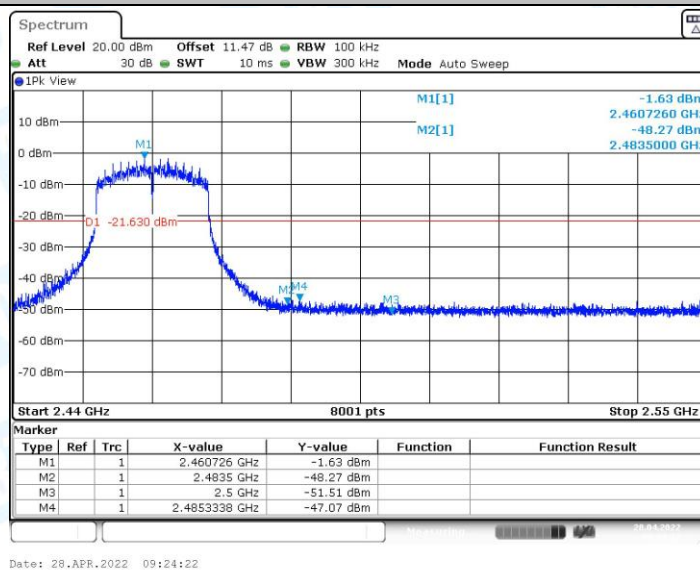
11G\_Ant1\_Low\_2412



11G\_Ant1\_High\_2462



11N20SISO\_Ant1\_Low\_2412



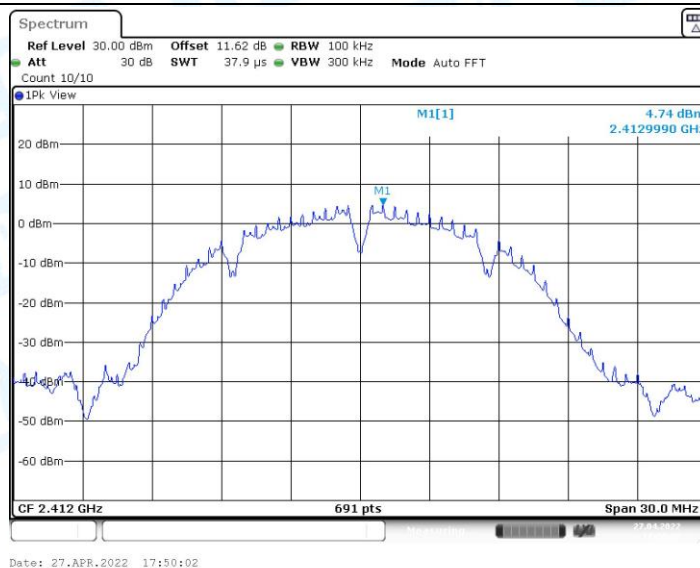
11N20SISO\_Ant1\_High\_2462

## 6. Conducted Spurious Emission

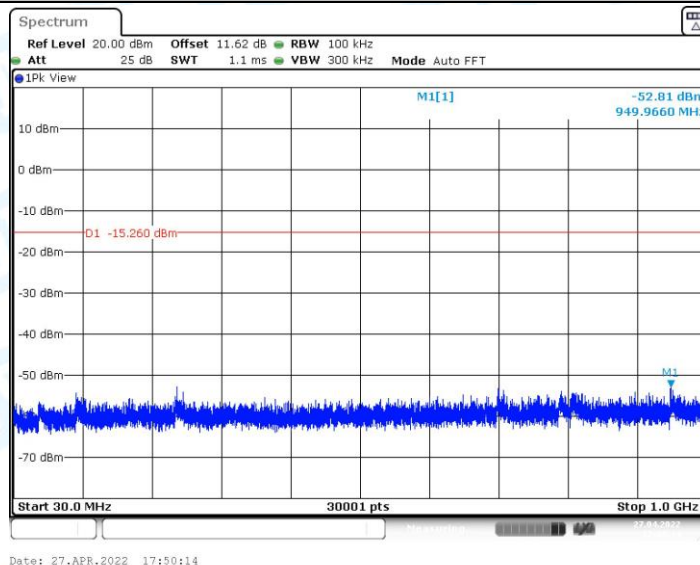
### 6.1. Test Result

| TestMode  | Antenna | Channel | FreqRange<br>[Mhz] | RefLevel<br>[dBm] | Result<br>[dBm] | Limit<br>[dBm] | Verdict |
|-----------|---------|---------|--------------------|-------------------|-----------------|----------------|---------|
| 11B       | Ant1    | 2412    | Reference          | 4.74              | 4.74            | ---            | PASS    |
|           |         |         | 30~1000            | 4.74              | -52.81          | ≤-15.26        | PASS    |
|           |         |         | 1000~26500         | 4.74              | -46.7           | ≤-15.26        | PASS    |
|           |         | 2437    | Reference          | 4.99              | 4.99            | ---            | PASS    |
|           |         |         | 30~1000            | 4.99              | -52.87          | ≤-15.01        | PASS    |
|           |         |         | 1000~26500         | 4.99              | -46.89          | ≤-15.01        | PASS    |
|           |         | 2462    | Reference          | 4.76              | 4.76            | ---            | PASS    |
|           |         |         | 30~1000            | 4.76              | -53.63          | ≤-15.24        | PASS    |
|           |         |         | 1000~26500         | 4.76              | -47.09          | ≤-15.24        | PASS    |
| 11G       | Ant1    | 2412    | Reference          | -0.62             | -0.62           | ---            | PASS    |
|           |         |         | 30~1000            | -0.62             | -52.97          | ≤-20.62        | PASS    |
|           |         |         | 1000~26500         | -0.62             | -47.32          | ≤-20.62        | PASS    |
|           |         | 2437    | Reference          | -1.72             | -1.72           | ---            | PASS    |
|           |         |         | 30~1000            | -1.72             | -53.05          | ≤-21.72        | PASS    |
|           |         |         | 1000~26500         | -1.72             | -47.19          | ≤-21.72        | PASS    |
|           |         | 2462    | Reference          | -1.60             | -1.60           | ---            | PASS    |
|           |         |         | 30~1000            | -1.60             | -52.89          | ≤-21.6         | PASS    |
|           |         |         | 1000~26500         | -1.60             | -46.83          | ≤-21.6         | PASS    |
| 11N20SISO | Ant1    | 2412    | Reference          | -1.72             | -1.72           | ---            | PASS    |
|           |         |         | 30~1000            | -1.72             | -53.28          | ≤-21.72        | PASS    |
|           |         |         | 1000~26500         | -1.72             | -47.21          | ≤-21.72        | PASS    |
|           |         | 2437    | Reference          | -1.32             | -1.32           | ---            | PASS    |
|           |         |         | 30~1000            | -1.32             | -52.93          | ≤-21.32        | PASS    |
|           |         |         | 1000~26500         | -1.32             | -47.09          | ≤-21.32        | PASS    |
|           |         | 2462    | Reference          | -1.27             | -1.27           | ---            | PASS    |
|           |         |         | 30~1000            | -1.27             | -53.9           | ≤-21.27        | PASS    |
|           |         |         | 1000~26500         | -1.27             | -46.59          | ≤-21.27        | PASS    |

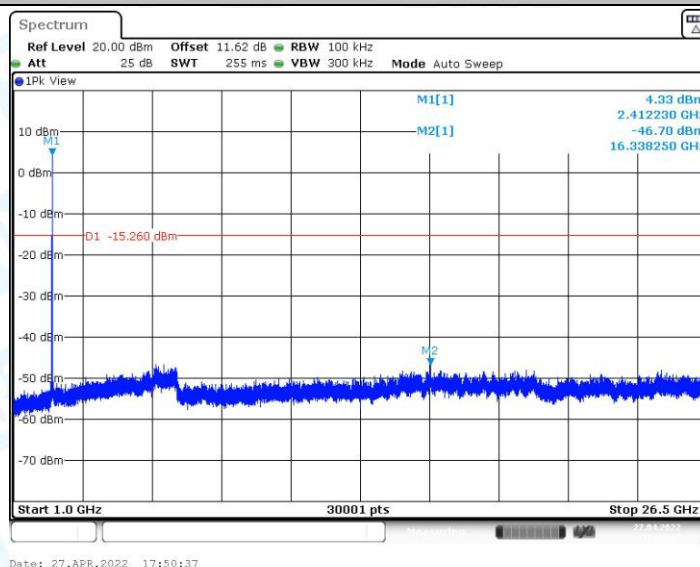
## 6.2. Test Graphs



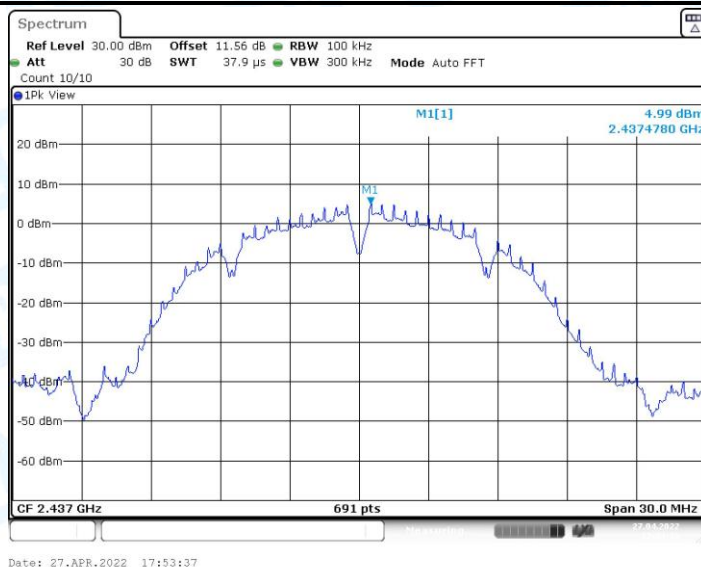
11B\_Ant1\_2412\_0~Reference



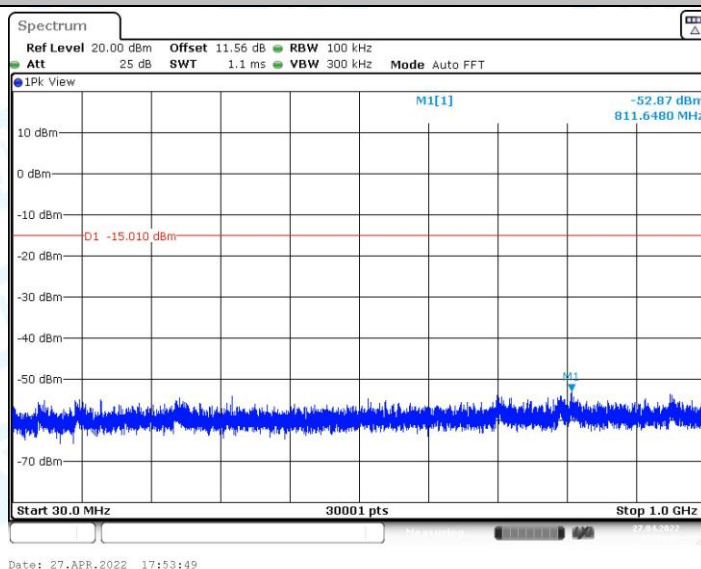
11B\_Ant1\_2412\_30~1000



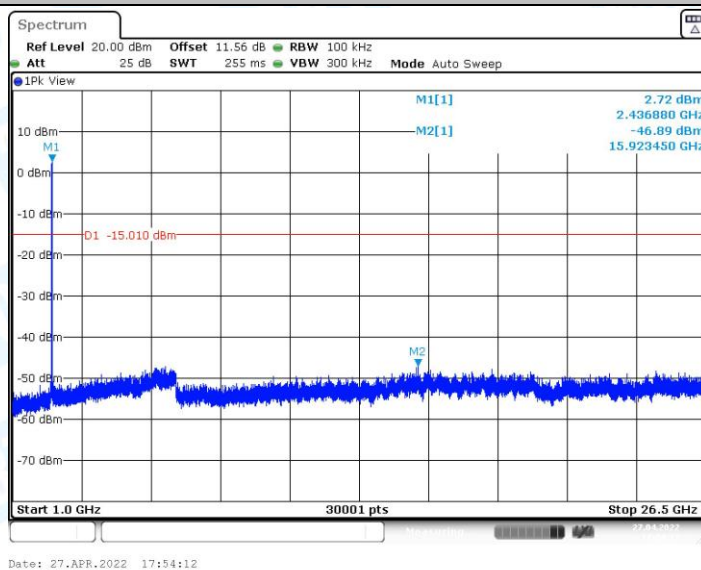
11B\_Ant1\_2412\_1000~26500



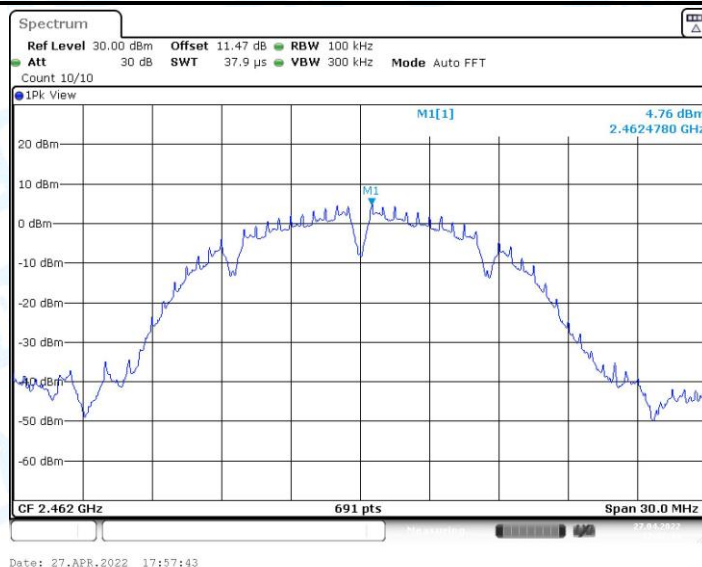
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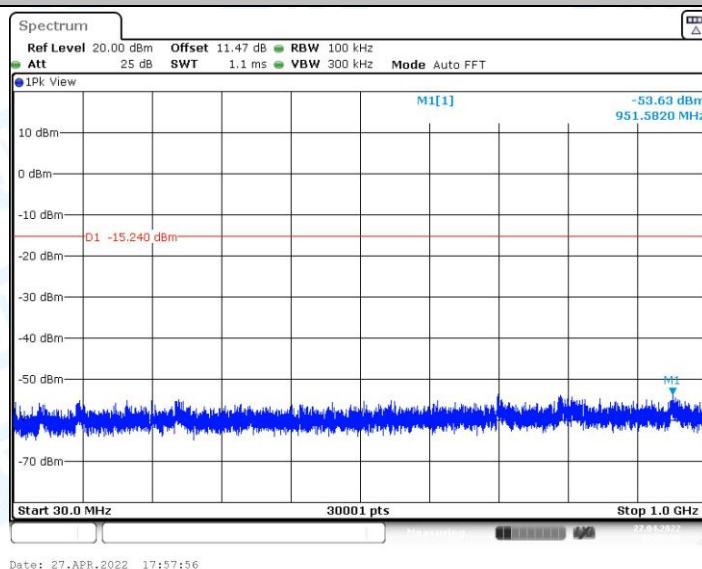
## 11B\_Ant1\_2437\_30~1000



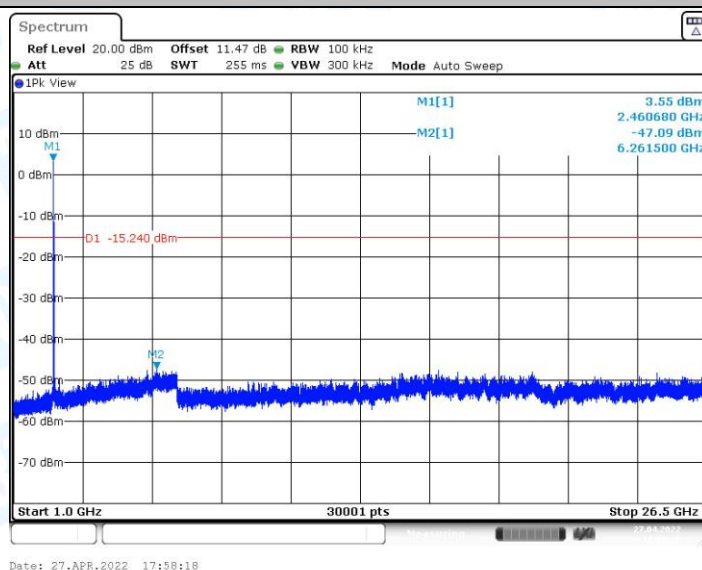
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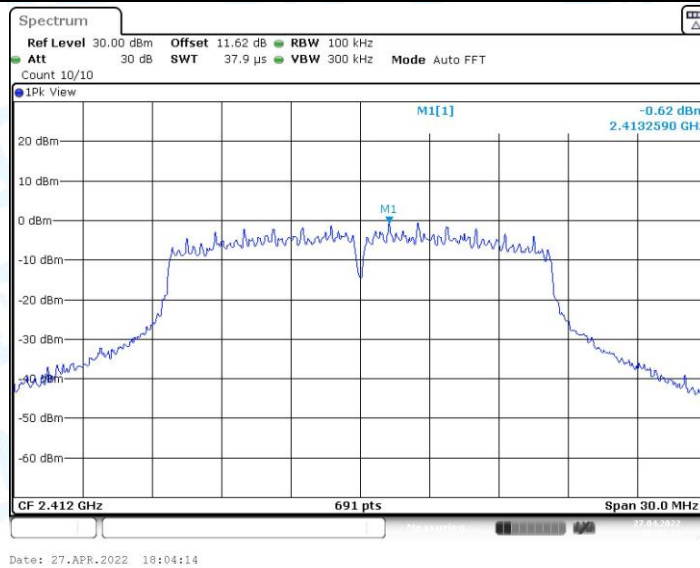
## 11B\_Ant1\_2462\_0~Reference



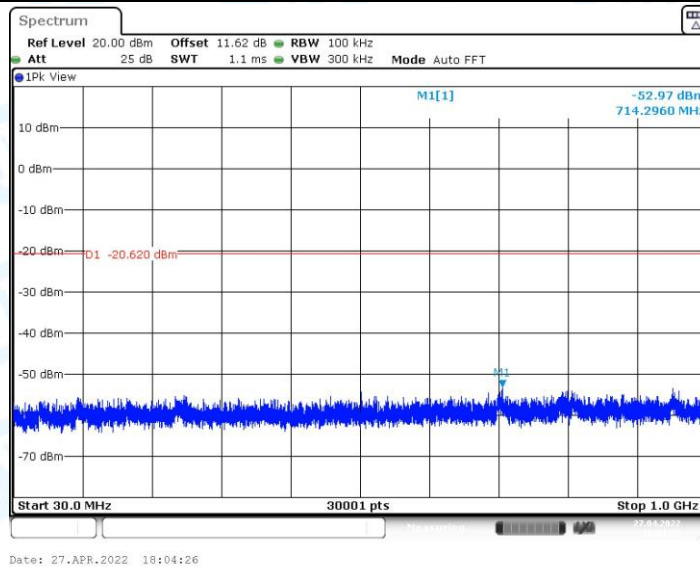
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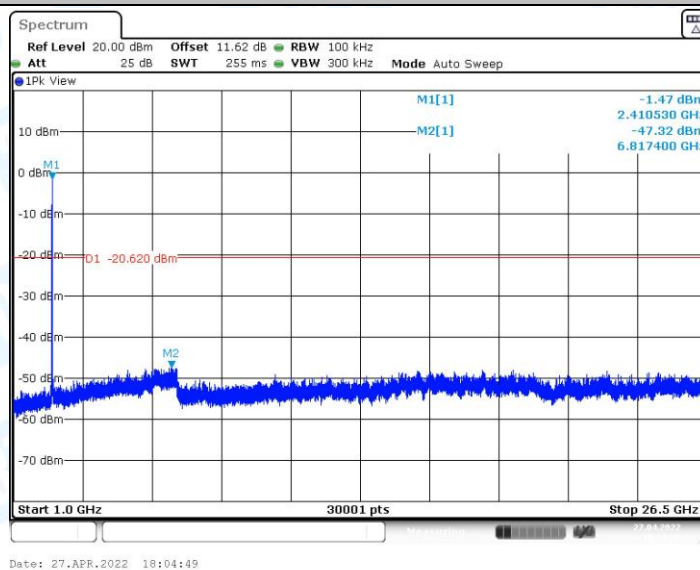
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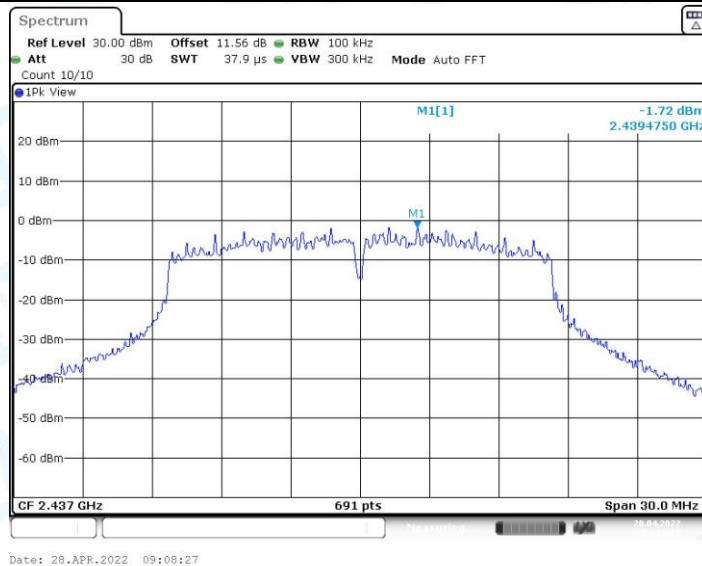
## 11G\_Ant1\_2412\_0~Reference



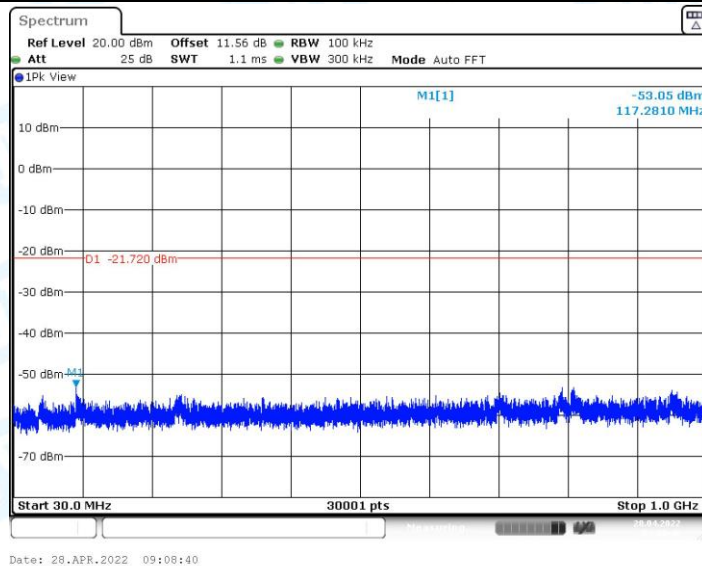
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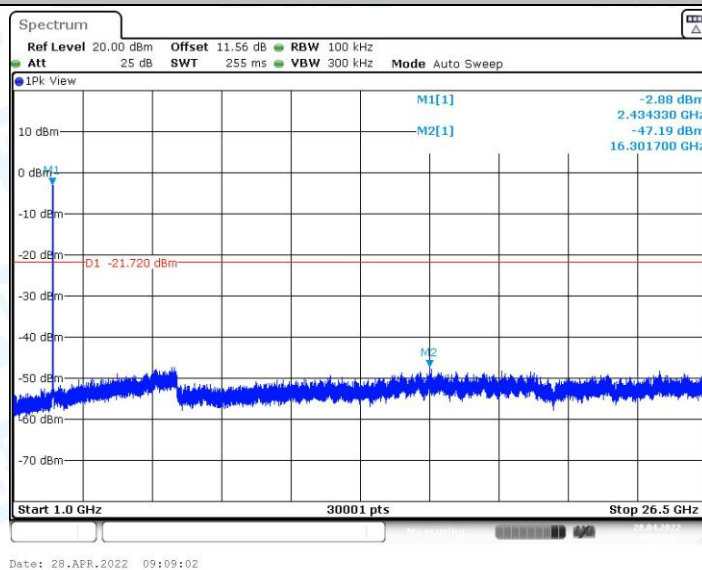
## 11G\_Ant1\_2412\_1000~26500



## 11G\_Ant1\_2437\_0~Reference



## 11G\_Ant1\_2437\_30~1000



## 11G\_Ant1\_2437\_1000~26500