

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

| General Description of EUT  |                   |
|---|-------------------|
| Product Name:   | D26               |
| Test Model:   | D26               |
| Sample ID:  | 20210721-06_01-2# |
| Environmental Conditions  |                   |
| Temperature:  | 25°C              |
| Relative Humidity:  | 55%               |
| Test Voltage:   | DC 3.8V           |
| Test Engineer:  | Huangjianping     |
| Note: For a more detailed features description, please refer to the report TB-FCC182993 |                   |

## Contents

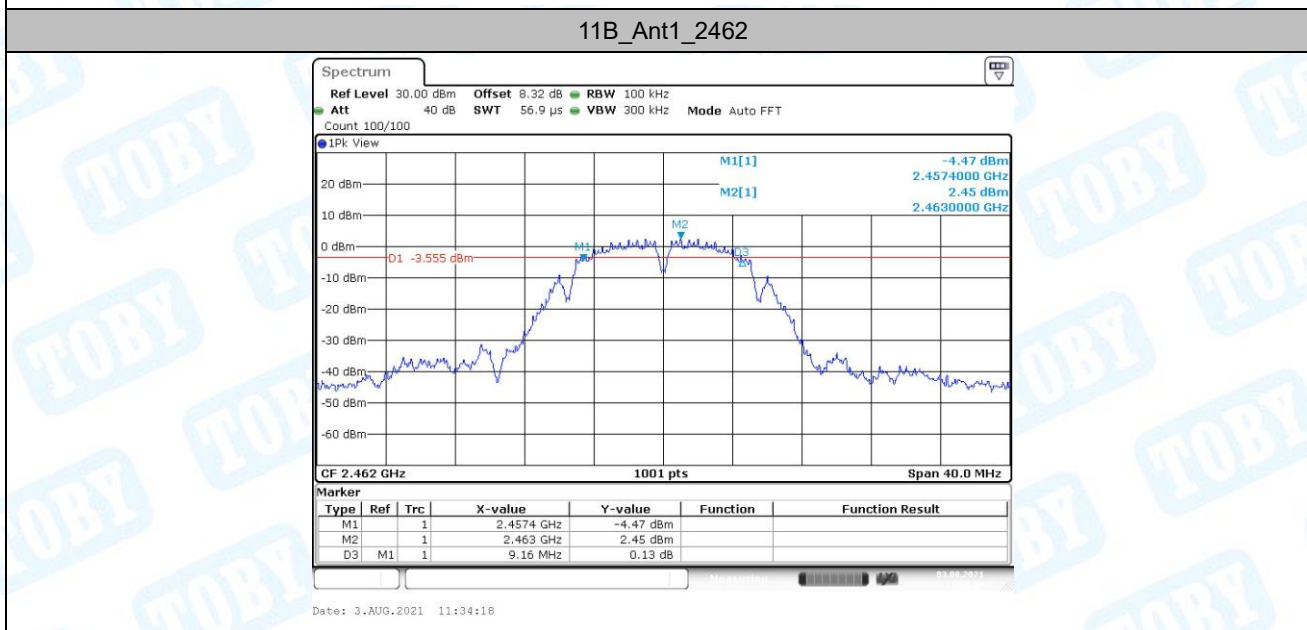
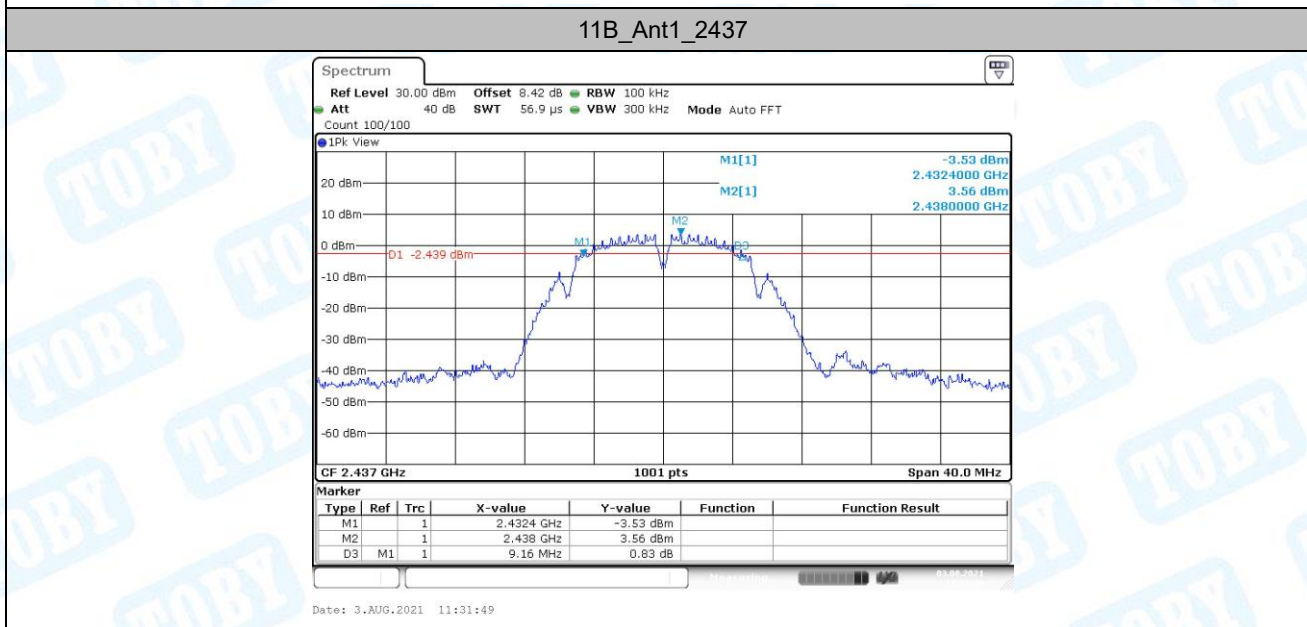
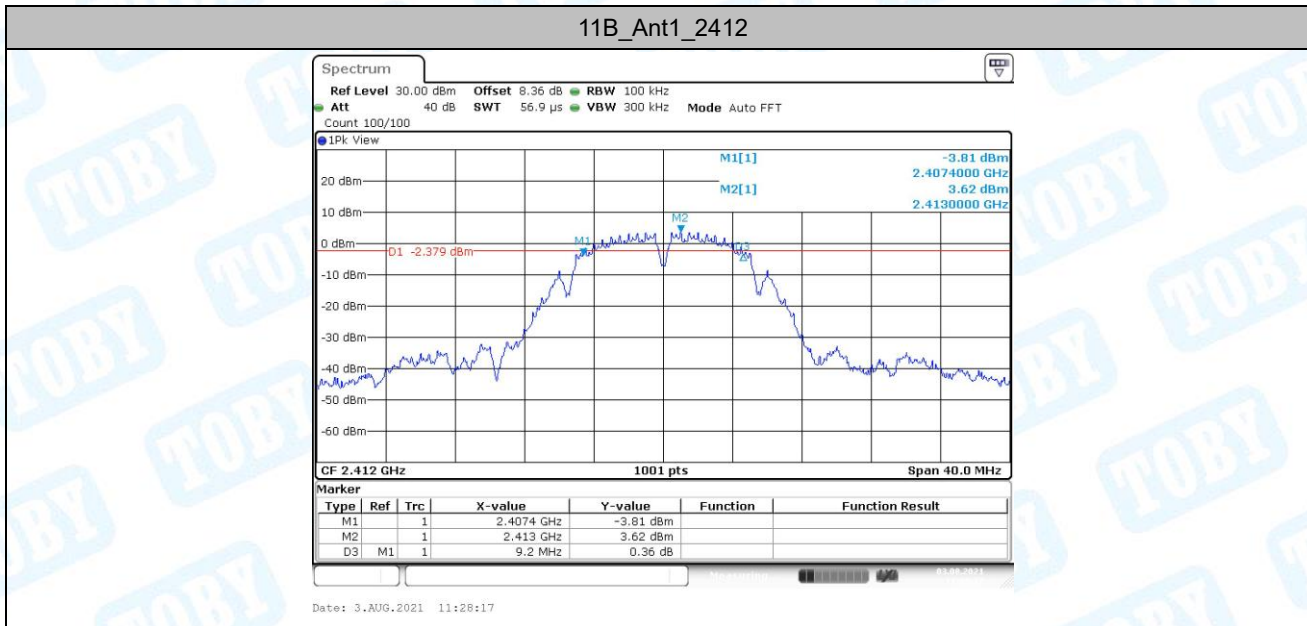
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# 1. DTS Bandwidth

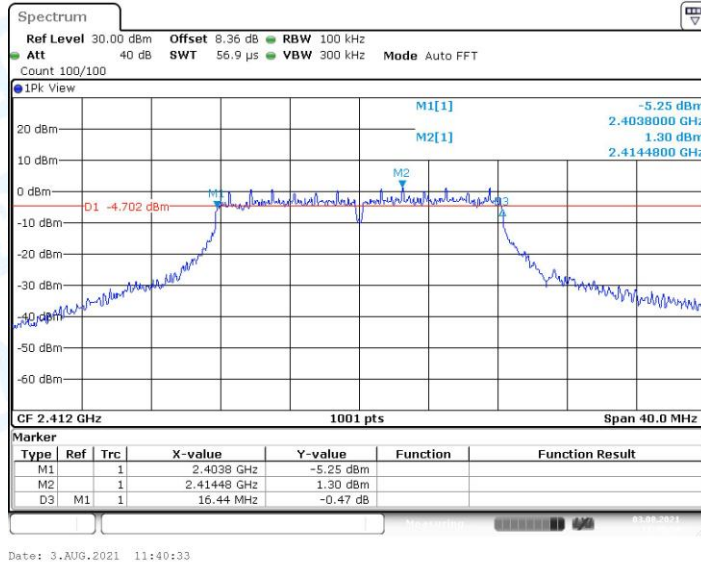
## 1.1. Test Result

| TestMode  | Antenna | Channel | DTS BW [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|--------------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 9.200        | 2407.400 | 2416.600 | 0.5        | PASS    |
|           |         | 2437    | 9.160        | 2432.400 | 2441.560 | 0.5        | PASS    |
|           |         | 2462    | 9.160        | 2457.400 | 2466.560 | 0.5        | PASS    |
| 11G       | Ant1    | 2412    | 16.440       | 2403.800 | 2420.240 | 0.5        | PASS    |
|           |         | 2437    | 16.440       | 2428.800 | 2445.240 | 0.5        | PASS    |
|           |         | 2462    | 16.400       | 2453.800 | 2470.200 | 0.5        | PASS    |
| 11N20SISO | Ant1    | 2412    | 17.680       | 2403.160 | 2420.840 | 0.5        | PASS    |
|           |         | 2437    | 17.640       | 2428.160 | 2445.800 | 0.5        | PASS    |
|           |         | 2462    | 17.680       | 2453.160 | 2470.840 | 0.5        | PASS    |

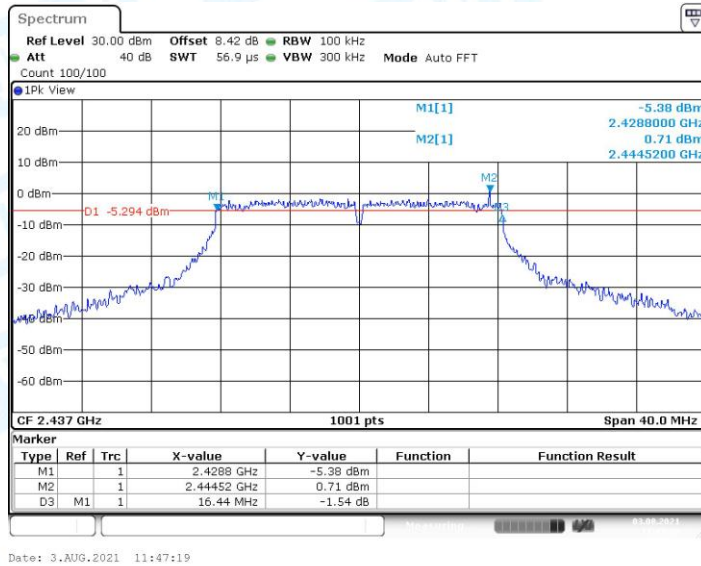
**1.2. Test Graphs**



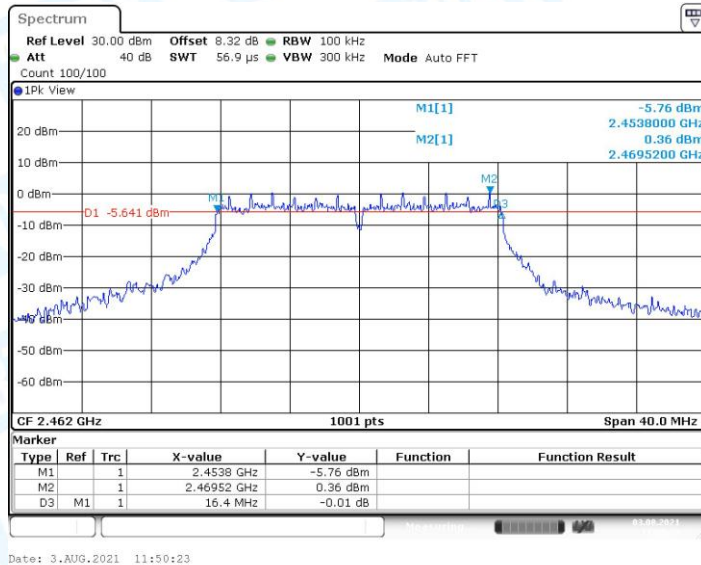
## 11G\_Ant1\_2412



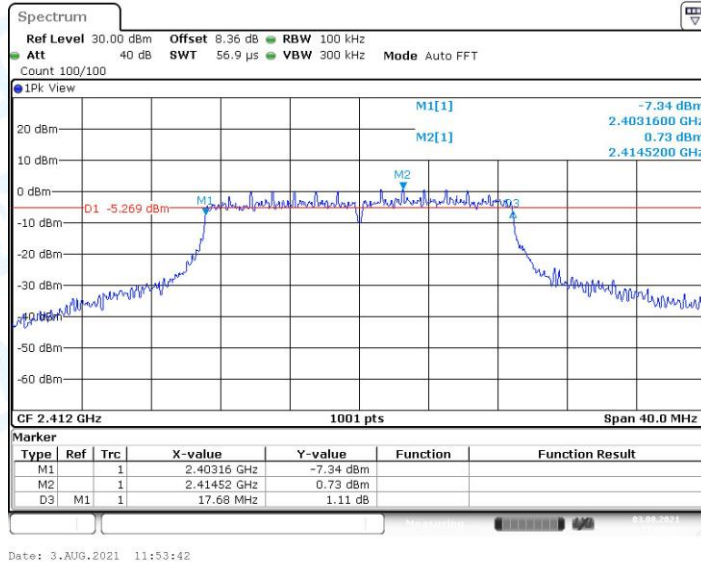
## 11G\_Ant1\_2437



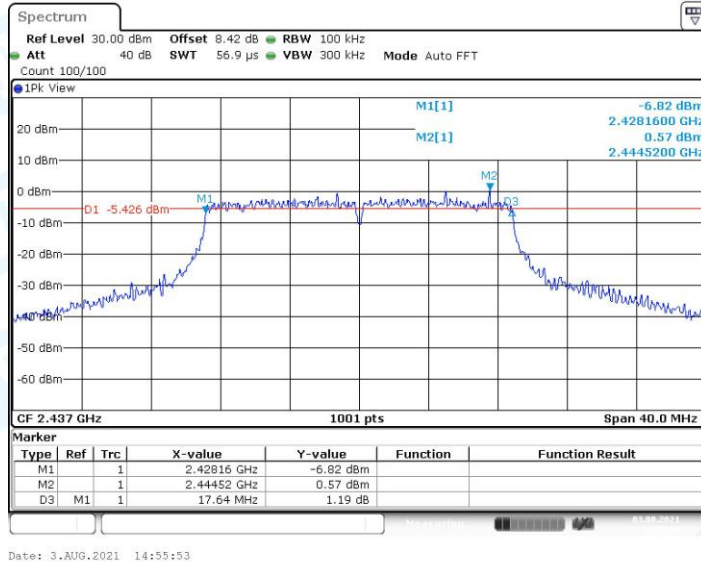
## 11G\_Ant1\_2462



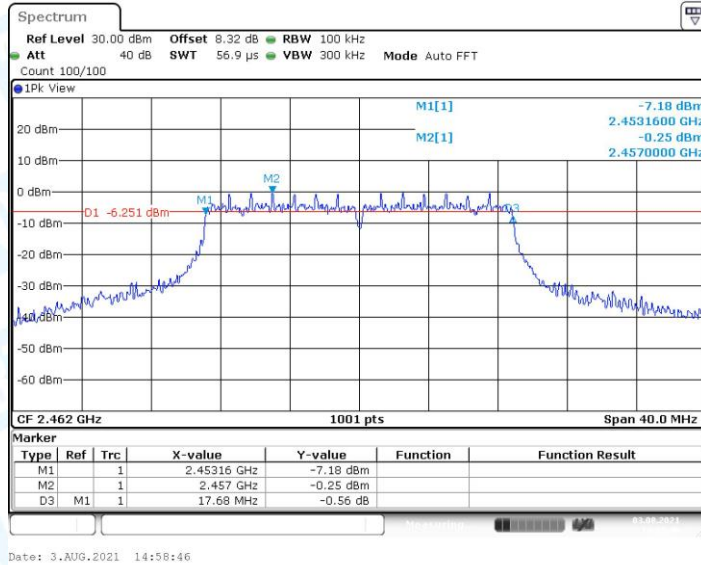
### 11N20SISO\_Ant1\_2412



### 11N20SISO\_Ant1\_2437



### 11N20SISO\_Ant1\_2462

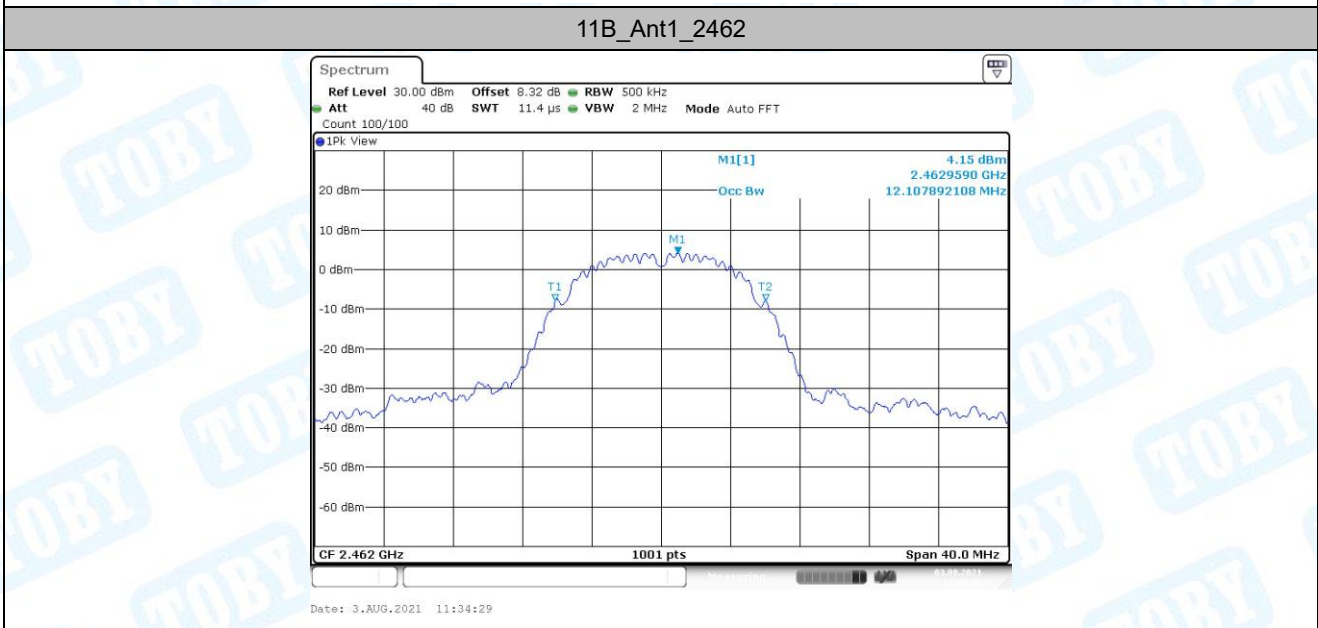
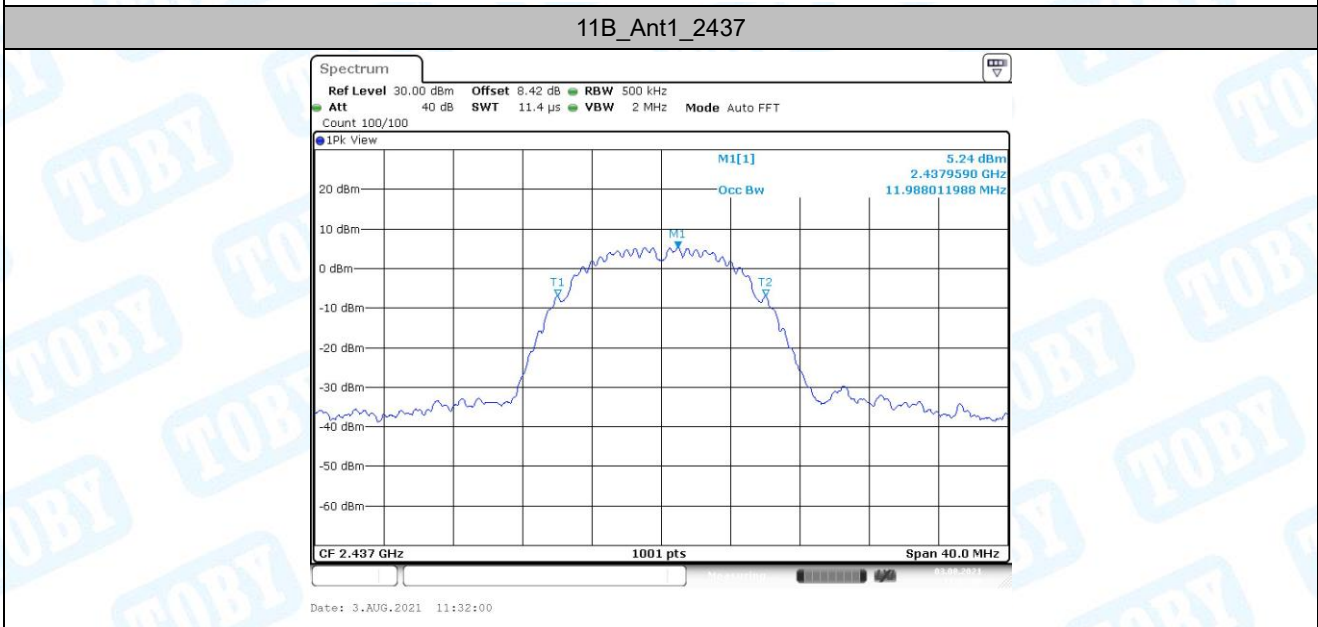
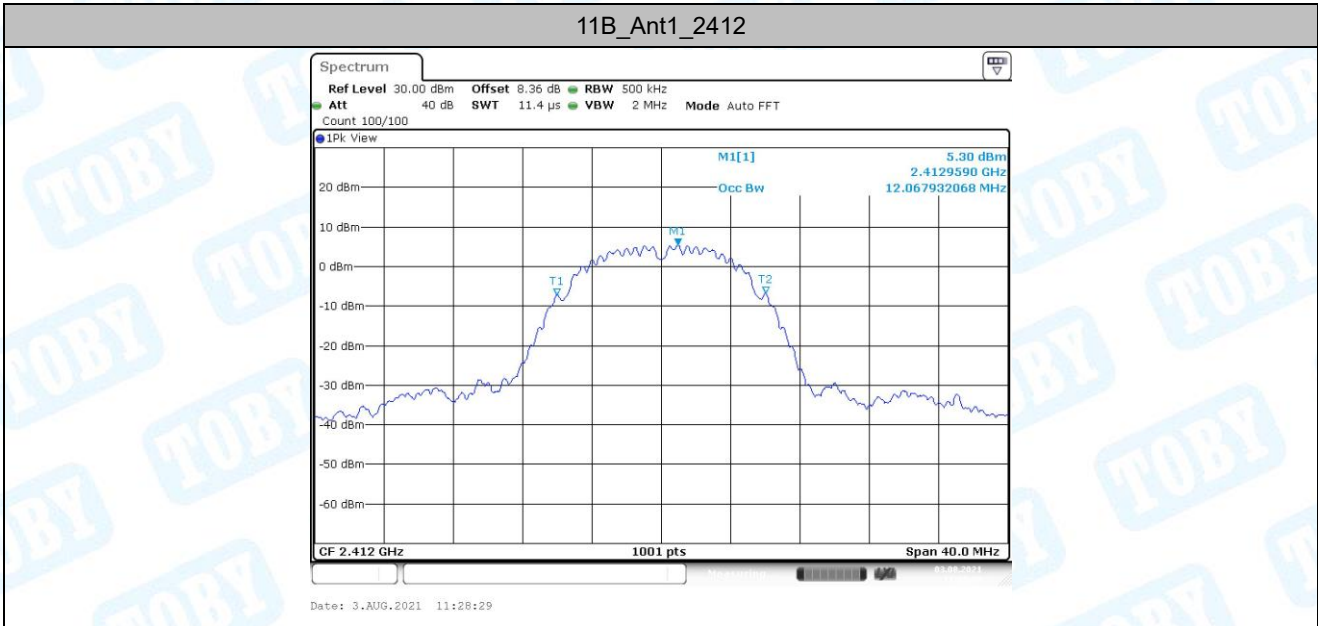


## 2. Occupied Channel Bandwidth

### 2.1. Test Result

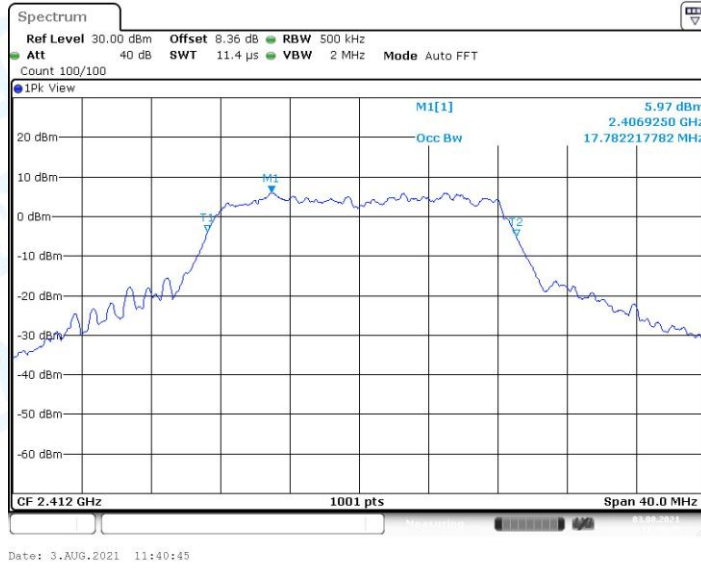
| TestMode  | Antenna | Channel | OCB [MHz] | FL[MHz]  | FH[MHz]  | Limit[MHz] | Verdict |
|-----------|---------|---------|-----------|----------|----------|------------|---------|
| 11B       | Ant1    | 2412    | 12.068    | 2405.966 | 2418.034 | ---        | PASS    |
|           |         | 2437    | 11.988    | 2431.006 | 2442.994 | ---        | PASS    |
|           |         | 2462    | 12.108    | 2455.886 | 2467.994 | ---        | PASS    |
| 11G       | Ant1    | 2412    | 17.782    | 2403.249 | 2421.031 | ---        | PASS    |
|           |         | 2437    | 17.463    | 2428.289 | 2445.751 | ---        | PASS    |
|           |         | 2462    | 17.702    | 2453.169 | 2470.871 | ---        | PASS    |
| 11N20SISO | Ant1    | 2412    | 18.462    | 2402.929 | 2421.391 | ---        | PASS    |
|           |         | 2437    | 18.462    | 2427.889 | 2446.351 | ---        | PASS    |
|           |         | 2462    | 18.382    | 2452.809 | 2471.191 | ---        | PASS    |

## 2.2. Test Graphs

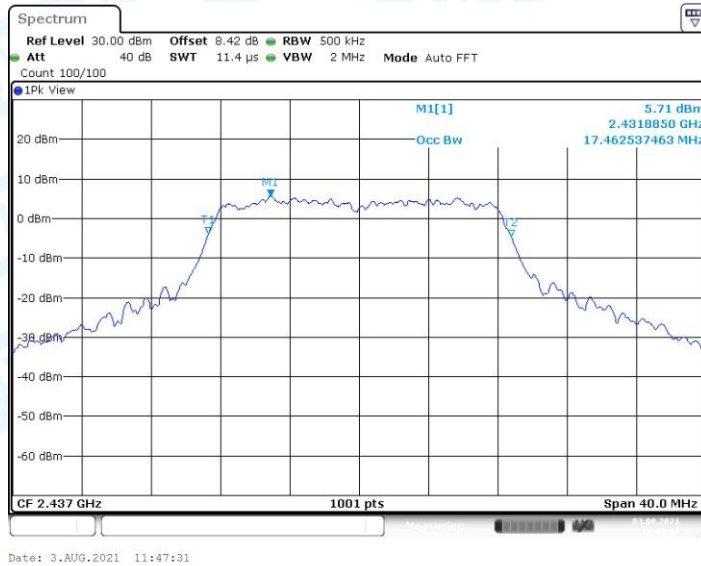




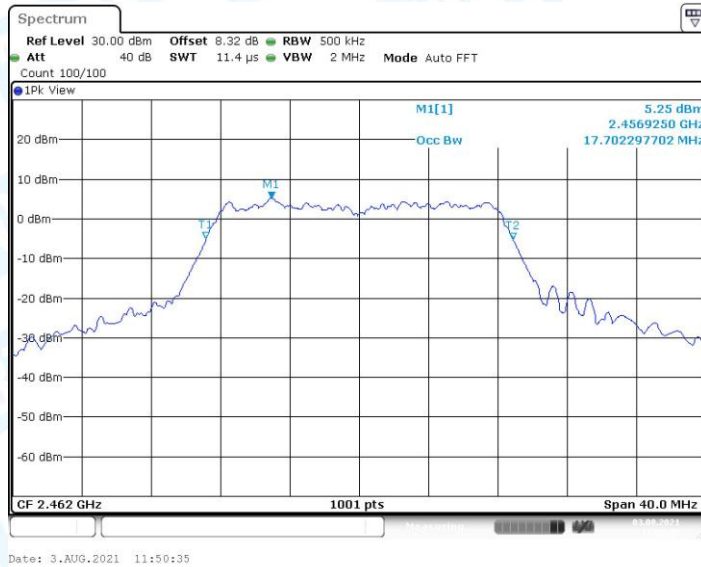
11G\_Ant1\_2412



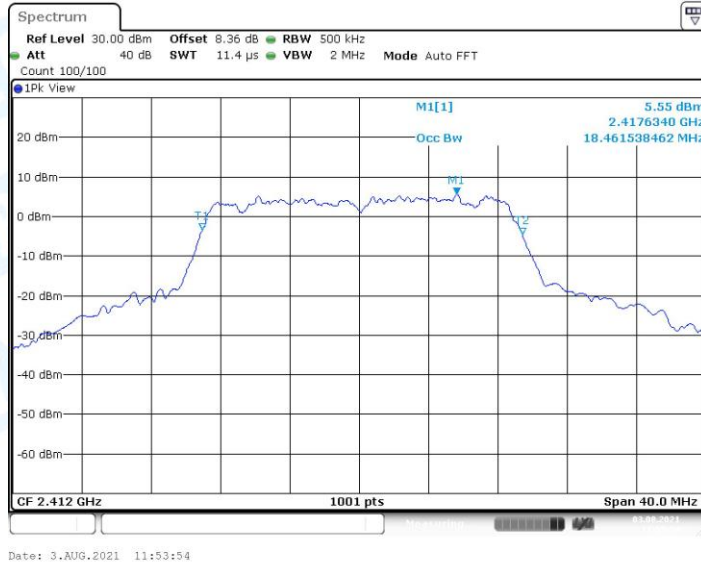
11G\_Ant1\_2437



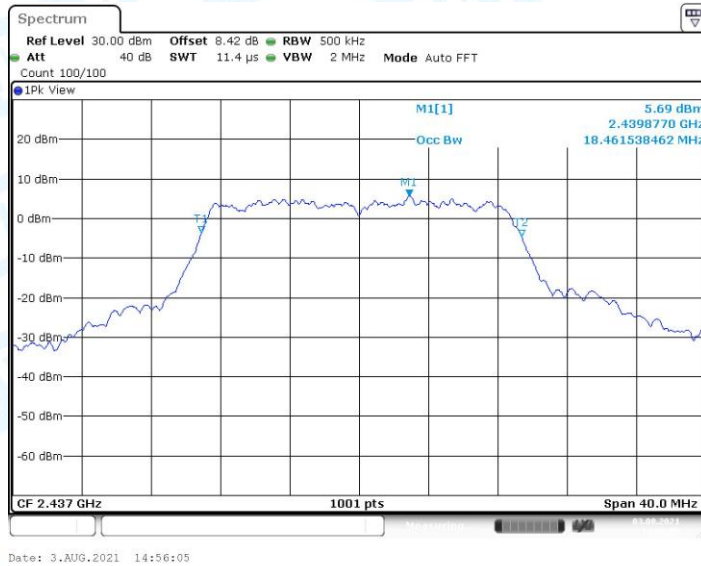
11G\_Ant1\_2462



11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462



### 3. Maximum conducted output power

#### 3.1. Test Result

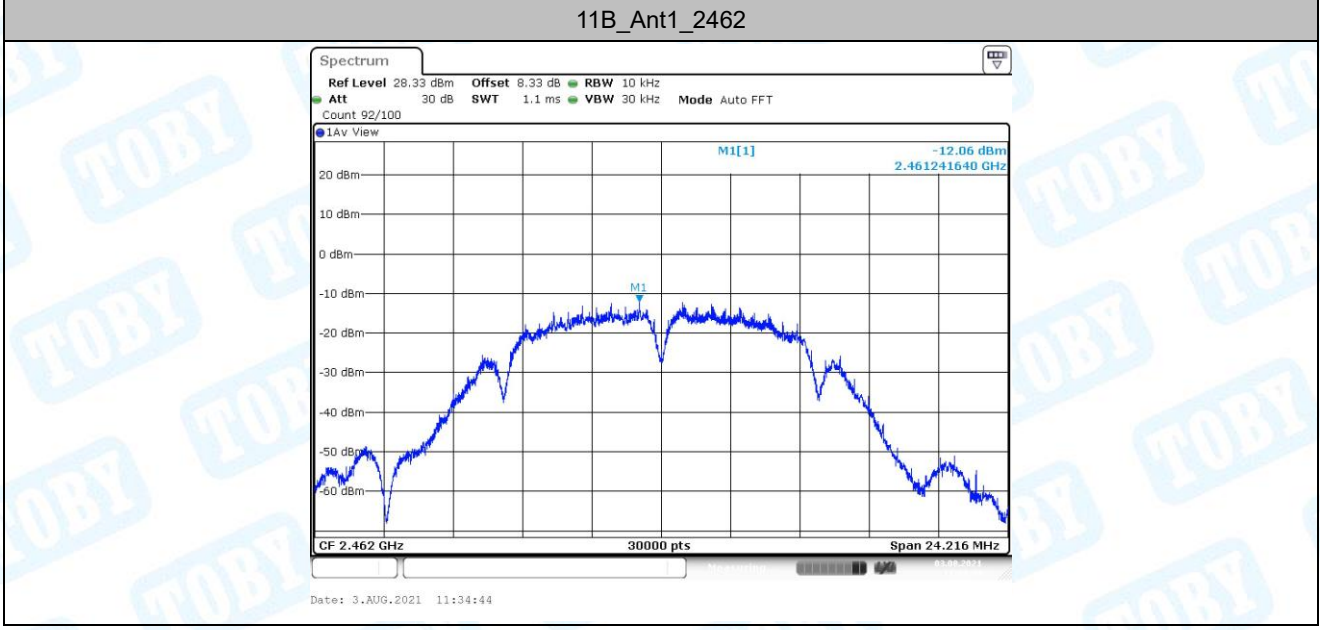
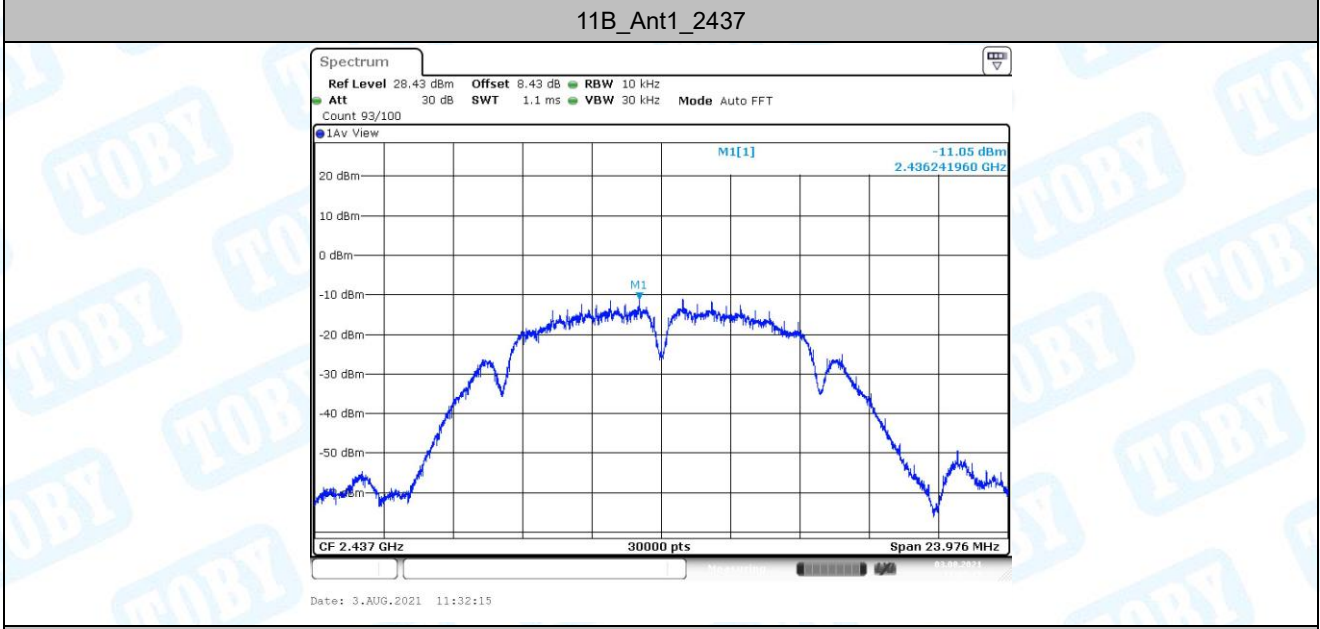
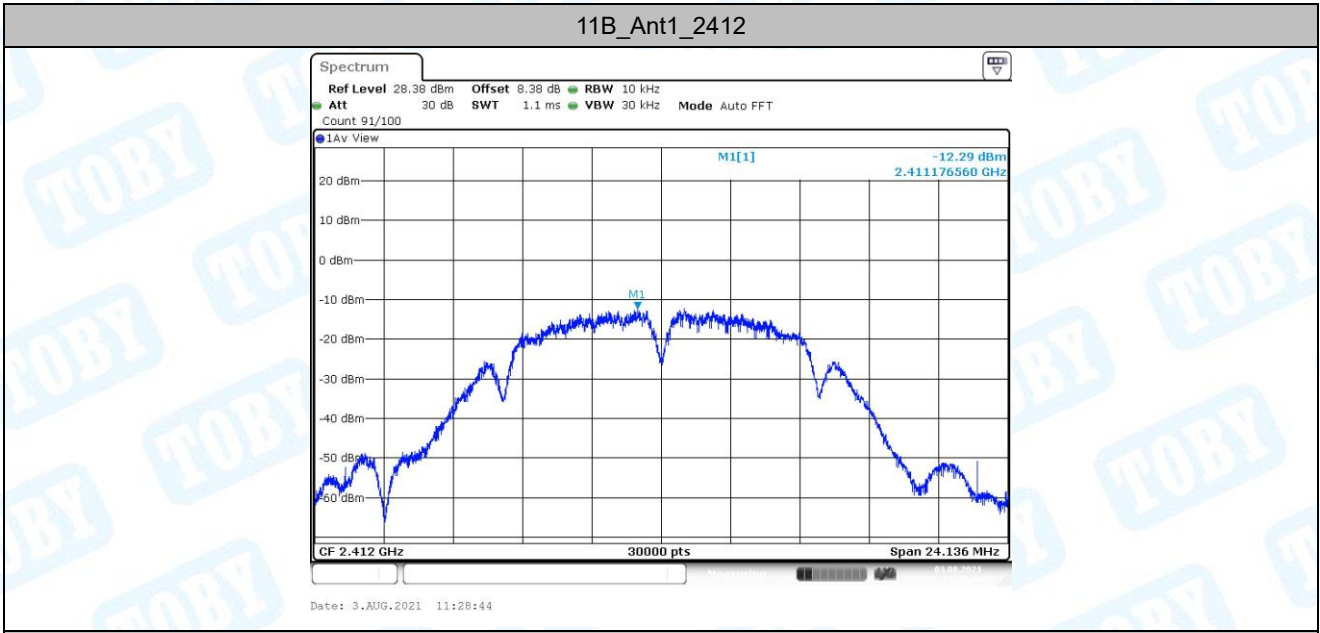
| TestMode  | Antenna | Channel | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|---------|-------------|------------|---------|
| 11B       | Ant1    | 2412    | 13.41       | <=30       | PASS    |
|           |         | 2437    | 13.45       | <=30       | PASS    |
|           |         | 2462    | 12.37       | <=30       | PASS    |
| 11G       | Ant1    | 2412    | 12.57       | <=30       | PASS    |
|           |         | 2437    | 12.25       | <=30       | PASS    |
|           |         | 2462    | 11.44       | <=30       | PASS    |
| 11N20SISO | Ant1    | 2412    | 12.24       | <=30       | PASS    |
|           |         | 2437    | 12.02       | <=30       | PASS    |
|           |         | 2462    | 11.07       | <=30       | PASS    |

## 4. Maximum power spectral density

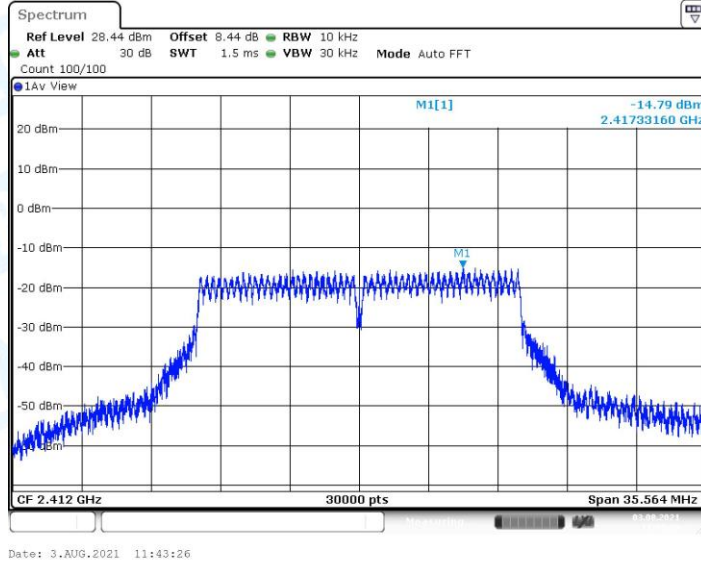
### 4.1. Test Result

| TestMode  | Antenna | Channel | Result[dBm/3-100kHz] | Limit[dBm/3kHz] | Verdict |
|-----------|---------|---------|----------------------|-----------------|---------|
| 11B       | Ant1    | 2412    | -12.29               | <=8             | PASS    |
|           |         | 2437    | -11.05               | <=8             | PASS    |
|           |         | 2462    | -12.06               | <=8             | PASS    |
| 11G       | Ant1    | 2412    | -14.79               | <=8             | PASS    |
|           |         | 2437    | -15.94               | <=8             | PASS    |
|           |         | 2462    | -16.34               | <=8             | PASS    |
| 11N20SISO | Ant1    | 2412    | -15.38               | <=8             | PASS    |
|           |         | 2437    | -14.61               | <=8             | PASS    |
|           |         | 2462    | -16.67               | <=8             | PASS    |

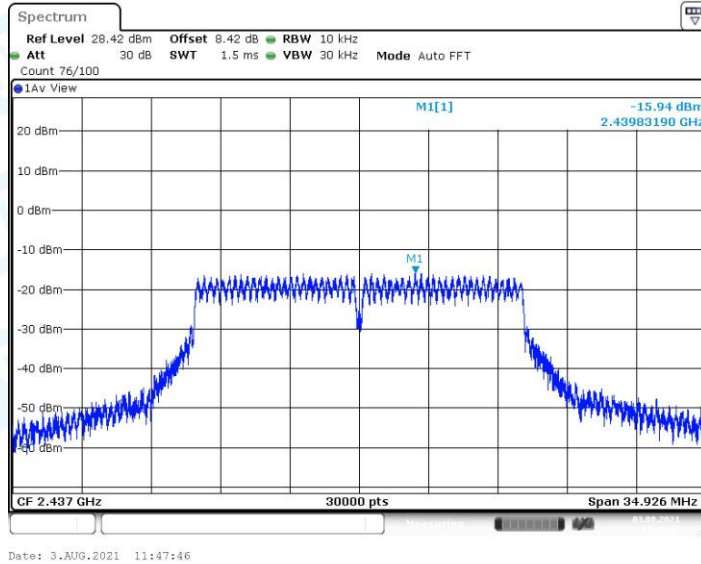
## 4.2. Test Graphs



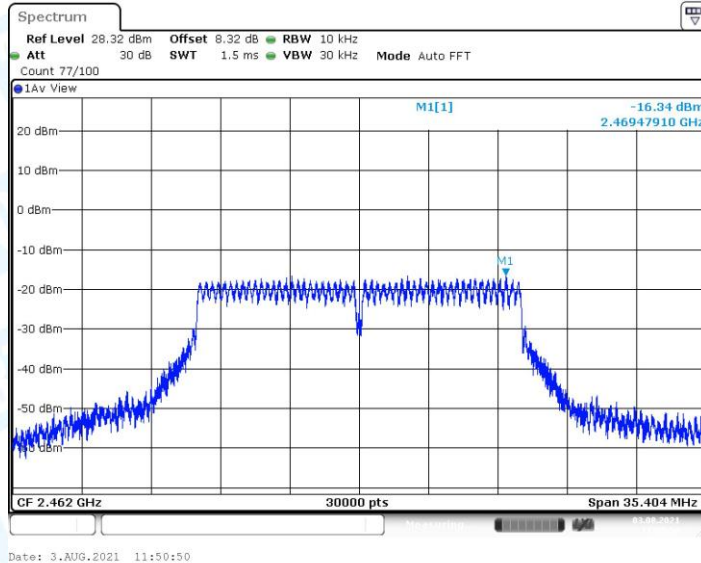
11G\_Ant1\_2412



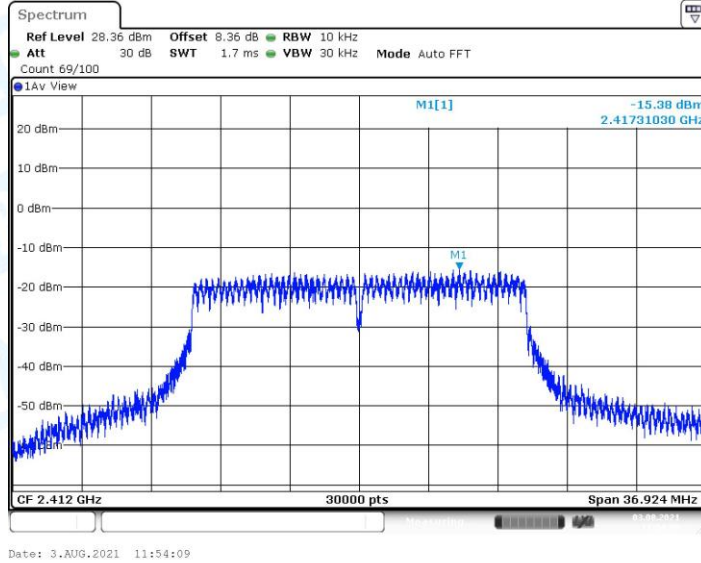
11G\_Ant1\_2437



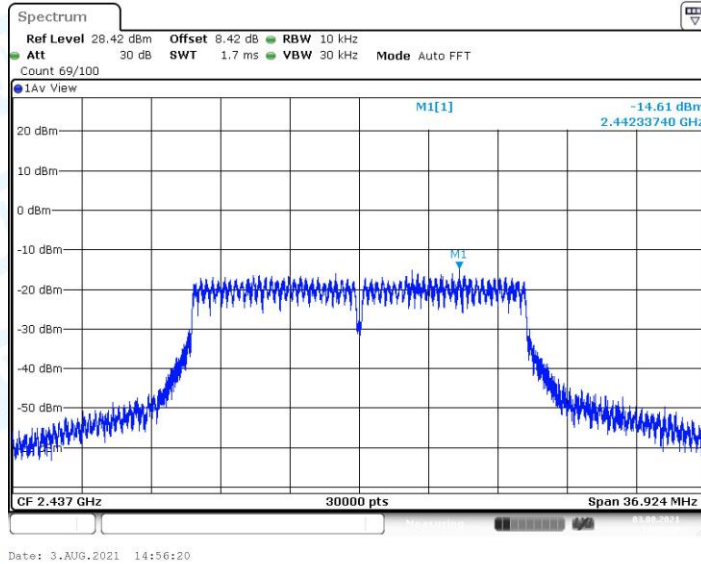
11G\_Ant1\_2462



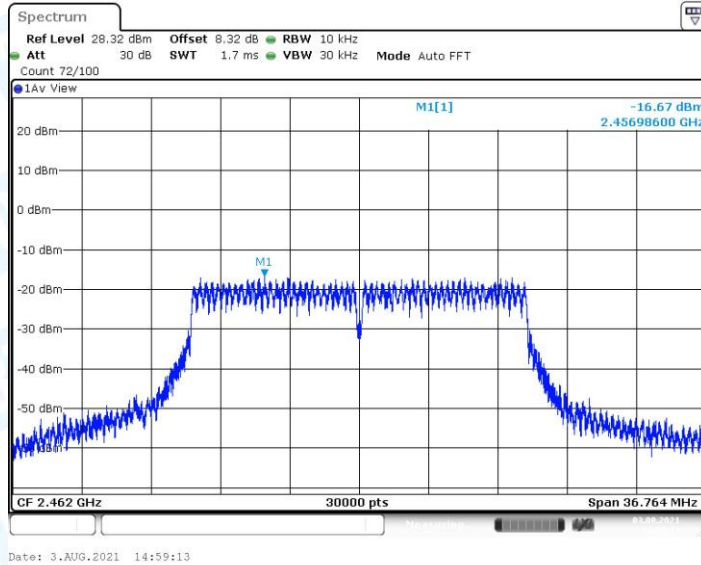
11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462



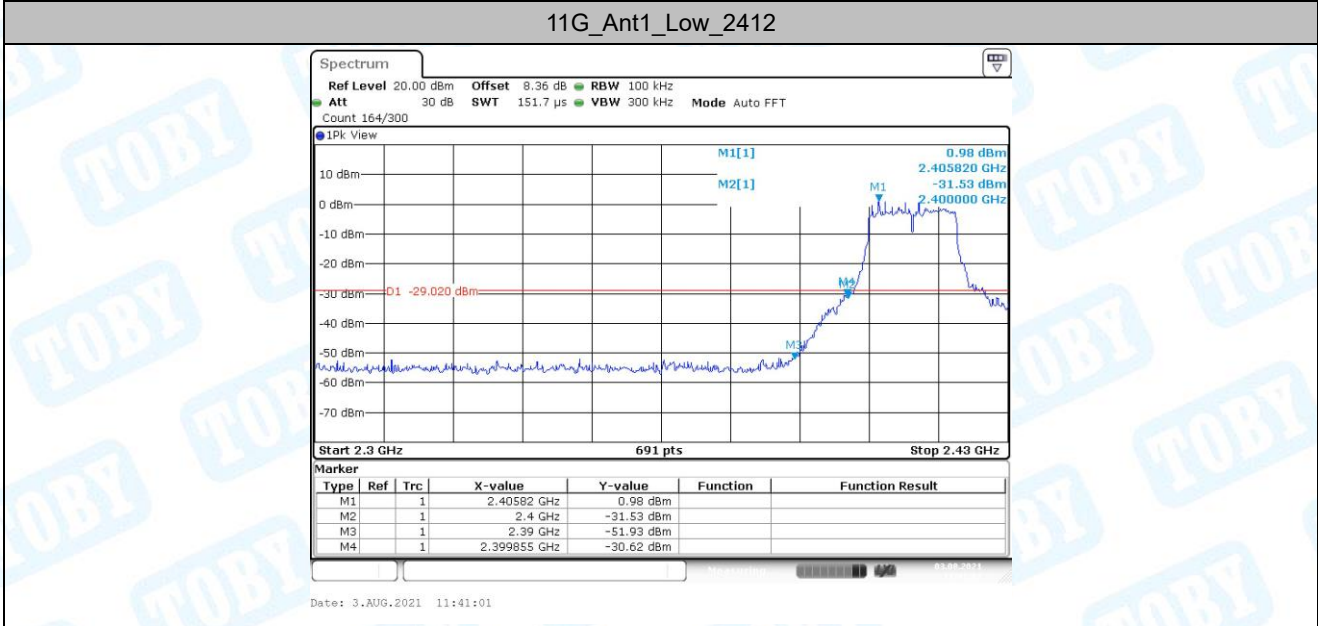
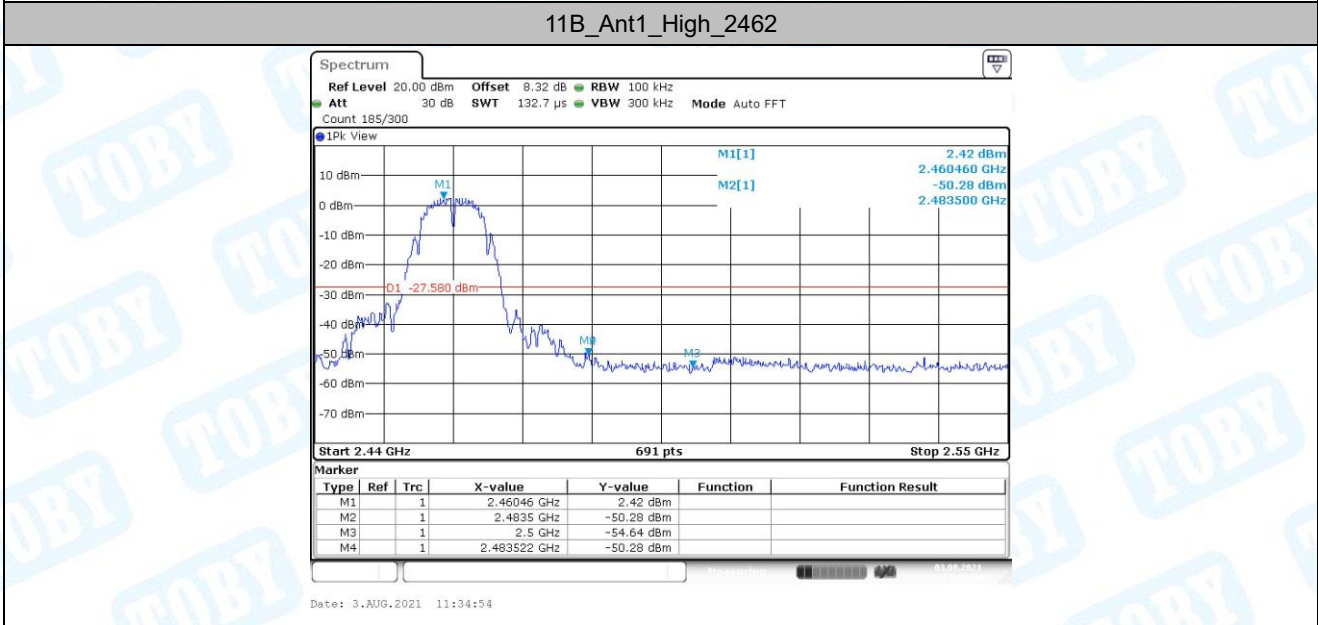
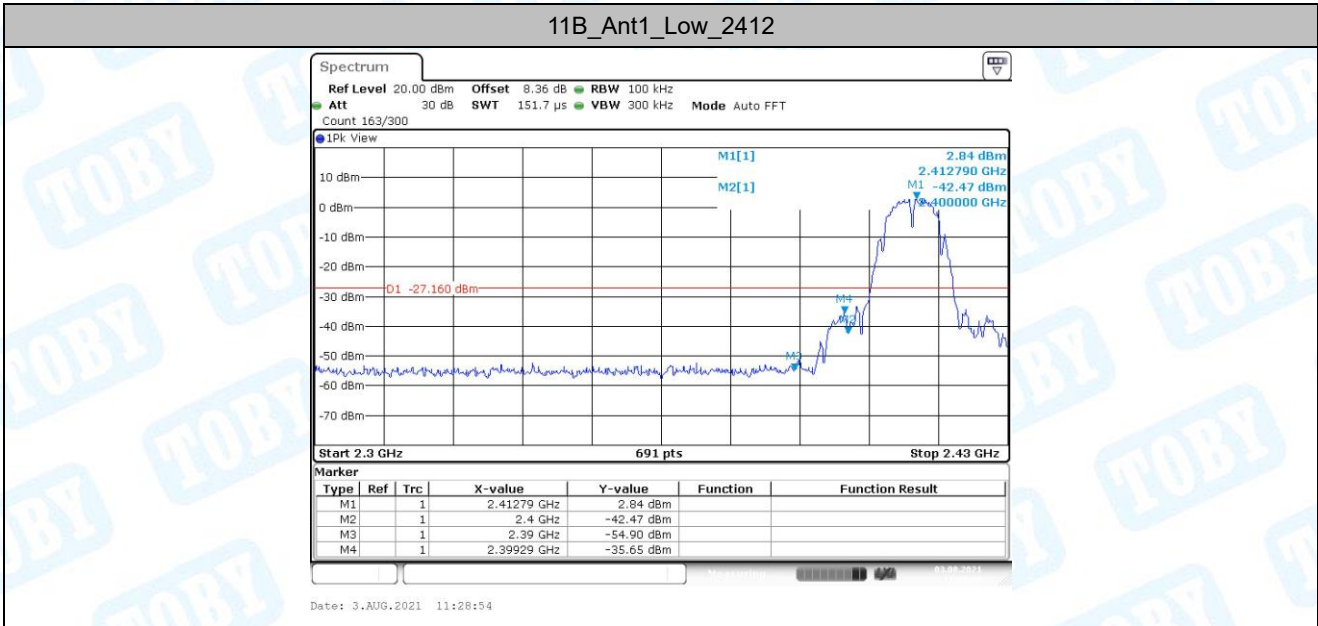
## 5. Band edge measurements

### 5.1. Test Result

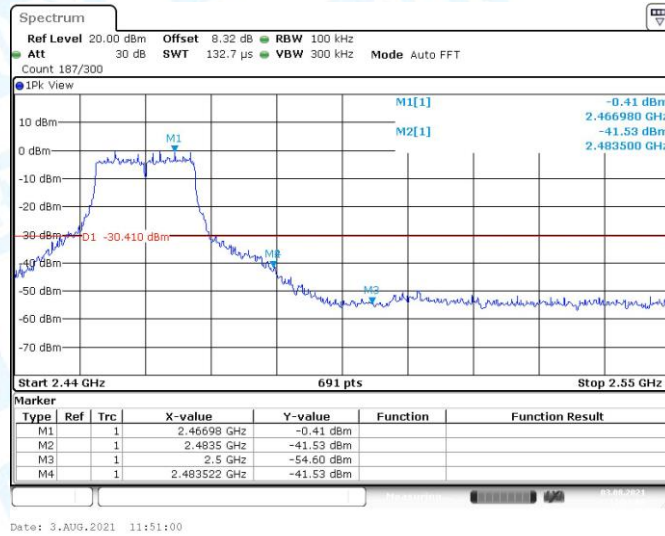
| TestMode  | Antenna | ChName | Channel | RefLevel[dBm] | Result[dBm] | Limit[dBm] | Verdict |
|-----------|---------|--------|---------|---------------|-------------|------------|---------|
| 11B       | Ant1    | Low    | 2412    | 2.84          | -35.65      | <=-27.16   | PASS    |
|           |         | High   | 2462    | 2.42          | -50.28      | <=-27.58   | PASS    |
| 11G       | Ant1    | Low    | 2412    | 0.98          | -30.62      | <=-29.02   | PASS    |
|           |         | High   | 2462    | -0.41         | -41.53      | <=-30.41   | PASS    |
| 11N20SISO | Ant1    | Low    | 2412    | 0.72          | -30.58      | <=-29.28   | PASS    |
|           |         | High   | 2462    | -0.53         | -40.89      | <=-30.53   | PASS    |



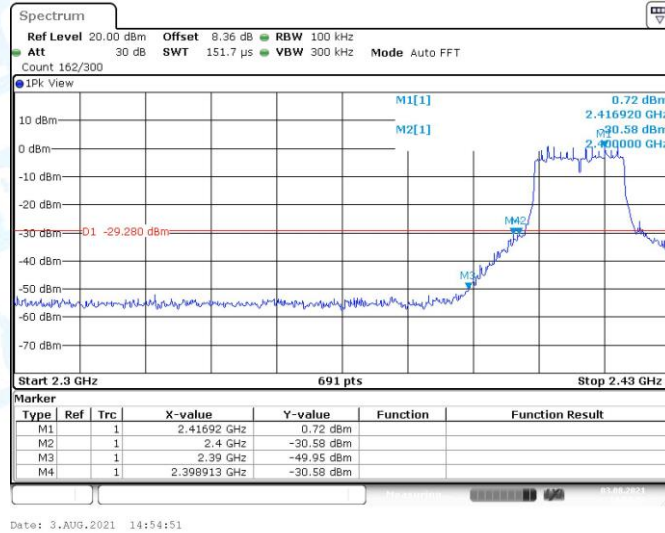
**5.2. Test Graphs**



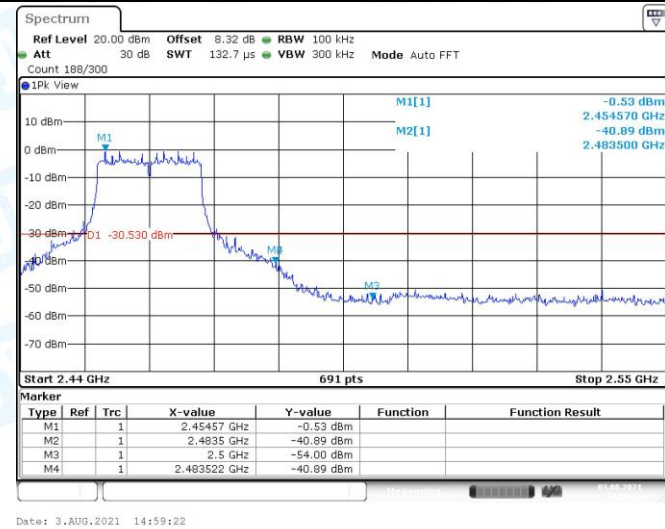
### 11G\_Ant1\_High\_2462



### 11N20SISO\_Ant1\_Low\_2412



### 11N20SISO\_Ant1\_High\_2462

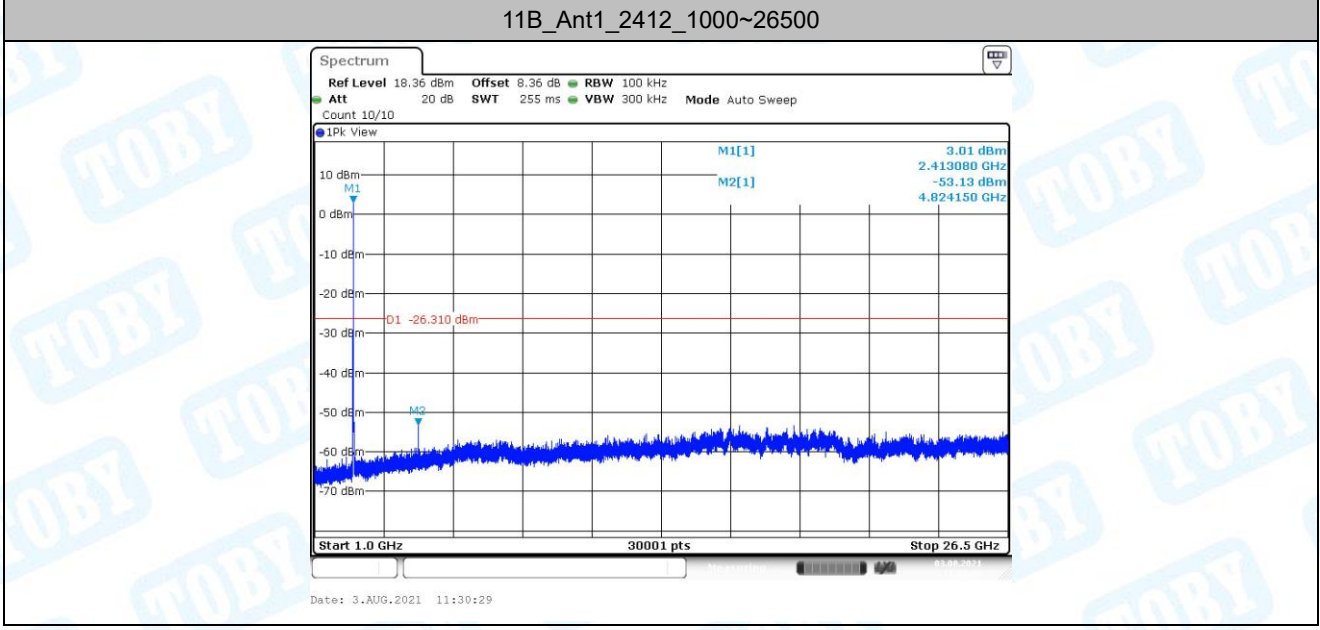
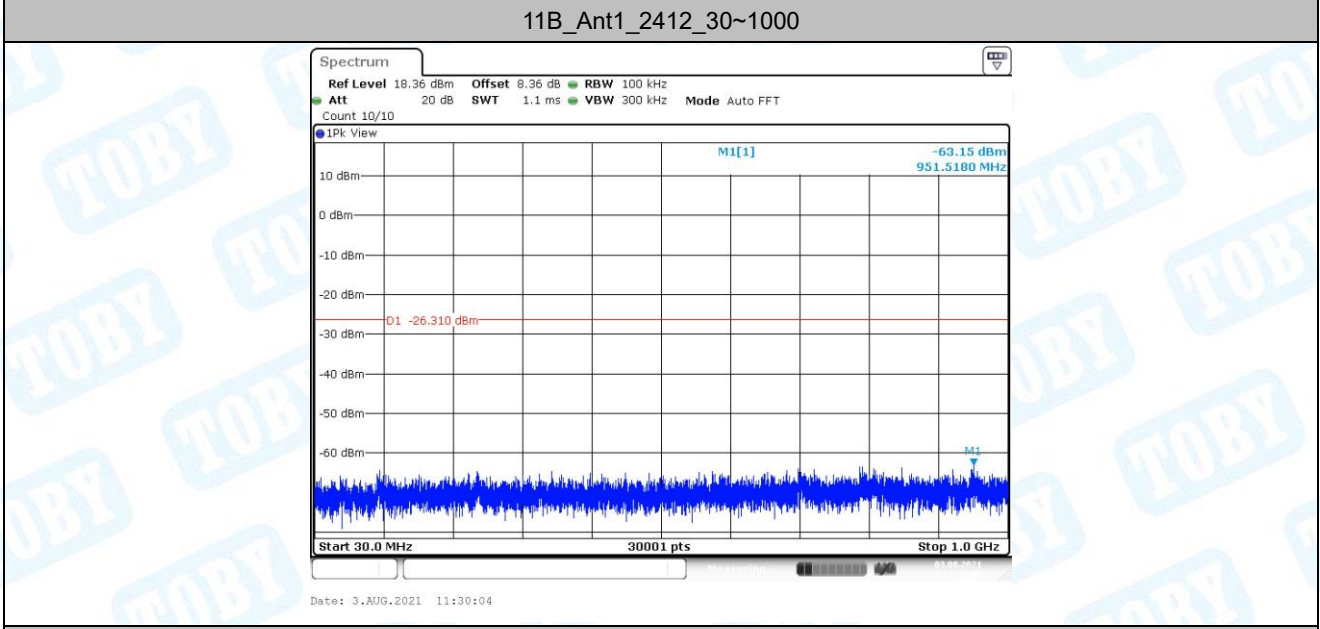
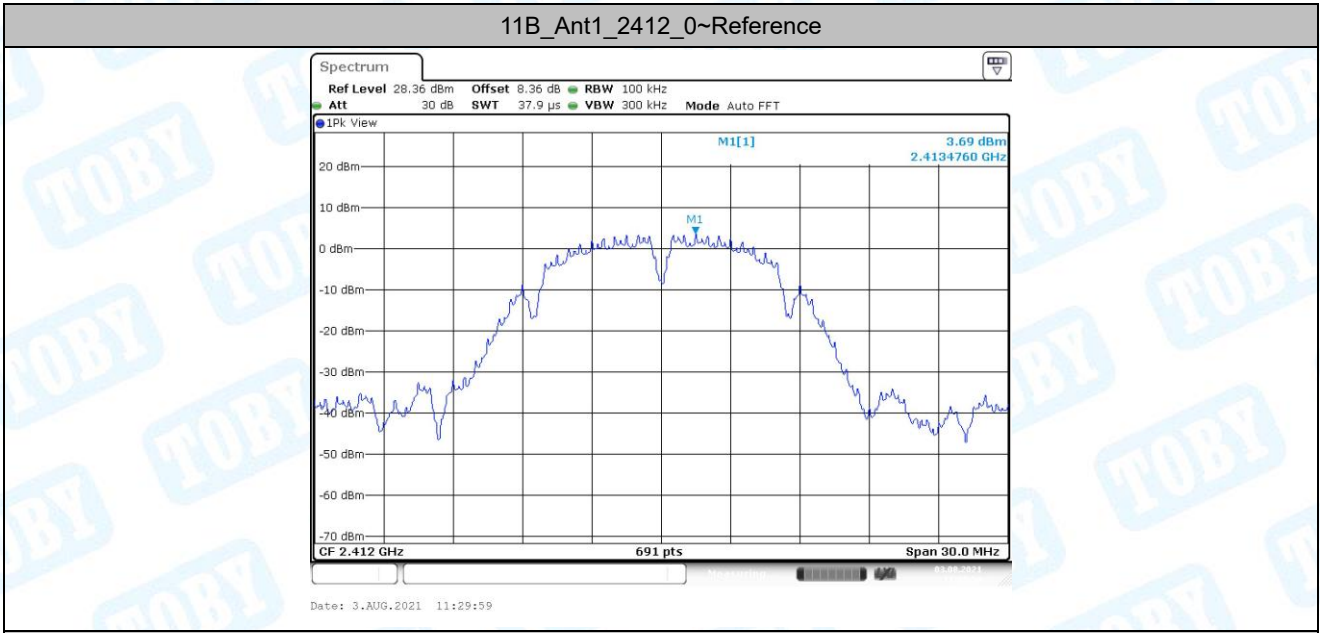


## 6. Conducted Spurious Emission

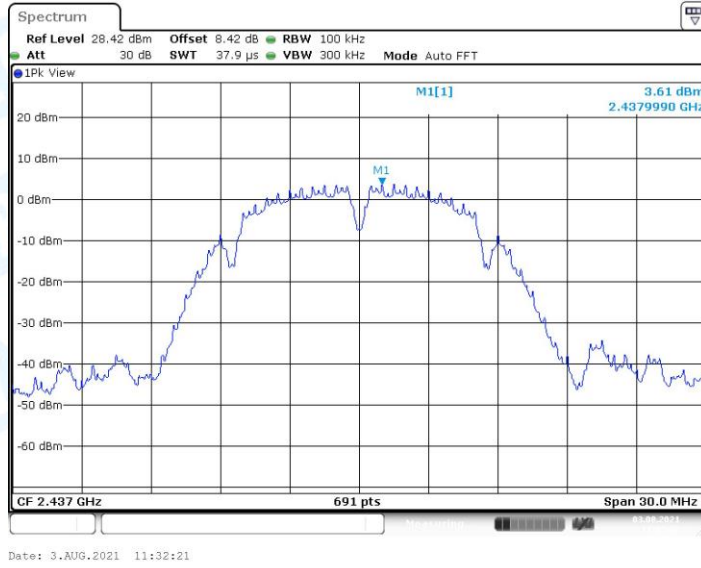
### 6.1. Test Result

| TestMode  | Antenna | Channel | FreqRange [Mhz] | RefLevel [dBm] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|---------|-----------------|----------------|--------------|-------------|---------|
| 11B       | Ant1    | 2412    | Reference       | 3.69           | 3.69         | ---         | PASS    |
|           |         |         | 30~1000         | 3.69           | -63.15       | <=-26.31    | PASS    |
|           |         |         | 1000~26500      | 3.69           | -53.13       | <=-26.31    | PASS    |
|           |         | 2437    | Reference       | 3.61           | 3.61         | ---         | PASS    |
|           |         |         | 30~1000         | 3.61           | -63.06       | <=-26.39    | PASS    |
|           |         |         | 1000~26500      | 3.61           | -53.92       | <=-26.39    | PASS    |
|           |         | 2462    | Reference       | 2.52           | 2.52         | ---         | PASS    |
|           |         |         | 30~1000         | 2.52           | -61.95       | <=-27.48    | PASS    |
|           |         |         | 1000~26500      | 2.52           | -53.94       | <=-27.48    | PASS    |
| 11G       | Ant1    | 2412    | Reference       | 1.55           | 1.55         | ---         | PASS    |
|           |         |         | 30~1000         | 1.55           | -62.41       | <=-28.45    | PASS    |
|           |         |         | 1000~26500      | 1.55           | -52.47       | <=-28.45    | PASS    |
|           |         | 2437    | Reference       | -1.07          | -1.07        | ---         | PASS    |
|           |         |         | 30~1000         | -1.07          | -62.35       | <=-31.07    | PASS    |
|           |         |         | 1000~26500      | -1.07          | -53.07       | <=-31.07    | PASS    |
|           |         | 2462    | Reference       | 0.19           | 0.19         | ---         | PASS    |
|           |         |         | 30~1000         | 0.19           | -62.79       | <=-29.81    | PASS    |
|           |         |         | 1000~26500      | 0.19           | -53.36       | <=-29.81    | PASS    |
| 11N20SISO | Ant1    | 2412    | Reference       | 1.08           | 1.08         | ---         | PASS    |
|           |         |         | 30~1000         | 1.08           | -62.14       | <=-28.92    | PASS    |
|           |         |         | 1000~26500      | 1.08           | -53.3        | <=-28.92    | PASS    |
|           |         | 2437    | Reference       | 0.26           | 0.26         | ---         | PASS    |
|           |         |         | 30~1000         | 0.26           | -62.59       | <=-29.74    | PASS    |
|           |         |         | 1000~26500      | 0.26           | -53.61       | <=-29.74    | PASS    |
|           |         | 2462    | Reference       | -2.30          | -2.30        | ---         | PASS    |
|           |         |         | 30~1000         | -2.30          | -61.1        | <=-32.3     | PASS    |
|           |         |         | 1000~26500      | -2.30          | -53.18       | <=-32.3     | PASS    |

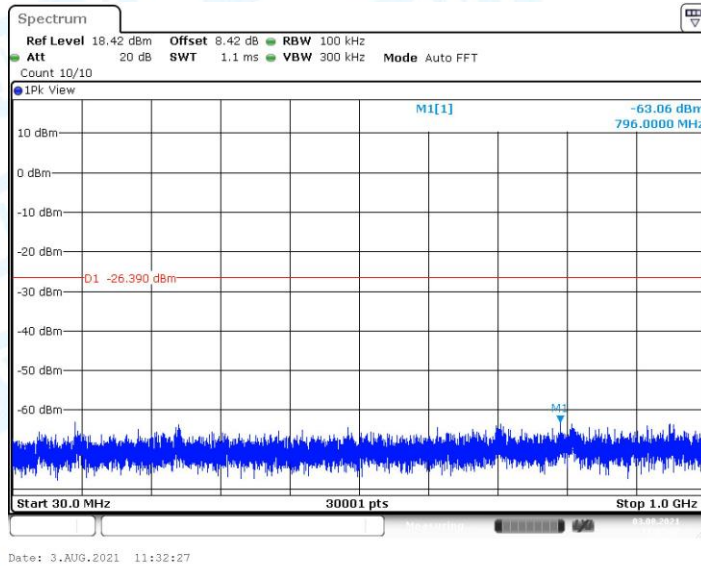
## 6.2. Test Graphs



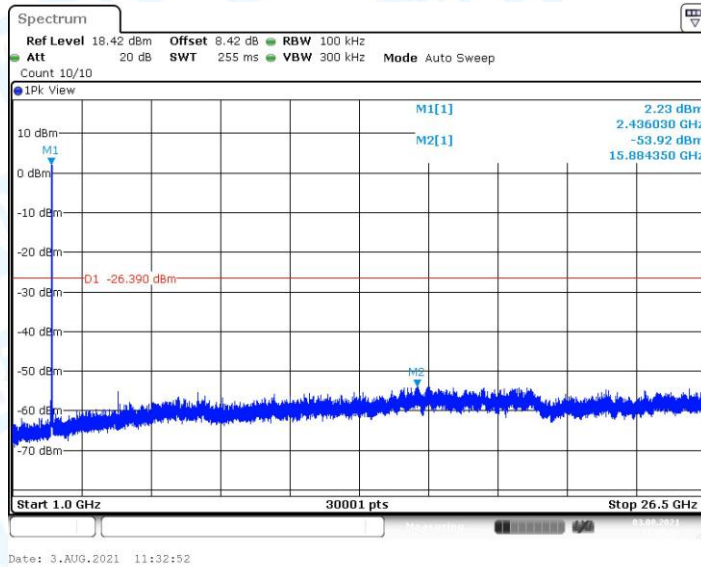
11B\_Ant1\_2437\_0~Reference



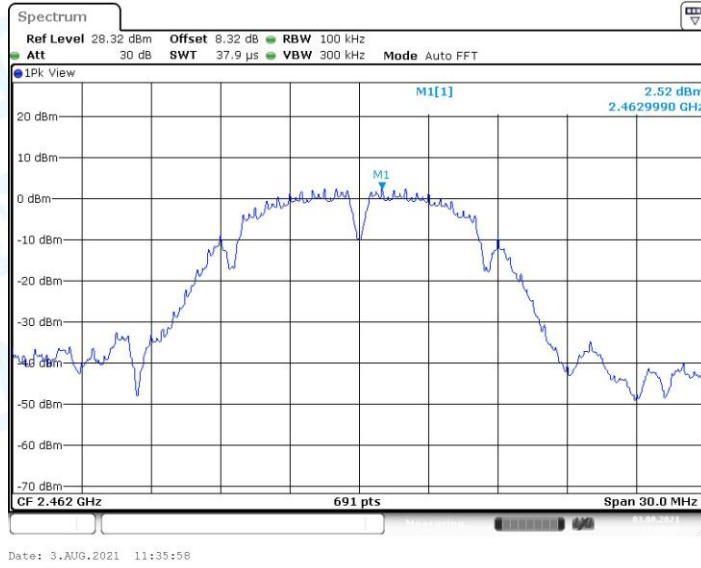
11B\_Ant1\_2437\_30~1000



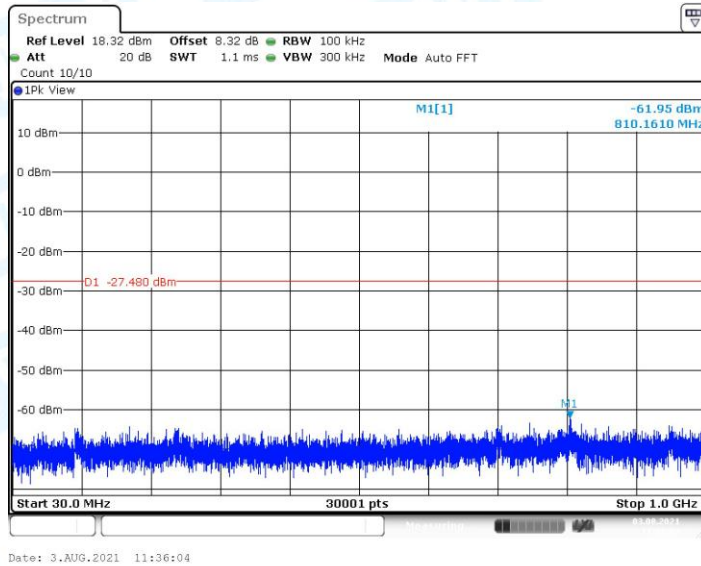
11B\_Ant1\_2437\_1000~26500



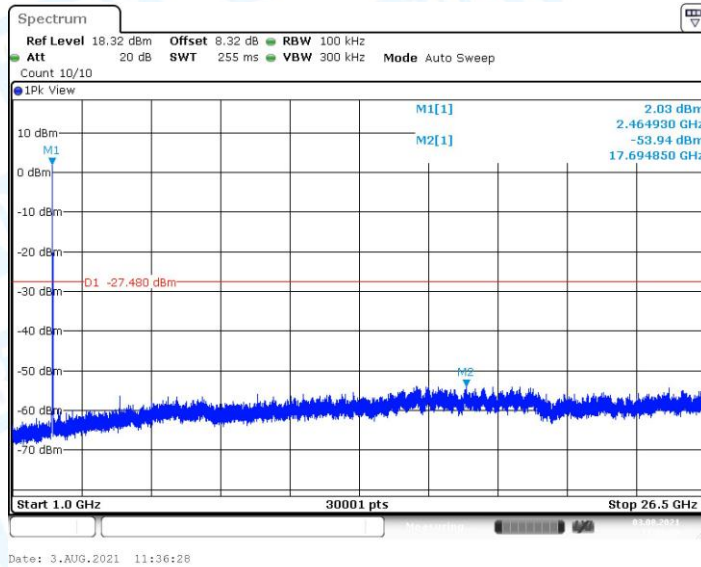
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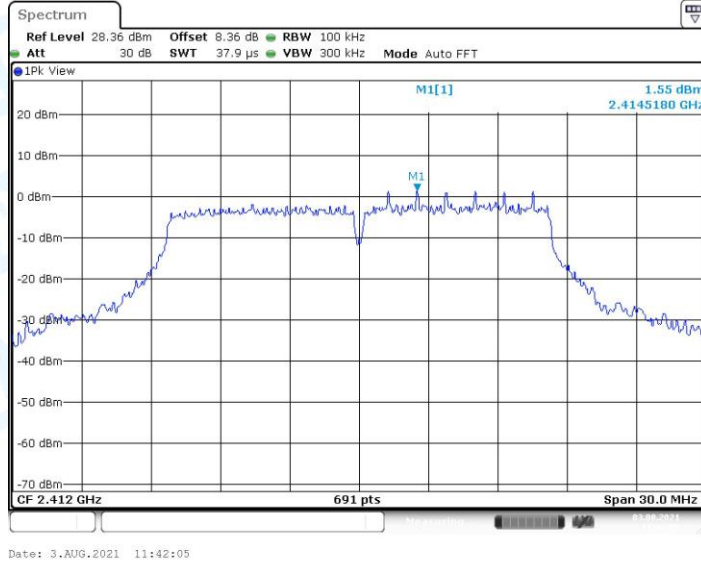
11B\_Ant1\_2462\_30~1000



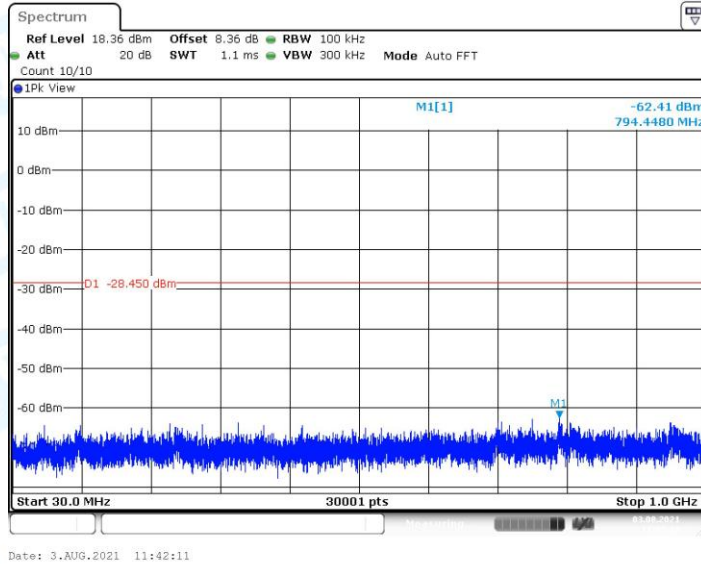
11B\_Ant1\_2462\_1000~26500



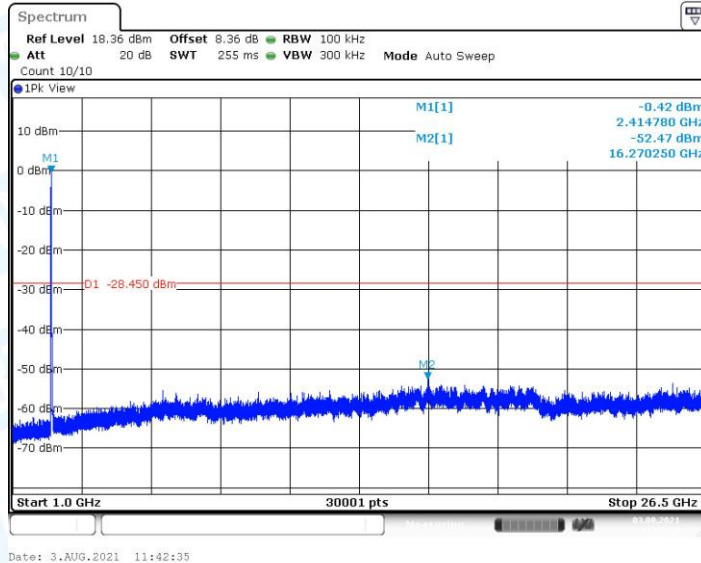
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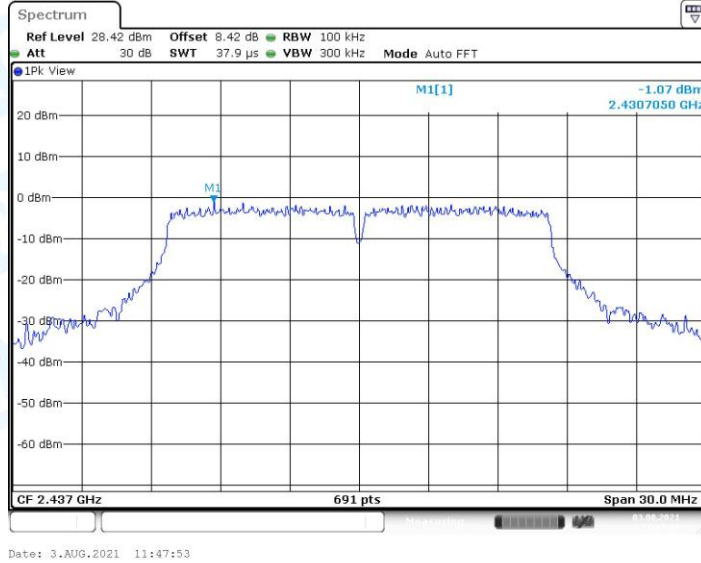
11G\_Ant1\_2412\_30~1000



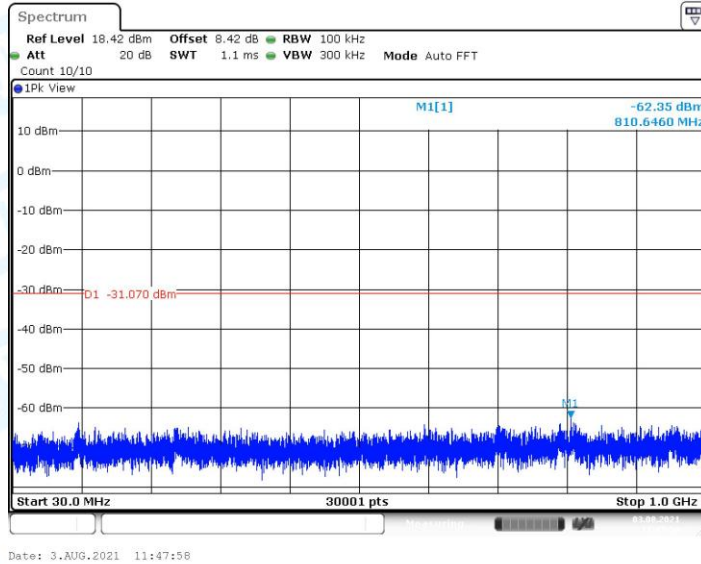
11G\_Ant1\_2412\_1000~26500



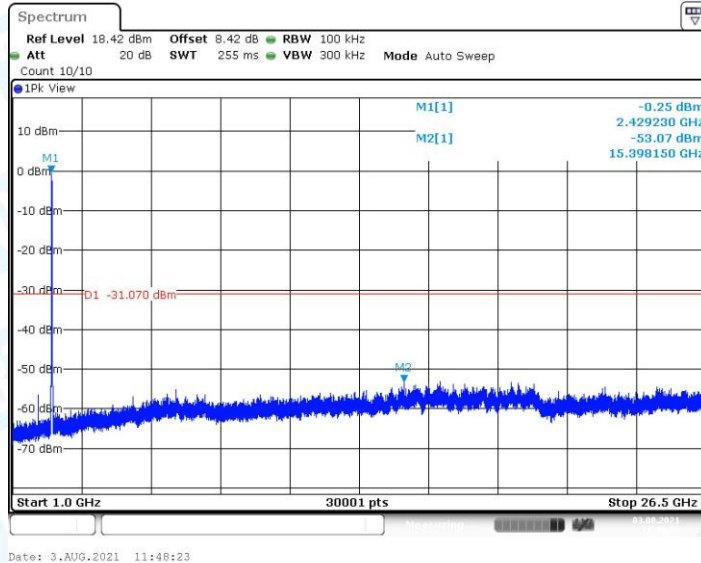
11G\_Ant1\_2437\_0~Reference



11G\_Ant1\_2437\_30~1000

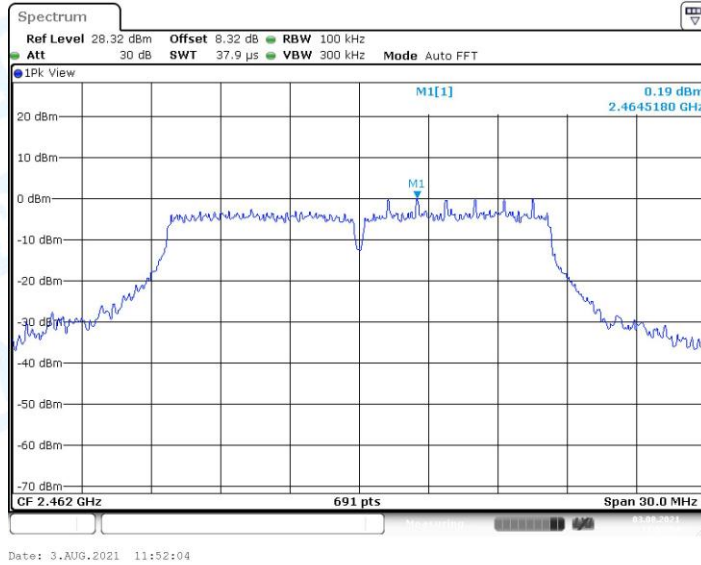


11G\_Ant1\_2437\_1000~26500

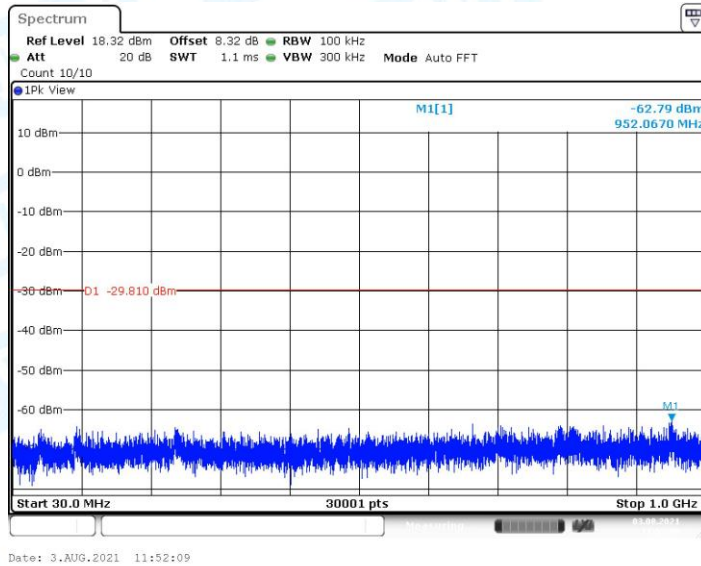




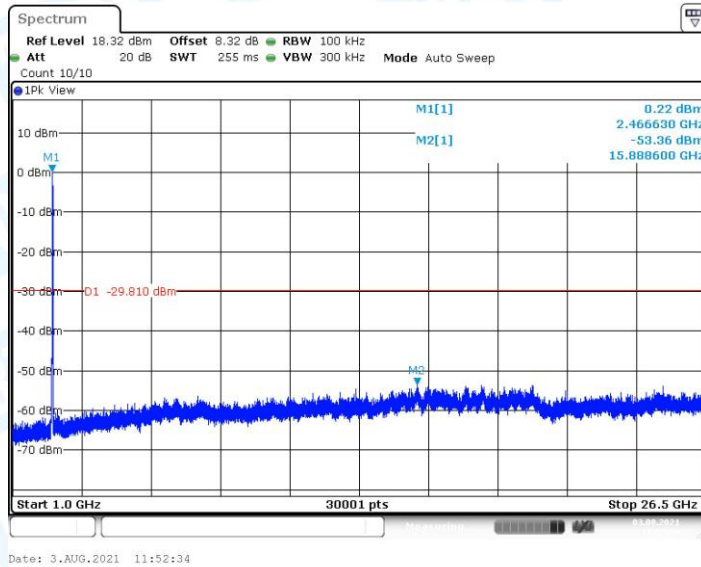
11G\_Ant1\_2462\_0~Reference



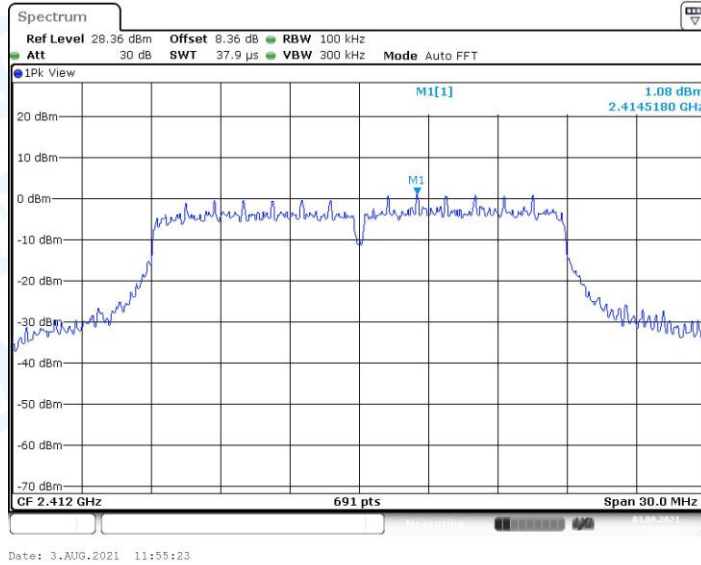
11G\_Ant1\_2462\_30~1000



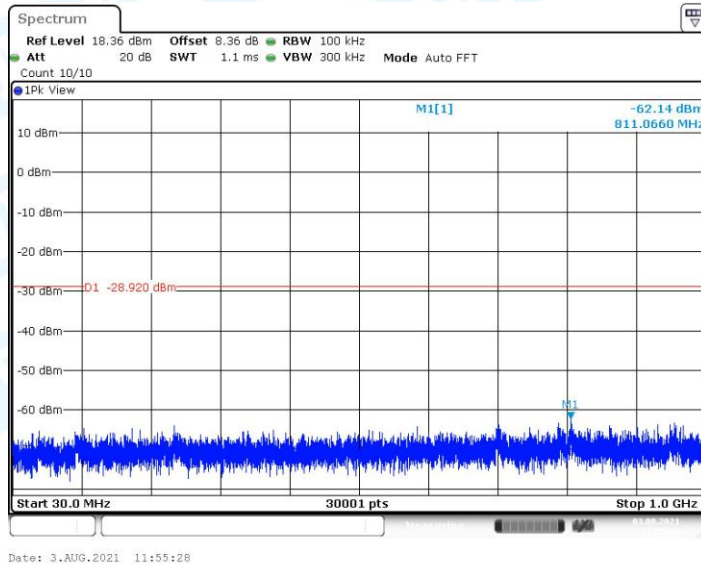
11G\_Ant1\_2462\_1000~26500



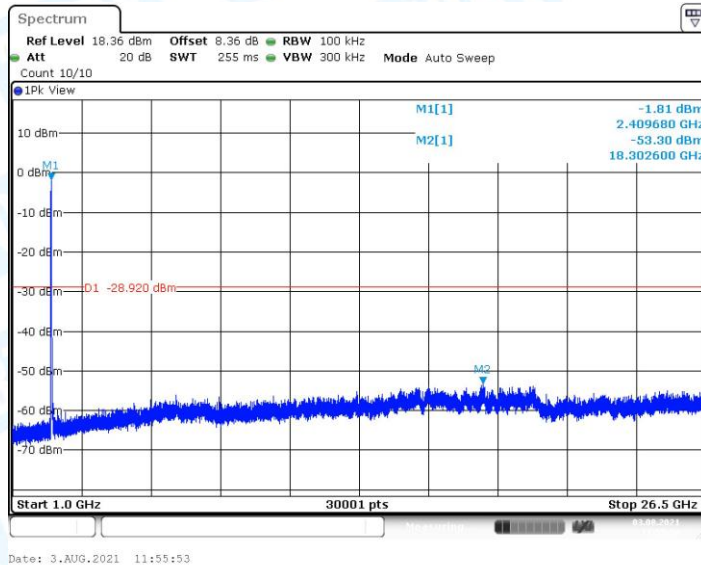
11N20SISO\_Ant1\_2412\_0~Reference



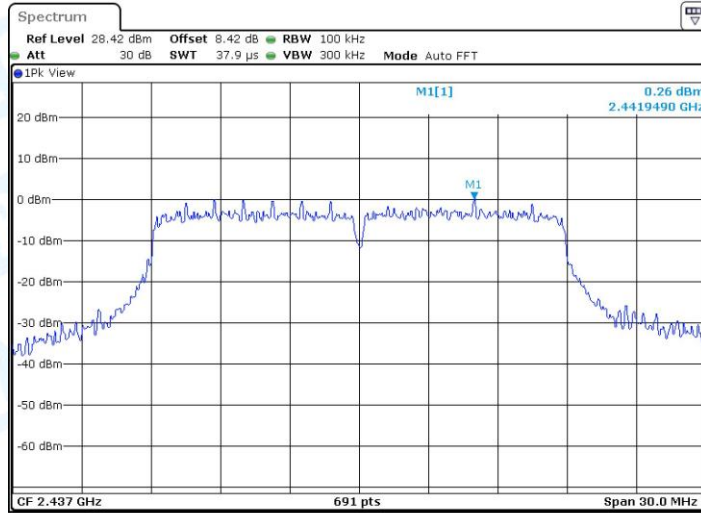
11N20SISO\_Ant1\_2412\_30~1000



11N20SISO\_Ant1\_2412\_1000~26500

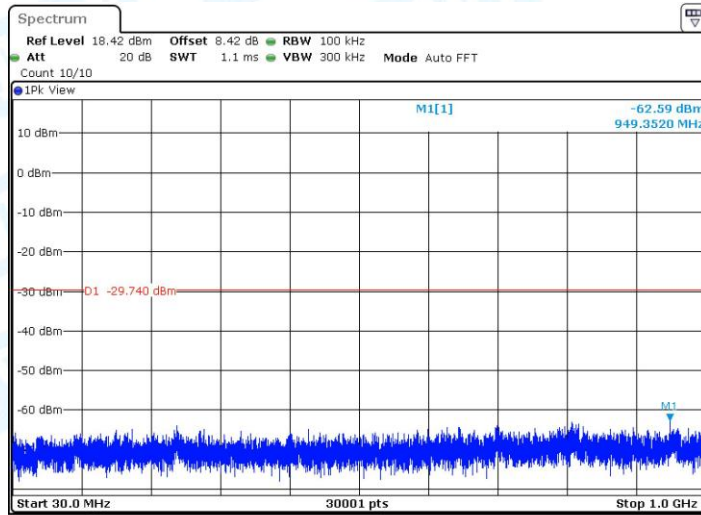


11N20SISO\_Ant1\_2437\_0~Reference



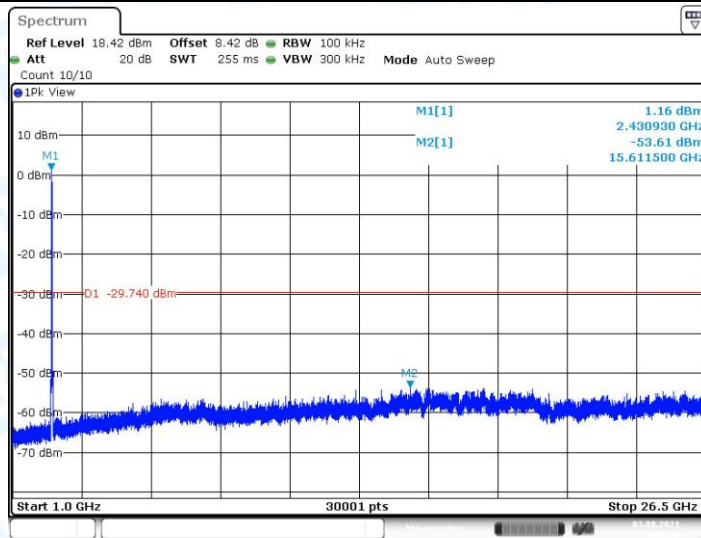
Date: 3.AUG.2021 14:56:26

11N20SISO\_Ant1\_2437\_30~1000



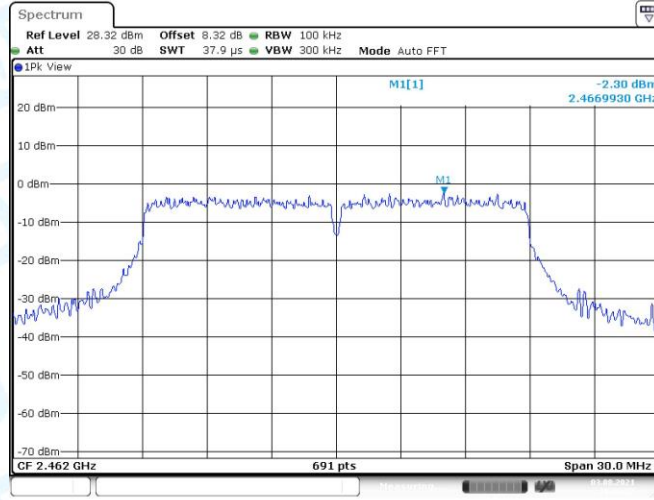
Date: 3.AUG.2021 14:56:32

11N20SISO\_Ant1\_2437\_1000~26500



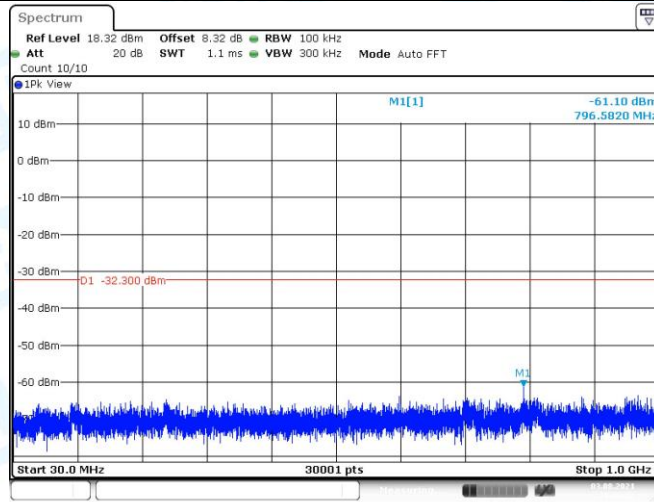
Date: 3.AUG.2021 14:56:57

11N20SISO\_Ant1\_2462\_0~Reference



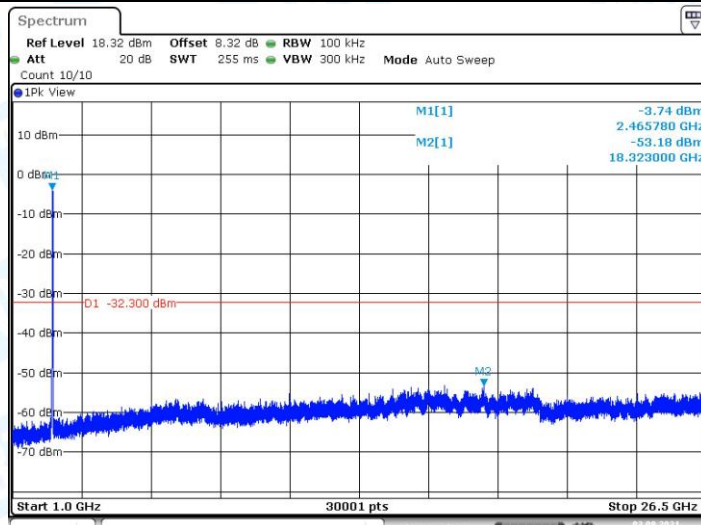
Date: 3.AUG.2021 15:00:27

11N20SISO\_Ant1\_2462\_30~1000



Date: 3.AUG.2021 15:00:32

11N20SISO\_Ant1\_2462\_1000~26500



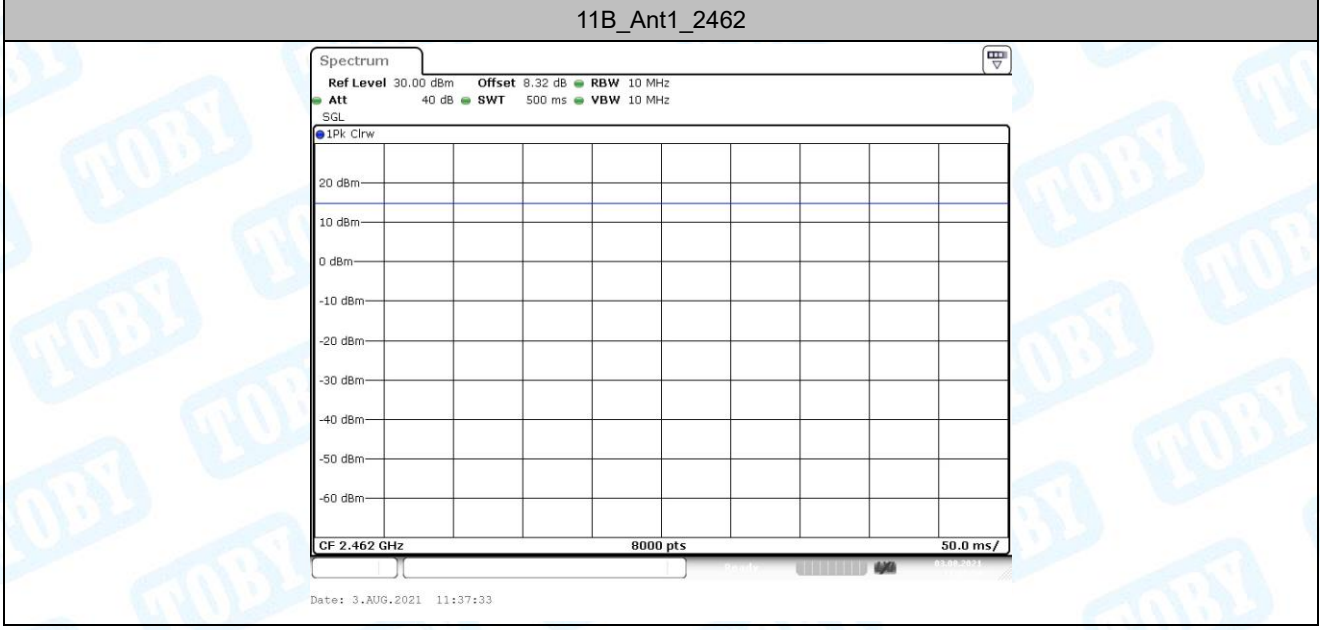
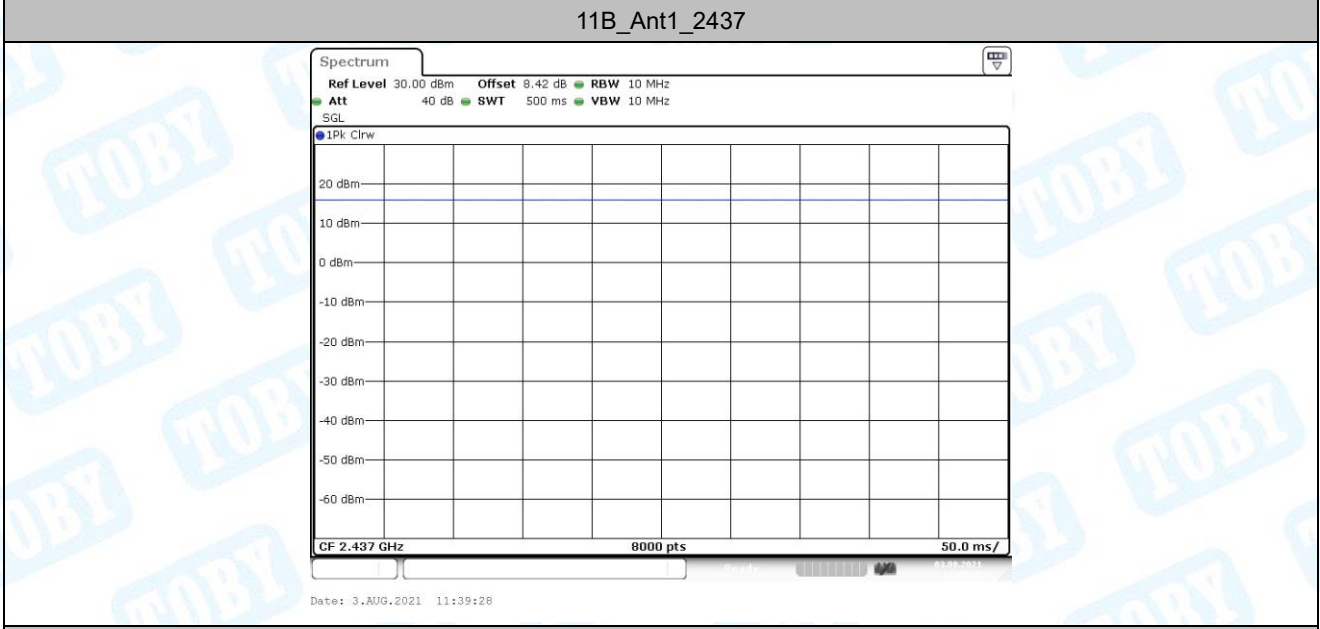
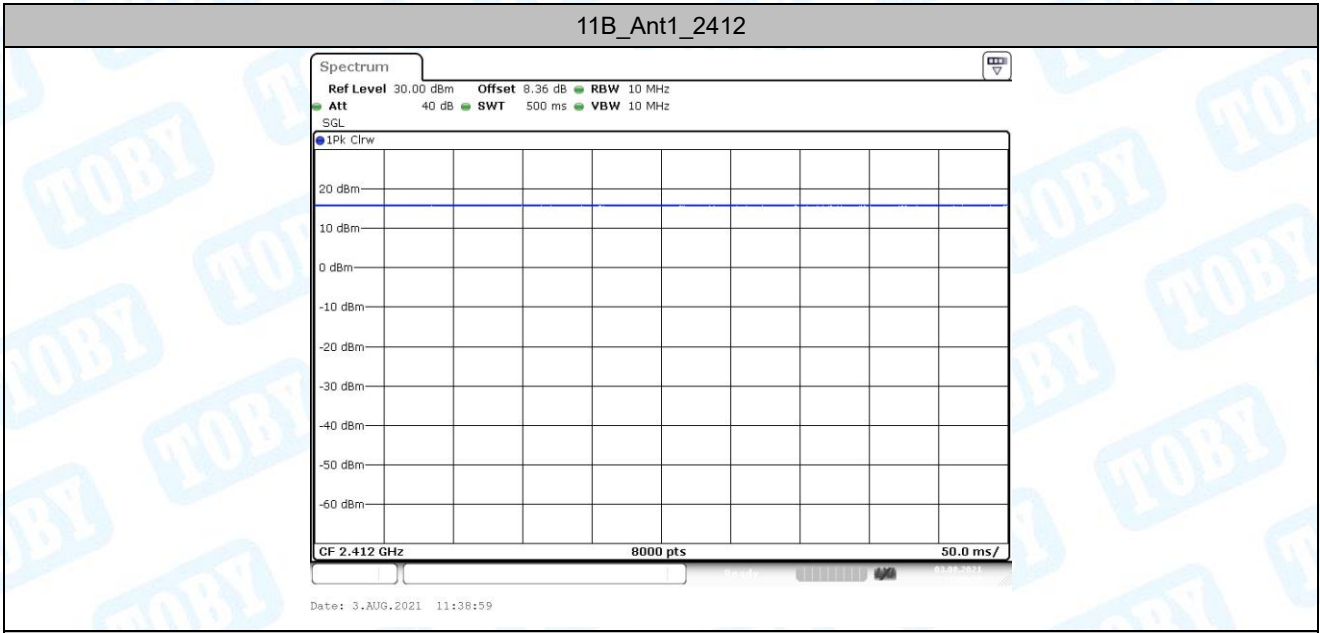
Date: 3.AUG.2021 15:00:57

## 7. Duty Cycle

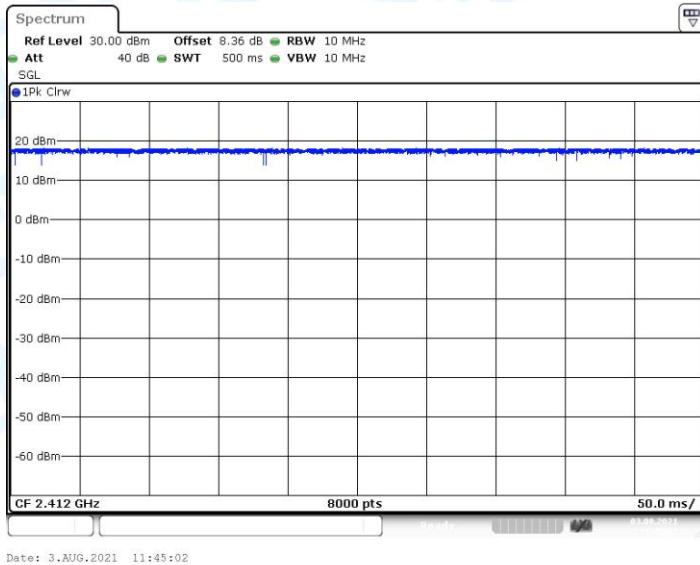
### 7.1. Test Result

| TestMode  | Antenna | Channel | Transmission Duration [ms] | Transmission Period [ms] | Duty Cycle [%] | Limit | Verdict |
|-----------|---------|---------|----------------------------|--------------------------|----------------|-------|---------|
| 11B       | Ant1    | 2412    | 0.00                       | 0.00                     | 100            | ---   | PASS    |
|           |         | 2437    | 0.00                       | 0.00                     | 100            | ---   | PASS    |
|           |         | 2462    | 0.00                       | 0.00                     | 100            | ---   | PASS    |
| 11G       | Ant1    | 2412    | 0.00                       | 0.00                     | 100            | ---   | PASS    |
|           |         | 2437    | 0.00                       | 0.00                     | 100            | ---   | PASS    |
|           |         | 2462    | 0.00                       | 0.00                     | 100            | ---   | PASS    |
| 11N20SISO | Ant1    | 2412    | 0.00                       | 0.00                     | 100            | ---   | PASS    |
|           |         | 2437    | 0.00                       | 0.00                     | 100            | ---   | PASS    |
|           |         | 2462    | 0.00                       | 0.00                     | 100            | ---   | PASS    |

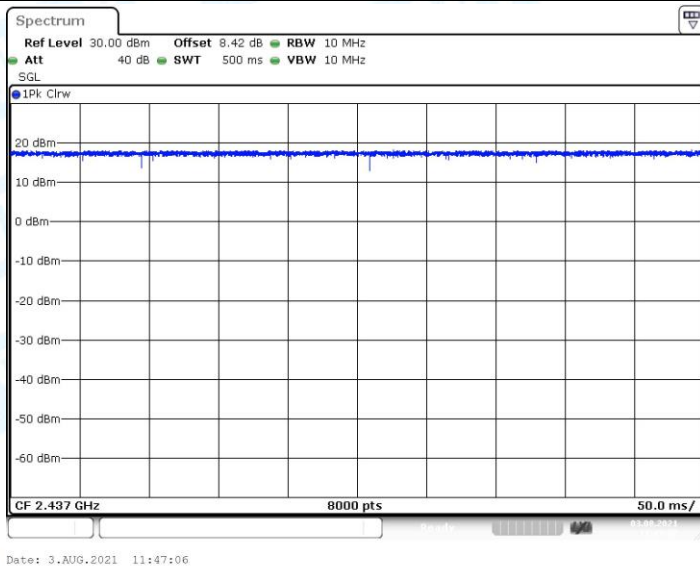
### 7.2. Test Graphs



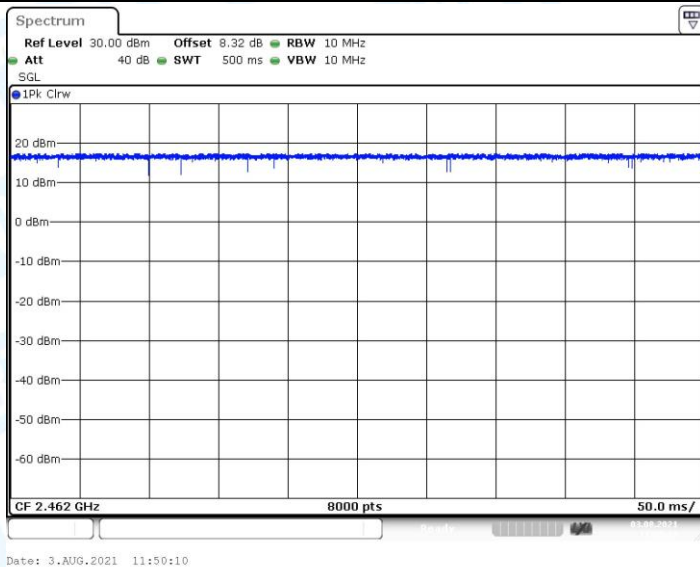
11G\_Ant1\_2412



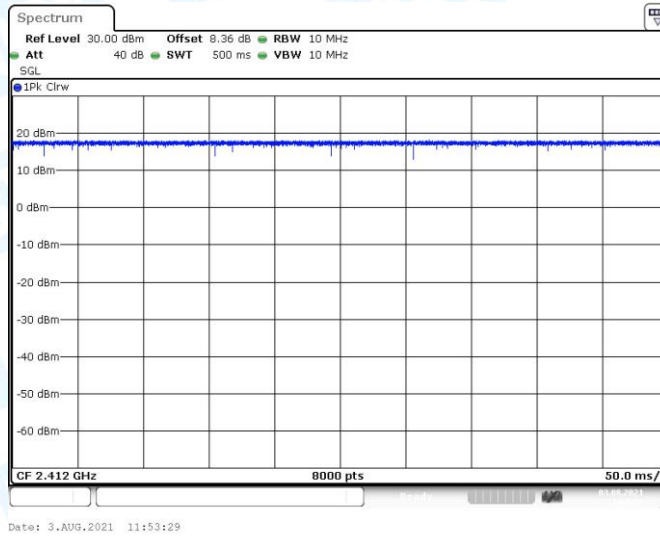
11G\_Ant1\_2437



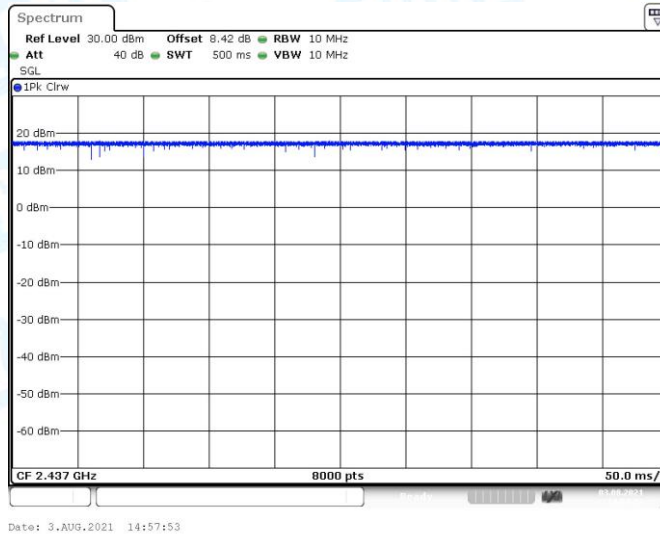
11G\_Ant1\_2462



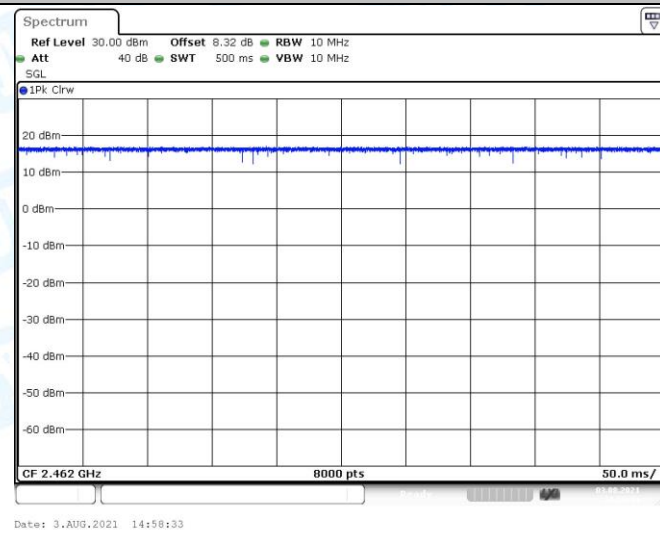
11N20SISO\_Ant1\_2412



11N20SISO\_Ant1\_2437



11N20SISO\_Ant1\_2462





## 8. Emissions in Restricted Bands

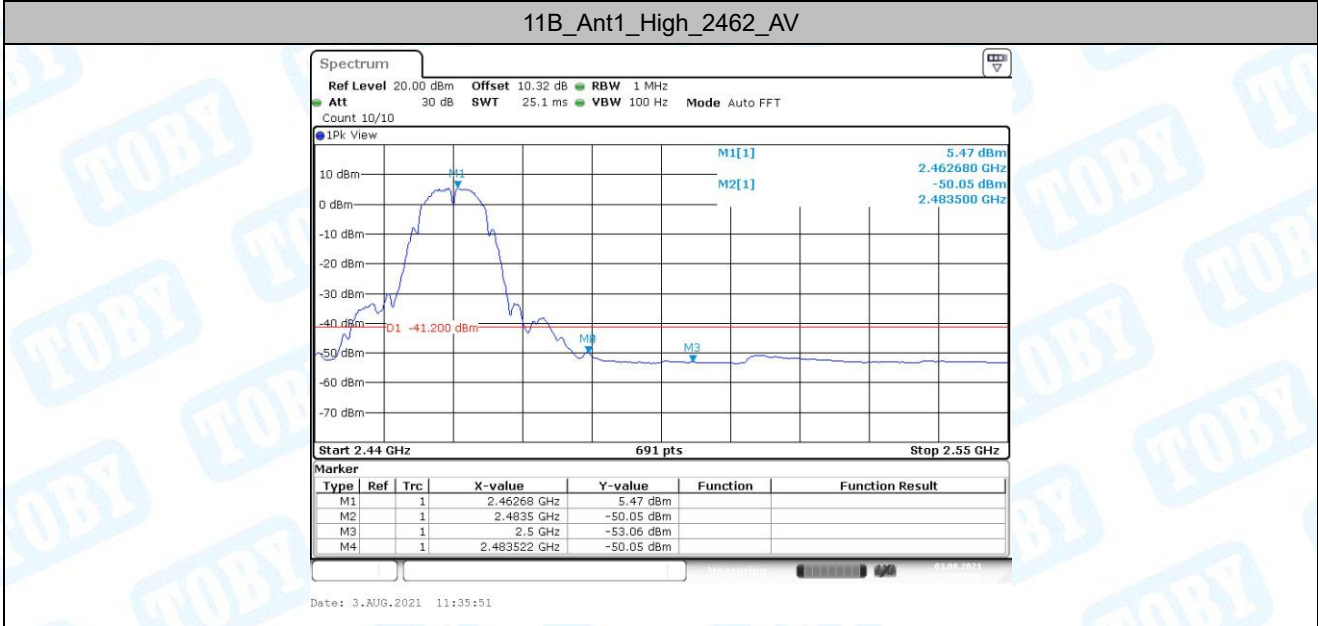
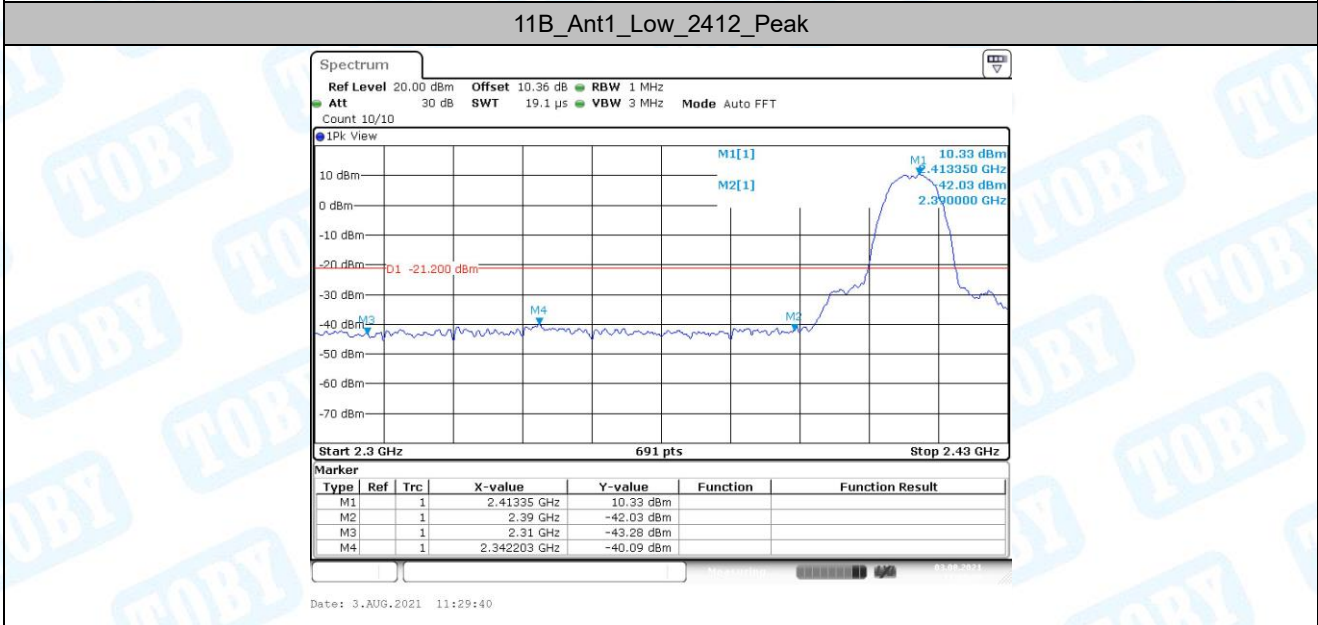
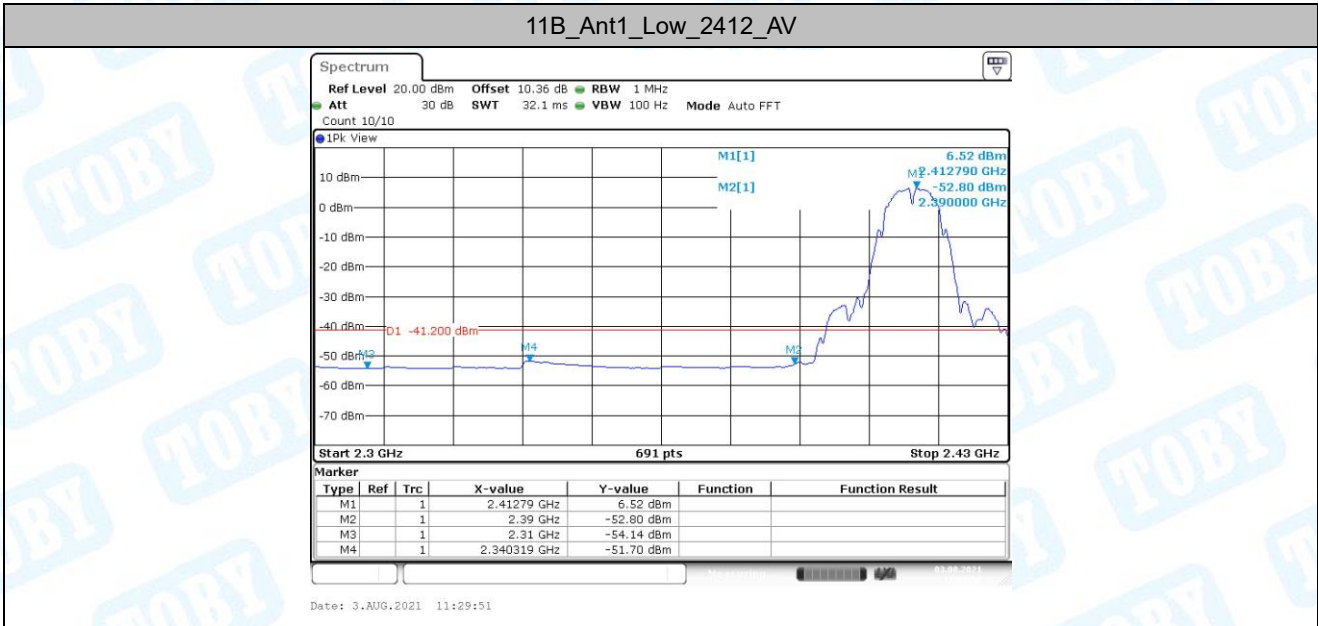
### 8.1. Test Result

| TestMode  | Antenna | ChName | Channel | Detector | Freq [MHz] | Result [dBm] | Limit [dBm] | Verdict |
|-----------|---------|--------|---------|----------|------------|--------------|-------------|---------|
| 11B       | Ant1    | Low    | 2412    | AV       | 2310.000   | -54.14       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2340.319   | -51.7        | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2390.000   | -52.8        | <=-41.20    | PASS    |
|           |         |        |         | Peak     | 2310.000   | -43.28       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2342.203   | -40.09       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2390.000   | -42.03       | <=-21.20    | PASS    |
|           |         | High   | 2462    | AV       | 2483.500   | -50.05       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2483.522   | -50.05       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2500.000   | -53.06       | <=-41.20    | PASS    |
|           |         |        |         | Peak     | 2483.500   | -39.81       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2484.319   | -39.12       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2500.000   | -42.56       | <=-21.20    | PASS    |
| 11G       | Ant1    | Low    | 2412    | AV       | 2310.000   | -53.65       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2389.870   | -50.15       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2390.000   | -50.06       | <=-41.20    | PASS    |
|           |         |        |         | Peak     | 2310.000   | -43.89       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2389.870   | -37.1        | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2390.000   | -36.69       | <=-21.20    | PASS    |
|           |         | High   | 2462    | AV       | 2483.500   | -42.51       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2483.522   | -42.51       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2500.000   | -53.36       | <=-41.20    | PASS    |
|           |         |        |         | Peak     | 2483.500   | -27.15       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2483.522   | -27.15       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2500.000   | -41.87       | <=-21.20    | PASS    |
| 11N20SISO | Ant1    | Low    | 2412    | AV       | 2310.000   | -54.29       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2389.870   | -50.32       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2390.000   | -50.09       | <=-41.20    | PASS    |
|           |         |        |         | Peak     | 2310.000   | -42.99       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2389.870   | -33.45       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2390.000   | -33.17       | <=-21.20    | PASS    |
|           |         | High   | 2462    | AV       | 2483.500   | -42.81       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2483.522   | -42.81       | <=-41.20    | PASS    |
|           |         |        |         | AV       | 2500.000   | -53.33       | <=-41.20    | PASS    |
|           |         |        |         | Peak     | 2483.500   | -26.34       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2484.000   | -25.55       | <=-21.20    | PASS    |
|           |         |        |         | Peak     | 2500.000   | -41.72       | <=-21.20    | PASS    |

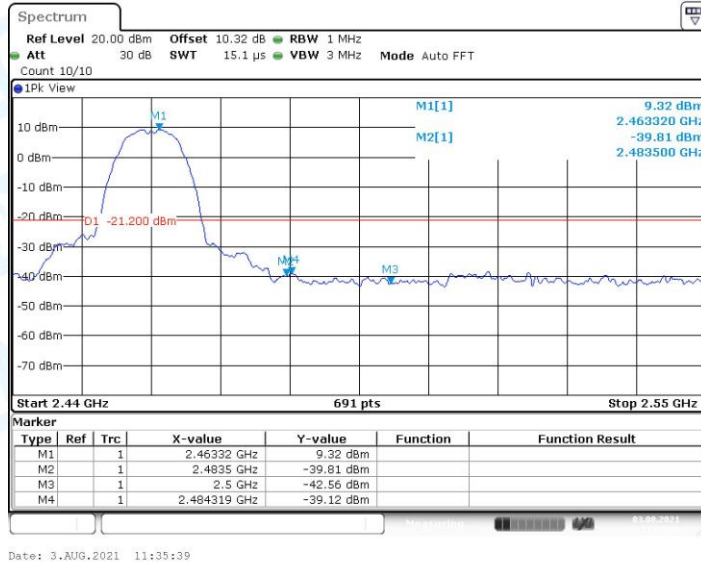
Note:

- The Antenna Gain is compensated in the graph.
- The limit in dBm for average detector is conversion from 54dBuV/m, according to 15.209(a). The limit in dBm for peak detector is 20dB above the limit of average detector in dBm.

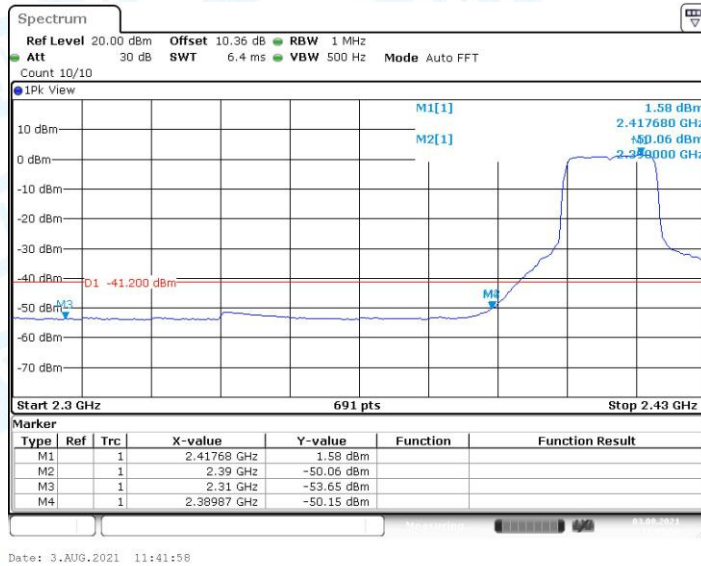
**8.2. Test Graphs**



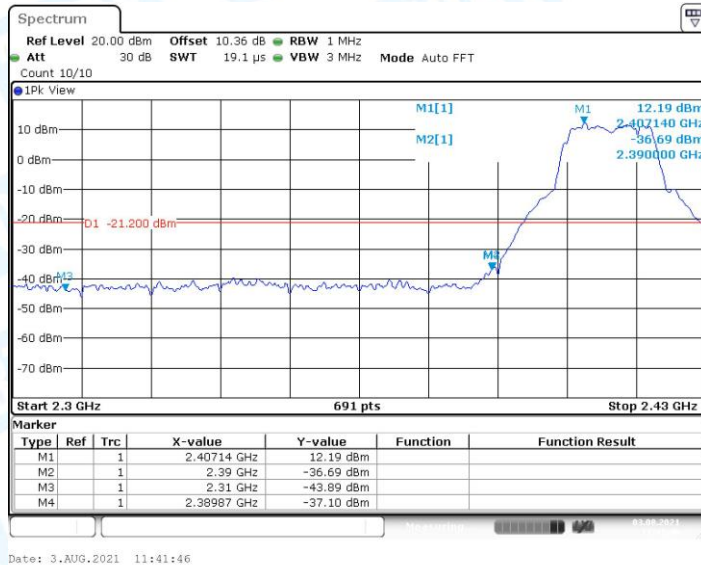
### 11B\_Ant1\_High\_2462\_Peak



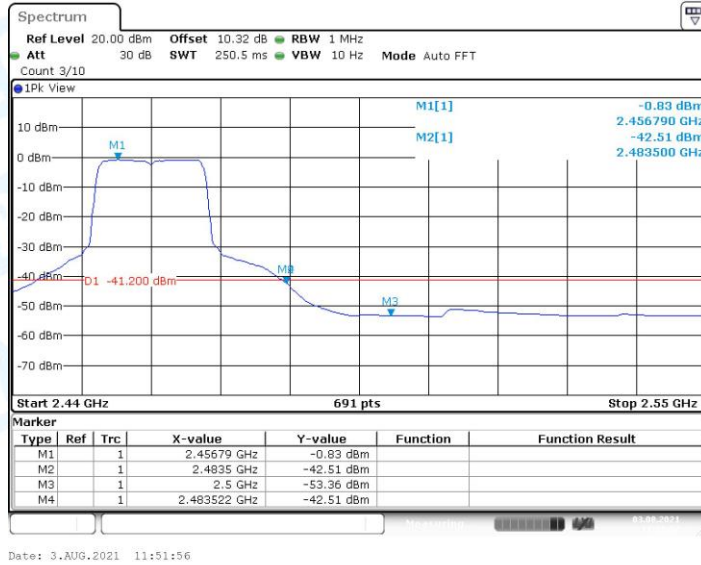
### 11G\_Ant1\_Low\_2412\_AV



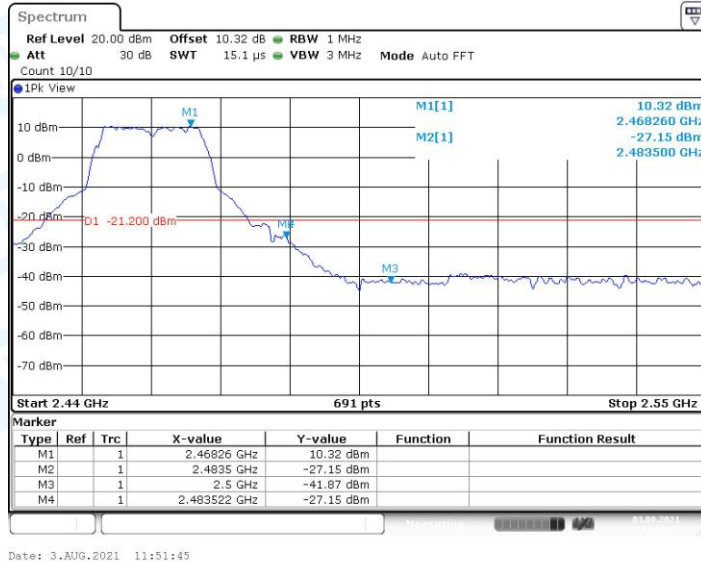
### 11G\_Ant1\_Low\_2412\_Peak



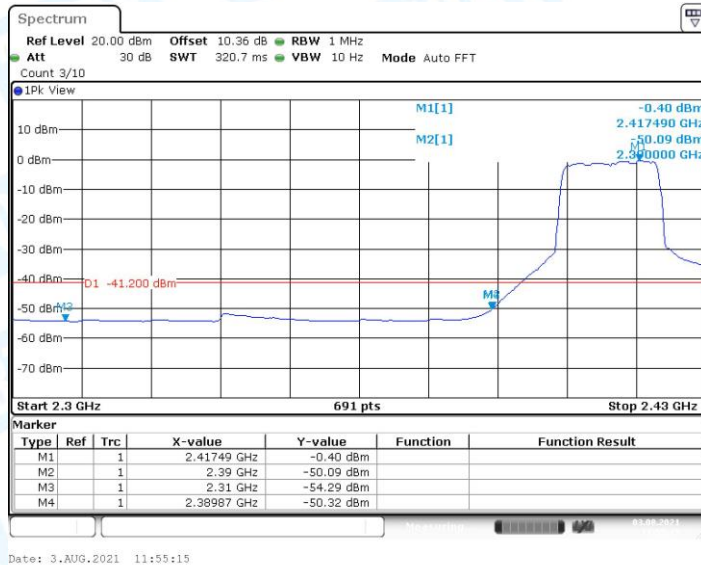
### 11G\_Ant1\_High\_2462\_AV



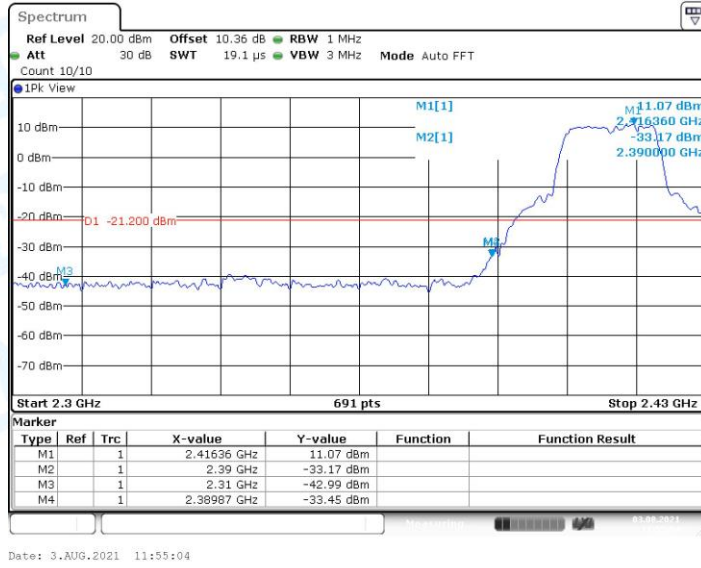
### 11G\_Ant1\_High\_2462\_Peak



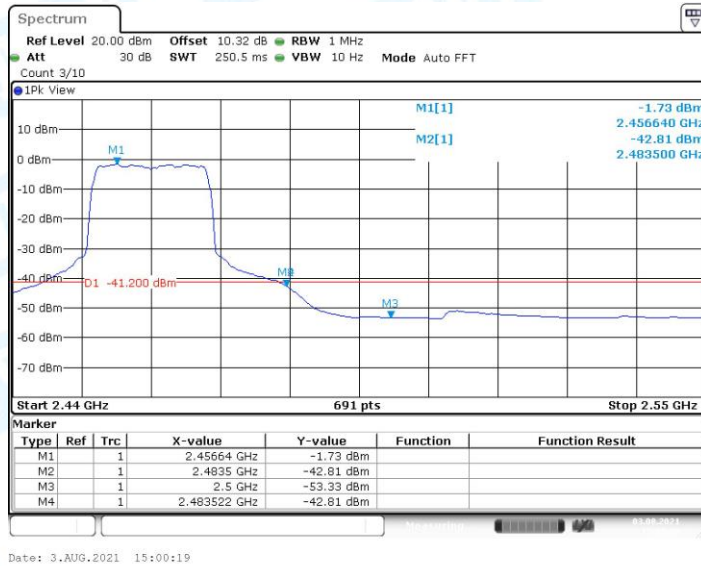
### 11N20SISO\_Ant1\_Low\_2412\_AV



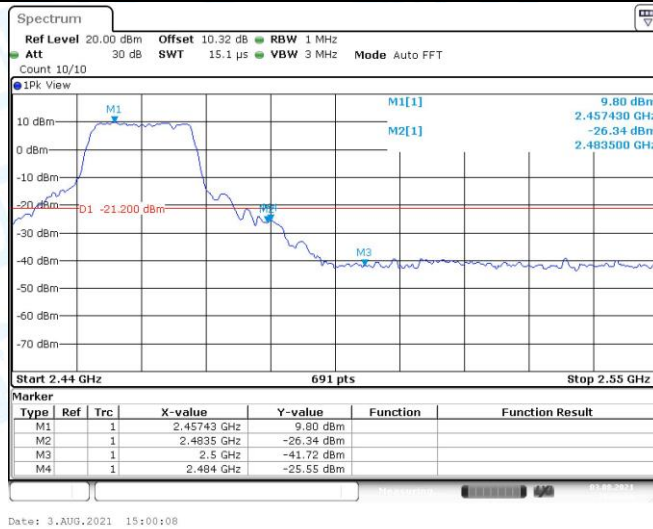
11N20SISO\_Ant1\_Low\_2412\_Peak



11N20SISO\_Ant1\_High\_2462\_AV



11N20SISO\_Ant1\_High\_2462\_Peak



-----End of the report-----