



## Appendix C

### RF Test Data for 2.4GWIFI (Conducted Measurement)

Product Name: Wireless car camera monitor system

Trade Mark: N/A

Test Model: V35

#### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 24.6° C     |
| Relative Humidity: | 52.4%       |
| ATM Pressure:      | 100.0 kPa   |
| Test Engineer:     | Emiya lin   |
| Supervised by:     | Simba Haung |



## Contents

|                                              | Page |
|----------------------------------------------|------|
| <b>COVER PAGE</b>                            |      |
| 1 Duty Cycle .....                           | 3    |
| 1.1 Test Result .....                        | 3    |
| 1.2 Test Graphs .....                        | 4    |
| 2 Maximum Conducted Output Power .....       | 10   |
| 2.1 Test Result .....                        | 10   |
| 3 -6dB Bandwidth .....                       | 11   |
| 3.1 Test Result .....                        | 11   |
| 3.2 Test Graphs .....                        | 12   |
| 4 Maximum Power Spectral Density Level ..... | 18   |
| 4.1 Test Result .....                        | 18   |
| 4.2 Test Graphs .....                        | 19   |
| 5 Band Edge .....                            | 25   |
| 5.1 Test Result .....                        | 25   |
| 5.2 Test Graphs .....                        | 26   |
| 6 Conducted RF Spurious Emission .....       | 34   |
| 6.1 Test Result .....                        | 34   |
| 6.2 Test Graphs .....                        | 35   |
| 7 Restrict Band .....                        | 47   |
| 7.1 Test Result .....                        | 47   |
| 7.2 Test Graphs .....                        | 49   |

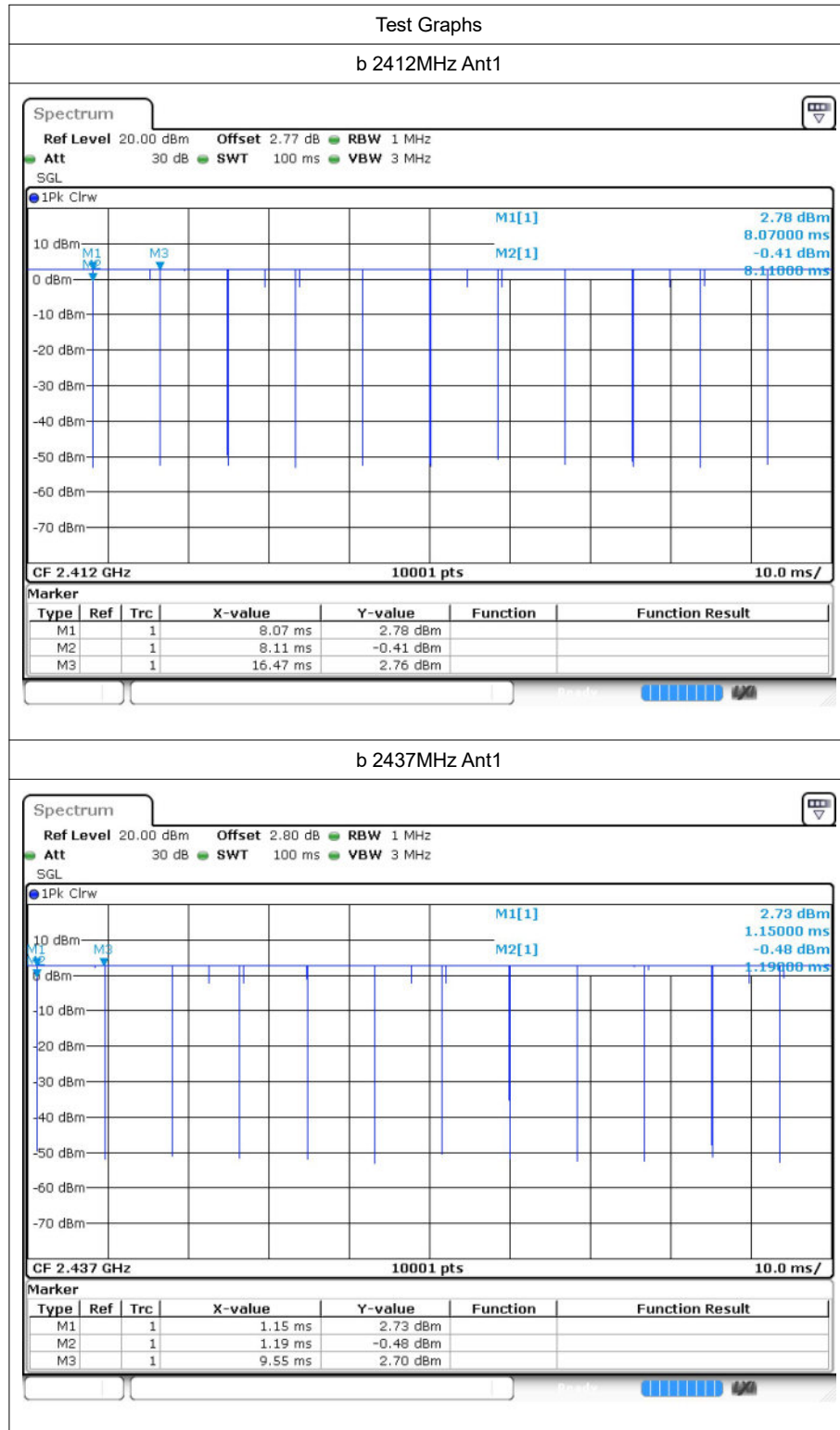


# 1 Duty Cycle

## 1.1 Test Result

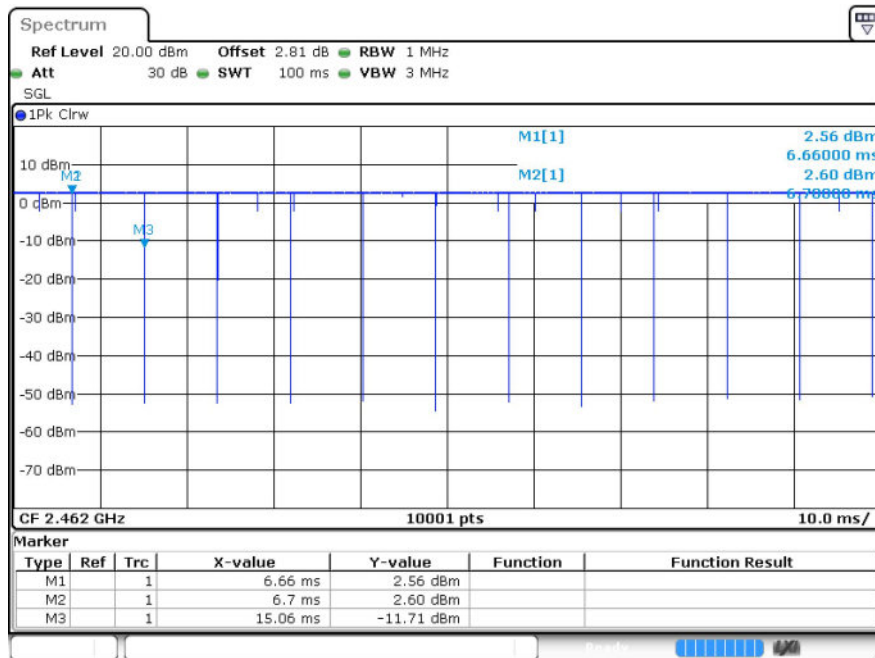
| Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor | 1/T (kHz) |
|------|-----------------|---------|----------------|-------------------|-----------|
| b    | 2412            | Ant1    | 99.62          | 0.02              | 0.12      |
| b    | 2437            | Ant1    | 99.6           | 0.02              | 0.12      |
| b    | 2462            | Ant1    | 99.61          | 0.02              | 0.12      |
| g    | 2412            | Ant1    | 86.87          | 0.61              | 4.76      |
| g    | 2437            | Ant1    | 86.88          | 0.61              | 4.76      |
| g    | 2462            | Ant1    | 86.87          | 0.61              | 4.76      |
| n20  | 2412            | Ant1    | 87.58          | 0.58              | 4.35      |
| n20  | 2437            | Ant1    | 87.57          | 0.58              | 4.35      |
| n20  | 2462            | Ant1    | 87.59          | 0.58              | 4.35      |
| n40  | 2422            | Ant1    | 88             | 0.56              | 4.17      |
| n40  | 2437            | Ant1    | 88.03          | 0.55              | 4.17      |
| n40  | 2452            | Ant1    | 88.03          | 0.55              | 4.17      |

## 1.2 Test Graphs

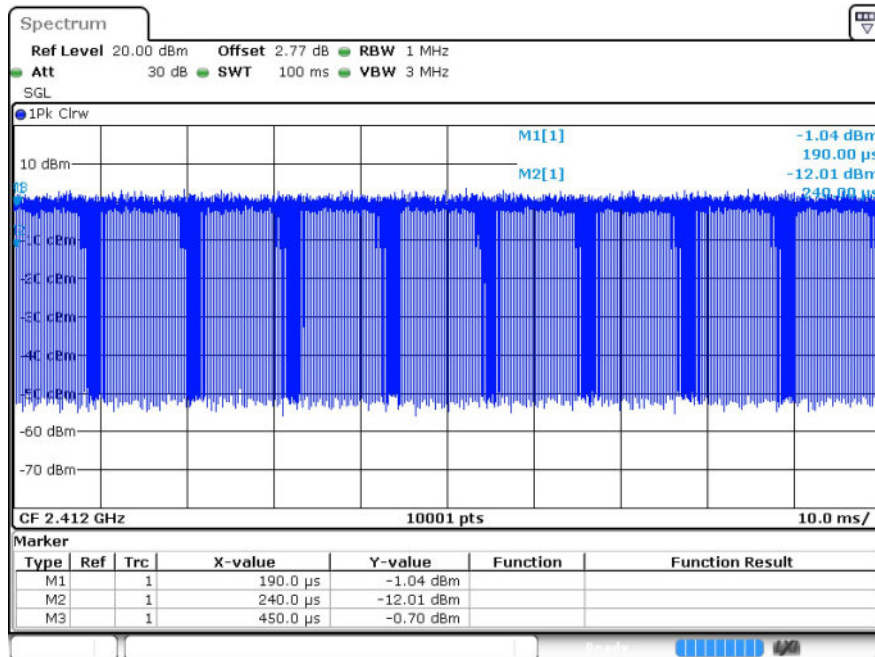


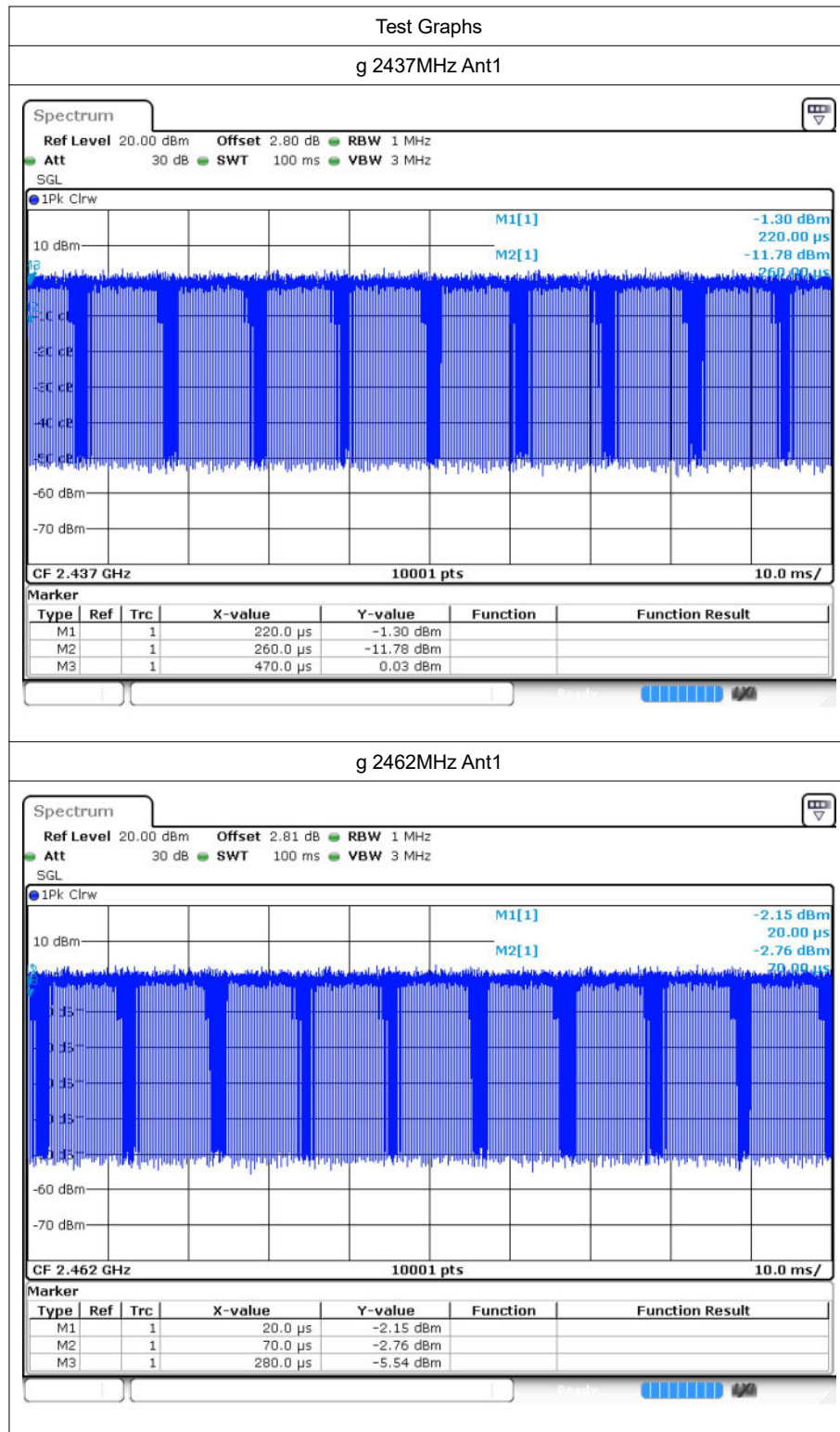
## Test Graphs

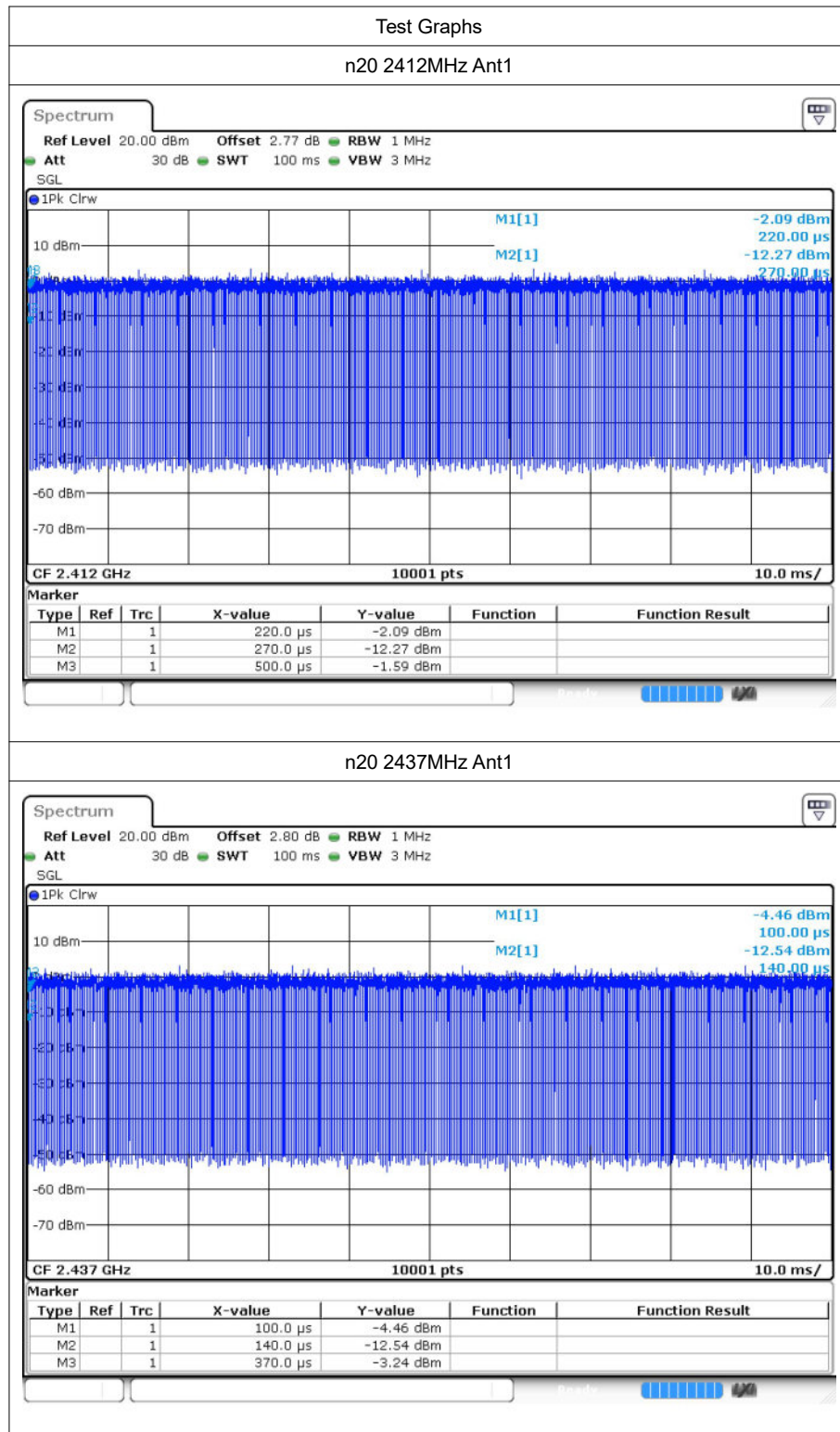
## b 2462MHz Ant1

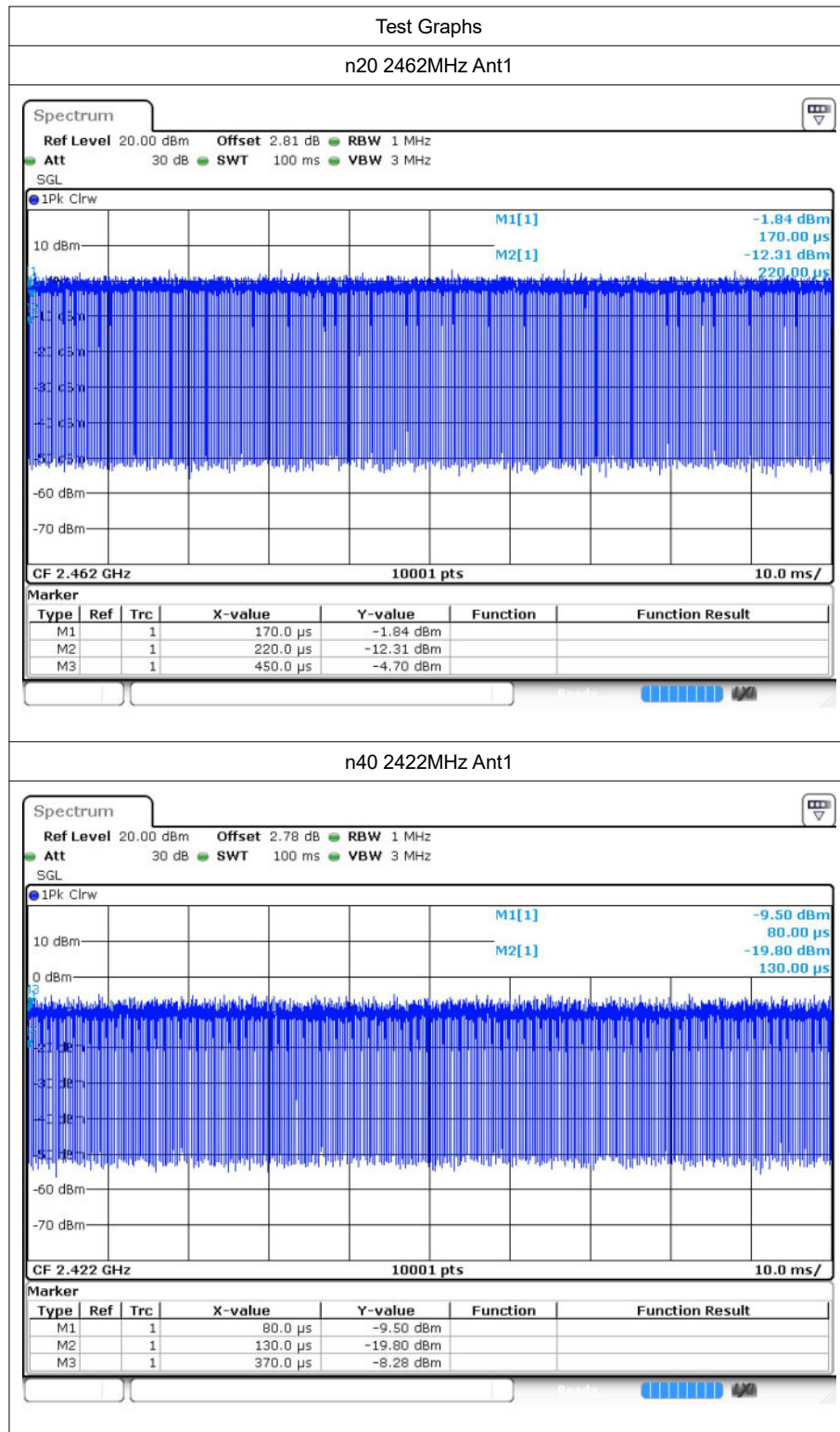


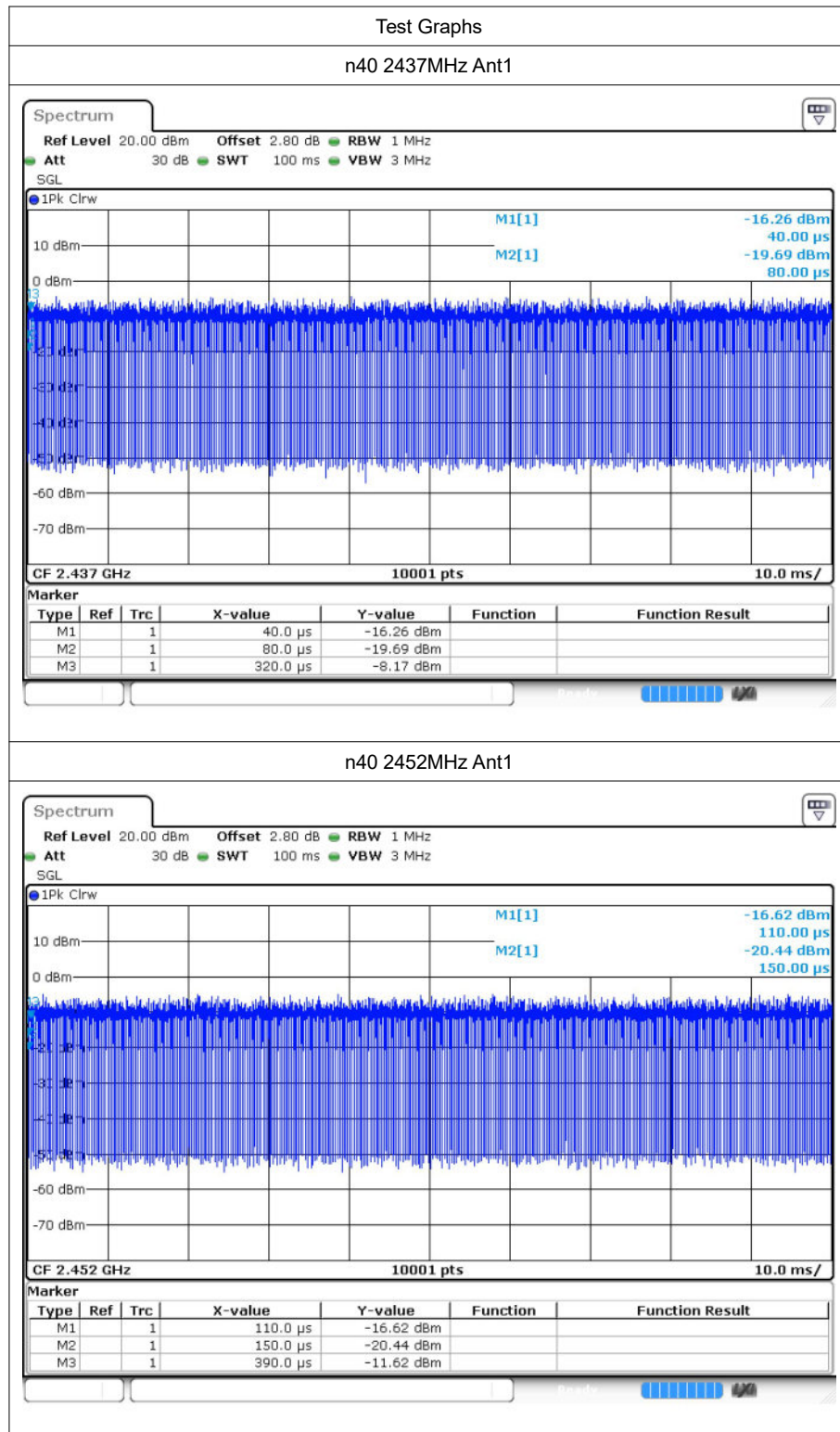
## g 2412MHz Ant1













## 2 Maximum Conducted Output Power

### 2.1 Test Result

| Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|------|-----------------|---------|-----------------------|-------------|---------|
| b    | 2412            | Ant1    | 13.27                 | 30          | Pass    |
| b    | 2437            | Ant1    | 13.2                  | 30          | Pass    |
| b    | 2462            | Ant1    | 13.13                 | 30          | Pass    |
| g    | 2412            | Ant1    | 12.78                 | 30          | Pass    |
| g    | 2437            | Ant1    | 12.67                 | 30          | Pass    |
| g    | 2462            | Ant1    | 12.82                 | 30          | Pass    |
| n20  | 2412            | Ant1    | 12.19                 | 30          | Pass    |
| n20  | 2437            | Ant1    | 12.02                 | 30          | Pass    |
| n20  | 2462            | Ant1    | 12.18                 | 30          | Pass    |
| n40  | 2422            | Ant1    | 11.59                 | 30          | Pass    |
| n40  | 2437            | Ant1    | 11.54                 | 30          | Pass    |
| n40  | 2452            | Ant1    | 11.64                 | 30          | Pass    |

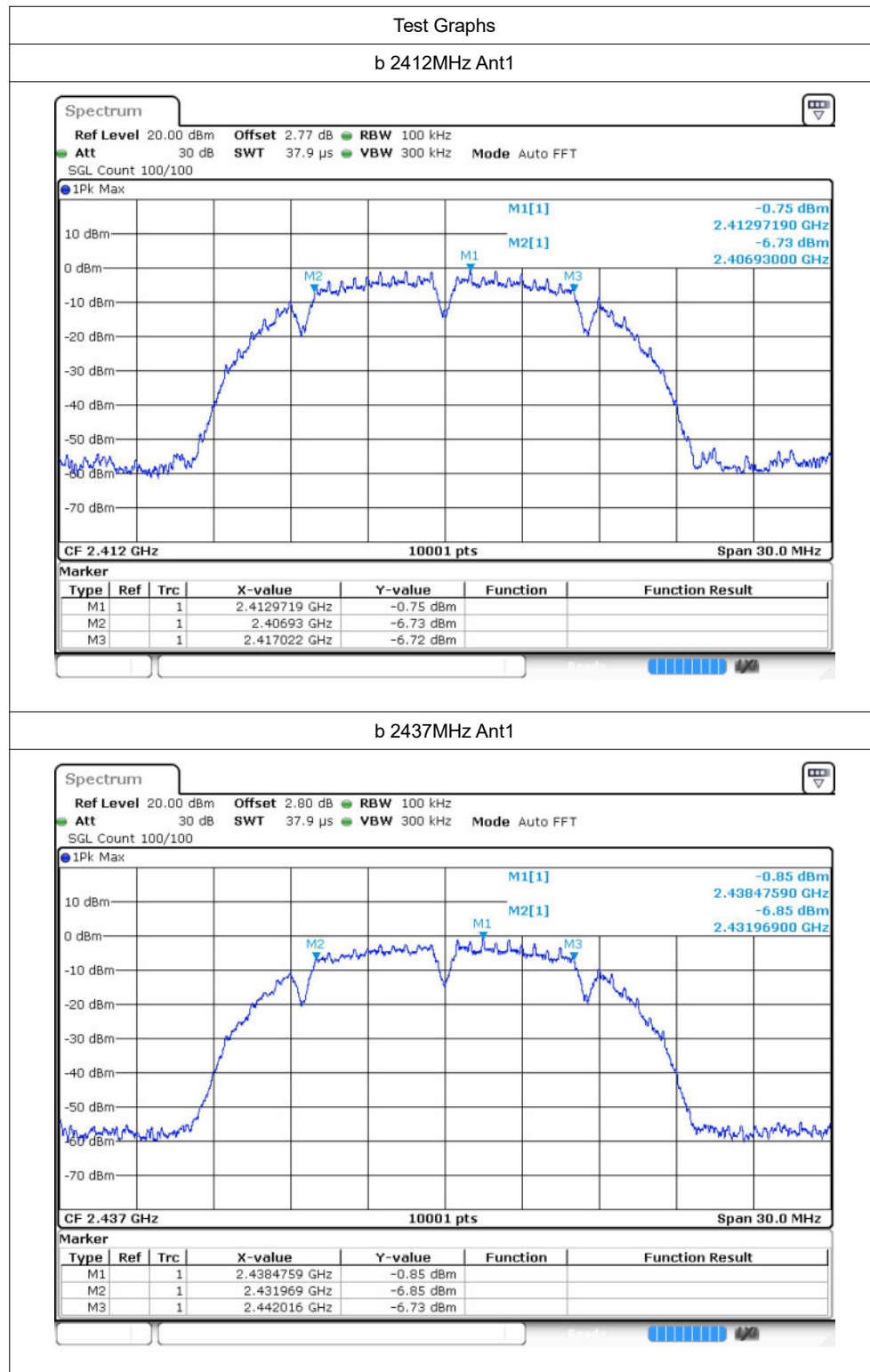


### 3 -6dB Bandwidth

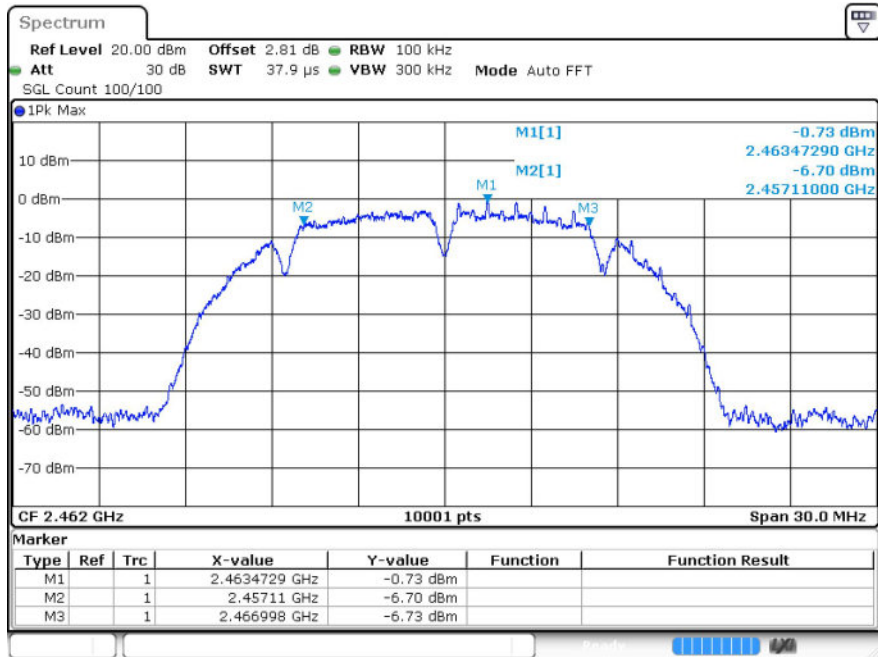
#### 3.1 Test Result

| Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|------|-----------------|---------|-----------------------|-----------------------------|---------|
| b    | 2412            | Ant1    | 10.092                | 0.5                         | Pass    |
| b    | 2437            | Ant1    | 10.047                | 0.5                         | Pass    |
| b    | 2462            | Ant1    | 9.888                 | 0.5                         | Pass    |
| g    | 2412            | Ant1    | 13.197                | 0.5                         | Pass    |
| g    | 2437            | Ant1    | 15.084                | 0.5                         | Pass    |
| g    | 2462            | Ant1    | 15.117                | 0.5                         | Pass    |
| n20  | 2412            | Ant1    | 15.12                 | 0.5                         | Pass    |
| n20  | 2437            | Ant1    | 15.102                | 0.5                         | Pass    |
| n20  | 2462            | Ant1    | 15.081                | 0.5                         | Pass    |
| n40  | 2422            | Ant1    | 33.822                | 0.5                         | Pass    |
| n40  | 2437            | Ant1    | 33.834                | 0.5                         | Pass    |
| n40  | 2452            | Ant1    | 35.07                 | 0.5                         | Pass    |

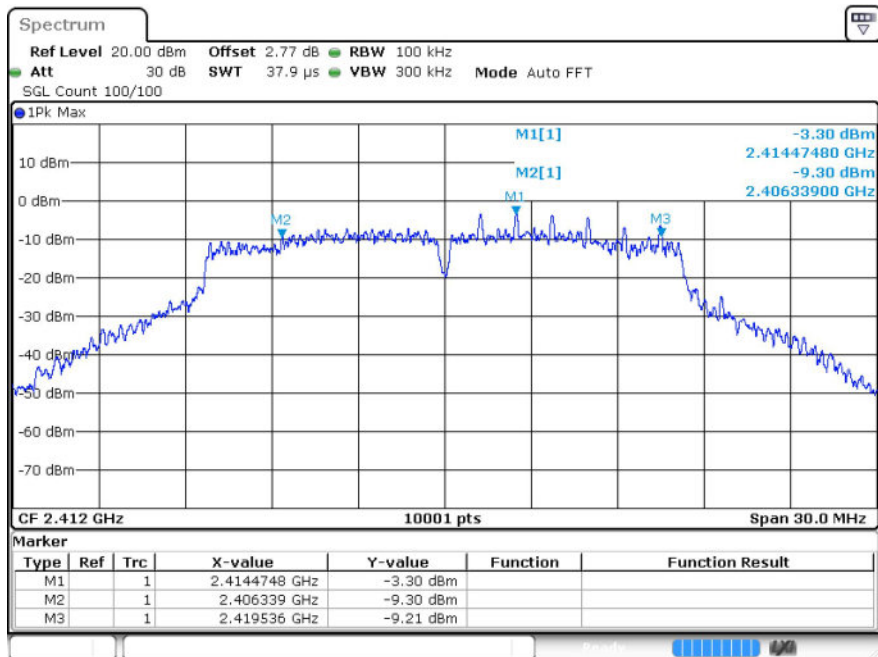
## 3.2 Test Graphs



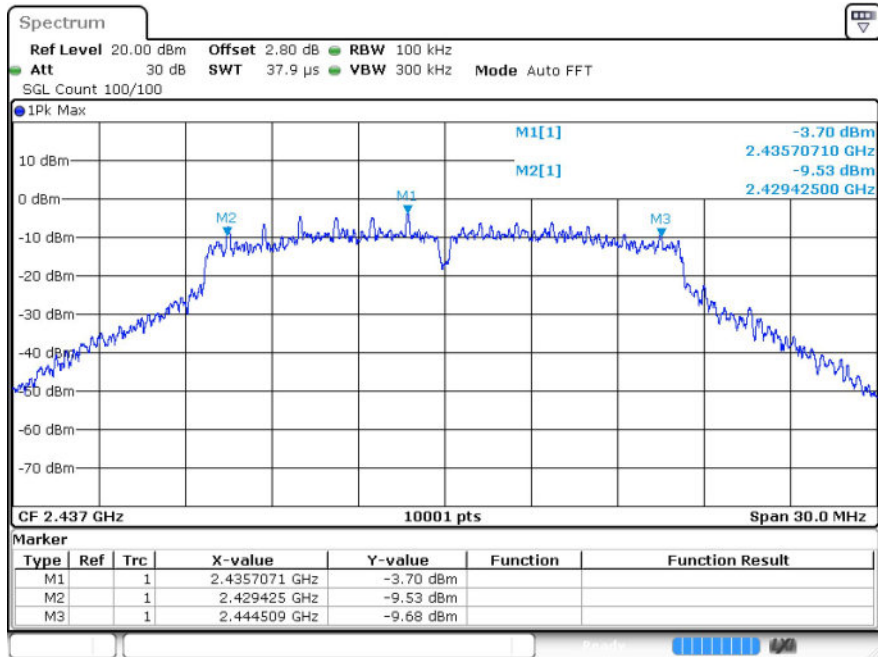
b 2462MHz Ant1



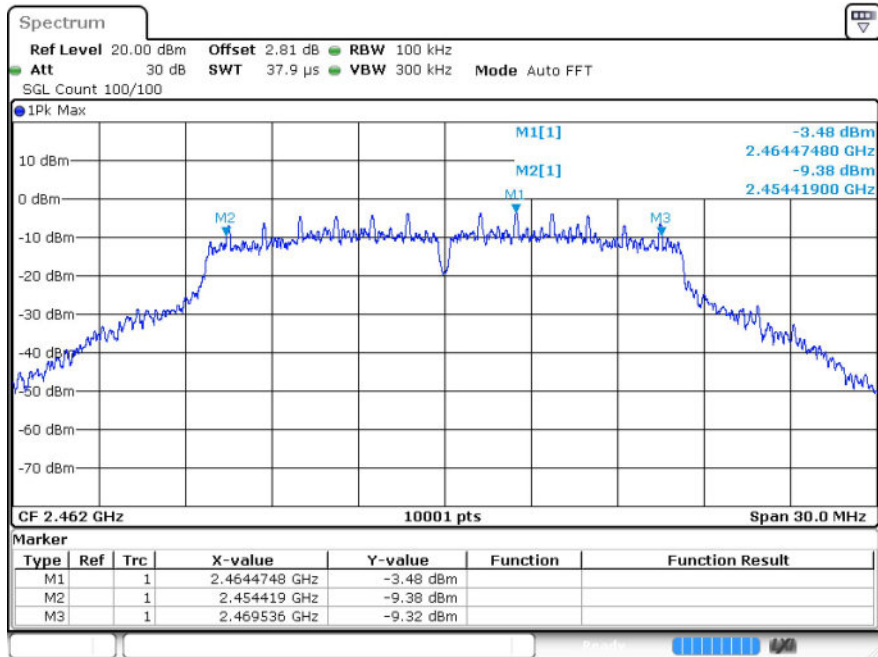
g 2412MHz Ant1

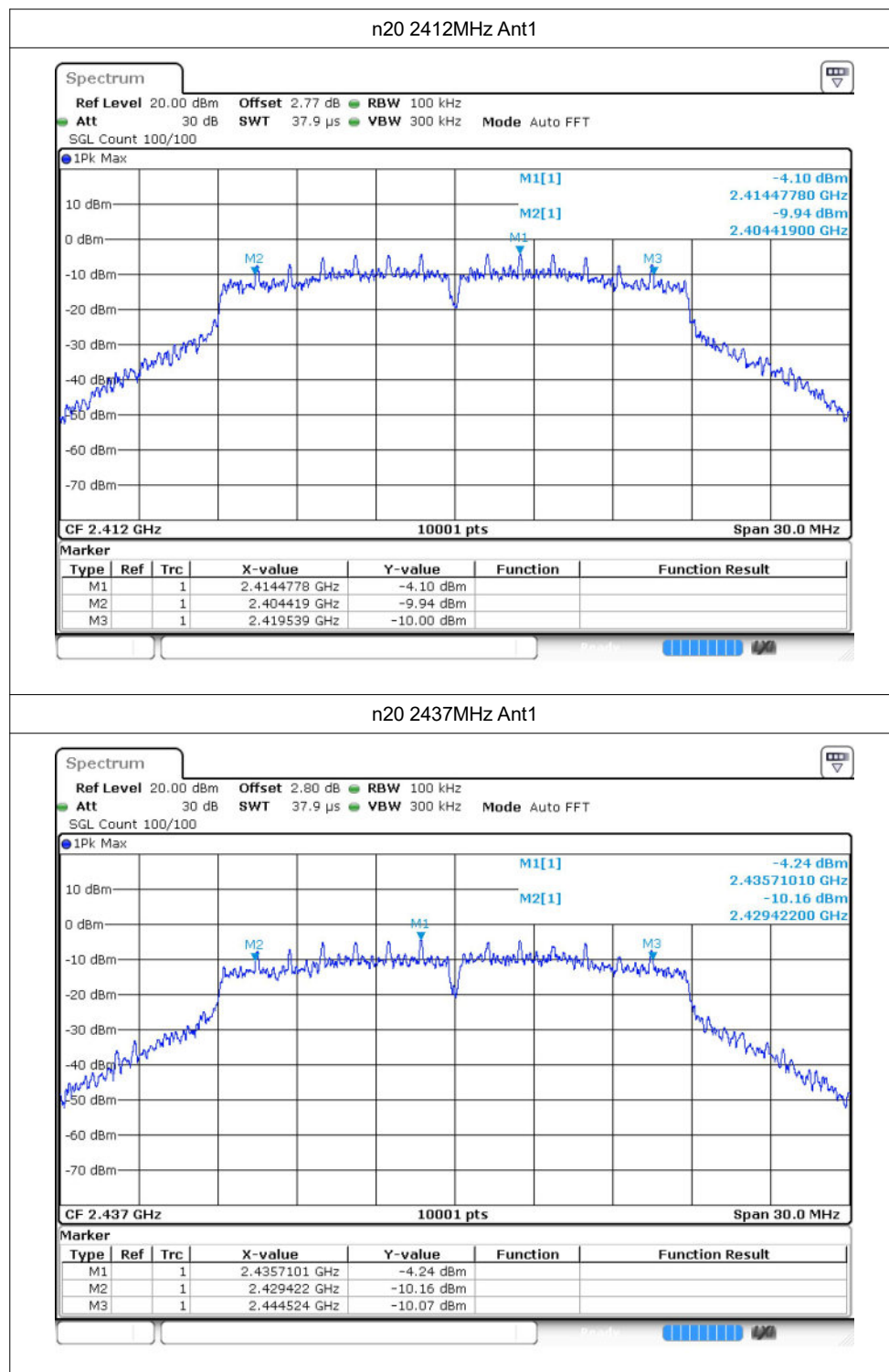


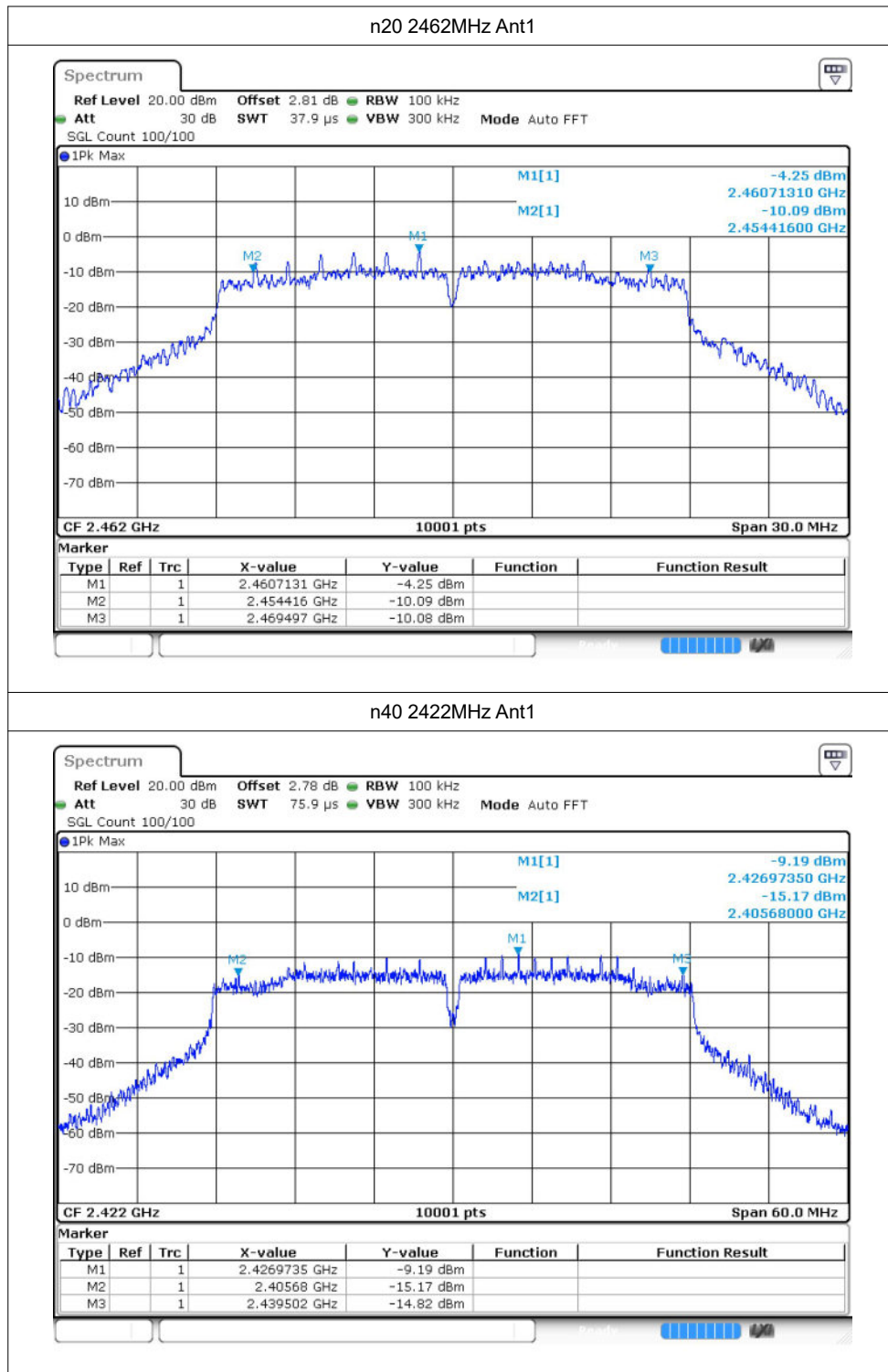
g 2437MHz Ant1



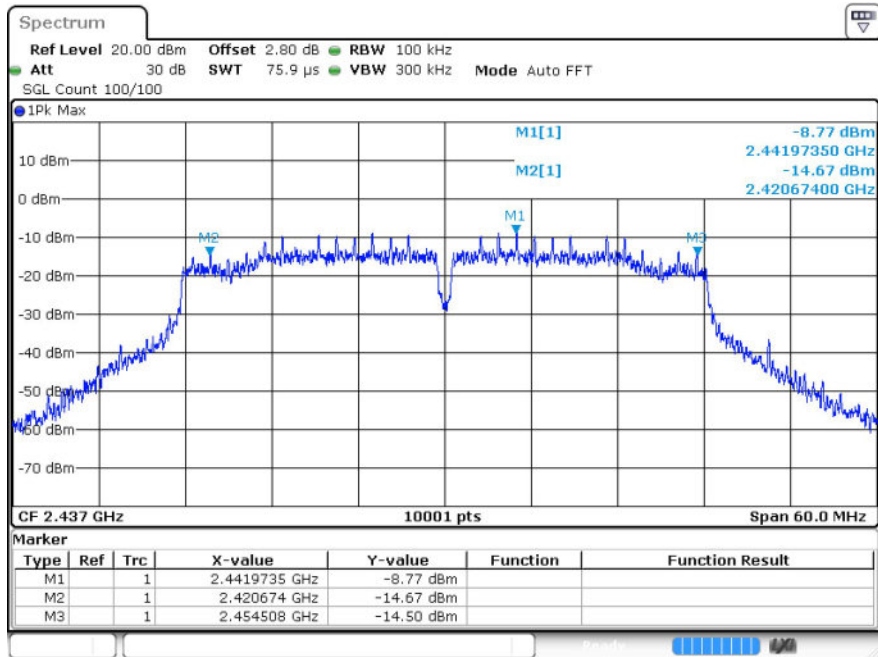
g 2462MHz Ant1



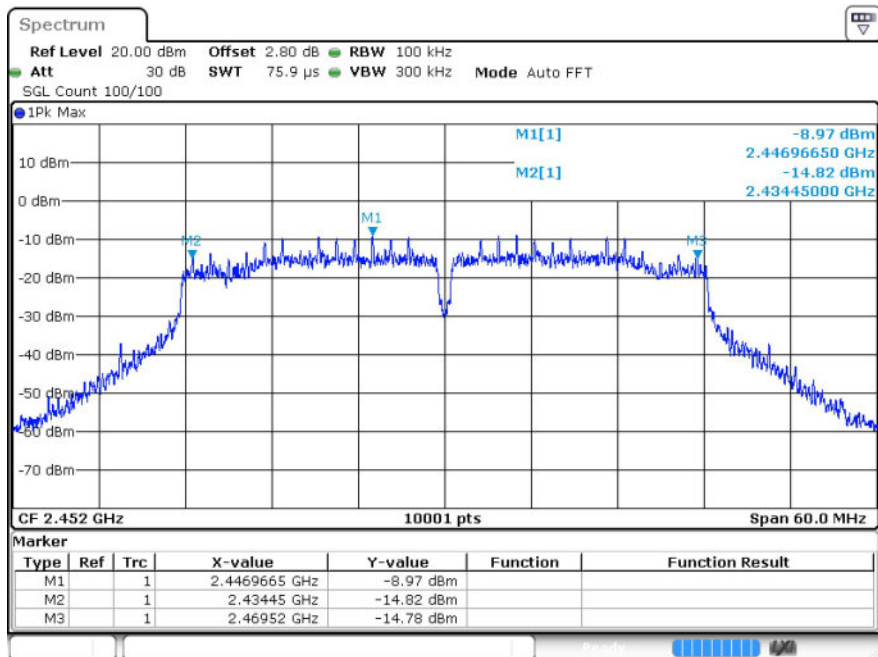




n40 2437MHz Ant1



n40 2452MHz Ant1

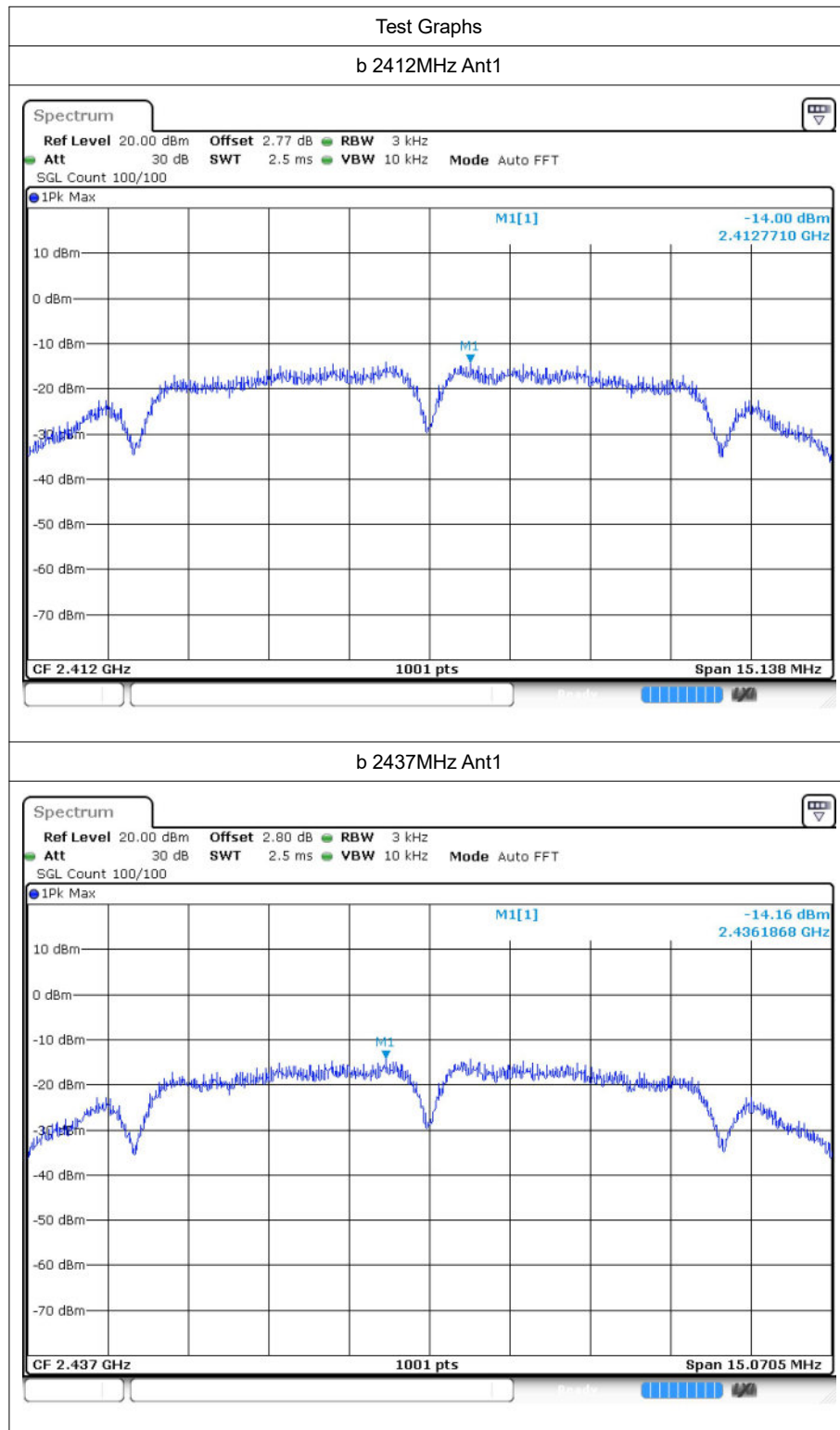


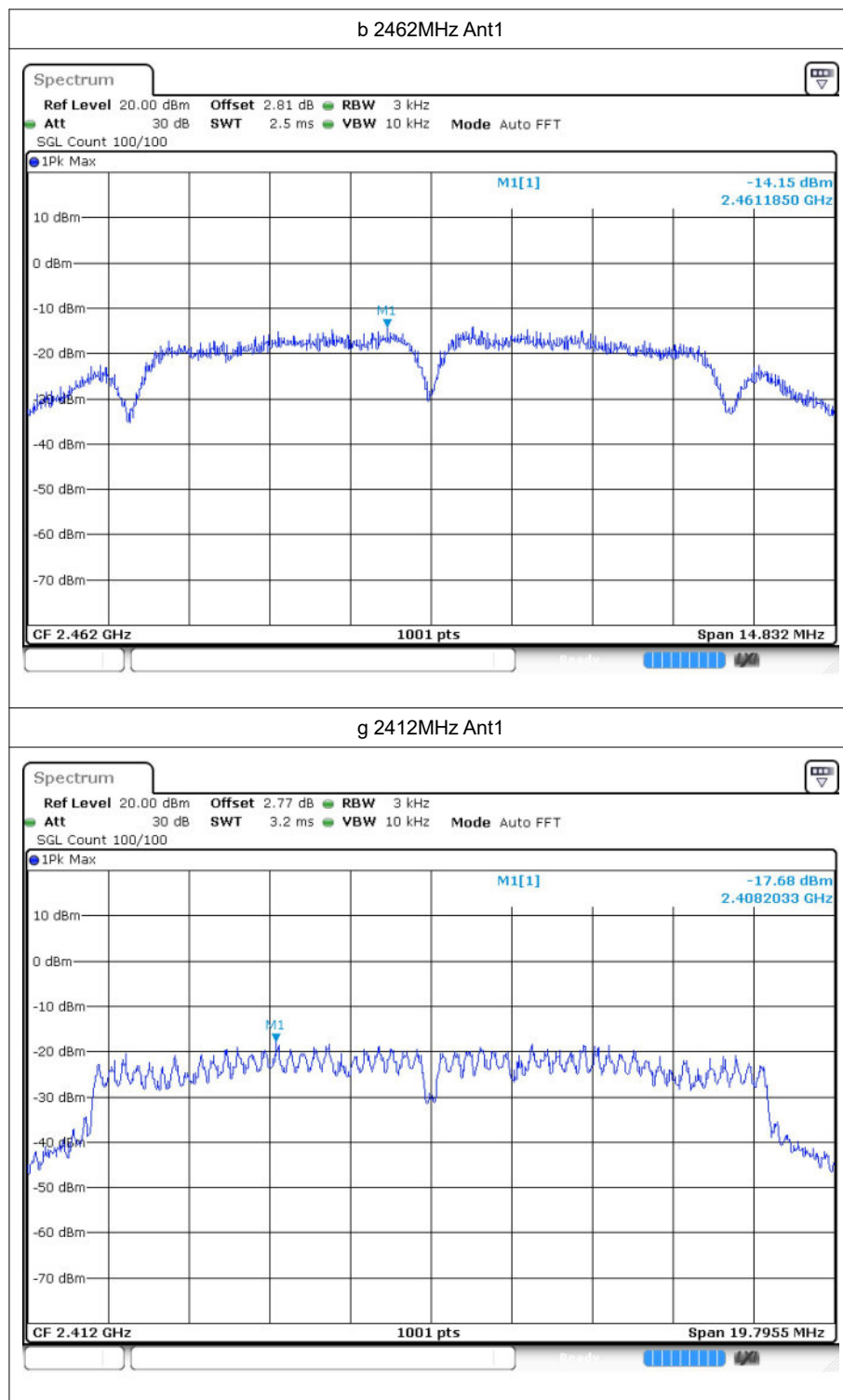
## 4 Maximum Power Spectral Density Level

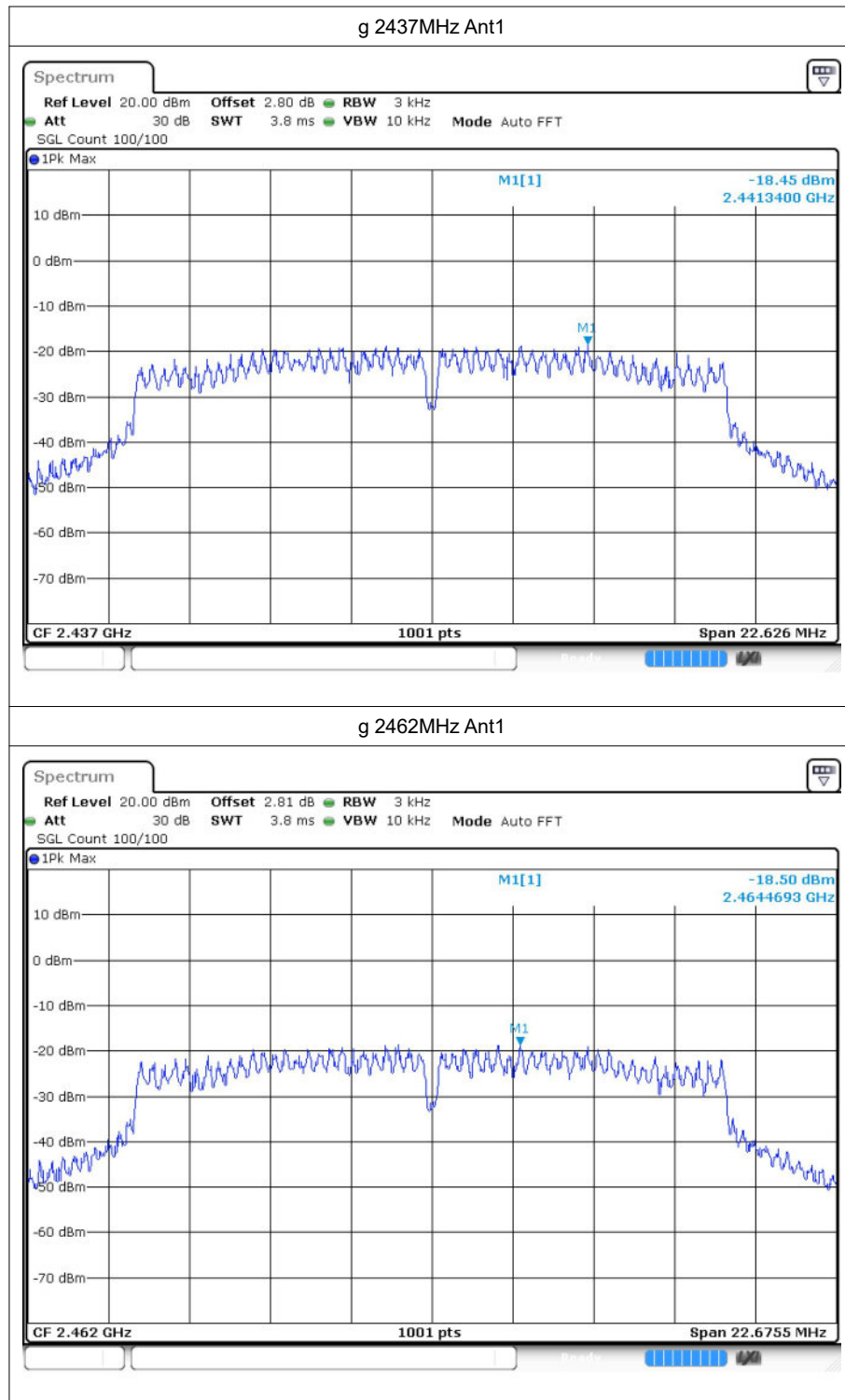
### 4.1 Test Result

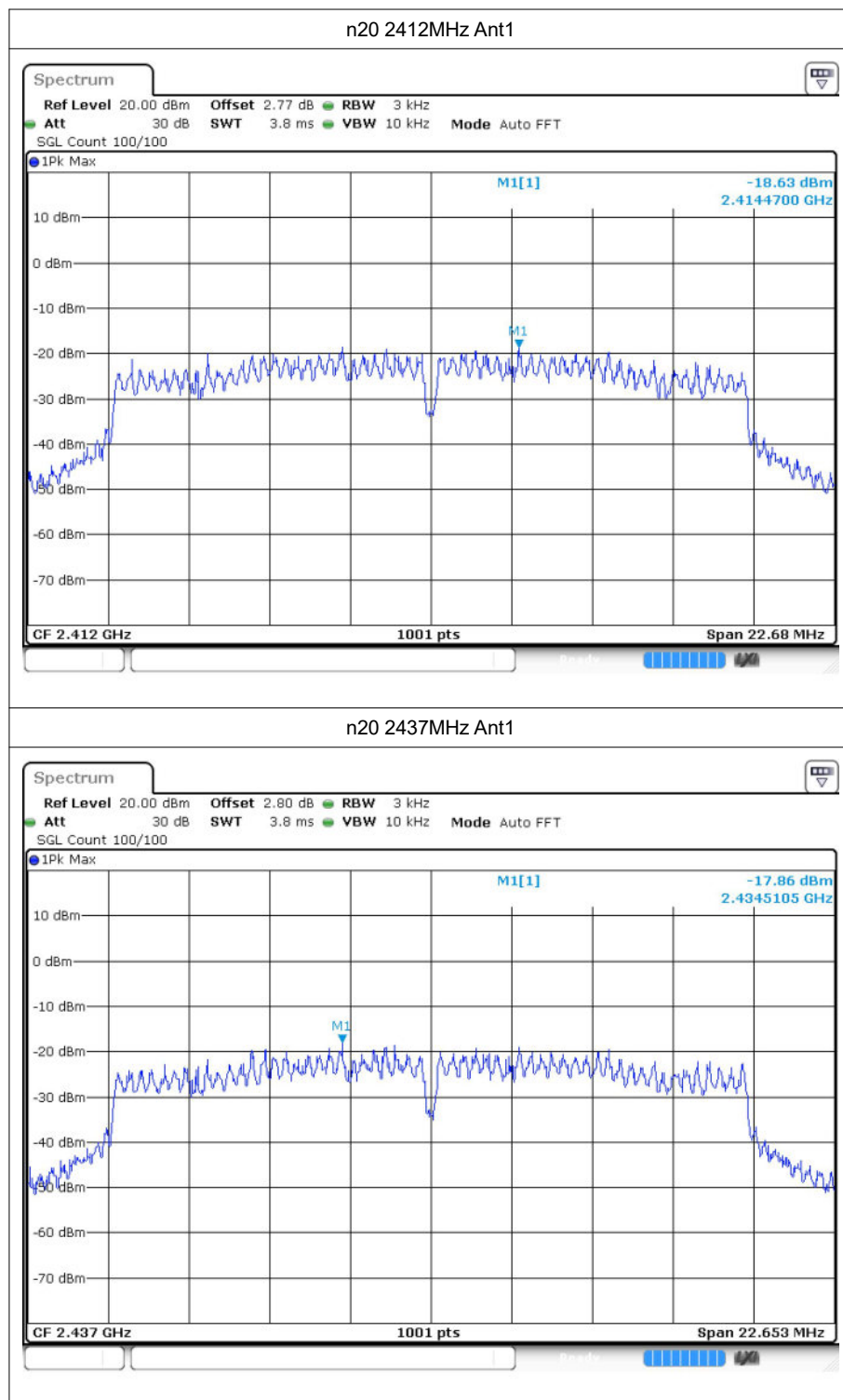
| Mode | Frequency (MHz) | Antenna | Conducted PSD<br>(dBm/3-100kHz) | Limit<br>(dBm/3kHz) | Verdict |
|------|-----------------|---------|---------------------------------|---------------------|---------|
| b    | 2412            | Ant1    | -14                             | $\leq 8$            | Pass    |
| b    | 2437            | Ant1    | -14.16                          | $\leq 8$            | Pass    |
| b    | 2462            | Ant1    | -14.15                          | $\leq 8$            | Pass    |
| g    | 2412            | Ant1    | -17.68                          | $\leq 8$            | Pass    |
| g    | 2437            | Ant1    | -18.45                          | $\leq 8$            | Pass    |
| g    | 2462            | Ant1    | -18.5                           | $\leq 8$            | Pass    |
| n20  | 2412            | Ant1    | -18.63                          | $\leq 8$            | Pass    |
| n20  | 2437            | Ant1    | -17.86                          | $\leq 8$            | Pass    |
| n20  | 2462            | Ant1    | -17.94                          | $\leq 8$            | Pass    |
| n40  | 2422            | Ant1    | -22.7                           | $\leq 8$            | Pass    |
| n40  | 2437            | Ant1    | -22.33                          | $\leq 8$            | Pass    |
| n40  | 2452            | Ant1    | -22.9                           | $\leq 8$            | Pass    |

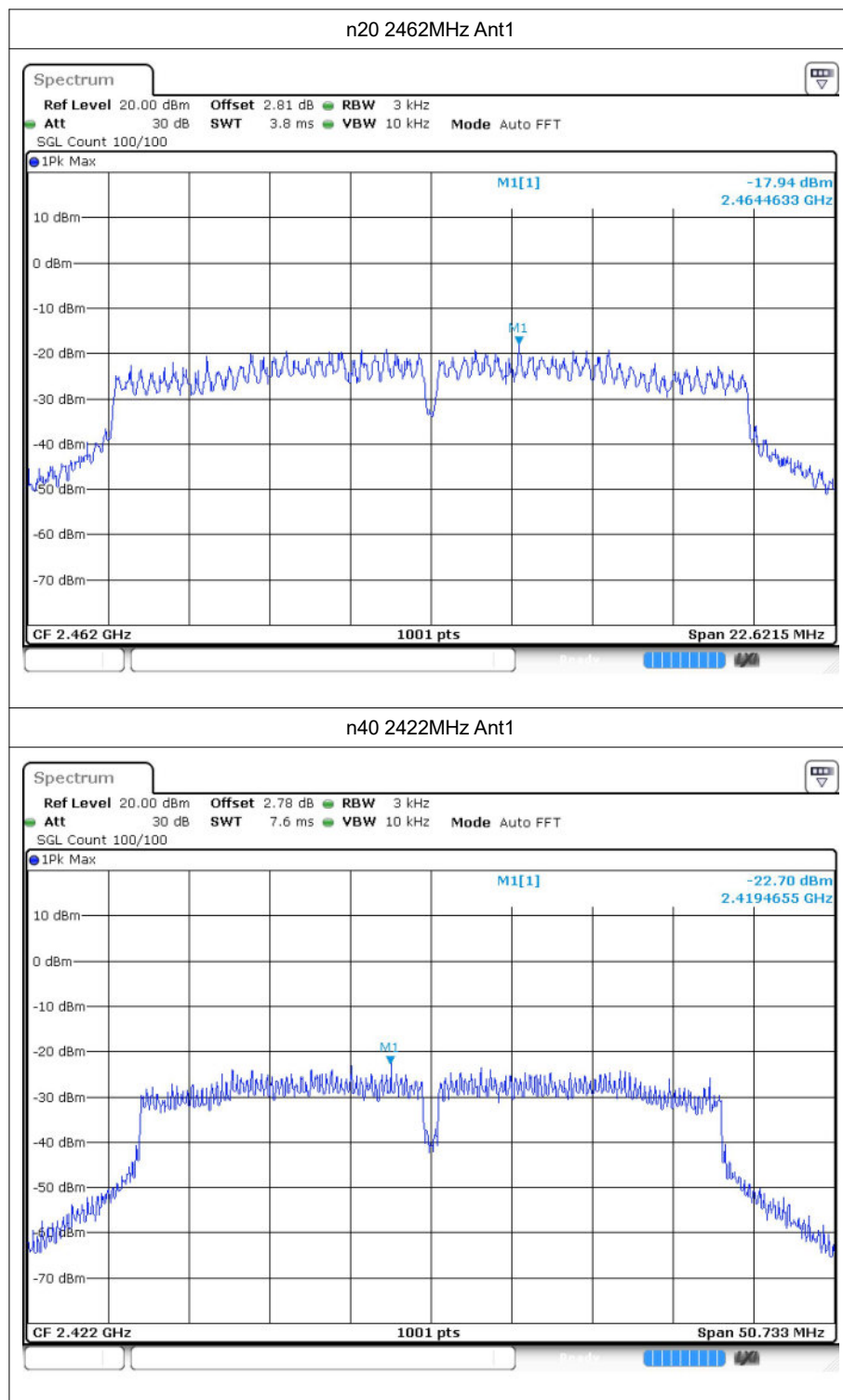
## 4.2 Test Graphs

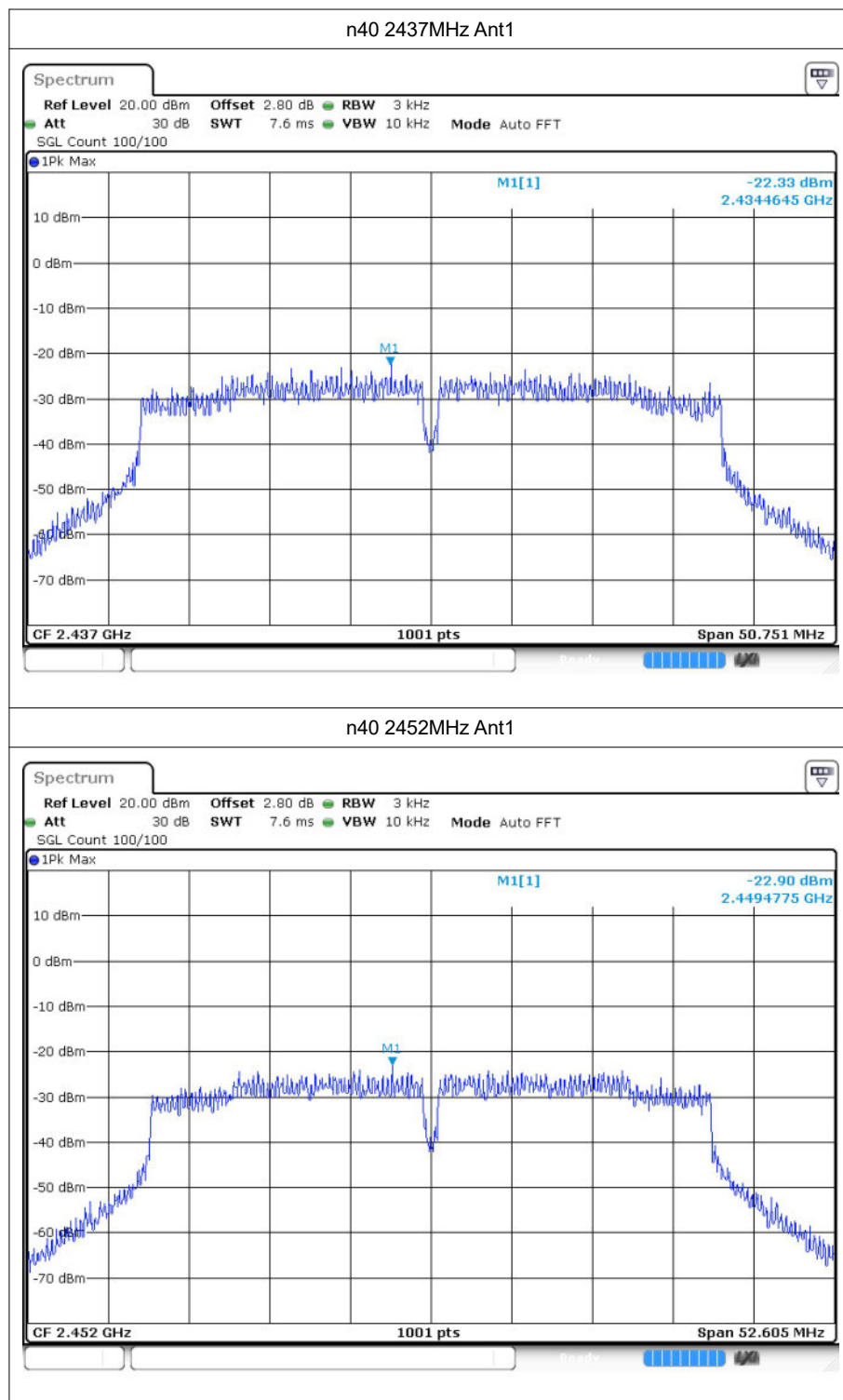














## 5 Band Edge

### 5.1 Test Result

| Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|------|-----------------|---------|-----------------|-------------|---------|
| b    | 2412            | Ant1    | -53.86          | -20         | Pass    |
| b    | 2462            | Ant1    | -54.24          | -20         | Pass    |
| g    | 2412            | Ant1    | -50.46          | -20         | Pass    |
| g    | 2462            | Ant1    | -51.73          | -20         | Pass    |
| n20  | 2412            | Ant1    | -50.83          | -20         | Pass    |
| n20  | 2462            | Ant1    | -51.64          | -20         | Pass    |
| n40  | 2422            | Ant1    | -45.96          | -20         | Pass    |
| n40  | 2452            | Ant1    | -46.19          | -20         | Pass    |

## 5.2 Test Graphs

