



## Appendix C

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

Product Name: Pet Smart Feeders

Trade Mark: Star pack

Test Model: WSQ11

#### Environmental Conditions

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



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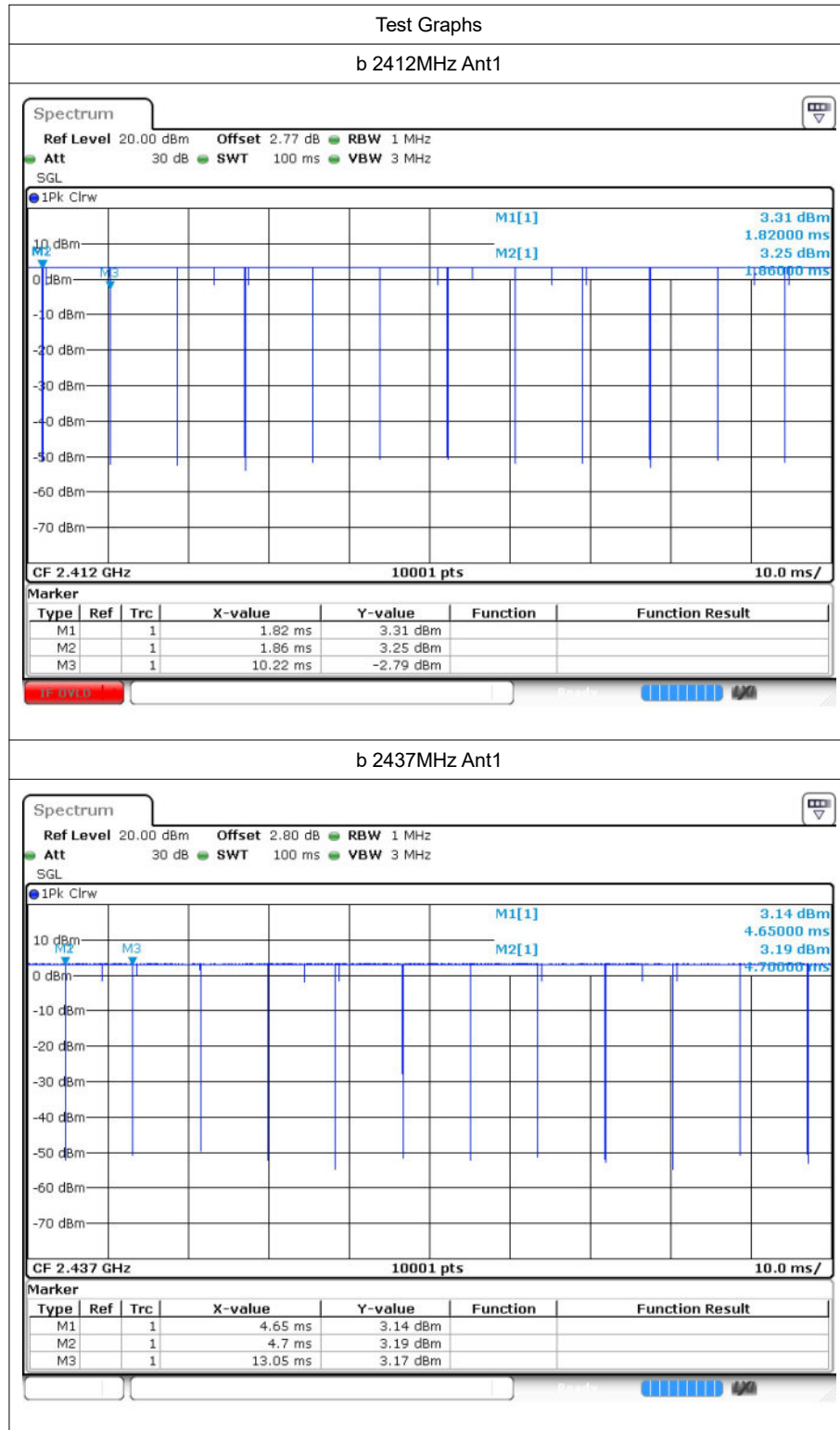


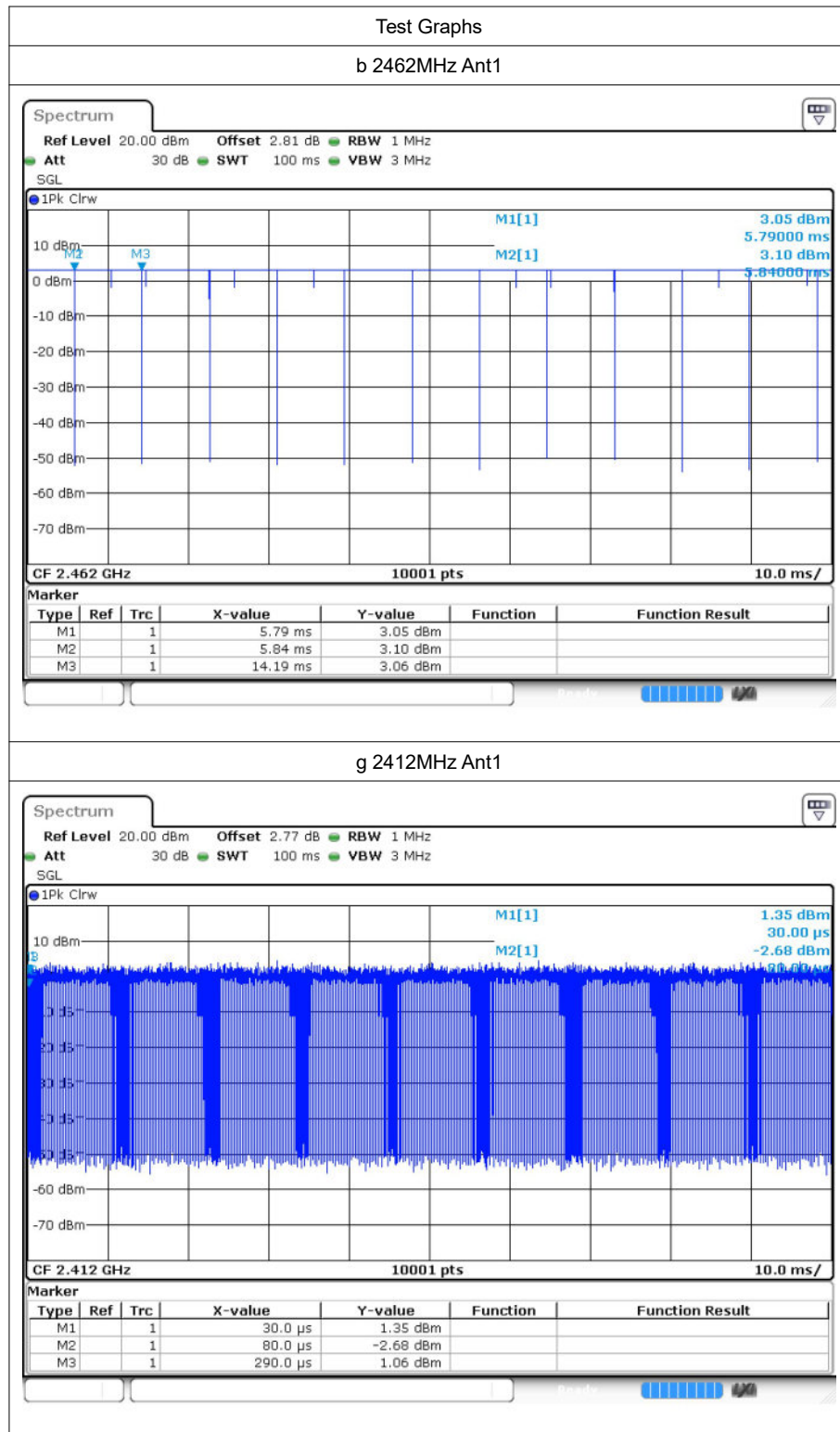
# 1 Duty Cycle

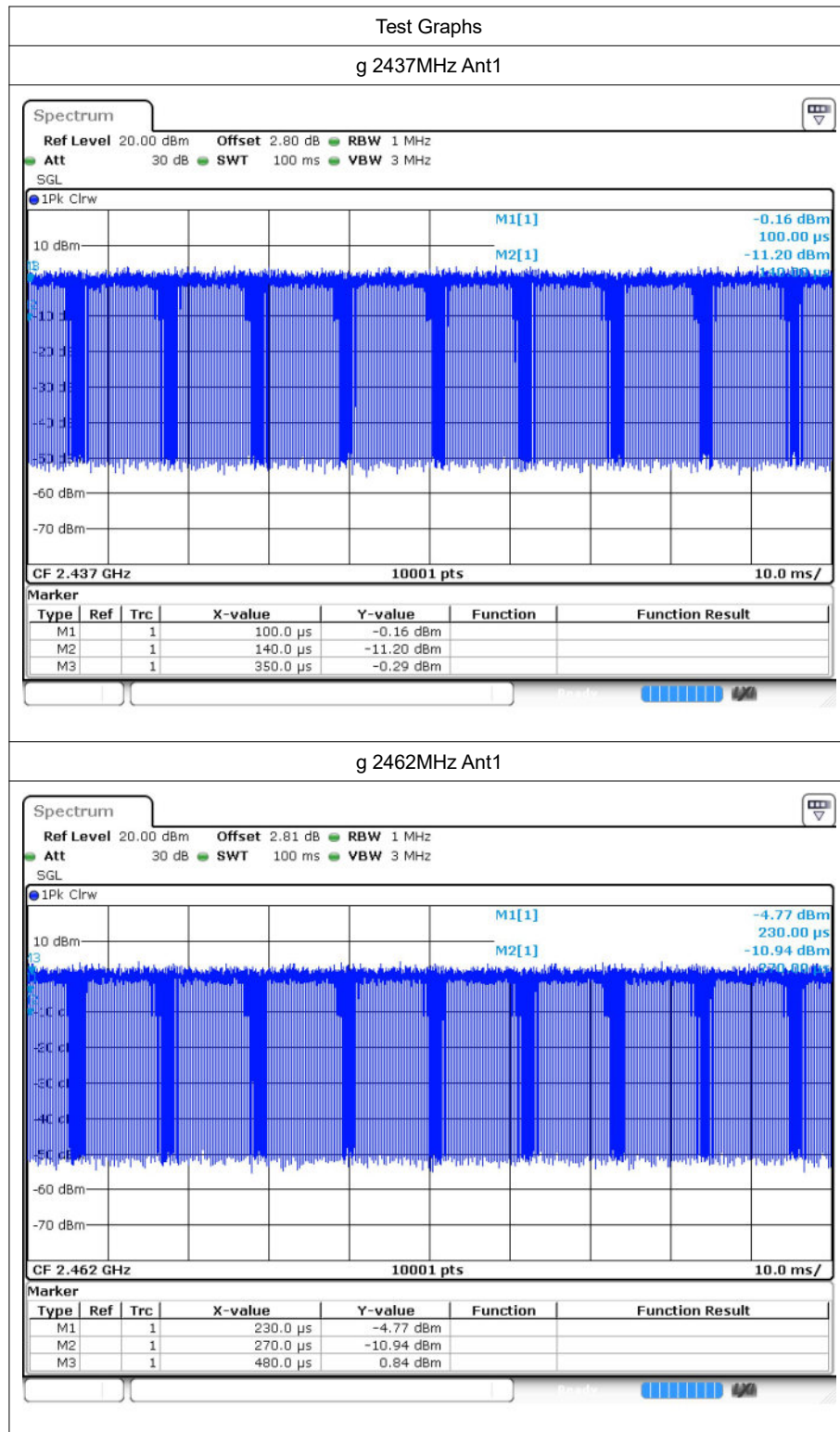
## 1.1 Test Result

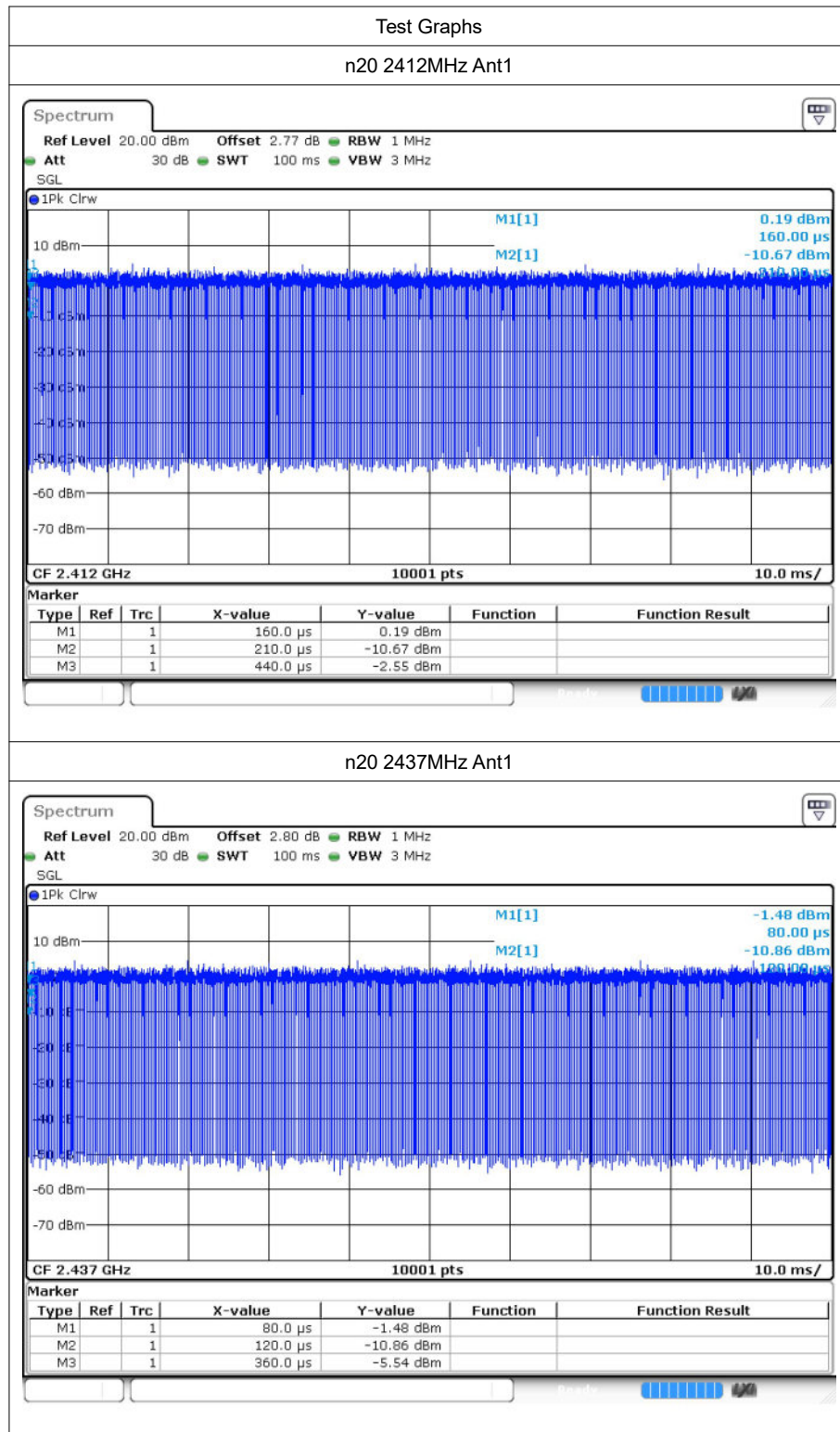
| Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor | 1/T (kHz) |
|------|-----------------|---------|----------------|-------------------|-----------|
| b    | 2412            | Ant1    | 99.61          | 0.02              | 0.12      |
| b    | 2437            | Ant1    | 99.59          | 0.02              | 0.12      |
| b    | 2462            | Ant1    | 99.6           | 0.02              | 0.12      |
| g    | 2412            | Ant1    | 86.93          | 0.61              | 4.76      |
| g    | 2437            | Ant1    | 86.93          | 0.61              | 4.76      |
| g    | 2462            | Ant1    | 86.9           | 0.61              | 4.76      |
| n20  | 2412            | Ant1    | 87.58          | 0.58              | 4.35      |
| n20  | 2437            | Ant1    | 87.6           | 0.57              | 4.17      |
| n20  | 2462            | Ant1    | 87.55          | 0.58              | 4.35      |
| n40  | 2422            | Ant1    | 88.07          | 0.55              | 4         |
| n40  | 2437            | Ant1    | 88.01          | 0.55              | 4.17      |
| n40  | 2452            | Ant1    | 88.08          | 0.55              | 4         |

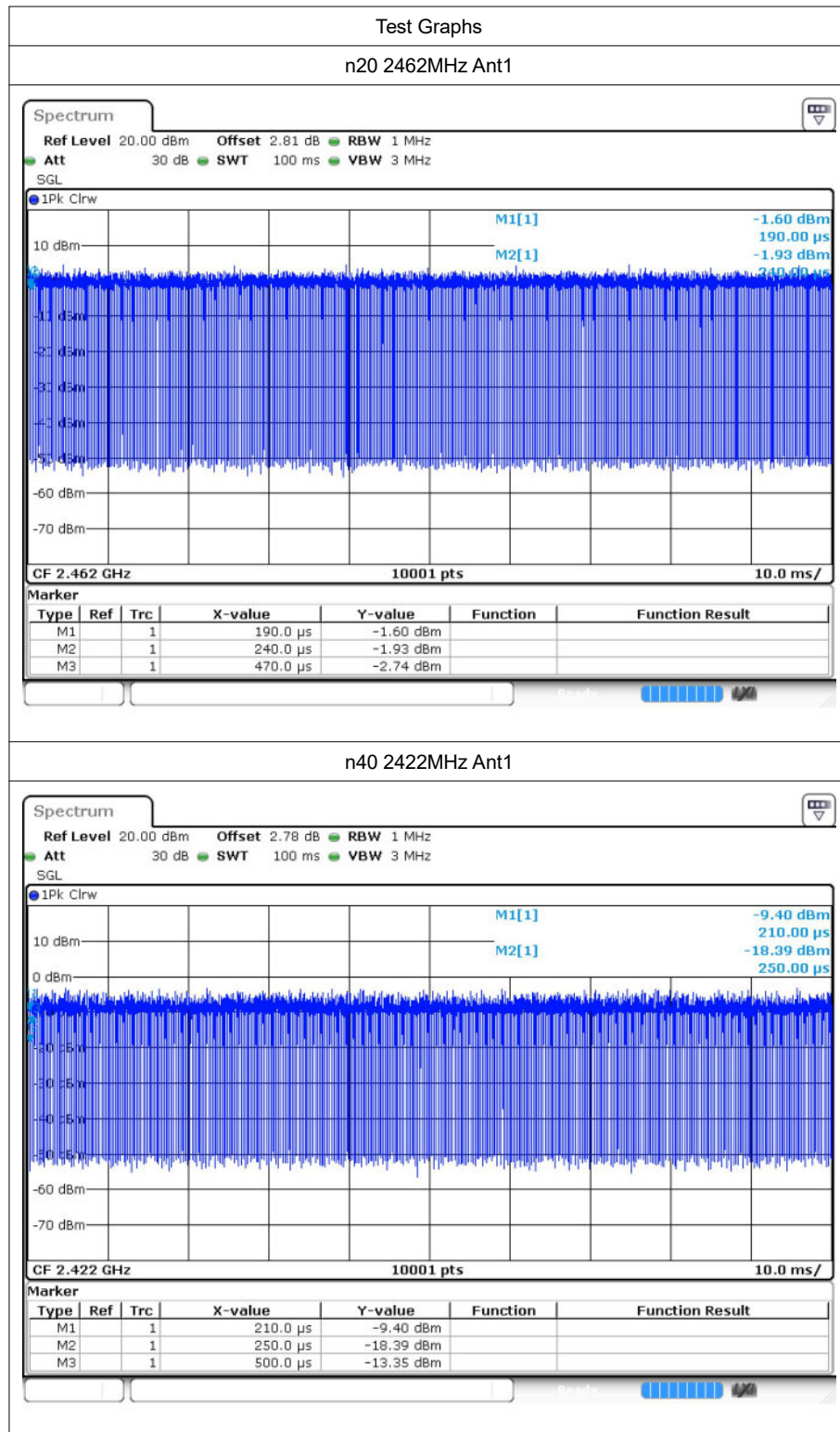
## 1.2 Test Graphs

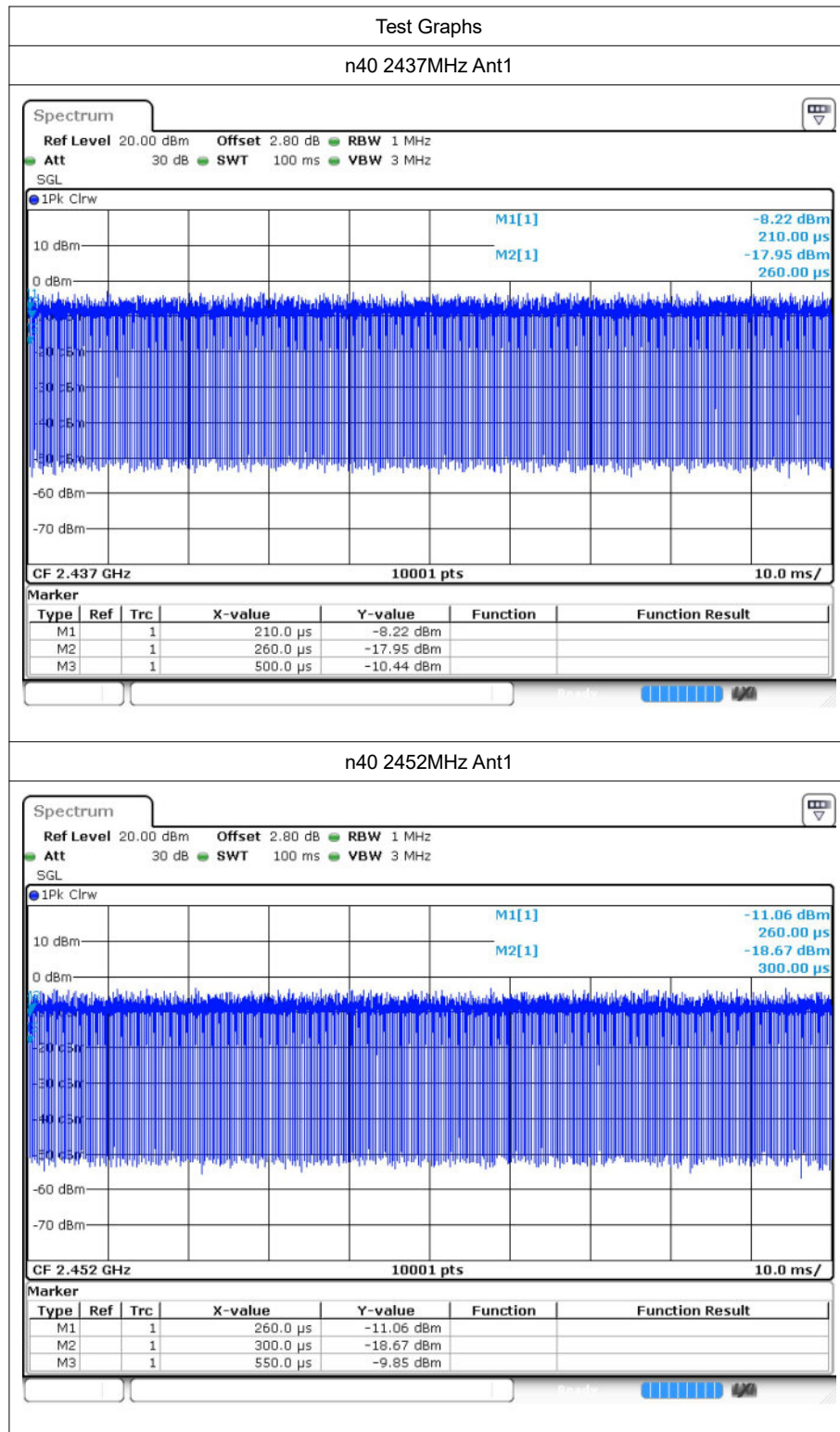












## 2 Maximum Conducted Output Power

### 2.1 Test Result

| Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|------|-----------------|---------|-----------------------|-------------|---------|
| b    | 2412            | Ant1    | 13.82                 | 30          | Pass    |
| b    | 2437            | Ant1    | 13.66                 | 30          | Pass    |
| b    | 2462            | Ant1    | 13.59                 | 30          | Pass    |
| g    | 2412            | Ant1    | 13.69                 | 30          | Pass    |
| g    | 2437            | Ant1    | 13.59                 | 30          | Pass    |
| g    | 2462            | Ant1    | 13.56                 | 30          | Pass    |
| n20  | 2412            | Ant1    | 13.62                 | 30          | Pass    |
| n20  | 2437            | Ant1    | 13.35                 | 30          | Pass    |
| n20  | 2462            | Ant1    | 13.55                 | 30          | Pass    |
| n40  | 2422            | Ant1    | 13.18                 | 30          | Pass    |
| n40  | 2437            | Ant1    | 13.21                 | 30          | Pass    |
| n40  | 2452            | Ant1    | 13.09                 | 30          | Pass    |

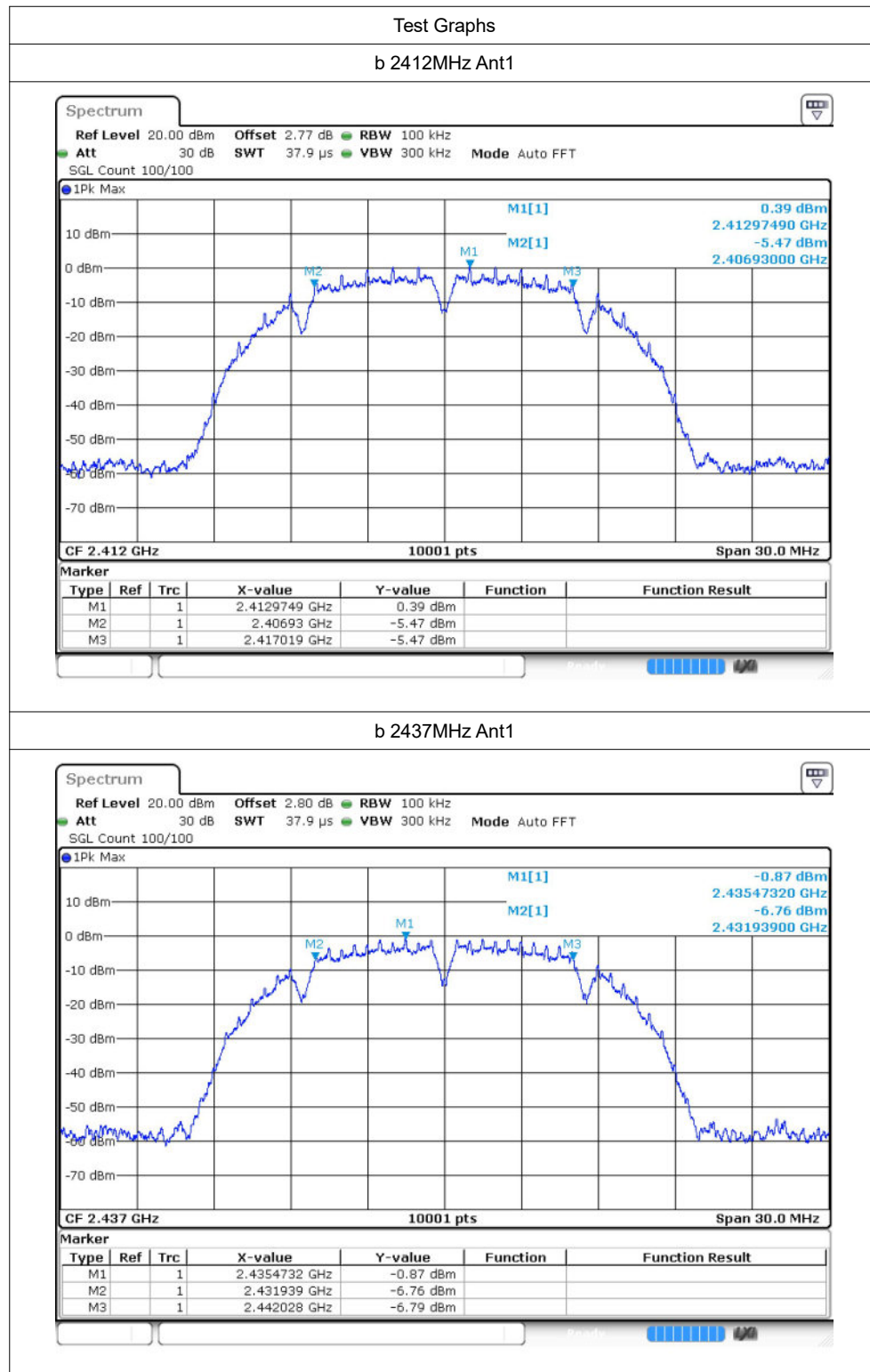


### 3 -6dB Bandwidth

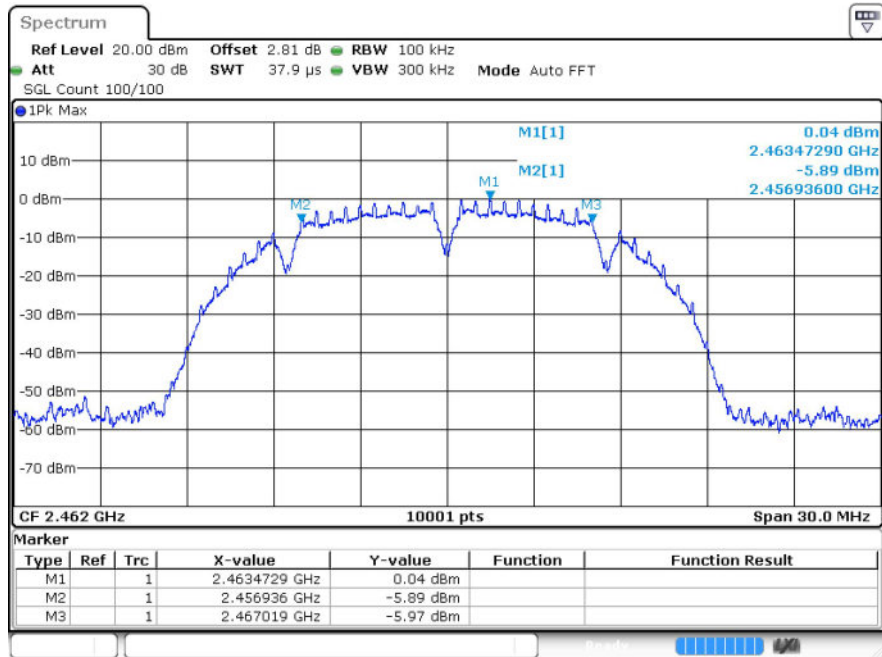
#### 3.1 Test Result

| Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|------|-----------------|---------|-----------------------|-----------------------------|---------|
| b    | 2412            | Ant1    | 10.089                | 0.5                         | Pass    |
| b    | 2437            | Ant1    | 10.089                | 0.5                         | Pass    |
| b    | 2462            | Ant1    | 10.083                | 0.5                         | Pass    |
| g    | 2412            | Ant1    | 13.191                | 0.5                         | Pass    |
| g    | 2437            | Ant1    | 15.117                | 0.5                         | Pass    |
| g    | 2462            | Ant1    | 12.621                | 0.5                         | Pass    |
| n20  | 2412            | Ant1    | 15.069                | 0.5                         | Pass    |
| n20  | 2437            | Ant1    | 15.114                | 0.5                         | Pass    |
| n20  | 2462            | Ant1    | 15.114                | 0.5                         | Pass    |
| n40  | 2422            | Ant1    | 33.84                 | 0.5                         | Pass    |
| n40  | 2437            | Ant1    | 30.678                | 0.5                         | Pass    |
| n40  | 2452            | Ant1    | 35.082                | 0.5                         | Pass    |

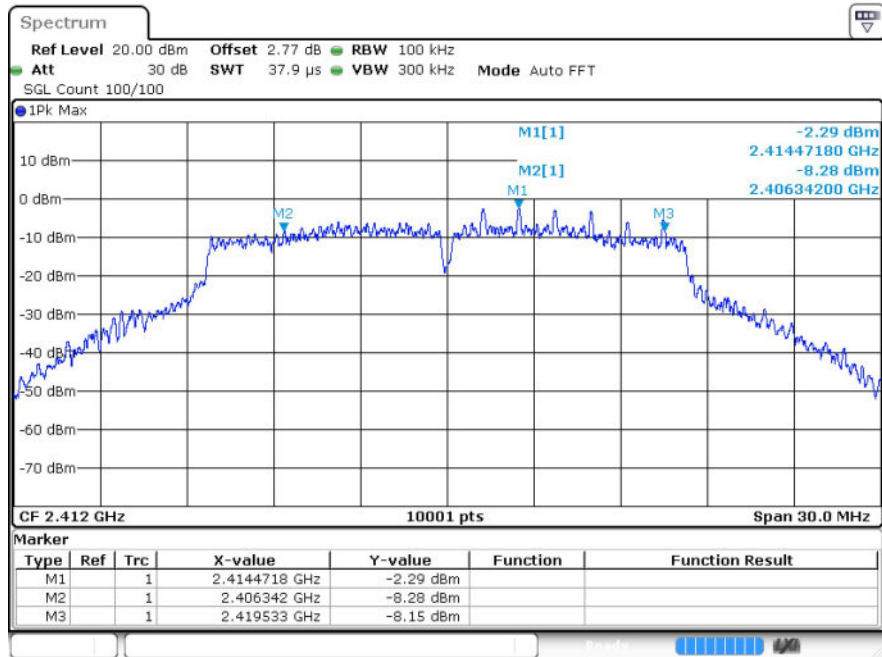
## 3.2 Test Graphs



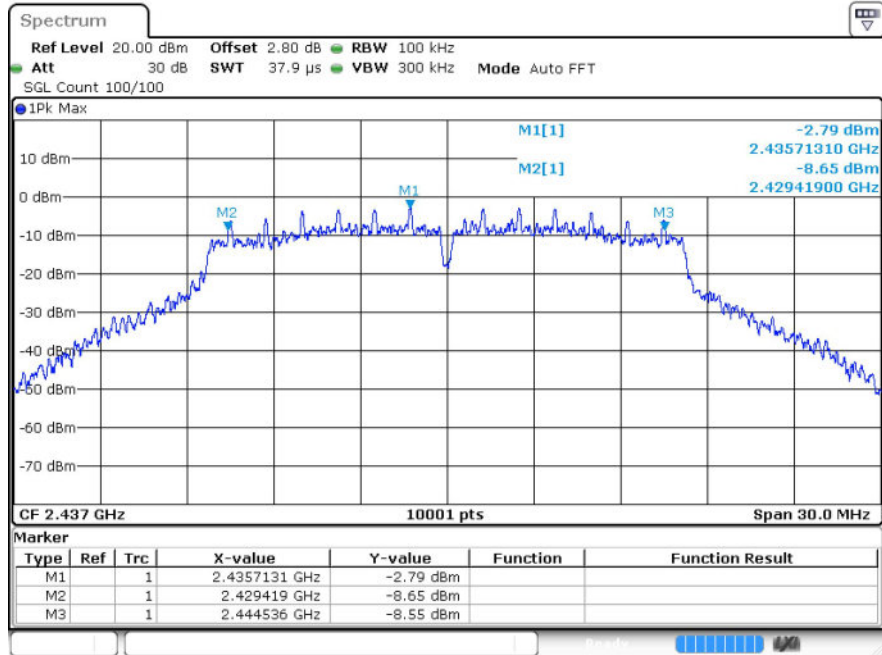
b 2462MHz Ant1



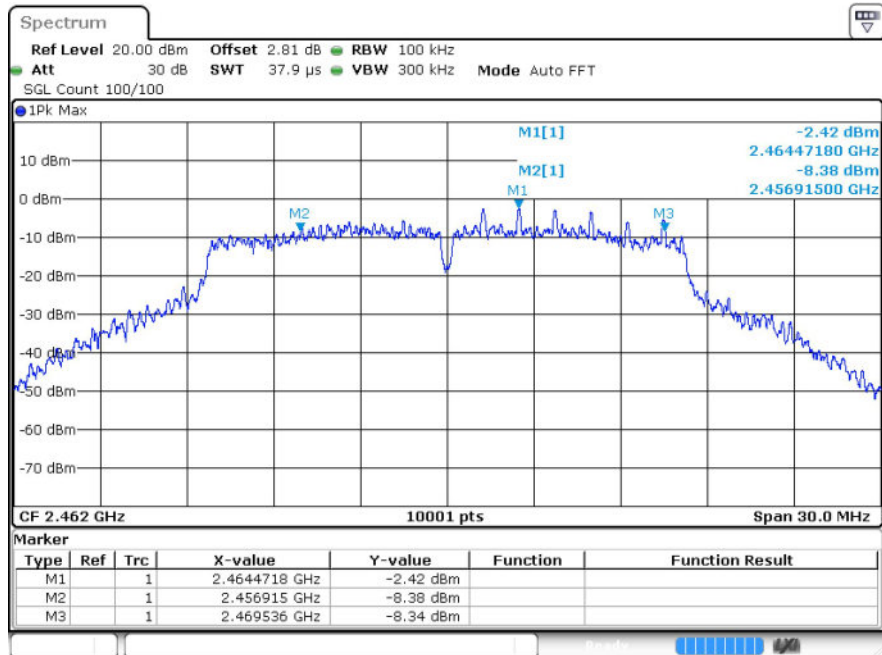
g 2412MHz Ant1

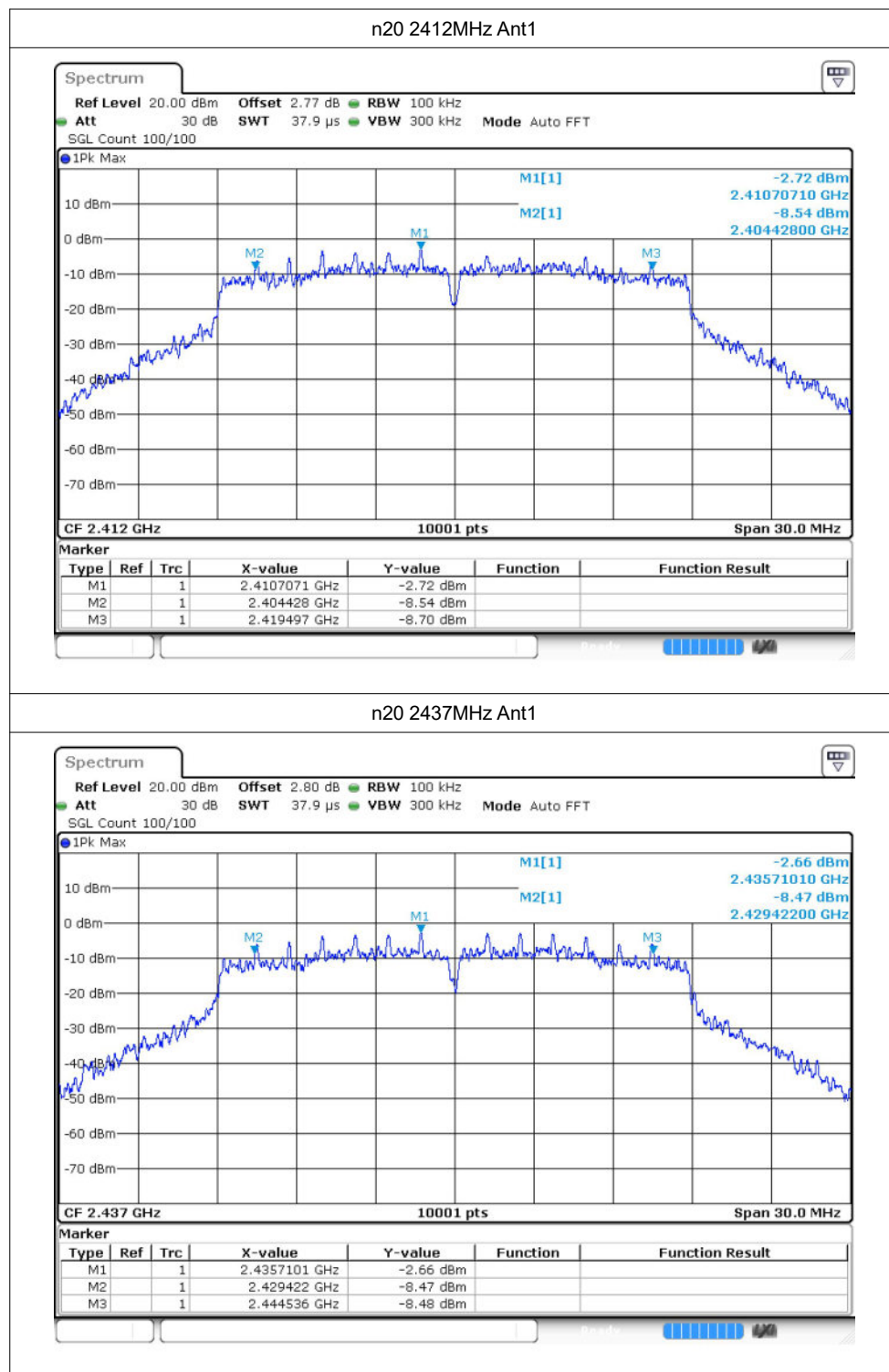


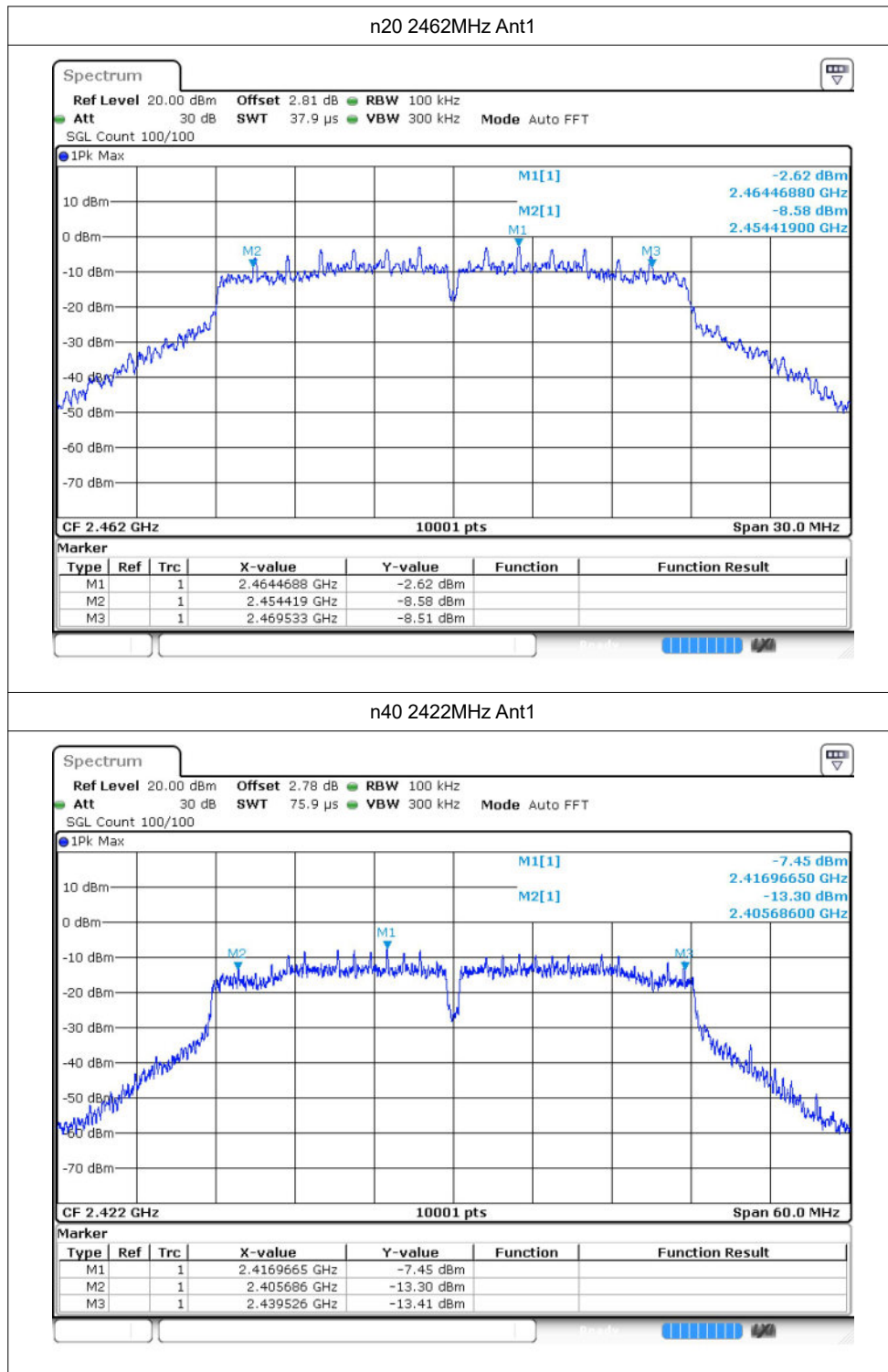
g 2437MHz Ant1

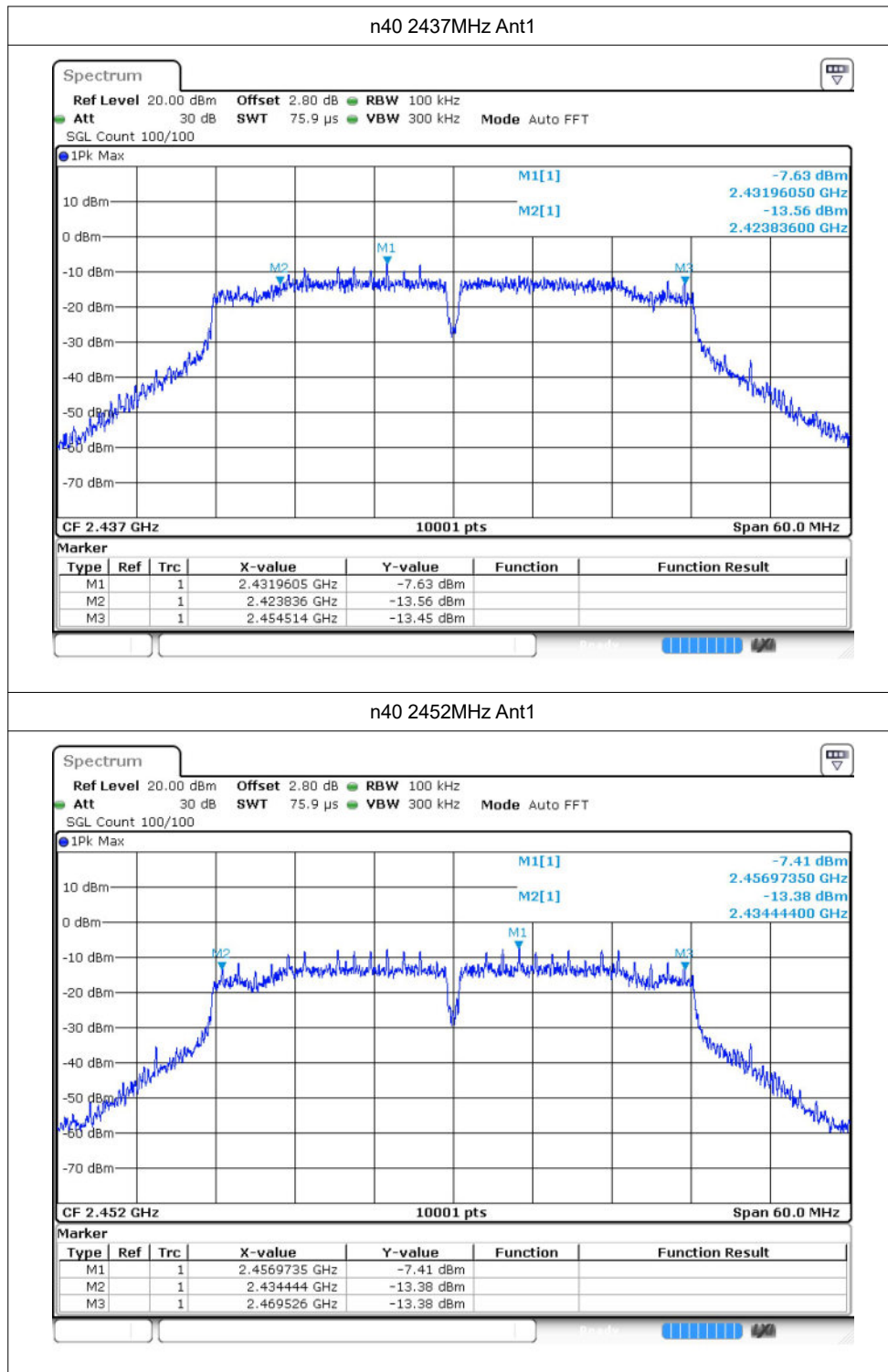


g 2462MHz Ant1







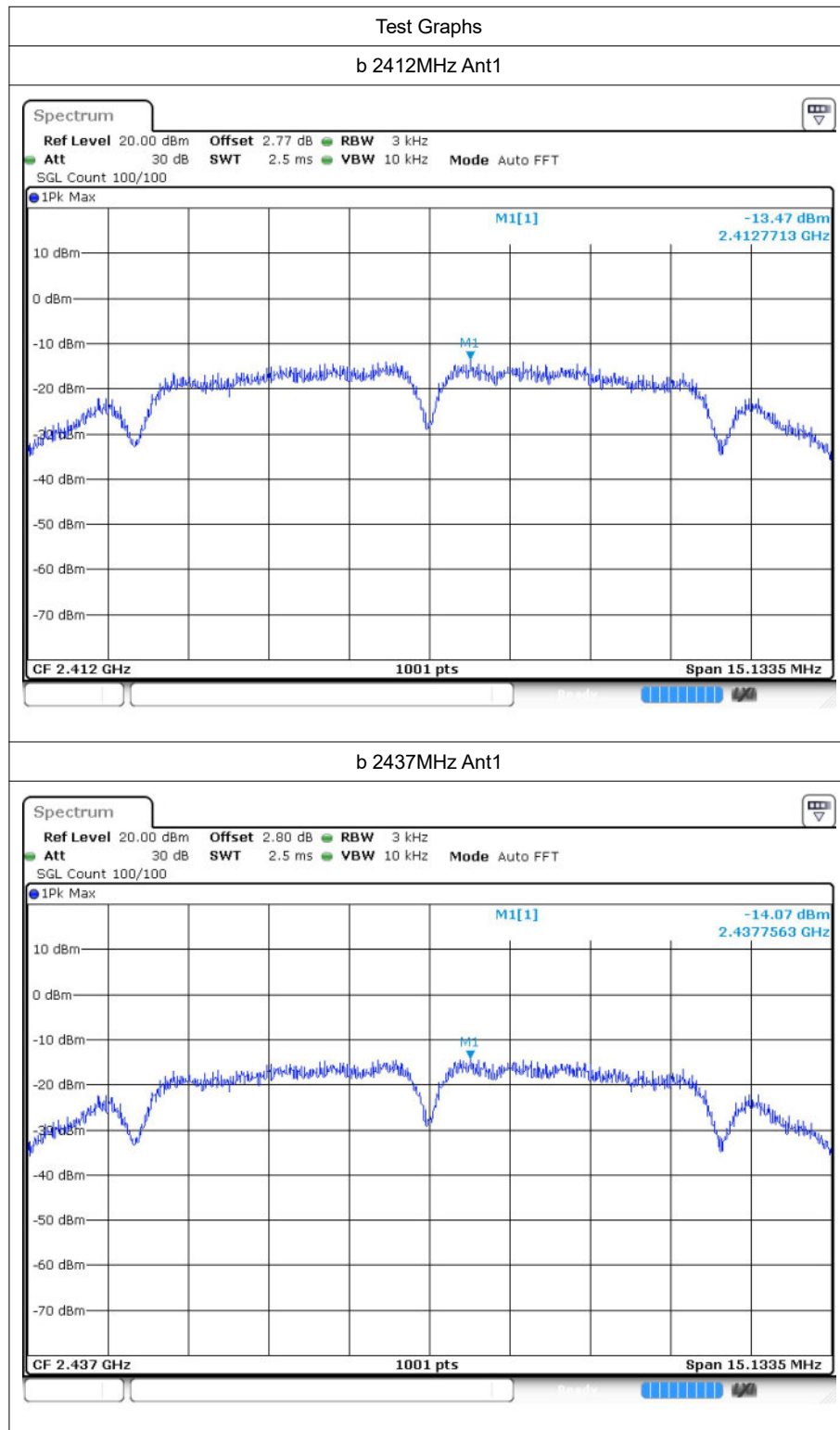


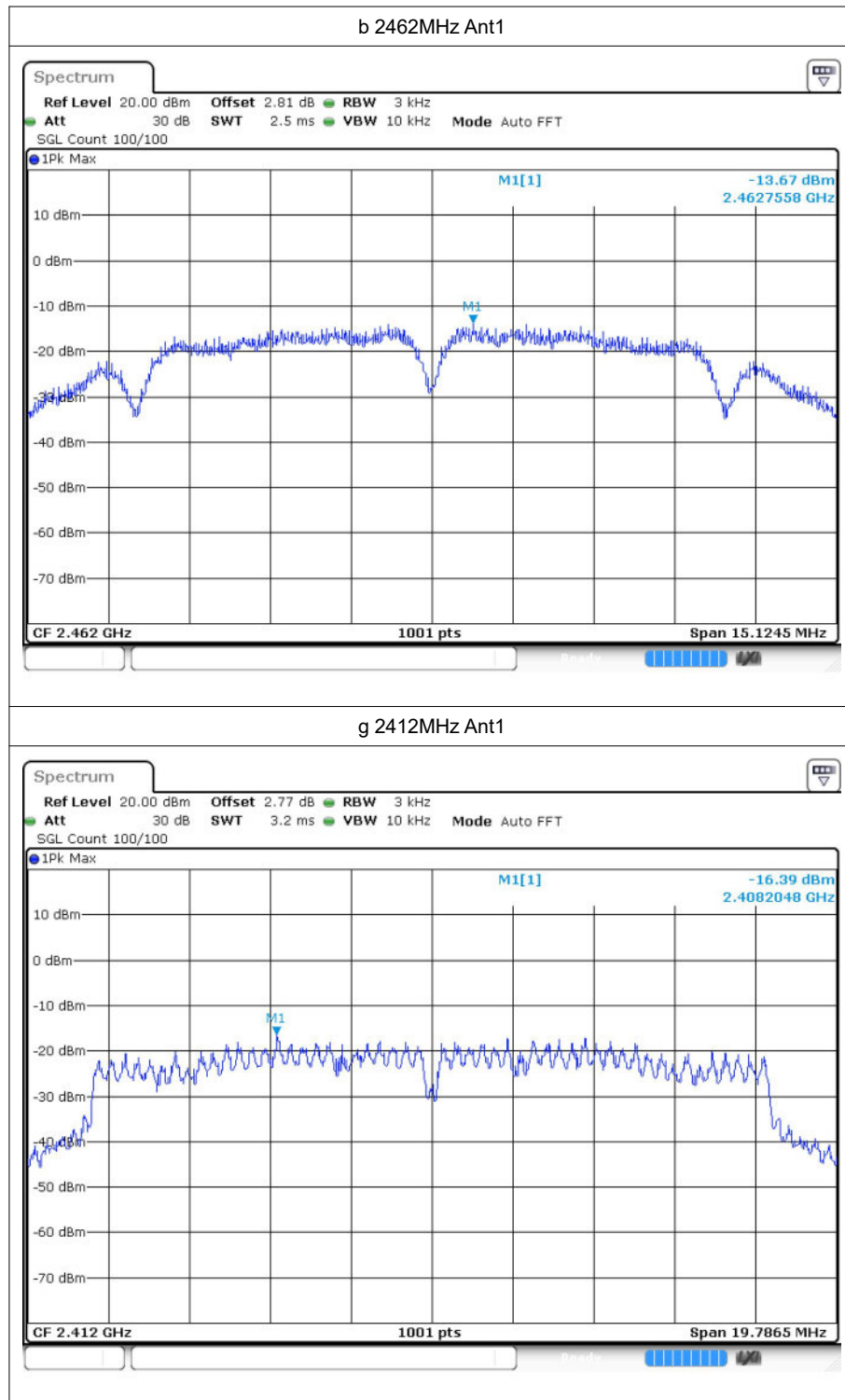
## 4 Maximum Power Spectral Density Level

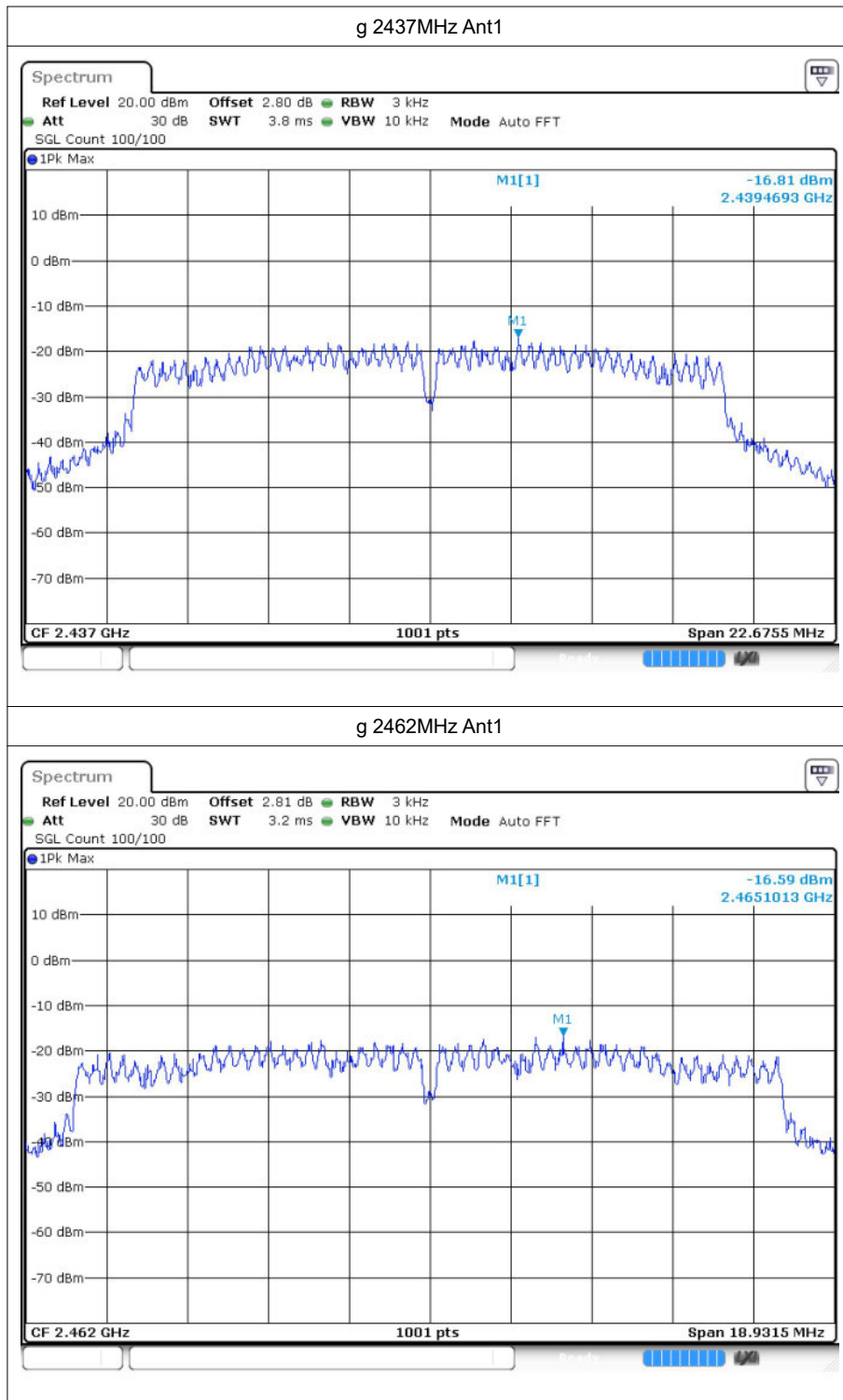
### 4.1 Test Result

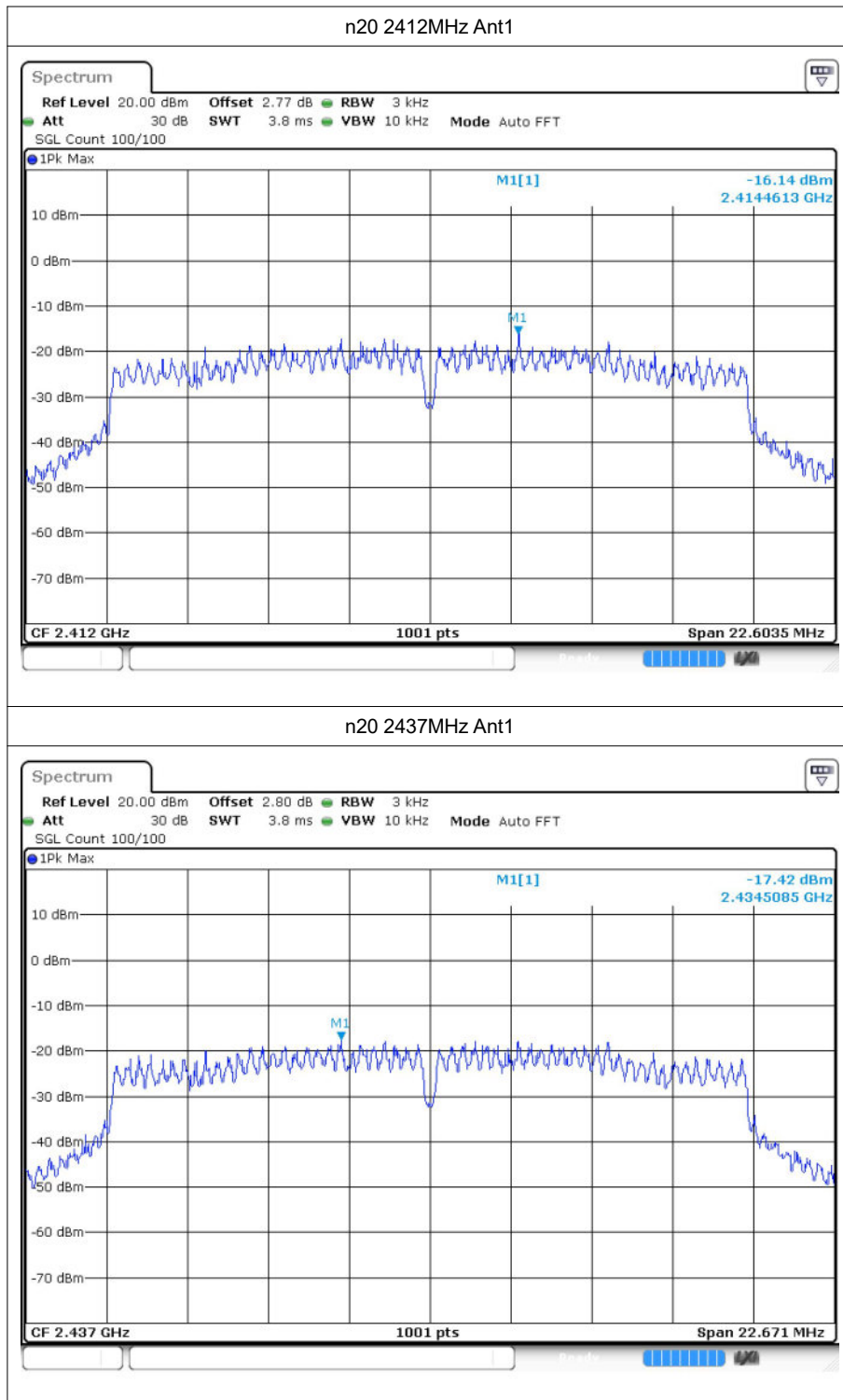
| Mode | Frequency (MHz) | Antenna | Conducted PSD<br>(dBm/3-100kHz) | Limit<br>(dBm/3kHz) | Verdict |
|------|-----------------|---------|---------------------------------|---------------------|---------|
| b    | 2412            | Ant1    | -13.47                          | ≤8                  | Pass    |
| b    | 2437            | Ant1    | -14.07                          | ≤8                  | Pass    |
| b    | 2462            | Ant1    | -13.67                          | ≤8                  | Pass    |
| g    | 2412            | Ant1    | -16.39                          | ≤8                  | Pass    |
| g    | 2437            | Ant1    | -16.81                          | ≤8                  | Pass    |
| g    | 2462            | Ant1    | -16.59                          | ≤8                  | Pass    |
| n20  | 2412            | Ant1    | -16.14                          | ≤8                  | Pass    |
| n20  | 2437            | Ant1    | -17.42                          | ≤8                  | Pass    |
| n20  | 2462            | Ant1    | -16.6                           | ≤8                  | Pass    |
| n40  | 2422            | Ant1    | -21.72                          | ≤8                  | Pass    |
| n40  | 2437            | Ant1    | -21.72                          | ≤8                  | Pass    |
| n40  | 2452            | Ant1    | -21.95                          | ≤8                  | Pass    |

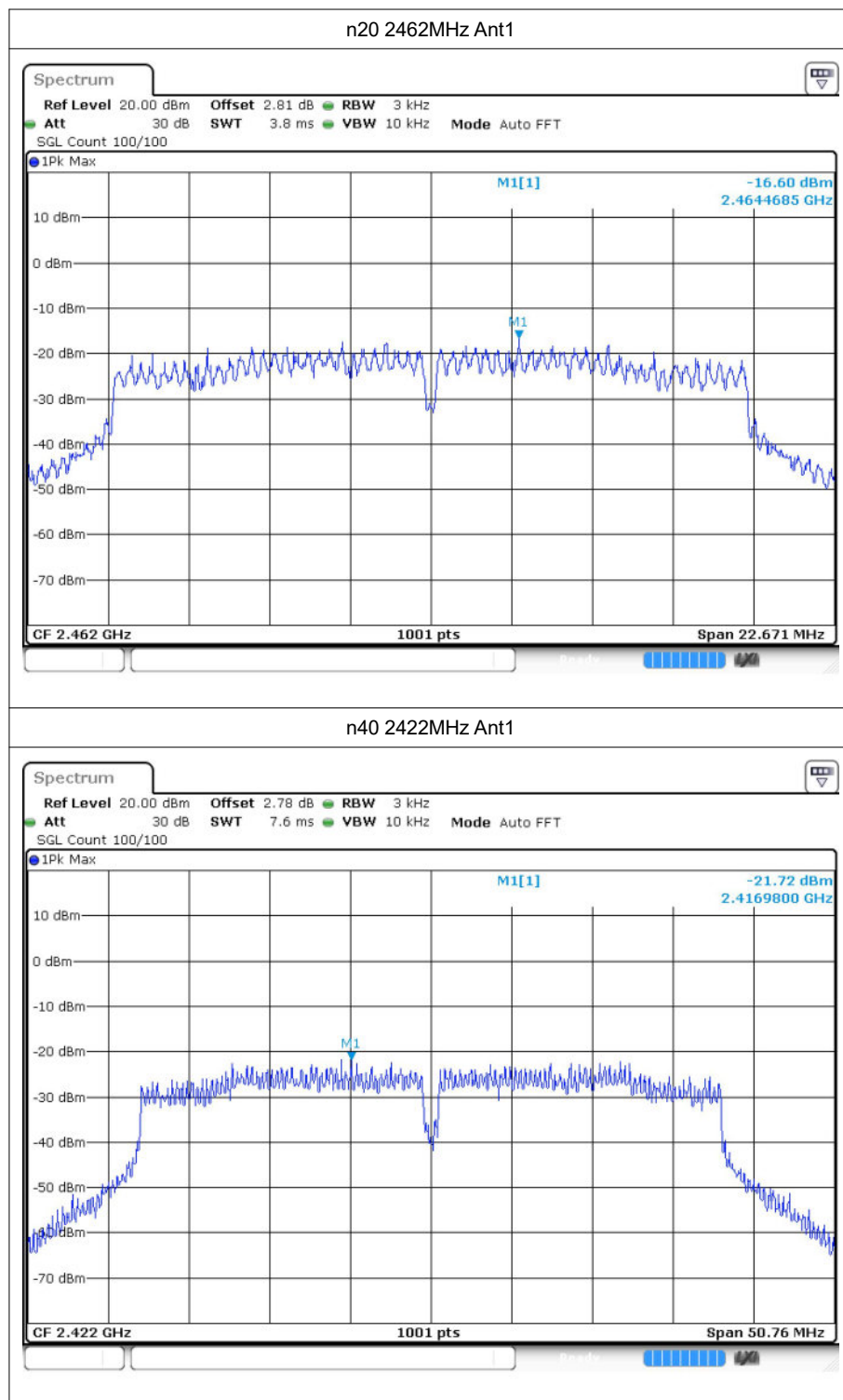
## 4.2 Test Graphs

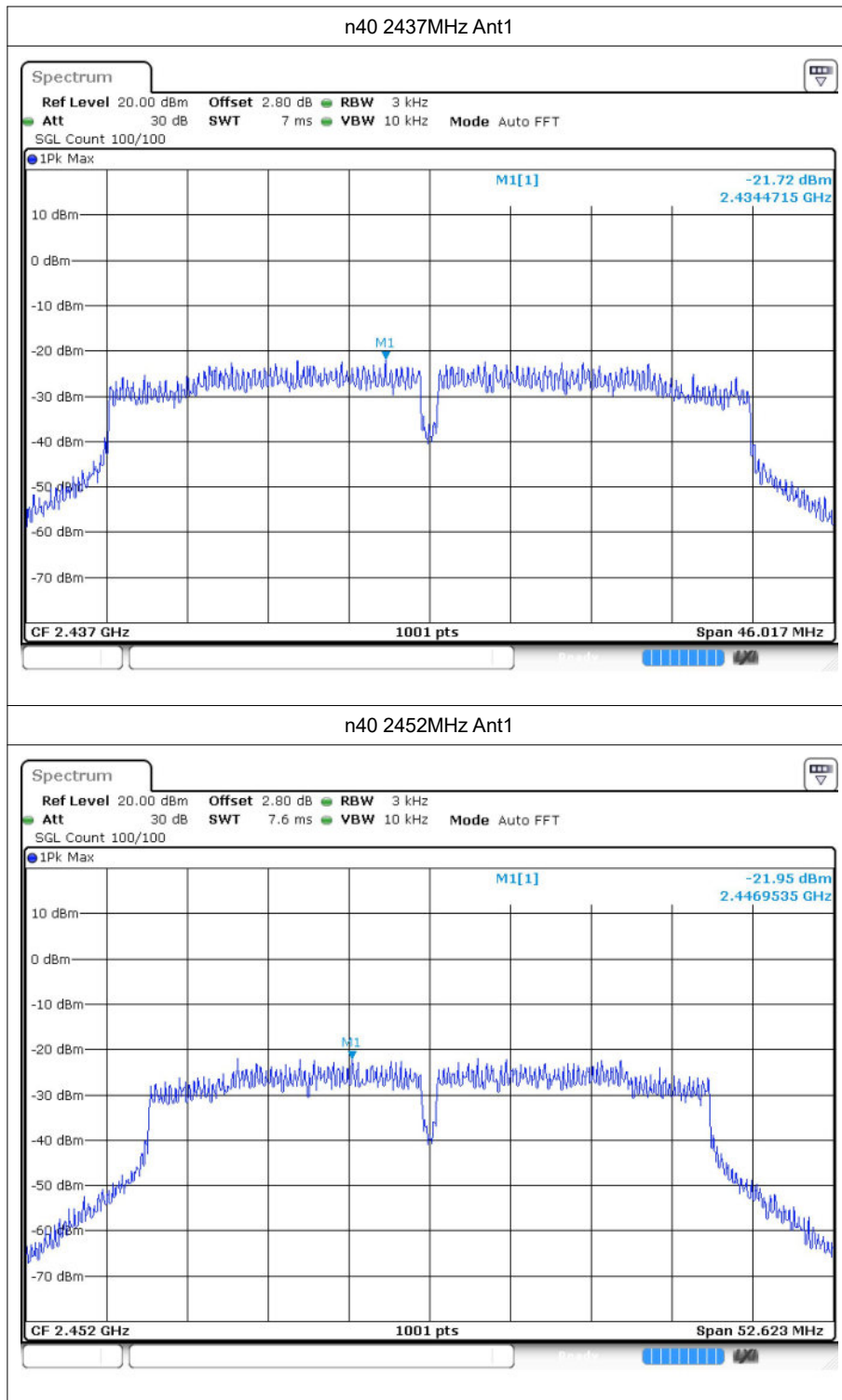














## 5 Band Edge

### 5.1 Test Result

| Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|------|-----------------|---------|-----------------|-------------|---------|
| b    | 2412            | Ant1    | -54.5           | -20         | Pass    |
| b    | 2462            | Ant1    | -54.71          | -20         | Pass    |
| g    | 2412            | Ant1    | -52.62          | -20         | Pass    |
| g    | 2462            | Ant1    | -53.33          | -20         | Pass    |
| n20  | 2412            | Ant1    | -52.95          | -20         | Pass    |
| n20  | 2462            | Ant1    | -52.55          | -20         | Pass    |
| n40  | 2422            | Ant1    | -48.69          | -20         | Pass    |
| n40  | 2452            | Ant1    | -48.96          | -20         | Pass    |

## 5.2 Test Graphs

