

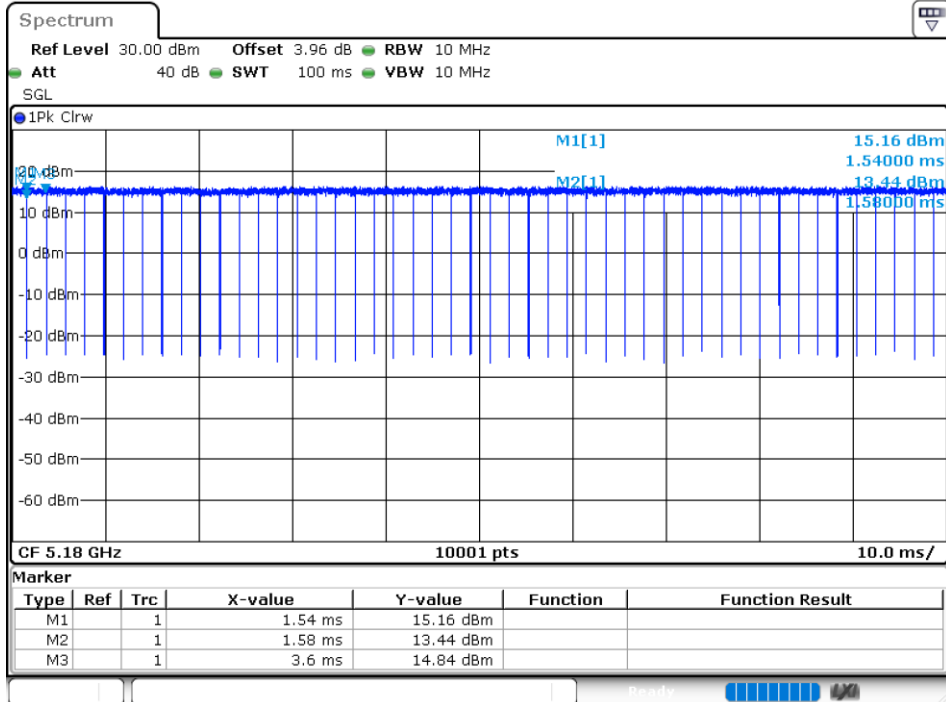
# WIFI 5.2G

## Duty Cycle

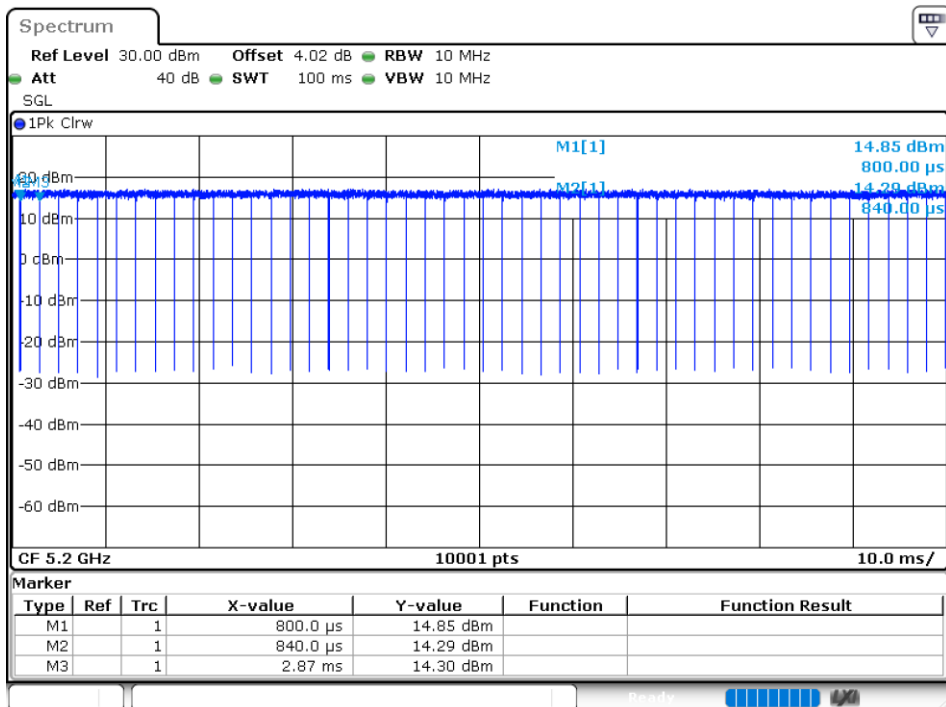
| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | a    | 5180            | Ant1    | 98.56          | 0.06                   | 0.5       |
| NVNT      | a    | 5200            | Ant1    | 98.77          | 0.05                   | 0.49      |
| NVNT      | a    | 5240            | Ant1    | 98.73          | 0.06                   | 0.49      |
| NVNT      | n20  | 5180            | Ant1    | 98.7           | 0.06                   | 0.53      |
| NVNT      | n20  | 5200            | Ant1    | 98.47          | 0.07                   | 0.53      |
| NVNT      | n20  | 5240            | Ant1    | 98.7           | 0.06                   | 0.53      |
| NVNT      | n40  | 5190            | Ant1    | 97.28          | 0.12                   | 1.09      |
| NVNT      | n40  | 5230            | Ant1    | 97.33          | 0.12                   | 1.08      |
| NVNT      | ac20 | 5180            | Ant1    | 98.59          | 0.06                   | 0.53      |
| NVNT      | ac20 | 5200            | Ant1    | 98.59          | 0.06                   | 0.53      |
| NVNT      | ac20 | 5240            | Ant1    | 98.6           | 0.06                   | 0.53      |
| NVNT      | ac40 | 5190            | Ant1    | 97.32          | 0.12                   | 1.06      |
| NVNT      | ac40 | 5230            | Ant1    | 97.3           | 0.12                   | 1.08      |
| NVNT      | ac80 | 5210            | Ant1    | 92.98          | 0.32                   | 2.27      |

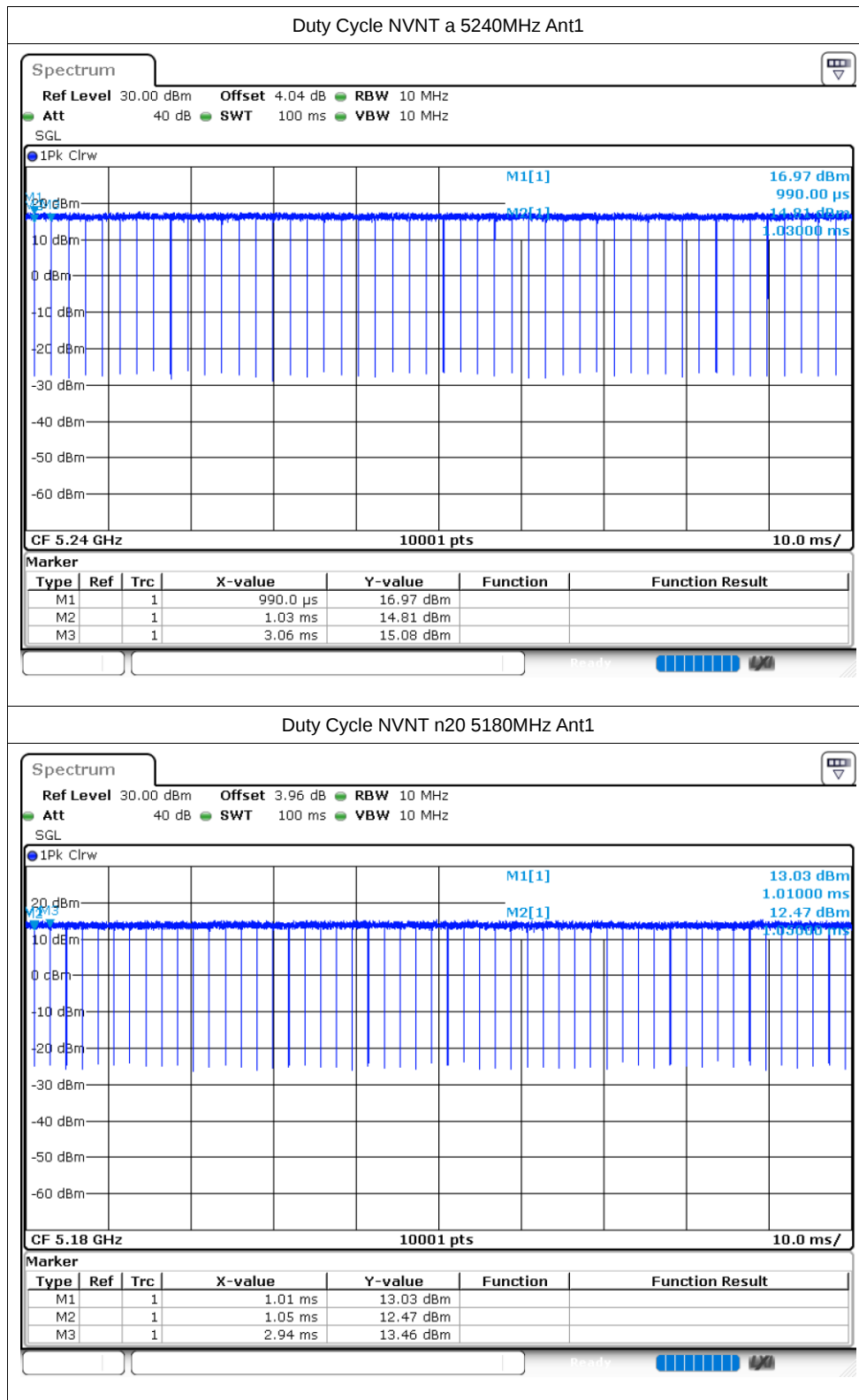
## Test Graphs

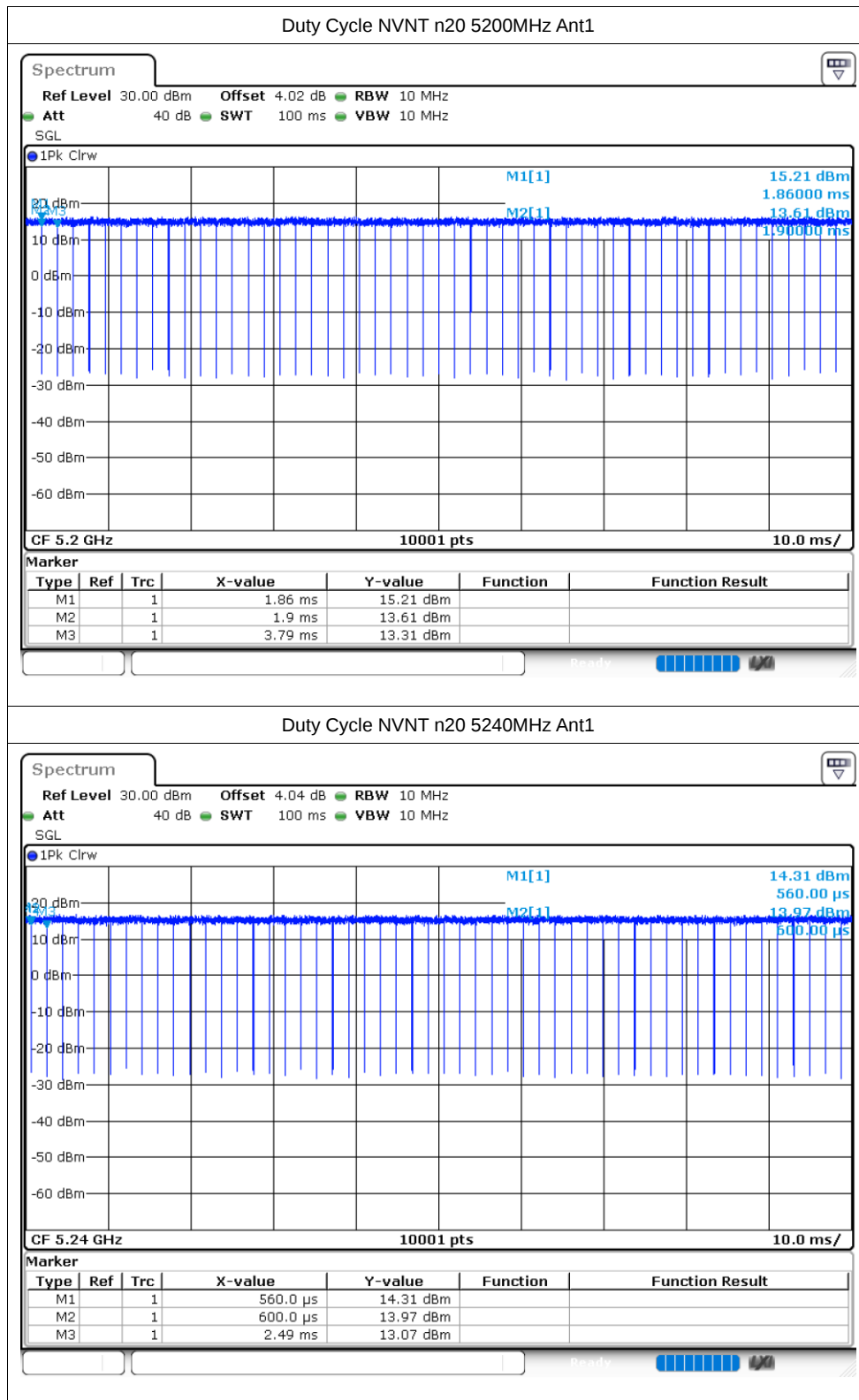
### Duty Cycle NVNT a 5180MHz Ant1

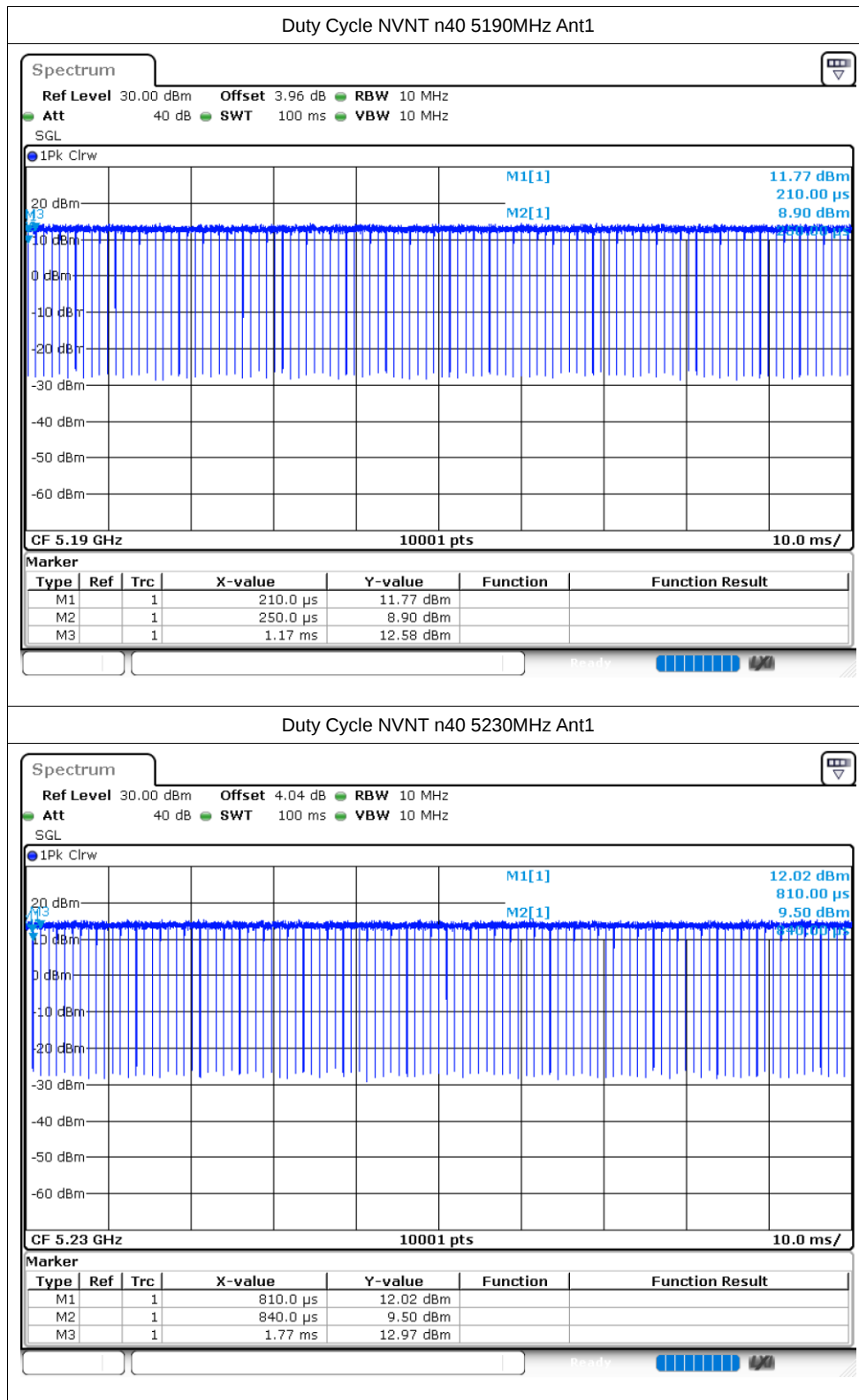


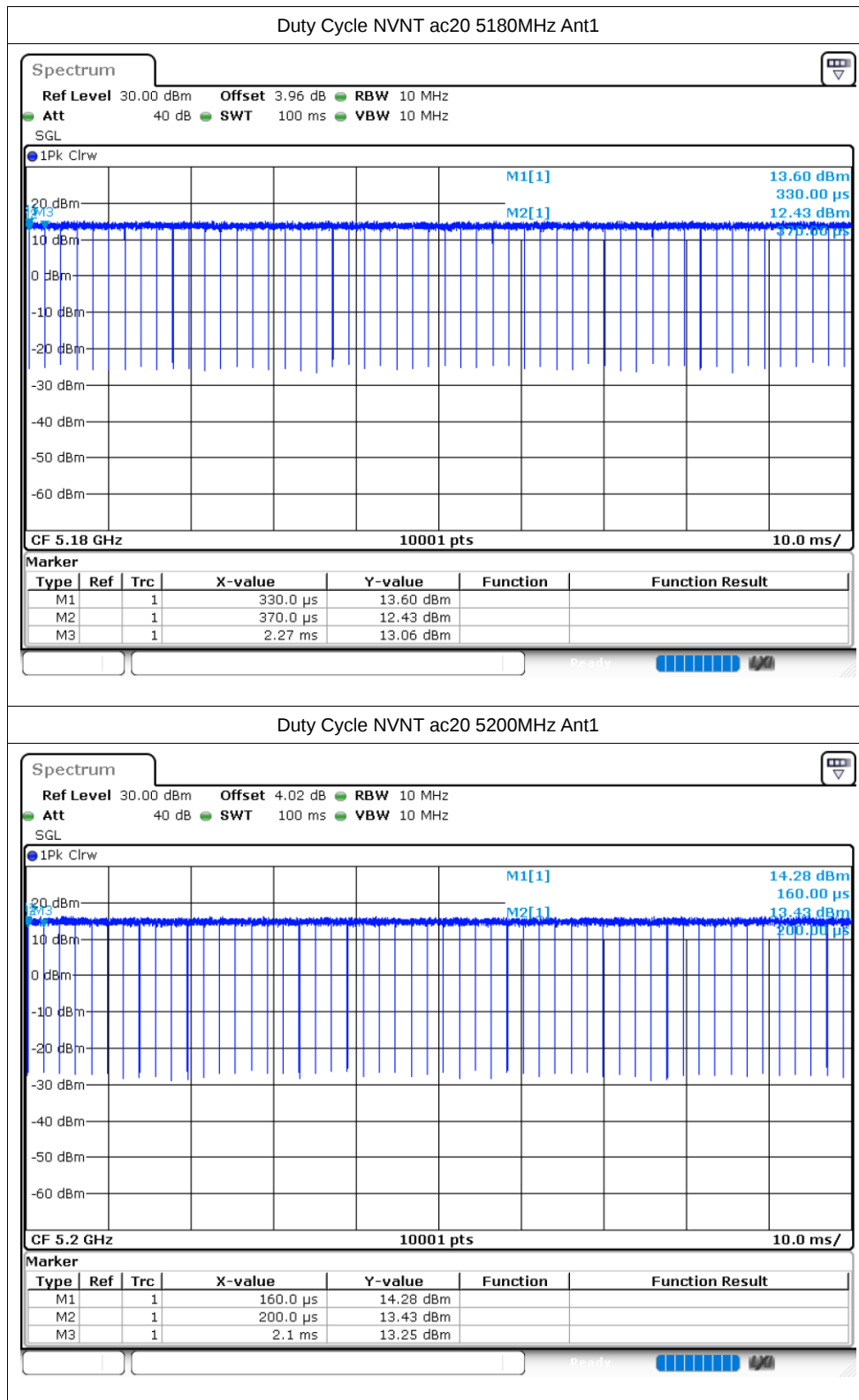
### Duty Cycle NVNT a 5200MHz Ant1

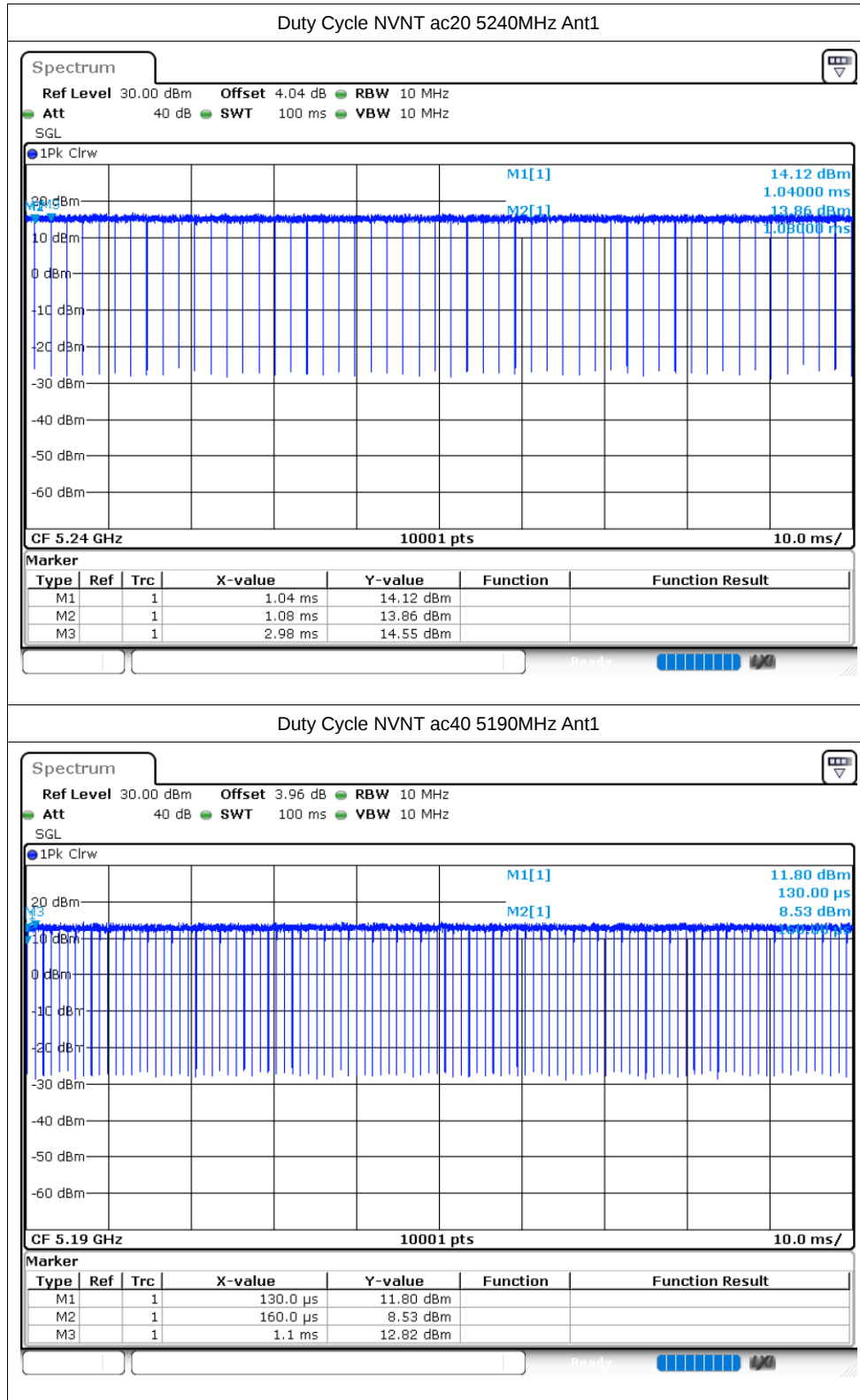


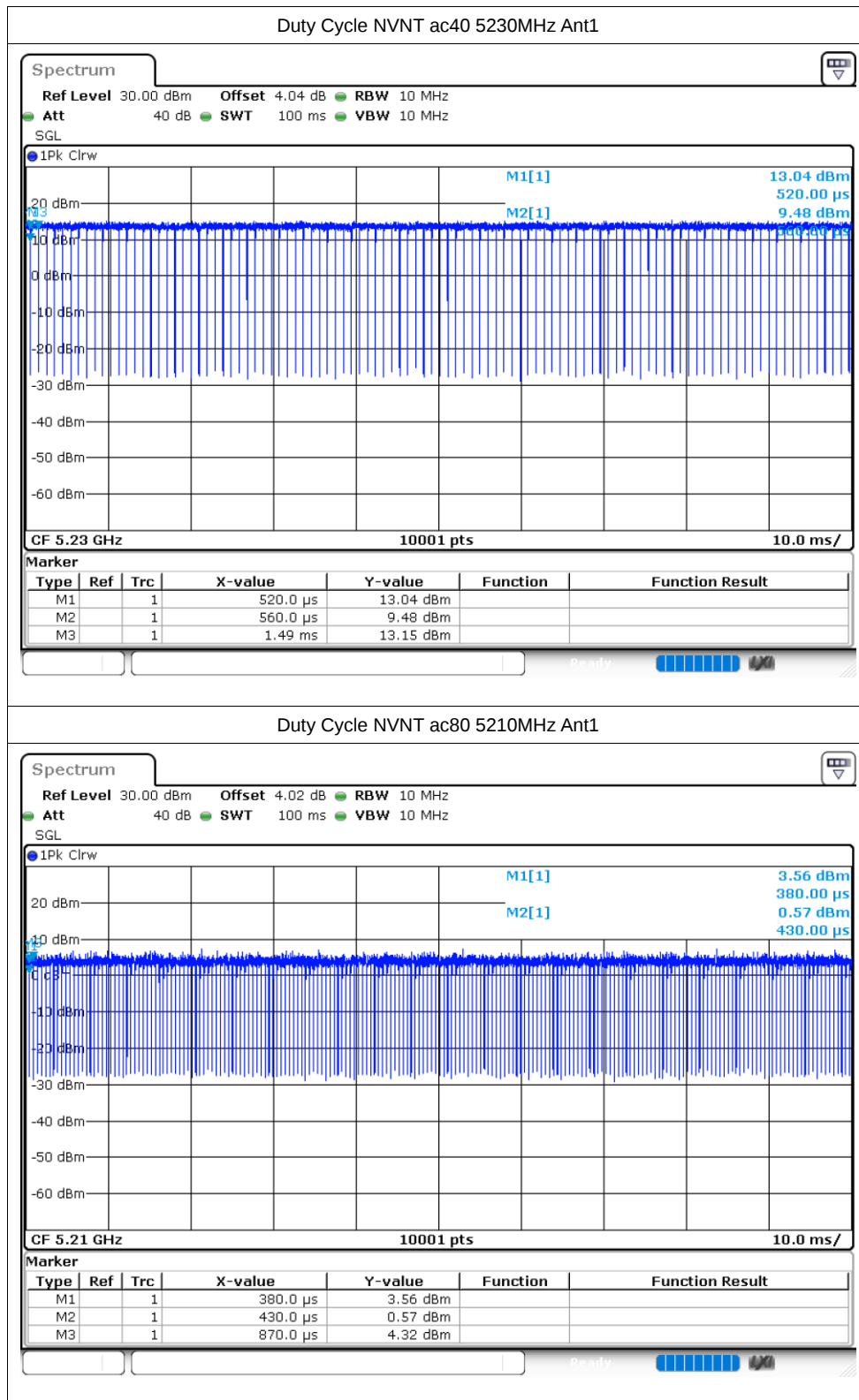












## Maximum Conducted Output Power

| Condition | Mode | Frequency<br>(MHz) | Antenna | Conducted Power<br>(dBm) | Limit<br>(dBm) | Verdict |
|-----------|------|--------------------|---------|--------------------------|----------------|---------|
| NVNT      | a    | 5180               | Ant1    | 12.53                    | 24             | Pass    |
| NVNT      | a    | 5200               | Ant1    | 12.49                    | 24             | Pass    |
| NVNT      | a    | 5240               | Ant1    | 12.42                    | 24             | Pass    |
| NVNT      | n20  | 5180               | Ant1    | 11.84                    | 24             | Pass    |
| NVNT      | n20  | 5200               | Ant1    | 11.65                    | 24             | Pass    |
| NVNT      | n20  | 5240               | Ant1    | 11.87                    | 24             | Pass    |
| NVNT      | n40  | 5190               | Ant1    | 12.99                    | 24             | Pass    |
| NVNT      | n40  | 5230               | Ant1    | 12.35                    | 24             | Pass    |
| NVNT      | ac20 | 5180               | Ant1    | 11.86                    | 24             | Pass    |
| NVNT      | ac20 | 5200               | Ant1    | 11.7                     | 24             | Pass    |
| NVNT      | ac20 | 5240               | Ant1    | 11.79                    | 24             | Pass    |
| NVNT      | ac40 | 5190               | Ant1    | 12.64                    | 24             | Pass    |
| NVNT      | ac40 | 5230               | Ant1    | 12.44                    | 24             | Pass    |
| NVNT      | ac80 | 5210               | Ant1    | 5                        | 24             | Pass    |

## -26dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -26 dB Bandwidth (MHz) | Limit -26 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT      | a    | 5180            | Ant1    | 23.088                 | 0.5                          | Pass    |
| NVNT      | a    | 5200            | Ant1    | 21.831                 | 0.5                          | Pass    |
| NVNT      | a    | 5240            | Ant1    | 22.296                 | 0.5                          | Pass    |
| NVNT      | n20  | 5180            | Ant1    | 24.12                  | 0.5                          | Pass    |
| NVNT      | n20  | 5200            | Ant1    | 23.538                 | 0.5                          | Pass    |
| NVNT      | n20  | 5240            | Ant1    | 22.401                 | 0.5                          | Pass    |
| NVNT      | n40  | 5190            | Ant1    | 41.628                 | 0.5                          | Pass    |
| NVNT      | n40  | 5230            | Ant1    | 41.214                 | 0.5                          | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | 23.178                 | 0.5                          | Pass    |
| NVNT      | ac20 | 5200            | Ant1    | 23.751                 | 0.5                          | Pass    |
| NVNT      | ac20 | 5240            | Ant1    | 24.456                 | 0.5                          | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | 42.006                 | 0.5                          | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | 41.604                 | 0.5                          | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | 82.944                 | 0.5                          | Pass    |

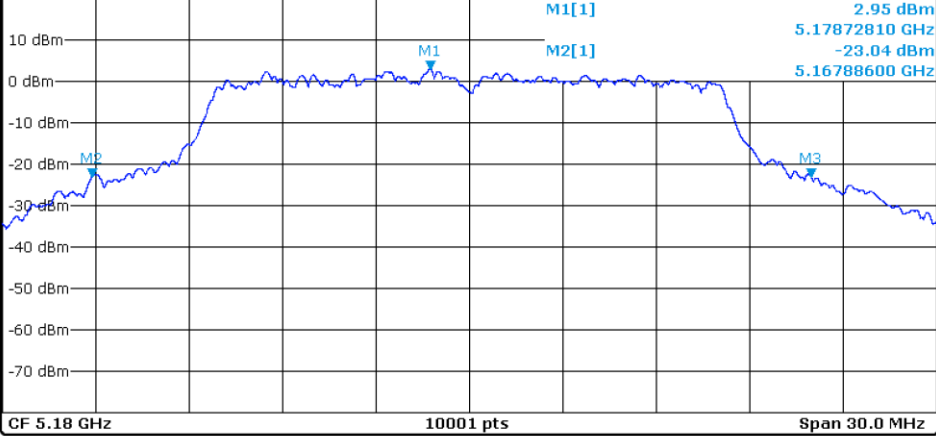
Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 3.96 dB RBW 300 kHz  
Att 35 dB SWT 25.4  $\mu$ s VBW 1 MHz Mode Auto FFT  
SGL Count 100/100

1Pk Max

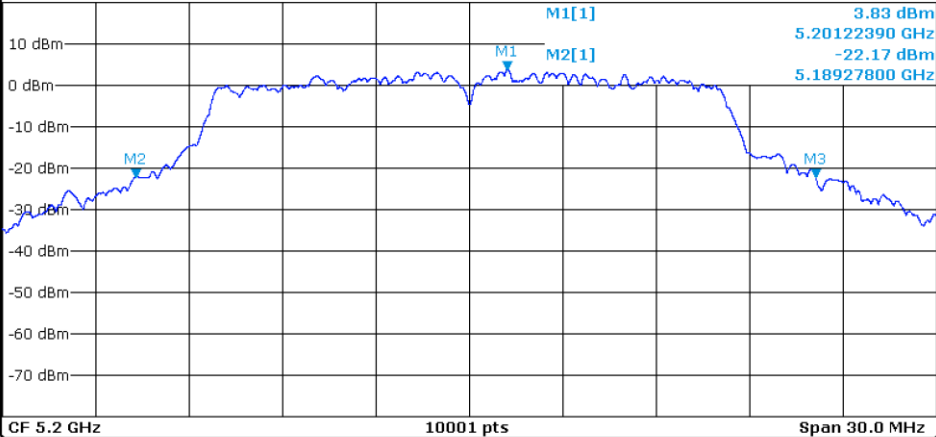


-26dB Bandwidth NVNT a 5200MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.02 dB RBW 300 kHz  
Att 35 dB SWT 25.4  $\mu$ s VBW 1 MHz Mode Auto FFT  
SGL Count 100/100

1Pk Max

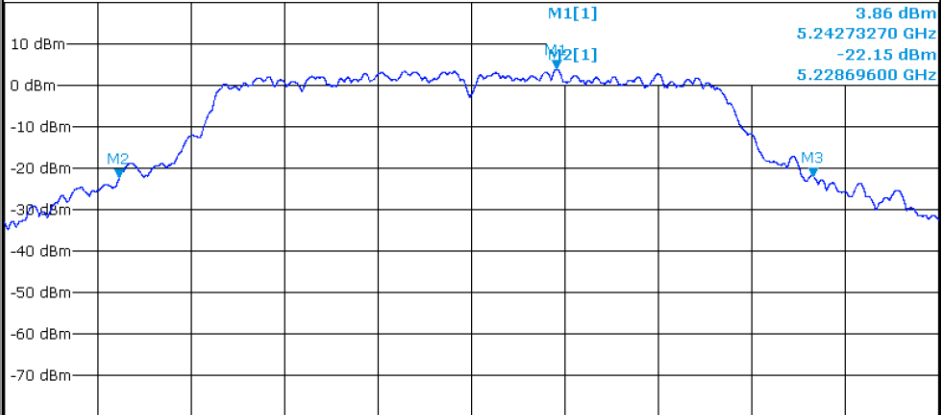


-26dB Bandwidth NVNT a 5240MHz Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.04 dB RBW 300 kHz  
Att 35 dB SWT 25.4  $\mu$ s VBW 1 MHz Mode Auto FFT  
SGL Count 100/100

1Pk Max



Marker

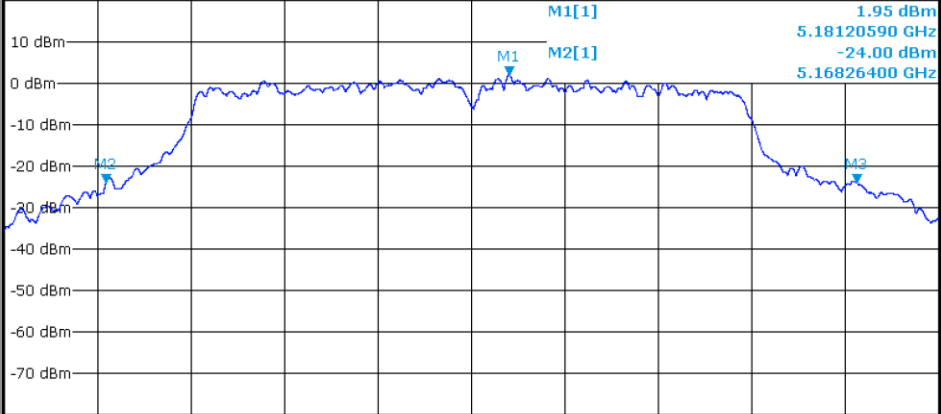
| Type | Ref | Trc | X-value       | Y-value    | Function | Function Result |
|------|-----|-----|---------------|------------|----------|-----------------|
| M1   | 1   | 1   | 5.2427327 GHz | 3.86 dBm   |          |                 |
| M2   | 1   | 1   | 5.228696 GHz  | -22.15 dBm |          |                 |
| M3   | 1   | 1   | 5.250992 GHz  | -22.13 dBm |          |                 |

-26dB Bandwidth NVNT n20 5180MHz Ant1

Spectrum

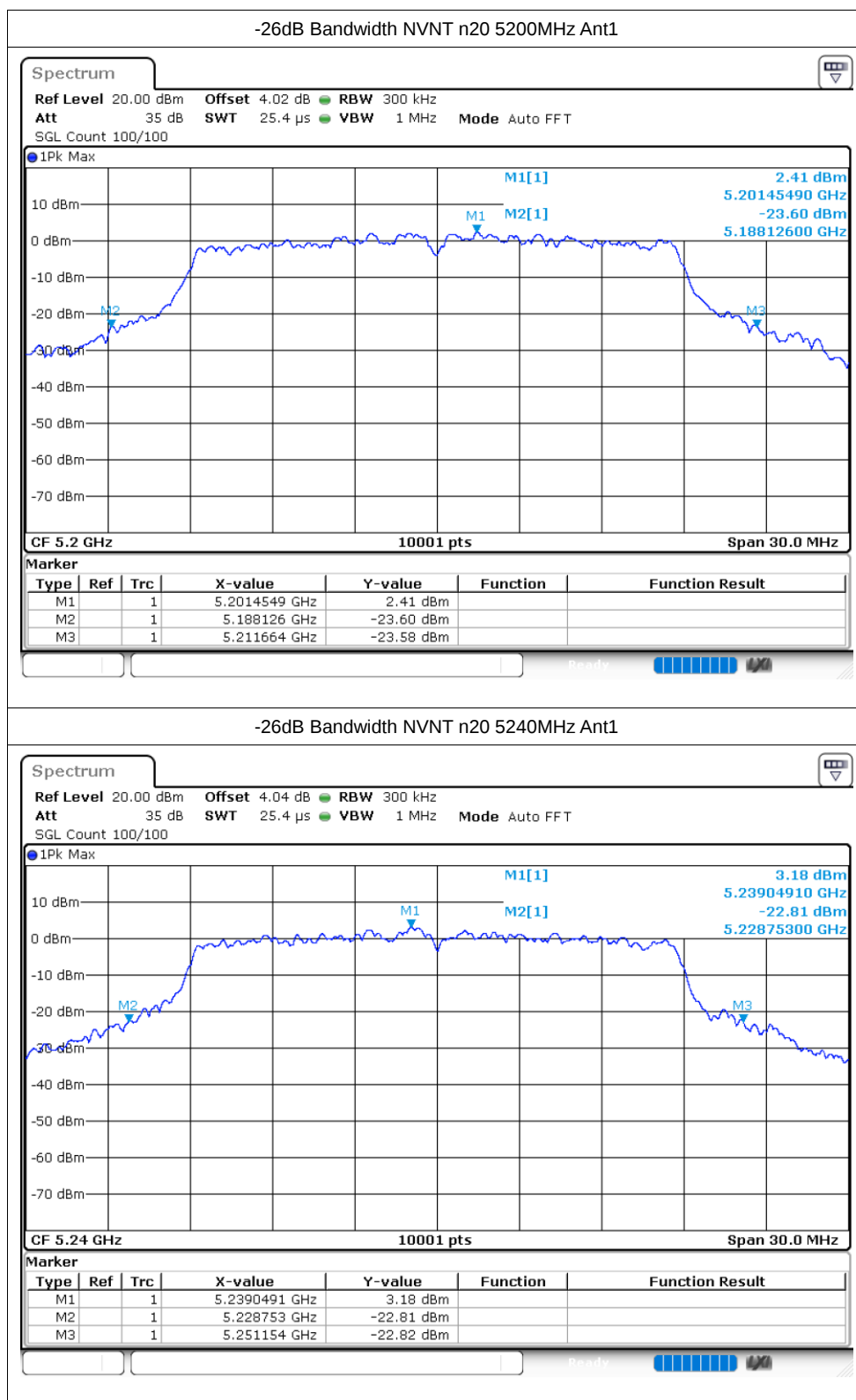
Ref Level 20.00 dBm Offset 3.96 dB RBW 300 kHz  
Att 35 dB SWT 25.4  $\mu$ s VBW 1 MHz Mode Auto FFT  
SGL Count 100/100

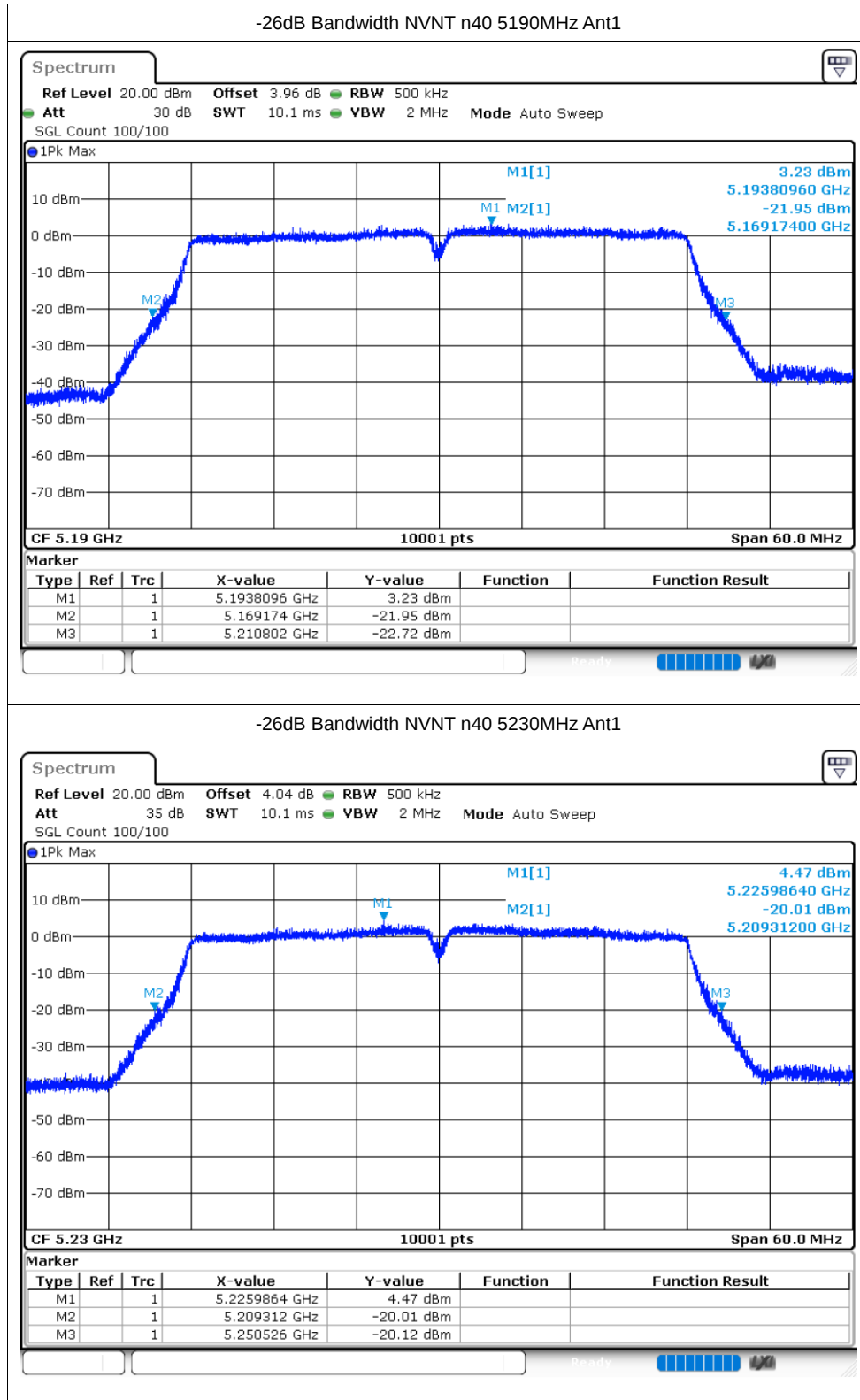
1Pk Max

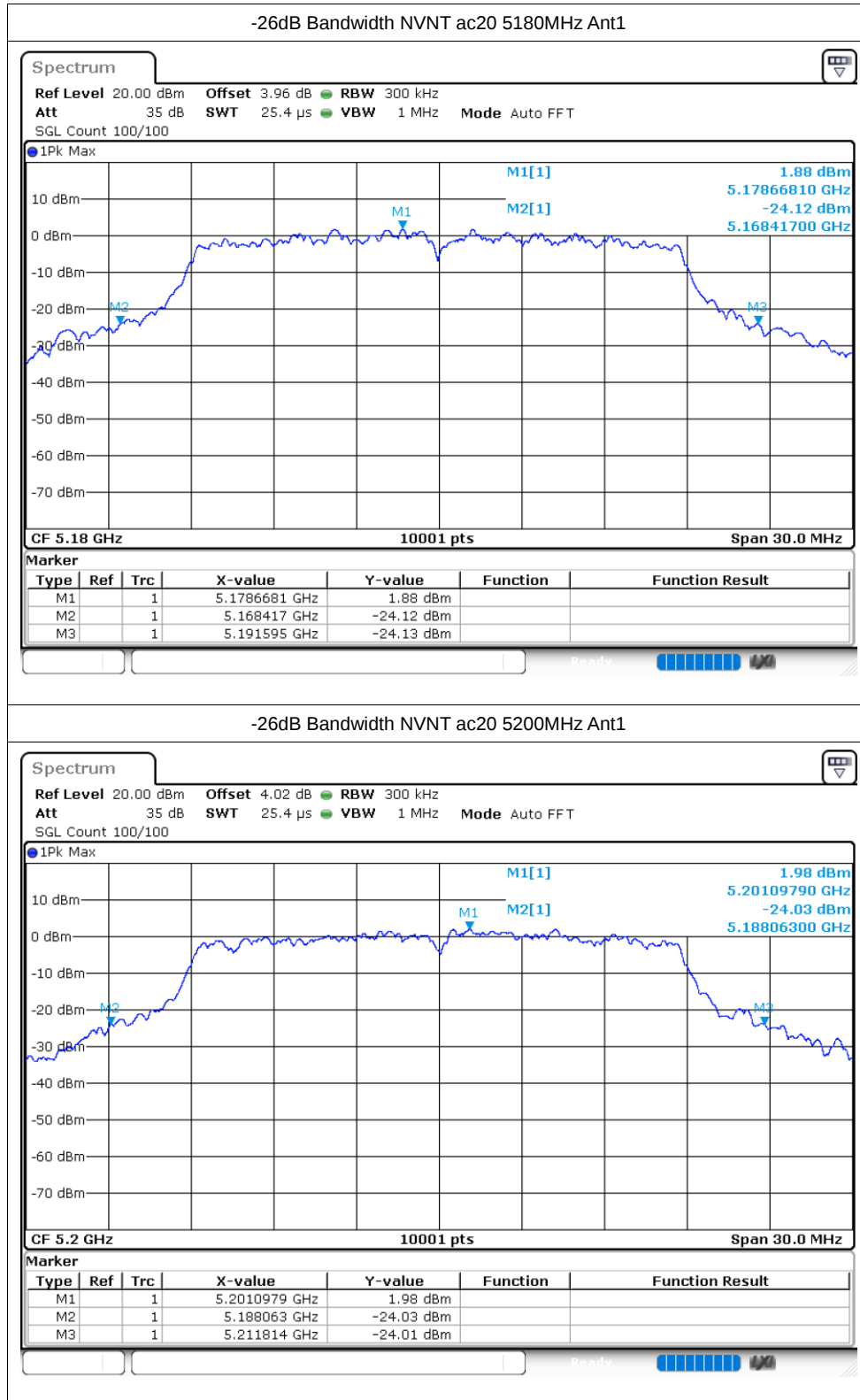


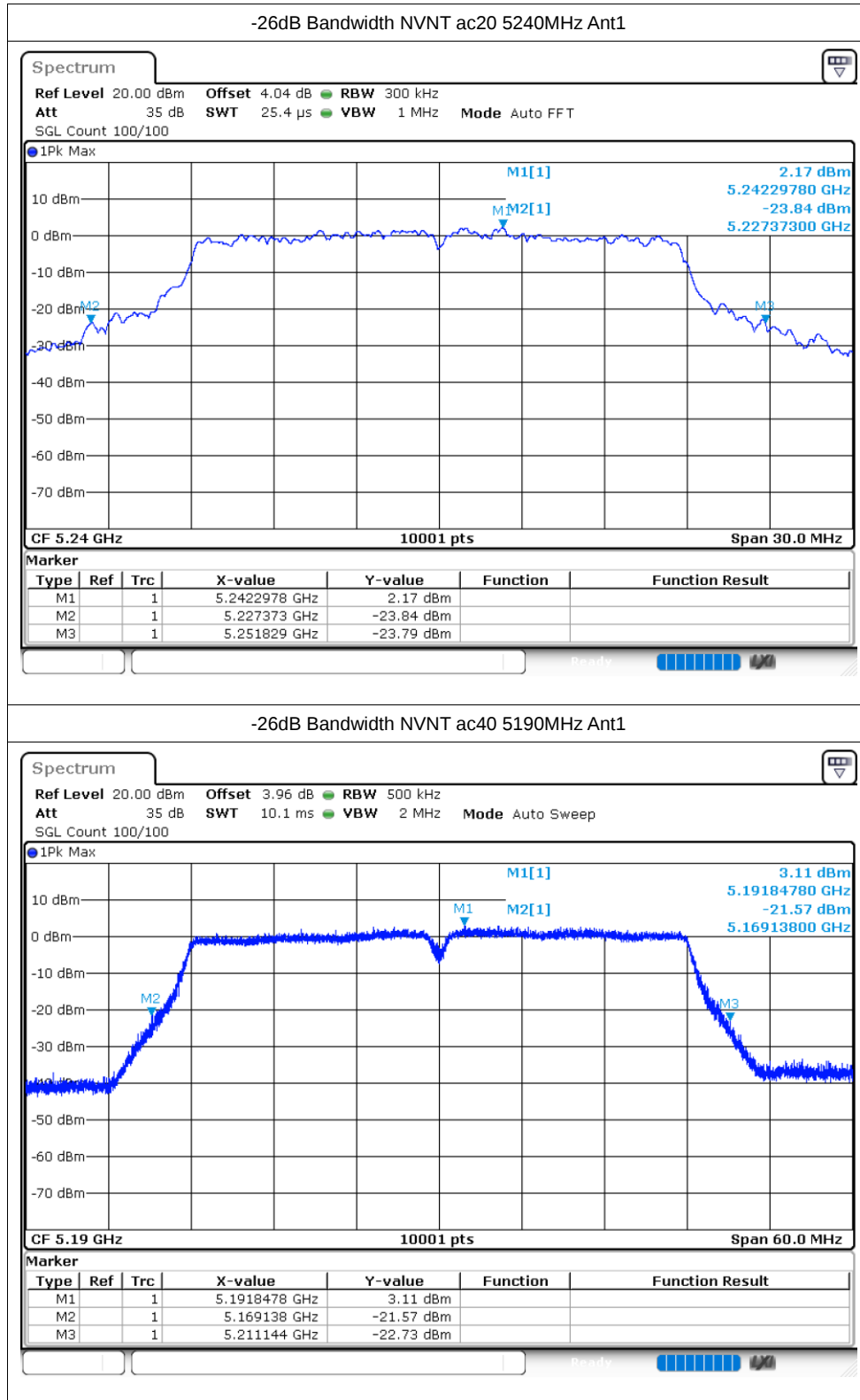
Marker

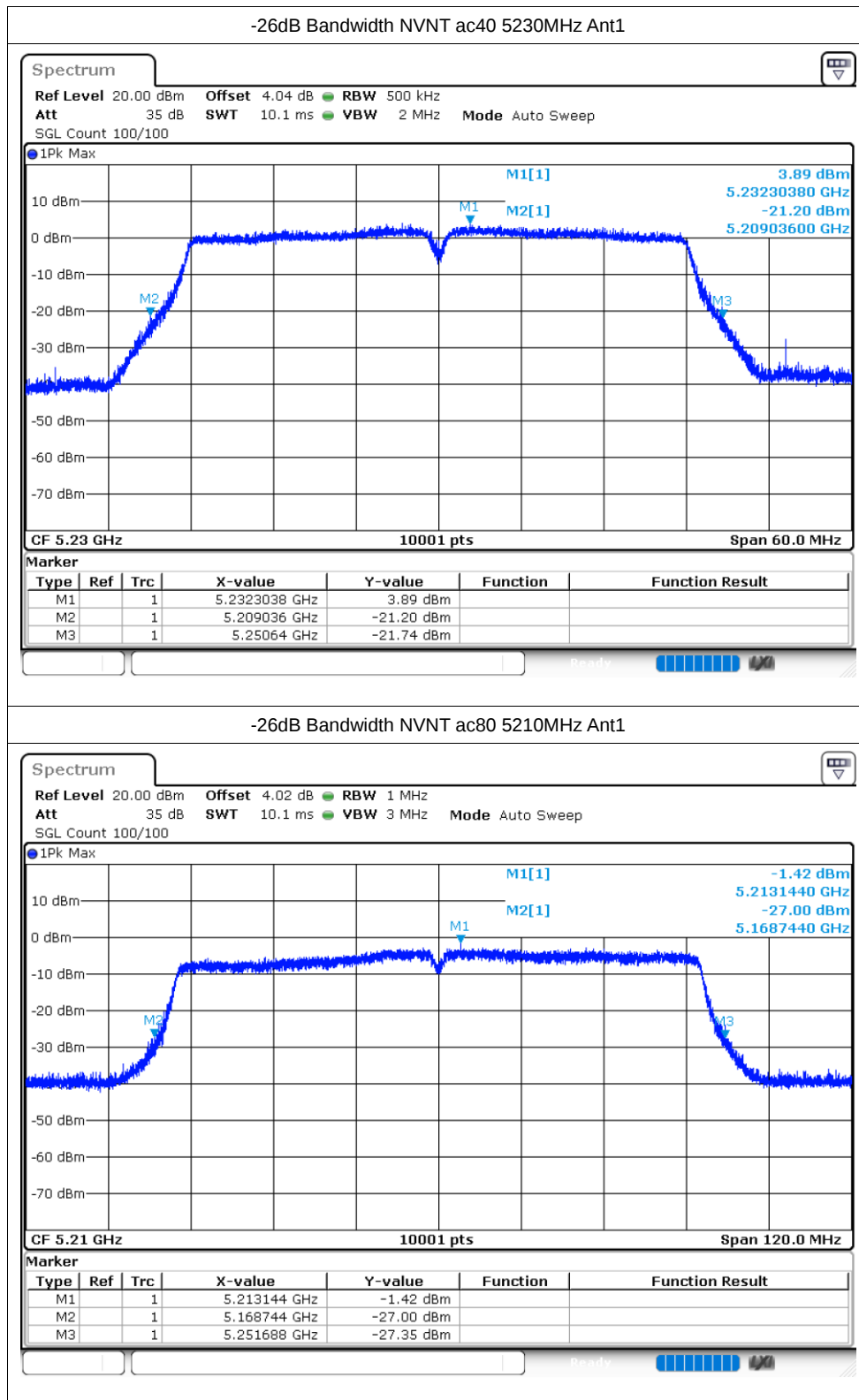
| Type | Ref | Trc | X-value       | Y-value    | Function | Function Result |
|------|-----|-----|---------------|------------|----------|-----------------|
| M1   | 1   | 1   | 5.1812059 GHz | 1.95 dBm   |          |                 |
| M2   | 1   | 1   | 5.168264 GHz  | -24.00 dBm |          |                 |
| M3   | 1   | 1   | 5.192384 GHz  | -24.05 dBm |          |                 |









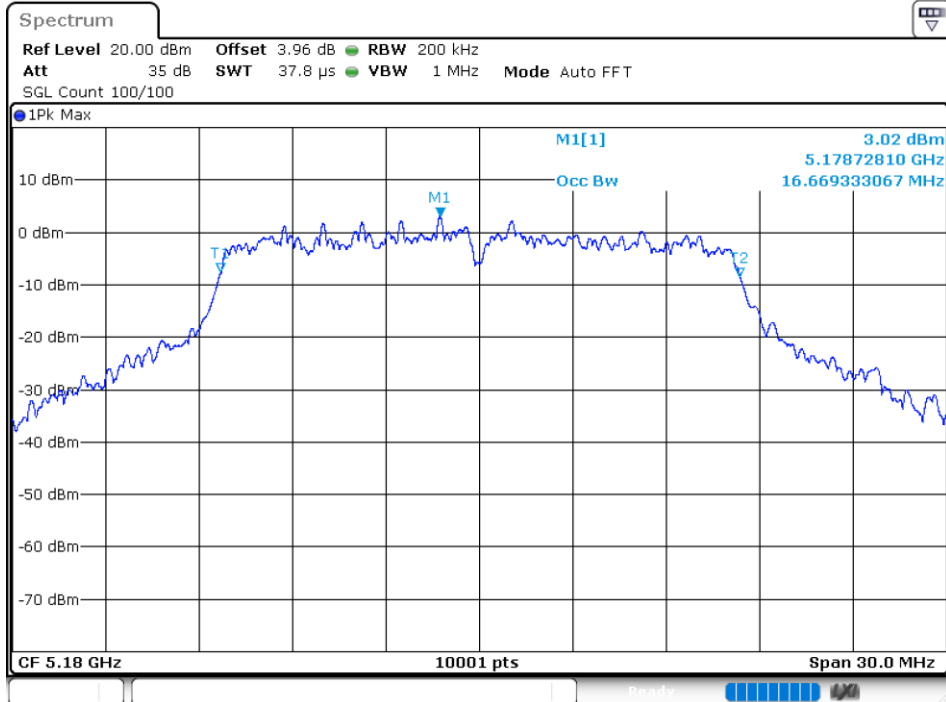


## Occupied Channel Bandwidth

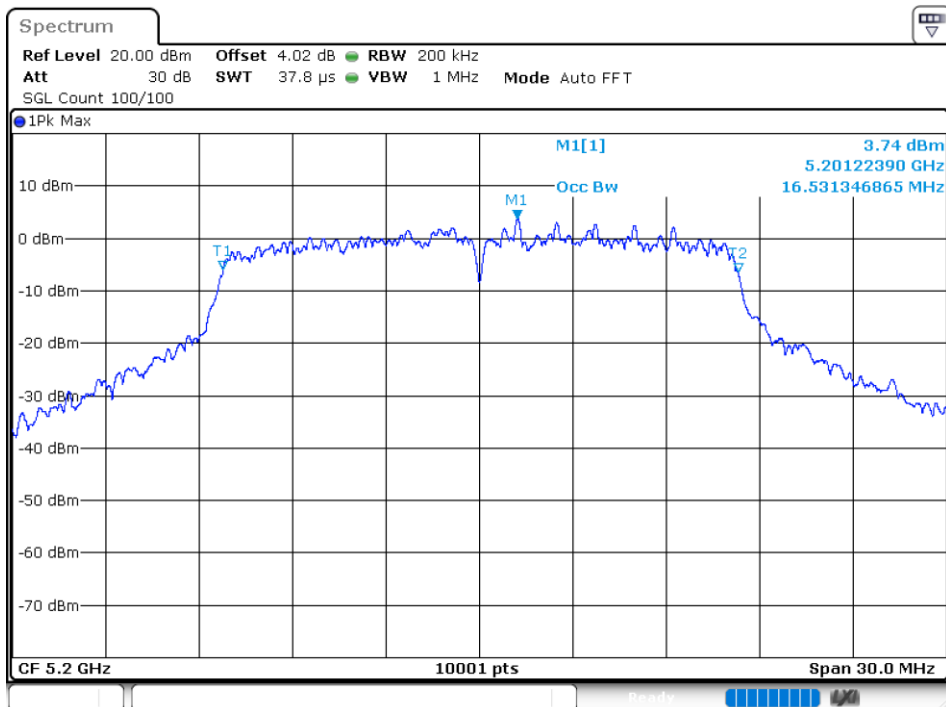
| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|------|-----------------|---------|---------------|
| NVNT      | a    | 5180            | Ant1    | 16.669        |
| NVNT      | a    | 5200            | Ant1    | 16.531        |
| NVNT      | a    | 5240            | Ant1    | 16.576        |
| NVNT      | n20  | 5180            | Ant1    | 17.833        |
| NVNT      | n20  | 5200            | Ant1    | 17.788        |
| NVNT      | n20  | 5240            | Ant1    | 17.671        |
| NVNT      | n40  | 5190            | Ant1    | 36.326        |
| NVNT      | n40  | 5230            | Ant1    | 36.206        |
| NVNT      | ac20 | 5180            | Ant1    | 17.8          |
| NVNT      | ac20 | 5200            | Ant1    | 17.761        |
| NVNT      | ac20 | 5240            | Ant1    | 17.695        |
| NVNT      | ac40 | 5190            | Ant1    | 36.314        |
| NVNT      | ac40 | 5230            | Ant1    | 36.218        |
| NVNT      | ac80 | 5210            | Ant1    | 75.568        |

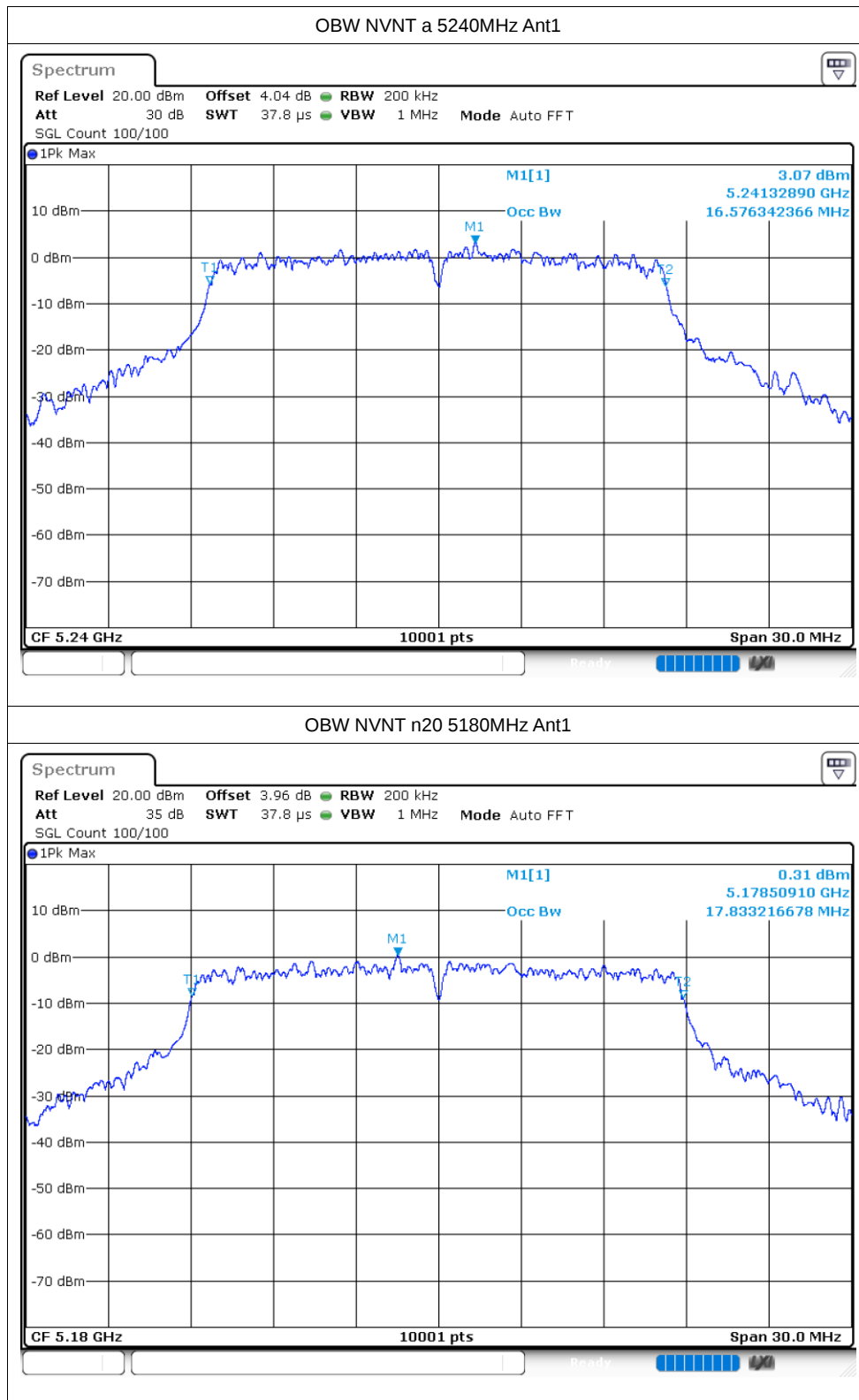
# Test Graphs

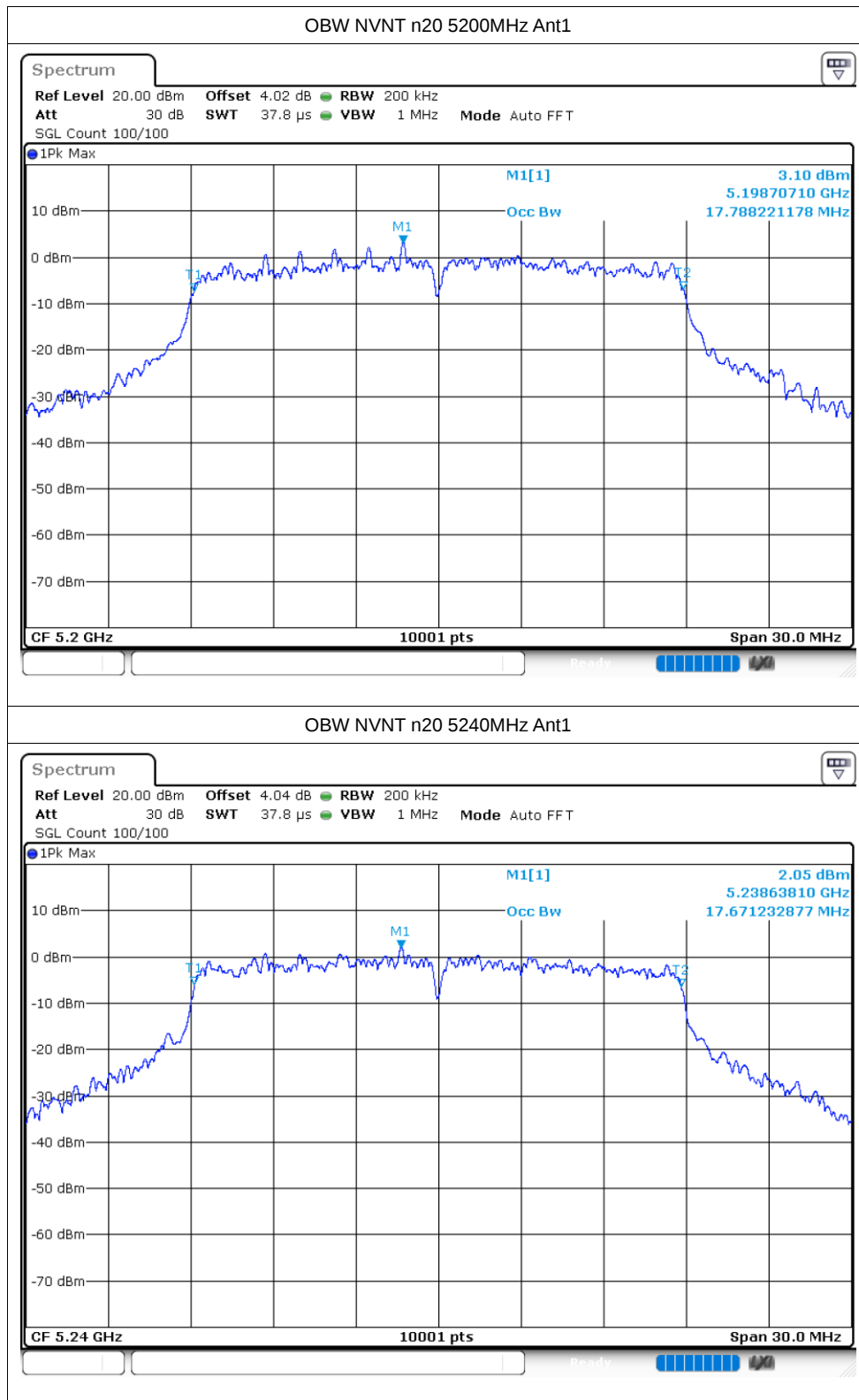
## OBW NVNT a 5180MHz Ant1

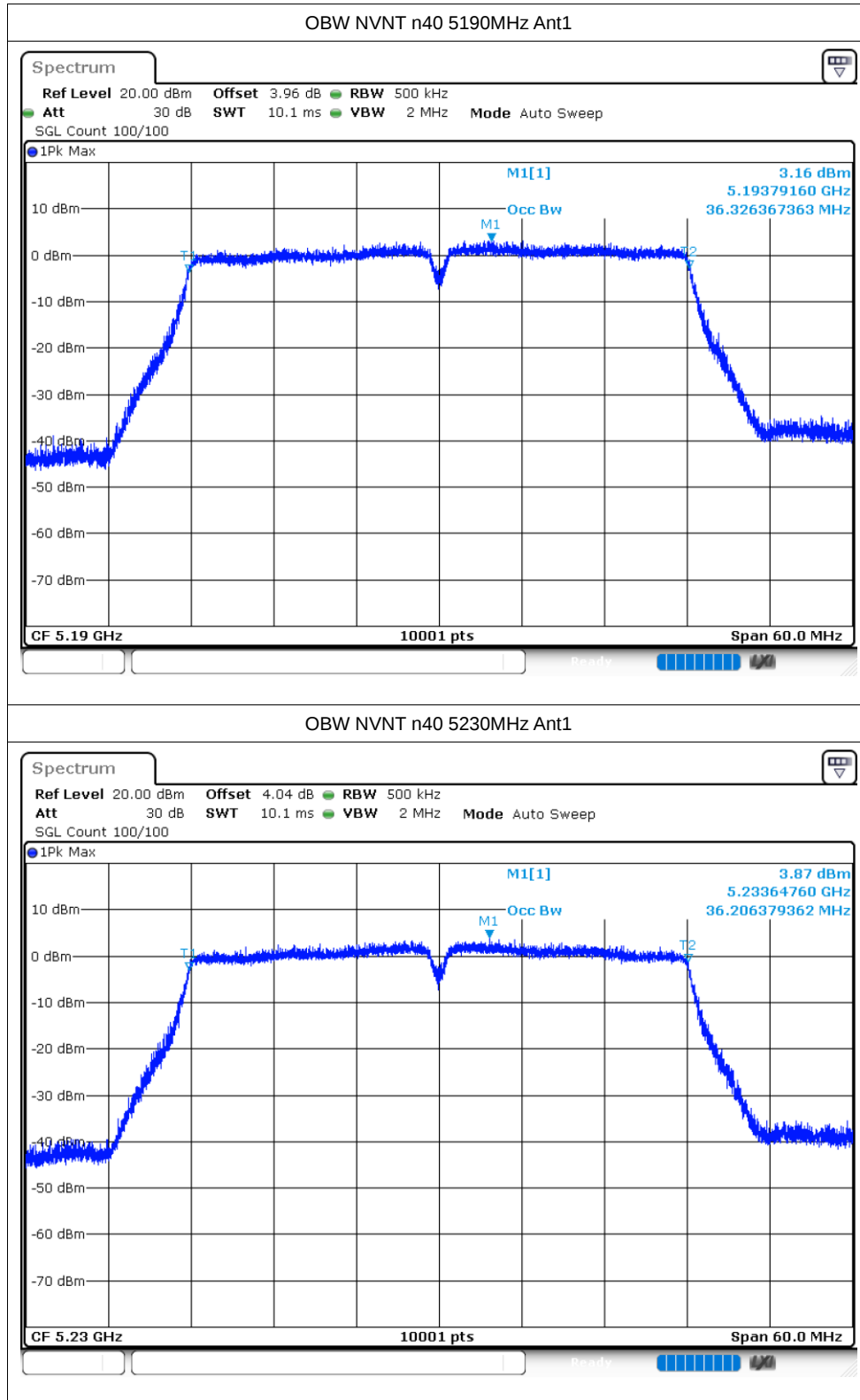


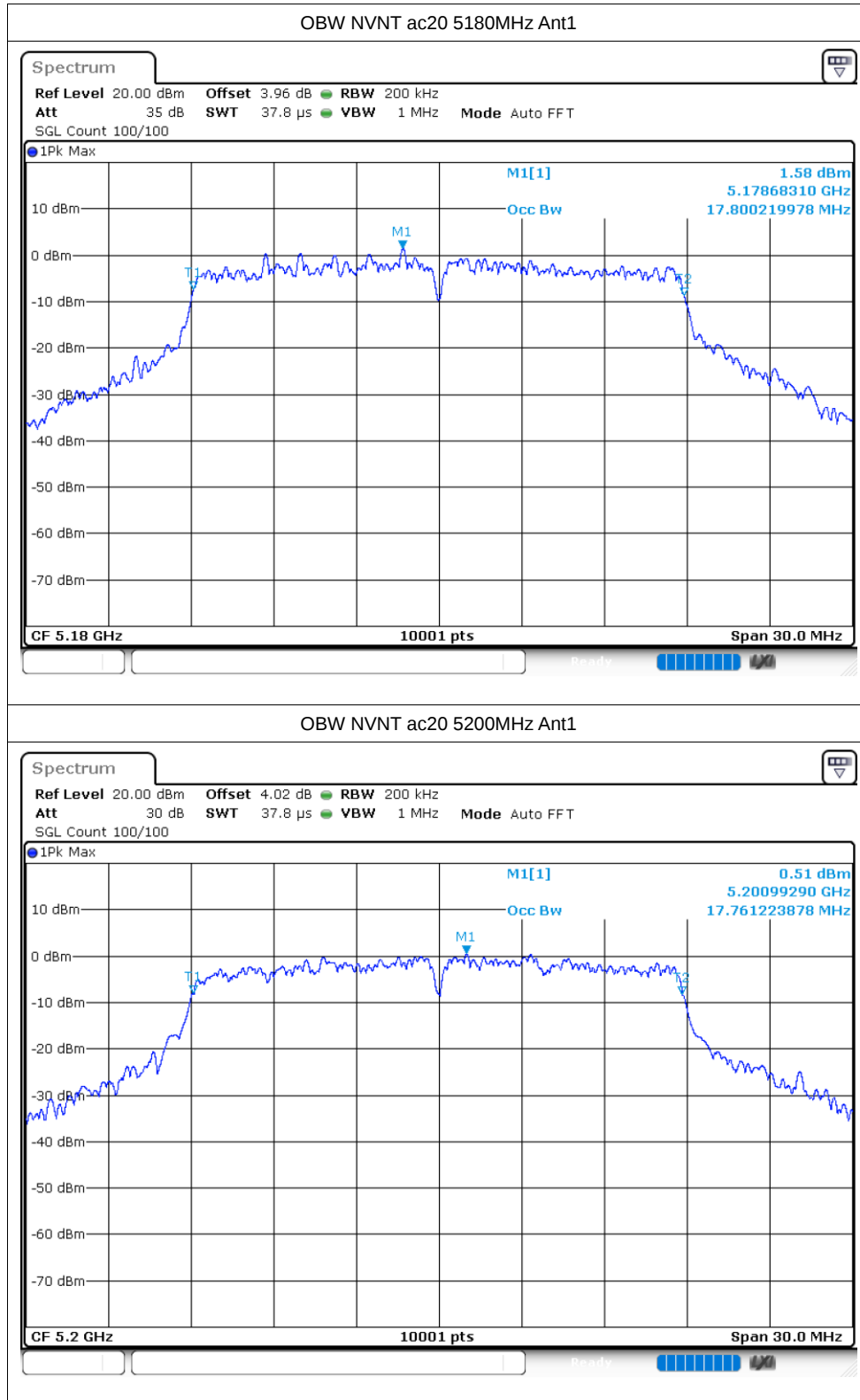
## OBW NVNT a 5200MHz Ant1

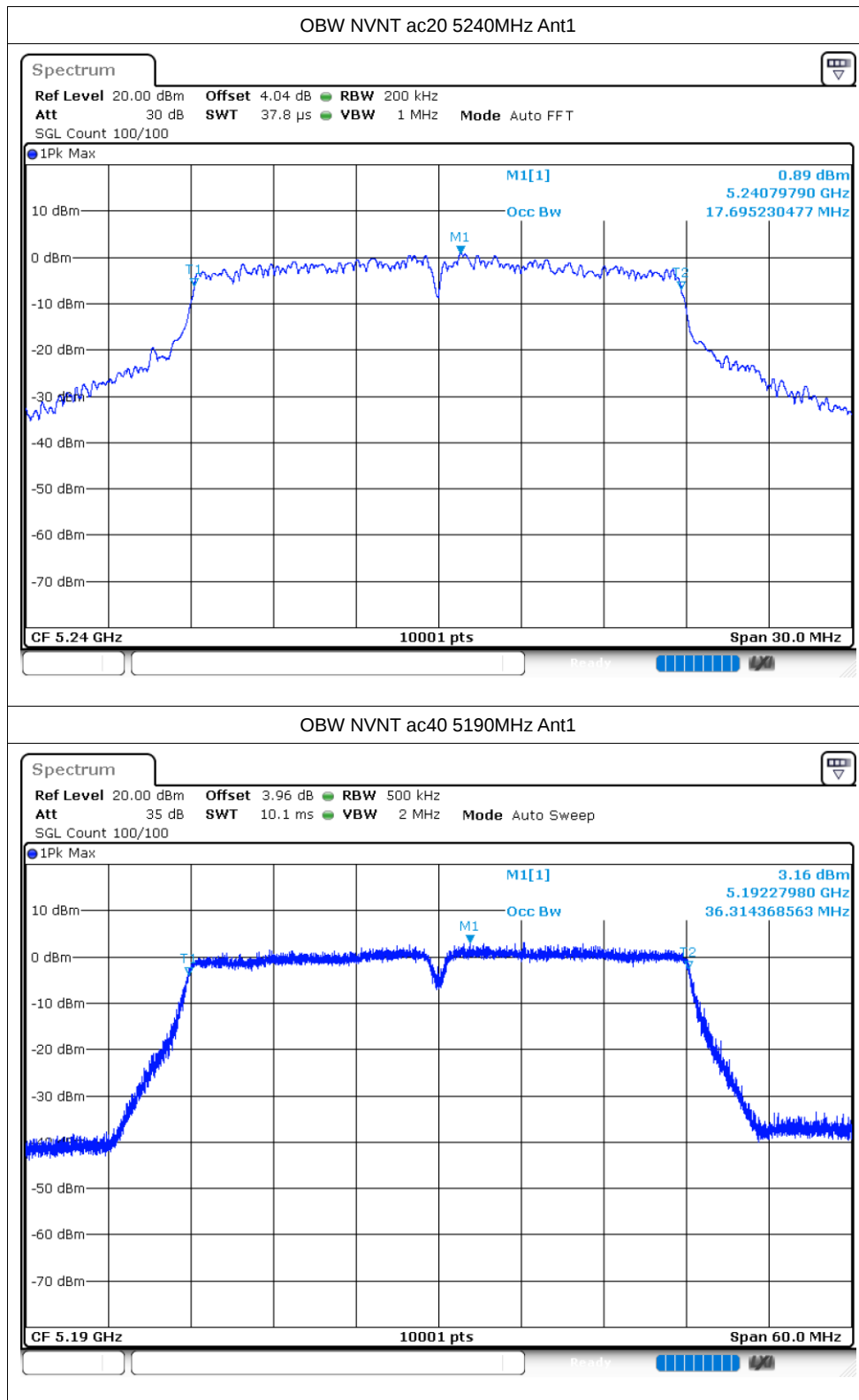


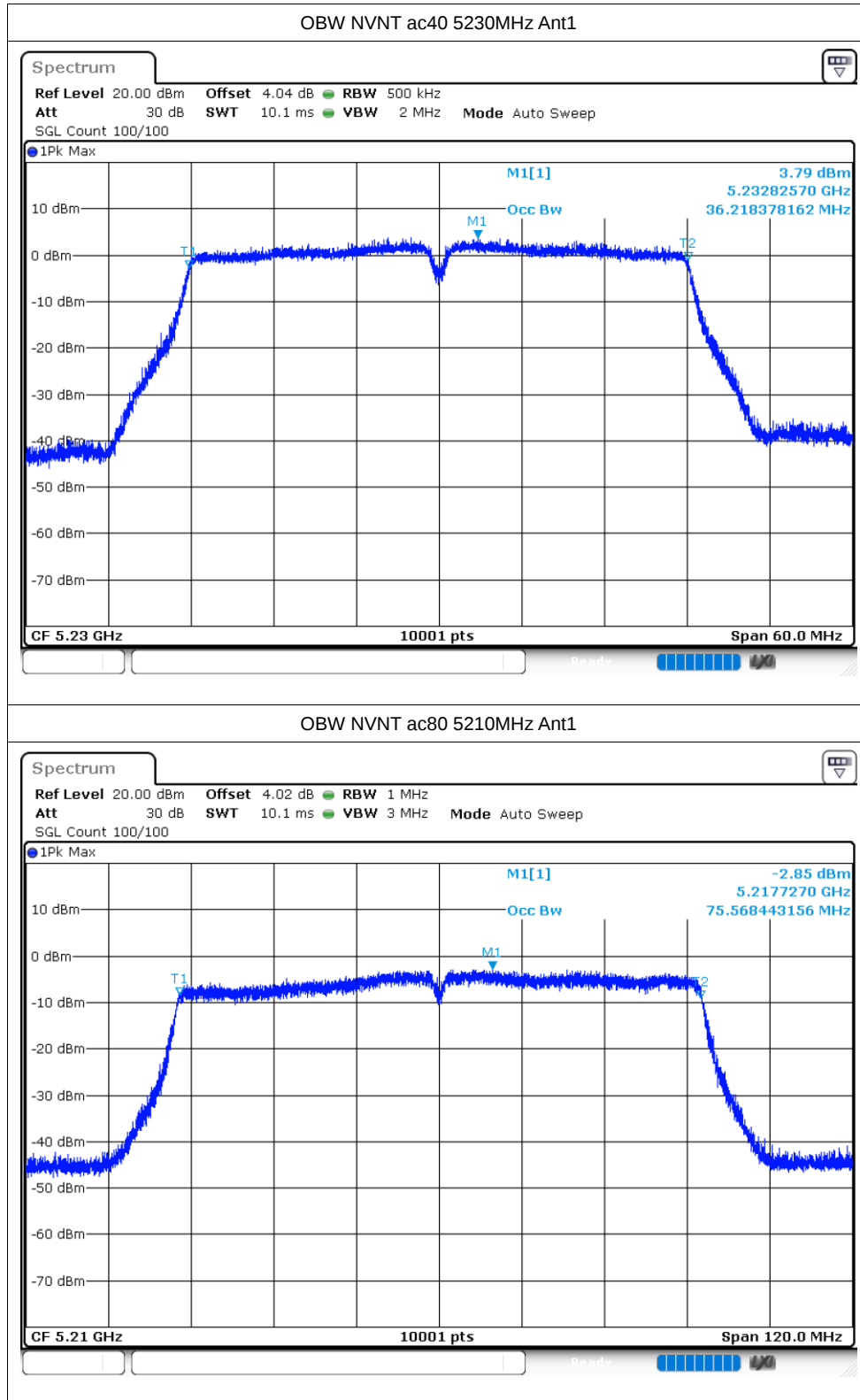










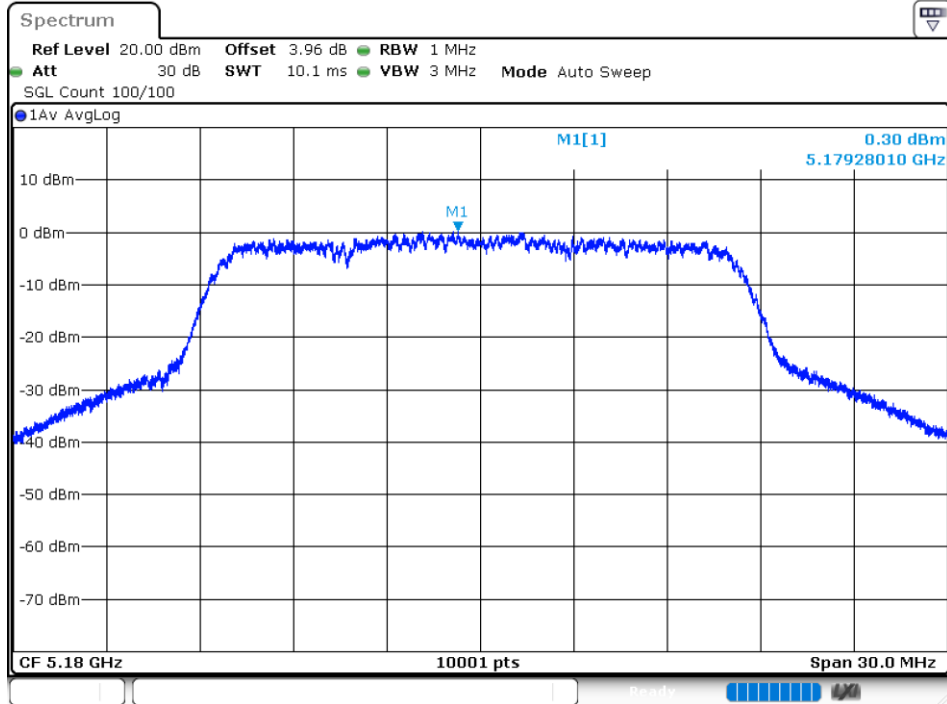


## Maximum Power Spectral Density Level

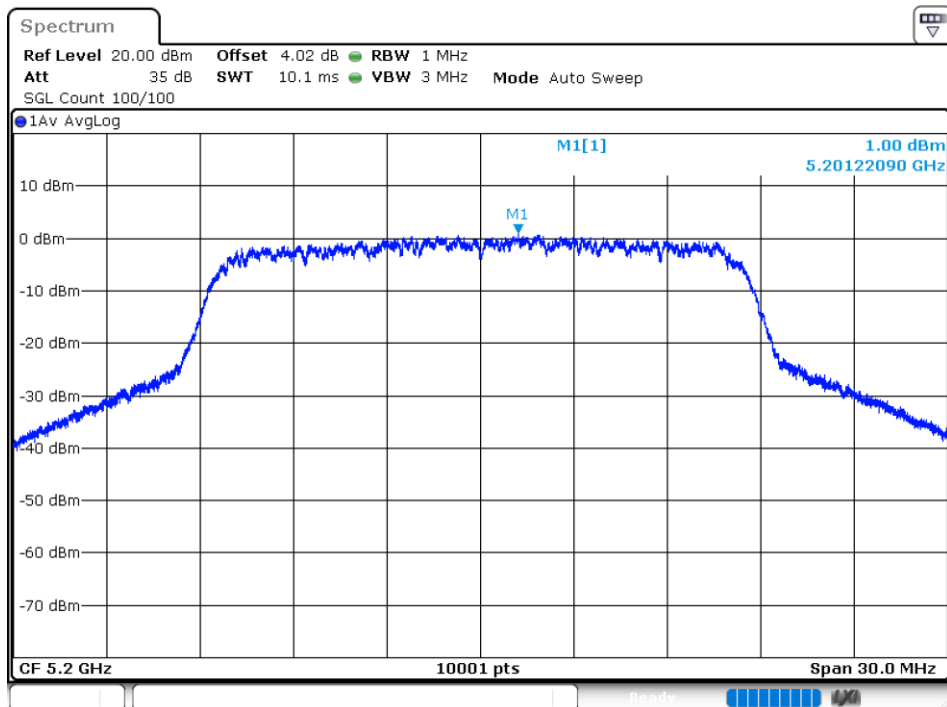
| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm) | Duty Factor (dB) | Total PSD (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|---------------------|------------------|-----------------|-------------|---------|
| NVNT      | a    | 5180            | Ant1    | 0.3                 | 0.06             | 0.36            | 11          | Pass    |
| NVNT      | a    | 5200            | Ant1    | 1                   | 0.05             | 1.05            | 11          | Pass    |
| NVNT      | a    | 5240            | Ant1    | 1.35                | 0.06             | 1.41            | 11          | Pass    |
| NVNT      | n20  | 5180            | Ant1    | -1.07               | 0.06             | -1.01           | 11          | Pass    |
| NVNT      | n20  | 5200            | Ant1    | -0.17               | 0.07             | -0.1            | 11          | Pass    |
| NVNT      | n20  | 5240            | Ant1    | -0.3                | 0.06             | -0.24           | 11          | Pass    |
| NVNT      | n40  | 5190            | Ant1    | -3.24               | 0.12             | -3.12           | 11          | Pass    |
| NVNT      | n40  | 5230            | Ant1    | -2.15               | 0.12             | -2.03           | 11          | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | -1.62               | 0.06             | -1.56           | 11          | Pass    |
| NVNT      | ac20 | 5200            | Ant1    | -0.48               | 0.06             | -0.42           | 11          | Pass    |
| NVNT      | ac20 | 5240            | Ant1    | -0.07               | 0.06             | -0.01           | 11          | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | -3.09               | 0.12             | -2.97           | 11          | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | -2.64               | 0.12             | -2.52           | 11          | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | -13.03              | 0.32             | -12.71          | 11          | Pass    |

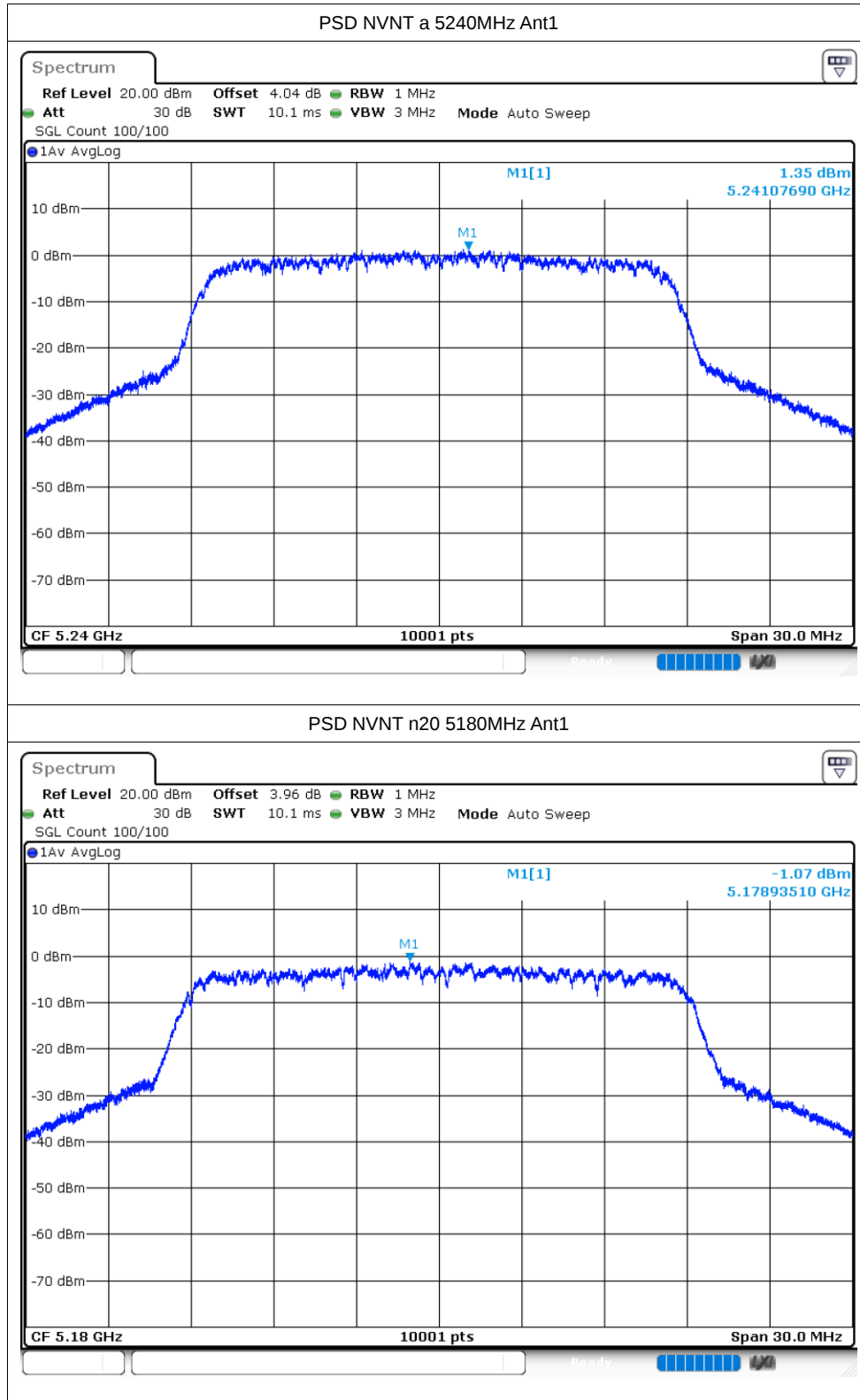
Test Graphs

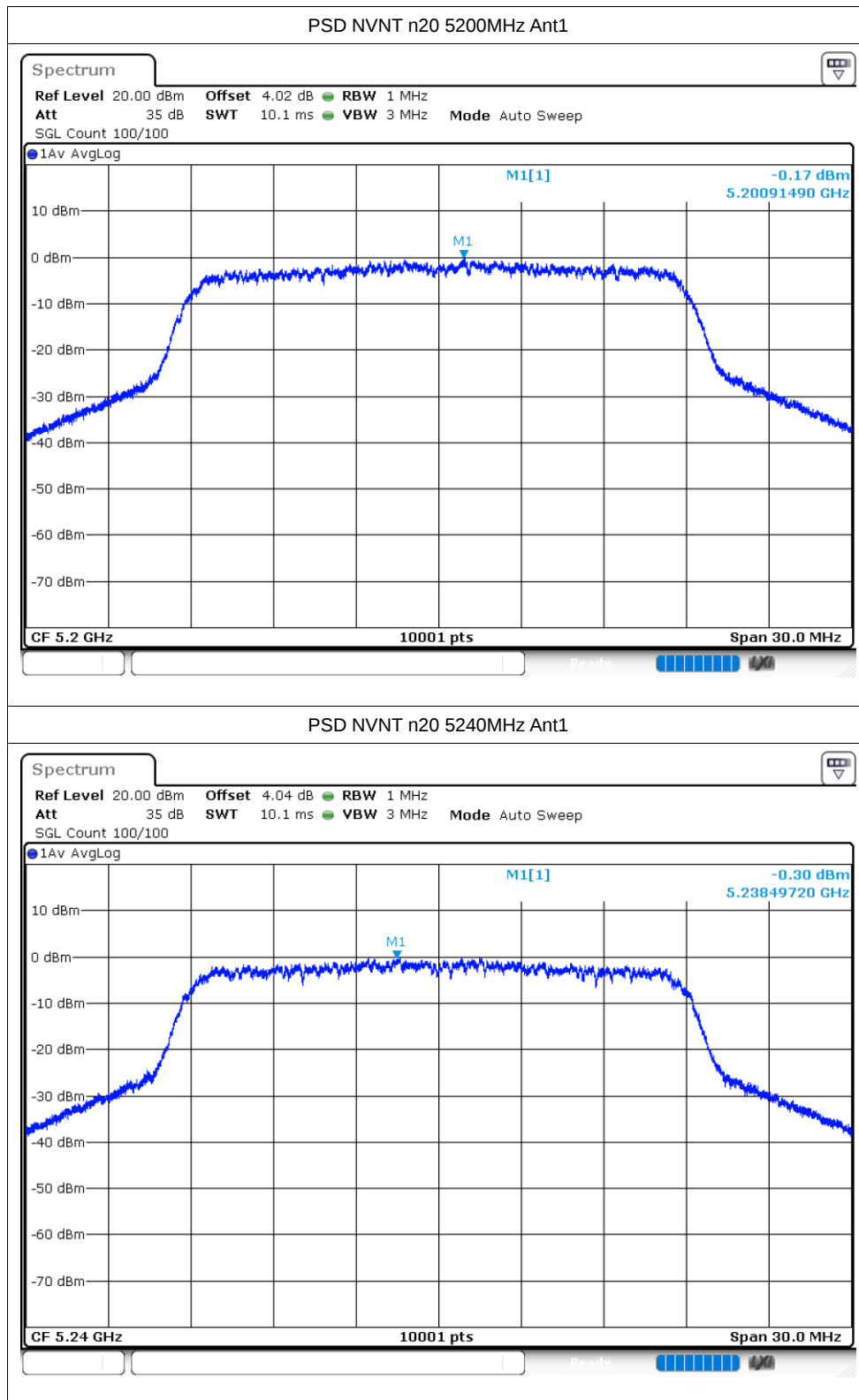
PSD NVNT a 5180MHz Ant1

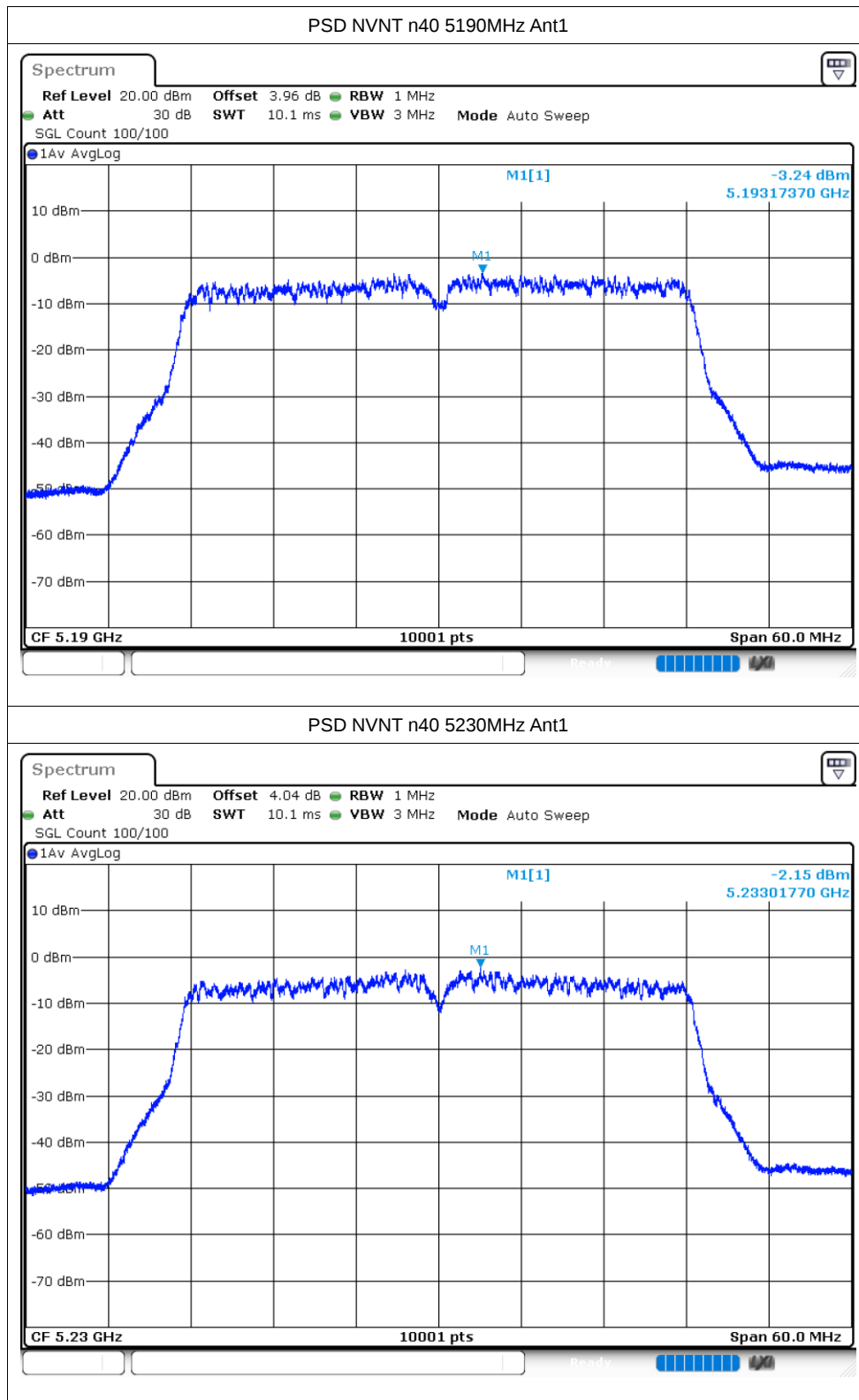


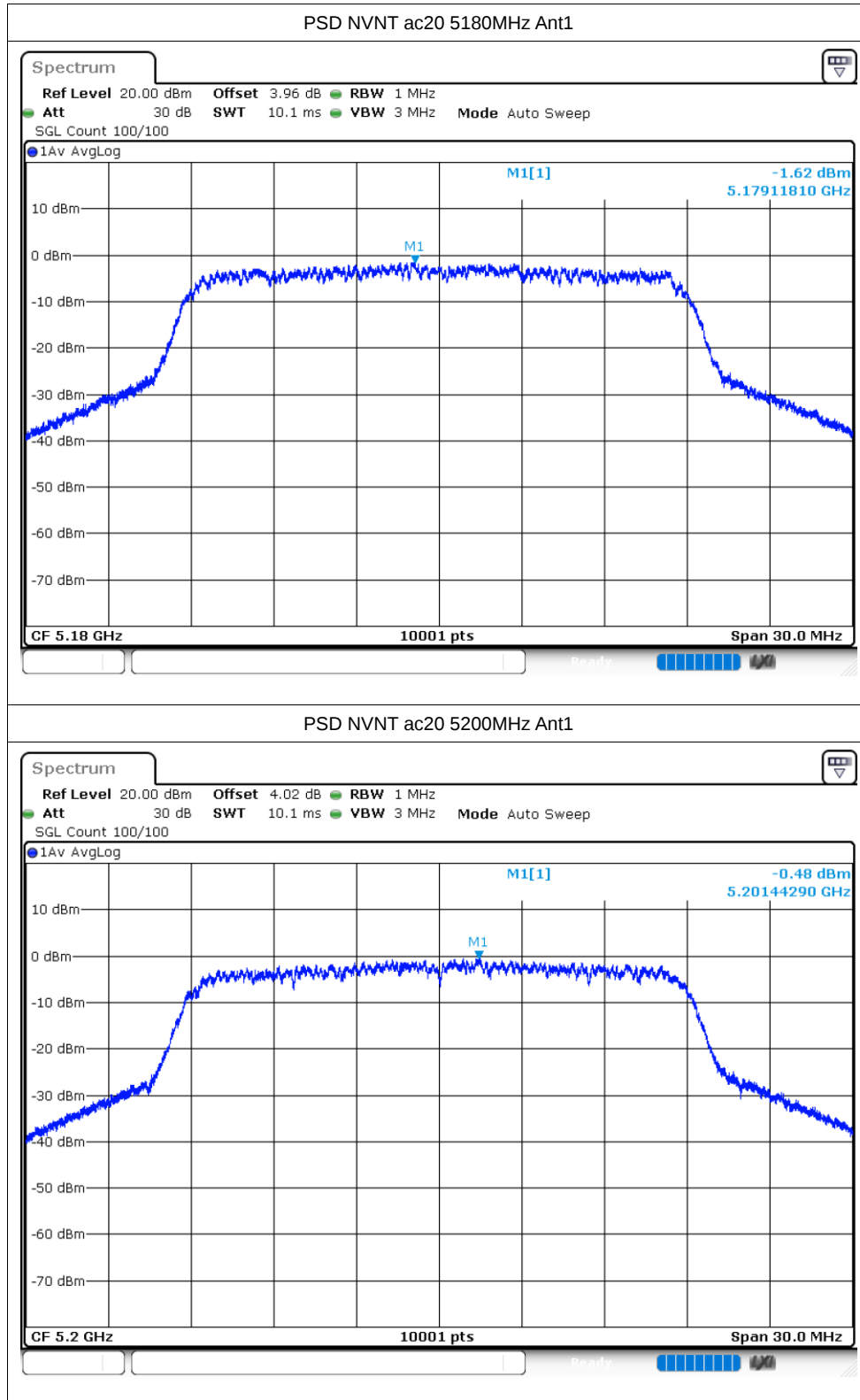
PSD NVNT a 5200MHz Ant1

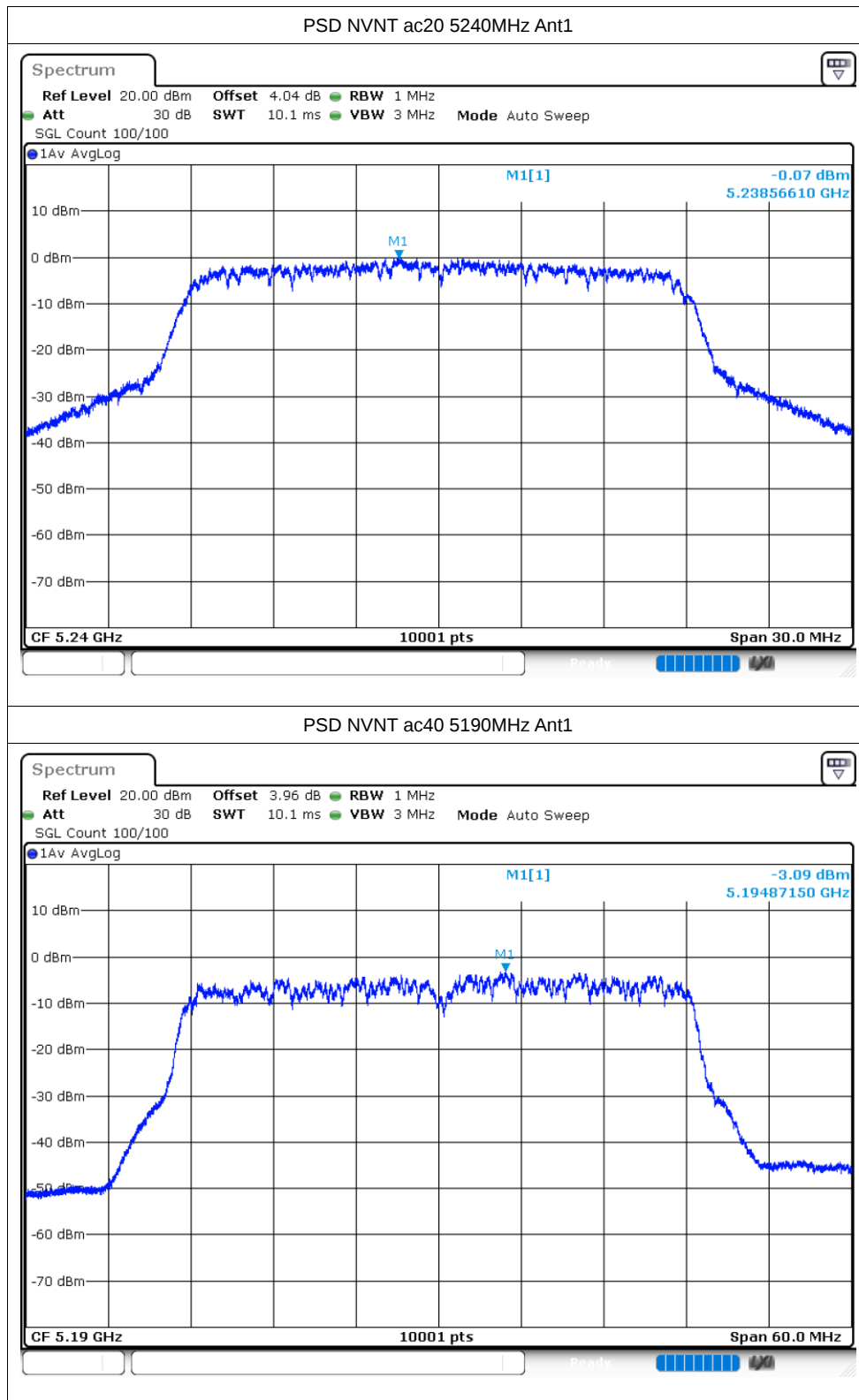


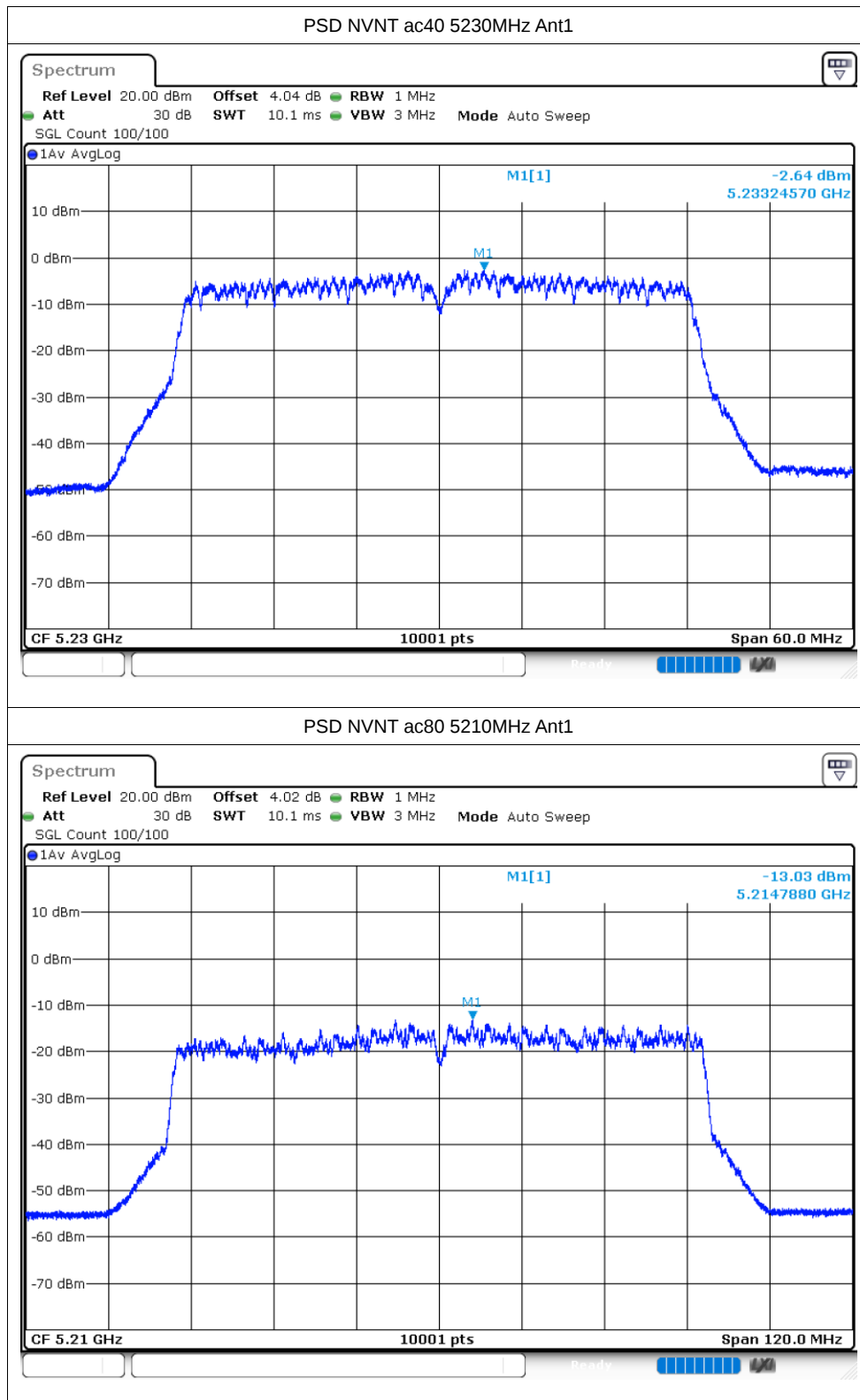












## Band Edge

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | a    | 5180            | Ant1    | -40.74          | -27         | Pass    |
| NVNT      | a    | 5240            | Ant1    | -42.16          | -27         | Pass    |
| NVNT      | n20  | 5180            | Ant1    | -42.94          | -27         | Pass    |
| NVNT      | n20  | 5240            | Ant1    | -42.75          | -27         | Pass    |
| NVNT      | n40  | 5190            | Ant1    | -41.82          | -27         | Pass    |
| NVNT      | n40  | 5230            | Ant1    | -42.12          | -27         | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | -42.07          | -27         | Pass    |
| NVNT      | ac20 | 5240            | Ant1    | -42.5           | -27         | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | -40.25          | -27         | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | -42.69          | -27         | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | -42.26          | -27         | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | -42.11          | -27         | Pass    |

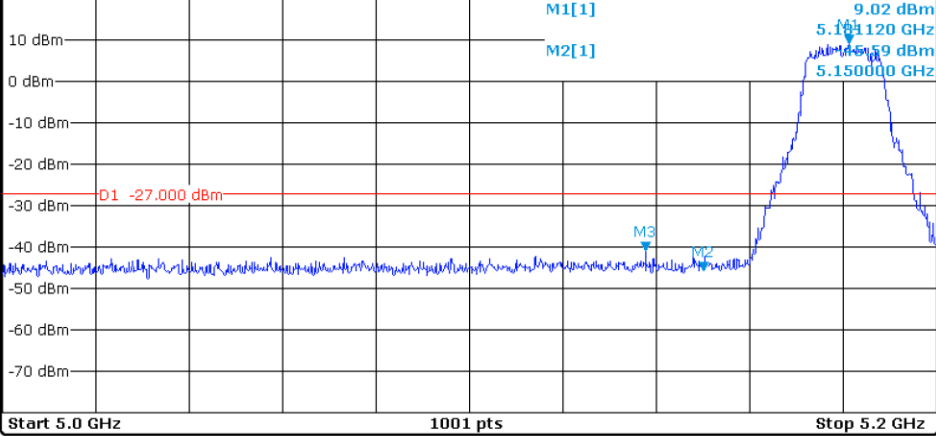
# Test Graphs

## Band Edge NVNT a 5180MHz Low Ant1

### Spectrum

Ref Level 20.00 dBm Offset 3.96 dB RBW 1 MHz  
Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep  
SGL Count 100/100

1Pk Max



### Marker

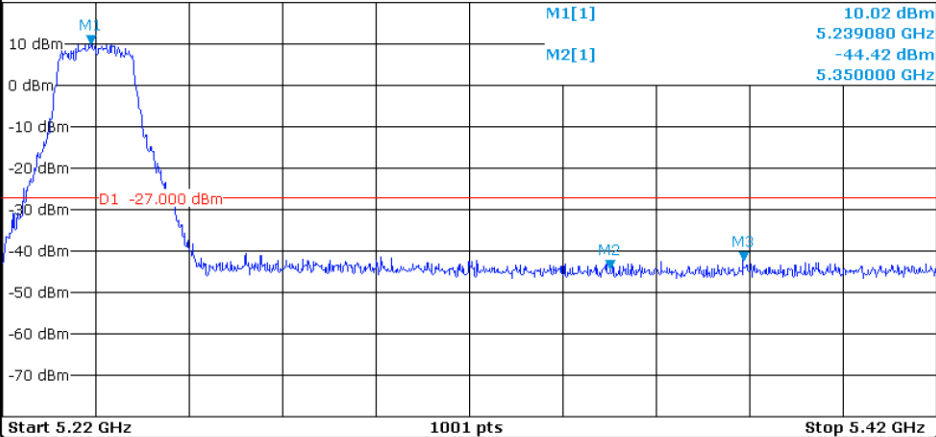
| Type | Ref | Trc | X-value     | Y-value    | Function | Function Result |
|------|-----|-----|-------------|------------|----------|-----------------|
| M1   | 1   |     | 5.18112 GHz | 9.02 dBm   |          |                 |
| M2   | 1   |     | 5.15 GHz    | -45.59 dBm |          |                 |
| M3   | 1   |     | 5.1378 GHz  | -40.74 dBm |          |                 |

## Band Edge NVNT a 5240MHz High Ant1

### Spectrum

Ref Level 20.00 dBm Offset 4.04 dB RBW 1 MHz  
Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep  
SGL Count 100/100

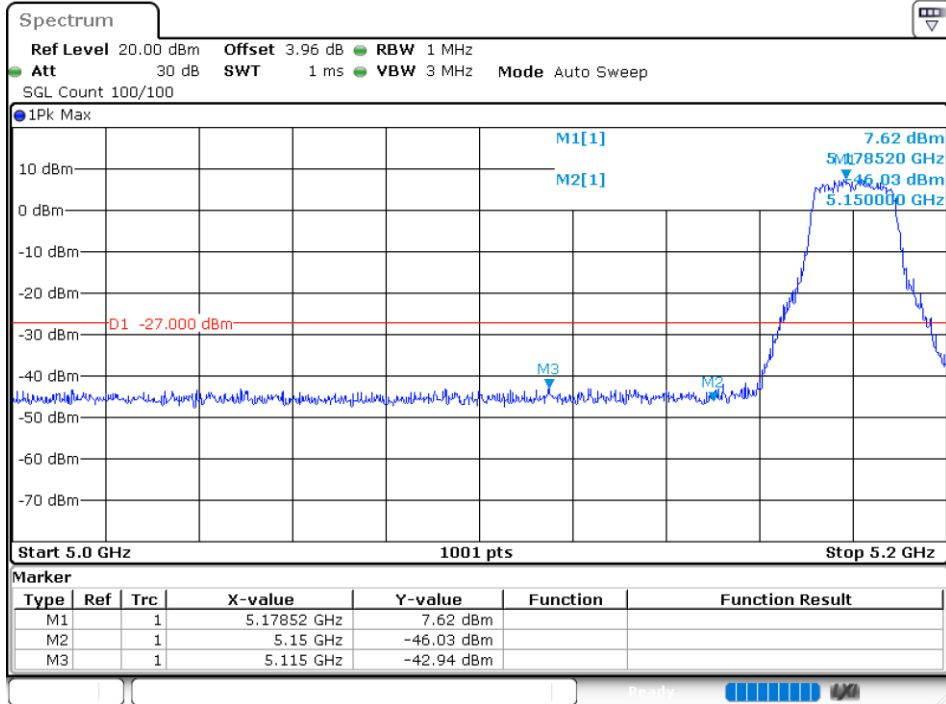
1Pk Max



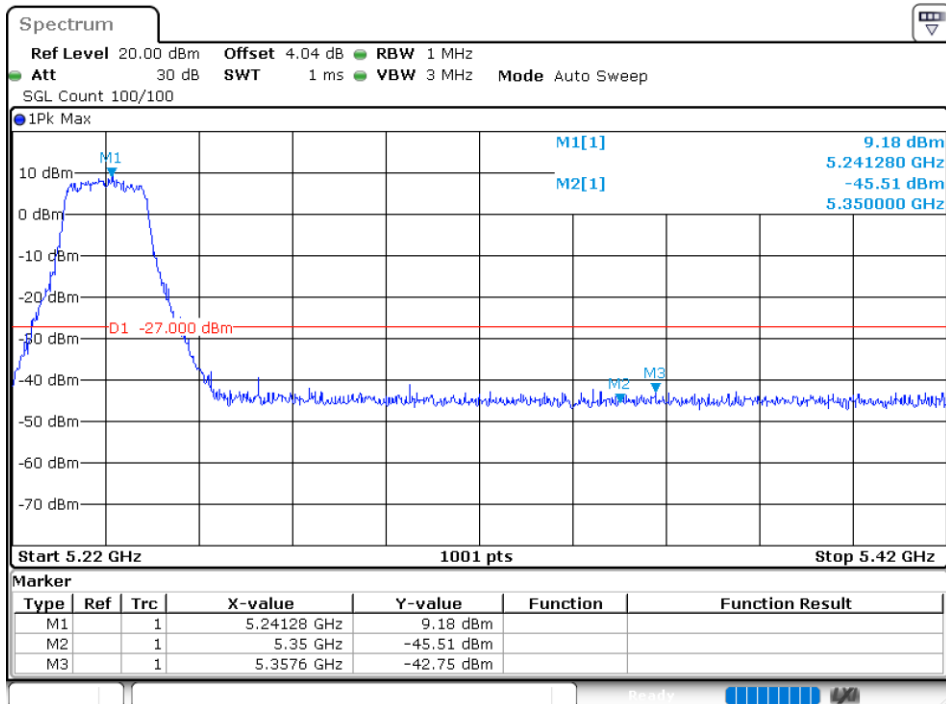
### Marker

| Type | Ref | Trc | X-value     | Y-value    | Function | Function Result |
|------|-----|-----|-------------|------------|----------|-----------------|
| M1   | 1   |     | 5.23908 GHz | 10.02 dBm  |          |                 |
| M2   | 1   |     | 5.35 GHz    | -44.42 dBm |          |                 |
| M3   | 1   |     | 5.3786 GHz  | -42.17 dBm |          |                 |

Band Edge NVNT n20 5180MHz Low Ant1



Band Edge NVNT n20 5240MHz High Ant1

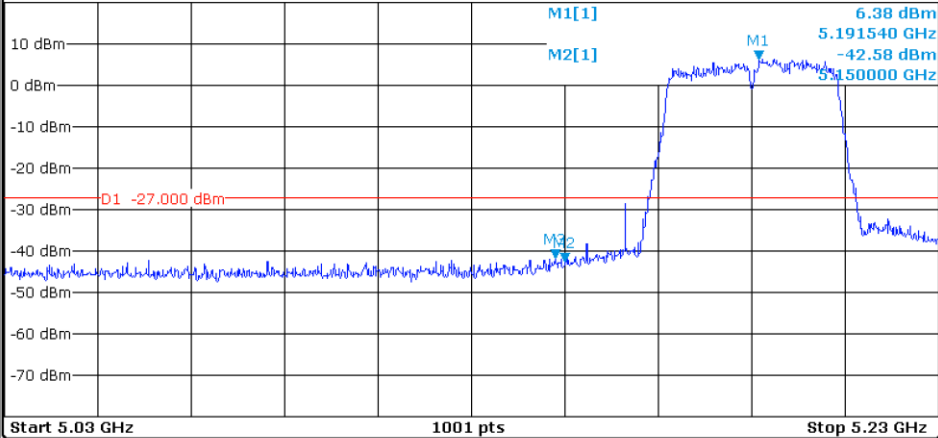


Band Edge NVNT n40 5190MHz Low Ant1

Spectrum

Ref Level 20.00 dBm Offset 3.96 dB RBW 1 MHz  
Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep  
SGL Count 100/100

1Pk Max



Marker

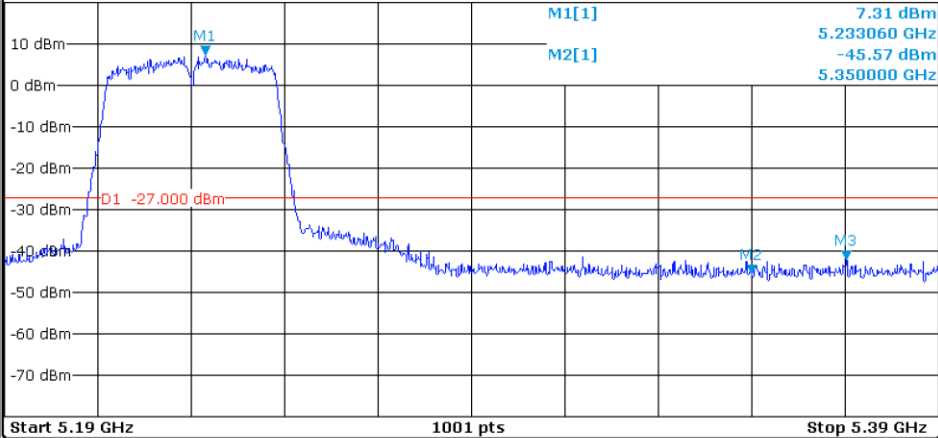
| Type | Ref | Trc | X-value     | Y-value    | Function | Function Result |
|------|-----|-----|-------------|------------|----------|-----------------|
| M1   |     | 1   | 5.19154 GHz | 6.38 dBm   |          |                 |
| M2   |     | 1   | 5.15 GHz    | -42.58 dBm |          |                 |
| M3   |     | 1   | 5.148 GHz   | -41.82 dBm |          |                 |

Band Edge NVNT n40 5230MHz High Ant1

Spectrum

Ref Level 20.00 dBm Offset 4.04 dB RBW 1 MHz  
Att 30 dB SWT 1 ms VBW 3 MHz Mode Auto Sweep  
SGL Count 100/100

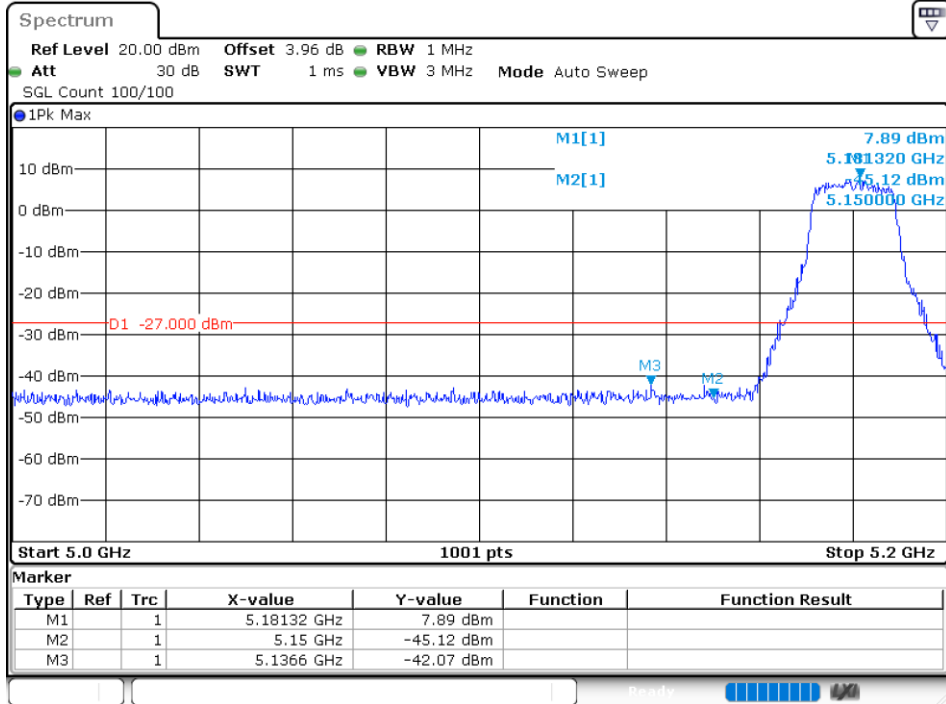
1Pk Max



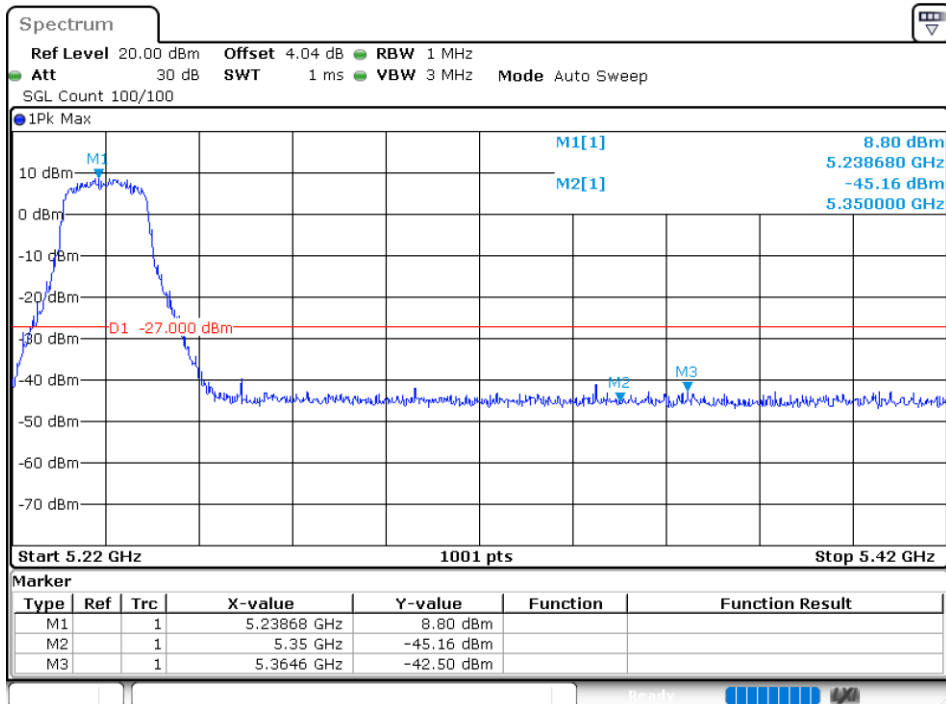
Marker

| Type | Ref | Trc | X-value     | Y-value    | Function | Function Result |
|------|-----|-----|-------------|------------|----------|-----------------|
| M1   |     | 1   | 5.23306 GHz | 7.31 dBm   |          |                 |
| M2   |     | 1   | 5.35 GHz    | -45.57 dBm |          |                 |
| M3   |     | 1   | 5.3702 GHz  | -42.13 dBm |          |                 |

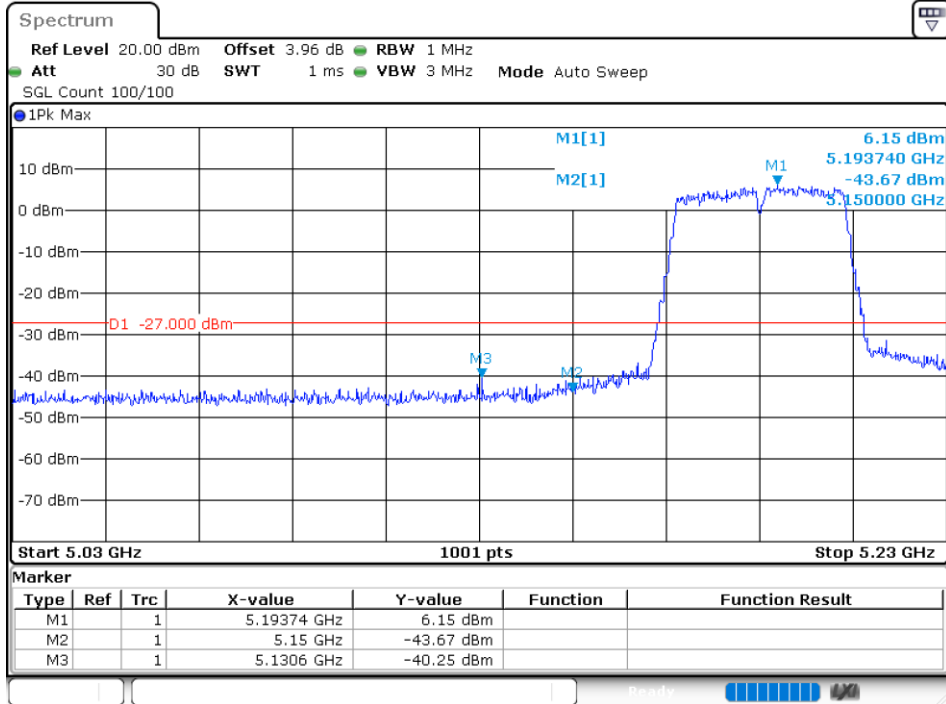
Band Edge NVNT ac20 5180MHz Low Ant1



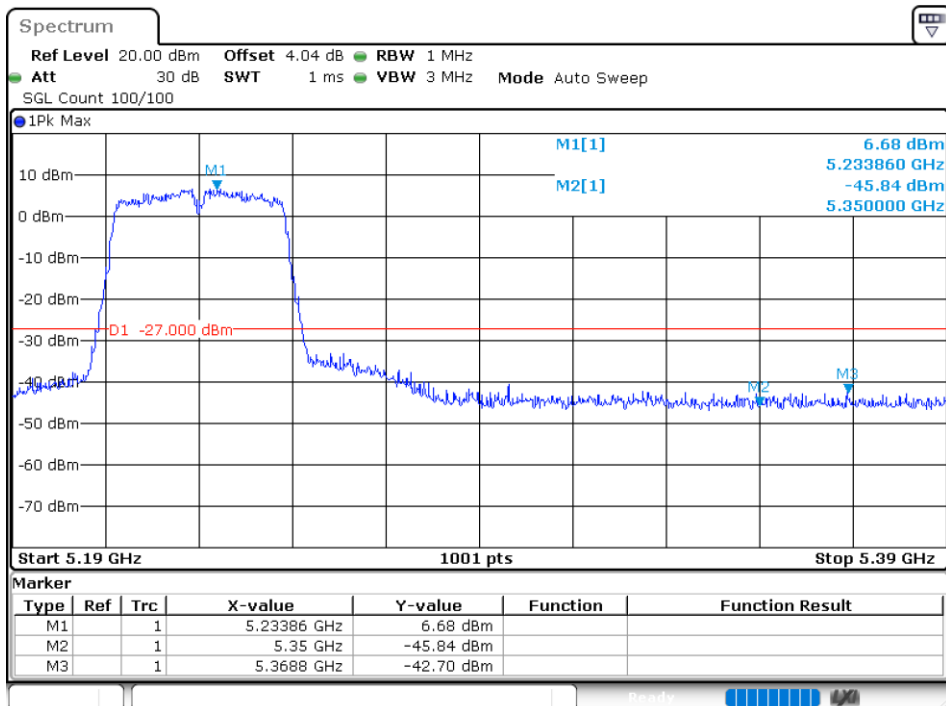
Band Edge NVNT ac20 5240MHz High Ant1



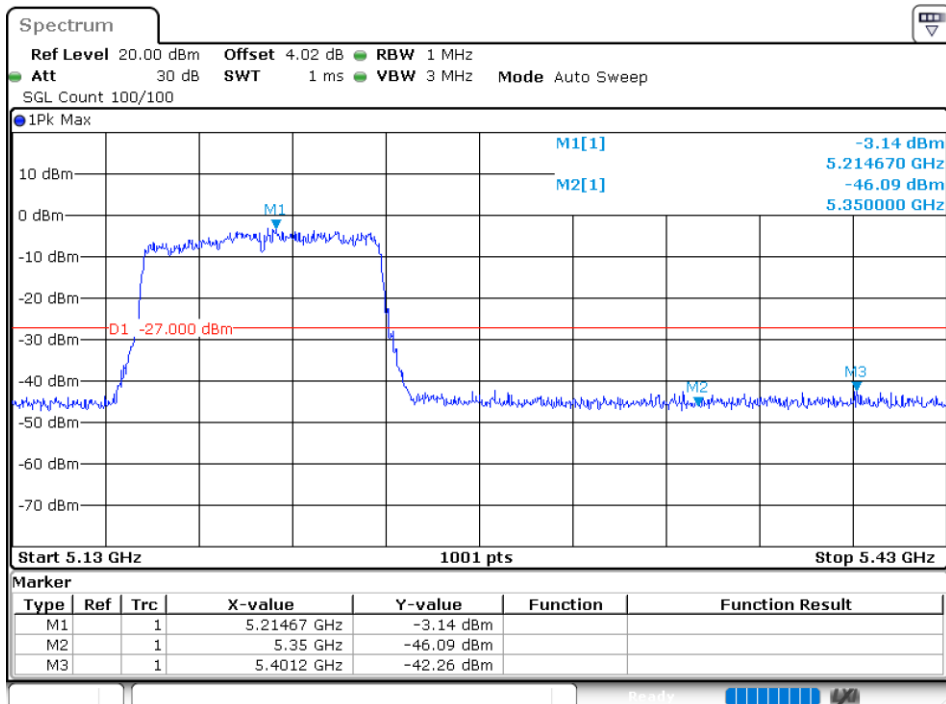
Band Edge NVNT ac40 5190MHz Low Ant1



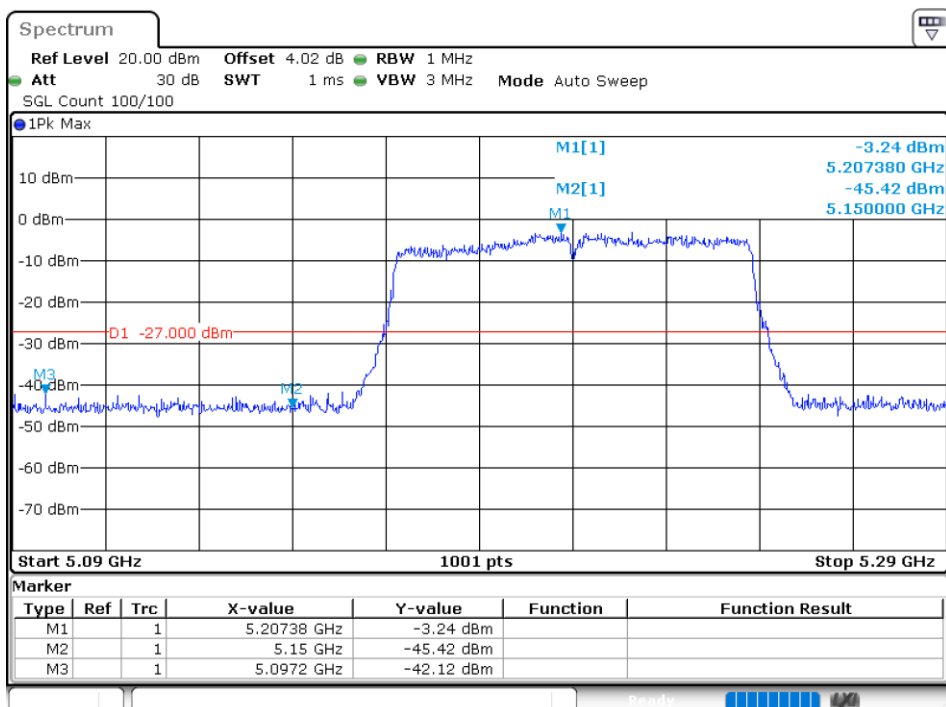
Band Edge NVNT ac40 5230MHz High Ant1



Band Edge NVNT ac80 5210MHz High Ant1



Band Edge NVNT ac80 5210MHz Low Ant1

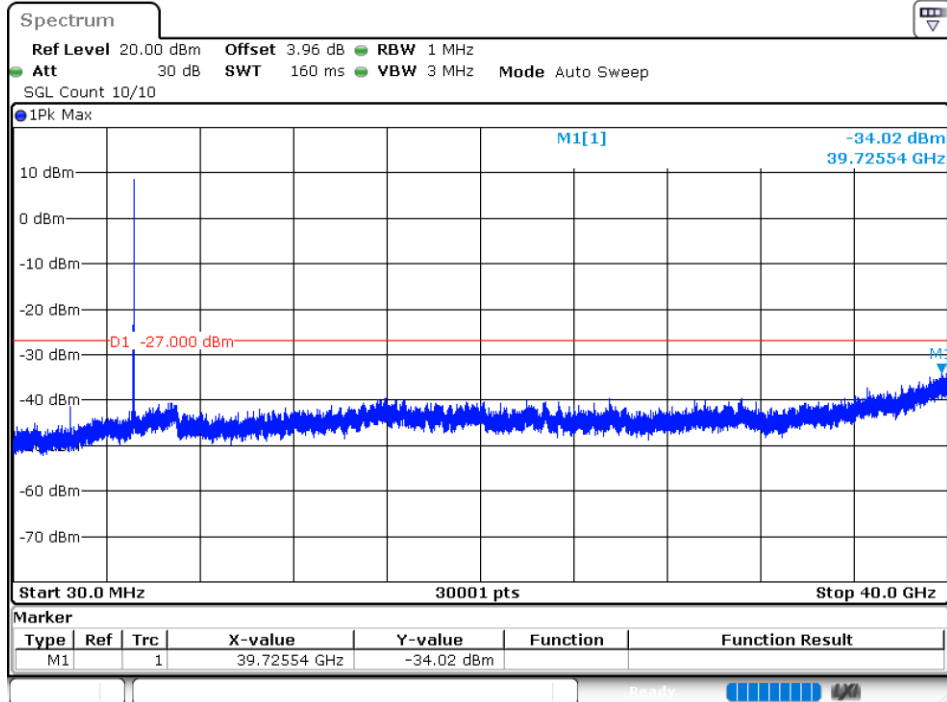


## Conducted RF Spurious Emission

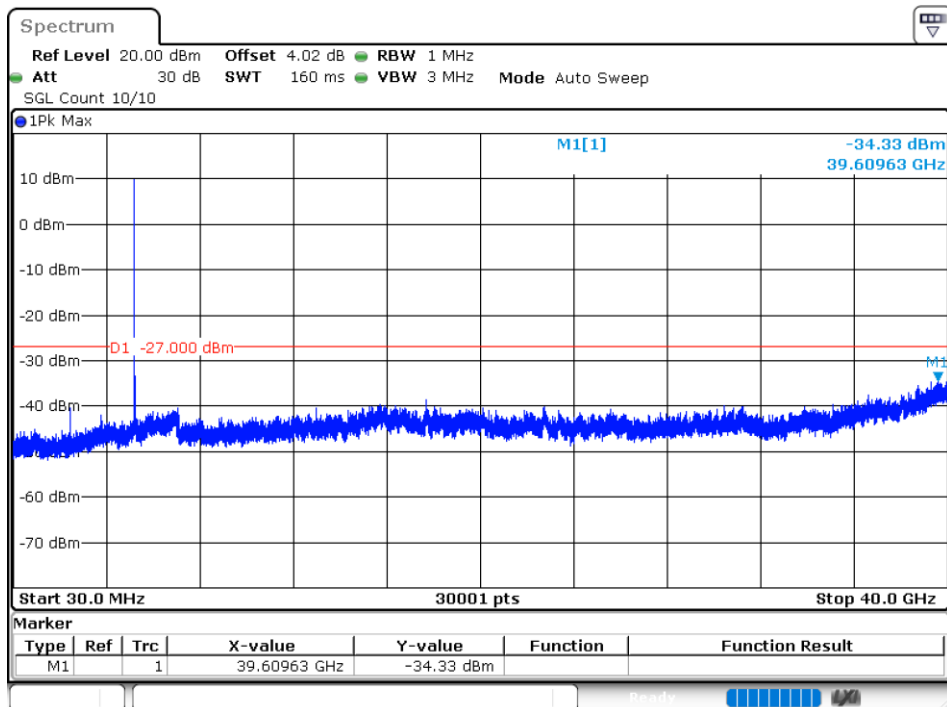
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT      | a    | 5180            | Ant1    | -34.01          | -27         | Pass    |
| NVNT      | a    | 5200            | Ant1    | -34.32          | -27         | Pass    |
| NVNT      | a    | 5240            | Ant1    | -34.13          | -27         | Pass    |
| NVNT      | n20  | 5180            | Ant1    | -34.45          | -27         | Pass    |
| NVNT      | n20  | 5200            | Ant1    | -33.7           | -27         | Pass    |
| NVNT      | n20  | 5240            | Ant1    | -33.5           | -27         | Pass    |
| NVNT      | n40  | 5190            | Ant1    | -34.19          | -27         | Pass    |
| NVNT      | n40  | 5230            | Ant1    | -33.29          | -27         | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | -34.41          | -27         | Pass    |
| NVNT      | ac20 | 5200            | Ant1    | -34             | -27         | Pass    |
| NVNT      | ac20 | 5240            | Ant1    | -32.93          | -27         | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | -33.76          | -27         | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | -34.48          | -27         | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | -33.07          | -27         | Pass    |

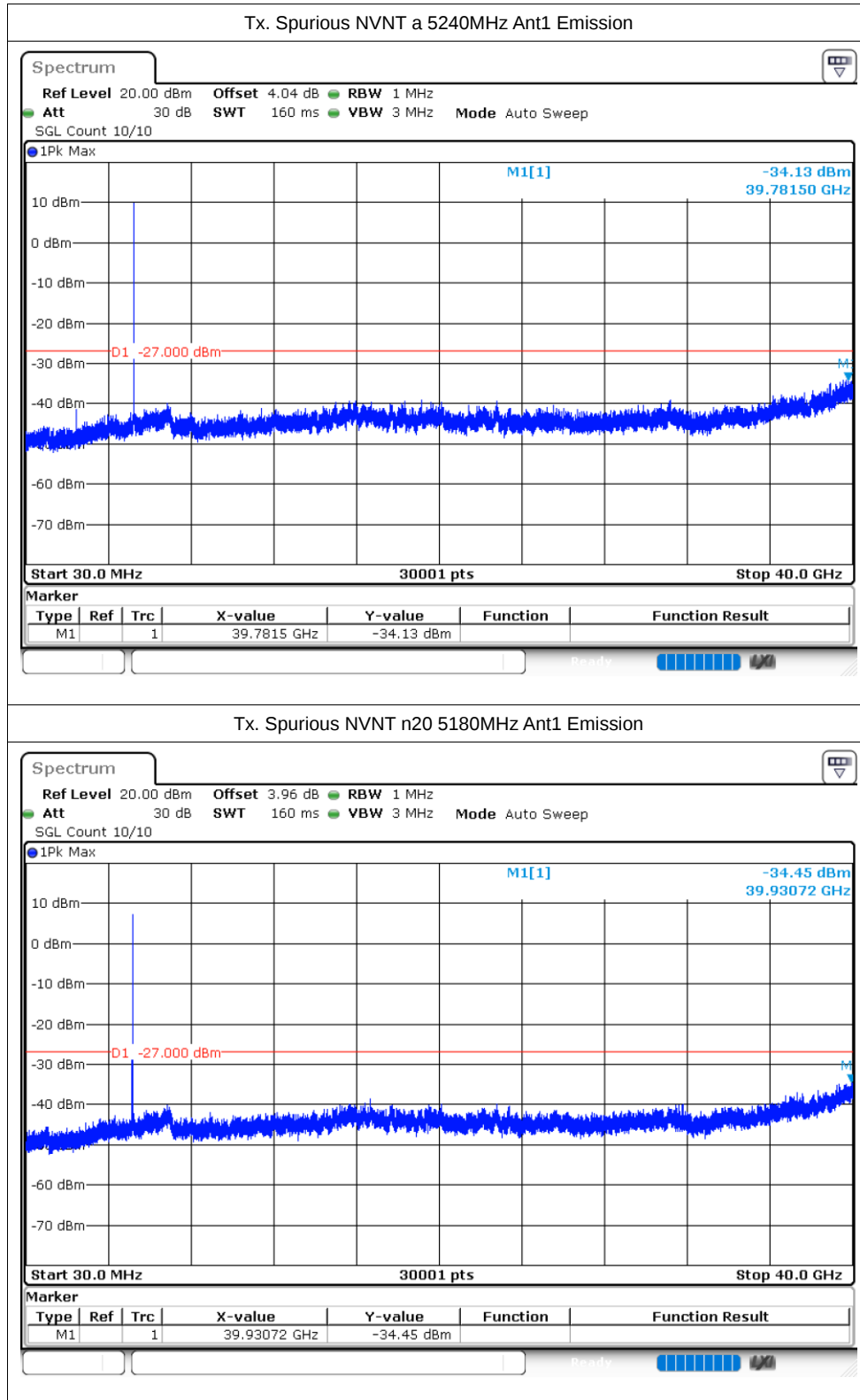
Test Graphs

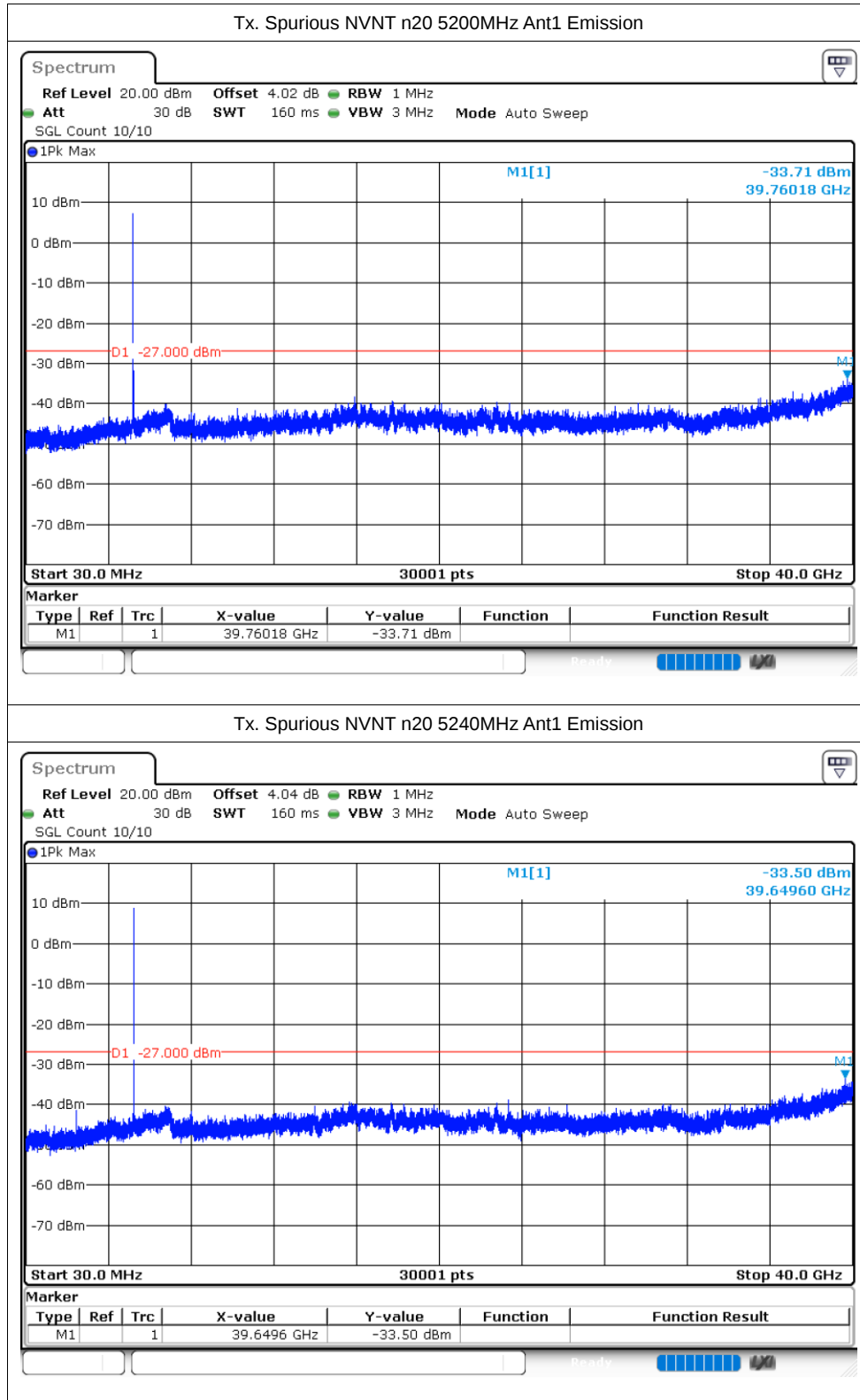
Tx. Spurious NVNT a 5180MHz Ant1 Emission

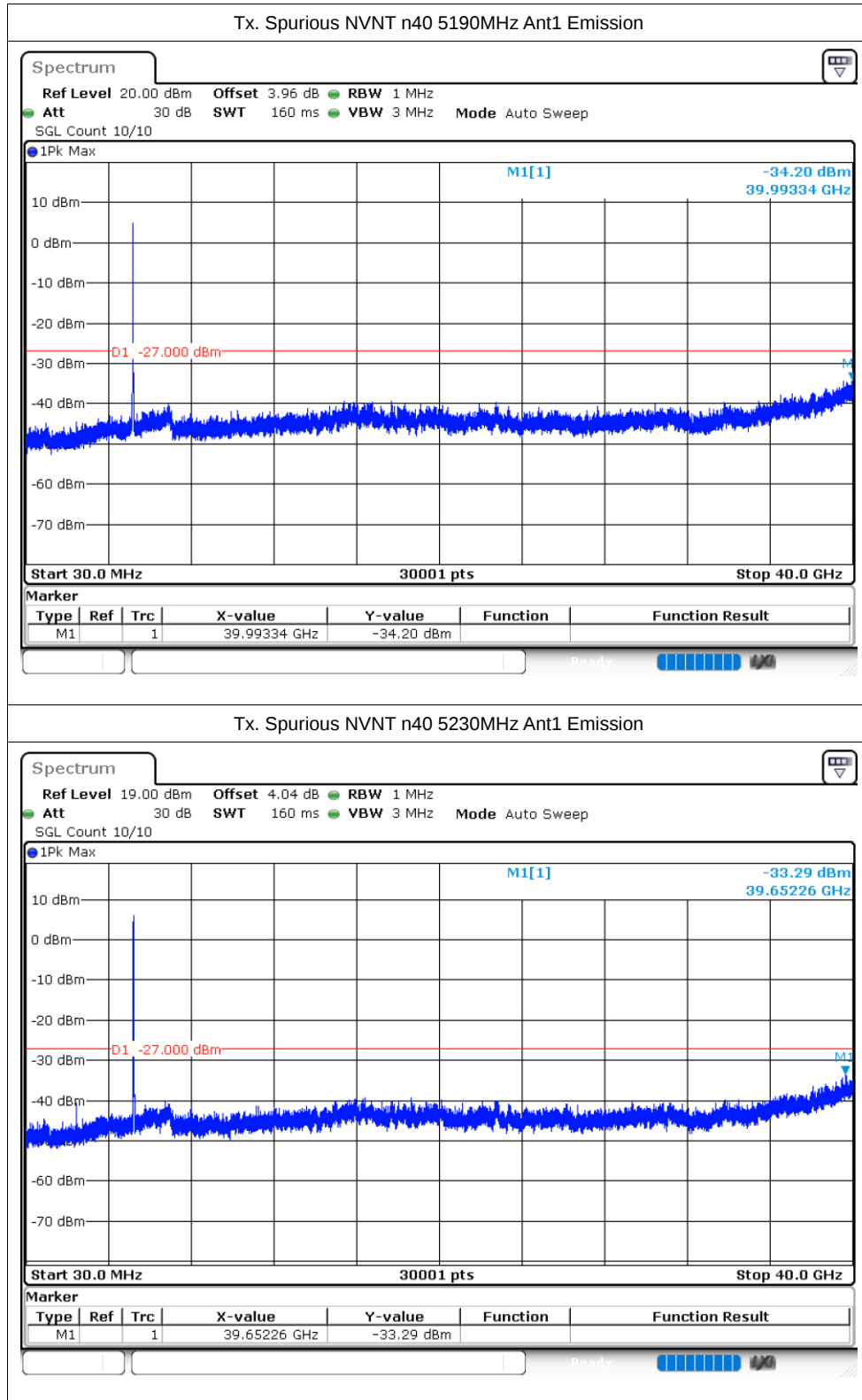


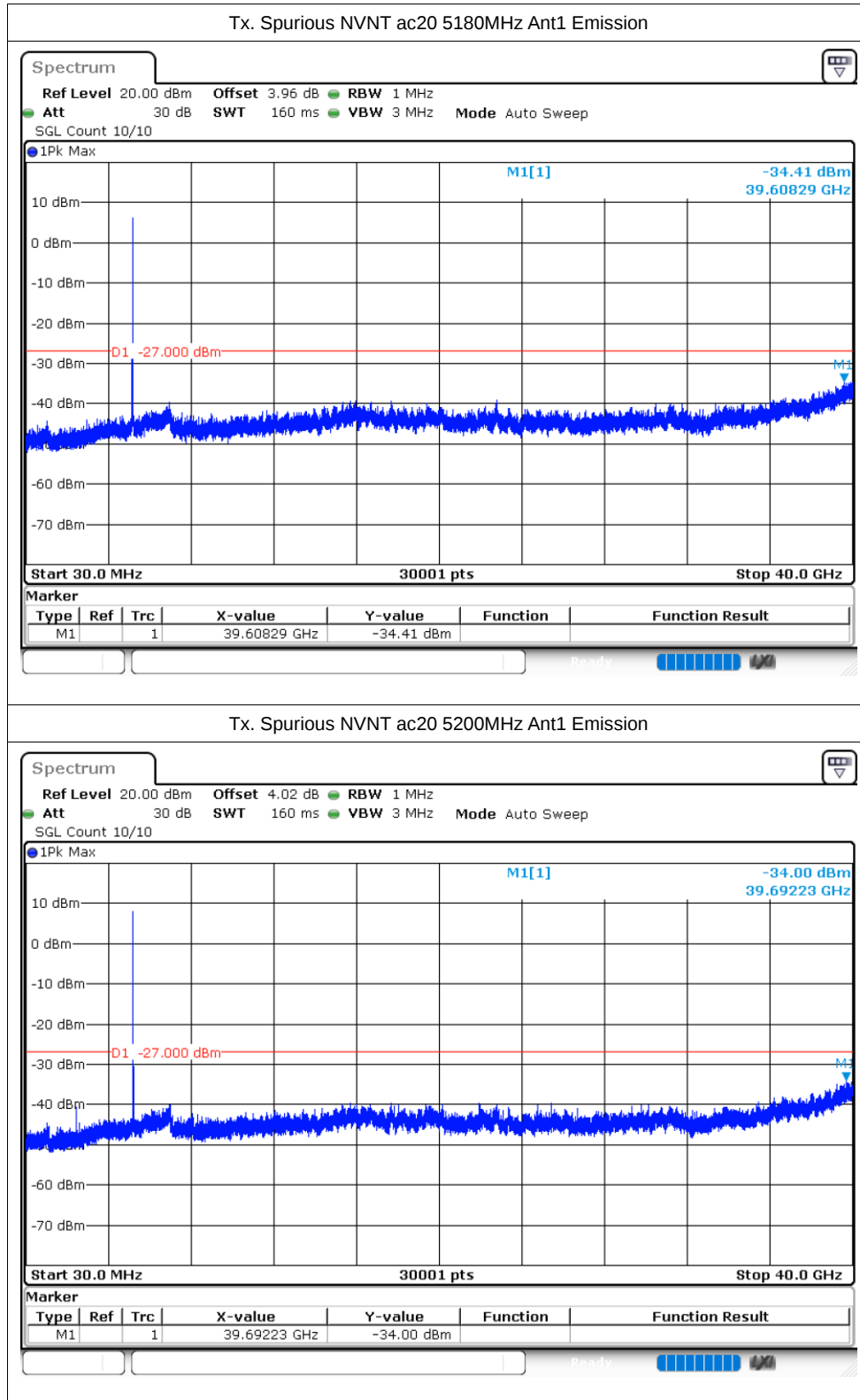
Tx. Spurious NVNT a 5200MHz Ant1 Emission

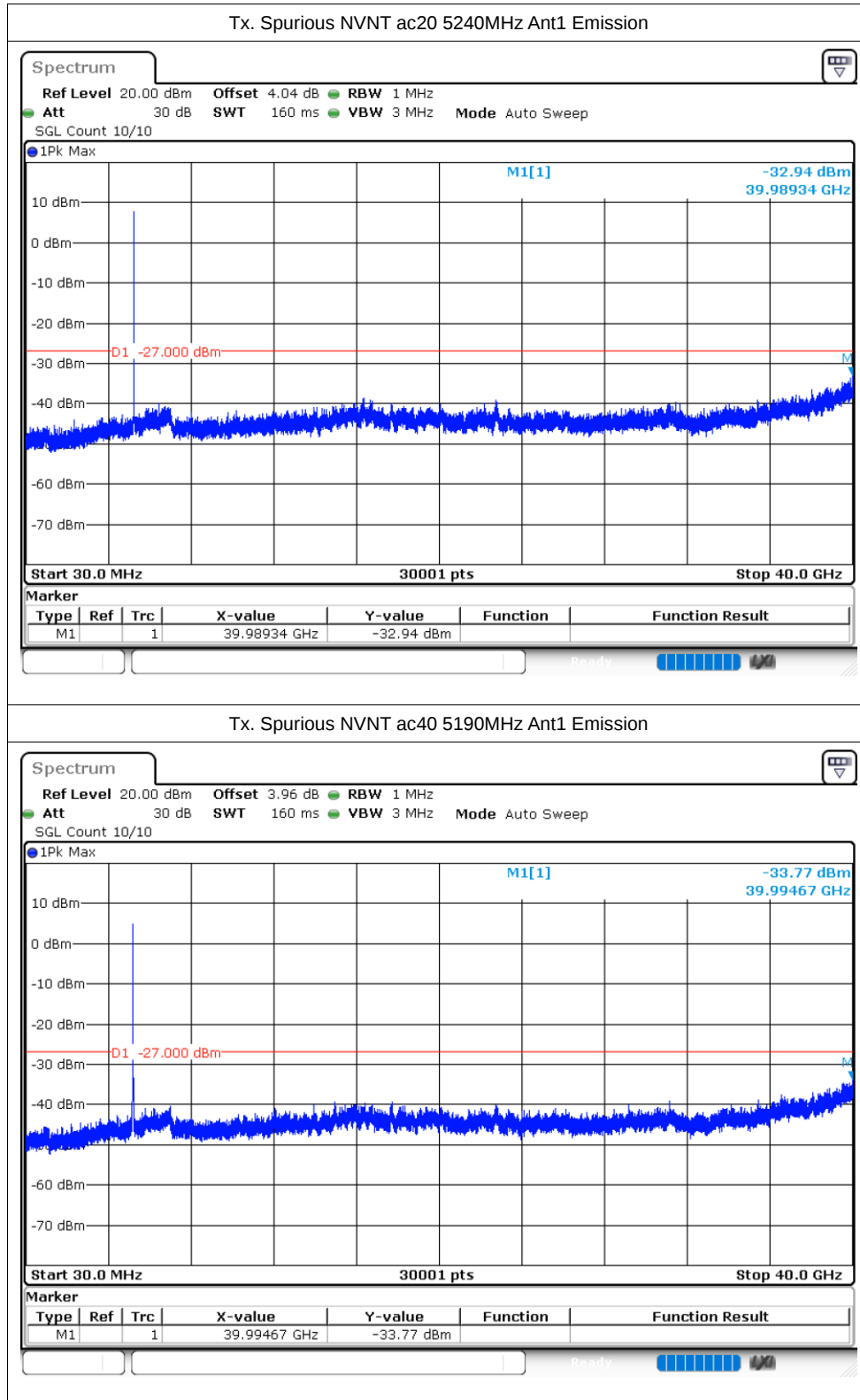


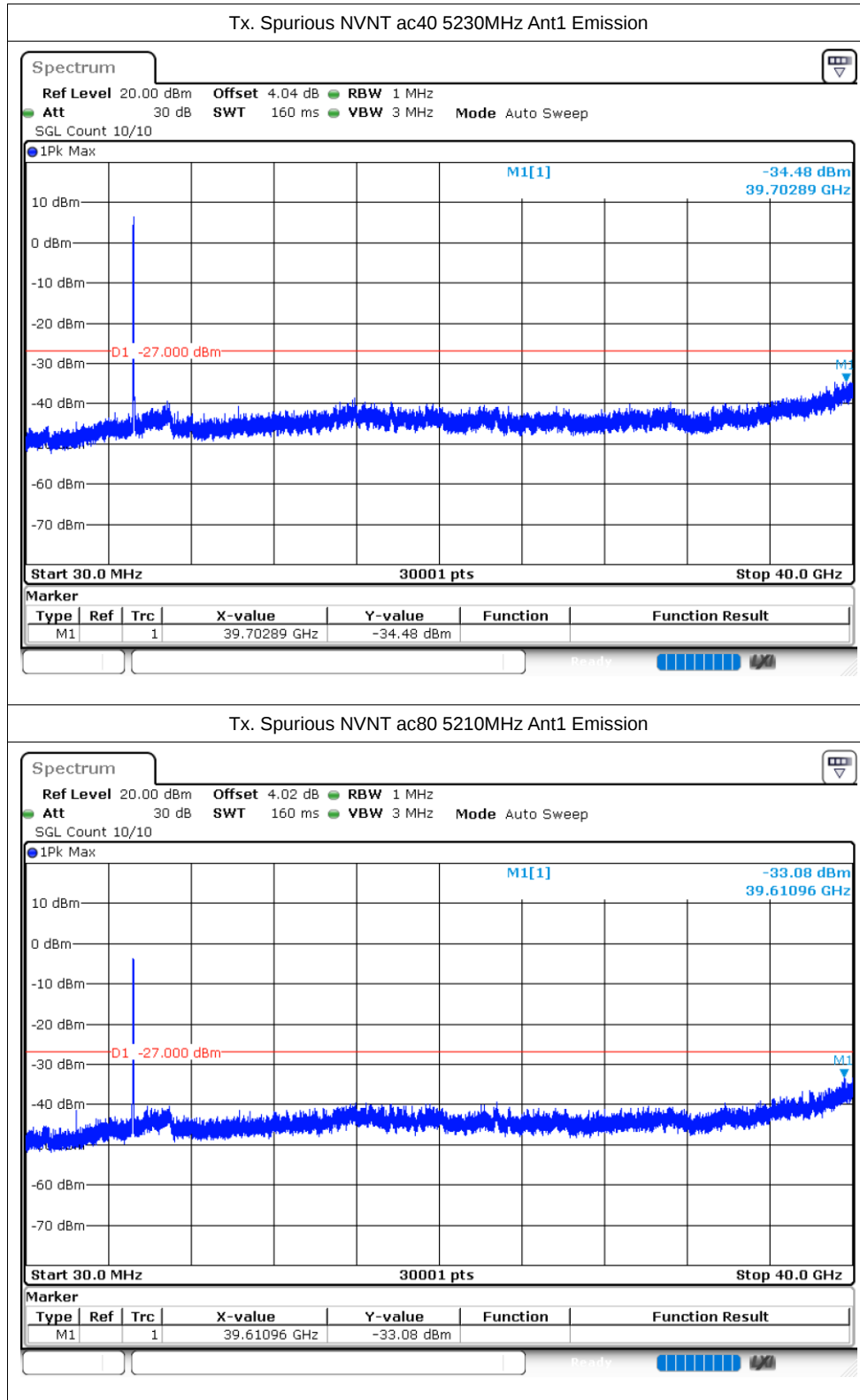












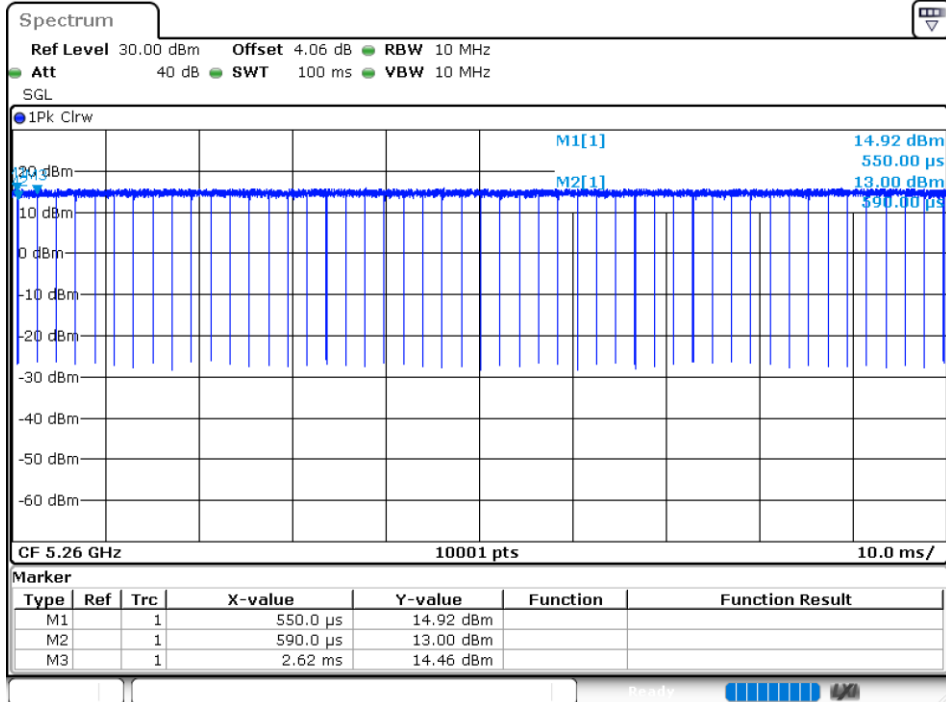
# WIFI 5.3G

## Duty Cycle

| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | a    | 5260            | Ant1    | 98.77          | 0.05                   | 0.49      |
| NVNT      | a    | 5280            | Ant1    | 98.77          | 0.05                   | 0.49      |
| NVNT      | a    | 5320            | Ant1    | 98.53          | 0.06                   | 0.49      |
| NVNT      | n20  | 5260            | Ant1    | 98.44          | 0.07                   | 0.53      |
| NVNT      | n20  | 5280            | Ant1    | 98.7           | 0.06                   | 0.53      |
| NVNT      | n20  | 5320            | Ant1    | 98.7           | 0.06                   | 0.53      |
| NVNT      | n40  | 5270            | Ant1    | 97.29          | 0.12                   | 1.09      |
| NVNT      | n40  | 5310            | Ant1    | 97.29          | 0.12                   | 1.09      |
| NVNT      | ac20 | 5260            | Ant1    | 98.6           | 0.06                   | 0.53      |
| NVNT      | ac20 | 5280            | Ant1    | 98.6           | 0.06                   | 0.53      |
| NVNT      | ac20 | 5320            | Ant1    | 98.59          | 0.06                   | 0.53      |
| NVNT      | ac40 | 5270            | Ant1    | 97.33          | 0.12                   | 1.06      |
| NVNT      | ac40 | 5310            | Ant1    | 97.32          | 0.12                   | 1.06      |
| NVNT      | ac80 | 5290            | Ant1    | 90.63          | 0.43                   | 2.33      |

Test Graphs

Duty Cycle NVNT a 5260MHz Ant1



Duty Cycle NVNT a 5280MHz Ant1

