

# WIFI 5.2G

## Duty Cycle

| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | a    | 5180            | Ant1    | 67.69          | 1.69                   | 5.88      |
| NVNT      | a    | 5200            | Ant1    | 67.7           | 1.69                   | 5.88      |
| NVNT      | a    | 5240            | Ant1    | 67.68          | 1.7                    | 5.88      |
| NVNT      | a    | 5180            | Ant2    | 67.73          | 1.69                   | 5.56      |
| NVNT      | a    | 5200            | Ant2    | 67.72          | 1.69                   | 5.88      |
| NVNT      | a    | 5240            | Ant2    | 67.72          | 1.69                   | 5.88      |
| NVNT      | n20  | 5180            | Ant1    | 66.19          | 1.79                   | 6.25      |
| NVNT      | n20  | 5200            | Ant1    | 66.13          | 1.8                    | 5.88      |
| NVNT      | n20  | 5240            | Ant1    | 66.19          | 1.79                   | 5.88      |
| NVNT      | n20  | 5180            | Ant2    | 66.19          | 1.79                   | 6.25      |
| NVNT      | n20  | 5200            | Ant2    | 66.16          | 1.79                   | 6.25      |
| NVNT      | n20  | 5240            | Ant2    | 66.26          | 1.79                   | 5.88      |
| NVNT      | n40  | 5190            | Ant1    | 55.2           | 2.58                   | 10        |
| NVNT      | n40  | 5230            | Ant1    | 55.15          | 2.58                   | 10        |
| NVNT      | n40  | 5190            | Ant2    | 55.29          | 2.57                   | 10        |
| NVNT      | n40  | 5230            | Ant2    | 55.21          | 2.58                   | 10        |
| NVNT      | ac20 | 5180            | Ant1    | 63.98          | 1.94                   | 7.14      |
| NVNT      | ac20 | 5200            | Ant1    | 63.97          | 1.94                   | 6.67      |
| NVNT      | ac20 | 5240            | Ant1    | 63.98          | 1.94                   | 6.67      |
| NVNT      | ac20 | 5180            | Ant2    | 63.82          | 1.95                   | 6.67      |
| NVNT      | ac20 | 5200            | Ant2    | 63.99          | 1.94                   | 7.14      |
| NVNT      | ac20 | 5240            | Ant2    | 63.88          | 1.95                   | 6.67      |
| NVNT      | ac40 | 5190            | Ant1    | 52.19          | 2.82                   | 11.11     |
| NVNT      | ac40 | 5230            | Ant1    | 52.22          | 2.82                   | 11.11     |
| NVNT      | ac40 | 5190            | Ant2    | 52.4           | 2.81                   | 11.11     |
| NVNT      | ac40 | 5230            | Ant2    | 52.39          | 2.81                   | 11.11     |
| NVNT      | ac80 | 5210            | Ant1    | 45.01          | 3.47                   | 16.67     |
| NVNT      | ac80 | 5210            | Ant2    | 48.43          | 3.15                   | 16.67     |
| NVNT      | ax20 | 5180            | Ant1    | 59.11          | 2.28                   | 8.33      |
| NVNT      | ax20 | 5200            | Ant1    | 59.2           | 2.28                   | 8.33      |
| NVNT      | ax20 | 5240            | Ant1    | 59.25          | 2.27                   | 8.33      |
| NVNT      | ax20 | 5180            | Ant2    | 59.17          | 2.28                   | 8.33      |
| NVNT      | ax20 | 5200            | Ant2    | 59.2           | 2.28                   | 8.33      |
| NVNT      | ax20 | 5240            | Ant2    | 59.18          | 2.28                   | 8.33      |
| NVNT      | ax40 | 5190            | Ant1    | 52.31          | 2.81                   | 11.11     |

|      |      |      |      |       |      |       |
|------|------|------|------|-------|------|-------|
| NVNT | ax40 | 5230 | Ant1 | 53.19 | 2.74 | 11.11 |
| NVNT | ax40 | 5190 | Ant2 | 55.23 | 2.58 | 10    |
| NVNT | ax40 | 5230 | Ant2 | 55.21 | 2.58 | 10    |
| NVNT | ax80 | 5210 | Ant1 | 50.76 | 2.94 | 12.5  |
| NVNT | ax80 | 5210 | Ant2 | 50.57 | 2.96 | 12.5  |

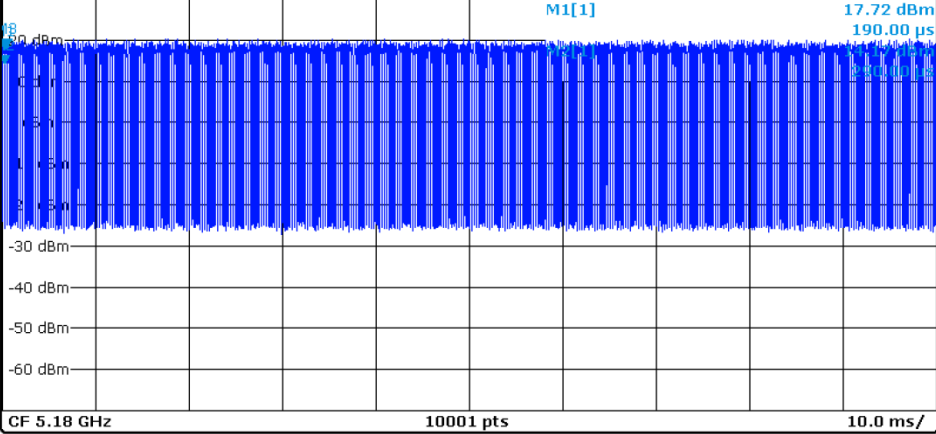
### Test Graphs

#### Duty Cycle NVNT a 5180MHz Ant1

##### Spectrum

Ref Level 30.00 dBm Offset 3.96 dB RBW 10 MHz  
 Att 40 dB SWT 100 ms VBW 10 MHz  
 SGL

1Pk Clrw



##### Marker

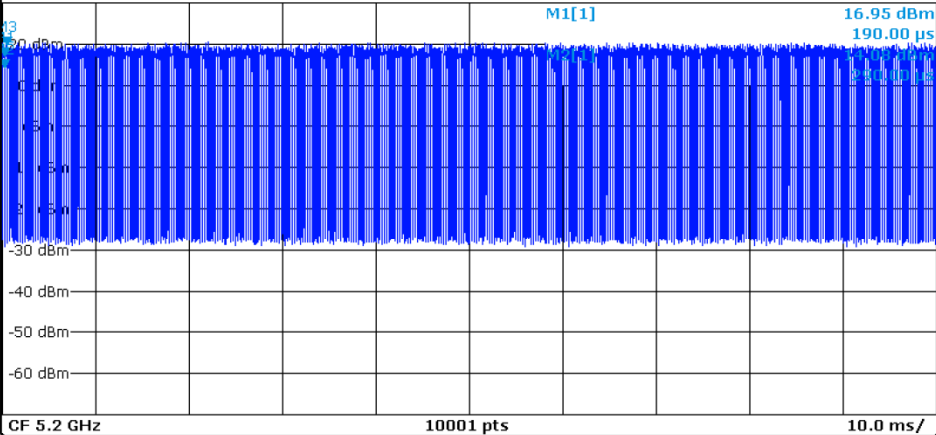
| Type | Ref | Trc | X-value       | Y-value   | Function | Function Result |
|------|-----|-----|---------------|-----------|----------|-----------------|
| M1   |     | 1   | 190.0 $\mu$ s | 17.72 dBm |          |                 |
| M2   |     | 1   | 290.0 $\mu$ s | 14.17 dBm |          |                 |
| M3   |     | 1   | 460.0 $\mu$ s | 18.14 dBm |          |                 |

#### Duty Cycle NVNT a 5200MHz Ant1

##### Spectrum

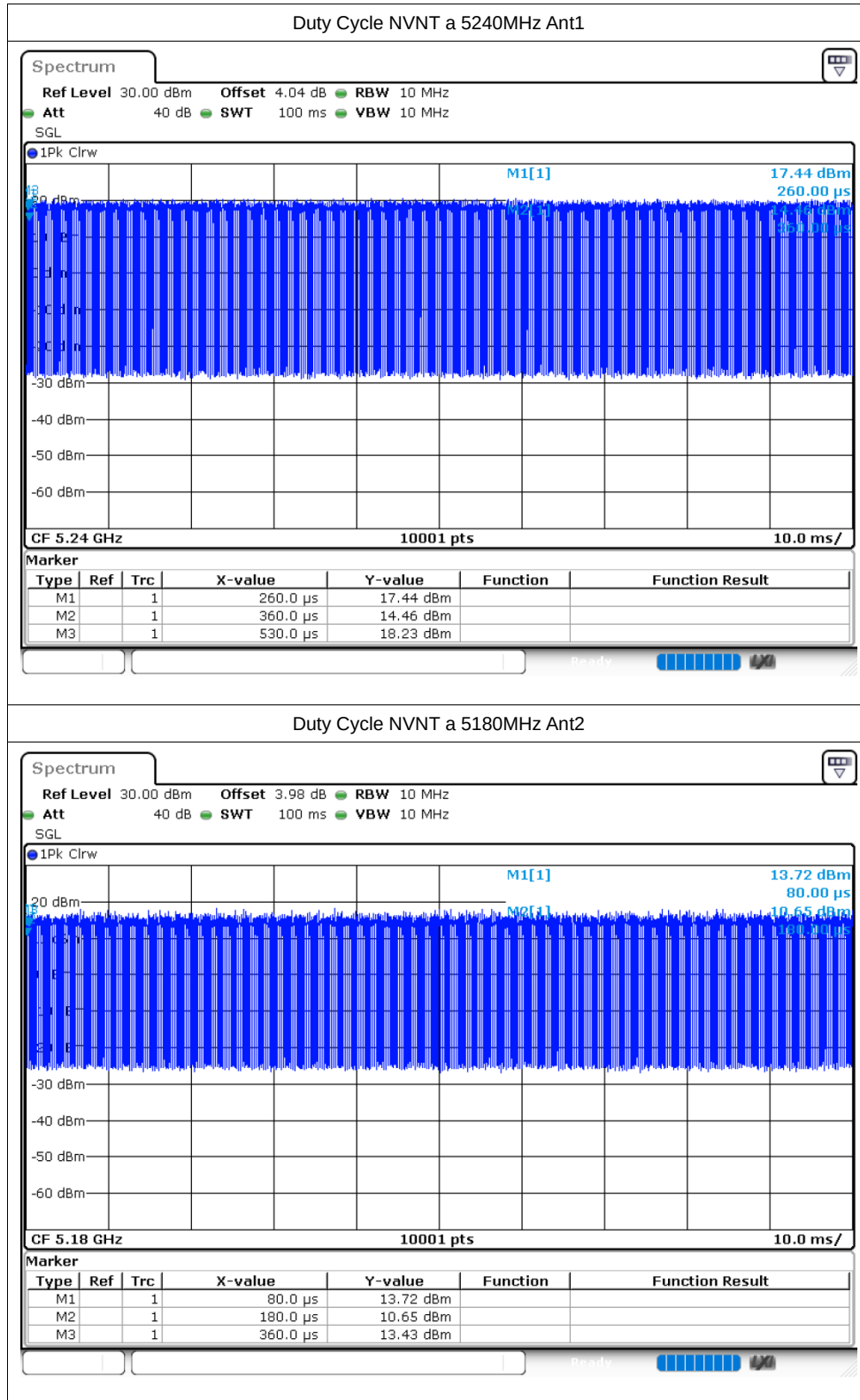
Ref Level 30.00 dBm Offset 4.02 dB RBW 10 MHz  
 Att 40 dB SWT 100 ms VBW 10 MHz  
 SGL

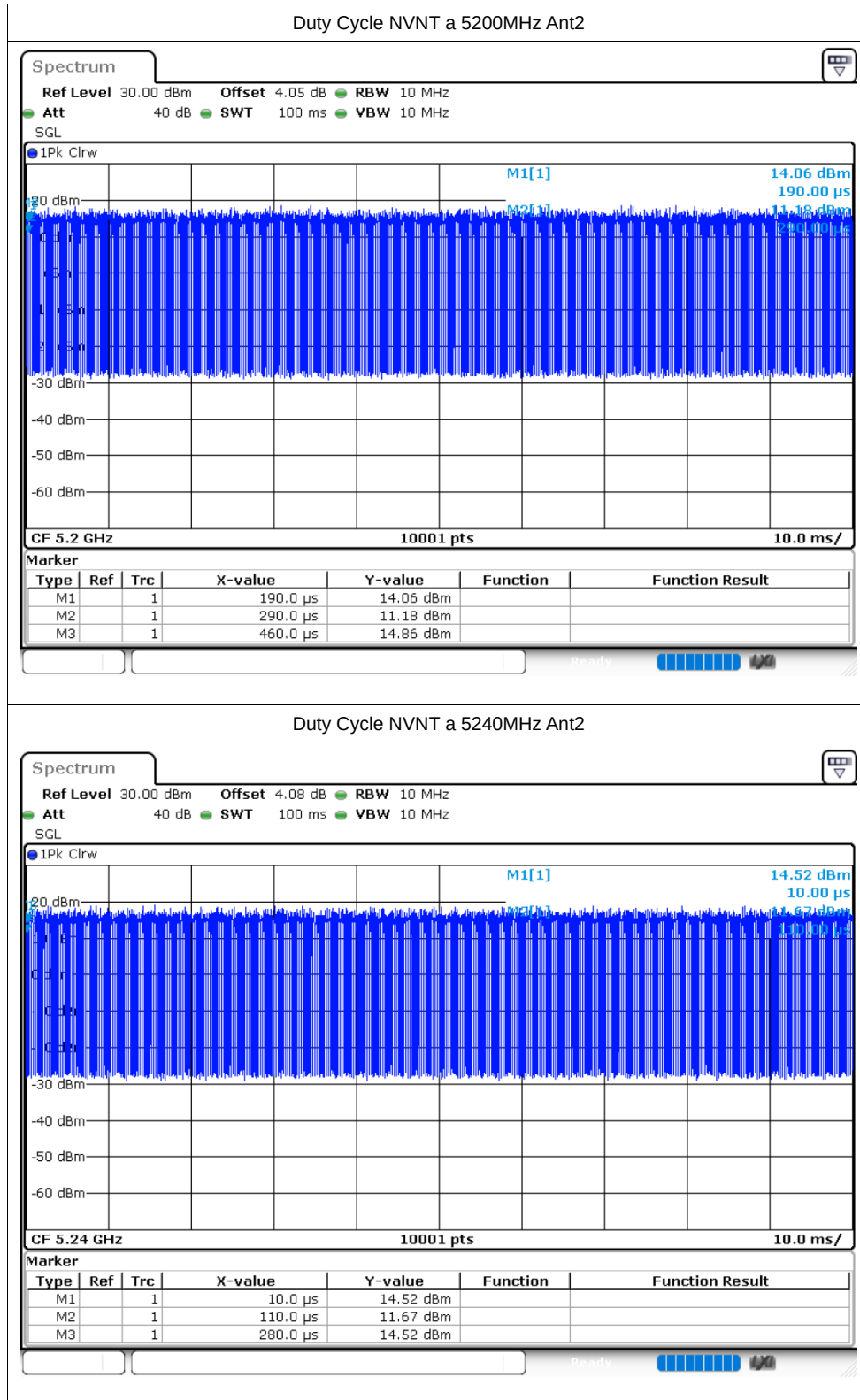
1Pk Clrw

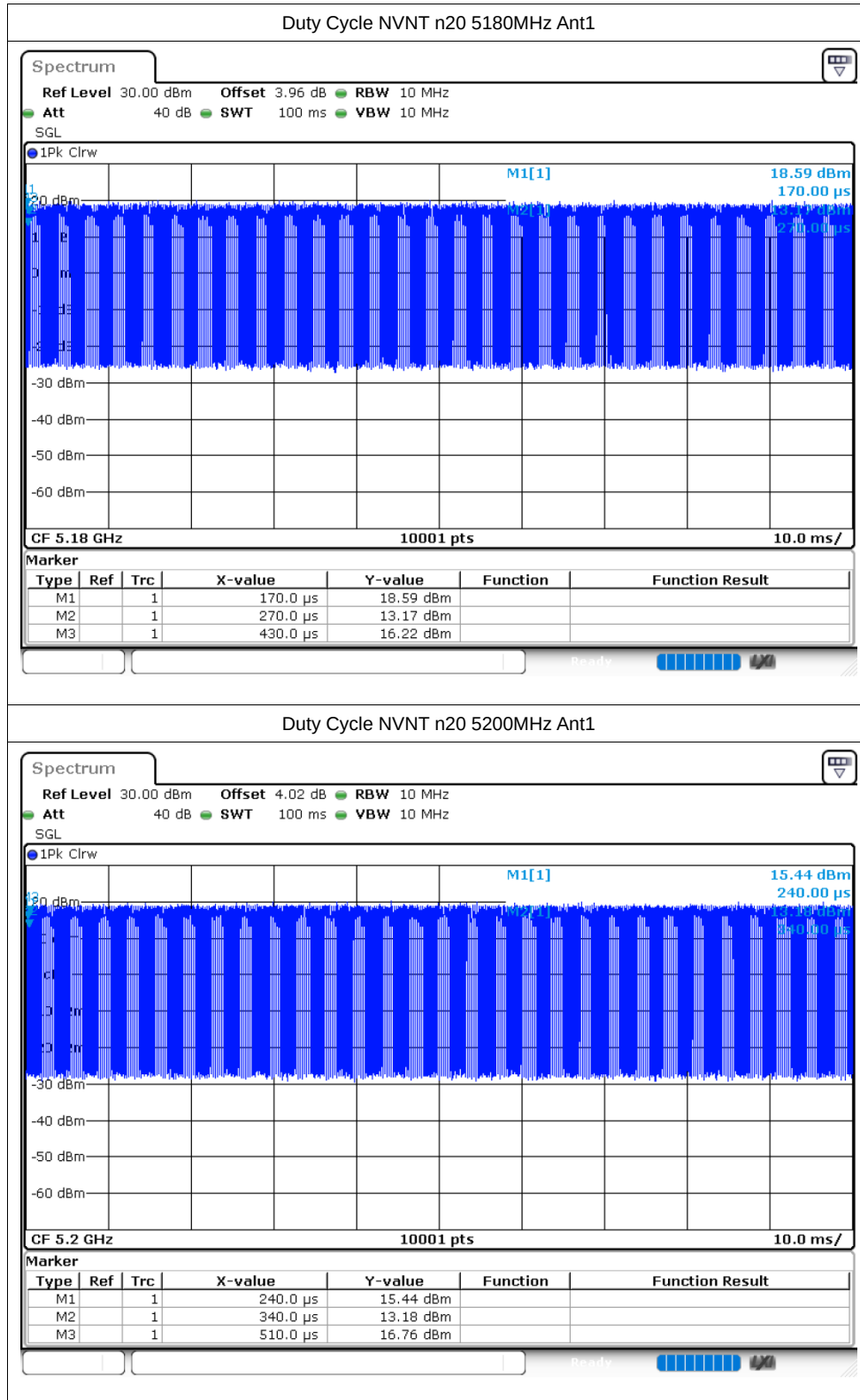


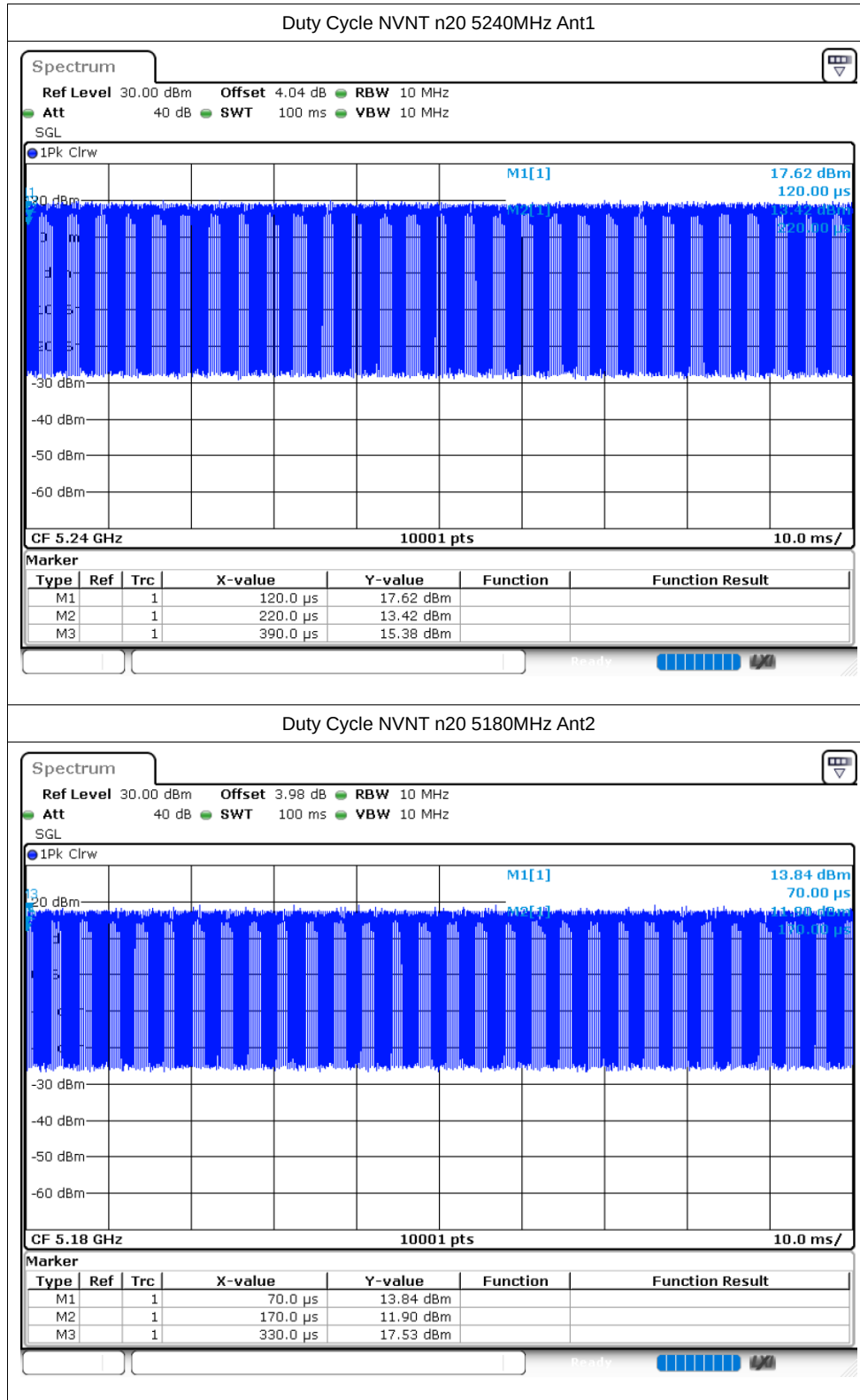
##### Marker

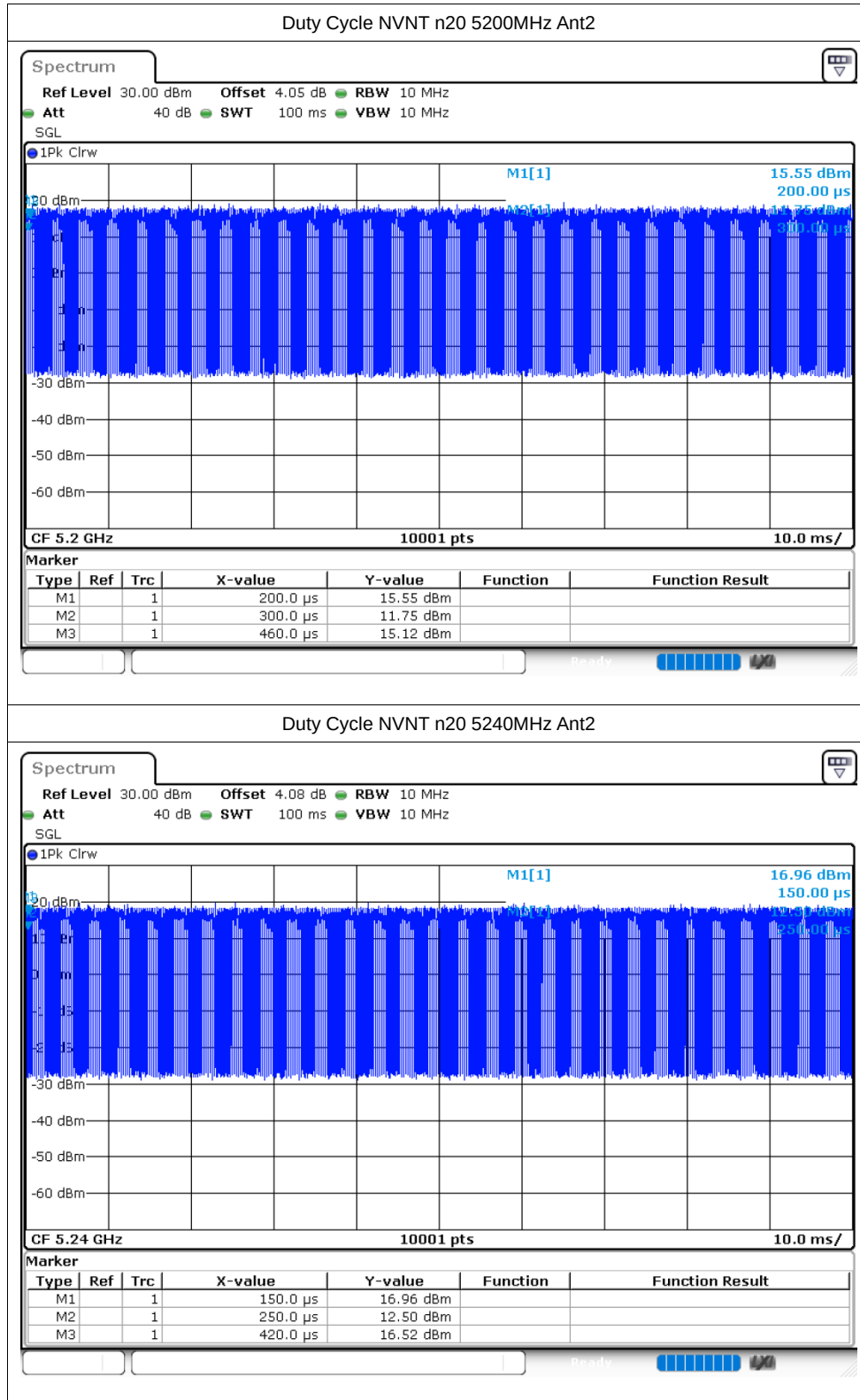
| Type | Ref | Trc | X-value       | Y-value   | Function | Function Result |
|------|-----|-----|---------------|-----------|----------|-----------------|
| M1   |     | 1   | 190.0 $\mu$ s | 16.95 dBm |          |                 |
| M2   |     | 1   | 290.0 $\mu$ s | 14.08 dBm |          |                 |
| M3   |     | 1   | 460.0 $\mu$ s | 19.55 dBm |          |                 |

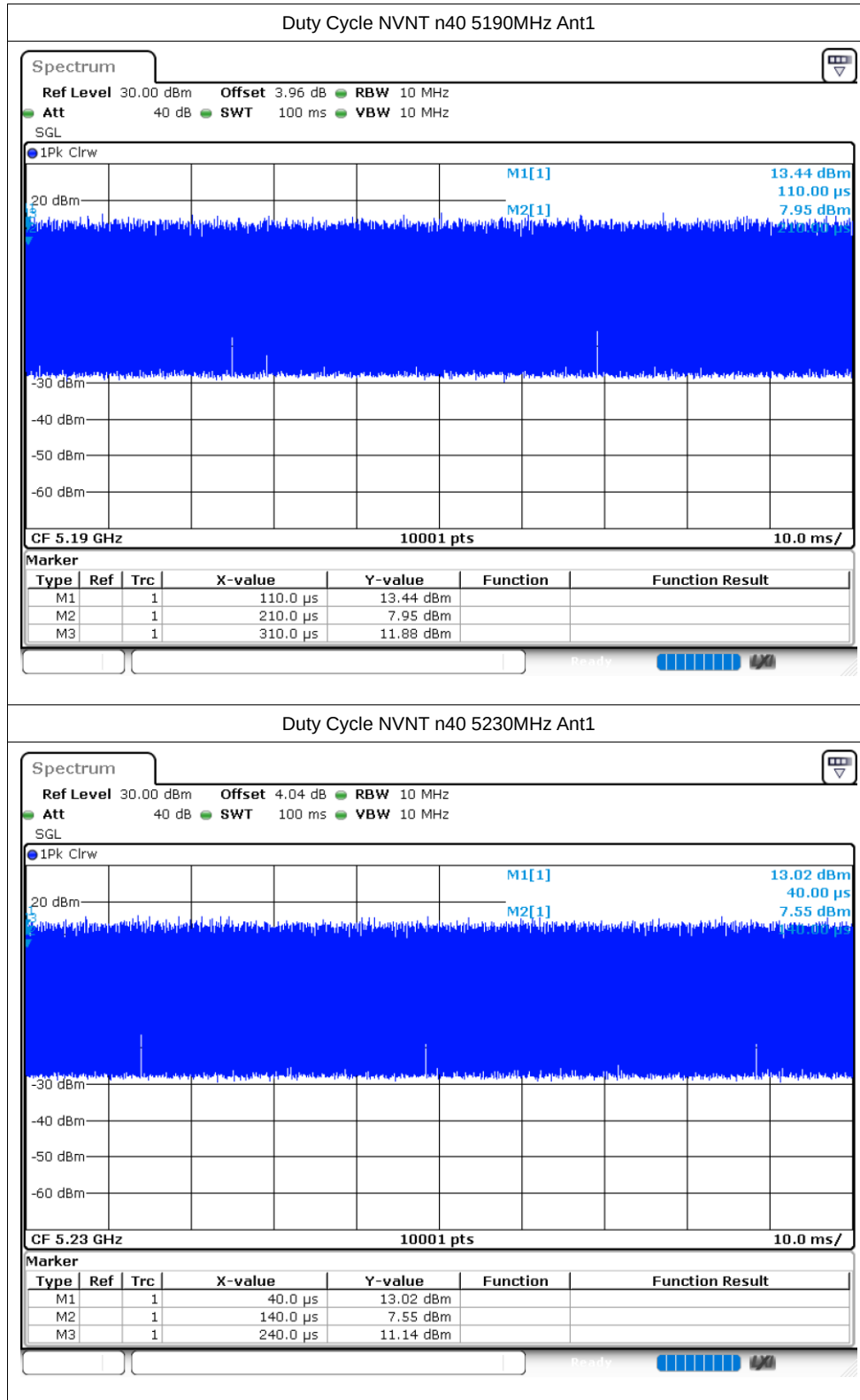


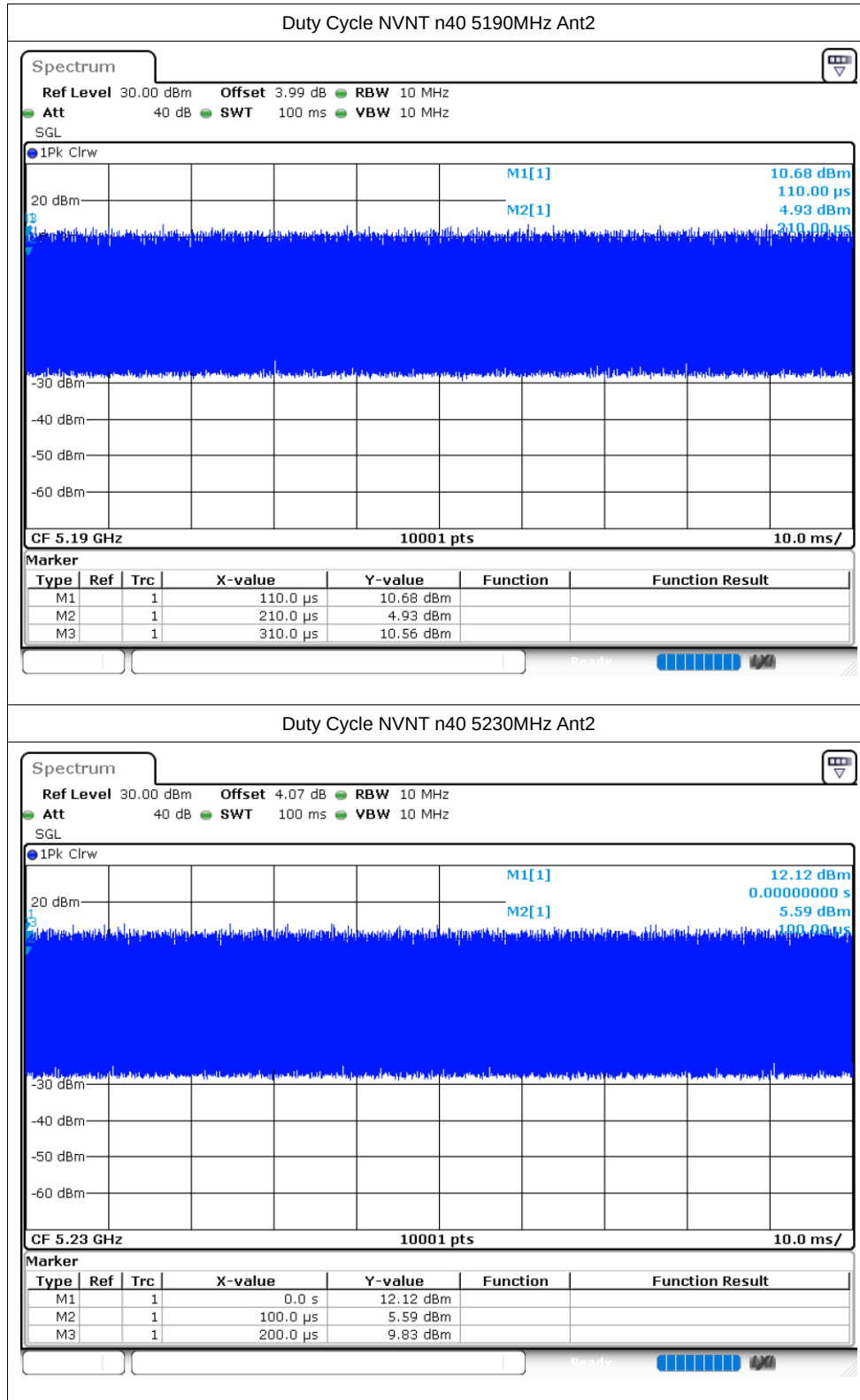


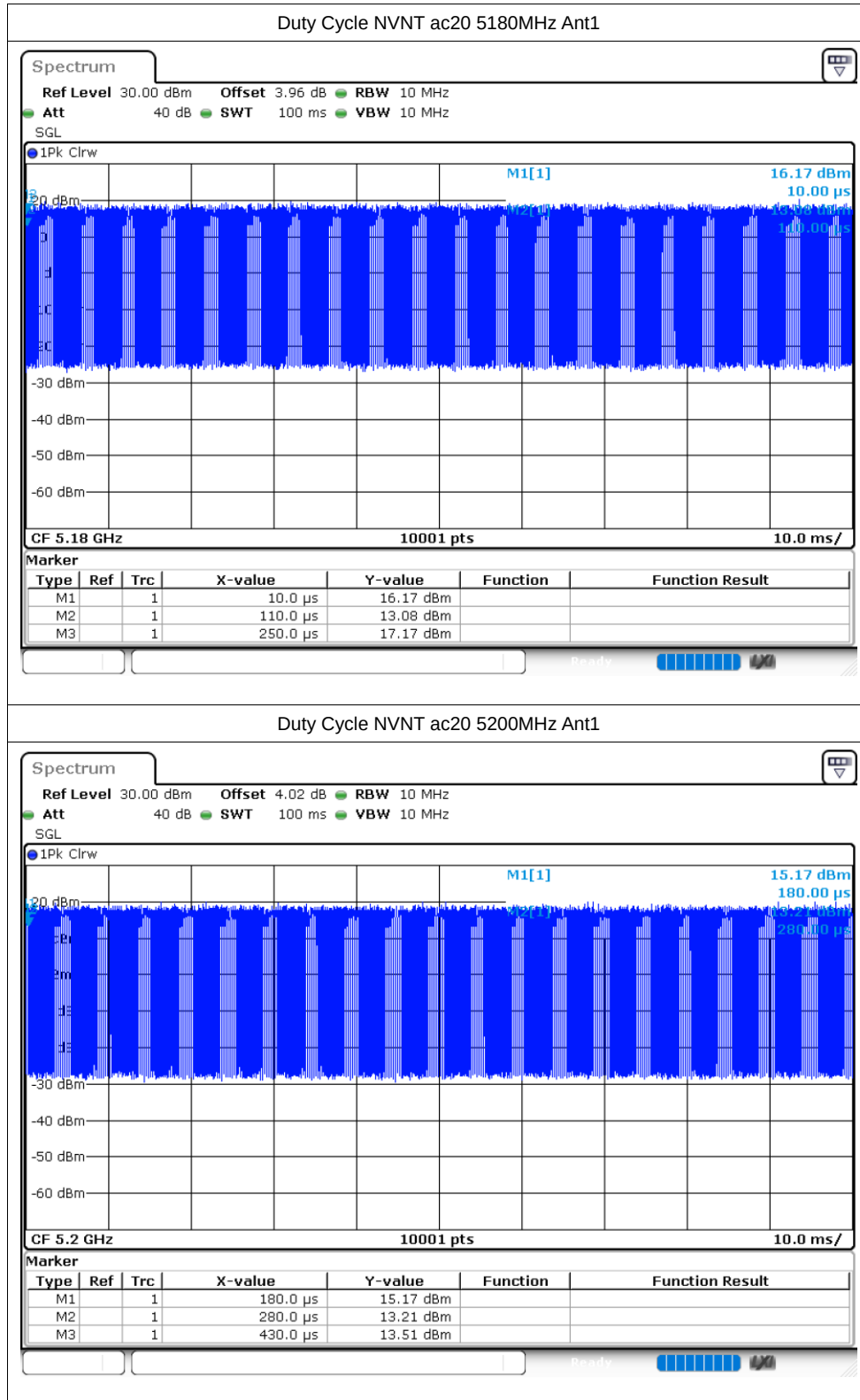


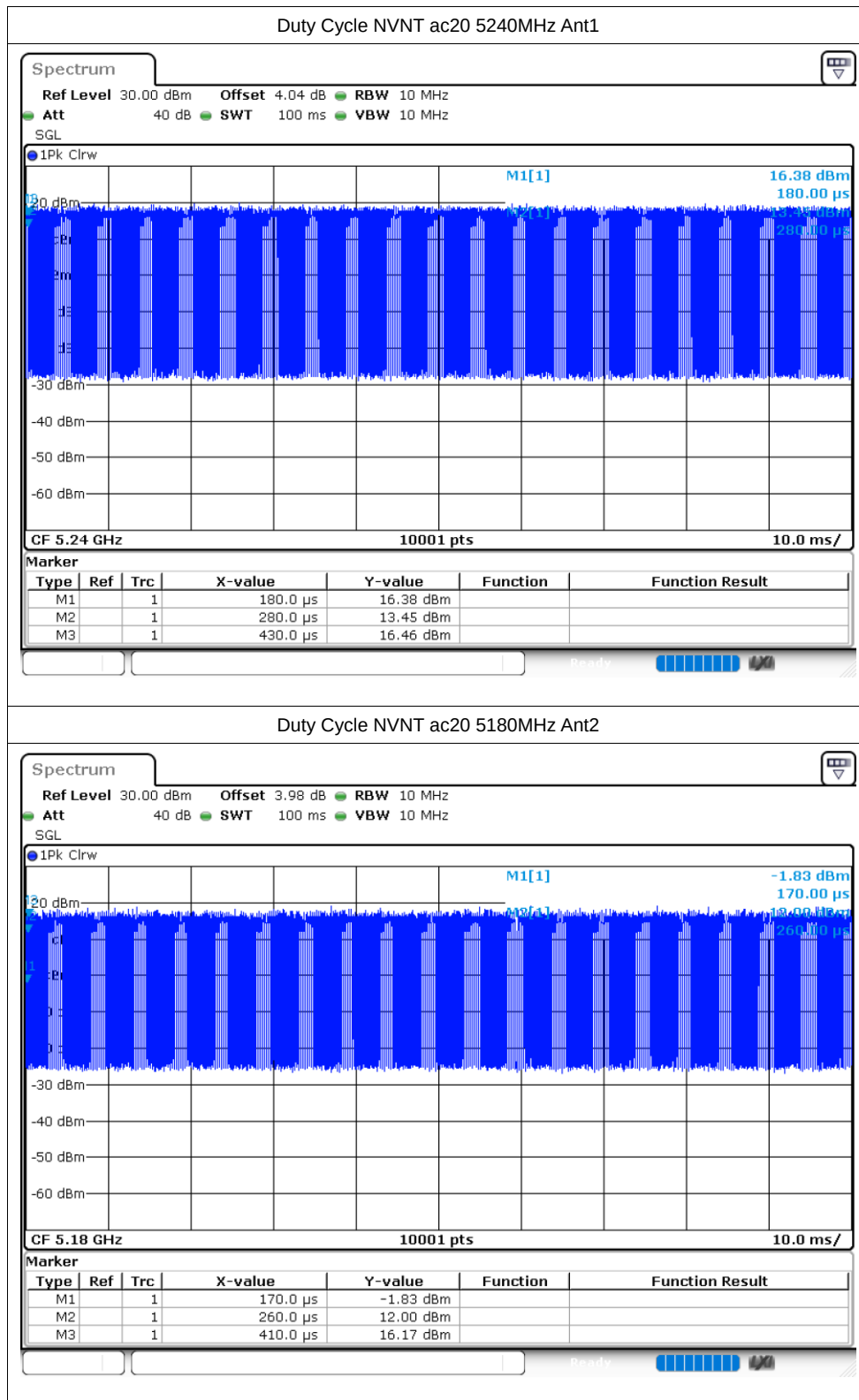


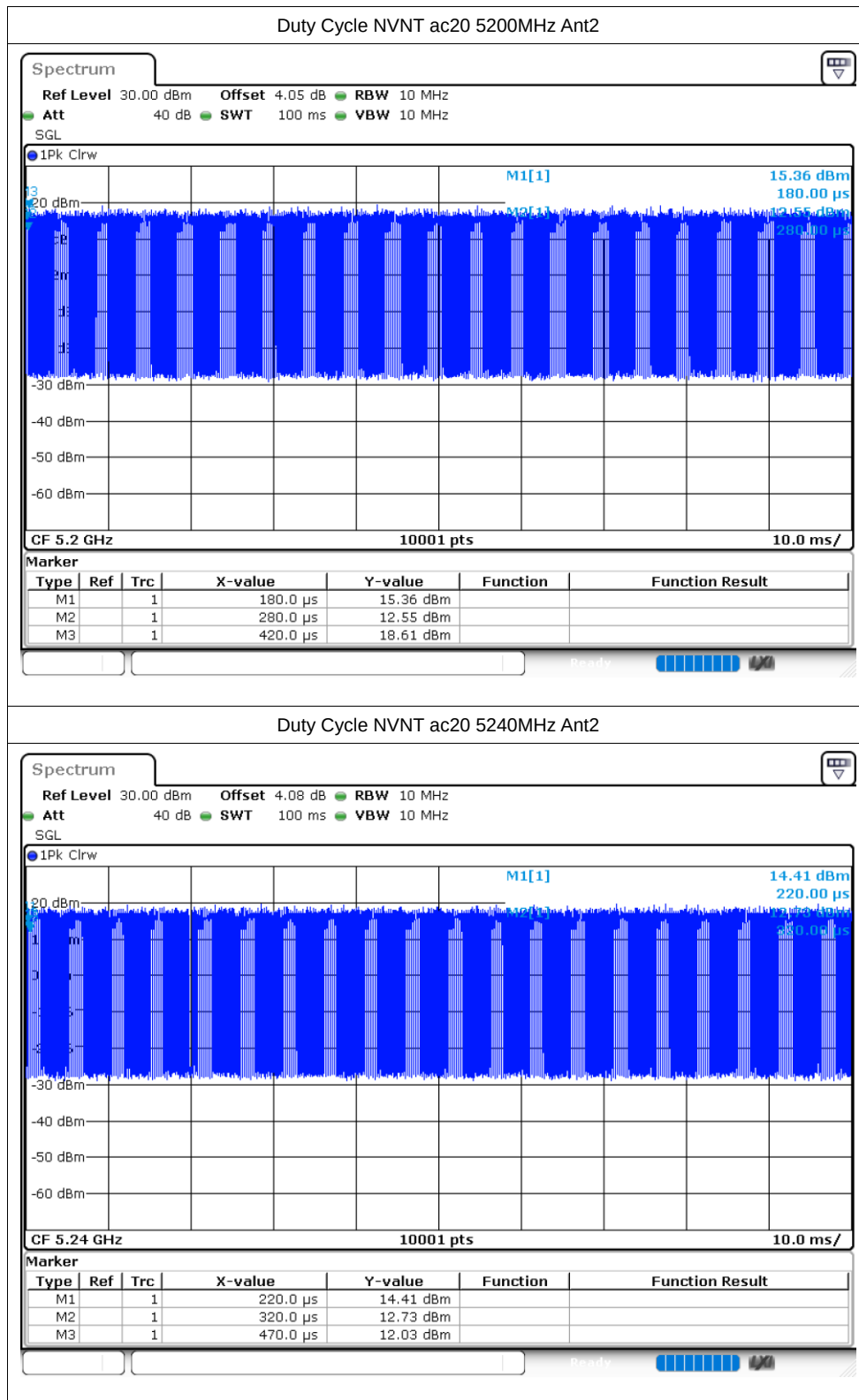


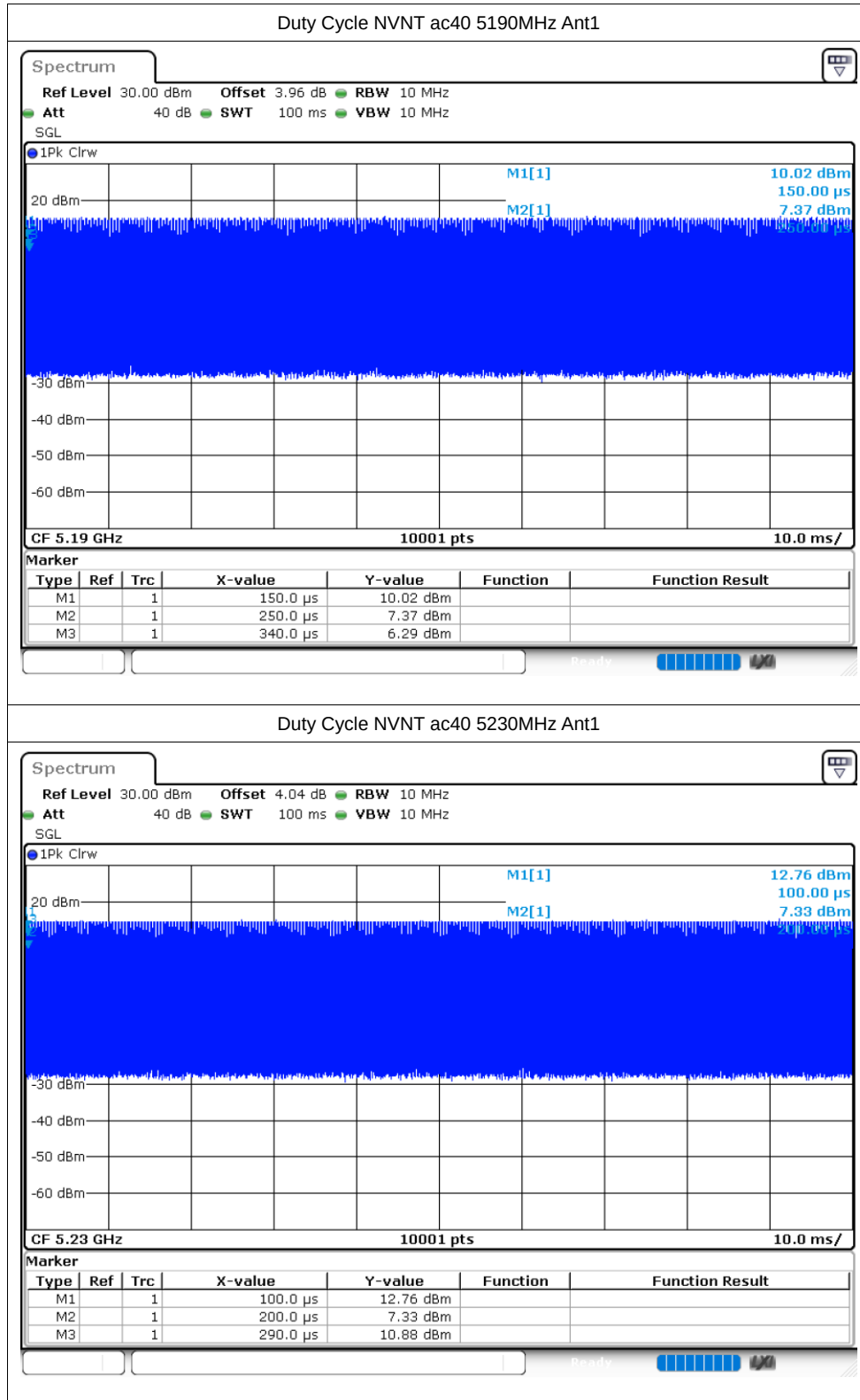


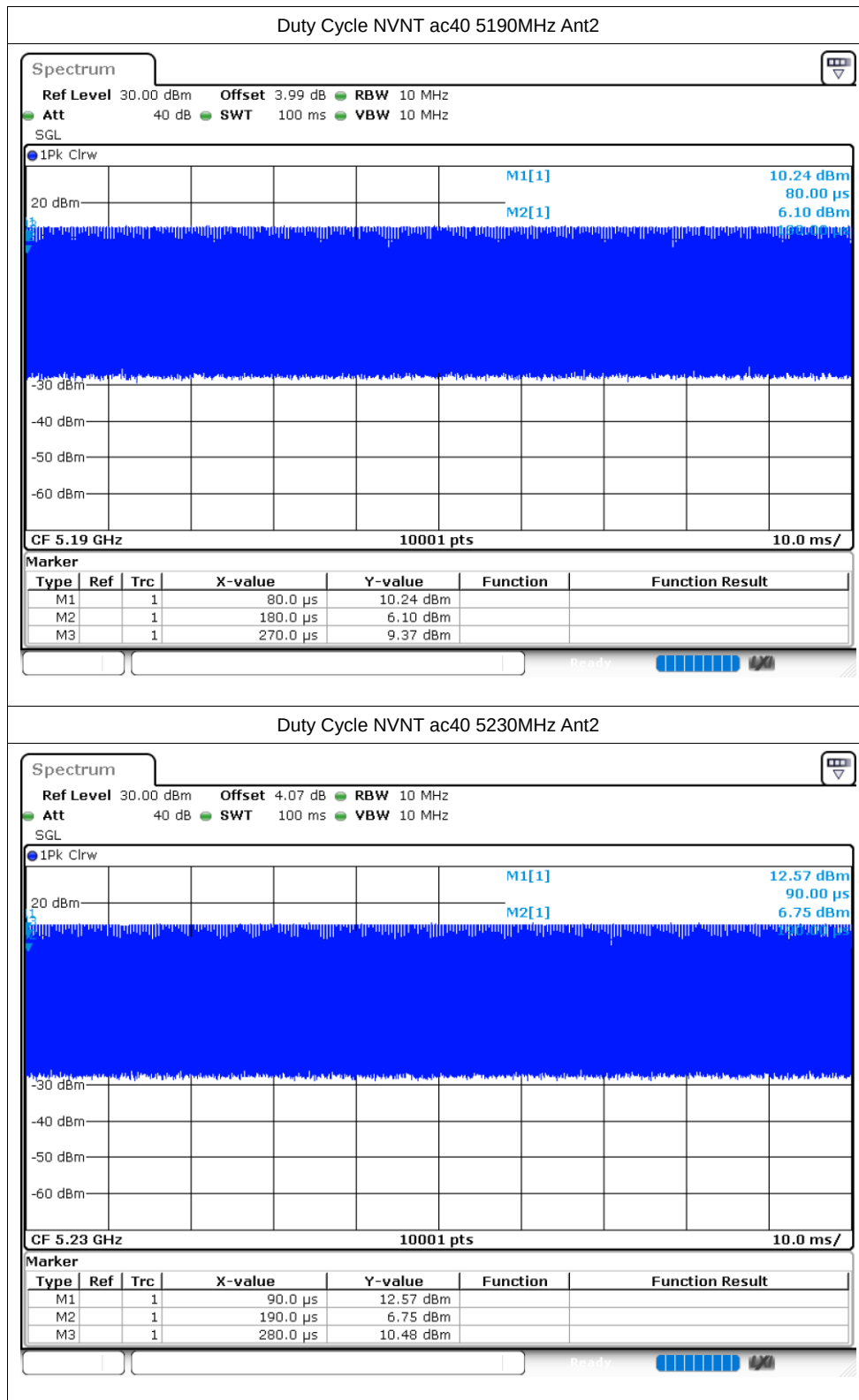


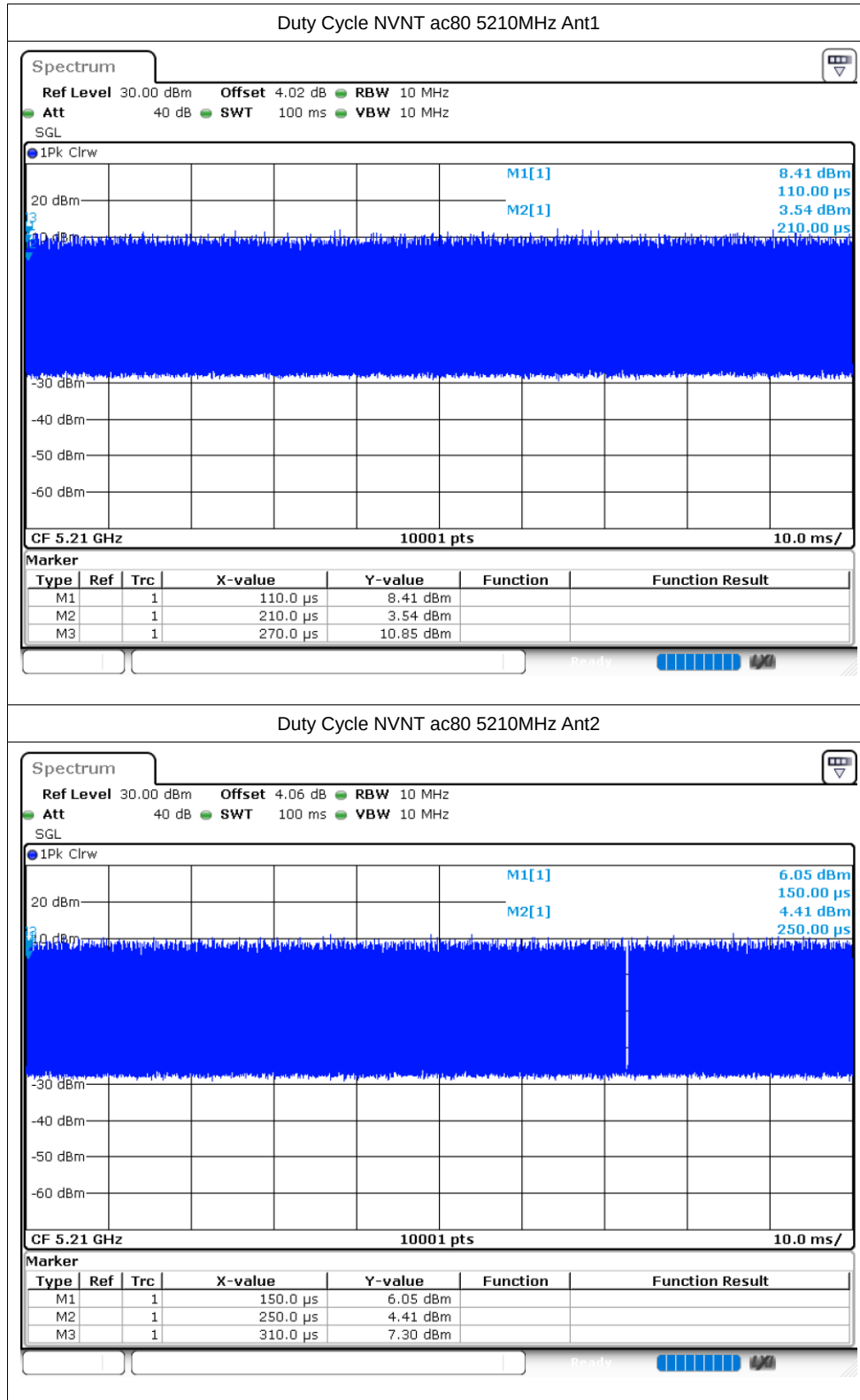


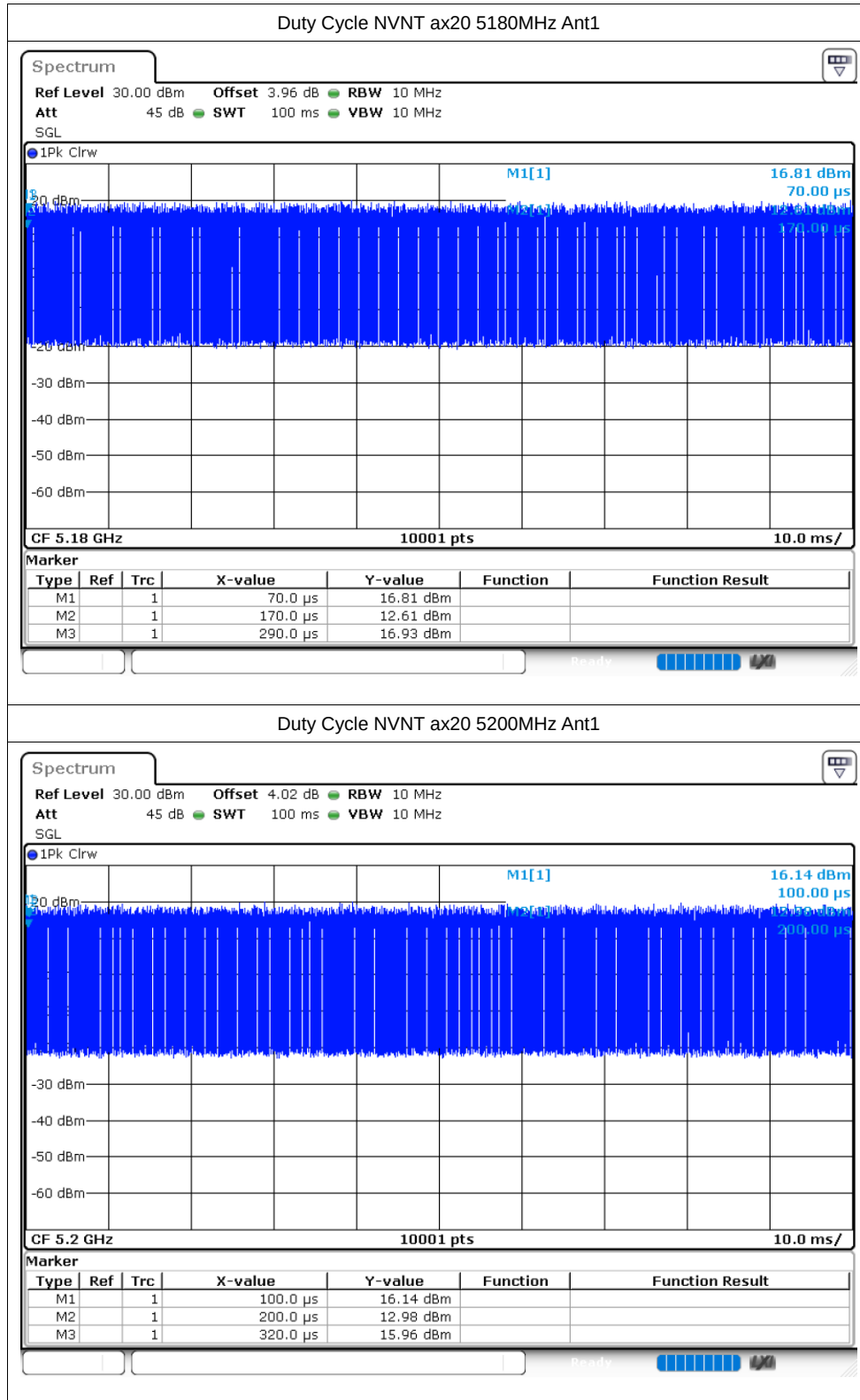


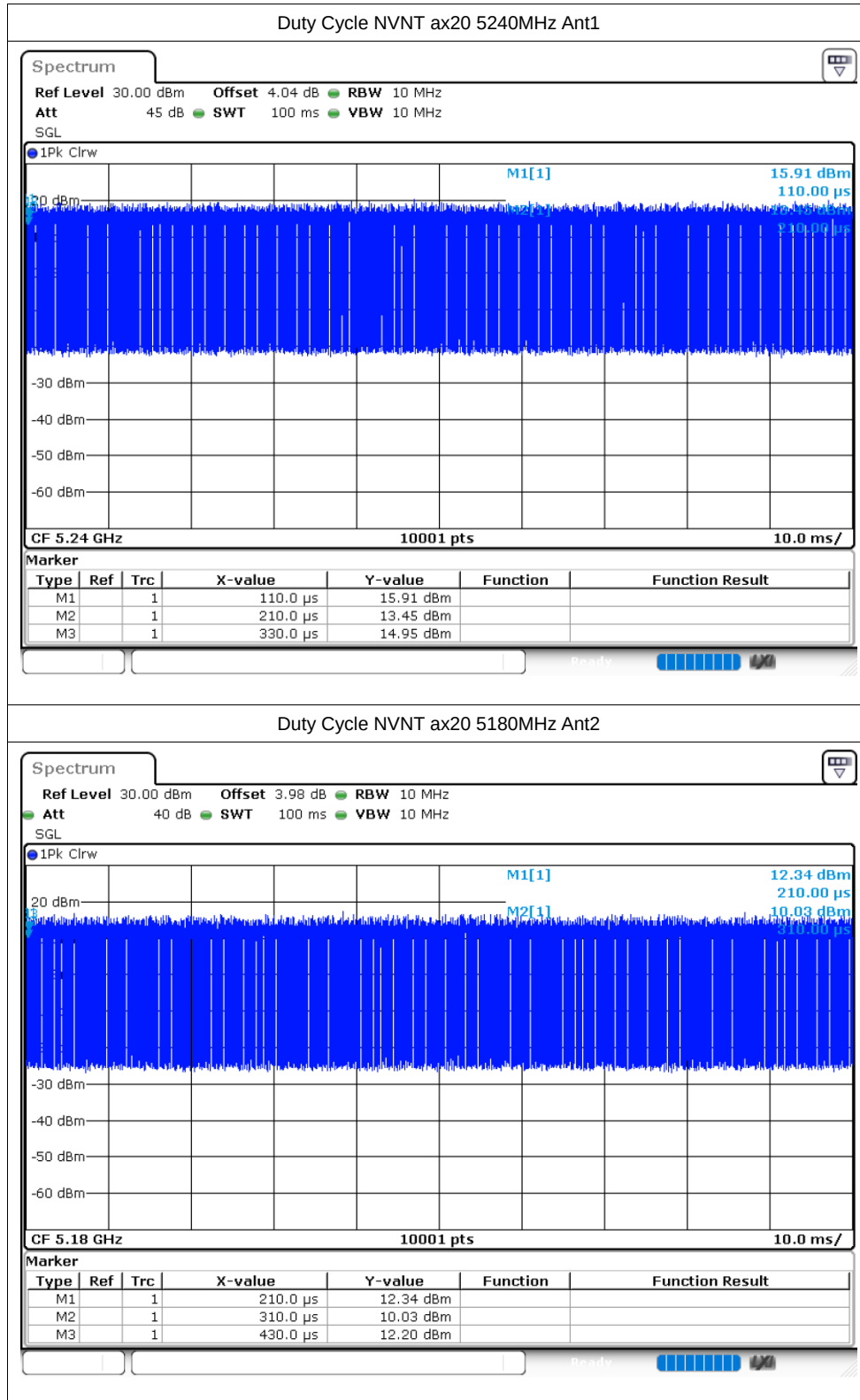


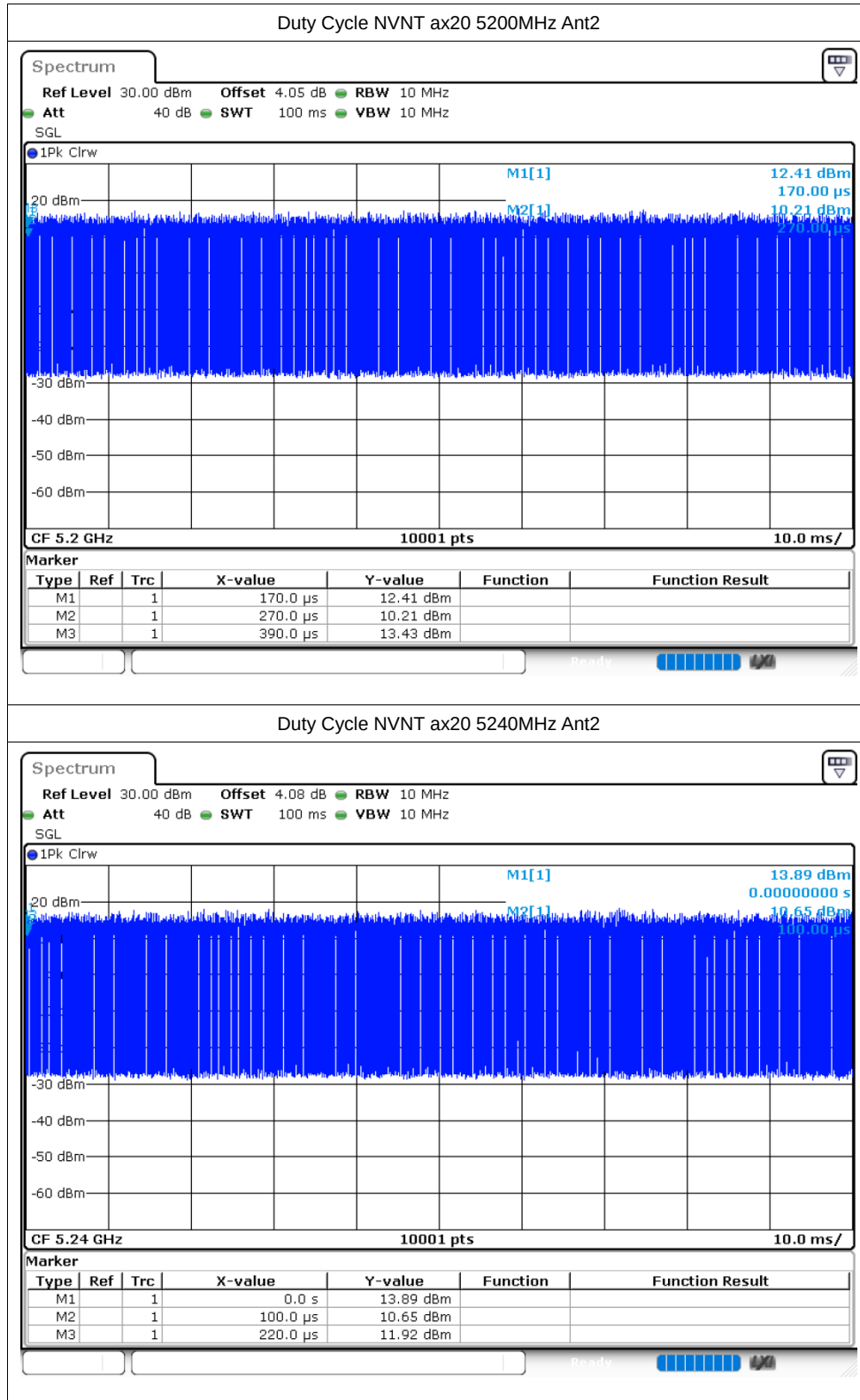


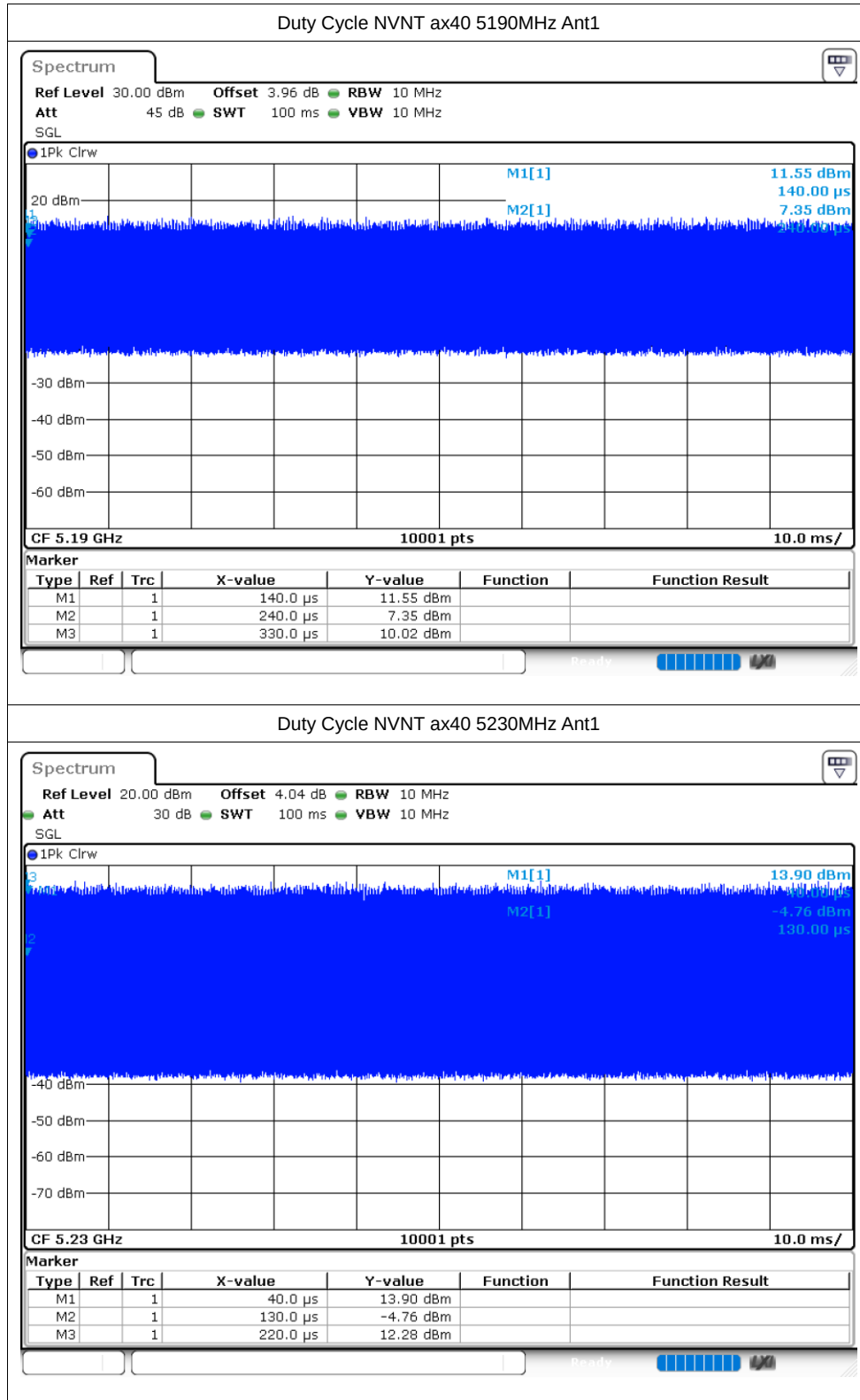


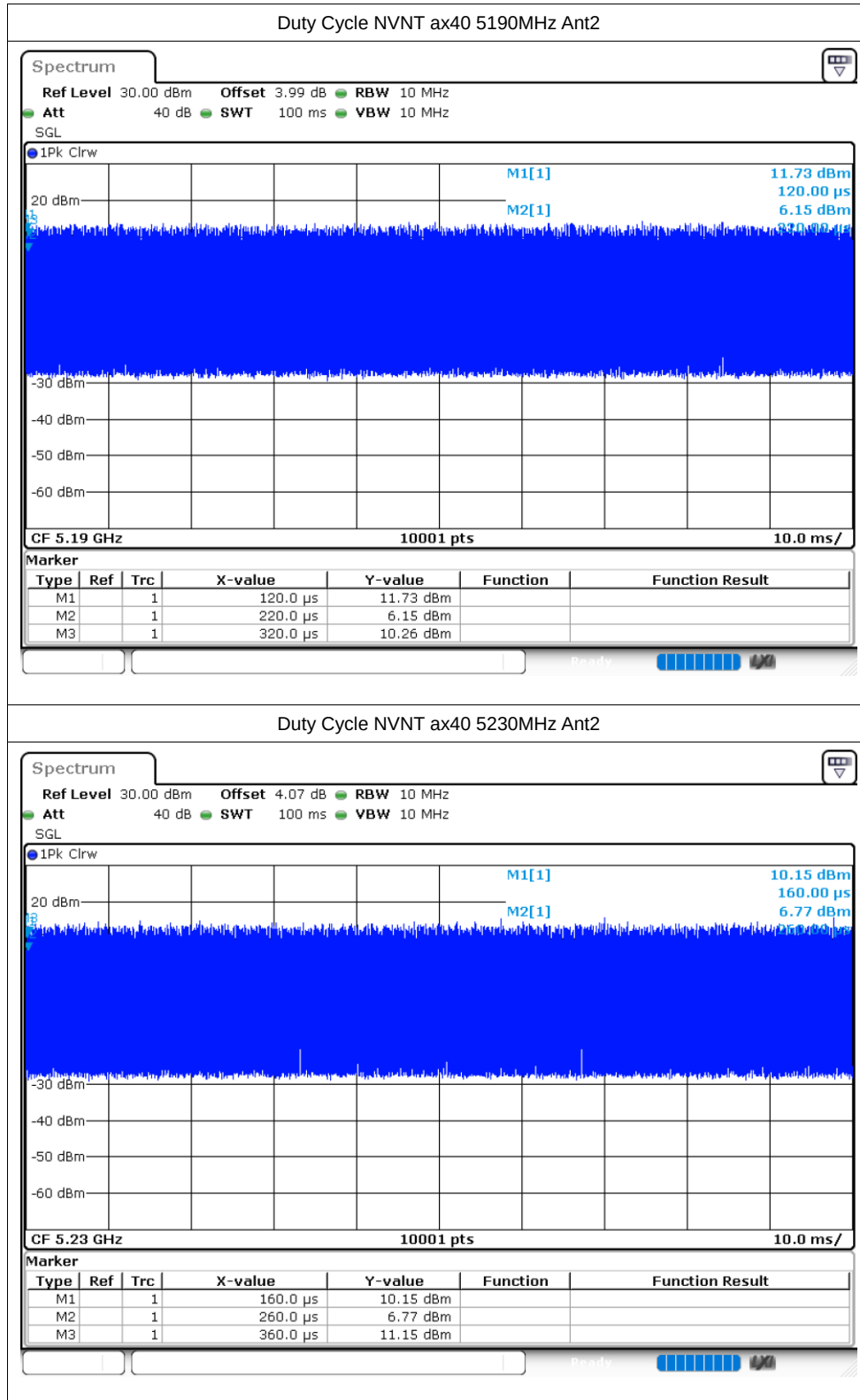


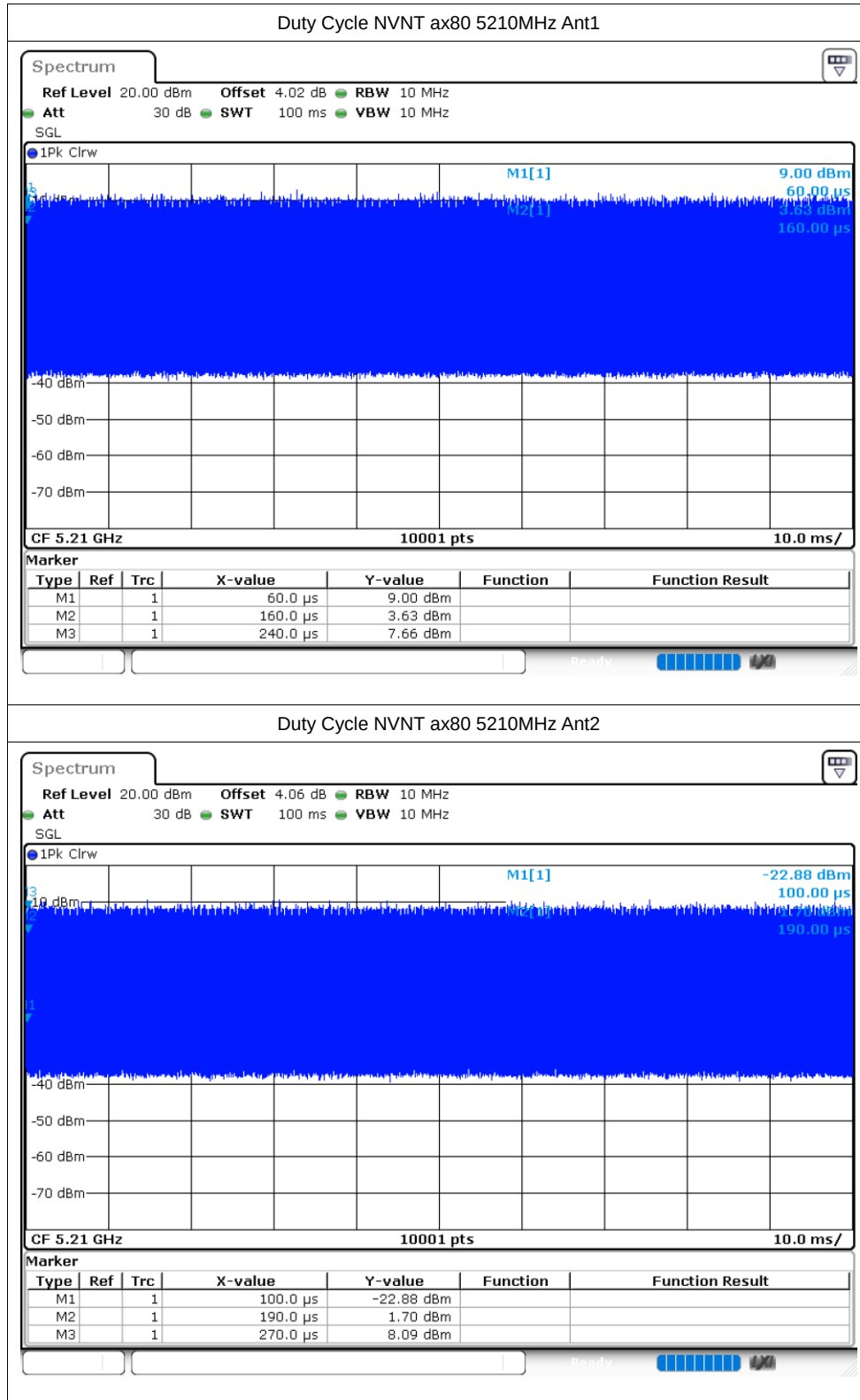












## Maximum Conducted Output Power

| Condition | Mode | Frequency<br>(MHz) | Antenna | Conducted Power<br>(dBm) | Limit<br>(dBm) | Verdict |
|-----------|------|--------------------|---------|--------------------------|----------------|---------|
| NVNT      | a    | 5180               | Ant1    | 13.93                    | 24             | Pass    |
| NVNT      | a    | 5200               | Ant1    | 14.16                    | 24             | Pass    |
| NVNT      | a    | 5240               | Ant1    | 14.24                    | 24             | Pass    |
| NVNT      | a    | 5180               | Ant2    | 11.34                    | 24             | Pass    |
| NVNT      | a    | 5200               | Ant2    | 11.37                    | 24             | Pass    |
| NVNT      | a    | 5240               | Ant2    | 11.36                    | 24             | Pass    |
| NVNT      | n20  | 5180               | Ant1    | 13.15                    | 24             | Pass    |
| NVNT      | n20  | 5200               | Ant1    | 13.06                    | 24             | Pass    |
| NVNT      | n20  | 5240               | Ant1    | 13.05                    | 24             | Pass    |
| NVNT      | n20  | 5180               | Ant2    | 12.31                    | 24             | Pass    |
| NVNT      | n20  | 5200               | Ant2    | 12.18                    | 24             | Pass    |
| NVNT      | n20  | 5240               | Ant2    | 12.25                    | 24             | Pass    |
| NVNT      | n40  | 5190               | Ant1    | 11.48                    | 24             | Pass    |
| NVNT      | n40  | 5230               | Ant1    | 11.75                    | 24             | Pass    |
| NVNT      | n40  | 5190               | Ant2    | 9.4                      | 24             | Pass    |
| NVNT      | n40  | 5230               | Ant2    | 9.3                      | 24             | Pass    |
| NVNT      | ac20 | 5180               | Ant1    | 12.83                    | 24             | Pass    |
| NVNT      | ac20 | 5200               | Ant1    | 13.14                    | 24             | Pass    |
| NVNT      | ac20 | 5240               | Ant1    | 13.35                    | 24             | Pass    |
| NVNT      | ac20 | 5180               | Ant2    | 12.3                     | 24             | Pass    |
| NVNT      | ac20 | 5200               | Ant2    | 12.28                    | 24             | Pass    |
| NVNT      | ac20 | 5240               | Ant2    | 12.35                    | 24             | Pass    |
| NVNT      | ac40 | 5190               | Ant1    | 11.21                    | 24             | Pass    |
| NVNT      | ac40 | 5230               | Ant1    | 11.57                    | 24             | Pass    |
| NVNT      | ac40 | 5190               | Ant2    | 10.21                    | 24             | Pass    |
| NVNT      | ac40 | 5230               | Ant2    | 10.34                    | 24             | Pass    |
| NVNT      | ac80 | 5210               | Ant1    | 11.15                    | 24             | Pass    |
| NVNT      | ac80 | 5210               | Ant2    | 10.21                    | 24             | Pass    |
| NVNT      | ax20 | 5180               | Ant1    | 13.35                    | 24             | Pass    |
| NVNT      | ax20 | 5200               | Ant1    | 13.36                    | 24             | Pass    |
| NVNT      | ax20 | 5240               | Ant1    | 13.38                    | 24             | Pass    |
| NVNT      | ax20 | 5180               | Ant2    | 10.66                    | 24             | Pass    |
| NVNT      | ax20 | 5200               | Ant2    | 10.55                    | 24             | Pass    |
| NVNT      | ax20 | 5240               | Ant2    | 10.59                    | 24             | Pass    |
| NVNT      | ax40 | 5190               | Ant1    | 11.55                    | 24             | Pass    |
| NVNT      | ax40 | 5230               | Ant1    | 11.83                    | 24             | Pass    |
| NVNT      | ax40 | 5190               | Ant2    | 10.6                     | 24             | Pass    |
| NVNT      | ax40 | 5230               | Ant2    | 10.52                    | 24             | Pass    |
| NVNT      | ax80 | 5210               | Ant1    | 11.48                    | 24             | Pass    |
| NVNT      | ax80 | 5210               | Ant2    | 9.61                     | 24             | Pass    |

## -26dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -26 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|------------------------|---------|
| NVNT      | a    | 5180            | Ant1    | 21.06                  | Pass    |
| NVNT      | a    | 5200            | Ant1    | 20.454                 | Pass    |
| NVNT      | a    | 5240            | Ant1    | 21.054                 | Pass    |
| NVNT      | a    | 5180            | Ant2    | 21.375                 | Pass    |
| NVNT      | a    | 5200            | Ant2    | 20.94                  | Pass    |
| NVNT      | a    | 5240            | Ant2    | 21.315                 | Pass    |
| NVNT      | n20  | 5180            | Ant1    | 20.922                 | Pass    |
| NVNT      | n20  | 5200            | Ant1    | 21.465                 | Pass    |
| NVNT      | n20  | 5240            | Ant1    | 21.498                 | Pass    |
| NVNT      | n20  | 5180            | Ant2    | 20.949                 | Pass    |
| NVNT      | n20  | 5200            | Ant2    | 21.243                 | Pass    |
| NVNT      | n20  | 5240            | Ant2    | 21.594                 | Pass    |
| NVNT      | n40  | 5190            | Ant1    | 39.516                 | Pass    |
| NVNT      | n40  | 5230            | Ant1    | 40.23                  | Pass    |
| NVNT      | n40  | 5190            | Ant2    | 39.63                  | Pass    |
| NVNT      | n40  | 5230            | Ant2    | 39.51                  | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | 21.684                 | Pass    |
| NVNT      | ac20 | 5200            | Ant1    | 21.528                 | Pass    |
| NVNT      | ac20 | 5240            | Ant1    | 21.108                 | Pass    |
| NVNT      | ac20 | 5180            | Ant2    | 21.534                 | Pass    |
| NVNT      | ac20 | 5200            | Ant2    | 21.633                 | Pass    |
| NVNT      | ac20 | 5240            | Ant2    | 21.588                 | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | 40.158                 | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | 40.248                 | Pass    |
| NVNT      | ac40 | 5190            | Ant2    | 40.272                 | Pass    |
| NVNT      | ac40 | 5230            | Ant2    | 40.134                 | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | 81.228                 | Pass    |
| NVNT      | ac80 | 5210            | Ant2    | 81.264                 | Pass    |
| NVNT      | ax20 | 5180            | Ant1    | 20.799                 | Pass    |
| NVNT      | ax20 | 5200            | Ant1    | 21.015                 | Pass    |
| NVNT      | ax20 | 5240            | Ant1    | 21.105                 | Pass    |
| NVNT      | ax20 | 5180            | Ant2    | 20.904                 | Pass    |
| NVNT      | ax20 | 5200            | Ant2    | 21.324                 | Pass    |
| NVNT      | ax20 | 5240            | Ant2    | 21.477                 | Pass    |
| NVNT      | ax40 | 5190            | Ant1    | 39.888                 | Pass    |
| NVNT      | ax40 | 5230            | Ant1    | 40.056                 | Pass    |
| NVNT      | ax40 | 5190            | Ant2    | 40.284                 | Pass    |
| NVNT      | ax40 | 5230            | Ant2    | 40.314                 | Pass    |
| NVNT      | ax80 | 5210            | Ant1    | 81.78                  | Pass    |
| NVNT      | ax80 | 5210            | Ant2    | 81.504                 | Pass    |

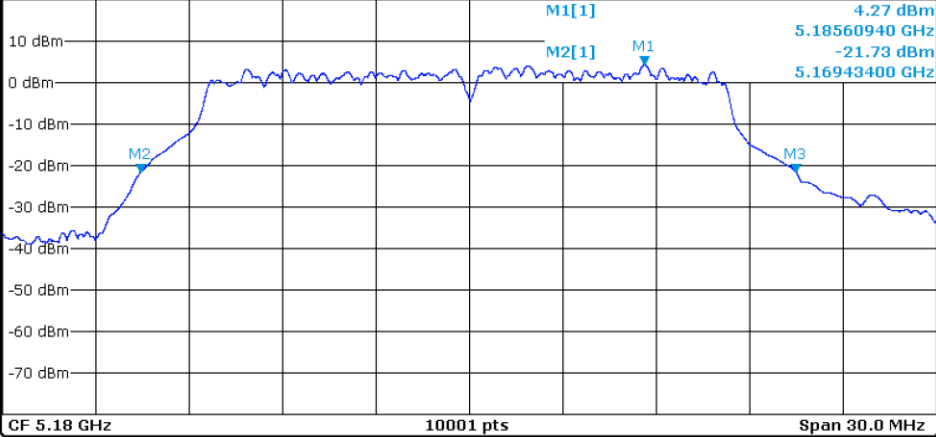
Test Graphs

-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



Marker

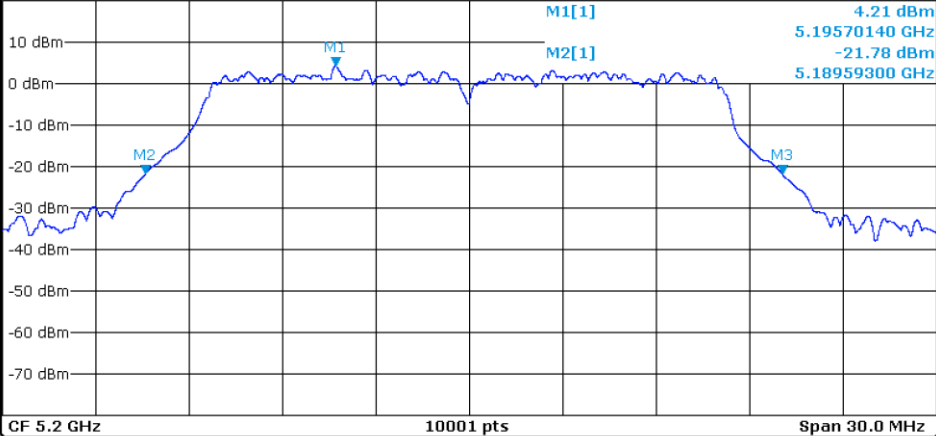
| Type | Ref | Trc | X-value       | Y-value    | Function | Function Result |
|------|-----|-----|---------------|------------|----------|-----------------|
| M1   |     | 1   | 5.1856094 GHz | 4.27 dBm   |          |                 |
| M2   |     | 1   | 5.169434 GHz  | -21.73 dBm |          |                 |
| M3   |     | 1   | 5.190494 GHz  | -21.72 dBm |          |                 |

-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

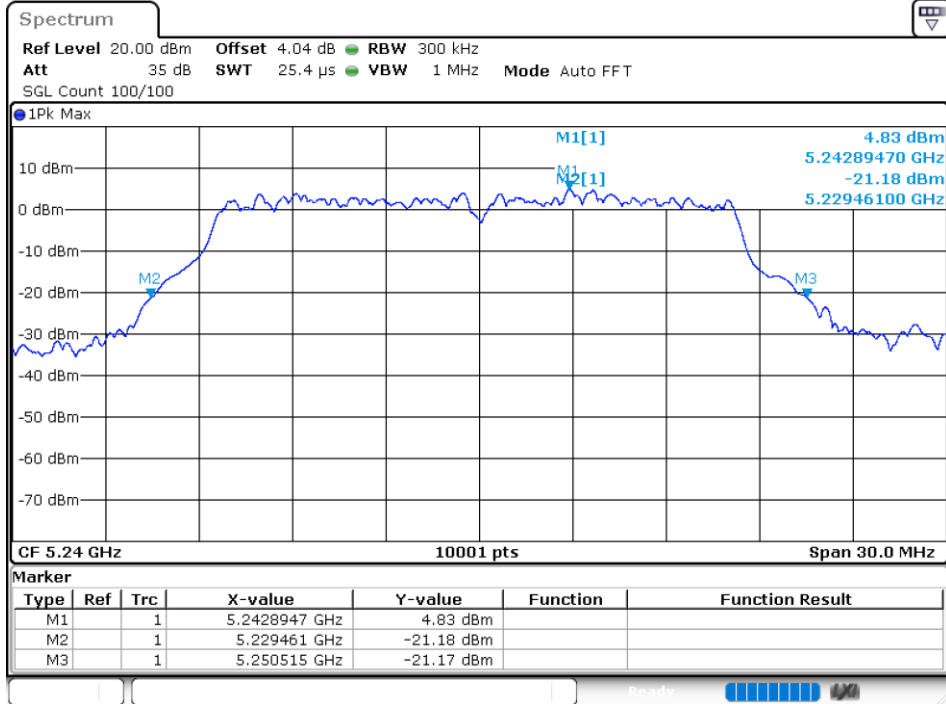
1Pk Max



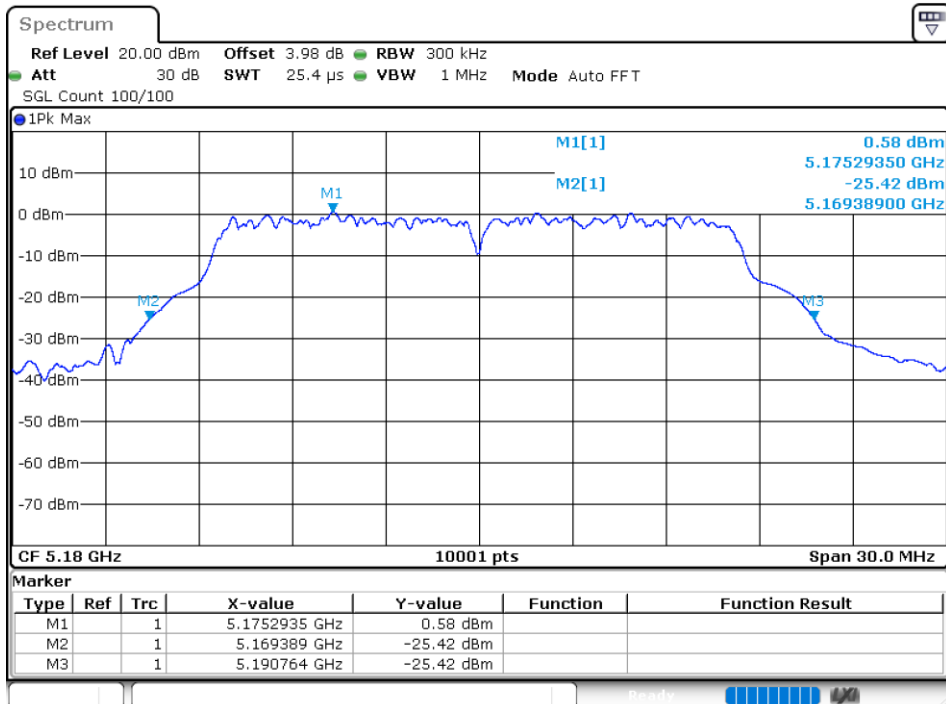
Marker

| Type | Ref | Trc | X-value       | Y-value    | Function | Function Result |
|------|-----|-----|---------------|------------|----------|-----------------|
| M1   |     | 1   | 5.1957014 GHz | 4.21 dBm   |          |                 |
| M2   |     | 1   | 5.189593 GHz  | -21.78 dBm |          |                 |
| M3   |     | 1   | 5.210047 GHz  | -21.80 dBm |          |                 |

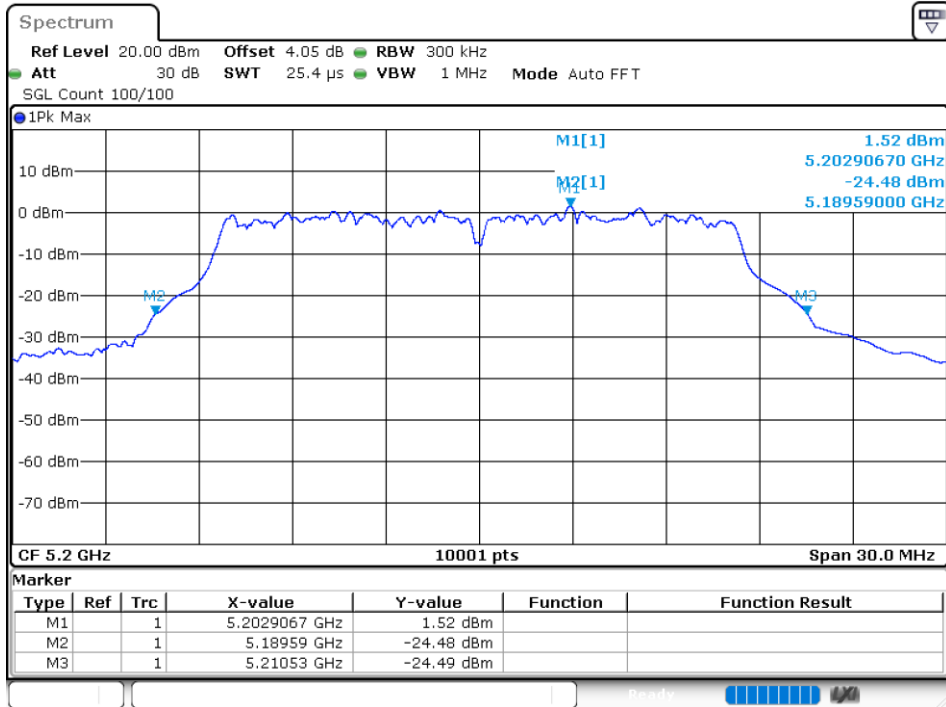
-26dB Bandwidth NVNT a 5240MHz Ant1



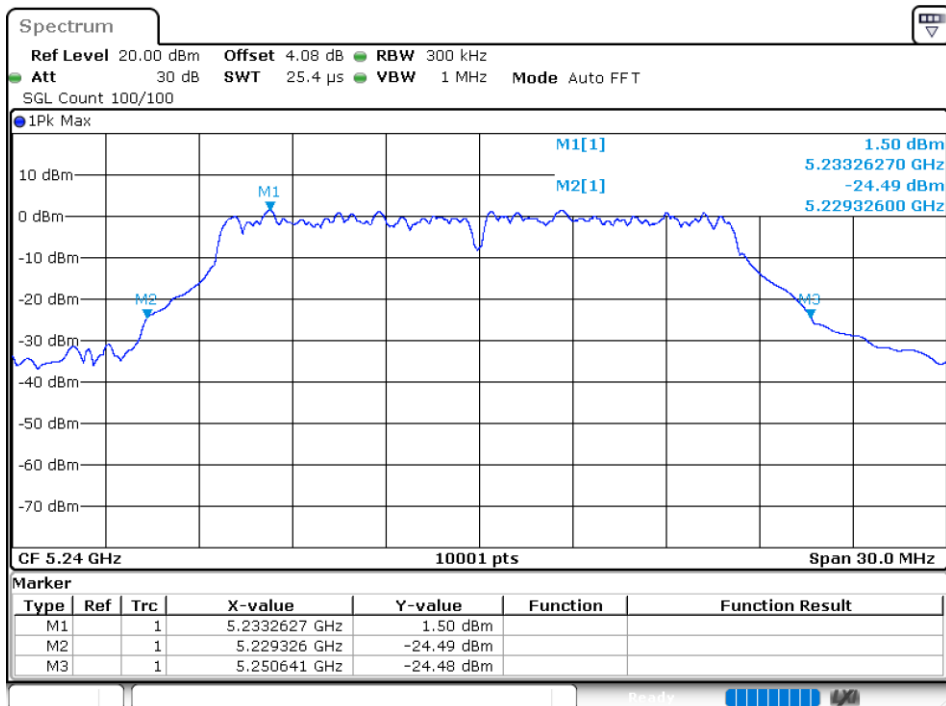
-26dB Bandwidth NVNT a 5180MHz Ant2

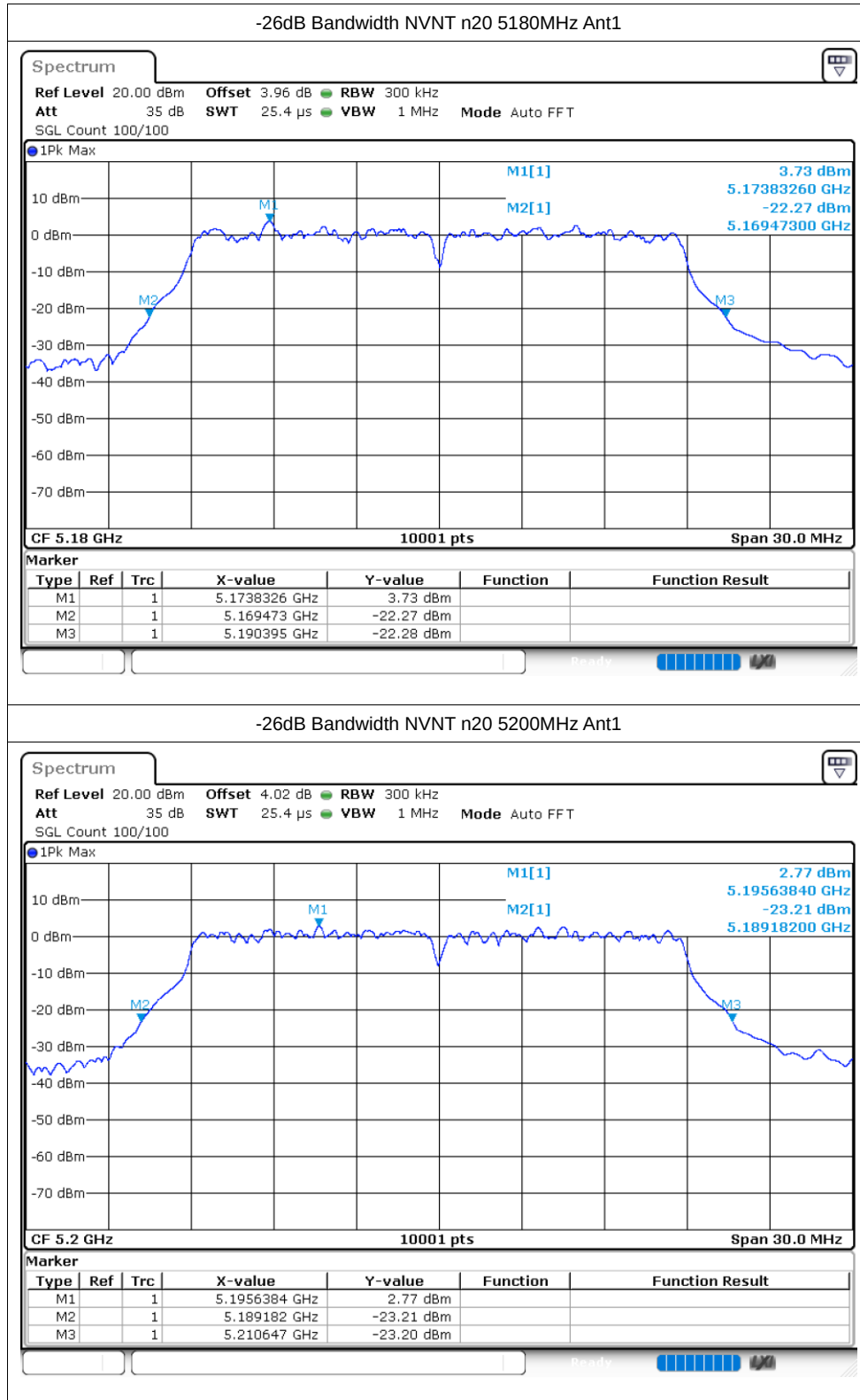


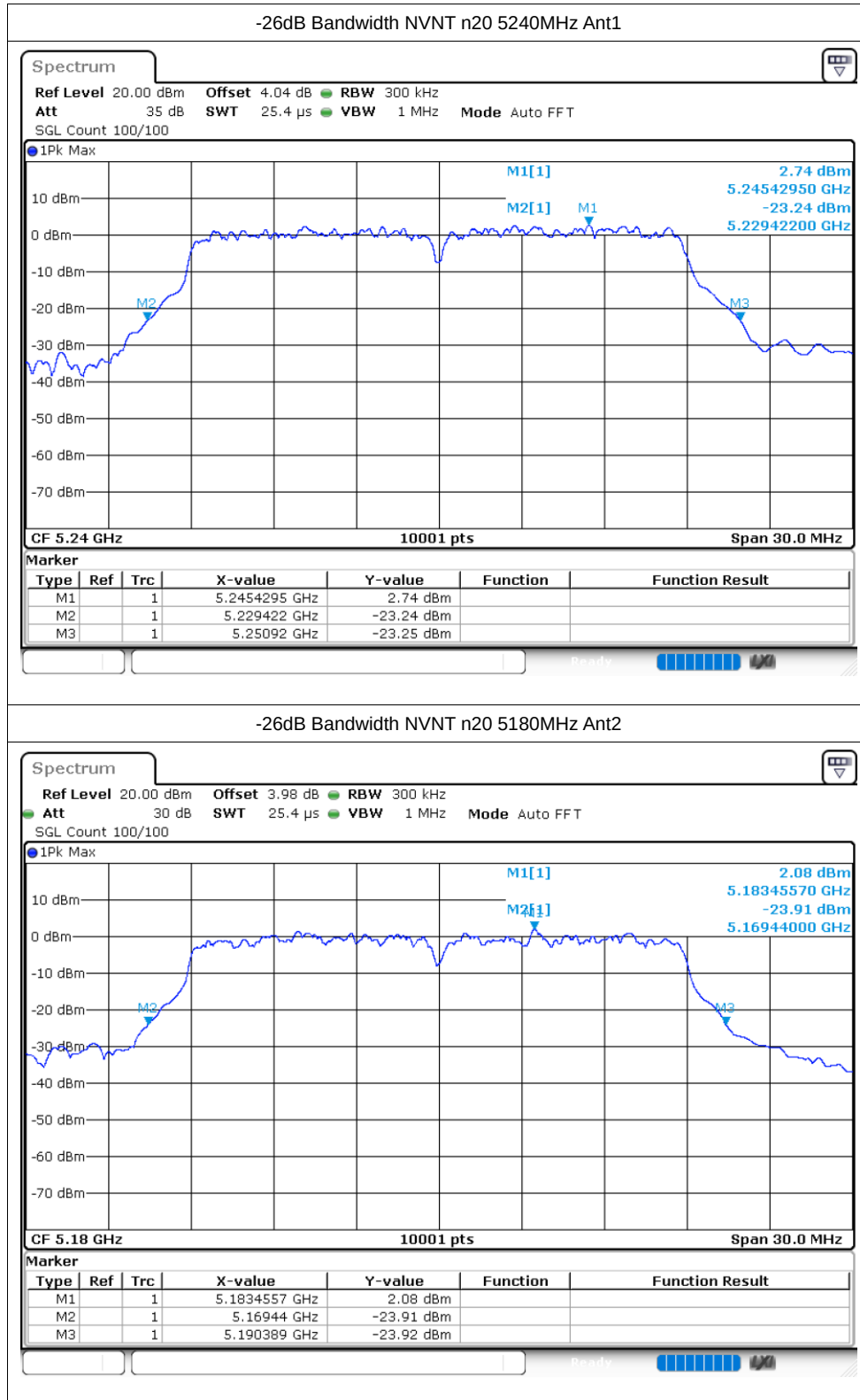
-26dB Bandwidth NVNT a 5200MHz Ant2

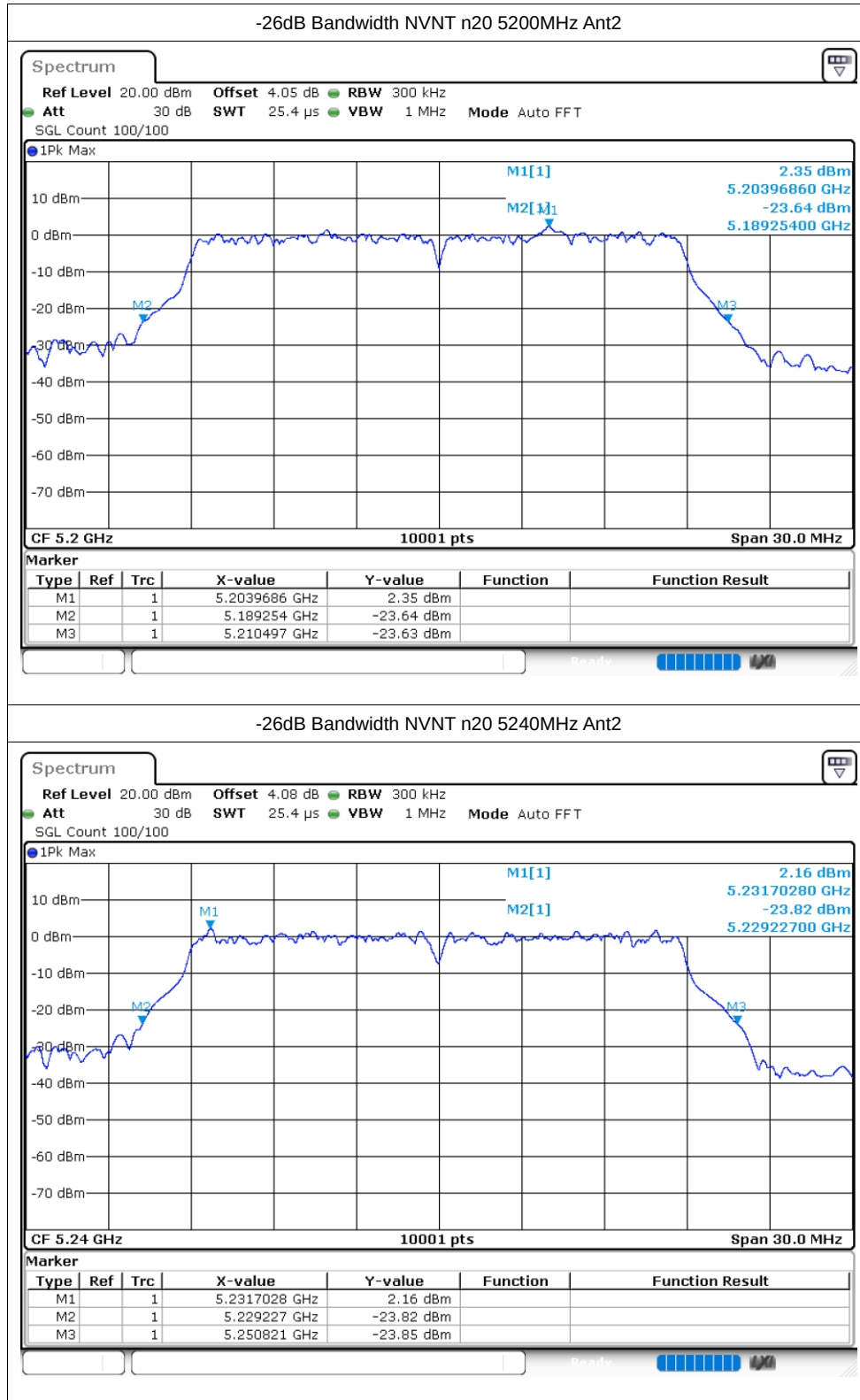


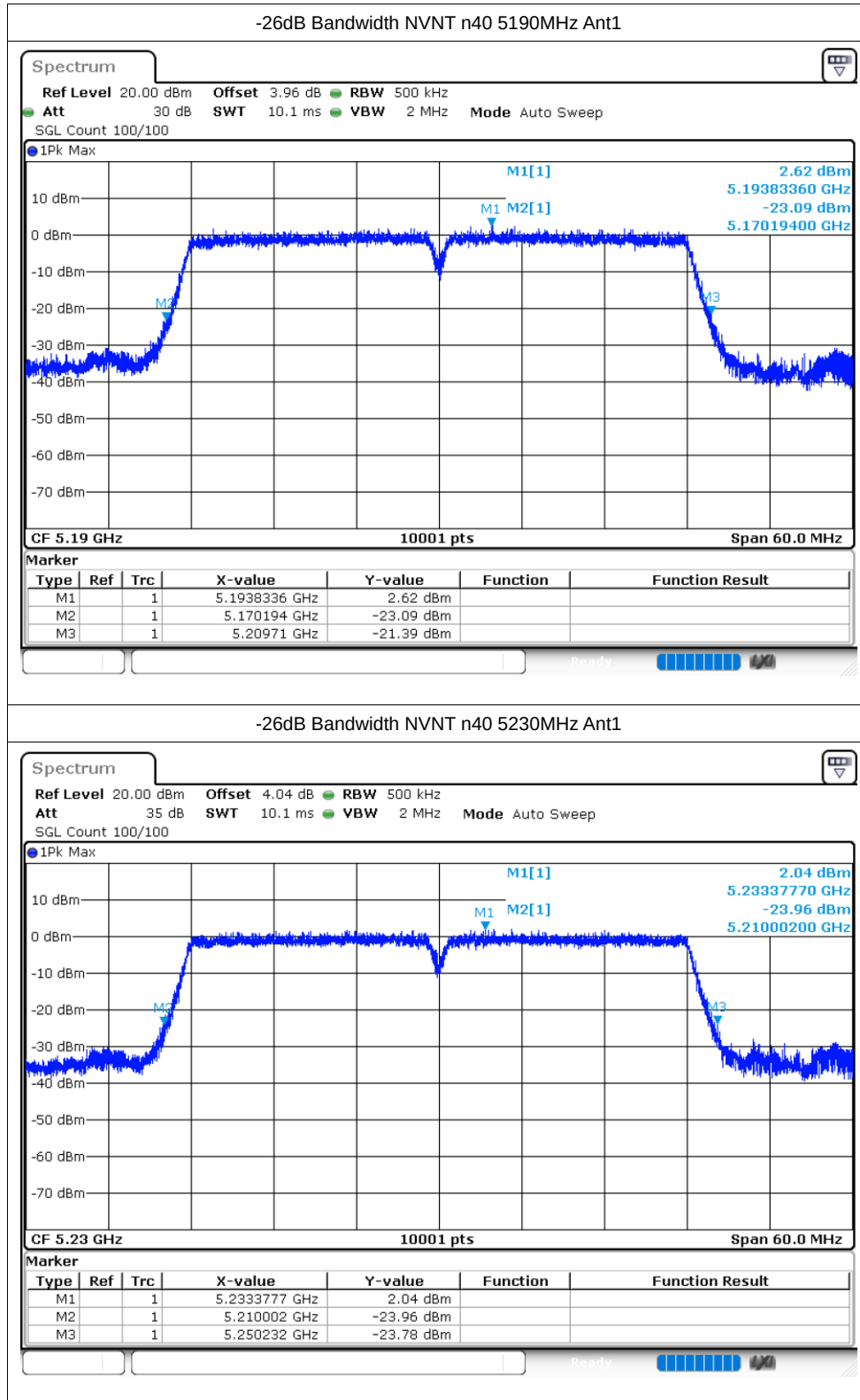
-26dB Bandwidth NVNT a 5240MHz Ant2

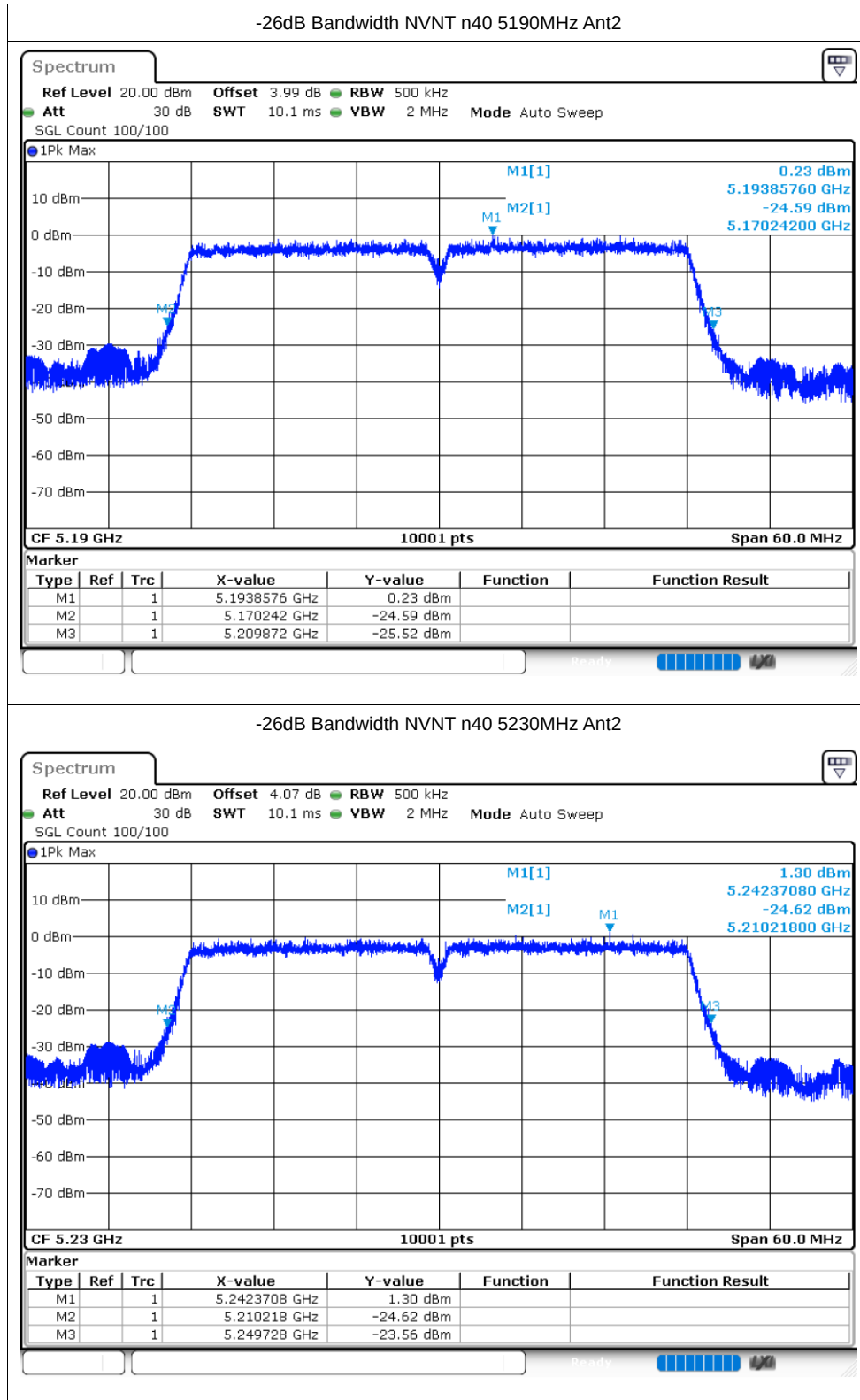


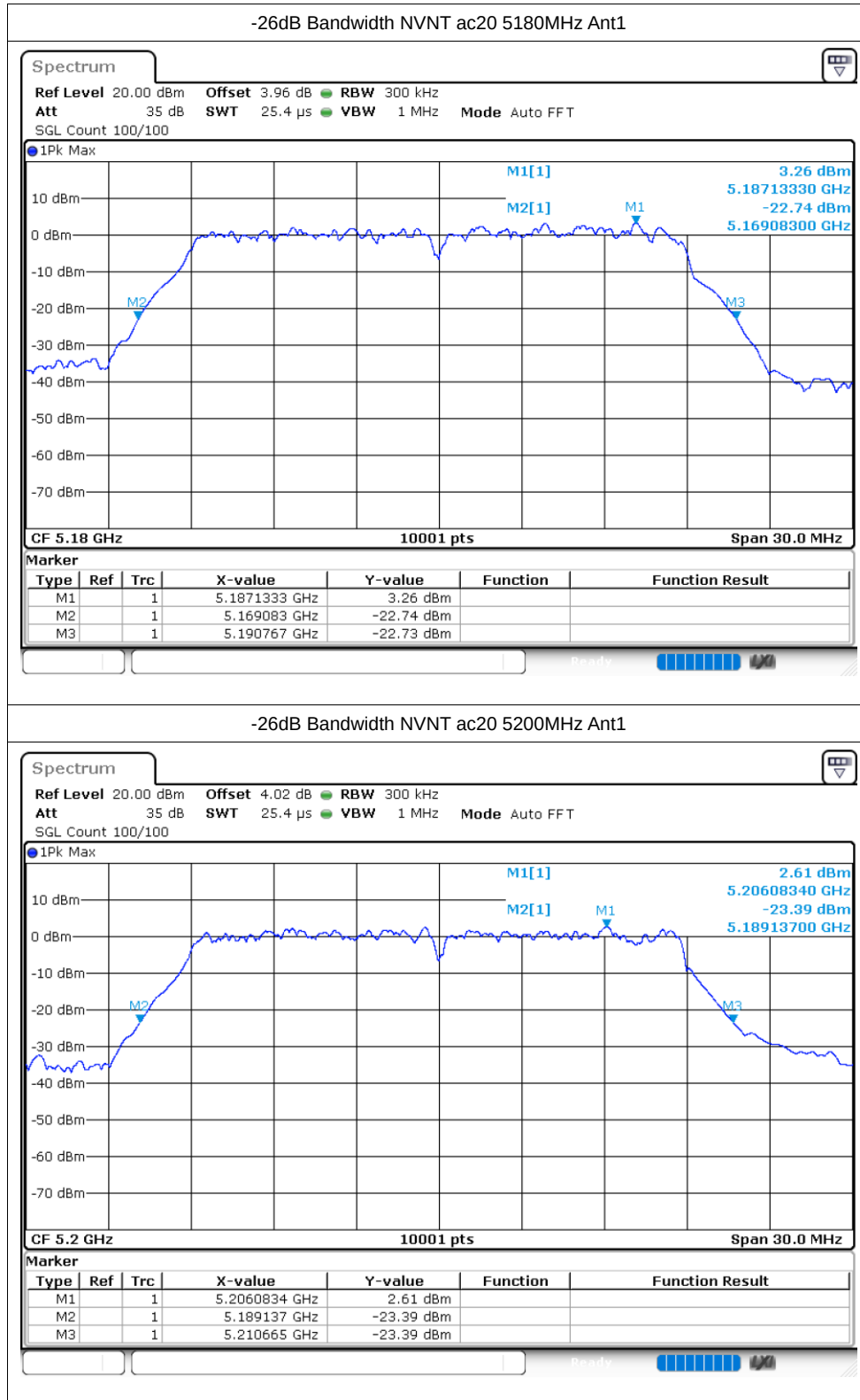










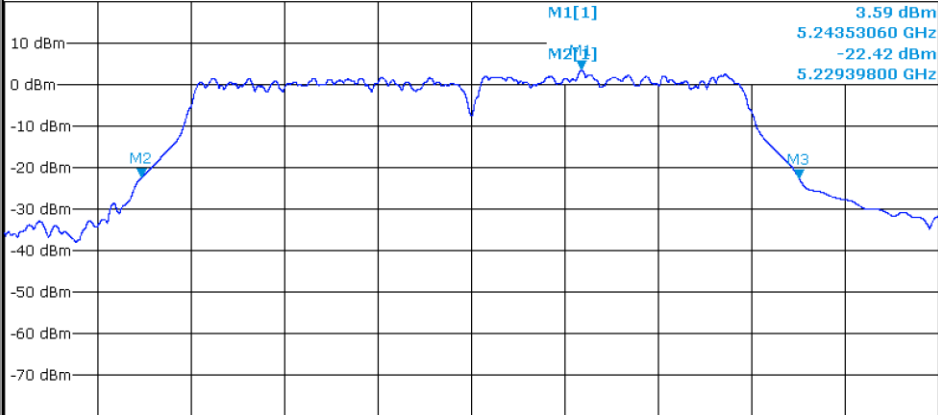


-26dB Bandwidth NVNT ac20 5240MHz Ant1

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



CF 5.24 GHz 10001 pts Span 30.0 MHz

Marker

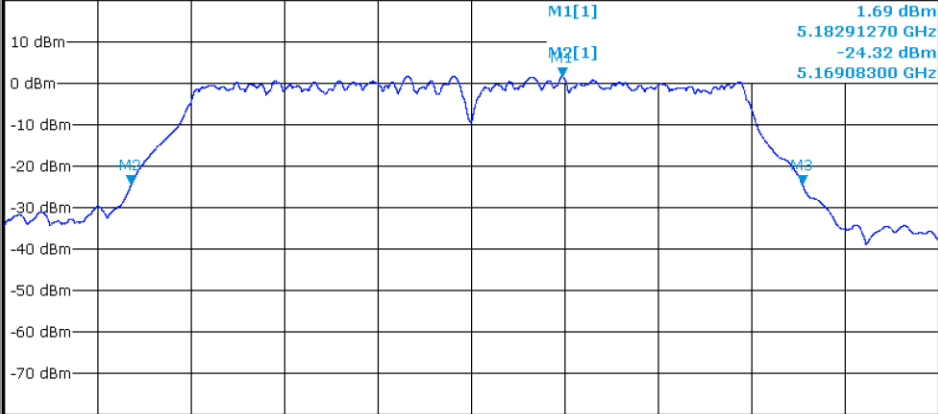
| Type | Ref | Trc | X-value       | Y-value    | Function | Function Result |
|------|-----|-----|---------------|------------|----------|-----------------|
| M1   | 1   | 1   | 5.2435306 GHz | 3.59 dBm   |          |                 |
| M2   | 1   | 1   | 5.229398 GHz  | -22.42 dBm |          |                 |
| M3   | 1   | 1   | 5.250506 GHz  | -22.43 dBm |          |                 |

-26dB Bandwidth NVNT ac20 5180MHz Ant2

Spectrum

Ref Level 20.00 dBm Offset 3.98 dB RBW 300 kHz  
Att 30 dB SWT 25.4  $\mu$ s VBW 1 MHz Mode Auto FFT  
SGL Count 100/100

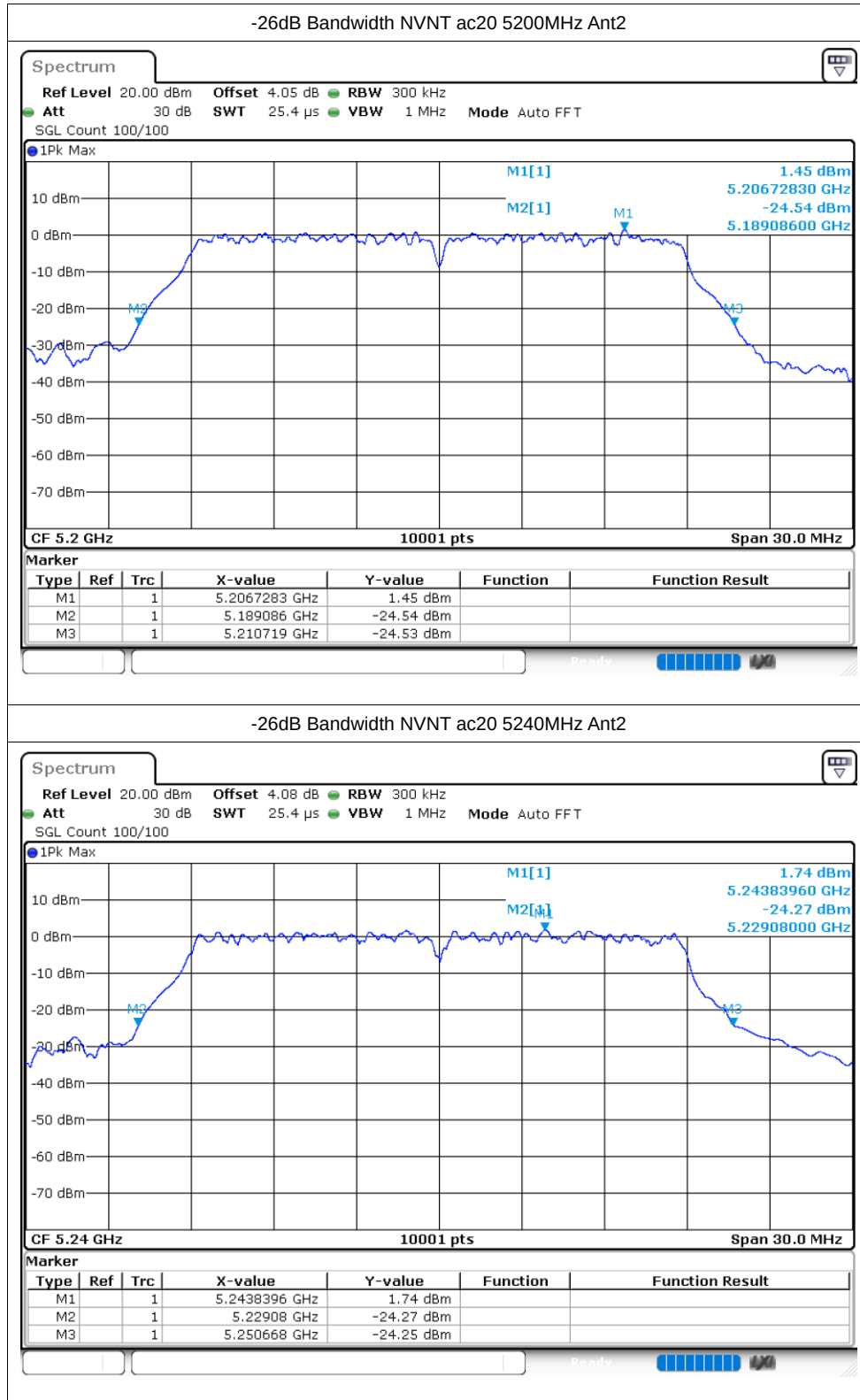
1Pk Max

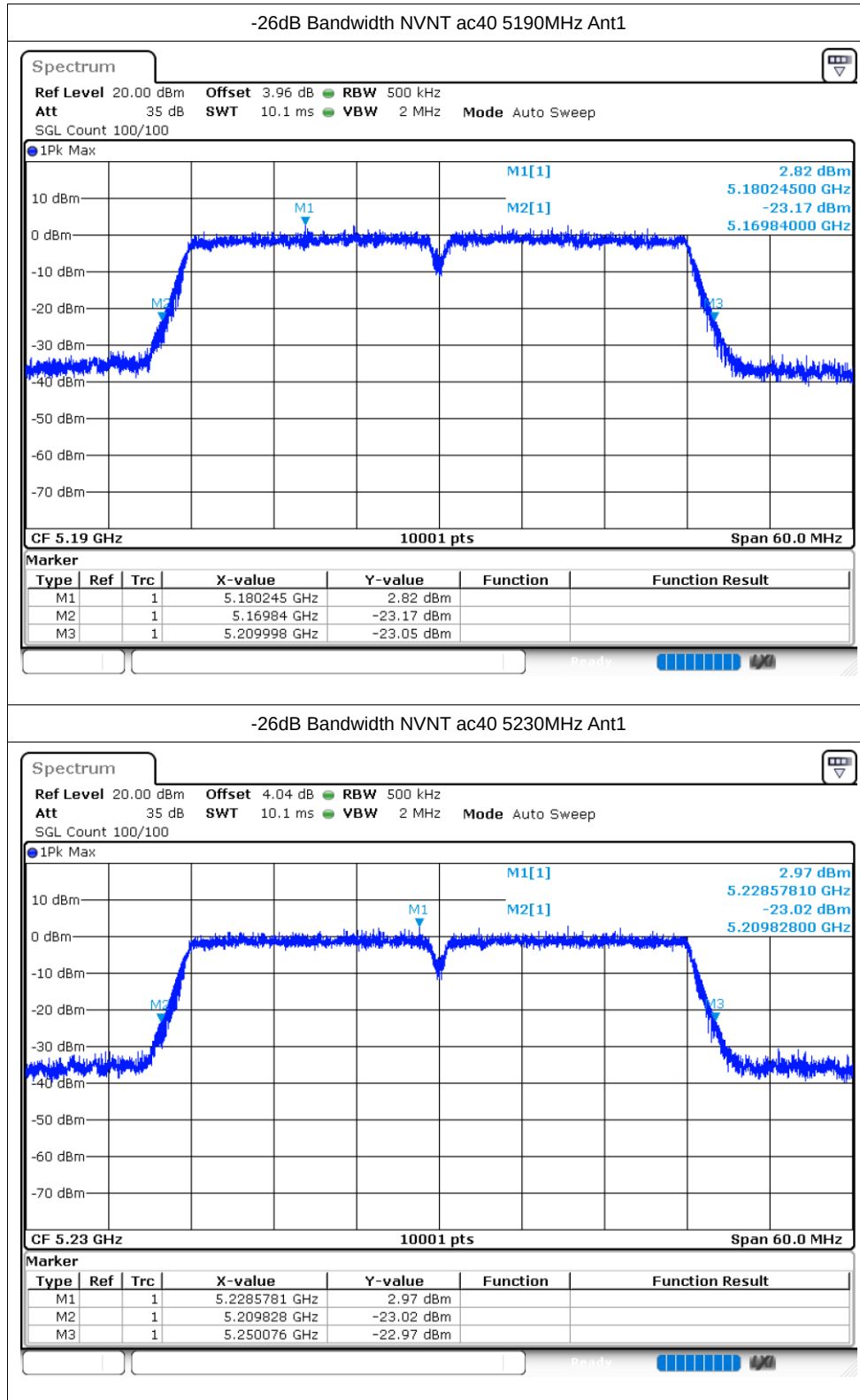


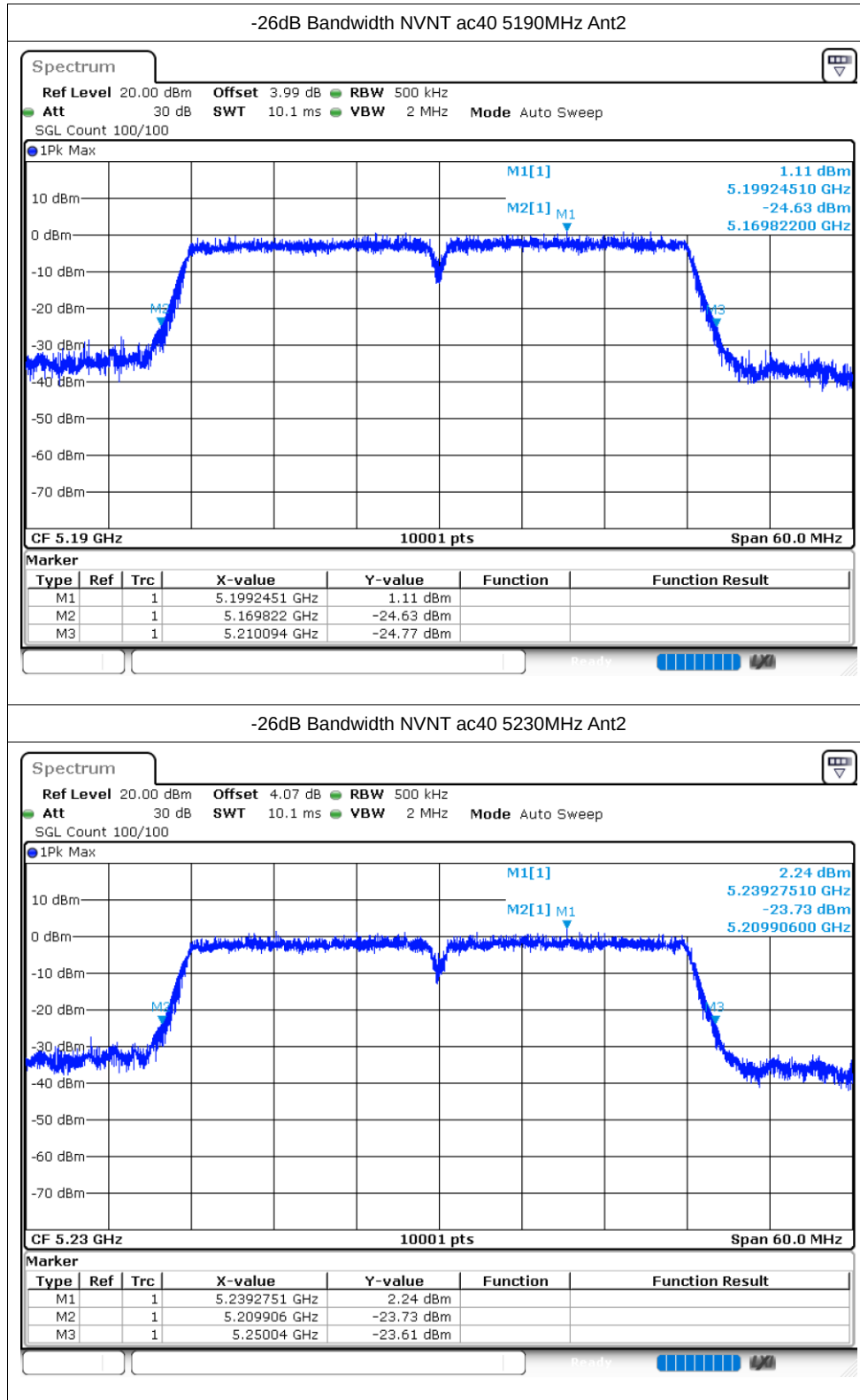
CF 5.18 GHz 10001 pts Span 30.0 MHz

Marker

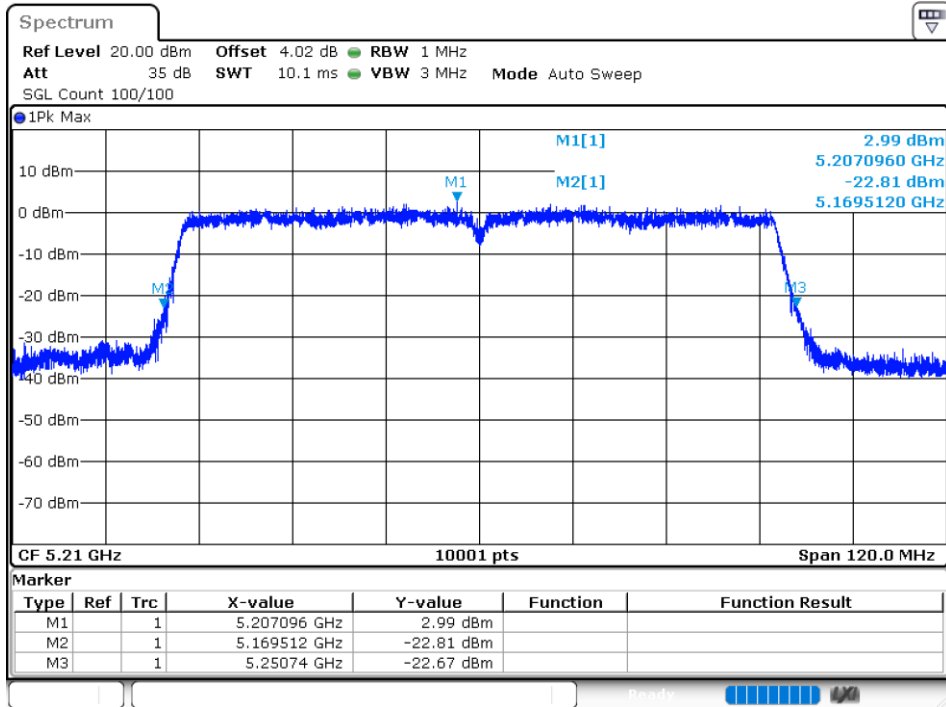
| Type | Ref | Trc | X-value       | Y-value    | Function | Function Result |
|------|-----|-----|---------------|------------|----------|-----------------|
| M1   | 1   | 1   | 5.1829127 GHz | 1.69 dBm   |          |                 |
| M2   | 1   | 1   | 5.169083 GHz  | -24.32 dBm |          |                 |
| M3   | 1   | 1   | 5.190617 GHz  | -24.31 dBm |          |                 |







## -26dB Bandwidth NVNT ac80 5210MHz Ant1



## -26dB Bandwidth NVNT ac80 5210MHz Ant2

