# Appendix C

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

**Product Name: Mini PC**

**Trade Mark: Blackview**

**Test Model: MP30**

**Environmental Conditions**

| | |
|---|---|
| Temperature: | 25.5° C |
| Relative Humidity: | 52.5% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Emiya lin |
| Supervised by: | Simba Haung |

# Contents

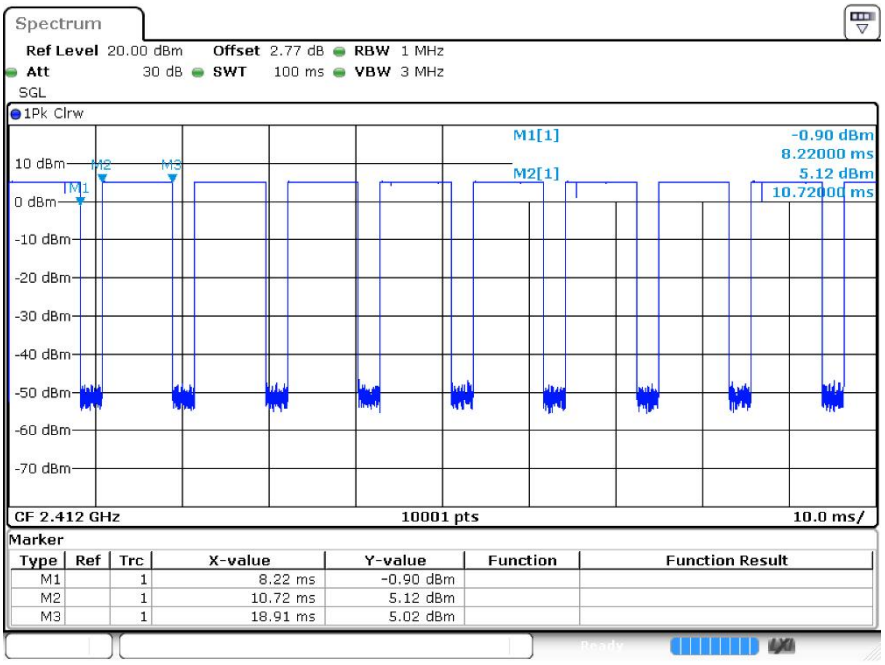
# 1 Duty Cycle

## 1.1 Test Result

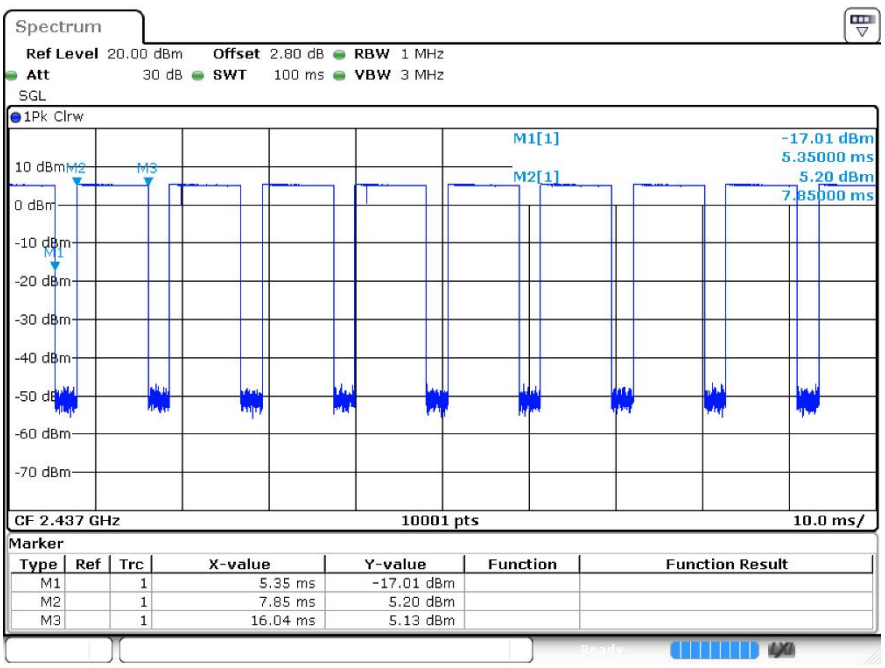
| Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor | 1/T (kHz) |
|---|---|---|---|---|---|
| b | 2412 | Ant1 | 77.57 | 1.1 | 0.12 |
| b | 2437 | Ant1 | 77.59 | 1.1 | 0.12 |
| b | 2462 | Ant1 | 77.59 | 1.1 | 0.12 |
| g | 2412 | Ant1 | 77.57 | 1.1 | 0.12 |
| g | 2437 | Ant1 | 77.59 | 1.1 | 0.12 |
| g | 2462 | Ant1 | 77.59 | 1.1 | 0.12 |
| n20 | 2412 | Ant1 | 60.12 | 2.21 | 0.27 |
| n20 | 2437 | Ant1 | 60.13 | 2.21 | 0.27 |
| n20 | 2462 | Ant1 | 60.12 | 2.21 | 0.27 |
| n40 | 2422 | Ant1 | 58.62 | 2.32 | 0.28 |
| n40 | 2437 | Ant1 | 57.75 | 2.38 | 0.28 |
| n40 | 2452 | Ant1 | 58.33 | 2.34 | 0.28 |
| ax20 | 2412 | Ant1 | 57.2 | 2.43 | 0.3 |
| ax20 | 2437 | Ant1 | 57.63 | 2.39 | 0.3 |
| ax20 | 2462 | Ant1 | 57.27 | 2.42 | 0.3 |
| ax40 | 2422 | Ant1 | 57.3 | 2.42 | 0.3 |
| ax40 | 2437 | Ant1 | 57.63 | 2.39 | 0.3 |
| ax40 | 2452 | Ant1 | 57.14 | 2.43 | 0.3 |
| b | 2412 | Ant2 | 77.56 | 1.1 | 0.12 |
| b | 2437 | Ant2 | 76.29 | 1.18 | 0.12 |
| b | 2462 | Ant2 | 77.03 | 1.13 | 0.12 |
| g | 2412 | Ant2 | 77.56 | 1.1 | 0.12 |
| g | 2437 | Ant2 | 76.29 | 1.18 | 0.12 |
| g | 2462 | Ant2 | 77.03 | 1.13 | 0.12 |
| n20 | 2412 | Ant2 | 60.11 | 2.21 | 0.27 |
| n20 | 2437 | Ant2 | 59.87 | 2.23 | 0.27 |
| n20 | 2462 | Ant2 | 59.89 | 2.23 | 0.27 |
| n40 | 2422 | Ant2 | 60.13 | 2.21 | 0.28 |
| n40 | 2437 | Ant2 | 60.14 | 2.21 | 0.28 |
| n40 | 2452 | Ant2 | 60.14 | 2.21 | 0.28 |
| ax20 | 2412 | Ant2 | 57.64 | 2.39 | 0.3 |
| ax20 | 2437 | Ant2 | 57.23 | 2.42 | 0.3 |
| ax20 | 2462 | Ant2 | 57.63 | 2.39 | 0.3 |
| ax40 | 2422 | Ant2 | 57.15 | 2.43 | 0.3 |
| ax40 | 2437 | Ant2 | 57.63 | 2.39 | 0.3 |
| ax40 | 2452 | Ant2 | 57.14 | 2.43 | 0.3 |

## 1.2 Test Graphs

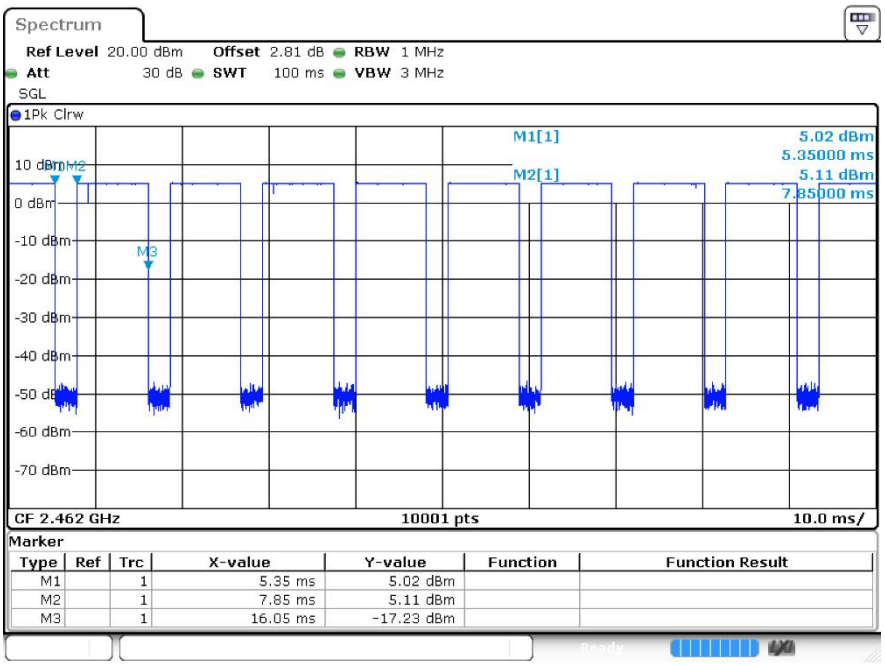
| Test Graphs |
| --- |
| Duty Cycle b 2412MHz Ant1 |



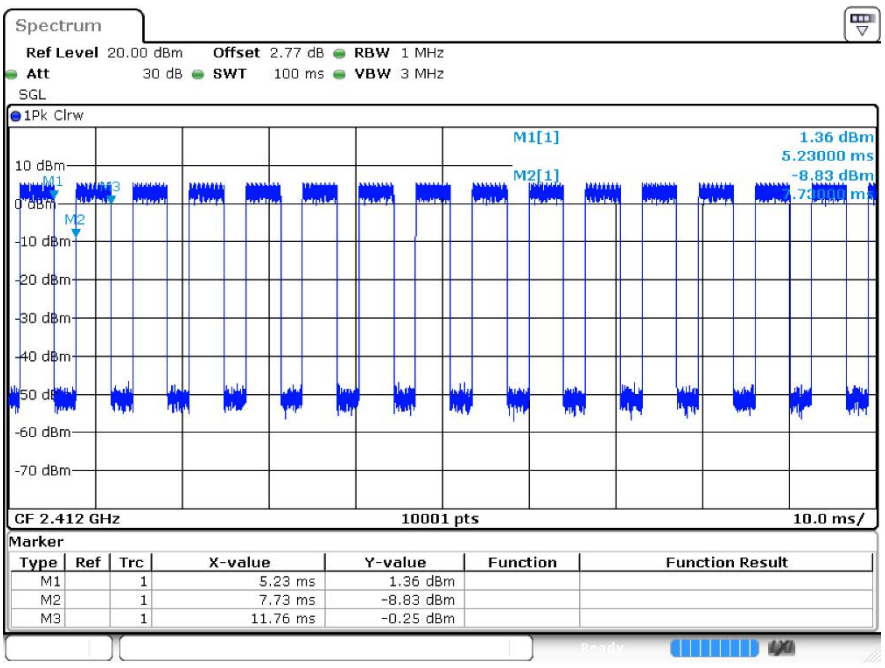

| Duty Cycle b 2437MHz Ant1 |
| --- |



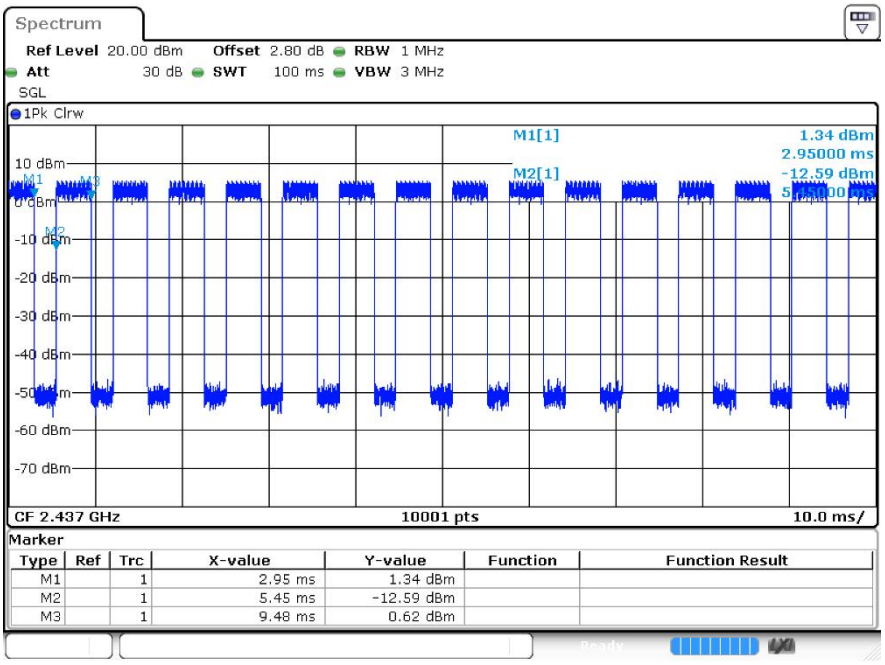
Duty Cycle b 2462MHz Ant1



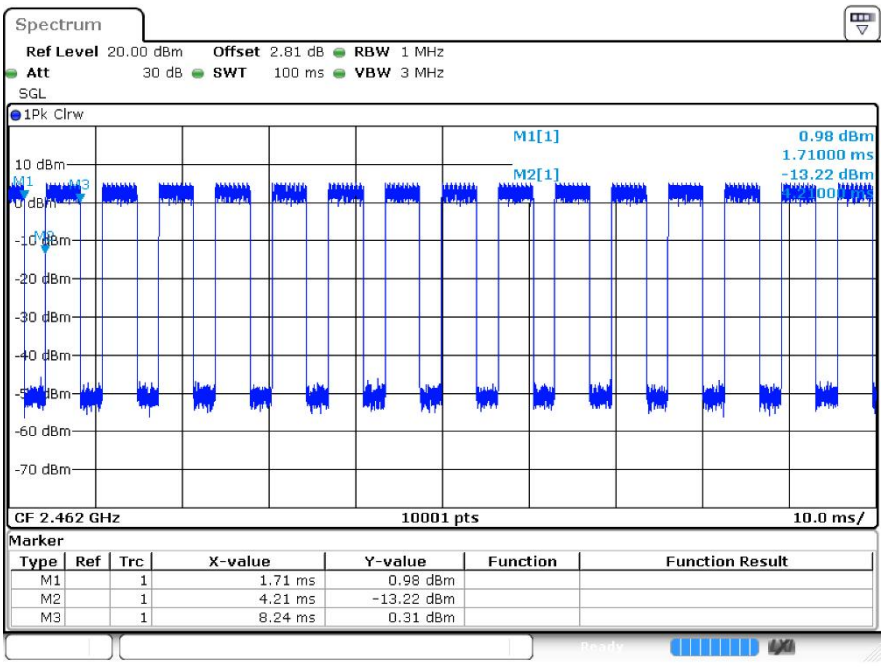

Duty Cycle g 2412MHz Ant1



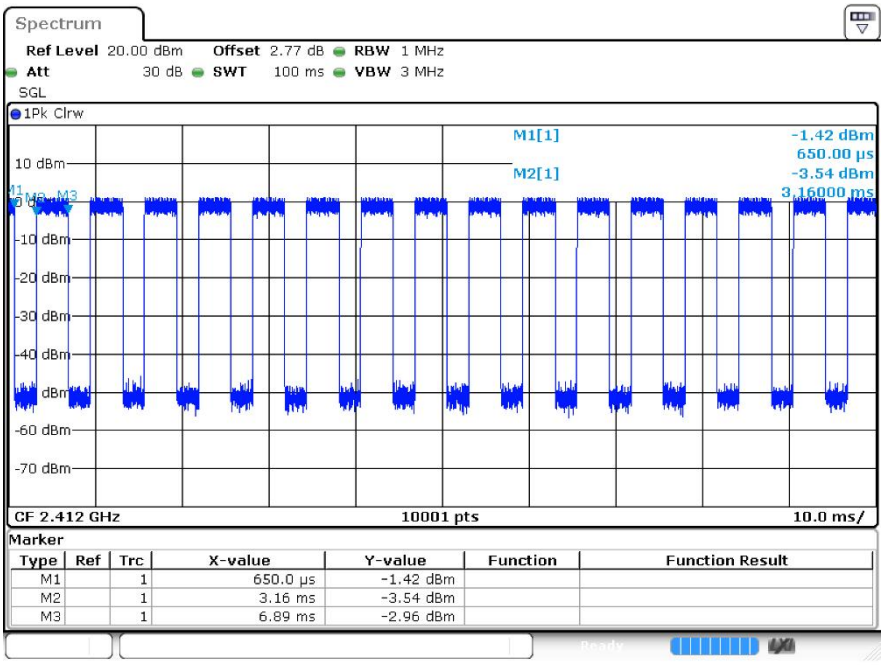
Duty Cycle g 2437MHz Ant1



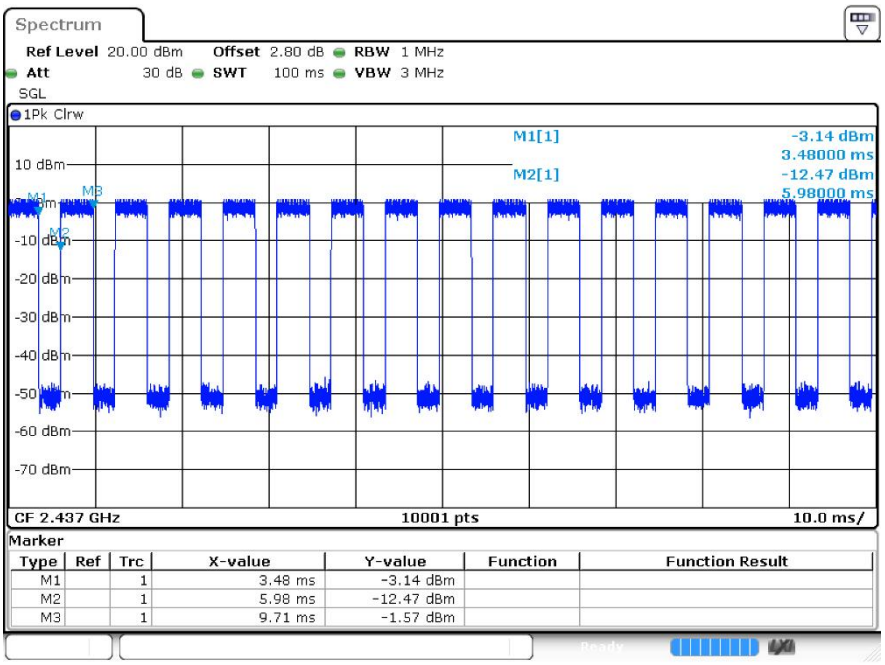

Duty Cycle g 2462MHz Ant1



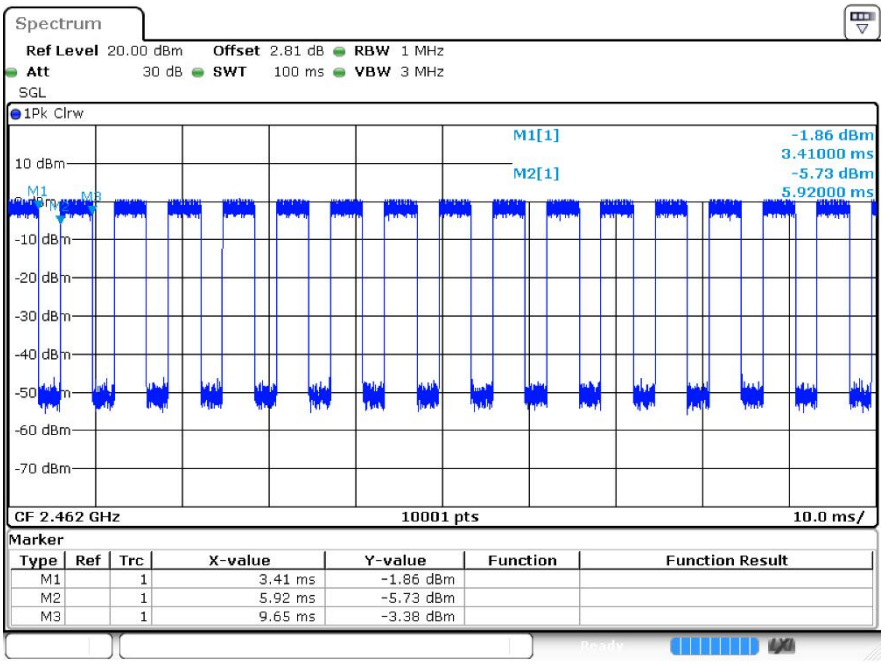
Duty Cycle n20 2412MHz Ant1



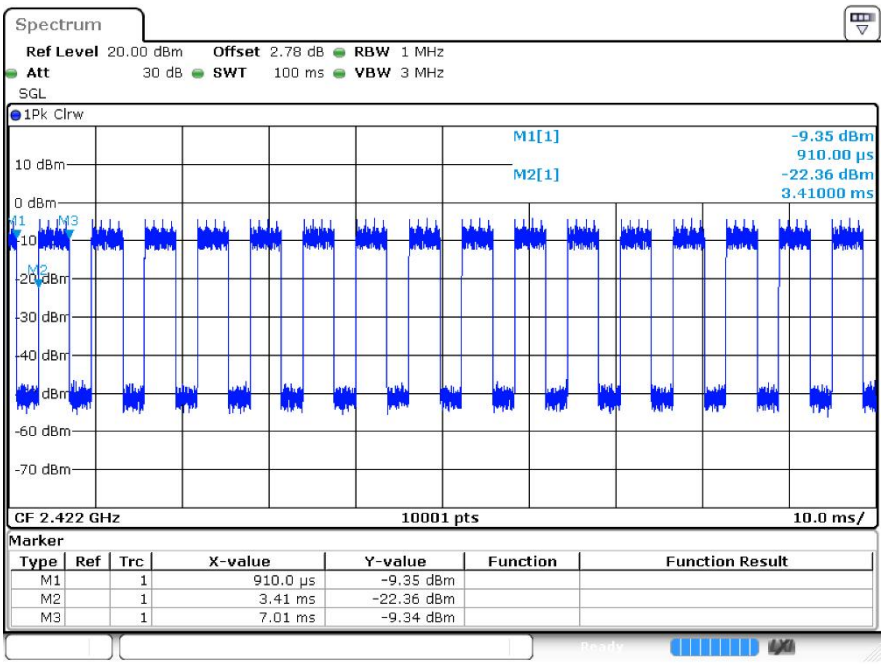

Duty Cycle n20 2437MHz Ant1



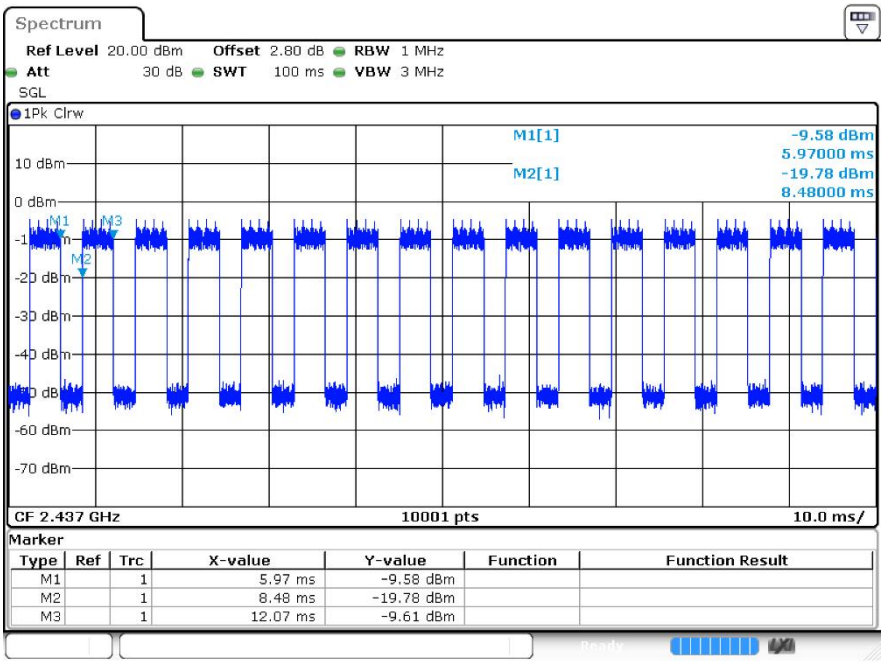
Duty Cycle n20 2462MHz Ant1



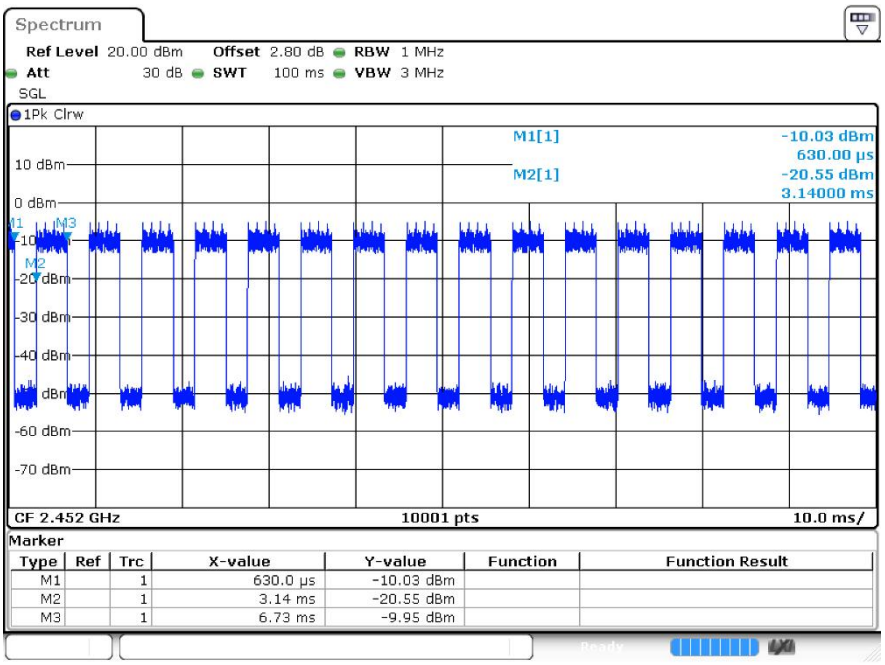

Duty Cycle n40 2422MHz Ant1



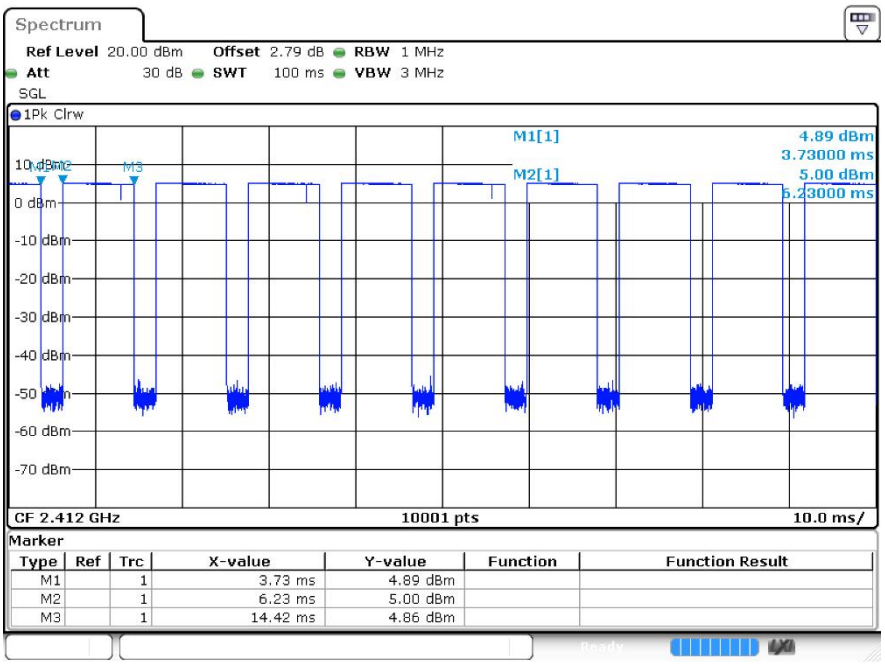
Duty Cycle n40 2437MHz Ant1



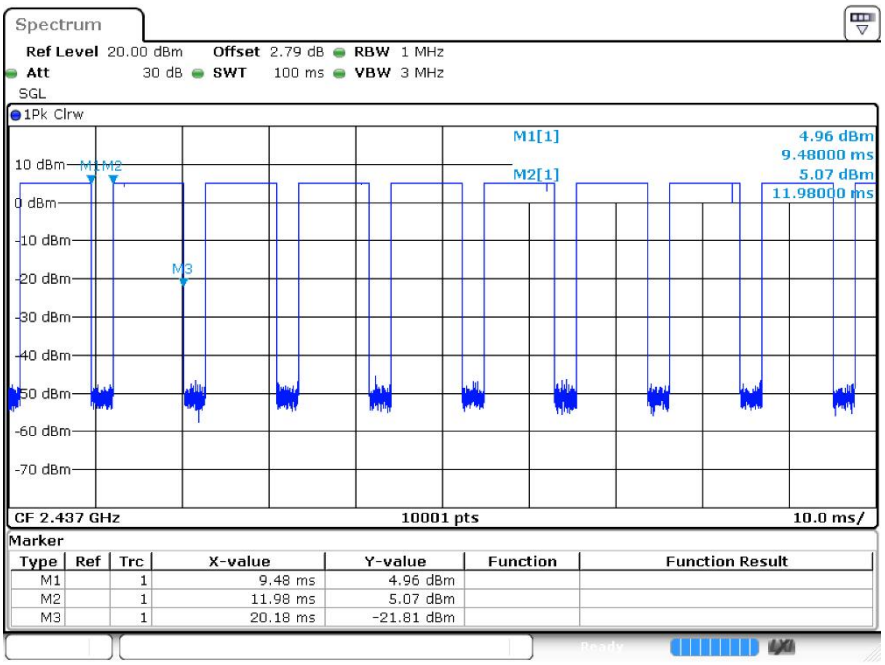

Duty Cycle n40 2452MHz Ant1



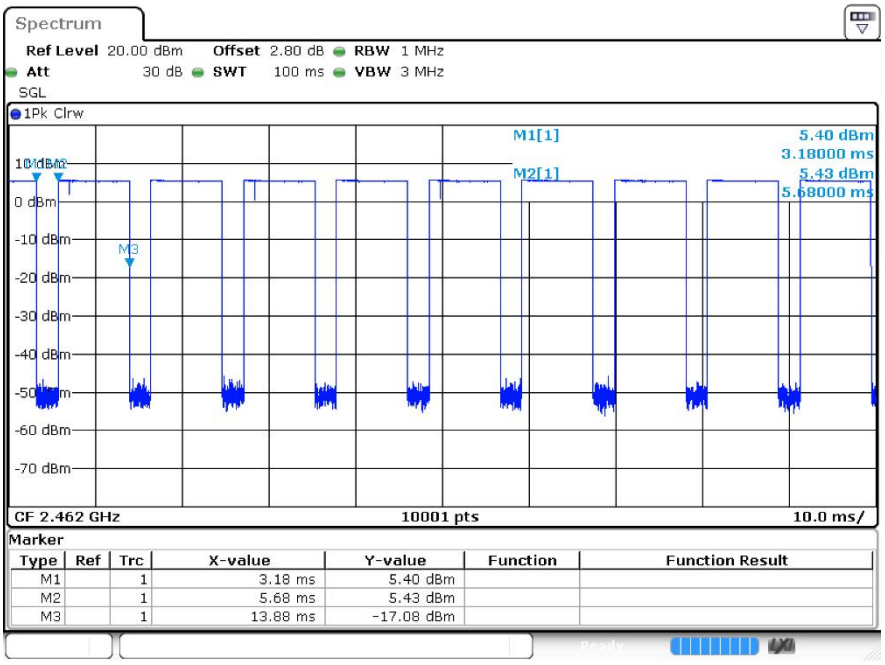
| Test Graphs |
| --- |
| Duty Cycle b 2412MHz Ant2 |



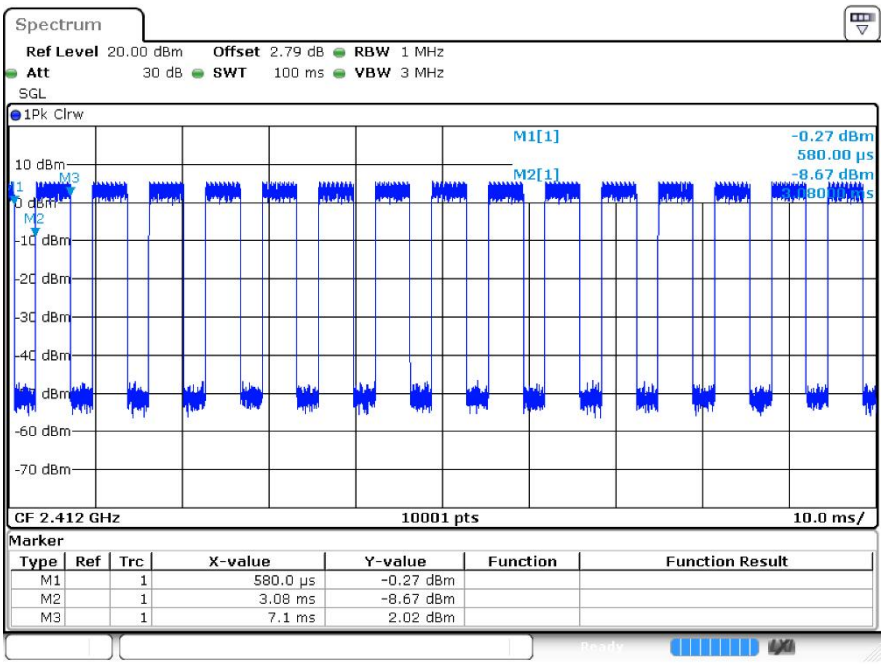

| Duty Cycle b 2437MHz Ant2 |
| --- |



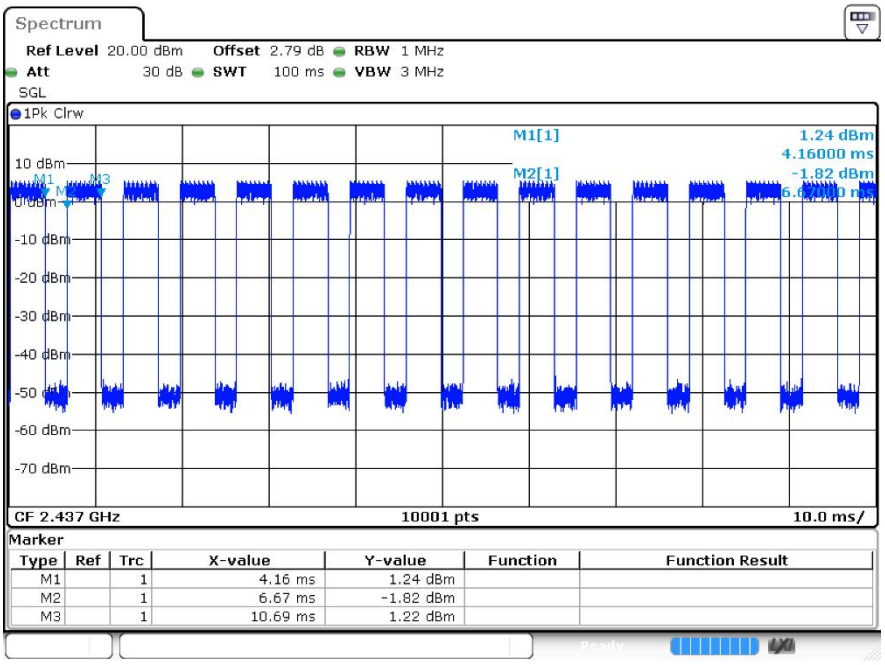
Duty Cycle b 2462MHz Ant2



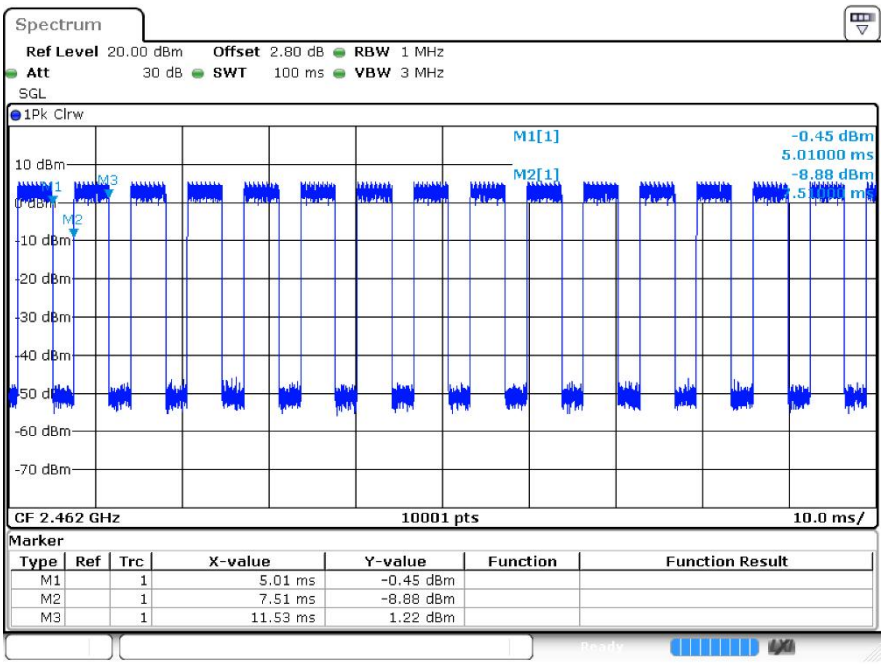

Duty Cycle g 2412MHz Ant2



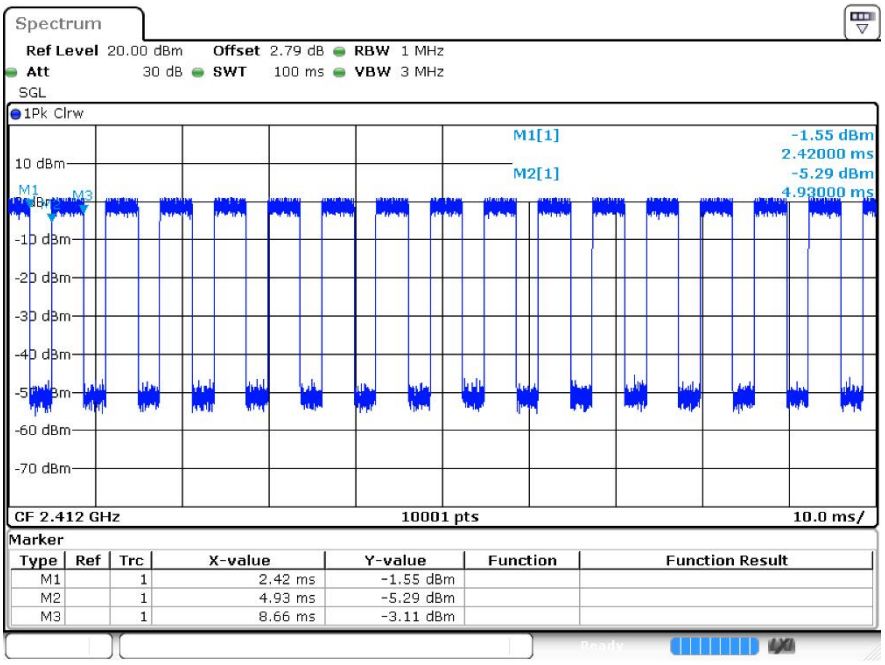
Duty Cycle g 2437MHz Ant2



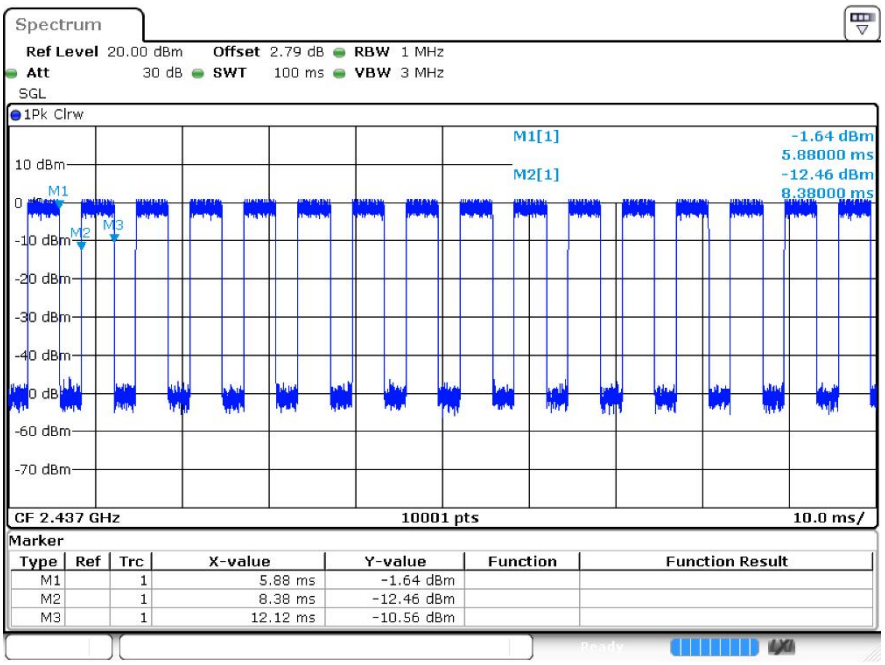

Duty Cycle g 2462MHz Ant2



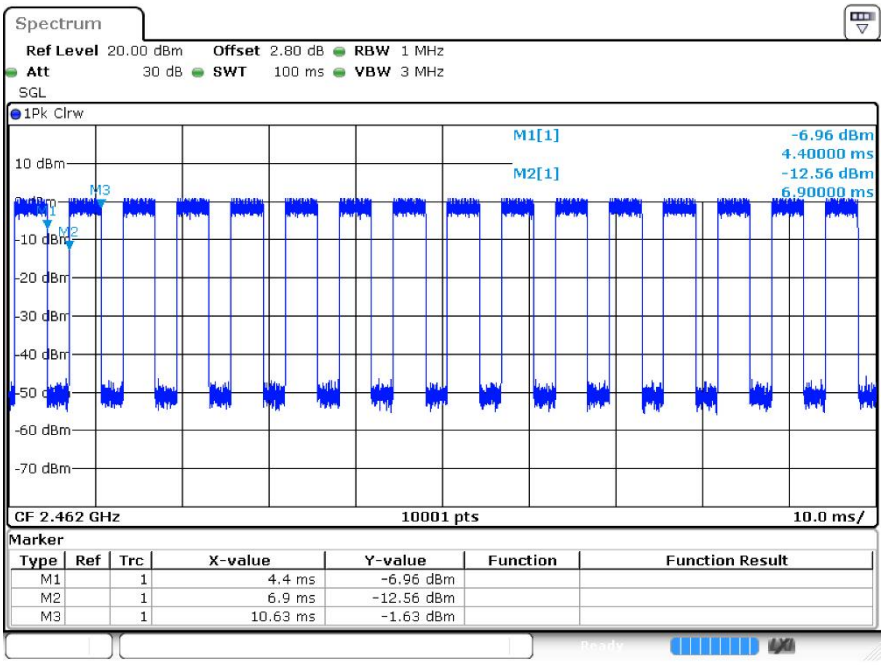
Duty Cycle n20 2412MHz Ant2



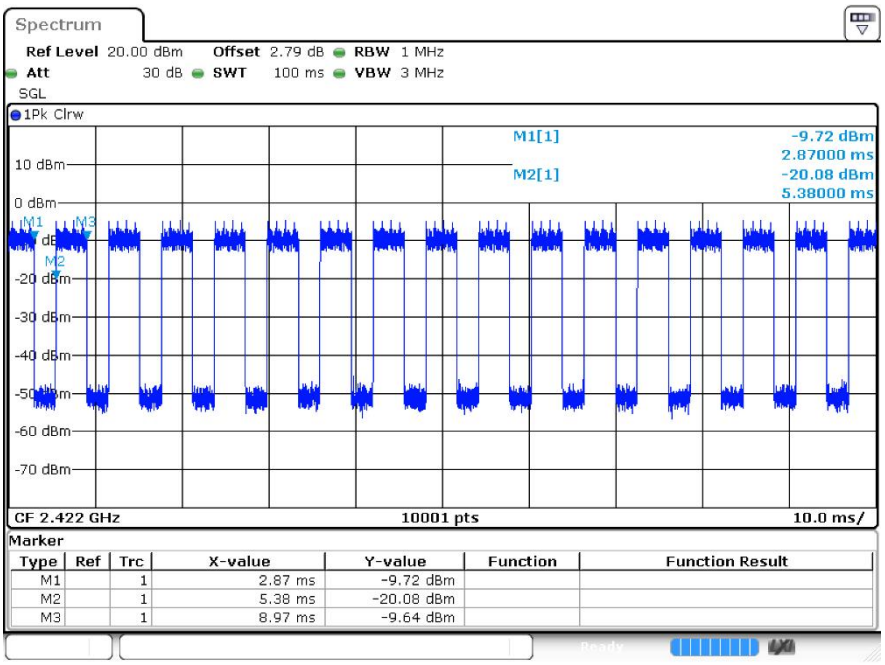

Duty Cycle n20 2437MHz Ant2



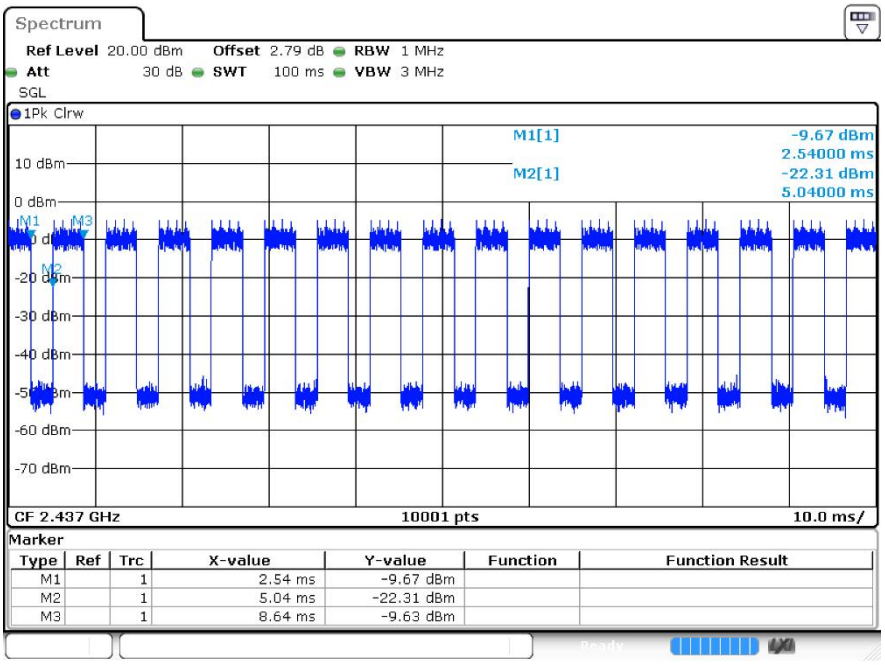
Duty Cycle n20 2462MHz Ant2



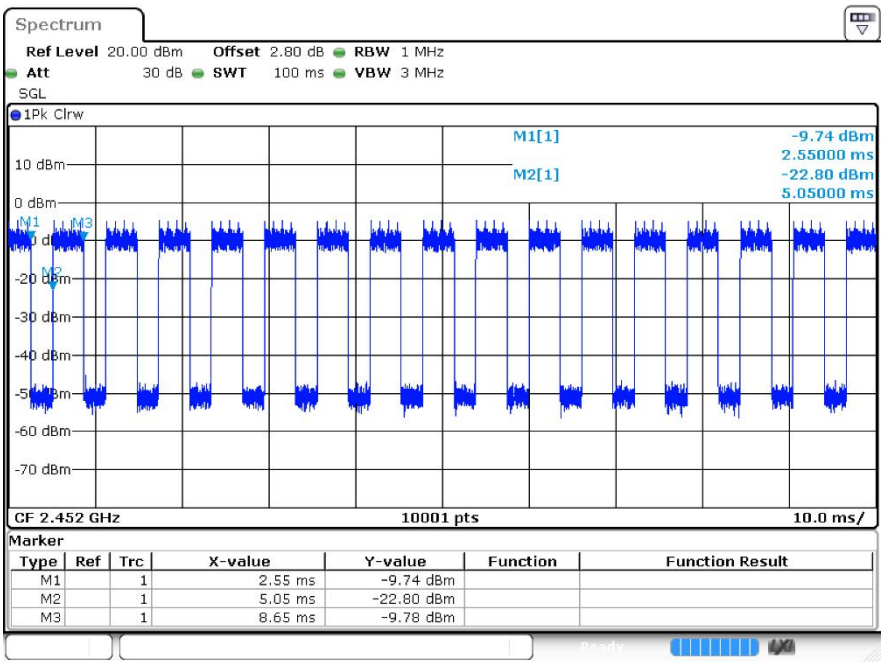

Duty Cycle n40 2422MHz Ant2



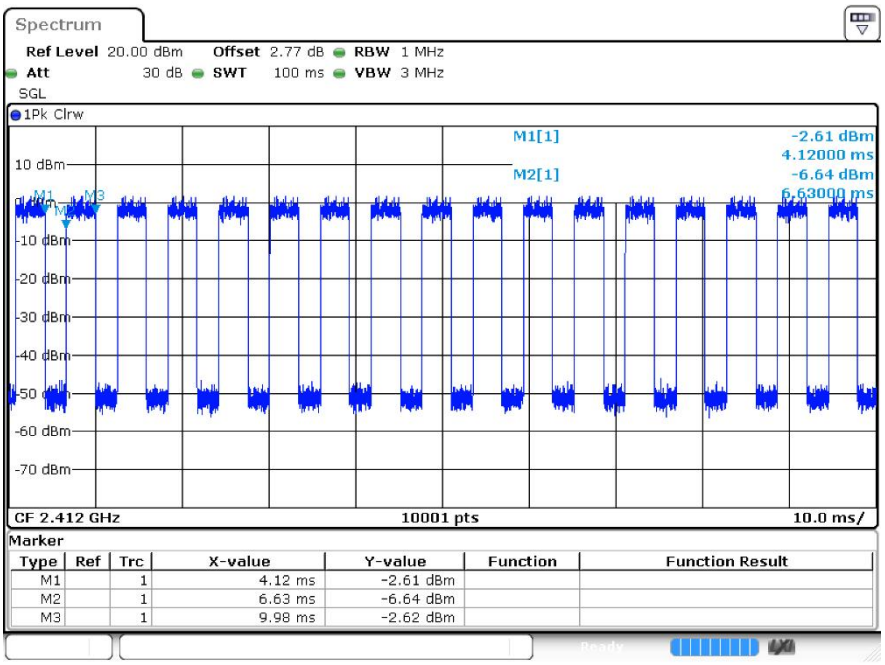
Duty Cycle n40 2437MHz Ant2



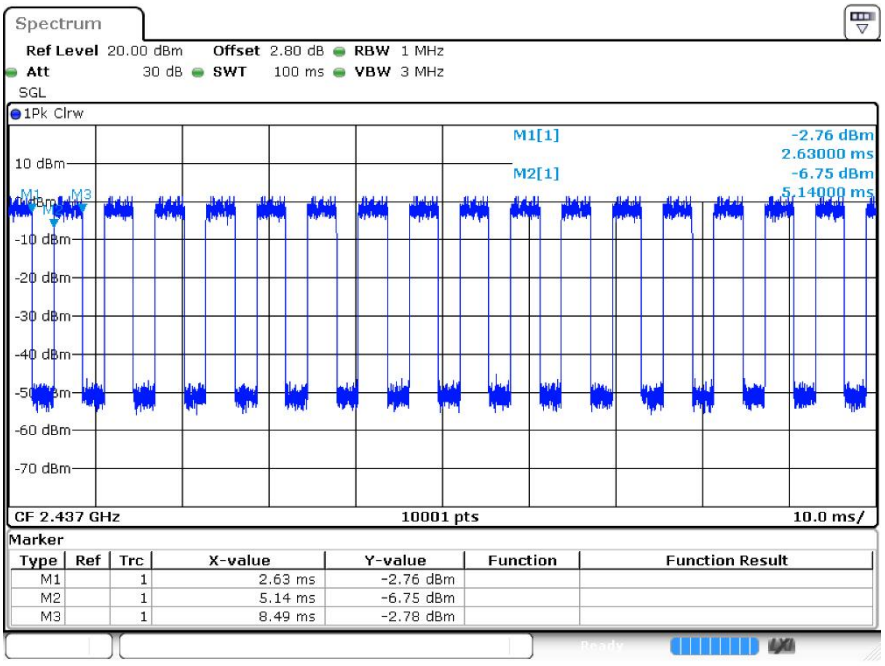

Duty Cycle n40 2452MHz Ant2



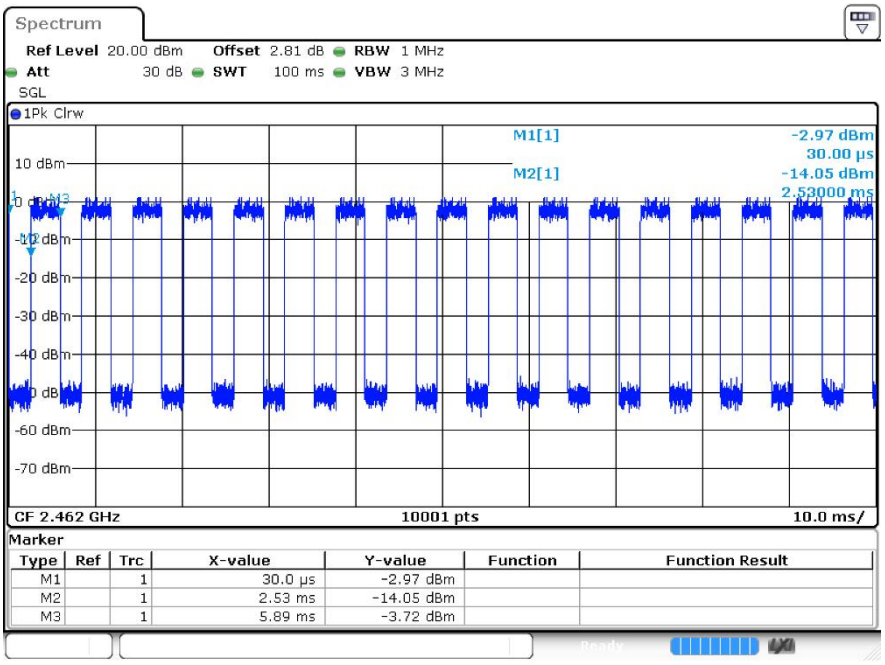
Duty Cycle ax20 2412MHz Ant1



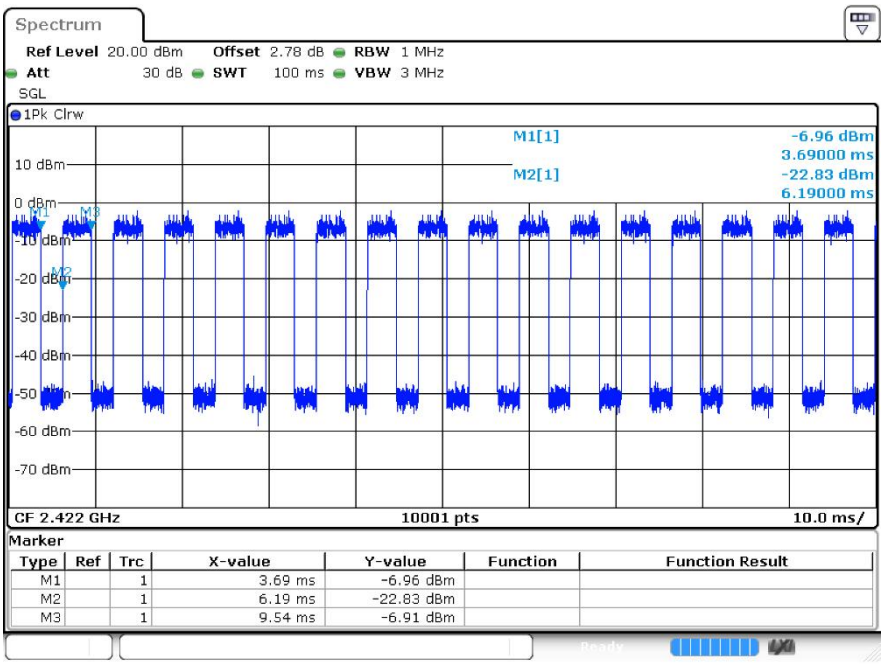

Duty Cycle ax20 2437MHz Ant1



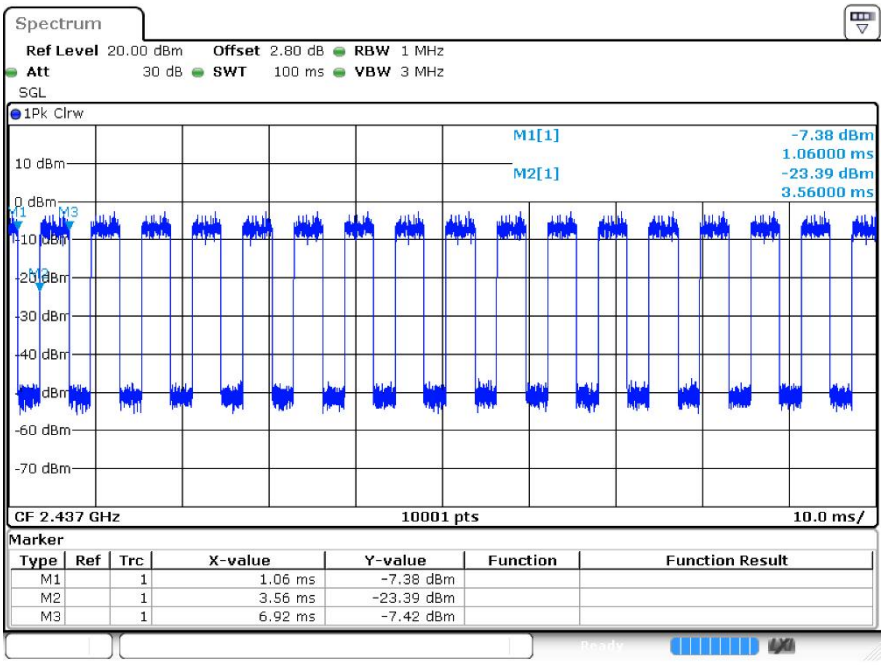
Duty Cycle ax20 2462MHz Ant1



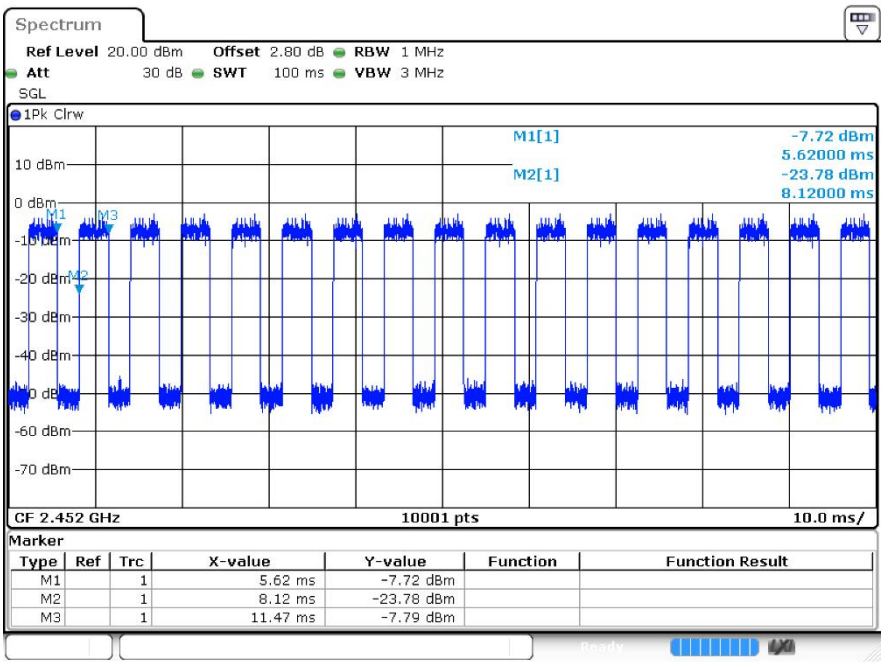

Duty Cycle ax40 2422MHz Ant1



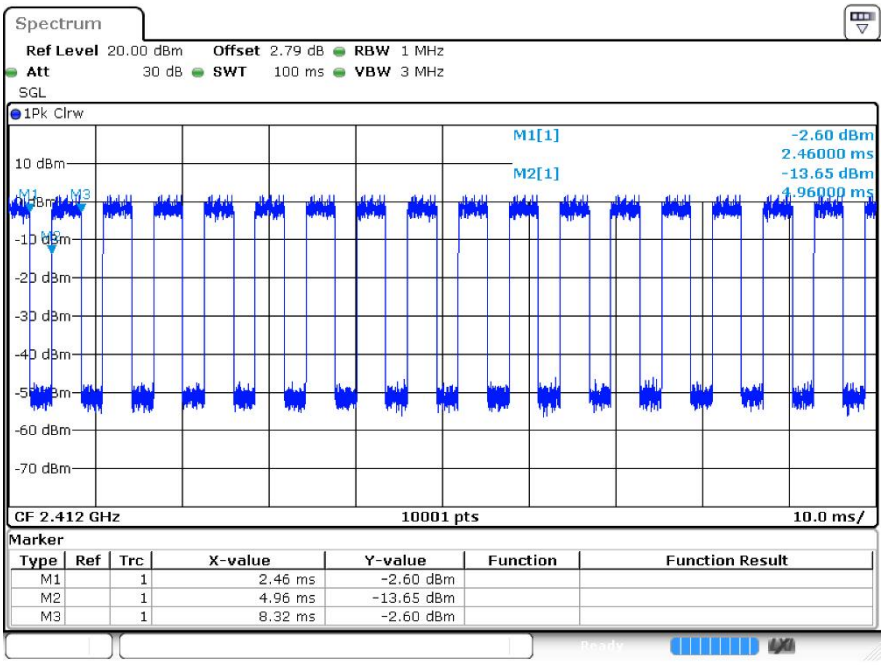
Duty Cycle ax40 2437MHz Ant1



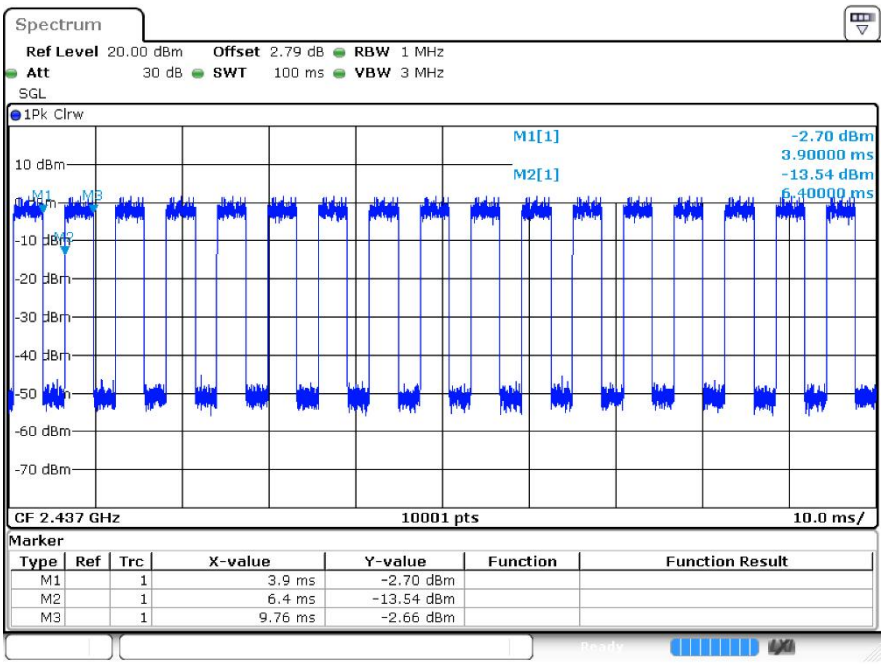

Duty Cycle ax40 2452MHz Ant1



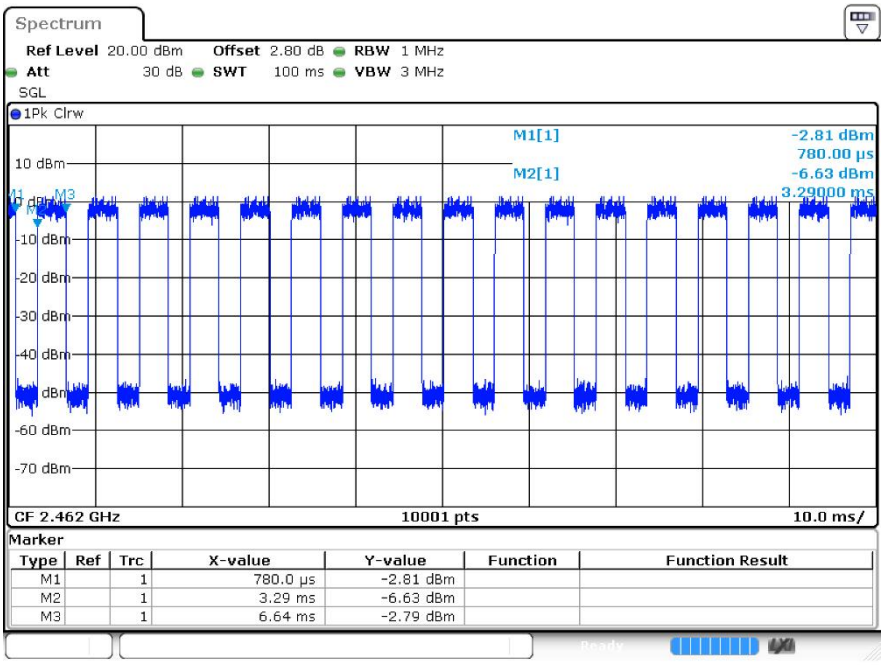
Duty Cycle ax20 2412MHz Ant2



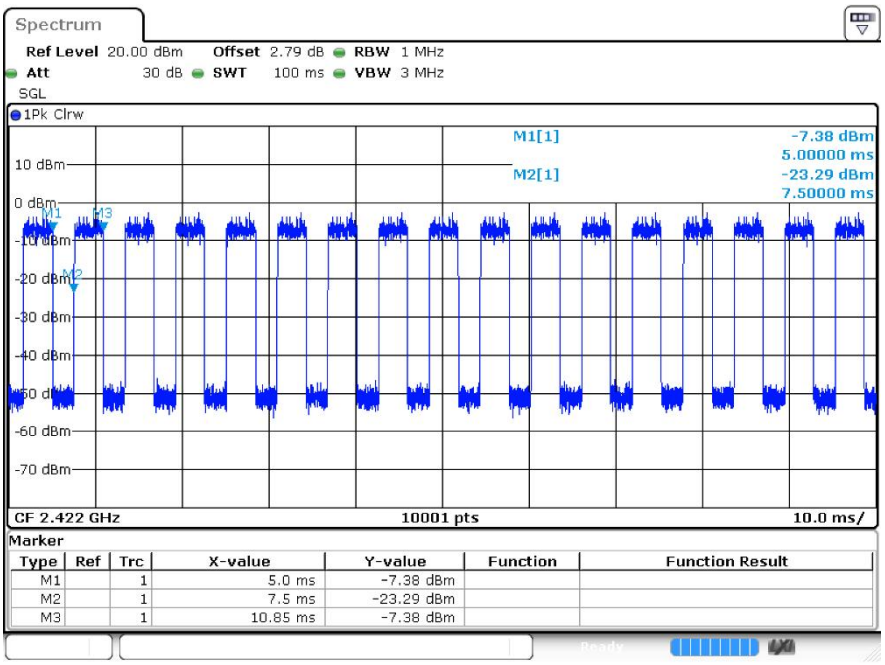

Duty Cycle ax20 2437MHz Ant2



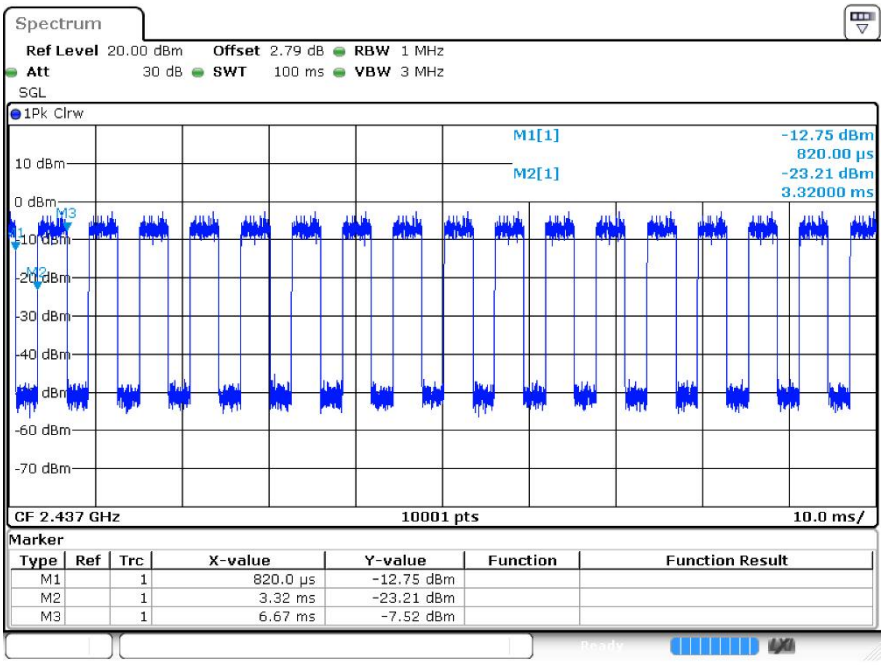
Duty Cycle ax20 2462MHz Ant2



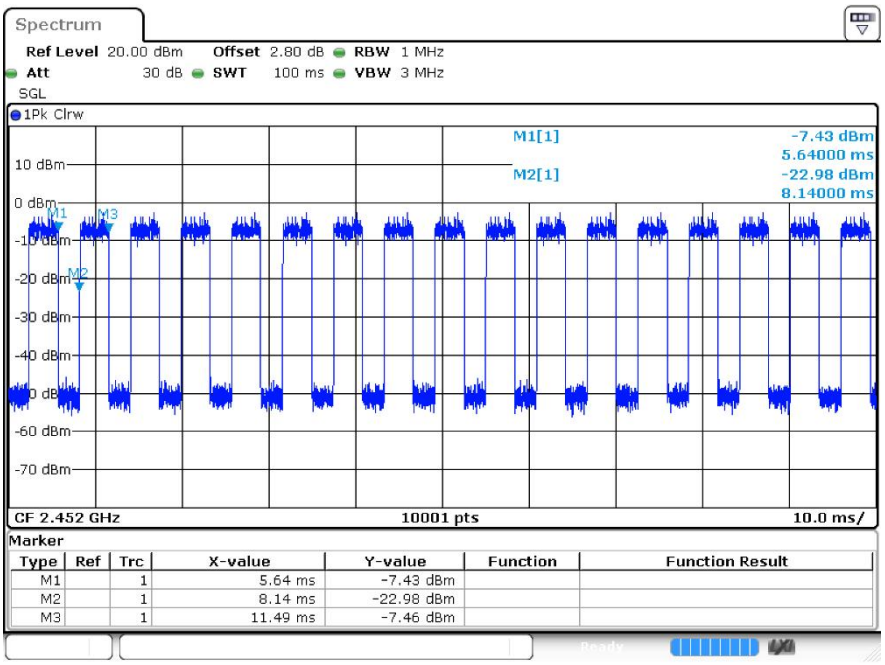

Duty Cycle ax40 2422MHz Ant2



Duty Cycle ax40 2437MHz Ant2




Duty Cycle ax40 2452MHz Ant2



# 2 Maximum Conducted Output Power

## 2.1 Test Result

| Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|
| b | 2412 | Ant1 | 15.83 | 30 | Pass |
| b | 2437 | Ant1 | 16.05 | 30 | Pass |
| b | 2462 | Ant1 | 15.94 | 30 | Pass |
| b | 2412 | Ant2 | 15.85 | 30 | Pass |
| b | 2437 | Ant2 | 15.96 | 30 | Pass |
| b | 2462 | Ant2 | 16.16 | 30 | Pass |
| g | 2412 | Ant1 | 14.57 | 30 | Pass |
| g | 2437 | Ant1 | 14.5 | 30 | Pass |
| g | 2462 | Ant1 | 14.1 | 30 | Pass |
| g | 2412 | Ant2 | 14.64 | 30 | Pass |
| g | 2437 | Ant2 | 14.42 | 30 | Pass |
| g | 2462 | Ant2 | 14.42 | 30 | Pass |
| n20 | 2412 | Ant1 | 10.86 | 30 | Pass |
| n20 | 2437 | Ant1 | 10.64 | 30 | Pass |
| n20 | 2462 | Ant1 | 10.44 | 30 | Pass |
| n20 | 2412 | Ant2 | 10.9 | 30 | Pass |
| n20 | 2437 | Ant2 | 10.62 | 30 | Pass |
| n20 | 2462 | Ant2 | 10.44 | 30 | Pass |
| n20 | 2412 | Sum | 13.89 | 29.86 | Pass |
| n20 | 2437 | Sum | 13.64 | 29.86 | Pass |
| n20 | 2462 | Sum | 13.45 | 29.86 | Pass |
| n40 | 2422 | Ant1 | 10.74 | 30 | Pass |
| n40 | 2437 | Ant1 | 10.49 | 30 | Pass |
| n40 | 2452 | Ant1 | 10.25 | 30 | Pass |
| n40 | 2422 | Ant2 | 10.69 | 30 | Pass |
| n40 | 2437 | Ant2 | 10.59 | 30 | Pass |
| n40 | 2452 | Ant2 | 10.44 | 30 | Pass |
| n40 | 2422 | Sum | 13.73 | 29.86 | Pass |
| n40 | 2437 | Sum | 13.55 | 29.86 | Pass |
| n40 | 2452 | Sum | 13.36 | 29.86 | Pass |
| ax20 | 2412 | Ant1 | 10.73 | 30 | Pass |
| ax20 | 2437 | Ant1 | 10.67 | 30 | Pass |

| | | | | | |
|---|---|---|---|---|---|
| ax20 | 2462 | Ant1 | 10.46 | 30 | Pass |
| ax20 | 2412 | Ant2 | 10.84 | 30 | Pass |
| ax20 | 2437 | Ant2 | 10.55 | 30 | Pass |
| ax20 | 2462 | Ant2 | 10.44 | 30 | Pass |
| ax20 | 2412 | Sum | 13.80 | 29.86 | Pass |
| ax20 | 2437 | Sum | 13.62 | 29.86 | Pass |
| ax20 | 2462 | Sum | 13.46 | 29.86 | Pass |
| ax40 | 2422 | Ant1 | 10.61 | 30 | Pass |
| ax40 | 2437 | Ant1 | 10.31 | 30 | Pass |
| ax40 | 2452 | Ant1 | 10.26 | 30 | Pass |
| ax40 | 2422 | Ant2 | 10.62 | 30 | Pass |
| ax40 | 2437 | Ant2 | 10.56 | 30 | Pass |
| ax40 | 2452 | Ant2 | 10.26 | 30 | Pass |
| ax40 | 2422 | Sum | 13.63 | 29.86 | Pass |
| ax40 | 2437 | Sum | 13.45 | 29.86 | Pass |
| ax40 | 2452 | Sum | 13.27 | 29.86 | Pass |

Note: The MIMO gain of antenna is 6.14 dBi, which exceeds 6 dBi. Limit = 30 - (6.14 - 6) = 29.86 dBm

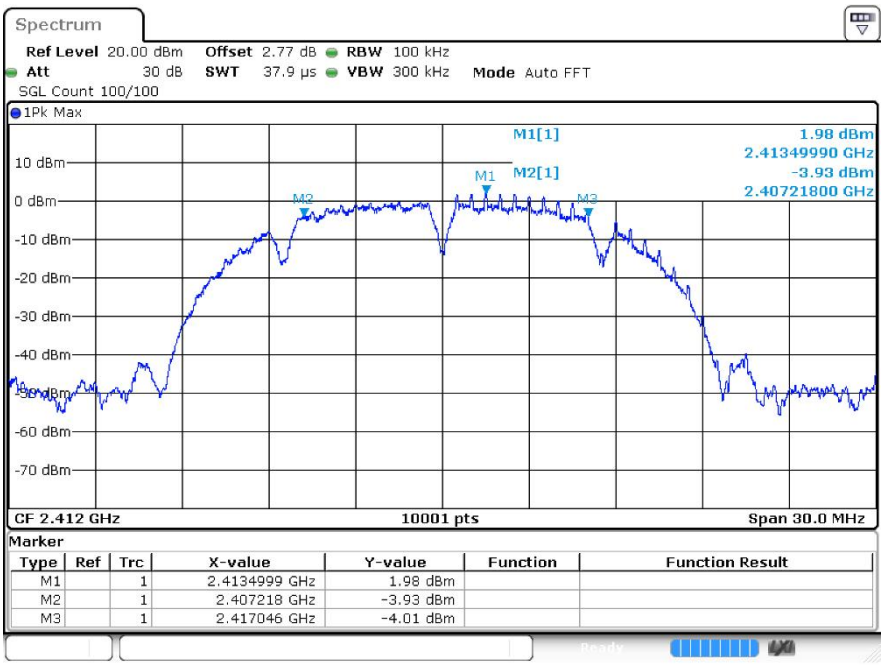
# 3 -6dB Bandwidth

## 3.1 Test Result

| Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|
| b | 2412 | Ant1 | 9.828 | 0.5 | Pass |
| b | 2437 | Ant1 | 10.101 | 0.5 | Pass |
| b | 2462 | Ant1 | 10.032 | 0.5 | Pass |
| g | 2412 | Ant1 | 16.305 | 0.5 | Pass |
| g | 2437 | Ant1 | 16.305 | 0.5 | Pass |
| g | 2462 | Ant1 | 16.305 | 0.5 | Pass |
| n20 | 2412 | Ant1 | 17.283 | 0.5 | Pass |
| n20 | 2437 | Ant1 | 16.155 | 0.5 | Pass |
| n20 | 2462 | Ant1 | 17.562 | 0.5 | Pass |
| n40 | 2422 | Ant1 | 31.014 | 0.5 | Pass |
| n40 | 2437 | Ant1 | 36.294 | 0.5 | Pass |
| n40 | 2452 | Ant1 | 36.3 | 0.5 | Pass |
| ax20 | 2412 | Ant1 | 18.387 | 0.5 | Pass |
| ax20 | 2437 | Ant1 | 17.016 | 0.5 | Pass |
| ax20 | 2462 | Ant1 | 17.922 | 0.5 | Pass |
| ax40 | 2422 | Ant1 | 27.372 | 0.5 | Pass |
| ax40 | 2437 | Ant1 | 34.764 | 0.5 | Pass |
| ax40 | 2452 | Ant1 | 37.89 | 0.5 | Pass |
| b | 2412 | Ant2 | 10.056 | 0.5 | Pass |
| b | 2437 | Ant2 | 10.098 | 0.5 | Pass |
| b | 2462 | Ant2 | 10.08 | 0.5 | Pass |
| g | 2412 | Ant2 | 16.323 | 0.5 | Pass |
| g | 2437 | Ant2 | 16.305 | 0.5 | Pass |
| g | 2462 | Ant2 | 13.842 | 0.5 | Pass |
| n20 | 2412 | Ant2 | 14.1 | 0.5 | Pass |
| n20 | 2437 | Ant2 | 17.547 | 0.5 | Pass |
| n20 | 2462 | Ant2 | 17.229 | 0.5 | Pass |
| n40 | 2422 | Ant2 | 34.998 | 0.5 | Pass |
| n40 | 2437 | Ant2 | 35.91 | 0.5 | Pass |
| n40 | 2452 | Ant2 | 36.288 | 0.5 | Pass |
| ax20 | 2412 | Ant2 | 18.495 | 0.5 | Pass |
| ax20 | 2437 | Ant2 | 17.826 | 0.5 | Pass |
| ax20 | 2462 | Ant2 | 18.045 | 0.5 | Pass |
| ax40 | 2422 | Ant2 | 37.914 | 0.5 | Pass |
| ax40 | 2437 | Ant2 | 31.812 | 0.5 | Pass |
| ax40 | 2452 | Ant2 | 35.784 | 0.5 | Pass |

## 3.2 Test Graphs

| Test Graphs |
| --- |
| b 2412MHz Ant1 |




| b 2437MHz Ant1 |
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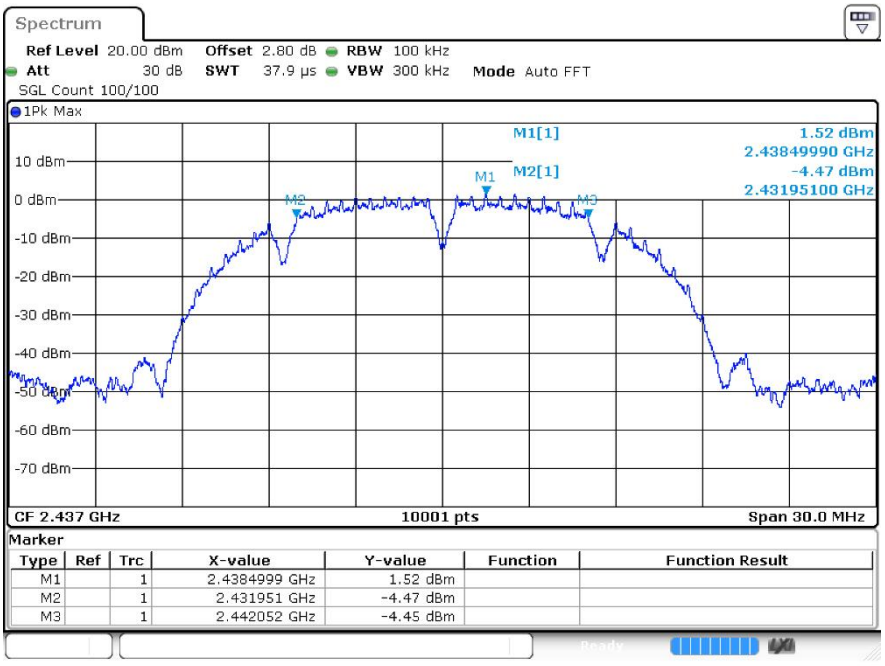
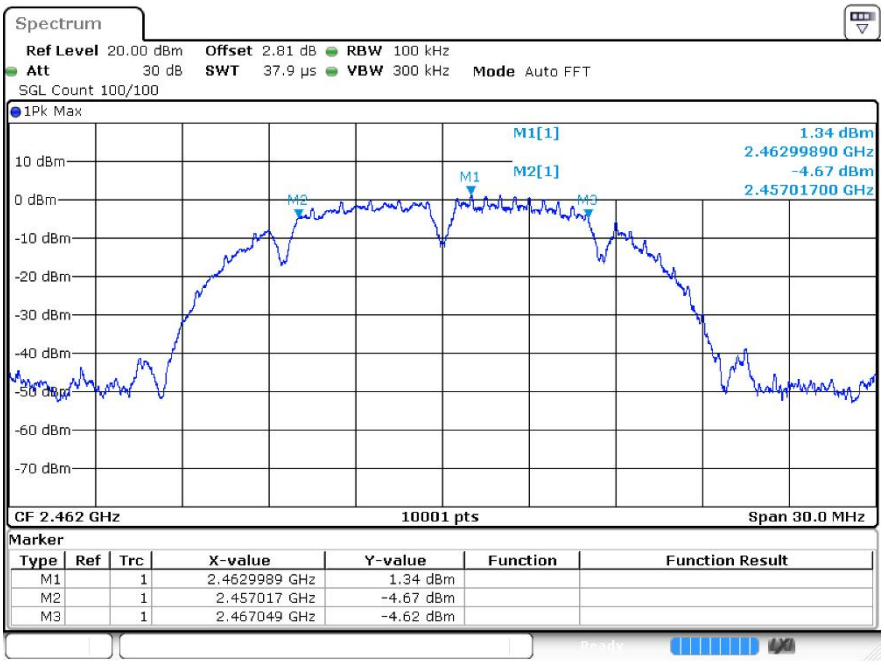
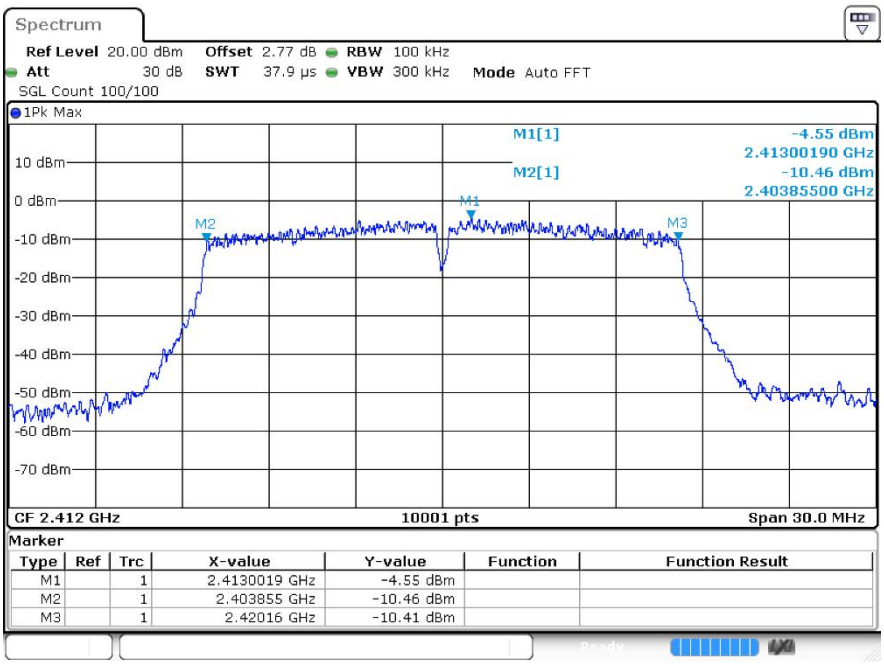


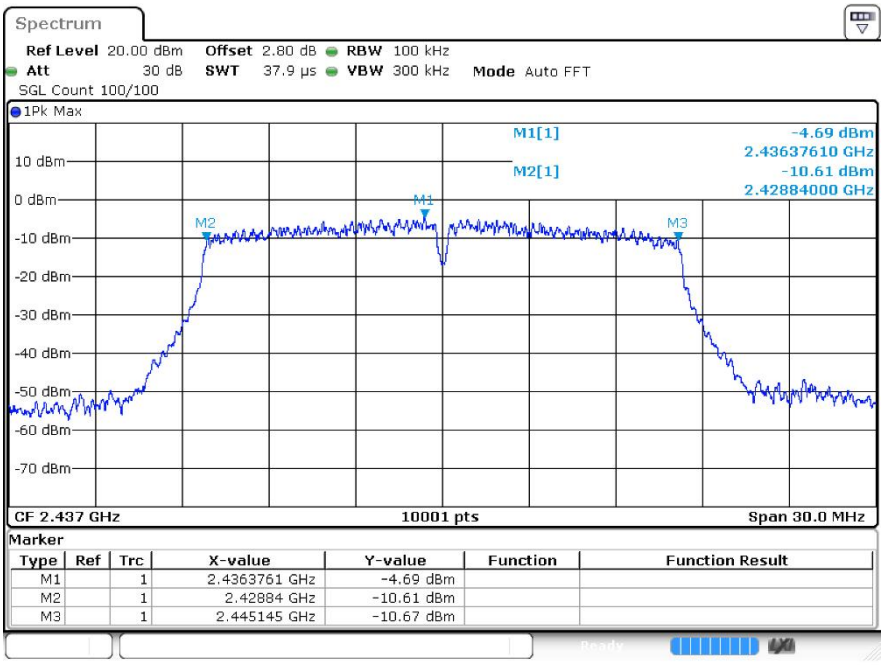
b 2462MHz Ant1



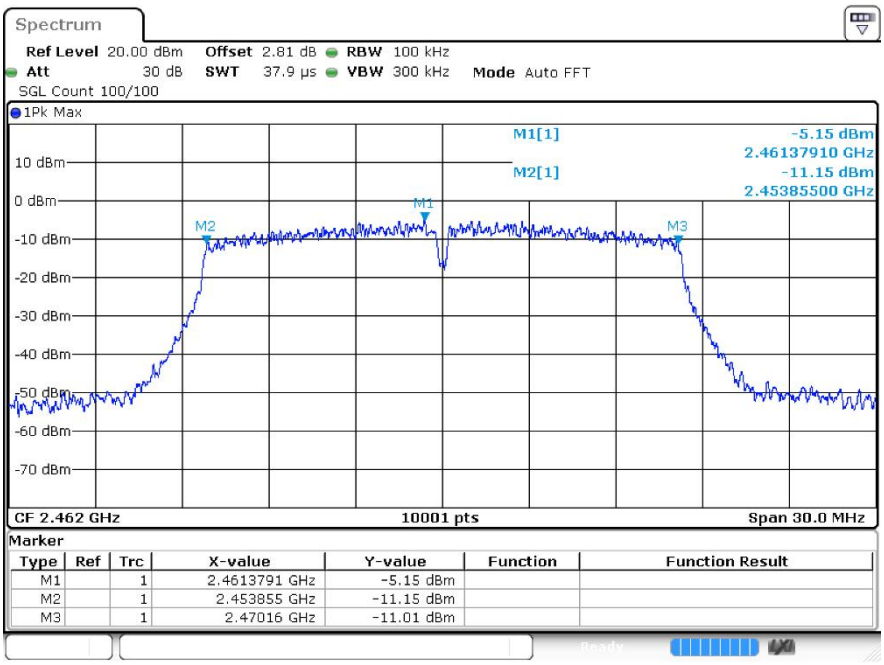

g 2412MHz Ant1



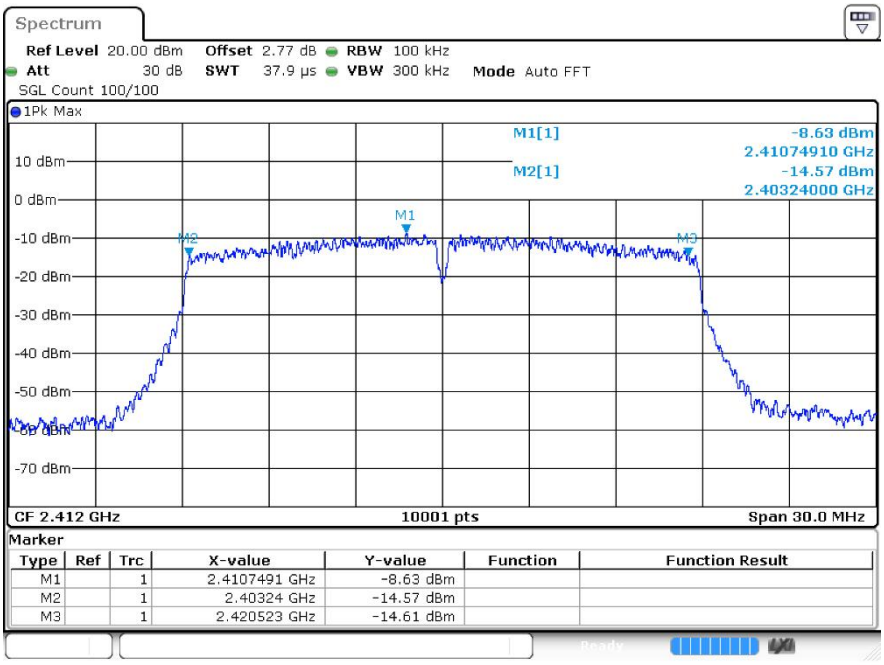
g 2437MHz Ant1



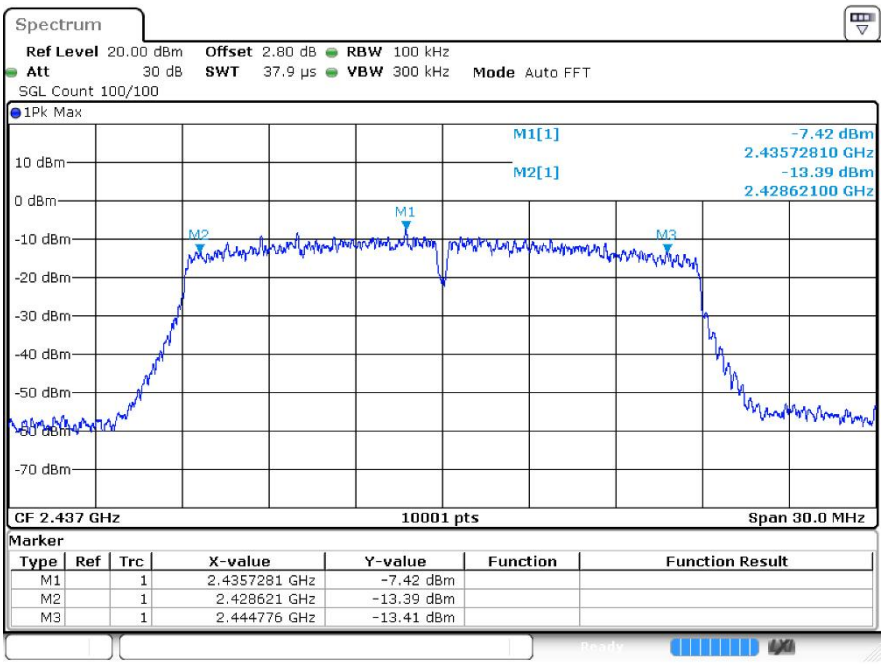

g 2462MHz Ant1



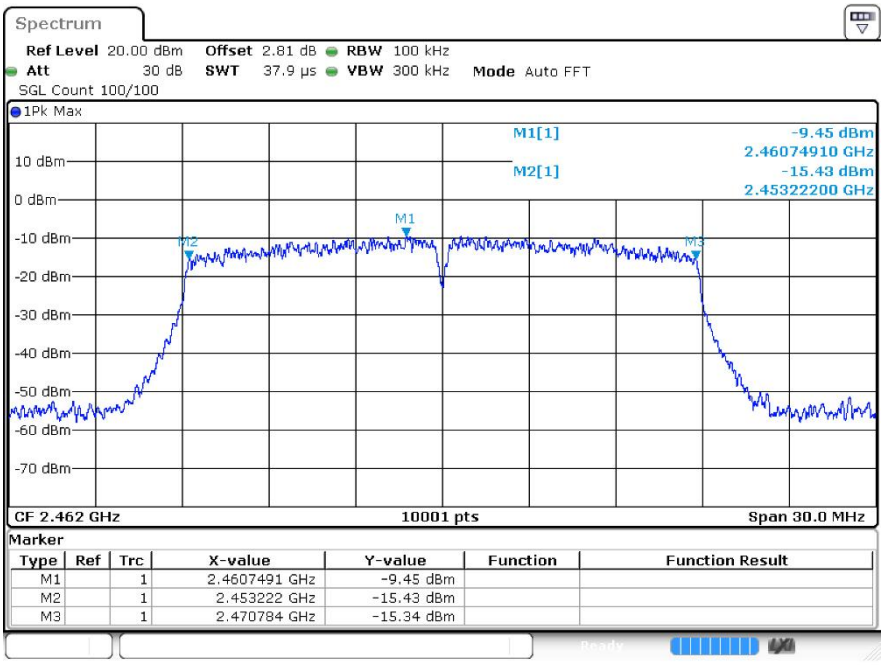
n20 2412MHz Ant1



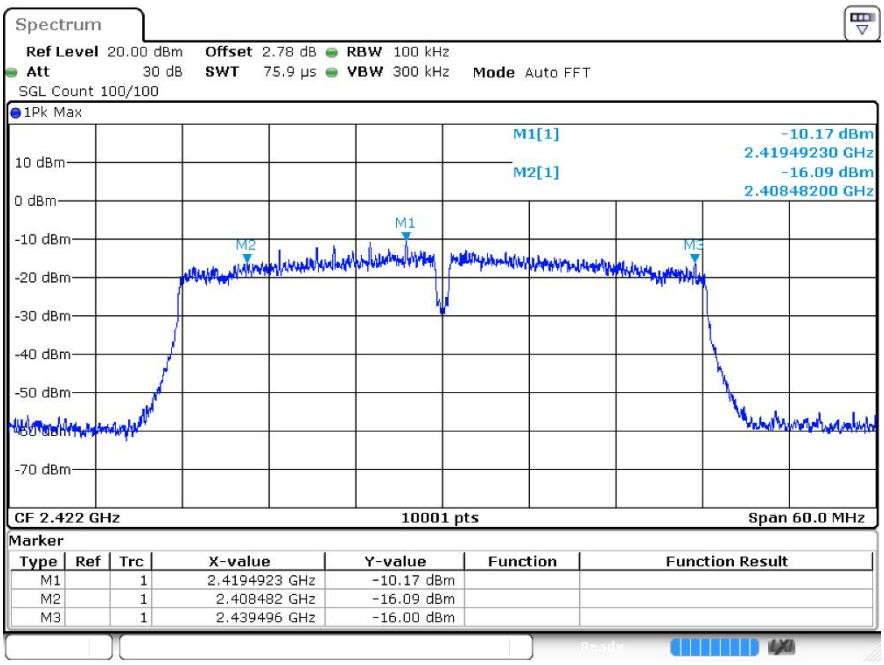

n20 2437MHz Ant1



n20 2462MHz Ant1




n40 2422MHz Ant1



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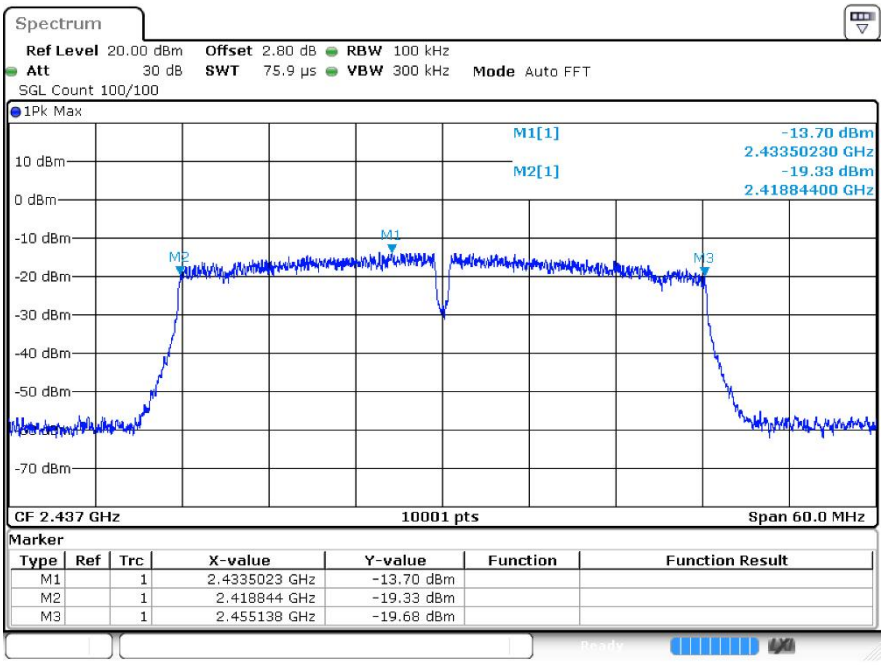


n40 2452MHz Ant1