

**Appendix A\_Test Data**  
**for BT(BDR/EDR)**  
**Conducted Measurement**  
**Product Name:All-in-One WorkStation**  
**Model No.: GA27QTA01.X**  
**Brand Name:AUO Display Plus**

**Environmental Conditions**

|                    |             |
|--------------------|-------------|
| Temperature:       | 24℃         |
| Relative Humidity: | 51%         |
| ATM Pressure:      | 101Kpa      |
| Test Engineer:     | Simba Huang |
| Supervised by:     | Seal Chen   |

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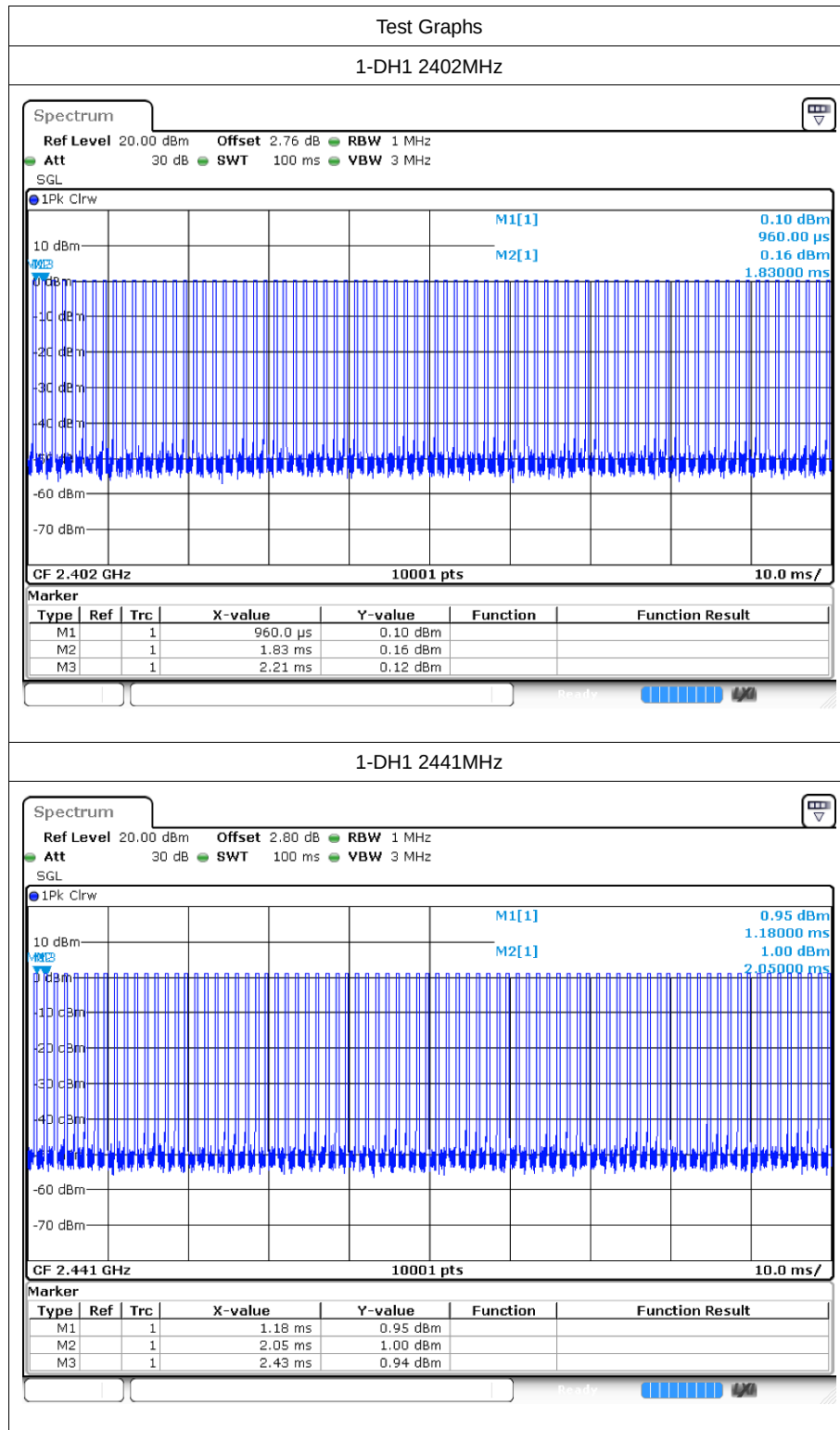
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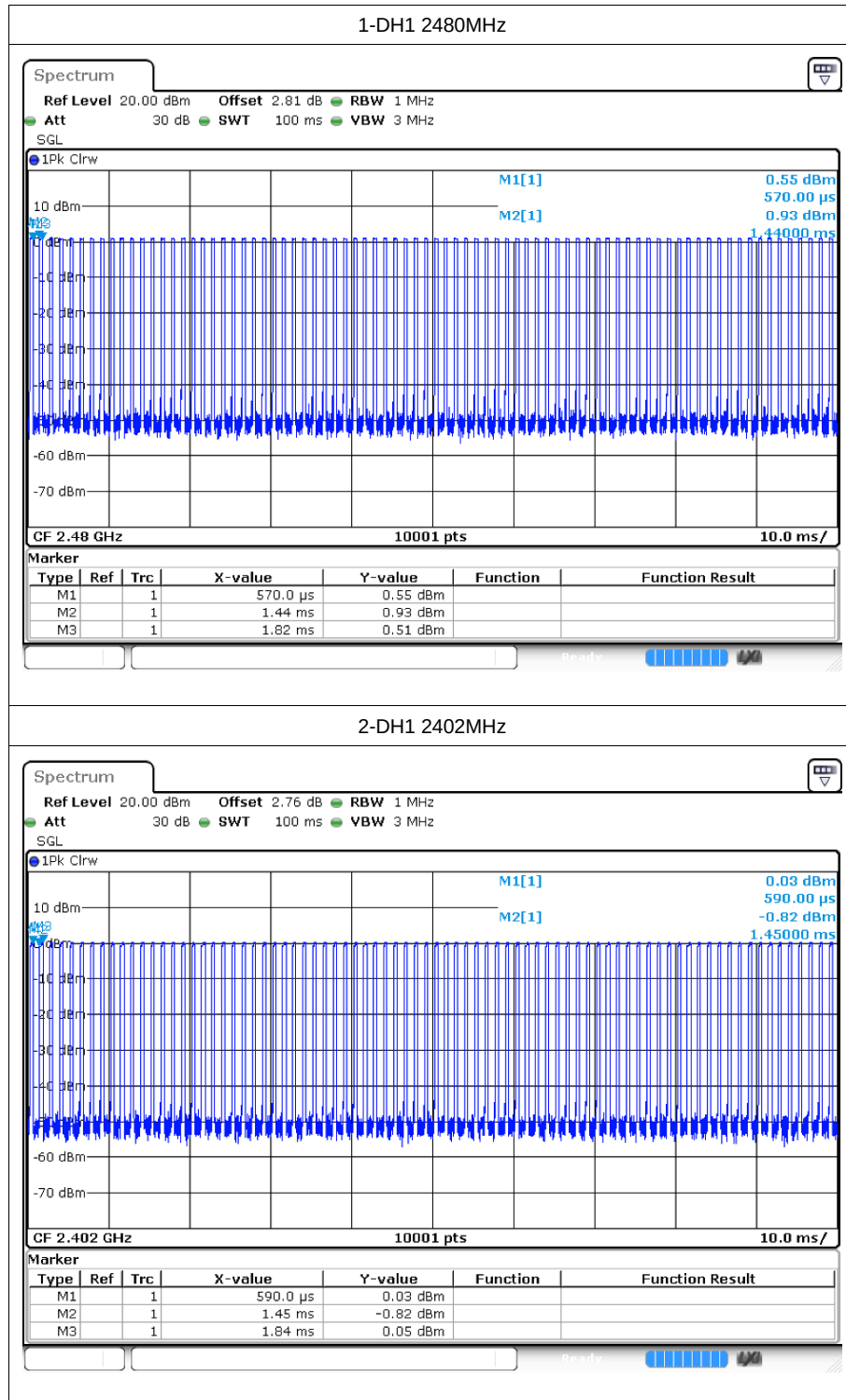
# 1 Duty Cycle

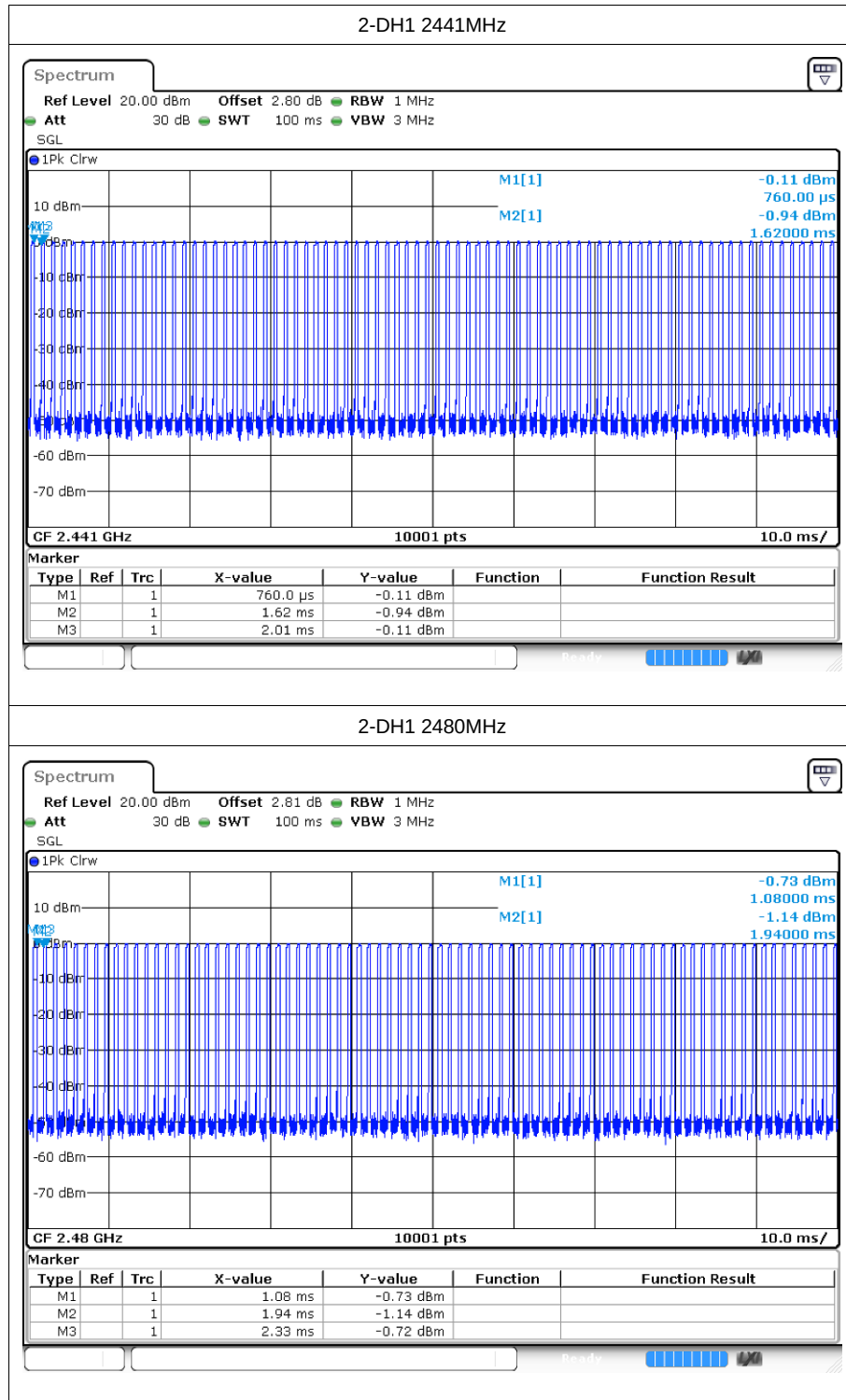
## 1.1 Test Result

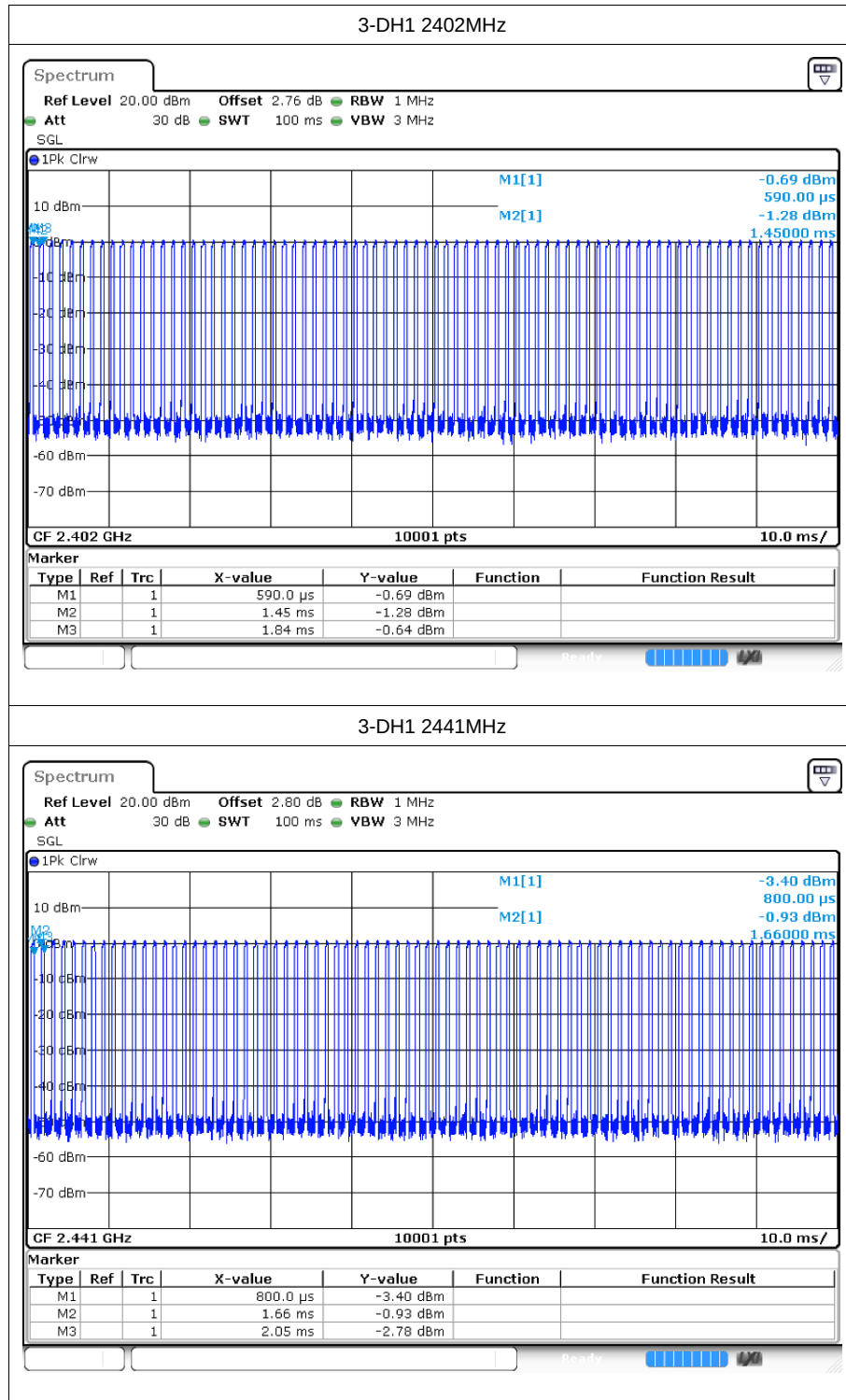
| Mode  | Frequency (MHz) | Duty Cycle (%) | 1/T (kHz) |
|-------|-----------------|----------------|-----------|
| 1-DH1 | 2402            | 31.2           | 2.63      |
| 1-DH1 | 2441            | 31.2           | 2.63      |
| 1-DH1 | 2480            | 31.2           | 2.63      |
| 2-DH1 | 2402            | 32             | 2.56      |
| 2-DH1 | 2441            | 32             | 2.56      |
| 2-DH1 | 2480            | 32             | 2.56      |
| 3-DH1 | 2402            | 32             | 2.56      |
| 3-DH1 | 2441            | 32             | 2.56      |
| 3-DH1 | 2480            | 32.01          | 2.56      |

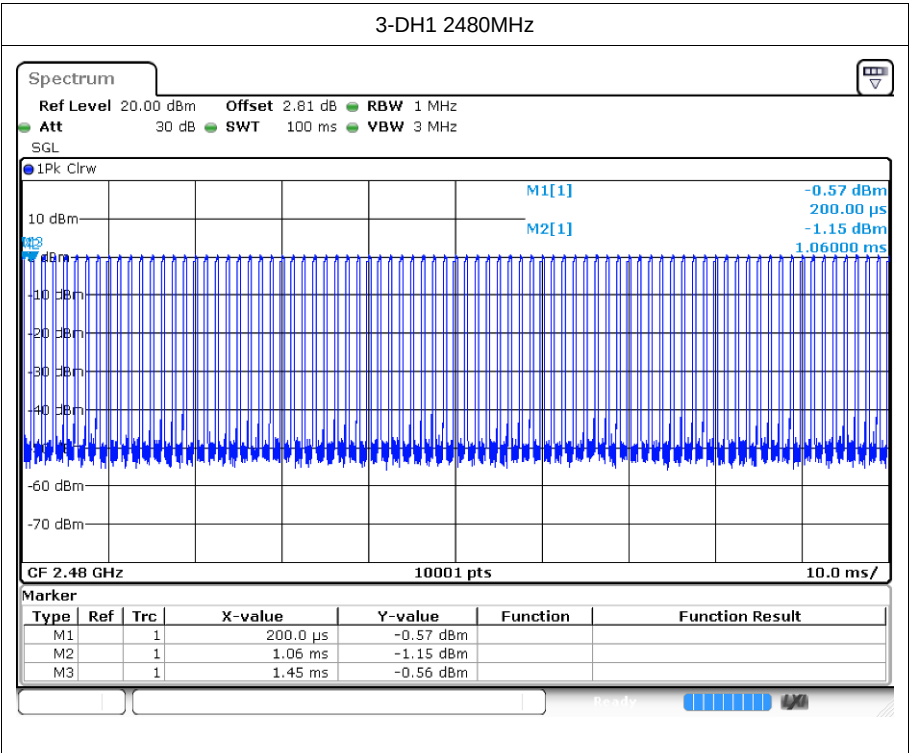
## 1.2 Test Graphs









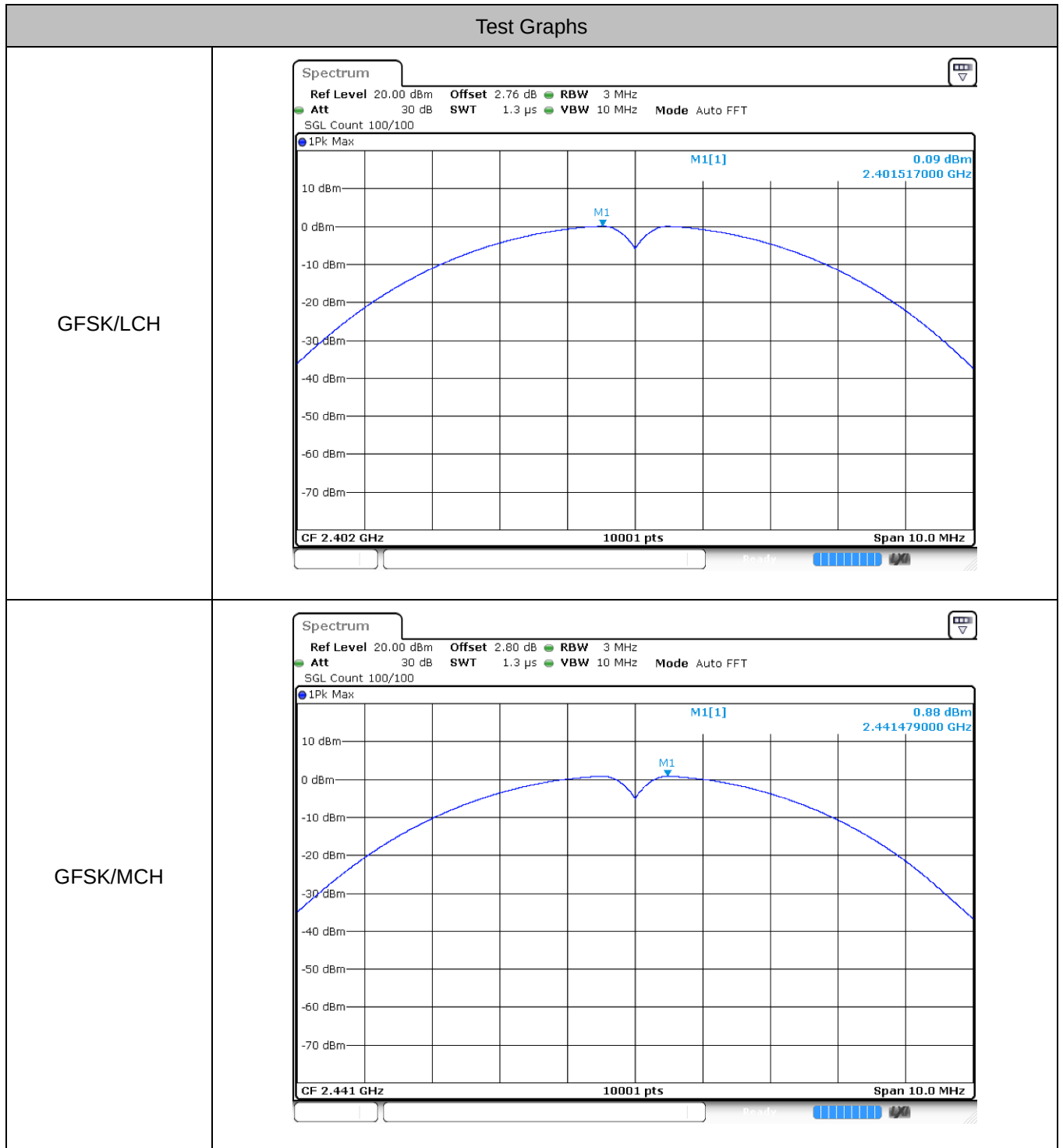


## 2 Maximum Conducted Peak Output Power

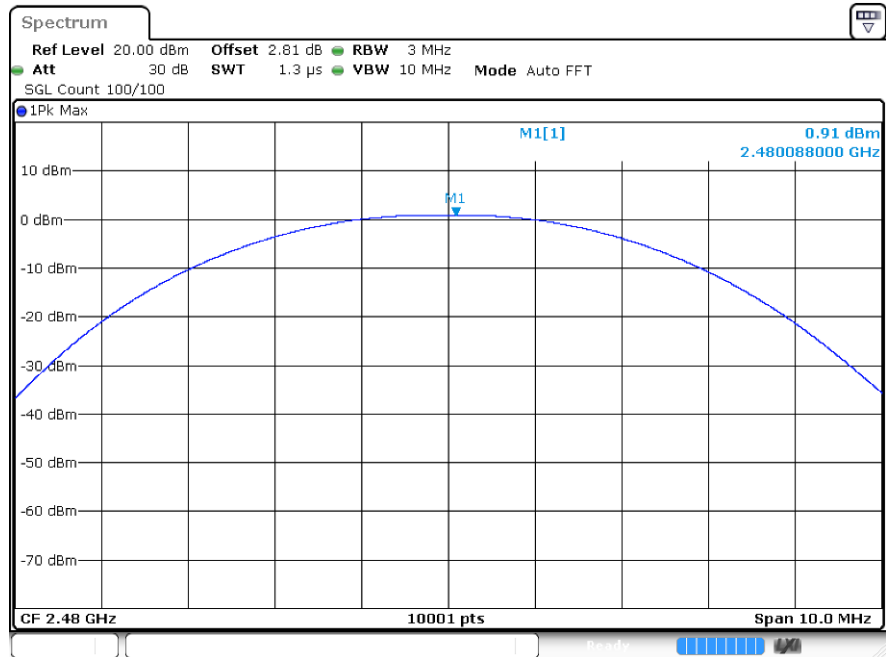
### 2.1 Test Result

| Mode          | Channel. | Maximum Peak Output Power<br>[dBm] | Limit<br>[dBm] | Verdict |
|---------------|----------|------------------------------------|----------------|---------|
| GFSK          | LCH      | 0.09                               | 21             | Pass    |
|               | MCH      | 0.88                               | 21             | Pass    |
|               | HCH      | 0.91                               | 21             | Pass    |
| $\pi/4$ DQPSK | LCH      | 1.24                               | 21             | Pass    |
|               | MCH      | 1.17                               | 21             | Pass    |
|               | HCH      | 1.05                               | 21             | Pass    |
| 8DPSK         | LCH      | 1.05                               | 21             | Pass    |
|               | MCH      | 1.37                               | 21             | Pass    |
|               | HCH      | 0.8                                | 21             | Pass    |

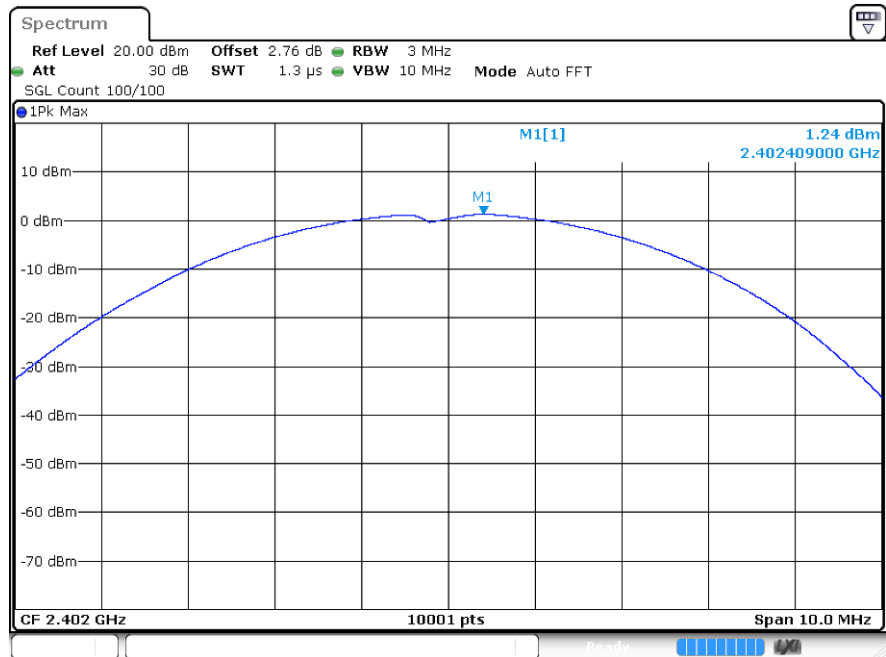
## 2.2 Test Graphs



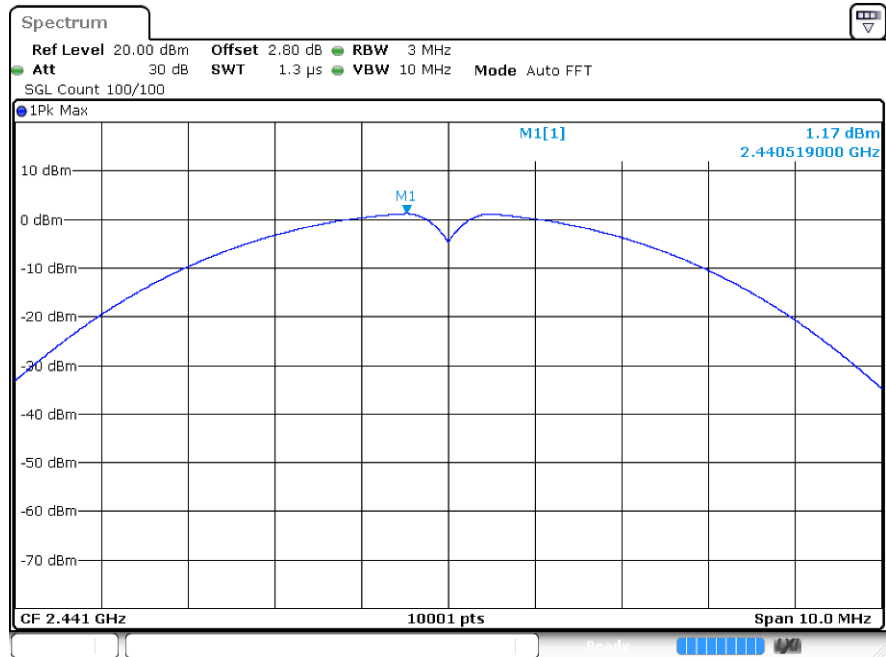
GFSK/HCH



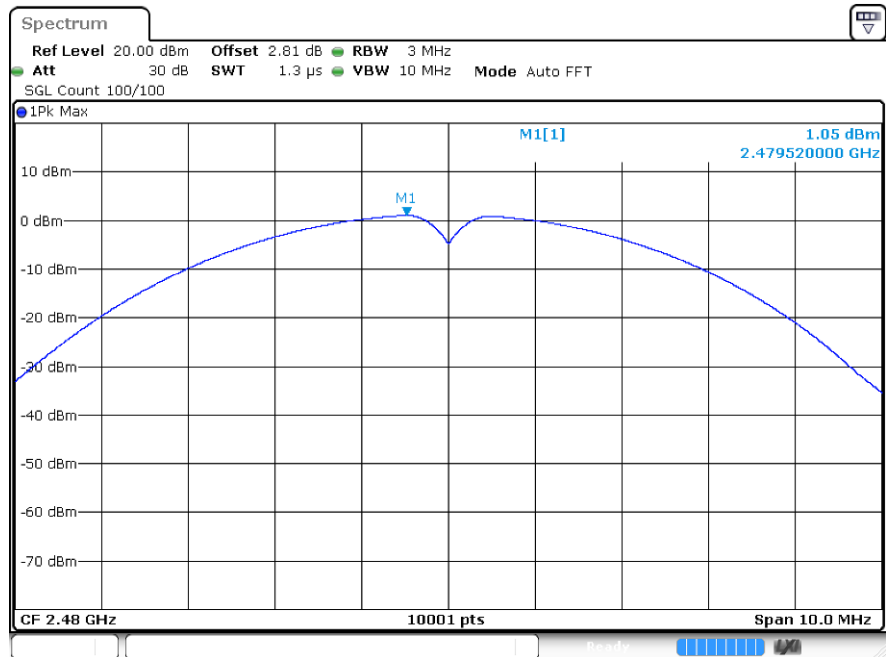
$\pi/4$ DQPSK/LCH



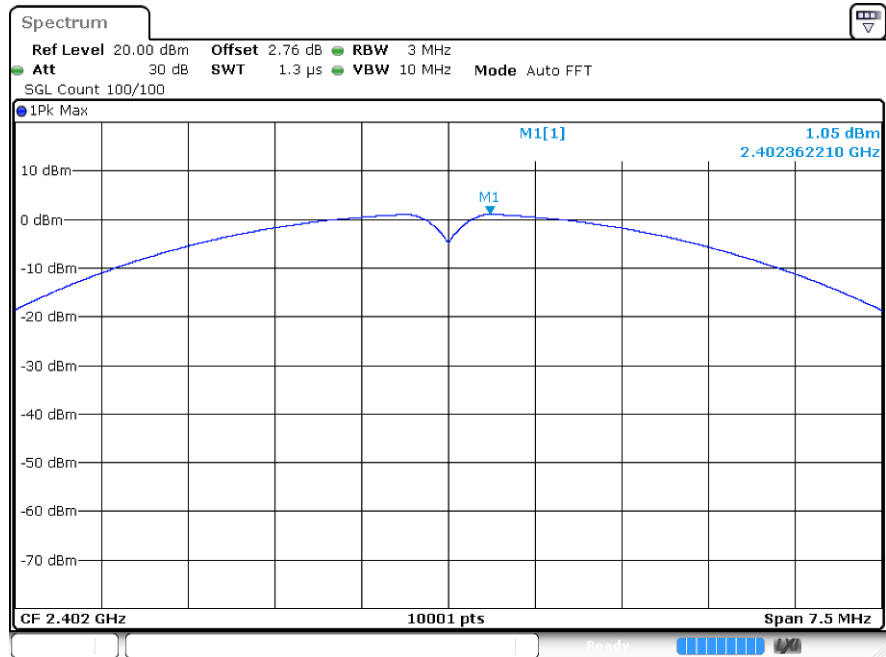
$\pi/4$ DQPSK/MCH



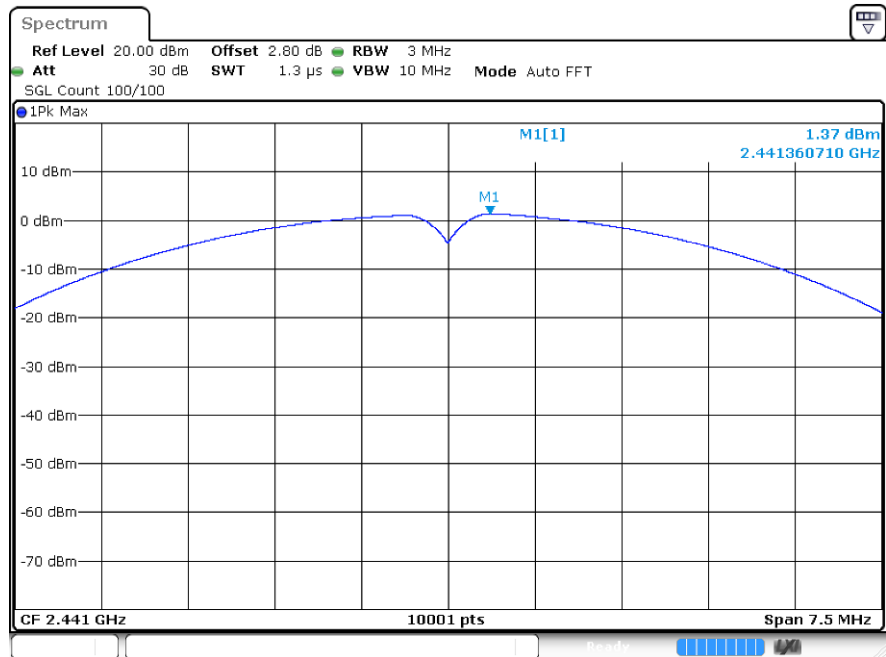
$\pi/4$ DQPSK/HCH



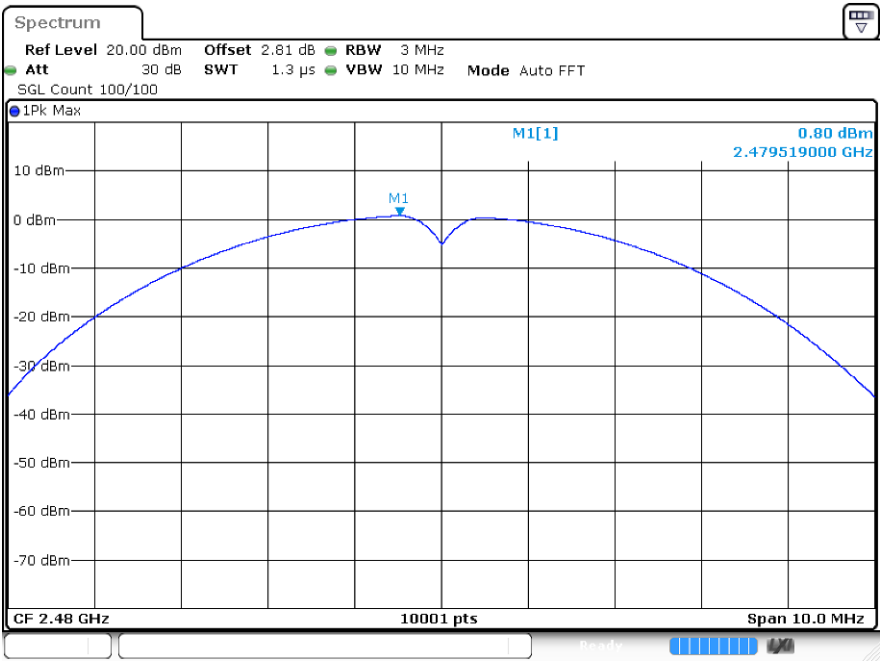
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

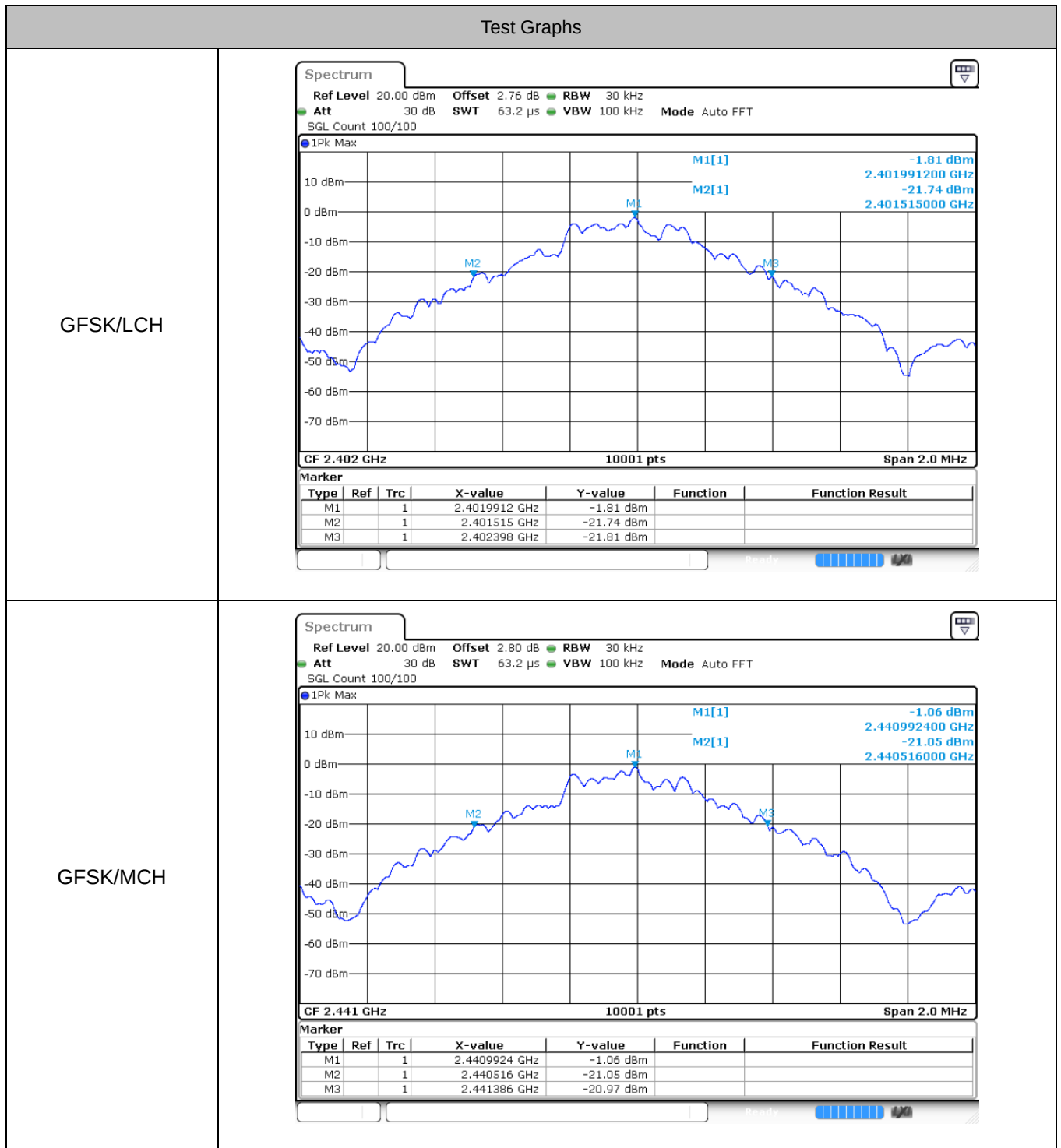


### 3 20dB Bandwidth

#### 3.1 Test Result

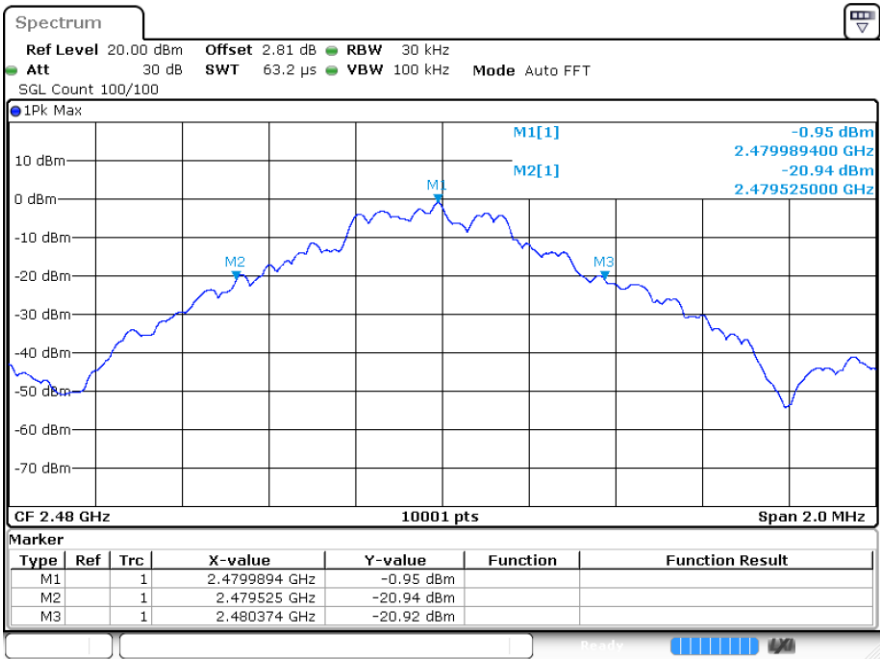
| Mode          | Channel. | 20dB Bandwidth [MHz] | Limit [MHz]   | Verdict |
|---------------|----------|----------------------|---------------|---------|
| GFSK          | LCH      | 0.884                | Not Specified | Pass    |
|               | MCH      | 0.87                 | Not Specified | Pass    |
|               | HCH      | 0.849                | Not Specified | Pass    |
| $\pi/4$ DQPSK | LCH      | 1.427                | Not Specified | Pass    |
|               | MCH      | 1.431                | Not Specified | Pass    |
|               | HCH      | 1.393                | Not Specified | Pass    |
| 8DPSK         | LCH      | 1.419                | Not Specified | Pass    |
|               | MCH      | 1.442                | Not Specified | Pass    |
|               | HCH      | 1.413                | Not Specified | Pass    |

### 3.2 Test Graphs

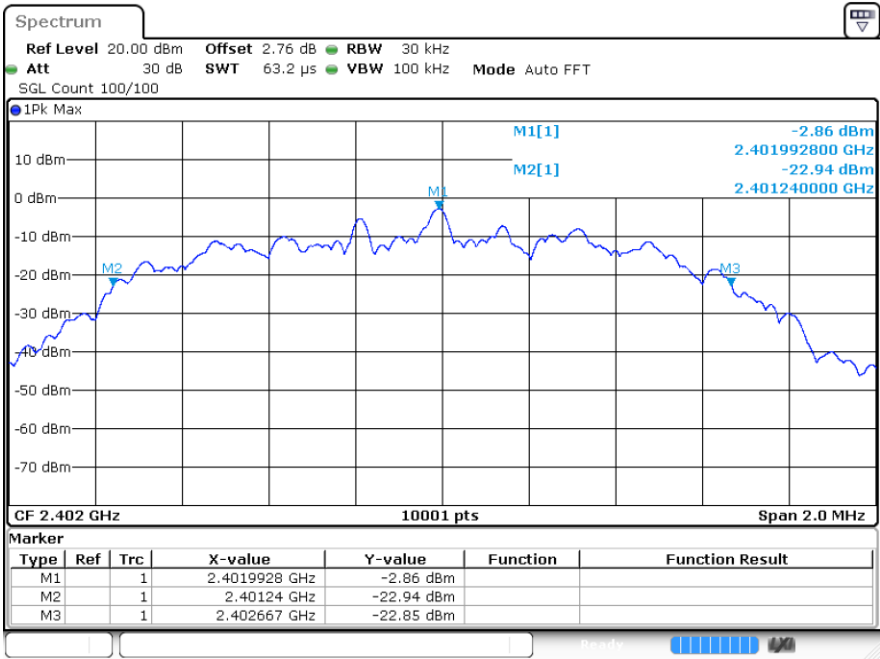


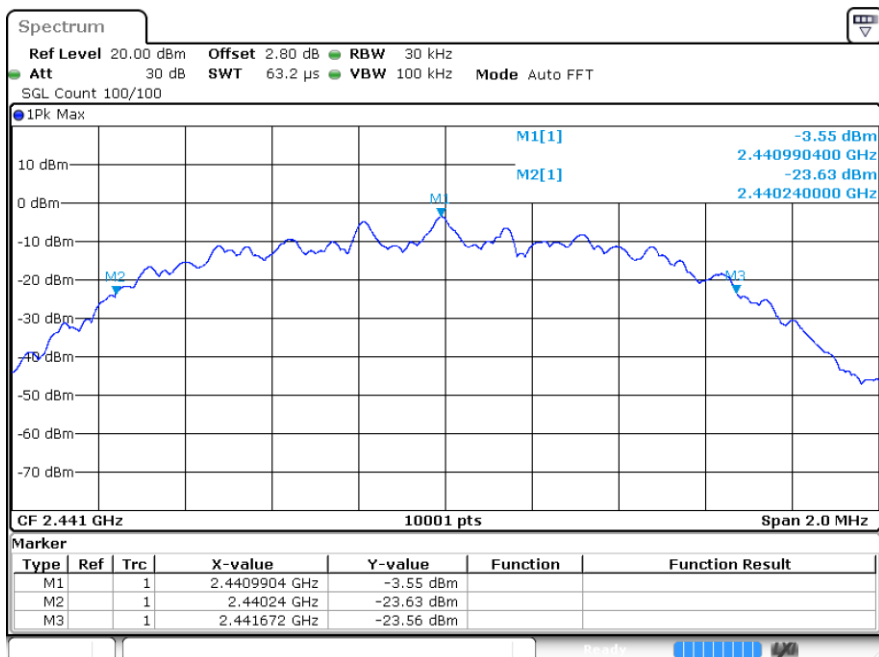
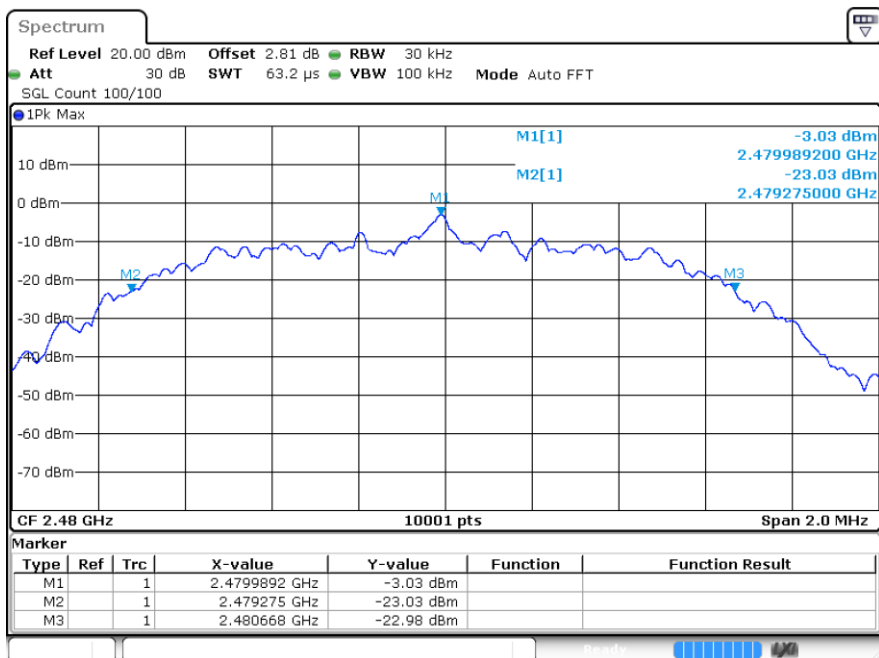


GFSK/HCH

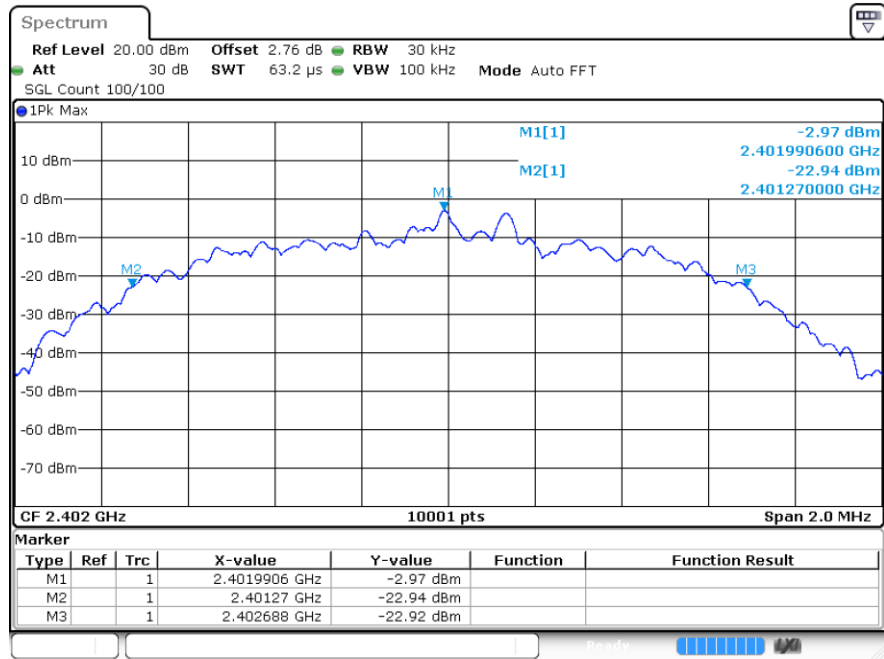


$\pi$ /4DQPSK/LCH

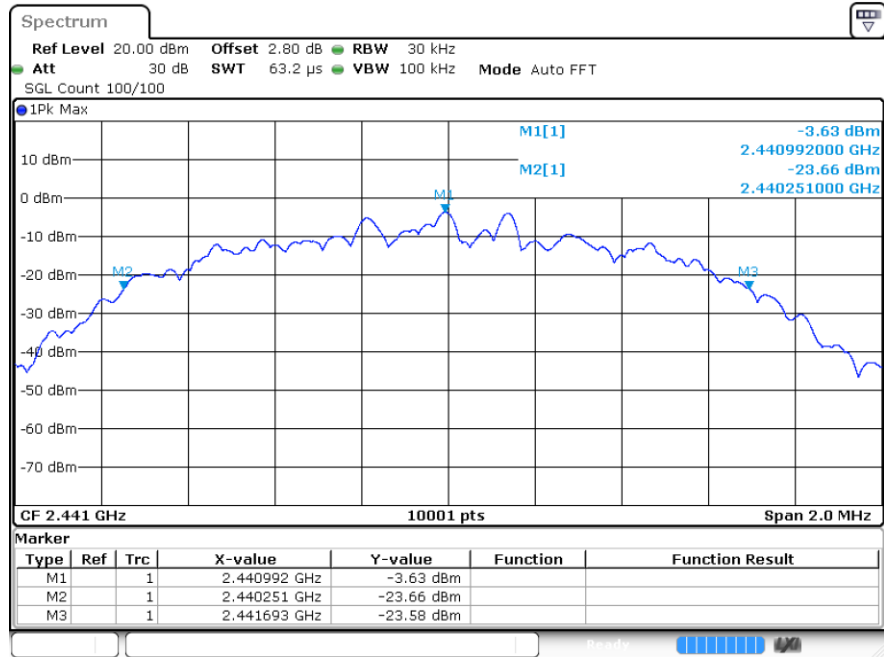


$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


8DPSK/LCH

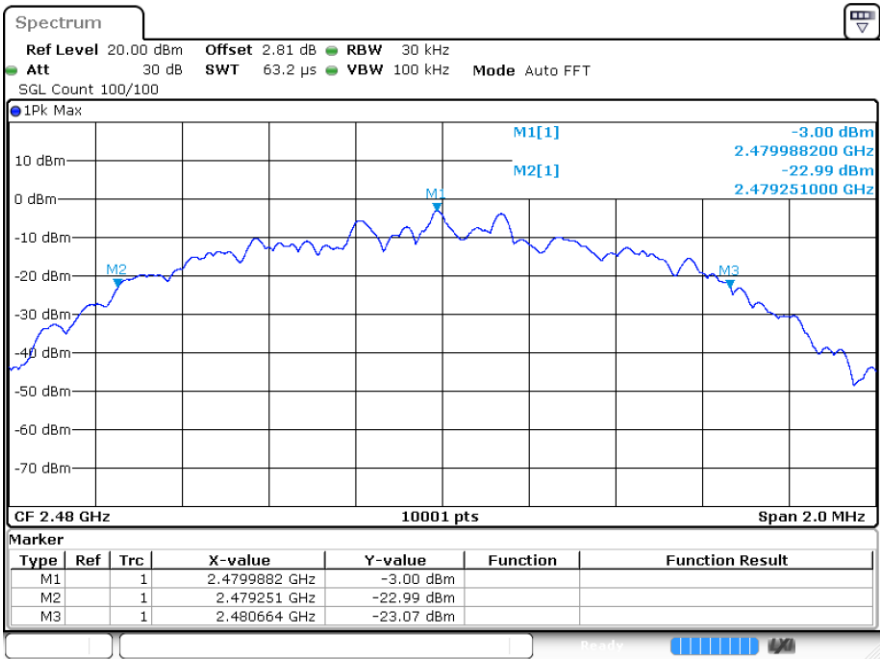


8DPSK/MCH





8DPSK/HCH

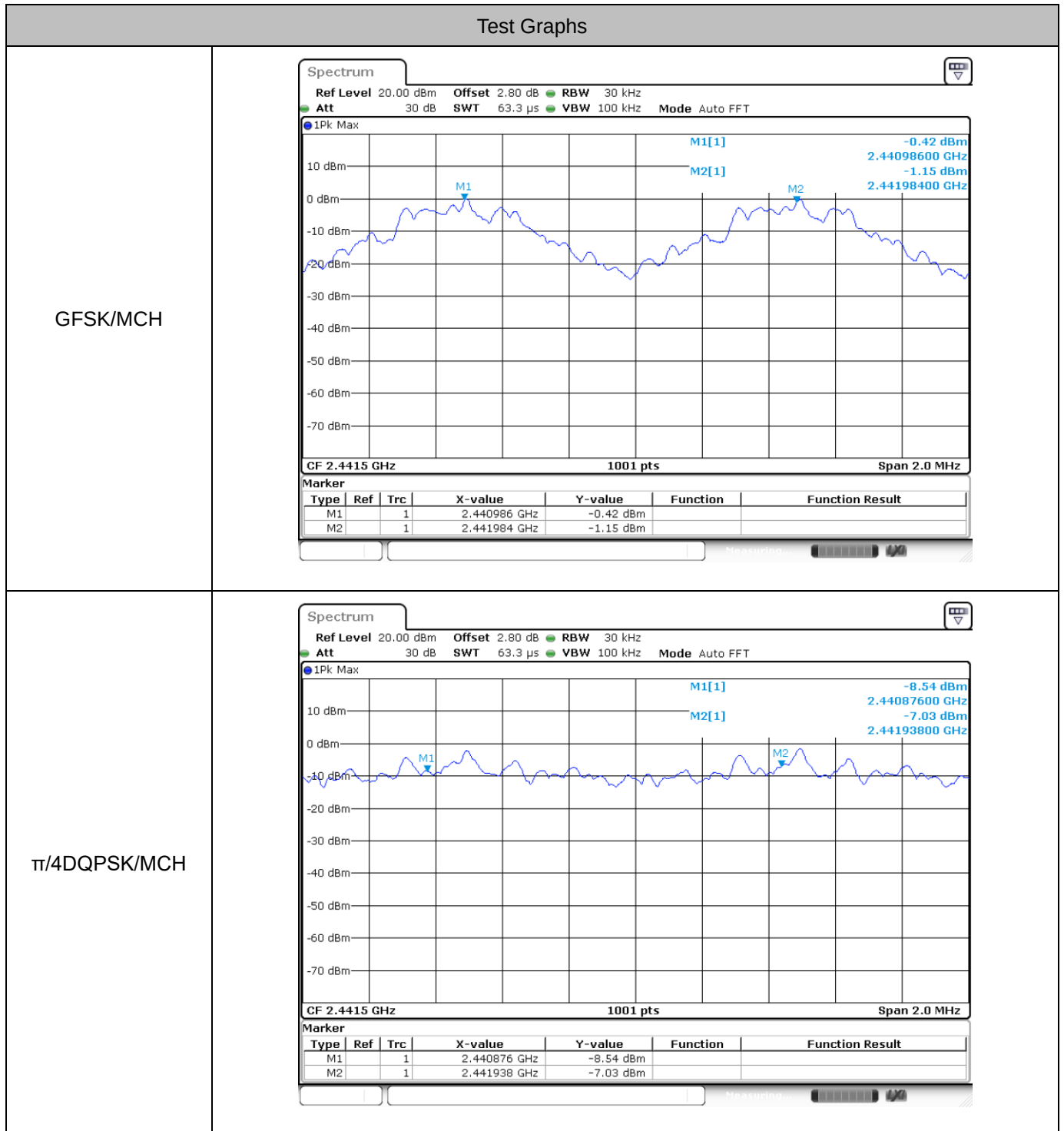


## 4 Carrier Frequency Separation

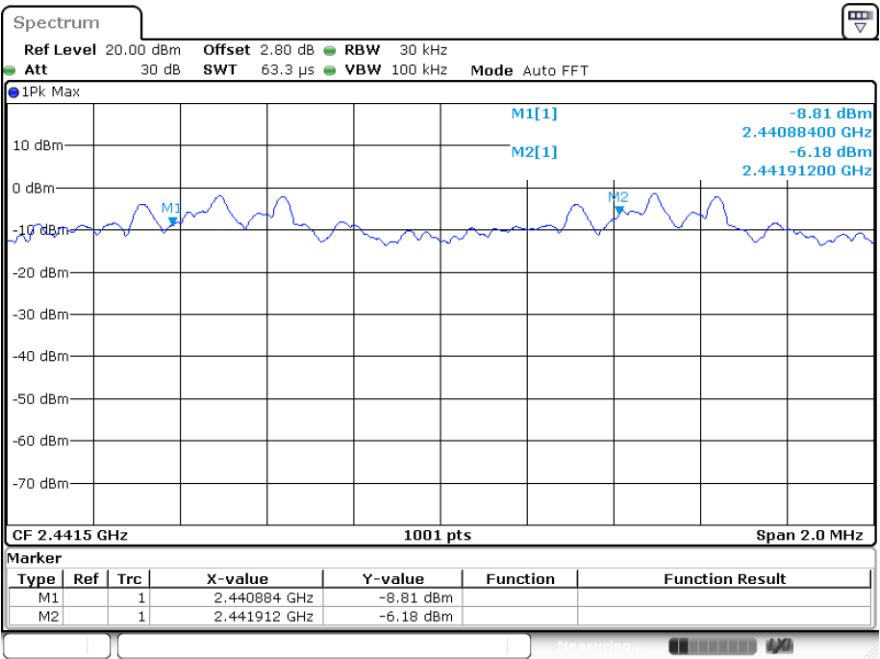
### 4.1 Test Result

| Mode          | Channel. | Carrier Frequency Separation [MHz] | Limit [MHz] | Verdict |
|---------------|----------|------------------------------------|-------------|---------|
| GFSK          | MCH      | 0.998                              | 0.58        | Pass    |
| $\pi/4$ DQPSK | MCH      | 1.062                              | 0.954       | Pass    |
| 8DPSK         | MCH      | 1.028                              | 0.961       | Pass    |

## 4.2 Test Graphs



8DPSK/MCH

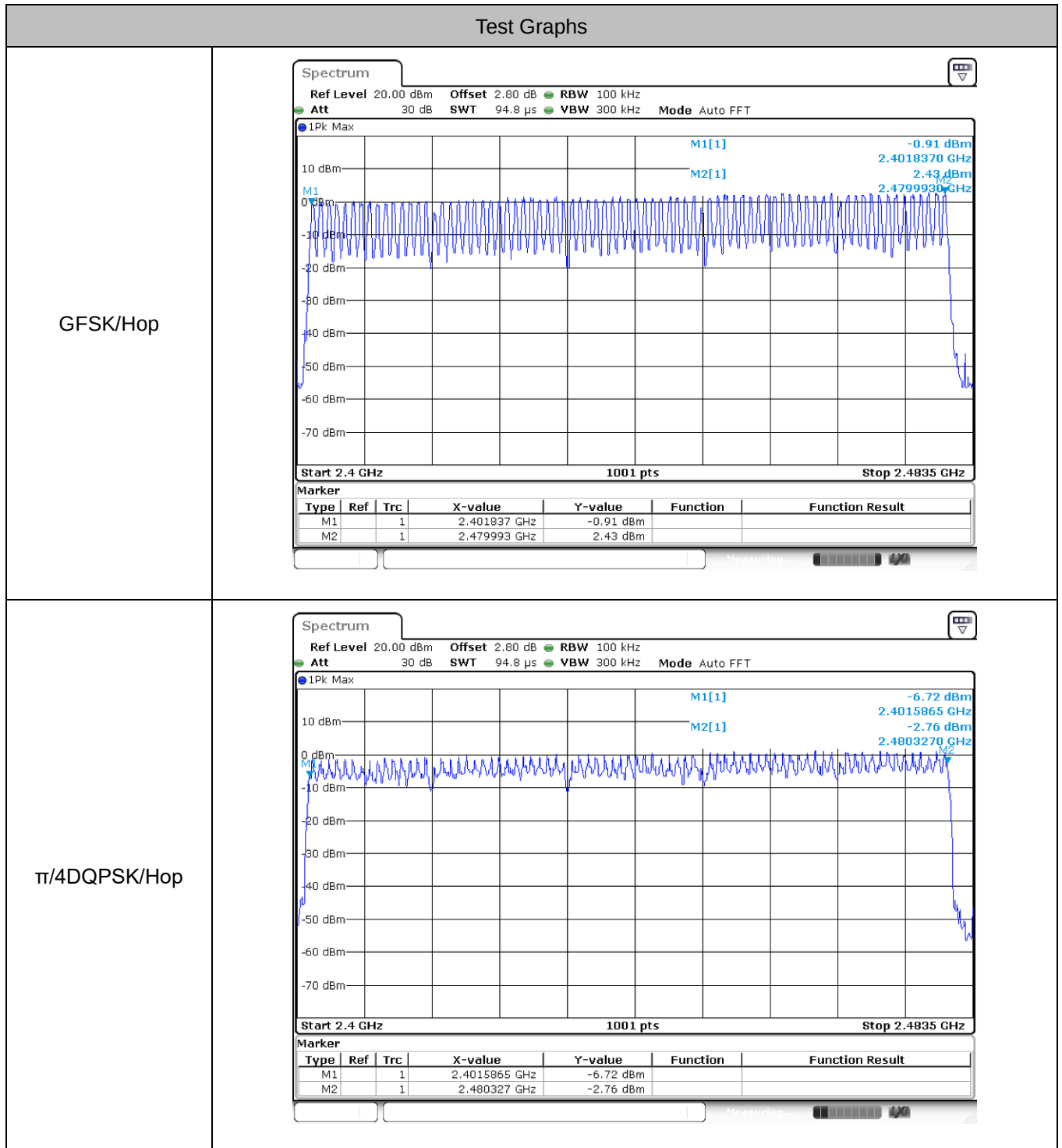


## 5 Hopping Channel Number

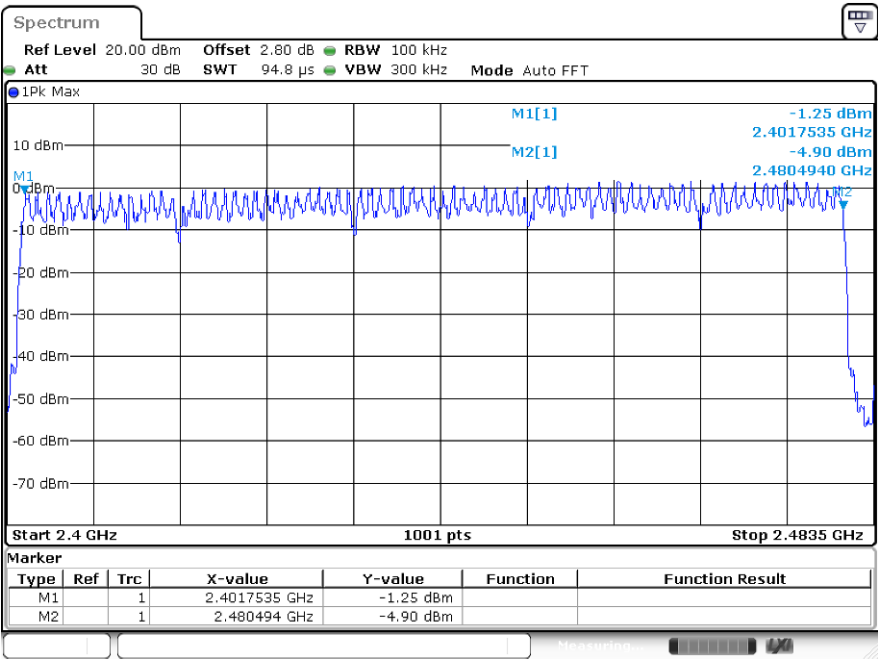
### 5.1 Test Result

| Mode          | Channel. | Number of Hopping Channel [N] | Limit [N] | Verdict |
|---------------|----------|-------------------------------|-----------|---------|
| GFSK          | Hop      | 79                            | $\geq 15$ | PASS    |
| $\pi/4$ DQPSK | Hop      | 79                            | $\geq 15$ | PASS    |
| 8DPSK         | Hop      | 79                            | $\geq 15$ | PASS    |

## 5.2 Test Graphs



8DPSK/Hop

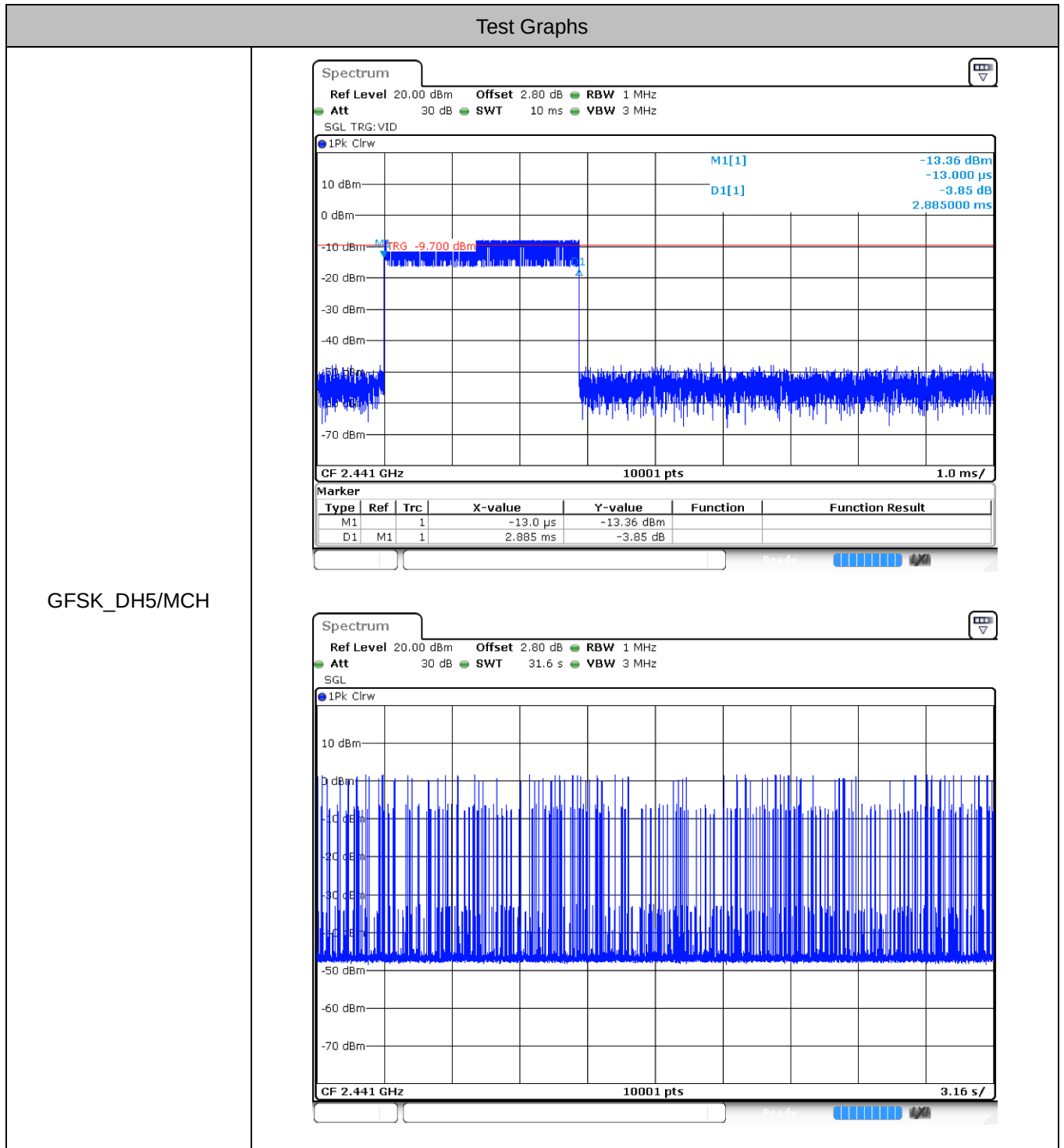


## 6 Dwell Time

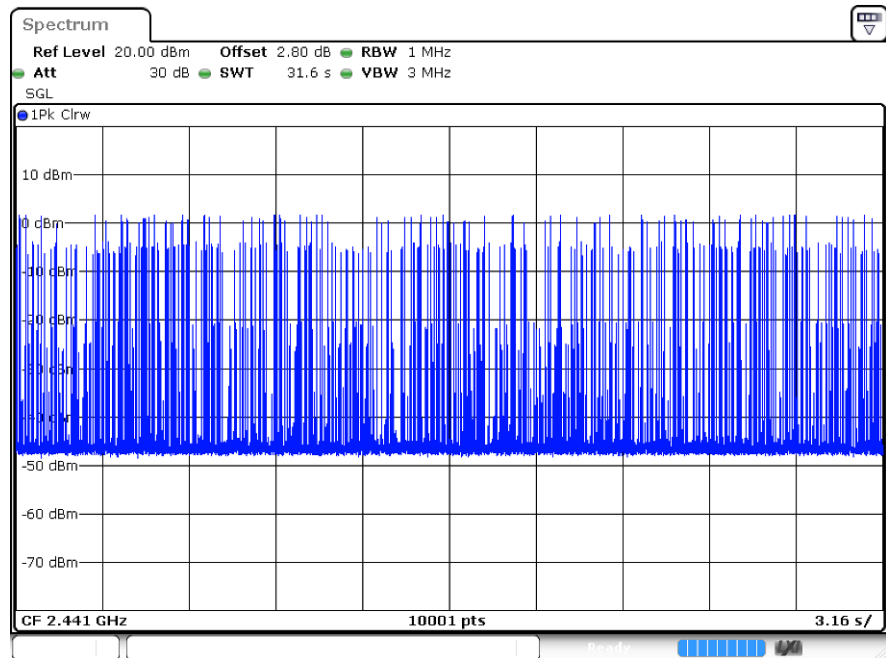
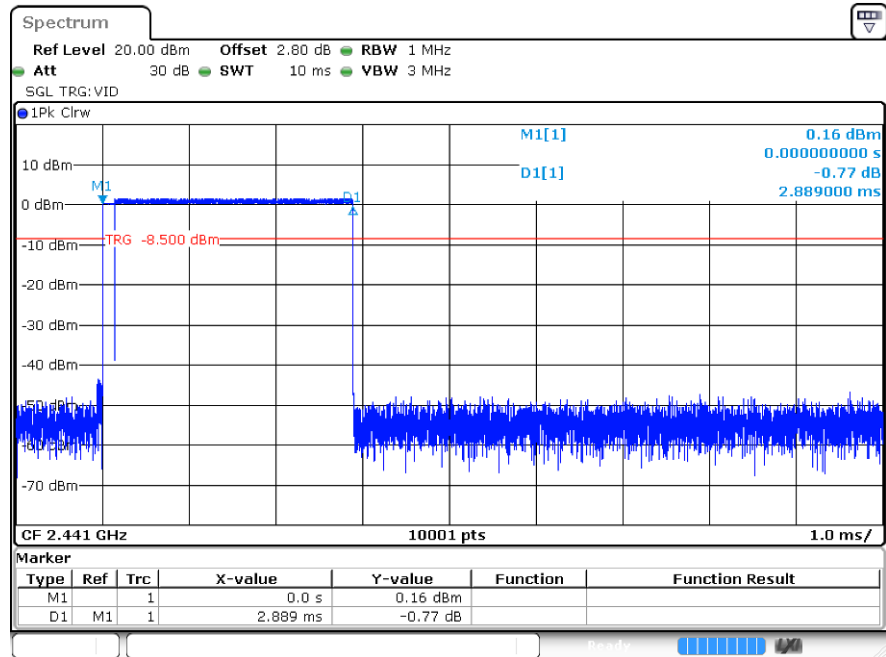
### 6.1 Test Result

| Mode          | Packet | Channel | Burst Width<br>[ms/hop/ch] | Total<br>Hops[hop*ch] | Dwell Time[ms] | Limit [s] | Verdict |
|---------------|--------|---------|----------------------------|-----------------------|----------------|-----------|---------|
| GFSK          | DH5    | MCH     | 2.885                      | 99                    | 285.615        | 0.4       | Pass    |
| $\pi/4$ DQPSK | 2DH5   | MCH     | 2.889                      | 100                   | 288.9          | 0.4       | Pass    |
| 8DPSK         | 3DH5   | MCH     | 2.892                      | 118                   | 341.256        | 0.4       | Pass    |

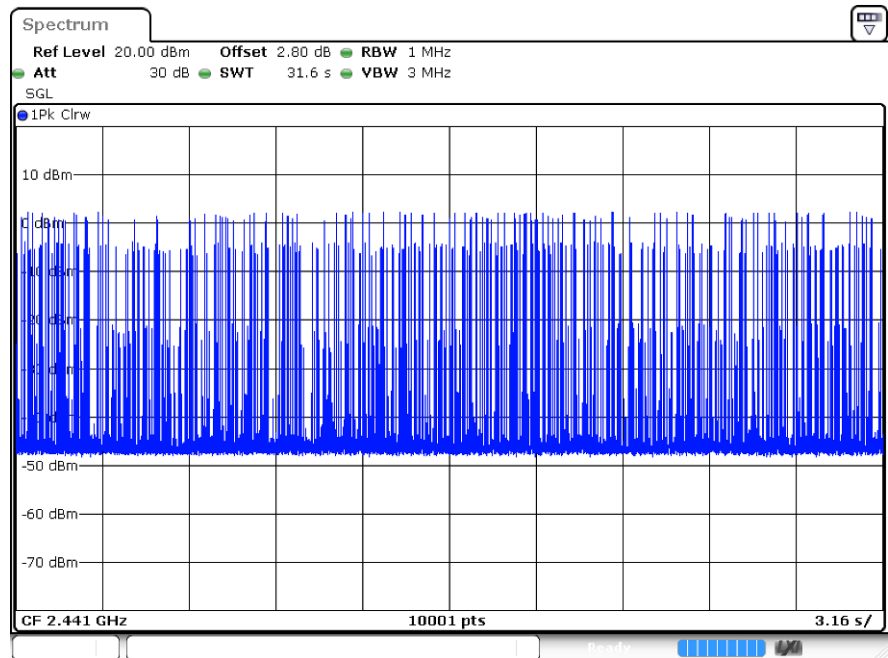
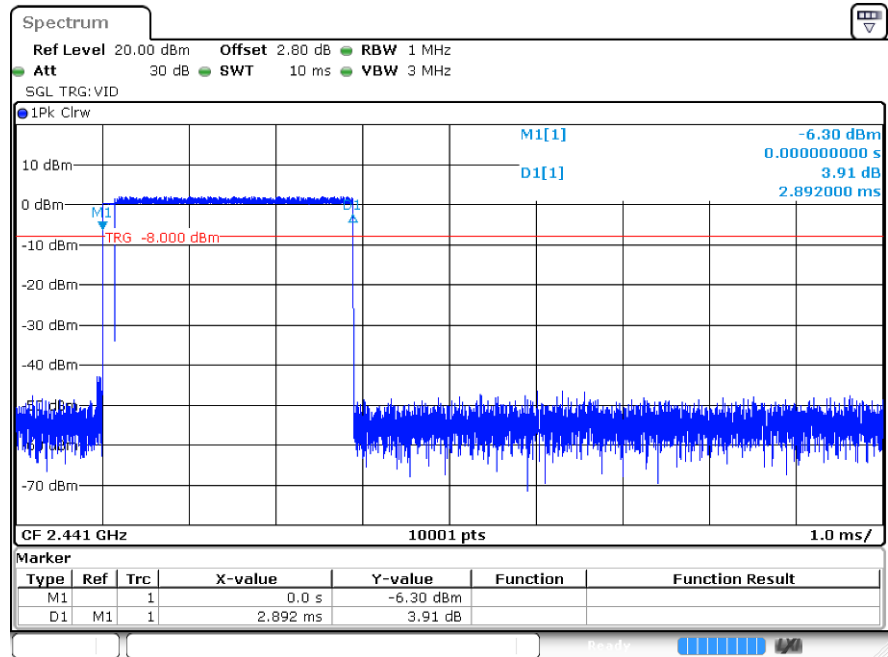
## 6.2 Test Graphs



$\pi/4$ DQPSK  
\_2DH5/MCH



8DPSK\_3DH5/MCH

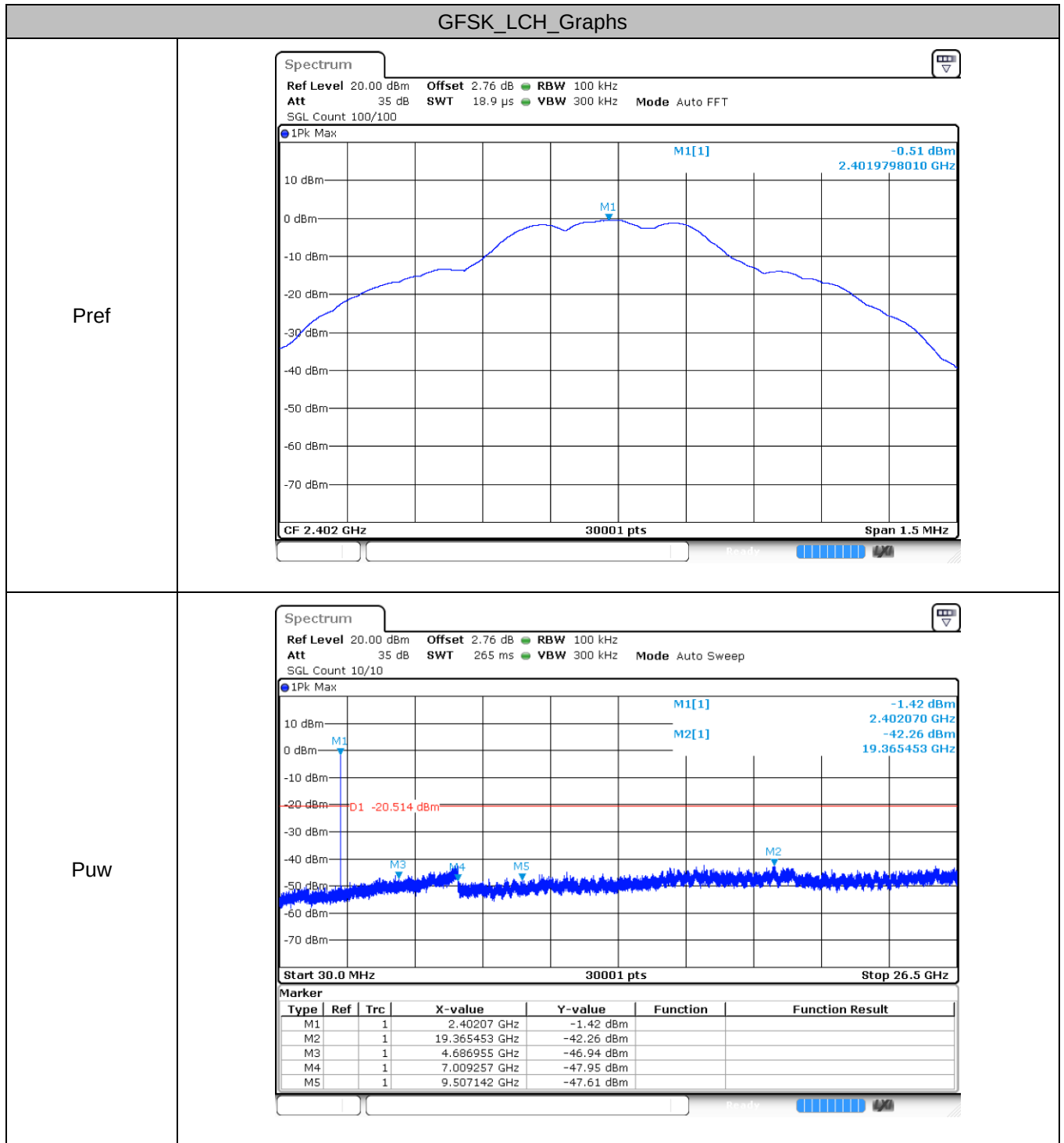


## 7 RF Conducted Spurious Emissions

### 7.1 Test Result

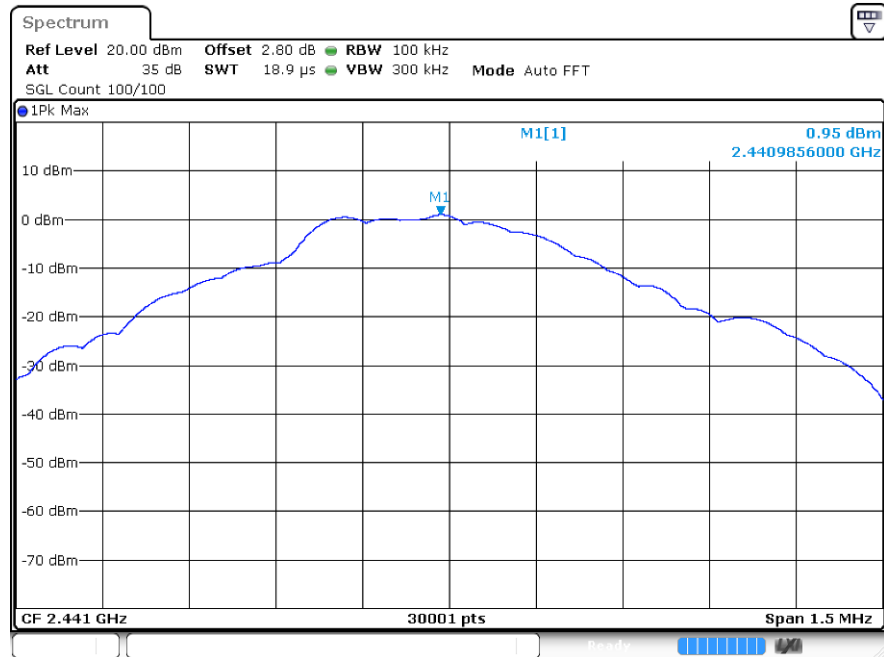
| Mode          | Channel | Max. Level [dBc] | Limit [dBc] | Verdict |
|---------------|---------|------------------|-------------|---------|
| GFSK          | LCH     | -41.75           | -20         | Pass    |
|               | MCH     | -42.72           | -20         | Pass    |
|               | HCH     | -42.49           | -20         | Pass    |
| $\pi/4$ DQPSK | LCH     | -40.72           | -20         | Pass    |
|               | MCH     | -39.54           | -20         | Pass    |
|               | HCH     | -40.72           | -20         | Pass    |
| 8DPSK         | LCH     | -40.49           | -20         | Pass    |
|               | MCH     | -40.34           | -20         | Pass    |
|               | HCH     | -40.26           | -20         | Pass    |

## 7.2 Test Graphs

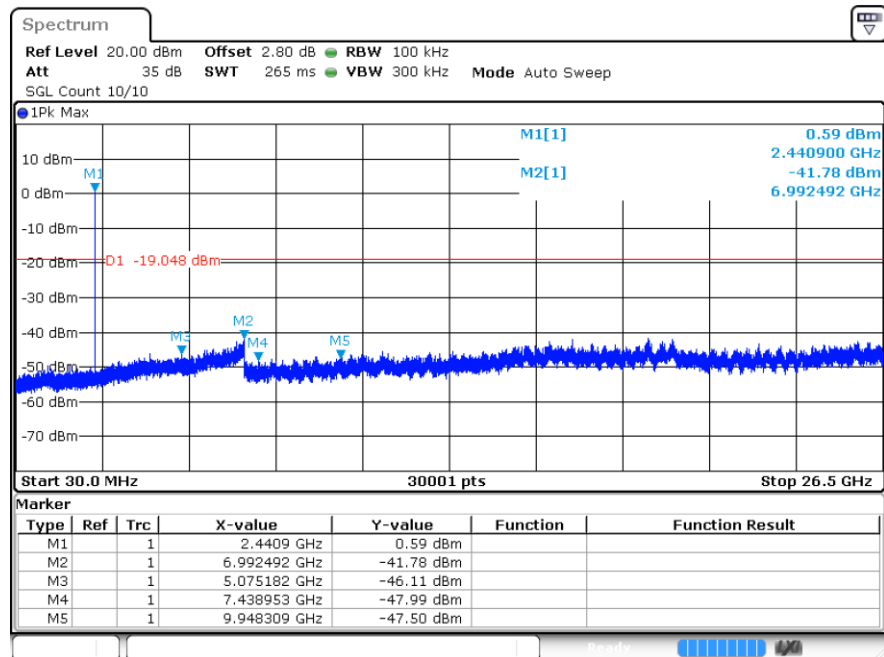


### GFSK\_MCH\_Graphs

Pref

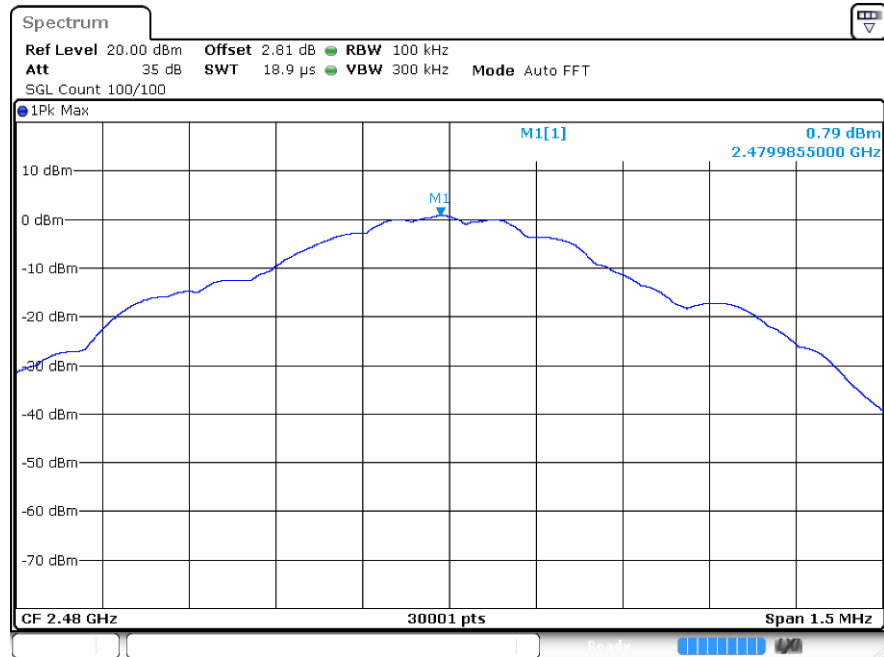


Puw

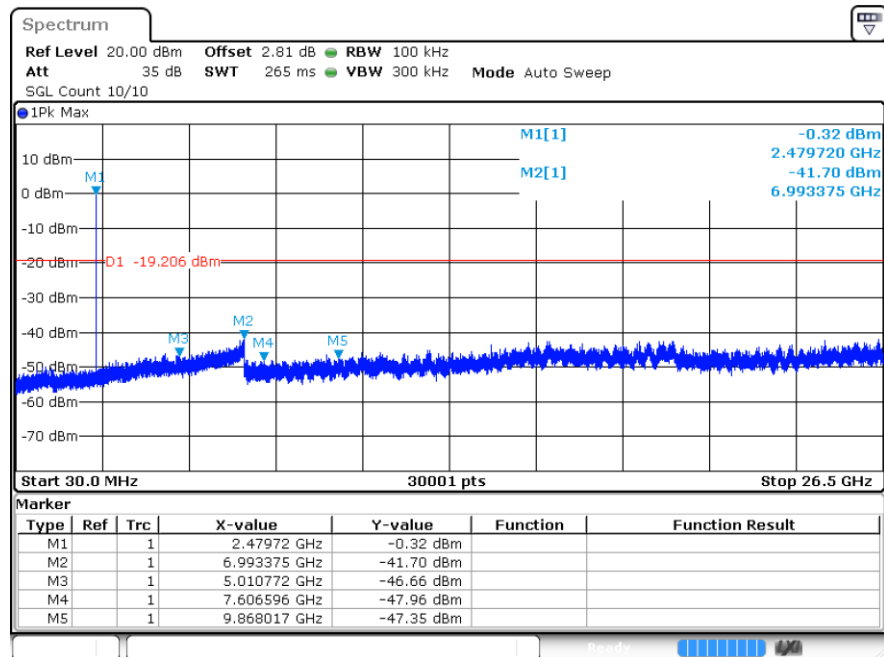


## GFSK\_HCH\_Graphs

Pref

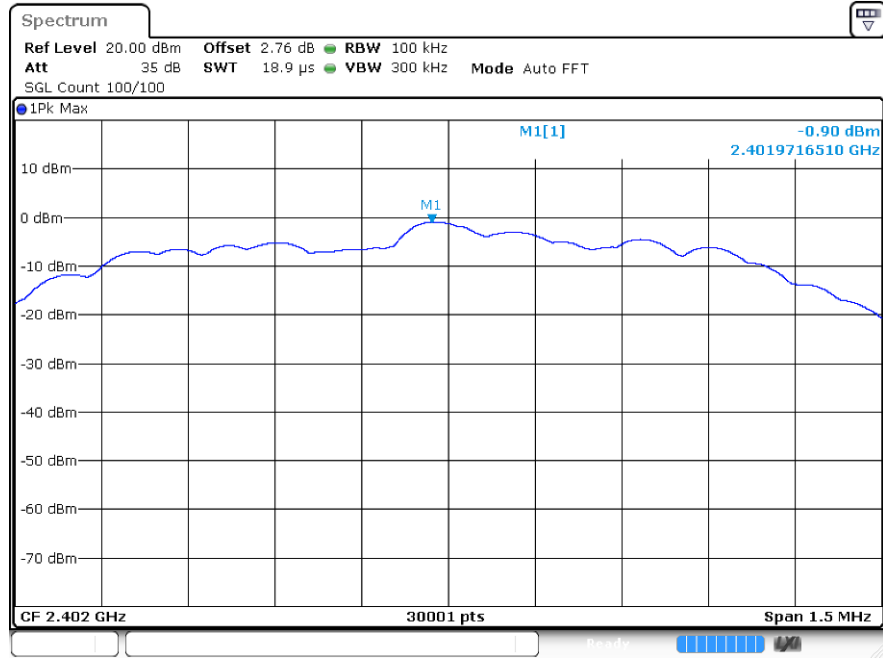


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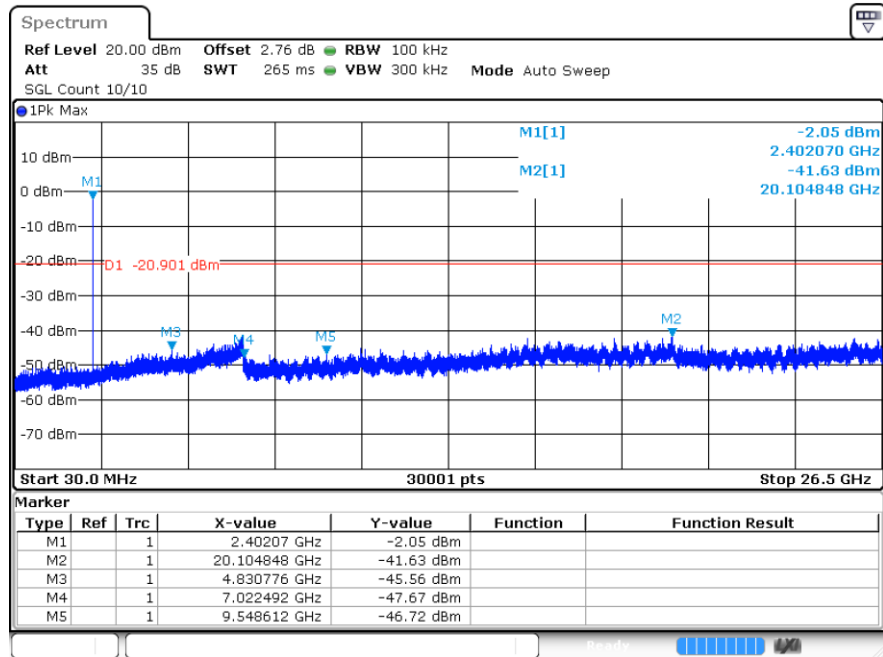


# $\pi/4$ DQPSK\_LCH\_Graphs

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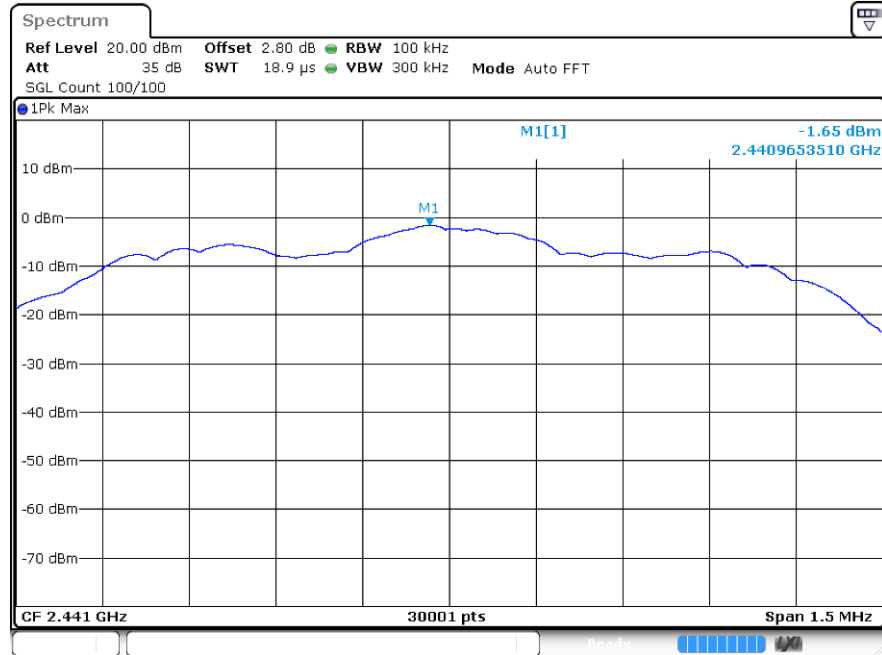


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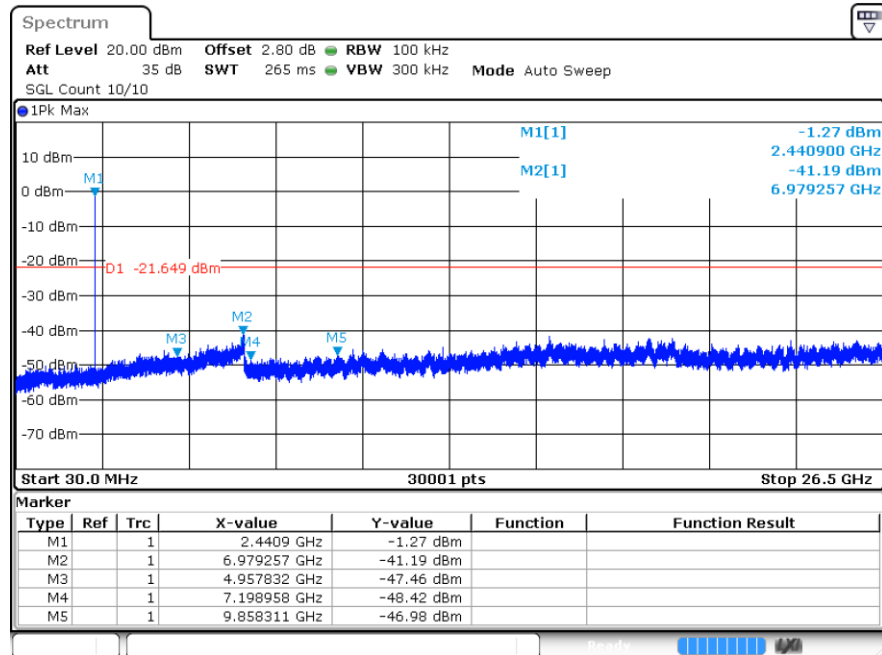


# $\pi$ /4DQPSK\_MCH\_Graphs

Pref

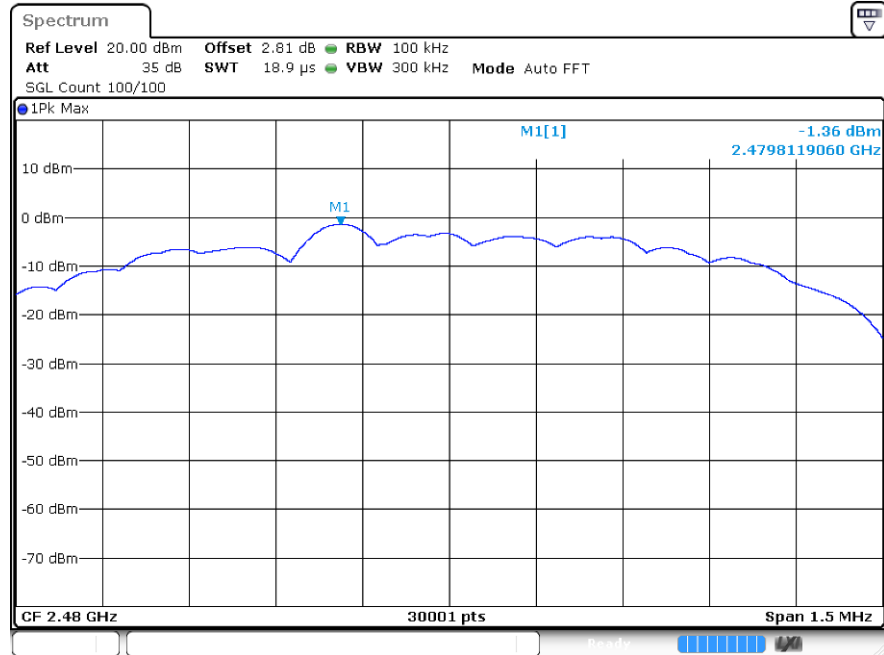


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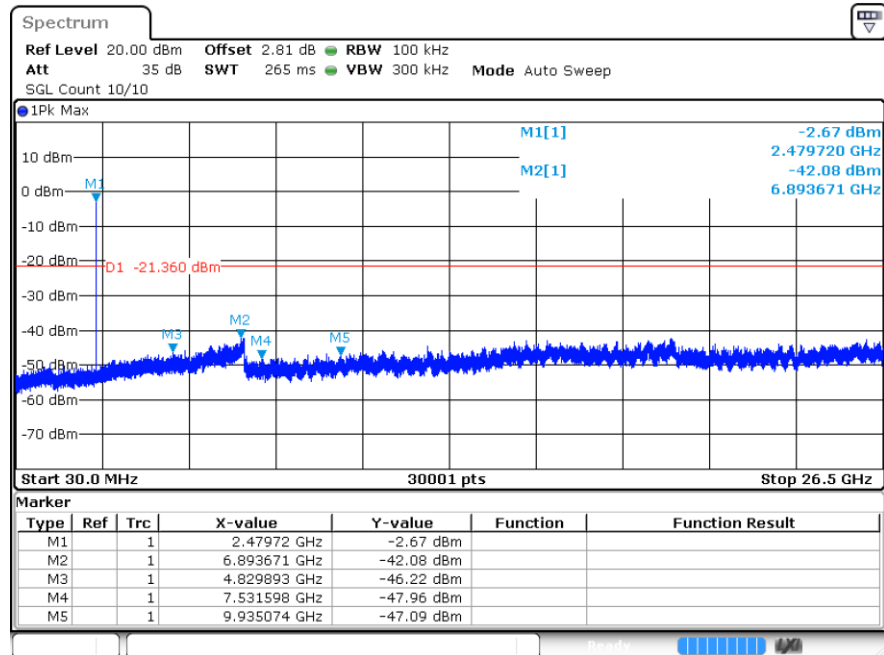


### $\pi/4$ DQPSK\_HCH\_Graphs

Pref

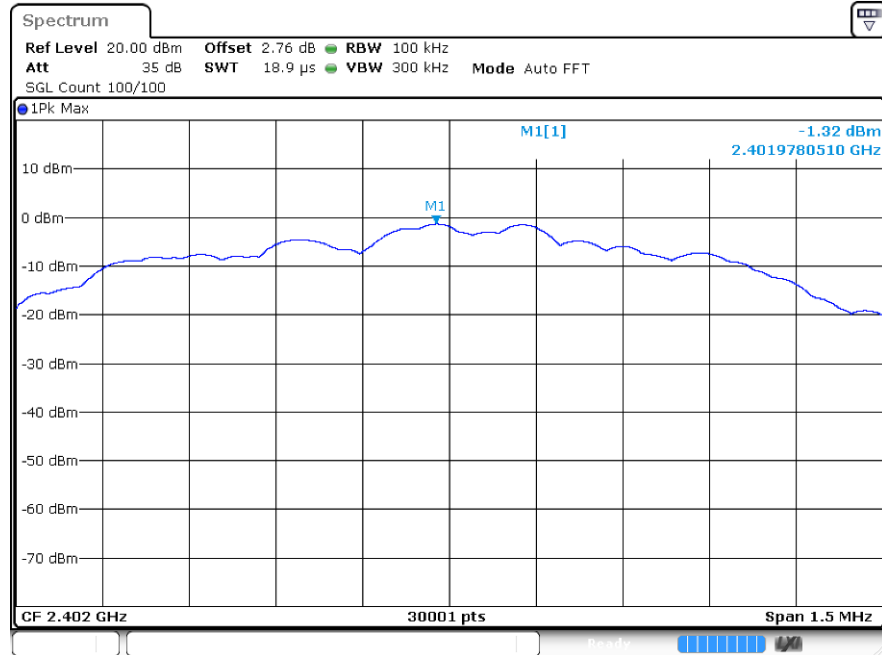


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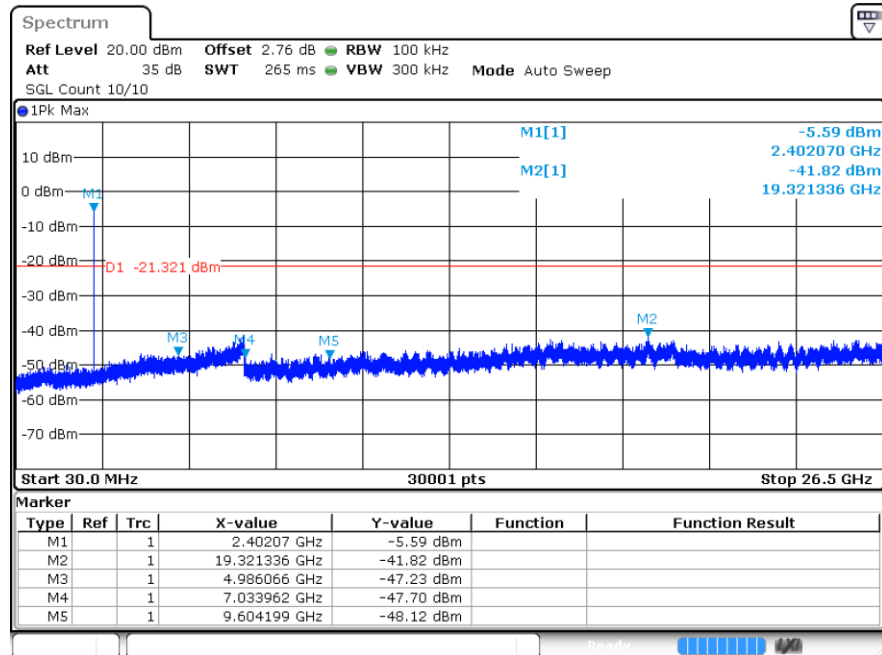


## 8DPSK\_LCH\_Graphs

Pref

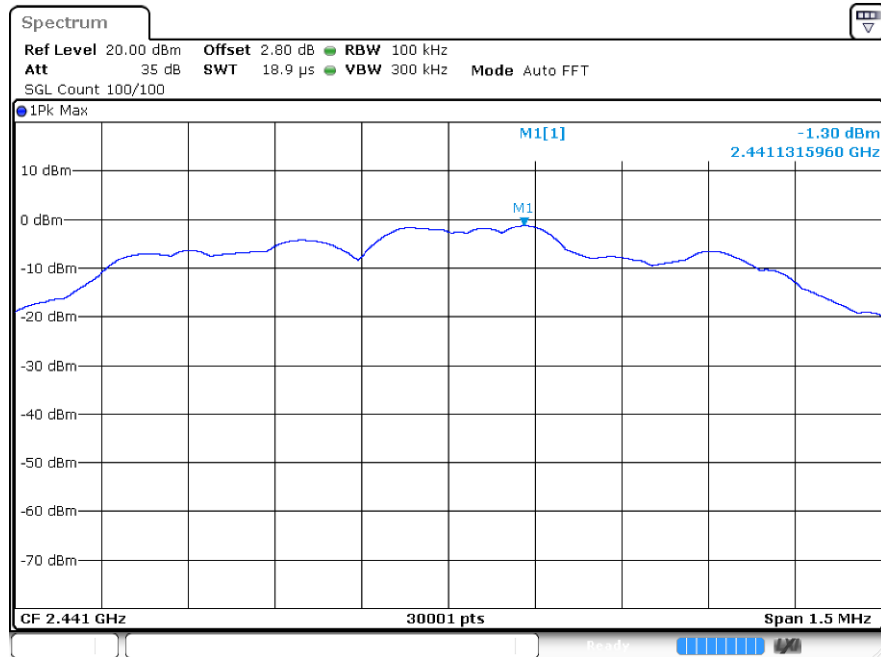


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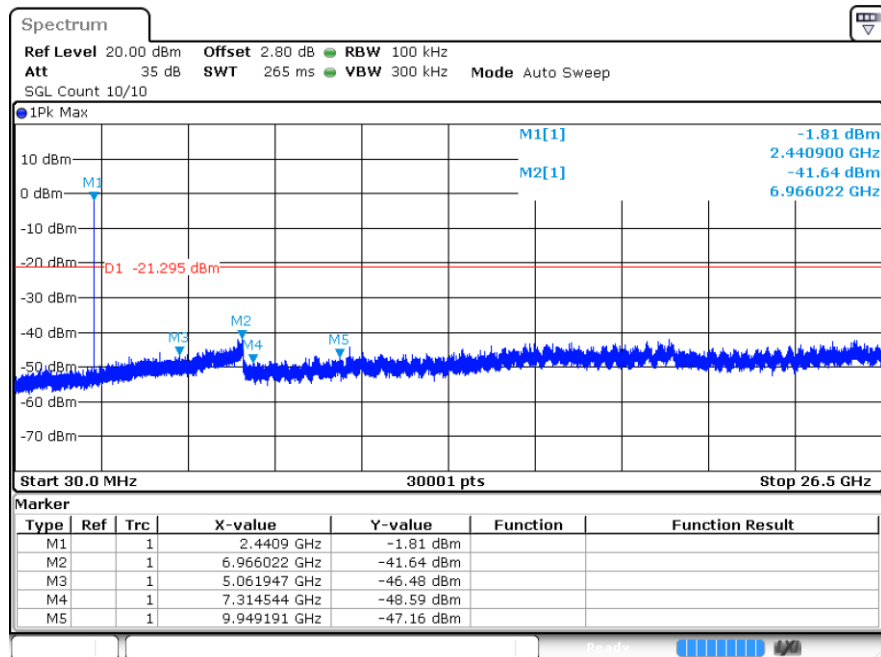


## 8DPSK\_MCH\_Graphs

Pref

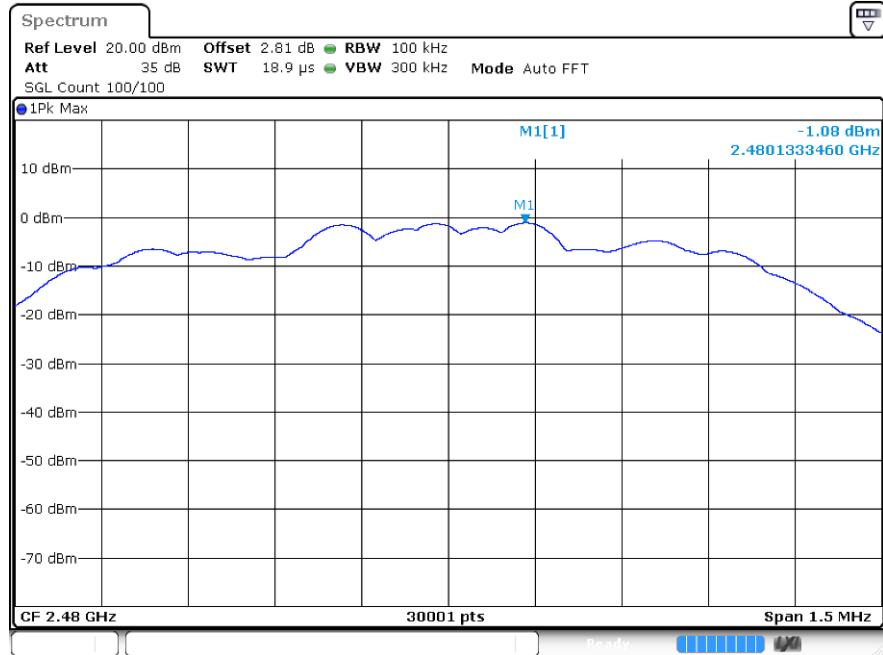


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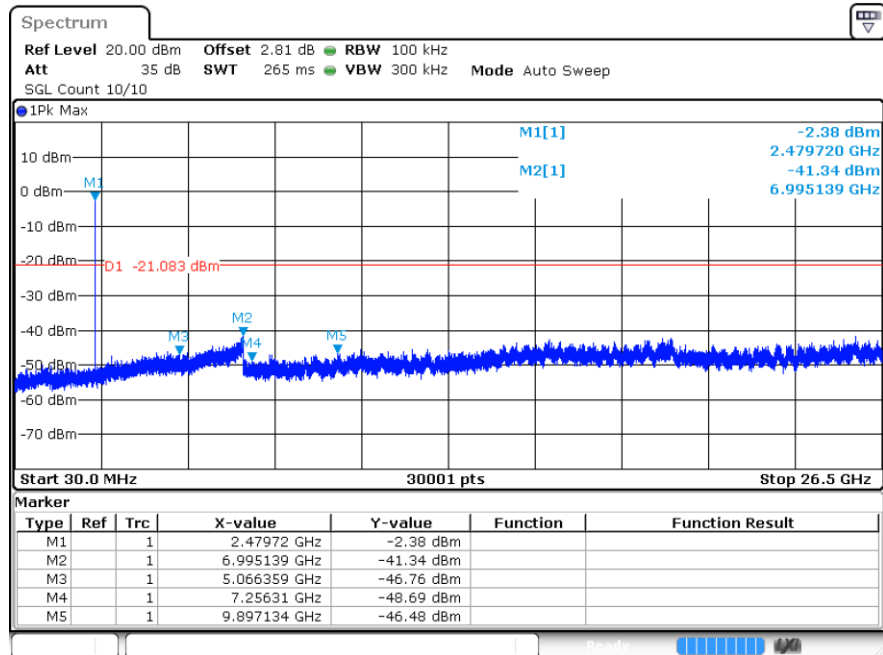


## 8DPSK\_HCH\_Graphs

Pref



Puw

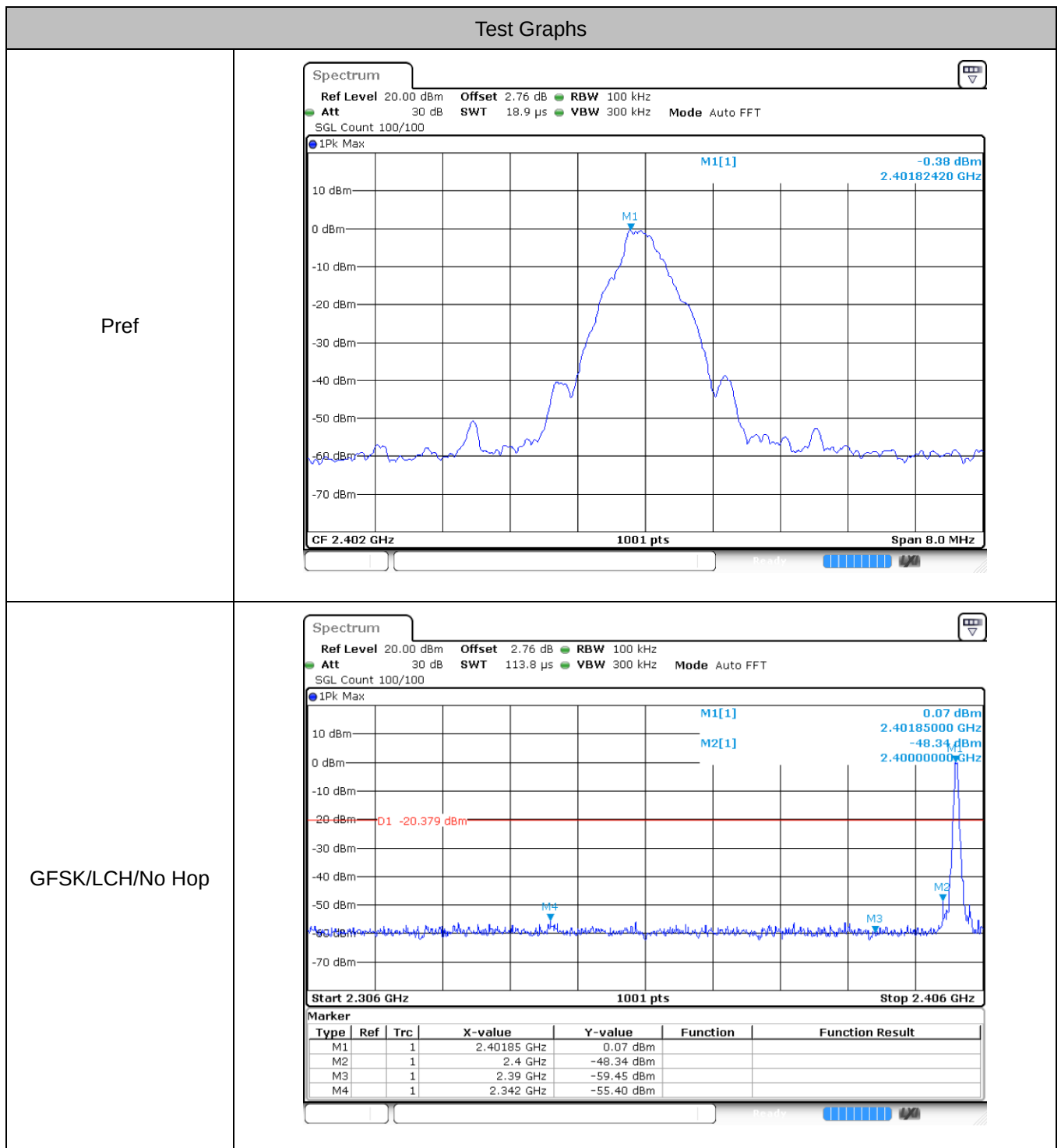


## 8 Band-edge for RF Conducted Emissions

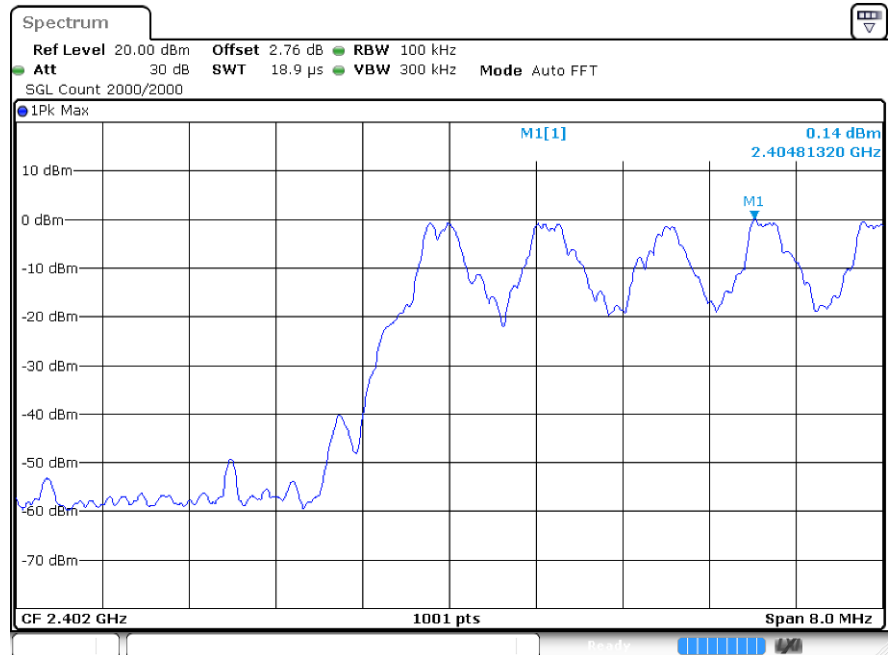
### 8.1 Test Result

| Mode          | Channel | Carrier Frequency [MHz] | Frequency Hopping | Max Spurious Level [dBc] | Limit [dBc] | Verdict |
|---------------|---------|-------------------------|-------------------|--------------------------|-------------|---------|
| GFSK          | LCH     | 2402                    | Off               | -55.01                   | -20         | Pass    |
|               |         |                         | On                | -55.21                   | -20         | Pass    |
|               | HCH     | 2480                    | Off               | -47.31                   | -20         | Pass    |
|               |         |                         | On                | -48.9                    | -20         | Pass    |
| $\pi/4$ DQPSK | LCH     | 2402                    | Off               | -54.78                   | -20         | Pass    |
|               |         |                         | On                | -54.34                   | -20         | Pass    |
|               | HCH     | 2480                    | Off               | -55.48                   | -20         | Pass    |
|               |         |                         | On                | -47.57                   | -20         | Pass    |
| 8DPSK         | LCH     | 2402                    | Off               | -54.17                   | -20         | Pass    |
|               |         |                         | On                | -53.41                   | -20         | Pass    |
|               | HCH     | 2480                    | Off               | -55.53                   | -20         | Pass    |
|               |         |                         | On                | -53.64                   | -20         | Pass    |

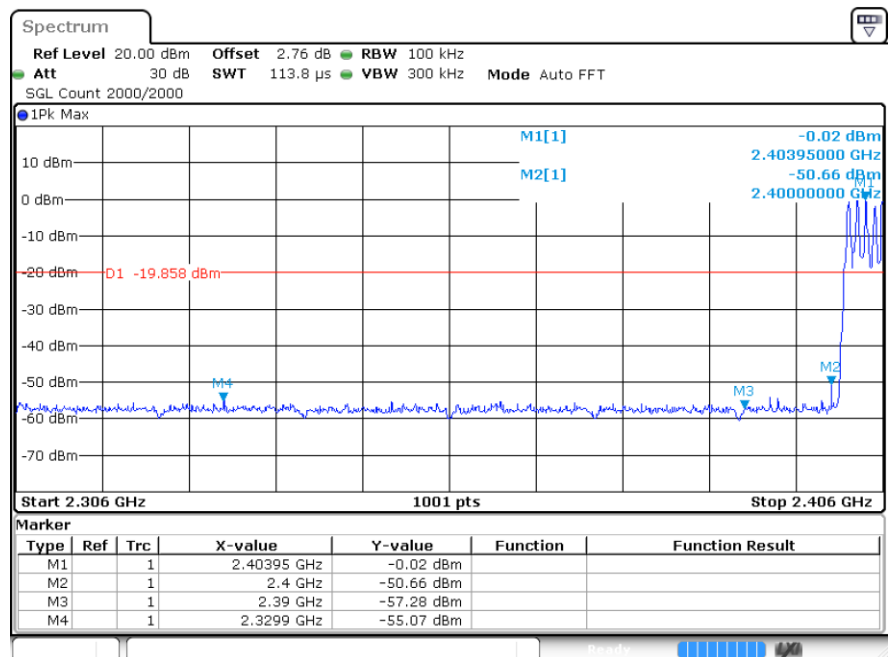
## 8.2 Test Graphs



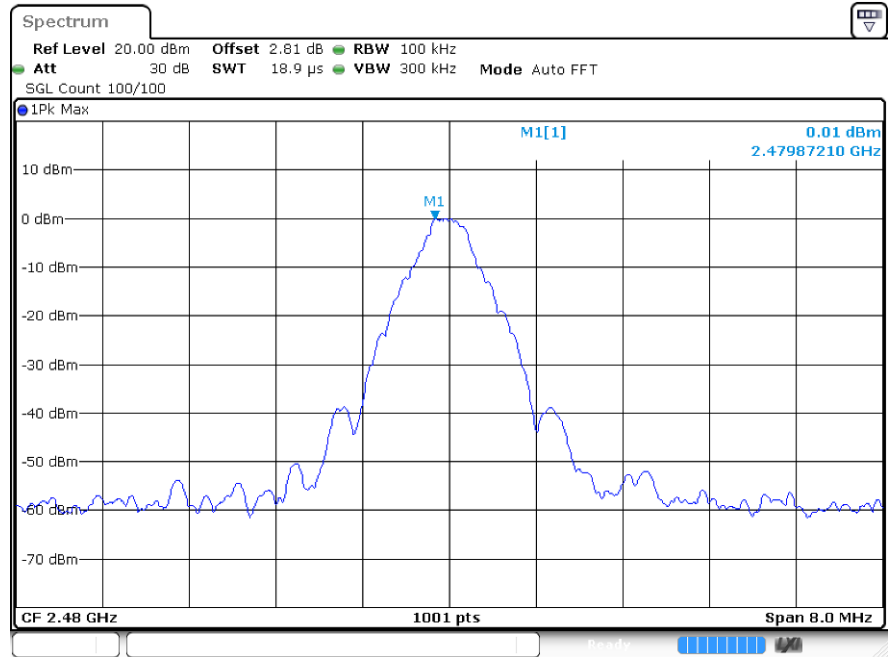
Ref



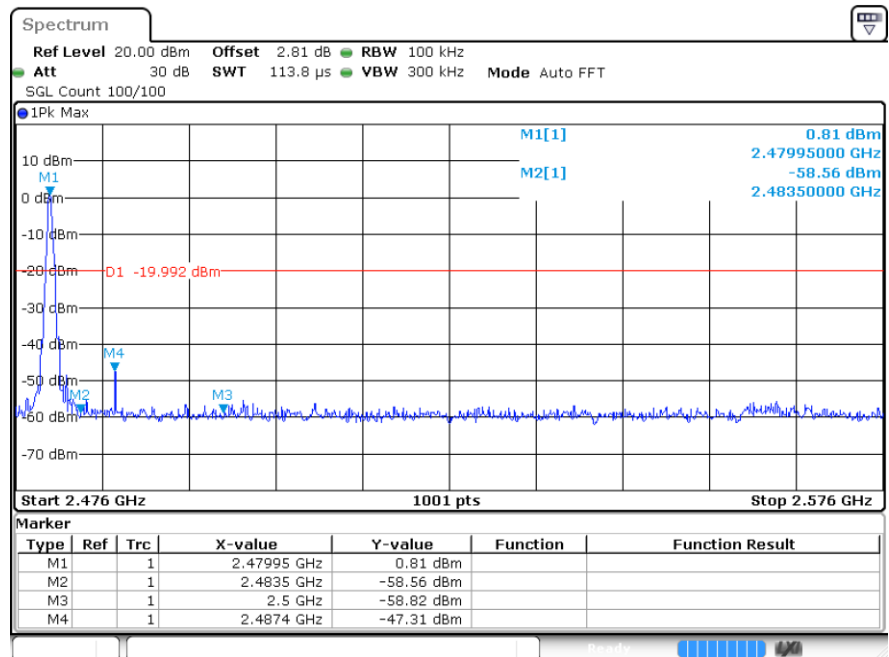
GFSK/LCH/Hop



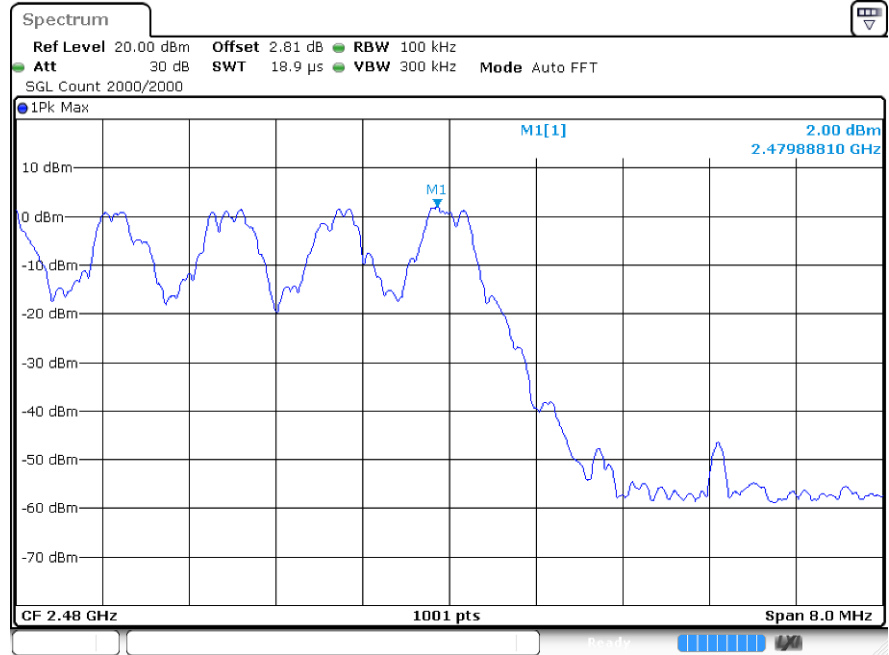
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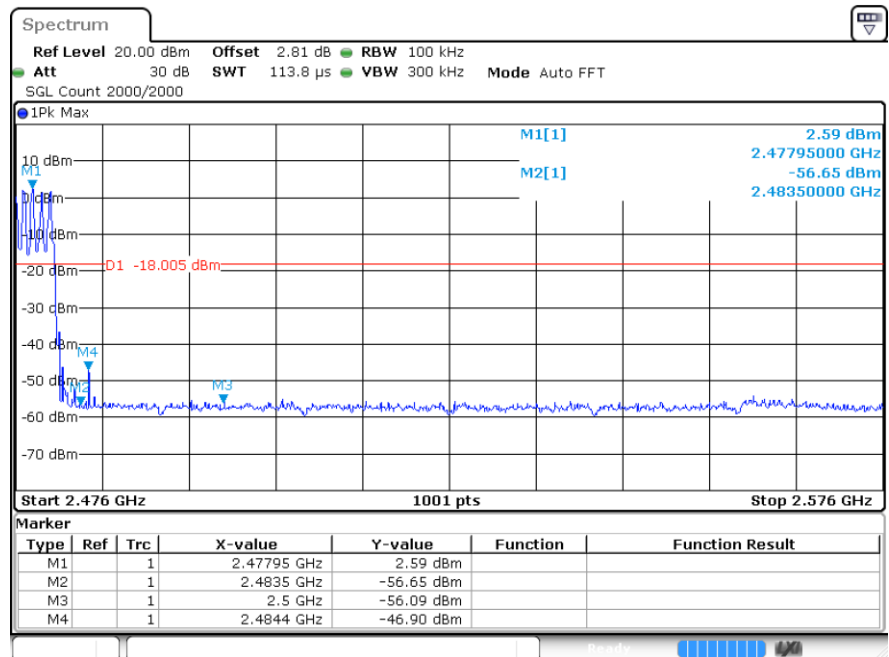
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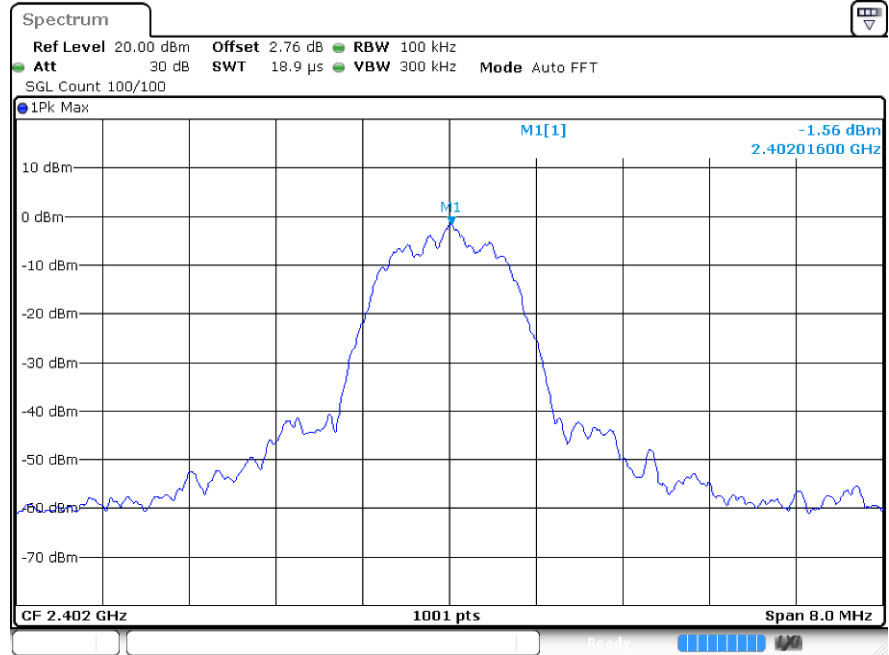
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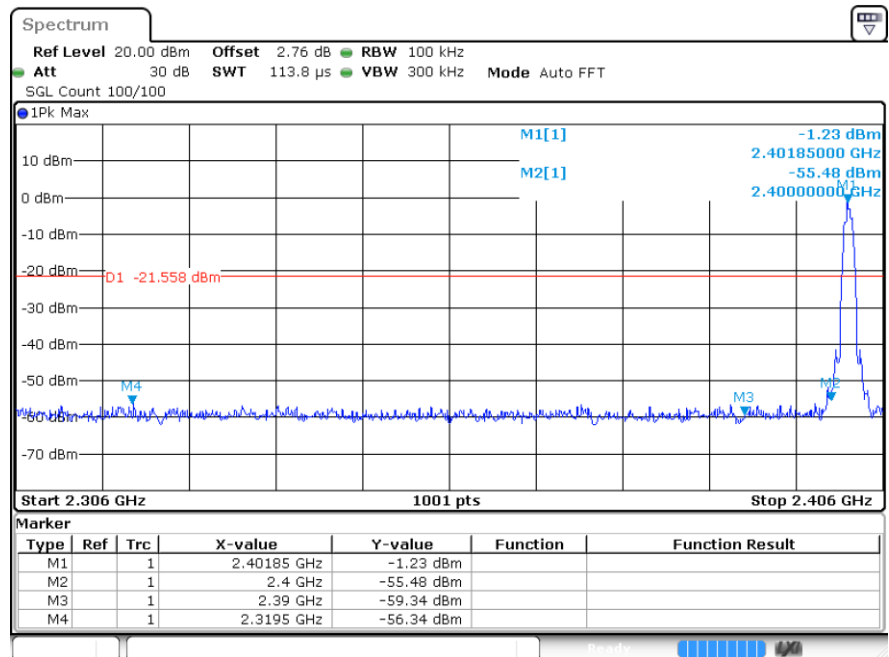
GFSK/HCH/Hop



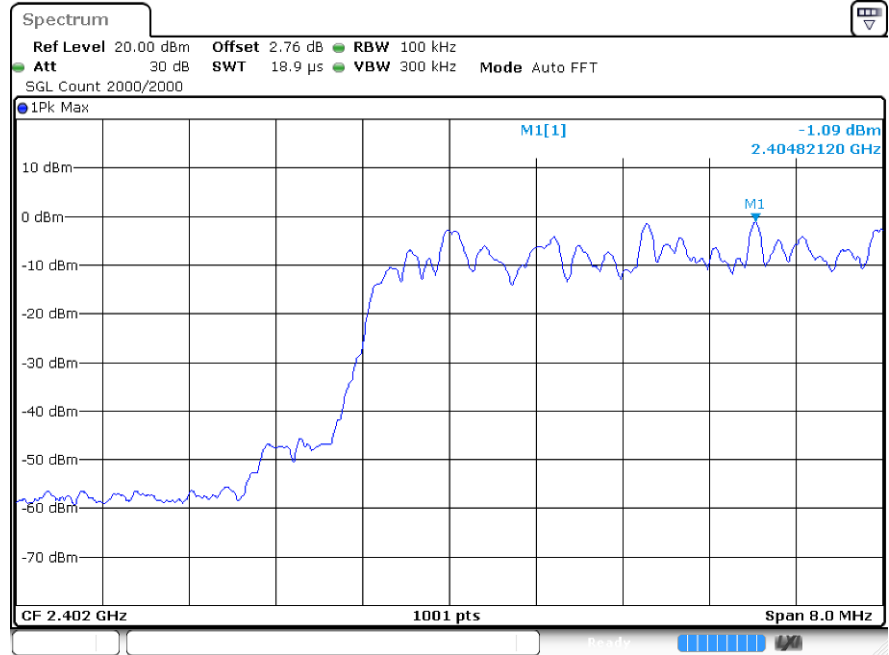
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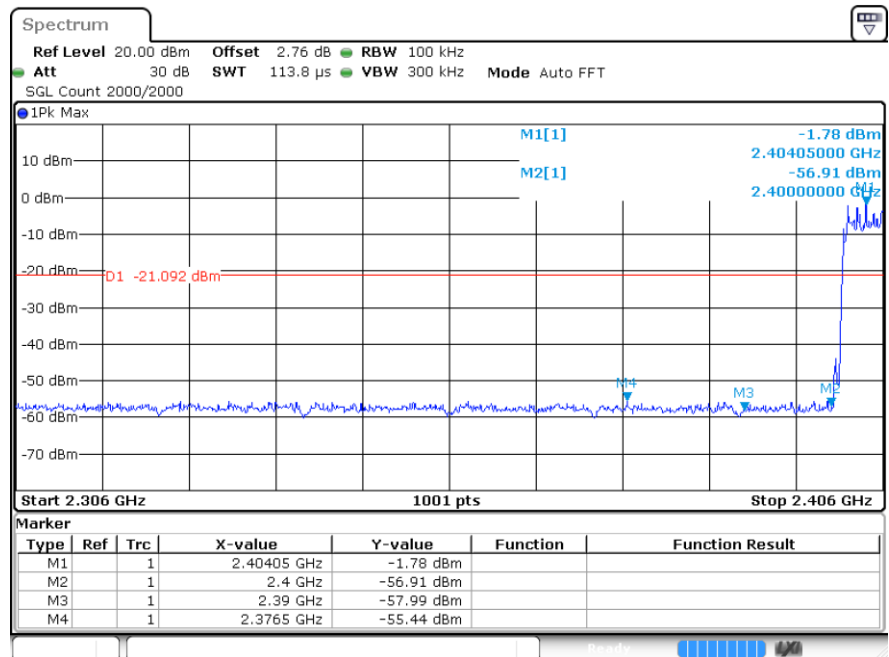
$\pi/4$ DQPSK/LCH/No  
Hop



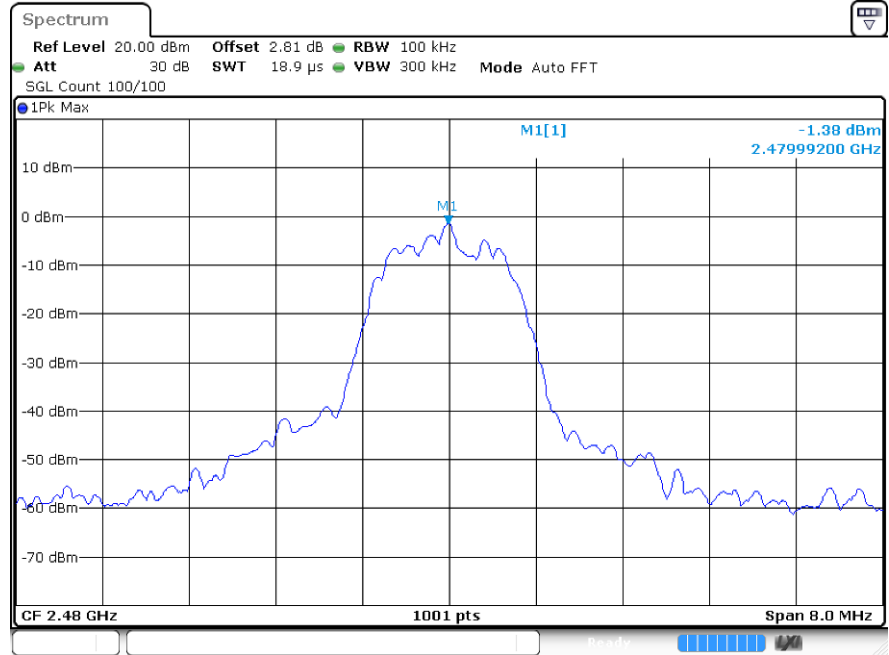
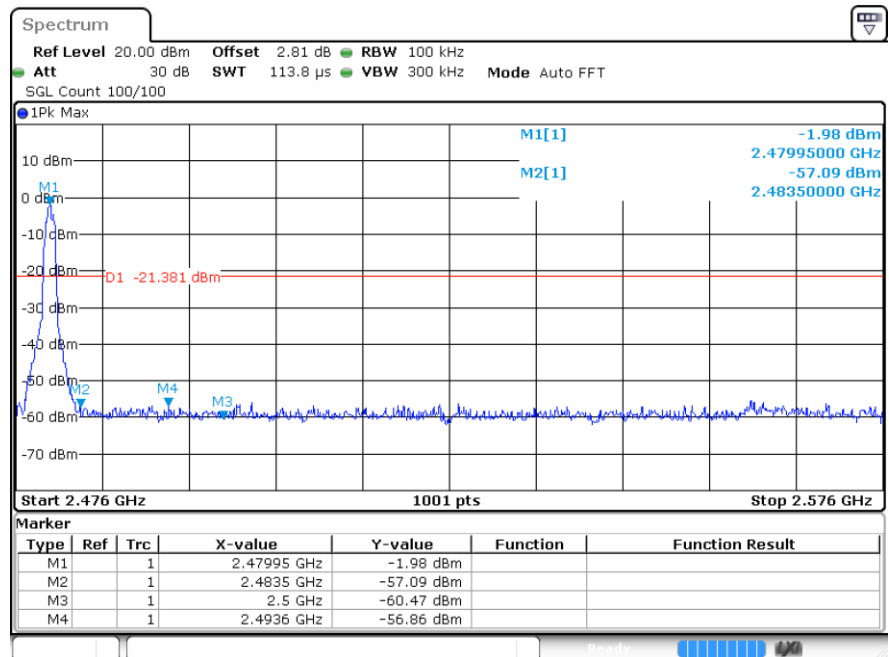
Ref



$\pi/4$ DQPSK/LCH/Hop



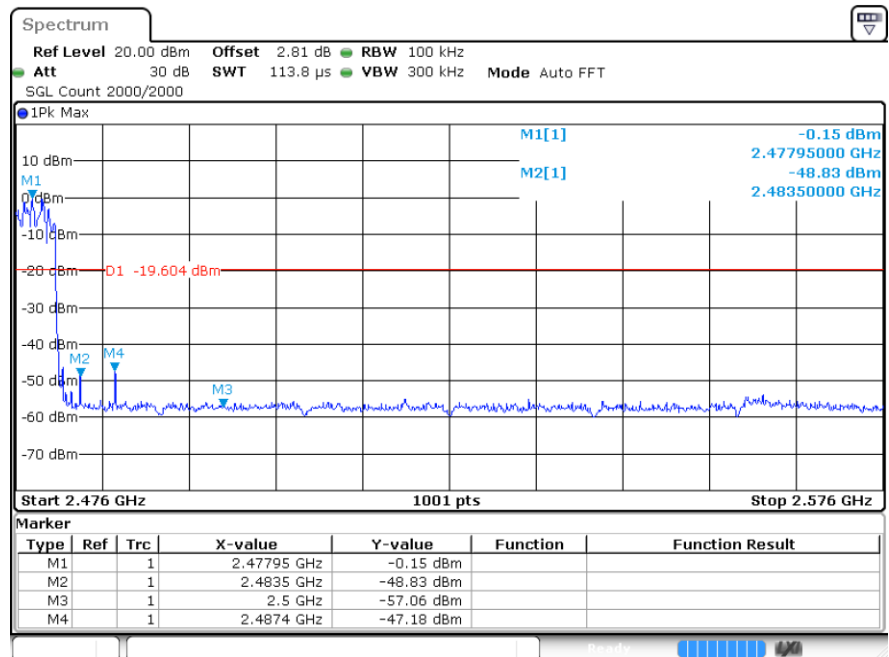
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 $\pi/4$ DQPSK/HCH/No  
Hop


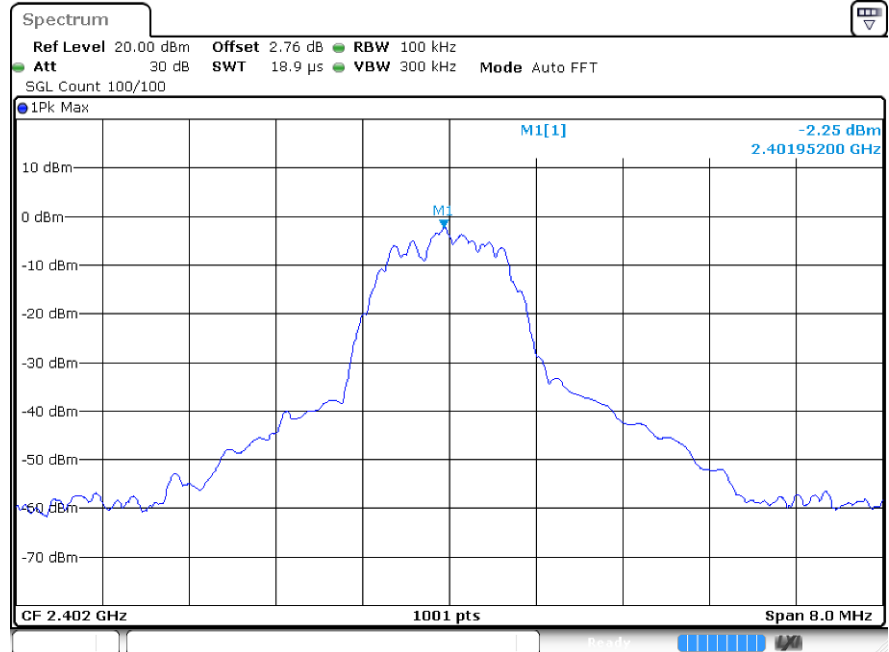
Ref



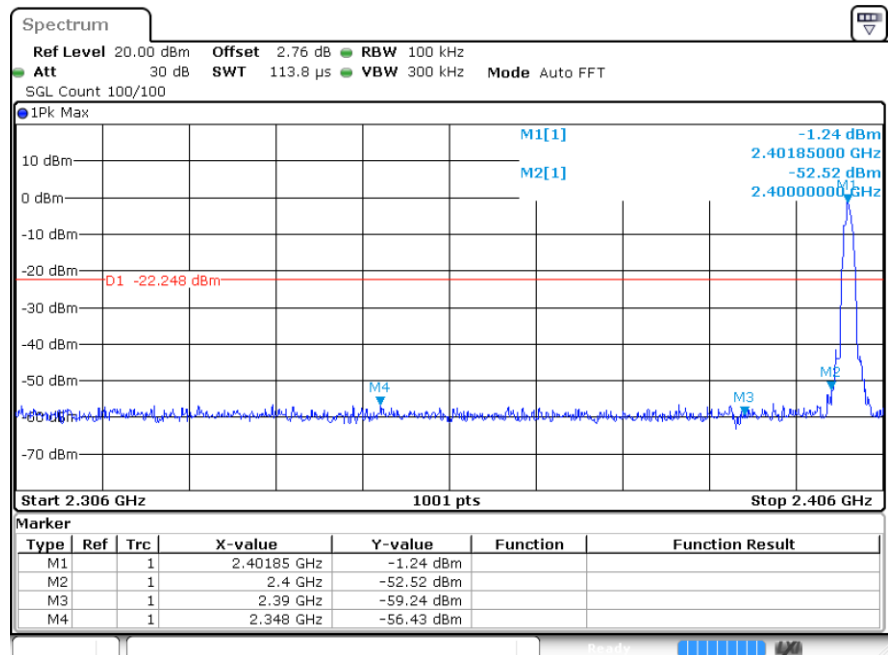
$\pi/4$ DQPSK/HCH/Hop



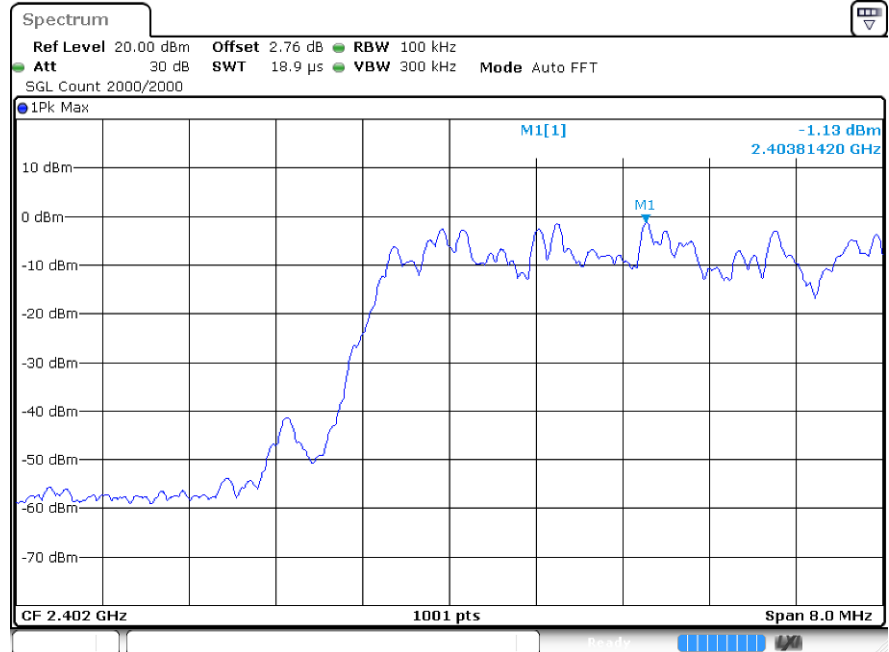
Ref



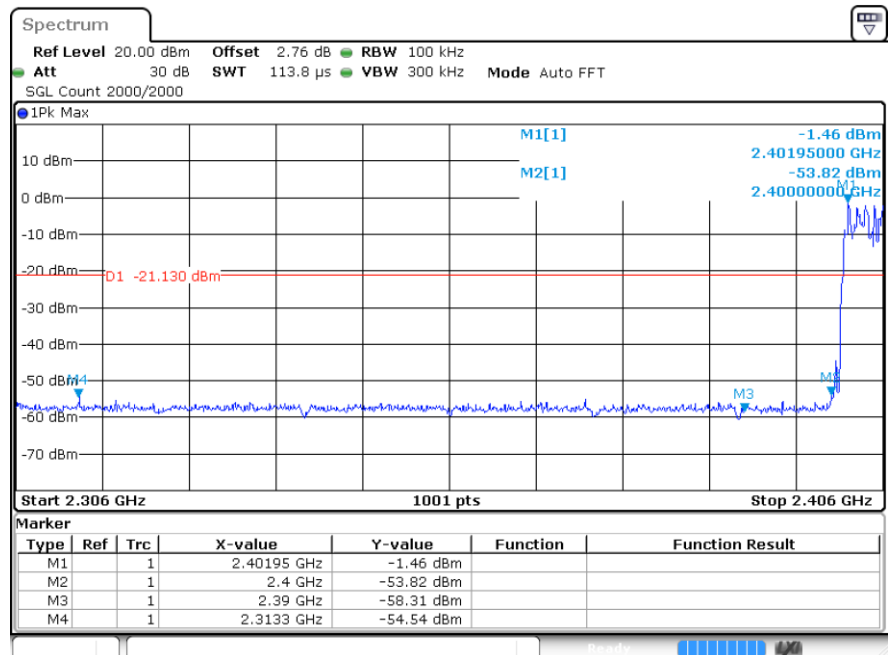
8DPSK/LCH/No Hop



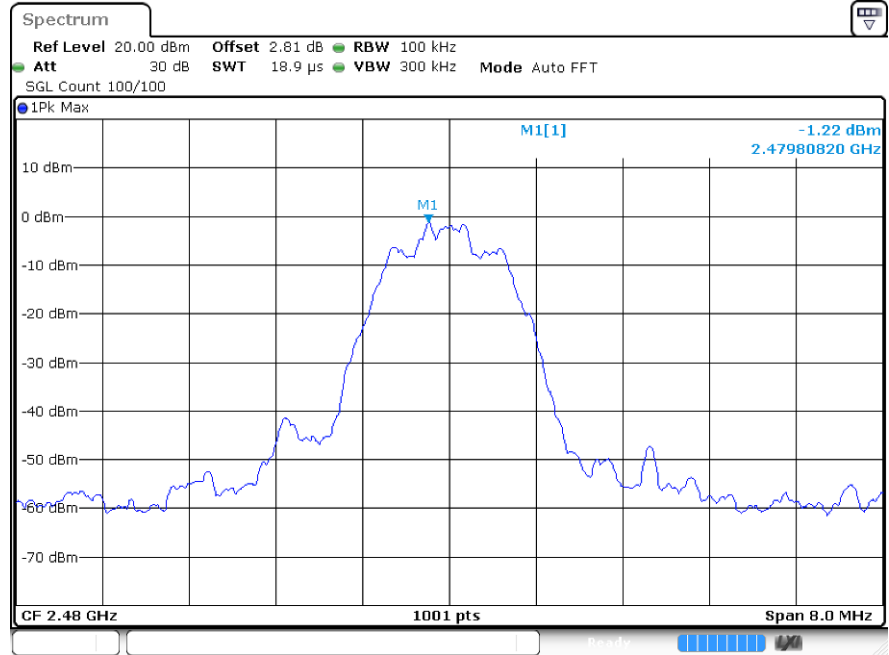
Ref



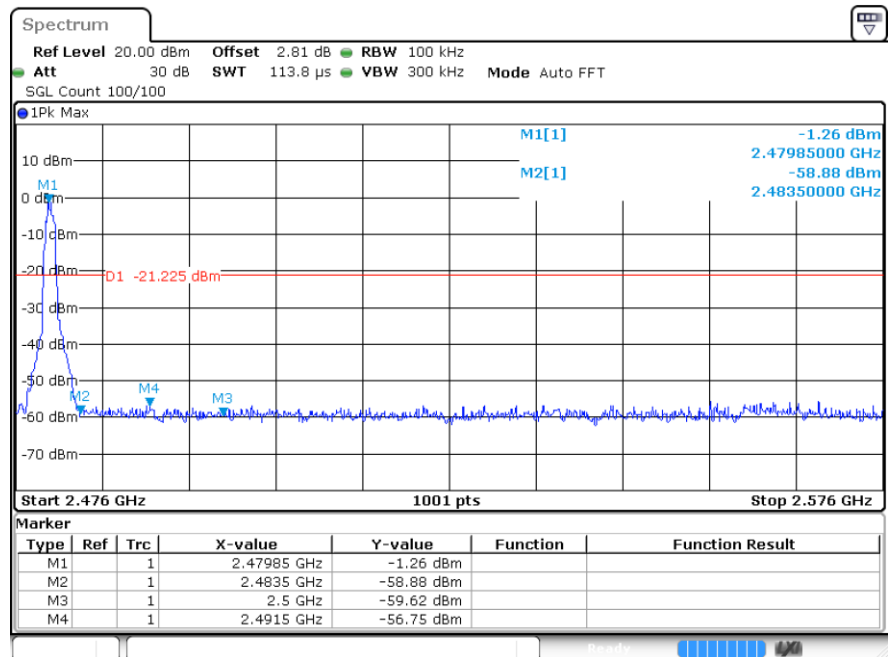
8DPSK/LCH/Hop



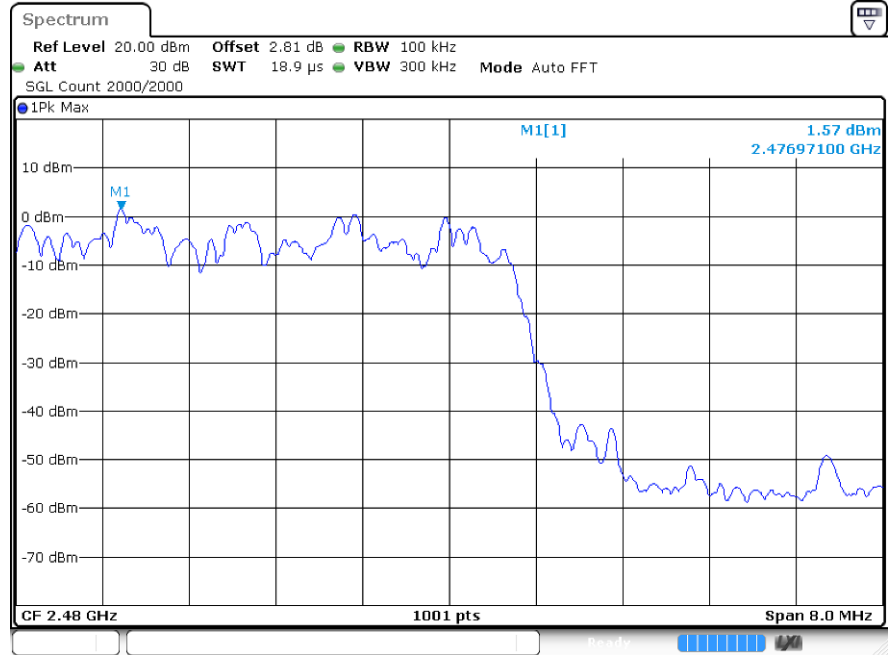
Ref



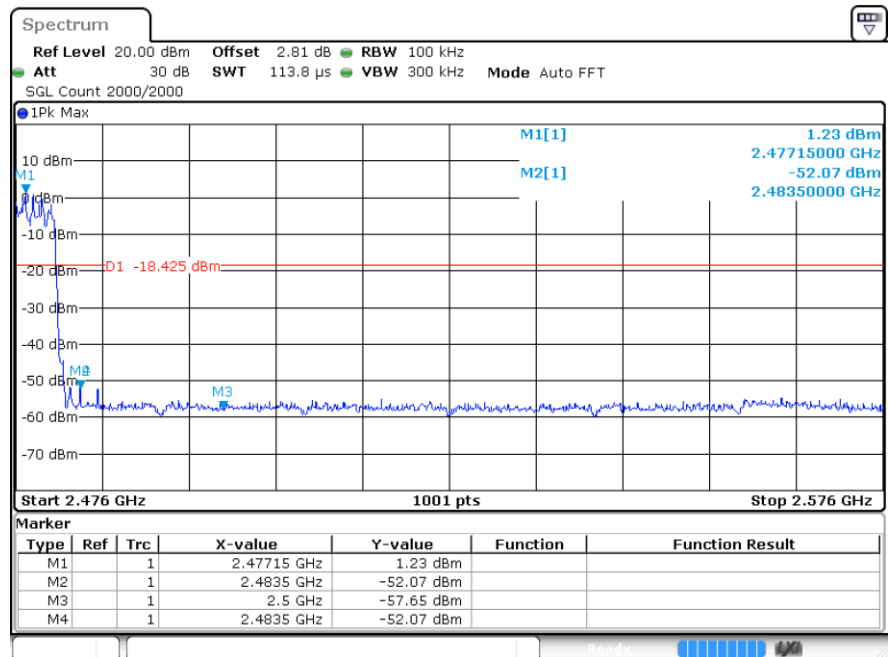
8DPSK/HCH/No Hop



Ref



8DPSK/HCH/Hop



## 9 Restrict-band band-edge measurements

### 9.1 Test Result

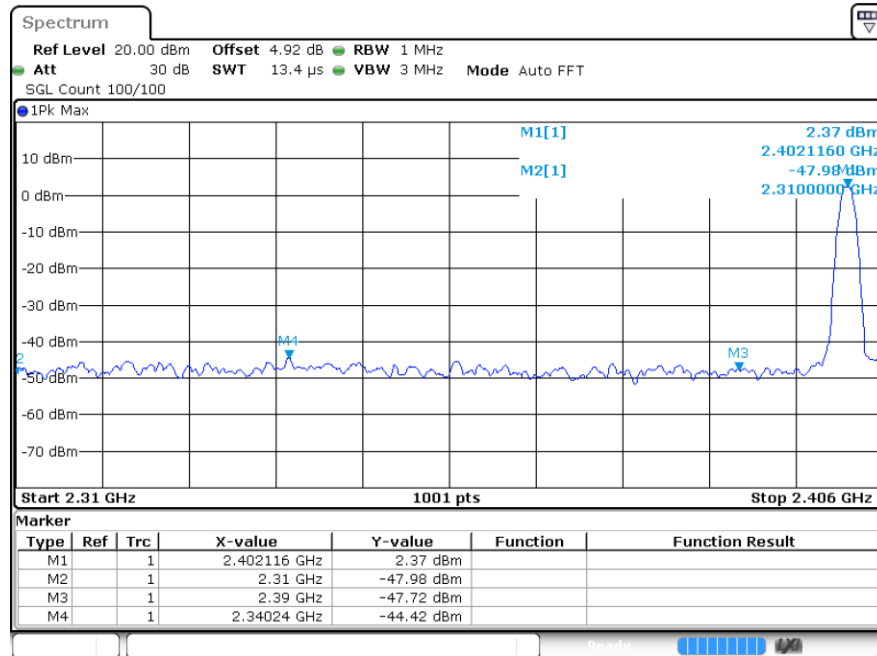
| Test Mode     | Hopping | Freq.    | Power [dBm] | Gain | E [dBuV/m] | Detector | Limit [dBuV/m] | Verdict |
|---------------|---------|----------|-------------|------|------------|----------|----------------|---------|
| GFSK          | Off     | 2310.0   | -47.97      | 2.16 | 49.45      | PEAK     | 74             | Pass    |
|               | Off     | 2310.0   | -55.81      | 2.16 | 41.61      | AV       | 54             | Pass    |
|               | Off     | 2340.24  | -44.41      | 2.16 | 53.01      | PEAK     | 74             | Pass    |
|               | Off     | 2342.16  | -54.02      | 2.16 | 43.4       | AV       | 54             | Pass    |
|               | Off     | 2390.0   | -47.71      | 2.16 | 49.71      | PEAK     | 74             | Pass    |
|               | Off     | 2390.0   | -56.56      | 2.16 | 40.86      | AV       | 54             | Pass    |
|               | Off     | 2483.5   | -46.57      | 2.16 | 50.85      | PEAK     | 74             | Pass    |
|               | Off     | 2483.5   | -53.96      | 2.16 | 43.46      | AV       | 54             | Pass    |
|               | Off     | 2487.328 | -42.46      | 2.16 | 54.96      | PEAK     | 74             | Pass    |
|               | Off     | 2483.512 | -53.96      | 2.16 | 43.46      | AV       | 54             | Pass    |
|               | Off     | 2500.0   | -47.55      | 2.16 | 49.87      | PEAK     | 74             | Pass    |
|               | Off     | 2500.0   | -56.37      | 2.16 | 41.05      | AV       | 54             | Pass    |
| $\pi/4$ DQPSK | Off     | 2310.0   | -48.8       | 2.16 | 48.62      | PEAK     | 74             | Pass    |
|               | Off     | 2310.0   | -56.19      | 2.16 | 41.23      | AV       | 54             | Pass    |
|               | Off     | 2340.528 | -43.11      | 2.16 | 54.31      | PEAK     | 74             | Pass    |
|               | Off     | 2339.952 | -54.11      | 2.16 | 43.31      | AV       | 54             | Pass    |
|               | Off     | 2390.0   | -46.98      | 2.16 | 50.44      | PEAK     | 74             | Pass    |
|               | Off     | 2390.0   | -55.47      | 2.16 | 41.95      | AV       | 54             | Pass    |
|               | Off     | 2483.5   | -46.93      | 2.16 | 50.49      | PEAK     | 74             | Pass    |
|               | Off     | 2483.5   | -54.41      | 2.16 | 43.01      | AV       | 54             | Pass    |
|               | Off     | 2487.448 | -43.63      | 2.16 | 53.79      | PEAK     | 74             | Pass    |
|               | Off     | 2483.656 | -54.26      | 2.16 | 43.16      | AV       | 54             | Pass    |
|               | Off     | 2500.0   | -47.93      | 2.16 | 49.49      | PEAK     | 74             | Pass    |
|               | Off     | 2500.0   | -55.68      | 2.16 | 41.74      | AV       | 54             | Pass    |
| 8DPSK         | Off     | 2310.0   | -46.98      | 2.16 | 50.44      | PEAK     | 74             | Pass    |
|               | Off     | 2310.0   | -55.85      | 2.16 | 41.57      | AV       | 54             | Pass    |
|               | Off     | 2341.68  | -44.72      | 2.16 | 52.7       | PEAK     | 74             | Pass    |
|               | Off     | 2341.68  | -53.96      | 2.16 | 43.46      | AV       | 54             | Pass    |



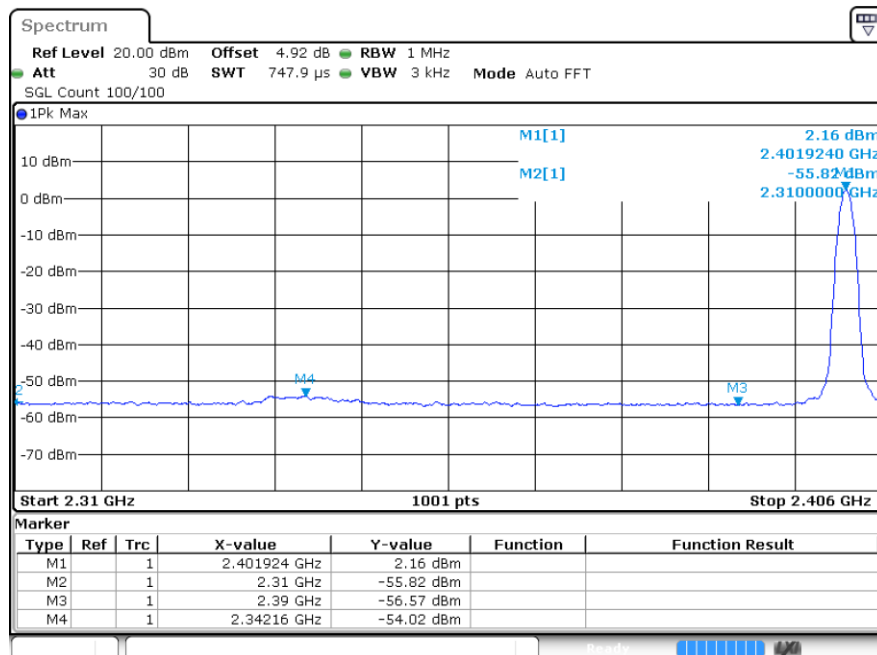
|  |     |          |        |      |       |      |    |      |
|--|-----|----------|--------|------|-------|------|----|------|
|  | Off | 2390.0   | -47.15 | 2.16 | 50.27 | PEAK | 74 | Pass |
|  | Off | 2390.0   | -55.93 | 2.16 | 41.49 | AV   | 54 | Pass |
|  | Off | 2483.5   | -48.25 | 2.16 | 49.17 | PEAK | 74 | Pass |
|  | Off | 2483.5   | -54.2  | 2.16 | 43.22 | AV   | 54 | Pass |
|  | Off | 2486.584 | -46.02 | 2.16 | 51.4  | PEAK | 74 | Pass |
|  | Off | 2484.088 | -54.02 | 2.16 | 43.4  | AV   | 54 | Pass |
|  | Off | 2500.0   | -46.64 | 2.16 | 50.78 | PEAK | 74 | Pass |
|  | Off | 2500.0   | -55.45 | 2.16 | 41.97 | AV   | 54 | Pass |

## 9.2 Test Graphs

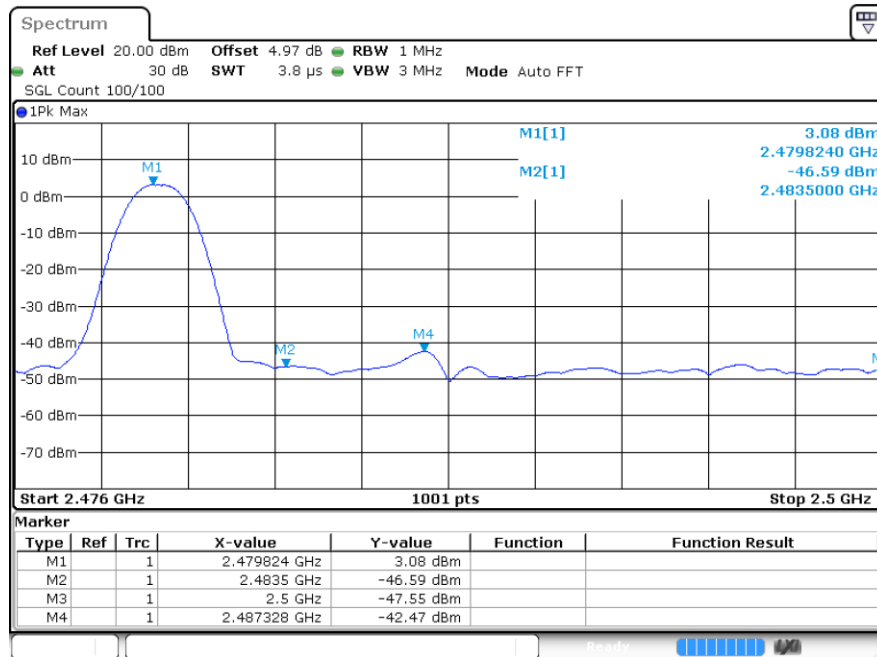
Restrict-band band-edge measurements\_Hopping Off\_ GFSK\_PEAK (Low Channel)



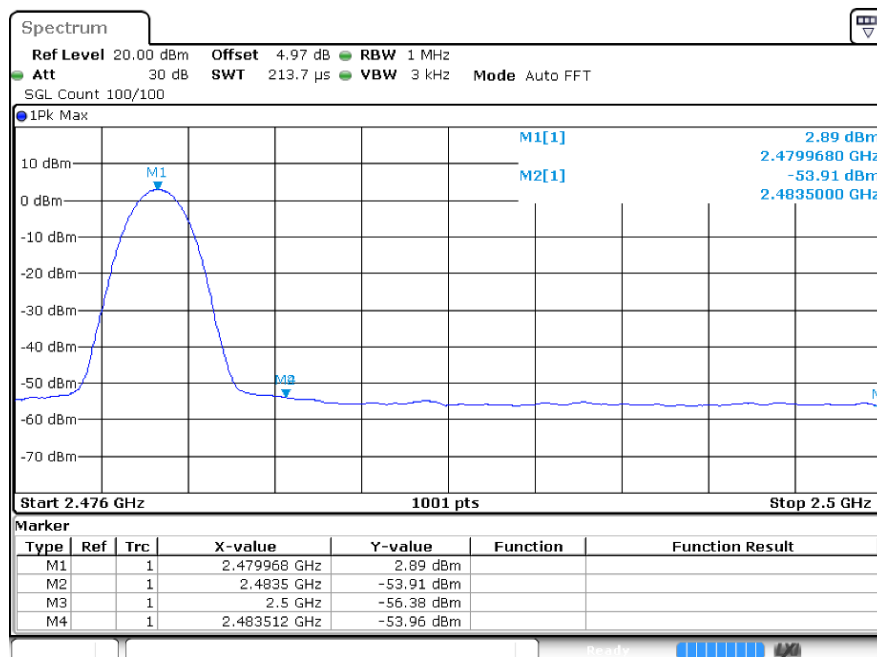
Restrict-band band-edge measurements\_Hopping Off\_ GFSK\_Average (Low Channel)



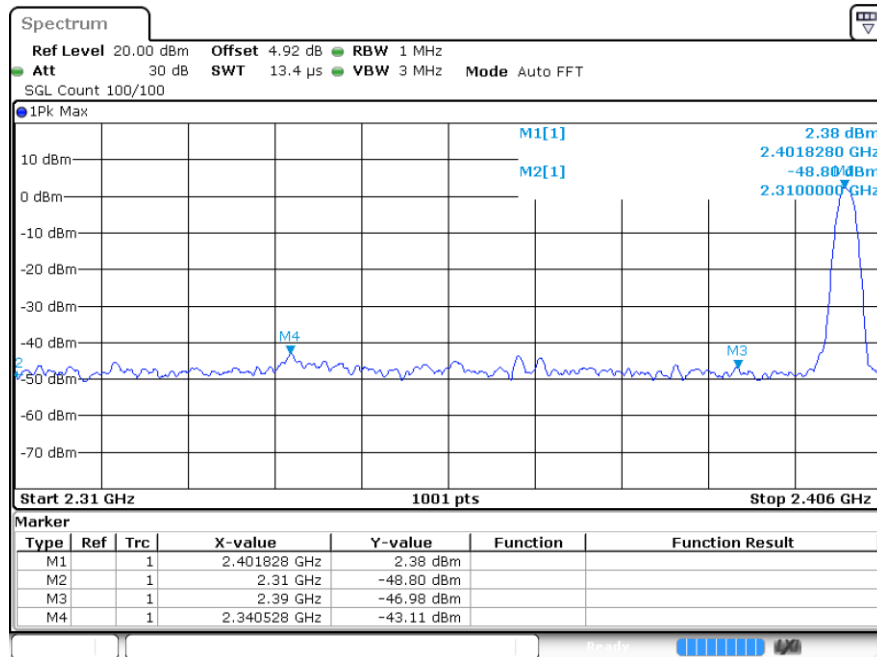
## Restrict-band band-edge measurements\_Hopping Off\_ GFSK\_PEAK (High Channel)



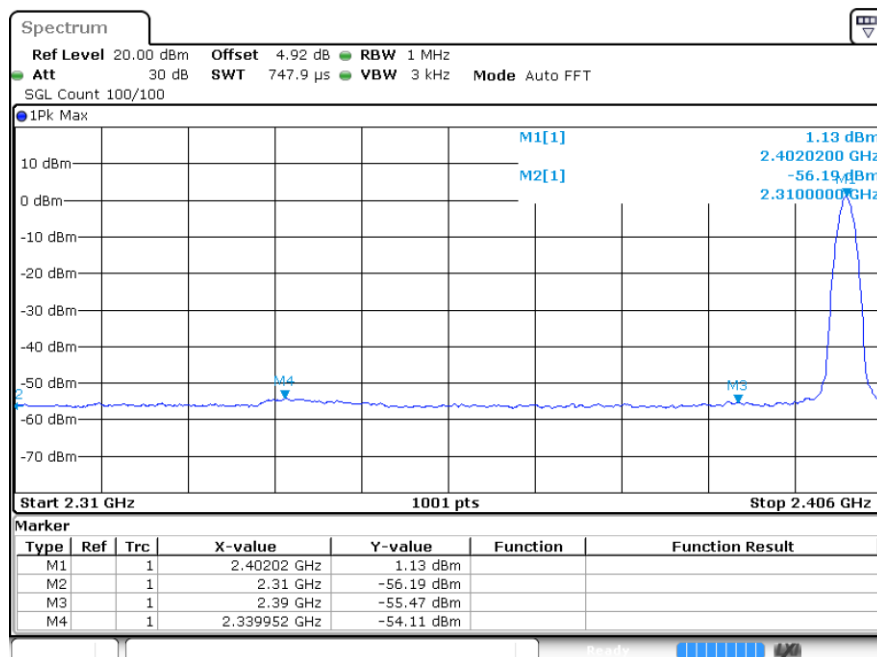
## Restrict-band band-edge measurements\_Hopping Off\_ GFSK\_Average (High Channel)



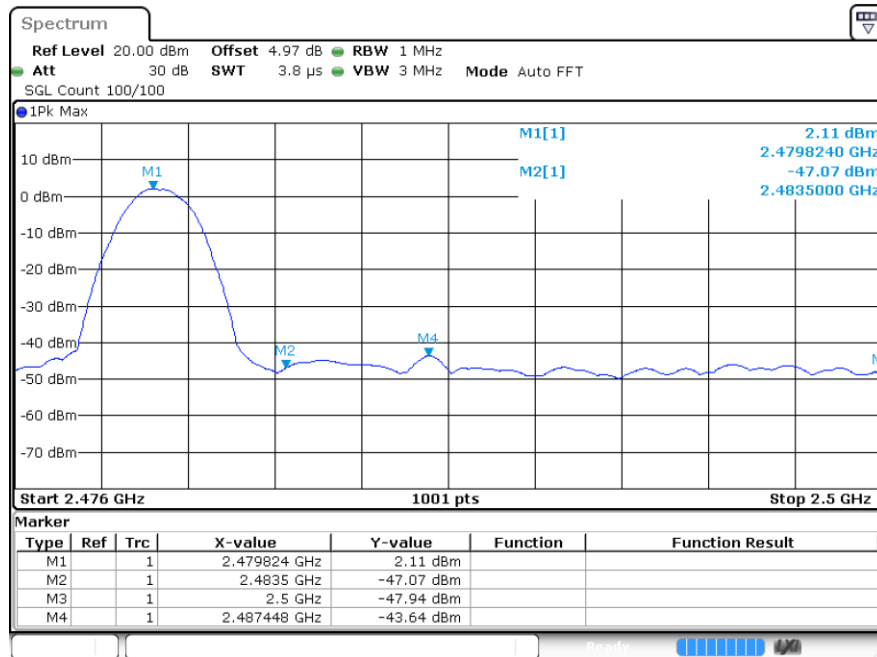
## Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_PEAK (Low Channel)



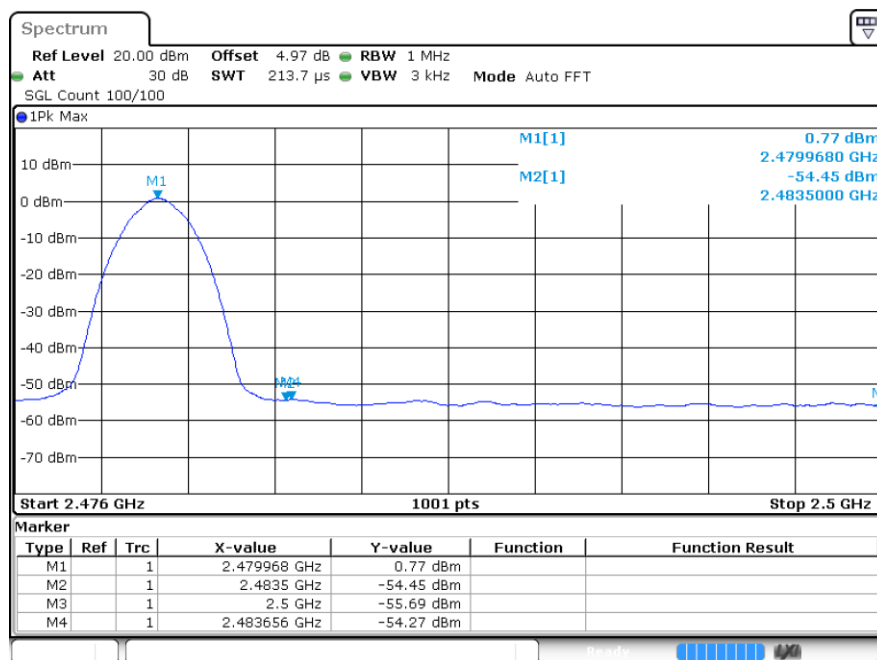
## Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_Average (Low Channel)



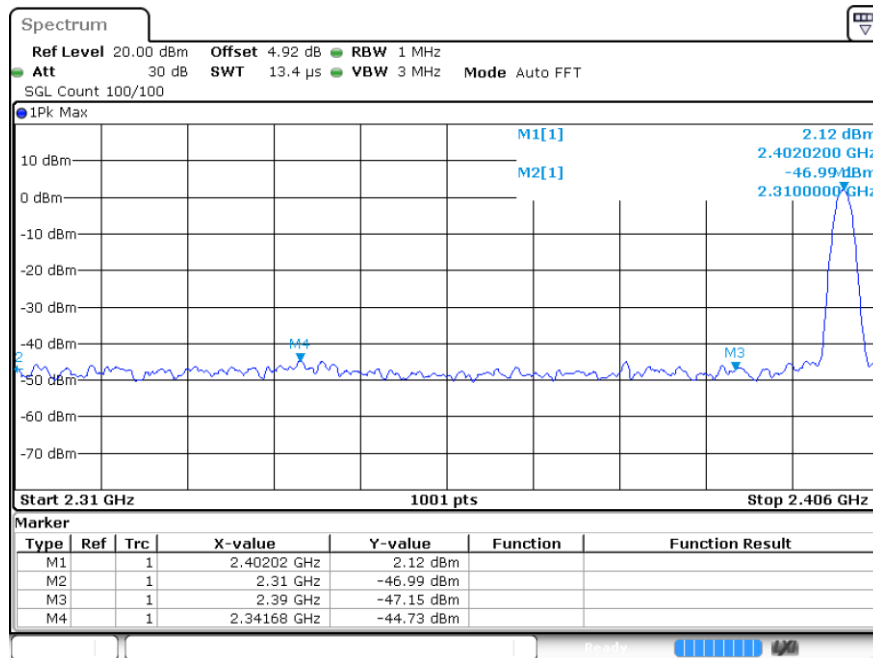
## Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_PEAK (High Channel)



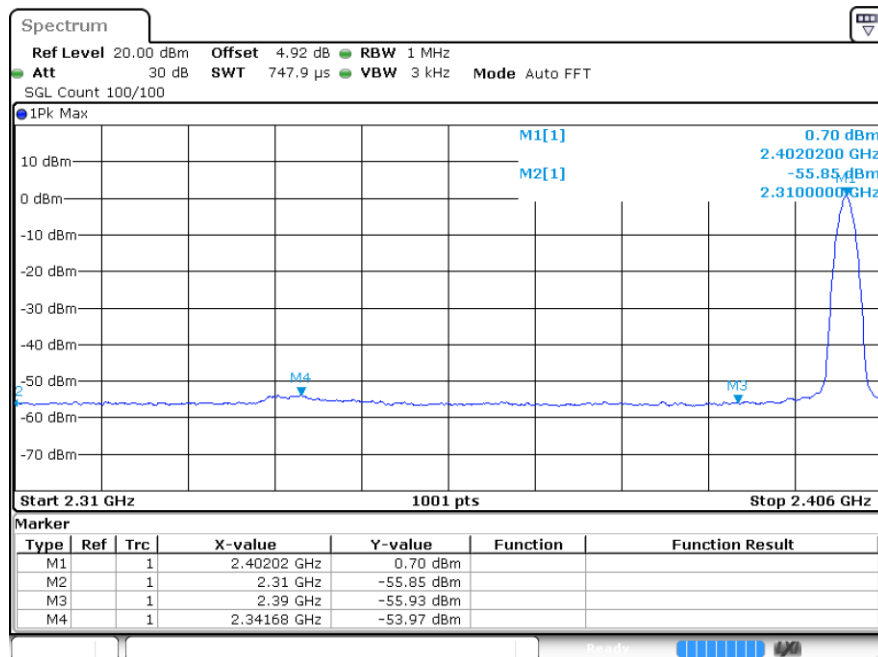
## Restrict-band band-edge measurements\_Hopping Off\_π/4-DQPSK\_Average (High Channel)



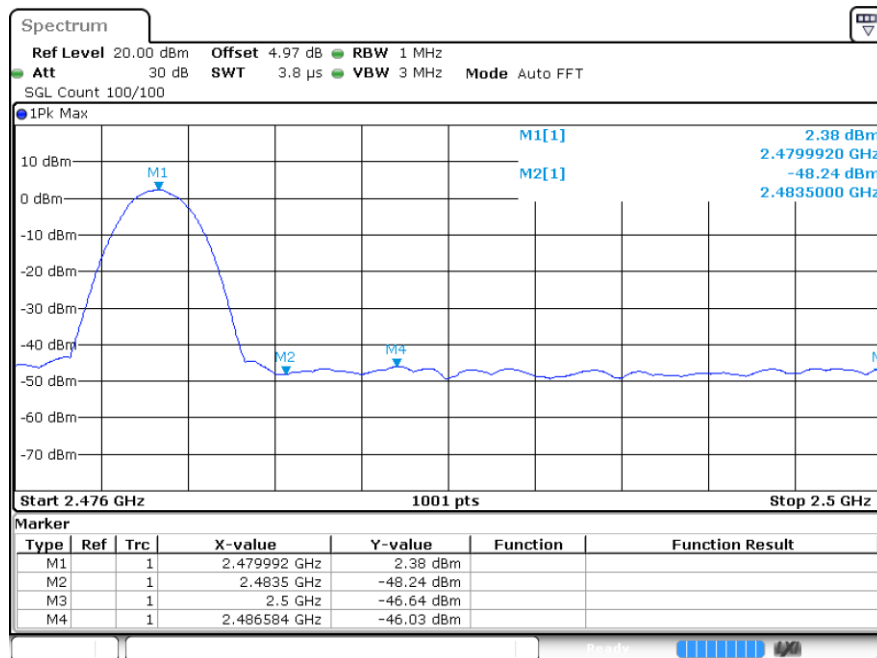
## Restrict-band band-edge measurements\_Hopping Off\_8DPSK\_PEAK (Low Channel)



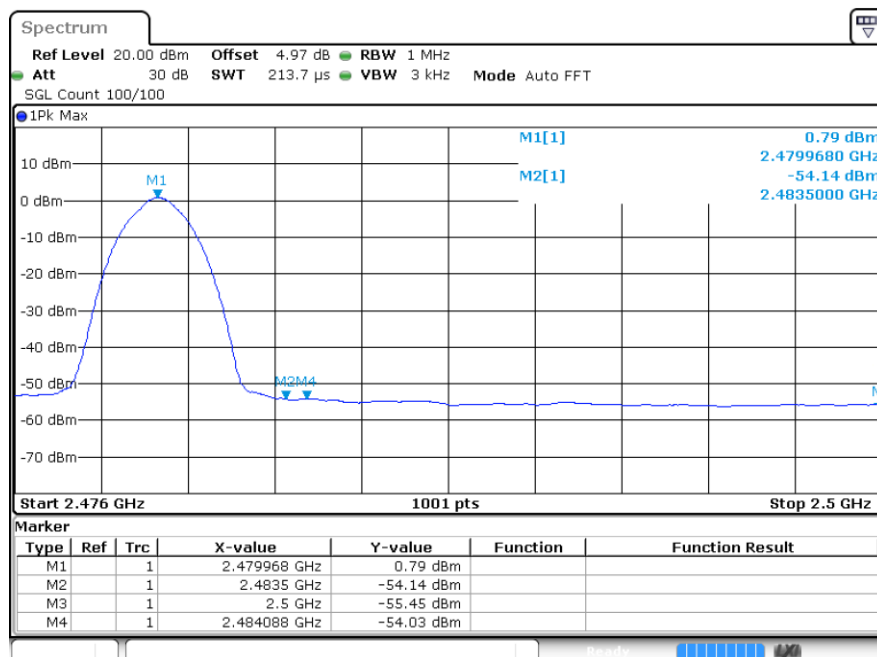
## Restrict-band band-edge measurements\_Hopping Off\_8DPSK\_Average (Low Channel)



### Restrict-band band-edge measurements\_Hopping Off\_8DPSK\_PEAK (High Channel)



### Restrict-band band-edge measurements\_Hopping Off\_8DPSK\_Average (High Channel)



---The End---