



## Appendix B

### RF Test Data for BT(BDR/EDR) (Conducted Measurement)

Product Name: Open Bluetooth headset

Trade Mark: N/A

Test Model: SP9i

#### Environmental Conditions

|                    |             |
|--------------------|-------------|
| Temperature:       | 24.4℃       |
| Relative Humidity: | 52.3%       |
| ATM Pressure:      | 101Kpa      |
| Test Engineer:     | Emiya lin   |
| Supervised by:     | Simba Haung |



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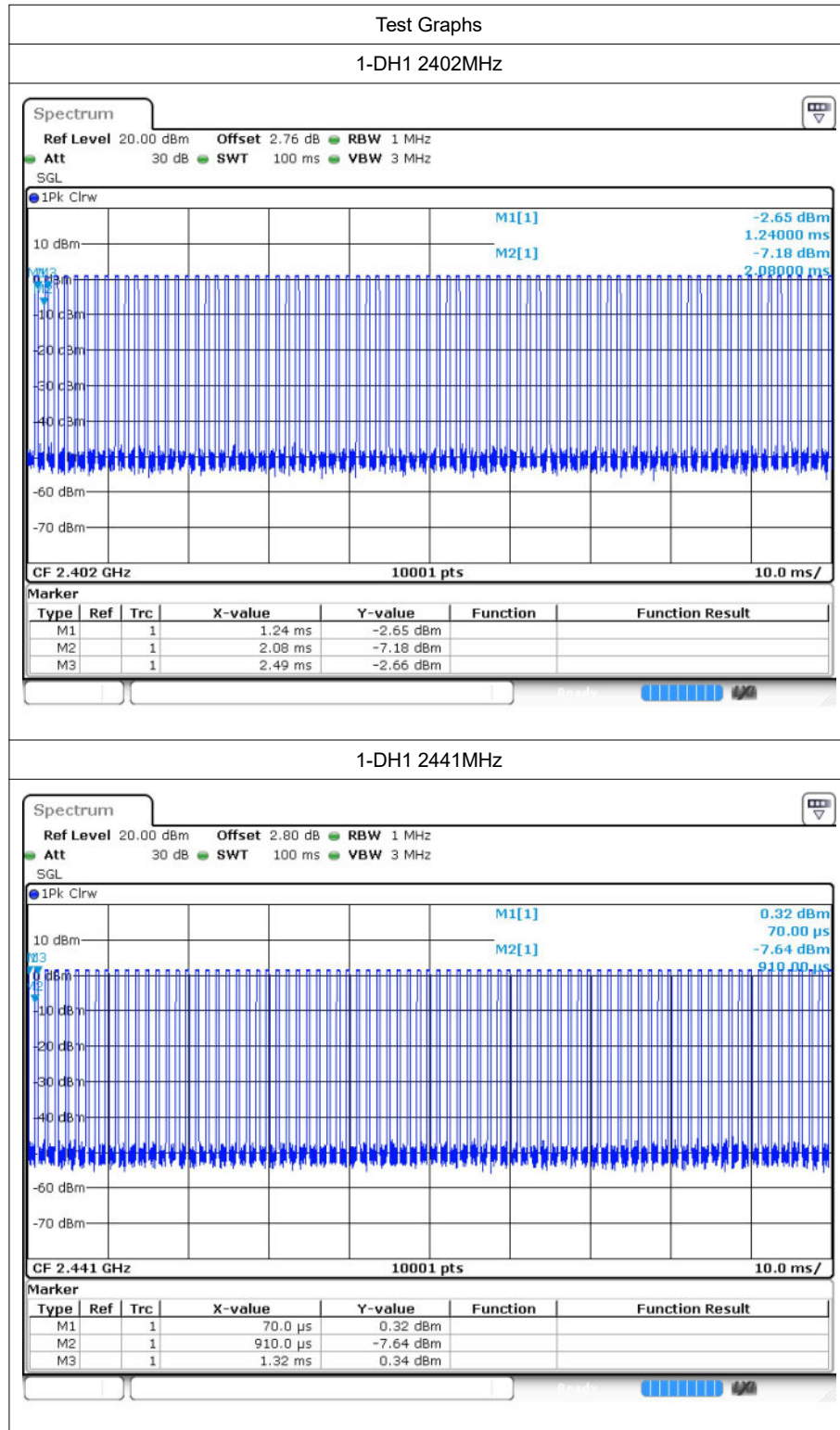
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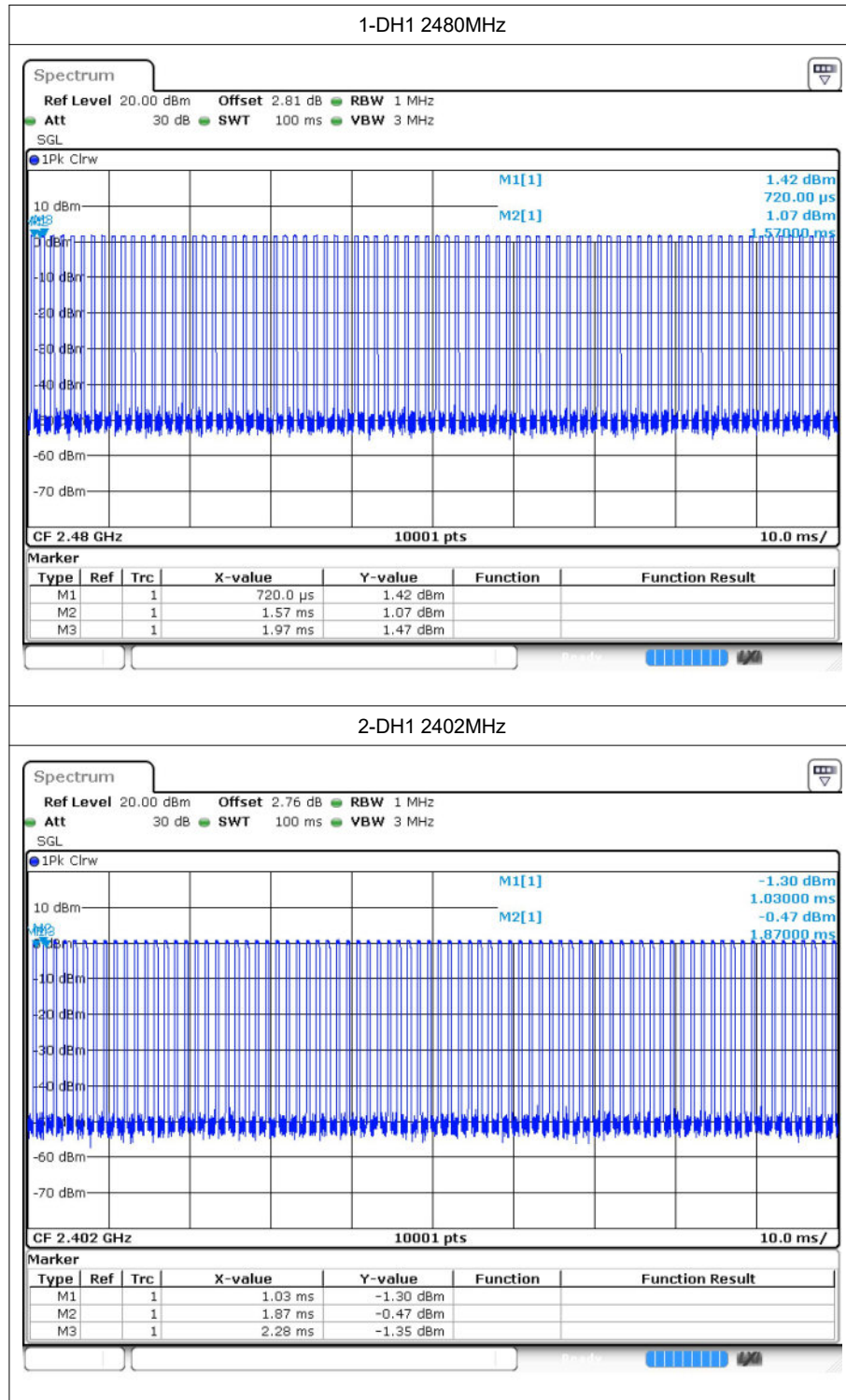
# 1 Duty Cycle

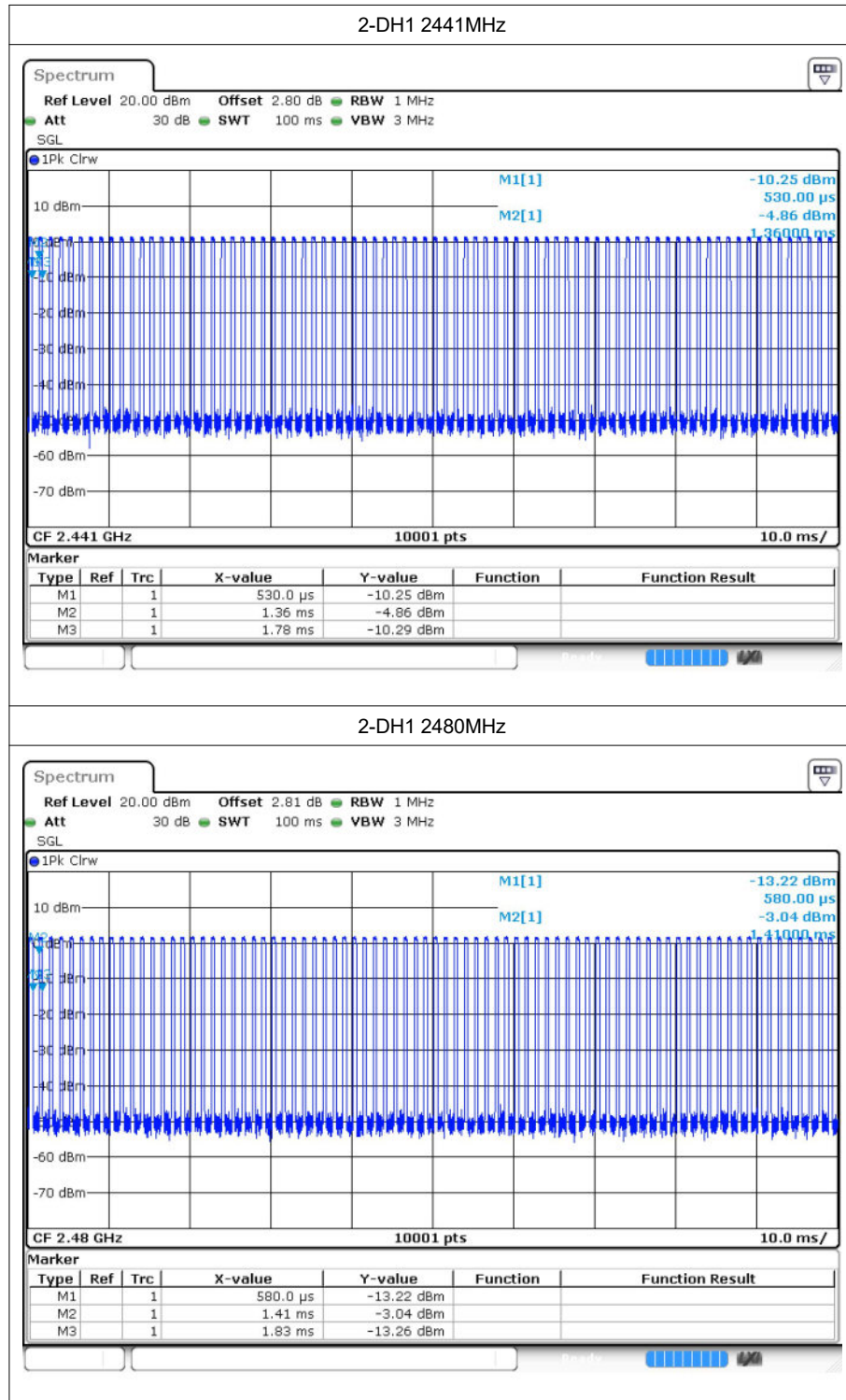
## 1.1 Test Result

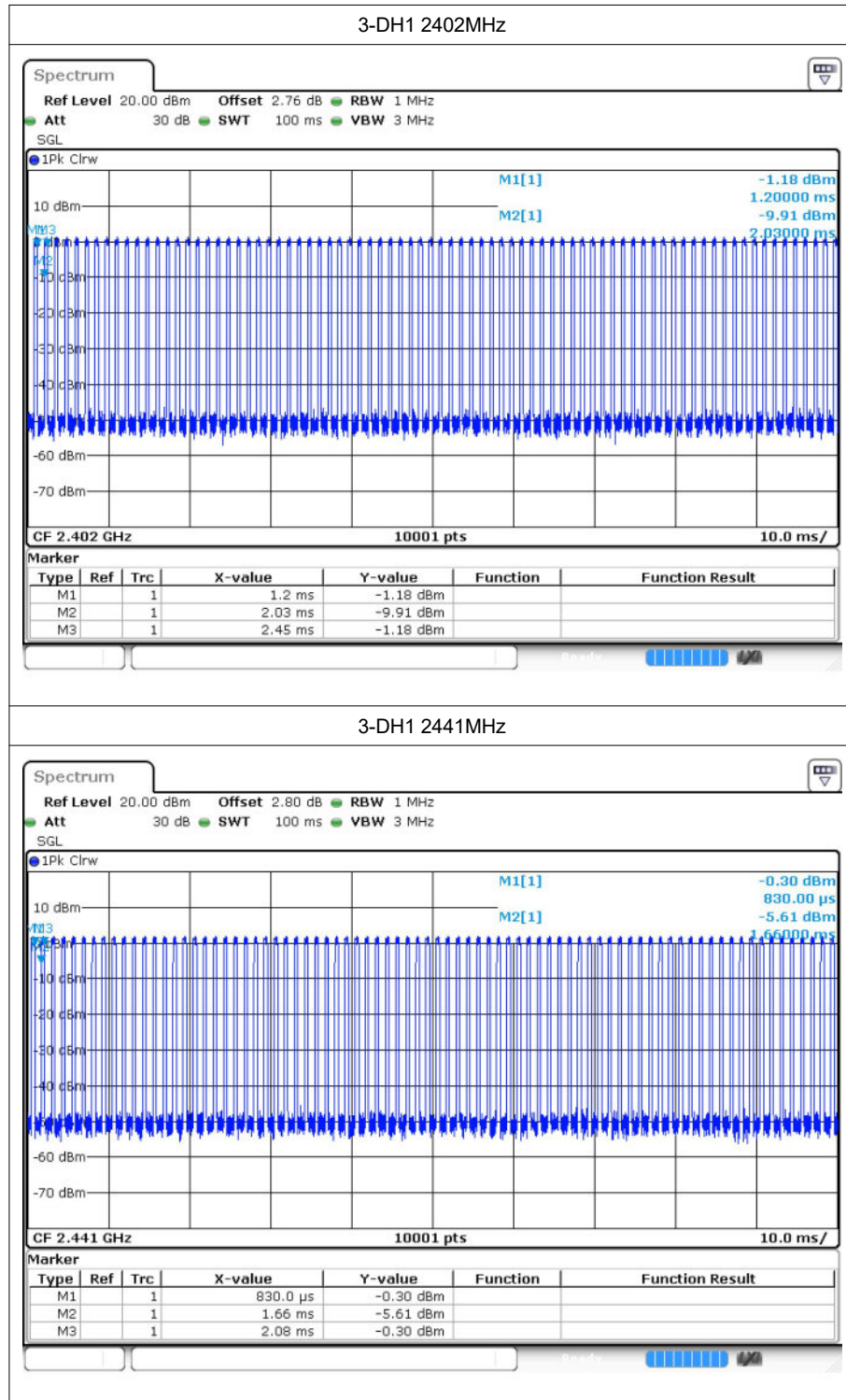
| Mode  | Frequency (MHz) | Duty Cycle (%) | Correction Factor | 1/T (kHz) |
|-------|-----------------|----------------|-------------------|-----------|
| 1-DH1 | 2402            | 33.6           | 4.74              | 2.44      |
| 1-DH1 | 2441            | 33.61          | 4.74              | 2.44      |
| 1-DH1 | 2480            | 32.8           | 4.84              | 2.5       |
| 2-DH1 | 2402            | 33.6           | 4.74              | 2.44      |
| 2-DH1 | 2441            | 34.4           | 4.63              | 2.38      |
| 2-DH1 | 2480            | 34.4           | 4.63              | 2.38      |
| 3-DH1 | 2402            | 34.4           | 4.63              | 2.38      |
| 3-DH1 | 2441            | 34.4           | 4.63              | 2.38      |
| 3-DH1 | 2480            | 34.4           | 4.63              | 2.38      |

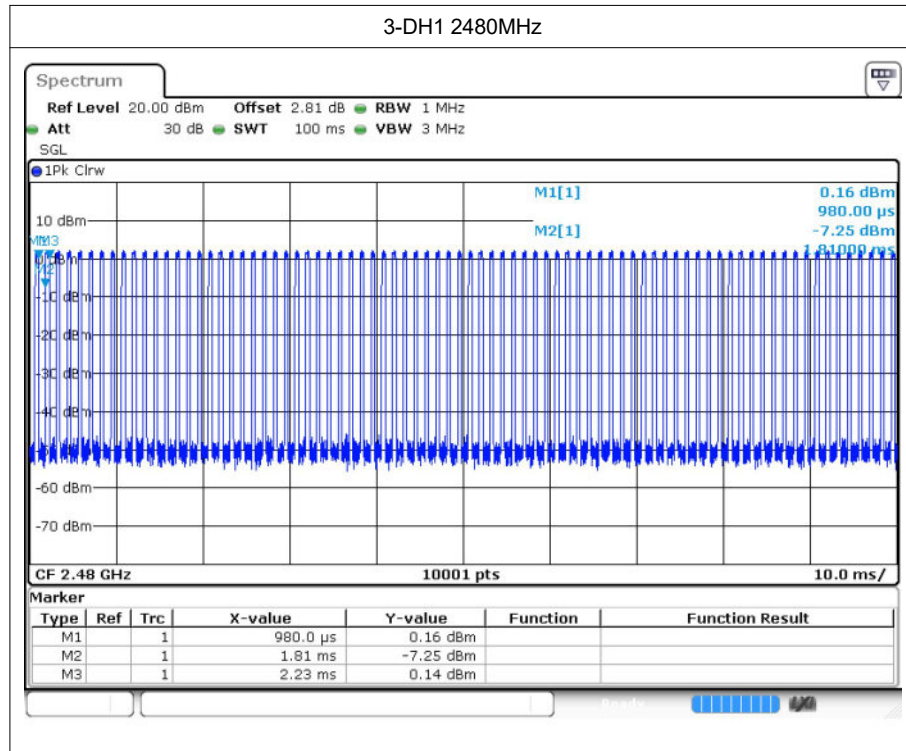
## 1.2 Test Graphs









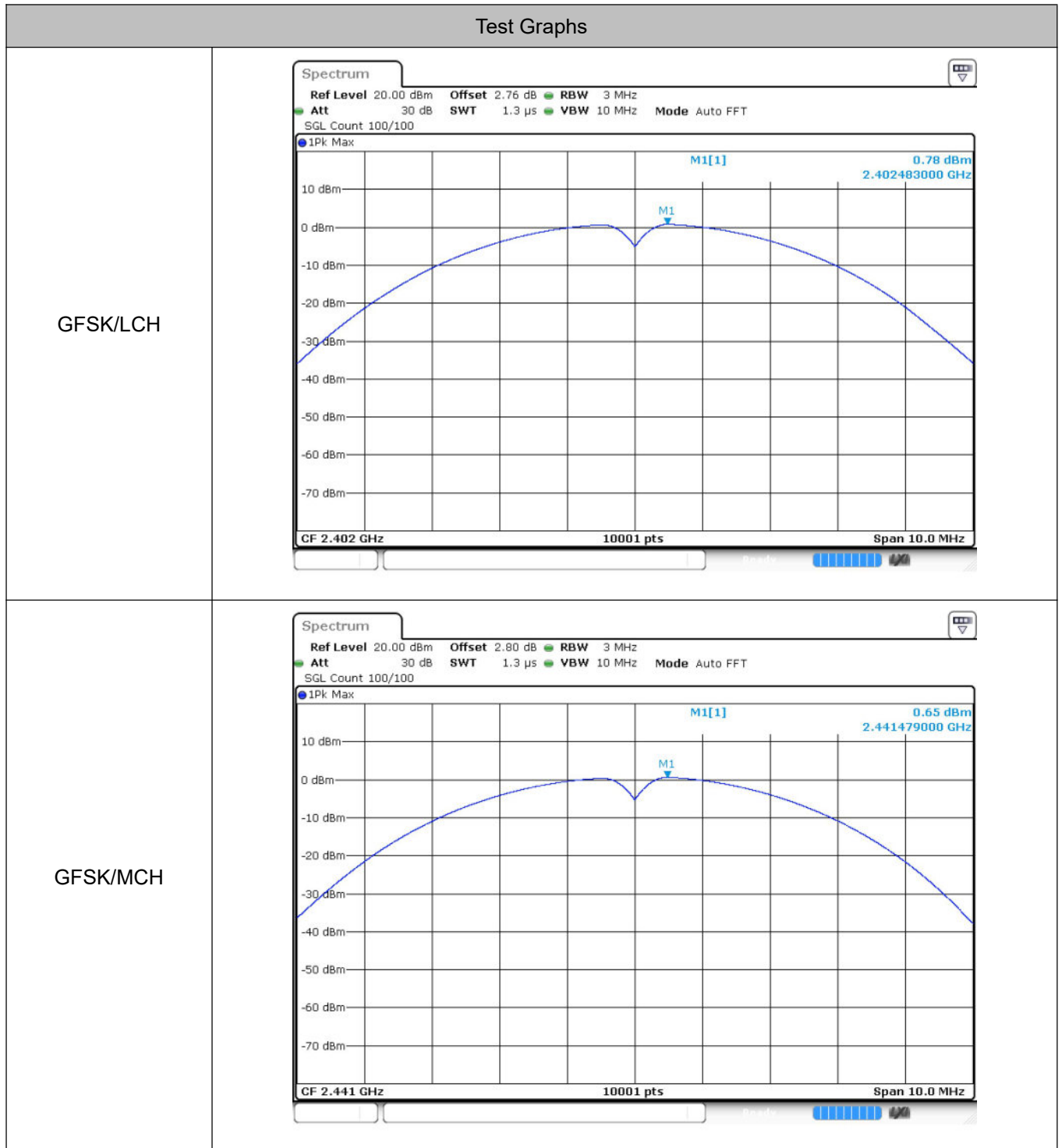


## 2 Maximum Conducted Peak Output Power

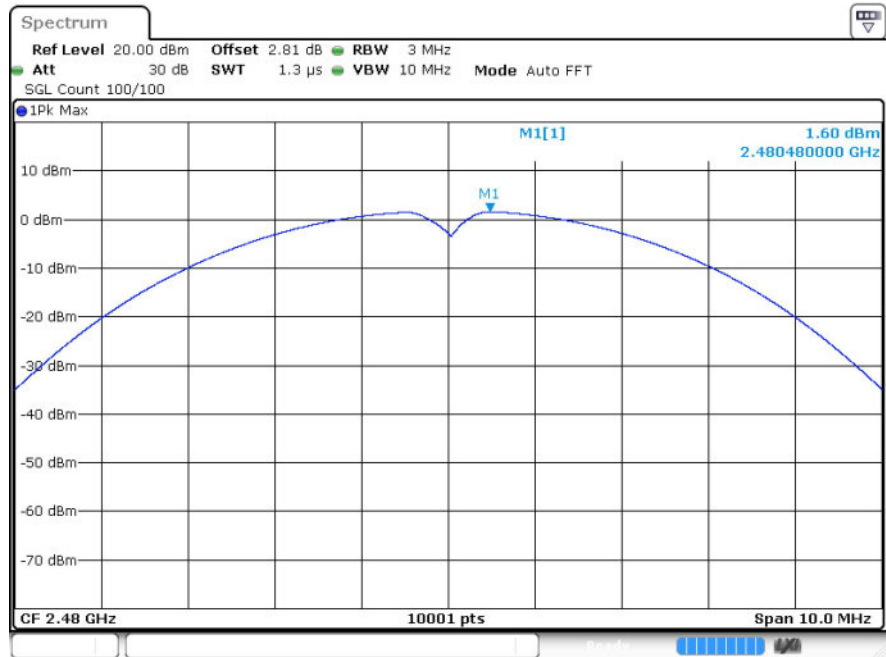
### 2.1 Test Result

| Mode          | Channel. | Maximum Peak Output Power<br>[dBm] | Limit<br>[dBm] | Verdict |
|---------------|----------|------------------------------------|----------------|---------|
| GFSK          | LCH      | 0.78                               | 21             | Pass    |
|               | MCH      | 0.65                               | 21             | Pass    |
|               | HCH      | 1.6                                | 21             | Pass    |
| $\pi/4$ DQPSK | LCH      | 0.67                               | 21             | Pass    |
|               | MCH      | 1.42                               | 21             | Pass    |
|               | HCH      | 1.53                               | 21             | Pass    |
| 8DPSK         | LCH      | 1.53                               | 21             | Pass    |
|               | MCH      | 1.59                               | 21             | Pass    |
|               | HCH      | 1.35                               | 21             | Pass    |

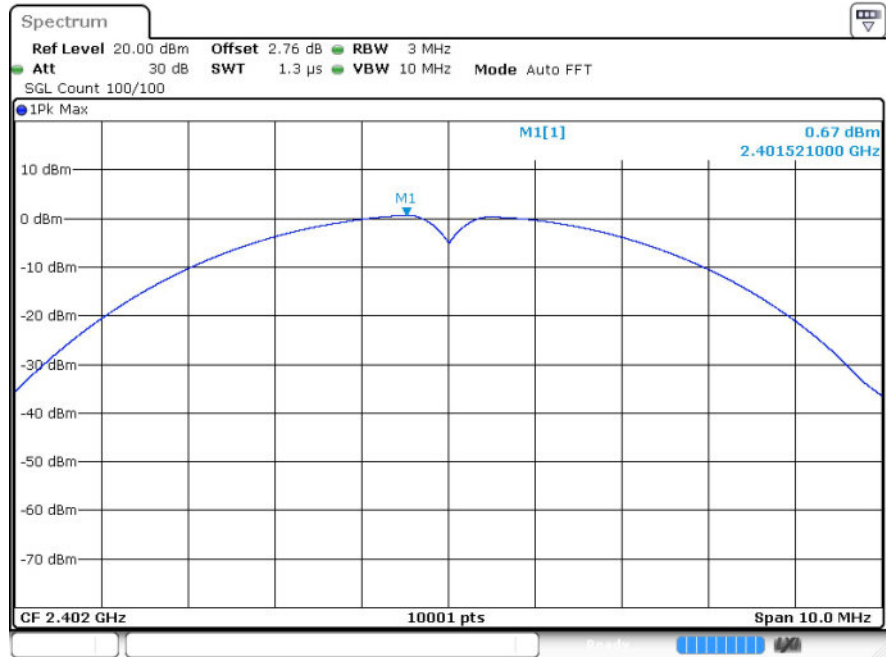
## 2.2 Test Graphs



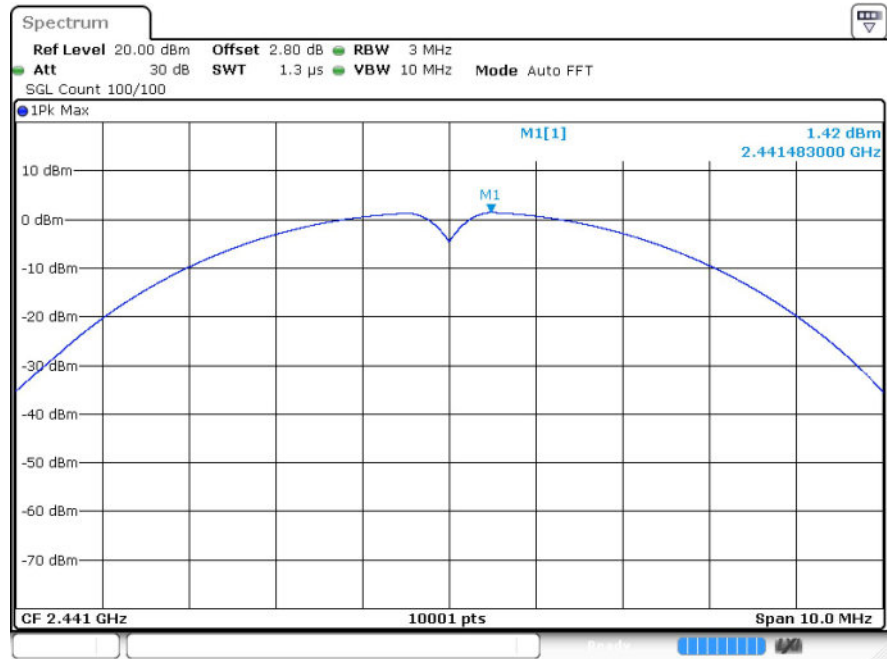
GFSK/HCH



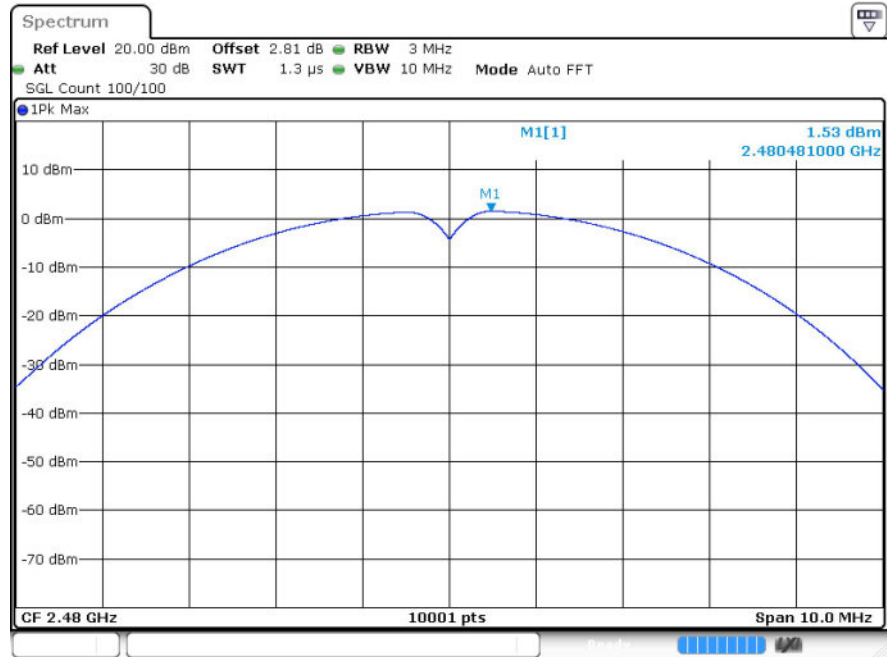
$\pi/4$ DQPSK/LCH



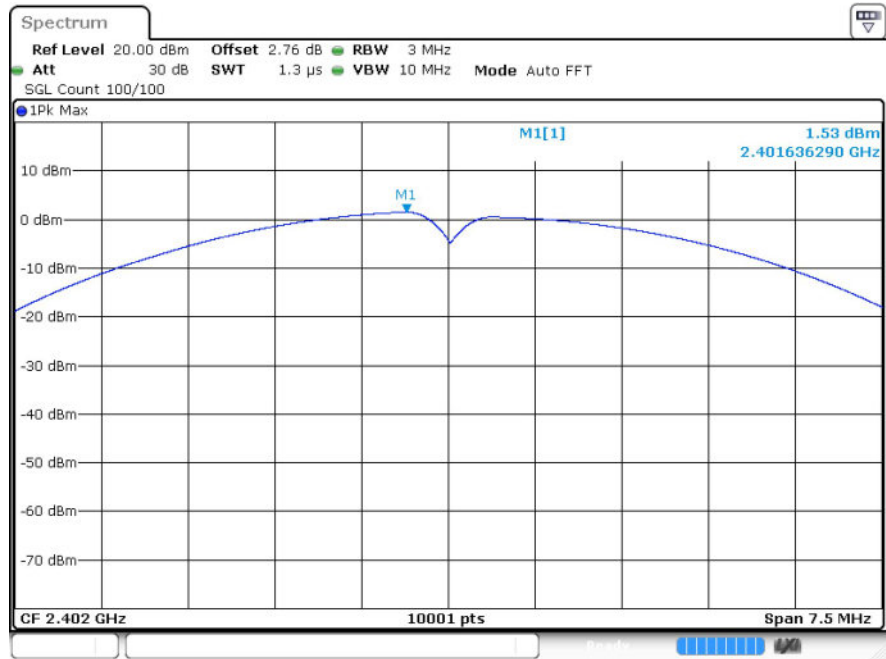
$\pi/4$ DQPSK/MCH



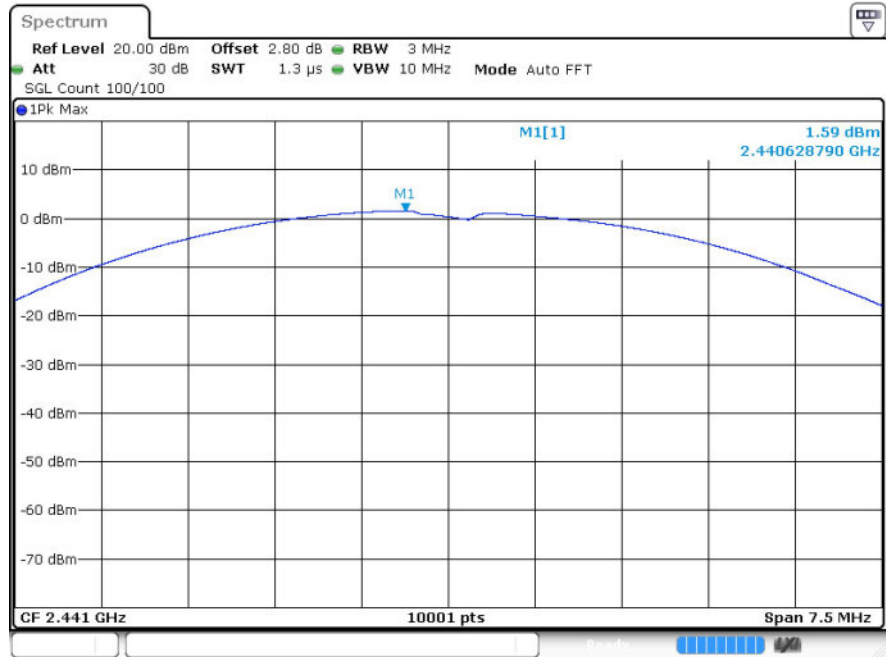
$\pi/4$ DQPSK/HCH



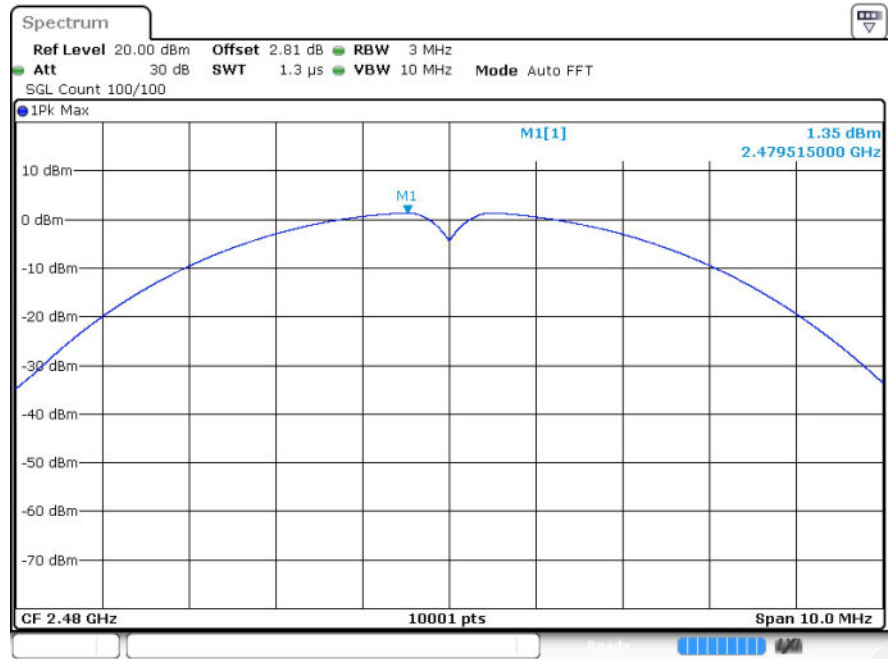
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

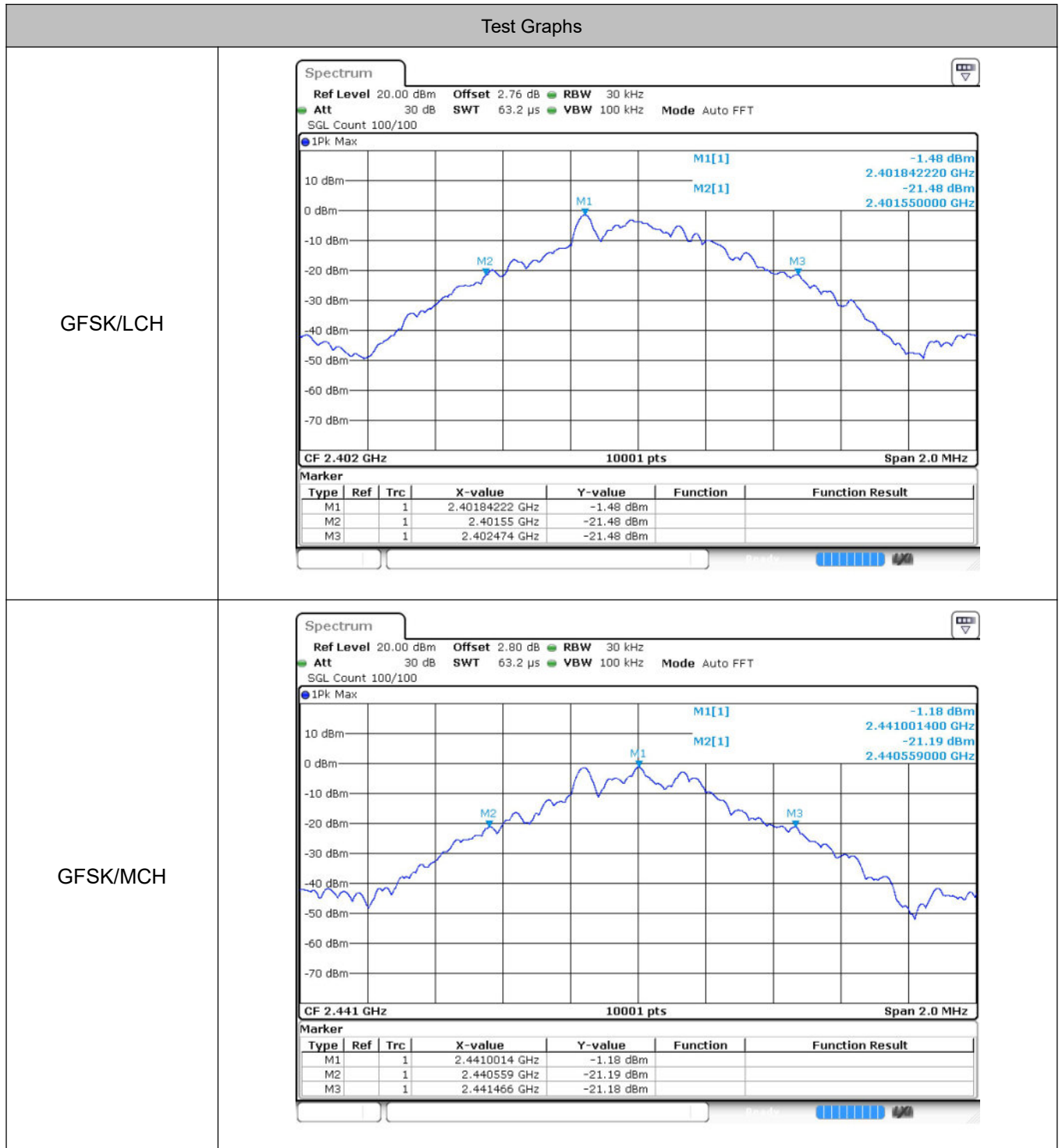


### 3 20dB Bandwidth

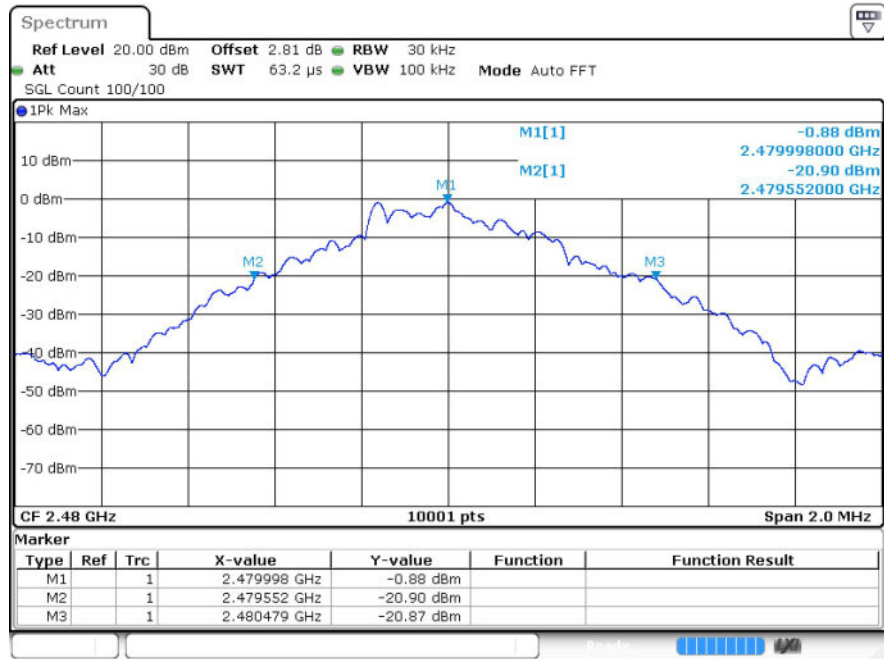
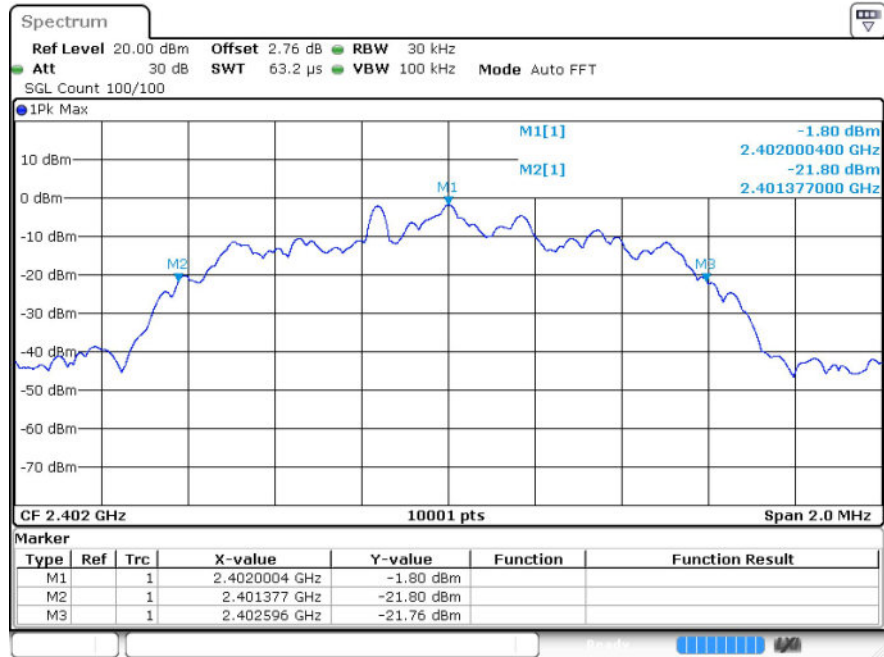
#### 3.1 Test Result

| Mode          | Channel. | 20dB Bandwidth [MHz] | Limit [MHz]   | Verdict |
|---------------|----------|----------------------|---------------|---------|
| GFSK          | LCH      | 0.924                | Not Specified | Pass    |
|               | MCH      | 0.907                | Not Specified | Pass    |
|               | HCH      | 0.927                | Not Specified | Pass    |
| $\pi/4$ DQPSK | LCH      | 1.219                | Not Specified | Pass    |
|               | MCH      | 1.218                | Not Specified | Pass    |
|               | HCH      | 1.213                | Not Specified | Pass    |
| 8DPSK         | LCH      | 1.198                | Not Specified | Pass    |
|               | MCH      | 1.189                | Not Specified | Pass    |
|               | HCH      | 1.209                | Not Specified | Pass    |

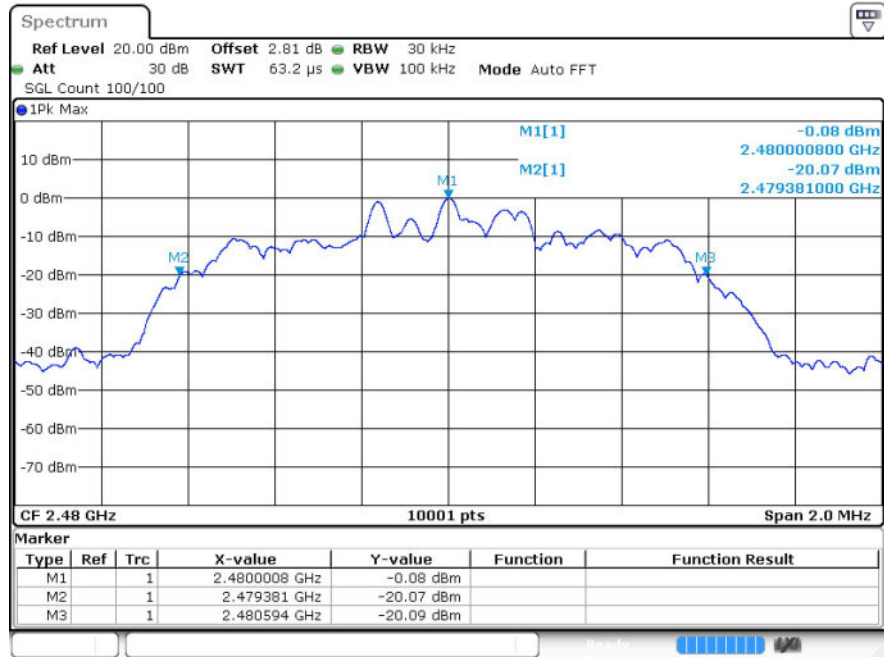
### 3.2 Test Graphs



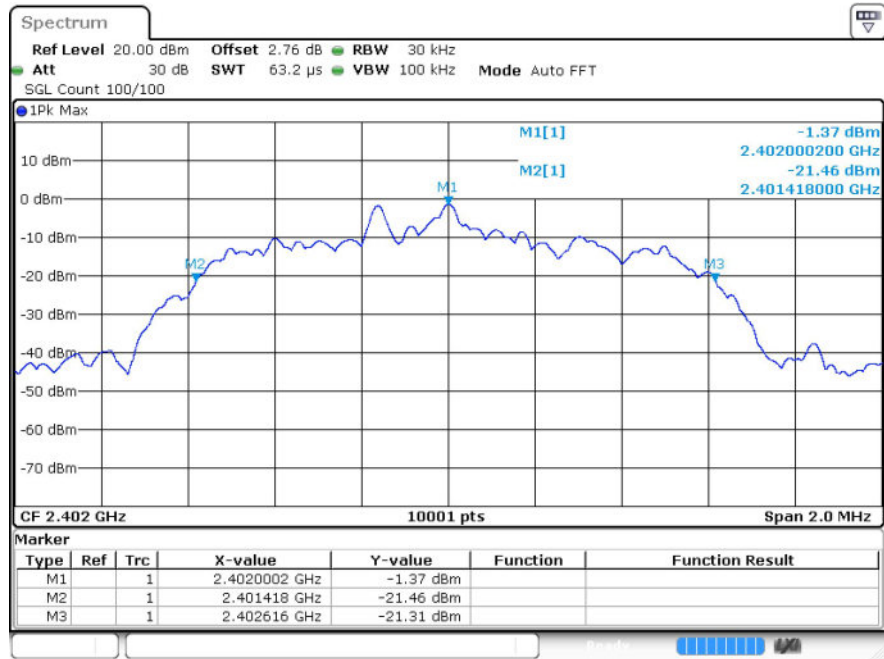
GFSK/HCH


 $\pi/4$ DQPSK/LCH


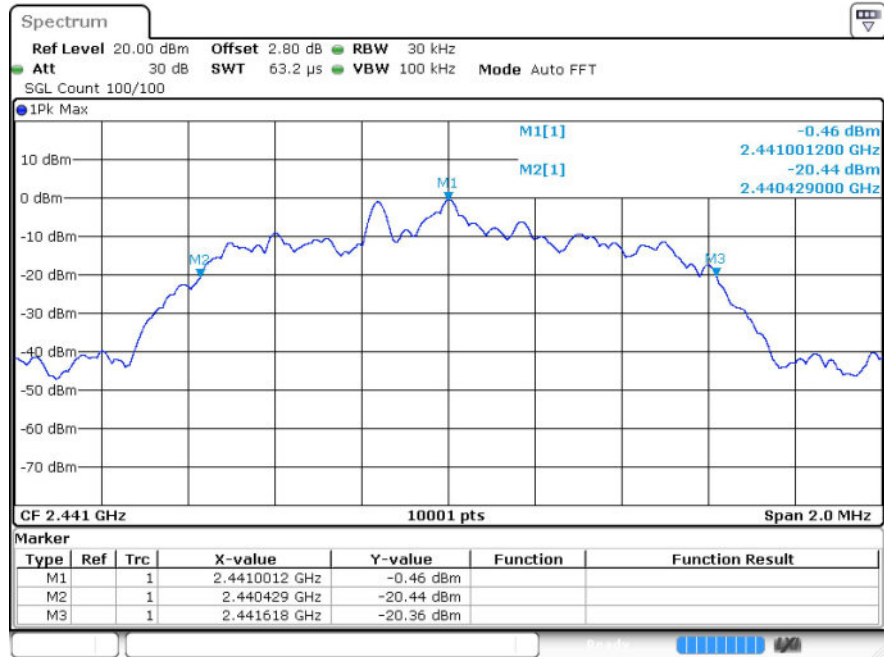
$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


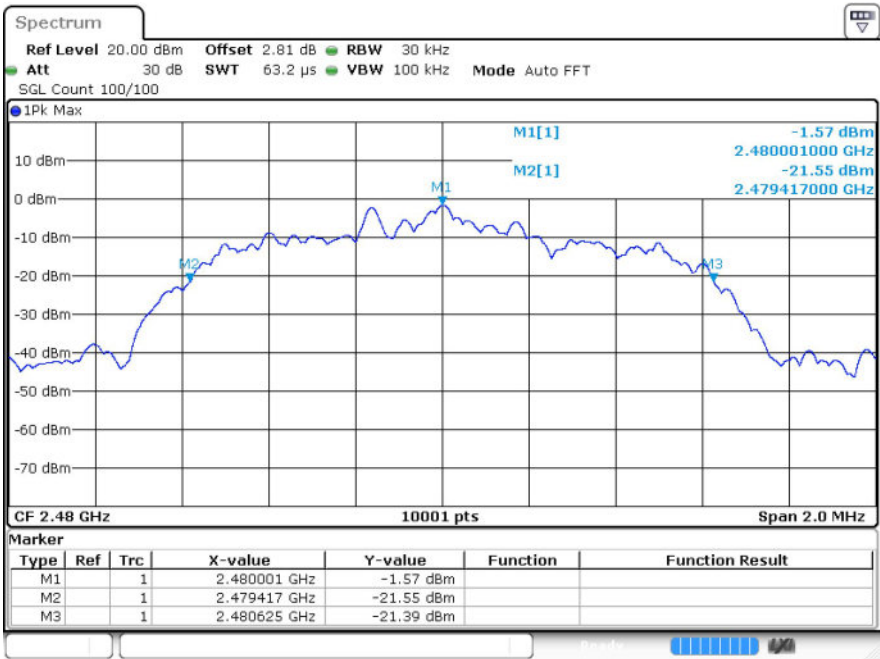
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

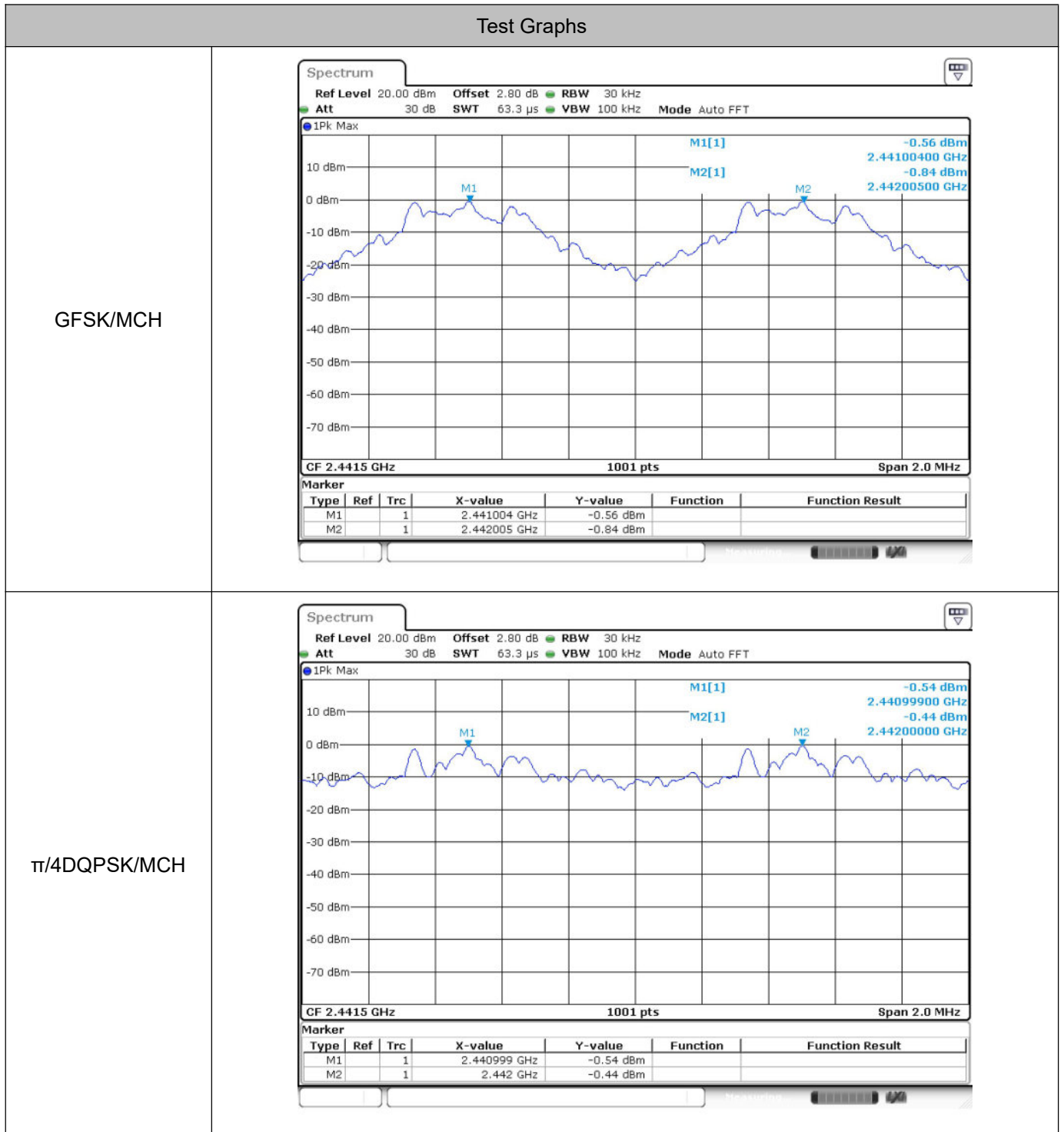


## 4 Carrier Frequency Separation

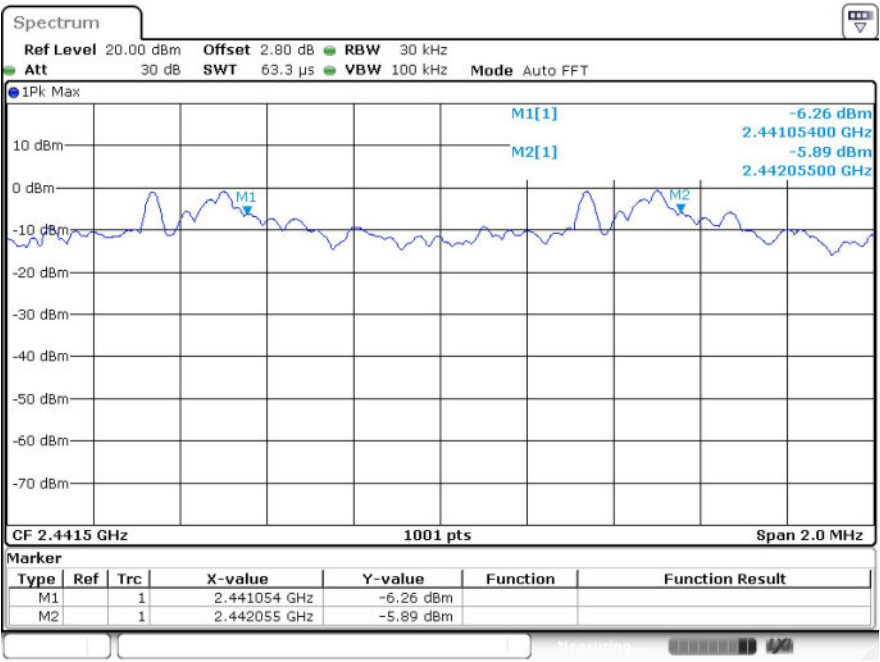
### 4.1 Test Result

| Mode          | Channel. | Carrier Frequency Separation [MHz] | Limit [MHz] | Verdict |
|---------------|----------|------------------------------------|-------------|---------|
| GFSK          | MCH      | 1.001                              | 0.605       | Pass    |
| $\pi/4$ DQPSK | MCH      | 1.001                              | 0.812       | Pass    |
| 8DPSK         | MCH      | 1.001                              | 0.793       | Pass    |

## 4.2 Test Graphs



8DPSK/MCH

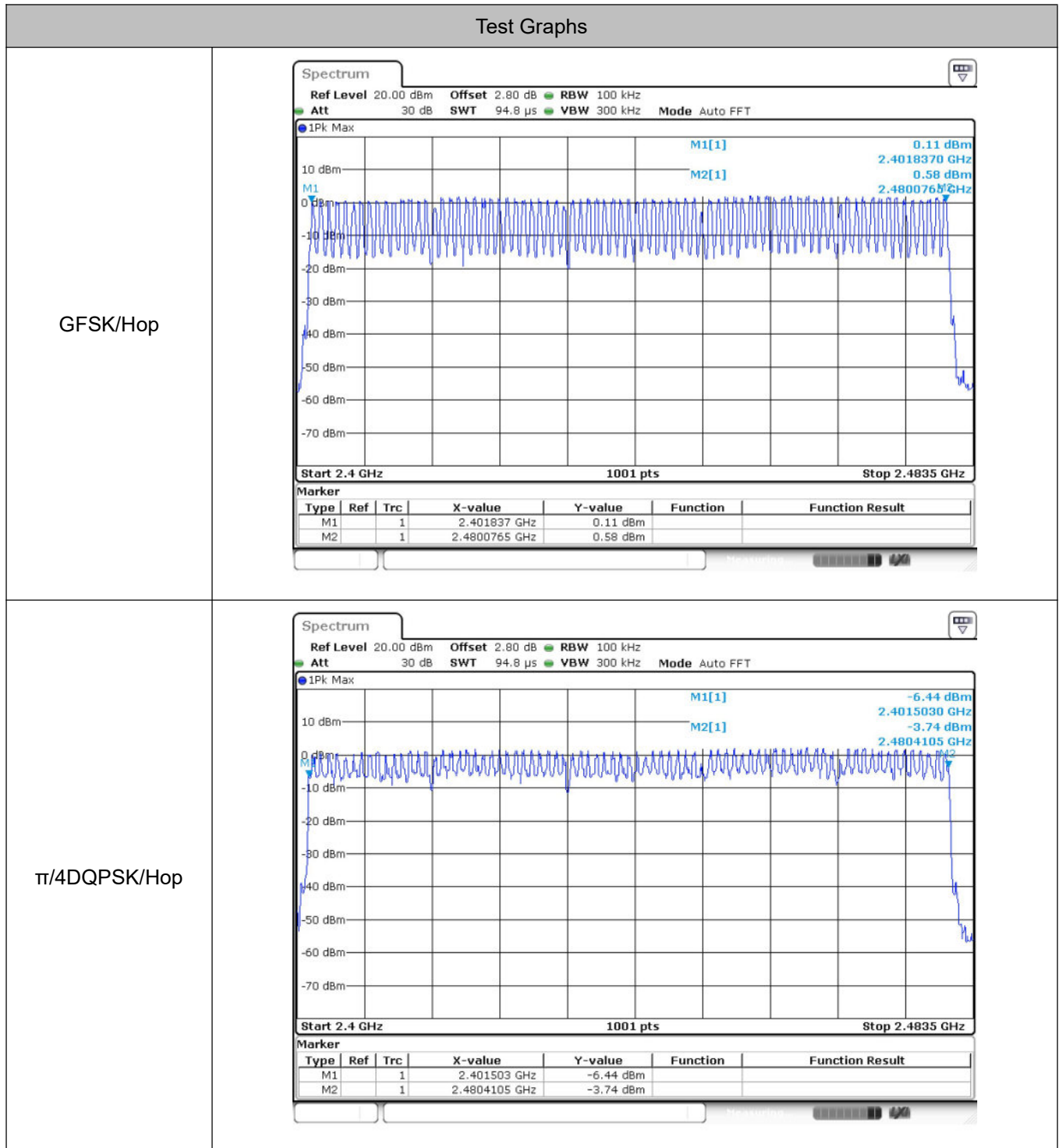


## 5 Hopping Channel Number

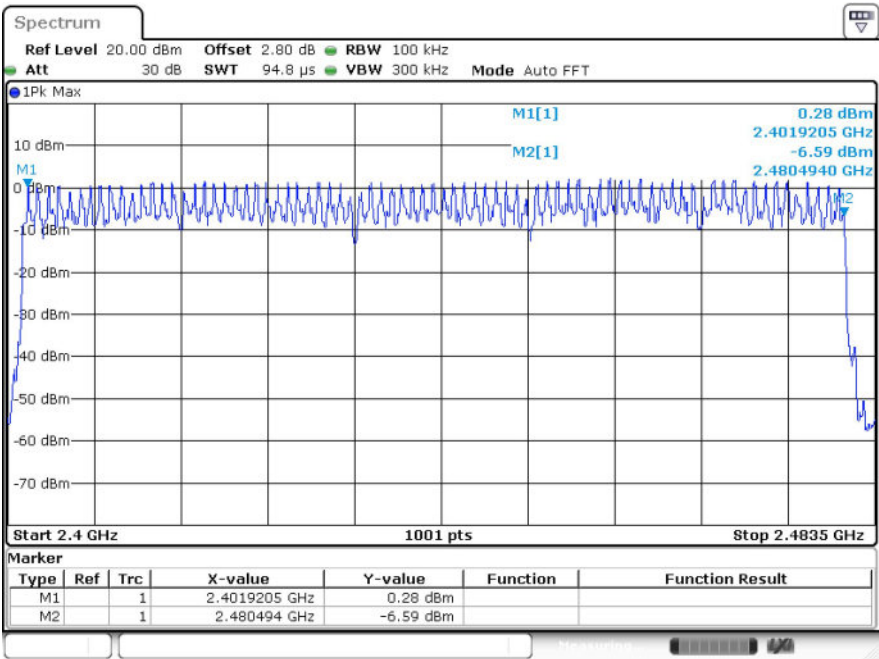
### 5.1 Test Result

| 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

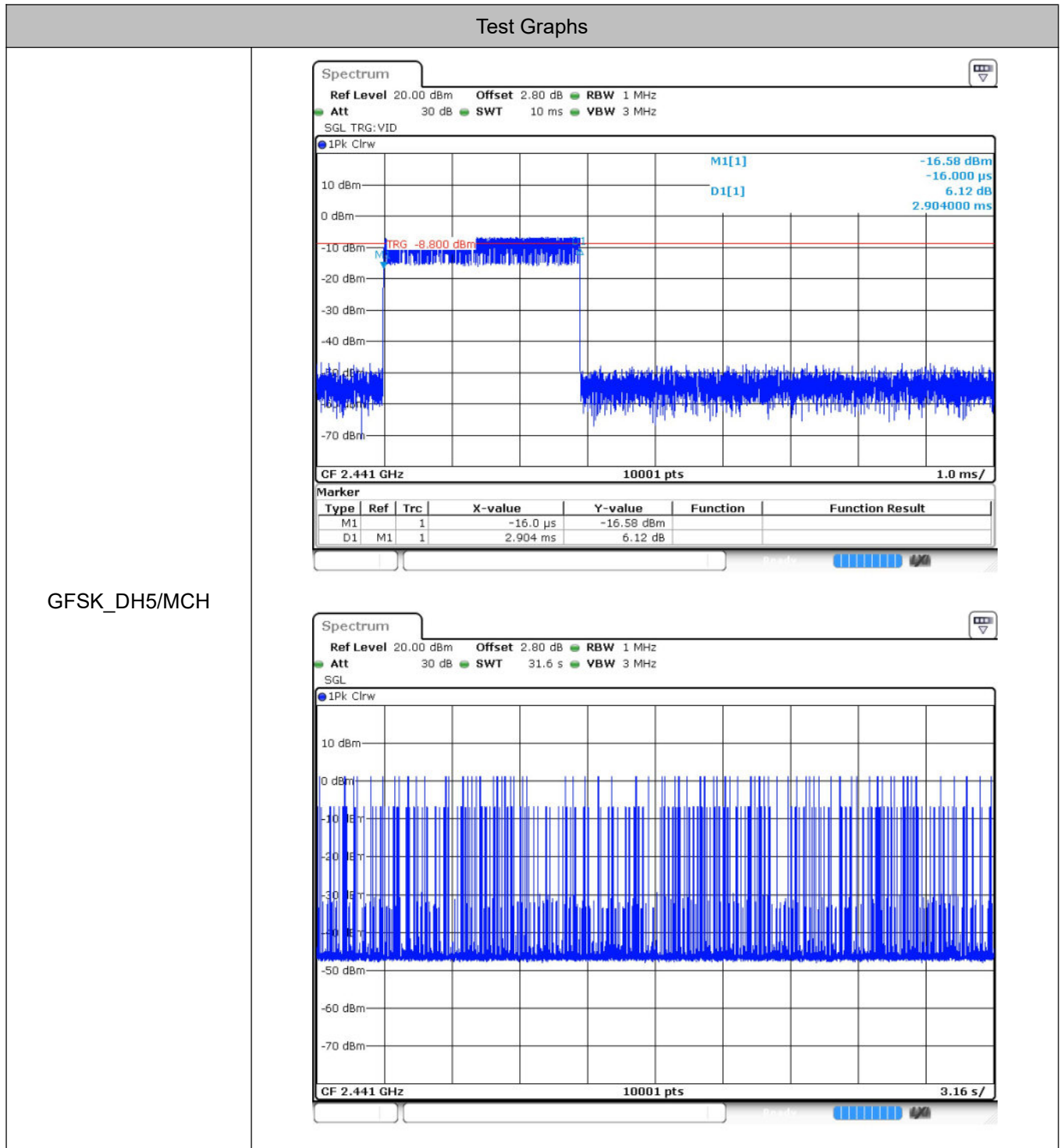


## 6 Dwell Time

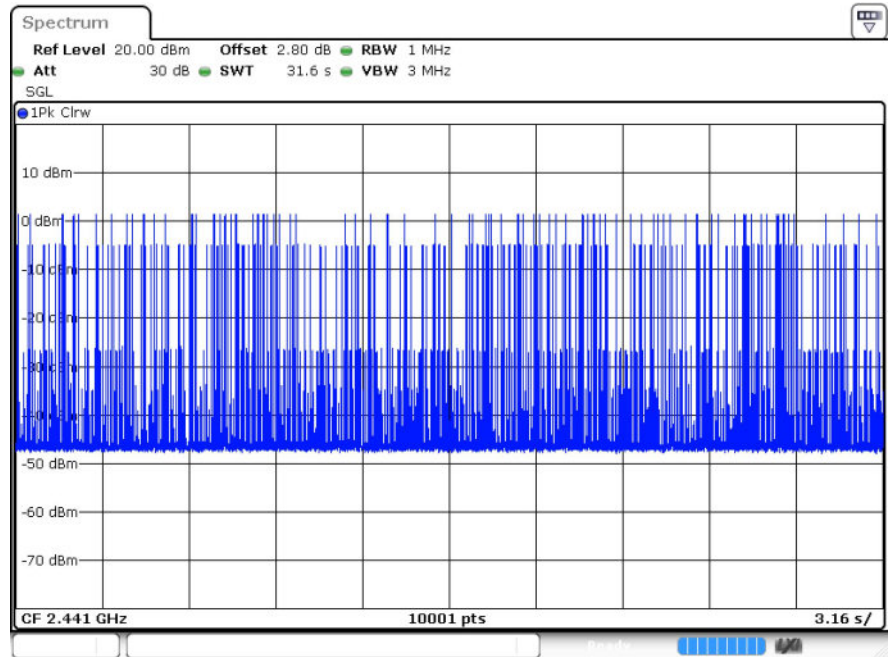
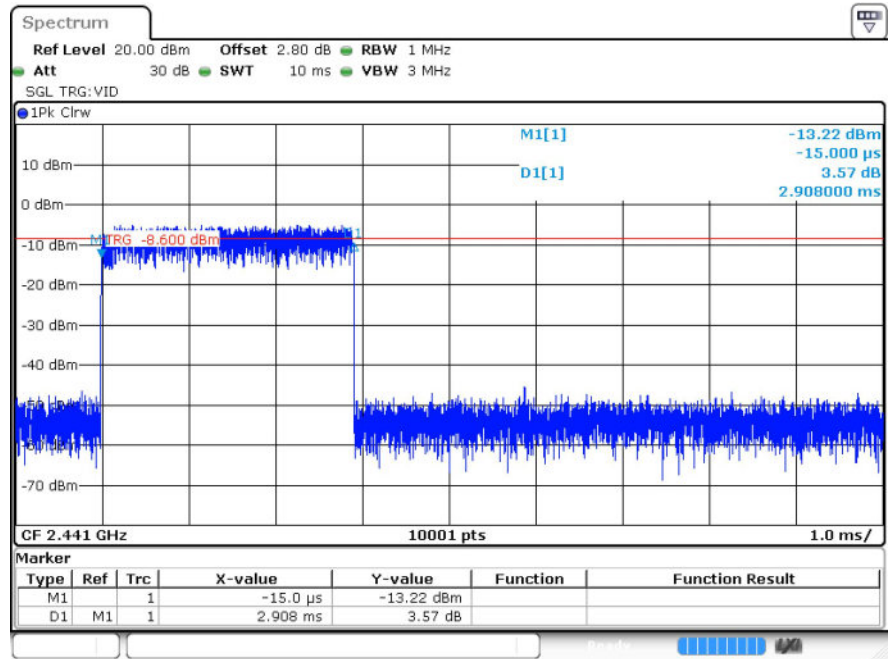
### 6.1 Test Result

| Mode          | Packet | Channel | Burst Width<br>[ms/hop/ch] | Total<br>Hops[hop*ch] | Dwell Time[ms] | Limit [s] | Verdict |
|---------------|--------|---------|----------------------------|-----------------------|----------------|-----------|---------|
| GFSK          | DH5    | MCH     | 2.904                      | 93                    | 270.072        | 0.4       | Pass    |
| $\pi/4$ DQPSK | 2DH5   | MCH     | 2.908                      | 93                    | 270.444        | 0.4       | Pass    |
| 8DPSK         | 3DH5   | MCH     | 2.911                      | 91                    | 264.901        | 0.4       | Pass    |

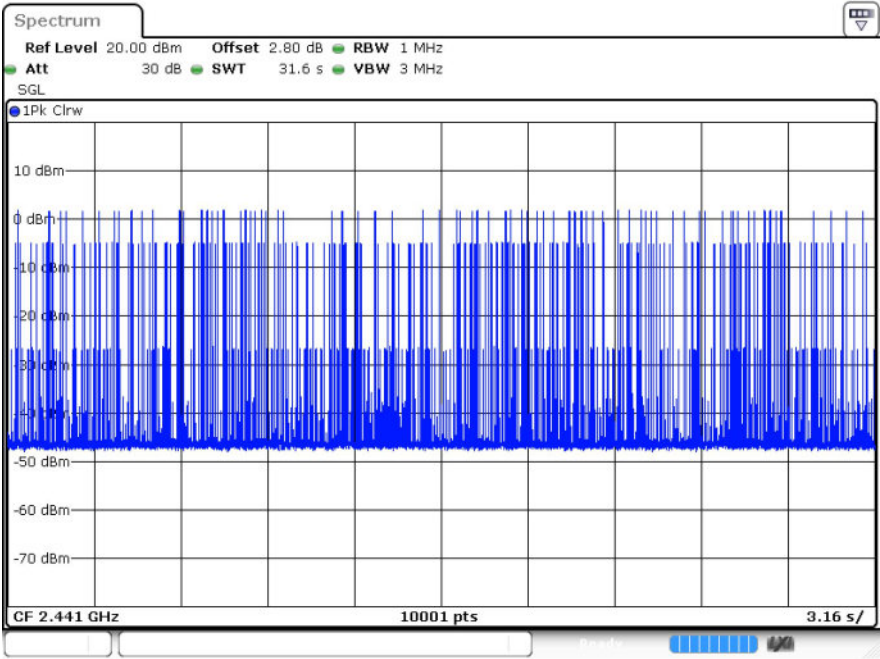
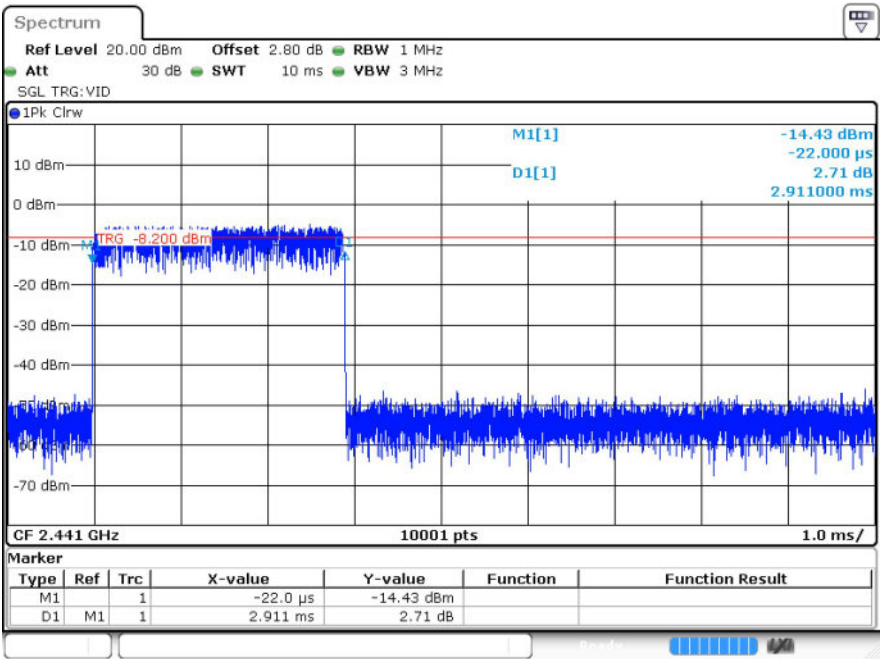
## 6.2 Test Graphs



$\pi/4$ DQPSK  
\_2DH5/MCH



8DPSK\_3DH5/MCH

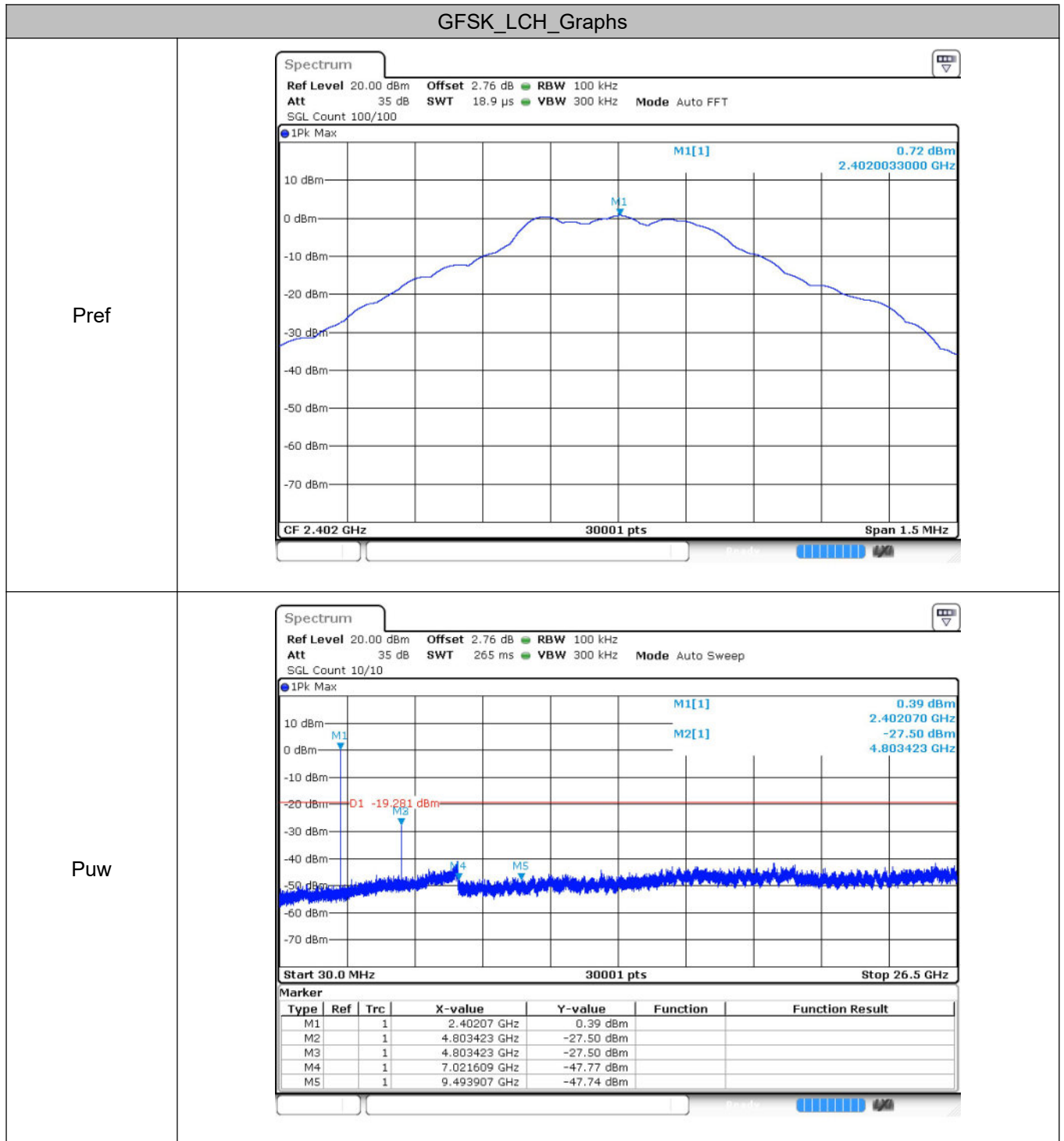


## 7 RF Conducted Spurious Emissions

### 7.1 Test Result

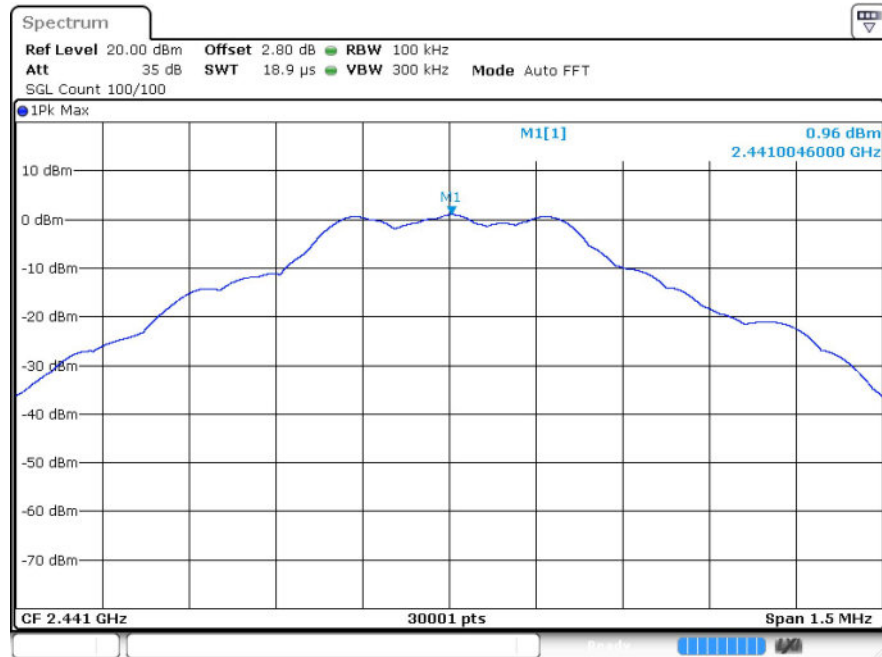
| Mode          | Channel | Max. Level [dBc] | Limit [dBc] | Verdict |
|---------------|---------|------------------|-------------|---------|
| GFSK          | LCH     | -28.21           | -20         | Pass    |
|               | MCH     | -31.38           | -20         | Pass    |
|               | HCH     | -34.95           | -20         | Pass    |
| $\pi/4$ DQPSK | LCH     | -27.65           | -20         | Pass    |
|               | MCH     | -29.48           | -20         | Pass    |
|               | HCH     | -36.4            | -20         | Pass    |
| 8DPSK         | LCH     | -33.23           | -20         | Pass    |
|               | MCH     | -30              | -20         | Pass    |
|               | HCH     | -34.61           | -20         | Pass    |

## 7.2 Test Graphs

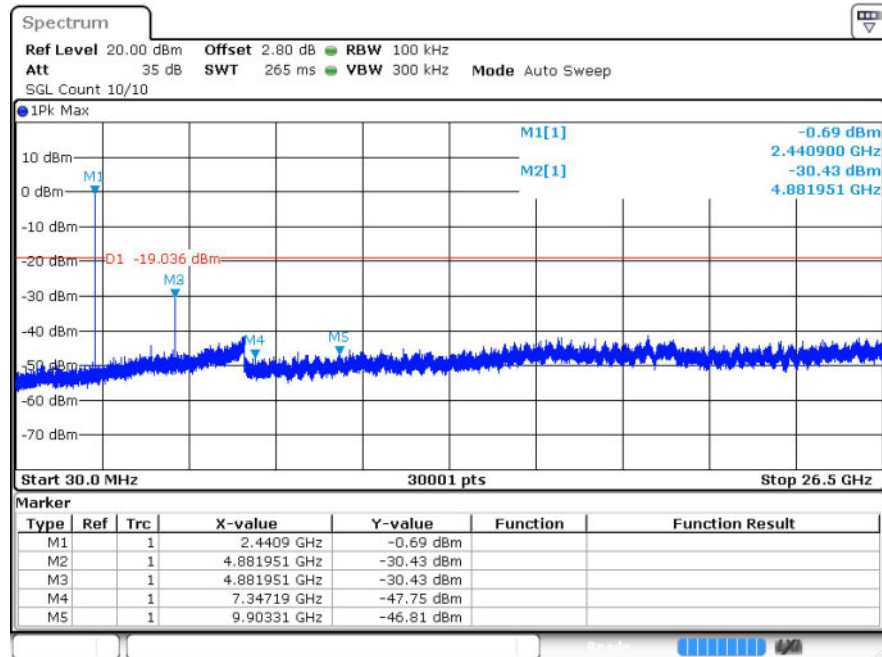


## GFSK\_MCH\_Graphs

Pref

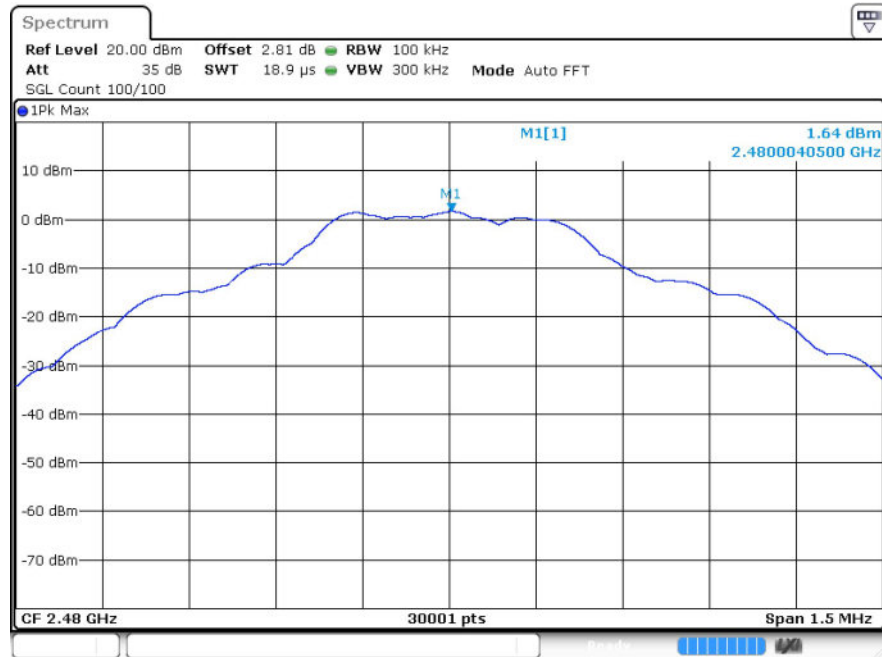


Puw



## GFSK\_HCH\_Graphs

Pref



Puw

