



Appendix A

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

Product Name: bluetooth headphones

Trade Mark: Pointcinco

Test Model: P2

Environmental Conditions

| | |
|--------------------|-------------|
| Temperature: | 24.1°C |
| Relative Humidity: | 52.2% |
| ATM Pressure: | 101Kpa |
| Test Engineer: | Simba Huang |
| Supervised by: | Seal Chen |

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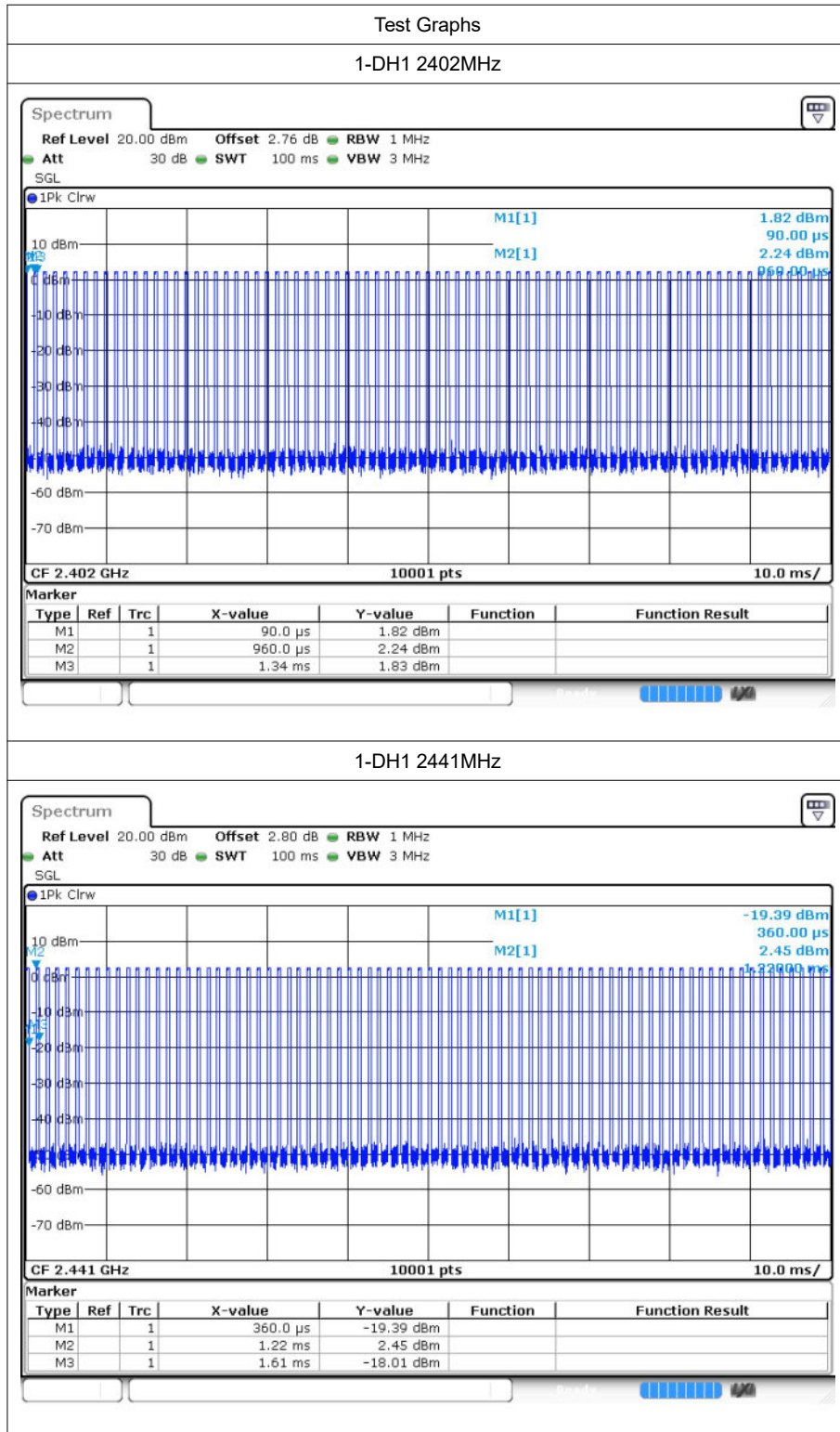
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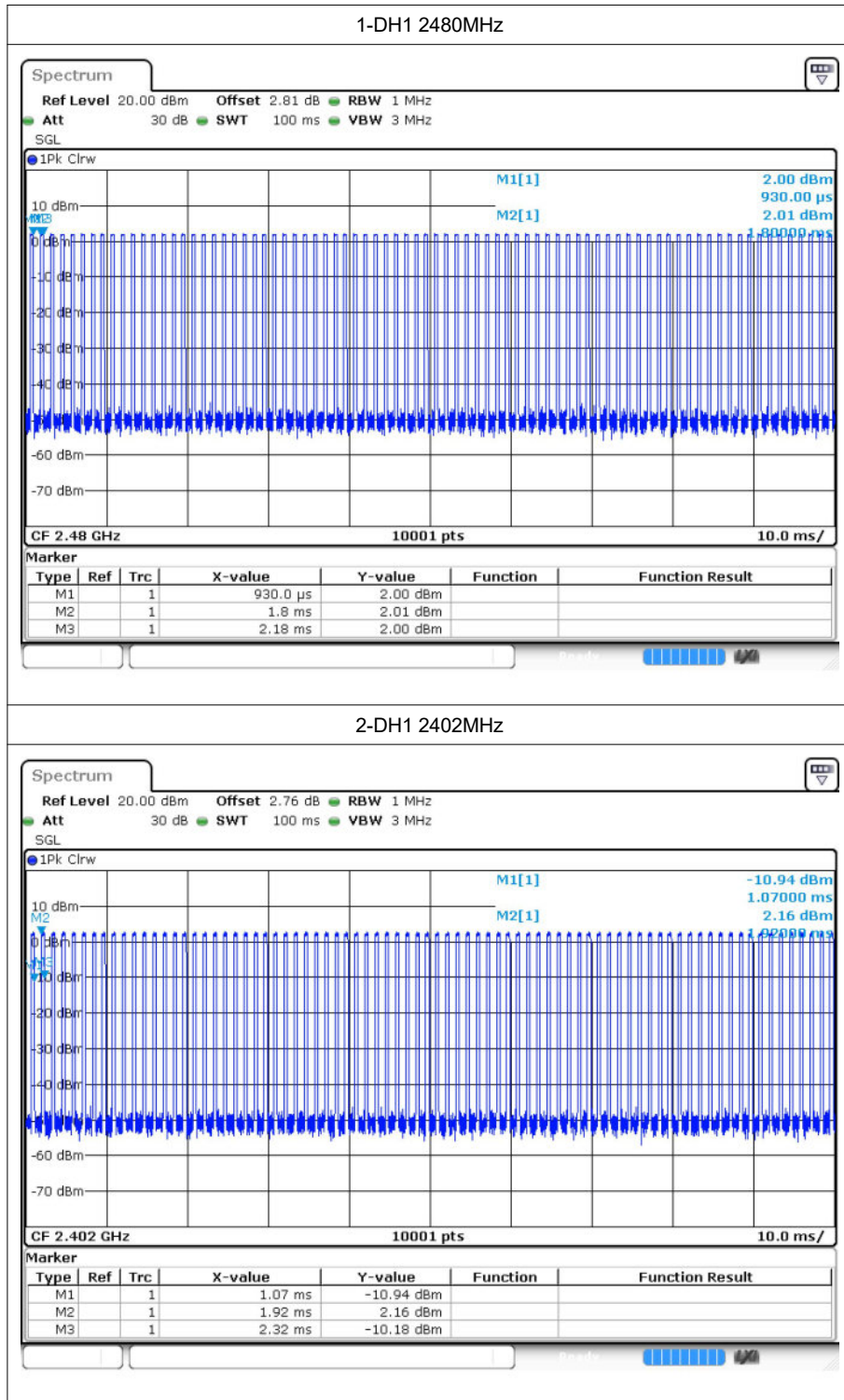
1 Duty Cycle

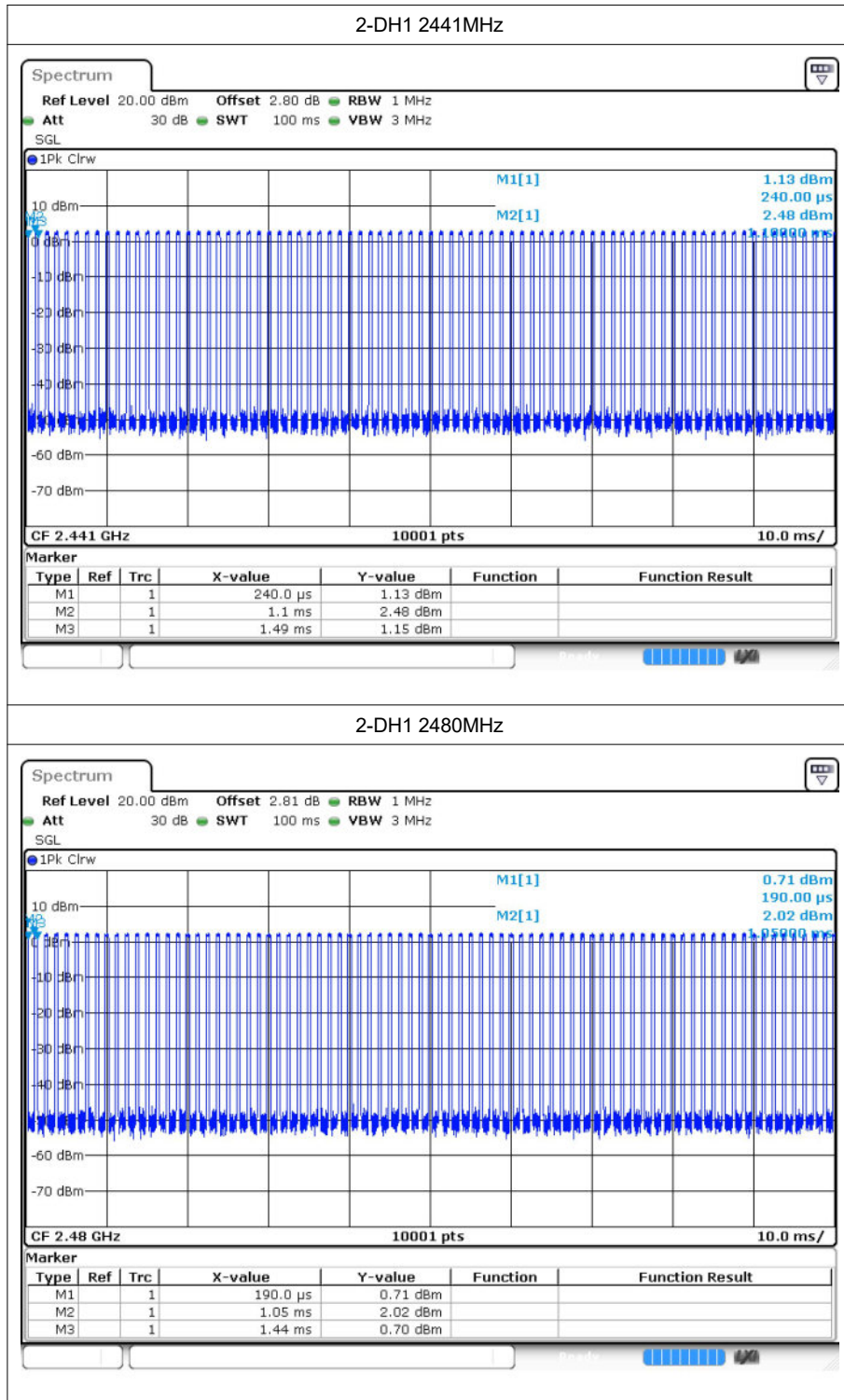
1.1 Test Result

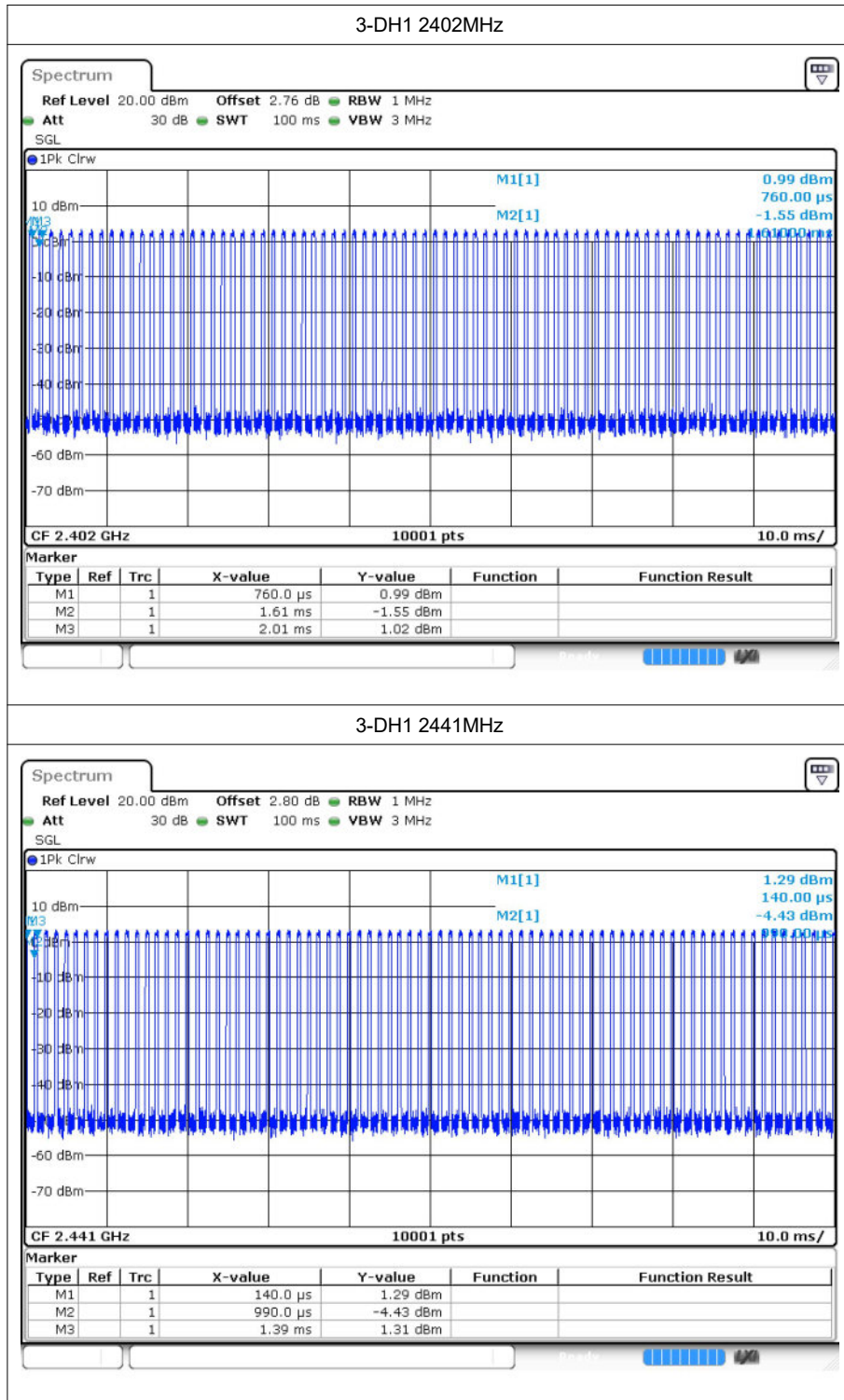
| Mode | Frequency (MHz) | Duty Cycle (%) | Correction Factor | 1/T (kHz) |
|-------|-----------------|----------------|-------------------|-----------|
| 1-DH1 | 2402 | 31.21 | 5.06 | 2.63 |
| 1-DH1 | 2441 | 32.01 | 4.95 | 2.56 |
| 1-DH1 | 2480 | 31.2 | 5.06 | 2.63 |
| 2-DH1 | 2402 | 32.68 | 4.86 | 2.5 |
| 2-DH1 | 2441 | 32.01 | 4.95 | 2.56 |
| 2-DH1 | 2480 | 32.01 | 4.95 | 2.56 |
| 3-DH1 | 2402 | 32.28 | 4.91 | 2.5 |
| 3-DH1 | 2441 | 32.21 | 4.92 | 2.5 |
| 3-DH1 | 2480 | 32.28 | 4.91 | 2.56 |

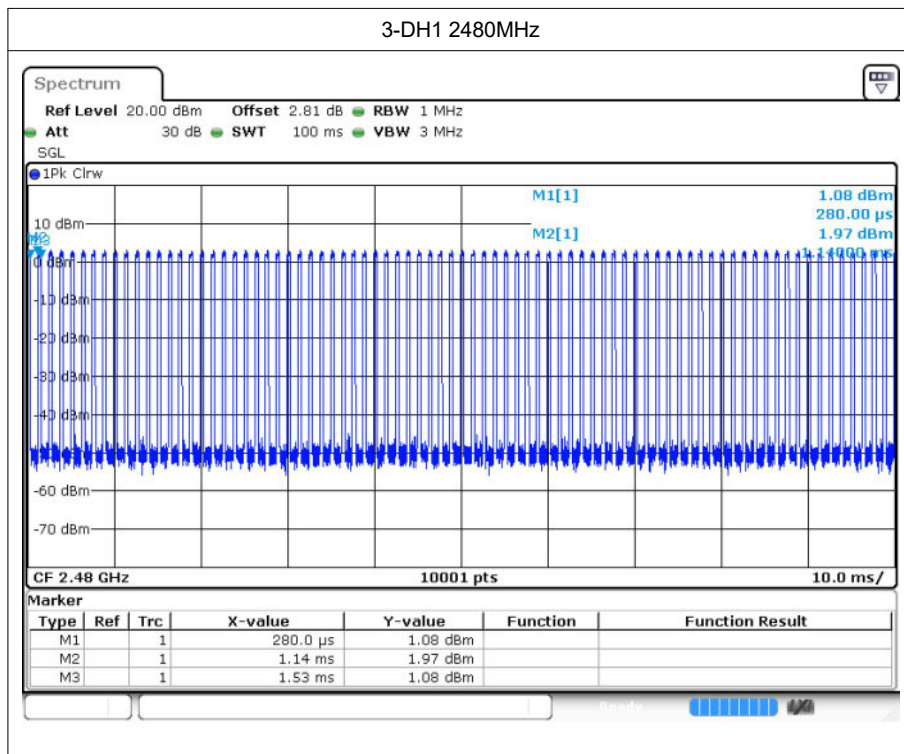
1.2 Test Graphs









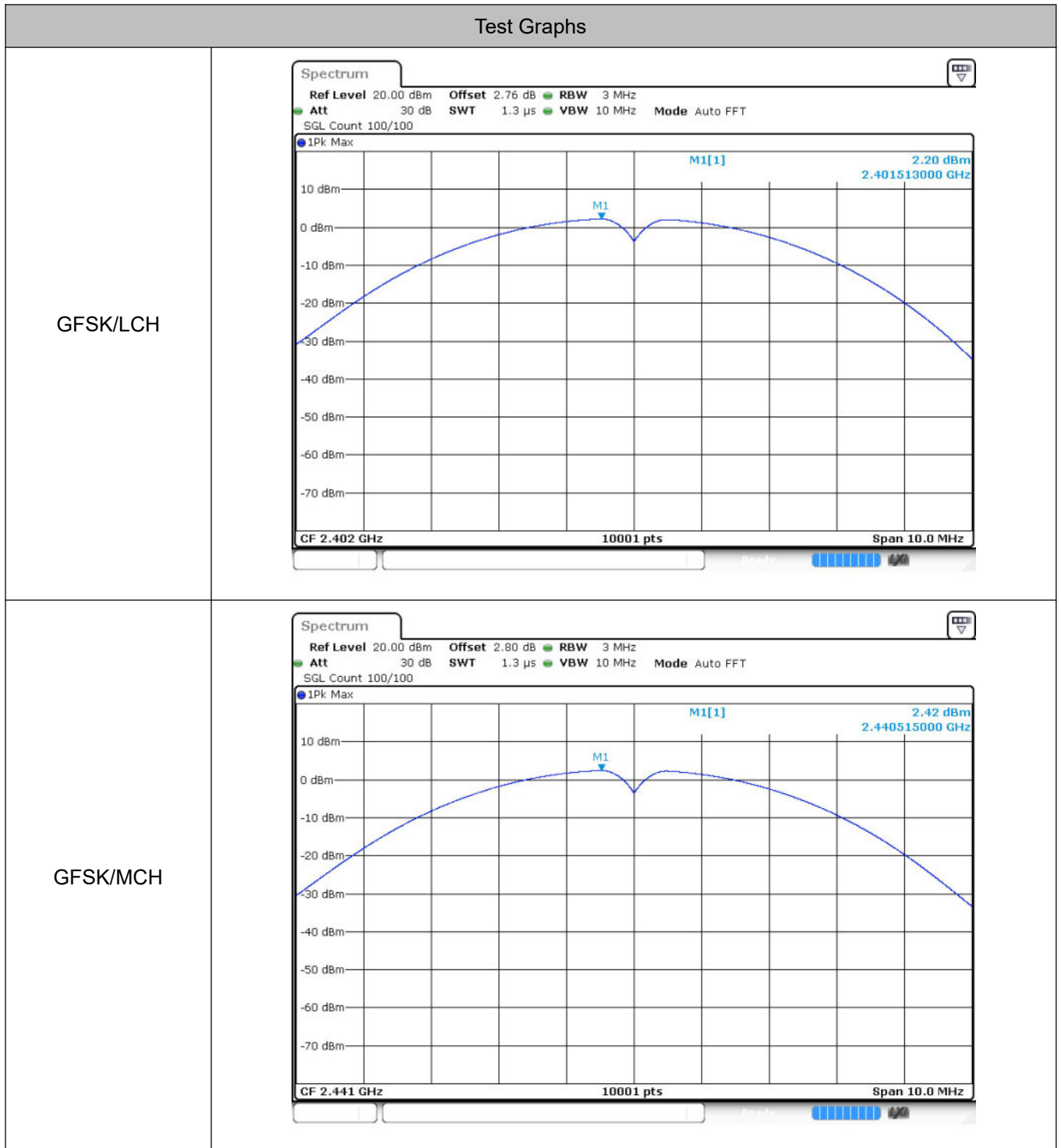


2 Maximum Conducted Peak Output Power

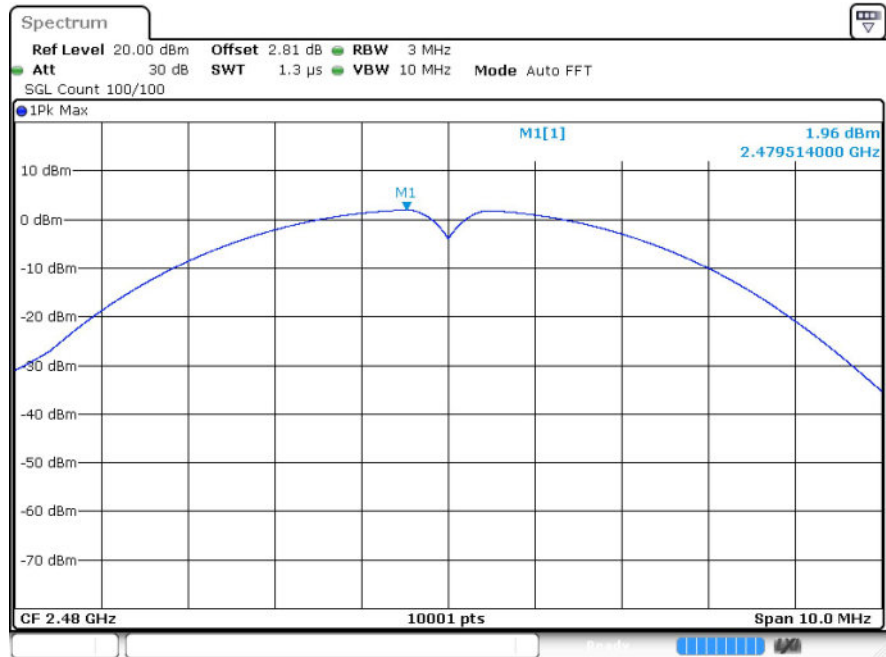
2.1 Test Result

| Mode | Channel. | Maximum Peak Output Power [dBm] | Limit [dBm] | Verdict |
|---------------|----------|---------------------------------|-------------|---------|
| GFSK | LCH | 2.2 | 21 | Pass |
| | MCH | 2.42 | 21 | Pass |
| | HCH | 1.96 | 21 | Pass |
| $\pi/4$ DQPSK | LCH | 2.49 | 21 | Pass |
| | MCH | 2.74 | 21 | Pass |
| | HCH | 2.58 | 21 | Pass |
| 8DPSK | LCH | 2.73 | 21 | Pass |
| | MCH | 2.58 | 21 | Pass |
| | HCH | 2.06 | 21 | Pass |

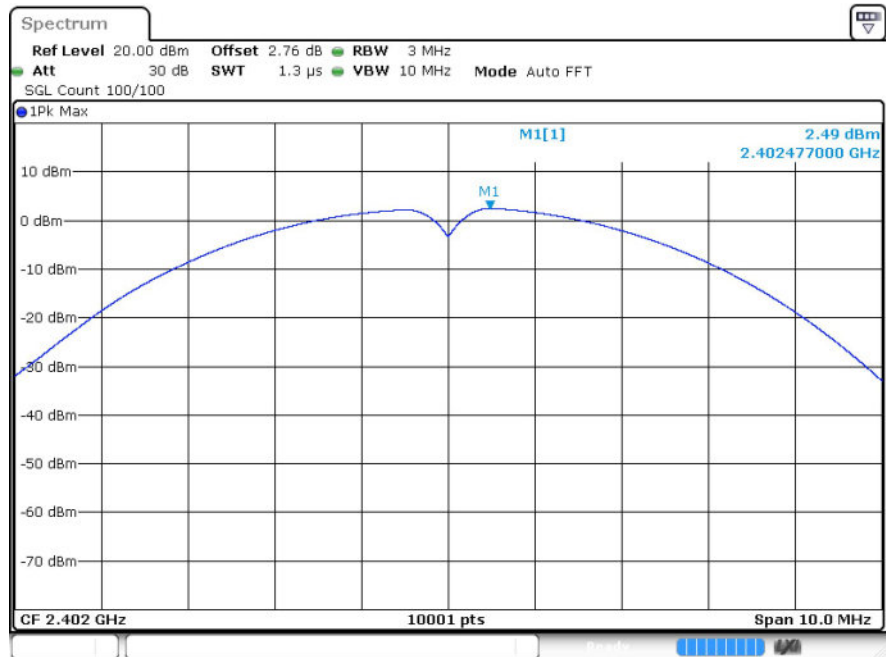
2.2 Test Graphs



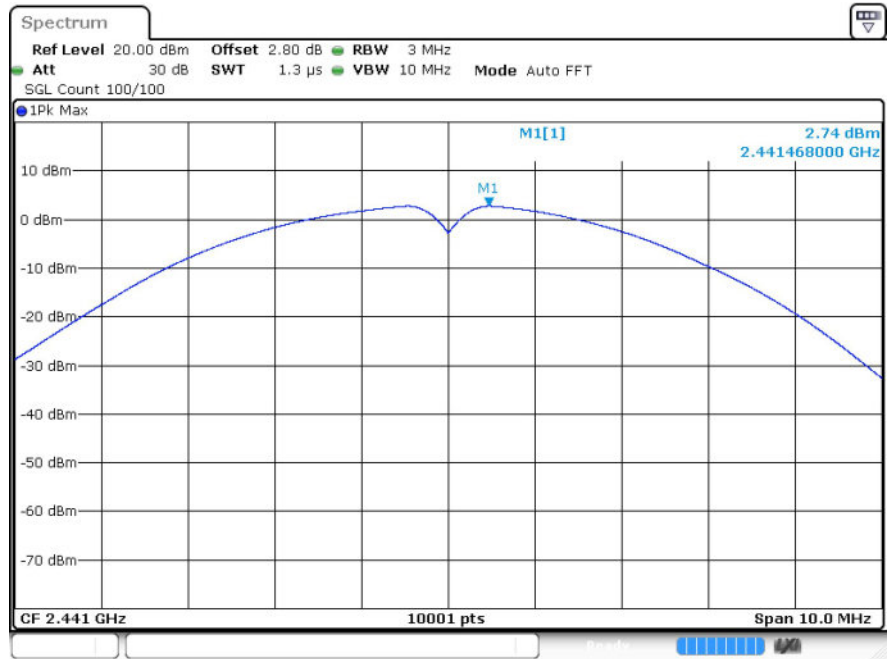
GFSK/HCH



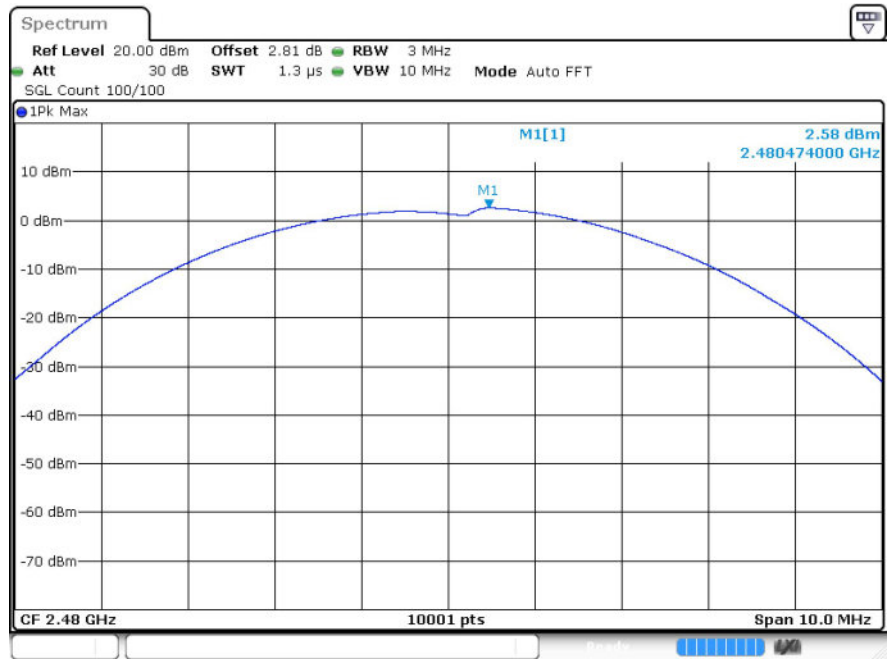
$\pi/4$ DQPSK/LCH



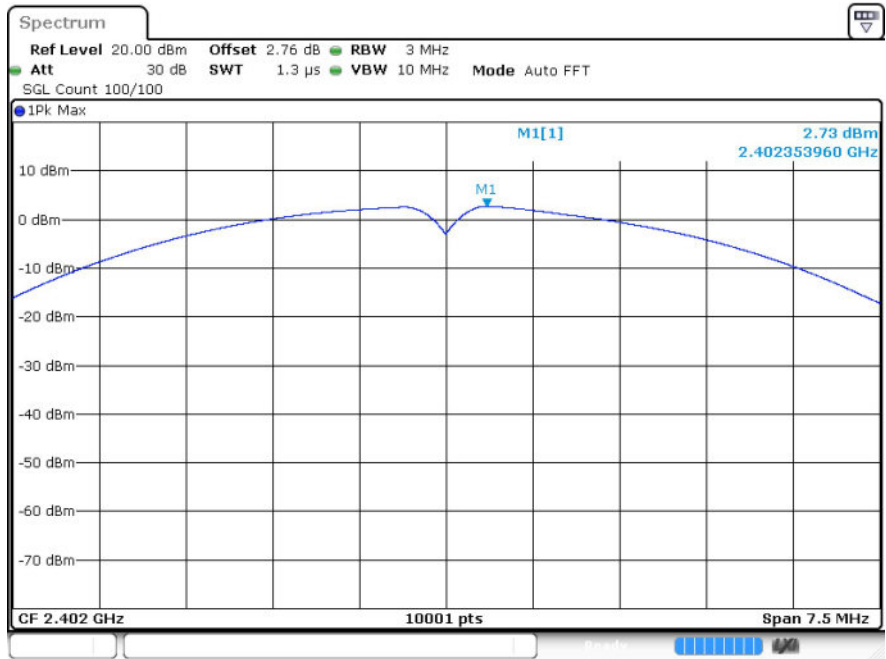
$\pi/4$ DQPSK/MCH



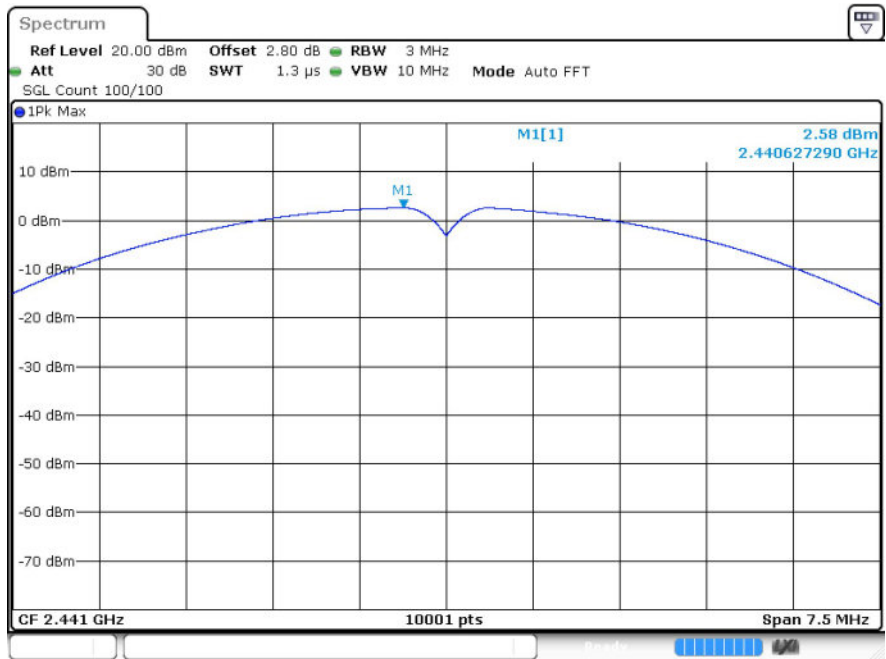
$\pi/4$ DQPSK/HCH



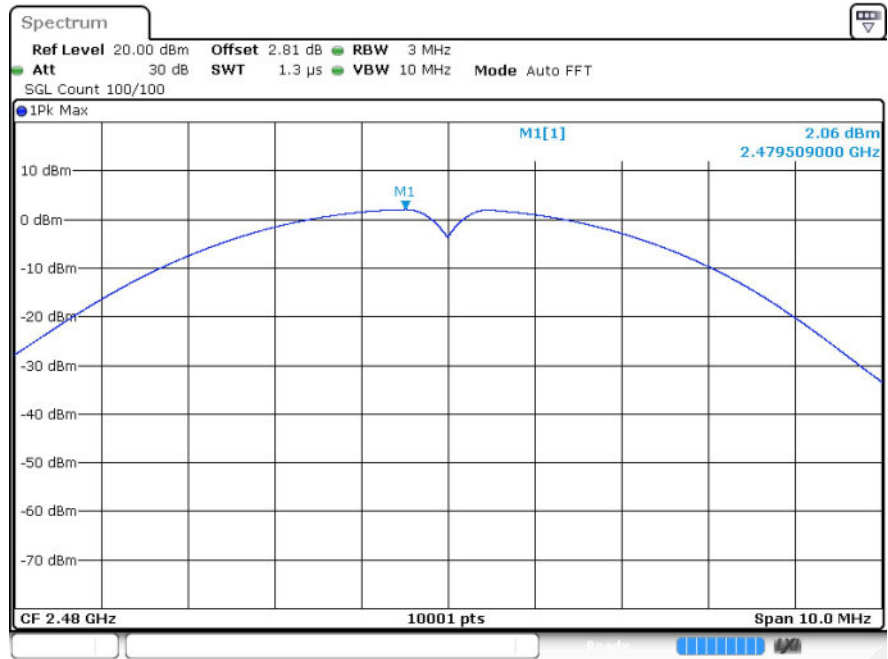
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

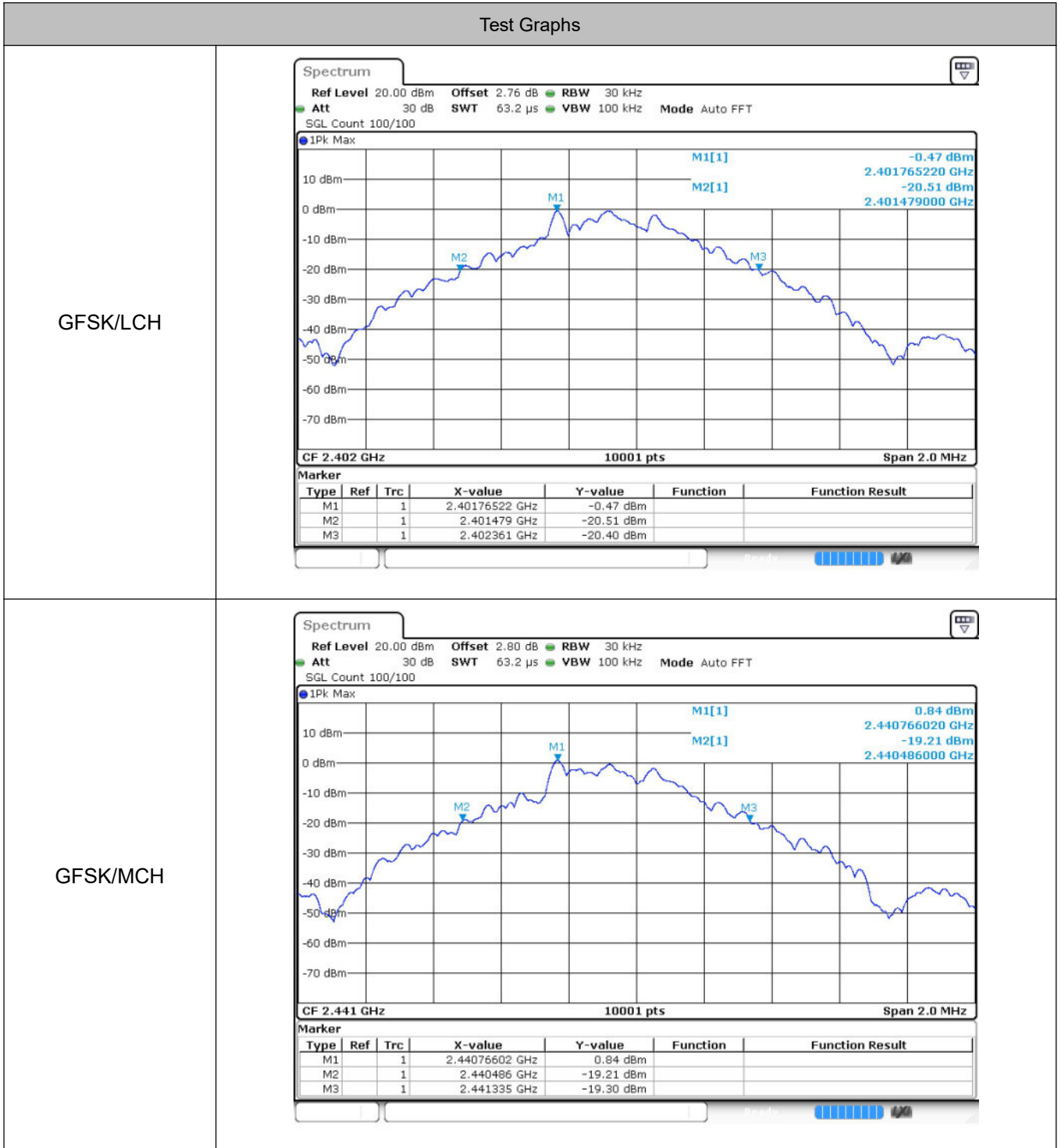


3 20dB Bandwidth

3.1 Test Result

| Mode | Channel. | 20dB Bandwidth [MHz] | Limit [MHz] | Verdict |
|---------------|----------|----------------------|---------------|---------|
| GFSK | LCH | 0.882 | Not Specified | Pass |
| | MCH | 0.848 | Not Specified | Pass |
| | HCH | 0.855 | Not Specified | Pass |
| $\pi/4$ DQPSK | LCH | 1.232 | Not Specified | Pass |
| | MCH | 1.222 | Not Specified | Pass |
| | HCH | 1.223 | Not Specified | Pass |
| 8DPSK | LCH | 1.218 | Not Specified | Pass |
| | MCH | 1.243 | Not Specified | Pass |
| | HCH | 1.21 | Not Specified | Pass |

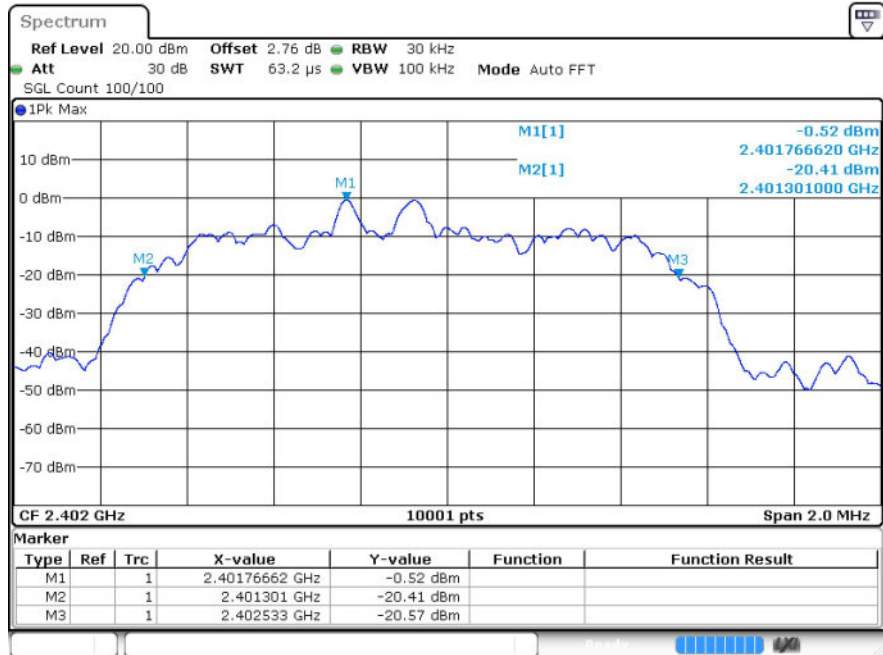
3.2 Test Graphs



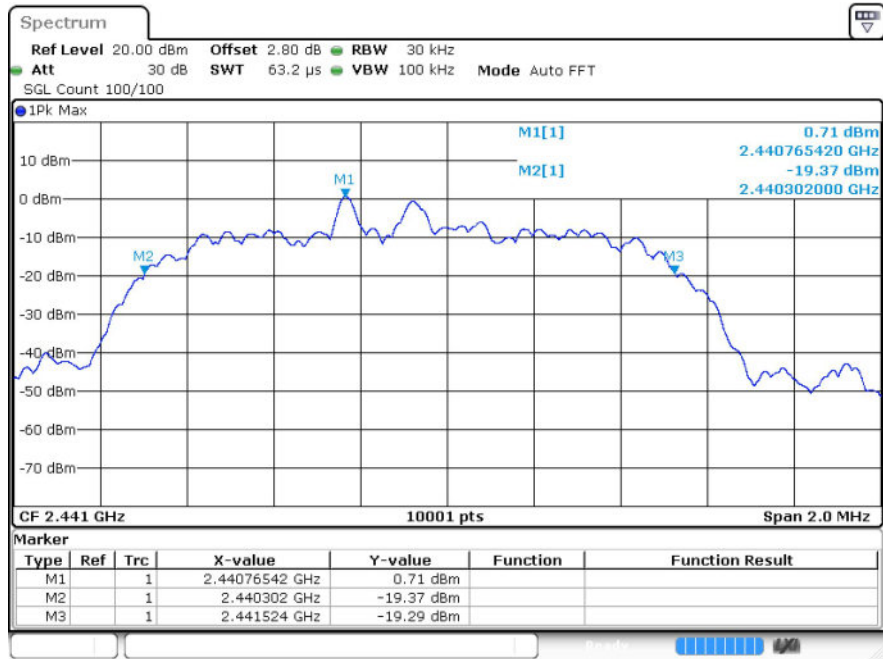
GFSK/HCH



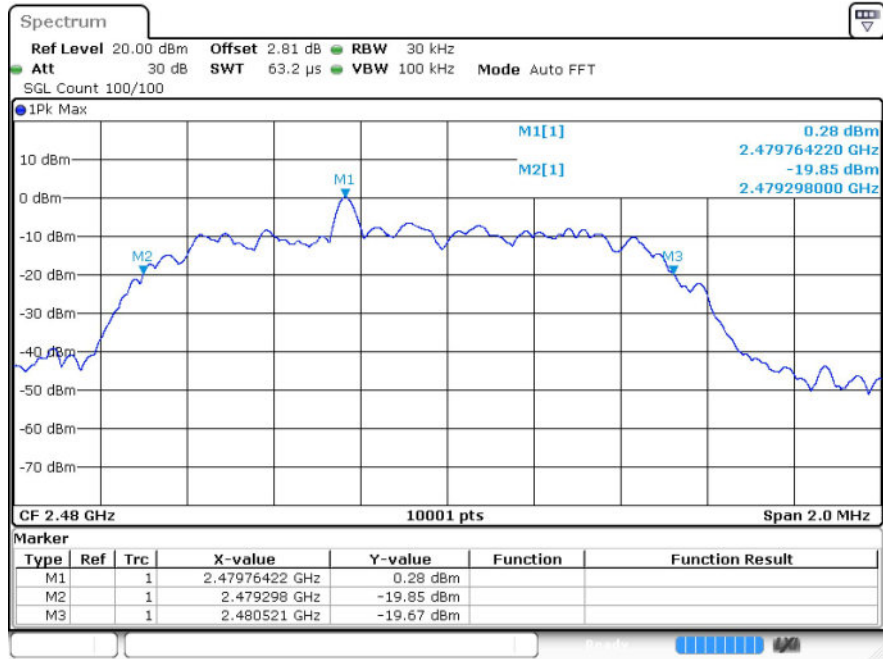
$\pi/4$ DQPSK/LCH



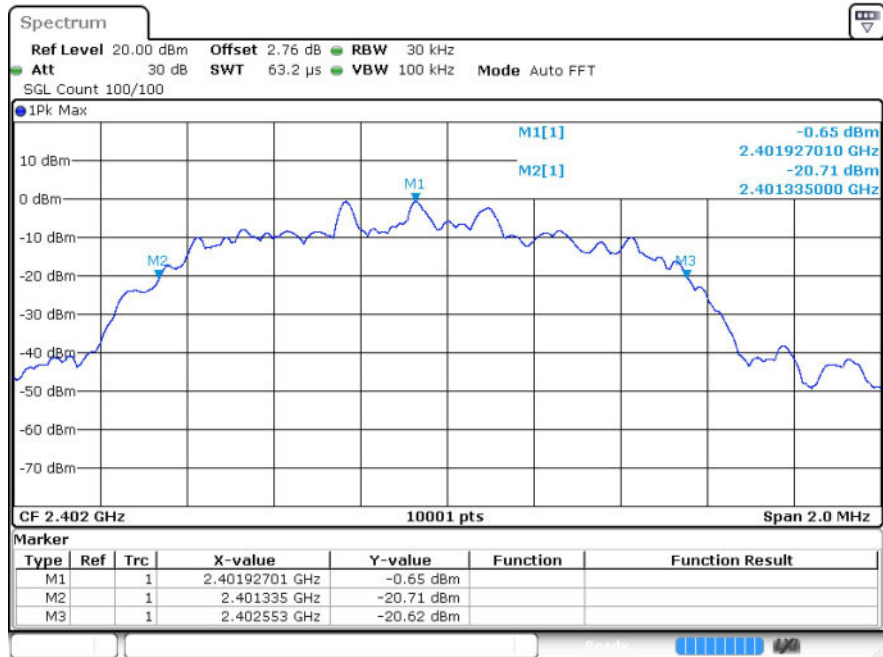
$\pi/4$ DQPSK/MCH



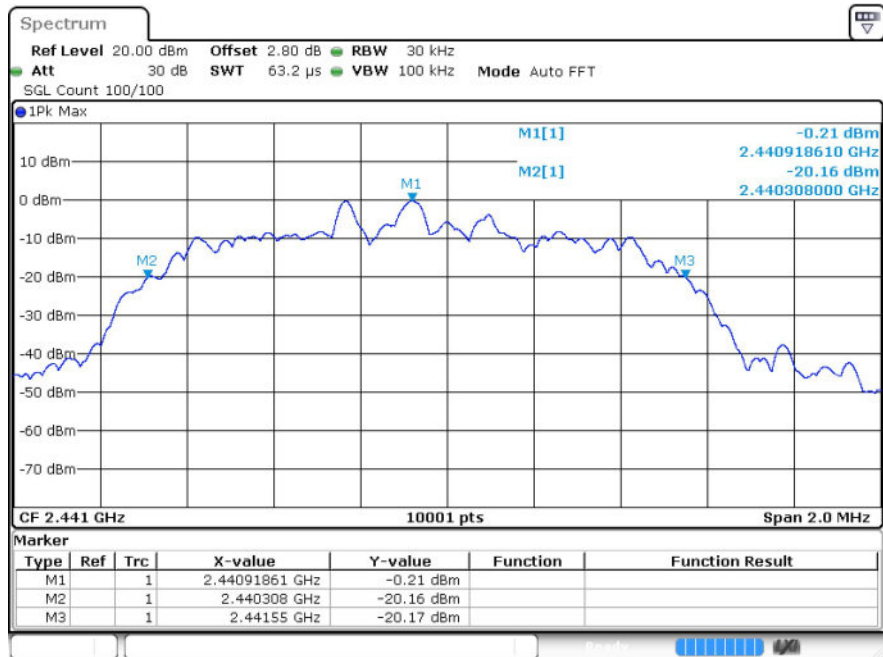
$\pi/4$ DQPSK/HCH



8DPSK/LCH

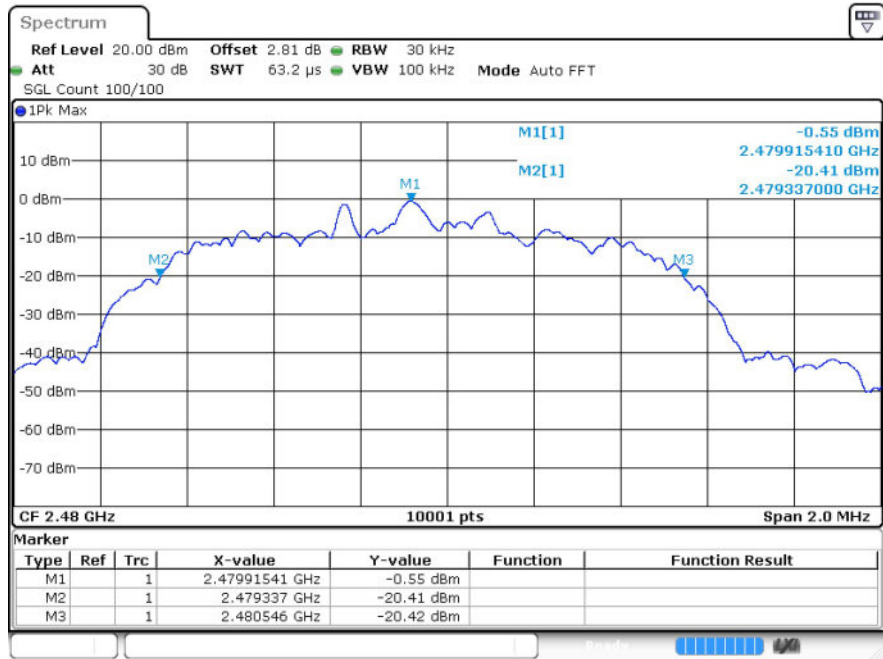


8DPSK/MCH





8DPSK/HCH

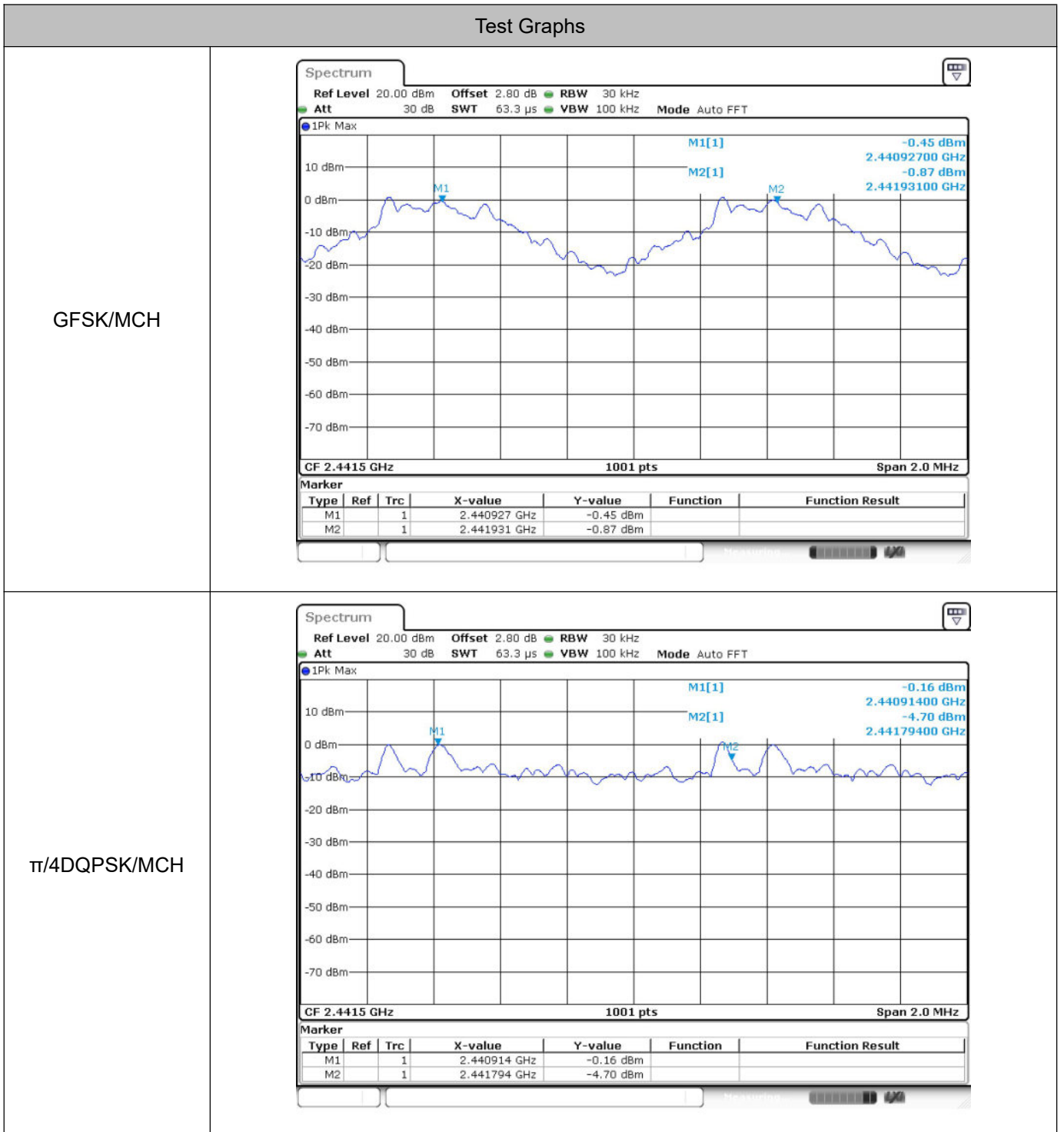


4 Carrier Frequency Separation

4.1 Test Result

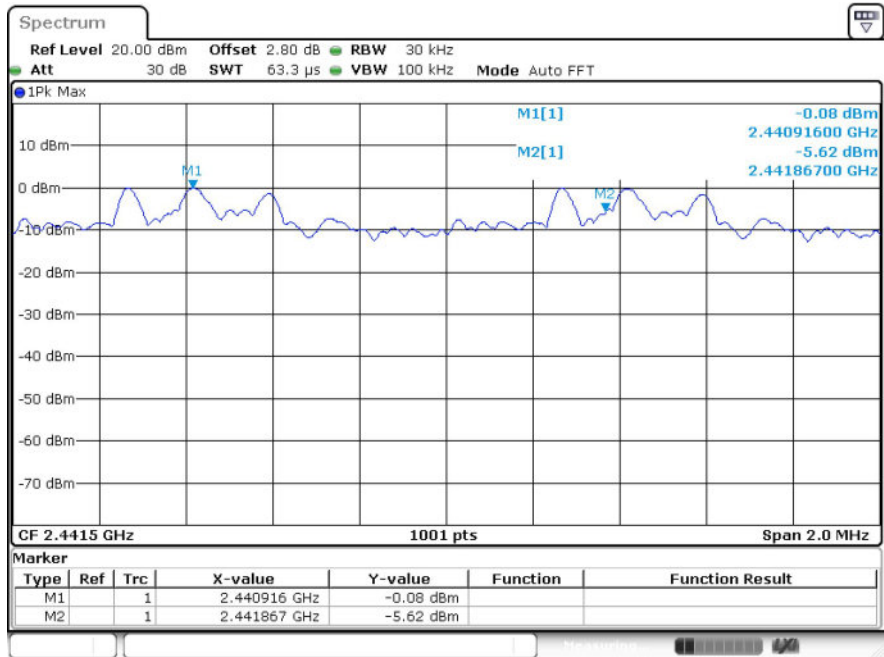
| Mode | Channel. | Carrier Frequency Separation [MHz] | Limit [MHz] | Verdict |
|---------------|----------|------------------------------------|-------------|---------|
| GFSK | MCH | 1.004 | 1.000 | Pass |
| $\pi/4$ DQPSK | MCH | 0.88 | 0.815 | Pass |
| 8DPSK | MCH | 0.951 | 0.829 | Pass |

4.2 Test Graphs





8DPSK/MCH

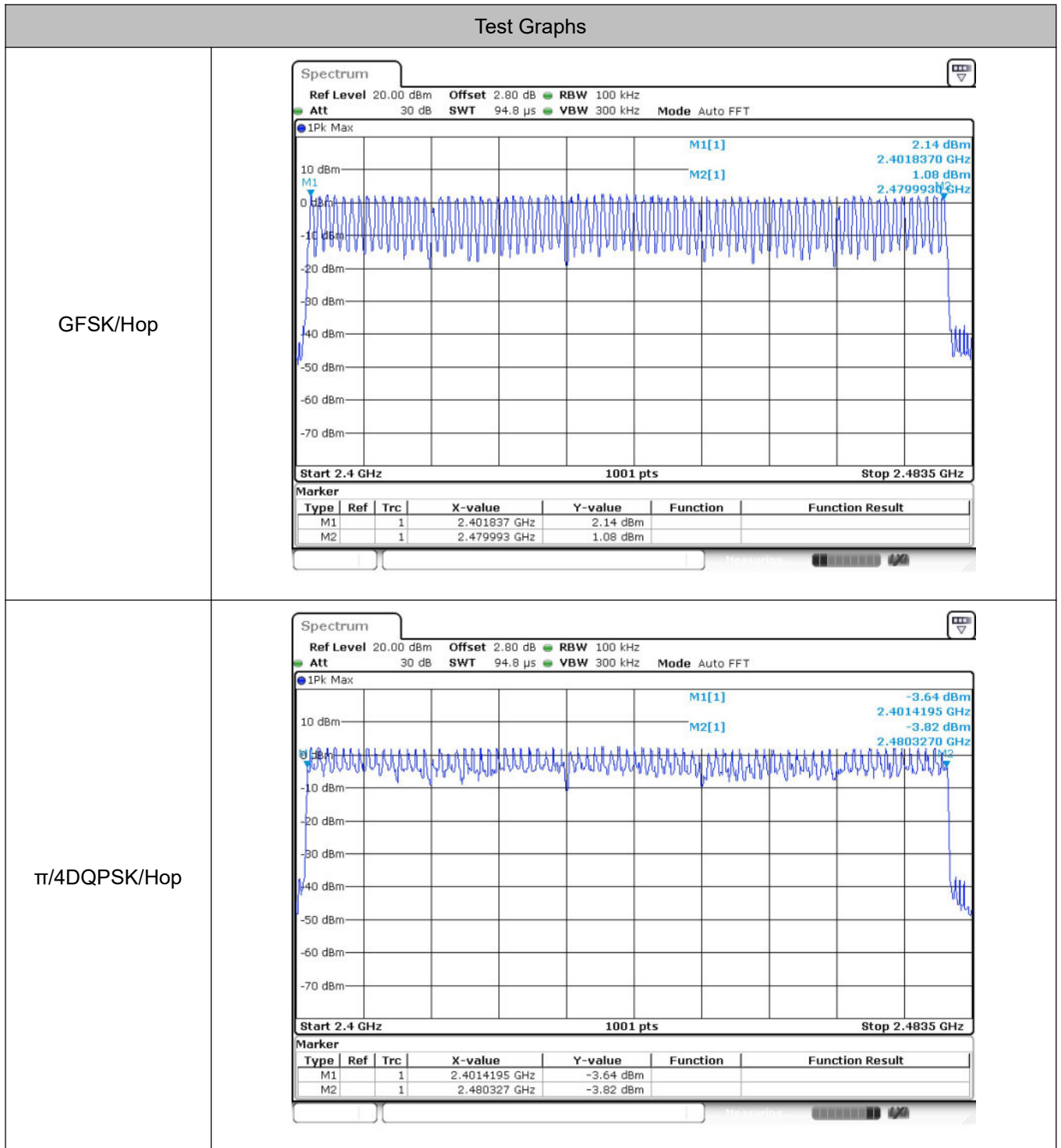


5 Hopping Channel Number

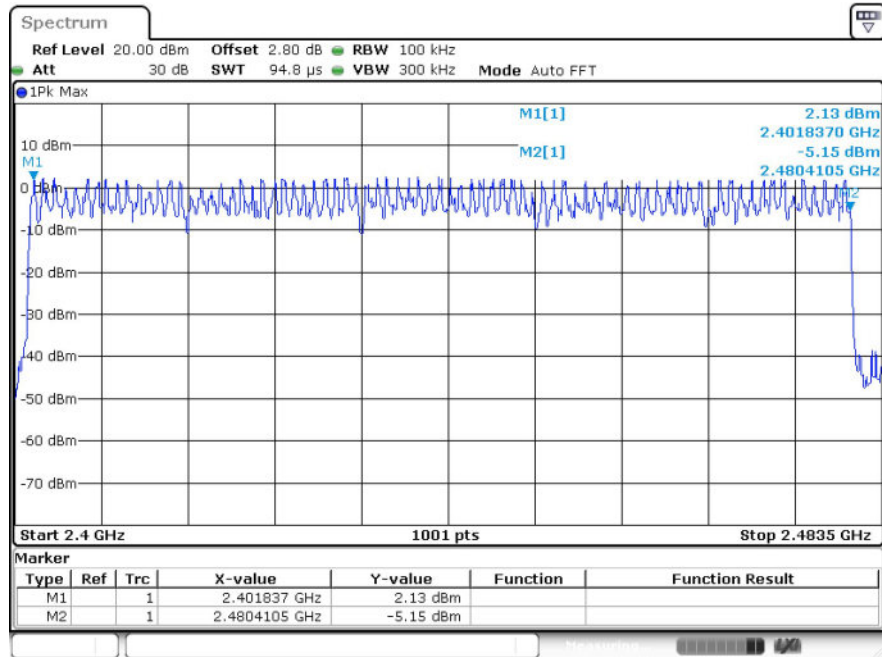
5.1 Test Result

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

5.2 Test Graphs



8DPSK/Hop

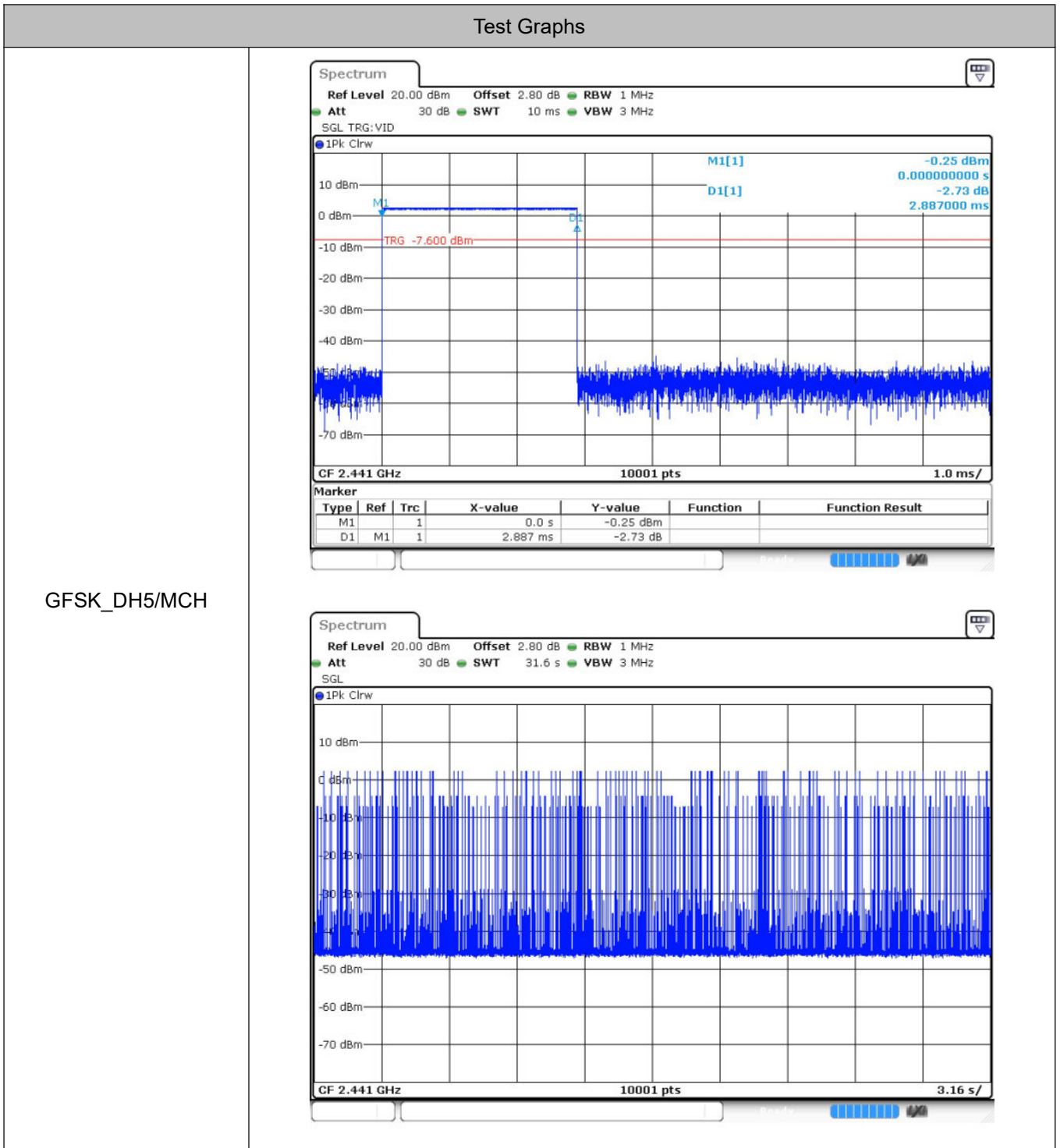


6 Dwell Time

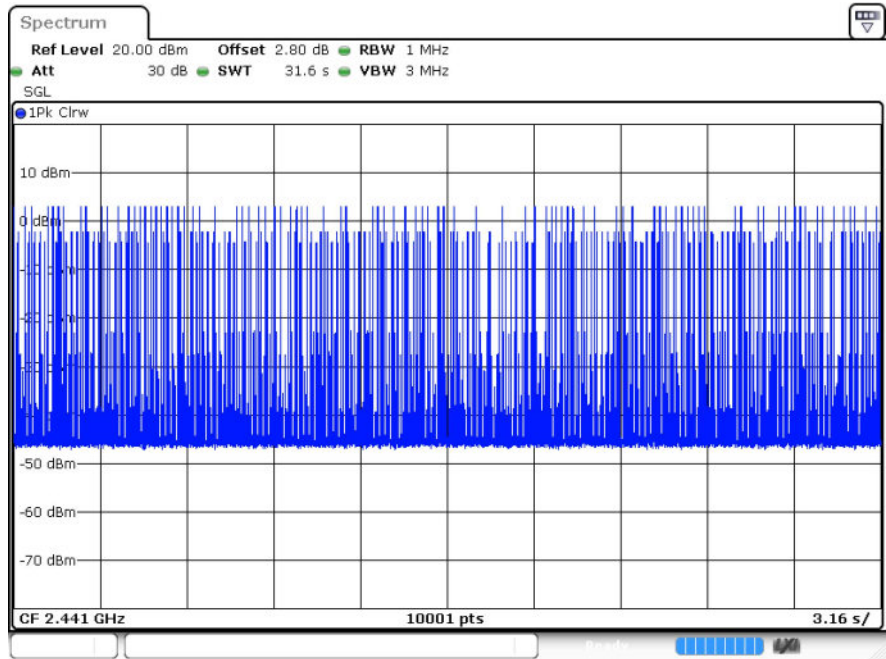
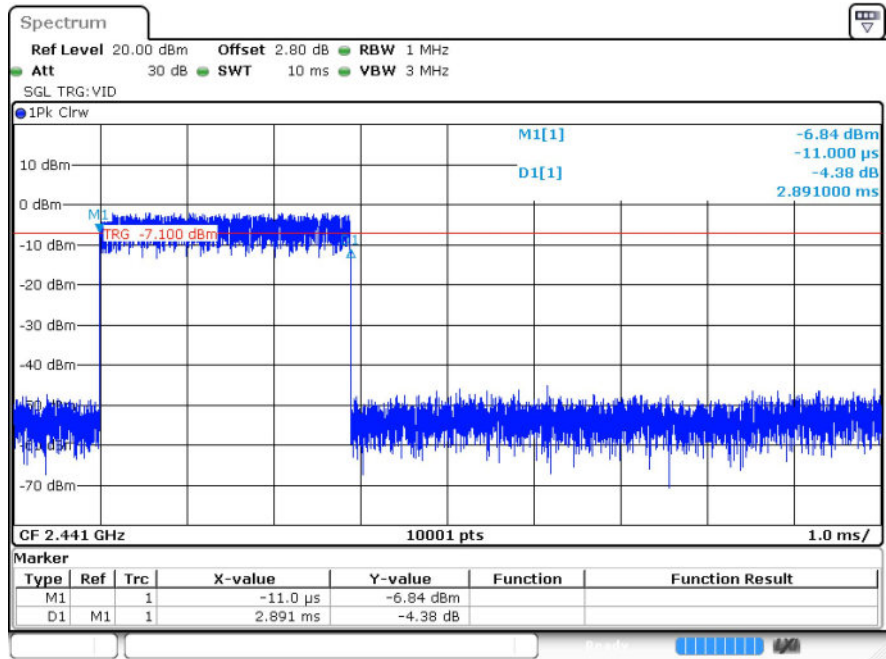
6.1 Test Result

| Mode | Packet | Channel | Burst Width [ms/hop/ch] | Total Hops[hop*ch] | Dwell Time[ms] | Limit [s] | Verdict |
|---------------|--------|---------|----------------------------|-----------------------|----------------|-----------|---------|
| GFSK | DH5 | MCH | 2.887 | 101 | 291.587 | 0.4 | Pass |
| $\pi/4$ DQPSK | 2DH5 | MCH | 2.891 | 111 | 320.901 | 0.4 | Pass |
| 8DPSK | 3DH5 | MCH | 2.894 | 95 | 274.93 | 0.4 | Pass |

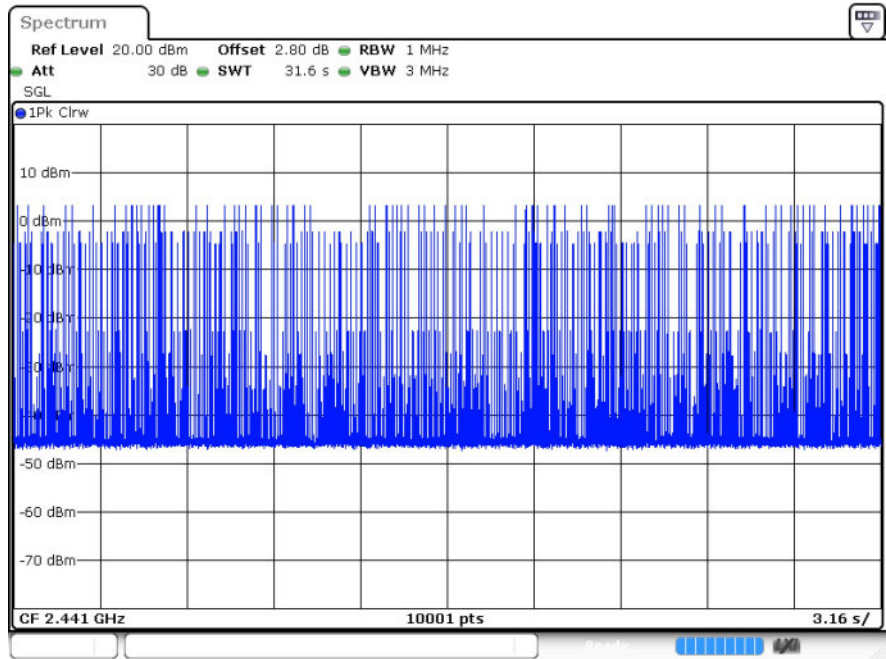
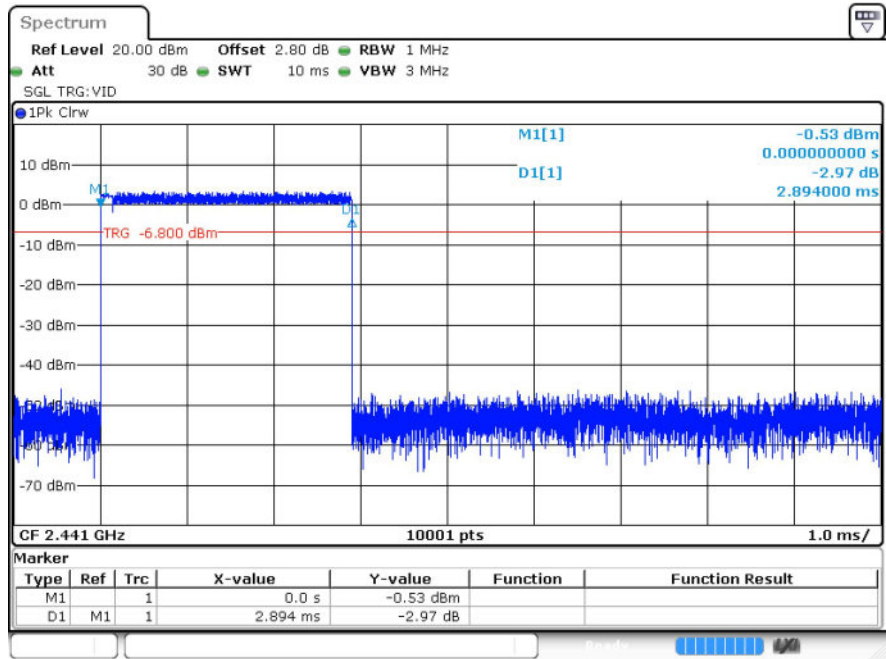
6.2 Test Graphs



$\pi/4$ DQPSK
_2DH5/MCH



8DPSK_3DH5/MCH

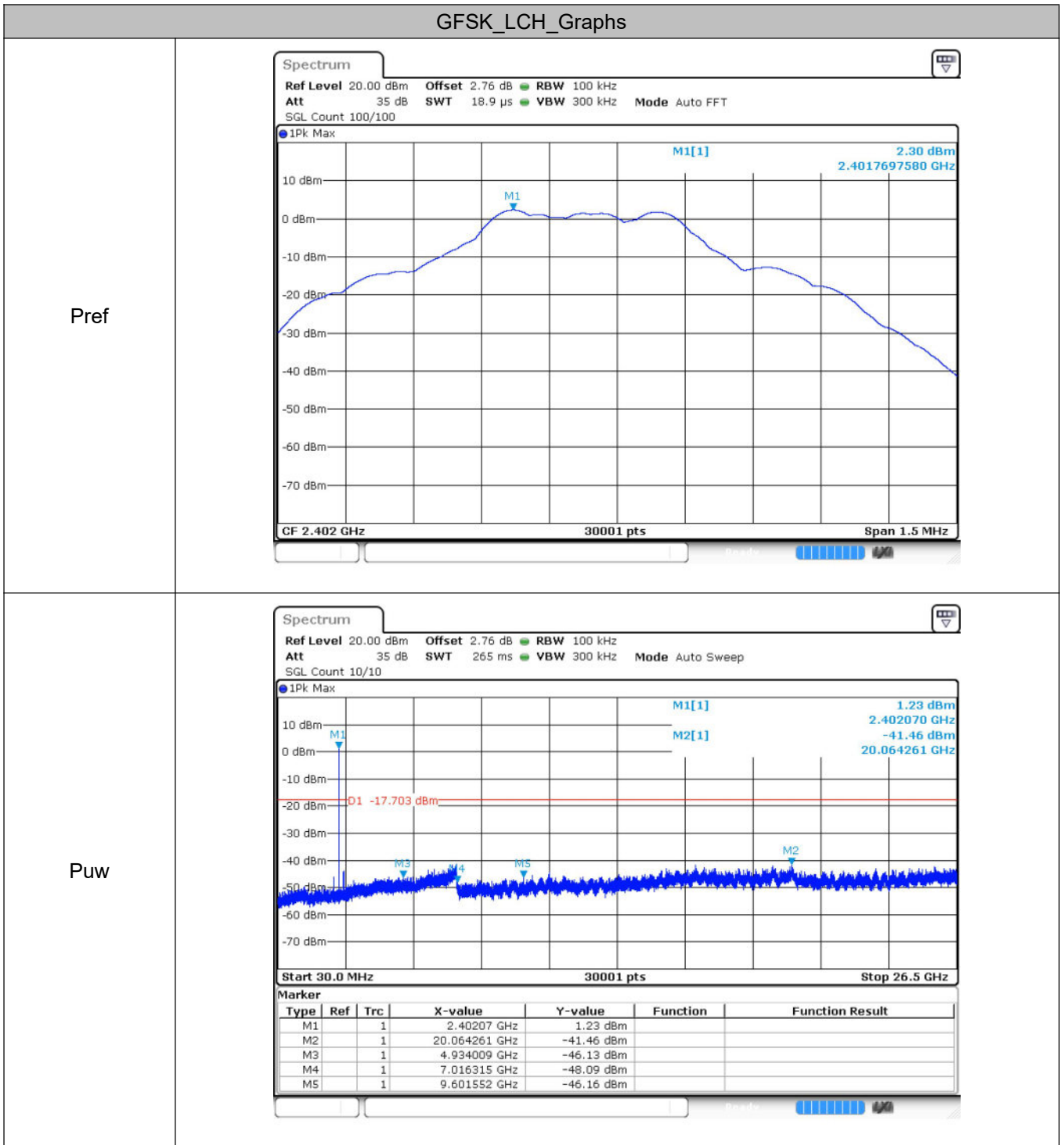


7 RF Conducted Spurious Emissions

7.1 Test Result

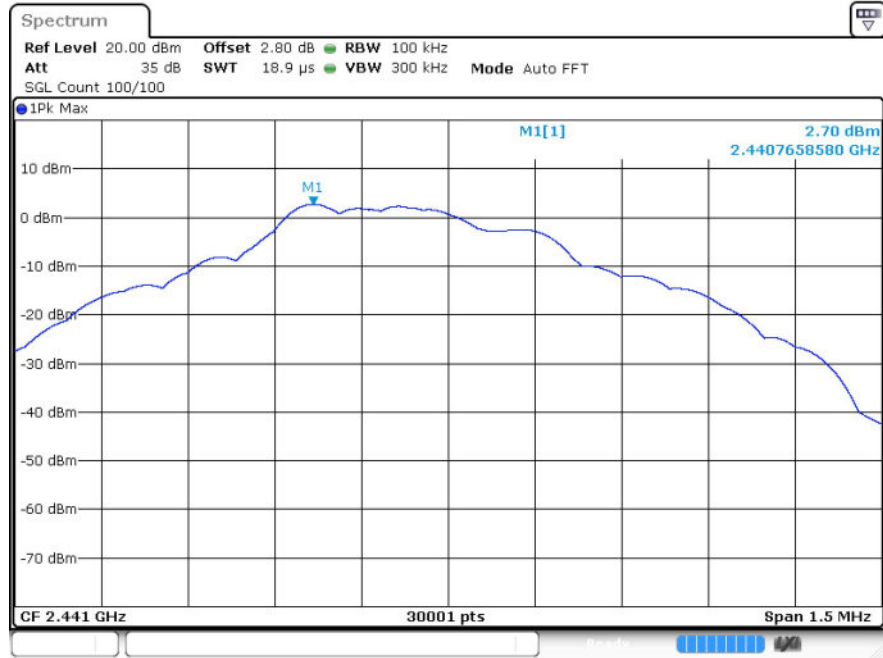
| Mode | Channel | Max. Level [dBc] | Limit [dBc] | Verdict |
|---------------|---------|------------------|-------------|---------|
| GFSK | LCH | -43.75 | -20 | Pass |
| | MCH | -44.12 | -20 | Pass |
| | HCH | -42.96 | -20 | Pass |
| $\pi/4$ DQPSK | LCH | -42.76 | -20 | Pass |
| | MCH | -44.2 | -20 | Pass |
| | HCH | -43.92 | -20 | Pass |
| 8DPSK | LCH | -42.63 | -20 | Pass |
| | MCH | -43.84 | -20 | Pass |
| | HCH | -43 | -20 | Pass |

7.2 Test Graphs

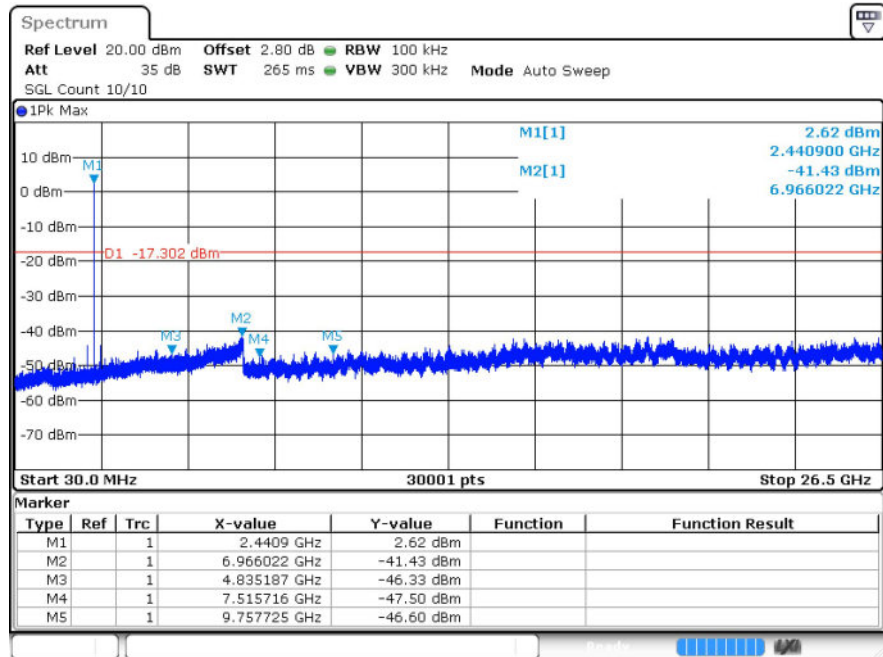


GFSK_MCH_Graphs

Pref

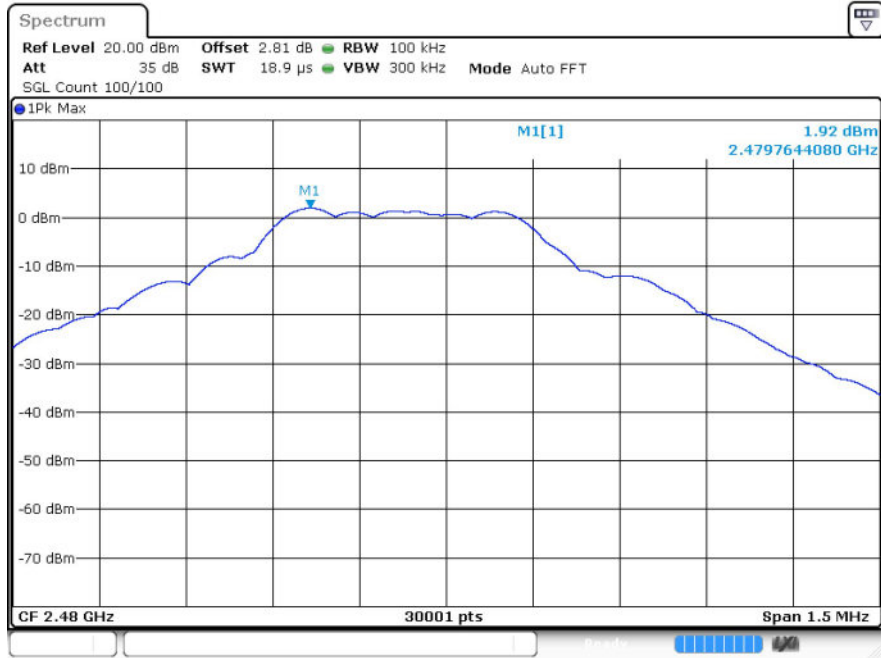


Puw



GFSK_HCH_Graphs

Pref



Puw

