



## Appendix A

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

Product Name: BE Mini w/Display XT-98

Trade Mark: iHome

Test Model: HM-AU-BE-234

#### Environmental Conditions

Temperature:	25.4°C
Relative Humidity:	52.3%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

# Contents

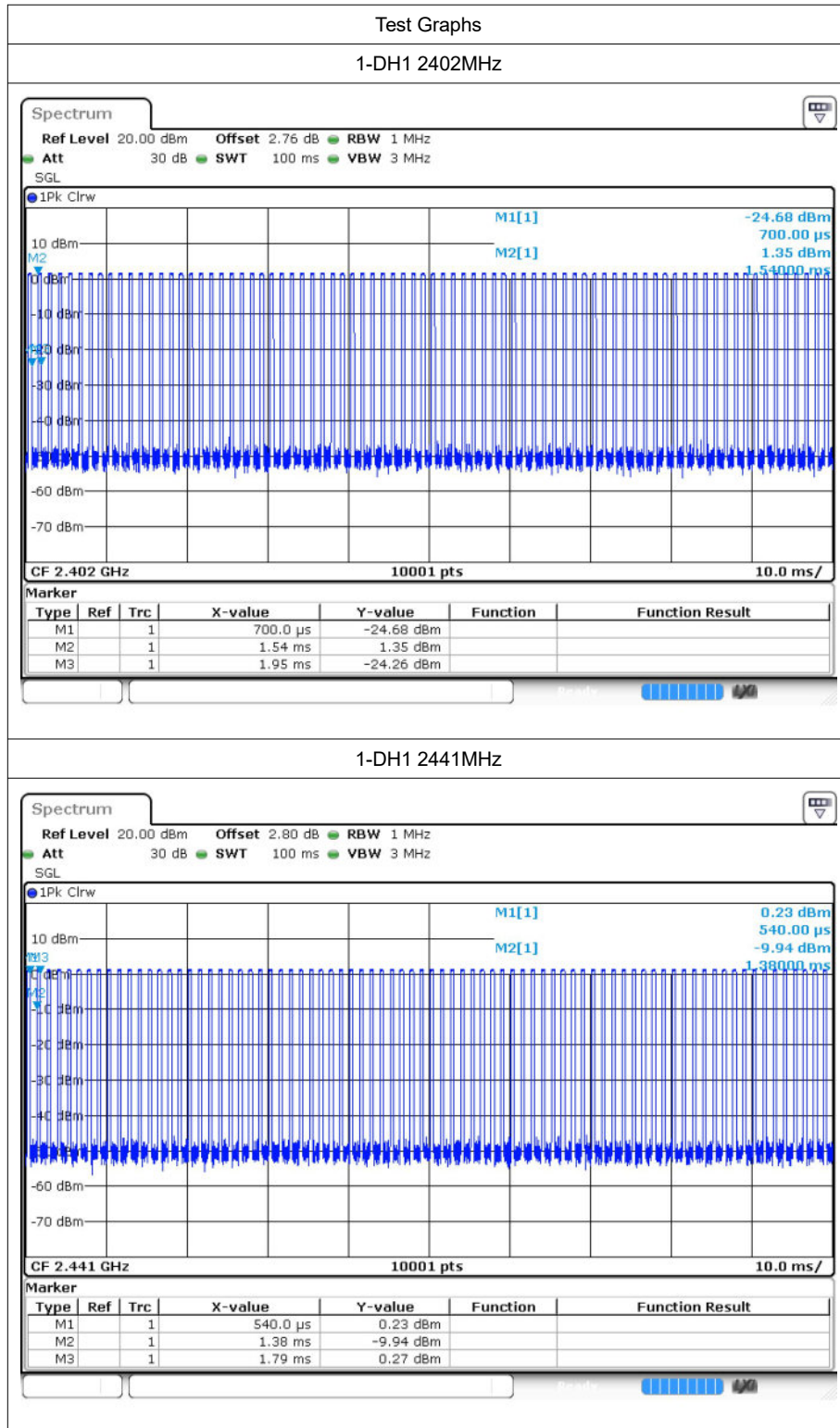
	Page
<b>COVER PAGE</b>	
1 Duty Cycle .....	3
1.1 Test Result .....	3
1.2 Test Graphs .....	4
2 Maximum Conducted Peak Output Power .....	9
2.1 Test Result .....	9
2.2 Test Graphs .....	10
3 20dB Bandwidth .....	15
3.1 Test Result .....	15
3.2 Test Graphs .....	16
4 Carrier Frequency Separation .....	21
4.1 Test Result .....	21
4.2 Test Graphs .....	22
5 Hopping Channel Number .....	24
5.1 Test Result .....	24
5.2 Test Graphs .....	25
6 Dwell Time .....	27
6.1 Test Result .....	27
6.2 Test Graphs .....	28
7 RF Conducted Spurious Emissions .....	31
7.1 Test Result .....	31
7.2 Test Graphs .....	32
8 Band-edge for RF Conducted Emissions .....	41
8.1 Test Result .....	41
8.2 Test Graphs .....	42
9 Restrict-band band-edge measurements .....	54
9.1 Test Result .....	54
9.2 Test Graphs .....	56

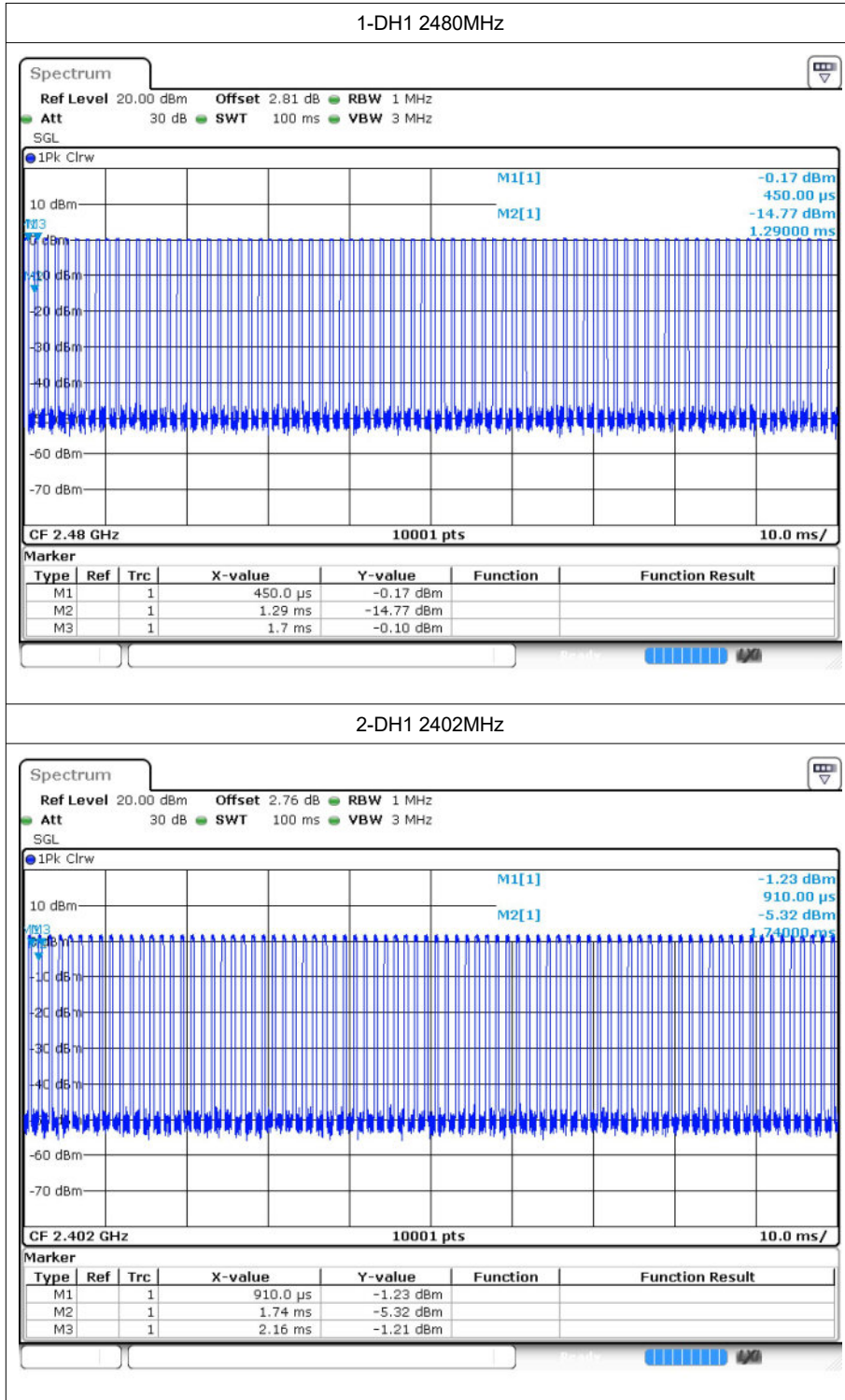
# 1 Duty Cycle

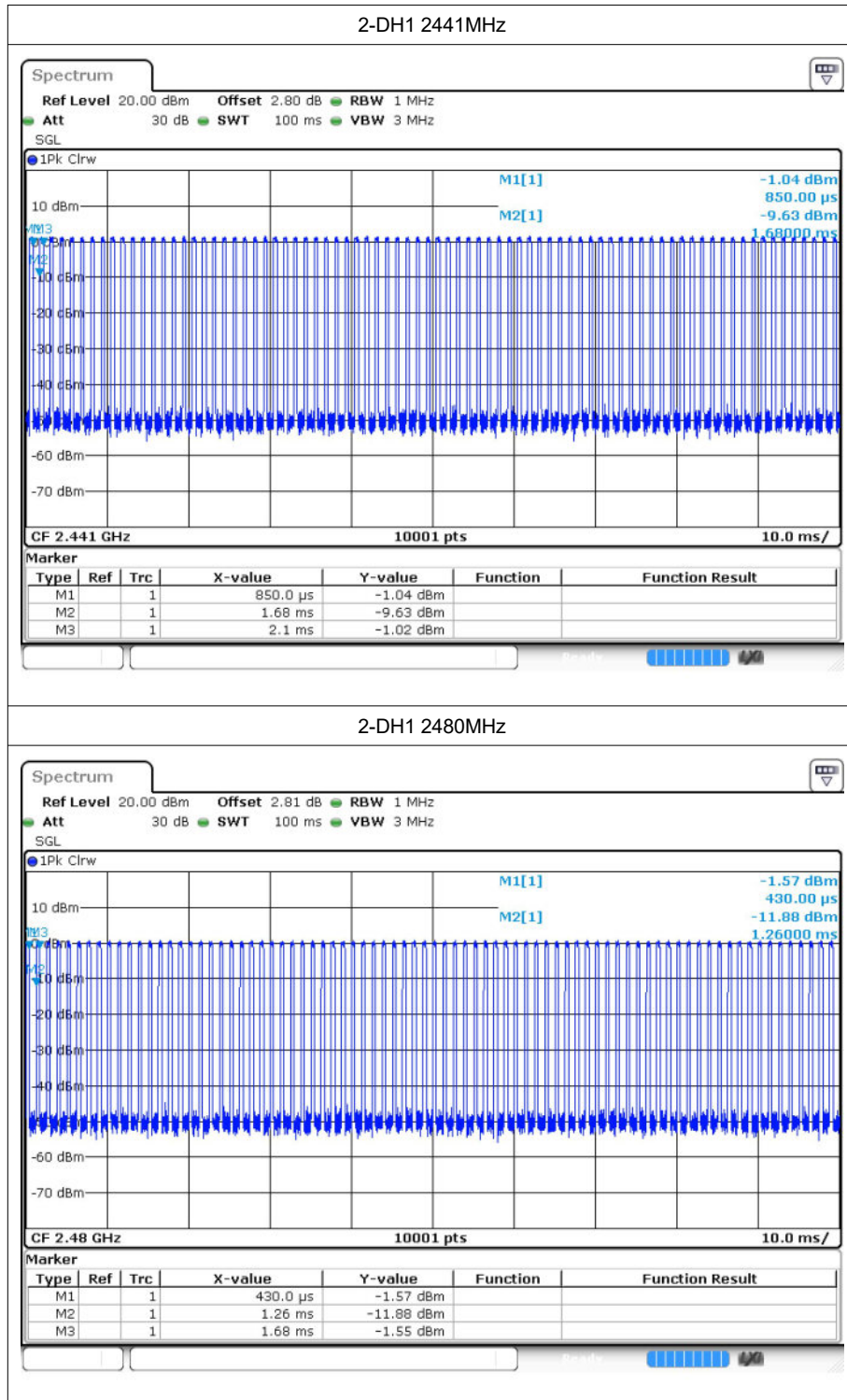
## 1.1 Test Result

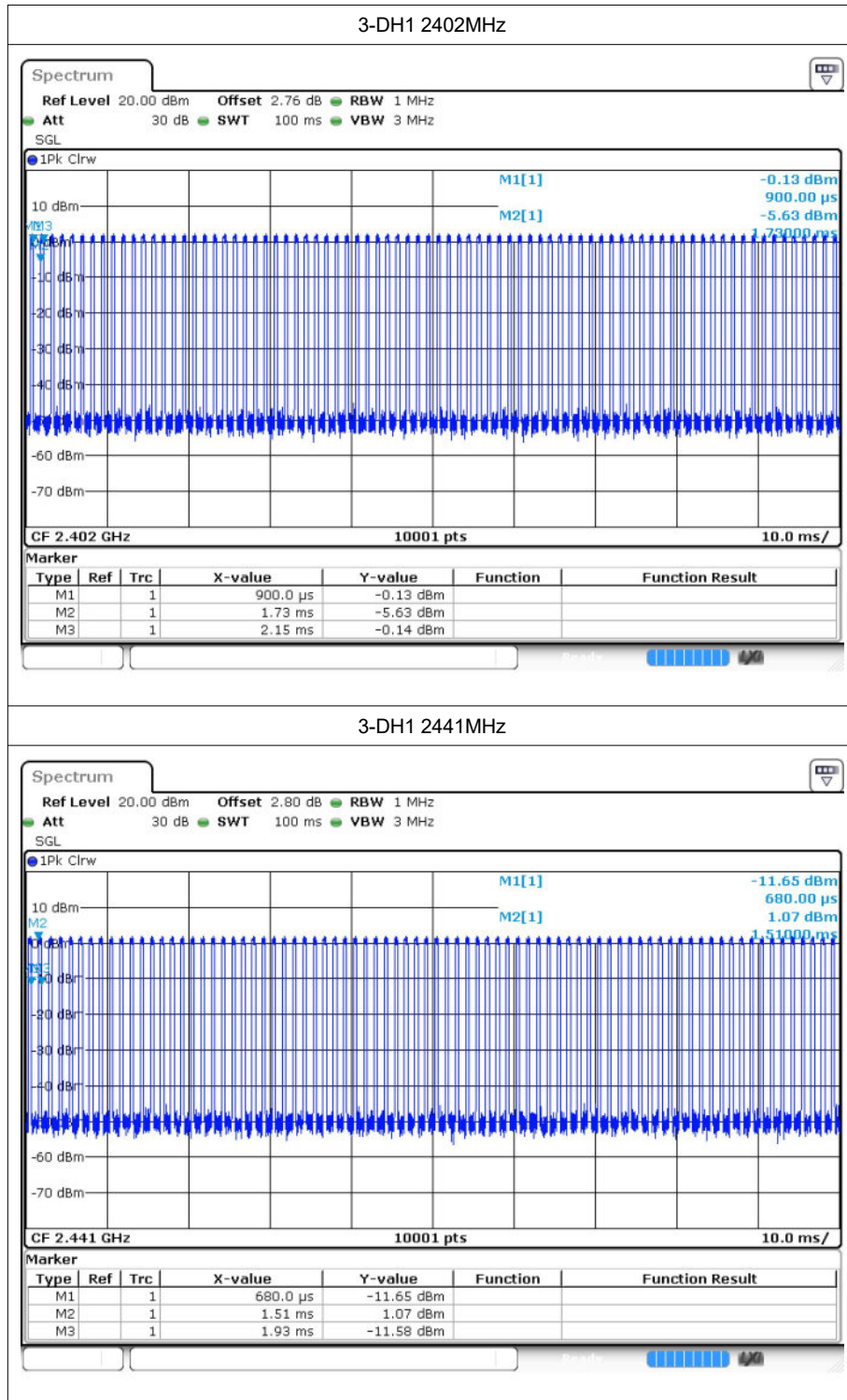
Mode	Frequency (MHz)	Duty Cycle (%)	1/T (kHz)
1-DH1	2402	33.6	2.44
1-DH1	2441	33.6	2.44
1-DH1	2480	33.41	2.44
2-DH1	2402	34.4	2.38
2-DH1	2441	34.4	2.38
2-DH1	2480	34.4	2.38
3-DH1	2402	34.4	2.38
3-DH1	2441	34.4	2.38
3-DH1	2480	34.4	2.38

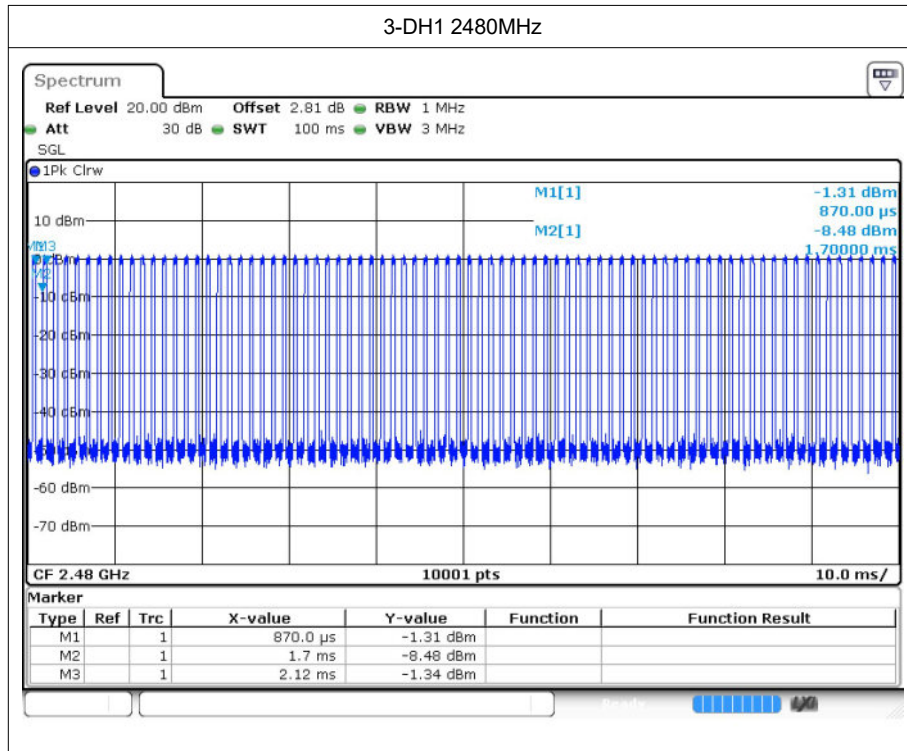
## 1.2 Test Graphs











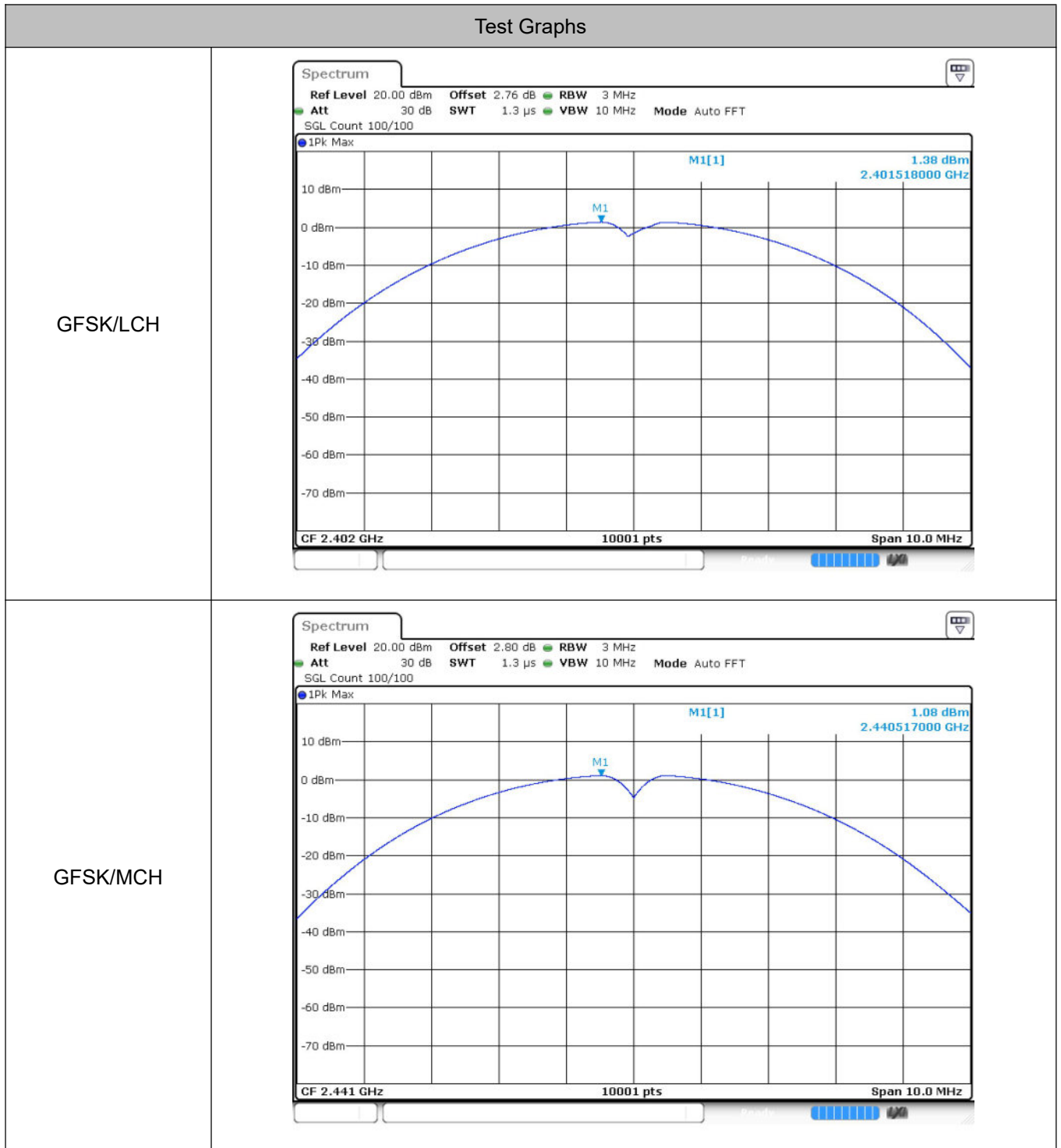


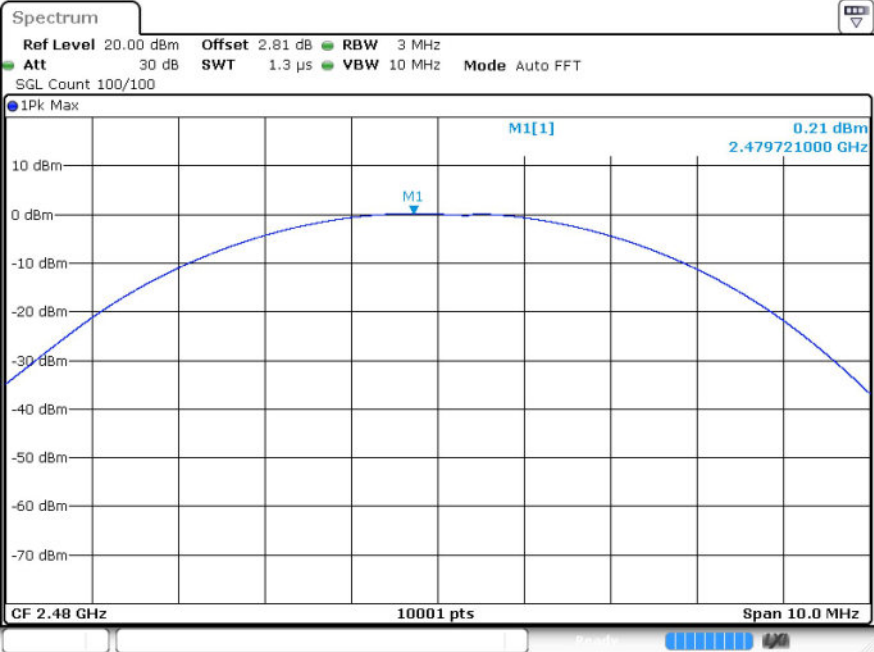
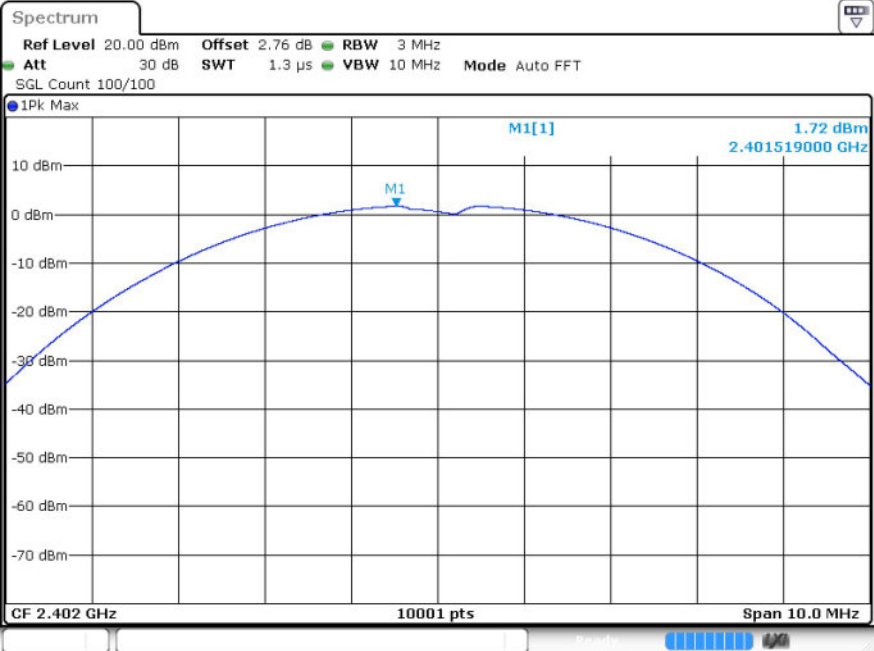
## 2 Maximum Conducted Peak Output Power

### 2.1 Test Result

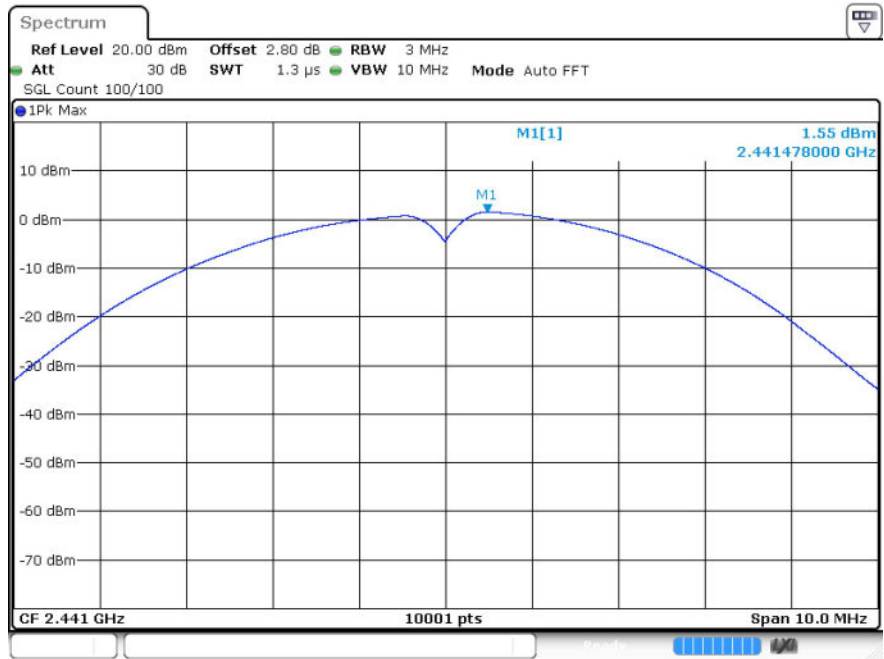
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.38	21	Pass
	MCH	1.08	21	Pass
	HCH	0.21	21	Pass
$\pi/4$ DQPSK	LCH	1.72	21	Pass
	MCH	1.55	21	Pass
	HCH	0.55	21	Pass
8DPSK	LCH	1.86	21	Pass
	MCH	1.73	21	Pass
	HCH	0.41	21	Pass

## 2.2 Test Graphs

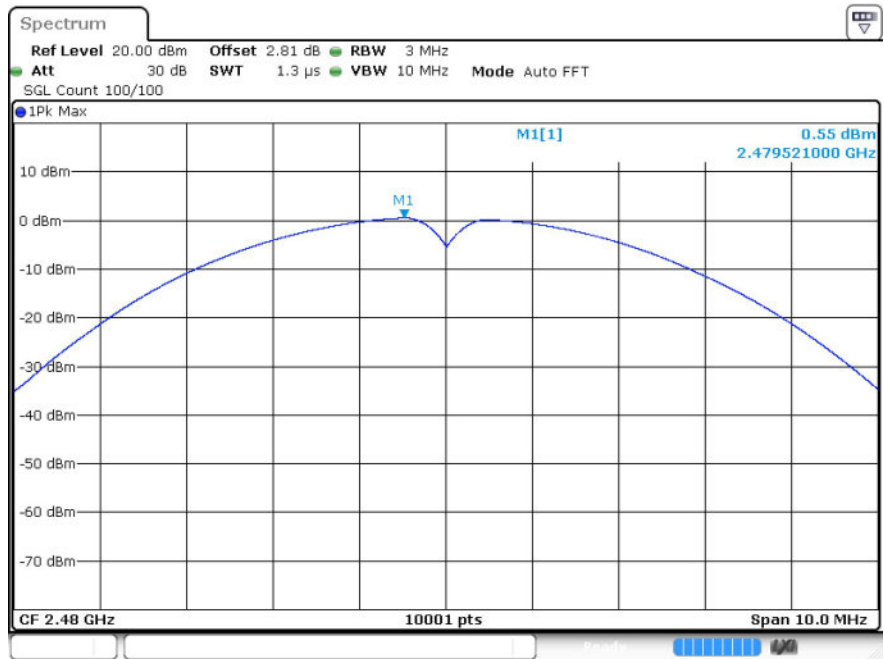


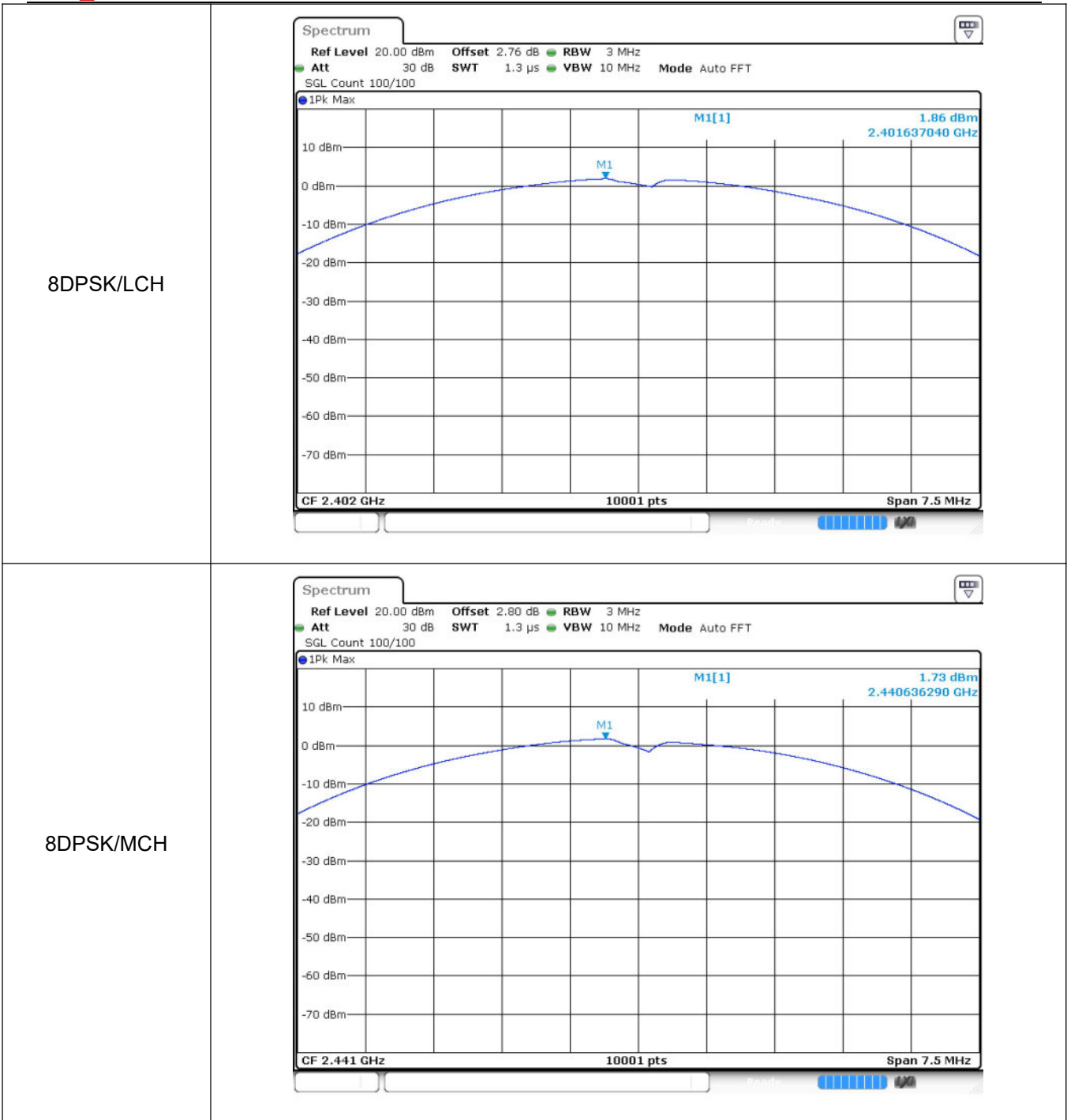
<p>GFSK/HCH</p>	
<p><math>\pi</math>/4DQPSK/LCH</p>	

$\pi/4$ DQPSK/MCH

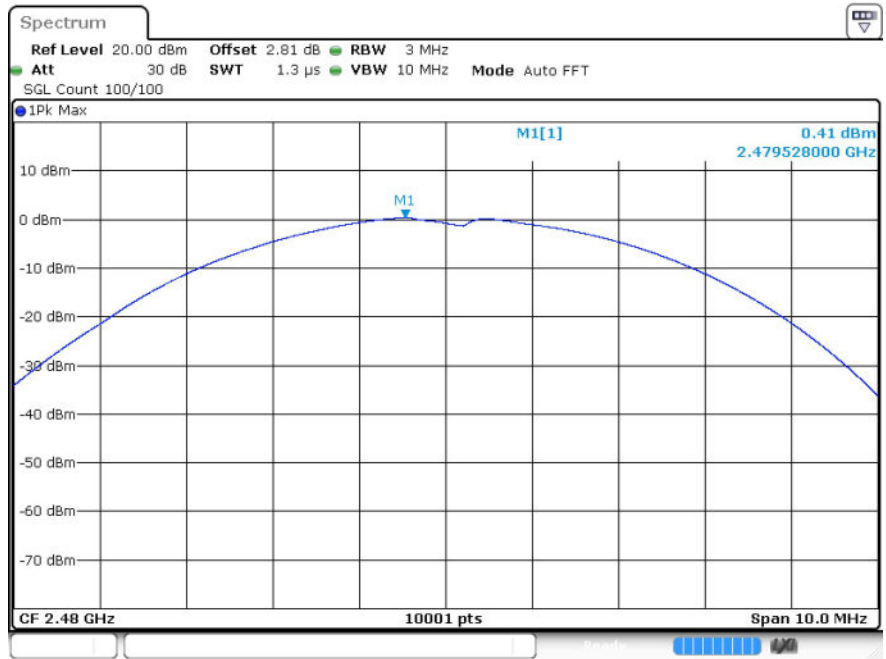


$\pi/4$ DQPSK/HCH





8DPSK/HCH

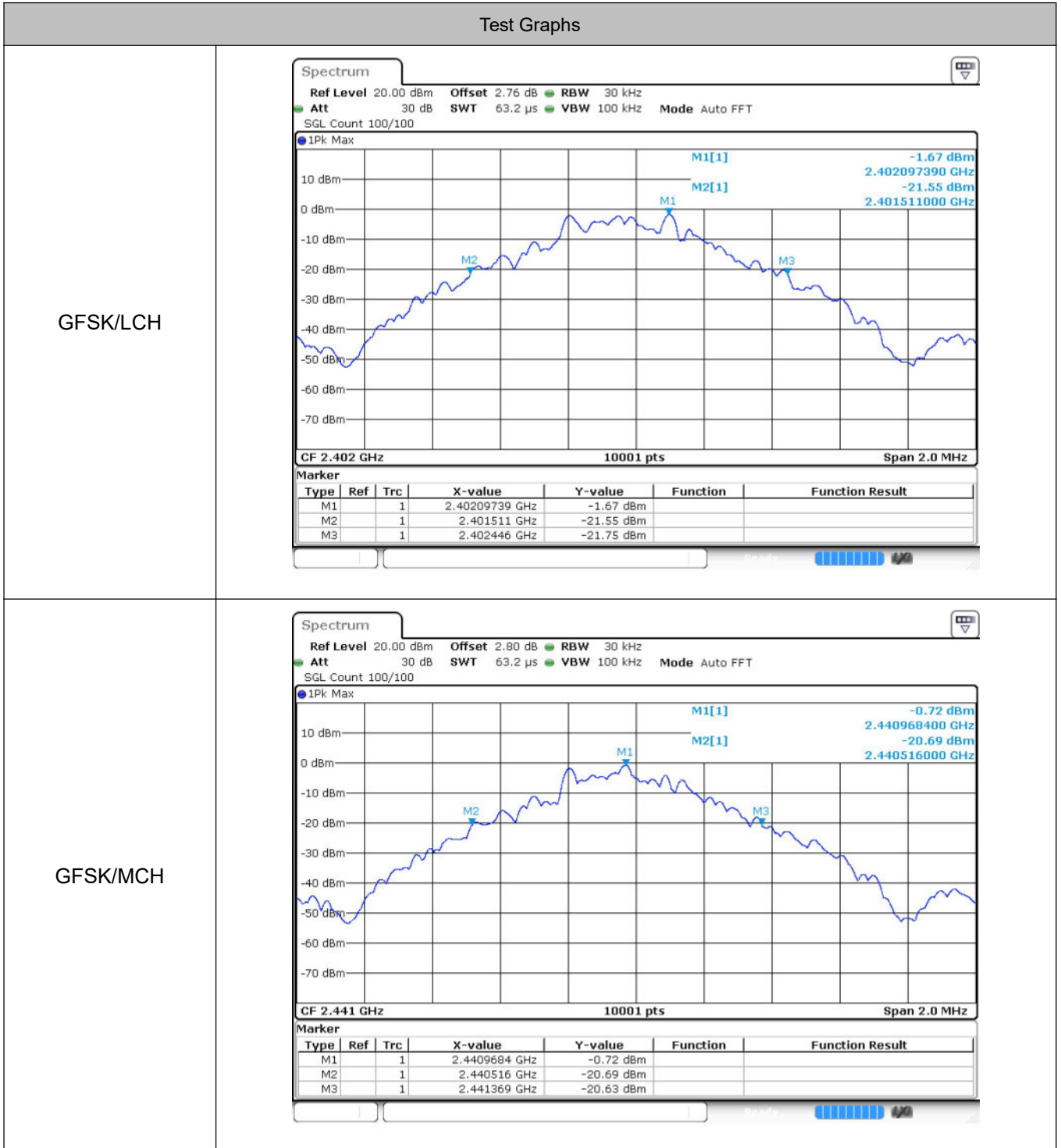


### 3 20dB Bandwidth

#### 3.1 Test Result

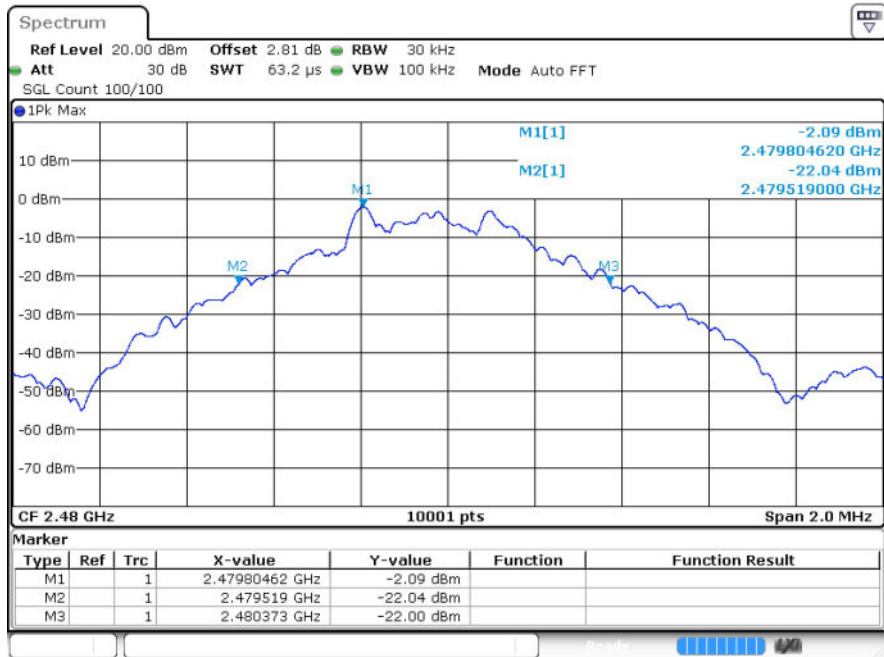
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.935	Not Specified	Pass
	MCH	0.853	Not Specified	Pass
	HCH	0.855	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.194	Not Specified	Pass
	MCH	1.25	Not Specified	Pass
	HCH	1.183	Not Specified	Pass
8DPSK	LCH	1.2	Not Specified	Pass
	MCH	1.198	Not Specified	Pass
	HCH	1.187	Not Specified	Pass

### 3.2 Test Graphs

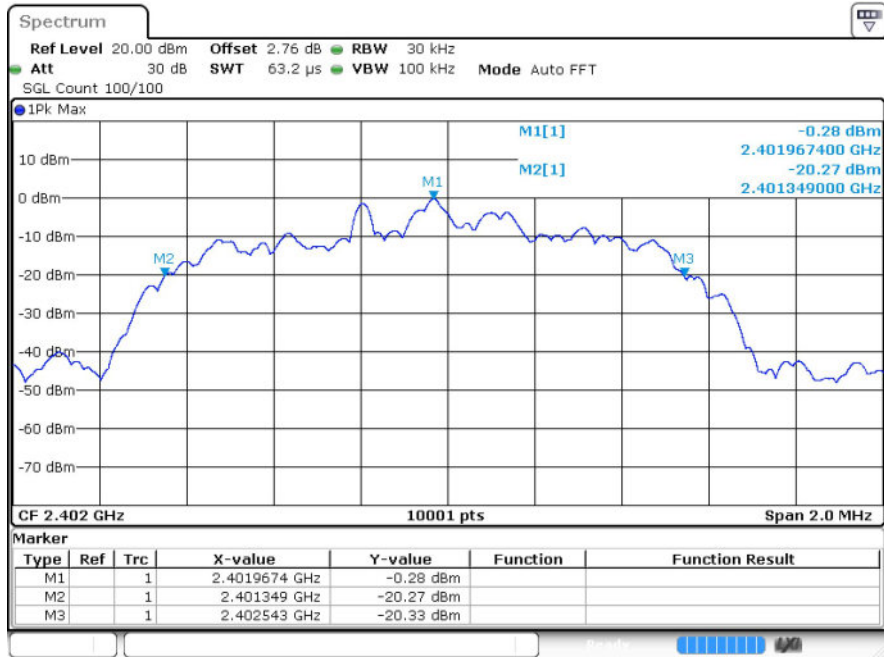




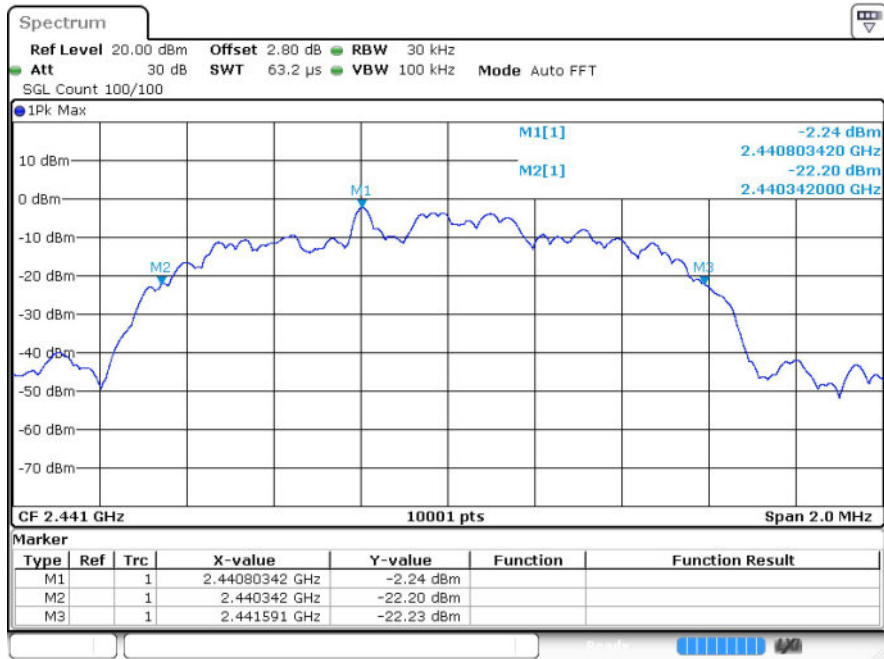
GFSK/HCH



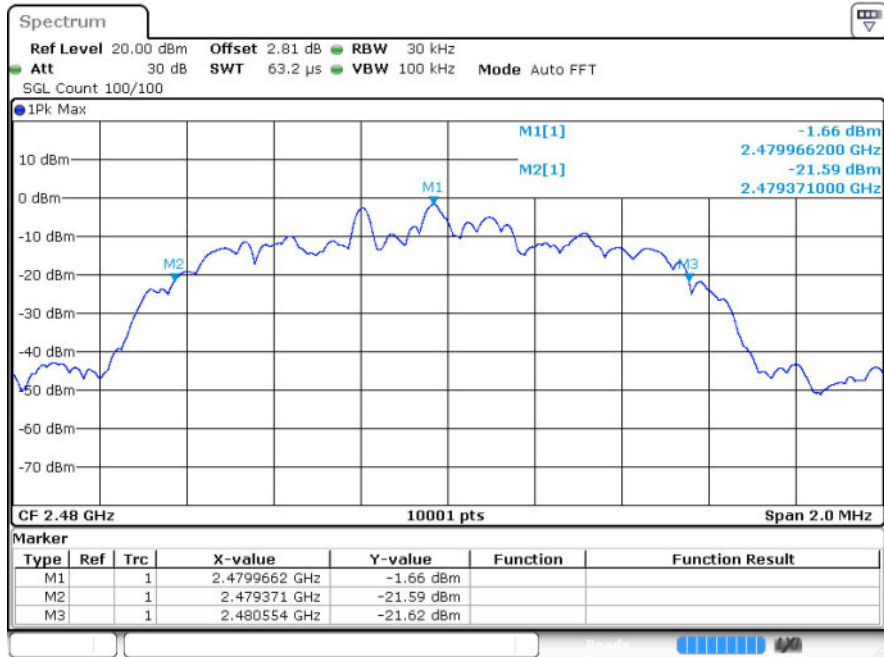
$\pi/4$ DQPSK/LCH



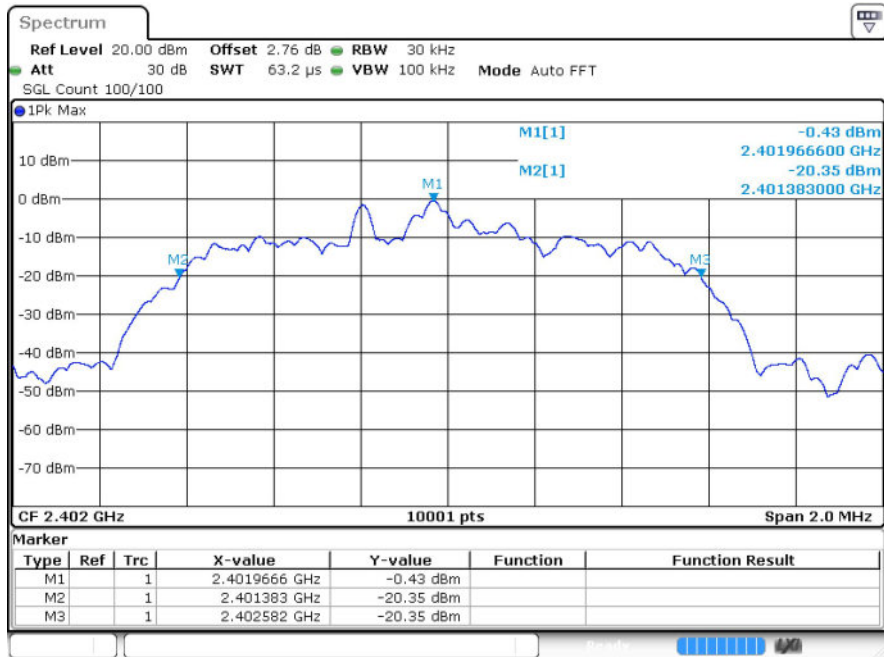
$\pi/4$ DQPSK/MCH



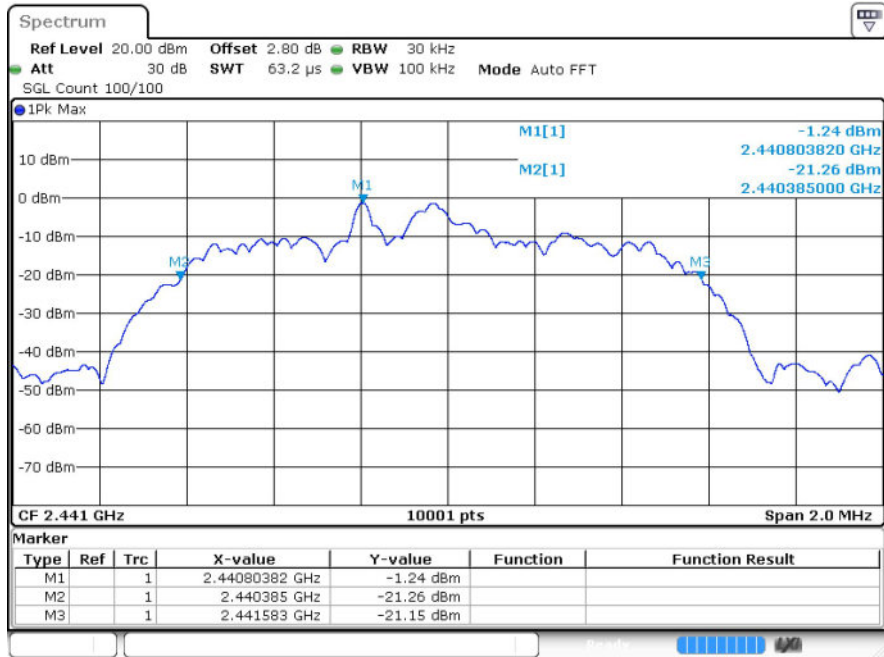
$\pi/4$ DQPSK/HCH



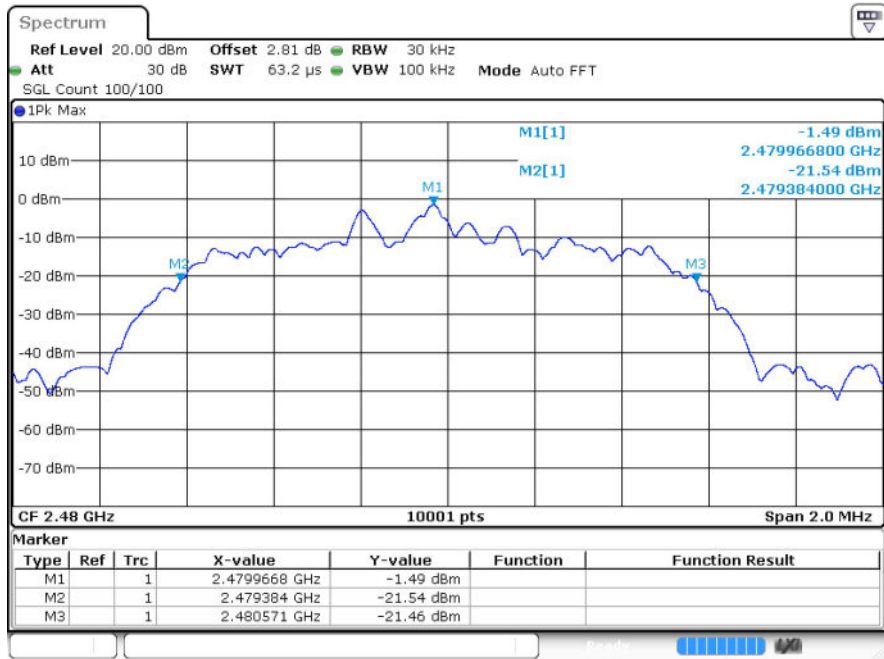
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

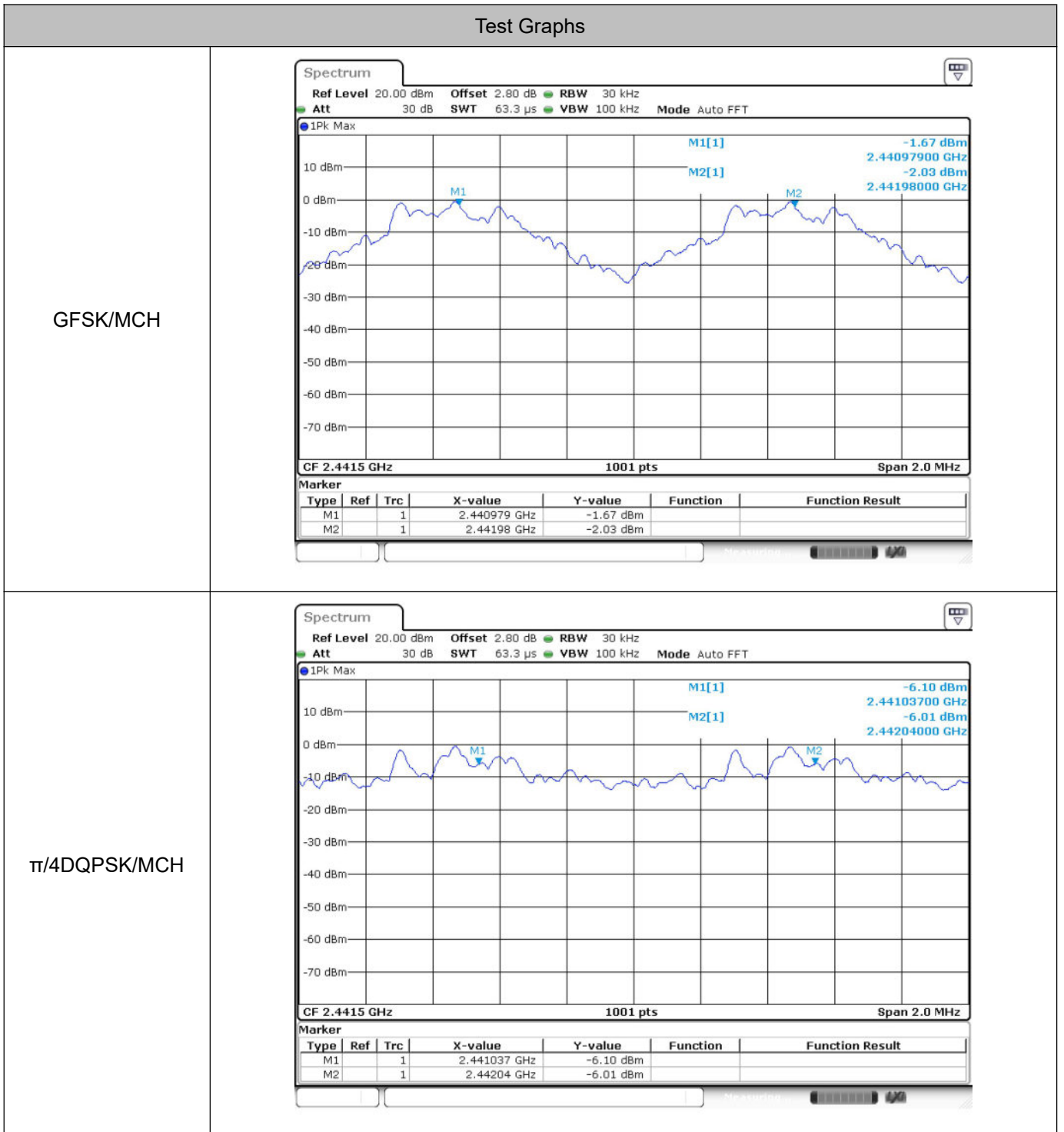


## 4 Carrier Frequency Separation

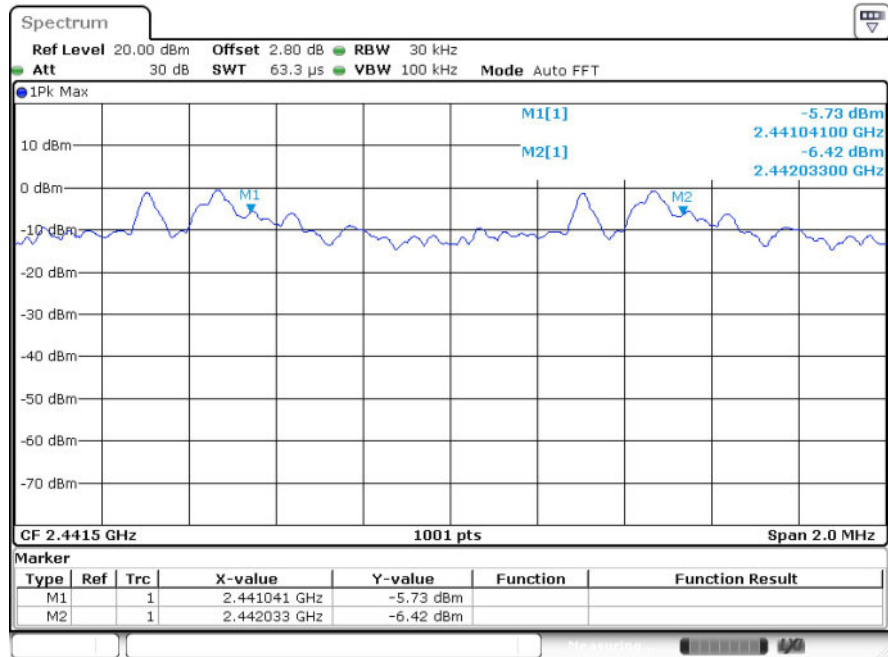
### 4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.001	0.569	Pass
$\pi/4$ DQPSK	MCH	1.003	0.833	Pass
8DPSK	MCH	0.992	0.799	Pass

## 4.2 Test Graphs



8DPSK/MCH



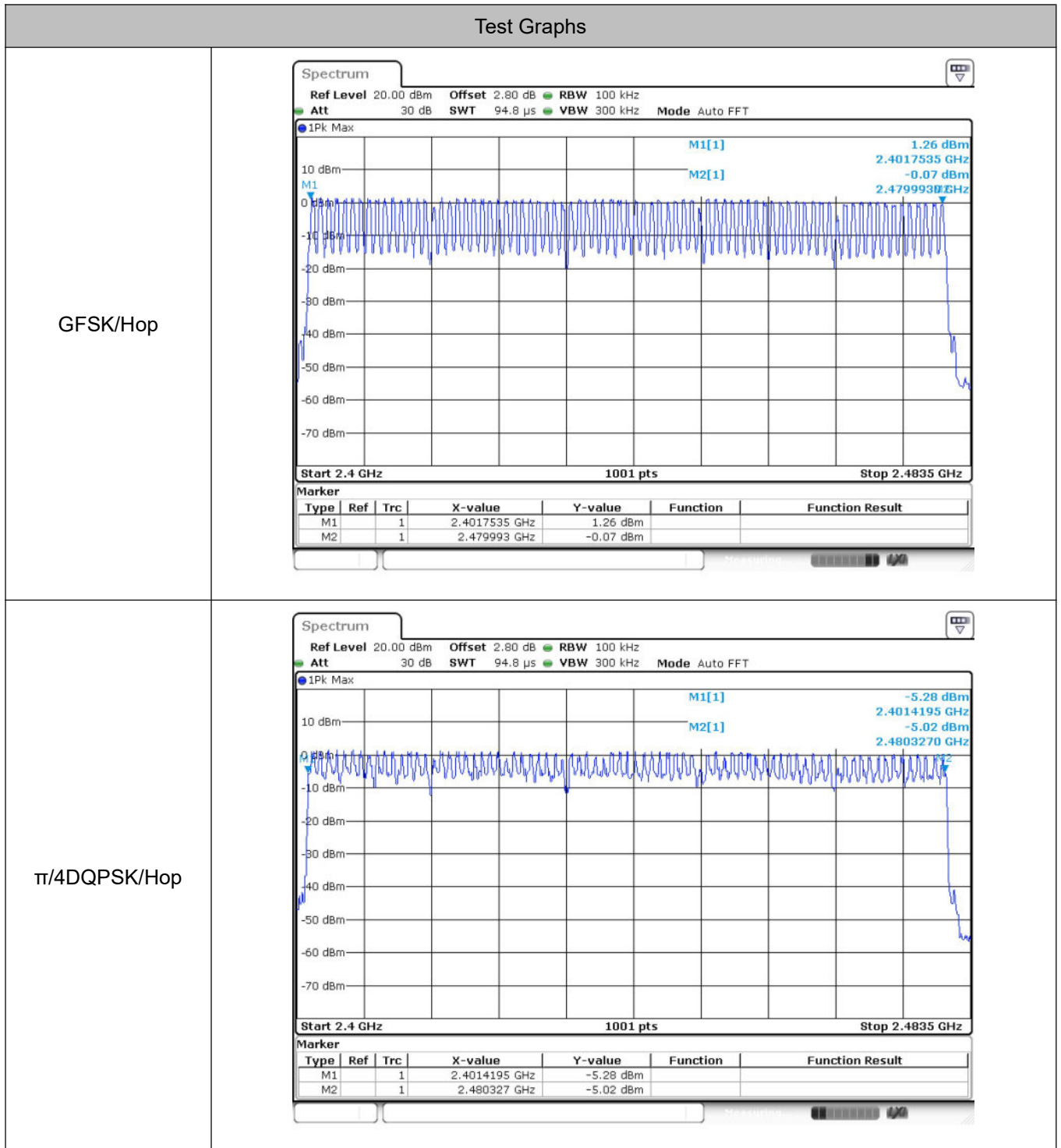
## 5 Hopping Channel Number

### 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

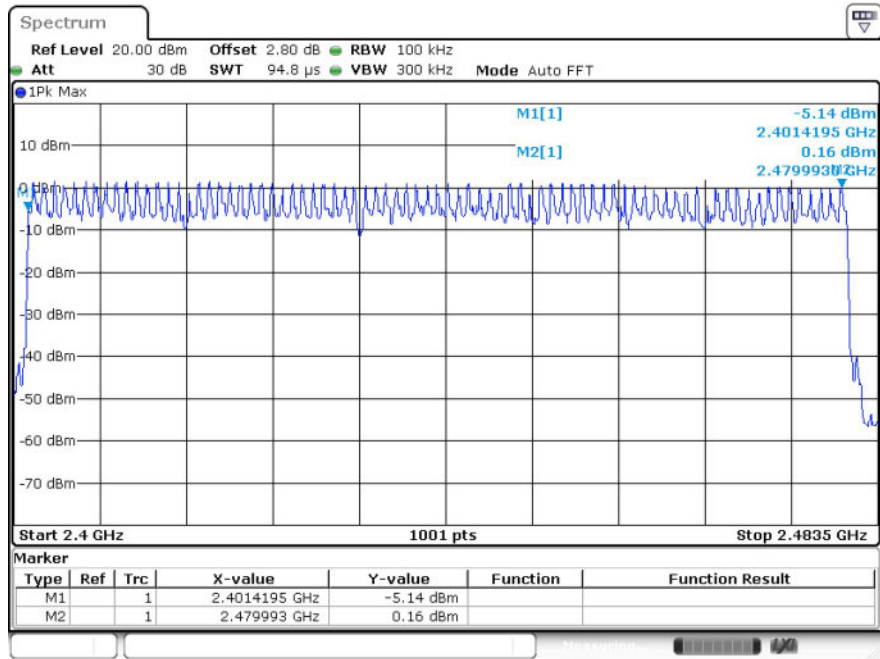


## 5.2 Test Graphs





8DPSK/Hop

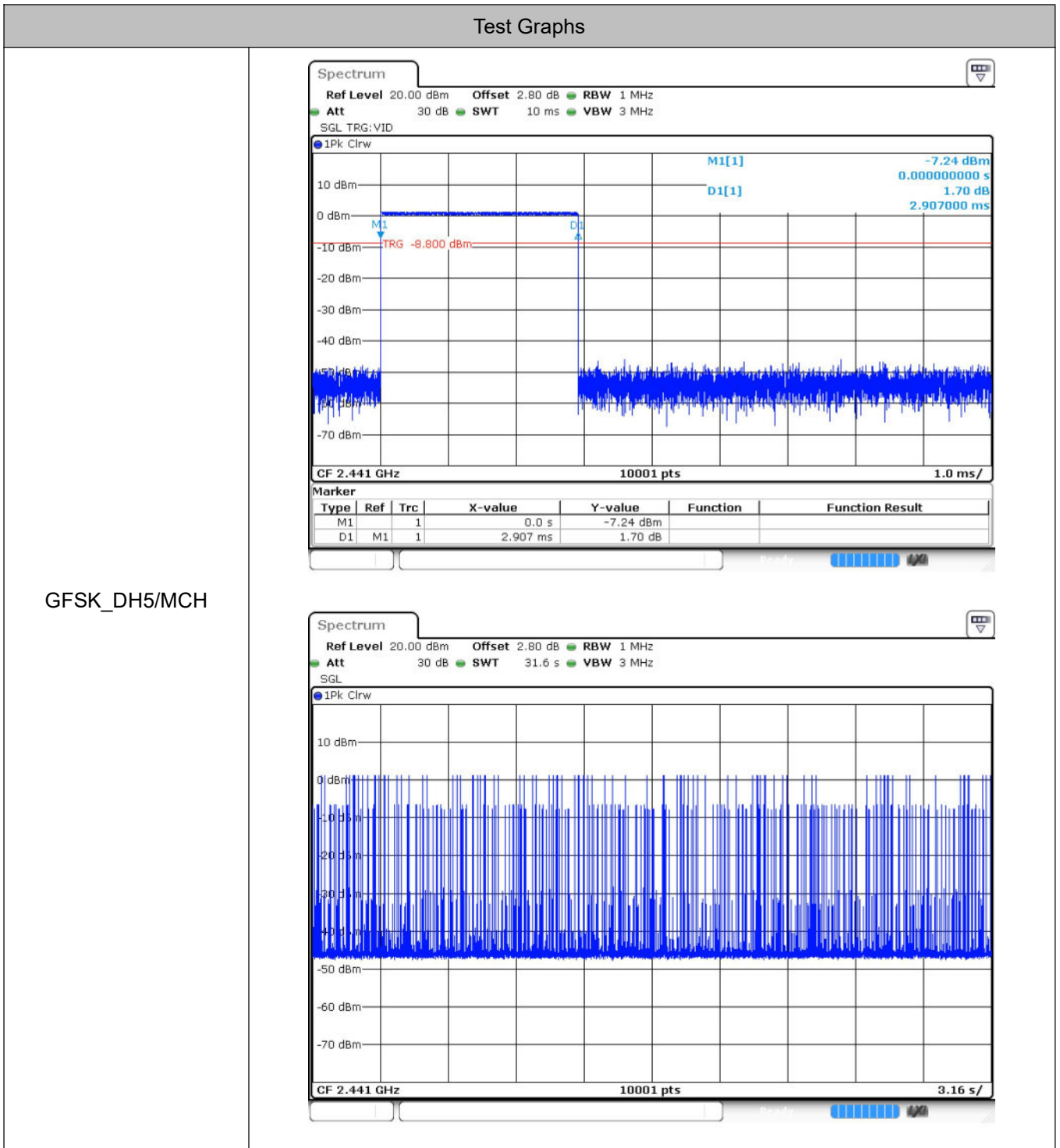


## 6 Dwell Time

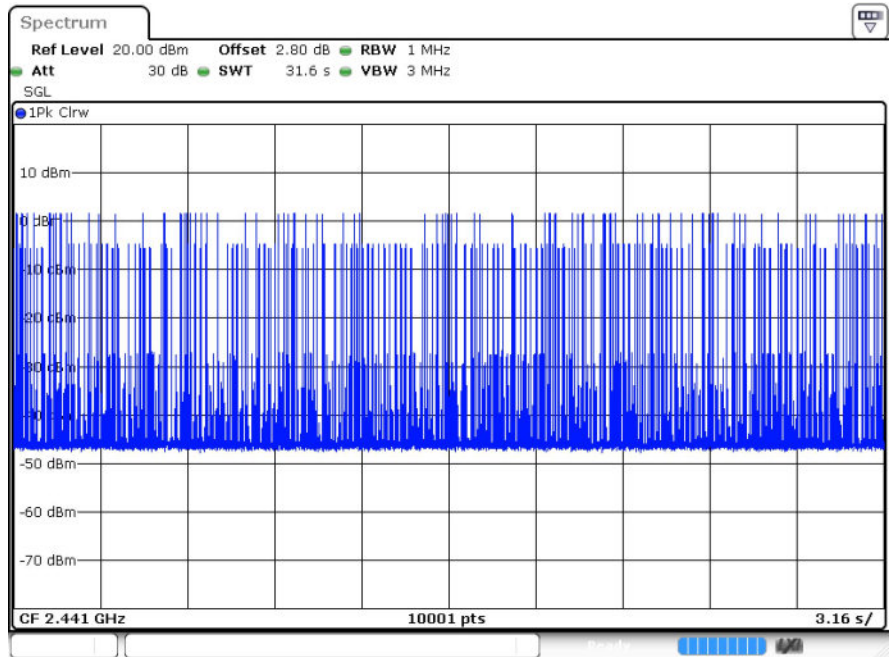
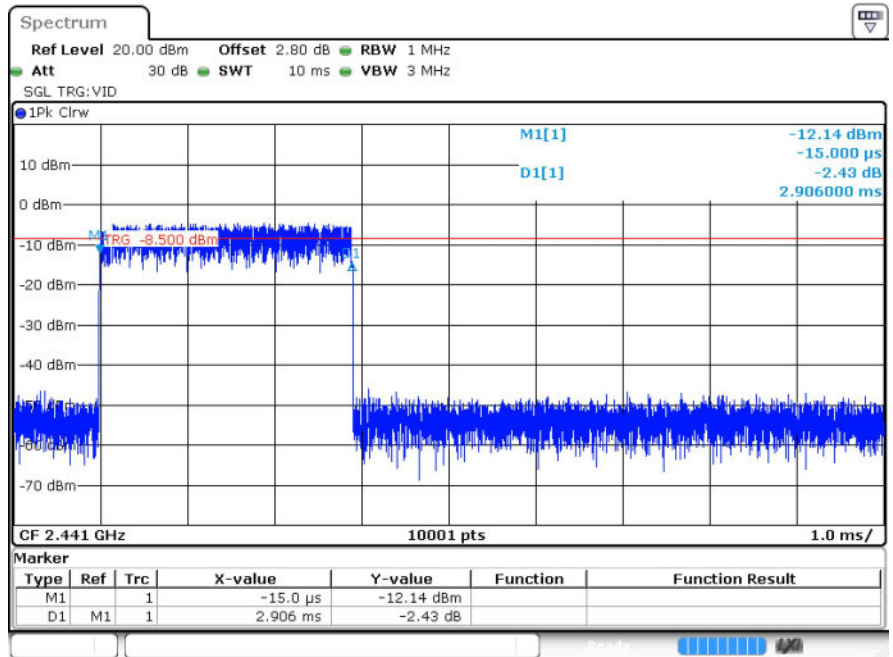
### 6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.907	94	273.258	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.906	94	273.164	0.4	Pass
8DPSK	3DH5	MCH	2.913	120	349.56	0.4	Pass

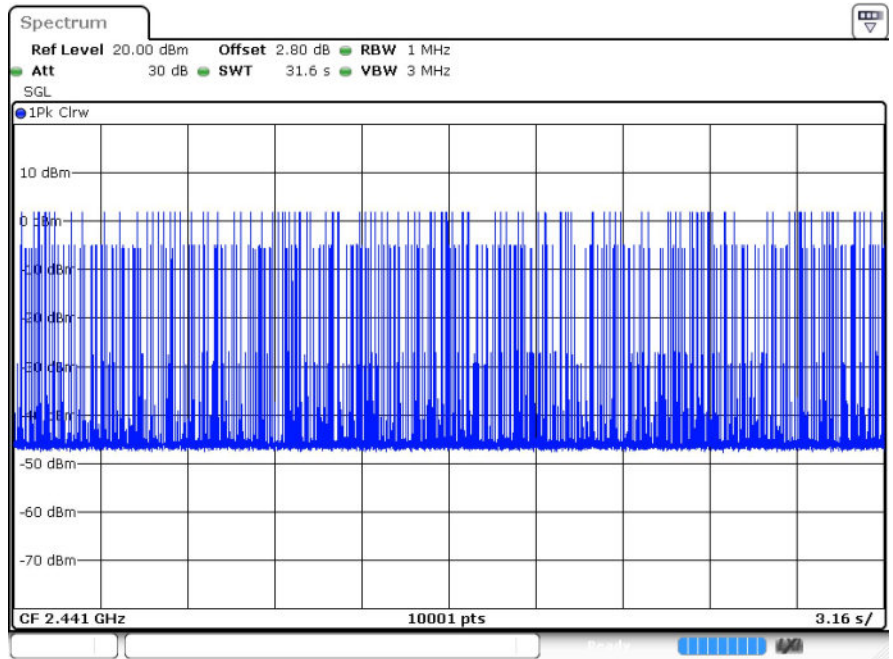
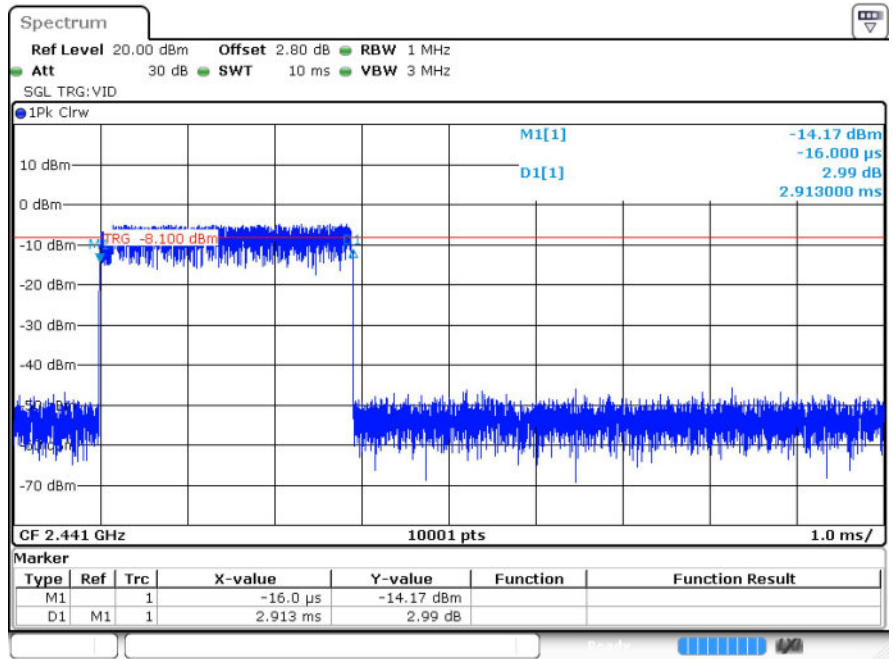
## 6.2 Test Graphs



$\pi/4$ DQPSK  
\_2DH5/MCH



8DPSK\_3DH5/MCH

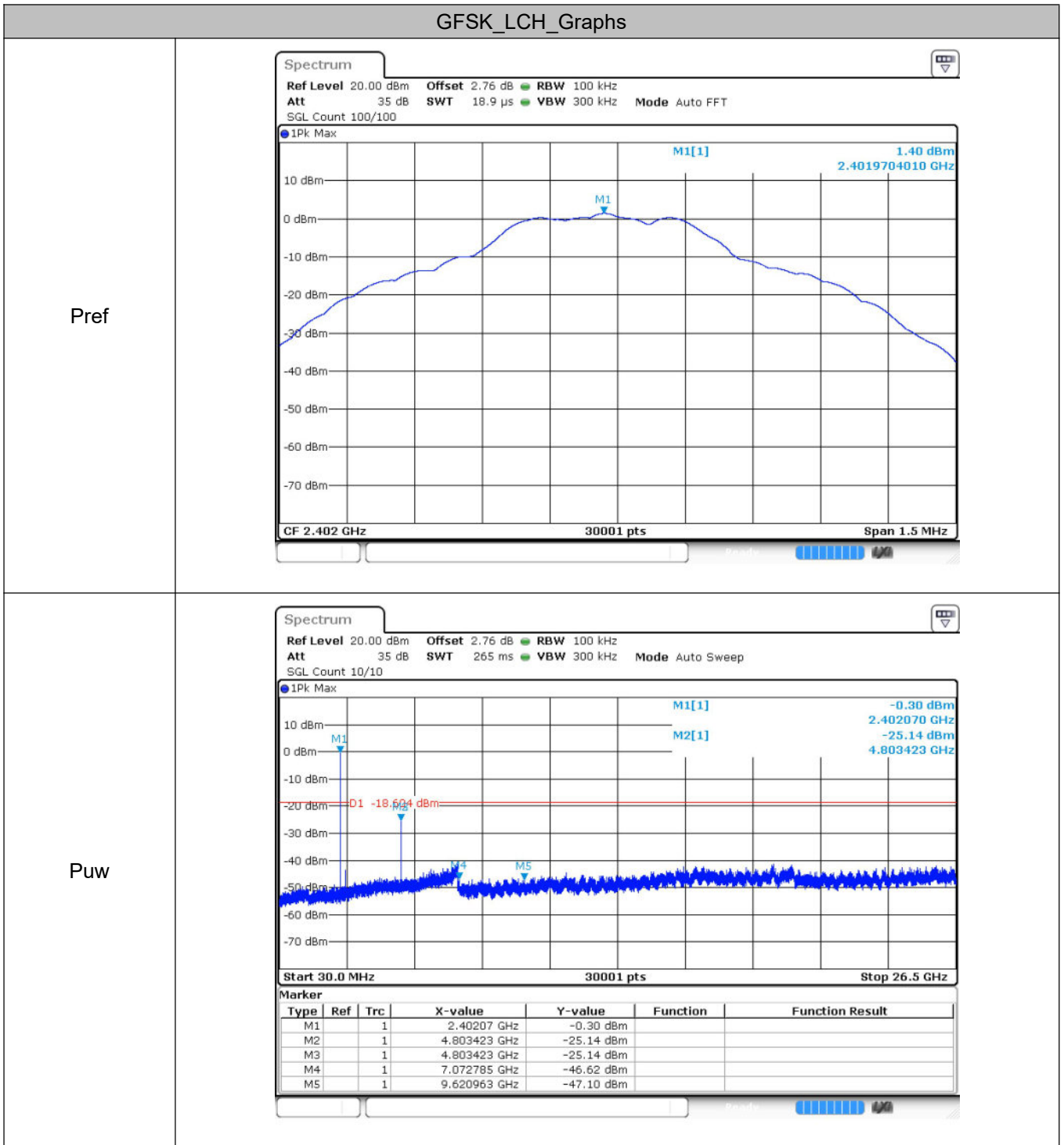


## 7 RF Conducted Spurious Emissions

### 7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-26.54	-20	Pass
	MCH	-24.56	-20	Pass
	HCH	-27.67	-20	Pass
$\pi/4$ DQPSK	LCH	-25.21	-20	Pass
	MCH	-31.66	-20	Pass
	HCH	-24.25	-20	Pass
8DPSK	LCH	-29.66	-20	Pass
	MCH	-23.93	-20	Pass
	HCH	-30.25	-20	Pass

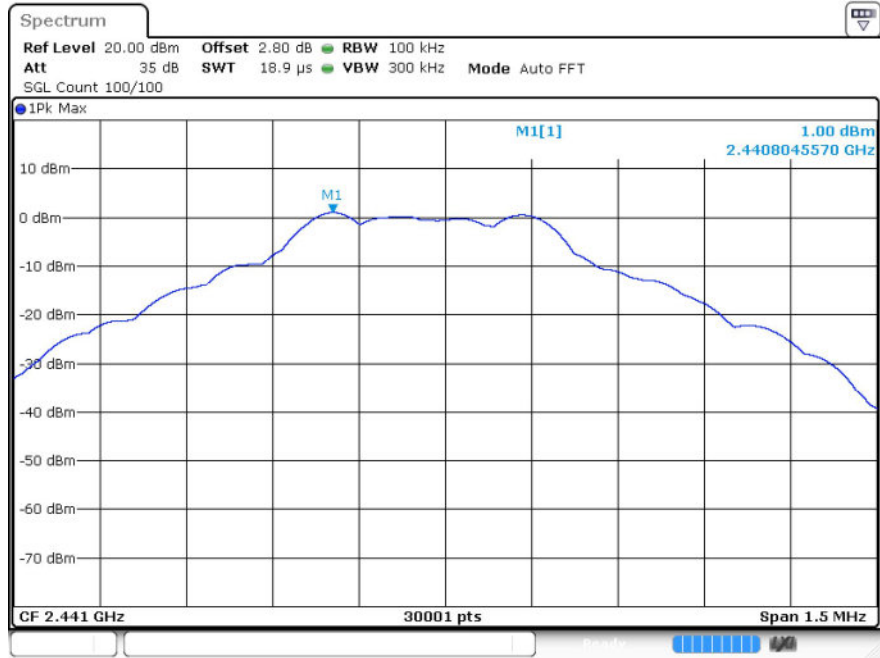
## 7.2 Test Graphs



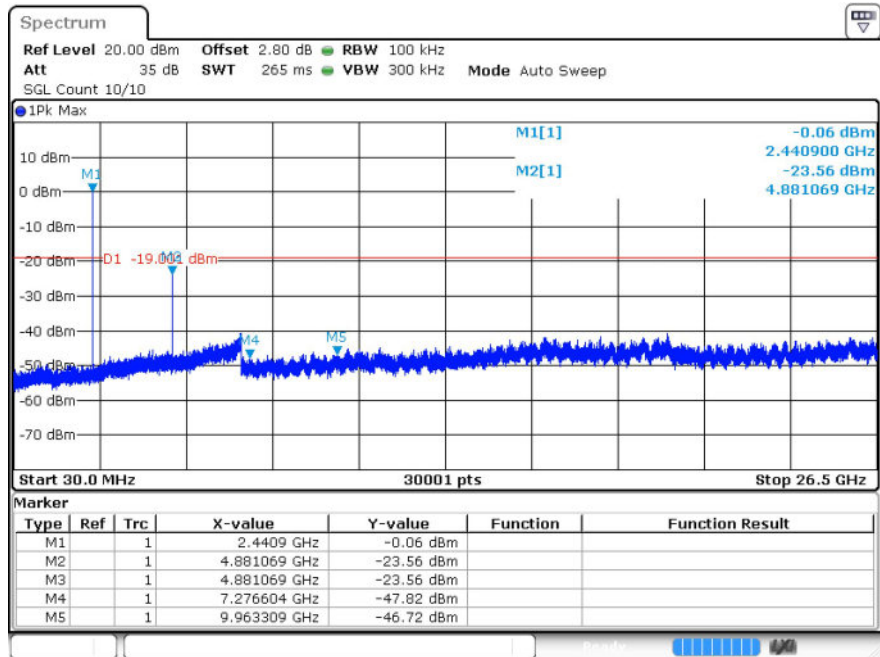


GFSK\_MCH\_Graphs

Pref

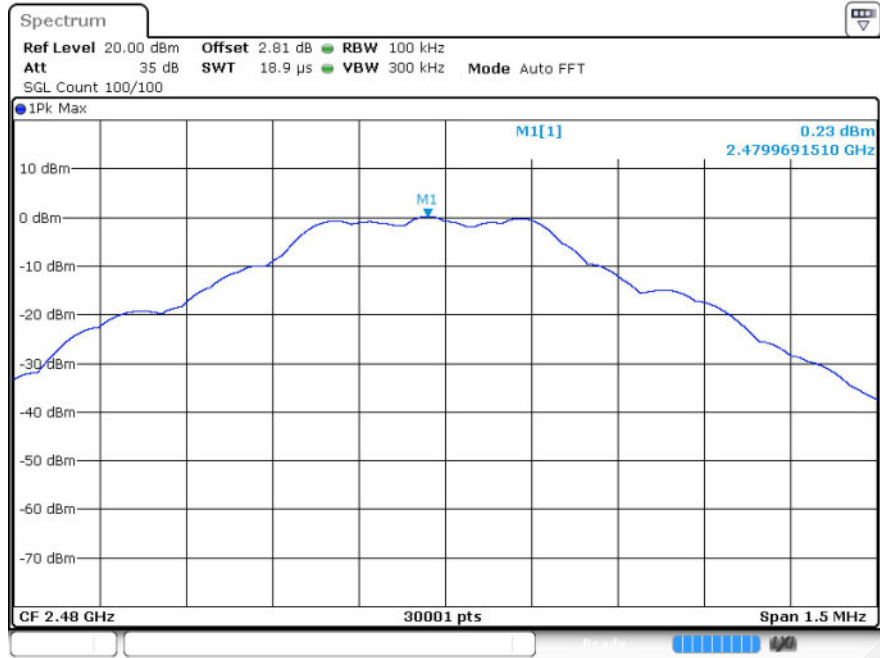


Puw



GFSK\_HCH\_Graphs

Pref



Puw

