

Appendix A

RF Test Data for BR_EDR(Conducted Measurement)

Product Name: Wireless Microphone

Trade Mark: N/A

Test Model: K1

Environmental Conditions

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

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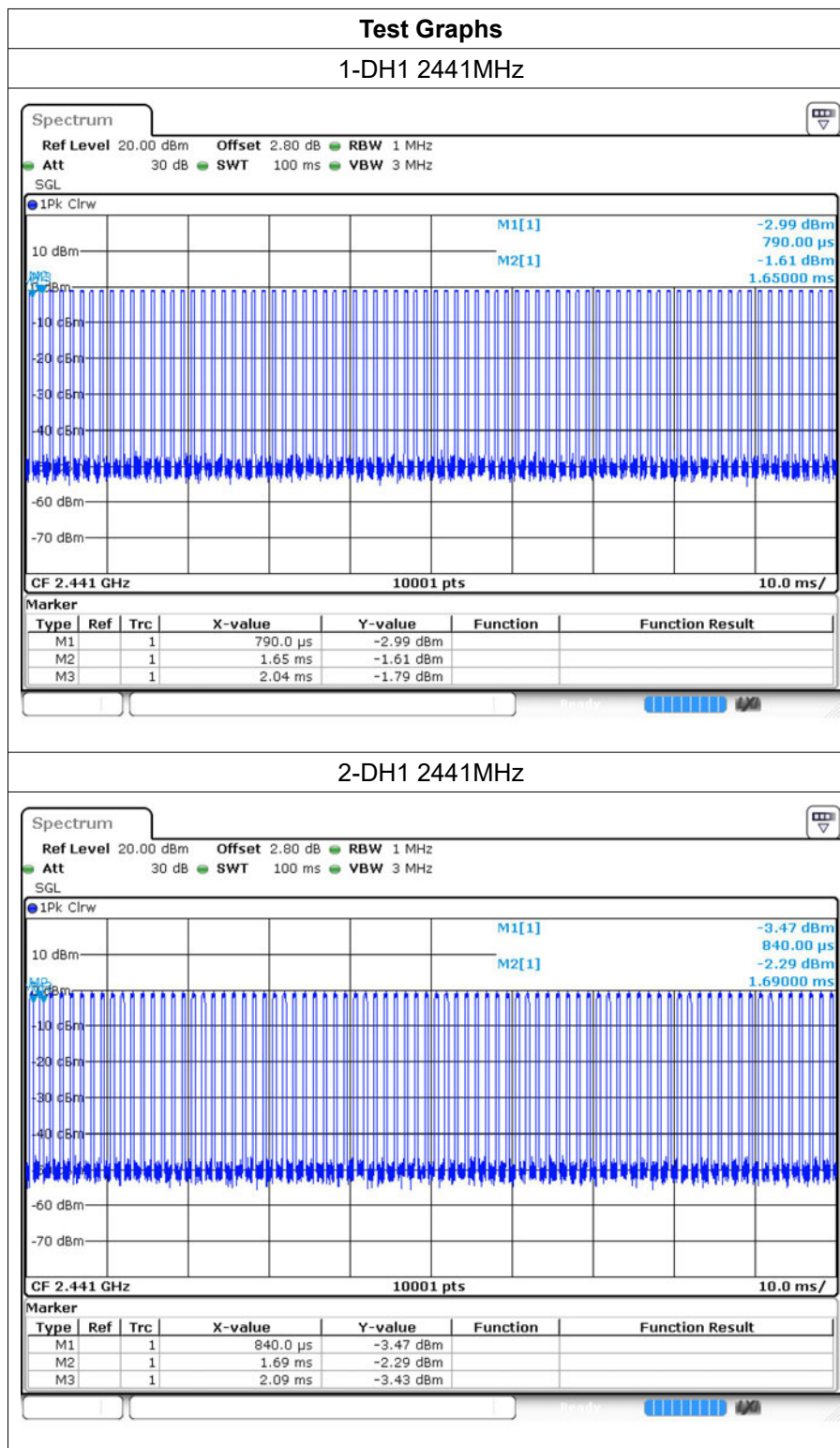
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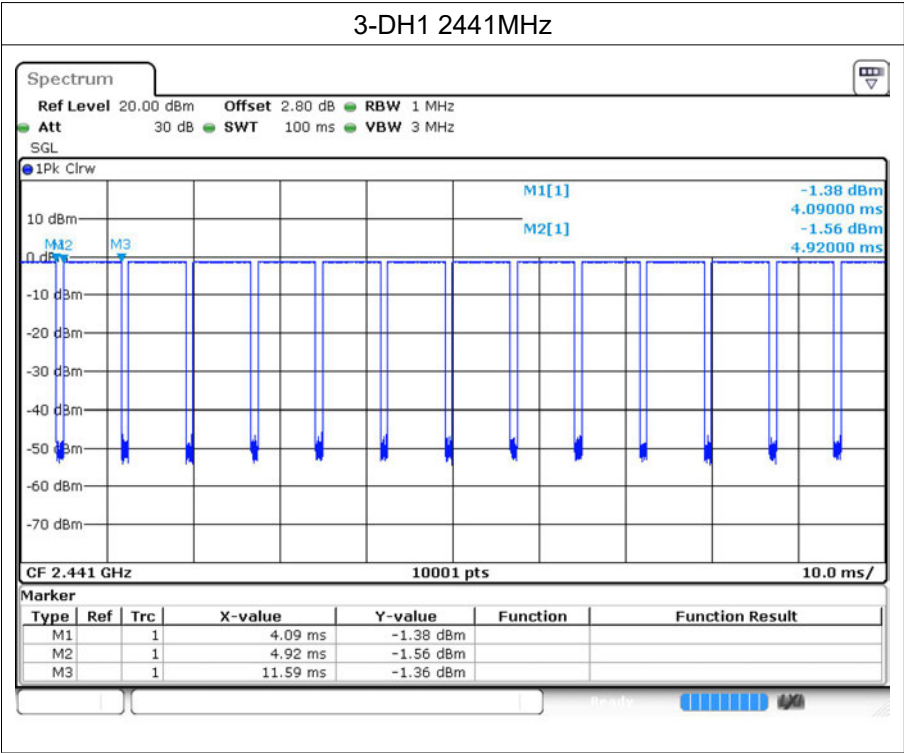
1 .Duty Cycle

1.1 Test Result

Mode	Frequency (MHz)	Duty Cycle (%)	1/T (kHz)
1-DH1	2441	32	2.56
2-DH1	2441	32.8	2.5
3-DH1	2441	89.34	0.15

1.2 Test Graphs



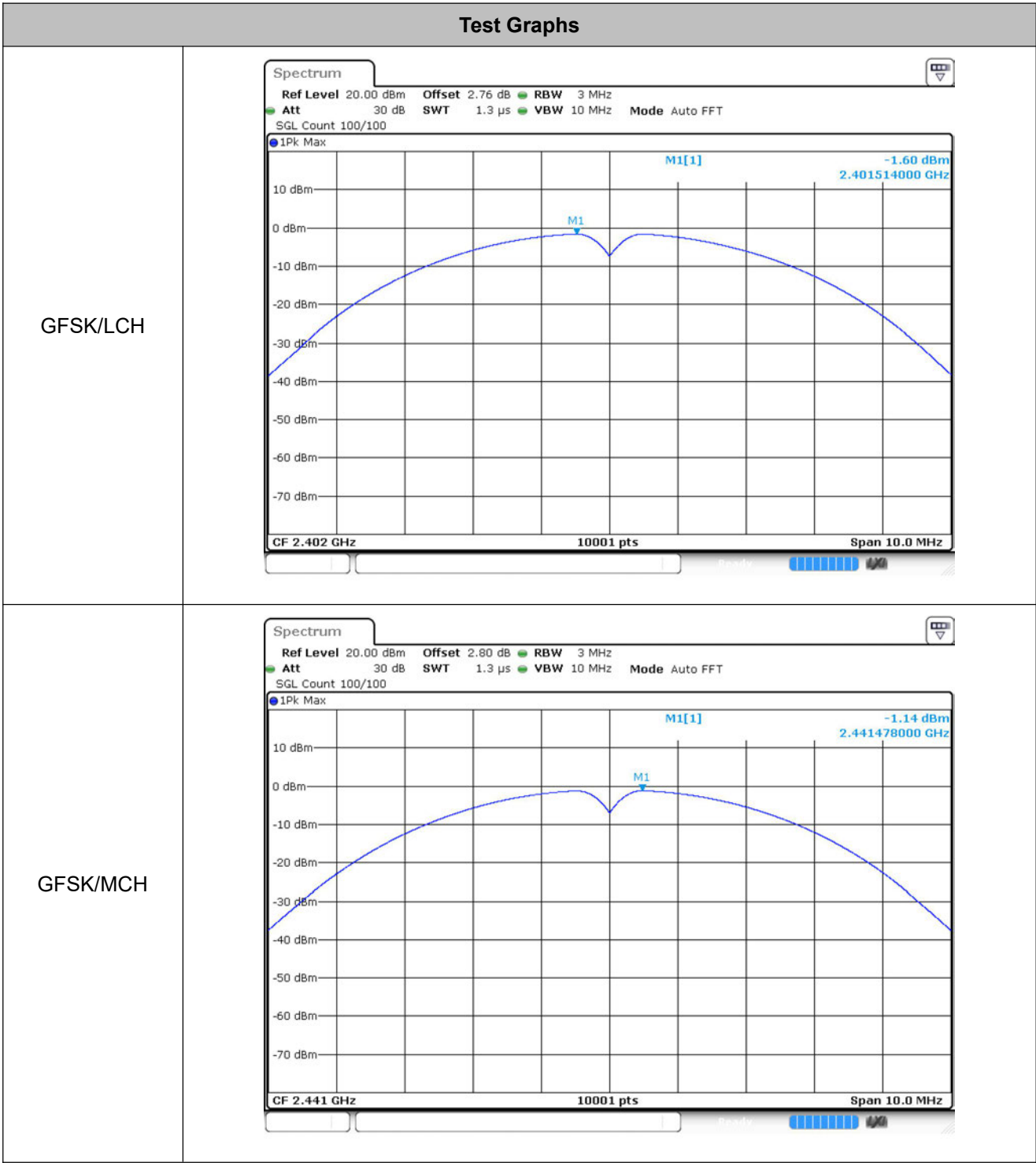


2 Maximum Conducted Peak Output Power

2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.6	≤ 21	Pass
	MCH	-1.14	≤ 21	Pass
	HCH	-1.5	≤ 21	Pass
$\pi/4$ DQPSK	LCH	-1.53	≤ 21	Pass
	MCH	-0.85	≤ 21	Pass
	HCH	-1.39	≤ 21	Pass
8DPSK	LCH	-1.59	≤ 21	Pass
	MCH	-1.16	≤ 21	Pass
	HCH	-1.58	≤ 21	Pass

2.2 Test Graphs



Spectrum

Ref Level 20.00 dBm Offset 2.81 dB RBW 3 MHz
 Att 30 dB SWT 1.3 μ s VBW 10 MHz Mode Auto FFT
 SGL Count 100/100

1Pk Max

M1[1] -1.50 dBm
 2.480078000 GHz

CF 2.48 GHz 10001 pts Span 10.0 MHz

Spectrum

Ref Level 20.00 dBm **Offset** 2.76 dB **RBW** 3 MHz **Mode** Auto FFT

Att 30 dB **SWT** 1.3 μ s **VBW** 10 MHz

SGL Count 100/100

1Pk Max

M1

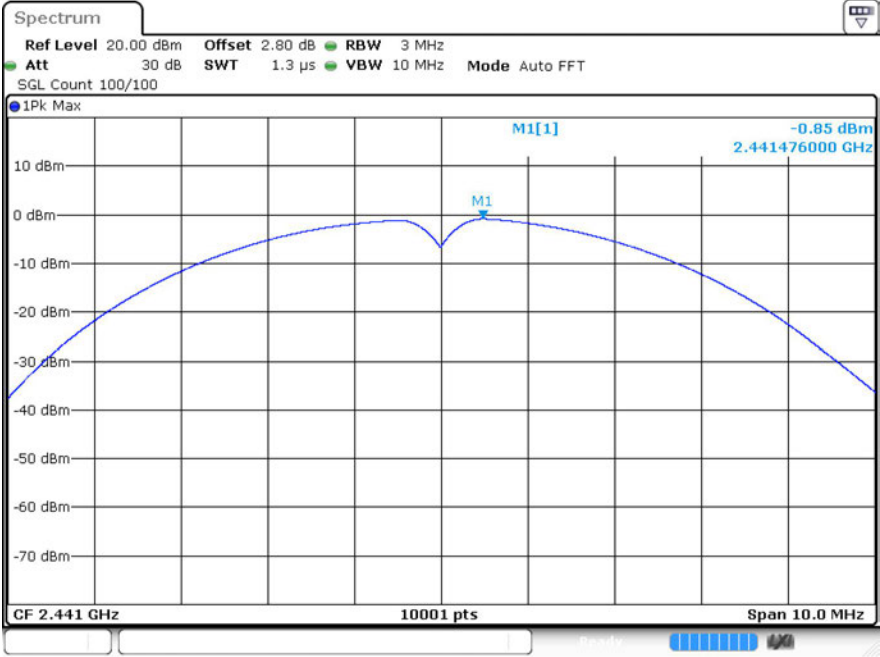
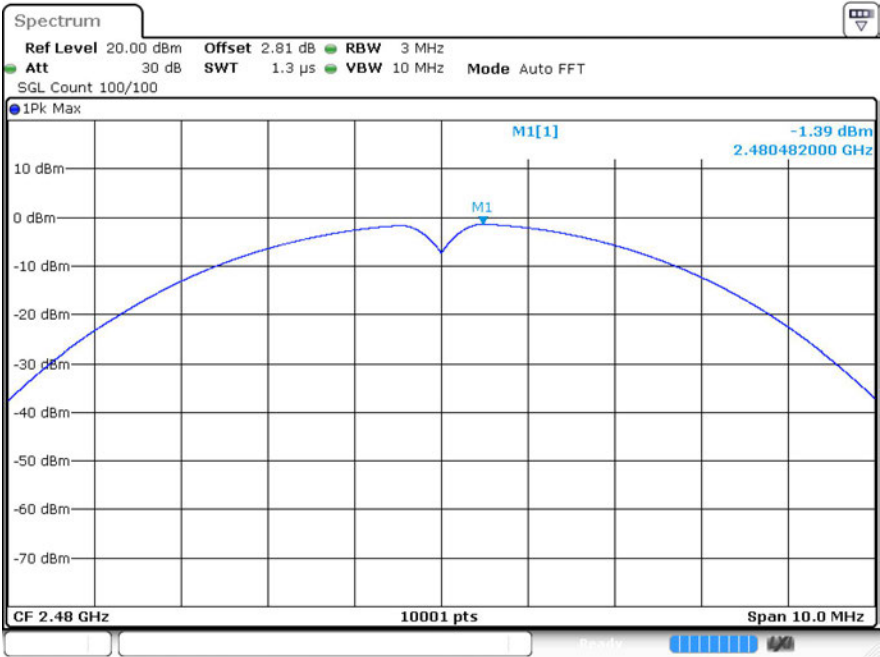
-1.53 dBm

2.401521000 GHz

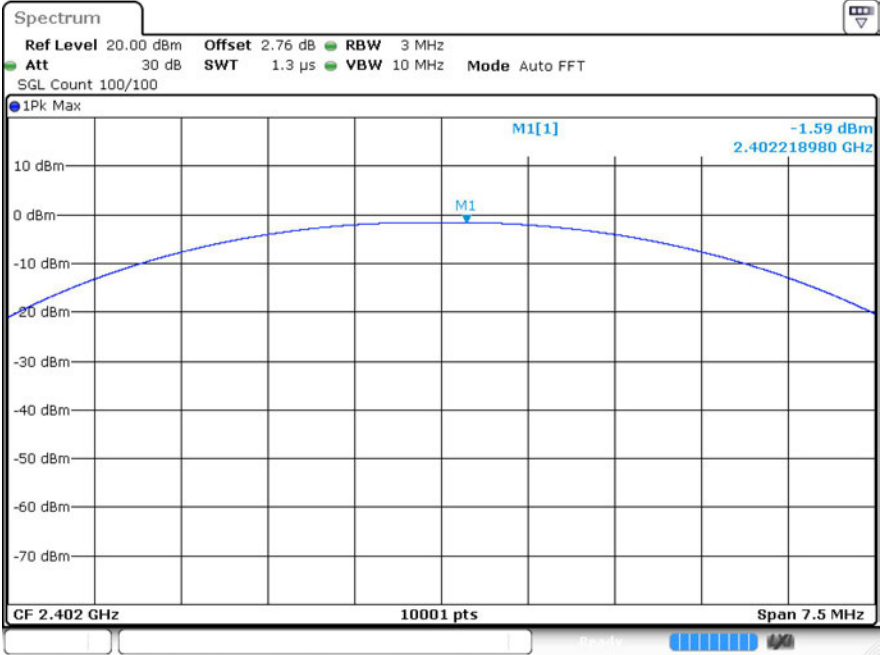
CF 2.402 GHz

10001 pts

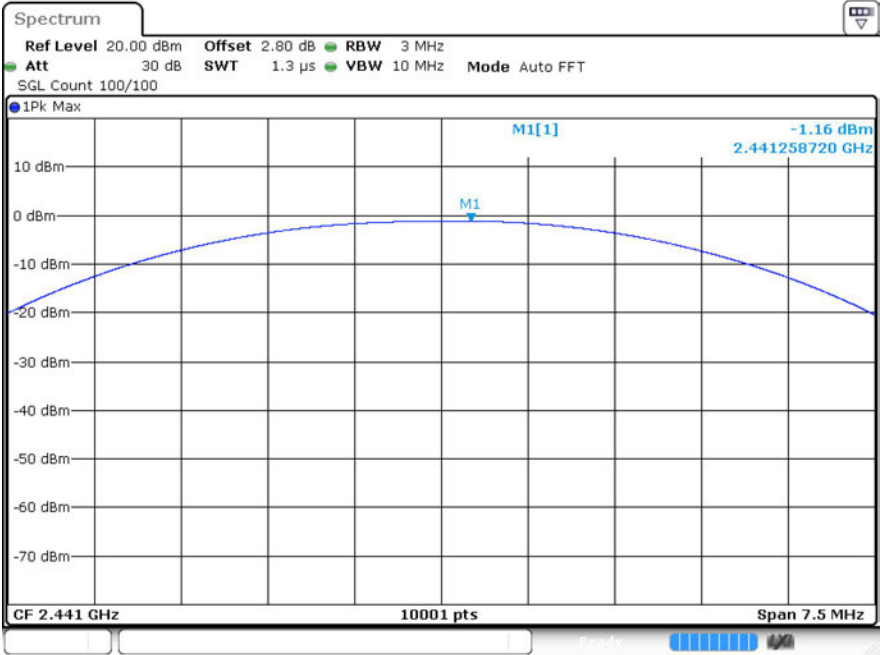
Span 10.0 MHz

$\pi/4$DQPSK/MC H	
$\pi/4$DQPSK/HCH	

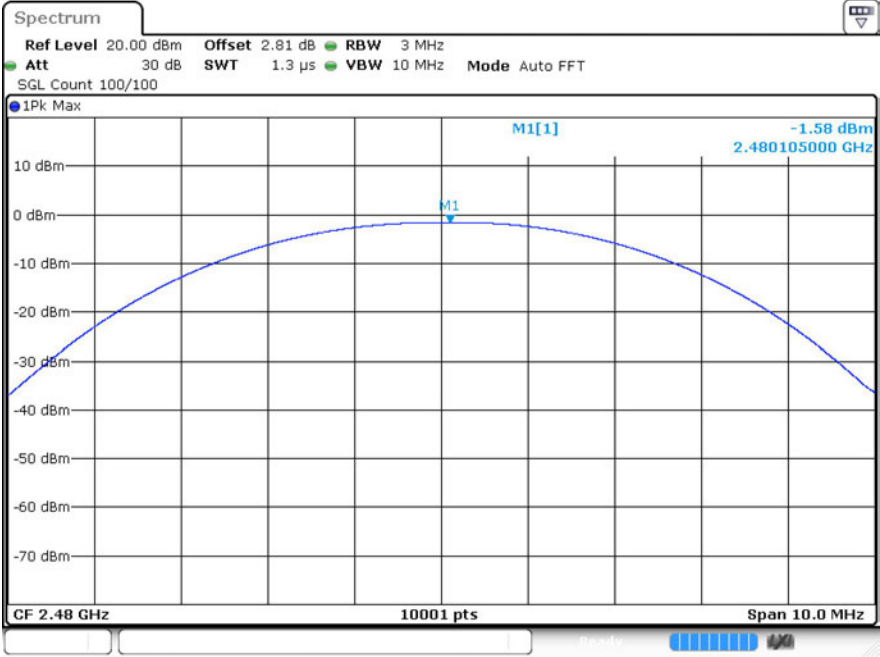
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

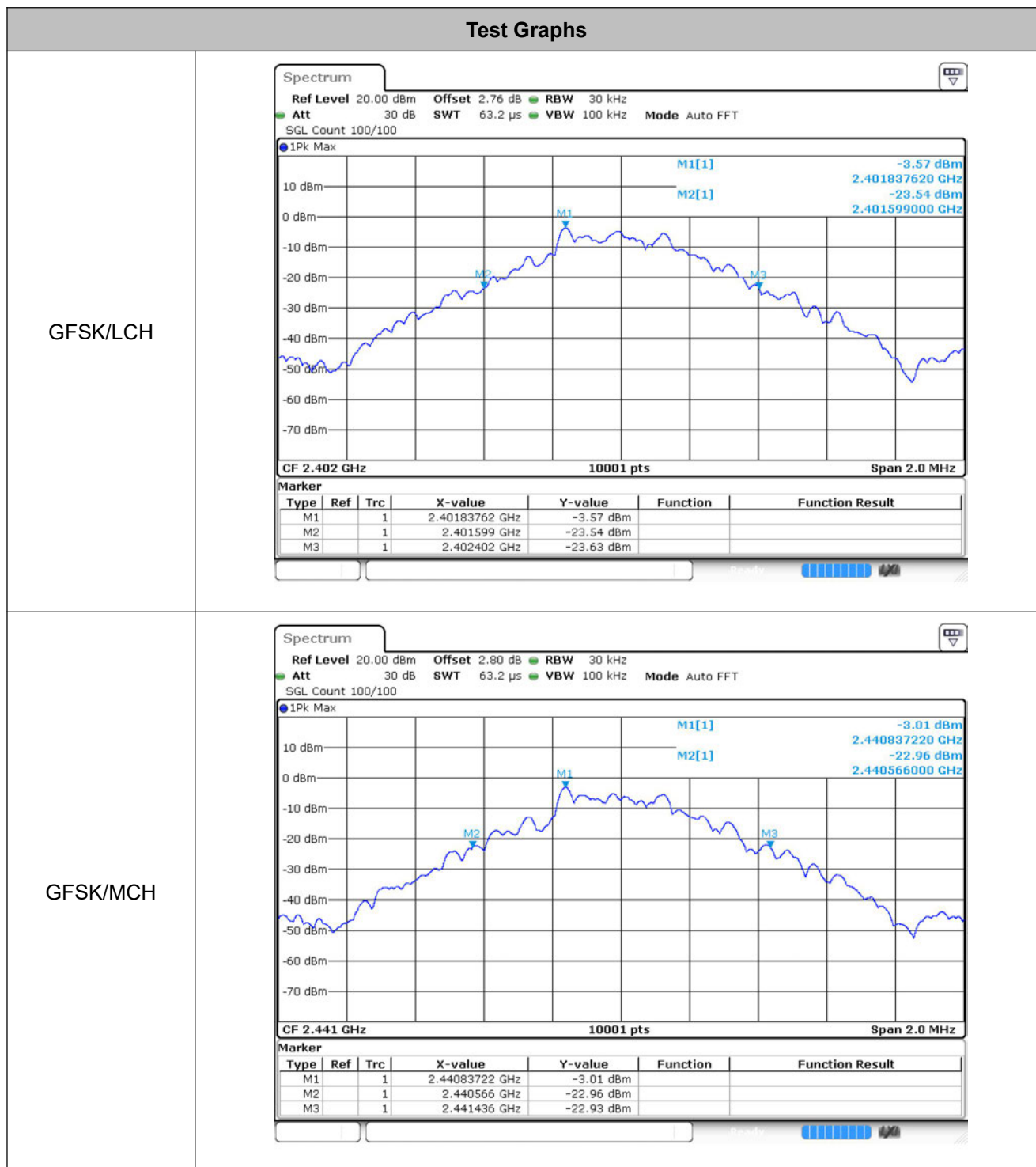


3 20dB Bandwidth

3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.803	Not Specified	Pass
	MCH	0.871	Not Specified	Pass
	HCH	0.942	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.239	Not Specified	Pass
	MCH	1.216	Not Specified	Pass
	HCH	1.239	Not Specified	Pass
8DPSK	LCH	1.027	Not Specified	Pass
	MCH	1.02	Not Specified	Pass
	HCH	1.028	Not Specified	Pass

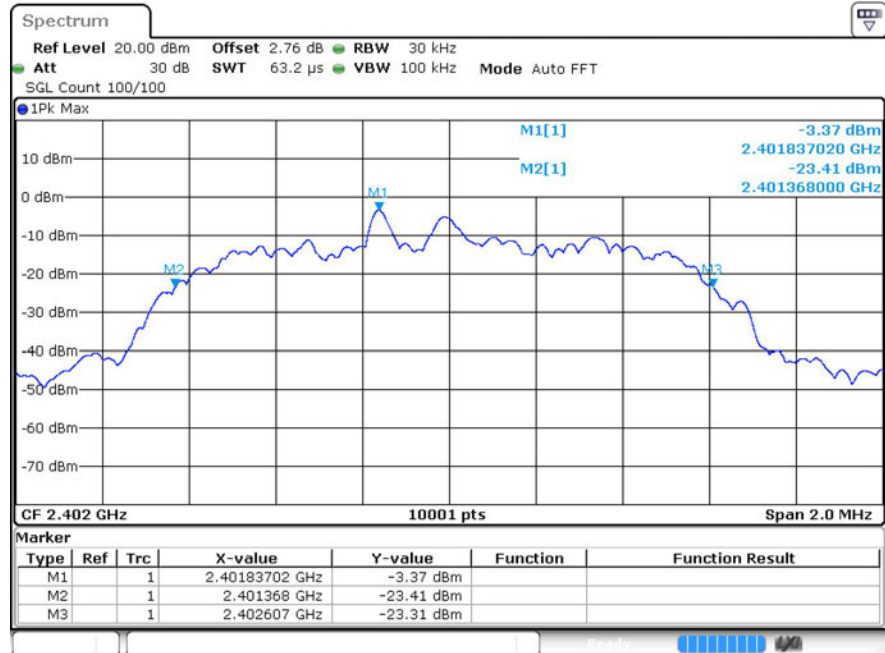
3.2 Test Graphs



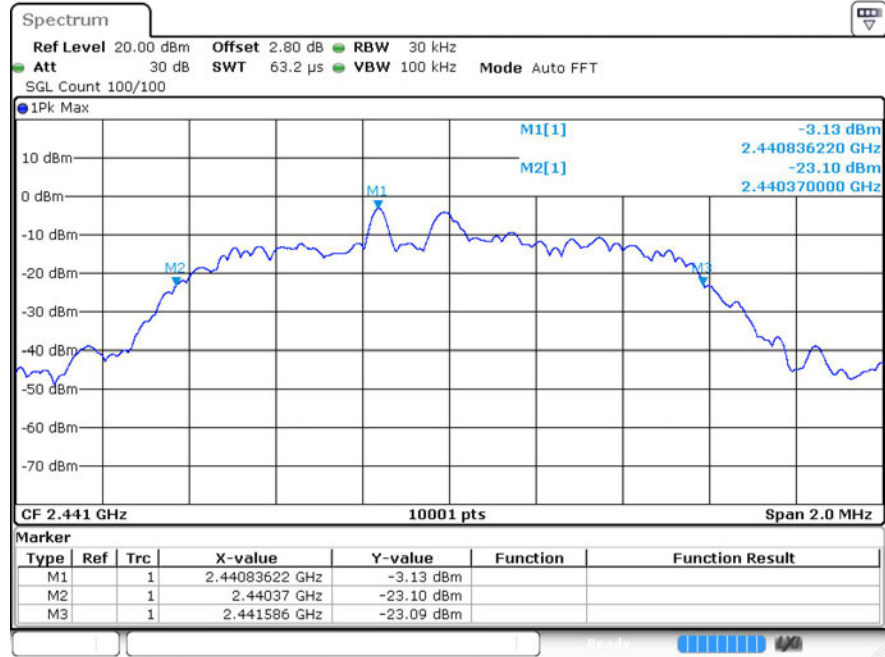
GFSK/HCH



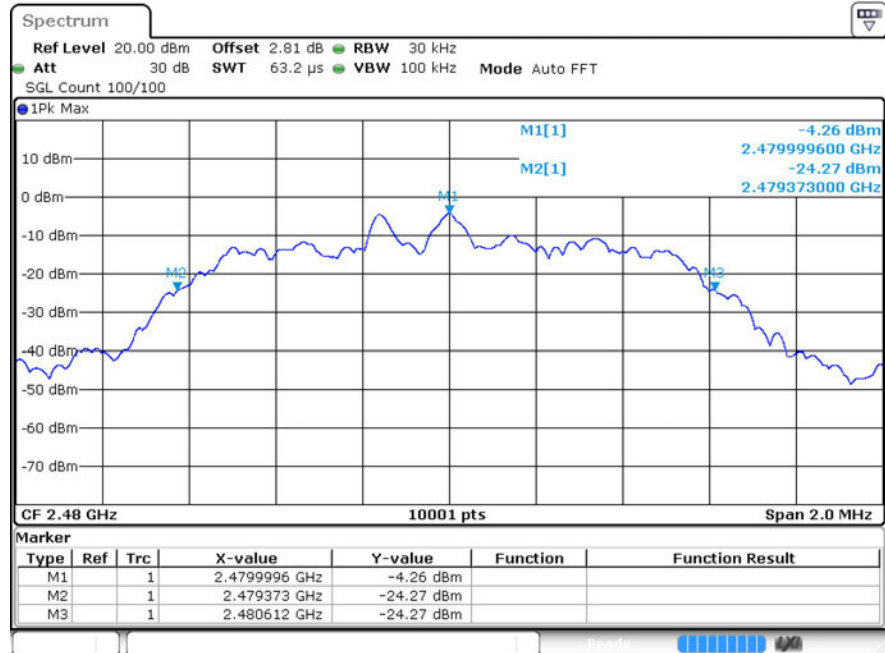
π /4DQPSK/LCH



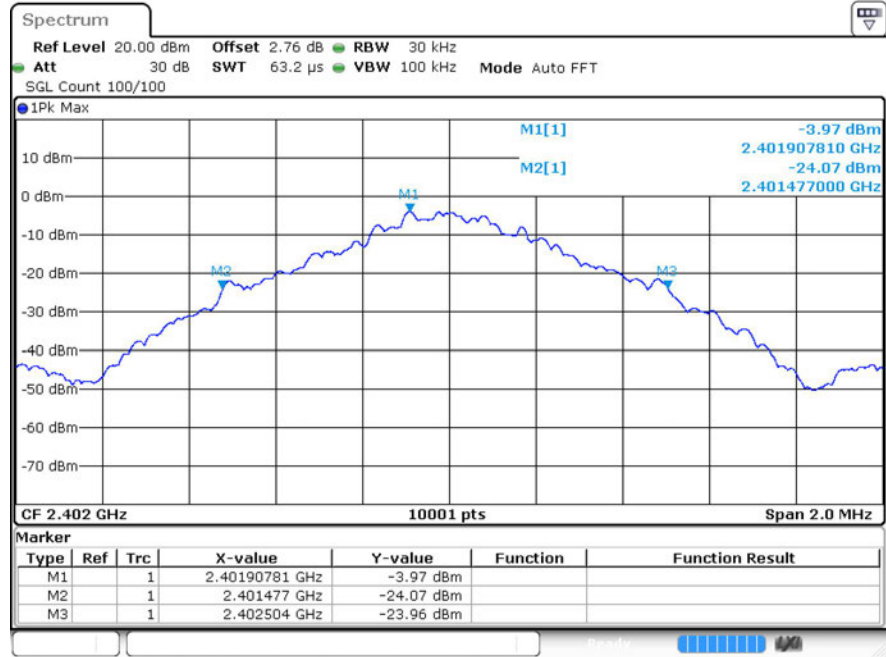
$\pi/4$ DQPSK/MCH



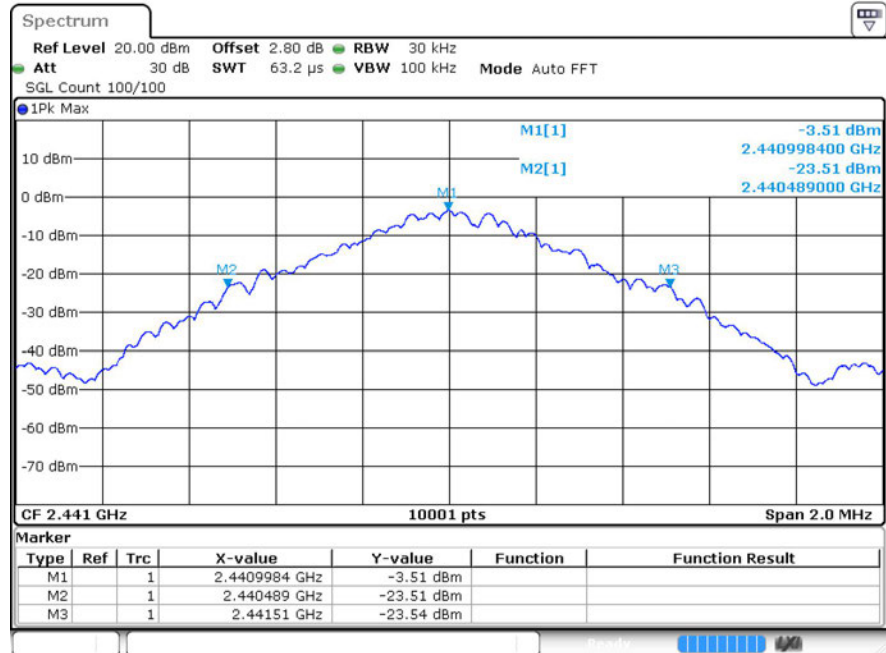
$\pi/4$ DQPSK/HCH



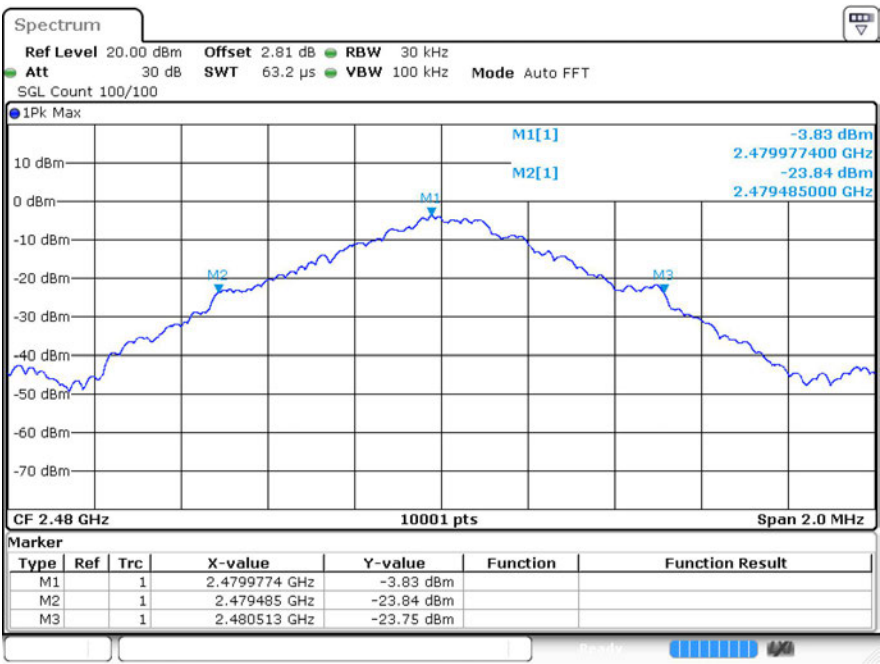
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH



4 Carrier Frequency Separation

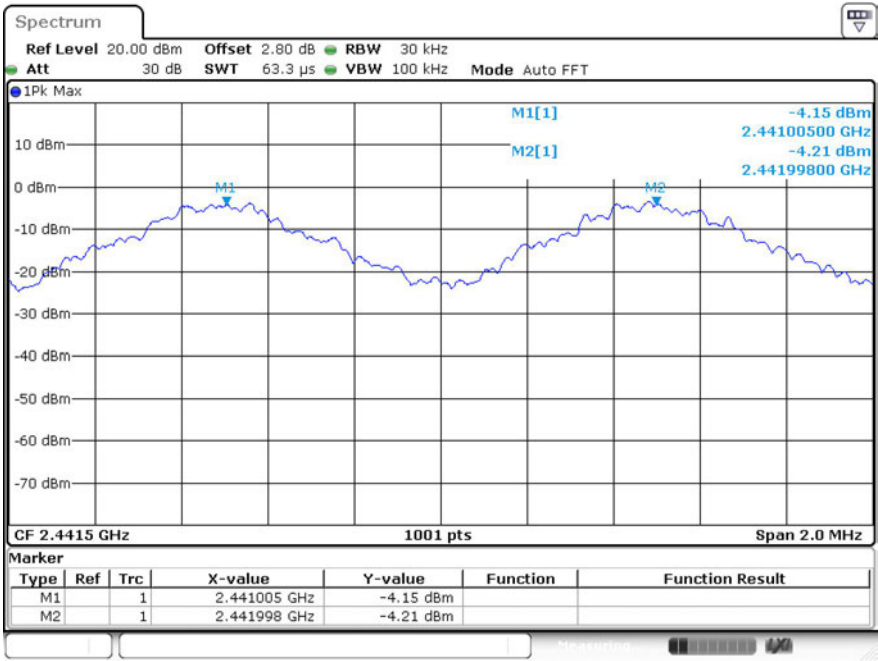
4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.022	0.581	Pass
$\pi/4$ DQPSK	MCH	1.007	0.811	Pass
8DPSK	MCH	0.993	0.68	Pass

4.2 Test Graphs



8DPSK/MCH

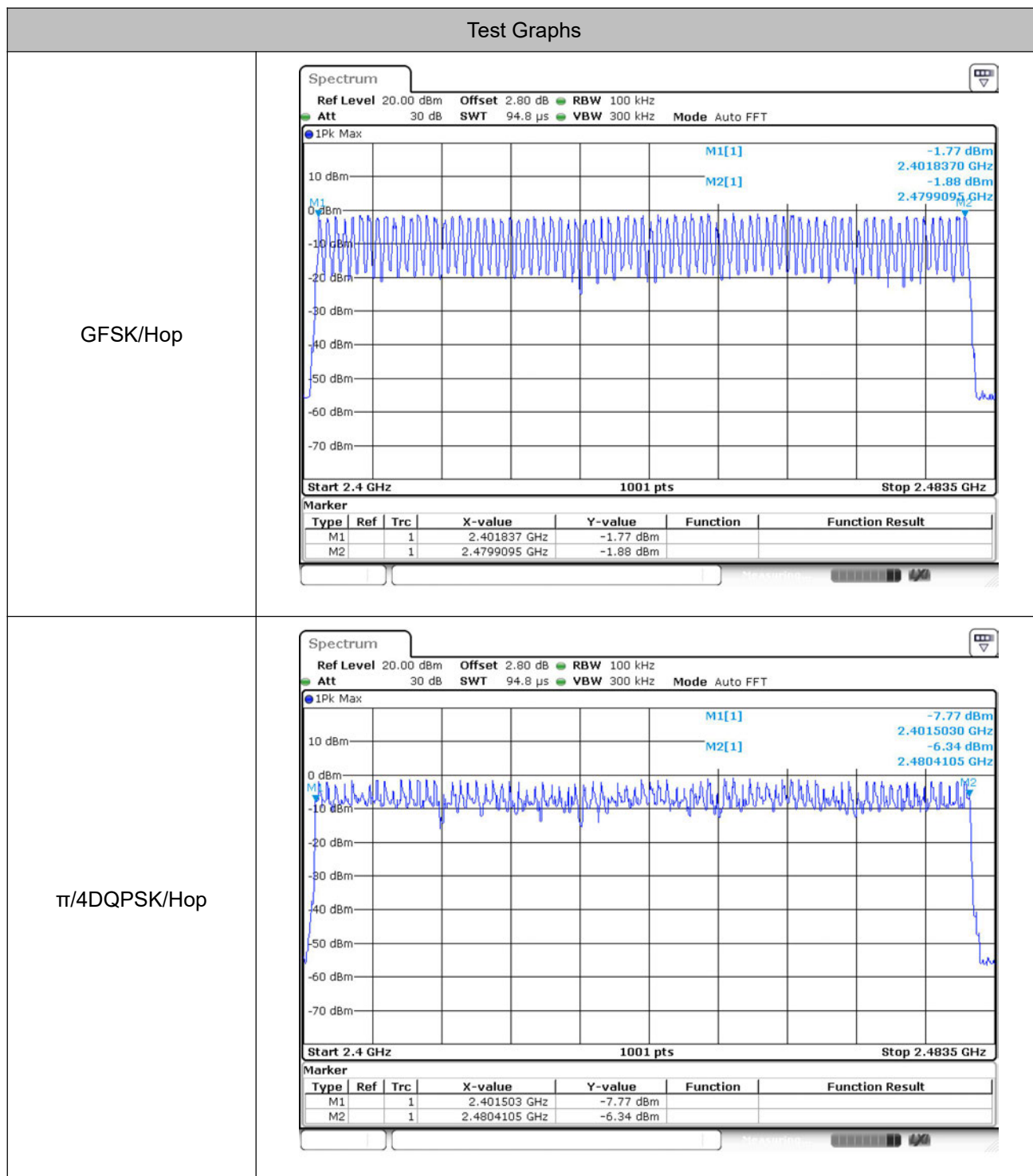


5 Hopping Channel Number

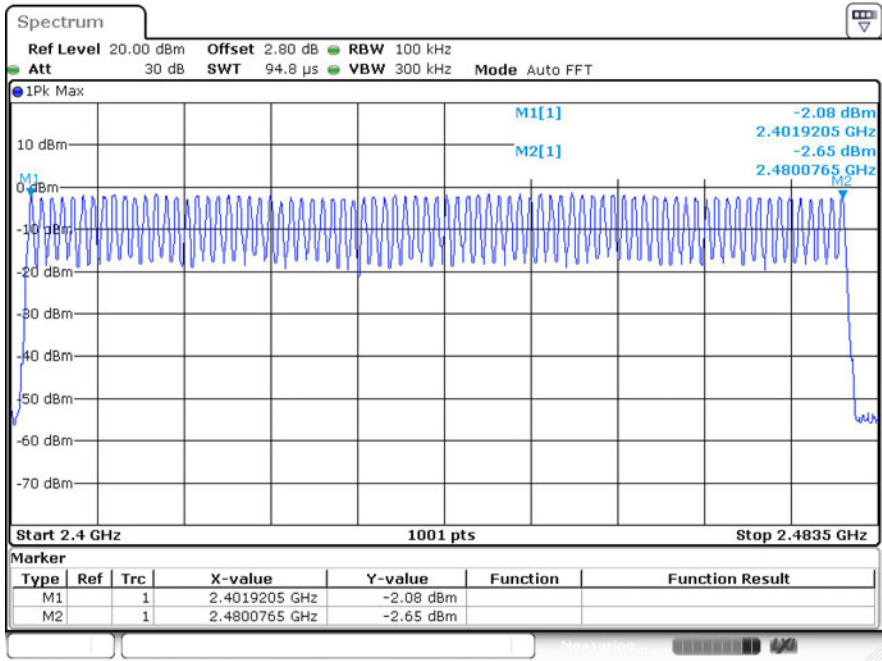
5.1 Test Result

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

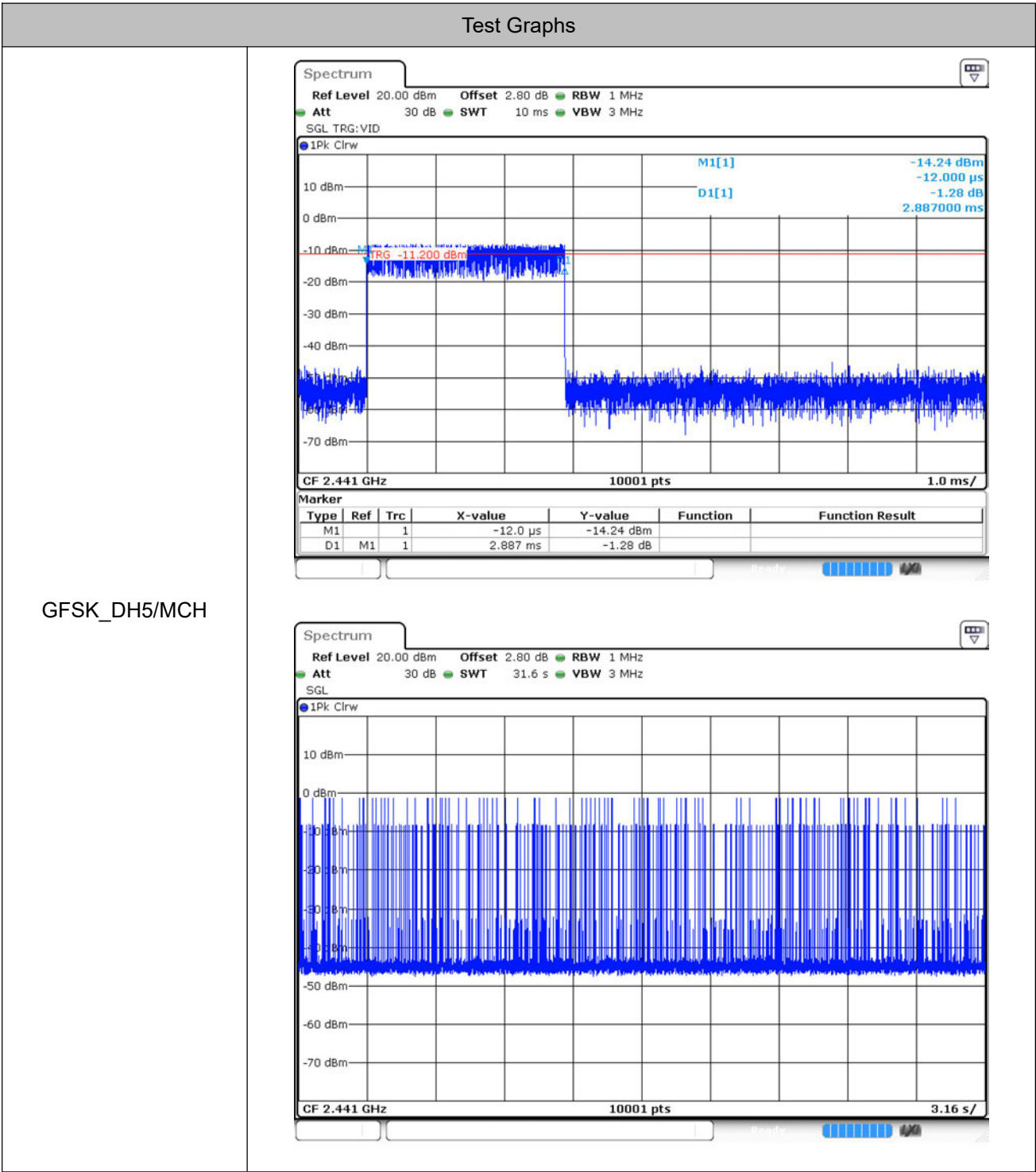


6 Dwell Time

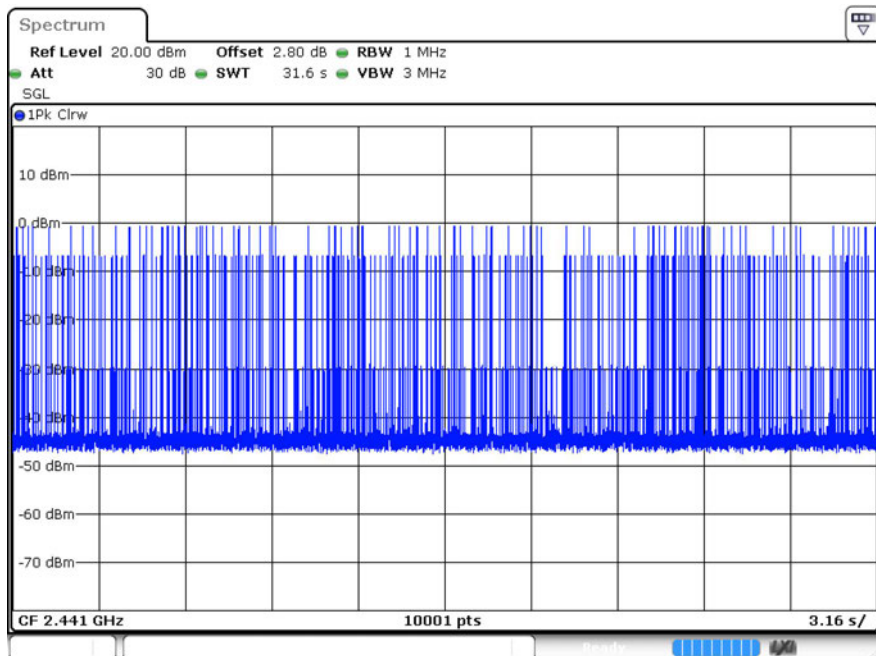
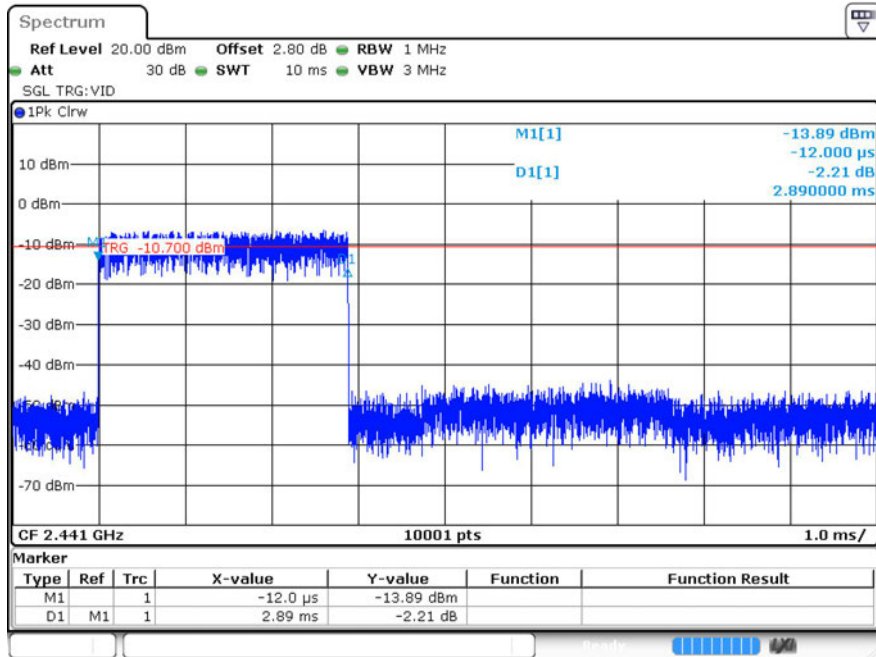
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.887	97	280.039	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.89	99	286.11	0.4	Pass
8DPSK	3DH5	MCH	0.895	117	104.715	0.4	Pass

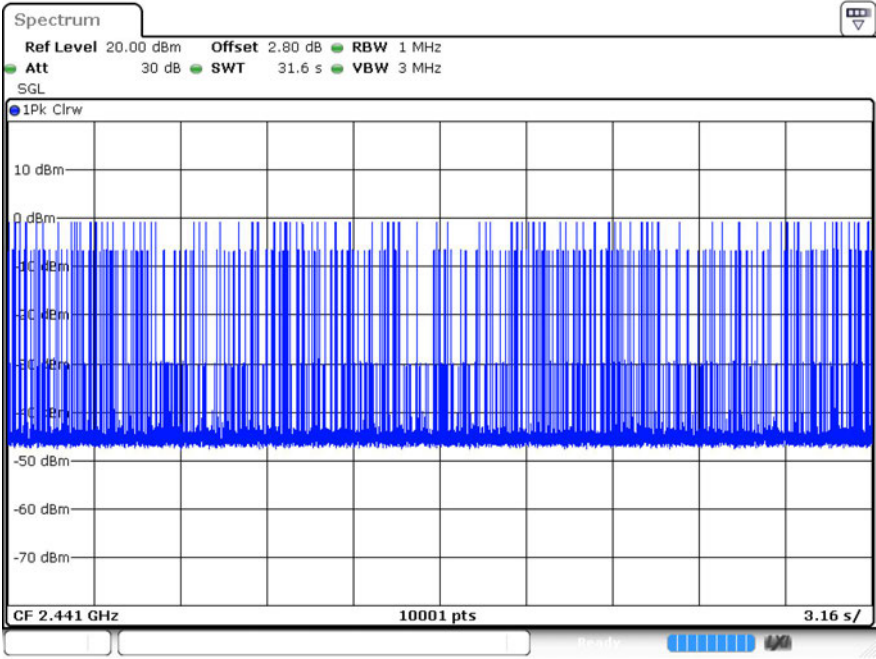
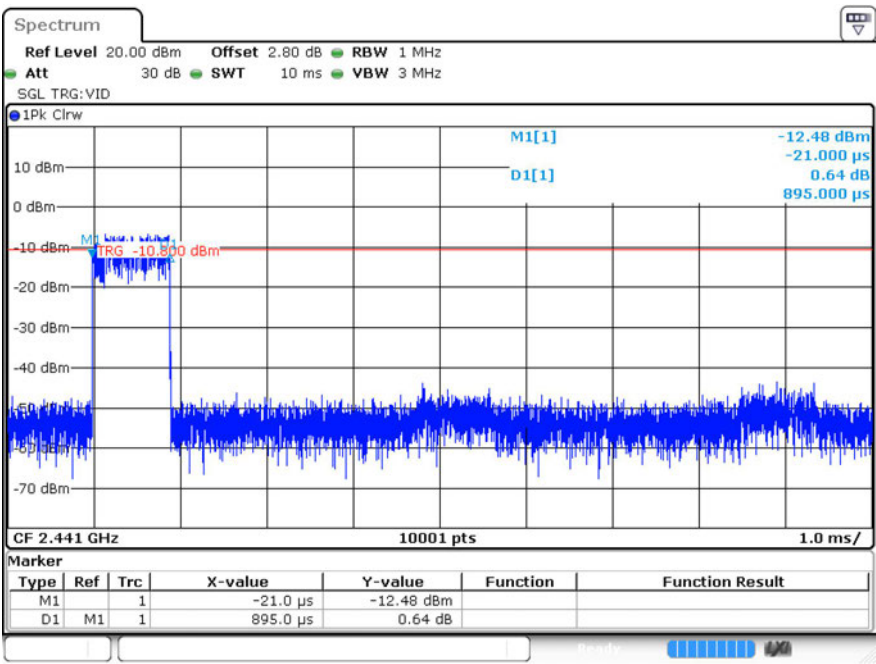
6.2 Test Graphs



$\pi/4$ DQPSK
_2DH5/MCH



8DPSK_3DH5/MCH



7 RF Conducted Spurious Emissions

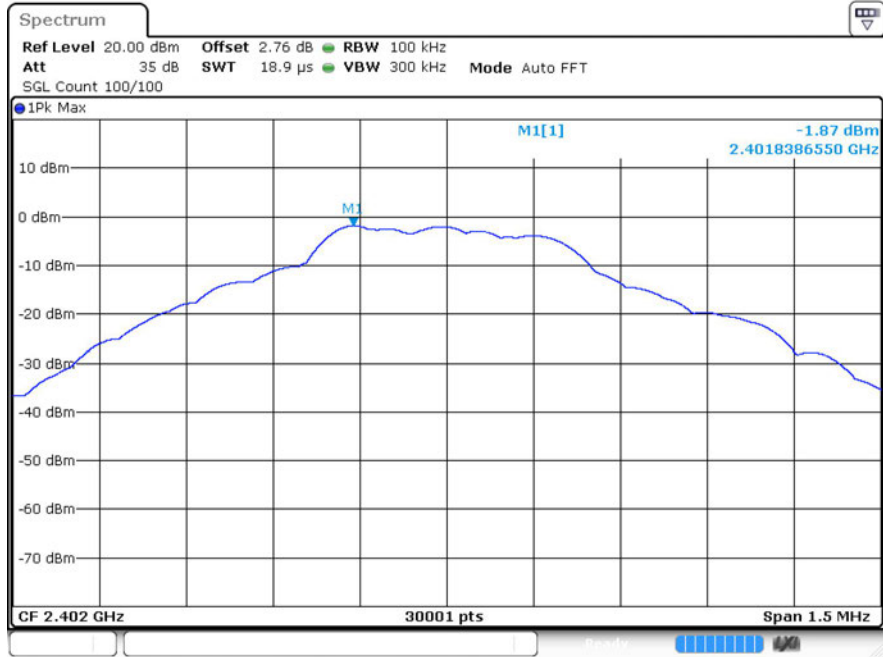
7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-39.09	-20	Pass
	MCH	-40.16	-20	Pass
	HCH	-38.76	-20	Pass
$\pi/4$ DQPSK	LCH	-39.19	-20	Pass
	MCH	-39.96	-20	Pass
	HCH	-38.25	-20	Pass
8DPSK	LCH	-38.63	-20	Pass
	MCH	-38.56	-20	Pass
	HCH	-38.85	-20	Pass

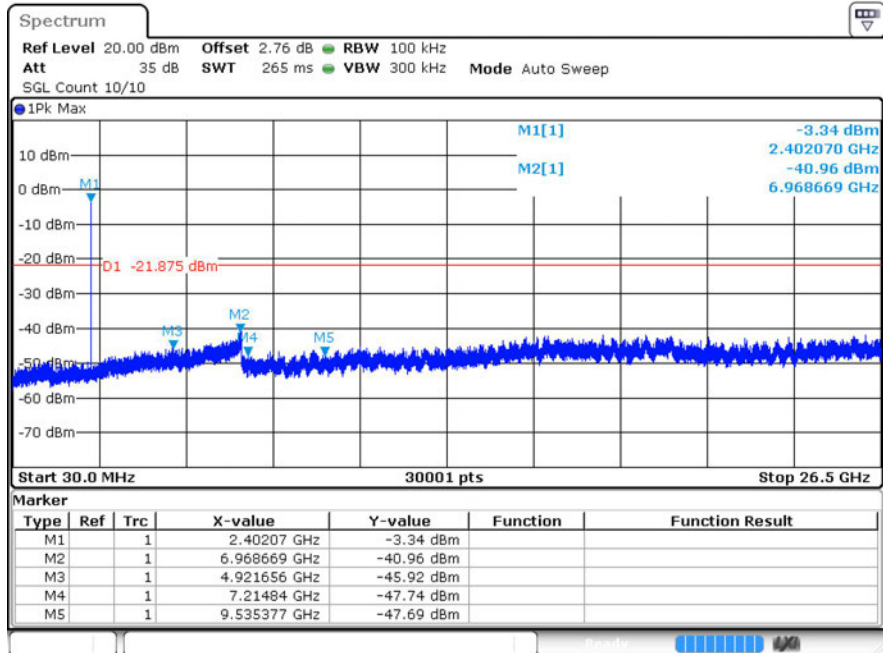
7.2 Test Graphs

GFSK_LCH_Graphs

Pref

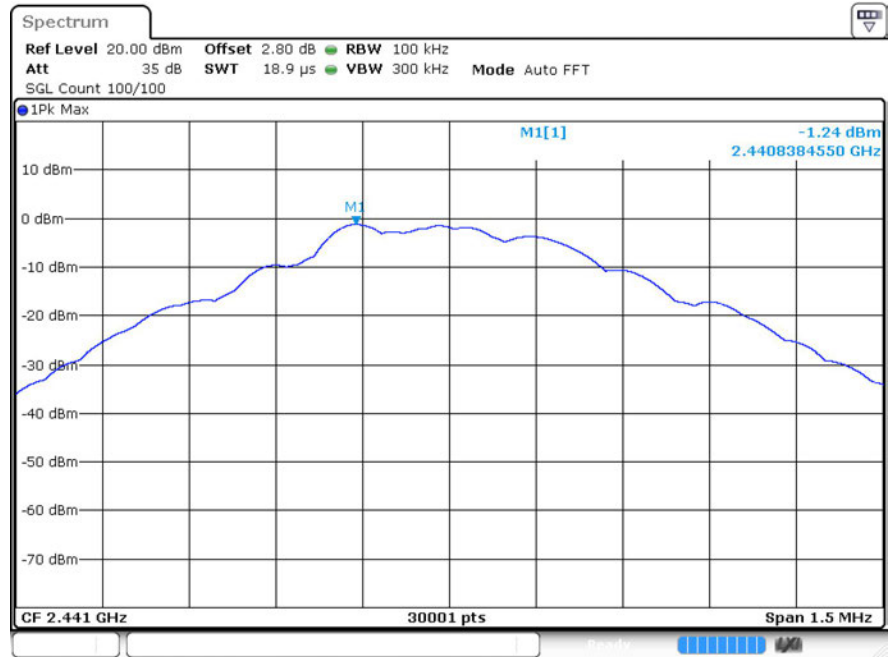


Puw

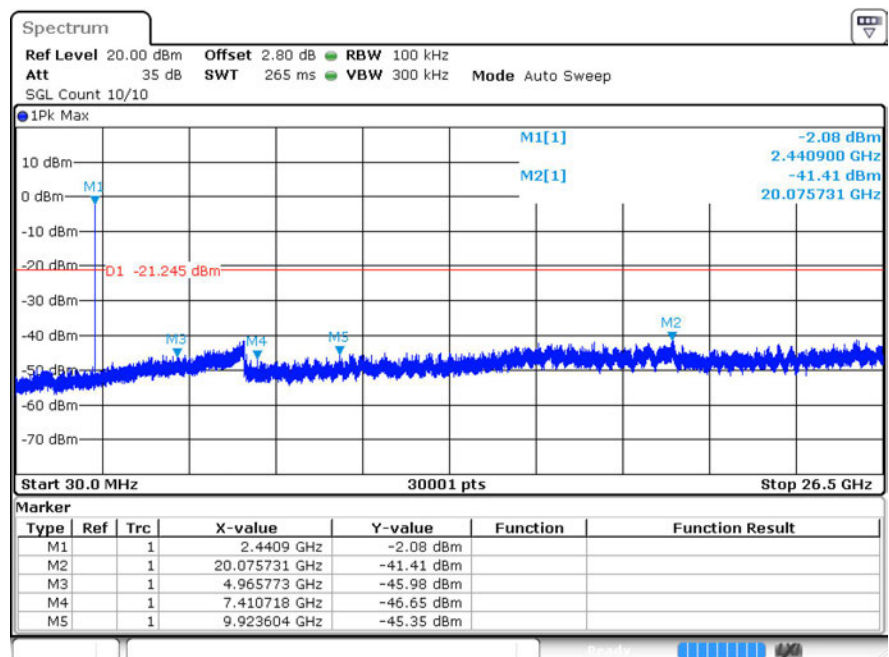


GFSK_MCH_Graphs

Pref

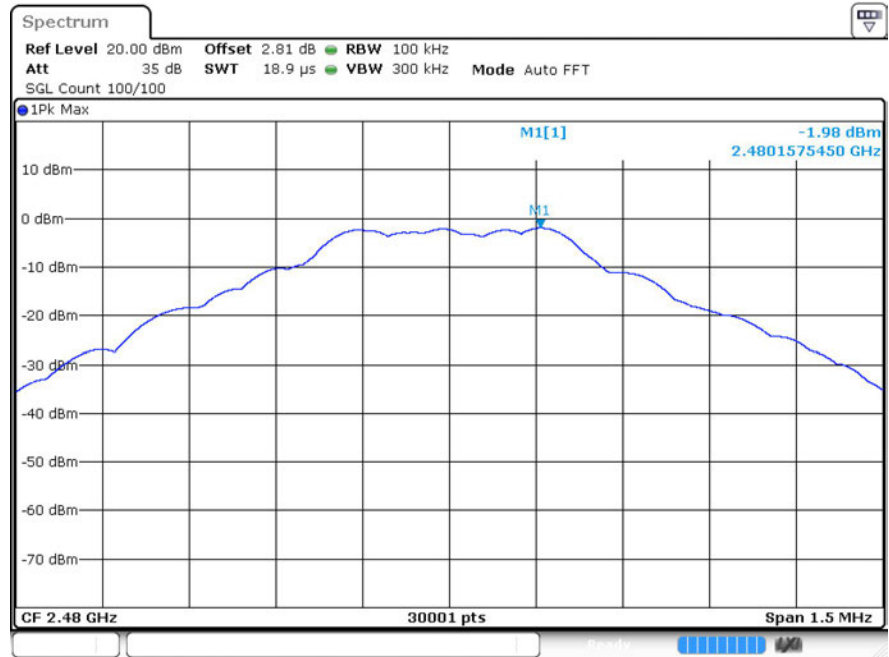


Puw

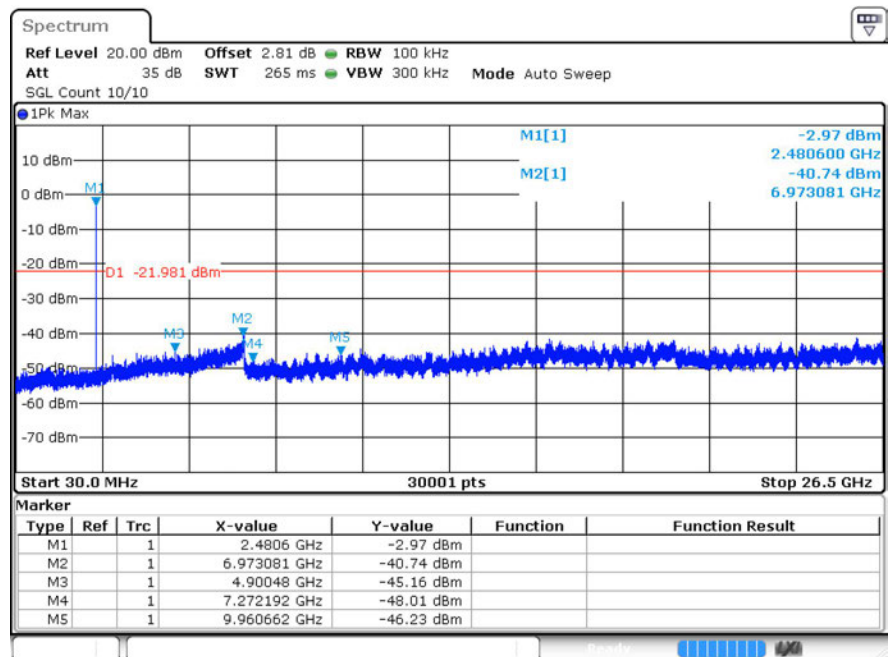


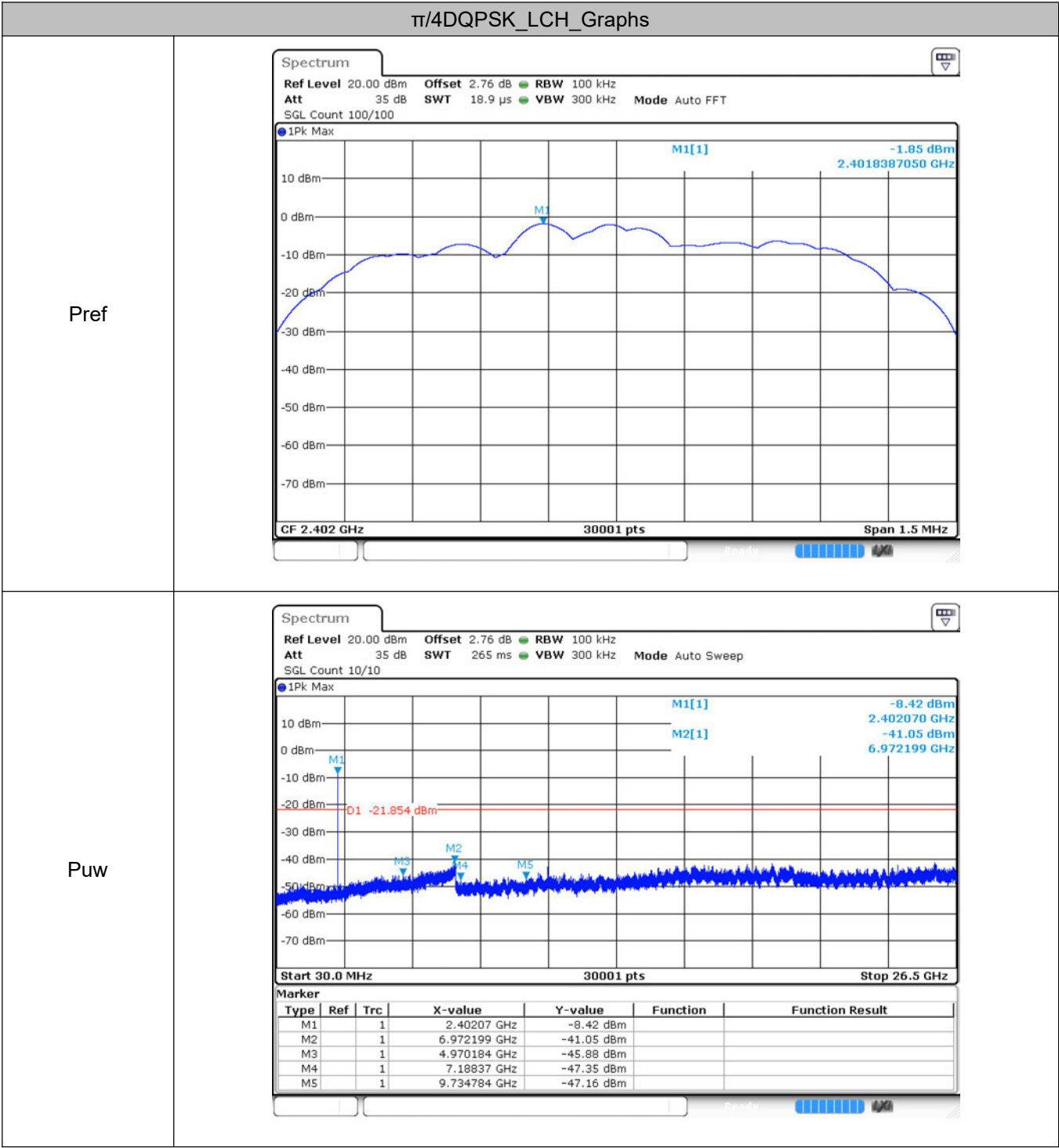
GFSK_HCH_Graphs

Pref



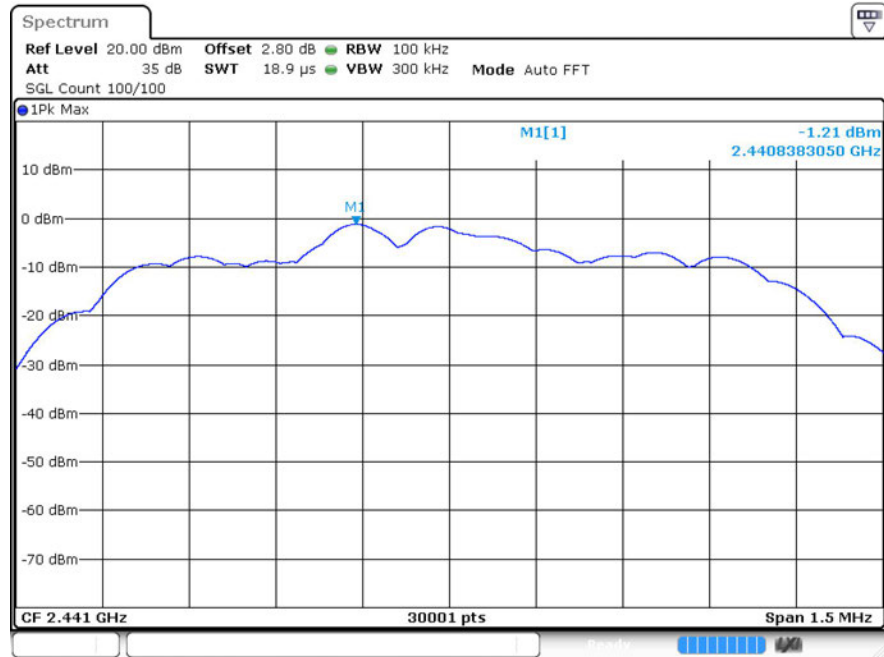
Puw



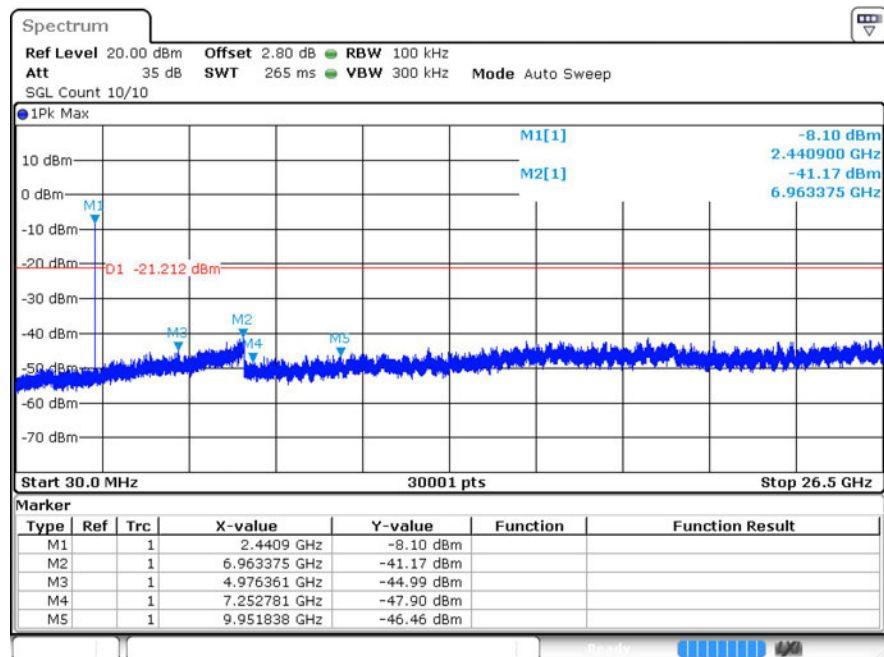


π /4DQPSK_MCH_Graphs

Pref

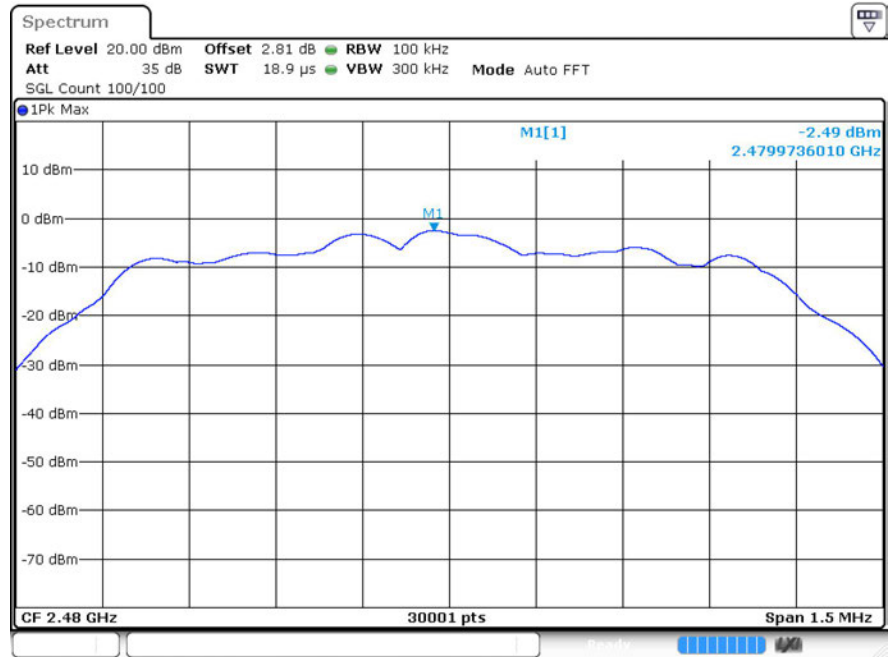


Puw

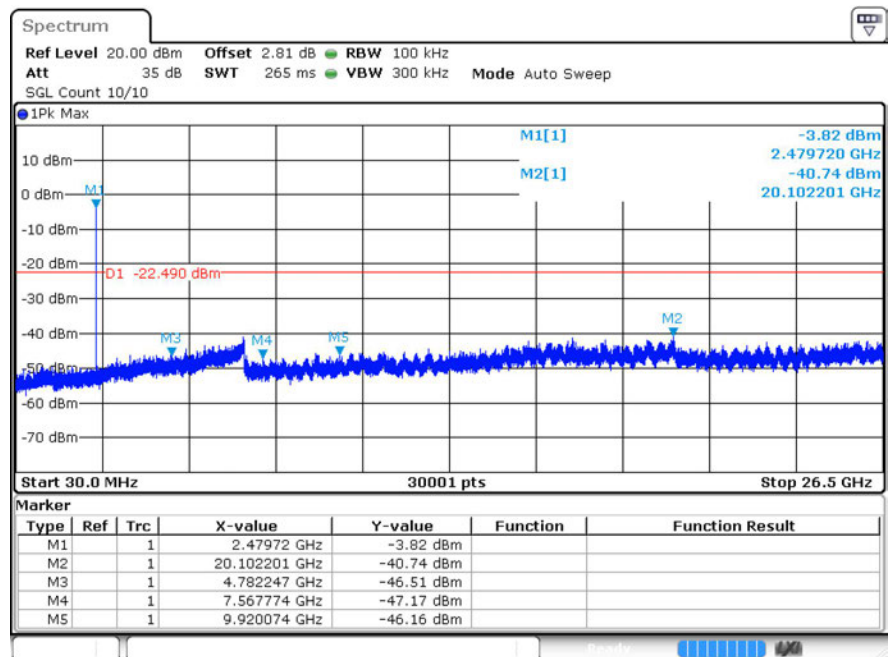


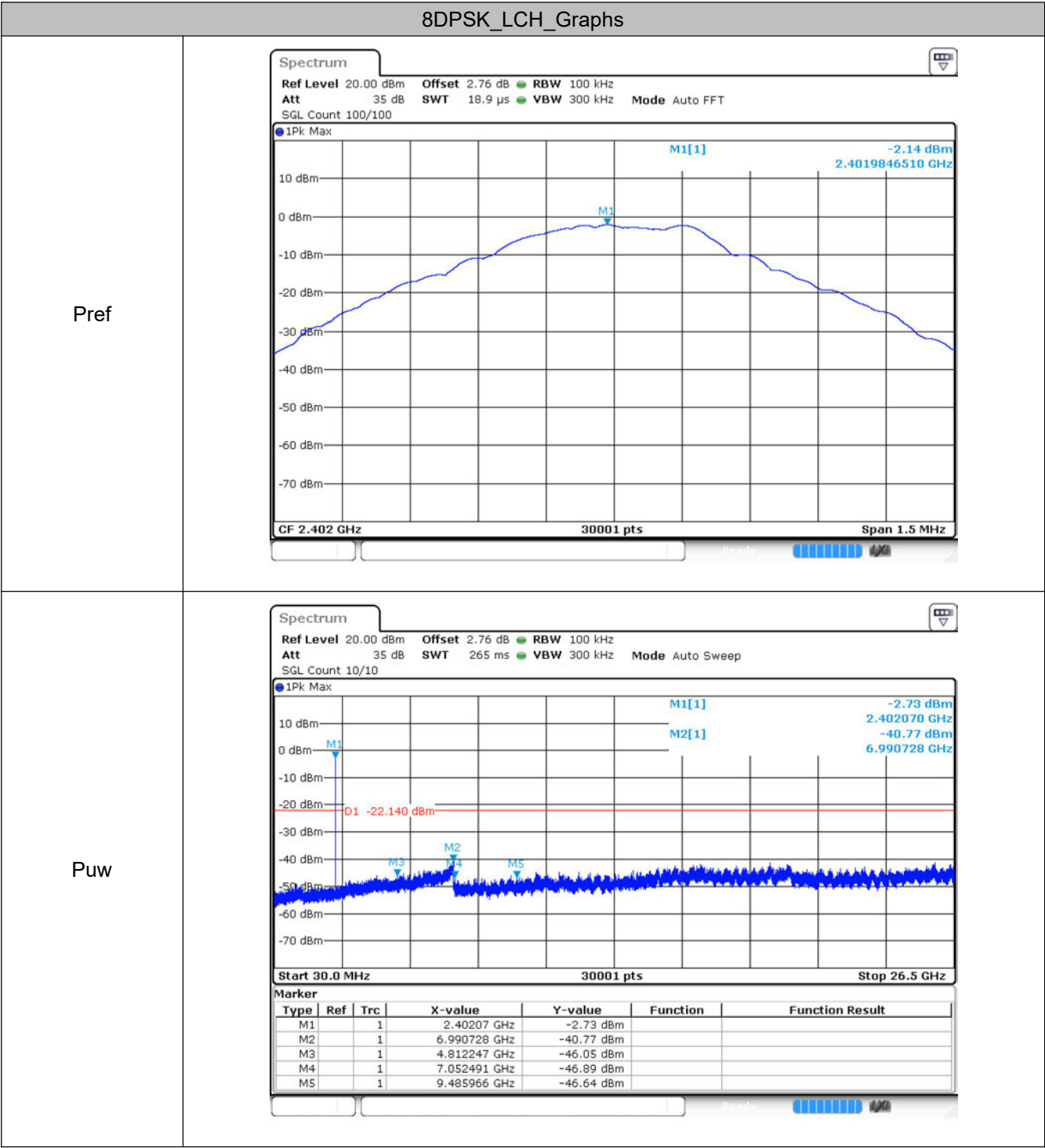
π /4DQPSK_HCH_Graphs

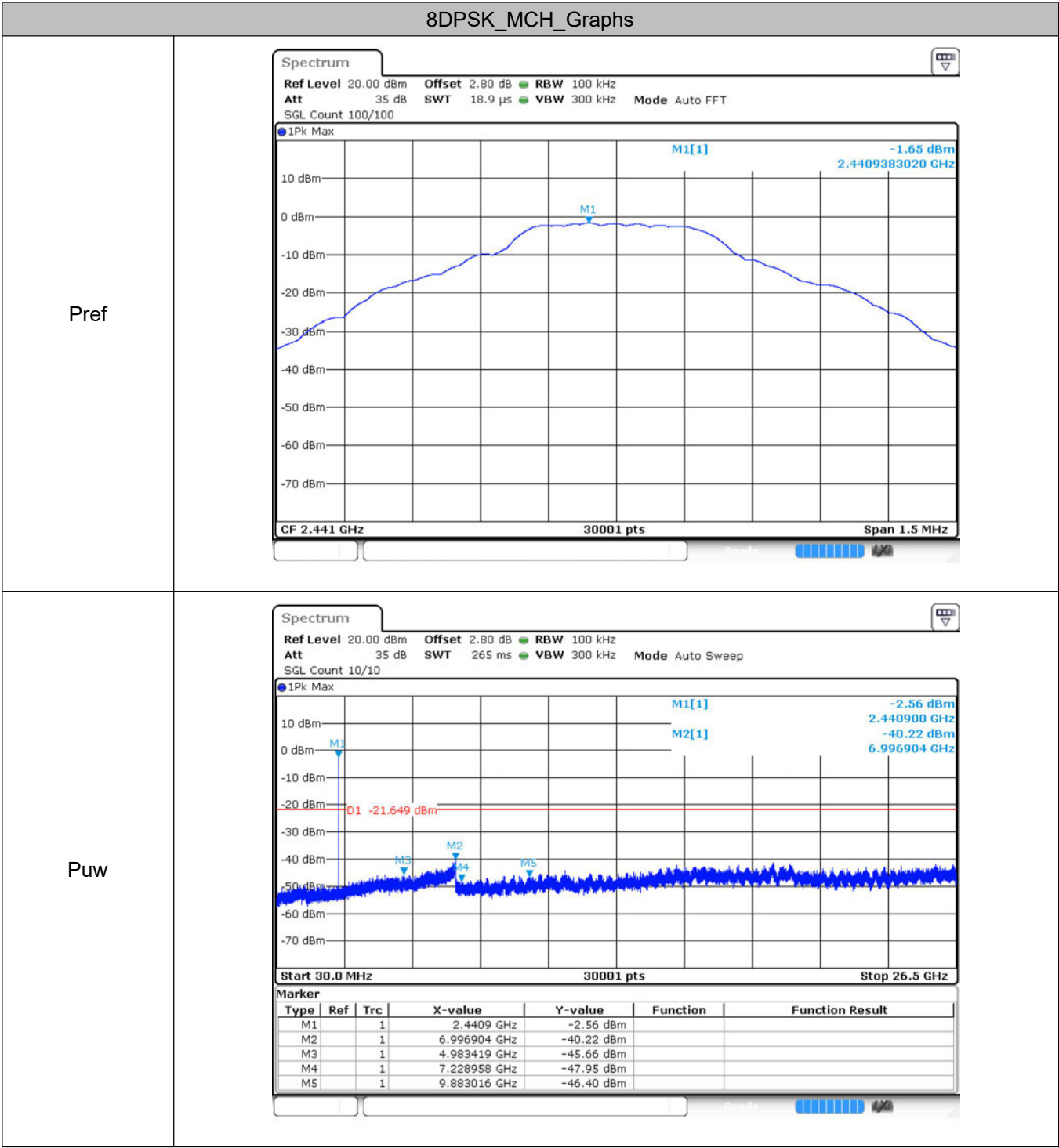
Pref

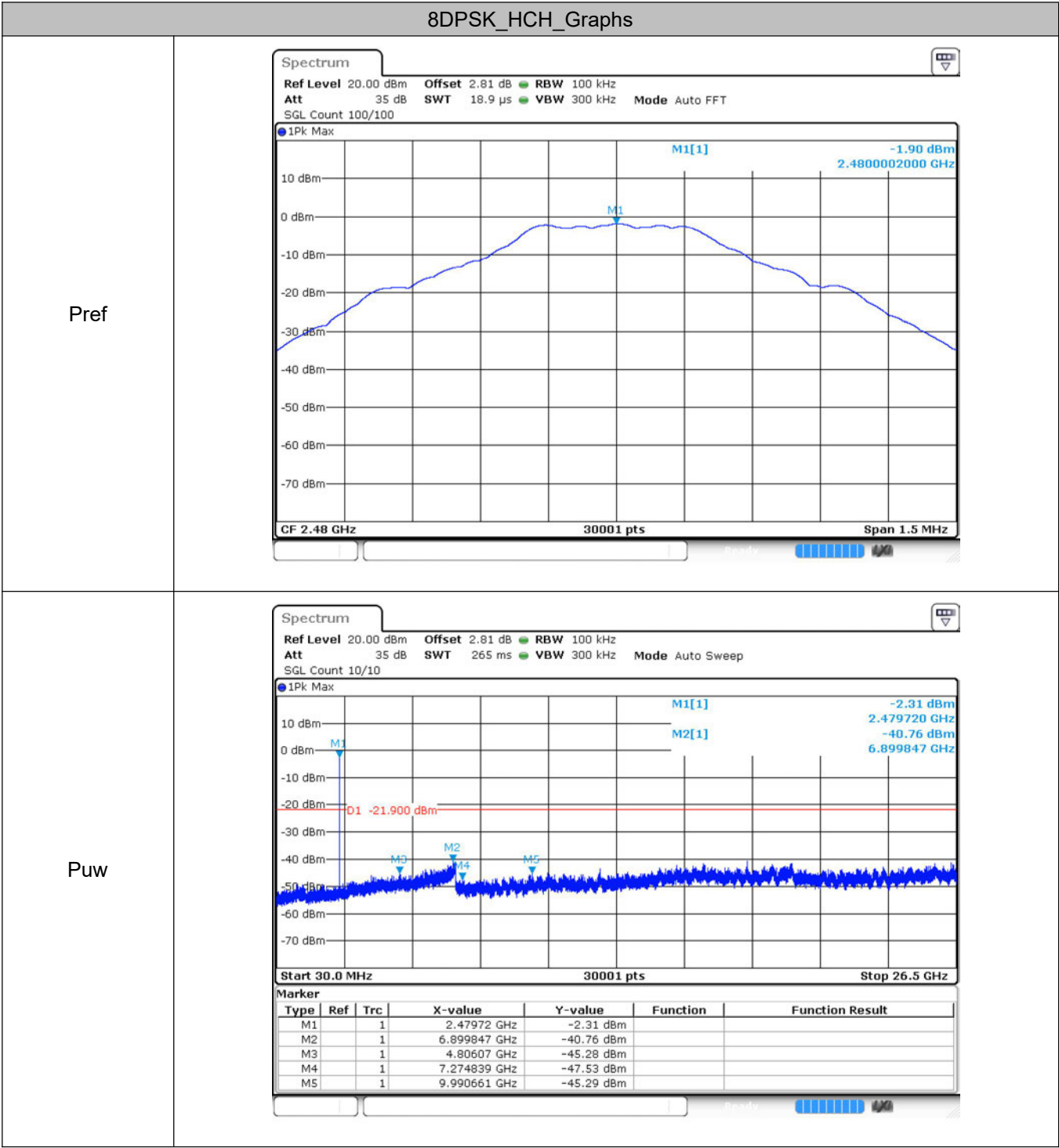


Puw







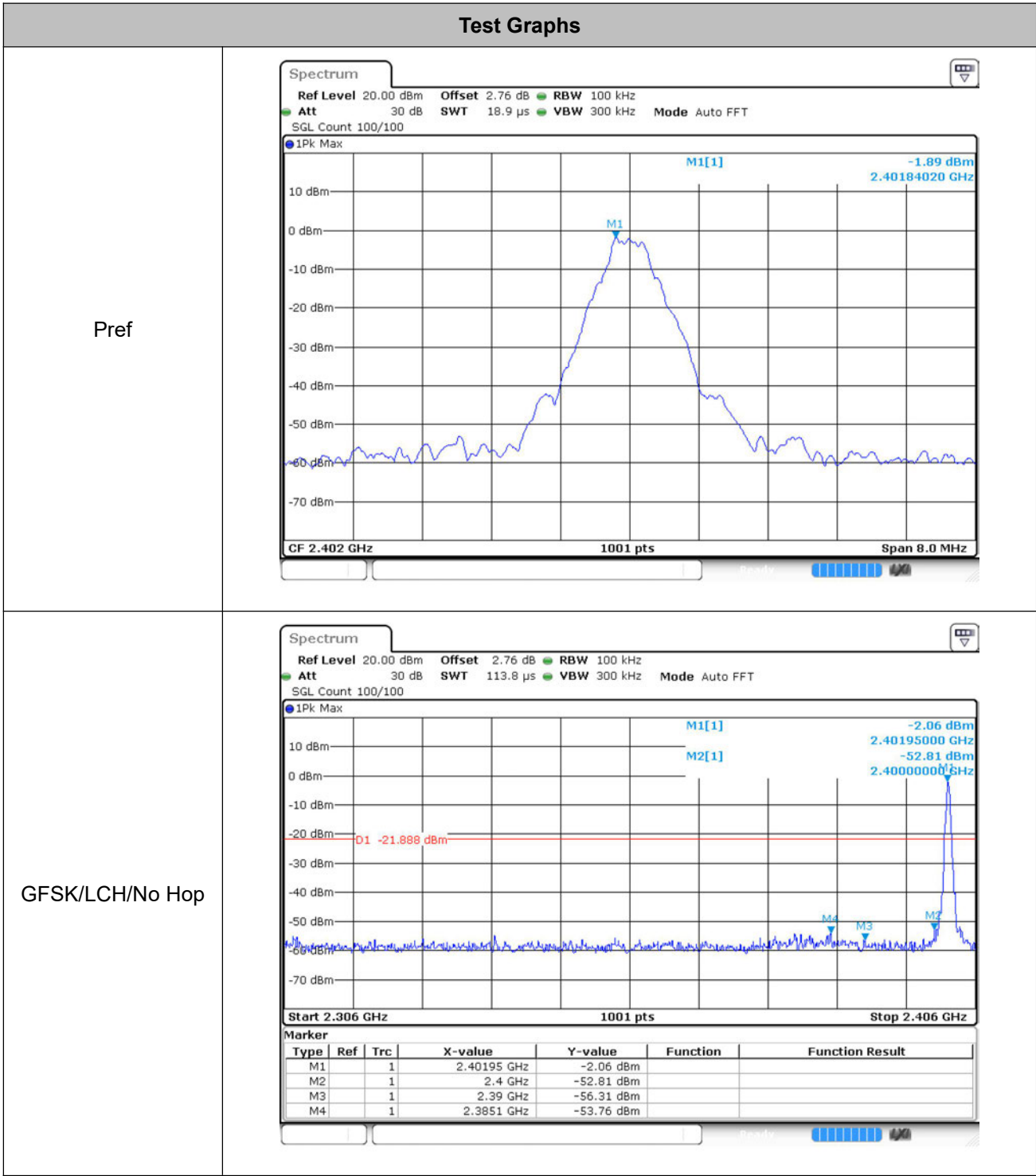


8 Band-edge for RF Conducted Emissions

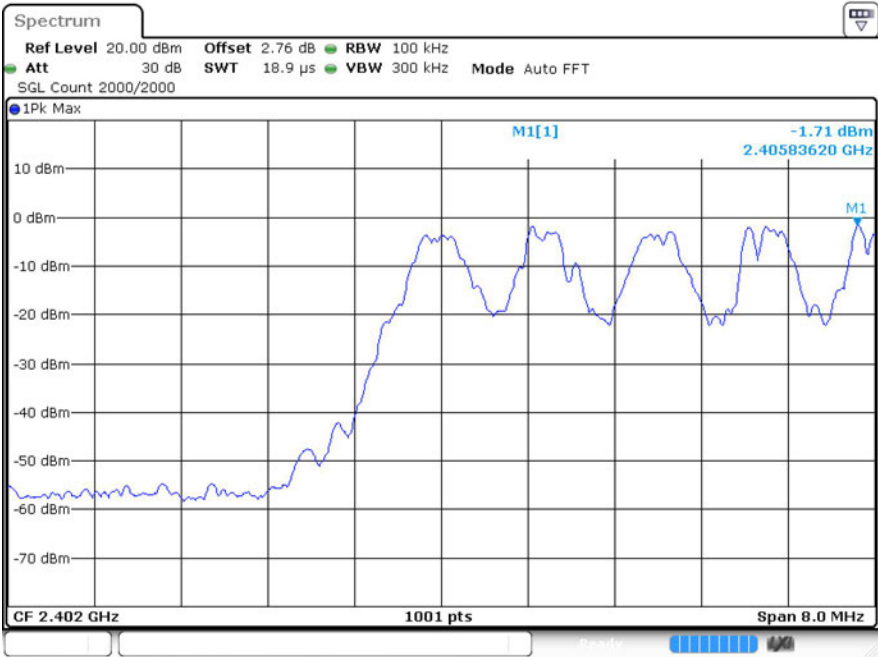
8.1 Test Result

Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-51.86	-20	Pass
			On	-51.95	-20	Pass
	HCH	2480	Off	-53.36	-20	Pass
			On	-51.02	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-51.98	-20	Pass
			On	-51.2	-20	Pass
	HCH	2480	Off	-52.95	-20	Pass
			On	-51.57	-20	Pass
8DPSK	LCH	2402	Off	-51.08	-20	Pass
			On	-51.45	-20	Pass
	HCH	2480	Off	-51.59	-20	Pass
			On	-50.46	-20	Pass

8.2 Test Graphs



Ref



GFSK/LCH/Hop

