



Appendix A

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

Product Name: Car Bluetooth Transmitter

Trade Mark: N/A

Test Model: P18

Environmental Conditions

Temperature:	25.7℃
Relative Humidity:	53.5%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

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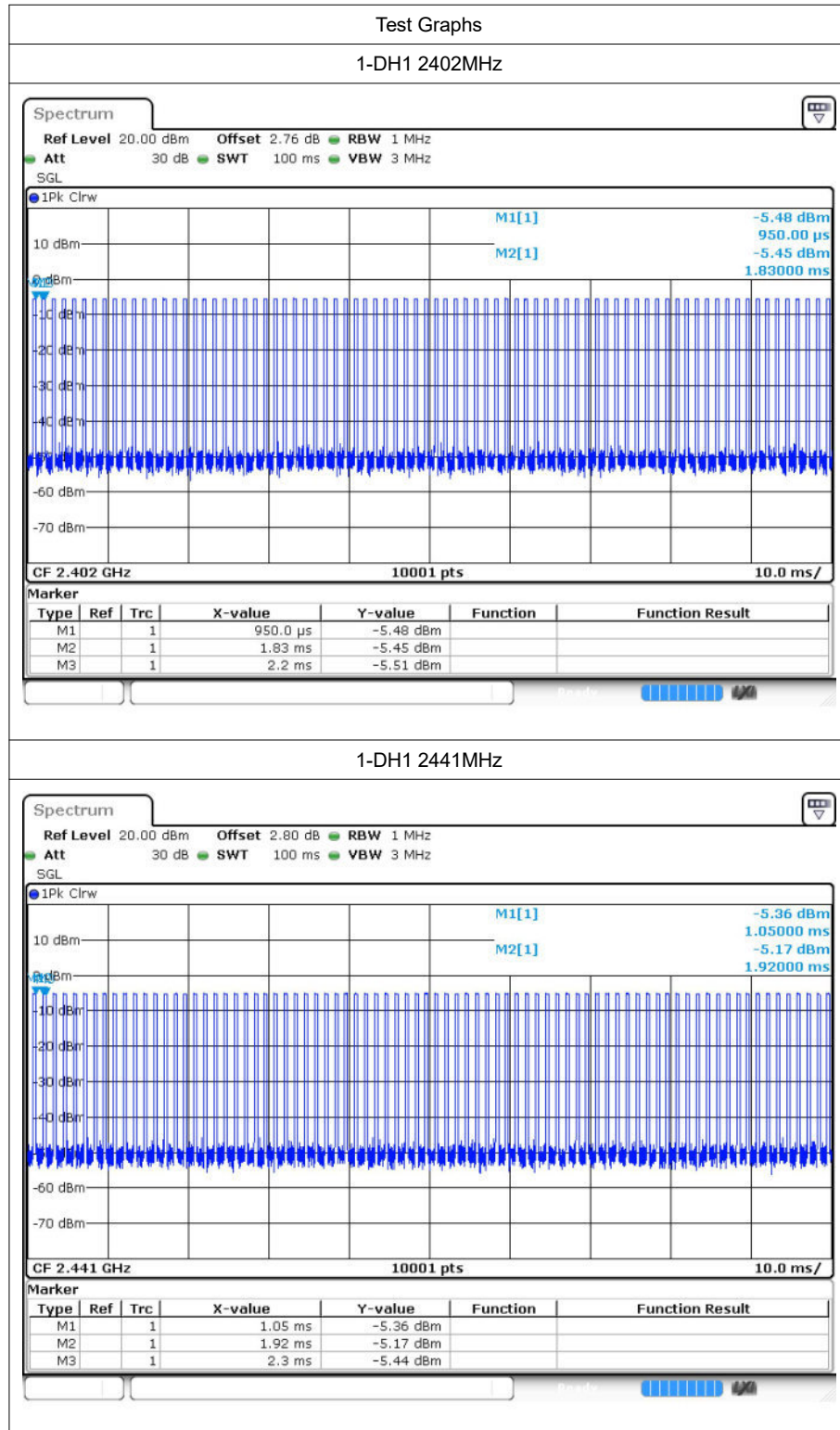
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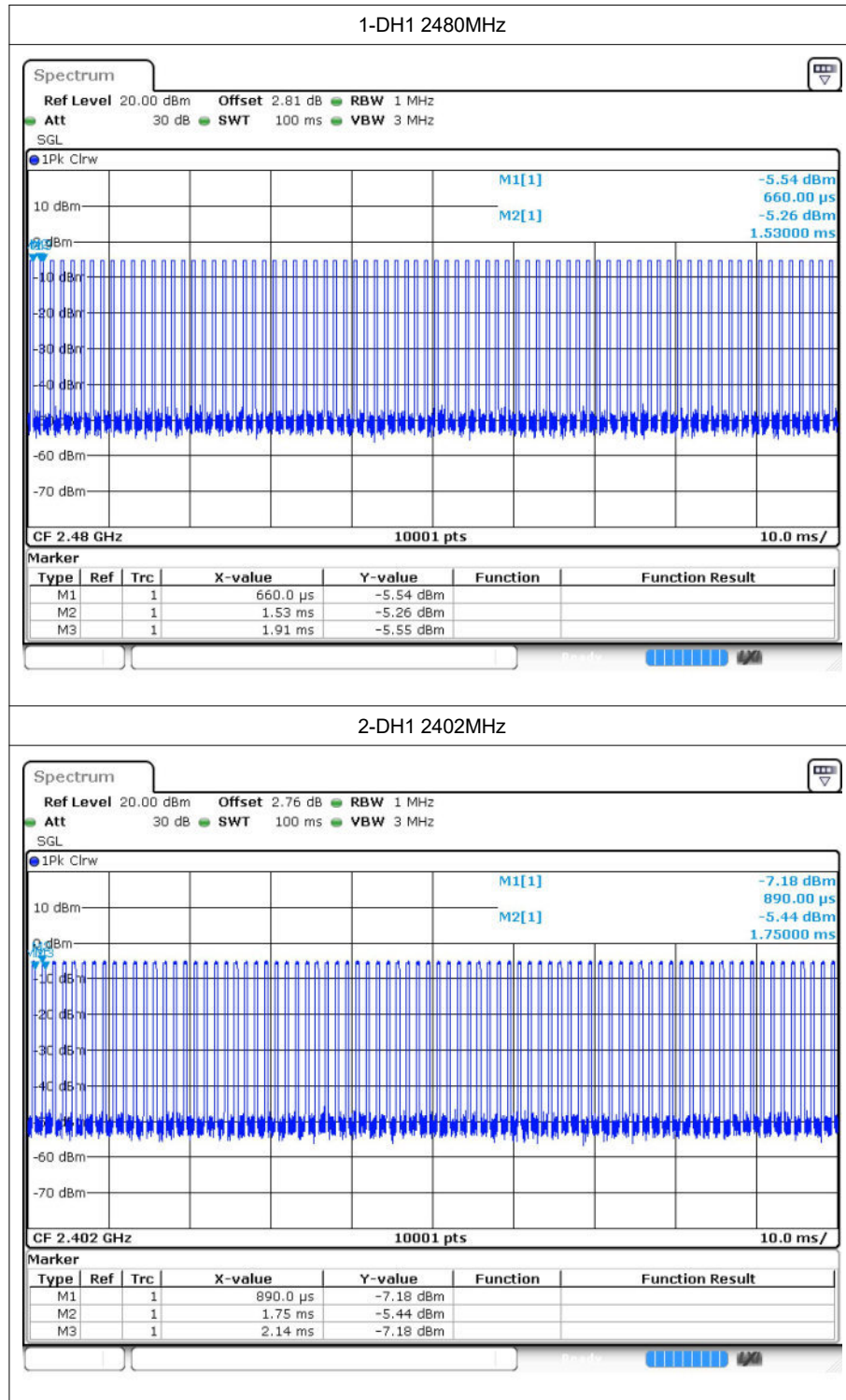
1 Duty Cycle

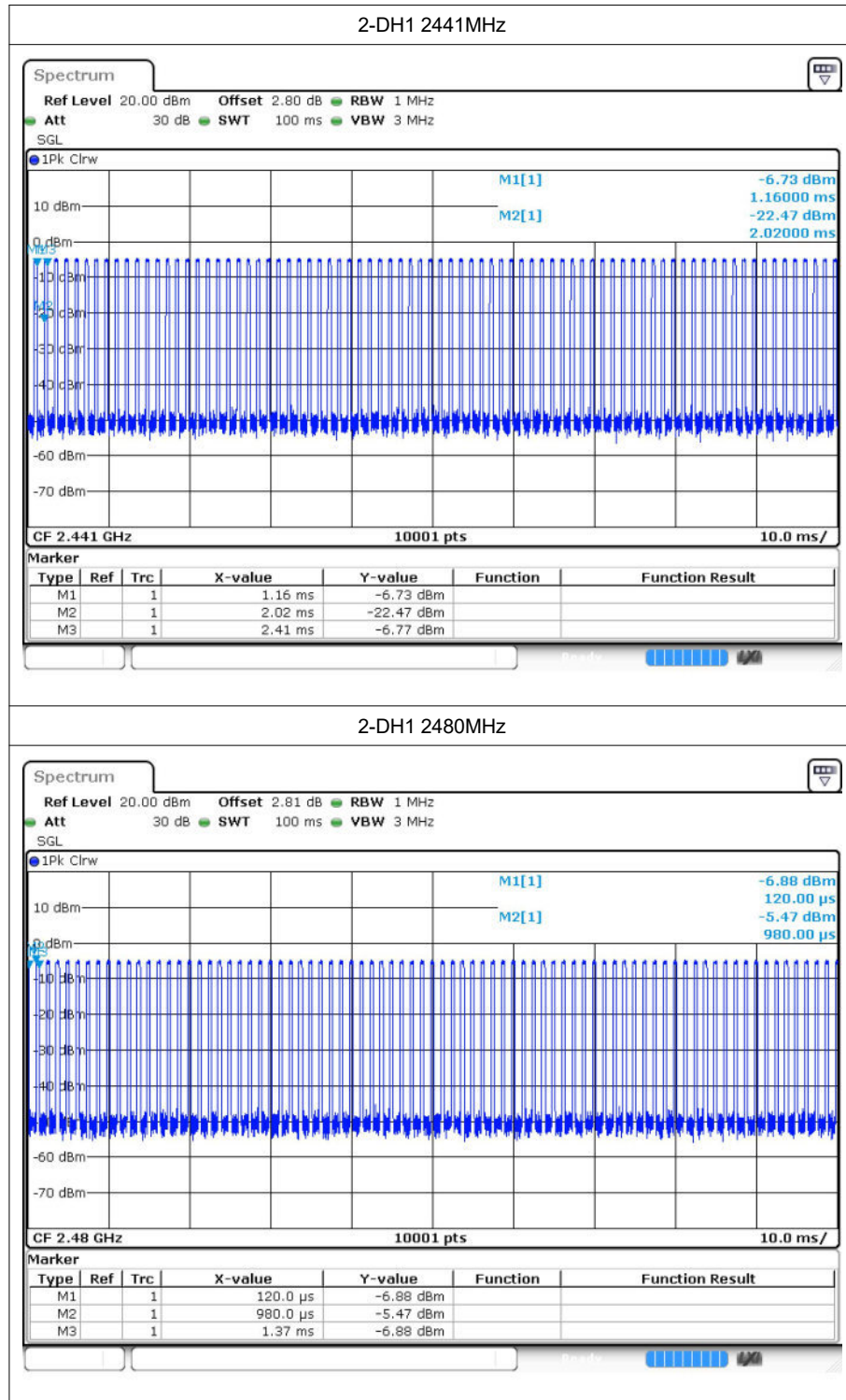
1.1 Test Result

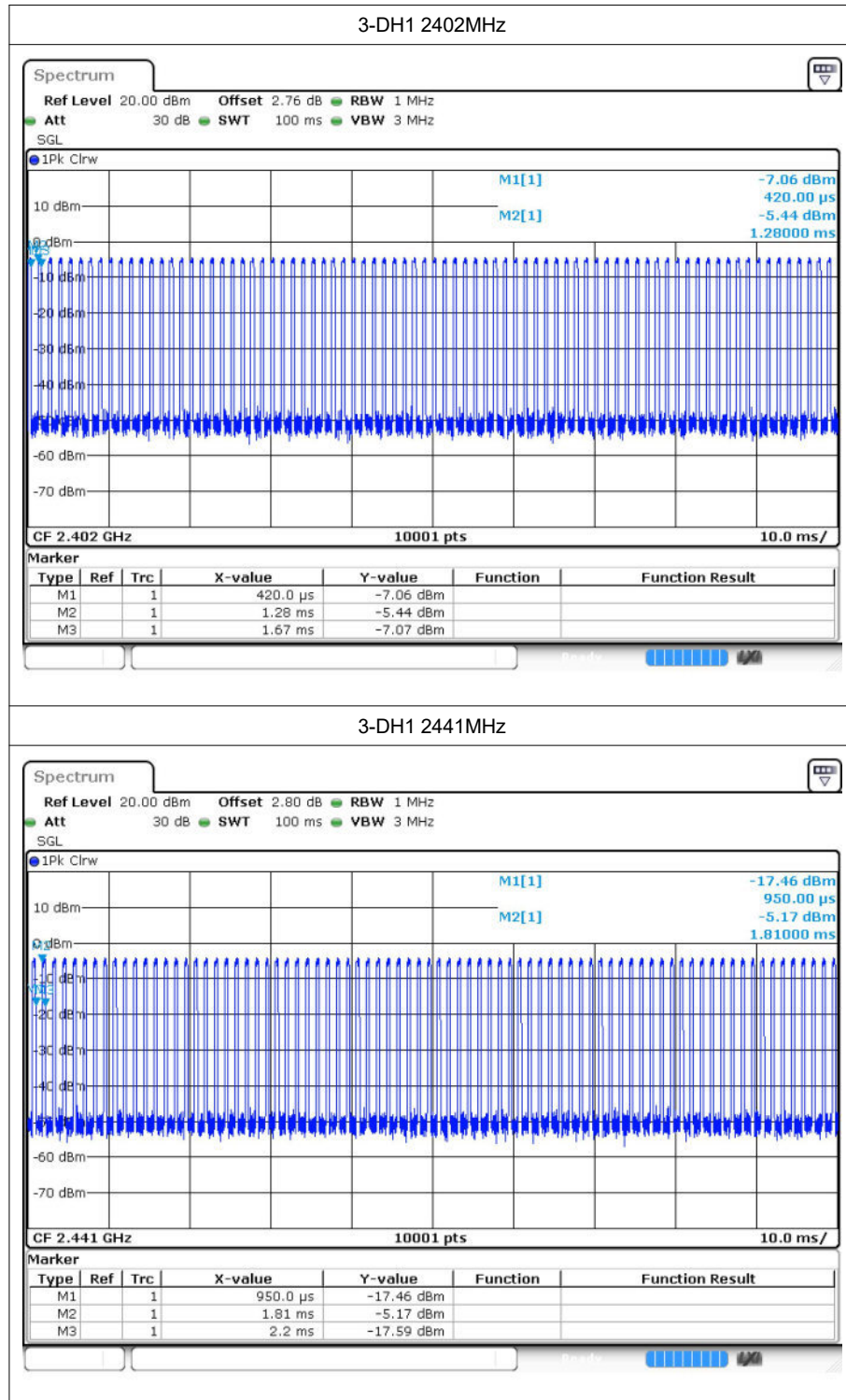
Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
1-DH1	2402	30.4	5.17	2.7
1-DH1	2441	31.2	5.06	2.63
1-DH1	2480	31.2	5.06	2.63
2-DH1	2402	32	4.95	2.56
2-DH1	2441	32	4.95	2.56
2-DH1	2480	32.01	4.95	2.56
3-DH1	2402	32	4.95	2.56
3-DH1	2441	31.86	4.97	2.56
3-DH1	2480	31.2	5.06	2.63

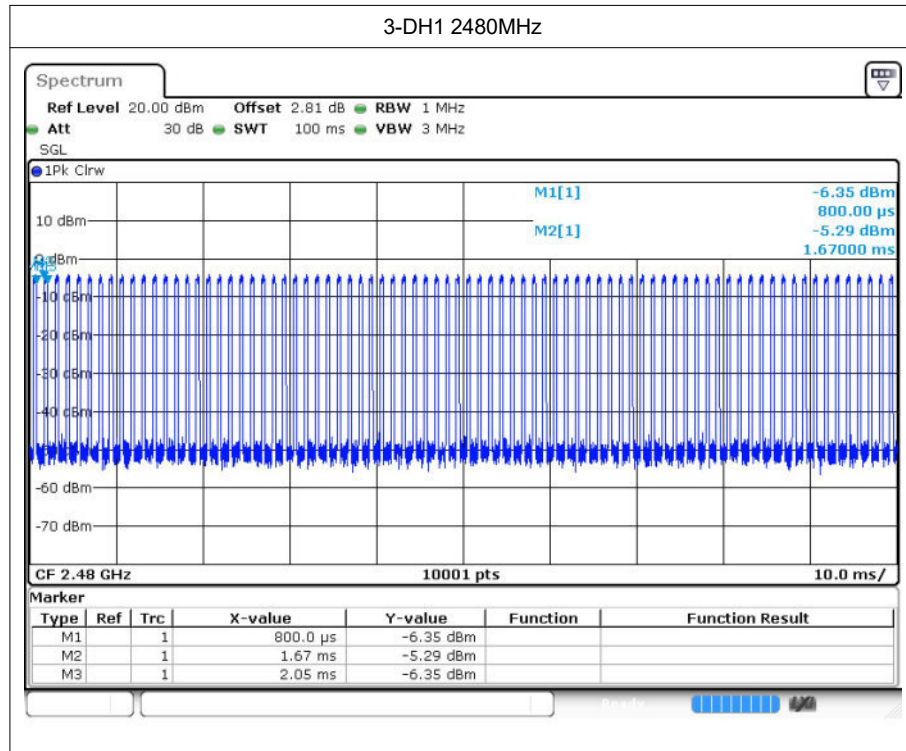
1.2 Test Graphs









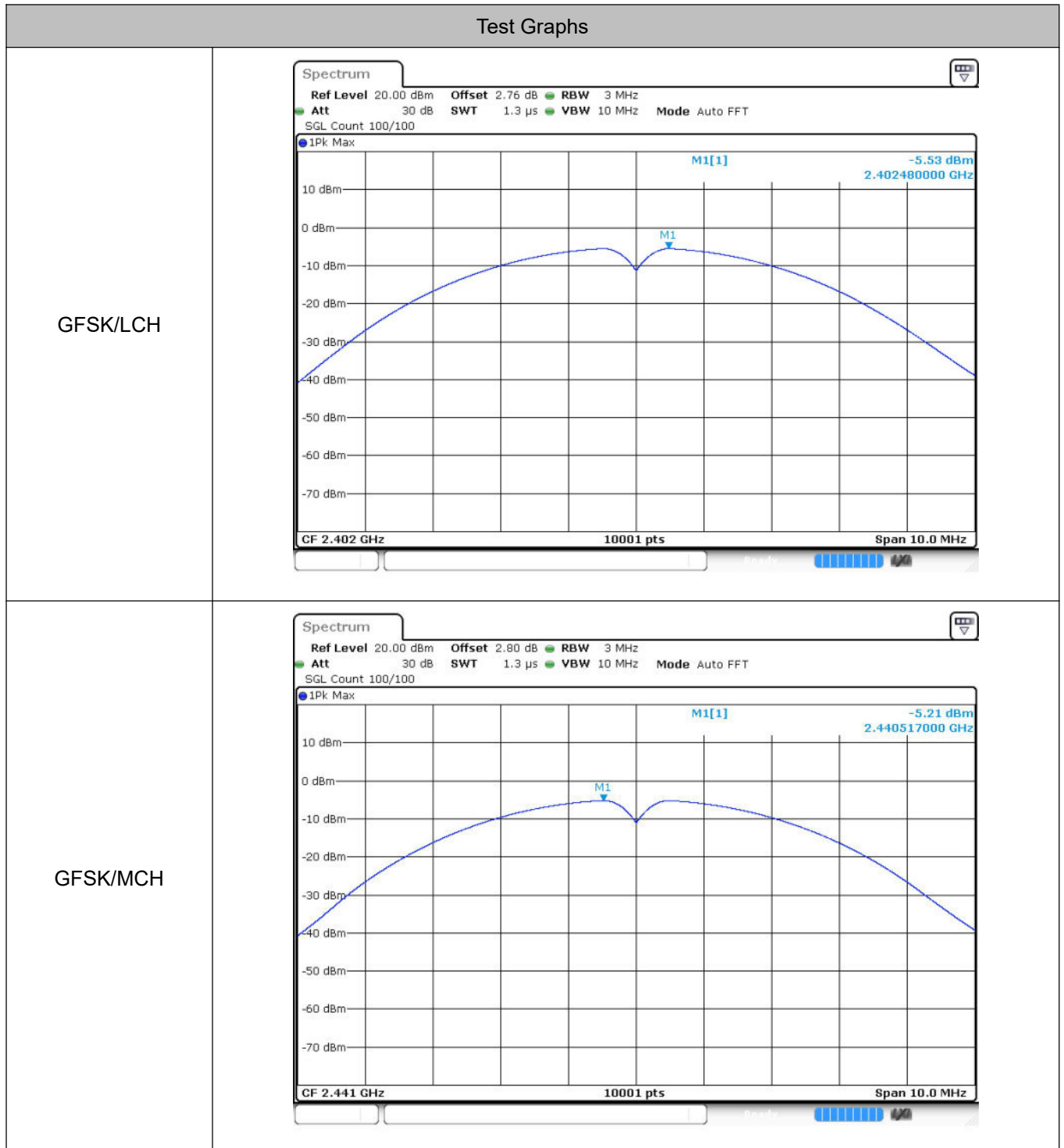


2 Maximum Conducted Peak Output Power

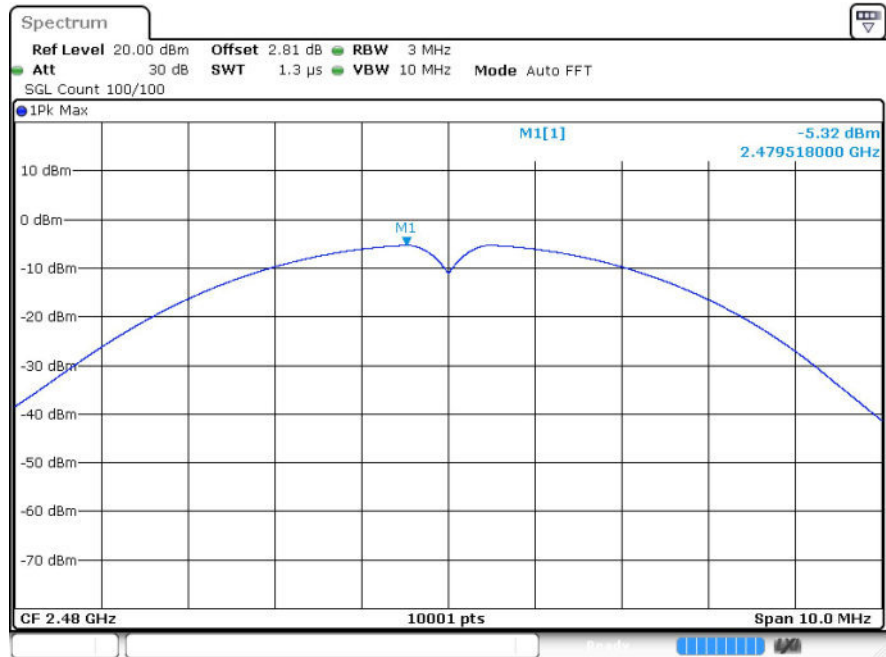
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-5.53	21	Pass
	MCH	-5.21	21	Pass
	HCH	-5.32	21	Pass
$\pi/4$ DQPSK	LCH	-4.86	21	Pass
	MCH	-4.53	21	Pass
	HCH	-4.86	21	Pass
8DPSK	LCH	-5.23	21	Pass
	MCH	-4.46	21	Pass
	HCH	-4.59	21	Pass

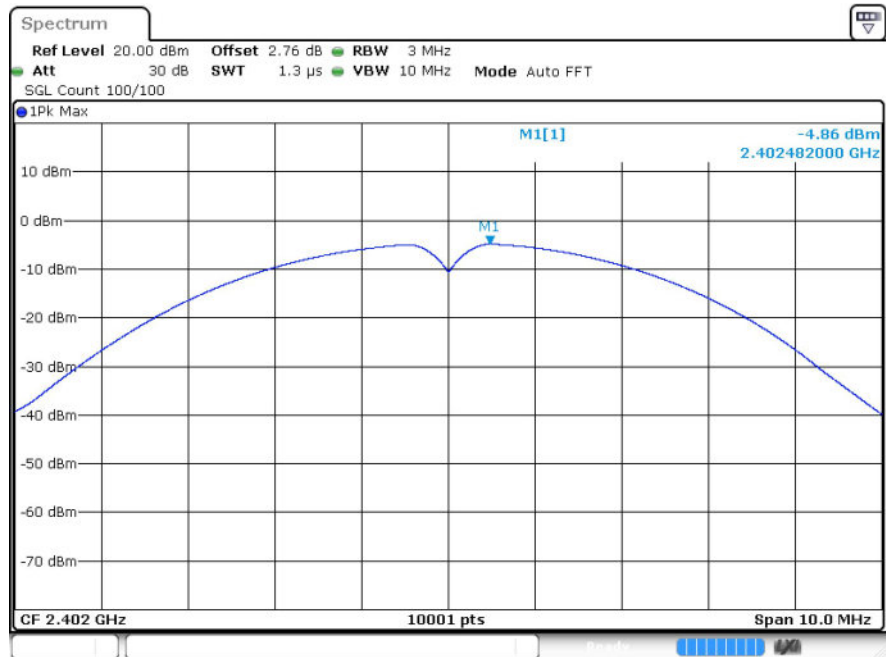
2.2 Test Graphs



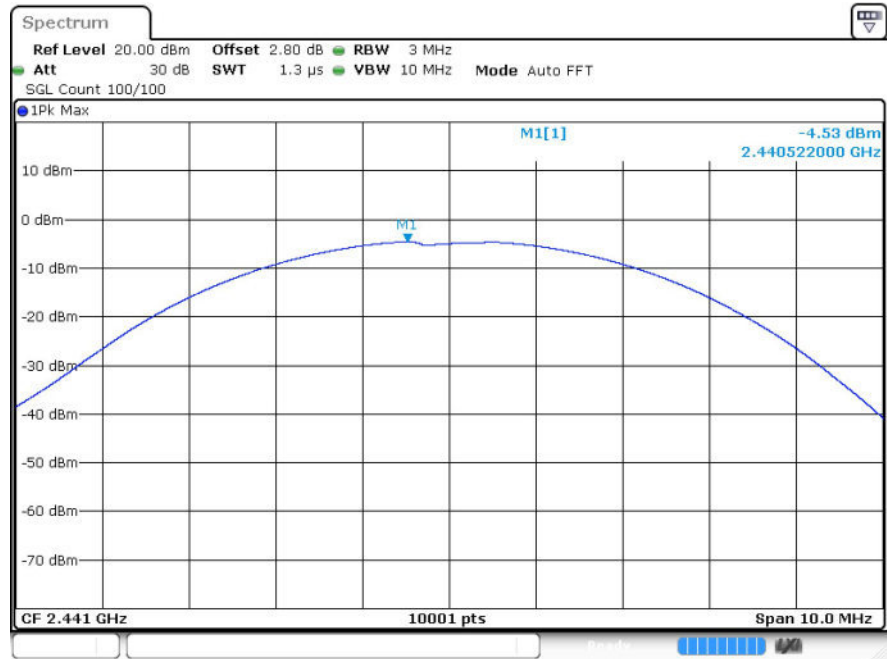
GFSK/HCH



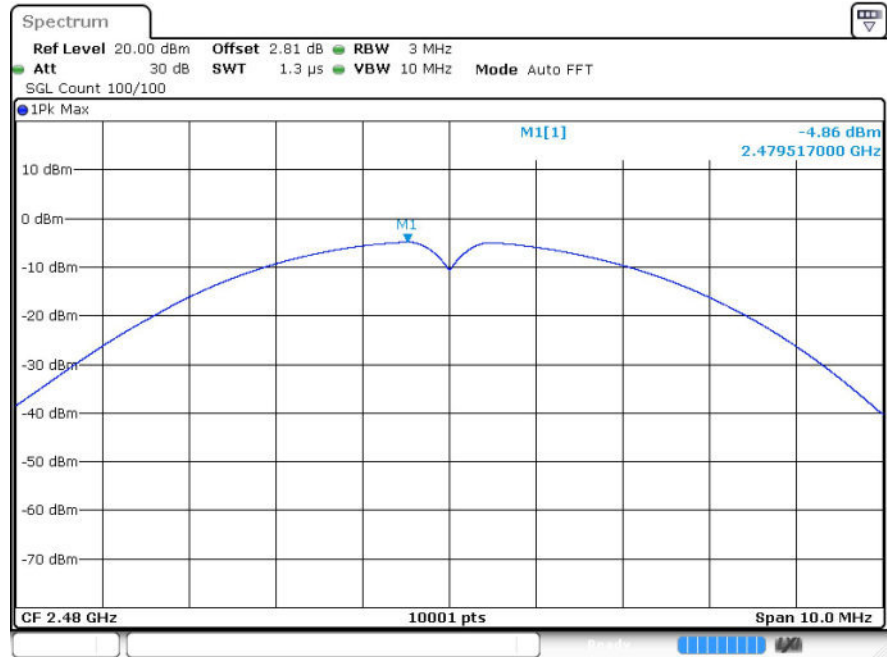
$\pi/4$ DQPSK/LCH



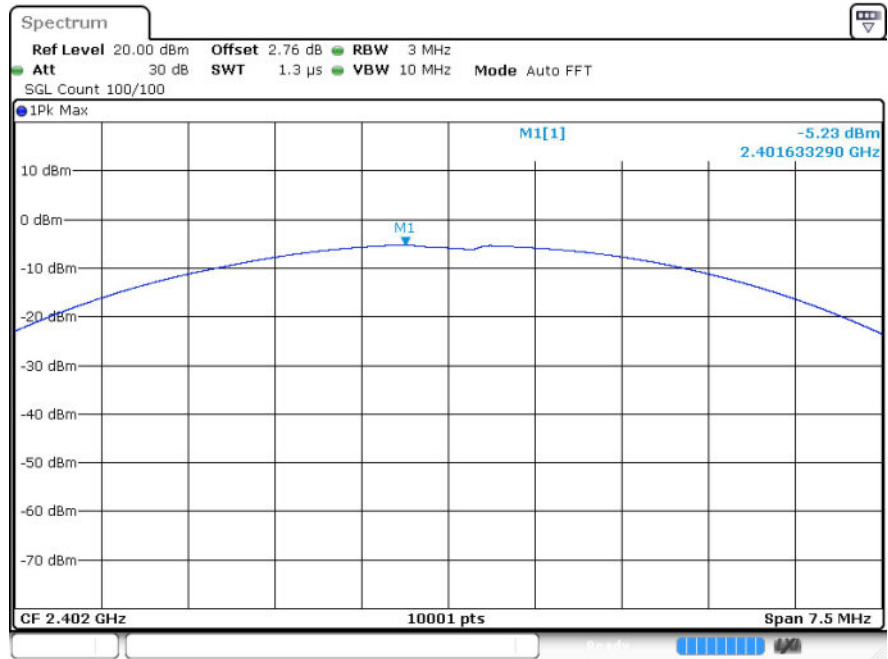
$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH



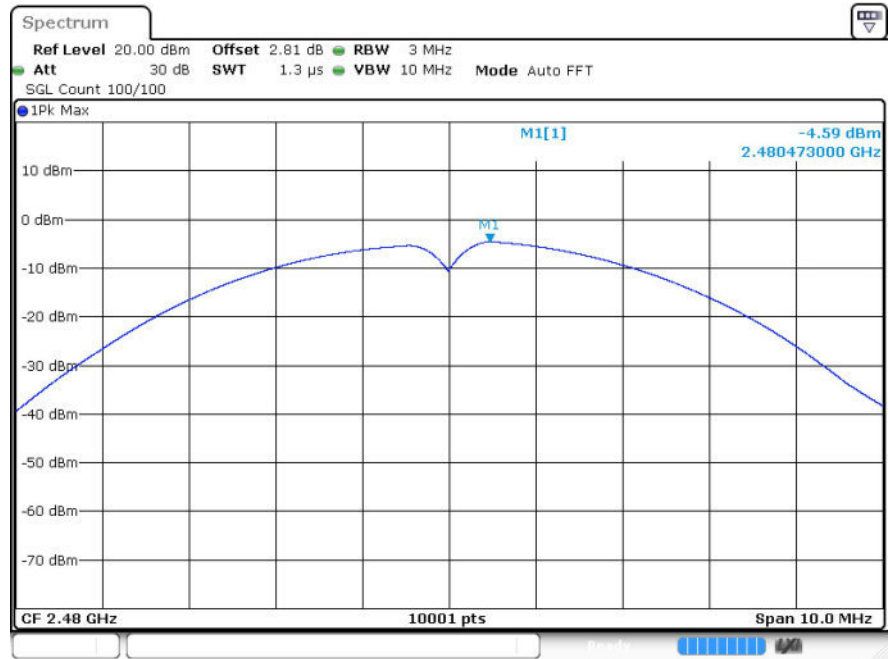
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

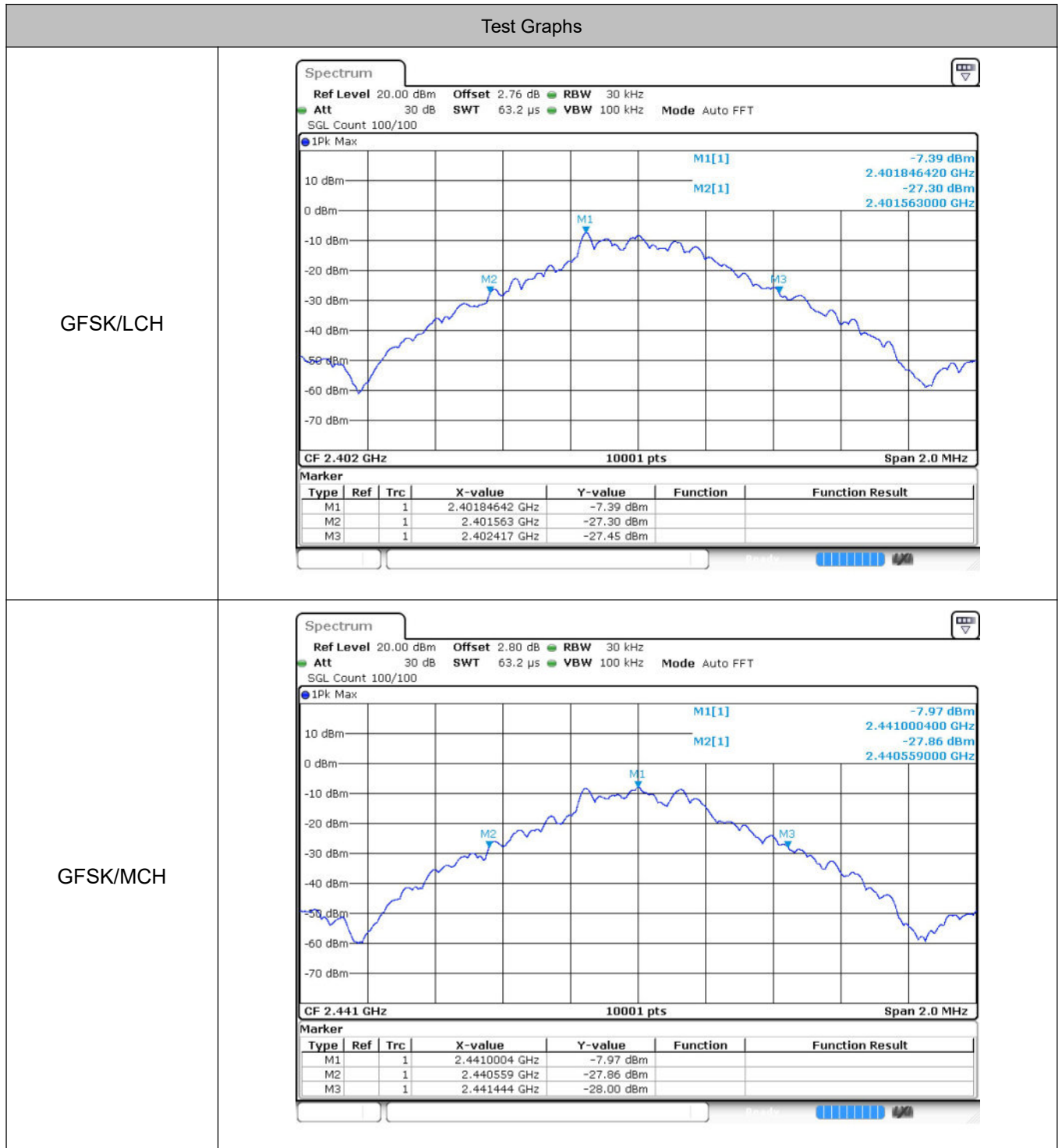


3 20dB Bandwidth

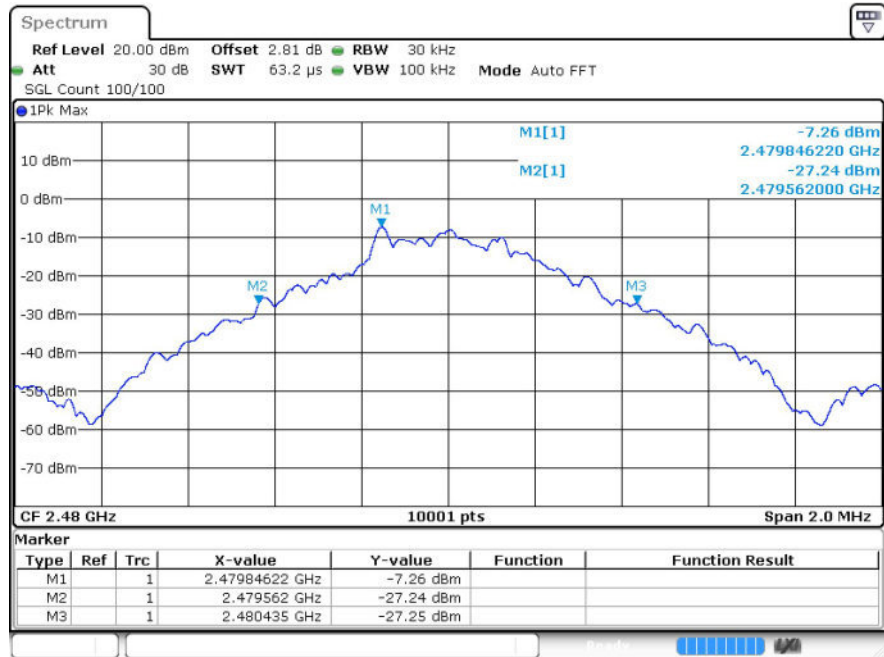
3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.854	Not Specified	Pass
	MCH	0.885	Not Specified	Pass
	HCH	0.873	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.216	Not Specified	Pass
	MCH	1.225	Not Specified	Pass
	HCH	1.239	Not Specified	Pass
8DPSK	LCH	1.218	Not Specified	Pass
	MCH	1.215	Not Specified	Pass
	HCH	1.218	Not Specified	Pass

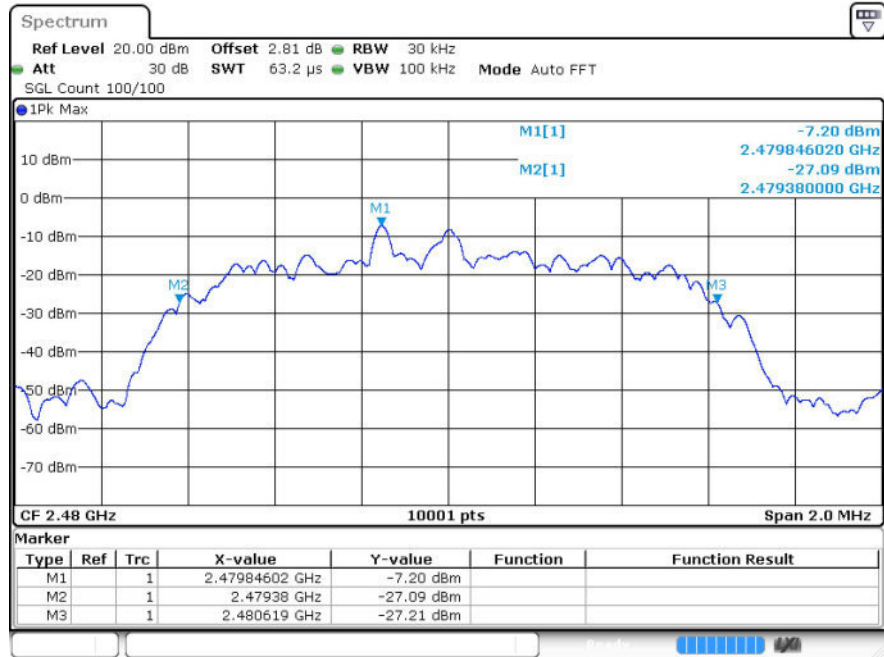
3.2 Test Graphs



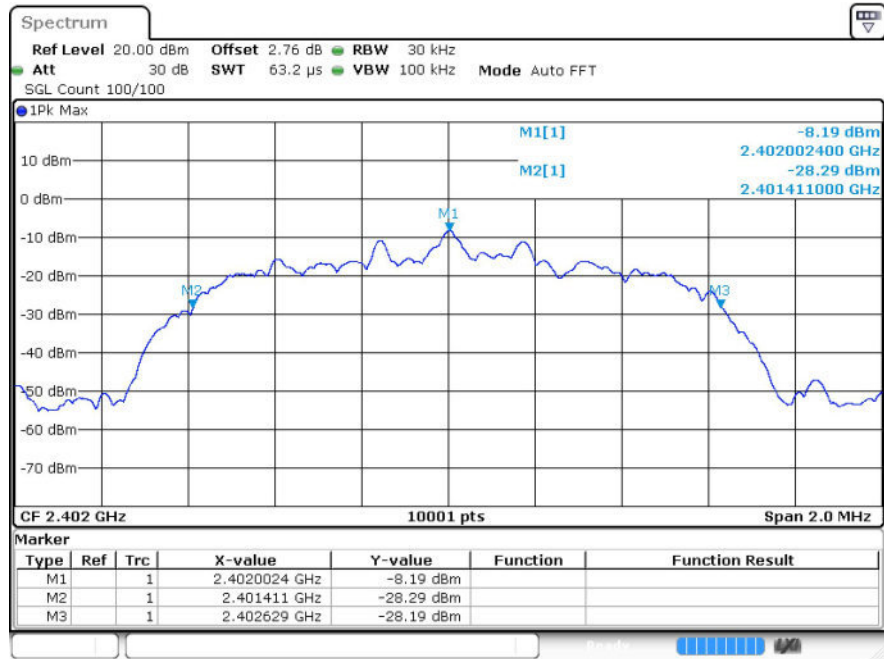
GFSK/HCH


 $\pi/4$ DQPSK/LCH

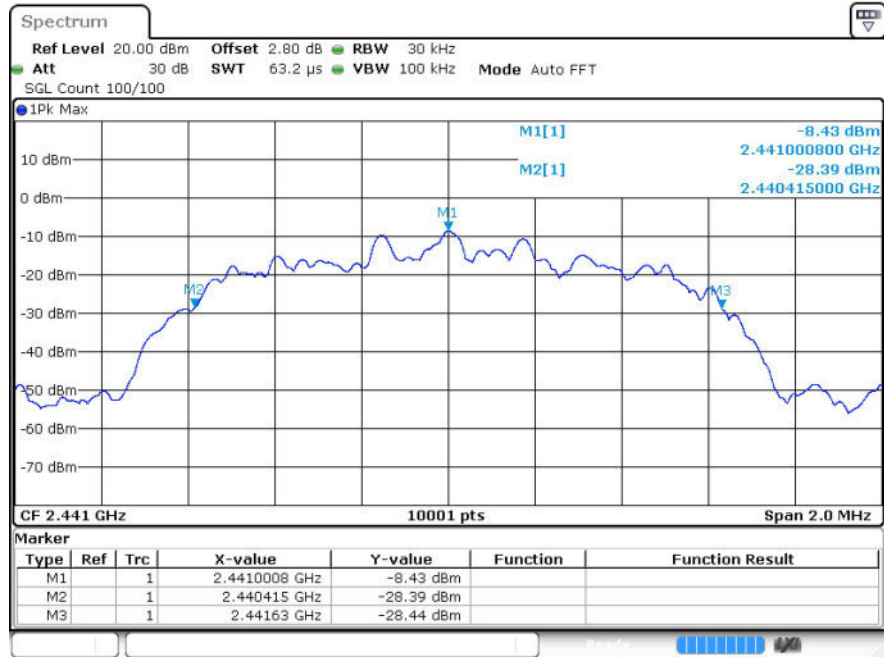

$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


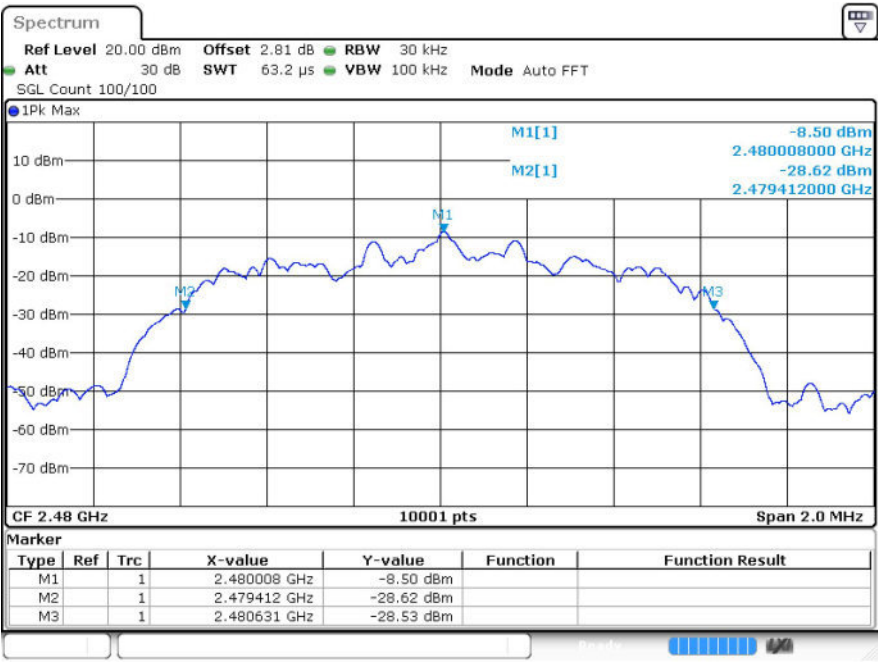
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

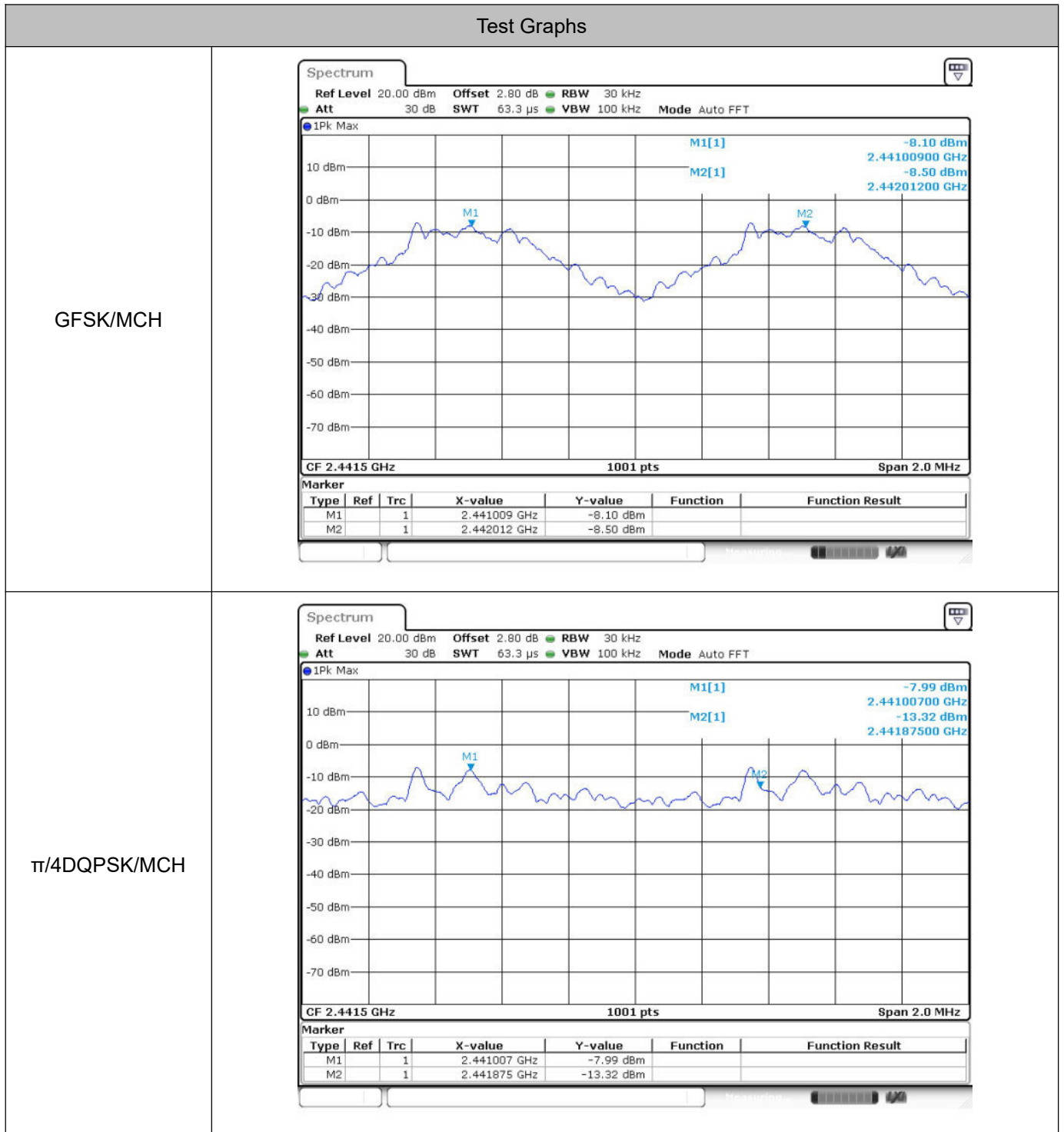


4 Carrier Frequency Separation

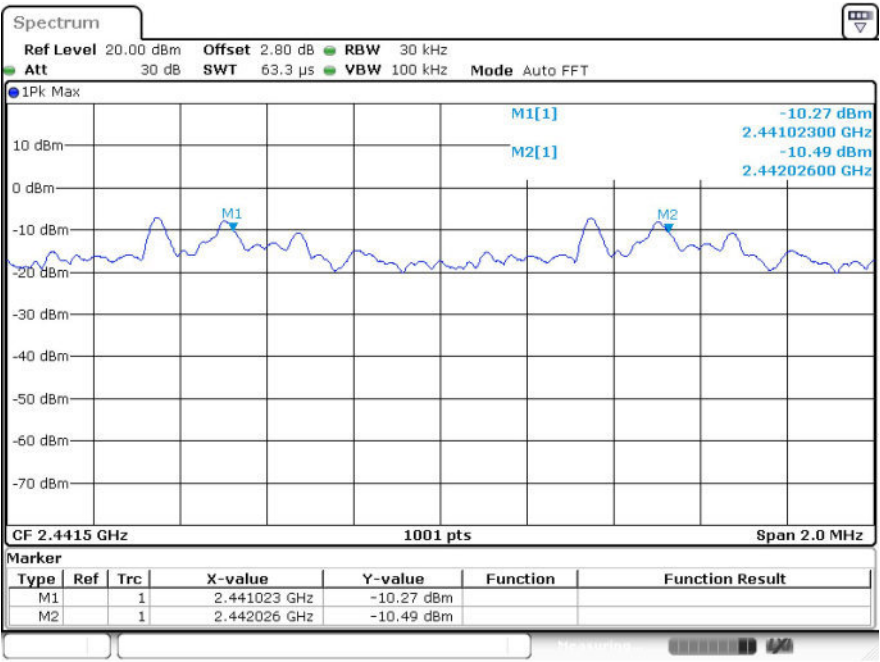
4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.003	0.59	Pass
$\pi/4$ DQPSK	MCH	0.868	0.817	Pass
8DPSK	MCH	1.003	0.81	Pass

4.2 Test Graphs



8DPSK/MCH

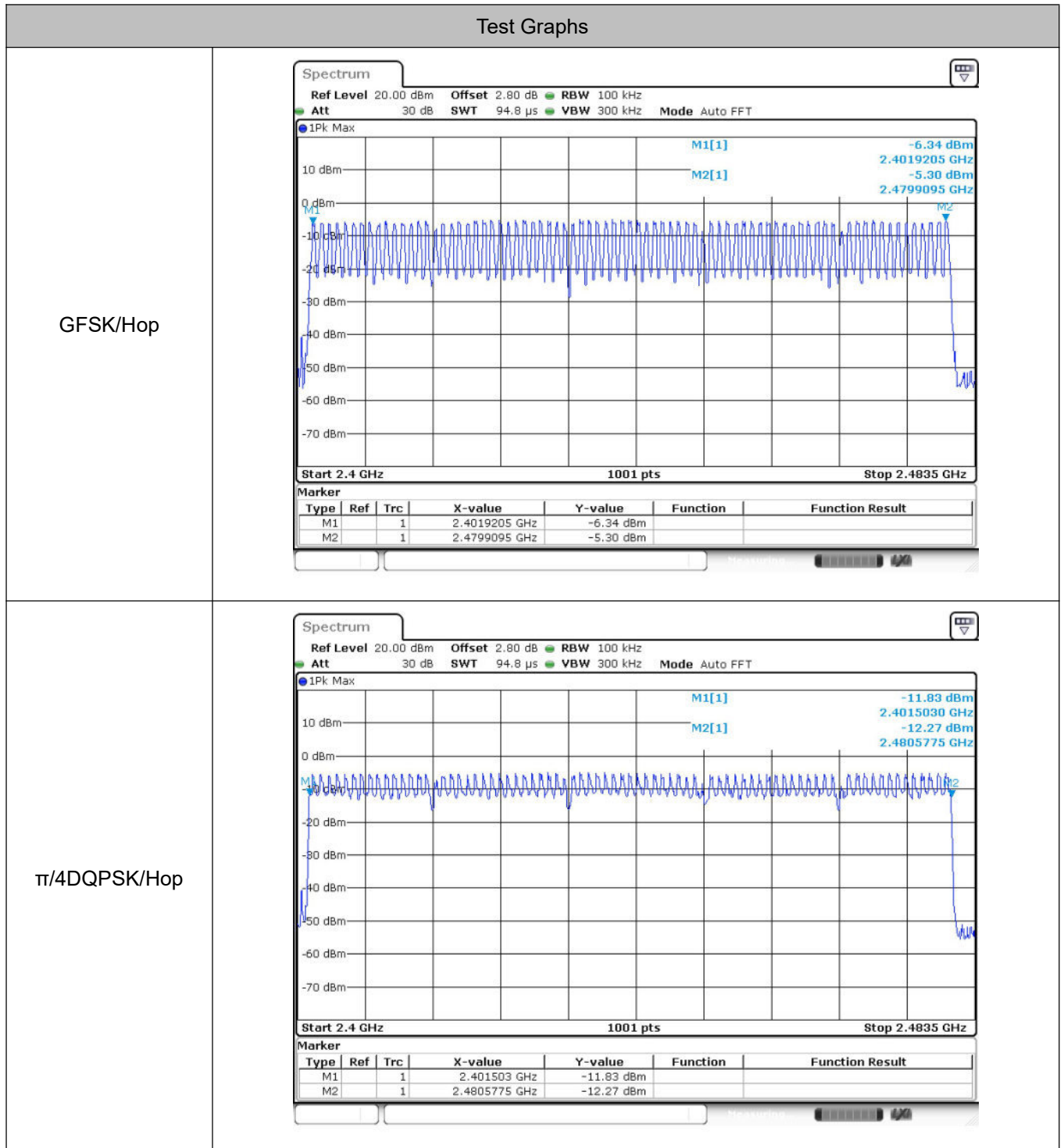


5 Hopping Channel Number

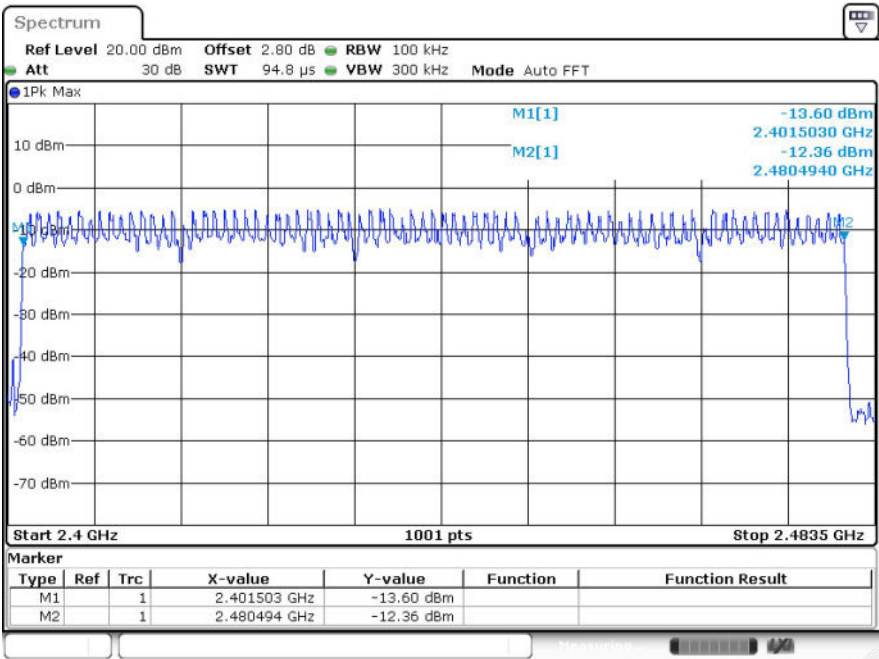
5.1 Test Result

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

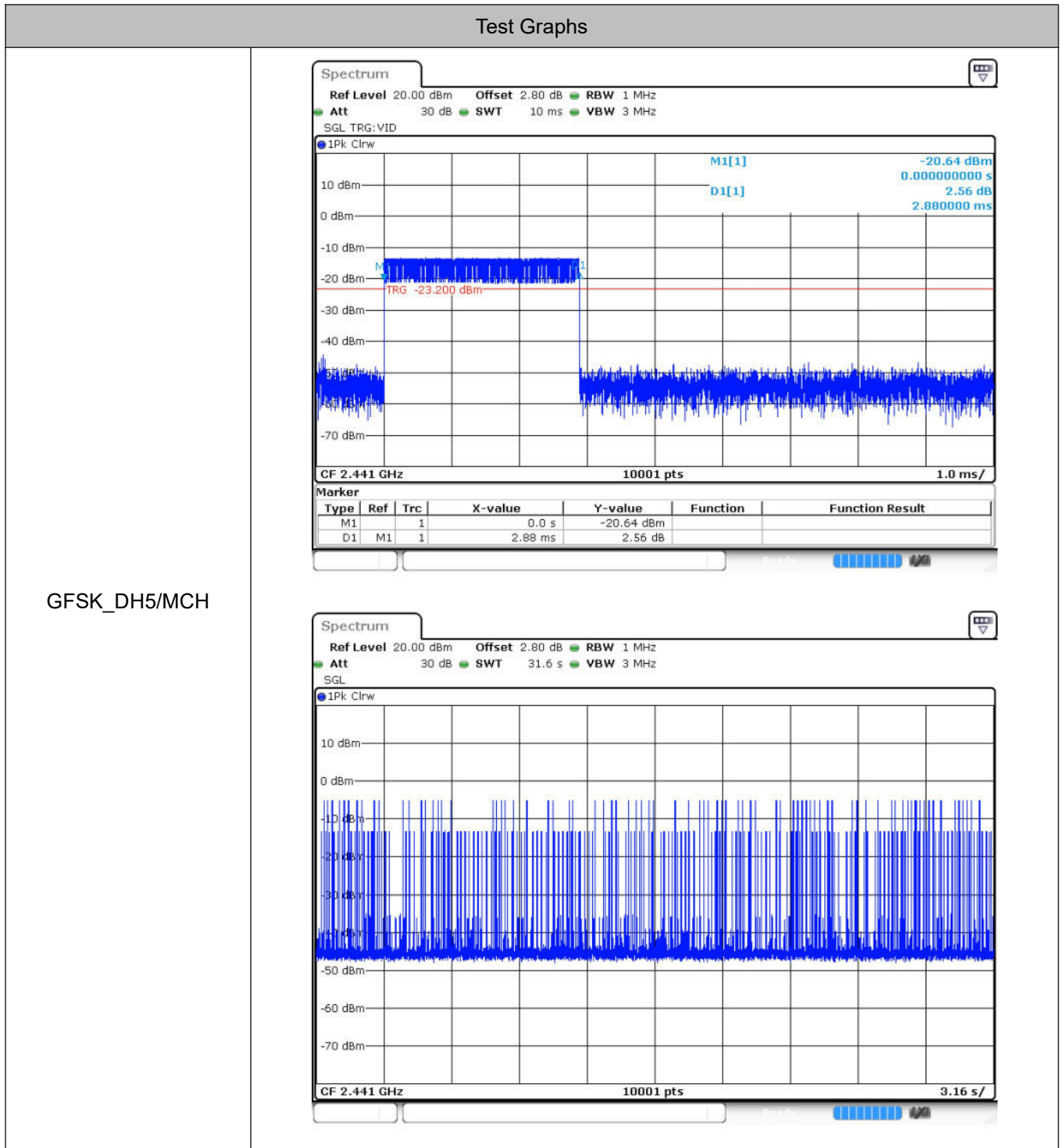


6 Dwell Time

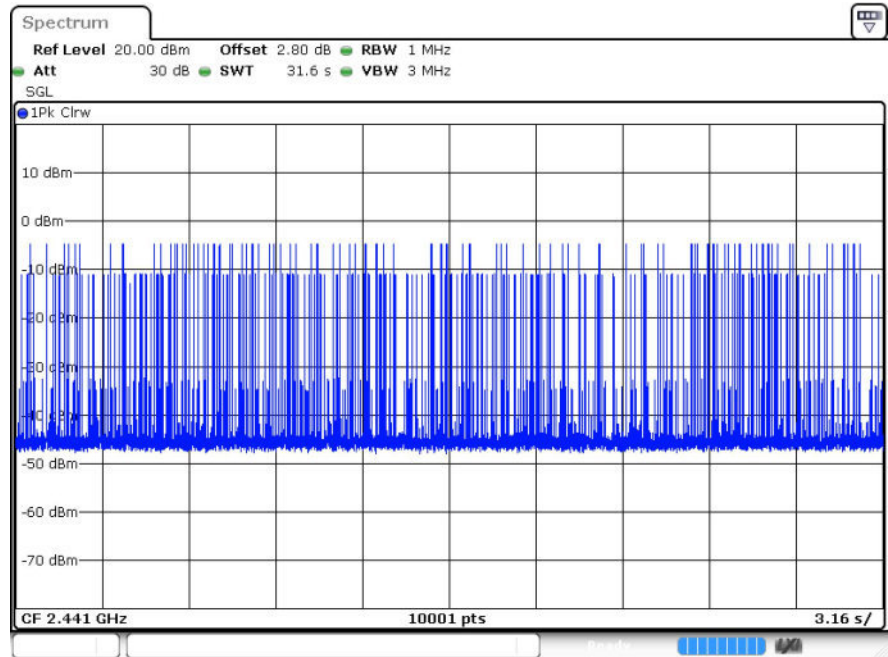
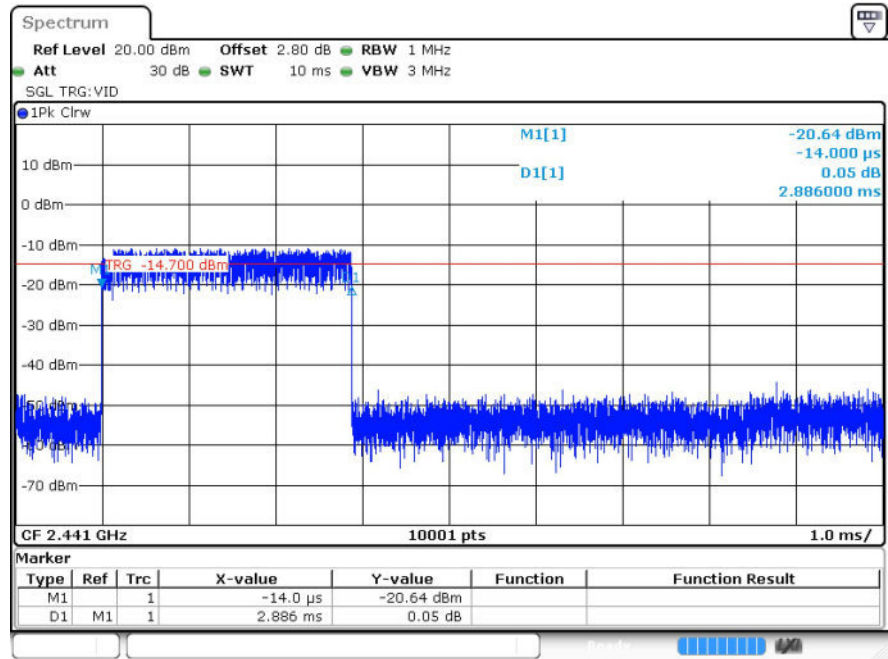
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.88	102	293.76	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.886	98	282.828	0.4	Pass
8DPSK	3DH5	MCH	2.887	115	332.005	0.4	Pass

6.2 Test Graphs



$\pi/4$ DQPSK
_2DH5/MCH



Spectrum

Ref Level 20.00 dBm Offset 2.80 dB RBW 1 MHz
Att 30 dB SWT 31.6 s VBW 3 MHz
SGL

1Pk Clrw

10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm

CF 2.441 GHz 10001 pts 3.16 s/

7 RF Conducted Spurious Emissions

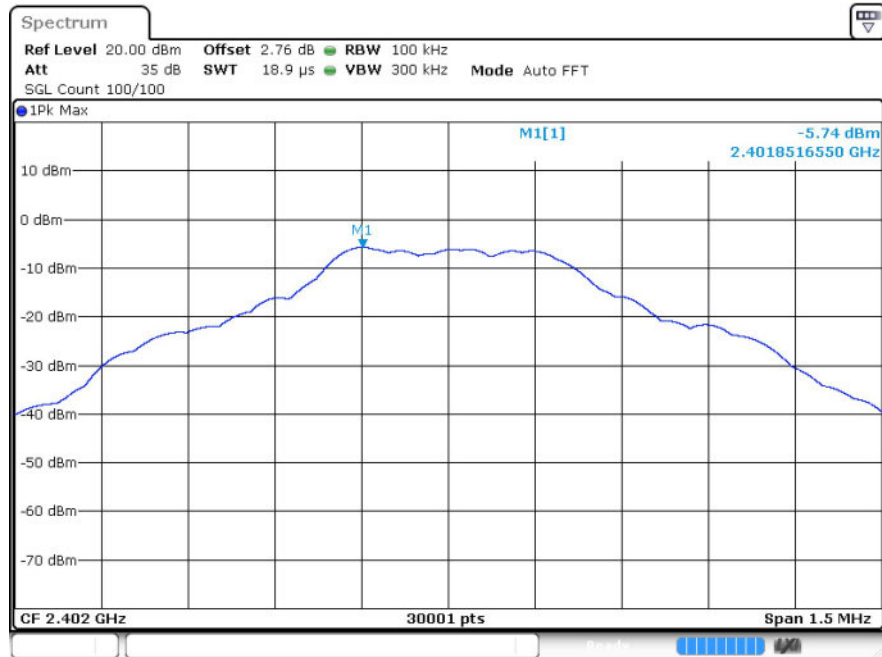
7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-35.8	-20	Pass
	MCH	-31.98	-20	Pass
	HCH	-35.74	-20	Pass
$\pi/4$ DQPSK	LCH	-33.67	-20	Pass
	MCH	-31.24	-20	Pass
	HCH	-36	-20	Pass
8DPSK	LCH	-31.89	-20	Pass
	MCH	-36.52	-20	Pass
	HCH	-30.69	-20	Pass

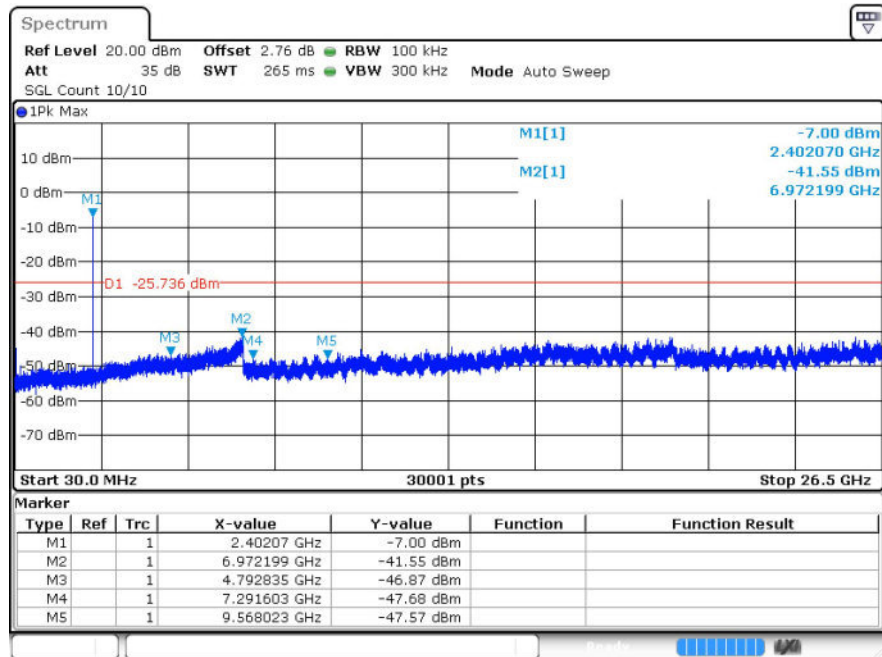
7.2 Test Graphs

GFSK_LCH_Graphs

Pref



Puw

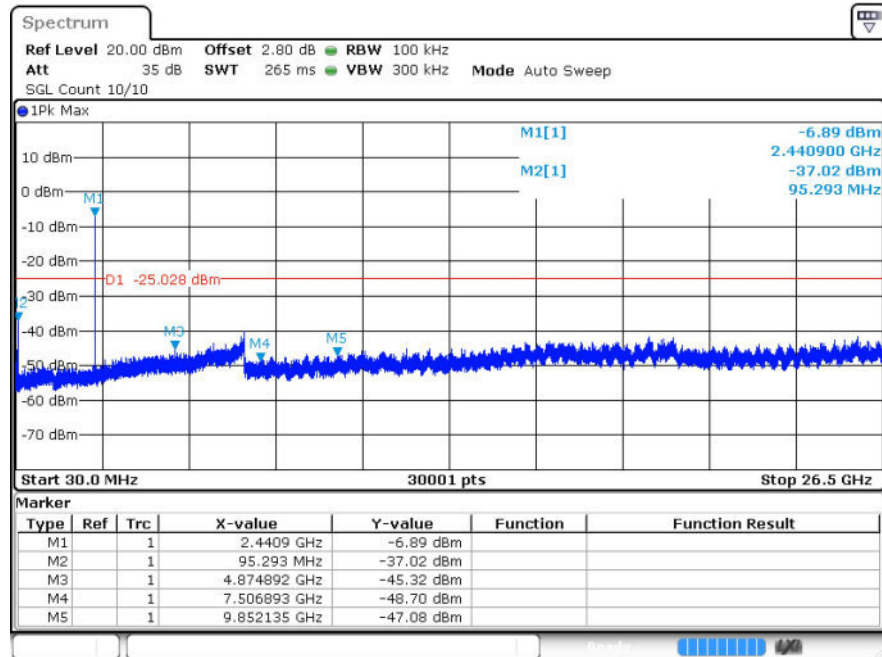


GFSK_MCH_Graphs

Pref

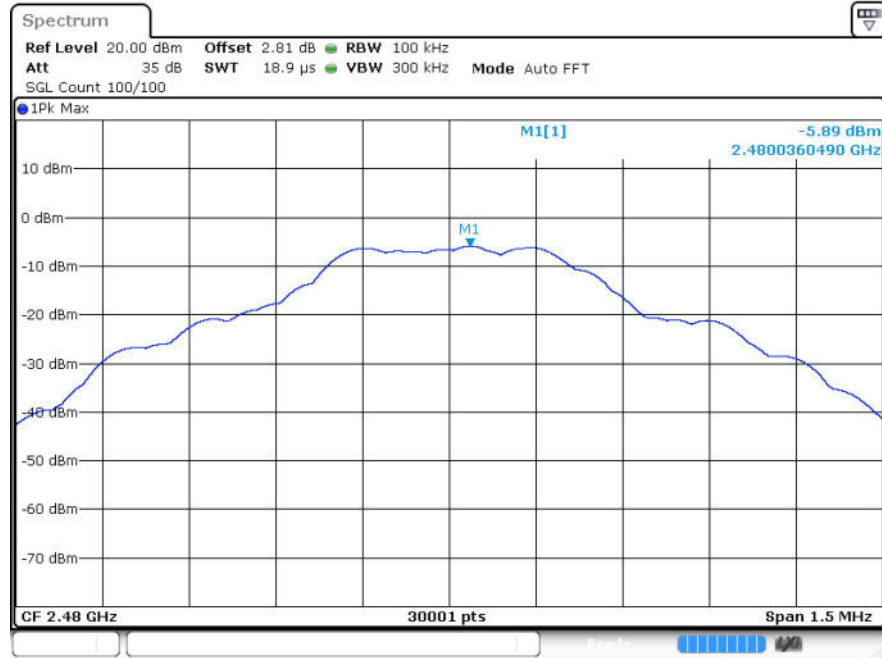


Puw



GFSK_HCH_Graphs

Pref



Puw

