



Appendix A

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

Product Name: TREBLAB HD-Max

Trade Mark: TREBLAB

Test Model: HD-Max

Environmental Conditions

Temperature:	25.8℃
Relative Humidity:	52.4%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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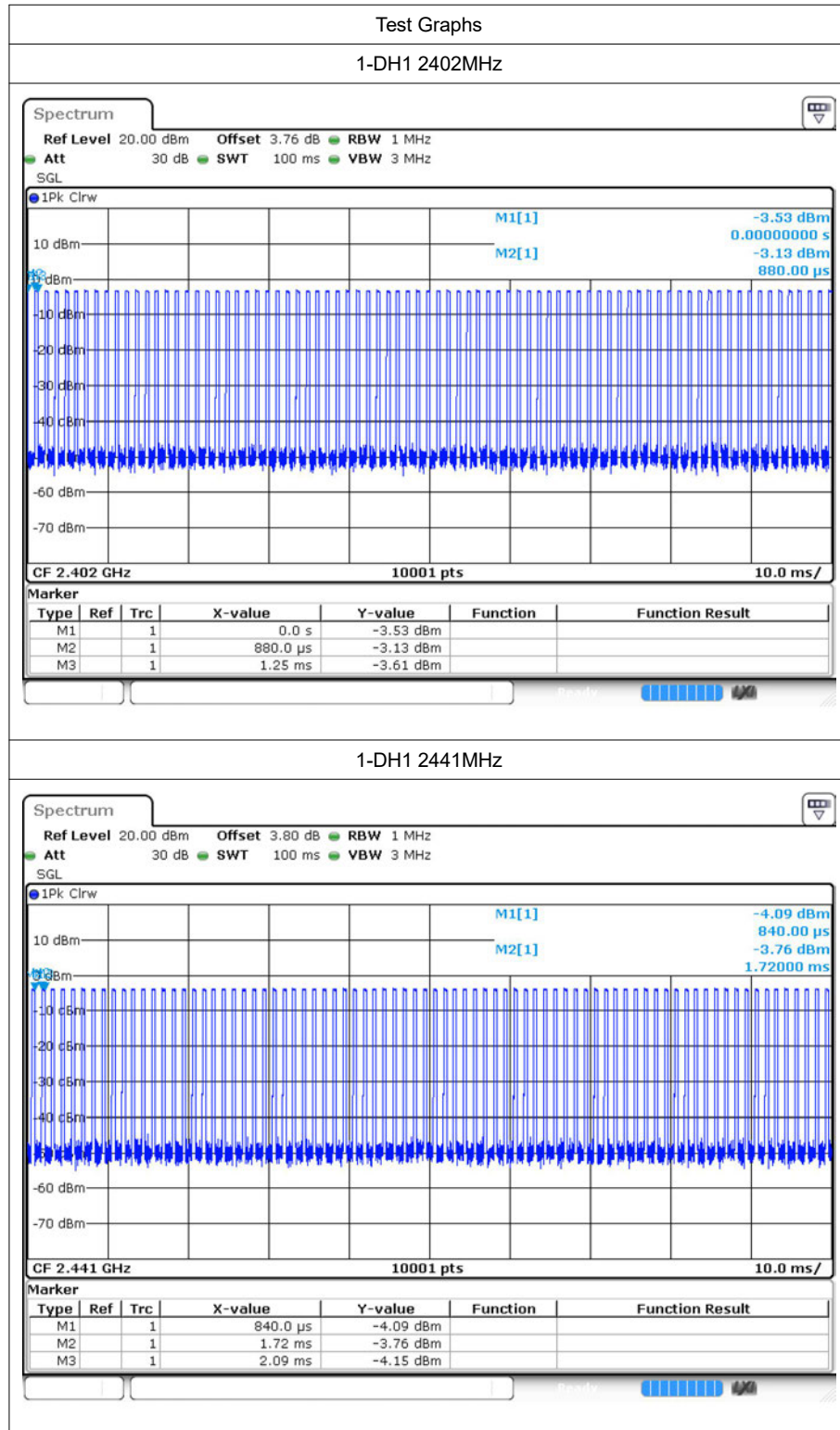
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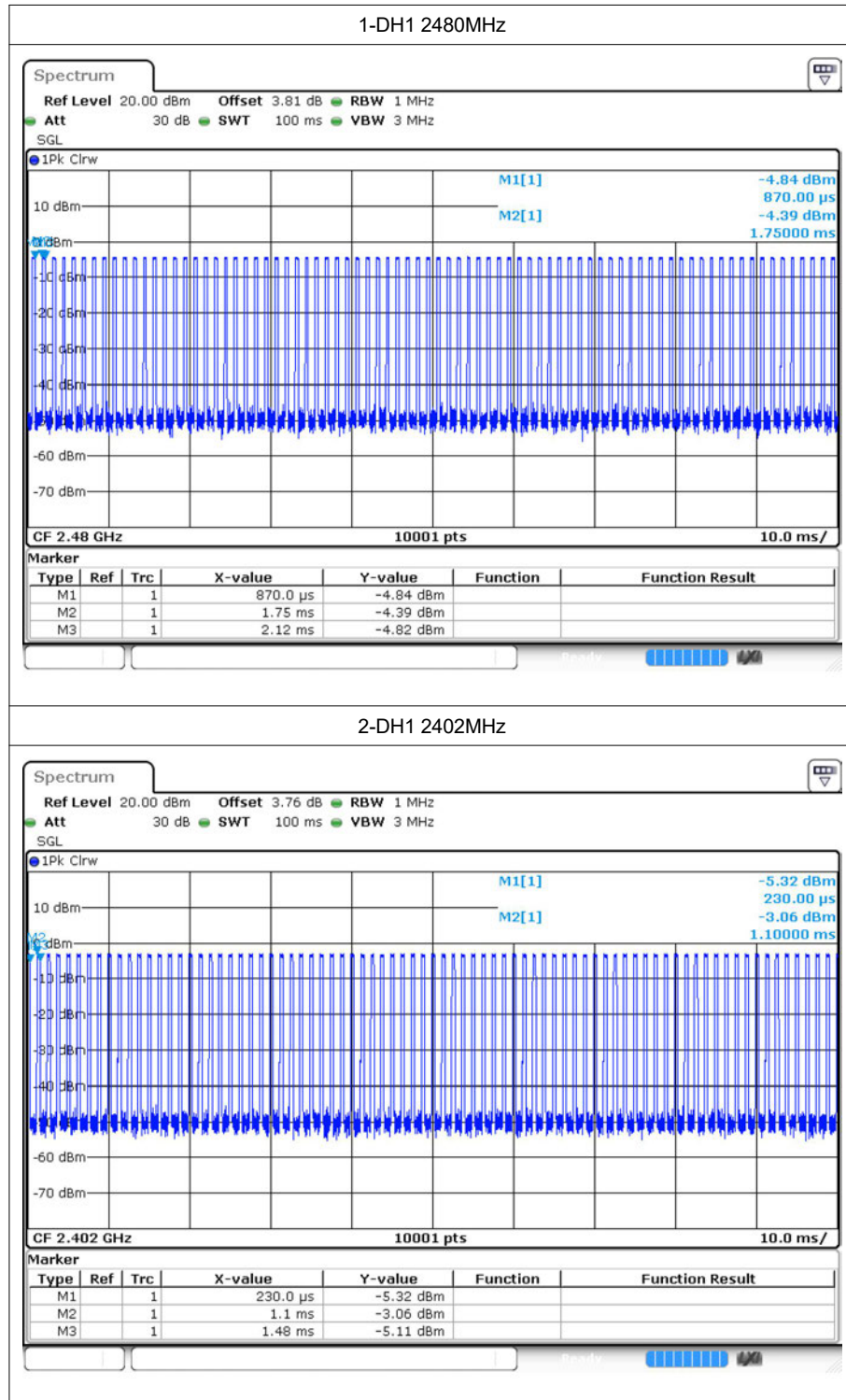
1 Duty Cycle

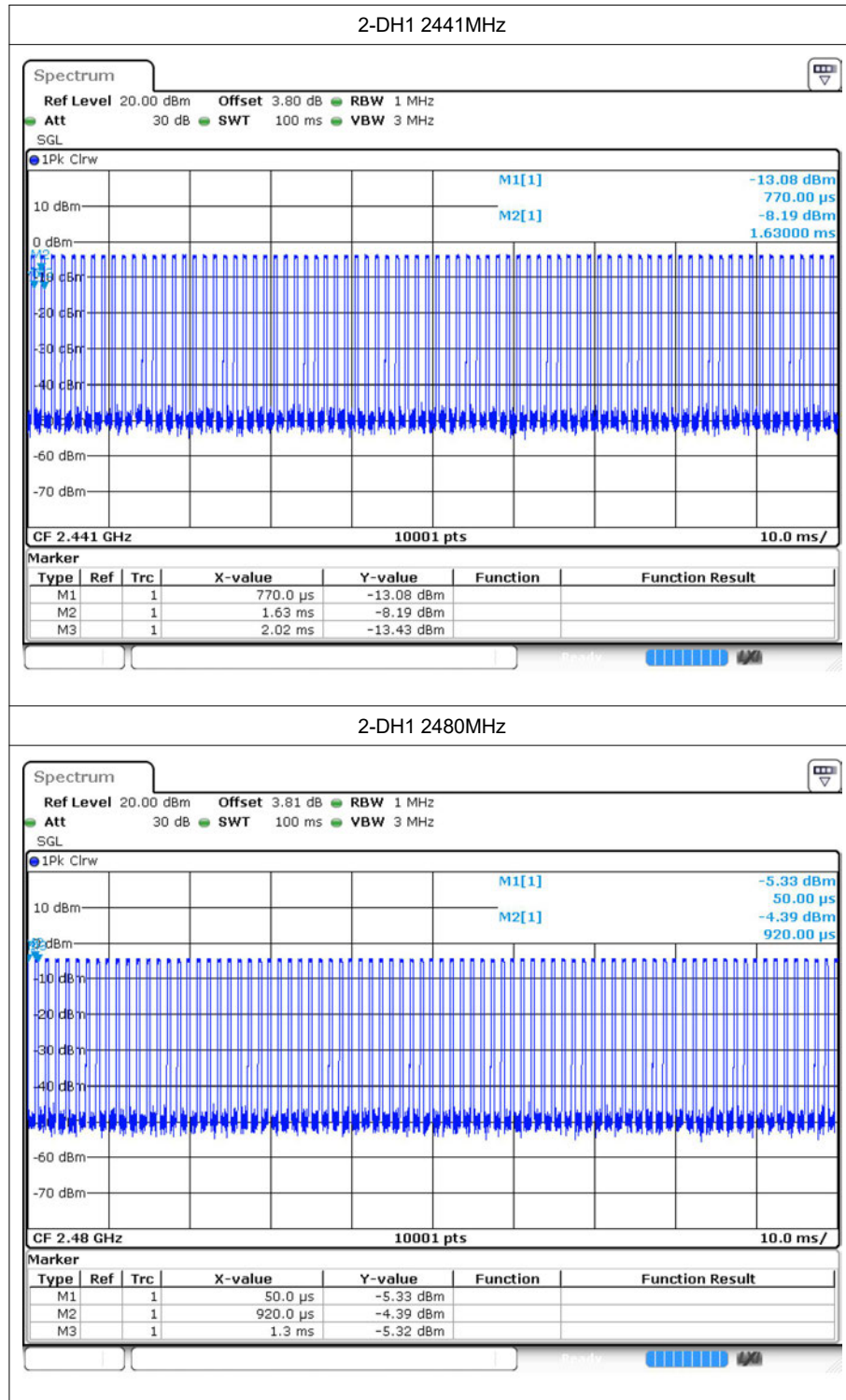
1.1 Test Result

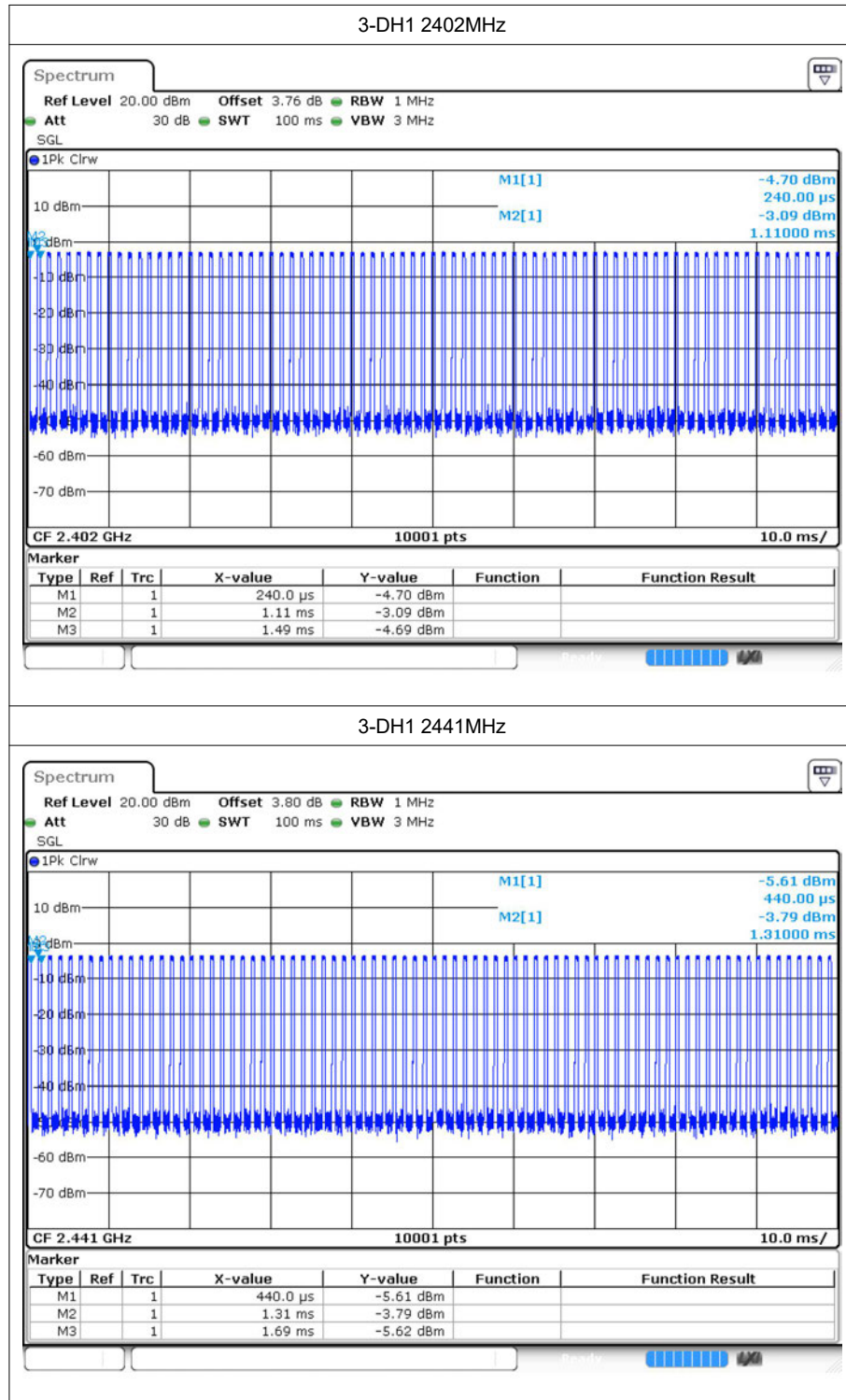
Mode	Frequency (MHz)	Duty Cycle (%)	1/T (kHz)
1-DH1	2402	30.88	2.7
1-DH1	2441	30.4	2.7
1-DH1	2480	30.4	2.7
2-DH1	2402	31.69	2.63
2-DH1	2441	31.38	2.56
2-DH1	2480	31.21	2.63
3-DH1	2402	31.21	2.63
3-DH1	2441	31.63	2.63
3-DH1	2480	31.2	2.63

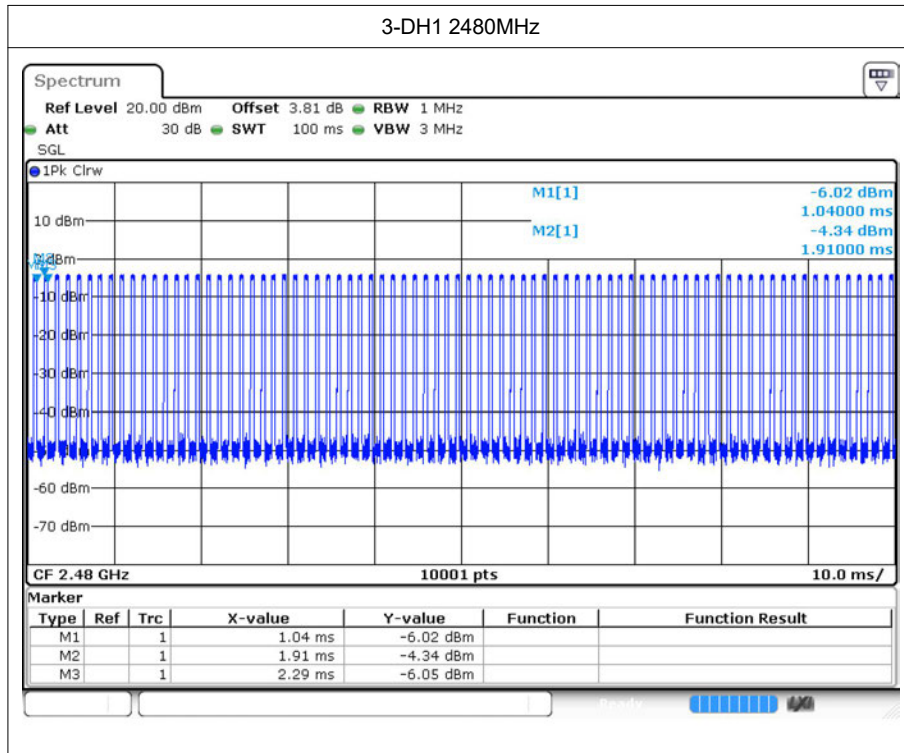
1.2 Test Graphs









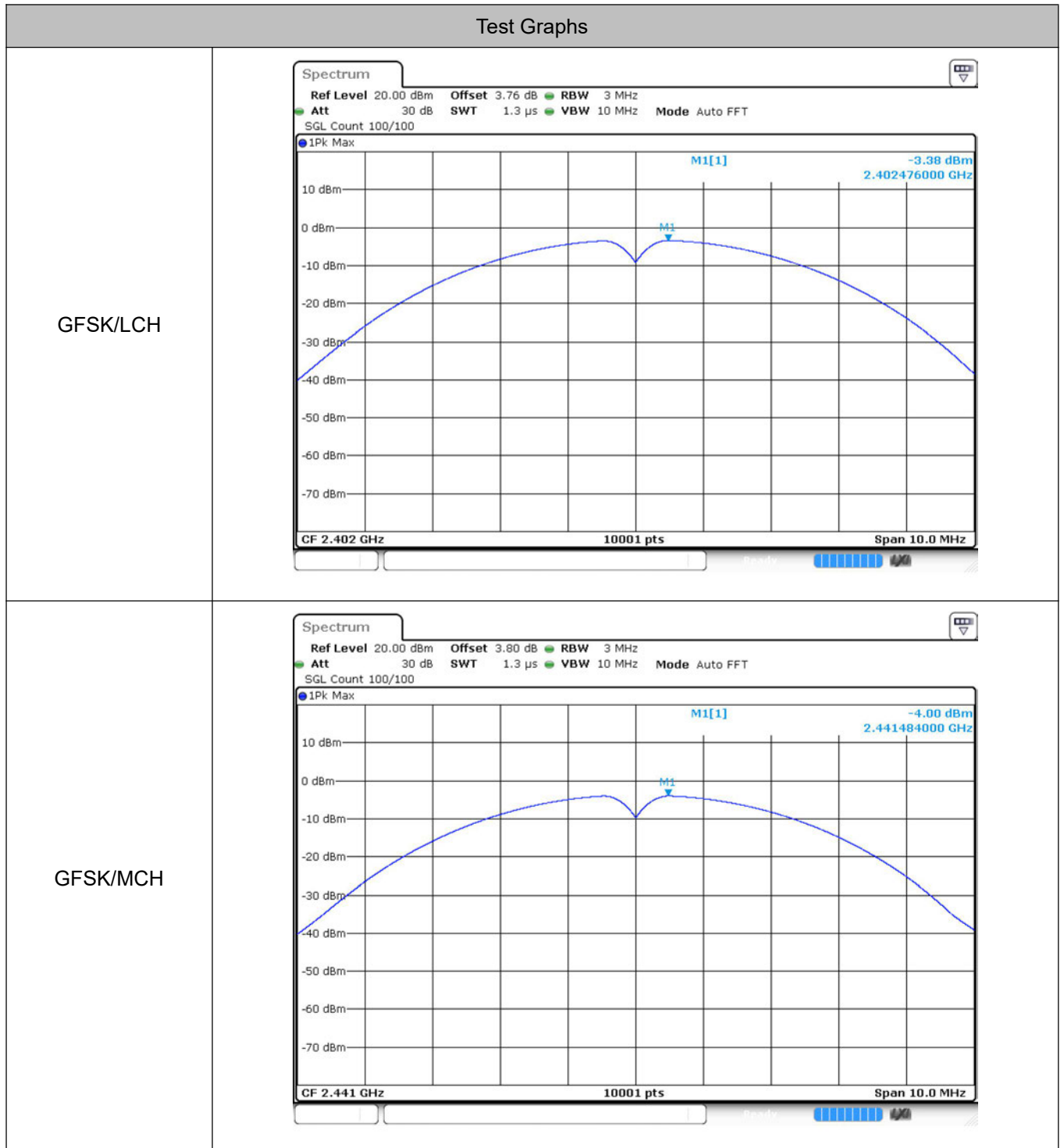


2 Maximum Conducted Peak Output Power

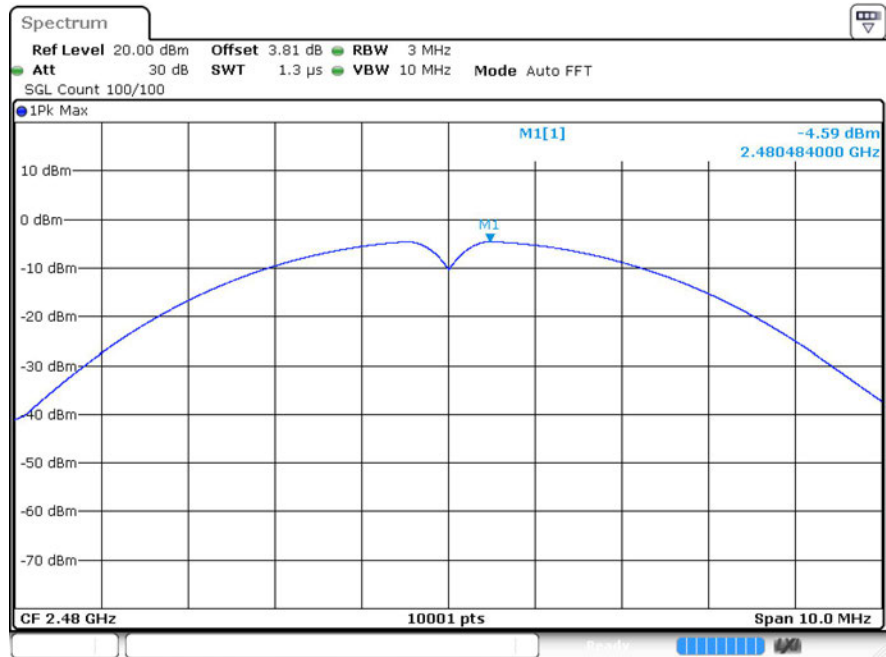
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-3.38	21	Pass
	MCH	-4	21	Pass
	HCH	-4.59	21	Pass
$\pi/4$ DQPSK	LCH	-3.01	21	Pass
	MCH	-3.81	21	Pass
	HCH	-4.48	21	Pass
8DPSK	LCH	-3.06	21	Pass
	MCH	-3.7	21	Pass
	HCH	-4.58	21	Pass

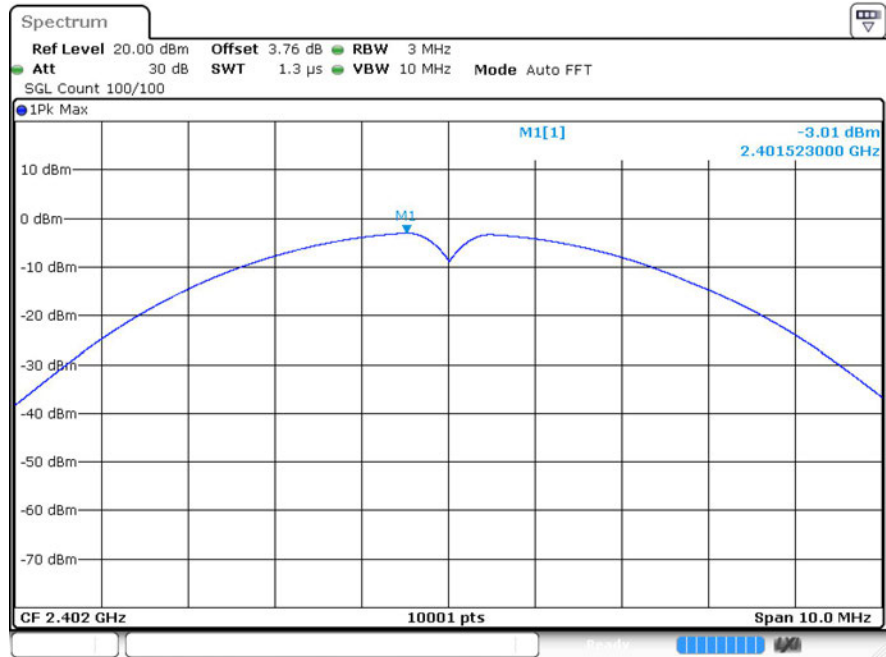
2.2 Test Graphs



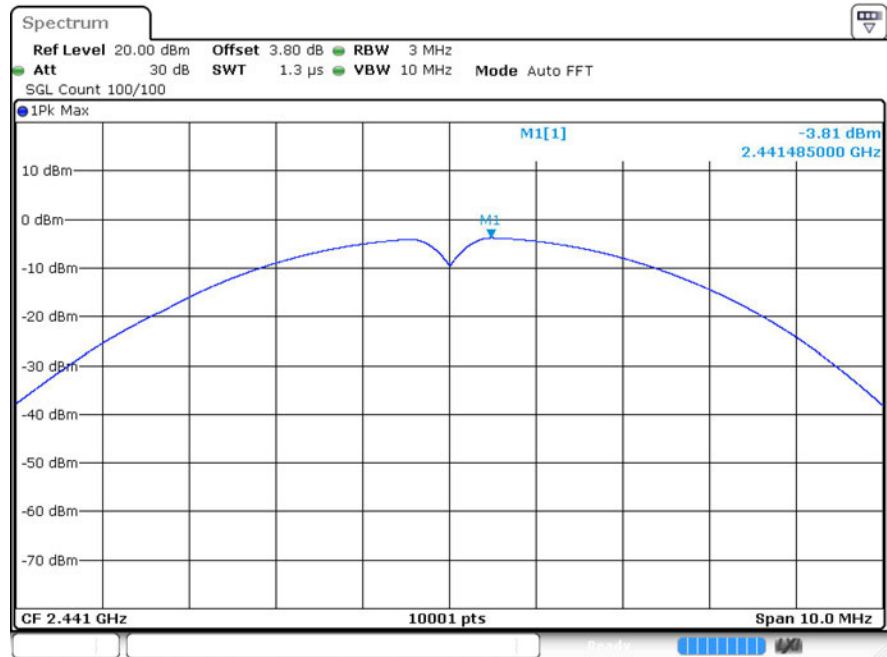
GFSK/HCH



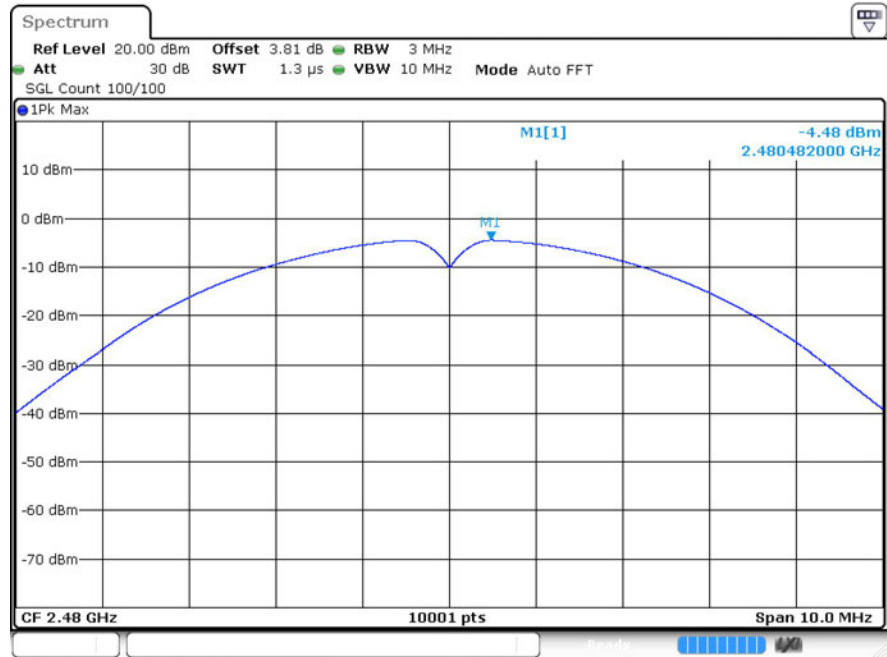
$\pi/4$ DQPSK/LCH



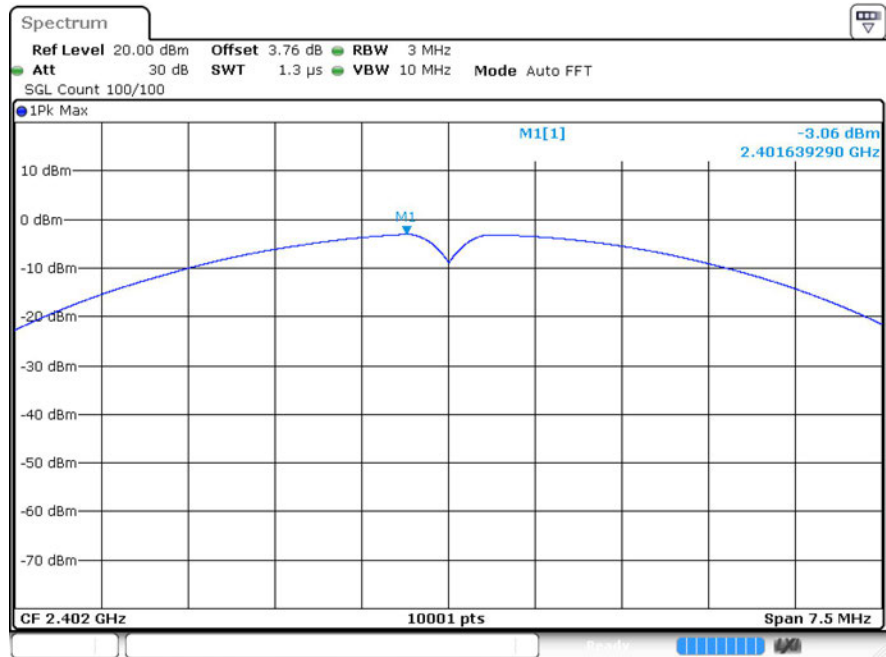
$\pi/4$ DQPSK/MCH



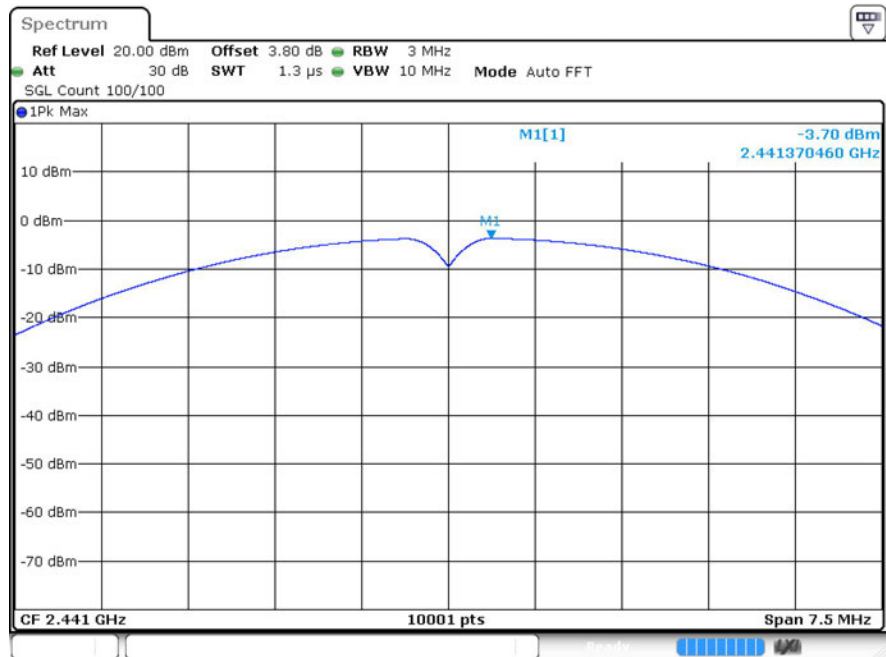
$\pi/4$ DQPSK/HCH



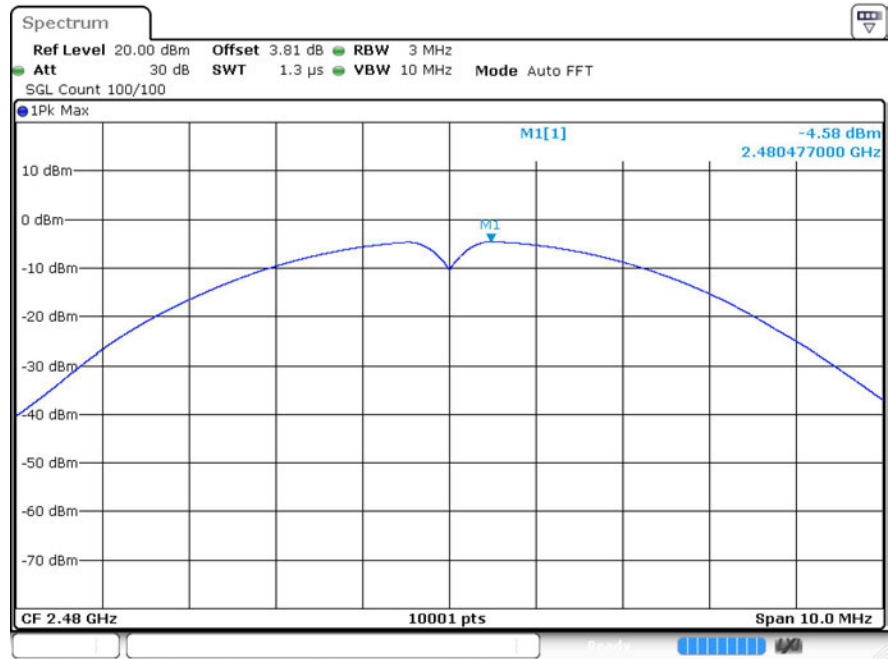
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

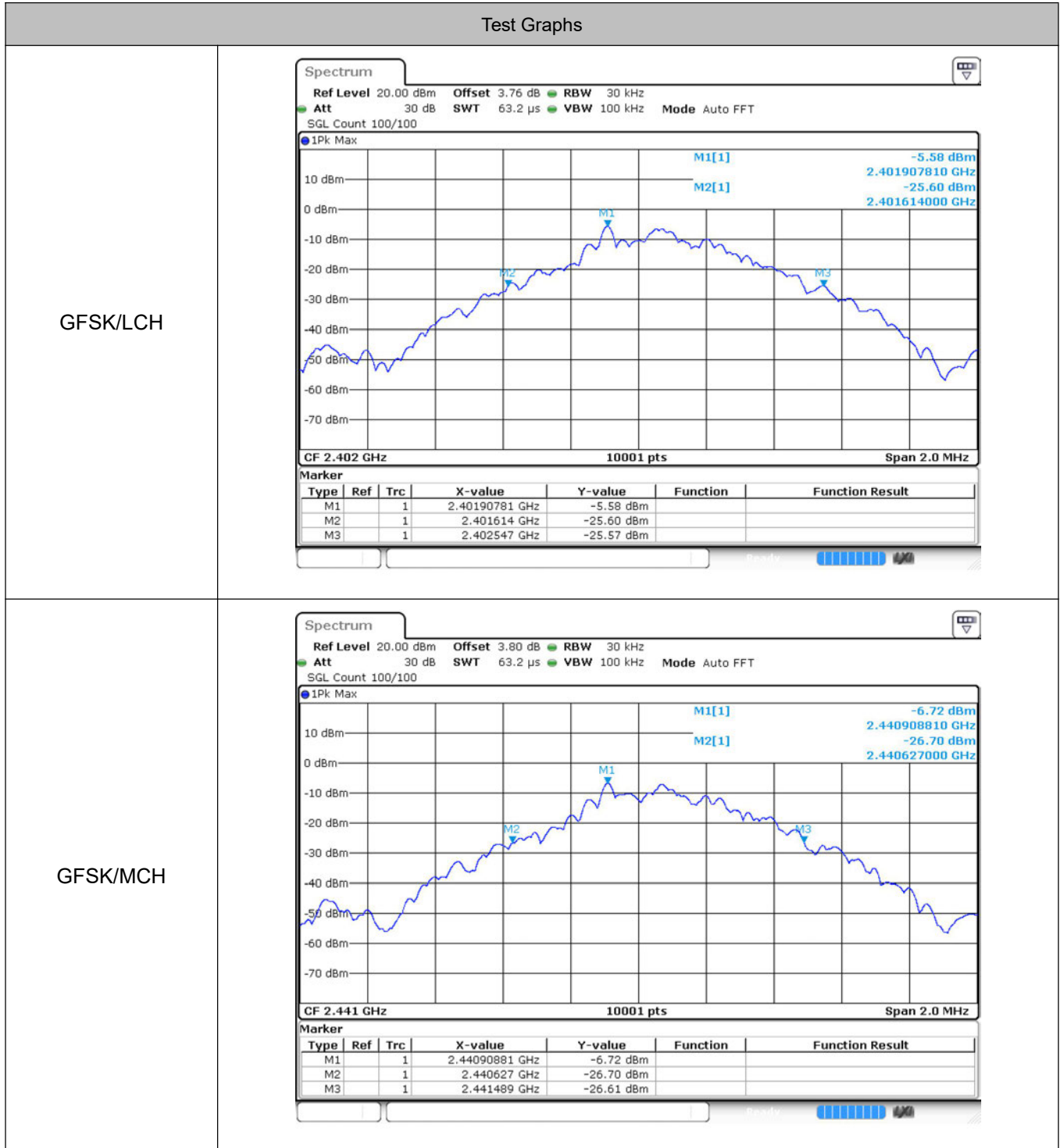


3 20dB Bandwidth

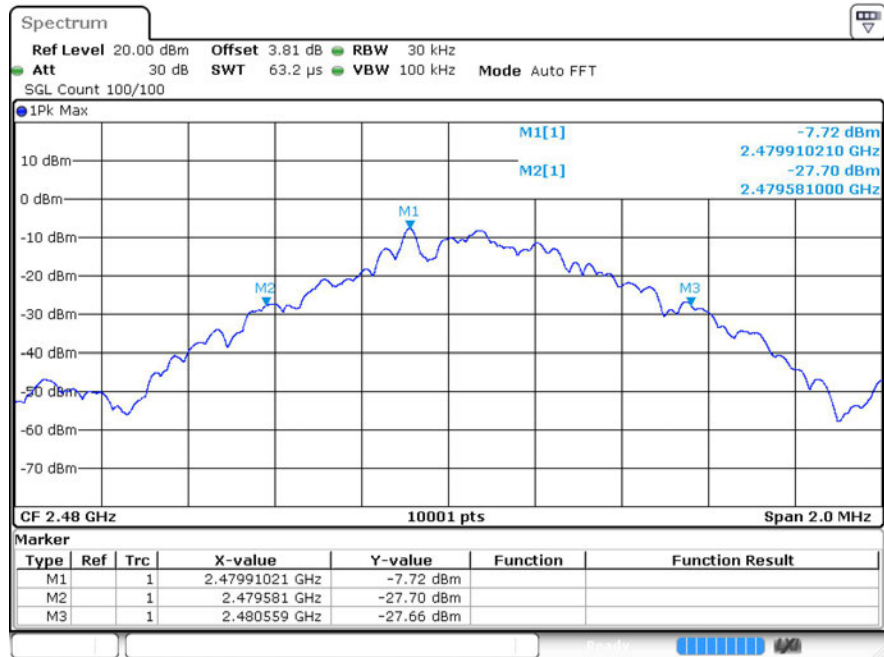
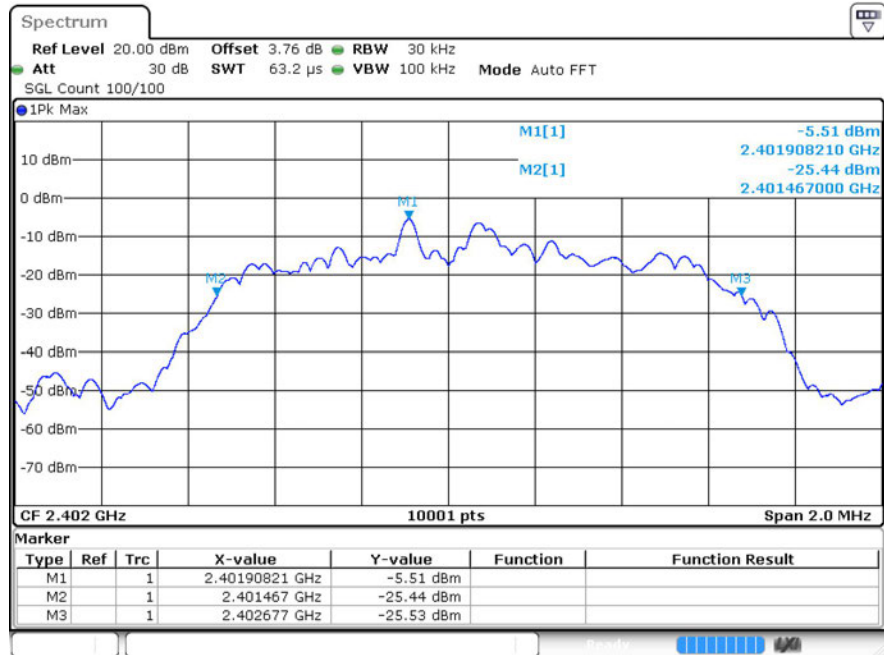
3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.933	Not Specified	Pass
	MCH	0.863	Not Specified	Pass
	HCH	0.979	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.21	Not Specified	Pass
	MCH	1.206	Not Specified	Pass
	HCH	1.233	Not Specified	Pass
8DPSK	LCH	1.221	Not Specified	Pass
	MCH	1.228	Not Specified	Pass
	HCH	1.223	Not Specified	Pass

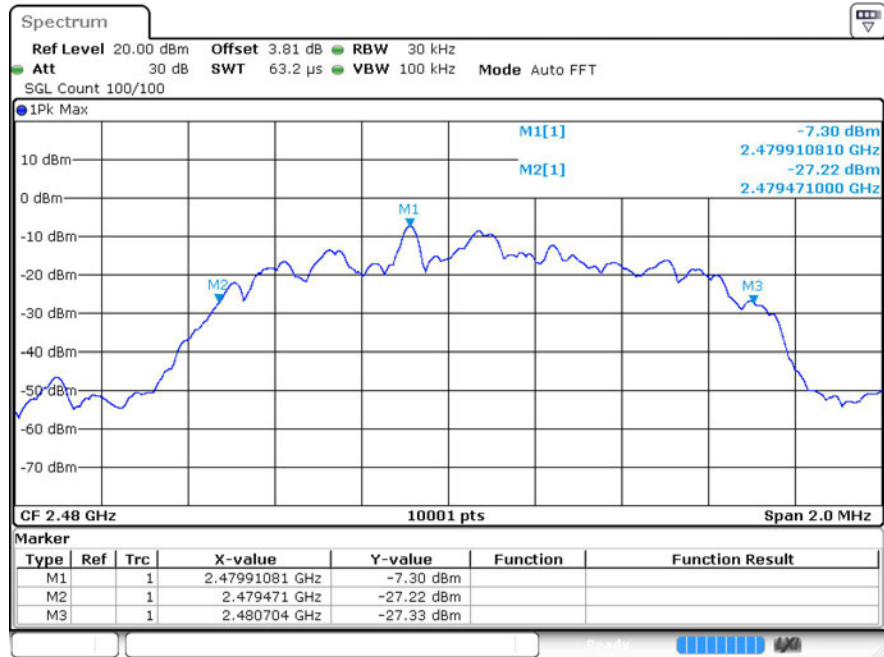
3.2 Test Graphs



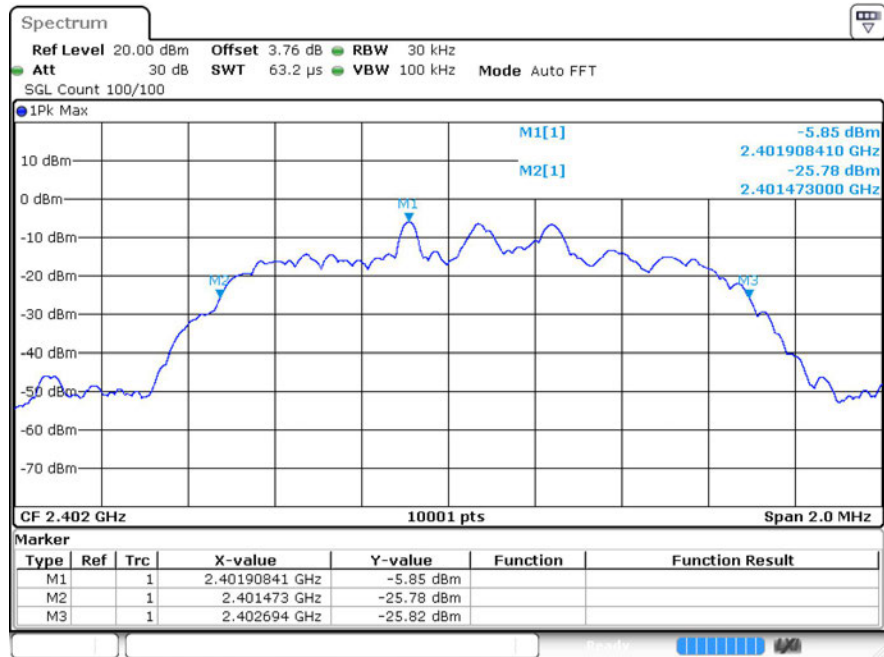
GFSK/HCH


 $\pi/4$ DQPSK/LCH


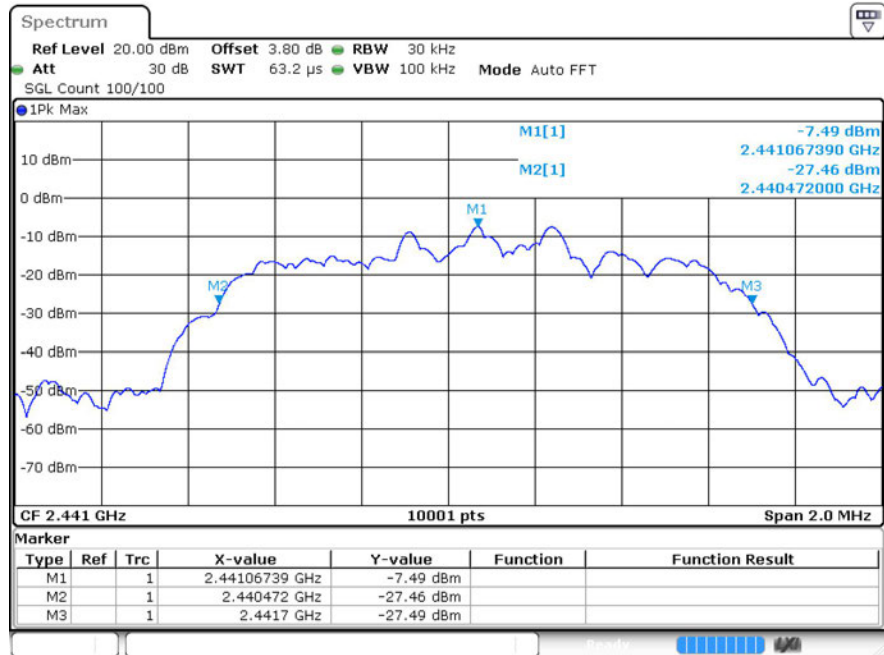
$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


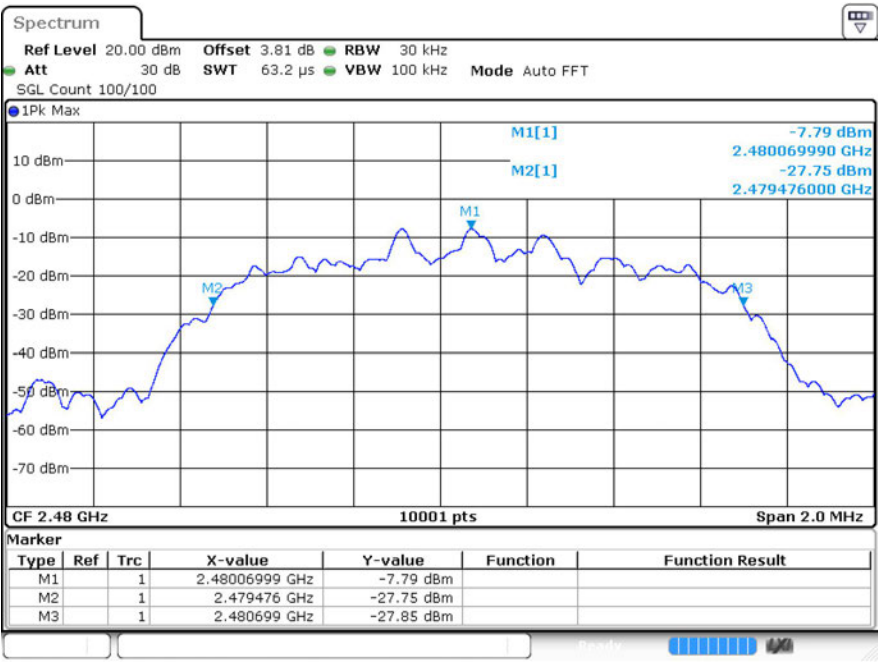
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH



4 Carrier Frequency Separation

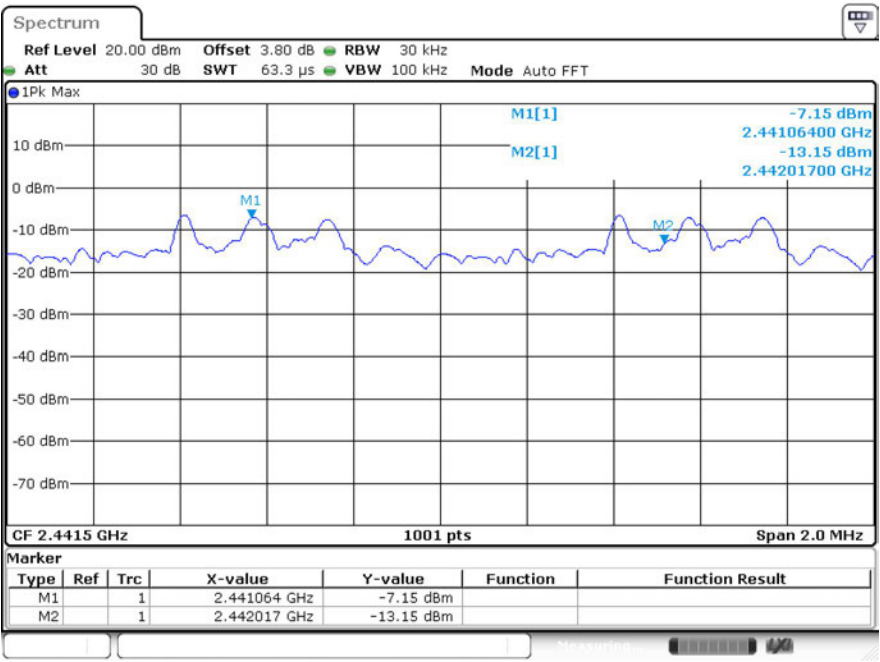
4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.003	0.575	Pass
$\pi/4$ DQPSK	MCH	1.004	0.804	Pass
8DPSK	MCH	0.953	0.819	Pass

4.2 Test Graphs



8DPSK/MCH

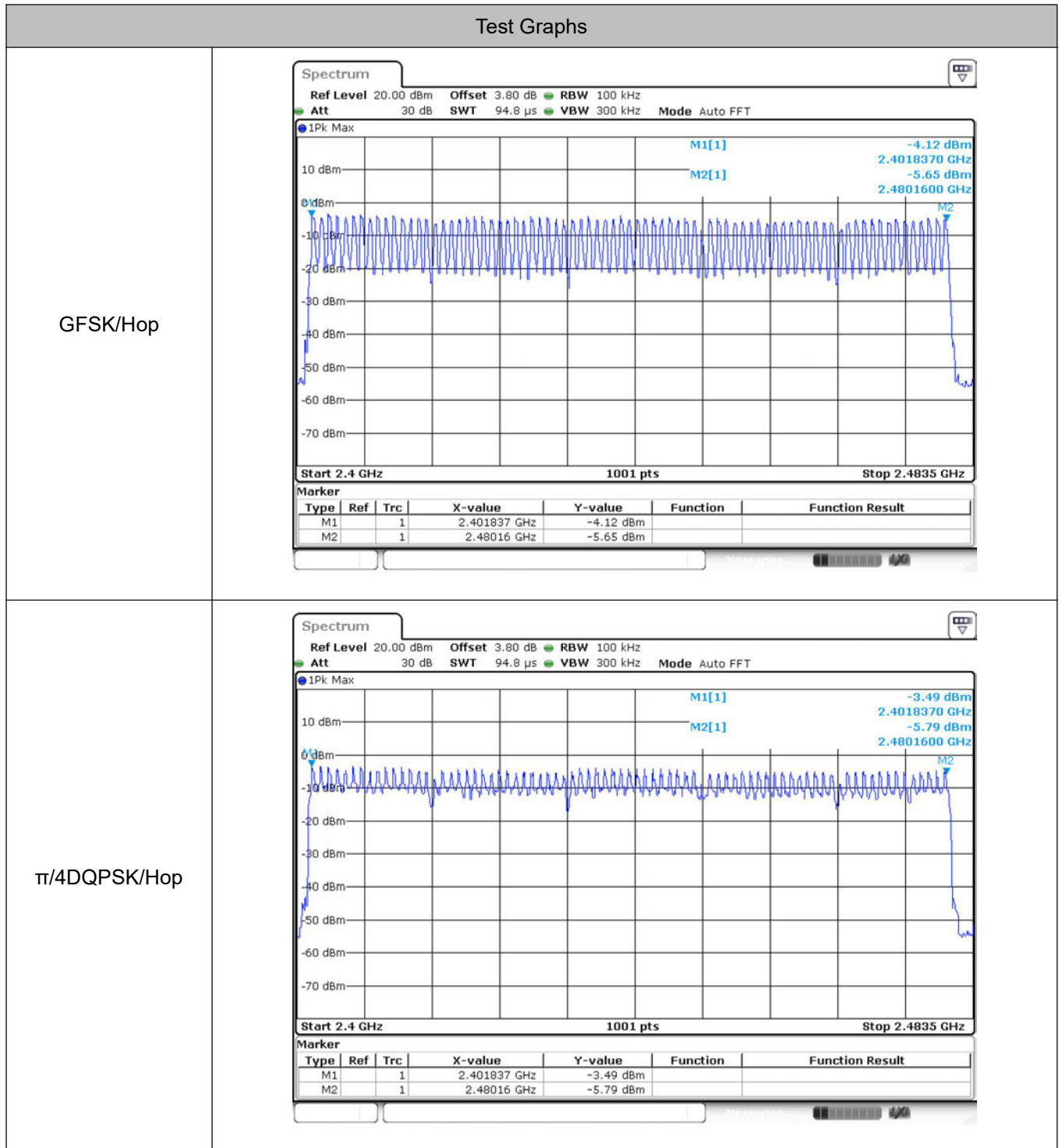


5 Hopping Channel Number

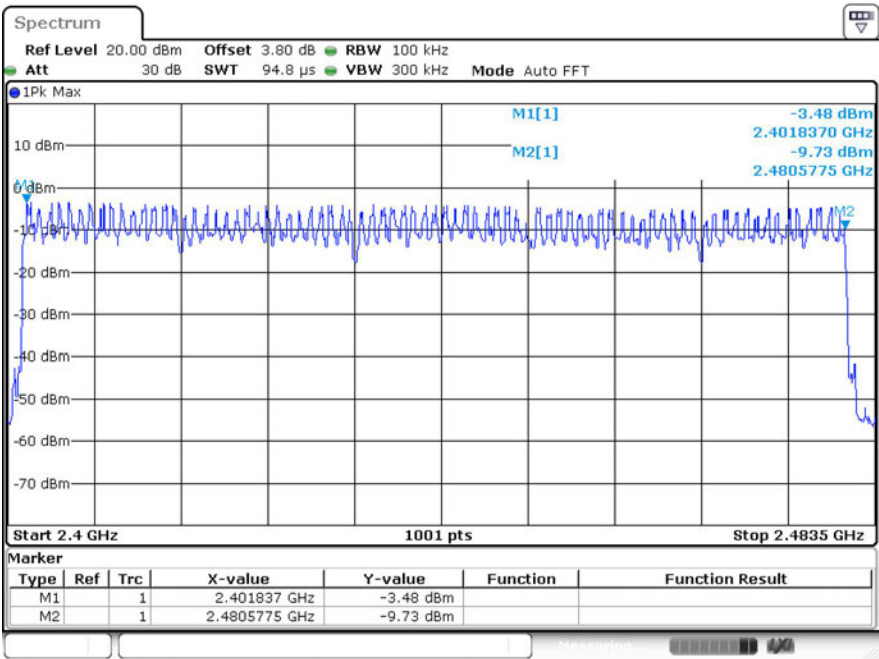
5.1 Test Result

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

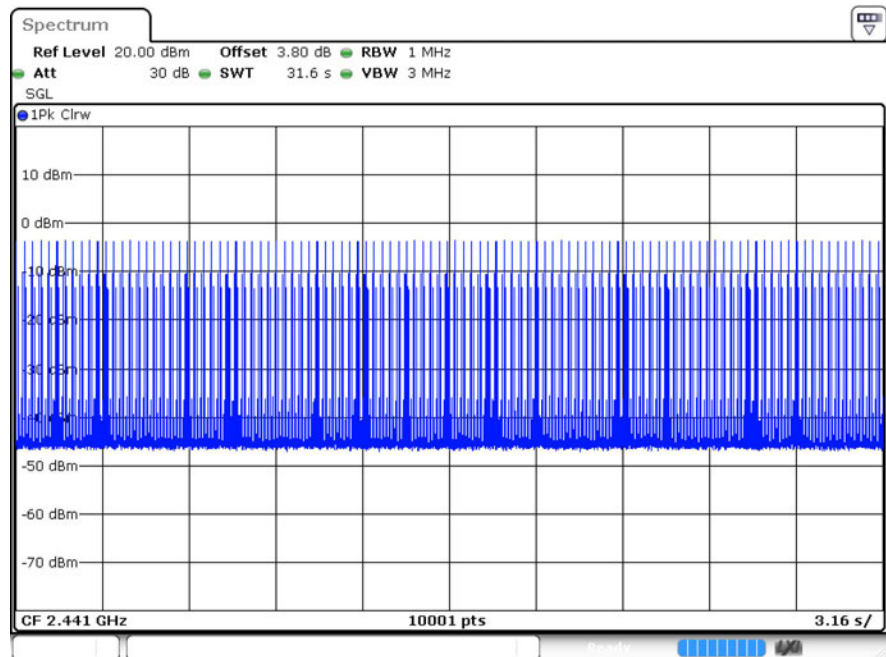
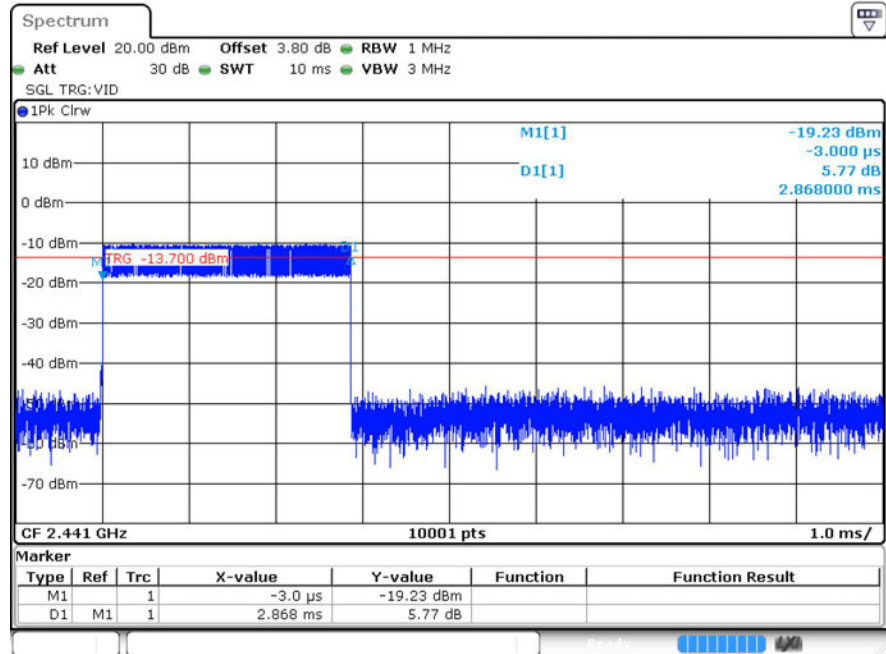
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.868	106	304.008	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.877	107	307.839	0.4	Pass
8DPSK	3DH5	MCH	2.88	107	308.16	0.4	Pass

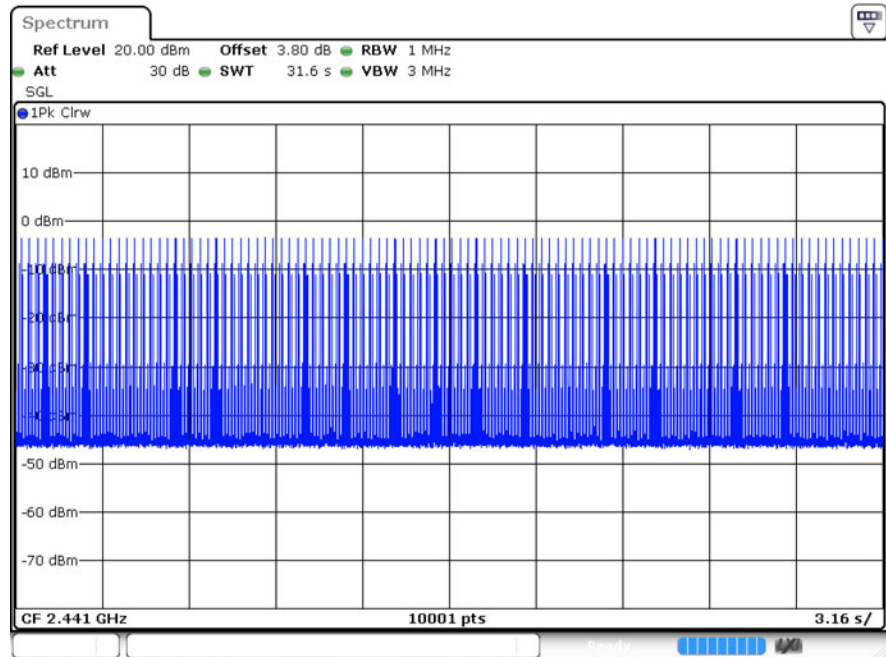
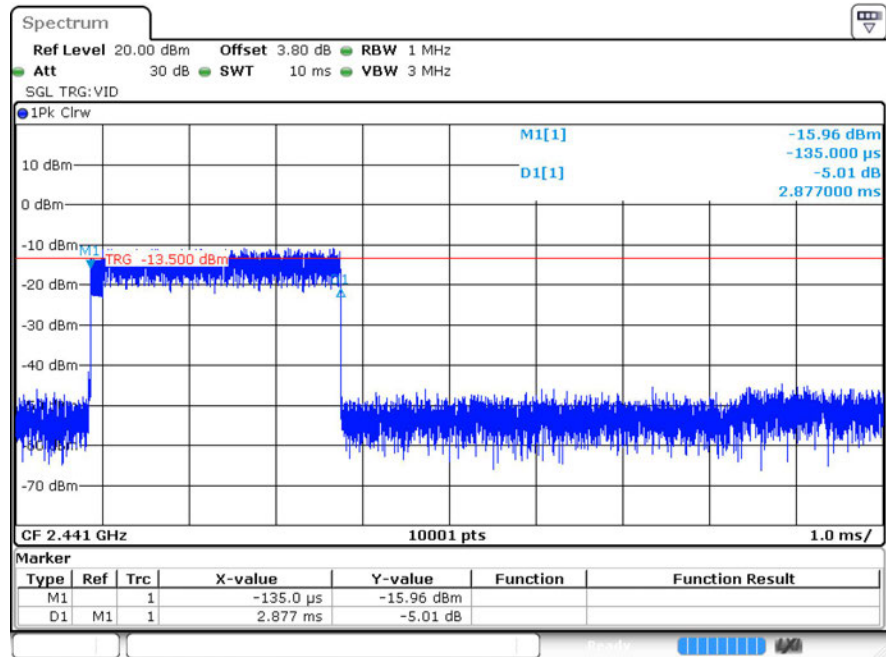
6.2 Test Graphs

Test Graphs

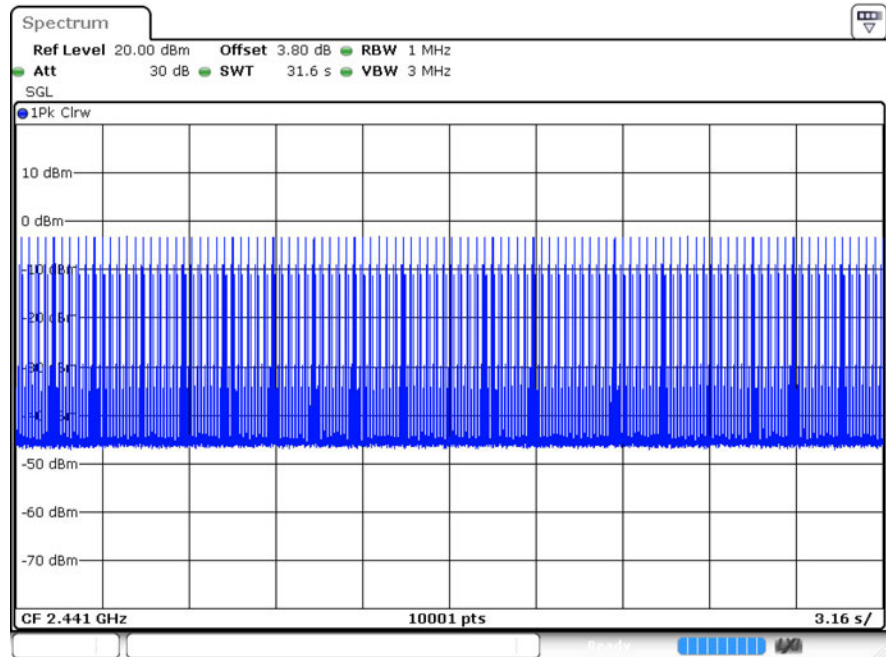
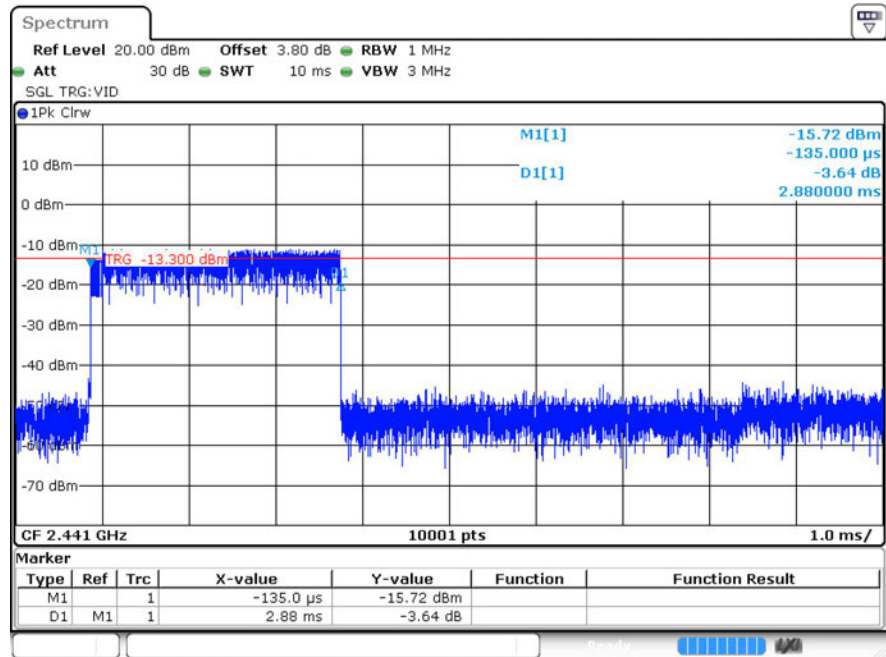
GFSK_DH5/MCH



$\pi/4$ 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	-36.3	-20	Pass
	MCH	-36.18	-20	Pass
	HCH	-34.05	-20	Pass
$\pi/4$ DQPSK	LCH	-36.67	-20	Pass
	MCH	-36.15	-20	Pass
	HCH	-35.74	-20	Pass
8DPSK	LCH	-36.87	-20	Pass
	MCH	-35.45	-20	Pass
	HCH	-35.53	-20	Pass

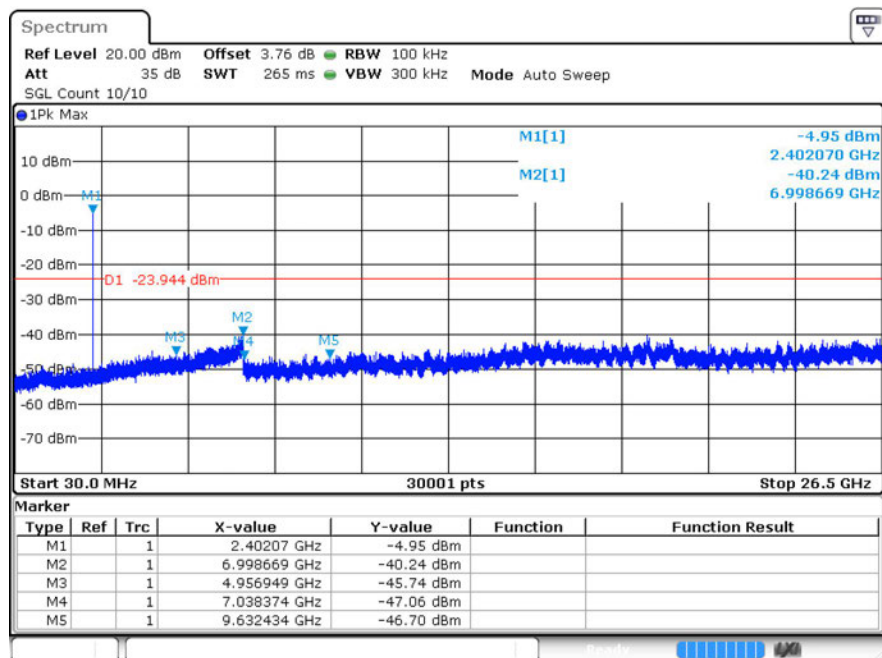
7.2 Test Graphs

GFSK_LCH_Graphs

Pref



Puw

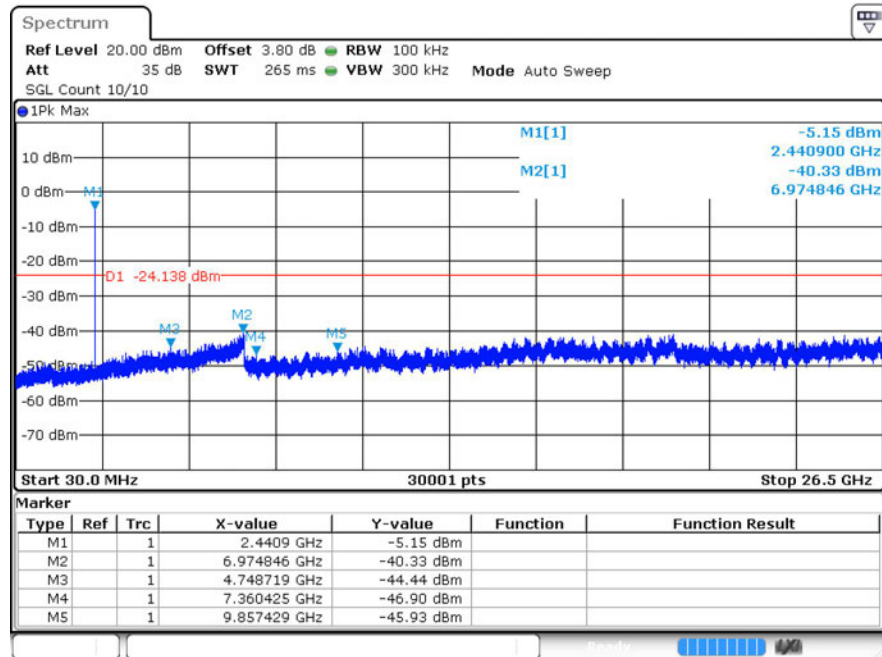


GFSK_MCH_Graphs

Pref

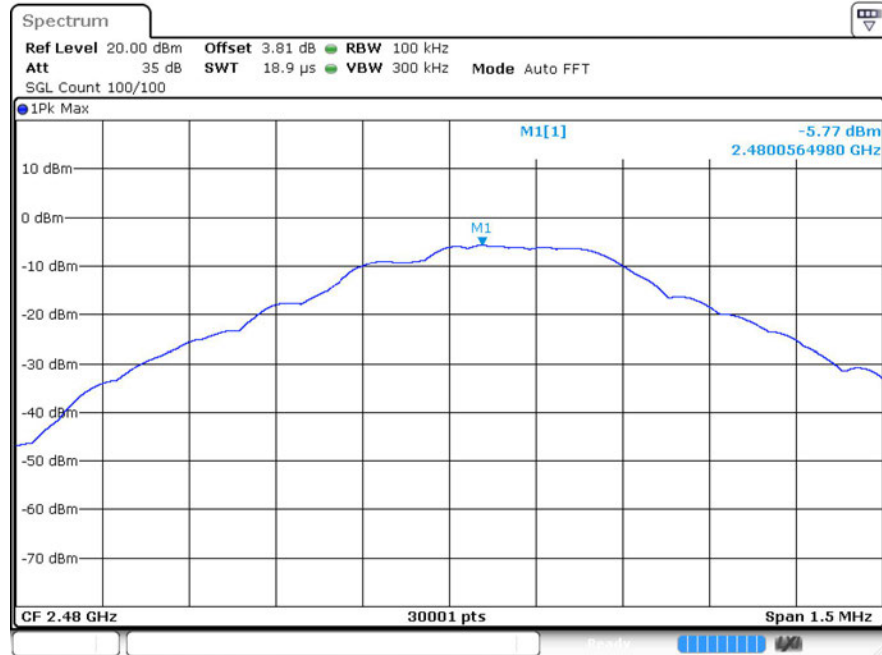


Puw

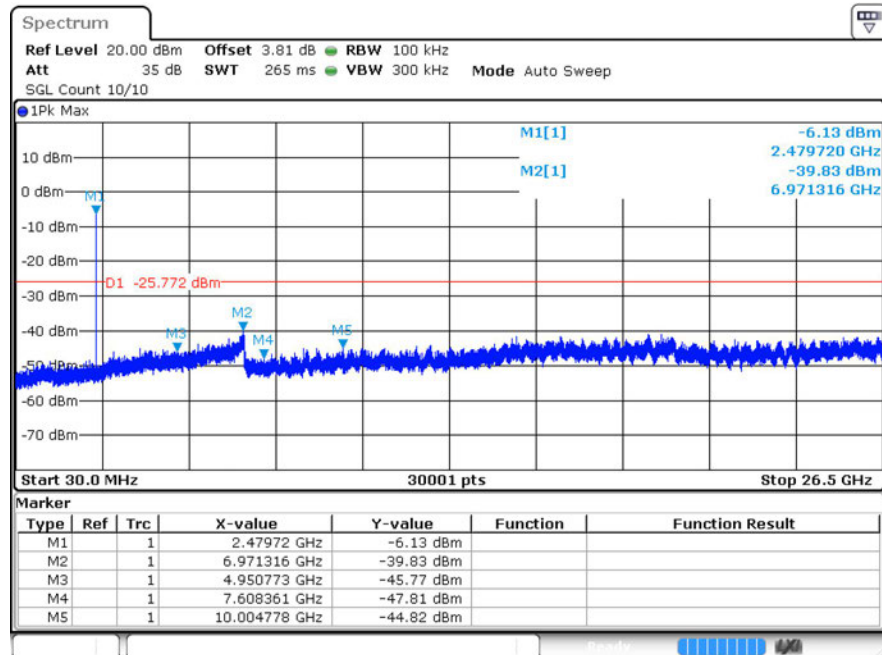


GFSK_HCH_Graphs

Pref



Puw

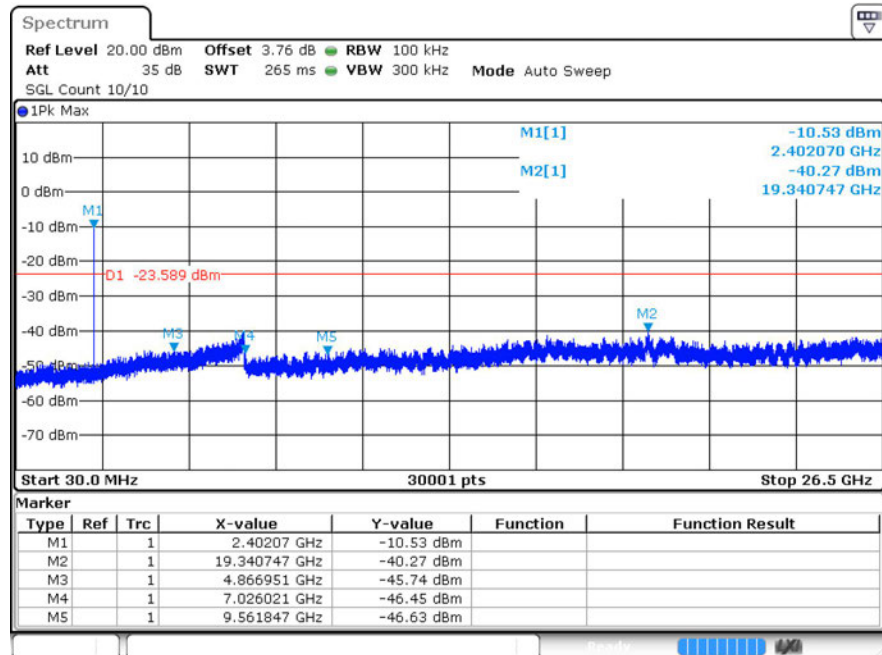


$\pi/4$ DQPSK_LCH_Graphs

Pref



Puw

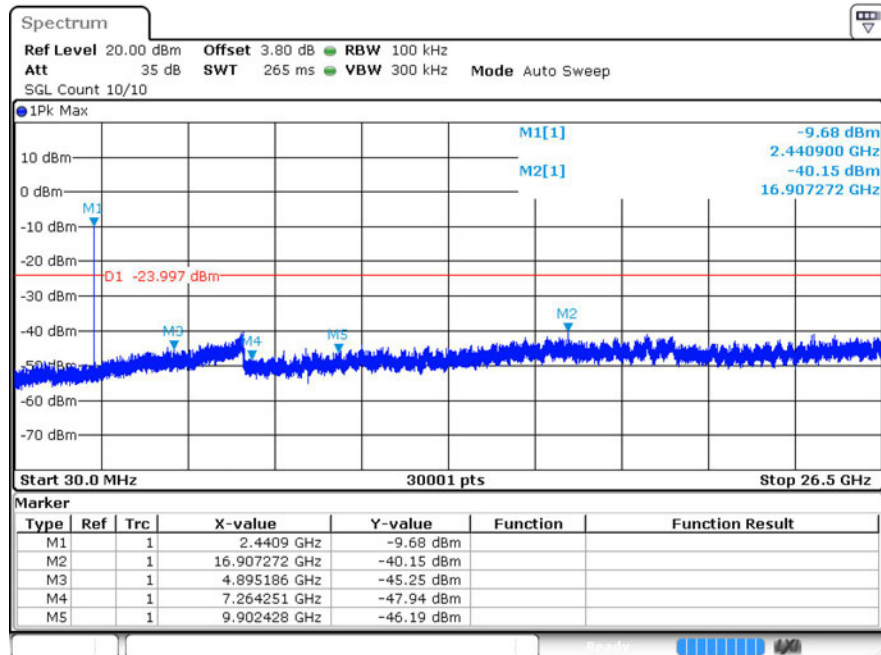


π /4DQPSK_MCH_Graphs

Pref



Puw

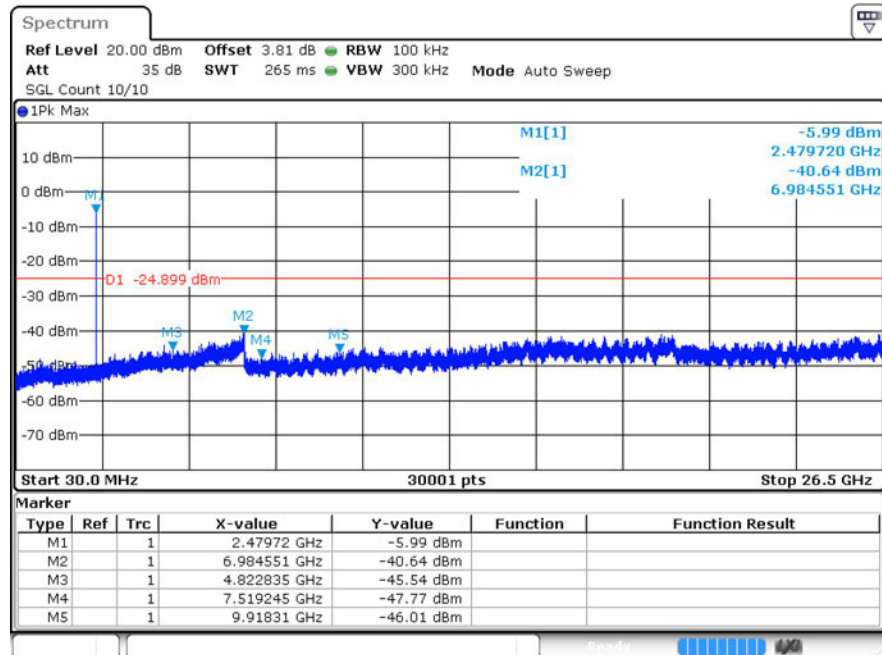


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

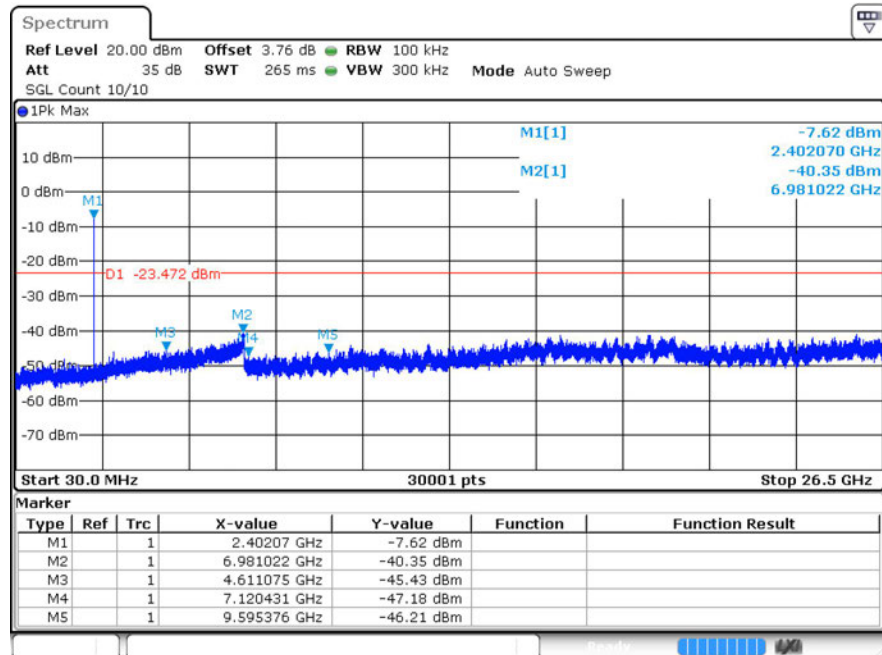


8DPSK_LCH_Graphs

Pref

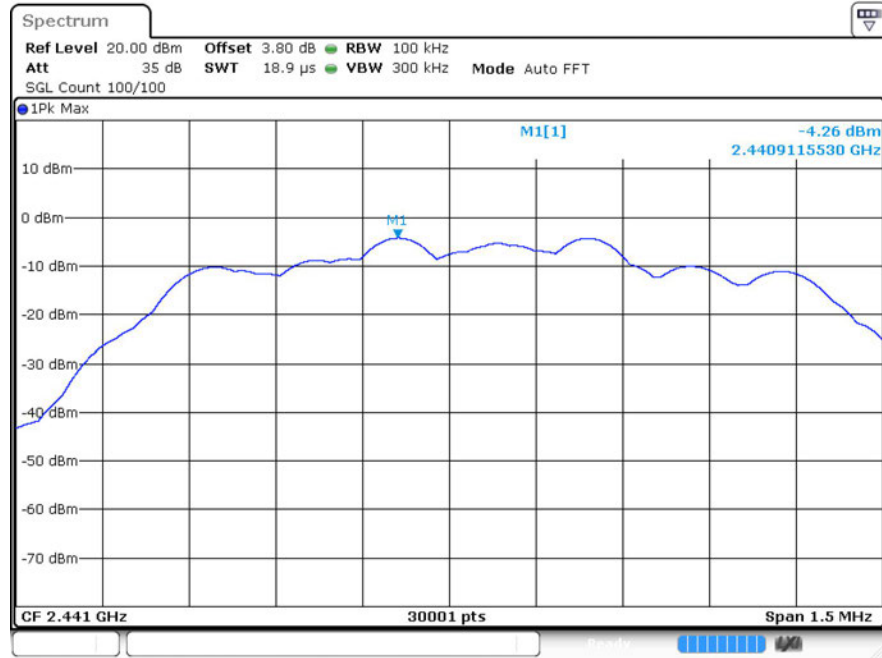


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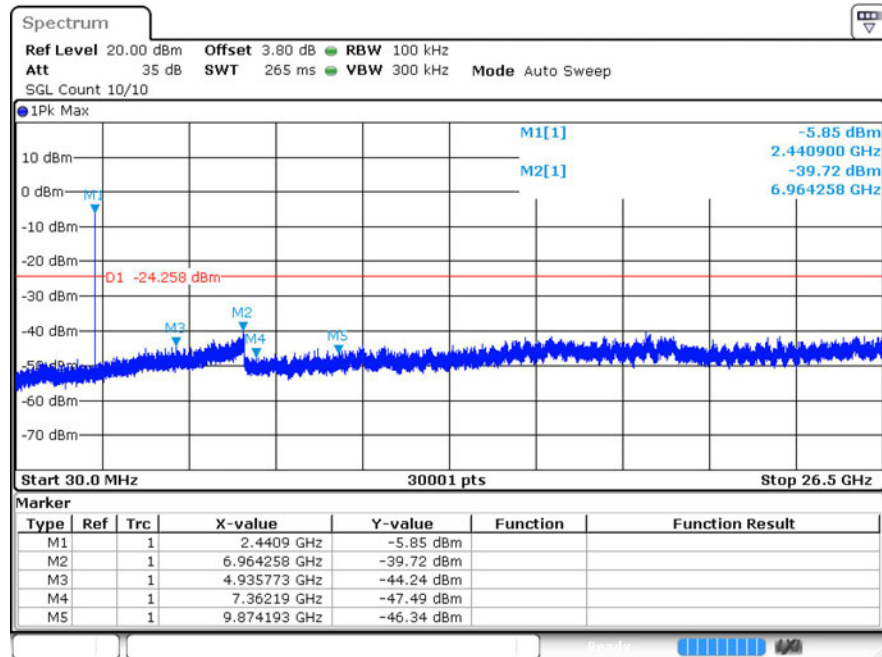


8DPSK_MCH_Graphs

Pref



Puw



8DPSK_HCH_Graphs

Pref



Puw

