



Appendix A

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

Product Name: MICROPHONE

Trade Mark: N/A

Test Model: BS935M / VTA-82507M

Environmental Conditions

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

Contents

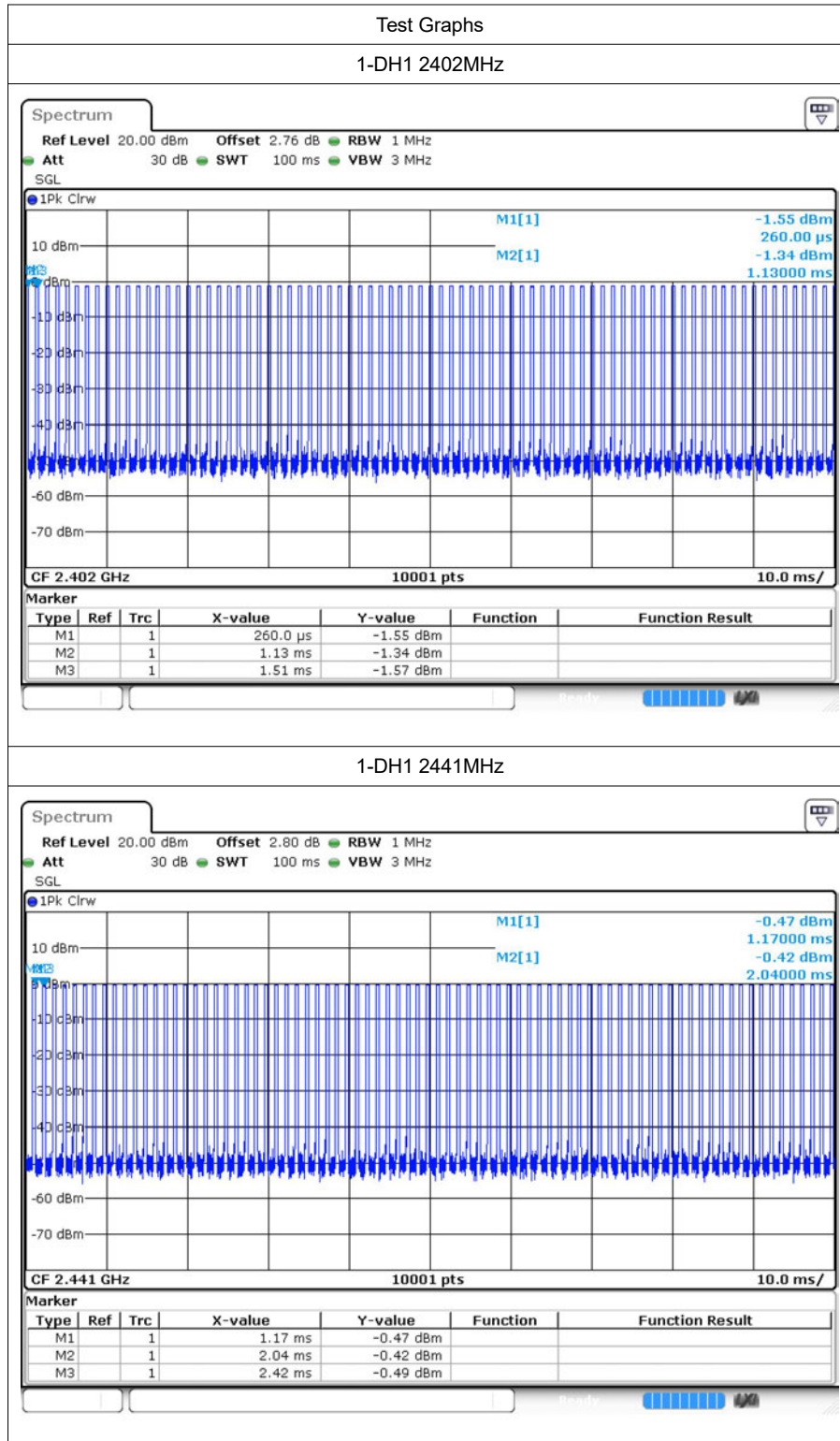
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1 Duty Cycle

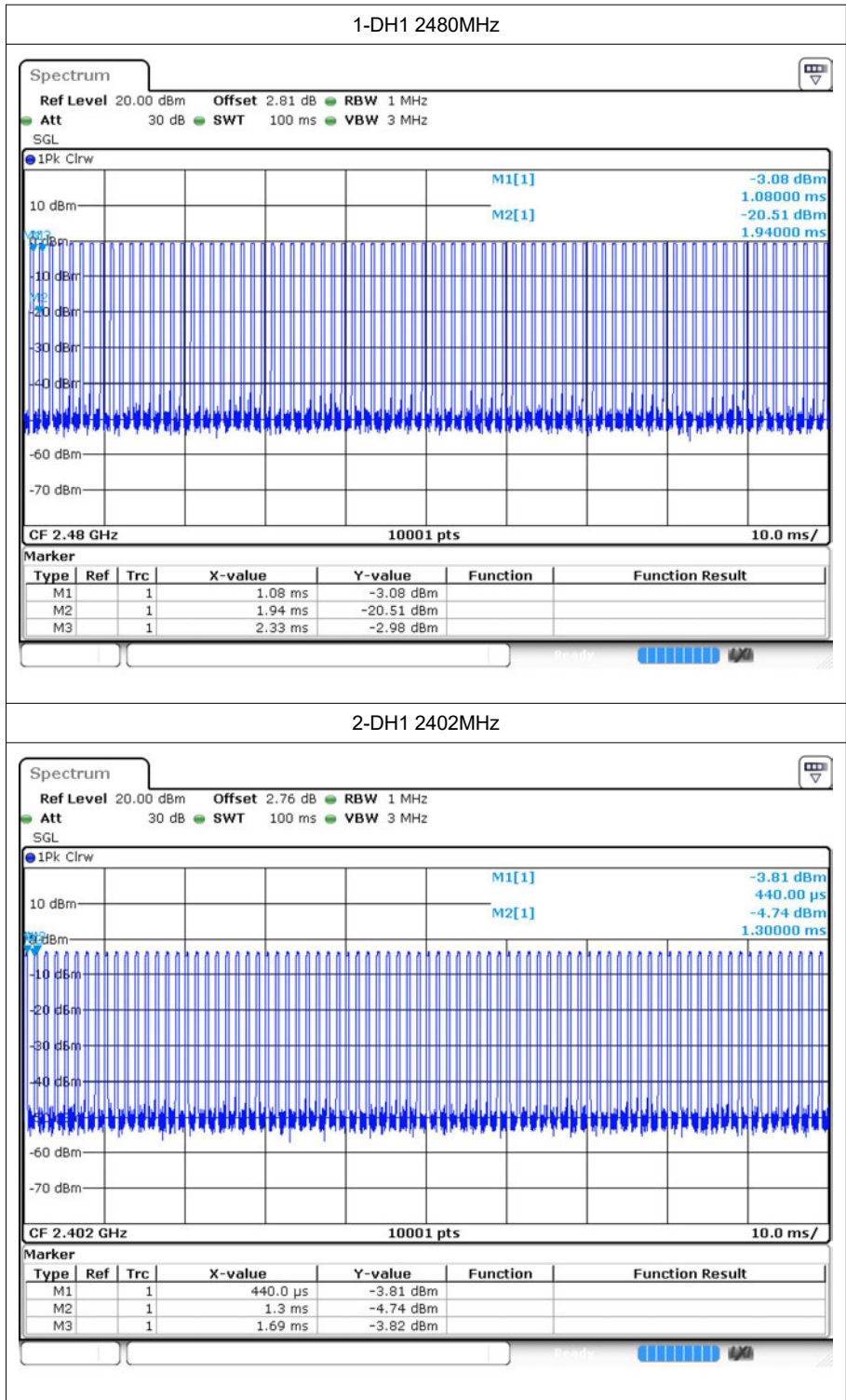
1.1 Test Result

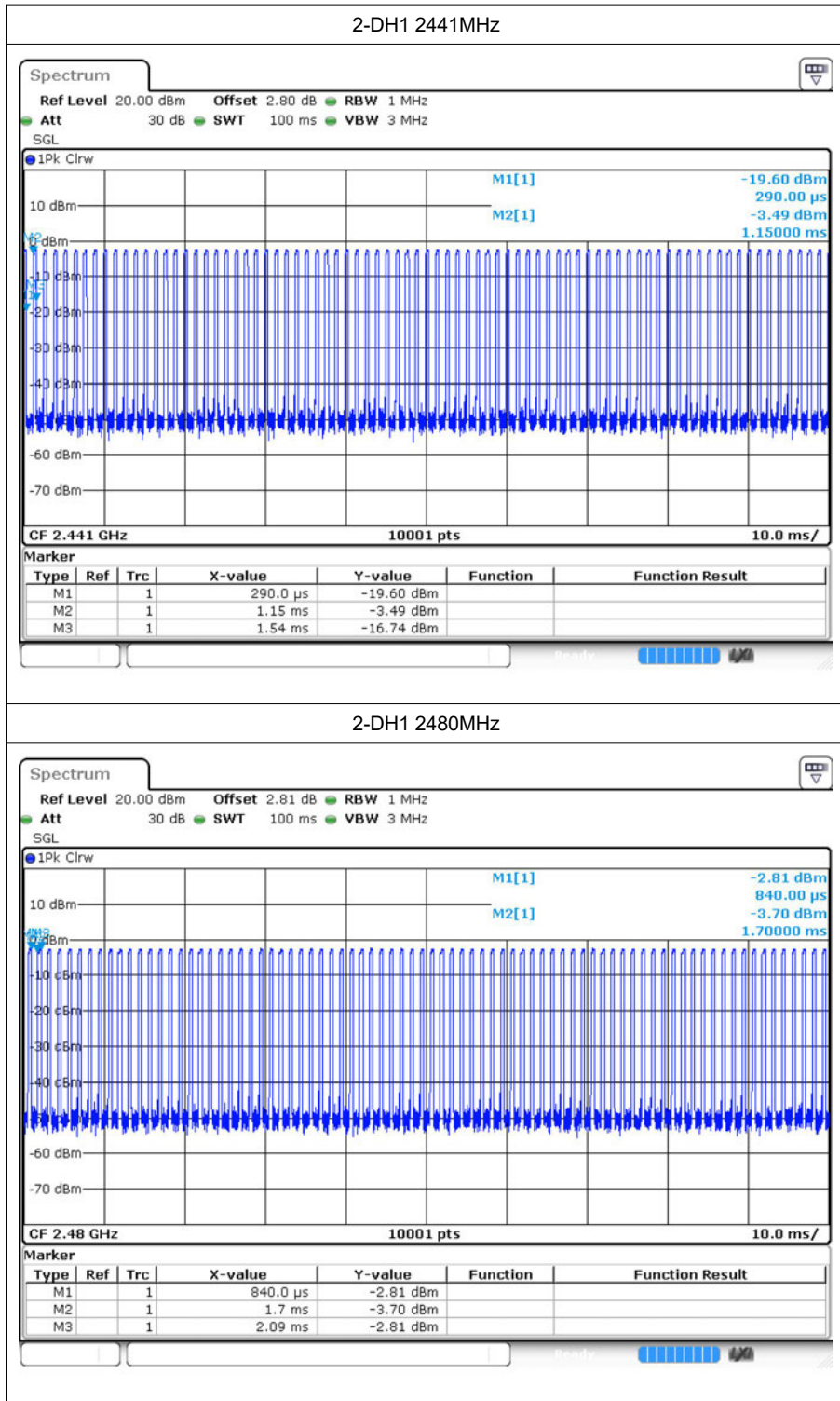
Mode	Frequency (MHz)	Duty Cycle (%)	1/T (kHz)
1-DH1	2402	31.21	2.63
1-DH1	2441	31.2	2.63
1-DH1	2480	31.31	2.56
2-DH1	2402	32	2.56
2-DH1	2441	32.01	2.56
2-DH1	2480	32	2.56

1.2 Test Graphs



1-DH1 2441MHz



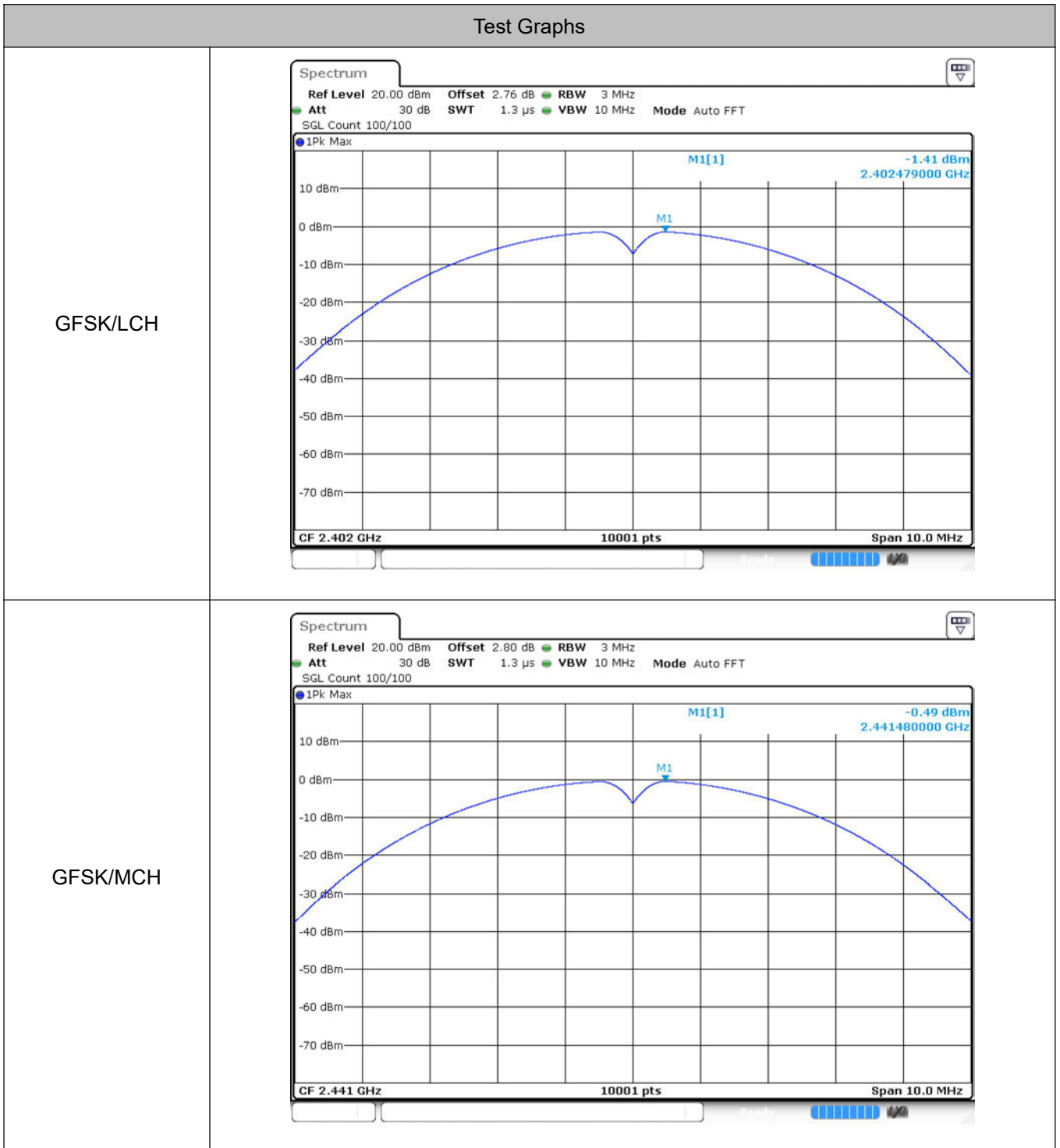


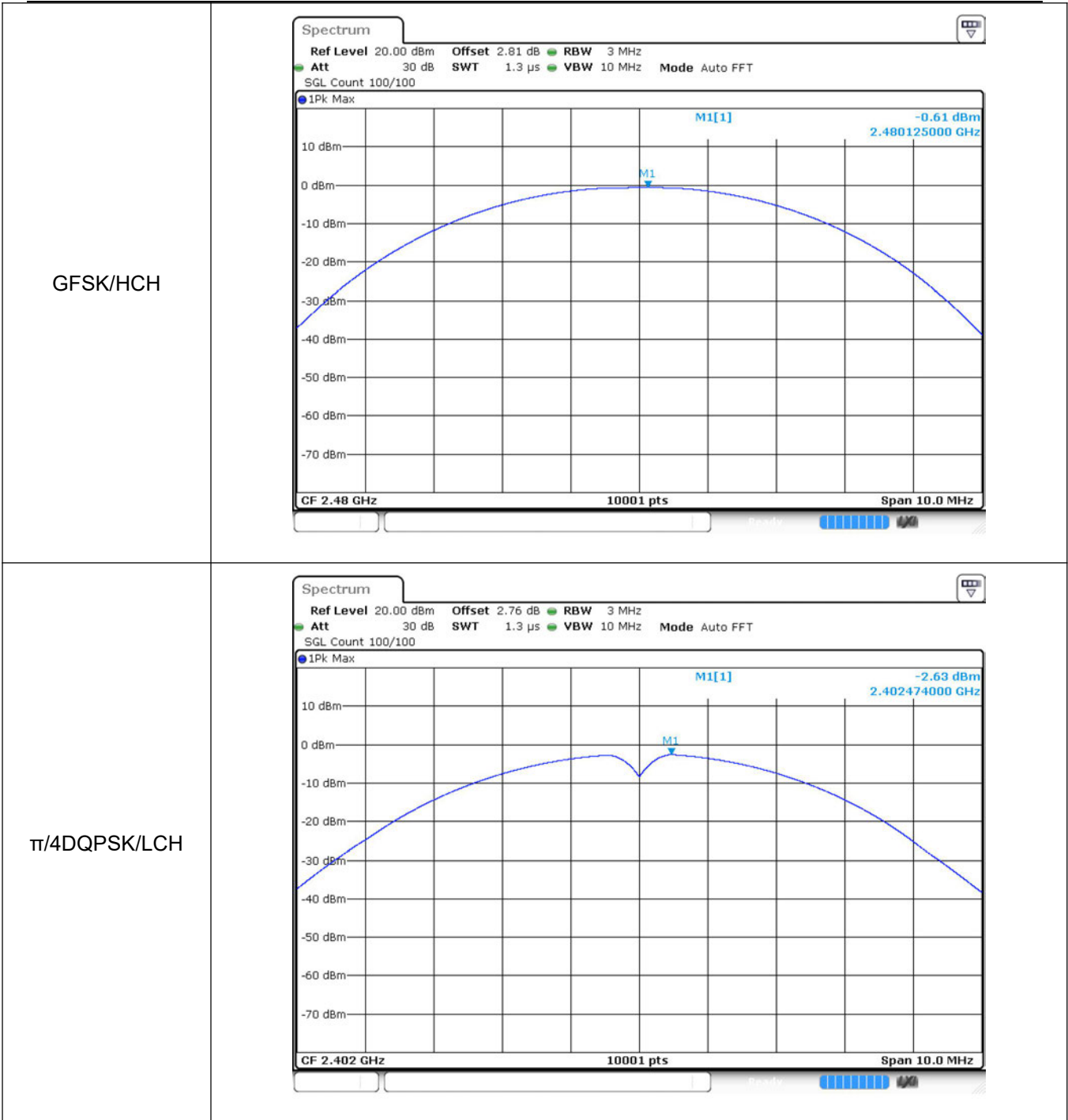
2 Maximum Conducted Peak Output Power

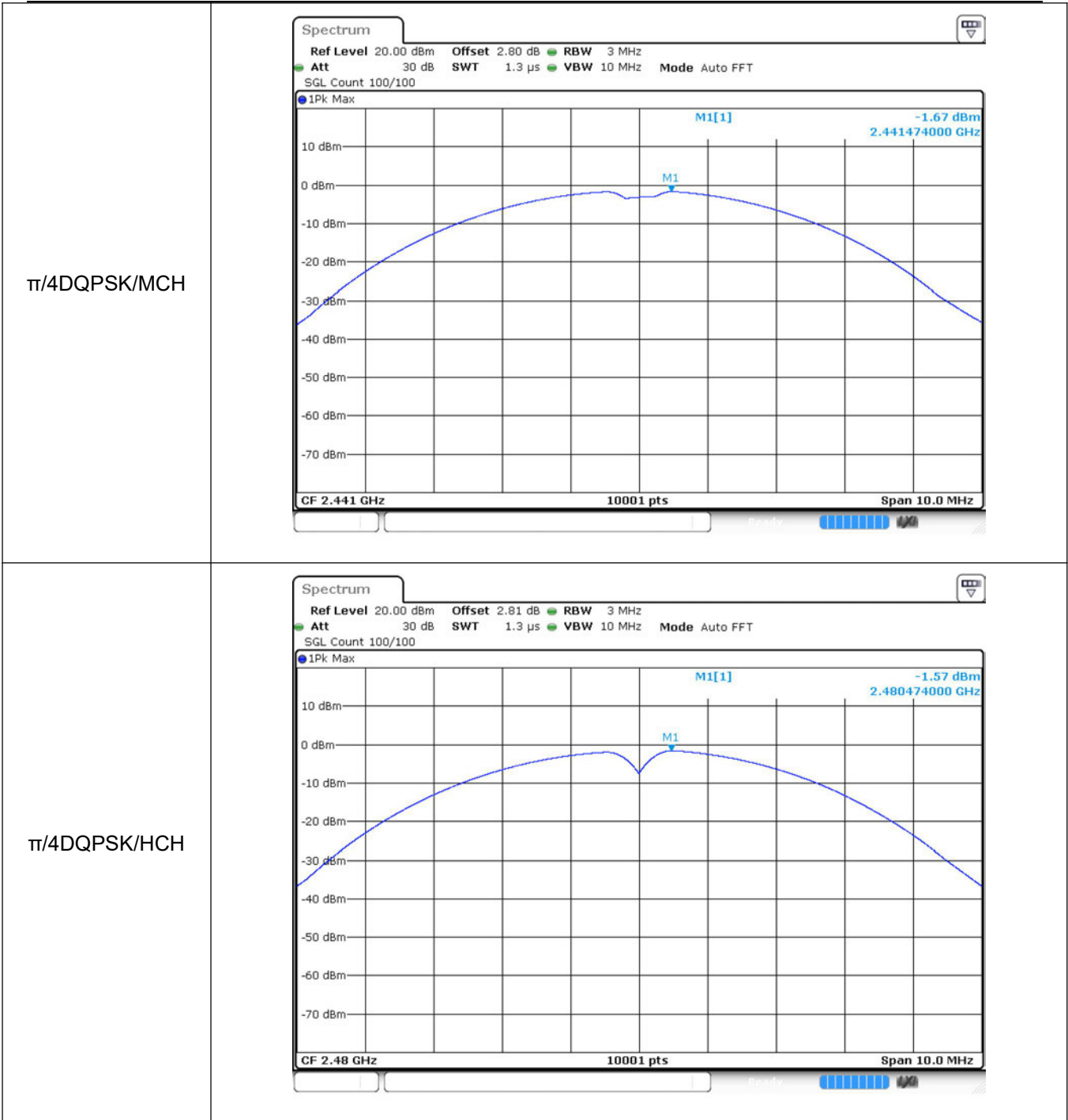
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.41	21	Pass
	MCH	-0.49	21	Pass
	HCH	-0.61	21	Pass
$\pi/4$ DQPSK	LCH	-2.63	21	Pass
	MCH	-1.67	21	Pass
	HCH	-1.57	21	Pass

2.2 Test Graphs





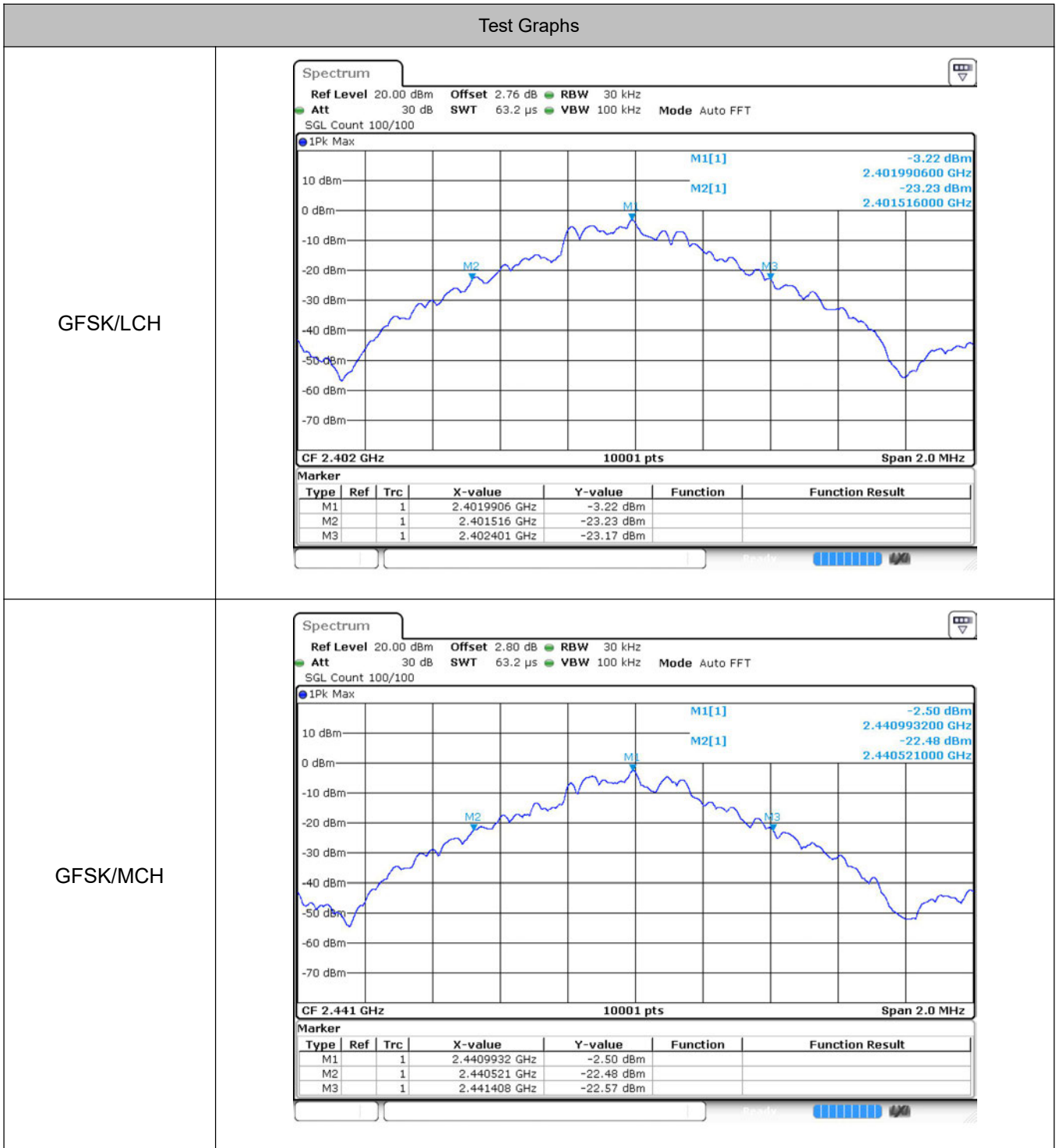


3 20dB Bandwidth

3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.885	Not Specified	Pass
	MCH	0.887	Not Specified	Pass
	HCH	0.935	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.495	Not Specified	Pass
	MCH	1.398	Not Specified	Pass
	HCH	1.454	Not Specified	Pass

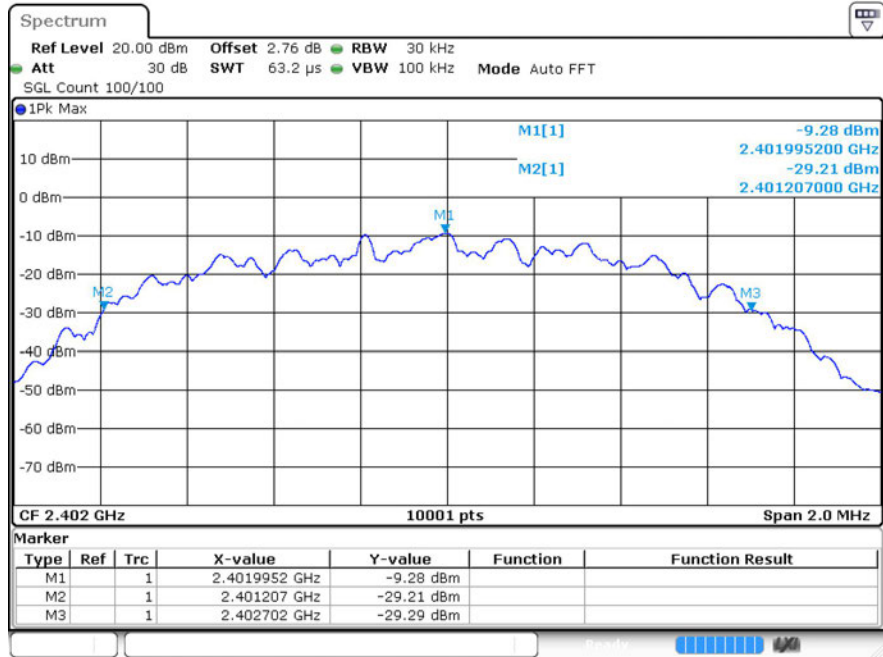
3.2 Test Graphs



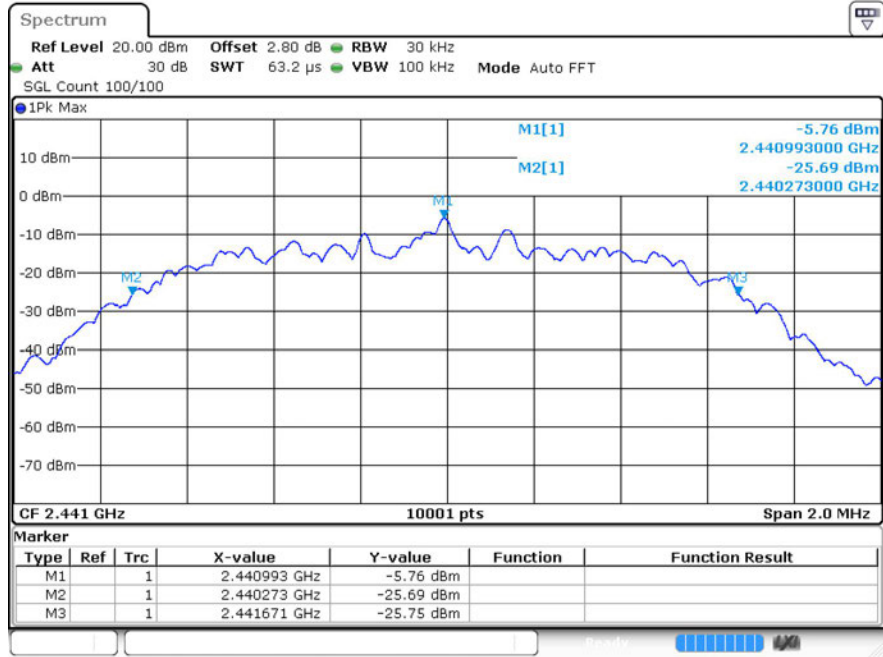
GFSK/HCH



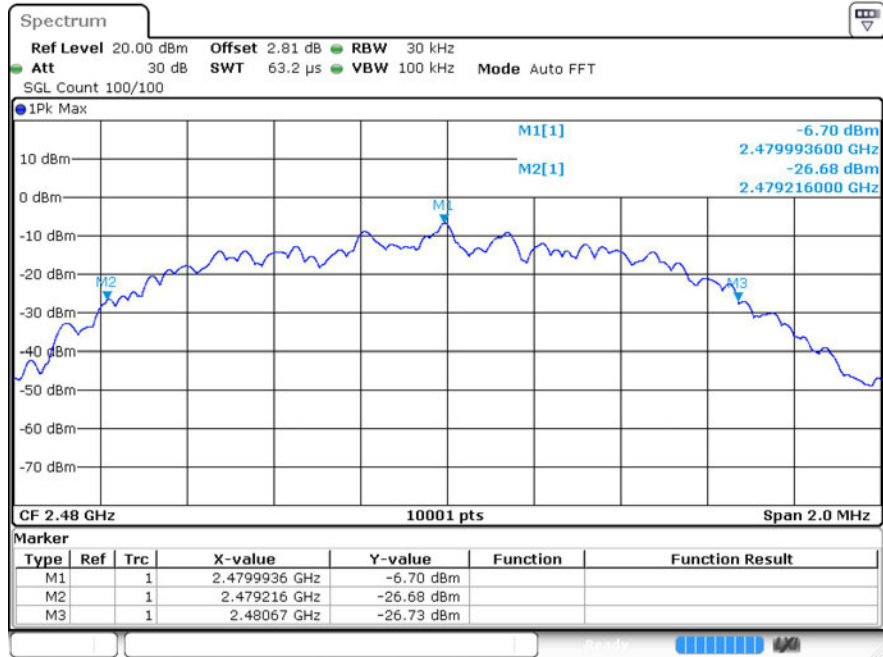
π /4DQPSK/LCH



$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH

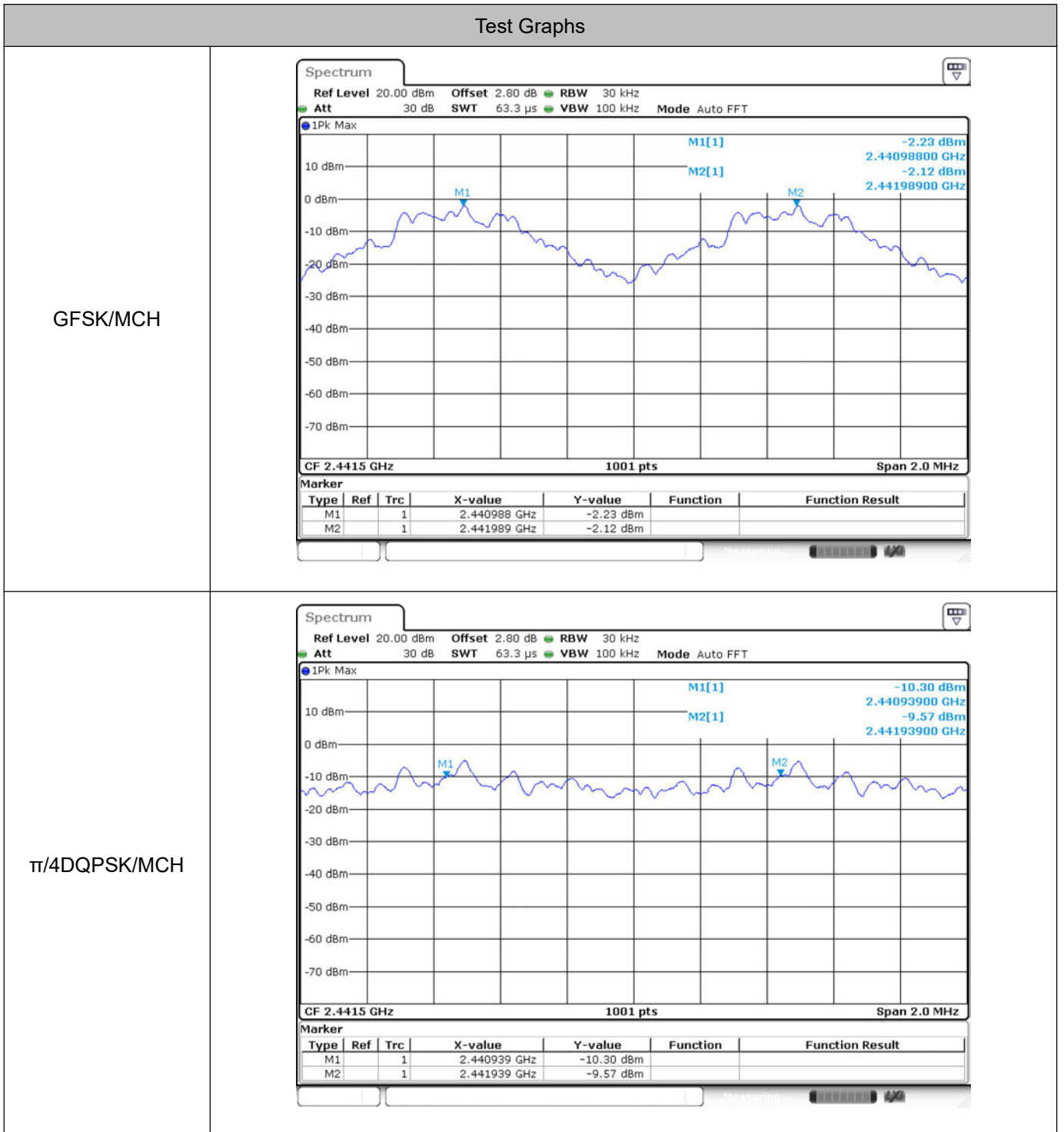


4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.001	0.591	Pass
$\pi/4$ DQPSK	MCH	1	0.932	Pass

4.2 Test Graphs

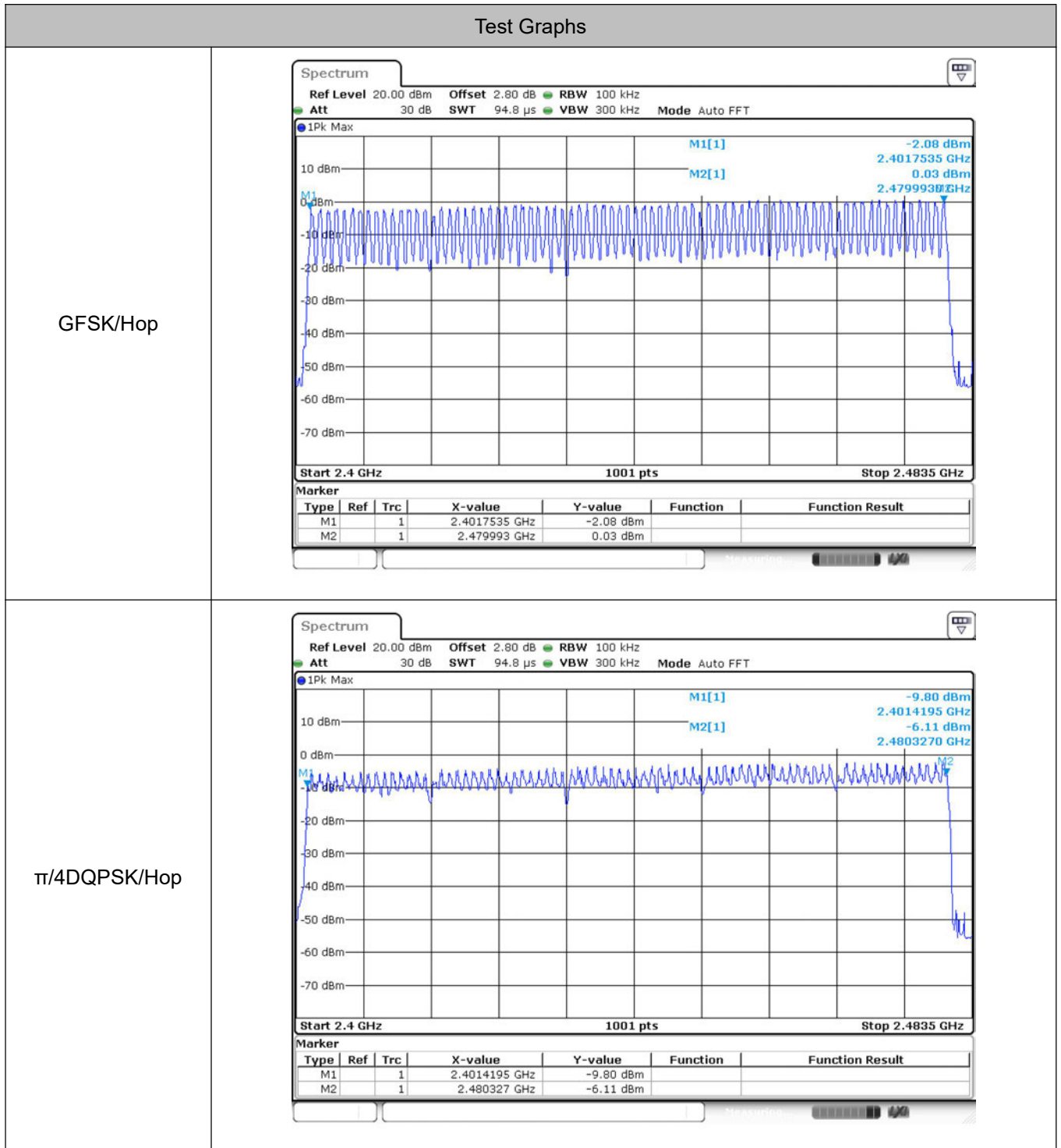


5 Hopping Channel Number

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

5.2 Test Graphs

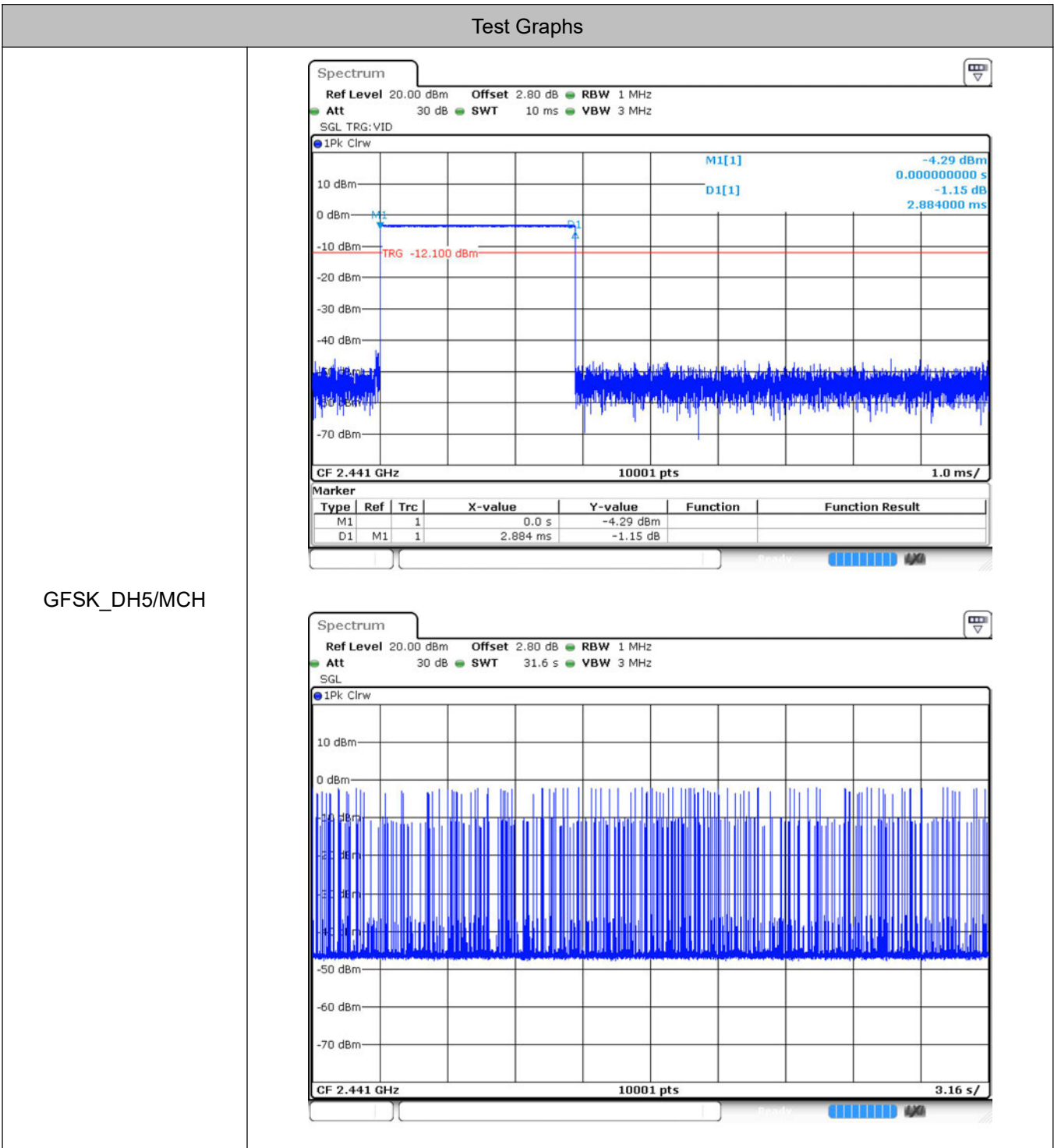


6 Dwell Time

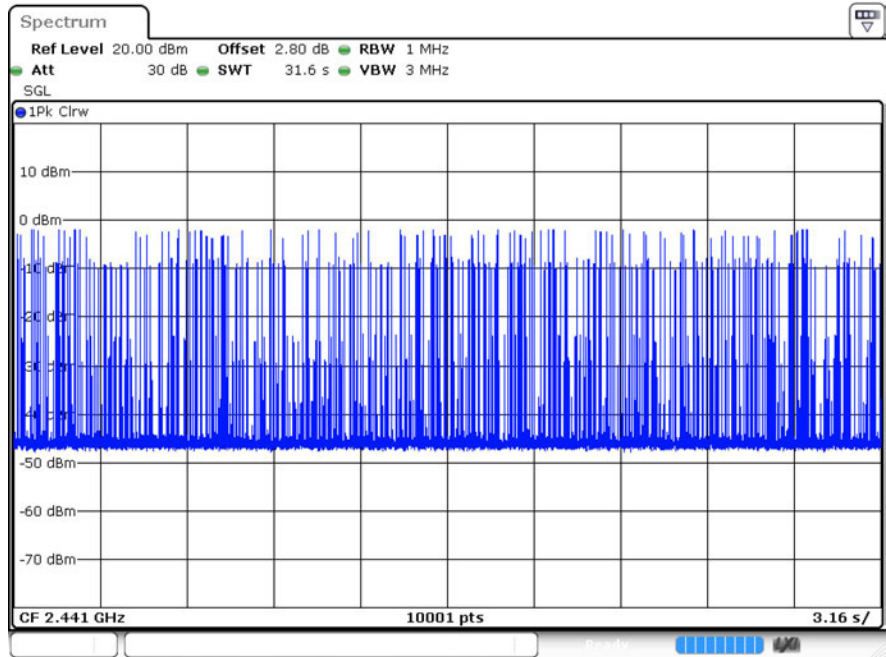
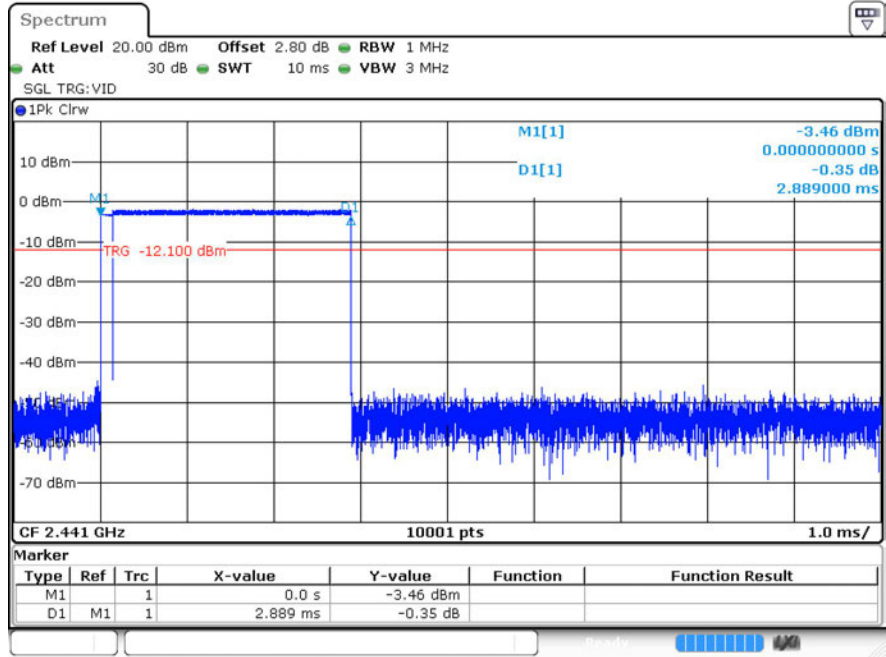
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.884	118	340.312	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.889	103	297.567	0.4	Pass

6.2 Test Graphs



$\pi/4$ DQPSK
_2DH5/MCH

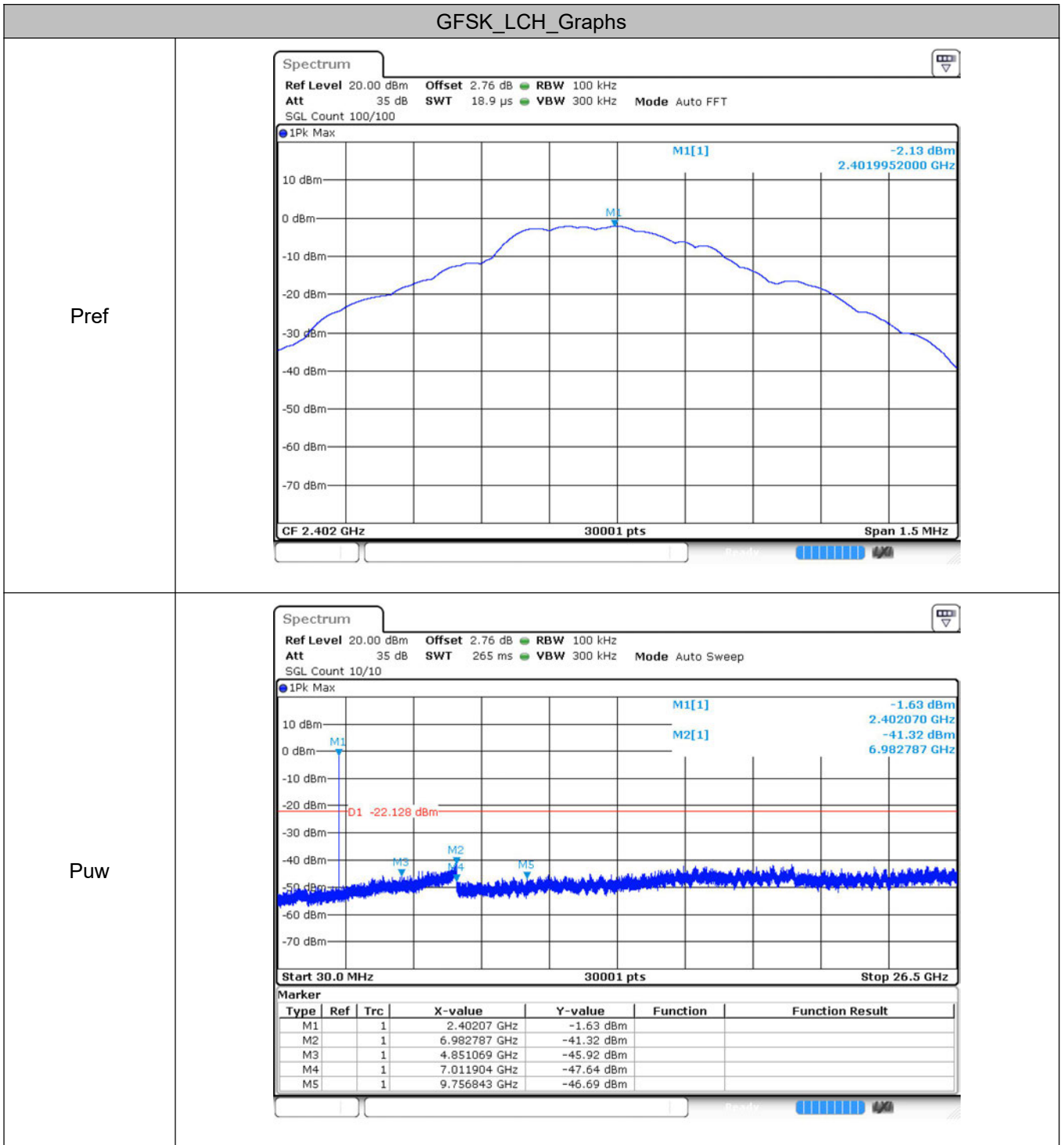


7 RF Conducted Spurious Emissions

7.1 Test Result

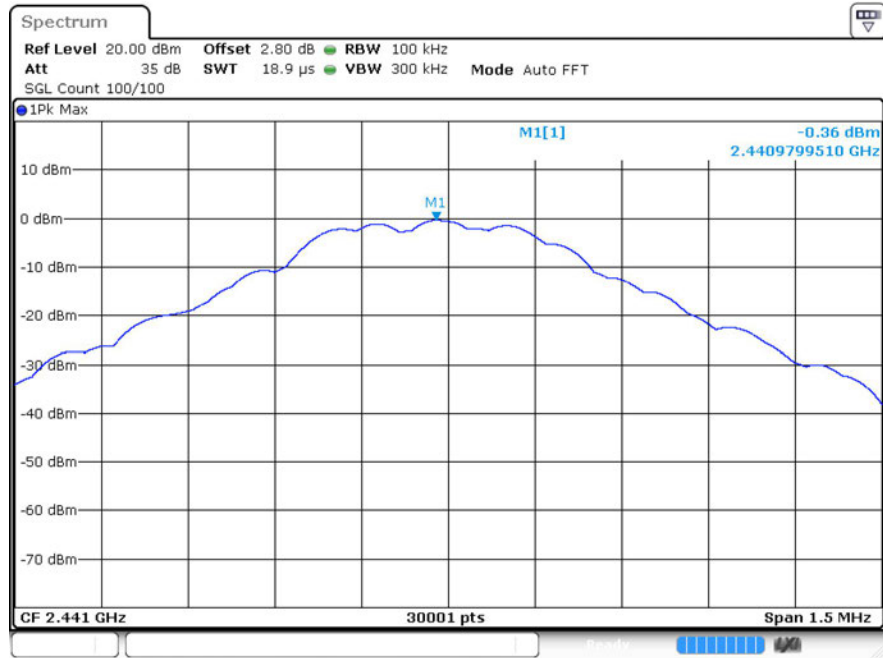
Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-39.18	-20	Pass
	MCH	-39.45	-20	Pass
	HCH	-40.21	-20	Pass
$\pi/4$ DQPSK	LCH	-34.41	-20	Pass
	MCH	-37.72	-20	Pass
	HCH	-34.83	-20	Pass

7.2 Test Graphs

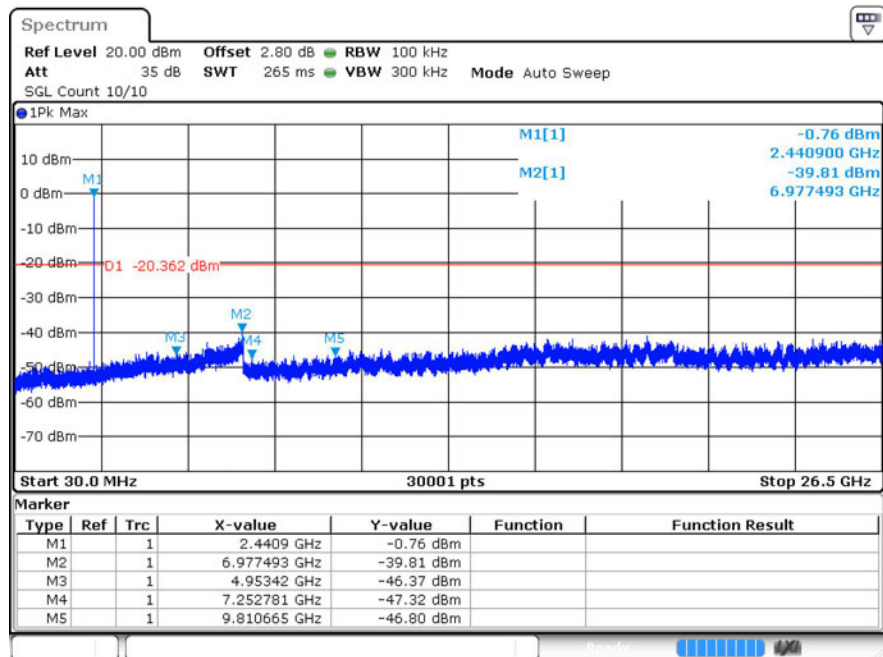


GFSK_MCH_Graphs

Pref

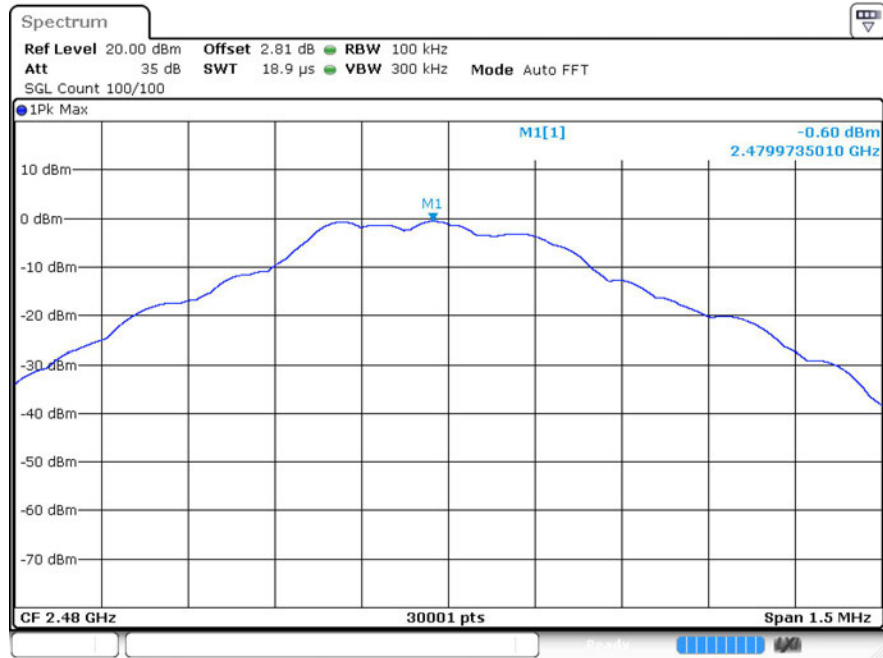


Puw

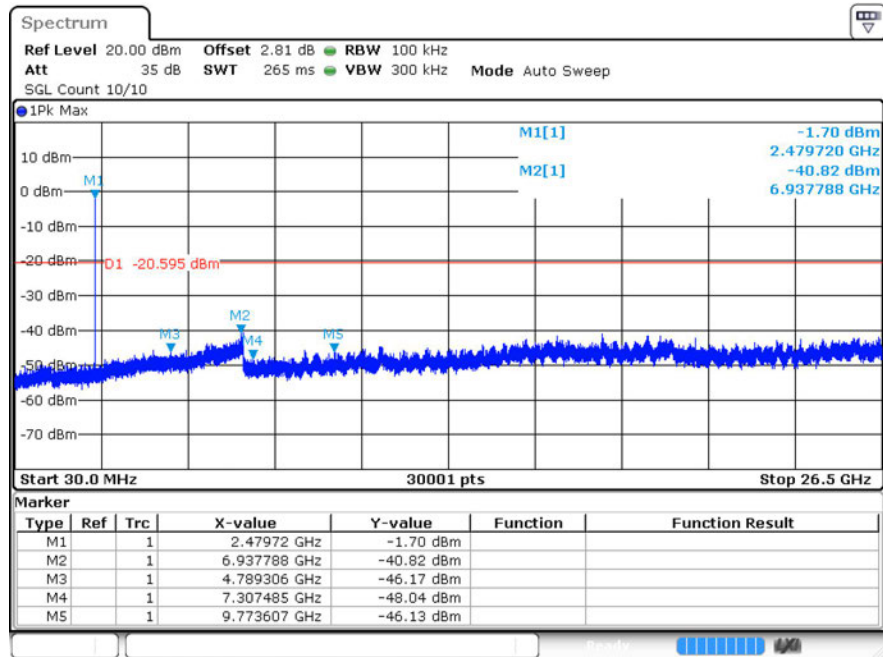


GFSK_HCH_Graphs

Pref

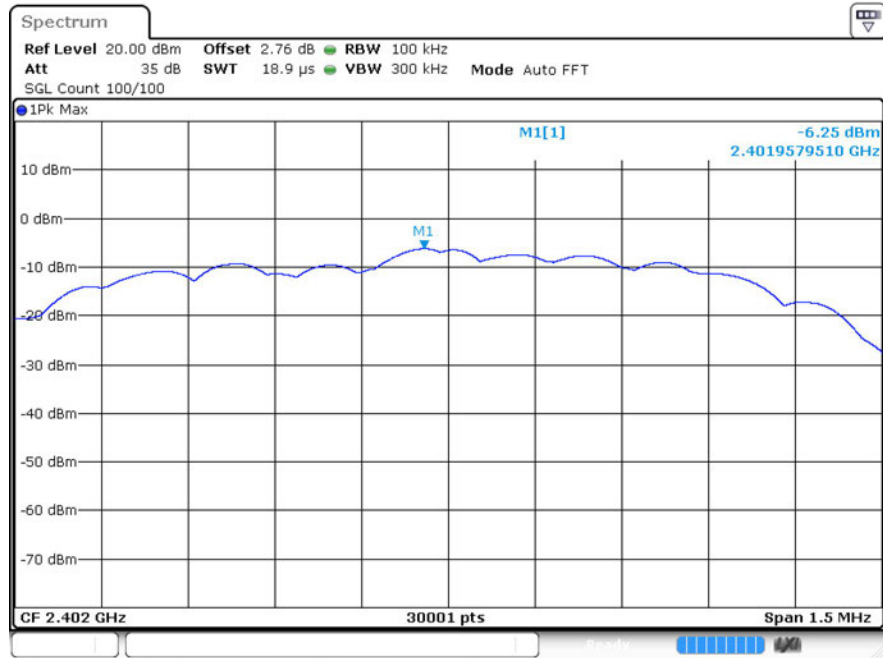


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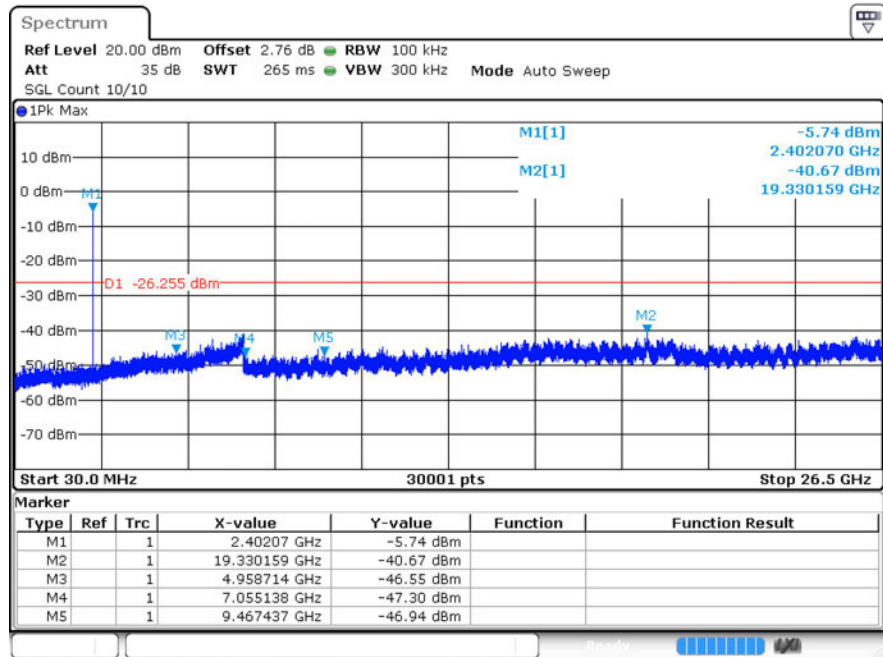


$\pi/4$ DQPSK_LCH_Graphs

Pref

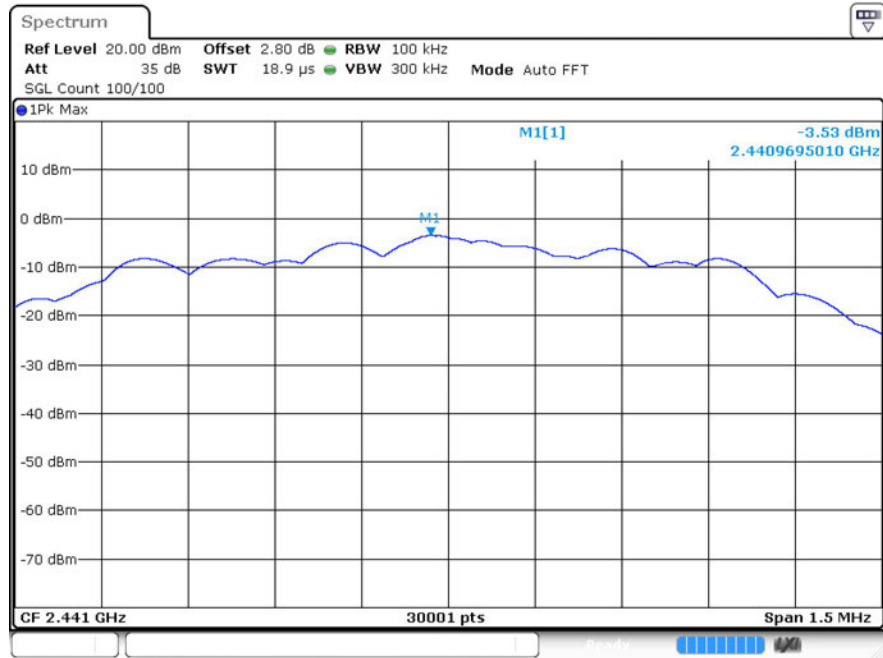


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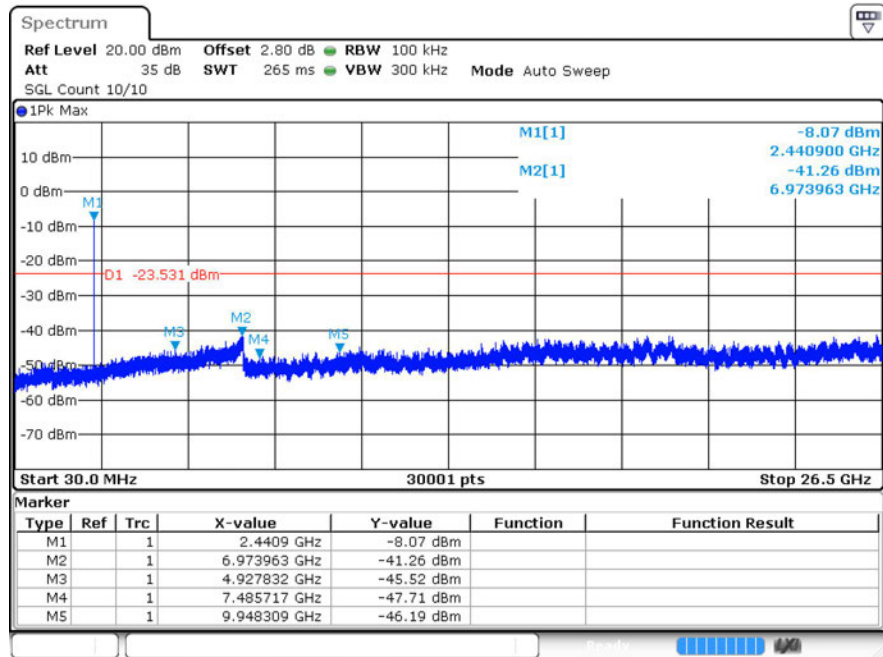


$\pi/4$ DQPSK_MCH_Graphs

Pref

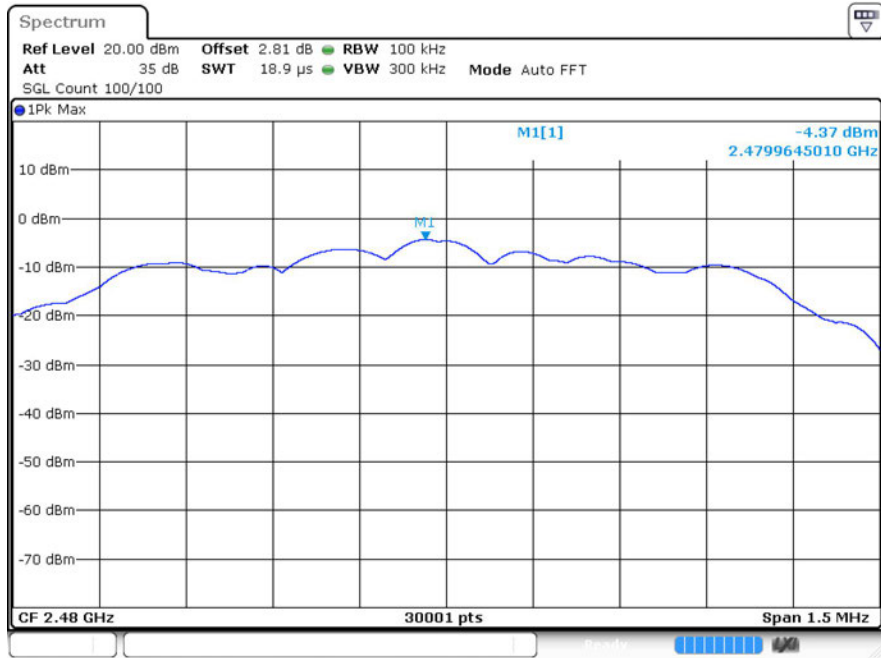


Puw

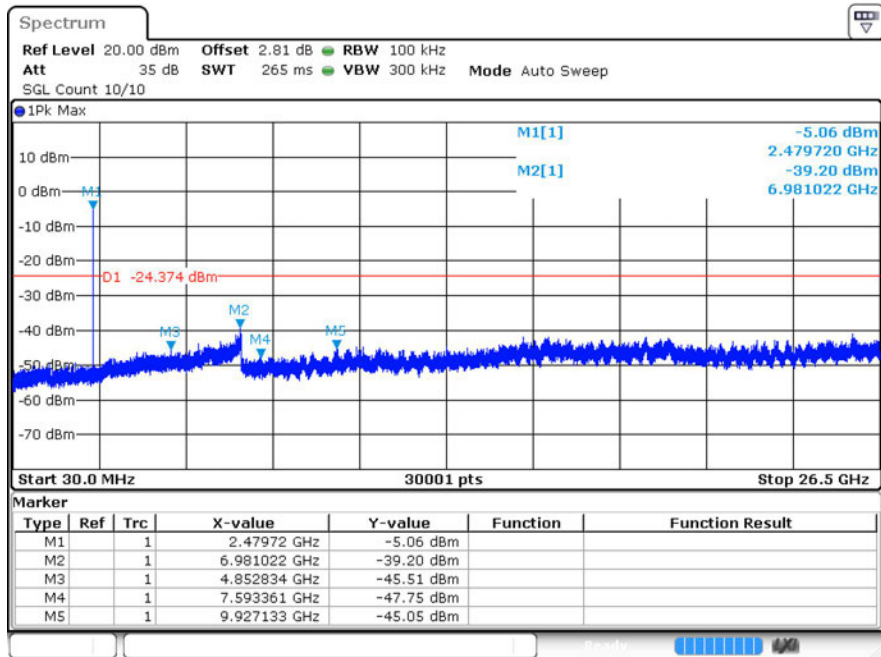


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

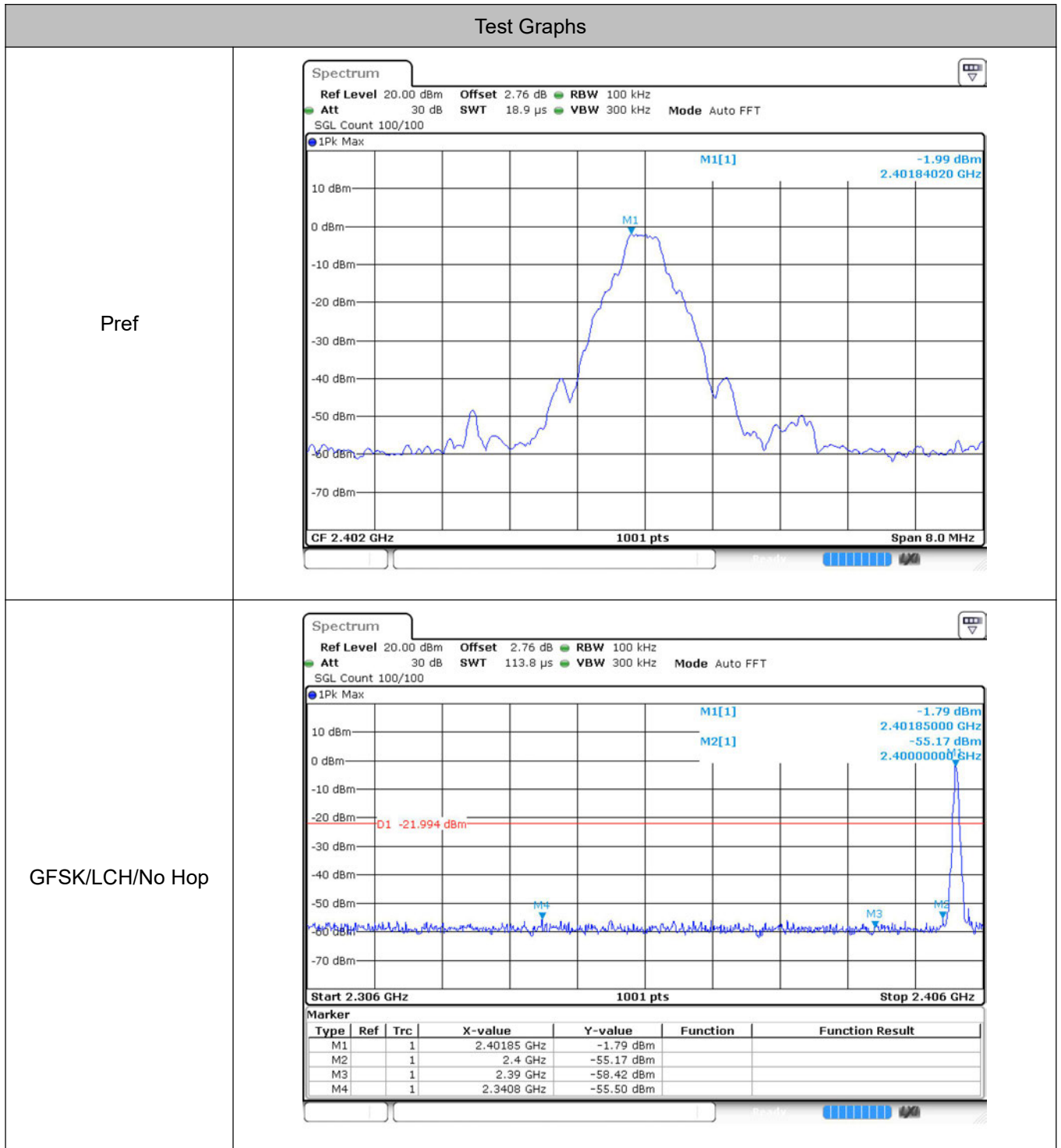


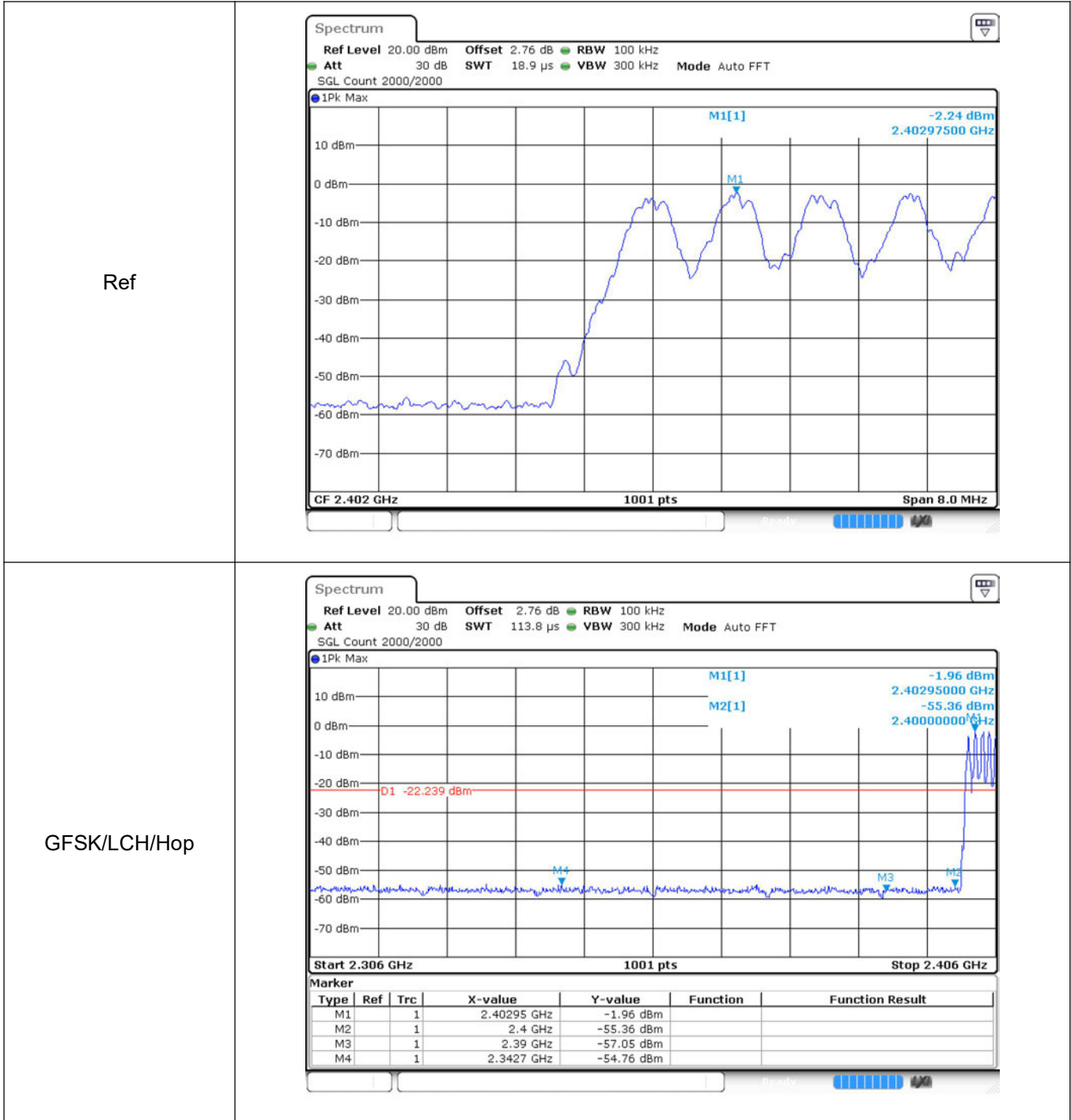
8 Band-edge for RF Conducted Emissions

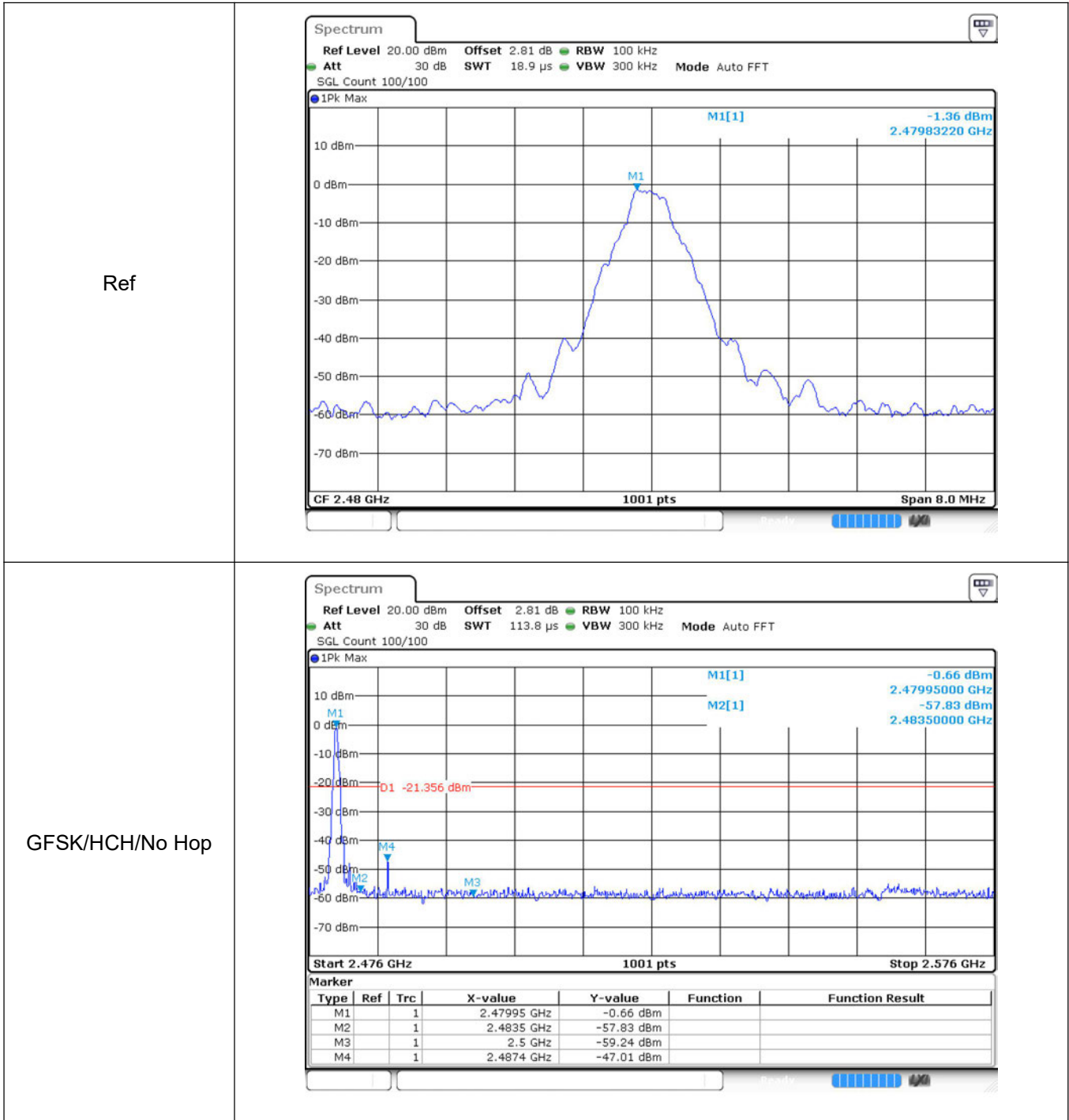
8.1 Test Result

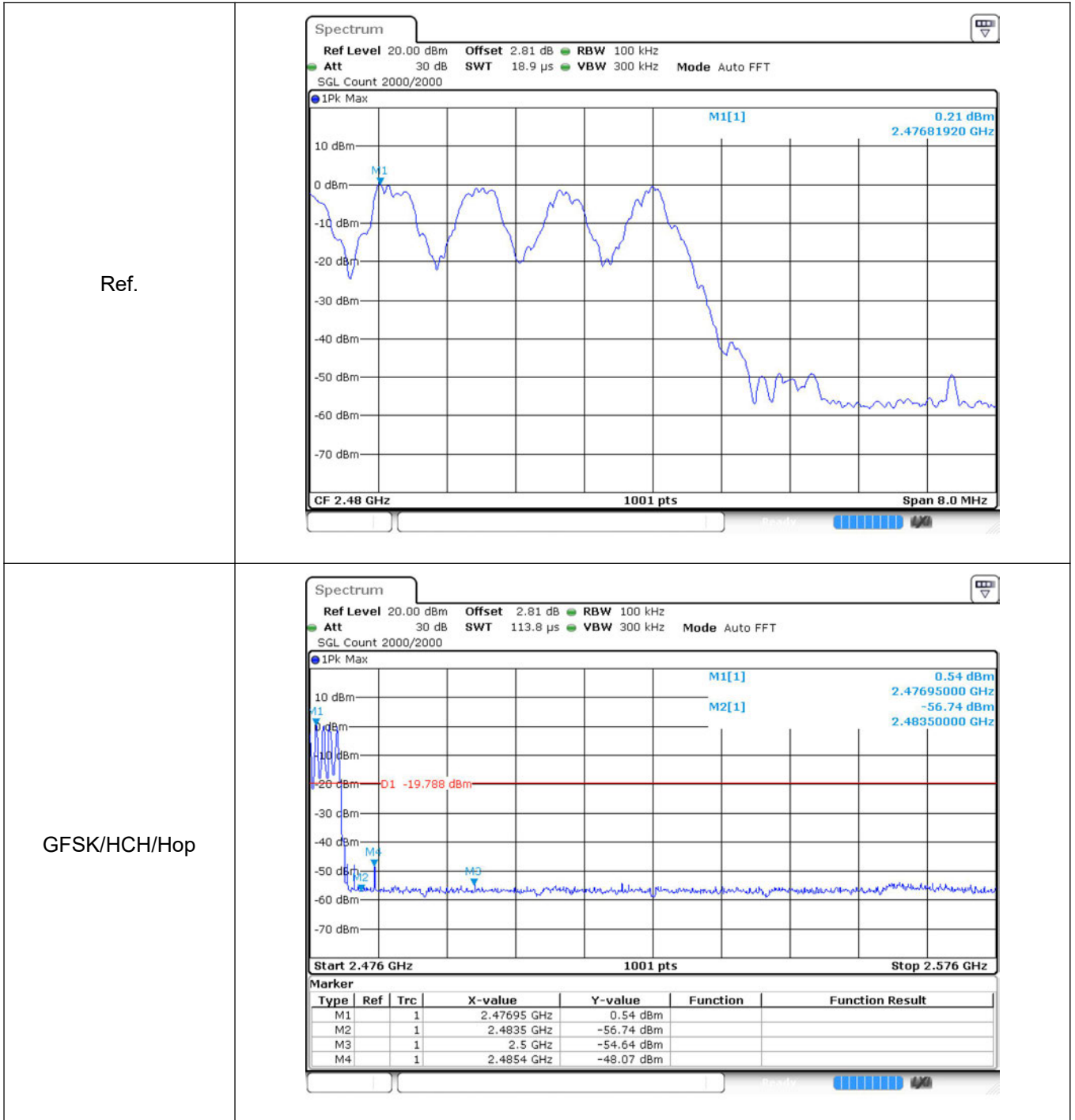
Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-53.5	-20	Pass
			On	-52.52	-20	Pass
	HCH	2480	Off	-45.64	-20	Pass
			On	-48.28	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-50.35	-20	Pass
			On	-48.21	-20	Pass
	HCH	2480	Off	-43.72	-20	Pass
			On	-44	-20	Pass

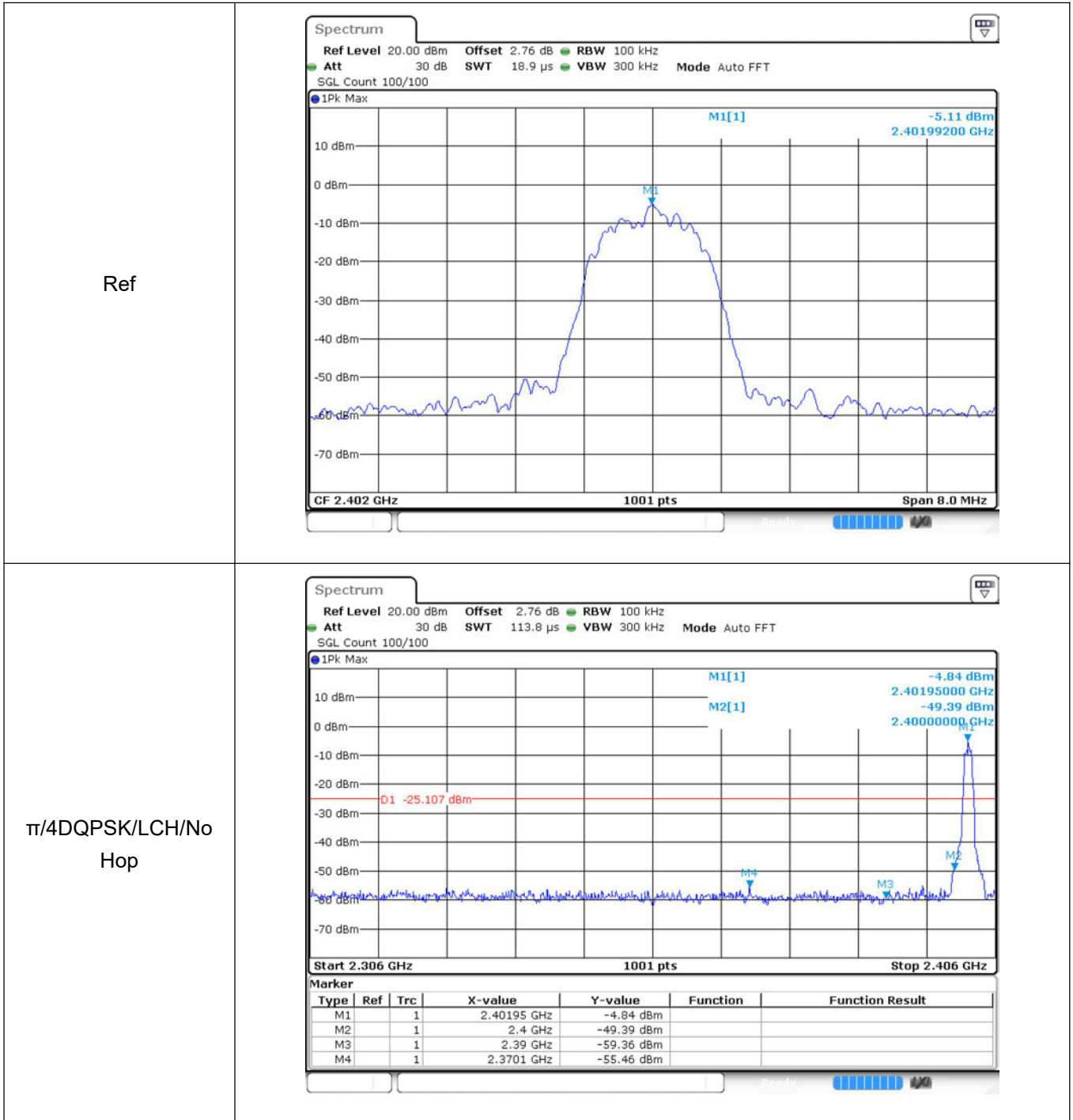
8.2 Test Graphs

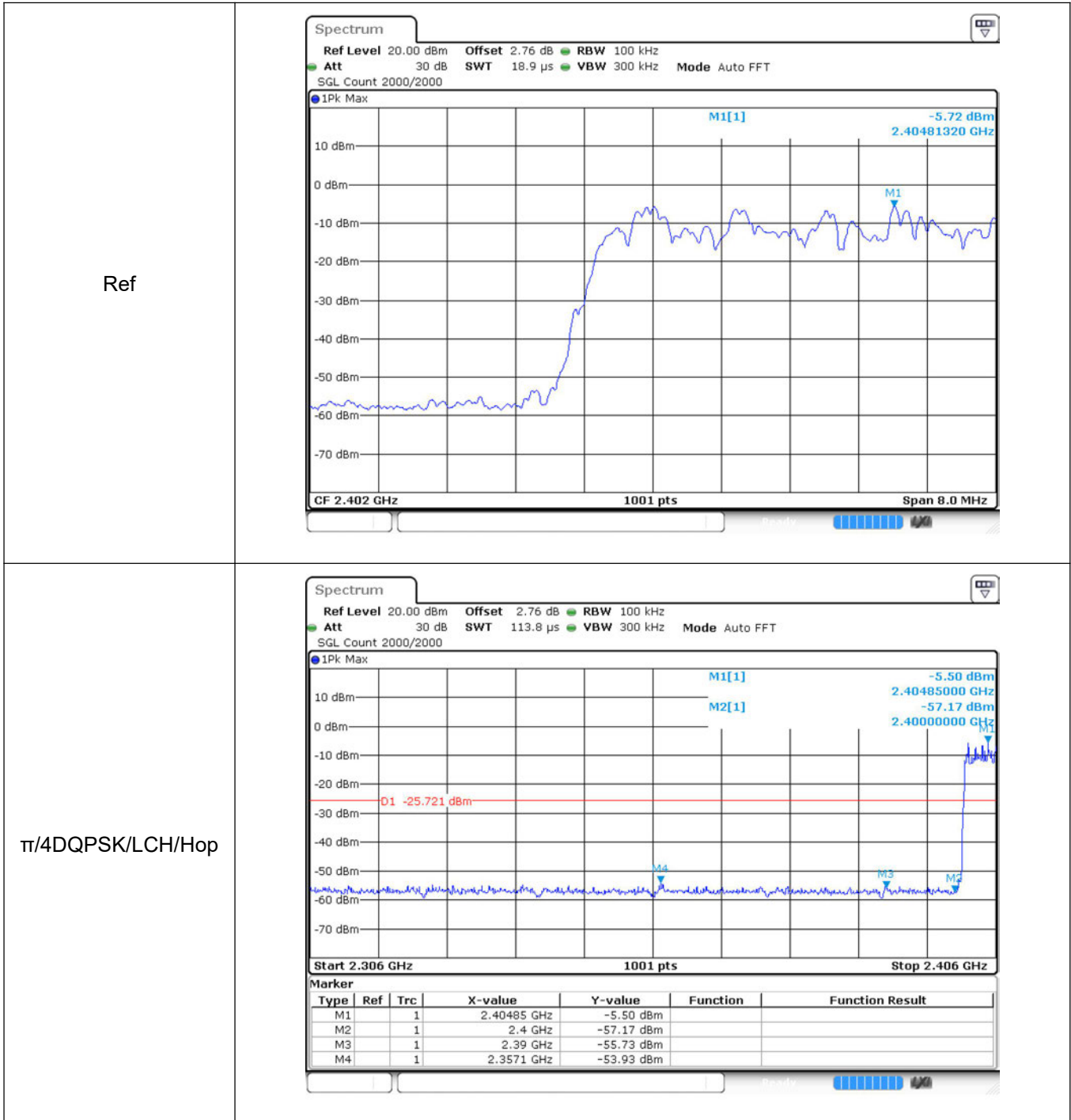


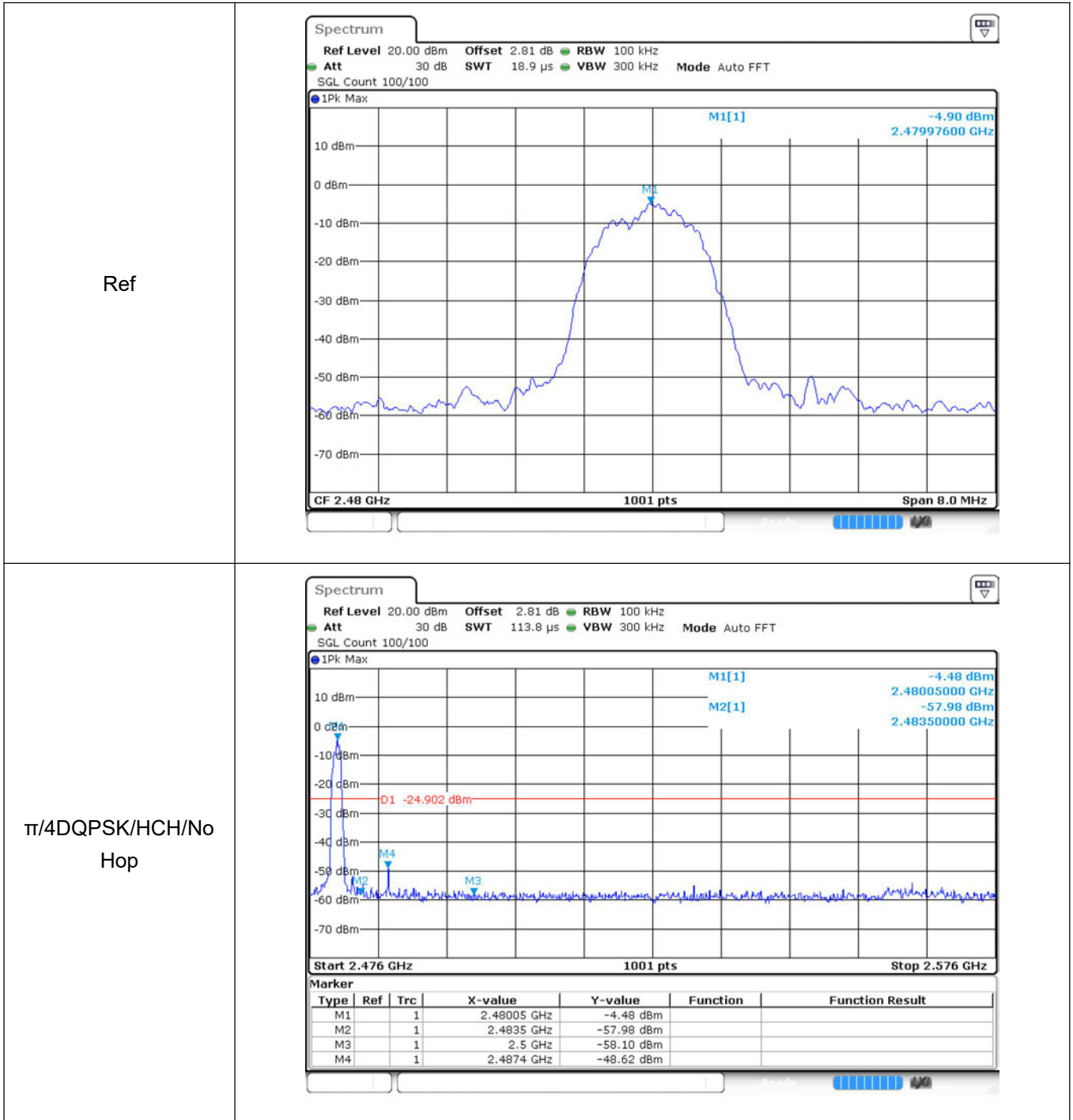














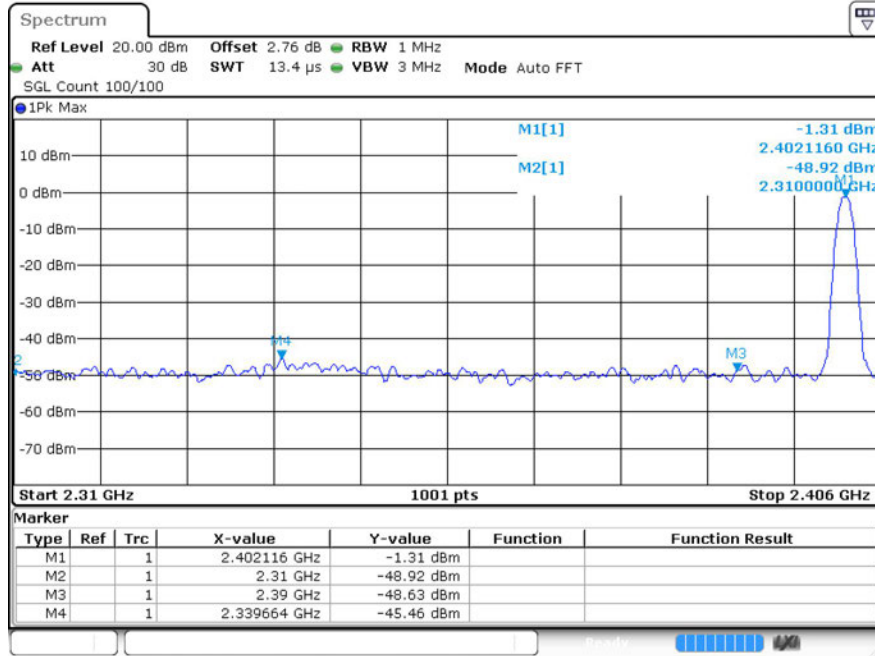
9 Restrict-band band-edge measurements

9.1 Test Result

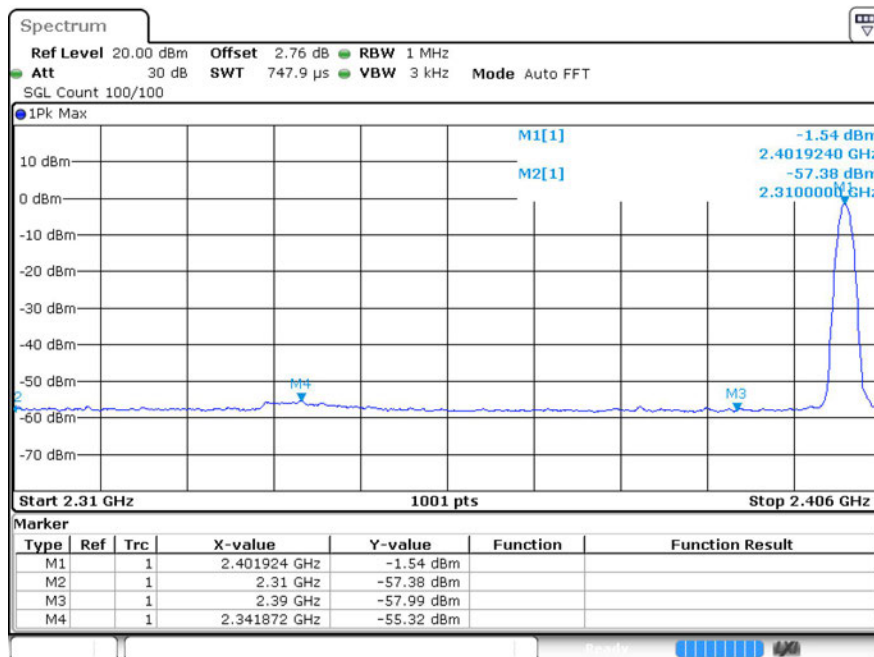
Test Mode	Hopping	Freq.	Power [dBm]	Gain	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-48.91	2	48.35	PEAK	74	Pass
	Off	2310.0	-57.38	2	39.88	AV	54	Pass
	Off	2339.664	-45.46	2	51.8	PEAK	74	Pass
	Off	2341.872	-55.31	2	41.95	AV	54	Pass
	Off	2390.0	-48.63	2	48.63	PEAK	74	Pass
	Off	2390.0	-57.99	2	39.27	AV	54	Pass
	Off	2483.5	-48.75	2	48.51	PEAK	74	Pass
	Off	2483.5	-56.43	2	40.83	AV	54	Pass
	Off	2499.208	-46.66	2	50.6	PEAK	74	Pass
	Off	2487.328	-56.24	2	41.02	AV	54	Pass
	Off	2500.0	-49.93	2	47.33	PEAK	74	Pass
	Off	2500.0	-57.12	2	40.14	AV	54	Pass
$\pi/4$ DQPSK	Off	2310.0	-48.41	2	48.85	PEAK	74	Pass
	Off	2310.0	-57.5	2	39.76	AV	54	Pass
	Off	2338.512	-45.56	2	51.7	PEAK	74	Pass
	Off	2338.224	-55.43	2	41.83	AV	54	Pass
	Off	2390.0	-49.57	2	47.69	PEAK	74	Pass
	Off	2390.0	-57.78	2	39.48	AV	54	Pass
	Off	2483.5	-49.22	2	48.04	PEAK	74	Pass
	Off	2483.5	-56.53	2	40.73	AV	54	Pass
	Off	2500	-46.16	2	51.1	PEAK	74	Pass
	Off	2487.352	-56.15	2	41.11	AV	54	Pass
	Off	2500.0	-46.16	2	51.1	PEAK	74	Pass
	Off	2500.0	-57.29	2	39.97	AV	54	Pass

9.2 Test Graphs

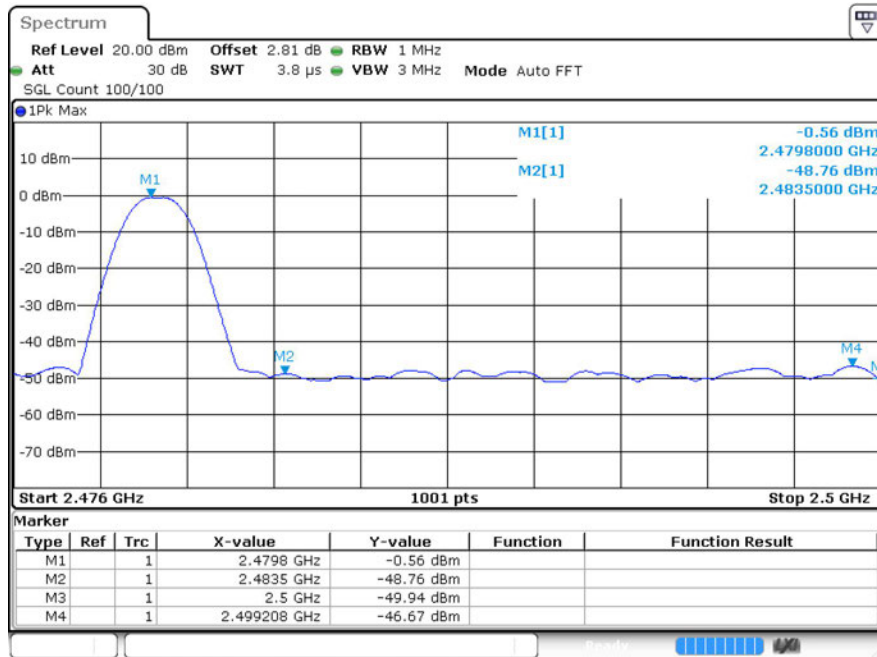
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (Low Channel)



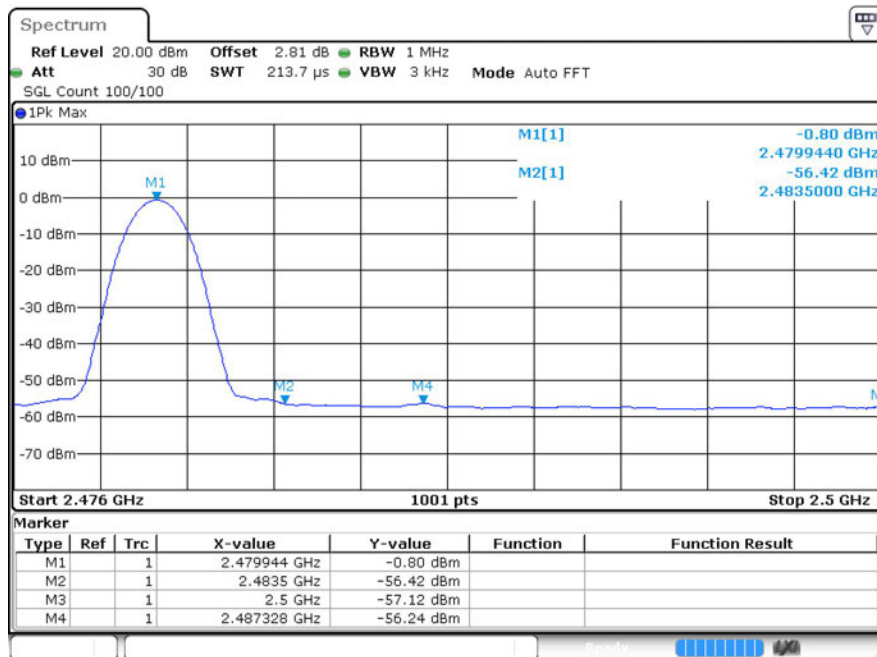
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (Low Channel)



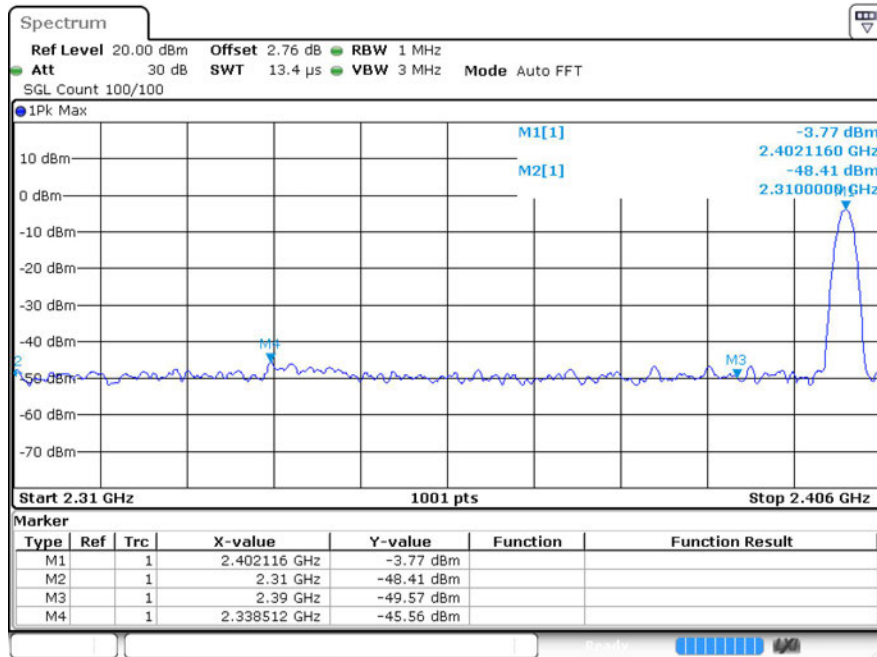
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



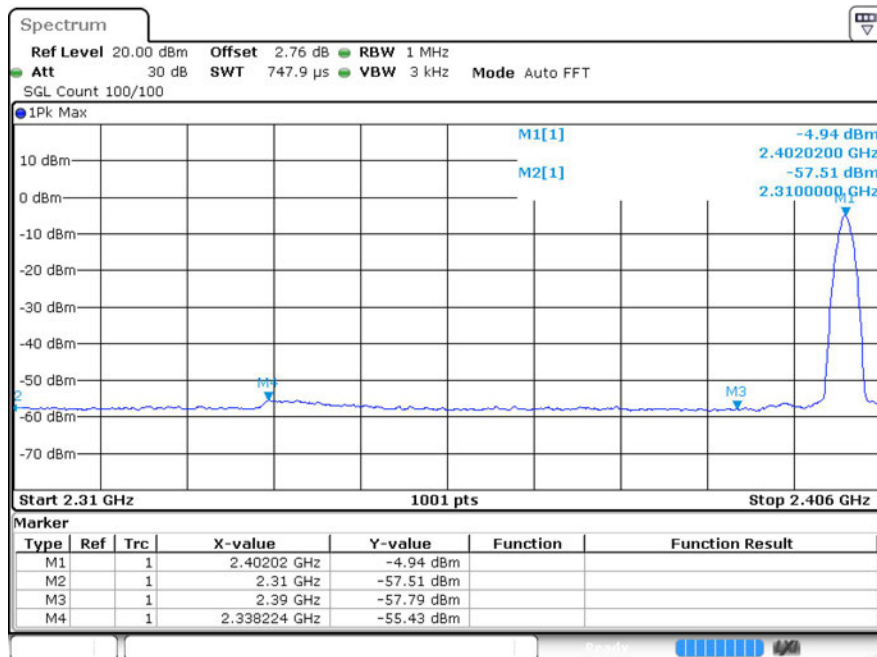
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



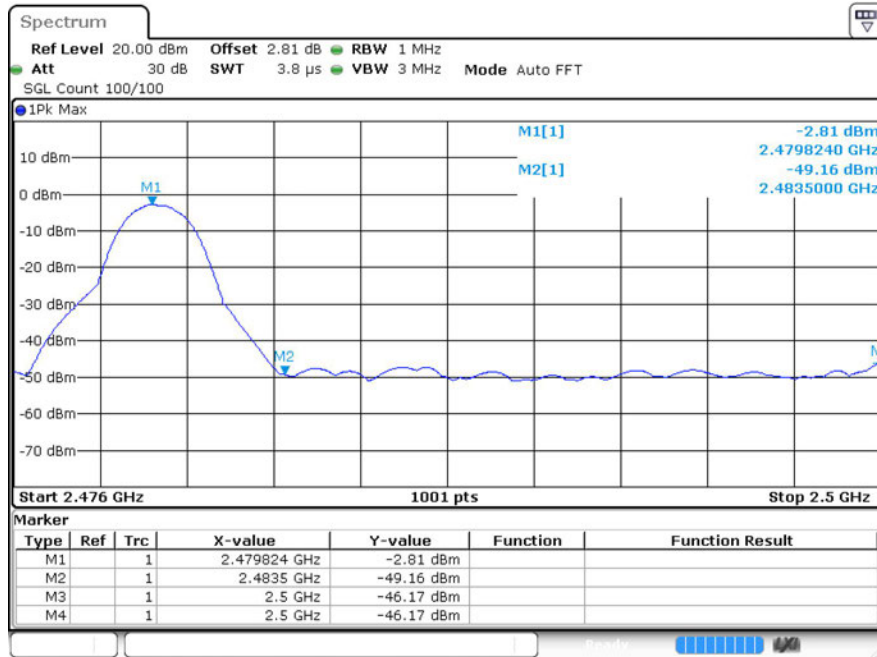
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



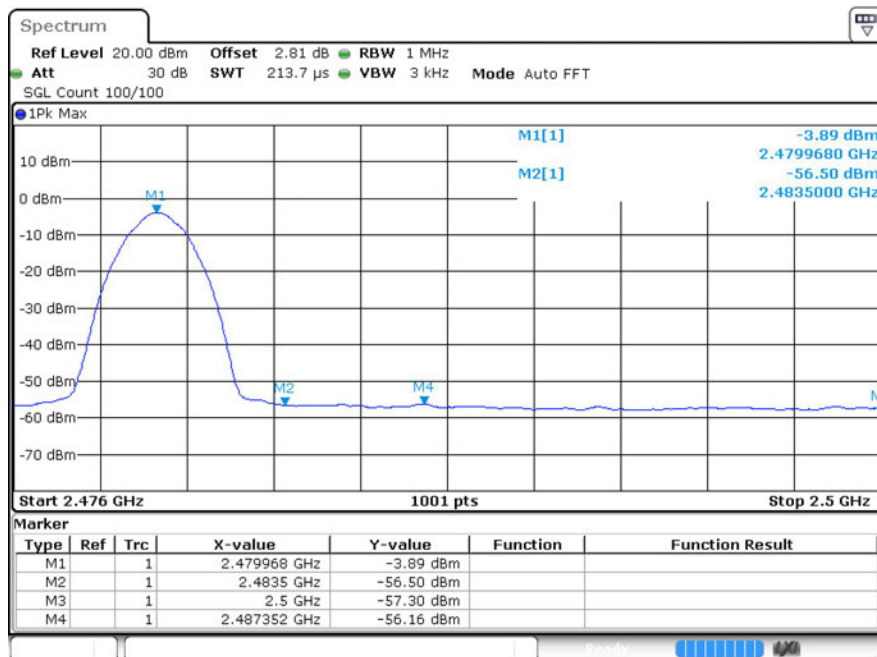
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



---The End---