



Appendix A

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

Product Name: Wireless Earphone

Trade Mark: Blackview

Test Model: AirBuds 4

Environmental Conditions

Temperature:	25.9°C
Relative Humidity:	52.1%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen



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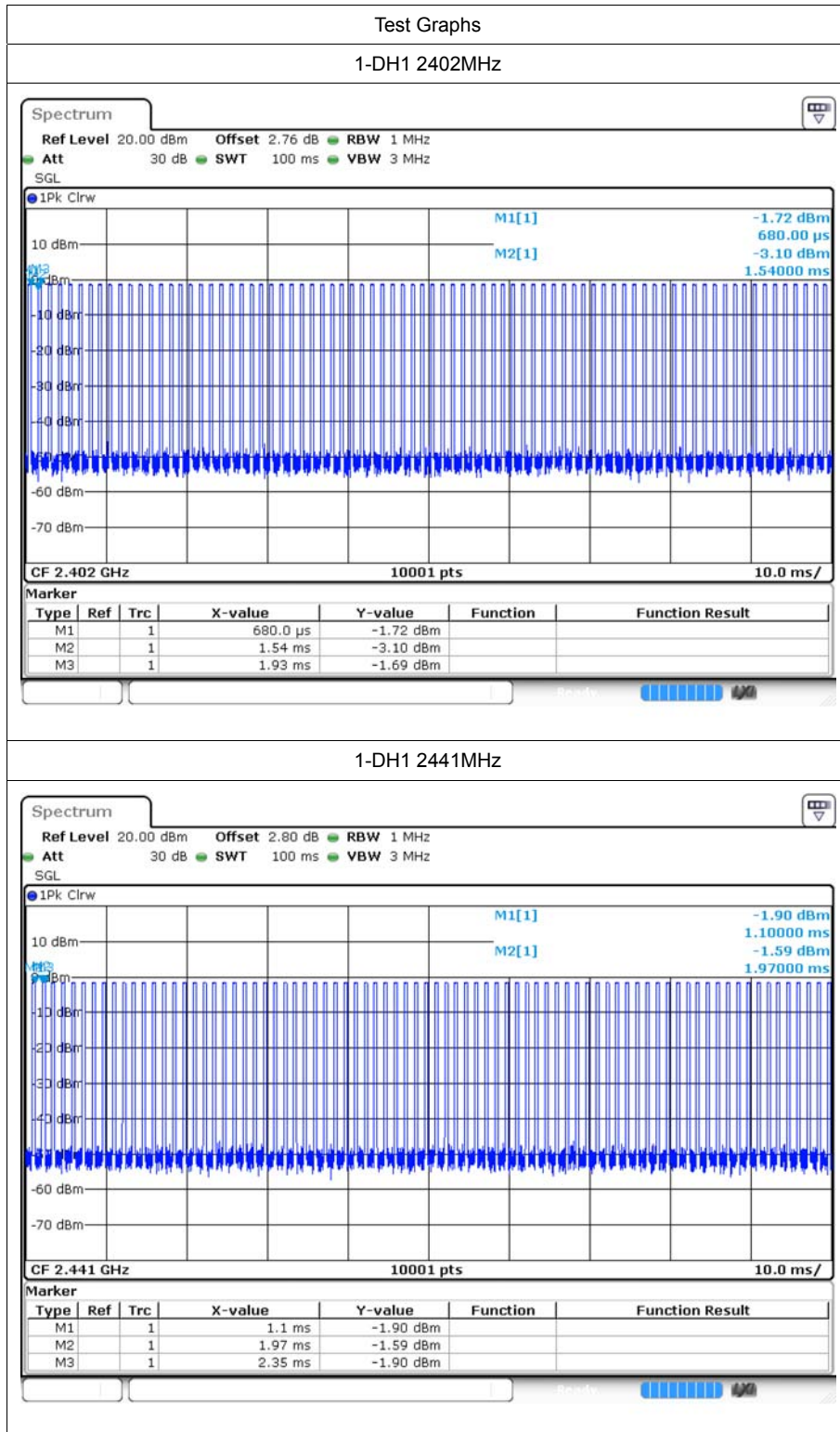
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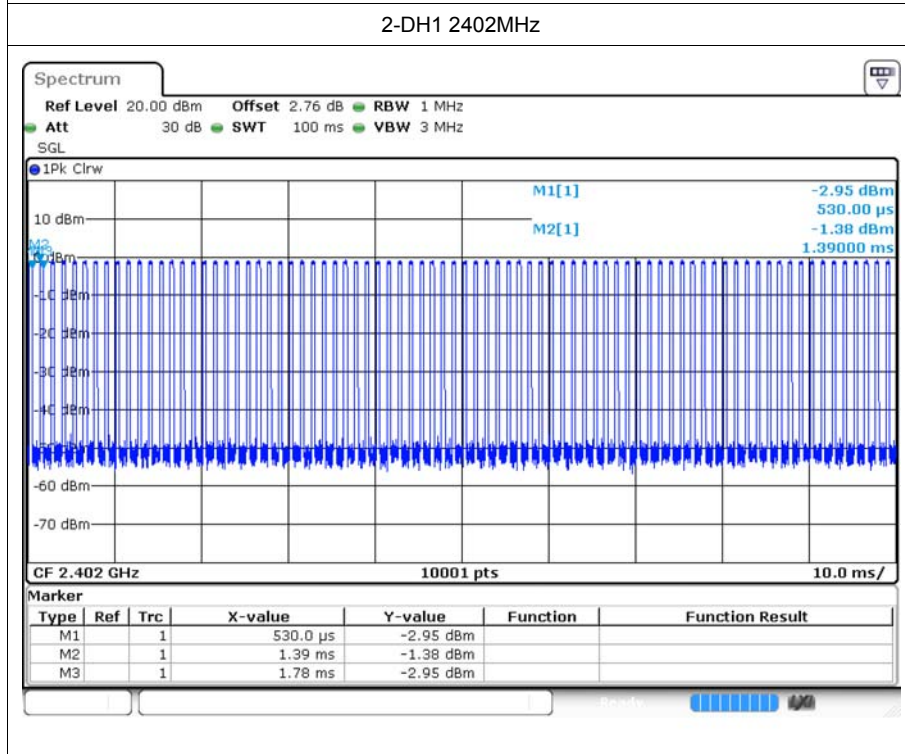
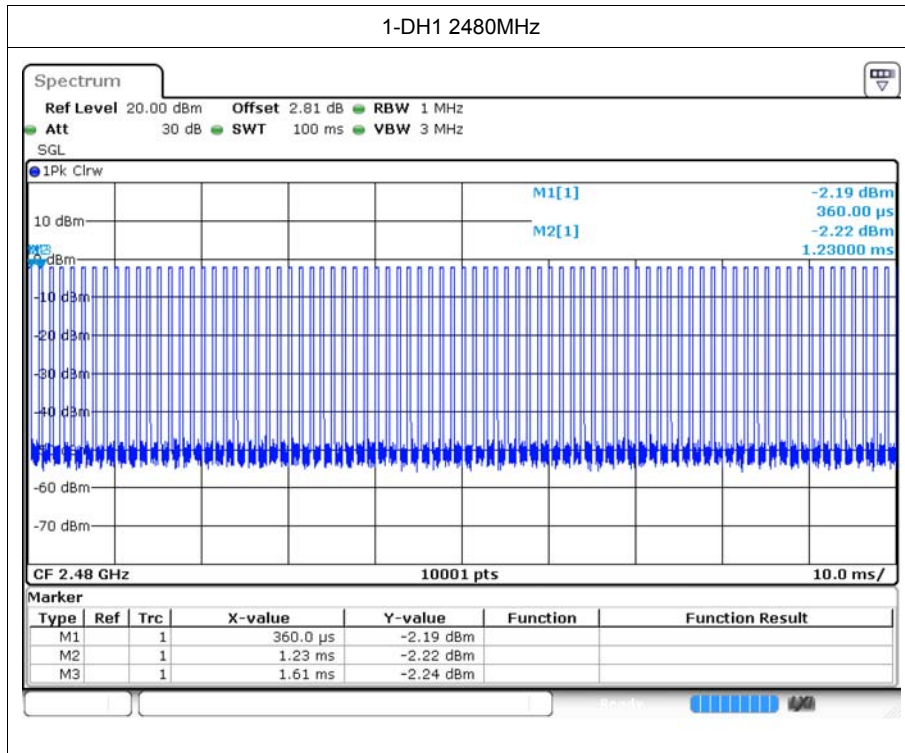
1 Duty Cycle

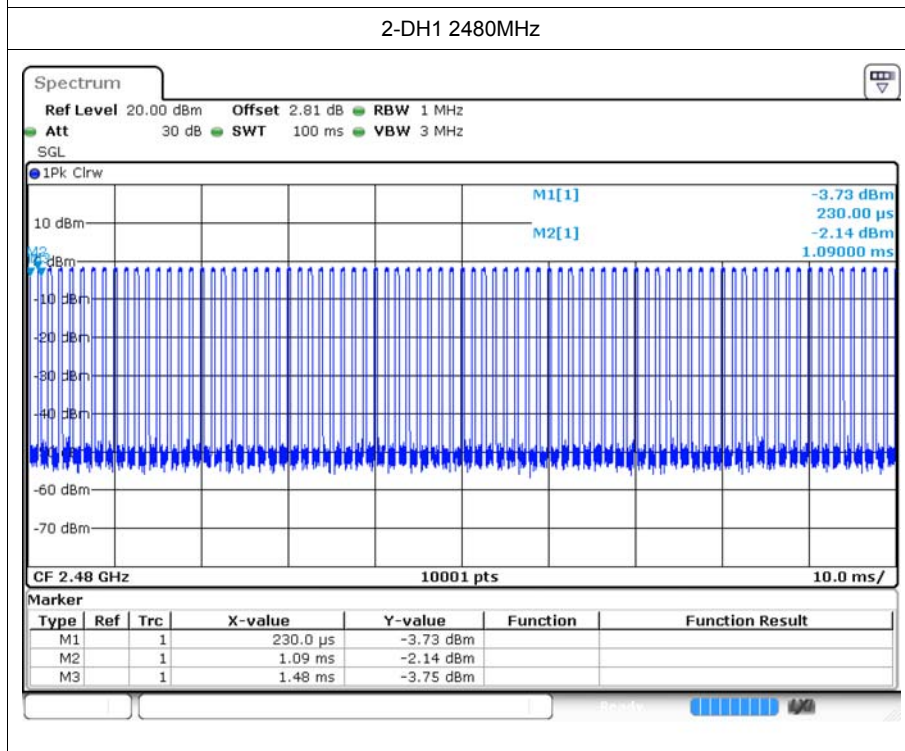
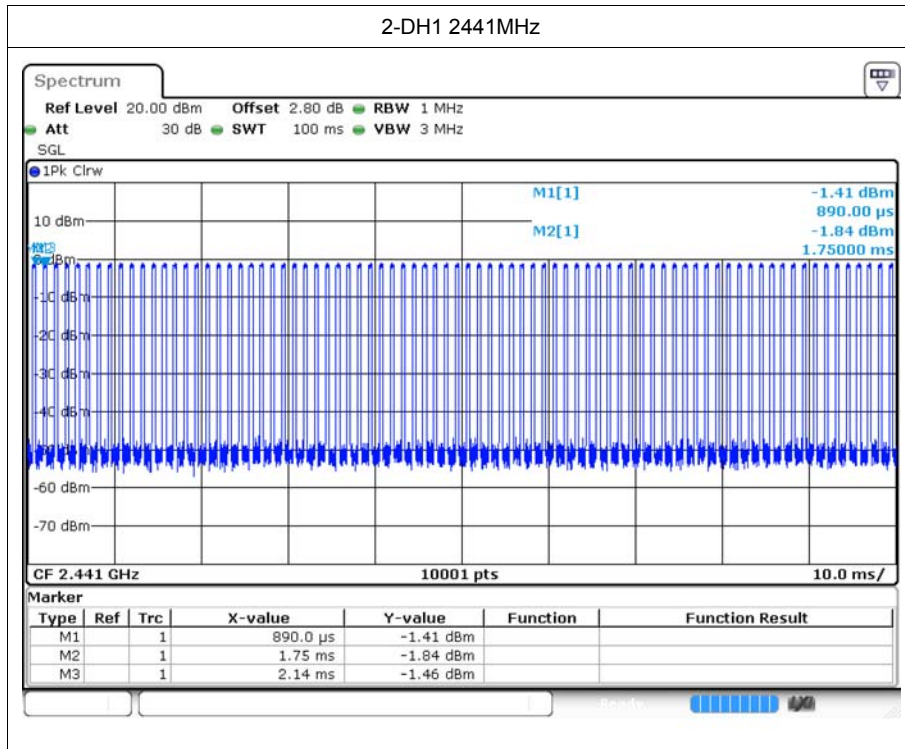
1.1 Test Result

Mode	Frequency (MHz)	Duty Cycle (%)	1/T (kHz)
1-DH1	2402	32	2.56
1-DH1	2441	31.2	2.63
1-DH1	2480	31.21	2.63
2-DH1	2402	32	2.56
2-DH1	2441	32.6	2.56
2-DH1	2480	32.01	2.56

1.2 Test Graphs





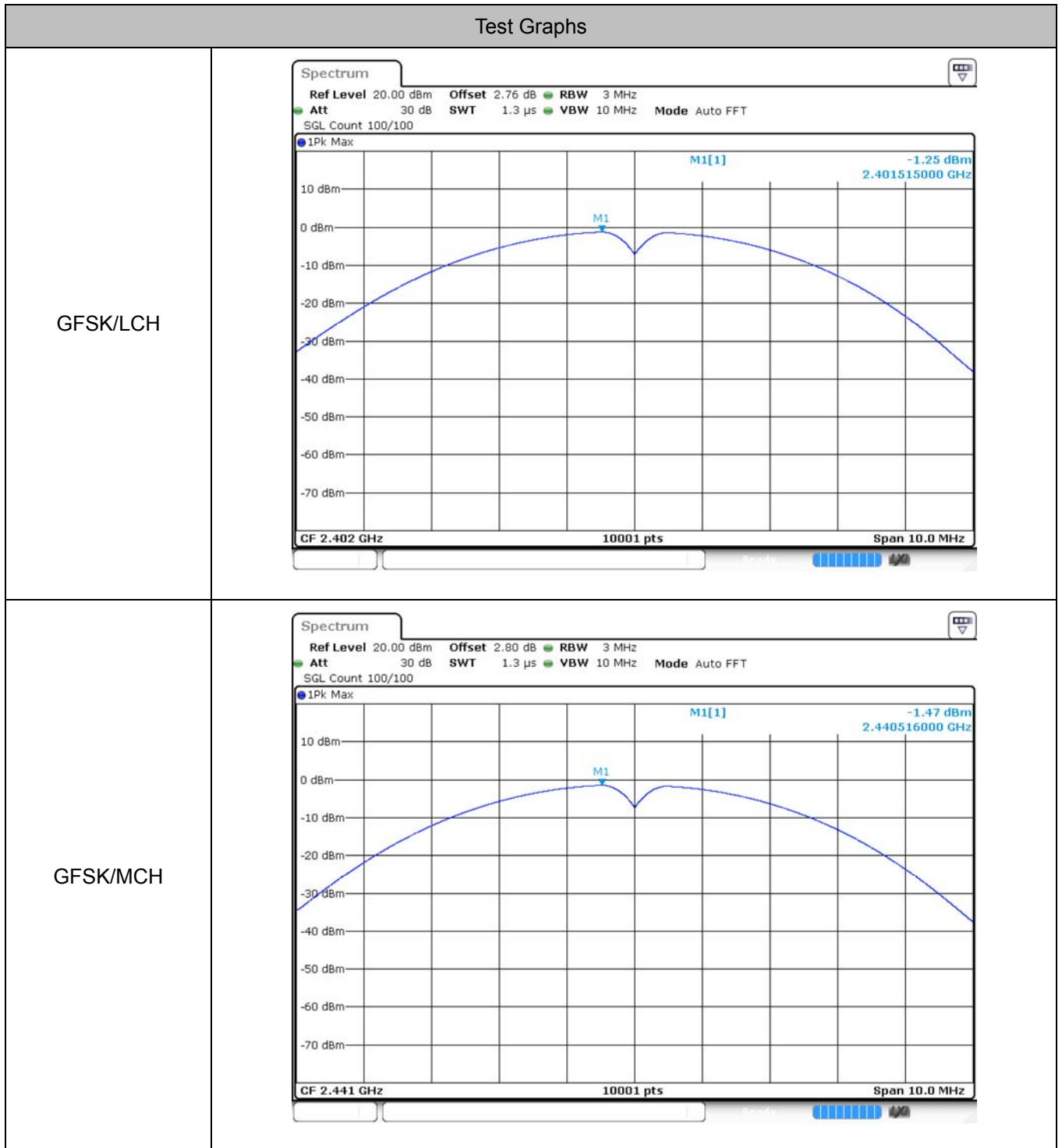


2 Maximum Conducted Peak Output Power

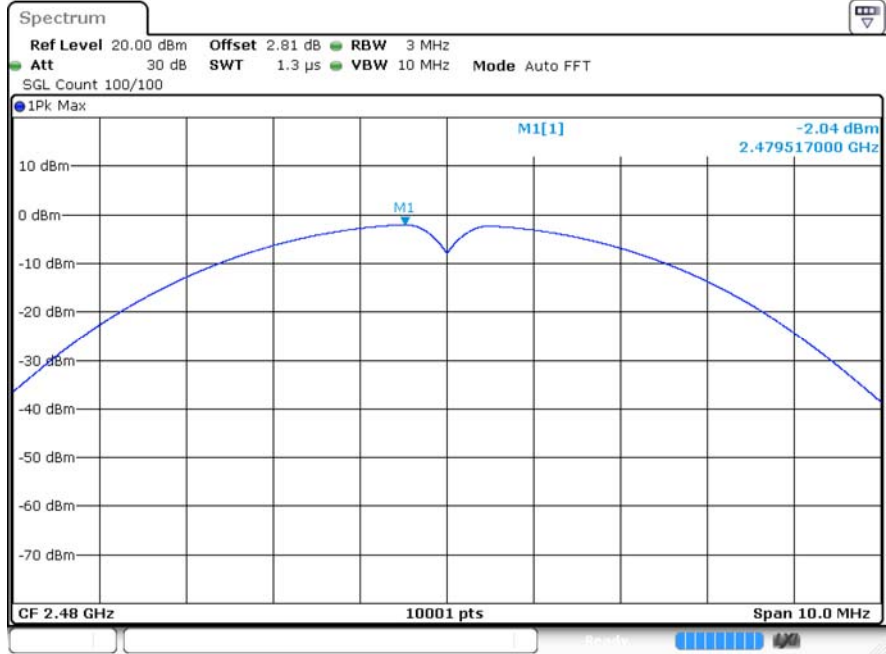
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.25	21	Pass
	MCH	-1.47	21	Pass
	HCH	-2.04	21	Pass
$\pi/4$ DQPSK	LCH	-1.31	21	Pass
	MCH	-1.33	21	Pass
	HCH	-1.72	21	Pass

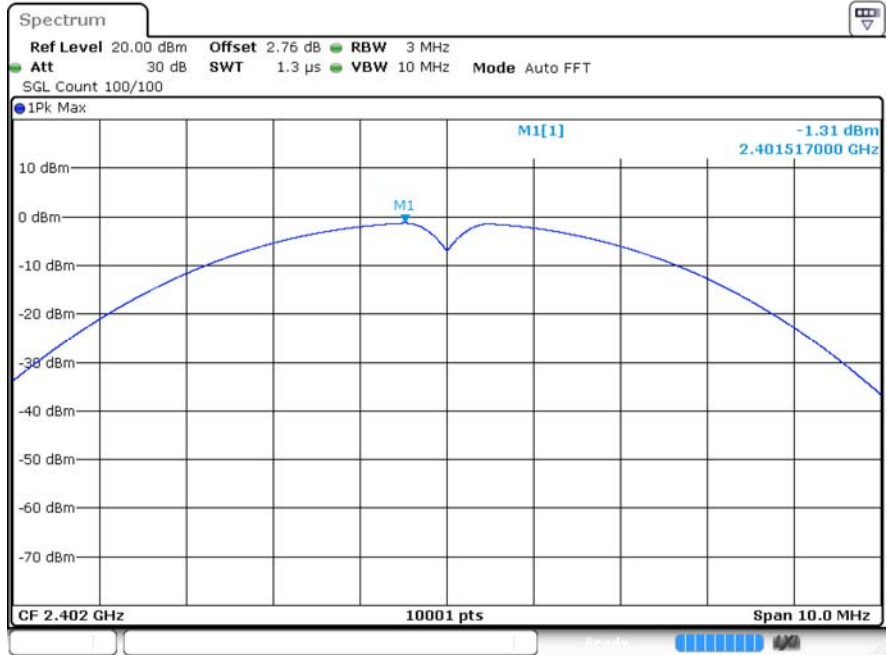
2.2 Test Graphs



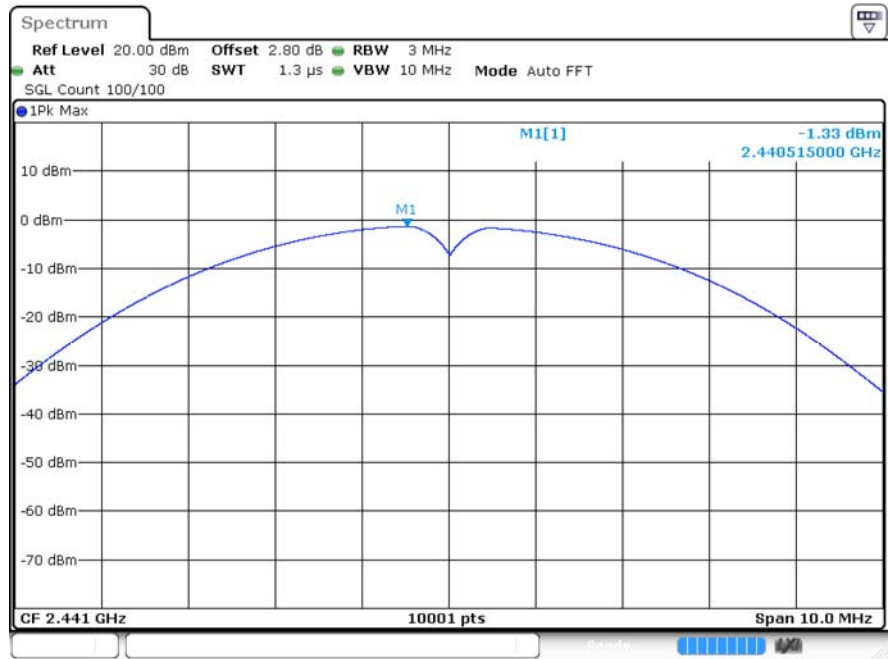
GFSK/HCH



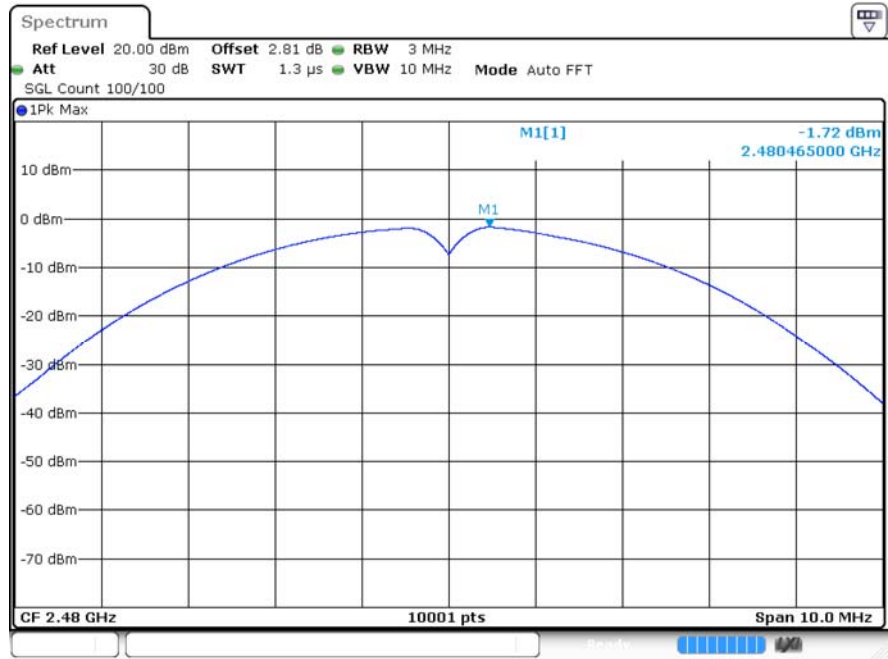
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH

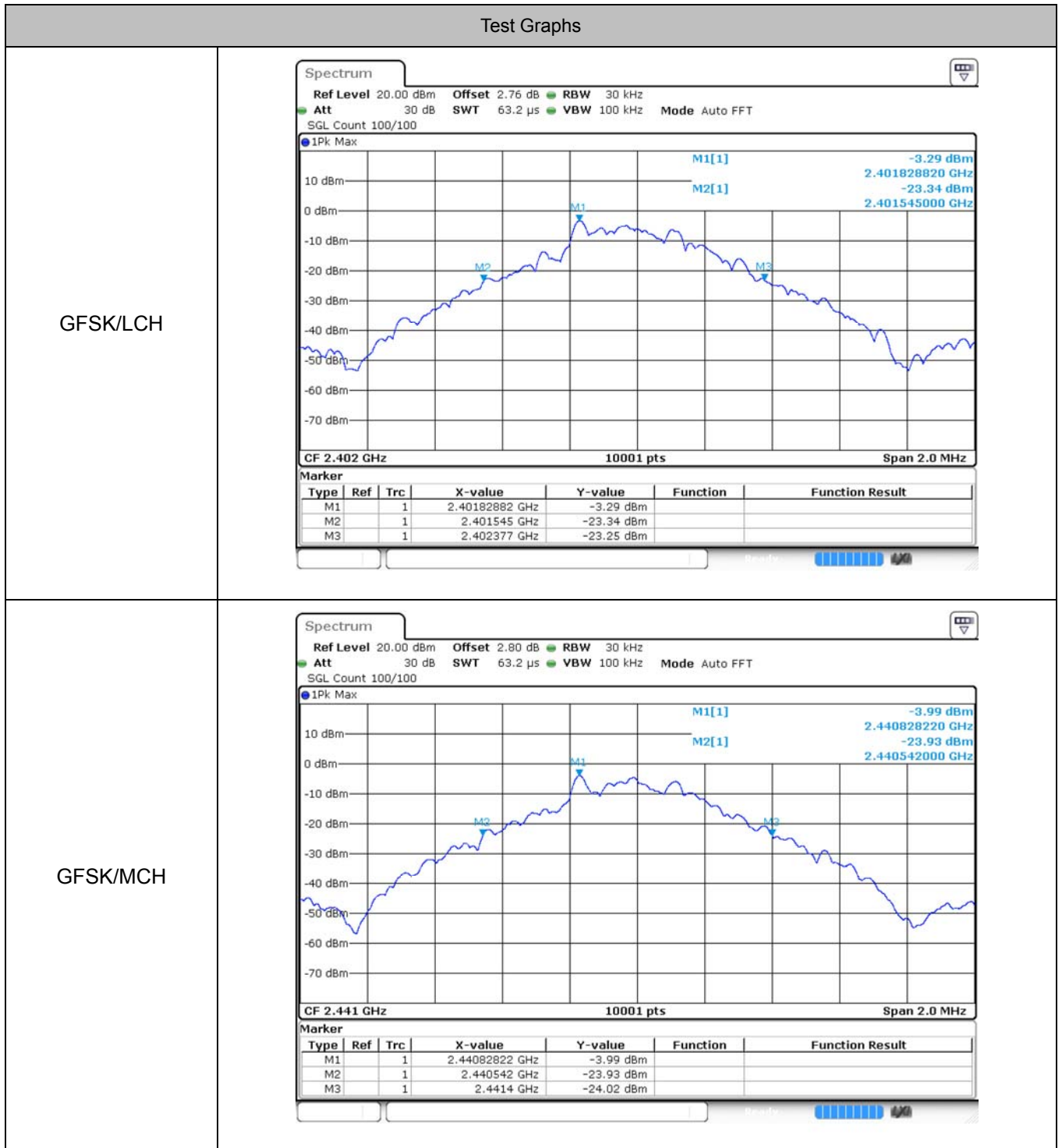


3 20dB Bandwidth

3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.832	Not Specified	Pass
	MCH	0.858	Not Specified	Pass
	HCH	0.857	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.221	Not Specified	Pass
	MCH	1.199	Not Specified	Pass
	HCH	1.22	Not Specified	Pass

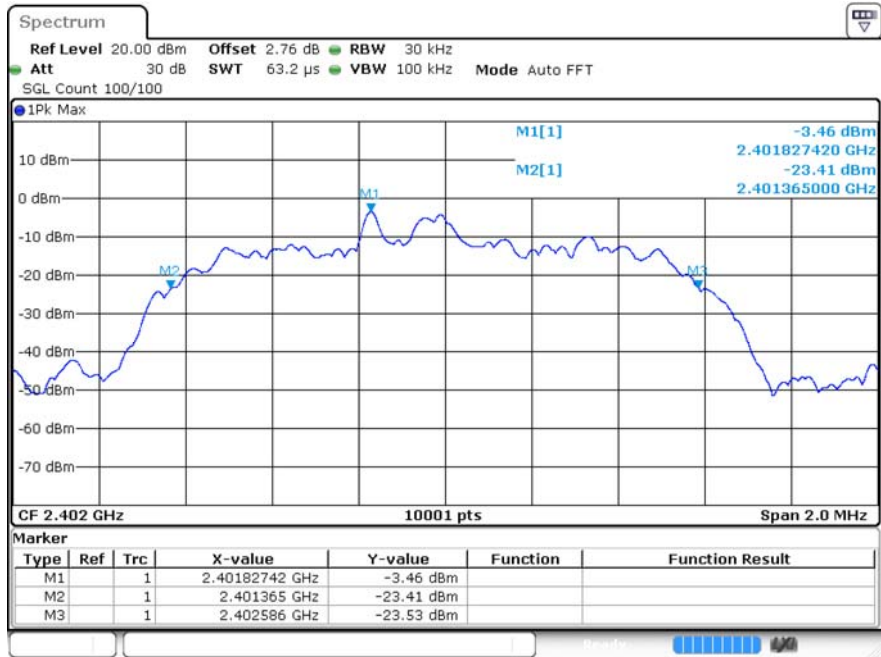
3.2 Test Graphs



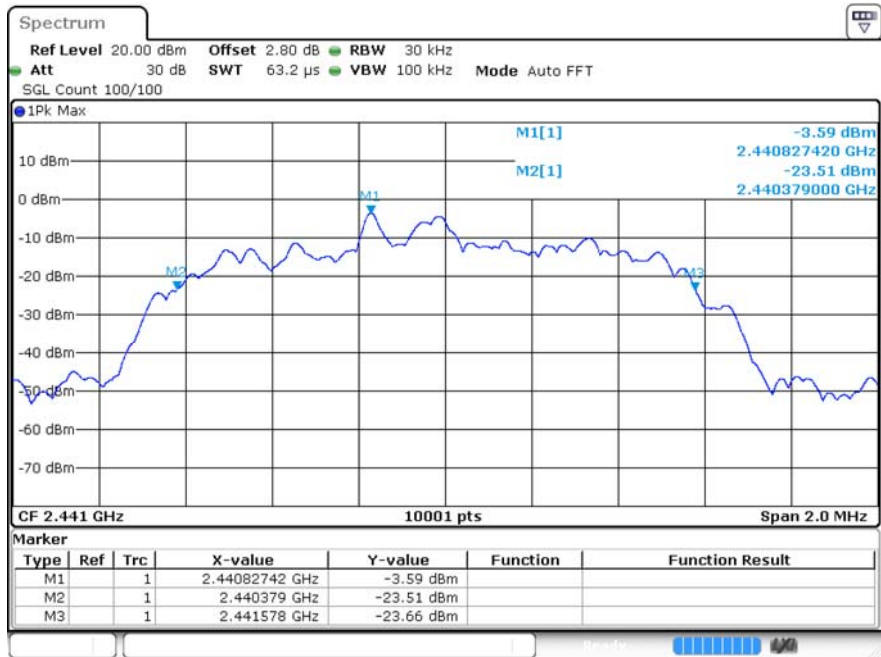
GFSK/HCH



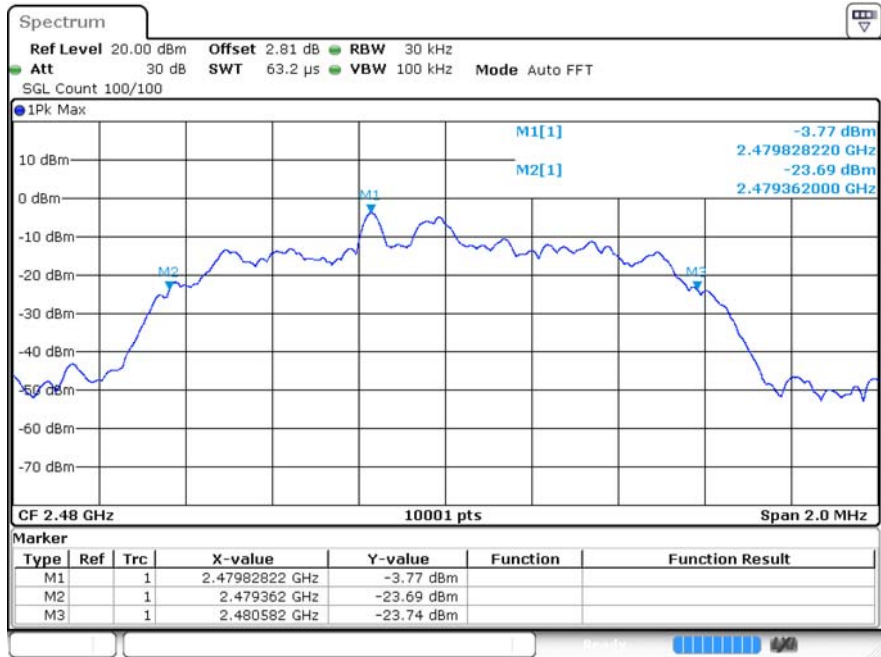
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH

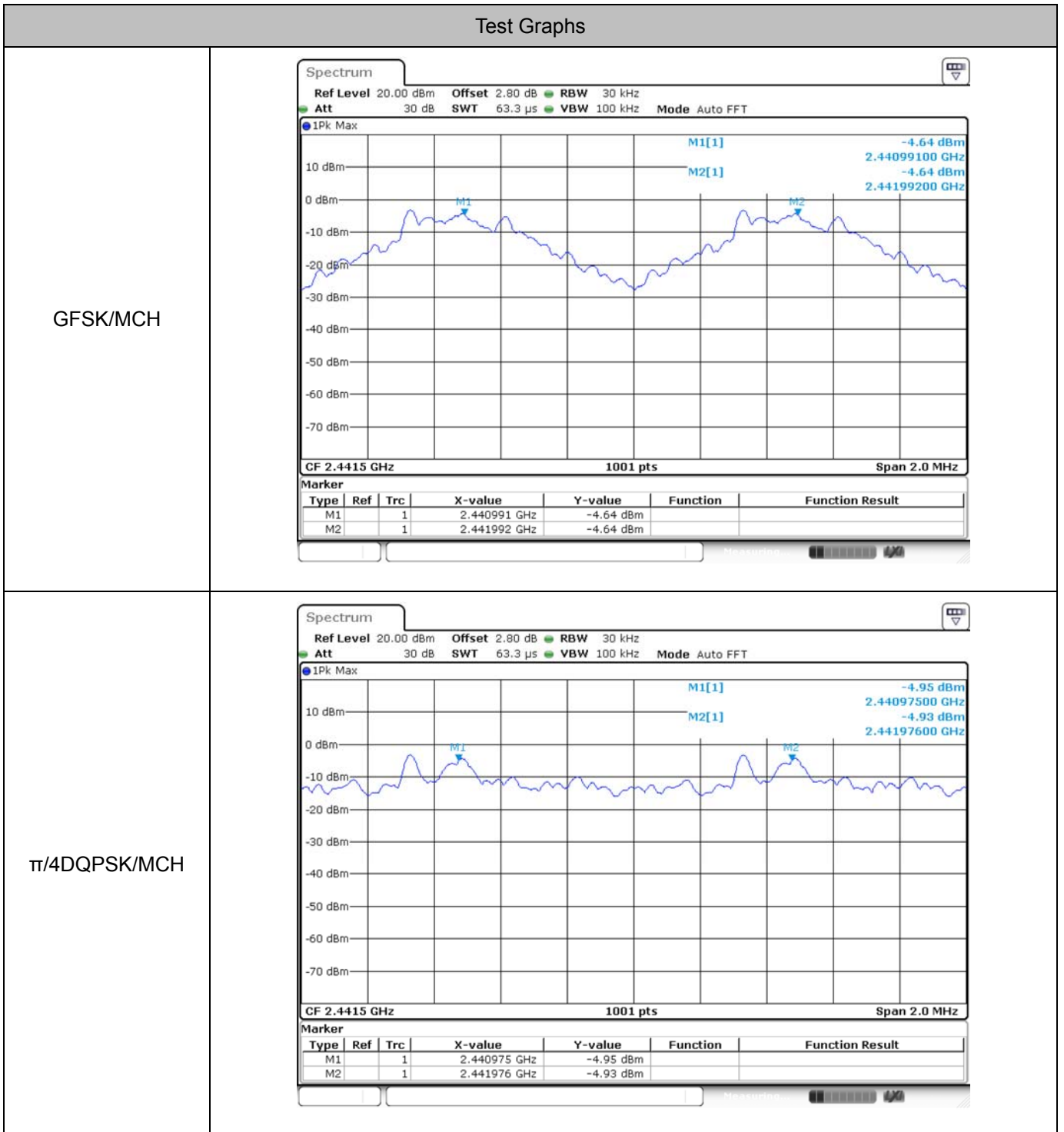


4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.001	0.572	Pass
$\pi/4$ DQPSK	MCH	1.001	0.799	Pass

4.2 Test Graphs

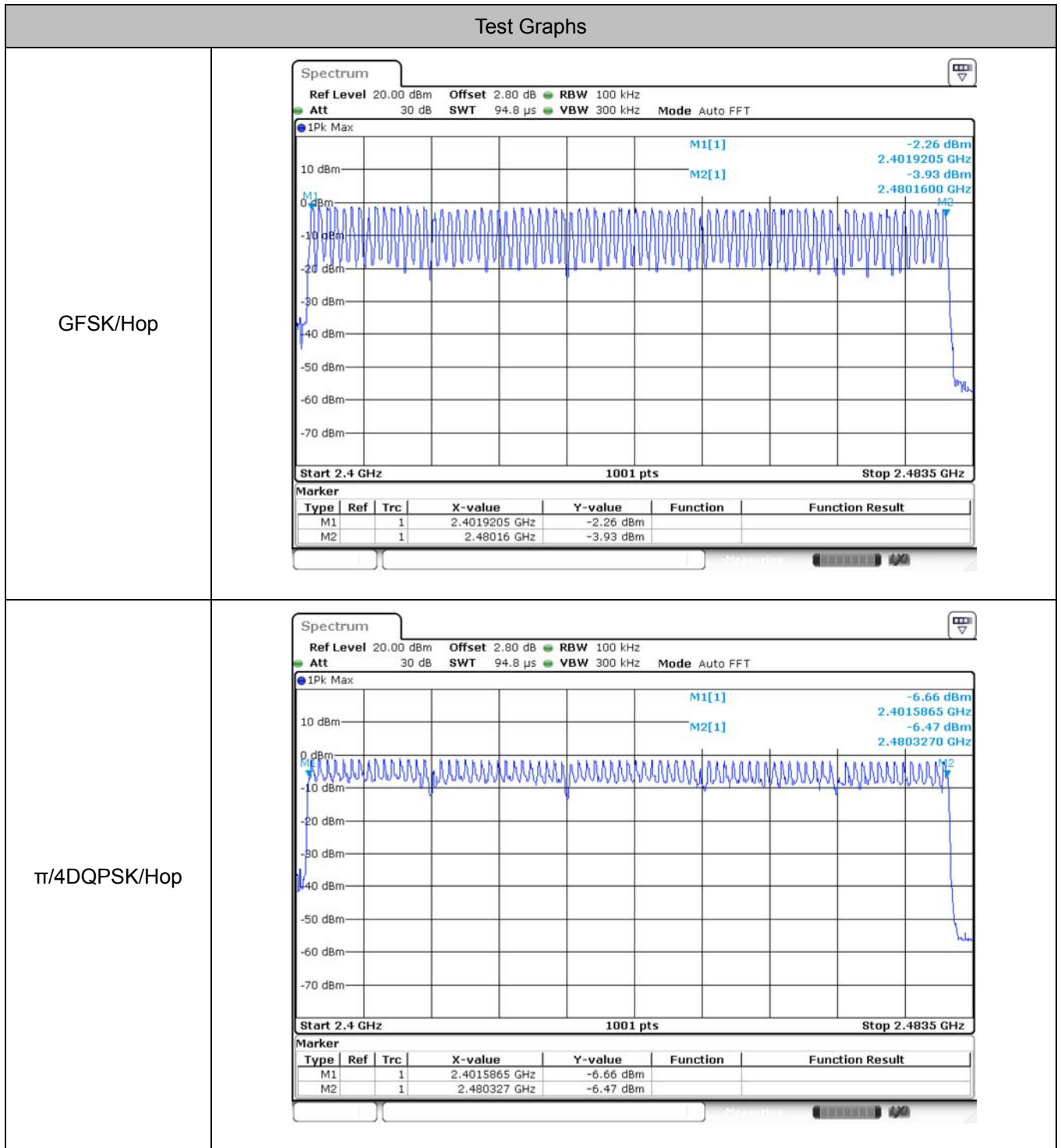


5 Hopping Channel Number

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

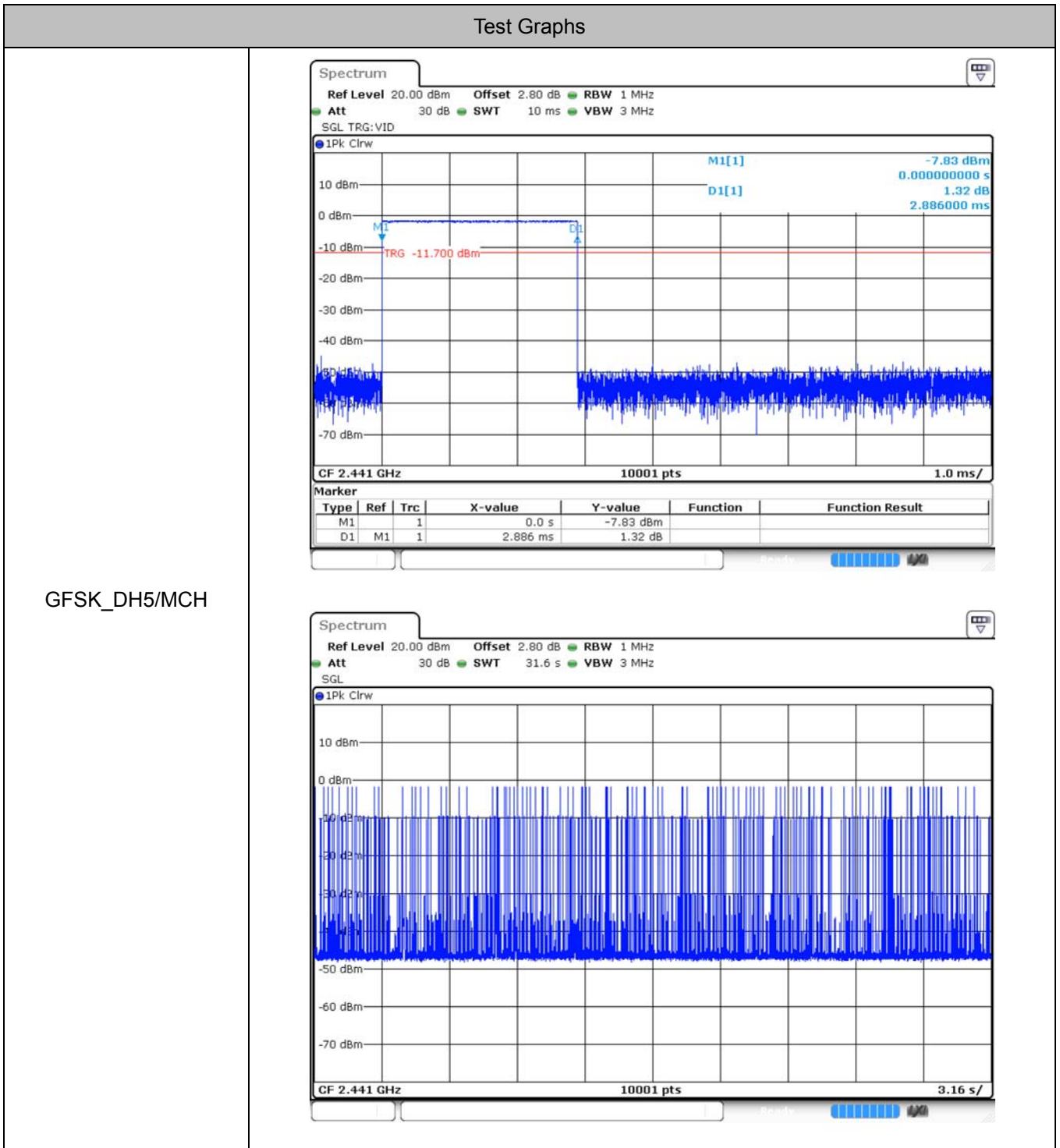


6 Dwell Time

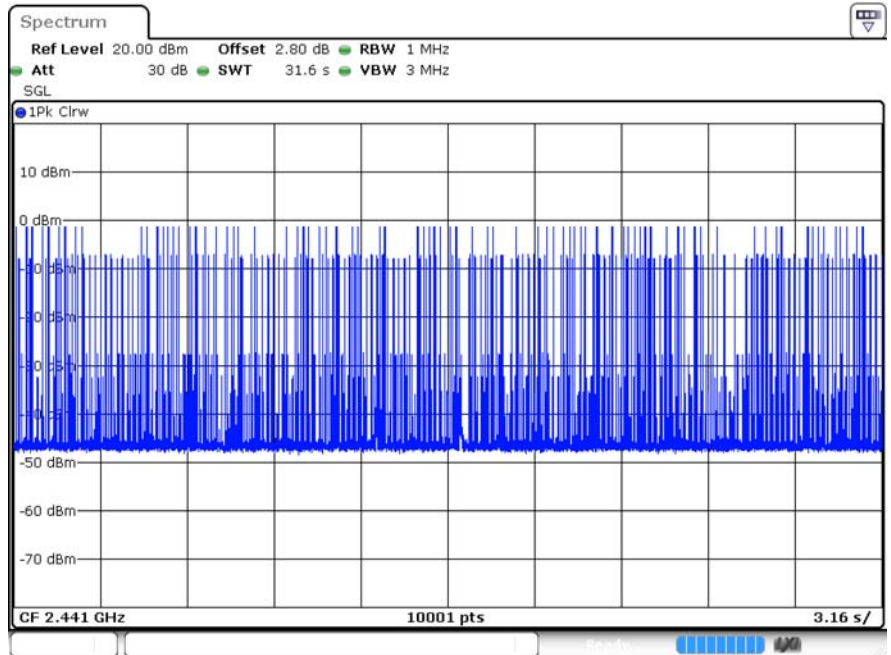
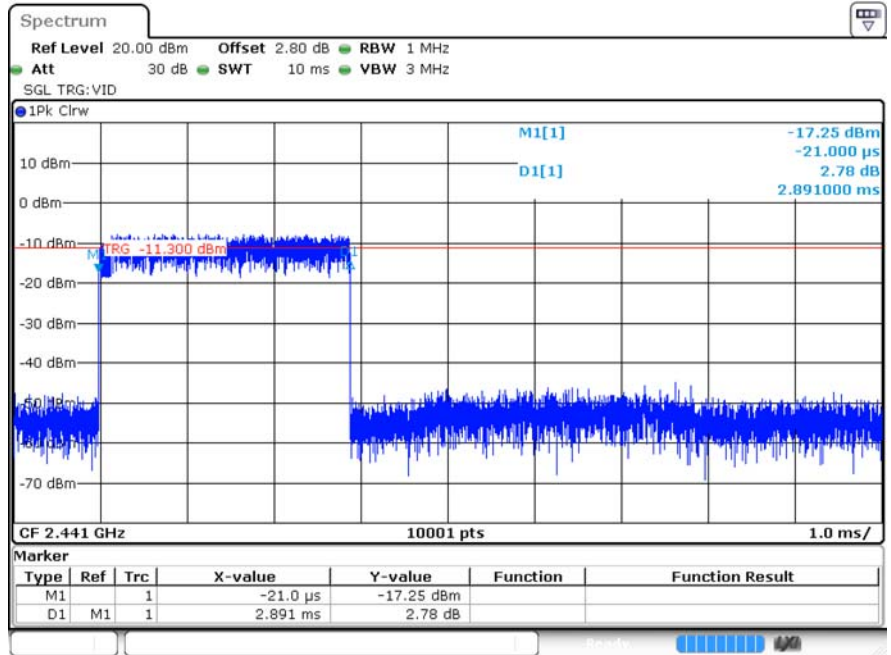
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.886	106	305.916	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.891	94	271.754	0.4	Pass

6.2 Test Graphs



$\pi/4$ DQPSK
_2DH5/MCH

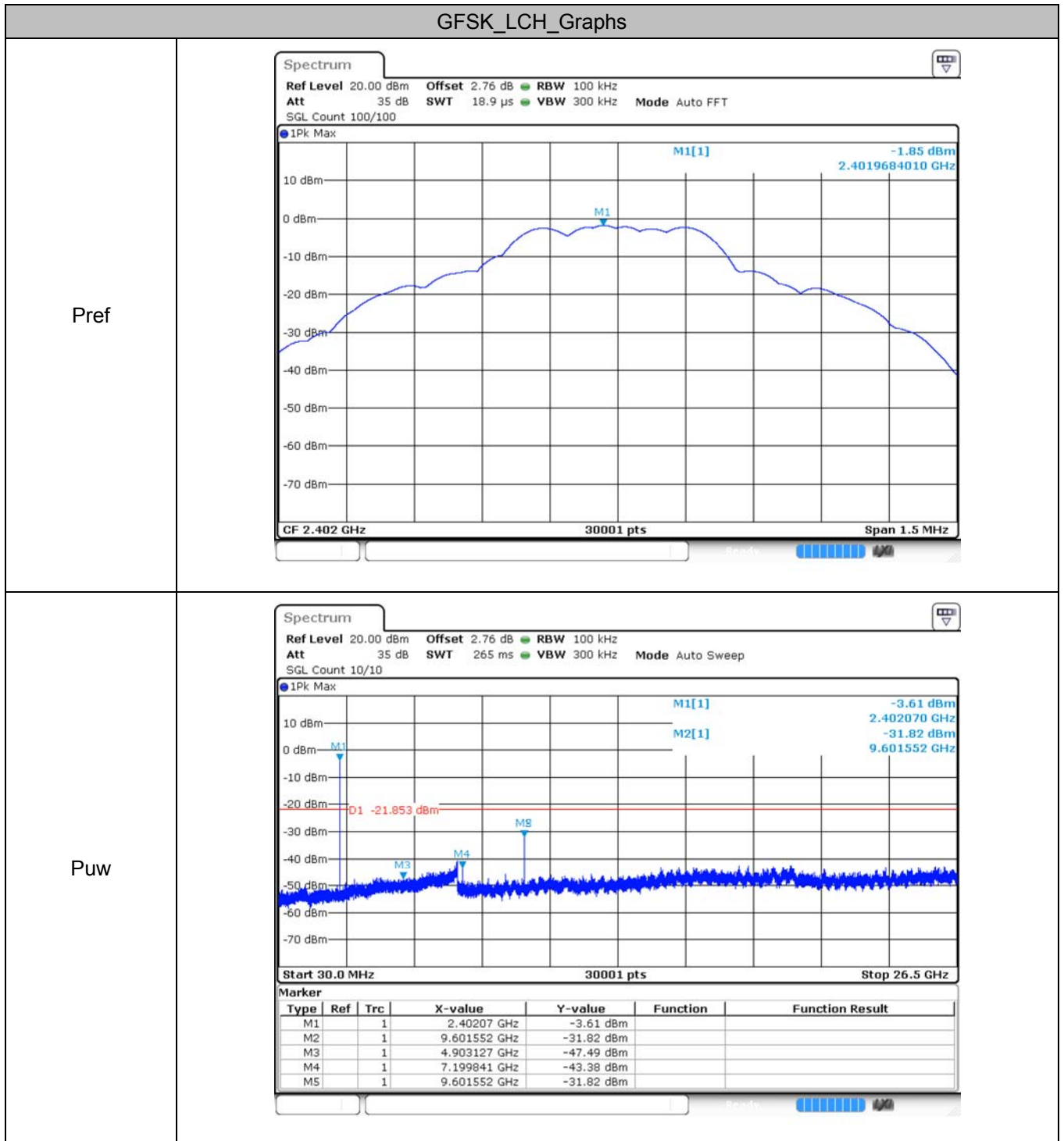


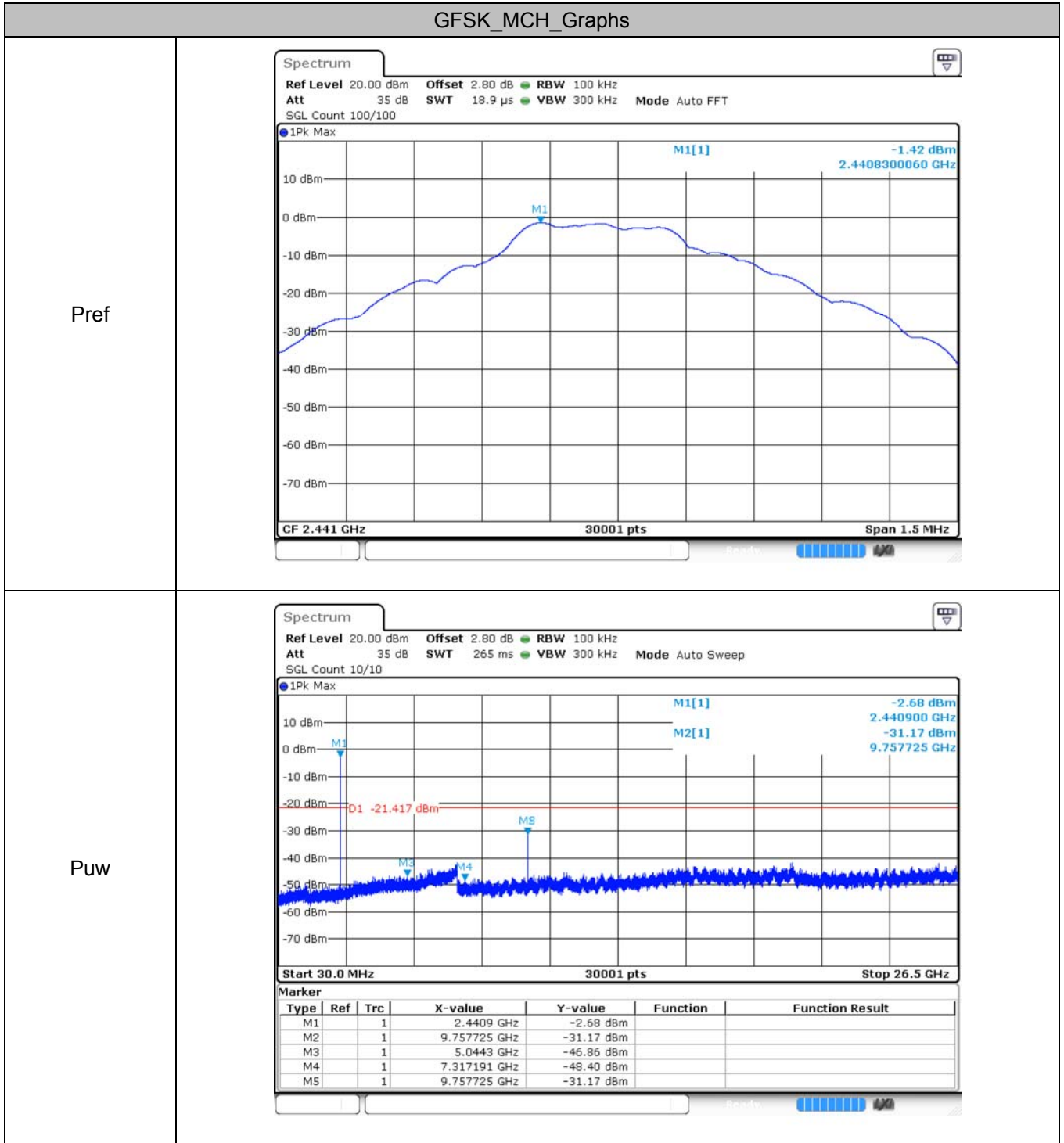
7 RF Conducted Spurious Emissions

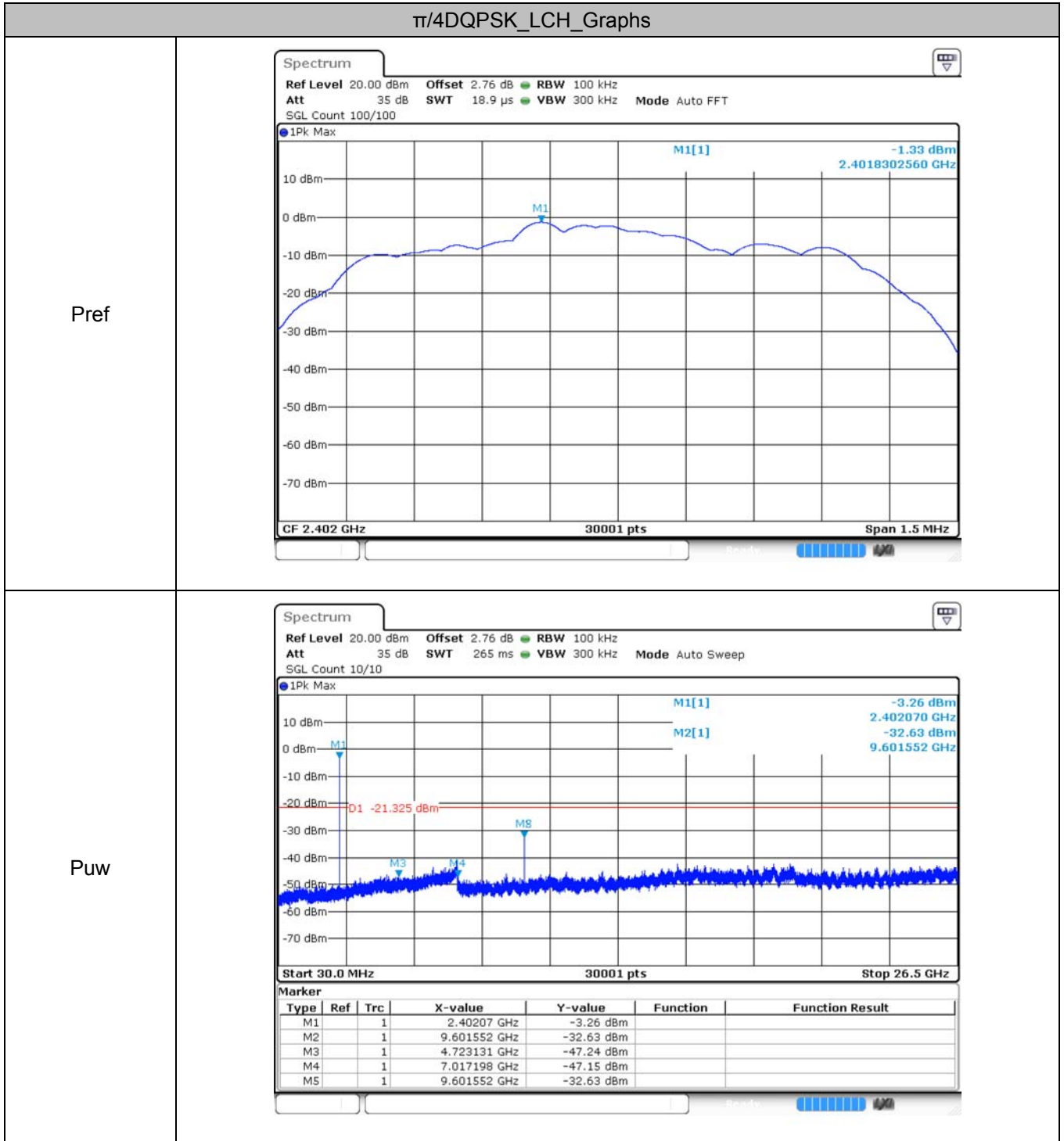
7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-29.96	-20	Pass
	MCH	-29.74	-20	Pass
	HCH	-29.03	-20	Pass
$\pi/4$ DQPSK	LCH	-31.3	-20	Pass
	MCH	-30.33	-20	Pass
	HCH	-29.26	-20	Pass

7.2 Test Graphs

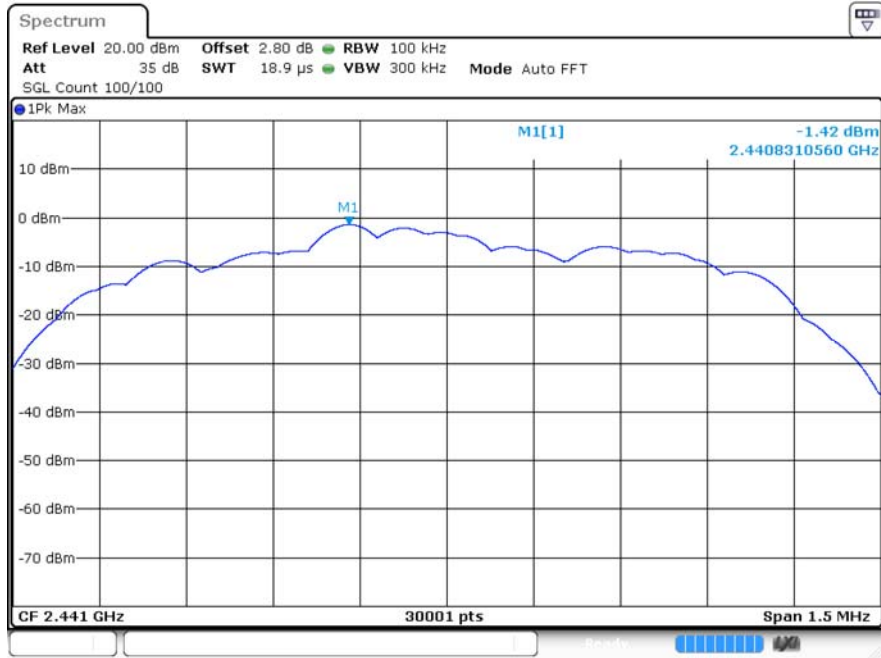




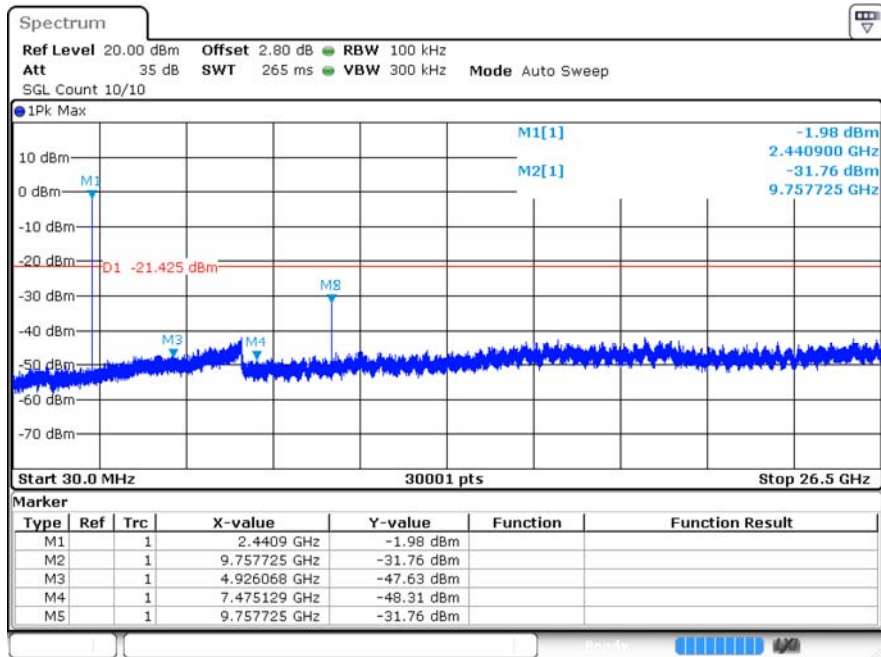


$\pi/4$ DQPSK_MCH_Graphs

Pref

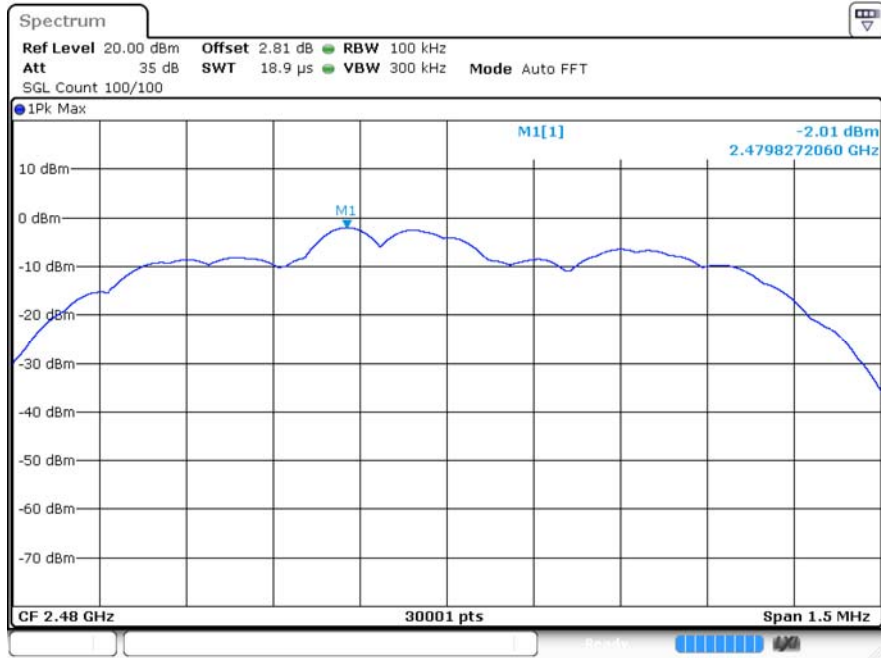


Puw

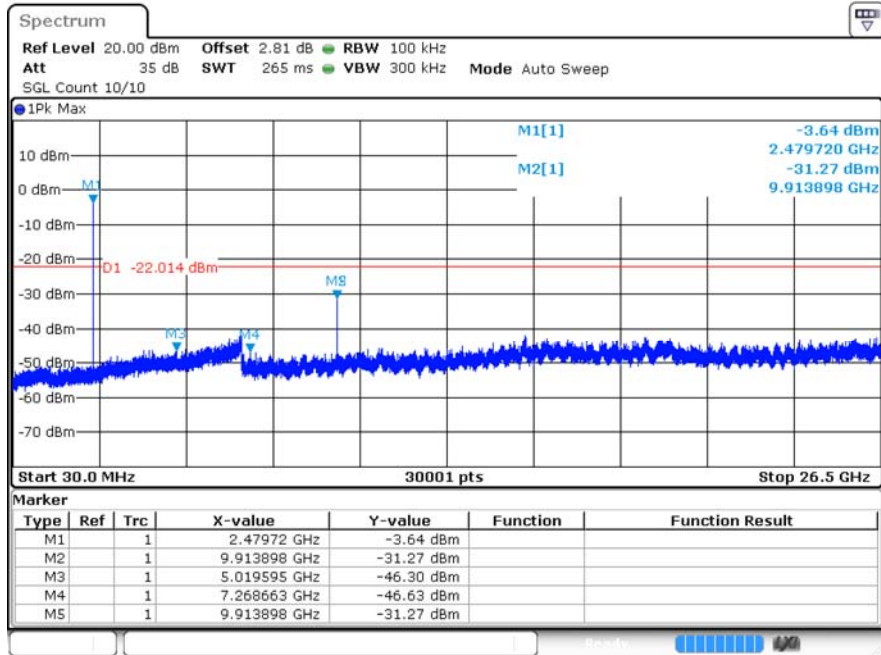


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

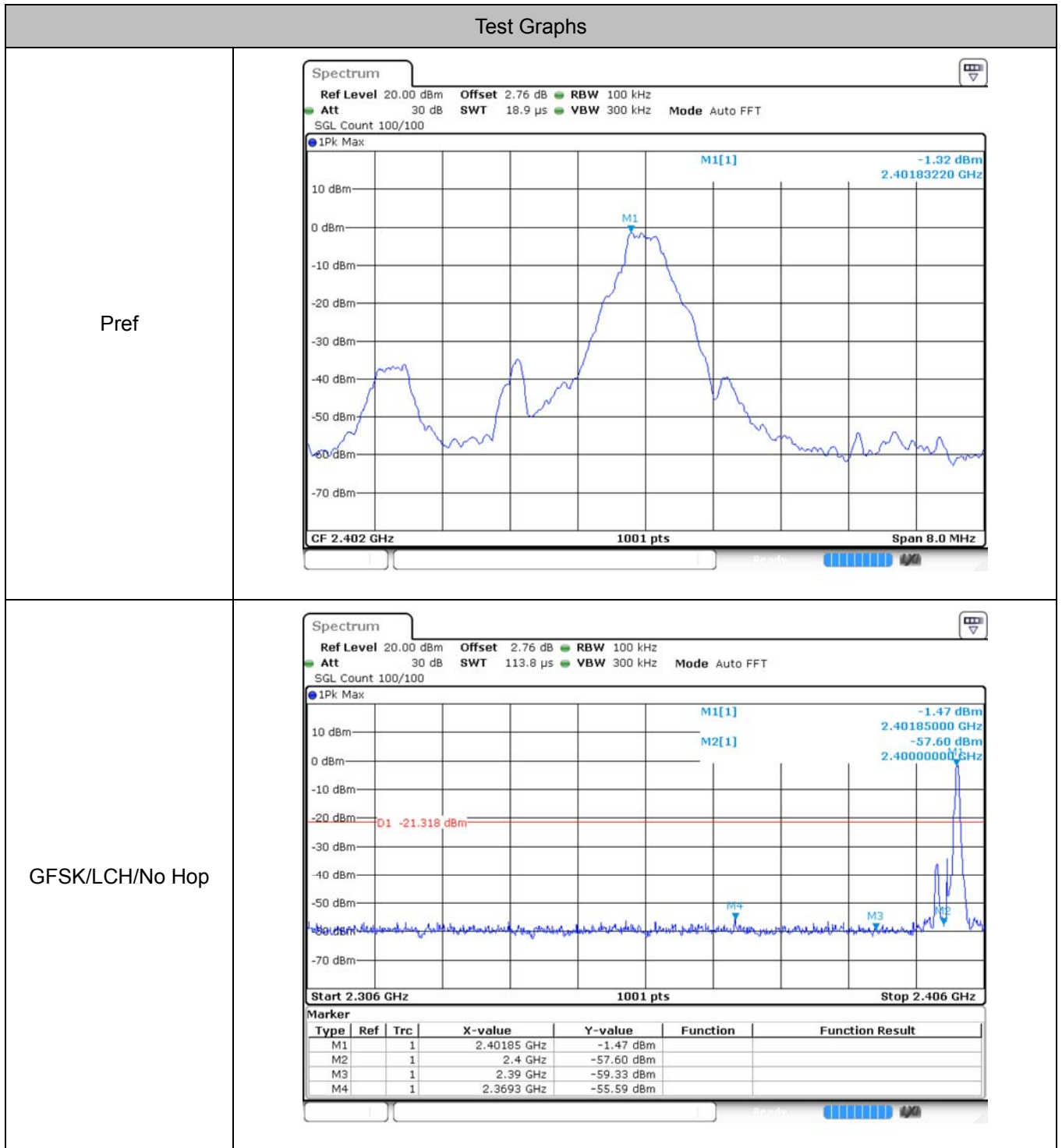


8 Band-edge for RF Conducted Emissions

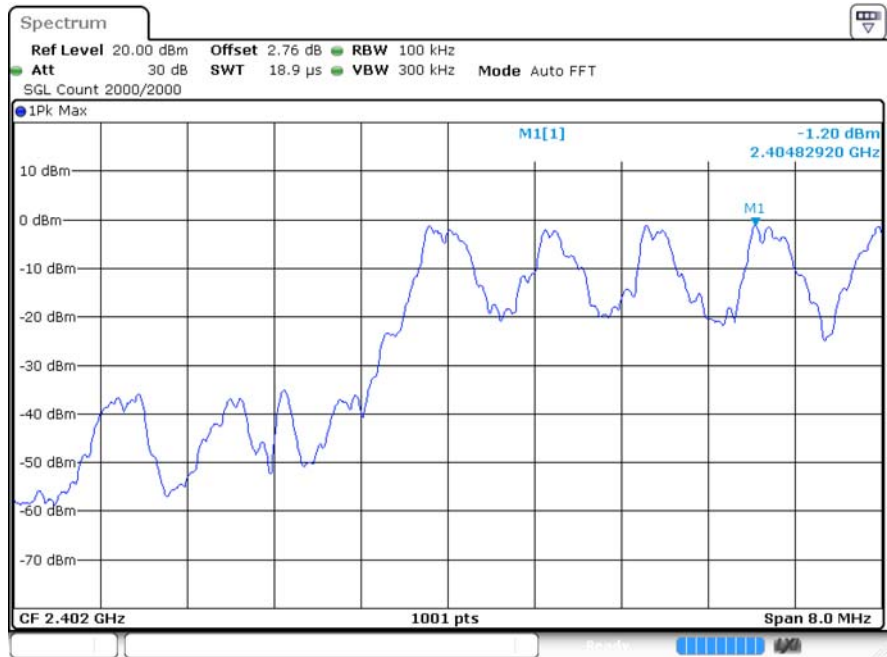
8.1 Test Result

Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-54.26	-20	Pass
			On	-53.91	-20	Pass
	HCH	2480	Off	-54.95	-20	Pass
			On	-53.42	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-55.14	-20	Pass
			On	-54.36	-20	Pass
	HCH	2480	Off	-54.55	-20	Pass
			On	-52.73	-20	Pass

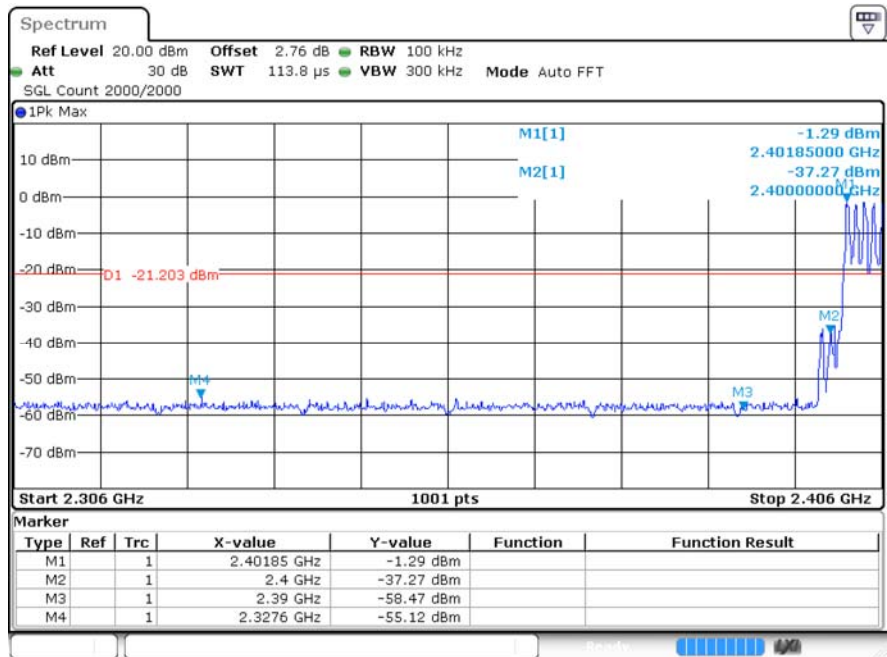
8.2 Test Graphs

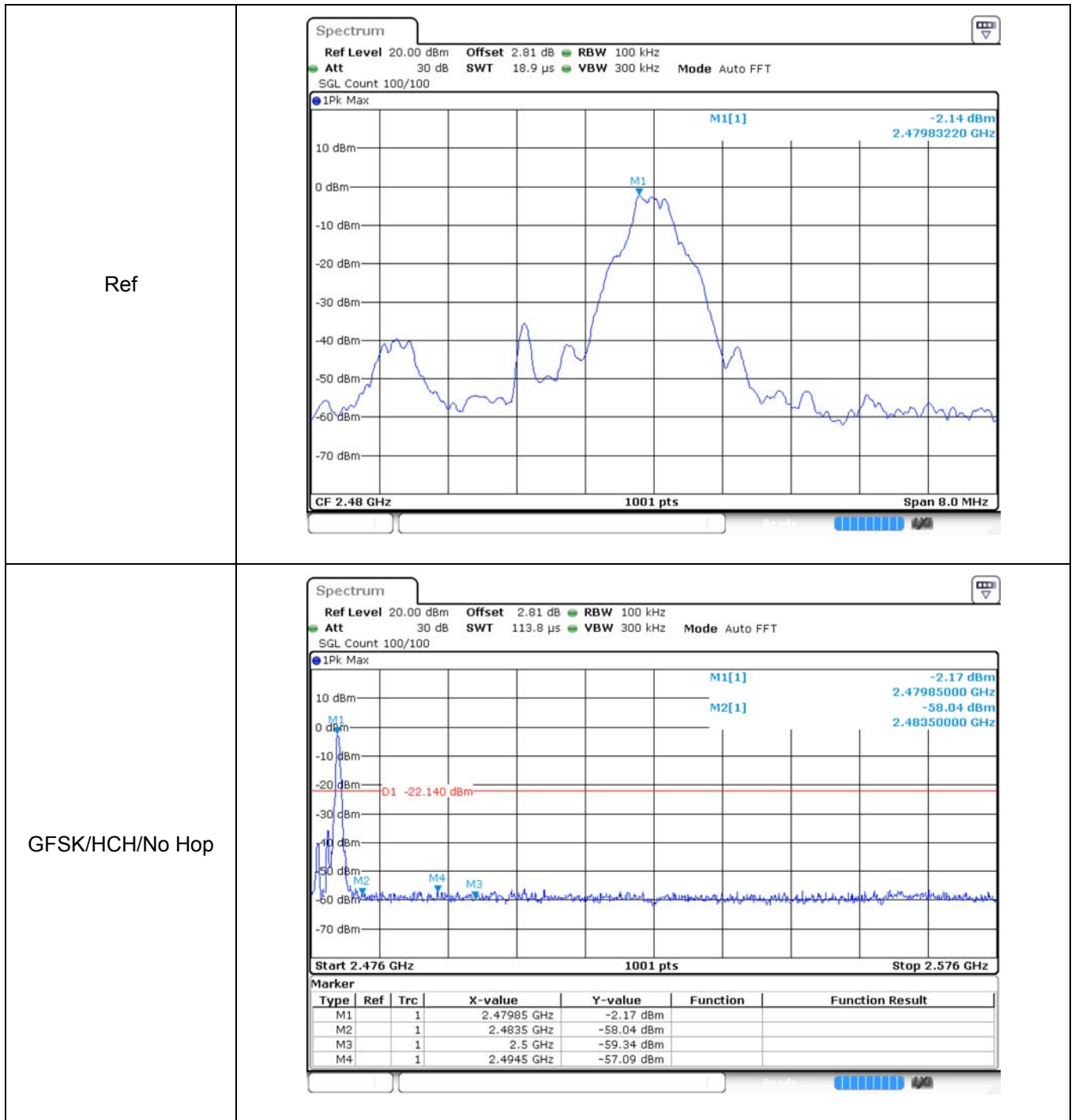


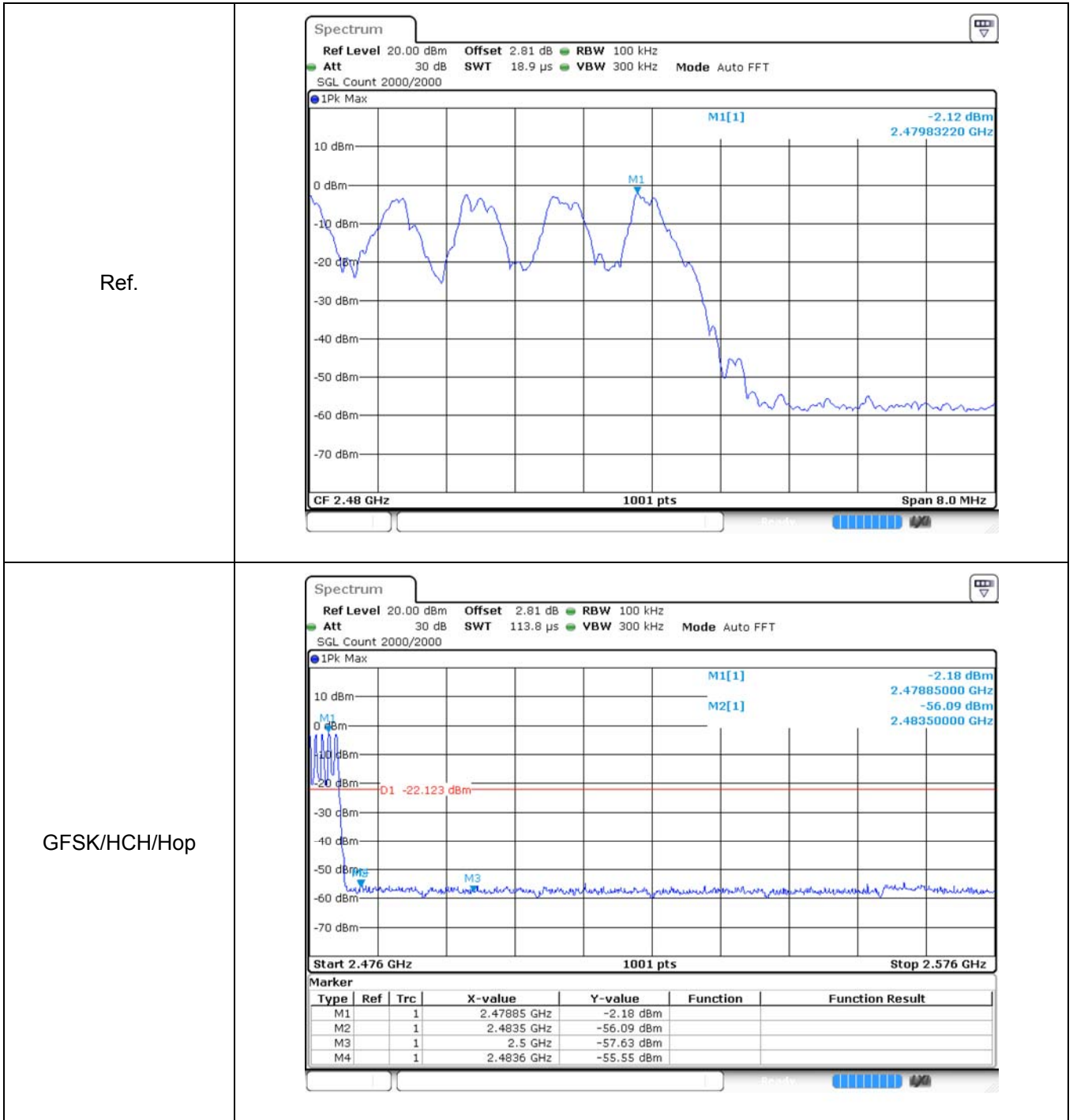
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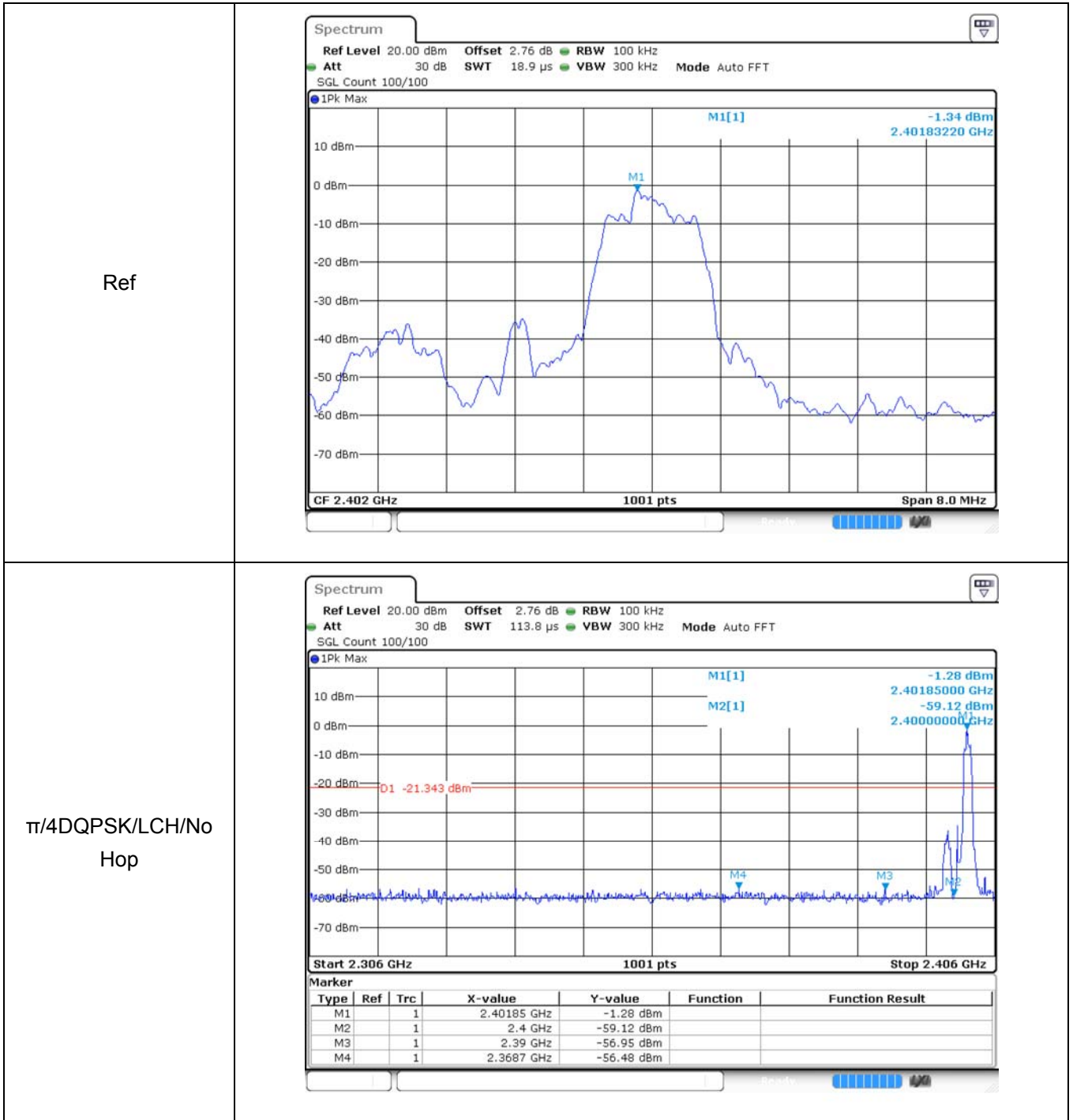


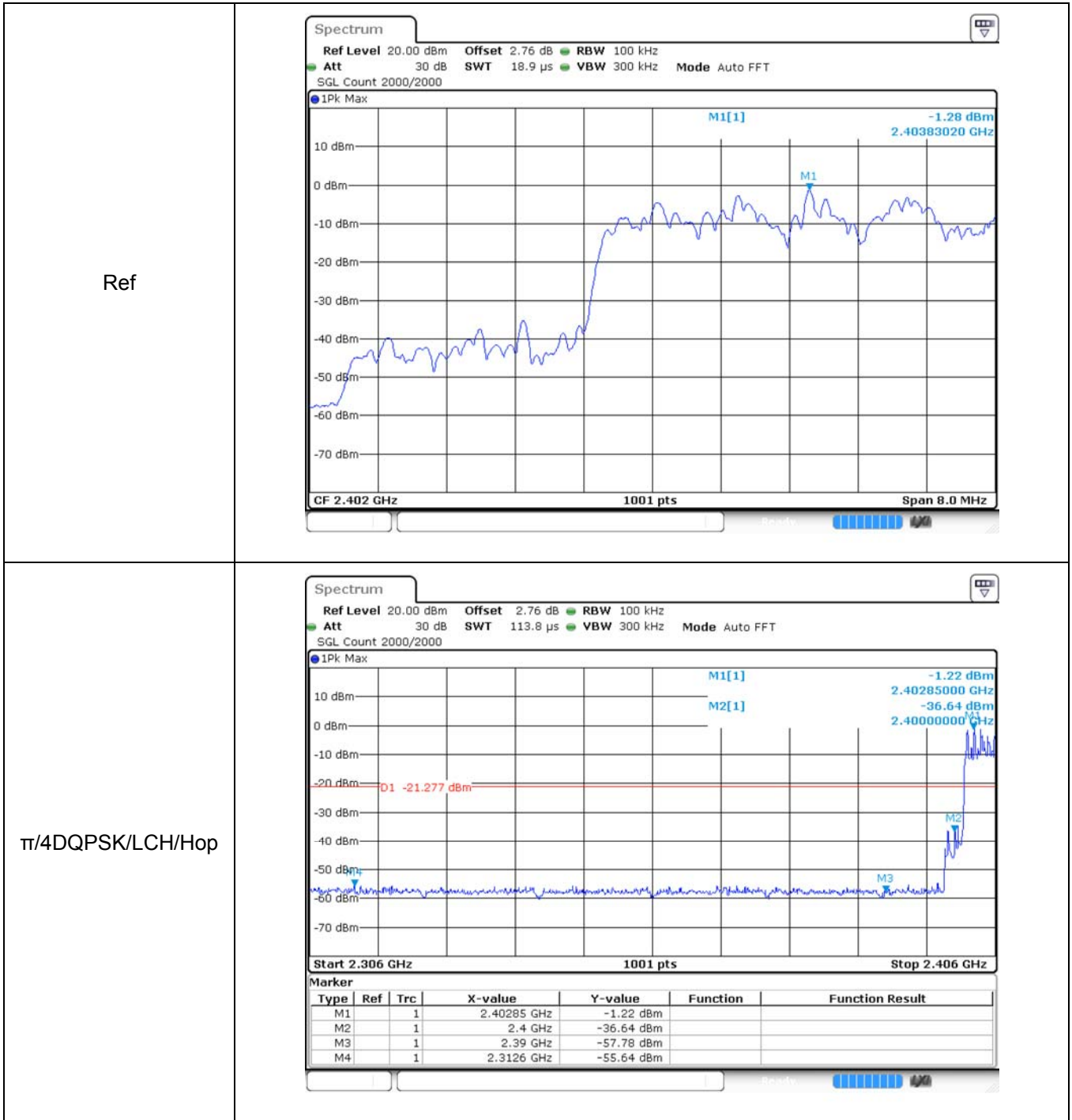
GFSK/LCH/Hop

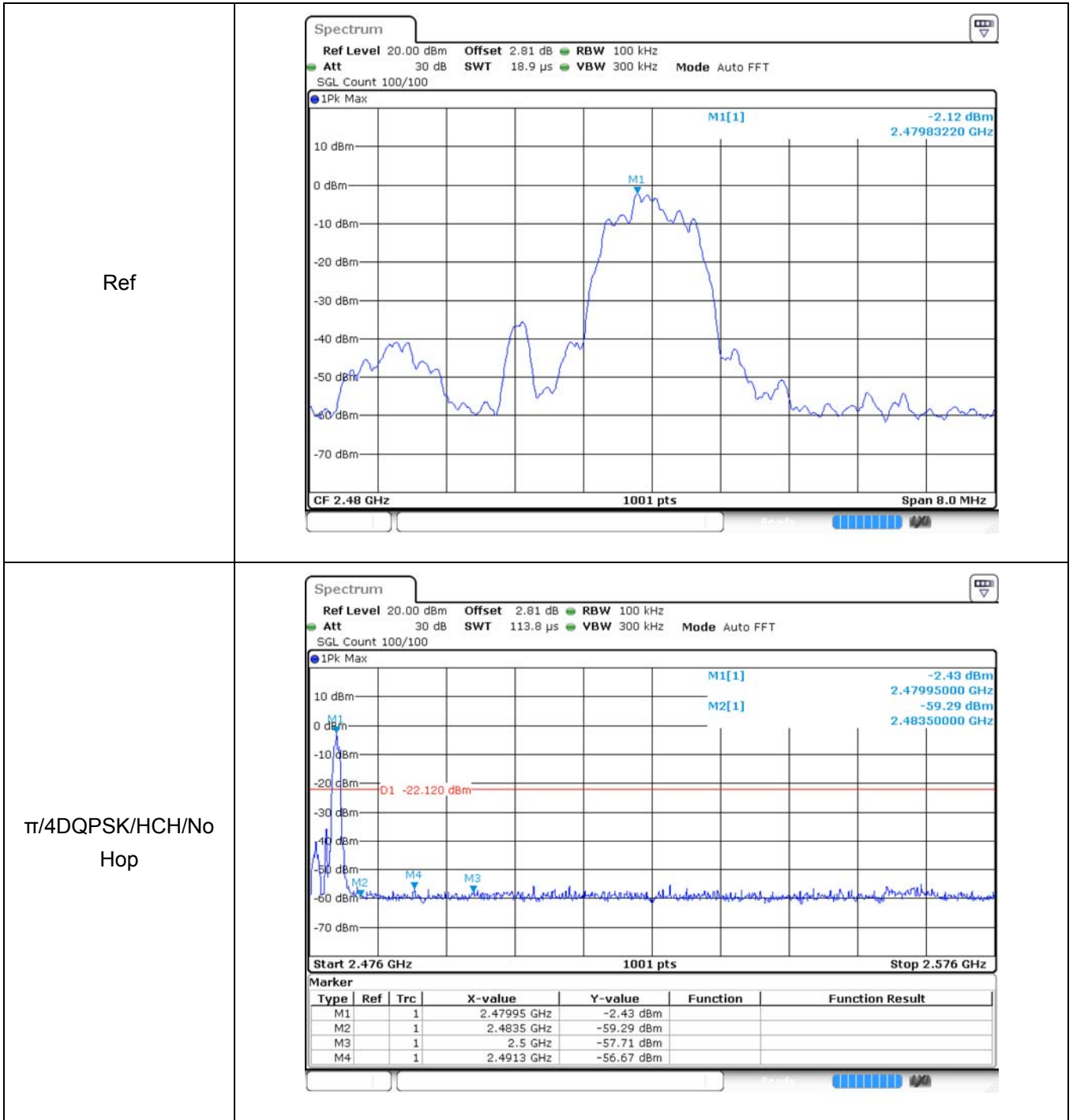


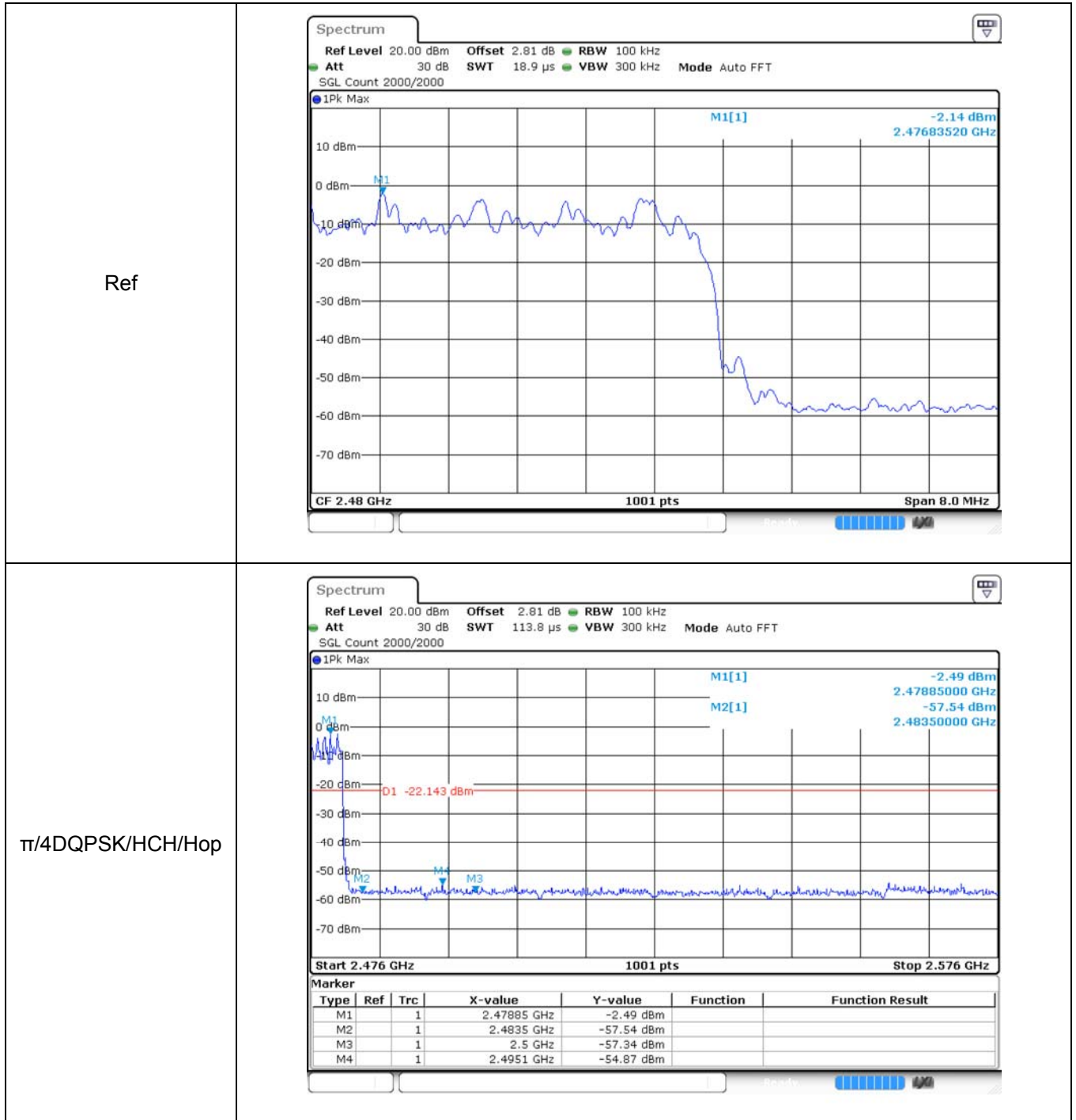












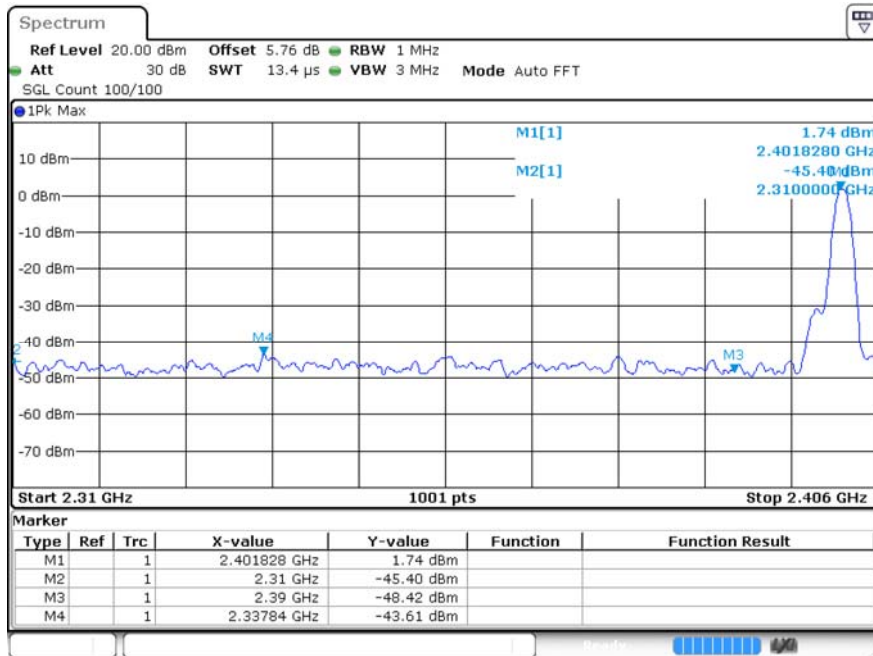
9 Restrict-band band-edge measurements

9.1 Test Result

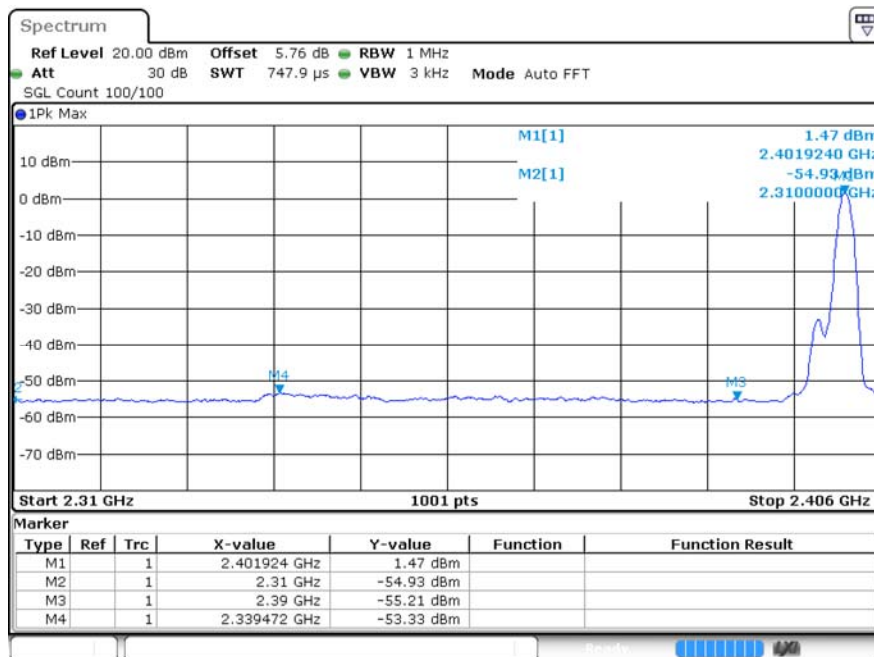
Test Mode	Hopping	Freq.	Power [dBm]	Gain	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-45.39	3	52.87	PEAK	74	Pass
	Off	2310.0	-54.92	3	43.34	AV	54	Pass
	Off	2337.84	-43.6	3	54.66	PEAK	74	Pass
	Off	2339.472	-53.32	3	44.94	AV	54	Pass
	Off	2390.0	-48.41	3	49.85	PEAK	74	Pass
	Off	2390.0	-55.21	3	43.05	AV	54	Pass
	Off	2483.5	-44.95	3	53.31	PEAK	74	Pass
	Off	2483.5	-53.47	3	44.79	AV	54	Pass
	Off	2489.368	-44.24	3	54.02	PEAK	74	Pass
	Off	2483.512	-53.47	3	44.79	AV	54	Pass
	Off	2500.0	-47.47	3	50.79	PEAK	74	Pass
	Off	2500.0	-55.27	3	42.99	AV	54	Pass
$\pi/4$ DQPSK	Off	2310.0	-46.81	3	51.45	PEAK	74	Pass
	Off	2310.0	-55.63	3	42.63	AV	54	Pass
	Off	2342.64	-43.76	3	54.5	PEAK	74	Pass
	Off	2338.128	-52.97	3	45.29	AV	54	Pass
	Off	2390.0	-45.58	3	52.68	PEAK	74	Pass
	Off	2390.0	-55.32	3	42.94	AV	54	Pass
	Off	2483.5	-47.61	3	50.65	PEAK	74	Pass
	Off	2483.5	-54.05	3	44.21	AV	54	Pass
	Off	2495.344	-44.66	3	53.6	PEAK	74	Pass
	Off	2483.512	-54.05	3	44.21	AV	54	Pass
	Off	2500.0	-46.47	3	51.79	PEAK	74	Pass
	Off	2500.0	-55.18	3	43.08	AV	54	Pass

9.2 Test Graphs

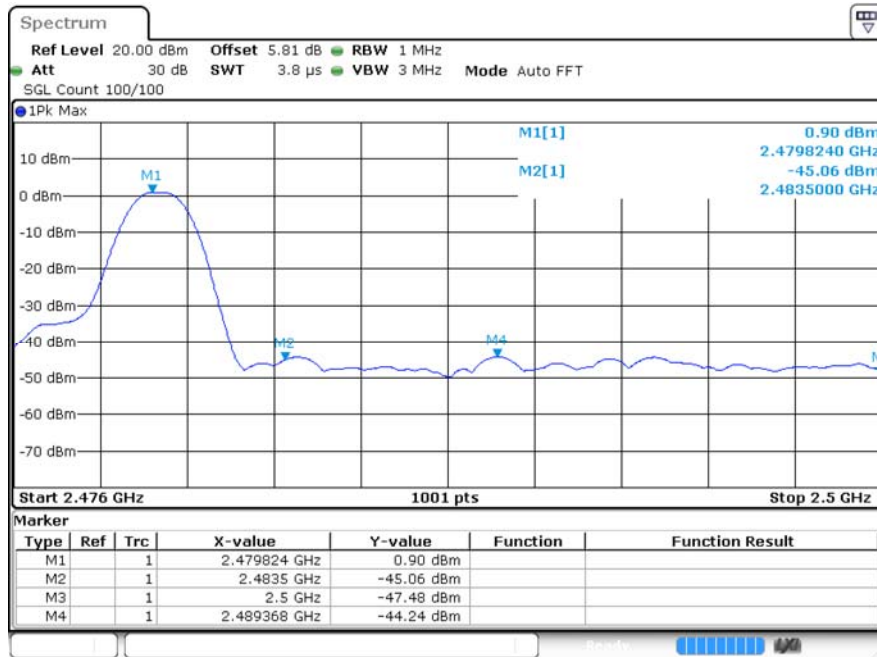
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



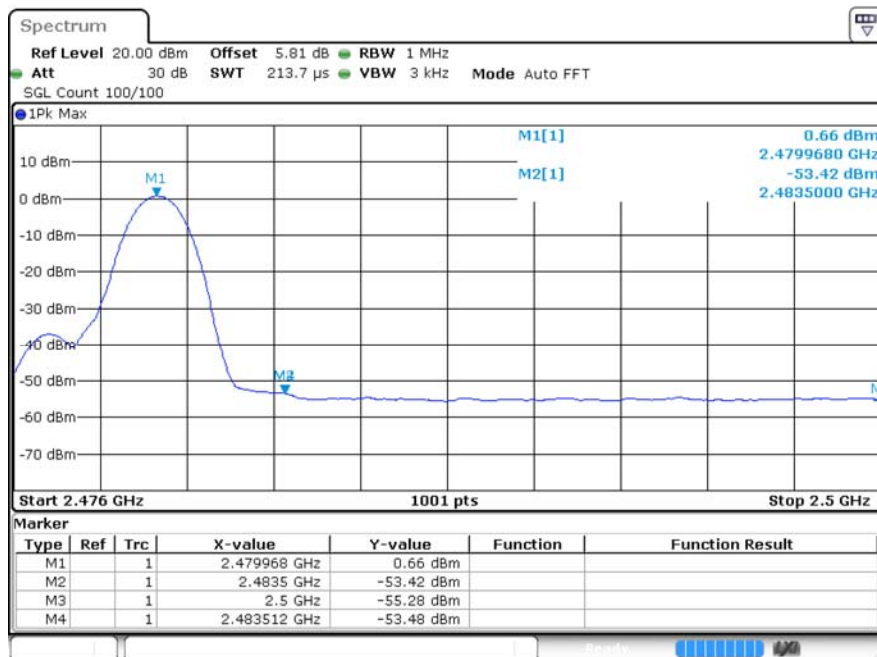
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



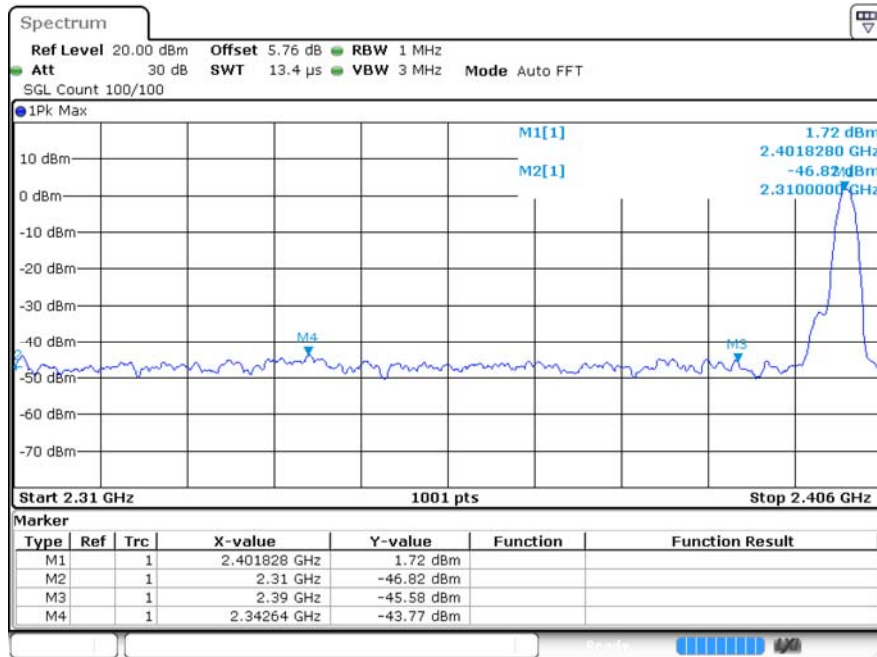
Restrict-band band-edge measurements_Hopping Off_GFSK_PEAK (High Channel)



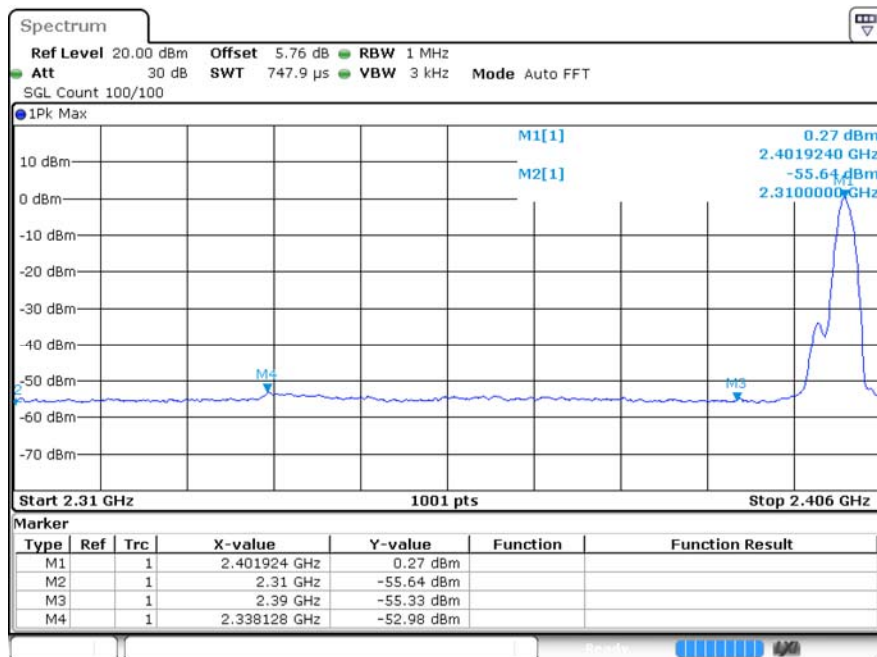
Restrict-band band-edge measurements_Hopping Off_GFSK_Average (High Channel)



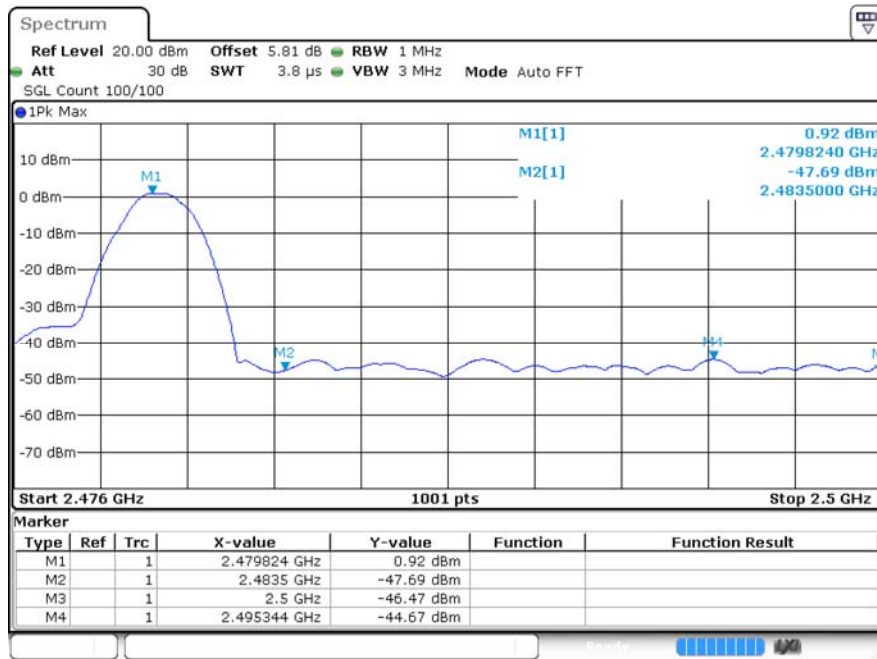
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



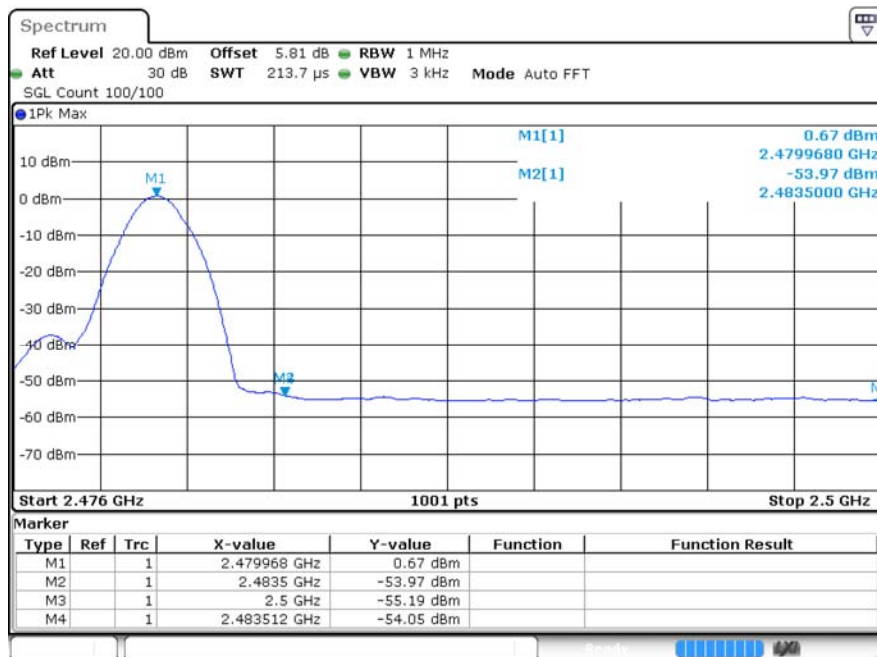
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



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---