



Appendix A

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

Product Name: POWER AMPLIFIER

Trade Mark: PYLE

Test Model: PMXAKB2000

Environmental Conditions

Temperature:	25.8℃
Relative Humidity:	52.5%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

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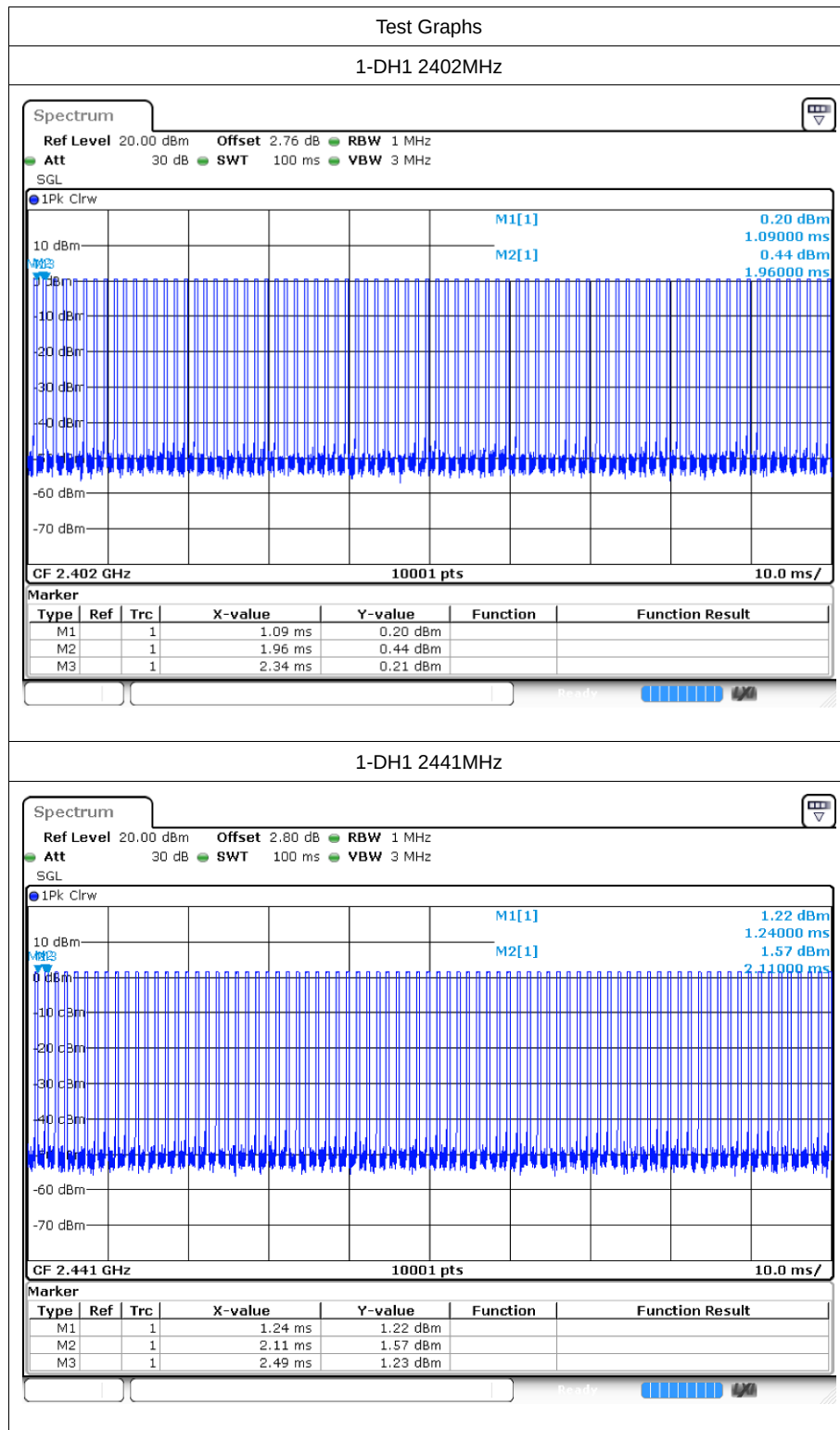
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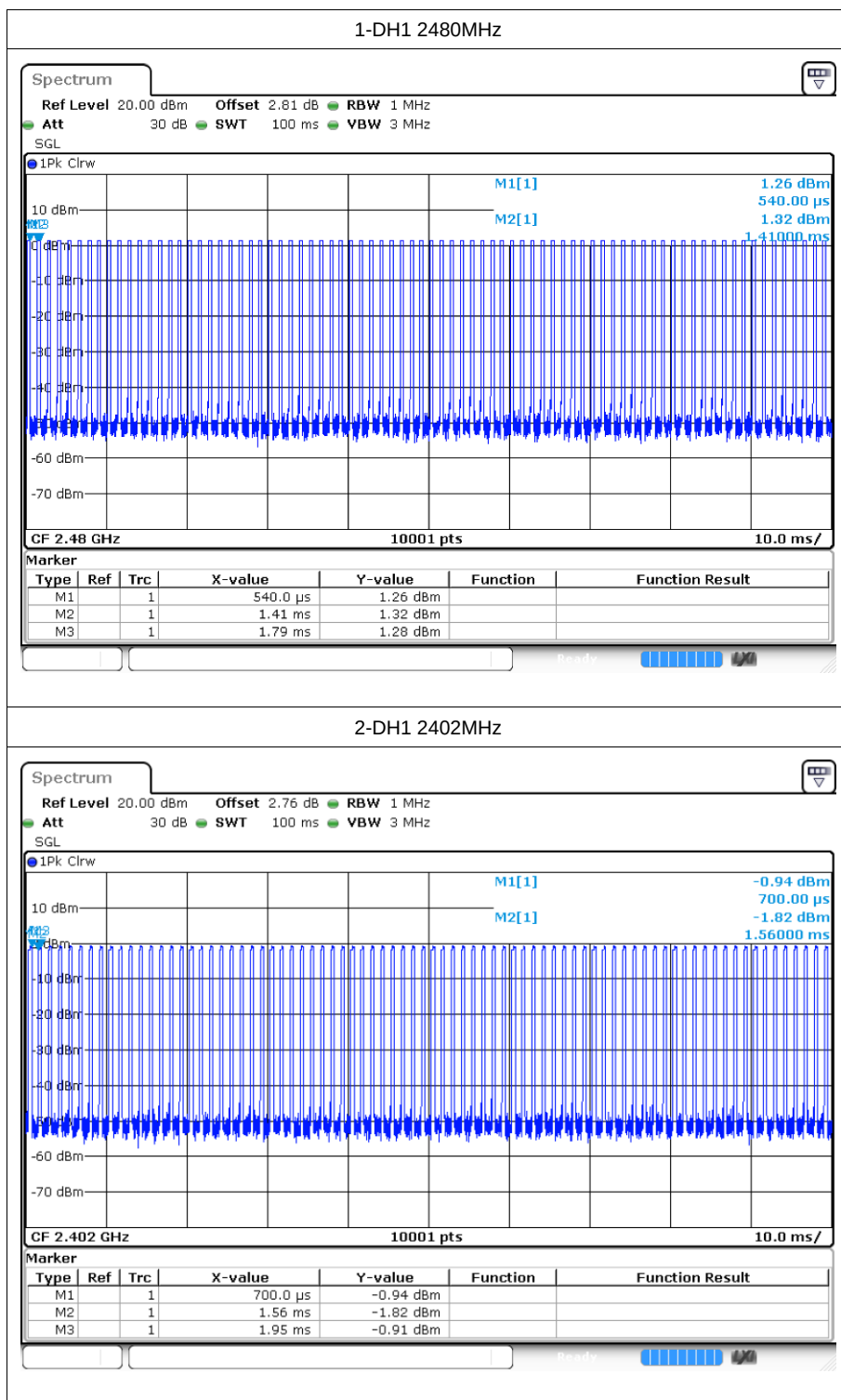
1 Duty Cycle

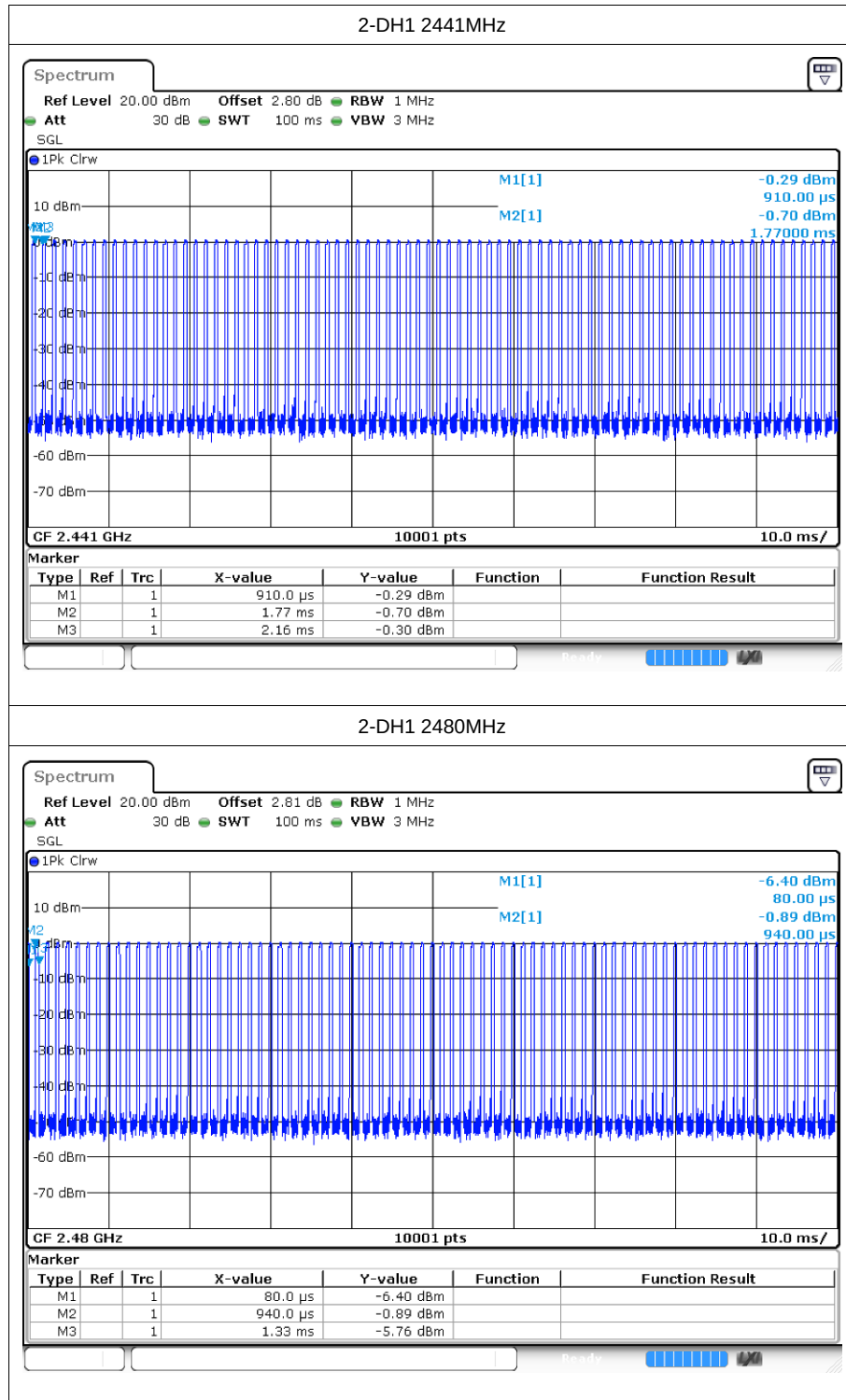
1.1 Test Result

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

1.2 Test Graphs





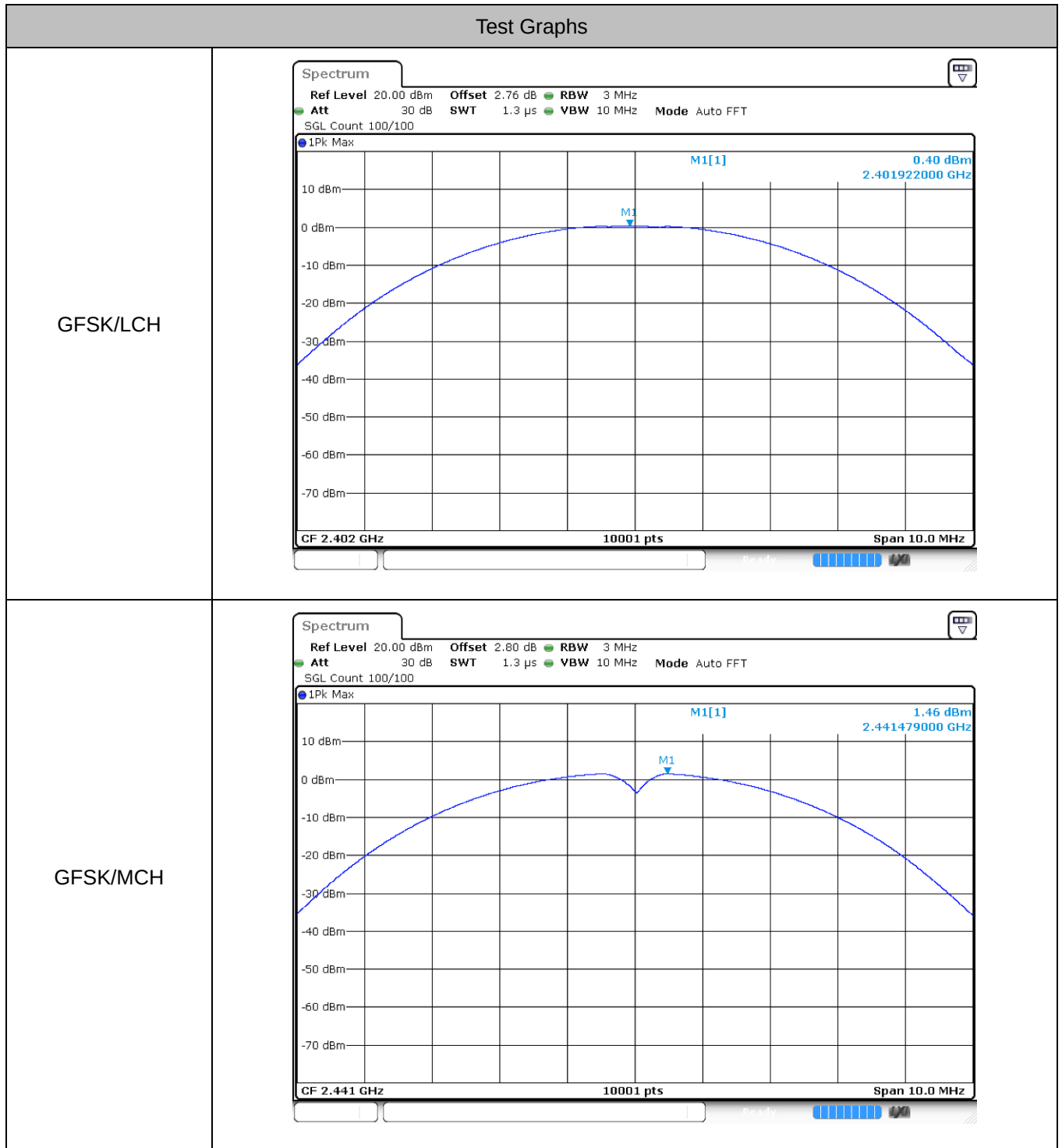


2 Maximum Conducted Peak Output Power

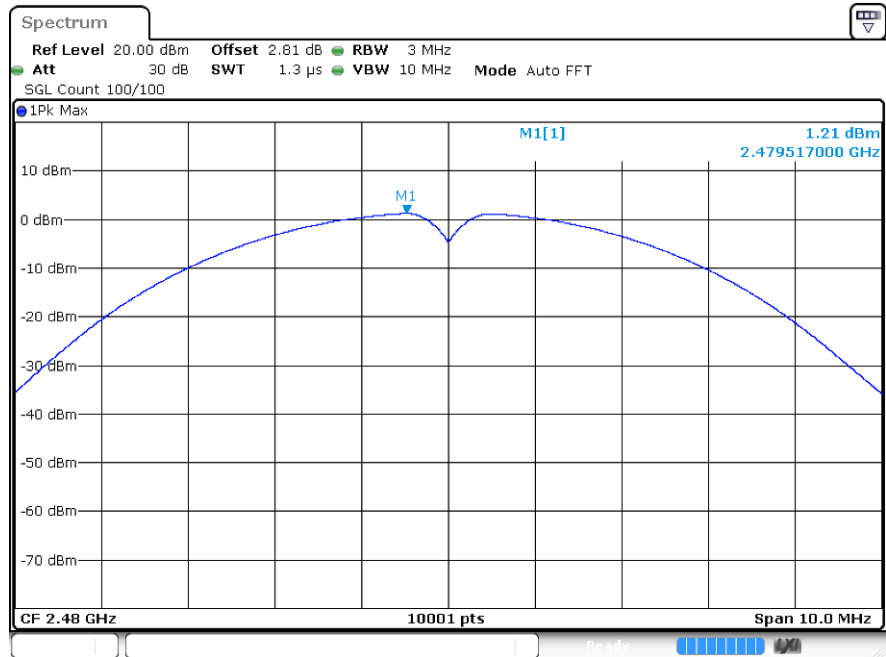
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	0.4	21	Pass
	MCH	1.46	21	Pass
	HCH	1.21	21	Pass
$\pi/4$ DQPSK	LCH	-0.25	21	Pass
	MCH	1.38	21	Pass
	HCH	1.19	21	Pass

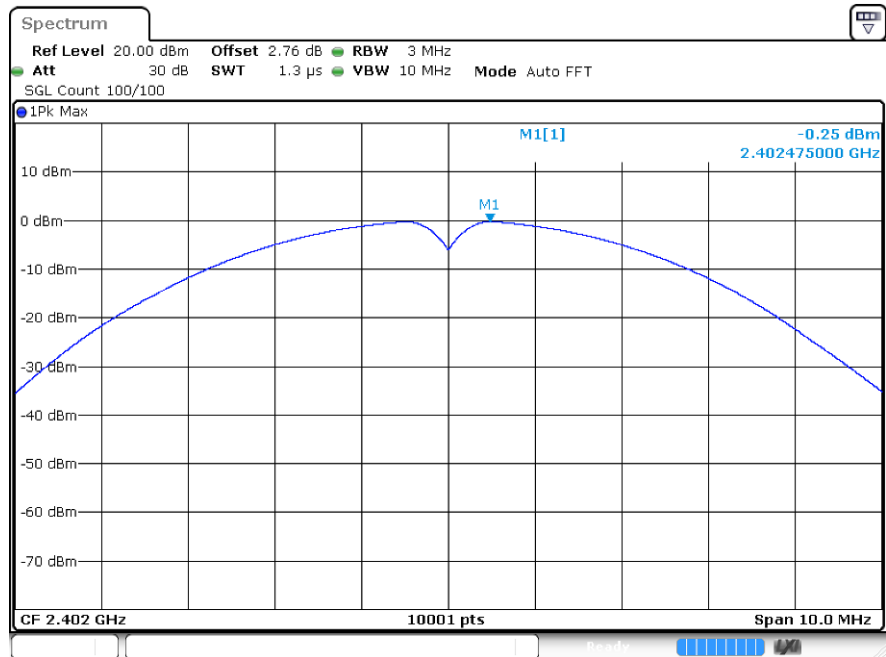
2.2 Test Graphs



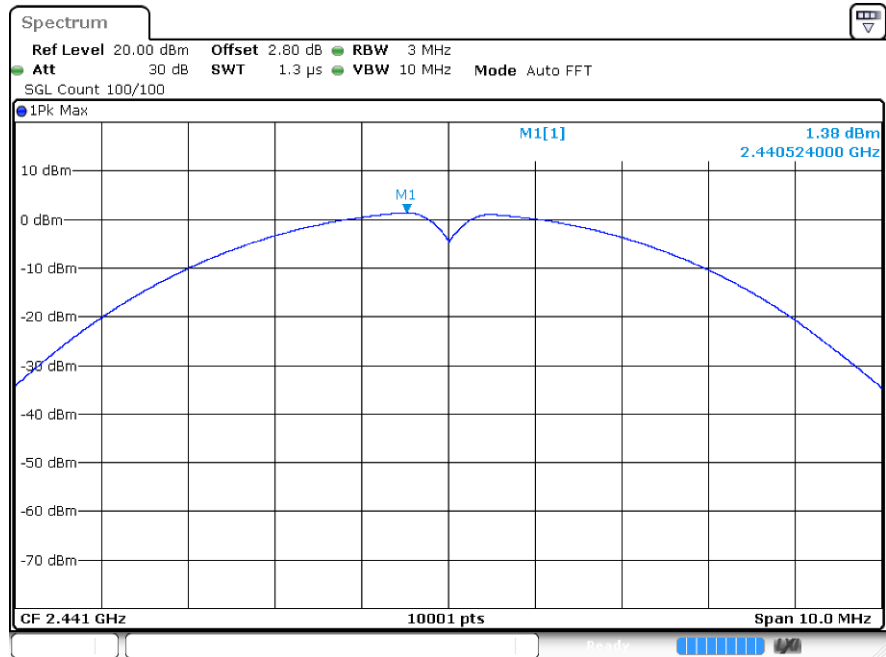
GFSK/HCH



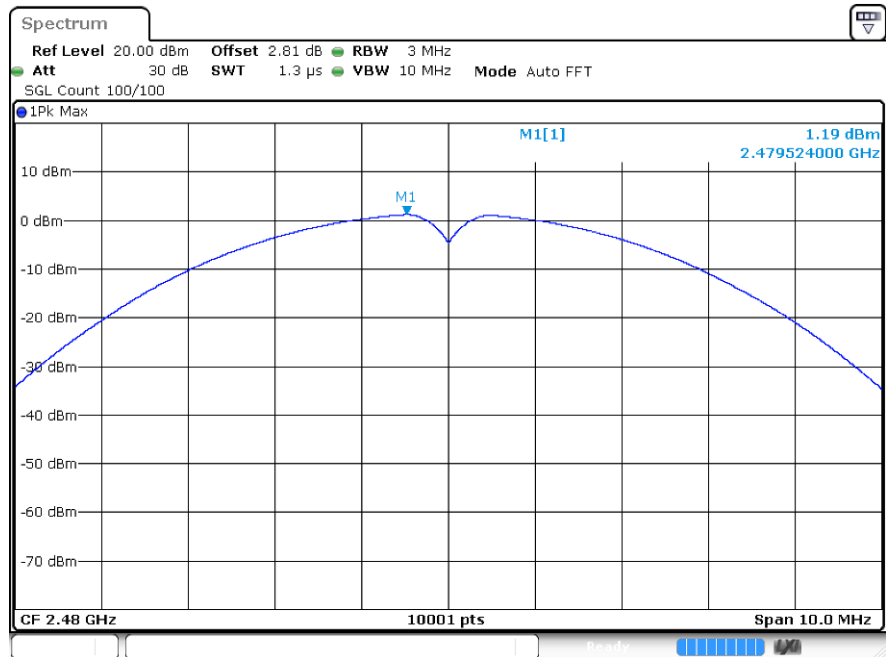
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH

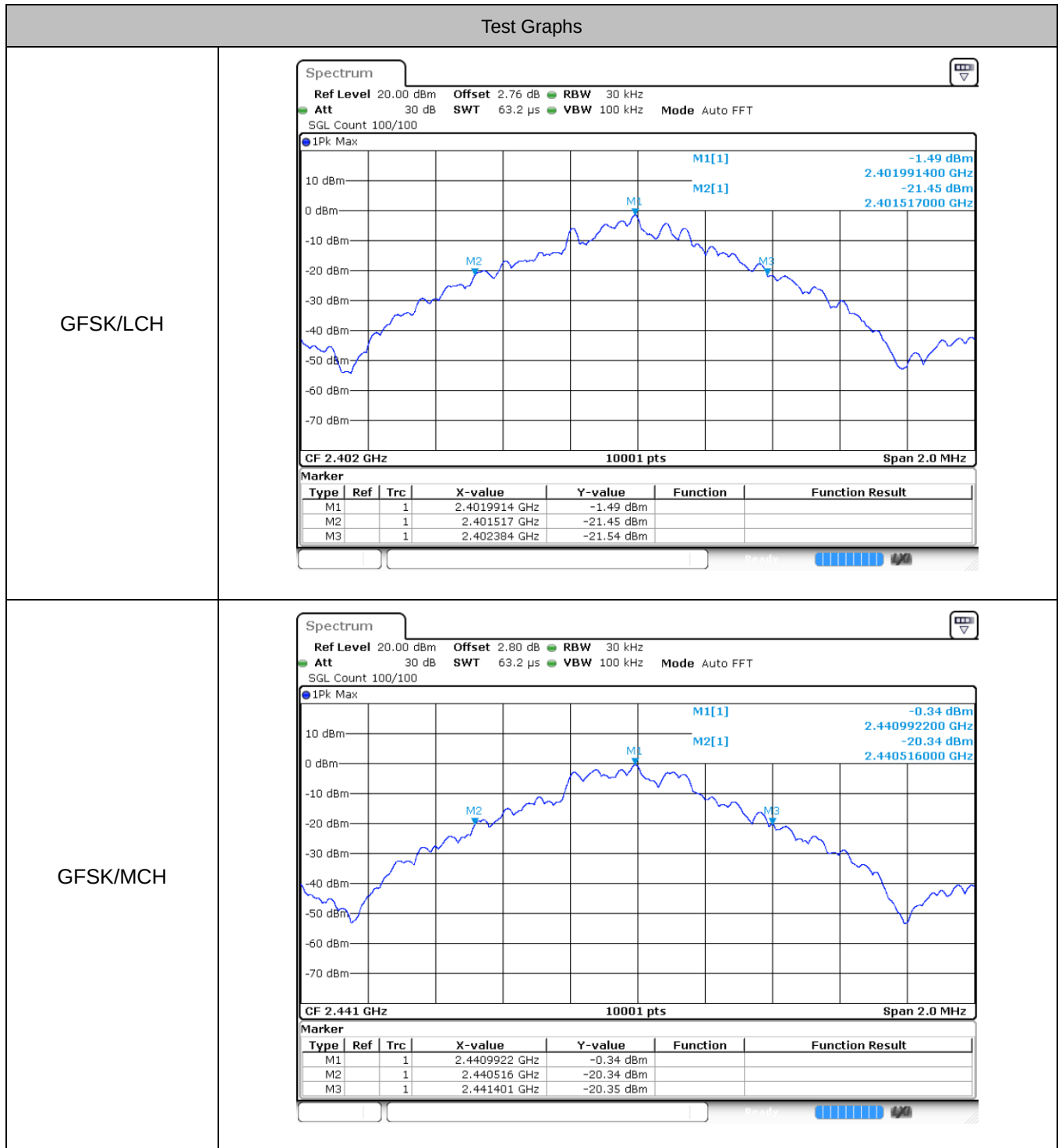


3 20dB Bandwidth

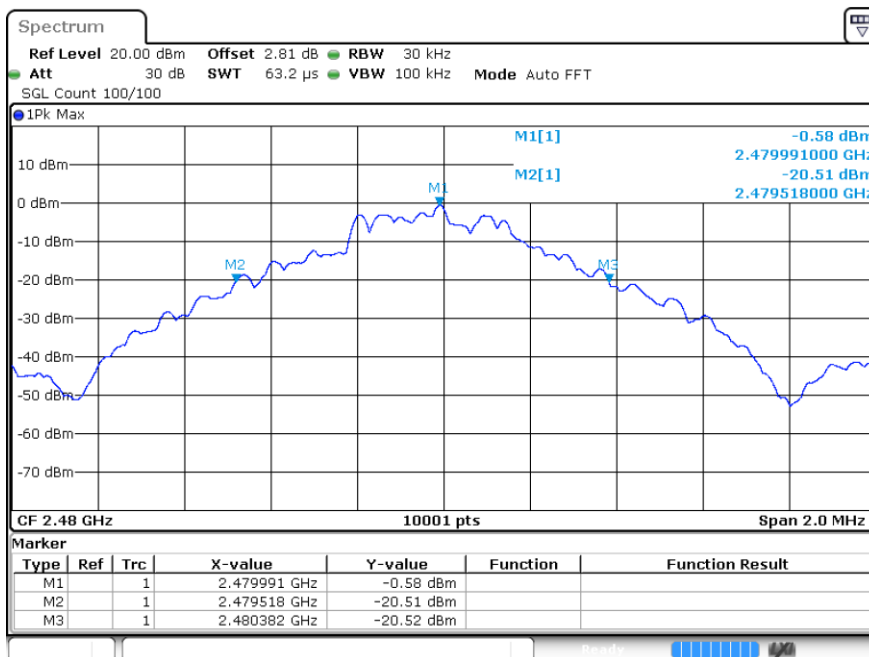
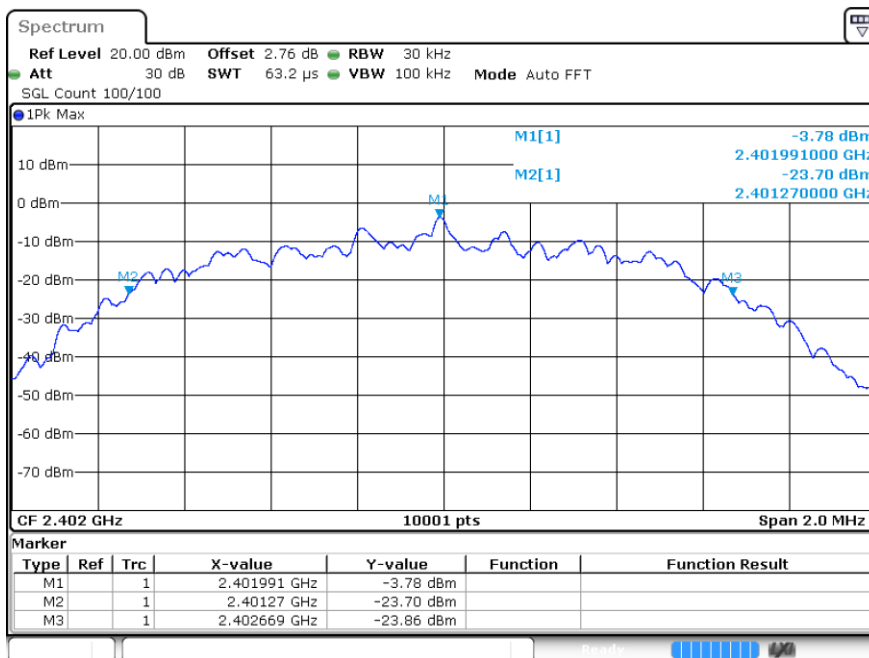
3.1 Test Result

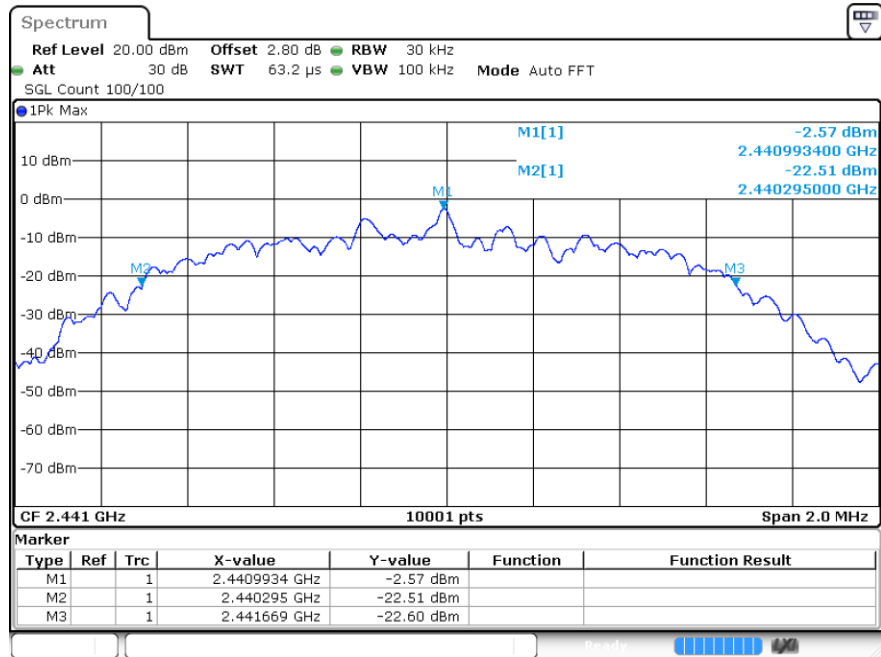
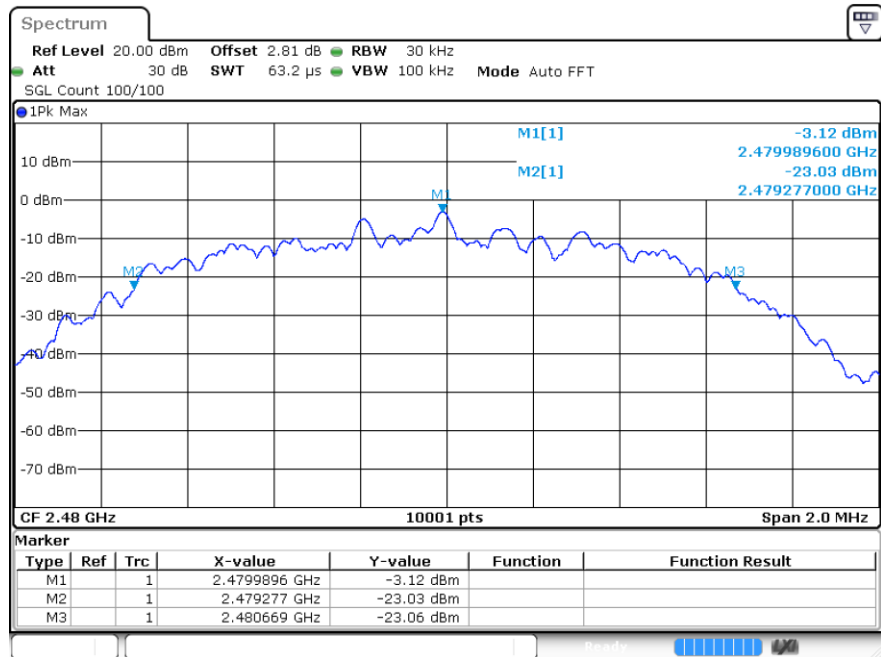
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.867	Not Specified	Pass
	MCH	0.884	Not Specified	Pass
	HCH	0.864	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.399	Not Specified	Pass
	MCH	1.374	Not Specified	Pass
	HCH	1.393	Not Specified	Pass

3.2 Test Graphs



GFSK/HCH


 $\pi/4$ DQPSK/LCH


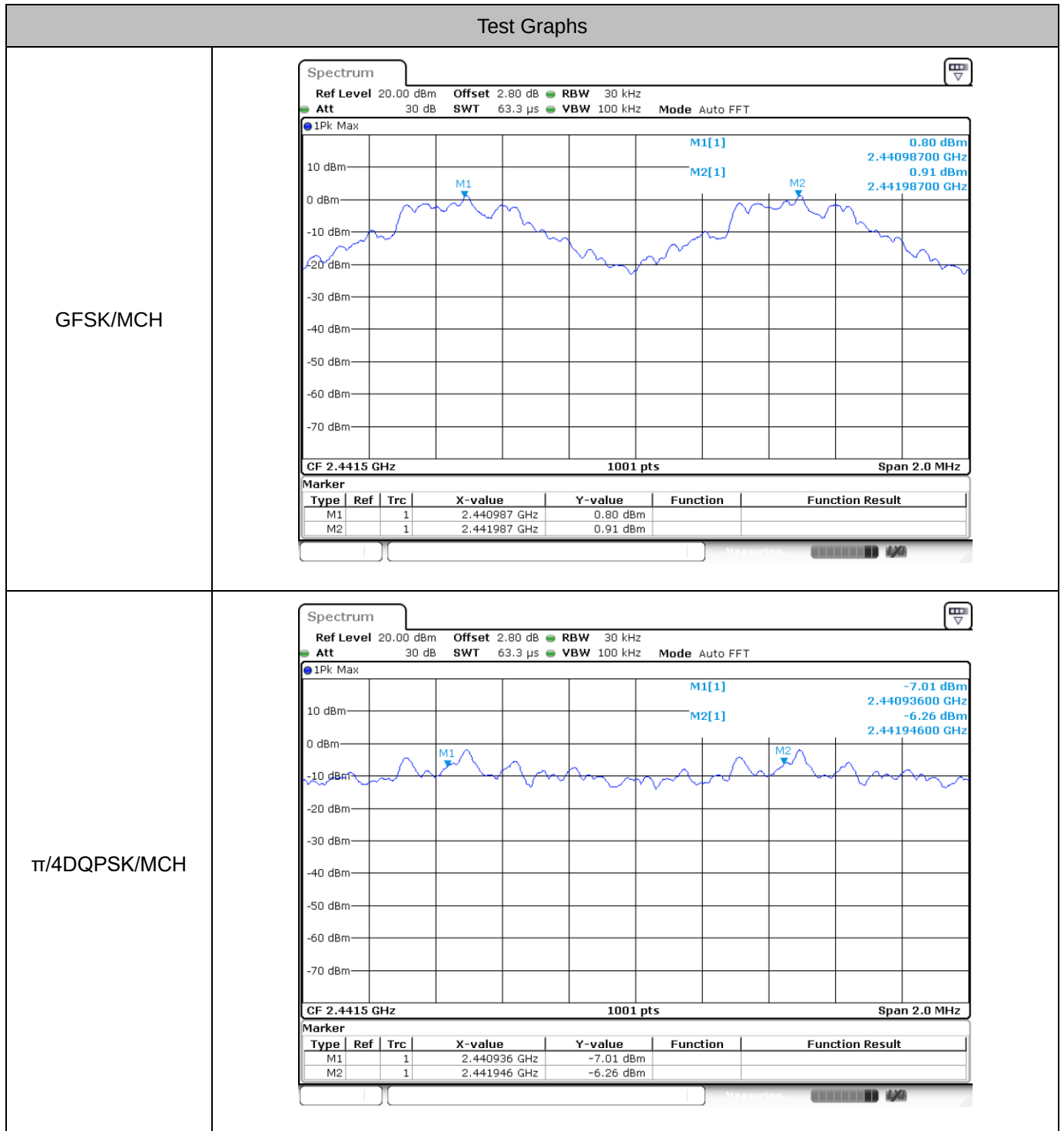
$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1	0.589	Pass
$\pi/4$ DQPSK	MCH	1.01	0.916	Pass

4.2 Test Graphs

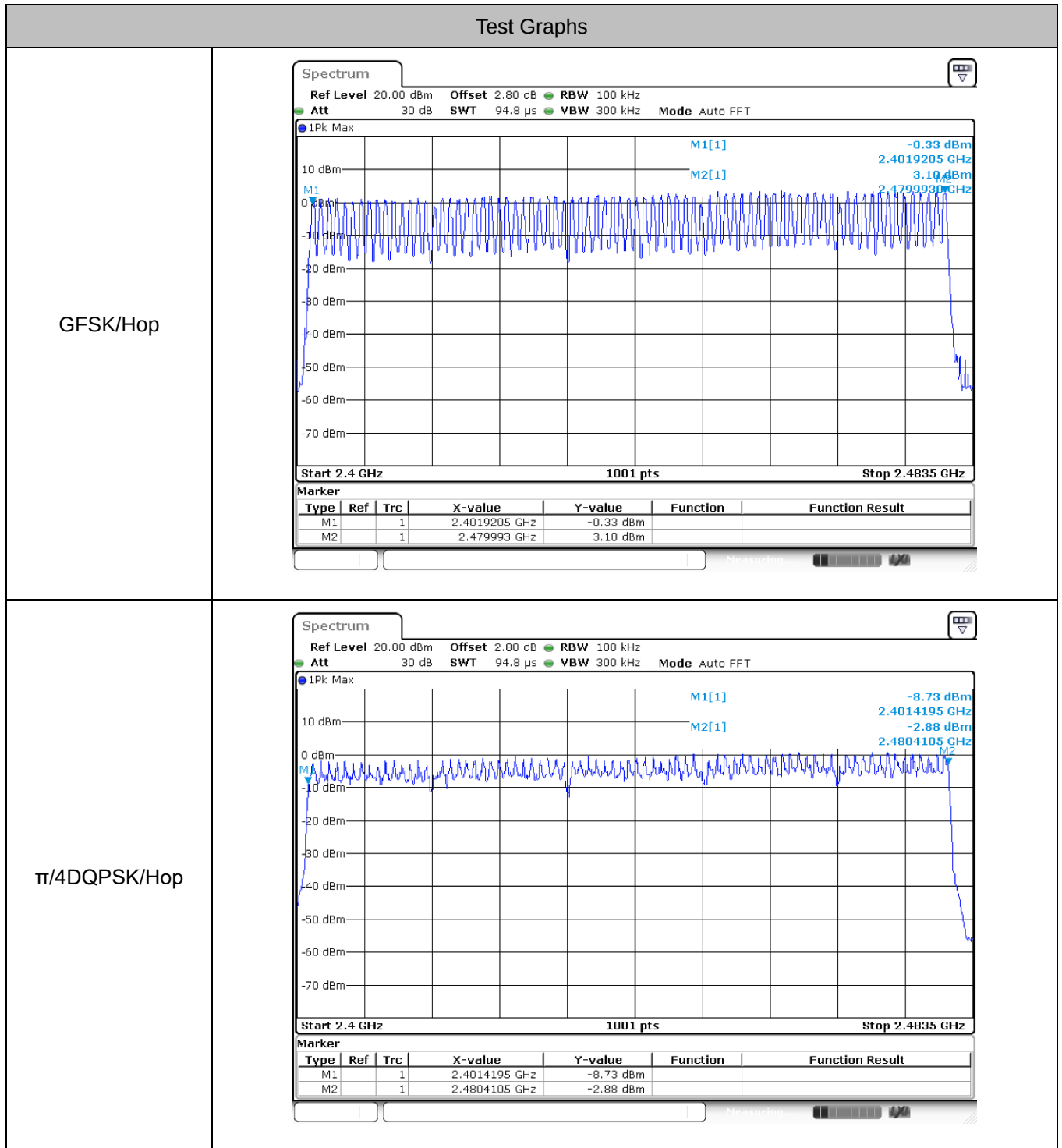


5 Hopping Channel Number

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

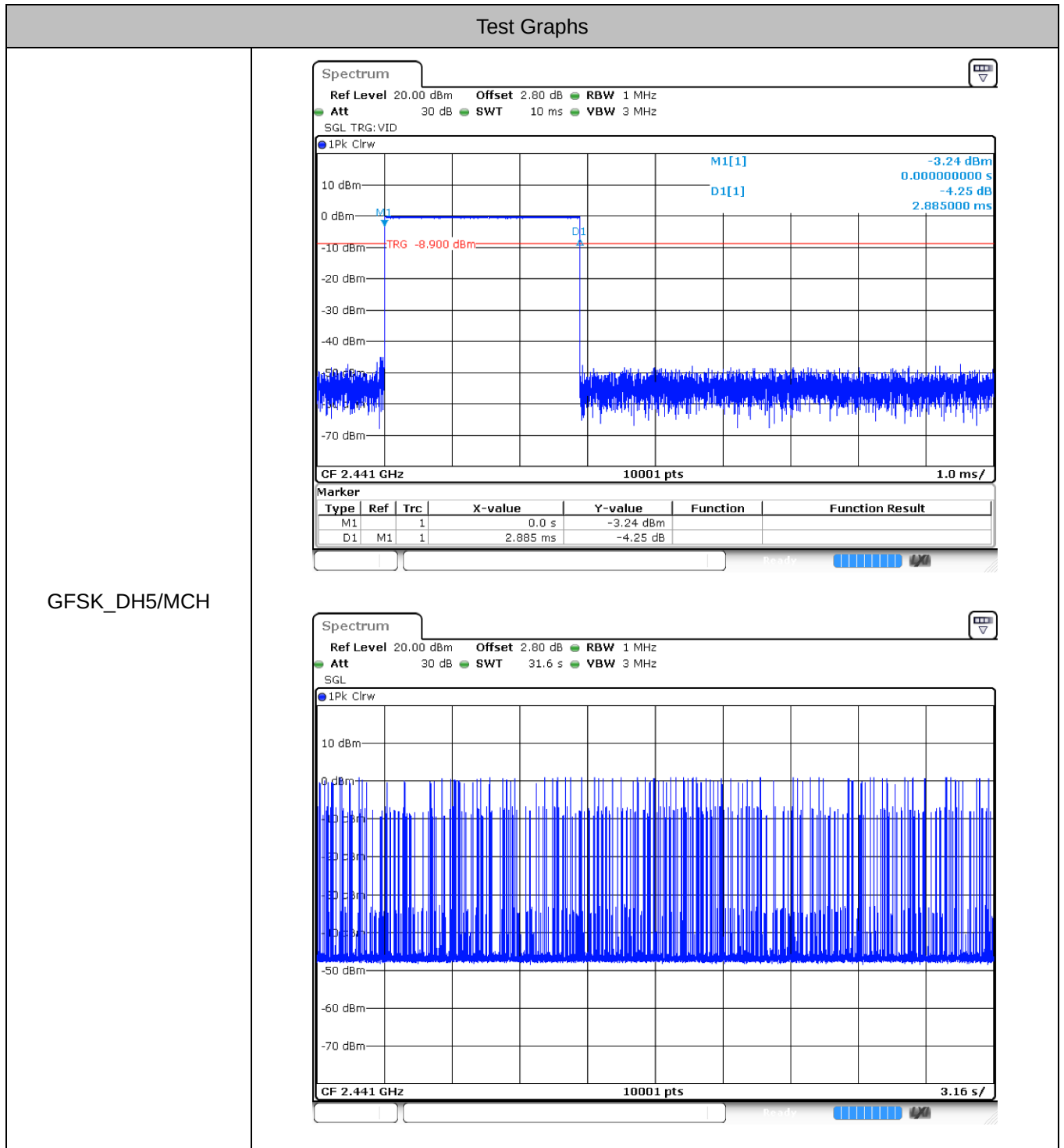


6 Dwell Time

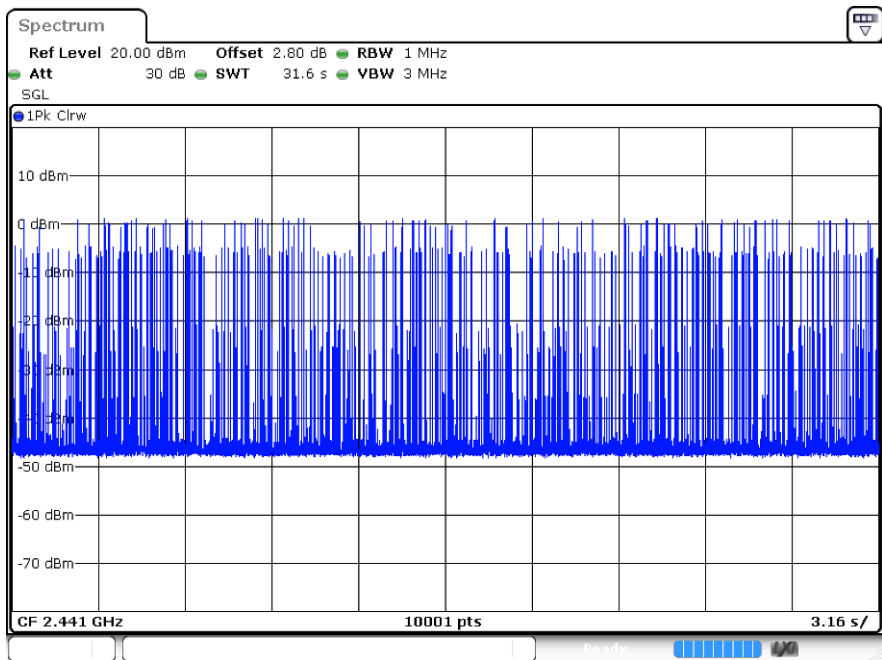
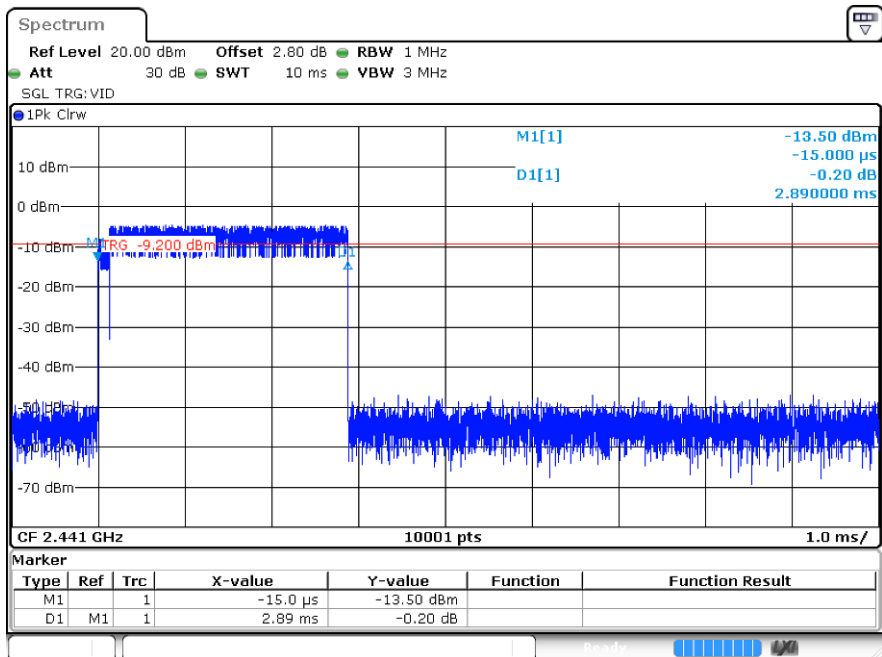
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.885	118	340.43	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.89	102	294.78	0.4	Pass

6.2 Test Graphs



$\pi/4$ DQPSK
_2DH5/MCH

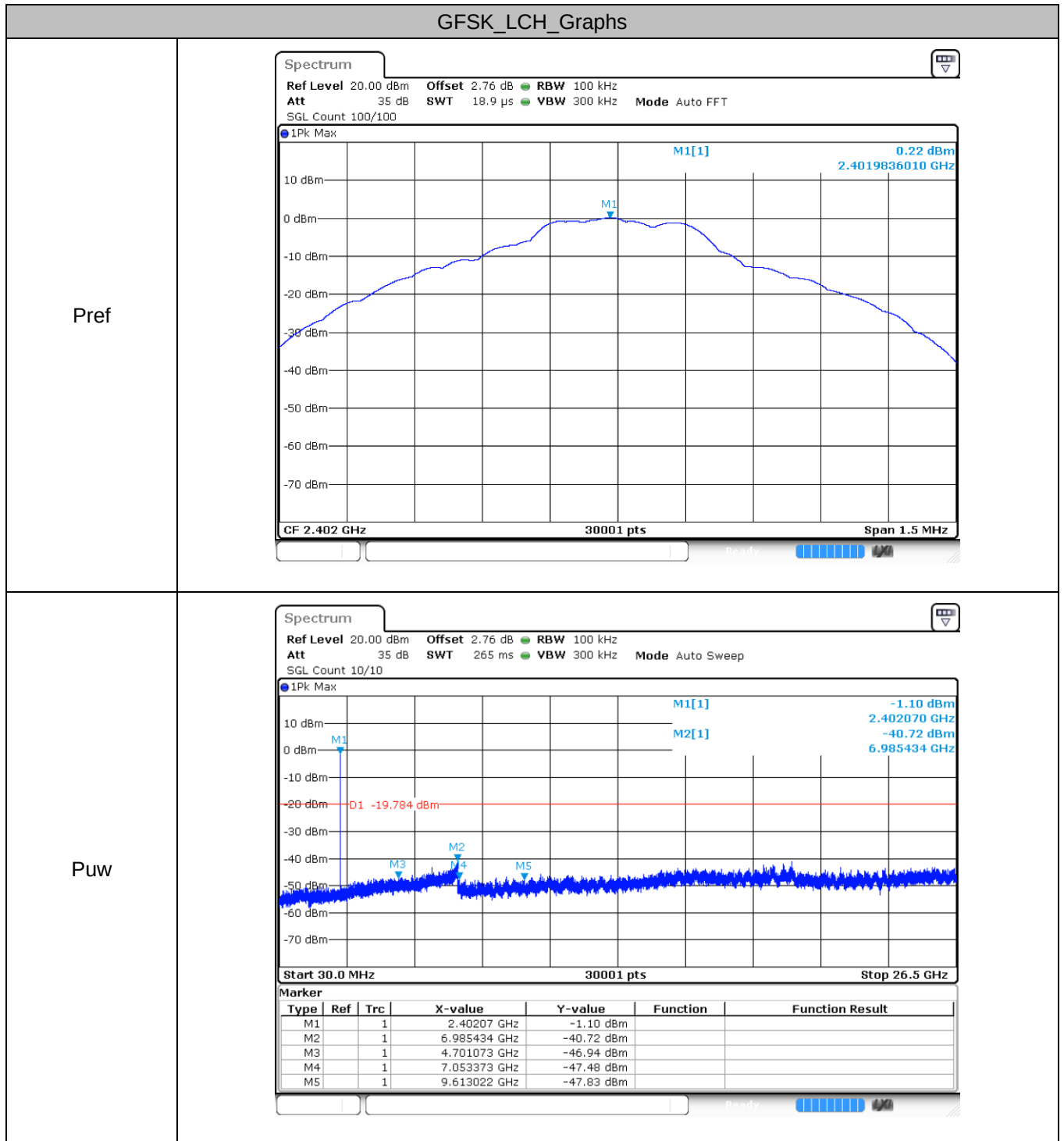


7 RF Conducted Spurious Emissions

7.1 Test Result

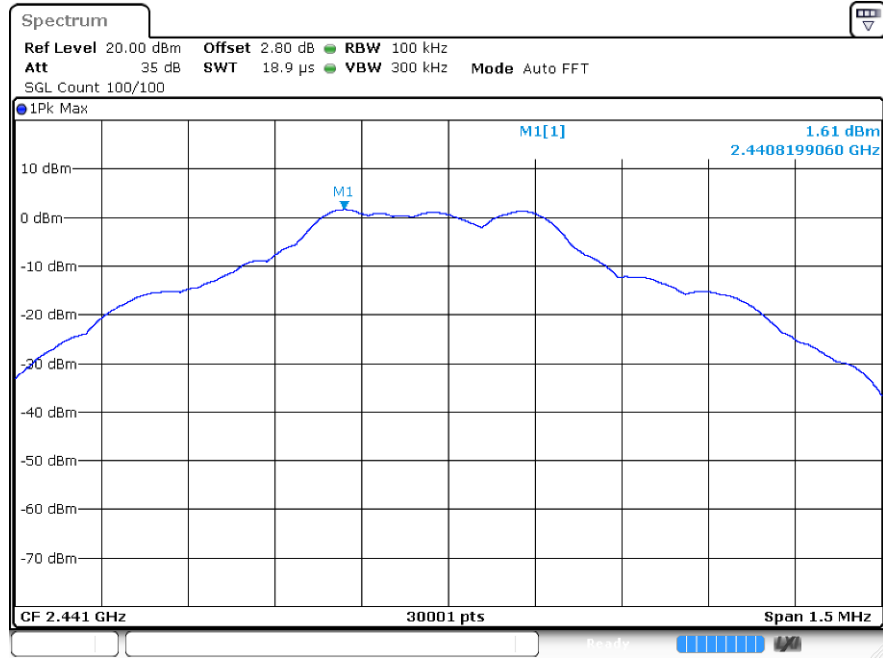
Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-40.93	-20	Pass
	MCH	-43.58	-20	Pass
	HCH	-43.31	-20	Pass
$\pi/4$ DQPSK	LCH	-40.45	-20	Pass
	MCH	-39.94	-20	Pass
	HCH	-40.76	-20	Pass

7.2 Test Graphs

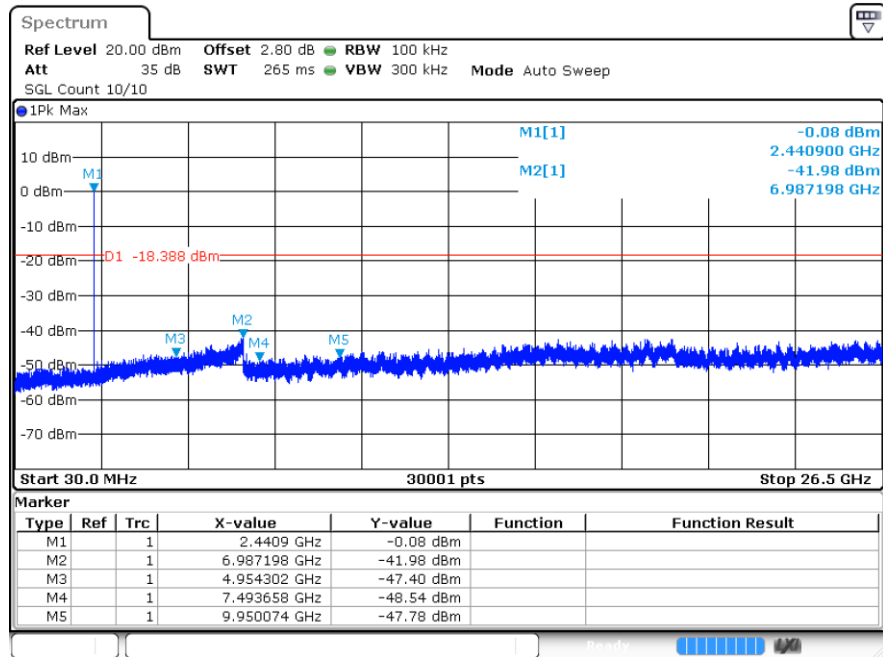


GFSK_MCH_Graphs

Pref

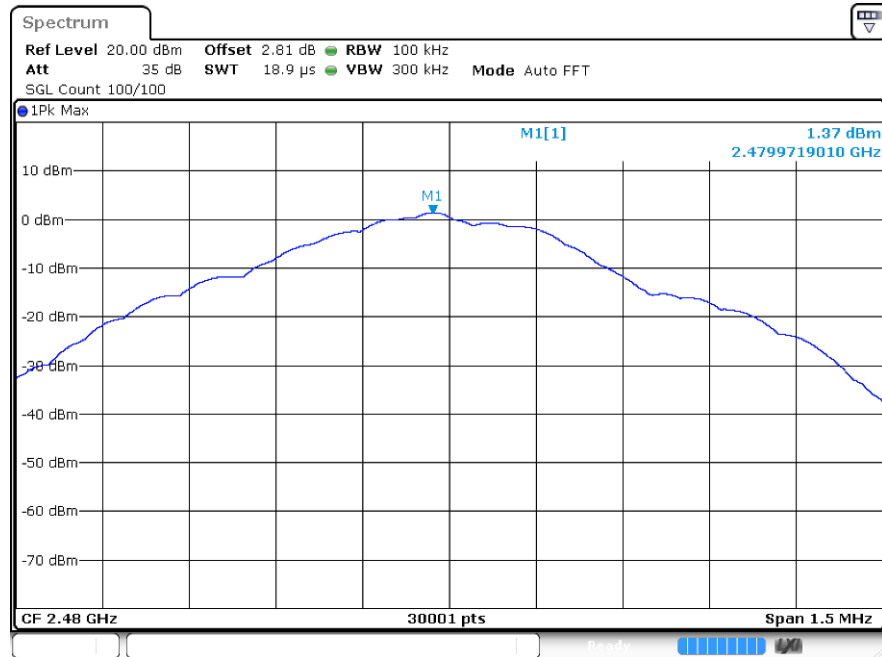


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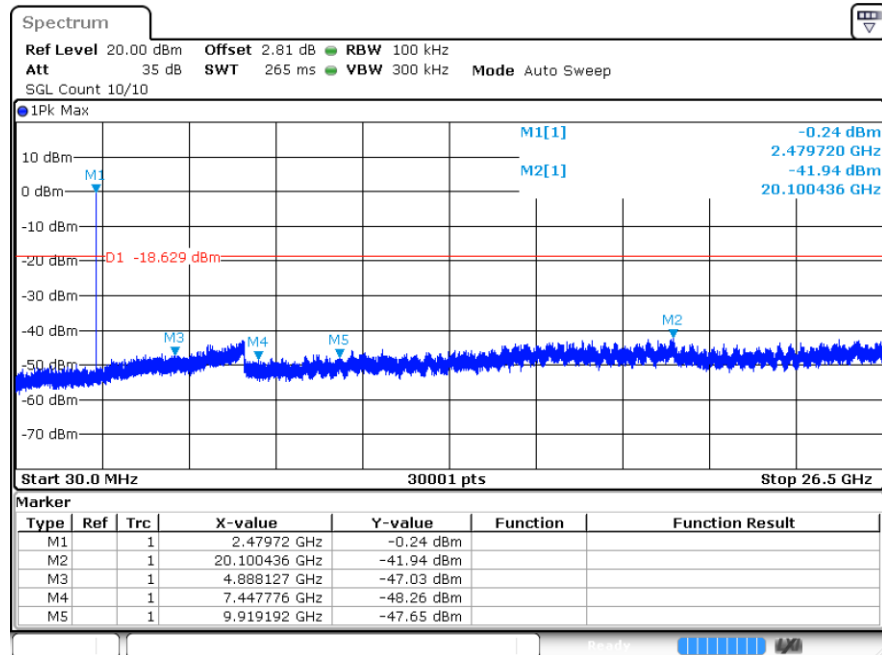


GFSK_HCH_Graphs

Pref

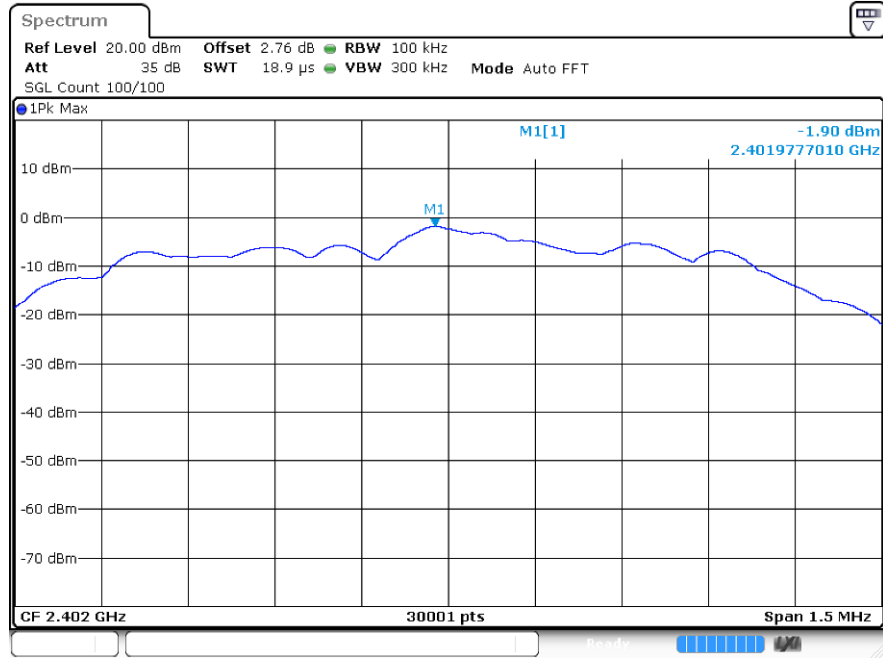


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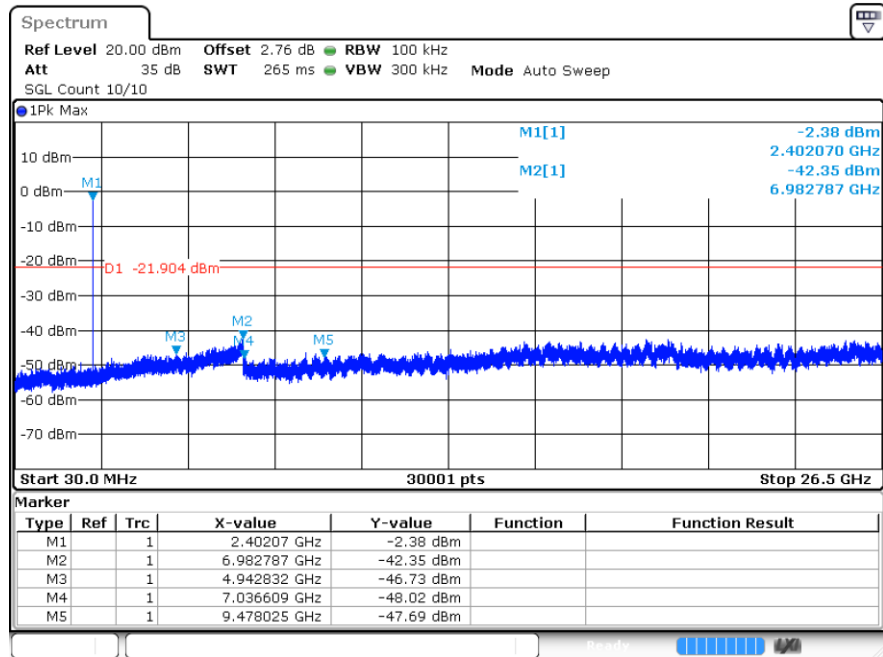


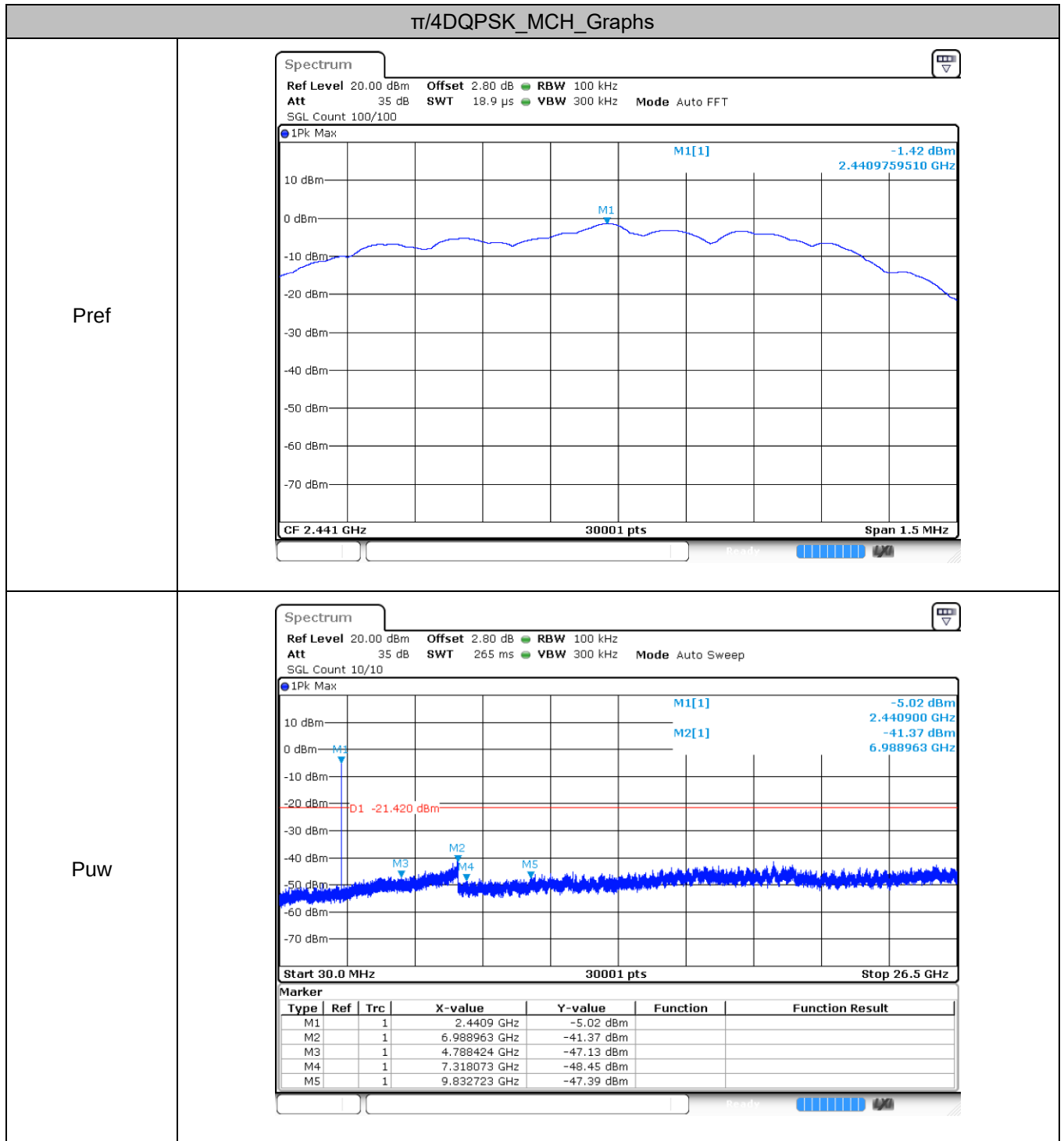
$\pi/4$ DQPSK_LCH_Graphs

Pref



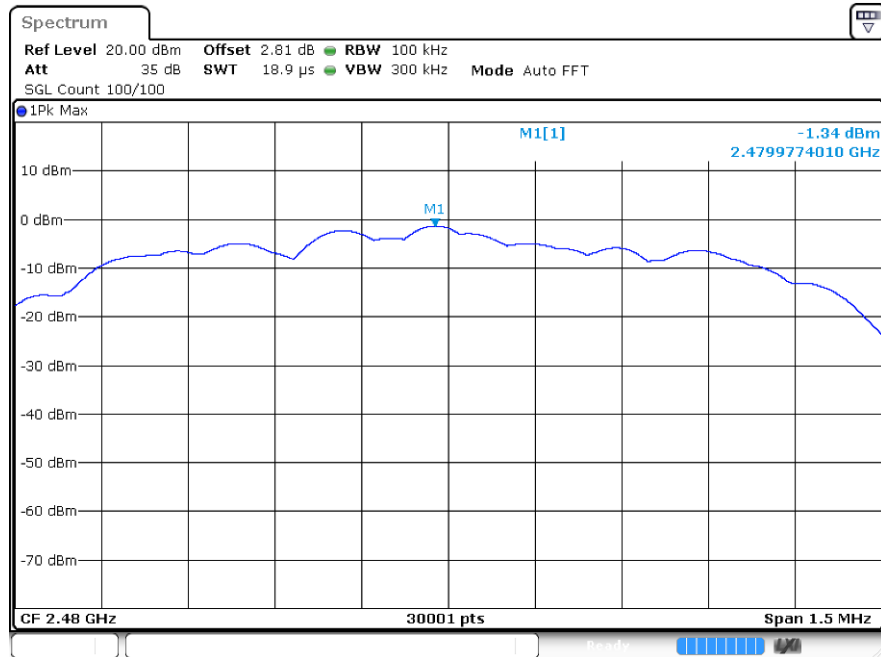
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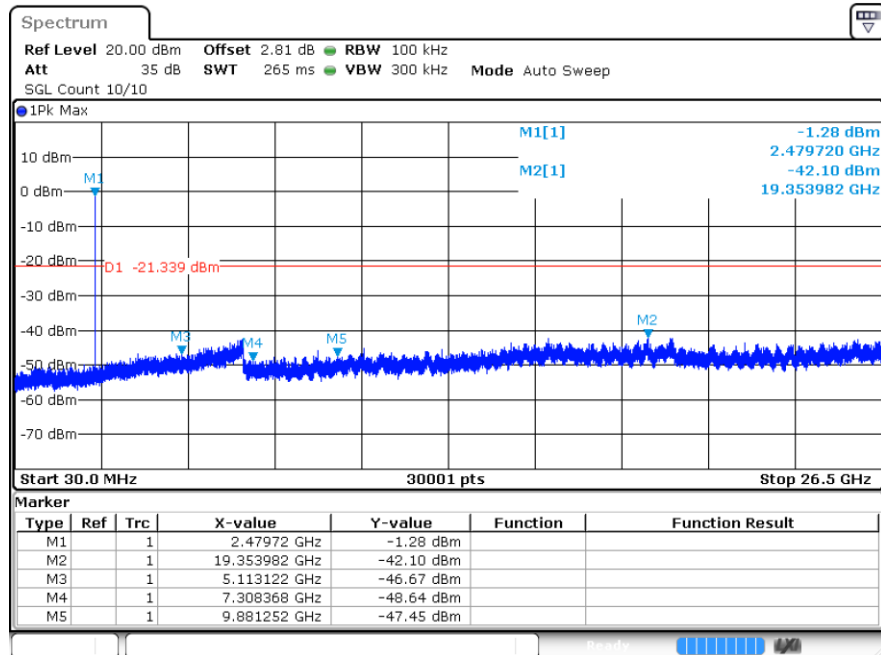


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

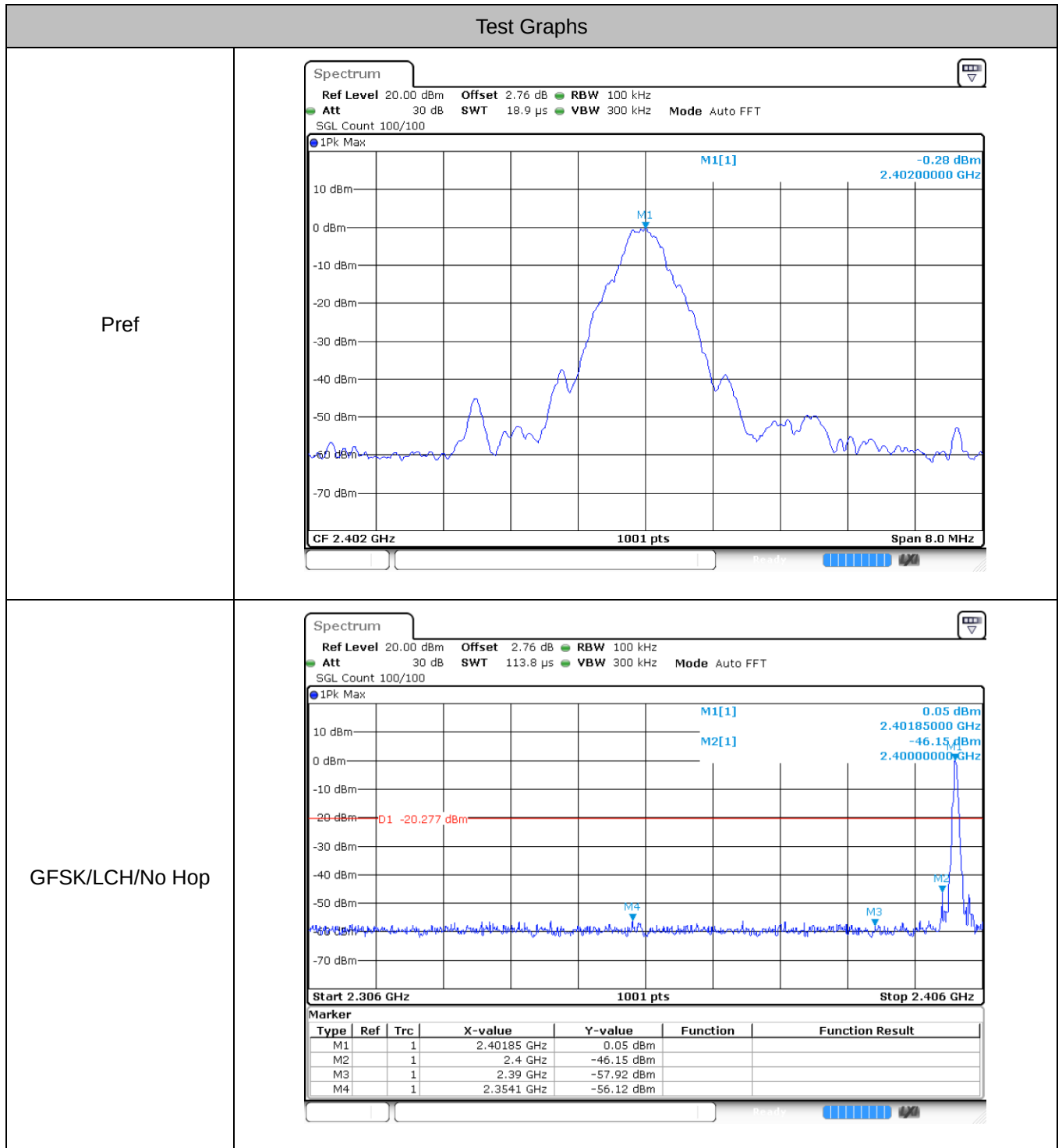


8 Band-edge for RF Conducted Emissions

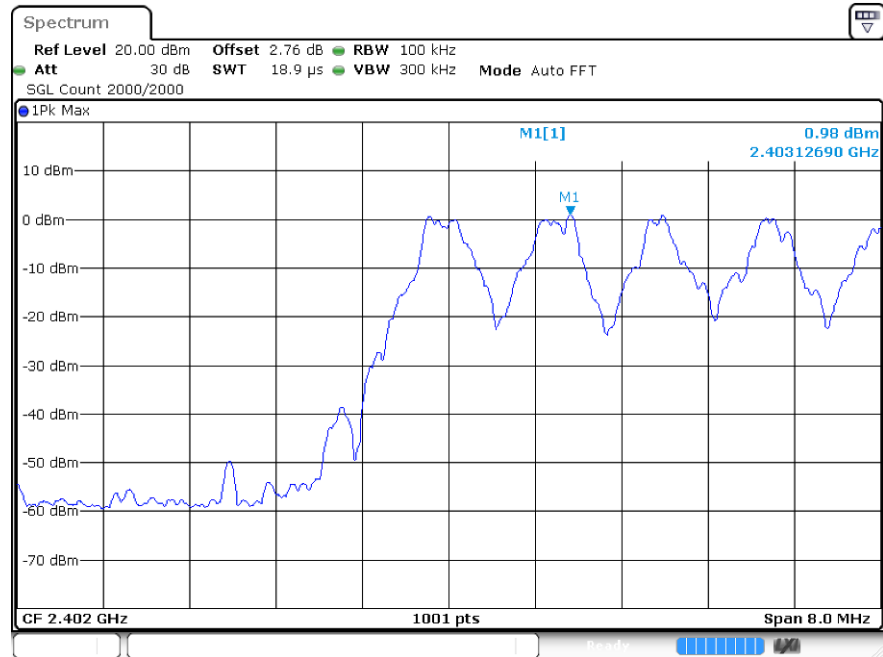
8.1 Test Result

Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-55.84	-20	Pass
			On	-56.15	-20	Pass
	HCH	2480	Off	-49.86	-20	Pass
			On	-52.02	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-54.12	-20	Pass
			On	-52.56	-20	Pass
	HCH	2480	Off	-48.18	-20	Pass
			On	-48.15	-20	Pass

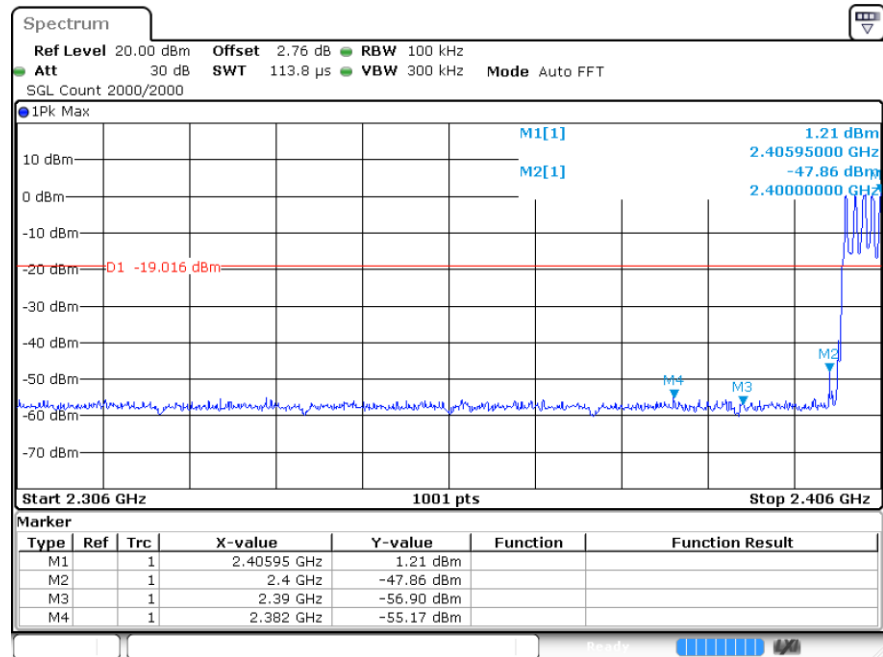
8.2 Test Graphs



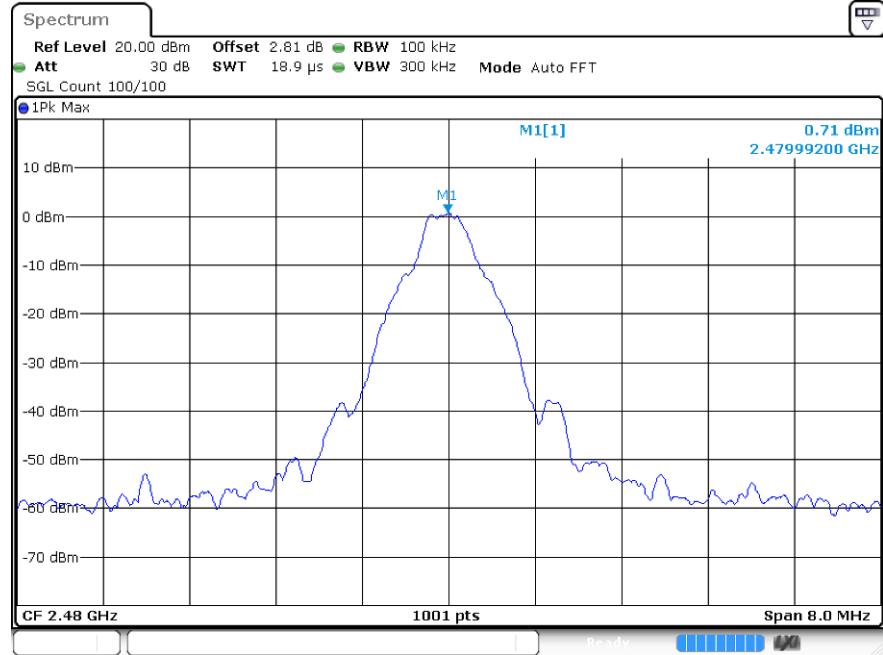
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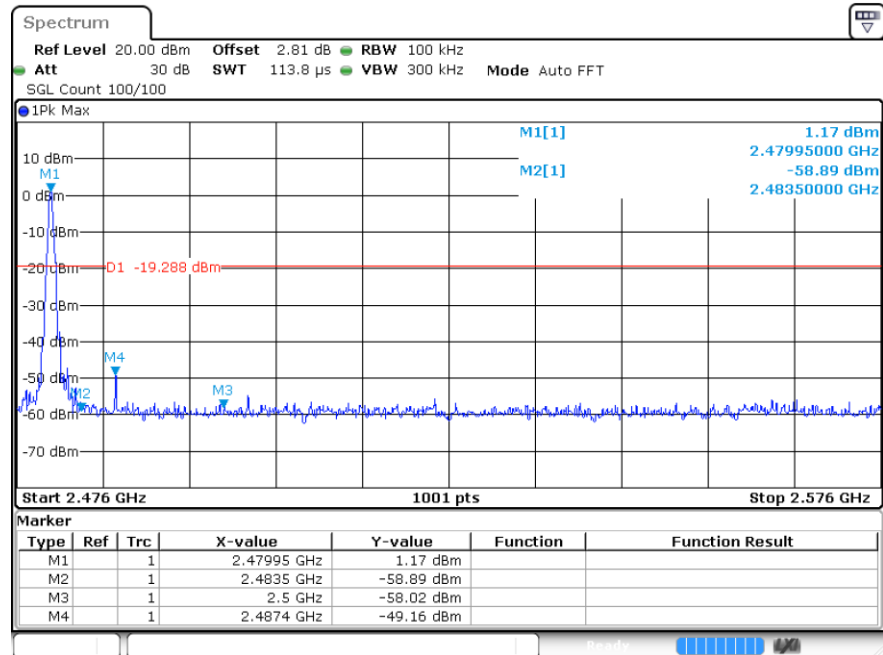
GFSK/LCH/Hop



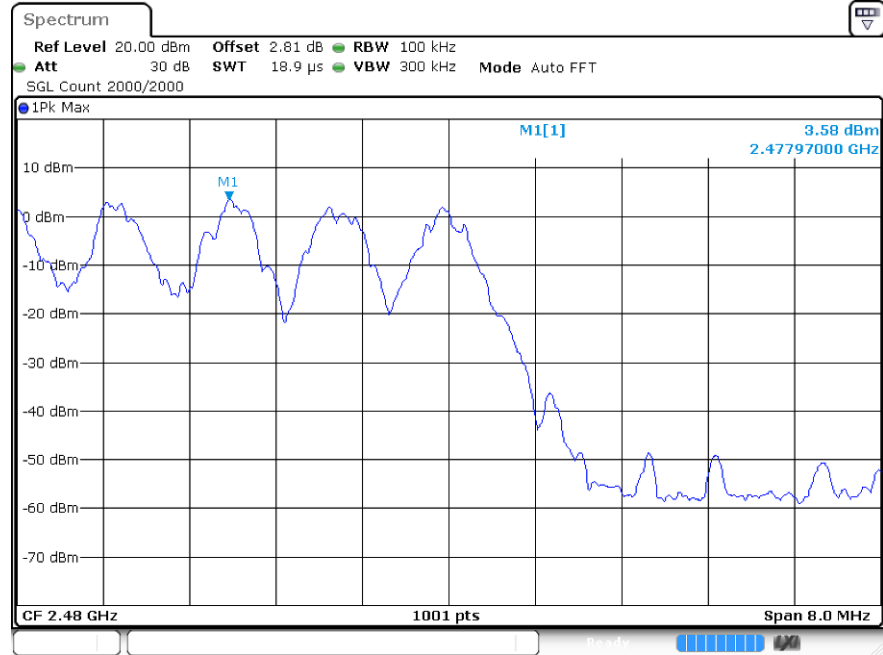
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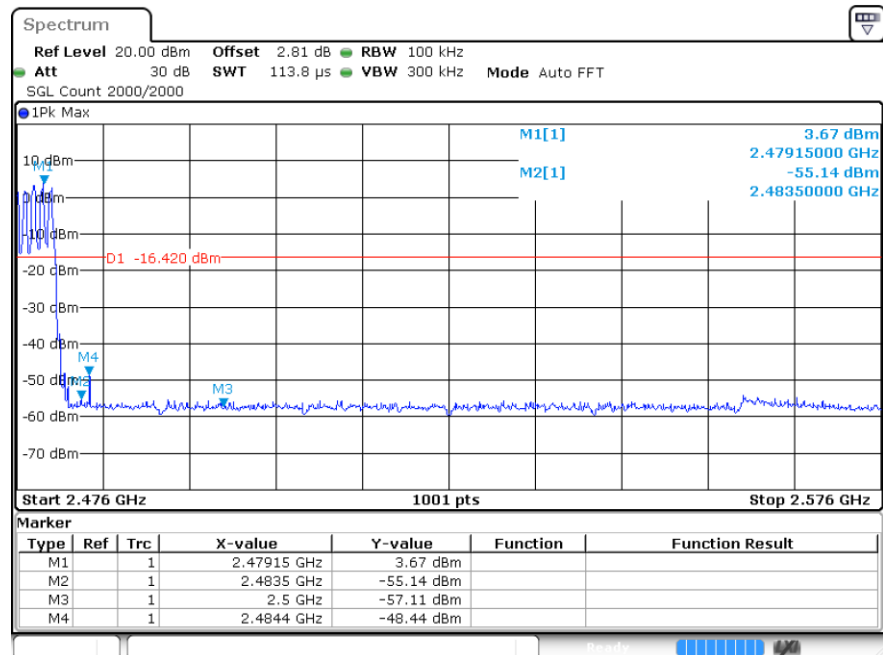
GFSK/HCH/No Hop



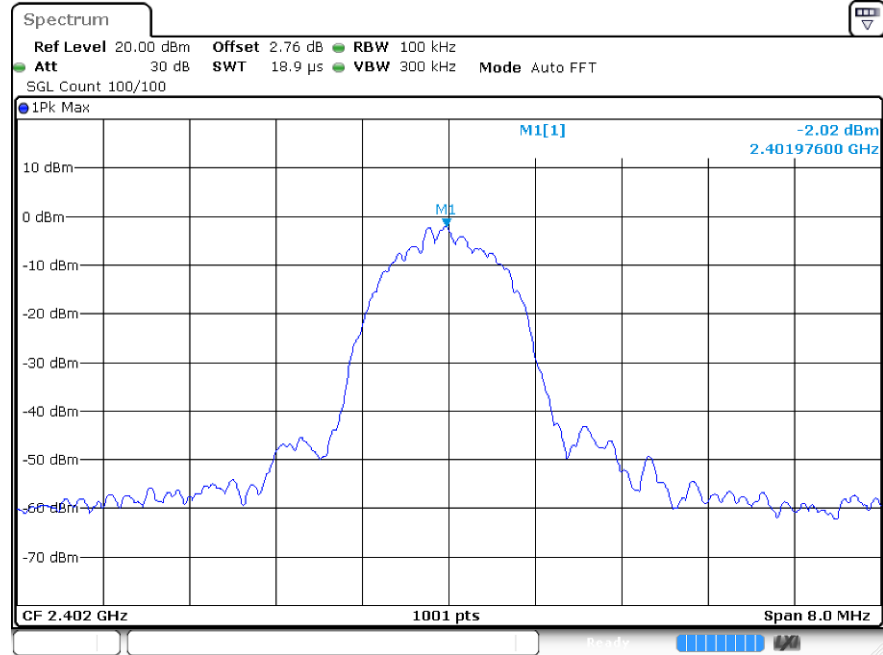
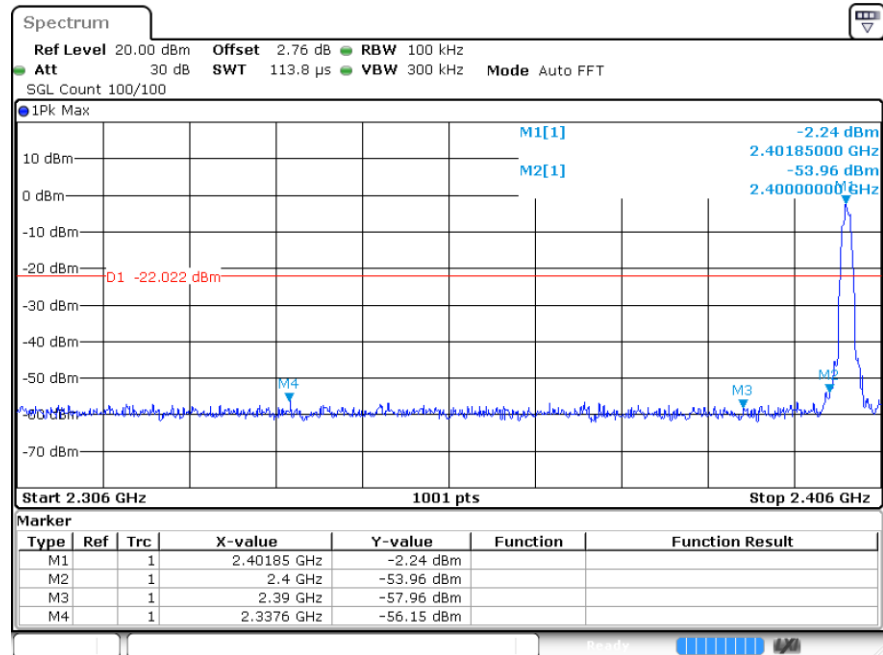
Ref.



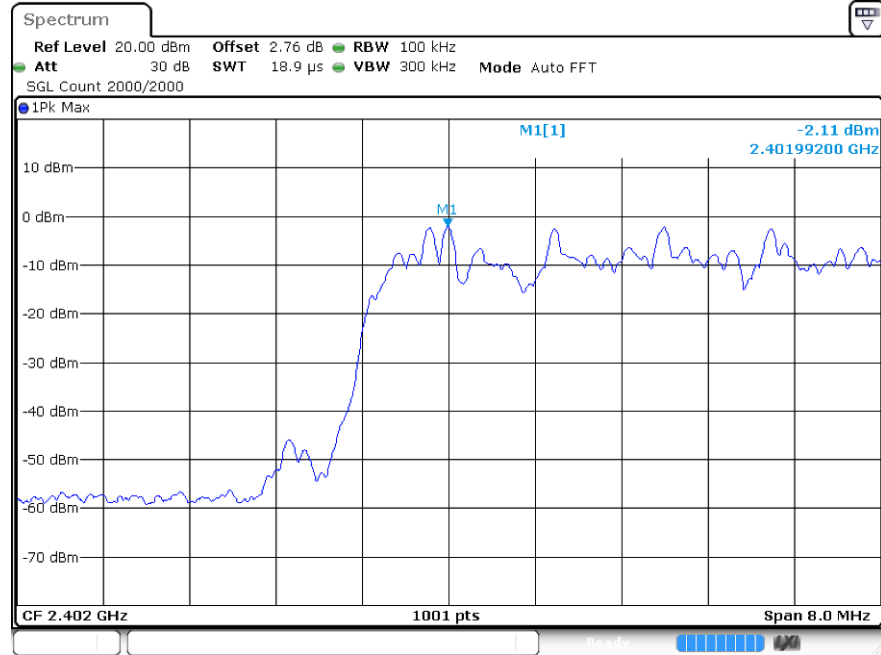
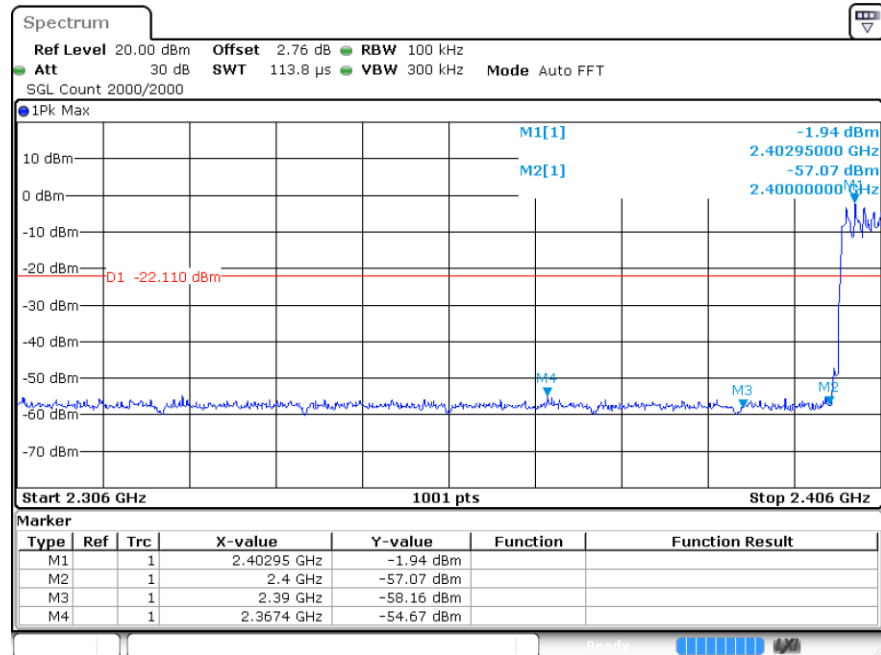
GFSK/HCH/Hop



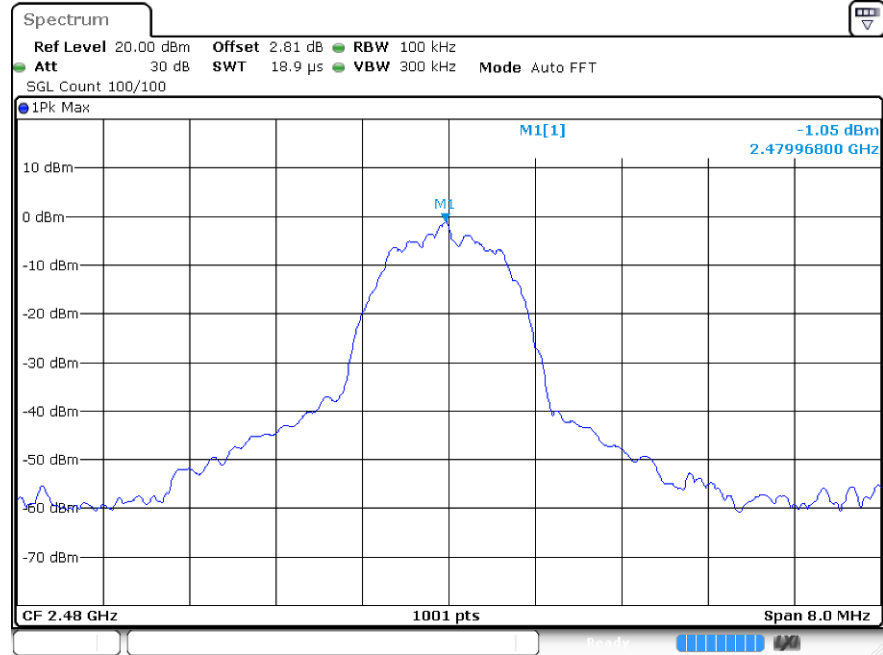
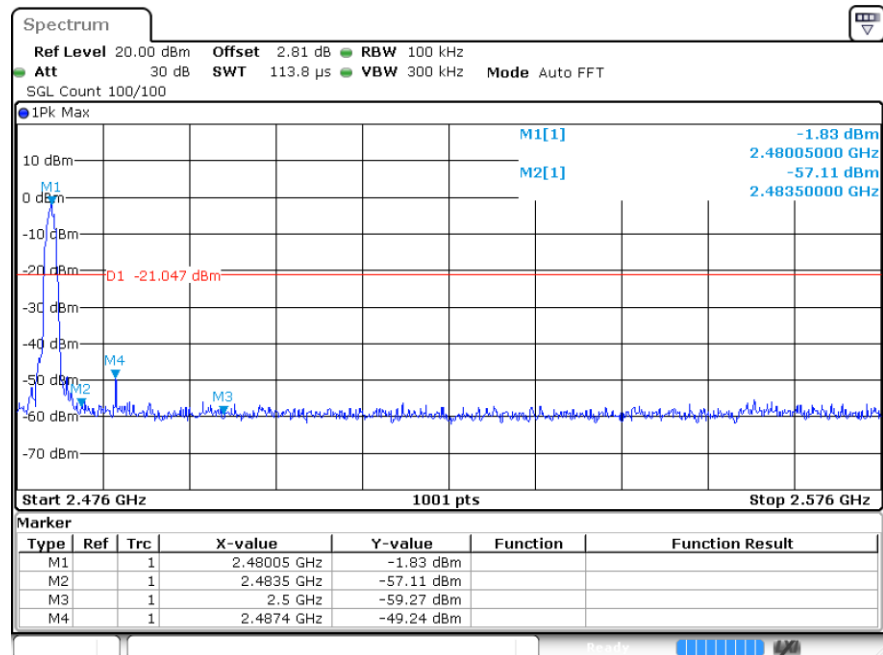
Ref


 $\pi/4$ DQPSK/LCH/No
Hop


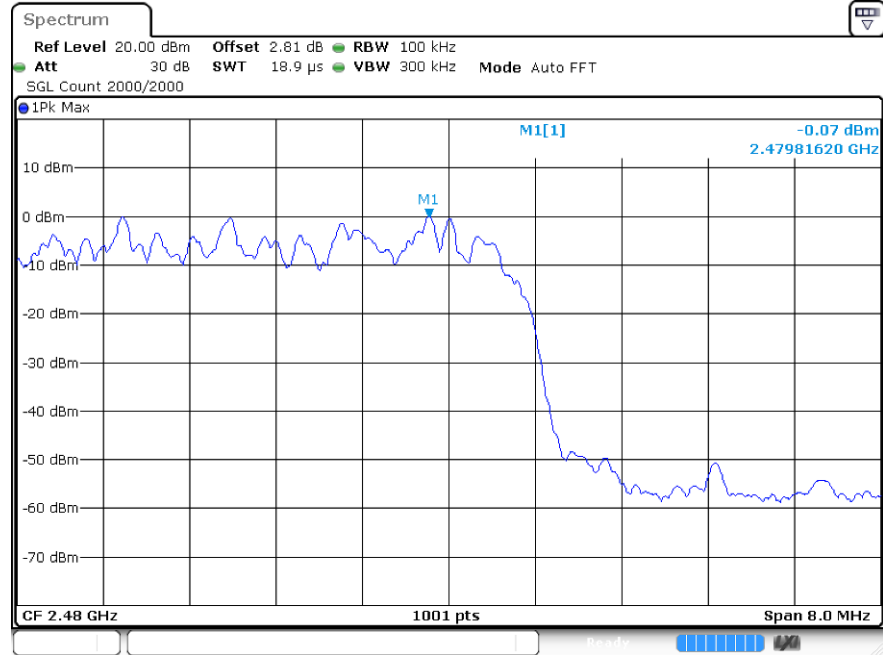
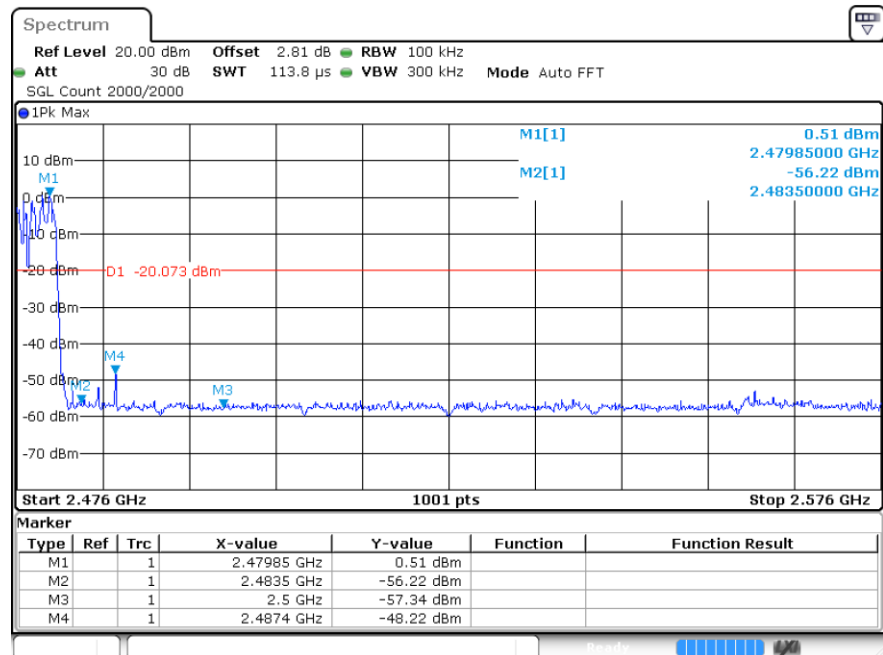
Ref


 $\pi/4$ DQPSK/LCH/Hop


Ref


 $\pi/4$ DQPSK/HCH/No Hop


Ref


 $\pi/4$ DQPSK/HCH/Hop


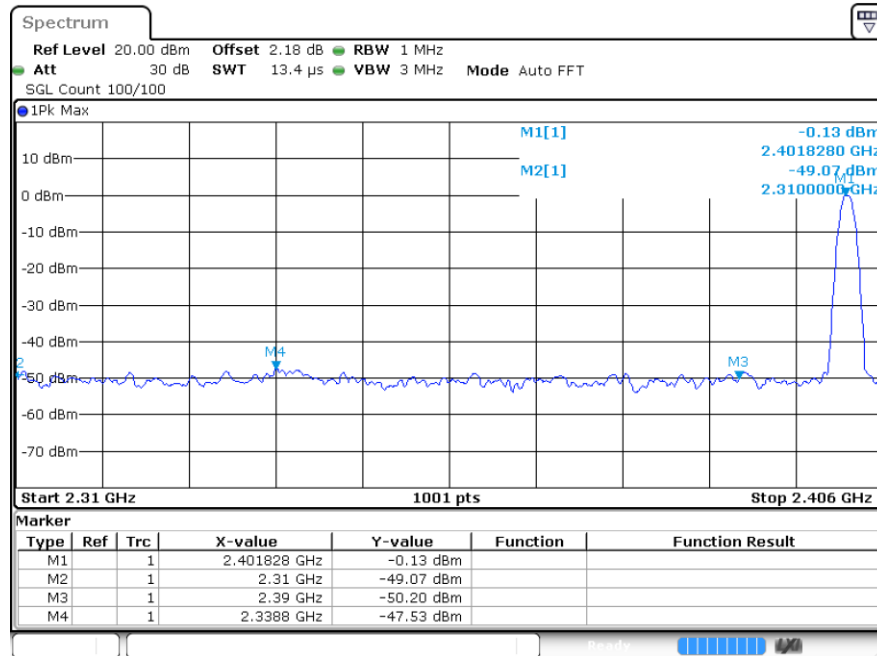
9 Restrict-band band-edge measurements

9.1 Test Result

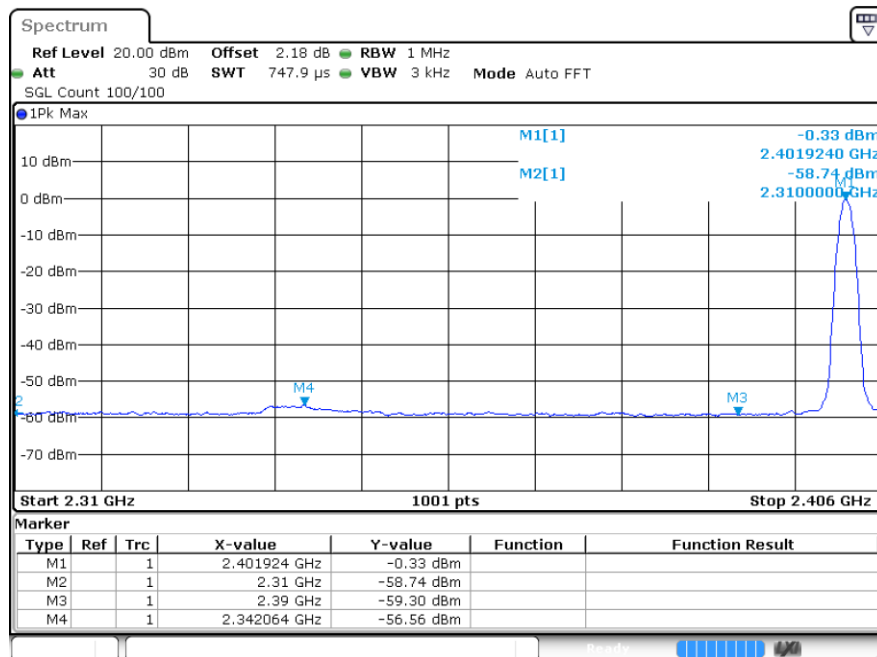
Test Mode	Hopping	Freq.	Power [dBm]	Gain	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-49.06	2	48.2	PEAK	74	Pass
	Off	2310.0	-58.74	2	38.52	AV	54	Pass
	Off	2338.8	-47.53	2	49.73	PEAK	74	Pass
	Off	2342.064	-56.56	2	40.7	AV	54	Pass
	Off	2390.0	-50.19	2	47.07	PEAK	74	Pass
	Off	2390.0	-59.29	2	37.97	AV	54	Pass
	Off	2483.5	-50.64	2	46.62	PEAK	74	Pass
	Off	2483.5	-57.15	2	40.11	AV	54	Pass
	Off	2487.424	-45.57	2	51.69	PEAK	74	Pass
	Off	2483.512	-57.15	2	40.11	AV	54	Pass
	Off	2500.0	-51.11	2	46.15	PEAK	74	Pass
	Off	2500.0	-58.31	2	38.95	AV	54	Pass
$\pi/4$ DQPSK	Off	2310.0	-50.11	2	47.15	PEAK	74	Pass
	Off	2310.0	-58.74	2	38.52	AV	54	Pass
	Off	2363.76	-47.19	2	50.07	PEAK	74	Pass
	Off	2339.376	-56.91	2	40.35	AV	54	Pass
	Off	2390.0	-50.15	2	47.11	PEAK	74	Pass
	Off	2390.0	-59.06	2	38.2	AV	54	Pass
	Off	2483.5	-49.38	2	47.88	PEAK	74	Pass
	Off	2483.5	-56.33	2	40.93	AV	54	Pass
	Off	2487.496	-46.84	2	50.42	PEAK	74	Pass
	Off	2483.512	-56.33	2	40.93	AV	54	Pass
	Off	2500.0	-49.98	2	47.28	PEAK	74	Pass
	Off	2500.0	-58.53	2	38.73	AV	54	Pass

9.2 Test Graphs

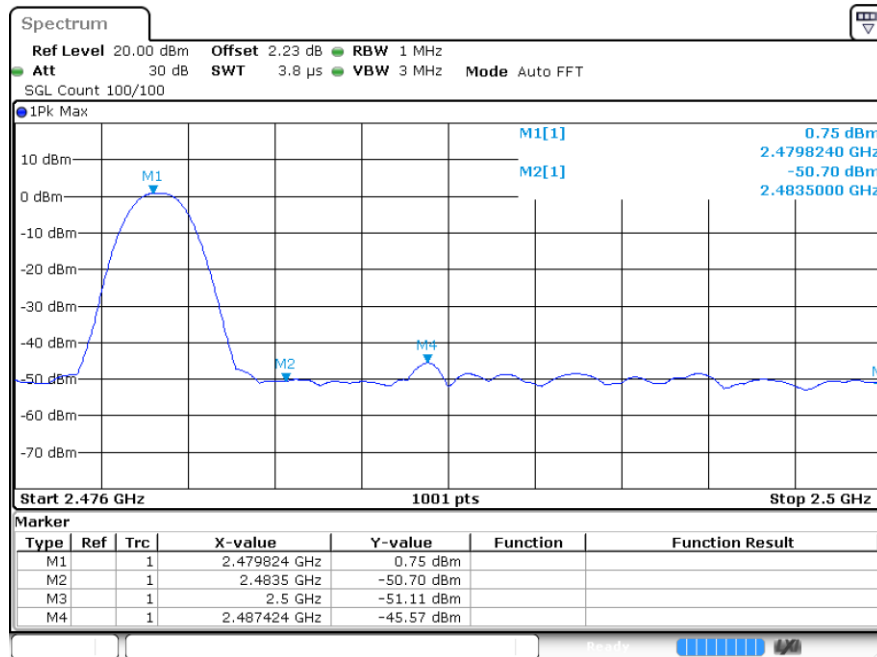
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



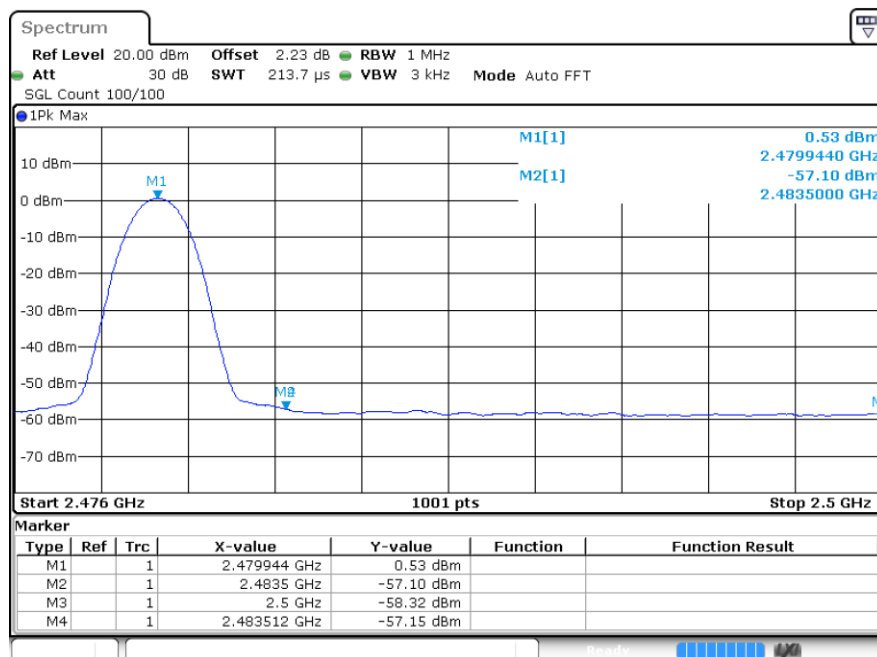
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



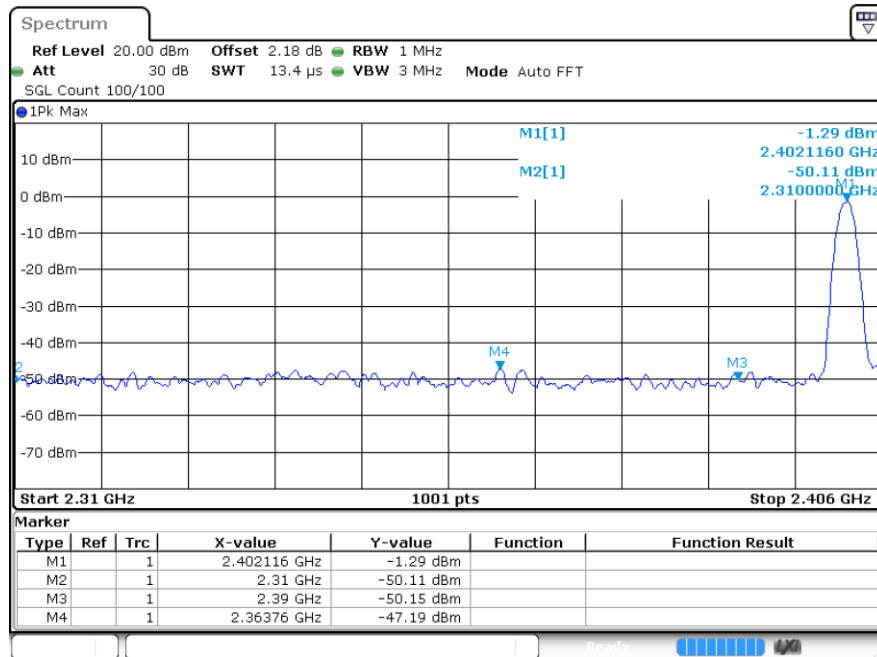
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



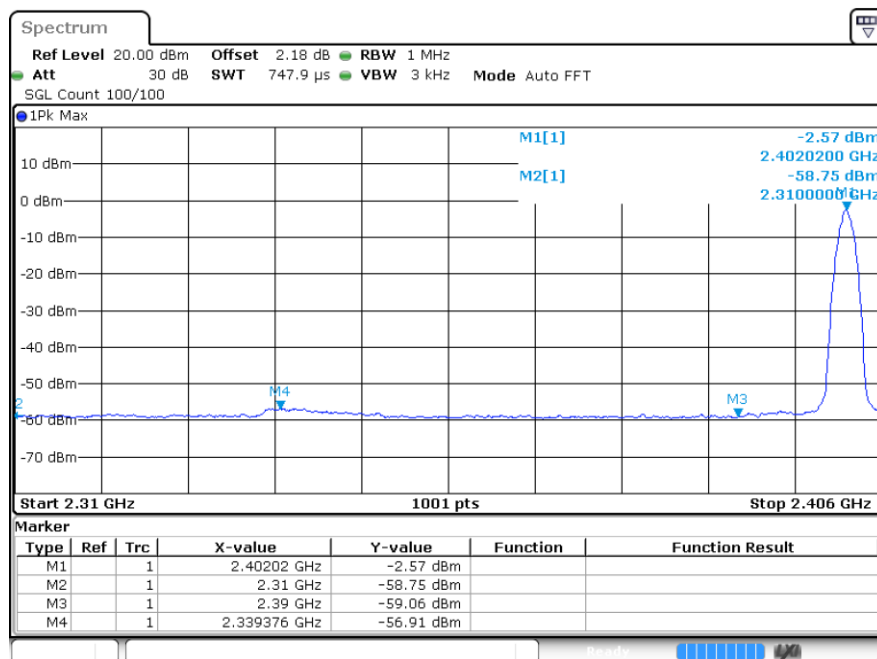
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



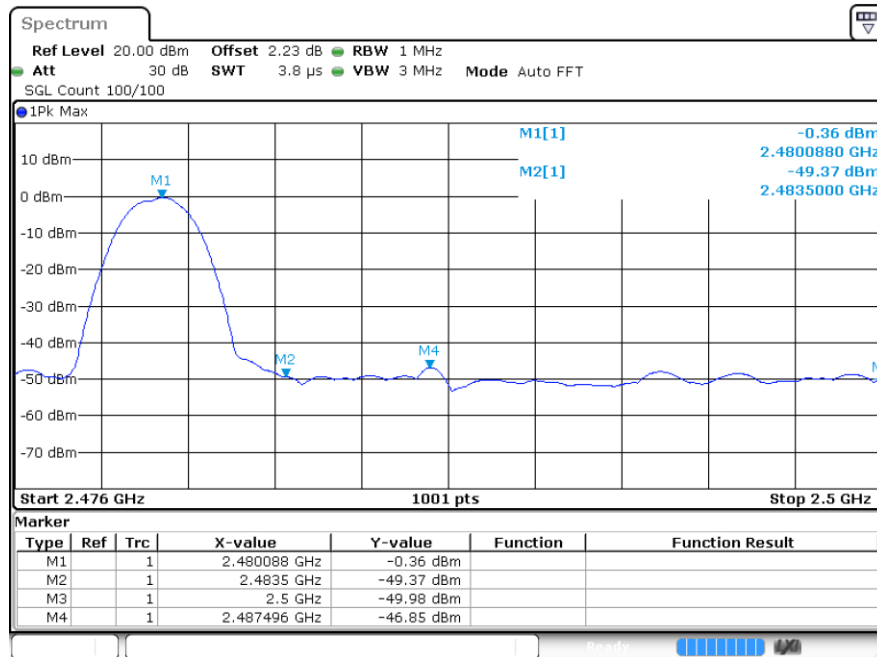
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



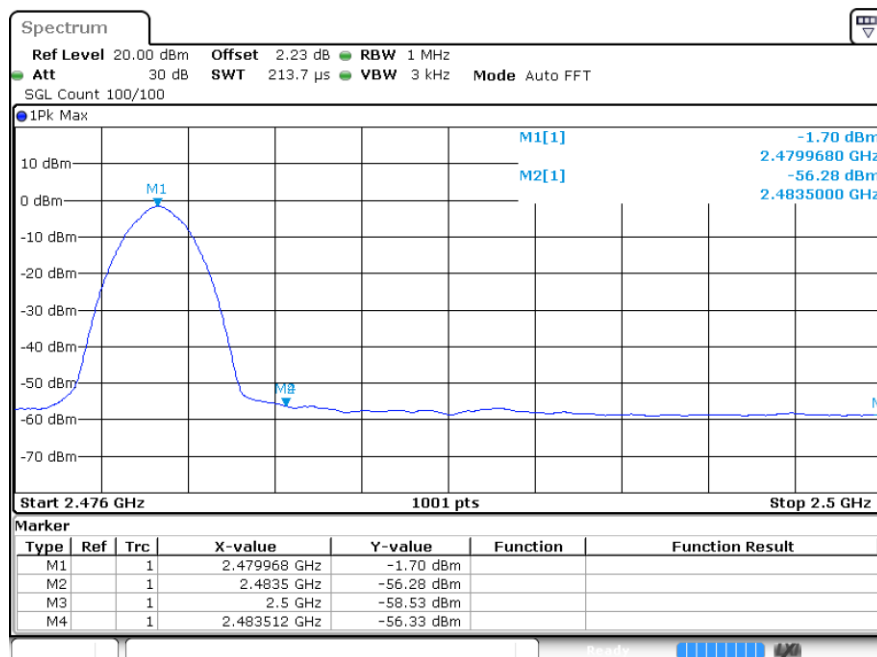
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



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---