



Appendix A

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

Product Name: ALL IN ONE MUSIC SYSTEM

Trade Mark: ONKYO

Test Model: GX-AIO50

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	52.4%
ATM Pressure:	100.0 kPa
Test Engineer:	Emiya Lin
Supervised by:	Simba Huang



Contents

Page

COVER PAGE

1	Duty Cycle	3
1.1	Test Result	3
1.2	Test Graphs.....	4
2	Maximum Conducted Peak Output Power	9
2.1	Test Result	9
2.2	Test Graphs.....	10
3	20dB Bandwidth	13
3.1	Test Result	13
3.2	Test Graphs.....	14
4	Carrier Frequency Separation	17
4.1	Test Result	17
4.2	Test Graphs.....	18
5	Hopping Channel Number	19
5.1	Test Result	19
5.2	Test Graphs.....	20
6	Dwell Time.....	21
6.1	Test Result	21
6.2	Test Graphs.....	22
7	RF Conducted Spurious Emissions.....	23
7.1	Test Result	23
7.2	Test Graphs.....	25
8	Band-edge for RF Conducted Emissions	34
8.1	Test Result	34
8.2	Test Graphs.....	36
9	Restrict-band band-edge measurements	48
9.1	Test Result	48
9.2	Test Graphs.....	52

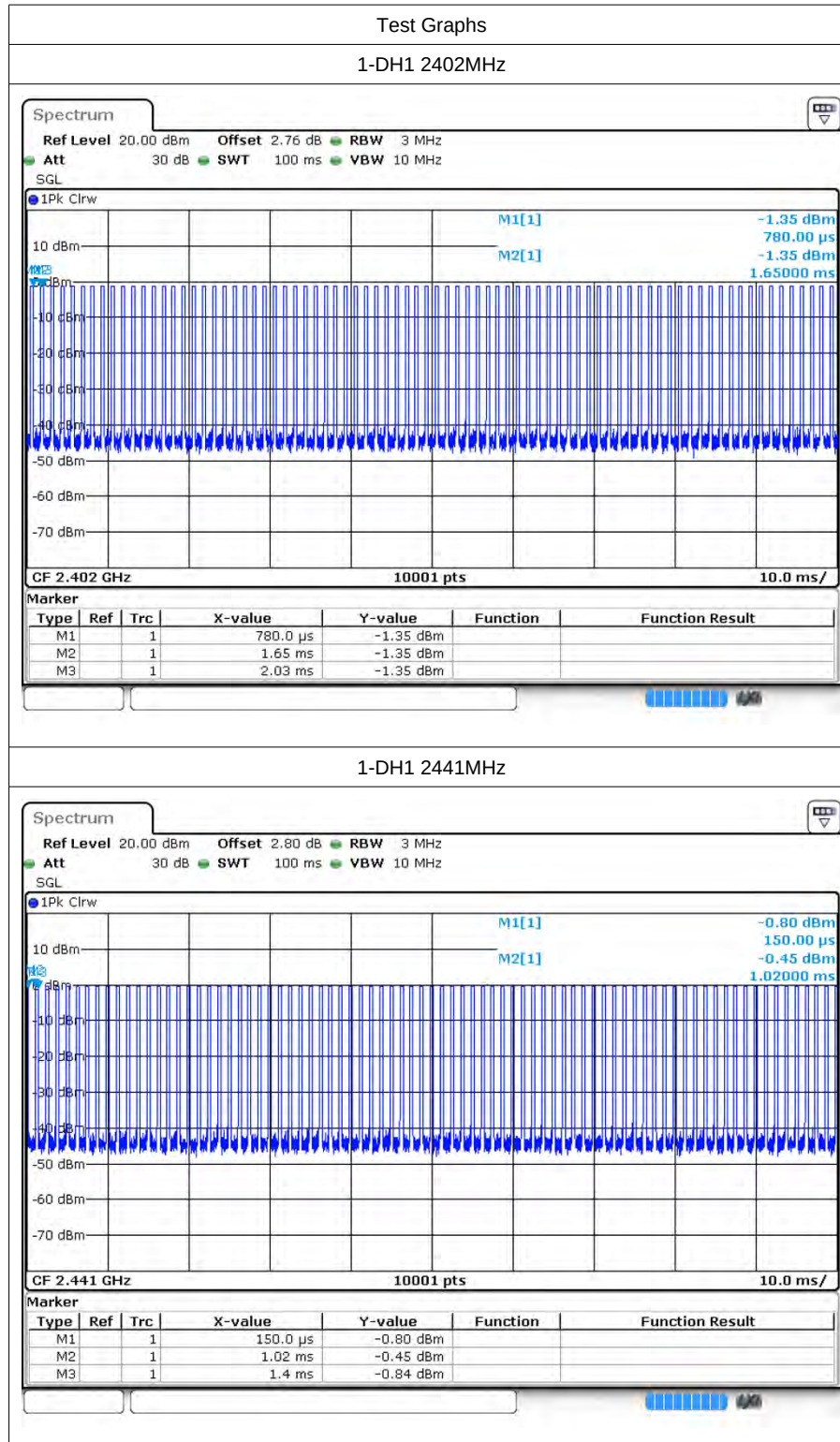
1 Duty Cycle

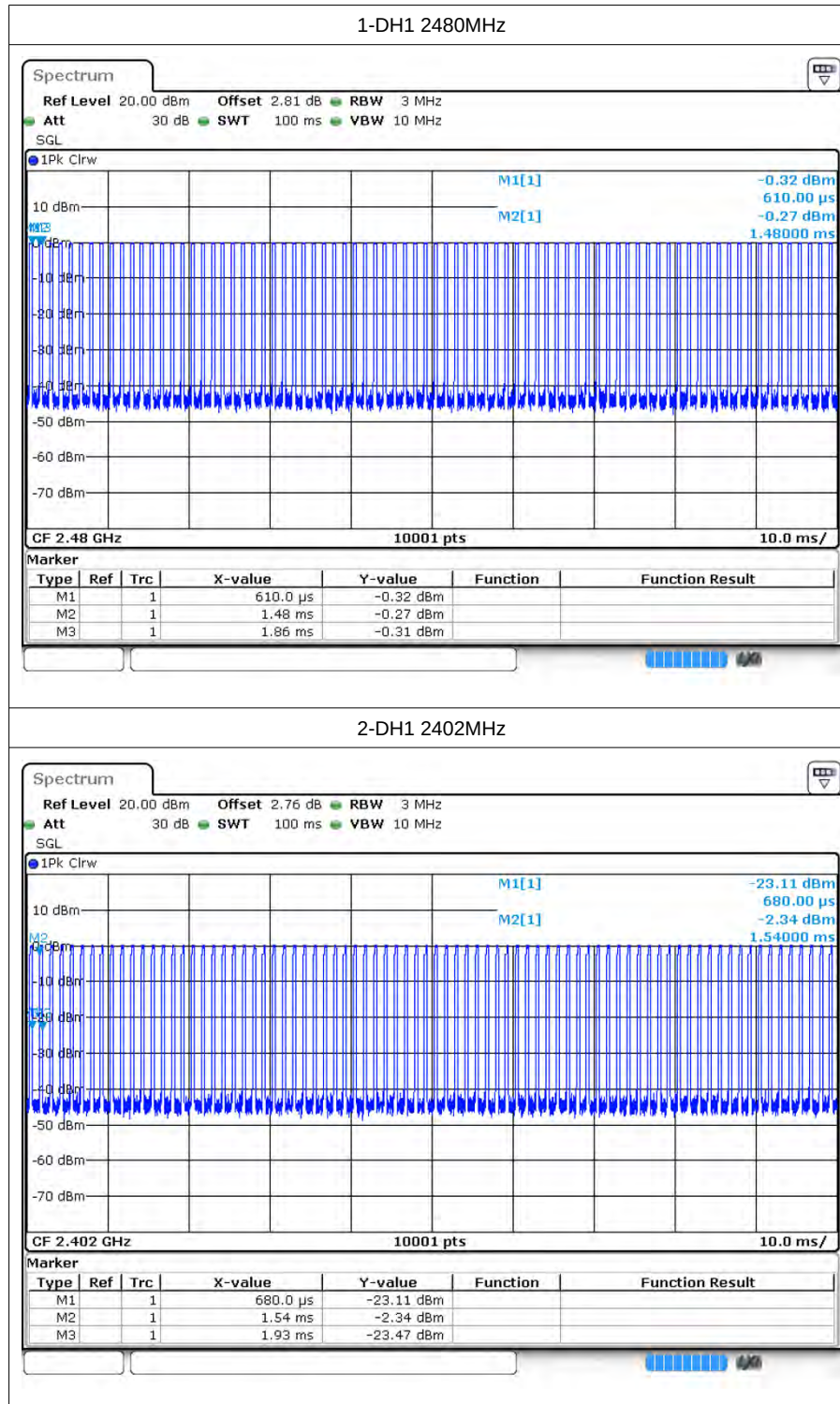
1.1 Test Result

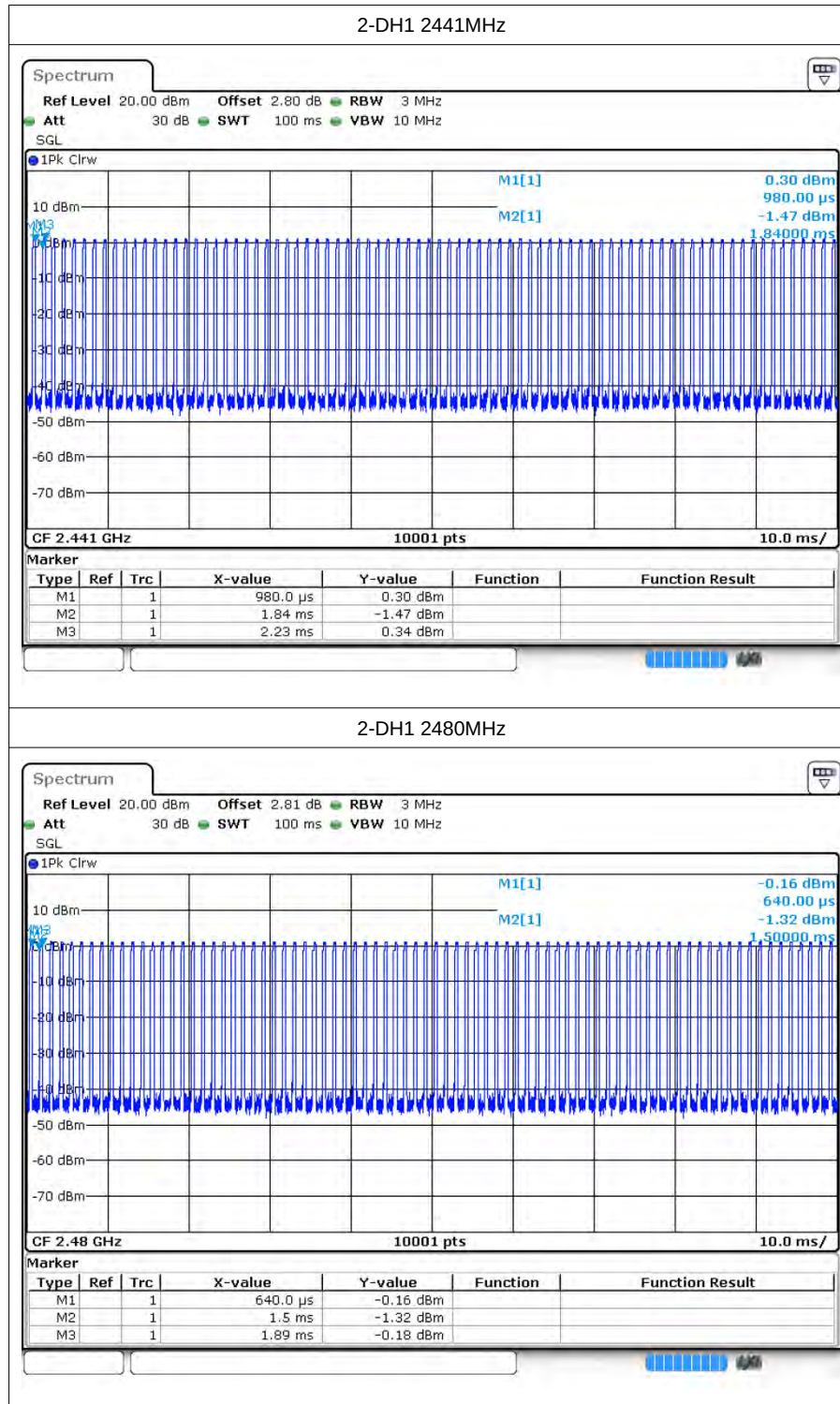
Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
1-DH1	2402	31.2	5.06	2.63
1-DH1	2441	31.21	5.06	2.63
1-DH1	2480	31.2	5.06	2.63
2-DH1	2402	32	4.95	2.56
2-DH1	2441	32	4.95	2.56
2-DH1	2480	32	4.95	2.56
3-DH1	2402	32	4.95	2.56
3-DH1	2441	32.01	4.95	2.56
3-DH1	2480	32	4.95	2.56

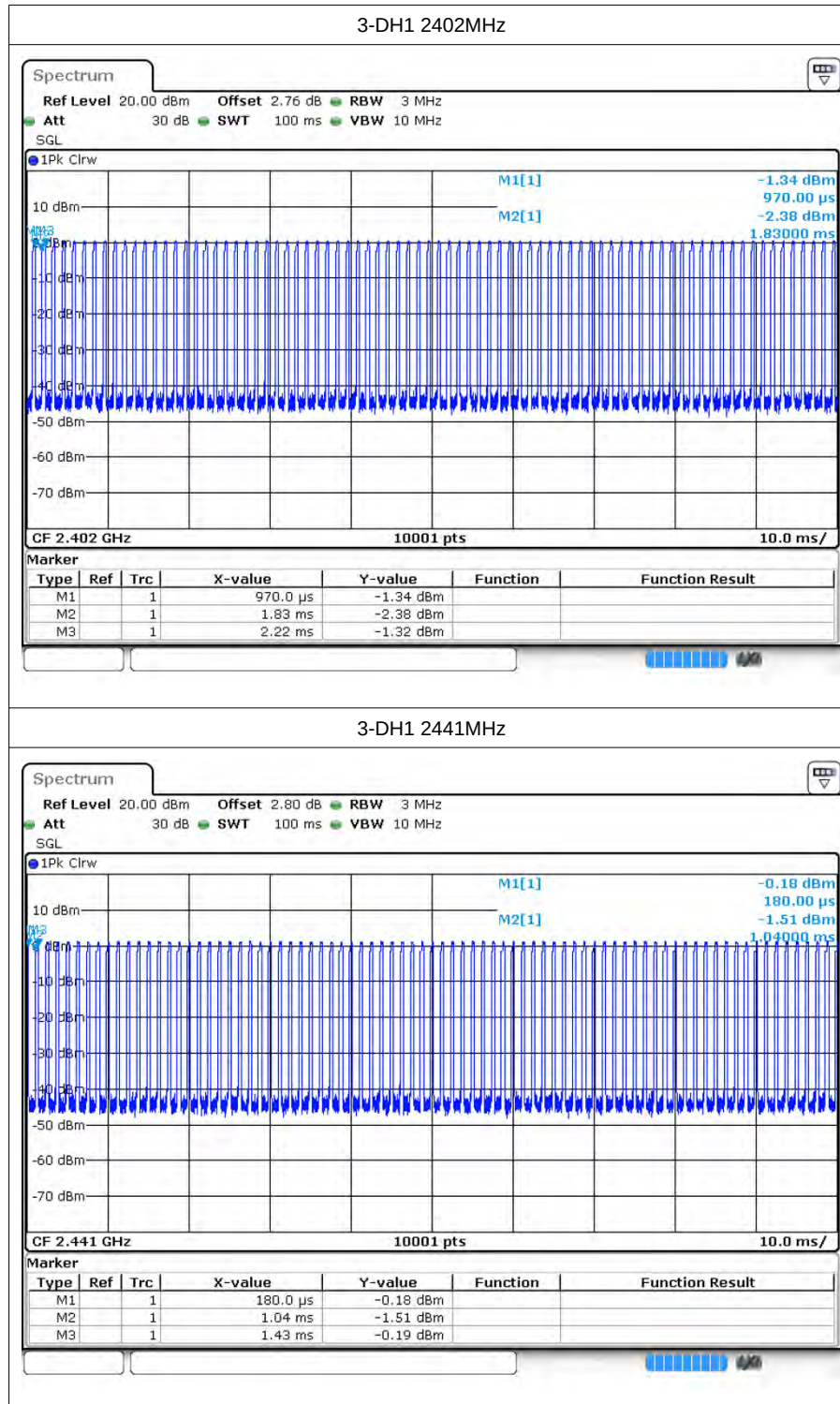
1.2 Test Graphs

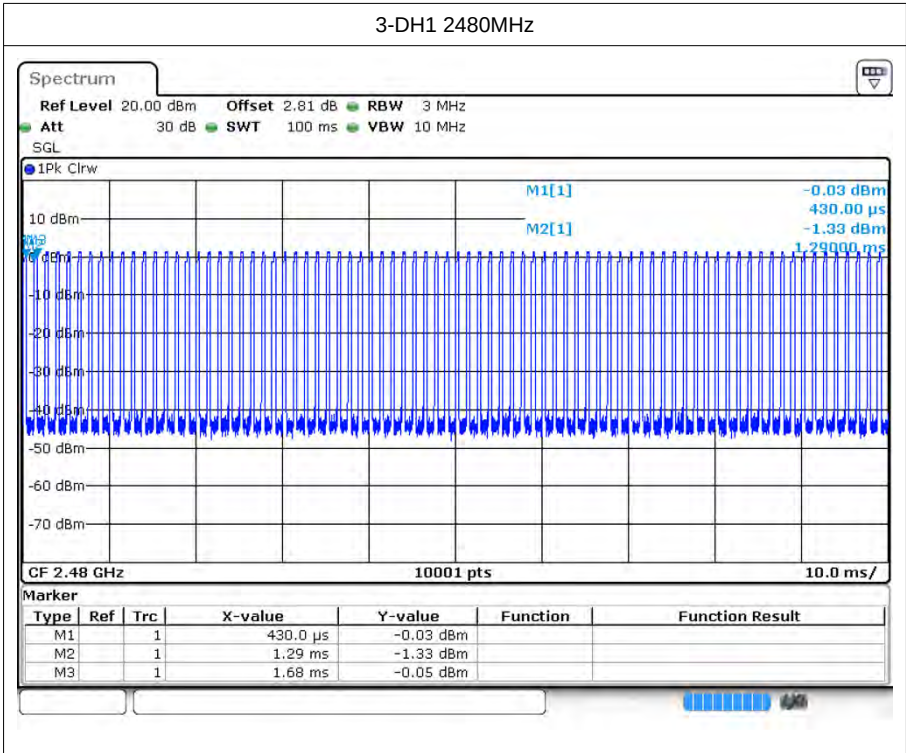
Model name:	GX-AiO50	Test Date :	2026-07-22
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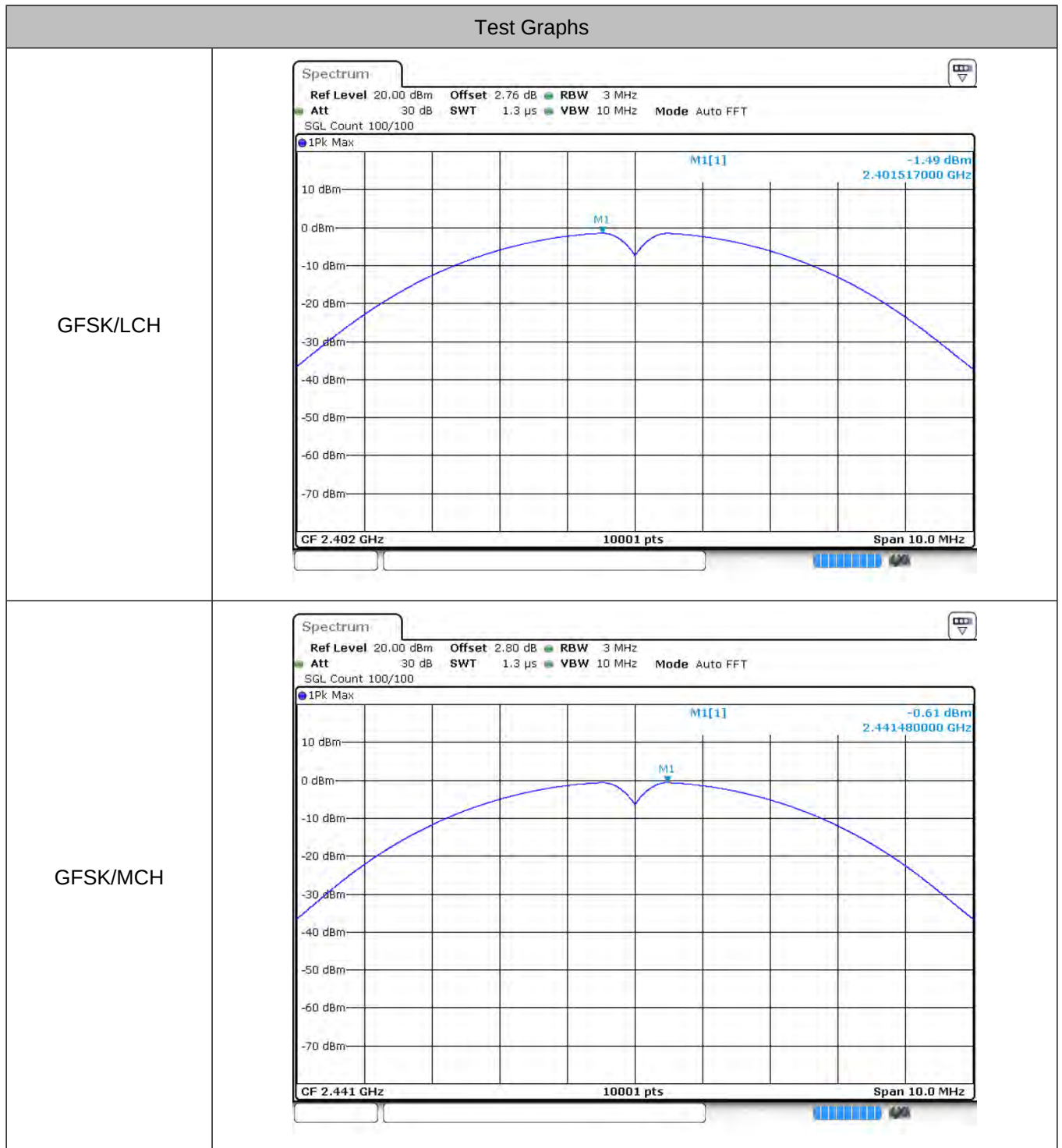
2 Maximum Conducted Peak Output Power

2.1 Test Result

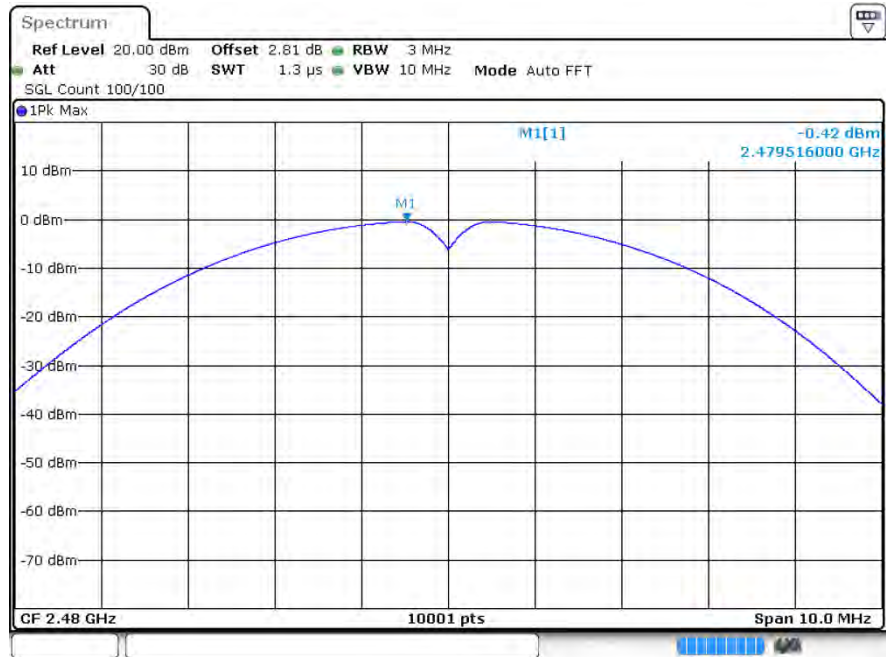
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.49	21	Pass
	MCH	-0.61	21	Pass
	HCH	-0.42	21	Pass
$\pi/4$ DQPSK	LCH	-0.57	21	Pass
	MCH	-0.11	21	Pass
	HCH	0.74	21	Pass
8DPSK	LCH	-0.27	21	Pass
	MCH	0.54	21	Pass
	HCH	0.26	21	Pass

2.2 Test Graphs

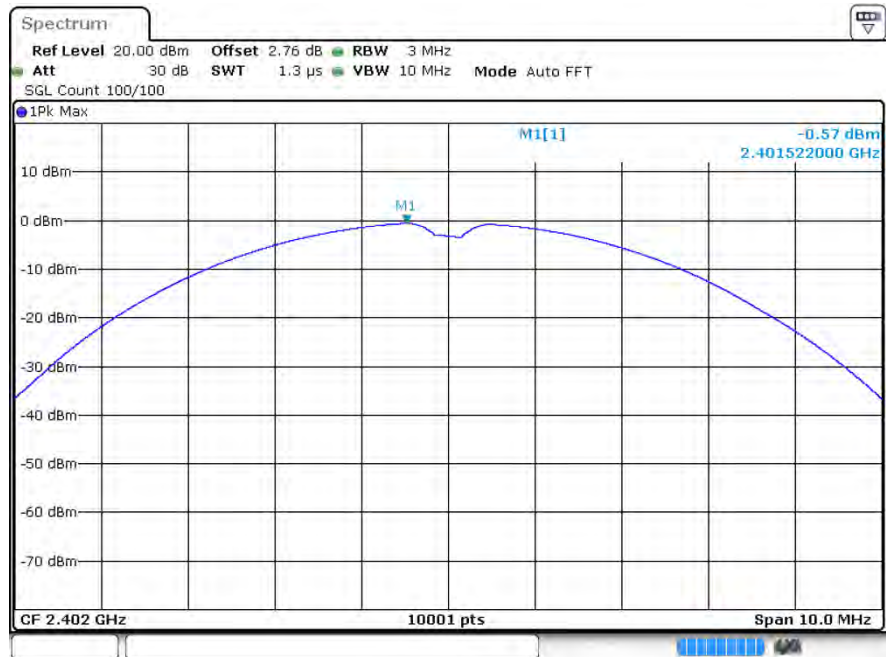
Model name:	GX-AiO50	Test Date :	2026-07-22
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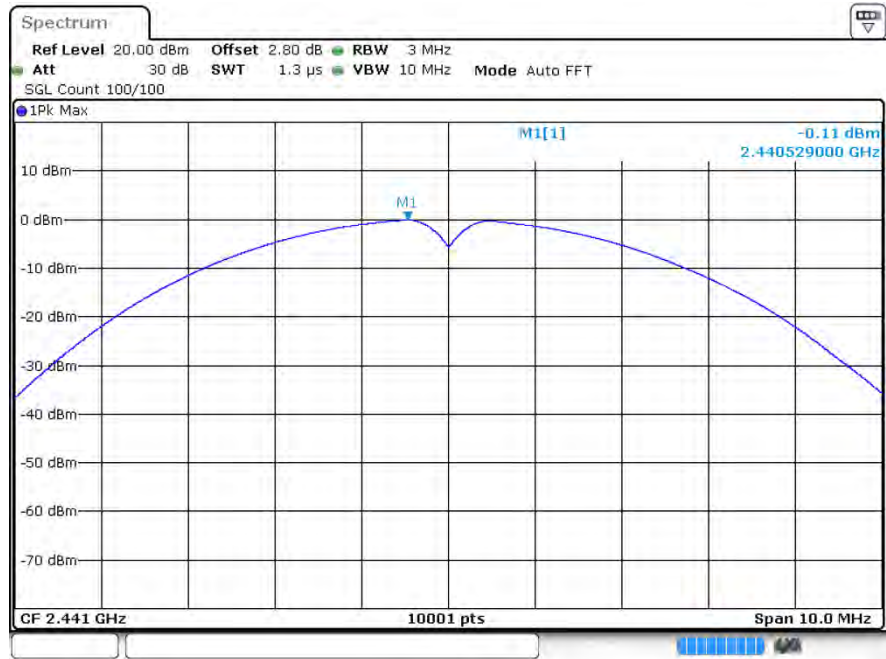
GFSK/HCH



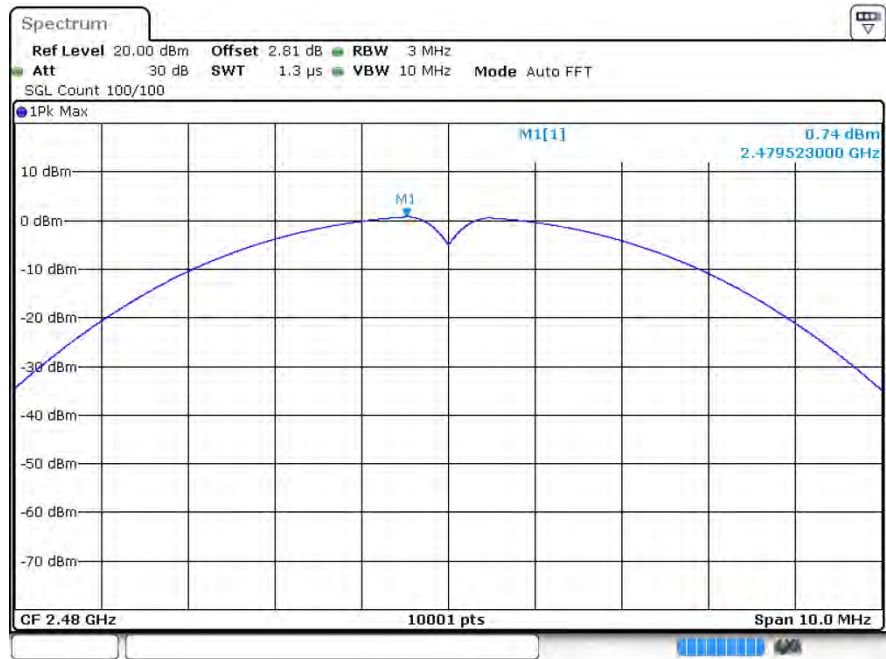
$\pi/4$ DQPSK/LCH



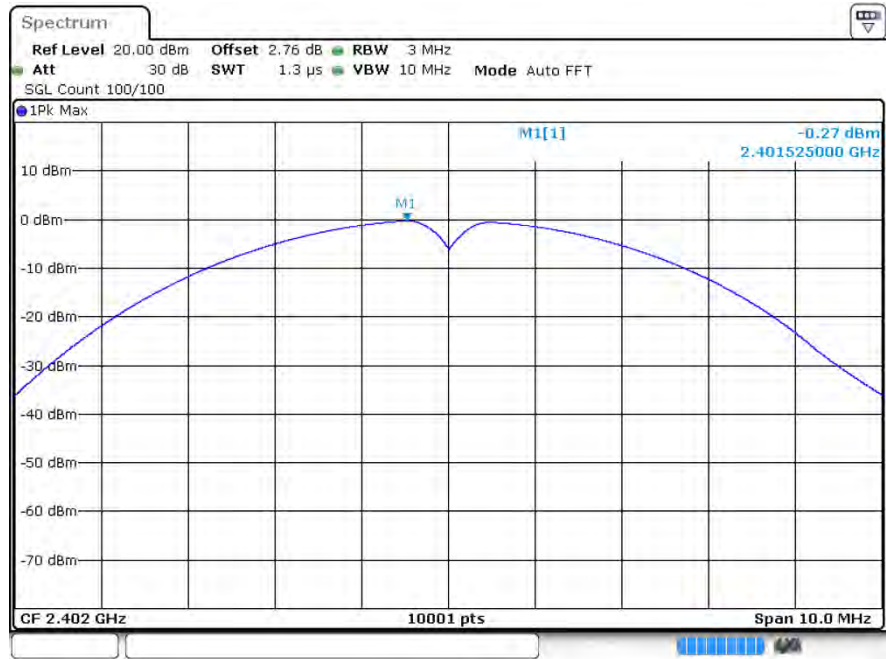
$\pi/4$ DQPSK/MCH



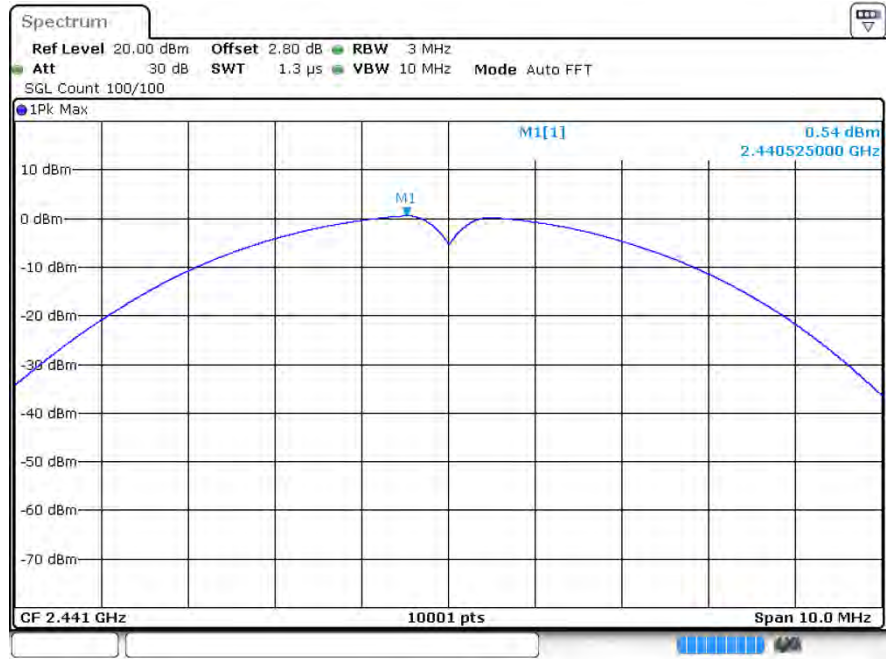
$\pi/4$ DQPSK/HCH



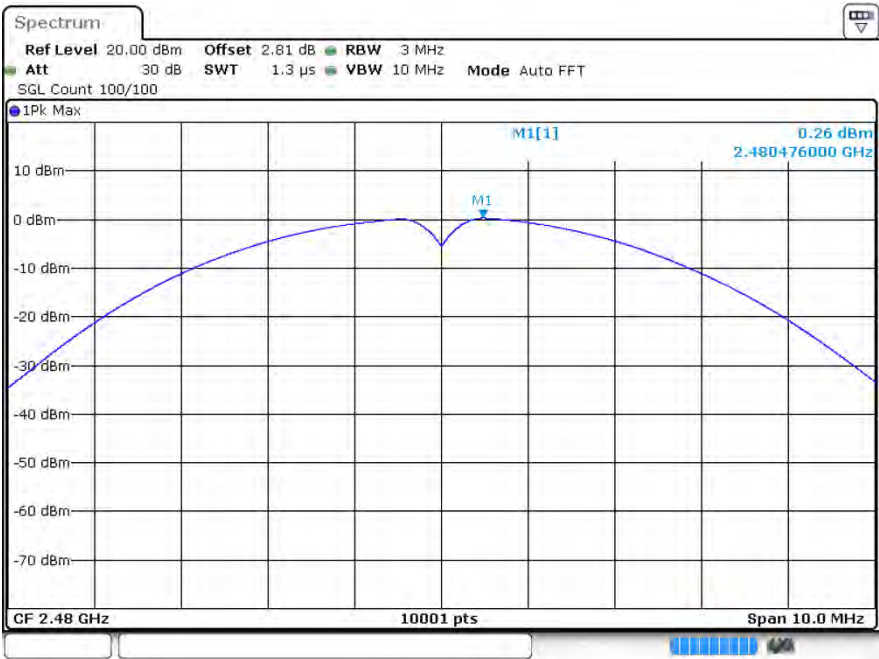
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH



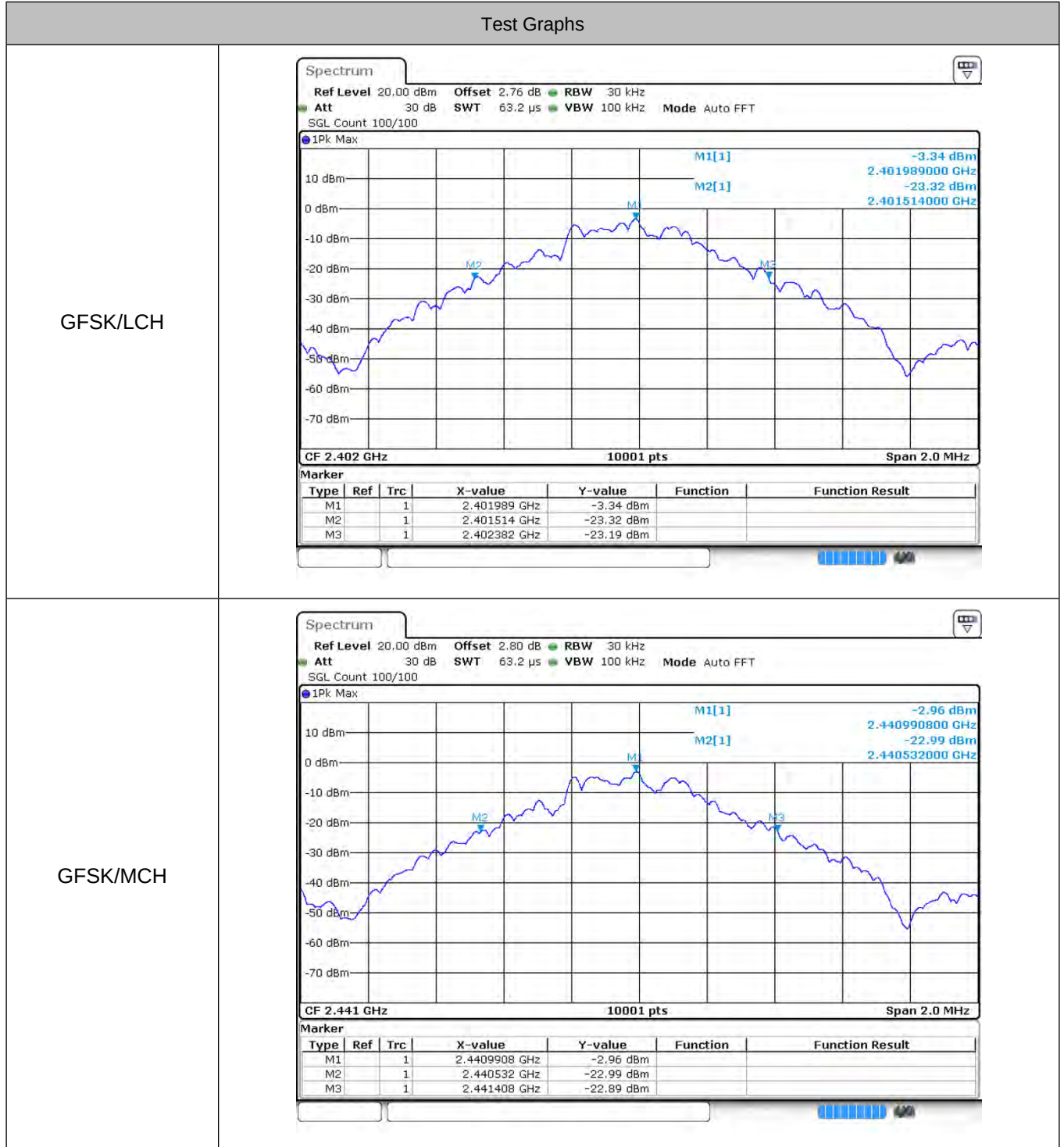
3 20dB Bandwidth

3.1 Test Result

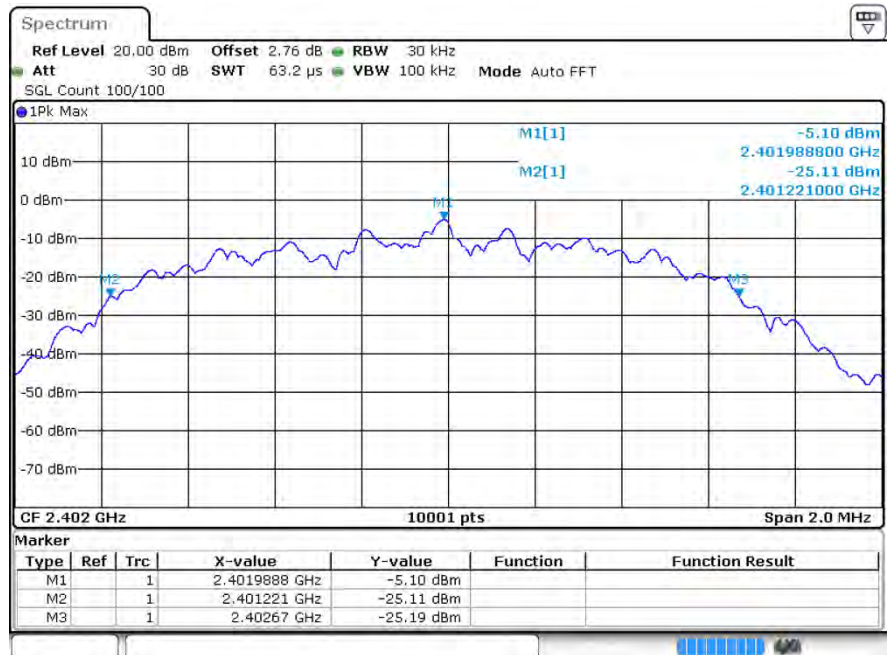
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.868	Not Specified	Pass
	MCH	0.876	Not Specified	Pass
	HCH	0.87	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.448	Not Specified	Pass
	MCH	1.409	Not Specified	Pass
	HCH	1.431	Not Specified	Pass
8DPSK	LCH	1.434	Not Specified	Pass
	MCH	1.439	Not Specified	Pass
	HCH	1.456	Not Specified	Pass

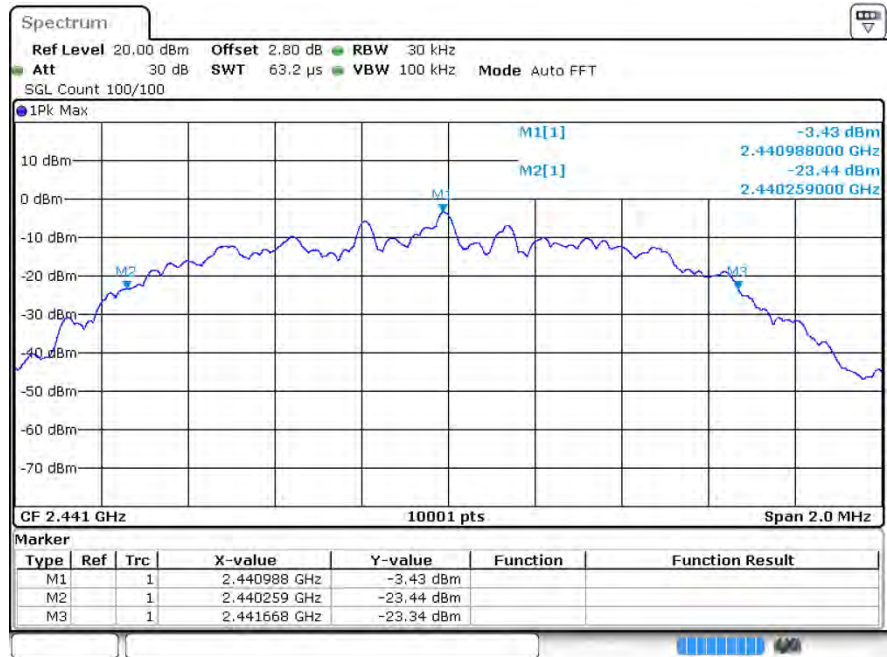
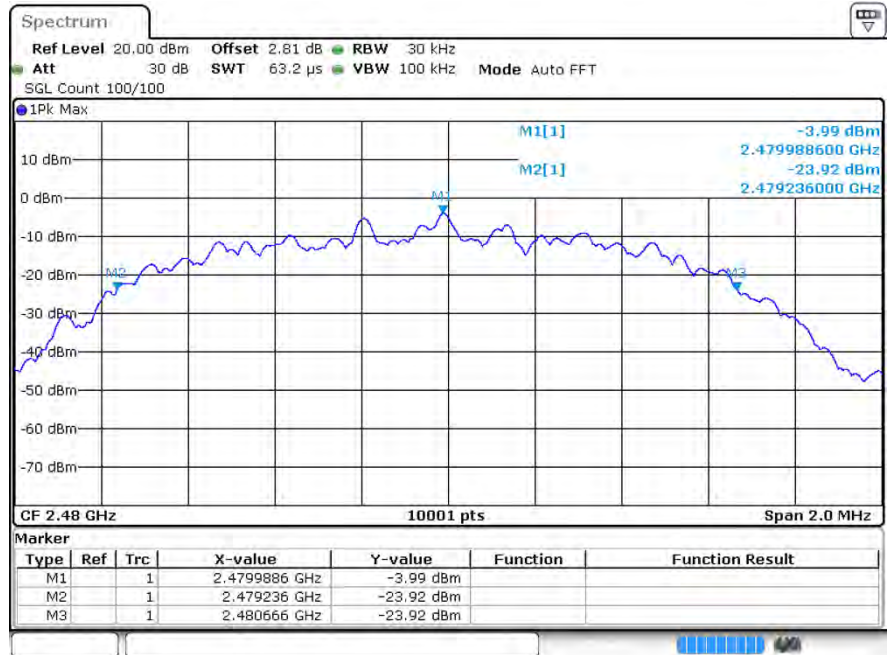
3.2 Test Graphs

Model name:	GX-AiO50	Test Date :	2026-07-22
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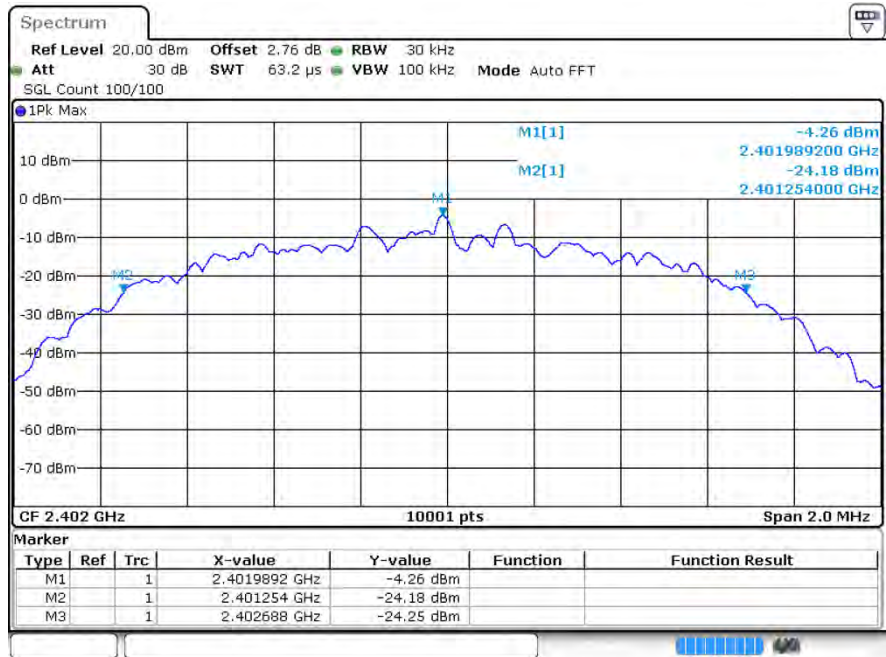


GFSK/HCH

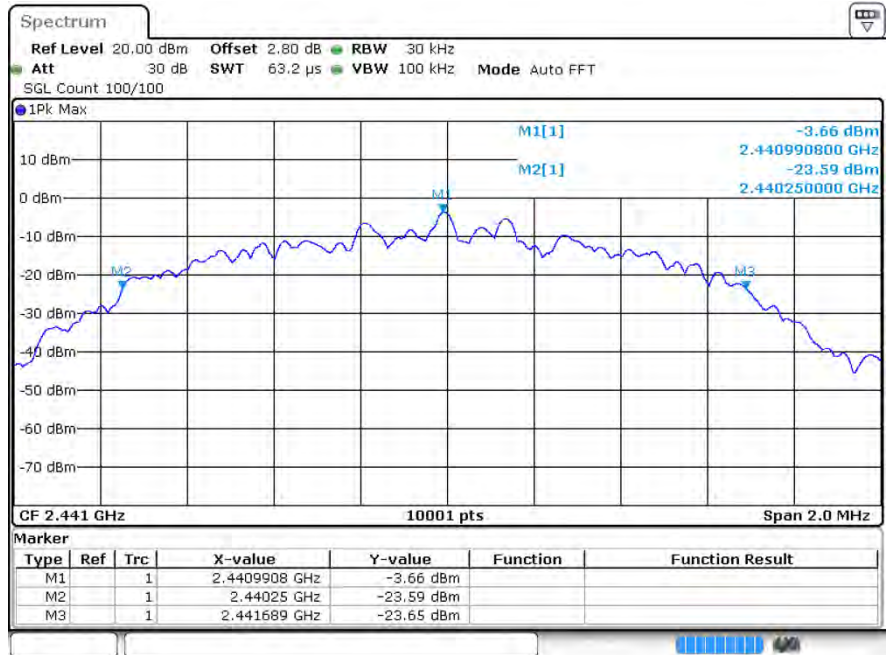

 $\pi/4$ DQPSK/LCH


$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


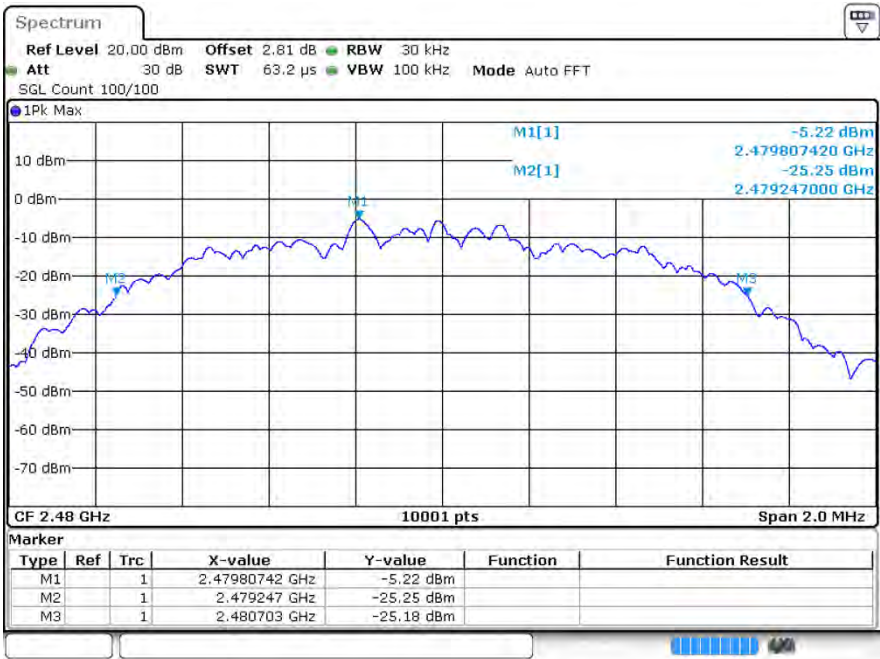
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH



4 Carrier Frequency Separation

4.1 Test Result

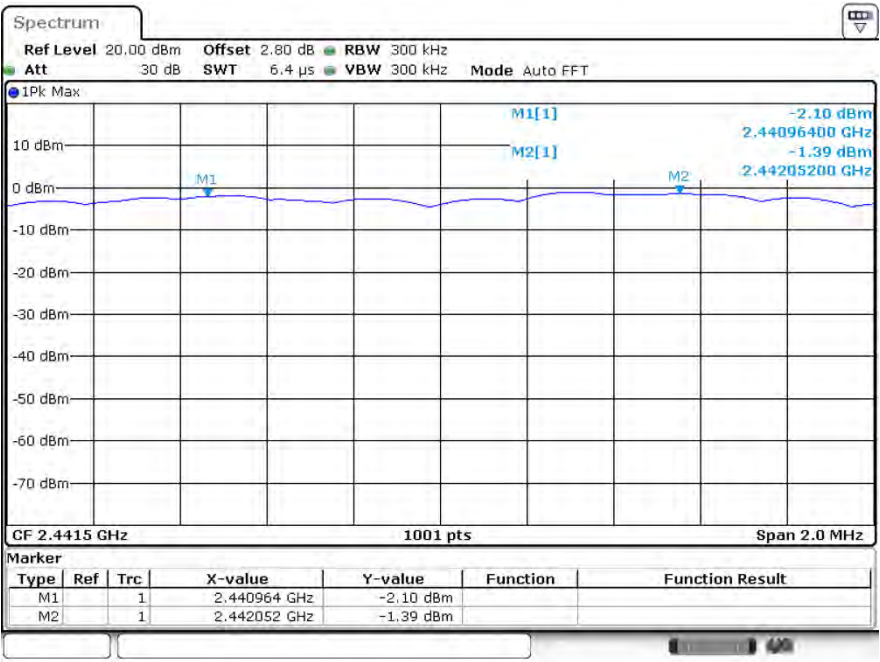
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.011	0.584	Pass
$\pi/4$ DQPSK	MCH	1.29	0.939	Pass
8DPSK	MCH	1.088	0.959	Pass

4.2 Test Graphs

Model name:	GX-AiO50	Test Date :	2026-07-22
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8DPSK/MCH



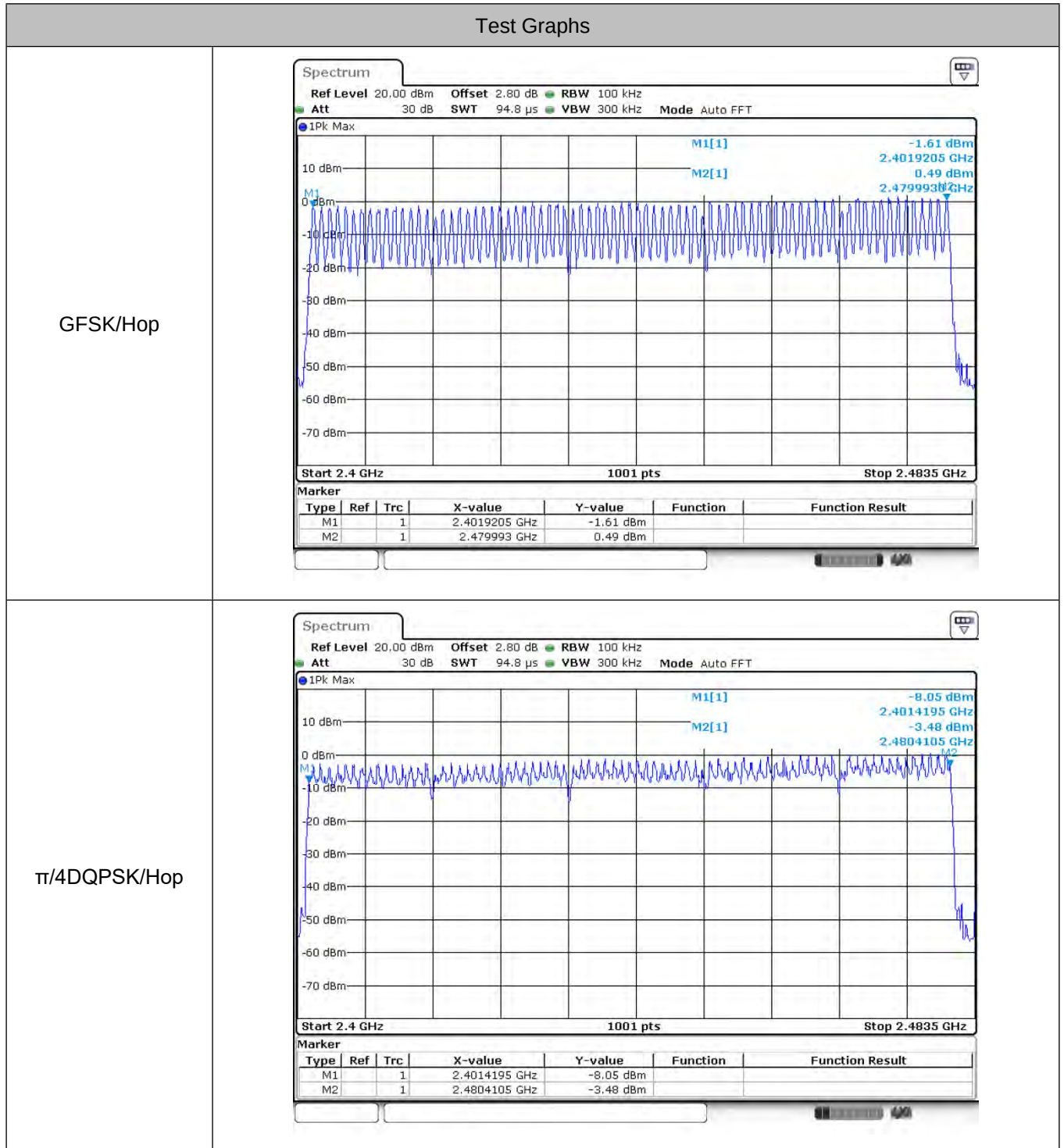
5 Hopping Channel Number

5.1 Test Result

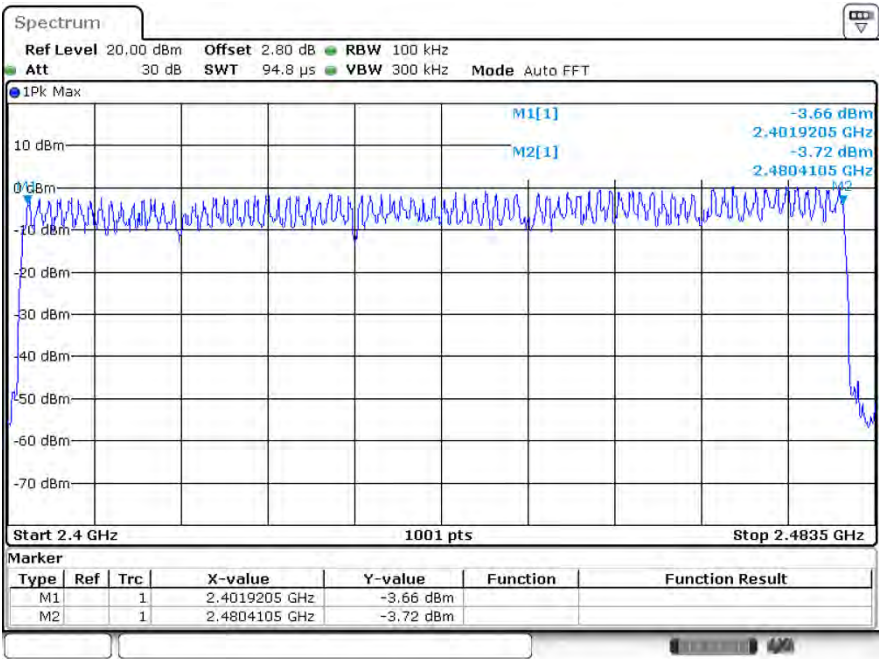
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

5.2 Test Graphs

Model name:	GX-AiO50	Test Date :	2026-07-22
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8DPSK/Hop



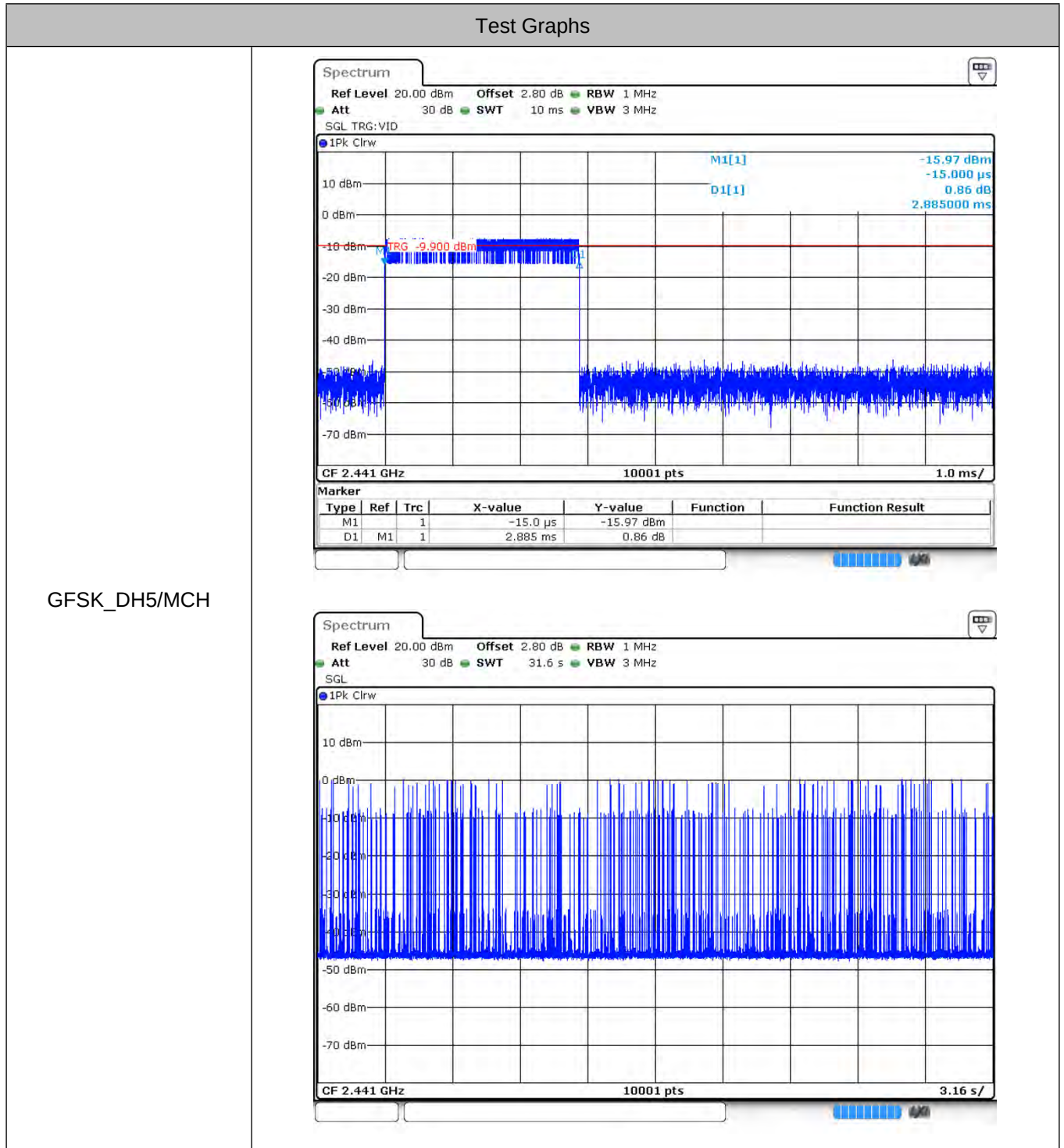
6 Dwell Time

6.1 Test Result

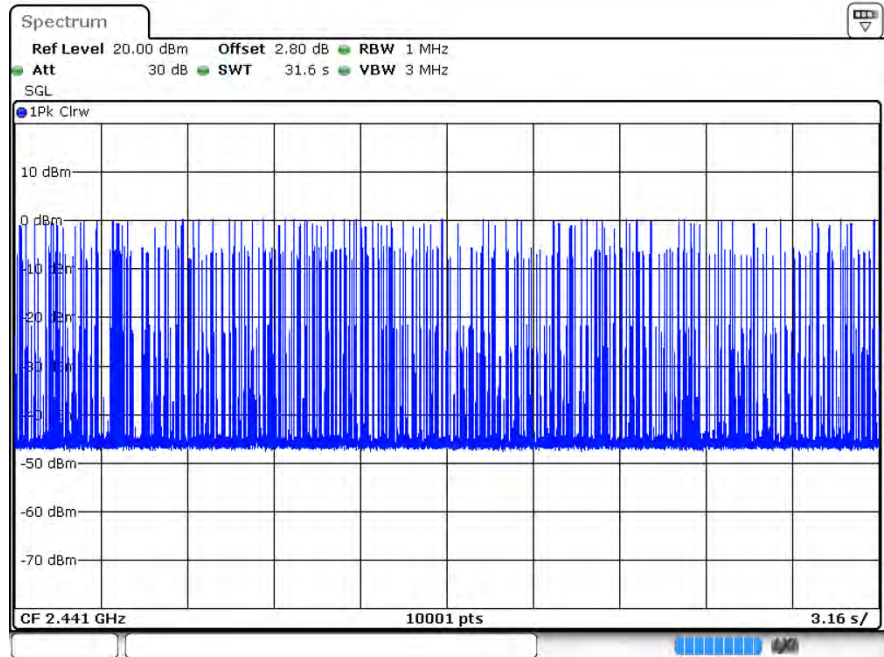
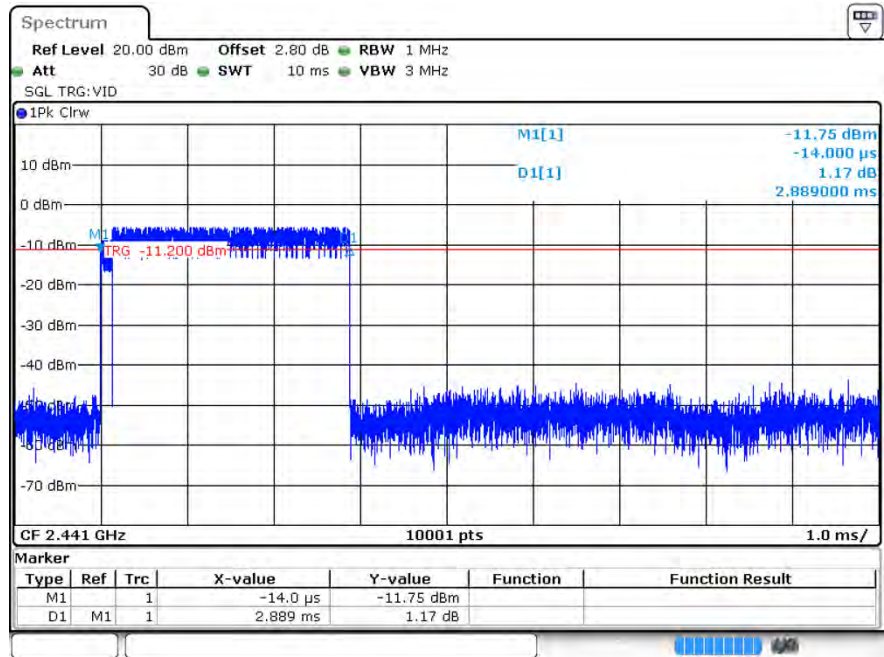
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.885	100	288.5	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.889	116	335.124	0.4	Pass
8DPSK	3DH5	MCH	2.891	105	303.555	0.4	Pass

6.2 Test Graphs

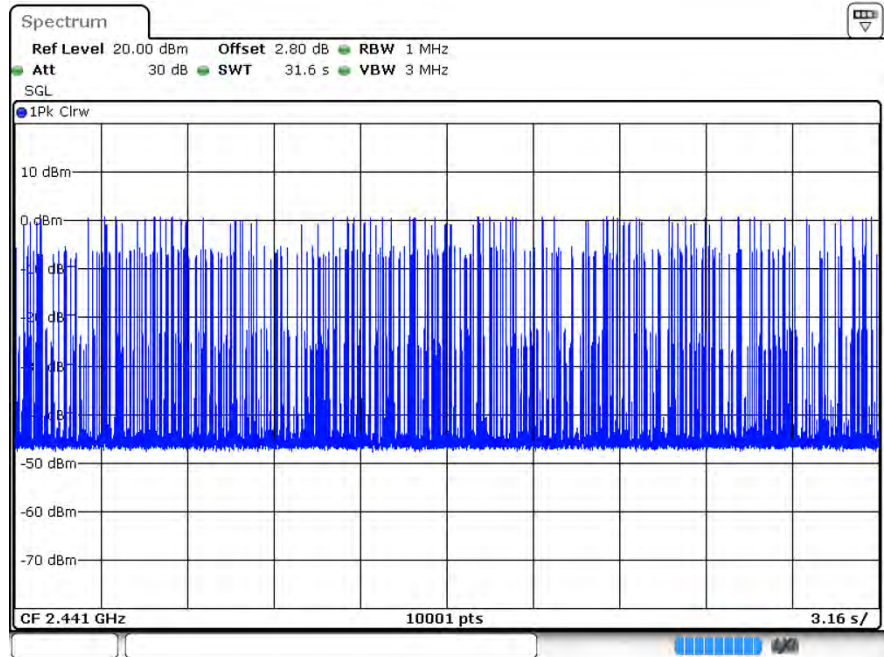
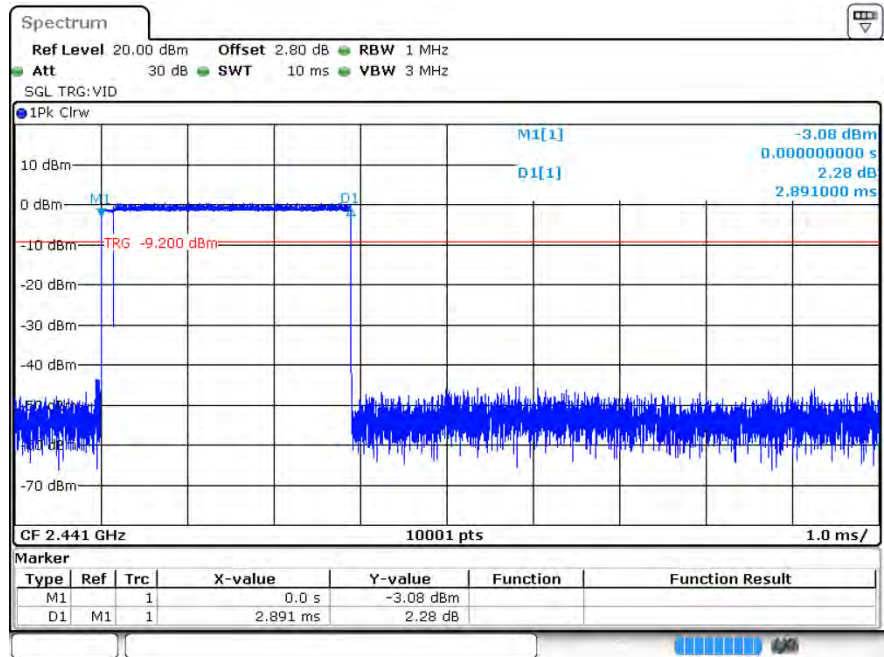
Model name:	GX-AiO50	Test Date :	2026-07-22
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$\pi/4$ DQPSK
_2DH5/MCH



8DPSK_3DH5/MCH



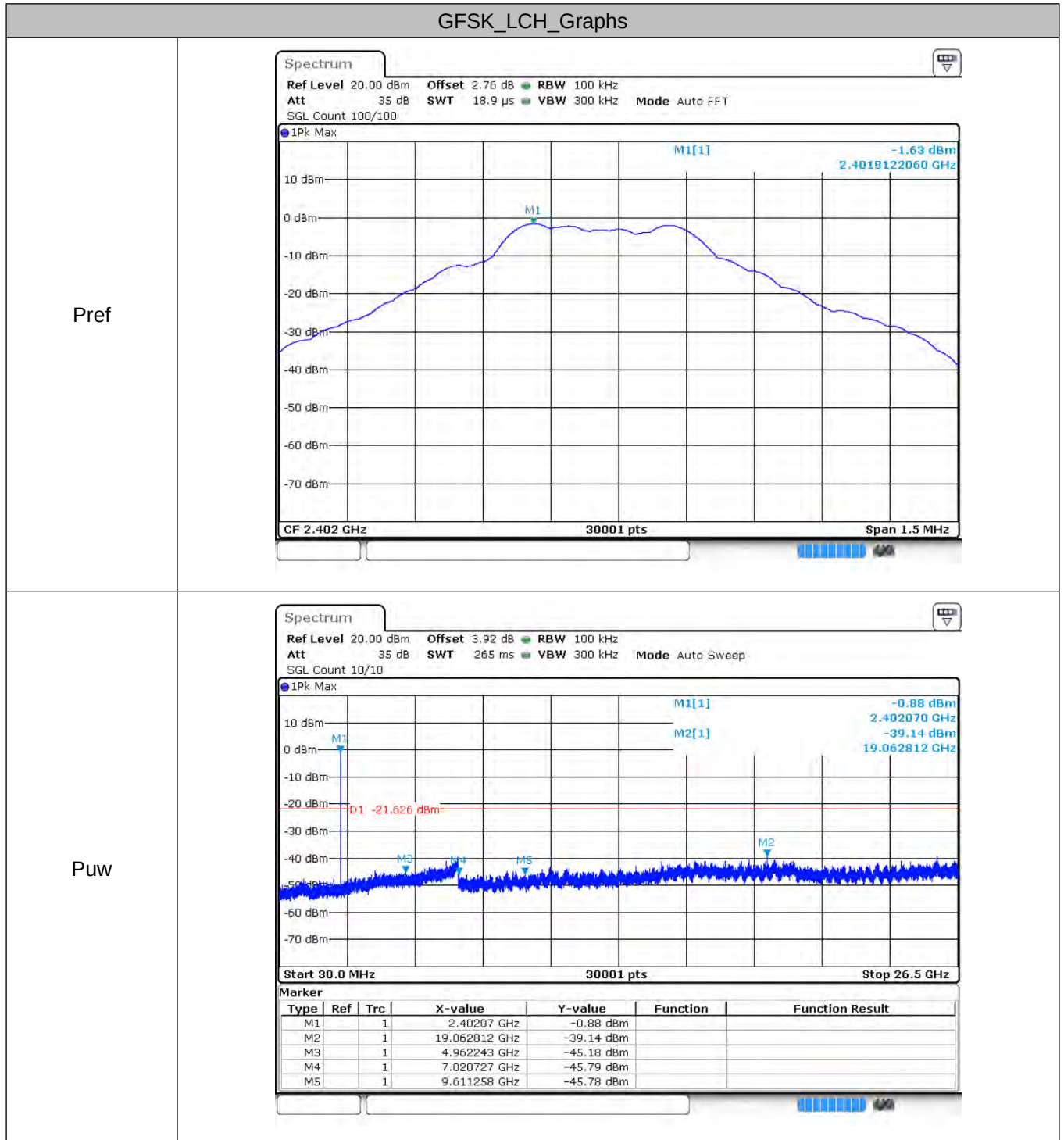
7 RF Conducted Spurious Emissions

7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-37.5	-20	Pass
	MCH	-37.96	-20	Pass
	HCH	-38.91	-20	Pass
$\pi/4$ DQPSK	LCH	-36.36	-20	Pass
	MCH	-38.41	-20	Pass
	HCH	-37.47	-20	Pass
8DPSK	LCH	-37.67	-20	Pass
	MCH	-37.77	-20	Pass
	HCH	-38.41	-20	Pass

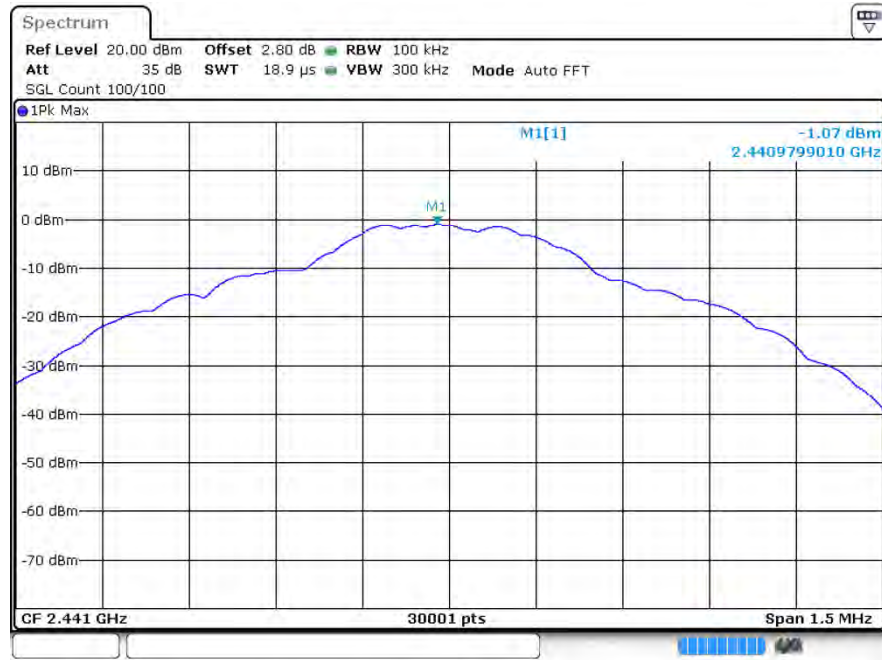
7.2 Test Graphs

Model name:	GX-Ai050	Test Date :	2026-07-22
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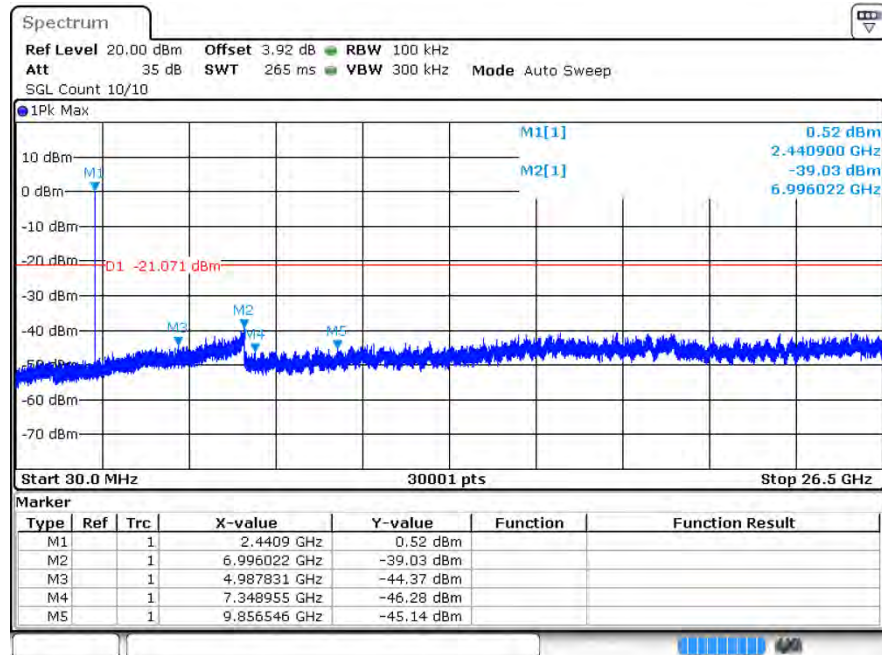


GFSK_MCH_Graphs

Pref

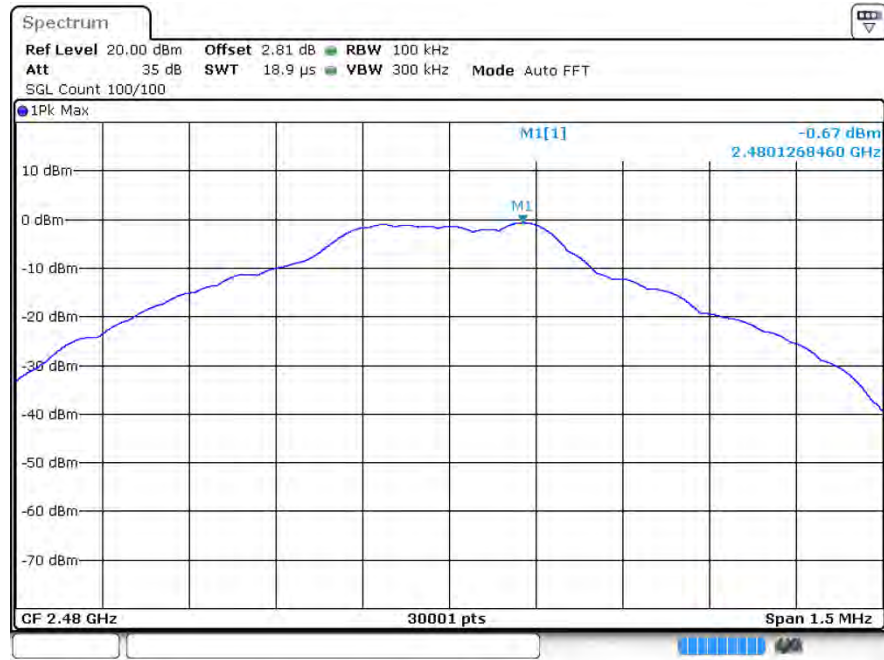


Puw

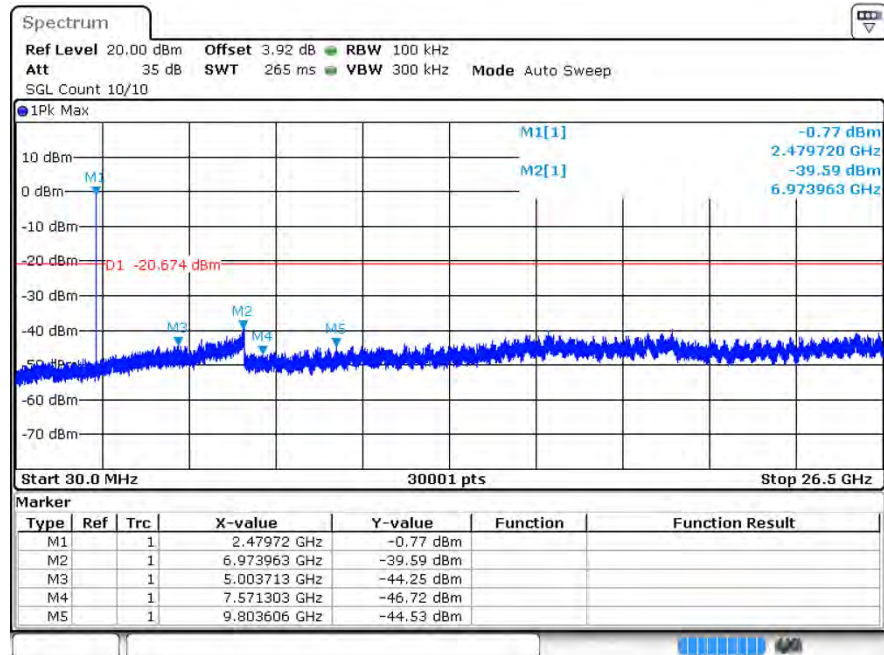


GFSK_HCH_Graphs

Pref

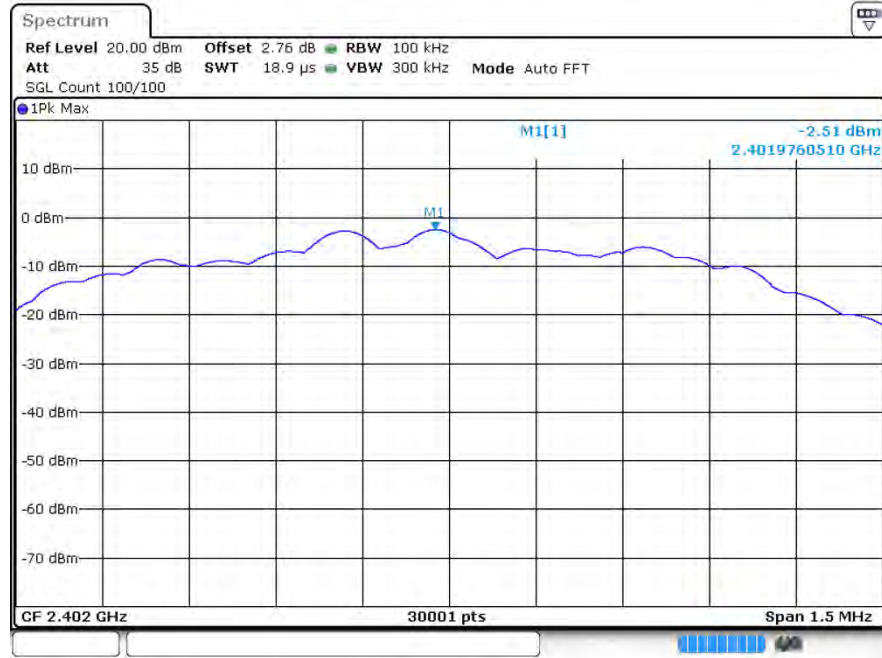


Puw

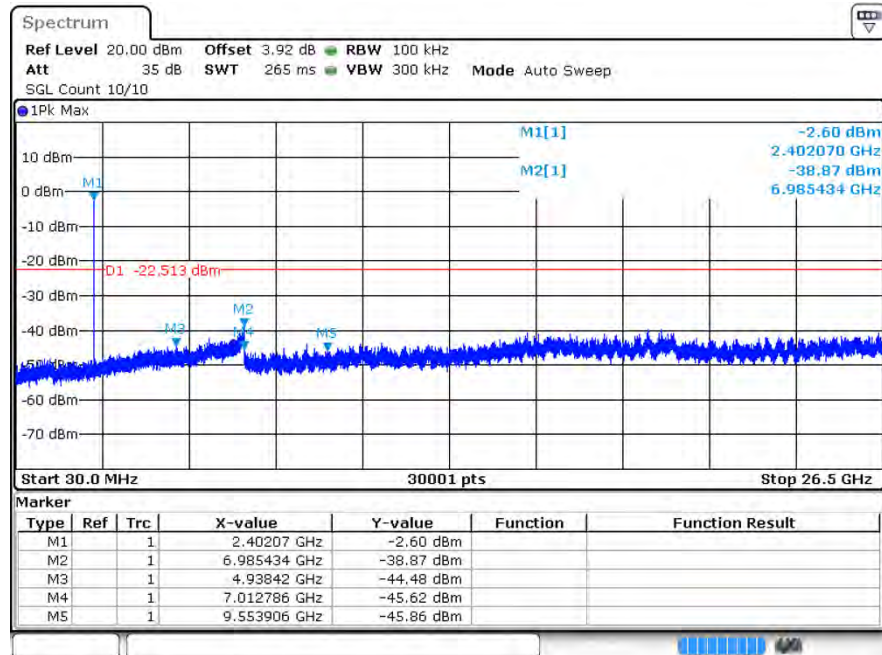


$\pi/4$ DQPSK_LCH_Graphs

Pref

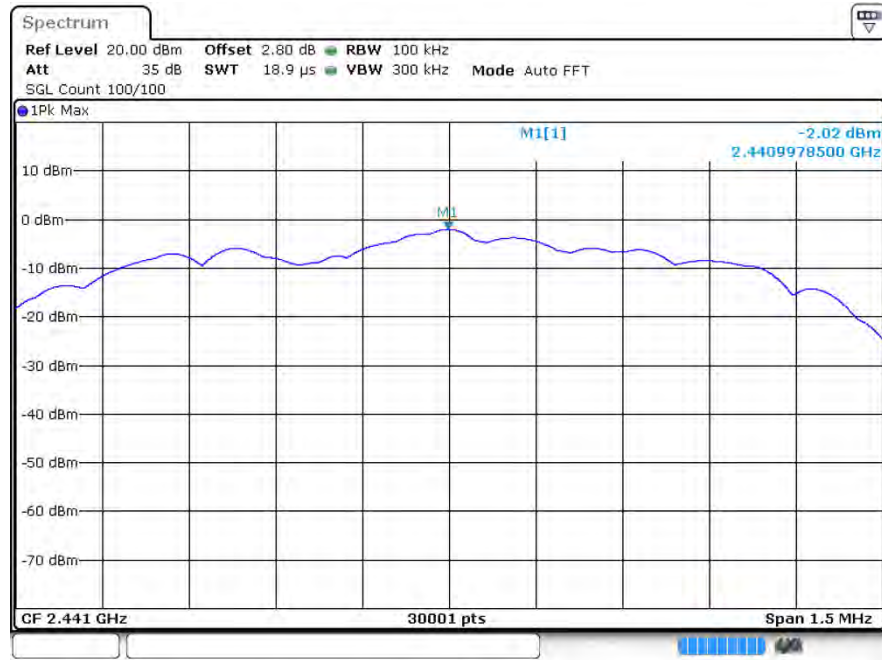


Puw

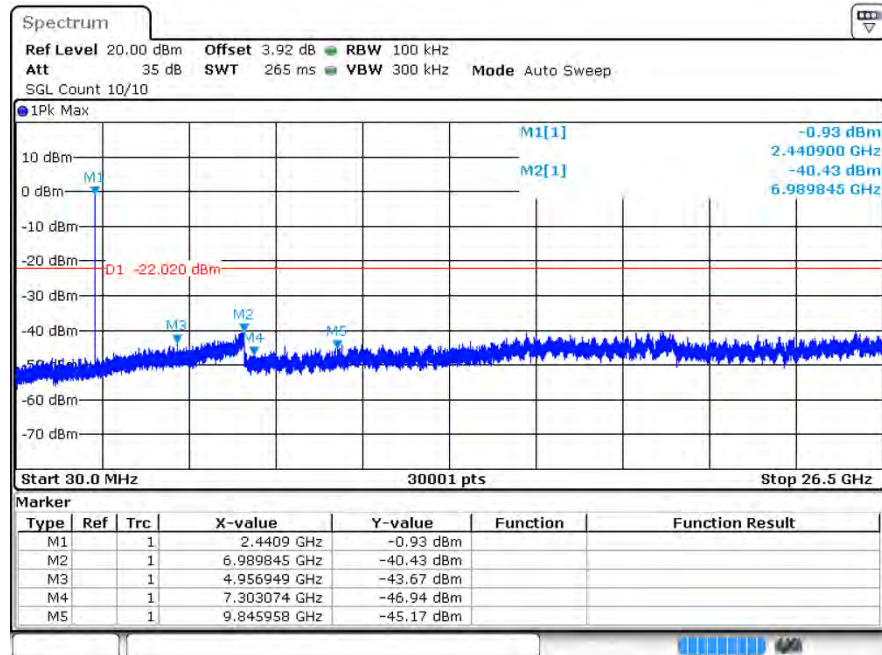


$\pi/4$ DQPSK_MCH_Graphs

Pref

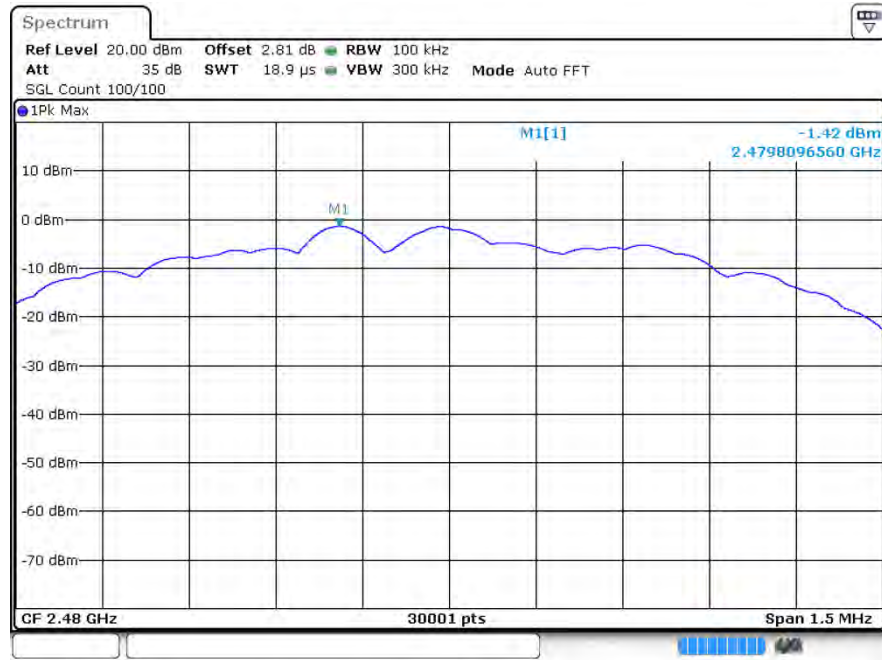


Puw

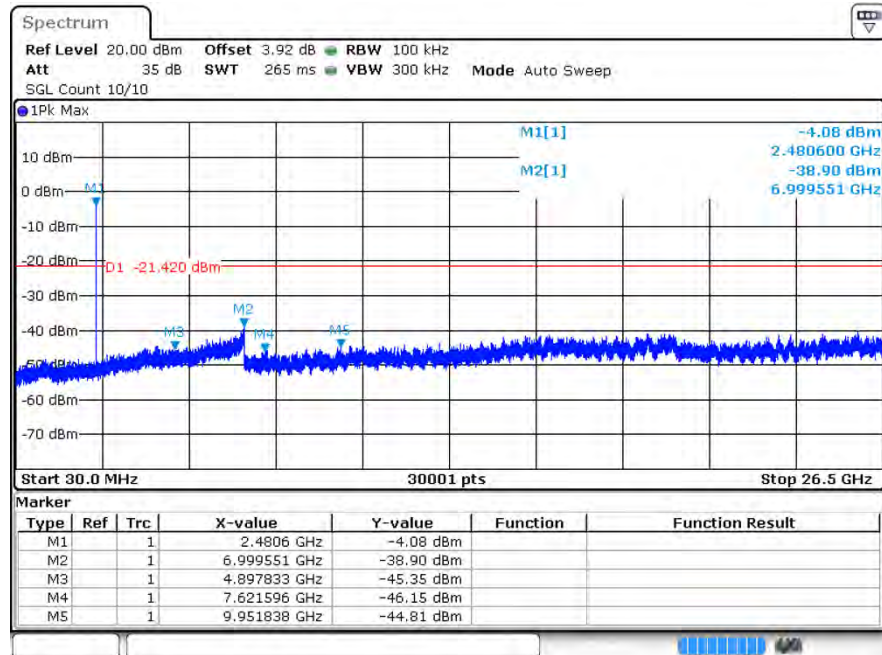


$\pi/4$ DQPSK_HCH_Graphs

Pref

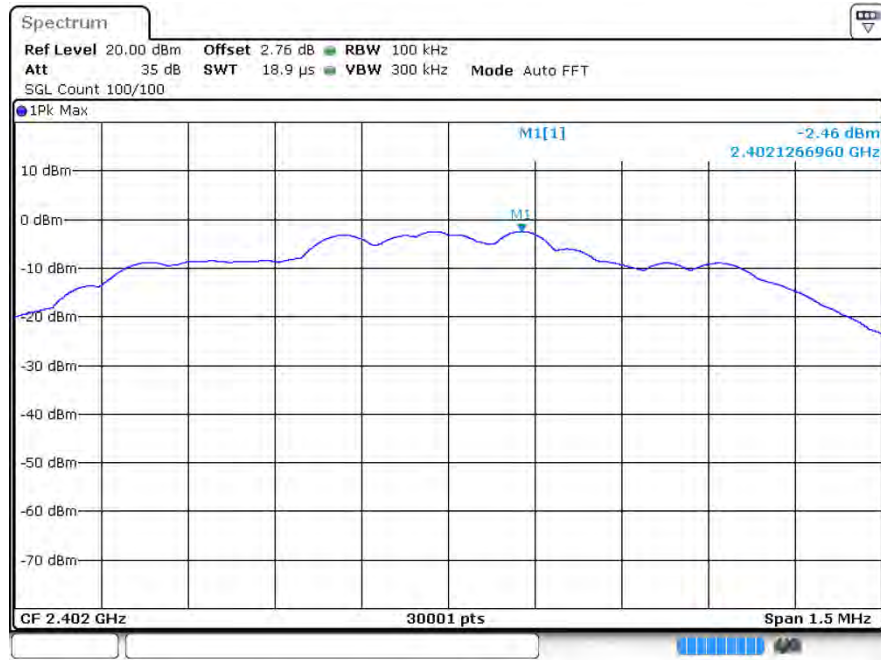


Puw

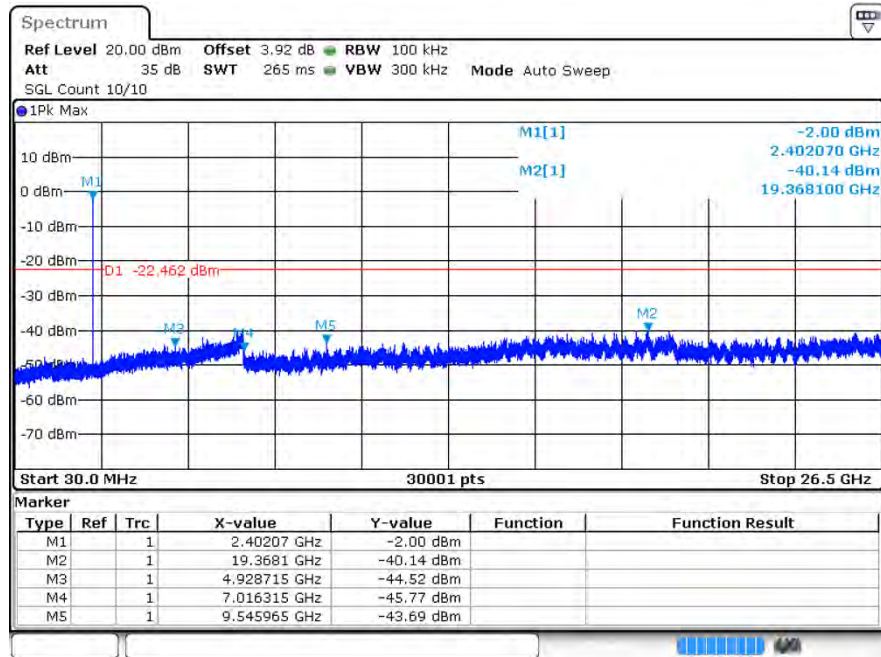


8DPSK_LCH_Graphs

Pref

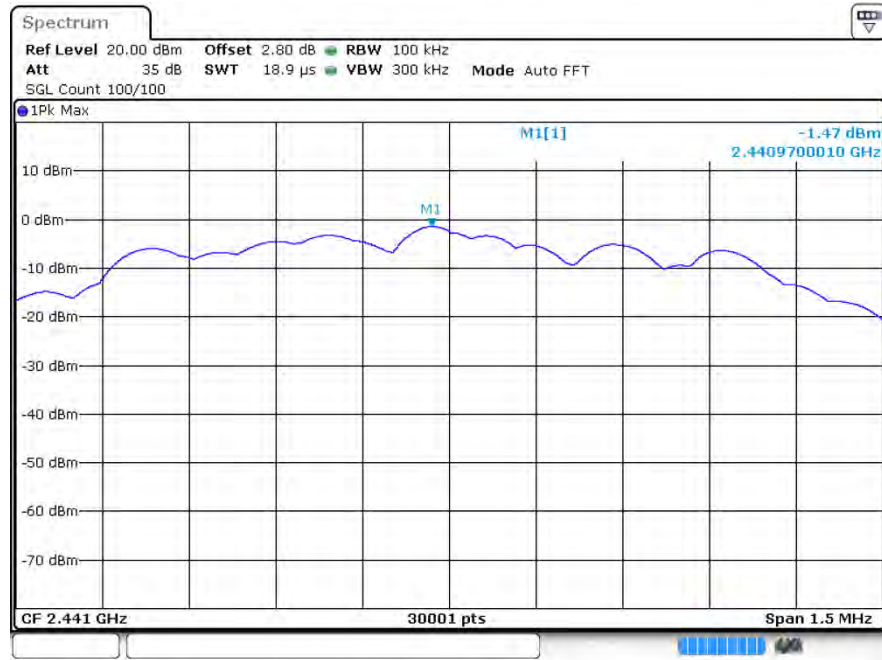


Puw

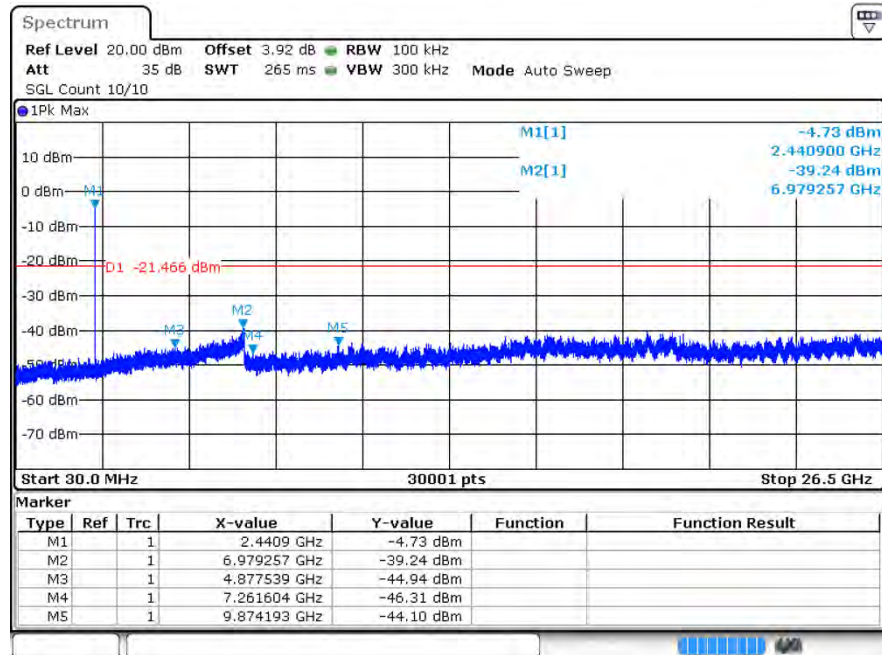


8DPSK_MCH_Graphs

Pref

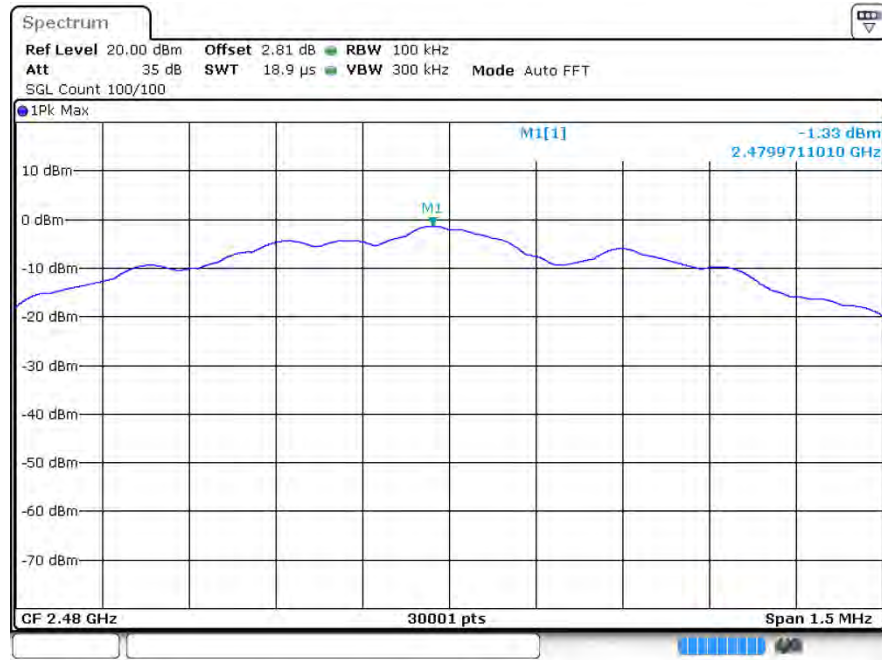


Puw

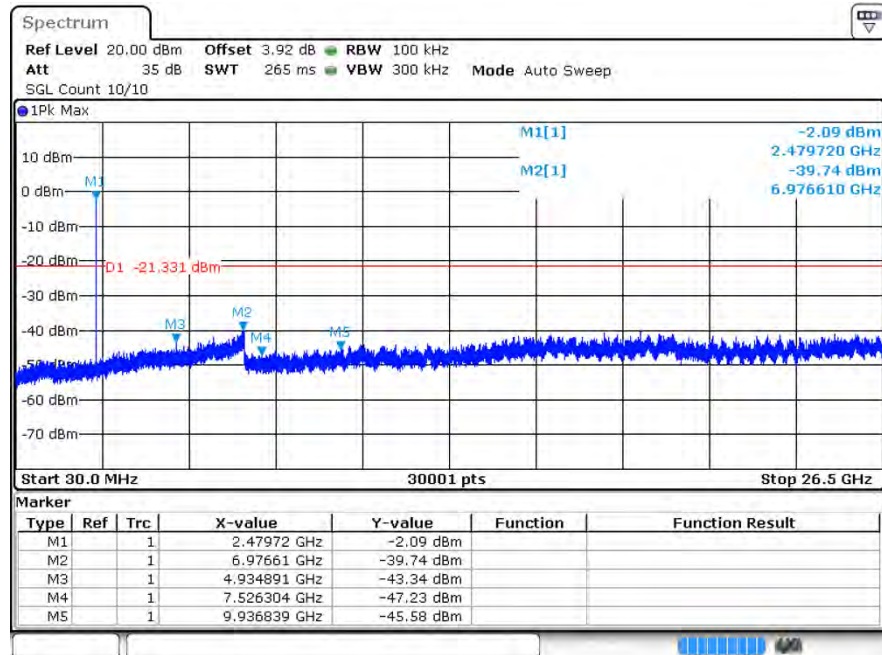


8DPSK_HCH_Graphs

Pref



Puw



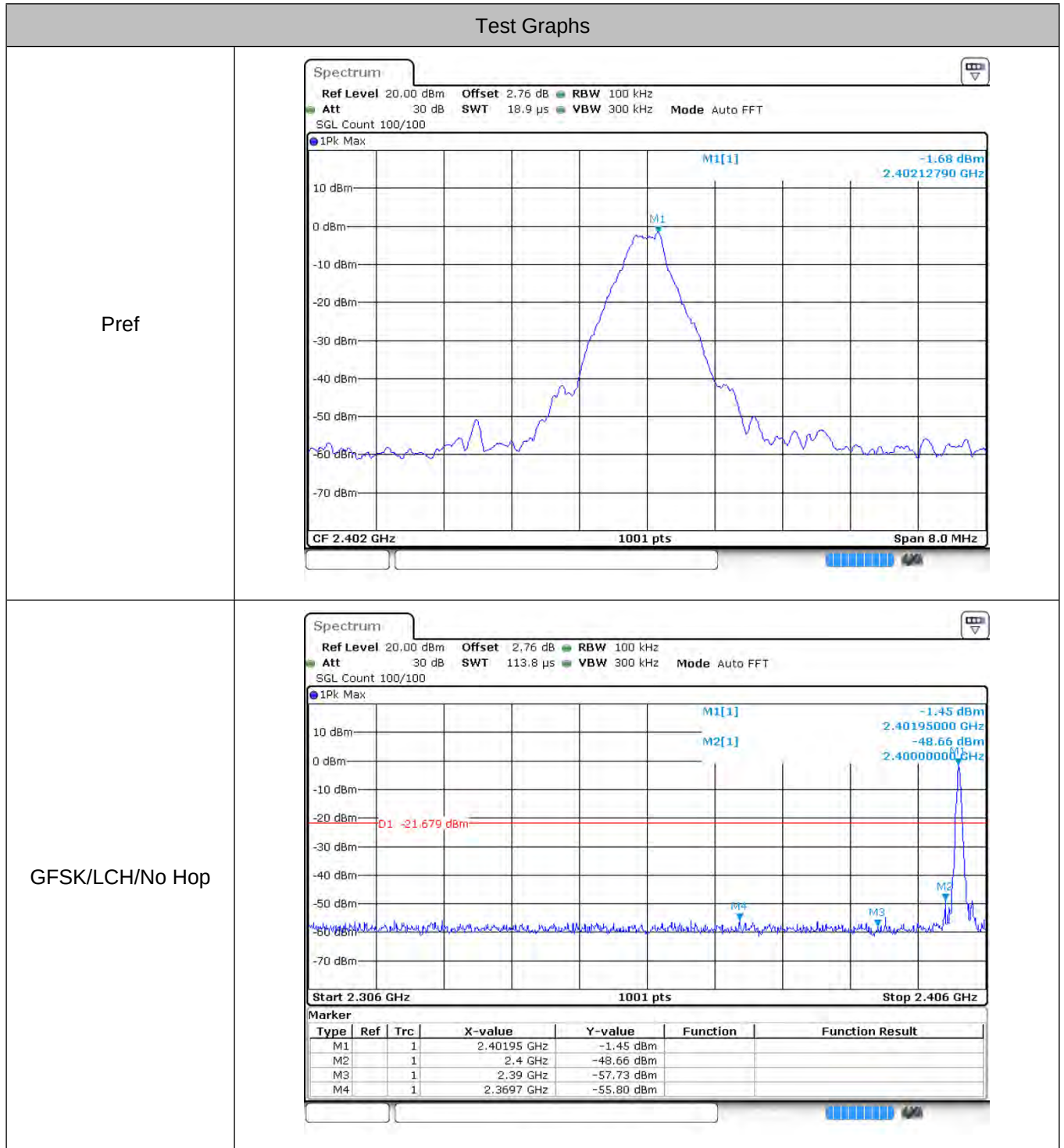
8 Band-edge for RF Conducted Emissions

8.1 Test Result

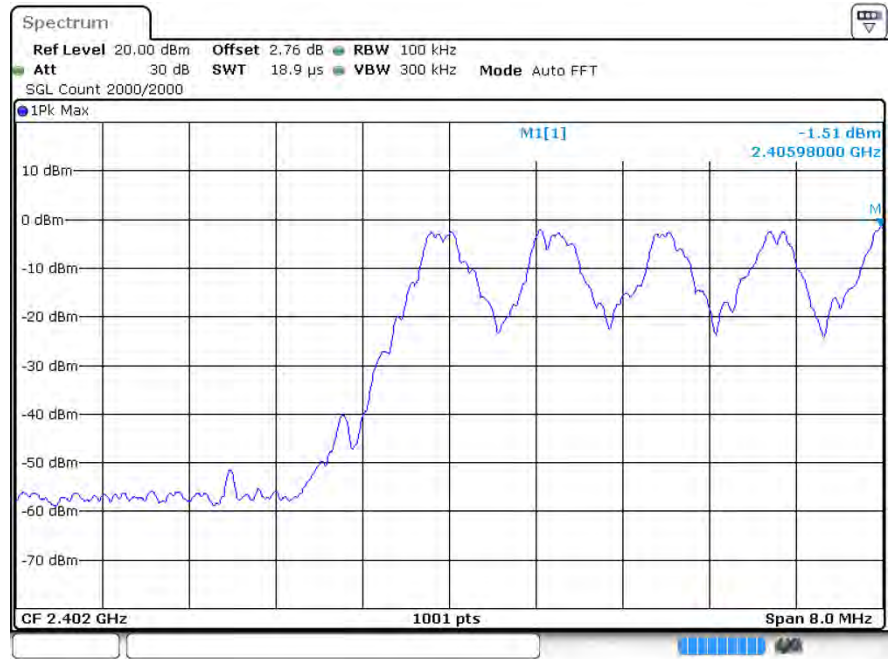
Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-54.12	-20	Pass
			On	-53.16	-20	Pass
	HCH	2480	Off	-44.84	-20	Pass
			On	-51.64	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-52.19	-20	Pass
			On	-50.55	-20	Pass
	HCH	2480	Off	-44.76	-20	Pass
			On	-54.9	-20	Pass
8DPSK	LCH	2402	Off	-53.08	-20	Pass
			On	-51.53	-20	Pass
	HCH	2480	Off	-53.26	-20	Pass
			On	-46.71	-20	Pass

8.2 Test Graphs

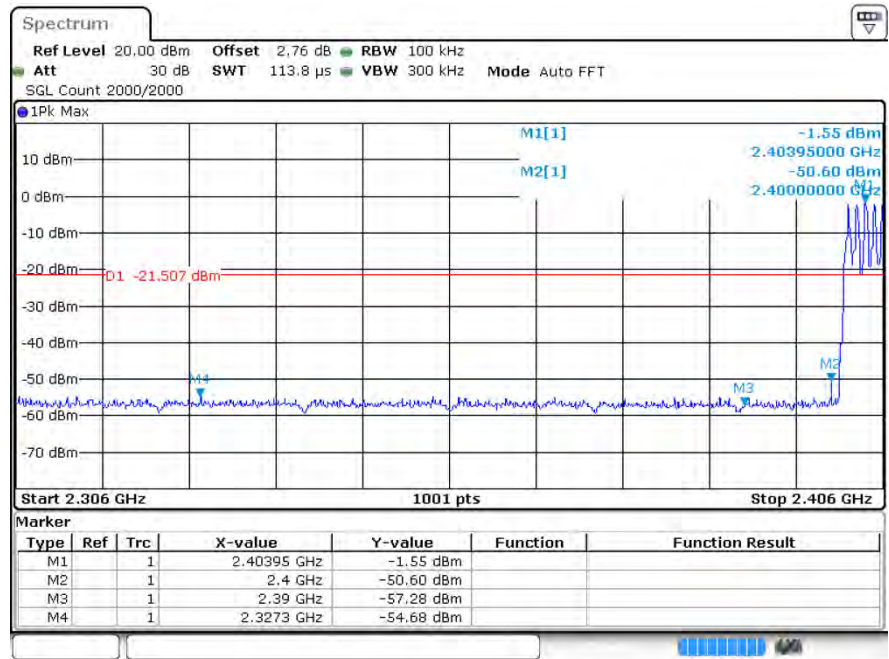
Model name:	GX-AiO50	Test Date :	2026-07-22
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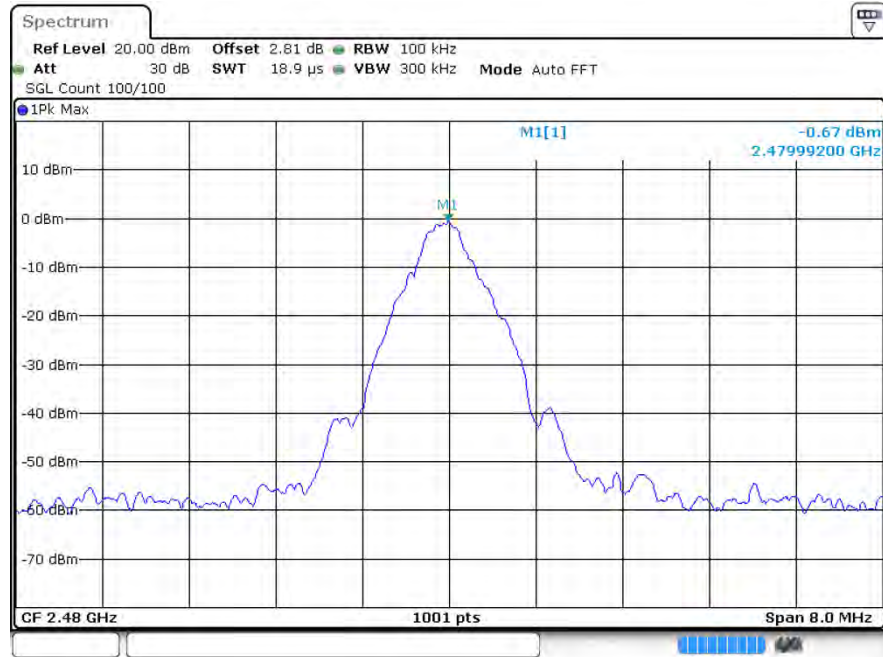
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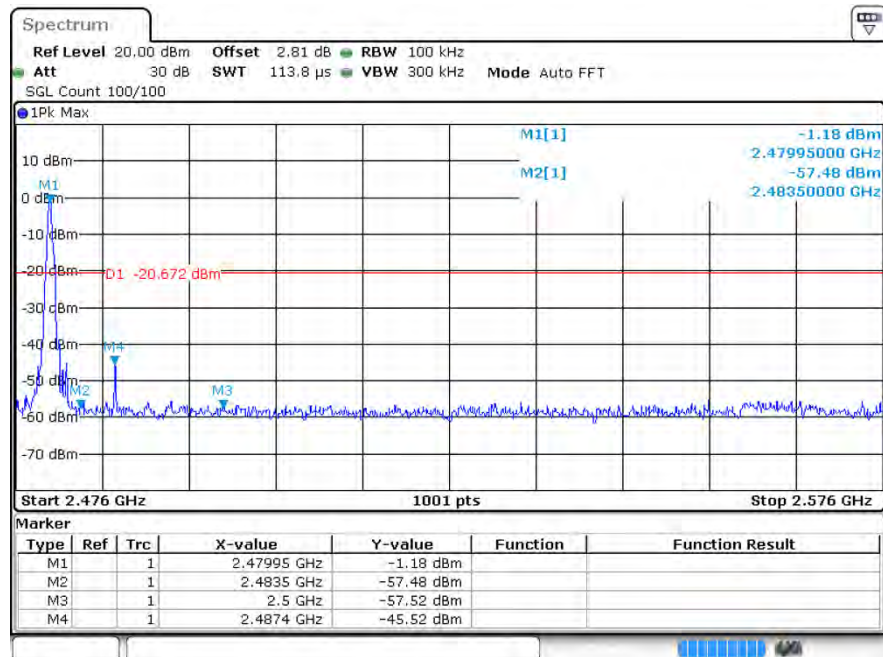
GFSK/LCH/Hop



Ref



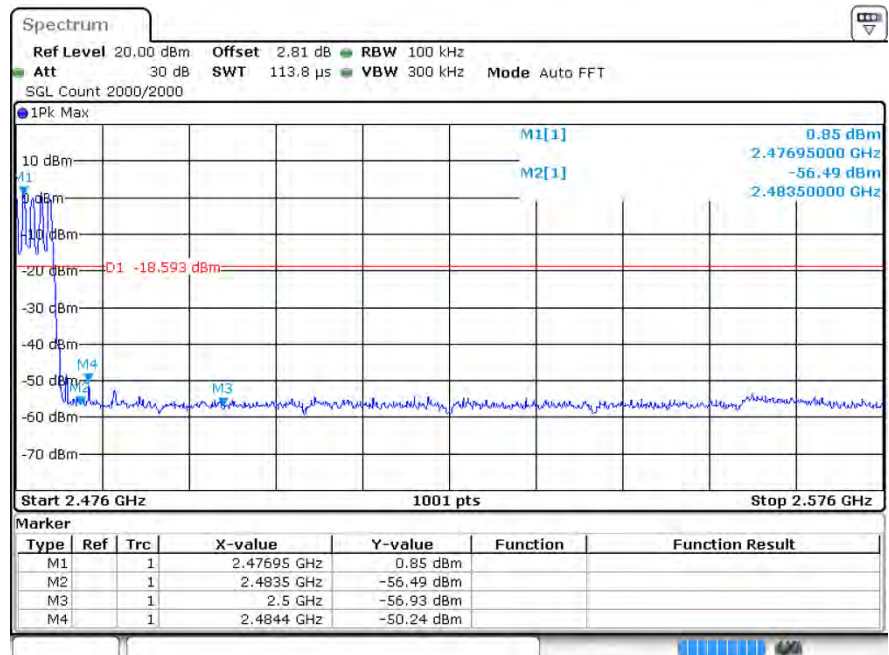
GFSK/HCH/No Hop



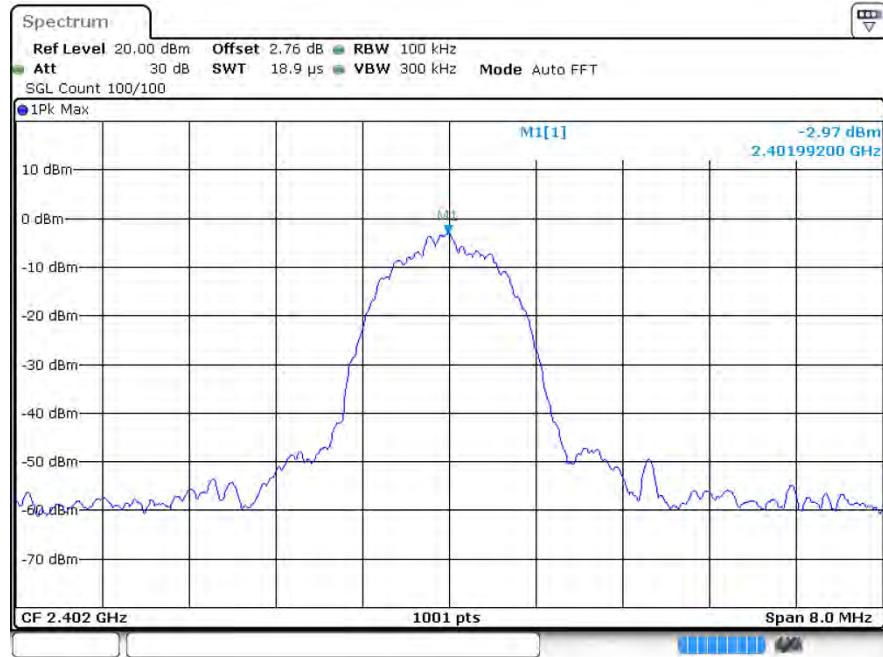
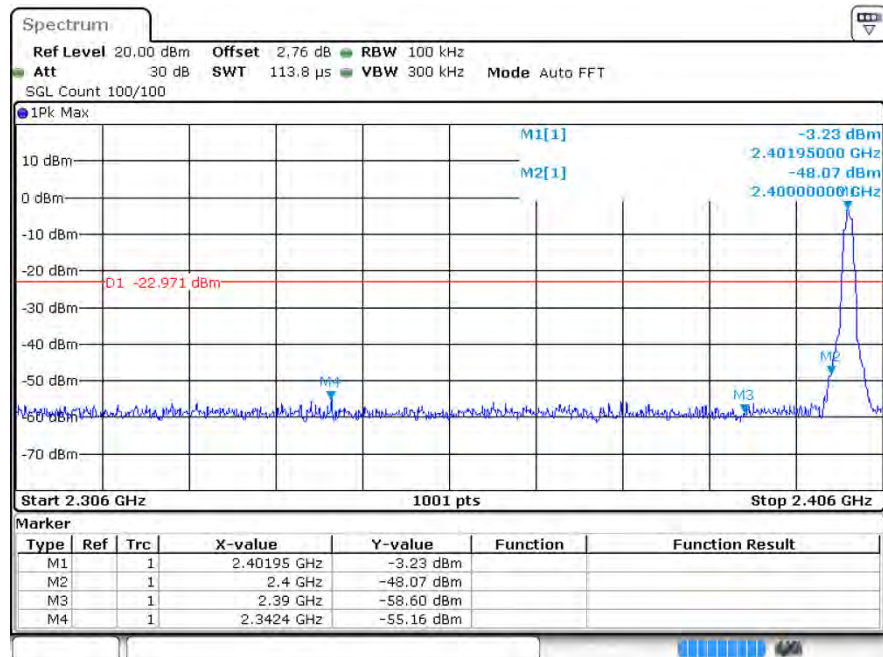
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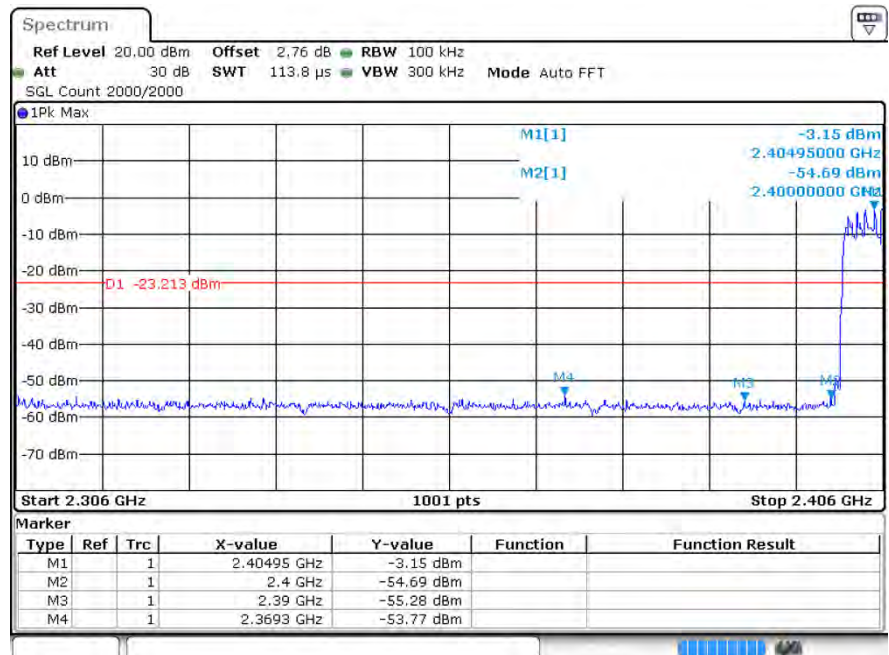
GFSK/HCH/Hop



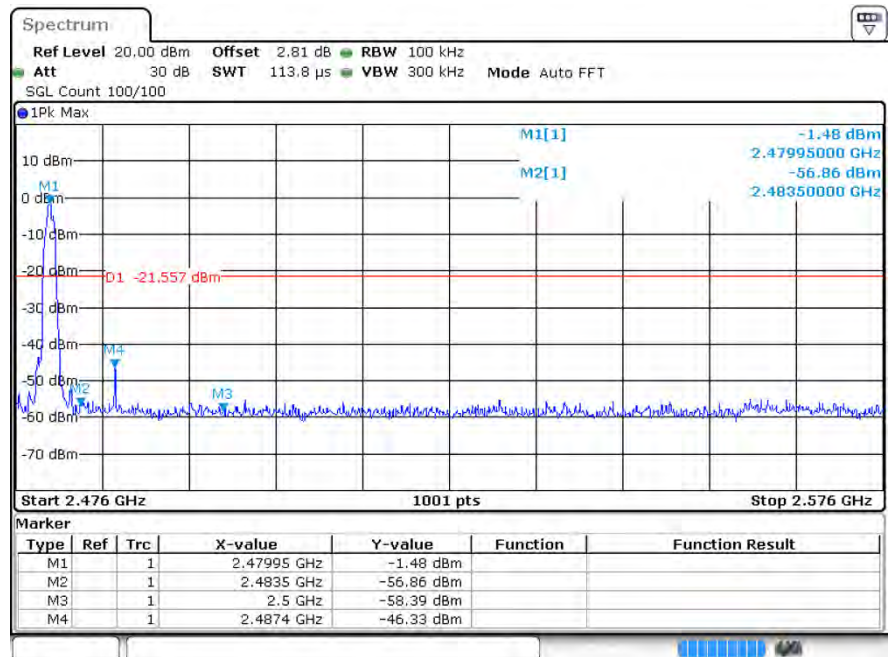
Ref


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


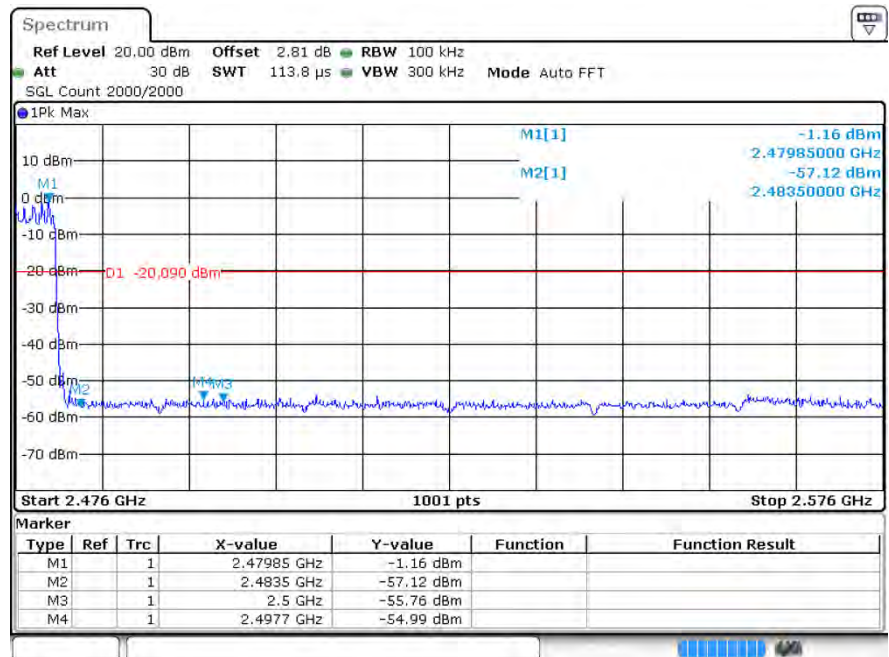
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 $\pi/4$ DQPSK/LCH/Hop


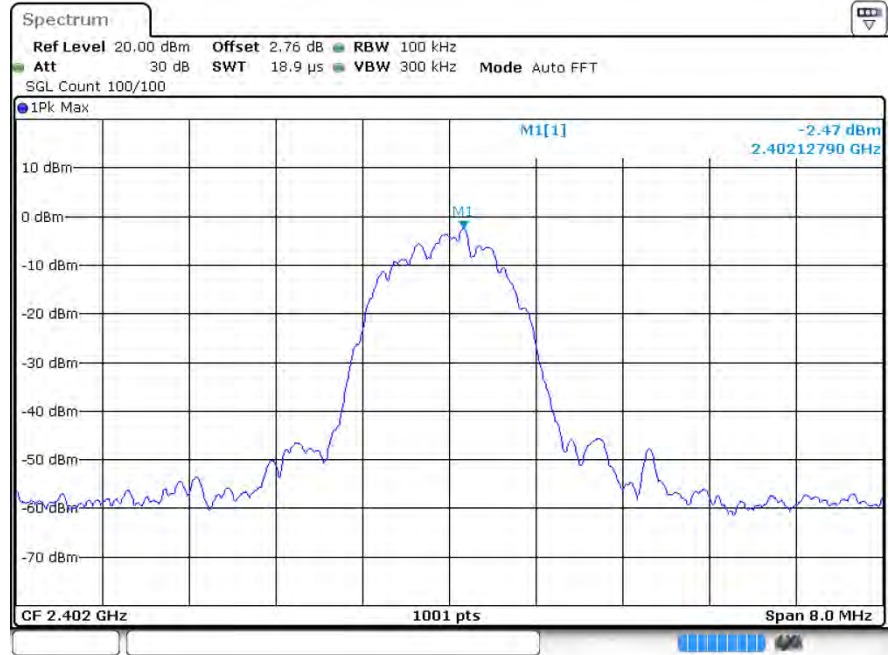
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 $\pi/4$ DQPSK/HCH/No Hop


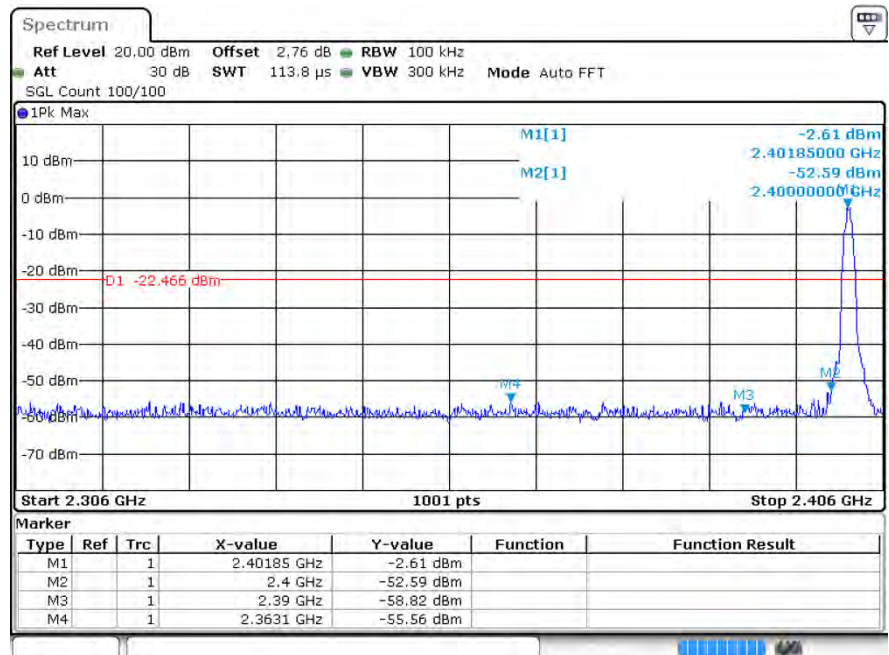
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 $\pi/4$ DQPSK/HCH/Hop


Ref



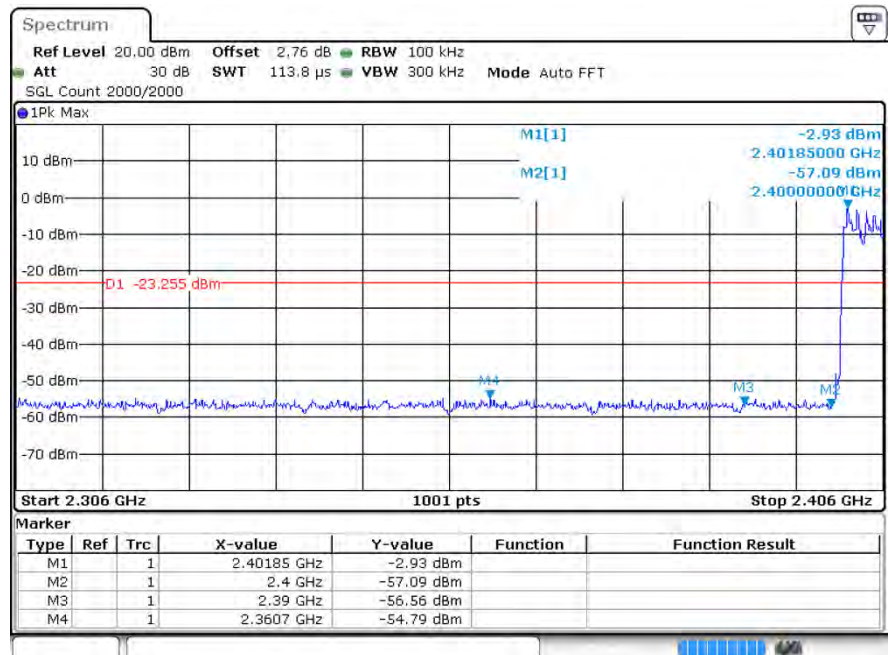
8DPSK/LCH/No Hop



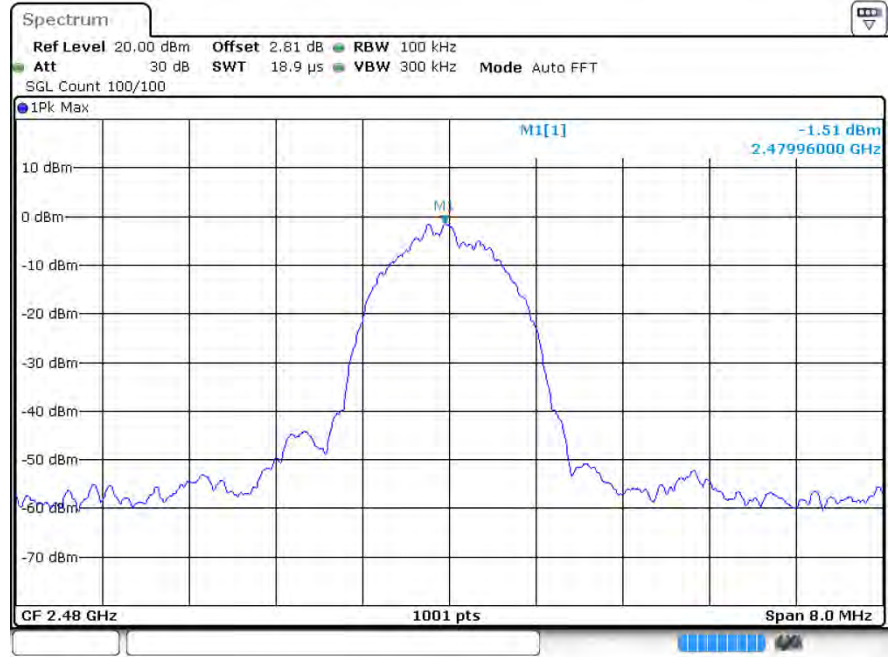
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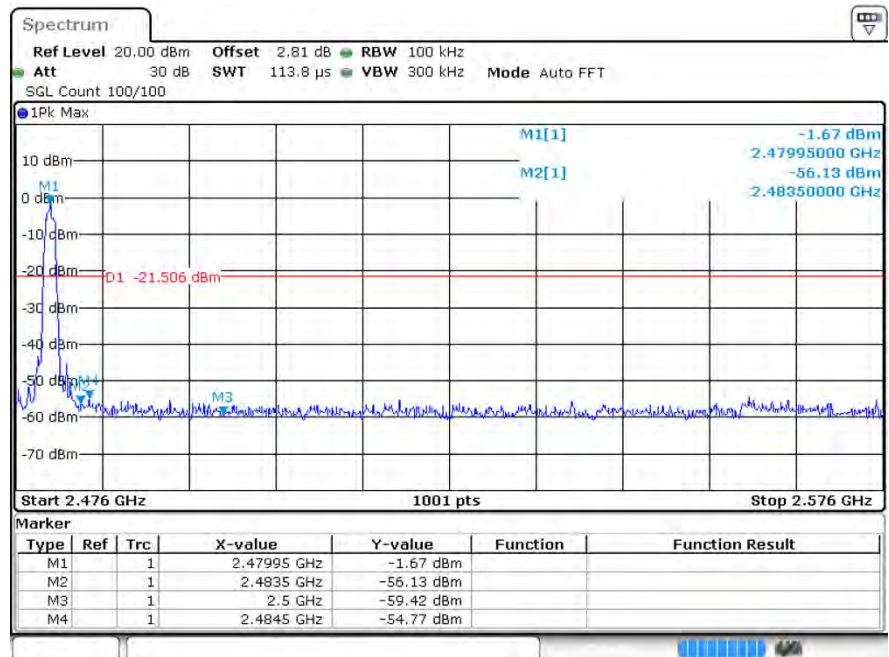
8DPSK/LCH/Hop



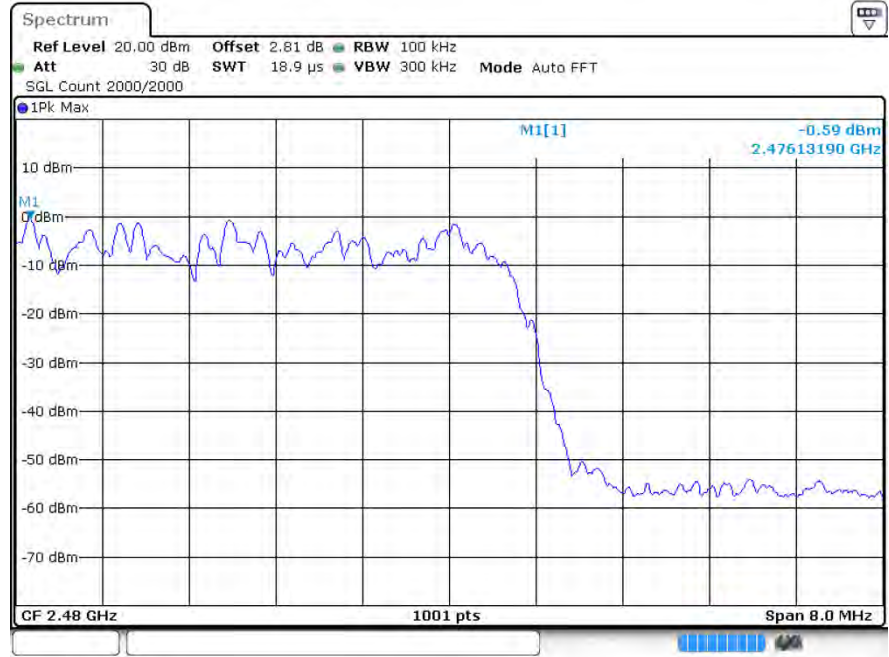
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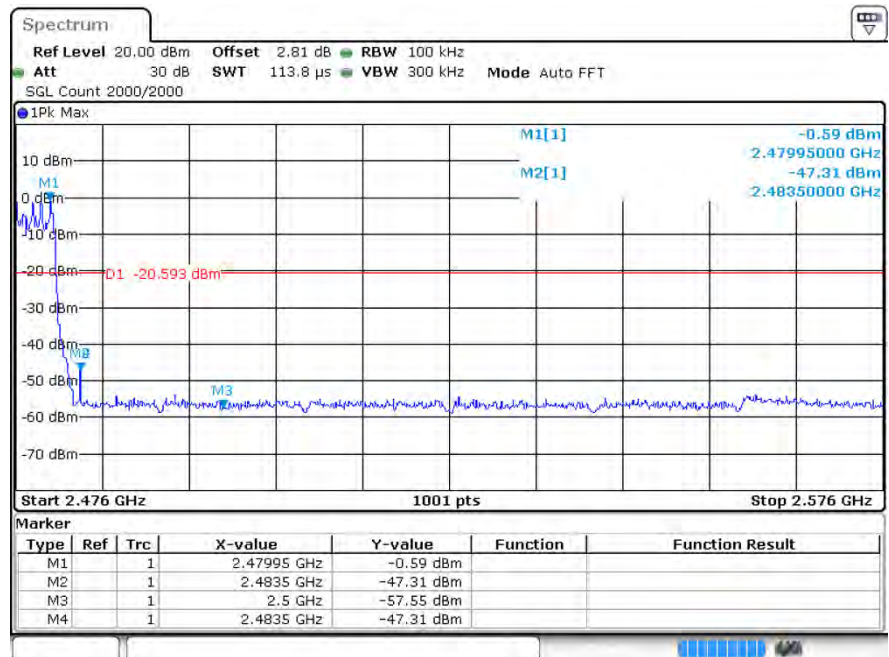
8DPSK/HCH/No Hop



Ref



8DPSK/HCH/Hop



9 Restrict-band band-edge measurements

9.1 Test Result

Test Mode	Hopping	Freq.	Power [dBm]	Gain	Duty Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-47.51	3.3	-	51.02	PEAK	74	Pass
	Off	2310.0	-55.32	3.3	5.06	48.27	AV	54	Pass
	Off	2338.608	-45.65	3.3	-	52.88	PEAK	74	Pass
	Off	2342.064	-53.89	3.3	5.06	49.7	AV	54	Pass
	Off	2390.0	-47.3	3.3	-	51.23	PEAK	74	Pass
	Off	2390.0	-56.91	3.3	5.06	46.68	AV	54	Pass
	Off	2483.5	-49.37	3.3	-	49.16	PEAK	74	Pass
	Off	2483.5	-56.13	3.3	5.06	47.46	AV	54	Pass
	Off	2487.376	-46.14	3.3	-	52.39	PEAK	74	Pass
	Off	2491.336	-55.01	3.3	5.06	48.58	AV	54	Pass
	Off	2500.0	-50.07	3.3	-	48.46	PEAK	74	Pass
	Off	2500.0	-56.4	3.3	5.06	47.19	AV	54	Pass
$\pi/4$ DQPSK	Off	2310.0	-49.96	3.3	-	48.57	PEAK	74	Pass
	Off	2310.0	-56.42	3.3	4.95	47.06	AV	54	Pass
	Off	2338.128	-45.66	3.3	-	52.87	PEAK	74	Pass
	Off	2337.936	-53.8	3.3	4.95	49.68	AV	54	Pass
	Off	2390.0	-49.35	3.3	-	49.18	PEAK	74	Pass
	Off	2390.0	-56.43	3.3	4.95	47.05	AV	54	Pass
	Off	2483.5	-46.79	3.3	-	51.74	PEAK	74	Pass
	Off	2483.5	-55.98	3.3	4.95	47.5	AV	54	Pass
	Off	2487.4	-44.72	3.3	-	53.81	PEAK	74	Pass
	Off	2487.136	-55.03	3.3	4.95	48.45	AV	54	Pass
	Off	2500.0	-49.06	3.3	-	49.47	PEAK	74	Pass
	Off	2500.0	-55.92	3.3	4.95	47.56	AV	54	Pass
8DPSK	Off	2310.0	-49.72	3.3	-	48.81	PEAK	74	Pass
	Off	2310.0	-56.07	3.3	4.95	47.41	AV	54	Pass
	Off	2344.848	-44.87	3.3	-	53.66	PEAK	74	Pass
	Off	2338.704	-54.12	3.3	4.95	49.36	AV	54	Pass

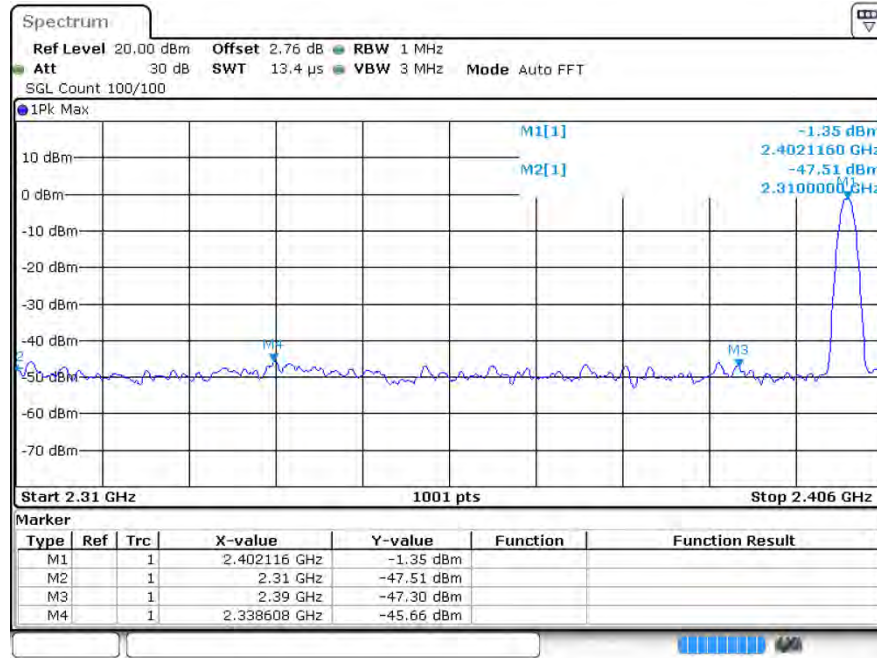


	Off	2390.0	-48.9	3.3	-	49.63	PEAK	74	Pass
	Off	2390.0	-56.38	3.3	4.95	47.1	AV	54	Pass
	Off	2483.5	-46.27	3.3	-	52.26	PEAK	74	Pass
	Off	2483.5	-55.17	3.3	4.95	48.31	AV	54	Pass
	Off	2485.168	-44.9	3.3	-	53.63	PEAK	74	Pass
	Off	2484.088	-54.66	3.3	4.95	48.82	AV	54	Pass
	Off	2500.0	-50.11	3.3	-	48.42	PEAK	74	Pass
	Off	2500.0	-56.31	3.3	4.95	47.17	AV	54	Pass

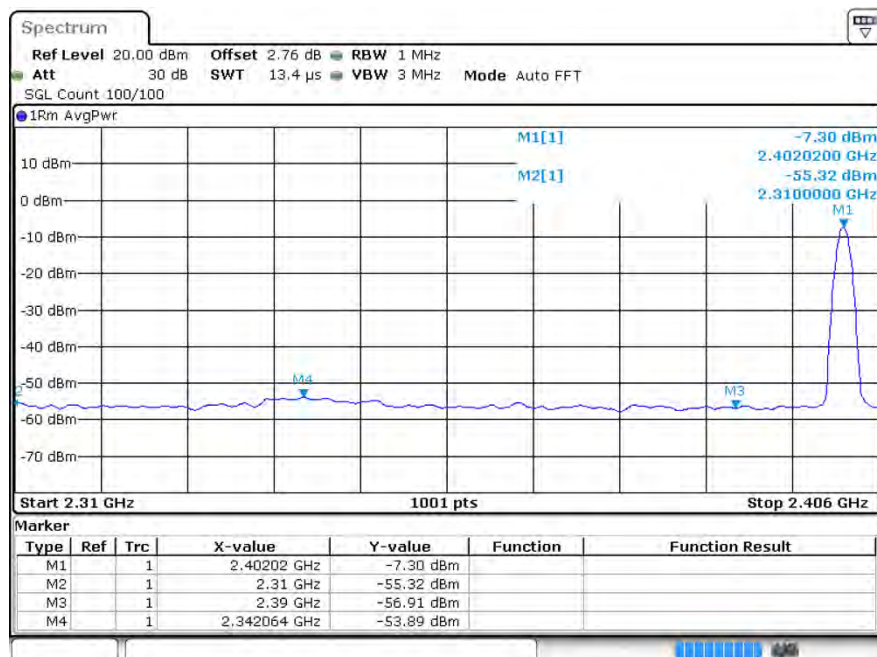
9.2 Test Graphs

Model name:	GX-AiO50	Test Date :	2026-07-22
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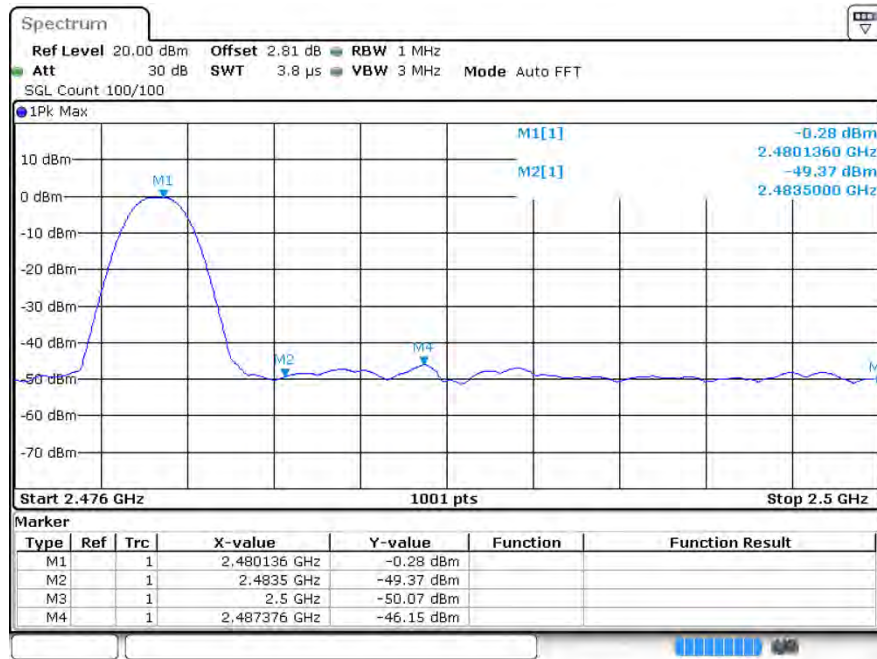
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



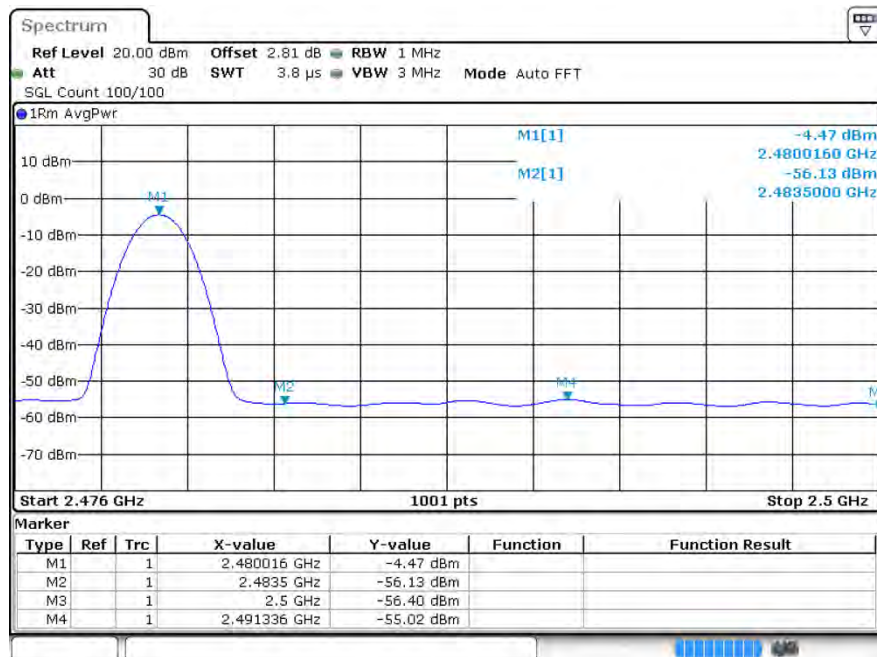
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



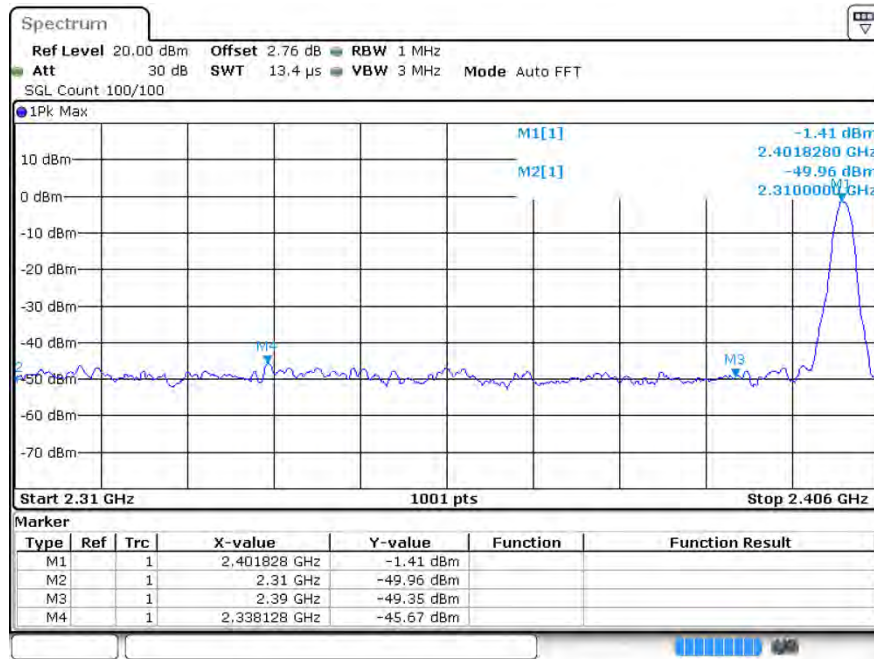
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



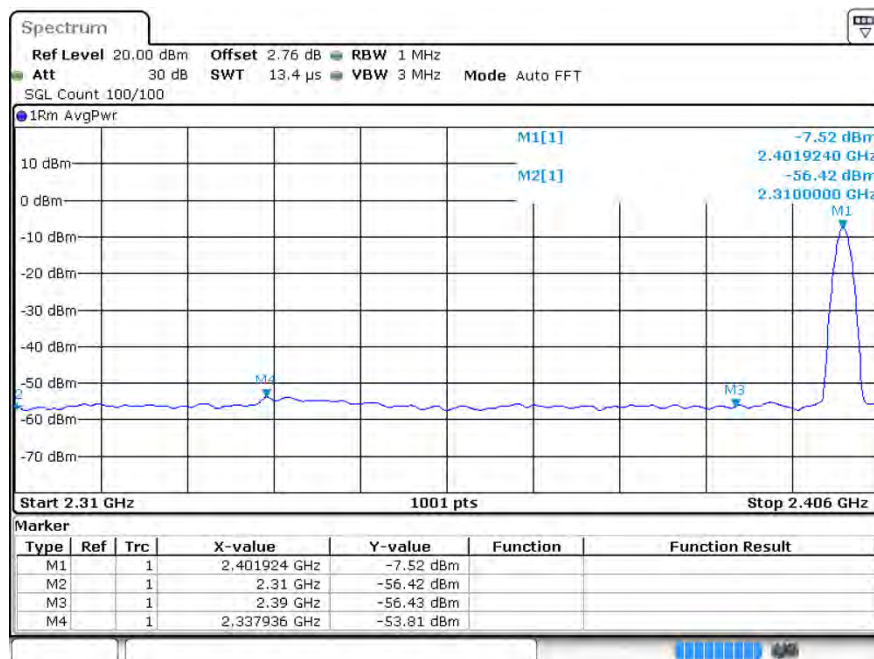
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



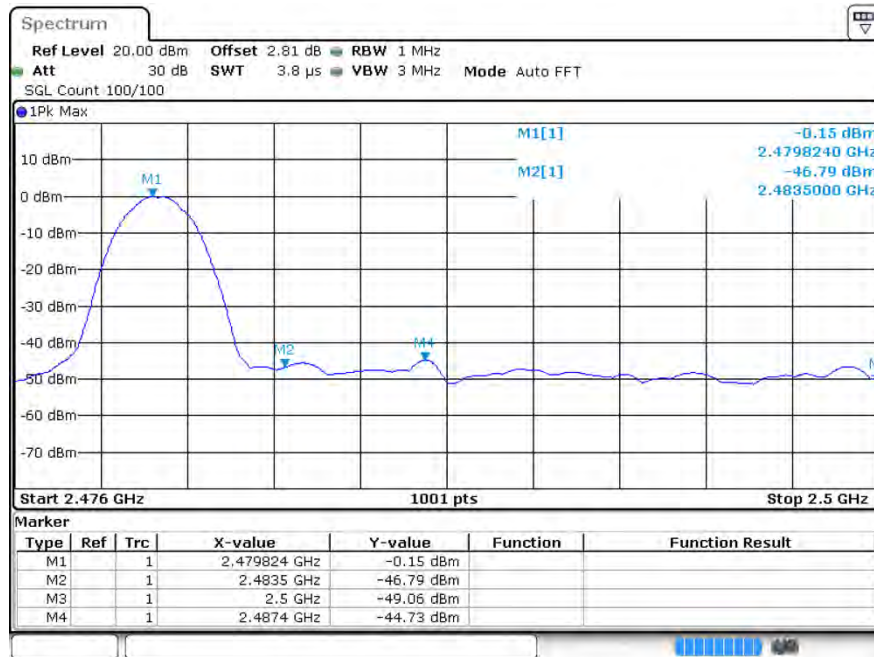
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



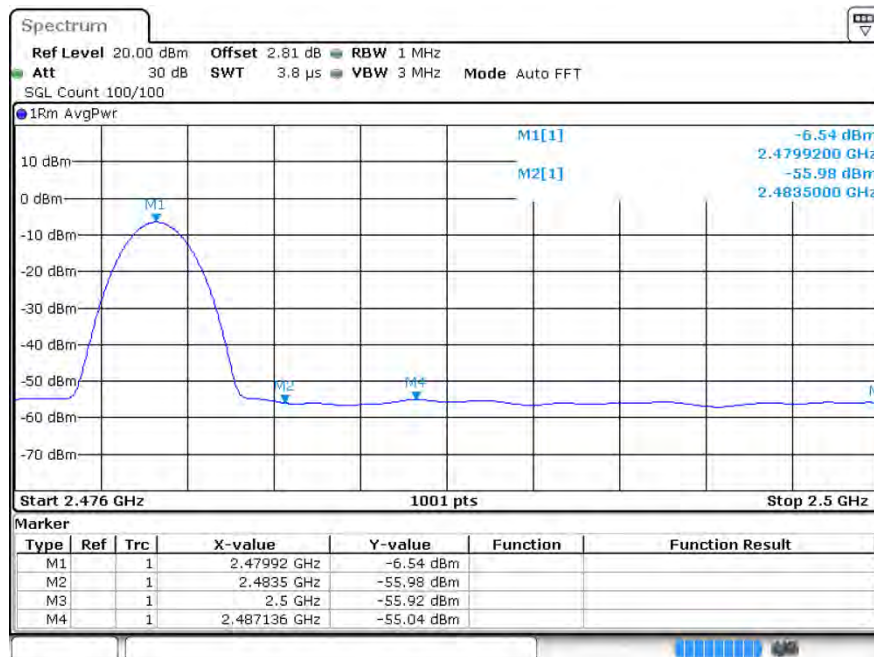
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



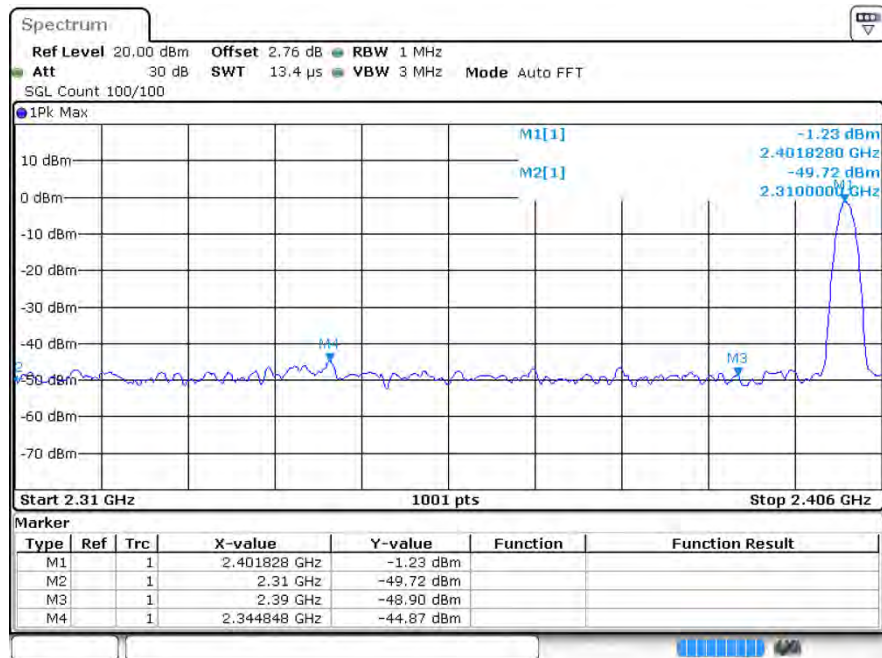
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



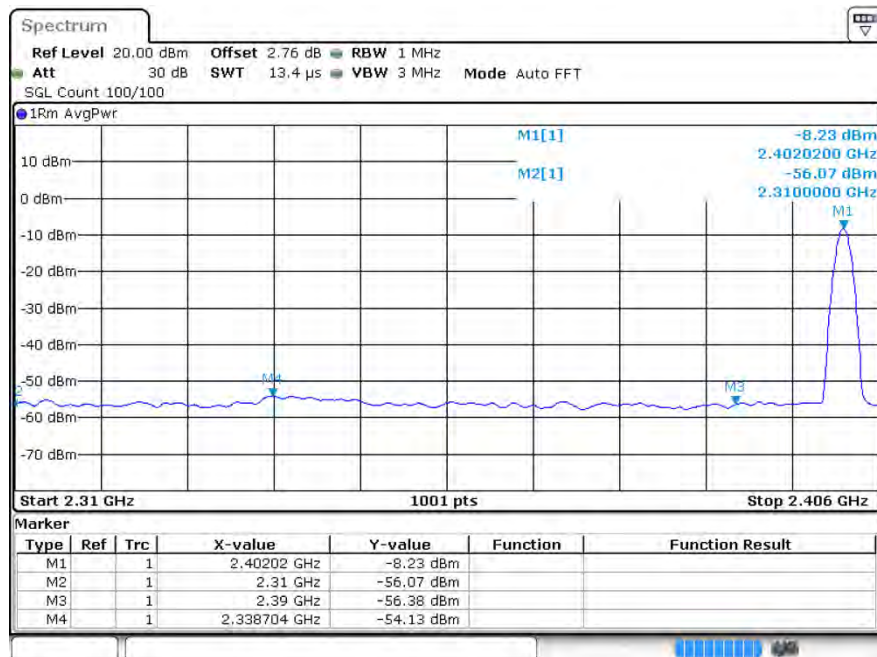
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



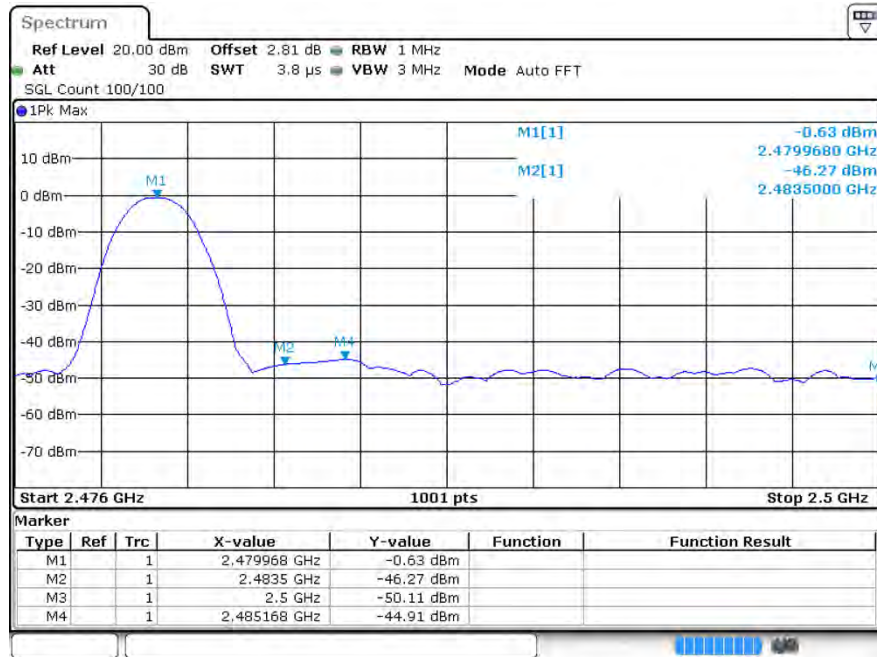
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



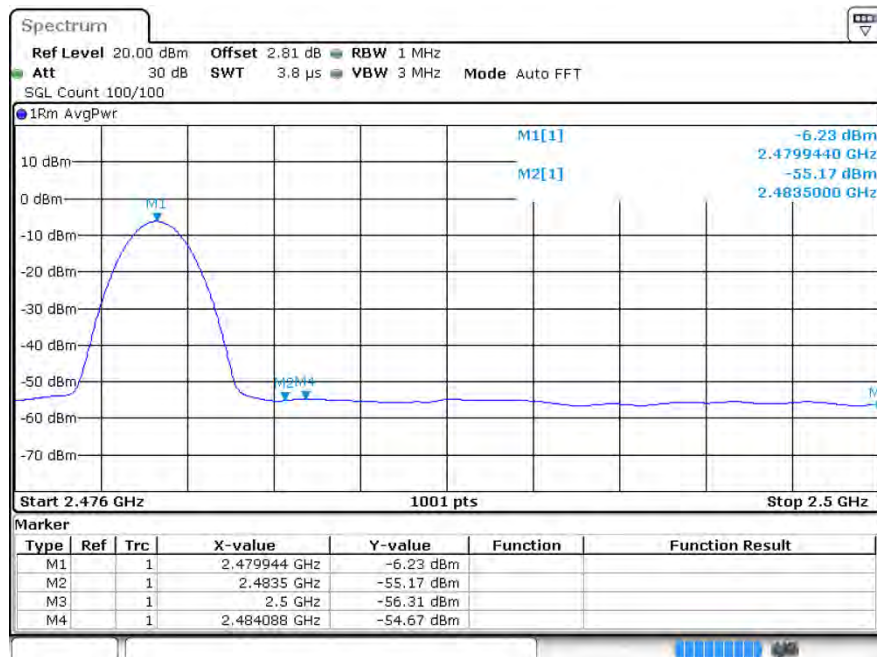
Restrict-band band-edge measurements_Hopping Off_8DPSK_Average (Low Channel)



Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (High Channel)



Restrict-band band-edge measurements_Hopping Off_8DPSK_Average (High Channel)



---The End---