



Appendix A

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

Product Name: ALL IN ONE MUSIC SYSTEM

Trade Mark: ONKYO

Test Model: GX-AiO150

Environmental Conditions

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

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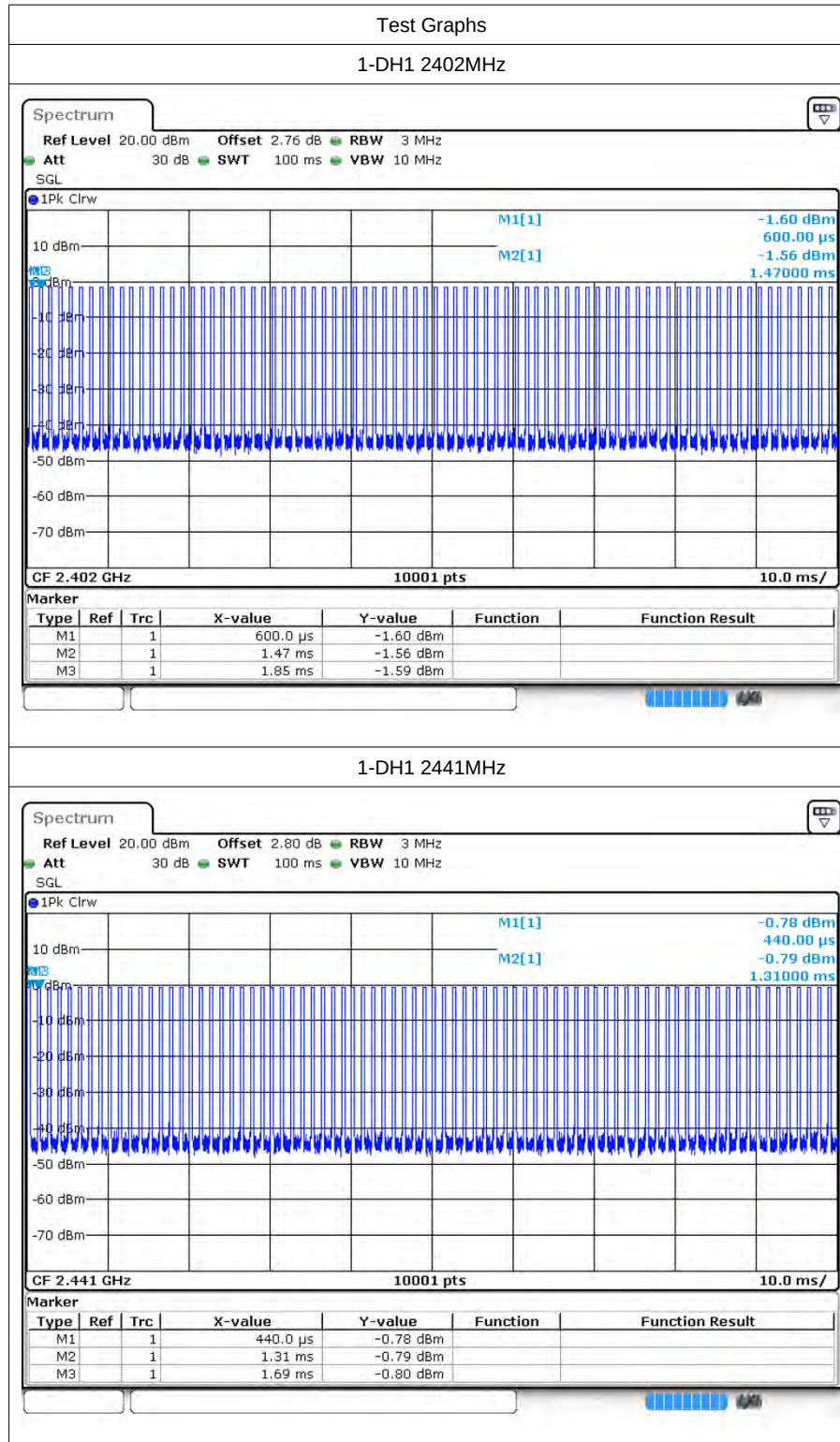
1 Duty Cycle

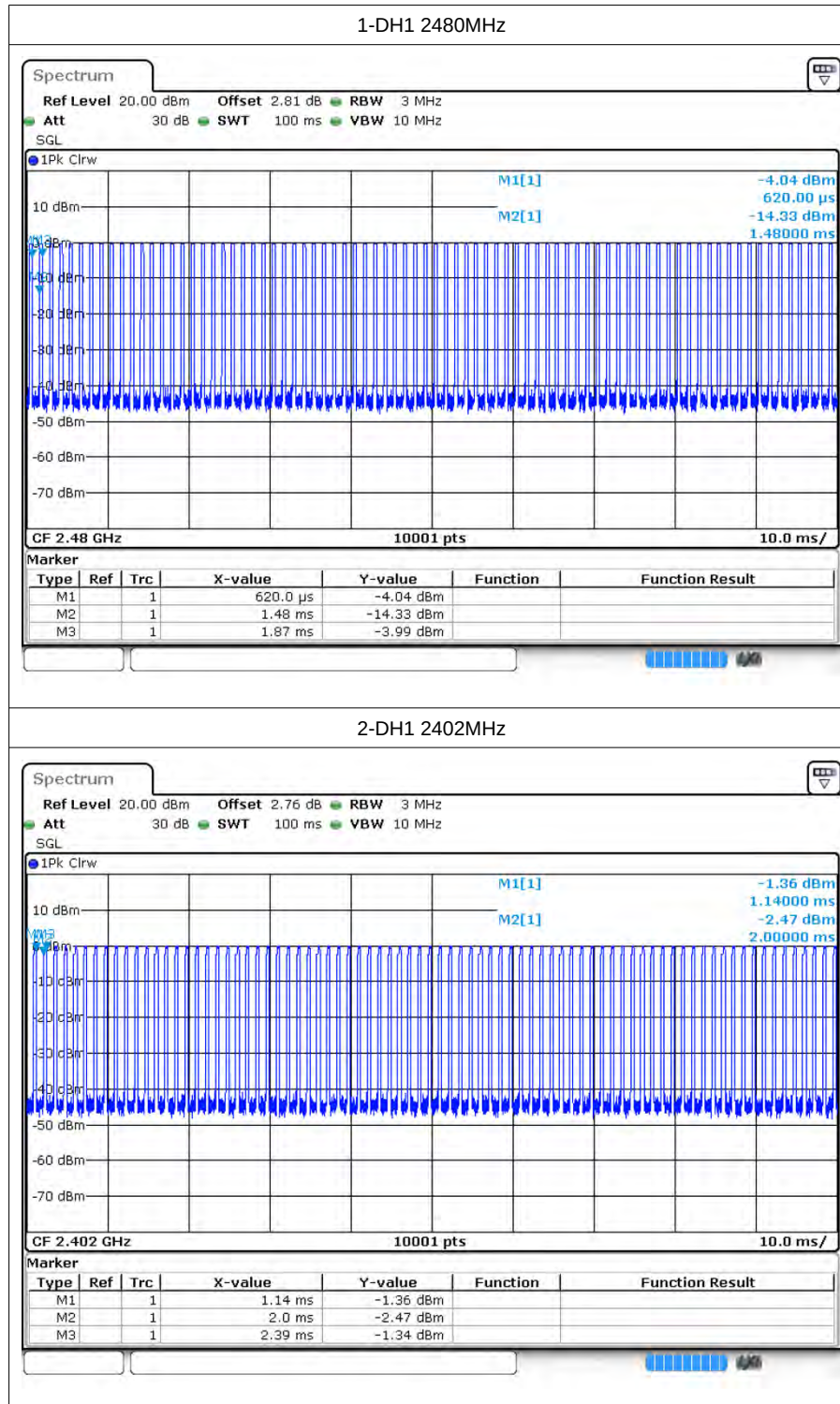
1.1 Test Result

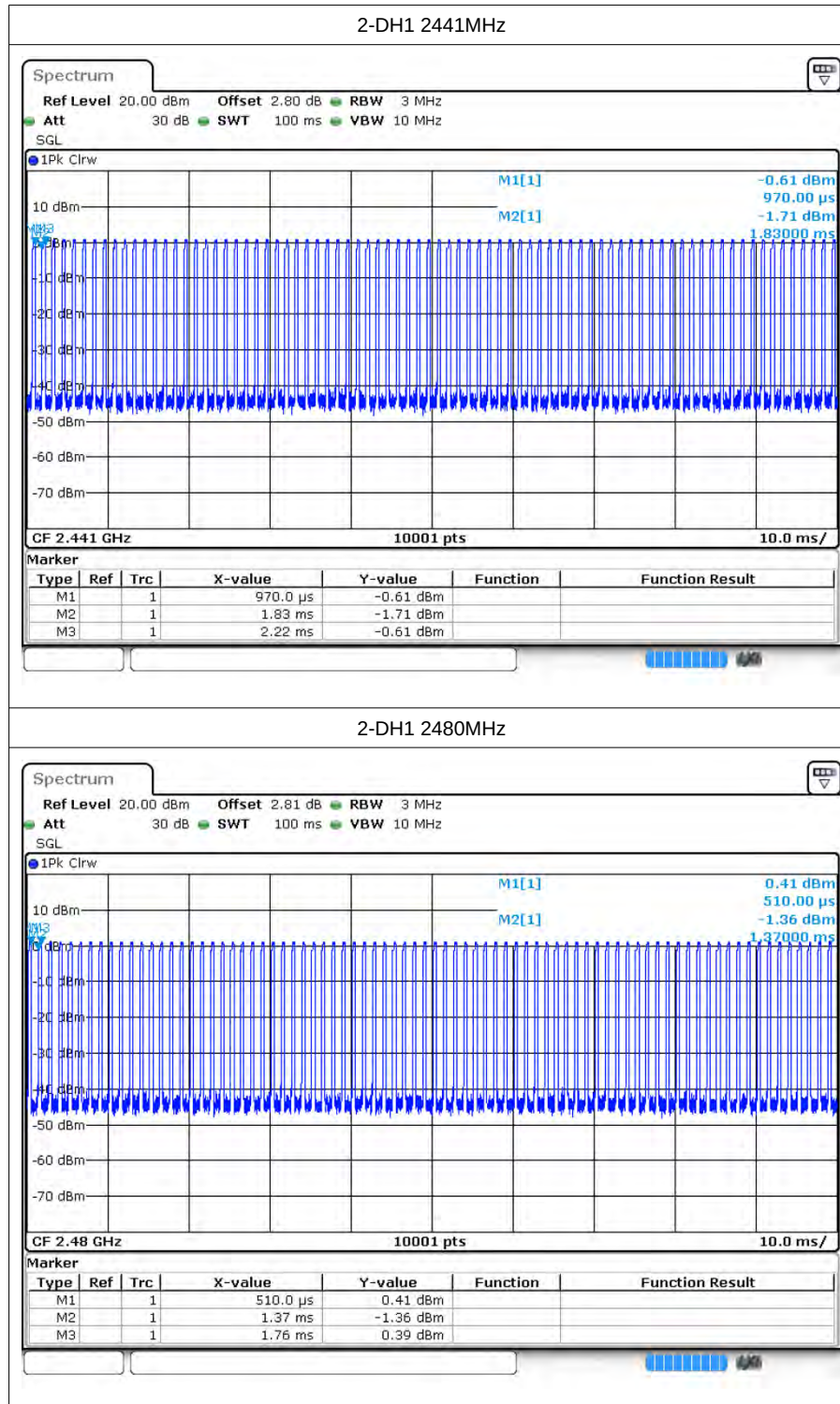
Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
1-DH1	2402	31.2	5.06	2.63
1-DH1	2441	31.2	5.06	2.63
1-DH1	2480	31.34	5.04	2.56
2-DH1	2402	32	4.95	2.56
2-DH1	2441	32	4.95	2.56
2-DH1	2480	32	4.95	2.56
3-DH1	2402	32	4.95	2.56
3-DH1	2441	32	4.95	2.56
3-DH1	2480	32	4.95	2.56

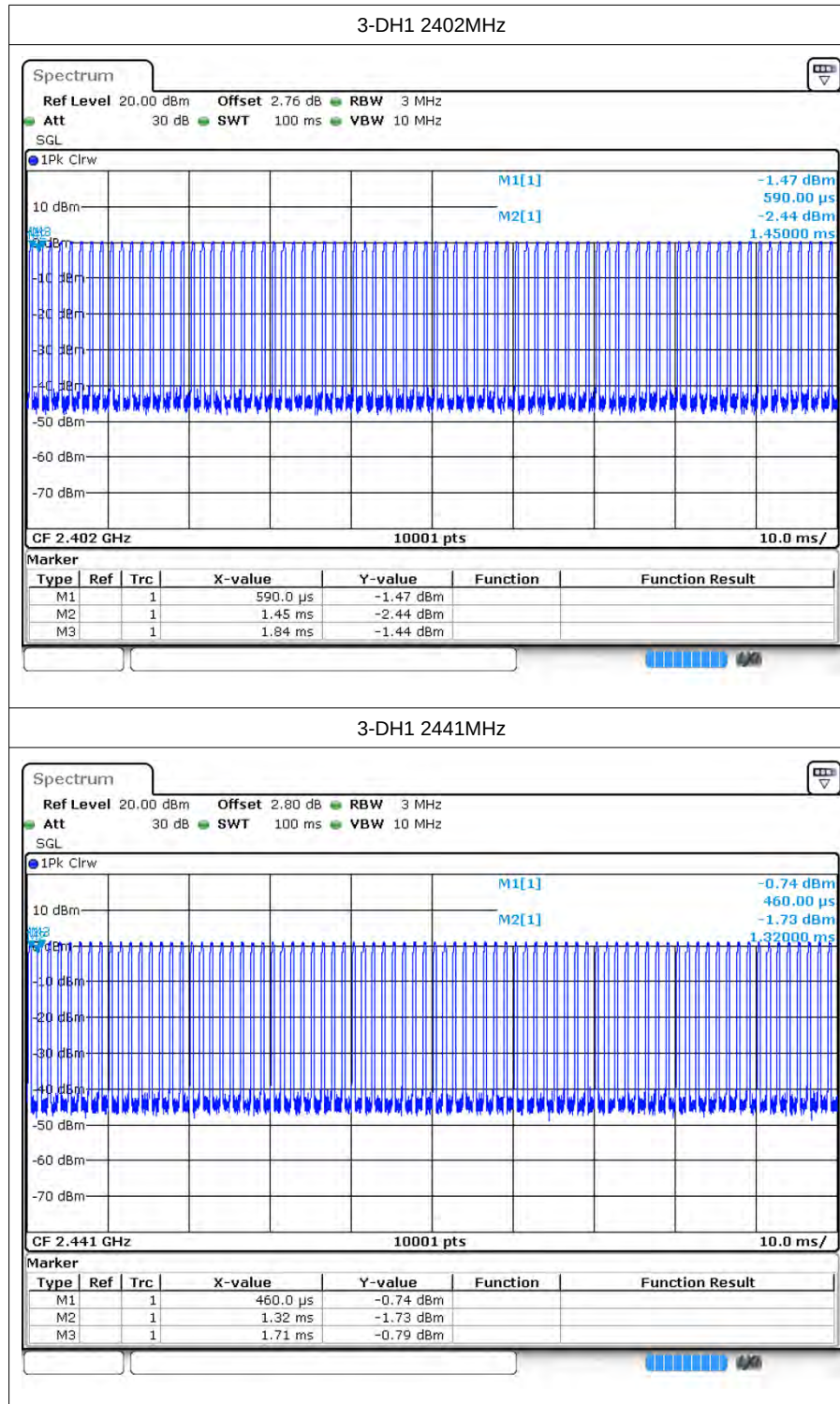
1.2 Test Graphs

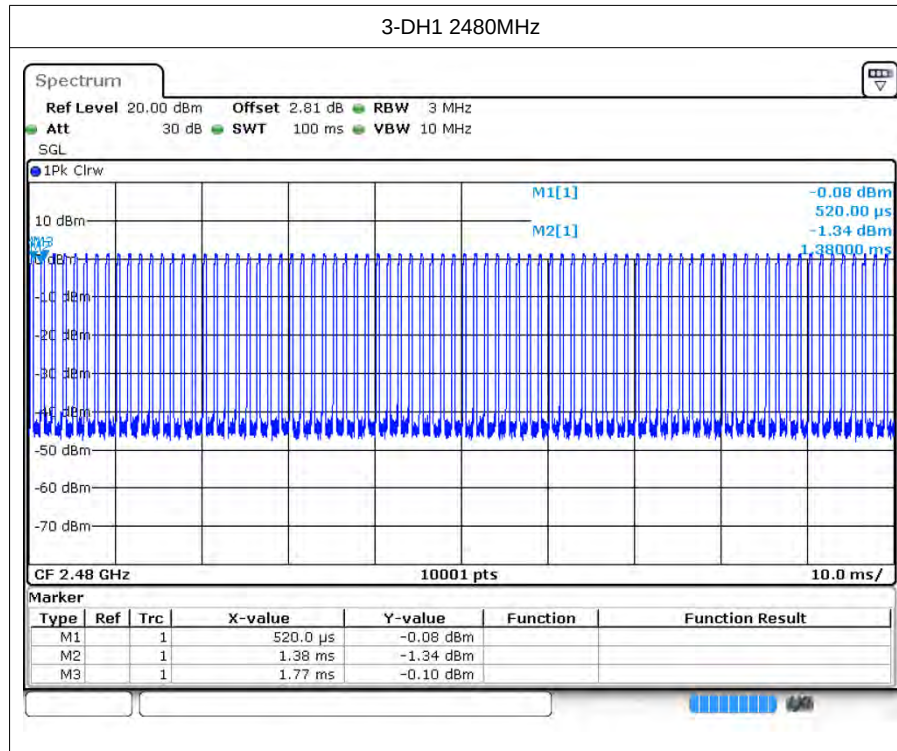
Model name:	GX-AiO150	Test Date :	2026-07-22
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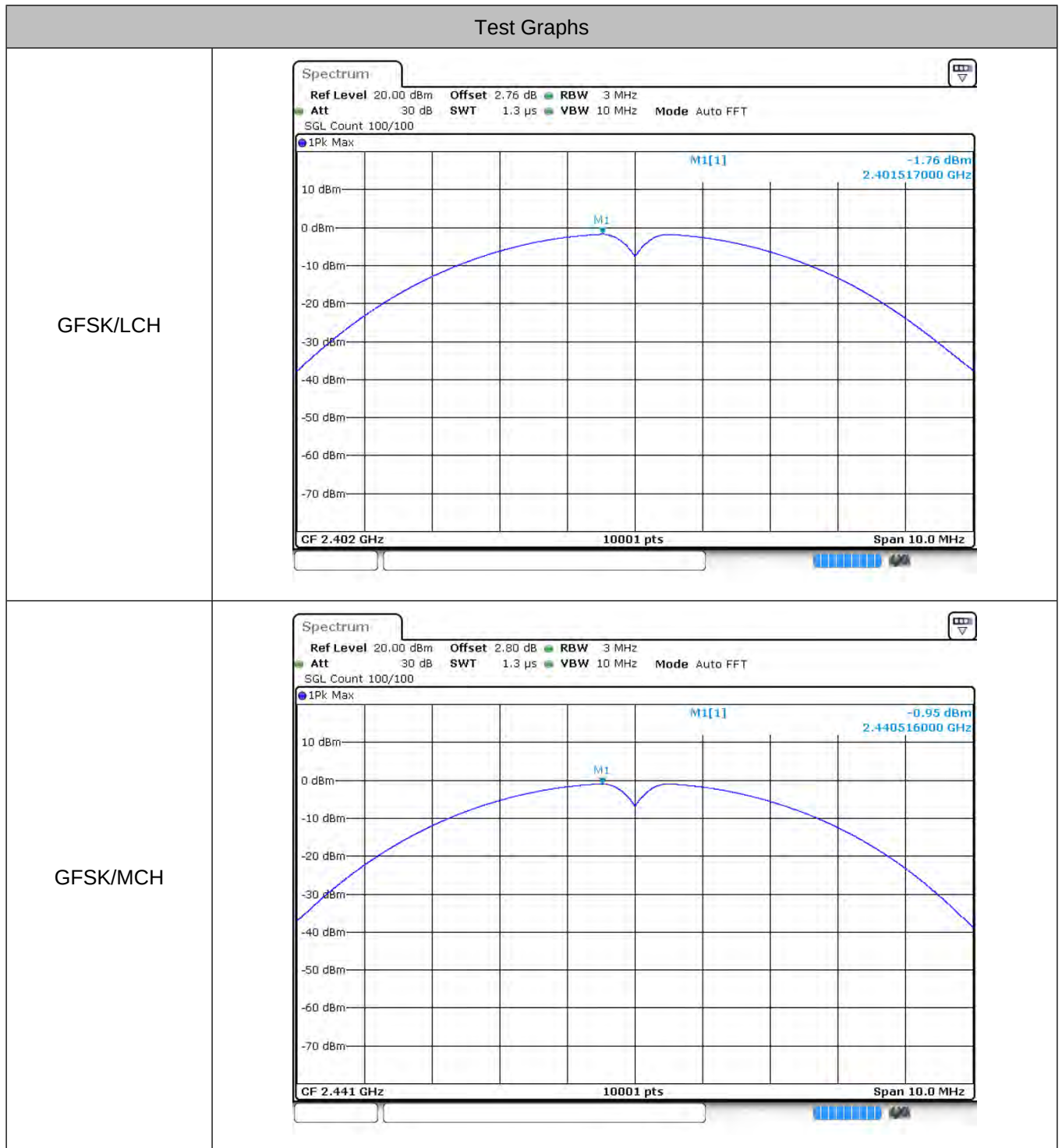
2 Maximum Conducted Peak Output Power

2.1 Test Result

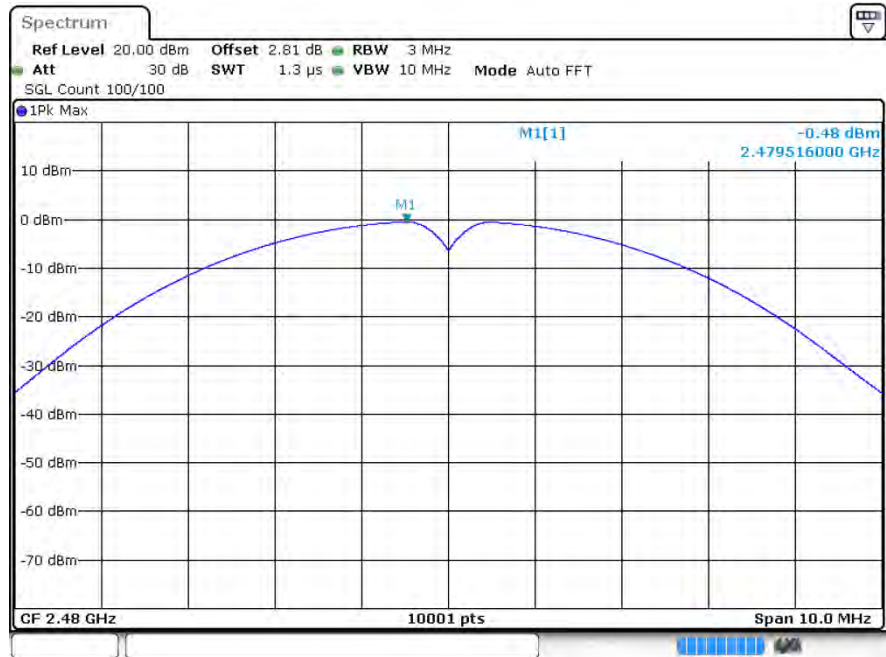
Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-1.76	21	Pass
	MCH	-0.95	21	Pass
	HCH	-0.48	21	Pass
$\pi/4$ DQPSK	LCH	-0.53	21	Pass
	MCH	0.25	21	Pass
	HCH	0.6	21	Pass
8DPSK	LCH	-0.45	21	Pass
	MCH	0.37	21	Pass
	HCH	-0.1	21	Pass

2.2 Test Graphs

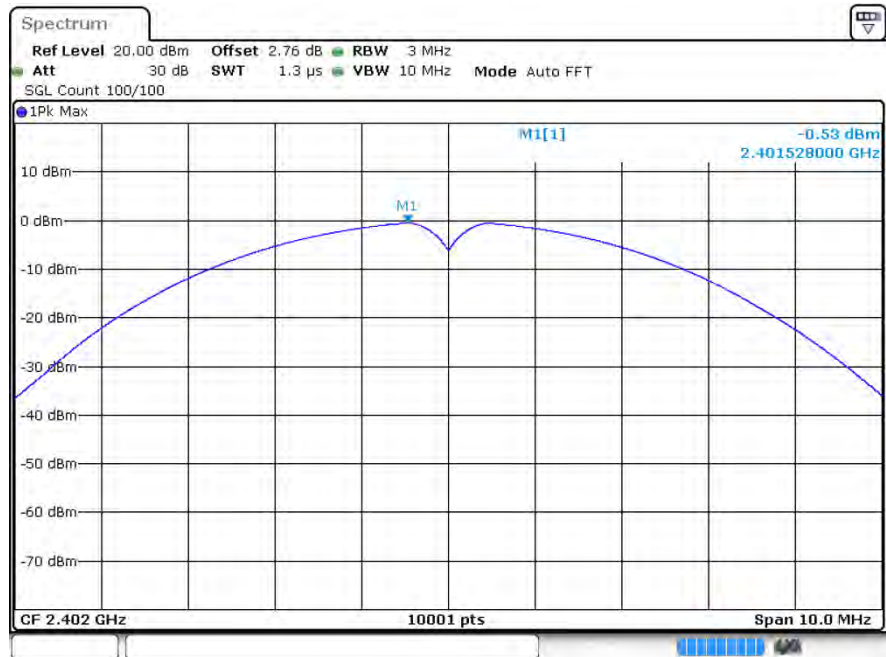
Model name:	GX-AiO150	Test Date :	2026-07-22
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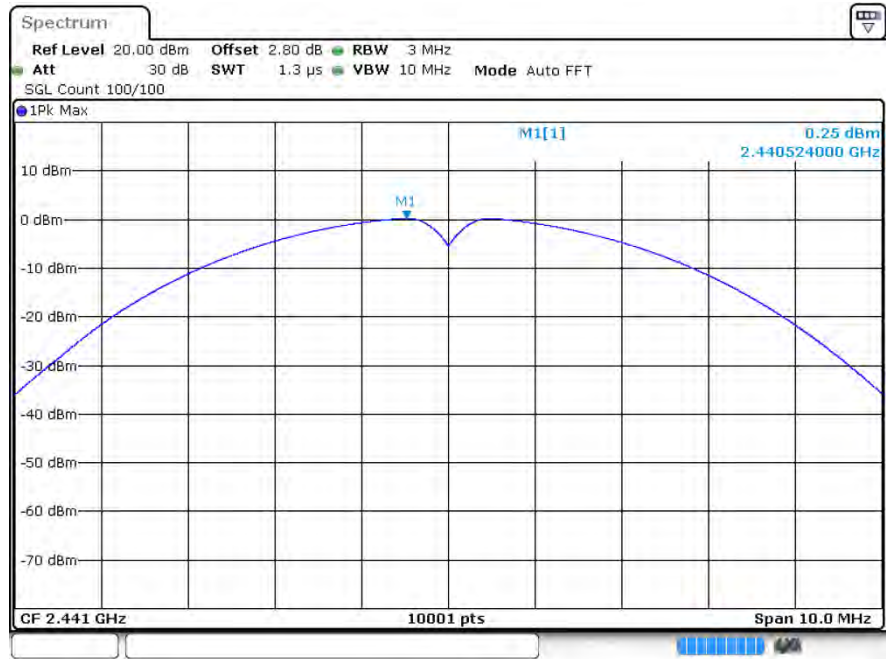
GFSK/HCH



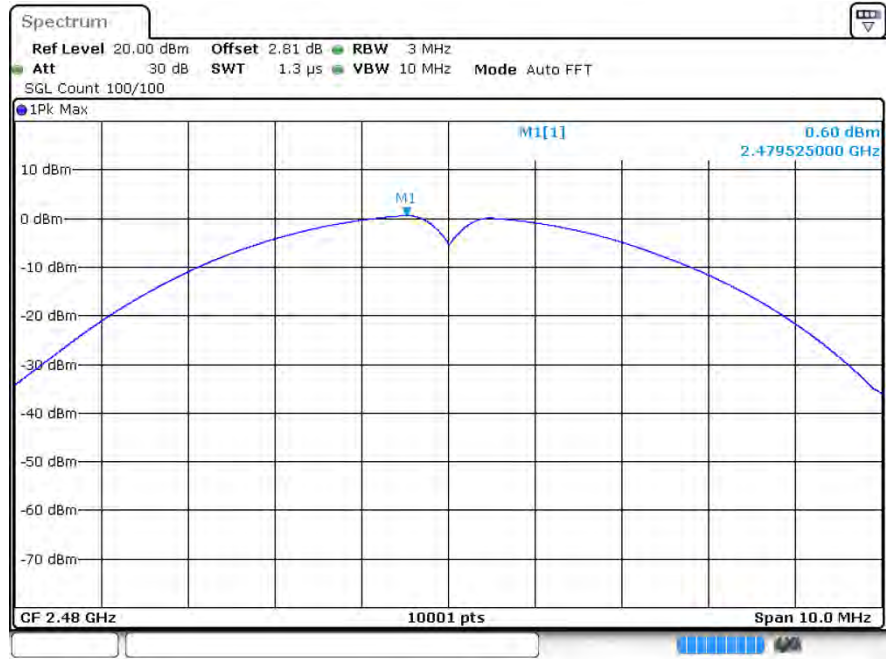
$\pi/4$ DQPSK/LCH

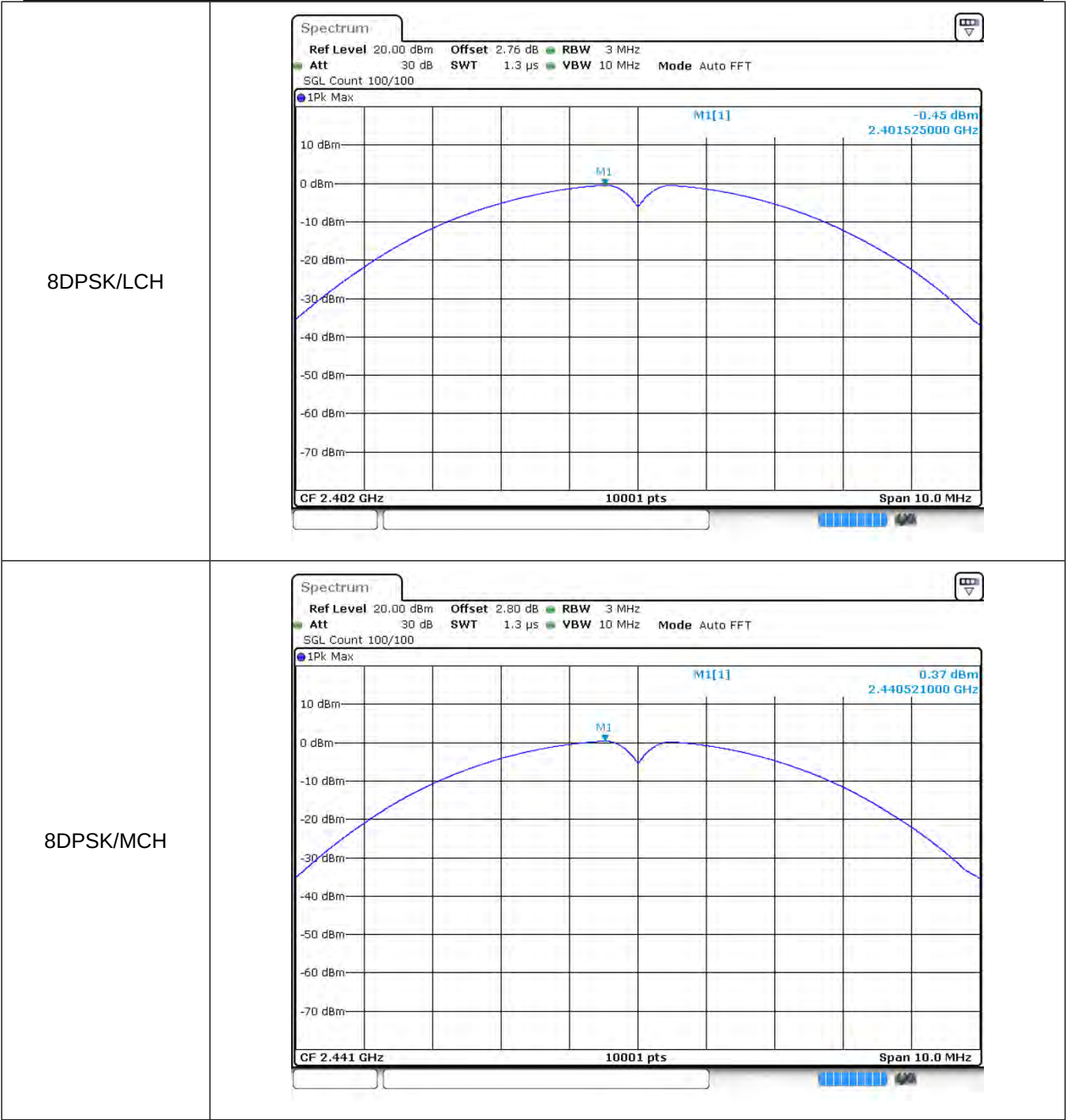


$\pi/4$ DQPSK/MCH

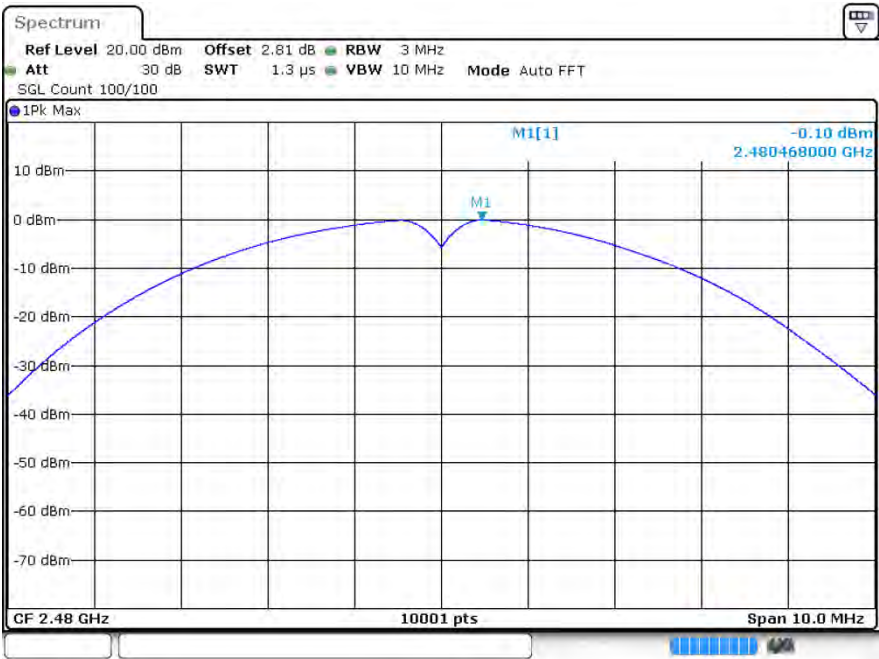


$\pi/4$ DQPSK/HCH





8DPSK/HCH



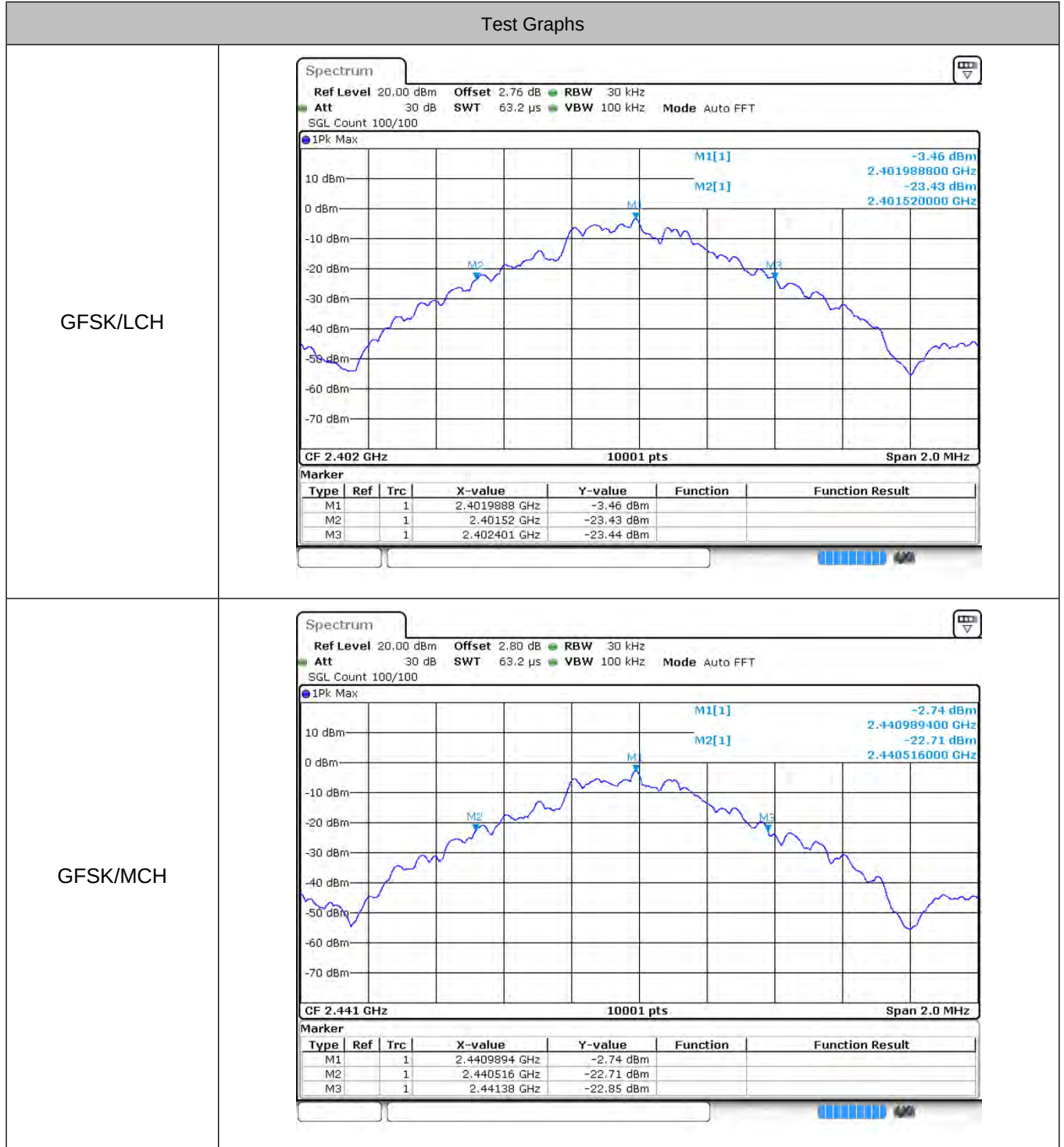
3 20dB Bandwidth

3.1 Test Result

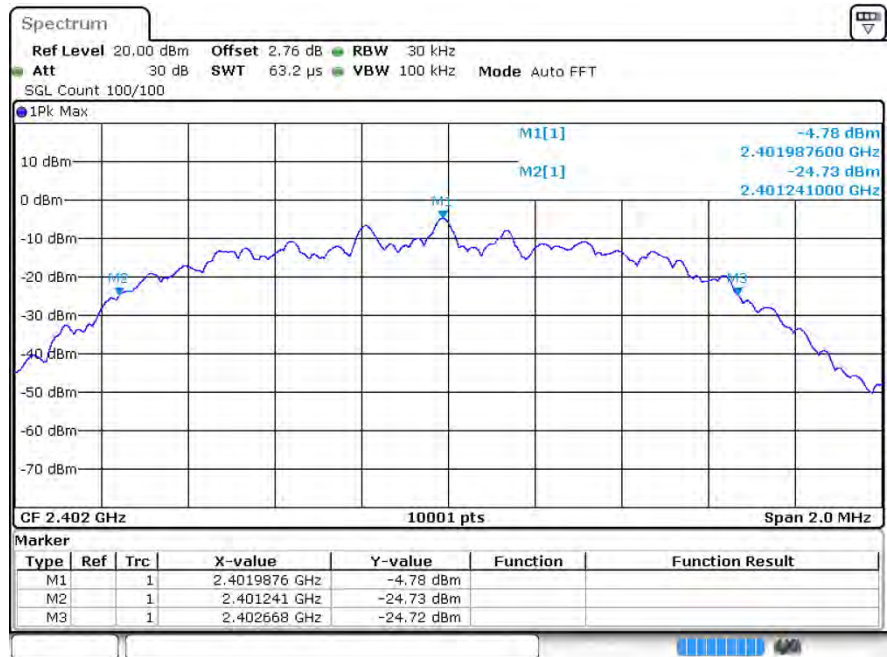
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.881	Not Specified	Pass
	MCH	0.864	Not Specified	Pass
	HCH	0.893	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.427	Not Specified	Pass
	MCH	1.42	Not Specified	Pass
	HCH	1.44	Not Specified	Pass
8DPSK	LCH	1.437	Not Specified	Pass
	MCH	1.434	Not Specified	Pass
	HCH	1.401	Not Specified	Pass

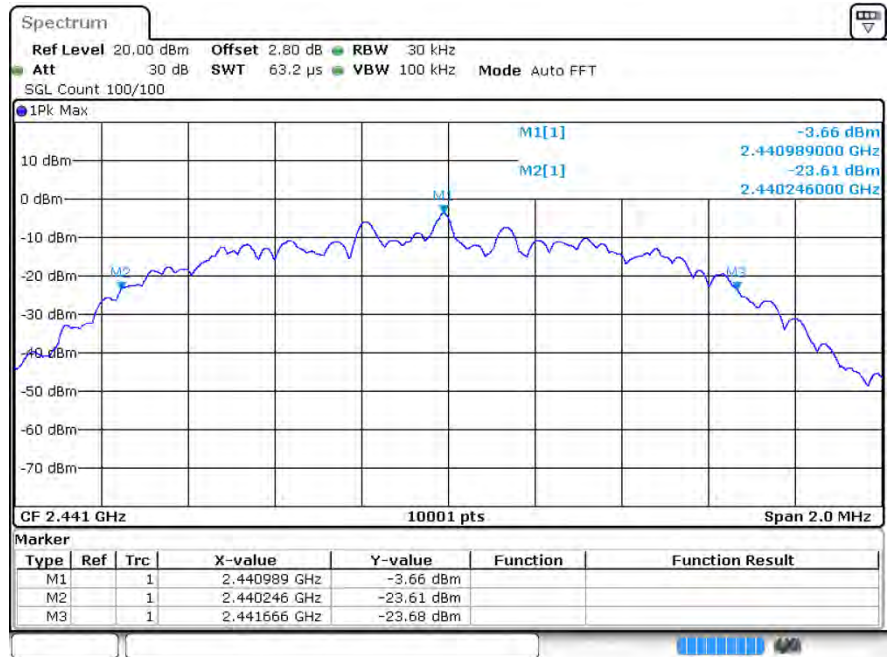
3.2 Test Graphs

Model name:	GX-AiO150	Test Date :	2026-07-22
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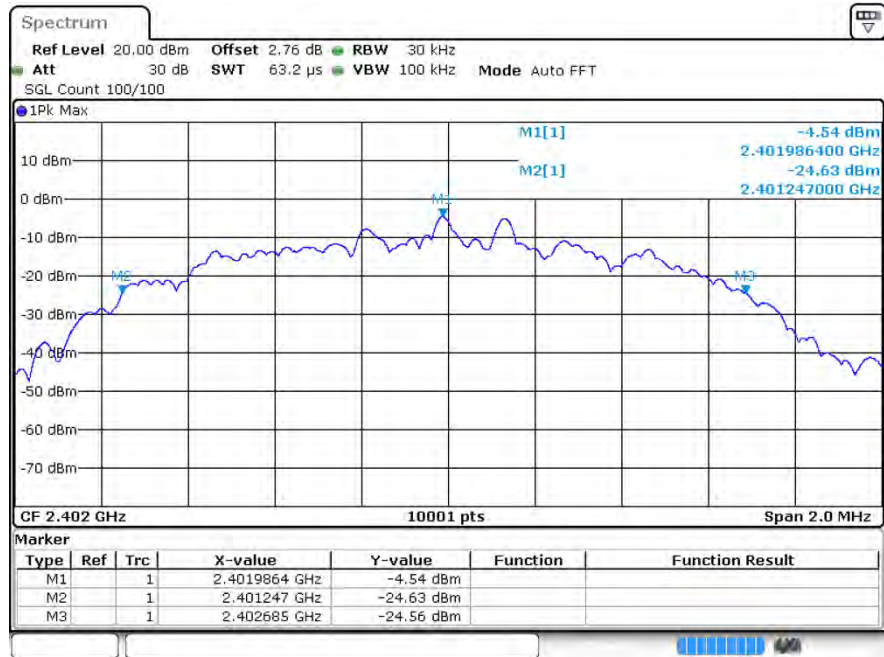


GFSK/HCH

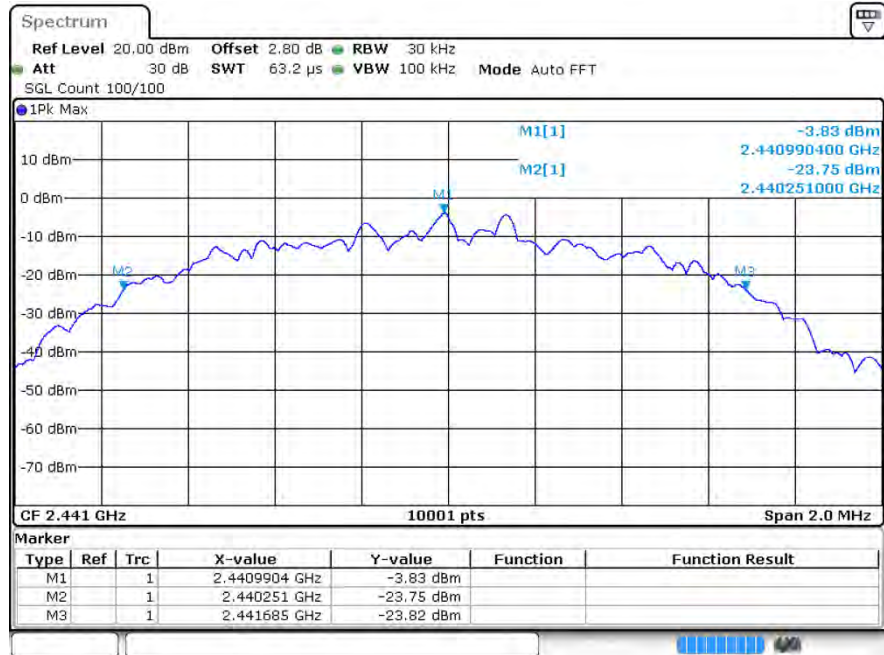

 $\pi/4$ DQPSK/LCH


$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH

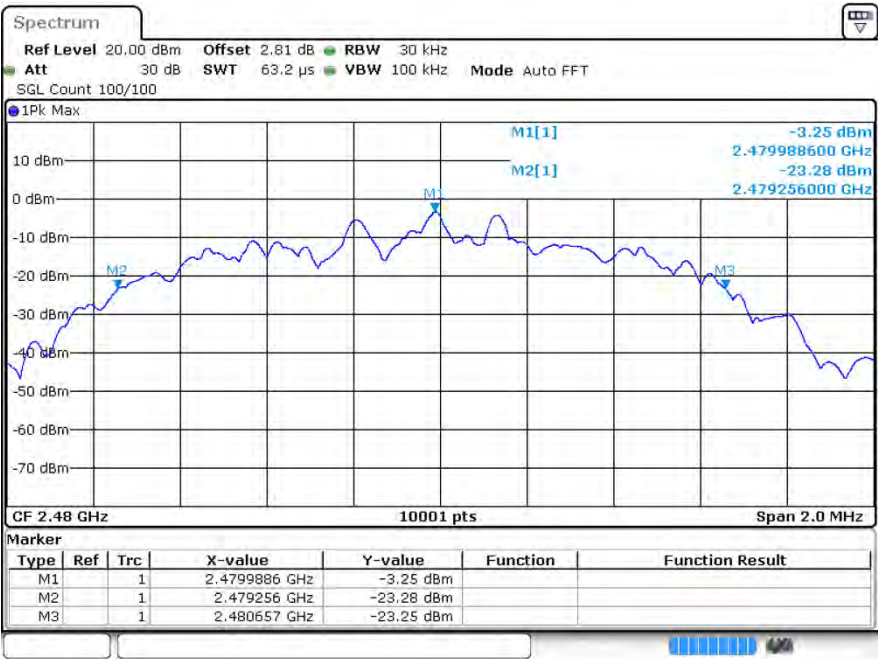

8DPSK/LCH



8DPSK/MCH



8DPSK/HCH



4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	0.997	0.576	Pass
$\pi/4$ DQPSK	MCH	0.978	0.947	Pass
8DPSK	MCH	0.968	0.956	Pass

4.2 Test Graphs

Model name:	GX-AiO150	Test Date :	2026-07-22
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Test Graphs

GFSK/MCH

Spectrum

Ref Level 20.00 dBm Offset 2.80 dB RBW 300 kHz
Att 30 dB SWT 6.4 μ s VBW 300 kHz Mode Auto FFT

1Pk Max

CF 2.4415 GHz 1001 pts Span 2.0 MHz

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	2.440972 GHz	-0.16 dBm		
M2	1	1	2.441969 GHz	-0.23 dBm		

$\pi/4$ DQPSK/MCH

Spectrum

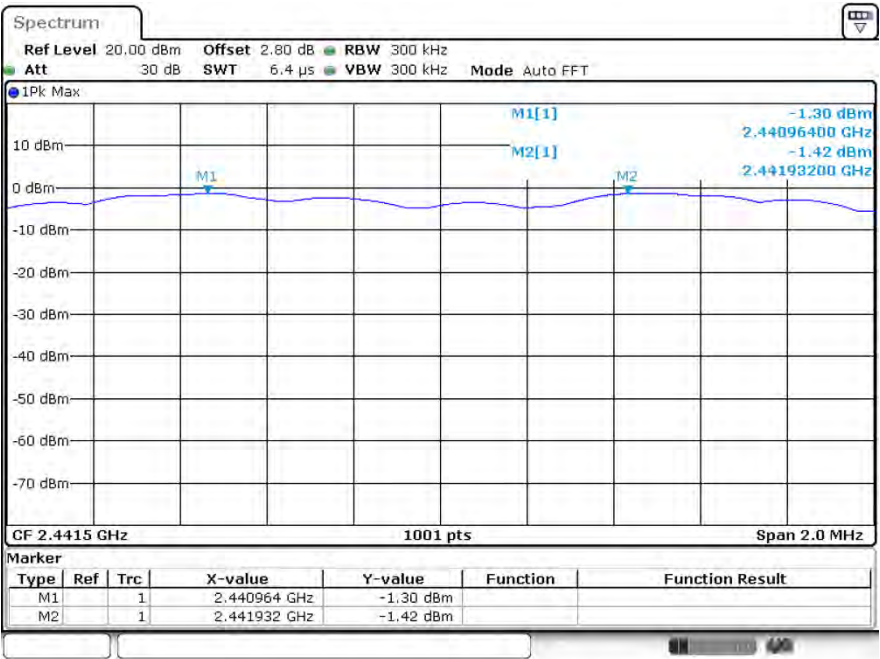
Ref Level 20.00 dBm Offset 2.80 dB RBW 300 kHz
Att 30 dB SWT 6.4 μ s VBW 300 kHz Mode Auto FFT

1Pk Max

CF 2.4415 GHz 1001 pts Span 2.0 MHz

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1	1	1	2.441124 GHz	-2.12 dBm		
M2	1	1	2.442102 GHz	-1.63 dBm		

8DPSK/MCH



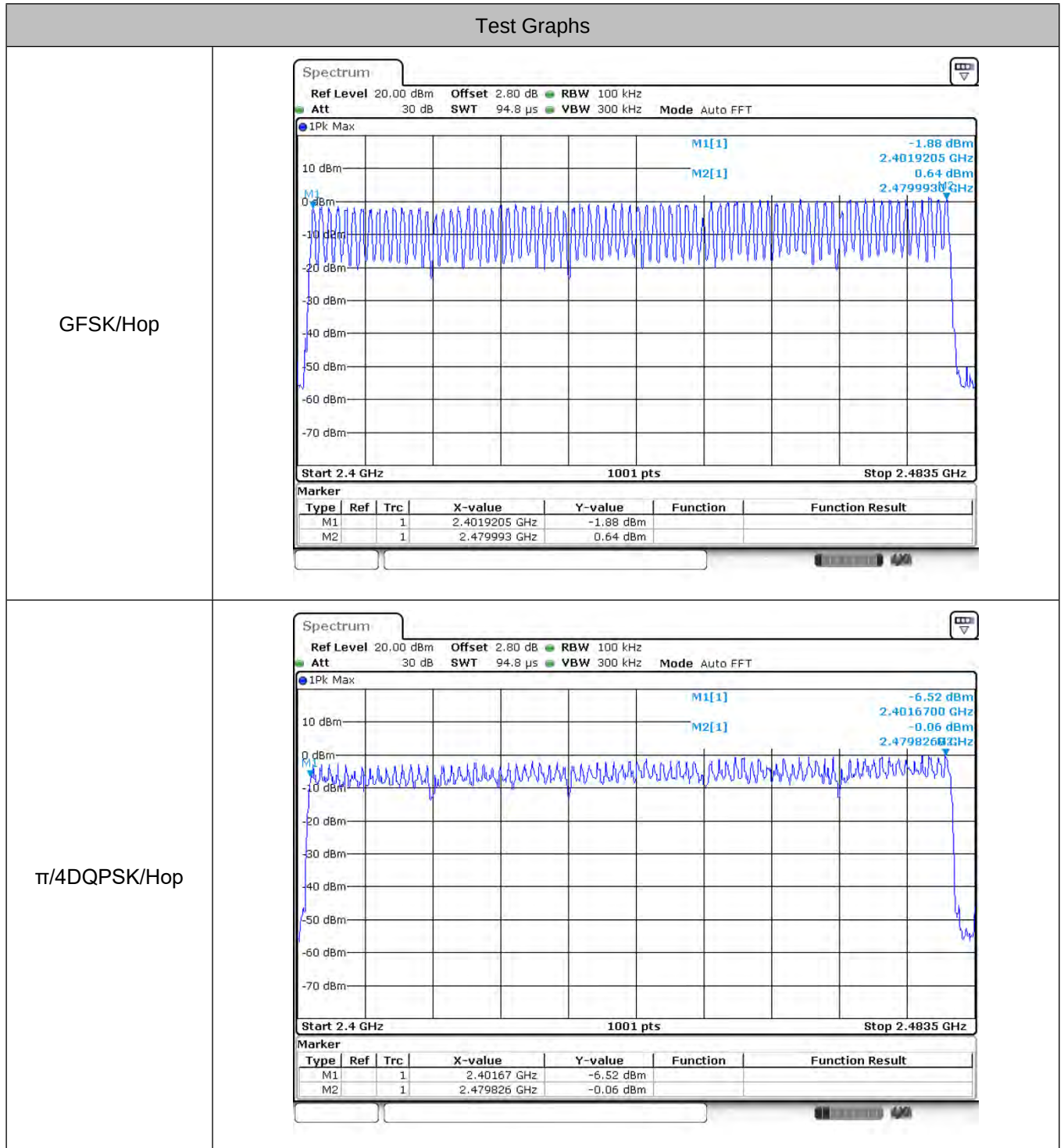
5 Hopping Channel Number

5.1 Test Result

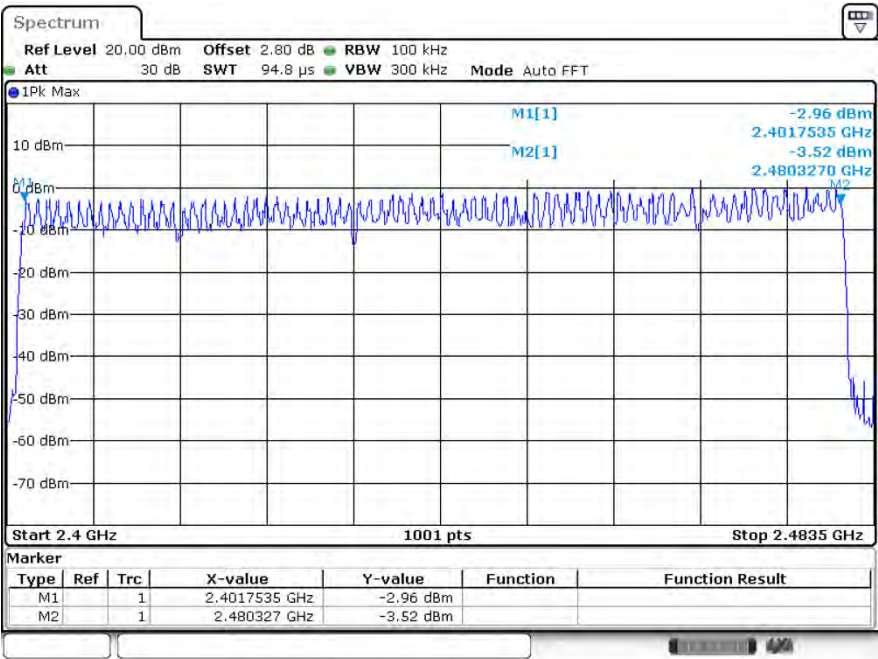
Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

5.2 Test Graphs

Model name:	GX-AiO150	Test Date :	2026-07-22
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8DPSK/Hop



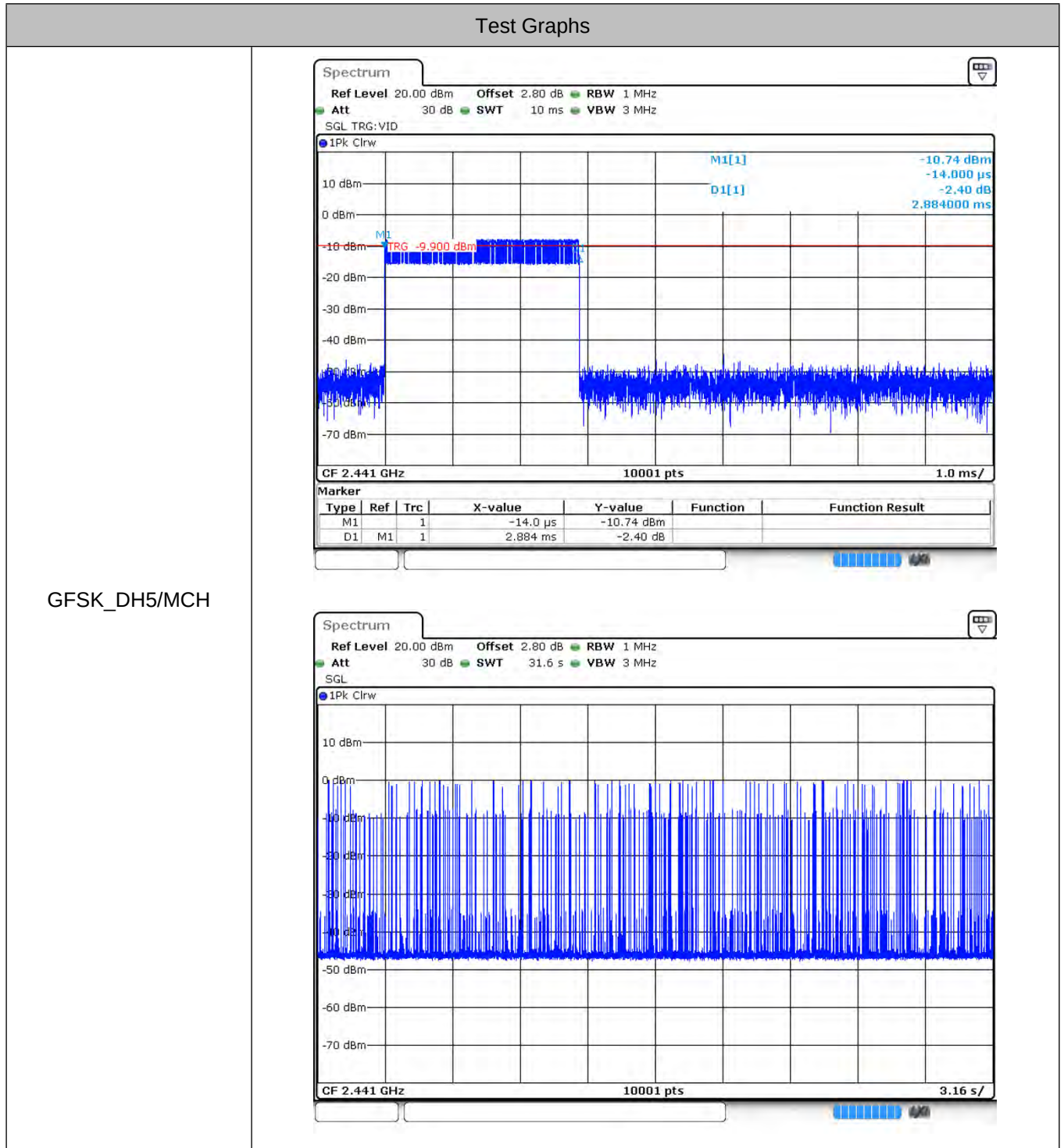
6 Dwell Time

6.1 Test Result

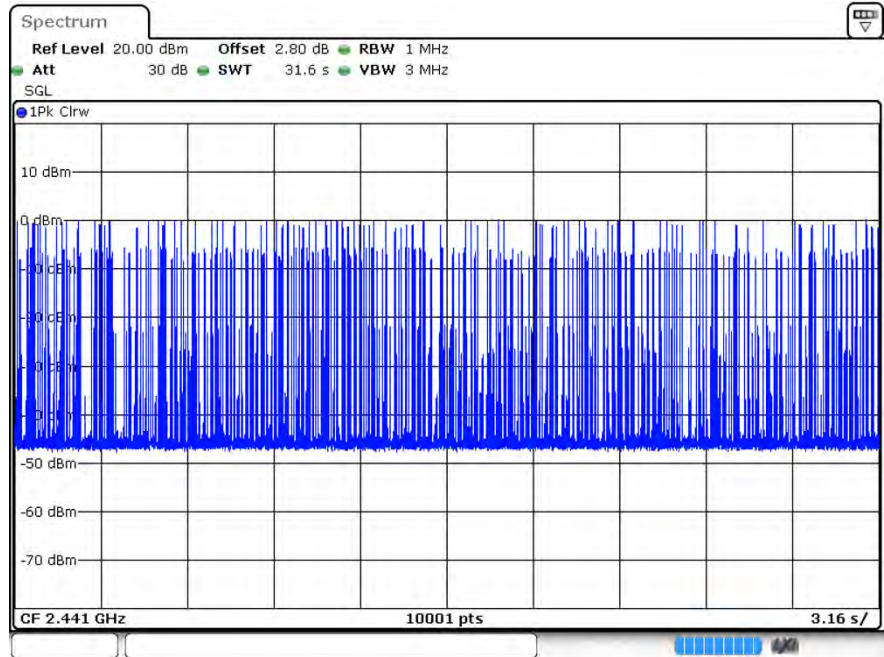
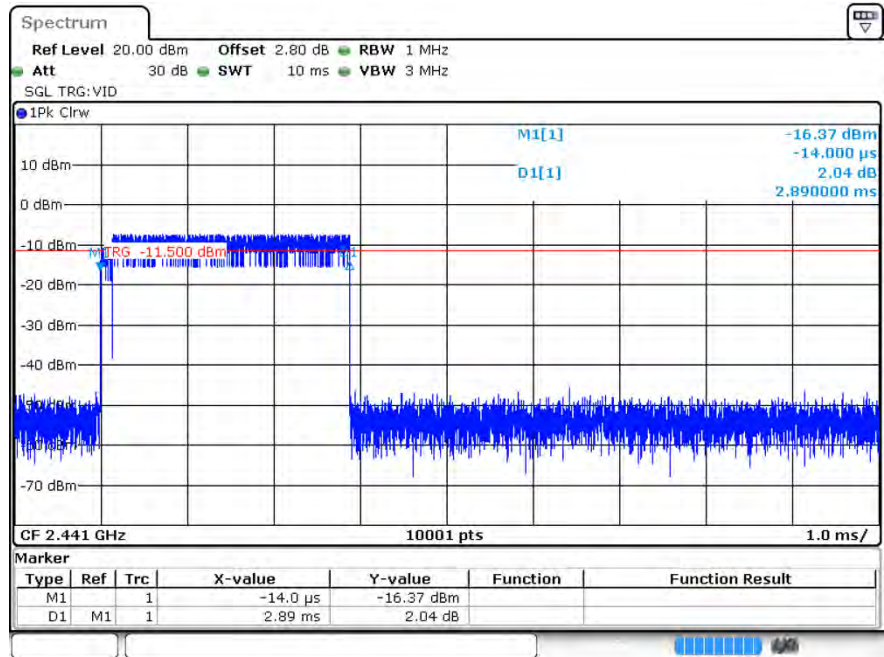
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.884	100	288.4	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.89	117	338.13	0.4	Pass
8DPSK	3DH5	MCH	2.892	100	289.2	0.4	Pass

6.2 Test Graphs

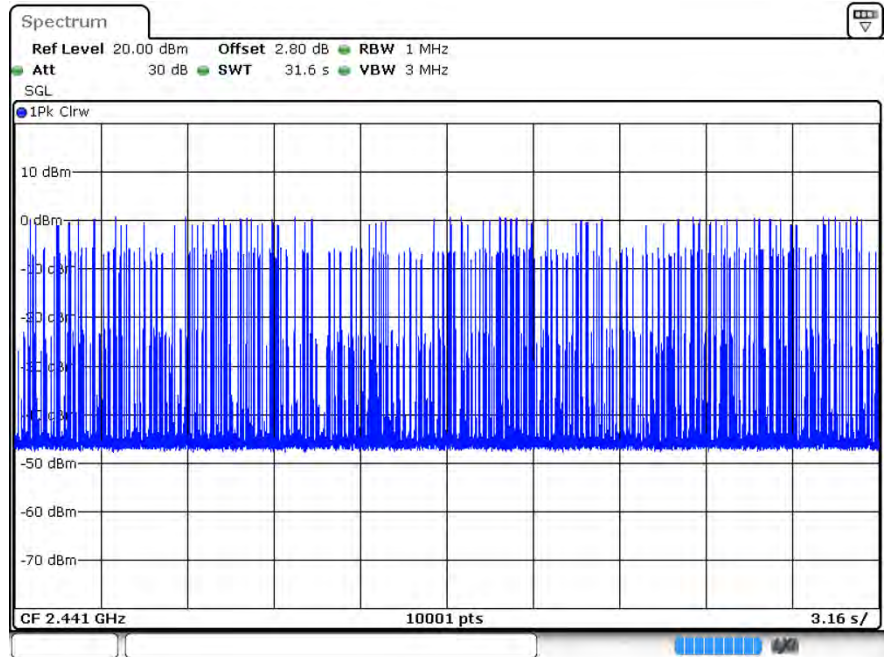
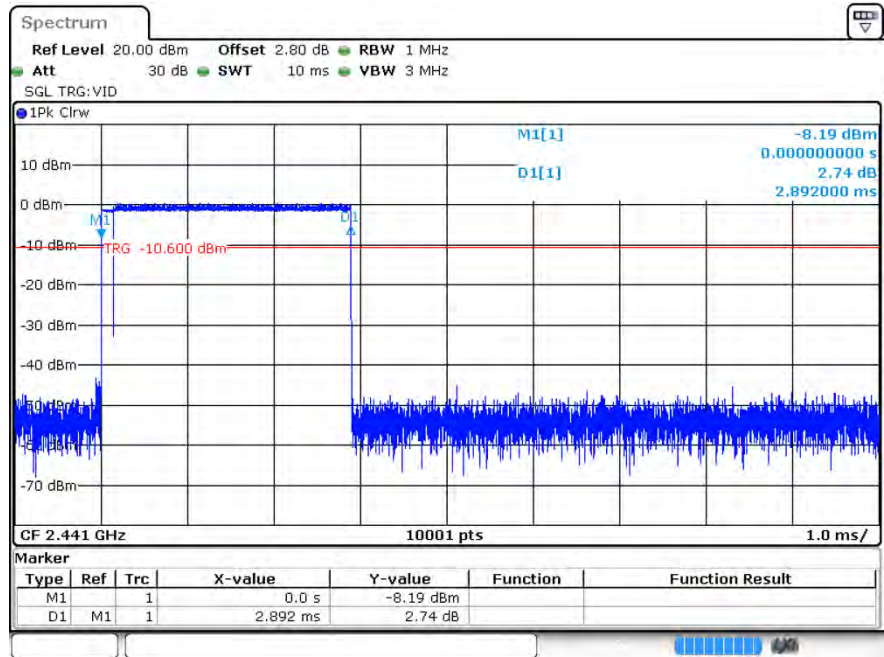
Model name:	GX-AiO150	Test Date :	2026-07-22
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$\pi/4$ DQPSK
_2DH5/MCH



8DPSK_3DH5/MCH



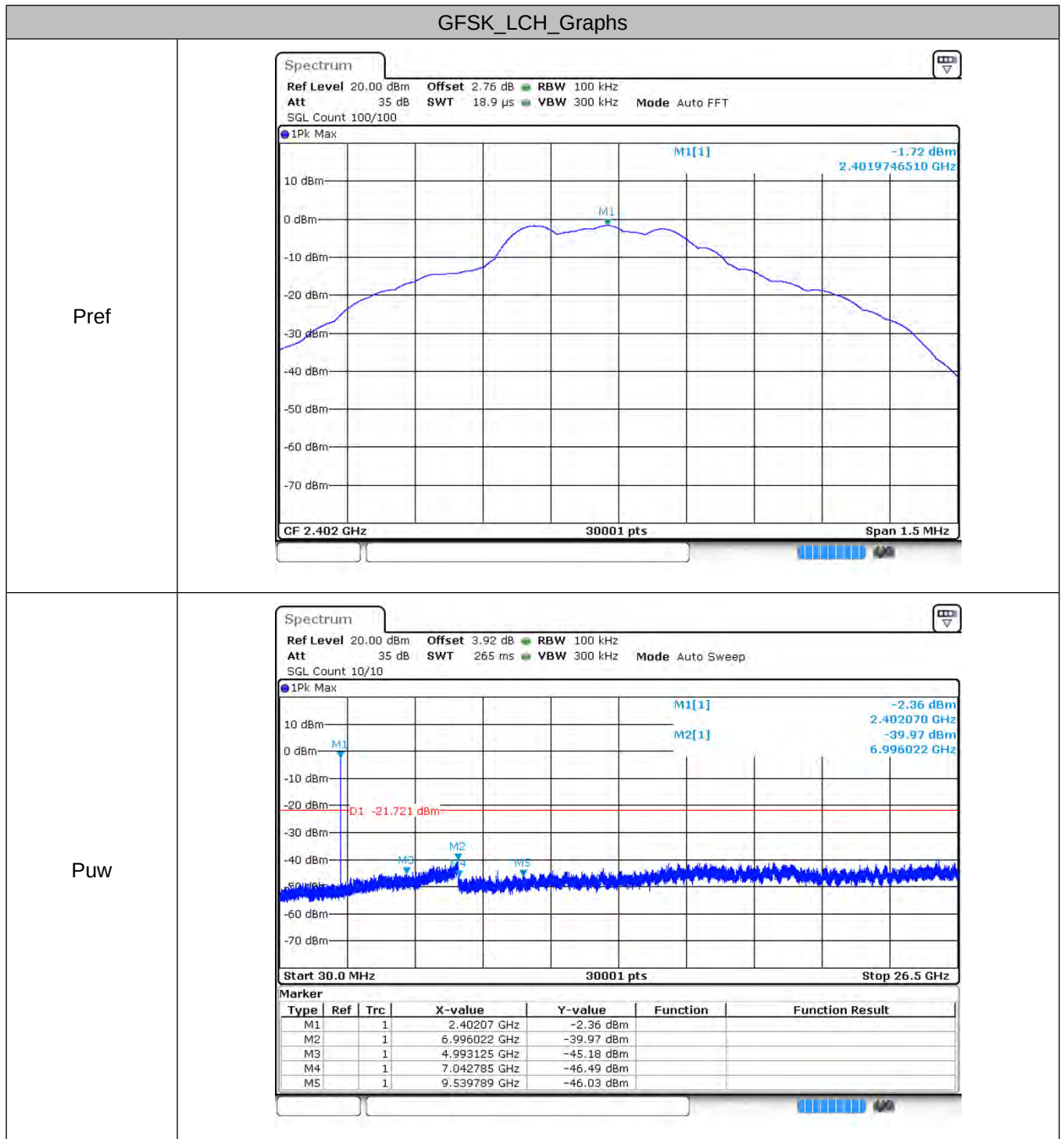
7 RF Conducted Spurious Emissions

7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-38.24	-20	Pass
	MCH	-38.49	-20	Pass
	HCH	-39.3	-20	Pass
$\pi/4$ DQPSK	LCH	-36.64	-20	Pass
	MCH	-38.25	-20	Pass
	HCH	-37.34	-20	Pass
8DPSK	LCH	-36.47	-20	Pass
	MCH	-36.59	-20	Pass
	HCH	-37.05	-20	Pass

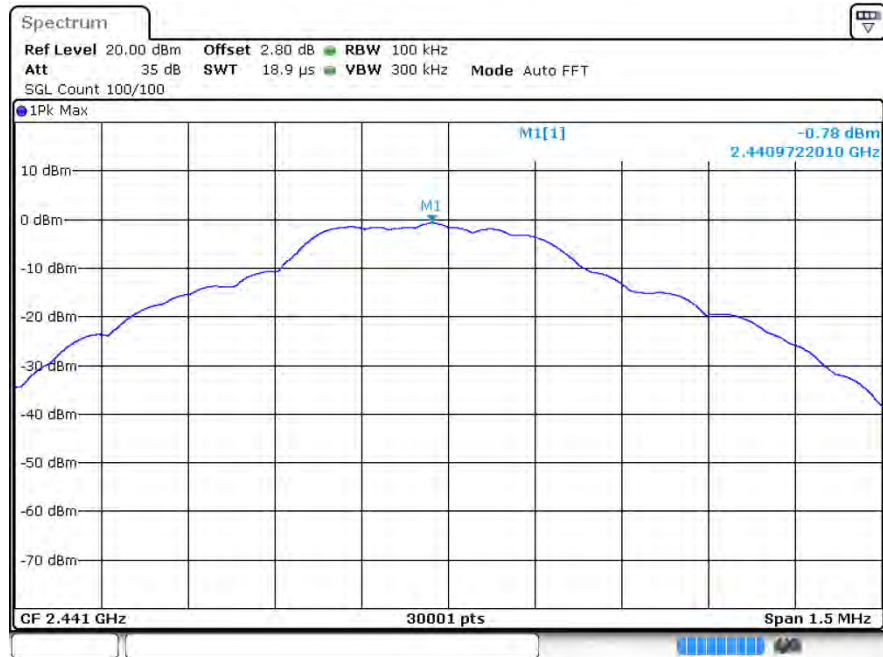
7.2 Test Graphs

Model name:	GX-AiO150	Test Date :	2026-07-22
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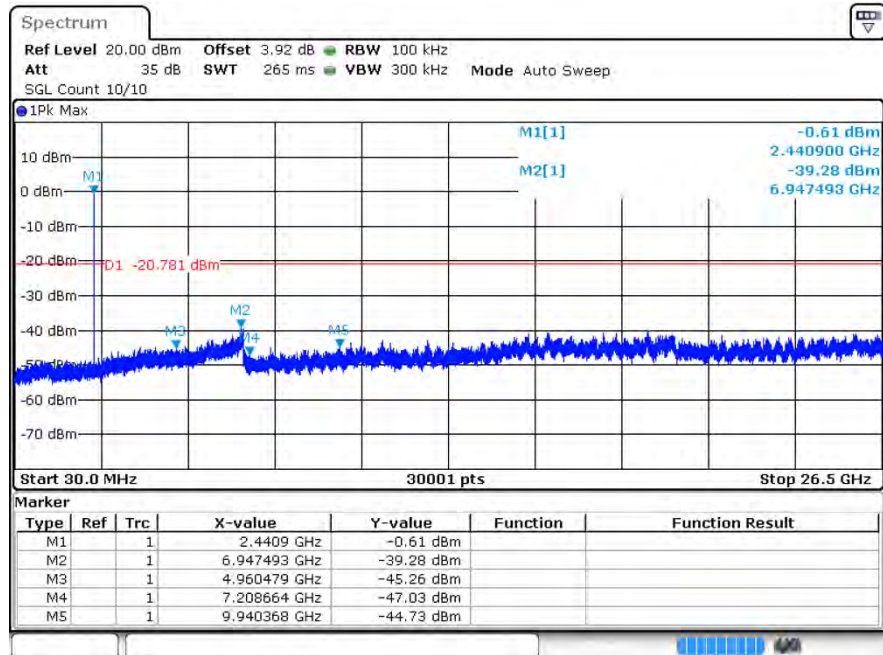


GFSK_MCH_Graphs

Pref

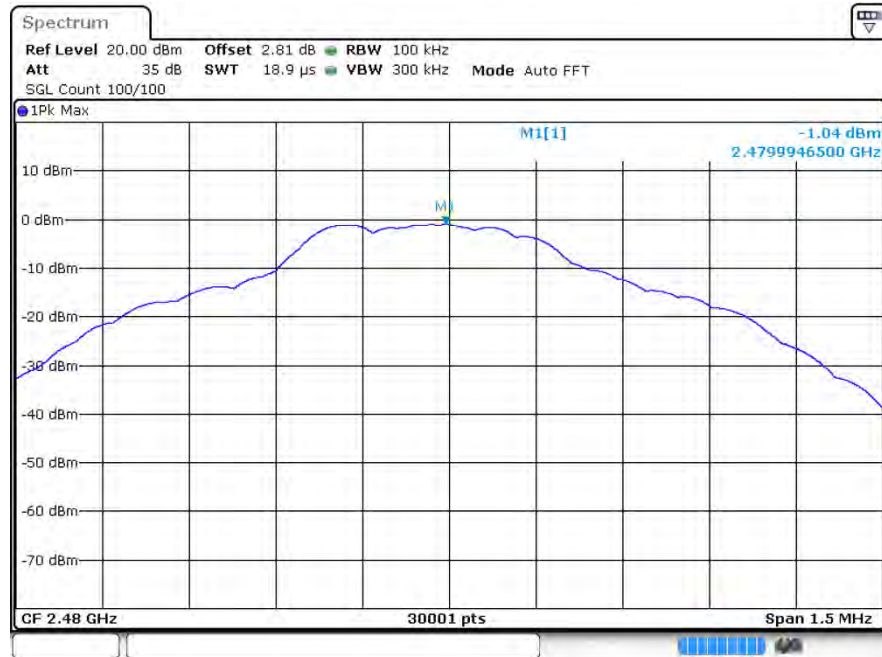


Puw

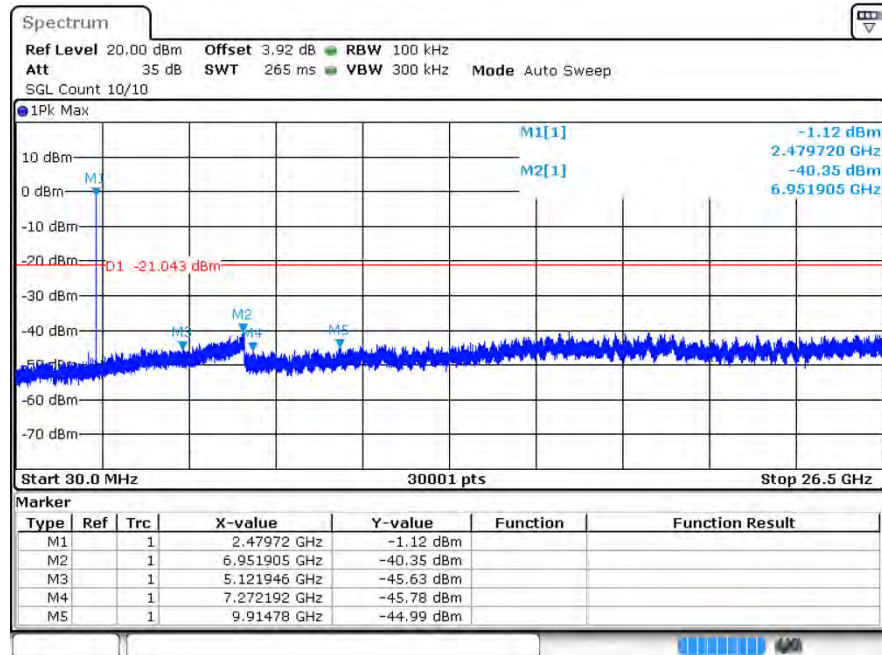


GFSK_HCH_Graphs

Pref

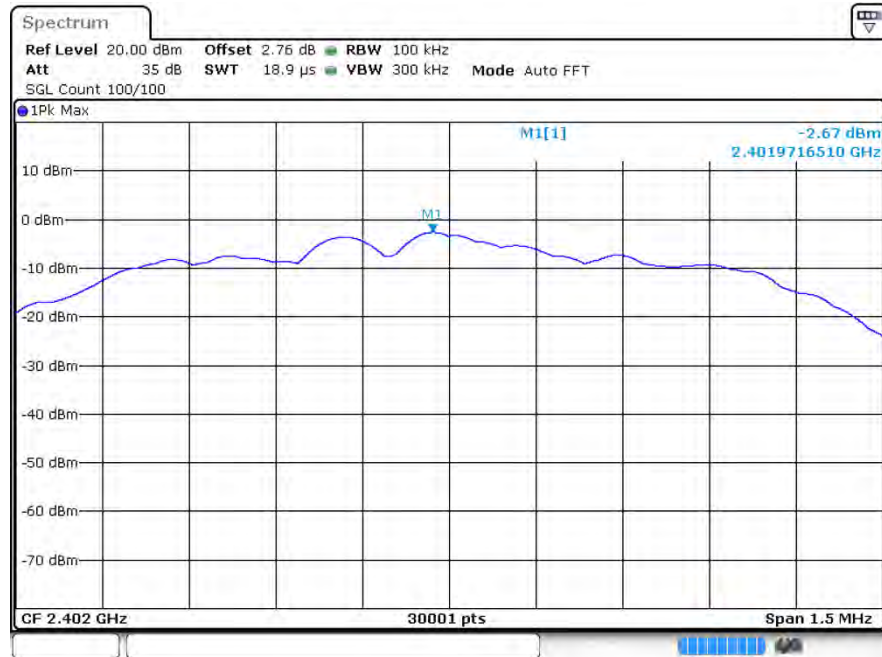


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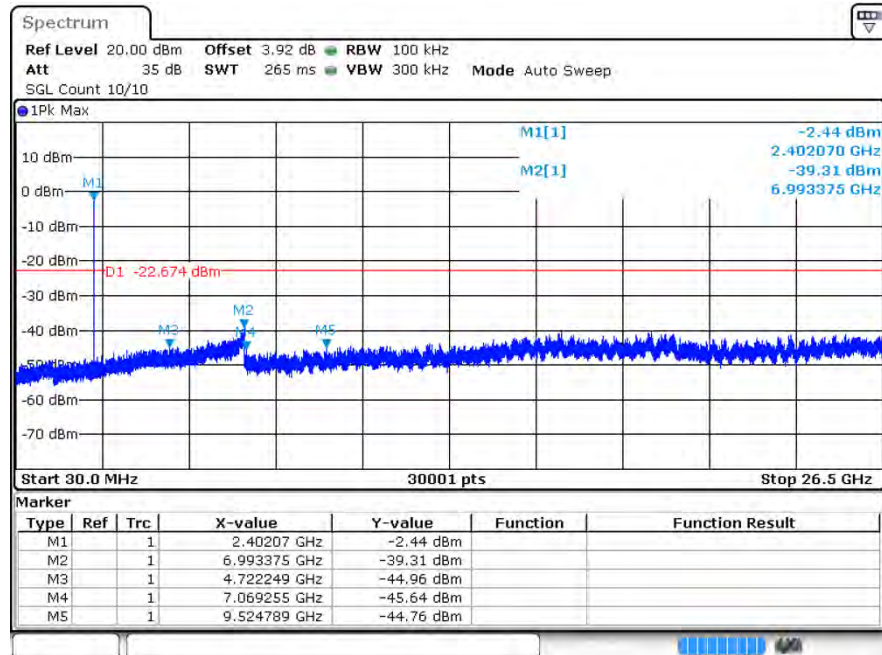


$\pi/4$ DQPSK_LCH_Graphs

Pref

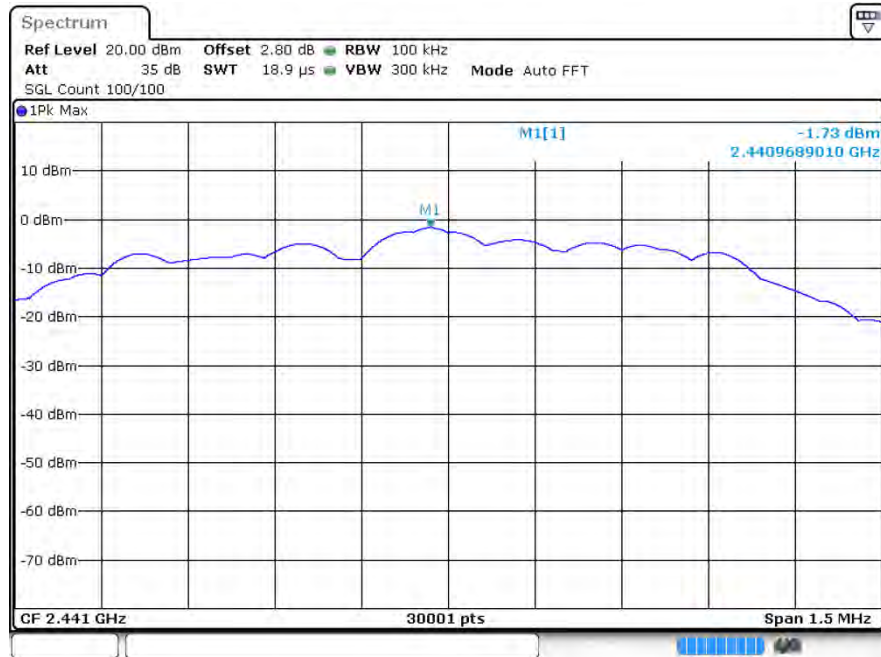


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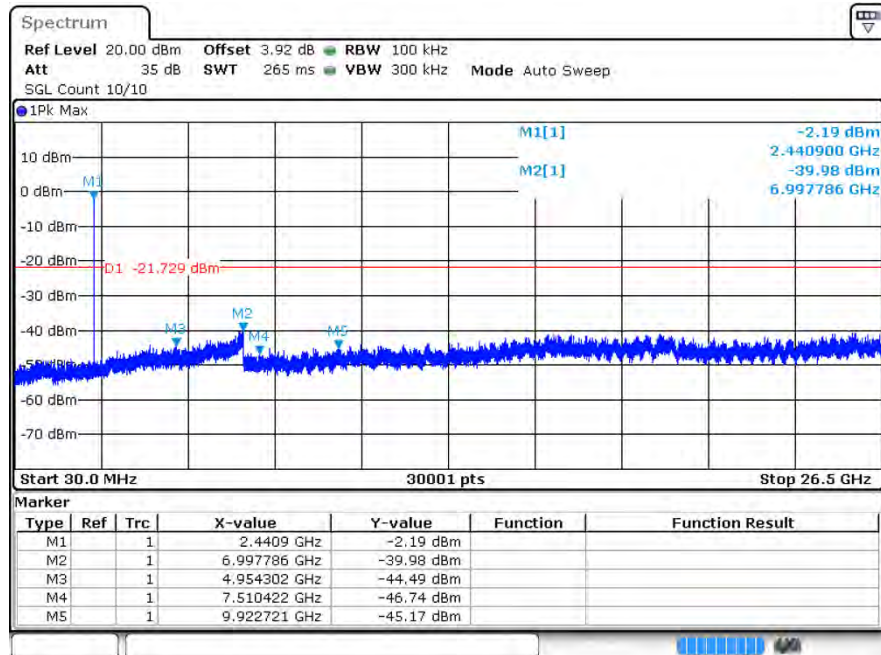


$\pi/4$ DQPSK_MCH_Graphs

Pref

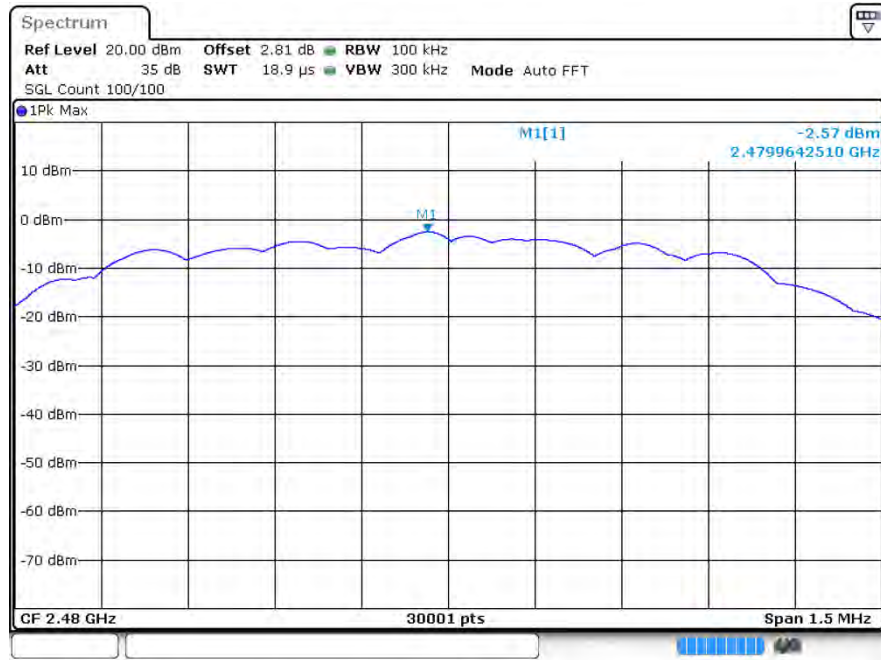


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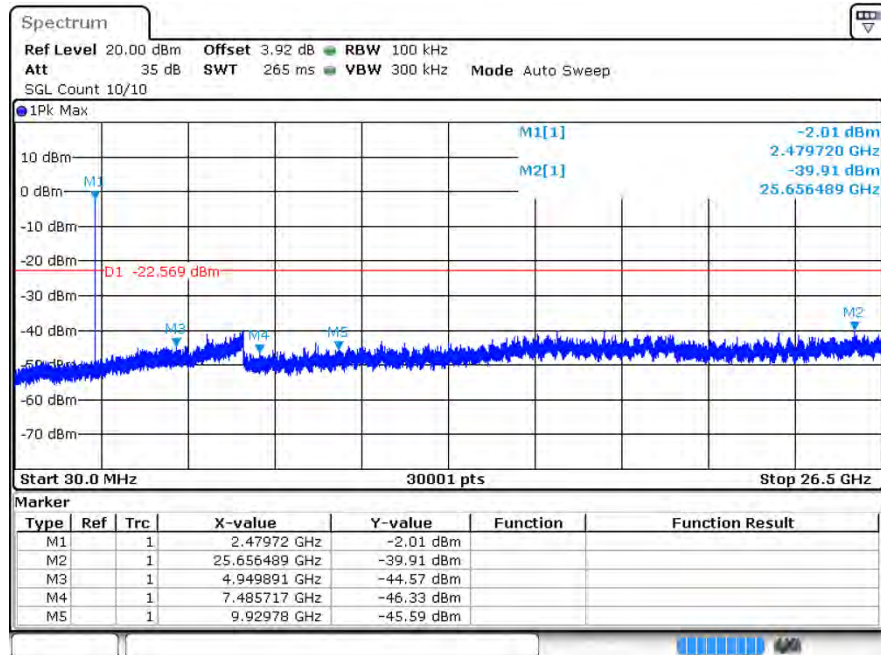


$\pi/4$ DQPSK_HCH_Graphs

Pref

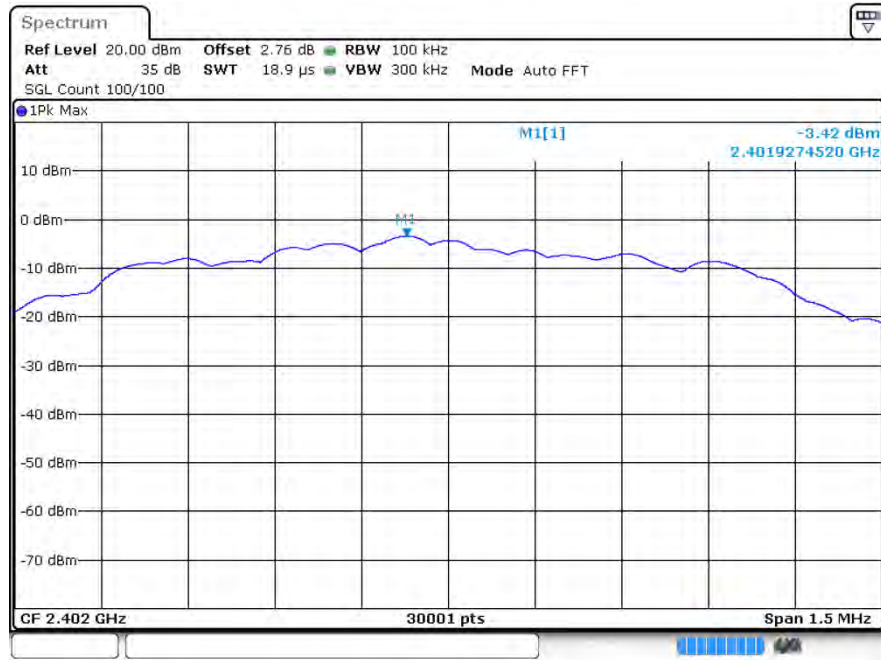


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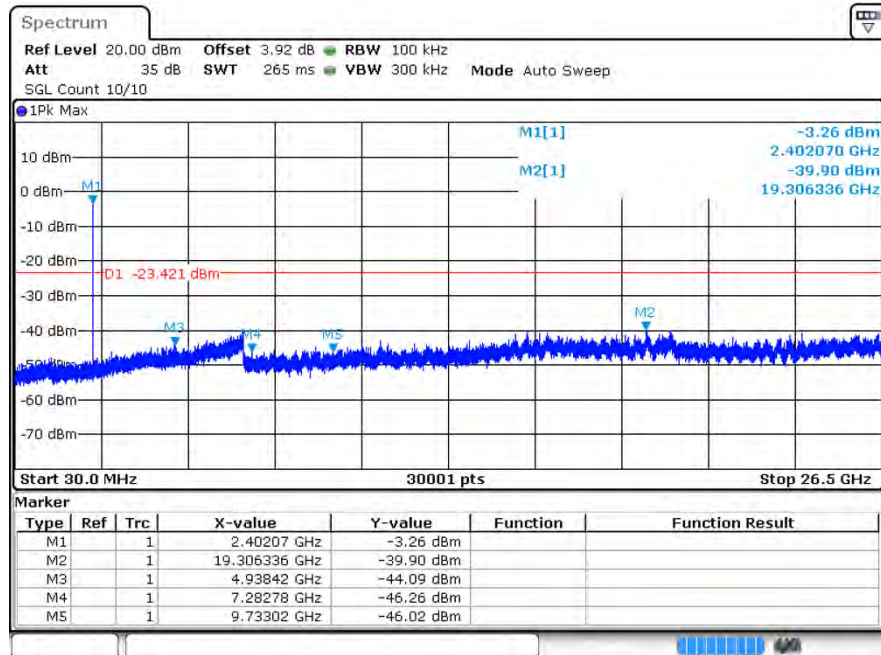


8DPSK_LCH_Graphs

Pref

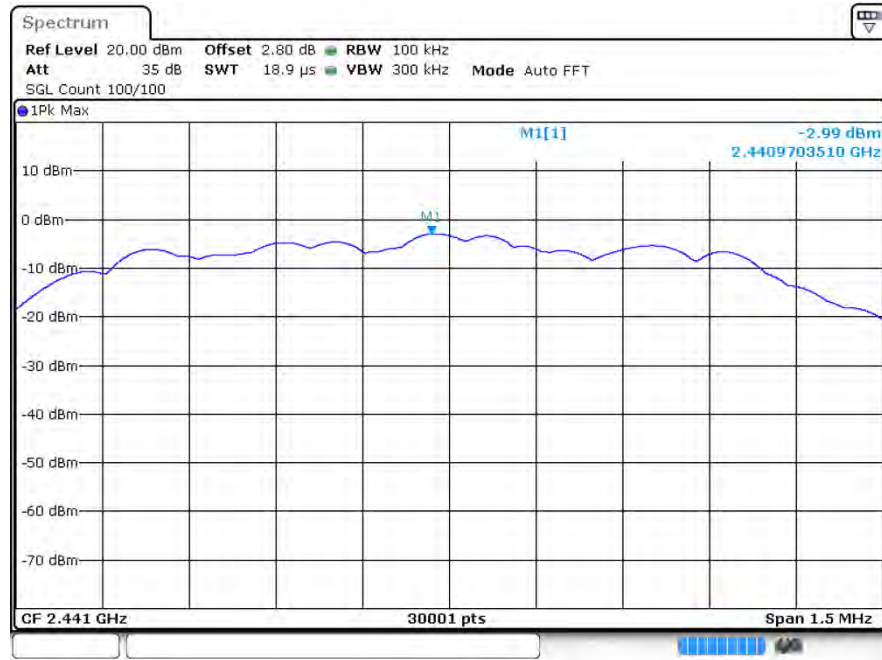


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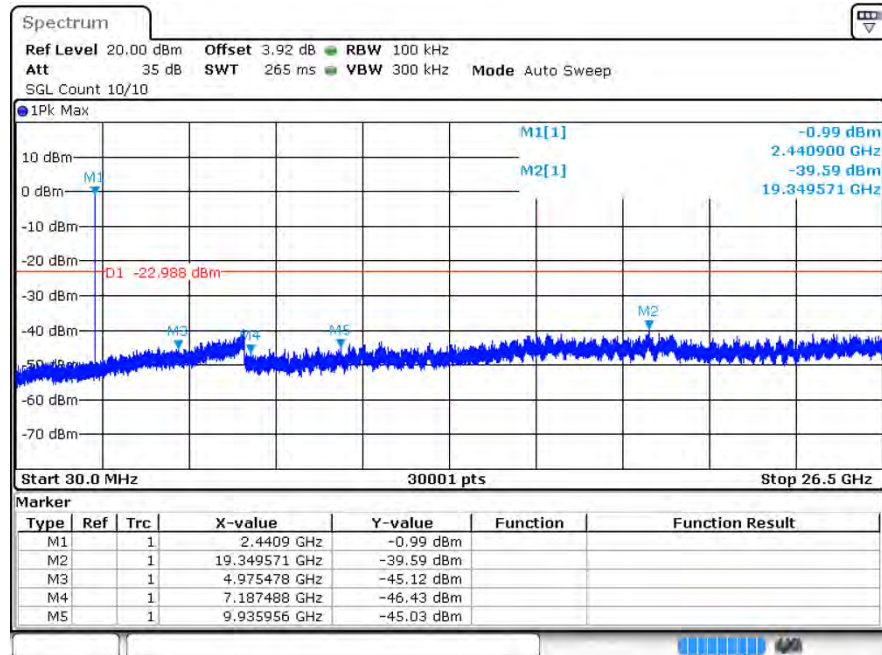


8DPSK_MCH_Graphs

Pref

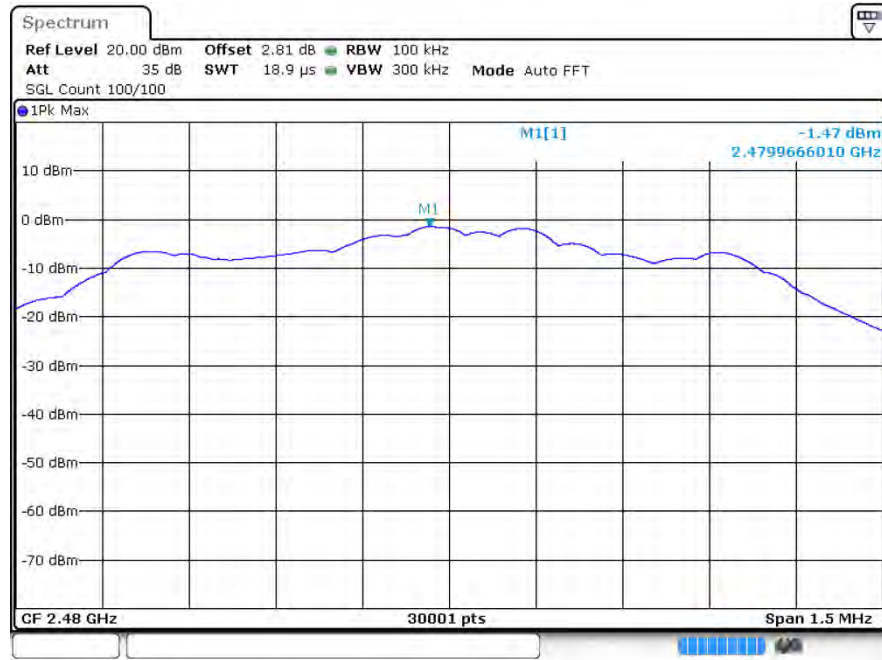


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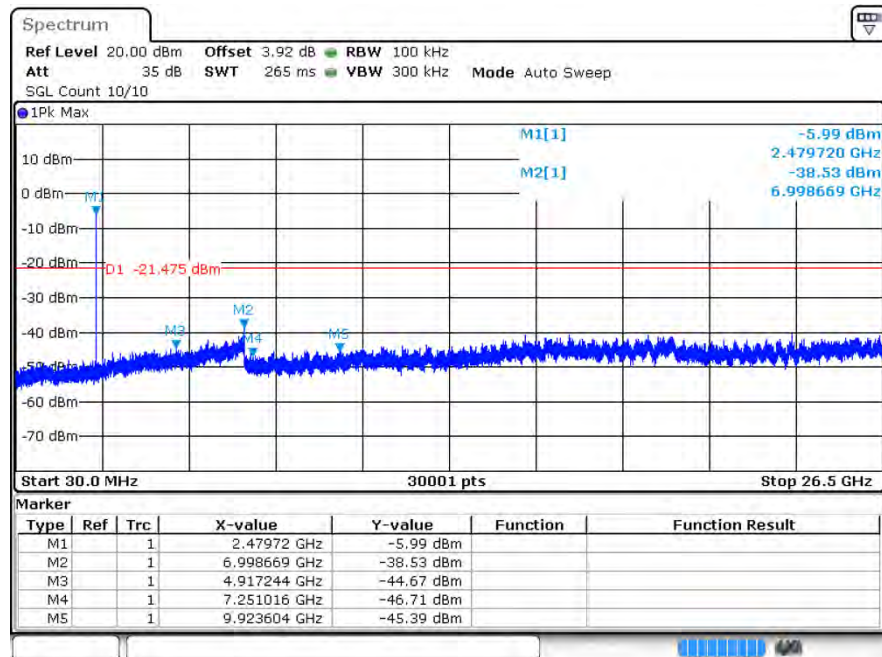


8DPSK_HCH_Graphs

Pref



Puw



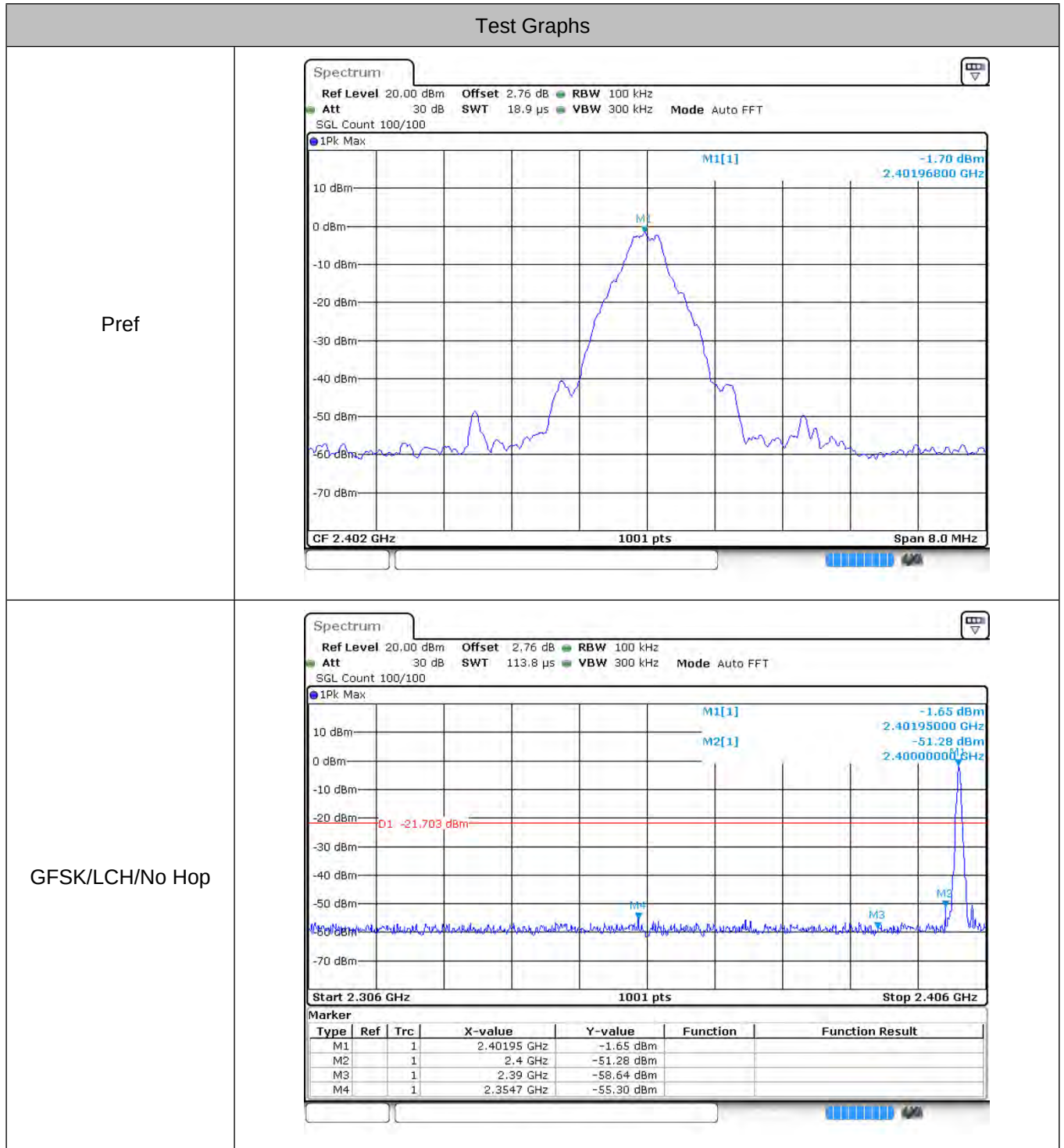
8 Band-edge for RF Conducted Emissions

8.1 Test Result

Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-53.6	-20	Pass
			On	-52.6	-20	Pass
	HCH	2480	Off	-44.92	-20	Pass
			On	-48.06	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-53.19	-20	Pass
			On	-50.72	-20	Pass
	HCH	2480	Off	-43.65	-20	Pass
			On	-45.57	-20	Pass
8DPSK	LCH	2402	Off	-53.02	-20	Pass
			On	-50.93	-20	Pass
	HCH	2480	Off	-44.56	-20	Pass
			On	-46.13	-20	Pass

8.2 Test Graphs

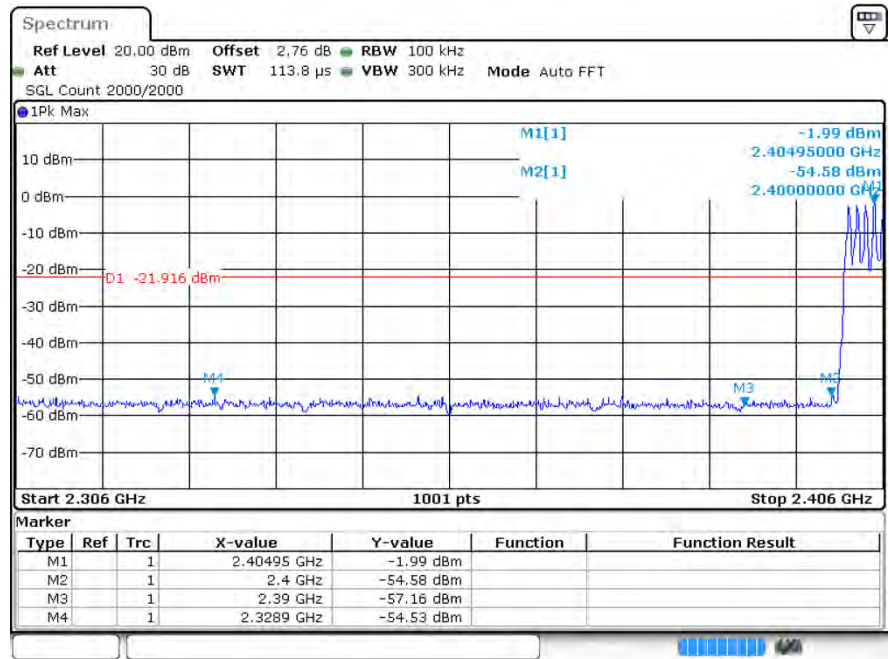
Model name:	GX-AiO150	Test Date :	2026-07-22
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Ref



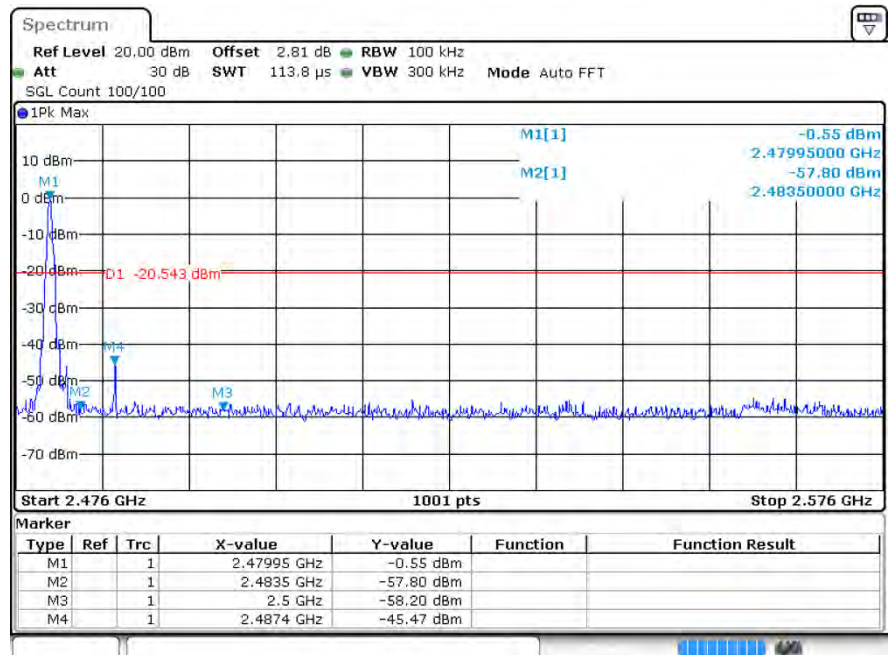
GFSK/LCH/Hop



Ref



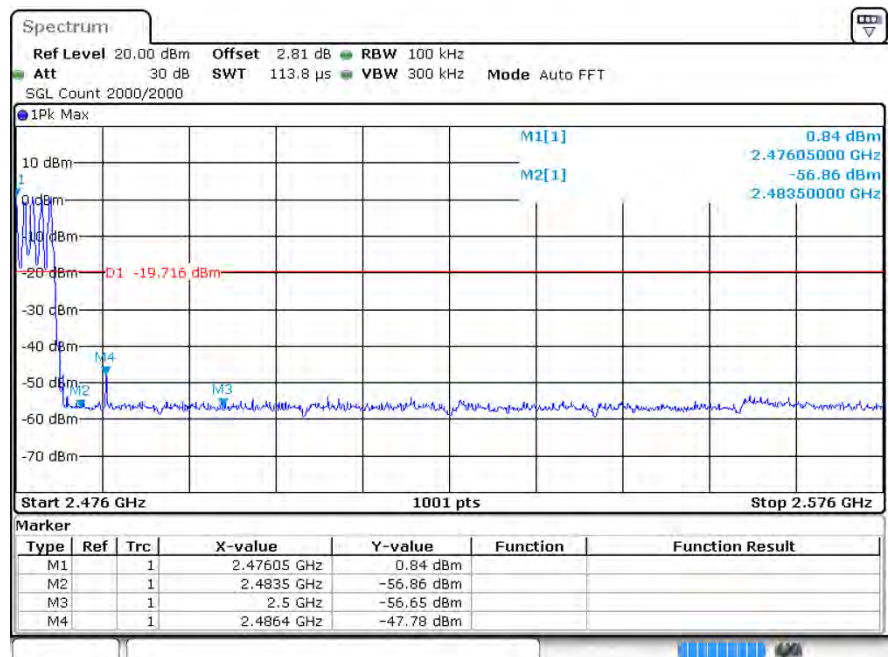
GFSK/HCH/No Hop



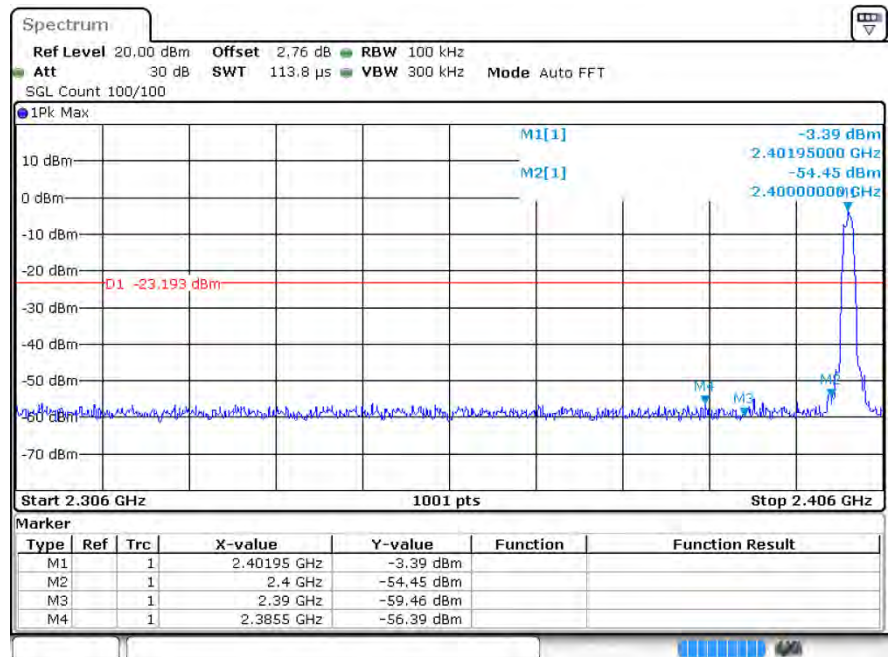
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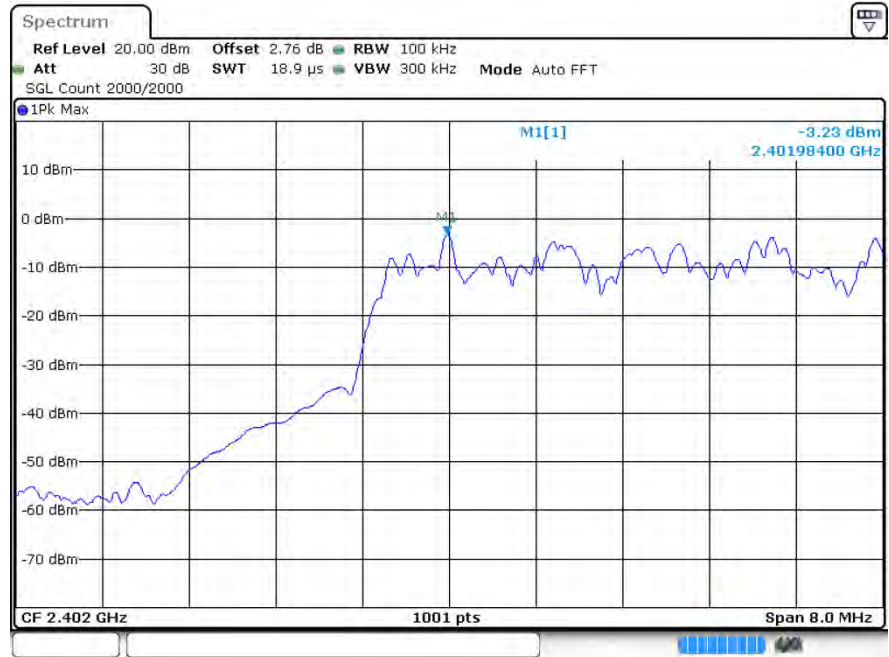
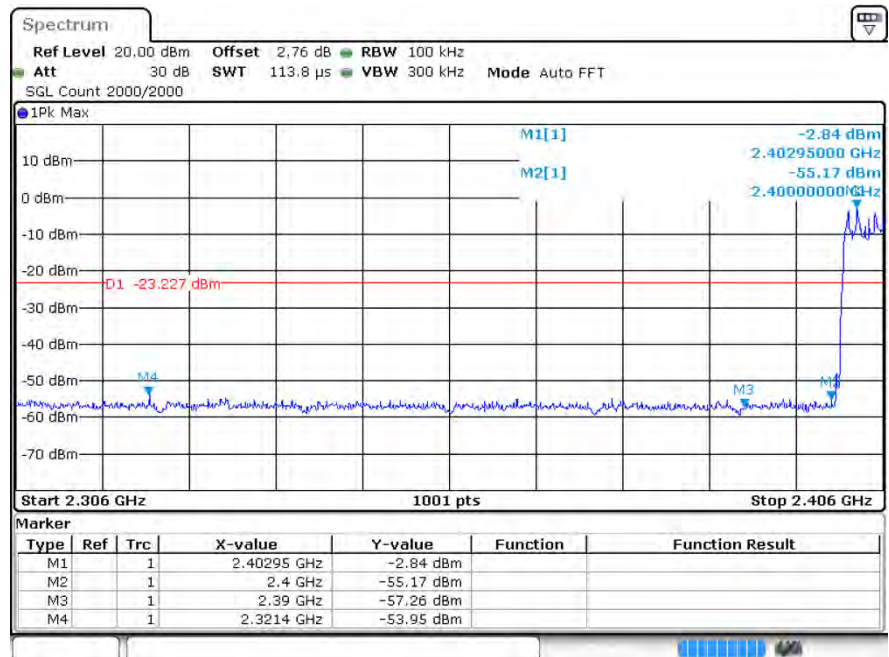
GFSK/HCH/Hop



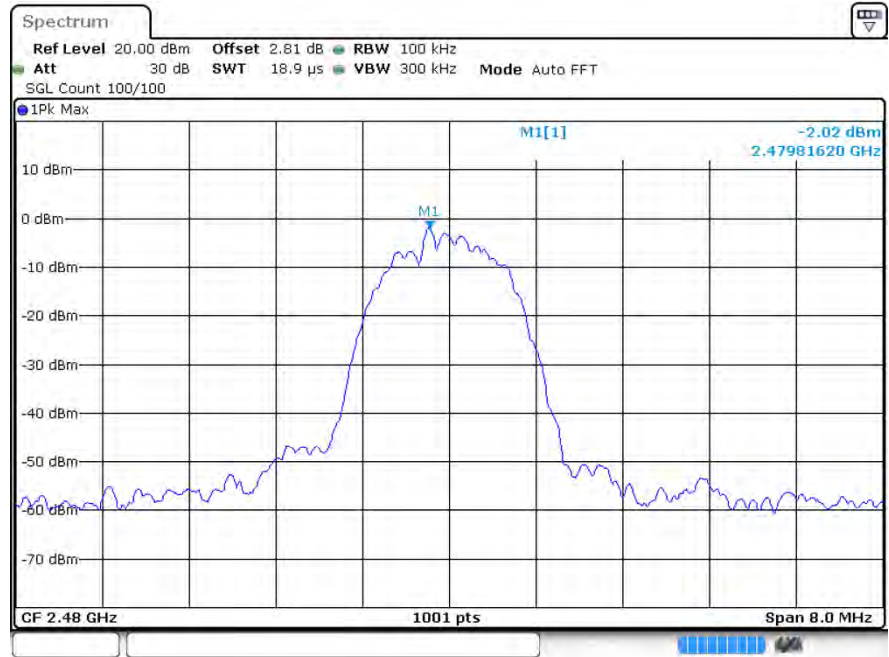
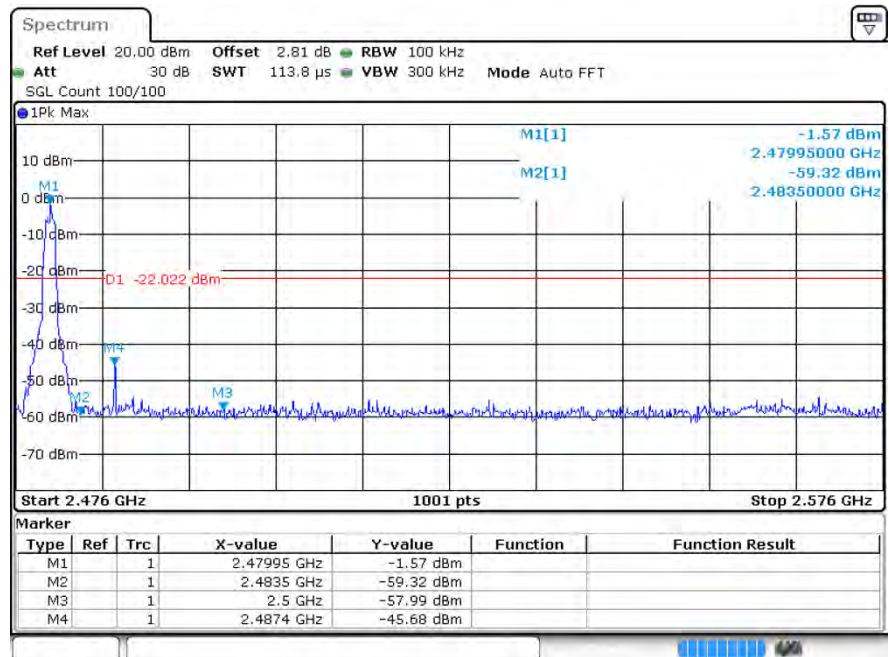
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 $\pi/4$ DQPSK/LCH/No
Hop


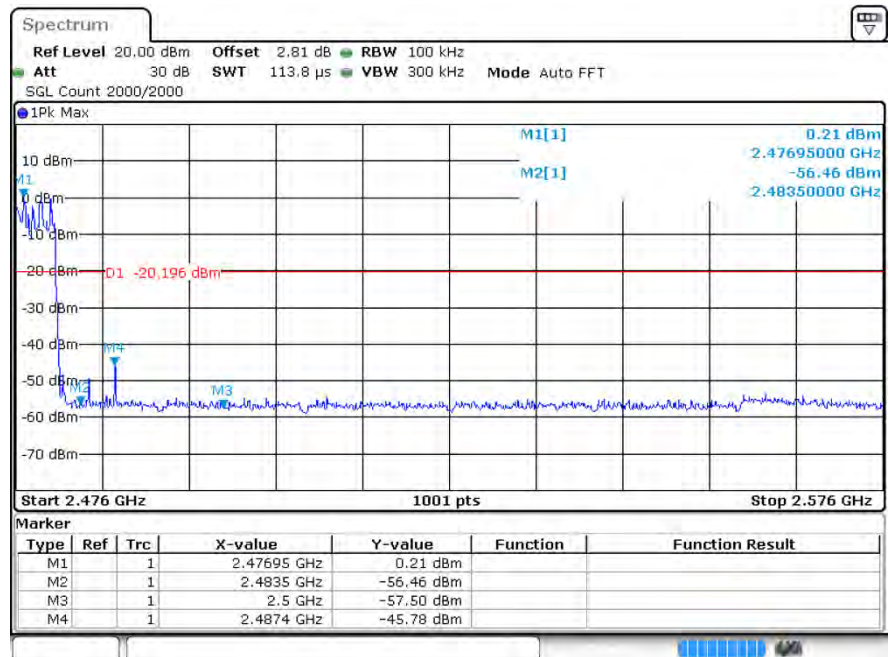
Ref


 $\pi/4$ DQPSK/LCH/Hop


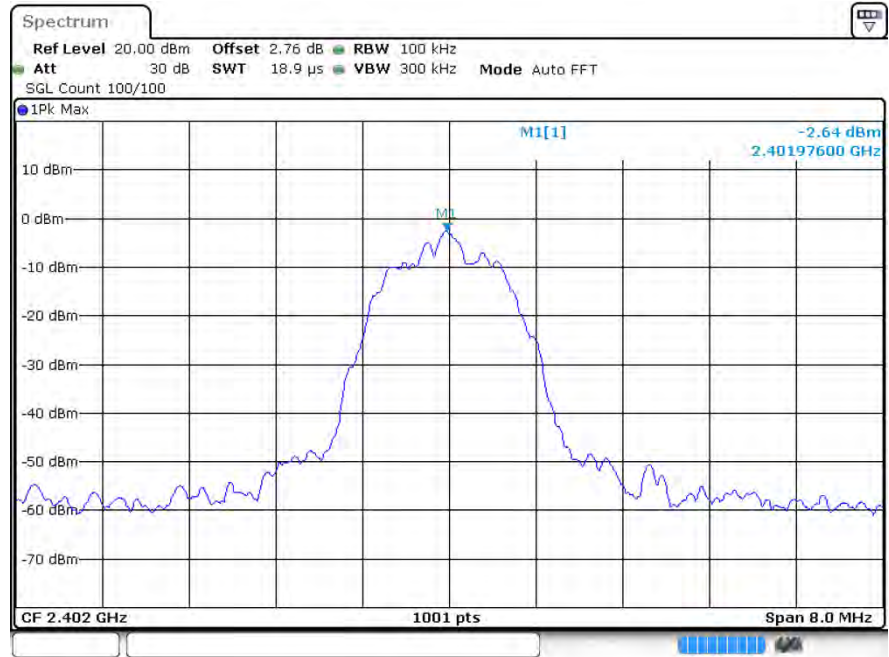
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 $\pi/4$ DQPSK/HCH/No Hop


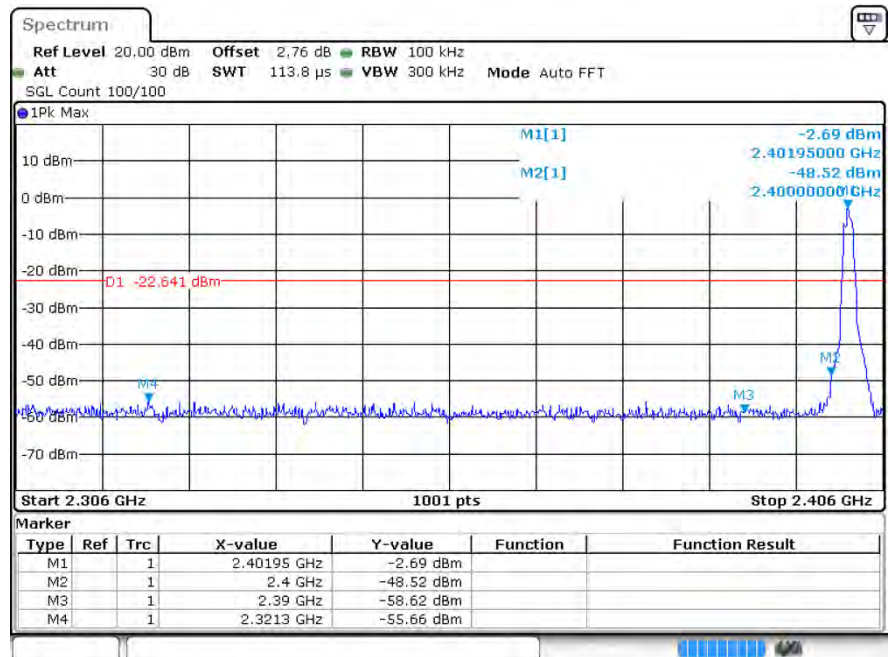
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 $\pi/4$ DQPSK/HCH/Hop


Ref



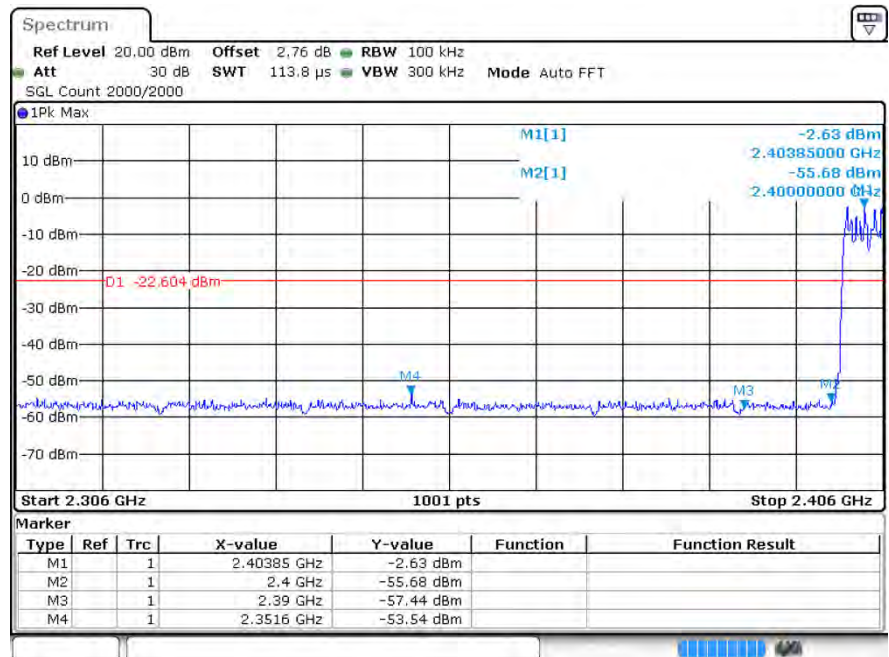
8DPSK/LCH/No Hop



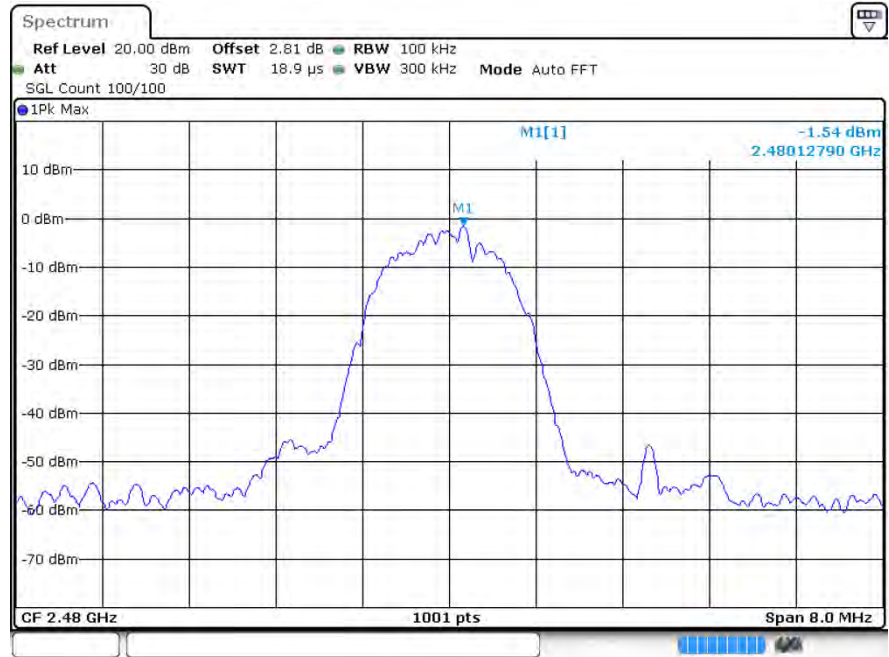
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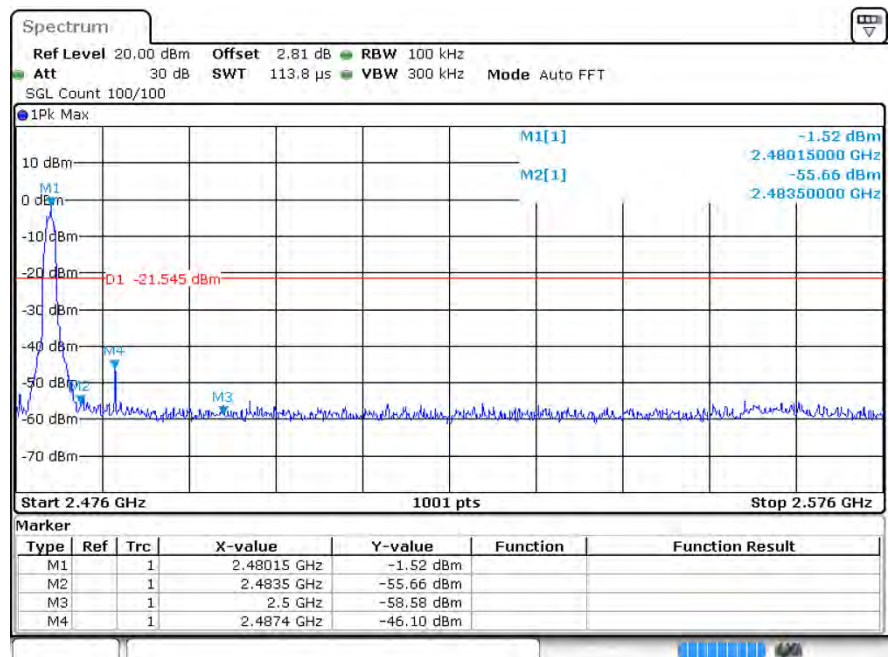
8DPSK/LCH/Hop



Ref



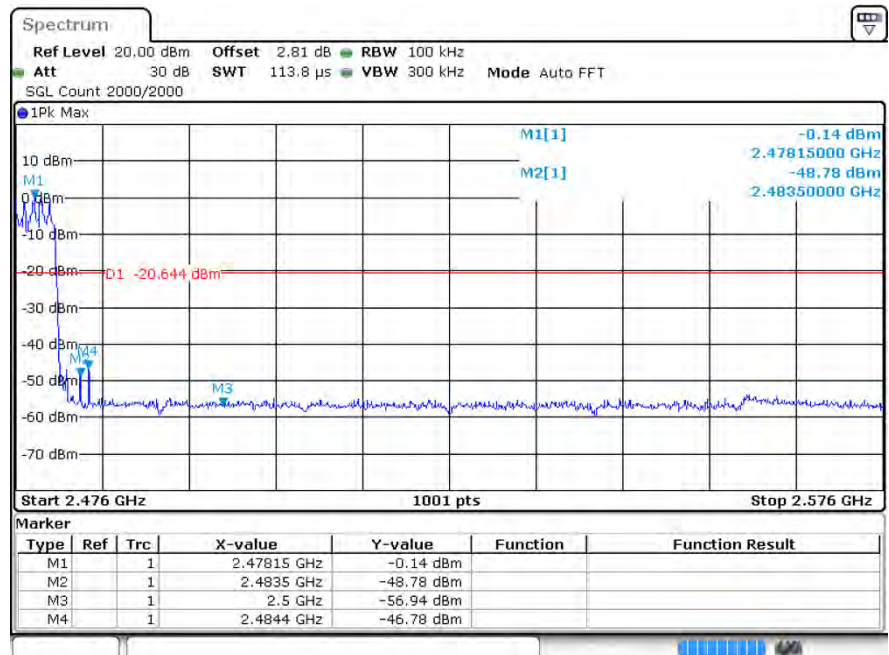
8DPSK/HCH/No Hop



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	-47.33	3.3	-	51.2	PEAK	74	Pass
	Off	2310.0	-56.1	3.3	5.06	47.49	AV	54	Pass
	Off	2344.656	-44.54	3.3	-	53.99	PEAK	74	Pass
	Off	2338.32	-53.8	3.3	5.06	49.79	AV	54	Pass
	Off	2390.0	-49.83	3.3	-	48.7	PEAK	74	Pass
	Off	2390.0	-57.64	3.3	5.06	45.95	AV	54	Pass
	Off	2483.5	-49.58	3.3	-	48.95	PEAK	74	Pass
	Off	2483.5	-55.45	3.3	5.04	48.12	AV	54	Pass
	Off	2488.312	-47.31	3.3	-	51.22	PEAK	74	Pass
	Off	2483.776	-55.21	3.3	5.04	48.36	AV	54	Pass
	Off	2500.0	-48.56	3.3	-	49.97	PEAK	74	Pass
	Off	2500.0	-55.42	3.3	5.04	48.15	AV	54	Pass
$\pi/4$ DQPSK	Off	2310.0	-50.13	3.3	-	48.4	PEAK	74	Pass
	Off	2310.0	-56.54	3.3	4.95	46.94	AV	54	Pass
	Off	2338.416	-46.07	3.3	-	52.46	PEAK	74	Pass
	Off	2343.888	-54.23	3.3	4.95	49.25	AV	54	Pass
	Off	2390.0	-49.07	3.3	-	49.46	PEAK	74	Pass
	Off	2390.0	-55.83	3.3	4.95	47.65	AV	54	Pass
	Off	2483.5	-47.61	3.3	-	50.92	PEAK	74	Pass
	Off	2483.5	-55.23	3.3	4.95	48.25	AV	54	Pass
	Off	2487.376	-44.6	3.3	-	53.93	PEAK	74	Pass
	Off	2489.512	-55.03	3.3	4.95	48.45	AV	54	Pass
	Off	2500.0	-49.51	3.3	-	49.02	PEAK	74	Pass
	Off	2500.0	-56.24	3.3	4.95	47.24	AV	54	Pass
8DPSK	Off	2310.0	-49.04	3.3	-	49.49	PEAK	74	Pass
	Off	2310.0	-56.04	3.3	4.95	47.44	AV	54	Pass
	Off	2340.048	-46.38	3.3	-	52.15	PEAK	74	Pass
	Off	2341.68	-53.78	3.3	4.95	49.7	AV	54	Pass

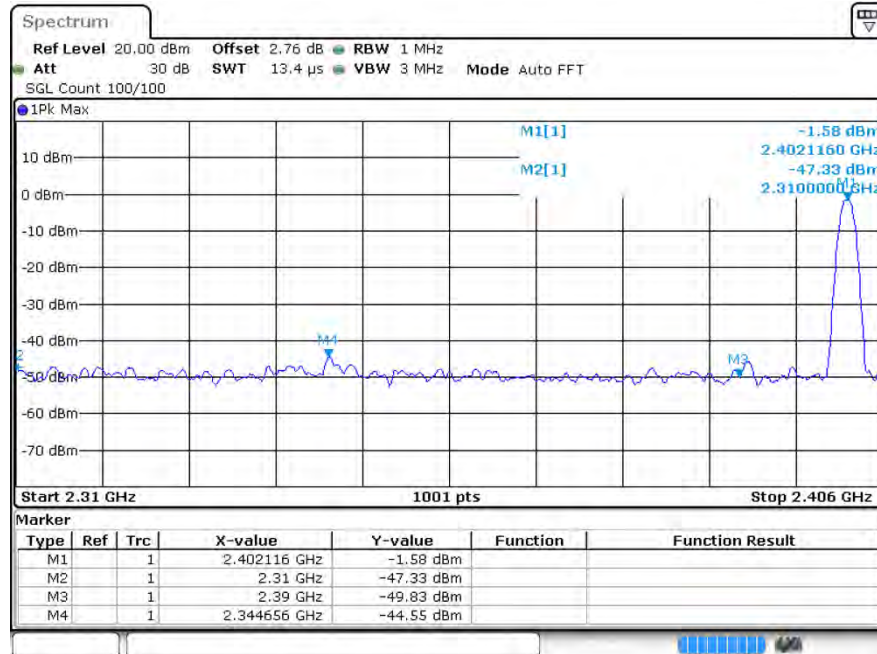


	Off	2390.0	-51.67	3.3	-	46.86	PEAK	74	Pass
	Off	2390.0	-56.6	3.3	4.95	46.88	AV	54	Pass
	Off	2483.5	-48.01	3.3	-	50.52	PEAK	74	Pass
	Off	2483.5	-55.19	3.3	4.95	48.29	AV	54	Pass
	Off	2487.448	-43.69	3.3	-	54.84	PEAK	74	Pass
	Off	2483.824	-55.17	3.3	4.95	48.31	AV	54	Pass
	Off	2500.0	-49.18	3.3	-	49.35	PEAK	74	Pass
	Off	2500.0	-55.59	3.3	4.95	47.89	AV	54	Pass

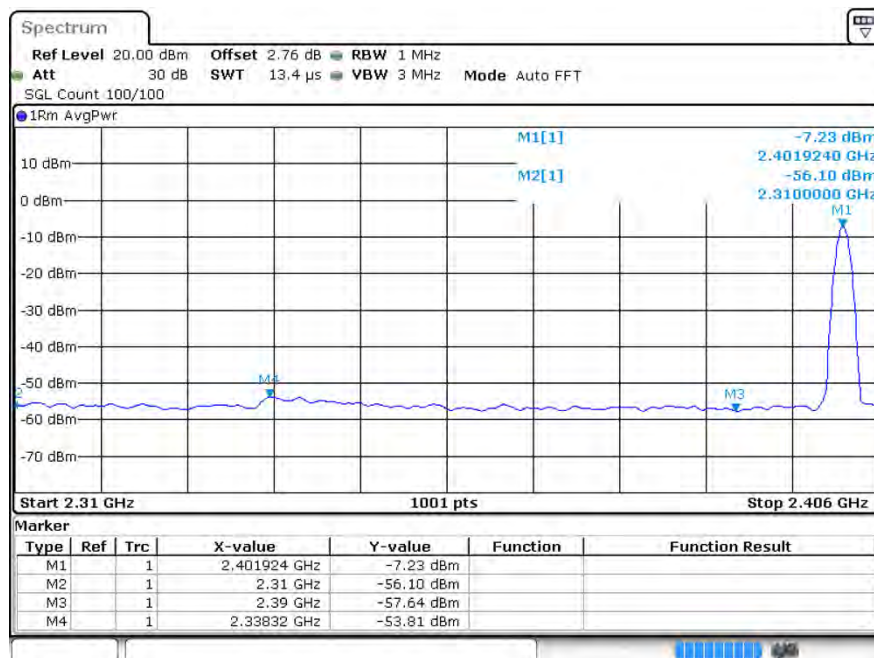
9.2 Test Graphs

Model name:	GX-AiO150	Test Date :	2026-07-22
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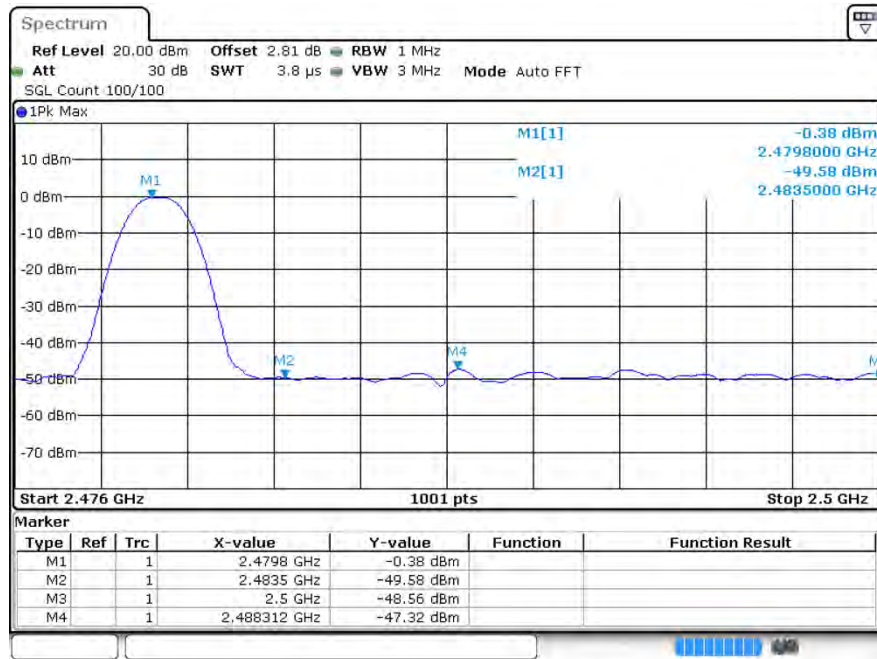
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



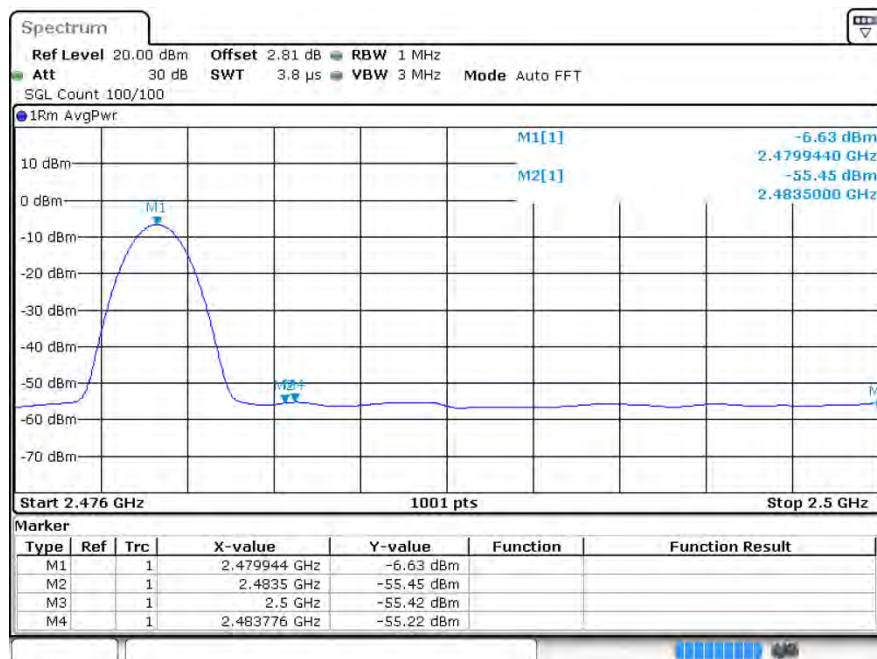
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



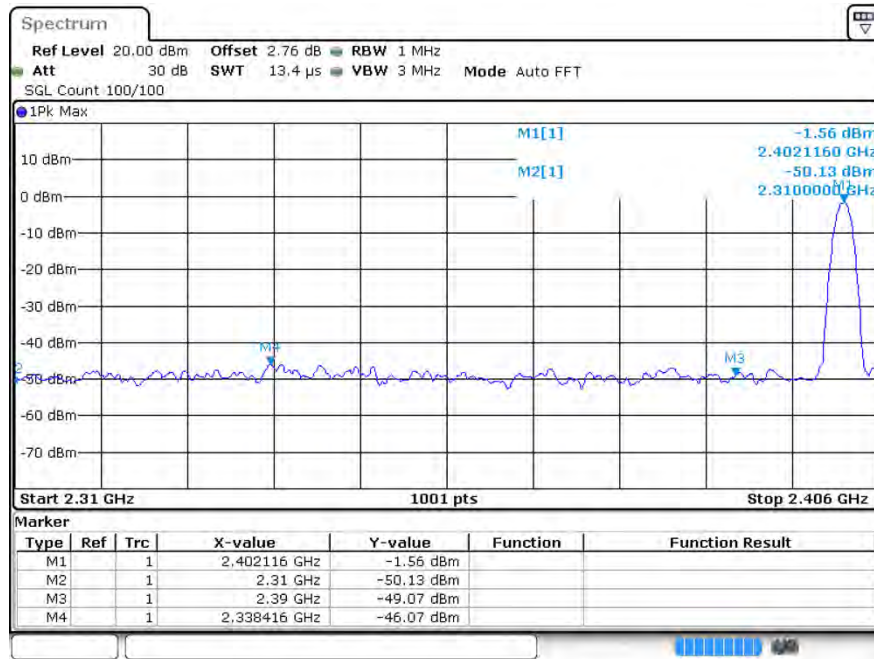
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



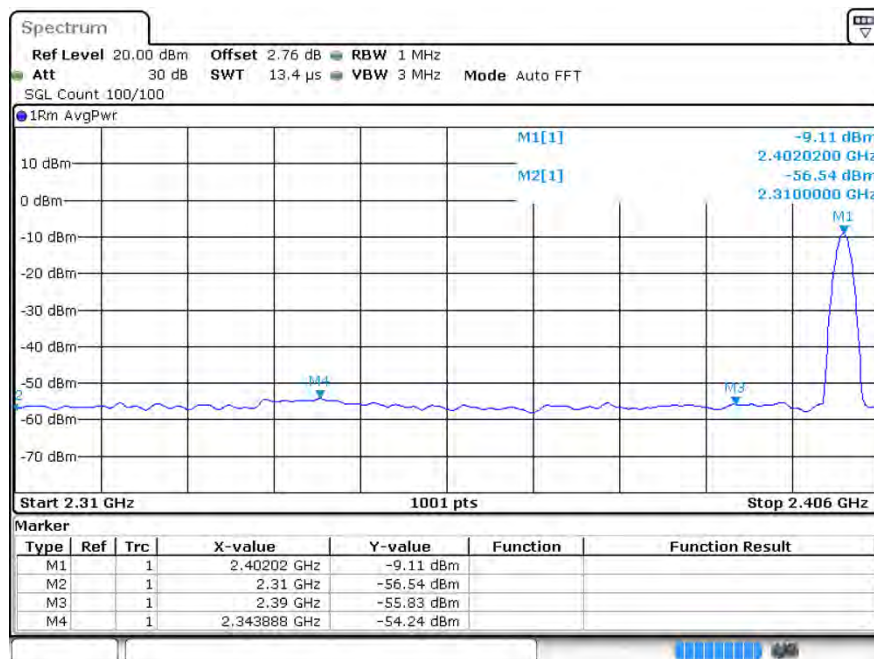
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



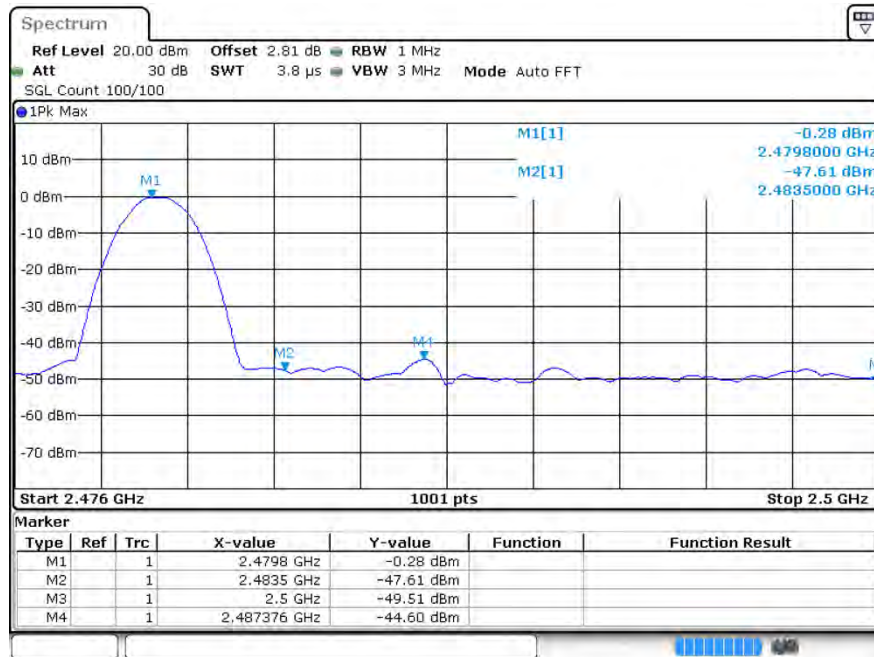
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



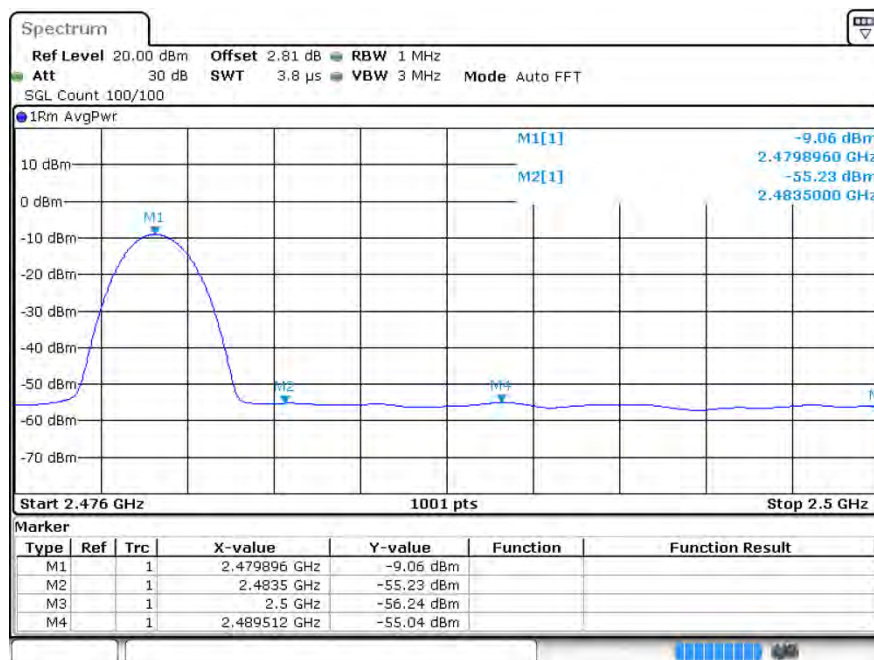
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



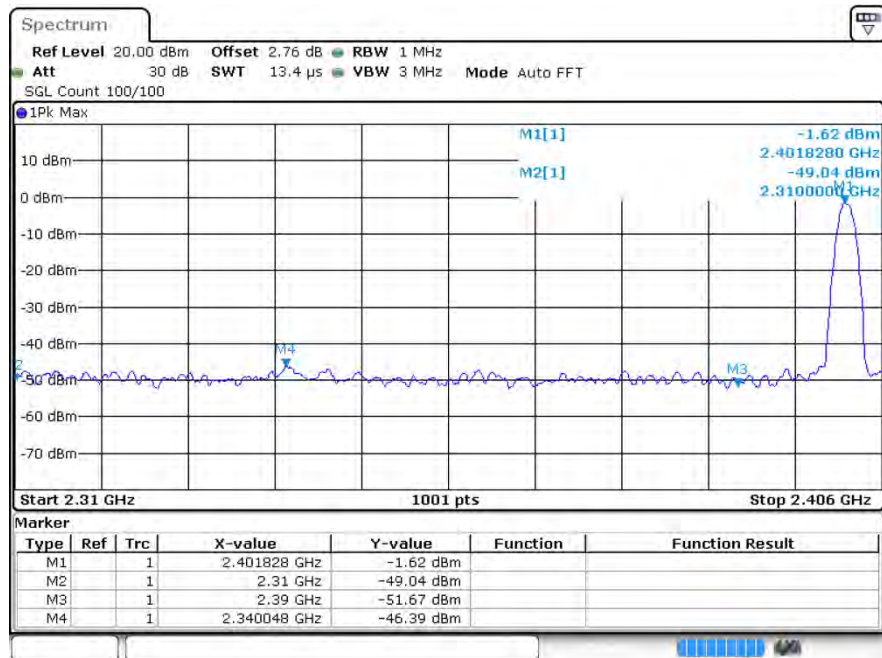
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (High Channel)



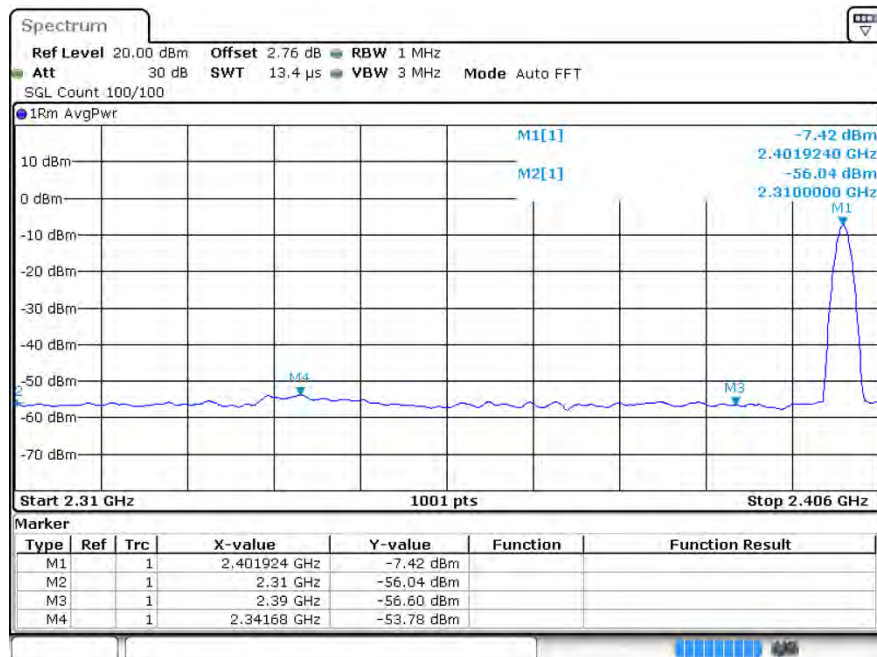
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (High Channel)



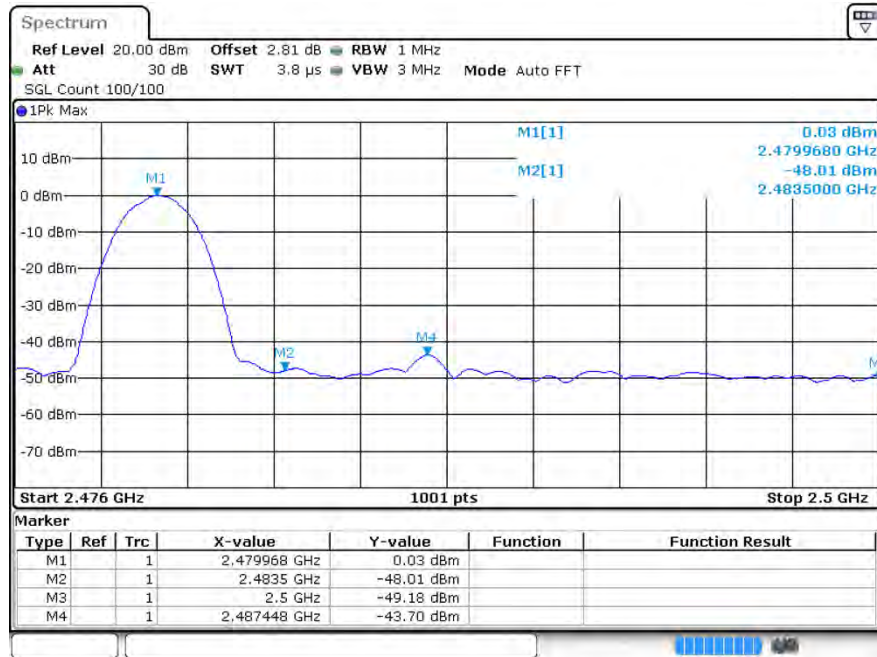
Restrict-band band-edge measurements_Hopping Off_8DPSK_PEAK (Low Channel)



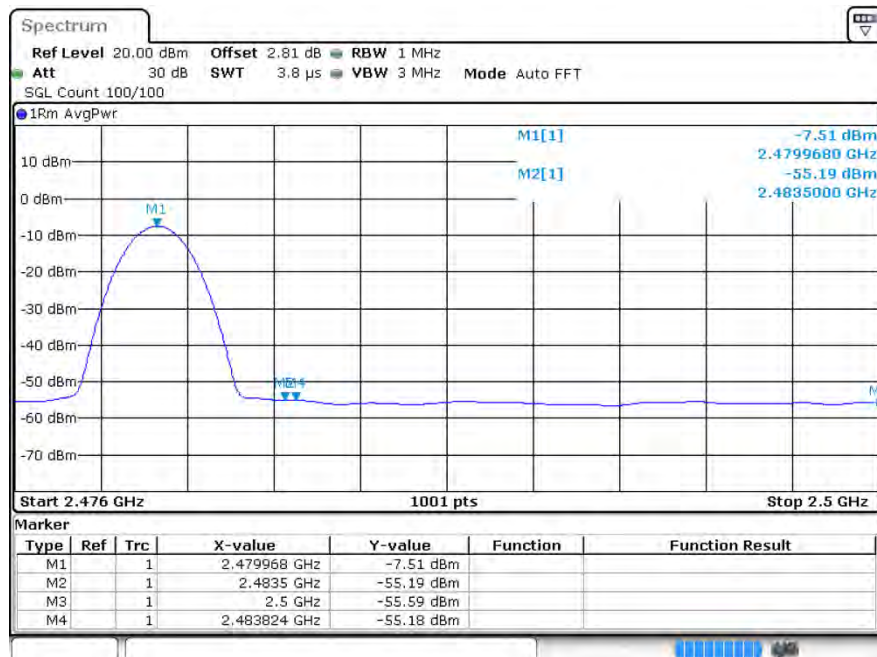
Restrict-band band-edge measurements_Hopping Off_8DPSK_Average (Low Channel)



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



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



---The End---