



Appendix A

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

Product Name: Cassette Adapter

Trade Mark: iTape

Test Model: iTape

Environmental Conditions

Temperature:	17.9℃
Relative Humidity:	51.7%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

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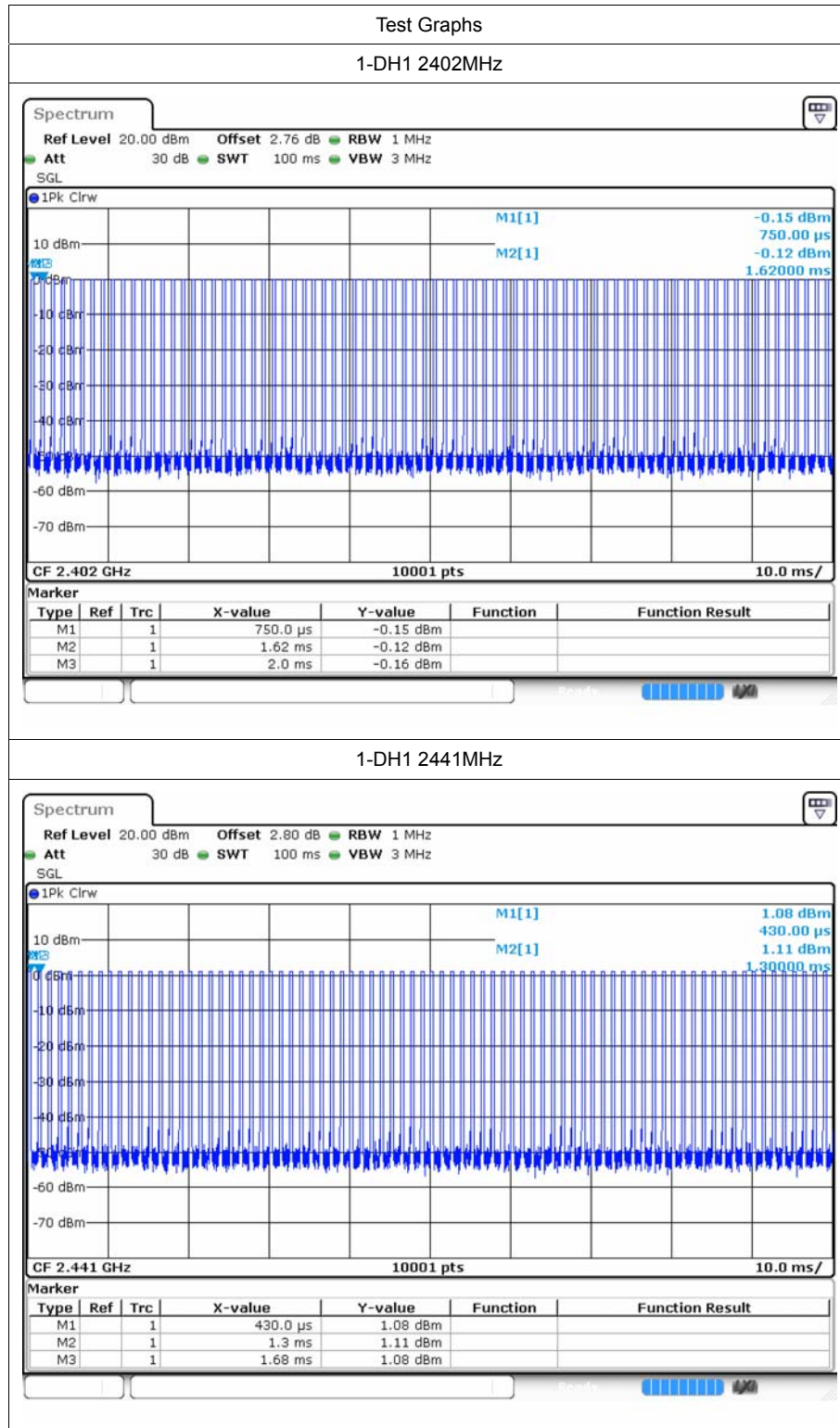
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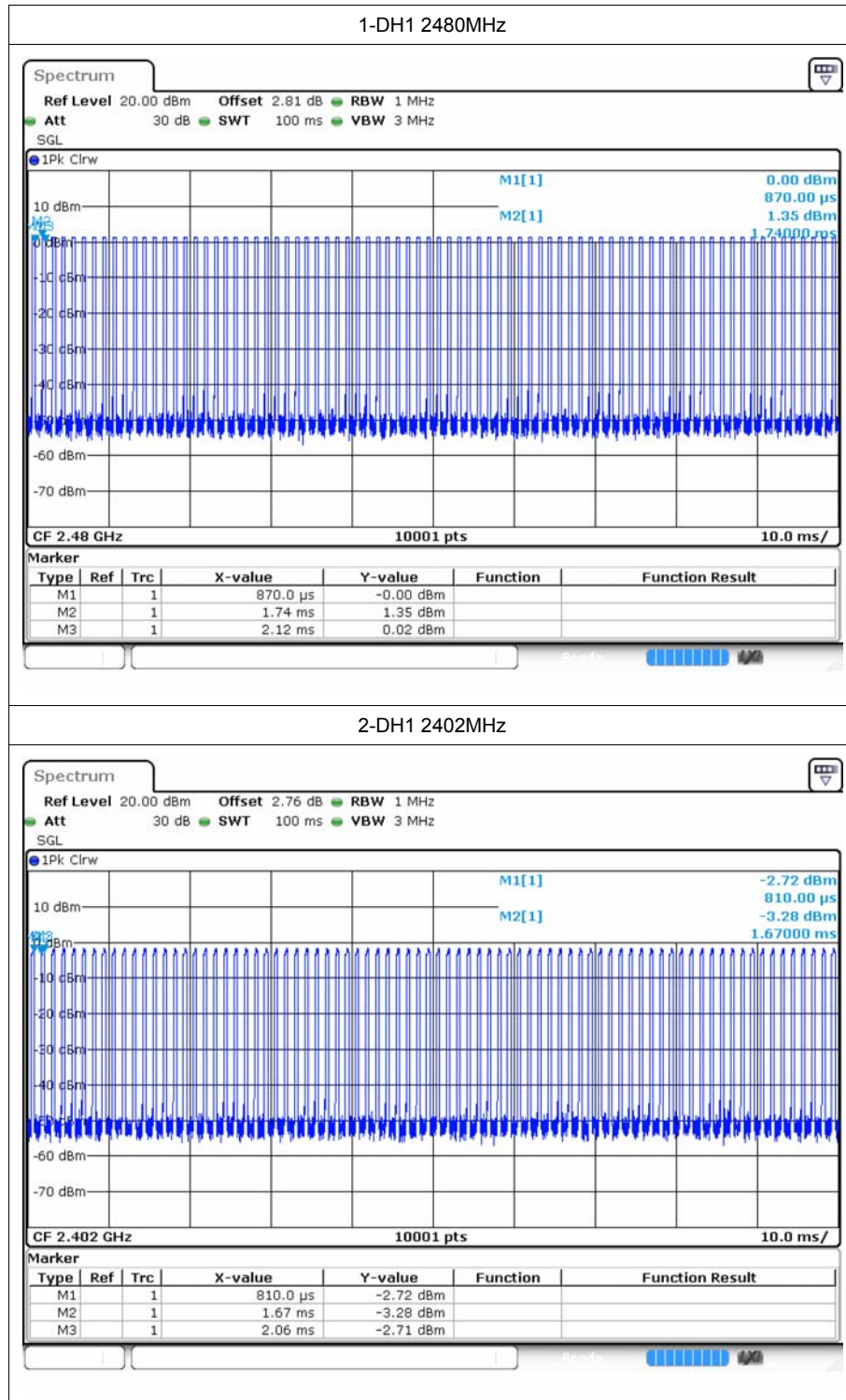
1 Duty Cycle

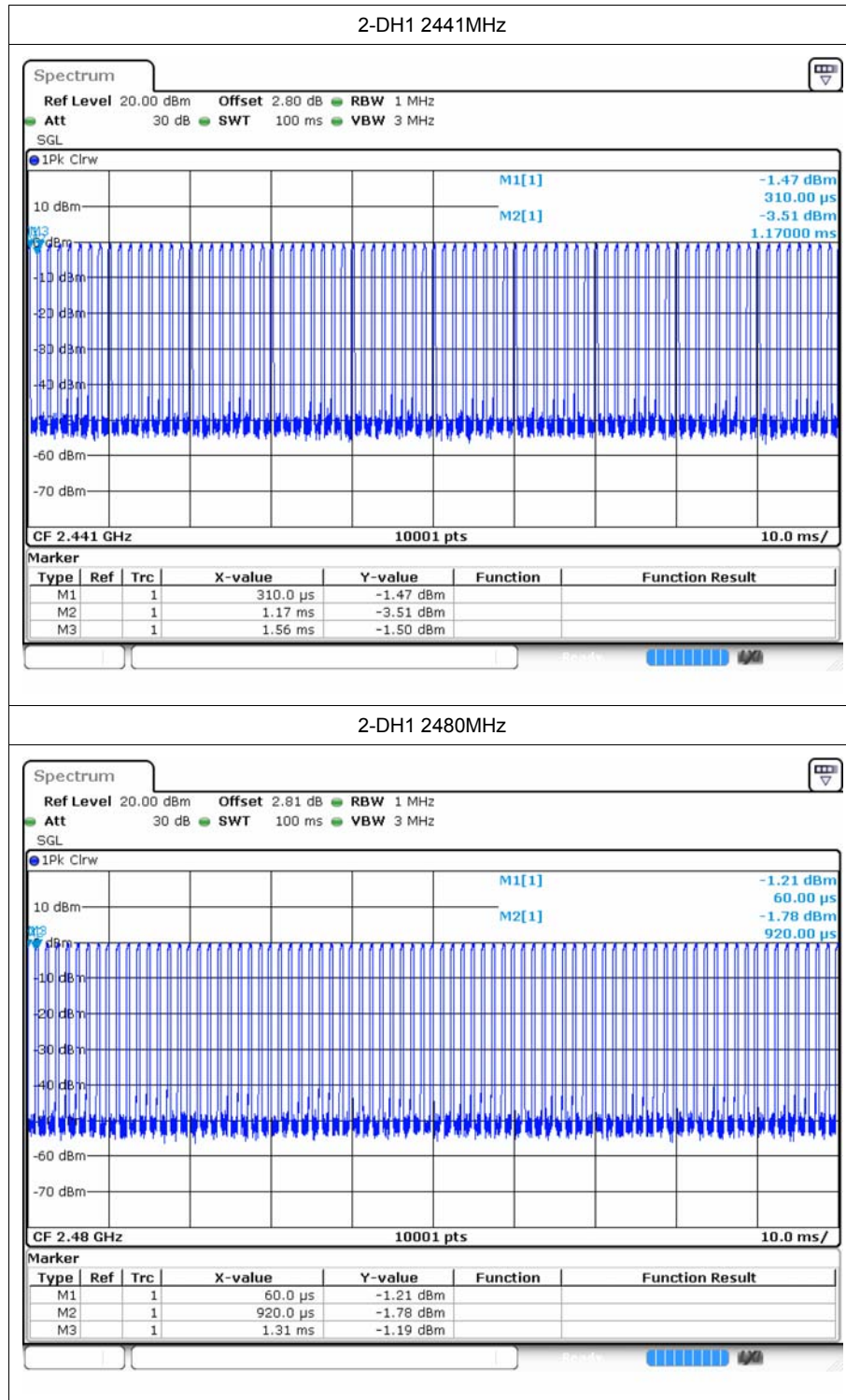
1.1 Test Result

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	32.01	2.56
2-DH1	2480	32.01	2.56

1.2 Test Graphs





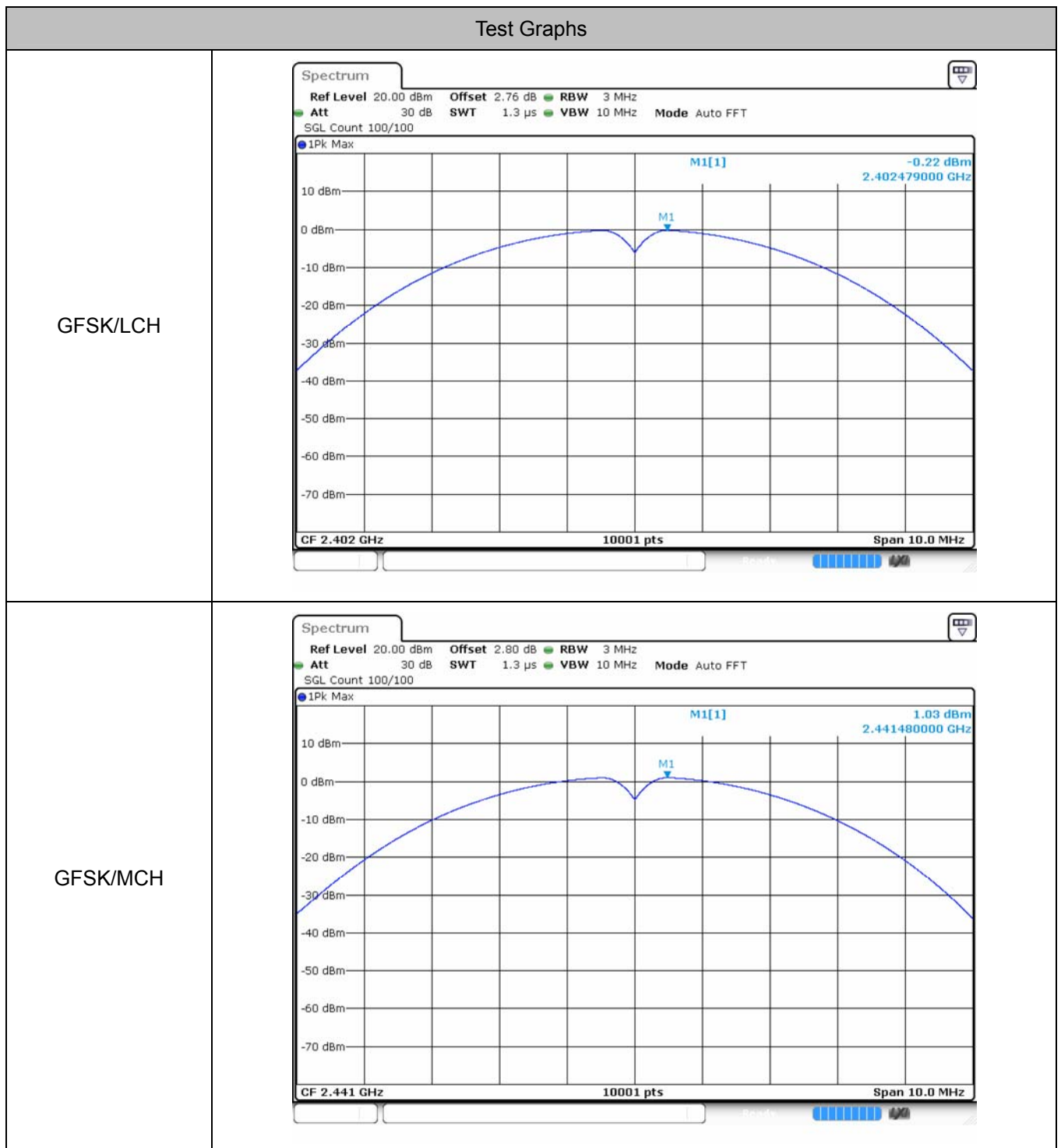


2 Maximum Conducted Peak Output Power

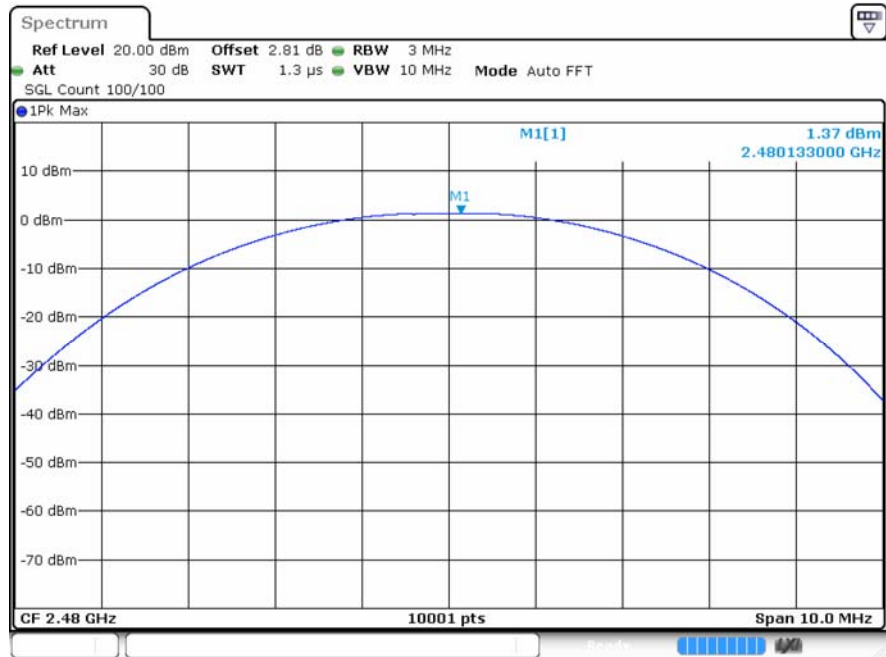
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.22	21	Pass
	MCH	1.03	21	Pass
	HCH	1.37	21	Pass
$\pi/4$ DQPSK	LCH	-1.05	21	Pass
	MCH	-0.2	21	Pass
	HCH	0.32	21	Pass

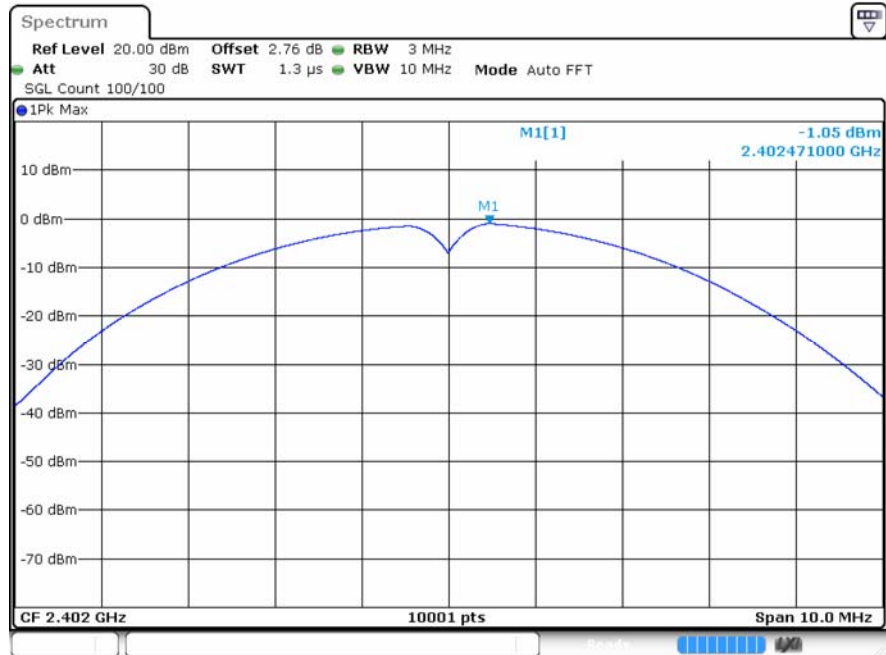
2.2 Test Graphs



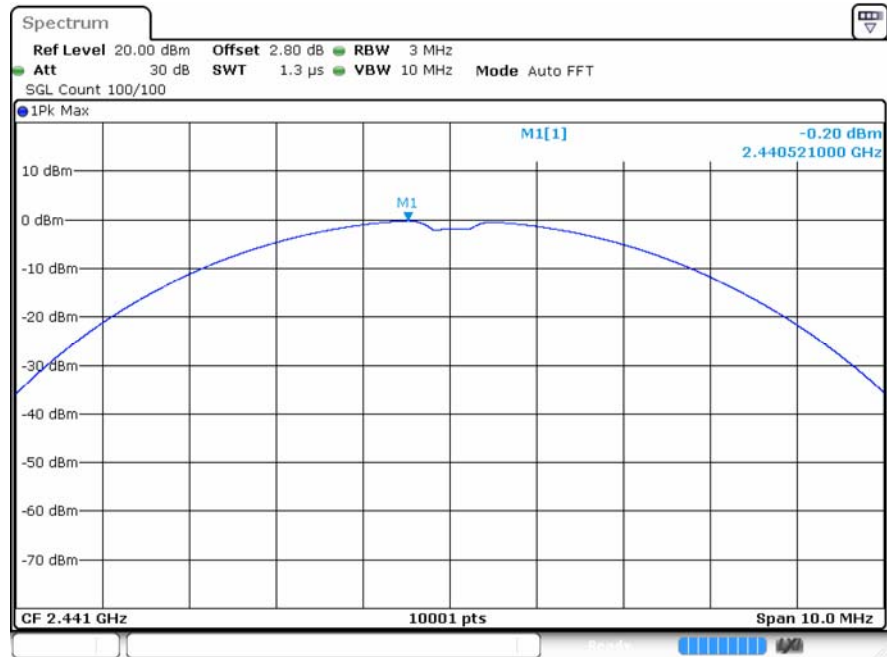
GFSK/HCH



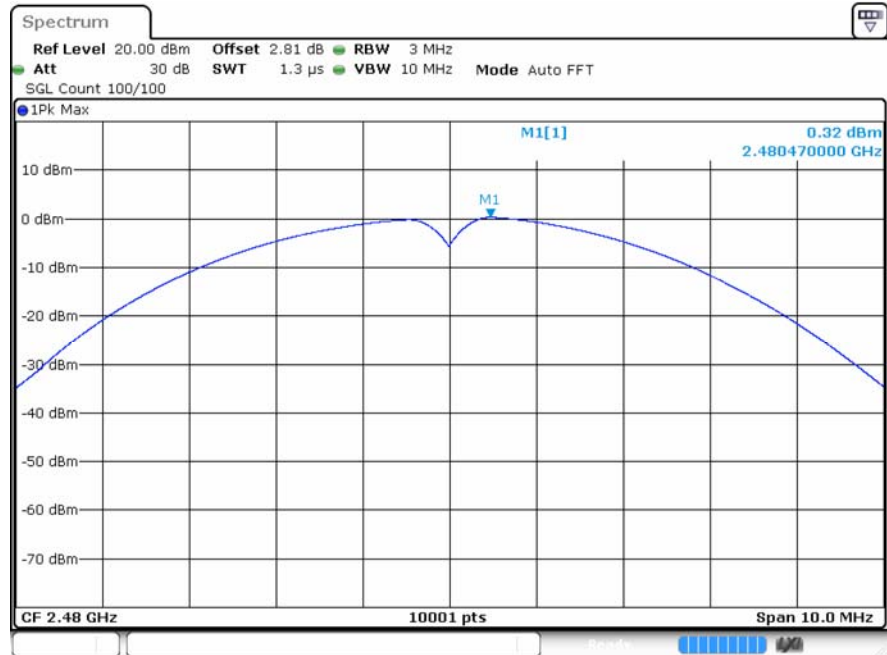
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH

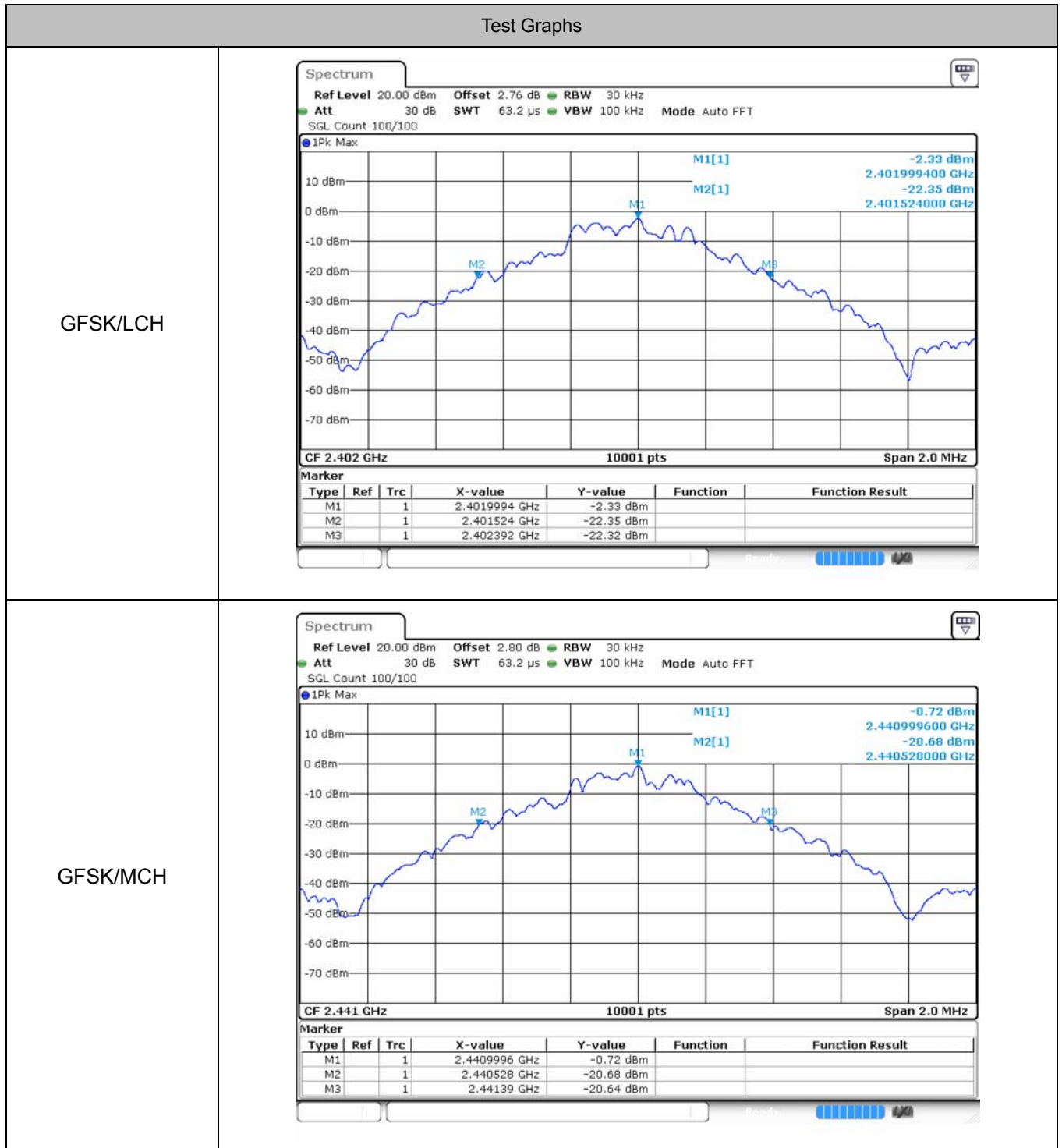


3 20dB Bandwidth

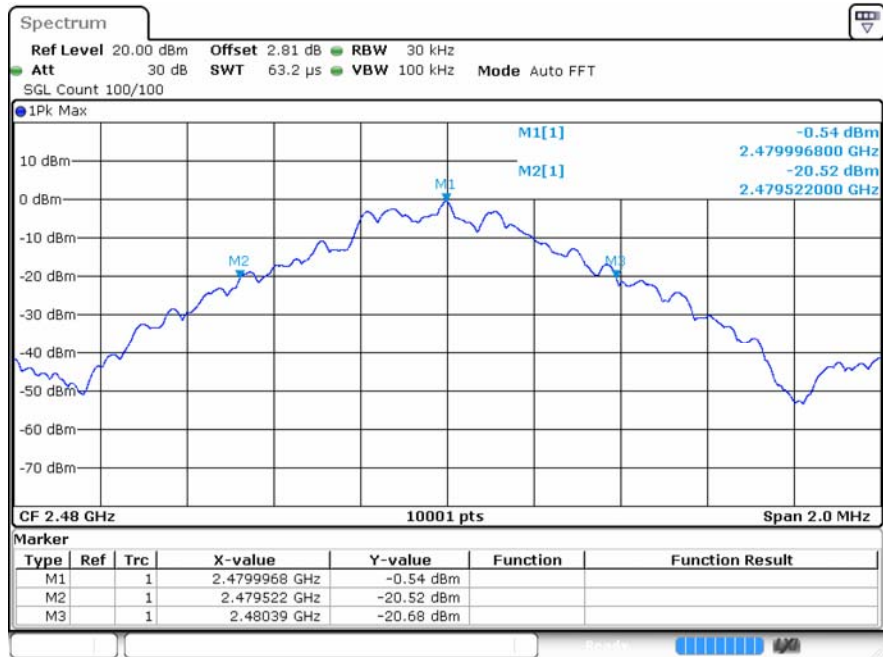
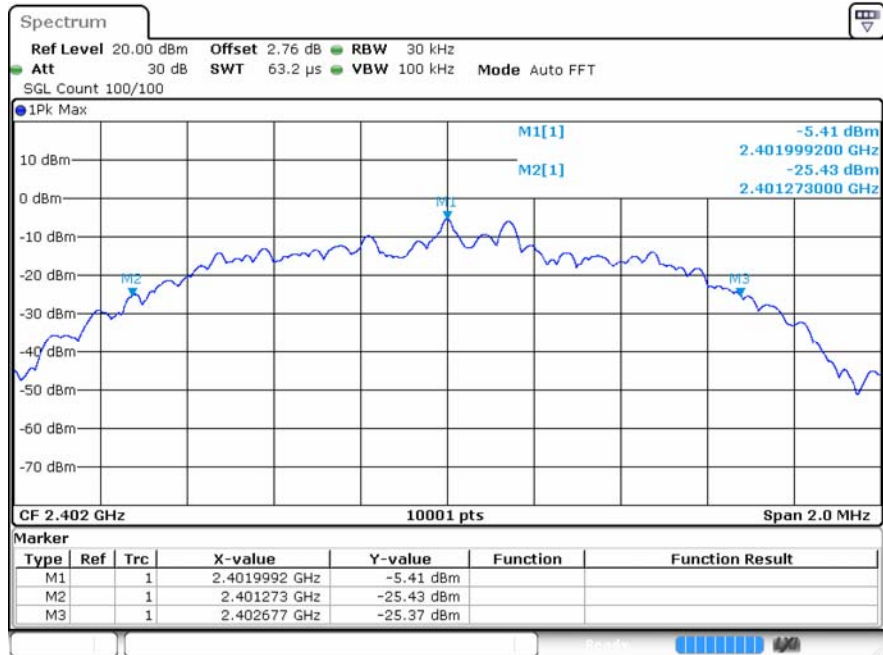
3.1 Test Result

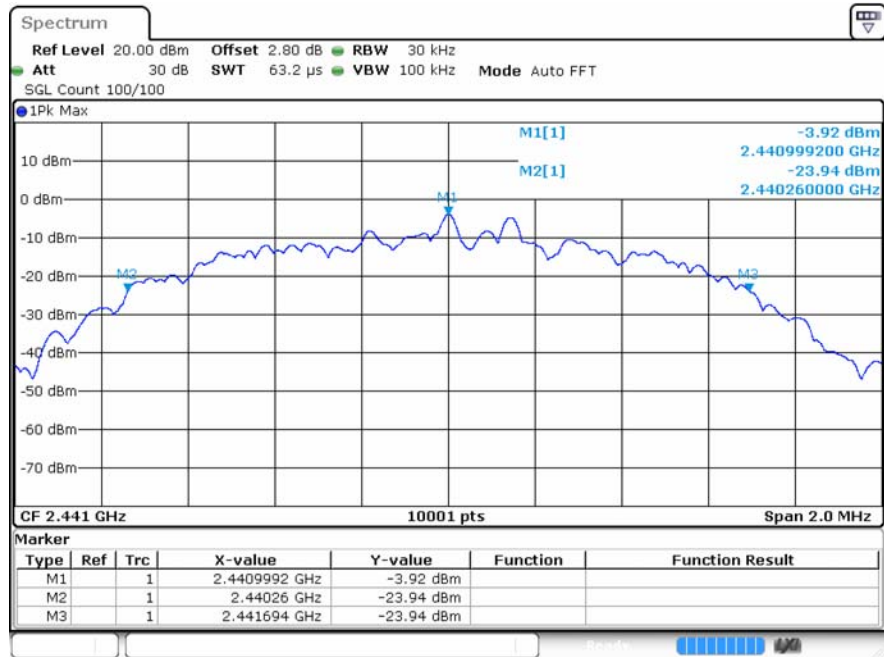
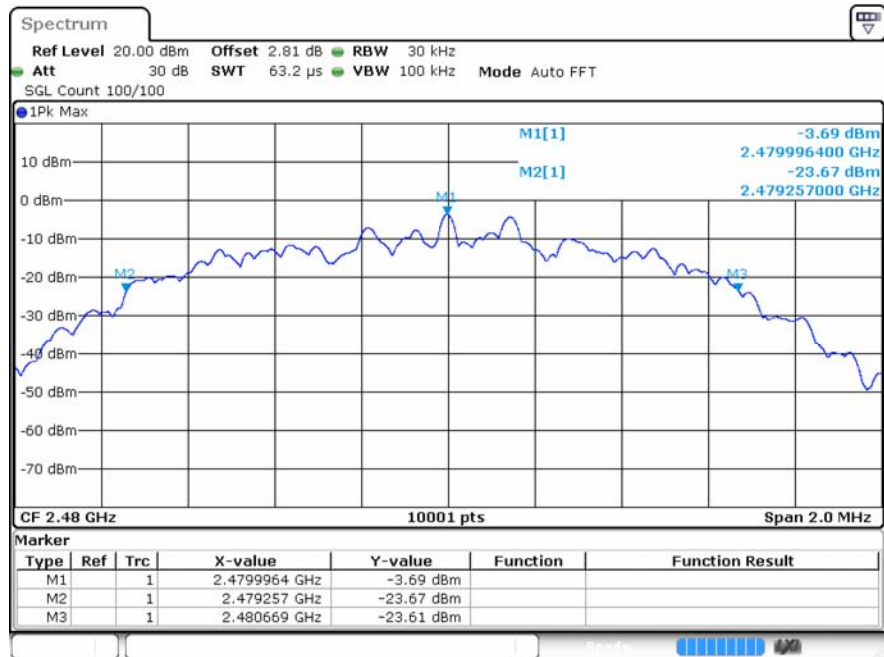
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.868	Not Specified	Pass
	MCH	0.862	Not Specified	Pass
	HCH	0.868	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.404	Not Specified	Pass
	MCH	1.434	Not Specified	Pass
	HCH	1.412	Not Specified	Pass

3.2 Test Graphs



GFSK/HCH


 $\pi/4$ DQPSK/LCH


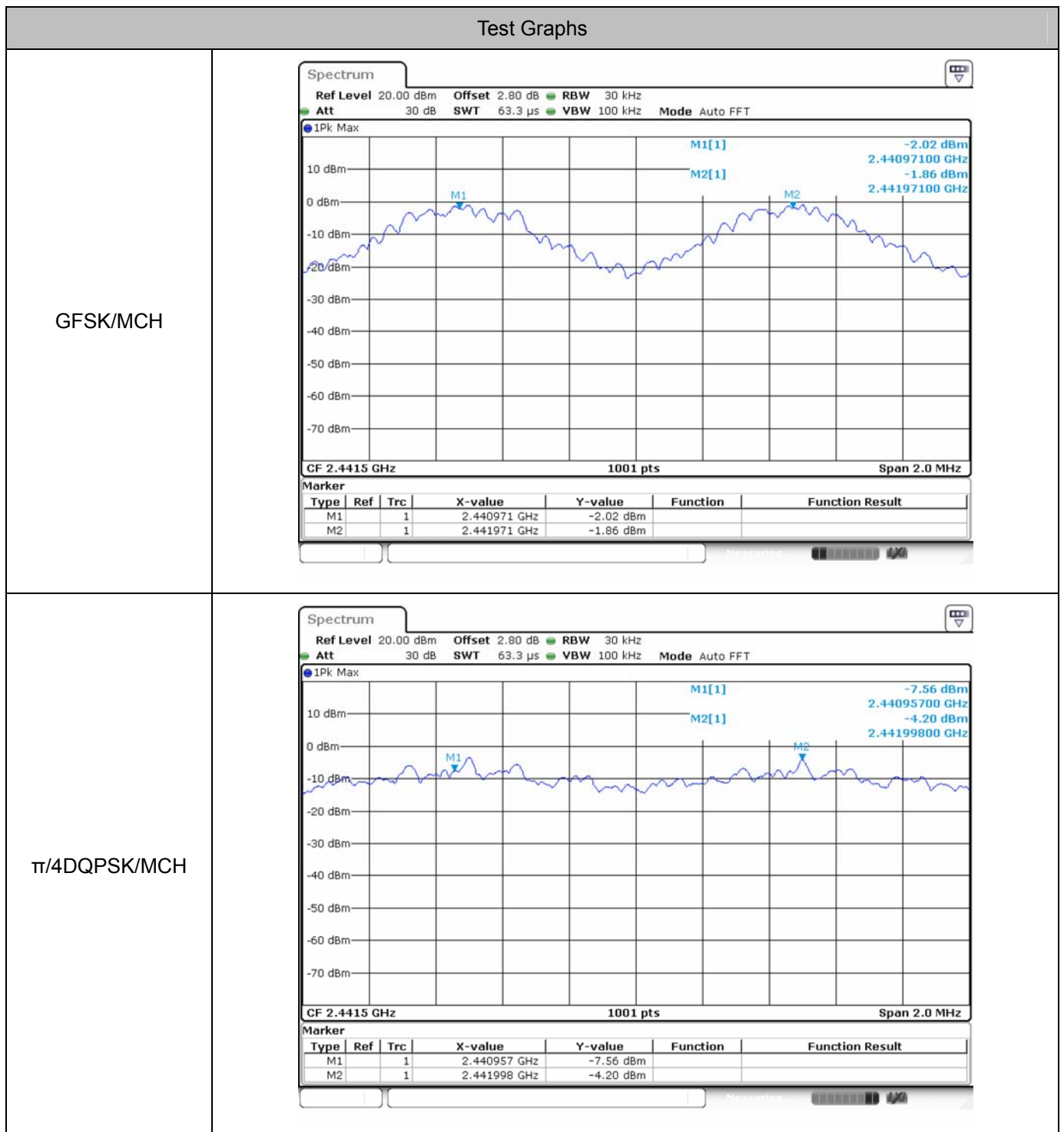
$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1	0.575	Pass
$\pi/4$ DQPSK	MCH	1.041	0.956	Pass

4.2 Test Graphs

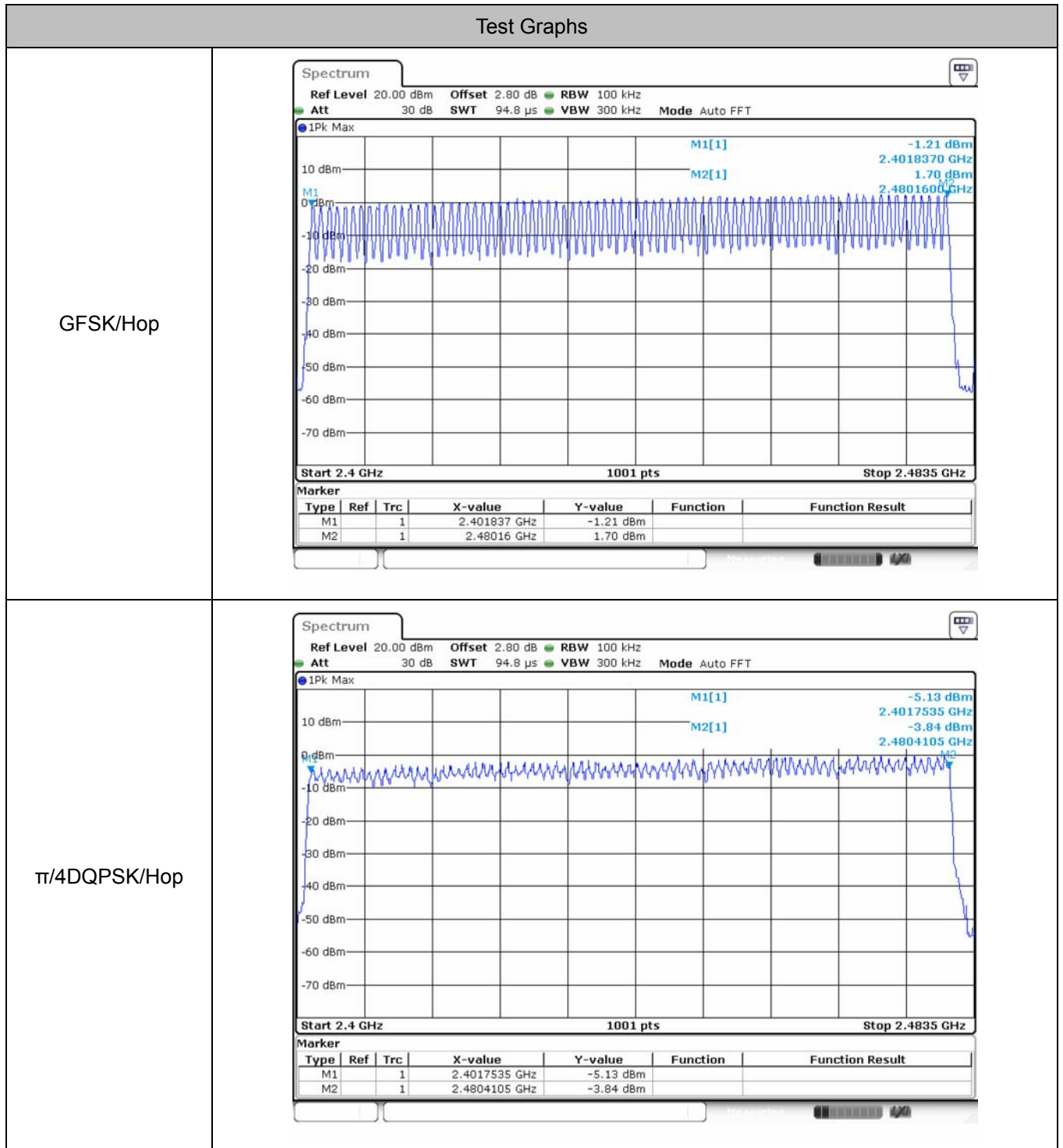


5 Hopping Channel Number

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

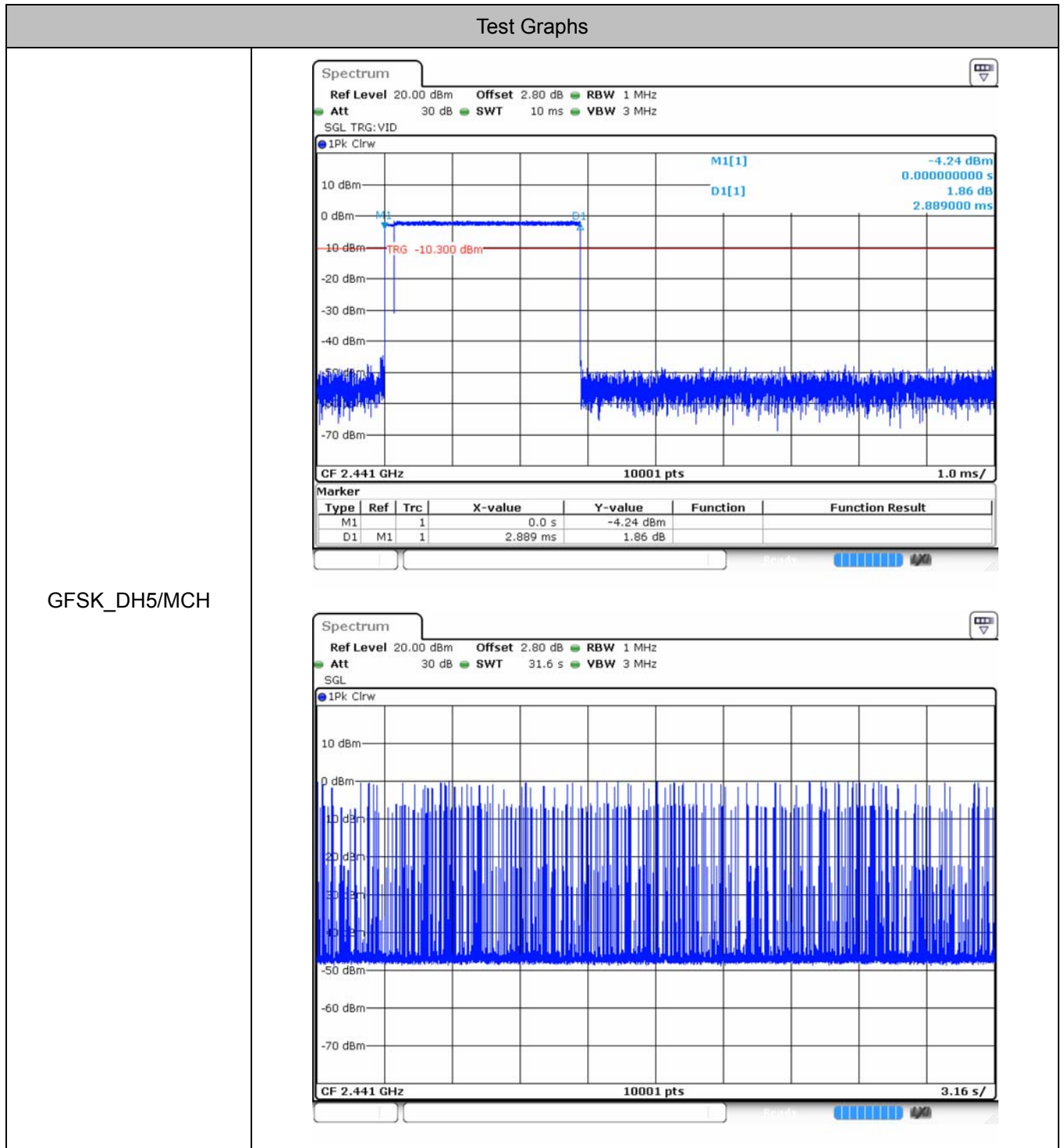


6 Dwell Time

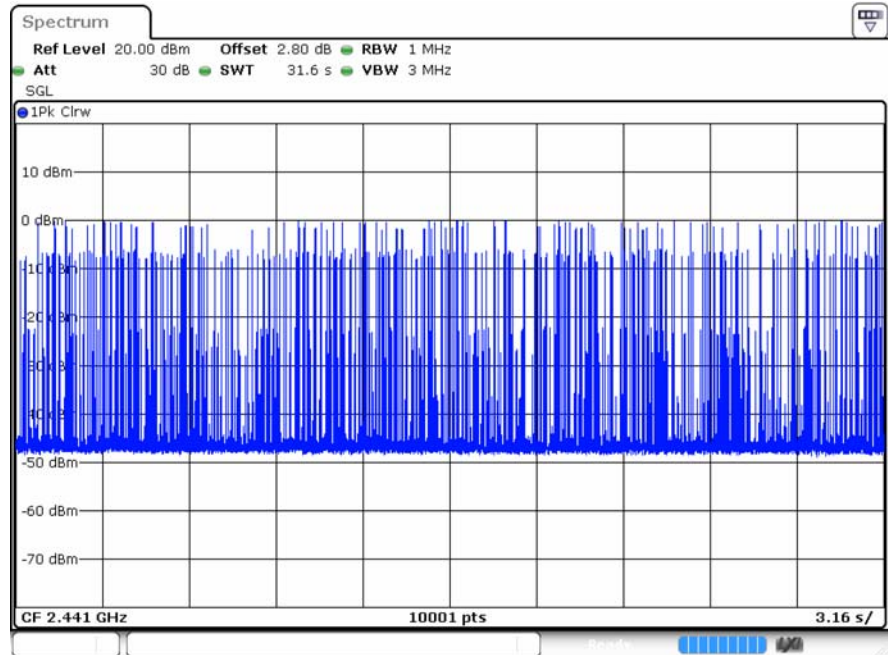
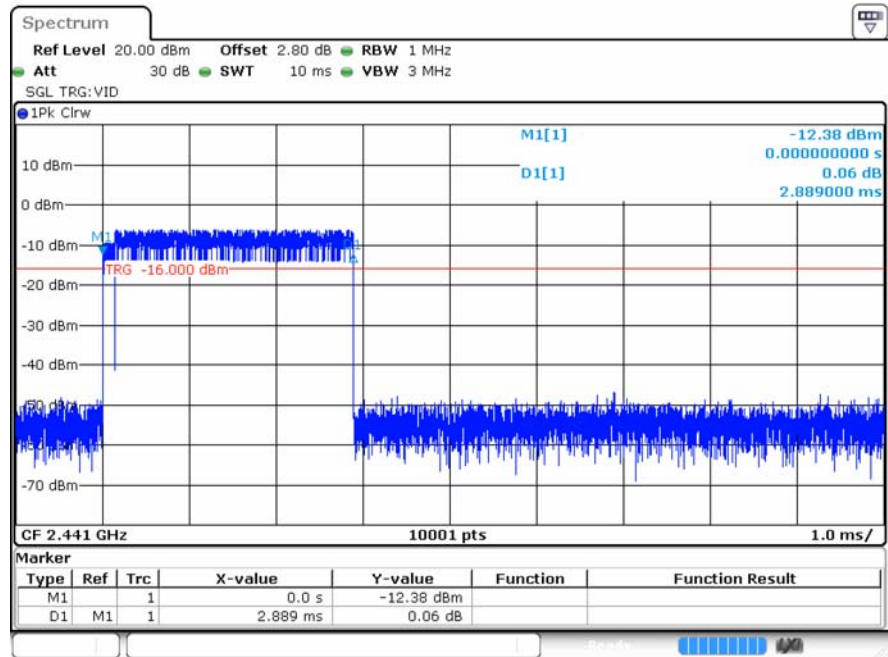
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.889	102	294.678	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.889	110	317.79	0.4	Pass

6.2 Test Graphs



$\pi/4$ DQPSK
_2DH5/MCH

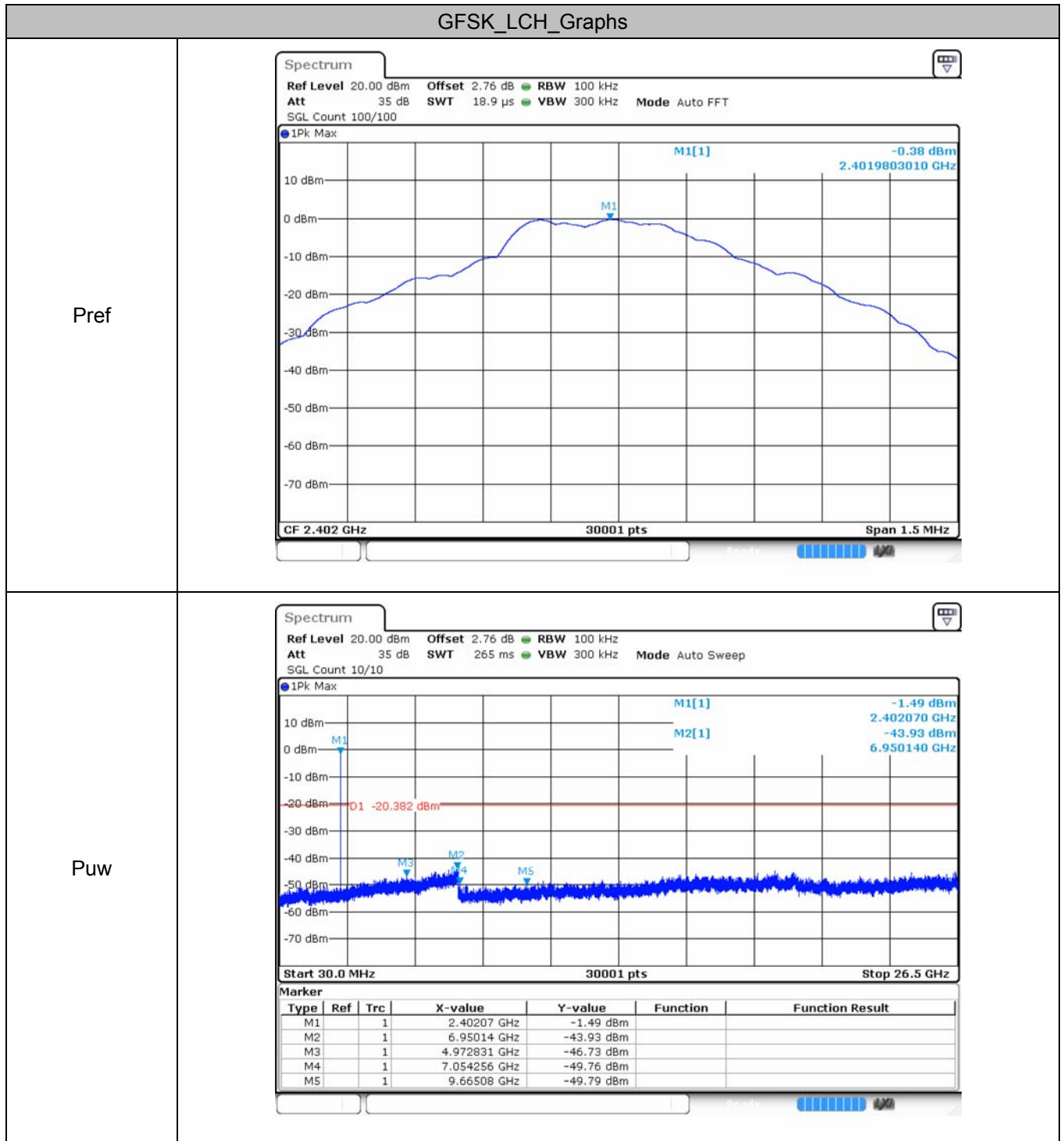


7 RF Conducted Spurious Emissions

7.1 Test Result

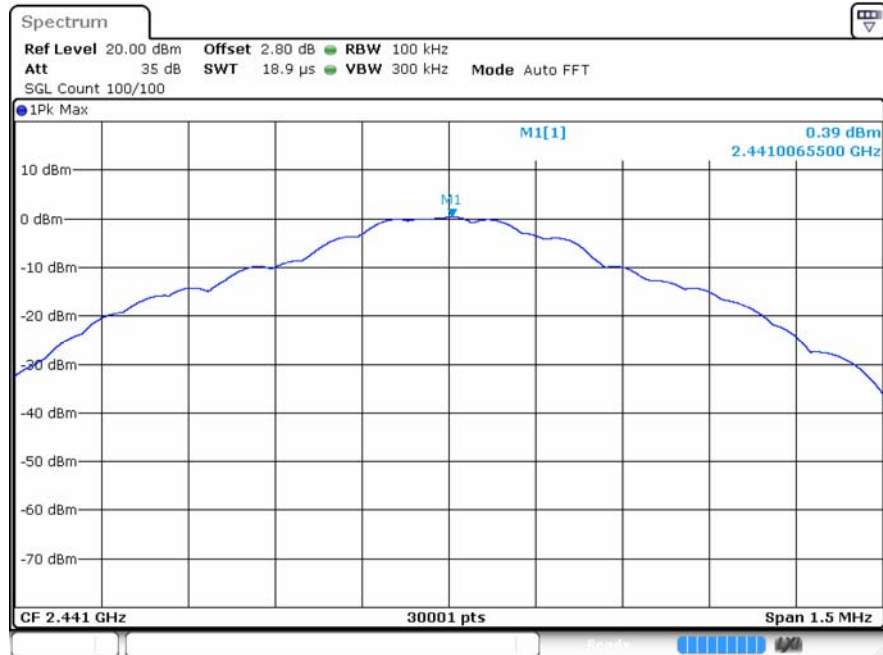
Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-43.54	-20	Pass
	MCH	-44.46	-20	Pass
	HCH	-46.05	-20	Pass
$\pi/4$ DQPSK	LCH	-41.2	-20	Pass
	MCH	-42.54	-20	Pass
	HCH	-42.45	-20	Pass

7.2 Test Graphs

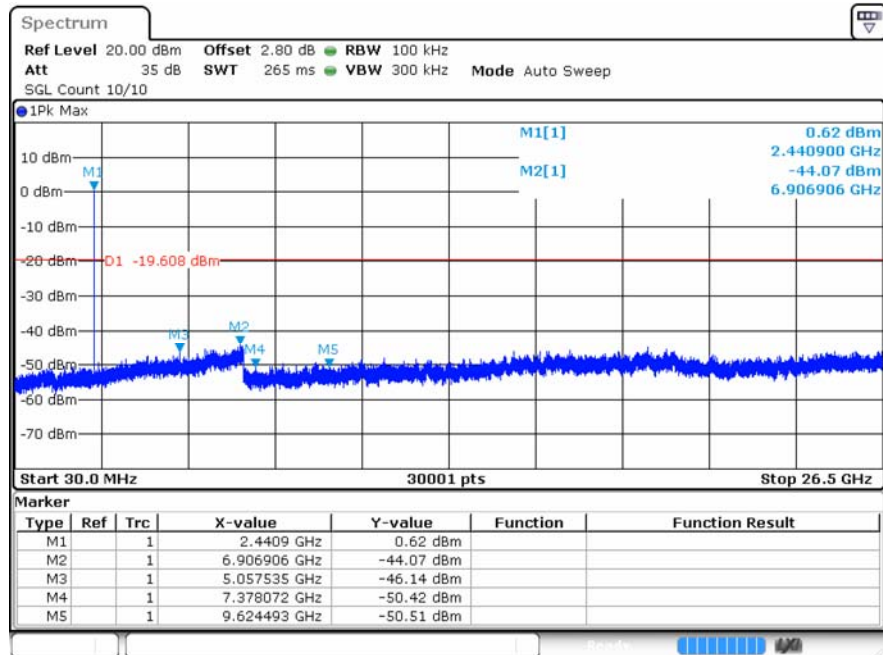


GFSK_MCH_Graphs

Pref

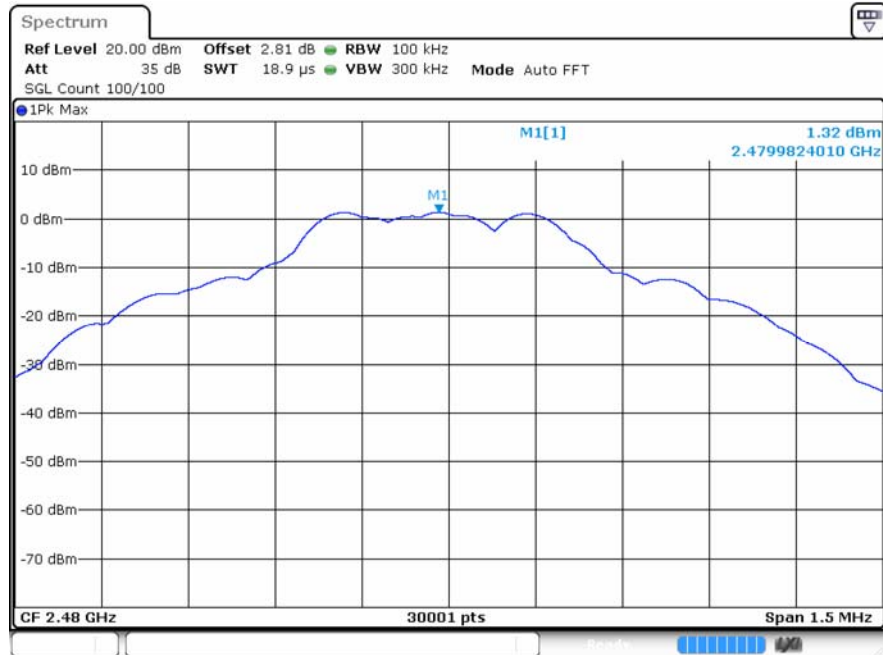


Puw

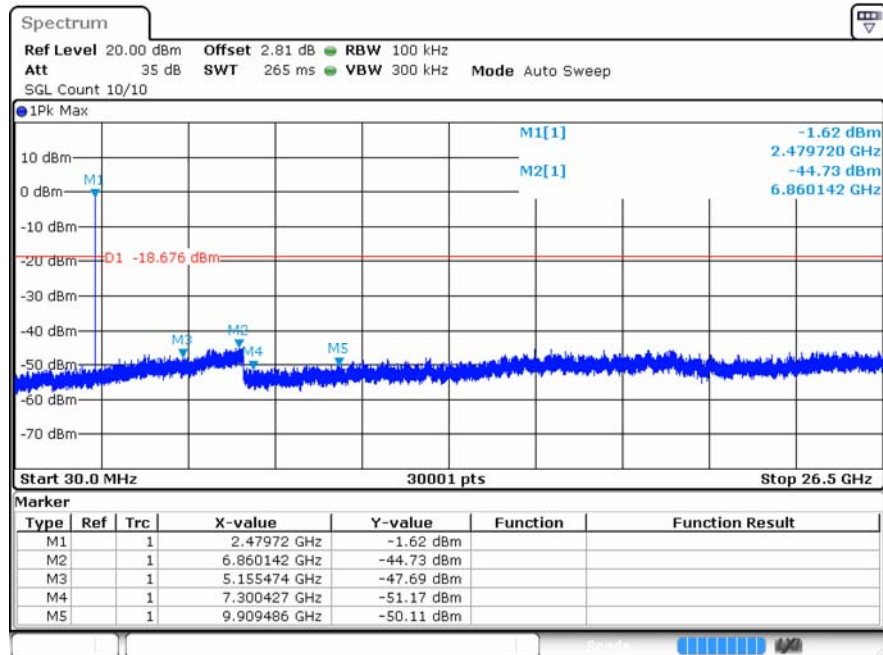


GFSK_HCH_Graphs

Pref

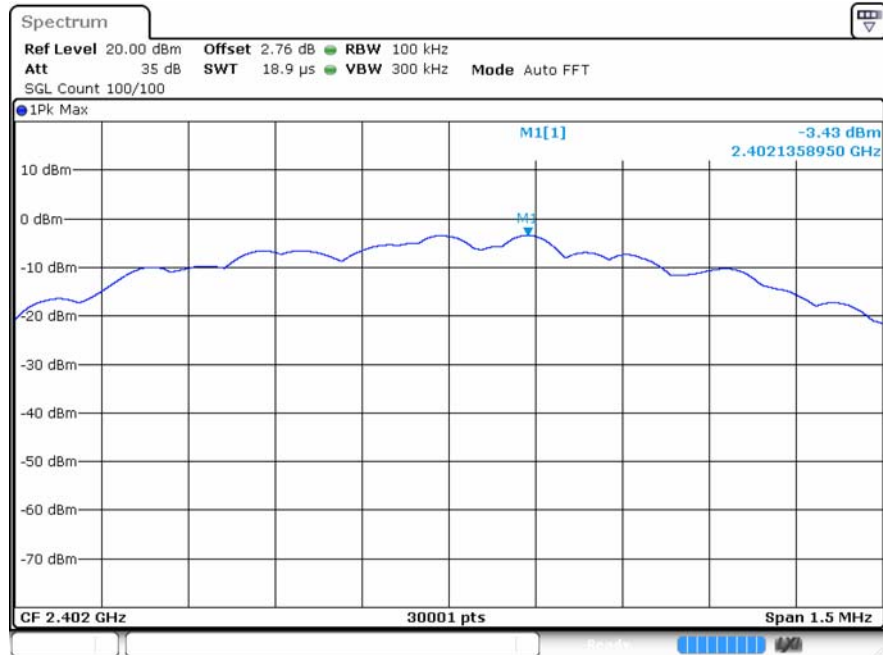


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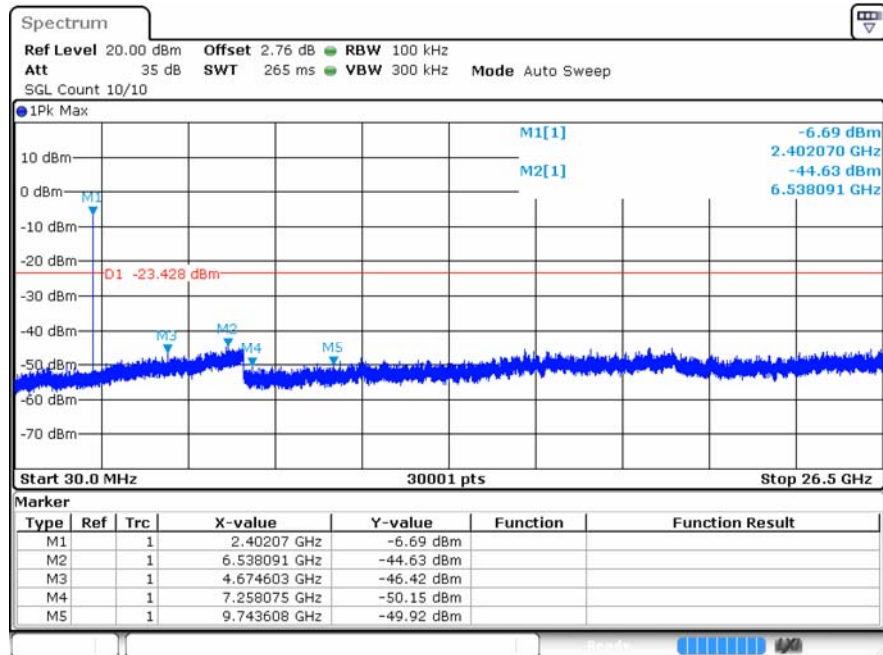


$\pi/4$ DQPSK_LCH_Graphs

Pref

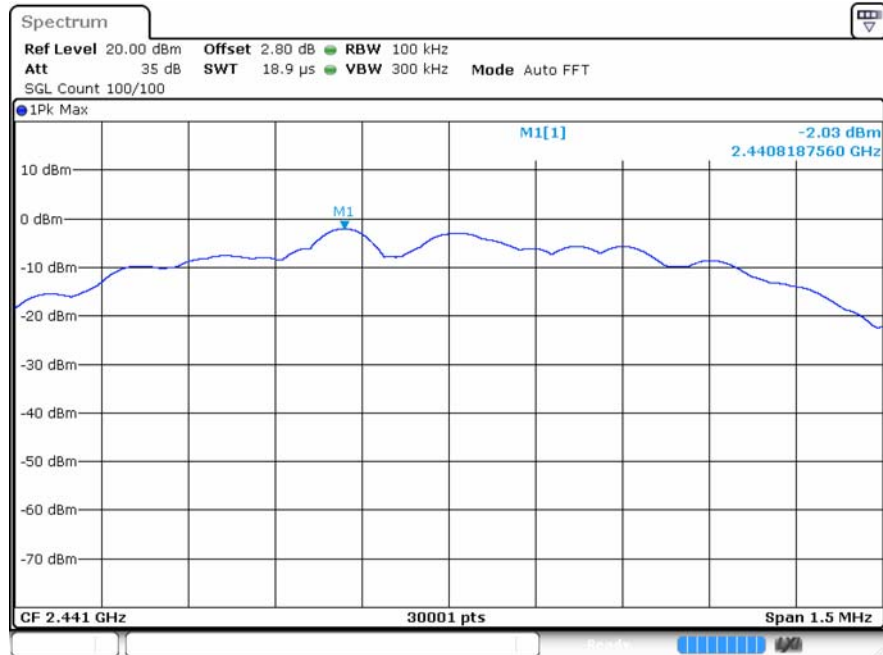


Puw

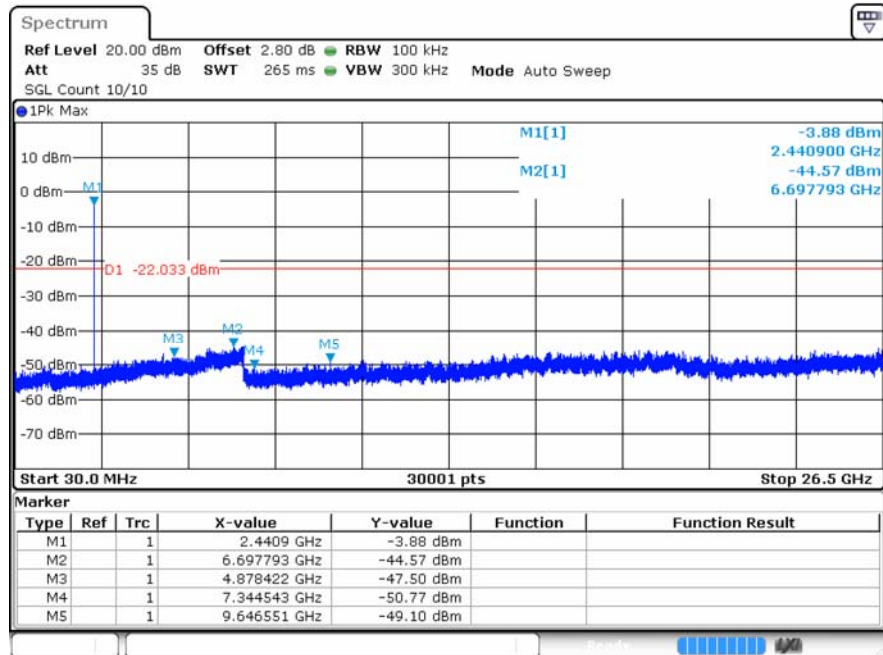


$\pi/4$ DQPSK_MCH_Graphs

Pref

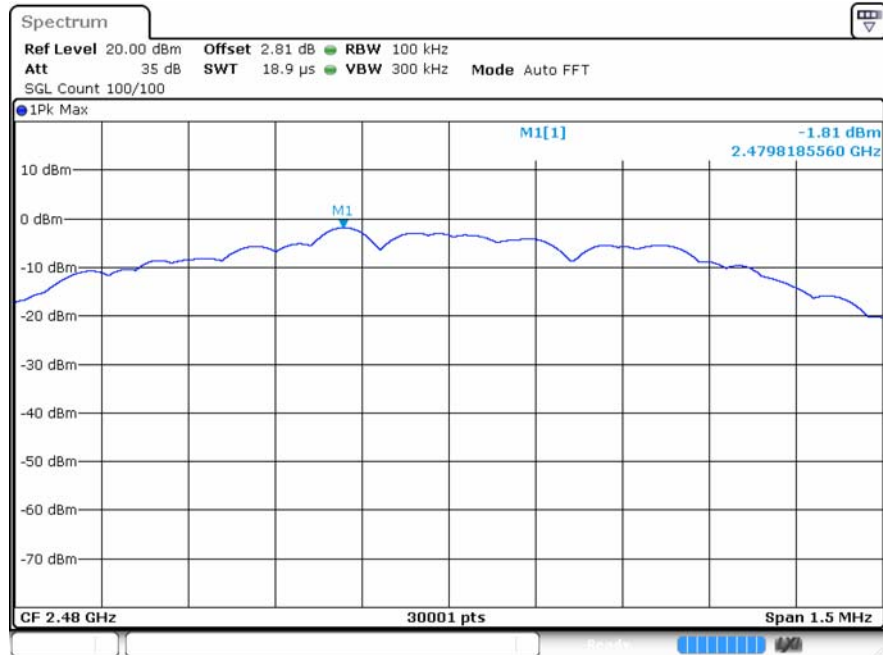


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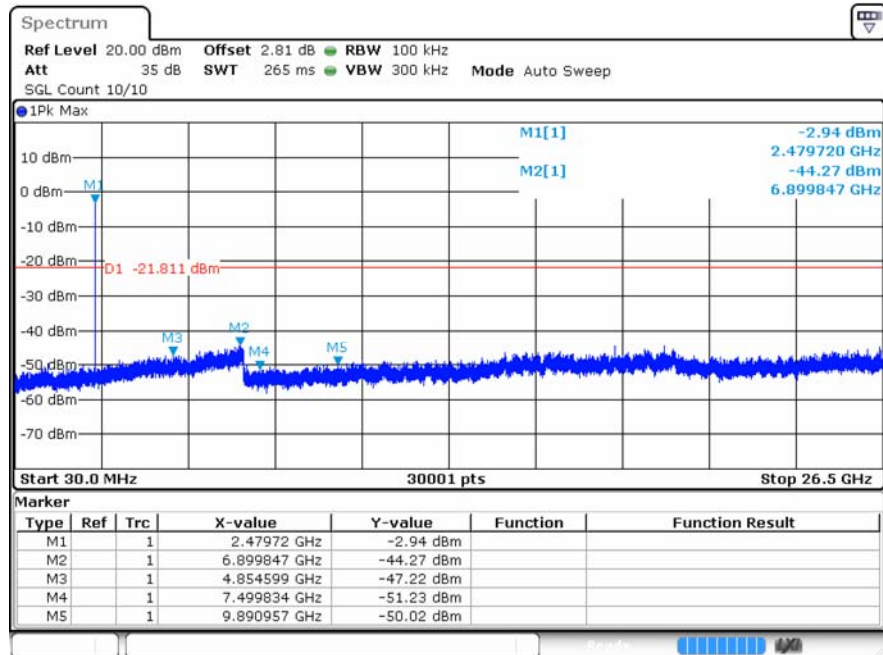


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

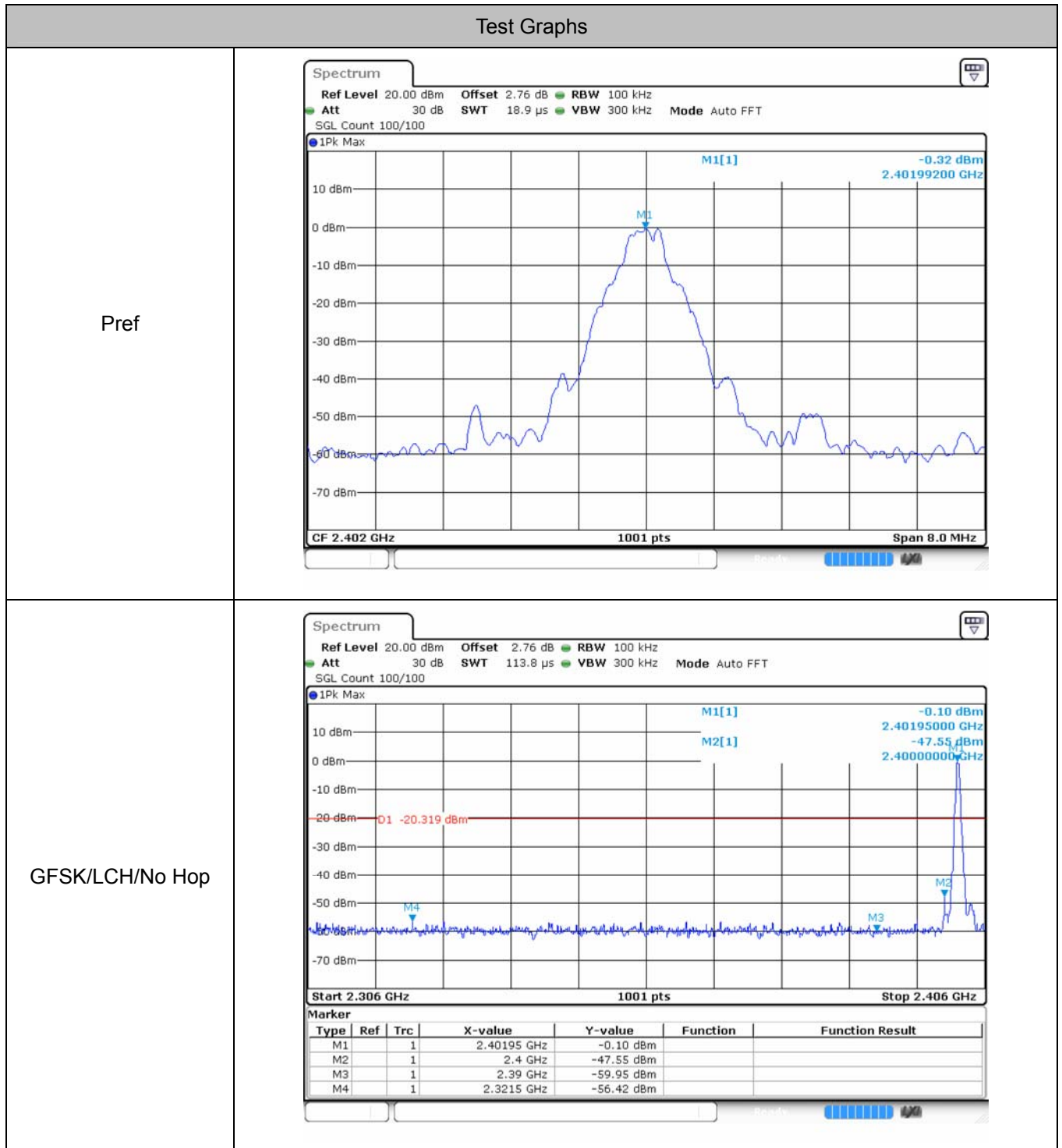


8 Band-edge for RF Conducted Emissions

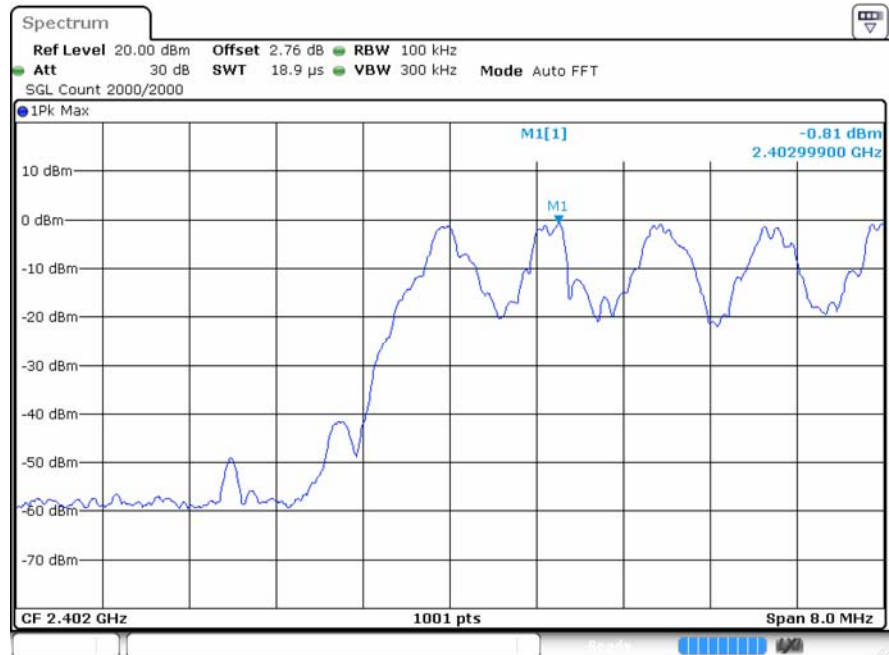
8.1 Test Result

Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-56.1	-20	Pass
			On	-54.05	-20	Pass
	HCH	2480	Off	-48.38	-20	Pass
			On	-57.28	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-52.62	-20	Pass
			On	-50.63	-20	Pass
	HCH	2480	Off	-43.38	-20	Pass
			On	-53.1	-20	Pass

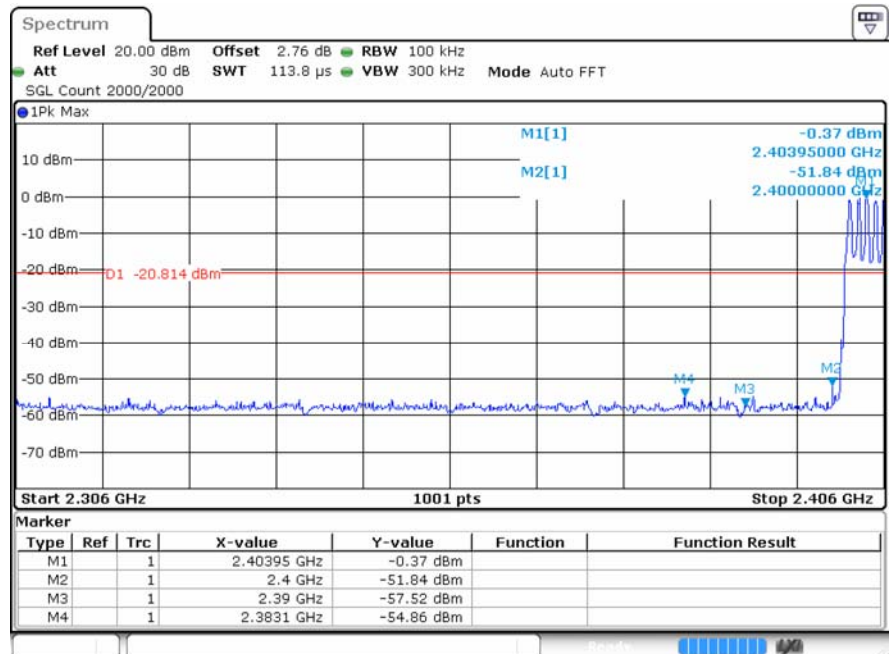
8.2 Test Graphs



Ref



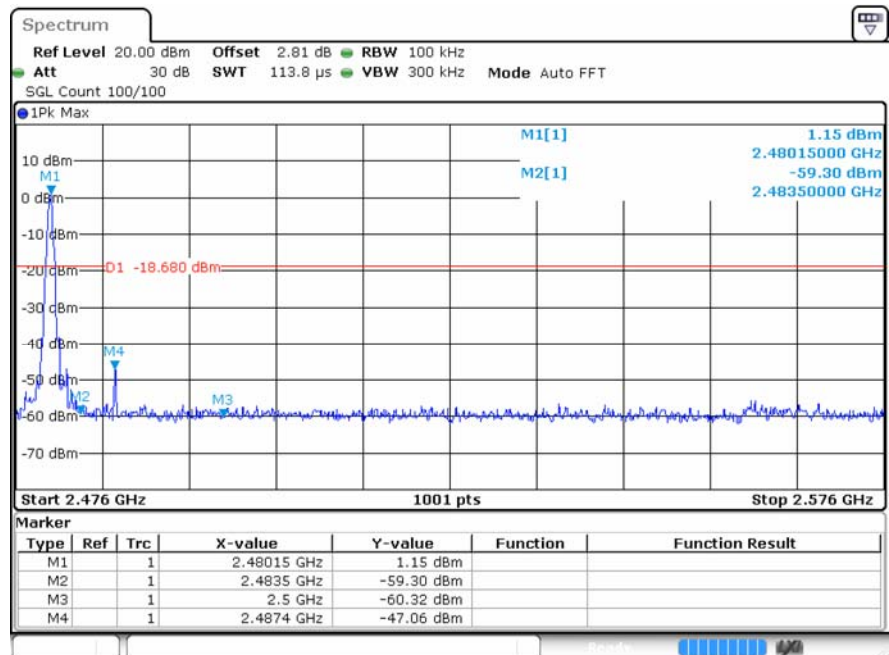
GFSK/LCH/Hop



Ref



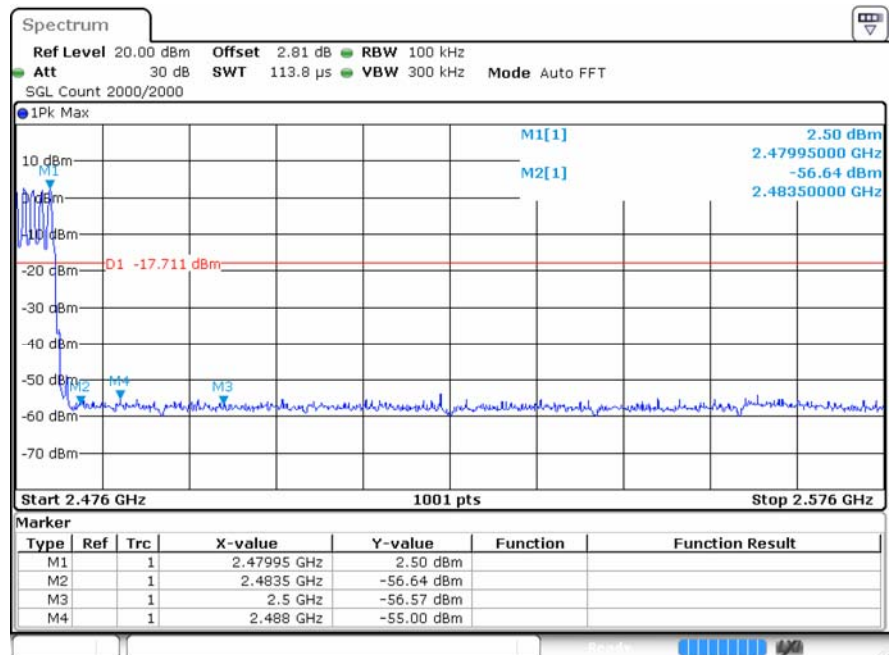
GFSK/HCH/No Hop



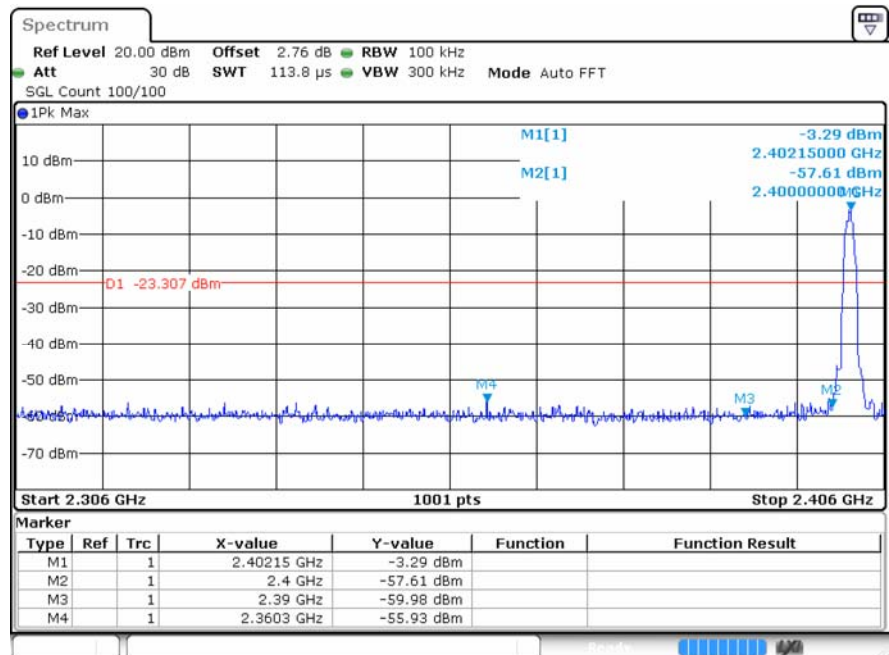
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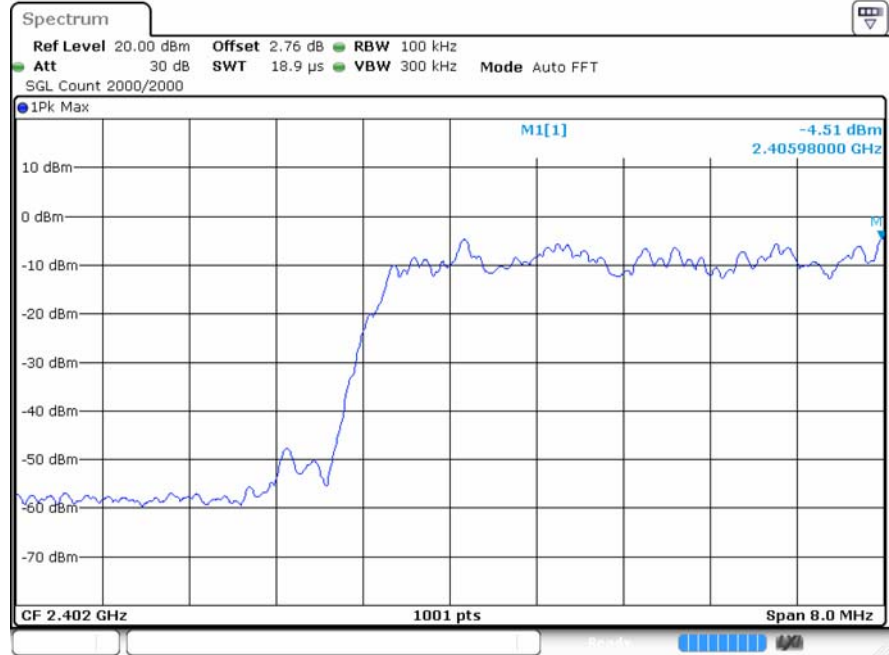
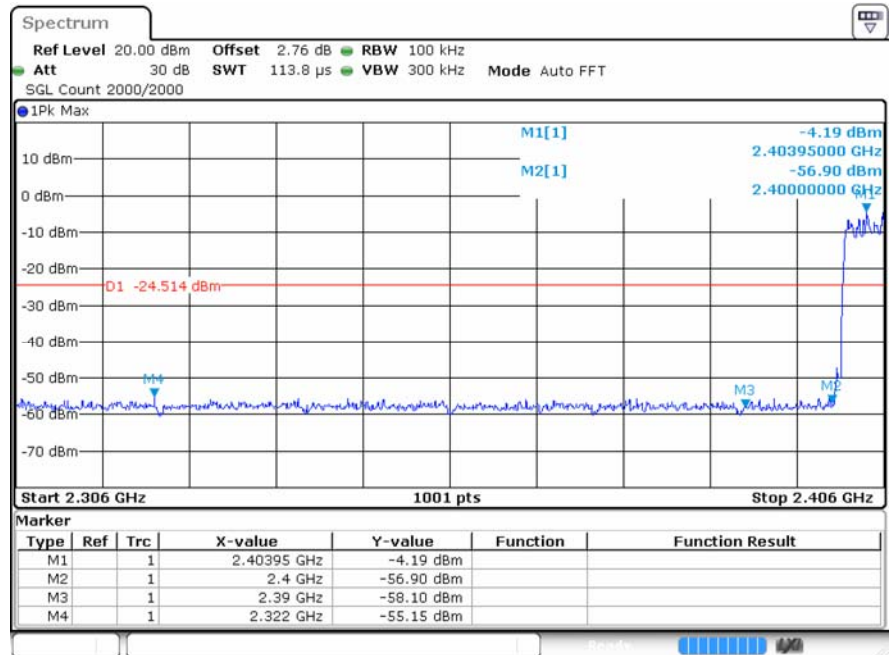
GFSK/HCH/Hop



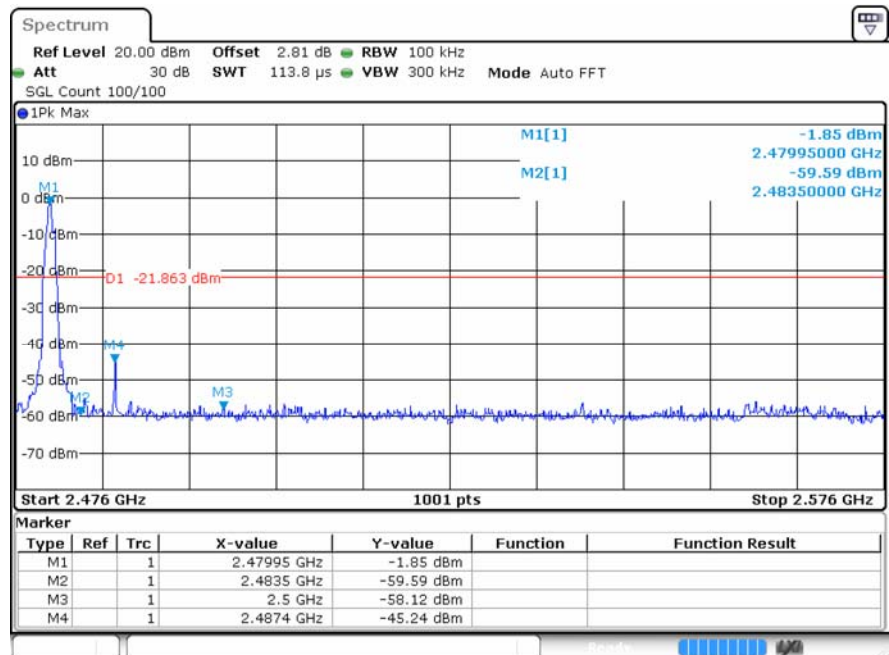
Ref


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


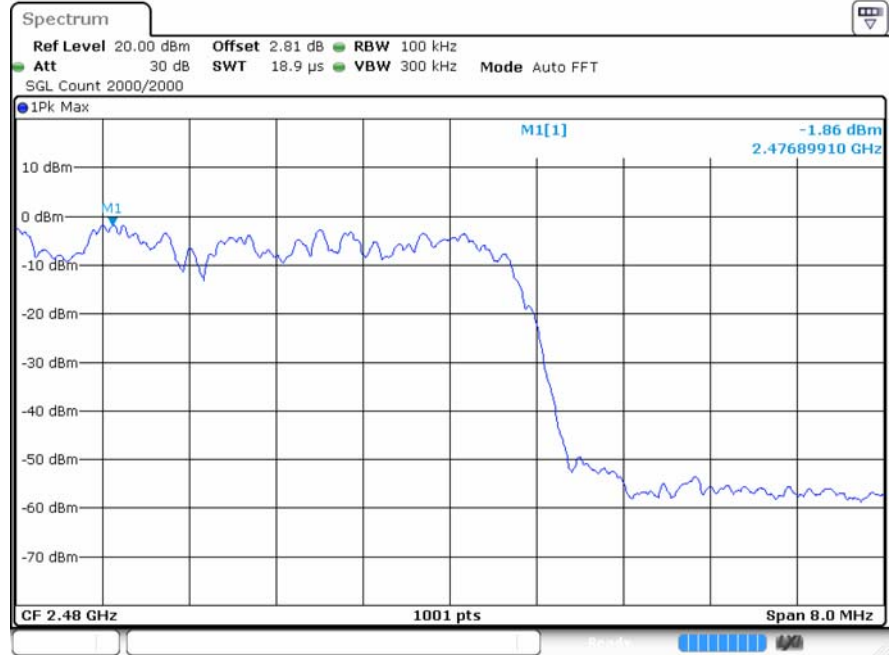
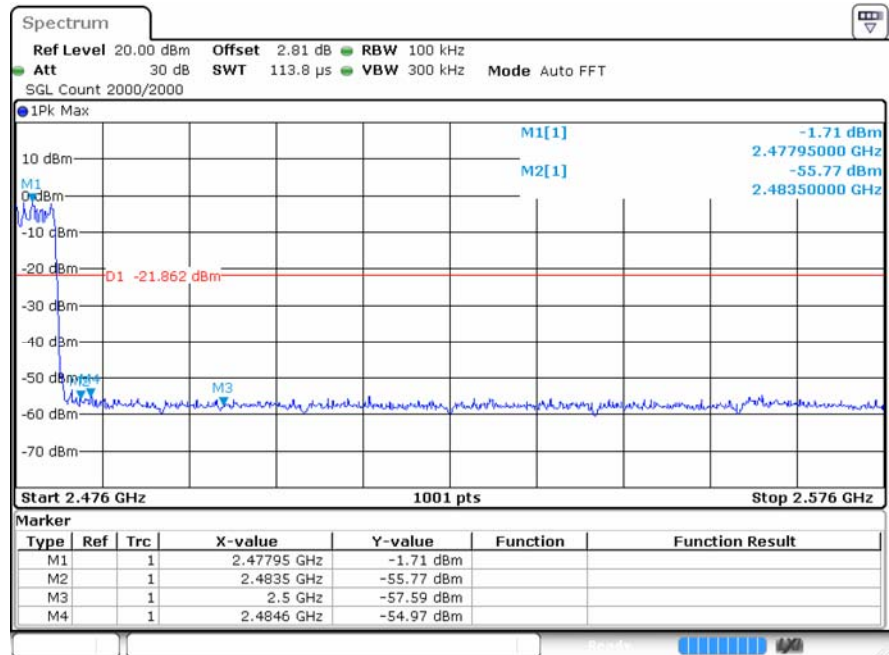
Ref


 $\pi/4$ DQPSK/LCH/Hop


Ref


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


Ref


 $\pi/4$ DQPSK/HCH/Hop


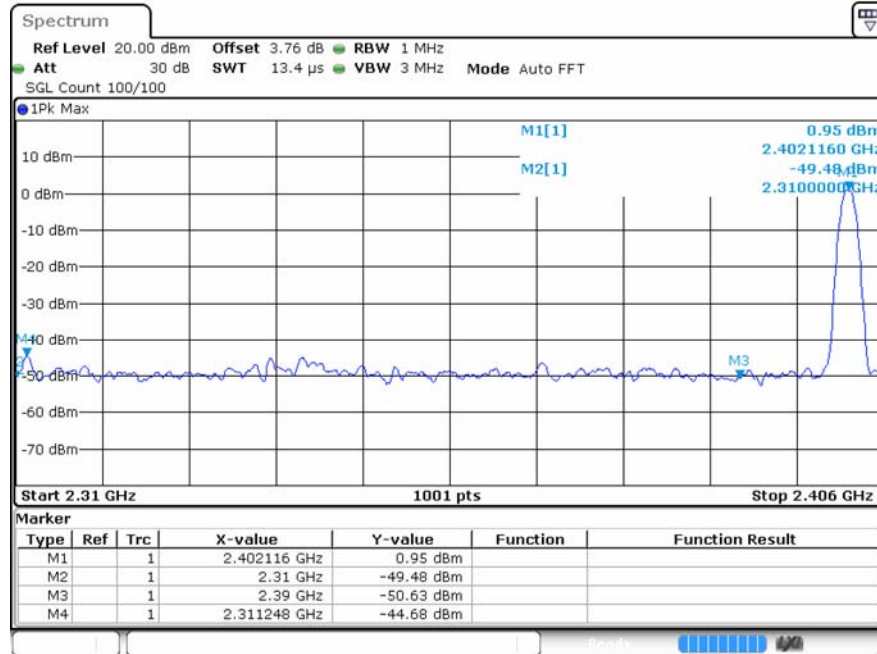
9 Restrict-band band-edge measurements

9.1 Test Result

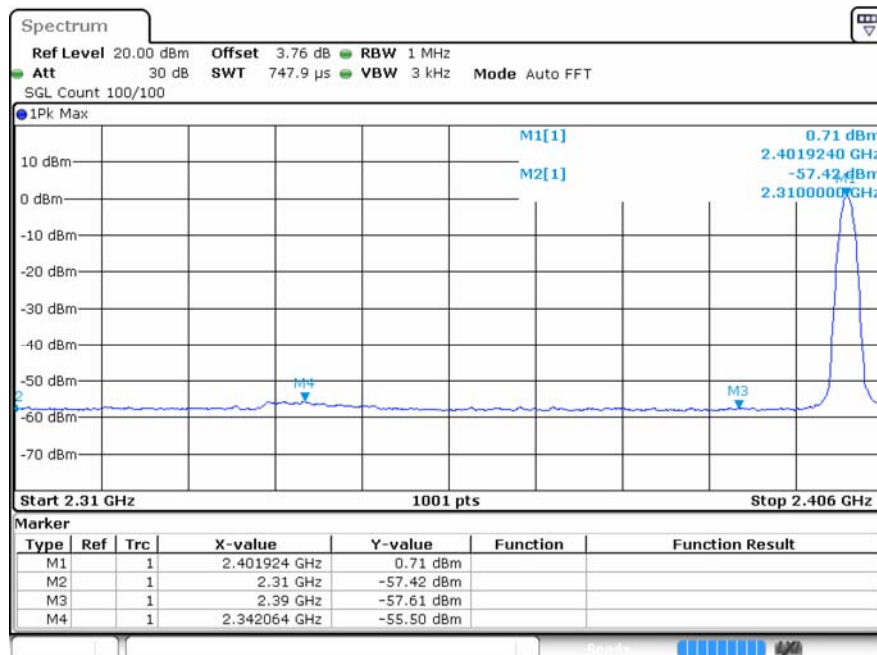
Test Mode	Hopping	Freq.	Power [dBm]	Gain	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-49.48	2	47.78	PEAK	74	Pass
	Off	2310.0	-57.42	2	39.84	AV	54	Pass
	Off	2311.248	-44.68	2	52.58	PEAK	74	Pass
	Off	2342.064	-55.5	2	41.76	AV	54	Pass
	Off	2390.0	-50.62	2	46.64	PEAK	74	Pass
	Off	2390.0	-57.61	2	39.65	AV	54	Pass
	Off	2483.5	-47.31	2	49.95	PEAK	74	Pass
	Off	2483.5	-56.02	2	41.24	AV	54	Pass
	Off	2487.376	-44.88	2	52.38	PEAK	74	Pass
	Off	2487.496	-55.79	2	41.47	AV	54	Pass
	Off	2500.0	-49.32	2	47.94	PEAK	74	Pass
	Off	2500.0	-57.52	2	39.74	AV	54	Pass
$\pi/4$ DQPSK	Off	2310.0	-49.6	2	47.66	PEAK	74	Pass
	Off	2310.0	-57.62	2	39.64	AV	54	Pass
	Off	2331.12	-46.6	2	50.66	PEAK	74	Pass
	Off	2338.224	-55.79	2	41.47	AV	54	Pass
	Off	2390.0	-49.43	2	47.83	PEAK	74	Pass
	Off	2390.0	-57.82	2	39.44	AV	54	Pass
	Off	2483.5	-46.84	2	50.42	PEAK	74	Pass
	Off	2483.5	-55.2	2	42.06	AV	54	Pass
	Off	2484.376	-41.98	2	55.28	PEAK	74	Pass
	Off	2483.896	-54.77	2	42.49	AV	54	Pass
	Off	2500.0	-47.86	2	49.4	PEAK	74	Pass
	Off	2500.0	-57.17	2	40.09	AV	54	Pass

9.2 Test Graphs

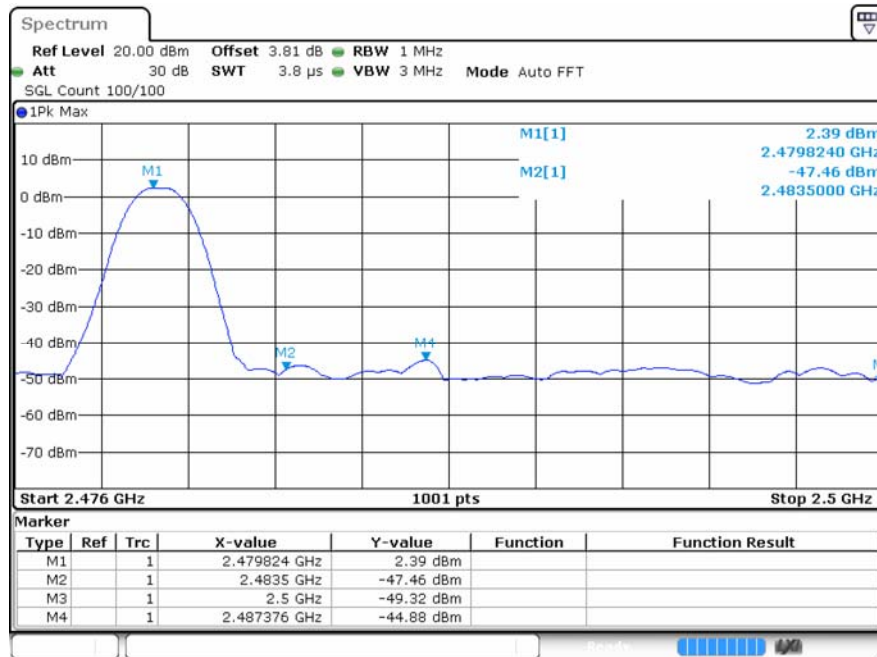
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



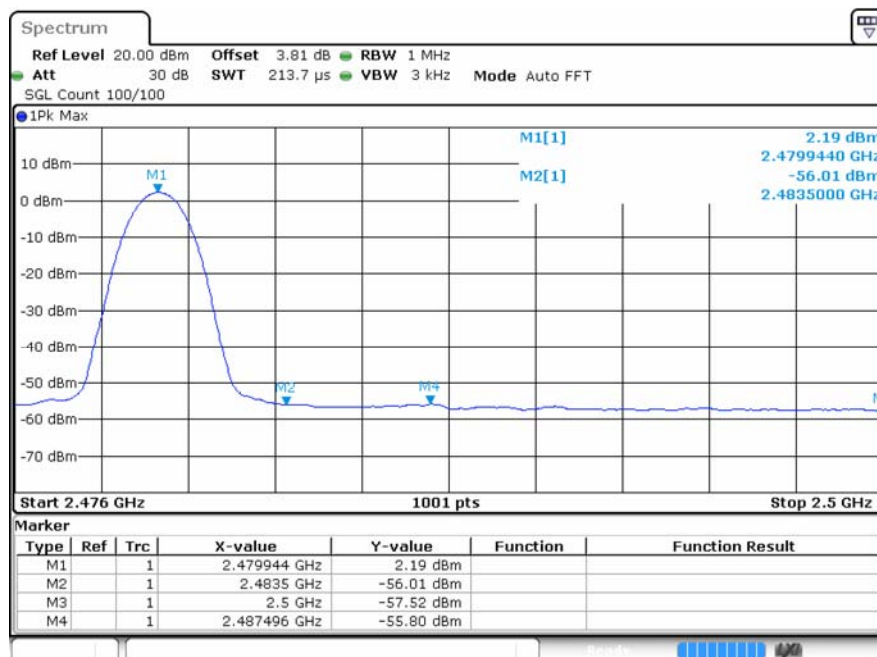
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



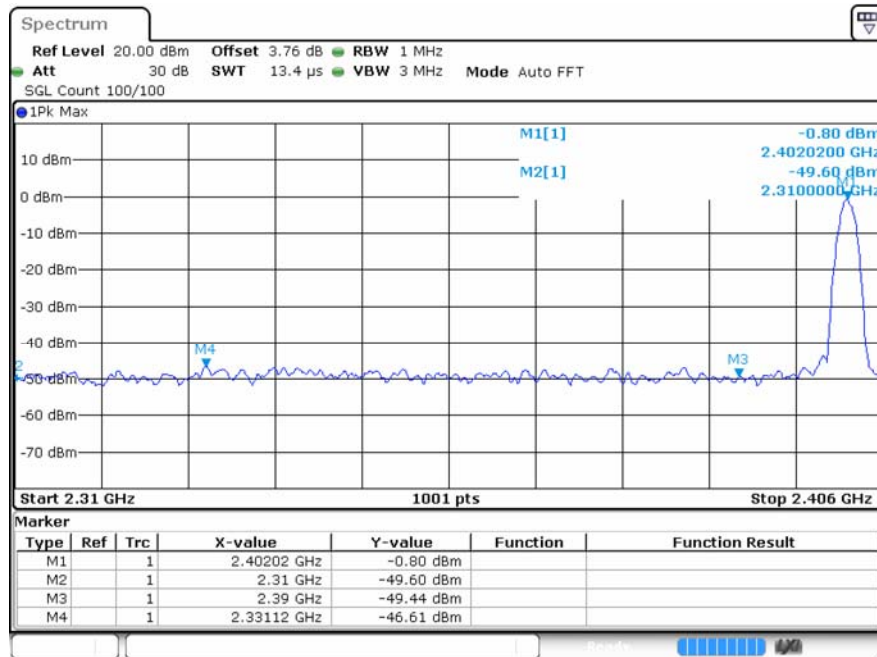
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



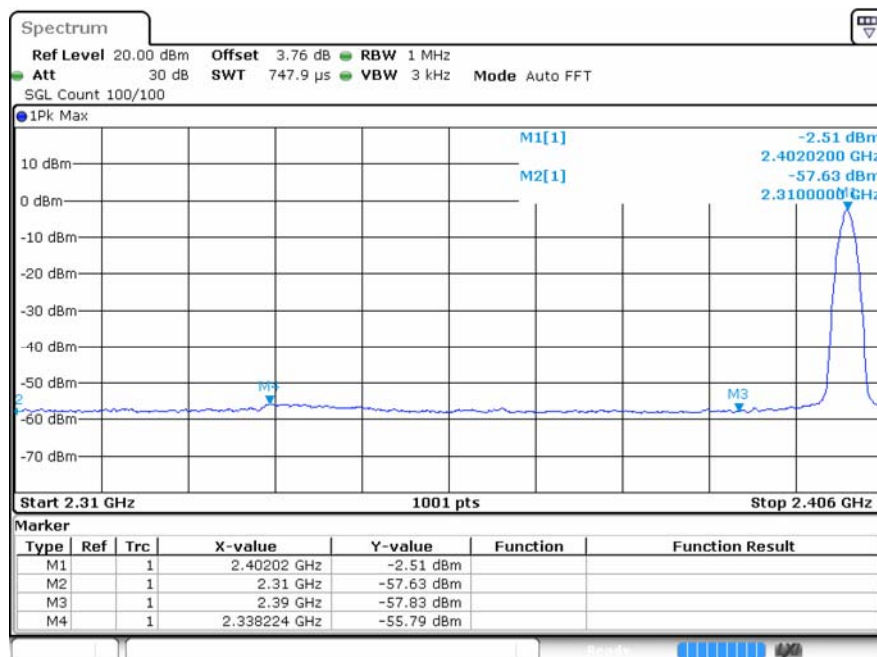
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



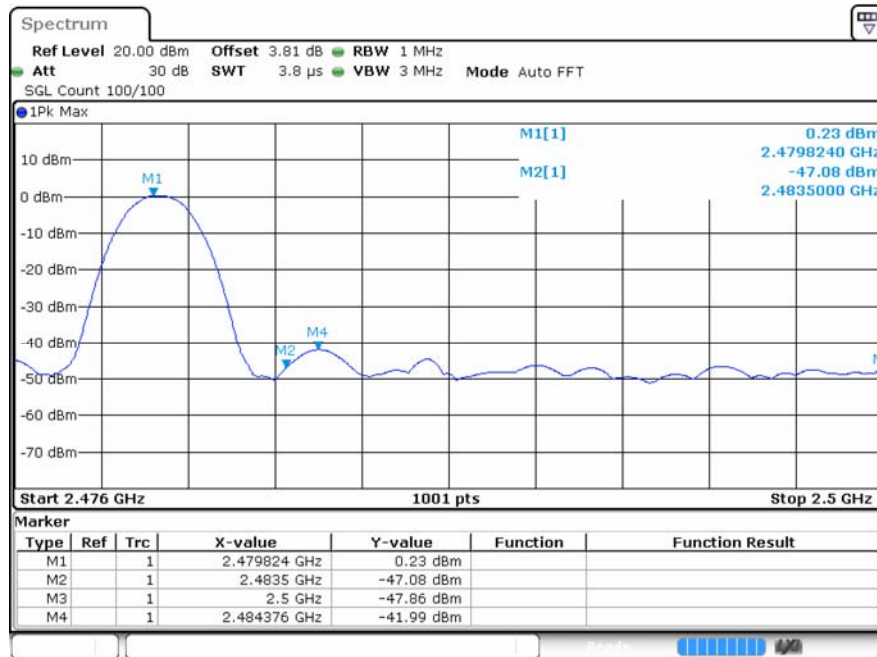
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



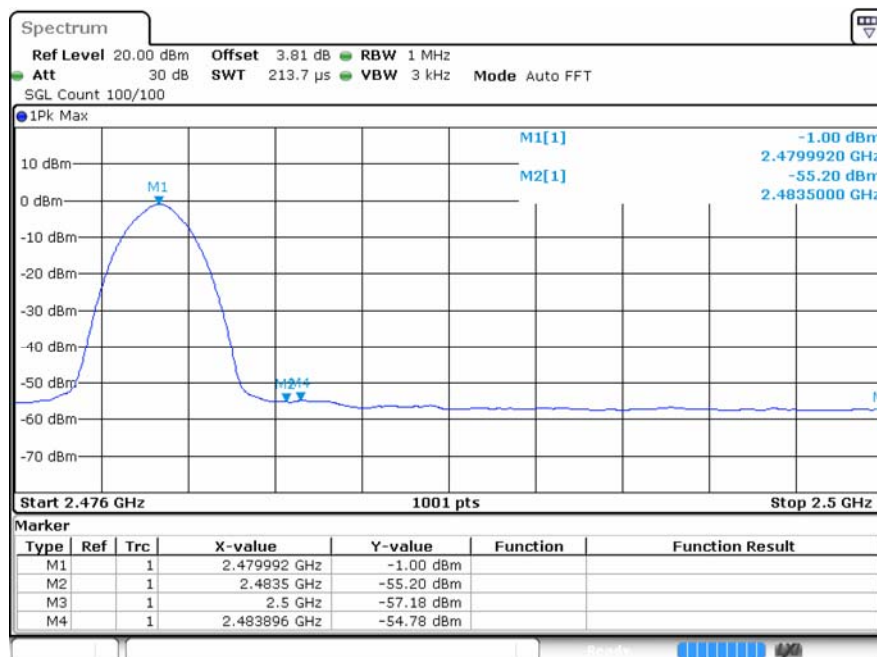
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



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---