



Appendix A

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

Product Name: PS200 Party Speaker

Trade Mark: Oakcastle/Majority

Test Model: PS200, 1000002980

Environmental Conditions

Temperature:	25.6℃
Relative Humidity:	53.3%
ATM Pressure:	101Kpa
Test Engineer:	Emiya Lin
Supervised by:	Simba Huang

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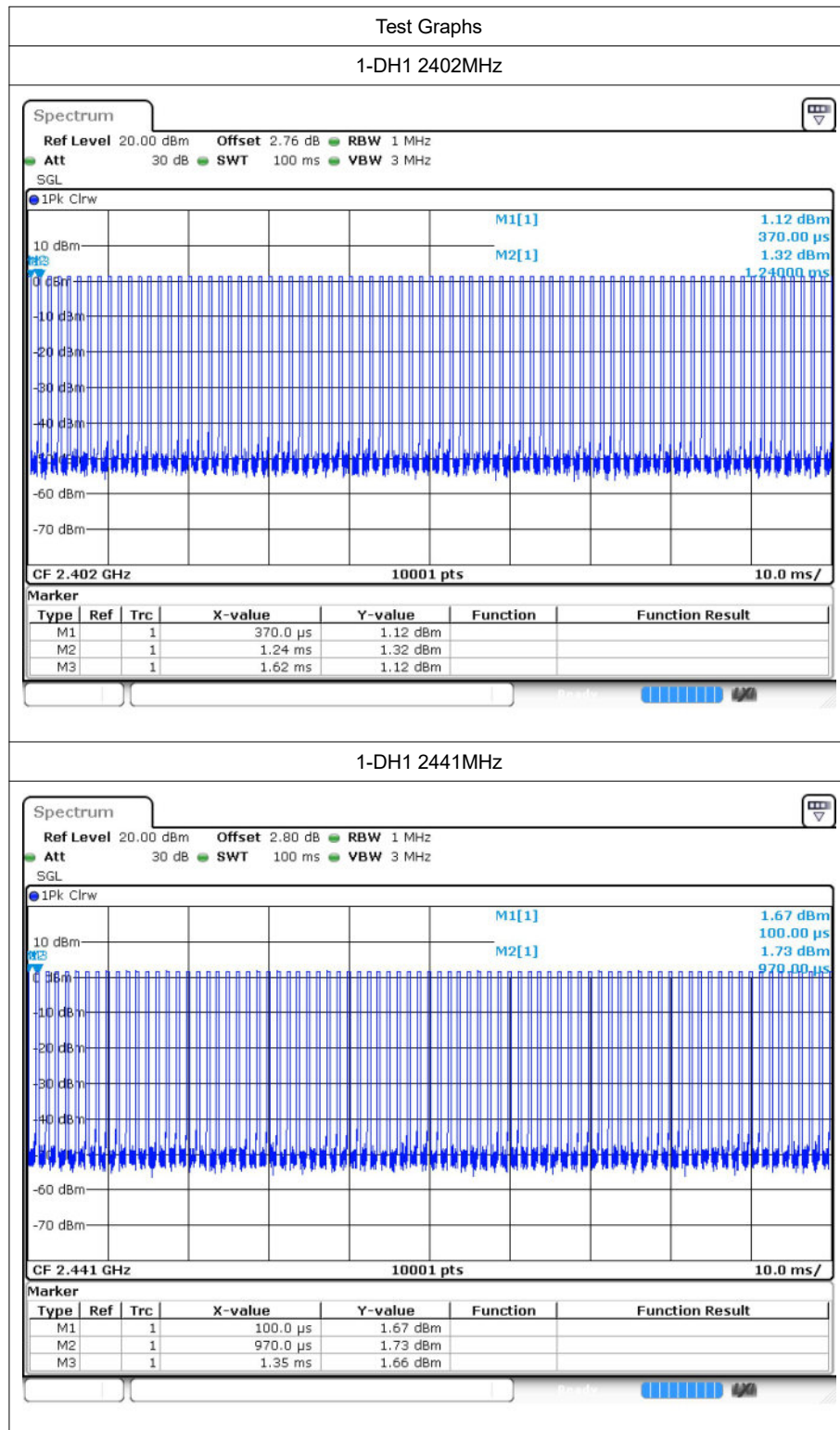
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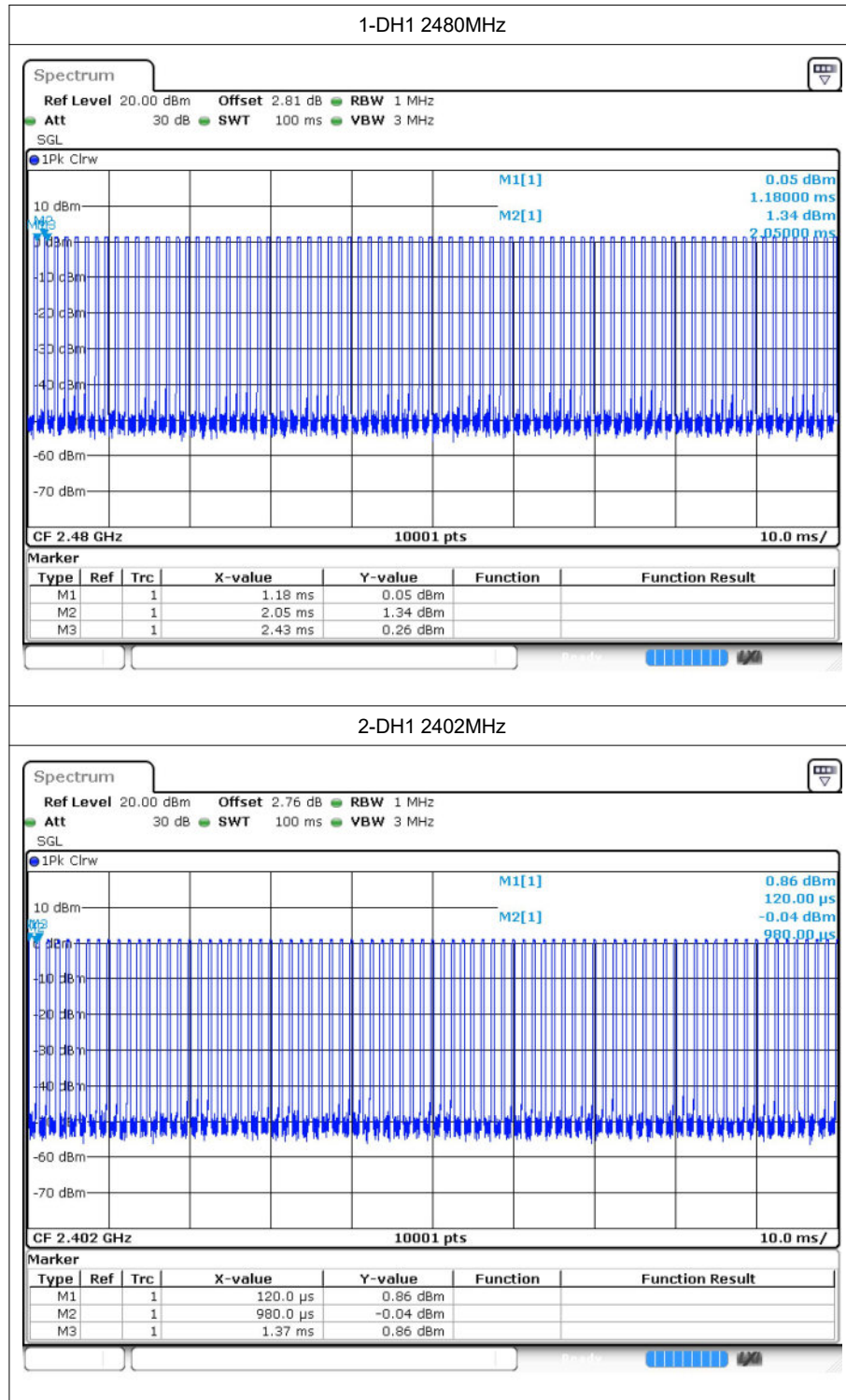
1 Duty Cycle

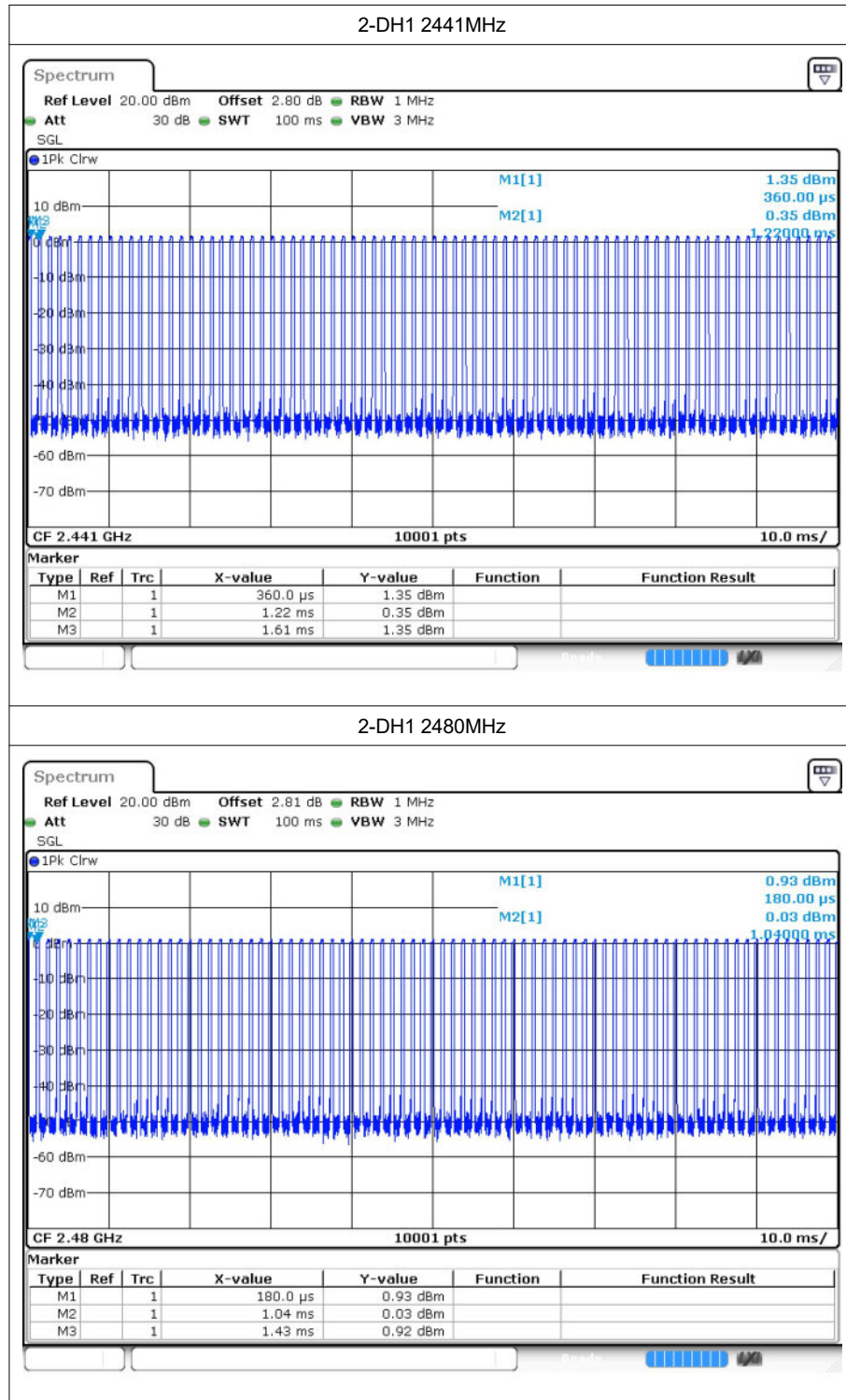
1.1 Test Result

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

1.2 Test Graphs





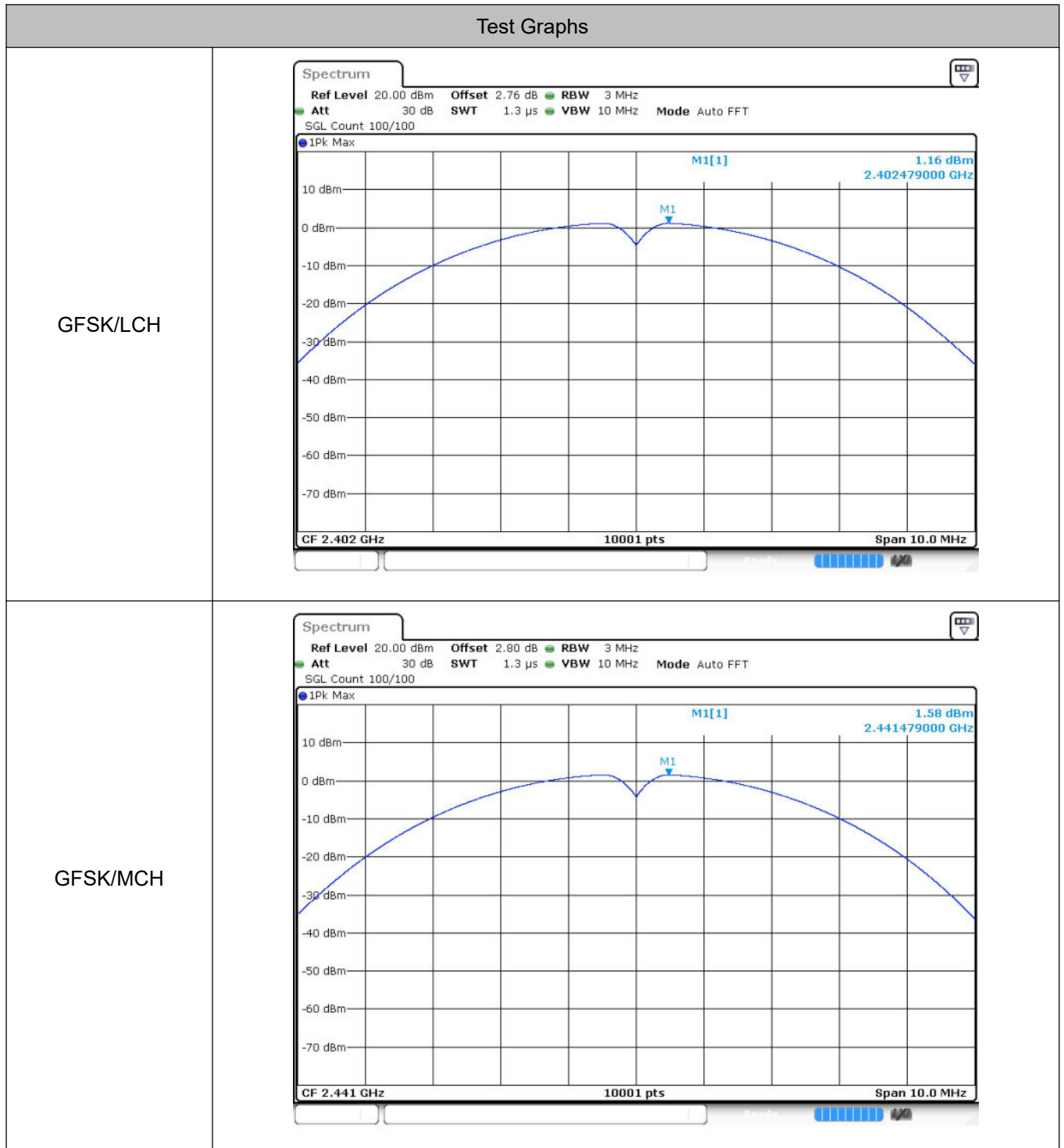


2 Maximum Conducted Peak Output Power

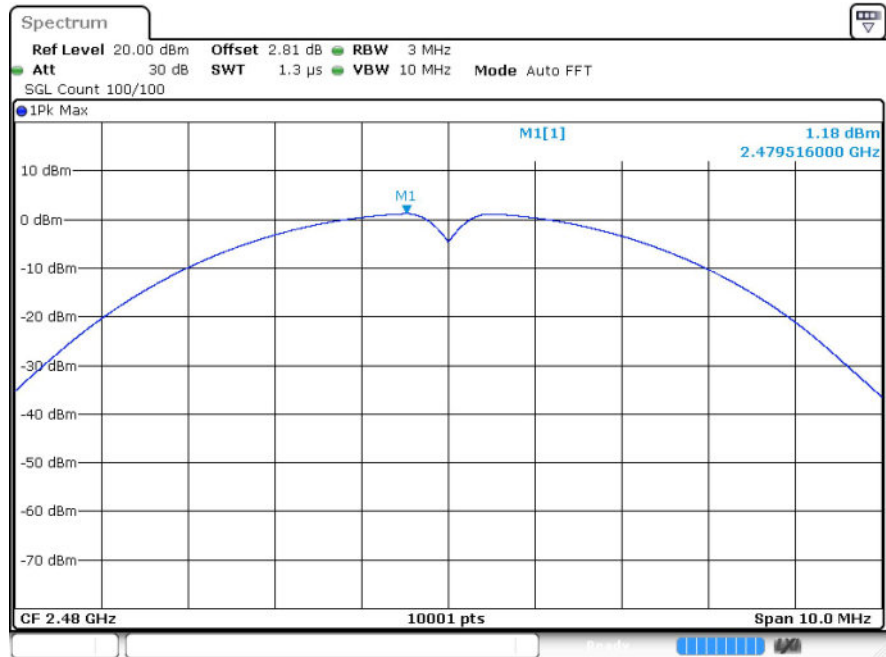
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	1.16	21	Pass
	MCH	1.58	21	Pass
	HCH	1.18	21	Pass
$\pi/4$ DQPSK	LCH	1.99	21	Pass
	MCH	2.28	21	Pass
	HCH	2.23	21	Pass

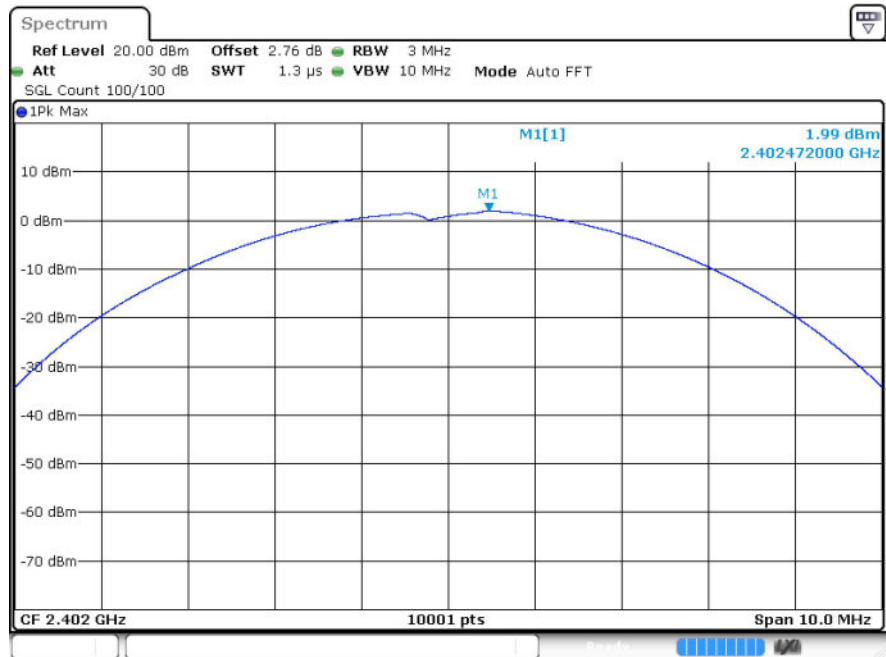
2.2 Test Graphs



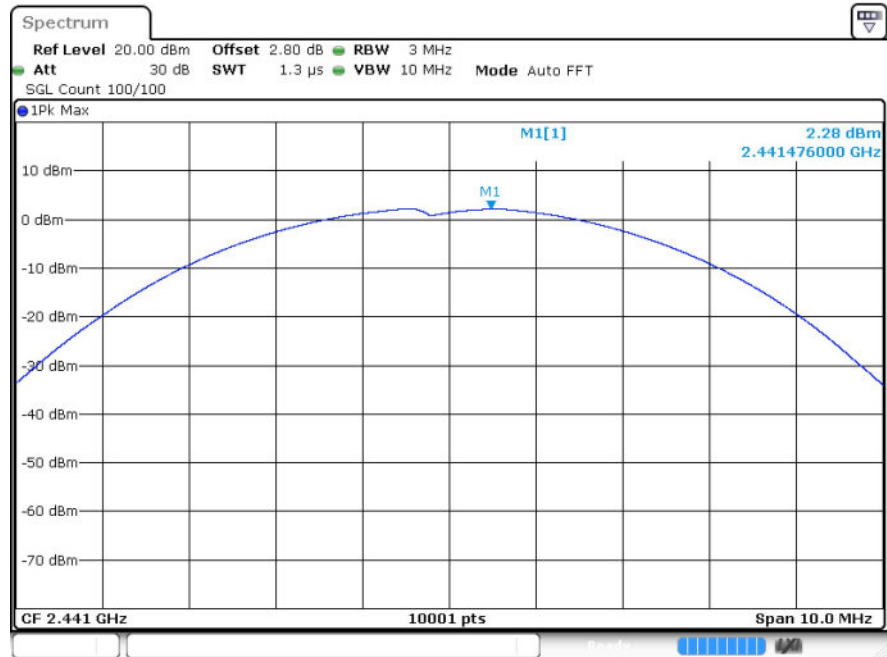
GFSK/HCH



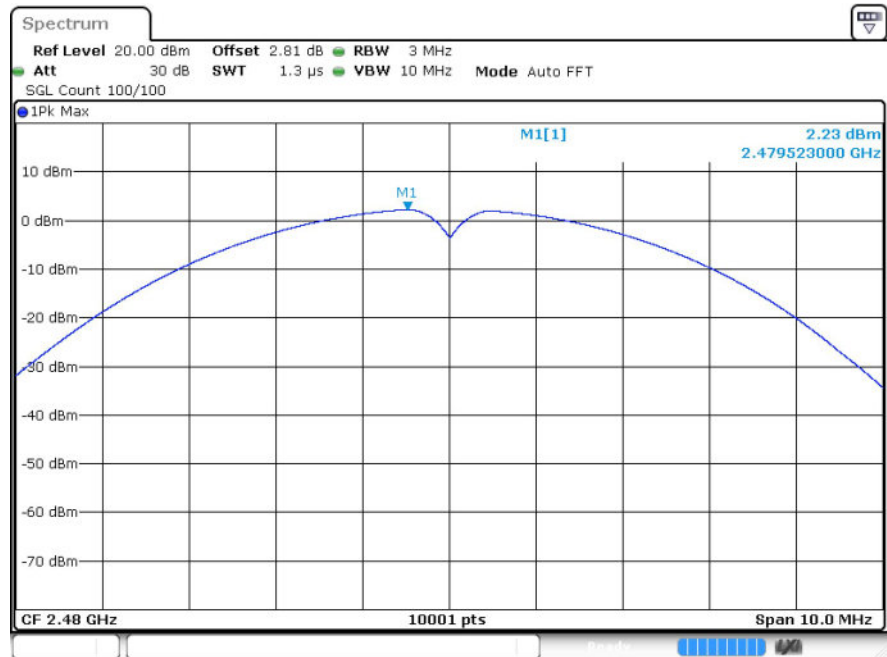
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH

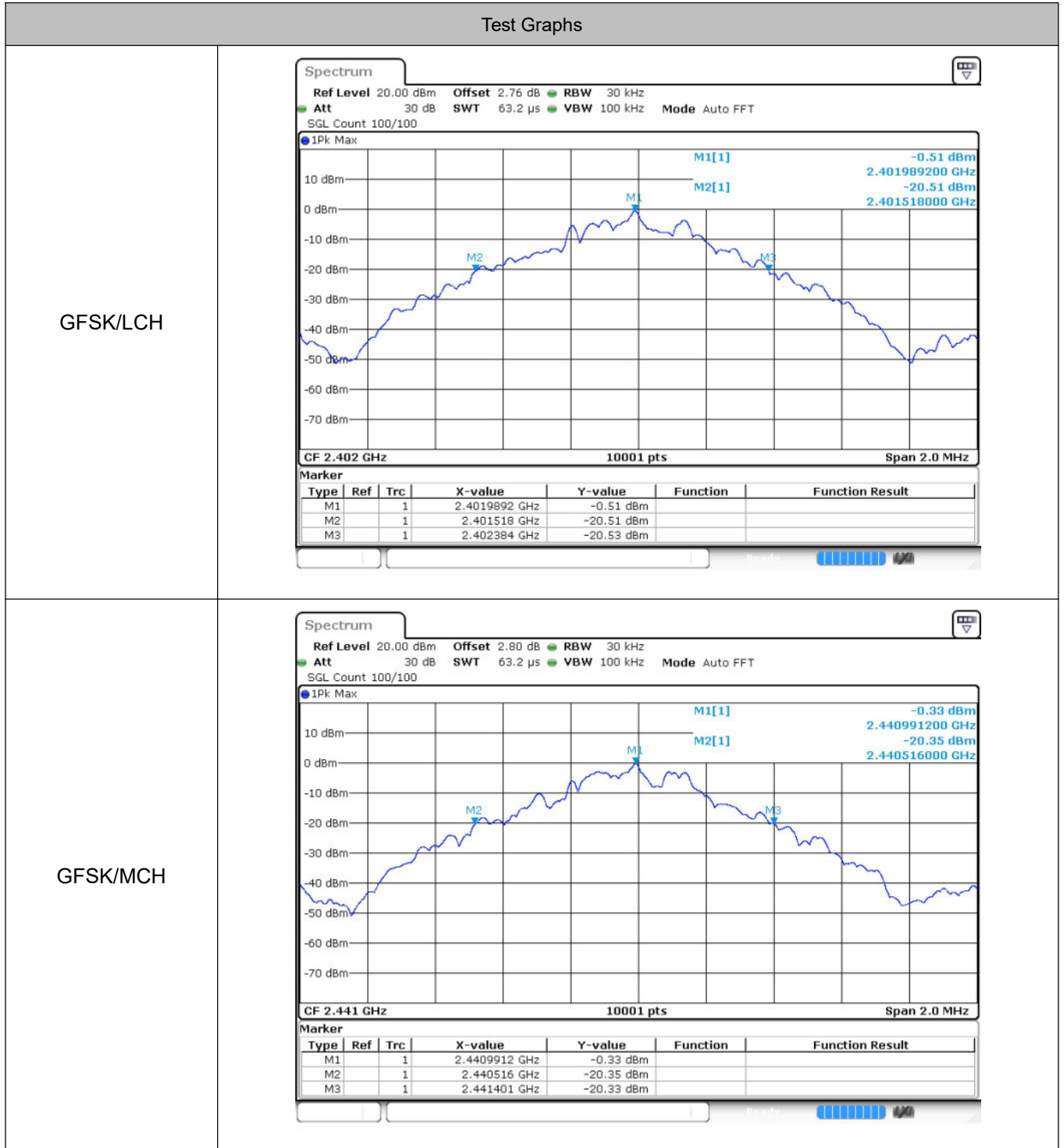


3 20dB Bandwidth

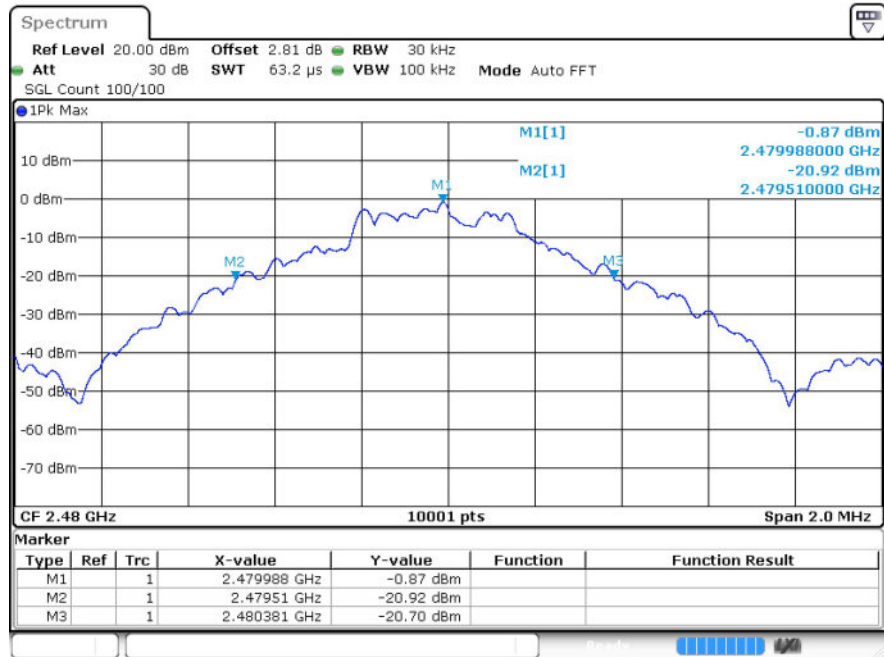
3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.866	Not Specified	Pass
	MCH	0.885	Not Specified	Pass
	HCH	0.871	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.464	Not Specified	Pass
	MCH	1.42	Not Specified	Pass
	HCH	1.397	Not Specified	Pass

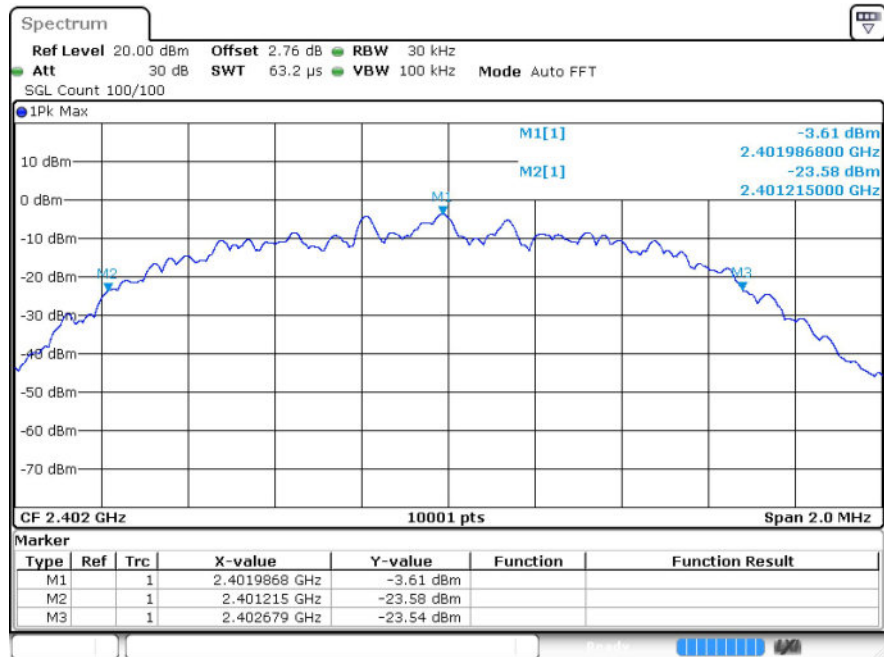
3.2 Test Graphs

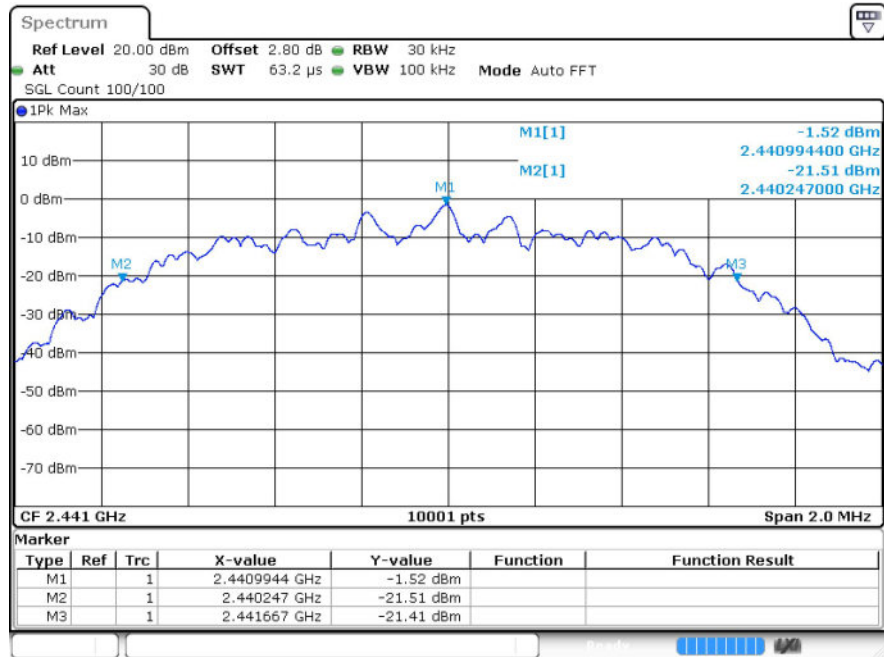
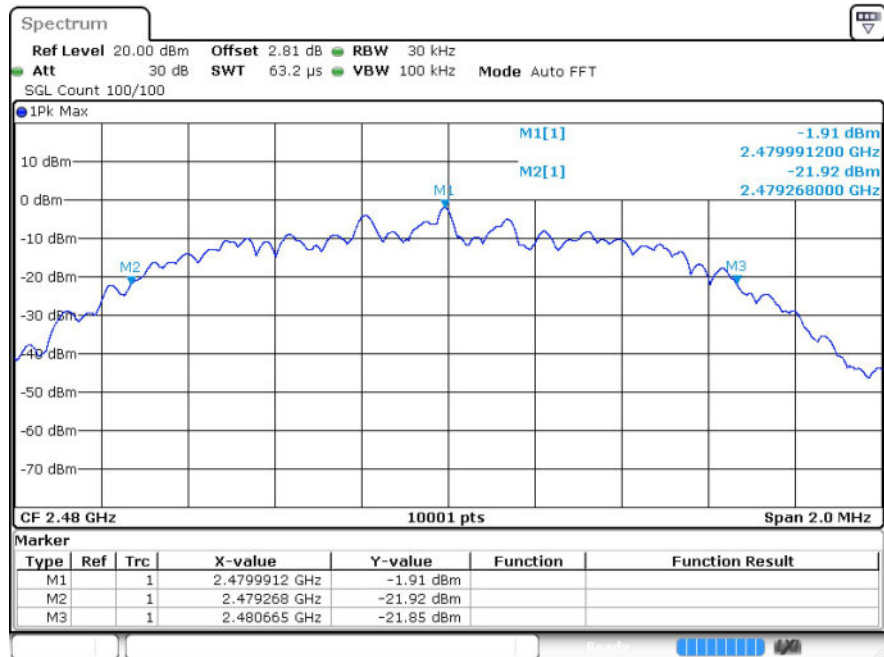


GFSK/HCH



$\pi/4$ 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	1.006	0.59	Pass
$\pi/4$ DQPSK	MCH	0.999	0.947	Pass

4.2 Test Graphs

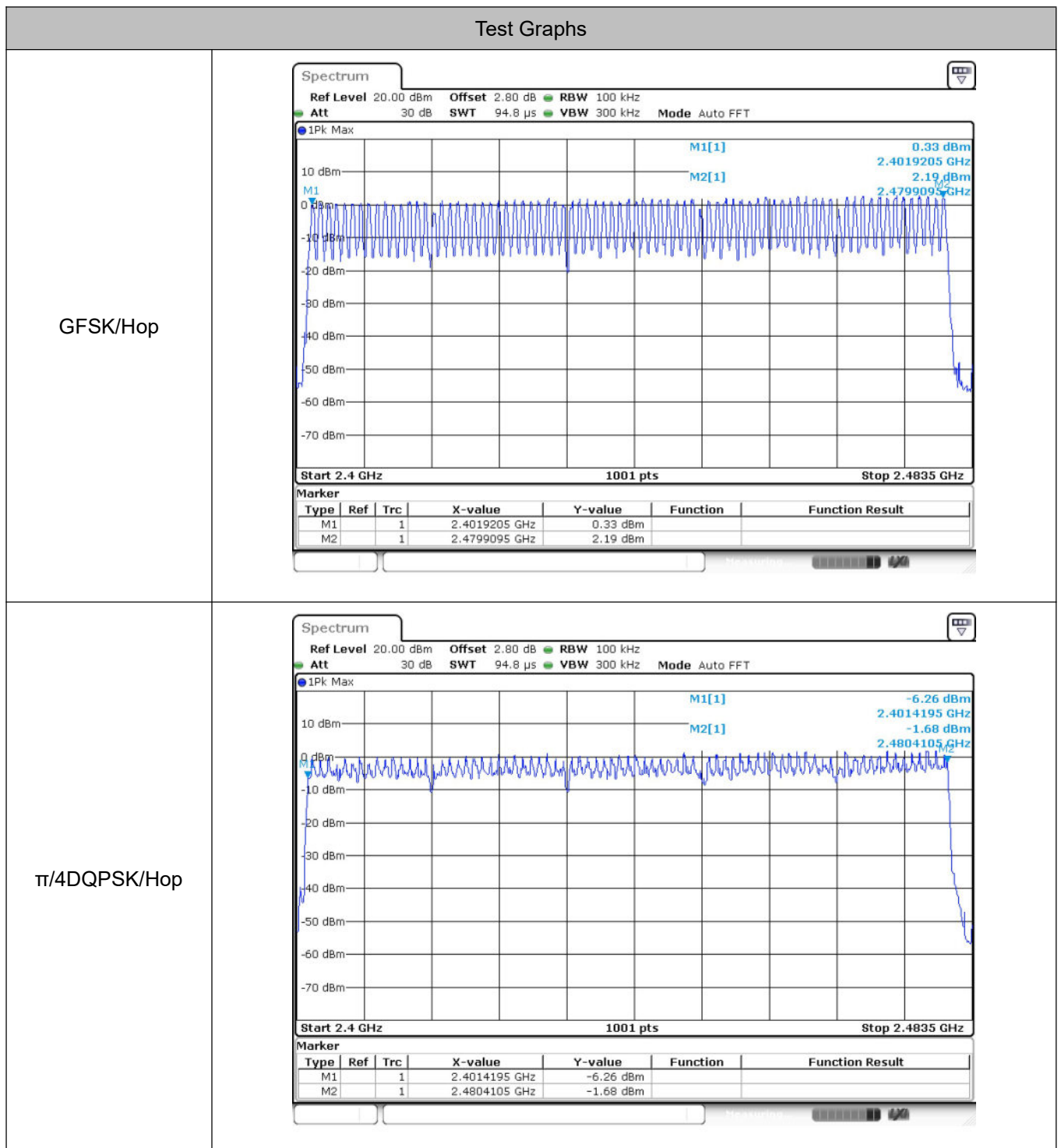


5 Hopping Channel Number

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

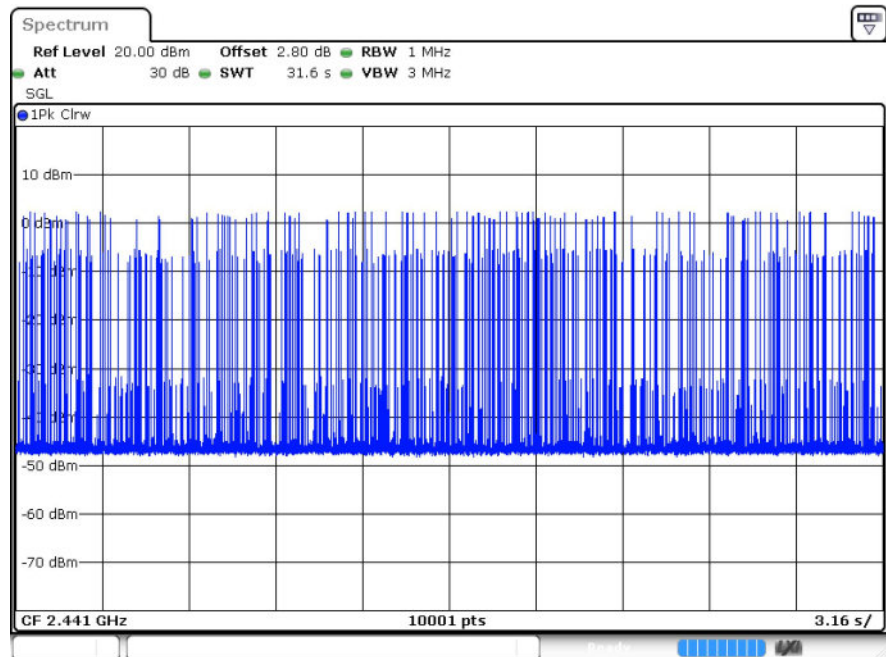
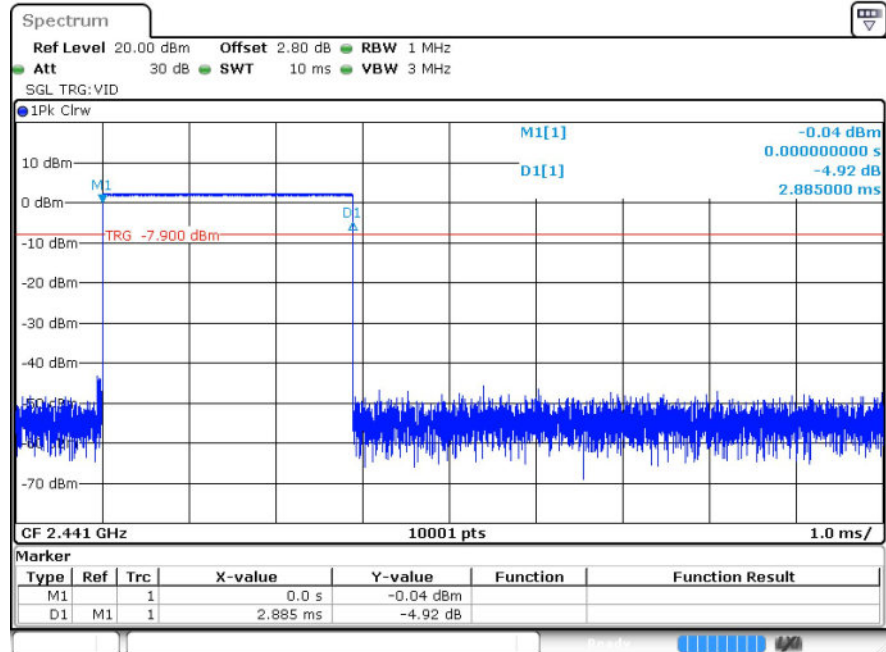
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.885	119	343.315	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.889	102	294.678	0.4	Pass

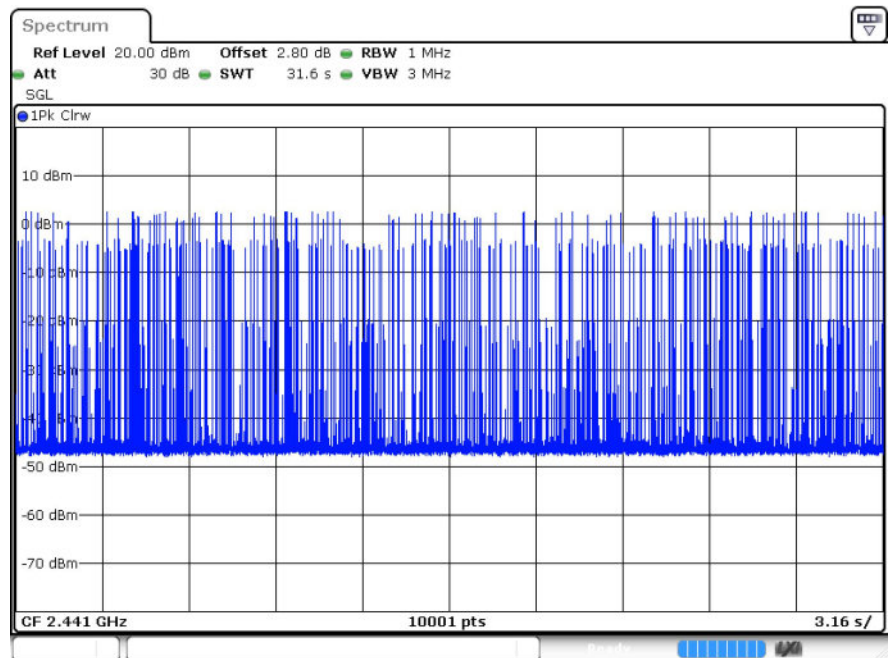
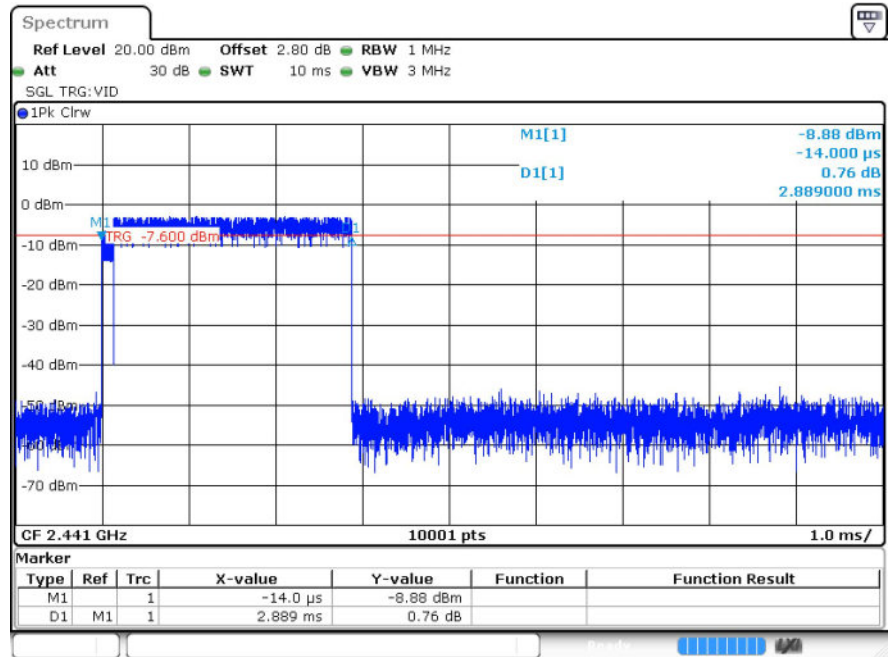
6.2 Test Graphs

Test Graphs

GFSK_DH5/MCH



$\pi/4$ DQPSK
_2DH5/MCH



7 RF Conducted Spurious Emissions

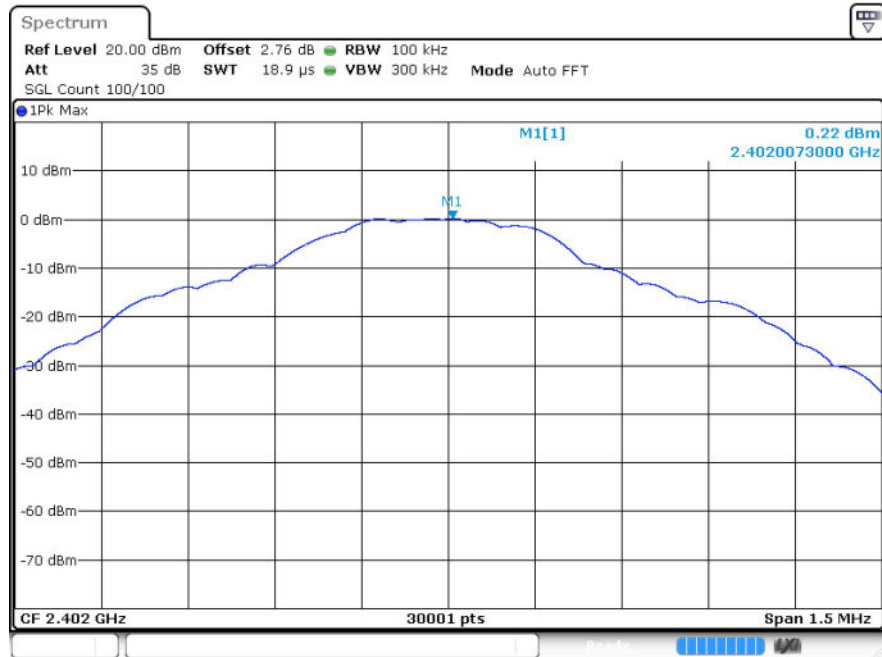
7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-41.95	-20	Pass
	MCH	-43.24	-20	Pass
	HCH	-42.7	-20	Pass
$\pi/4$ DQPSK	LCH	-41.35	-20	Pass
	MCH	-42.17	-20	Pass
	HCH	-40.28	-20	Pass

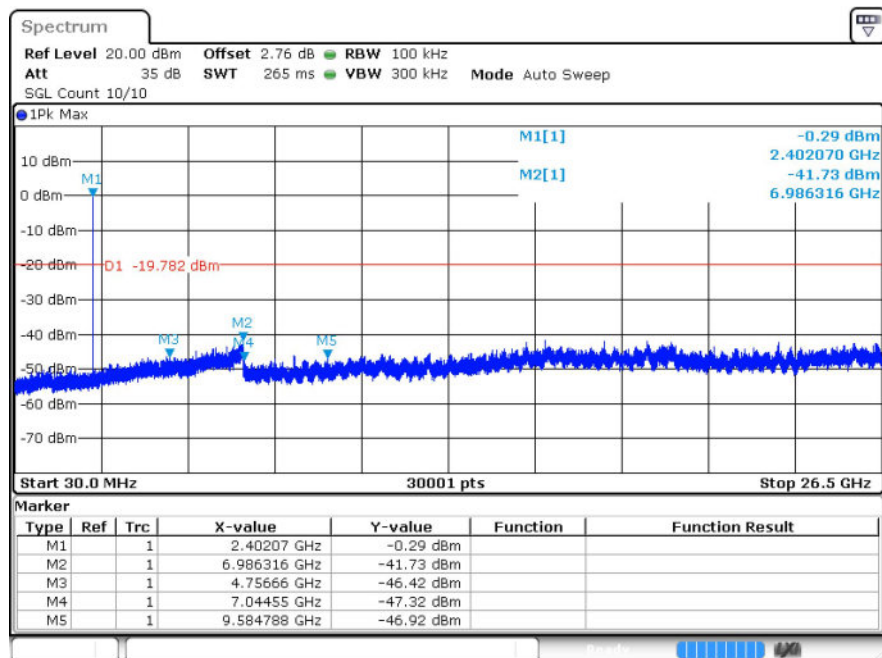
7.2 Test Graphs

GFSK_LCH_Graphs

Pref

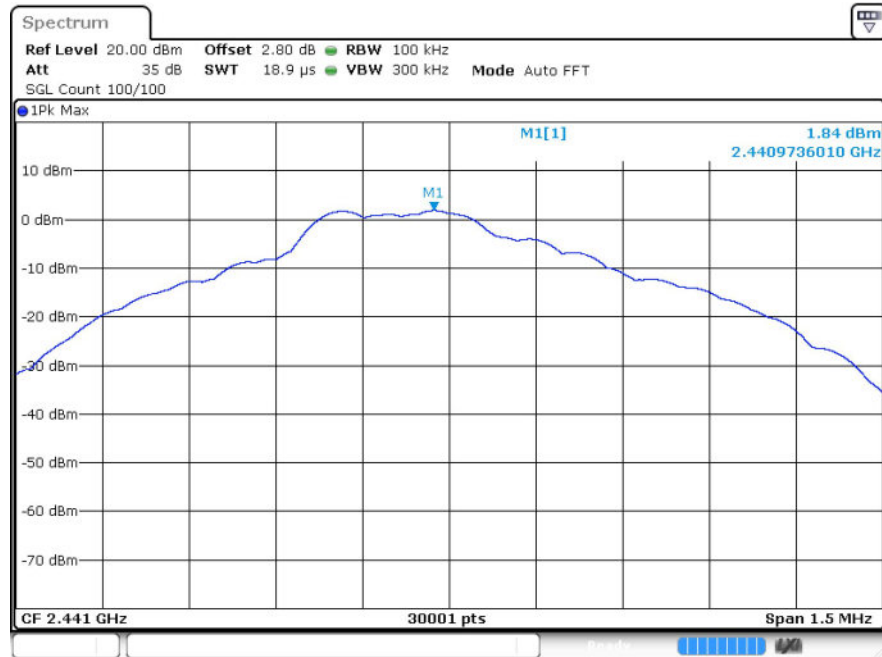


Puw

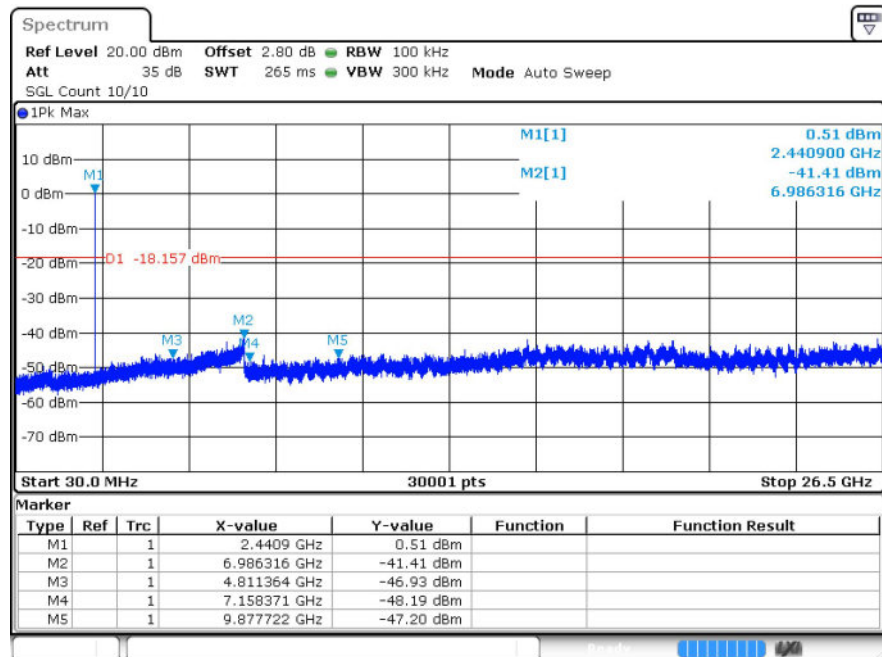


GFSK_MCH_Graphs

Pref

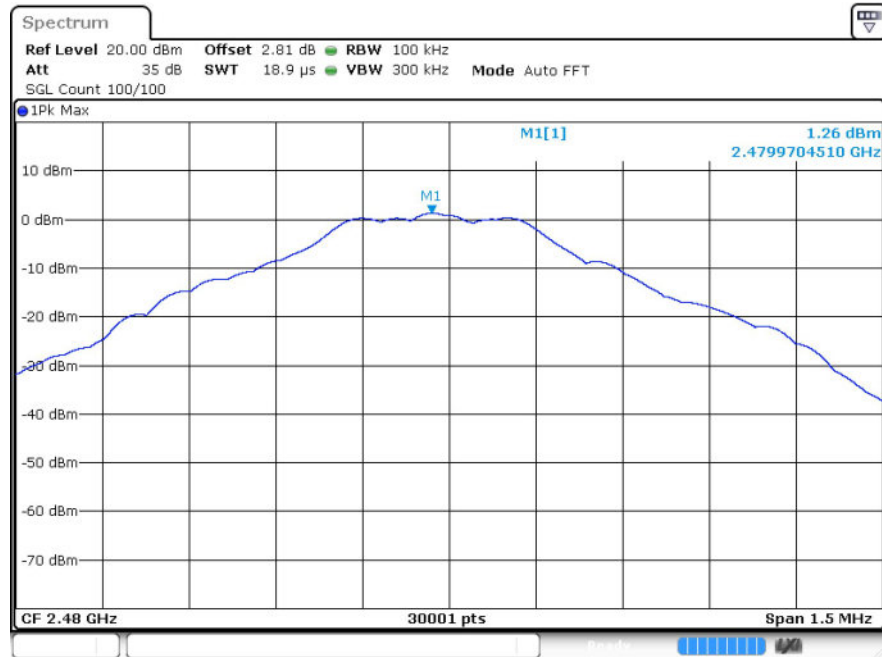


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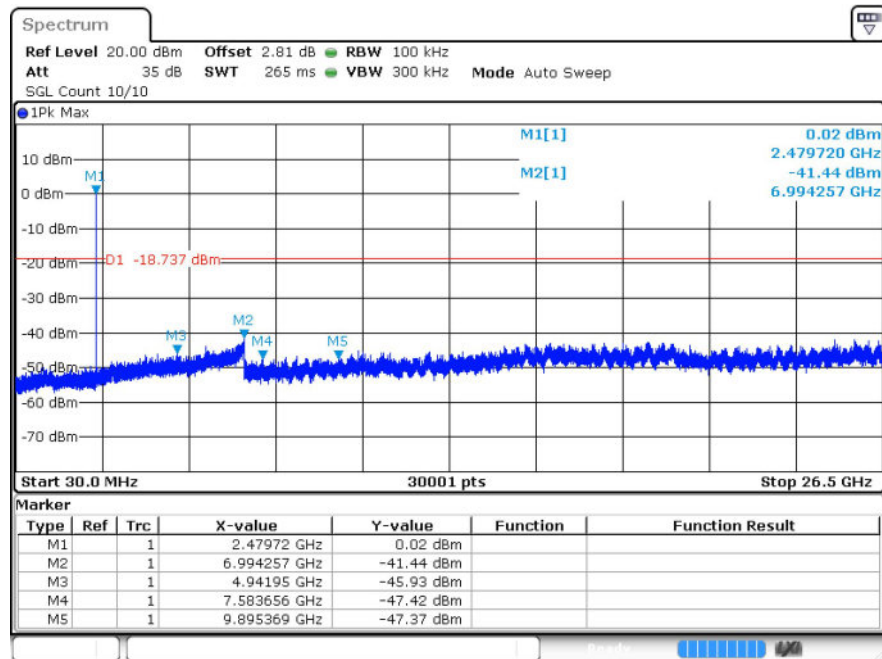


GFSK_HCH_Graphs

Pref

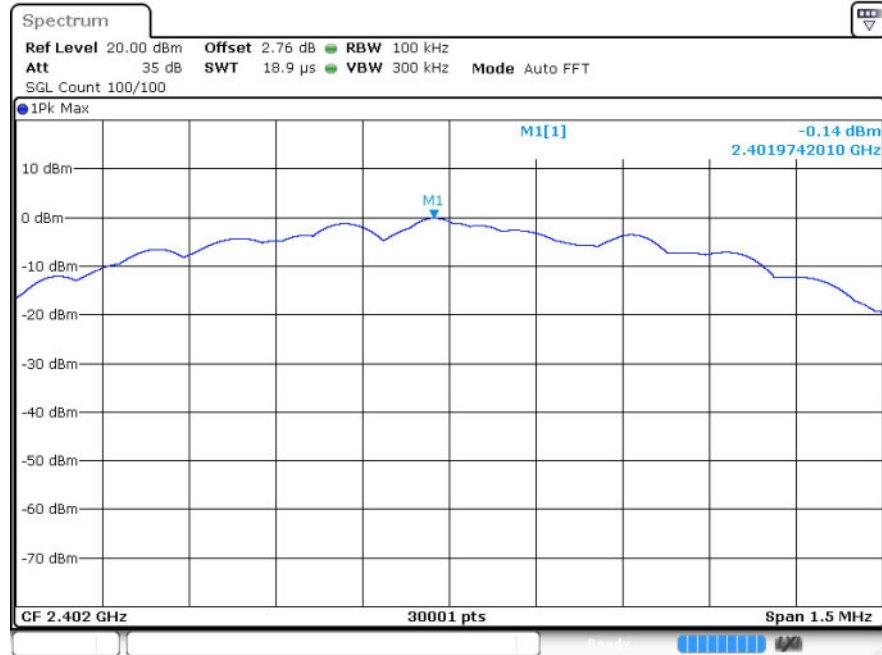


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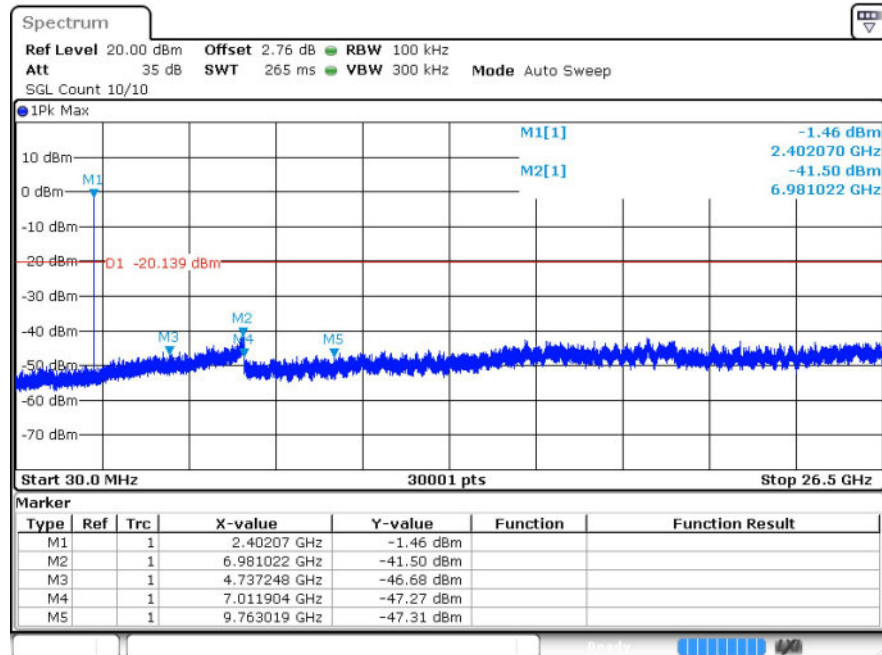


$\pi/4$ DQPSK_LCH_Graphs

Pref

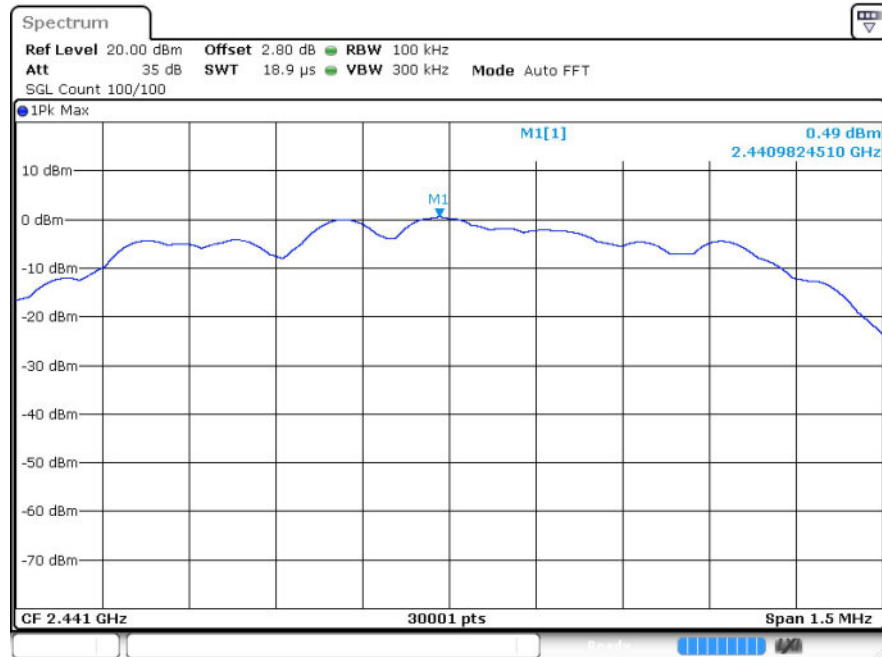


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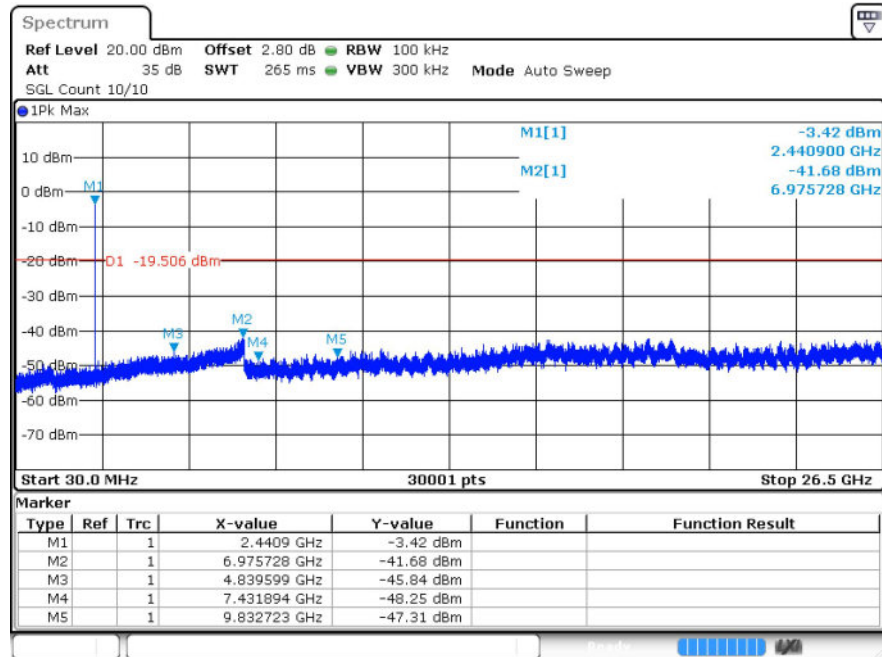


π /4DQPSK_MCH_Graphs

Pref

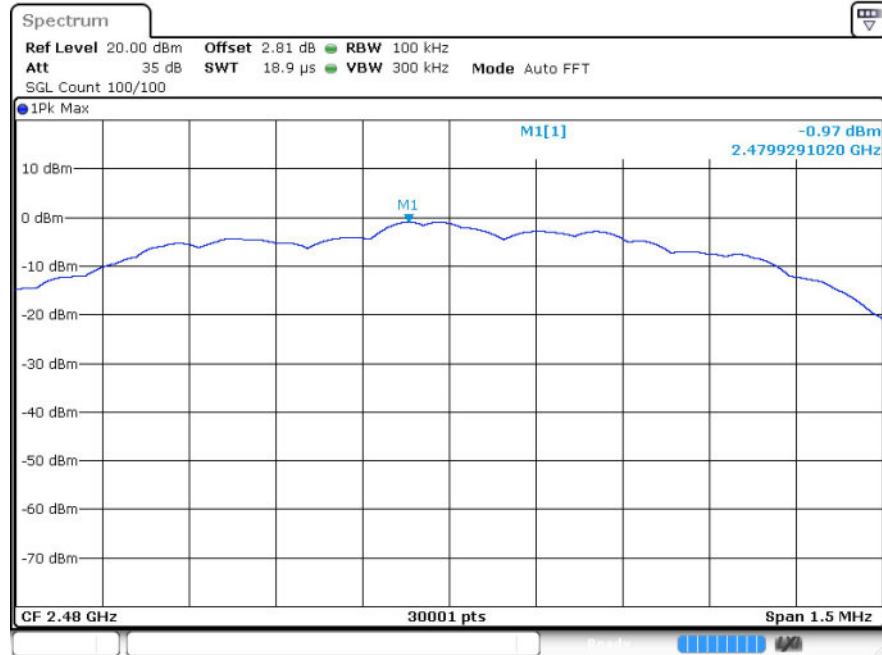


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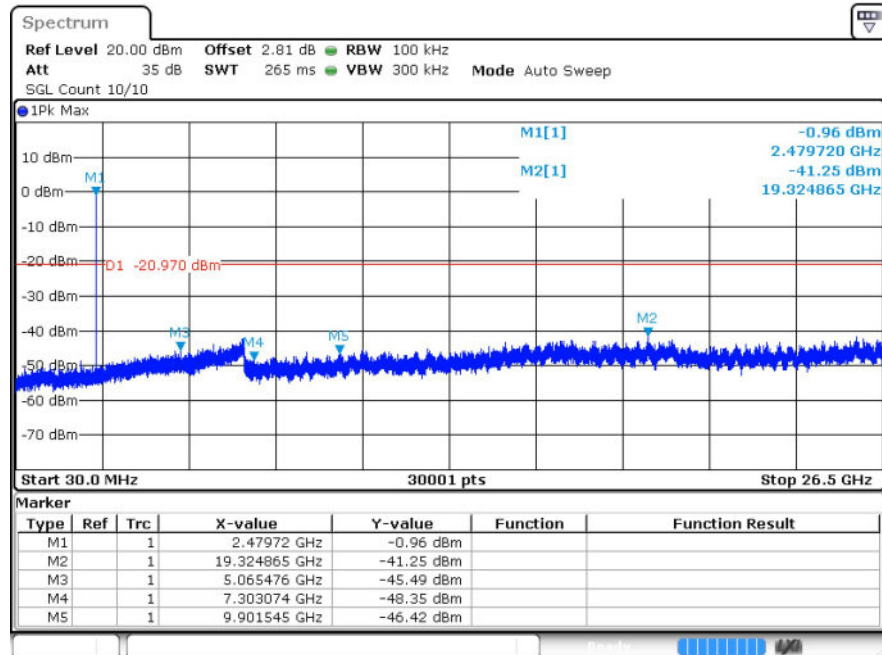


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

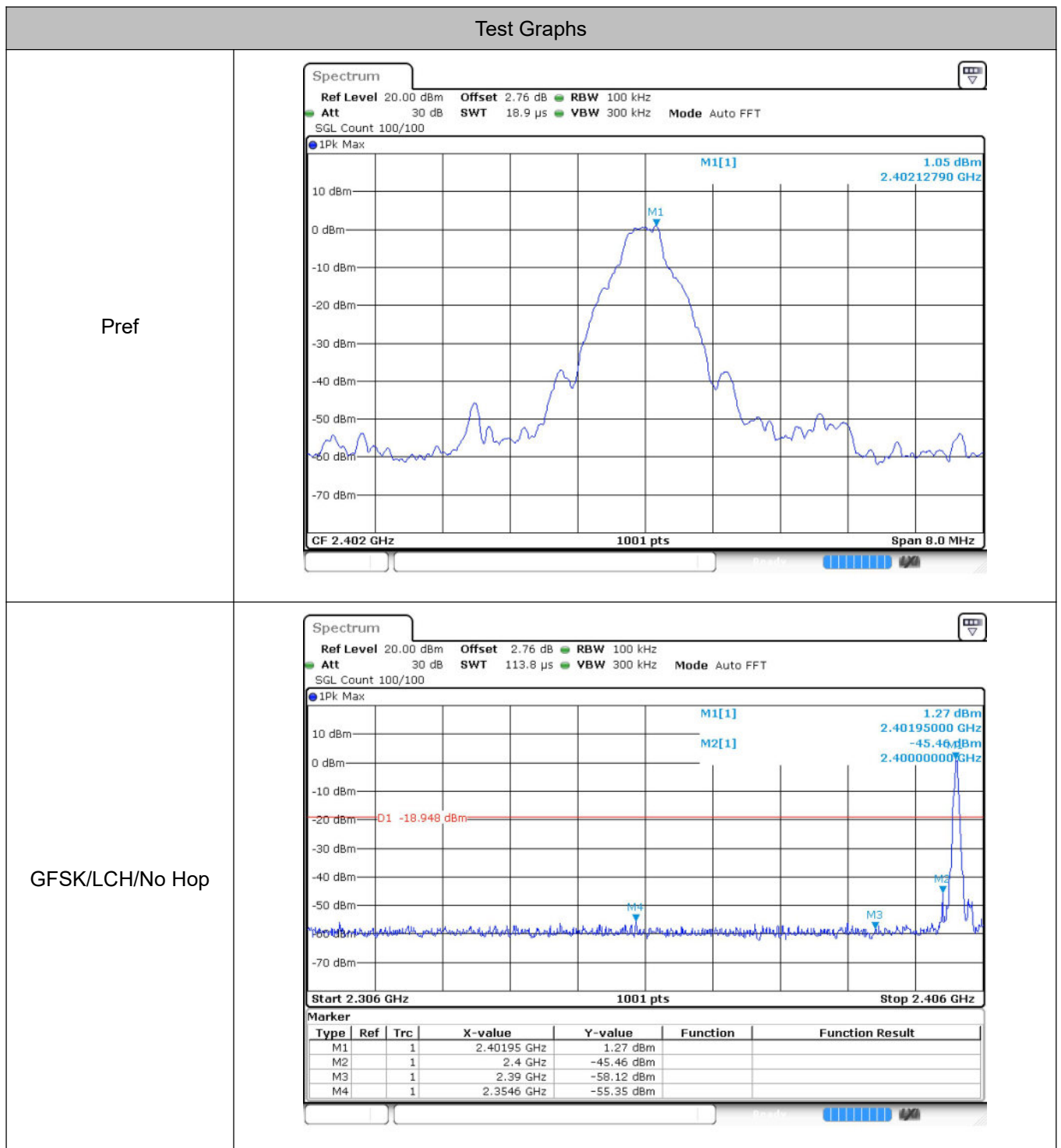


8 Band-edge for RF Conducted Emissions

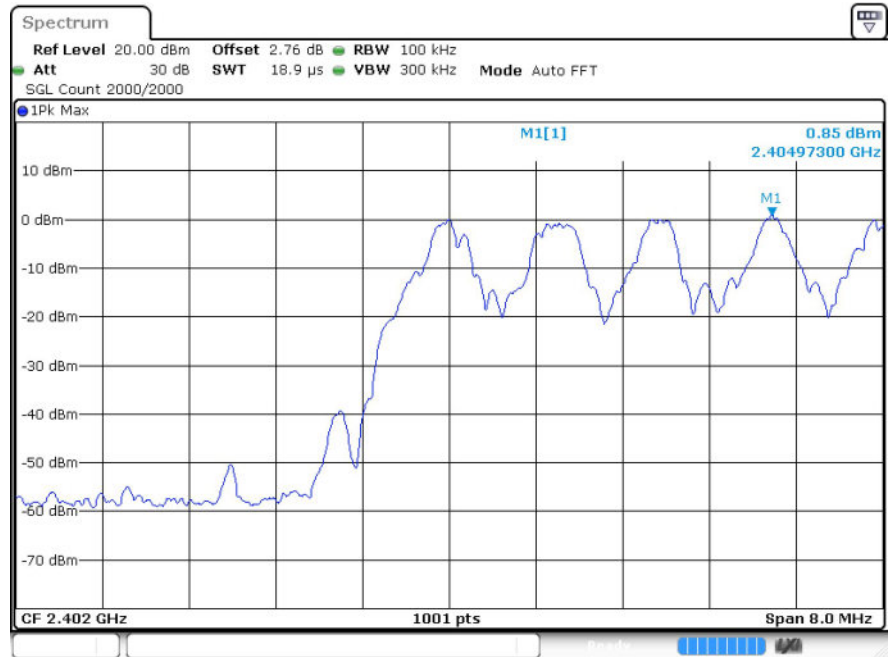
8.1 Test Result

Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-56.4	-20	Pass
			On	-55.63	-20	Pass
	HCH	2480	Off	-57.38	-20	Pass
			On	-49.27	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-54.84	-20	Pass
			On	-54.98	-20	Pass
	HCH	2480	Off	-50.19	-20	Pass
			On	-49.56	-20	Pass

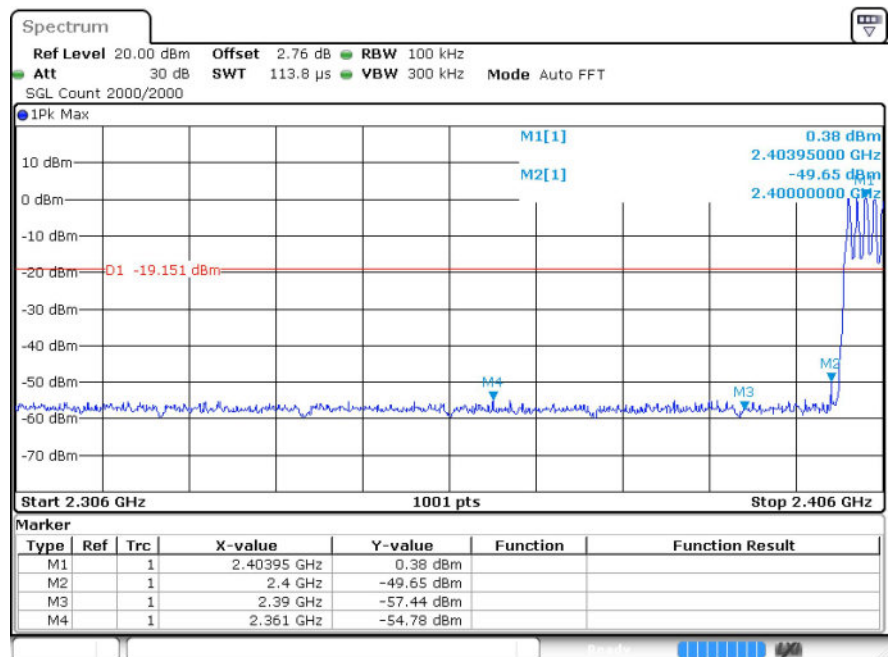
8.2 Test Graphs



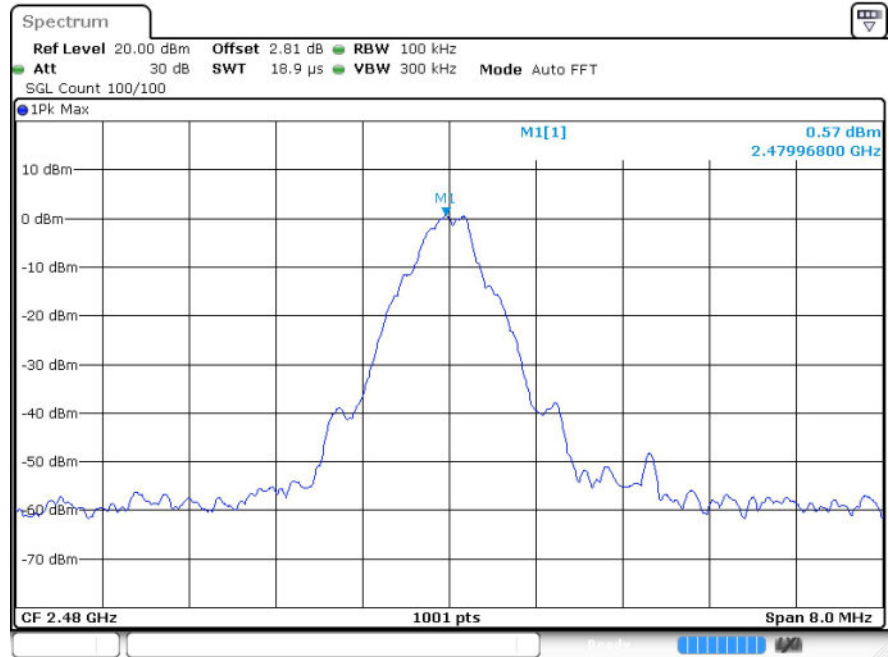
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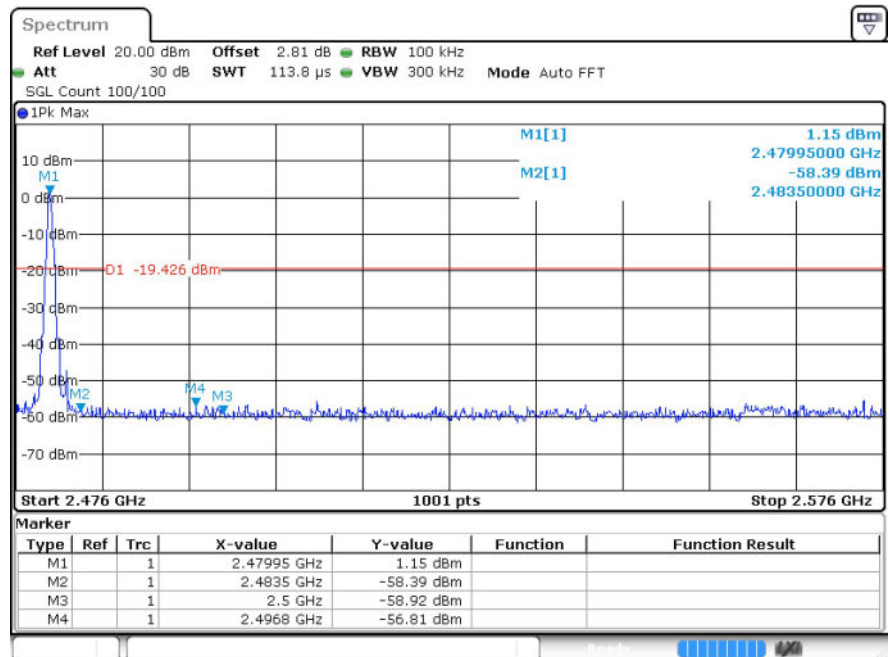
GFSK/LCH/Hop



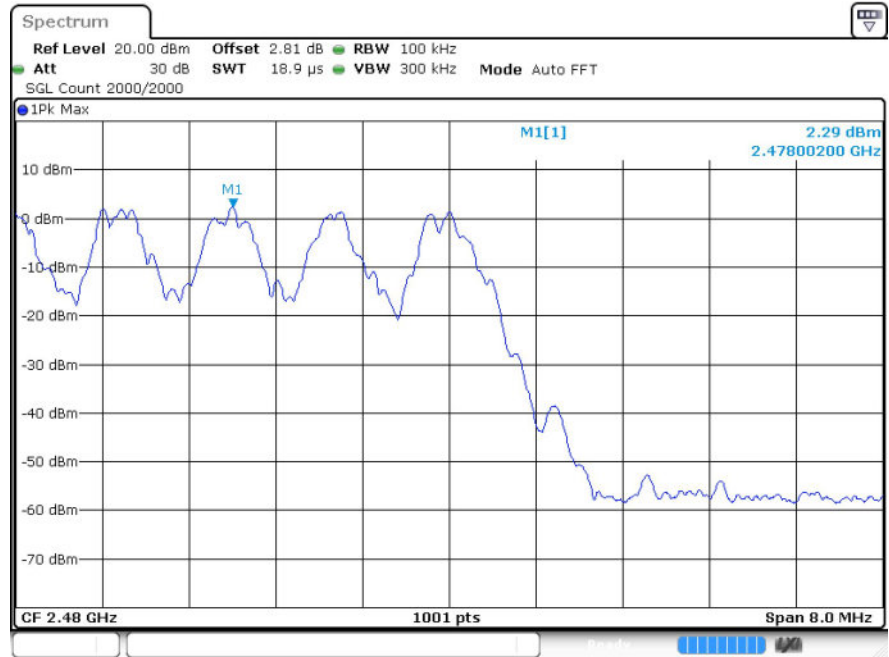
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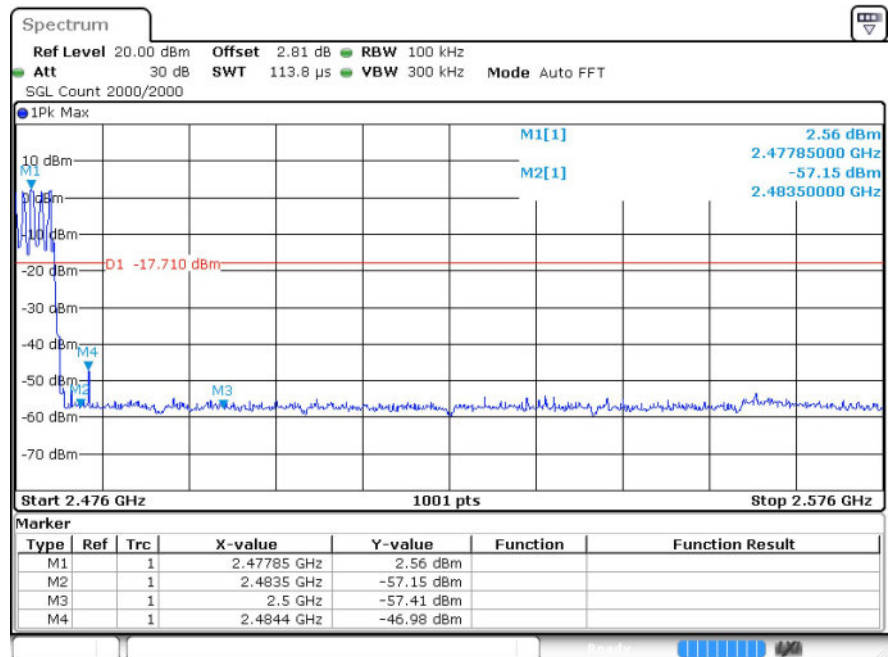
GFSK/HCH/No Hop



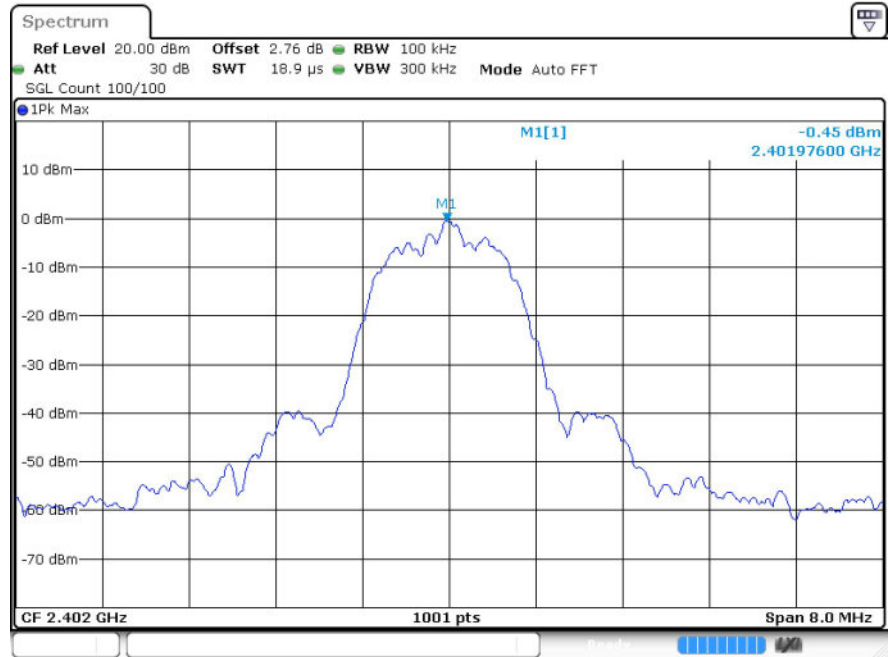
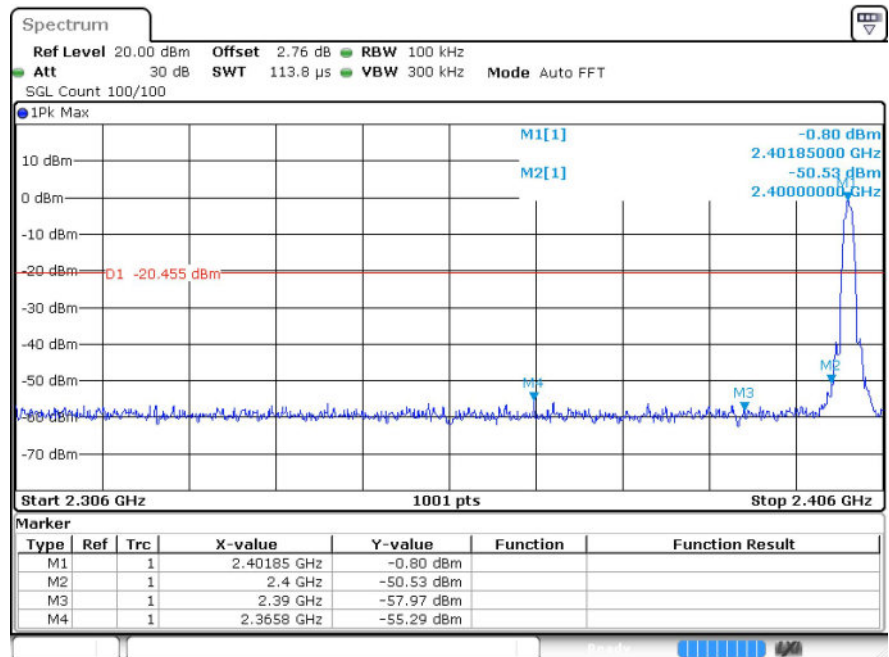
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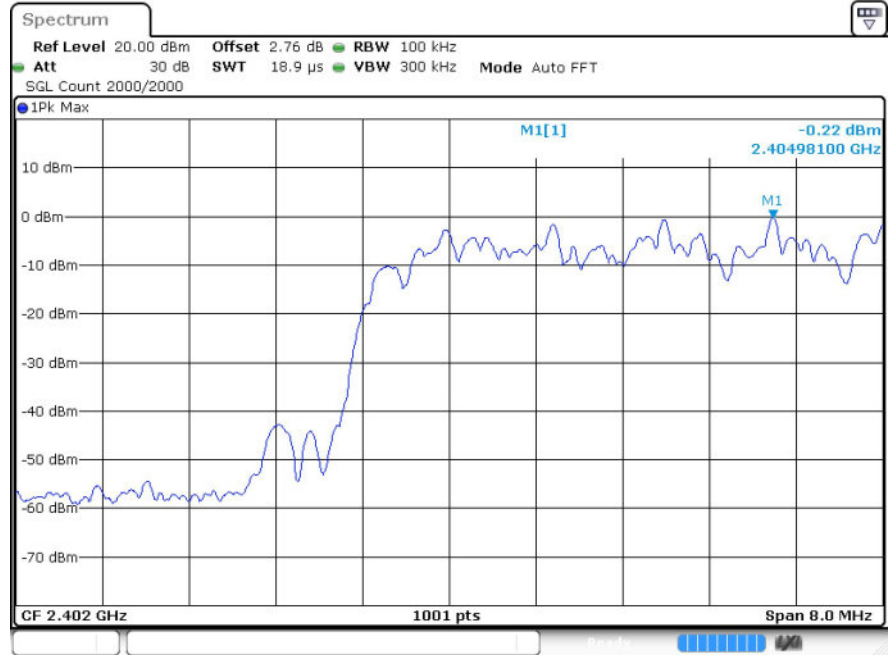
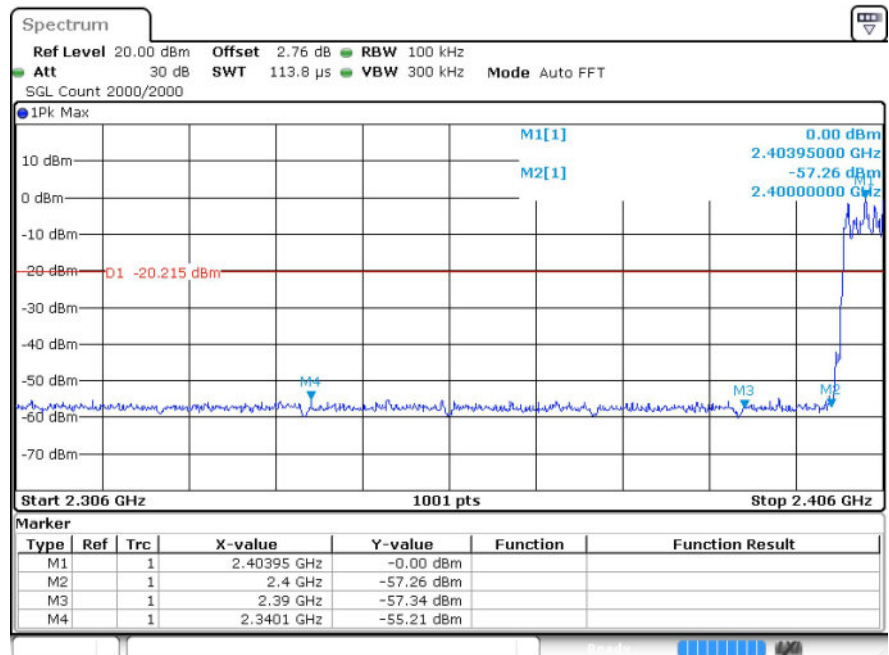
GFSK/HCH/Hop



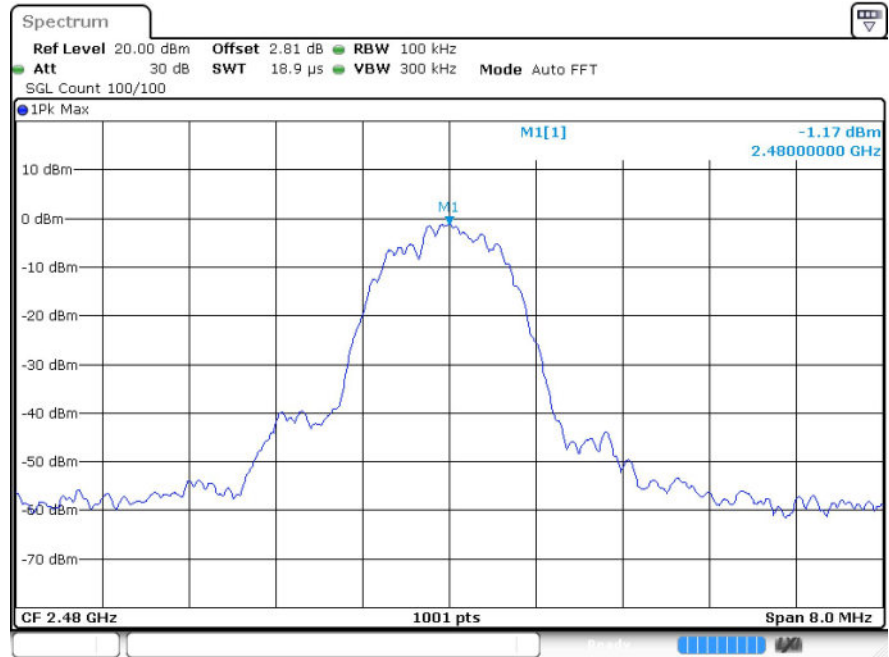
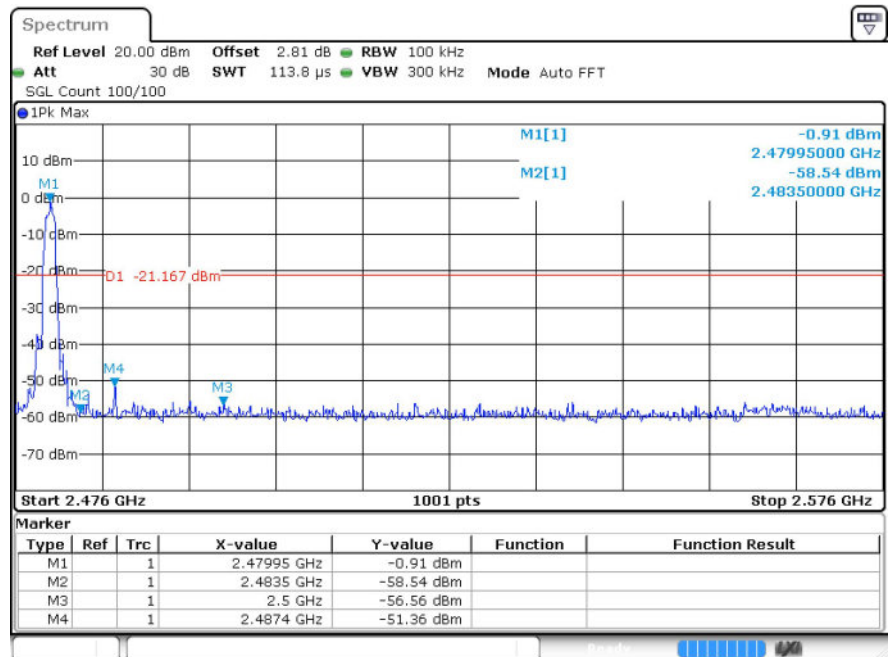
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 $\pi/4$ DQPSK/LCH/No
Hop


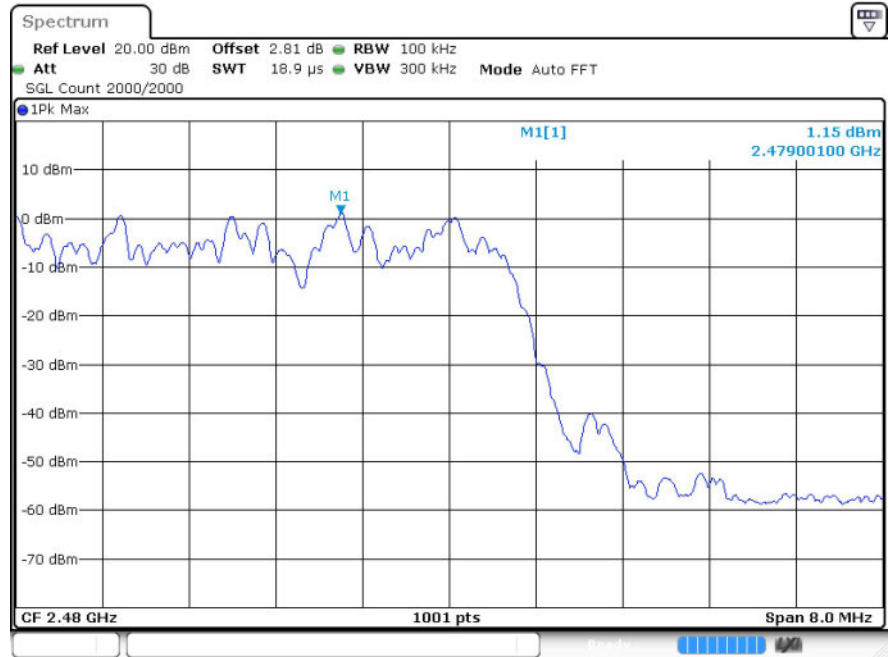
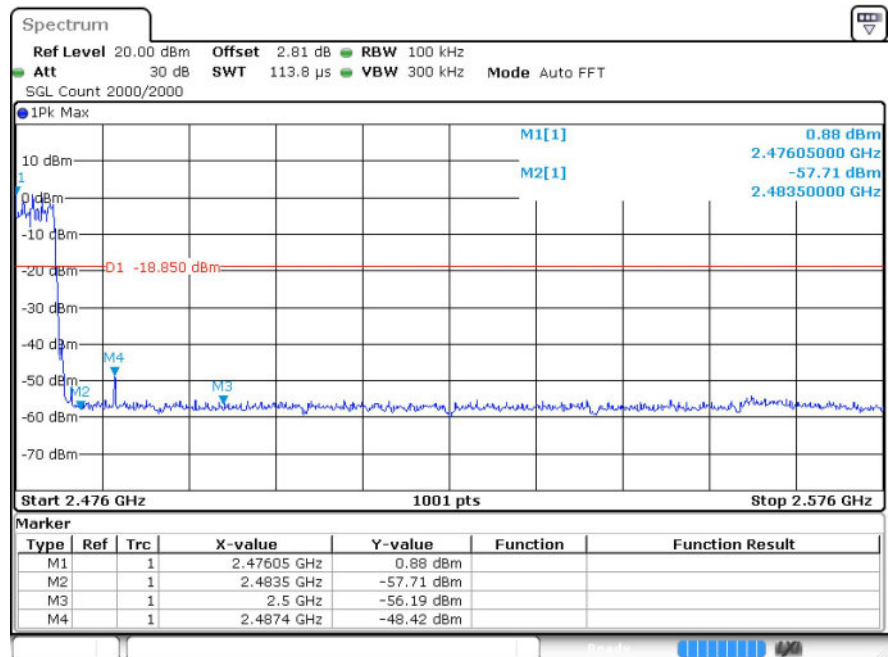
Ref


 $\pi/4$ DQPSK/LCH/Hop


Ref


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


Ref


 $\pi/4$ DQPSK/HCH/Hop


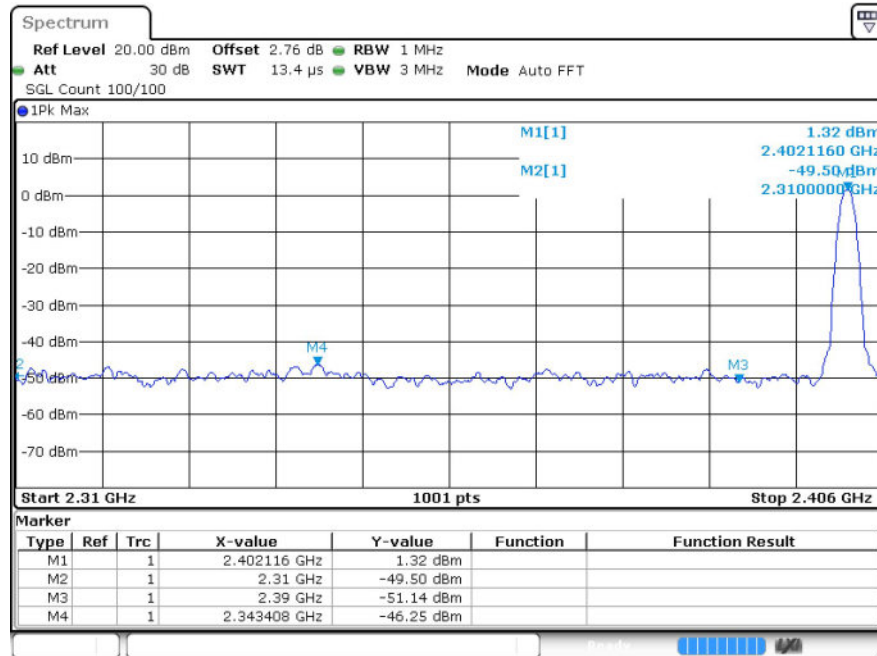
9 Restrict-band band-edge measurements

9.1 Test Result

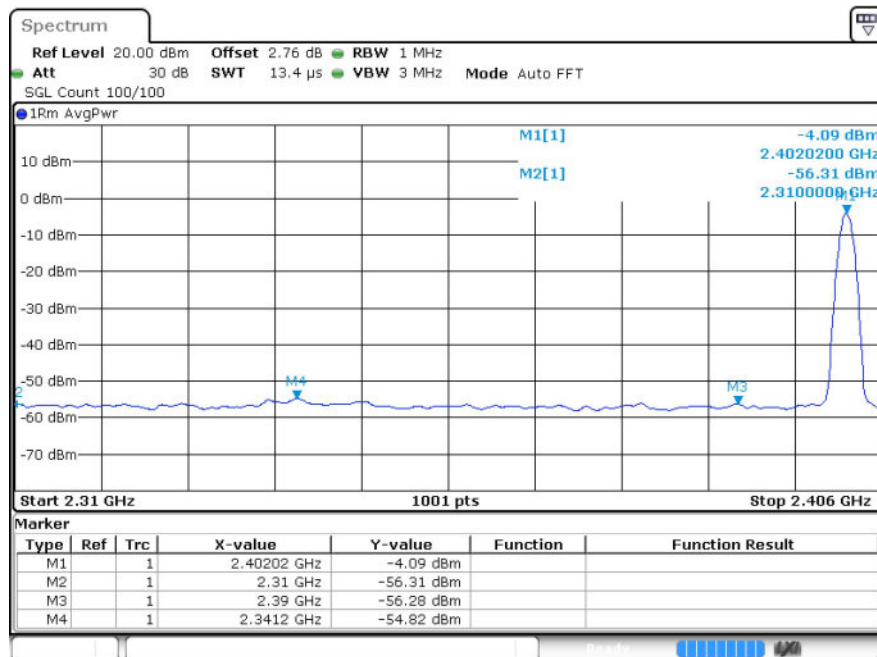
Test Mode	Hopping	Freq.	Power [dBm]	Gain	Duty Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-49.5	2	-	47.76	PEAK	74	Pass
	Off	2310.0	-56.31	2	5.06	46.01	AV	54	Pass
	Off	2343.408	-46.25	2	-	51.01	PEAK	74	Pass
	Off	2341.2	-54.82	2	5.06	47.5	AV	54	Pass
	Off	2390.0	-51.14	2	-	46.12	PEAK	74	Pass
	Off	2390.0	-56.28	2	5.06	46.04	AV	54	Pass
	Off	2483.5	-49.77	2	-	47.49	PEAK	74	Pass
	Off	2483.5	-55.76	2	5.06	46.56	AV	54	Pass
	Off	2487.448	-45.19	2	-	52.07	PEAK	74	Pass
	Off	2483.512	-55.79	2	5.06	46.53	AV	54	Pass
	Off	2500.0	-50.34	2	-	46.92	PEAK	74	Pass
	Off	2500.0	-56.32	2	5.06	46	AV	54	Pass
$\pi/4$ DQPSK	Off	2310.0	-50.79	2	-	46.47	PEAK	74	Pass
	Off	2310.0	-56.92	2	4.95	45.29	AV	54	Pass
	Off	2338.512	-46.39	2	-	50.87	PEAK	74	Pass
	Off	2341.104	-54.47	2	4.95	47.74	AV	54	Pass
	Off	2390.0	-49.68	2	-	47.58	PEAK	74	Pass
	Off	2390.0	-56.07	2	4.95	46.14	AV	54	Pass
	Off	2483.5	-49.49	2	-	47.77	PEAK	74	Pass
	Off	2483.5	-56.23	2	4.95	45.98	AV	54	Pass
	Off	2484.28	-47.76	2	-	49.5	PEAK	74	Pass
	Off	2492.44	-55.08	2	4.95	47.13	AV	54	Pass
	Off	2500.0	-49.24	2	-	48.02	PEAK	74	Pass
	Off	2500.0	-56.13	2	4.95	46.08	AV	54	Pass

9.2 Test Graphs

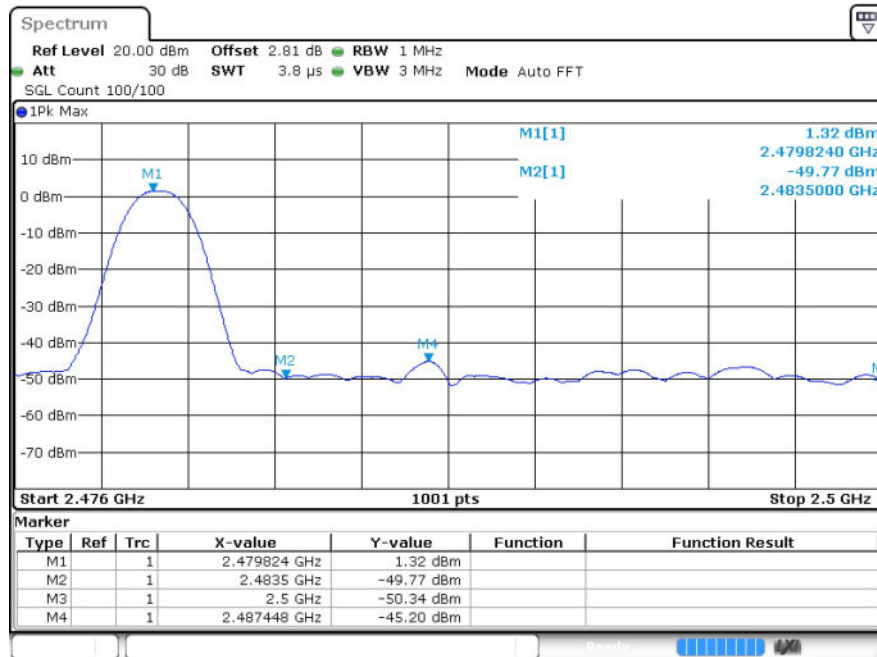
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



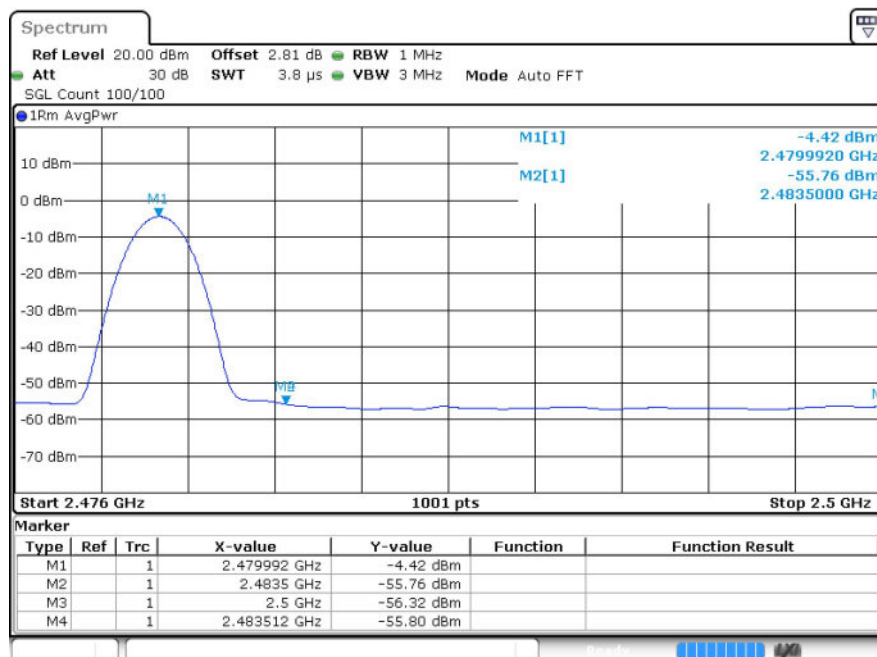
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



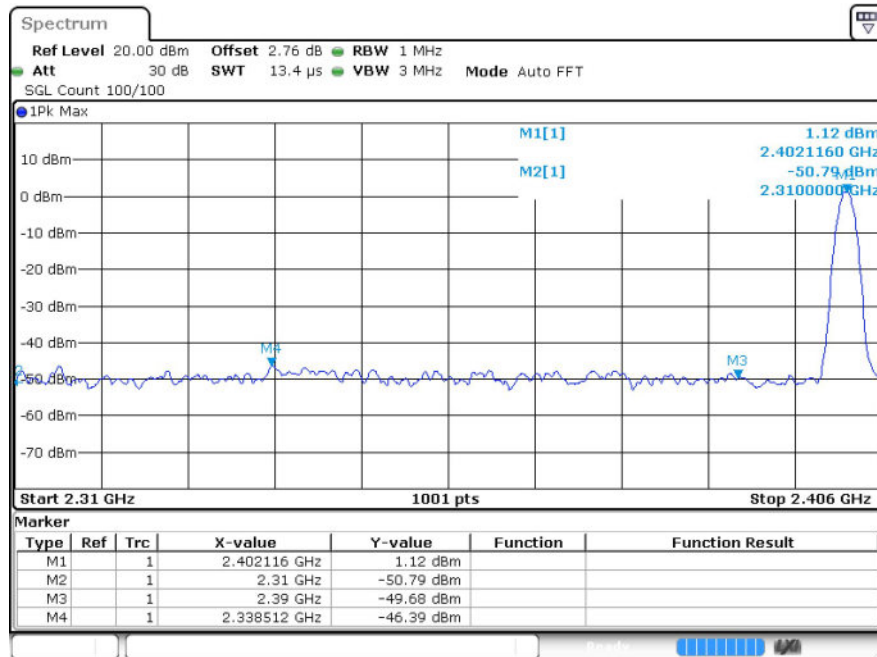
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



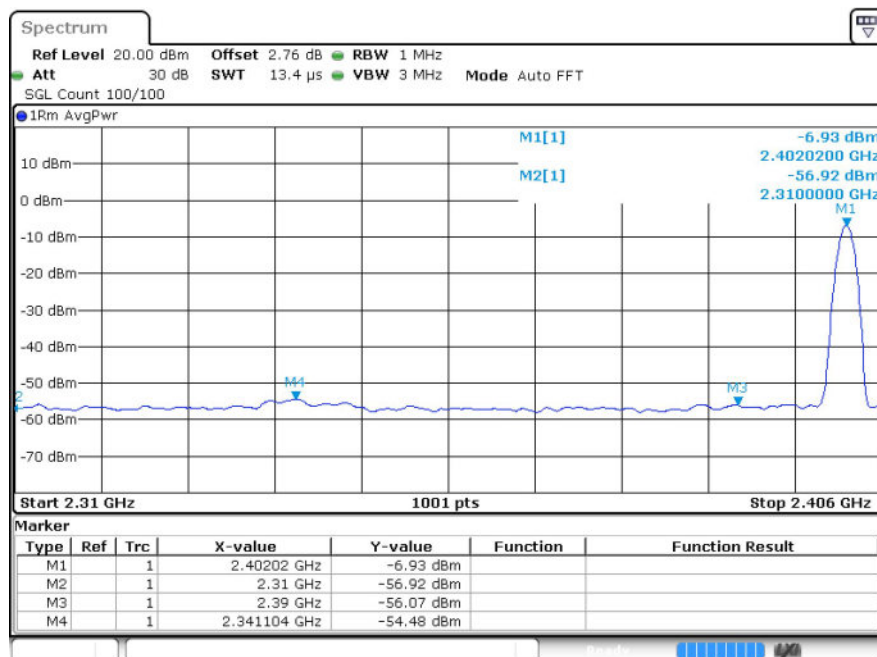
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



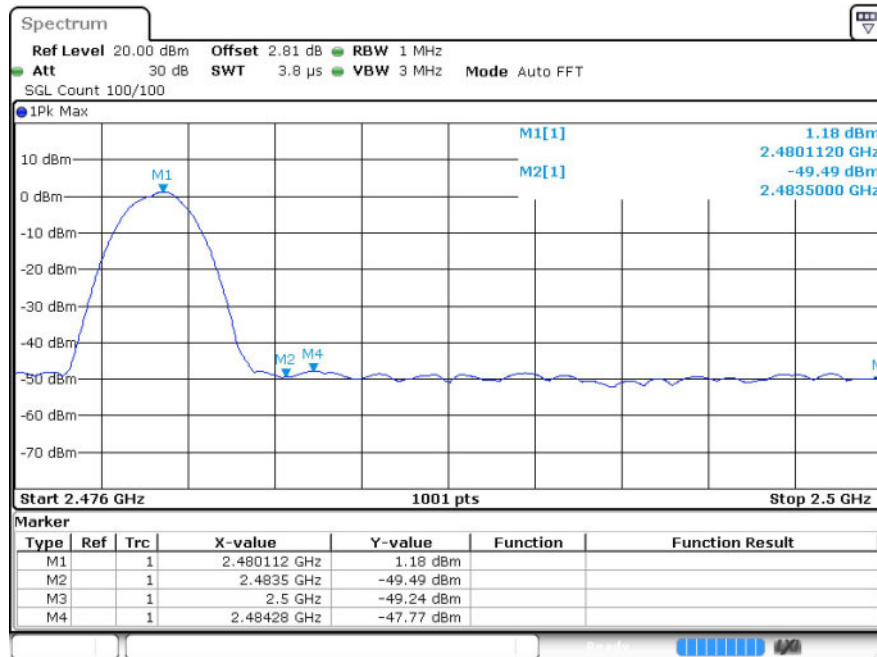
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



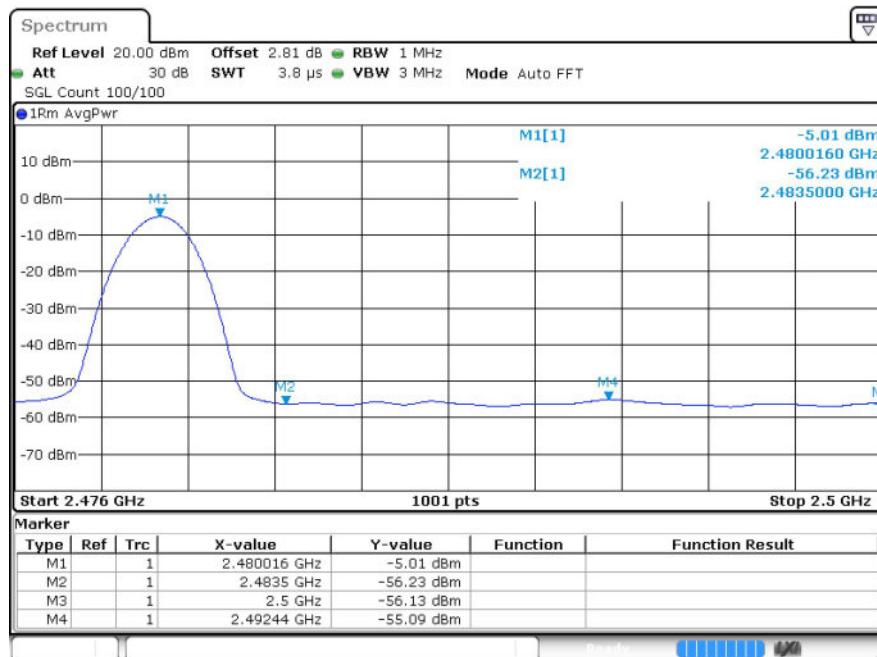
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



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---