



Appendix A

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

Product Name: Active noise cancelling headphone

Trade Mark: N/A

Test Model: ANC-6078D

Environmental Conditions

Temperature:	25.5℃
Relative Humidity:	52.1%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

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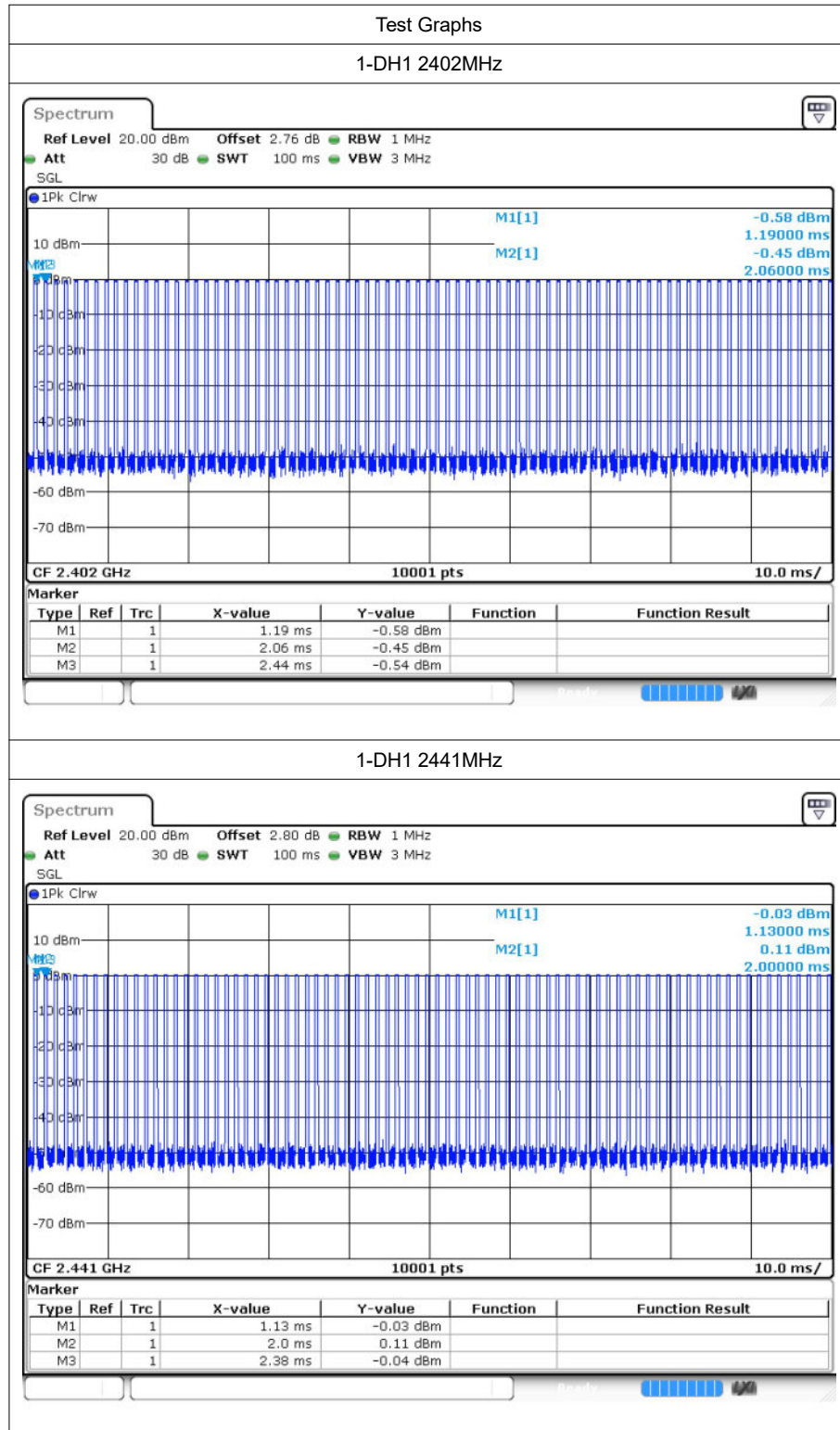
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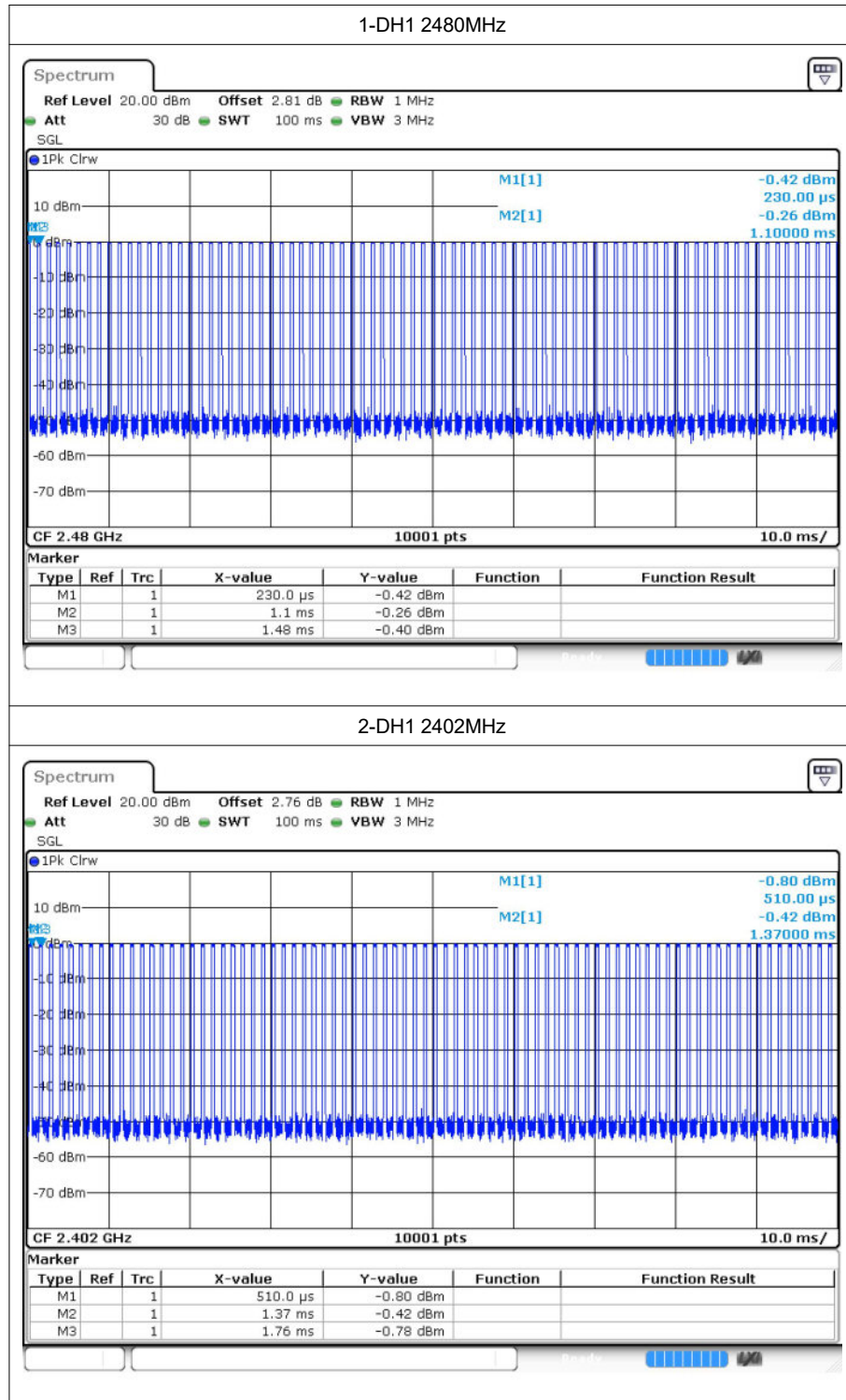
1 Duty Cycle

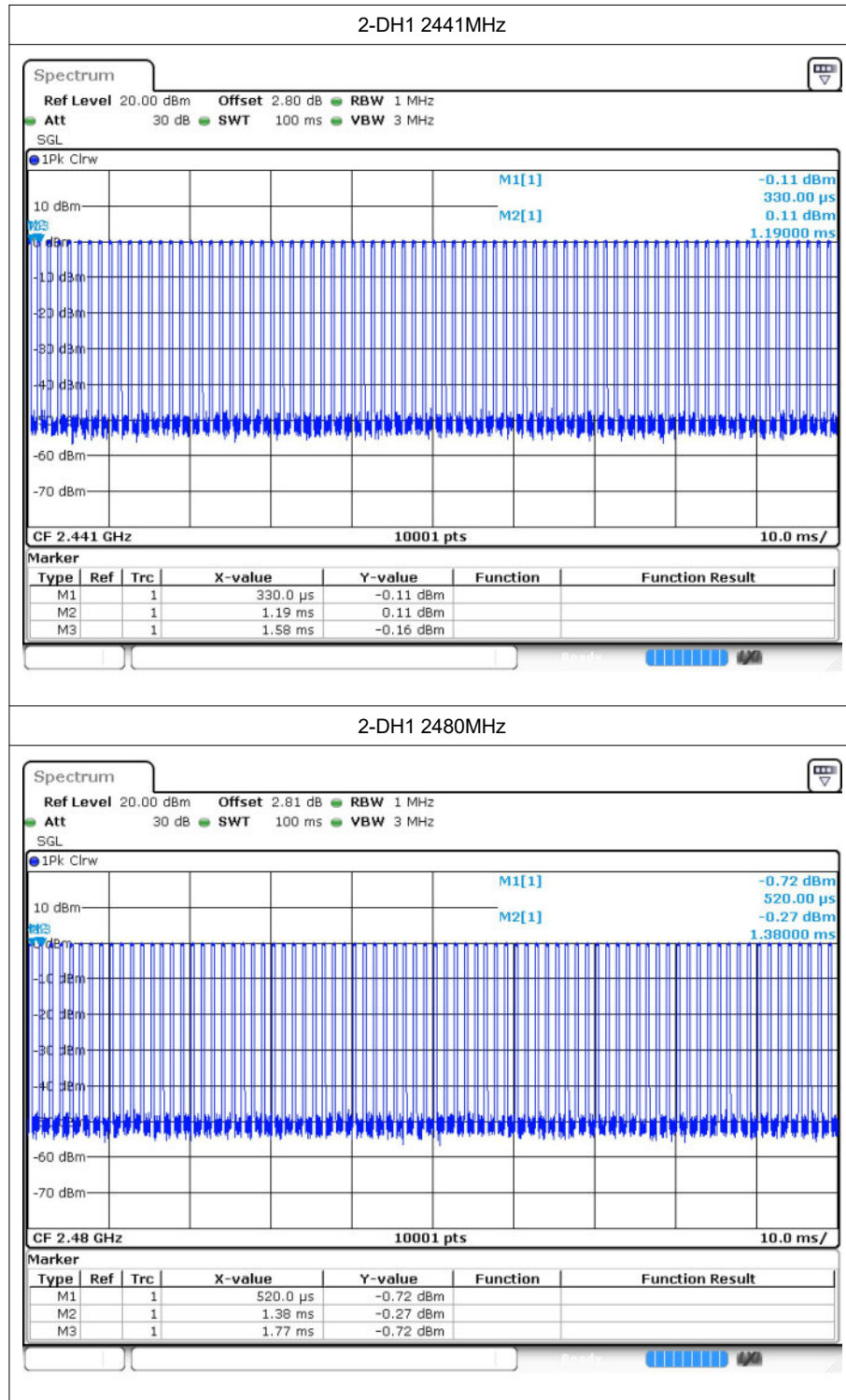
1.1 Test Result

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	31.21	2.63
2-DH1	2402	32	2.56
2-DH1	2441	32.01	2.56
2-DH1	2480	32	2.56

1.2 Test Graphs





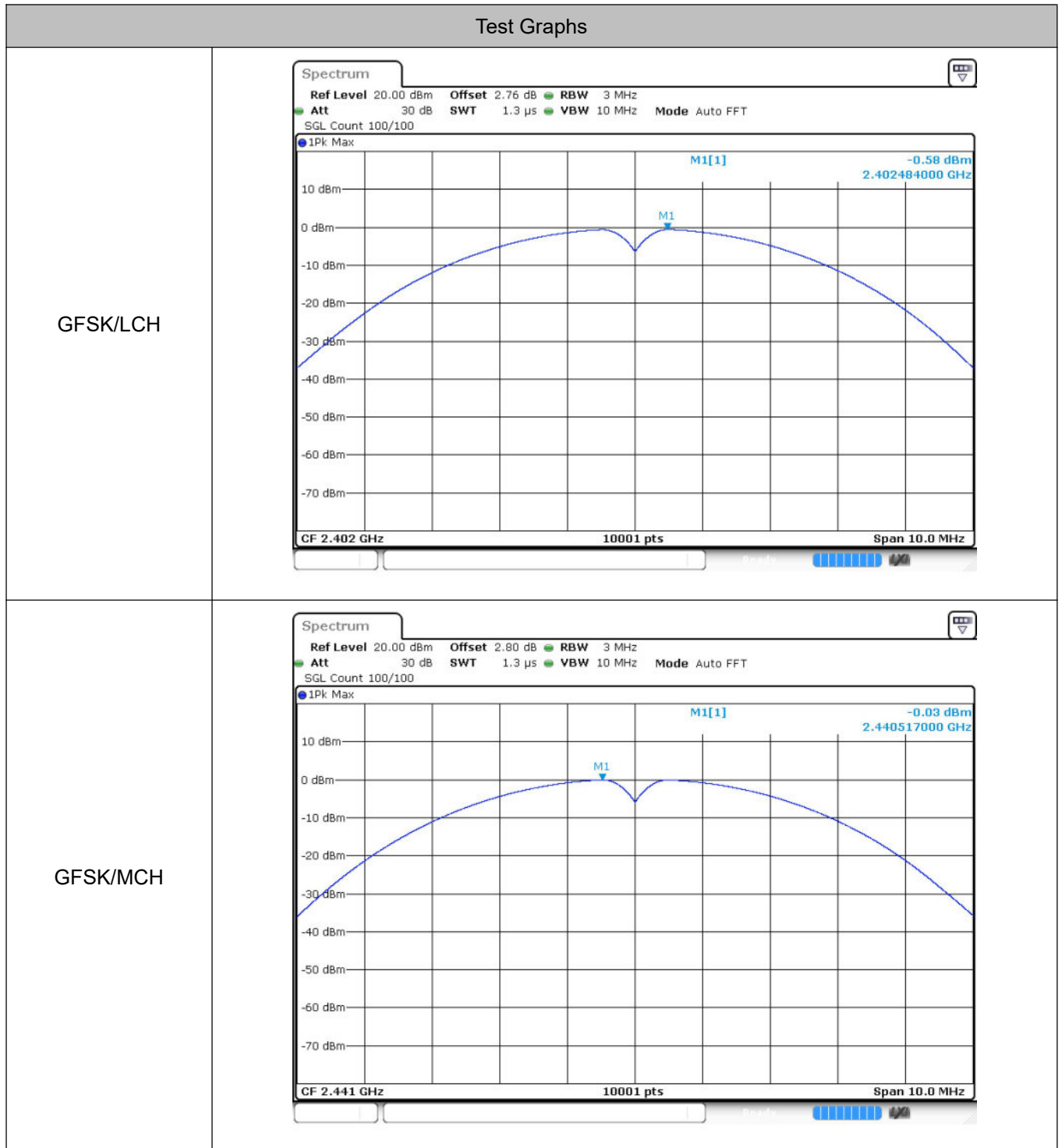


2 Maximum Conducted Peak Output Power

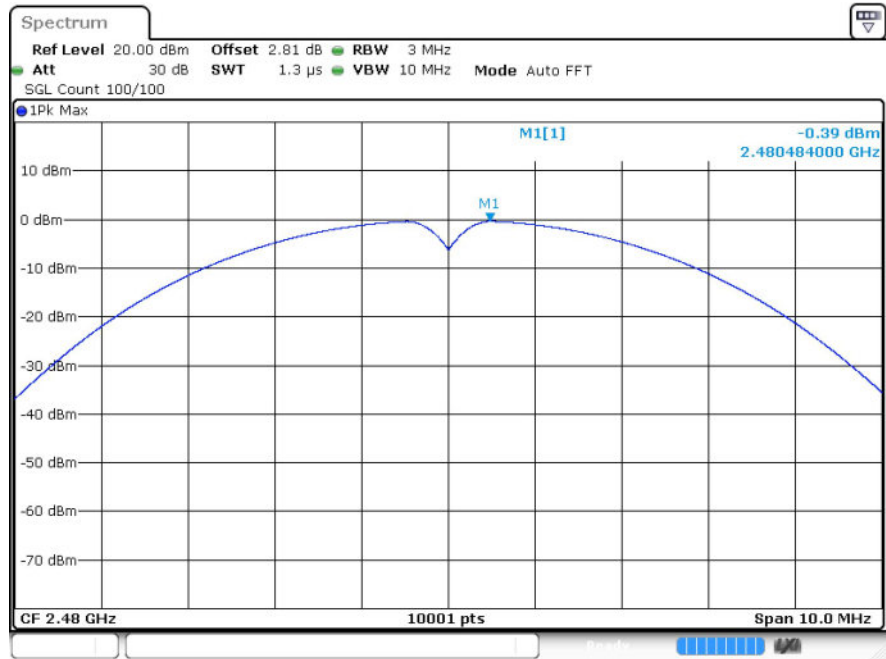
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.58	21	Pass
	MCH	-0.03	21	Pass
	HCH	-0.39	21	Pass
$\pi/4$ DQPSK	LCH	-0.06	21	Pass
	MCH	0.47	21	Pass
	HCH	0.15	21	Pass

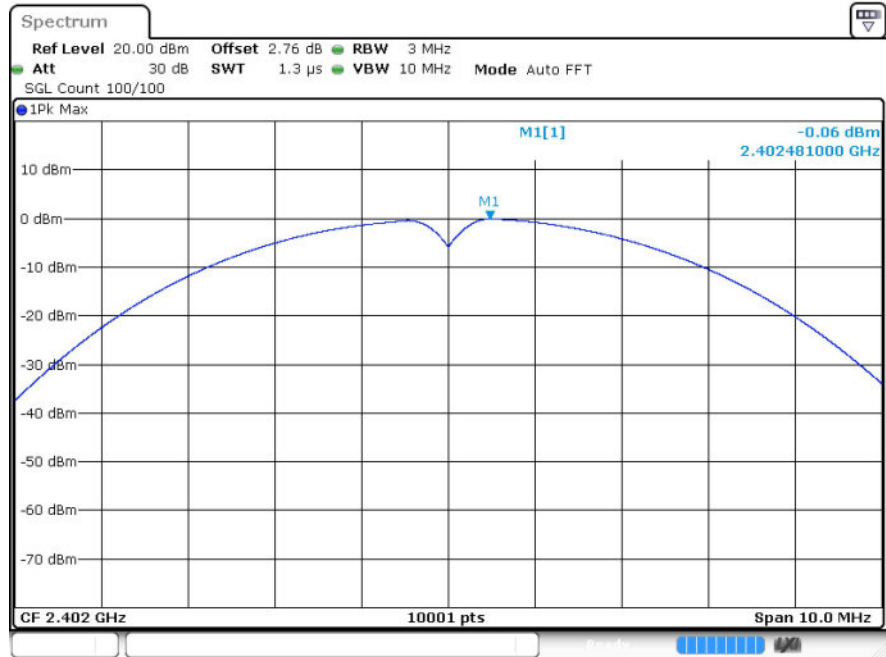
2.2 Test Graphs



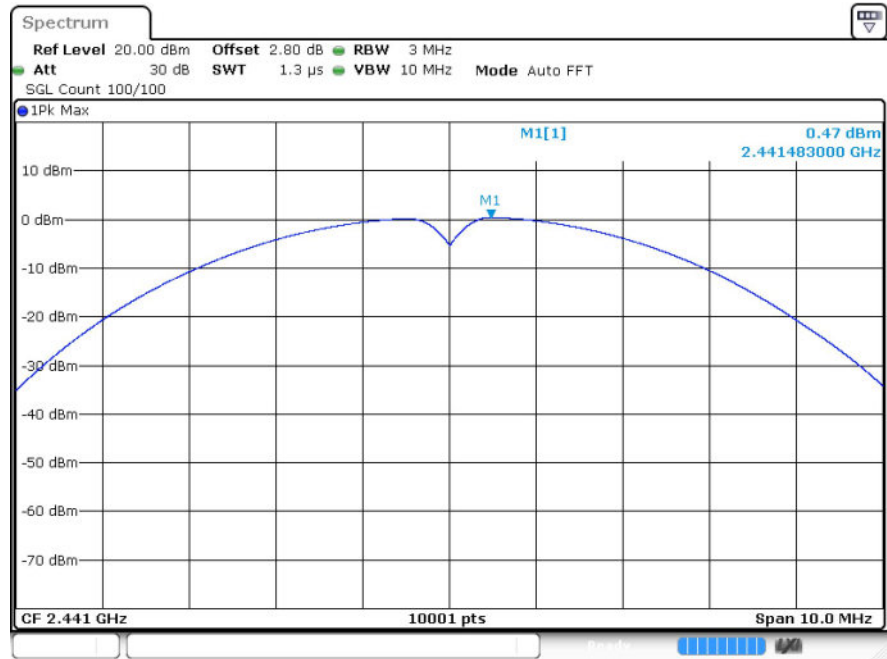
GFSK/HCH



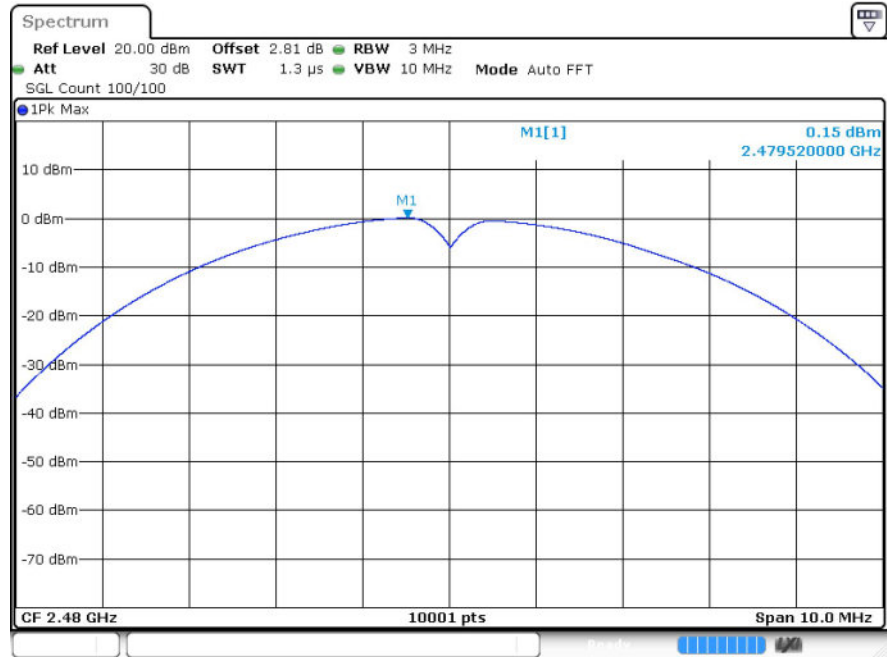
$\pi/4$ DQPSK/LCH



$\pi/4$ DQPSK/MCH



$\pi/4$ DQPSK/HCH

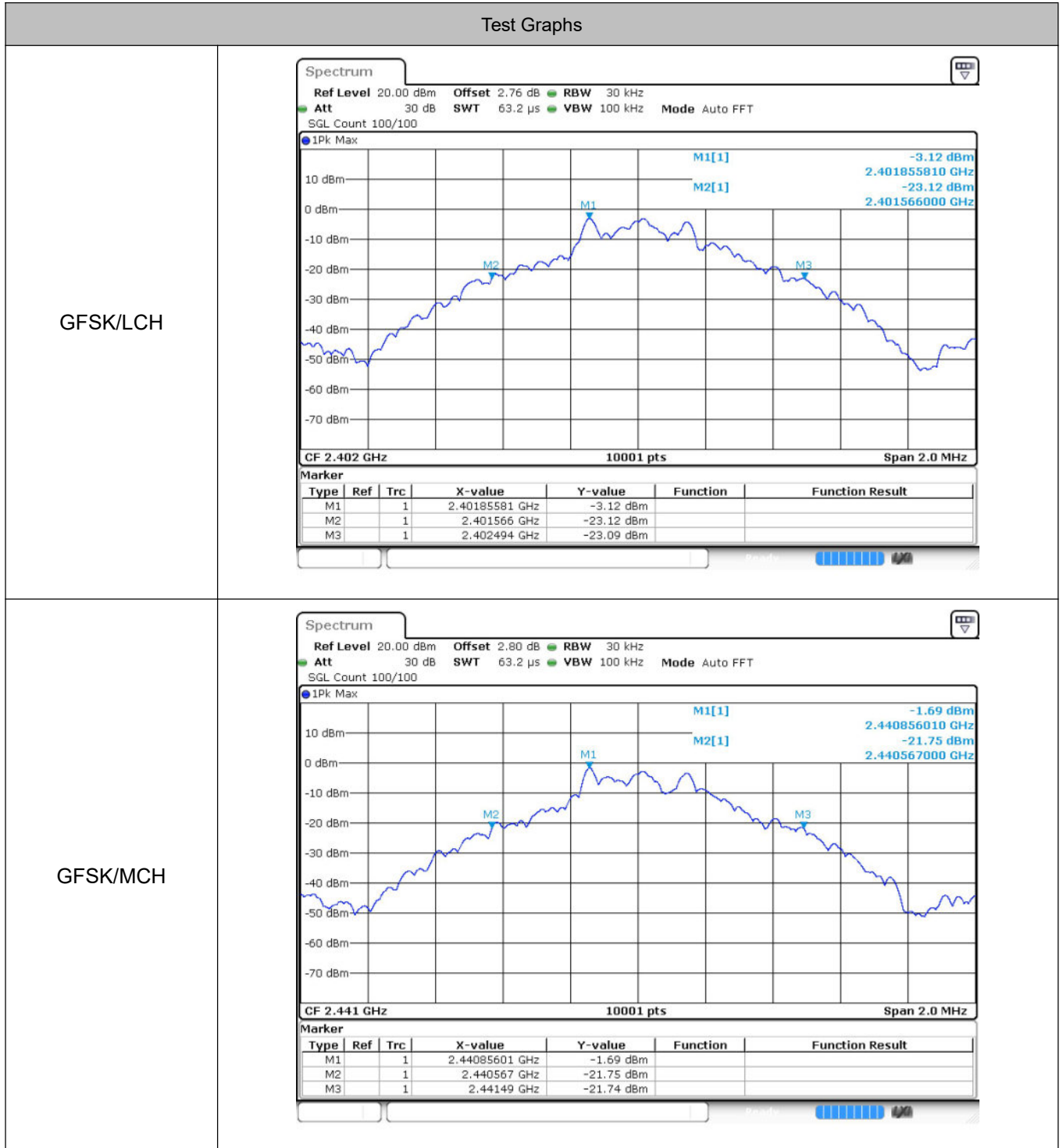


3 20dB Bandwidth

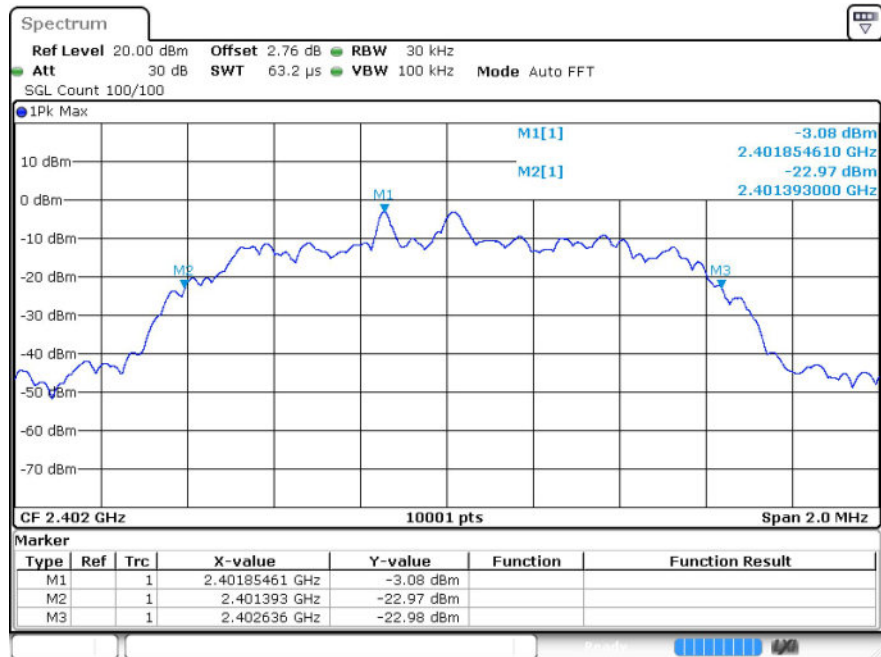
3.1 Test Result

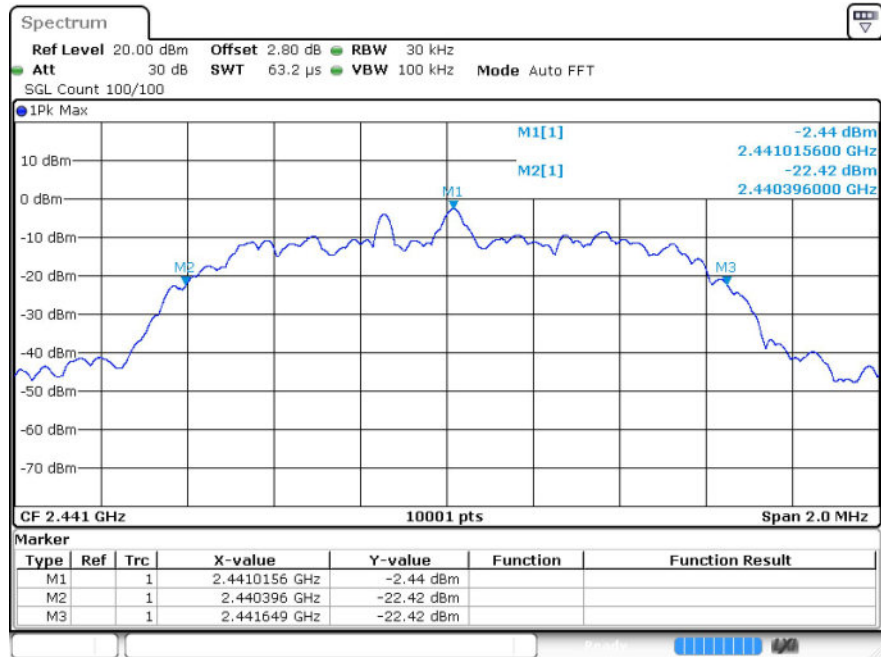
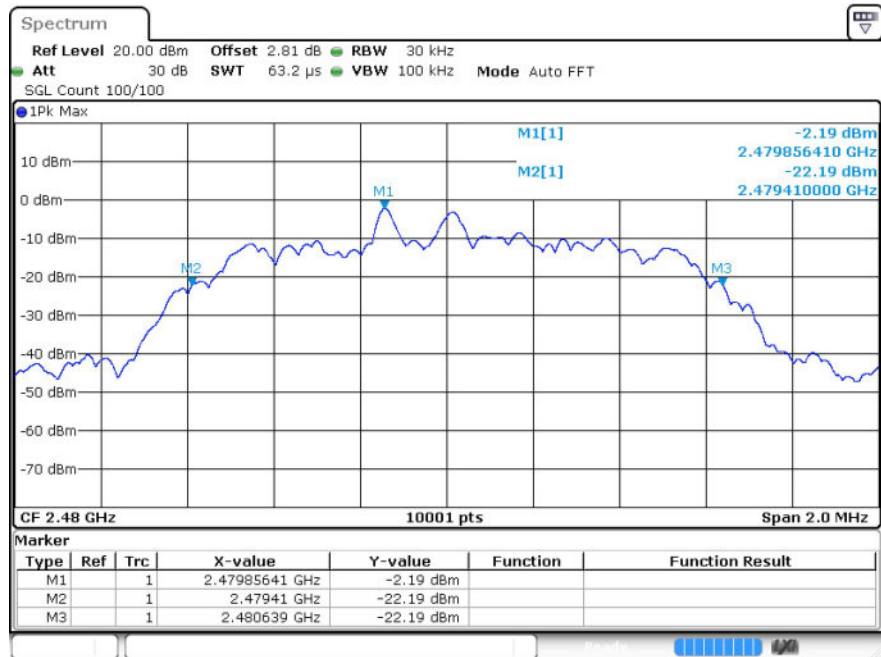
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.928	Not Specified	Pass
	MCH	0.922	Not Specified	Pass
	HCH	0.925	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.244	Not Specified	Pass
	MCH	1.253	Not Specified	Pass
	HCH	1.229	Not Specified	Pass

3.2 Test Graphs



GFSK/HCH


 $\pi/4$ DQPSK/LCH


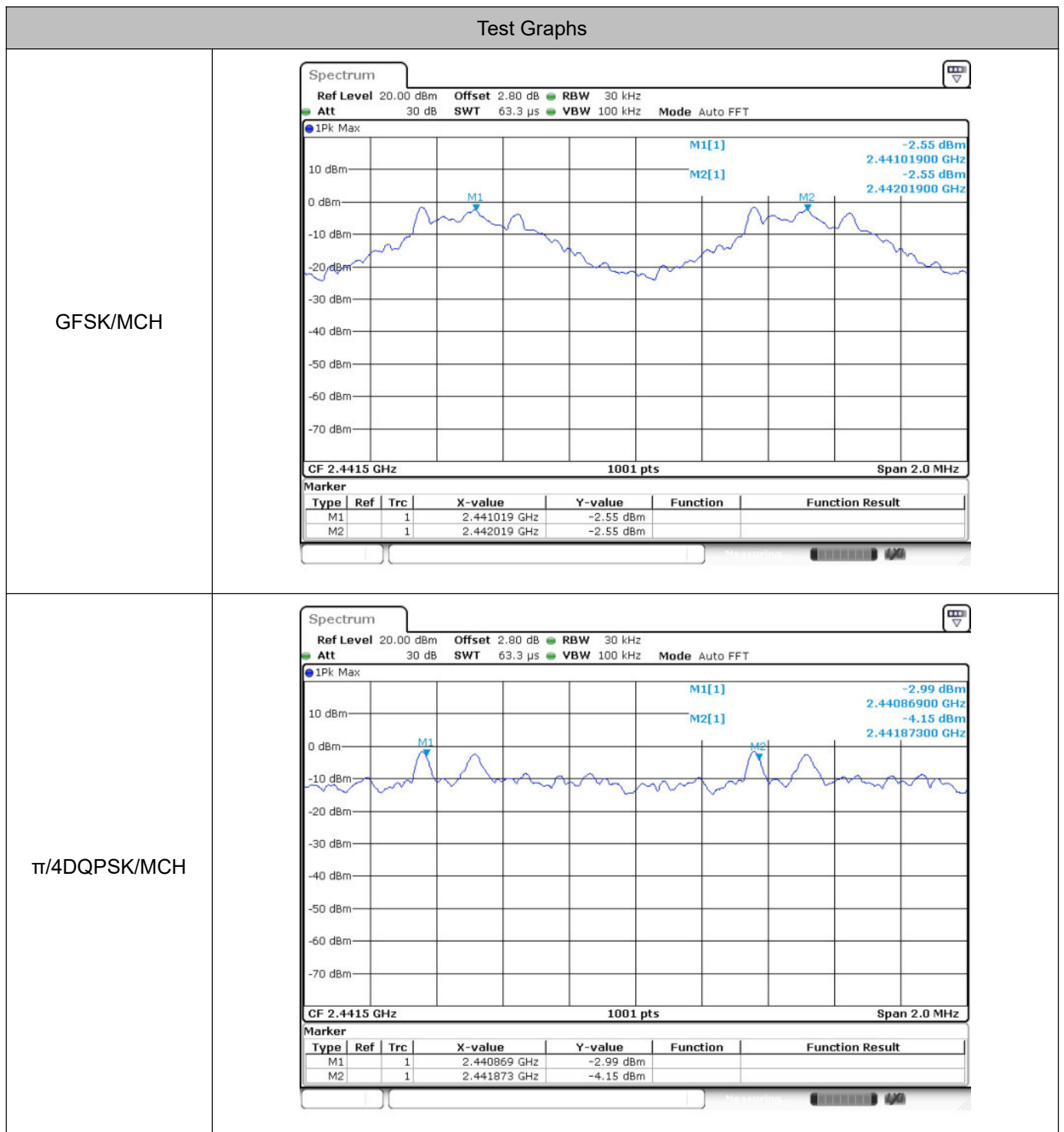
$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1	0.615	Pass
$\pi/4$ DQPSK	MCH	1.004	0.835	Pass

4.2 Test Graphs

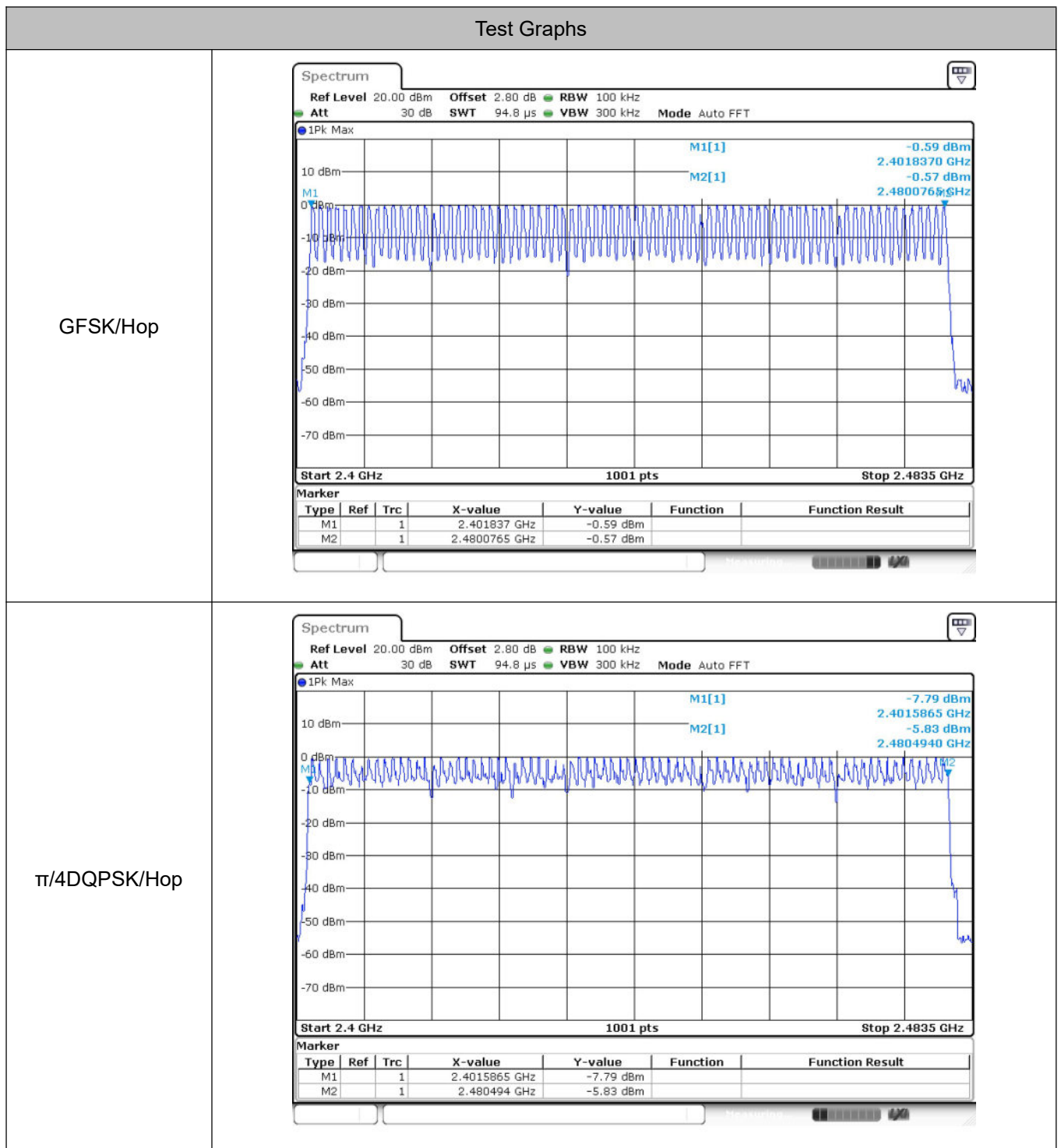


5 Hopping Channel Number

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

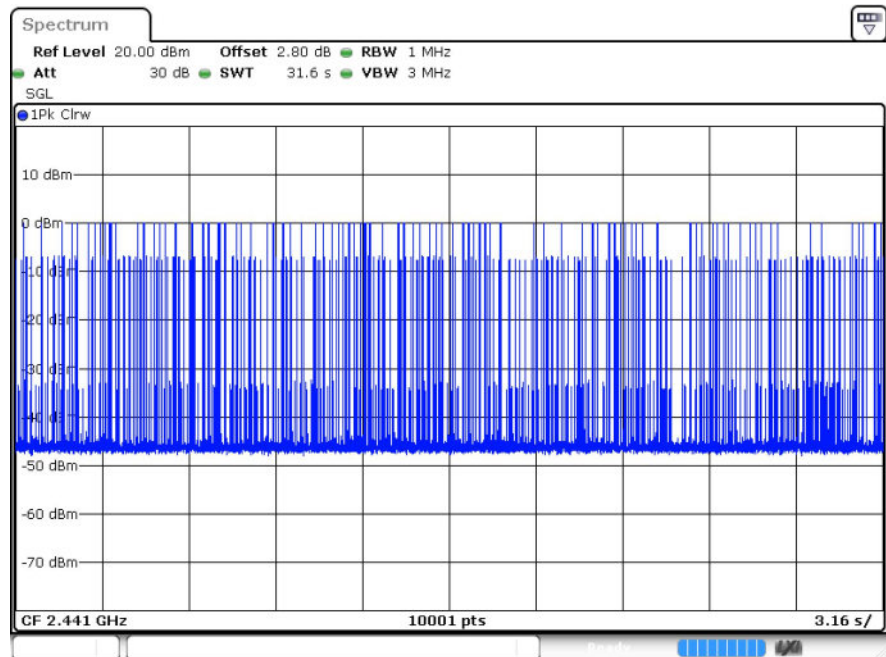
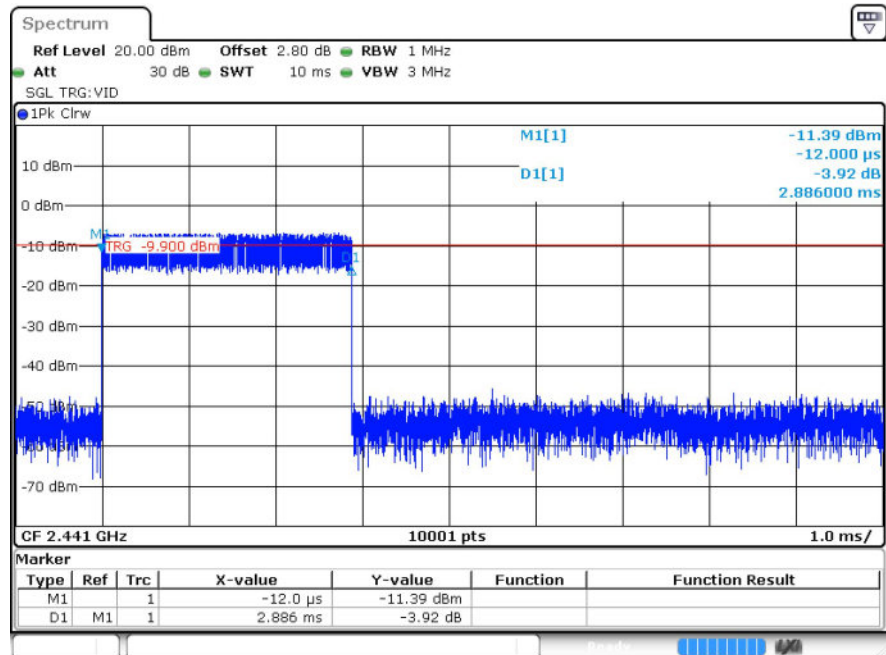
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.886	116	334.776	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.891	108	312.228	0.4	Pass

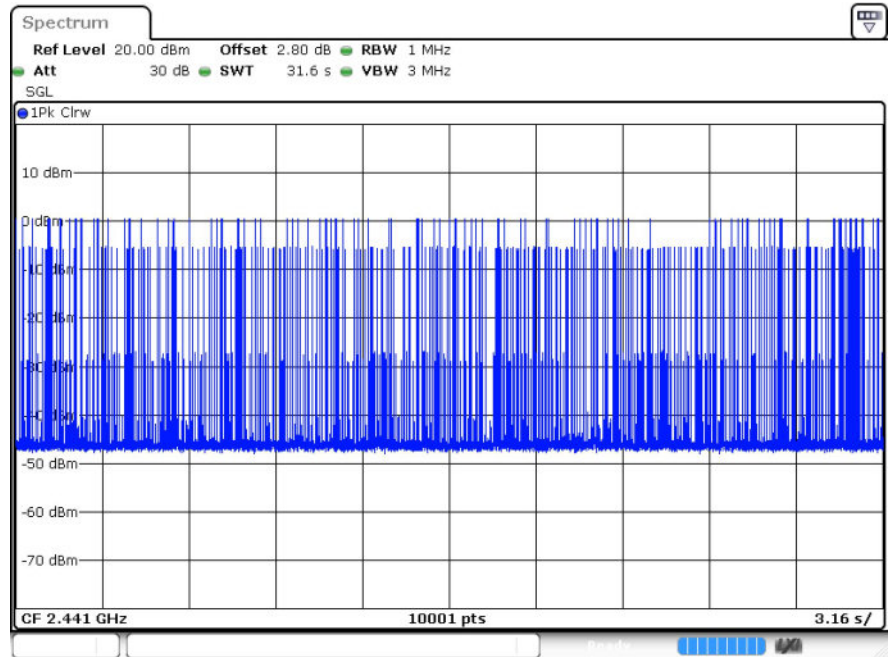
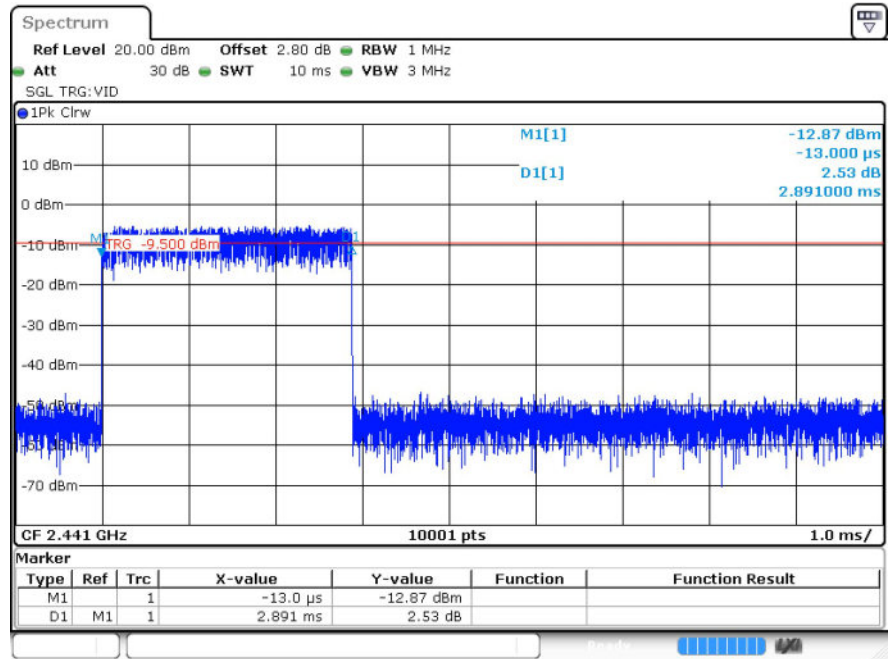
6.2 Test Graphs

Test Graphs

GFSK_DH5/MCH



$\pi/4$ DQPSK
_2DH5/MCH



7 RF Conducted Spurious Emissions

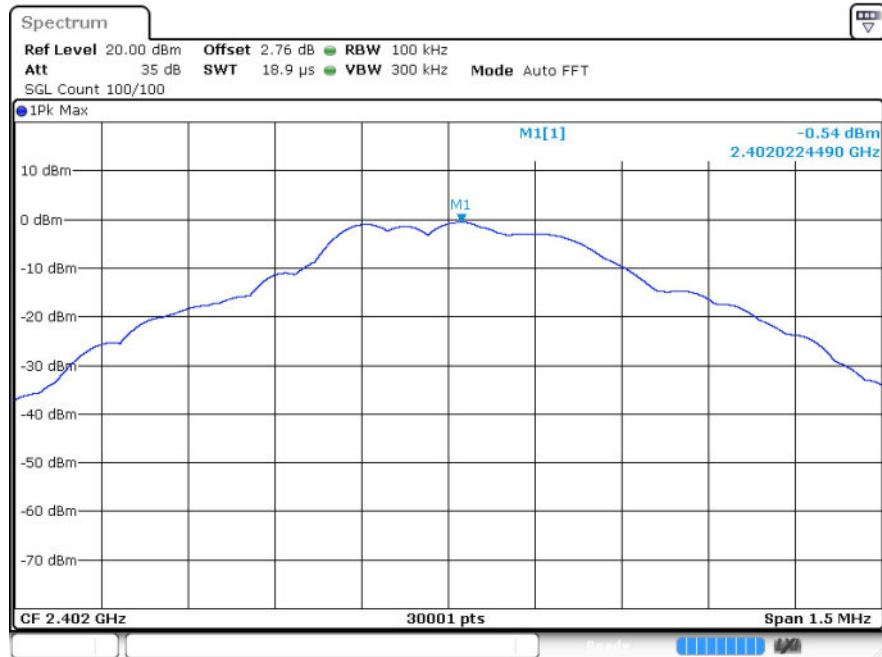
7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-38.45	-20	Pass
	MCH	-38.38	-20	Pass
	HCH	-38.18	-20	Pass
$\pi/4$ DQPSK	LCH	-39.69	-20	Pass
	MCH	-40.87	-20	Pass
	HCH	-41.09	-20	Pass

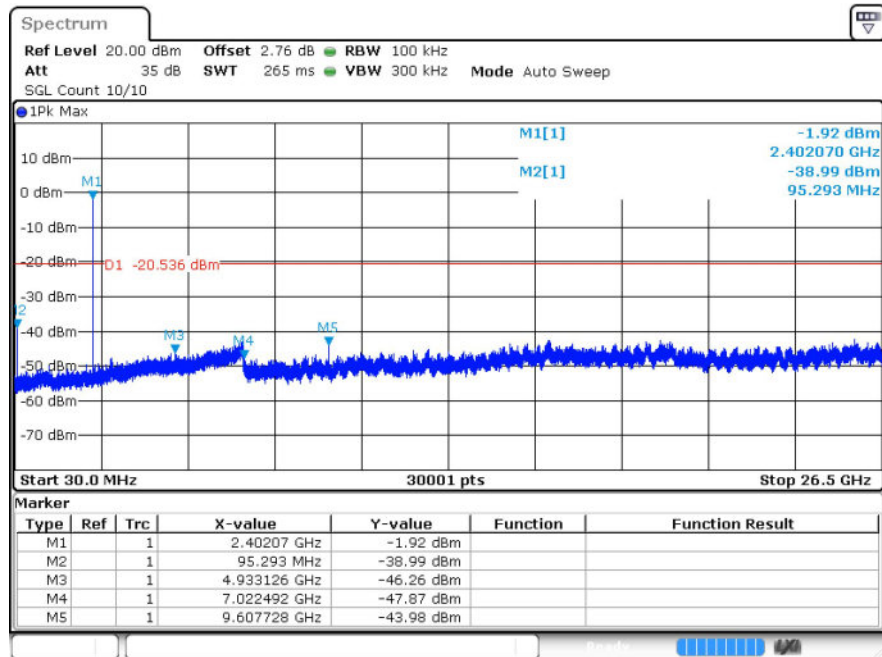
7.2 Test Graphs

GFSK_LCH_Graphs

Pref

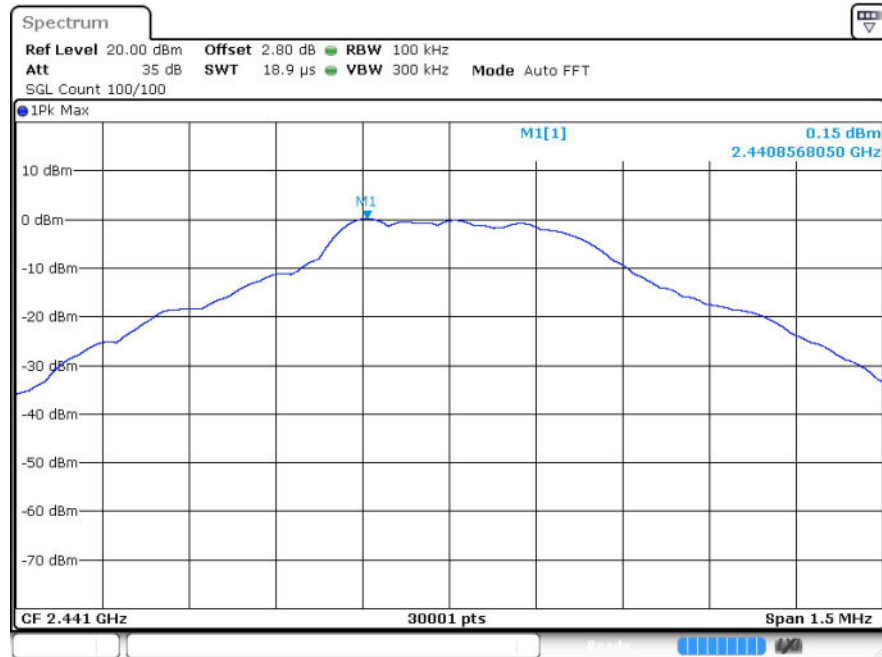


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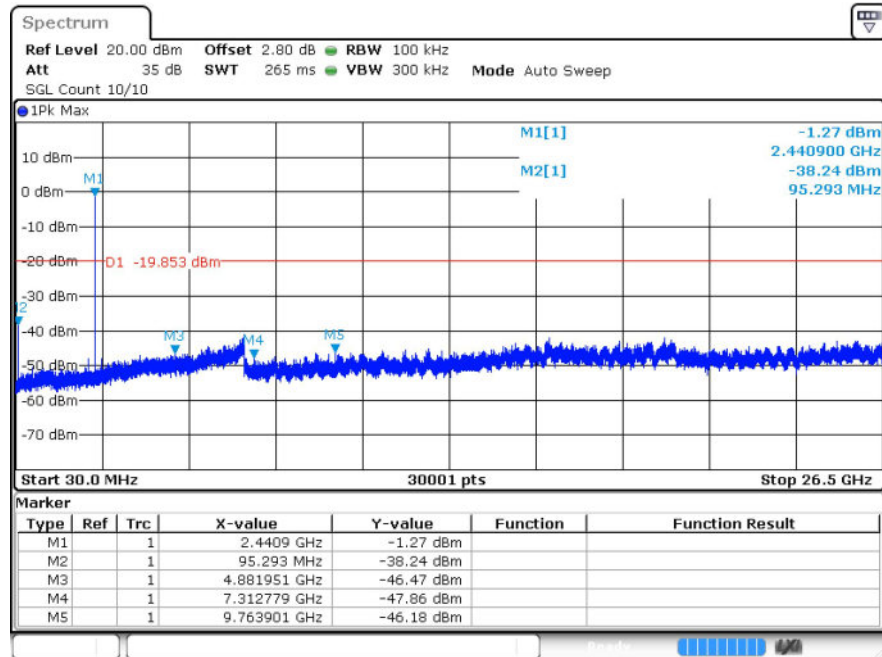


GFSK_MCH_Graphs

Pref

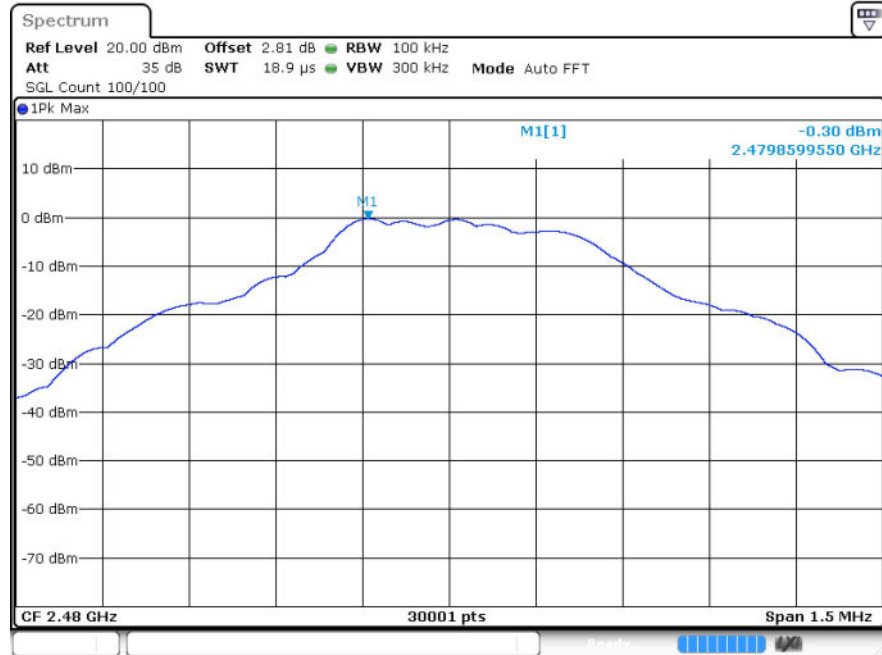


Puw

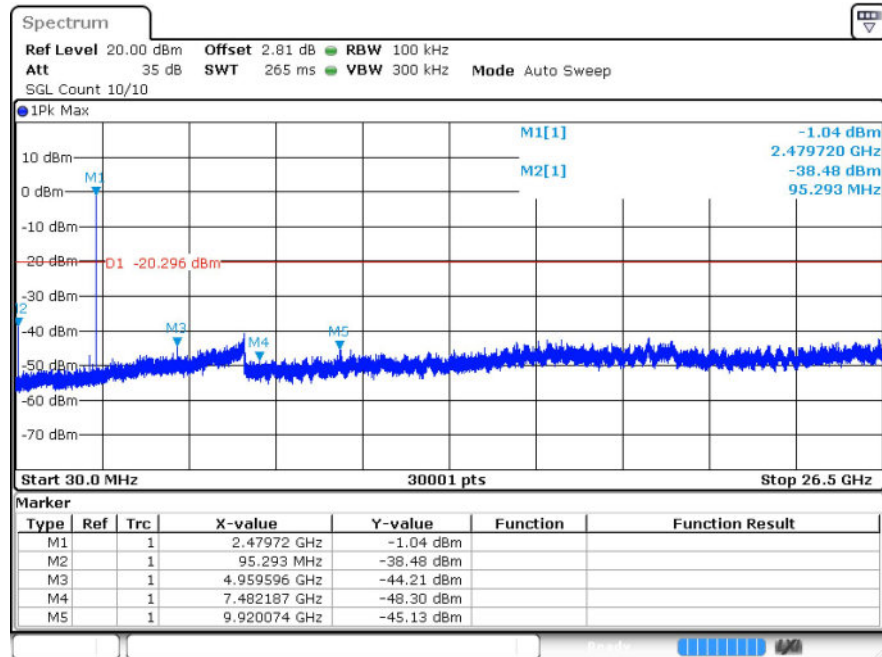


GFSK_HCH_Graphs

Pref

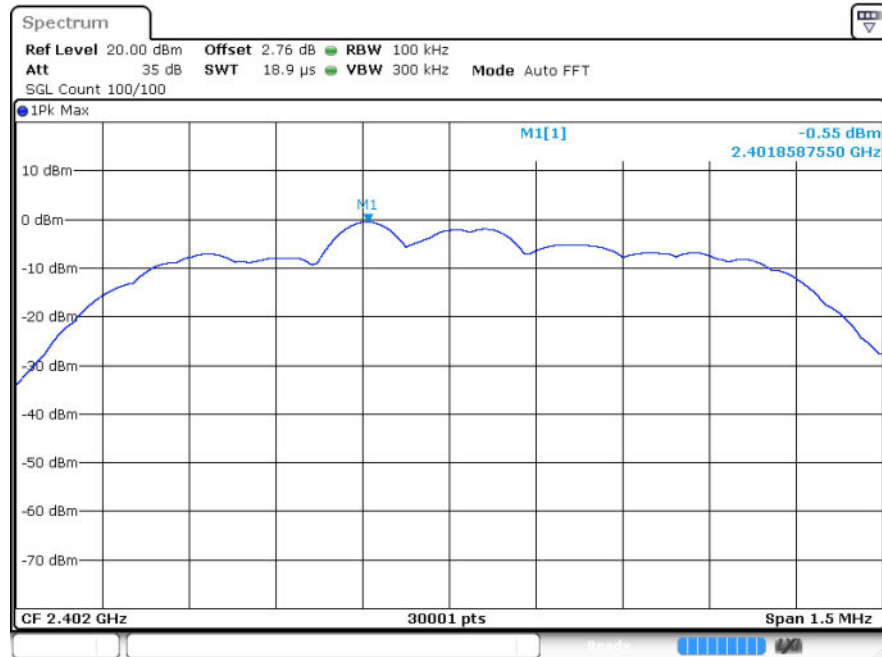


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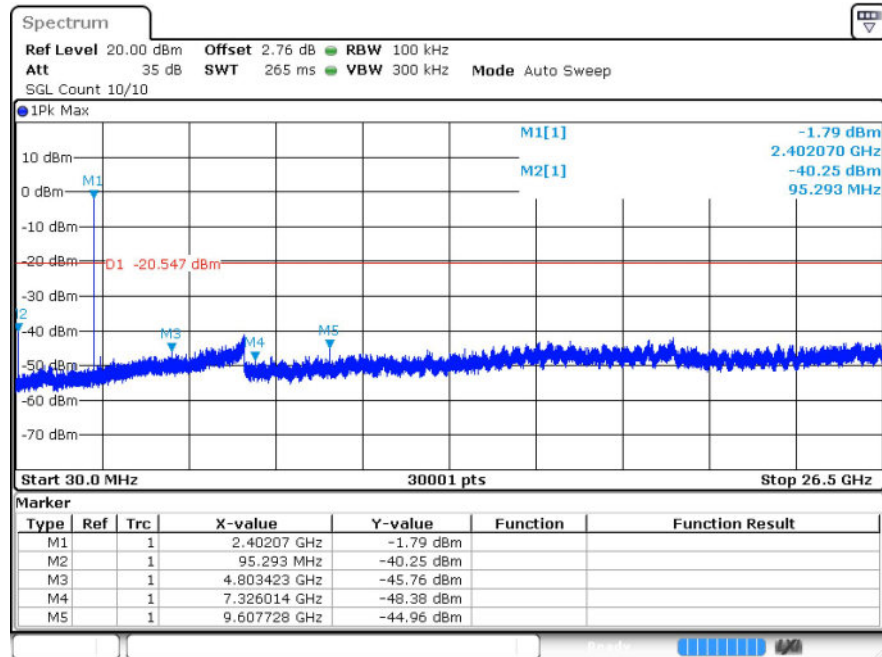


$\pi/4$ DQPSK_LCH_Graphs

Pref

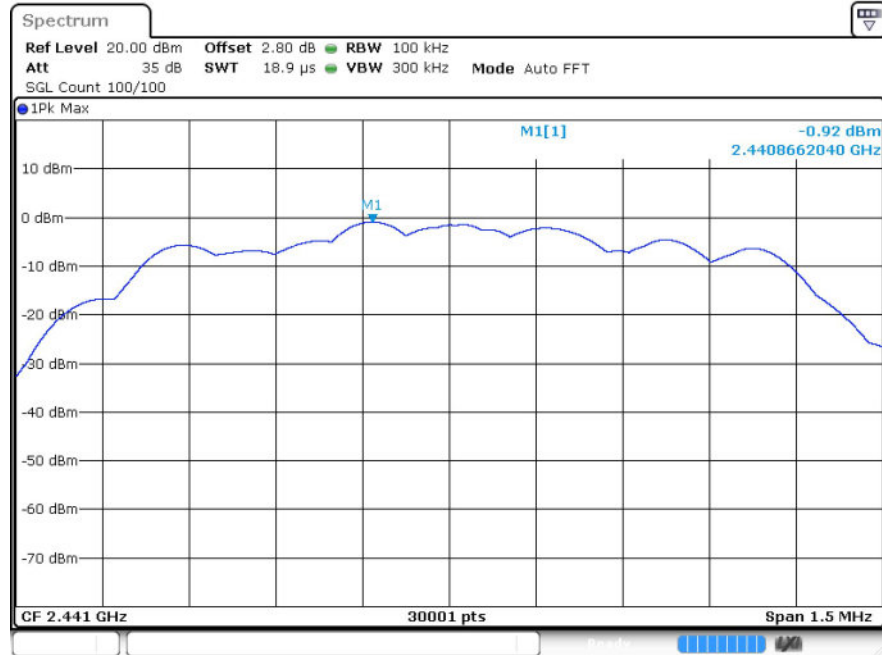


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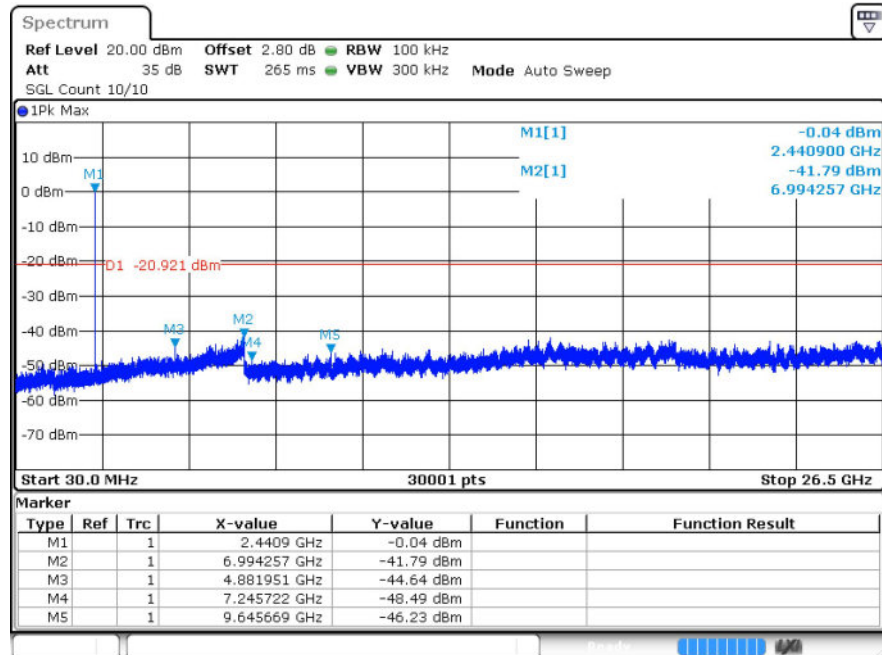


π /4DQPSK_MCH_Graphs

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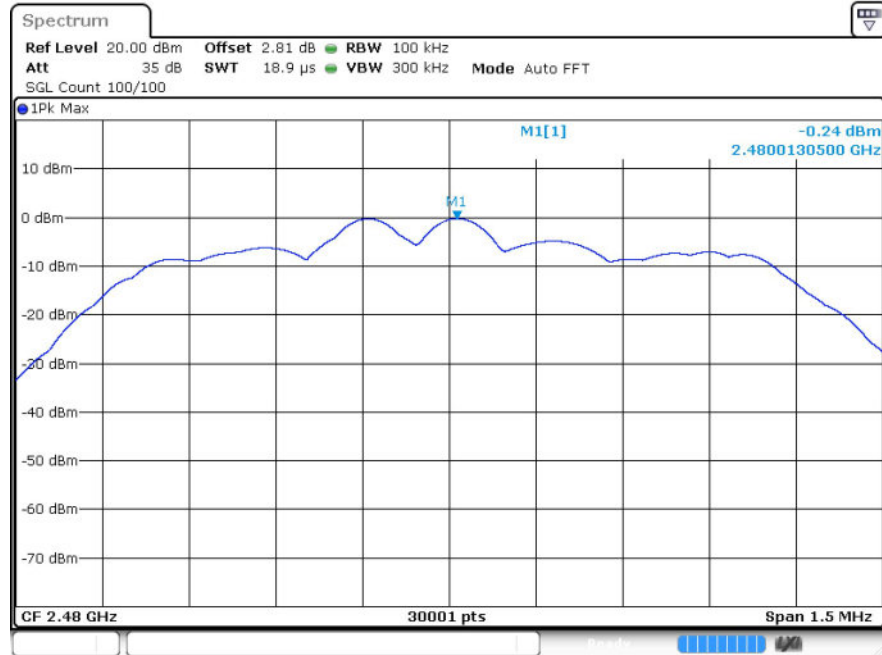


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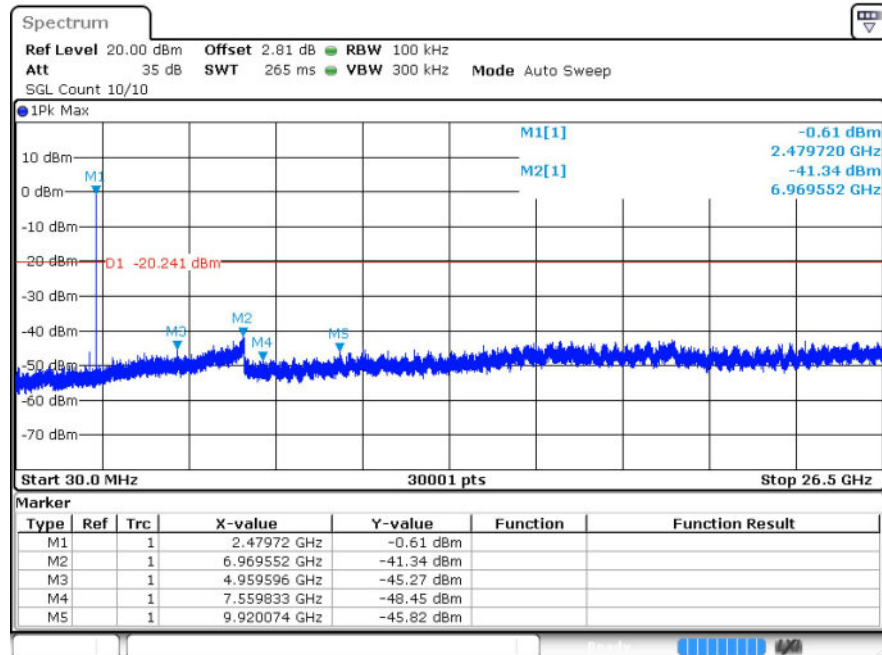


$\pi/4$ DQPSK_HCH_Graphs

Pref



Puw

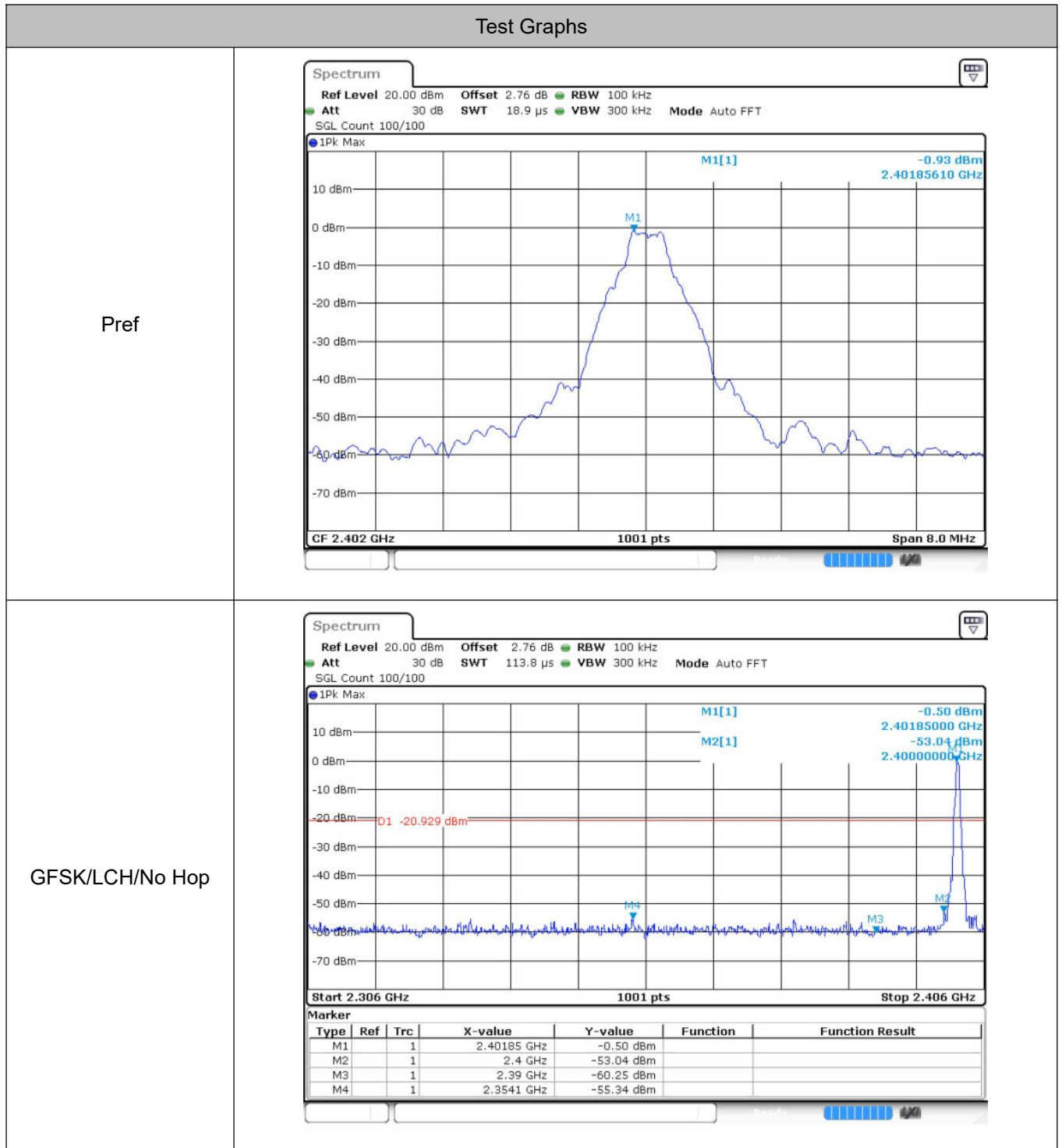


8 Band-edge for RF Conducted Emissions

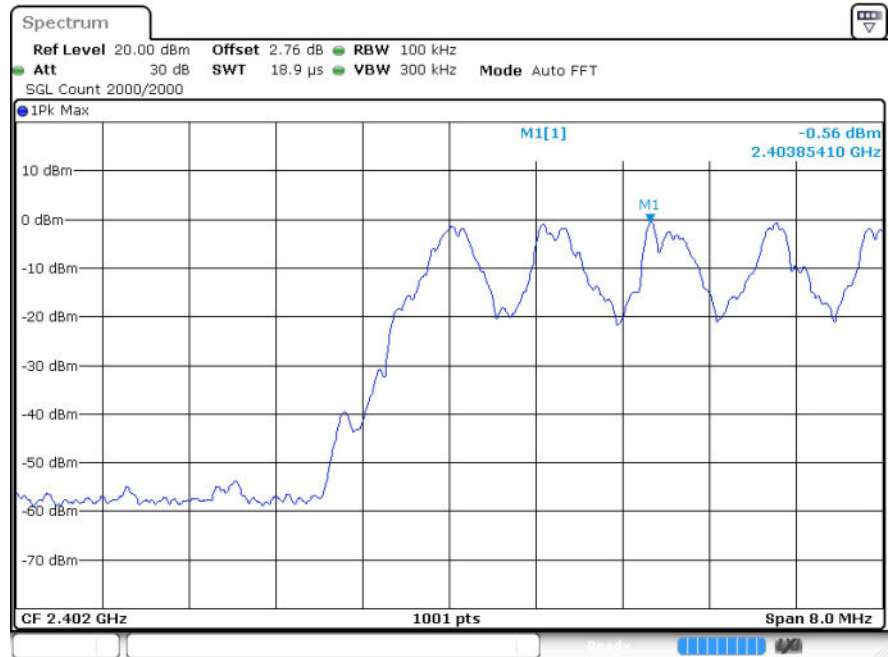
8.1 Test Result

Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-54.41	-20	Pass
			On	-52	-20	Pass
	HCH	2480	Off	-56.24	-20	Pass
			On	-50.92	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-53.98	-20	Pass
			On	-51.03	-20	Pass
	HCH	2480	Off	-56	-20	Pass
			On	-51.22	-20	Pass

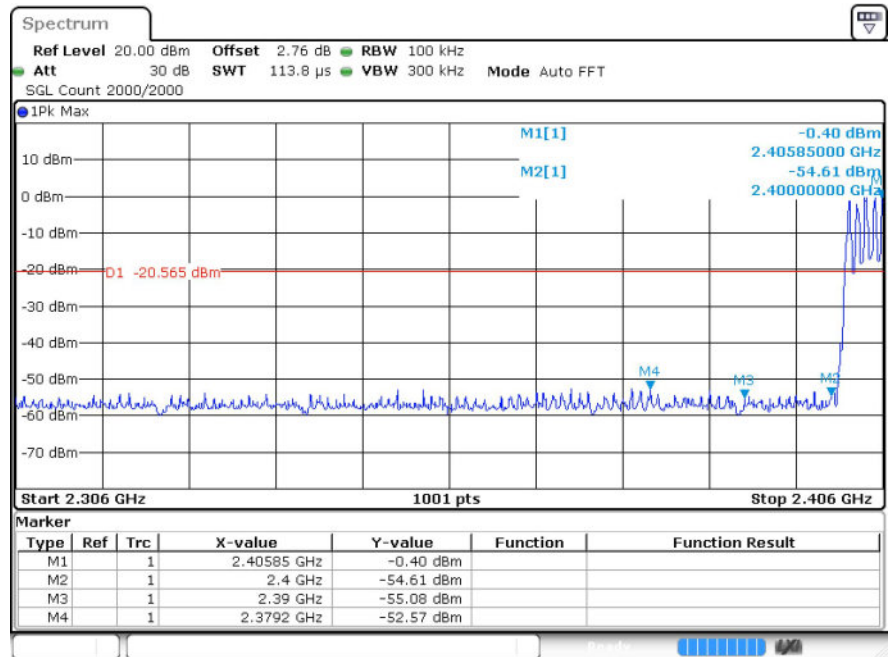
8.2 Test Graphs



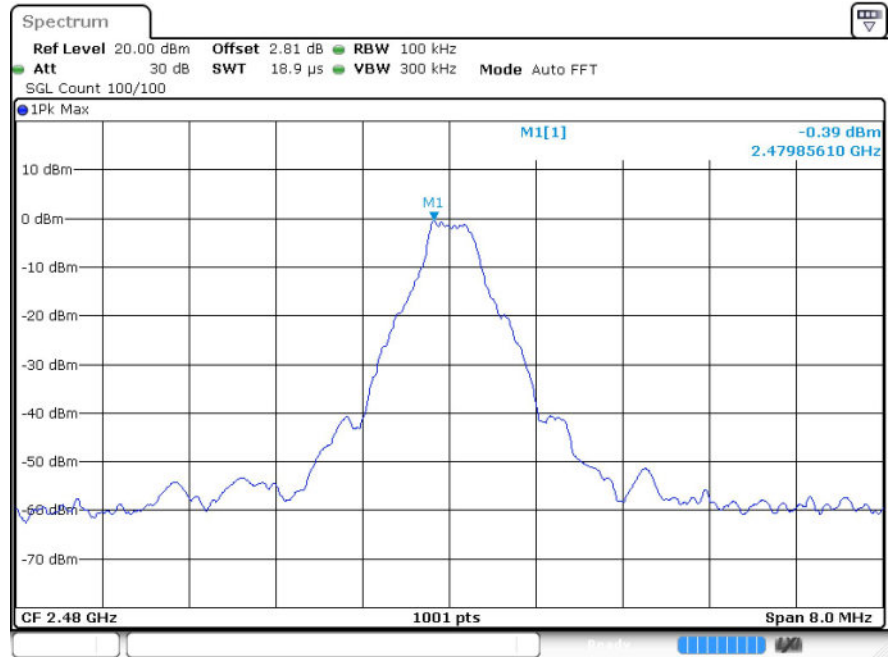
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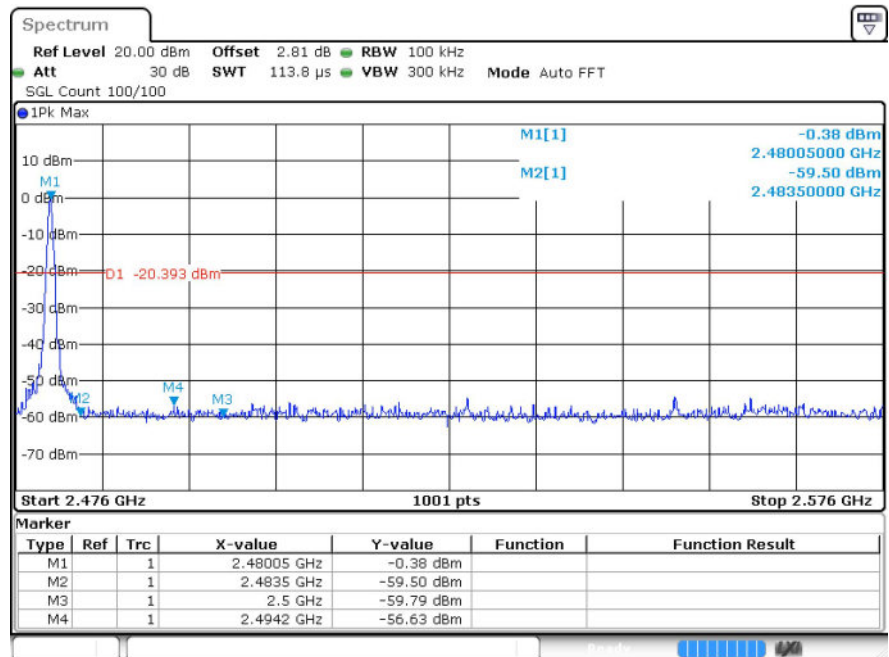
GFSK/LCH/Hop



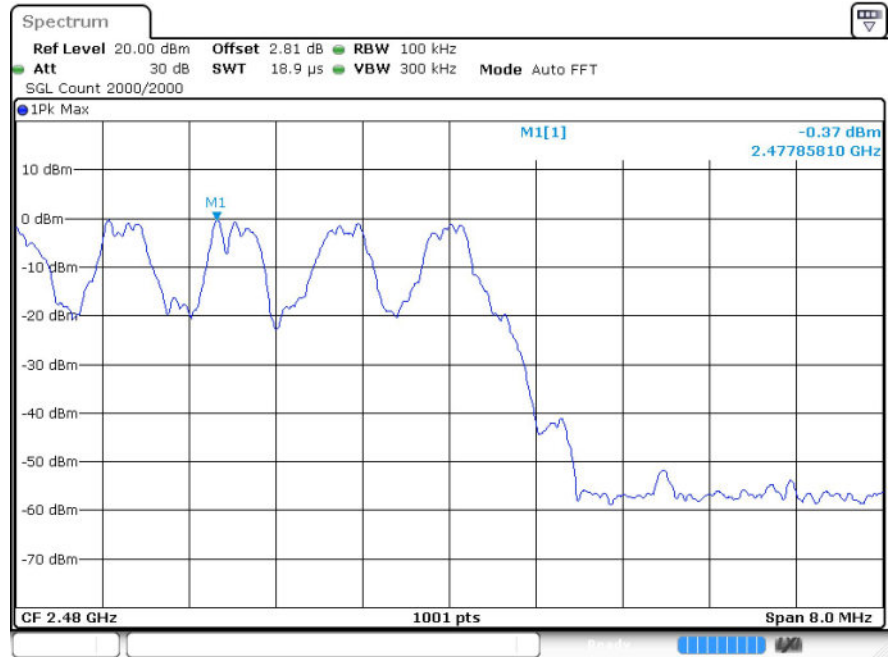
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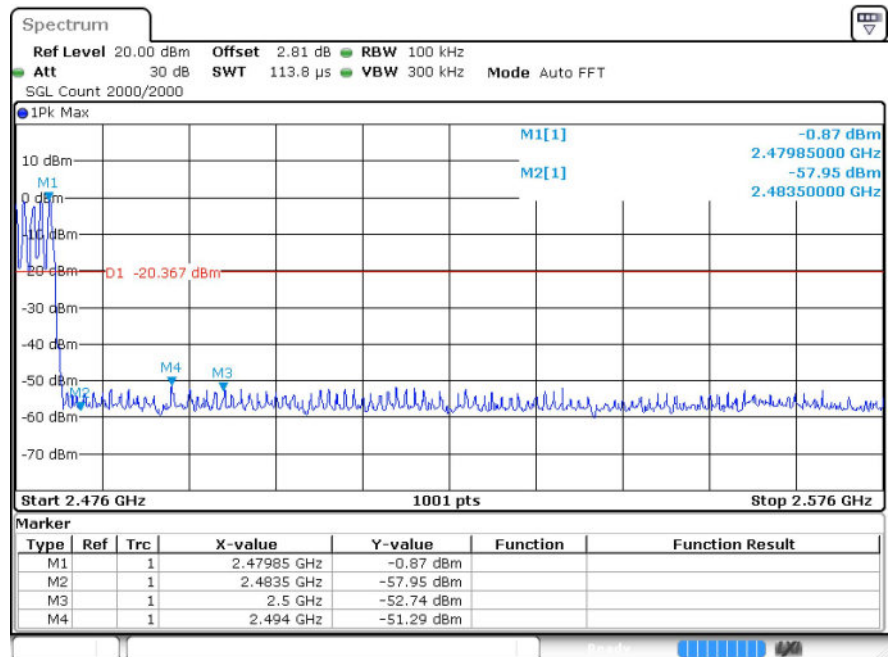
GFSK/HCH/No Hop



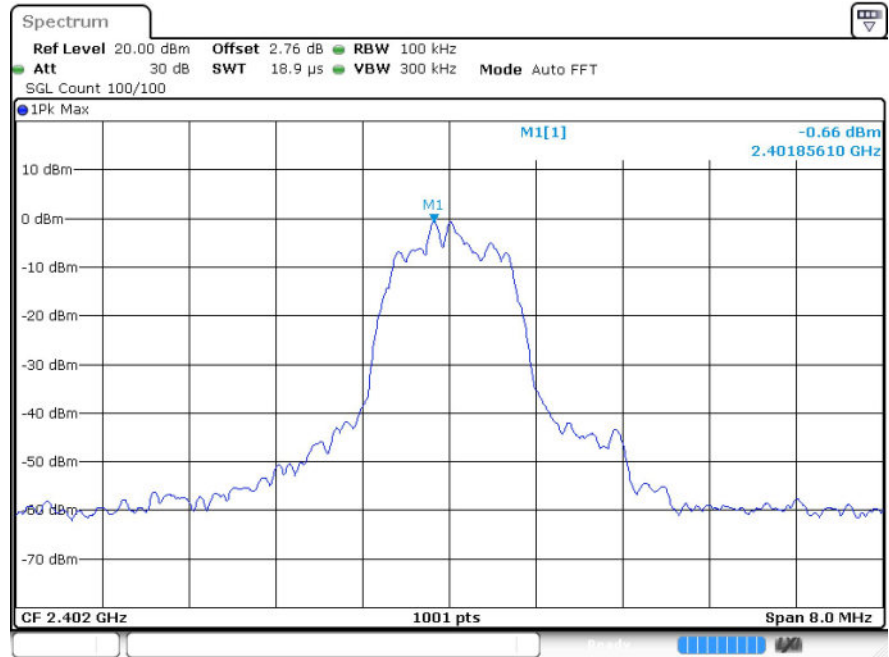
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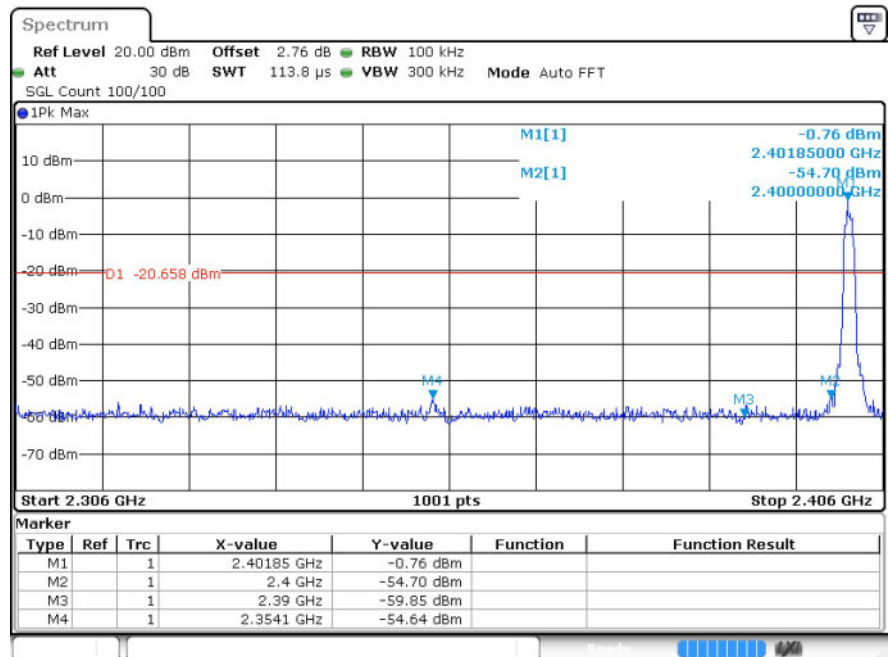
GFSK/HCH/Hop



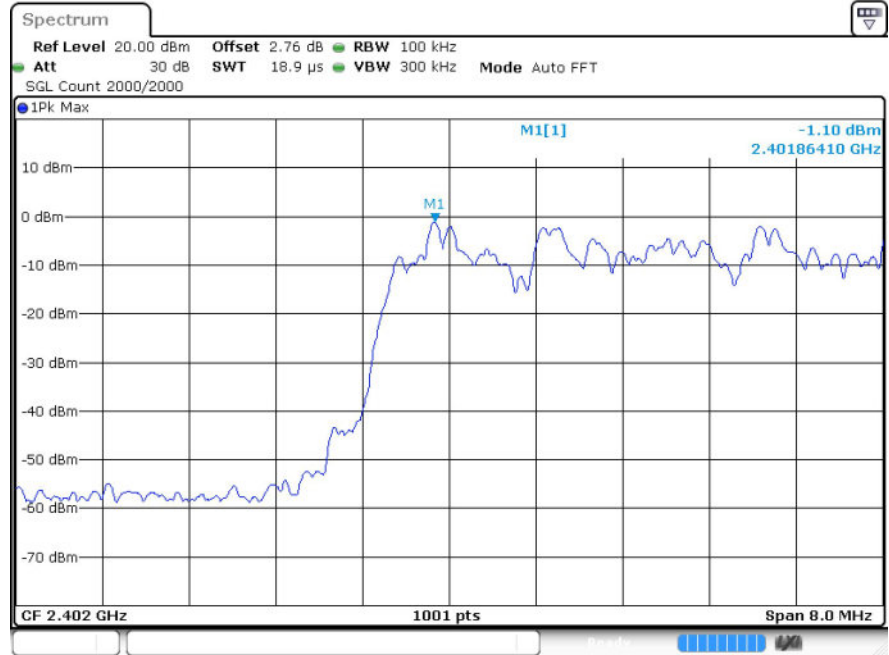
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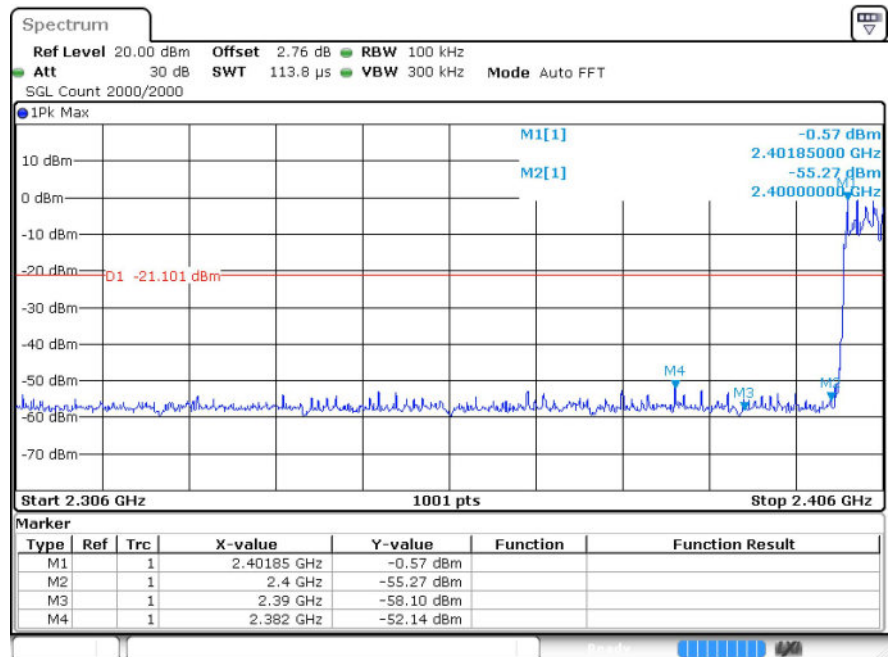
$\pi/4$ DQPSK/LCH/No
Hop



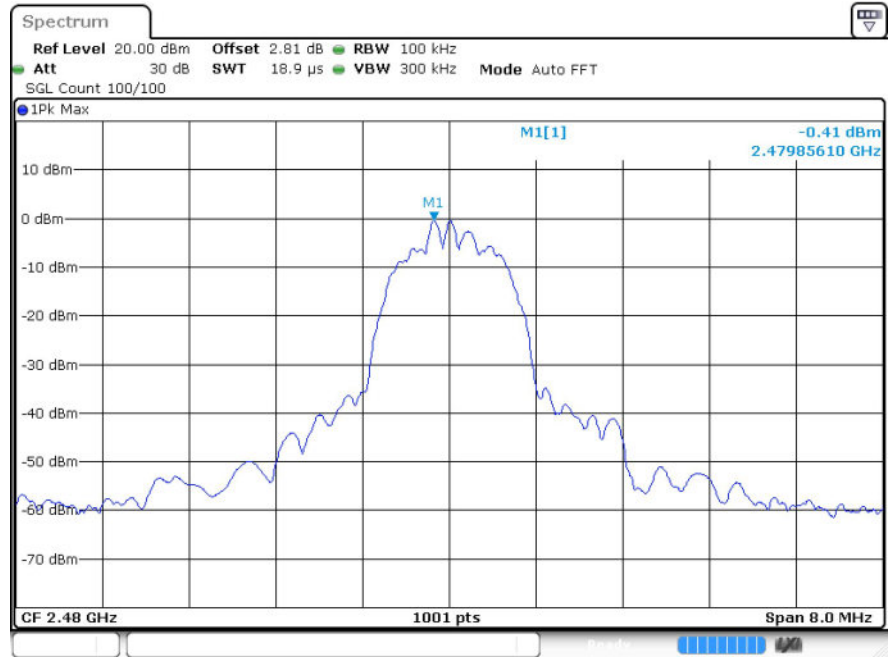
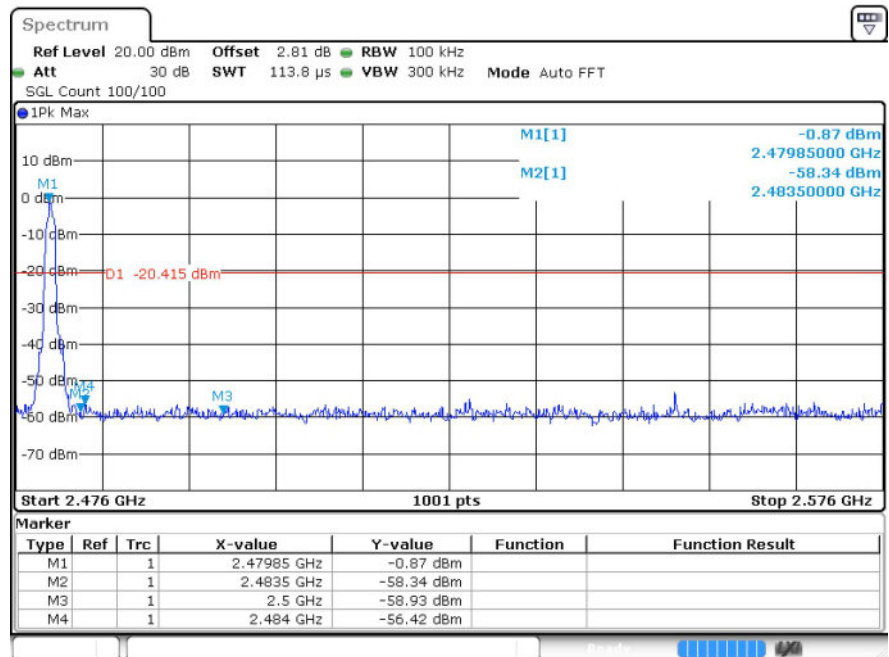
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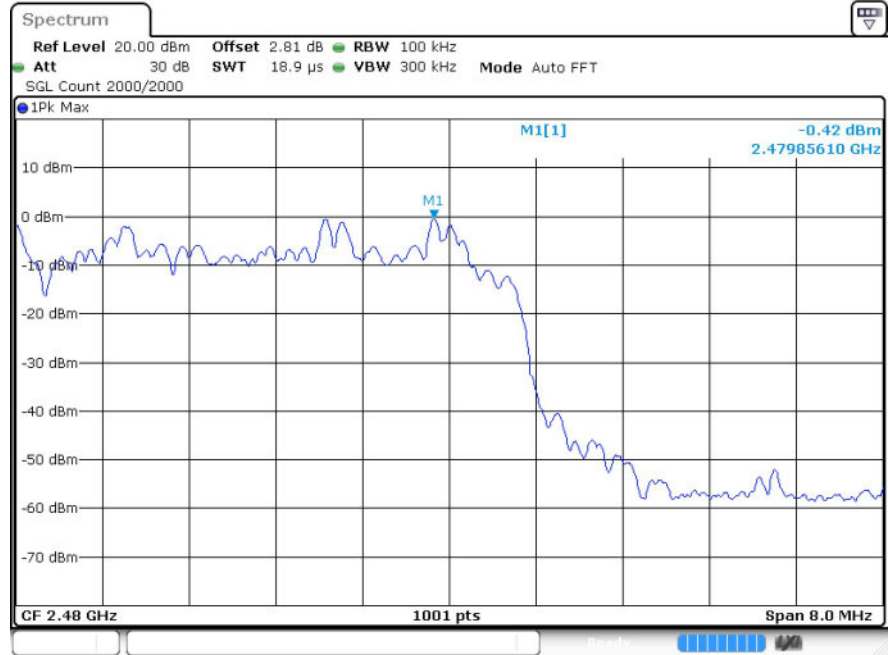
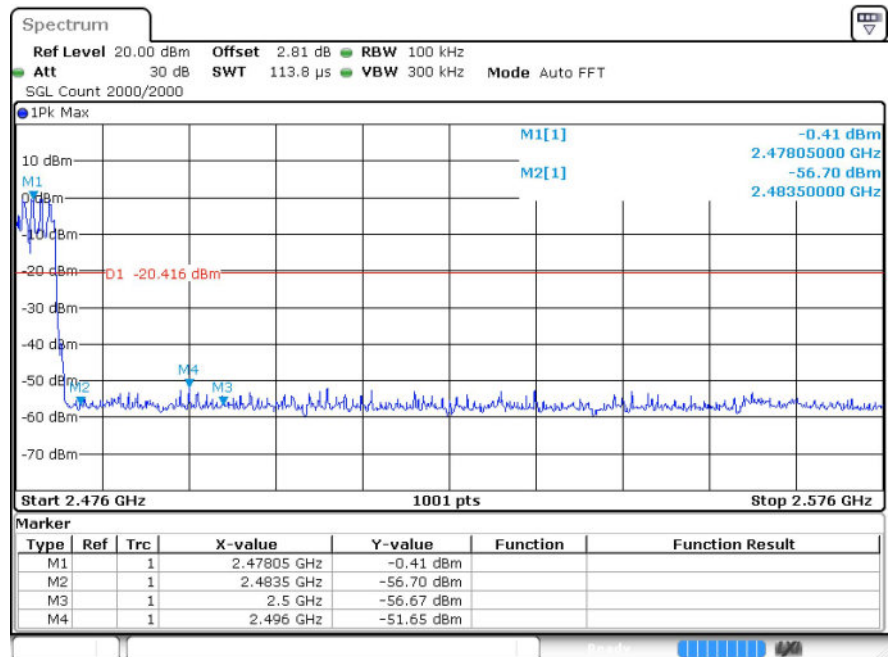
$\pi/4$ DQPSK/LCH/Hop



Ref


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


Ref


 $\pi/4$ DQPSK/HCH/Hop


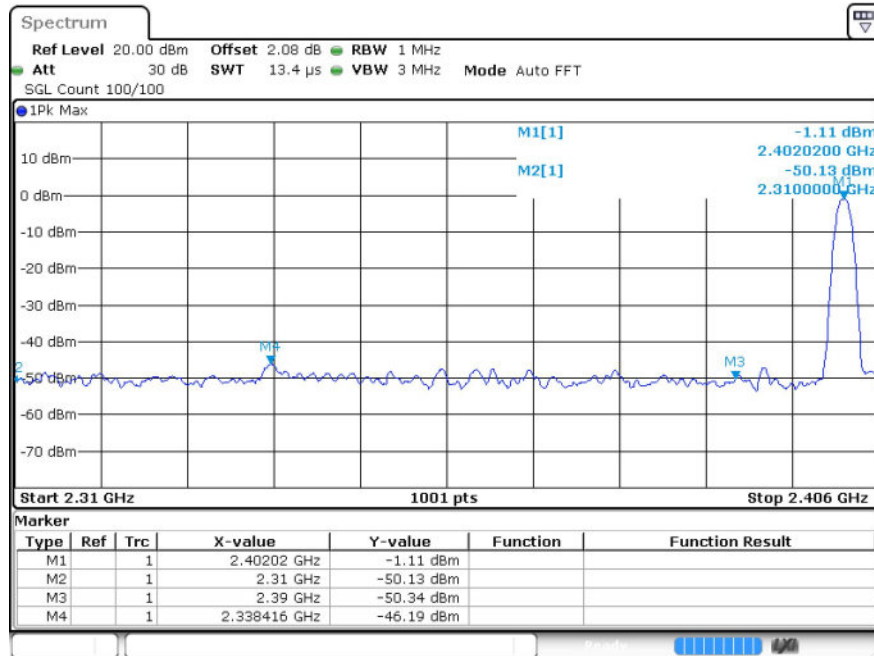
9 Restrict-band band-edge measurements

9.1 Test Result

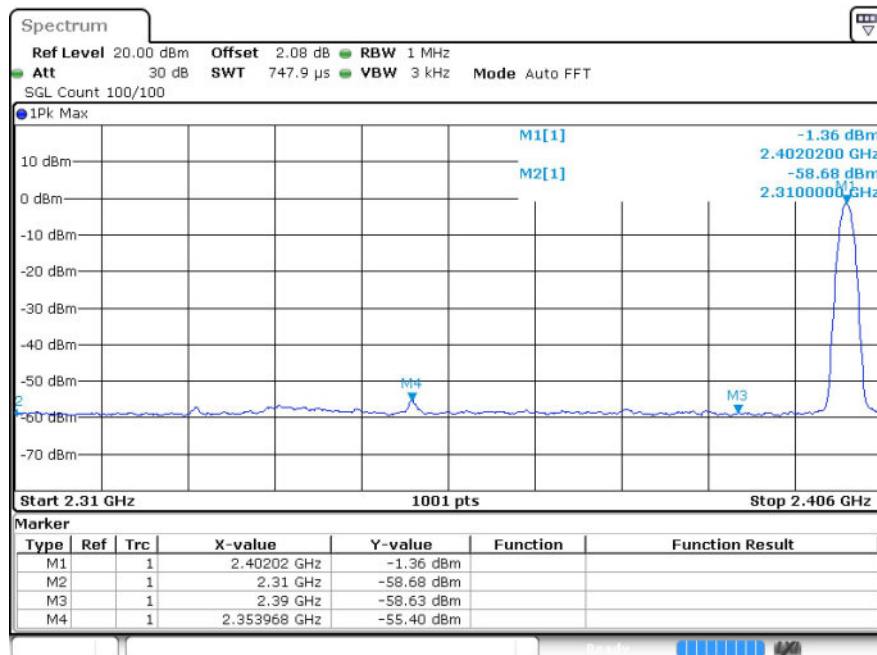
Test Mode	Hopping	Freq.	Power [dBm]	Gain	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-50.12	2	47.14	PEAK	74	Pass
	Off	2310.0	-58.68	2	38.58	AV	54	Pass
	Off	2338.416	-46.19	2	51.07	PEAK	74	Pass
	Off	2353.968	-55.39	2	41.87	AV	54	Pass
	Off	2390.0	-50.34	2	46.92	PEAK	74	Pass
	Off	2390.0	-58.62	2	38.64	AV	54	Pass
	Off	2483.5	-51.46	2	45.8	PEAK	74	Pass
	Off	2483.5	-58.03	2	39.23	AV	54	Pass
	Off	2486.008	-47.42	2	49.84	PEAK	74	Pass
	Off	2495.488	-57.88	2	39.38	AV	54	Pass
	Off	2500.0	-49.5	2	47.76	PEAK	74	Pass
	Off	2500.0	-58.26	2	39	AV	54	Pass
$\pi/4$ DQPSK	Off	2310.0	-50.66	2	46.6	PEAK	74	Pass
	Off	2310.0	-59.14	2	38.12	AV	54	Pass
	Off	2343.024	-47.11	2	50.15	PEAK	74	Pass
	Off	2353.776	-56.43	2	40.83	AV	54	Pass
	Off	2390.0	-49.52	2	47.74	PEAK	74	Pass
	Off	2390.0	-59.15	2	38.11	AV	54	Pass
	Off	2483.5	-51.63	2	45.63	PEAK	74	Pass
	Off	2483.5	-58.29	2	38.97	AV	54	Pass
	Off	2484.352	-48.48	2	48.78	PEAK	74	Pass
	Off	2498.392	-57.97	2	39.29	AV	54	Pass
	Off	2500.0	-50.54	2	46.72	PEAK	74	Pass
	Off	2500.0	-58.29	2	38.97	AV	54	Pass

9.2 Test Graphs

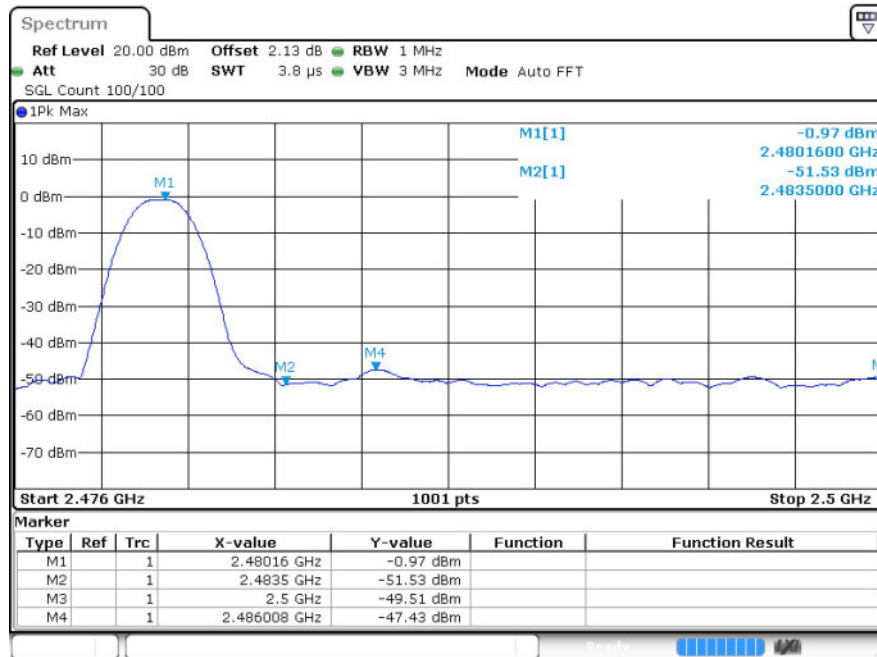
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



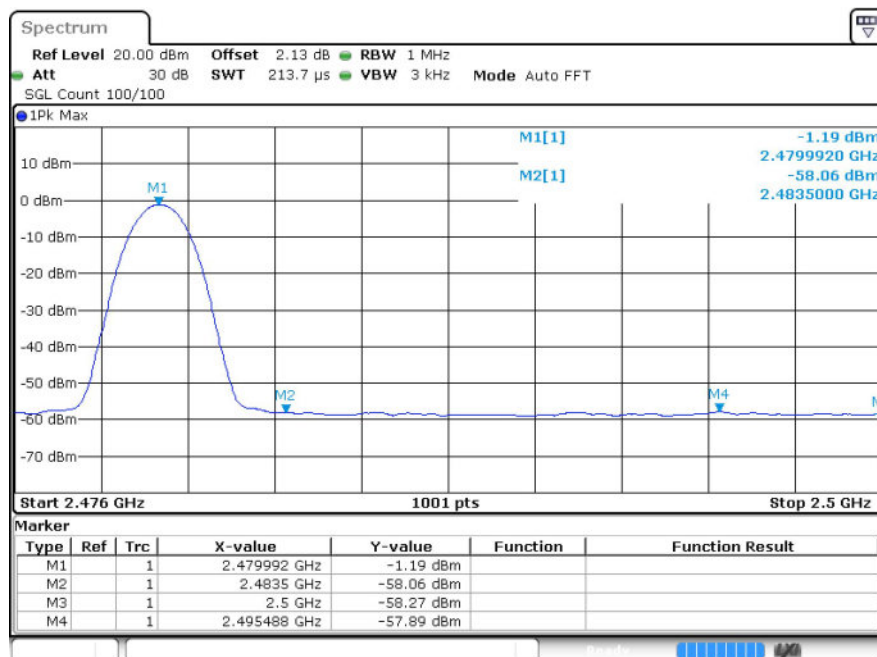
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



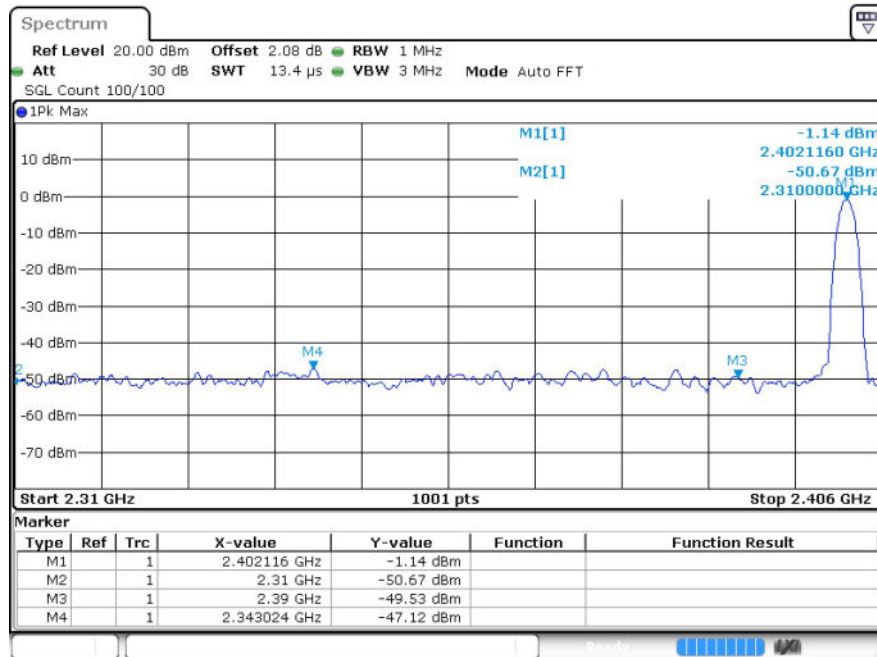
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



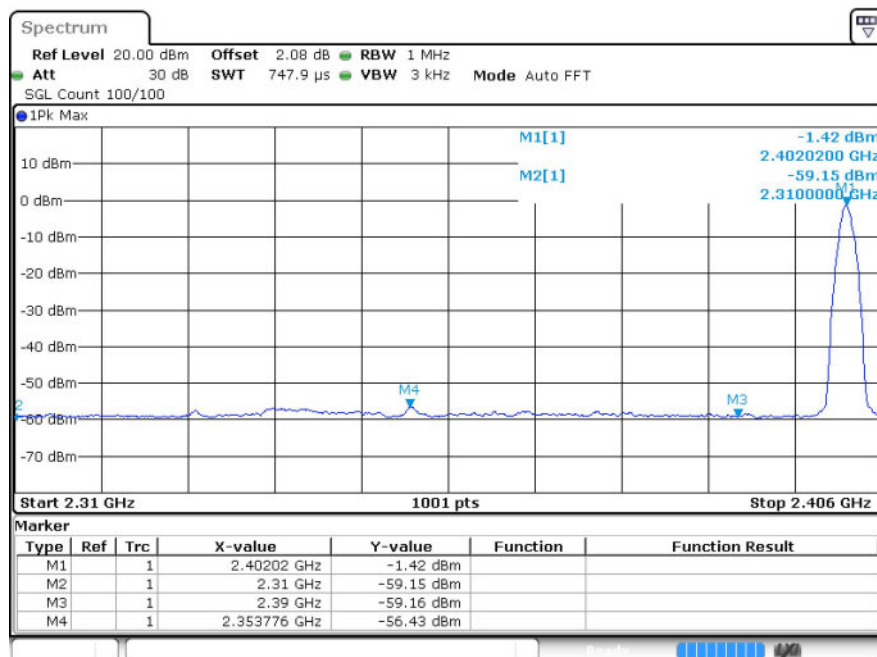
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



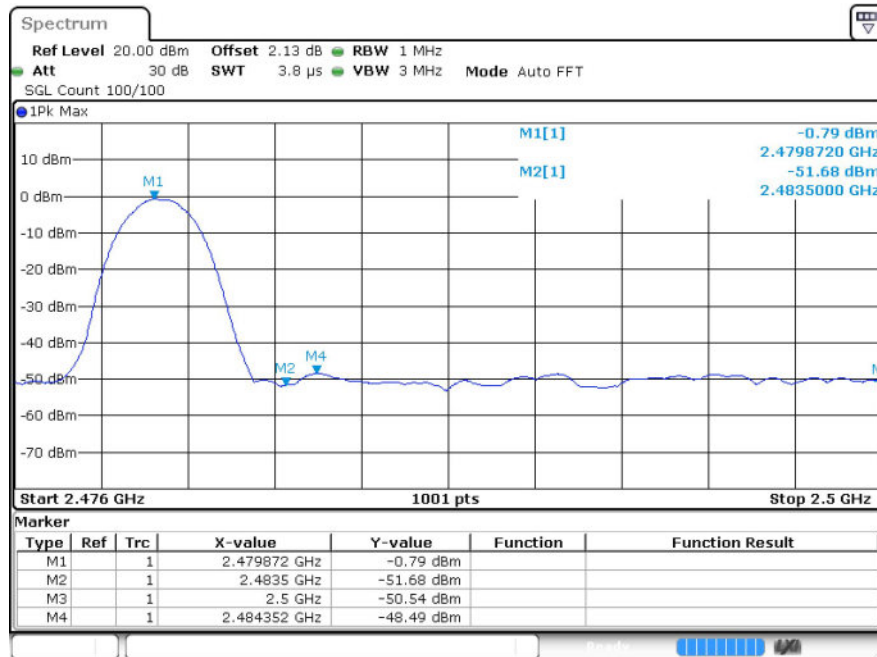
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



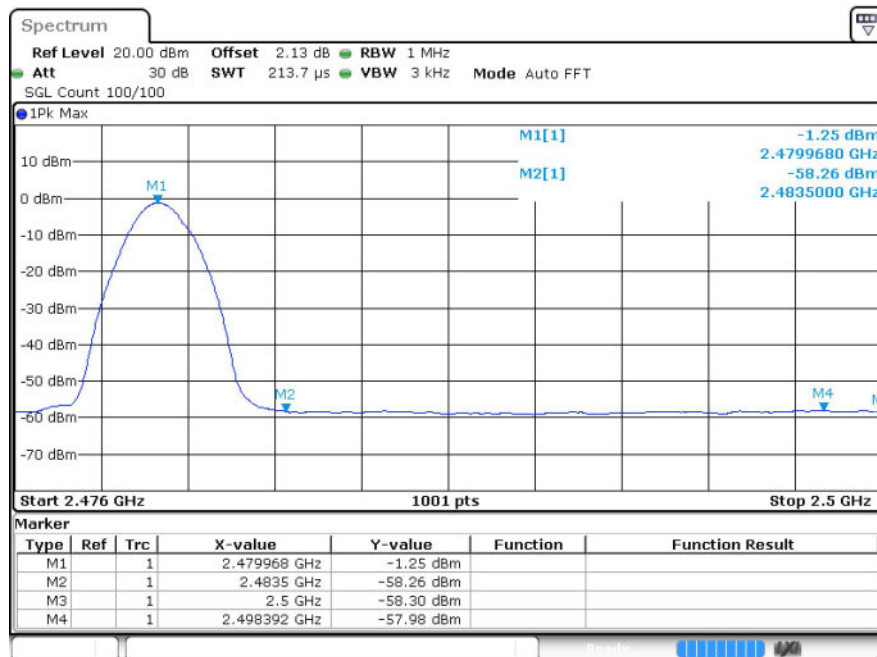
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



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---