Appendix A

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

Product Name: Bluetooth headphone/ headset

Trade Mark: N/A

Test Model: B-01

Environmental Conditions

Temperature:	16.3℃
Relative Humidity:	62.2%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

Contents

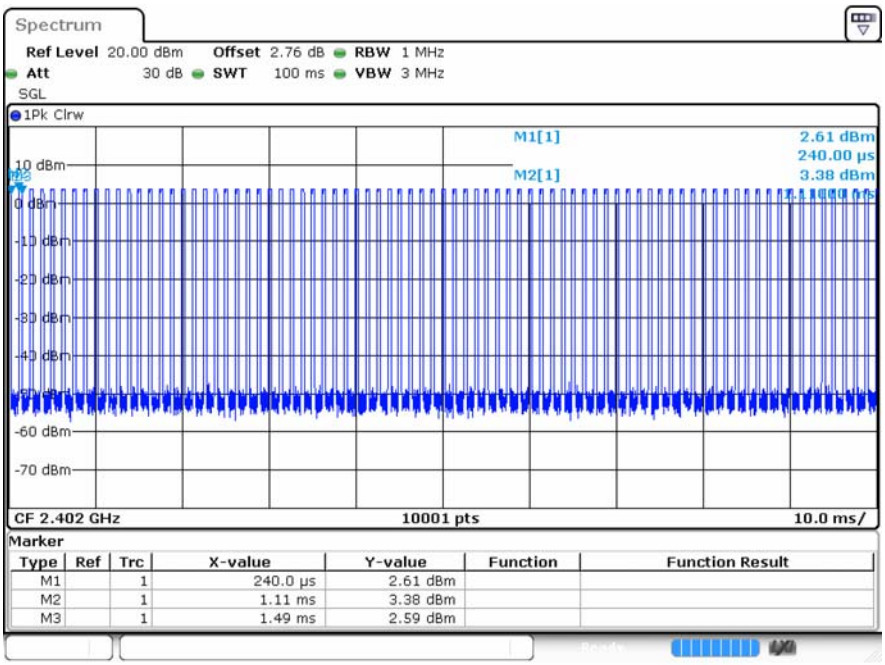
1 Duty Cycle

1.1 Test Result

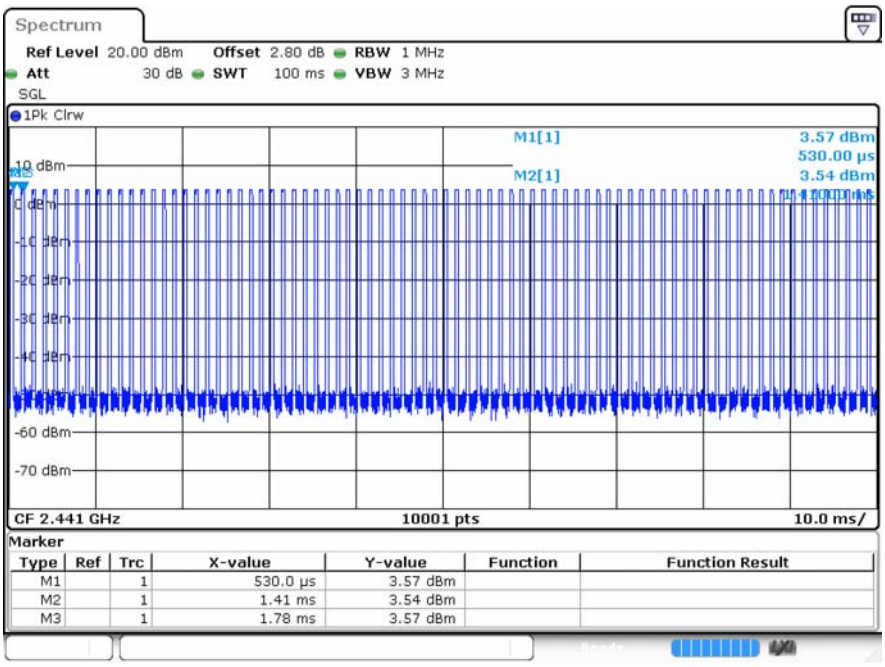
Mode	Frequency (MHz)	Duty Cycle (%)	1/T (kHz)
1-DH1	2402	30.9	2.63
1-DH1	2441	31.16	2.7
1-DH1	2480	31.13	2.63
2-DH1	2402	32.01	2.56
2-DH1	2441	31.98	2.63
2-DH1	2480	31.72	2.56

1.2 Test Graphs

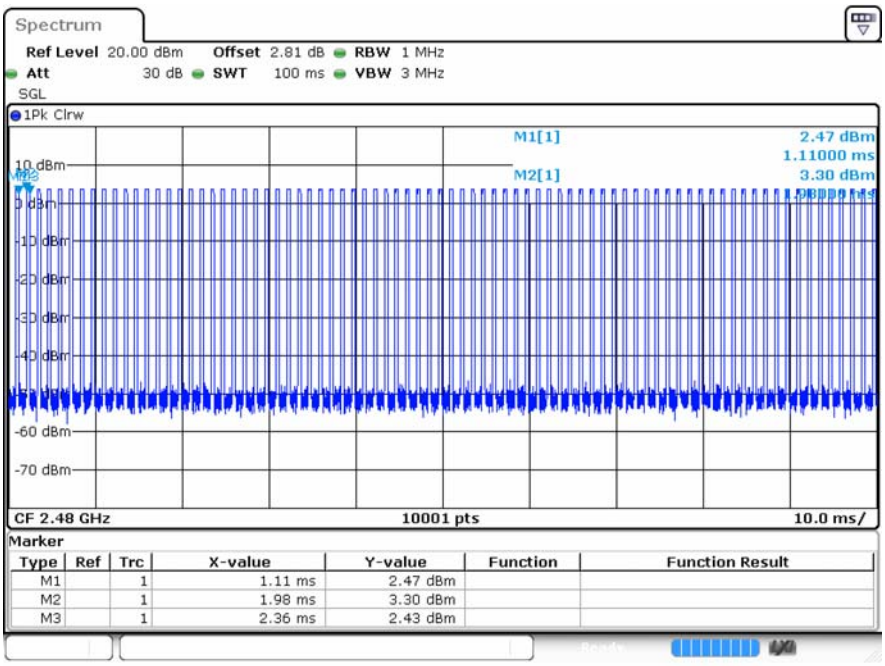
Test Graphs
1-DH1 2402MHz



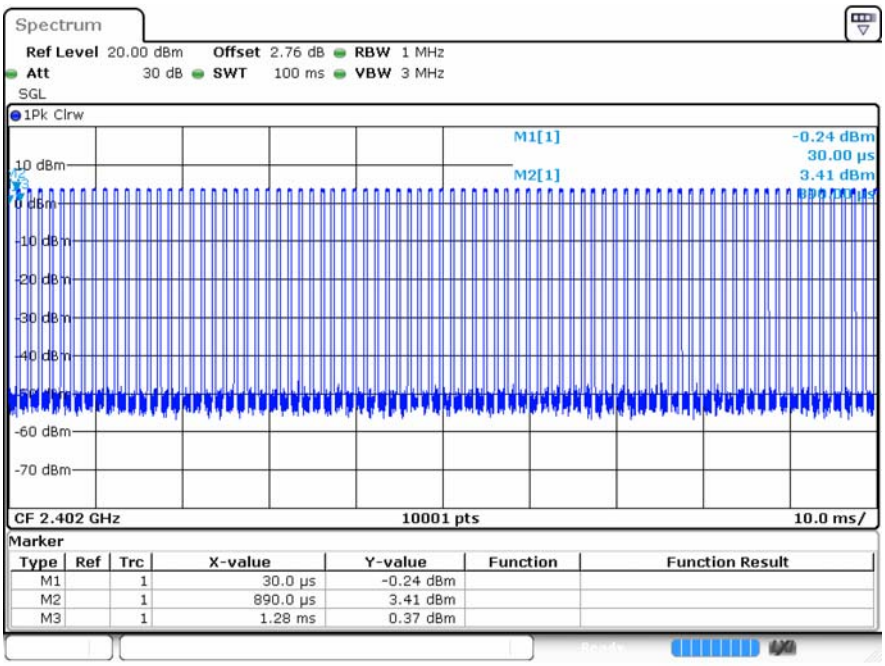
1-DH1 2441MHz



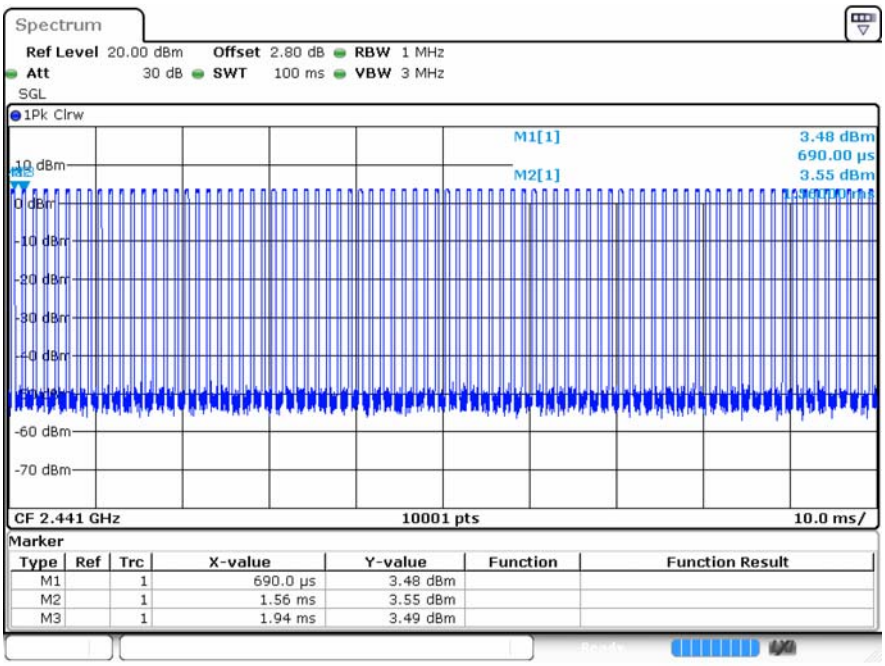
1-DH1 2480MHz



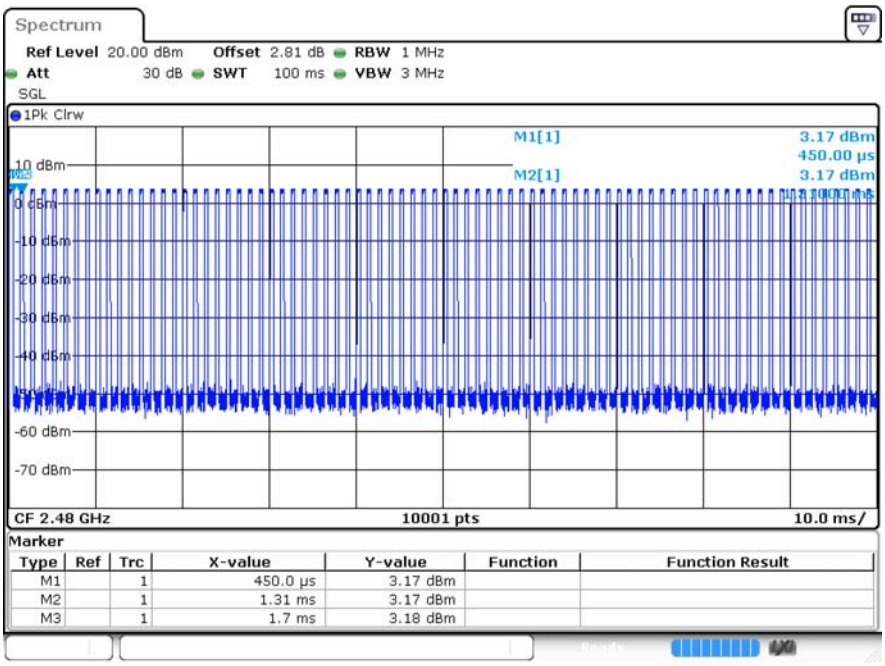
2-DH1 2402MHz



2-DH1 2441MHz



2-DH1 2480MHz

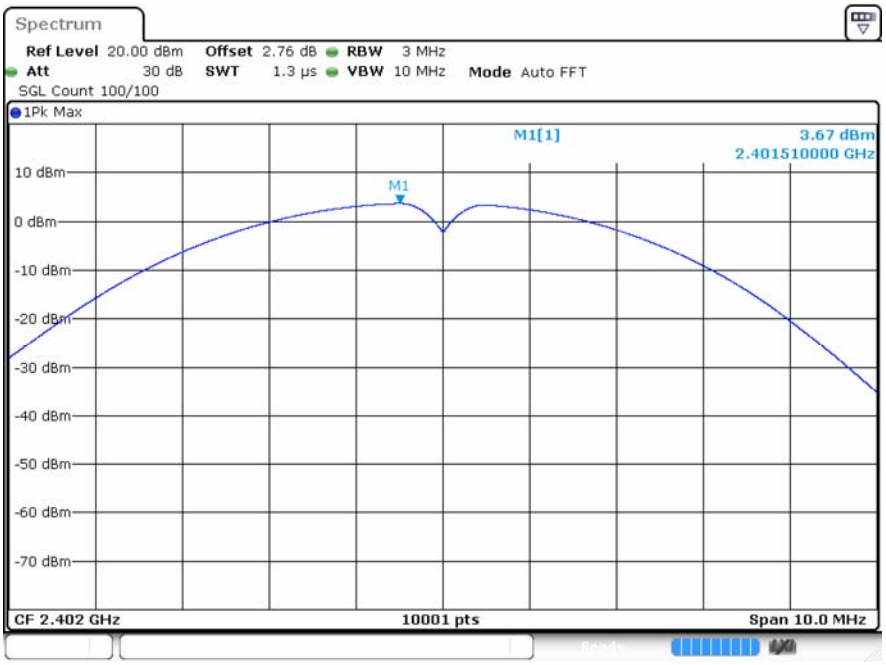
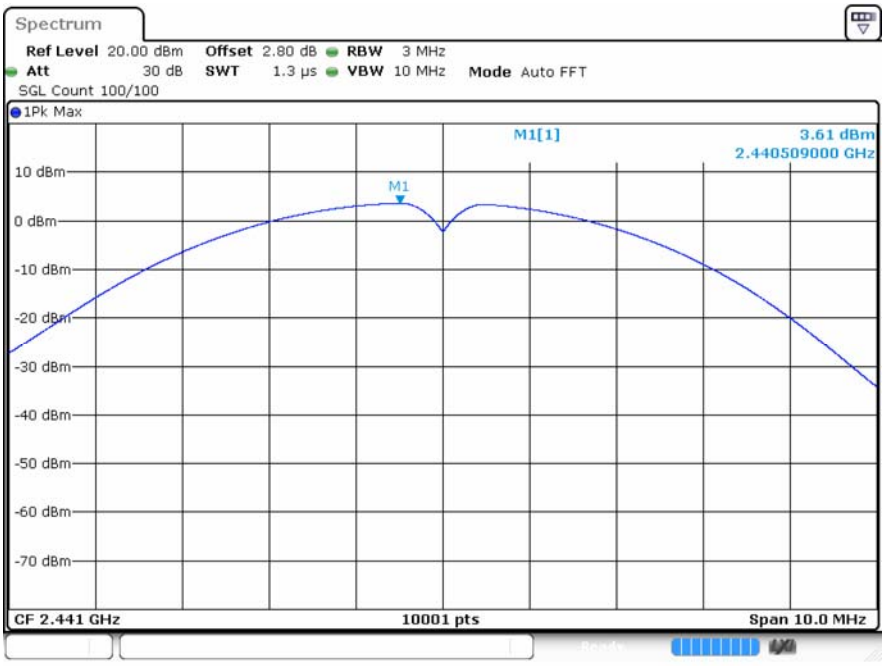


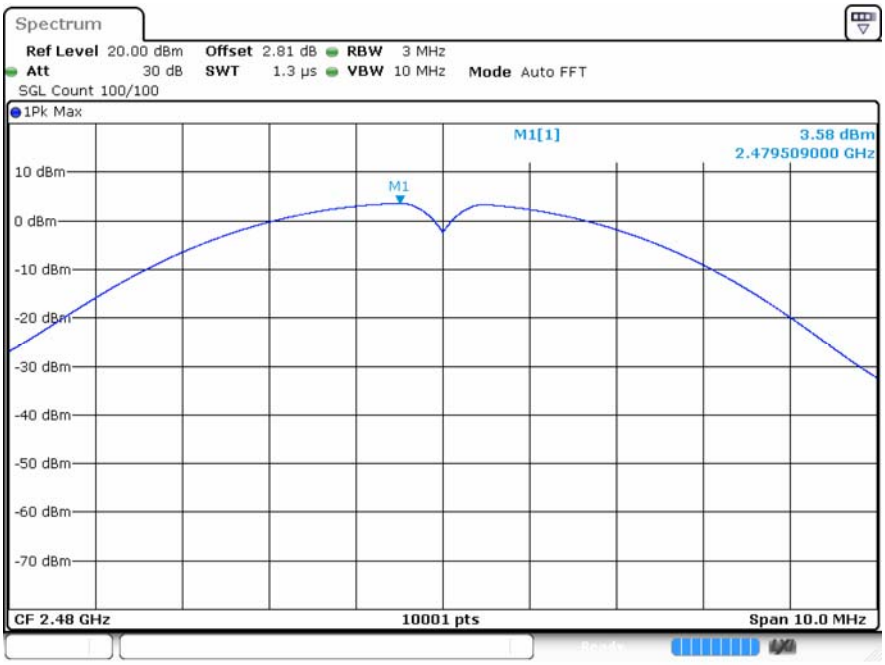
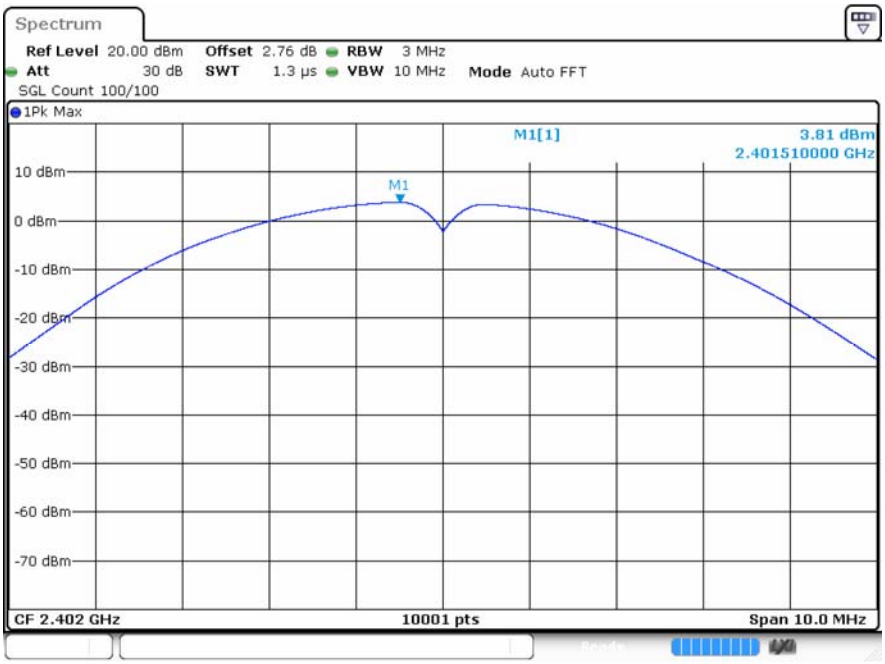
2 Maximum Conducted Peak Output Power

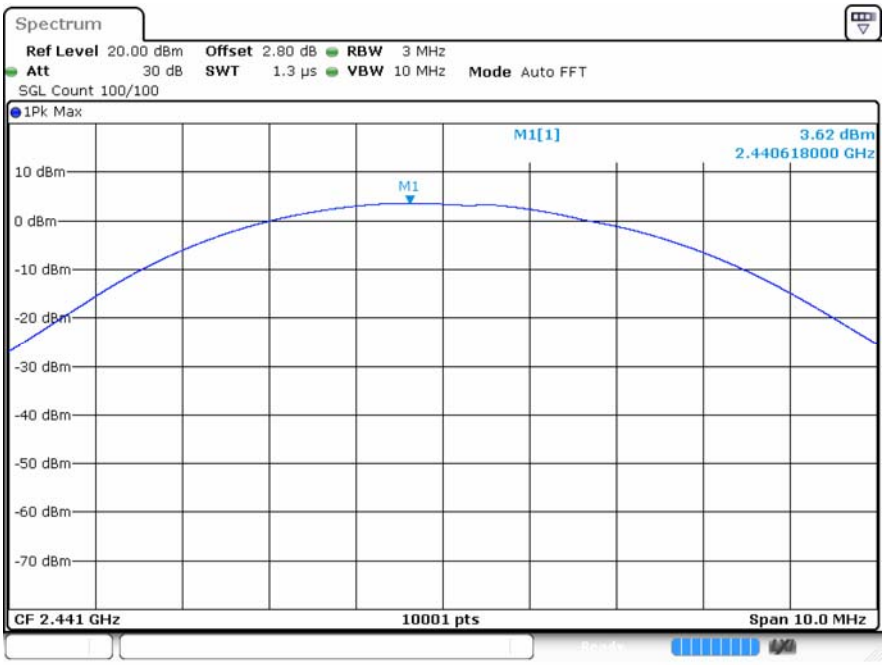
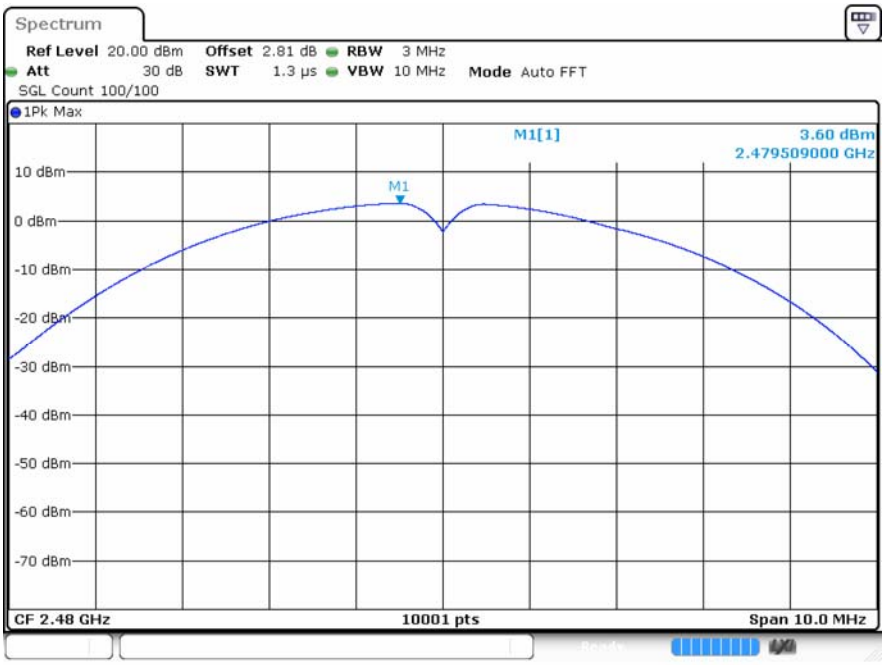
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	3.67	21	Pass
	MCH	3.61	21	Pass
	HCH	3.58	21	Pass
π/4DQPSK	LCH	3.81	21	Pass
	MCH	3.62	21	Pass
	HCH	3.6	21	Pass

2.2 Test Graphs

Test Graphs	
GFSK/LCH	
GFSK/MCH	

GFSK/HCH	
π/4DQPSK/LCH	

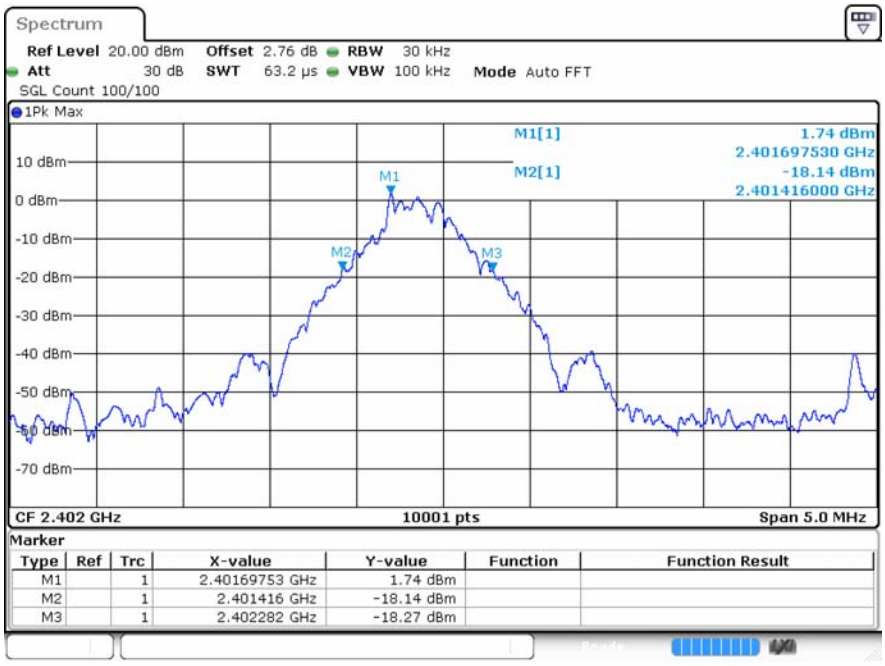
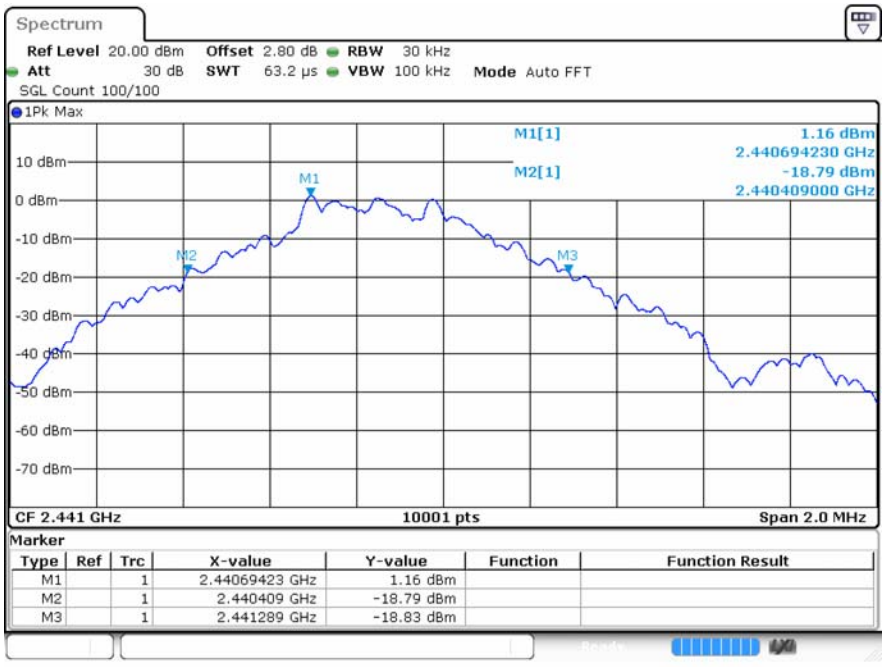
π/4DQPSK/MCH	
π/4DQPSK/HCH	

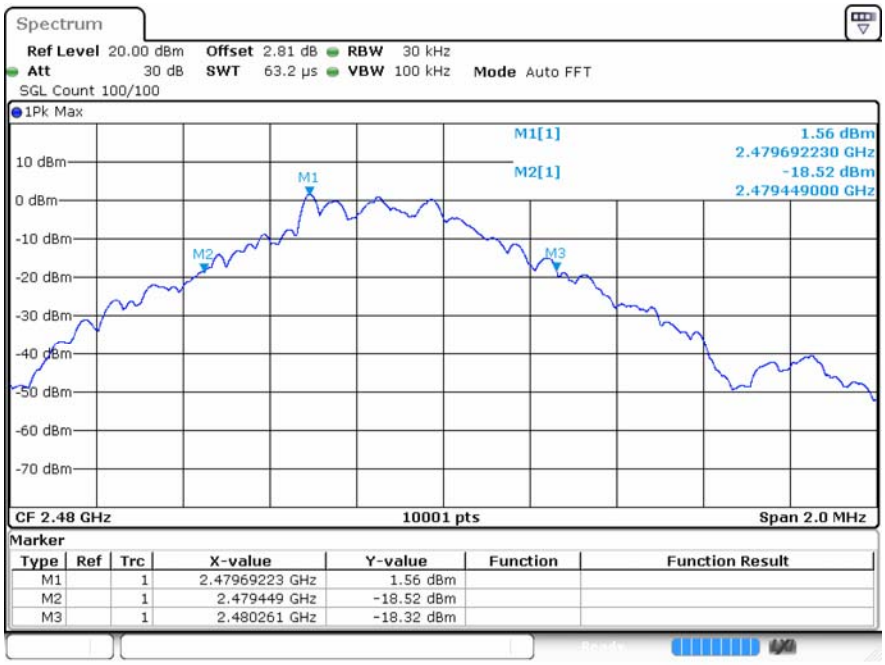
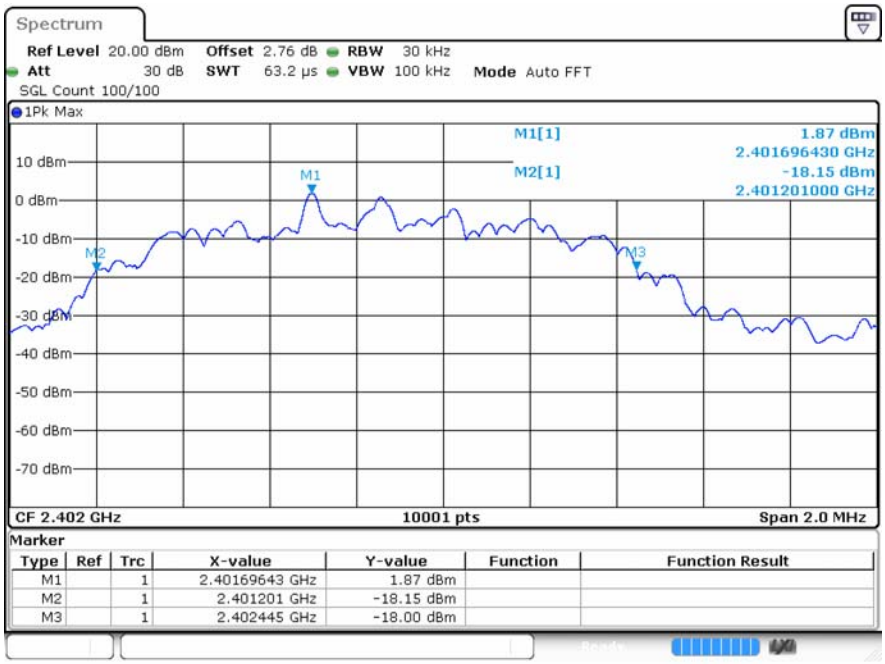
3 20dB Bandwidth

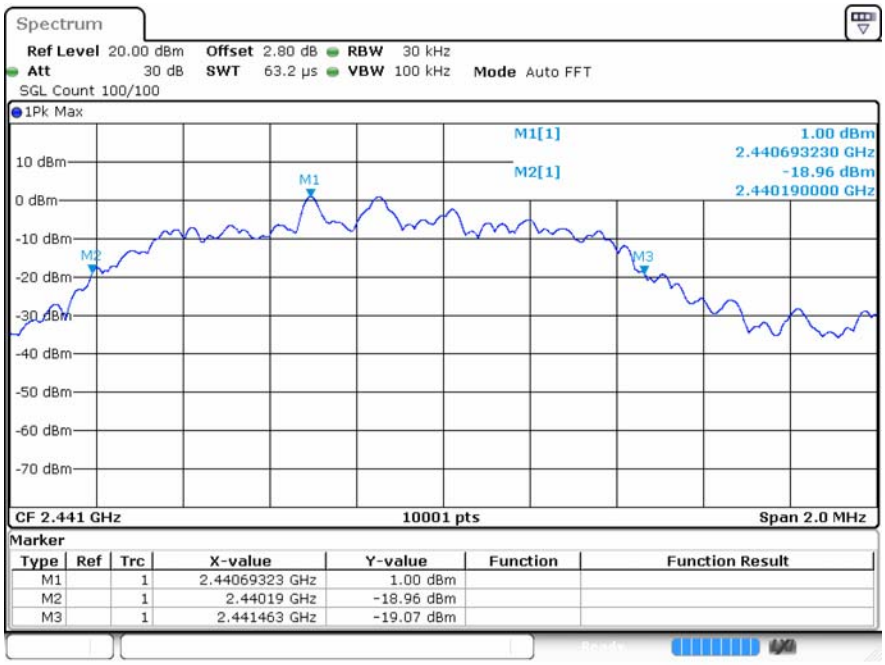
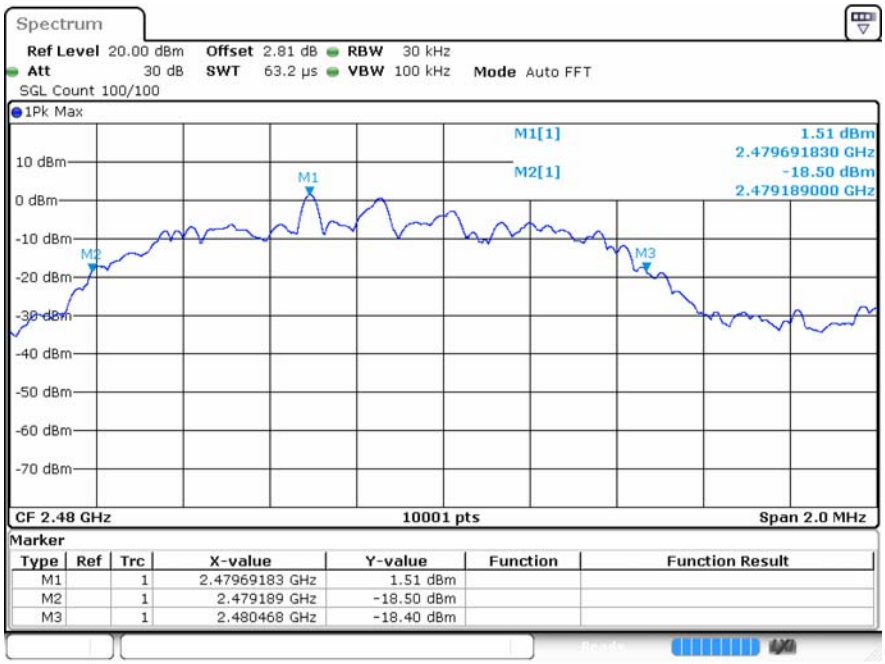
3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.866	Not Specified	Pass
	MCH	0.88	Not Specified	Pass
	HCH	0.812	Not Specified	Pass
π/4DQPSK	LCH	1.244	Not Specified	Pass
	MCH	1.273	Not Specified	Pass
	HCH	1.279	Not Specified	Pass

3.2 Test Graphs

Test Graphs	
GFSK/LCH	
GFSK/MCH	

GFSK/HCH	
π/4DQPSK/LCH	

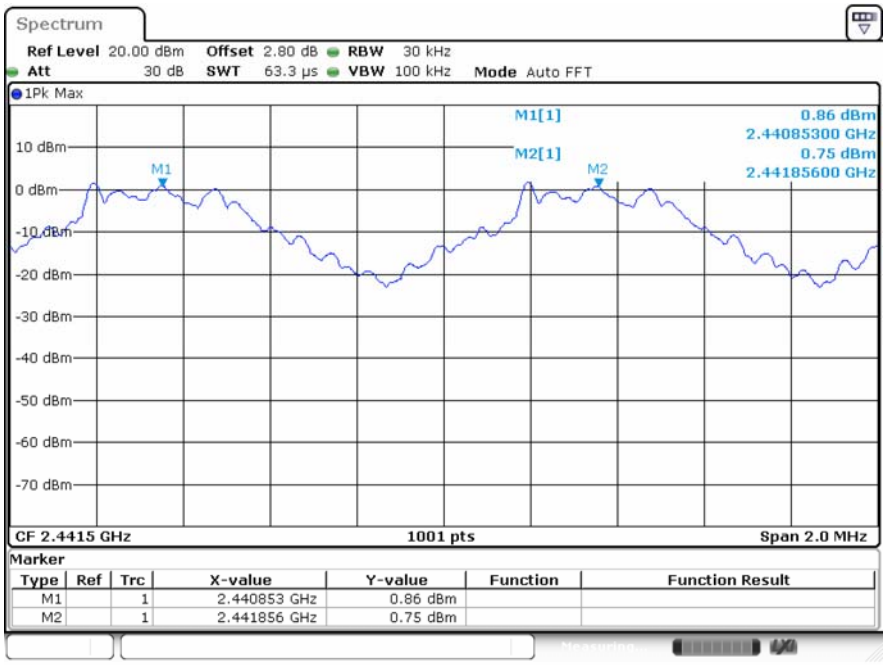
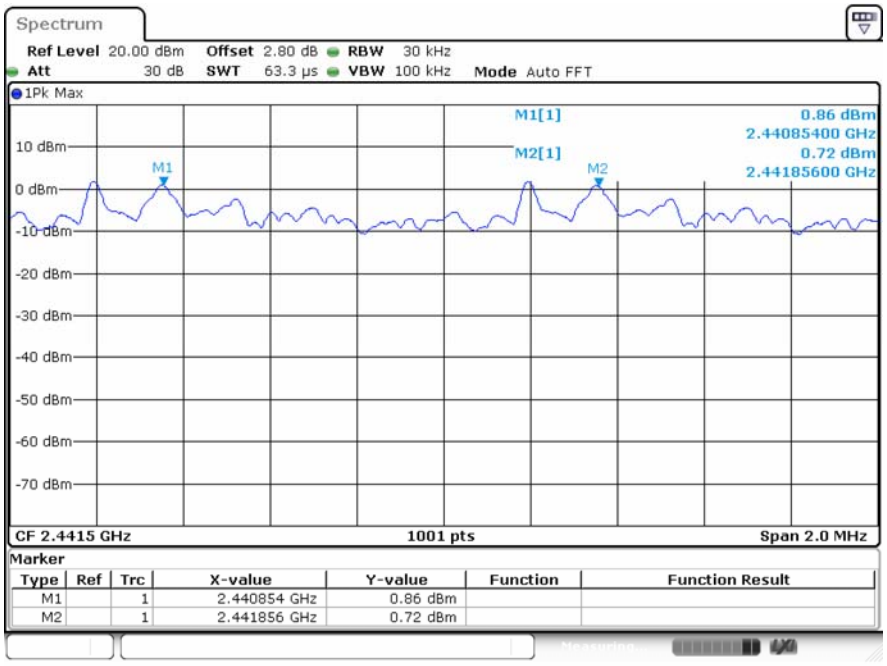
π/4DQPSK/MCH	
π/4DQPSK/HCH	

4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.003	0.587	Pass
π/4DQPSK	MCH	1.002	0.849	Pass

4.2 Test Graphs

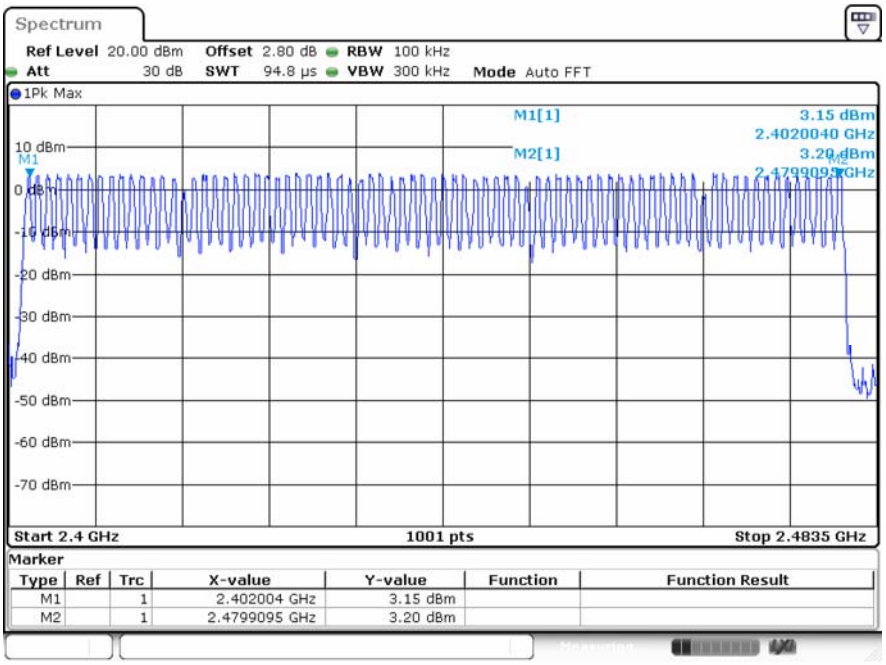
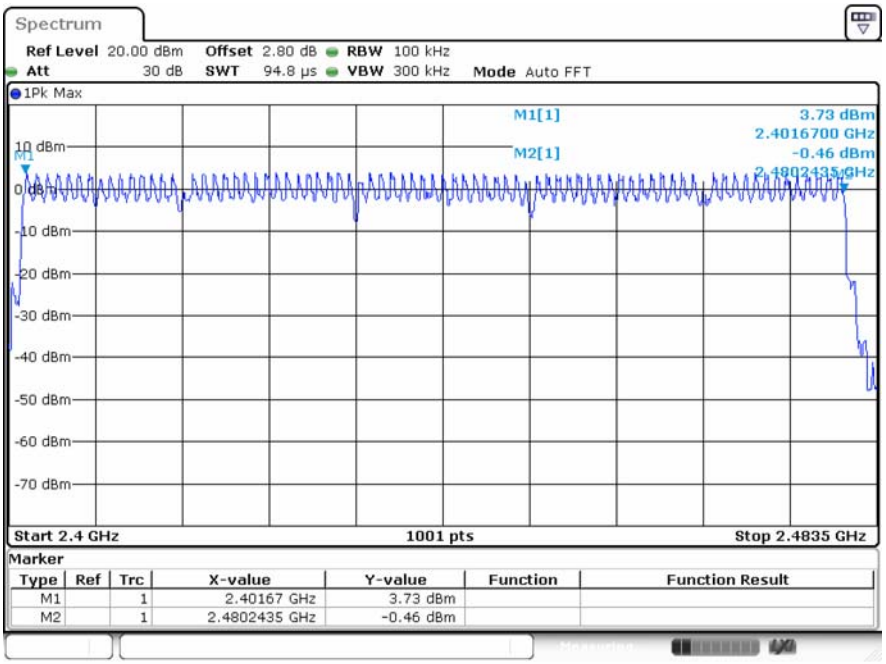
Test Graphs	
GFSK/MCH	
π/4DQPSK/MCH	

5 Hopping Channel Number

5.1 Test Result

Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	>=15	PASS
π/4DQPSK	Hop	79	>=15	PASS

5.2 Test Graphs

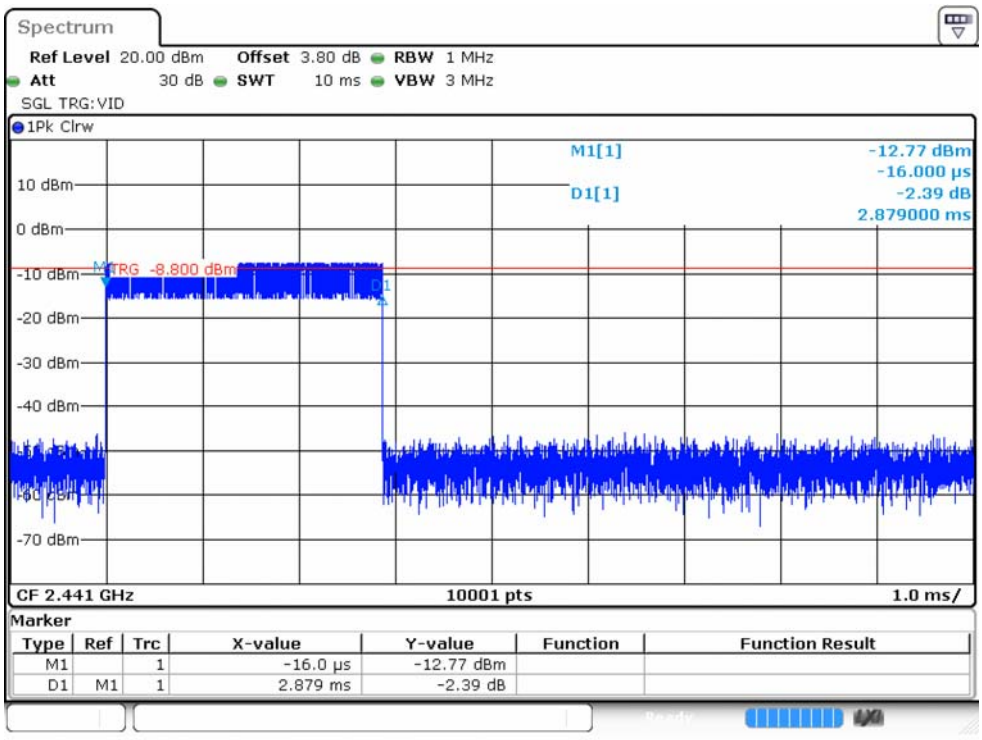
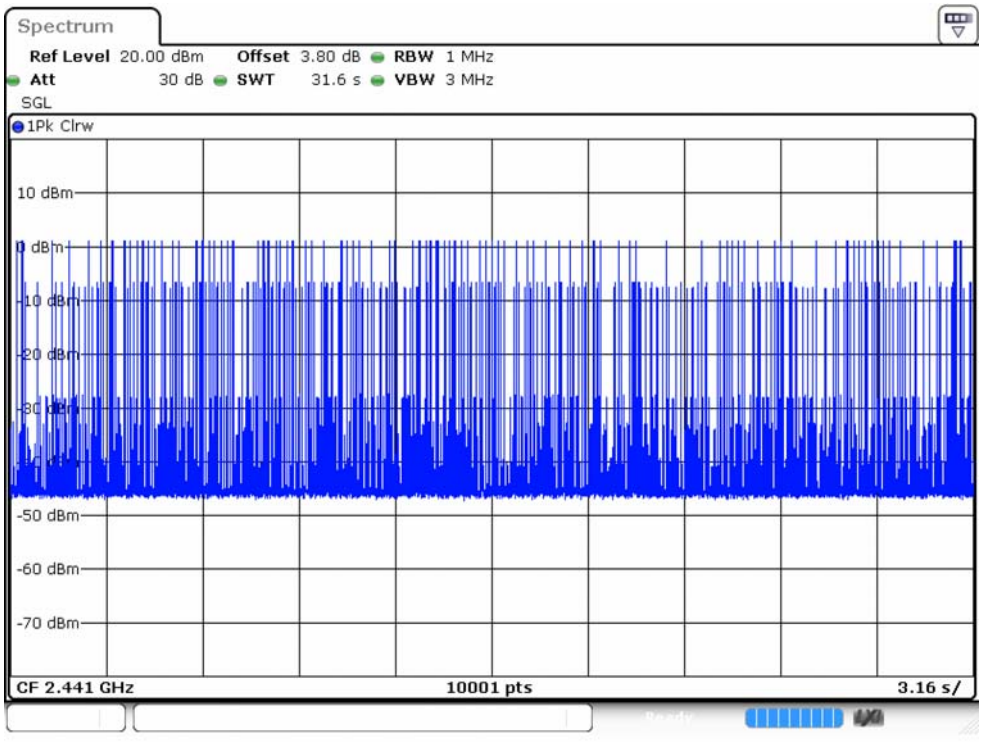
Test Graphs	
GFSK/Hop	
π/4DQPSK/Hop	

6 Dwell Time

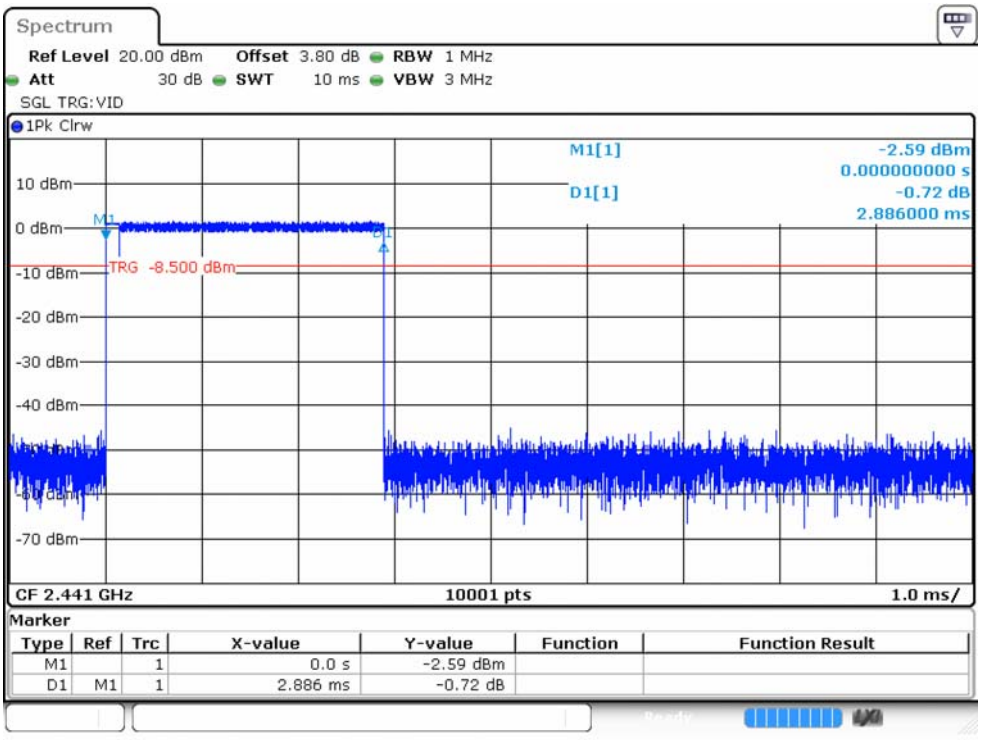
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[s]	Limit [s]	Verdict
GFSK	DH5	MCH	2.879	111	319.569	0.4	Pass
π/4DQPSK	2DH5	MCH	2.886	115	331.89	0.4	Pass

6.2 Test Graphs

Test Graphs	
GFSK_DH5/MCH	 

π/4DQPSK _2DH5/MCH



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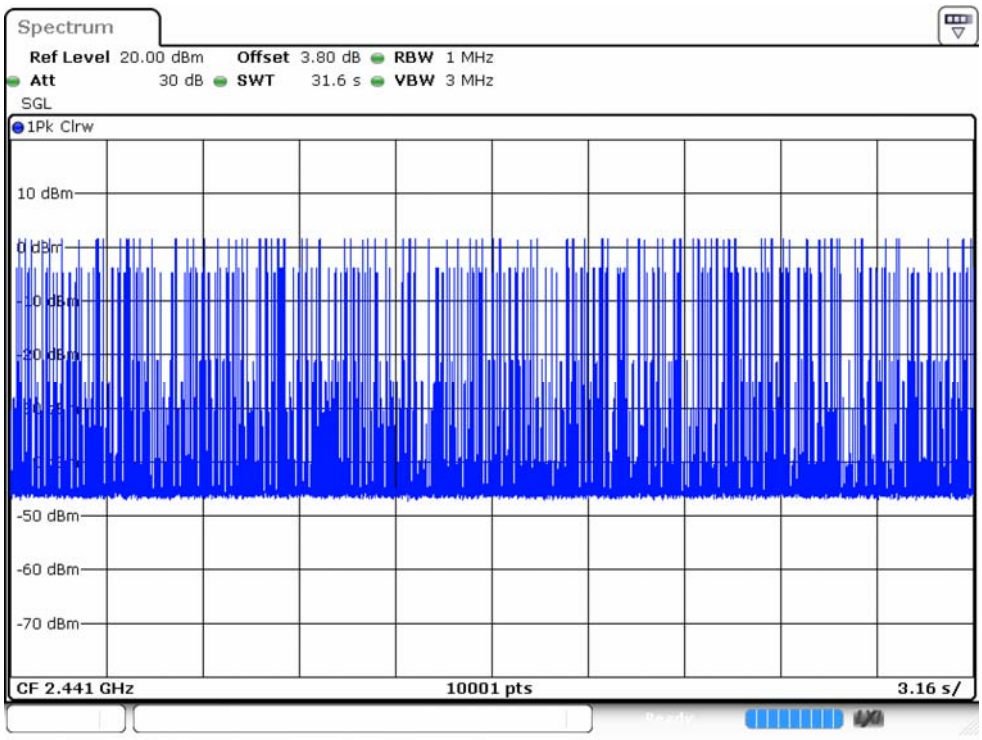
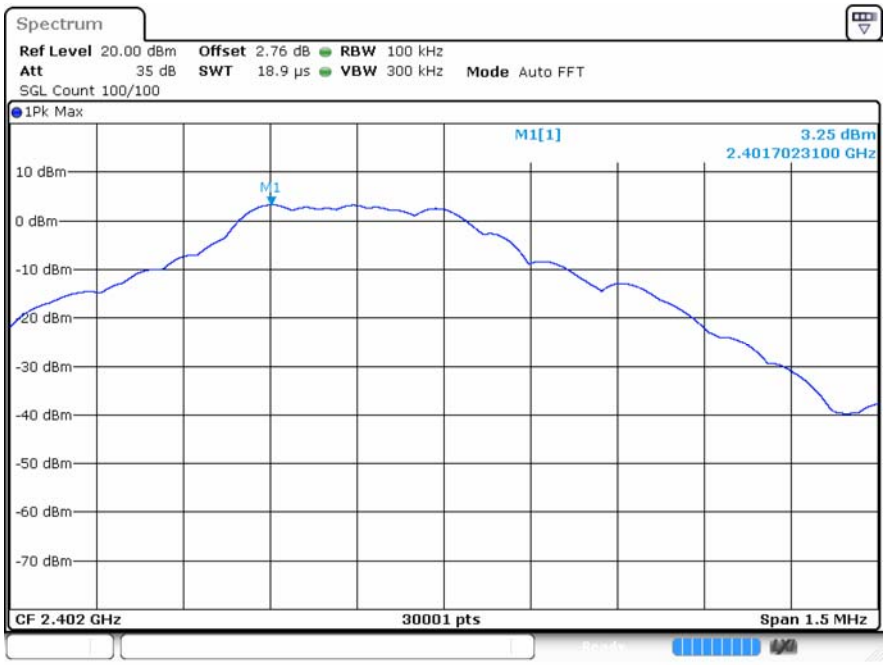
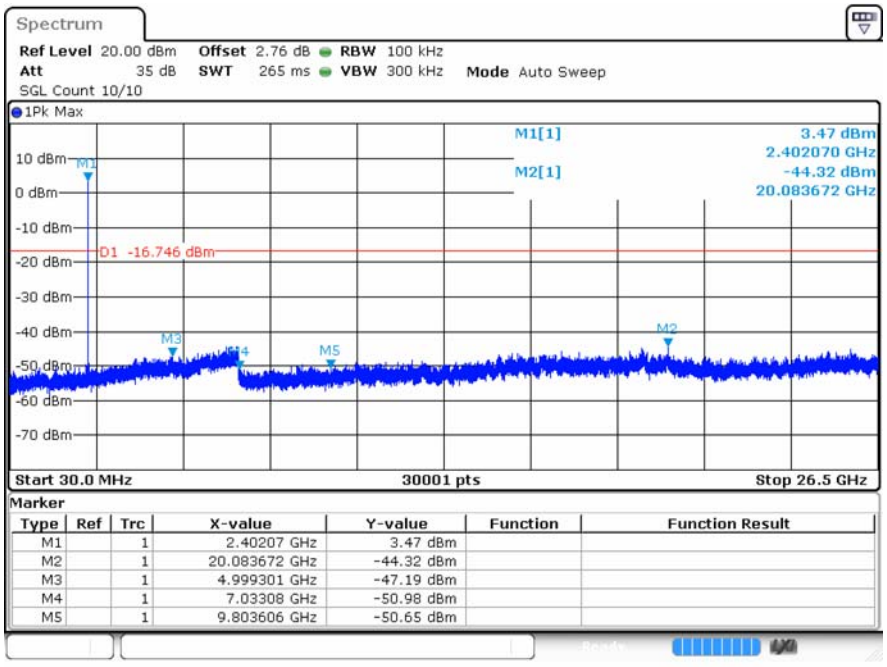


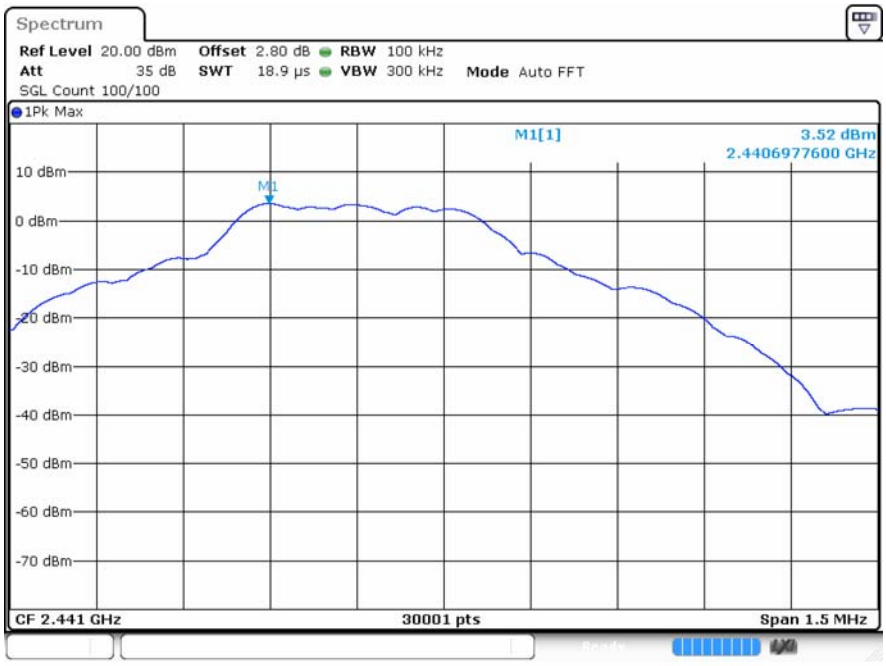
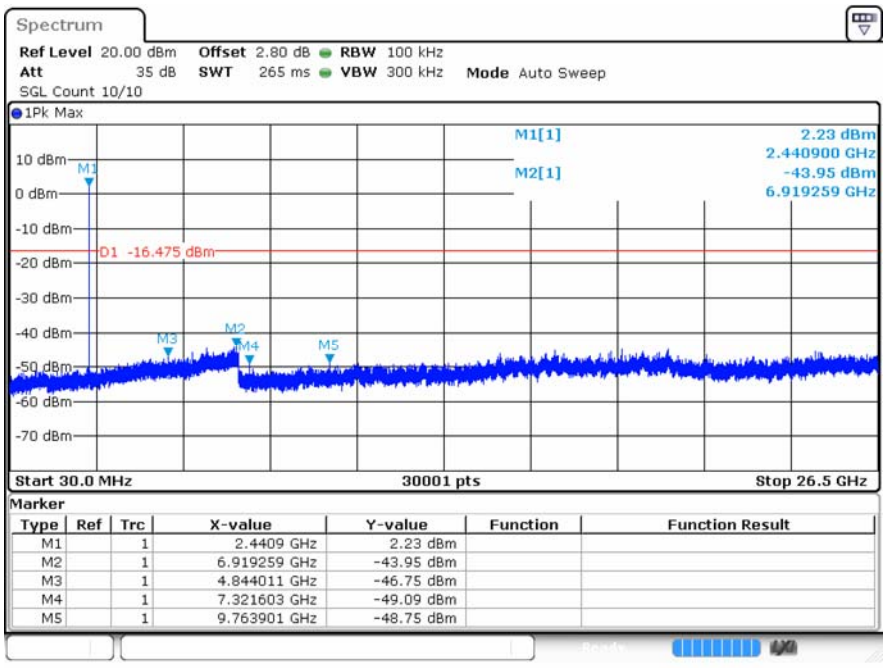
7 RF Conducted Spurious Emissions

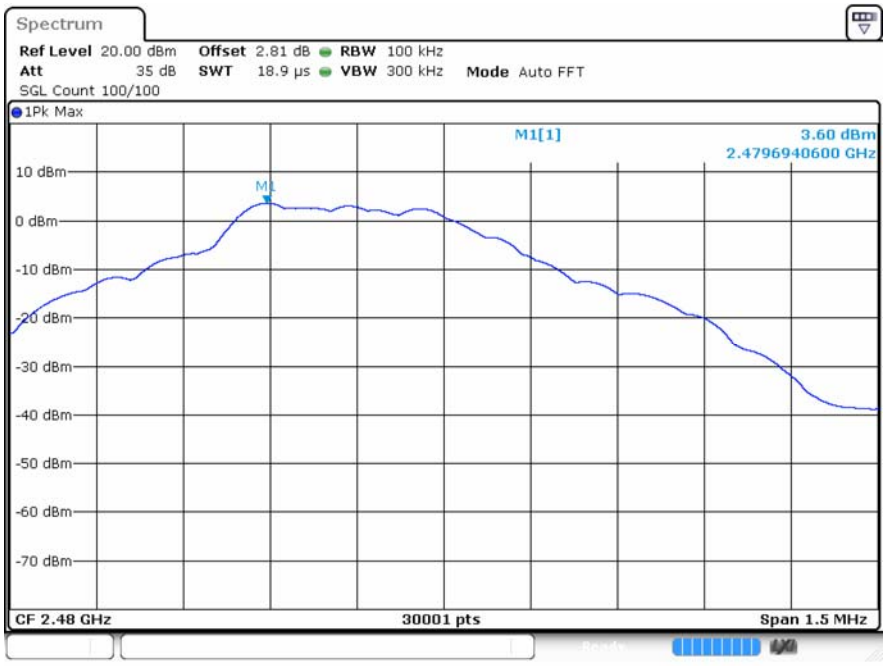
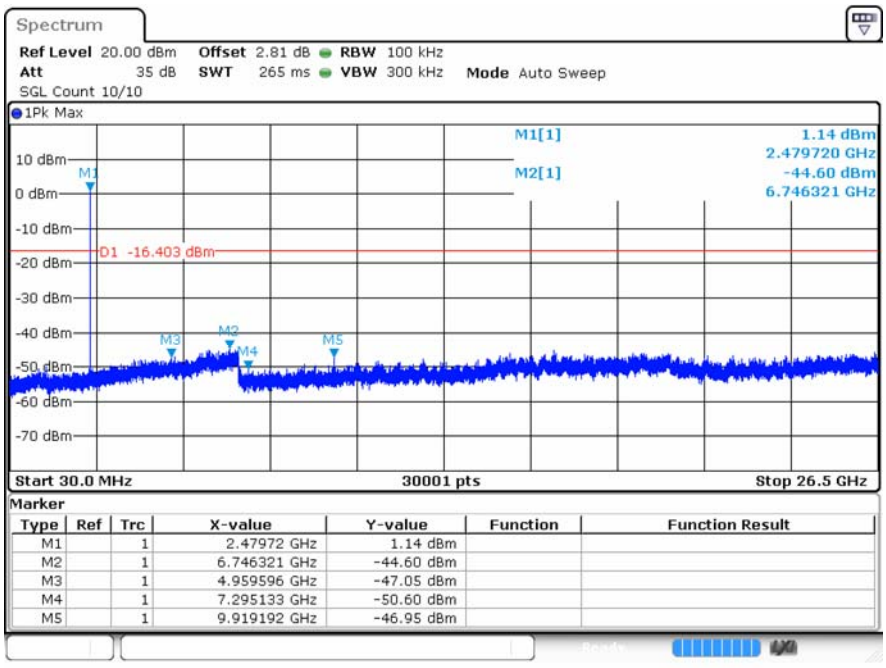
7.1 Test Result

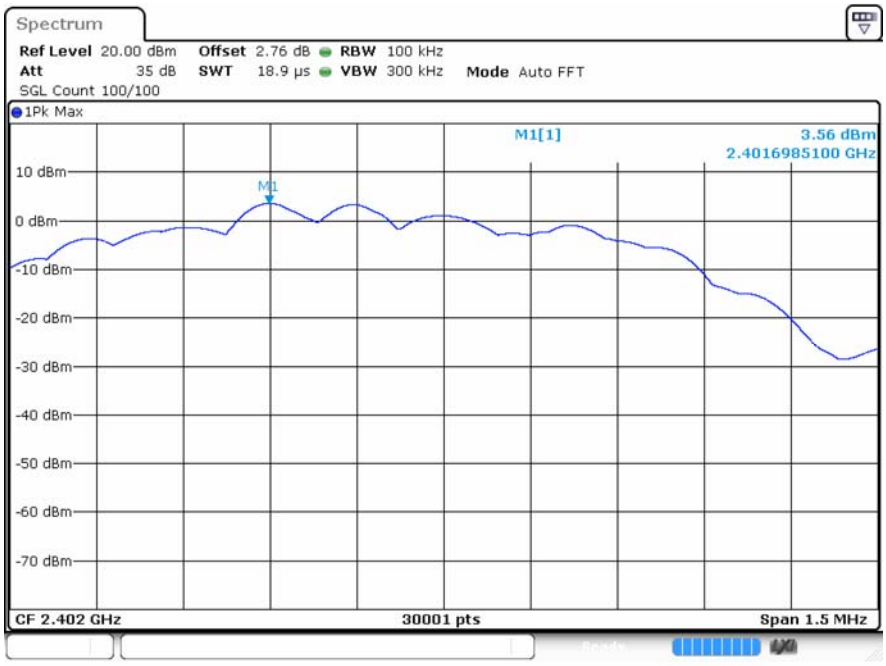
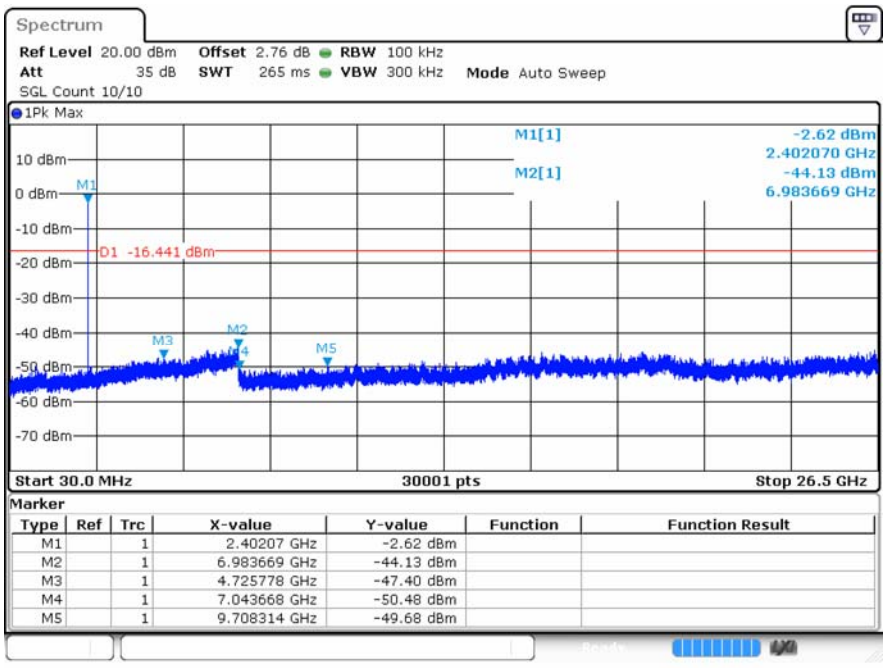
Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-47.56	-20	Pass
	MCH	-47.47	-20	Pass
	HCH	-48.2	-20	Pass
π/4DQPSK	LCH	-47.68	-20	Pass
	MCH	-47.02	-20	Pass
	HCH	-47.02	-20	Pass

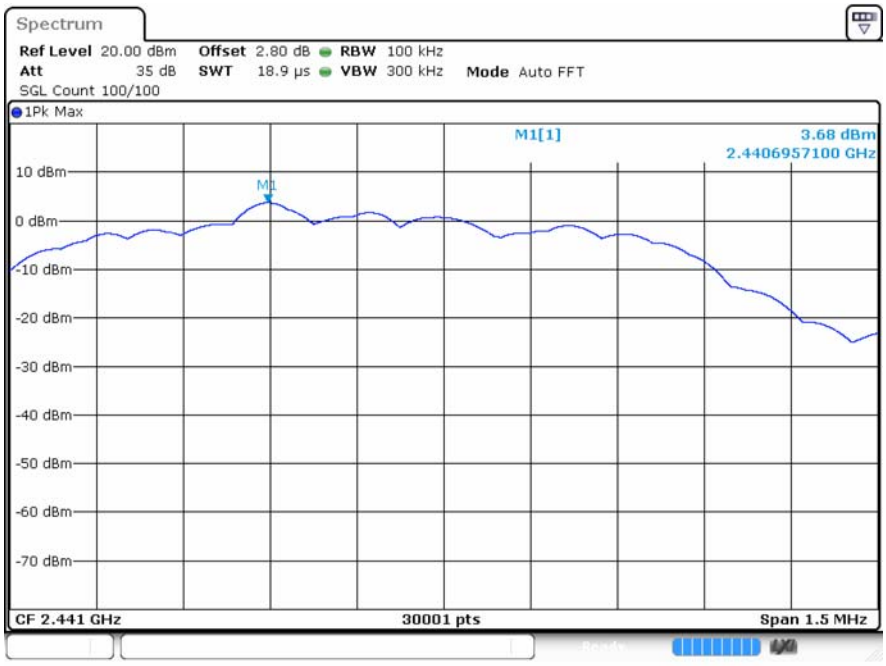
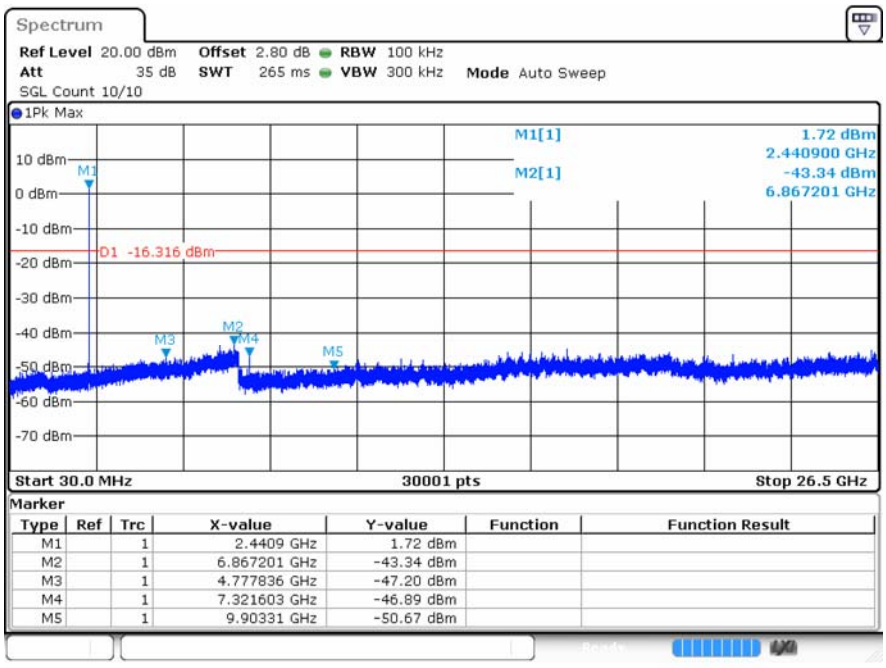
7.2 Test Graphs

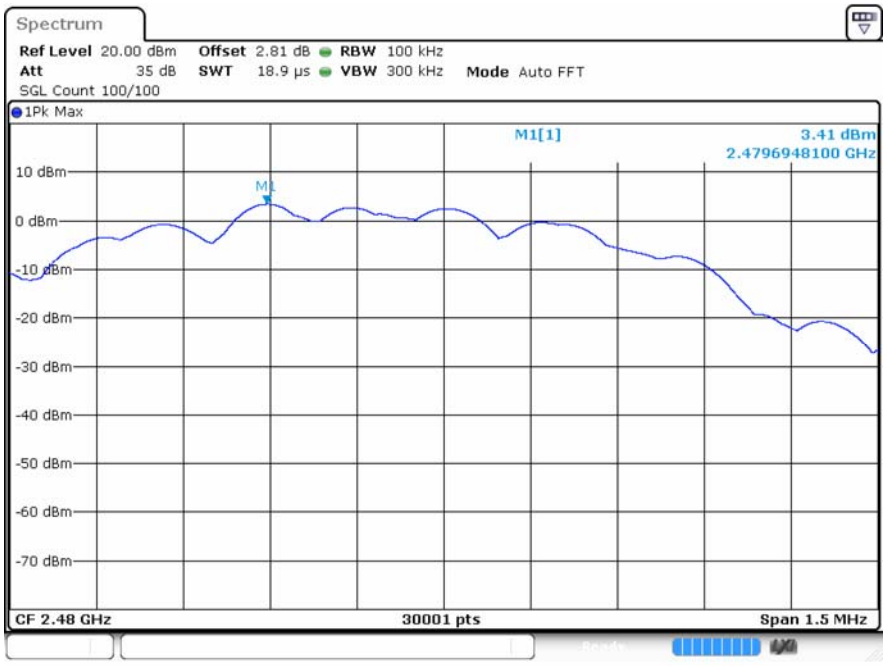
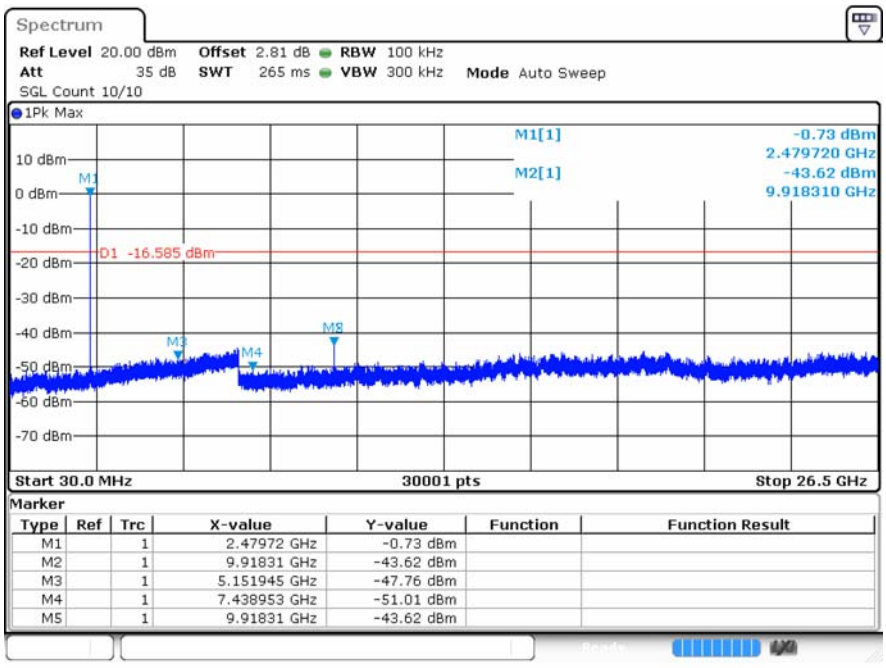
GFSK_LCH_Graphs	
Pref	
Puw	

GFSK_MCH_Graphs	
Pref	
Puw	

GFSK_HCH_Graphs	
Pref	
Puw	

π/4DQPSK_LCH_Graphs	
Pref	
Puw	

π/4DQPSK_MCH_Graphs	
Pref	
Puw	

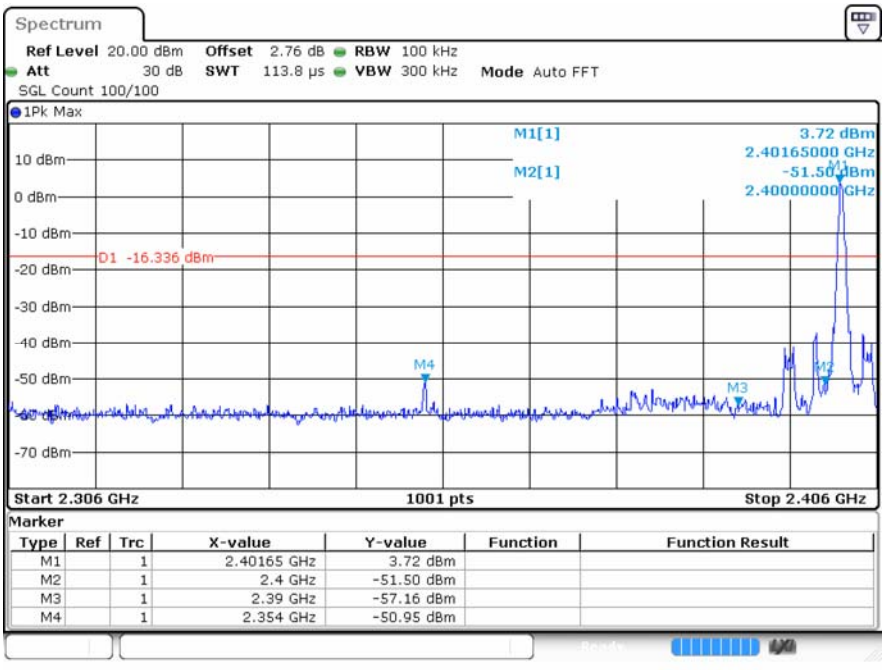
π/4DQPSK_HCH_Graphs	
Pref	
Puw	

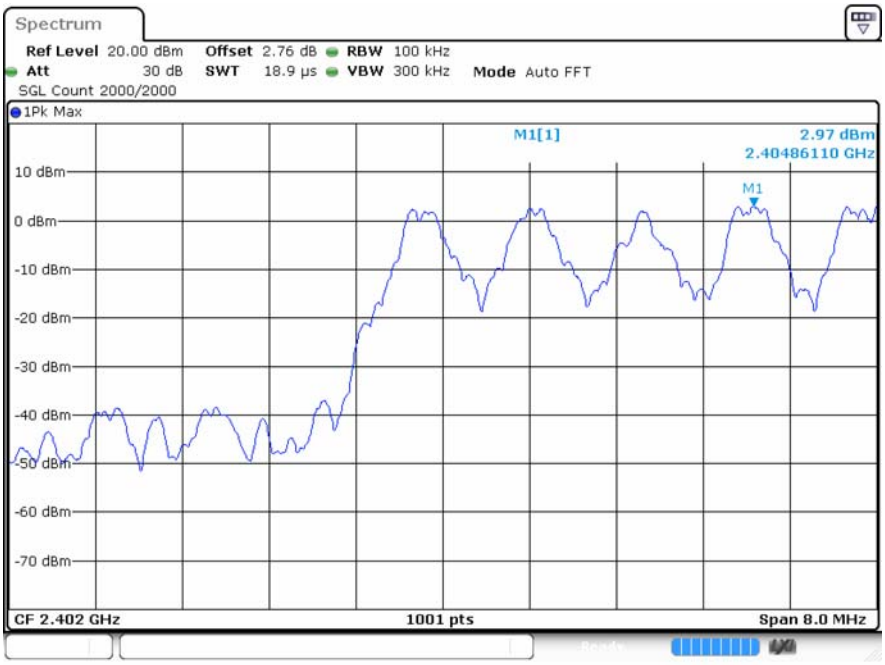
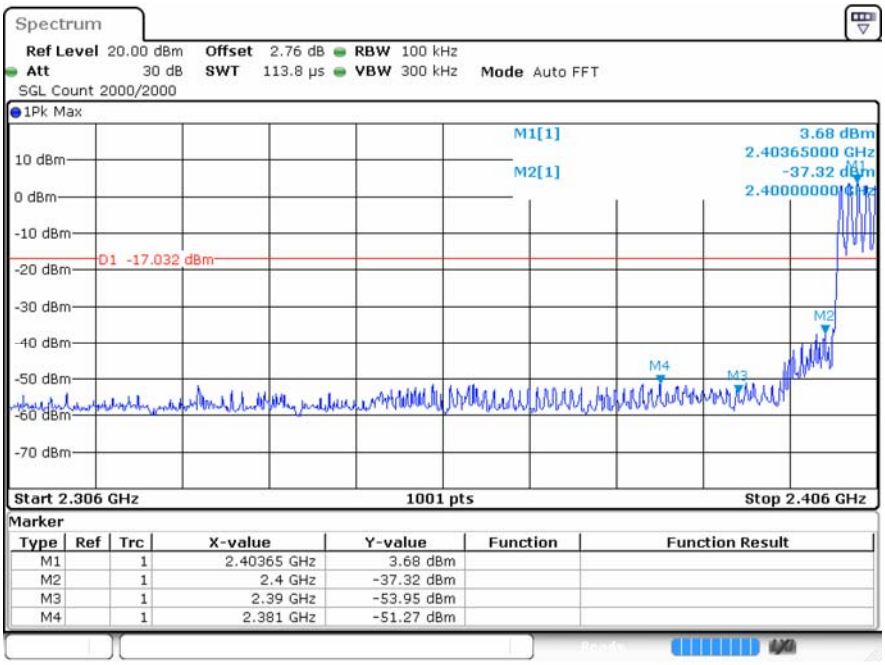
8 Band-edge for RF Conducted Emissions

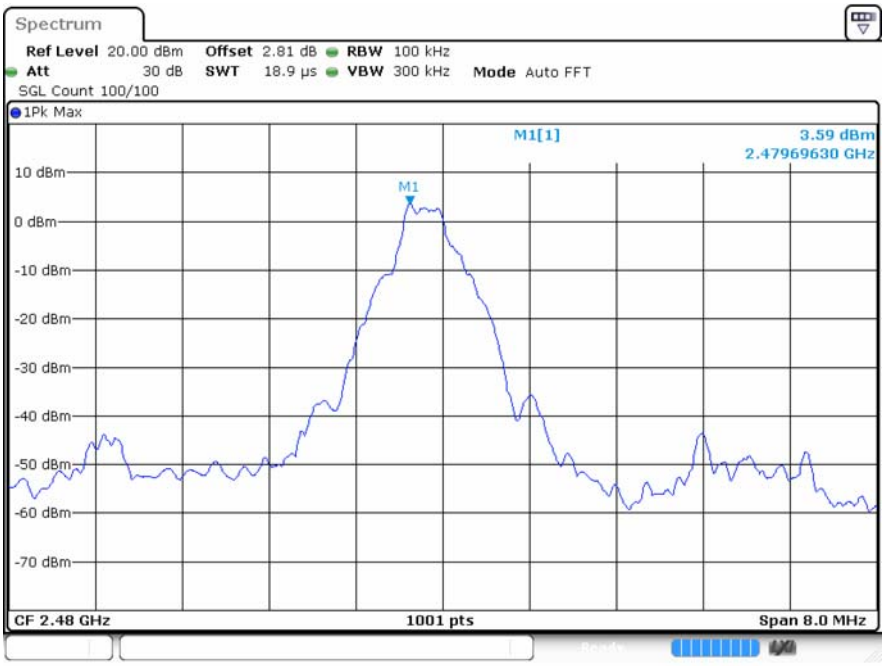
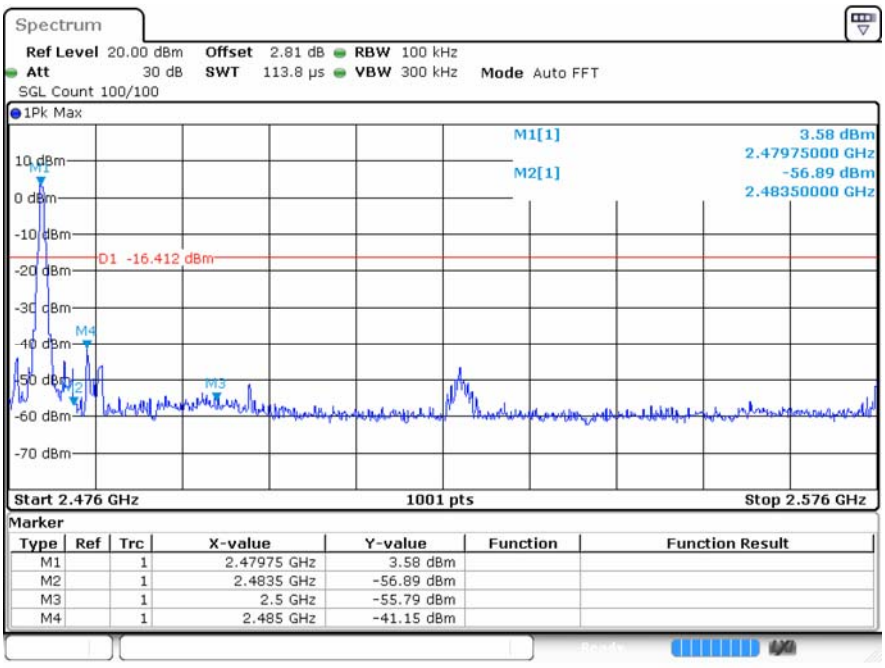
8.1 Test Result

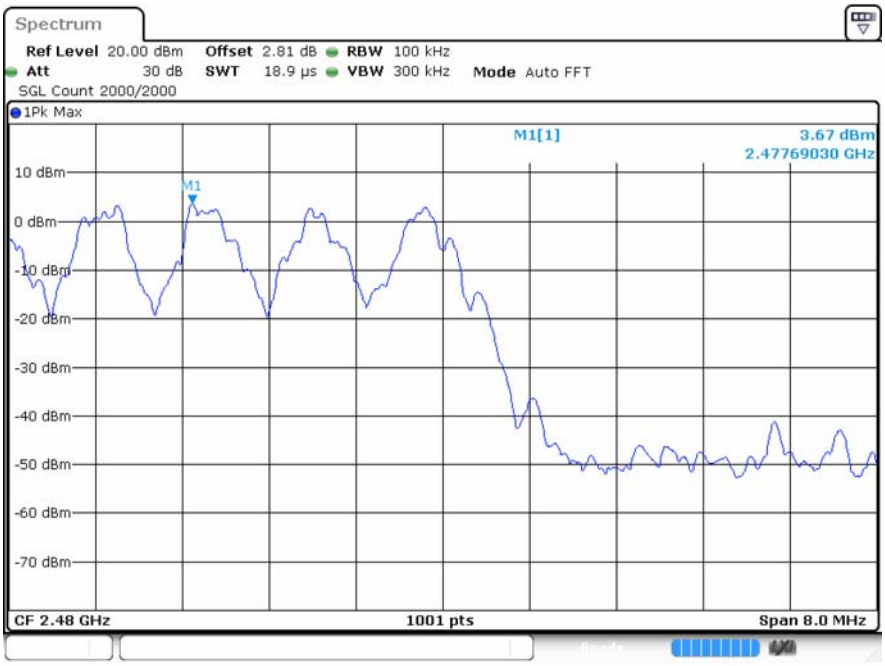
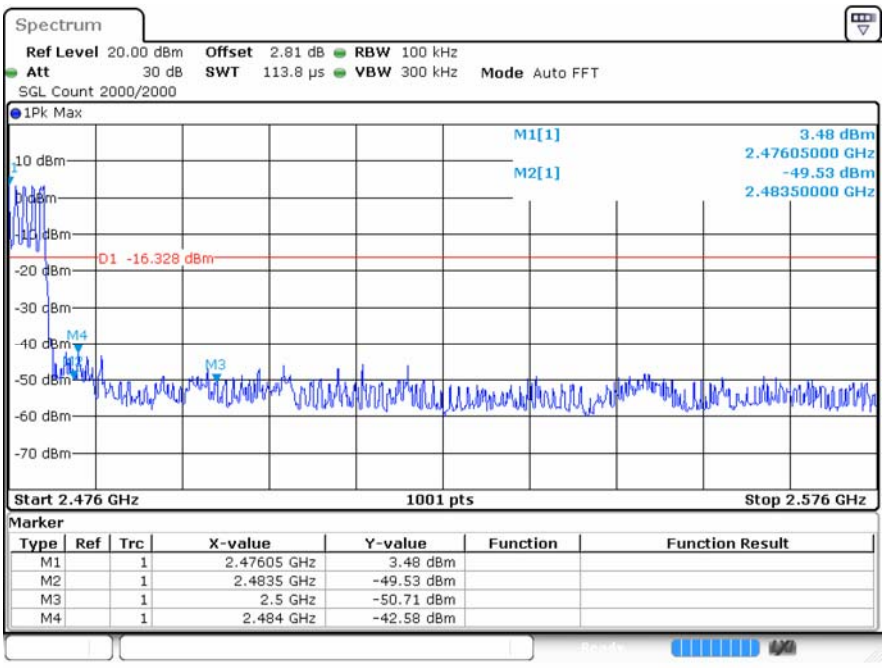
Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-54.61	-20	Pass
			On	-54.23	-20	Pass
	HCH	2480	Off	-44.73	-20	Pass
			On	-46.24	-20	Pass
π/4DQPSK	LCH	2402	Off	-52.88	-20	Pass
			On	-52.63	-20	Pass
	HCH	2480	Off	-45.56	-20	Pass
			On	-45.13	-20	Pass

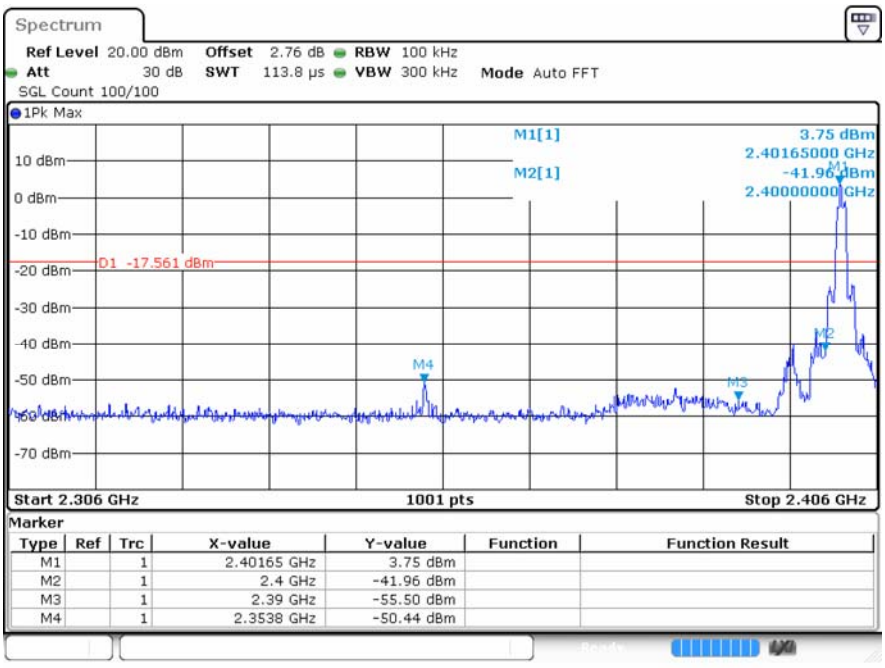
8.2 Test Graphs

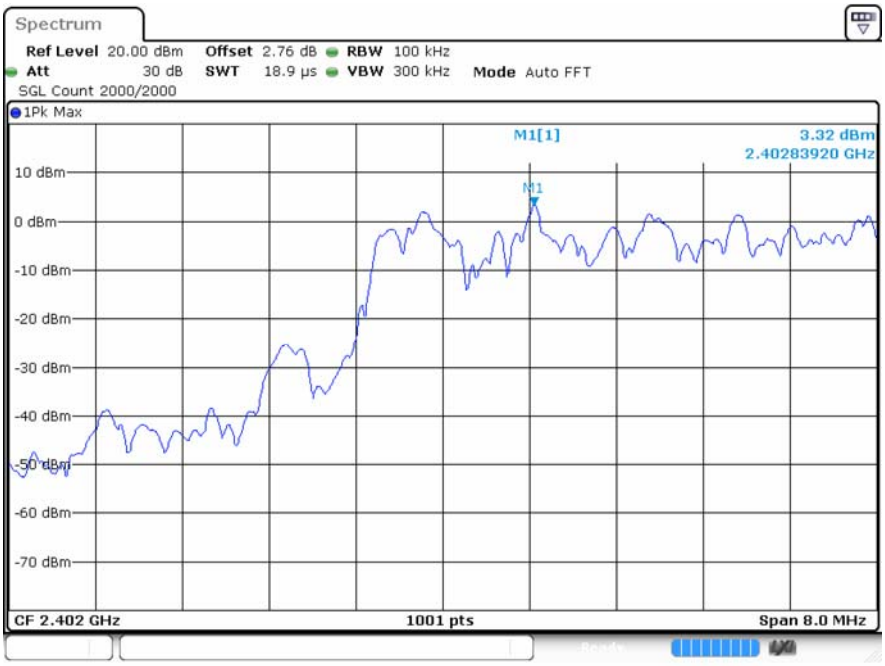
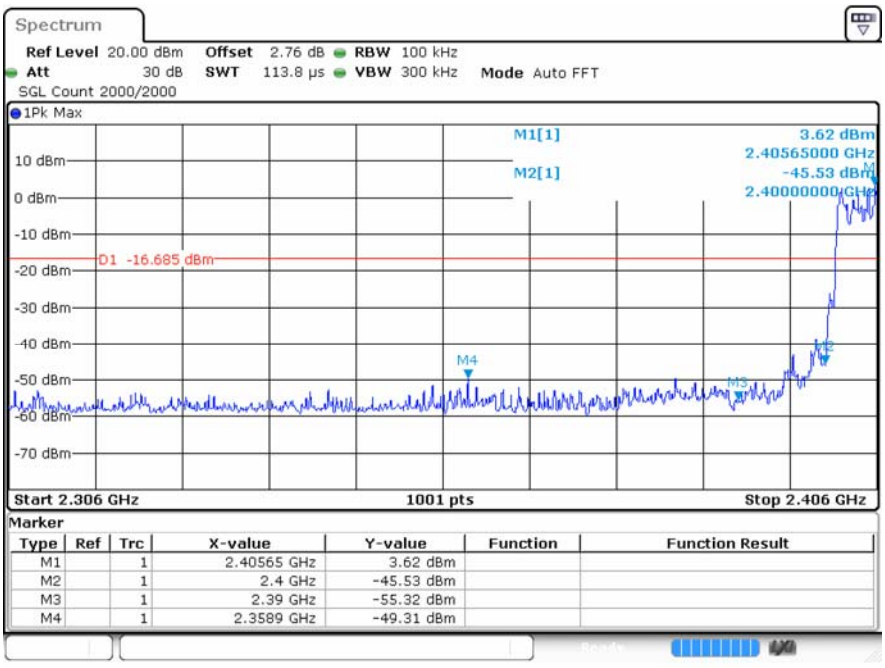
Test Graphs	
Pref	
GFSK/LCH/No Hop	

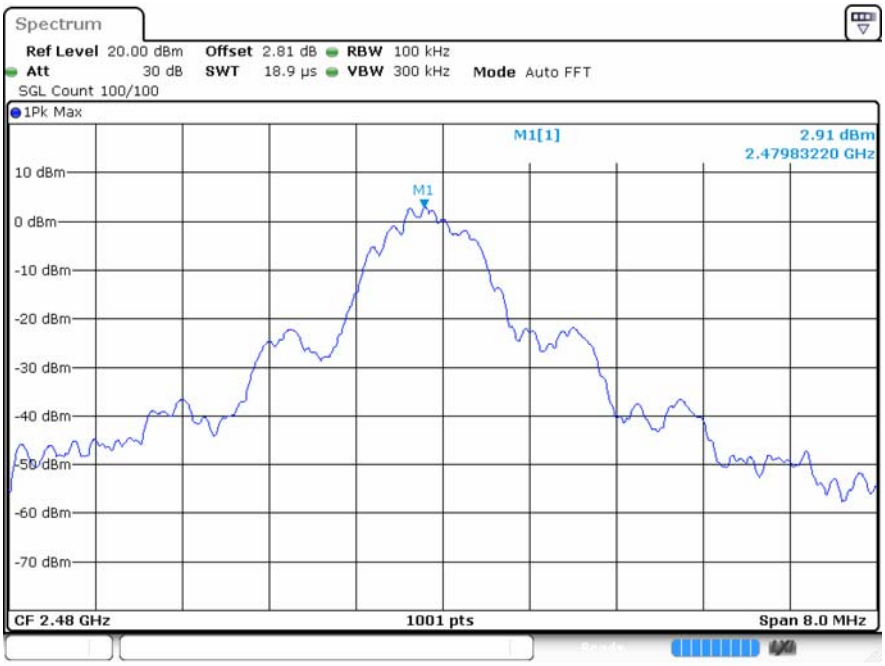
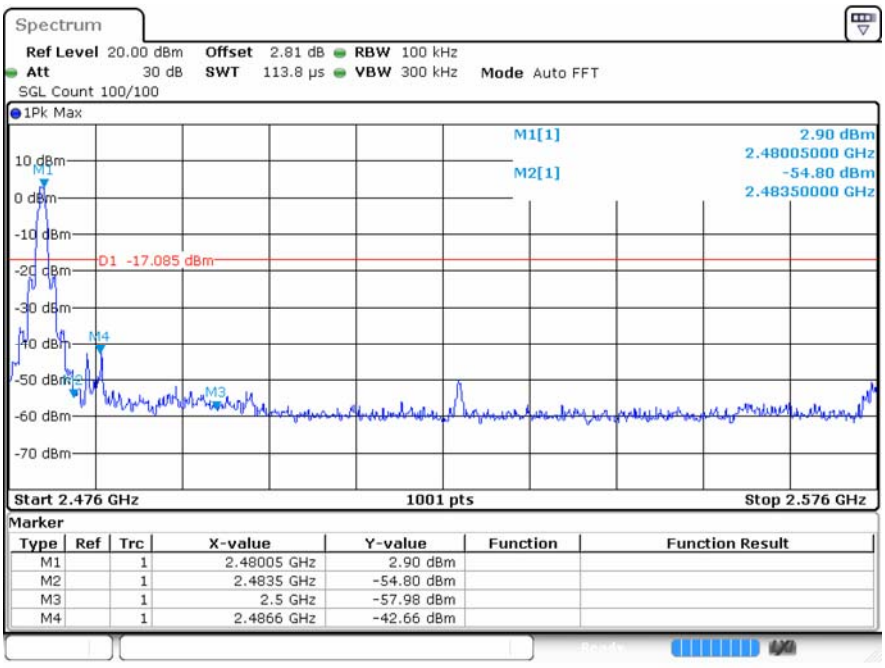
Ref	
GFSK/LCH/Hop	

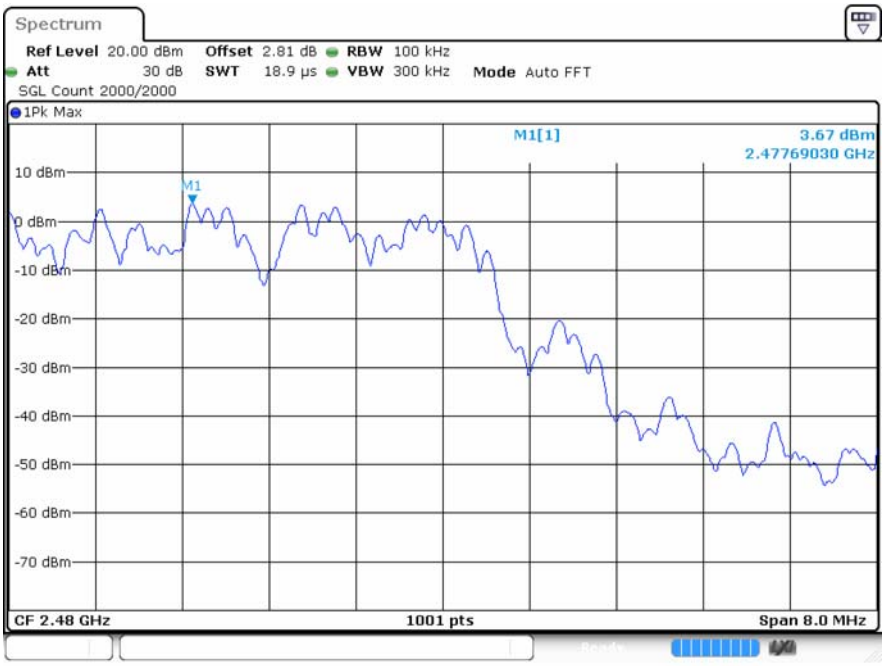
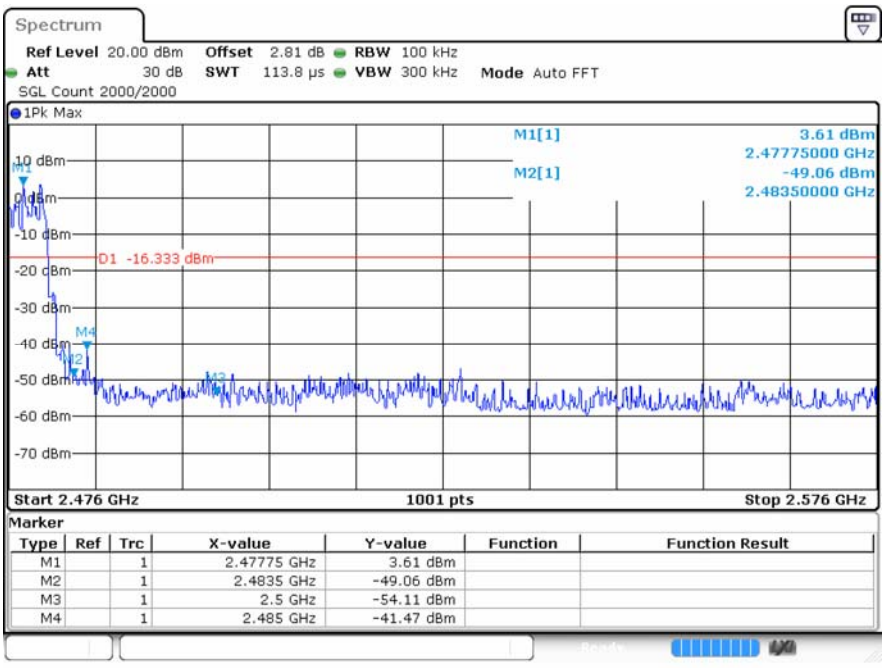
Ref	
GFSK/HCH/No Hop	

Ref.	
GFSK/HCH/Hop	

Ref	
π/4DQPSK/LCH/No Hop	

Ref	
π/4DQPSK/LCH/Hop	

Ref	
π/4DQPSK/HCH/No Hop	

Ref	
π/4DQPSK/HCH/Hop	

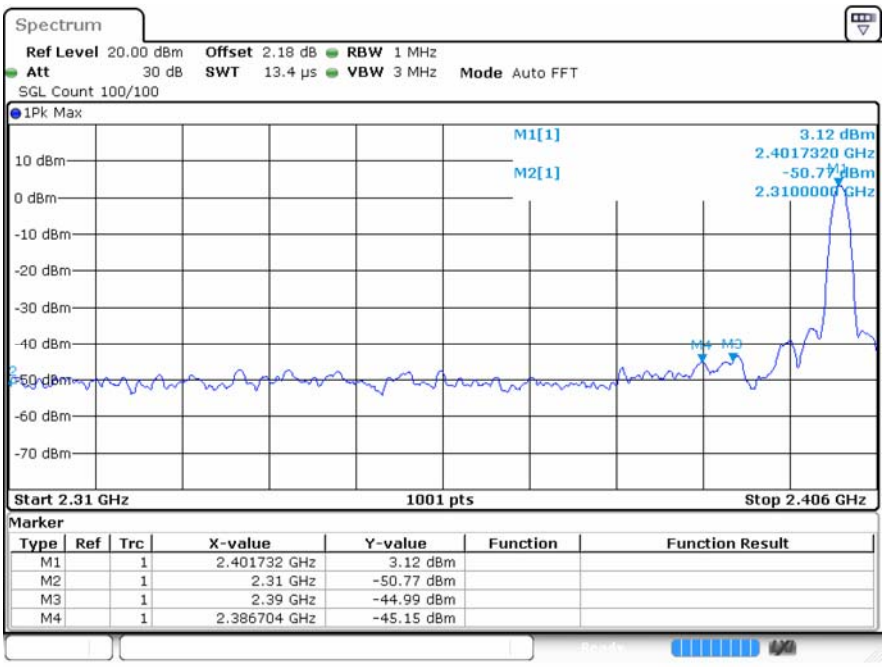
9 Restrict-band band-edge measurements

9.1 Test Result

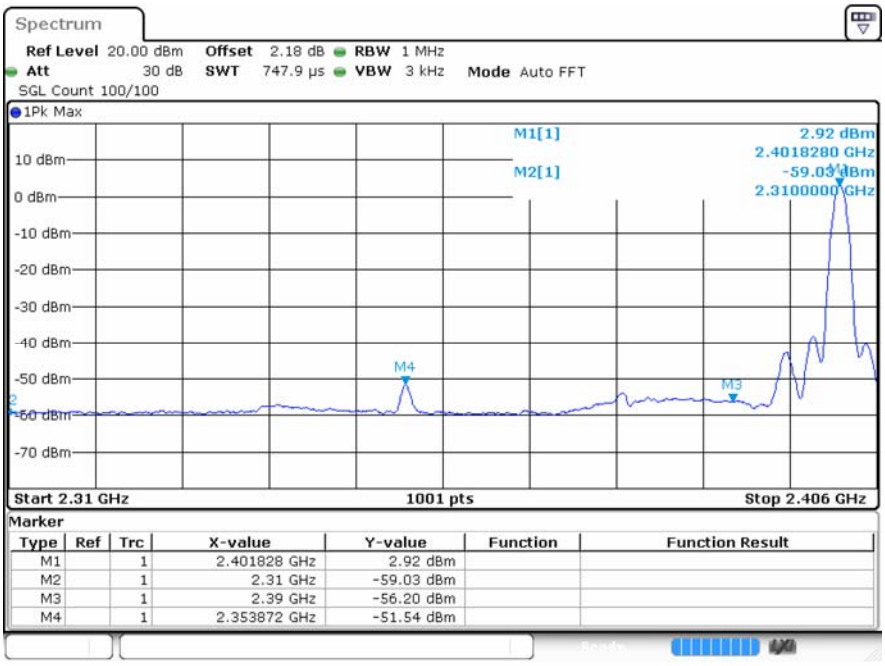
Test Mode	Hopping	Freq.	Power [dBm]	Gain	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-50.77	2	46.49	PEAK	74	Pass
	Off	2310.0	-59.02	2	38.24	AV	54	Pass
	Off	2386.704	-45.14	2	52.12	PEAK	74	Pass
	Off	2353.872	-51.53	2	45.73	AV	54	Pass
	Off	2390.0	-44.99	2	52.27	PEAK	74	Pass
	Off	2390.0	-56.19	2	41.07	AV	54	Pass
	Off	2483.5	-44.46	2	52.8	PEAK	74	Pass
	Off	2483.5	-51.08	2	46.18	AV	54	Pass
	Off	2486.584	-40.41	2	56.85	PEAK	74	Pass
	Off	2485.744	-47.07	2	50.19	AV	54	Pass
	Off	2500.0	-47.2	2	50.06	PEAK	74	Pass
	Off	2500.0	-55.95	2	41.31	AV	54	Pass
π/4DQPSK	Off	2310.0	-49.15	2	48.11	PEAK	74	Pass
	Off	2310.0	-59.06	2	38.2	AV	54	Pass
	Off	2377.872	-44.05	2	53.21	PEAK	74	Pass
	Off	2353.776	-52.46	2	44.8	AV	54	Pass
	Off	2390.0	-50.28	2	46.98	PEAK	74	Pass
	Off	2390.0	-55.51	2	41.75	AV	54	Pass
	Off	2483.5	-39.41	2	57.85	PEAK	74	Pass
	Off	2483.5	-49.33	2	47.93	AV	54	Pass
	Off	2483.512	-39.41	2	57.85	PEAK	74	Pass
	Off	2485.288	-47.67	2	49.59	AV	54	Pass
	Off	2500.0	-48.84	2	48.42	PEAK	74	Pass
	Off	2500.0	-54.34	2	42.92	AV	54	Pass

9.2 Test Graphs

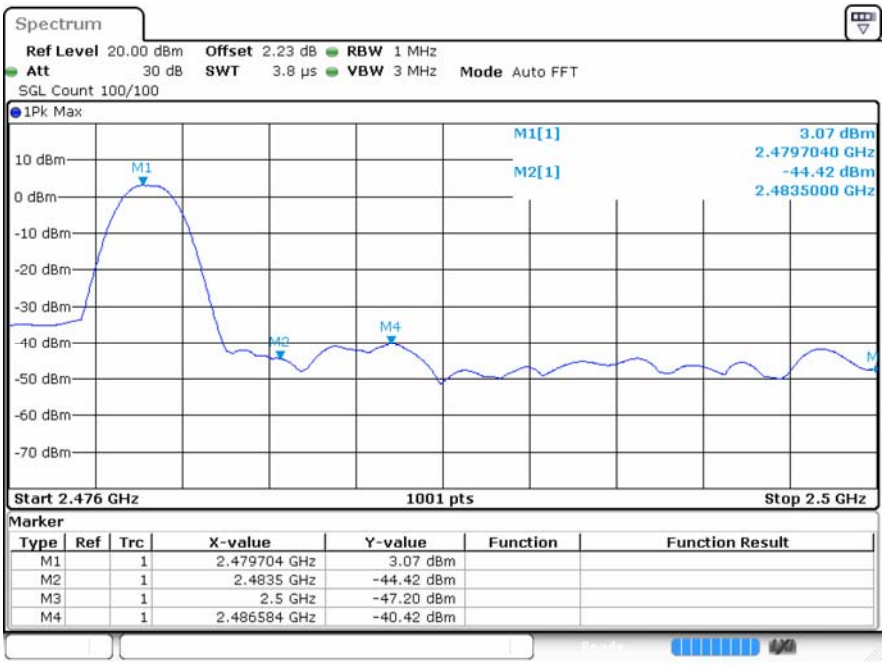
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



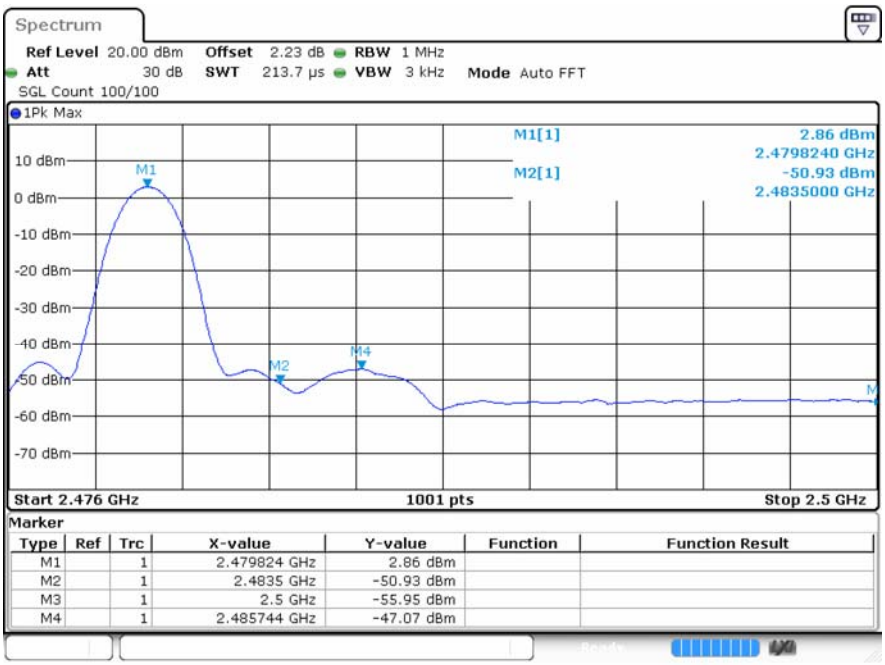
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



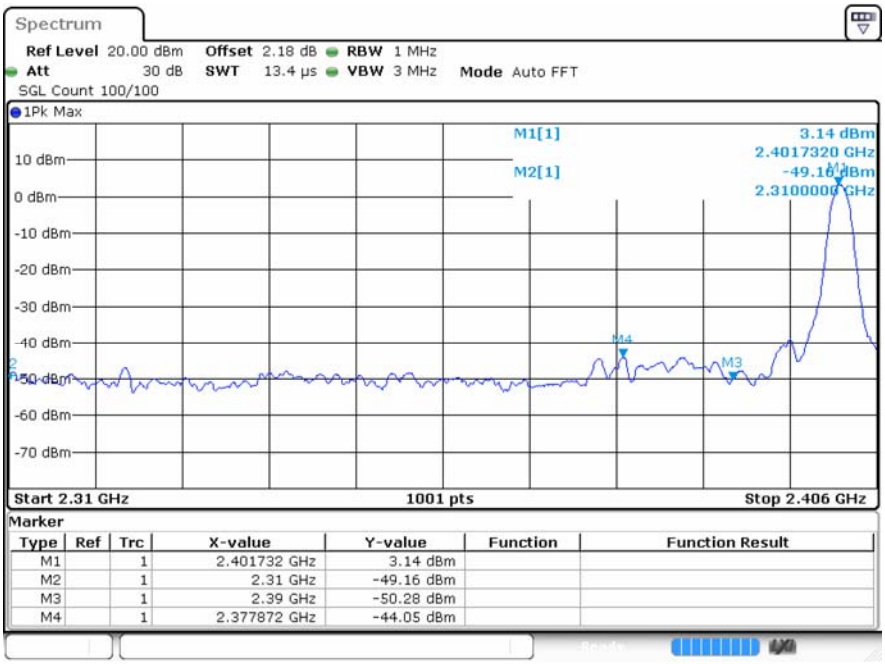
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



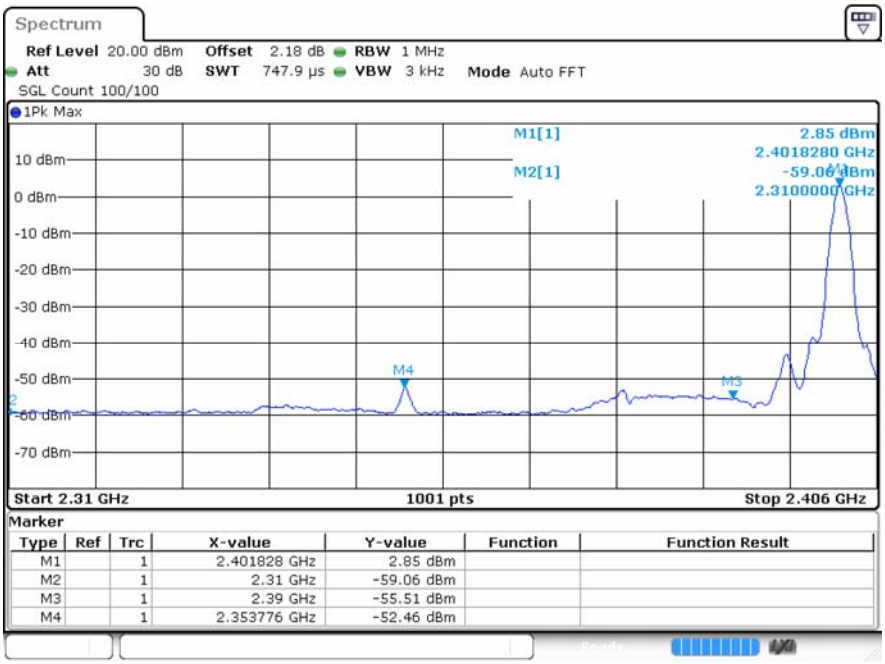
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



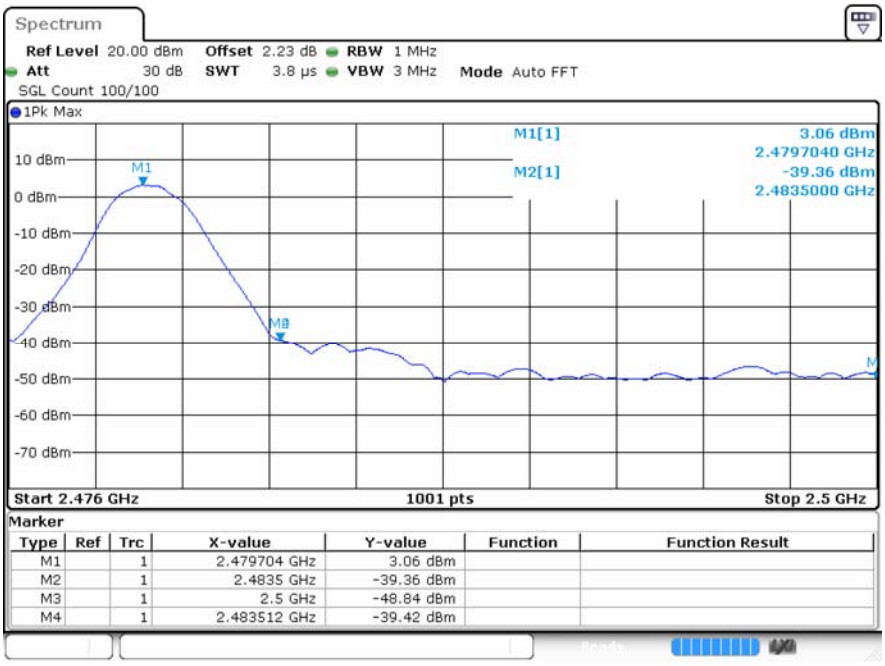
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



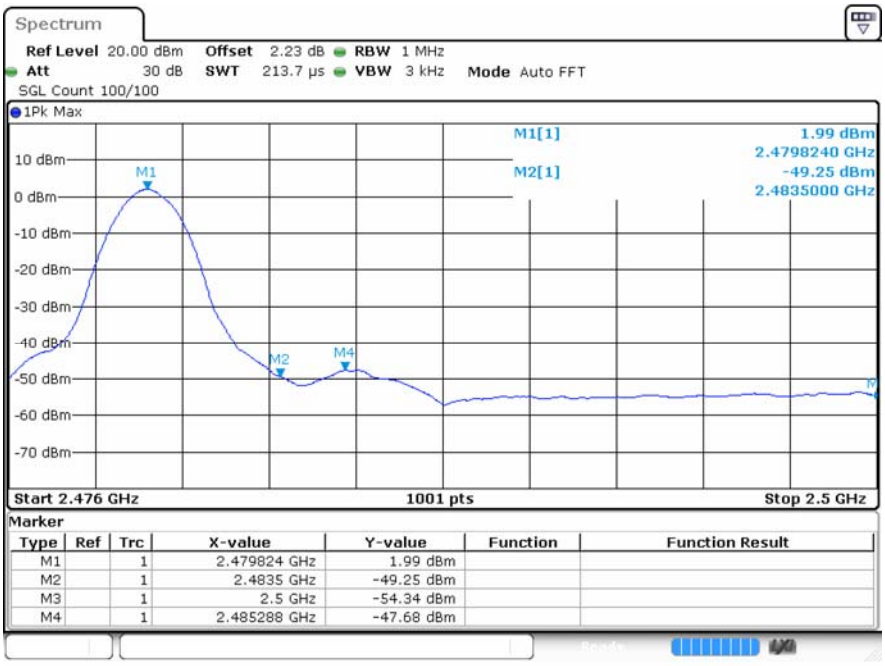
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



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---