Appendix A

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

Product Name: Foldable Wireless Headset with Stereo Sound

Trade Mark: MINISO

Test Model: E22004

Environmental Conditions

Temperature:	25.6℃
Relative Humidity:	52.1%
ATM Pressure:	101Kpa
Test Engineer:	Simba Huang
Supervised by:	Seal Chen

Contents

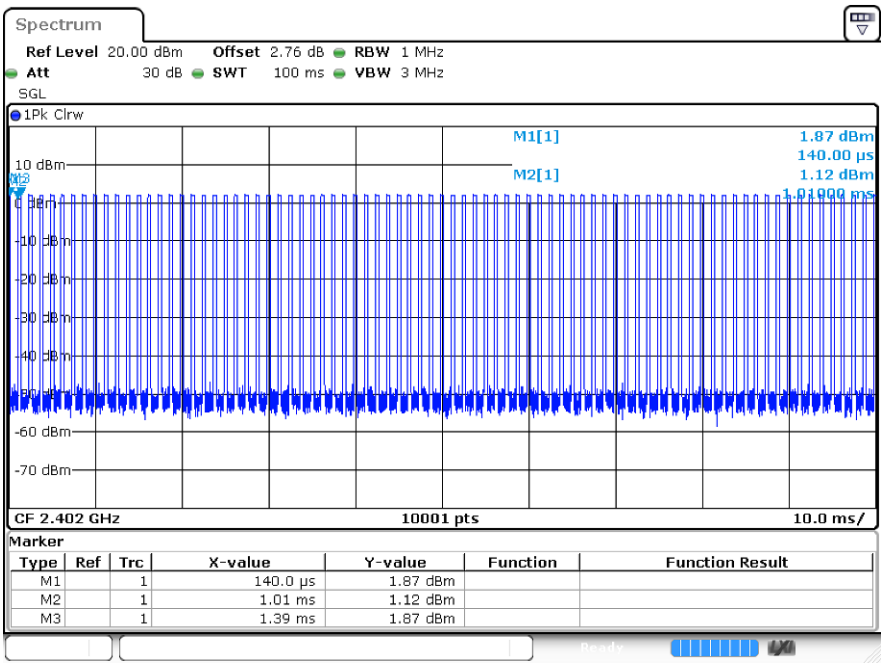
1 Duty Cycle

1.1 Test Result

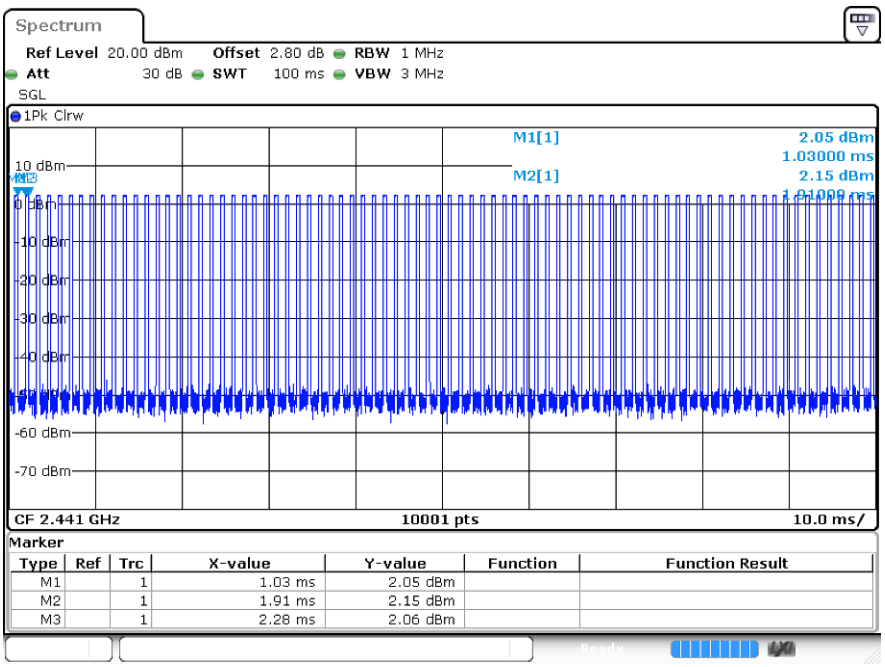
Mode	Frequency (MHz)	Duty Cycle (%)	1/T (kHz)
1-DH1	2402	31.21	2.63
1-DH1	2441	30.75	2.7
1-DH1	2480	31.21	2.63
2-DH1	2402	32	2.56
2-DH1	2441	31.88	2.63
2-DH1	2480	32.01	2.56

1.2 Test Graphs

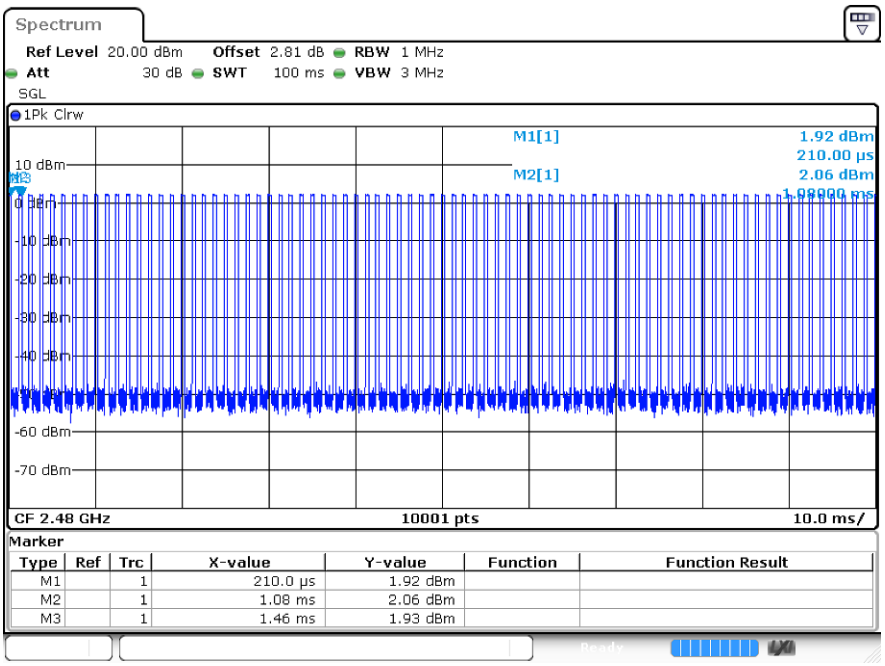
Test Graphs
1-DH1 2402MHz



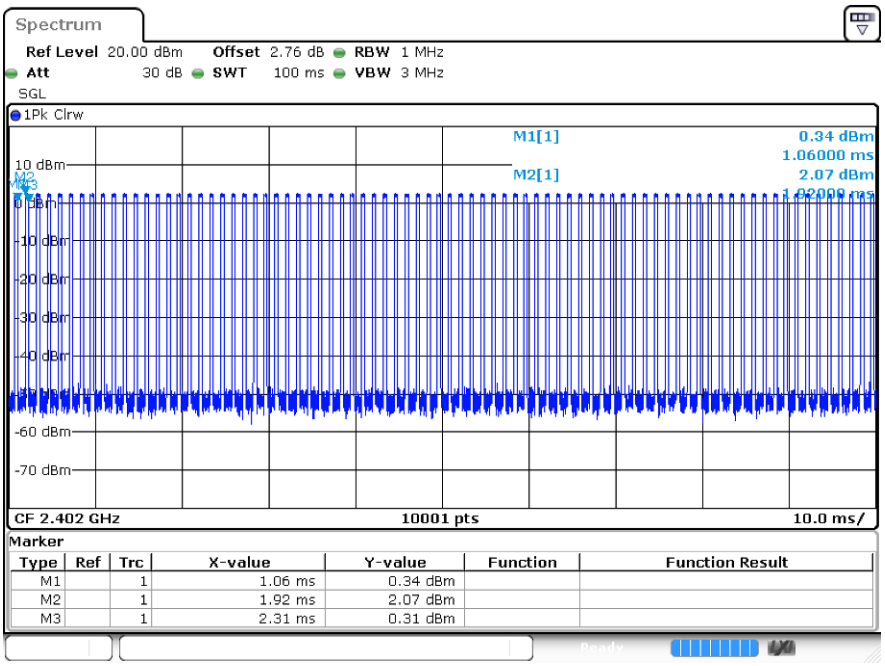
1-DH1 2441MHz



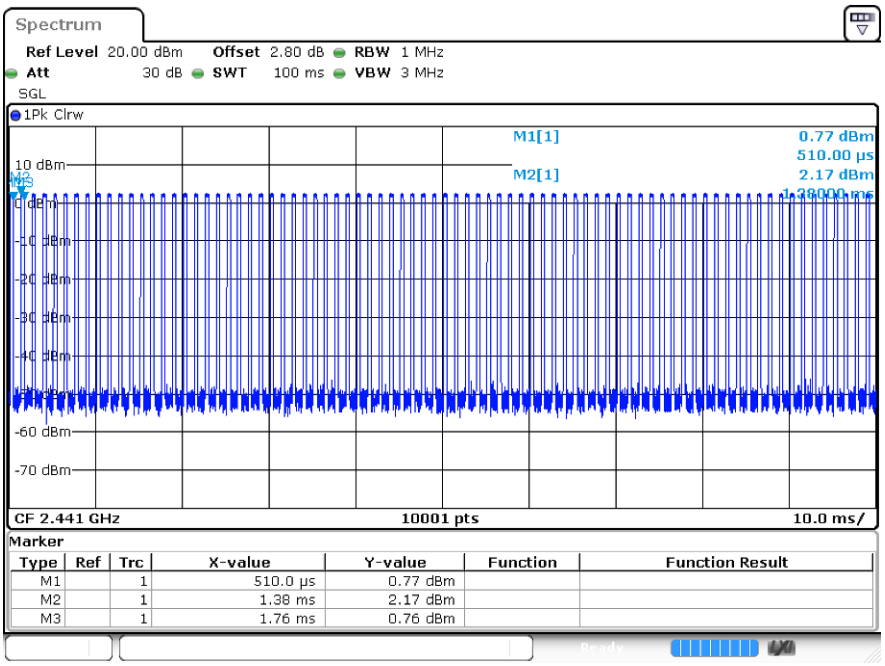
1-DH1 2480MHz



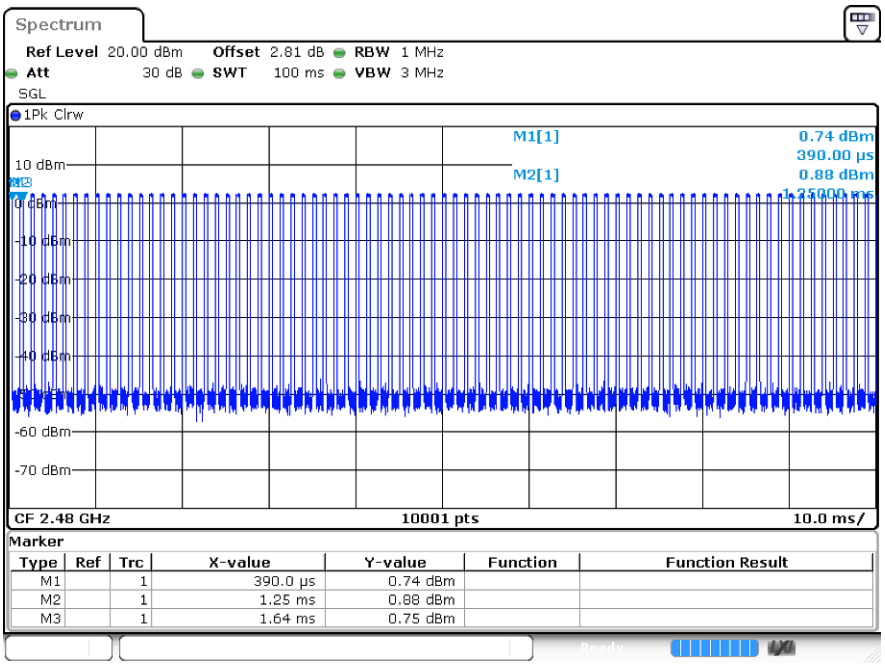
2-DH1 2402MHz



2-DH1 2441MHz



2-DH1 2480MHz

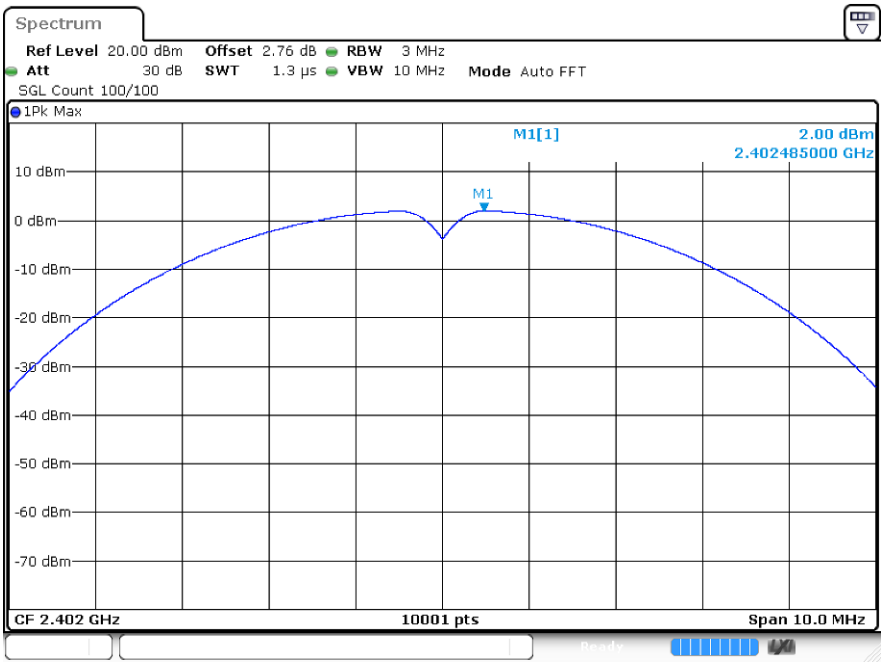
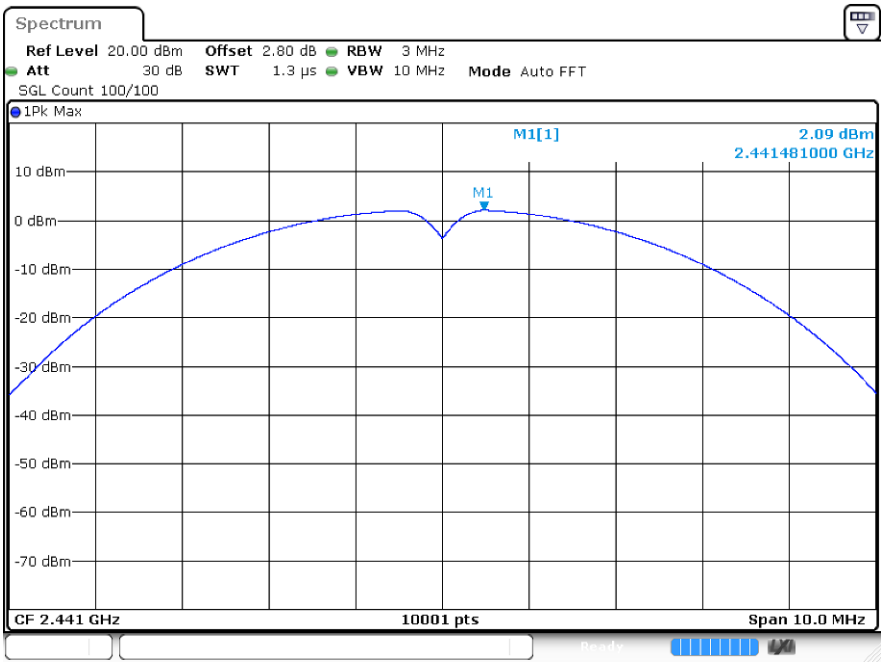


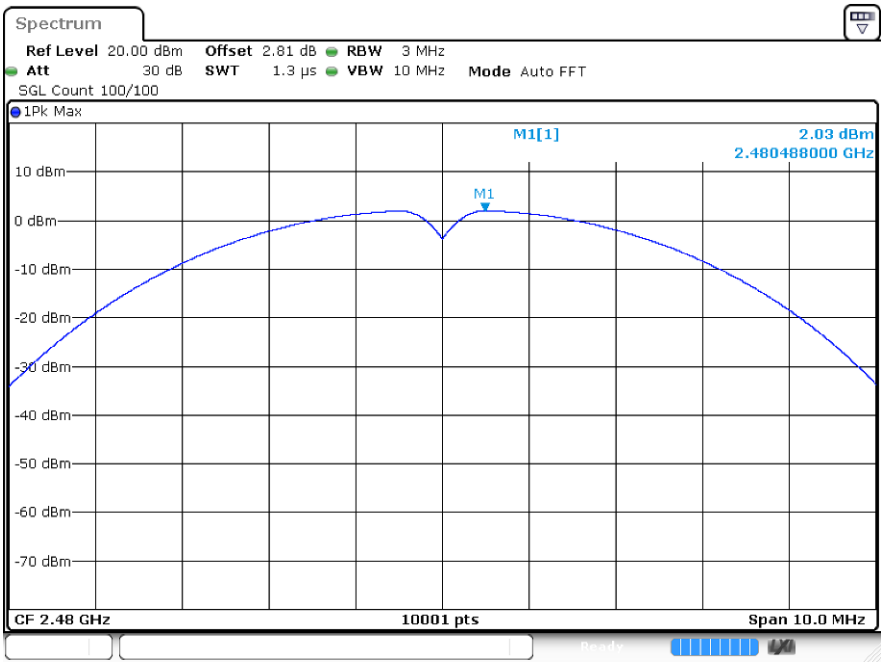
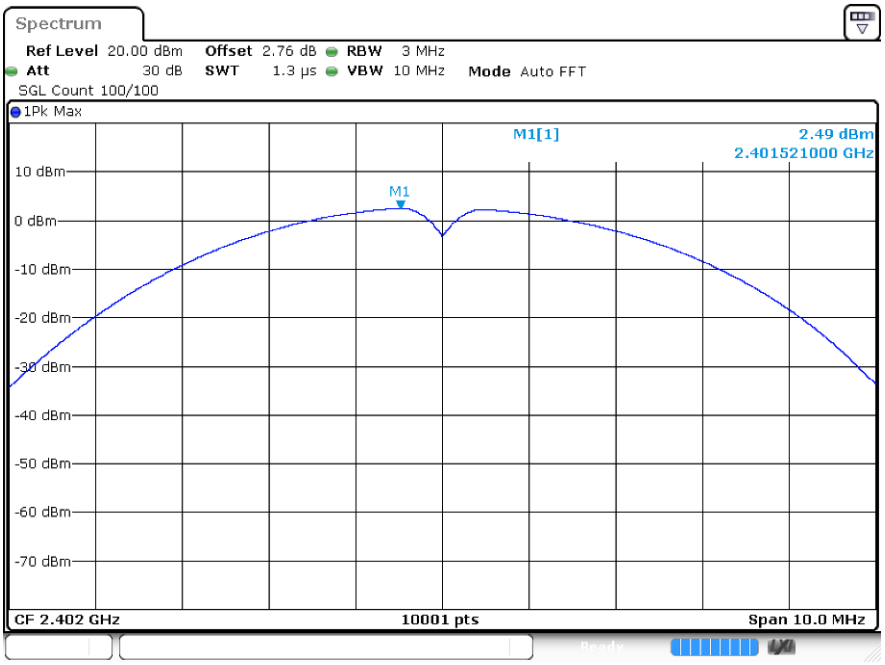
2 Maximum Conducted Peak Output Power

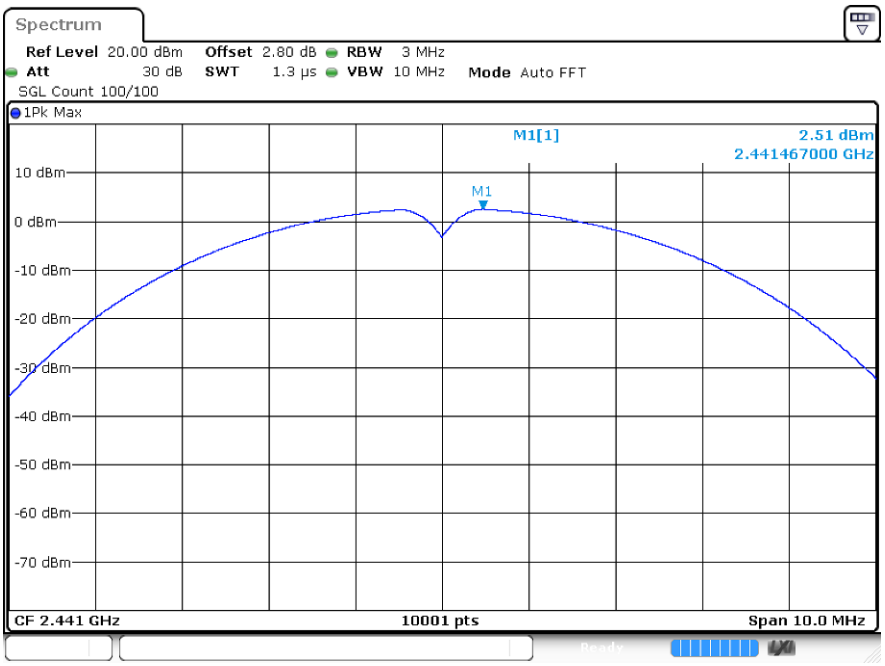
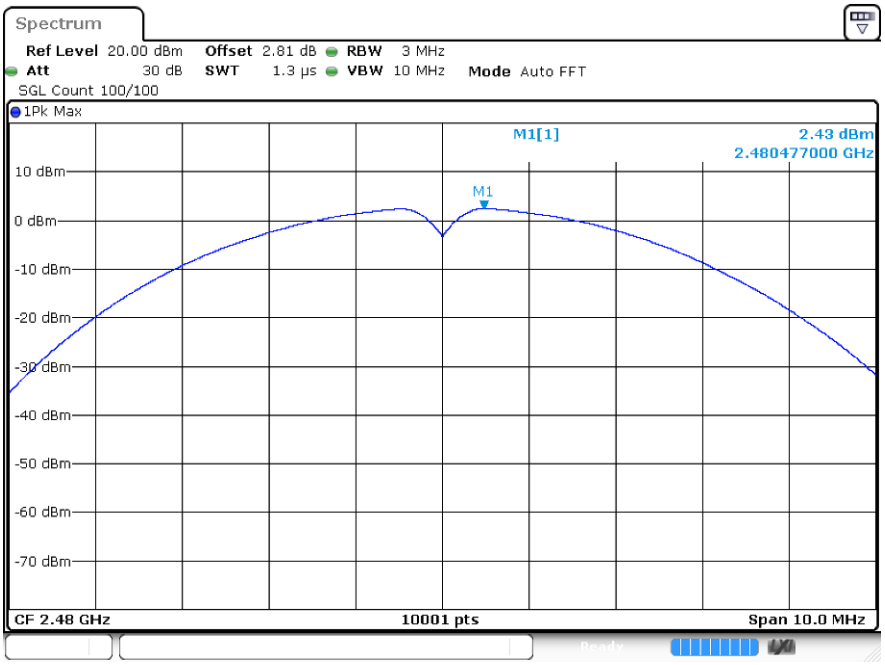
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	2	21	Pass
	MCH	2.09	21	Pass
	HCH	2.03	21	Pass
π/4DQPSK	LCH	2.49	21	Pass
	MCH	2.51	21	Pass
	HCH	2.43	21	Pass

2.2 Test Graphs

Test Graphs	
GFSK/LCH	
GFSK/MCH	

GFSK/HCH	
π/4DQPSK/LCH	

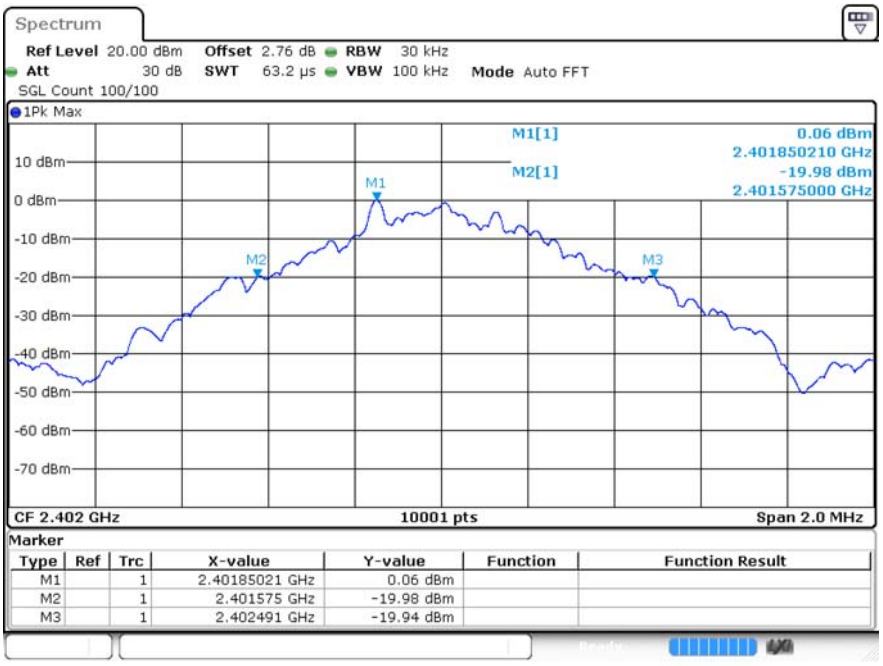
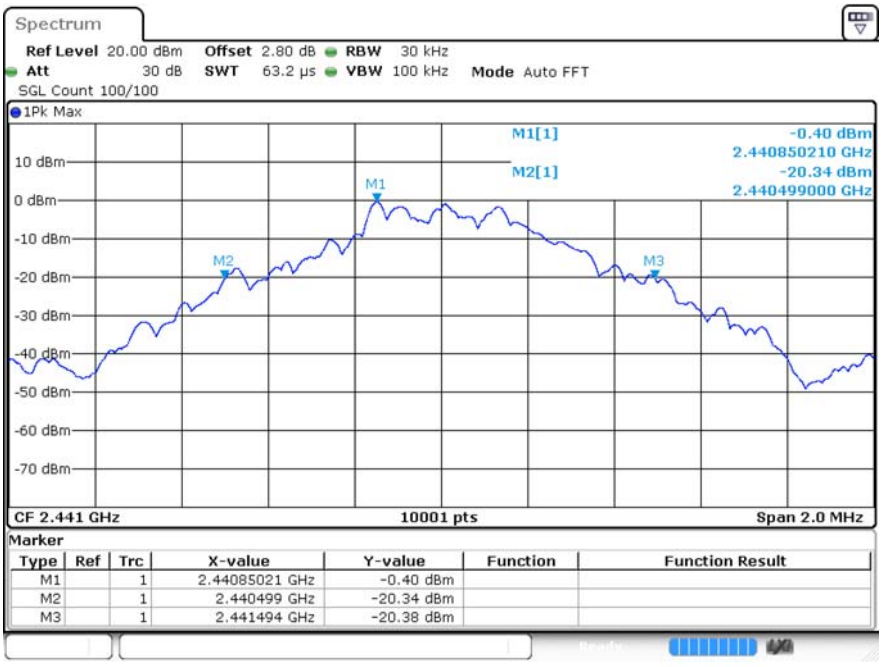
π/4DQPSK/MCH	
π/4DQPSK/HCH	

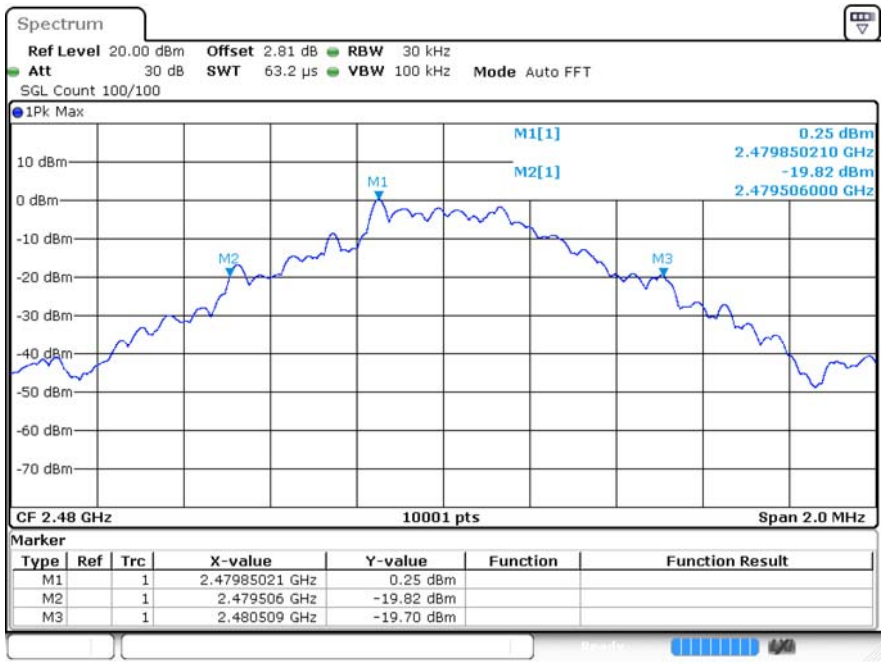
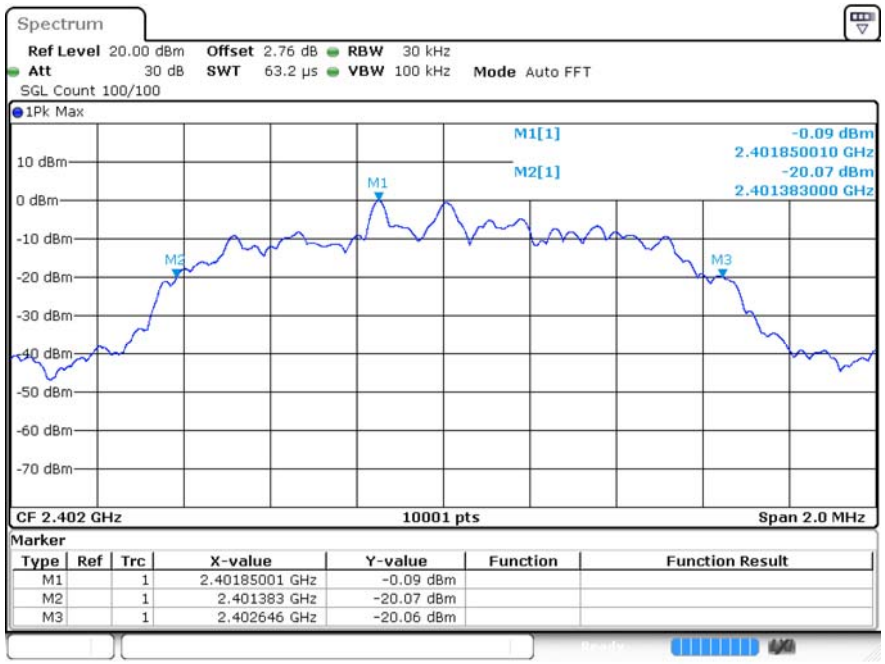
3 20dB Bandwidth

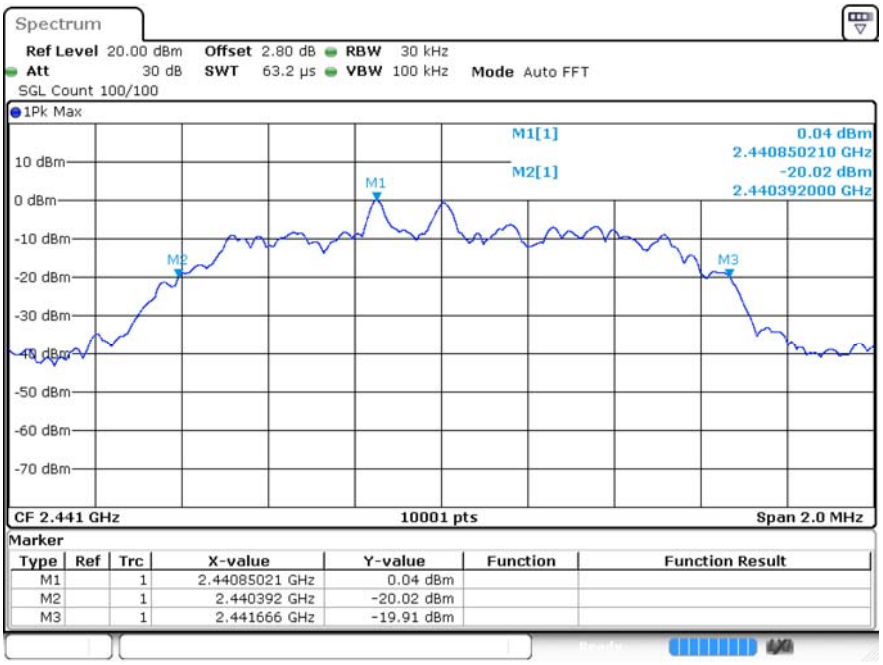
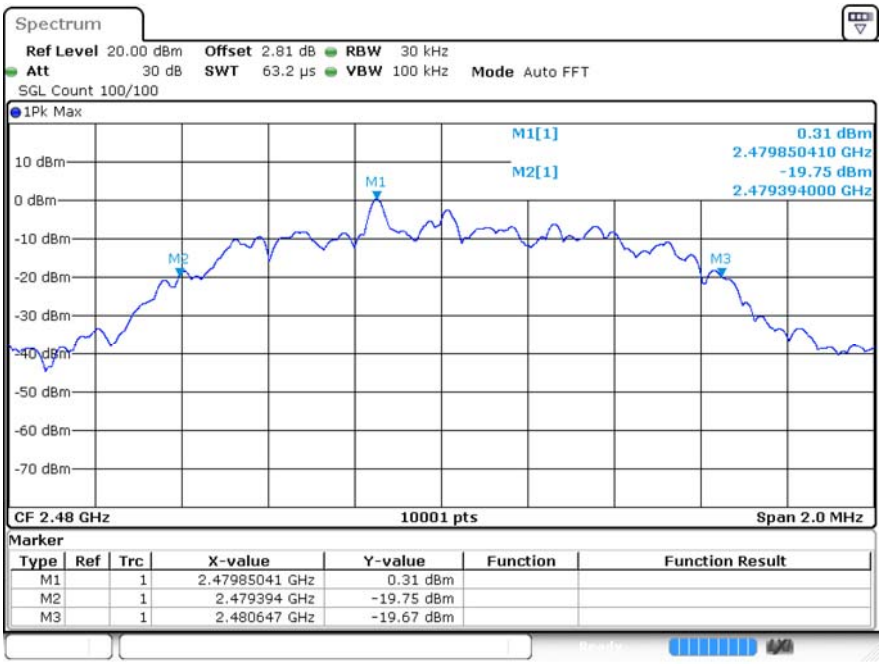
3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.916	Not Specified	Pass
	MCH	0.995	Not Specified	Pass
	HCH	1.003	Not Specified	Pass
π/4DQPSK	LCH	1.263	Not Specified	Pass
	MCH	1.274	Not Specified	Pass
	HCH	1.253	Not Specified	Pass

3.2 Test Graphs

Test Graphs	
GFSK/LCH	
GFSK/MCH	

GFSK/HCH	
π/4DQPSK/LCH	

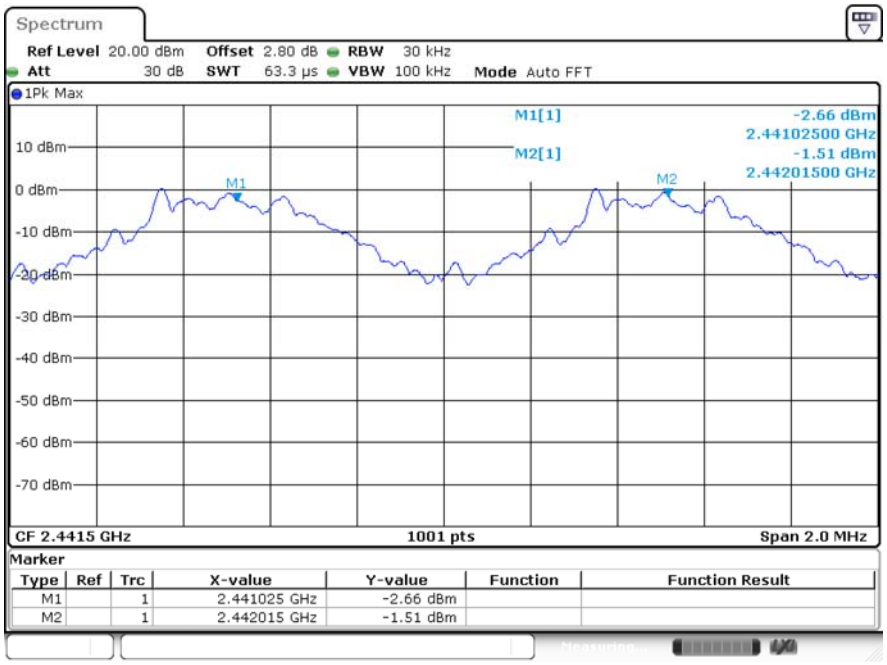
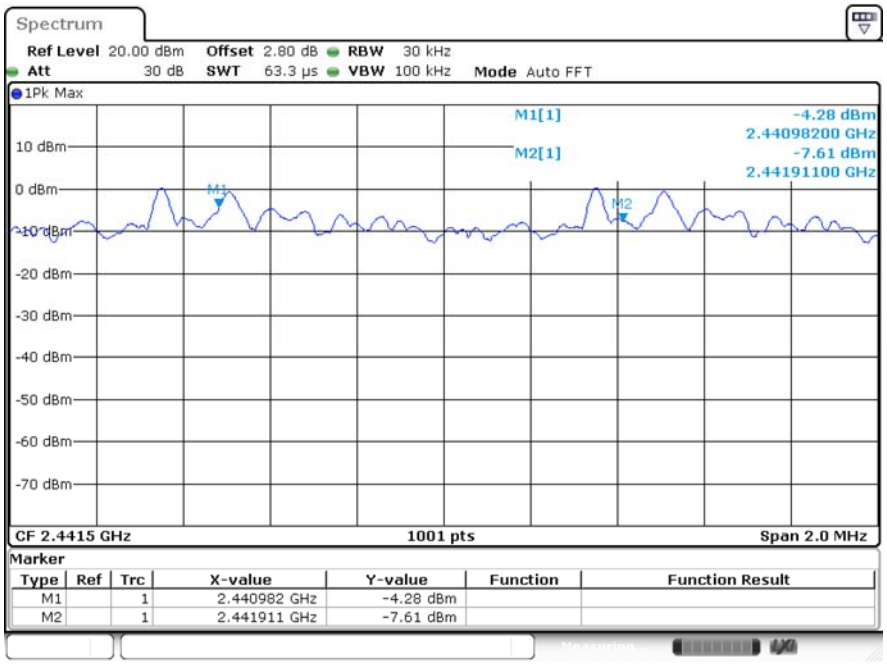
π/4DQPSK/MCH	
π/4DQPSK/HCH	

4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	0.99	0.663	Pass
π/4DQPSK	MCH	0.929	0.849	Pass

4.2 Test Graphs

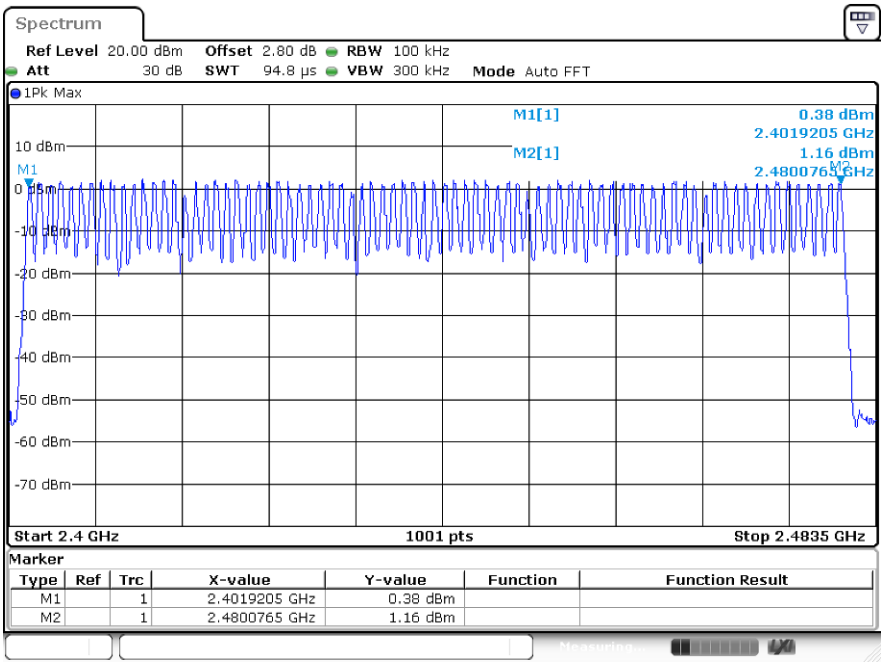
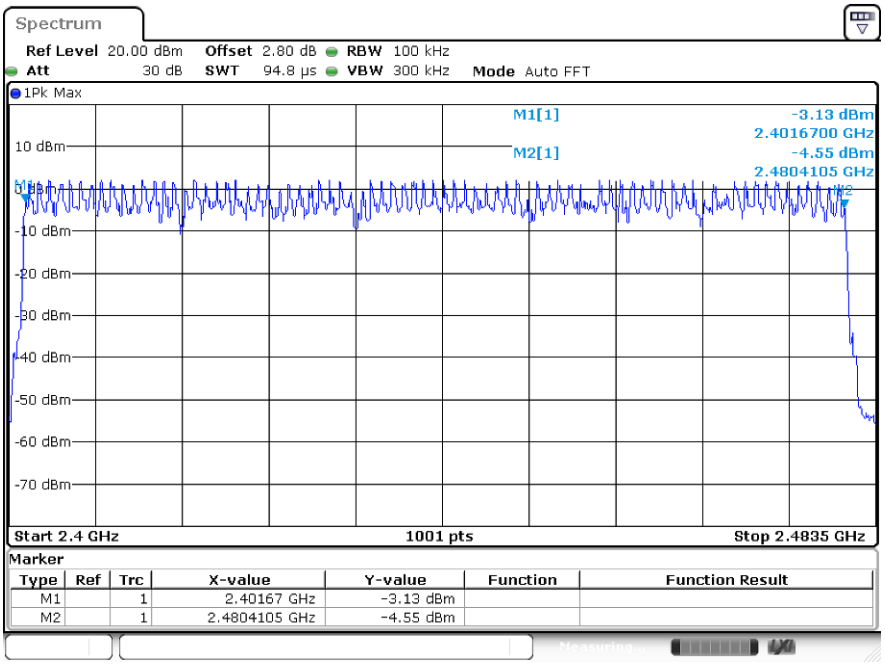
Test Graphs	
GFSK/MCH	
π/4DQPSK/MCH	

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

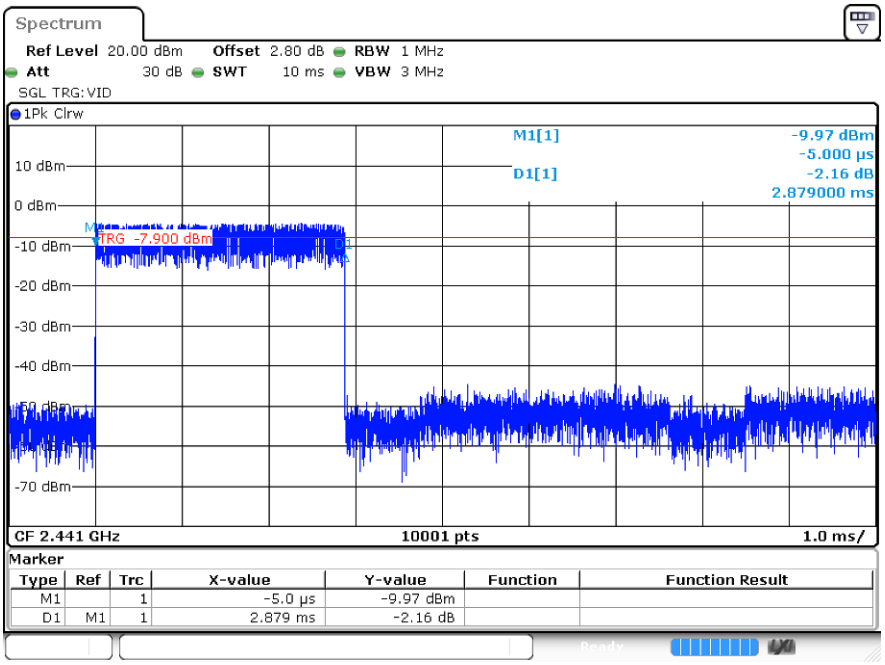
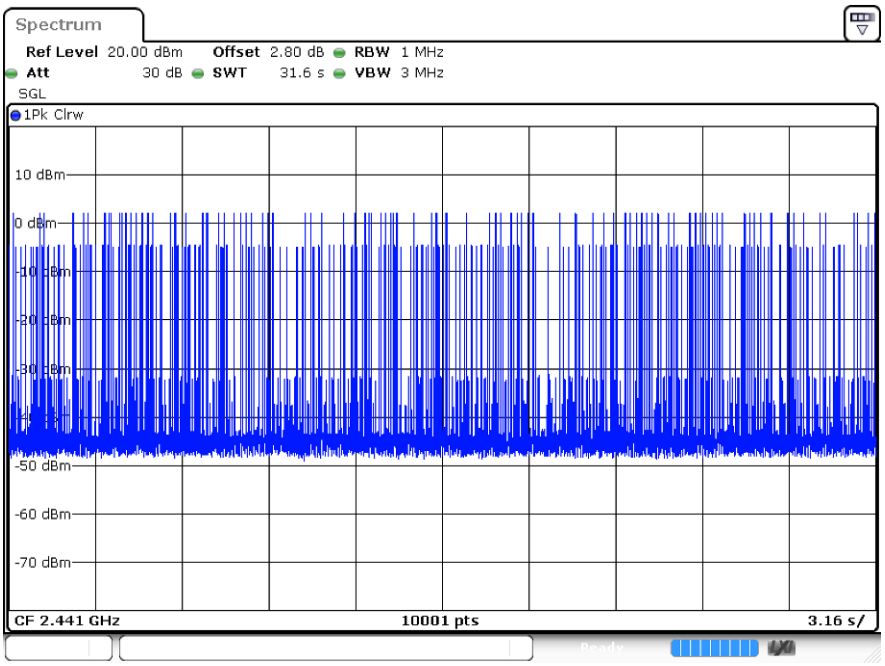
Test Graphs	
GFSK/Hop	
π/4DQPSK/Hop	

6 Dwell Time

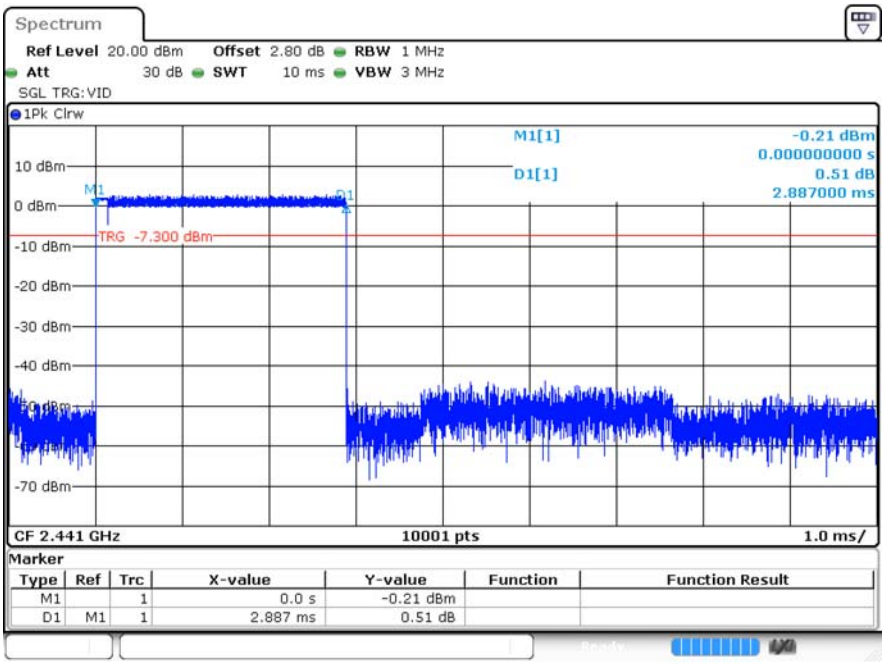
6.1 Test Result

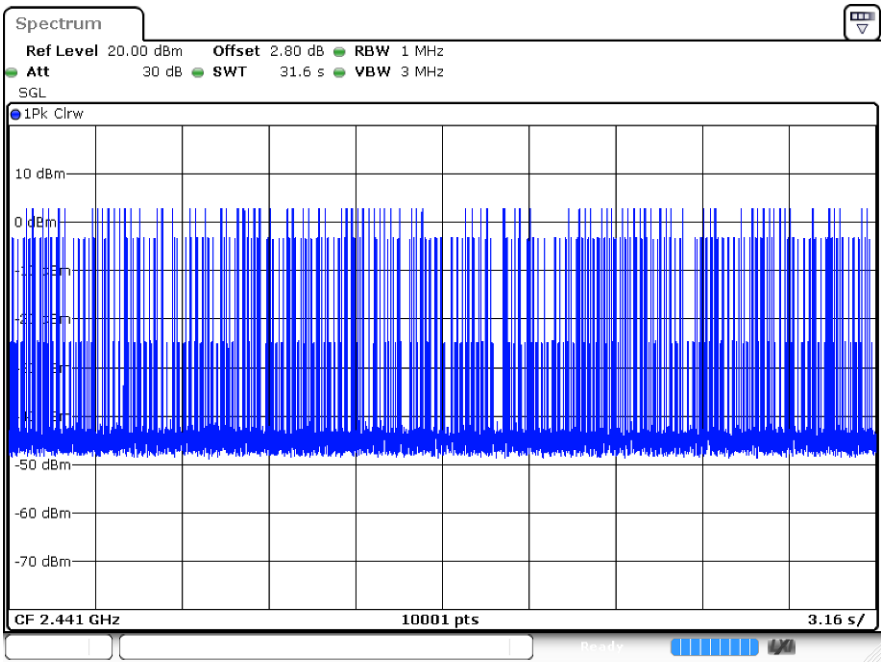
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.879	113	325.327	0.4	Pass
π/4DQPSK	2DH5	MCH	2.887	111	320.457	0.4	Pass

6.2 Test Graphs

Test Graphs	
GFSK_DH5/MCH	 

π/4DQPSK
_2DH5/MCH



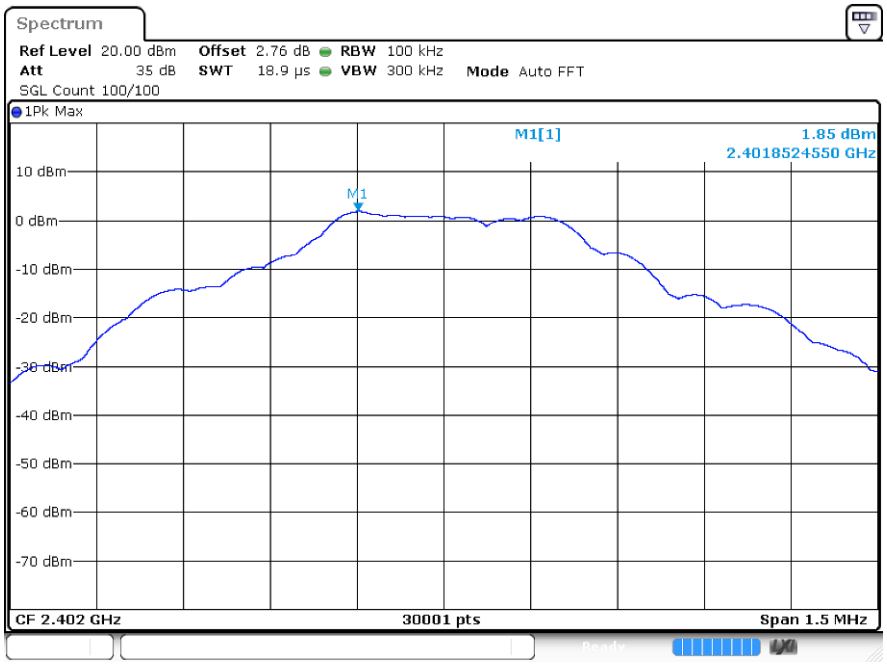
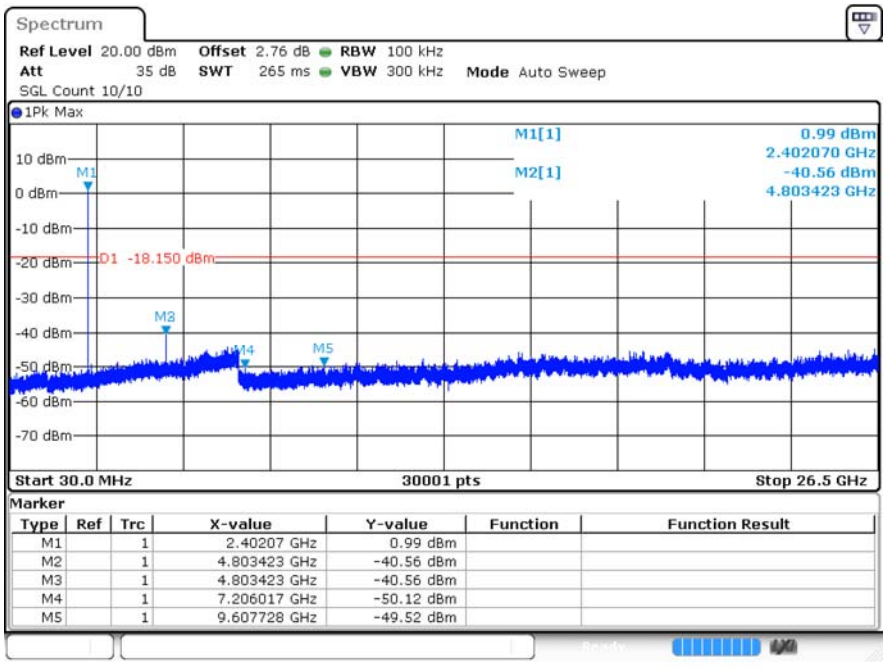


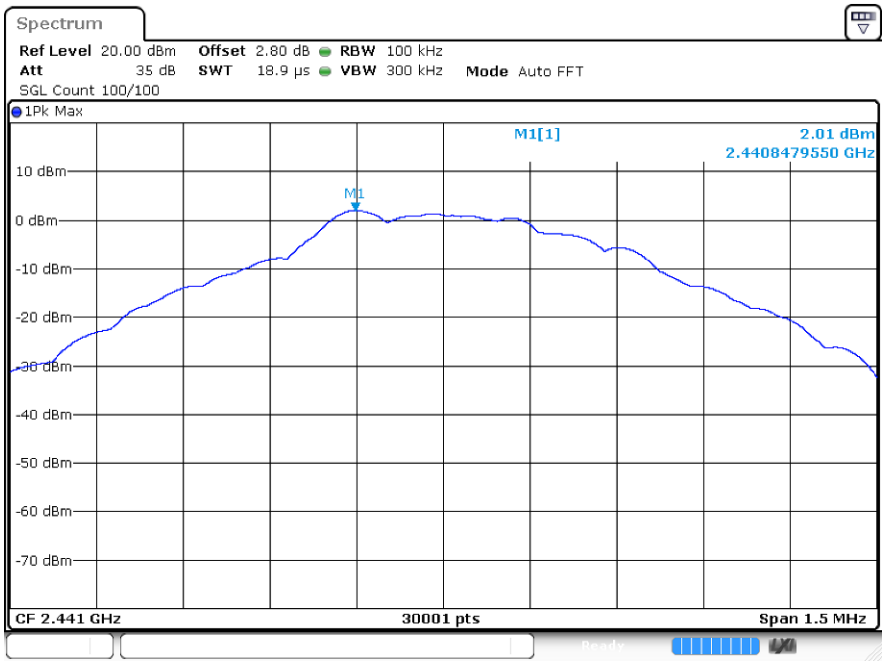
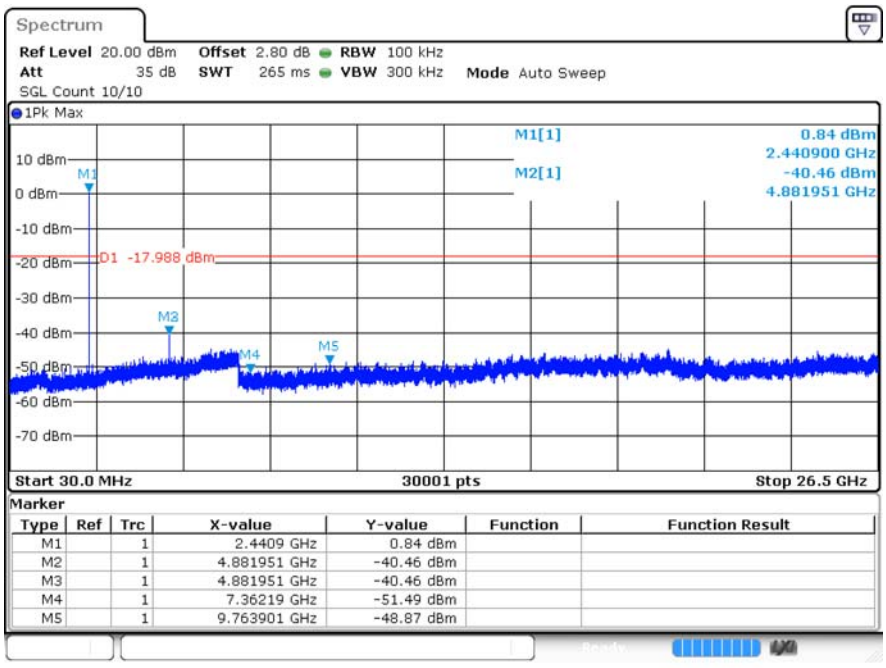
7 RF Conducted Spurious Emissions

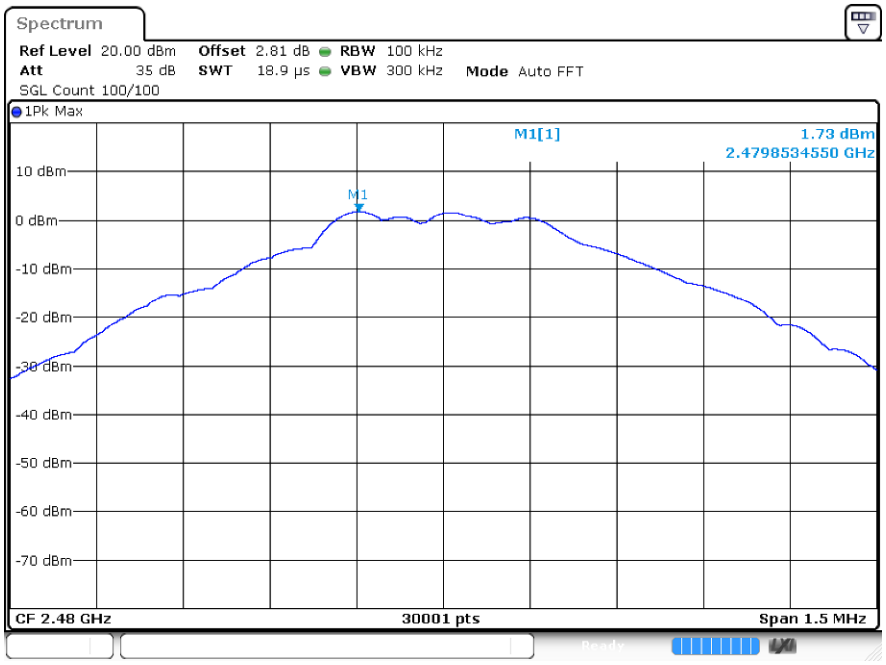
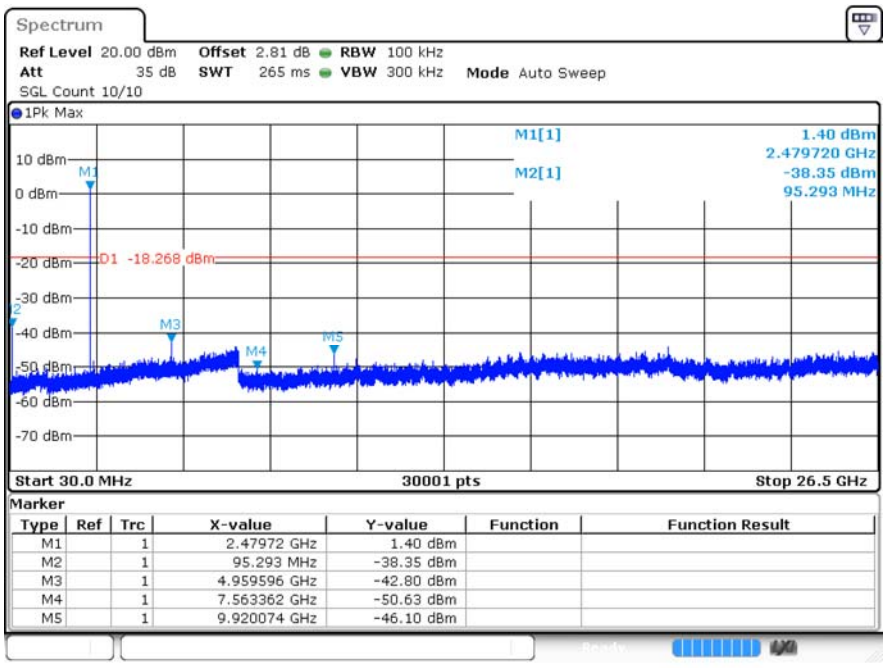
7.1 Test Result

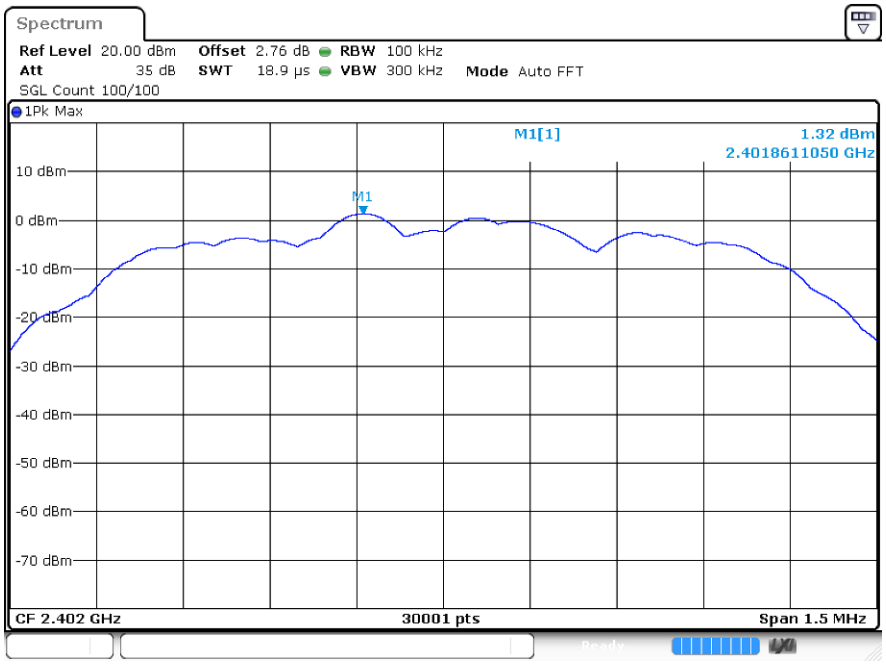
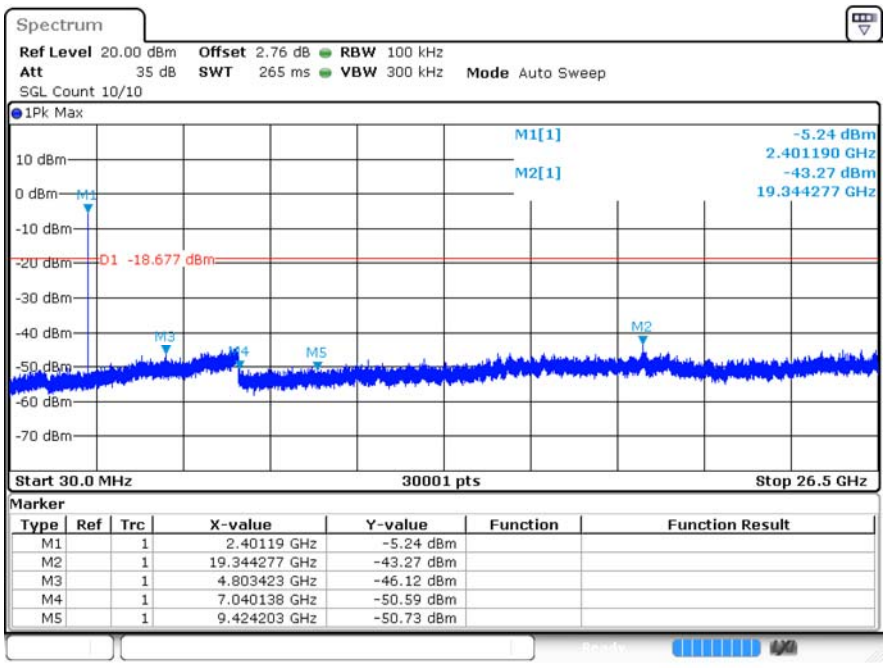
Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-42.41	-20	Pass
	MCH	-42.46	-20	Pass
	HCH	-40.07	-20	Pass
π/4DQPSK	LCH	-44.58	-20	Pass
	MCH	-38.93	-20	Pass
	HCH	-42.97	-20	Pass

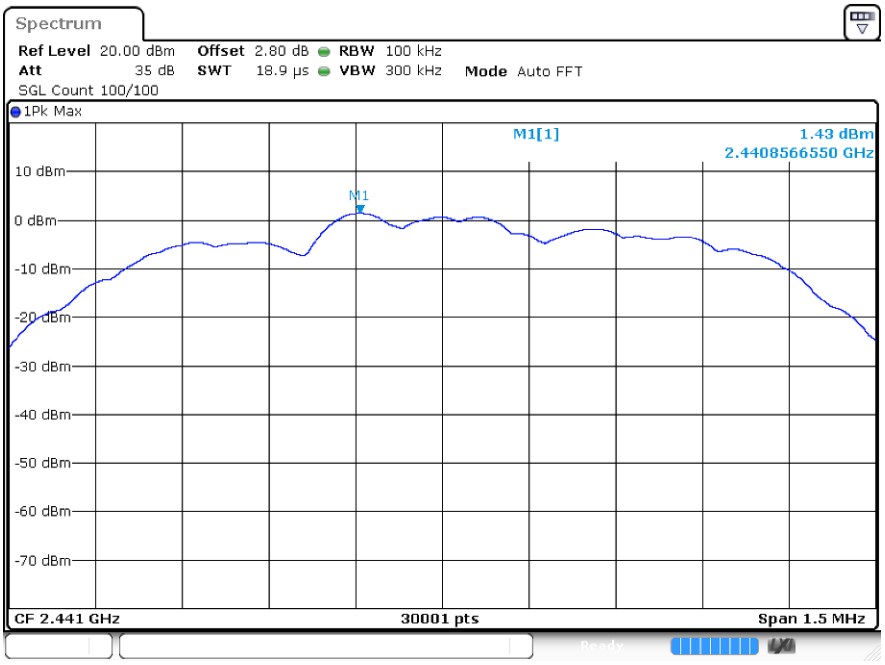
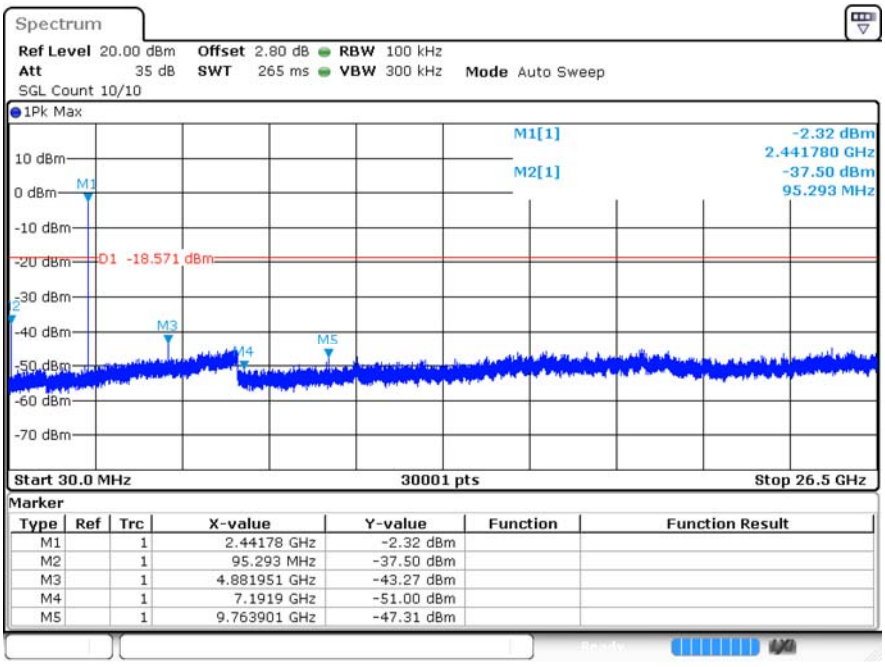
7.2 Test Graphs

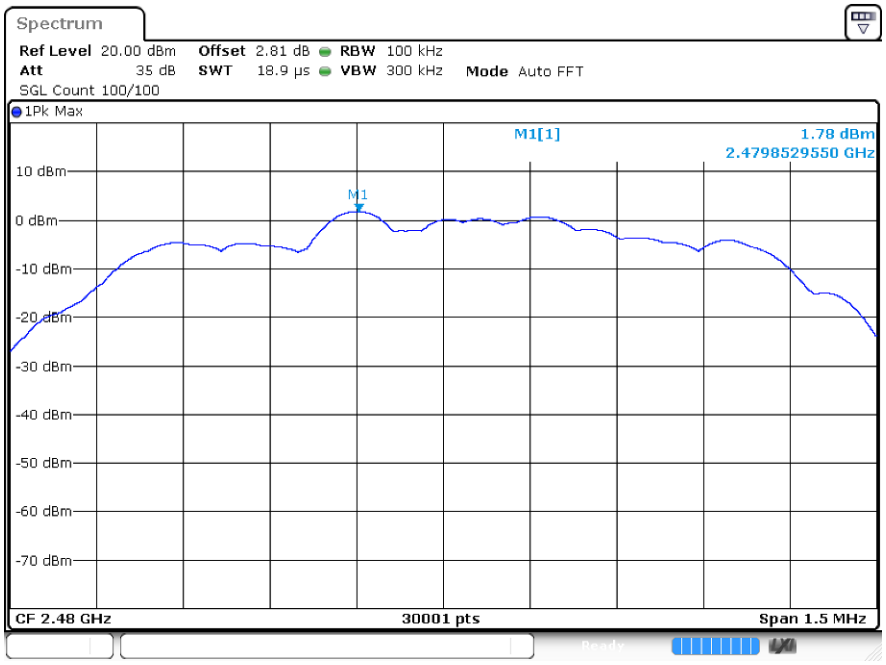
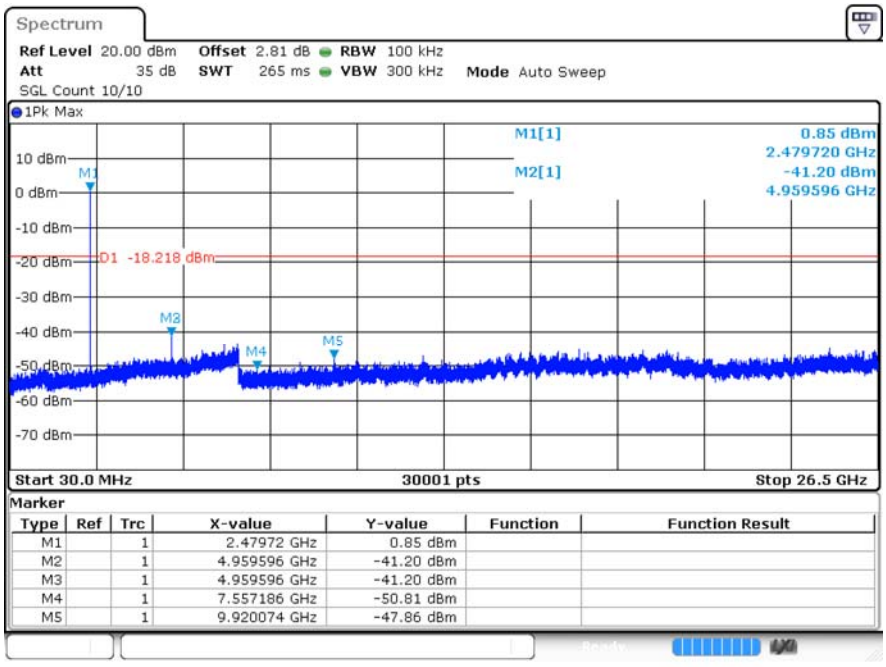
GFSK_LCH_Graphs	
Pref	
Puw	

GFSK_MCH_Graphs	
Pref	
Puw	

GFSK_HCH_Graphs	
Pref	
Puw	

π/4DQPSK_LCH_Graphs	
Pref	
Puw	

π/4DQPSK_MCH_Graphs	
Pref	
Puw	

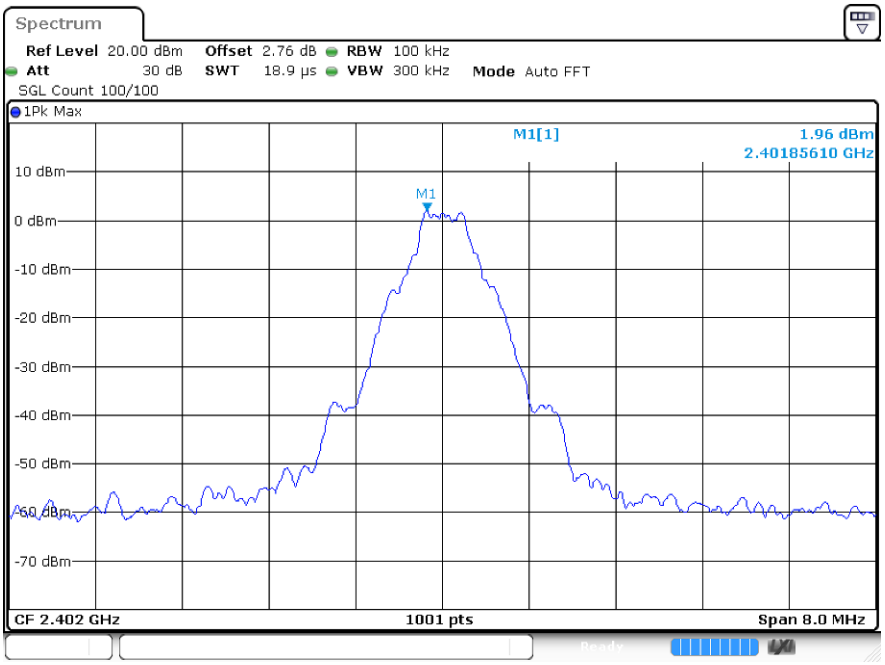
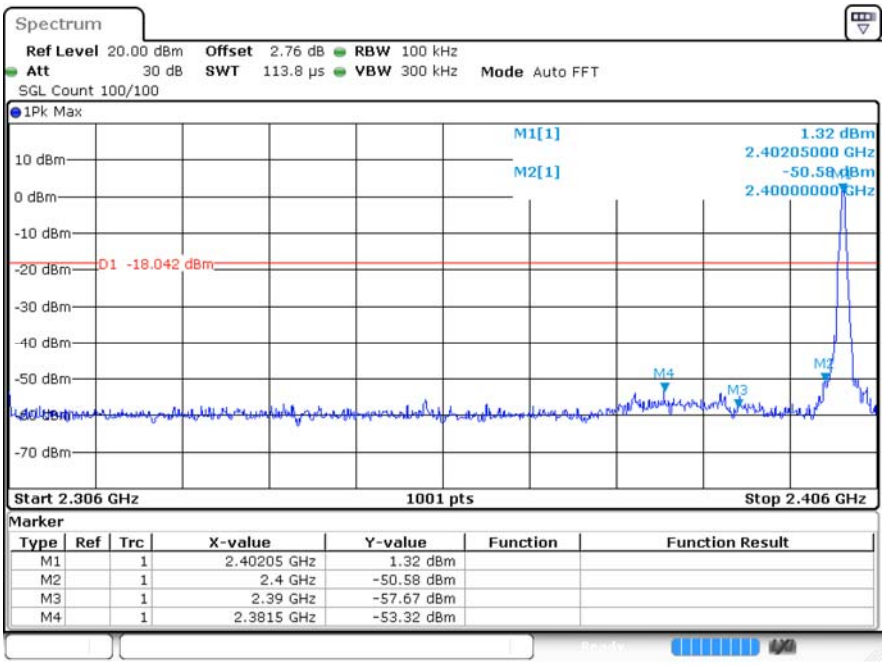
π/4DQPSK_HCH_Graphs	
Pref	
Puw	

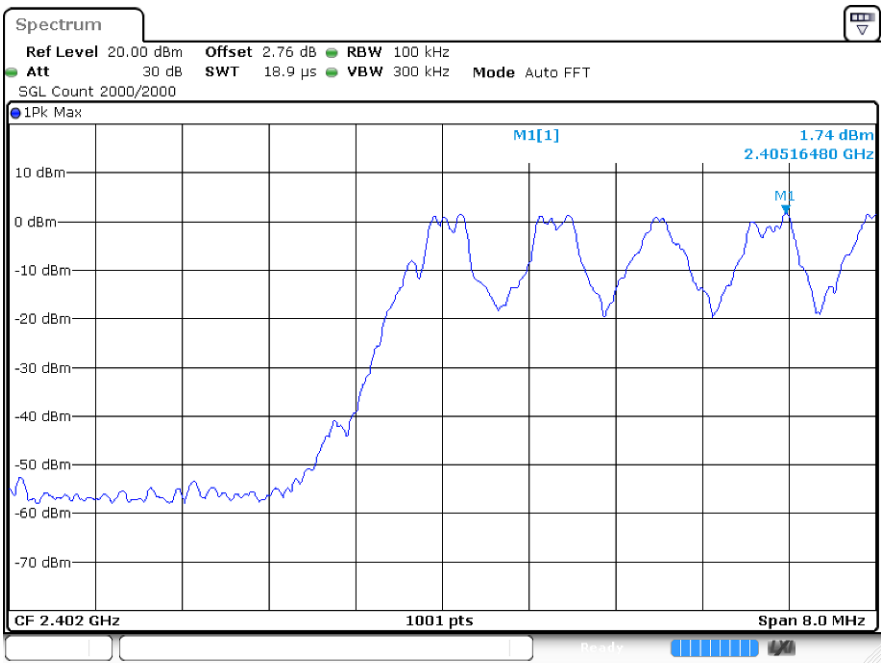
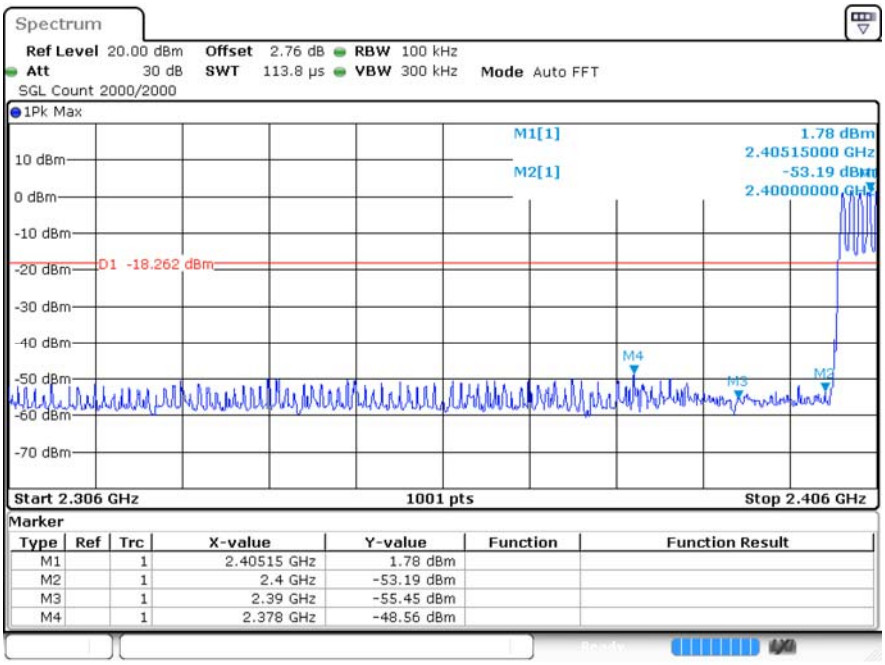
8 Band-edge for RF Conducted Emissions

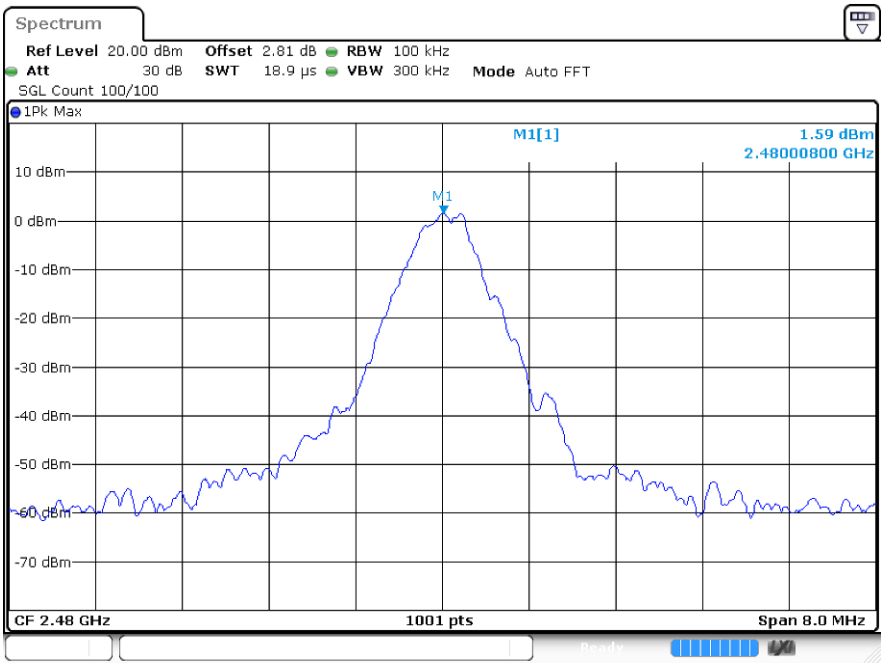
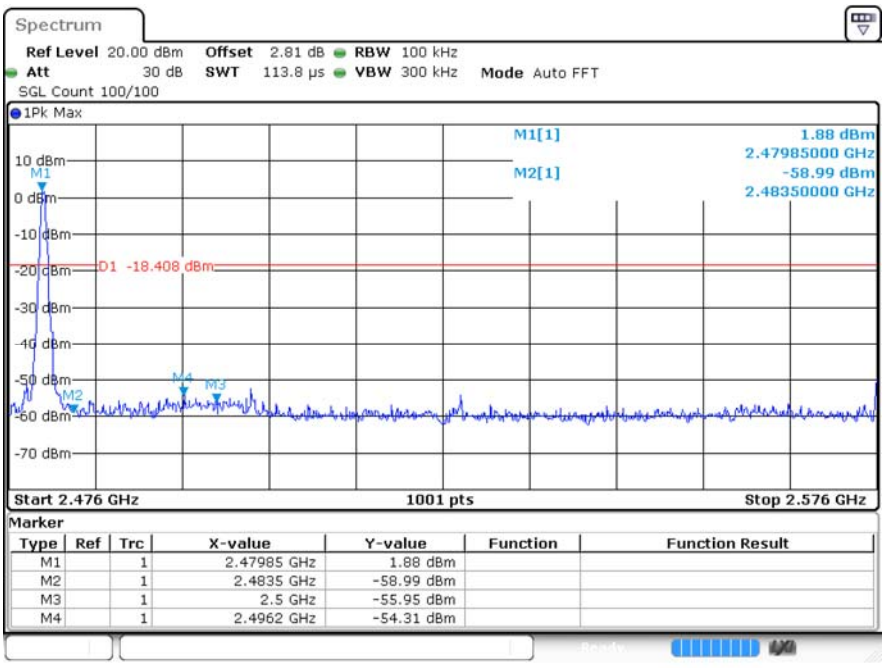
8.1 Test Result

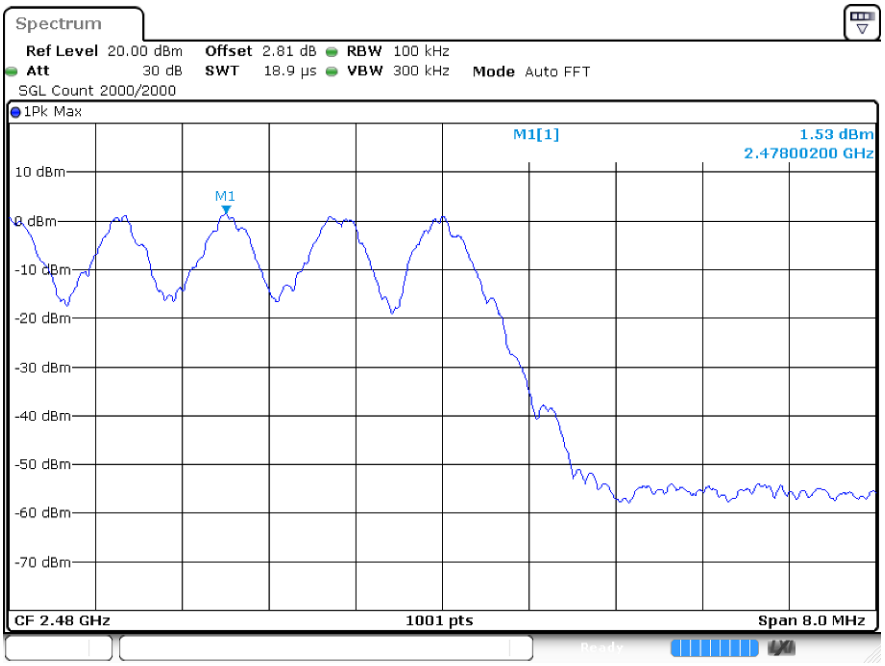
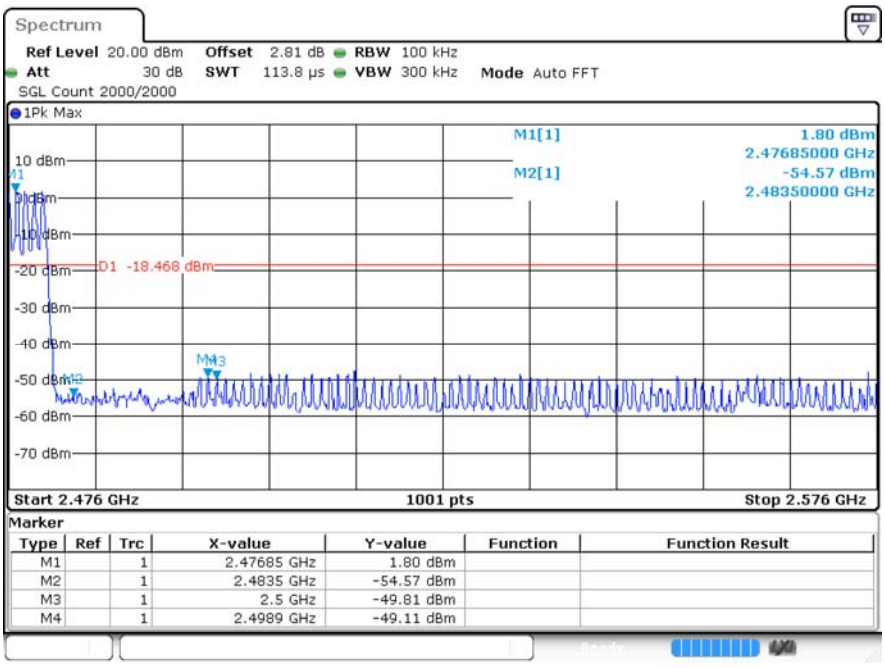
Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-55.28	-20	Pass
			On	-50.29	-20	Pass
	HCH	2480	Off	-55.9	-20	Pass
			On	-50.63	-20	Pass
π/4DQPSK	LCH	2402	Off	-54.67	-20	Pass
			On	-51.71	-20	Pass
	HCH	2480	Off	-56.9	-20	Pass
			On	-50.66	-20	Pass

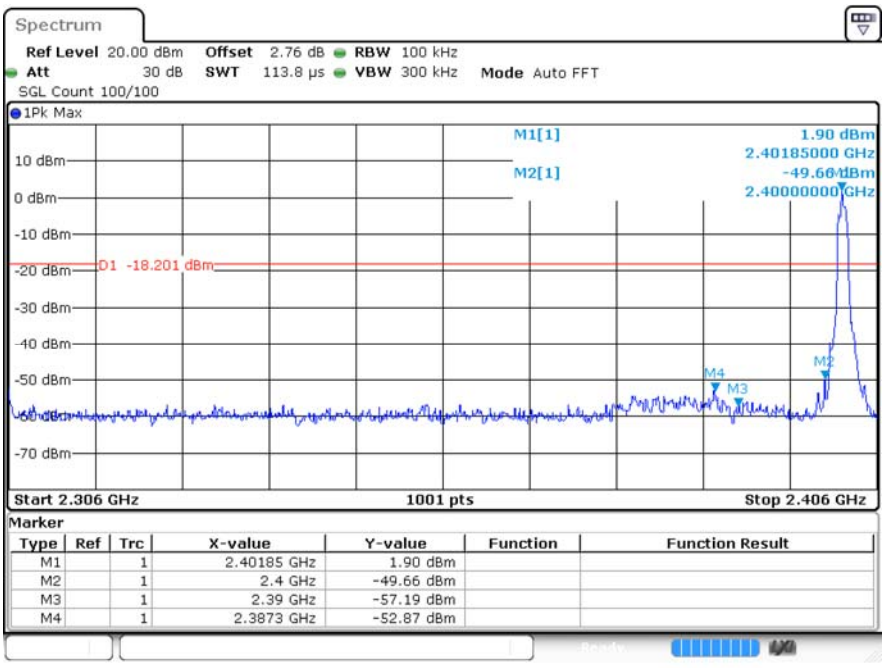
8.2 Test Graphs

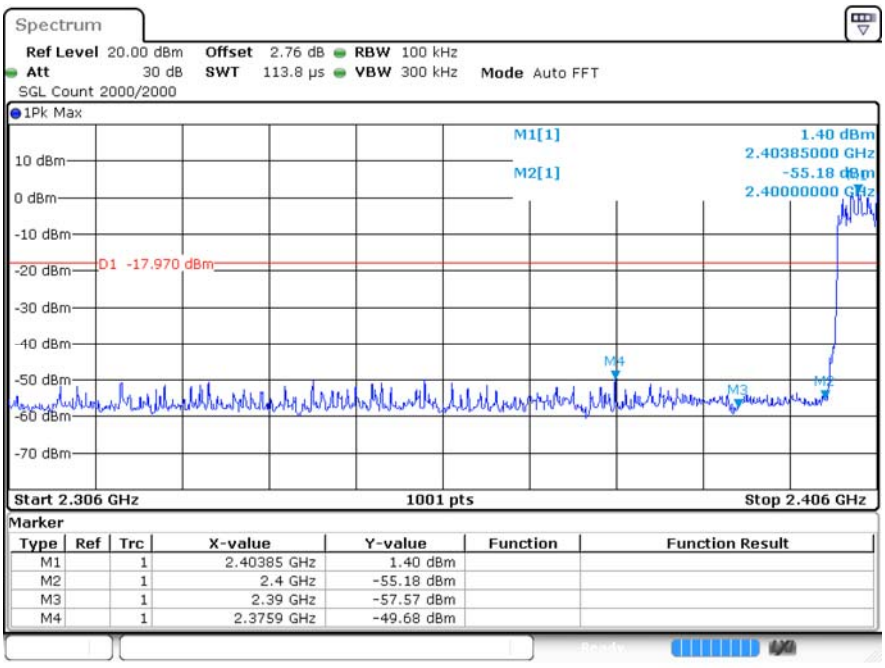
Test Graphs	
Pref	
GFSK/LCH/No Hop	

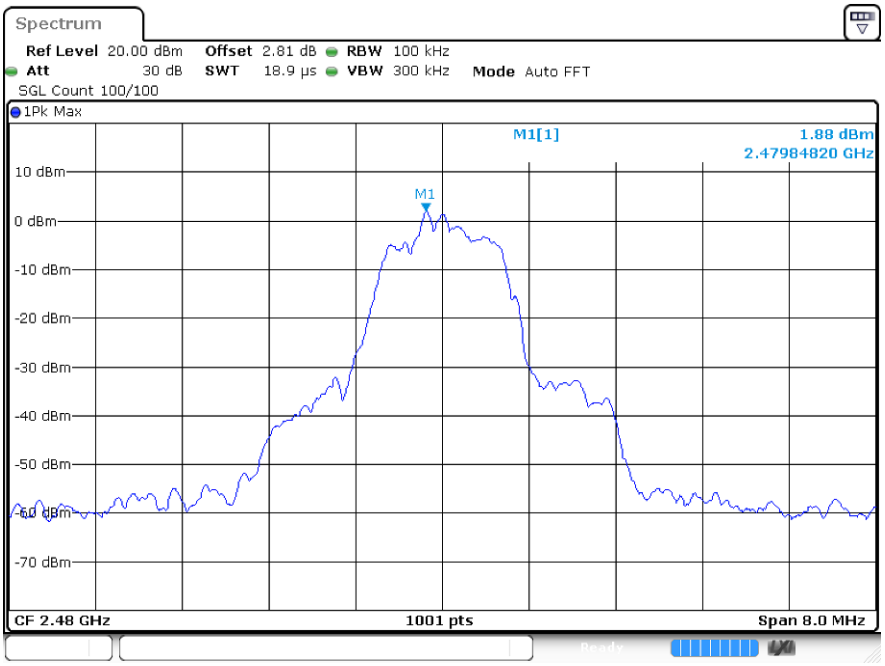
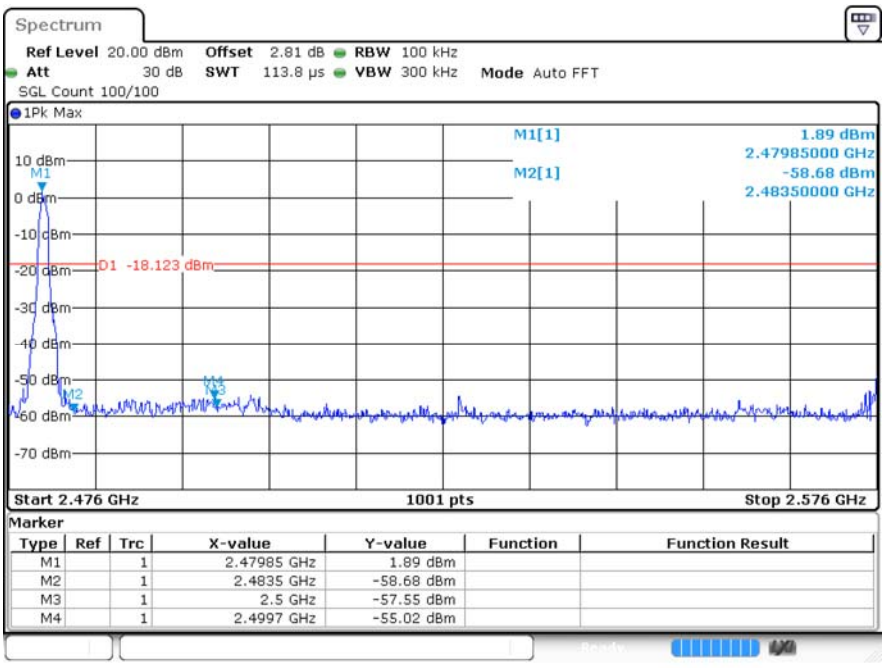
Ref	
GFSK/LCH/Hop	

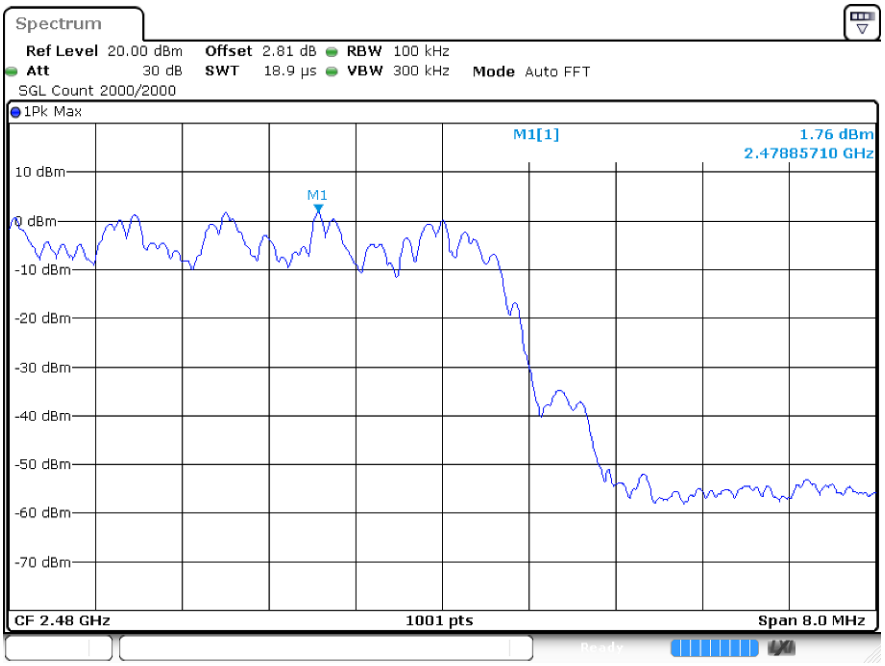
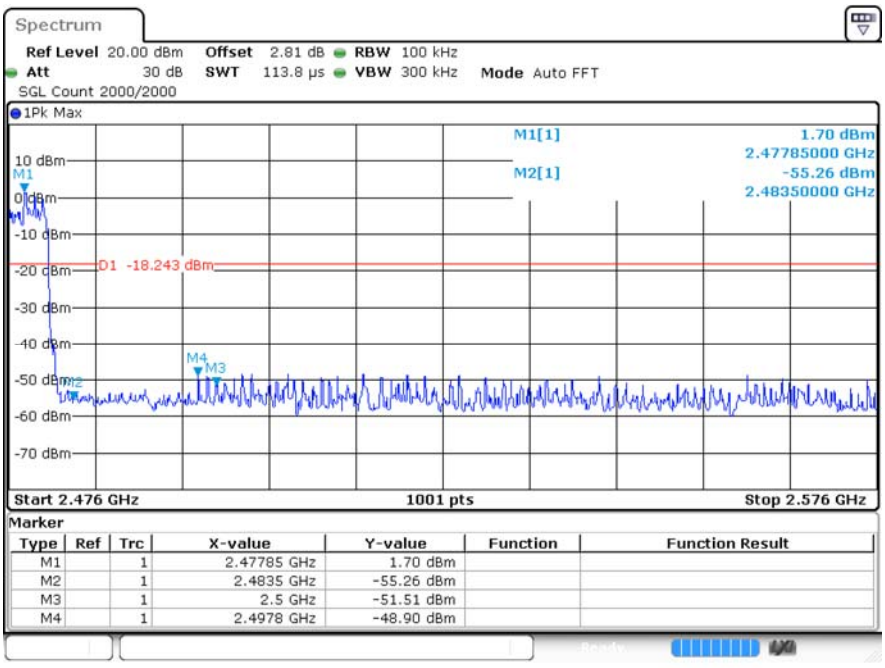
Ref	
GFSK/HCH/No Hop	

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	

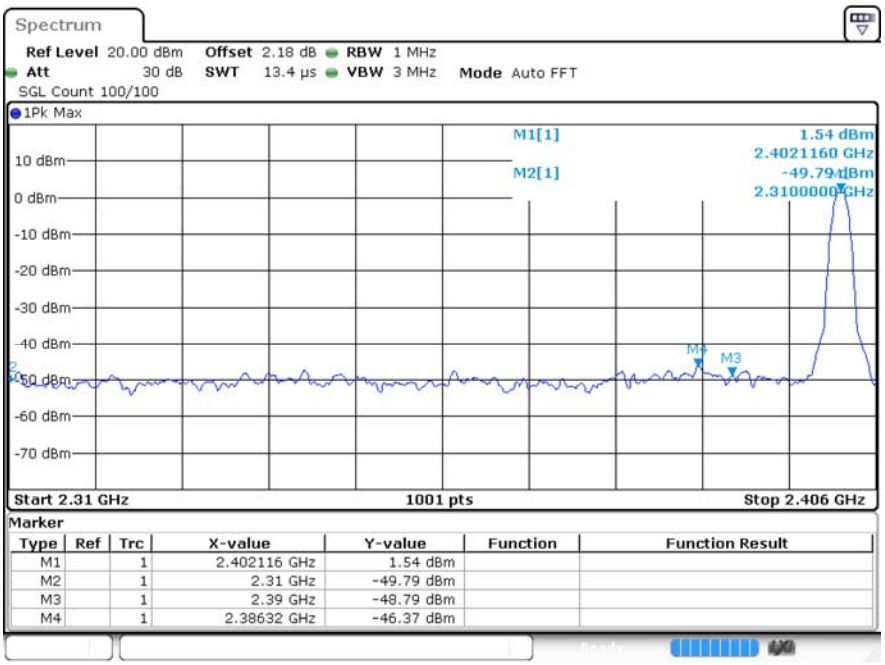
9 Restrict-band band-edge measurements

9.1 Test Result

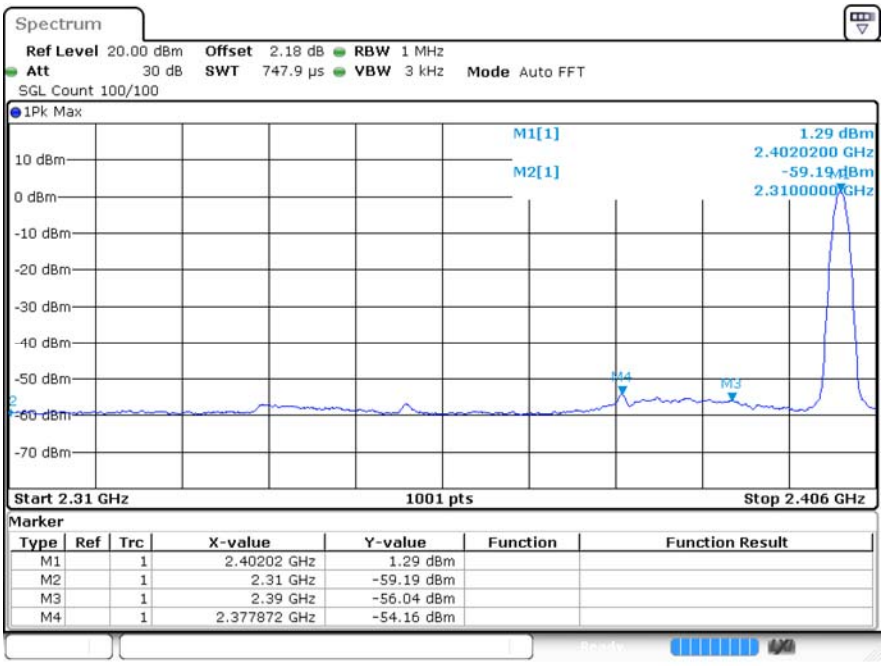
Test Mode	Hopping	Freq.	Power [dBm]	Gain	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
GFSK	Off	2310.0	-49.79	2	47.47	PEAK	74	Pass
	Off	2310.0	-59.18	2	38.08	AV	54	Pass
	Off	2386.32	-46.36	2	50.9	PEAK	74	Pass
	Off	2377.872	-54.15	2	43.11	AV	54	Pass
	Off	2390.0	-48.78	2	48.48	PEAK	74	Pass
	Off	2390.0	-56.03	2	41.23	AV	54	Pass
	Off	2483.5	-49.19	2	48.07	PEAK	74	Pass
	Off	2483.5	-57.81	2	39.45	AV	54	Pass
	Off	2499.808	-45.88	2	51.38	PEAK	74	Pass
	Off	2499.544	-55.31	2	41.95	AV	54	Pass
	Off	2500.0	-45.97	2	51.29	PEAK	74	Pass
	Off	2500.0	-55.45	2	41.81	AV	54	Pass
π/4DQPSK	Off	2310.0	-50.56	2	46.7	PEAK	74	Pass
	Off	2310.0	-59.12	2	38.14	AV	54	Pass
	Off	2389.296	-45.93	2	51.33	PEAK	74	Pass
	Off	2377.872	-54.68	2	42.58	AV	54	Pass
	Off	2390.0	-46.59	2	50.67	PEAK	74	Pass
	Off	2390.0	-56.01	2	41.25	AV	54	Pass
	Off	2483.5	-48.78	2	48.48	PEAK	74	Pass
	Off	2483.5	-57.51	2	39.75	AV	54	Pass
	Off	2495.056	-45.02	2	52.24	PEAK	74	Pass
	Off	2498.968	-55.02	2	42.24	AV	54	Pass
	Off	2500.0	-47.62	2	49.64	PEAK	74	Pass
	Off	2500.0	-55.51	2	41.75	AV	54	Pass

9.2 Test Graphs

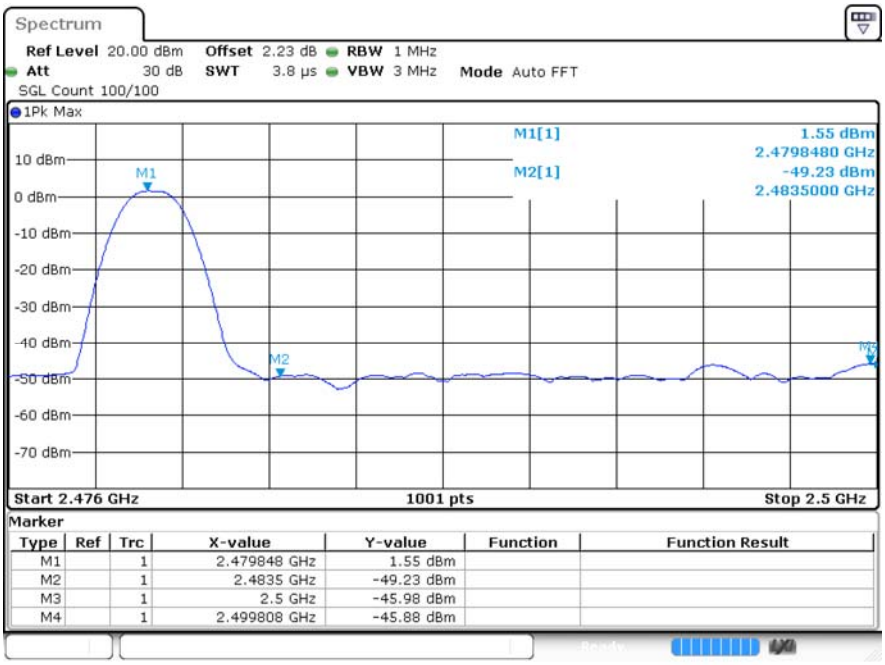
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (Low Channel)



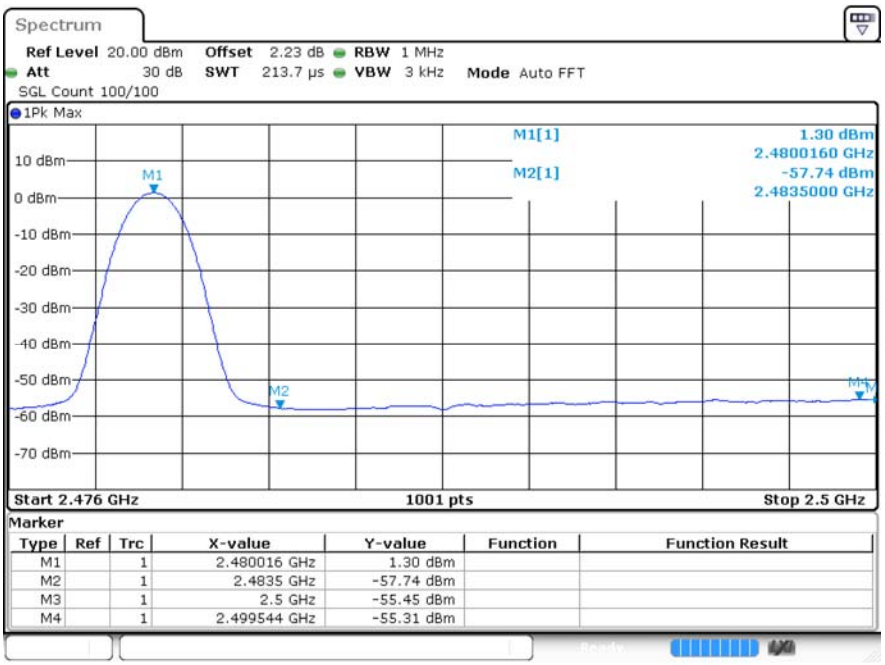
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (Low Channel)



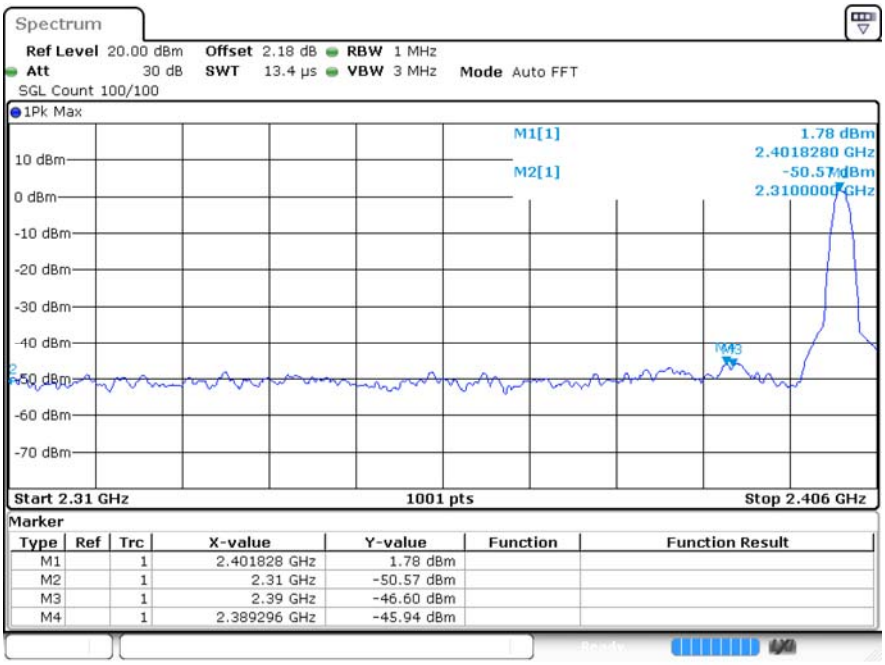
Restrict-band band-edge measurements_Hopping Off_ GFSK_PEAK (High Channel)



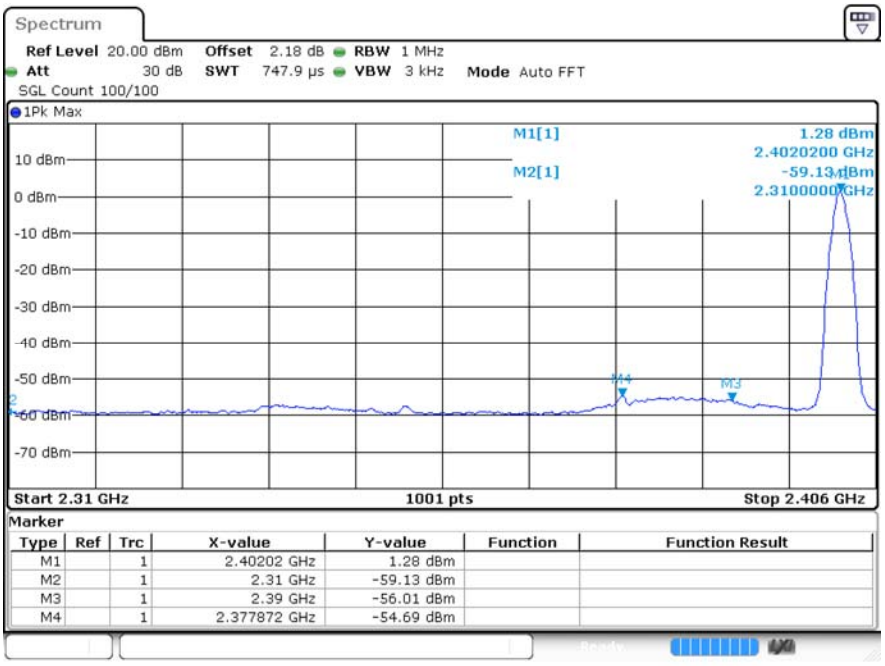
Restrict-band band-edge measurements_Hopping Off_ GFSK_Average (High Channel)



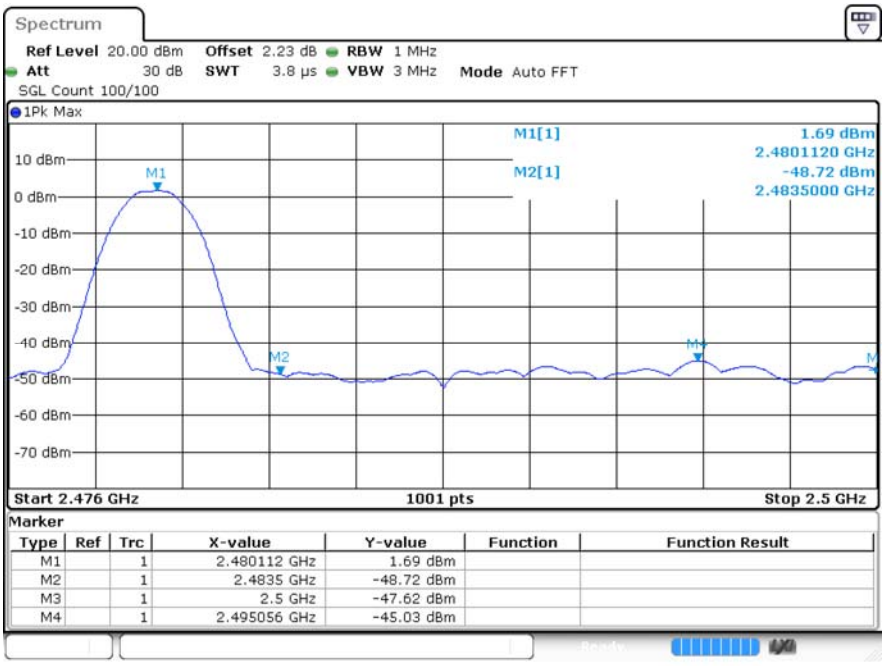
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_PEAK (Low Channel)



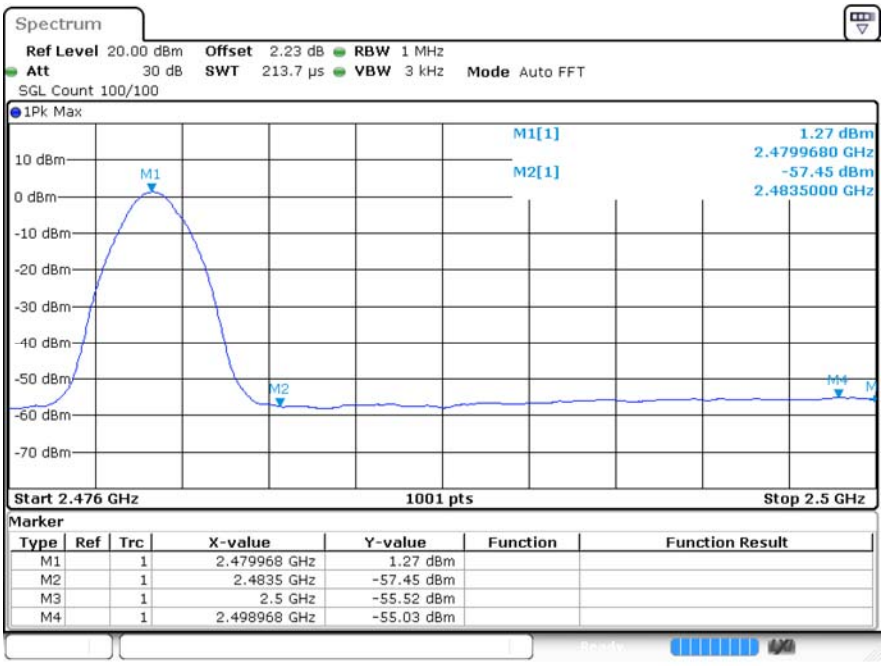
Restrict-band band-edge measurements_Hopping Off_π/4-DQPSK_Average (Low Channel)



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---