Appendix A

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

Product Name: Wireless lavalier microphone

Trade Mark: N/A

Test Model: J21

Environmental Conditions

Temperature:	24.6℃
Relative Humidity:	52.5%
ATM Pressure:	101Kpa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung
Test date:	2025-04-20

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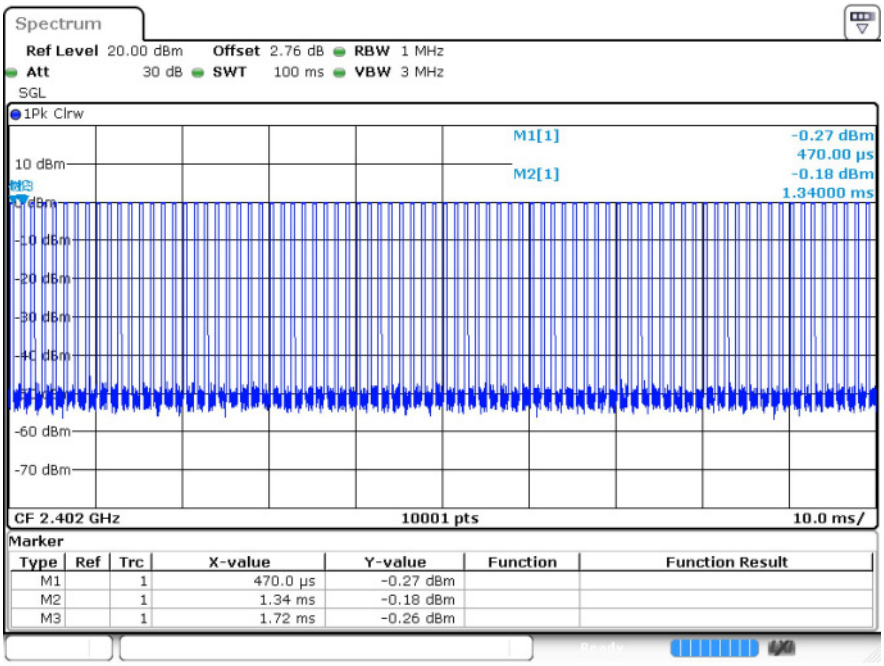
1 Duty Cycle

1.1 Test Result

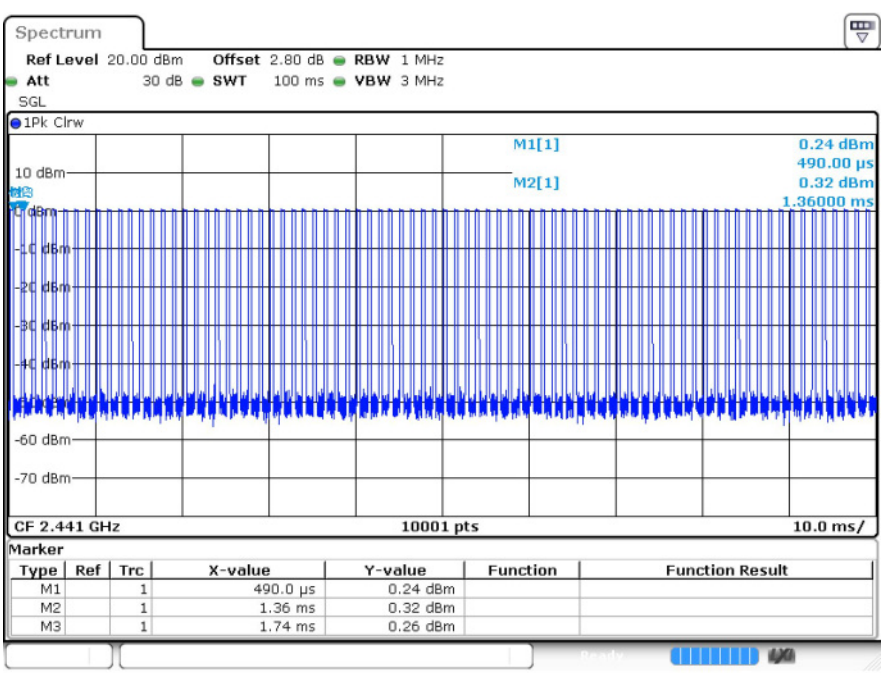
Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
1-DH1	2402	31.2	5.06	2.63
1-DH1	2441	31.2	5.06	2.63
1-DH1	2480	31.56	5.01	2.63
2-DH1	2402	32.01	4.95	2.56
2-DH1	2441	32.8	4.84	2.5
2-DH1	2480	32.8	4.84	2.5

1.2 Test Graphs

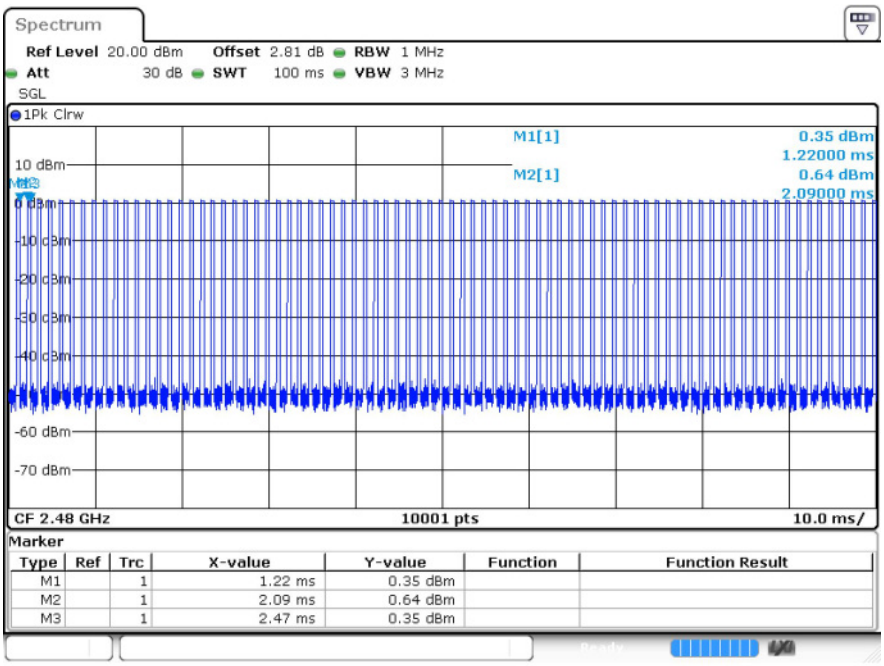
Test Graphs
1-DH1 2402MHz



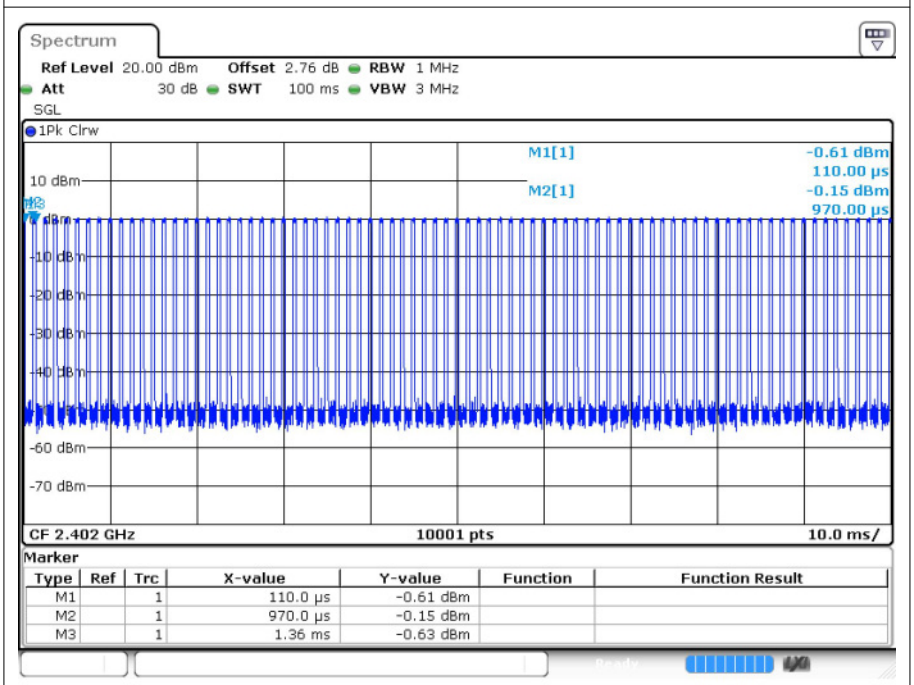
1-DH1 2441MHz



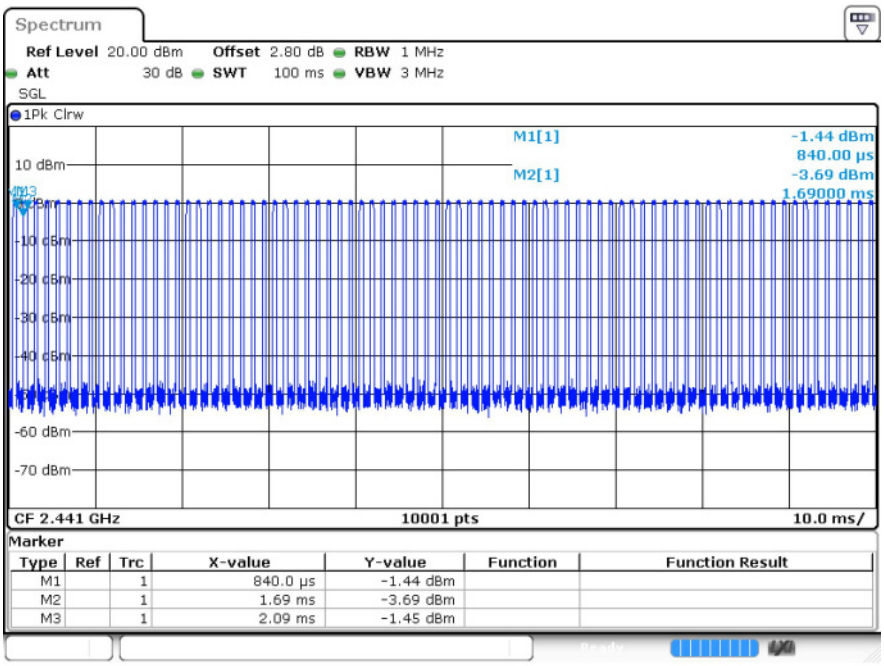
1-DH1 2480MHz



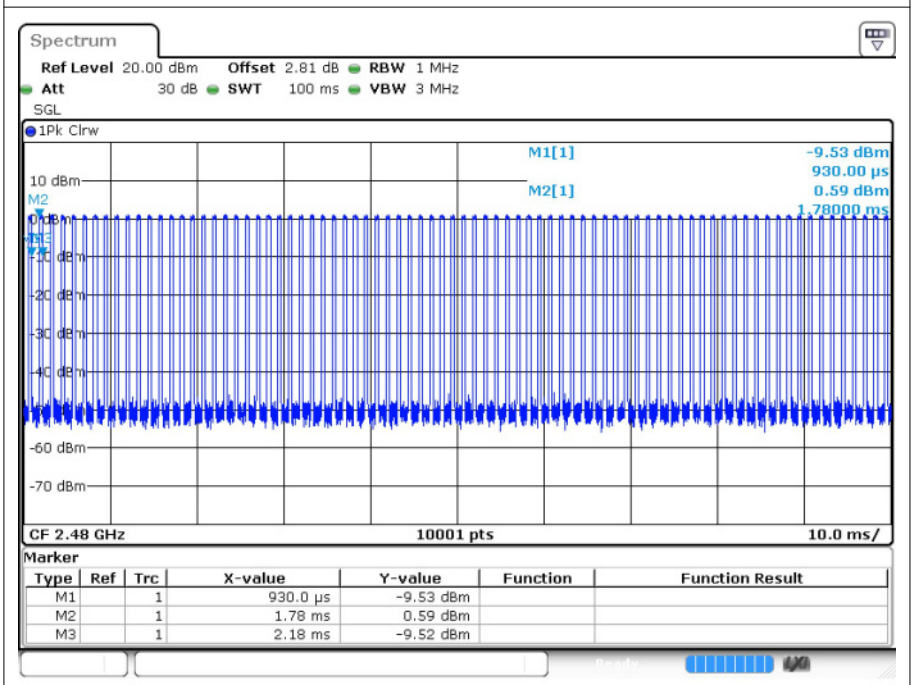
2-DH1 2402MHz



2-DH1 2441MHz



2-DH1 2480MHz

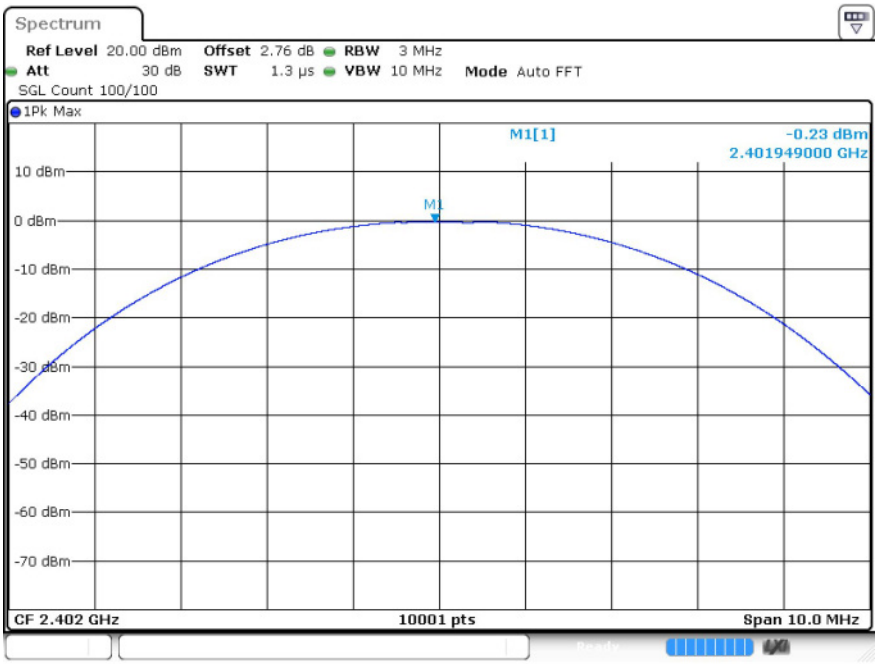
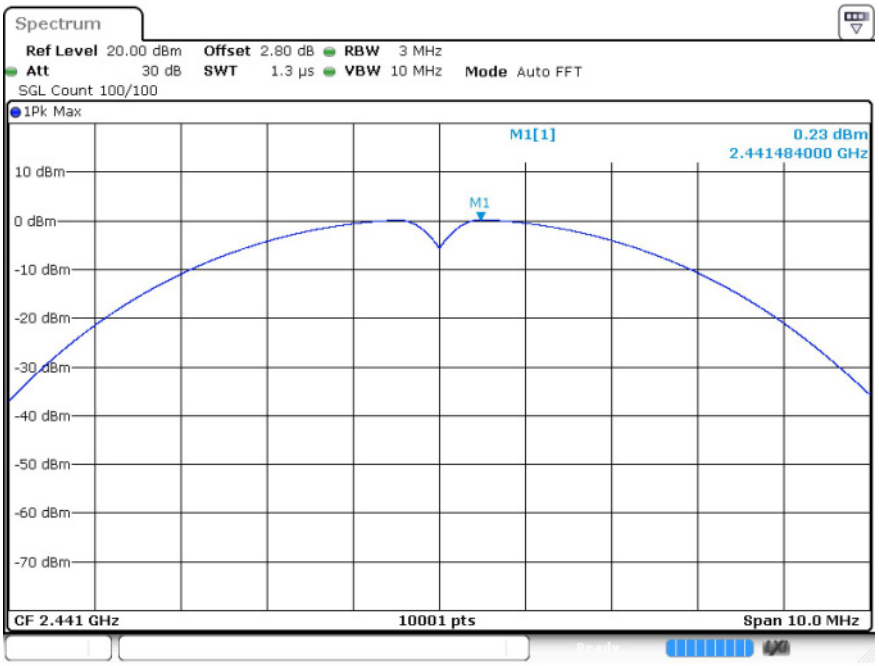


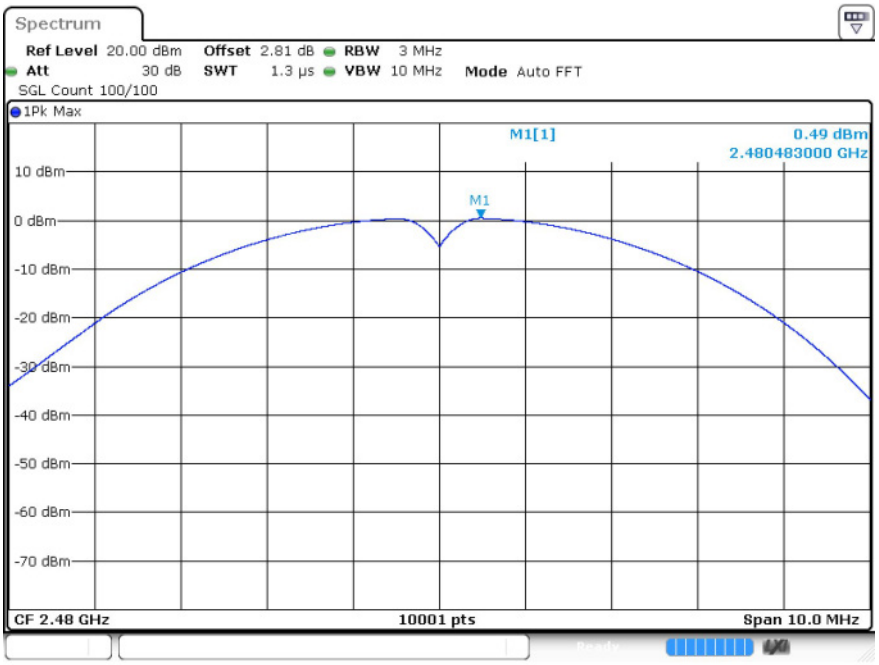
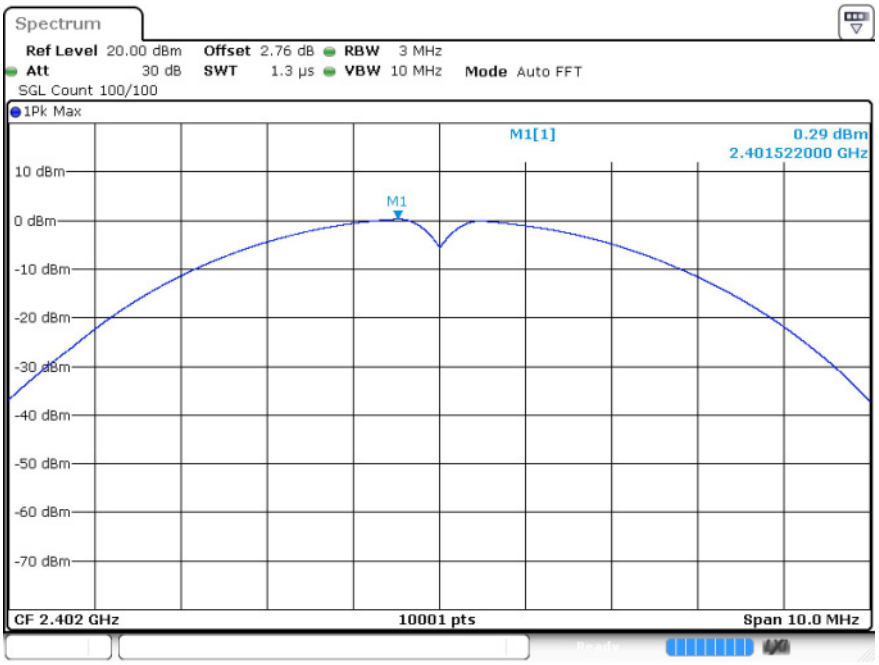
2 Maximum Conducted Peak Output Power

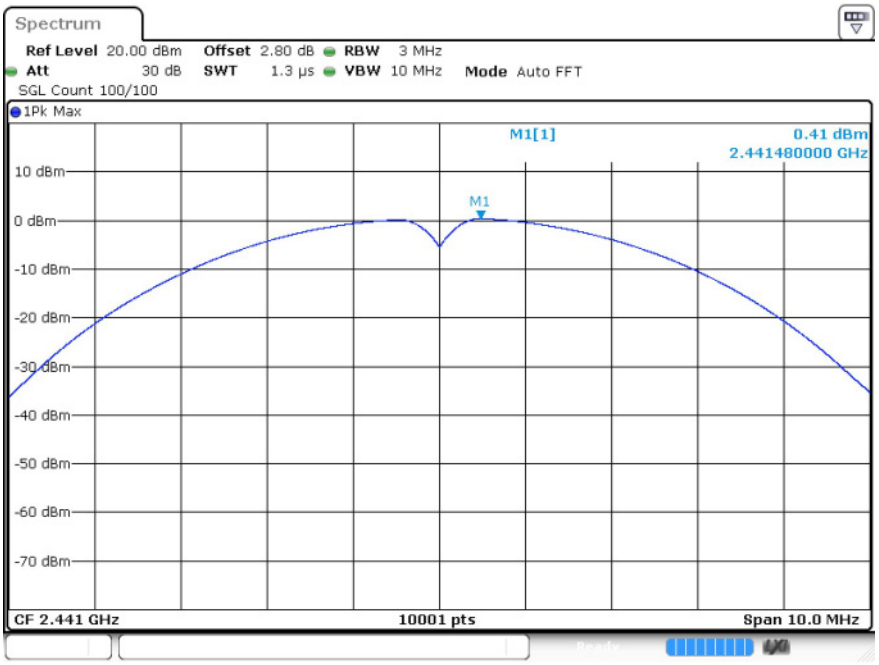
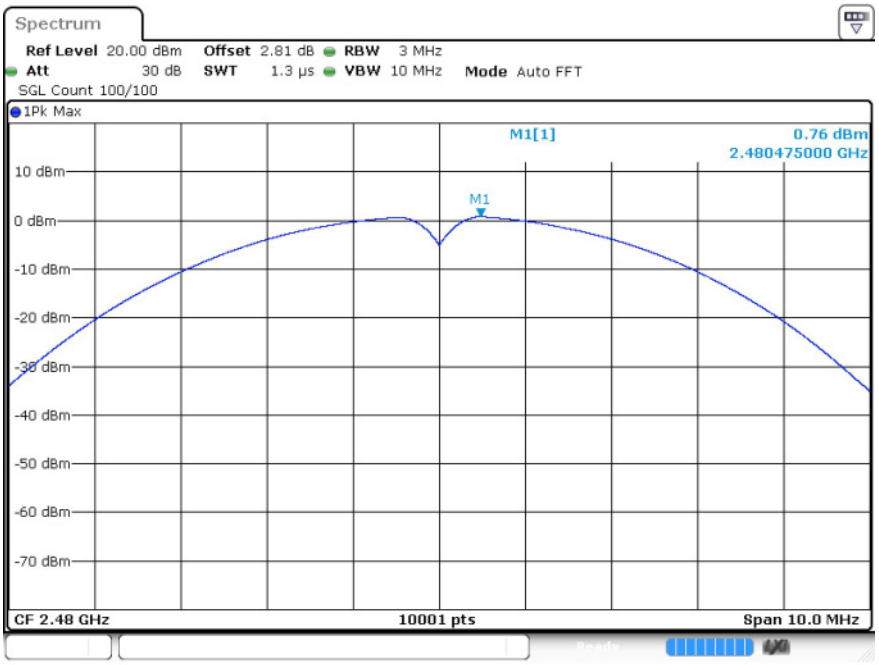
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.23	21	Pass
	MCH	0.23	21	Pass
	HCH	0.49	21	Pass
π/4DQPSK	LCH	0.29	21	Pass
	MCH	0.41	21	Pass
	HCH	0.76	21	Pass

2.2 Test Graphs

Test Graphs	
GFSK/LCH	
GFSK/MCH	

GFSK/HCH	
π/4DQPSK/LCH	

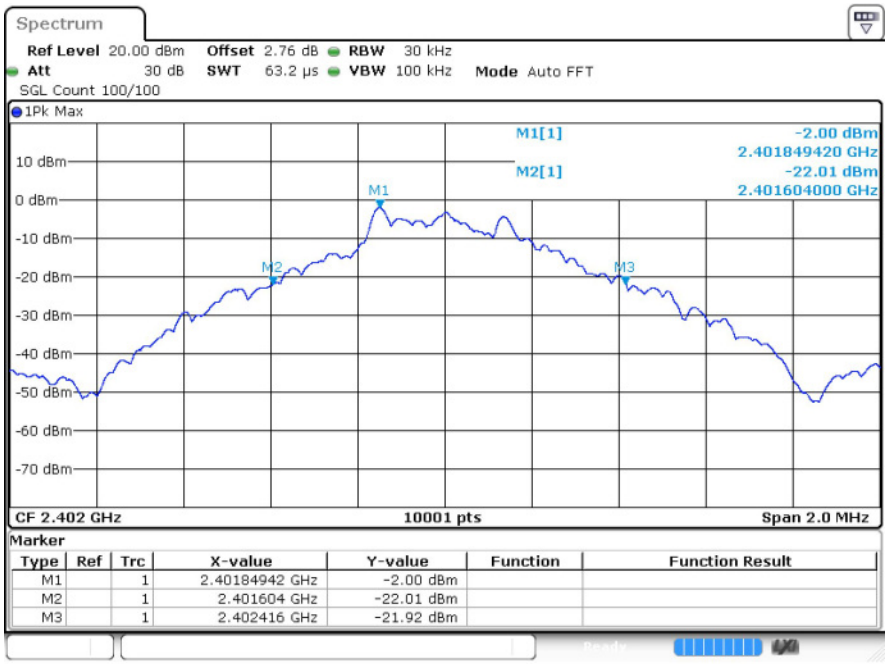
π/4DQPSK/MCH	
π/4DQPSK/HCH	

3 20dB Bandwidth

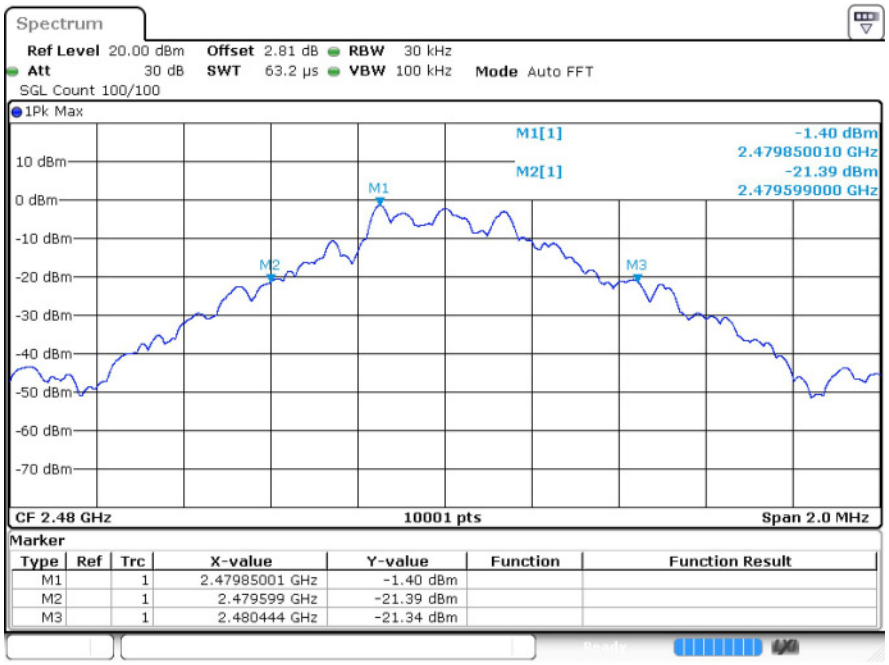
3.1 Test Result

Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.812	Not Specified	Pass
	MCH	0.858	Not Specified	Pass
	HCH	0.845	Not Specified	Pass
π/4DQPSK	LCH	1.227	Not Specified	Pass
	MCH	1.19	Not Specified	Pass
	HCH	1.226	Not Specified	Pass

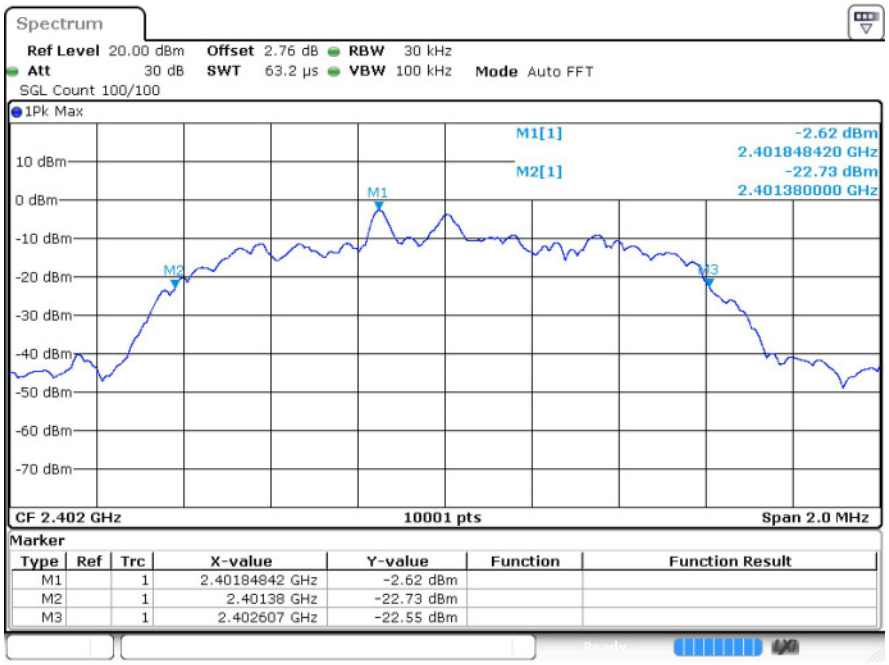
3.2 Test Graphs

Test Graphs	
GFSK/LCH	
GFSK/MCH	

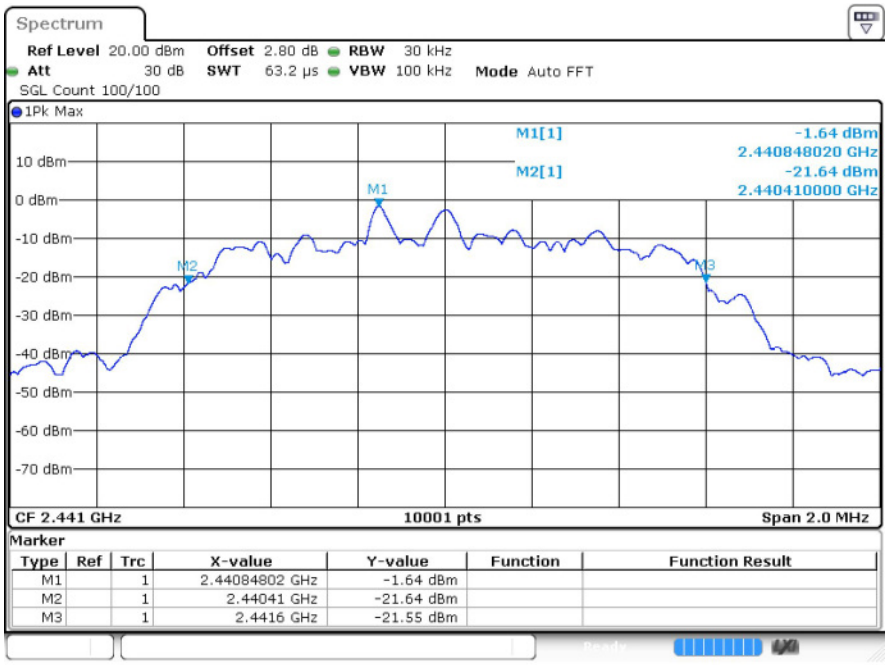
GFSK/HCH



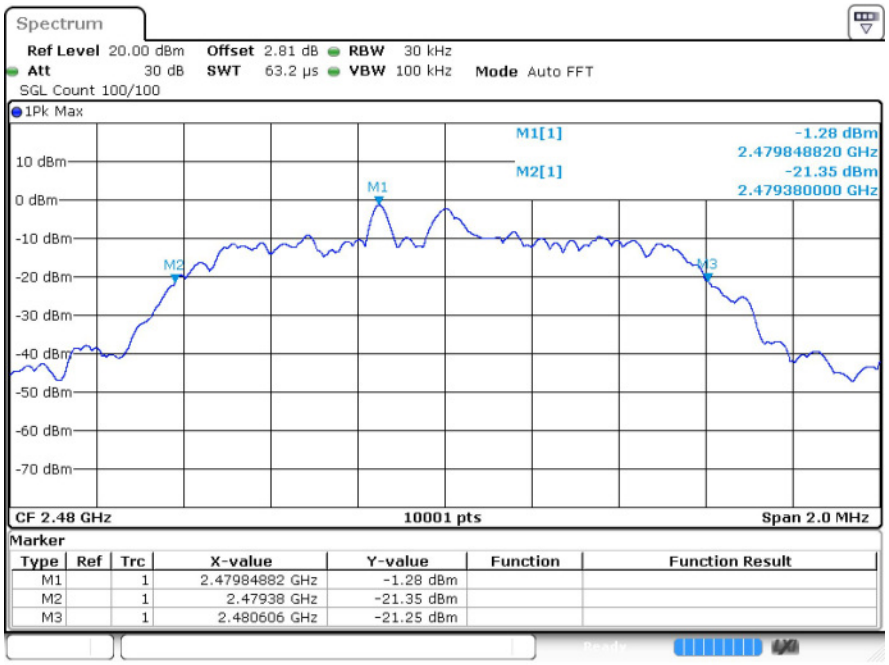
π/4DQPSK/LCH



π/4DQPSK/MCH



π/4DQPSK/HCH

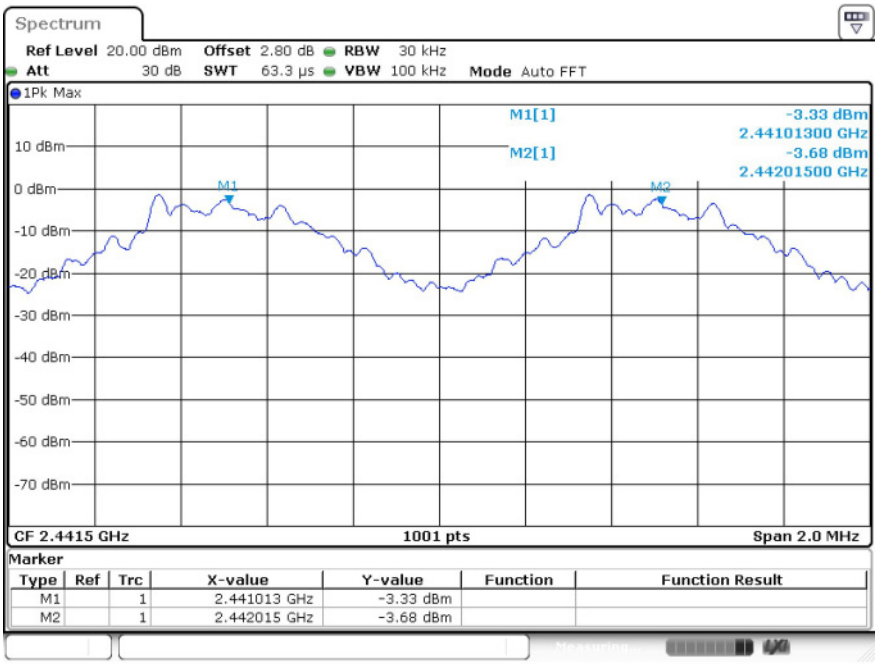
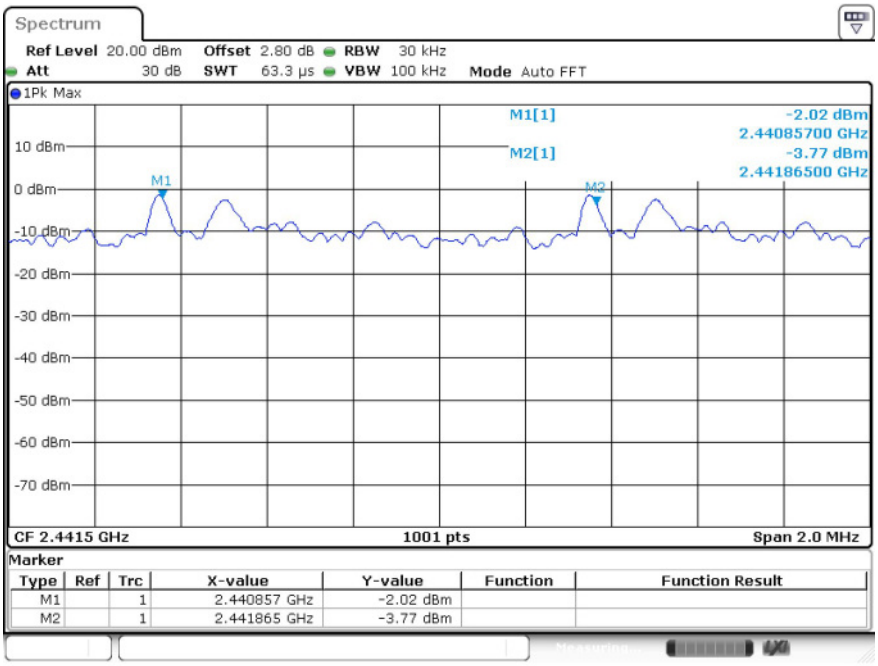


4 Carrier Frequency Separation

4.1 Test Result

Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	1.002	0.572	Pass
π/4DQPSK	MCH	1.008	0.793	Pass

4.2 Test Graphs

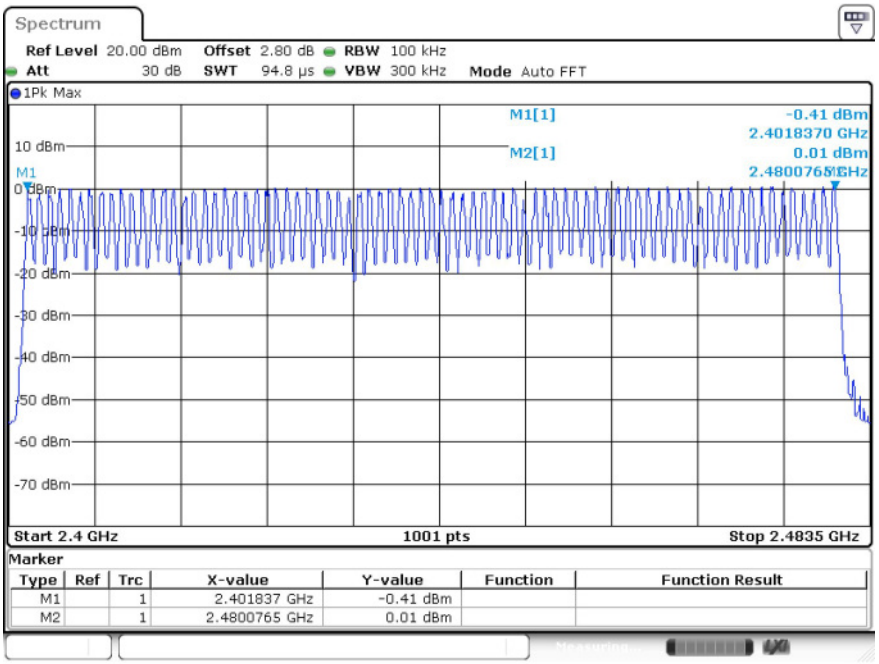
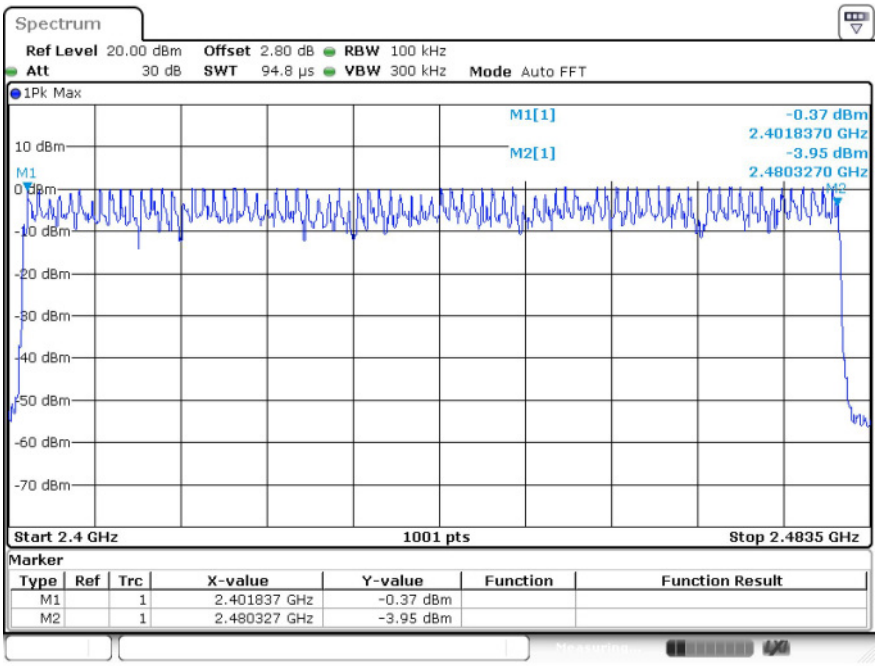
Test Graphs	
GFSK/MCH	
π/4DQPSK/MCH	

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

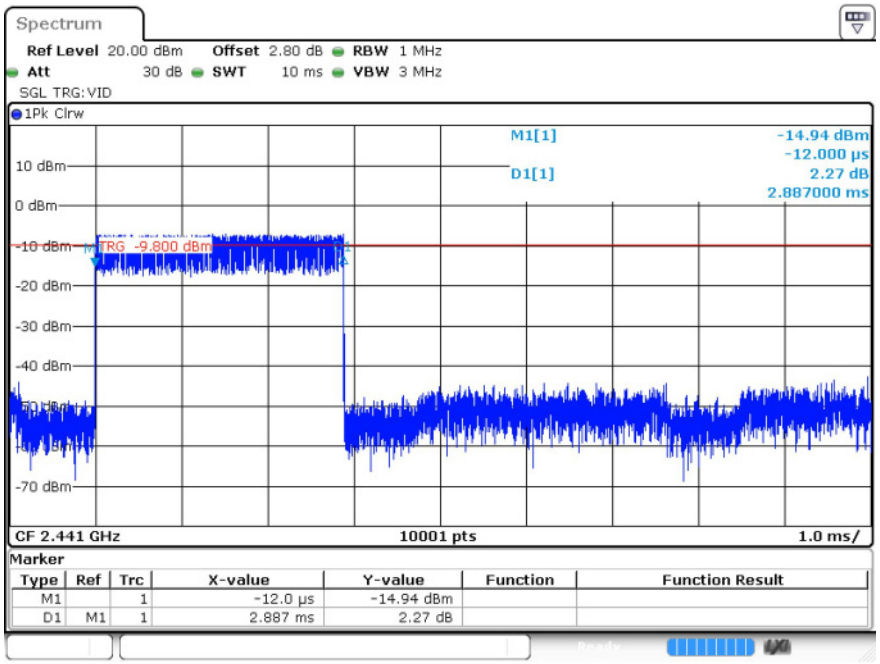
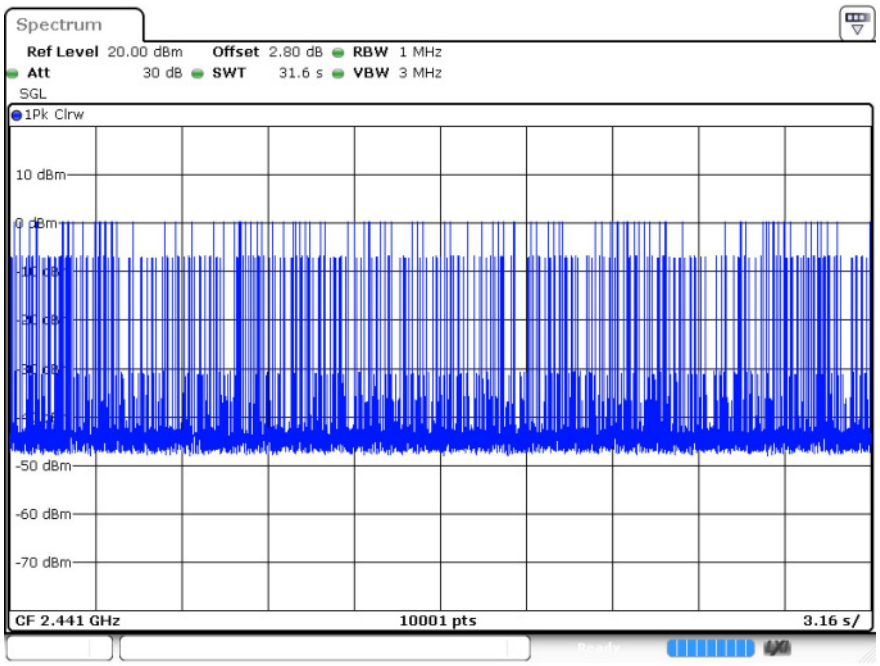
Test Graphs	
GFSK/Hop	
π/4DQPSK/Hop	

6 Dwell Time

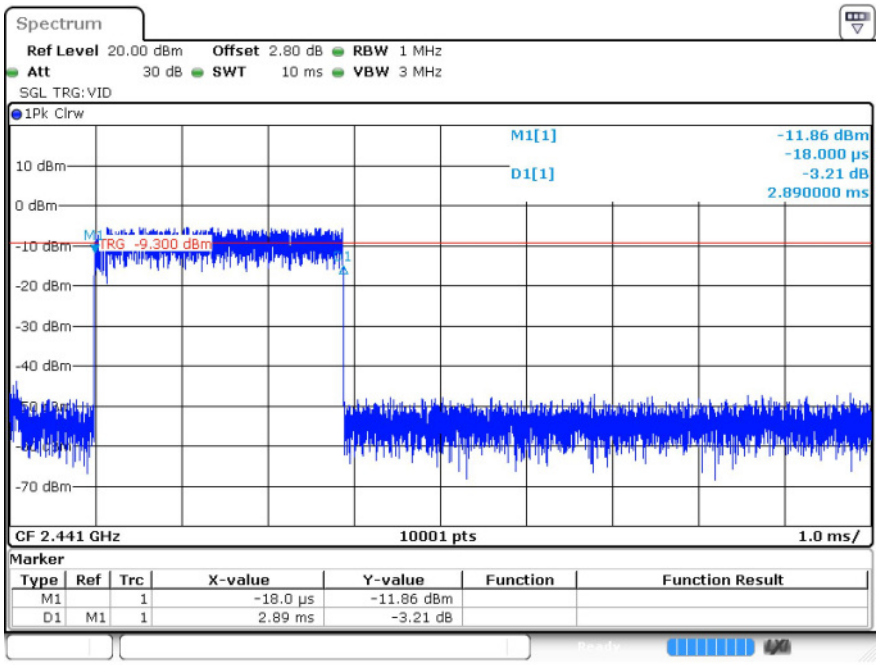
6.1 Test Result

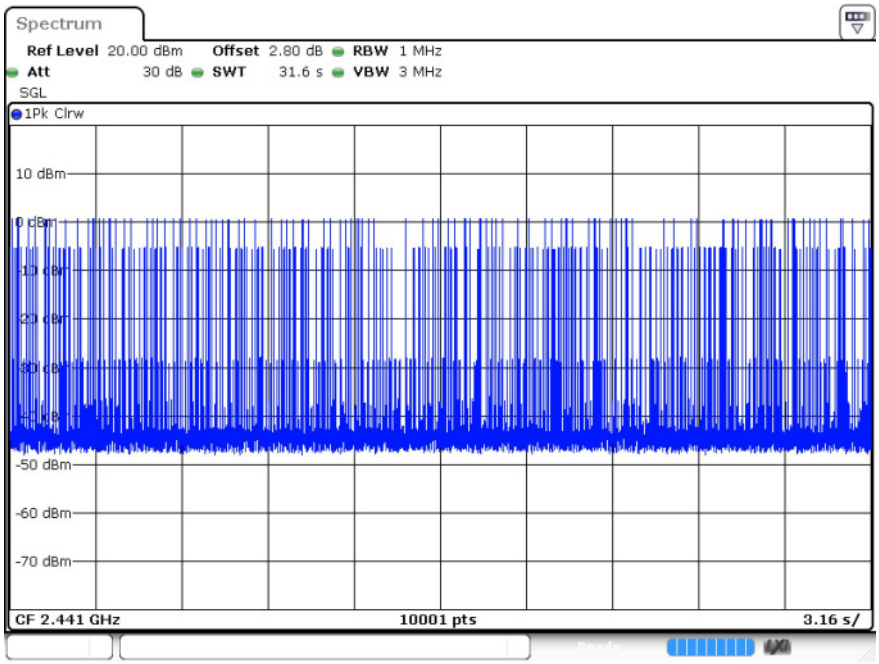
Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.887	99	285.813	0.4	Pass
π/4DQPSK	2DH5	MCH	2.89	125	361.25	0.4	Pass

6.2 Test Graphs

Test Graphs	
GFSK_DH5/MCH	 

π/4DQPSK
_2DH5/MCH



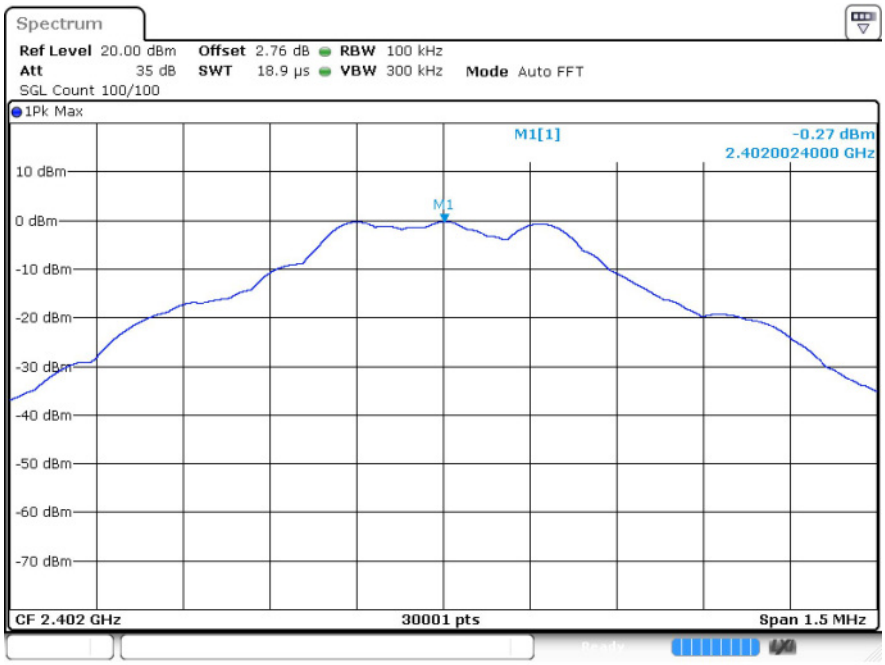
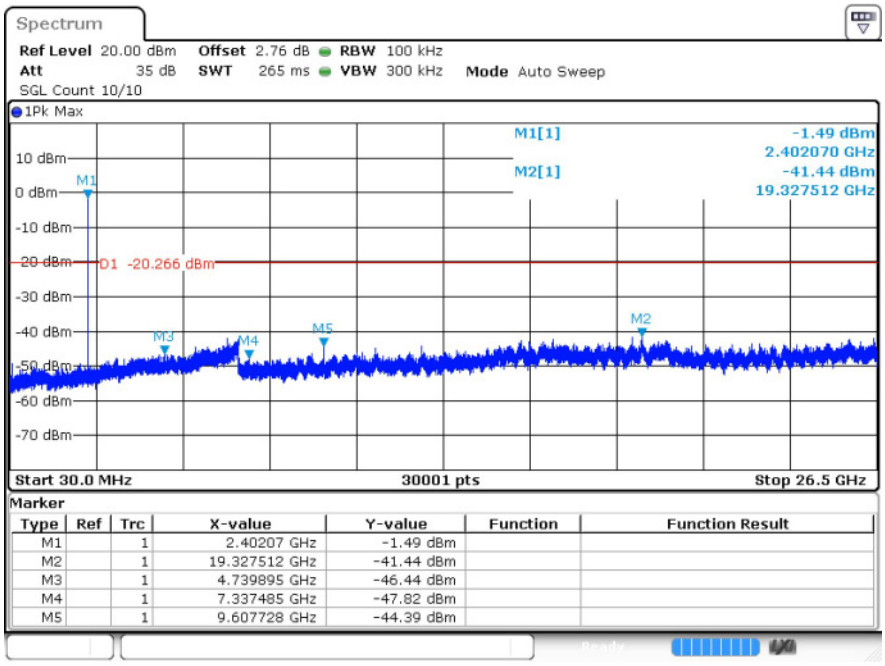


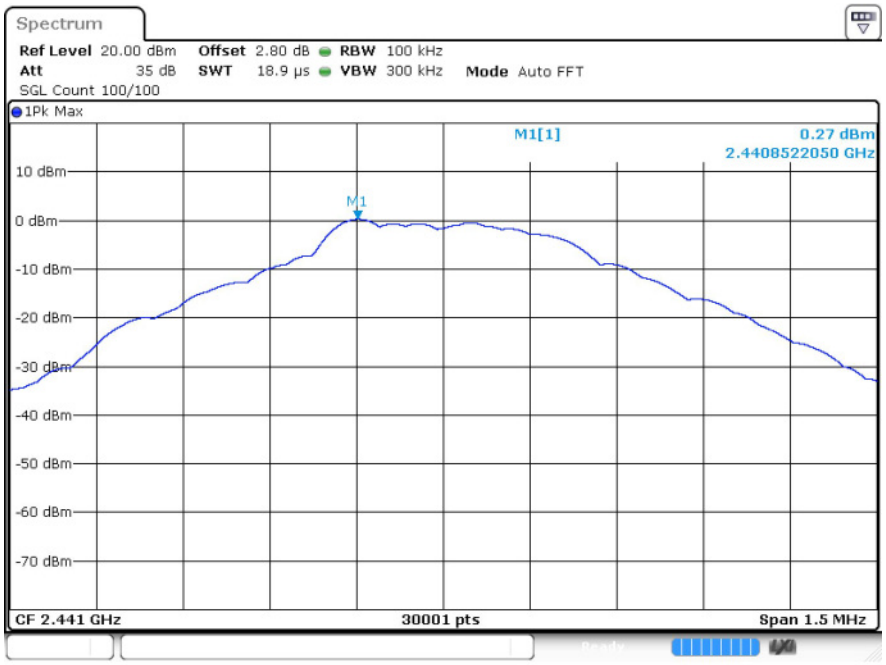
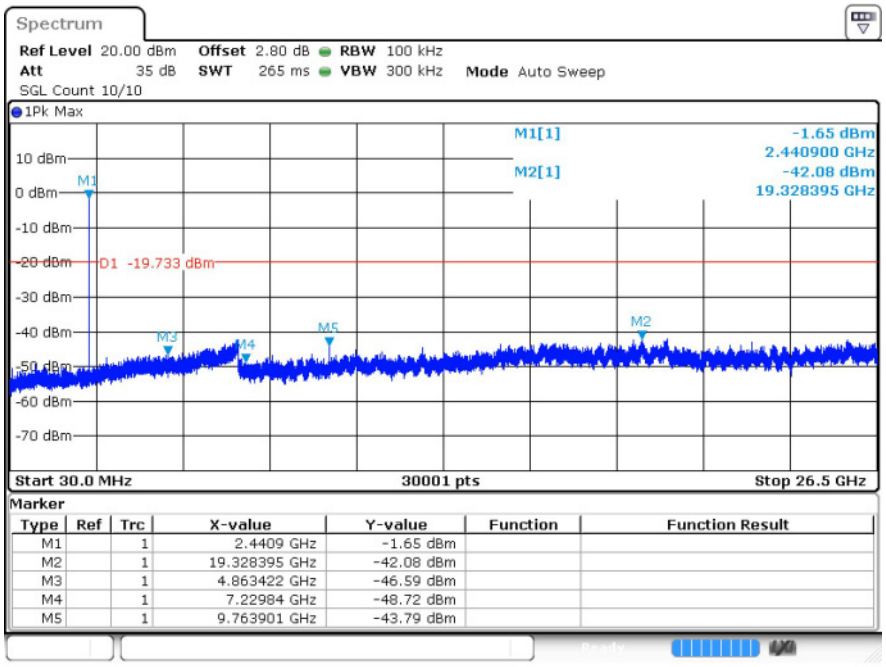
7 RF Conducted Spurious Emissions

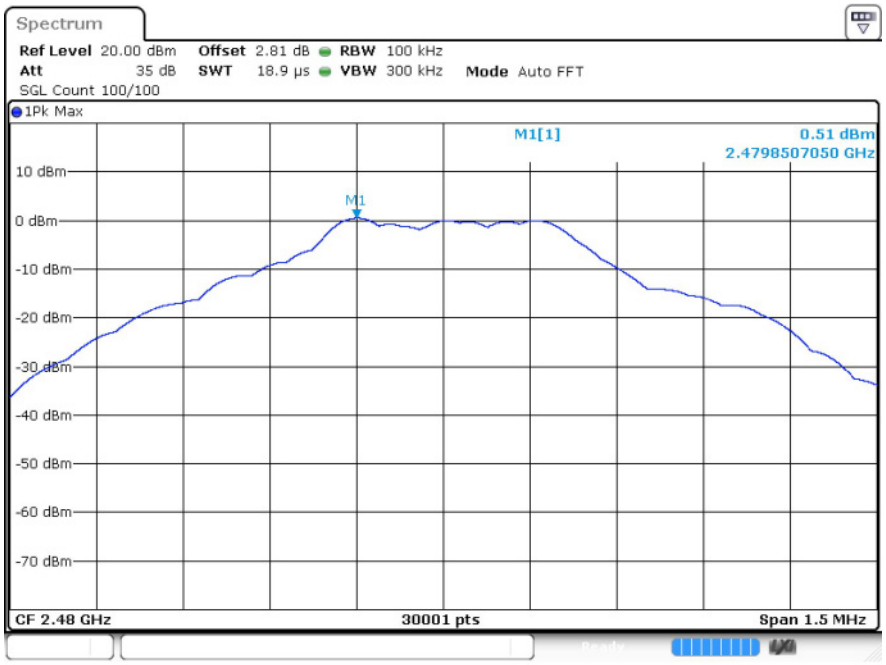
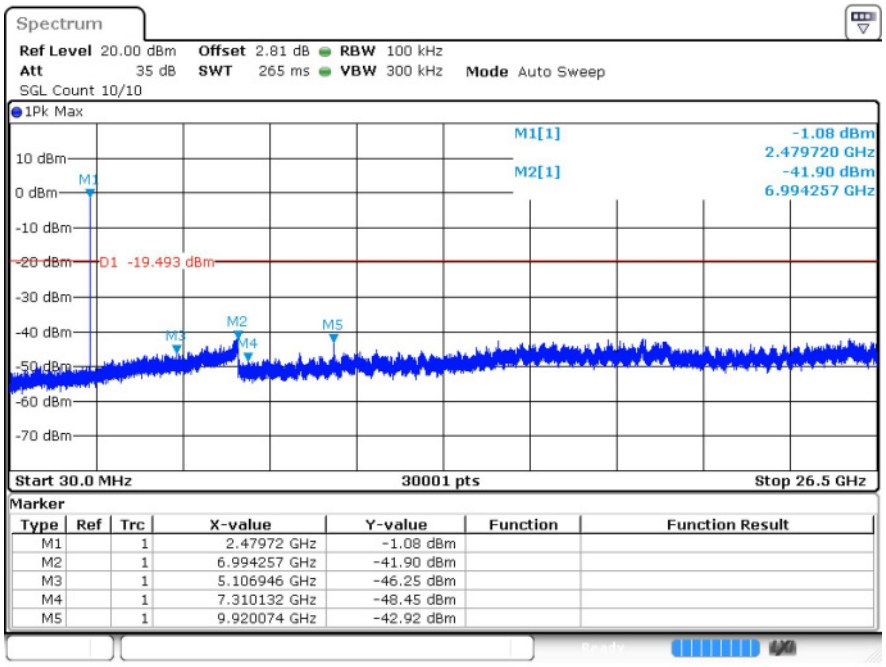
7.1 Test Result

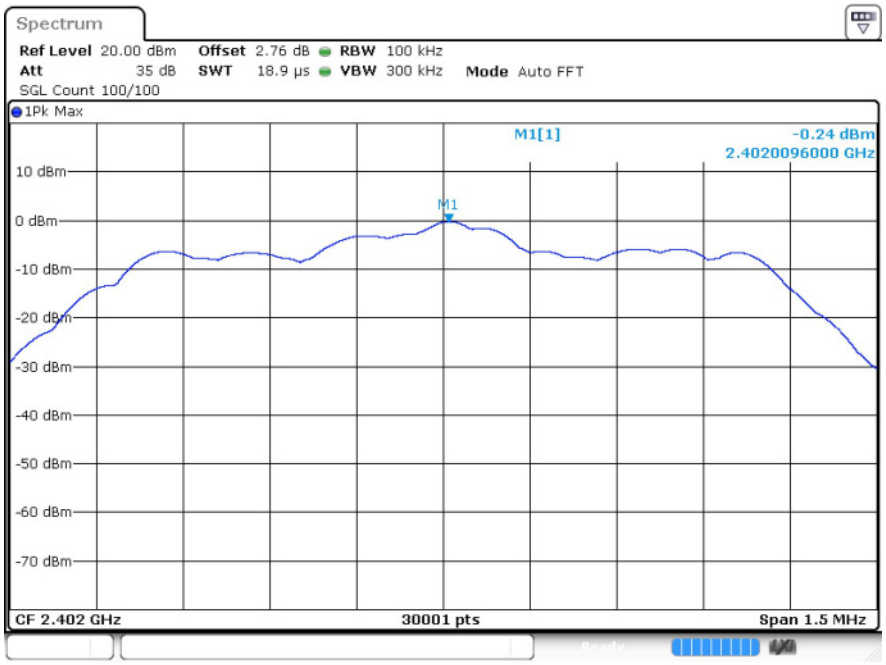
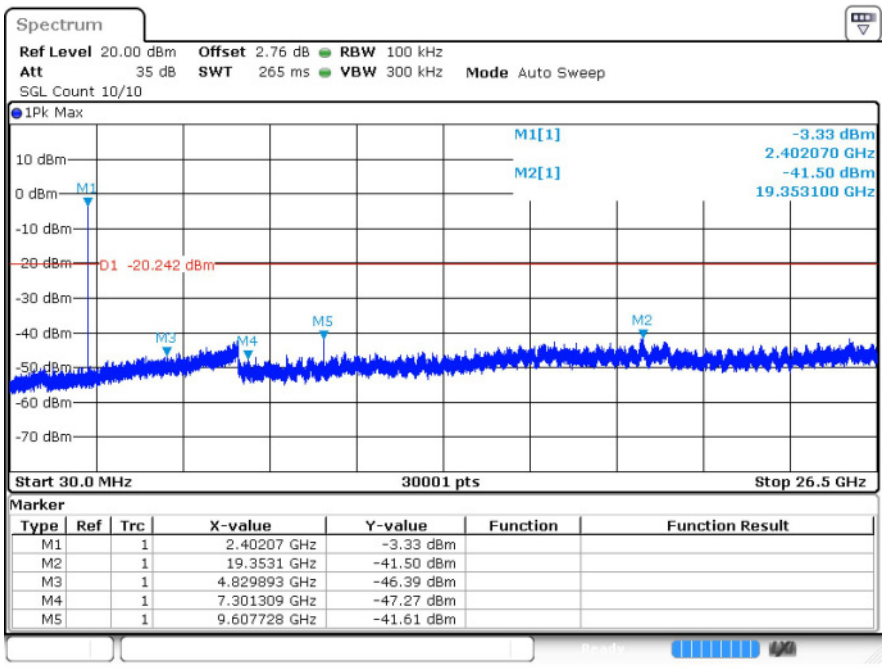
Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-41.17	-20	Pass
	MCH	-42.34	-20	Pass
	HCH	-42.4	-20	Pass
π/4DQPSK	LCH	-41.25	-20	Pass
	MCH	-42.46	-20	Pass
	HCH	-41.29	-20	Pass

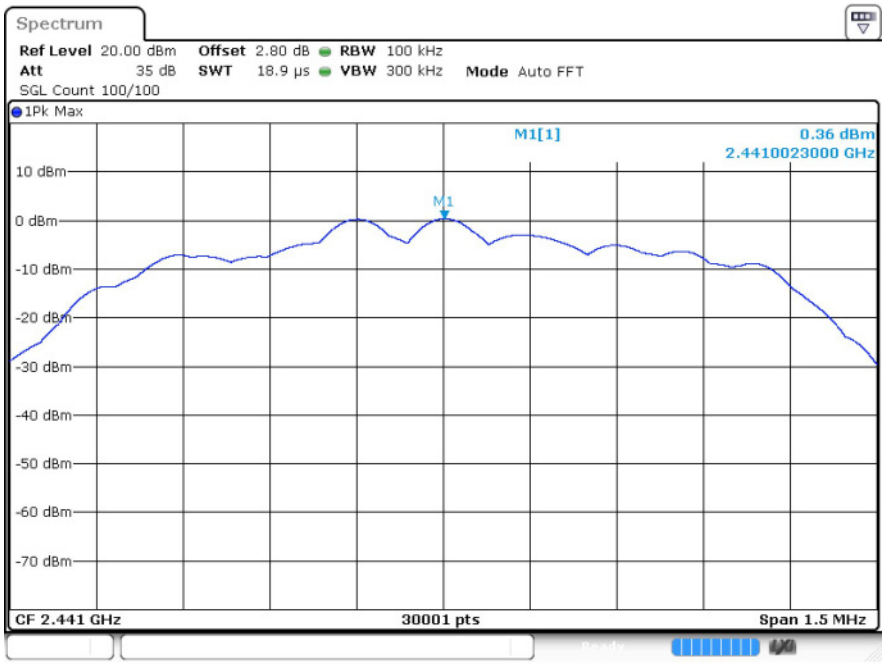
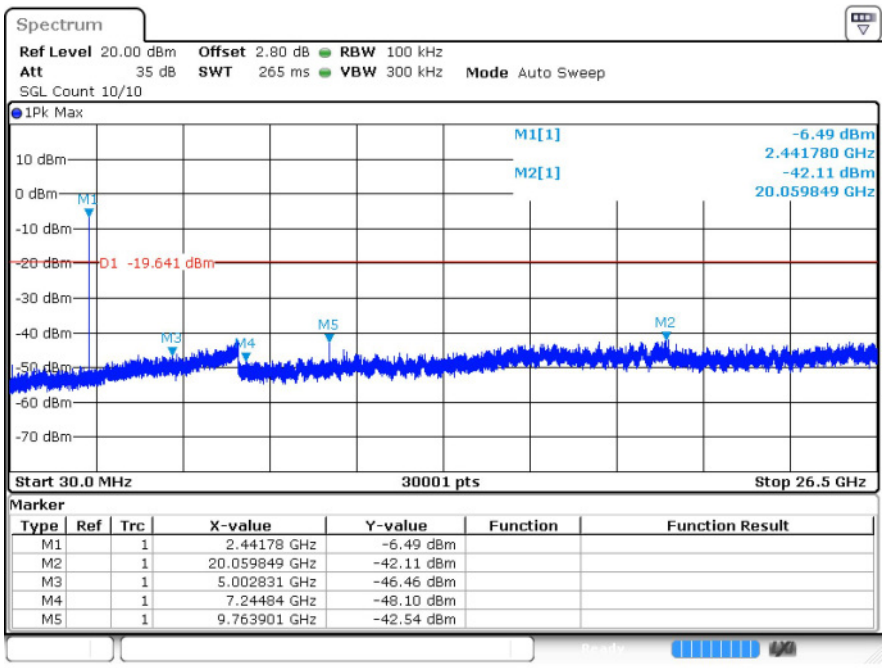
7.2 Test Graphs

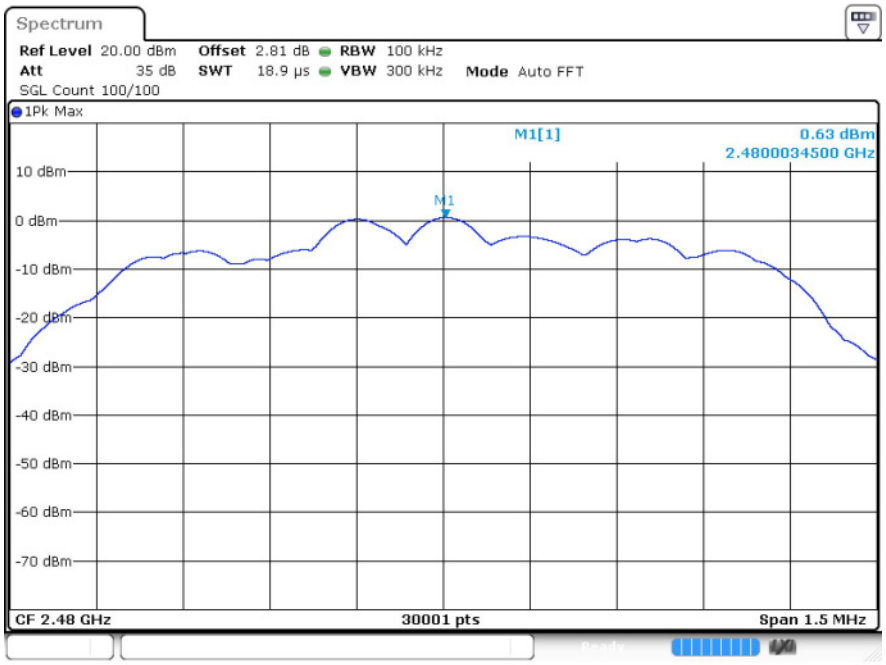
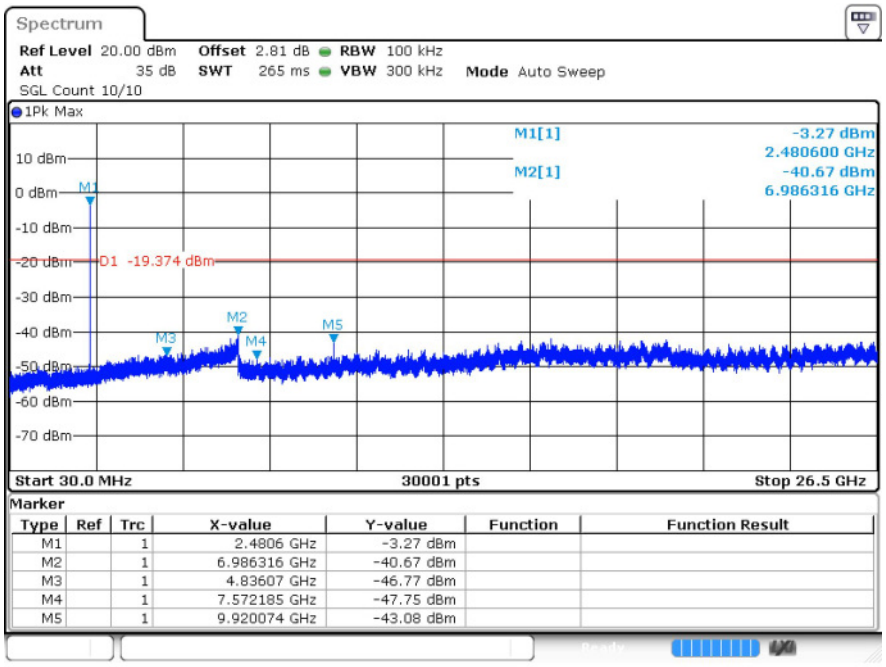
GFSK_LCH_Graphs	
Pref	
Puw	

GFSK_MCH_Graphs	
Pref	
Puw	

GFSK_HCH_Graphs	
Pref	
Puw	

π/4DQPSK_LCH_Graphs	
Pref	
Puw	

π/4DQPSK_MCH_Graphs	
Pref	
Puw	

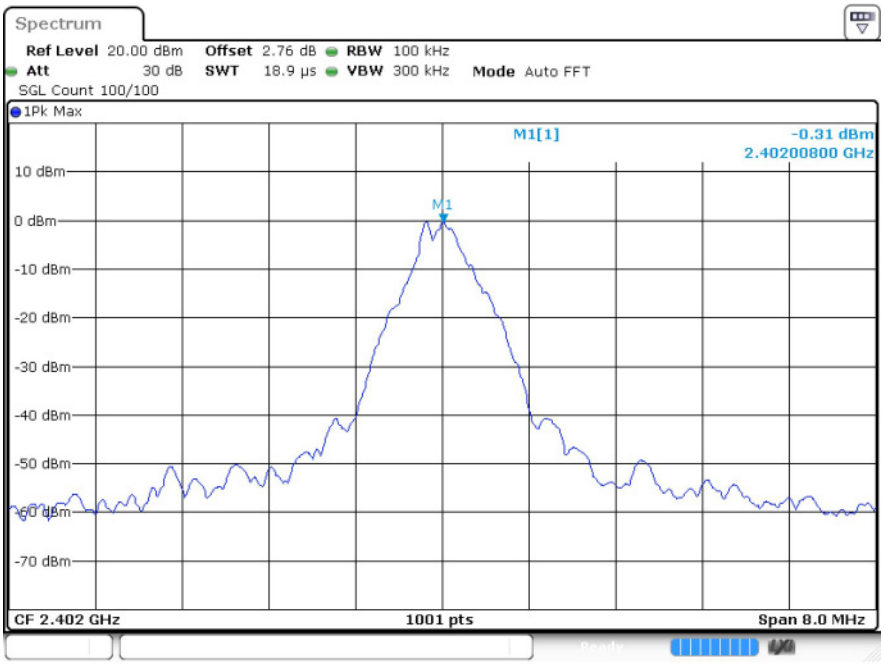
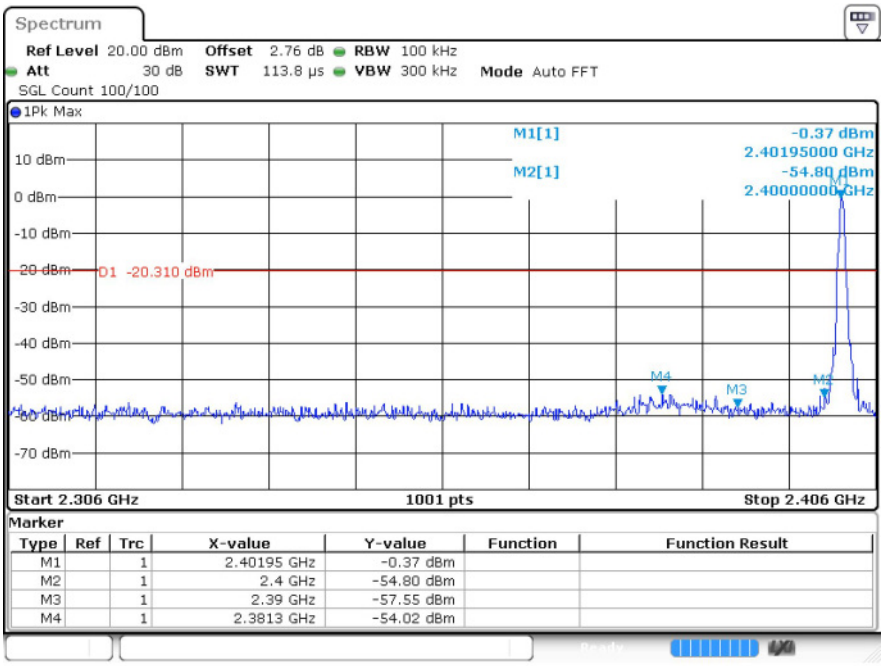
π/4DQPSK_HCH_Graphs	
Pref	
Puw	

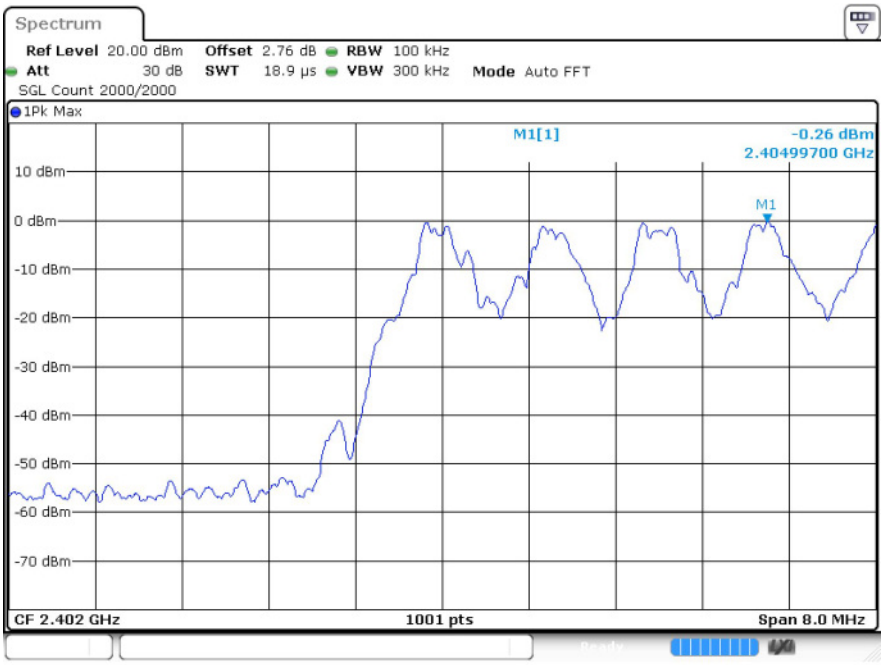
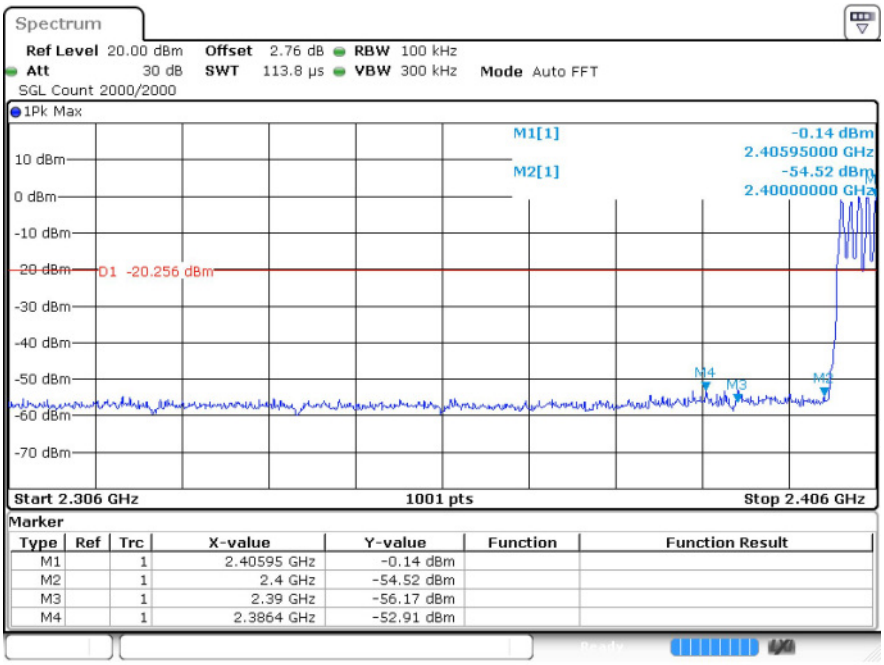
8 Band-edge for RF Conducted Emissions

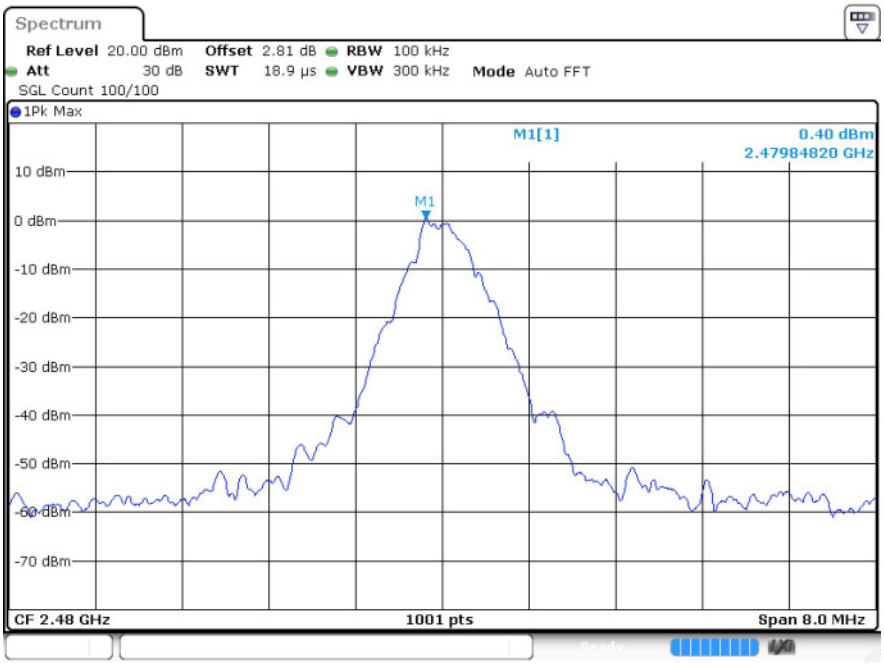
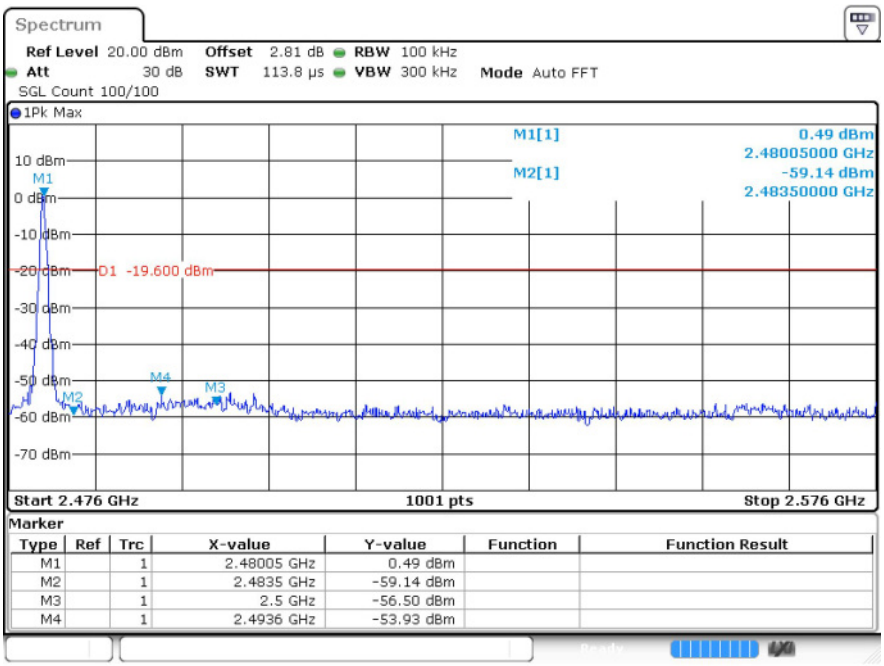
8.1 Test Result

Mode	Channel	Carrier Frequency [MHz]	Frequency Hopping	Max Spurious Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	2402	Off	-53.7	-20	Pass
			On	-52.64	-20	Pass
	HCH	2480	Off	-54.32	-20	Pass
			On	-53.06	-20	Pass
π/4DQPSK	LCH	2402	Off	-53.47	-20	Pass
			On	-52.93	-20	Pass
	HCH	2480	Off	-53.1	-20	Pass
			On	-52.44	-20	Pass

8.2 Test Graphs

Test Graphs	
Pref	
GFSK/LCH/No Hop	

Ref	
GFSK/LCH/Hop	

Ref	
GFSK/HCH/No Hop