



Appendix A

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

Product Name: Translation headphones

Trade Mark: N/A

Test Model: T29

Environmental Conditions

Temperature:	25.4°C
Relative Humidity:	52.7%
ATM Pressure:	101Kpa
Test Engineer:	Emiya lin
Supervised by:	Simba Haung



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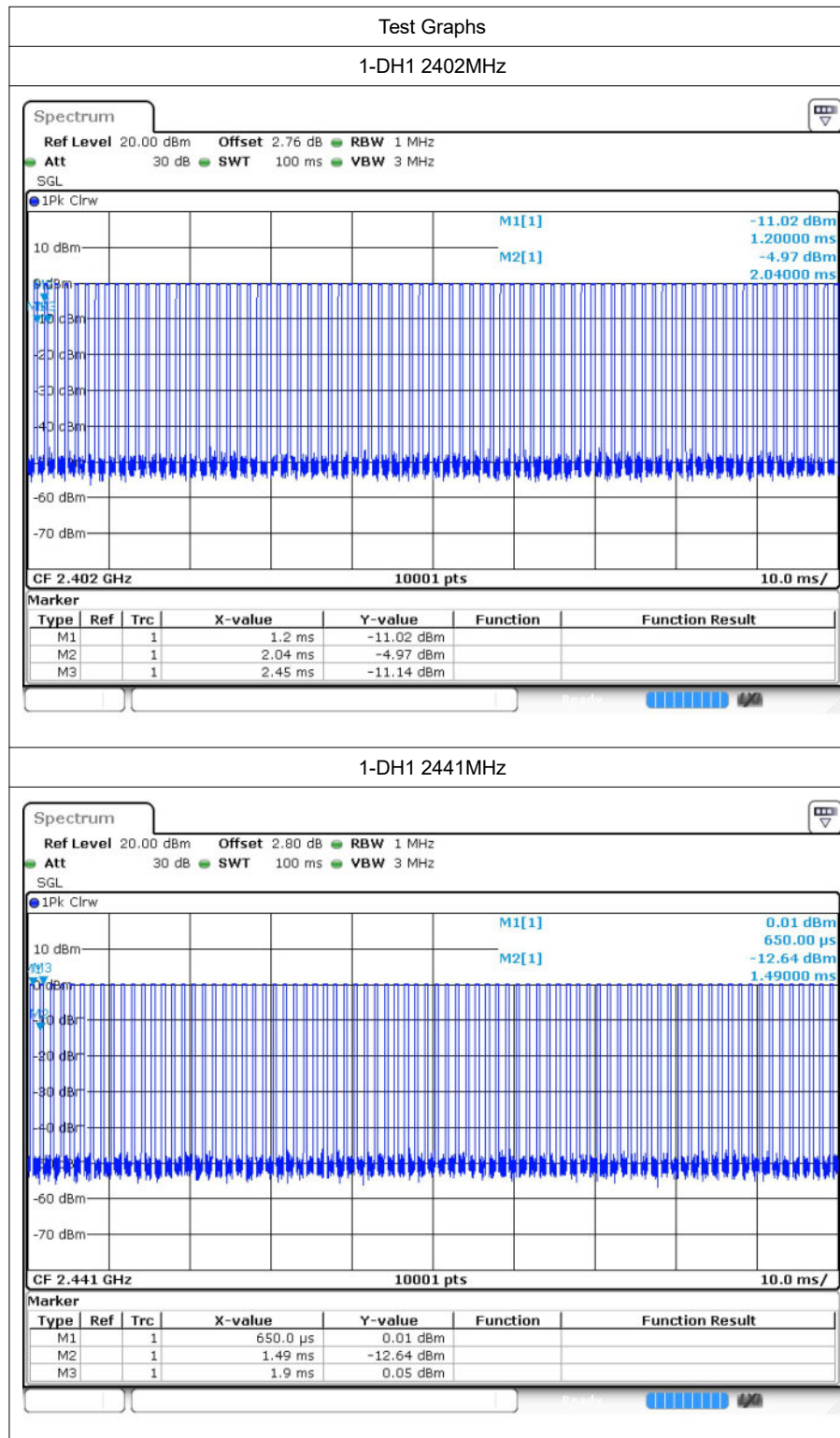
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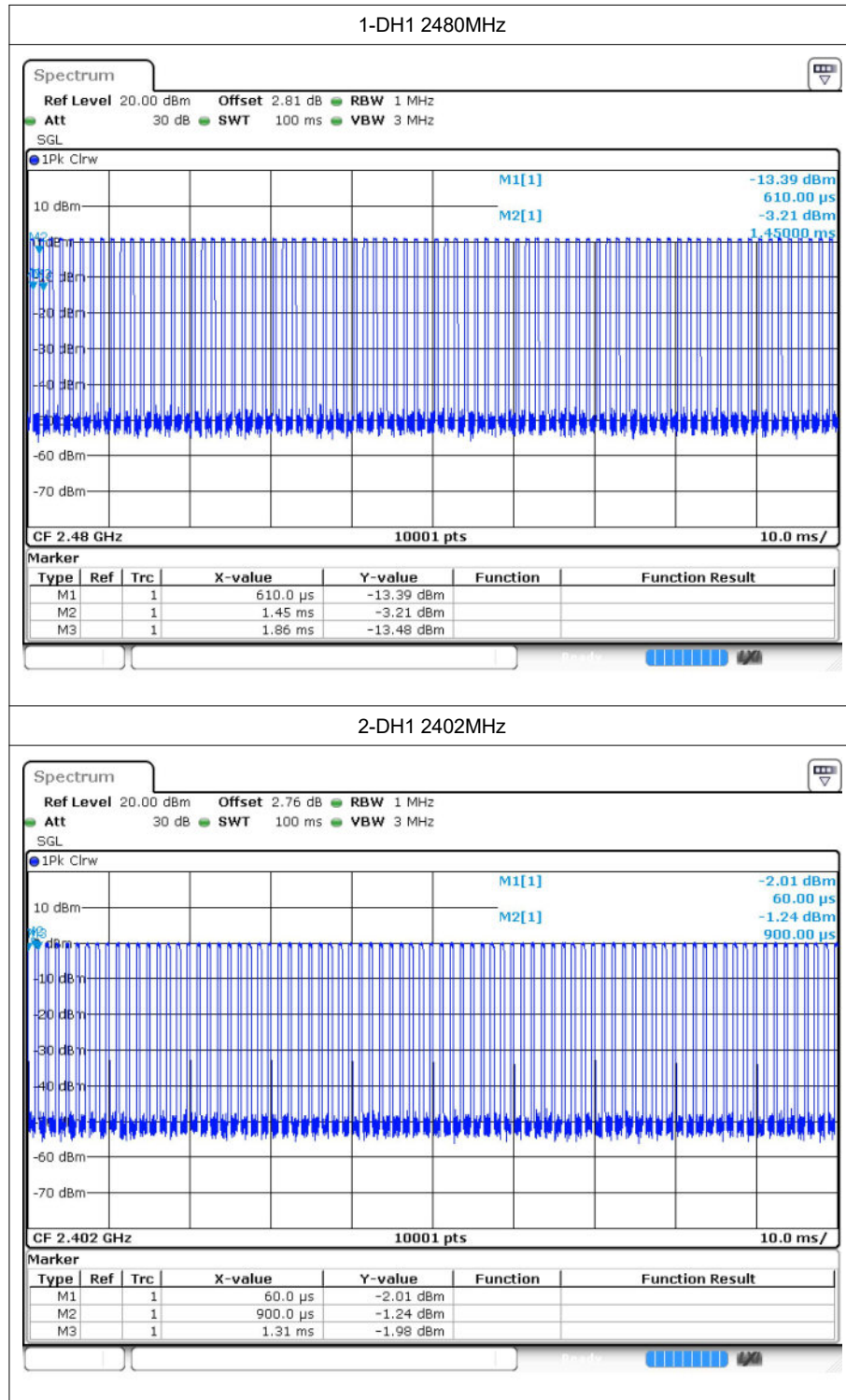
1 Duty Cycle

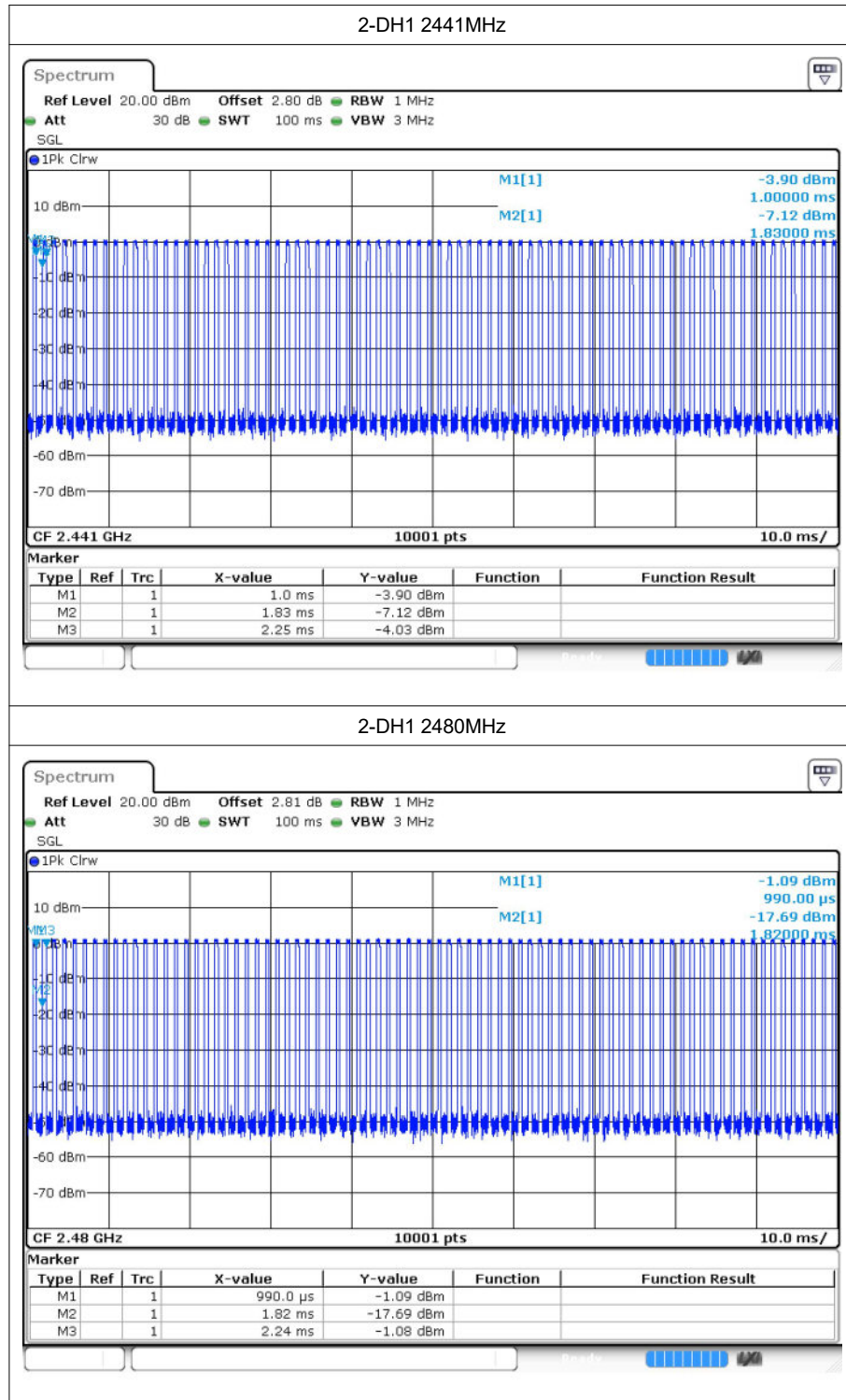
1.1 Test Result

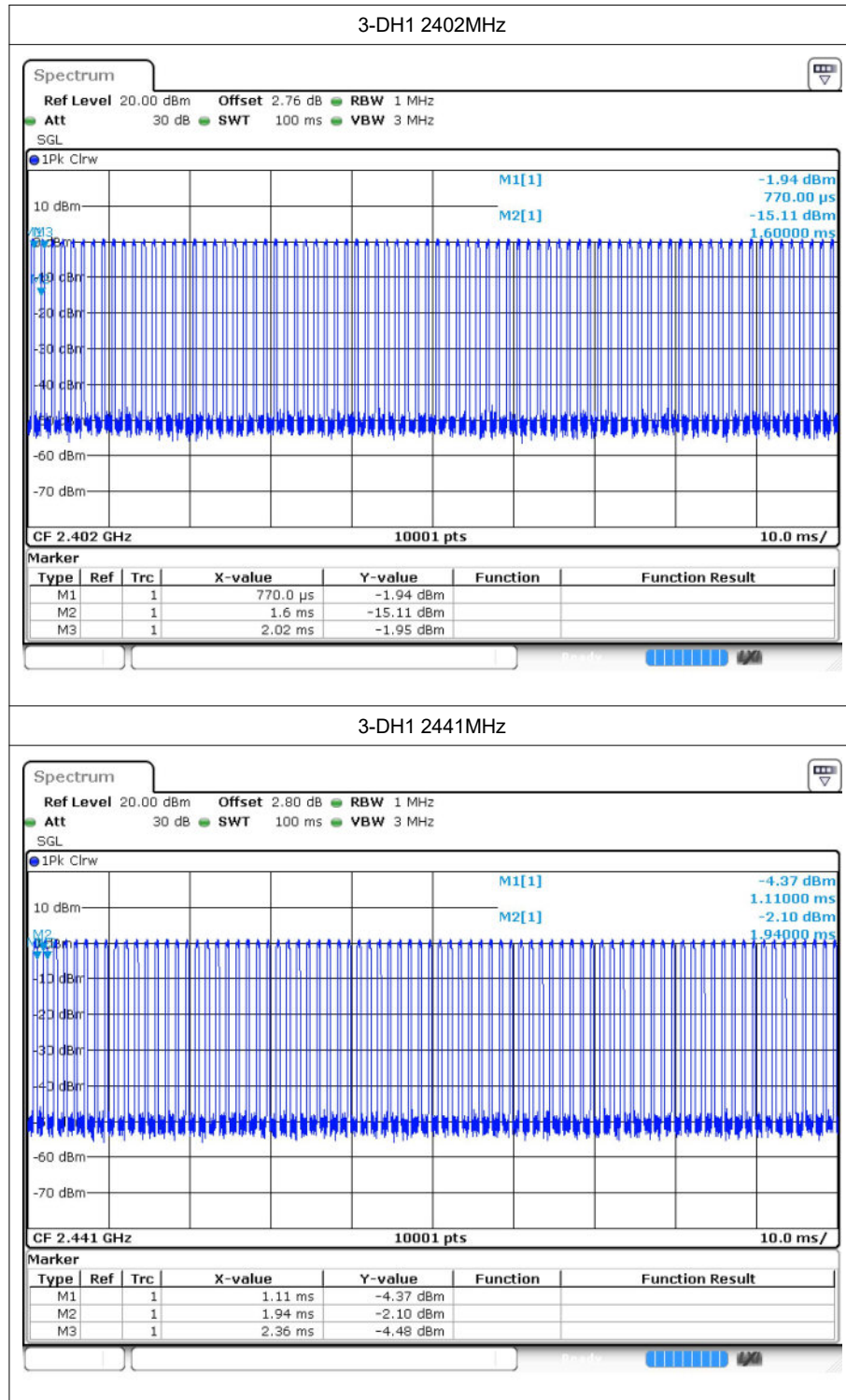
Mode	Frequency (MHz)	Duty Cycle (%)	Correction Factor	1/T (kHz)
1-DH1	2402	33.45	4.76	2.44
1-DH1	2441	33.6	4.74	2.44
1-DH1	2480	33.26	4.78	2.44
2-DH1	2402	33.61	4.74	2.44
2-DH1	2441	34.4	4.63	2.38
2-DH1	2480	34.4	4.63	2.38
3-DH1	2402	34.4	4.63	2.38
3-DH1	2441	34.4	4.63	2.38
3-DH1	2480	34.4	4.63	2.38

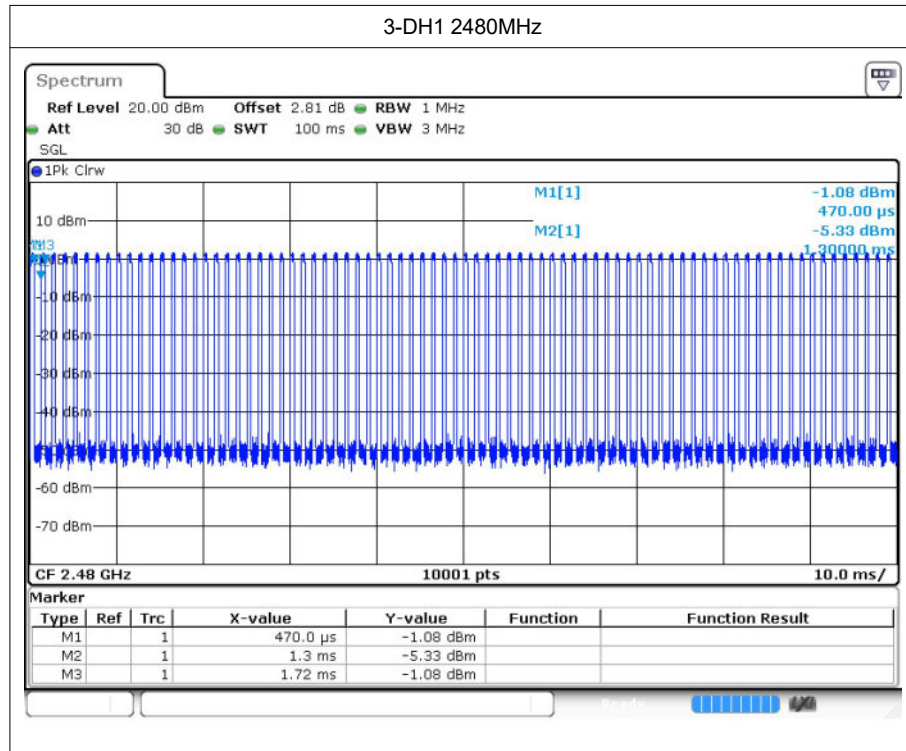
1.2 Test Graphs









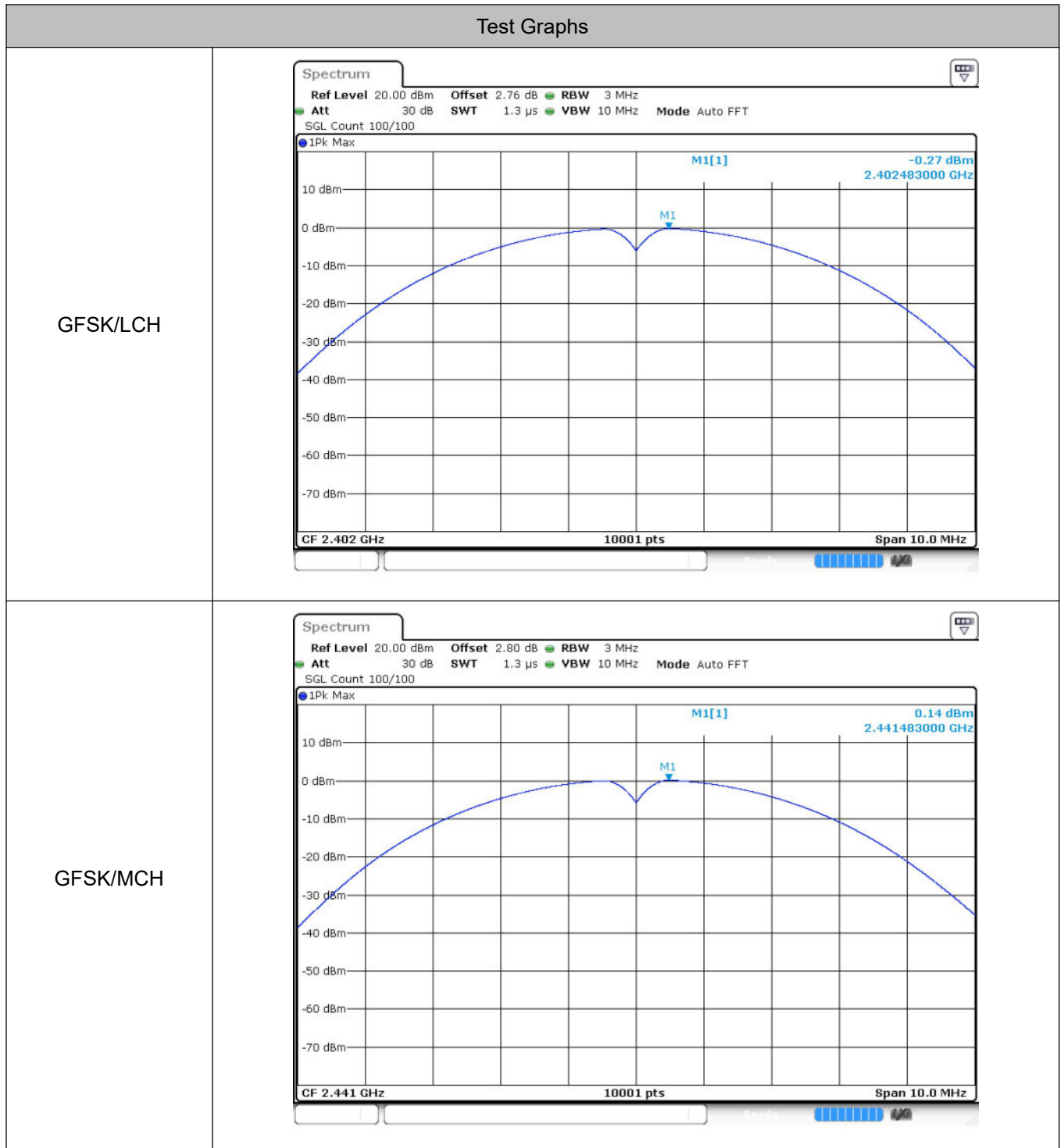


2 Maximum Conducted Peak Output Power

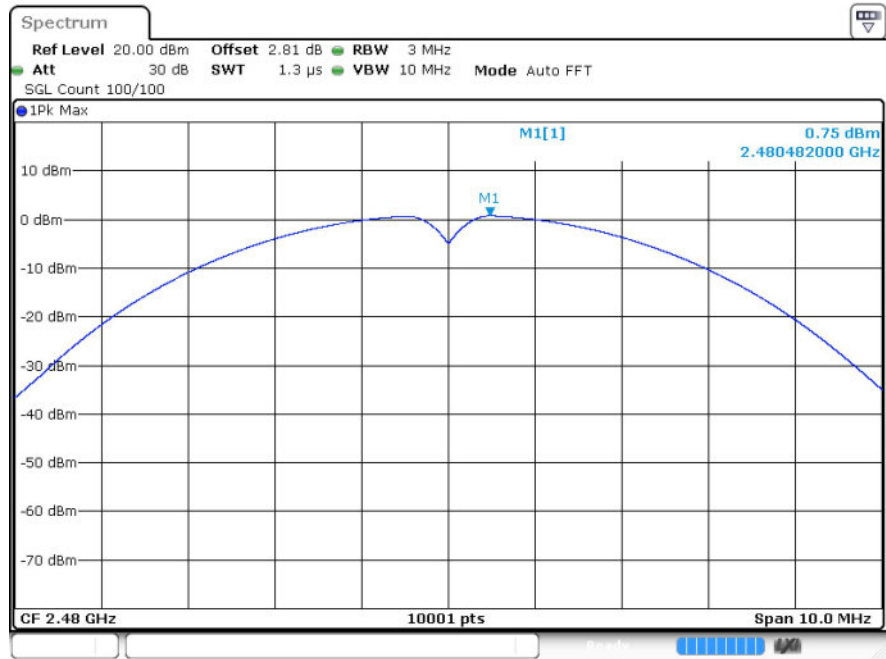
2.1 Test Result

Mode	Channel.	Maximum Peak Output Power [dBm]	Limit [dBm]	Verdict
GFSK	LCH	-0.27	21	Pass
	MCH	0.14	21	Pass
	HCH	0.75	21	Pass
$\pi/4$ DQPSK	LCH	0.16	21	Pass
	MCH	0.55	21	Pass
	HCH	0.82	21	Pass
8DPSK	LCH	0.32	21	Pass
	MCH	0.71	21	Pass
	HCH	0.77	21	Pass

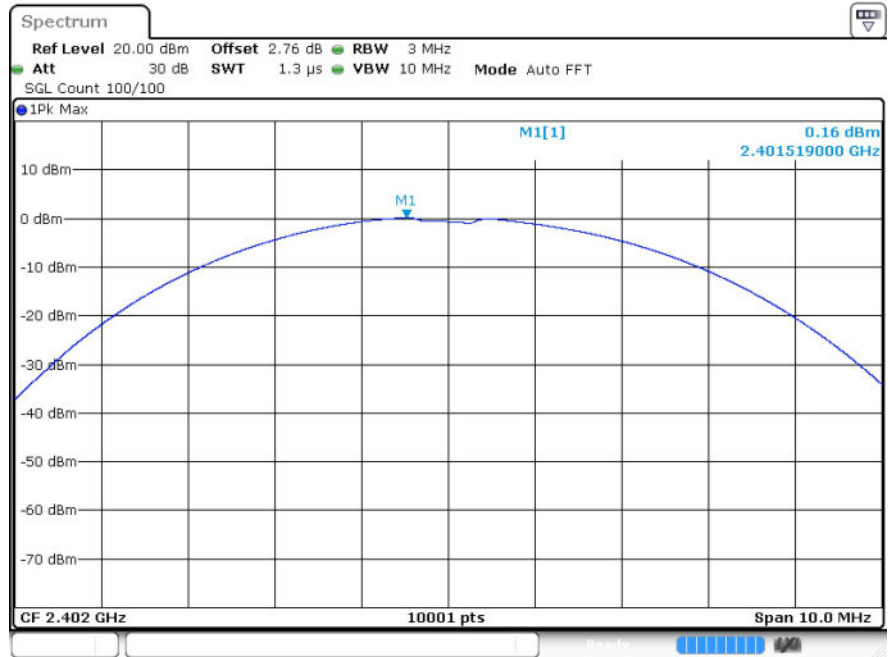
2.2 Test Graphs



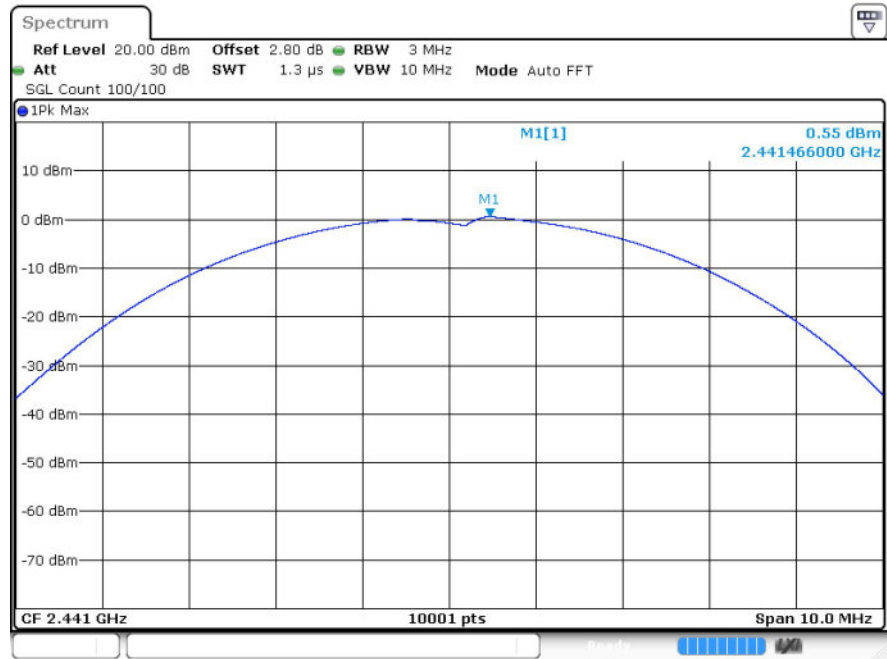
GFSK/HCH



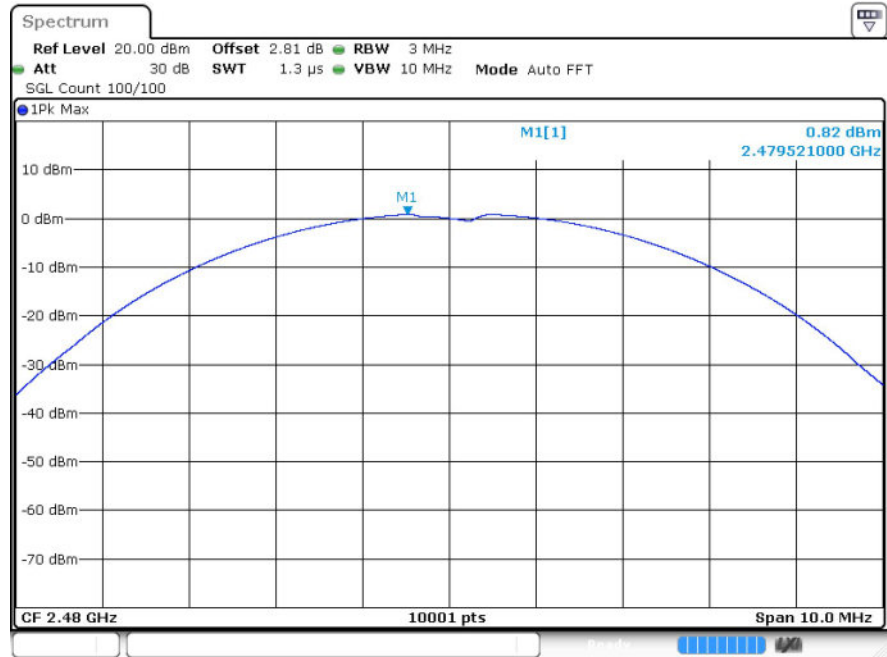
$\pi/4$ DQPSK/LCH



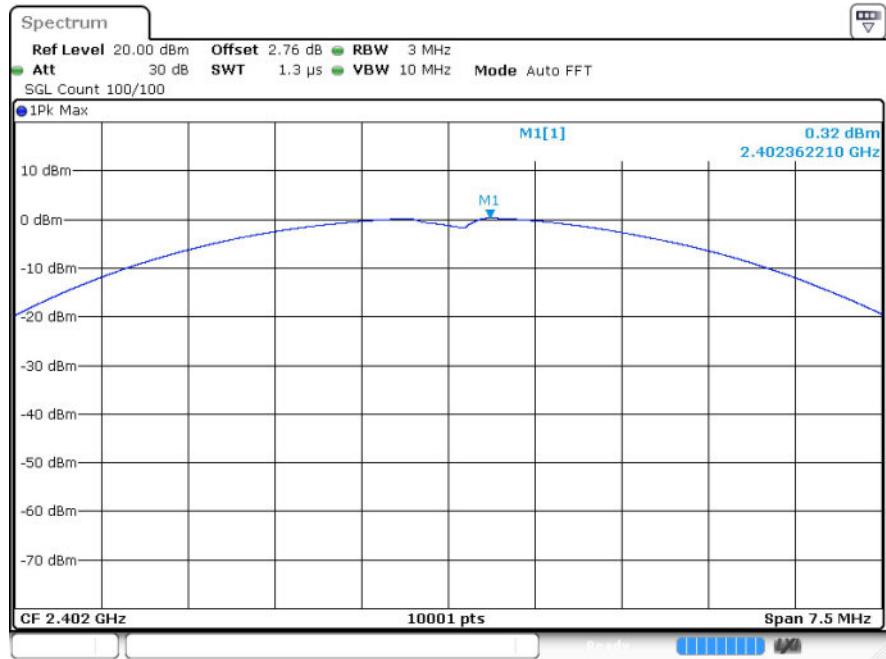
$\pi/4$ DQPSK/MCH



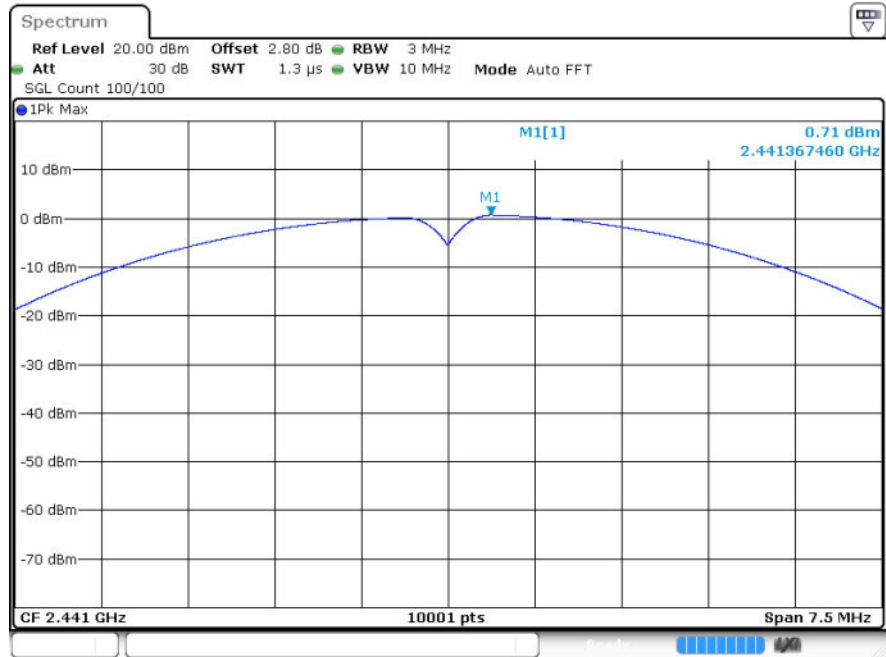
$\pi/4$ DQPSK/HCH



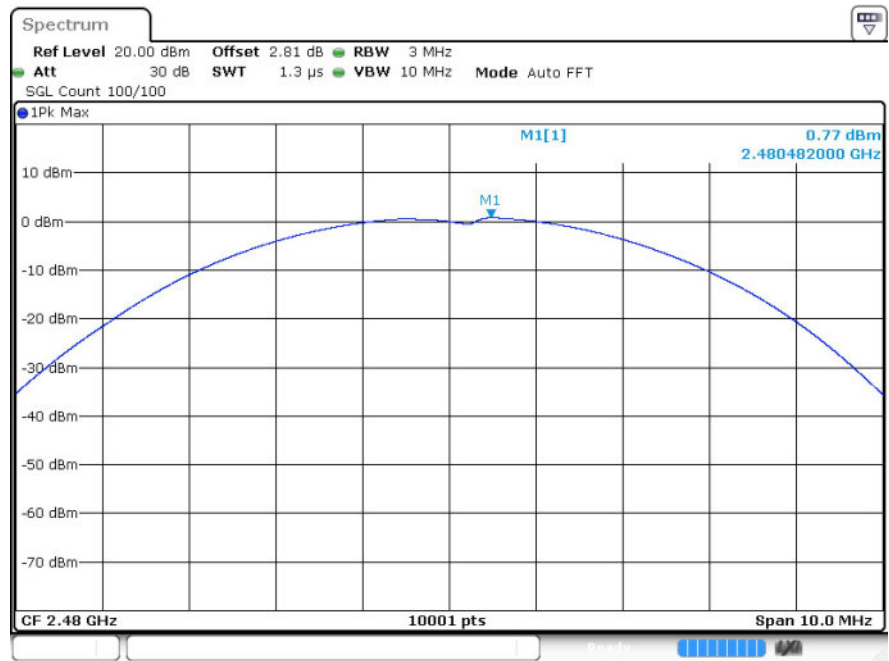
8DPSK/LCH



8DPSK/MCH



8DPSK/HCH

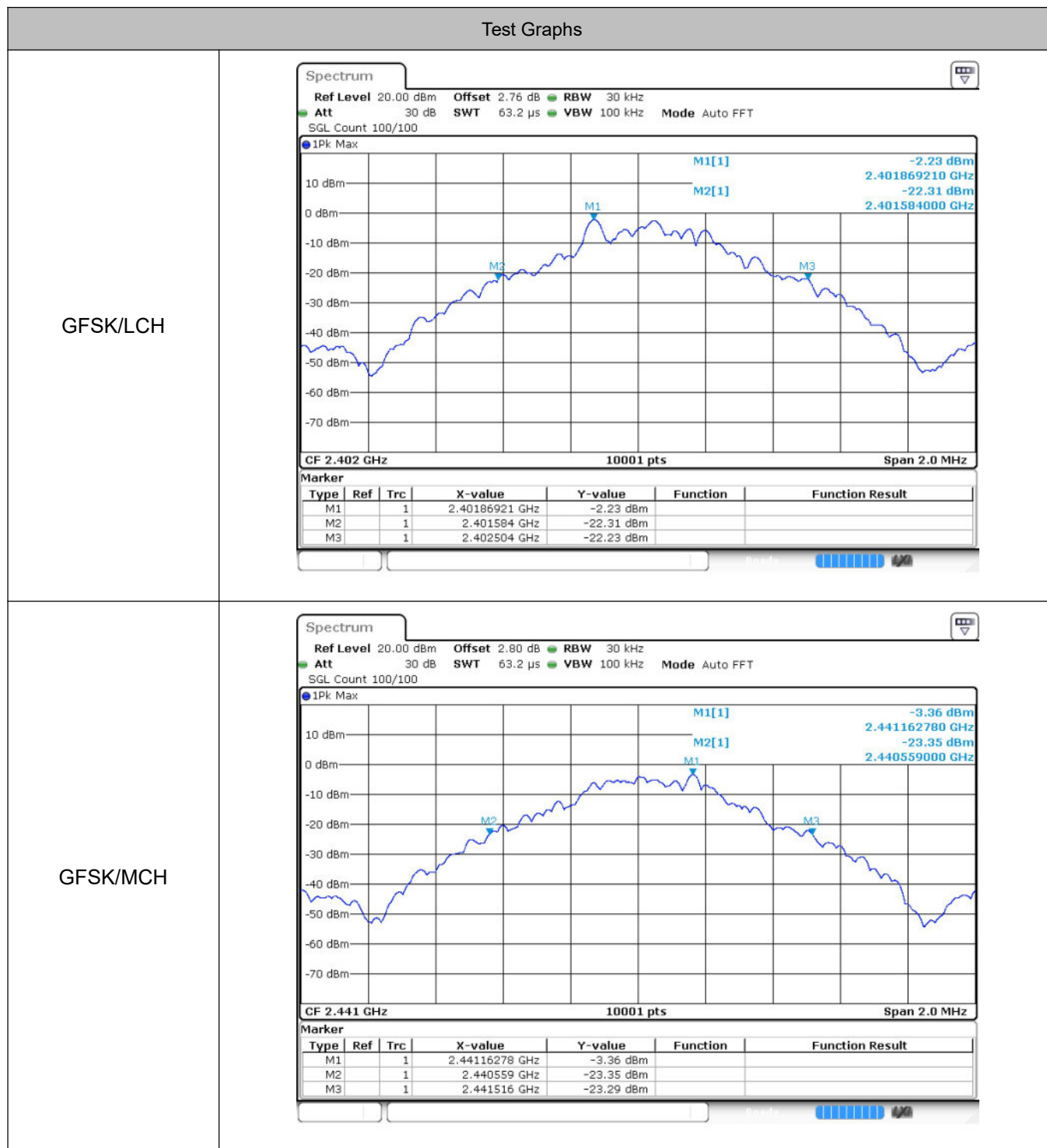


3 20dB Bandwidth

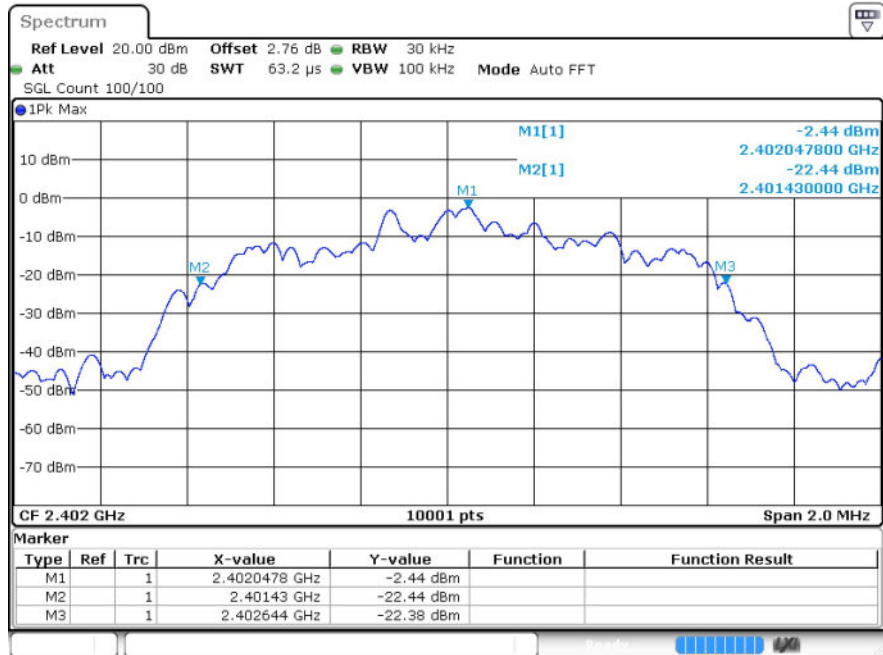
3.1 Test Result

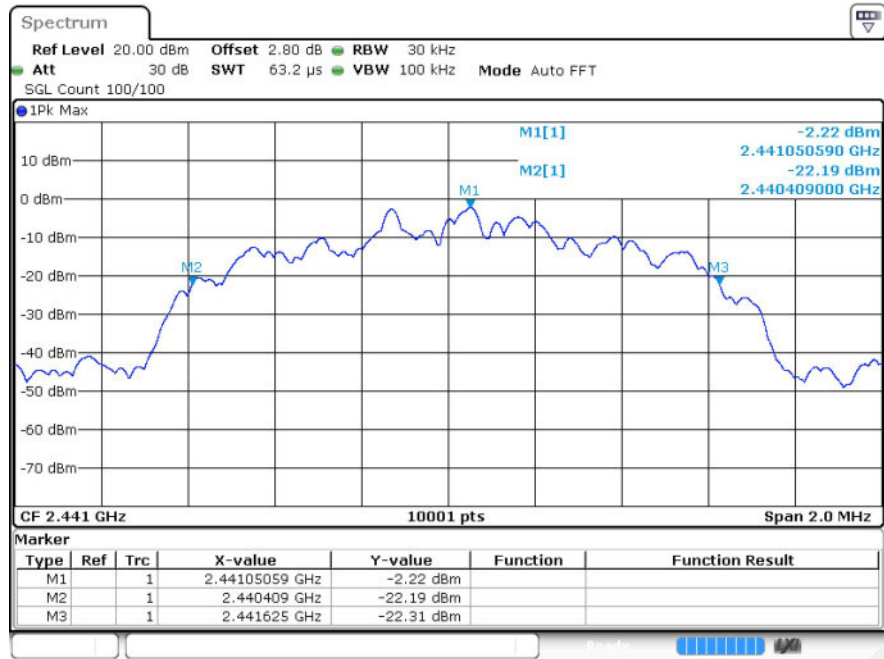
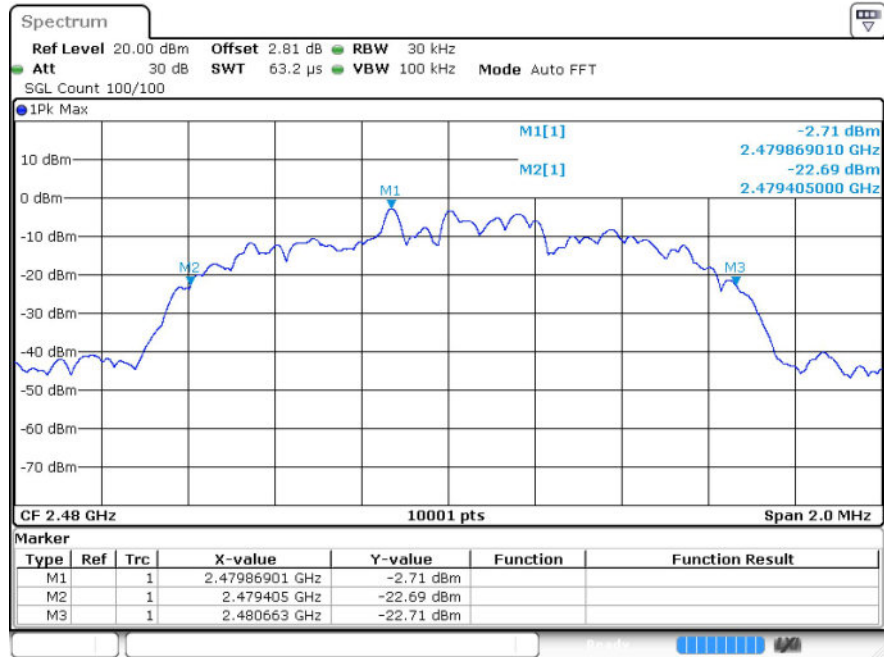
Mode	Channel.	20dB Bandwidth [MHz]	Limit [MHz]	Verdict
GFSK	LCH	0.92	Not Specified	Pass
	MCH	0.957	Not Specified	Pass
	HCH	0.946	Not Specified	Pass
$\pi/4$ DQPSK	LCH	1.214	Not Specified	Pass
	MCH	1.216	Not Specified	Pass
	HCH	1.258	Not Specified	Pass
8DPSK	LCH	1.202	Not Specified	Pass
	MCH	1.194	Not Specified	Pass
	HCH	1.209	Not Specified	Pass

3.2 Test Graphs



GFSK/HCH

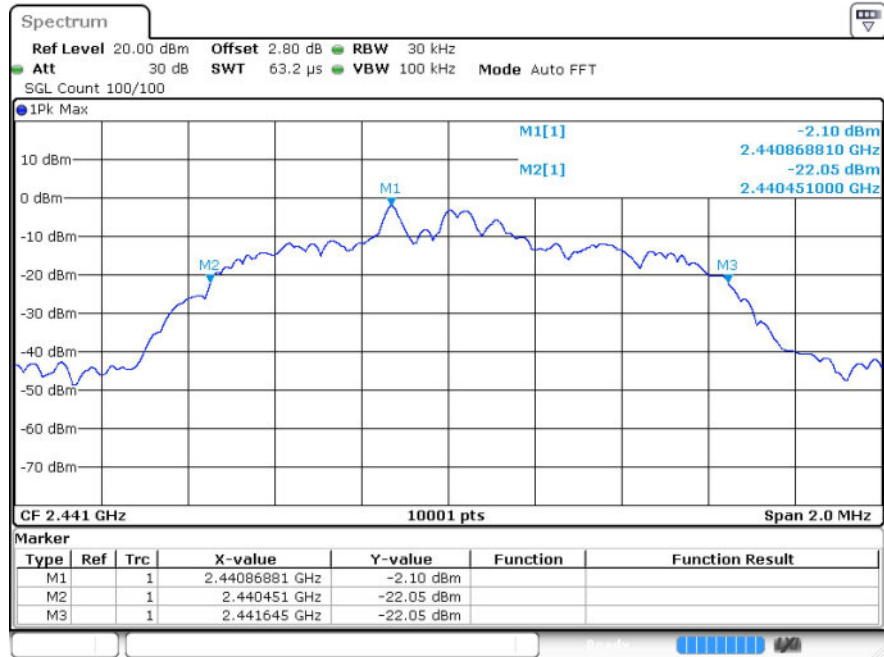

 $\pi/4$ DQPSK/LCH


$\pi/4$ DQPSK/MCH

 $\pi/4$ DQPSK/HCH


8DPSK/LCH

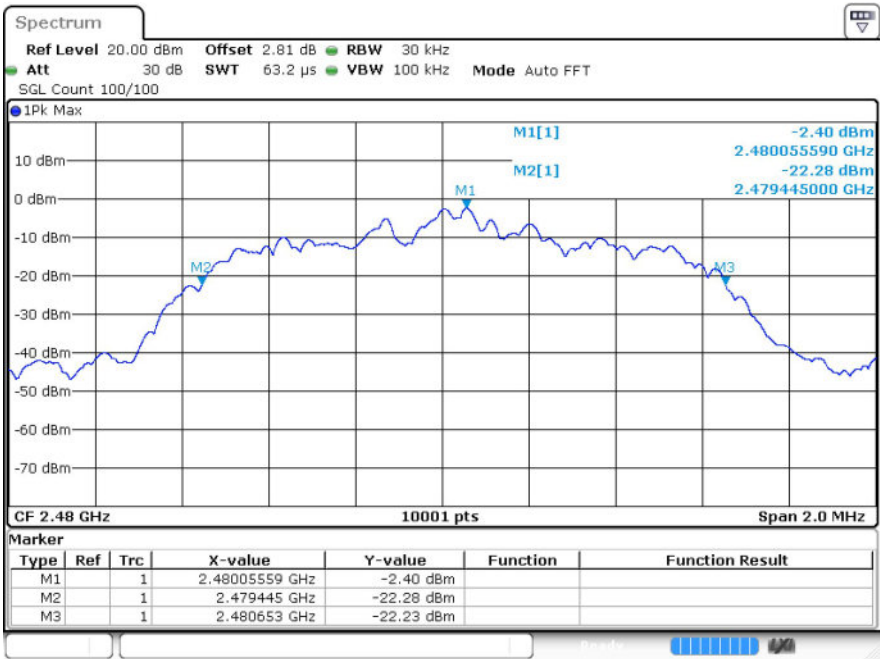


8DPSK/MCH





8DPSK/HCH



4 Carrier Frequency Separation

4.1 Test Result

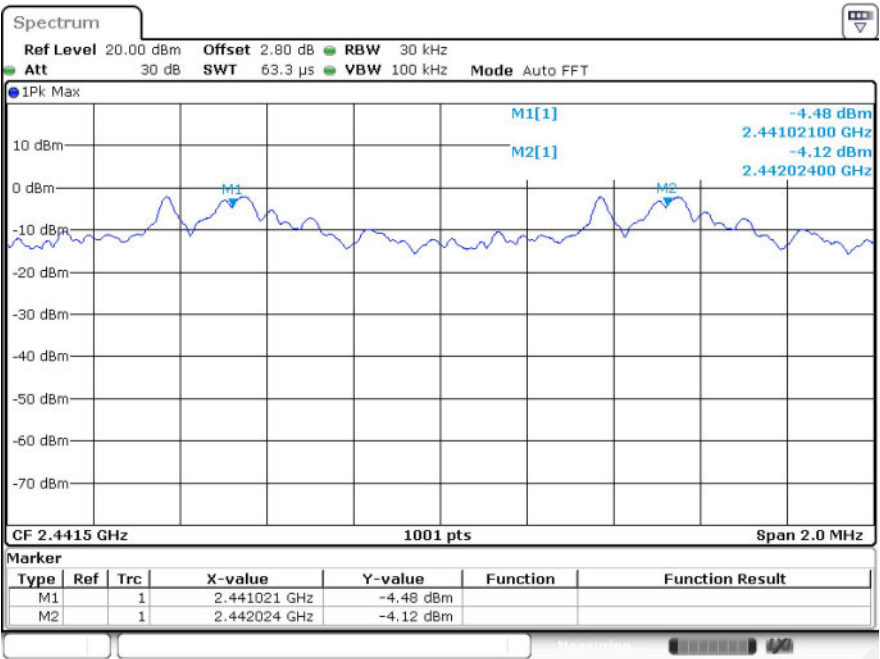
Mode	Channel.	Carrier Frequency Separation [MHz]	Limit [MHz]	Verdict
GFSK	MCH	0.999	0.638	Pass
$\pi/4$ DQPSK	MCH	1.004	0.811	Pass
8DPSK	MCH	1.003	0.796	Pass

4.2 Test Graphs





8DPSK/MCH

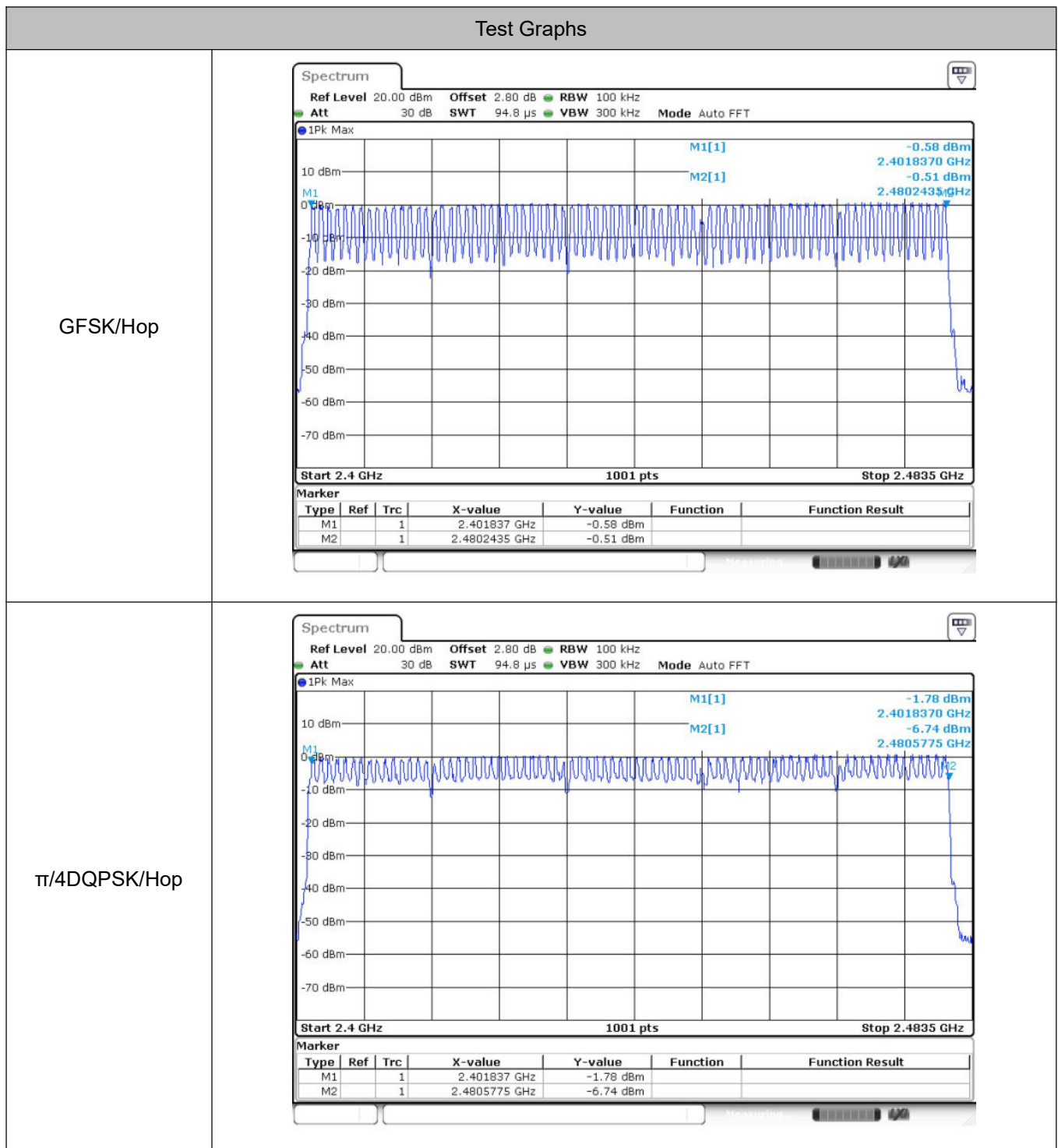


5 Hopping Channel Number

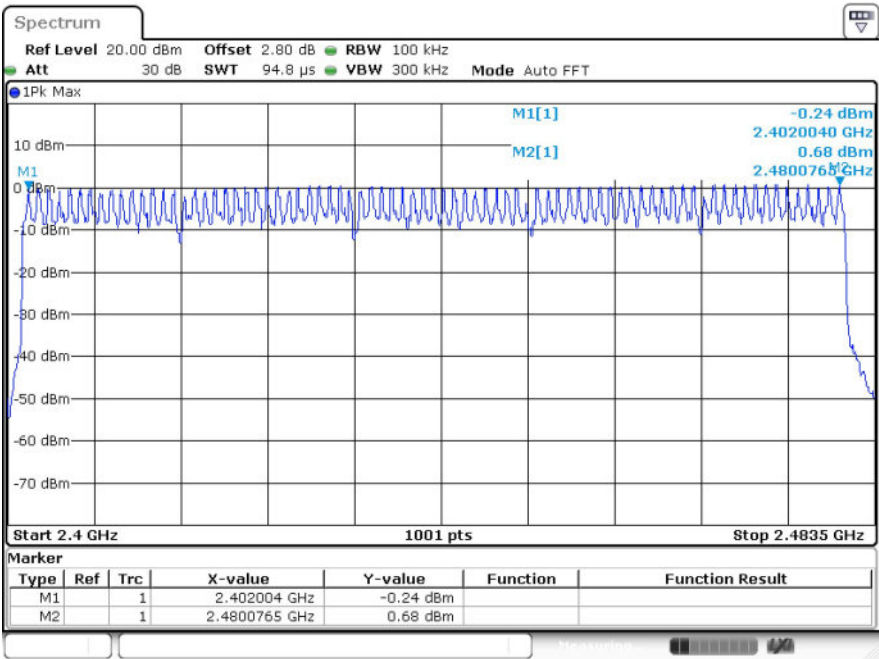
5.1 Test Result

Mode	Channel.	Number of Hopping Channel [N]	Limit [N]	Verdict
GFSK	Hop	79	≥ 15	PASS
$\pi/4$ DQPSK	Hop	79	≥ 15	PASS
8DPSK	Hop	79	≥ 15	PASS

5.2 Test Graphs



8DPSK/Hop

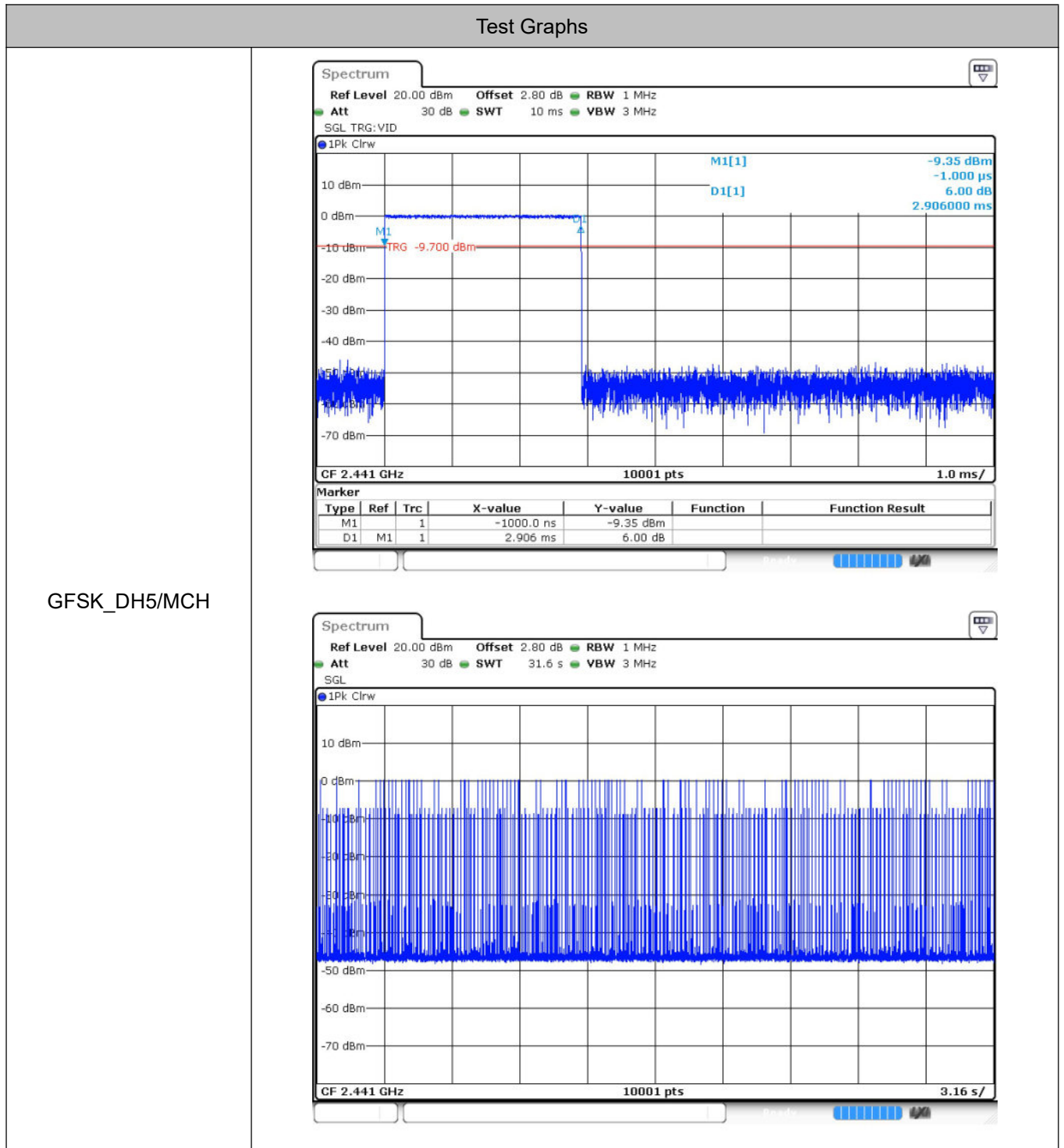


6 Dwell Time

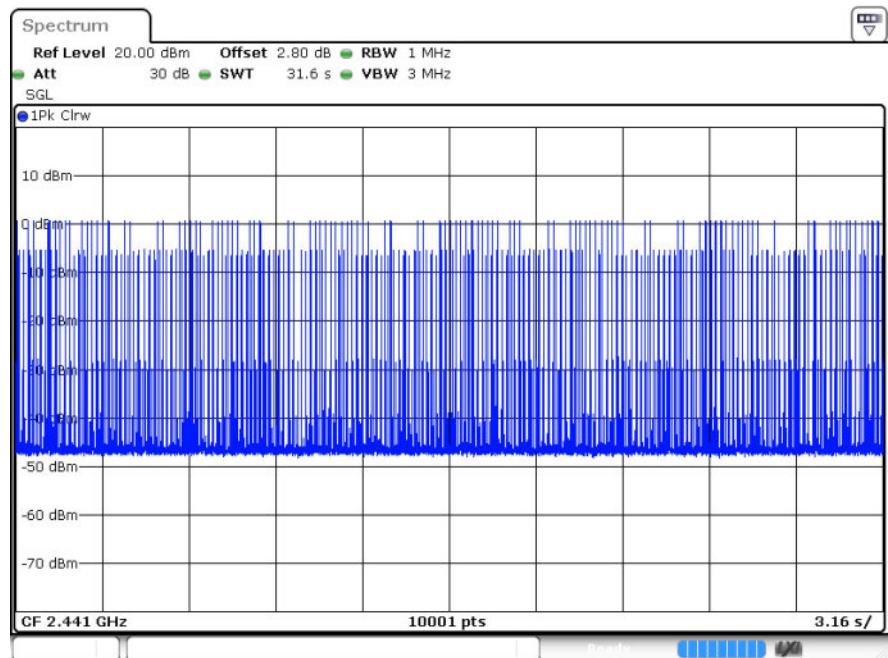
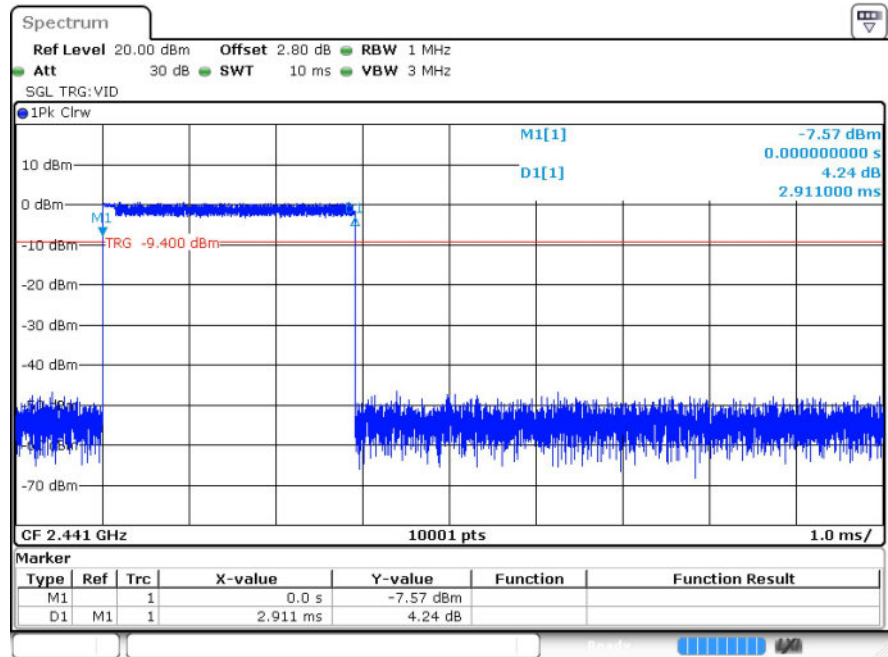
6.1 Test Result

Mode	Packet	Channel	Burst Width [ms/hop/ch]	Total Hops[hop*ch]	Dwell Time[ms]	Limit [s]	Verdict
GFSK	DH5	MCH	2.906	102	296.412	0.4	Pass
$\pi/4$ DQPSK	2DH5	MCH	2.911	110	320.21	0.4	Pass
8DPSK	3DH5	MCH	2.911	109	317.299	0.4	Pass

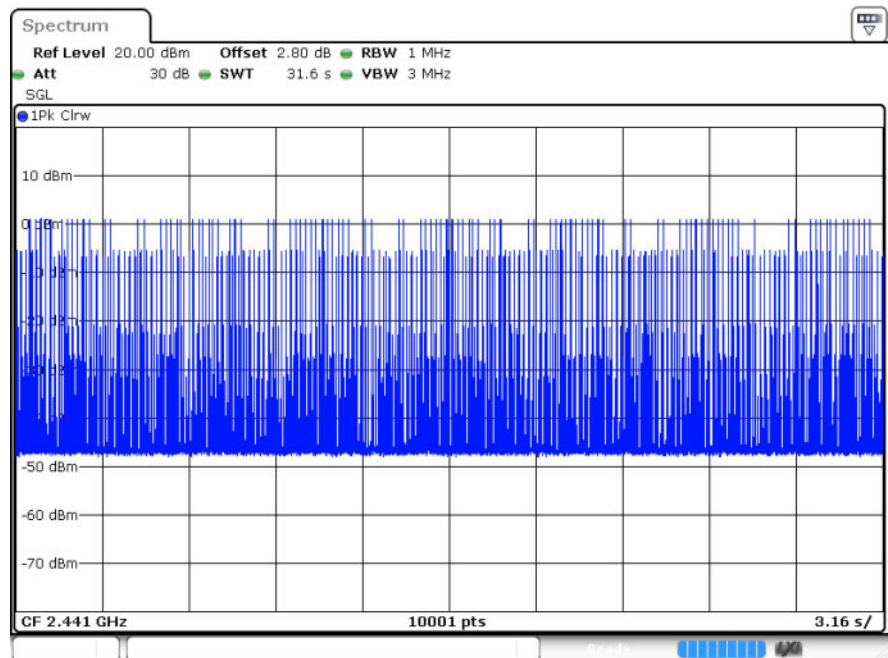
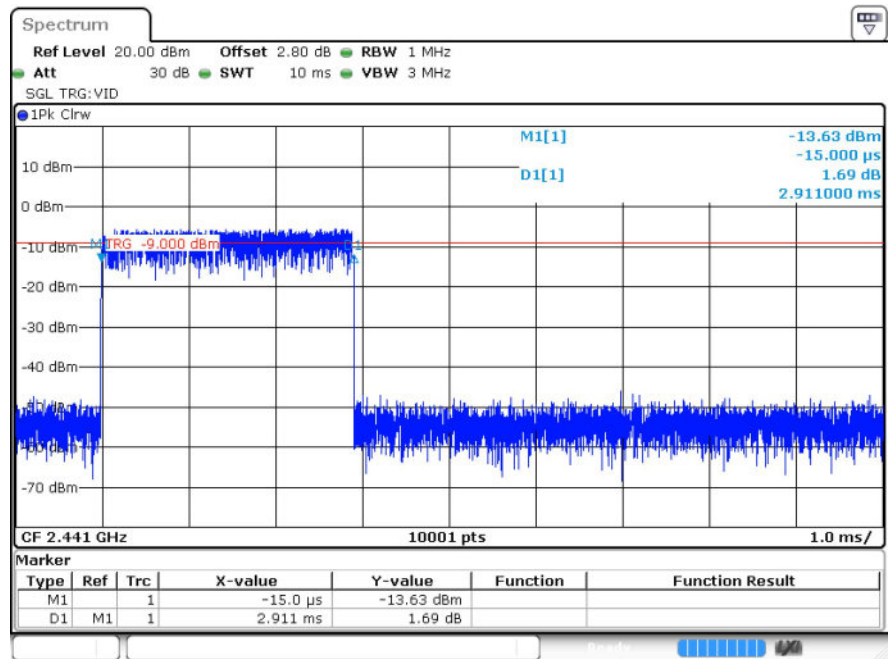
6.2 Test Graphs



$\pi/4$ DQPSK
_2DH5/MCH



8DPSK_3DH5/MCH



7 RF Conducted Spurious Emissions

7.1 Test Result

Mode	Channel	Max. Level [dBc]	Limit [dBc]	Verdict
GFSK	LCH	-41.11	-20	Pass
	MCH	-41.17	-20	Pass
	HCH	-41.95	-20	Pass
$\pi/4$ DQPSK	LCH	-40.11	-20	Pass
	MCH	-41.41	-20	Pass
	HCH	-41.35	-20	Pass
8DPSK	LCH	-41.16	-20	Pass
	MCH	-41.32	-20	Pass
	HCH	-42.44	-20	Pass

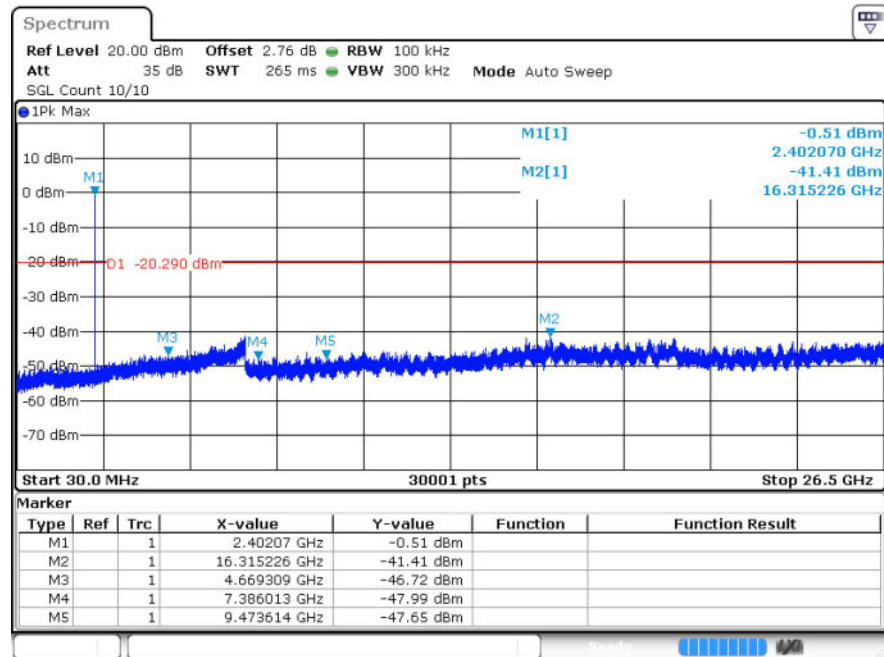
7.2 Test Graphs

GFSK_LCH_Graphs

Pref

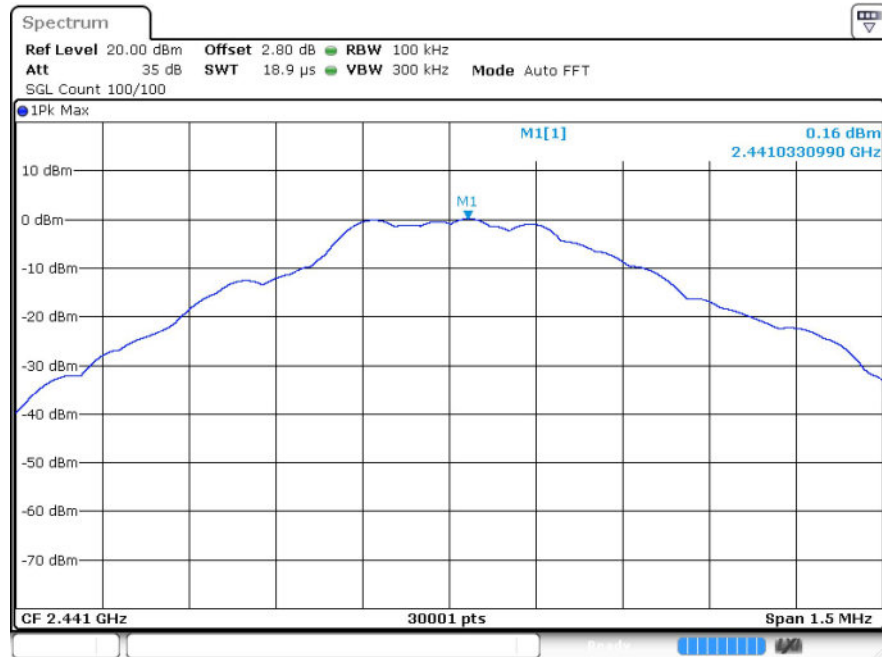


Puw

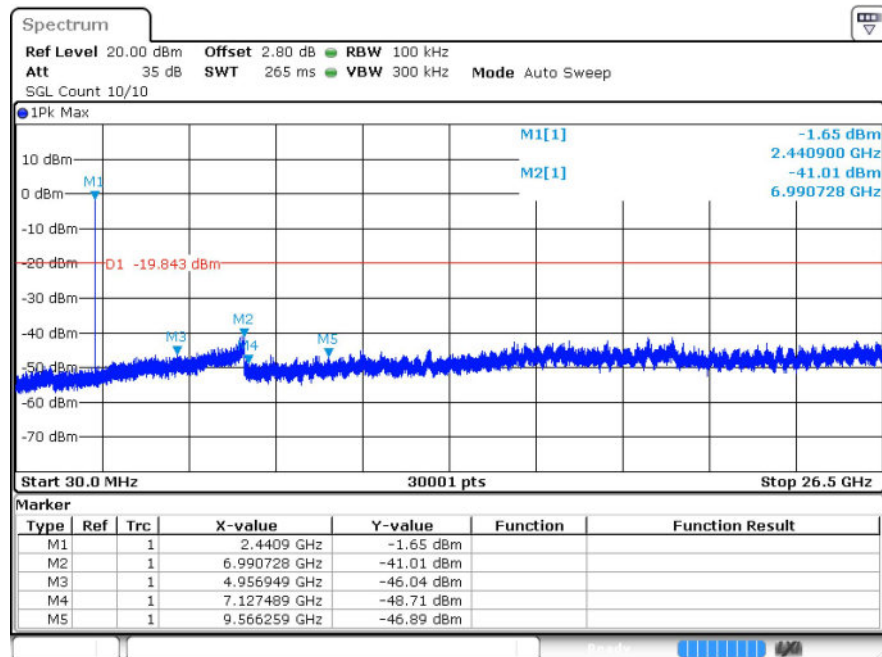


GFSK_MCH_Graphs

Pref

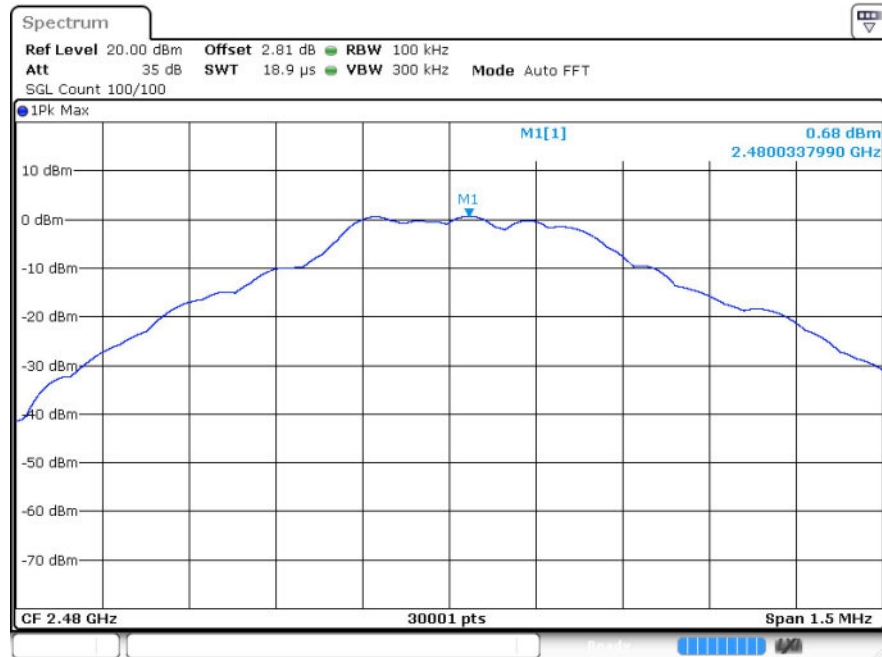


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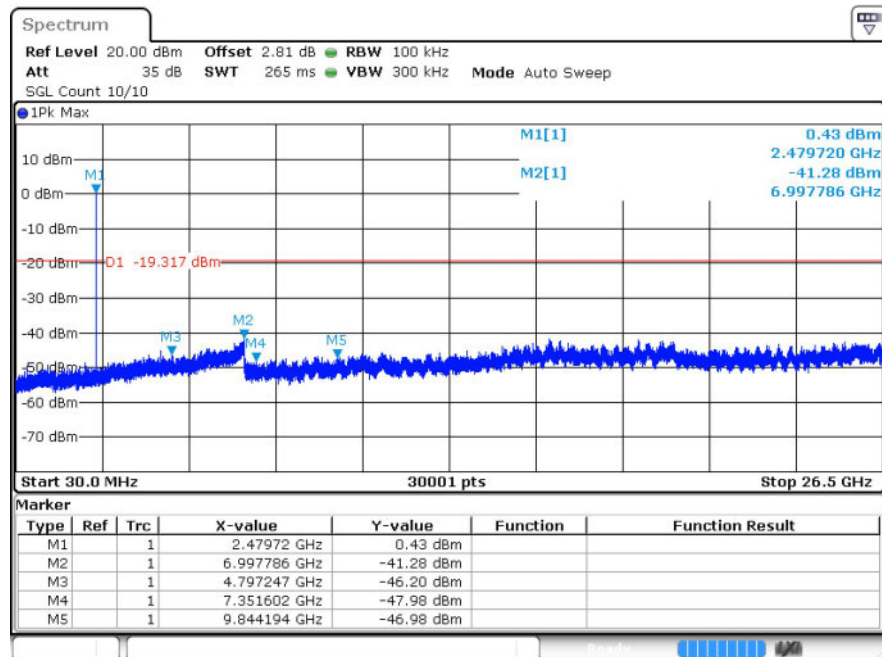


GFSK_HCH_Graphs

Pref

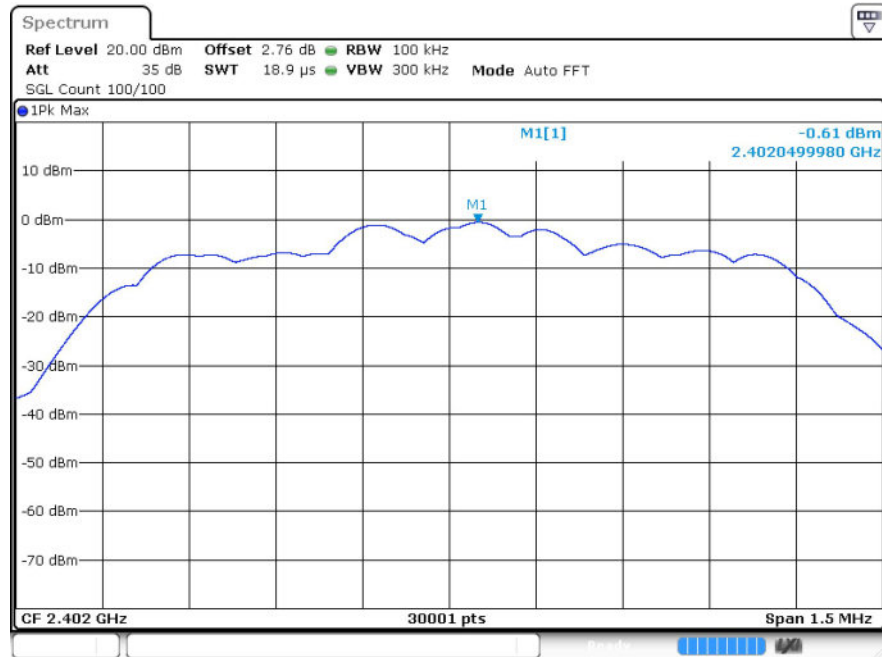


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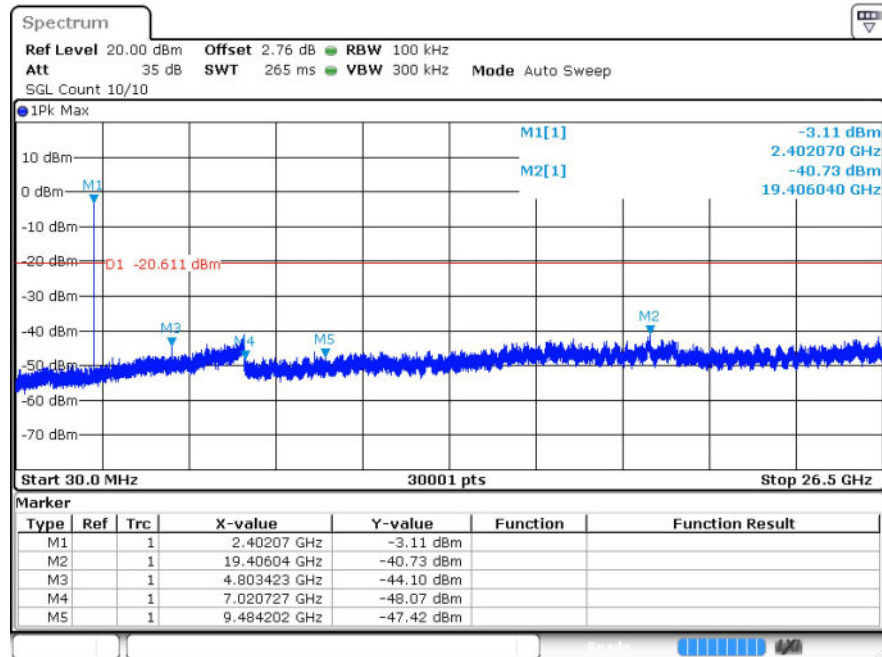


$\pi/4$ DQPSK_LCH_Graphs

Pref

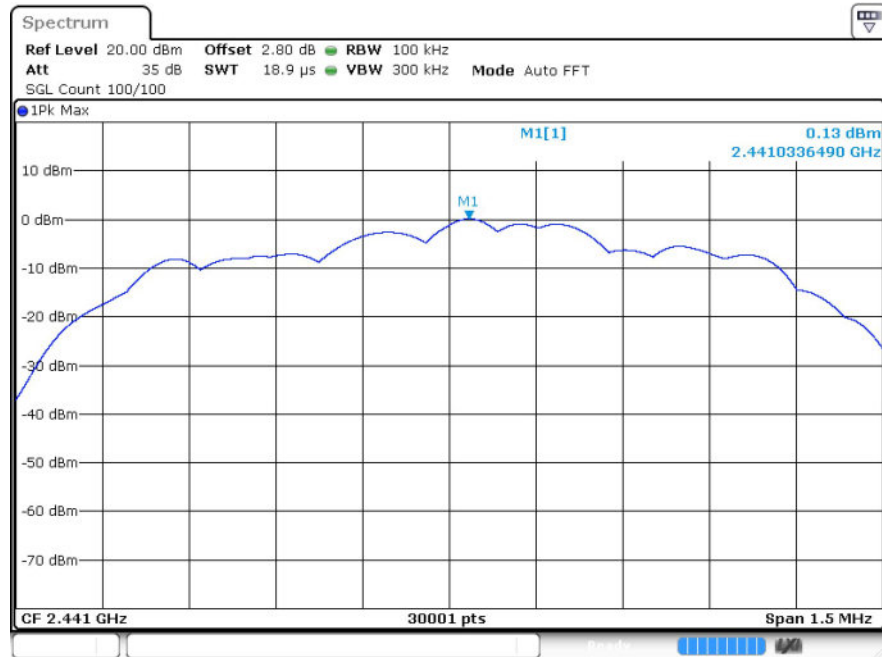


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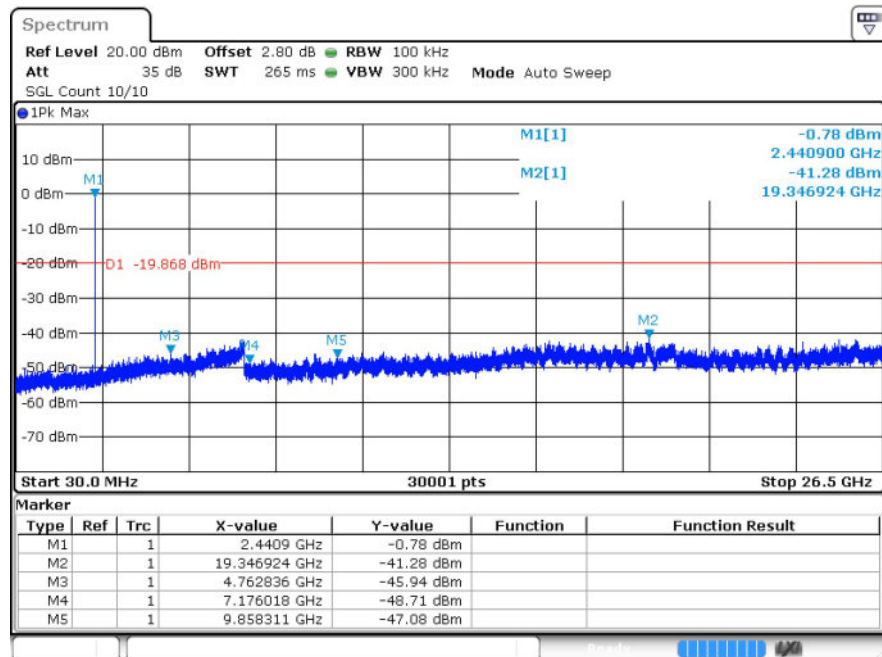


π /4DQPSK_MCH_Graphs

Pref

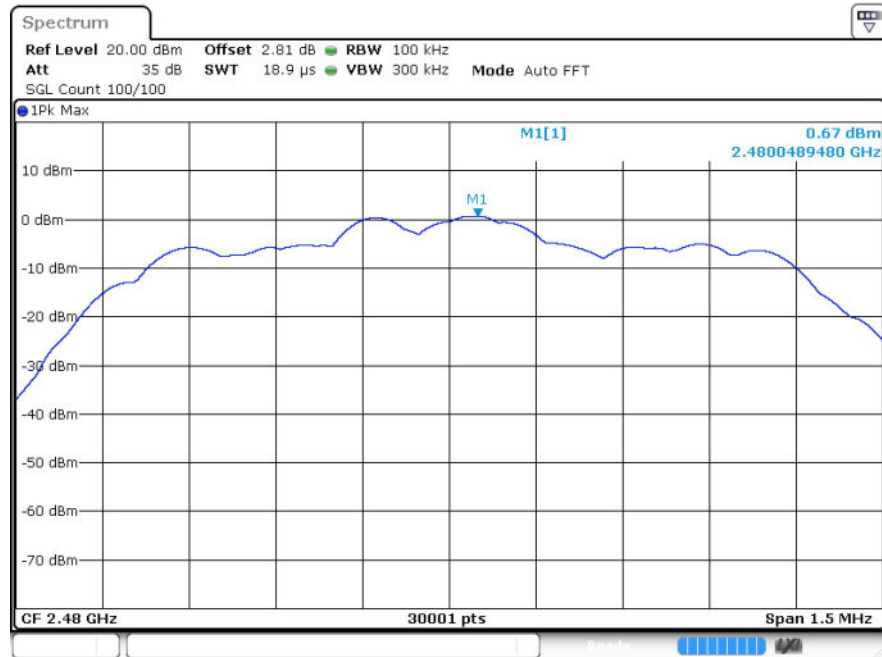


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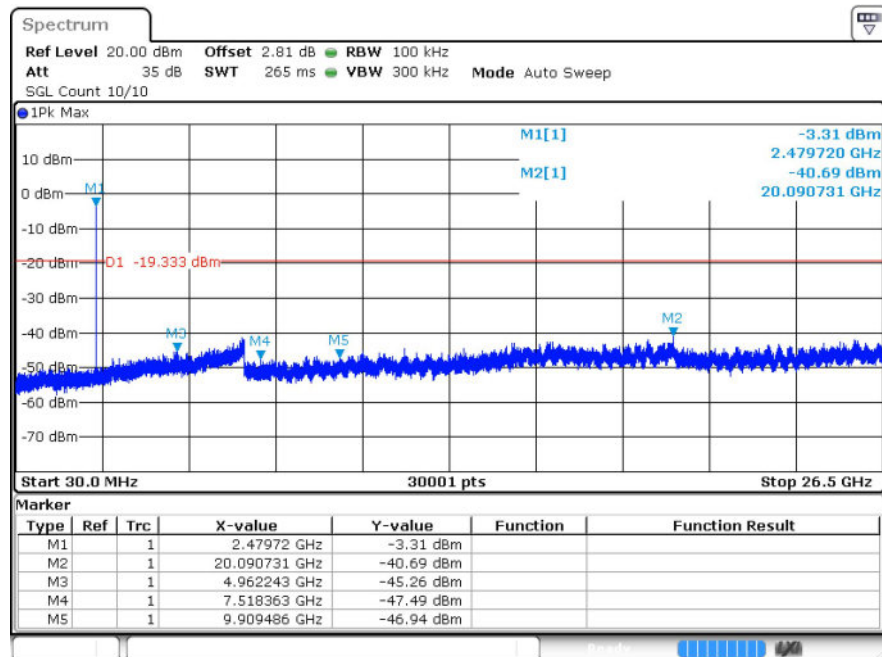


$\pi/4$ DQPSK_HCH_Graphs

Pref

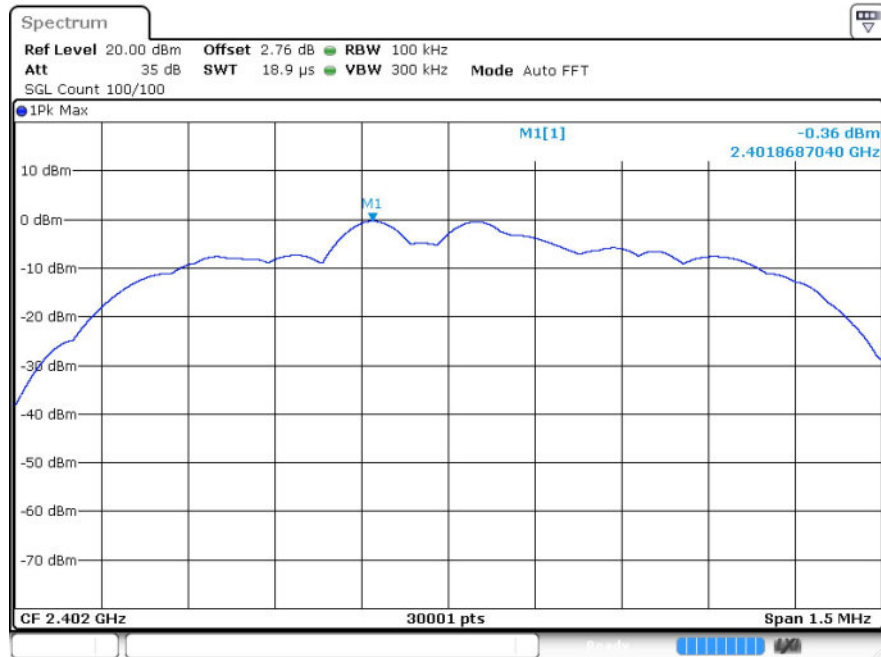


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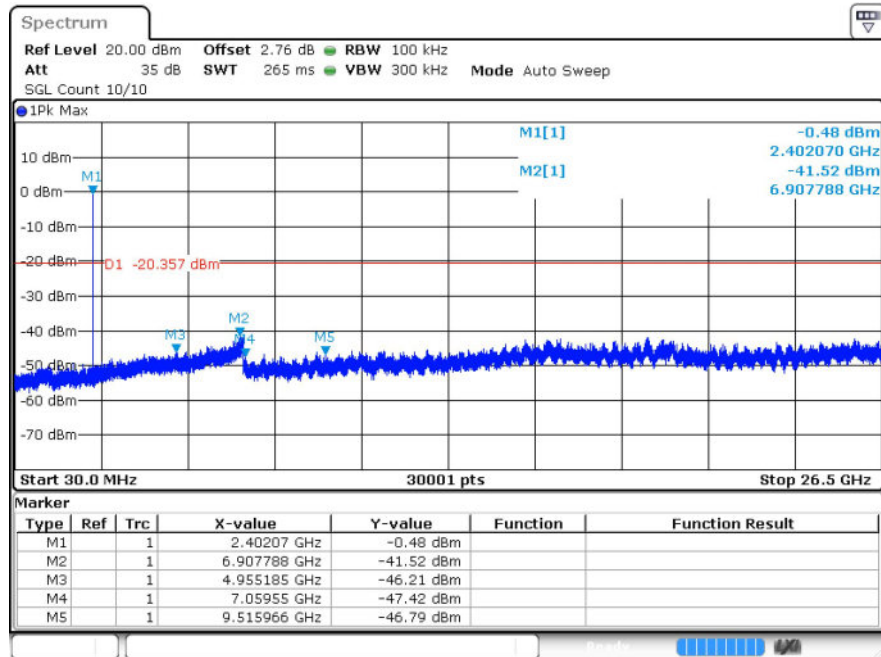


8DPSK_LCH_Graphs

Pref

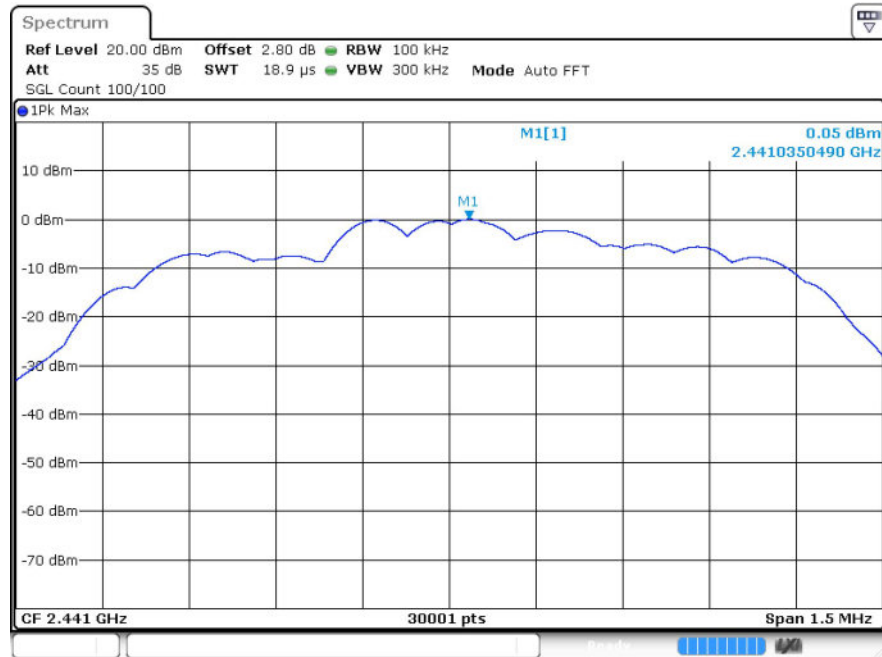


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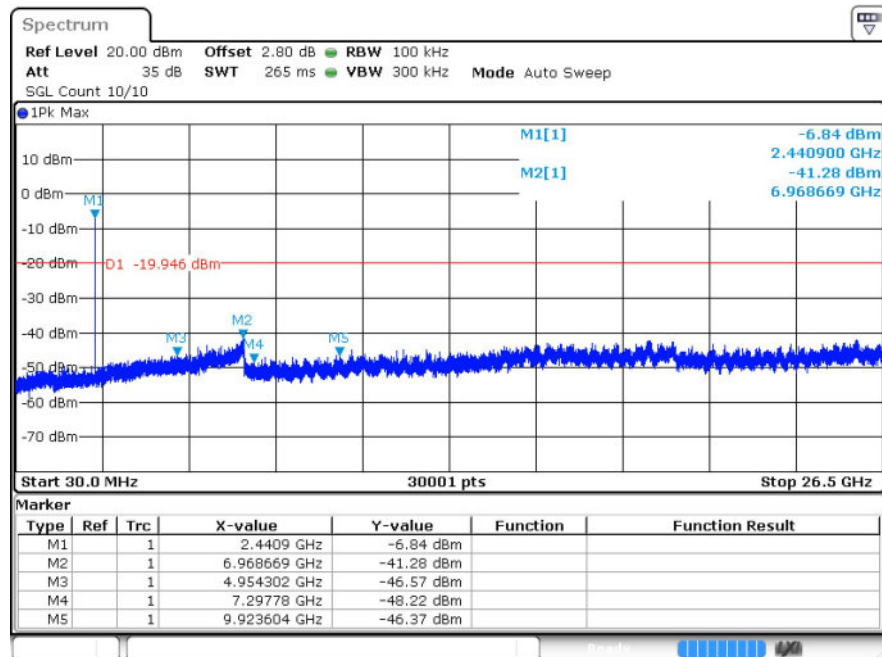


8DPSK_MCH_Graphs

Pref

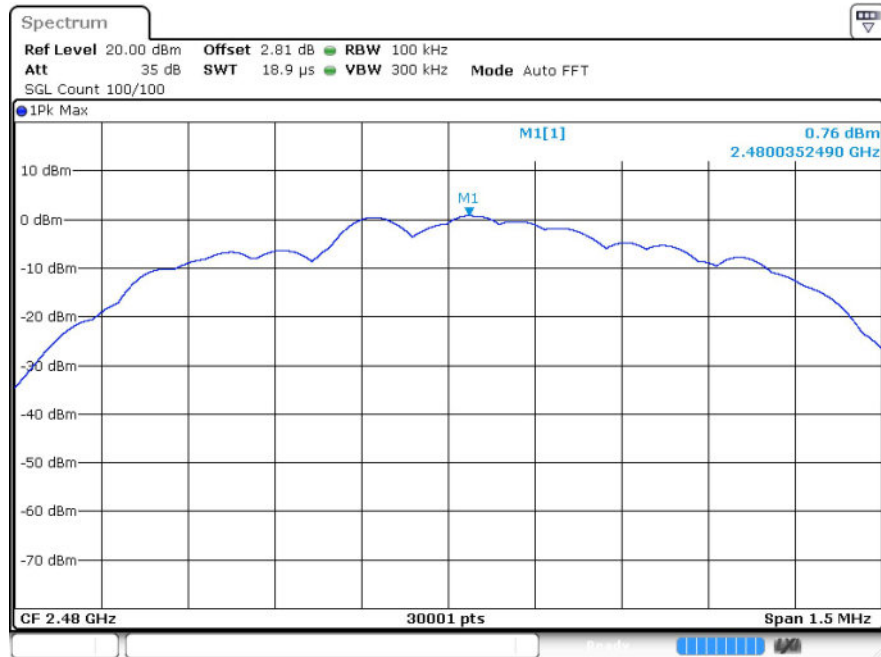


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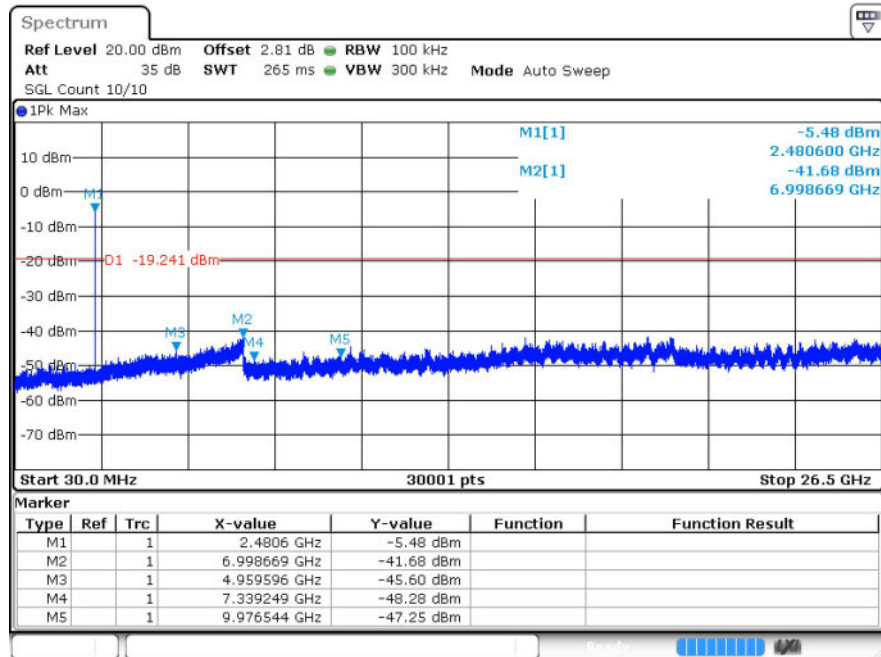


8DPSK_HCH_Graphs

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	-55.66	-20	Pass
			On	-54.96	-20	Pass
	HCH	2480	Off	-56.52	-20	Pass
			On	-55.5	-20	Pass
$\pi/4$ DQPSK	LCH	2402	Off	-54.67	-20	Pass
			On	-54.64	-20	Pass
	HCH	2480	Off	-56.67	-20	Pass
			On	-55.56	-20	Pass
8DPSK	LCH	2402	Off	-53.96	-20	Pass
			On	-54.38	-20	Pass
	HCH	2480	Off	-56.02	-20	Pass
			On	-55.9	-20	Pass

8.2 Test Graphs

