Appendix for n5A (824-849)

Catalogue

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1. Effective Radiated Power

1.1. Test Results @ Ant0 (Antenna Gain=-5.60dBi)

SCS	Bandwidth	Channel	Modulation	Conducted Result (dBm)			Max ERP (dBm)	Limit (dBm)	Verdict
				Inner_1RB_Left	Inner_1RB_Right	Inner_Full			
15KHz	5MHz	LCH	DFT-Pi2BPSK	22.71	22.67	22.57	14.96	38.45	Pass
15KHz	5MHz	LCH	DFT-QPSK	22.76	22.70	22.58	15.01	38.45	Pass
15KHz	5MHz	LCH	DFT-16QAM	22.67	22.52	22.68	14.93	38.45	Pass
15KHz	5MHz	LCH	DFT-64QAM	21.64	21.46	21.33	13.89	38.45	Pass
15KHz	5MHz	LCH	DFT-256QAM	18.88	18.78	19.23	11.48	38.45	Pass
15KHz	5MHz	LCH	CP-QPSK	22.26	22.16	22.42	14.67	38.45	Pass
15KHz	5MHz	MCH	DFT-Pi2BPSK	22.53	22.62	22.45	14.87	38.45	Pass
15KHz	5MHz	MCH	DFT-QPSK	22.58	22.59	22.49	14.84	38.45	Pass
15KHz	5MHz	MCH	DFT-16QAM	22.53	22.53	22.63	14.88	38.45	Pass
15KHz	5MHz	MCH	DFT-64QAM	21.48	21.50	21.35	13.75	38.45	Pass
15KHz	5MHz	MCH	DFT-256QAM	18.70	18.82	19.17	11.42	38.45	Pass
15KHz	5MHz	MCH	CP-QPSK	22.13	22.26	22.34	14.59	38.45	Pass
15KHz	5MHz	HCH	DFT-Pi2BPSK	22.72	22.69	22.54	14.97	38.45	Pass
15KHz	5MHz	HCH	DFT-QPSK	22.59	22.72	22.67	14.97	38.45	Pass
15KHz	5MHz	HCH	DFT-16QAM	22.62	22.63	22.72	14.97	38.45	Pass
15KHz	5MHz	HCH	DFT-64QAM	21.52	21.58	21.36	13.83	38.45	Pass
15KHz	5MHz	HCH	DFT-256QAM	18.86	18.84	19.26	11.51	38.45	Pass
15KHz	5MHz	HCH	CP-QPSK	22.32	22.34	22.40	14.65	38.45	Pass
15KHz	10MHz	LCH	DFT-Pi2BPSK	22.61	22.55	22.52	14.86	38.45	Pass
15KHz	10MHz	LCH	DFT-QPSK	22.69	22.60	22.56	14.94	38.45	Pass
15KHz	10MHz	LCH	DFT-16QAM	22.59	22.61	22.64	14.89	38.45	Pass
15KHz	10MHz	LCH	DFT-64QAM	21.54	21.43	21.33	13.79	38.45	Pass
15KHz	10MHz	LCH	DFT-256QAM	18.85	18.79	19.18	11.43	38.45	Pass
15KHz	10MHz	LCH	CP-QPSK	22.27	22.16	22.17	14.52	38.45	Pass
15KHz	10MHz	MCH	DFT-Pi2BPSK	22.48	22.60	22.57	14.85	38.45	Pass
15KHz	10MHz	MCH	DFT-QPSK	22.56	22.64	22.62	14.89	38.45	Pass
15KHz	10MHz	MCH	DFT-16QAM	22.54	22.61	22.61	14.86	38.45	Pass
15KHz	10MHz	MCH	DFT-64QAM	21.46	21.46	21.31	13.71	38.45	Pass
15KHz	10MHz	MCH	DFT-256QAM	18.72	18.75	19.14	11.39	38.45	Pass
15KHz	10MHz	MCH	CP-QPSK	22.12	22.28	22.29	14.54	38.45	Pass
15KHz	10MHz	HCH	DFT-Pi2BPSK	22.58	22.70	22.66	14.95	38.45	Pass
15KHz	10MHz	HCH	DFT-QPSK	22.59	22.71	22.71	14.96	38.45	Pass
15KHz	10MHz	HCH	DFT-16QAM	22.50	22.57	22.72	14.97	38.45	Pass
15KHz	10MHz	HCH	DFT-64QAM	21.42	21.48	21.39	13.73	38.45	Pass
15KHz	10MHz	HCH	DFT-256QAM	18.65	18.77	19.29	11.54	38.45	Pass
15KHz	10MHz	HCH	CP-QPSK	22.11	22.19	22.19	14.44	38.45	Pass
15KHz	15MHz	LCH	DFT-Pi2BPSK	22.85	22.63	22.72	15.10	38.45	Pass
15KHz	15MHz	LCH	DFT-QPSK	22.86	22.66	22.69	15.11	38.45	Pass
15KHz	15MHz	LCH	DFT-16QAM	22.64	22.64	22.77	15.02	38.45	Pass
15KHz	15MHz	LCH	DFT-64QAM	21.62	21.49	21.49	13.87	38.45	Pass
15KHz	15MHz	LCH	DFT-256QAM	19.06	18.70	19.35	11.60	38.45	Pass
15KHz	15MHz	LCH	CP-QPSK	22.93	22.33	22.44	15.18	38.45	Pass
15KHz	15MHz	MCH	DFT-Pi2BPSK	22.72	22.72	22.66	14.97	38.45	Pass
15KHz	15MHz	MCH	DFT-QPSK	22.73	22.75	22.67	15.00	38.45	Pass
15KHz	15MHz	MCH	DFT-16QAM	22.67	22.69	22.71	14.96	38.45	Pass
15KHz	15MHz	MCH	DFT-64QAM	21.61	21.64	21.42	13.89	38.45	Pass
15KHz	15MHz	MCH	DFT-256QAM	18.97	18.85	19.23	11.48	38.45	Pass
15KHz	15MHz	MCH	CP-QPSK	22.41	22.47	22.36	14.72	38.45	Pass
15KHz	15MHz	HCH	DFT-Pi2BPSK	22.63	22.68	22.69	14.94	38.45	Pass
15KHz	15MHz	HCH	DFT-QPSK	22.72	22.71	22.71	14.97	38.45	Pass
15KHz	15MHz	HCH	DFT-16QAM	22.65	22.65	22.76	15.01	38.45	Pass
15KHz	15MHz	HCH	DFT-64QAM	21.55	21.57	21.46	13.82	38.45	Pass
15KHz	15MHz	HCH	DFT-256QAM	18.92	18.89	19.31	11.56	38.45	Pass
15KHz	15MHz	HCH	CP-QPSK	22.39	22.47	22.42	14.72	38.45	Pass
15KHz	20MHz	LCH	DFT-Pi2BPSK	22.77	22.80	22.69	15.05	38.45	Pass
15KHz	20MHz	LCH	DFT-QPSK	22.75	22.72	22.79	15.04	38.45	Pass
15KHz	20MHz	LCH	DFT-16QAM	22.70	22.73	22.76	15.01	38.45	Pass
15KHz	20MHz	LCH	DFT-64QAM	21.68	21.66	21.47	13.93	38.45	Pass

15KHz	20MHz	LCH	DFT-256QAM	19.01	18.95	19.37	11.62	38.45	Pass
15KHz	20MHz	LCH	CP-QPSK	22.49	22.38	22.42	14.74	38.45	Pass
15KHz	20MHz	MCH	DFT-Pi2BPSK	22.72	22.75	22.73	15.00	38.45	Pass
15KHz	20MHz	MCH	DFT-QPSK	22.80	22.75	22.74	15.05	38.45	Pass
15KHz	20MHz	MCH	DFT-16QAM	22.63	22.70	22.76	15.01	38.45	Pass
15KHz	20MHz	MCH	DFT-64QAM	21.58	21.66	21.49	13.91	38.45	Pass
15KHz	20MHz	MCH	DFT-256QAM	18.90	18.96	19.33	11.58	38.45	Pass
15KHz	20MHz	MCH	CP-QPSK	22.45	22.36	22.35	14.70	38.45	Pass
15KHz	20MHz	HCH	DFT-Pi2BPSK	22.73	22.70	22.76	15.01	38.45	Pass
15KHz	20MHz	HCH	DFT-QPSK	22.79	22.73	22.74	15.04	38.45	Pass
15KHz	20MHz	HCH	DFT-16QAM	22.70	22.65	22.73	14.98	38.45	Pass
15KHz	20MHz	HCH	DFT-64QAM	21.56	21.61	21.48	13.86	38.45	Pass
15KHz	20MHz	HCH	DFT-256QAM	18.88	18.97	19.38	11.63	38.45	Pass
15KHz	20MHz	HCH	CP-QPSK	22.43	22.34	22.43	14.68	38.45	Pass

2. Peak-to-Average Ratio

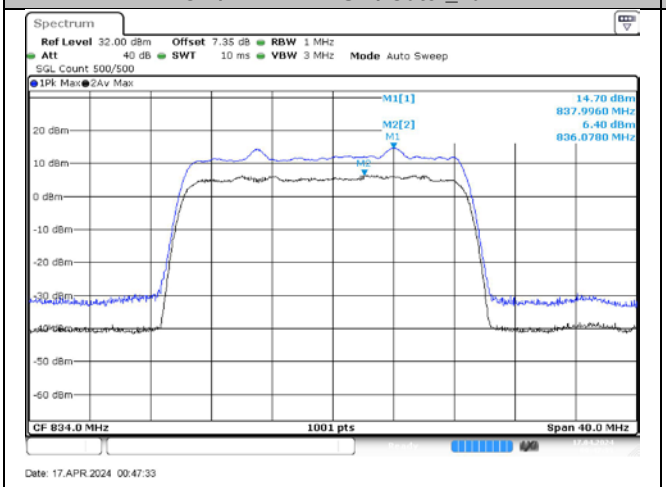
2.1. Test Results

SCS	Bandwidth	Channel	Modulation	Result (dB)		Limit (dB)	Verdict
				DFT-Pi2BPSK	DFT-QPSK		
15KHz	20MHz	LCH	Outer_Full	8.30	7.83	13.00	Pass
15KHz	20MHz	MCH	Outer_Full	8.42	7.30	13.00	Pass
15KHz	20MHz	HCH	Outer_Full	7.62	7.25	13.00	Pass

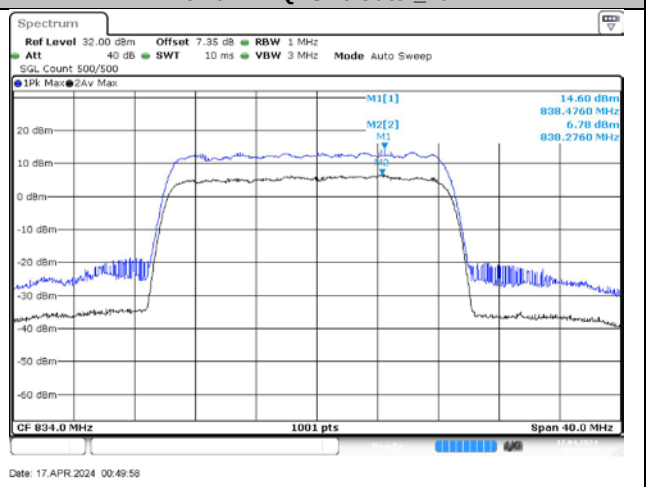
2.2. Test Plots

n5A / 15KHz / 20MHz

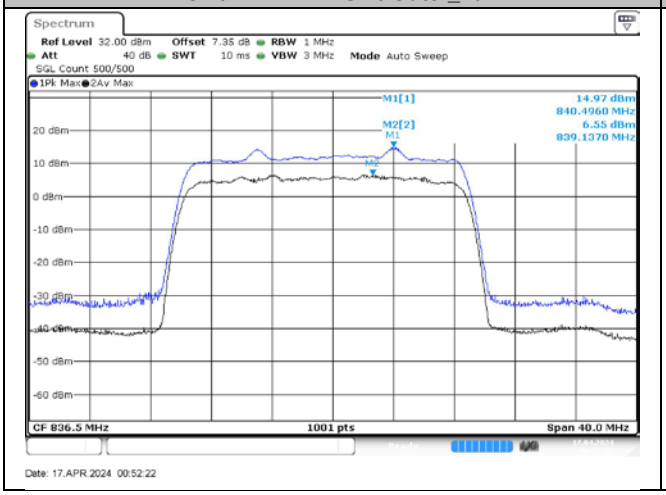
LCH / DFT-Pi2BPSK / Outer_Full



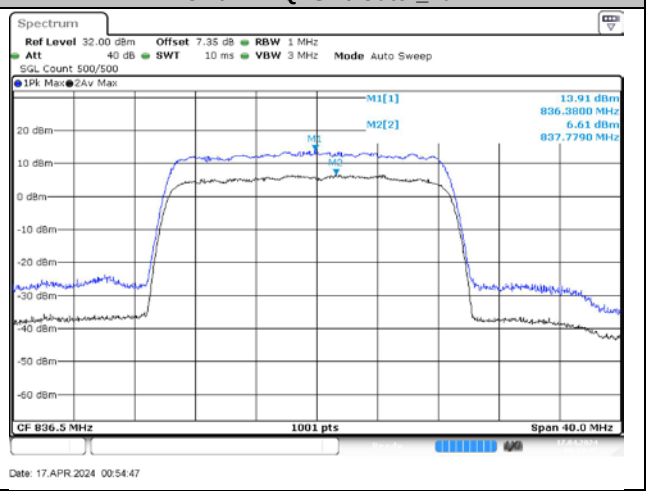
LCH / DFT-QPSK / Outer_Full

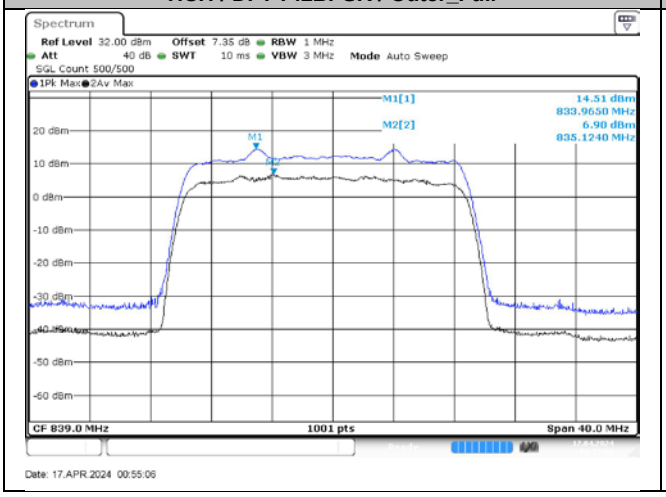
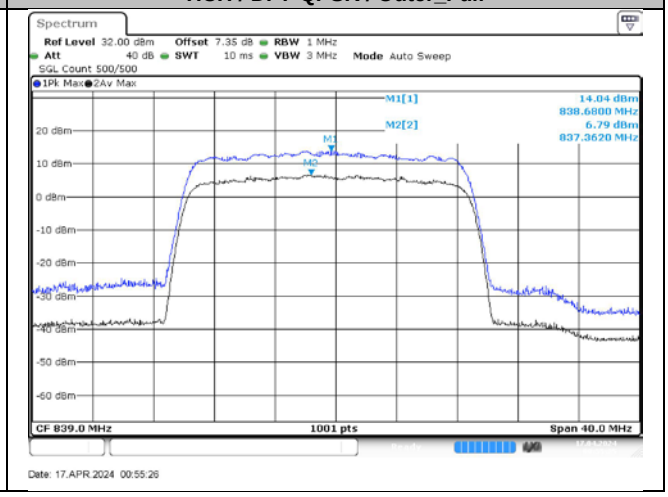


MCH / DFT-Pi2BPSK / Outer_Full



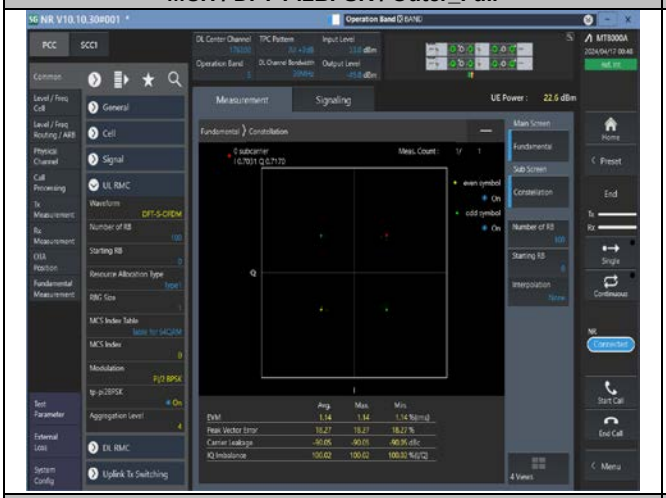
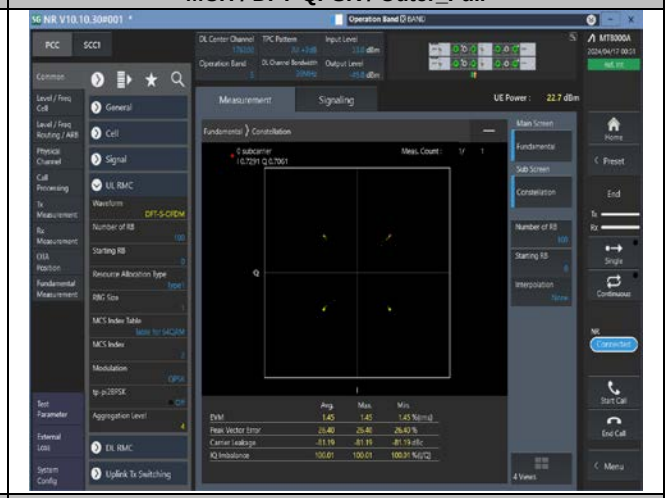
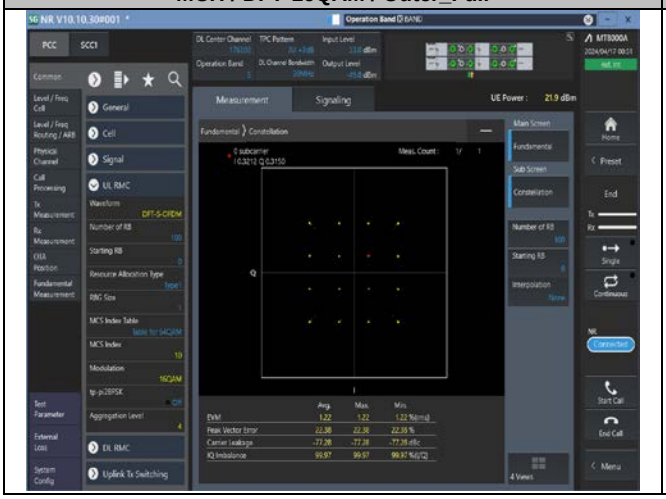
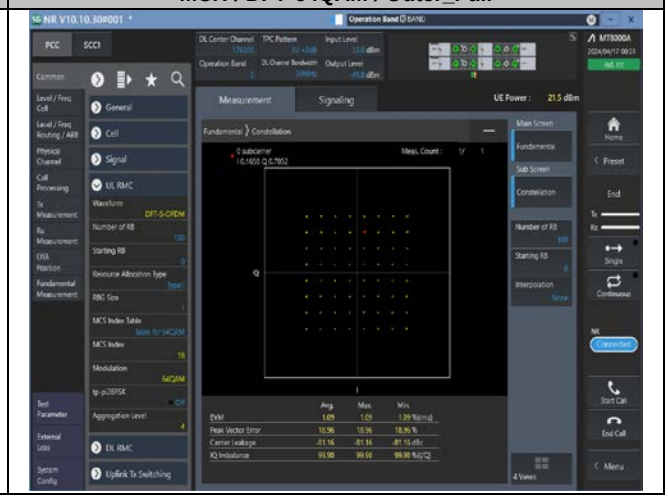
MCH / DFT-QPSK / Outer_Full

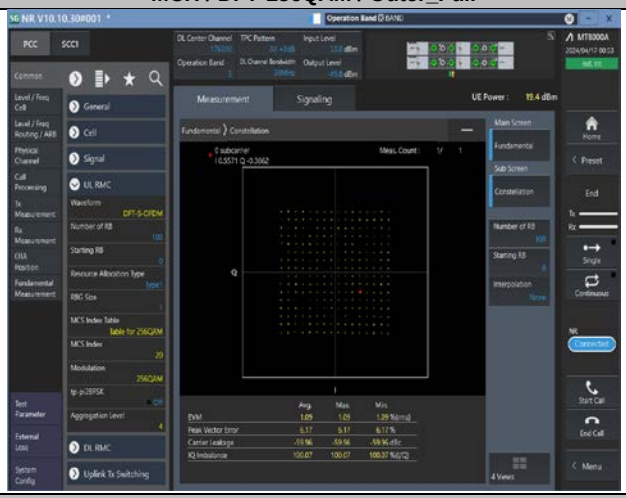
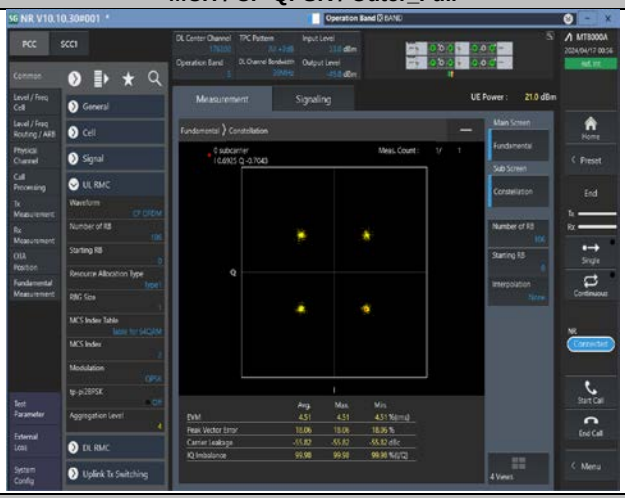
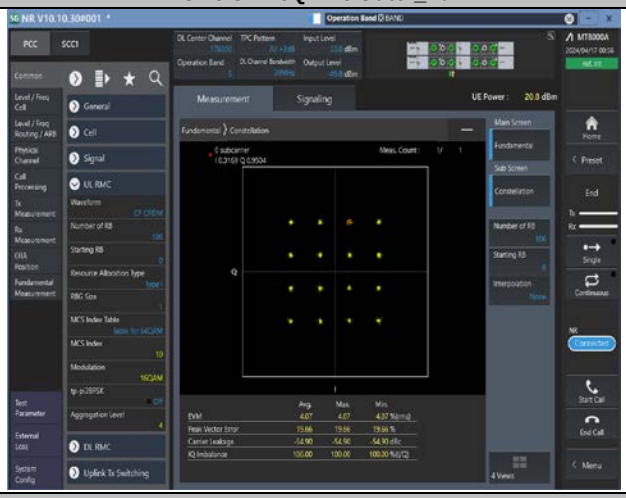
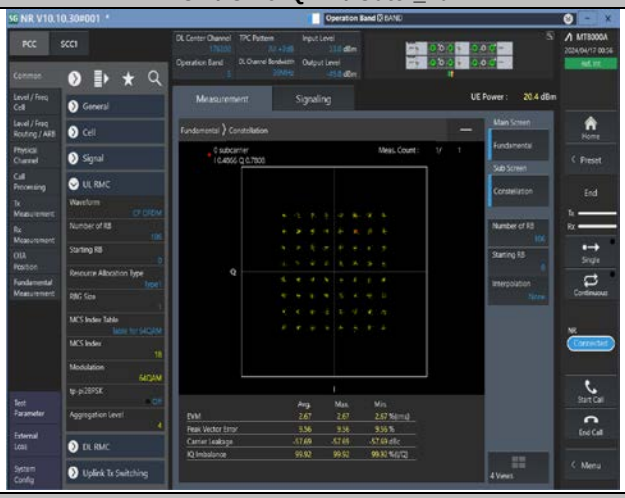
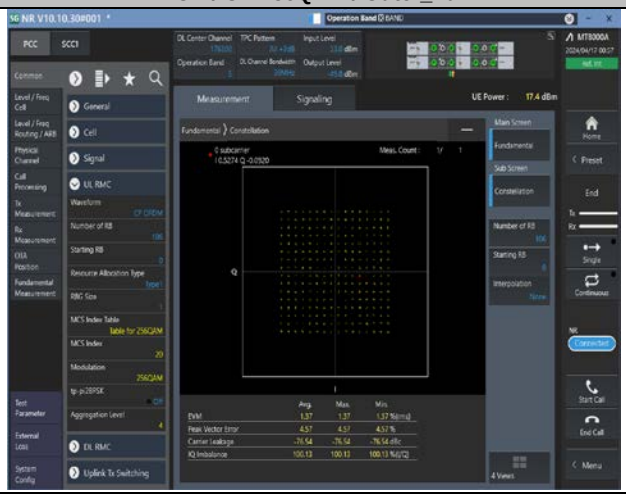


HCH / DFT-Pi2BPSK / Outer_Full	HCH / DFT-QPSK / Outer_Full
	

3. Modulation Characteristics

3.1. Test Plots

n5A / 15KHz / 20MHz	
MCH / DFT-Pi2BPSK / Outer_Full	MCH / DFT-QPSK / Outer_Full
	
MCH / DFT-16QAM / Outer_Full	MCH / DFT-64QAM / Outer_Full
	

MCH / DFT-256QAM / Outer_Full	MCH / CP-QPSK / Outer_Full
	
MCH / CP-16QAM / Outer_Full	**MCH / CP-64QAM / Outer_Full**
	
MCH / CP-256QAM / Outer_Full	
	*Intentionally Blank*

4. 99% Occupied Bandwidth & 26dB Emission Bandwidth

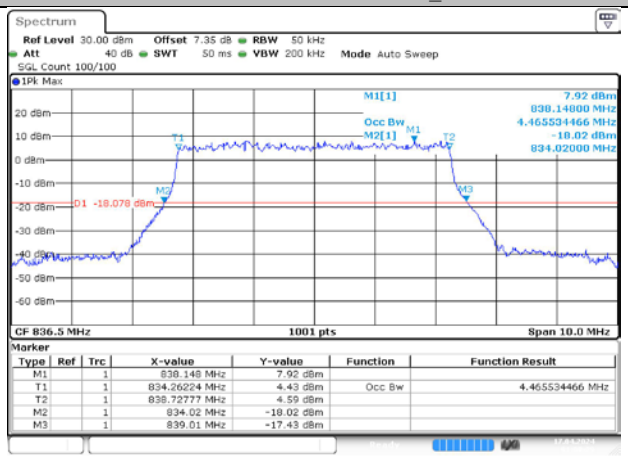
4.1. Test Results

SCS	Bandwidth	Modulation	RB Config	99% Occupied Bandwidth (MHz)	26dB Emission Bandwidth (MHz)	Verdict
15KHz	5MHz	DFT-Pi2BPSK	Outer_Full	4.47	4.99	Pass
15KHz	5MHz	DFT-QPSK	Outer_Full	4.47	4.93	Pass
15KHz	5MHz	CP-QPSK	Outer_Full	4.49	5.20	Pass
15KHz	5MHz	CP-16QAM	Outer_Full	4.50	5.21	Pass
15KHz	5MHz	CP-64QAM	Outer_Full	4.49	5.09	Pass
15KHz	5MHz	CP-256QAM	Outer_Full	4.48	5.13	Pass
15KHz	10MHz	DFT-Pi2BPSK	Outer_Full	8.91	9.58	Pass
15KHz	10MHz	DFT-QPSK	Outer_Full	8.93	9.68	Pass
15KHz	10MHz	CP-QPSK	Outer_Full	9.27	10.12	Pass
15KHz	10MHz	CP-16QAM	Outer_Full	9.27	10.04	Pass
15KHz	10MHz	CP-64QAM	Outer_Full	9.27	9.90	Pass
15KHz	10MHz	CP-256QAM	Outer_Full	9.29	10.10	Pass
15KHz	15MHz	DFT-Pi2BPSK	Outer_Full	13.37	14.37	Pass
15KHz	15MHz	DFT-QPSK	Outer_Full	13.40	14.31	Pass
15KHz	15MHz	CP-QPSK	Outer_Full	14.09	15.18	Pass
15KHz	15MHz	CP-16QAM	Outer_Full	14.09	15.09	Pass
15KHz	15MHz	CP-64QAM	Outer_Full	14.12	15.09	Pass
15KHz	15MHz	CP-256QAM	Outer_Full	14.06	15.09	Pass
15KHz	20MHz	DFT-Pi2BPSK	Outer_Full	17.82	18.80	Pass
15KHz	20MHz	DFT-QPSK	Outer_Full	17.78	18.80	Pass
15KHz	20MHz	CP-QPSK	Outer_Full	18.86	20.00	Pass
15KHz	20MHz	CP-16QAM	Outer_Full	18.90	20.00	Pass
15KHz	20MHz	CP-64QAM	Outer_Full	18.90	19.96	Pass
15KHz	20MHz	CP-256QAM	Outer_Full	18.94	19.96	Pass

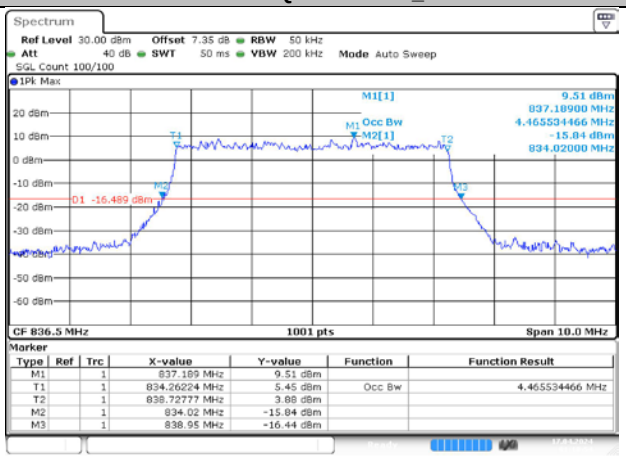
4.2. Test Plots

n5A / 15KHz / 5MHz

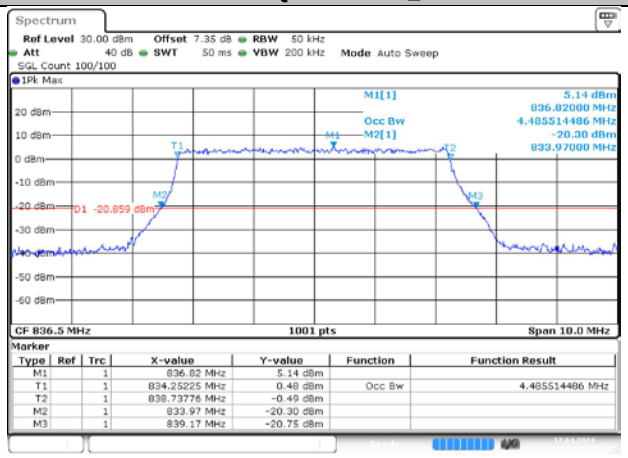
MCH / DFT-Pi2BPSK / Outer_Full



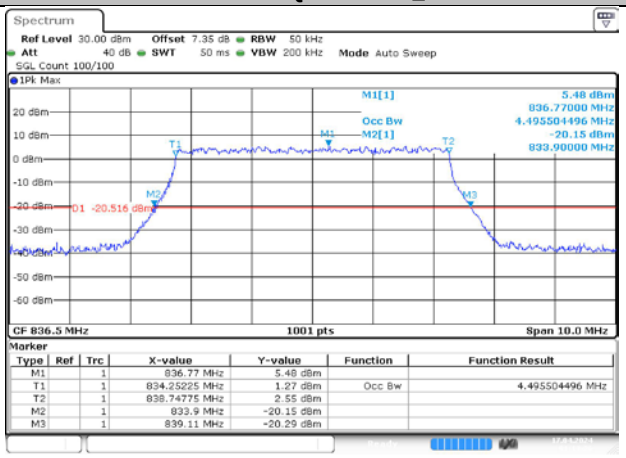
MCH / DFT-QPSK / Outer_Full



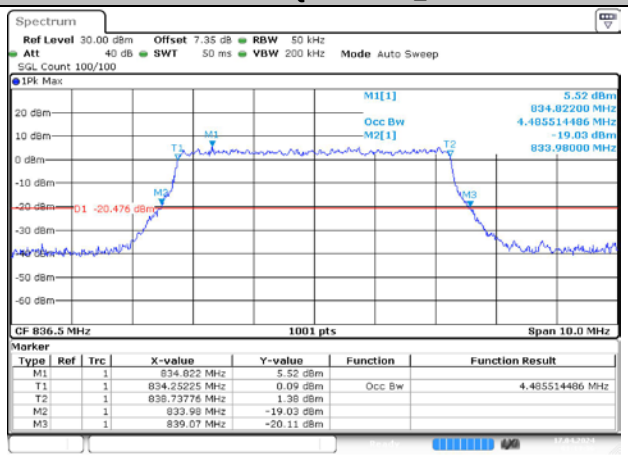
MCH / CP-QPSK / Outer_Full



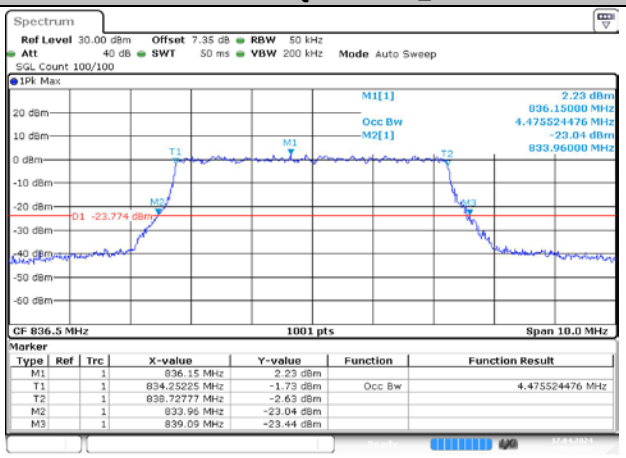
MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full

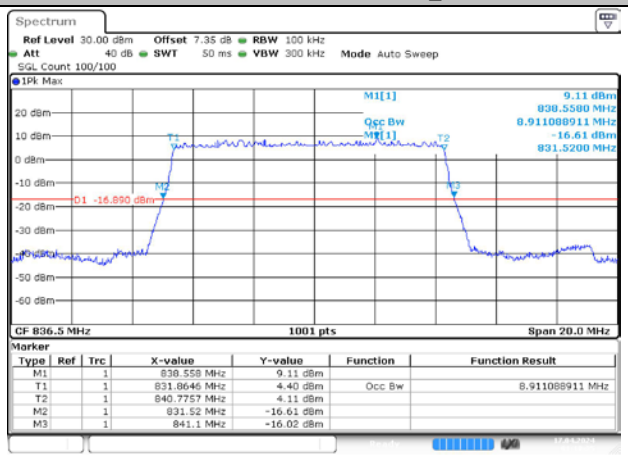


MCH / CP-256QAM / Outer_Full

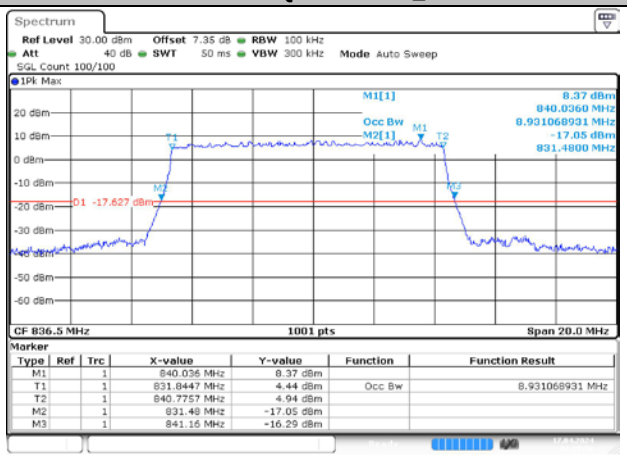


n5A / 15KHz / 10MHz

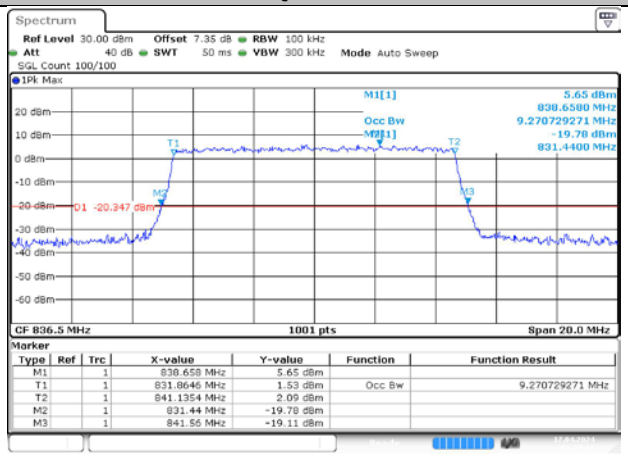
MCH / DFT-Pi2BPSK / Outer_Full



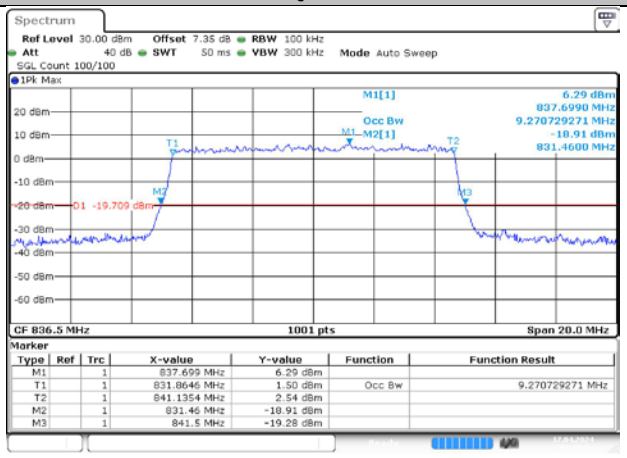
MCH / DFT-QPSK / Outer_Full



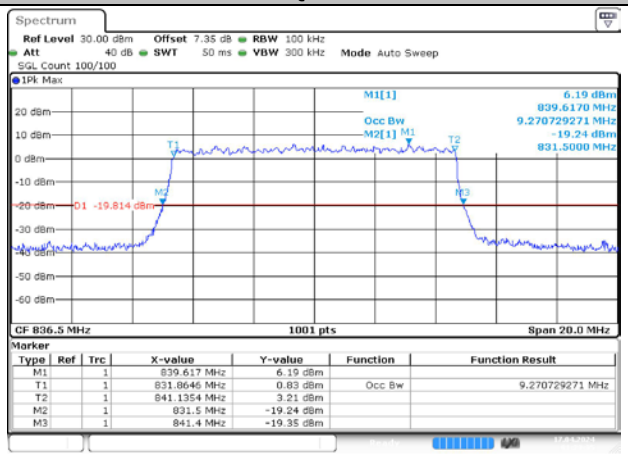
MCH / CP-QPSK / Outer_Full



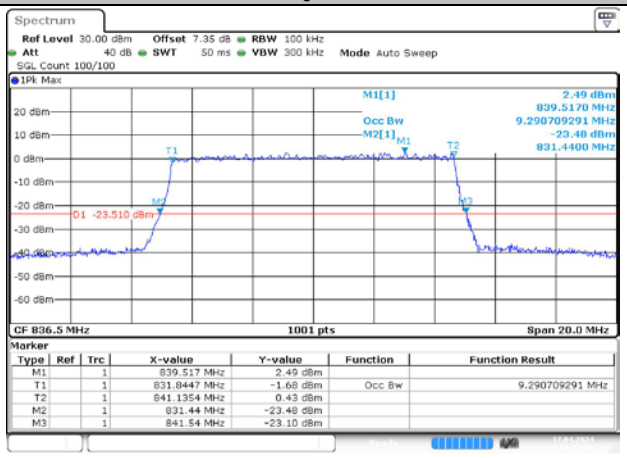
MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full

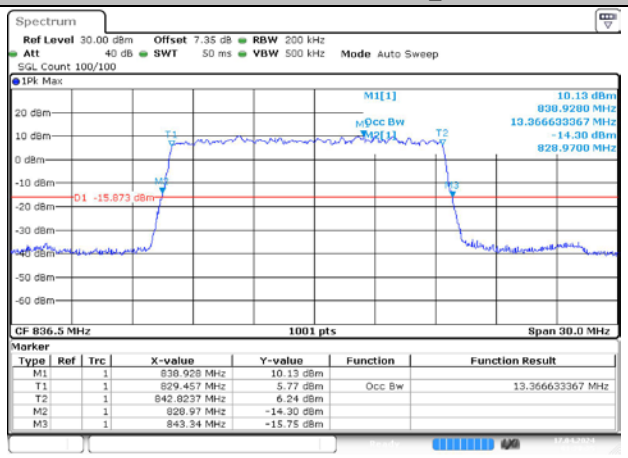


MCH / CP-256QAM / Outer_Full

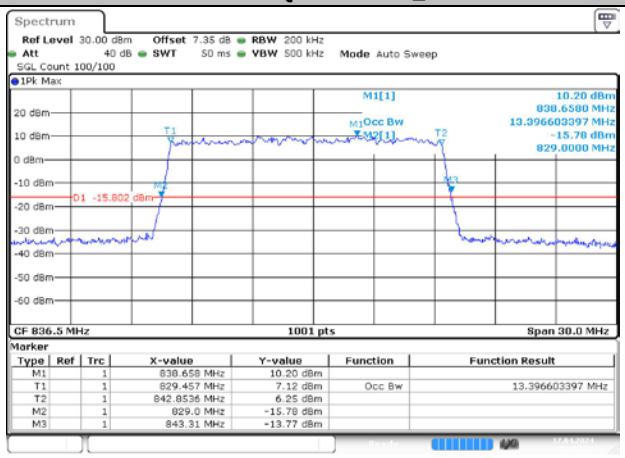


n5A / 15KHz / 15MHz

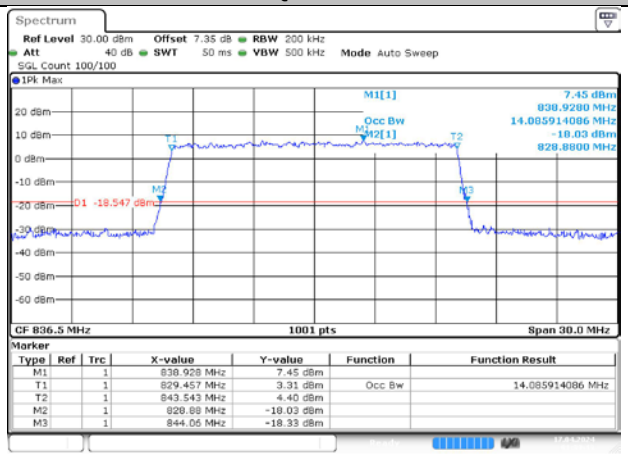
MCH / DFT-Pi2BPSK / Outer_Full



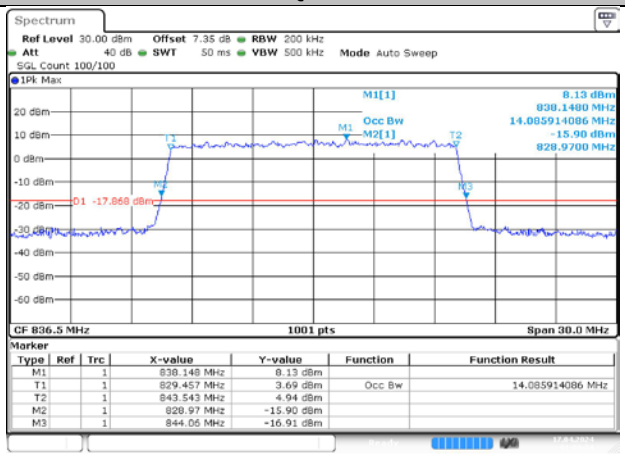
MCH / DFT-QPSK / Outer_Full



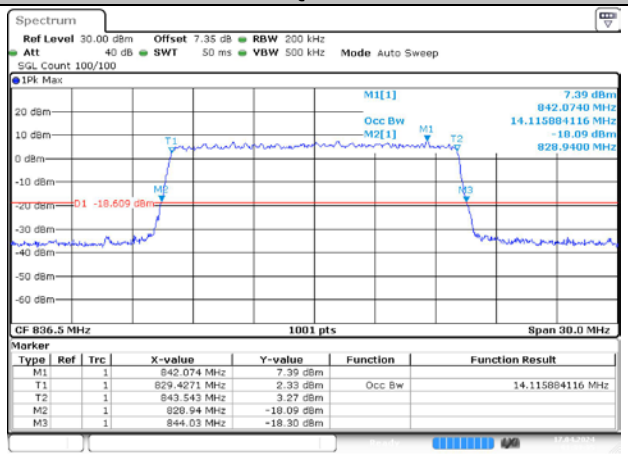
MCH / CP-QPSK / Outer_Full



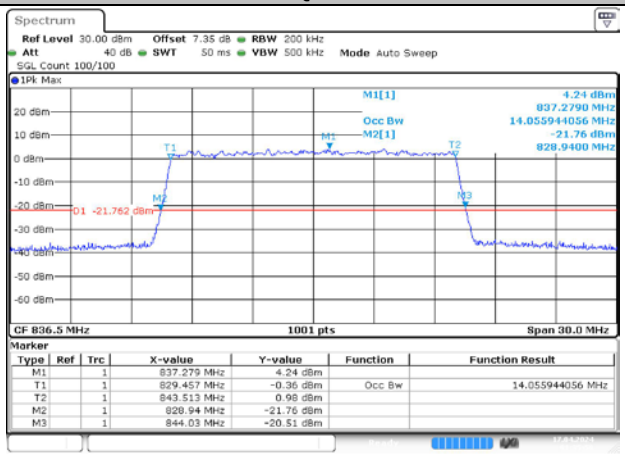
MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full

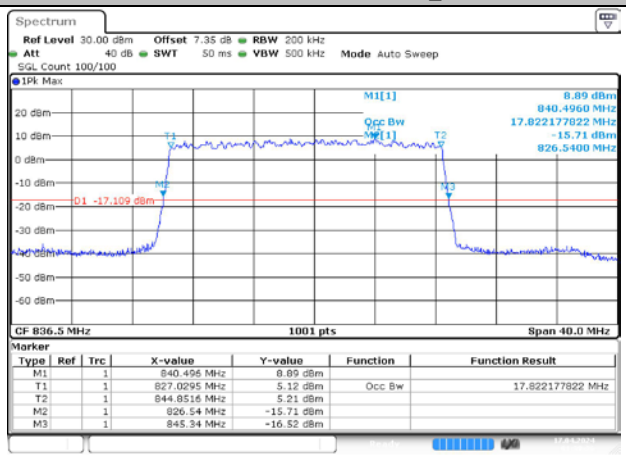


MCH / CP-256QAM / Outer_Full

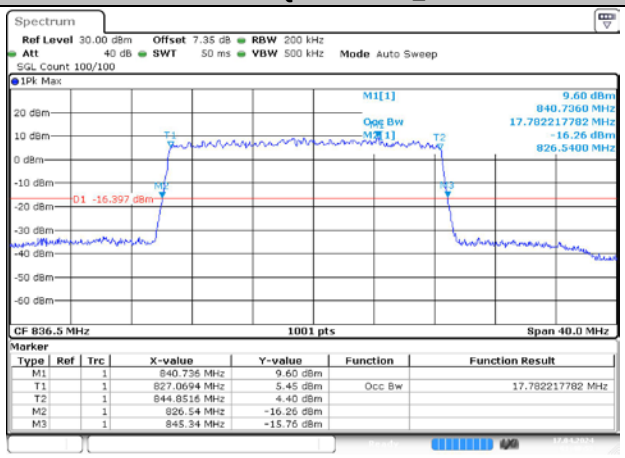


n5A / 15KHz / 20MHz

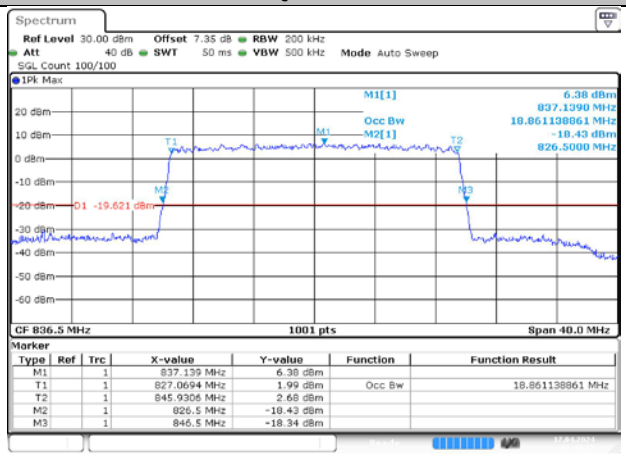
MCH / DFT-Pi2BPSK / Outer_Full



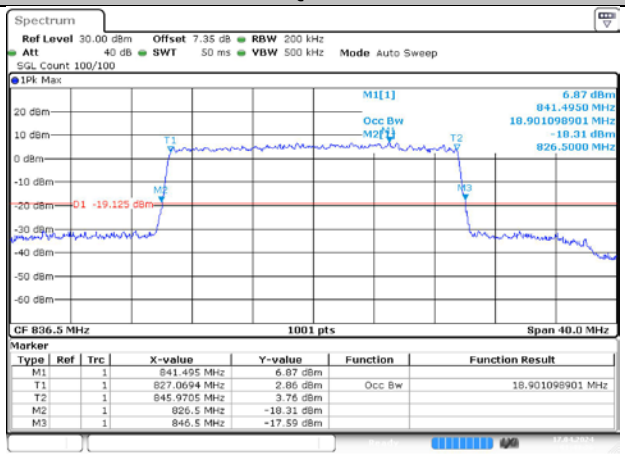
MCH / DFT-QPSK / Outer_Full



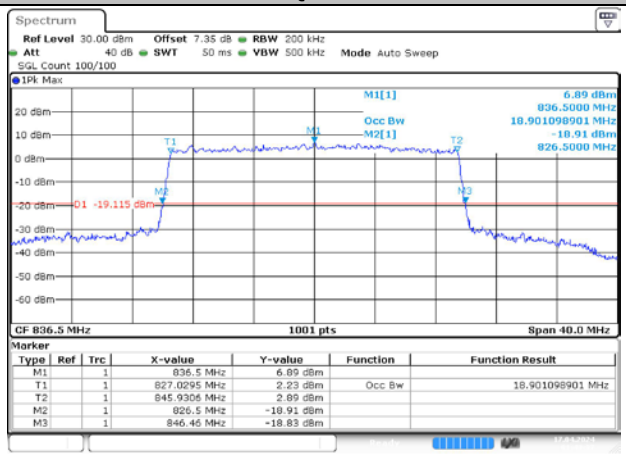
MCH / CP-QPSK / Outer_Full



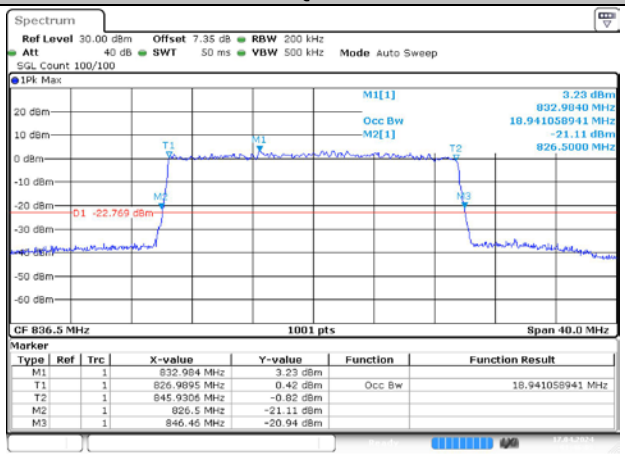
MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full



MCH / CP-256QAM / Outer_Full

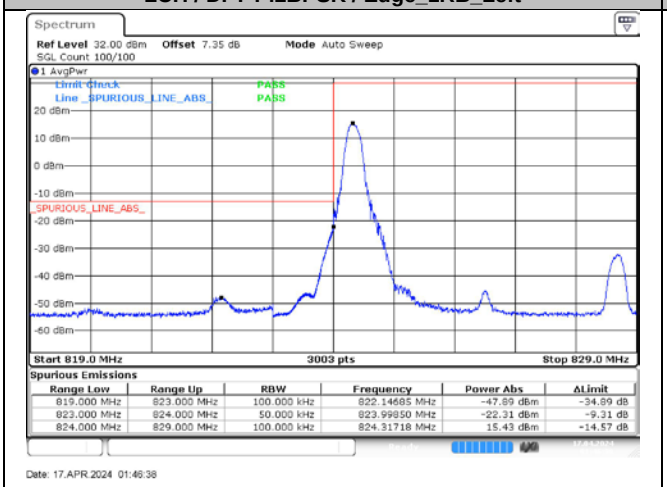


5. Conducted Band Edges

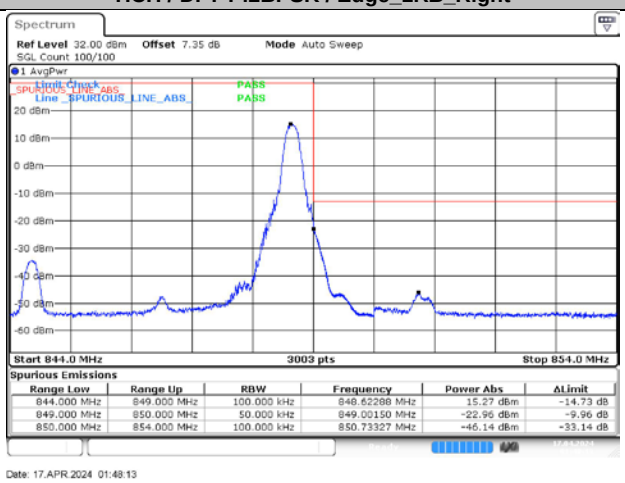
5.1. Test Plots

n5A / 15KHz / 5MHz

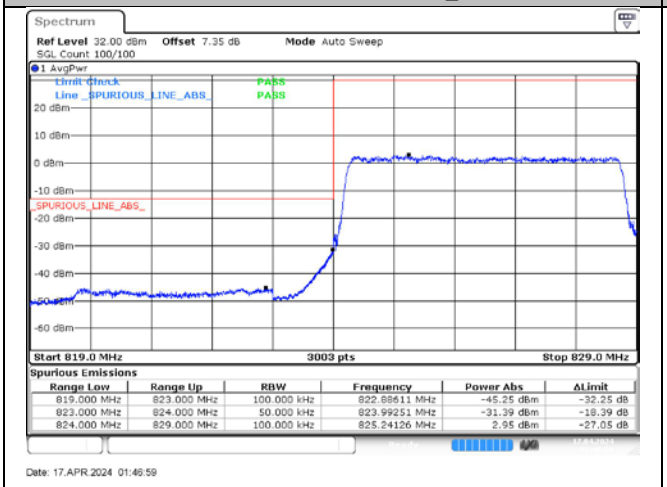
LCH / DFT-Pi2BPSK / Edge_1RB_Left



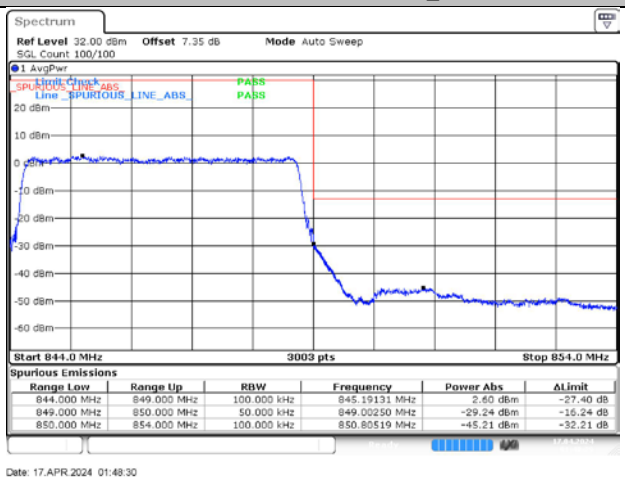
HCH / DFT-Pi2BPSK / Edge_1RB_Right



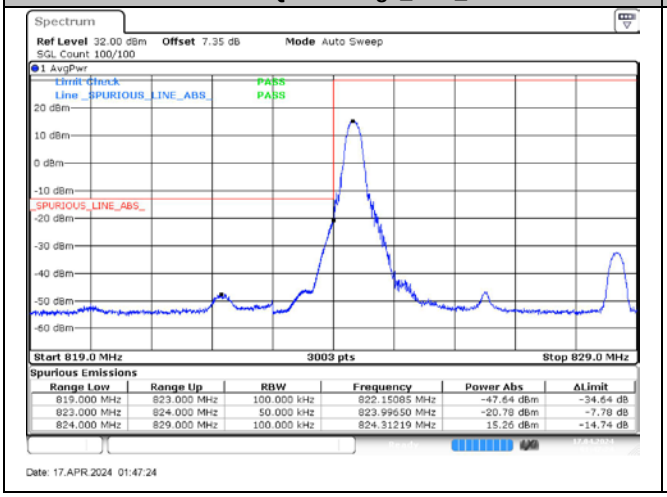
LCH / DFT-Pi2BPSK / Outer_Full



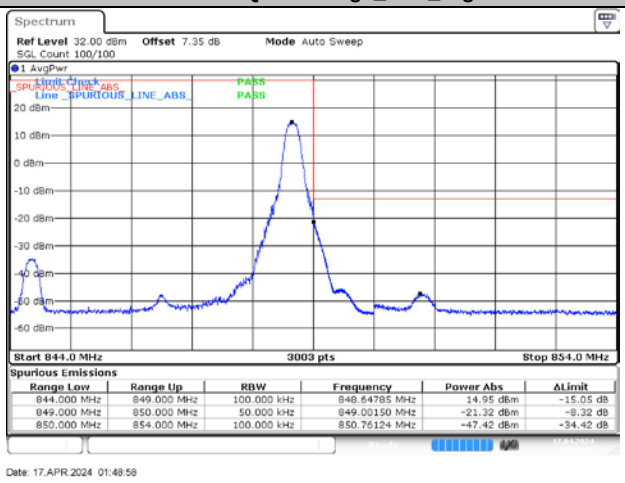
HCH / DFT-Pi2BPSK / Outer_Full



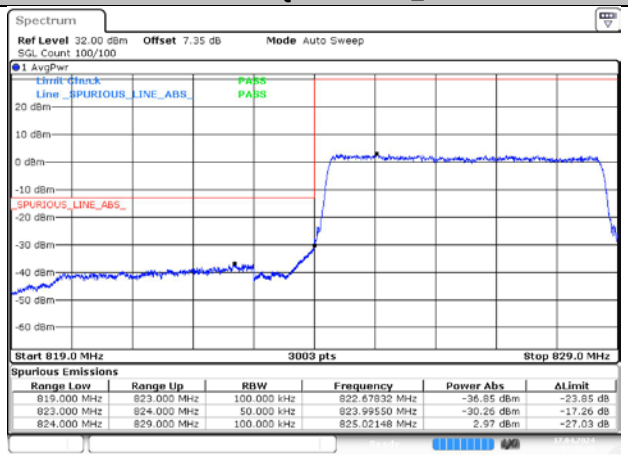
LCH / DFT-QPSK / Edge_1RB_Left



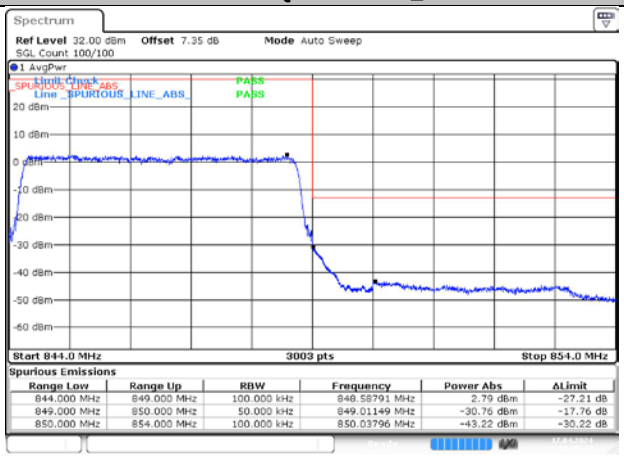
HCH / DFT-QPSK / Edge_1RB_Right



LCH / DFT-QPSK / Outer_Full

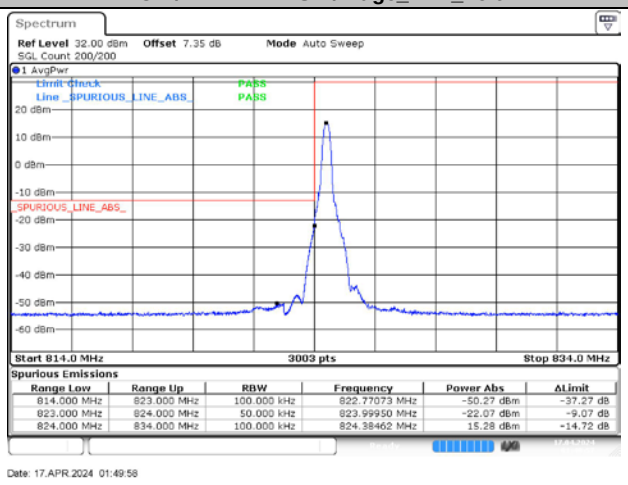


HCH / DFT-QPSK / Outer_Full

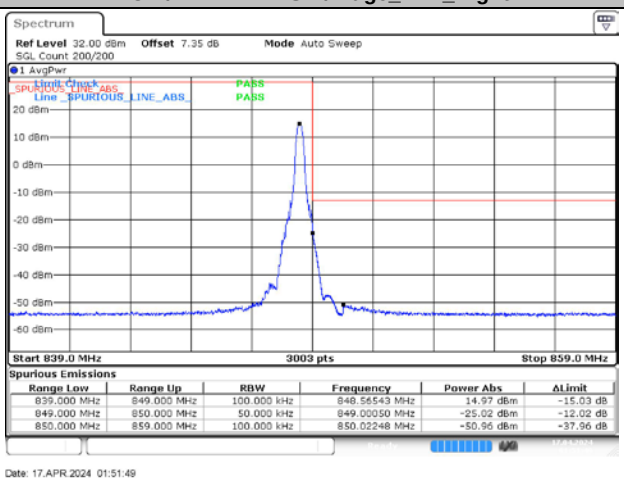


n5A / 15KHz / 10MHz

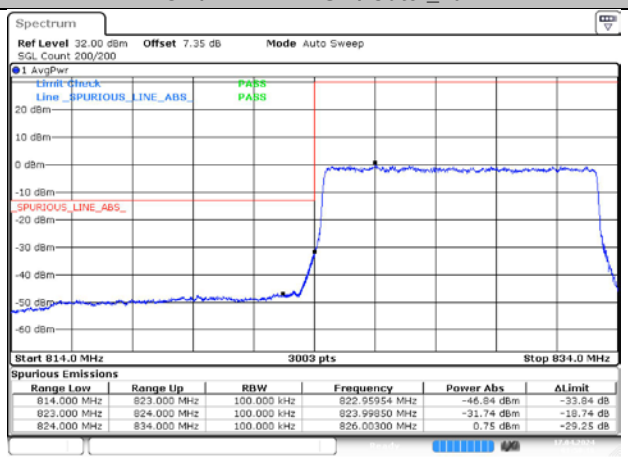
LCH / DFT-Pi2BPSK / Edge_1RB_Left



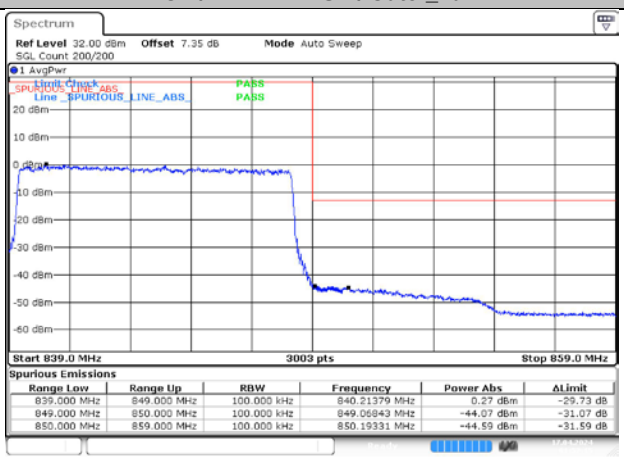
HCH / DFT-Pi2BPSK / Edge_1RB_Right



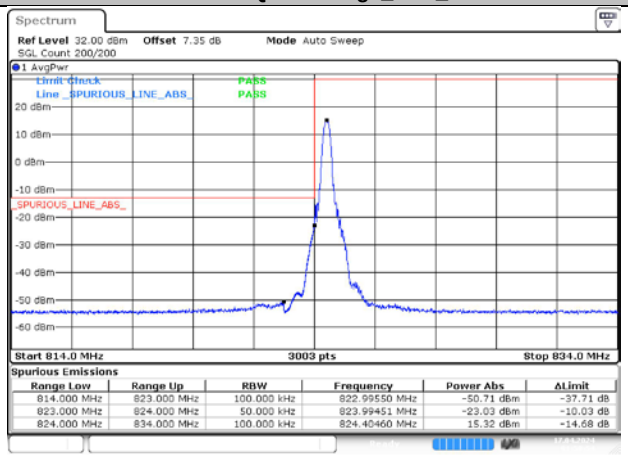
LCH / DFT-Pi2BPSK / Outer_Full



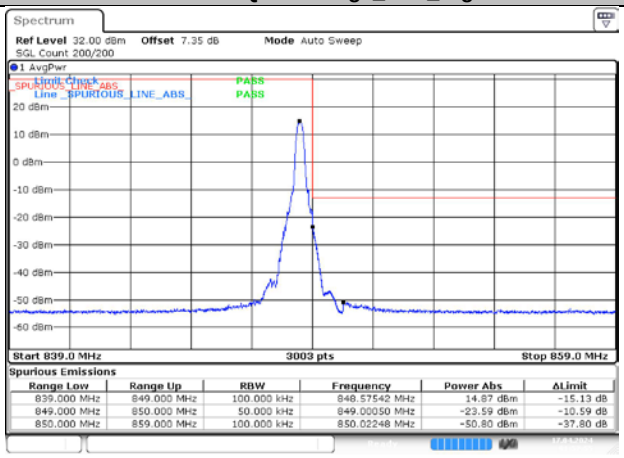
HCH / DFT-Pi2BPSK / Outer_Full



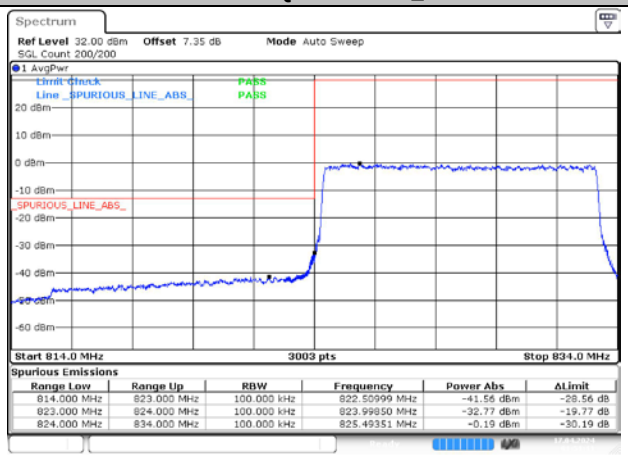
LCH / DFT-QPSK / Edge_1RB_Left



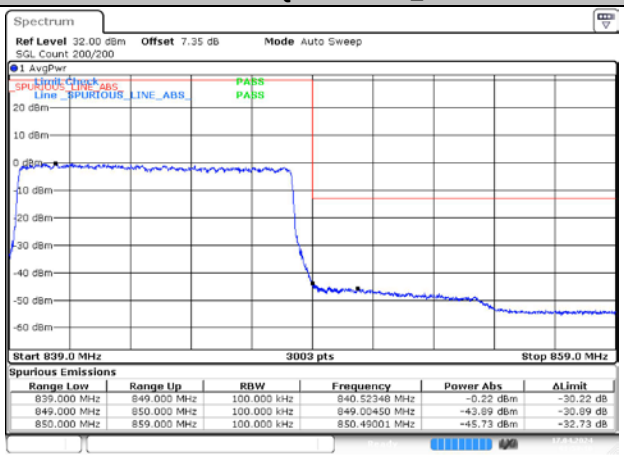
HCH / DFT-QPSK / Edge_1RB_Right



LCH / DFT-QPSK / Outer_Full

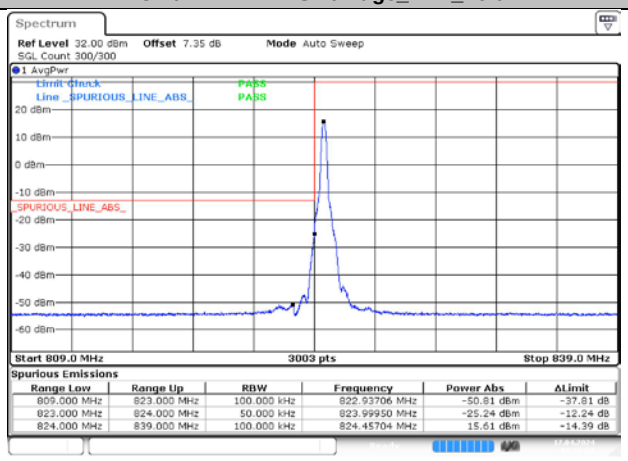


HCH / DFT-QPSK / Outer_Full

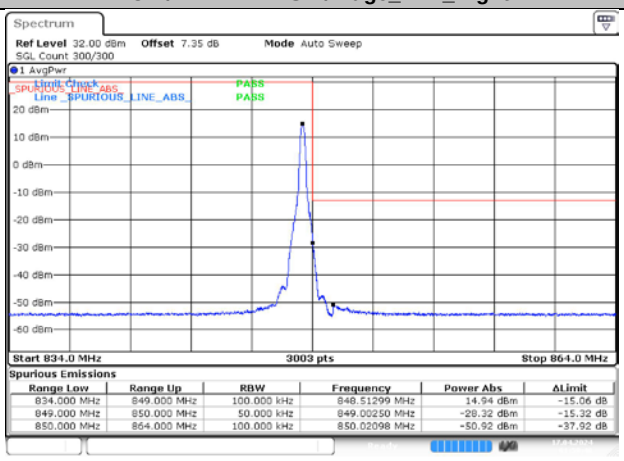


n5A / 15KHz / 15MHz

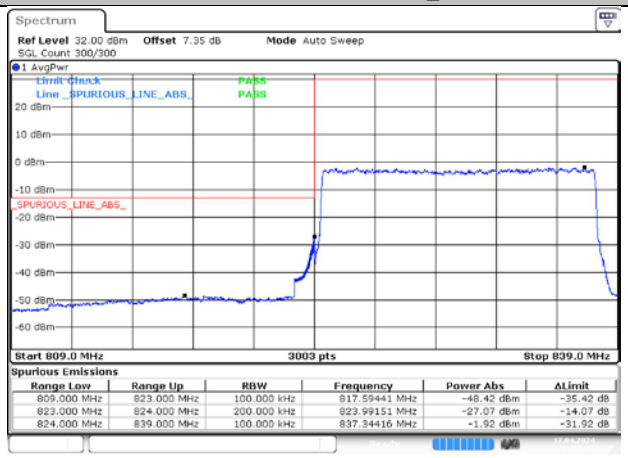
LCH / DFT-Pi2BPSK / Edge_1RB_Left



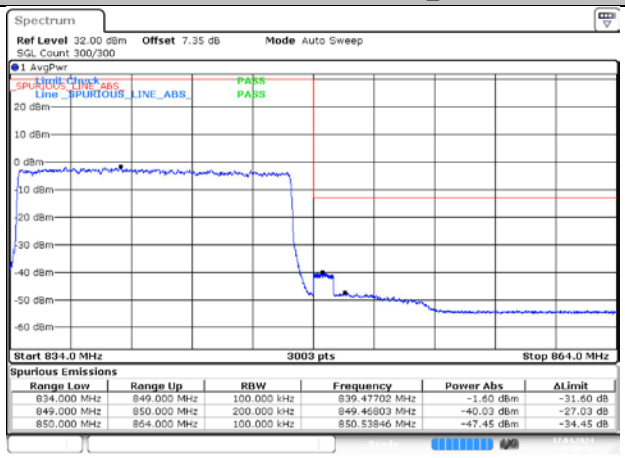
HCH / DFT-Pi2BPSK / Edge_1RB_Right



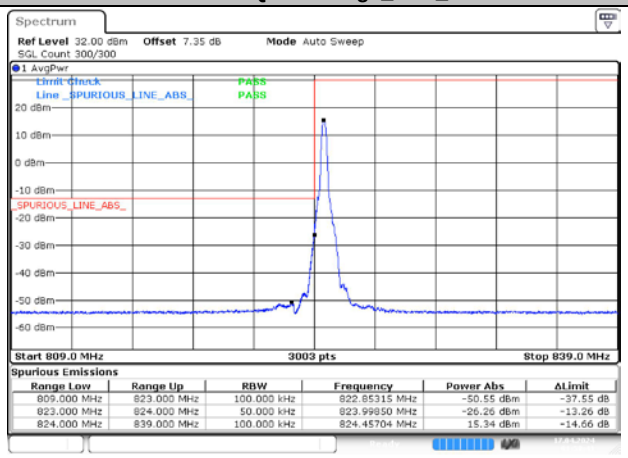
LCH / DFT-Pi2BPSK / Outer_Full



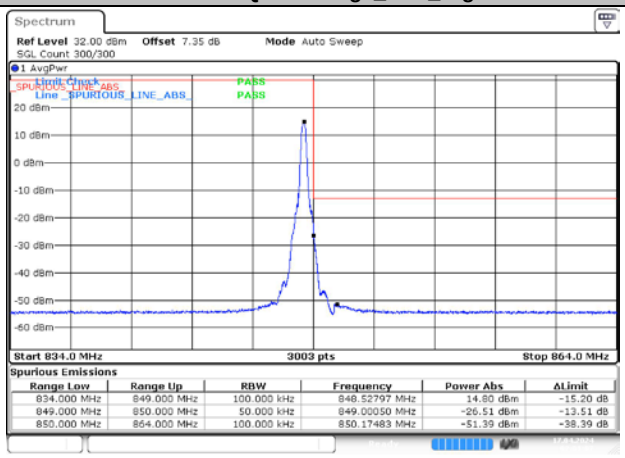
HCH / DFT-Pi2BPSK / Outer_Full



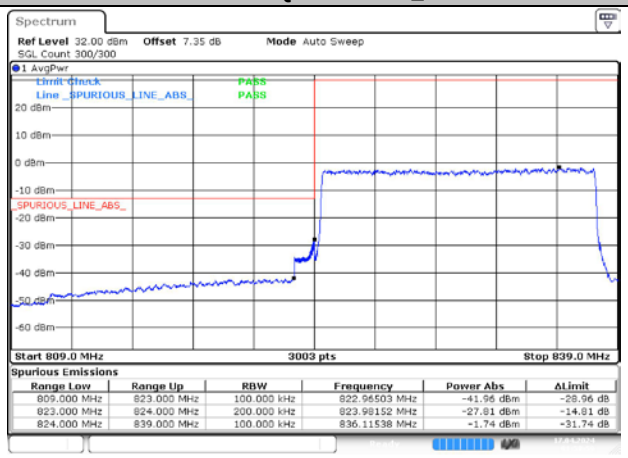
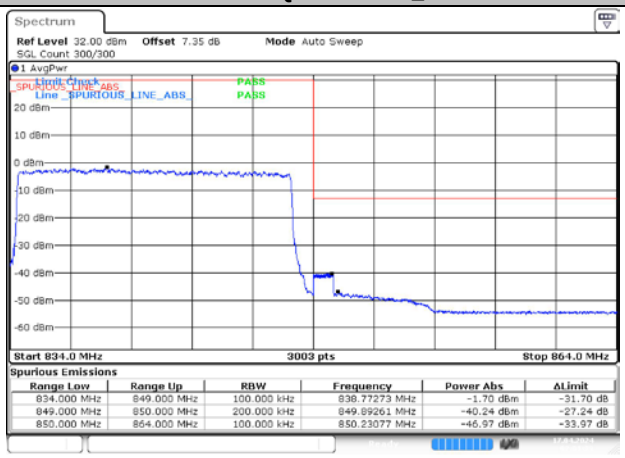
LCH / DFT-QPSK / Edge_1RB_Left



HCH / DFT-QPSK / Edge_1RB_Right



LCH / DFT-QPSK / Outer_Full



HCH / DFT-QPSK / Outer_Full