Appendix for n5A (824-849)

Catalogue

1. Effective Radiated Power

1.1. Test Results @ Ant0 (Antenna Gain=-4.80dBi)

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	23.09	23.05	22.93	16.14	38.45	Pass
15KHz	5MHz	LCH	DFT-QPSK	22.97	22.94	22.90	16.02	38.45	Pass
15KHz	5MHz	LCH	DFT-16QAM	22.04	22.02	22.08	15.13	38.45	Pass
15KHz	5MHz	LCH	DFT-64QAM	20.75	20.60	20.55	13.80	38.45	Pass
15KHz	5MHz	LCH	DFT-256QAM	18.00	17.90	18.45	11.50	38.45	Pass
15KHz	5MHz	LCH	CP-QPSK	21.51	21.43	21.37	14.56	38.45	Pass
15KHz	5MHz	MCH	DFT-Pi2BPSK	22.94	22.96	22.86	16.01	38.45	Pass
15KHz	5MHz	MCH	DFT-QPSK	22.87	22.97	22.85	16.02	38.45	Pass
15KHz	5MHz	MCH	DFT-16QAM	21.97	21.98	21.95	15.03	38.45	Pass
15KHz	5MHz	MCH	DFT-64QAM	20.60	20.58	20.50	13.65	38.45	Pass
15KHz	5MHz	MCH	DFT-256QAM	17.85	18.01	18.35	11.40	38.45	Pass
15KHz	5MHz	MCH	CP-QPSK	21.46	21.52	21.30	14.57	38.45	Pass
15KHz	5MHz	HCH	DFT-Pi2BPSK	23.03	23.00	22.95	16.08	38.45	Pass
15KHz	5MHz	HCH	DFT-QPSK	22.94	22.95	22.97	16.02	38.45	Pass
15KHz	5MHz	HCH	DFT-16QAM	22.03	22.01	22.08	15.13	38.45	Pass
15KHz	5MHz	HCH	DFT-64QAM	20.74	20.67	20.51	13.79	38.45	Pass
15KHz	5MHz	HCH	DFT-256QAM	17.99	17.98	18.47	11.52	38.45	Pass
15KHz	5MHz	HCH	CP-QPSK	21.49	21.44	21.41	14.54	38.45	Pass
15KHz	10MHz	LCH	DFT-Pi2BPSK	22.98	22.93	23.01	16.06	38.45	Pass
15KHz	10MHz	LCH	DFT-QPSK	22.93	22.87	22.99	16.04	38.45	Pass
15KHz	10MHz	LCH	DFT-16QAM	22.05	21.94	21.99	15.10	38.45	Pass
15KHz	10MHz	LCH	DFT-64QAM	20.64	20.57	20.53	13.69	38.45	Pass
15KHz	10MHz	LCH	DFT-256QAM	17.98	17.88	18.41	11.46	38.45	Pass
15KHz	10MHz	LCH	CP-QPSK	21.47	21.32	21.40	14.52	38.45	Pass
15KHz	10MHz	MCH	DFT-Pi2BPSK	22.86	23.01	22.89	16.06	38.45	Pass
15KHz	10MHz	MCH	DFT-QPSK	22.85	22.90	22.91	15.96	38.45	Pass
15KHz	10MHz	MCH	DFT-16QAM	21.94	21.98	21.91	15.03	38.45	Pass
15KHz	10MHz	MCH	DFT-64QAM	20.59	20.66	20.46	13.71	38.45	Pass
15KHz	10MHz	MCH	DFT-256QAM	17.84	17.90	18.30	11.35	38.45	Pass
15KHz	10MHz	MCH	CP-QPSK	21.39	21.47	21.35	14.52	38.45	Pass
15KHz	10MHz	HCH	DFT-Pi2BPSK	22.91	22.92	23.03	16.08	38.45	Pass
15KHz	10MHz	HCH	DFT-QPSK	22.86	22.87	22.95	16.00	38.45	Pass
15KHz	10MHz	HCH	DFT-16QAM	21.97	21.97	22.05	15.10	38.45	Pass
15KHz	10MHz	HCH	DFT-64QAM	20.59	20.67	20.52	13.72	38.45	Pass
15KHz	10MHz	HCH	DFT-256QAM	17.92	17.91	18.44	11.49	38.45	Pass
15KHz	10MHz	HCH	CP-QPSK	21.41	21.43	21.50	14.55	38.45	Pass
15KHz	15MHz	LCH	DFT-Pi2BPSK	23.18	22.99	23.09	16.23	38.45	Pass
15KHz	15MHz	LCH	DFT-QPSK	23.07	22.99	23.15	16.20	38.45	Pass
15KHz	15MHz	LCH	DFT-16QAM	22.18	22.06	22.21	15.26	38.45	Pass
15KHz	15MHz	LCH	DFT-64QAM	20.86	20.69	20.66	13.91	38.45	Pass
15KHz	15MHz	LCH	DFT-256QAM	18.24	17.98	18.58	11.63	38.45	Pass
15KHz	15MHz	LCH	CP-QPSK	21.67	21.53	21.58	14.72	38.45	Pass
15KHz	15MHz	MCH	DFT-Pi2BPSK	23.04	23.09	23.03	16.14	38.45	Pass
15KHz	15MHz	MCH	DFT-QPSK	23.03	22.97	23.07	16.12	38.45	Pass
15KHz	15MHz	MCH	DFT-16QAM	22.01	22.02	22.13	15.18	38.45	Pass
15KHz	15MHz	MCH	DFT-64QAM	20.67	20.67	20.61	13.72	38.45	Pass
15KHz	15MHz	MCH	DFT-256QAM	18.15	17.99	18.50	11.55	38.45	Pass
15KHz	15MHz	MCH	CP-QPSK	21.63	21.55	21.55	14.68	38.45	Pass
15KHz	15MHz	HCH	DFT-Pi2BPSK	22.96	23.02	23.02	16.07	38.45	Pass
15KHz	15MHz	HCH	DFT-QPSK	22.96	22.94	23.03	16.08	38.45	Pass
15KHz	15MHz	HCH	DFT-16QAM	22.05	22.02	22.07	15.12	38.45	Pass
15KHz	15MHz	HCH	DFT-64QAM	20.70	20.67	20.60	13.75	38.45	Pass
15KHz	15MHz	HCH	DFT-256QAM	18.04	18.01	18.52	11.57	38.45	Pass
15KHz	15MHz	HCH	CP-QPSK	21.57	21.57	21.51	14.62	38.45	Pass
15KHz	20MHz	LCH	DFT-Pi2BPSK	23.20	23.02	23.13	16.25	38.45	Pass
15KHz	20MHz	LCH	DFT-QPSK	23.09	22.93	23.07	16.14	38.45	Pass
15KHz	20MHz	LCH	DFT-16QAM	22.14	22.04	22.07	15.19	38.45	Pass
15KHz	20MHz	LCH	DFT-64QAM	20.82	20.64	20.60	13.87	38.45	Pass

15KHz	20MHz	LCH	DFT-256QAM	18.16	18.07	18.55	11.60	38.45	Pass
15KHz	20MHz	LCH	CP-QPSK	21.62	21.51	21.63	14.68	38.45	Pass
15KHz	20MHz	MCH	DFT-Pi2BPSK	23.03	23.05	23.06	16.11	38.45	Pass
15KHz	20MHz	MCH	DFT-QPSK	23.02	22.92	23.04	16.09	38.45	Pass
15KHz	20MHz	MCH	DFT-16QAM	22.11	22.04	22.11	15.16	38.45	Pass
15KHz	20MHz	MCH	DFT-64QAM	20.77	20.69	20.63	13.82	38.45	Pass
15KHz	20MHz	MCH	DFT-256QAM	18.05	18.06	18.57	11.62	38.45	Pass
15KHz	20MHz	MCH	CP-QPSK	21.60	21.52	21.54	14.65	38.45	Pass
15KHz	20MHz	HCH	DFT-Pi2BPSK	23.10	23.04	23.08	16.15	38.45	Pass
15KHz	20MHz	HCH	DFT-QPSK	23.03	22.95	23.05	16.10	38.45	Pass
15KHz	20MHz	HCH	DFT-16QAM	22.13	22.04	22.07	15.18	38.45	Pass
15KHz	20MHz	HCH	DFT-64QAM	20.69	20.70	20.64	13.75	38.45	Pass
15KHz	20MHz	HCH	DFT-256QAM	17.98	18.04	18.52	11.57	38.45	Pass
15KHz	20MHz	HCH	CP-QPSK	21.53	21.48	21.49	14.58	38.45	Pass

2. Peak-to-Average Ratio

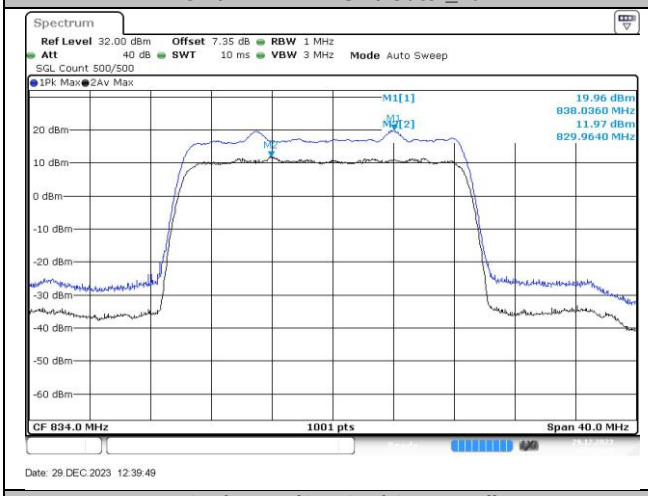
2.1. Test Results

SCS	Bandwidth	Channel	Modulation	Result (dB)		Limit (dB)	Verdict
				DFT-Pi2BPSK	DFT-QPSK		
15KHz	20MHz	LCH	Outer_Full	7.99	6.80	13.00	Pass
15KHz	20MHz	MCH	Outer_Full	8.22	6.73	13.00	Pass
15KHz	20MHz	HCH	Outer_Full	8.41	6.74	13.00	Pass

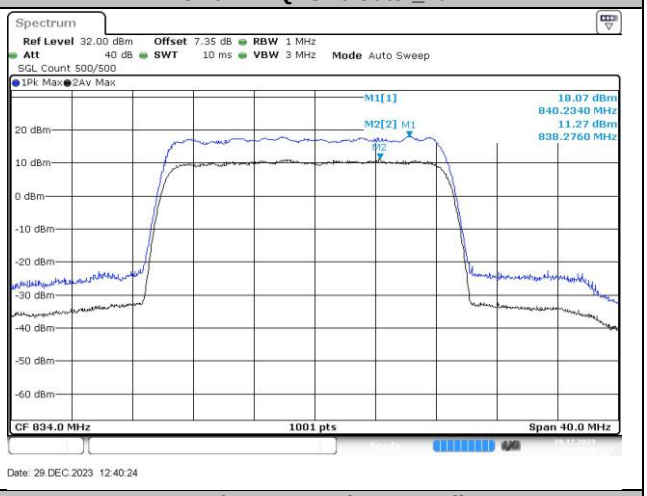
2.2. Test Plots

n5A / 15KHz / 20MHz

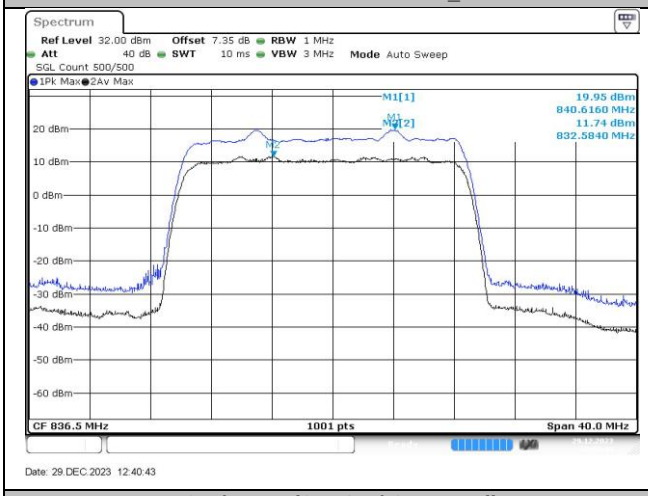
LCH / DFT-Pi2BPSK / Outer_Full



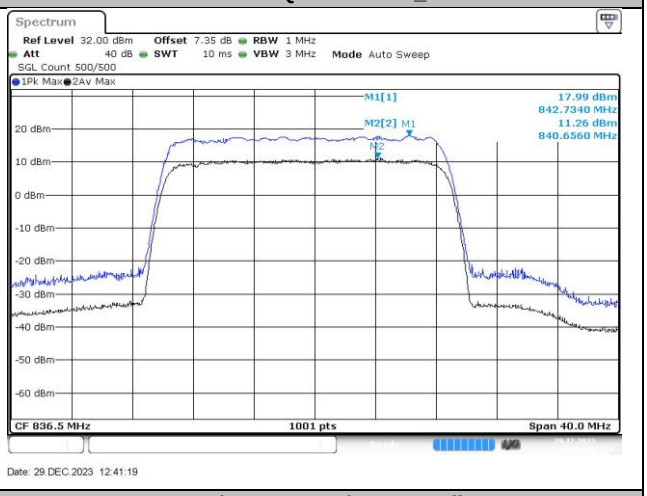
LCH / DFT-QPSK / Outer_Full



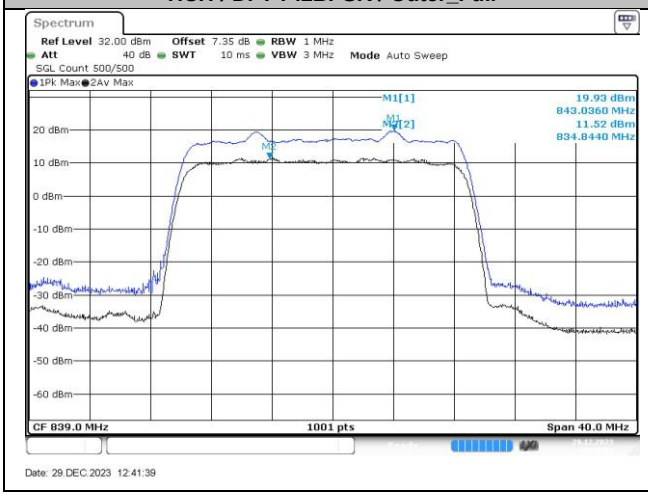
MCH / DFT-Pi2BPSK / Outer_Full



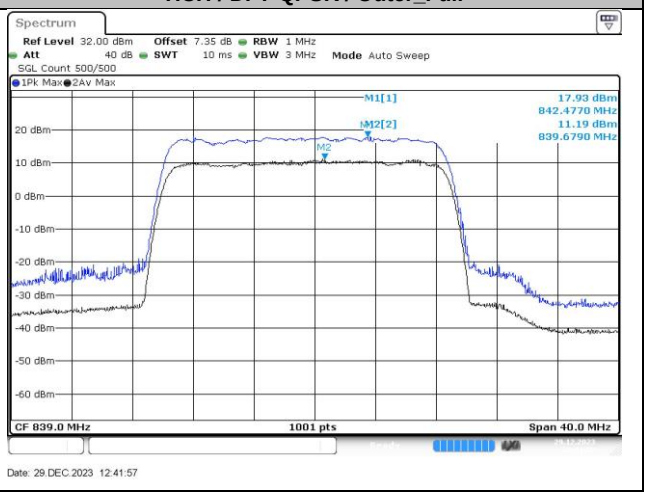
MCH / DFT-QPSK / Outer_Full



HCH / DFT-Pi2BPSK / Outer_Full

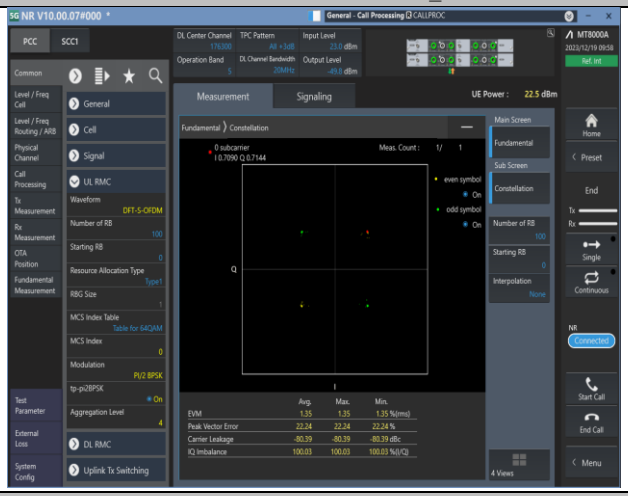
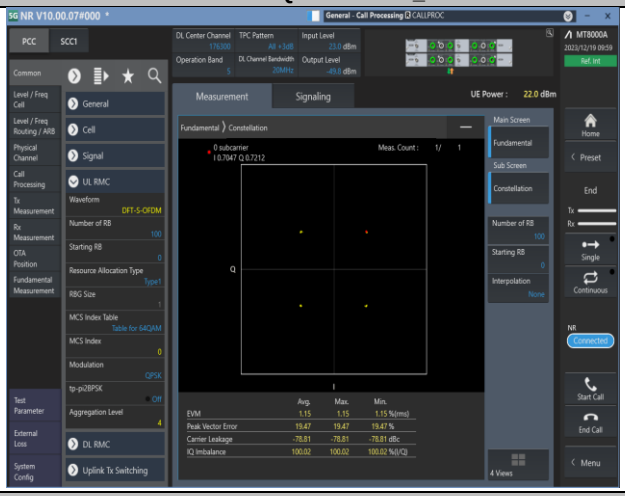
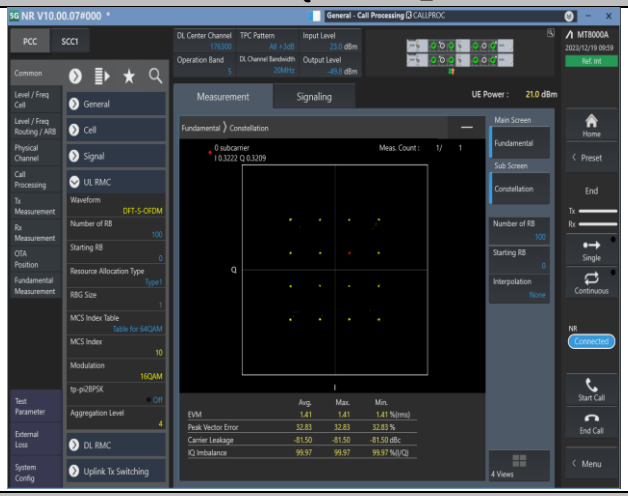
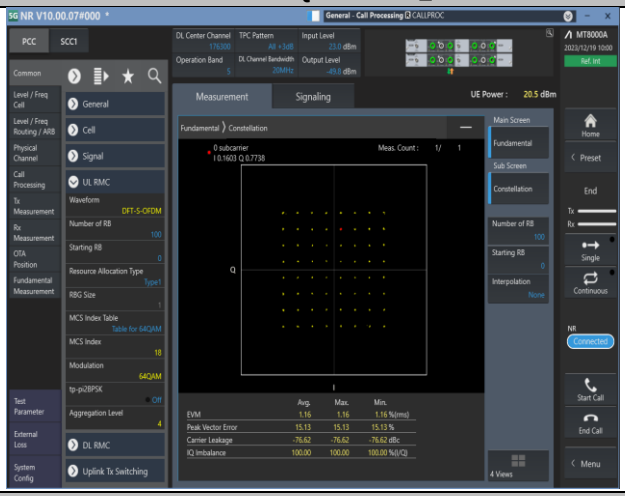
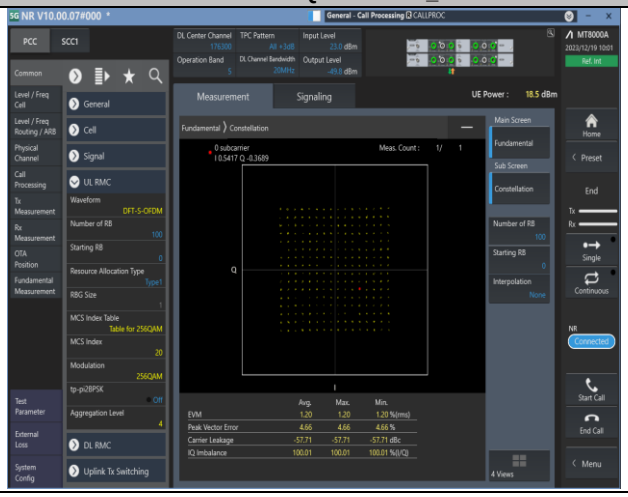
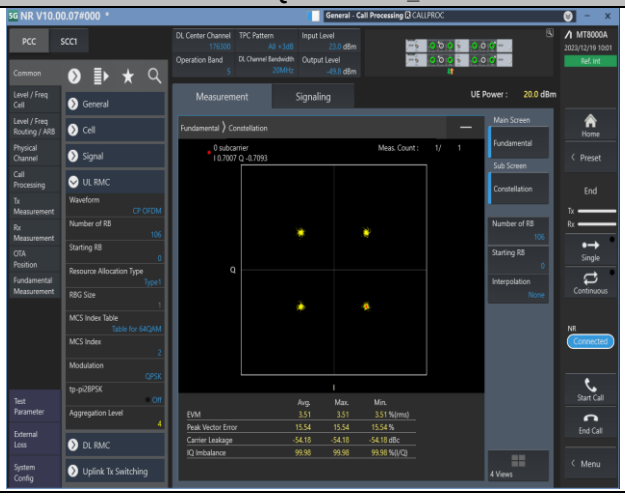


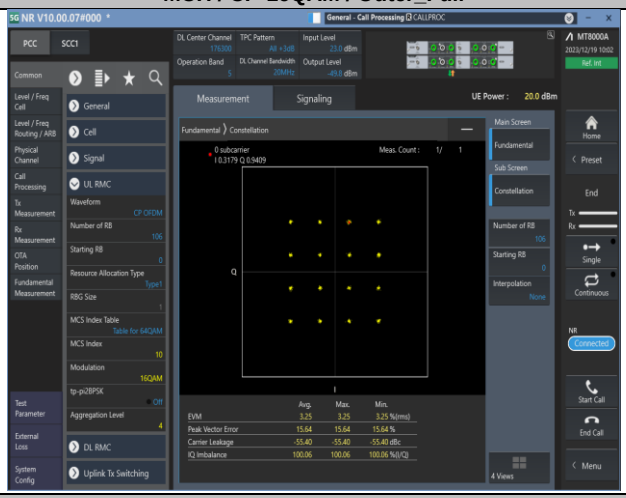
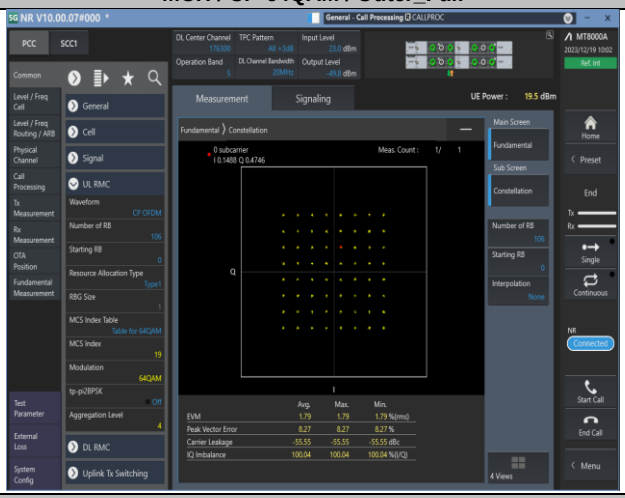
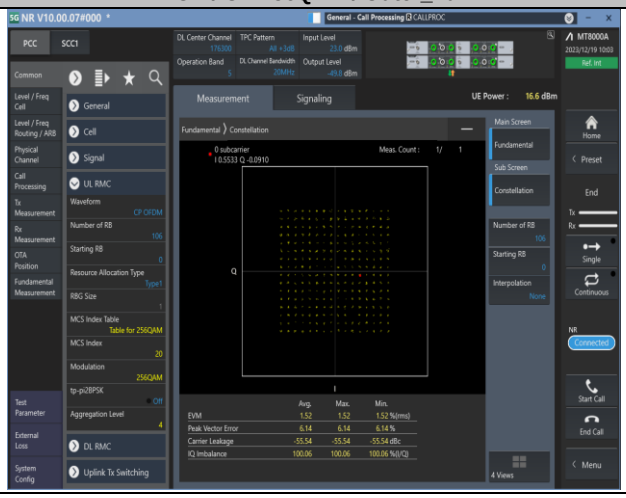
HCH / DFT-QPSK / Outer_Full



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

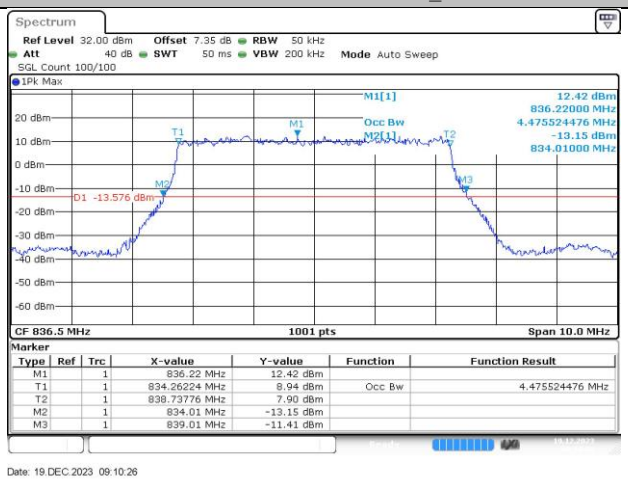
SCS	Bandwidth	Modulation	RB Config	99% Occupied Bandwidth (MHz)	26dB Emission Bandwidth (MHz)	Verdict
15KHz	5MHz	DFT-Pi2BPSK	Outer_Full	4.48	5.00	Pass
15KHz	5MHz	DFT-QPSK	Outer_Full	4.48	4.99	Pass
15KHz	5MHz	CP-QPSK	Outer_Full	4.49	5.17	Pass
15KHz	5MHz	CP-16QAM	Outer_Full	4.50	5.21	Pass
15KHz	5MHz	CP-64QAM	Outer_Full	4.50	5.20	Pass
15KHz	5MHz	CP-256QAM	Outer_Full	4.49	5.17	Pass
15KHz	10MHz	DFT-Pi2BPSK	Outer_Full	8.89	9.56	Pass
15KHz	10MHz	DFT-QPSK	Outer_Full	8.91	9.64	Pass
15KHz	10MHz	CP-QPSK	Outer_Full	9.27	10.12	Pass
15KHz	10MHz	CP-16QAM	Outer_Full	9.27	10.02	Pass
15KHz	10MHz	CP-64QAM	Outer_Full	9.27	9.96	Pass
15KHz	10MHz	CP-256QAM	Outer_Full	9.29	10.14	Pass
15KHz	15MHz	DFT-Pi2BPSK	Outer_Full	13.43	14.34	Pass
15KHz	15MHz	DFT-QPSK	Outer_Full	13.43	14.37	Pass
15KHz	15MHz	CP-QPSK	Outer_Full	14.09	15.06	Pass
15KHz	15MHz	CP-16QAM	Outer_Full	14.12	15.15	Pass
15KHz	15MHz	CP-64QAM	Outer_Full	14.12	15.15	Pass
15KHz	15MHz	CP-256QAM	Outer_Full	14.09	15.12	Pass
15KHz	20MHz	DFT-Pi2BPSK	Outer_Full	17.86	18.84	Pass
15KHz	20MHz	DFT-QPSK	Outer_Full	17.82	18.84	Pass
15KHz	20MHz	CP-QPSK	Outer_Full	18.90	19.92	Pass

15KHz	20MHz	CP-16QAM	Outer_Full	18.90	19.96	Pass
15KHz	20MHz	CP-64QAM	Outer_Full	18.90	19.92	Pass
15KHz	20MHz	CP-256QAM	Outer_Full	18.94	19.96	Pass

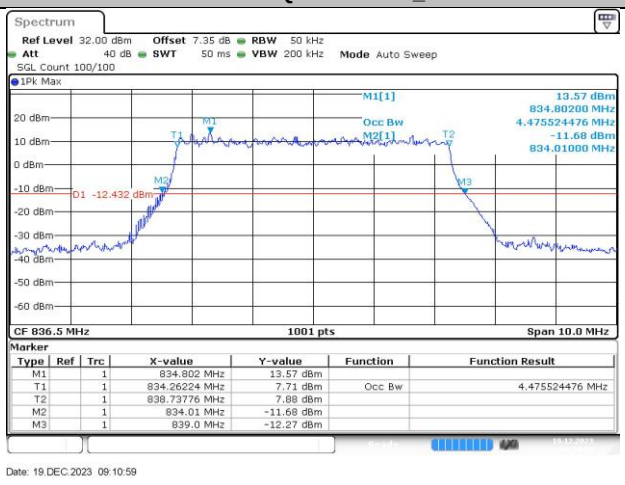
4.2. Test Plots

n5A / 15KHz / 5MHz

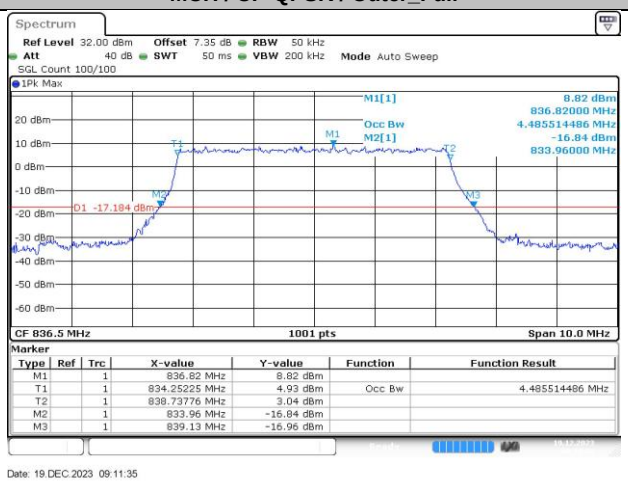
MCH / DFT-Pi2BPSK / Outer_Full



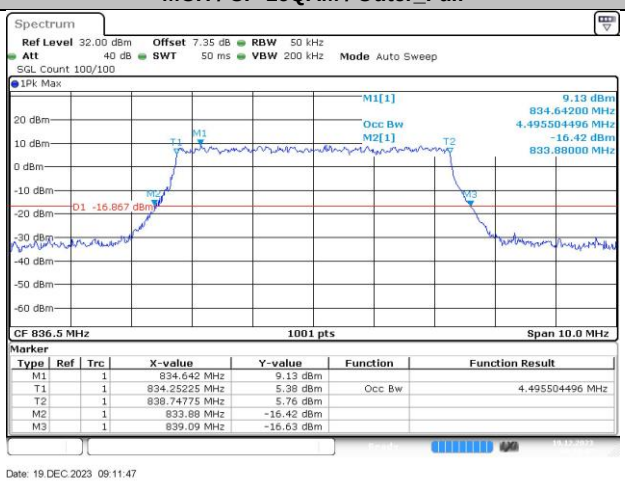
MCH / DFT-QPSK / Outer_Full



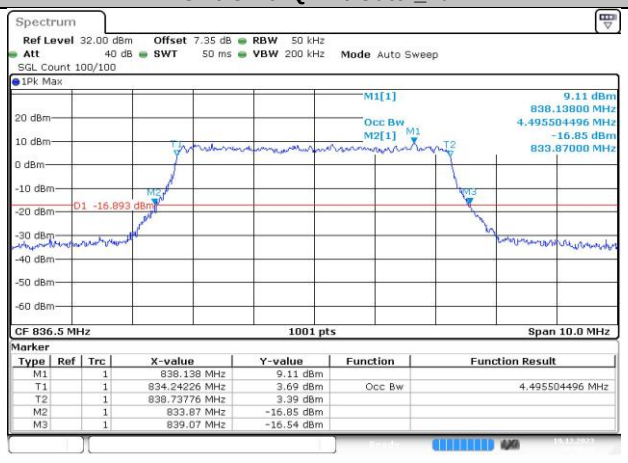
MCH / CP-QPSK / Outer_Full



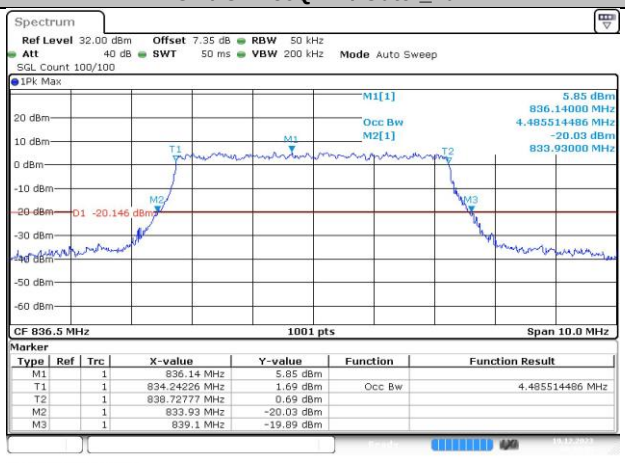
MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full

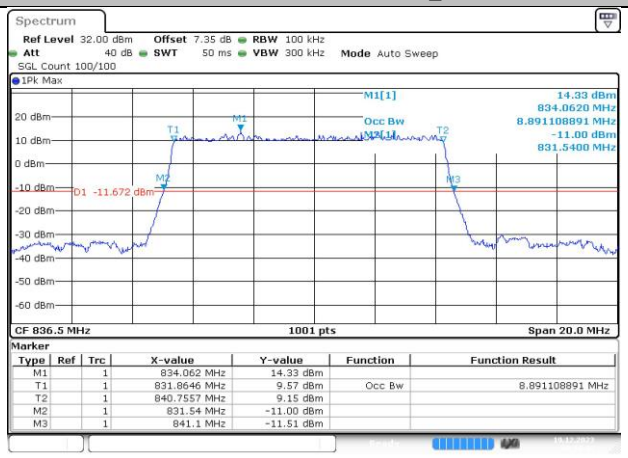


MCH / CP-256QAM / Outer_Full



n5A / 15KHz / 10MHz

MCH / DFT-Pi2BPSK / Outer_Full



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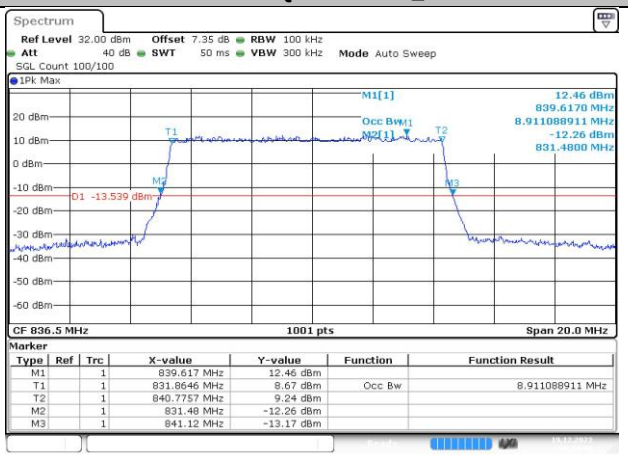
MCH / DFT-QPSK / Outer_Full



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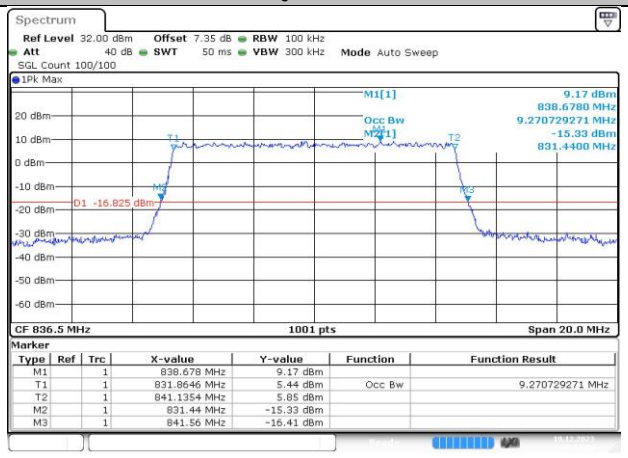
MCH / CP-QPSK / Outer_Full



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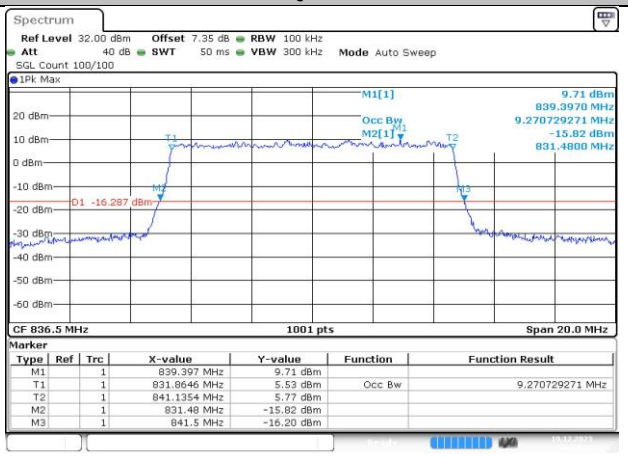
MCH / CP-16QAM / Outer_Full



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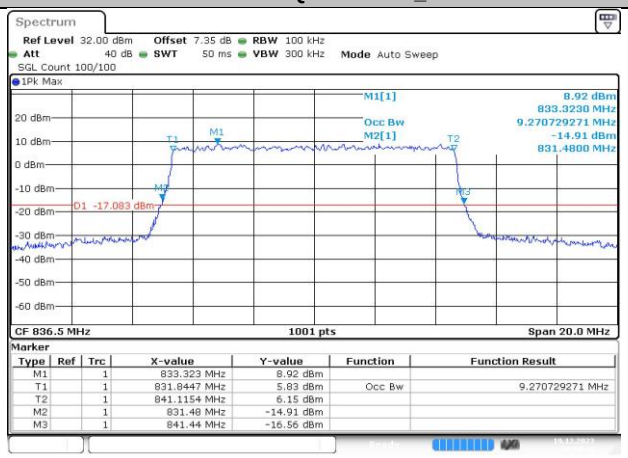
MCH / CP-64QAM / Outer_Full



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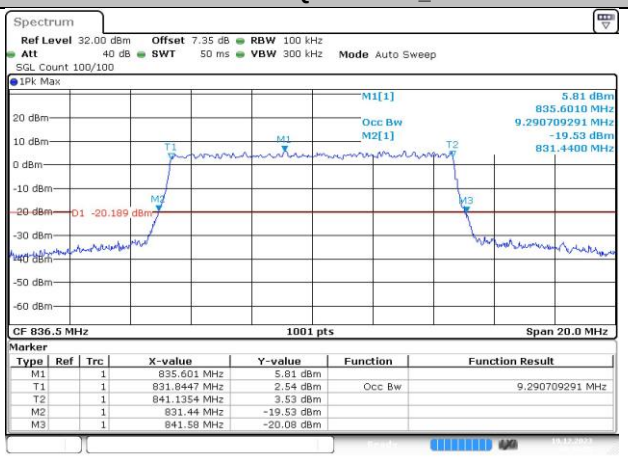
MCH / CP-256QAM / Outer_Full



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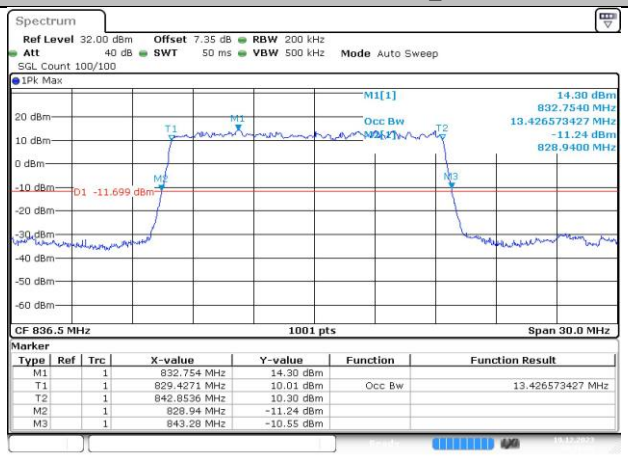
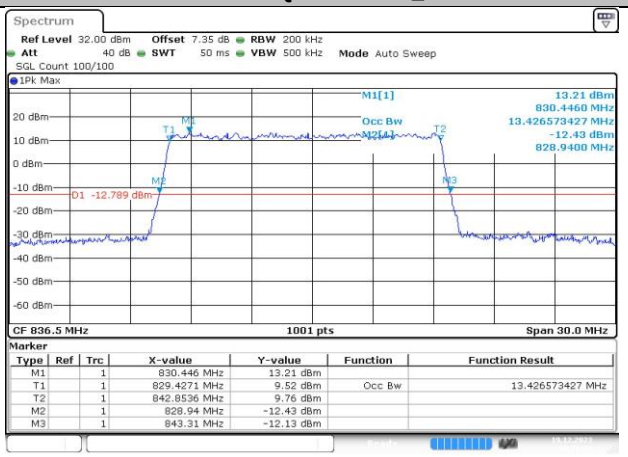
n5A / 15KHz / 15MHz

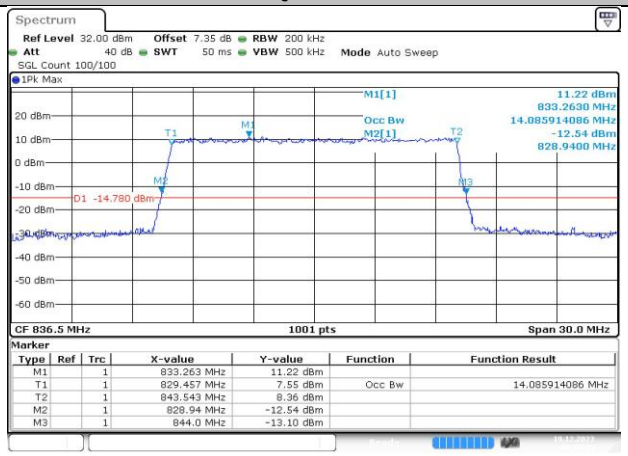
MCH / DFT-Pi2BPSK / Outer_Full



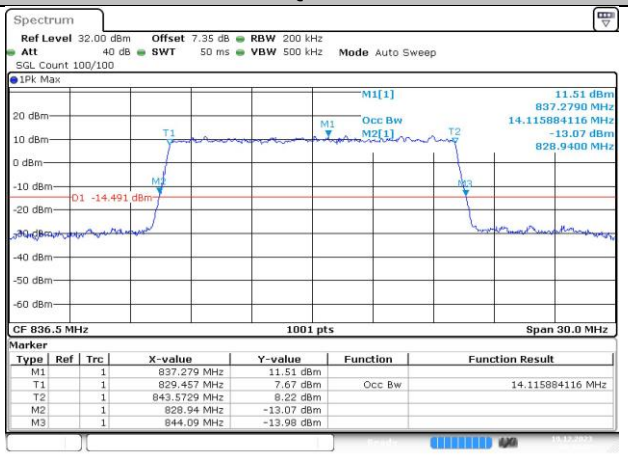
MCH / DFT-QPSK / Outer_Full



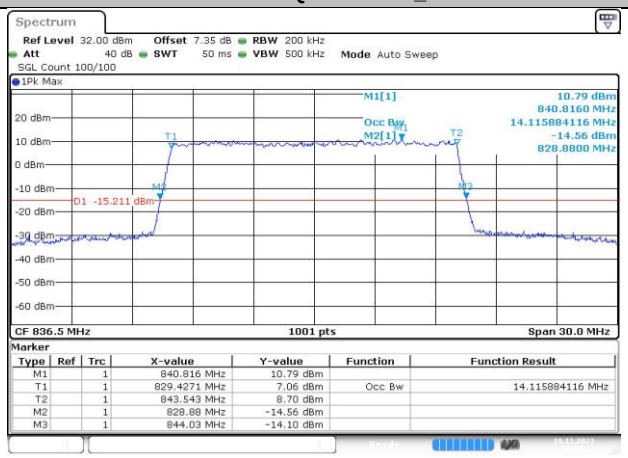
MCH / CP-QPSK / Outer_Full



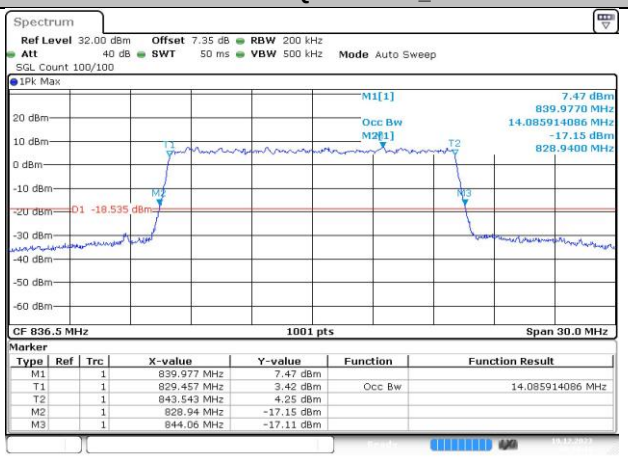
MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full

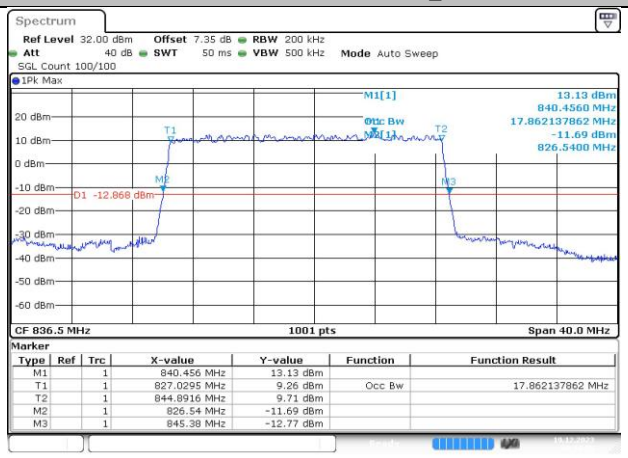


MCH / CP-256QAM / Outer_Full



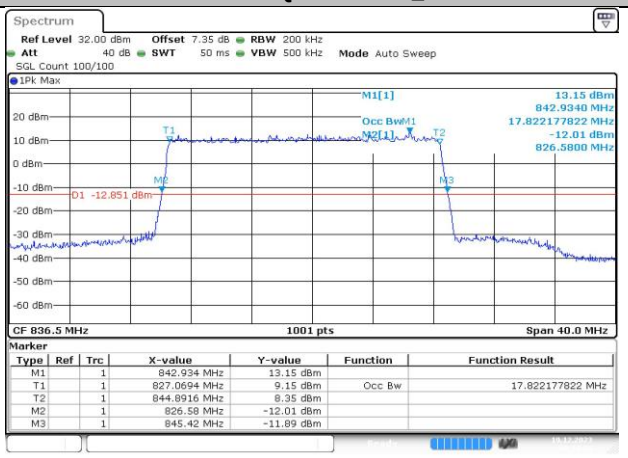
n5A / 15KHz / 20MHz

MCH / DFT-Pi2BPSK / Outer_Full



Date: 19.DEC.2023 09:18:55

MCH / DFT-QPSK / Outer_Full



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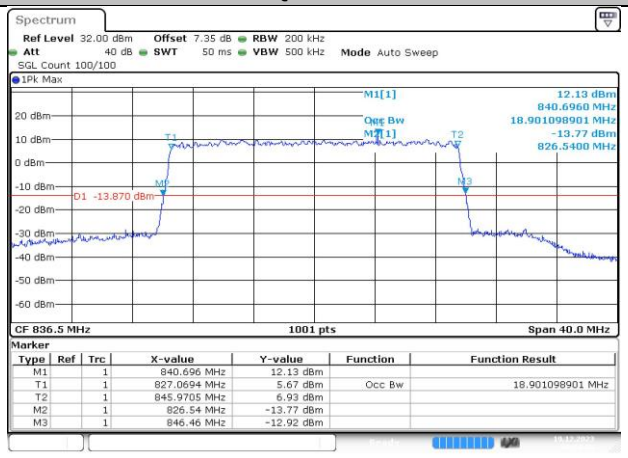
MCH / CP-QPSK / Outer_Full



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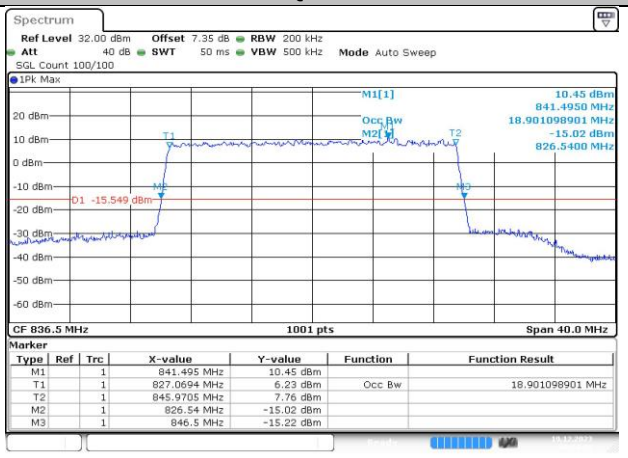
MCH / CP-16QAM / Outer_Full



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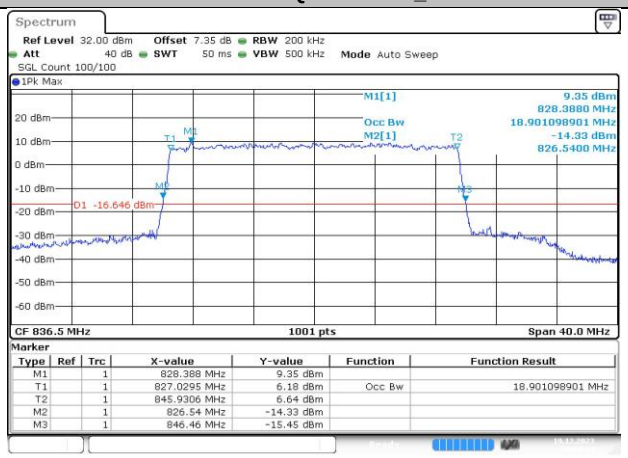
MCH / CP-64QAM / Outer_Full



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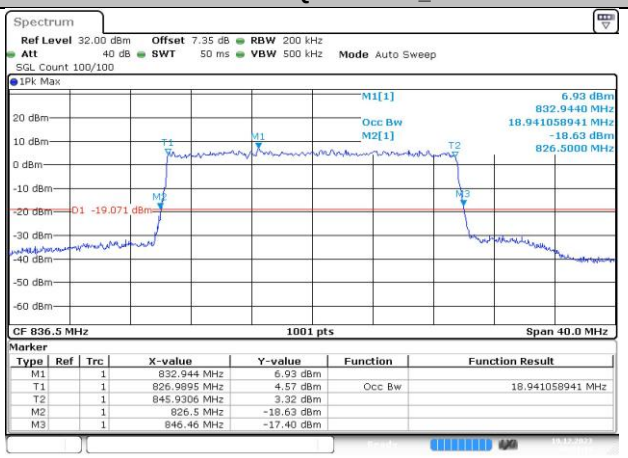
MCH / CP-256QAM / Outer_Full



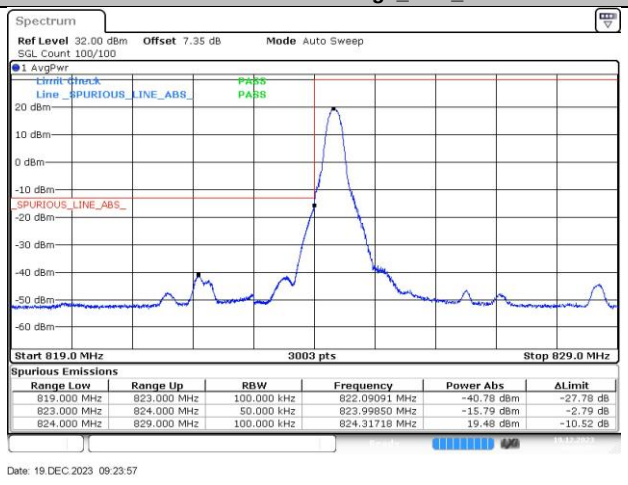
Date: 19.DEC.2023 09:21:13

5. Conducted Band Edges

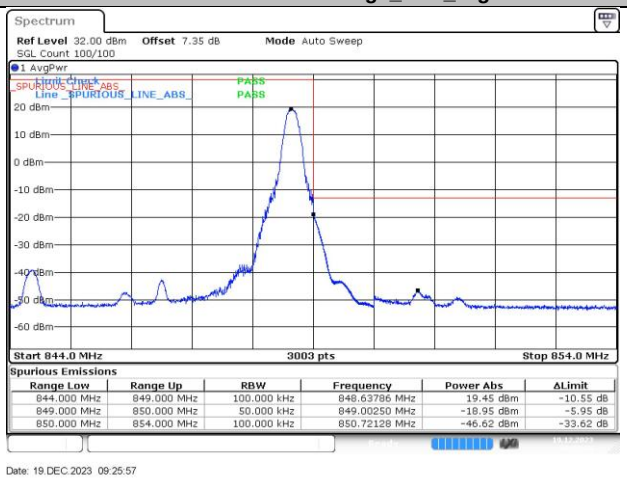
5.1. Test Plots

n5A / 15KHz / 5MHz

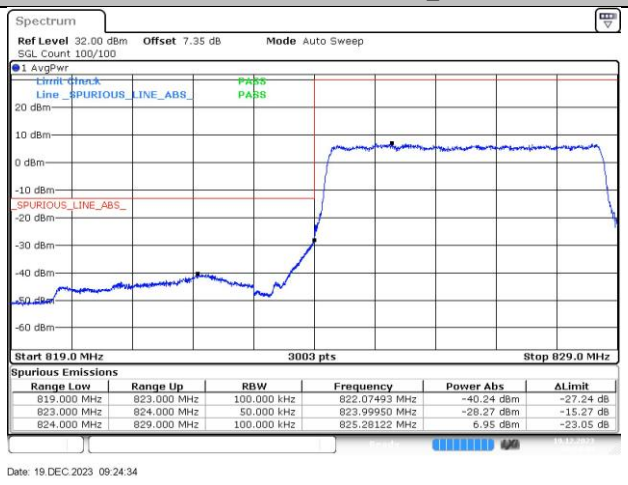
LCH / DFT-Pi2BPSK / Edge_1RB_Left



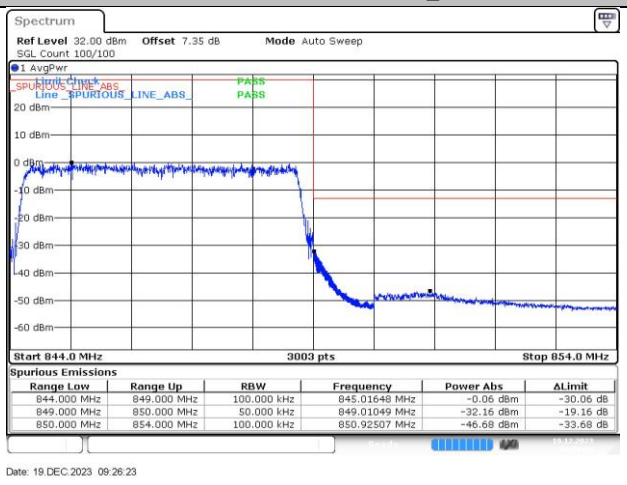
HCH / DFT-Pi2BPSK / Edge_1RB_Right



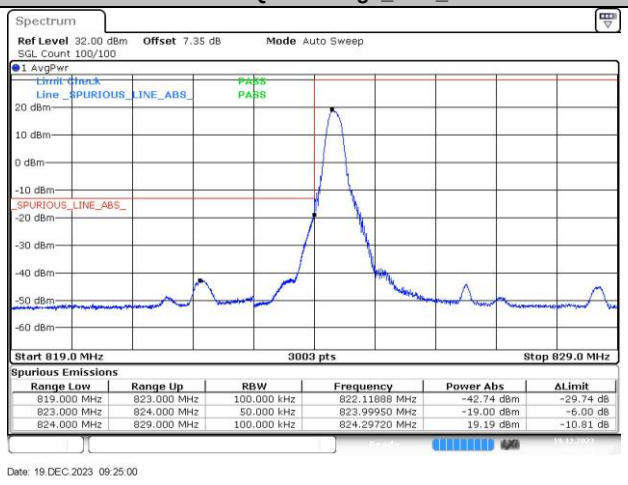
LCH / DFT-Pi2BPSK / Outer_Full



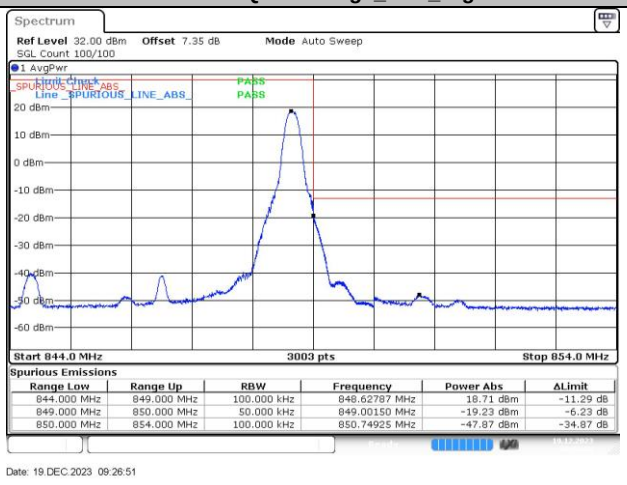
HCH / DFT-Pi2BPSK / Outer_Full



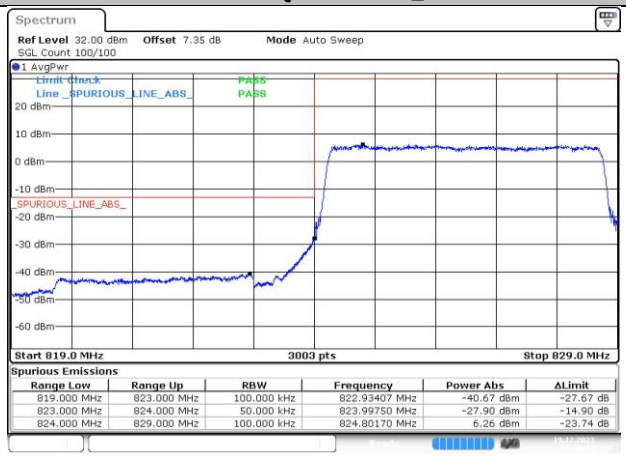
LCH / DFT-QPSK / Edge_1RB_Left



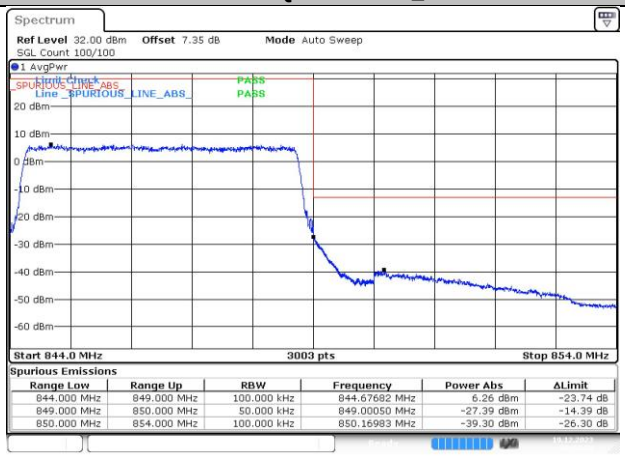
HCH / DFT-QPSK / Edge_1RB_Right



LCH / DFT-QPSK / Outer_Full

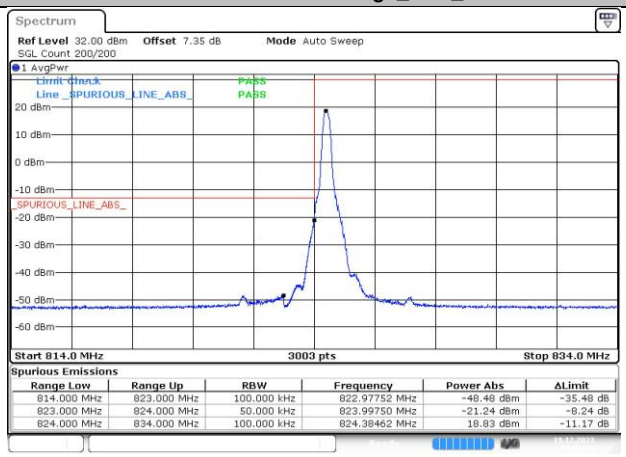


HCH / DFT-QPSK / Outer_Full

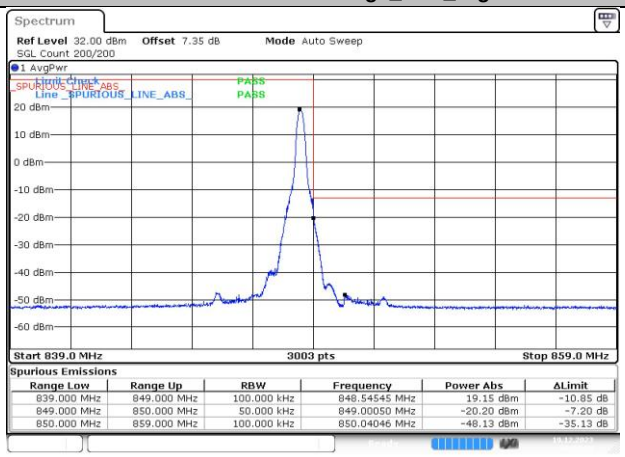


n5A / 15KHz / 10MHz

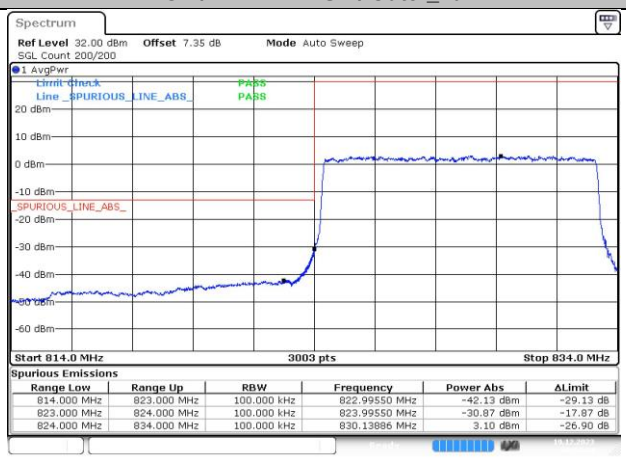
LCH / DFT-Pi2BPSK / Edge_1RB_Left



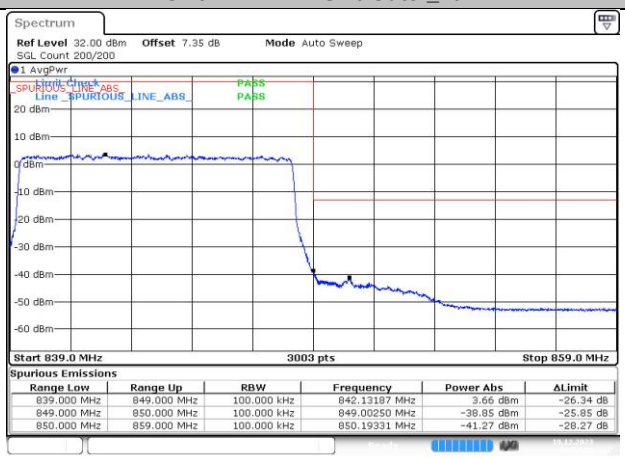
HCH / DFT-Pi2BPSK / Edge_1RB_Right



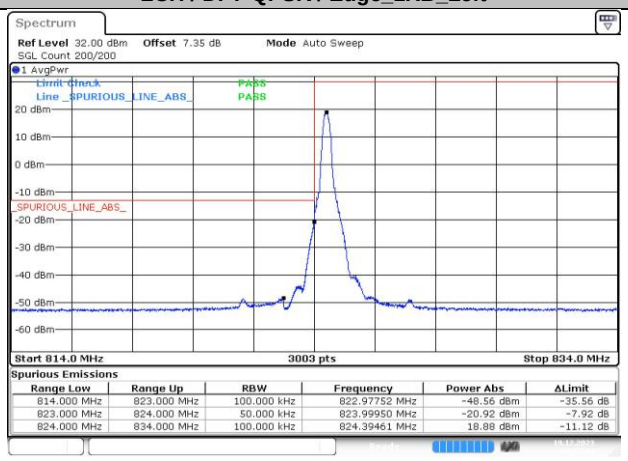
LCH / DFT-Pi2BPSK / Outer_Full



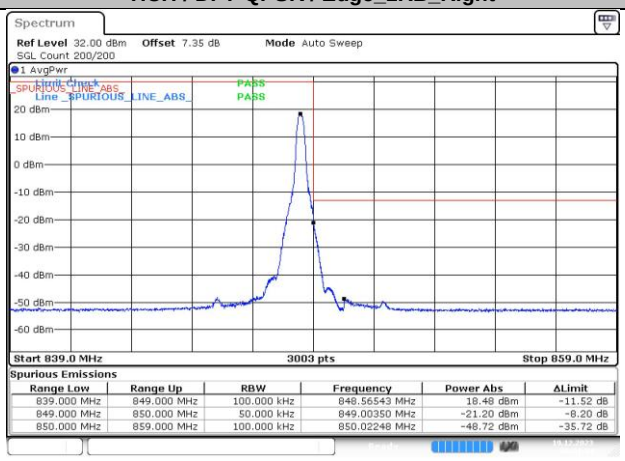
HCH / DFT-Pi2BPSK / Outer_Full



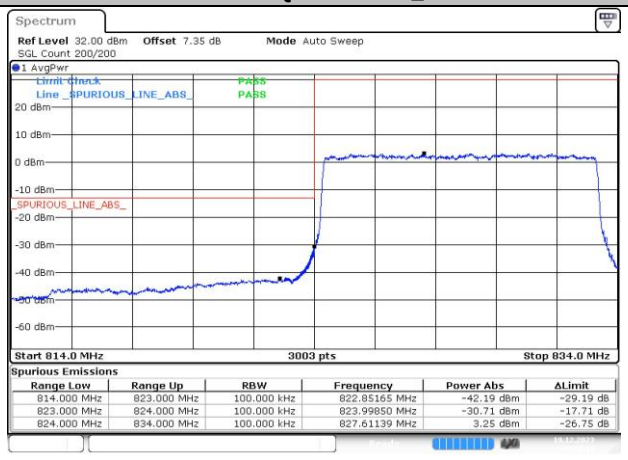
LCH / DFT-QPSK / Edge_1RB_Left



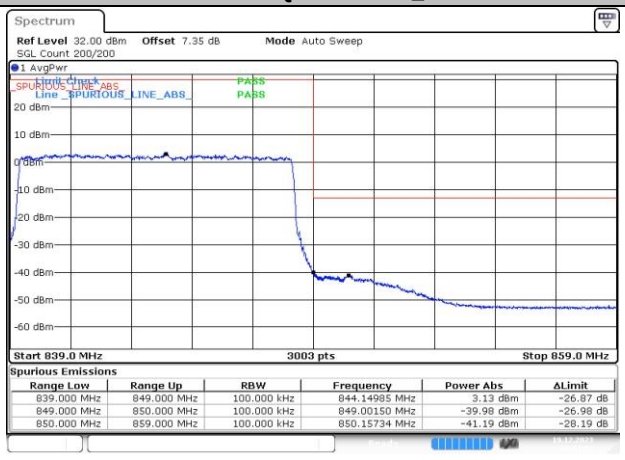
HCH / DFT-QPSK / Edge_1RB_Right



LCH / DFT-QPSK / Outer_Full

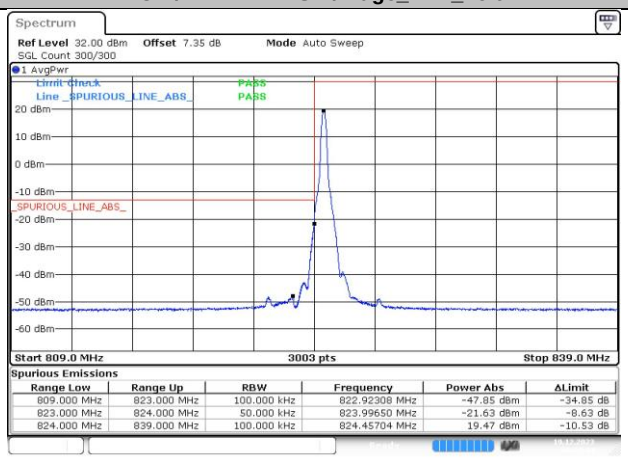


HCH / DFT-QPSK / Outer_Full

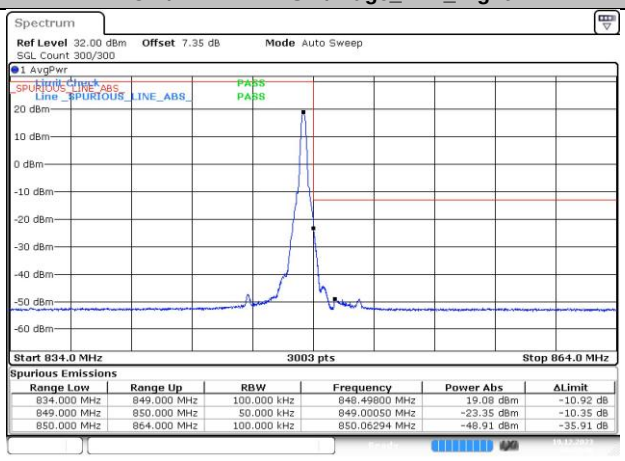


n5A / 15KHz / 15MHz

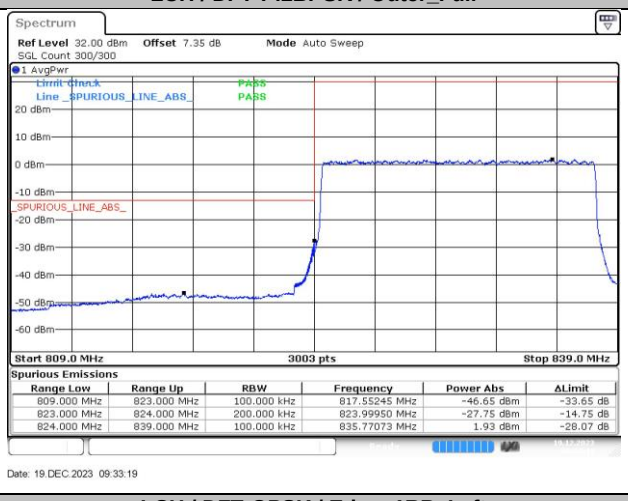
LCH / DFT-Pi2BPSK / Edge_1RB_Left



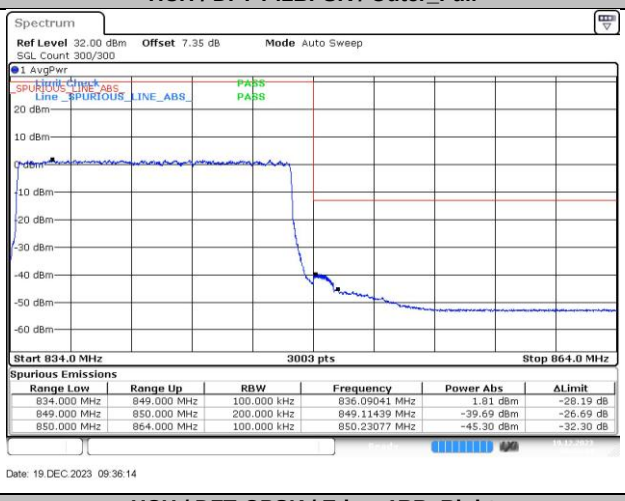
HCH / DFT-Pi2BPSK / Edge_1RB_Right



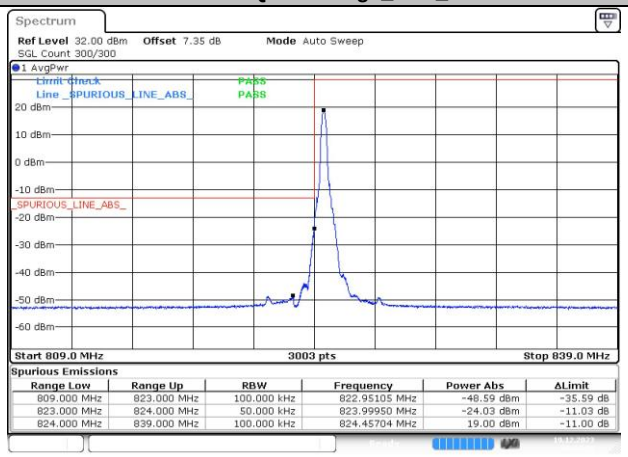
LCH / DFT-Pi2BPSK / Outer_Full



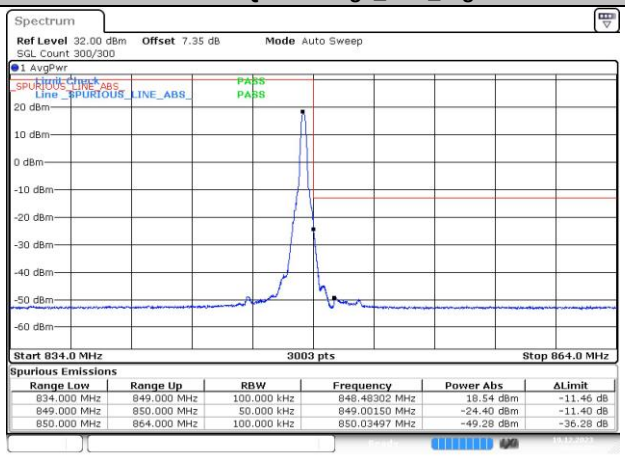
HCH / DFT-Pi2BPSK / Outer_Full



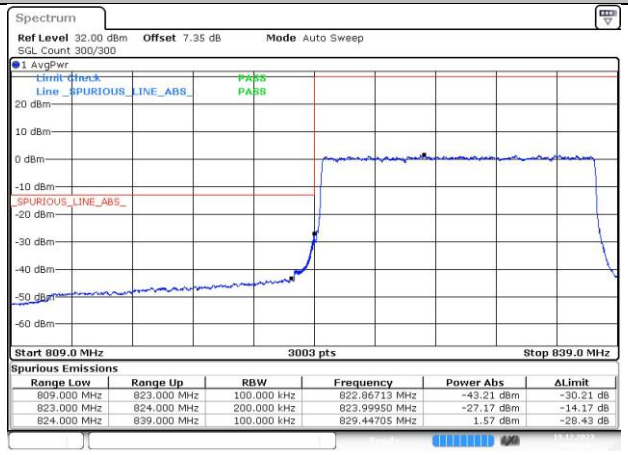
LCH / DFT-QPSK / Edge_1RB_Left



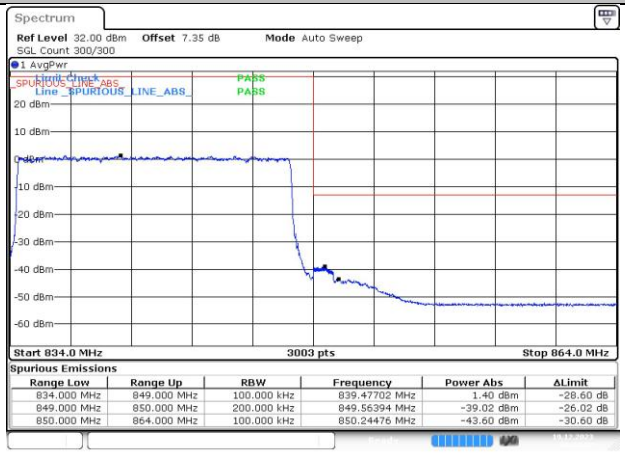
HCH / DFT-QPSK / Edge_1RB_Right



LCH / DFT-QPSK / Outer_Full

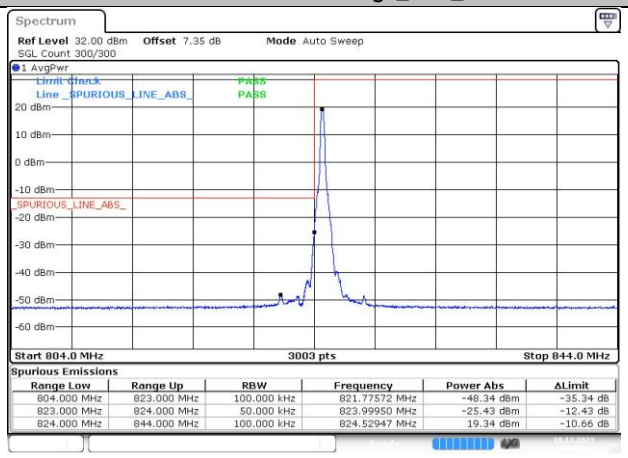


HCH / DFT-QPSK / Outer_Full

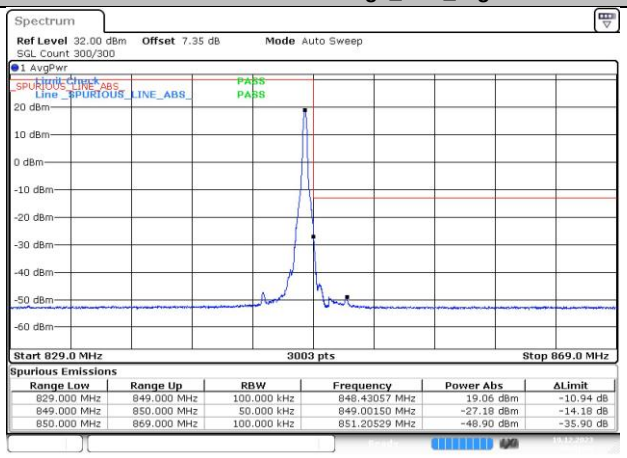


n5A / 15KHz / 20MHz

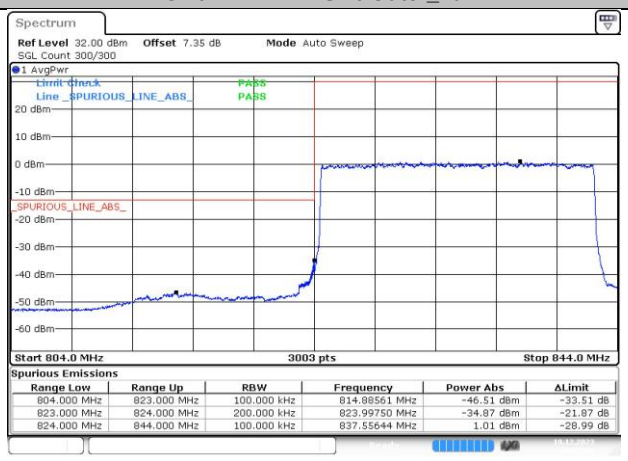
LCH / DFT-Pi2BPSK / Edge_1RB_Left



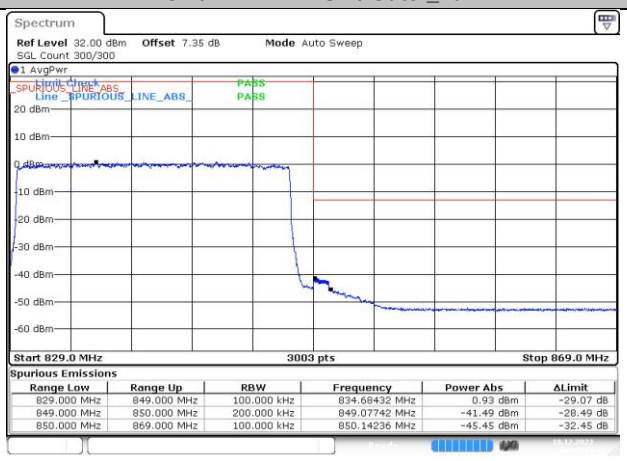
HCH / DFT-Pi2BPSK / Edge_1RB_Right



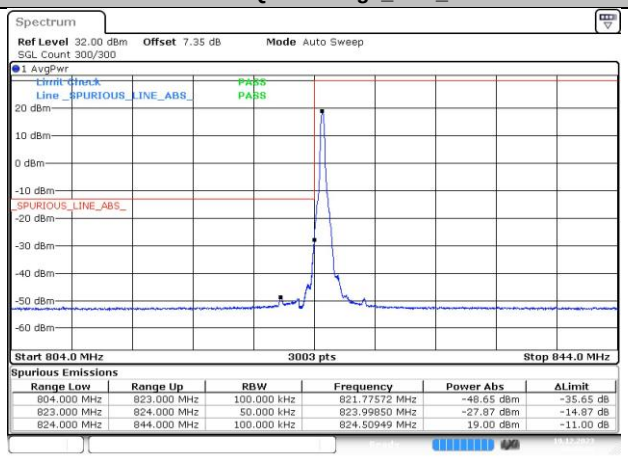
LCH / DFT-Pi2BPSK / Outer_Full



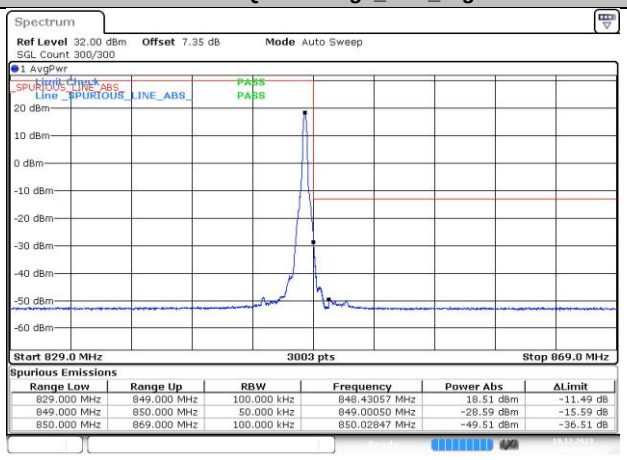
HCH / DFT-Pi2BPSK / Outer_Full



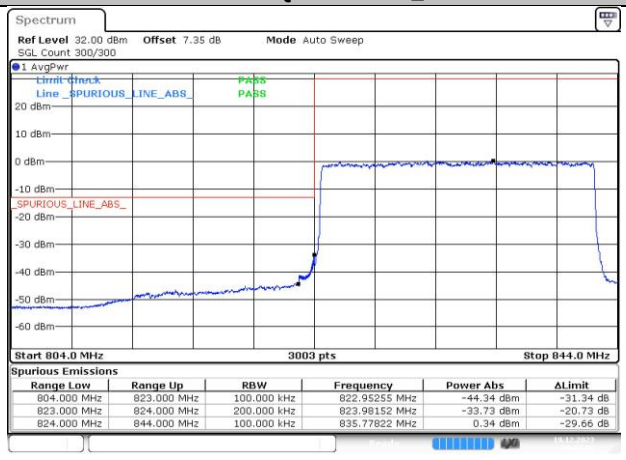
LCH / DFT-QPSK / Edge_1RB_Left

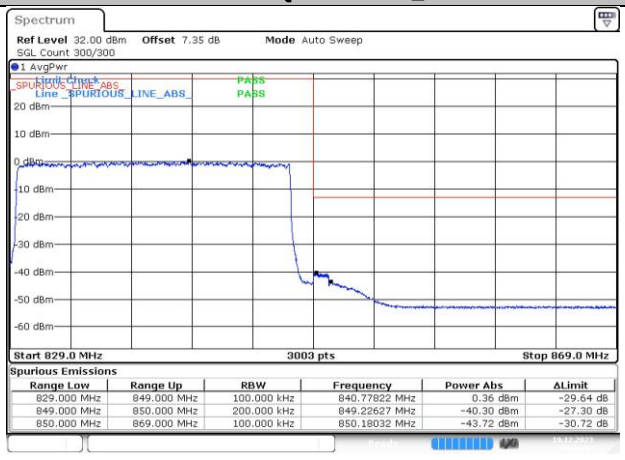


HCH / DFT-QPSK / Edge_1RB_Right



LCH / DFT-QPSK / Outer_Full	HCH / DFT-QPSK / Outer_Full

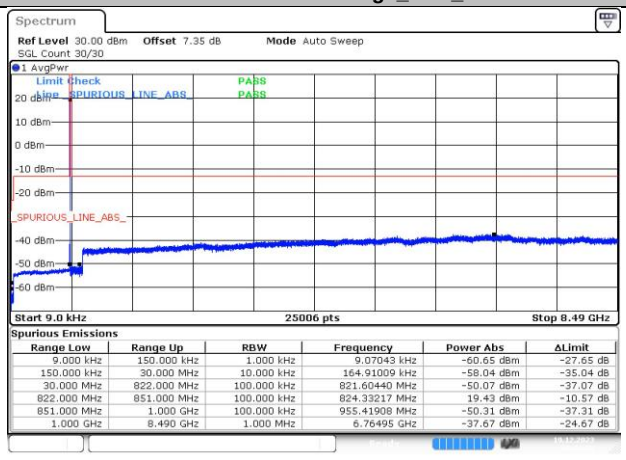


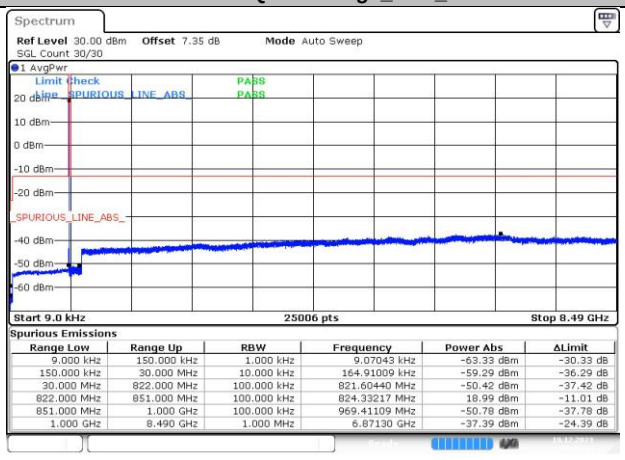


6. Conducted Spurious Emission

6.1. Test Plots

n5A / 15KHz / 5MHz	
LCH / DFT-Pi2BPSK / Edge_1RB_Left	LCH / DFT-QPSK / Edge_1RB_Left





MCH / DFT-Pi2BPSK / Edge_1RB_Left	MCH / DFT-QPSK / Edge_1RB_Left