Appendix for n5A (824-849)

Catalogue

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1. Effective Radiated Power

1.1. Test Results @ Ant0 (Antenna Gain=-5.16dBi)

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	22.69	22.58	22.52	15.38	38.45	Pass
15KHz	5MHz	LCH	DFT-QPSK	22.71	22.60	22.58	15.40	38.45	Pass
15KHz	5MHz	LCH	DFT-16QAM	21.61	21.57	21.68	14.37	38.45	Pass
15KHz	5MHz	LCH	DFT-64QAM	20.32	20.26	20.13	13.01	38.45	Pass
15KHz	5MHz	LCH	DFT-256QAM	17.65	17.57	18.06	10.75	38.45	Pass
15KHz	5MHz	LCH	CP-QPSK	21.13	21.16	21.00	13.85	38.45	Pass
15KHz	5MHz	MCH	DFT-Pi2BPSK	22.50	22.47	22.39	15.19	38.45	Pass
15KHz	5MHz	MCH	DFT-QPSK	22.45	22.42	22.39	15.14	38.45	Pass
15KHz	5MHz	MCH	DFT-16QAM	21.51	21.45	21.53	14.22	38.45	Pass
15KHz	5MHz	MCH	DFT-64QAM	20.18	20.23	20.02	12.92	38.45	Pass
15KHz	5MHz	MCH	DFT-256QAM	17.74	17.63	17.92	10.61	38.45	Pass
15KHz	5MHz	MCH	CP-QPSK	20.94	20.90	20.84	13.63	38.45	Pass
15KHz	5MHz	HCH	DFT-Pi2BPSK	22.54	22.45	22.38	15.23	38.45	Pass
15KHz	5MHz	HCH	DFT-QPSK	22.44	22.45	22.38	15.14	38.45	Pass
15KHz	5MHz	HCH	DFT-16QAM	21.42	21.44	21.54	14.23	38.45	Pass
15KHz	5MHz	HCH	DFT-64QAM	20.08	20.07	19.98	12.77	38.45	Pass
15KHz	5MHz	HCH	DFT-256QAM	17.79	17.73	17.88	10.57	38.45	Pass
15KHz	5MHz	HCH	CP-QPSK	20.91	20.91	20.95	13.64	38.45	Pass
15KHz	10MHz	LCH	DFT-Pi2BPSK	22.60	22.42	22.51	15.29	38.45	Pass
15KHz	10MHz	LCH	DFT-QPSK	22.60	22.42	22.57	15.29	38.45	Pass
15KHz	10MHz	LCH	DFT-16QAM	21.57	21.50	21.54	14.26	38.45	Pass
15KHz	10MHz	LCH	DFT-64QAM	20.35	20.16	20.04	13.04	38.45	Pass
15KHz	10MHz	LCH	DFT-256QAM	17.60	17.62	17.98	10.67	38.45	Pass
15KHz	10MHz	LCH	CP-QPSK	21.03	20.83	21.01	13.72	38.45	Pass
15KHz	10MHz	MCH	DFT-Pi2BPSK	22.41	22.52	22.46	15.21	38.45	Pass
15KHz	10MHz	MCH	DFT-QPSK	22.40	22.39	22.45	15.14	38.45	Pass
15KHz	10MHz	MCH	DFT-16QAM	21.44	21.36	21.49	14.18	38.45	Pass
15KHz	10MHz	MCH	DFT-64QAM	20.13	20.12	19.96	12.82	38.45	Pass
15KHz	10MHz	MCH	DFT-256QAM	17.72	17.78	17.84	10.53	38.45	Pass
15KHz	10MHz	MCH	CP-QPSK	20.84	20.90	20.92	13.61	38.45	Pass
15KHz	10MHz	HCH	DFT-Pi2BPSK	22.52	22.56	22.44	15.25	38.45	Pass
15KHz	10MHz	HCH	DFT-QPSK	22.42	22.43	22.53	15.22	38.45	Pass
15KHz	10MHz	HCH	DFT-16QAM	21.42	21.46	21.43	14.15	38.45	Pass
15KHz	10MHz	HCH	DFT-64QAM	20.09	20.13	19.97	12.82	38.45	Pass
15KHz	10MHz	HCH	DFT-256QAM	17.66	17.62	17.86	10.55	38.45	Pass
15KHz	10MHz	HCH	CP-QPSK	20.86	20.88	20.90	13.59	38.45	Pass
15KHz	15MHz	LCH	DFT-Pi2BPSK	22.82	22.63	22.67	15.51	38.45	Pass
15KHz	15MHz	LCH	DFT-QPSK	22.70	22.69	22.66	15.39	38.45	Pass
15KHz	15MHz	LCH	DFT-16QAM	21.63	21.63	21.66	14.35	38.45	Pass
15KHz	15MHz	LCH	DFT-64QAM	20.38	20.22	20.21	13.07	38.45	Pass
15KHz	15MHz	LCH	DFT-256QAM	17.71	17.57	18.08	10.77	38.45	Pass
15KHz	15MHz	LCH	CP-QPSK	21.18	21.12	21.06	13.87	38.45	Pass
15KHz	15MHz	MCH	DFT-Pi2BPSK	22.71	22.63	22.66	15.40	38.45	Pass
15KHz	15MHz	MCH	DFT-QPSK	22.74	22.63	22.68	15.43	38.45	Pass
15KHz	15MHz	MCH	DFT-16QAM	21.68	21.58	21.69	14.38	38.45	Pass
15KHz	15MHz	MCH	DFT-64QAM	20.31	20.22	20.19	13.00	38.45	Pass
15KHz	15MHz	MCH	DFT-256QAM	17.67	17.57	18.03	10.72	38.45	Pass
15KHz	15MHz	MCH	CP-QPSK	21.15	20.99	21.16	13.85	38.45	Pass
15KHz	15MHz	HCH	DFT-Pi2BPSK	22.65	22.57	22.63	15.34	38.45	Pass
15KHz	15MHz	HCH	DFT-QPSK	22.68	22.62	22.62	15.37	38.45	Pass
15KHz	15MHz	HCH	DFT-16QAM	21.59	21.56	21.62	14.31	38.45	Pass
15KHz	15MHz	HCH	DFT-64QAM	20.16	20.23	20.12	12.92	38.45	Pass
15KHz	15MHz	HCH	DFT-256QAM	17.62	17.54	18.03	10.72	38.45	Pass
15KHz	15MHz	HCH	CP-QPSK	21.04	21.06	21.13	13.82	38.45	Pass
15KHz	20MHz	LCH	DFT-Pi2BPSK	22.86	22.61	22.60	15.55	38.45	Pass
15KHz	20MHz	LCH	DFT-QPSK	22.75	22.59	22.61	15.44	38.45	Pass
15KHz	20MHz	LCH	DFT-16QAM	21.62	21.58	21.61	14.31	38.45	Pass
15KHz	20MHz	LCH	DFT-64QAM	20.39	20.23	20.14	13.08	38.45	Pass

15KHz	20MHz	LCH	DFT-256QAM	17.69	17.60	18.09	10.78	38.45	Pass
15KHz	20MHz	LCH	CP-QPSK	21.14	21.05	21.11	13.83	38.45	Pass
15KHz	20MHz	MCH	DFT-Pi2BPSK	22.73	22.57	22.67	15.42	38.45	Pass
15KHz	20MHz	MCH	DFT-QPSK	22.69	22.53	22.64	15.38	38.45	Pass
15KHz	20MHz	MCH	DFT-16QAM	21.64	21.52	21.71	14.40	38.45	Pass
15KHz	20MHz	MCH	DFT-64QAM	20.36	20.23	20.14	13.05	38.45	Pass
15KHz	20MHz	MCH	DFT-256QAM	17.75	17.64	18.07	10.76	38.45	Pass
15KHz	20MHz	MCH	CP-QPSK	21.12	21.02	21.12	13.81	38.45	Pass
15KHz	20MHz	HCH	DFT-Pi2BPSK	22.66	22.56	22.71	15.40	38.45	Pass
15KHz	20MHz	HCH	DFT-QPSK	22.68	22.57	22.70	15.39	38.45	Pass
15KHz	20MHz	HCH	DFT-16QAM	21.62	21.52	21.69	14.38	38.45	Pass
15KHz	20MHz	HCH	DFT-64QAM	20.28	20.24	20.18	12.97	38.45	Pass
15KHz	20MHz	HCH	DFT-256QAM	17.63	17.62	18.11	10.80	38.45	Pass
15KHz	20MHz	HCH	CP-QPSK	21.10	21.00	21.08	13.79	38.45	Pass

2. Peak-to-Average Ratio

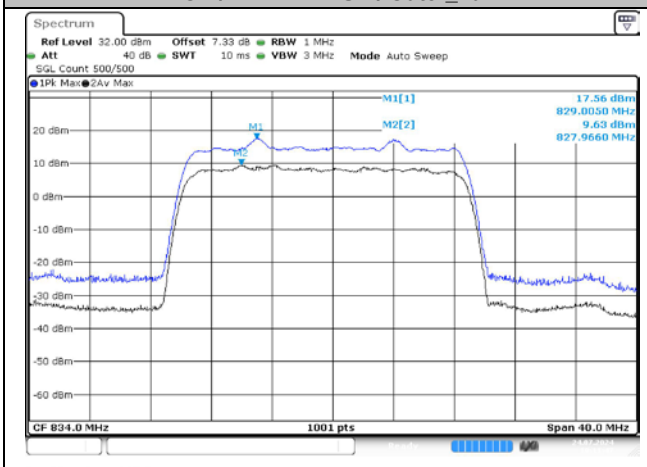
2.1. Test Results

SCS	Bandwidth	Channel	RB	Result (dB)		Limit (dB)	Verdict
				DFT-Pi2BPSK	DFT-QPSK		
15KHz	20MHz	LCH	Outer_Full	7.92	6.94	13.00	Pass
15KHz	20MHz	MCH	Outer_Full	7.90	7.01	13.00	Pass
15KHz	20MHz	HCH	Outer_Full	7.83	7.43	13.00	Pass

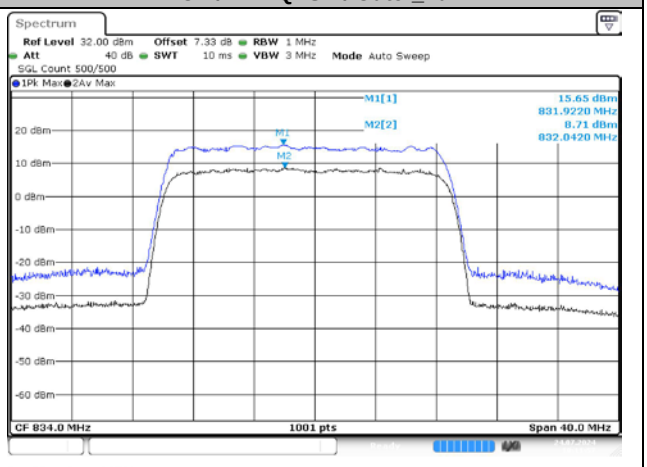
2.2. Test Plots

n5A / 15KHz / 20MHz

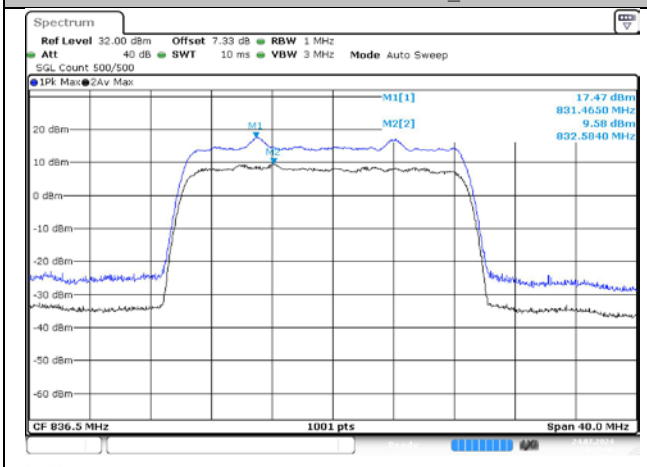
LCH / DFT-Pi2BPSK / Outer_Full



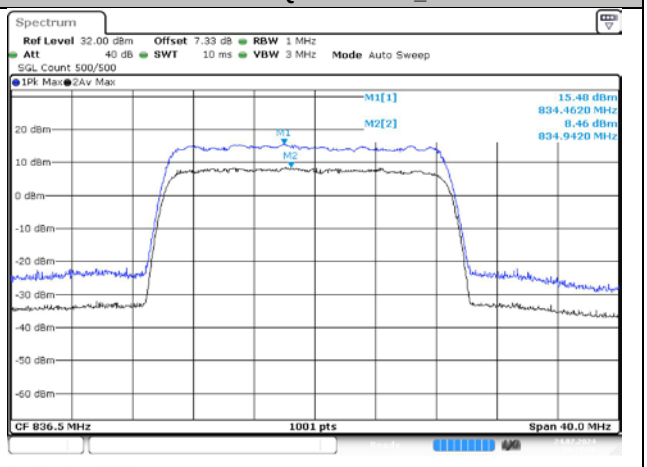
LCH / DFT-QPSK / Outer_Full



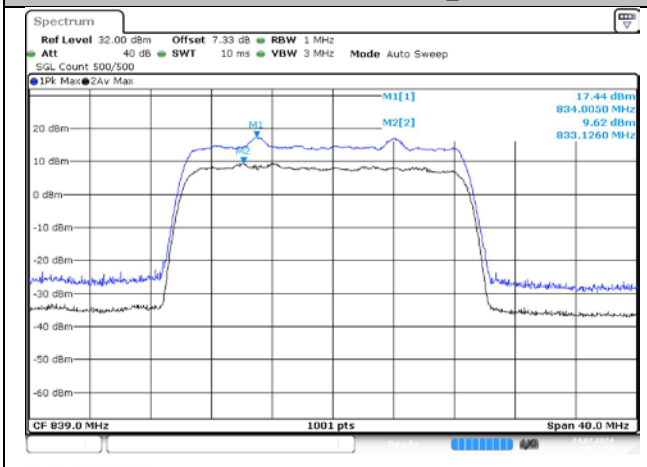
MCH / DFT-Pi2BPSK / Outer_Full



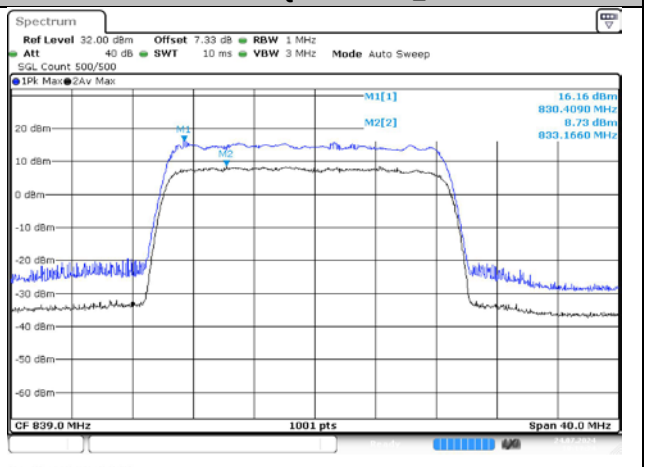
MCH / DFT-QPSK / Outer_Full



HCH / DFT-Pi2BPSK / Outer_Full

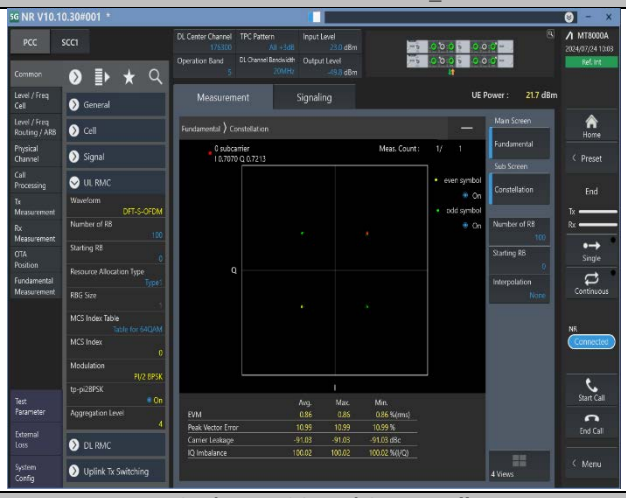
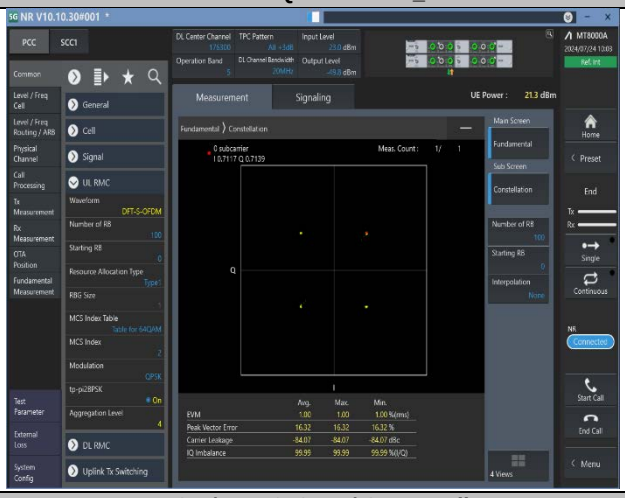
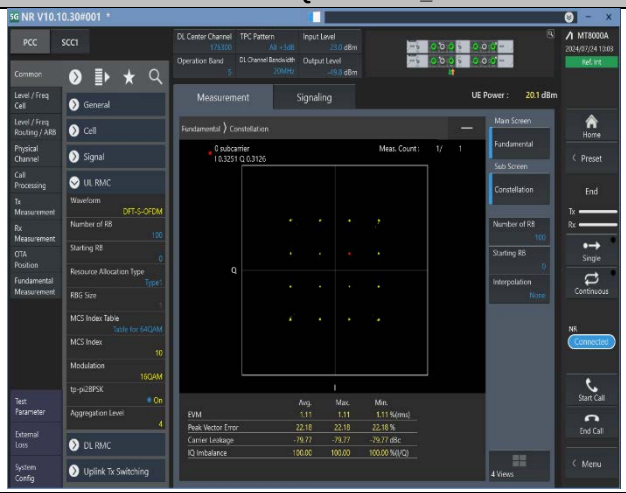
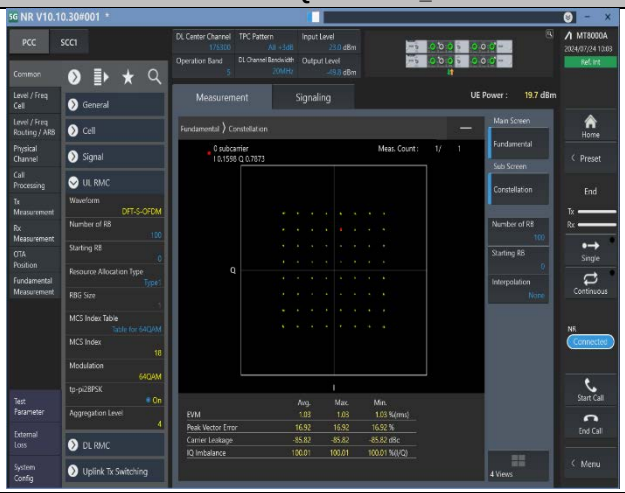
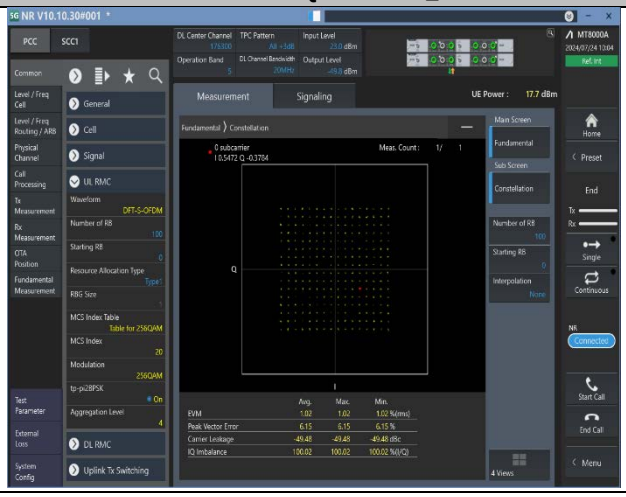
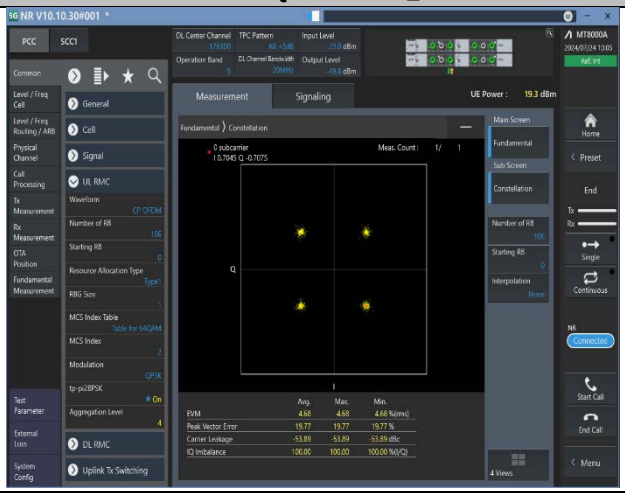


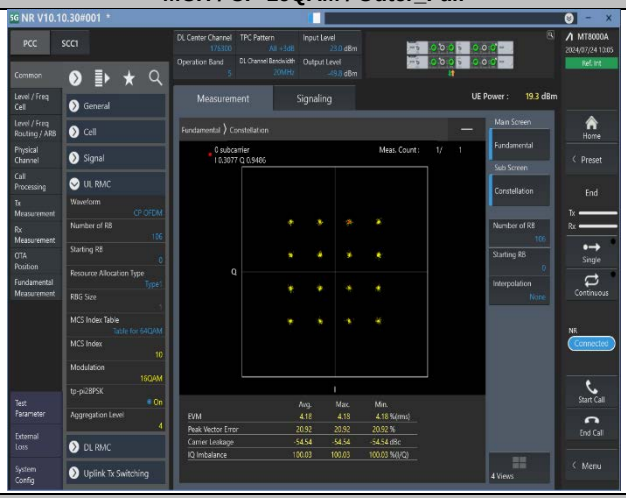
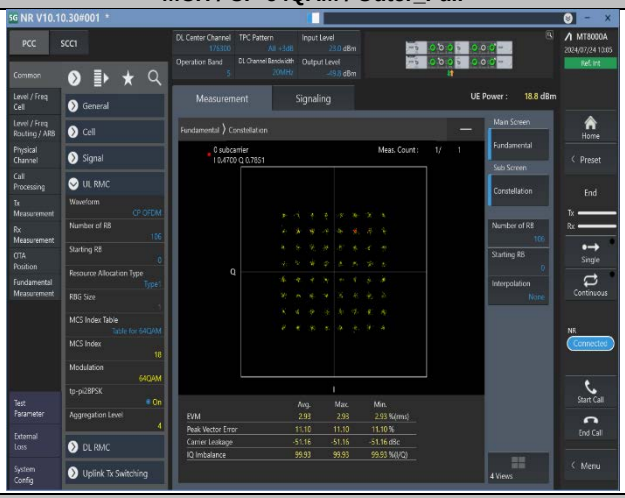
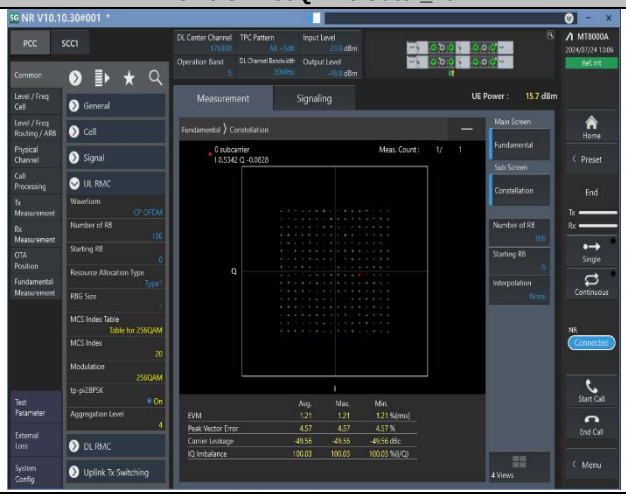
HCH / DFT-QPSK / Outer_Full



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

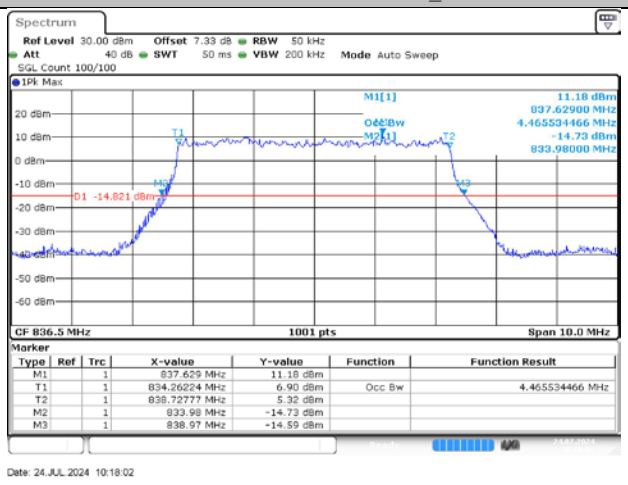
SCS	Bandwidth	Modulation	RB	99% Occupied Bandwidth (MHz)	26dB Emission Bandwidth (MHz)	Verdict
15KHz	5MHz	DFT-Pi2BPSK	Outer_Full	4.47	4.99	Pass
15KHz	5MHz	DFT-QPSK	Outer_Full	4.48	4.97	Pass
15KHz	5MHz	CP-QPSK	Outer_Full	4.49	5.22	Pass
15KHz	5MHz	CP-16QAM	Outer_Full	4.51	5.20	Pass
15KHz	5MHz	CP-64QAM	Outer_Full	4.49	5.14	Pass
15KHz	5MHz	CP-256QAM	Outer_Full	4.48	5.15	Pass
15KHz	10MHz	DFT-Pi2BPSK	Outer_Full	8.91	9.64	Pass
15KHz	10MHz	DFT-QPSK	Outer_Full	8.93	9.70	Pass
15KHz	10MHz	CP-QPSK	Outer_Full	9.29	10.10	Pass
15KHz	10MHz	CP-16QAM	Outer_Full	9.27	10.06	Pass
15KHz	10MHz	CP-64QAM	Outer_Full	9.29	9.96	Pass
15KHz	10MHz	CP-256QAM	Outer_Full	9.29	10.14	Pass
15KHz	15MHz	DFT-Pi2BPSK	Outer_Full	13.40	14.31	Pass
15KHz	15MHz	DFT-QPSK	Outer_Full	13.40	14.37	Pass
15KHz	15MHz	CP-QPSK	Outer_Full	14.12	15.18	Pass
15KHz	15MHz	CP-16QAM	Outer_Full	14.15	15.15	Pass
15KHz	15MHz	CP-64QAM	Outer_Full	14.15	15.12	Pass
15KHz	15MHz	CP-256QAM	Outer_Full	14.12	15.09	Pass
15KHz	20MHz	DFT-Pi2BPSK	Outer_Full	17.82	18.88	Pass
15KHz	20MHz	DFT-QPSK	Outer_Full	17.82	18.80	Pass
15KHz	20MHz	CP-QPSK	Outer_Full	18.86	20.00	Pass

15KHz	20MHz	CP-16QAM	Outer_Full	18.94	20.00	Pass
15KHz	20MHz	CP-64QAM	Outer_Full	18.90	20.00	Pass
15KHz	20MHz	CP-256QAM	Outer_Full	18.94	19.92	Pass

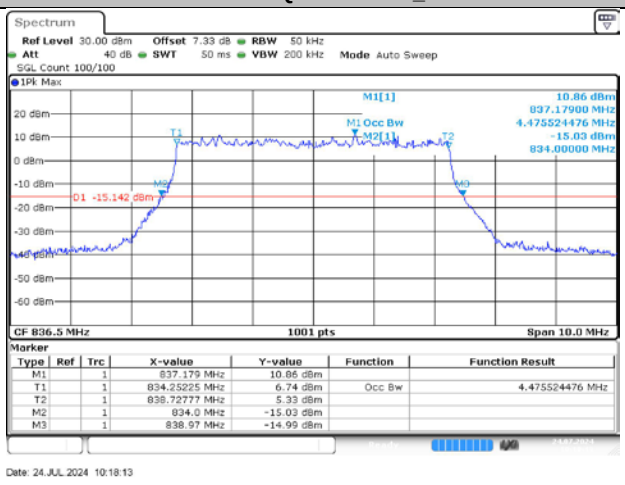
4.2. Test Plots

n5A / 15KHz / 5MHz

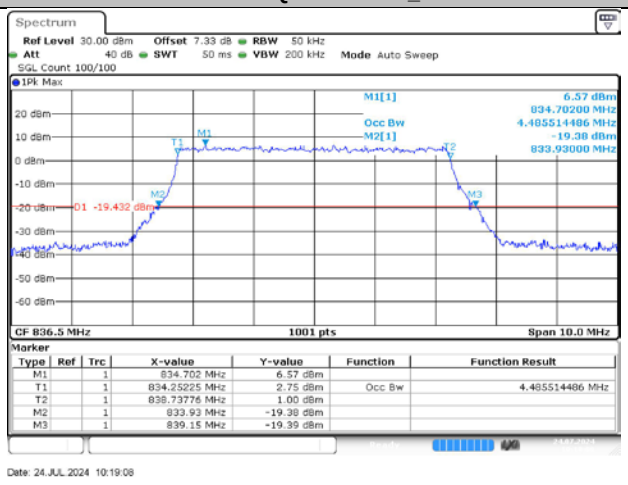
MCH / DFT-Pi2BPSK / Outer_Full



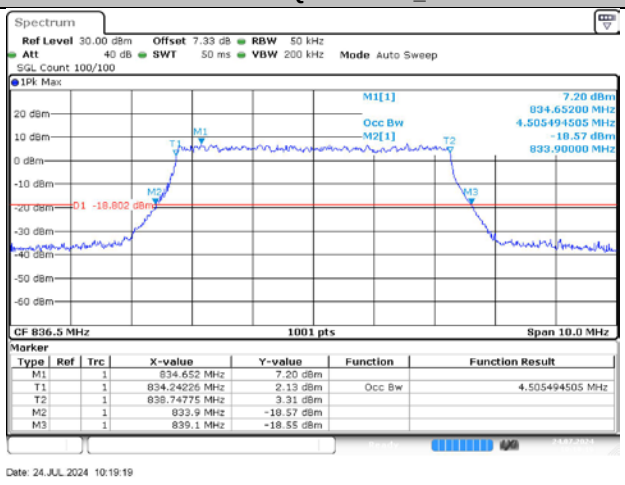
MCH / DFT-QPSK / Outer_Full



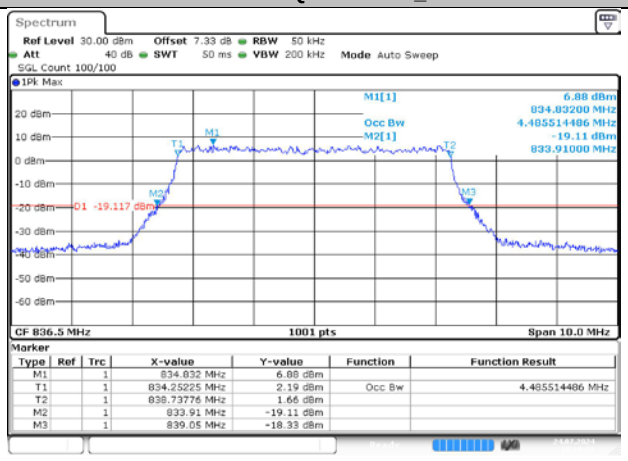
MCH / CP-QPSK / Outer_Full



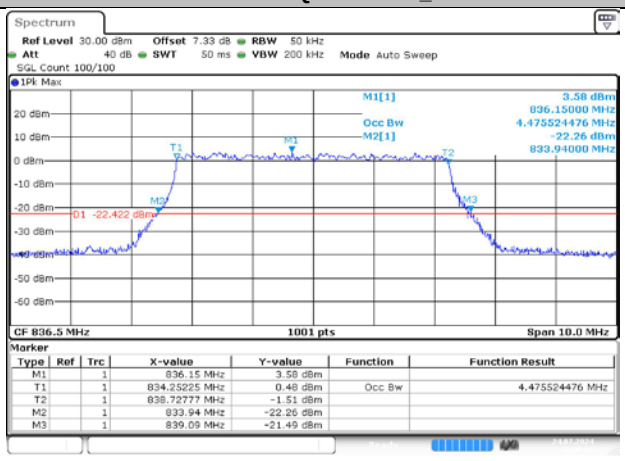
MCH / CP-16QAM / Outer_Full

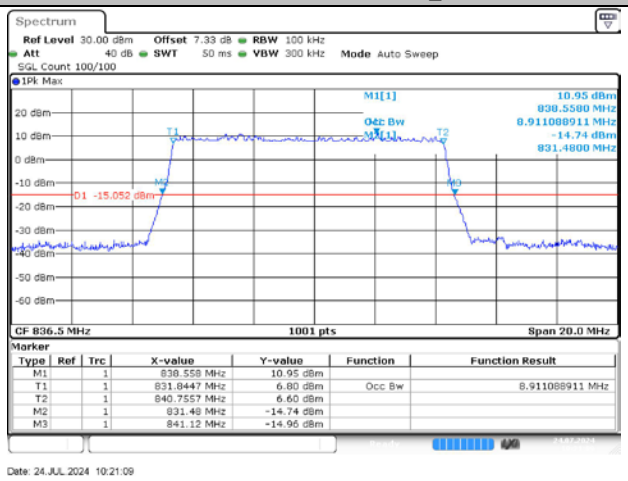
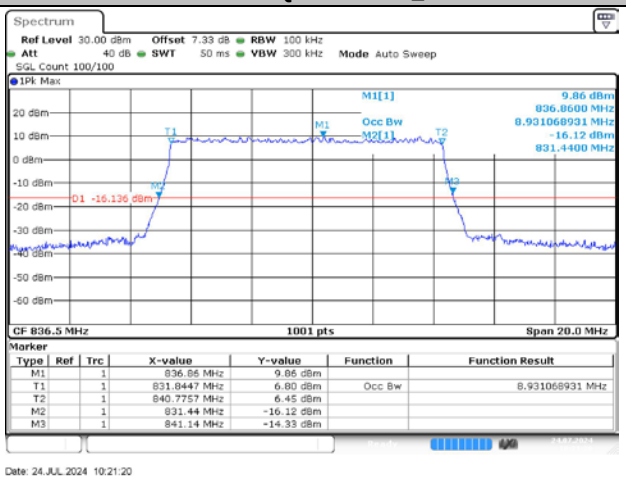
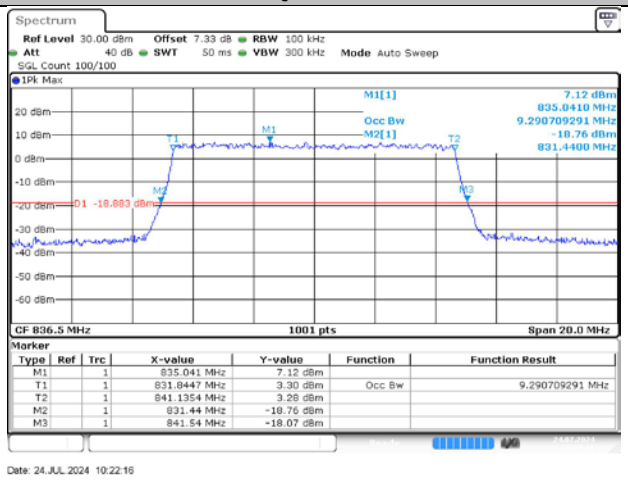
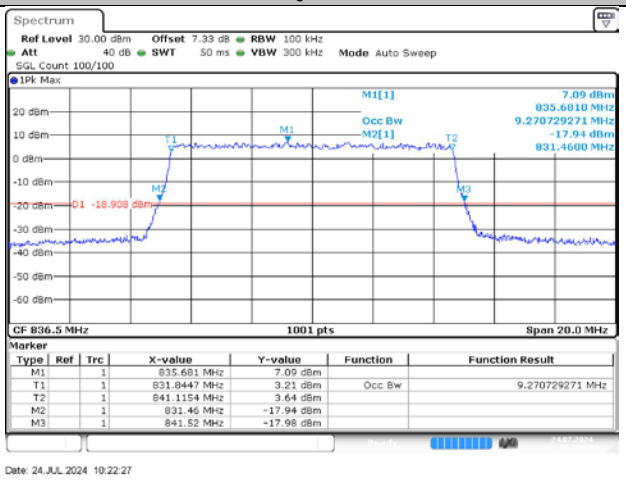
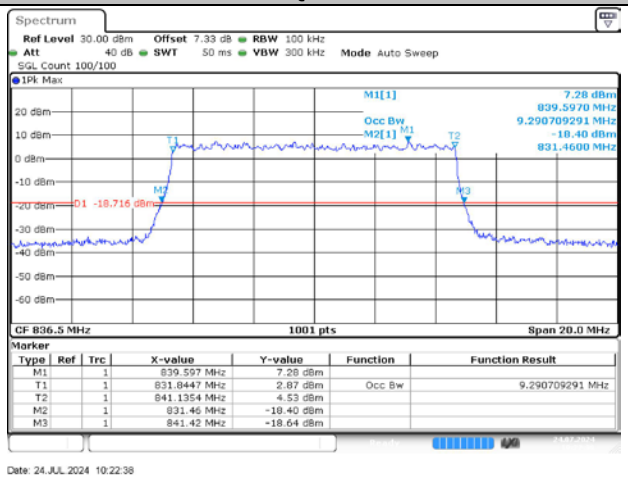
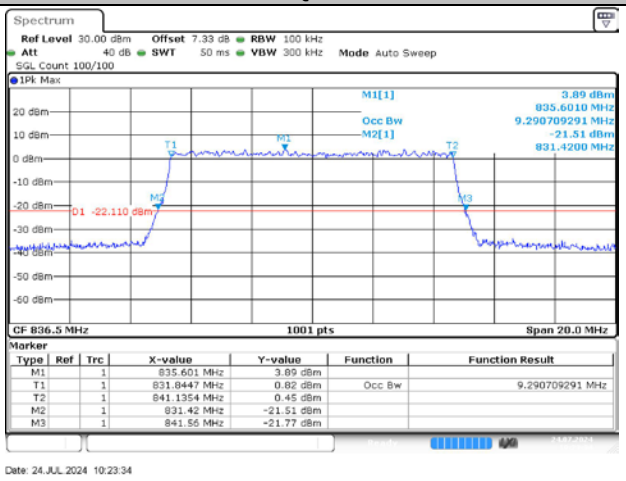


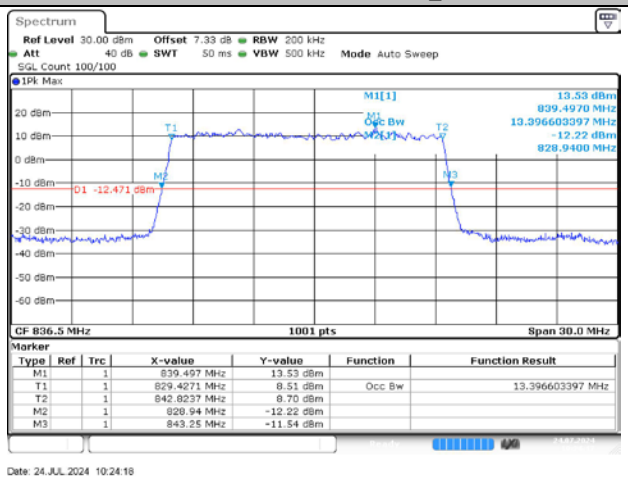
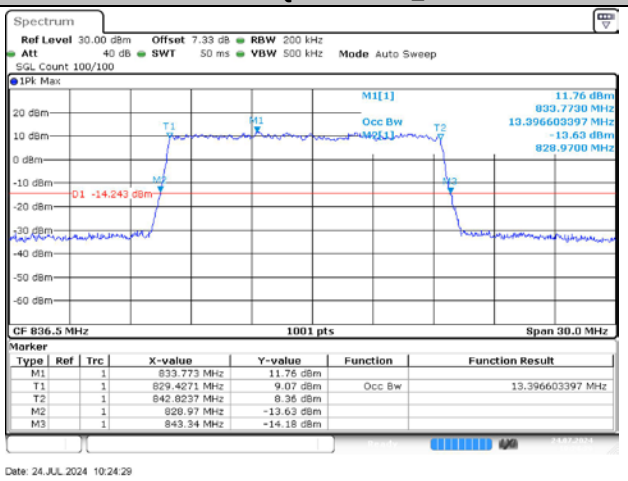
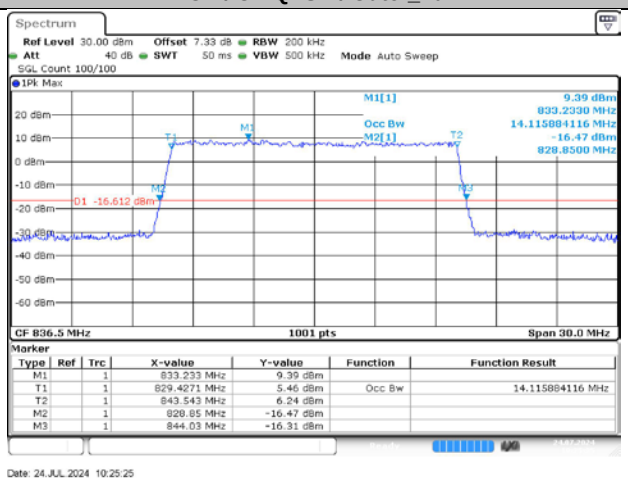
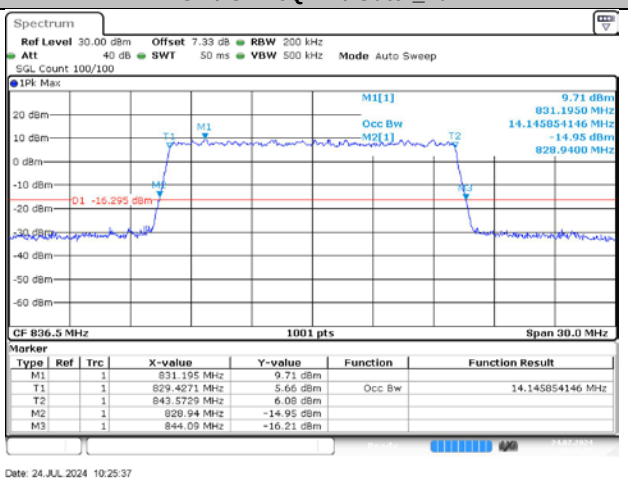
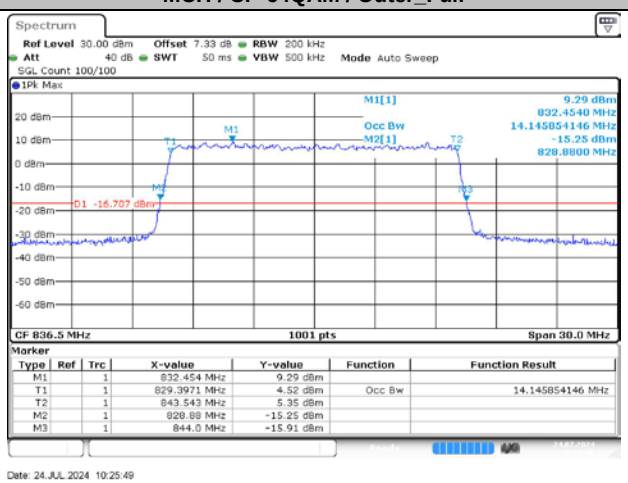
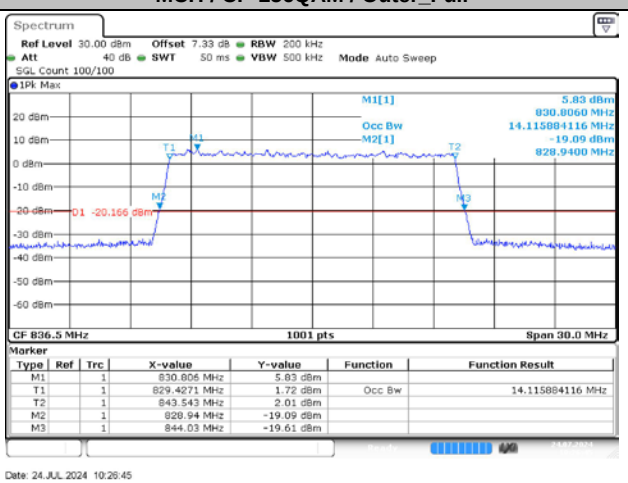
MCH / CP-64QAM / Outer_Full

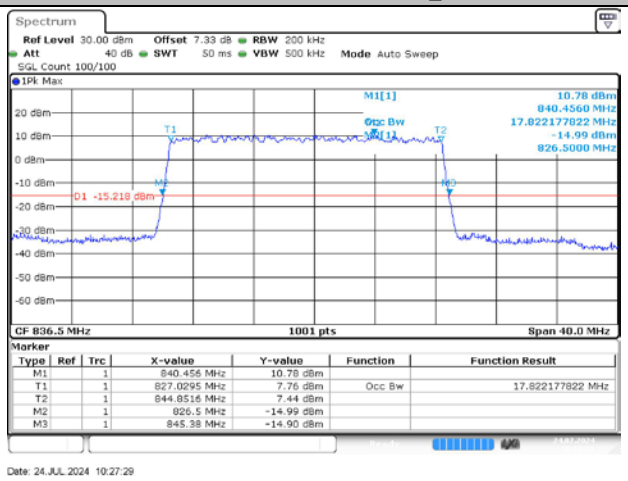
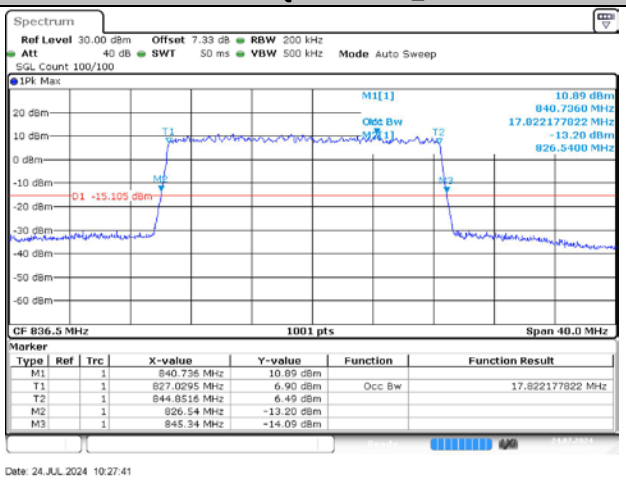
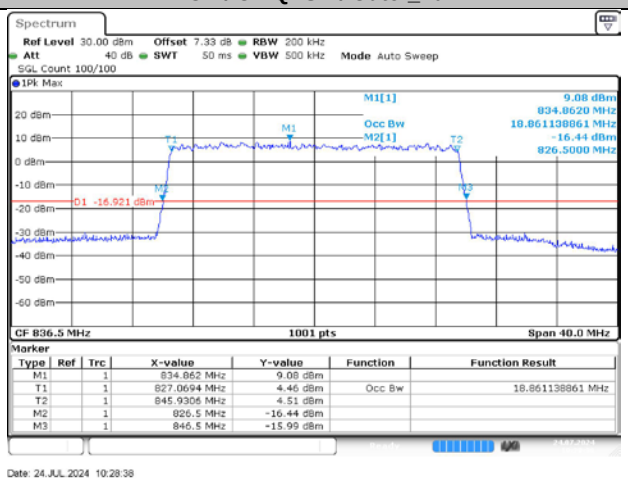
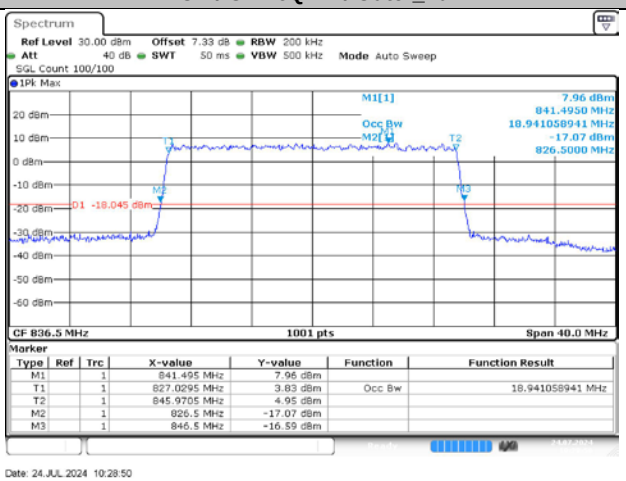
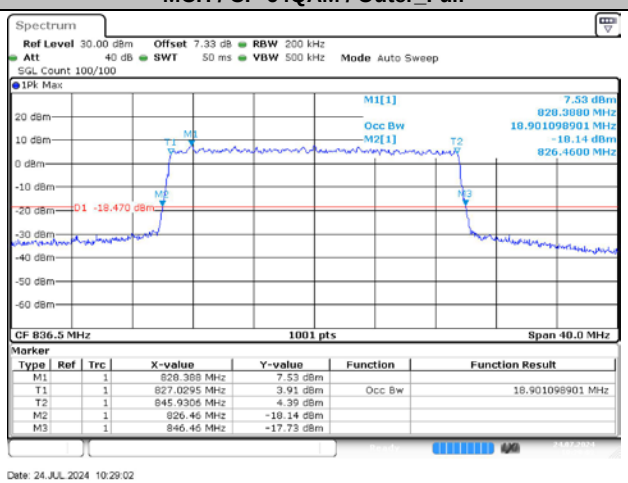
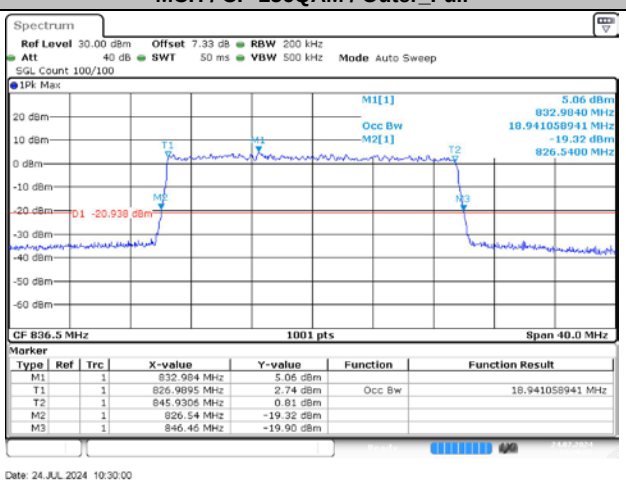


MCH / CP-256QAM / Outer_Full



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
	

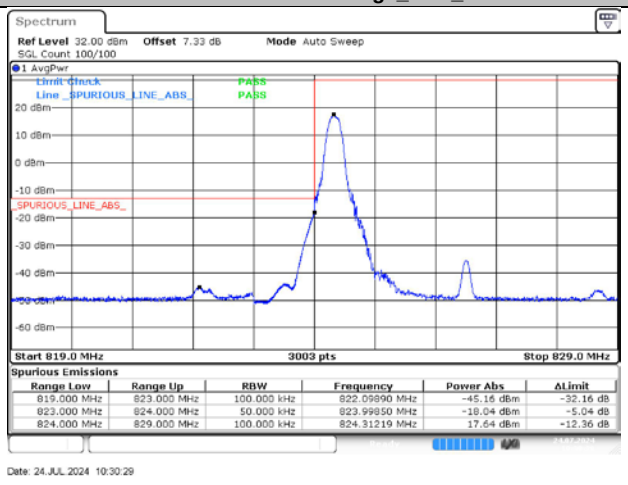
n5A / 15KHz / 20MHz	
MCH / DFT-Pi2BPSK / Outer_Full	MCH / DFT-QPSK / Outer_Full
	
MCH / CP-QPSK / Outer_Full	MCH / CP-16QAM / Outer_Full
	
MCH / CP-64QAM / Outer_Full	MCH / CP-256QAM / Outer_Full
	

5. Conducted Band Edges

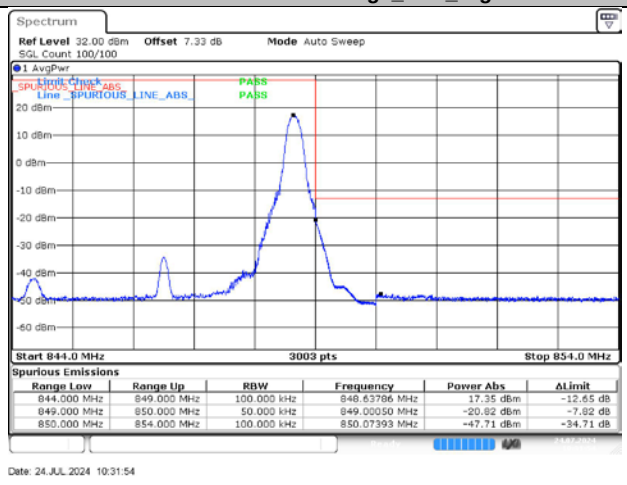
5.1. Test Plots

n5A / 15KHz / 5MHz

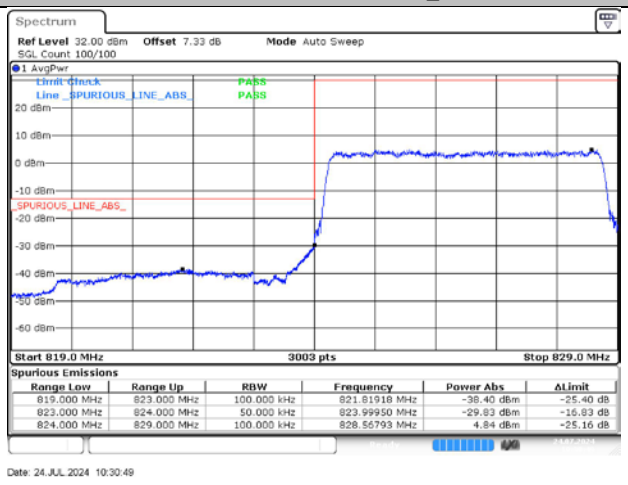
LCH / DFT-Pi2BPSK / Edge_1RB_Left



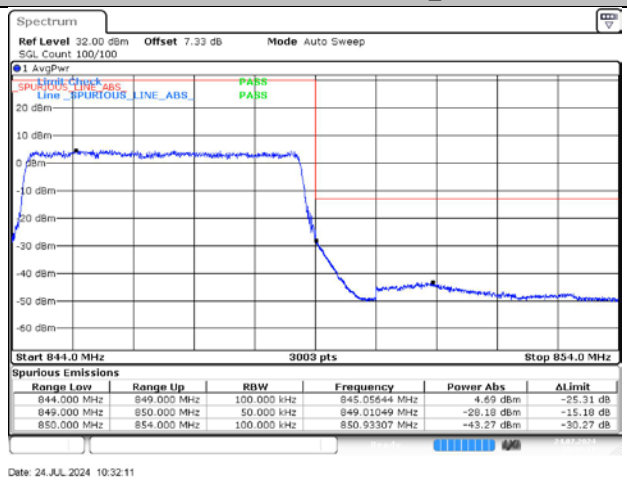
HCH / DFT-Pi2BPSK / Edge_1RB_Right



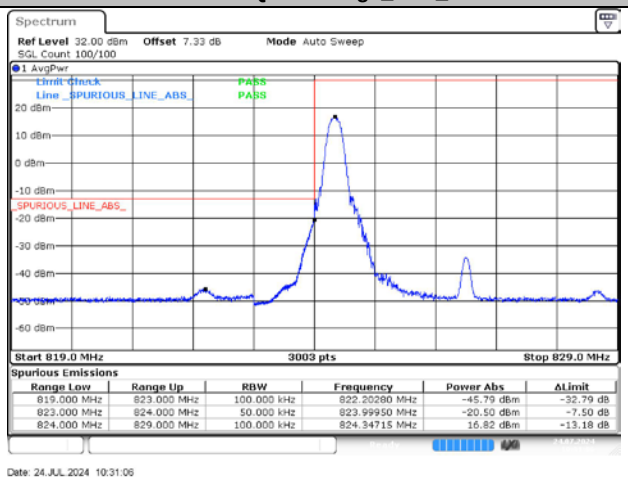
LCH / DFT-Pi2BPSK / Outer_Full



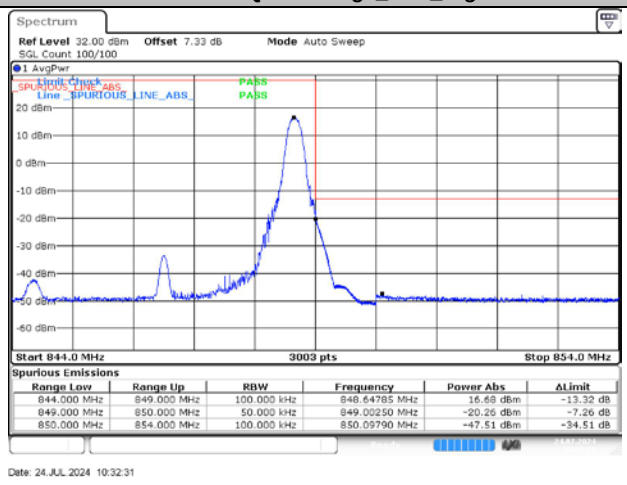
HCH / DFT-Pi2BPSK / Outer_Full

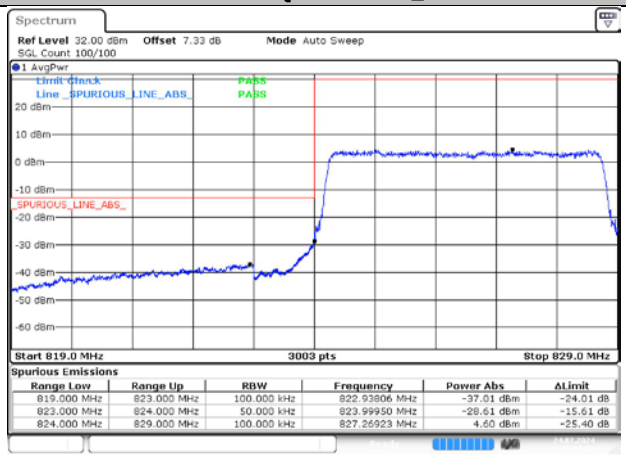
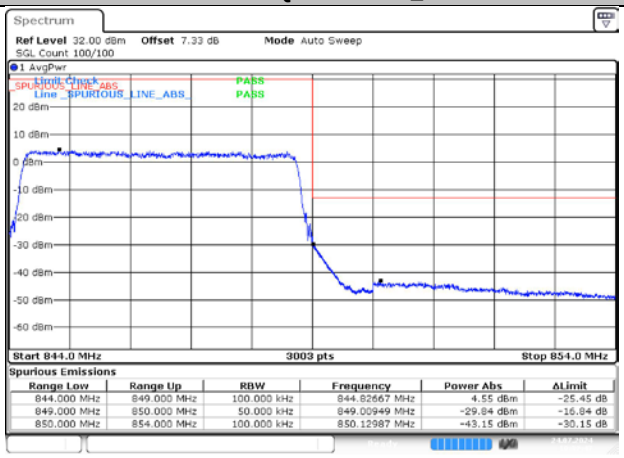


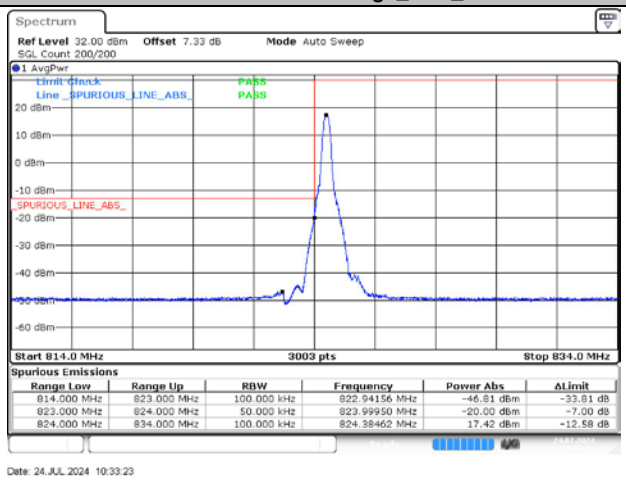
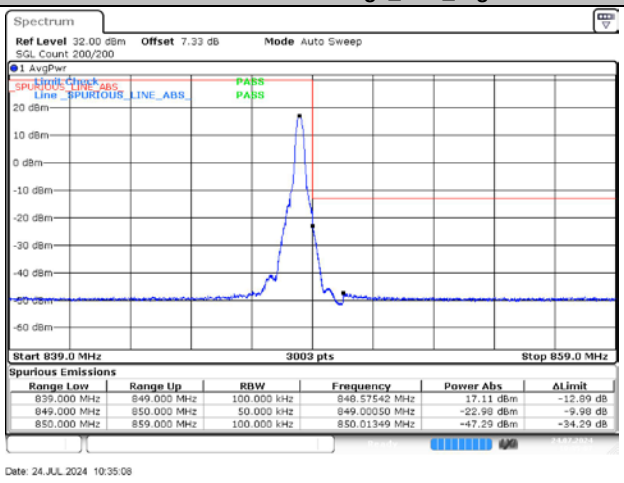
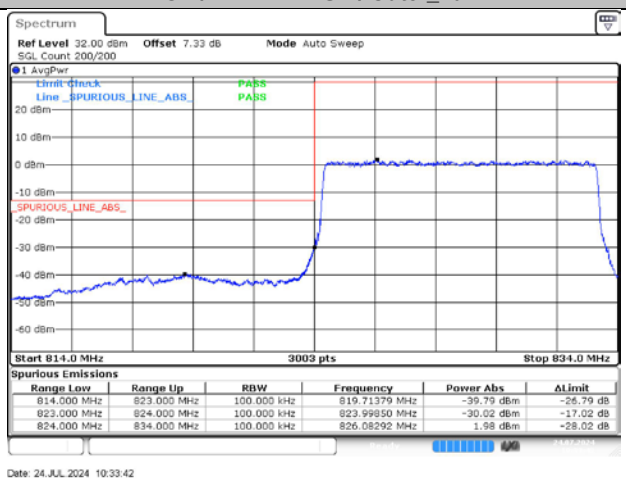
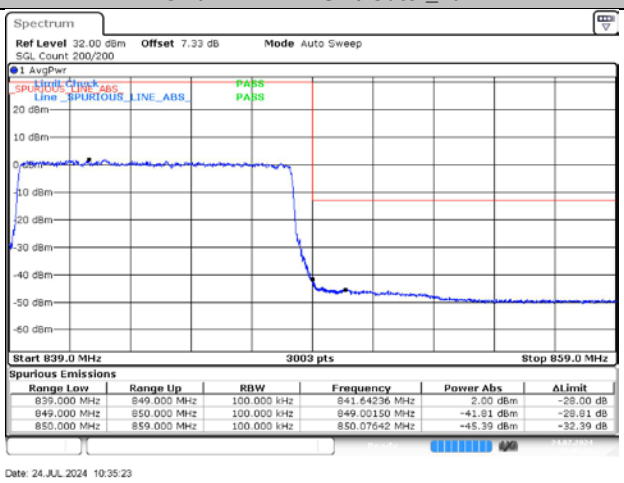
LCH / DFT-QPSK / Edge_1RB_Left

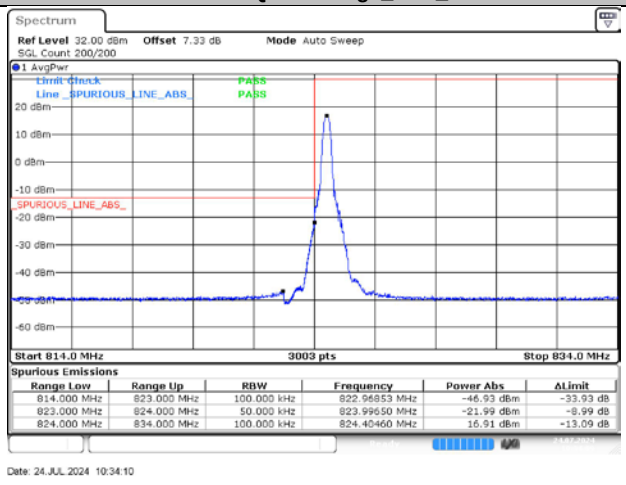
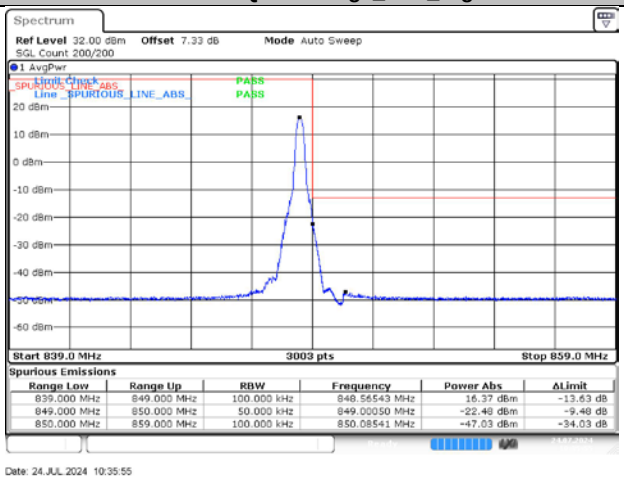
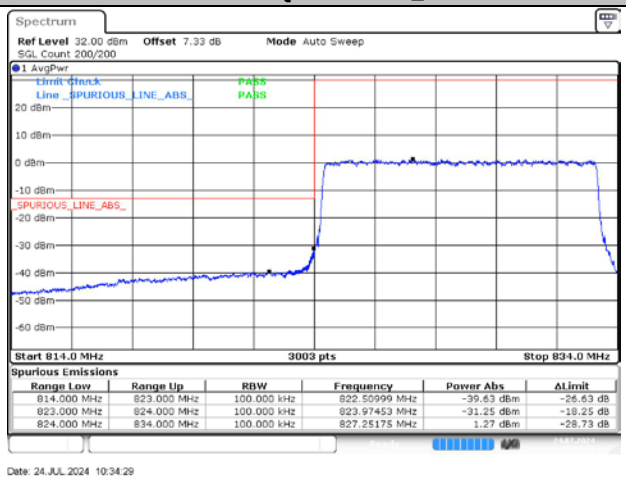
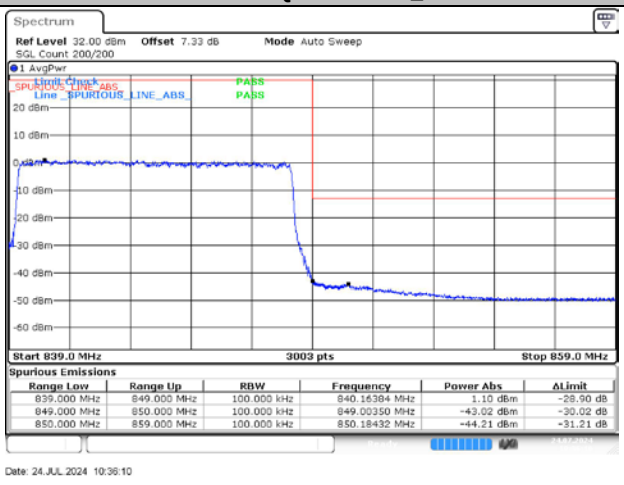


HCH / DFT-QPSK / Edge_1RB_Right



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