

Appendix for DC_66A_n2A (1850-1910)

Catalogue

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1. Effective Isotropic Radiated Power

1.1. Test Results @ Ant4 (Antenna Gain=-3.00dBi)

SCS	Bandwidth	Channel	Modulation	Conducted Result (dBm)			Max EIRP (dBm)	Limit (dBm)	Verdict
				Inner_1RB_Left	Inner_1RB_Right	Inner_Full			
15KHz	5MHz	LCH	DFT-Pi2BPSK	23.53	23.45	23.43	20.53	33.00	Pass
15KHz	5MHz	LCH	DFT-QPSK	23.37	23.36	23.46	20.46	33.00	Pass
15KHz	5MHz	LCH	DFT-16QAM	22.26	22.14	22.46	19.46	33.00	Pass
15KHz	5MHz	LCH	DFT-64QAM	20.86	20.81	20.98	17.98	33.00	Pass
15KHz	5MHz	LCH	DFT-256QAM	18.92	18.76	18.91	15.92	33.00	Pass
15KHz	5MHz	LCH	CP-QPSK	21.88	21.84	21.89	18.89	33.00	Pass
15KHz	5MHz	MCH	DFT-Pi2BPSK	23.23	23.12	23.25	20.25	33.00	Pass
15KHz	5MHz	MCH	DFT-QPSK	23.19	23.01	23.28	20.28	33.00	Pass
15KHz	5MHz	MCH	DFT-16QAM	22.02	21.92	22.37	19.37	33.00	Pass
15KHz	5MHz	MCH	DFT-64QAM	20.94	20.83	20.95	17.95	33.00	Pass
15KHz	5MHz	MCH	DFT-256QAM	18.40	18.30	18.75	15.75	33.00	Pass
15KHz	5MHz	MCH	CP-QPSK	21.74	21.62	21.73	18.74	33.00	Pass
15KHz	5MHz	HCH	DFT-Pi2BPSK	23.17	23.01	23.12	20.17	33.00	Pass
15KHz	5MHz	HCH	DFT-QPSK	23.12	22.96	23.10	20.12	33.00	Pass
15KHz	5MHz	HCH	DFT-16QAM	21.83	21.72	22.19	19.19	33.00	Pass
15KHz	5MHz	HCH	DFT-64QAM	20.88	20.76	20.75	17.88	33.00	Pass
15KHz	5MHz	HCH	DFT-256QAM	18.35	18.23	18.64	15.64	33.00	Pass
15KHz	5MHz	HCH	CP-QPSK	21.74	21.59	21.60	18.74	33.00	Pass
15KHz	10MHz	LCH	DFT-Pi2BPSK	23.52	23.38	23.42	20.52	33.00	Pass
15KHz	10MHz	LCH	DFT-QPSK	23.36	23.28	23.44	20.44	33.00	Pass
15KHz	10MHz	LCH	DFT-16QAM	22.01	21.89	22.49	19.49	33.00	Pass
15KHz	10MHz	LCH	DFT-64QAM	21.11	21.01	20.96	18.11	33.00	Pass
15KHz	10MHz	LCH	DFT-256QAM	18.53	18.44	18.85	15.85	33.00	Pass
15KHz	10MHz	LCH	CP-QPSK	21.91	21.81	21.92	18.92	33.00	Pass
15KHz	10MHz	MCH	DFT-Pi2BPSK	23.32	23.13	23.27	20.32	33.00	Pass
15KHz	10MHz	MCH	DFT-QPSK	23.08	23.00	23.27	20.27	33.00	Pass
15KHz	10MHz	MCH	DFT-16QAM	22.19	22.06	22.29	19.29	33.00	Pass
15KHz	10MHz	MCH	DFT-64QAM	21.10	21.03	20.83	18.10	33.00	Pass
15KHz	10MHz	MCH	DFT-256QAM	18.40	18.29	18.69	15.69	33.00	Pass
15KHz	10MHz	MCH	CP-QPSK	21.82	21.61	21.71	18.82	33.00	Pass
15KHz	10MHz	HCH	DFT-Pi2BPSK	23.18	22.97	23.19	20.19	33.00	Pass
15KHz	10MHz	HCH	DFT-QPSK	23.10	22.91	23.21	20.21	33.00	Pass
15KHz	10MHz	HCH	DFT-16QAM	21.95	21.85	22.27	19.27	33.00	Pass
15KHz	10MHz	HCH	DFT-64QAM	21.10	20.69	20.75	18.10	33.00	Pass
15KHz	10MHz	HCH	DFT-256QAM	18.43	18.24	18.63	15.63	33.00	Pass
15KHz	10MHz	HCH	CP-QPSK	21.69	21.48	21.70	18.70	33.00	Pass
15KHz	15MHz	LCH	DFT-Pi2BPSK	23.64	23.52	23.63	20.64	33.00	Pass
15KHz	15MHz	LCH	DFT-QPSK	23.15	23.43	23.64	20.64	33.00	Pass
15KHz	15MHz	LCH	DFT-16QAM	22.06	22.31	22.69	19.69	33.00	Pass
15KHz	15MHz	LCH	DFT-64QAM	21.00	21.25	21.16	18.25	33.00	Pass
15KHz	15MHz	LCH	DFT-256QAM	18.69	18.71	19.12	16.12	33.00	Pass
15KHz	15MHz	LCH	CP-QPSK	22.01	22.10	22.16	19.16	33.00	Pass
15KHz	15MHz	MCH	DFT-Pi2BPSK	23.44	23.37	23.41	20.44	33.00	Pass
15KHz	15MHz	MCH	DFT-QPSK	23.36	23.21	23.37	20.37	33.00	Pass
15KHz	15MHz	MCH	DFT-16QAM	22.25	22.11	22.41	19.41	33.00	Pass
15KHz	15MHz	MCH	DFT-64QAM	21.13	20.95	20.97	18.13	33.00	Pass
15KHz	15MHz	MCH	DFT-256QAM	18.80	18.65	18.84	15.84	33.00	Pass
15KHz	15MHz	MCH	CP-QPSK	22.05	21.94	21.94	19.05	33.00	Pass
15KHz	15MHz	HCH	DFT-Pi2BPSK	23.23	23.13	23.20	20.23	33.00	Pass
15KHz	15MHz	HCH	DFT-QPSK	22.95	23.01	23.22	20.22	33.00	Pass
15KHz	15MHz	HCH	DFT-16QAM	21.95	21.93	22.25	19.25	33.00	Pass
15KHz	15MHz	HCH	DFT-64QAM	20.84	20.83	20.77	17.84	33.00	Pass
15KHz	15MHz	HCH	DFT-256QAM	18.37	18.28	18.57	15.57	33.00	Pass
15KHz	15MHz	HCH	CP-QPSK	21.72	21.64	21.70	18.72	33.00	Pass
15KHz	20MHz	LCH	DFT-Pi2BPSK	23.62	23.55	23.64	20.64	33.00	Pass
15KHz	20MHz	LCH	DFT-QPSK	22.95	23.38	23.68	20.68	33.00	Pass
15KHz	20MHz	LCH	DFT-16QAM	21.65	22.04	22.65	19.65	33.00	Pass
15KHz	20MHz	LCH	DFT-64QAM	21.02	21.41	21.23	18.41	33.00	Pass
15KHz	20MHz	LCH	DFT-256QAM	18.67	18.64	19.15	16.15	33.00	Pass

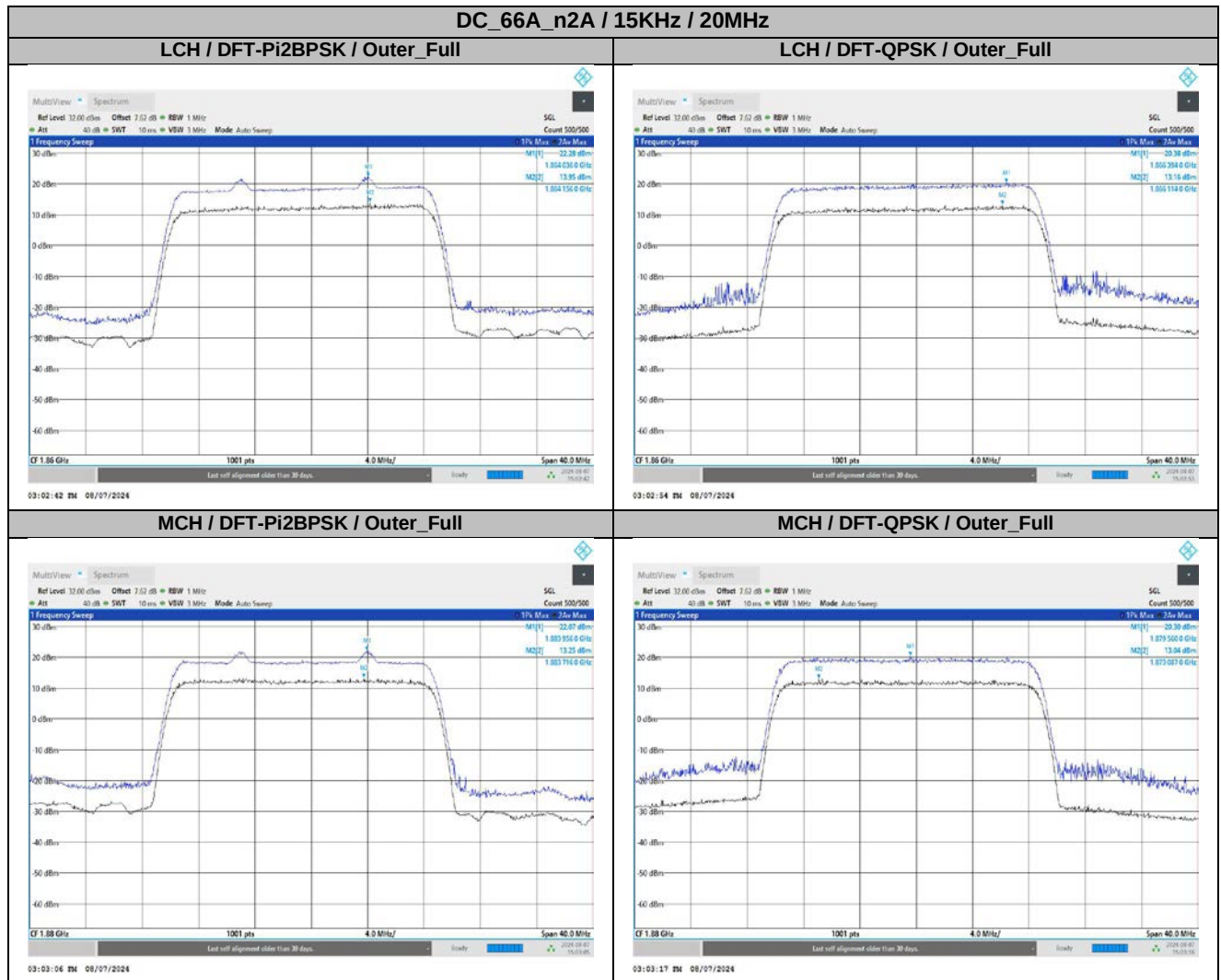
15KHz	20MHz	LCH	CP-QPSK	21.83	22.06	22.19	19.19	33.00	Pass
15KHz	20MHz	MCH	DFT-Pi2BPSK	23.55	23.28	23.44	20.55	33.00	Pass
15KHz	20MHz	MCH	DFT-QPSK	23.45	23.22	23.39	20.45	33.00	Pass
15KHz	20MHz	MCH	DFT-16QAM	22.02	21.85	22.42	19.42	33.00	Pass
15KHz	20MHz	MCH	DFT-64QAM	21.38	21.19	20.94	18.38	33.00	Pass
15KHz	20MHz	MCH	DFT-256QAM	18.66	18.40	18.93	15.93	33.00	Pass
15KHz	20MHz	MCH	CP-QPSK	22.07	21.81	21.93	19.07	33.00	Pass
15KHz	20MHz	HCH	DFT-Pi2BPSK	23.23	23.15	23.26	20.26	33.00	Pass
15KHz	20MHz	HCH	DFT-QPSK	23.14	23.07	23.26	20.26	33.00	Pass
15KHz	20MHz	HCH	DFT-16QAM	22.02	21.99	22.25	19.25	33.00	Pass
15KHz	20MHz	HCH	DFT-64QAM	20.53	20.45	20.80	17.80	33.00	Pass
15KHz	20MHz	HCH	DFT-256QAM	18.47	18.33	18.71	15.71	33.00	Pass
15KHz	20MHz	HCH	CP-QPSK	21.74	21.60	21.73	18.74	33.00	Pass

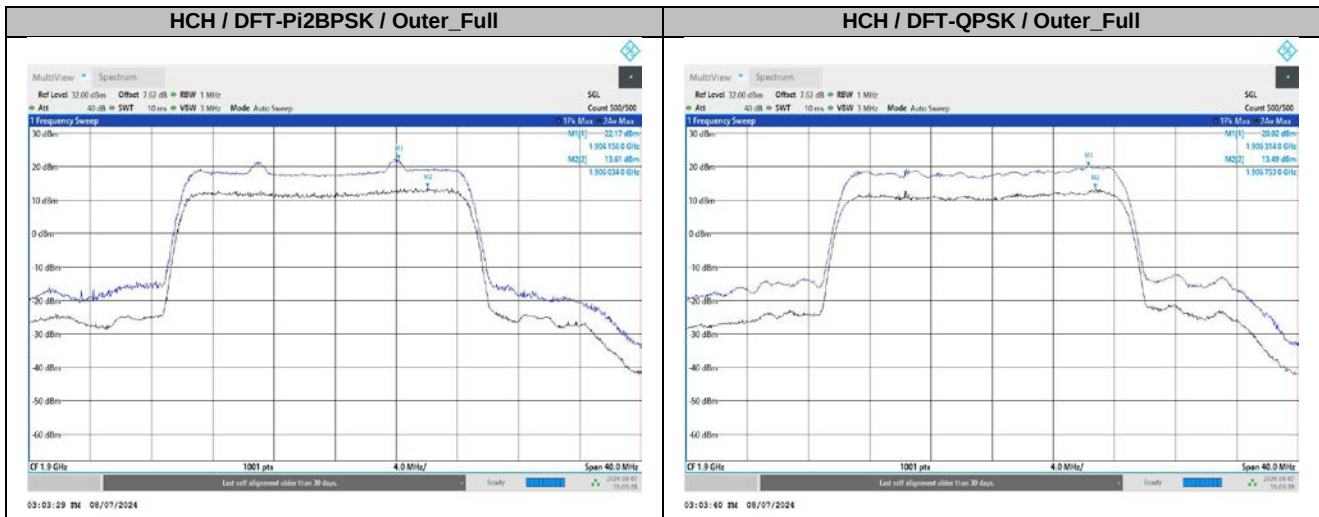
2. Peak-to-Average Ratio

2.1. Test Results

SCS	Bandwidth	Channel	RB	Result (dB)		Limit (dB)	Verdict
				DFT-Pi2BPSK	DFT-QPSK		
15KHz	20MHz	LCH	Outer_Full	8.33	7.23	13.00	Pass
15KHz	20MHz	MCH	Outer_Full	8.82	7.26	13.00	Pass
15KHz	20MHz	HCH	Outer_Full	8.55	6.53	13.00	Pass

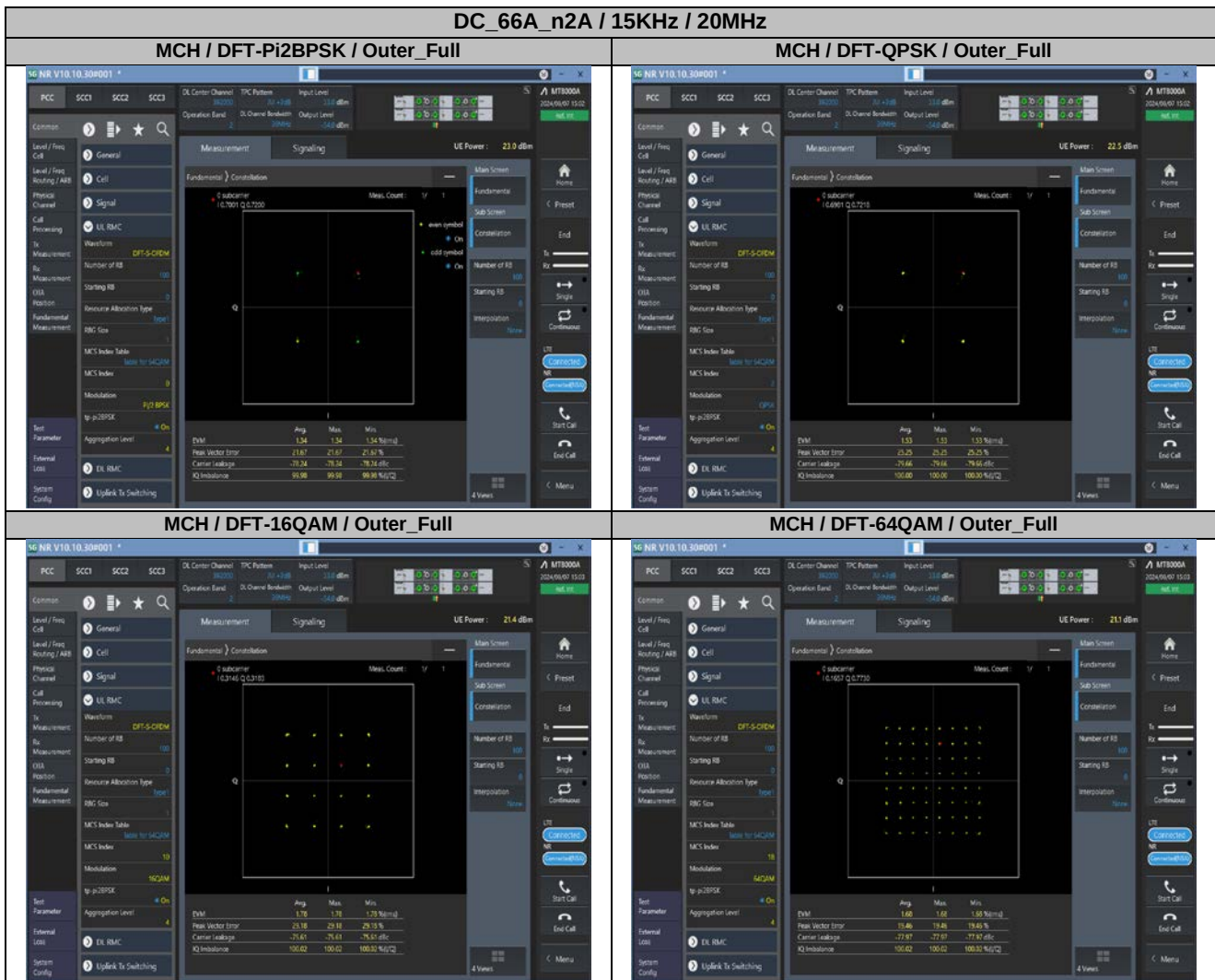
2.2. Test Plots

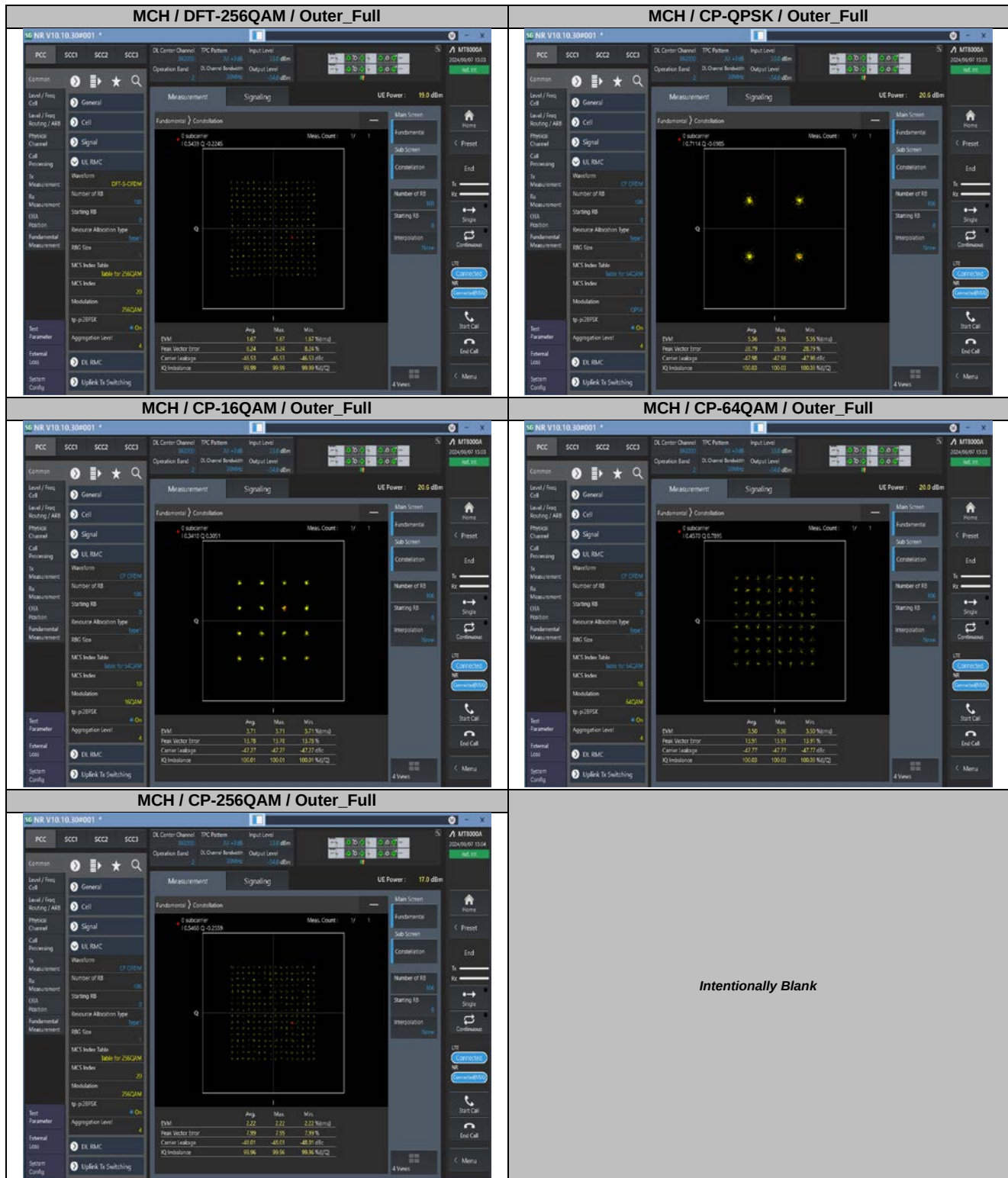




3. Modulation Characteristics

3.1. Test Plots



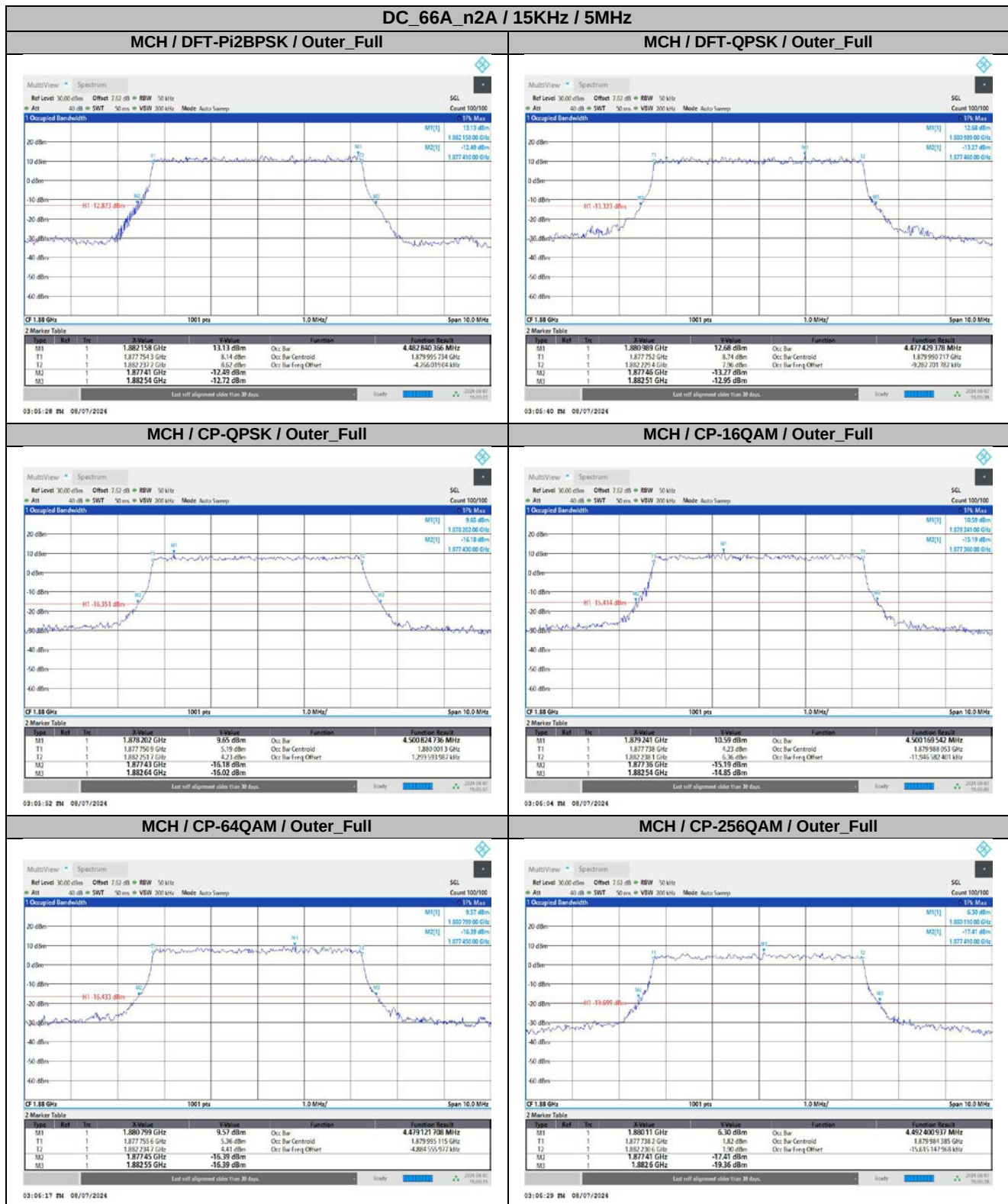


4. 99% Occupied Bandwidth & 26dB Emission Bandwidth

4.1. Test Results

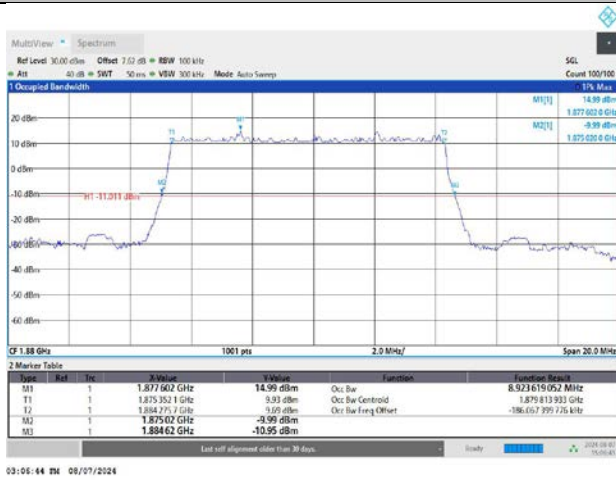
SCS	Bandwidth	Modulation	RB	99% Occupied Bandwidth (MHz)	26dB Emission Bandwidth (MHz)	Verdict
15KHz	5MHz	DFT-Pi2BPSK	Outer_Full	4.48	5.13	Pass
15KHz	5MHz	DFT-QPSK	Outer_Full	4.48	5.05	Pass
15KHz	5MHz	CP-QPSK	Outer_Full	4.50	5.21	Pass
15KHz	5MHz	CP-16QAM	Outer_Full	4.50	5.18	Pass
15KHz	5MHz	CP-64QAM	Outer_Full	4.48	5.10	Pass
15KHz	5MHz	CP-256QAM	Outer_Full	4.49	5.19	Pass
15KHz	10MHz	DFT-Pi2BPSK	Outer_Full	8.92	9.60	Pass
15KHz	10MHz	DFT-QPSK	Outer_Full	8.95	9.74	Pass
15KHz	10MHz	CP-QPSK	Outer_Full	9.30	10.20	Pass
15KHz	10MHz	CP-16QAM	Outer_Full	9.28	10.08	Pass
15KHz	10MHz	CP-64QAM	Outer_Full	9.29	10.02	Pass
15KHz	10MHz	CP-256QAM	Outer_Full	9.31	10.18	Pass
15KHz	15MHz	DFT-Pi2BPSK	Outer_Full	13.41	14.31	Pass
15KHz	15MHz	DFT-QPSK	Outer_Full	13.41	14.22	Pass
15KHz	15MHz	CP-QPSK	Outer_Full	14.10	15.03	Pass
15KHz	15MHz	CP-16QAM	Outer_Full	14.11	15.00	Pass
15KHz	15MHz	CP-64QAM	Outer_Full	14.11	15.18	Pass
15KHz	15MHz	CP-256QAM	Outer_Full	14.09	15.09	Pass
15KHz	20MHz	DFT-Pi2BPSK	Outer_Full	17.82	18.76	Pass
15KHz	20MHz	DFT-QPSK	Outer_Full	17.86	18.92	Pass
15KHz	20MHz	CP-QPSK	Outer_Full	18.90	20.08	Pass
15KHz	20MHz	CP-16QAM	Outer_Full	18.95	20.00	Pass
15KHz	20MHz	CP-64QAM	Outer_Full	18.92	19.96	Pass
15KHz	20MHz	CP-256QAM	Outer_Full	18.97	20.00	Pass

4.2. Test Plots

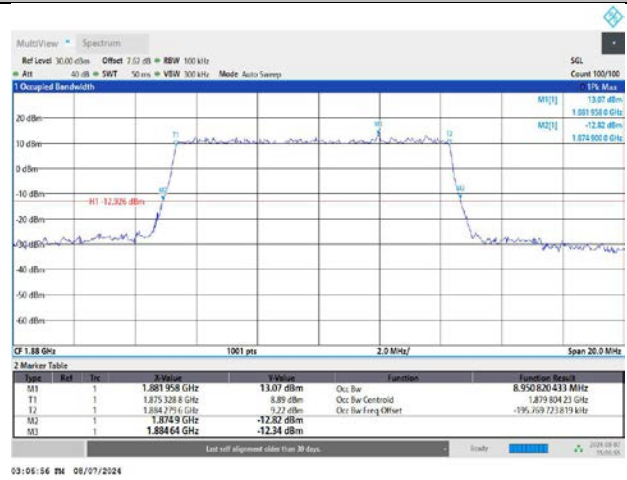


DC_66A_n2A / 15KHz / 10MHz

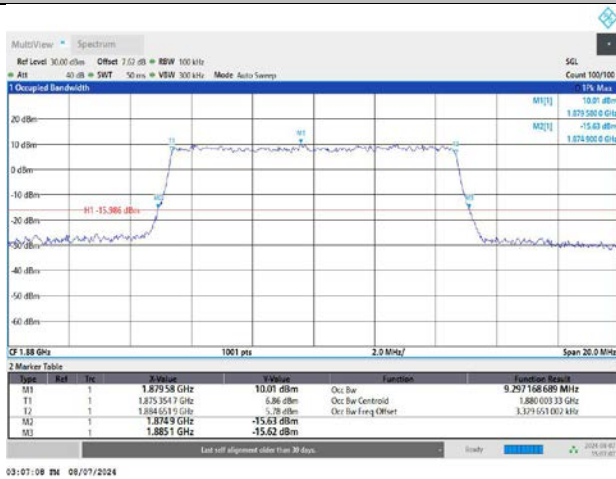
MCH / DFT-Pi2BPSK / Outer_Full



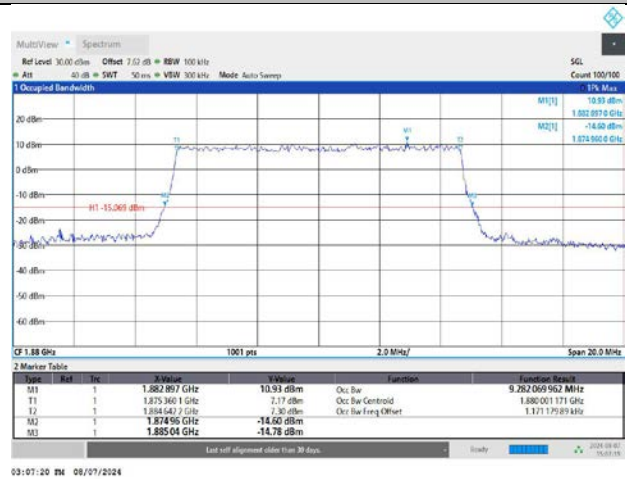
MCH / DFT-QPSK / Outer_Full



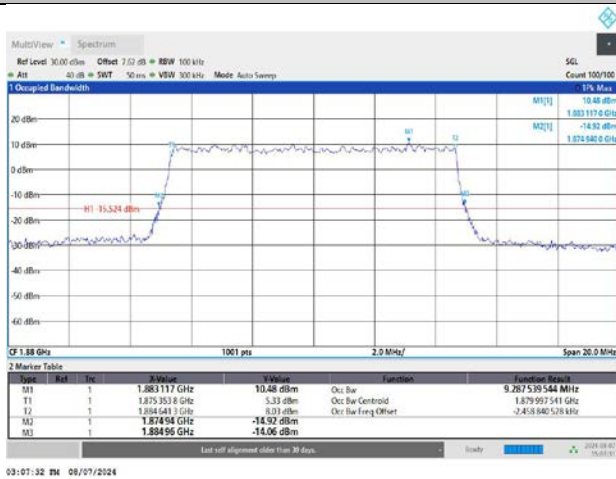
MCH / CP-QPSK / Outer_Full



MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full

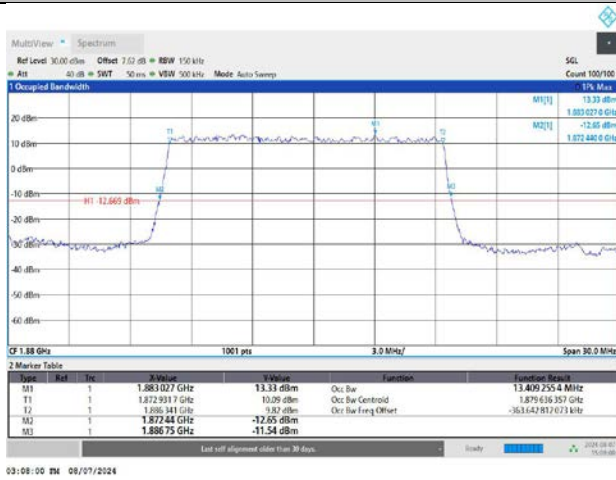


MCH / CP-256QAM / Outer_Full



DC_66A_n2A / 15KHz / 15MHz

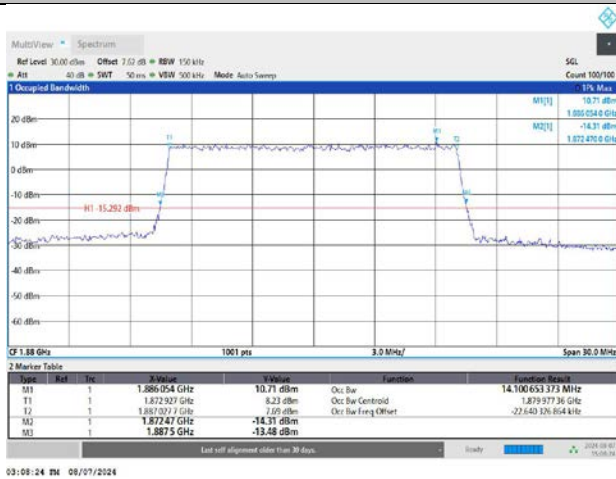
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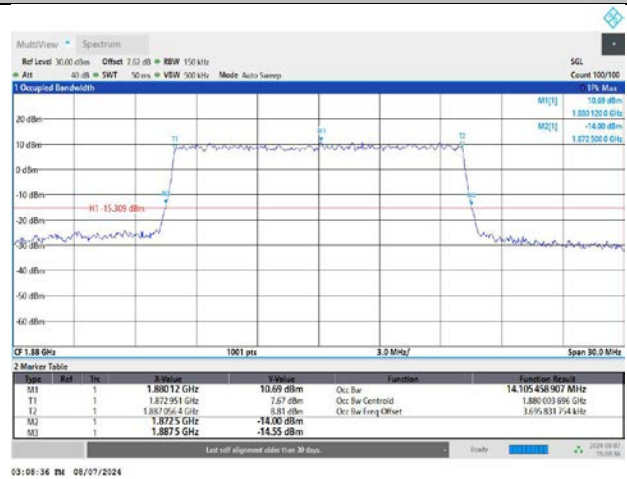
MCH / DFT-QPSK / Outer_Full



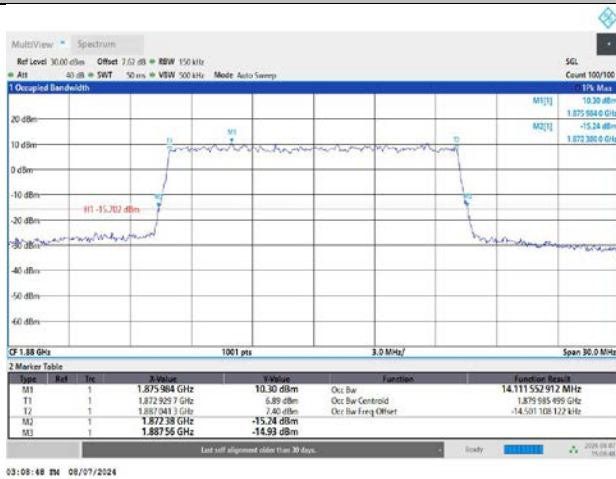
MCH / CP-QPSK / Outer_Full



MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full



MCH / CP-256QAM / Outer_Full



DC_66A_n2A / 15KHz / 20MHz

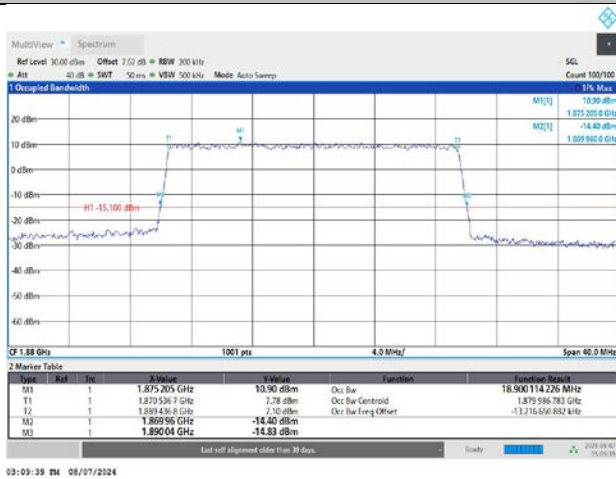
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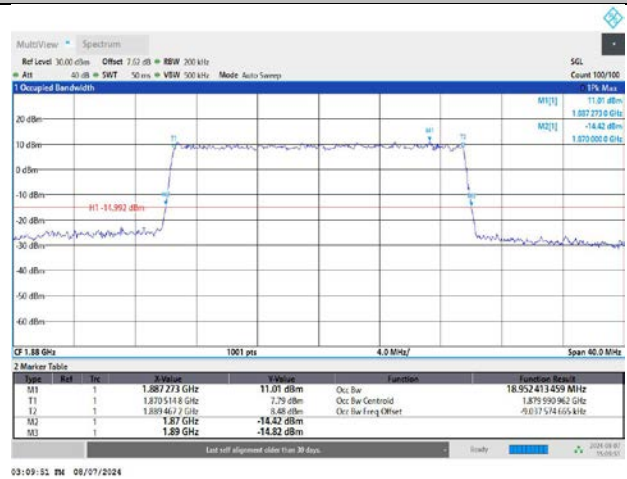
MCH / DFT-QPSK / Outer_Full



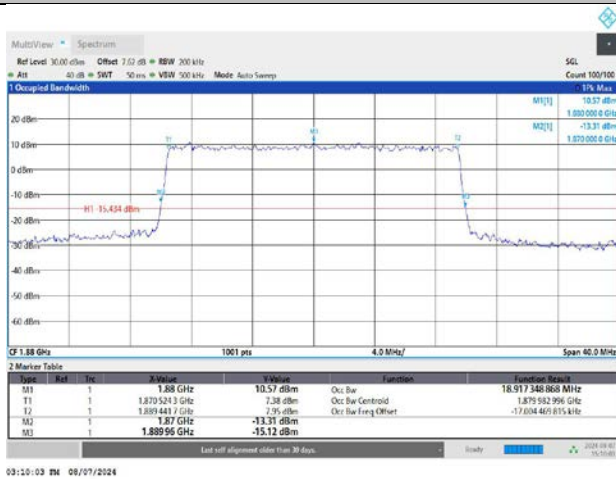
MCH / CP-QPSK / Outer_Full



MCH / CP-16QAM / Outer_Full



MCH / CP-64QAM / Outer_Full

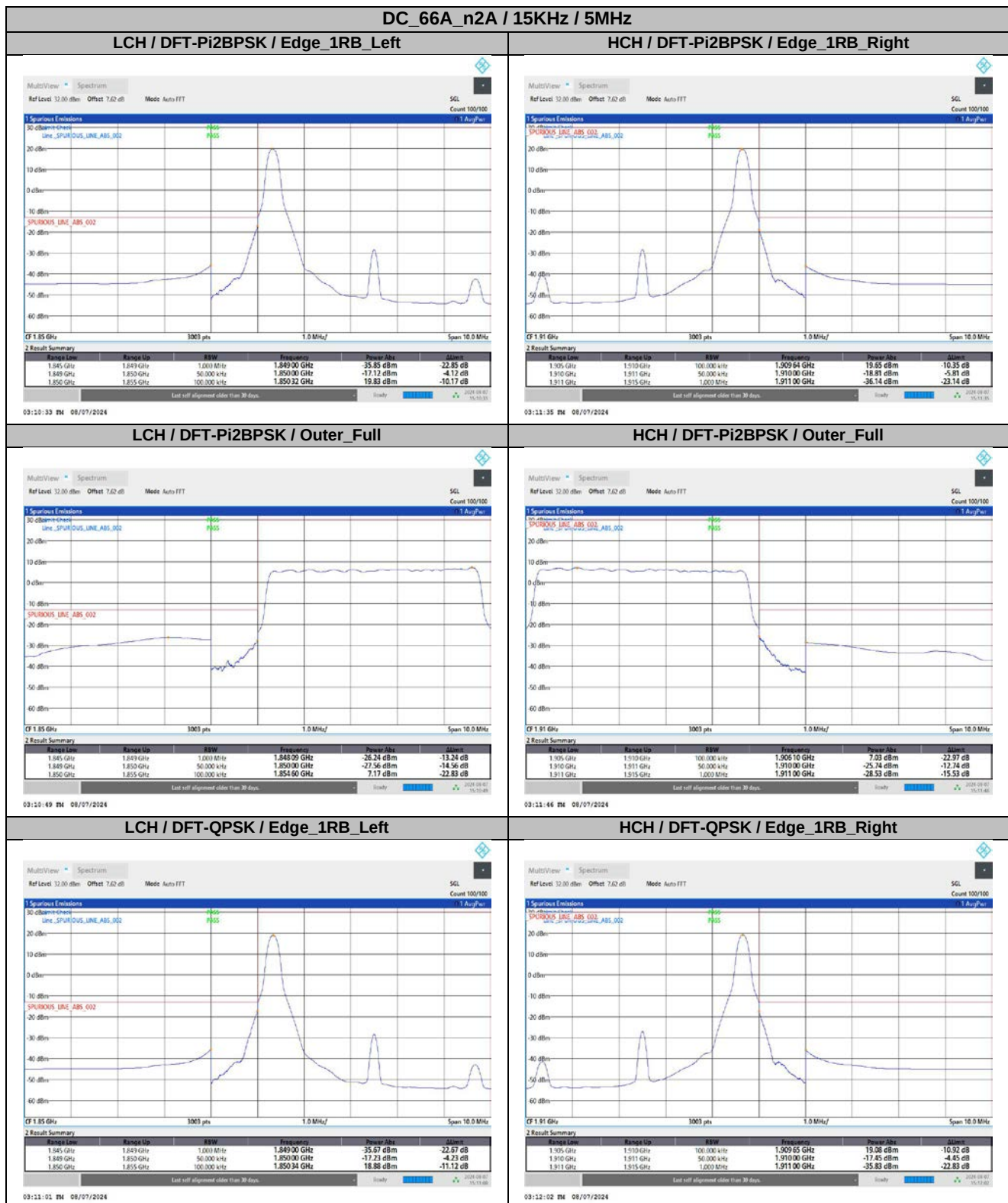


MCH / CP-256QAM / Outer_Full

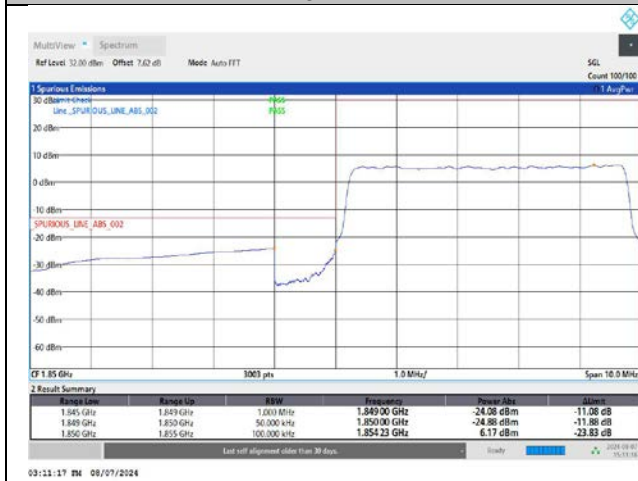


5. Conducted Band Edges

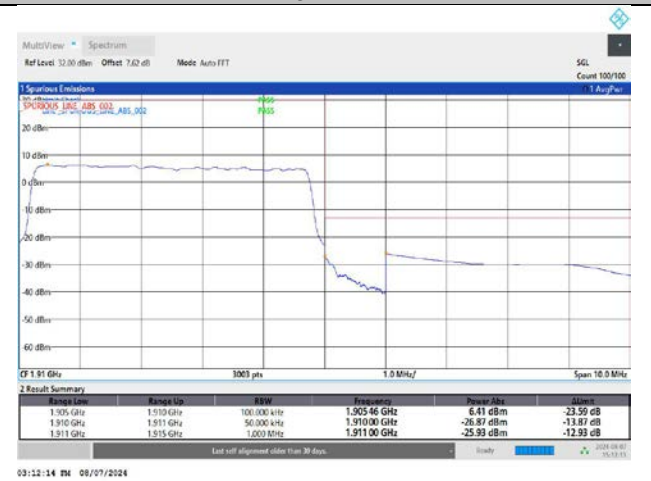
5.1. Test Plots



LCH / DFT-QPSK / Outer_Full

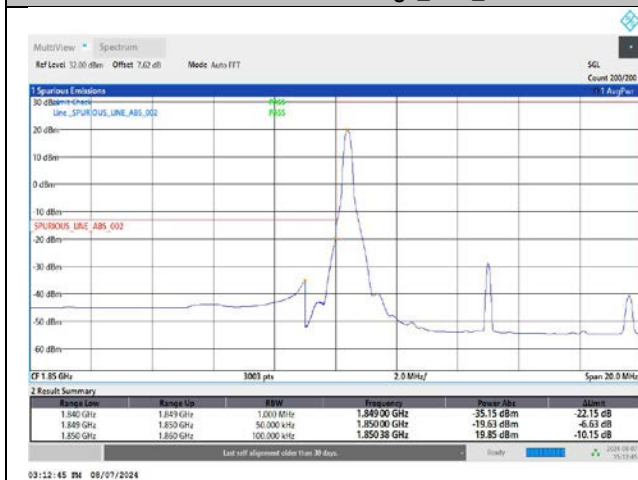


HCH / DFT-QPSK / Outer_Full

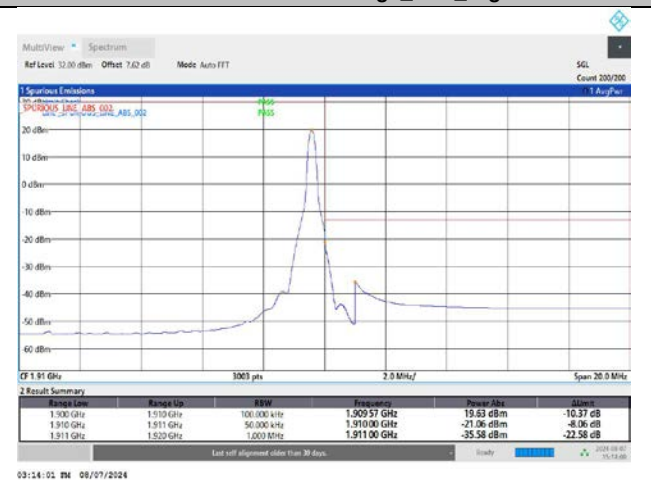


DC_66A_n2A / 15KHz / 10MHz

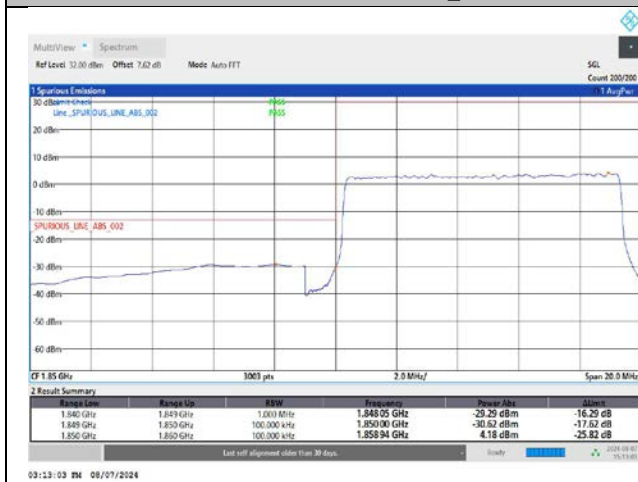
LCH / DFT-Pi2BPSK / Edge_1RB_Left



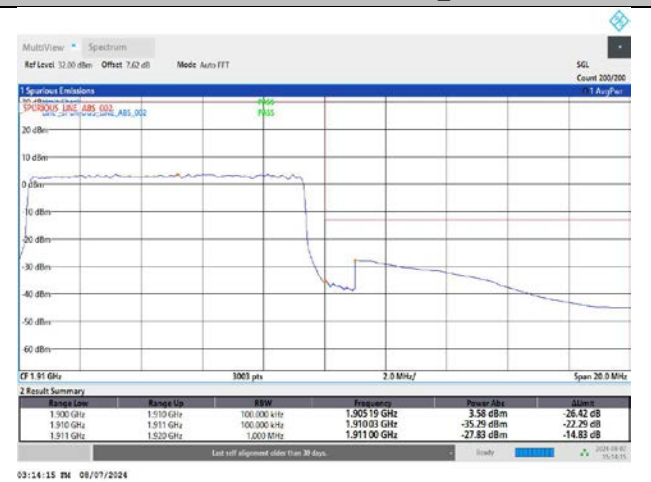
HCH / DFT-Pi2BPSK / Edge_1RB_Right



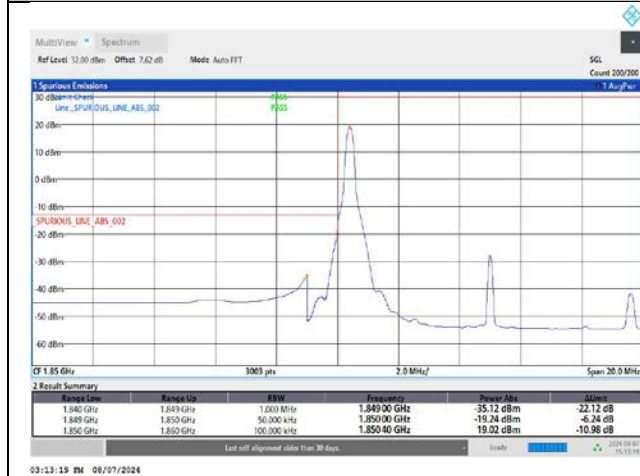
LCH / DFT-Pi2BPSK / Outer_Full



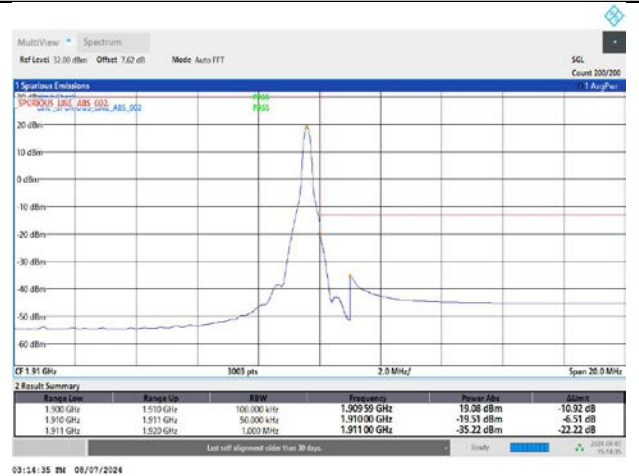
HCH / DFT-Pi2BPSK / Outer_Full



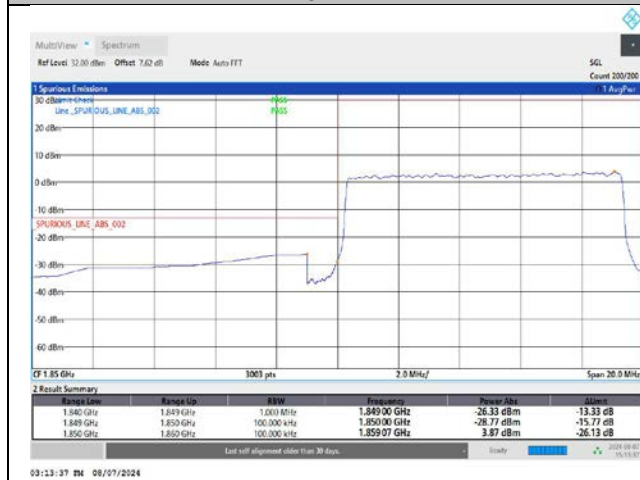
LCH / DFT-QPSK / Edge_1RB_Left



HCH_DFT-QPSK / Edge_1RB_Right



LCH / DFT-QPSK / Outer_Full

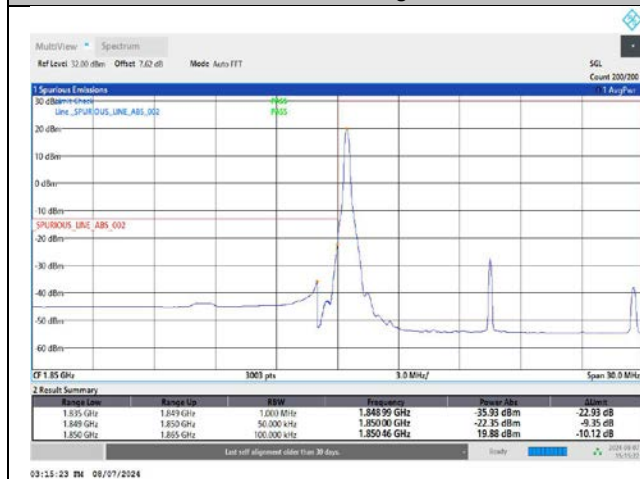


HCH / DFT-QPSK / Outer_Full

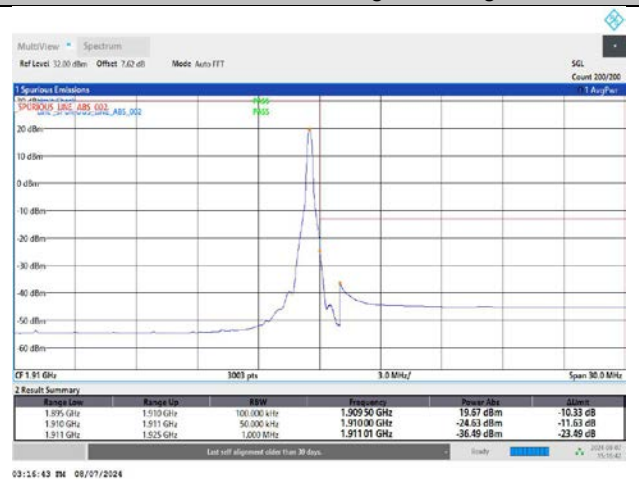


DC_66A_n2A / 15KHz / 15MHz

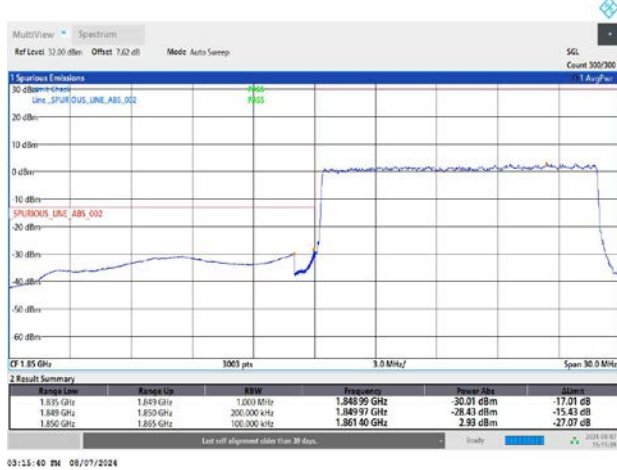
LCH / DFT-Pi2BPSK / Edge_1RB_Left



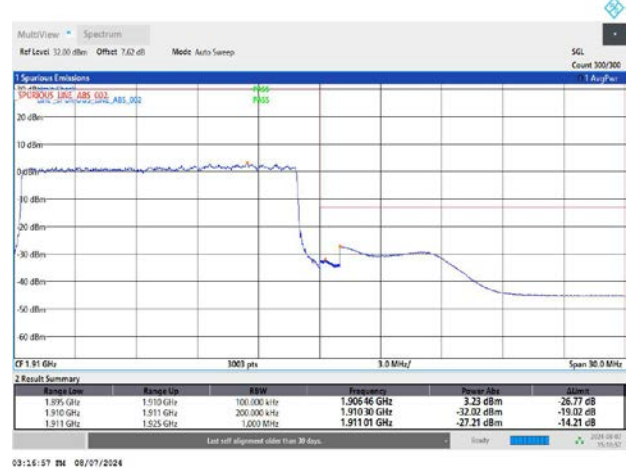
HCH / DFT-Pi2BPSK / Edge_1RB_Right



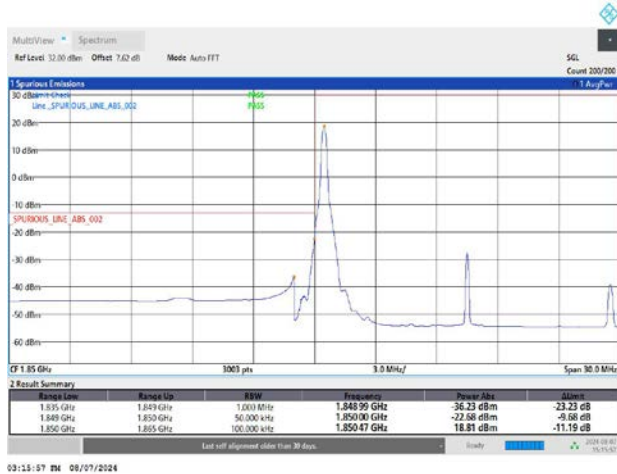
LCH / DFT-Pi2BPSK / Outer_Full



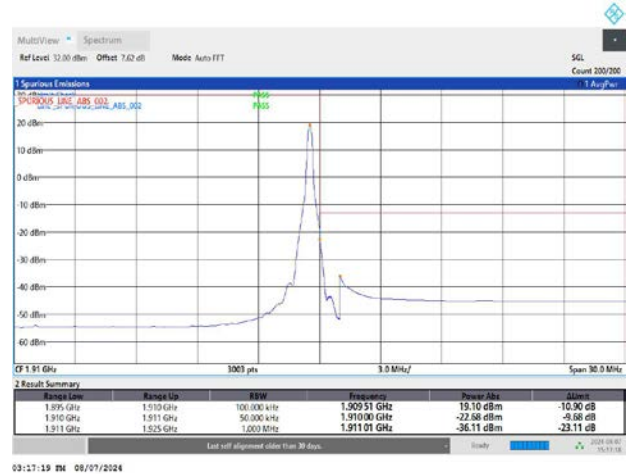
HCH / DFT-Pi2BPSK / Outer_Full



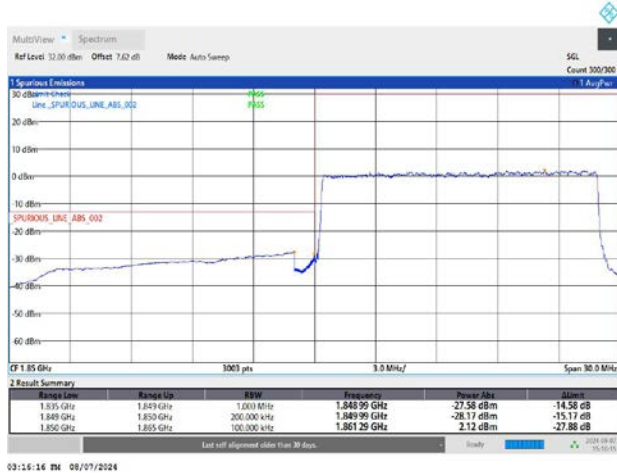
LCH / DFT-QPSK / Edge_1RB_Left



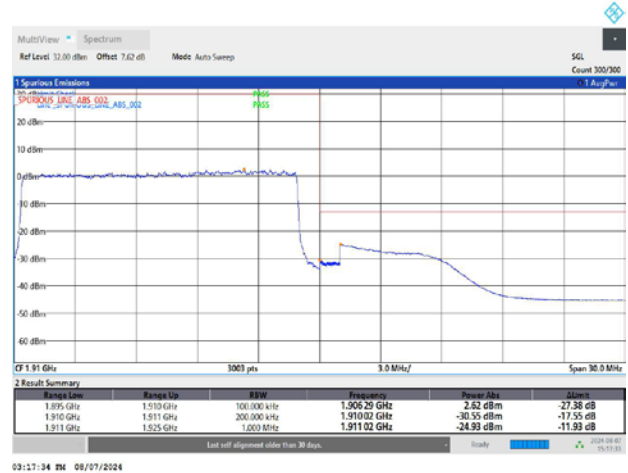
HCH / DFT-QPSK / Edge_1RB_Right

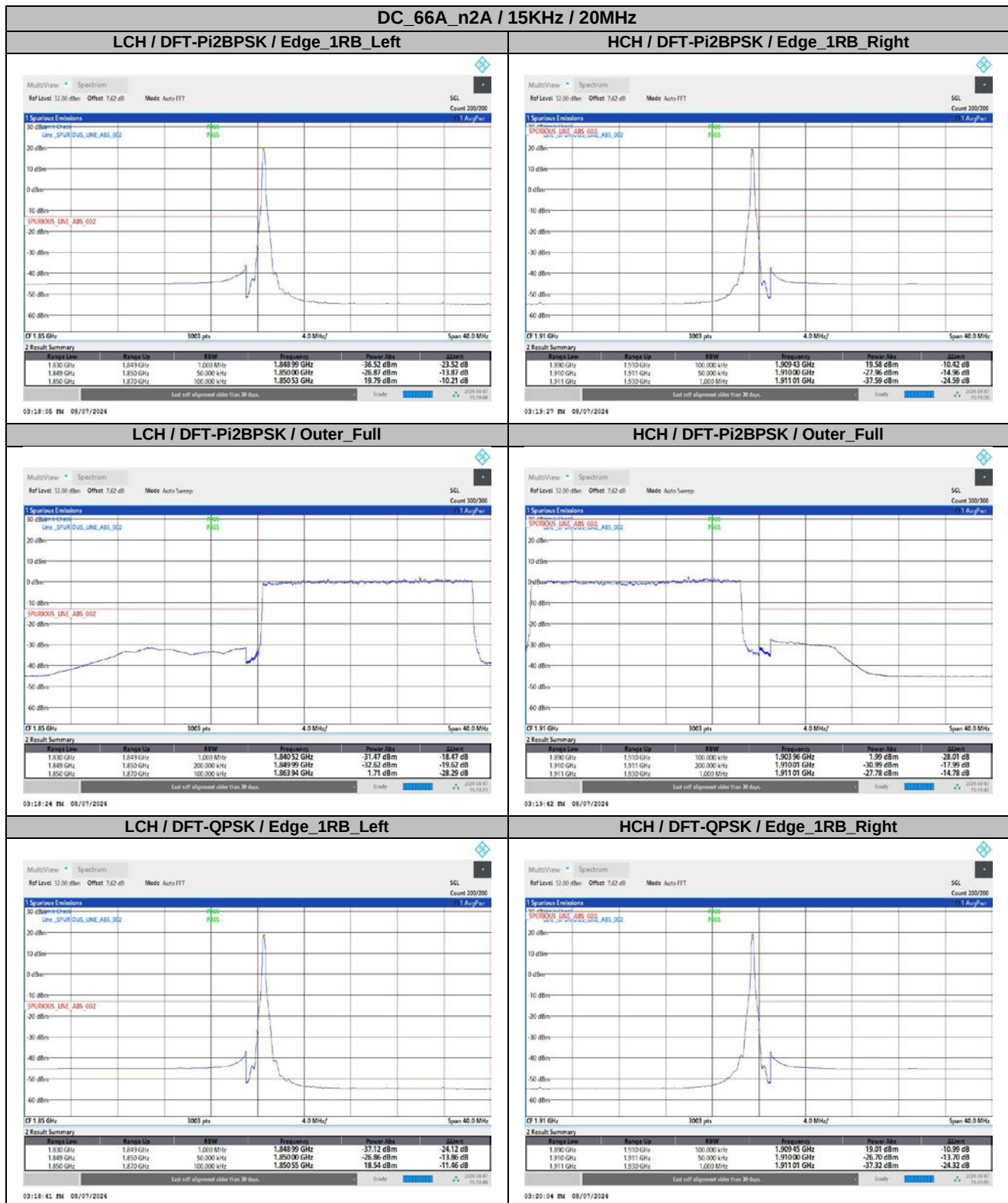


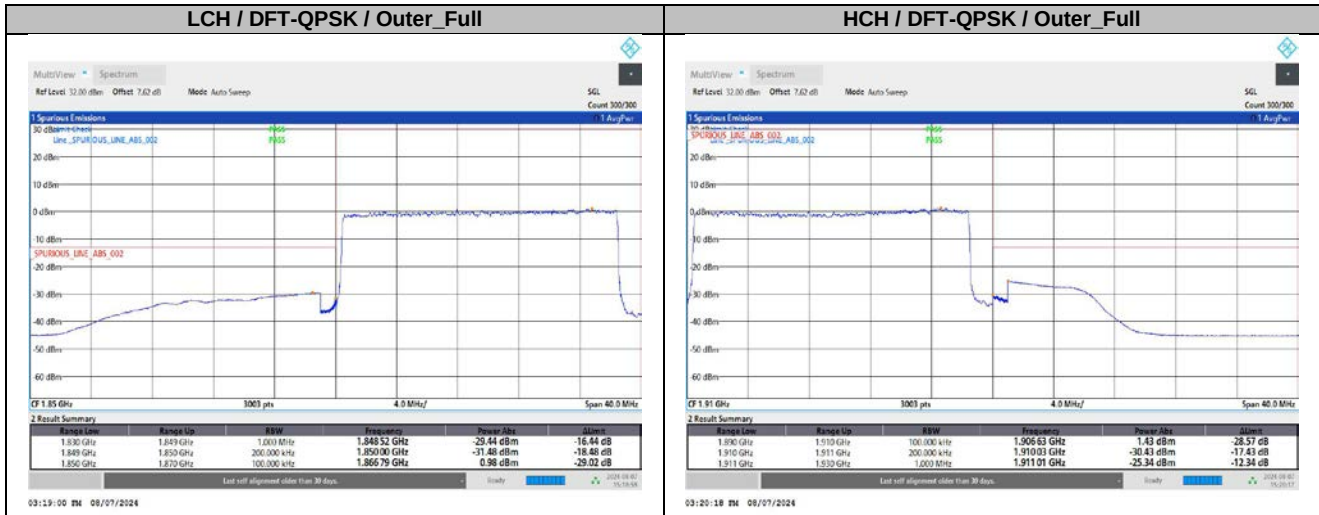
LCH / DFT-QPSK / Outer_Full



HCH / DFT-QPSK / Outer_Full

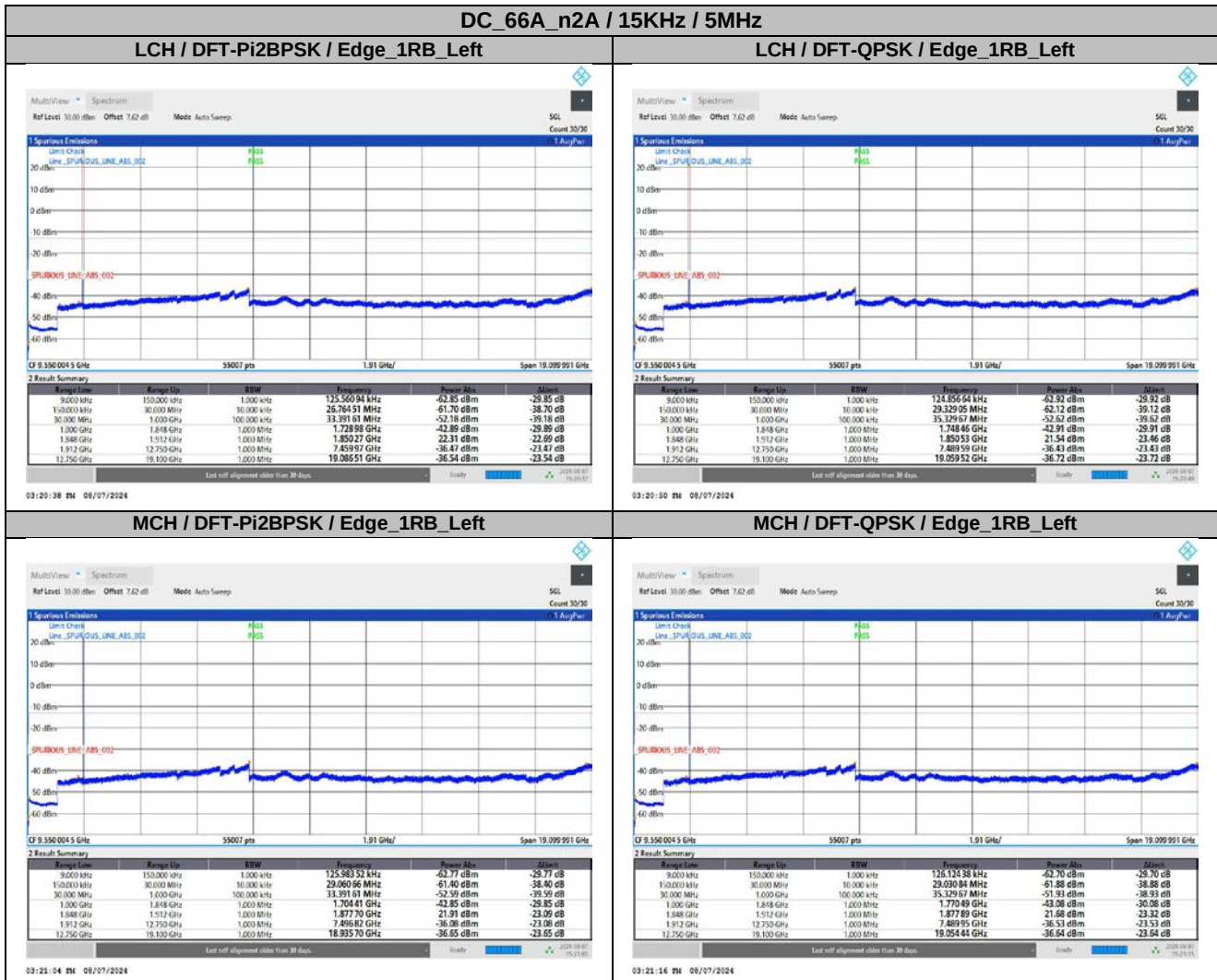






6. Conducted Spurious Emission

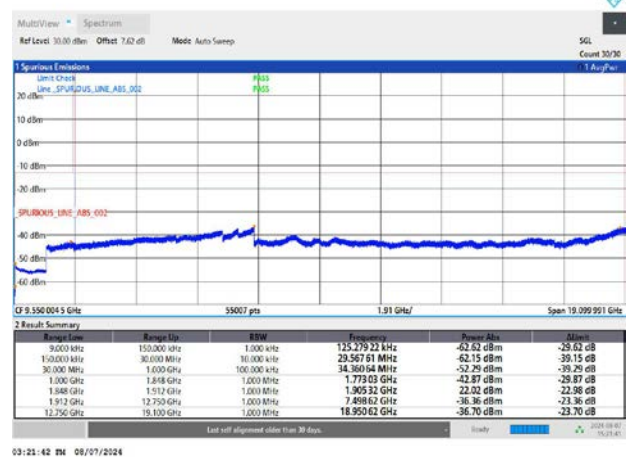
6.1. Test Plots



HCH / DFT-Pi2BPSK / Edge_1RB_Left



HCH / DFT-QPSK / Edge_1RB_Left



DC_66A_n2A / 15KHz / 10MHz

LCH / DFT-Pi2BPSK / Edge_1RB_Left



LCH / DFT-QPSK / Edge_1RB_Left

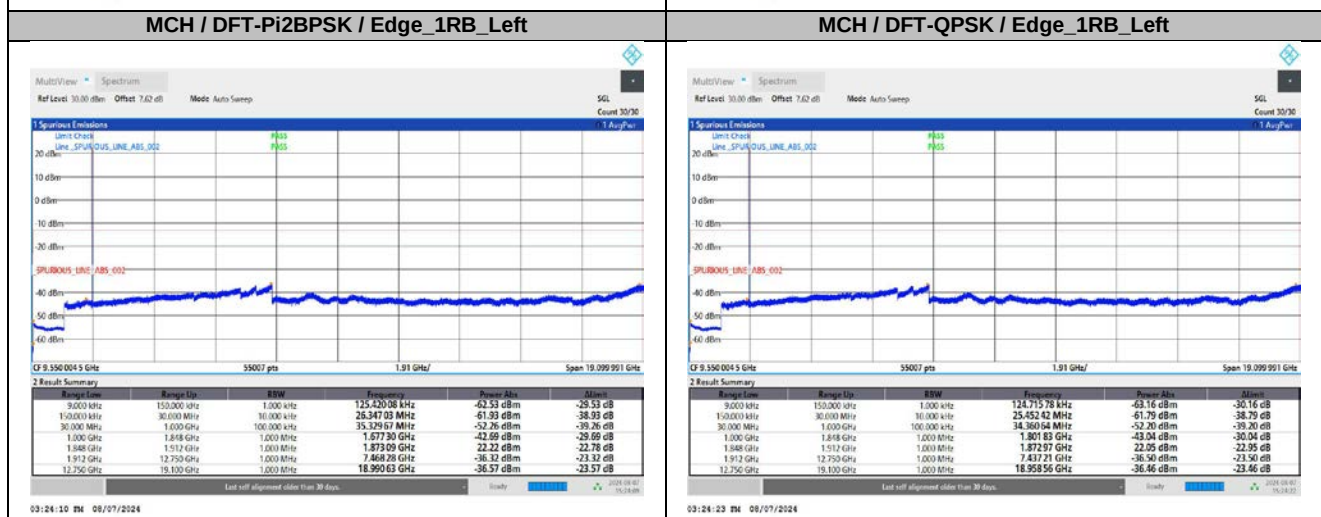
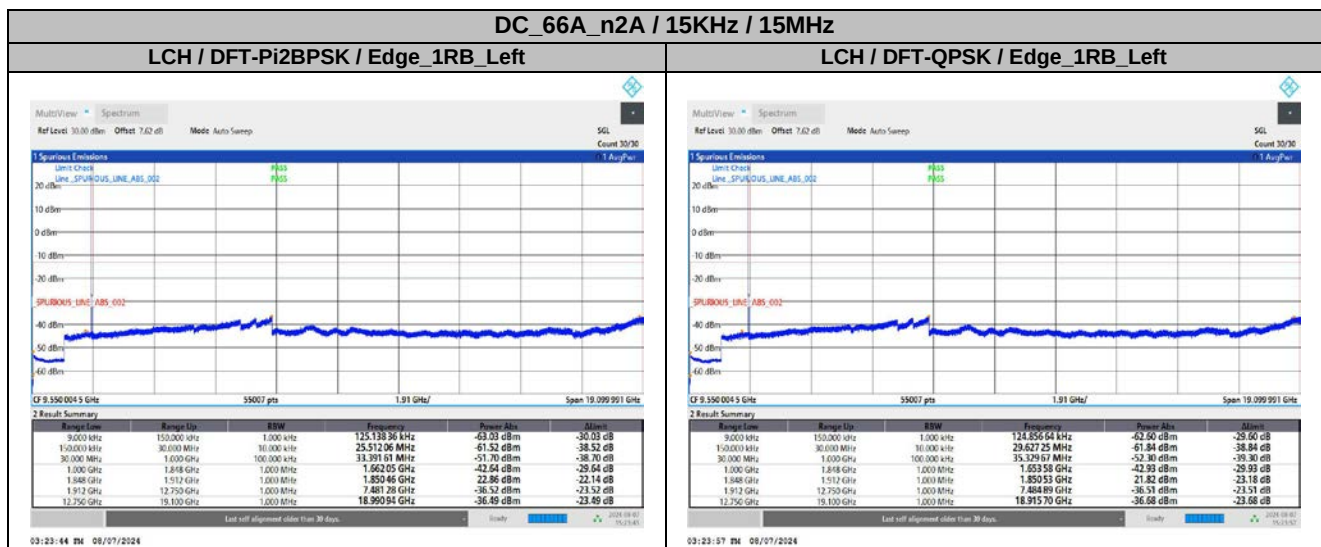
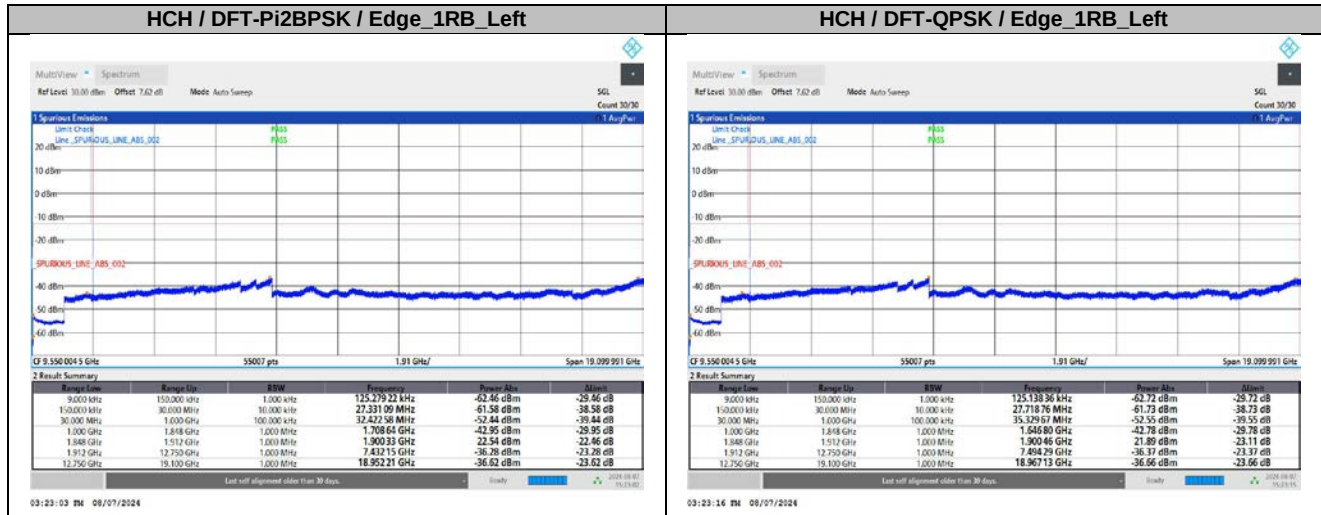


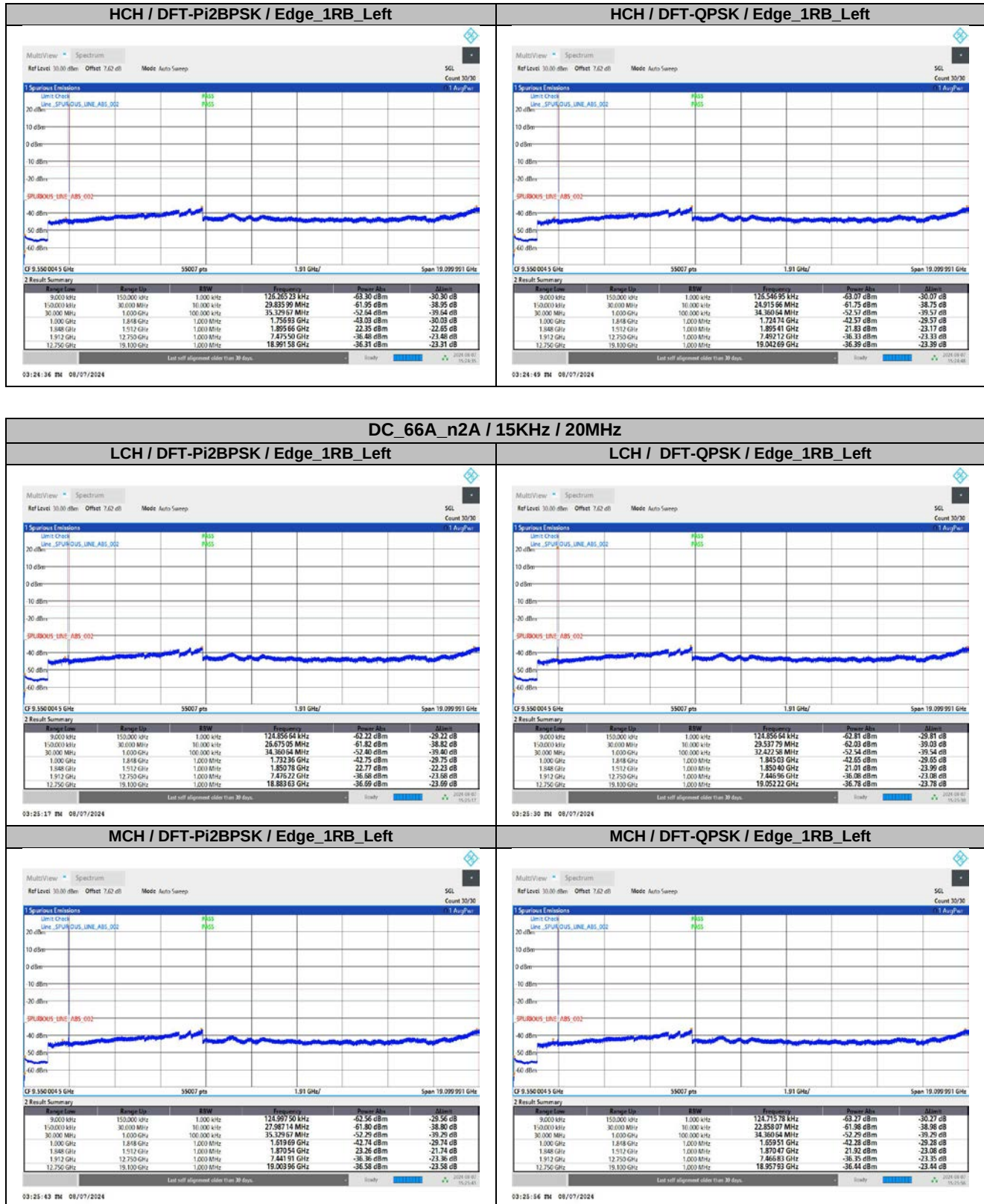
MCH / DFT-Pi2BPSK / Edge_1RB_Left

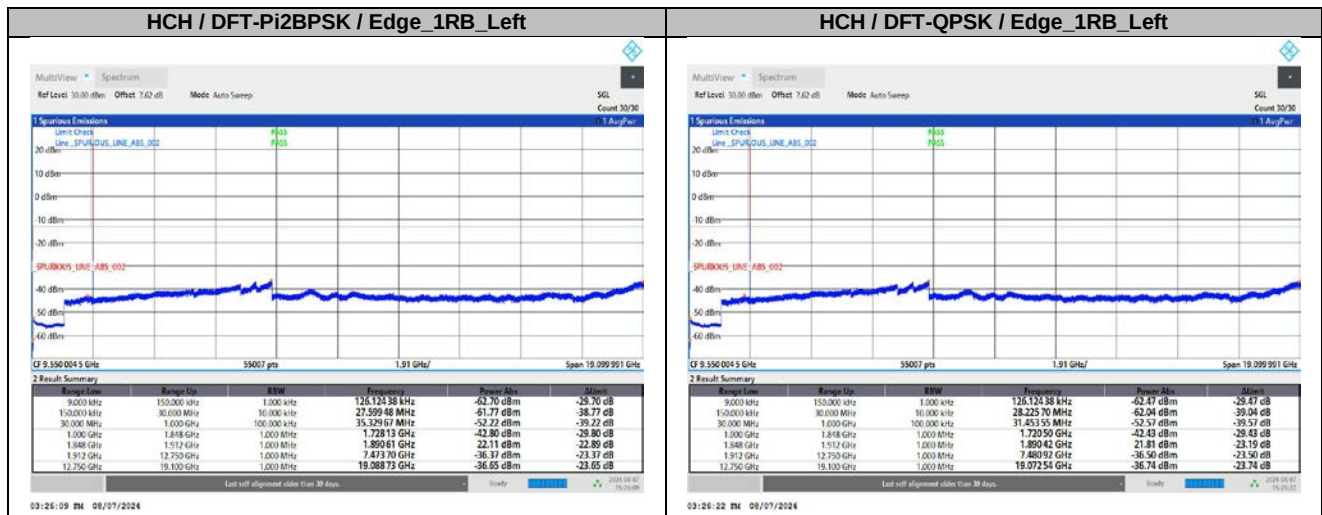


MCH / DFT-QPSK / Edge_1RB_Left









7. Frequency Stability

7.1. Test Results

7.1.1. Frequency Error Vs Voltage

SCS	Bandwidth	Channel	RB Config	Modulation	Temperature	Voltage	Deviation Result		Verdict
							(Hz)	(ppm)	
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	NT	LV	-3.10	-0.001649	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	NT	NV	-4.30	-0.002287	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	NT	HV	-5.70	-0.003032	Pass

7.1.2. Frequency Error Vs Temperature

SCS	Bandwidth	Channel	RB Config	Modulation	Temperature	Voltage	Deviation Result		Verdict
							(Hz)	(ppm)	
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	-30°C	NV	-7.00	-0.003723	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	-20°C	NV	-5.70	-0.003032	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	-10°C	NV	-5.50	-0.002926	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	0°C	NV	-7.60	-0.004043	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	10°C	NV	-13.30	-0.007074	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	20°C	NV	-5.00	-0.002660	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	30°C	NV	-4.40	-0.002340	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	40°C	NV	-8.30	-0.004415	Pass
15KHz	20MHz	MCH	Outer_Full	DFT-QPSK	50°C	NV	-5.20	-0.002766	Pass

The End