

Appendix for n38A (2570-2620)

Catalogue

1. EFFECTIVE ISOTROPIC RADIATED POWER	3
1.1. TEST RESULTS @ ANT2 (ANTENNA GAIN=-2.10DBI).....	3
2. PEAK-TO-AVERAGE RATIO	5
2.1. TEST RESULTS	5
2.2. TEST PLOTS.....	5
3. MODULATION CHARACTERISTICS	6
3.1. TEST PLOTS.....	6
4. 99% OCCUPIED BANDWIDTH & 26DB EMISSION BANDWIDTH	8
4.1. TEST RESULTS	8
4.2. TEST PLOTS.....	9
5. CONDUCTED BAND EDGES	14
5.1. TEST PLOTS.....	14
6. CONDUCTED SPURIOUS EMISSION.....	21
6.1. TEST PLOTS.....	21
7. FREQUENCY STABILITY.....	26
7.1. TEST RESULTS	26

1. Effective Isotropic Radiated Power

1.1. Test Results @ Ant2 (Antenna Gain=-2.10dBi)

SCS	Bandwidth	Channel	Modulation	Conducted Result (dBm)			Max EIRP (dBm)	Limit (dBm)	Verdict
				Inner_1RB_Left	Inner_1RB_Right	Inner_Full			
30KHz	10MHz	LCH	DFT-Pi2BPSK	23.28	23.24	23.31	21.21	33.00	Pass
30KHz	10MHz	LCH	DFT-QPSK	23.26	23.21	23.31	21.21	33.00	Pass
30KHz	10MHz	LCH	DFT-16QAM	22.23	22.17	22.13	20.13	33.00	Pass
30KHz	10MHz	LCH	DFT-64QAM	20.78	20.72	20.72	18.68	33.00	Pass
30KHz	10MHz	LCH	DFT-256QAM	18.77	18.72	18.72	16.67	33.00	Pass
30KHz	10MHz	LCH	CP-QPSK	21.79	21.74	21.70	19.69	33.00	Pass
30KHz	10MHz	MCH	DFT-Pi2BPSK	23.35	23.30	23.32	21.25	33.00	Pass
30KHz	10MHz	MCH	DFT-QPSK	23.23	23.25	23.32	21.22	33.00	Pass
30KHz	10MHz	MCH	DFT-16QAM	22.17	22.24	22.14	20.14	33.00	Pass
30KHz	10MHz	MCH	DFT-64QAM	20.74	20.79	20.75	18.69	33.00	Pass
30KHz	10MHz	MCH	DFT-256QAM	18.71	18.75	18.69	16.65	33.00	Pass
30KHz	10MHz	MCH	CP-QPSK	21.67	21.69	21.73	19.63	33.00	Pass
30KHz	10MHz	HCH	DFT-Pi2BPSK	23.32	23.32	23.37	21.27	33.00	Pass
30KHz	10MHz	HCH	DFT-QPSK	23.40	23.30	23.36	21.30	33.00	Pass
30KHz	10MHz	HCH	DFT-16QAM	22.27	22.31	22.20	20.21	33.00	Pass
30KHz	10MHz	HCH	DFT-64QAM	20.79	20.80	20.83	18.73	33.00	Pass
30KHz	10MHz	HCH	DFT-256QAM	18.80	18.83	18.72	16.73	33.00	Pass
30KHz	10MHz	HCH	CP-QPSK	21.81	21.73	21.77	19.71	33.00	Pass
30KHz	15MHz	LCH	DFT-Pi2BPSK	23.51	23.52	23.53	21.43	33.00	Pass
30KHz	15MHz	LCH	DFT-QPSK	23.53	23.47	23.53	21.43	33.00	Pass
30KHz	15MHz	LCH	DFT-16QAM	22.40	22.47	22.45	20.37	33.00	Pass
30KHz	15MHz	LCH	DFT-64QAM	21.00	20.94	20.92	18.90	33.00	Pass
30KHz	15MHz	LCH	DFT-256QAM	18.84	18.90	19.00	16.90	33.00	Pass
30KHz	15MHz	LCH	CP-QPSK	21.98	21.97	21.95	19.88	33.00	Pass
30KHz	15MHz	MCH	DFT-Pi2BPSK	23.52	23.58	23.57	21.48	33.00	Pass
30KHz	15MHz	MCH	DFT-QPSK	23.50	23.56	23.51	21.46	33.00	Pass
30KHz	15MHz	MCH	DFT-16QAM	22.39	22.48	22.47	20.38	33.00	Pass
30KHz	15MHz	MCH	DFT-64QAM	20.99	21.07	20.92	18.97	33.00	Pass
30KHz	15MHz	MCH	DFT-256QAM	18.96	19.03	19.01	16.93	33.00	Pass
30KHz	15MHz	MCH	CP-QPSK	21.95	21.90	21.95	19.85	33.00	Pass
30KHz	15MHz	HCH	DFT-Pi2BPSK	23.53	23.58	23.57	21.48	33.00	Pass
30KHz	15MHz	HCH	DFT-QPSK	23.51	23.56	23.54	21.46	33.00	Pass
30KHz	15MHz	HCH	DFT-16QAM	22.52	22.43	22.40	20.42	33.00	Pass
30KHz	15MHz	HCH	DFT-64QAM	21.01	20.96	20.86	18.91	33.00	Pass
30KHz	15MHz	HCH	DFT-256QAM	19.01	18.94	19.06	16.96	33.00	Pass
30KHz	15MHz	HCH	CP-QPSK	22.07	21.82	21.88	19.97	33.00	Pass
30KHz	20MHz	LCH	DFT-Pi2BPSK	23.50	23.47	23.50	21.40	33.00	Pass
30KHz	20MHz	LCH	DFT-QPSK	23.49	23.46	23.50	21.40	33.00	Pass
30KHz	20MHz	LCH	DFT-16QAM	22.35	22.42	22.51	20.41	33.00	Pass
30KHz	20MHz	LCH	DFT-64QAM	20.96	21.03	20.87	18.93	33.00	Pass
30KHz	20MHz	LCH	DFT-256QAM	18.83	18.88	18.93	16.83	33.00	Pass
30KHz	20MHz	LCH	CP-QPSK	21.87	21.91	21.93	19.83	33.00	Pass
30KHz	20MHz	MCH	DFT-Pi2BPSK	23.47	23.53	23.54	21.44	33.00	Pass
30KHz	20MHz	MCH	DFT-QPSK	23.40	23.49	23.55	21.45	33.00	Pass
30KHz	20MHz	MCH	DFT-16QAM	22.55	22.58	22.51	20.48	33.00	Pass
30KHz	20MHz	MCH	DFT-64QAM	21.09	21.07	20.91	18.99	33.00	Pass
30KHz	20MHz	MCH	DFT-256QAM	18.91	19.01	18.94	16.91	33.00	Pass
30KHz	20MHz	MCH	CP-QPSK	21.99	21.91	21.94	19.89	33.00	Pass
30KHz	20MHz	HCH	DFT-Pi2BPSK	23.52	23.58	23.59	21.49	33.00	Pass
30KHz	20MHz	HCH	DFT-QPSK	23.53	23.57	23.58	21.48	33.00	Pass
30KHz	20MHz	HCH	DFT-16QAM	22.56	22.41	22.57	20.47	33.00	Pass
30KHz	20MHz	HCH	DFT-64QAM	21.08	21.04	20.98	18.98	33.00	Pass
30KHz	20MHz	HCH	DFT-256QAM	19.00	18.94	18.96	16.90	33.00	Pass
30KHz	20MHz	HCH	CP-QPSK	22.04	21.86	21.95	19.94	33.00	Pass
30KHz	30MHz	LCH	DFT-Pi2BPSK	23.47	23.65	23.56	21.55	33.00	Pass
30KHz	30MHz	LCH	DFT-QPSK	23.44	23.59	23.55	21.49	33.00	Pass
30KHz	30MHz	LCH	DFT-16QAM	22.46	22.64	22.47	20.54	33.00	Pass
30KHz	30MHz	LCH	DFT-64QAM	20.91	21.06	20.89	18.96	33.00	Pass

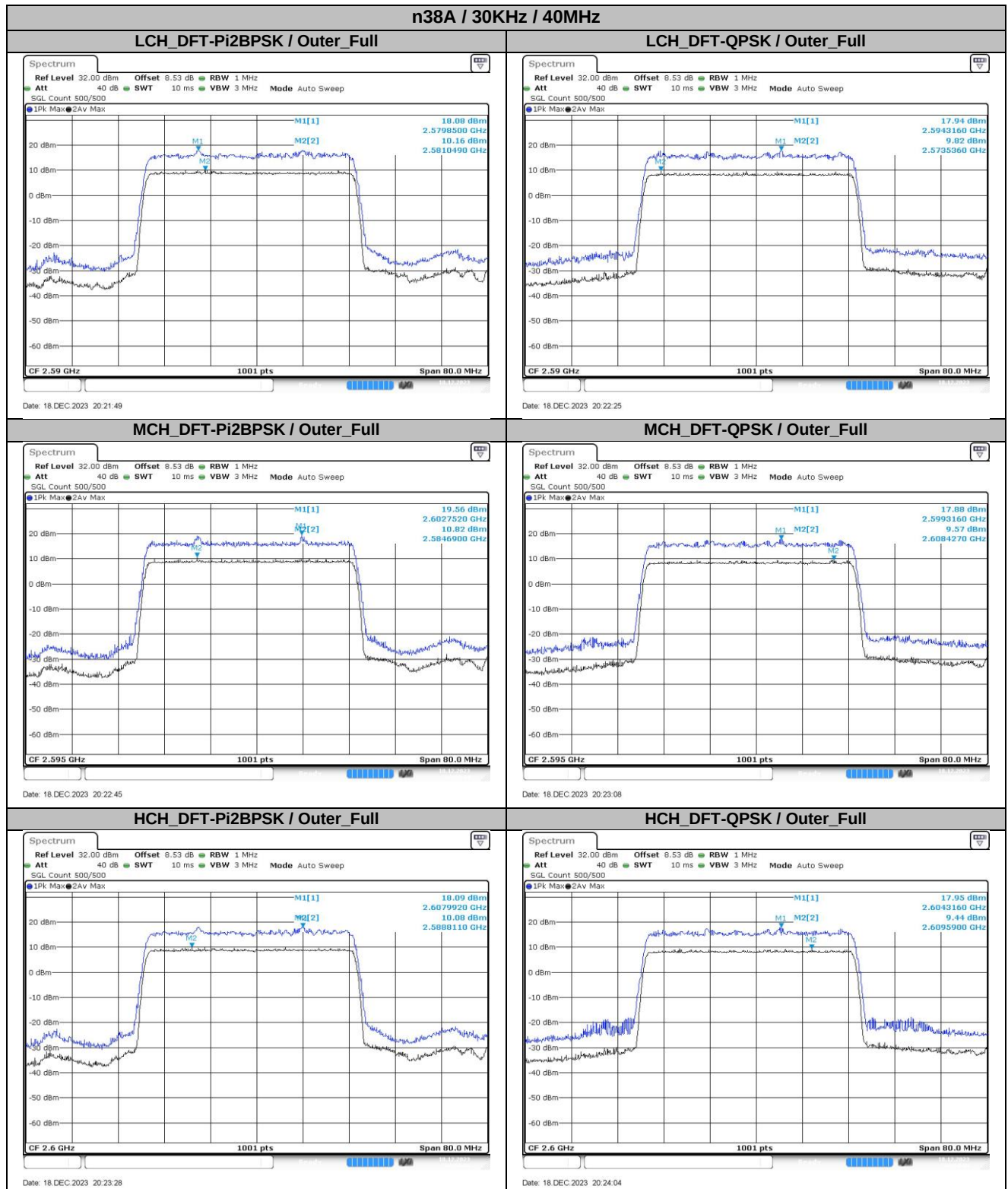
30KHz	30MHz	LCH	DFT-256QAM	18.98	19.08	18.95	16.98	33.00	Pass
30KHz	30MHz	LCH	CP-QPSK	21.97	22.16	21.94	20.06	33.00	Pass
30KHz	30MHz	MCH	DFT-Pi2BPSK	23.59	23.70	23.56	21.60	33.00	Pass
30KHz	30MHz	MCH	DFT-QPSK	23.50	23.60	23.55	21.50	33.00	Pass
30KHz	30MHz	MCH	DFT-16QAM	22.54	22.51	22.46	20.44	33.00	Pass
30KHz	30MHz	MCH	DFT-64QAM	21.01	20.99	20.95	18.91	33.00	Pass
30KHz	30MHz	MCH	DFT-256QAM	18.97	18.95	18.96	16.87	33.00	Pass
30KHz	30MHz	MCH	CP-QPSK	22.03	21.93	22.01	19.93	33.00	Pass
30KHz	30MHz	HCH	DFT-Pi2BPSK	23.58	23.58	23.61	21.51	33.00	Pass
30KHz	30MHz	HCH	DFT-QPSK	23.51	23.63	23.62	21.53	33.00	Pass
30KHz	30MHz	HCH	DFT-16QAM	22.53	22.58	22.51	20.48	33.00	Pass
30KHz	30MHz	HCH	DFT-64QAM	21.07	21.10	20.97	19.00	33.00	Pass
30KHz	30MHz	HCH	DFT-256QAM	19.06	19.07	19.00	16.97	33.00	Pass
30KHz	30MHz	HCH	CP-QPSK	21.89	21.97	22.03	19.93	33.00	Pass
30KHz	40MHz	LCH	DFT-Pi2BPSK	23.51	23.69	23.55	21.59	33.00	Pass
30KHz	40MHz	LCH	DFT-QPSK	23.56	23.64	23.53	21.54	33.00	Pass
30KHz	40MHz	LCH	DFT-16QAM	22.41	22.48	22.50	20.40	33.00	Pass
30KHz	40MHz	LCH	DFT-64QAM	20.99	21.08	20.91	18.98	33.00	Pass
30KHz	40MHz	LCH	DFT-256QAM	18.97	19.03	19.02	16.93	33.00	Pass
30KHz	40MHz	LCH	CP-QPSK	21.94	22.05	21.98	19.95	33.00	Pass
30KHz	40MHz	MCH	DFT-Pi2BPSK	23.60	23.58	23.56	21.50	33.00	Pass
30KHz	40MHz	MCH	DFT-QPSK	23.46	23.59	23.56	21.49	33.00	Pass
30KHz	40MHz	MCH	DFT-16QAM	22.35	22.51	22.52	20.42	33.00	Pass
30KHz	40MHz	MCH	DFT-64QAM	20.95	21.04	20.94	18.94	33.00	Pass
30KHz	40MHz	MCH	DFT-256QAM	18.94	19.04	19.04	16.94	33.00	Pass
30KHz	40MHz	MCH	CP-QPSK	21.83	21.95	21.96	19.86	33.00	Pass
30KHz	40MHz	HCH	DFT-Pi2BPSK	23.56	23.56	23.55	21.46	33.00	Pass
30KHz	40MHz	HCH	DFT-QPSK	23.46	23.62	23.55	21.52	33.00	Pass
30KHz	40MHz	HCH	DFT-16QAM	22.37	22.52	22.53	20.43	33.00	Pass
30KHz	40MHz	HCH	DFT-64QAM	20.92	21.11	20.99	19.01	33.00	Pass
30KHz	40MHz	HCH	DFT-256QAM	19.00	19.04	19.04	16.94	33.00	Pass
30KHz	40MHz	HCH	CP-QPSK	21.97	21.94	21.96	19.87	33.00	Pass

2. Peak-to-Average Ratio

2.1. Test Results

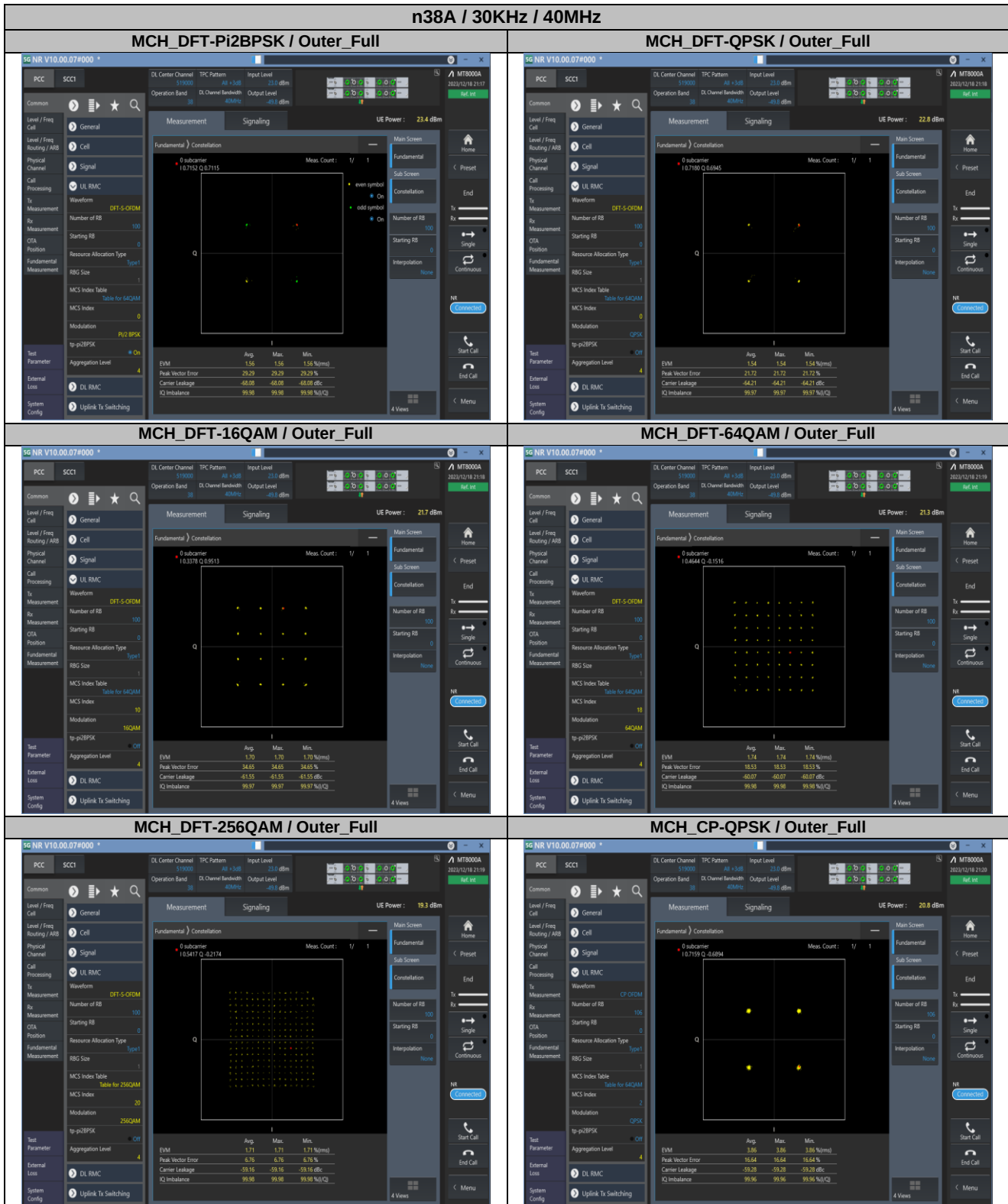
SCS	Bandwidth	Channel	Modulation	Result (dB)		Limit (dB)	Verdict
				DFT-Pi2BPSK	DFT-QPSK		
30KHz	40MHz	LCH	Outer_Full	7.91	8.12	13.00	Pass
30KHz	40MHz	MCH	Outer_Full	8.74	8.32	13.00	Pass
30KHz	40MHz	HCH	Outer_Full	8.01	8.51	13.00	Pass

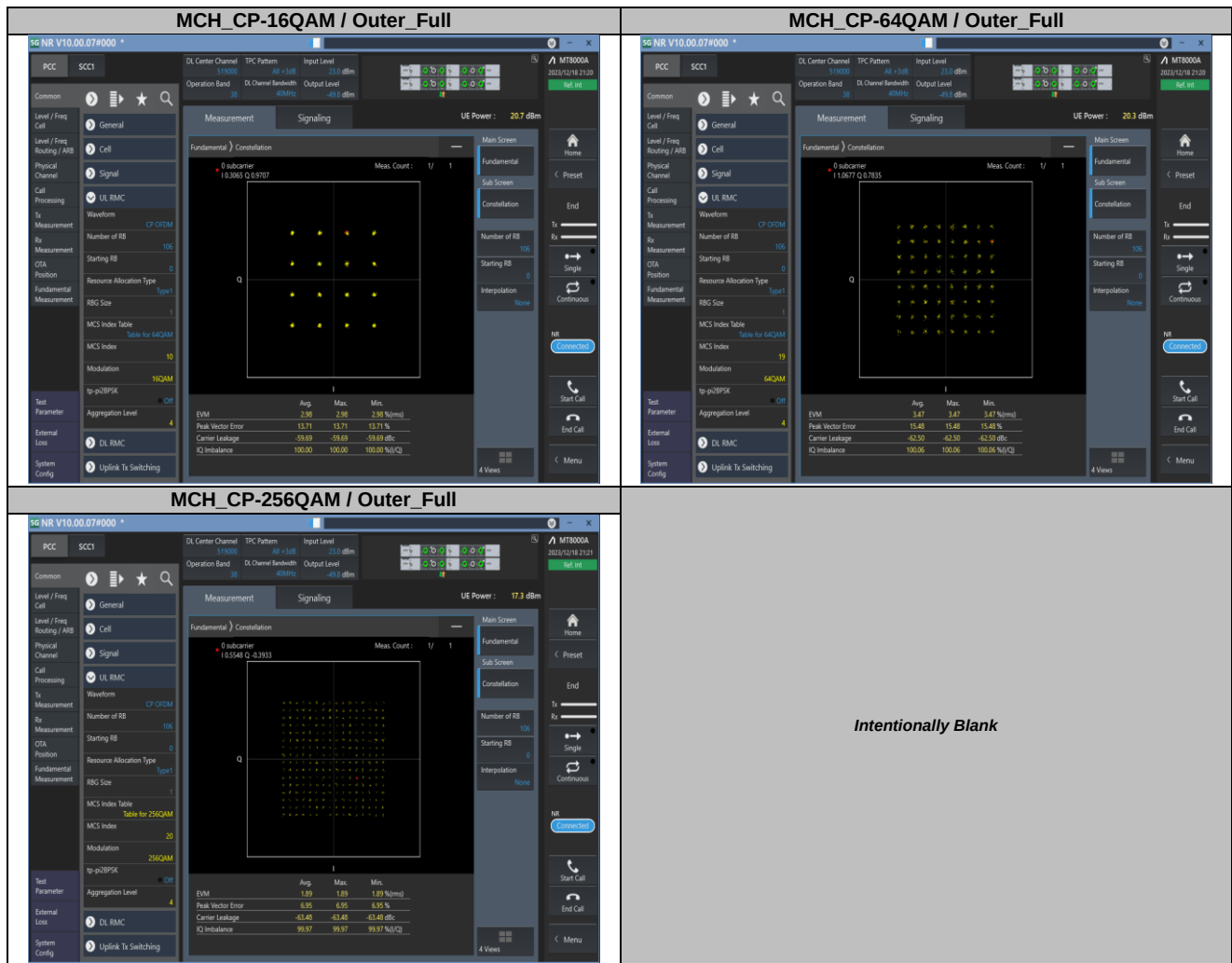
2.2. Test Plots



3. Modulation Characteristics

3.1. Test Plots



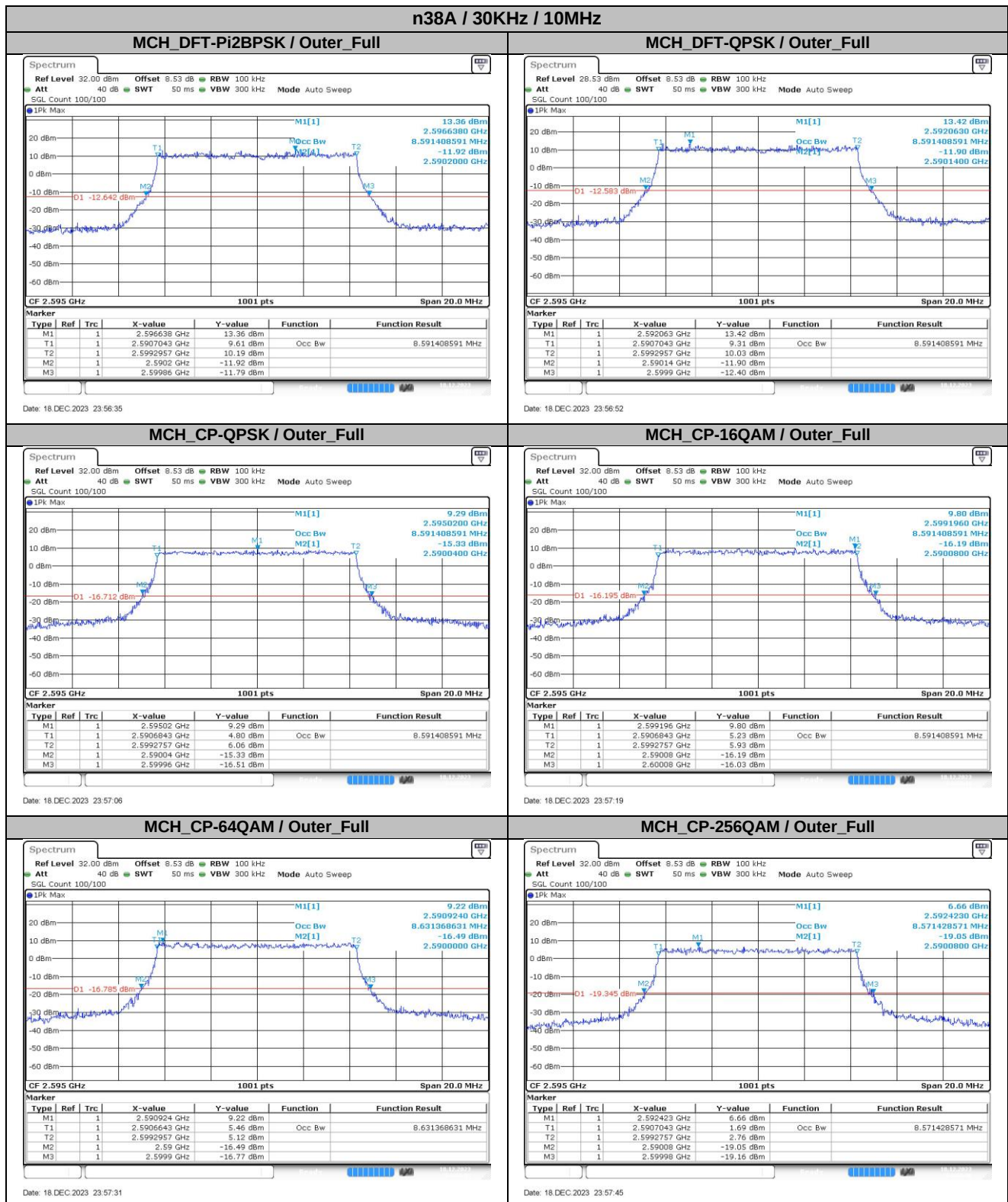


4. 99% Occupied Bandwidth & 26dB Emission Bandwidth

4.1. Test Results

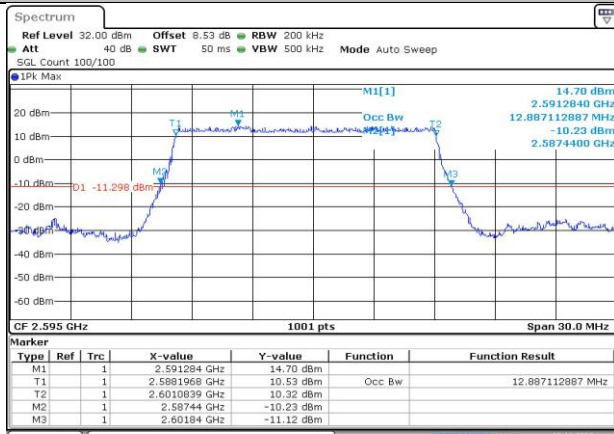
SCS	Bandwidth	Modulation	RB Config	99% Occupied Bandwidth (MHz)	26dB Emission Bandwidth (MHz)	Verdict
30KHz	10MHz	DFT-Pi2BPSK	Outer_Full	8.59	9.66	Pass
30KHz	10MHz	DFT-QPSK	Outer_Full	8.59	9.76	Pass
30KHz	10MHz	CP-QPSK	Outer_Full	8.59	9.92	Pass
30KHz	10MHz	CP-16QAM	Outer_Full	8.59	10.00	Pass
30KHz	10MHz	CP-64QAM	Outer_Full	8.63	9.90	Pass
30KHz	10MHz	CP-256QAM	Outer_Full	8.57	9.90	Pass
30KHz	15MHz	DFT-Pi2BPSK	Outer_Full	12.89	14.40	Pass
30KHz	15MHz	DFT-QPSK	Outer_Full	12.95	14.37	Pass
30KHz	15MHz	CP-QPSK	Outer_Full	13.64	15.21	Pass
30KHz	15MHz	CP-16QAM	Outer_Full	13.64	15.42	Pass
30KHz	15MHz	CP-64QAM	Outer_Full	13.61	15.09	Pass
30KHz	15MHz	CP-256QAM	Outer_Full	13.61	15.15	Pass
30KHz	20MHz	DFT-Pi2BPSK	Outer_Full	17.86	19.36	Pass
30KHz	20MHz	DFT-QPSK	Outer_Full	17.86	19.40	Pass
30KHz	20MHz	CP-QPSK	Outer_Full	18.18	19.48	Pass
30KHz	20MHz	CP-16QAM	Outer_Full	18.18	19.76	Pass
30KHz	20MHz	CP-64QAM	Outer_Full	18.26	19.96	Pass
30KHz	20MHz	CP-256QAM	Outer_Full	18.18	19.80	Pass
30KHz	30MHz	DFT-Pi2BPSK	Outer_Full	26.85	28.68	Pass
30KHz	30MHz	DFT-QPSK	Outer_Full	26.85	28.62	Pass
30KHz	30MHz	CP-QPSK	Outer_Full	27.81	29.76	Pass
30KHz	30MHz	CP-16QAM	Outer_Full	27.87	29.64	Pass
30KHz	30MHz	CP-64QAM	Outer_Full	27.75	29.70	Pass
30KHz	30MHz	CP-256QAM	Outer_Full	27.87	29.70	Pass
30KHz	40MHz	DFT-Pi2BPSK	Outer_Full	35.72	37.76	Pass
30KHz	40MHz	DFT-QPSK	Outer_Full	35.80	38.00	Pass
30KHz	40MHz	CP-QPSK	Outer_Full	37.80	40.08	Pass
30KHz	40MHz	CP-16QAM	Outer_Full	37.80	40.32	Pass
30KHz	40MHz	CP-64QAM	Outer_Full	37.88	40.24	Pass
30KHz	40MHz	CP-256QAM	Outer_Full	37.96	40.24	Pass

4.2. Test Plots

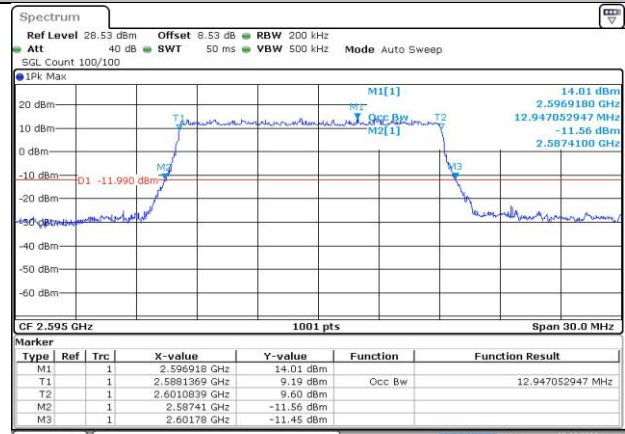


n38A / 30KHz / 15MHz

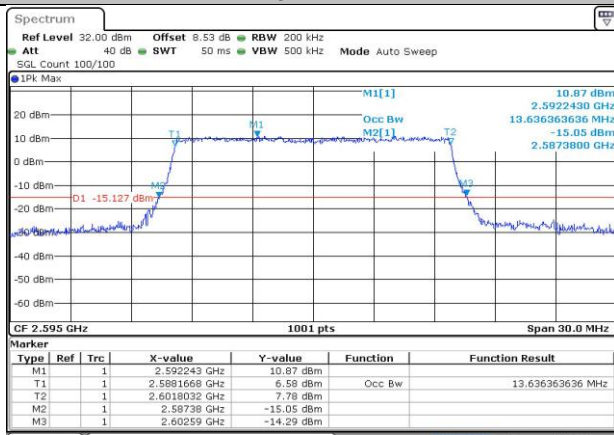
MCH_DFT-Pi2BPSK / Outer_Full



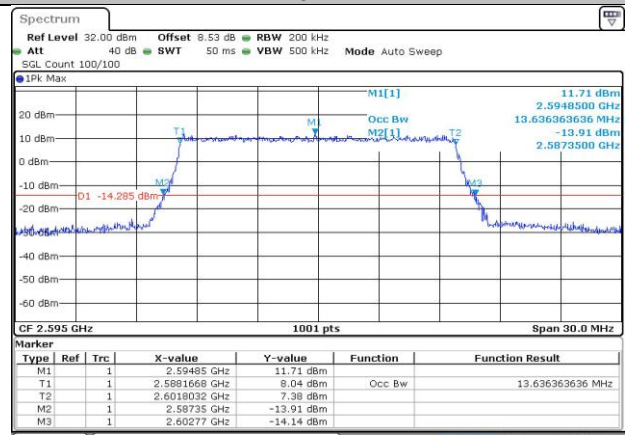
MCH_DFT-QPSK / Outer_Full



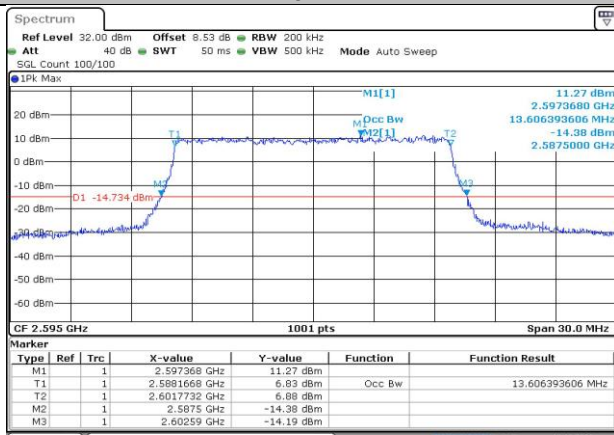
MCH_CP-QPSK / Outer_Full



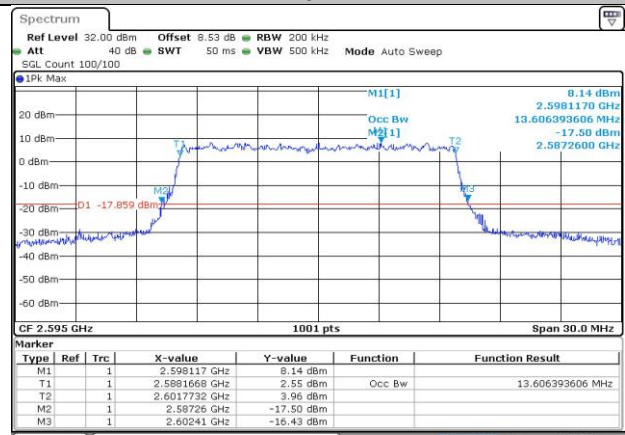
MCH_CP-16QAM / Outer_Full

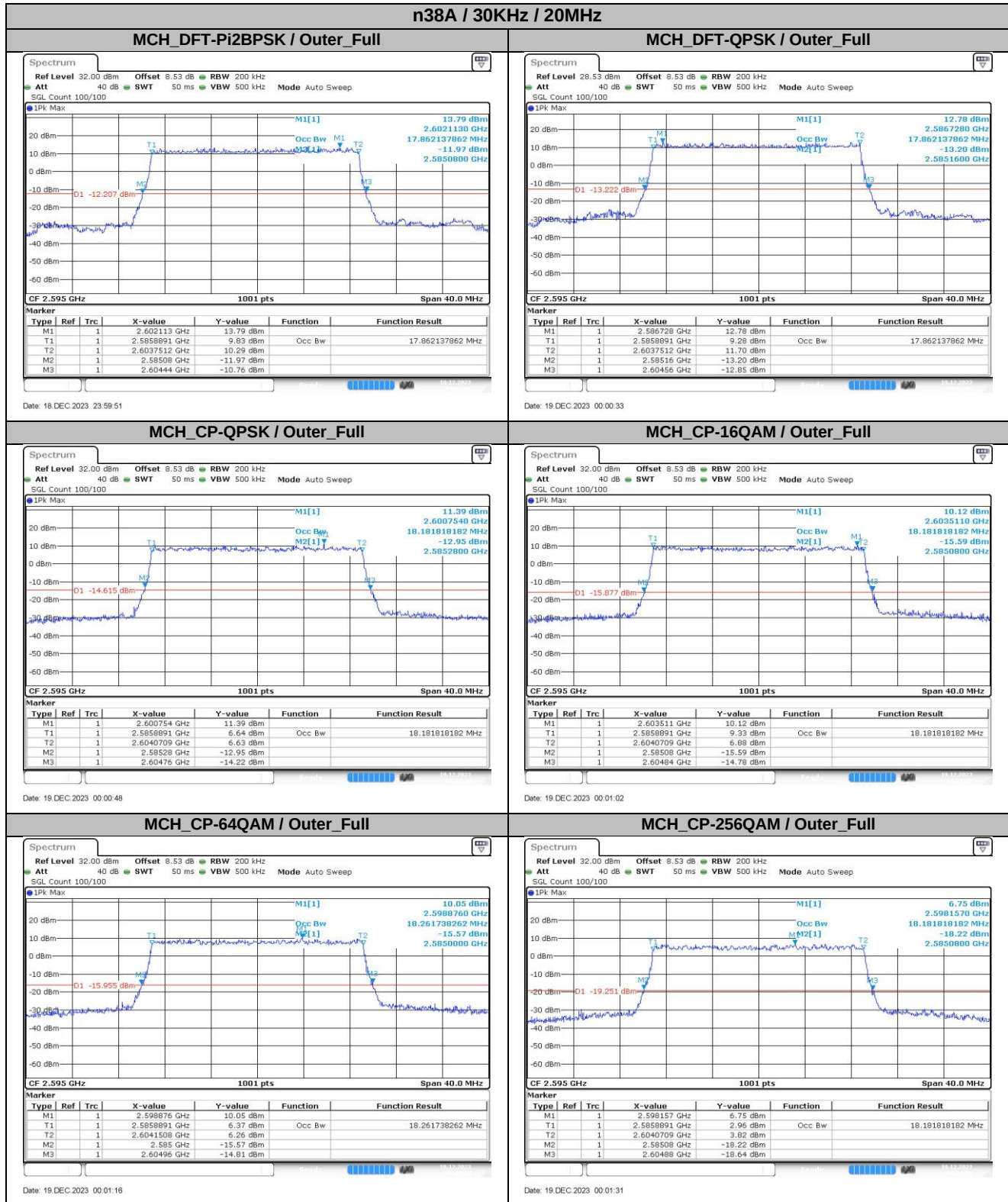


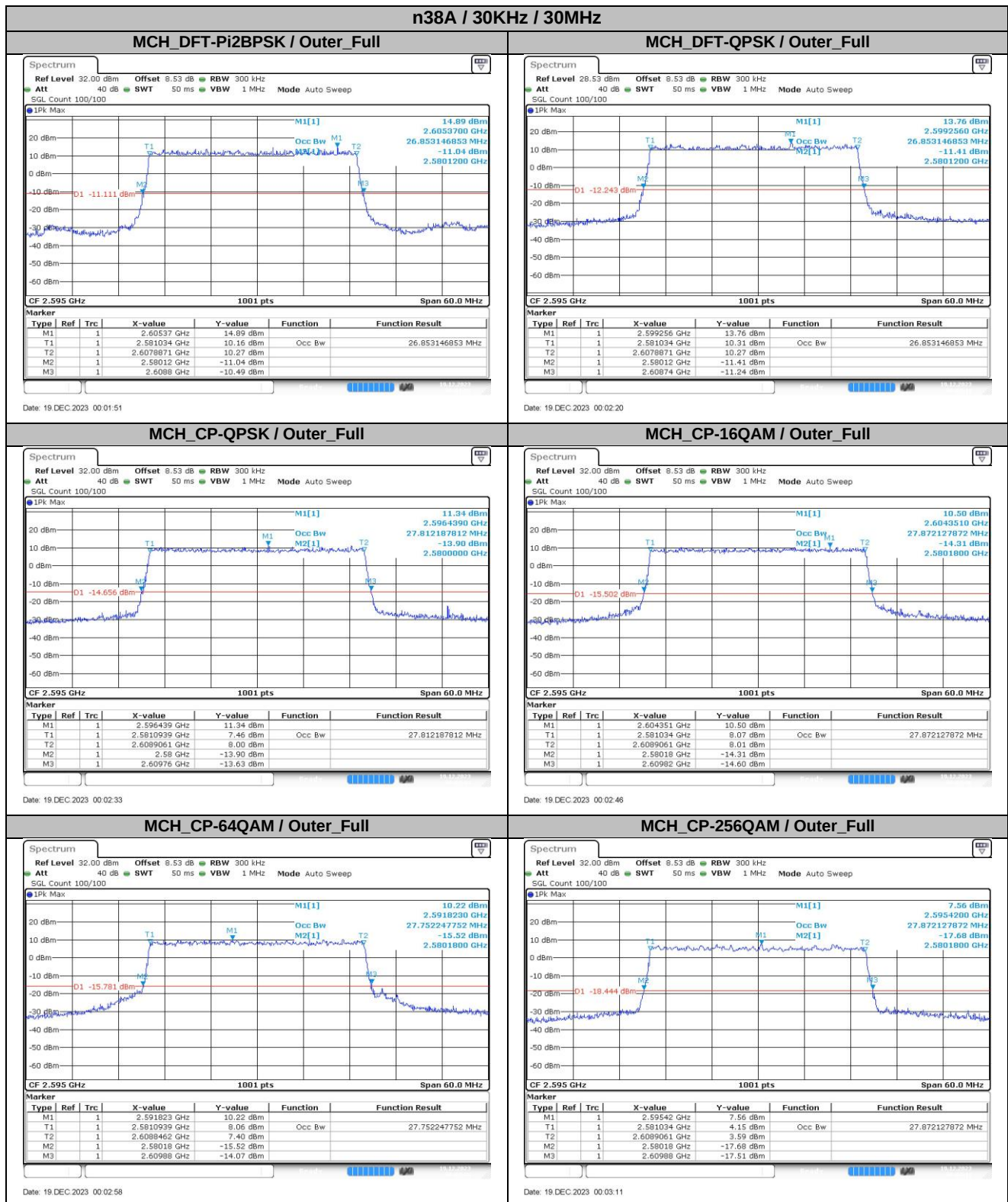
MCH_CP-64QAM / Outer_Full

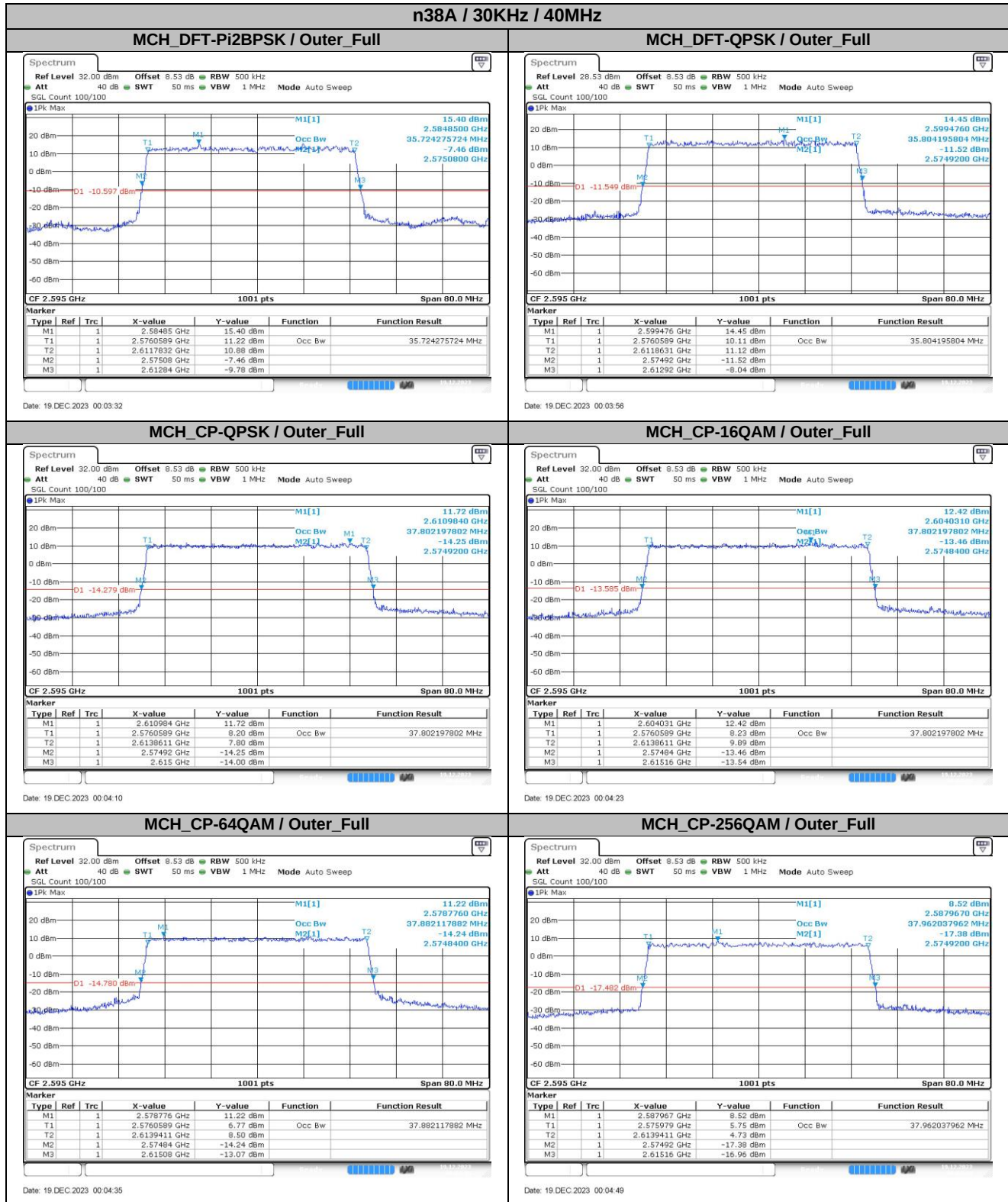


MCH_CP-256QAM / Outer_Full



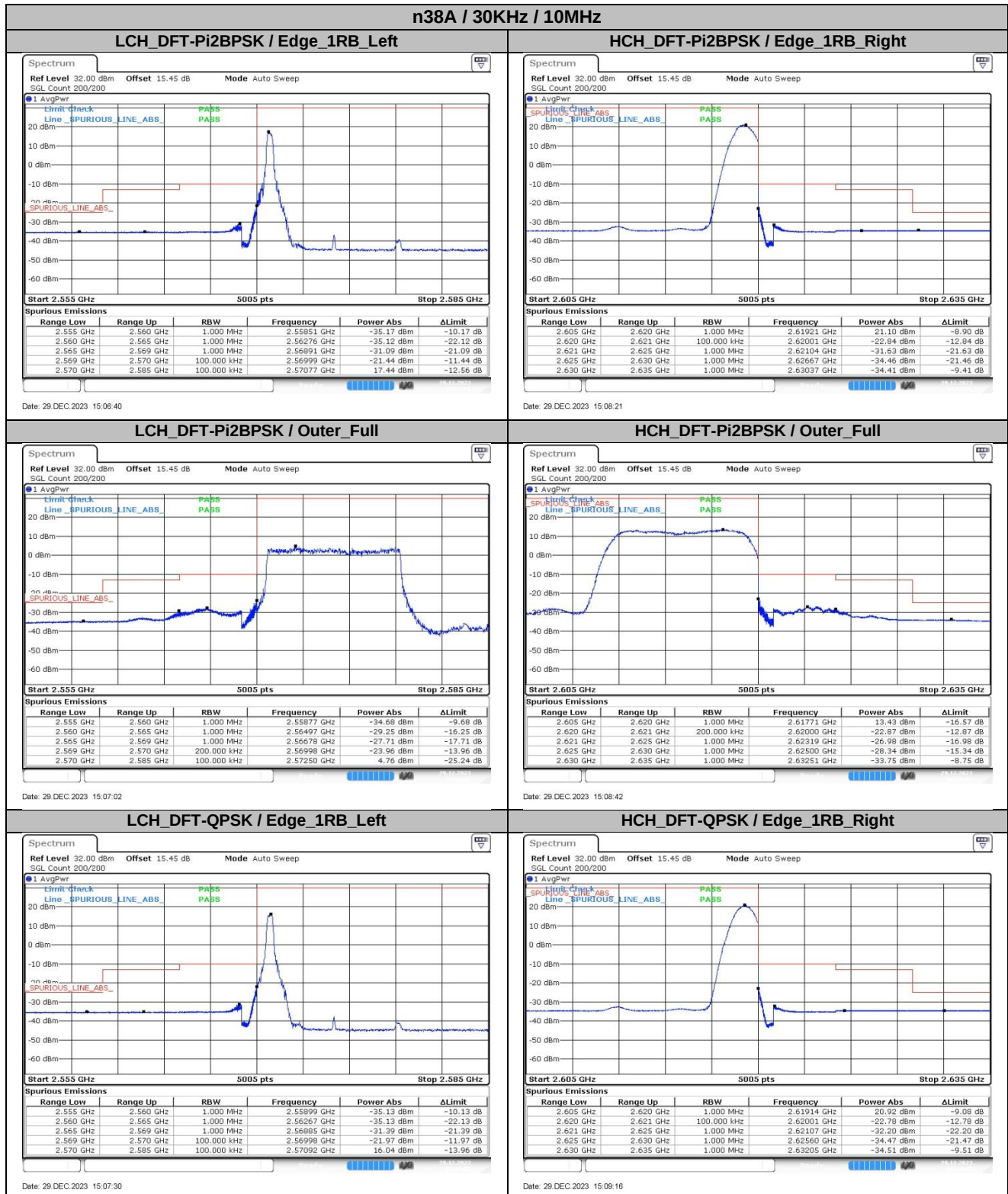


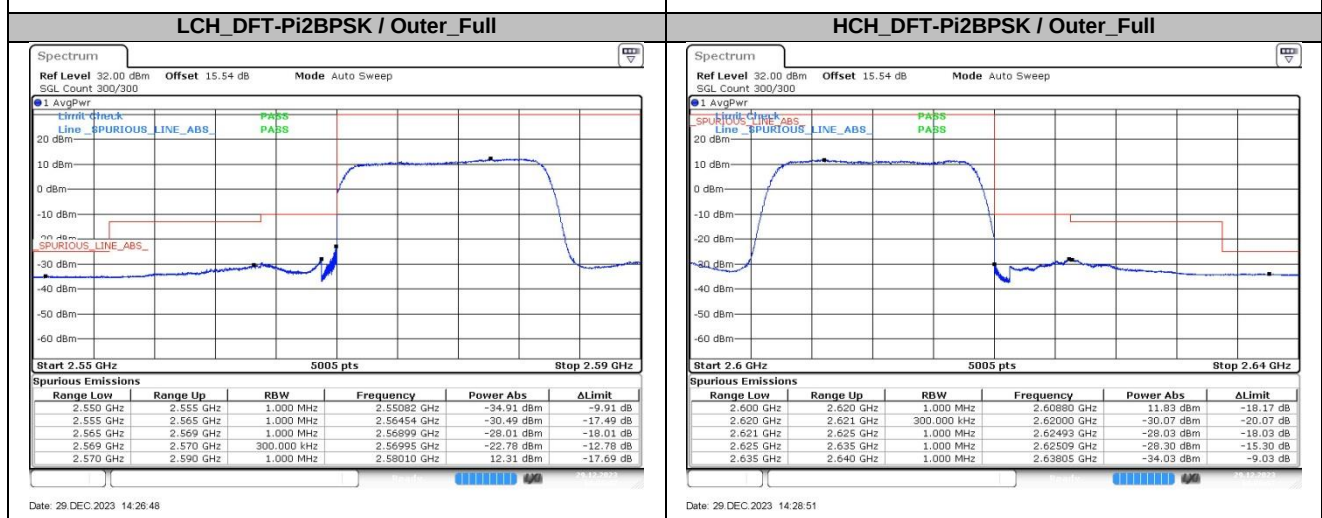
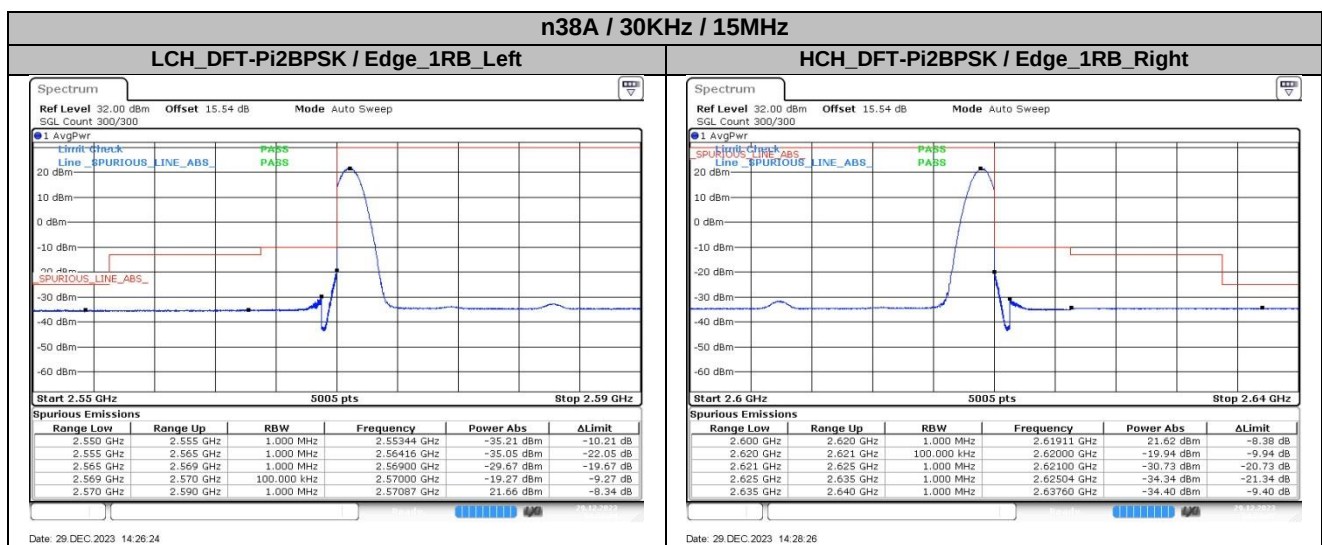
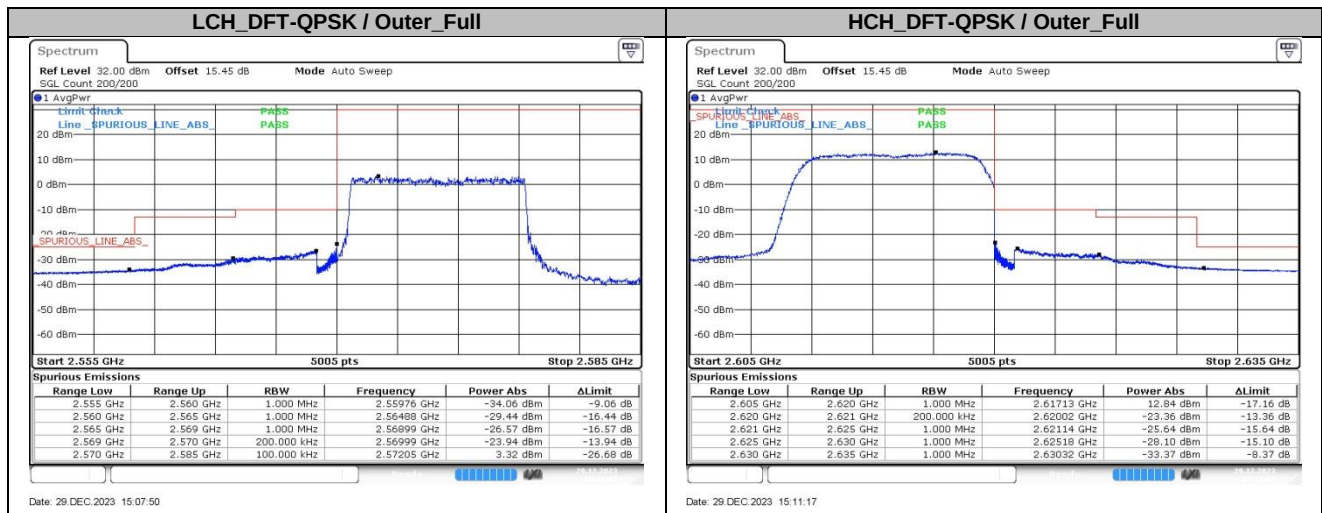


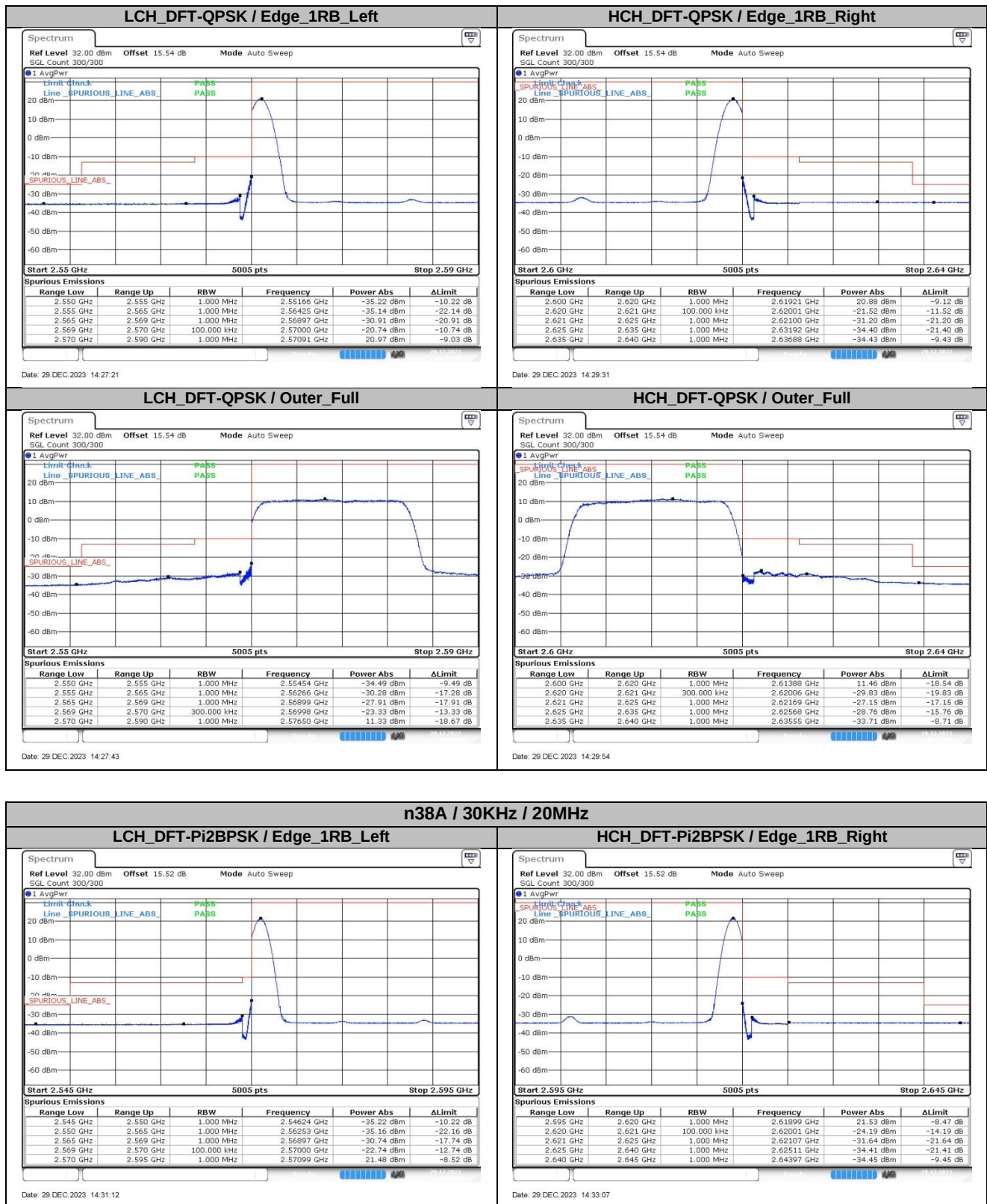


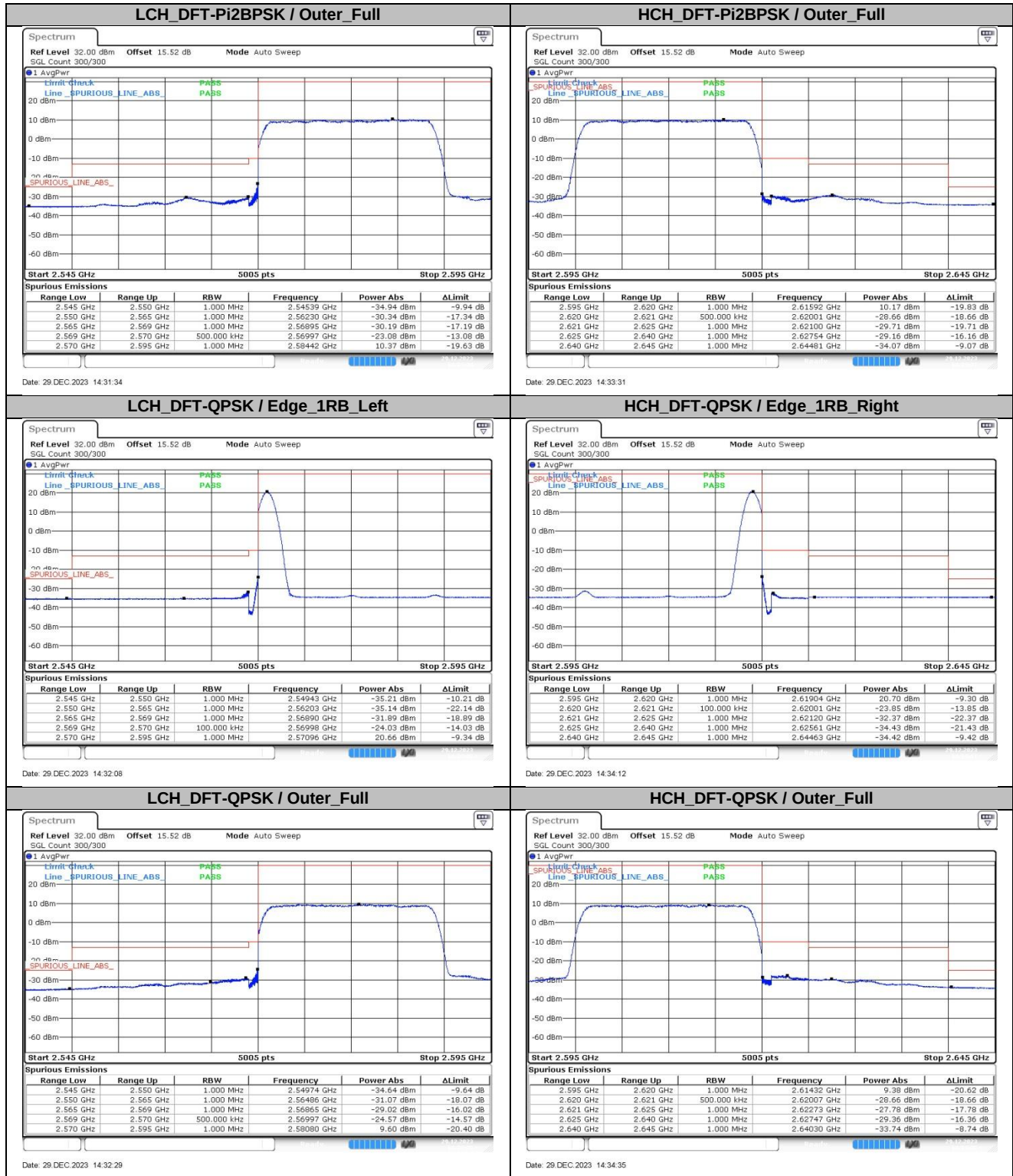
5. Conducted Band Edges

5.1. Test Plots



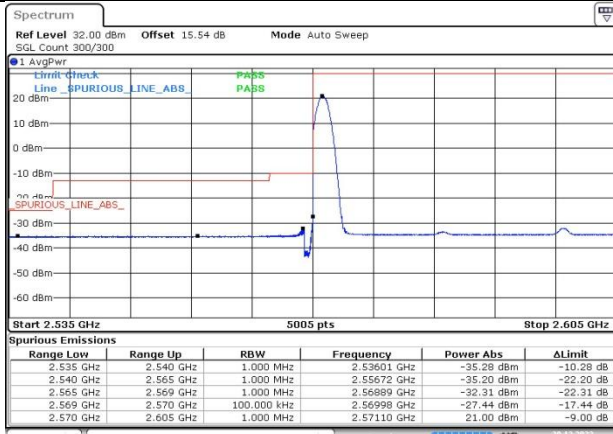






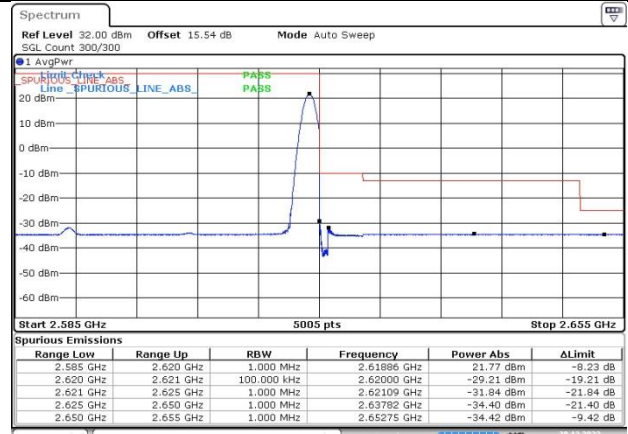
n38A / 30KHz / 30MHz

LCH_DFT-Pi2BPSK / Edge_1RB_Left



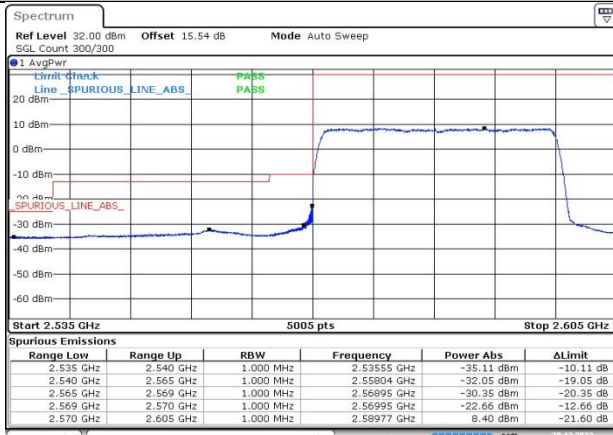
Date: 29 DEC 2023 14:35:08

HCH_DFT-Pi2BPSK / Edge_1RB_Right



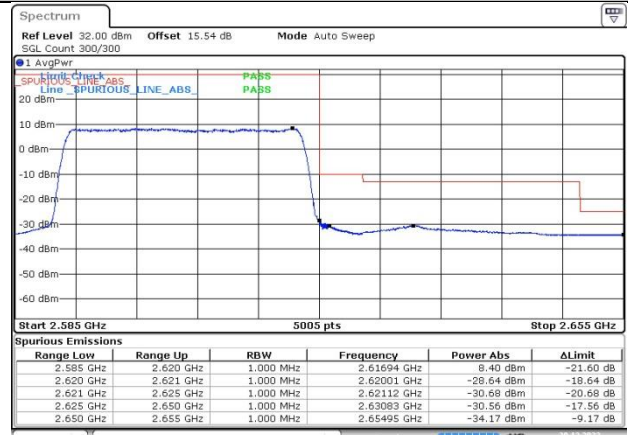
Date: 29 DEC 2023 14:37:07

LCH_DFT-Pi2BPSK / Outer_Full



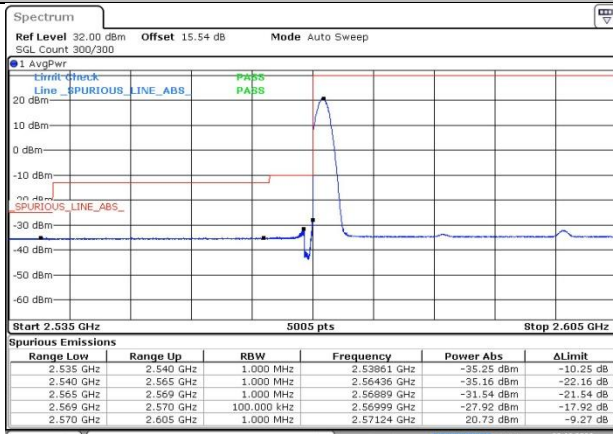
Date: 29 DEC 2023 14:35:31

HCH_DFT-Pi2BPSK / Outer_Full



Date: 29 DEC 2023 14:37:31

LCH_DFT-QPSK / Edge_1RB_Left



Date: 29 DEC 2023 14:36:04

HCH_DFT-QPSK / Edge_1RB_Right



Date: 29 DEC 2023 14:38:59