

Appendix for N38

Product Name: 5G Indoor CPE

Model No: TITAN 5000

Appendix A: Average Power Output Data

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Power (dBm)	Power Class	Verdict
N38	30	10	DFT-QPSK	L	Outer_Full	22.91	PC3	PASS
N38	30	10	DFT-QPSK	L	Inner_Full	23.85	PC3	PASS
N38	30	10	DFT-QPSK	L	Edge_1RB_Left	22.75	PC3	PASS
N38	30	10	DFT-QPSK	L	Edge_1RB_Right	22.72	PC3	PASS
N38	30	10	DFT-16QAM	L	Outer_Full	21.92	PC3	PASS
N38	30	10	DFT-16QAM	L	Inner_Full	22.75	PC3	PASS
N38	30	10	DFT-16QAM	L	Edge_1RB_Left	21.78	PC3	PASS
N38	30	10	DFT-16QAM	L	Edge_1RB_Right	21.91	PC3	PASS
N38	30	10	DFT-QPSK	M	Outer_Full	22.73	PC3	PASS
N38	30	10	DFT-QPSK	M	Inner_Full	23.81	PC3	PASS
N38	30	10	DFT-QPSK	M	Edge_1RB_Left	22.60	PC3	PASS
N38	30	10	DFT-QPSK	M	Edge_1RB_Right	22.66	PC3	PASS
N38	30	10	DFT-16QAM	M	Outer_Full	21.74	PC3	PASS
N38	30	10	DFT-16QAM	M	Inner_Full	22.75	PC3	PASS
N38	30	10	DFT-16QAM	M	Edge_1RB_Left	21.74	PC3	PASS
N38	30	10	DFT-16QAM	M	Edge_1RB_Right	21.70	PC3	PASS
N38	30	10	DFT-QPSK	H	Outer_Full	22.58	PC3	PASS
N38	30	10	DFT-QPSK	H	Inner_Full	23.65	PC3	PASS
N38	30	10	DFT-QPSK	H	Edge_1RB_Left	22.55	PC3	PASS
N38	30	10	DFT-QPSK	H	Edge_1RB_Right	22.36	PC3	PASS
N38	30	10	DFT-16QAM	H	Outer_Full	21.61	PC3	PASS
N38	30	10	DFT-16QAM	H	Inner_Full	22.61	PC3	PASS
N38	30	10	DFT-16QAM	H	Edge_1RB_Left	21.65	PC3	PASS
N38	30	10	DFT-16QAM	H	Edge_1RB_Right	21.48	PC3	PASS
N38	30	15	DFT-QPSK	L	Outer_Full	22.88	PC3	PASS
N38	30	15	DFT-QPSK	L	Inner_Full	23.94	PC3	PASS
N38	30	15	DFT-QPSK	L	Edge_1RB_Left	22.79	PC3	PASS
N38	30	15	DFT-QPSK	L	Edge_1RB_Right	22.86	PC3	PASS
N38	30	15	DFT-16QAM	L	Outer_Full	22.02	PC3	PASS
N38	30	15	DFT-16QAM	L	Inner_Full	22.80	PC3	PASS
N38	30	15	DFT-16QAM	L	Edge_1RB_Left	21.89	PC3	PASS
N38	30	15	DFT-16QAM	L	Edge_1RB_Right	21.89	PC3	PASS
N38	30	15	DFT-QPSK	M	Outer_Full	22.93	PC3	PASS
N38	30	15	DFT-QPSK	M	Inner_Full	23.95	PC3	PASS
N38	30	15	DFT-QPSK	M	Edge_1RB_Left	22.88	PC3	PASS

N38	30	15	DFT-QPSK	M	Edge_1RB_Right	22.96	PC3	PASS
N38	30	15	DFT-16QAM	M	Outer_Full	21.99	PC3	PASS
N38	30	15	DFT-16QAM	M	Inner_Full	22.92	PC3	PASS
N38	30	15	DFT-16QAM	M	Edge_1RB_Left	21.87	PC3	PASS
N38	30	15	DFT-16QAM	M	Edge_1RB_Right	21.96	PC3	PASS
N38	30	15	DFT-QPSK	H	Outer_Full	22.84	PC3	PASS
N38	30	15	DFT-QPSK	H	Inner_Full	23.83	PC3	PASS
N38	30	15	DFT-QPSK	H	Edge_1RB_Left	22.71	PC3	PASS
N38	30	15	DFT-QPSK	H	Edge_1RB_Right	22.62	PC3	PASS
N38	30	15	DFT-16QAM	H	Outer_Full	21.89	PC3	PASS
N38	30	15	DFT-16QAM	H	Inner_Full	22.83	PC3	PASS
N38	30	15	DFT-16QAM	H	Edge_1RB_Left	21.74	PC3	PASS
N38	30	15	DFT-16QAM	H	Edge_1RB_Right	21.67	PC3	PASS
N38	30	20	DFT-QPSK	L	Outer_Full	22.87	PC3	PASS
N38	30	20	DFT-QPSK	L	Inner_Full	23.92	PC3	PASS
N38	30	20	DFT-QPSK	L	Edge_1RB_Left	22.75	PC3	PASS
N38	30	20	DFT-QPSK	L	Edge_1RB_Right	22.88	PC3	PASS
N38	30	20	DFT-16QAM	L	Outer_Full	21.99	PC3	PASS
N38	30	20	DFT-16QAM	L	Inner_Full	22.99	PC3	PASS
N38	30	20	DFT-16QAM	L	Edge_1RB_Left	21.91	PC3	PASS
N38	30	20	DFT-16QAM	L	Edge_1RB_Right	21.86	PC3	PASS
N38	30	20	DFT-QPSK	M	Outer_Full	22.98	PC3	PASS
N38	30	20	DFT-QPSK	M	Inner_Full	23.97	PC3	PASS
N38	30	20	DFT-QPSK	M	Edge_1RB_Left	22.83	PC3	PASS
N38	30	20	DFT-QPSK	M	Edge_1RB_Right	22.79	PC3	PASS
N38	30	20	DFT-16QAM	M	Outer_Full	21.95	PC3	PASS
N38	30	20	DFT-16QAM	M	Inner_Full	22.95	PC3	PASS
N38	30	20	DFT-16QAM	M	Edge_1RB_Left	21.84	PC3	PASS
N38	30	20	DFT-16QAM	M	Edge_1RB_Right	21.90	PC3	PASS
N38	30	20	DFT-QPSK	H	Outer_Full	22.88	PC3	PASS
N38	30	20	DFT-QPSK	H	Inner_Full	23.89	PC3	PASS
N38	30	20	DFT-QPSK	H	Edge_1RB_Left	22.81	PC3	PASS
N38	30	20	DFT-QPSK	H	Edge_1RB_Right	22.61	PC3	PASS
N38	30	20	DFT-16QAM	H	Outer_Full	21.92	PC3	PASS
N38	30	20	DFT-16QAM	H	Inner_Full	22.96	PC3	PASS
N38	30	20	DFT-16QAM	H	Edge_1RB_Left	21.74	PC3	PASS
N38	30	20	DFT-16QAM	H	Edge_1RB_Right	21.66	PC3	PASS
N38	30	30	DFT-QPSK	L	Outer_Full	22.91	PC3	PASS
N38	30	30	DFT-QPSK	L	Inner_Full	23.82	PC3	PASS
N38	30	30	DFT-QPSK	L	Edge_1RB_Left	22.79	PC3	PASS
N38	30	30	DFT-QPSK	L	Edge_1RB_Right	22.93	PC3	PASS
N38	30	30	DFT-16QAM	L	Outer_Full	21.95	PC3	PASS

N38	30	30	DFT-16QAM	L	Inner_Full	22.88	PC3	PASS
N38	30	30	DFT-16QAM	L	Edge_1RB_Left	21.81	PC3	PASS
N38	30	30	DFT-16QAM	L	Edge_1RB_Right	21.92	PC3	PASS
N38	30	30	DFT-QPSK	M	Outer_Full	22.95	PC3	PASS
N38	30	30	DFT-QPSK	M	Inner_Full	23.86	PC3	PASS
N38	30	30	DFT-QPSK	M	Edge_1RB_Left	22.85	PC3	PASS
N38	30	30	DFT-QPSK	M	Edge_1RB_Right	22.78	PC3	PASS
N38	30	30	DFT-16QAM	M	Outer_Full	21.97	PC3	PASS
N38	30	30	DFT-16QAM	M	Inner_Full	22.93	PC3	PASS
N38	30	30	DFT-16QAM	M	Edge_1RB_Left	21.74	PC3	PASS
N38	30	30	DFT-16QAM	M	Edge_1RB_Right	21.83	PC3	PASS
N38	30	30	DFT-QPSK	H	Outer_Full	22.81	PC3	PASS
N38	30	30	DFT-QPSK	H	Inner_Full	23.83	PC3	PASS
N38	30	30	DFT-QPSK	H	Edge_1RB_Left	22.72	PC3	PASS
N38	30	30	DFT-QPSK	H	Edge_1RB_Right	22.54	PC3	PASS
N38	30	30	DFT-16QAM	H	Outer_Full	21.85	PC3	PASS
N38	30	30	DFT-16QAM	H	Inner_Full	22.91	PC3	PASS
N38	30	30	DFT-16QAM	H	Edge_1RB_Left	21.72	PC3	PASS
N38	30	30	DFT-16QAM	H	Edge_1RB_Right	21.66	PC3	PASS
N38	30	40	DFT-QPSK	L	Outer_Full	22.85	PC3	PASS
N38	30	40	DFT-QPSK	L	Inner_Full	23.87	PC3	PASS
N38	30	40	DFT-QPSK	L	Edge_1RB_Left	22.80	PC3	PASS
N38	30	40	DFT-QPSK	L	Edge_1RB_Right	22.74	PC3	PASS
N38	30	40	DFT-16QAM	L	Outer_Full	21.86	PC3	PASS
N38	30	40	DFT-16QAM	L	Inner_Full	22.87	PC3	PASS
N38	30	40	DFT-16QAM	L	Edge_1RB_Left	21.92	PC3	PASS
N38	30	40	DFT-16QAM	L	Edge_1RB_Right	21.89	PC3	PASS
N38	30	40	DFT-QPSK	M	Outer_Full	22.86	PC3	PASS
N38	30	40	DFT-QPSK	M	Inner_Full	23.86	PC3	PASS
N38	30	40	DFT-QPSK	M	Edge_1RB_Left	22.78	PC3	PASS
N38	30	40	DFT-QPSK	M	Edge_1RB_Right	22.69	PC3	PASS
N38	30	40	DFT-16QAM	M	Outer_Full	21.97	PC3	PASS
N38	30	40	DFT-16QAM	M	Inner_Full	22.93	PC3	PASS
N38	30	40	DFT-16QAM	M	Edge_1RB_Left	21.82	PC3	PASS
N38	30	40	DFT-16QAM	M	Edge_1RB_Right	21.74	PC3	PASS
N38	30	40	DFT-QPSK	H	Outer_Full	22.88	PC3	PASS
N38	30	40	DFT-QPSK	H	Inner_Full	23.96	PC3	PASS
N38	30	40	DFT-QPSK	H	Edge_1RB_Left	22.76	PC3	PASS
N38	30	40	DFT-QPSK	H	Edge_1RB_Right	22.67	PC3	PASS
N38	30	40	DFT-16QAM	H	Outer_Full	21.93	PC3	PASS
N38	30	40	DFT-16QAM	H	Inner_Full	23.04	PC3	PASS
N38	30	40	DFT-16QAM	H	Edge_1RB_Left	21.89	PC3	PASS

N38	30	40	DFT-16QAM	H	Edge_1RB_Right	21.69	PC3	PASS
-----	----	----	-----------	---	----------------	-------	-----	------

Appendix B: Peak-to-Average Ratio for SA

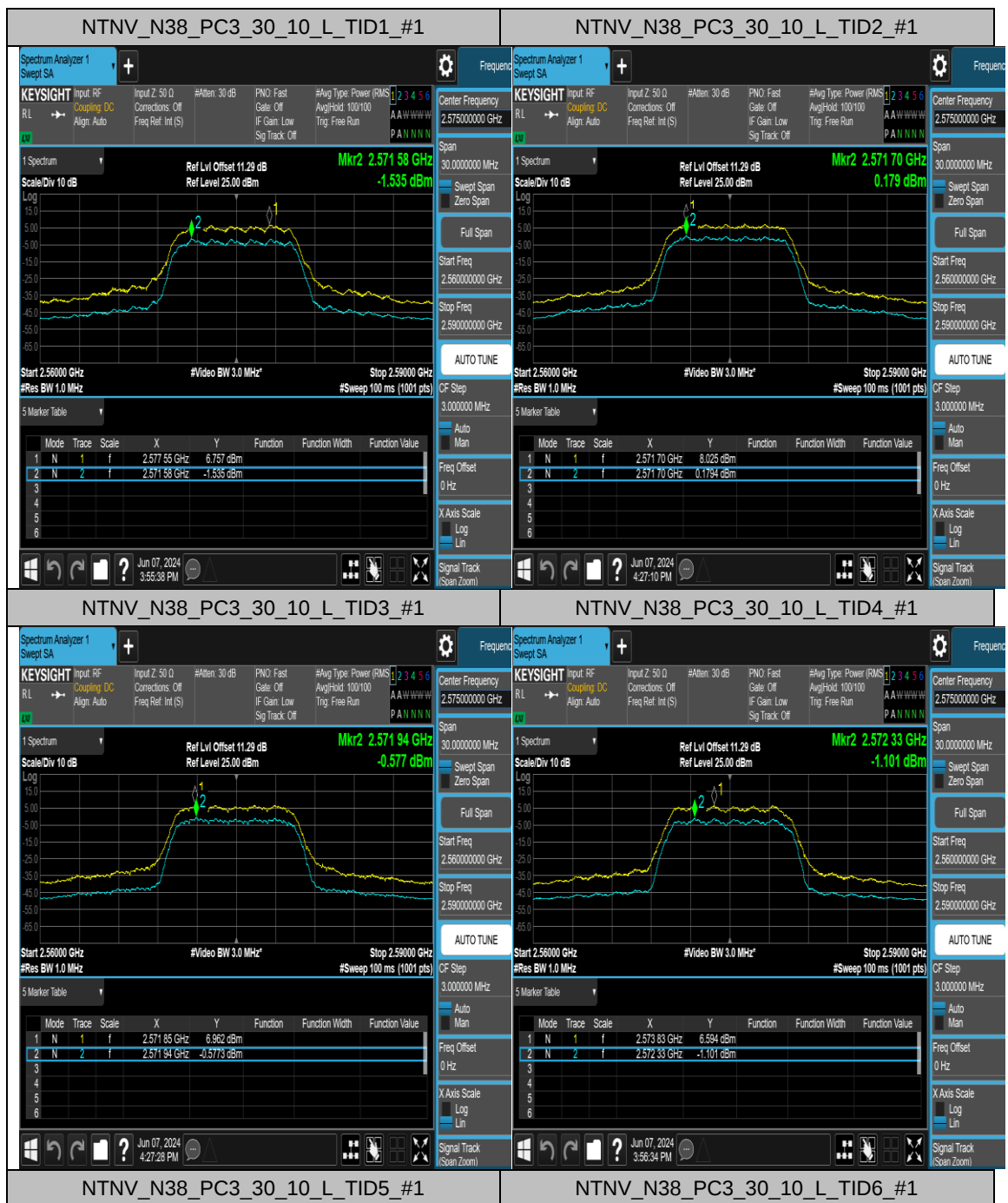
Peak-to-Average Ratio(PAPR)

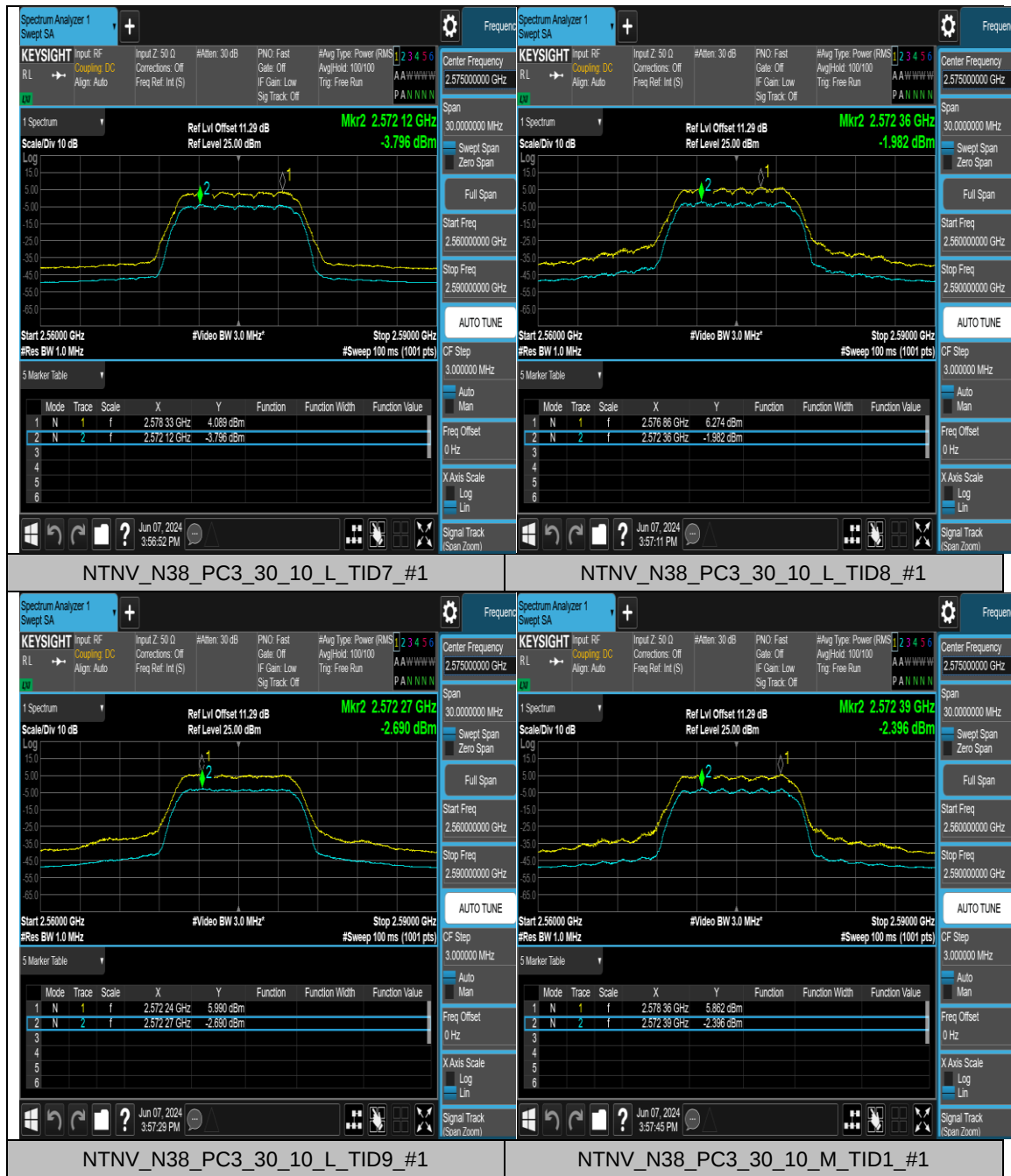
Test Result

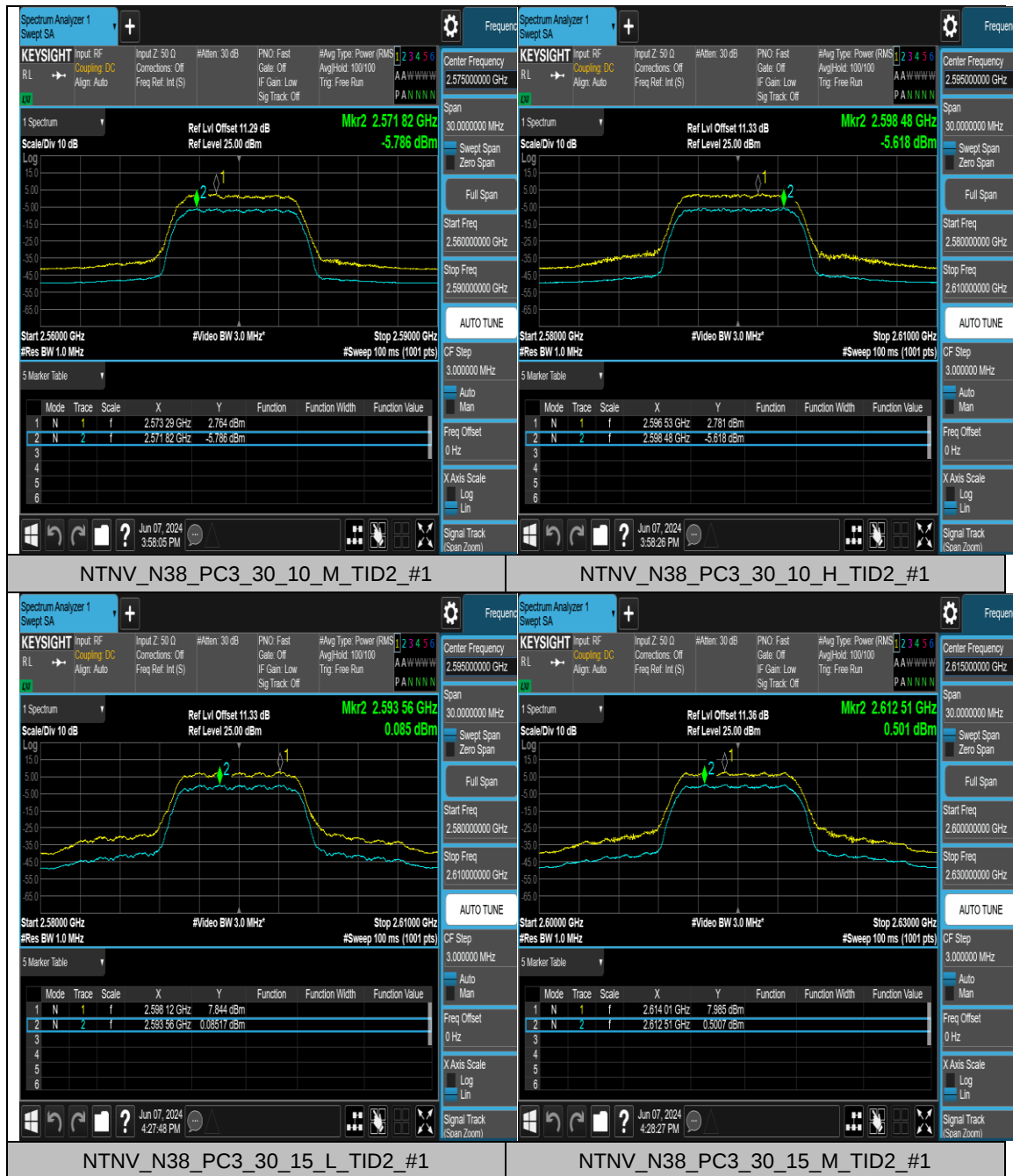
Band	SCS	Bandwidth h	Modulation	Cha nnel	RB Config	DutyCy cle	Facto r	Resul t	Limit	Verdict
N38	30	10	DFT-PI2BPSK	L	Outer_Full	19.6%	7.08	1.22	≤13	PASS
N38	30	10	DFT-QPSK	L	Outer_Full	19.6%	7.08	0.77	≤13	PASS
N38	30	10	DFT-16QAM	L	Outer_Full	19.6%	7.08	0.46	≤13	PASS
N38	30	10	DFT-64QAM	L	Outer_Full	19.6%	7.08	0.61	≤13	PASS
N38	30	10	DFT-256QAM	L	Outer_Full	19.6%	7.08	0.81	≤13	PASS
N38	30	10	CP-QPSK	L	Outer_Full	19.6%	7.08	1.17	≤13	PASS
N38	30	10	CP-16QAM	L	Outer_Full	19.6%	7.08	1.60	≤13	PASS
N38	30	10	CP-64QAM	L	Outer_Full	19.6%	7.08	1.18	≤13	PASS
N38	30	10	CP-256QAM	L	Outer_Full	19.6%	7.08	1.47	≤13	PASS
N38	30	10	DFT-PI2BPSK	M	Outer_Full	19.6%	7.08	1.32	≤13	PASS
N38	30	10	DFT-QPSK	M	Outer_Full	19.6%	7.08	0.67	≤13	PASS
N38	30	10	DFT-QPSK	H	Outer_Full	19.6%	7.08	0.41	≤13	PASS
N38	30	15	DFT-QPSK	L	Outer_Full	19.6%	7.08	0.65	≤13	PASS
N38	30	15	DFT-QPSK	M	Outer_Full	19.6%	7.08	0.45	≤13	PASS
N38	30	15	DFT-QPSK	H	Outer_Full	19.6%	7.08	0.93	≤13	PASS
N38	30	20	DFT-QPSK	L	Outer_Full	19.6%	7.08	1.30	≤13	PASS
N38	30	20	DFT-QPSK	M	Outer_Full	19.6%	7.08	1.13	≤13	PASS
N38	30	20	DFT-QPSK	H	Outer_Full	19.6%	7.08	0.88	≤13	PASS
N38	30	30	DFT-QPSK	L	Outer_Full	19.6%	7.08	0.75	≤13	PASS
N38	30	30	DFT-QPSK	M	Outer_Full	19.6%	7.08	0.84	≤13	PASS
N38	30	30	DFT-QPSK	H	Outer_Full	19.6%	7.08	1.22	≤13	PASS
N38	30	40	DFT-QPSK	L	Outer_Full	19.6%	7.08	0.88	≤13	PASS
N38	30	40	DFT-QPSK	M	Outer_Full	19.6%	7.08	1.10	≤13	PASS
N38	30	40	DFT-QPSK	H	Outer_Full	19.6%	7.08	0.91	≤13	PASS
N38	30	10	DFT-16QAM	M	Outer_Full	19.6%	7.08	0.83	≤13	PASS
N38	30	10	DFT-16QAM	H	Outer_Full	19.6%	7.08	0.61	≤13	PASS
N38	30	15	DFT-16QAM	L	Outer_Full	19.6%	7.08	1.00	≤13	PASS
N38	30	15	DFT-16QAM	M	Outer_Full	19.6%	7.08	0.60	≤13	PASS
N38	30	15	DFT-16QAM	H	Outer_Full	19.6%	7.08	0.87	≤13	PASS
N38	30	20	DFT-16QAM	L	Outer_Full	19.6%	7.08	1.10	≤13	PASS
N38	30	20	DFT-16QAM	M	Outer_Full	19.6%	7.08	1.10	≤13	PASS
N38	30	20	DFT-16QAM	H	Outer_Full	19.6%	7.08	1.42	≤13	PASS

N38	30	30	DFT-16QAM	L	Outer_Full	19.6%	7.08	1.14	≤13		PASS
N38	30	30	DFT-16QAM	M	Outer_Full	19.6%	7.08	1.65	≤13		PASS
N38	30	30	DFT-16QAM	H	Outer_Full	19.6%	7.08	1.06	≤13		PASS
N38	30	40	DFT-16QAM	L	Outer_Full	19.6%	7.08	1.30	≤13		PASS
N38	30	40	DFT-16QAM	M	Outer_Full	19.6%	7.08	1.44	≤13		PASS
N38	30	40	DFT-16QAM	H	Outer_Full	19.6%	7.08	1.86	≤13		PASS

Test Graphs



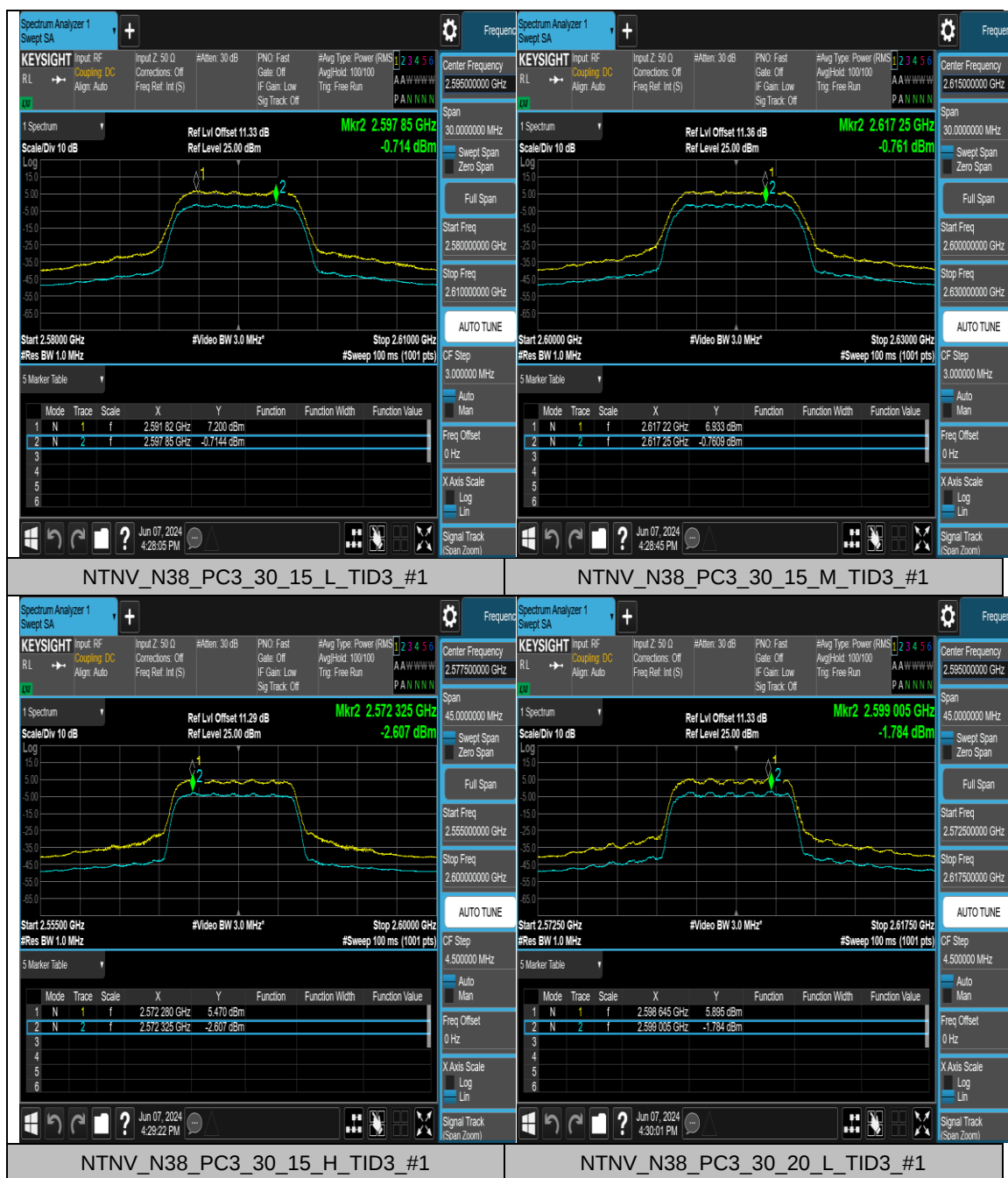






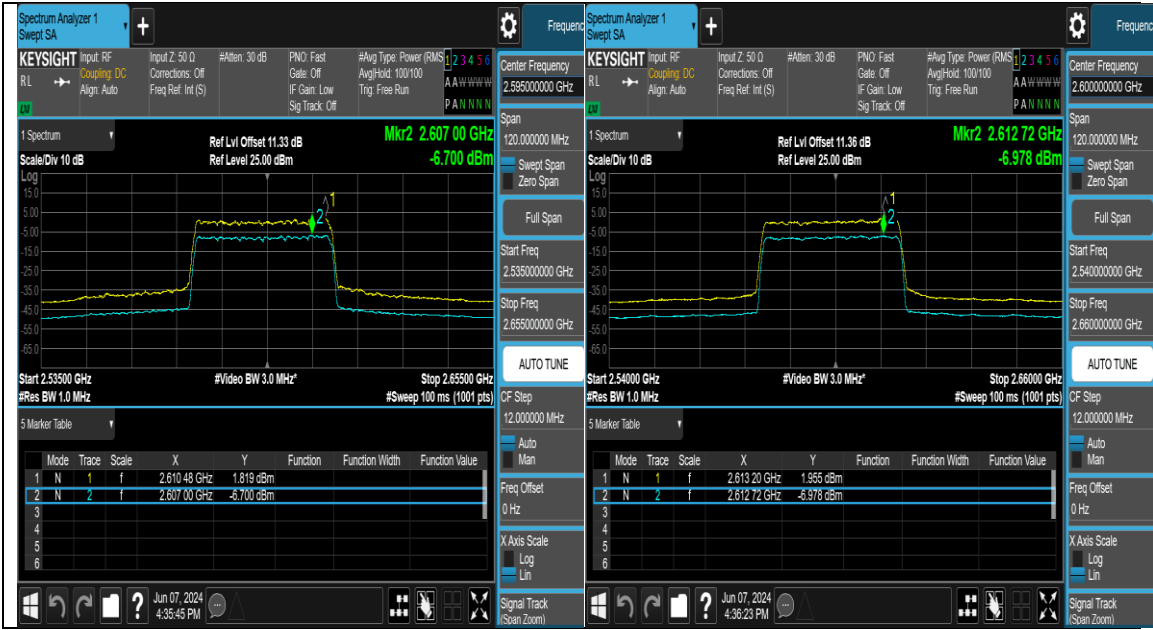












Appendix C: 26dB Bandwidth and Occupied Bandwidth for SA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
N38	30	10	DFT-QPSK	L	Outer_Full	8.6133	9.583	PASS
N38	30	10	DFT-16QAM	L	Outer_Full	8.5857	9.738	PASS
N38	30	10	DFT-QPSK	M	Outer_Full	8.5792	9.540	PASS
N38	30	10	DFT-16QAM	M	Outer_Full	8.5793	9.621	PASS
N38	30	10	DFT-QPSK	H	Outer_Full	8.5949	9.533	PASS
N38	30	10	DFT-16QAM	H	Outer_Full	8.5814	9.755	PASS
N38	30	15	DFT-QPSK	L	Outer_Full	12.899	14.19	PASS
N38	30	15	DFT-16QAM	L	Outer_Full	12.846	14.38	PASS
N38	30	15	DFT-QPSK	M	Outer_Full	12.872	14.08	PASS
N38	30	15	DFT-16QAM	M	Outer_Full	12.854	13.99	PASS
N38	30	15	DFT-QPSK	H	Outer_Full	12.878	14.40	PASS
N38	30	15	DFT-16QAM	H	Outer_Full	12.807	14.11	PASS
N38	30	20	DFT-QPSK	L	Outer_Full	17.841	19.19	PASS
N38	30	20	DFT-16QAM	L	Outer_Full	17.813	19.38	PASS
N38	30	20	DFT-QPSK	M	Outer_Full	17.858	19.13	PASS
N38	30	20	DFT-16QAM	M	Outer_Full	17.855	19.39	PASS
N38	30	20	DFT-QPSK	H	Outer_Full	17.844	19.13	PASS
N38	30	20	DFT-16QAM	H	Outer_Full	17.835	19.30	PASS
N38	30	30	DFT-QPSK	L	Outer_Full	26.837	28.66	PASS
N38	30	30	DFT-16QAM	L	Outer_Full	26.803	28.54	PASS
N38	30	30	DFT-QPSK	M	Outer_Full	26.877	28.86	PASS
N38	30	30	DFT-16QAM	M	Outer_Full	26.823	28.52	PASS
N38	30	30	DFT-QPSK	H	Outer_Full	26.774	28.55	PASS
N38	30	30	DFT-16QAM	H	Outer_Full	26.795	28.67	PASS
N38	30	40	DFT-QPSK	L	Outer_Full	35.780	37.77	PASS
N38	30	40	DFT-16QAM	L	Outer_Full	35.754	37.76	PASS
N38	30	40	DFT-QPSK	M	Outer_Full	35.799	38.12	PASS
N38	30	40	DFT-16QAM	M	Outer_Full	35.765	37.74	PASS
N38	30	40	DFT-QPSK	H	Outer_Full	35.806	37.96	PASS
N38	30	40	DFT-16QAM	H	Outer_Full	35.724	37.80	PASS

Test Graphs

