

FCC LTE Band Test Data

FCC ID : 2BMCH-CS89

Company: : Alited Global Trading Co., Limited

EUT : Sound Box

Model Number : CS89

Reviewed By : Eric Wang

Appendix A: Conducted Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	23.99	PASS
Band38	5MHz	QPSK	37775	1RB#12	23.95	PASS
Band38	5MHz	QPSK	37775	1RB#24	23.83	PASS
Band38	5MHz	QPSK	37775	12RB#0	23.00	PASS
Band38	5MHz	QPSK	37775	12RB#6	23.00	PASS
Band38	5MHz	QPSK	37775	12RB#13	23.06	PASS
Band38	5MHz	QPSK	37775	25RB#0	22.99	PASS
Band38	5MHz	QPSK	38000	1RB#0	24.23	PASS
Band38	5MHz	QPSK	38000	1RB#12	24.15	PASS
Band38	5MHz	QPSK	38000	1RB#24	24.13	PASS
Band38	5MHz	QPSK	38000	12RB#0	23.27	PASS
Band38	5MHz	QPSK	38000	12RB#6	23.27	PASS
Band38	5MHz	QPSK	38000	12RB#13	23.23	PASS
Band38	5MHz	QPSK	38000	25RB#0	23.26	PASS
Band38	5MHz	QPSK	38225	1RB#0	24.34	PASS
Band38	5MHz	QPSK	38225	1RB#12	24.21	PASS
Band38	5MHz	QPSK	38225	1RB#24	24.10	PASS
Band38	5MHz	QPSK	38225	12RB#0	23.28	PASS
Band38	5MHz	QPSK	38225	12RB#6	23.28	PASS
Band38	5MHz	QPSK	38225	12RB#13	23.23	PASS
Band38	5MHz	QPSK	38225	25RB#0	23.30	PASS
Band38	5MHz	16QAM	37775	1RB#0	23.32	PASS
Band38	5MHz	16QAM	37775	1RB#12	23.21	PASS
Band38	5MHz	16QAM	37775	1RB#24	23.19	PASS
Band38	5MHz	16QAM	37775	12RB#0	21.98	PASS
Band38	5MHz	16QAM	37775	12RB#6	21.99	PASS
Band38	5MHz	16QAM	37775	12RB#13	21.95	PASS
Band38	5MHz	16QAM	37775	25RB#0	21.92	PASS
Band38	5MHz	16QAM	38000	1RB#0	23.62	PASS
Band38	5MHz	16QAM	38000	1RB#12	23.71	PASS
Band38	5MHz	16QAM	38000	1RB#24	23.59	PASS
Band38	5MHz	16QAM	38000	12RB#0	22.24	PASS
Band38	5MHz	16QAM	38000	12RB#6	22.24	PASS
Band38	5MHz	16QAM	38000	12RB#13	22.19	PASS
Band38	5MHz	16QAM	38000	25RB#0	22.25	PASS
Band38	5MHz	16QAM	38225	1RB#0	23.76	PASS

Band38	5MHz	16QAM	38225	1RB#12	23.72	PASS
Band38	5MHz	16QAM	38225	1RB#24	23.56	PASS
Band38	5MHz	16QAM	38225	12RB#0	22.34	PASS
Band38	5MHz	16QAM	38225	12RB#6	22.34	PASS
Band38	5MHz	16QAM	38225	12RB#13	22.33	PASS
Band38	5MHz	16QAM	38225	25RB#0	22.39	PASS
Band38	10MHz	QPSK	37800	1RB#0	24.20	PASS
Band38	10MHz	QPSK	37800	1RB#24	24.27	PASS
Band38	10MHz	QPSK	37800	1RB#49	24.08	PASS
Band38	10MHz	QPSK	37800	25RB#0	23.14	PASS
Band38	10MHz	QPSK	37800	25RB#12	23.14	PASS
Band38	10MHz	QPSK	37800	25RB#25	23.21	PASS
Band38	10MHz	QPSK	37800	50RB#0	23.14	PASS
Band38	10MHz	QPSK	38000	1RB#0	24.35	PASS
Band38	10MHz	QPSK	38000	1RB#24	24.43	PASS
Band38	10MHz	QPSK	38000	1RB#49	24.35	PASS
Band38	10MHz	QPSK	38000	25RB#0	23.28	PASS
Band38	10MHz	QPSK	38000	25RB#12	23.27	PASS
Band38	10MHz	QPSK	38000	25RB#25	23.36	PASS
Band38	10MHz	QPSK	38000	50RB#0	23.44	PASS
Band38	10MHz	QPSK	38200	1RB#0	24.47	PASS
Band38	10MHz	QPSK	38200	1RB#24	24.48	PASS
Band38	10MHz	QPSK	38200	1RB#49	24.41	PASS
Band38	10MHz	QPSK	38200	25RB#0	23.36	PASS
Band38	10MHz	QPSK	38200	25RB#12	23.35	PASS
Band38	10MHz	QPSK	38200	25RB#25	23.35	PASS
Band38	10MHz	QPSK	38200	50RB#0	23.44	PASS
Band38	10MHz	16QAM	37800	1RB#0	23.55	PASS
Band38	10MHz	16QAM	37800	1RB#24	23.65	PASS
Band38	10MHz	16QAM	37800	1RB#49	23.47	PASS
Band38	10MHz	16QAM	37800	25RB#0	22.10	PASS
Band38	10MHz	16QAM	37800	25RB#12	22.09	PASS
Band38	10MHz	16QAM	37800	25RB#25	22.14	PASS
Band38	10MHz	16QAM	38000	1RB#0	23.63	PASS
Band38	10MHz	16QAM	38000	1RB#24	23.79	PASS
Band38	10MHz	16QAM	38000	1RB#49	23.59	PASS
Band38	10MHz	16QAM	38000	25RB#0	22.31	PASS
Band38	10MHz	16QAM	38000	25RB#12	22.34	PASS
Band38	10MHz	16QAM	38000	25RB#25	22.38	PASS
Band38	10MHz	16QAM	38200	1RB#0	23.69	PASS
Band38	10MHz	16QAM	38200	1RB#24	23.74	PASS
Band38	10MHz	16QAM	38200	1RB#49	23.54	PASS
Band38	10MHz	16QAM	38200	25RB#0	22.44	PASS

Band38	10MHz	16QAM	38200	25RB#12	22.43	PASS
Band38	10MHz	16QAM	38200	25RB#25	22.44	PASS
Band38	15MHz	QPSK	37825	1RB#0	24.51	PASS
Band38	15MHz	QPSK	37825	1RB#38	24.54	PASS
Band38	15MHz	QPSK	37825	1RB#74	24.43	PASS
Band38	15MHz	QPSK	37825	38RB#0	23.43	PASS
Band38	15MHz	QPSK	37825	38RB#18	23.50	PASS
Band38	15MHz	QPSK	37825	38RB#37	23.47	PASS
Band38	15MHz	QPSK	37825	75RB#0	23.45	PASS
Band38	15MHz	QPSK	38000	1RB#0	24.55	PASS
Band38	15MHz	QPSK	38000	1RB#38	24.64	PASS
Band38	15MHz	QPSK	38000	1RB#74	24.56	PASS
Band38	15MHz	QPSK	38000	38RB#0	23.63	PASS
Band38	15MHz	QPSK	38000	38RB#18	23.59	PASS
Band38	15MHz	QPSK	38000	38RB#37	23.57	PASS
Band38	15MHz	QPSK	38000	75RB#0	23.68	PASS
Band38	15MHz	QPSK	38175	1RB#0	24.59	PASS
Band38	15MHz	QPSK	38175	1RB#38	24.61	PASS
Band38	15MHz	QPSK	38175	1RB#74	24.38	PASS
Band38	15MHz	QPSK	38175	38RB#0	23.63	PASS
Band38	15MHz	QPSK	38175	38RB#18	23.60	PASS
Band38	15MHz	QPSK	38175	38RB#37	23.58	PASS
Band38	15MHz	QPSK	38175	75RB#0	23.69	PASS
Band38	15MHz	16QAM	37825	1RB#0	23.78	PASS
Band38	15MHz	16QAM	37825	1RB#38	23.79	PASS
Band38	15MHz	16QAM	37825	1RB#74	23.73	PASS
Band38	15MHz	16QAM	37825	38RB#0	23.51	PASS
Band38	15MHz	16QAM	37825	38RB#18	23.48	PASS
Band38	15MHz	16QAM	37825	38RB#37	23.46	PASS
Band38	15MHz	16QAM	38000	1RB#0	23.86	PASS
Band38	15MHz	16QAM	38000	1RB#38	23.94	PASS
Band38	15MHz	16QAM	38000	1RB#74	23.91	PASS
Band38	15MHz	16QAM	38000	38RB#0	23.61	PASS
Band38	15MHz	16QAM	38000	38RB#18	23.58	PASS
Band38	15MHz	16QAM	38000	38RB#37	23.61	PASS
Band38	15MHz	16QAM	38175	1RB#0	23.80	PASS
Band38	15MHz	16QAM	38175	1RB#38	23.92	PASS
Band38	15MHz	16QAM	38175	1RB#74	23.74	PASS
Band38	15MHz	16QAM	38175	38RB#0	23.61	PASS
Band38	15MHz	16QAM	38175	38RB#18	23.59	PASS
Band38	15MHz	16QAM	38175	38RB#37	23.57	PASS
Band38	20MHz	QPSK	37850	1RB#0	24.36	PASS
Band38	20MHz	QPSK	37850	1RB#49	24.48	PASS

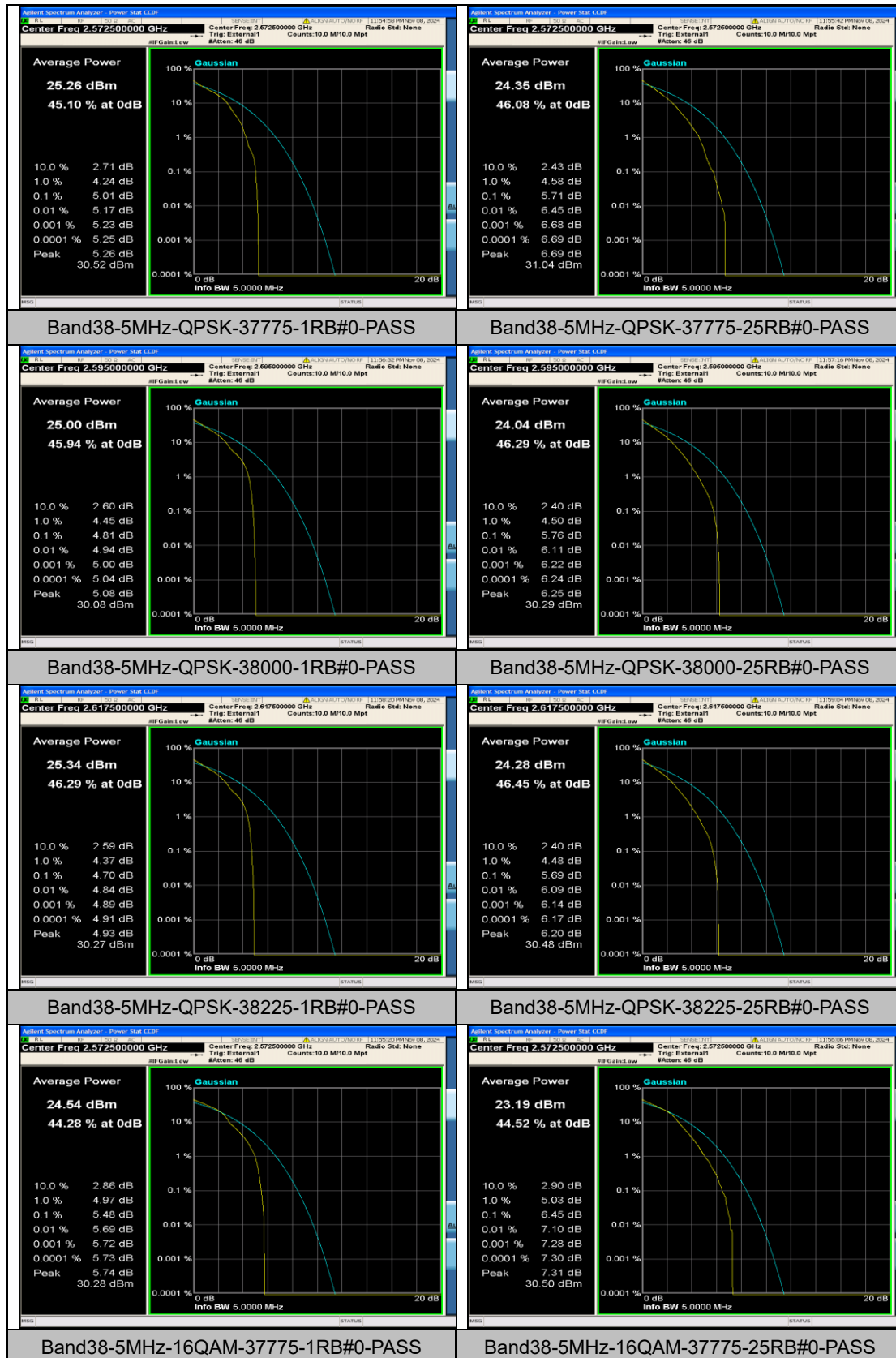
Band38	20MHz	QPSK	37850	1RB#99	24.18	PASS
Band38	20MHz	QPSK	37850	50RB#0	23.39	PASS
Band38	20MHz	QPSK	37850	50RB#25	23.35	PASS
Band38	20MHz	QPSK	37850	50RB#50	23.38	PASS
Band38	20MHz	QPSK	37850	100RB#0	23.41	PASS
Band38	20MHz	QPSK	38000	1RB#0	24.46	PASS
Band38	20MHz	QPSK	38000	1RB#49	24.55	PASS
Band38	20MHz	QPSK	38000	1RB#99	24.44	PASS
Band38	20MHz	QPSK	38000	50RB#0	23.59	PASS
Band38	20MHz	QPSK	38000	50RB#25	23.52	PASS
Band38	20MHz	QPSK	38000	50RB#50	23.50	PASS
Band38	20MHz	QPSK	38000	100RB#0	23.52	PASS
Band38	20MHz	QPSK	38150	1RB#0	24.54	PASS
Band38	20MHz	QPSK	38150	1RB#49	24.77	PASS
Band38	20MHz	QPSK	38150	1RB#99	24.55	PASS
Band38	20MHz	QPSK	38150	50RB#0	23.66	PASS
Band38	20MHz	QPSK	38150	50RB#25	23.59	PASS
Band38	20MHz	QPSK	38150	50RB#50	23.70	PASS
Band38	20MHz	QPSK	38150	100RB#0	23.61	PASS
Band38	20MHz	16QAM	37850	1RB#0	23.56	PASS
Band38	20MHz	16QAM	37850	1RB#49	23.60	PASS
Band38	20MHz	16QAM	37850	1RB#99	23.31	PASS
Band38	20MHz	16QAM	38000	1RB#0	23.53	PASS
Band38	20MHz	16QAM	38000	1RB#49	23.77	PASS
Band38	20MHz	16QAM	38000	1RB#99	23.62	PASS
Band38	20MHz	16QAM	38150	1RB#0	23.67	PASS
Band38	20MHz	16QAM	38150	1RB#49	23.85	PASS
Band38	20MHz	16QAM	38150	1RB#99	23.58	PASS

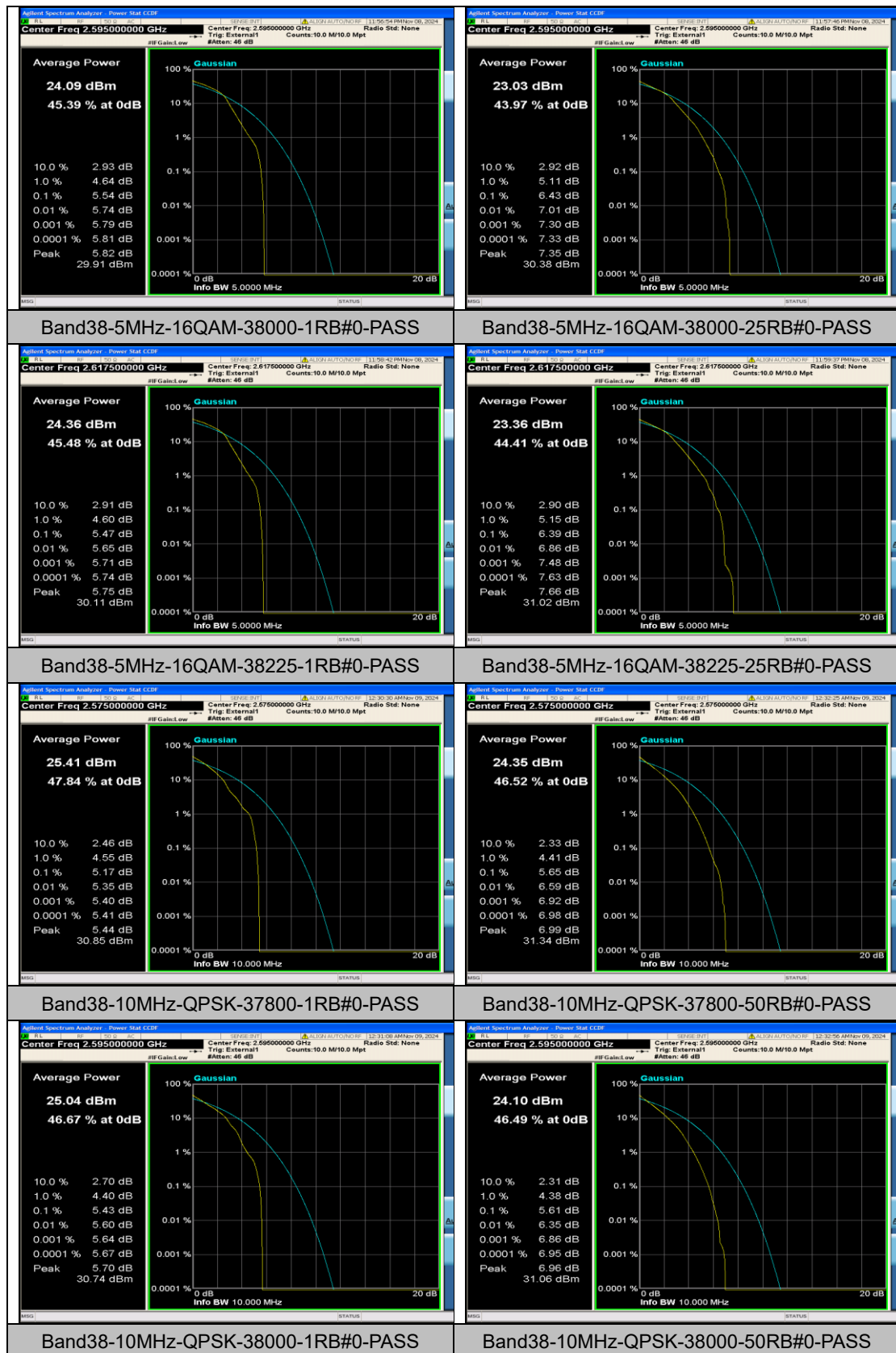
Appendix B: Peak-to-Average Ratio(CCDF)

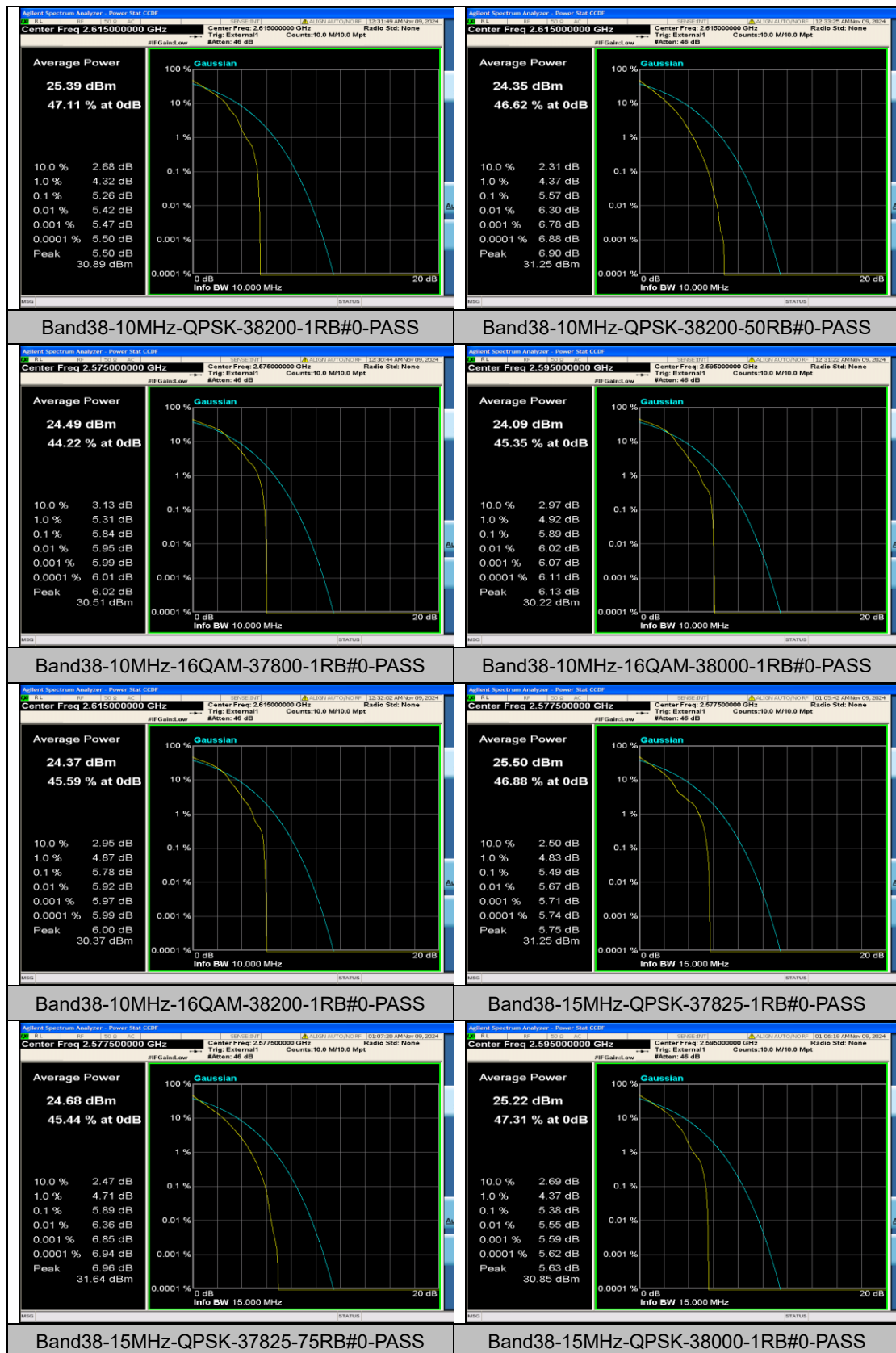
Test Result

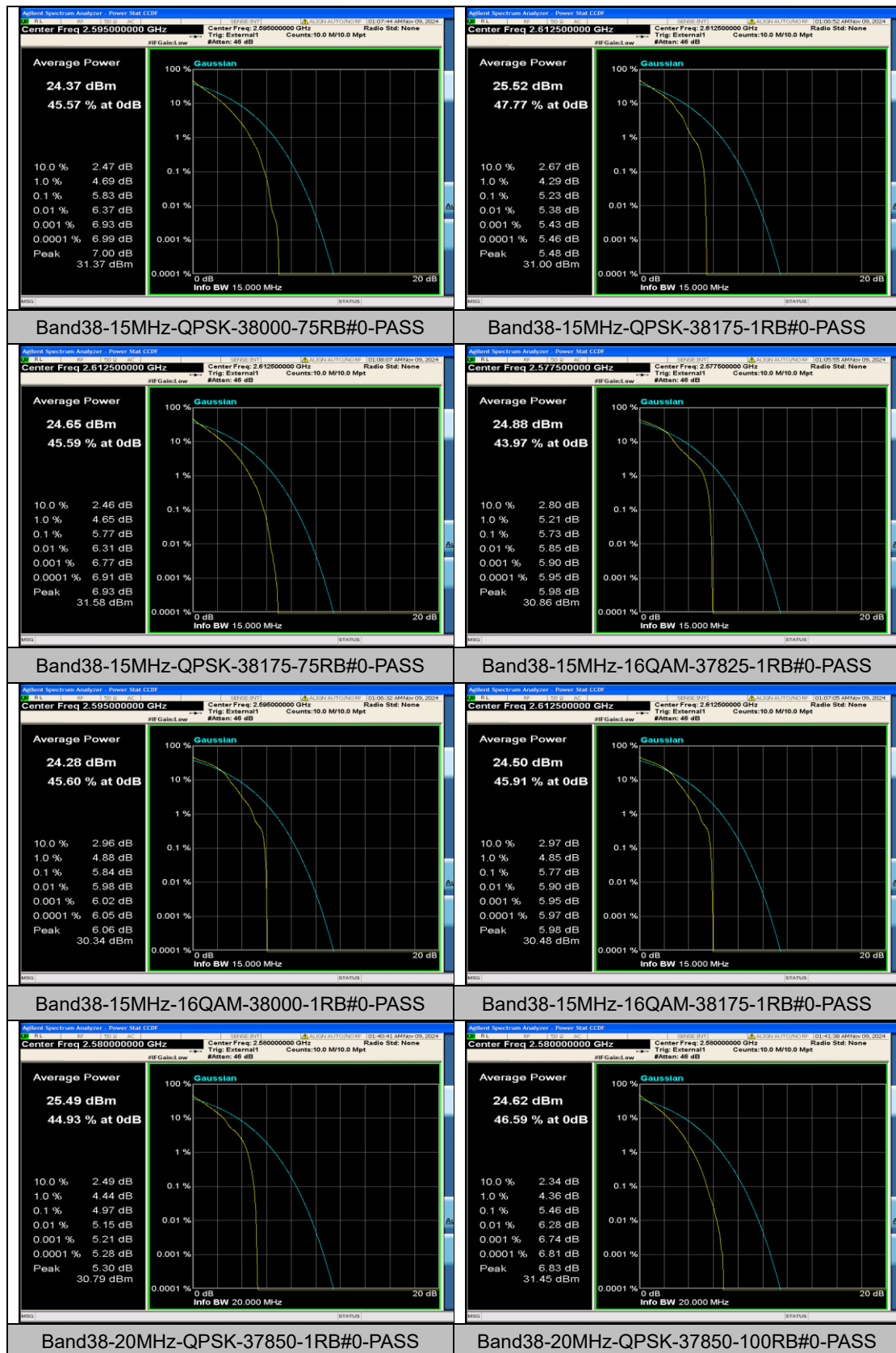
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	5.01	13	PASS
Band38	5MHz	QPSK	37775	25RB#0	5.71	13	PASS
Band38	5MHz	QPSK	38000	1RB#0	4.81	13	PASS
Band38	5MHz	QPSK	38000	25RB#0	5.76	13	PASS
Band38	5MHz	QPSK	38225	1RB#0	4.70	13	PASS
Band38	5MHz	QPSK	38225	25RB#0	5.69	13	PASS
Band38	5MHz	16QAM	37775	1RB#0	5.48	13	PASS
Band38	5MHz	16QAM	37775	25RB#0	6.45	13	PASS
Band38	5MHz	16QAM	38000	1RB#0	5.54	13	PASS
Band38	5MHz	16QAM	38000	25RB#0	6.43	13	PASS
Band38	5MHz	16QAM	38225	1RB#0	5.47	13	PASS
Band38	5MHz	16QAM	38225	25RB#0	6.39	13	PASS
Band38	10MHz	QPSK	37800	1RB#0	5.17	13	PASS
Band38	10MHz	QPSK	37800	50RB#0	5.65	13	PASS
Band38	10MHz	QPSK	38000	1RB#0	5.43	13	PASS
Band38	10MHz	QPSK	38000	50RB#0	5.61	13	PASS
Band38	10MHz	QPSK	38200	1RB#0	5.26	13	PASS
Band38	10MHz	QPSK	38200	50RB#0	5.57	13	PASS
Band38	10MHz	16QAM	37800	1RB#0	5.84	13	PASS
Band38	10MHz	16QAM	38000	1RB#0	5.89	13	PASS
Band38	10MHz	16QAM	38200	1RB#0	5.78	13	PASS
Band38	15MHz	QPSK	37825	1RB#0	5.49	13	PASS
Band38	15MHz	QPSK	37825	75RB#0	5.89	13	PASS
Band38	15MHz	QPSK	38000	1RB#0	5.38	13	PASS
Band38	15MHz	QPSK	38000	75RB#0	5.83	13	PASS
Band38	15MHz	QPSK	38175	1RB#0	5.23	13	PASS
Band38	15MHz	QPSK	38175	75RB#0	5.77	13	PASS
Band38	15MHz	16QAM	37825	1RB#0	5.73	13	PASS
Band38	15MHz	16QAM	38000	1RB#0	5.84	13	PASS
Band38	15MHz	16QAM	38175	1RB#0	5.77	13	PASS
Band38	20MHz	QPSK	37850	1RB#0	4.97	13	PASS
Band38	20MHz	QPSK	37850	100RB#0	5.46	13	PASS
Band38	20MHz	QPSK	38000	1RB#0	4.99	13	PASS
Band38	20MHz	QPSK	38000	100RB#0	5.49	13	PASS
Band38	20MHz	QPSK	38150	1RB#0	4.92	13	PASS
Band38	20MHz	QPSK	38150	100RB#0	5.44	13	PASS

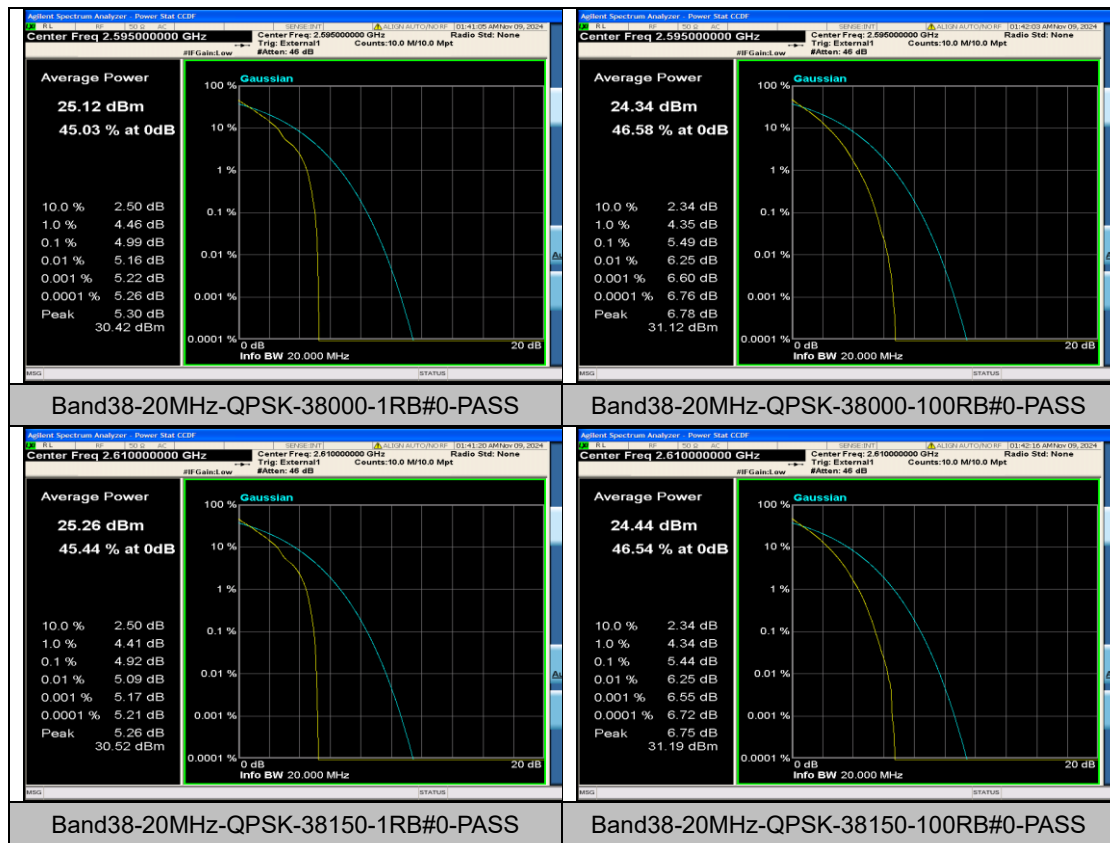
Test Graphs









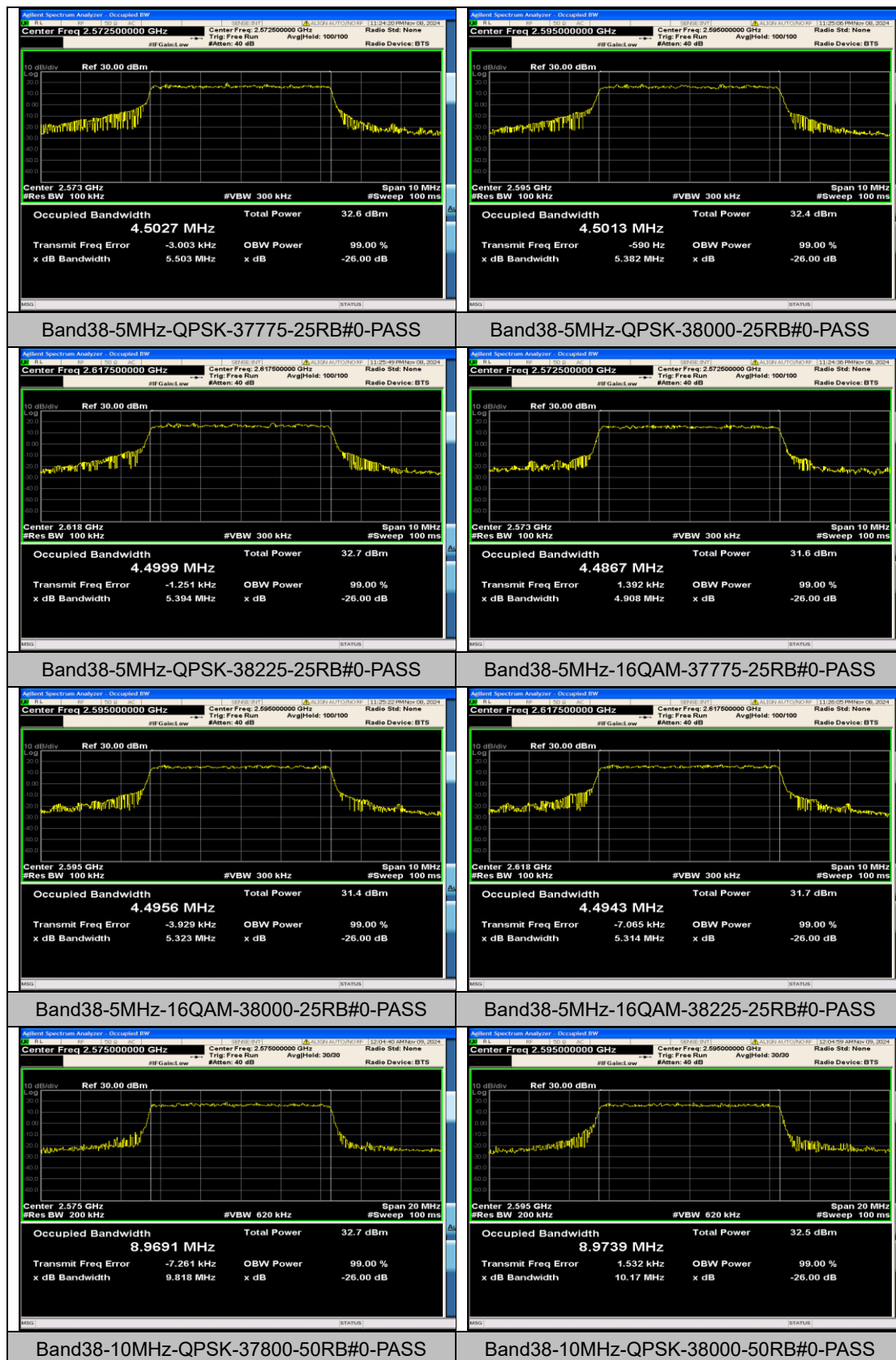


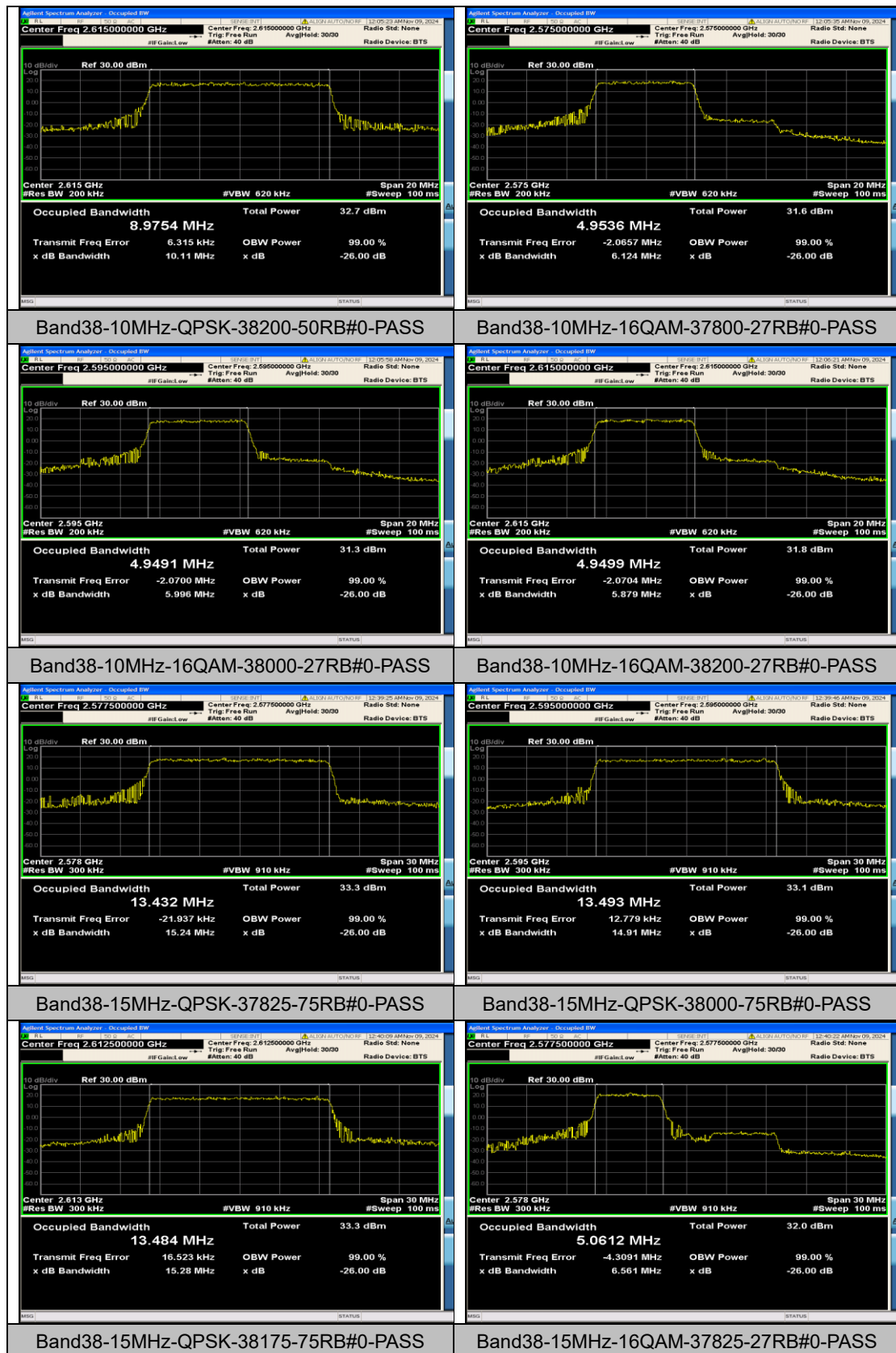
Appendix C: 26dB Bandwidth and Occupied Bandwidth

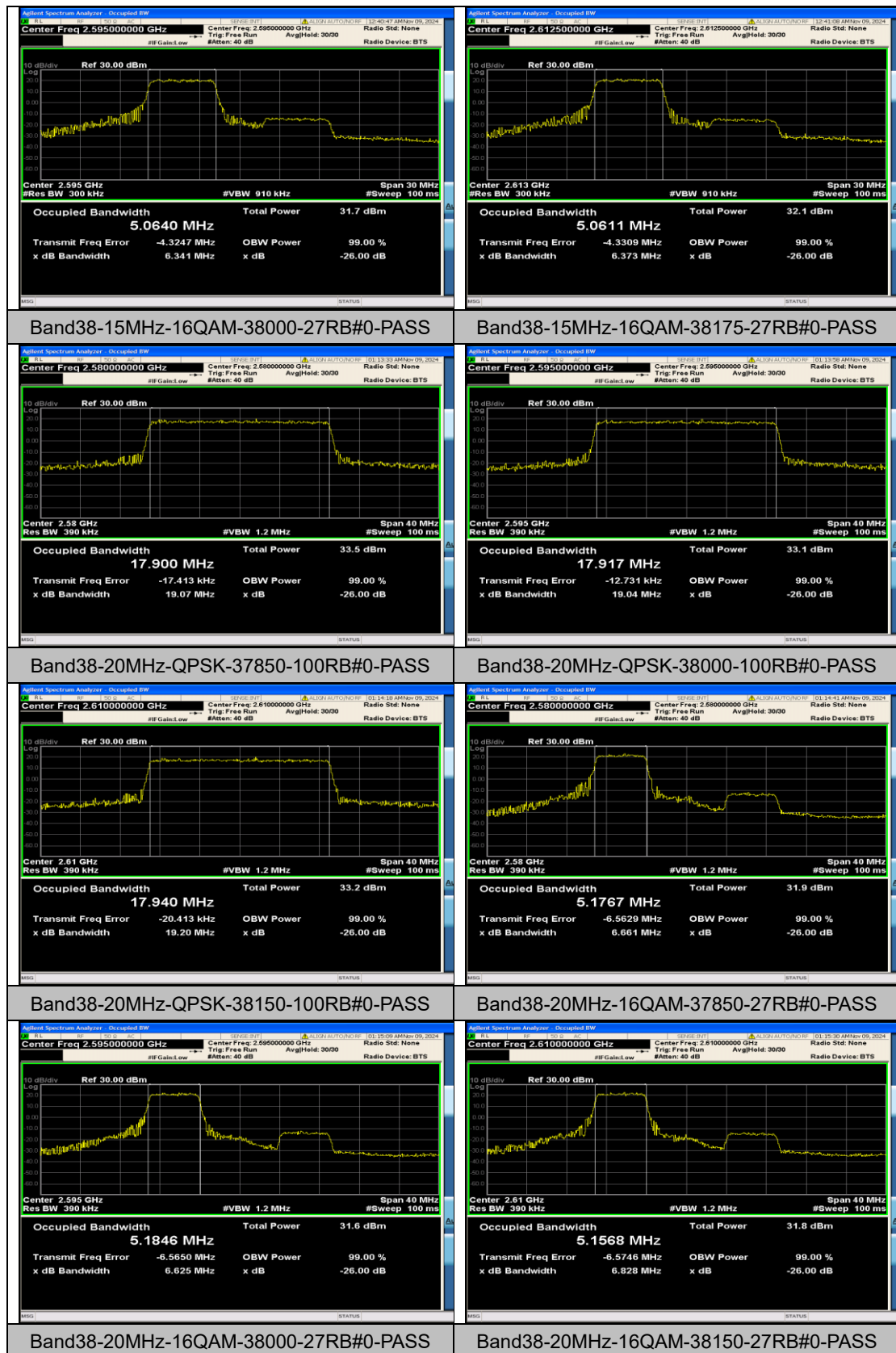
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band38	5MHz	QPSK	37775	25RB#0	4.5027	5.503	PASS
Band38	5MHz	QPSK	38000	25RB#0	4.5013	5.382	PASS
Band38	5MHz	QPSK	38225	25RB#0	4.4999	5.394	PASS
Band38	5MHz	16QAM	37775	25RB#0	4.4867	4.908	PASS
Band38	5MHz	16QAM	38000	25RB#0	4.4956	5.323	PASS
Band38	5MHz	16QAM	38225	25RB#0	4.4943	5.314	PASS
Band38	10MHz	QPSK	37800	50RB#0	8.9691	9.818	PASS
Band38	10MHz	QPSK	38000	50RB#0	8.9739	10.17	PASS
Band38	10MHz	QPSK	38200	50RB#0	8.9754	10.11	PASS
Band38	10MHz	16QAM	37800	27RB#0	4.9536	6.124	PASS
Band38	10MHz	16QAM	38000	27RB#0	4.9491	5.996	PASS
Band38	10MHz	16QAM	38200	27RB#0	4.9499	5.879	PASS
Band38	15MHz	QPSK	37825	75RB#0	13.432	15.24	PASS
Band38	15MHz	QPSK	38000	75RB#0	13.493	14.91	PASS
Band38	15MHz	QPSK	38175	75RB#0	13.484	15.28	PASS
Band38	15MHz	16QAM	37825	27RB#0	5.0612	6.561	PASS
Band38	15MHz	16QAM	38000	27RB#0	5.0640	6.341	PASS
Band38	15MHz	16QAM	38175	27RB#0	5.0611	6.373	PASS
Band38	20MHz	QPSK	37850	100RB#0	17.900	19.07	PASS
Band38	20MHz	QPSK	38000	100RB#0	17.917	19.04	PASS
Band38	20MHz	QPSK	38150	100RB#0	17.940	19.20	PASS
Band38	20MHz	16QAM	37850	27RB#0	5.1767	6.661	PASS
Band38	20MHz	16QAM	38000	27RB#0	5.1846	6.625	PASS
Band38	20MHz	16QAM	38150	27RB#0	5.1568	6.828	PASS

Test Graphs







Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	-37.78	PASS
Band38	5MHz	QPSK	37775	1RB#24	-40.78	PASS
Band38	5MHz	QPSK	37775	25RB#0	-36.84	PASS
Band38	5MHz	QPSK	38225	1RB#0	-40.60	PASS
Band38	5MHz	QPSK	38225	1RB#24	-21.36	PASS
Band38	5MHz	QPSK	38225	25RB#0	-36.93	PASS
Band38	5MHz	16QAM	37775	1RB#0	-38.14	PASS
Band38	5MHz	16QAM	37775	1RB#24	-41.01	PASS
Band38	5MHz	16QAM	37775	25RB#0	-37.70	PASS
Band38	5MHz	16QAM	38225	1RB#0	-40.88	PASS
Band38	5MHz	16QAM	38225	1RB#24	-38.11	PASS
Band38	5MHz	16QAM	38225	25RB#0	-37.36	PASS
Band38	10MHz	QPSK	37800	1RB#0	-40.35	PASS
Band38	10MHz	QPSK	37800	1RB#49	-42.38	PASS
Band38	10MHz	QPSK	37800	50RB#0	-38.55	PASS
Band38	10MHz	QPSK	38200	1RB#0	-41.96	PASS
Band38	10MHz	QPSK	38200	1RB#49	-40.30	PASS
Band38	10MHz	QPSK	38200	50RB#0	-37.92	PASS
Band38	10MHz	16QAM	37800	1RB#0	-41.16	PASS
Band38	10MHz	16QAM	37800	1RB#49	-42.38	PASS
Band38	10MHz	16QAM	38200	1RB#0	-41.96	PASS
Band38	10MHz	16QAM	38200	1RB#49	-40.59	PASS
Band38	15MHz	QPSK	37825	1RB#0	-42.54	PASS
Band38	15MHz	QPSK	37825	1RB#74	-42.62	PASS
Band38	15MHz	QPSK	37825	75RB#0	-37.92	PASS
Band38	15MHz	QPSK	38175	1RB#0	-41.91	PASS
Band38	15MHz	QPSK	38175	1RB#74	-41.69	PASS
Band38	15MHz	QPSK	38175	75RB#0	-37.59	PASS
Band38	15MHz	16QAM	37825	1RB#0	-42.53	PASS
Band38	15MHz	16QAM	37825	1RB#74	-42.73	PASS
Band38	15MHz	16QAM	38175	1RB#0	-41.72	PASS
Band38	15MHz	16QAM	38175	1RB#74	-41.73	PASS
Band38	20MHz	QPSK	37850	1RB#0	-39.73	PASS
Band38	20MHz	QPSK	37850	1RB#99	-42.67	PASS
Band38	20MHz	QPSK	37850	100RB#0	-39.88	PASS
Band38	20MHz	QPSK	38150	1RB#0	-41.92	PASS

Band38	20MHz	QPSK	38150	1RB#99	-40.84	PASS
Band38	20MHz	QPSK	38150	100RB#0	-39.80	PASS
Band38	20MHz	16QAM	37850	1RB#0	-40.49	PASS
Band38	20MHz	16QAM	37850	1RB#99	-42.69	PASS
Band38	20MHz	16QAM	38150	1RB#0	-41.98	PASS
Band38	20MHz	16QAM	38150	1RB#99	-41.24	PASS

Test Graphs

