



LORA multi-function positioning terminal

M/N:KG-04

FCC ID:2AQSK-KG-04

Applicant:HuiZhou BoShiJie Technology CO.,Ltd

Appendix for LTE Band 38



Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	22.82	PASS
Band38	5MHz	16QAM	37775	1RB#0	21.86	PASS
Band38	5MHz	QPSK	37775	1RB#12	22.93	PASS
Band38	5MHz	16QAM	37775	1RB#12	21.99	PASS
Band38	5MHz	QPSK	37775	1RB#24	22.34	PASS
Band38	5MHz	16QAM	37775	1RB#24	21.39	PASS
Band38	5MHz	QPSK	37775	12RB#0	22.78	PASS
Band38	5MHz	16QAM	37775	12RB#0	21.76	PASS
Band38	5MHz	QPSK	37775	12RB#6	22.77	PASS
Band38	5MHz	16QAM	37775	12RB#6	21.77	PASS
Band38	5MHz	QPSK	37775	12RB#13	22.48	PASS
Band38	5MHz	16QAM	37775	12RB#13	21.45	PASS
Band38	5MHz	QPSK	37775	25RB#0	22.12	PASS
Band38	5MHz	16QAM	37775	25RB#0	21.15	PASS
Band38	5MHz	QPSK	38000	1RB#0	22.62	PASS
Band38	5MHz	16QAM	38000	1RB#0	21.91	PASS
Band38	5MHz	QPSK	38000	1RB#12	22.96	PASS
Band38	5MHz	16QAM	38000	1RB#12	22.37	PASS
Band38	5MHz	QPSK	38000	1RB#24	22.73	PASS
Band38	5MHz	16QAM	38000	1RB#24	22.09	PASS
Band38	5MHz	QPSK	38000	12RB#0	22.70	PASS
Band38	5MHz	16QAM	38000	12RB#0	21.73	PASS
Band38	5MHz	QPSK	38000	12RB#6	22.70	PASS
Band38	5MHz	16QAM	38000	12RB#6	21.72	PASS
Band38	5MHz	QPSK	38000	12RB#13	22.77	PASS
Band38	5MHz	16QAM	38000	12RB#13	21.77	PASS
Band38	5MHz	QPSK	38000	25RB#0	22.11	PASS
Band38	5MHz	16QAM	38000	25RB#0	21.13	PASS
Band38	5MHz	QPSK	38225	1RB#0	22.76	PASS
Band38	5MHz	16QAM	38225	1RB#0	21.89	PASS
Band38	5MHz	QPSK	38225	1RB#12	23.26	PASS
Band38	5MHz	16QAM	38225	1RB#12	22.43	PASS
Band38	5MHz	QPSK	38225	1RB#24	22.60	PASS
Band38	5MHz	16QAM	38225	1RB#24	21.77	PASS
Band38	5MHz	QPSK	38225	12RB#0	22.92	PASS
Band38	5MHz	16QAM	38225	12RB#0	21.95	PASS



Band38	5MHz	QPSK	38225	12RB#6	22.91	PASS
Band38	5MHz	16QAM	38225	12RB#6	21.95	PASS
Band38	5MHz	QPSK	38225	12RB#13	22.83	PASS
Band38	5MHz	16QAM	38225	12RB#13	21.82	PASS
Band38	5MHz	QPSK	38225	25RB#0	22.46	PASS
Band38	5MHz	16QAM	38225	25RB#0	21.48	PASS
Band38	10MHz	QPSK	37800	1RB#0	22.43	PASS
Band38	10MHz	16QAM	37800	1RB#0	21.61	PASS
Band38	10MHz	QPSK	37800	1RB#24	22.72	PASS
Band38	10MHz	16QAM	37800	1RB#24	21.92	PASS
Band38	10MHz	QPSK	37800	1RB#49	21.58	PASS
Band38	10MHz	16QAM	37800	1RB#49	20.83	PASS
Band38	10MHz	QPSK	37800	25RB#0	22.47	PASS
Band38	10MHz	16QAM	37800	25RB#0	21.54	PASS
Band38	10MHz	QPSK	37800	25RB#12	22.47	PASS
Band38	10MHz	16QAM	37800	25RB#12	21.54	PASS
Band38	10MHz	QPSK	37800	25RB#25	22.06	PASS
Band38	10MHz	16QAM	37800	25RB#25	21.14	PASS
Band38	10MHz	QPSK	38000	1RB#0	22.14	PASS
Band38	10MHz	16QAM	38000	1RB#0	20.79	PASS
Band38	10MHz	QPSK	38000	1RB#24	22.80	PASS
Band38	10MHz	16QAM	38000	1RB#24	21.48	PASS
Band38	10MHz	QPSK	38000	1RB#49	22.39	PASS
Band38	10MHz	16QAM	38000	1RB#49	21.12	PASS
Band38	10MHz	QPSK	38000	25RB#0	22.17	PASS
Band38	10MHz	16QAM	38000	25RB#0	21.22	PASS
Band38	10MHz	QPSK	38000	25RB#12	22.18	PASS
Band38	10MHz	16QAM	38000	25RB#12	21.22	PASS
Band38	10MHz	QPSK	38000	25RB#25	22.63	PASS
Band38	10MHz	16QAM	38000	25RB#25	21.67	PASS
Band38	10MHz	QPSK	38200	1RB#0	22.39	PASS
Band38	10MHz	16QAM	38200	1RB#0	21.28	PASS
Band38	10MHz	QPSK	38200	1RB#24	23.21	PASS
Band38	10MHz	16QAM	38200	1RB#24	22.18	PASS
Band38	10MHz	QPSK	38200	1RB#49	22.22	PASS
Band38	10MHz	16QAM	38200	1RB#49	21.19	PASS
Band38	10MHz	QPSK	38200	25RB#0	22.58	PASS
Band38	10MHz	16QAM	38200	25RB#0	21.59	PASS
Band38	10MHz	QPSK	38200	25RB#12	22.57	PASS
Band38	10MHz	16QAM	38200	25RB#12	21.59	PASS
Band38	10MHz	QPSK	38200	25RB#25	22.73	PASS
Band38	10MHz	16QAM	38200	25RB#25	21.75	PASS



Band38	10MHz	QPSK	37800	50RB#0	21.83	PASS
Band38	10MHz	QPSK	38000	50RB#0	21.91	PASS
Band38	10MHz	QPSK	38200	50RB#0	22.29	PASS
Band38	15MHz	QPSK	37825	1RB#0	22.99	PASS
Band38	15MHz	16QAM	37825	1RB#0	22.21	PASS
Band38	15MHz	QPSK	37825	1RB#38	22.85	PASS
Band38	15MHz	16QAM	37825	1RB#38	22.06	PASS
Band38	15MHz	QPSK	37825	1RB#74	22.10	PASS
Band38	15MHz	16QAM	37825	1RB#74	21.31	PASS
Band38	15MHz	QPSK	37825	38RB#0	22.06	PASS
Band38	15MHz	16QAM	37825	38RB#0	22.04	PASS
Band38	15MHz	QPSK	37825	38RB#18	22.04	PASS
Band38	15MHz	16QAM	37825	38RB#18	22.05	PASS
Band38	15MHz	QPSK	37825	38RB#37	22.04	PASS
Band38	15MHz	16QAM	37825	38RB#37	22.05	PASS
Band38	15MHz	QPSK	38000	1RB#0	22.52	PASS
Band38	15MHz	16QAM	38000	1RB#0	21.28	PASS
Band38	15MHz	QPSK	38000	1RB#38	22.94	PASS
Band38	15MHz	16QAM	38000	1RB#38	21.72	PASS
Band38	15MHz	QPSK	38000	1RB#74	22.95	PASS
Band38	15MHz	16QAM	38000	1RB#74	21.75	PASS
Band38	15MHz	QPSK	38000	38RB#0	22.02	PASS
Band38	15MHz	16QAM	38000	38RB#0	21.97	PASS
Band38	15MHz	QPSK	38000	38RB#18	22.01	PASS
Band38	15MHz	16QAM	38000	38RB#18	21.99	PASS
Band38	15MHz	QPSK	38000	38RB#37	21.98	PASS
Band38	15MHz	16QAM	38000	38RB#37	21.95	PASS
Band38	15MHz	QPSK	38175	1RB#0	22.51	PASS
Band38	15MHz	16QAM	38175	1RB#0	21.67	PASS
Band38	15MHz	QPSK	38175	1RB#38	23.23	PASS
Band38	15MHz	16QAM	38175	1RB#38	22.43	PASS
Band38	15MHz	QPSK	38175	1RB#74	22.65	PASS
Band38	15MHz	16QAM	38175	1RB#74	21.97	PASS
Band38	15MHz	QPSK	38175	38RB#0	22.37	PASS
Band38	15MHz	16QAM	38175	38RB#0	22.35	PASS
Band38	15MHz	QPSK	38175	38RB#18	22.35	PASS
Band38	15MHz	16QAM	38175	38RB#18	22.34	PASS
Band38	15MHz	QPSK	38175	38RB#37	22.34	PASS
Band38	15MHz	16QAM	38175	38RB#37	22.34	PASS
Band38	15MHz	QPSK	37825	75RB#0	22.05	PASS
Band38	15MHz	QPSK	38000	75RB#0	22.03	PASS
Band38	15MHz	QPSK	38175	75RB#0	22.39	PASS



Band38	20MHz	QPSK	37850	1RB#0	22.20	PASS
Band38	20MHz	16QAM	37850	1RB#0	21.26	PASS
Band38	20MHz	QPSK	37850	1RB#49	23.03	PASS
Band38	20MHz	16QAM	37850	1RB#49	22.09	PASS
Band38	20MHz	QPSK	37850	1RB#99	22.07	PASS
Band38	20MHz	16QAM	37850	1RB#99	21.12	PASS
Band38	20MHz	QPSK	38000	1RB#0	22.34	PASS
Band38	20MHz	16QAM	38000	1RB#0	20.94	PASS
Band38	20MHz	QPSK	38000	1RB#49	22.94	PASS
Band38	20MHz	16QAM	38000	1RB#49	21.56	PASS
Band38	20MHz	QPSK	38000	1RB#99	22.92	PASS
Band38	20MHz	16QAM	38000	1RB#99	21.66	PASS
Band38	20MHz	QPSK	38150	1RB#0	22.33	PASS
Band38	20MHz	16QAM	38150	1RB#0	21.13	PASS
Band38	20MHz	QPSK	38150	1RB#49	23.49	PASS
Band38	20MHz	16QAM	38150	1RB#49	22.29	PASS
Band38	20MHz	QPSK	38150	1RB#99	22.99	PASS
Band38	20MHz	16QAM	38150	1RB#99	21.68	PASS
Band38	20MHz	QPSK	37850	50RB#0	23.09	PASS
Band38	20MHz	QPSK	37850	50RB#25	23.08	PASS
Band38	20MHz	QPSK	37850	50RB#50	22.82	PASS
Band38	20MHz	QPSK	37850	100RB#0	22.03	PASS
Band38	20MHz	QPSK	38000	50RB#0	22.39	PASS
Band38	20MHz	QPSK	38000	50RB#25	22.48	PASS
Band38	20MHz	QPSK	38000	50RB#50	23.30	PASS
Band38	20MHz	QPSK	38000	100RB#0	21.99	PASS
Band38	20MHz	QPSK	38150	50RB#0	22.83	PASS
Band38	20MHz	QPSK	38150	50RB#25	22.79	PASS
Band38	20MHz	QPSK	38150	50RB#50	23.52	PASS
Band38	20MHz	QPSK	38150	100RB#0	22.26	PASS



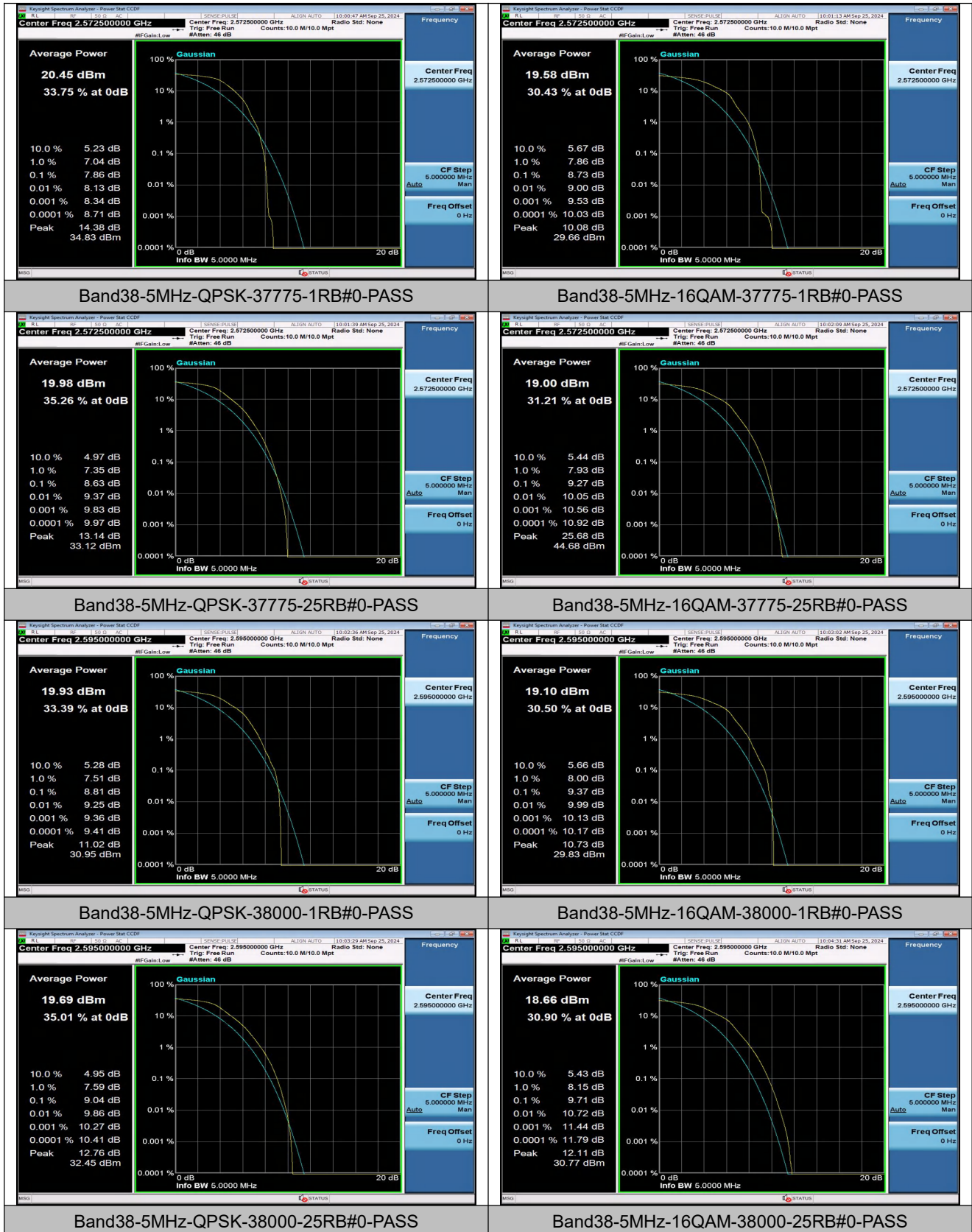
Appendix B: Peak-to-Average Ratio(CCDF)

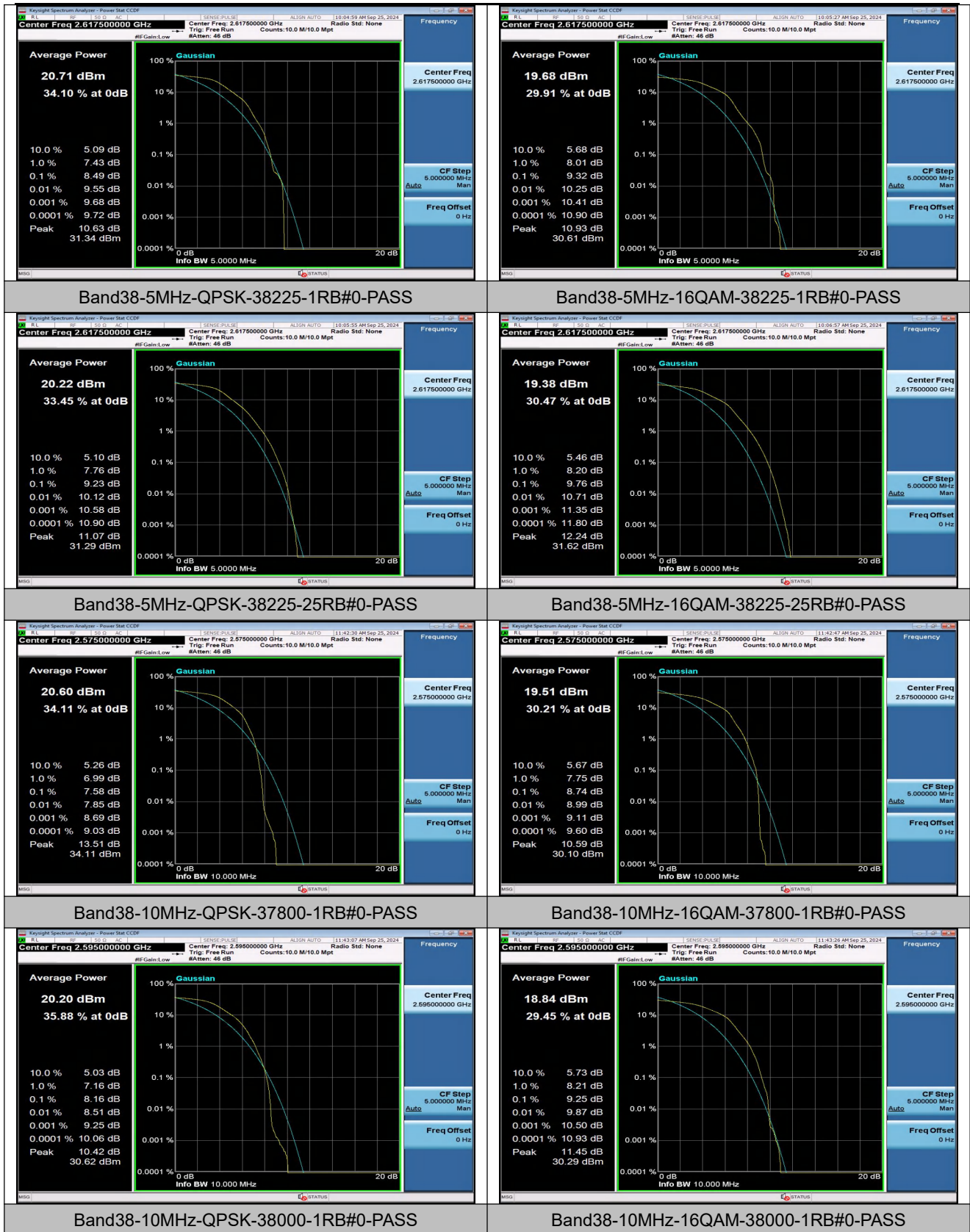
Test Result

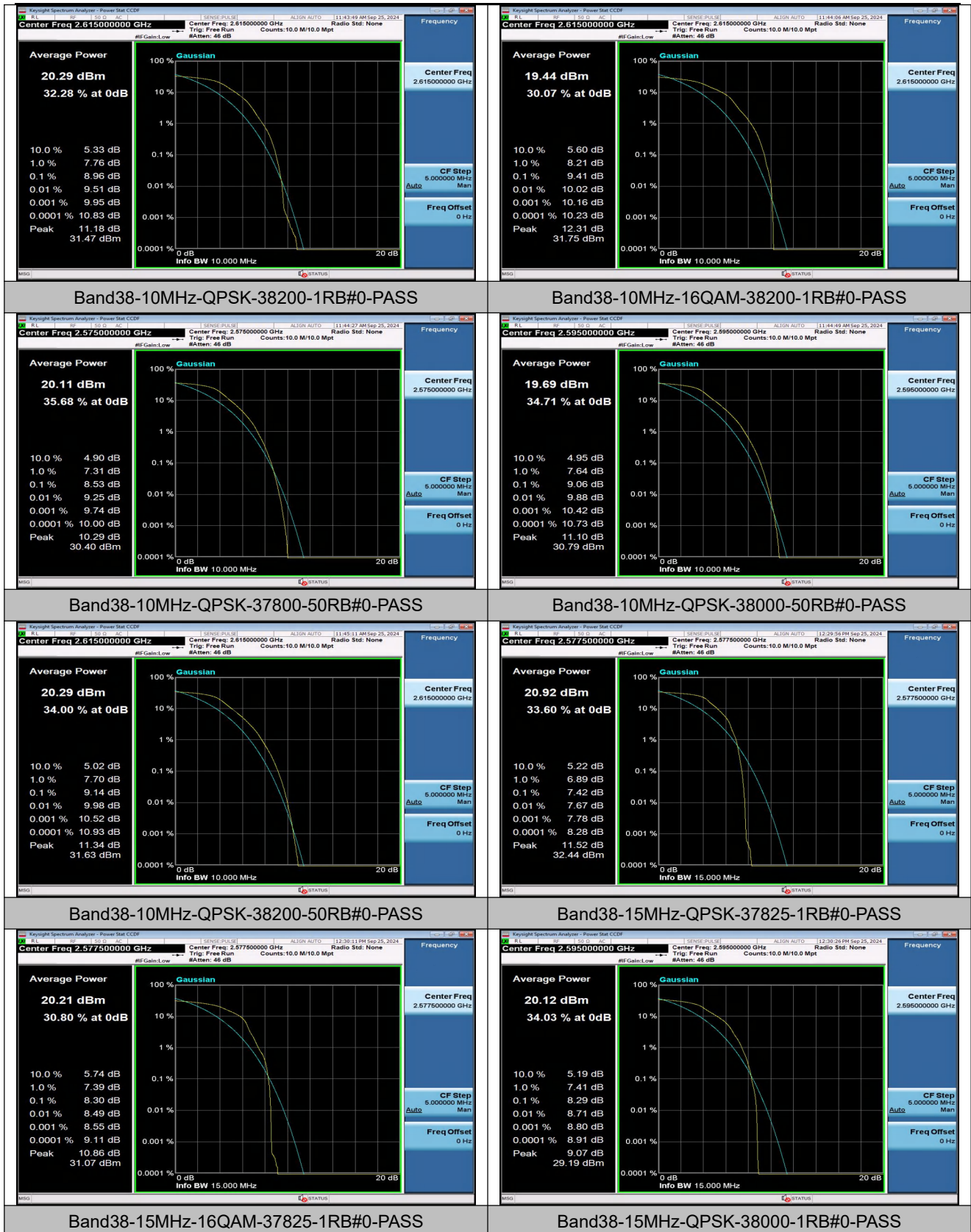
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	7.86	13	PASS
Band38	5MHz	16QAM	37775	1RB#0	8.73	13	PASS
Band38	5MHz	QPSK	37775	25RB#0	8.63	13	PASS
Band38	5MHz	16QAM	37775	25RB#0	9.27	13	PASS
Band38	5MHz	QPSK	38000	1RB#0	8.81	13	PASS
Band38	5MHz	16QAM	38000	1RB#0	9.37	13	PASS
Band38	5MHz	QPSK	38000	25RB#0	9.04	13	PASS
Band38	5MHz	16QAM	38000	25RB#0	9.71	13	PASS
Band38	5MHz	QPSK	38225	1RB#0	8.49	13	PASS
Band38	5MHz	16QAM	38225	1RB#0	9.32	13	PASS
Band38	5MHz	QPSK	38225	25RB#0	9.23	13	PASS
Band38	5MHz	16QAM	38225	25RB#0	9.76	13	PASS
Band38	10MHz	QPSK	37800	1RB#0	7.58	13	PASS
Band38	10MHz	16QAM	37800	1RB#0	8.74	13	PASS
Band38	10MHz	QPSK	38000	1RB#0	8.16	13	PASS
Band38	10MHz	16QAM	38000	1RB#0	9.25	13	PASS
Band38	10MHz	QPSK	38200	1RB#0	8.96	13	PASS
Band38	10MHz	16QAM	38200	1RB#0	9.41	13	PASS
Band38	10MHz	QPSK	37800	50RB#0	8.53	13	PASS
Band38	10MHz	QPSK	38000	50RB#0	9.06	13	PASS
Band38	10MHz	QPSK	38200	50RB#0	9.14	13	PASS
Band38	15MHz	QPSK	37825	1RB#0	7.42	13	PASS
Band38	15MHz	16QAM	37825	1RB#0	8.30	13	PASS
Band38	15MHz	QPSK	38000	1RB#0	8.29	13	PASS
Band38	15MHz	16QAM	38000	1RB#0	9.93	13	PASS
Band38	15MHz	QPSK	38175	1RB#0	8.53	13	PASS
Band38	15MHz	16QAM	38175	1RB#0	9.24	13	PASS
Band38	15MHz	QPSK	37825	75RB#0	9.06	13	PASS
Band38	15MHz	QPSK	38000	75RB#0	9.33	13	PASS
Band38	15MHz	QPSK	38175	75RB#0	9.55	13	PASS
Band38	20MHz	QPSK	37850	1RB#0	7.83	13	PASS
Band38	20MHz	QPSK	38000	1RB#0	7.94	13	PASS
Band38	20MHz	QPSK	38150	1RB#0	8.52	13	PASS
Band38	20MHz	QPSK	37850	100RB#0	8.92	13	PASS
Band38	20MHz	QPSK	38000	100RB#0	9.12	13	PASS
Band38	20MHz	QPSK	38150	100RB#0	9.10	13	PASS

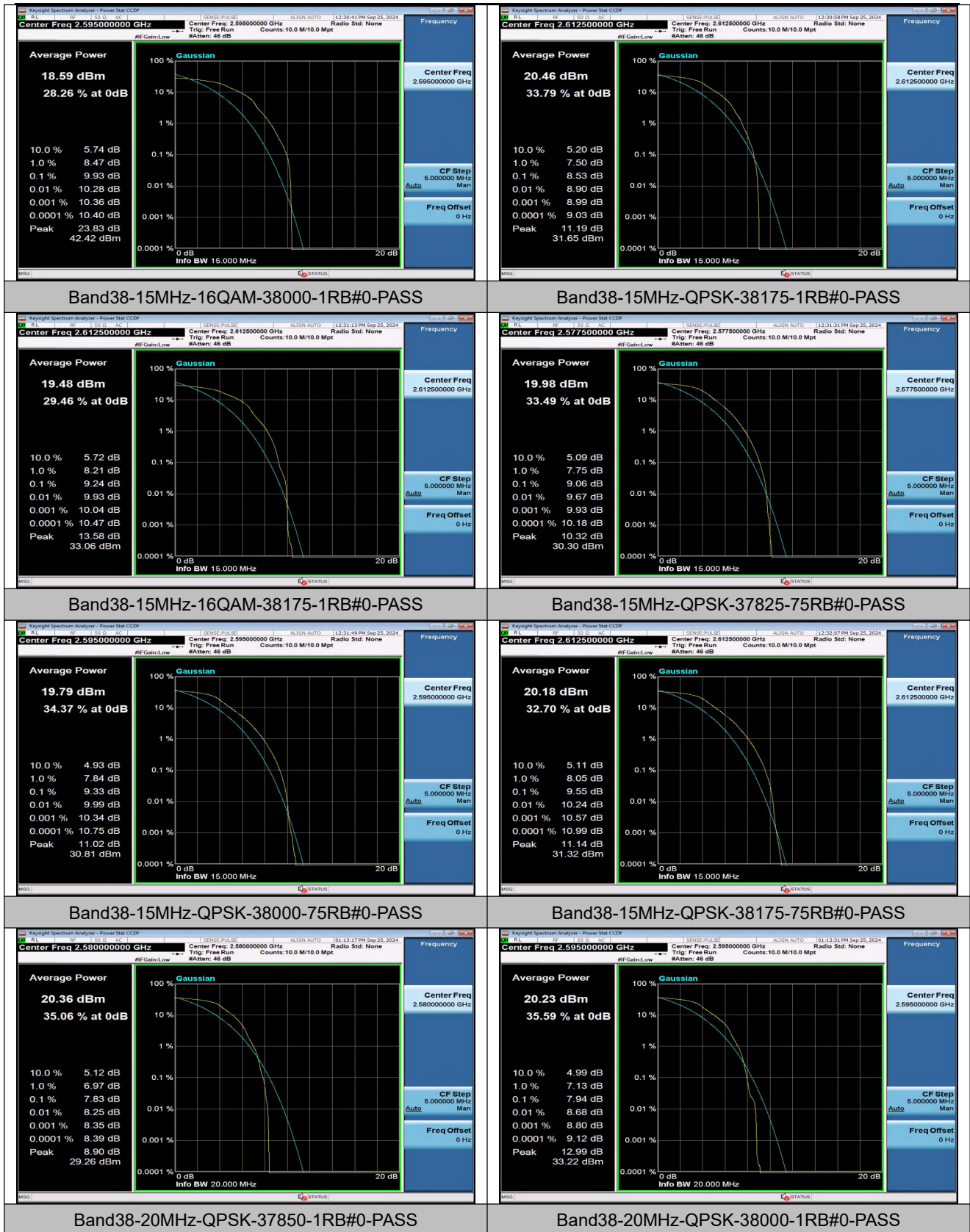


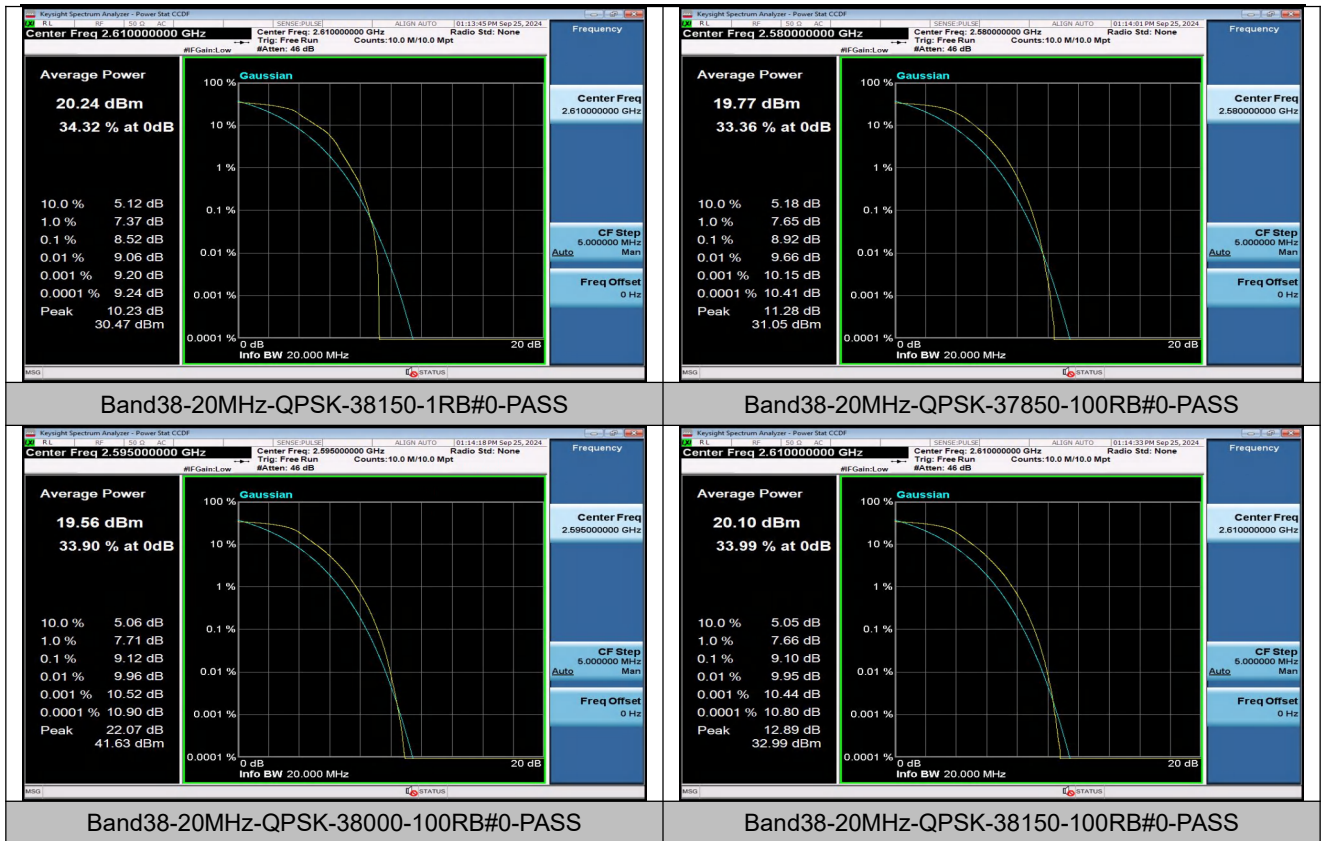
Test Graphs













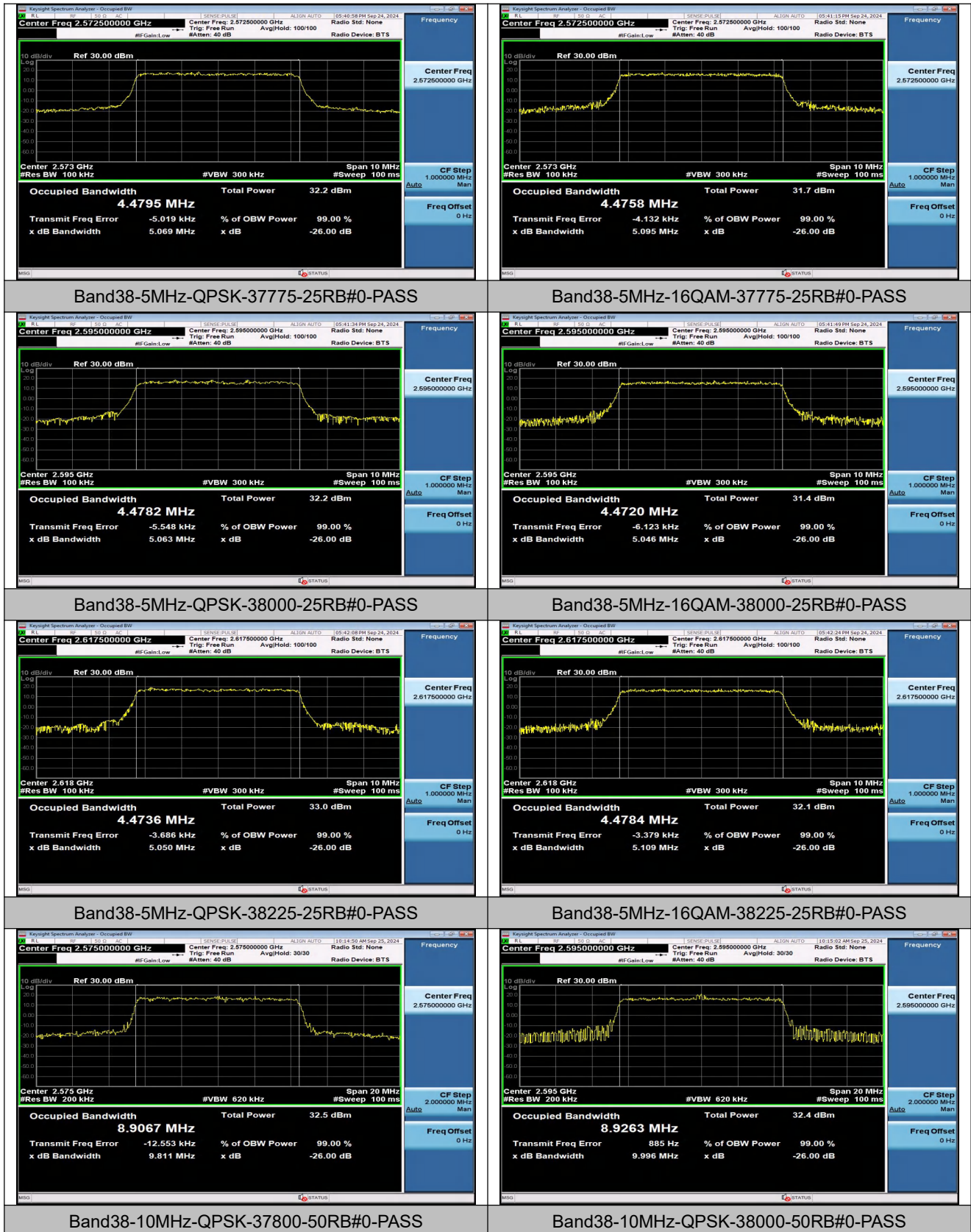
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band38	5MHz	QPSK	37775	25RB#0	4.4795	5.069	PASS
Band38	5MHz	16QAM	37775	25RB#0	4.4758	5.095	PASS
Band38	5MHz	QPSK	38000	25RB#0	4.4782	5.063	PASS
Band38	5MHz	16QAM	38000	25RB#0	4.4720	5.046	PASS
Band38	5MHz	QPSK	38225	25RB#0	4.4736	5.050	PASS
Band38	5MHz	16QAM	38225	25RB#0	4.4784	5.109	PASS
Band38	10MHz	QPSK	37800	50RB#0	8.9067	9.811	PASS
Band38	10MHz	QPSK	38000	50RB#0	8.9263	9.996	PASS
Band38	10MHz	QPSK	38200	50RB#0	8.9013	9.666	PASS
Band38	15MHz	QPSK	37825	75RB#0	13.499	15.41	PASS
Band38	15MHz	QPSK	38000	75RB#0	13.545	15.58	PASS
Band38	15MHz	QPSK	38175	75RB#0	13.496	15.58	PASS
Band38	20MHz	QPSK	37850	100RB#0	17.994	21.08	PASS
Band38	20MHz	QPSK	38000	100RB#0	18.050	20.43	PASS
Band38	20MHz	QPSK	38150	100RB#0	17.985	20.90	PASS



Test Graphs





Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	-22.82	PASS
Band38	5MHz	16QAM	37775	1RB#0	-23.31	PASS
Band38	5MHz	QPSK	37775	1RB#24	-39.95	PASS
Band38	5MHz	16QAM	37775	1RB#24	-40.38	PASS
Band38	5MHz	QPSK	37775	25RB#0	-36.43	PASS
Band38	5MHz	16QAM	37775	25RB#0	-37.20	PASS
Band38	5MHz	QPSK	38225	1RB#0	-39.82	PASS
Band38	5MHz	16QAM	38225	1RB#0	-39.95	PASS
Band38	5MHz	QPSK	38225	1RB#24	-23.08	PASS
Band38	5MHz	16QAM	38225	1RB#24	-24.26	PASS
Band38	5MHz	QPSK	38225	25RB#0	-36.15	PASS
Band38	5MHz	16QAM	38225	25RB#0	-37.44	PASS
Band38	10MHz	QPSK	37800	1RB#0	-38.23	PASS
Band38	10MHz	16QAM	37800	1RB#0	-38.92	PASS
Band38	10MHz	QPSK	37800	1RB#49	-39.28	PASS
Band38	10MHz	16QAM	37800	1RB#49	-39.61	PASS
Band38	10MHz	QPSK	38200	1RB#0	-39.41	PASS
Band38	10MHz	16QAM	38200	1RB#0	-39.68	PASS
Band38	10MHz	QPSK	38200	1RB#49	-39.41	PASS
Band38	10MHz	16QAM	38200	1RB#49	-39.53	PASS
Band38	10MHz	QPSK	37800	50RB#0	-36.73	PASS
Band38	10MHz	QPSK	38200	50RB#0	-37.32	PASS
Band38	15MHz	QPSK	37825	1RB#0	-38.68	PASS
Band38	15MHz	16QAM	37825	1RB#0	-38.93	PASS
Band38	15MHz	QPSK	37825	1RB#74	-27.12	PASS
Band38	15MHz	16QAM	37825	1RB#74	-40.64	PASS
Band38	15MHz	QPSK	38175	1RB#0	-40.38	PASS
Band38	15MHz	16QAM	38175	1RB#0	-40.41	PASS
Band38	15MHz	QPSK	38175	1RB#74	-39.21	PASS
Band38	15MHz	16QAM	38175	1RB#74	-39.36	PASS
Band38	15MHz	QPSK	37825	75RB#0	-36.22	PASS
Band38	15MHz	QPSK	38175	75RB#0	-37.22	PASS
Band38	20MHz	QPSK	37850	1RB#0	-40.36	PASS
Band38	20MHz	16QAM	37850	1RB#0	-40.61	PASS
Band38	20MHz	QPSK	37850	1RB#99	-23.57	PASS
Band38	20MHz	16QAM	37850	1RB#99	-26.41	PASS