

Appendix RF Test Data for LTE Band 7

Company : Shenzhen Tuqiang IoT Technology Co., Ltd.

EUT : Mobile IoT terminal

Model Number : B502

FCC ID : 2BTQO-B502

Report No. : CTA25122200405

Reviewed By : Eric Wang

Appendix A: Conducted Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	23.39	PASS
Band7	5MHz	QPSK	20775	1RB#12	23.90	PASS
Band7	5MHz	QPSK	20775	1RB#24	23.65	PASS
Band7	5MHz	QPSK	20775	12RB#0	22.69	PASS
Band7	5MHz	QPSK	20775	12RB#6	22.68	PASS
Band7	5MHz	QPSK	20775	12RB#13	22.72	PASS
Band7	5MHz	QPSK	20775	25RB#0	22.76	PASS
Band7	5MHz	QPSK	21100	1RB#0	23.81	PASS
Band7	5MHz	QPSK	21100	1RB#12	24.07	PASS
Band7	5MHz	QPSK	21100	1RB#24	23.67	PASS
Band7	5MHz	QPSK	21100	12RB#0	22.70	PASS
Band7	5MHz	QPSK	21100	12RB#6	22.72	PASS
Band7	5MHz	QPSK	21100	12RB#13	22.78	PASS
Band7	5MHz	QPSK	21100	25RB#0	22.77	PASS
Band7	5MHz	QPSK	21425	1RB#0	23.39	PASS
Band7	5MHz	QPSK	21425	1RB#12	23.67	PASS
Band7	5MHz	QPSK	21425	1RB#24	23.66	PASS
Band7	5MHz	QPSK	21425	12RB#0	22.74	PASS
Band7	5MHz	QPSK	21425	12RB#6	22.75	PASS
Band7	5MHz	QPSK	21425	12RB#13	22.74	PASS
Band7	5MHz	QPSK	21425	25RB#0	22.69	PASS
Band7	5MHz	16QAM	20775	1RB#0	22.10	PASS
Band7	5MHz	16QAM	20775	1RB#12	22.74	PASS
Band7	5MHz	16QAM	20775	1RB#24	22.68	PASS
Band7	5MHz	16QAM	20775	12RB#0	21.78	PASS
Band7	5MHz	16QAM	20775	12RB#6	21.67	PASS
Band7	5MHz	16QAM	20775	12RB#13	21.95	PASS
Band7	5MHz	16QAM	20775	25RB#0	21.94	PASS
Band7	5MHz	16QAM	21100	1RB#0	22.28	PASS
Band7	5MHz	16QAM	21100	1RB#12	22.44	PASS
Band7	5MHz	16QAM	21100	1RB#24	22.33	PASS
Band7	5MHz	16QAM	21100	12RB#0	21.78	PASS
Band7	5MHz	16QAM	21100	12RB#6	21.70	PASS
Band7	5MHz	16QAM	21100	12RB#13	21.76	PASS
Band7	5MHz	16QAM	21100	25RB#0	21.76	PASS
Band7	5MHz	16QAM	21425	1RB#0	22.57	PASS
Band7	5MHz	16QAM	21425	1RB#12	23.17	PASS

Band7	5MHz	16QAM	21425	1RB#24	22.71	PASS
Band7	5MHz	16QAM	21425	12RB#0	21.81	PASS
Band7	5MHz	16QAM	21425	12RB#6	21.76	PASS
Band7	5MHz	16QAM	21425	12RB#13	21.82	PASS
Band7	5MHz	16QAM	21425	25RB#0	21.97	PASS
Band7	10MHz	QPSK	20800	1RB#0	22.14	PASS
Band7	10MHz	QPSK	20800	1RB#24	21.92	PASS
Band7	10MHz	QPSK	20800	1RB#49	21.64	PASS
Band7	10MHz	QPSK	20800	25RB#0	21.12	PASS
Band7	10MHz	QPSK	20800	25RB#12	21.10	PASS
Band7	10MHz	QPSK	20800	25RB#25	21.04	PASS
Band7	10MHz	QPSK	20800	50RB#0	21.02	PASS
Band7	10MHz	QPSK	21100	1RB#0	22.02	PASS
Band7	10MHz	QPSK	21100	1RB#24	22.28	PASS
Band7	10MHz	QPSK	21100	1RB#49	21.84	PASS
Band7	10MHz	QPSK	21100	25RB#0	20.83	PASS
Band7	10MHz	QPSK	21100	25RB#12	20.85	PASS
Band7	10MHz	QPSK	21100	25RB#25	20.82	PASS
Band7	10MHz	QPSK	21100	50RB#0	20.77	PASS
Band7	10MHz	QPSK	21400	1RB#0	21.53	PASS
Band7	10MHz	QPSK	21400	1RB#24	21.60	PASS
Band7	10MHz	QPSK	21400	1RB#49	21.58	PASS
Band7	10MHz	QPSK	21400	25RB#0	20.42	PASS
Band7	10MHz	QPSK	21400	25RB#12	20.46	PASS
Band7	10MHz	QPSK	21400	25RB#25	20.50	PASS
Band7	10MHz	QPSK	21400	50RB#0	20.45	PASS
Band7	10MHz	16QAM	20800	1RB#0	21.07	PASS
Band7	10MHz	16QAM	20800	1RB#24	21.23	PASS
Band7	10MHz	16QAM	20800	1RB#49	20.77	PASS
Band7	10MHz	16QAM	20800	25RB#0	20.04	PASS
Band7	10MHz	16QAM	20800	25RB#12	20.04	PASS
Band7	10MHz	16QAM	20800	25RB#25	20.15	PASS
Band7	10MHz	16QAM	21100	1RB#0	21.05	PASS
Band7	10MHz	16QAM	21100	1RB#24	21.02	PASS
Band7	10MHz	16QAM	21100	1RB#49	20.81	PASS
Band7	10MHz	16QAM	21100	25RB#0	19.89	PASS
Band7	10MHz	16QAM	21100	25RB#12	19.90	PASS
Band7	10MHz	16QAM	21100	25RB#25	19.78	PASS
Band7	10MHz	16QAM	21400	1RB#0	20.59	PASS
Band7	10MHz	16QAM	21400	1RB#24	20.90	PASS
Band7	10MHz	16QAM	21400	1RB#49	21.25	PASS
Band7	10MHz	16QAM	21400	25RB#0	19.37	PASS
Band7	10MHz	16QAM	21400	25RB#12	19.58	PASS

Band7	10MHz	16QAM	21400	25RB#25	19.70	PASS
Band7	15MHz	QPSK	20825	1RB#0	22.22	PASS
Band7	15MHz	QPSK	20825	1RB#38	21.96	PASS
Band7	15MHz	QPSK	20825	1RB#74	22.16	PASS
Band7	15MHz	QPSK	20825	38RB#0	21.14	PASS
Band7	15MHz	QPSK	20825	38RB#18	21.12	PASS
Band7	15MHz	QPSK	20825	38RB#37	21.12	PASS
Band7	15MHz	QPSK	20825	75RB#0	21.11	PASS
Band7	15MHz	QPSK	21100	1RB#0	22.04	PASS
Band7	15MHz	QPSK	21100	1RB#38	21.90	PASS
Band7	15MHz	QPSK	21100	1RB#74	21.43	PASS
Band7	15MHz	QPSK	21100	38RB#0	20.77	PASS
Band7	15MHz	QPSK	21100	38RB#18	20.78	PASS
Band7	15MHz	QPSK	21100	38RB#37	20.78	PASS
Band7	15MHz	QPSK	21100	75RB#0	20.84	PASS
Band7	15MHz	QPSK	21375	1RB#0	21.70	PASS
Band7	15MHz	QPSK	21375	1RB#38	21.24	PASS
Band7	15MHz	QPSK	21375	1RB#74	21.59	PASS
Band7	15MHz	QPSK	21375	38RB#0	20.43	PASS
Band7	15MHz	QPSK	21375	38RB#18	20.44	PASS
Band7	15MHz	QPSK	21375	38RB#37	20.44	PASS
Band7	15MHz	QPSK	21375	75RB#0	20.47	PASS
Band7	15MHz	16QAM	20825	1RB#0	20.78	PASS
Band7	15MHz	16QAM	20825	1RB#38	20.89	PASS
Band7	15MHz	16QAM	20825	1RB#74	21.14	PASS
Band7	15MHz	16QAM	20825	38RB#0	21.12	PASS
Band7	15MHz	16QAM	20825	38RB#18	21.12	PASS
Band7	15MHz	16QAM	20825	38RB#37	21.12	PASS
Band7	15MHz	16QAM	21100	1RB#0	20.89	PASS
Band7	15MHz	16QAM	21100	1RB#38	20.90	PASS
Band7	15MHz	16QAM	21100	1RB#74	20.65	PASS
Band7	15MHz	16QAM	21100	38RB#0	20.78	PASS
Band7	15MHz	16QAM	21100	38RB#18	20.79	PASS
Band7	15MHz	16QAM	21100	38RB#37	20.78	PASS
Band7	15MHz	16QAM	21375	1RB#0	20.50	PASS
Band7	15MHz	16QAM	21375	1RB#38	20.78	PASS
Band7	15MHz	16QAM	21375	1RB#74	20.39	PASS
Band7	15MHz	16QAM	21375	38RB#0	20.44	PASS
Band7	15MHz	16QAM	21375	38RB#18	20.44	PASS
Band7	15MHz	16QAM	21375	38RB#37	20.44	PASS
Band7	20MHz	QPSK	20850	1RB#0	21.97	PASS
Band7	20MHz	QPSK	20850	1RB#49	22.12	PASS
Band7	20MHz	QPSK	20850	1RB#99	21.88	PASS

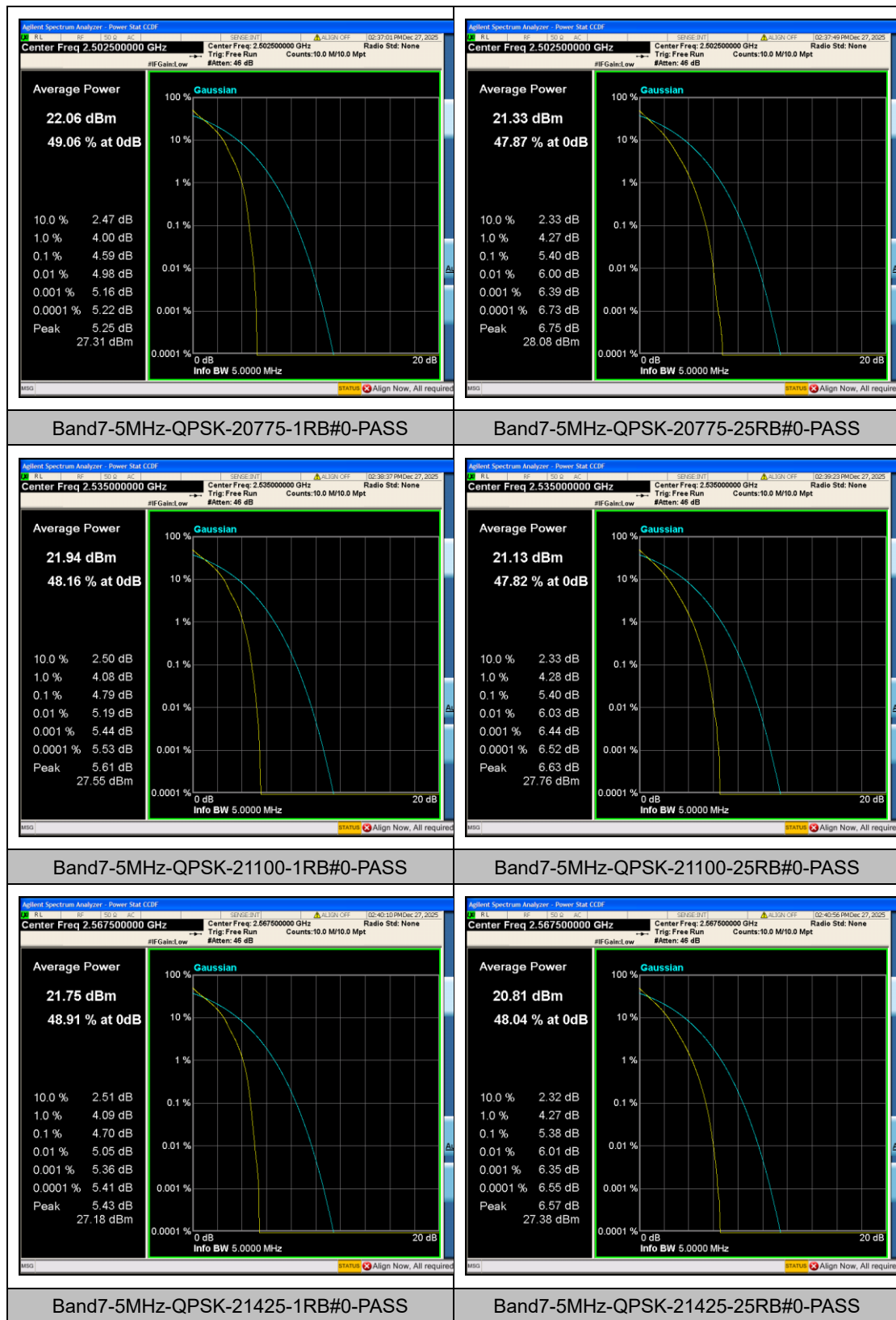
Band7	20MHz	QPSK	20850	50RB#0	21.00	PASS
Band7	20MHz	QPSK	20850	50RB#25	20.99	PASS
Band7	20MHz	QPSK	20850	50RB#50	21.08	PASS
Band7	20MHz	QPSK	20850	100RB#0	21.12	PASS
Band7	20MHz	QPSK	21100	1RB#0	21.94	PASS
Band7	20MHz	QPSK	21100	1RB#49	21.87	PASS
Band7	20MHz	QPSK	21100	1RB#99	21.80	PASS
Band7	20MHz	QPSK	21100	50RB#0	21.00	PASS
Band7	20MHz	QPSK	21100	50RB#25	20.95	PASS
Band7	20MHz	QPSK	21100	50RB#50	20.80	PASS
Band7	20MHz	QPSK	21100	100RB#0	20.80	PASS
Band7	20MHz	QPSK	21350	1RB#0	21.58	PASS
Band7	20MHz	QPSK	21350	1RB#49	22.02	PASS
Band7	20MHz	QPSK	21350	1RB#99	21.41	PASS
Band7	20MHz	QPSK	21350	50RB#0	20.68	PASS
Band7	20MHz	QPSK	21350	50RB#25	20.59	PASS
Band7	20MHz	QPSK	21350	50RB#50	20.39	PASS
Band7	20MHz	QPSK	21350	100RB#0	20.48	PASS
Band7	20MHz	16QAM	20850	1RB#0	21.07	PASS
Band7	20MHz	16QAM	20850	1RB#49	21.00	PASS
Band7	20MHz	16QAM	20850	1RB#99	21.34	PASS
Band7	20MHz	16QAM	21100	1RB#0	21.52	PASS
Band7	20MHz	16QAM	21100	1RB#49	21.69	PASS
Band7	20MHz	16QAM	21100	1RB#99	21.30	PASS
Band7	20MHz	16QAM	21350	1RB#0	20.69	PASS
Band7	20MHz	16QAM	21350	1RB#49	21.02	PASS
Band7	20MHz	16QAM	21350	1RB#99	20.63	PASS

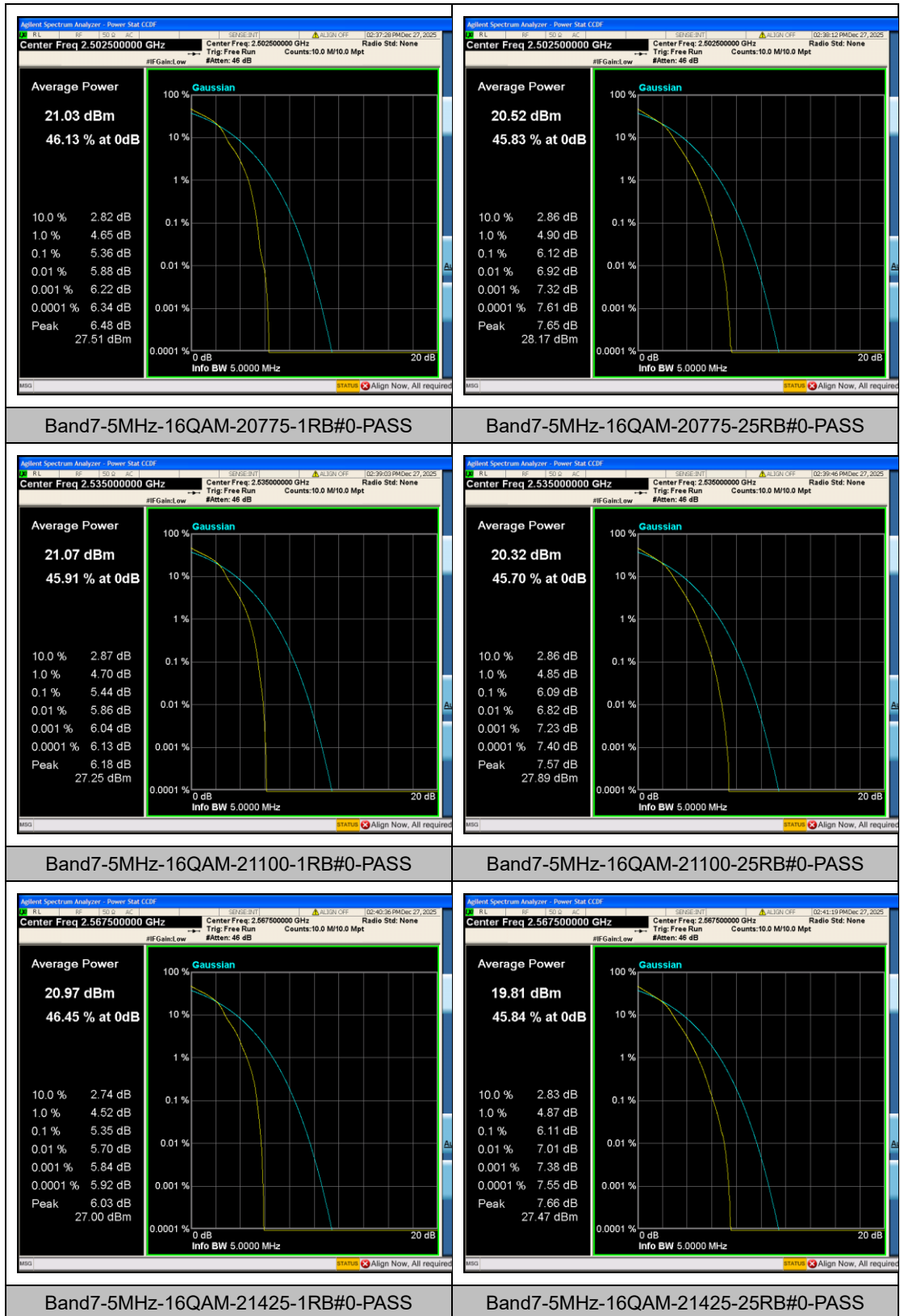
Appendix B: Peak-to-Average Ratio(CCDF)

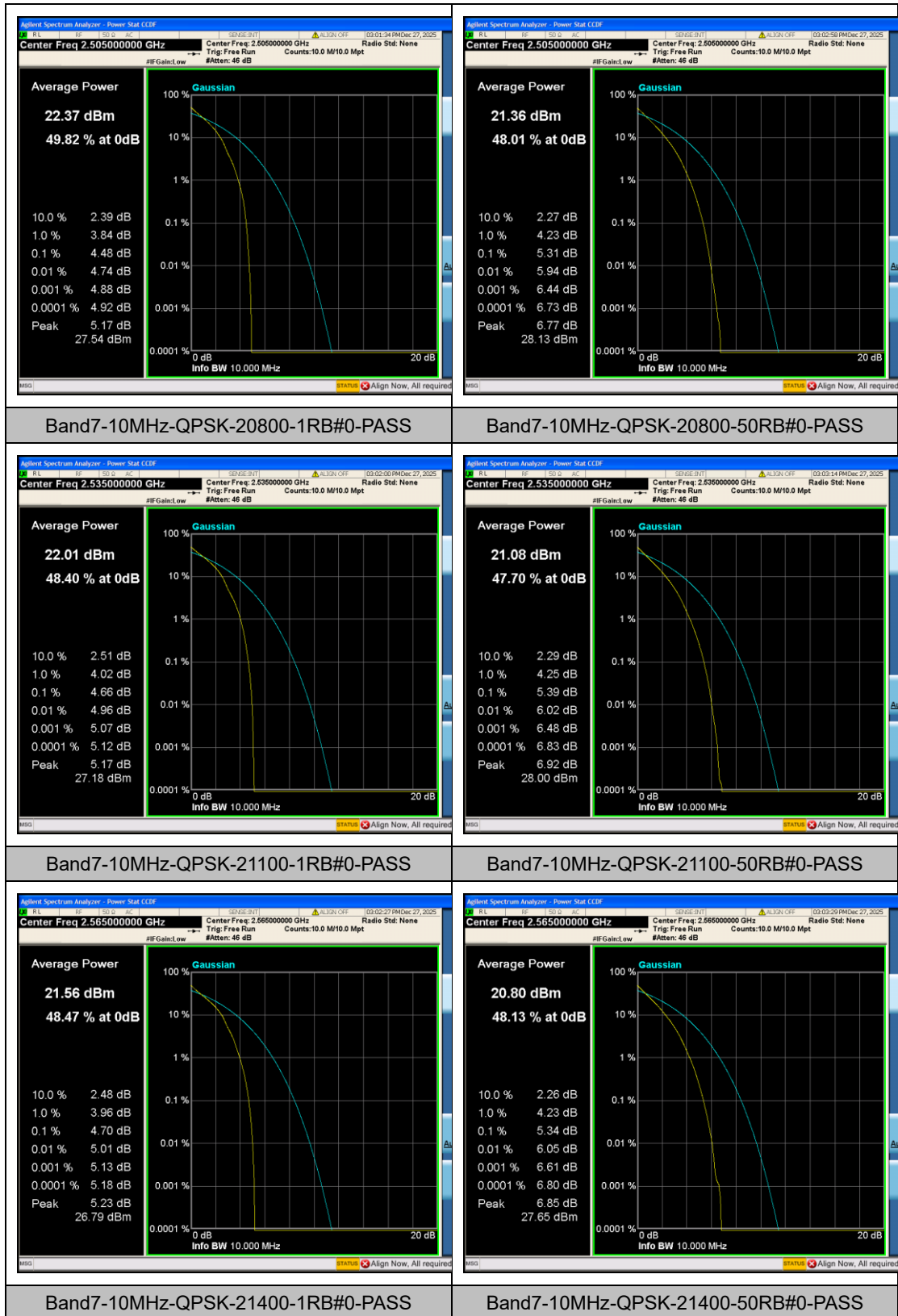
Test Result

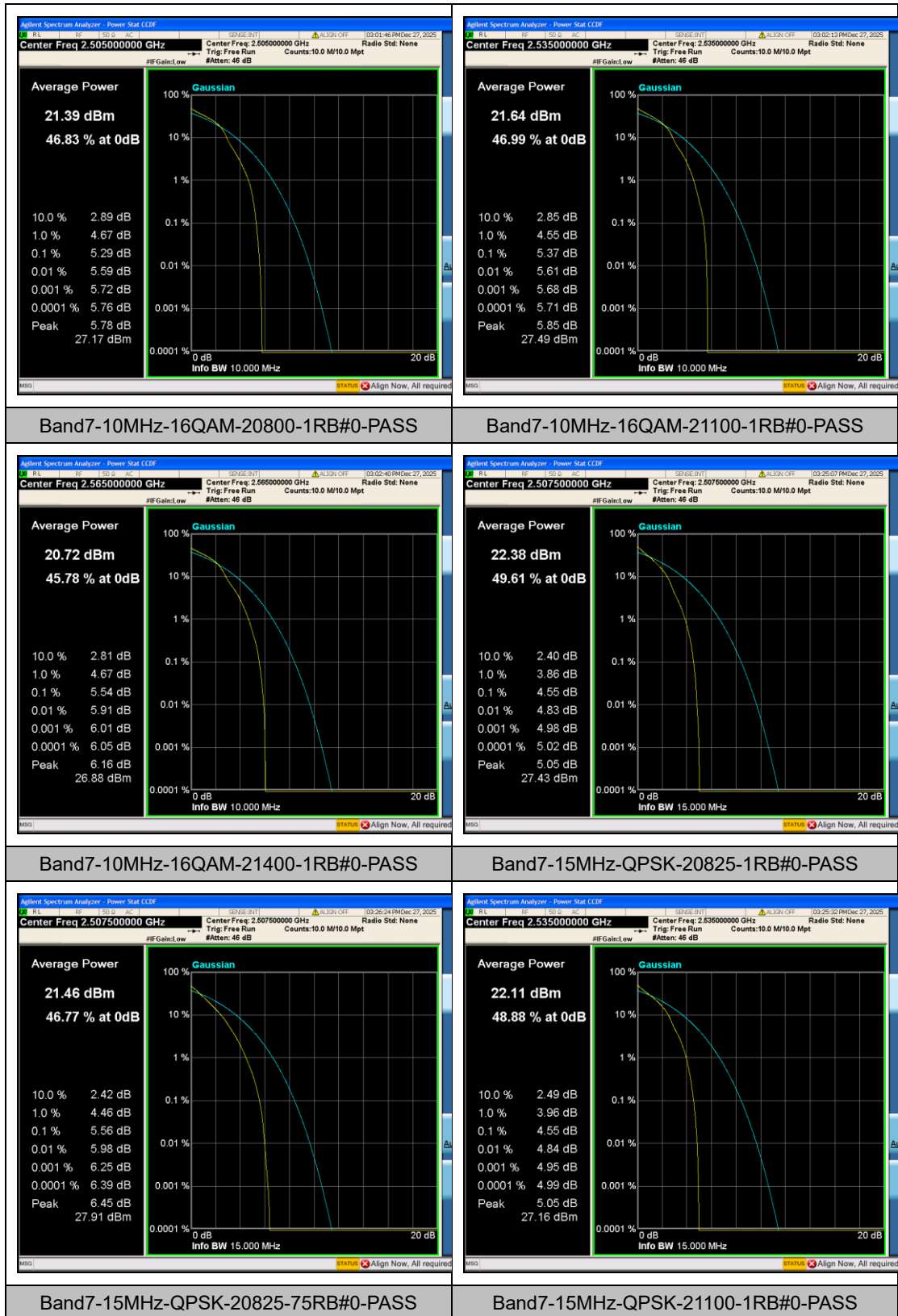
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	4.59	13	PASS
Band7	5MHz	QPSK	20775	25RB#0	5.40	13	PASS
Band7	5MHz	QPSK	21100	1RB#0	4.79	13	PASS
Band7	5MHz	QPSK	21100	25RB#0	5.40	13	PASS
Band7	5MHz	QPSK	21425	1RB#0	4.70	13	PASS
Band7	5MHz	QPSK	21425	25RB#0	5.38	13	PASS
Band7	5MHz	16QAM	20775	1RB#0	5.36	13	PASS
Band7	5MHz	16QAM	20775	25RB#0	6.12	13	PASS
Band7	5MHz	16QAM	21100	1RB#0	5.44	13	PASS
Band7	5MHz	16QAM	21100	25RB#0	6.09	13	PASS
Band7	5MHz	16QAM	21425	1RB#0	5.35	13	PASS
Band7	5MHz	16QAM	21425	25RB#0	6.11	13	PASS
Band7	10MHz	QPSK	20800	1RB#0	4.48	13	PASS
Band7	10MHz	QPSK	20800	50RB#0	5.31	13	PASS
Band7	10MHz	QPSK	21100	1RB#0	4.66	13	PASS
Band7	10MHz	QPSK	21100	50RB#0	5.39	13	PASS
Band7	10MHz	QPSK	21400	1RB#0	4.70	13	PASS
Band7	10MHz	QPSK	21400	50RB#0	5.34	13	PASS
Band7	10MHz	16QAM	20800	1RB#0	5.29	13	PASS
Band7	10MHz	16QAM	21100	1RB#0	5.37	13	PASS
Band7	10MHz	16QAM	21400	1RB#0	5.54	13	PASS
Band7	15MHz	QPSK	20825	1RB#0	4.55	13	PASS
Band7	15MHz	QPSK	20825	75RB#0	5.56	13	PASS
Band7	15MHz	QPSK	21100	1RB#0	4.55	13	PASS
Band7	15MHz	QPSK	21100	75RB#0	5.66	13	PASS
Band7	15MHz	QPSK	21375	1RB#0	4.54	13	PASS
Band7	15MHz	QPSK	21375	75RB#0	5.64	13	PASS
Band7	15MHz	16QAM	20825	1RB#0	5.45	13	PASS
Band7	15MHz	16QAM	21100	1RB#0	5.13	13	PASS
Band7	15MHz	16QAM	21375	1RB#0	5.40	13	PASS
Band7	20MHz	QPSK	20850	1RB#0	4.54	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	5.16	13	PASS
Band7	20MHz	QPSK	21100	1RB#0	4.65	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.33	13	PASS
Band7	20MHz	QPSK	21350	1RB#0	4.31	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	5.25	13	PASS

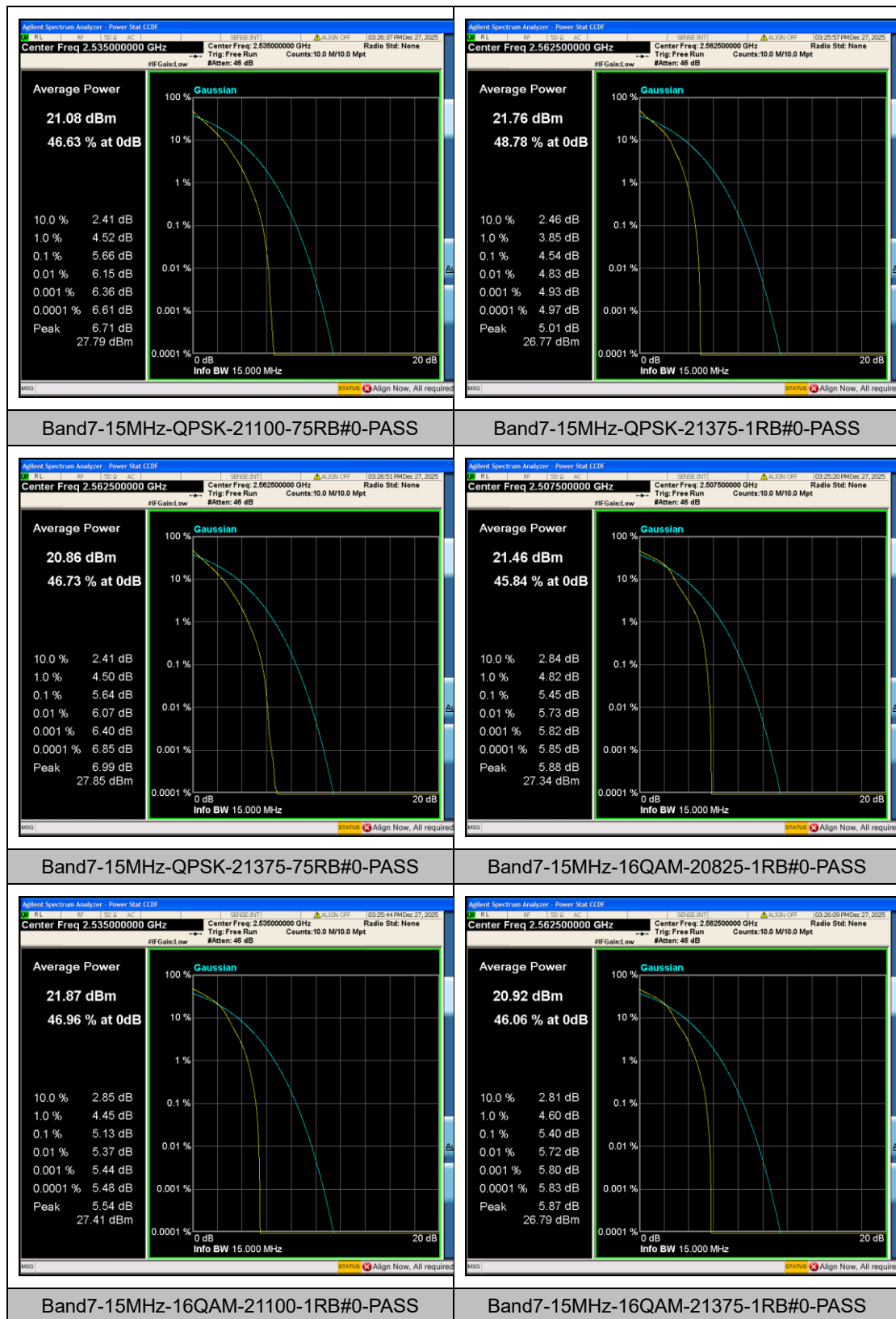
Test Graphs

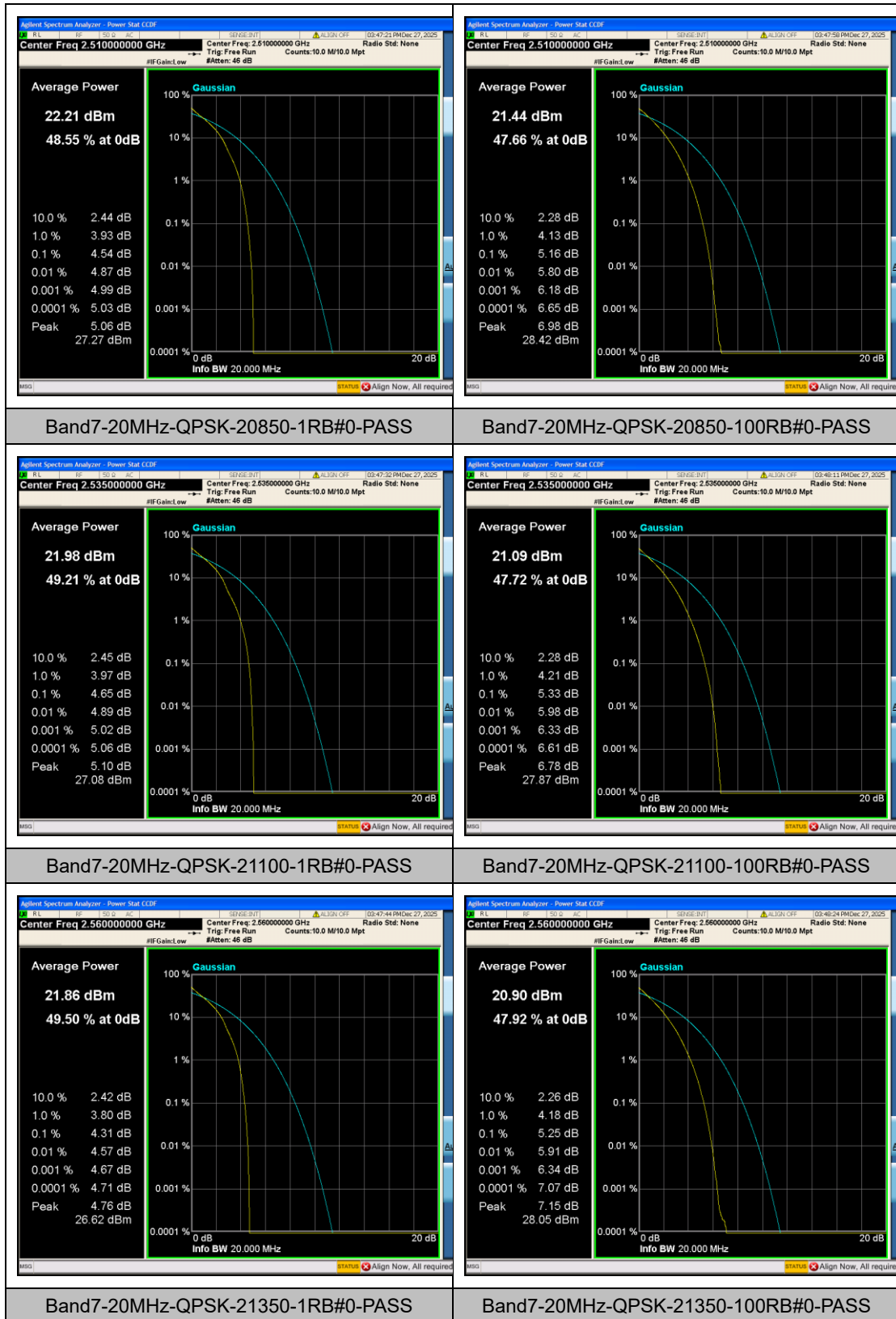










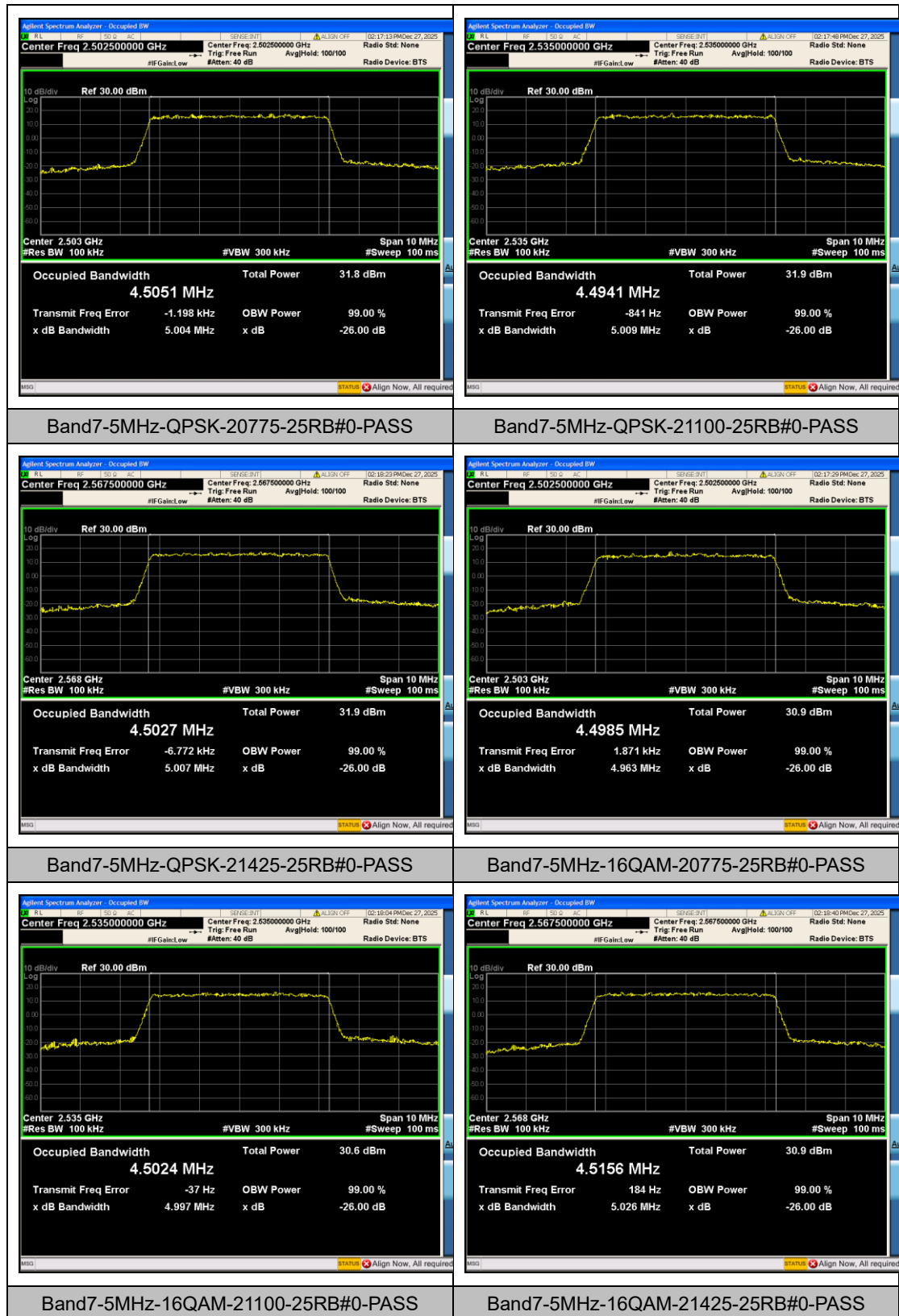


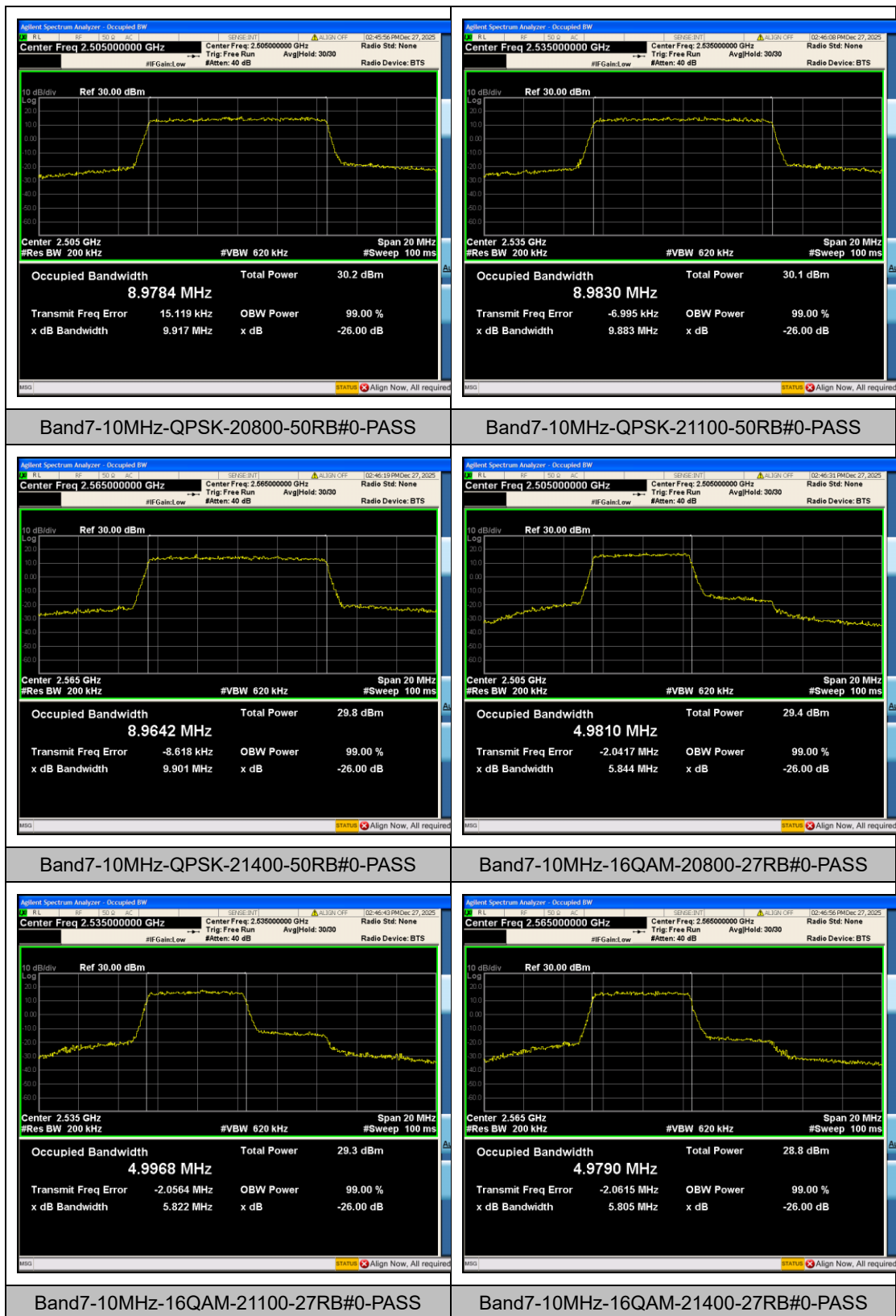
Appendix C: 26dB Bandwidth and Occupied Bandwidth

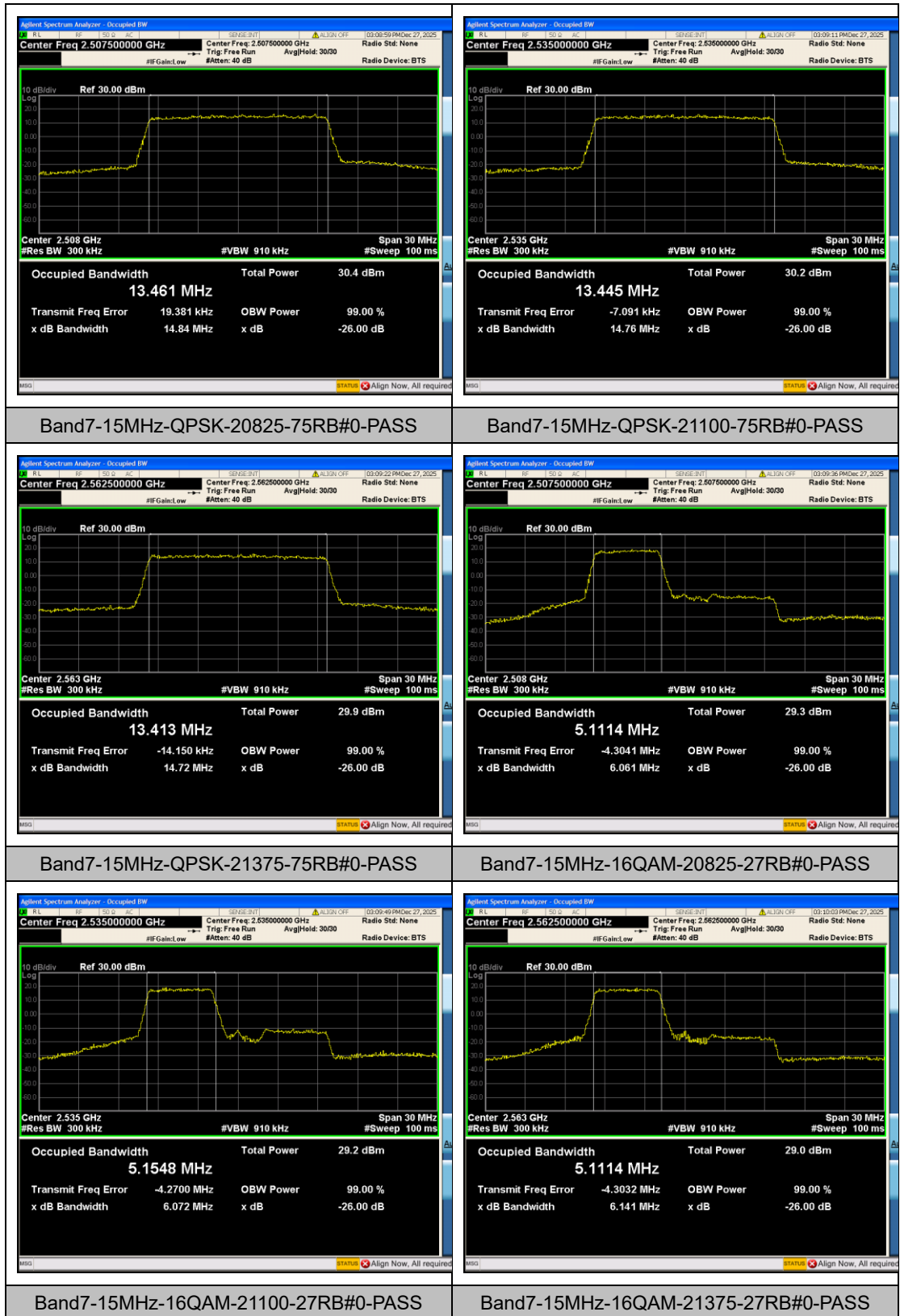
Test Result

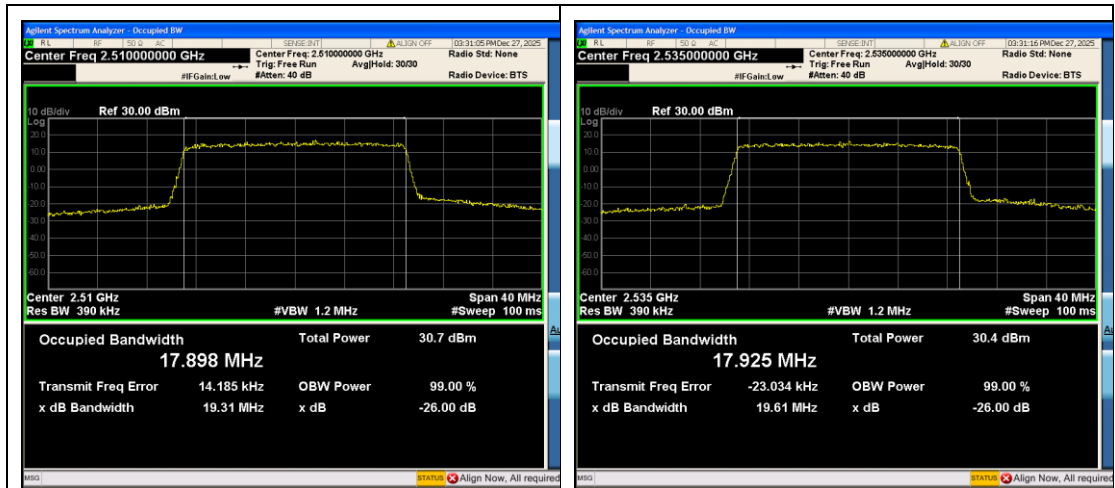
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.5051	5.004	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.4941	5.009	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.5027	5.007	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.4985	4.963	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.5024	4.997	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.5156	5.026	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.9784	9.917	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9830	9.883	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9642	9.901	PASS
Band7	10MHz	16QAM	20800	27RB#0	4.9810	5.844	PASS
Band7	10MHz	16QAM	21100	27RB#0	4.9968	5.822	PASS
Band7	10MHz	16QAM	21400	27RB#0	4.9790	5.805	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.461	14.84	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.445	14.76	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.413	14.72	PASS
Band7	15MHz	16QAM	20825	27RB#0	5.1114	6.061	PASS
Band7	15MHz	16QAM	21100	27RB#0	5.1548	6.072	PASS
Band7	15MHz	16QAM	21375	27RB#0	5.1114	6.141	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.898	19.31	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.925	19.61	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.907	19.43	PASS
Band7	20MHz	16QAM	20850	27RB#0	5.2850	6.464	PASS
Band7	20MHz	16QAM	21100	27RB#0	5.2645	6.554	PASS
Band7	20MHz	16QAM	21350	27RB#0	5.2580	6.459	PASS

Test Graphs









Band7-20MHz-QPSK-20850-100RB#0-PASS

Band7-20MHz-QPSK-21100-100RB#0-PASS



Band7-20MHz-QPSK-21350-100RB#0-PASS

Band7-20MHz-16QAM-20850-27RB#0-PASS



Band7-20MHz-16QAM-21100-27RB#0-PASS

Band7-20MHz-16QAM-21350-27RB#0-PASS

Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	-21.20	PASS
Band7	5MHz	QPSK	20775	1RB#24	-43.04	PASS
Band7	5MHz	QPSK	20775	25RB#0	-23.48	PASS
Band7	5MHz	QPSK	21425	1RB#0	-27.28	PASS
Band7	5MHz	QPSK	21425	1RB#24	-21.21	PASS
Band7	5MHz	QPSK	21425	25RB#0	-21.47	PASS
Band7	5MHz	16QAM	20775	1RB#0	-21.89	PASS
Band7	5MHz	16QAM	20775	1RB#24	-42.98	PASS
Band7	5MHz	16QAM	20775	25RB#0	-24.63	PASS
Band7	5MHz	16QAM	21425	1RB#0	-42.61	PASS
Band7	5MHz	16QAM	21425	1RB#24	-22.11	PASS
Band7	5MHz	16QAM	21425	25RB#0	-22.69	PASS
Band7	10MHz	QPSK	20800	1RB#0	-42.98	PASS
Band7	10MHz	QPSK	20800	1RB#49	-43.04	PASS
Band7	10MHz	QPSK	20800	50RB#0	-41.96	PASS
Band7	10MHz	QPSK	21400	1RB#0	-42.68	PASS
Band7	10MHz	QPSK	21400	1RB#49	-42.57	PASS
Band7	10MHz	QPSK	21400	50RB#0	-41.51	PASS
Band7	10MHz	16QAM	20800	1RB#0	-43.06	PASS
Band7	10MHz	16QAM	20800	1RB#49	-43.02	PASS
Band7	10MHz	16QAM	21400	1RB#0	-42.65	PASS
Band7	10MHz	16QAM	21400	1RB#49	-42.61	PASS
Band7	15MHz	QPSK	20825	1RB#0	-43.08	PASS
Band7	15MHz	QPSK	20825	1RB#74	-42.96	PASS
Band7	15MHz	QPSK	20825	75RB#0	-42.65	PASS
Band7	15MHz	QPSK	21375	1RB#0	-42.72	PASS
Band7	15MHz	QPSK	21375	1RB#74	-42.63	PASS
Band7	15MHz	QPSK	21375	75RB#0	-29.62	PASS
Band7	15MHz	16QAM	20825	1RB#0	-43.08	PASS
Band7	15MHz	16QAM	20825	1RB#74	-43.08	PASS
Band7	15MHz	16QAM	21375	1RB#0	-42.76	PASS
Band7	15MHz	16QAM	21375	1RB#74	-42.61	PASS
Band7	20MHz	QPSK	20850	1RB#0	-42.32	PASS
Band7	20MHz	QPSK	20850	1RB#99	-42.58	PASS
Band7	20MHz	QPSK	20850	100RB#0	-42.06	PASS
Band7	20MHz	QPSK	21350	1RB#0	-42.72	PASS
Band7	20MHz	QPSK	21350	1RB#99	-42.73	PASS

Band7	20MHz	QPSK	21350	100RB#0	-42.42	PASS
Band7	20MHz	16QAM	20850	1RB#0	-42.59	PASS
Band7	20MHz	16QAM	20850	1RB#99	-42.32	PASS
Band7	20MHz	16QAM	21350	1RB#0	-42.73	PASS
Band7	20MHz	16QAM	21350	1RB#99	-42.67	PASS

Test Graphs

