

Appendix for LTE Band 7

Product Name: 5G Window CPE

Model No: TITAN 5100

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	22.18	PASS
Band7	5MHz	16QAM	20775	1RB#0	21.28	PASS
Band7	5MHz	QPSK	20775	1RB#12	22.25	PASS
Band7	5MHz	16QAM	20775	1RB#12	21.39	PASS
Band7	5MHz	QPSK	20775	1RB#24	22.28	PASS
Band7	5MHz	16QAM	20775	1RB#24	21.26	PASS
Band7	5MHz	QPSK	20775	12RB#0	21.24	PASS
Band7	5MHz	16QAM	20775	12RB#0	20.24	PASS
Band7	5MHz	QPSK	20775	12RB#6	21.25	PASS
Band7	5MHz	16QAM	20775	12RB#6	20.26	PASS
Band7	5MHz	QPSK	20775	12RB#13	21.29	PASS
Band7	5MHz	16QAM	20775	12RB#13	20.27	PASS
Band7	5MHz	QPSK	20775	25RB#0	21.32	PASS
Band7	5MHz	16QAM	20775	25RB#0	20.29	PASS
Band7	5MHz	QPSK	21100	1RB#0	22.30	PASS
Band7	5MHz	16QAM	21100	1RB#0	21.43	PASS
Band7	5MHz	QPSK	21100	1RB#12	22.41	PASS
Band7	5MHz	16QAM	21100	1RB#12	21.47	PASS
Band7	5MHz	QPSK	21100	1RB#24	22.39	PASS
Band7	5MHz	16QAM	21100	1RB#24	21.35	PASS
Band7	5MHz	QPSK	21100	12RB#0	21.32	PASS
Band7	5MHz	16QAM	21100	12RB#0	20.30	PASS
Band7	5MHz	QPSK	21100	12RB#6	21.32	PASS
Band7	5MHz	16QAM	21100	12RB#6	20.34	PASS
Band7	5MHz	QPSK	21100	12RB#13	21.34	PASS
Band7	5MHz	16QAM	21100	12RB#13	20.46	PASS
Band7	5MHz	QPSK	21100	25RB#0	21.30	PASS
Band7	5MHz	16QAM	21100	25RB#0	20.32	PASS
Band7	5MHz	QPSK	21425	1RB#0	22.24	PASS
Band7	5MHz	16QAM	21425	1RB#0	21.22	PASS
Band7	5MHz	QPSK	21425	1RB#12	22.27	PASS
Band7	5MHz	16QAM	21425	1RB#12	21.24	PASS
Band7	5MHz	QPSK	21425	1RB#24	22.21	PASS
Band7	5MHz	16QAM	21425	1RB#24	21.06	PASS
Band7	5MHz	QPSK	21425	12RB#0	21.23	PASS

Band7	5MHz	16QAM	21425	12RB#0	20.27	PASS
Band7	5MHz	QPSK	21425	12RB#6	21.23	PASS
Band7	5MHz	16QAM	21425	12RB#6	20.30	PASS
Band7	5MHz	QPSK	21425	12RB#13	21.25	PASS
Band7	5MHz	16QAM	21425	12RB#13	20.16	PASS
Band7	5MHz	QPSK	21425	25RB#0	21.24	PASS
Band7	5MHz	16QAM	21425	25RB#0	20.21	PASS
Band7	10MHz	QPSK	20800	1RB#0	22.18	PASS
Band7	10MHz	16QAM	20800	1RB#0	21.14	PASS
Band7	10MHz	QPSK	20800	1RB#24	22.34	PASS
Band7	10MHz	16QAM	20800	1RB#24	21.27	PASS
Band7	10MHz	QPSK	20800	1RB#49	22.32	PASS
Band7	10MHz	16QAM	20800	1RB#49	21.41	PASS
Band7	10MHz	QPSK	20800	25RB#0	21.29	PASS
Band7	10MHz	16QAM	20800	25RB#0	20.28	PASS
Band7	10MHz	QPSK	20800	25RB#12	21.30	PASS
Band7	10MHz	16QAM	20800	25RB#12	20.32	PASS
Band7	10MHz	QPSK	20800	25RB#25	21.37	PASS
Band7	10MHz	16QAM	20800	25RB#25	20.32	PASS
Band7	10MHz	QPSK	20800	50RB#0	21.31	PASS
Band7	10MHz	16QAM	20800	50RB#0	20.32	PASS
Band7	10MHz	QPSK	21100	1RB#0	22.28	PASS
Band7	10MHz	16QAM	21100	1RB#0	21.14	PASS
Band7	10MHz	QPSK	21100	1RB#24	22.36	PASS
Band7	10MHz	16QAM	21100	1RB#24	21.30	PASS
Band7	10MHz	QPSK	21100	1RB#49	22.30	PASS
Band7	10MHz	16QAM	21100	1RB#49	21.10	PASS
Band7	10MHz	QPSK	21100	25RB#0	21.35	PASS
Band7	10MHz	16QAM	21100	25RB#0	20.34	PASS
Band7	10MHz	QPSK	21100	25RB#12	21.32	PASS
Band7	10MHz	16QAM	21100	25RB#12	20.33	PASS
Band7	10MHz	QPSK	21100	25RB#25	21.33	PASS
Band7	10MHz	16QAM	21100	25RB#25	20.30	PASS
Band7	10MHz	QPSK	21100	50RB#0	21.30	PASS
Band7	10MHz	16QAM	21100	50RB#0	20.34	PASS
Band7	10MHz	QPSK	21400	1RB#0	22.36	PASS
Band7	10MHz	16QAM	21400	1RB#0	21.21	PASS
Band7	10MHz	QPSK	21400	1RB#24	22.17	PASS
Band7	10MHz	16QAM	21400	1RB#24	21.21	PASS
Band7	10MHz	QPSK	21400	1RB#49	22.20	PASS
Band7	10MHz	16QAM	21400	1RB#49	21.23	PASS
Band7	10MHz	QPSK	21400	25RB#0	21.30	PASS

Band7	10MHz	16QAM	21400	25RB#0	20.25	PASS
Band7	10MHz	QPSK	21400	25RB#12	21.32	PASS
Band7	10MHz	16QAM	21400	25RB#12	20.27	PASS
Band7	10MHz	QPSK	21400	25RB#25	21.28	PASS
Band7	10MHz	16QAM	21400	25RB#25	20.23	PASS
Band7	10MHz	QPSK	21400	50RB#0	21.28	PASS
Band7	10MHz	16QAM	21400	50RB#0	20.28	PASS
Band7	15MHz	QPSK	20825	1RB#0	22.00	PASS
Band7	15MHz	16QAM	20825	1RB#0	20.95	PASS
Band7	15MHz	QPSK	20825	1RB#38	22.26	PASS
Band7	15MHz	16QAM	20825	1RB#38	21.23	PASS
Band7	15MHz	QPSK	20825	1RB#74	22.01	PASS
Band7	15MHz	16QAM	20825	1RB#74	21.05	PASS
Band7	15MHz	QPSK	20825	38RB#0	21.21	PASS
Band7	15MHz	16QAM	20825	38RB#0	21.18	PASS
Band7	15MHz	QPSK	20825	38RB#18	21.21	PASS
Band7	15MHz	16QAM	20825	38RB#18	21.17	PASS
Band7	15MHz	QPSK	20825	38RB#37	21.18	PASS
Band7	15MHz	16QAM	20825	38RB#37	21.19	PASS
Band7	15MHz	QPSK	20825	75RB#0	21.20	PASS
Band7	15MHz	16QAM	20825	75RB#0	20.18	PASS
Band7	15MHz	QPSK	21100	1RB#0	22.20	PASS
Band7	15MHz	16QAM	21100	1RB#0	21.03	PASS
Band7	15MHz	QPSK	21100	1RB#38	22.15	PASS
Band7	15MHz	16QAM	21100	1RB#38	21.18	PASS
Band7	15MHz	QPSK	21100	1RB#74	22.03	PASS
Band7	15MHz	16QAM	21100	1RB#74	20.90	PASS
Band7	15MHz	QPSK	21100	38RB#0	21.18	PASS
Band7	15MHz	16QAM	21100	38RB#0	21.20	PASS
Band7	15MHz	QPSK	21100	38RB#18	21.17	PASS
Band7	15MHz	16QAM	21100	38RB#18	21.16	PASS
Band7	15MHz	QPSK	21100	38RB#37	21.16	PASS
Band7	15MHz	16QAM	21100	38RB#37	21.13	PASS
Band7	15MHz	QPSK	21100	75RB#0	21.15	PASS
Band7	15MHz	16QAM	21100	75RB#0	20.20	PASS
Band7	15MHz	QPSK	21375	1RB#0	22.10	PASS
Band7	15MHz	16QAM	21375	1RB#0	21.06	PASS
Band7	15MHz	QPSK	21375	1RB#38	21.96	PASS
Band7	15MHz	16QAM	21375	1RB#38	21.12	PASS
Band7	15MHz	QPSK	21375	1RB#74	22.00	PASS
Band7	15MHz	16QAM	21375	1RB#74	20.89	PASS
Band7	15MHz	QPSK	21375	38RB#0	21.12	PASS

Band7	15MHz	16QAM	21375	38RB#0	21.11	PASS
Band7	15MHz	QPSK	21375	38RB#18	21.09	PASS
Band7	15MHz	16QAM	21375	38RB#18	21.11	PASS
Band7	15MHz	QPSK	21375	38RB#37	21.11	PASS
Band7	15MHz	16QAM	21375	38RB#37	21.10	PASS
Band7	15MHz	QPSK	21375	75RB#0	21.11	PASS
Band7	15MHz	16QAM	21375	75RB#0	20.14	PASS
Band7	20MHz	QPSK	20850	1RB#0	21.97	PASS
Band7	20MHz	16QAM	20850	1RB#0	20.98	PASS
Band7	20MHz	QPSK	20850	1RB#49	22.16	PASS
Band7	20MHz	16QAM	20850	1RB#49	21.13	PASS
Band7	20MHz	QPSK	20850	1RB#99	22.09	PASS
Band7	20MHz	16QAM	20850	1RB#99	21.08	PASS
Band7	20MHz	QPSK	20850	50RB#0	21.10	PASS
Band7	20MHz	16QAM	20850	50RB#0	20.13	PASS
Band7	20MHz	QPSK	20850	50RB#25	21.13	PASS
Band7	20MHz	16QAM	20850	50RB#25	20.15	PASS
Band7	20MHz	QPSK	20850	50RB#50	21.23	PASS
Band7	20MHz	16QAM	20850	50RB#50	20.25	PASS
Band7	20MHz	QPSK	20850	100RB#0	21.23	PASS
Band7	20MHz	16QAM	20850	100RB#0	20.26	PASS
Band7	20MHz	QPSK	21100	1RB#0	22.14	PASS
Band7	20MHz	16QAM	21100	1RB#0	21.29	PASS
Band7	20MHz	QPSK	21100	1RB#49	22.09	PASS
Band7	20MHz	16QAM	21100	1RB#49	21.36	PASS
Band7	20MHz	QPSK	21100	1RB#99	22.15	PASS
Band7	20MHz	16QAM	21100	1RB#99	21.10	PASS
Band7	20MHz	QPSK	21100	50RB#0	21.17	PASS
Band7	20MHz	16QAM	21100	50RB#0	20.18	PASS
Band7	20MHz	QPSK	21100	50RB#25	21.23	PASS
Band7	20MHz	16QAM	21100	50RB#25	20.22	PASS
Band7	20MHz	QPSK	21100	50RB#50	21.16	PASS
Band7	20MHz	16QAM	21100	50RB#50	20.17	PASS
Band7	20MHz	QPSK	21100	100RB#0	21.18	PASS
Band7	20MHz	16QAM	21100	100RB#0	20.25	PASS
Band7	20MHz	QPSK	21350	1RB#0	22.13	PASS
Band7	20MHz	16QAM	21350	1RB#0	21.04	PASS
Band7	20MHz	QPSK	21350	1RB#49	22.13	PASS
Band7	20MHz	16QAM	21350	1RB#49	20.87	PASS
Band7	20MHz	QPSK	21350	1RB#99	21.91	PASS
Band7	20MHz	16QAM	21350	1RB#99	20.72	PASS
Band7	20MHz	QPSK	21350	50RB#0	21.20	PASS

Band7	20MHz	16QAM	21350	50RB#0	20.22	PASS
Band7	20MHz	QPSK	21350	50RB#25	21.23	PASS
Band7	20MHz	16QAM	21350	50RB#25	20.25	PASS
Band7	20MHz	QPSK	21350	50RB#50	21.13	PASS
Band7	20MHz	16QAM	21350	50RB#50	20.11	PASS
Band7	20MHz	QPSK	21350	100RB#0	21.16	PASS
Band7	20MHz	16QAM	21350	100RB#0	20.20	PASS

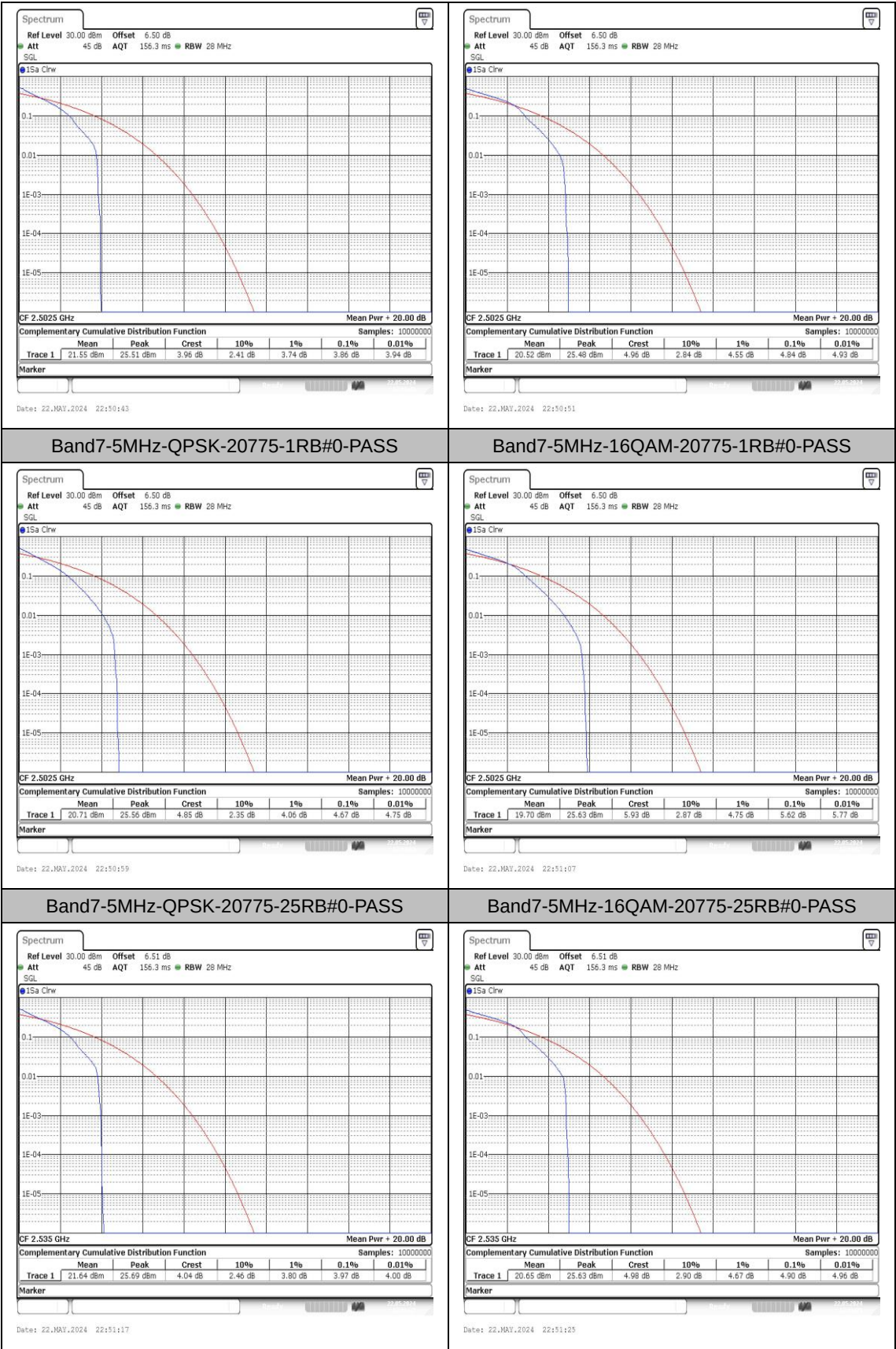
Appendix B: Peak-to-Average Ratio(CCDF)

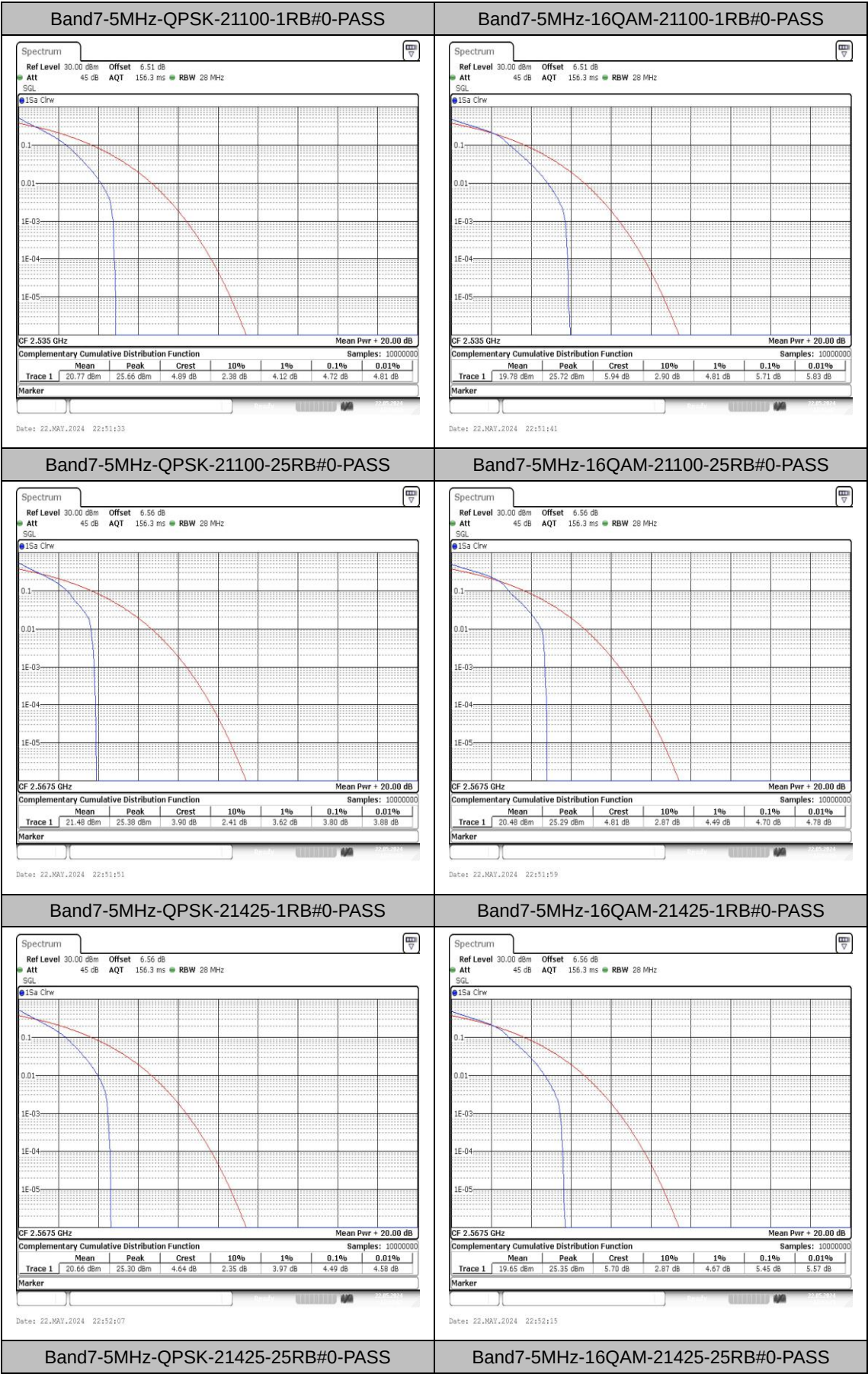
Test Result

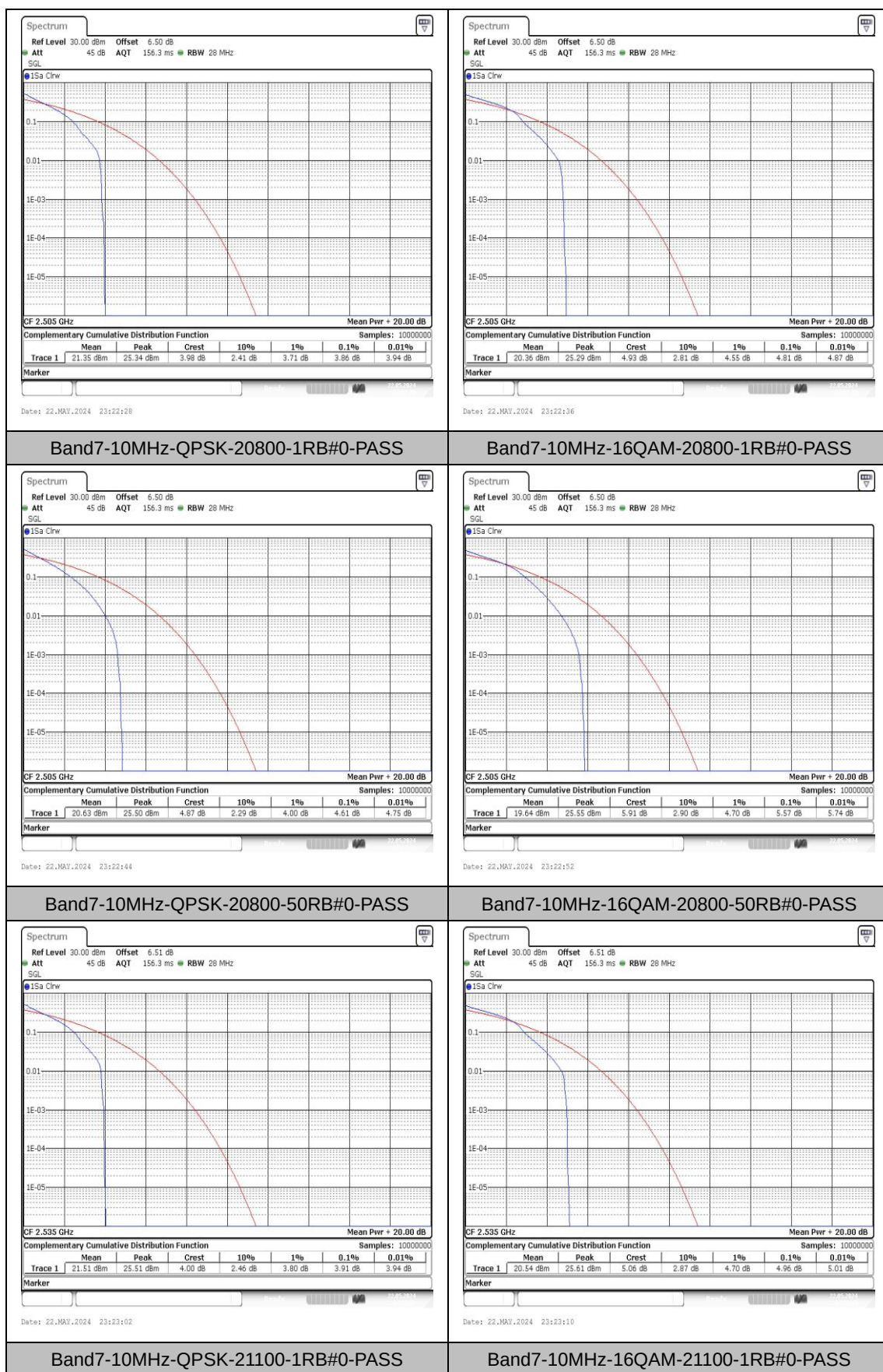
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	3.86	13	PASS
Band7	5MHz	16QAM	20775	1RB#0	4.84	13	PASS
Band7	5MHz	QPSK	20775	25RB#0	4.67	13	PASS
Band7	5MHz	16QAM	20775	25RB#0	5.62	13	PASS
Band7	5MHz	QPSK	21100	1RB#0	3.97	13	PASS
Band7	5MHz	16QAM	21100	1RB#0	4.90	13	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.72	13	PASS
Band7	5MHz	16QAM	21100	25RB#0	5.71	13	PASS
Band7	5MHz	QPSK	21425	1RB#0	3.80	13	PASS
Band7	5MHz	16QAM	21425	1RB#0	4.70	13	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.49	13	PASS
Band7	5MHz	16QAM	21425	25RB#0	5.45	13	PASS
Band7	10MHz	QPSK	20800	1RB#0	3.86	13	PASS
Band7	10MHz	16QAM	20800	1RB#0	4.81	13	PASS
Band7	10MHz	QPSK	20800	50RB#0	4.61	13	PASS
Band7	10MHz	16QAM	20800	50RB#0	5.57	13	PASS
Band7	10MHz	QPSK	21100	1RB#0	3.91	13	PASS
Band7	10MHz	16QAM	21100	1RB#0	4.96	13	PASS
Band7	10MHz	QPSK	21100	50RB#0	4.78	13	PASS
Band7	10MHz	16QAM	21100	50RB#0	5.71	13	PASS
Band7	10MHz	QPSK	21400	1RB#0	3.80	13	PASS
Band7	10MHz	16QAM	21400	1RB#0	4.78	13	PASS
Band7	10MHz	QPSK	21400	50RB#0	4.61	13	PASS
Band7	10MHz	16QAM	21400	50RB#0	5.54	13	PASS
Band7	15MHz	QPSK	20825	1RB#0	3.94	13	PASS
Band7	15MHz	16QAM	20825	1RB#0	4.84	13	PASS
Band7	15MHz	QPSK	20825	75RB#0	4.81	13	PASS
Band7	15MHz	16QAM	20825	75RB#0	5.71	13	PASS
Band7	15MHz	QPSK	21100	1RB#0	3.97	13	PASS
Band7	15MHz	16QAM	21100	1RB#0	4.99	13	PASS
Band7	15MHz	QPSK	21100	75RB#0	4.93	13	PASS
Band7	15MHz	16QAM	21100	75RB#0	5.83	13	PASS
Band7	15MHz	QPSK	21375	1RB#0	3.97	13	PASS
Band7	15MHz	16QAM	21375	1RB#0	4.87	13	PASS
Band7	15MHz	QPSK	21375	75RB#0	4.84	13	PASS

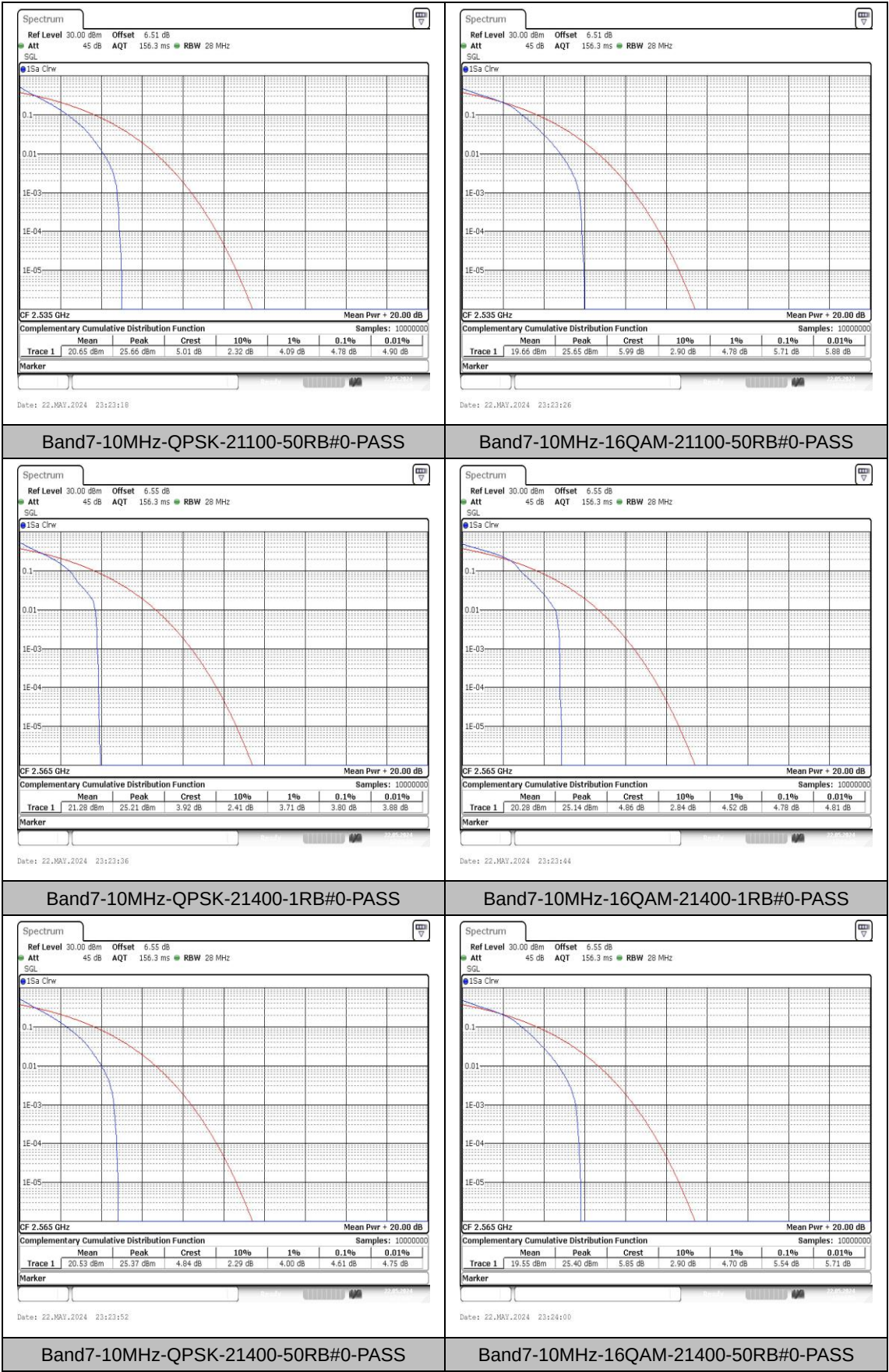
Band7	15MHz	16QAM	21375	75RB#0	5.71	13	PASS
Band7	20MHz	QPSK	20850	1RB#0	3.97	13	PASS
Band7	20MHz	16QAM	20850	1RB#0	4.93	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	4.72	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.71	13	PASS
Band7	20MHz	QPSK	21100	1RB#0	3.97	13	PASS
Band7	20MHz	16QAM	21100	1RB#0	4.99	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	4.87	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	5.80	13	PASS
Band7	20MHz	QPSK	21350	1RB#0	3.94	13	PASS
Band7	20MHz	16QAM	21350	1RB#0	4.84	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	4.81	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.71	13	PASS

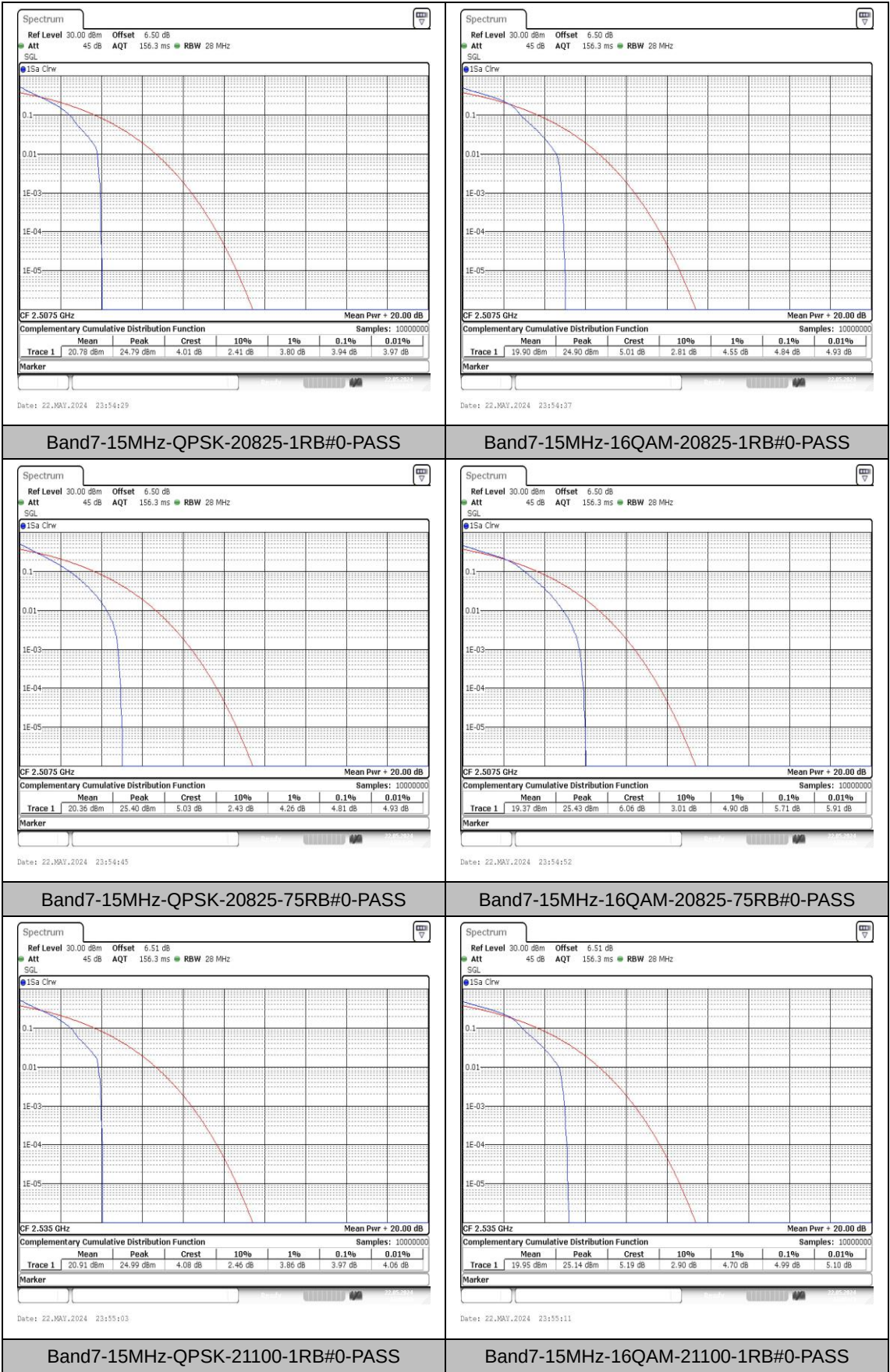
Test Graphs

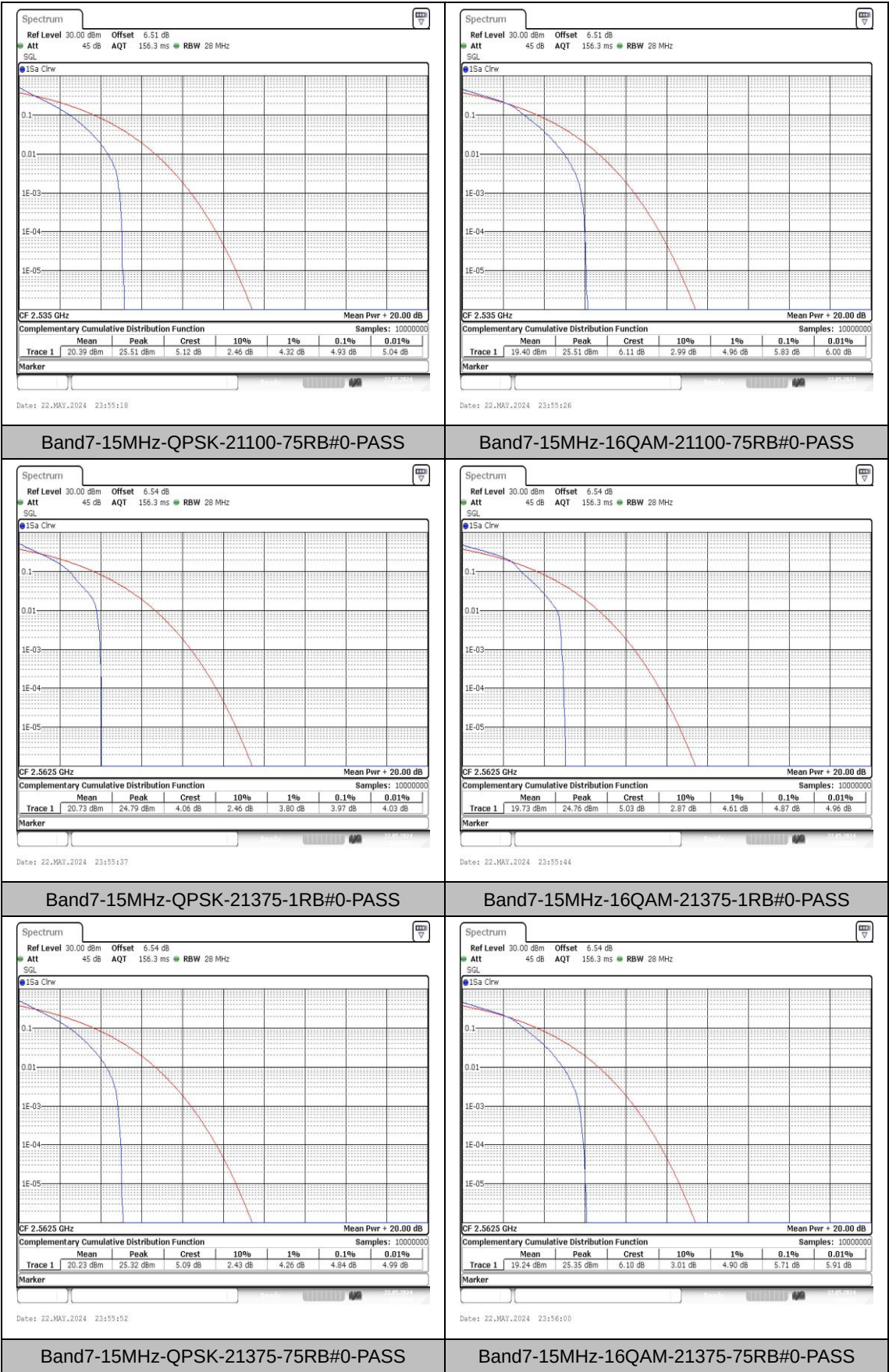


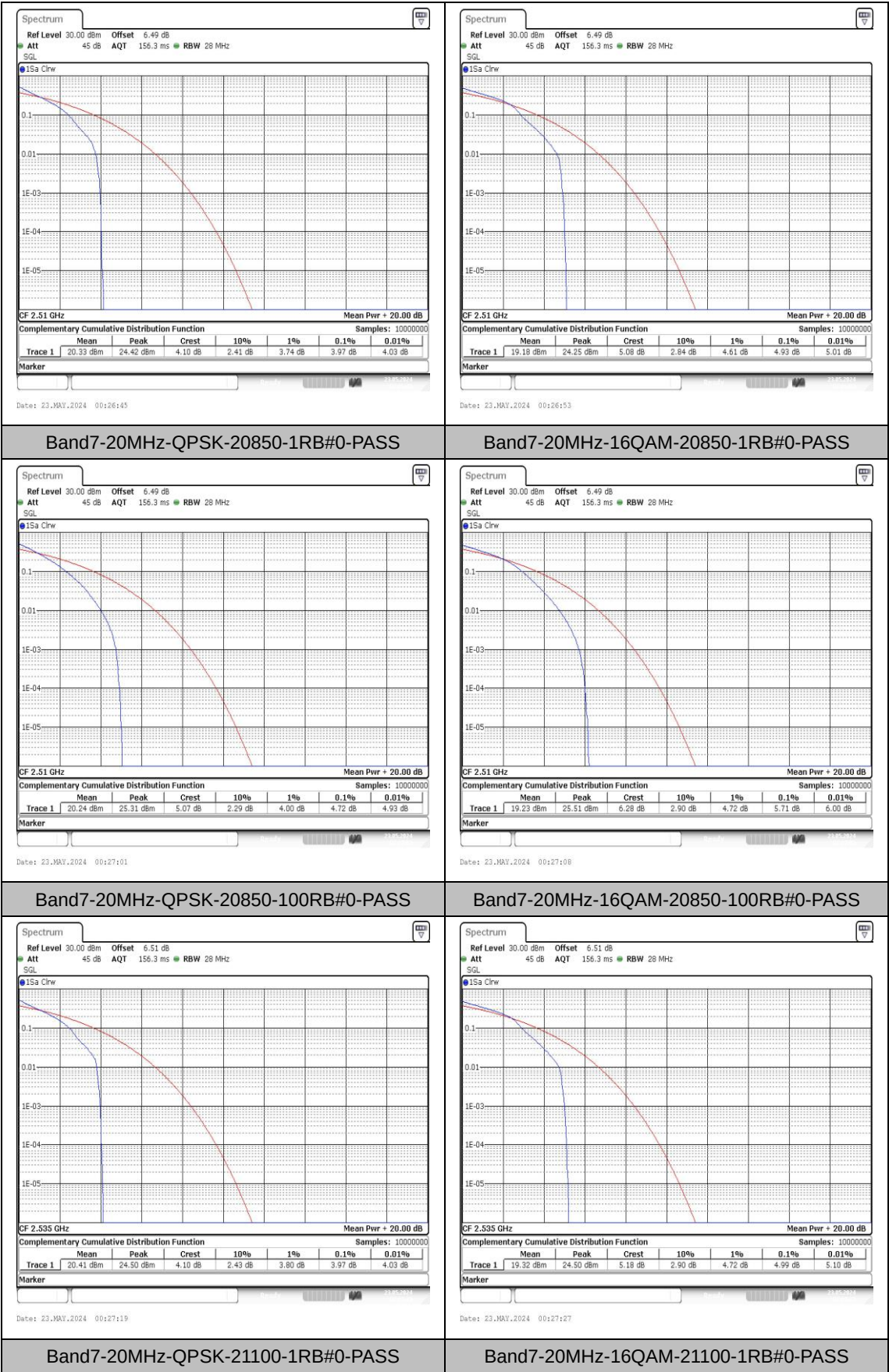


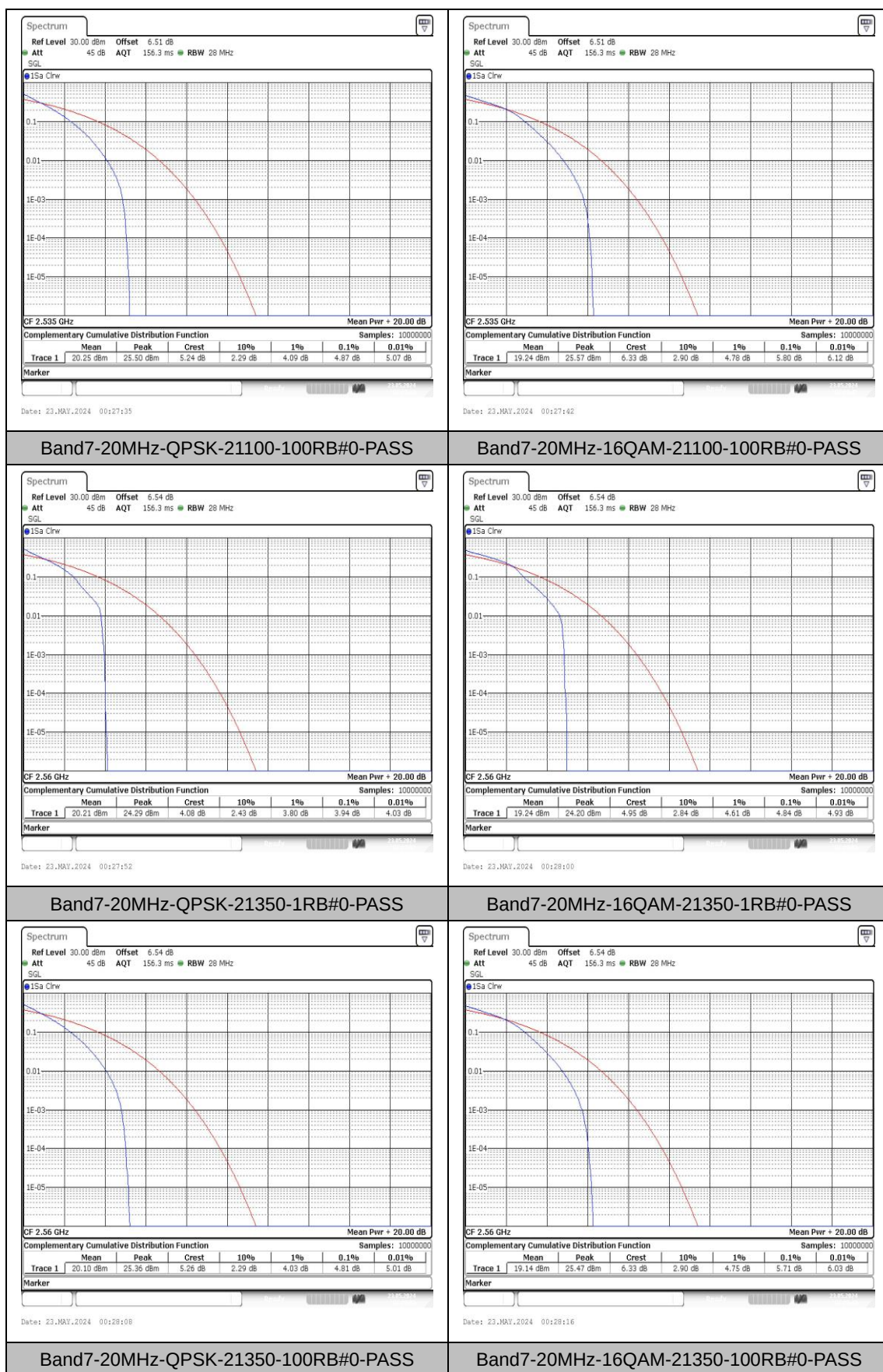










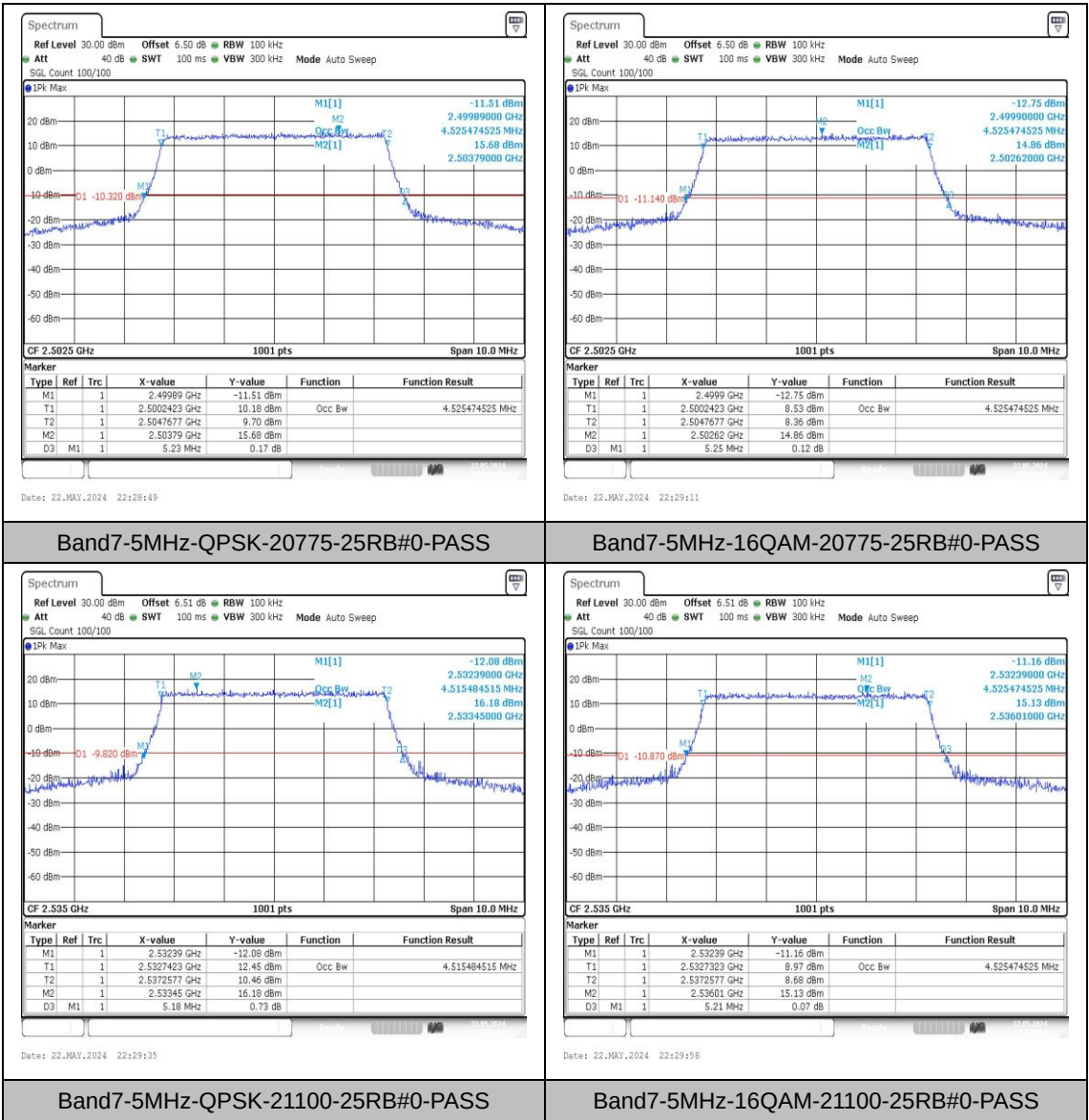


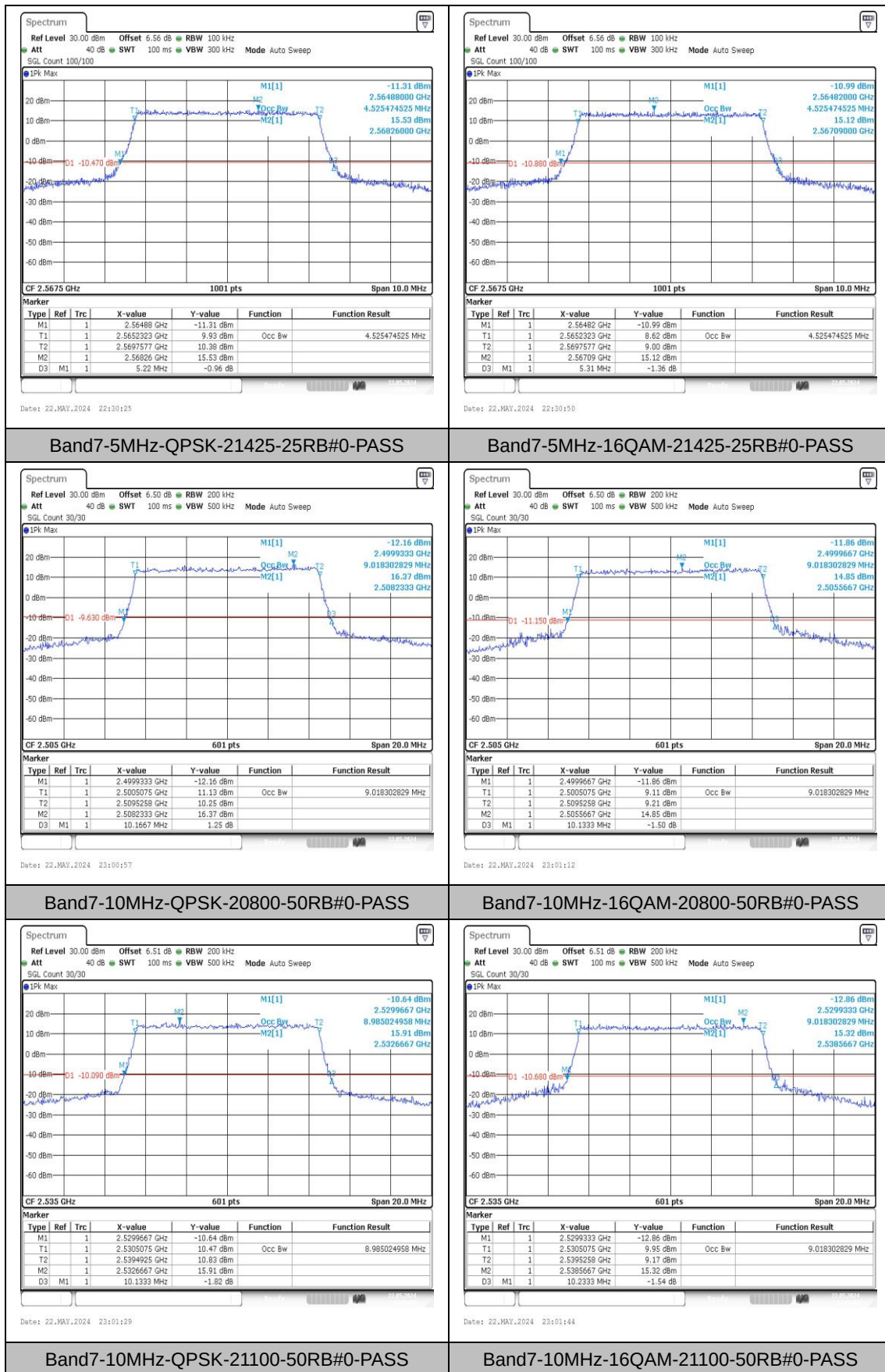
Appendix C: 26dB Bandwidth and Occupied Bandwidth

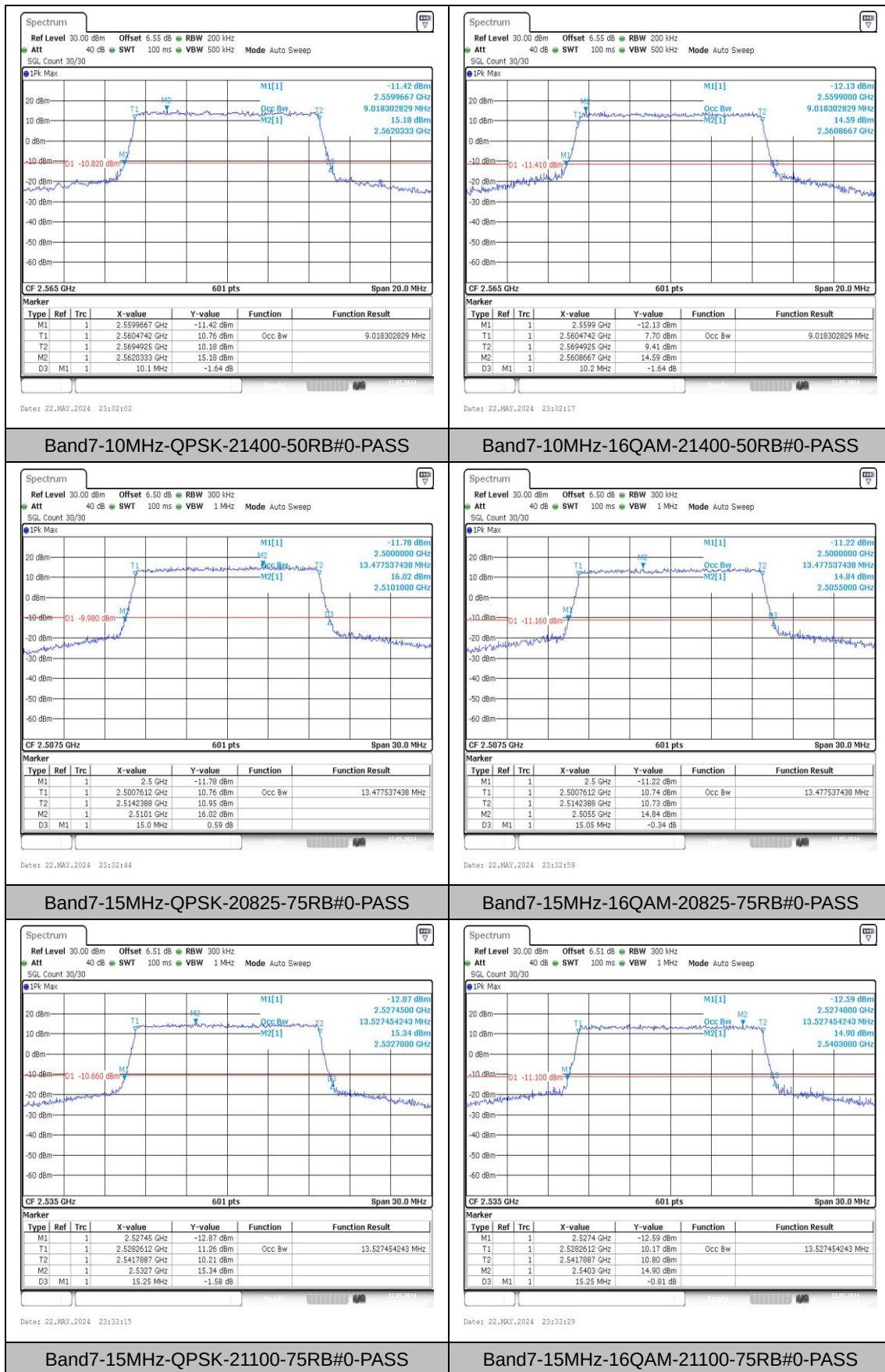
Test Result

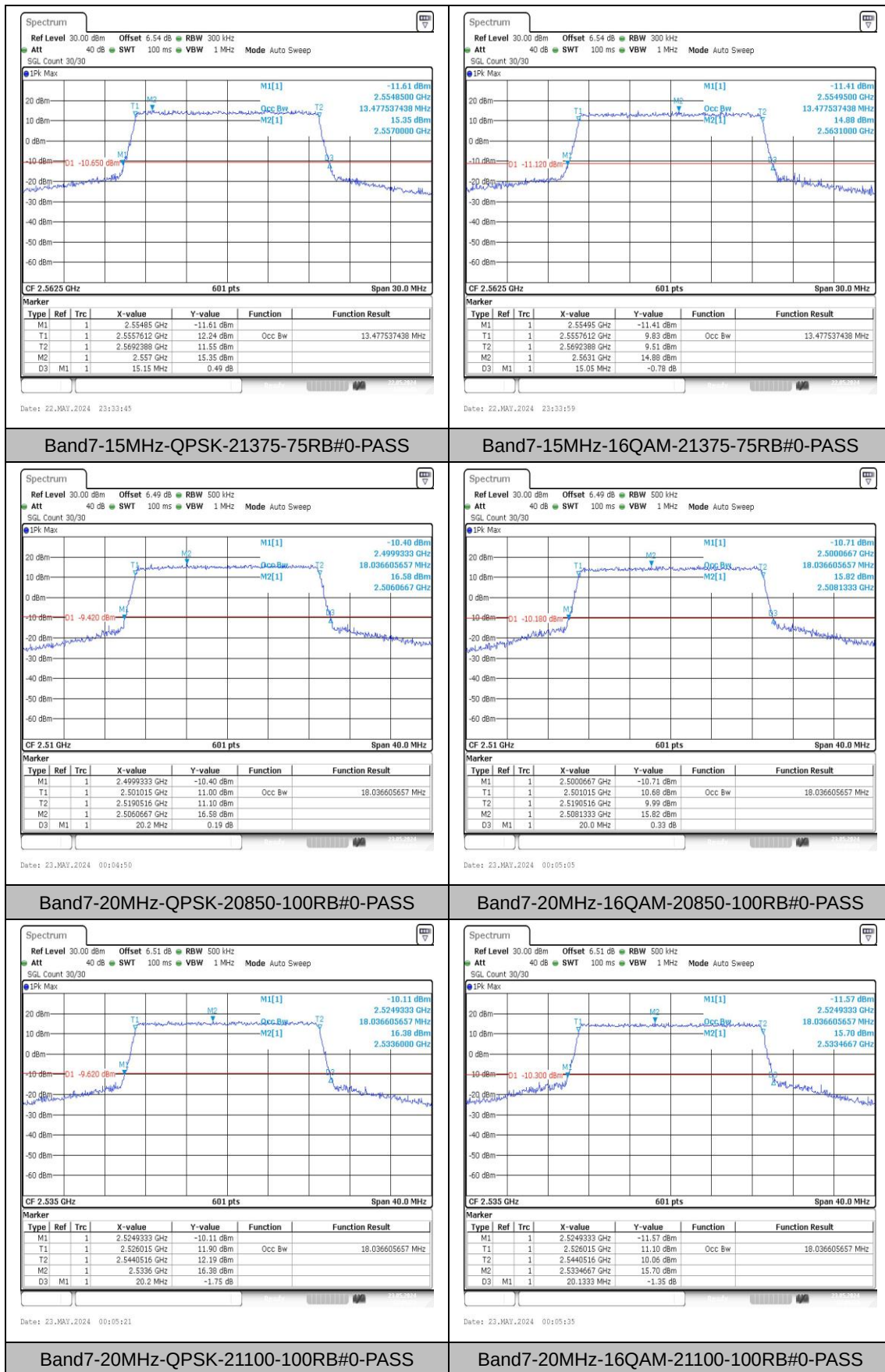
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.525	5.23	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.525	5.25	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.515	5.18	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.525	5.21	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.525	5.22	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.525	5.31	PASS
Band7	10MHz	QPSK	20800	50RB#0	9.018	10.17	PASS
Band7	10MHz	16QAM	20800	50RB#0	9.018	10.13	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.985	10.13	PASS
Band7	10MHz	16QAM	21100	50RB#0	9.018	10.23	PASS
Band7	10MHz	QPSK	21400	50RB#0	9.018	10.10	PASS
Band7	10MHz	16QAM	21400	50RB#0	9.018	10.20	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.478	15.00	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.478	15.05	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.527	15.25	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.527	15.25	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.478	15.15	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.478	15.05	PASS
Band7	20MHz	QPSK	20850	100RB#0	18.037	20.20	PASS
Band7	20MHz	16QAM	20850	100RB#0	18.037	20.00	PASS
Band7	20MHz	QPSK	21100	100RB#0	18.037	20.20	PASS
Band7	20MHz	16QAM	21100	100RB#0	18.037	20.13	PASS
Band7	20MHz	QPSK	21350	100RB#0	18.037	20.13	PASS
Band7	20MHz	16QAM	21350	100RB#0	18.037	20.07	PASS

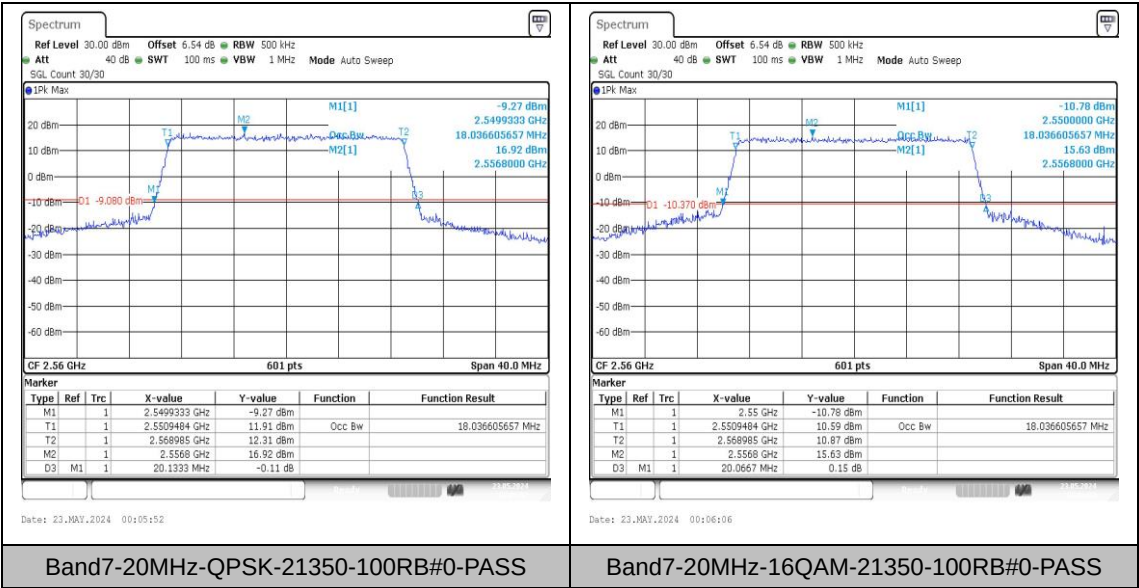
Test Graphs











Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	-19.49	PASS
Band7	5MHz	16QAM	20775	1RB#0	-20.58	PASS
Band7	5MHz	QPSK	20775	1RB#24	-43.50	PASS
Band7	5MHz	16QAM	20775	1RB#24	-43.47	PASS
Band7	5MHz	QPSK	20775	25RB#0	-23.09	PASS
Band7	5MHz	16QAM	20775	25RB#0	-25.27	PASS
Band7	5MHz	QPSK	21425	1RB#0	-43.24	PASS
Band7	5MHz	16QAM	21425	1RB#0	-43.26	PASS
Band7	5MHz	QPSK	21425	1RB#24	-20.10	PASS
Band7	5MHz	16QAM	21425	1RB#24	-20.53	PASS
Band7	5MHz	QPSK	21425	25RB#0	-21.82	PASS
Band7	5MHz	16QAM	21425	25RB#0	-24.11	PASS
Band7	10MHz	QPSK	20800	1RB#0	-25.74	PASS
Band7	10MHz	16QAM	20800	1RB#0	-26.34	PASS
Band7	10MHz	QPSK	20800	1RB#49	-43.59	PASS
Band7	10MHz	16QAM	20800	1RB#49	-43.62	PASS
Band7	10MHz	QPSK	20800	50RB#0	-39.71	PASS
Band7	10MHz	16QAM	20800	50RB#0	-39.69	PASS
Band7	10MHz	QPSK	21400	1RB#0	-43.37	PASS
Band7	10MHz	16QAM	21400	1RB#0	-43.37	PASS
Band7	10MHz	QPSK	21400	1RB#49	-26.30	PASS
Band7	10MHz	16QAM	21400	1RB#49	-27.24	PASS
Band7	10MHz	QPSK	21400	50RB#0	-38.50	PASS
Band7	10MHz	16QAM	21400	50RB#0	-39.29	PASS
Band7	15MHz	QPSK	20825	1RB#0	-23.67	PASS
Band7	15MHz	16QAM	20825	1RB#0	-24.88	PASS
Band7	15MHz	QPSK	20825	1RB#74	-43.61	PASS
Band7	15MHz	16QAM	20825	1RB#74	-43.60	PASS
Band7	15MHz	QPSK	20825	75RB#0	-39.53	PASS
Band7	15MHz	16QAM	20825	75RB#0	-40.57	PASS
Band7	15MHz	QPSK	21375	1RB#0	-43.34	PASS
Band7	15MHz	16QAM	21375	1RB#0	-43.37	PASS
Band7	15MHz	QPSK	21375	1RB#74	-23.69	PASS
Band7	15MHz	16QAM	21375	1RB#74	-25.20	PASS
Band7	15MHz	QPSK	21375	75RB#0	-25.49	PASS
Band7	15MHz	16QAM	21375	75RB#0	-42.28	PASS

Band7	20MHz	QPSK	20850	1RB#0	-22.99	PASS
Band7	20MHz	16QAM	20850	1RB#0	-24.09	PASS
Band7	20MHz	QPSK	20850	1RB#99	-43.63	PASS
Band7	20MHz	16QAM	20850	1RB#99	-43.61	PASS
Band7	20MHz	QPSK	20850	100RB#0	-42.35	PASS
Band7	20MHz	16QAM	20850	100RB#0	-42.24	PASS
Band7	20MHz	QPSK	21350	1RB#0	-43.31	PASS
Band7	20MHz	16QAM	21350	1RB#0	-43.35	PASS
Band7	20MHz	QPSK	21350	1RB#99	-23.16	PASS
Band7	20MHz	16QAM	21350	1RB#99	-23.75	PASS
Band7	20MHz	QPSK	21350	100RB#0	-43.30	PASS
Band7	20MHz	16QAM	21350	100RB#0	-43.29	PASS

Test Graphs

