

Appendix for LTE Band 41

Product Name: 5G Indoor CPE

Model No: TITAN 5000

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	22.37	PASS
Band41	5MHz	16QAM	39675	1RB#0	21.23	PASS
Band41	5MHz	QPSK	39675	1RB#12	22.40	PASS
Band41	5MHz	16QAM	39675	1RB#12	21.13	PASS
Band41	5MHz	QPSK	39675	1RB#24	22.37	PASS
Band41	5MHz	16QAM	39675	1RB#24	21.25	PASS
Band41	5MHz	QPSK	39675	12RB#0	21.36	PASS
Band41	5MHz	16QAM	39675	12RB#0	20.44	PASS
Band41	5MHz	QPSK	39675	12RB#6	21.36	PASS
Band41	5MHz	16QAM	39675	12RB#6	20.31	PASS
Band41	5MHz	QPSK	39675	12RB#13	21.39	PASS
Band41	5MHz	16QAM	39675	12RB#13	20.41	PASS
Band41	5MHz	QPSK	39675	25RB#0	21.36	PASS
Band41	5MHz	16QAM	39675	25RB#0	20.36	PASS
Band41	5MHz	QPSK	40620	1RB#0	22.54	PASS
Band41	5MHz	16QAM	40620	1RB#0	21.65	PASS
Band41	5MHz	QPSK	40620	1RB#12	22.60	PASS
Band41	5MHz	16QAM	40620	1RB#12	21.63	PASS
Band41	5MHz	QPSK	40620	1RB#24	22.49	PASS
Band41	5MHz	16QAM	40620	1RB#24	21.55	PASS
Band41	5MHz	QPSK	40620	12RB#0	21.61	PASS
Band41	5MHz	16QAM	40620	12RB#0	20.62	PASS
Band41	5MHz	QPSK	40620	12RB#6	21.62	PASS
Band41	5MHz	16QAM	40620	12RB#6	20.64	PASS
Band41	5MHz	QPSK	40620	12RB#13	21.60	PASS
Band41	5MHz	16QAM	40620	12RB#13	20.61	PASS
Band41	5MHz	QPSK	40620	25RB#0	21.63	PASS
Band41	5MHz	16QAM	40620	25RB#0	20.66	PASS
Band41	5MHz	QPSK	41565	1RB#0	21.91	PASS
Band41	5MHz	16QAM	41565	1RB#0	21.08	PASS
Band41	5MHz	QPSK	41565	1RB#12	21.93	PASS
Band41	5MHz	16QAM	41565	1RB#12	21.09	PASS
Band41	5MHz	QPSK	41565	1RB#24	21.90	PASS
Band41	5MHz	16QAM	41565	1RB#24	20.99	PASS
Band41	5MHz	QPSK	41565	12RB#0	21.00	PASS

Band41	5MHz	16QAM	41565	12RB#0	20.10	PASS
Band41	5MHz	QPSK	41565	12RB#6	21.00	PASS
Band41	5MHz	16QAM	41565	12RB#6	19.92	PASS
Band41	5MHz	QPSK	41565	12RB#13	20.99	PASS
Band41	5MHz	16QAM	41565	12RB#13	19.92	PASS
Band41	5MHz	QPSK	41565	25RB#0	21.04	PASS
Band41	5MHz	16QAM	41565	25RB#0	19.97	PASS
Band41	10MHz	QPSK	39700	1RB#0	22.30	PASS
Band41	10MHz	16QAM	39700	1RB#0	21.43	PASS
Band41	10MHz	QPSK	39700	1RB#24	22.41	PASS
Band41	10MHz	16QAM	39700	1RB#24	21.56	PASS
Band41	10MHz	QPSK	39700	1RB#49	22.42	PASS
Band41	10MHz	16QAM	39700	1RB#49	21.65	PASS
Band41	10MHz	QPSK	39700	25RB#0	21.37	PASS
Band41	10MHz	16QAM	39700	25RB#0	20.35	PASS
Band41	10MHz	QPSK	39700	25RB#12	21.36	PASS
Band41	10MHz	16QAM	39700	25RB#12	20.37	PASS
Band41	10MHz	QPSK	39700	25RB#25	21.42	PASS
Band41	10MHz	16QAM	39700	25RB#25	20.41	PASS
Band41	10MHz	QPSK	39700	50RB#0	21.39	PASS
Band41	10MHz	16QAM	39700	50RB#0	20.42	PASS
Band41	10MHz	QPSK	40620	1RB#0	22.61	PASS
Band41	10MHz	16QAM	40620	1RB#0	21.60	PASS
Band41	10MHz	QPSK	40620	1RB#24	22.57	PASS
Band41	10MHz	16QAM	40620	1RB#24	21.52	PASS
Band41	10MHz	QPSK	40620	1RB#49	22.52	PASS
Band41	10MHz	16QAM	40620	1RB#49	21.46	PASS
Band41	10MHz	QPSK	40620	25RB#0	21.62	PASS
Band41	10MHz	16QAM	40620	25RB#0	20.63	PASS
Band41	10MHz	QPSK	40620	25RB#12	21.66	PASS
Band41	10MHz	16QAM	40620	25RB#12	20.61	PASS
Band41	10MHz	QPSK	40620	25RB#25	21.55	PASS
Band41	10MHz	16QAM	40620	25RB#25	20.54	PASS
Band41	10MHz	QPSK	40620	50RB#0	21.66	PASS
Band41	10MHz	16QAM	40620	50RB#0	20.64	PASS
Band41	10MHz	QPSK	41540	1RB#0	21.97	PASS
Band41	10MHz	16QAM	41540	1RB#0	20.87	PASS
Band41	10MHz	QPSK	41540	1RB#24	21.98	PASS
Band41	10MHz	16QAM	41540	1RB#24	20.89	PASS
Band41	10MHz	QPSK	41540	1RB#49	21.93	PASS
Band41	10MHz	16QAM	41540	1RB#49	20.90	PASS
Band41	10MHz	QPSK	41540	25RB#0	21.06	PASS

Band41	10MHz	16QAM	41540	25RB#0	20.10	PASS
Band41	10MHz	QPSK	41540	25RB#12	21.08	PASS
Band41	10MHz	16QAM	41540	25RB#12	20.08	PASS
Band41	10MHz	QPSK	41540	25RB#25	21.03	PASS
Band41	10MHz	16QAM	41540	25RB#25	20.08	PASS
Band41	10MHz	QPSK	41540	50RB#0	21.09	PASS
Band41	10MHz	16QAM	41540	50RB#0	20.09	PASS
Band41	15MHz	QPSK	39725	1RB#0	22.23	PASS
Band41	15MHz	16QAM	39725	1RB#0	21.24	PASS
Band41	15MHz	QPSK	39725	1RB#38	22.21	PASS
Band41	15MHz	16QAM	39725	1RB#38	21.39	PASS
Band41	15MHz	QPSK	39725	1RB#74	22.19	PASS
Band41	15MHz	16QAM	39725	1RB#74	21.44	PASS
Band41	15MHz	QPSK	39725	38RB#0	21.27	PASS
Band41	15MHz	16QAM	39725	38RB#0	21.23	PASS
Band41	15MHz	QPSK	39725	38RB#18	21.25	PASS
Band41	15MHz	16QAM	39725	38RB#18	21.27	PASS
Band41	15MHz	QPSK	39725	38RB#37	21.29	PASS
Band41	15MHz	16QAM	39725	38RB#37	21.23	PASS
Band41	15MHz	QPSK	39725	75RB#0	21.29	PASS
Band41	15MHz	16QAM	39725	75RB#0	20.25	PASS
Band41	15MHz	QPSK	40620	1RB#0	22.49	PASS
Band41	15MHz	16QAM	40620	1RB#0	21.53	PASS
Band41	15MHz	QPSK	40620	1RB#38	22.51	PASS
Band41	15MHz	16QAM	40620	1RB#38	21.40	PASS
Band41	15MHz	QPSK	40620	1RB#74	22.42	PASS
Band41	15MHz	16QAM	40620	1RB#74	21.54	PASS
Band41	15MHz	QPSK	40620	38RB#0	21.50	PASS
Band41	15MHz	16QAM	40620	38RB#0	21.51	PASS
Band41	15MHz	QPSK	40620	38RB#18	21.51	PASS
Band41	15MHz	16QAM	40620	38RB#18	21.50	PASS
Band41	15MHz	QPSK	40620	38RB#37	21.50	PASS
Band41	15MHz	16QAM	40620	38RB#37	21.51	PASS
Band41	15MHz	QPSK	40620	75RB#0	21.49	PASS
Band41	15MHz	16QAM	40620	75RB#0	20.51	PASS
Band41	15MHz	QPSK	41515	1RB#0	21.87	PASS
Band41	15MHz	16QAM	41515	1RB#0	20.84	PASS
Band41	15MHz	QPSK	41515	1RB#38	21.82	PASS
Band41	15MHz	16QAM	41515	1RB#38	20.92	PASS
Band41	15MHz	QPSK	41515	1RB#74	21.70	PASS
Band41	15MHz	16QAM	41515	1RB#74	20.74	PASS
Band41	15MHz	QPSK	41515	38RB#0	20.94	PASS

Band41	15MHz	16QAM	41515	38RB#0	20.94	PASS
Band41	15MHz	QPSK	41515	38RB#18	20.93	PASS
Band41	15MHz	16QAM	41515	38RB#18	20.90	PASS
Band41	15MHz	QPSK	41515	38RB#37	20.92	PASS
Band41	15MHz	16QAM	41515	38RB#37	20.93	PASS
Band41	15MHz	QPSK	41515	75RB#0	20.93	PASS
Band41	15MHz	16QAM	41515	75RB#0	19.92	PASS
Band41	20MHz	QPSK	39750	1RB#0	22.12	PASS
Band41	20MHz	16QAM	39750	1RB#0	21.35	PASS
Band41	20MHz	QPSK	39750	1RB#49	22.25	PASS
Band41	20MHz	16QAM	39750	1RB#49	21.35	PASS
Band41	20MHz	QPSK	39750	1RB#99	22.30	PASS
Band41	20MHz	16QAM	39750	1RB#99	21.27	PASS
Band41	20MHz	QPSK	39750	50RB#0	21.30	PASS
Band41	20MHz	16QAM	39750	50RB#0	20.32	PASS
Band41	20MHz	QPSK	39750	50RB#25	21.31	PASS
Band41	20MHz	16QAM	39750	50RB#25	20.34	PASS
Band41	20MHz	QPSK	39750	50RB#50	21.29	PASS
Band41	20MHz	16QAM	39750	50RB#50	20.29	PASS
Band41	20MHz	QPSK	39750	100RB#0	21.27	PASS
Band41	20MHz	16QAM	39750	100RB#0	20.30	PASS
Band41	20MHz	QPSK	40620	1RB#0	22.46	PASS
Band41	20MHz	16QAM	40620	1RB#0	21.58	PASS
Band41	20MHz	QPSK	40620	1RB#49	22.39	PASS
Band41	20MHz	16QAM	40620	1RB#49	21.55	PASS
Band41	20MHz	QPSK	40620	1RB#99	22.41	PASS
Band41	20MHz	16QAM	40620	1RB#99	21.60	PASS
Band41	20MHz	QPSK	40620	50RB#0	21.53	PASS
Band41	20MHz	16QAM	40620	50RB#0	20.56	PASS
Band41	20MHz	QPSK	40620	50RB#25	21.52	PASS
Band41	20MHz	16QAM	40620	50RB#25	20.57	PASS
Band41	20MHz	QPSK	40620	50RB#50	21.45	PASS
Band41	20MHz	16QAM	40620	50RB#50	20.49	PASS
Band41	20MHz	QPSK	40620	100RB#0	21.49	PASS
Band41	20MHz	16QAM	40620	100RB#0	20.54	PASS
Band41	20MHz	QPSK	41490	1RB#0	21.91	PASS
Band41	20MHz	16QAM	41490	1RB#0	20.98	PASS
Band41	20MHz	QPSK	41490	1RB#49	21.80	PASS
Band41	20MHz	16QAM	41490	1RB#49	20.83	PASS
Band41	20MHz	QPSK	41490	1RB#99	21.88	PASS
Band41	20MHz	16QAM	41490	1RB#99	20.68	PASS
Band41	20MHz	QPSK	41490	50RB#0	20.99	PASS

Band41	20MHz	16QAM	41490	50RB#0	20.04	PASS
Band41	20MHz	QPSK	41490	50RB#25	20.98	PASS
Band41	20MHz	16QAM	41490	50RB#25	19.96	PASS
Band41	20MHz	QPSK	41490	50RB#50	20.93	PASS
Band41	20MHz	16QAM	41490	50RB#50	19.93	PASS
Band41	20MHz	QPSK	41490	100RB#0	20.98	PASS
Band41	20MHz	16QAM	41490	100RB#0	19.96	PASS

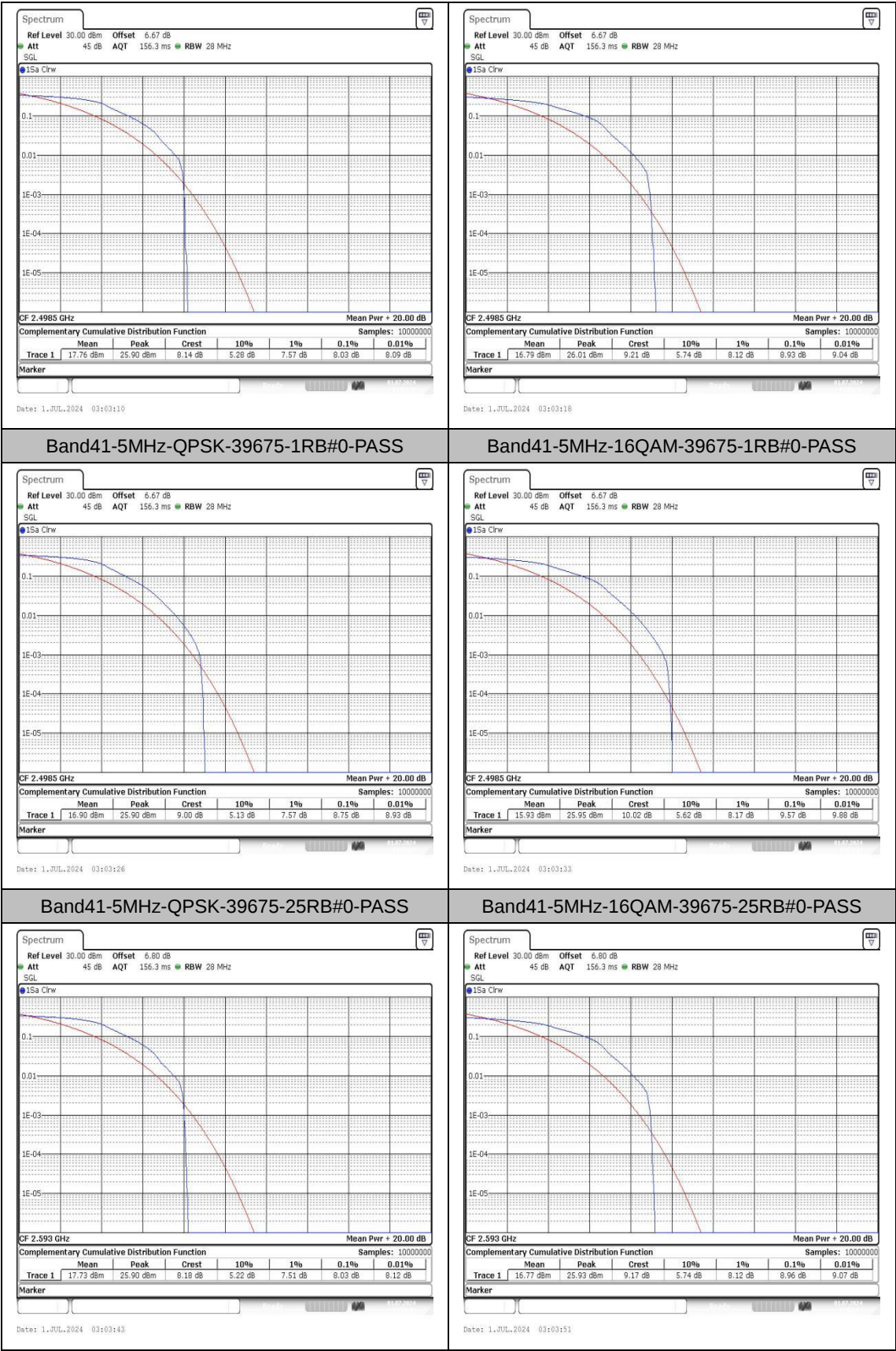
Appendix B: Peak-to-Average Ratio(CCDF)

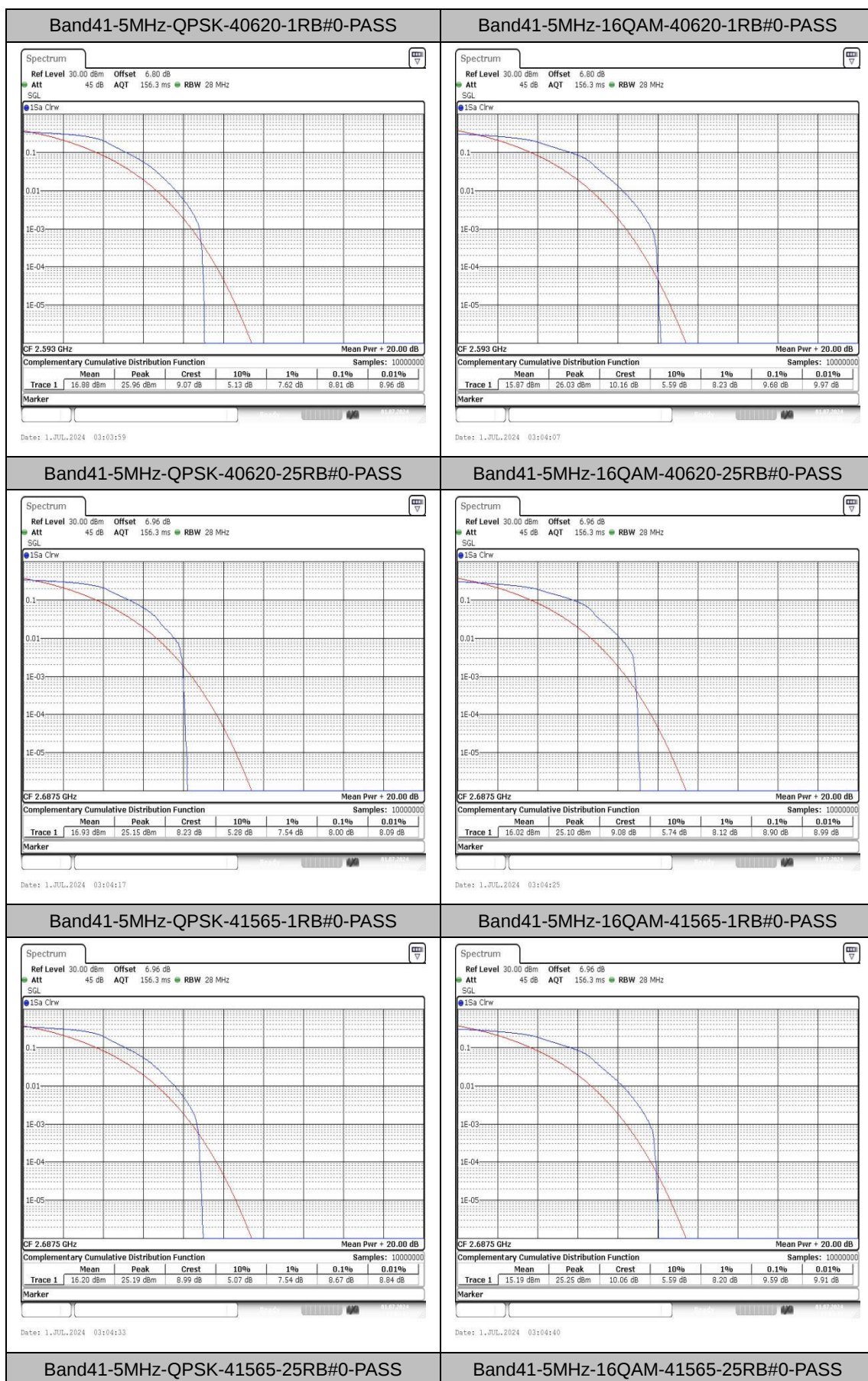
Test Result

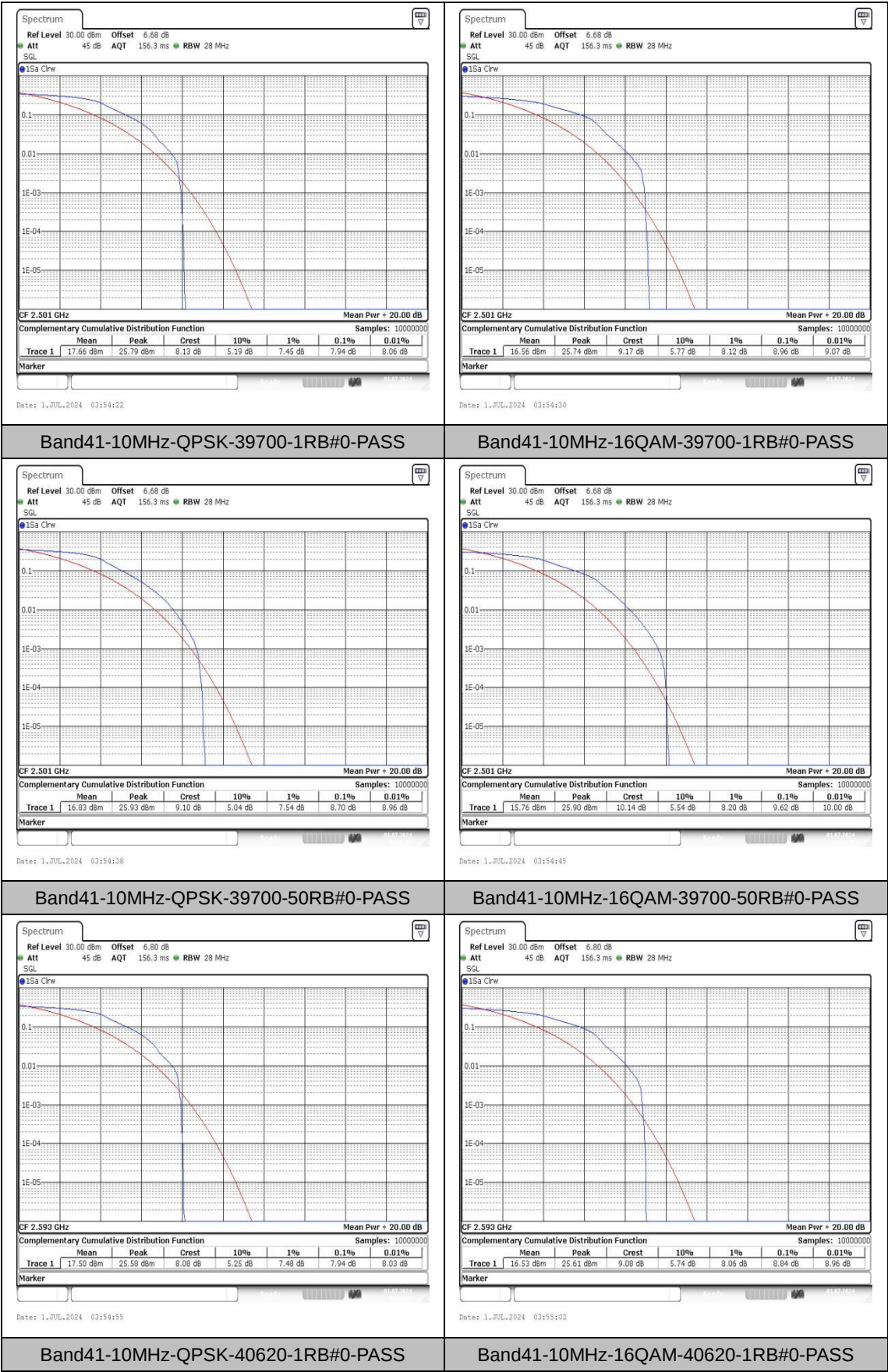
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	8.03	13	PASS
Band41	5MHz	16QAM	39675	1RB#0	8.93	13	PASS
Band41	5MHz	QPSK	39675	25RB#0	8.75	13	PASS
Band41	5MHz	16QAM	39675	25RB#0	9.57	13	PASS
Band41	5MHz	QPSK	40620	1RB#0	8.03	13	PASS
Band41	5MHz	16QAM	40620	1RB#0	8.96	13	PASS
Band41	5MHz	QPSK	40620	25RB#0	8.81	13	PASS
Band41	5MHz	16QAM	40620	25RB#0	9.68	13	PASS
Band41	5MHz	QPSK	41565	1RB#0	8.00	13	PASS
Band41	5MHz	16QAM	41565	1RB#0	8.90	13	PASS
Band41	5MHz	QPSK	41565	25RB#0	8.67	13	PASS
Band41	5MHz	16QAM	41565	25RB#0	9.59	13	PASS
Band41	10MHz	QPSK	39700	1RB#0	7.94	13	PASS
Band41	10MHz	16QAM	39700	1RB#0	8.96	13	PASS
Band41	10MHz	QPSK	39700	50RB#0	8.70	13	PASS
Band41	10MHz	16QAM	39700	50RB#0	9.62	13	PASS
Band41	10MHz	QPSK	40620	1RB#0	7.94	13	PASS
Band41	10MHz	16QAM	40620	1RB#0	8.84	13	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.78	13	PASS
Band41	10MHz	16QAM	40620	50RB#0	9.62	13	PASS
Band41	10MHz	QPSK	41540	1RB#0	8.00	13	PASS
Band41	10MHz	16QAM	41540	1RB#0	8.99	13	PASS
Band41	10MHz	QPSK	41540	50RB#0	8.90	13	PASS
Band41	10MHz	16QAM	41540	50RB#0	9.68	13	PASS
Band41	15MHz	QPSK	39725	1RB#0	8.06	13	PASS
Band41	15MHz	16QAM	39725	1RB#0	8.96	13	PASS
Band41	15MHz	QPSK	39725	75RB#0	8.90	13	PASS
Band41	15MHz	16QAM	39725	75RB#0	9.65	13	PASS
Band41	15MHz	QPSK	40620	1RB#0	8.14	13	PASS
Band41	15MHz	16QAM	40620	1RB#0	9.01	13	PASS
Band41	15MHz	QPSK	40620	75RB#0	8.99	13	PASS
Band41	15MHz	16QAM	40620	75RB#0	9.68	13	PASS
Band41	15MHz	QPSK	41515	1RB#0	8.09	13	PASS
Band41	15MHz	16QAM	41515	1RB#0	8.96	13	PASS
Band41	15MHz	QPSK	41515	75RB#0	8.93	13	PASS

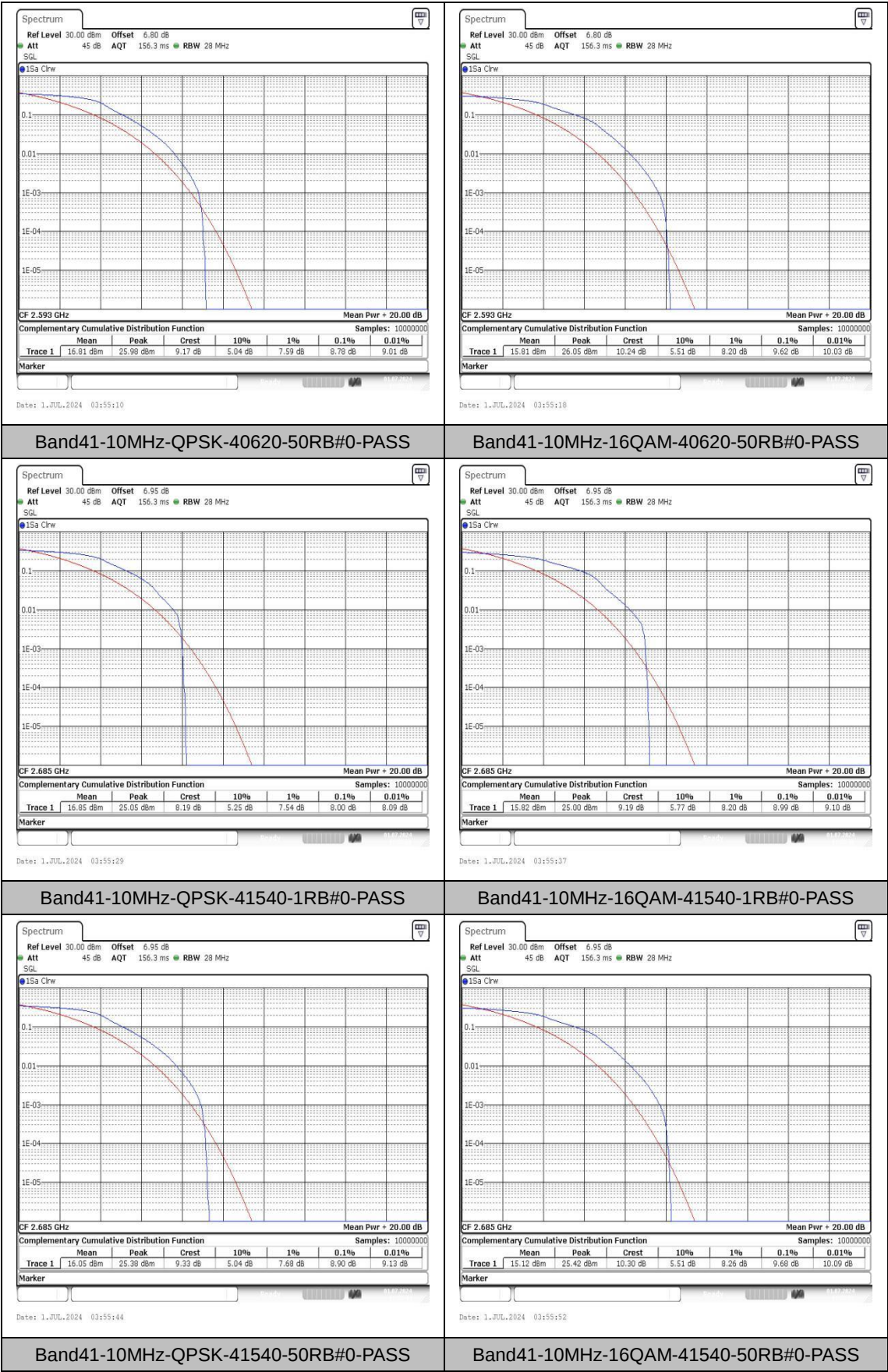
Band41	15MHz	16QAM	41515	75RB#0	9.65	13	PASS
Band41	20MHz	QPSK	39750	1RB#0	7.97	13	PASS
Band41	20MHz	16QAM	39750	1RB#0	8.96	13	PASS
Band41	20MHz	QPSK	39750	100RB#0	8.75	13	PASS
Band41	20MHz	16QAM	39750	100RB#0	9.62	13	PASS
Band41	20MHz	QPSK	40620	1RB#0	8.03	13	PASS
Band41	20MHz	16QAM	40620	1RB#0	9.04	13	PASS
Band41	20MHz	QPSK	40620	100RB#0	8.75	13	PASS
Band41	20MHz	16QAM	40620	100RB#0	9.59	13	PASS
Band41	20MHz	QPSK	41490	1RB#0	8.00	13	PASS
Band41	20MHz	16QAM	41490	1RB#0	9.01	13	PASS
Band41	20MHz	QPSK	41490	100RB#0	8.78	13	PASS
Band41	20MHz	16QAM	41490	100RB#0	9.59	13	PASS

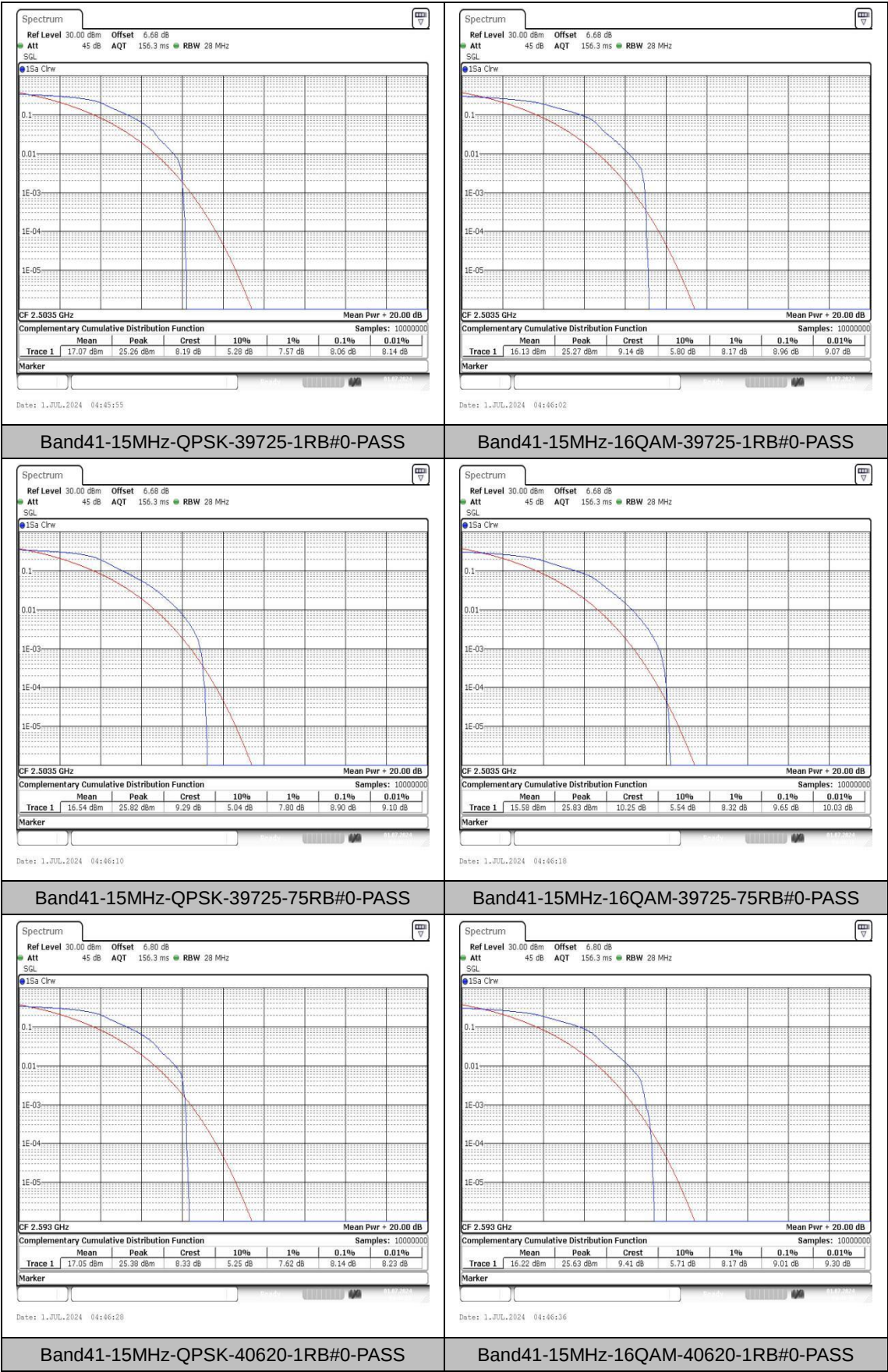
Test Graphs

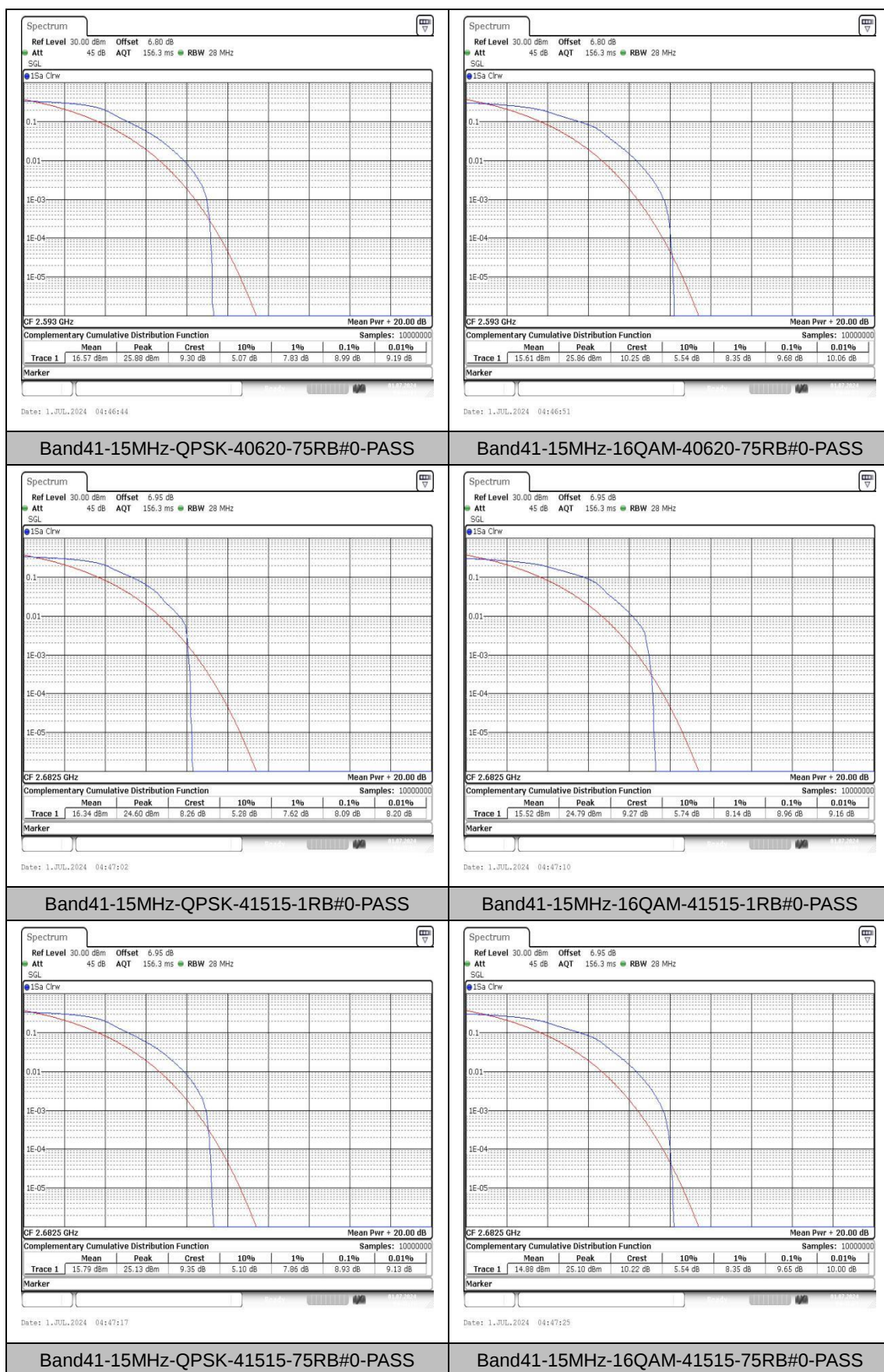


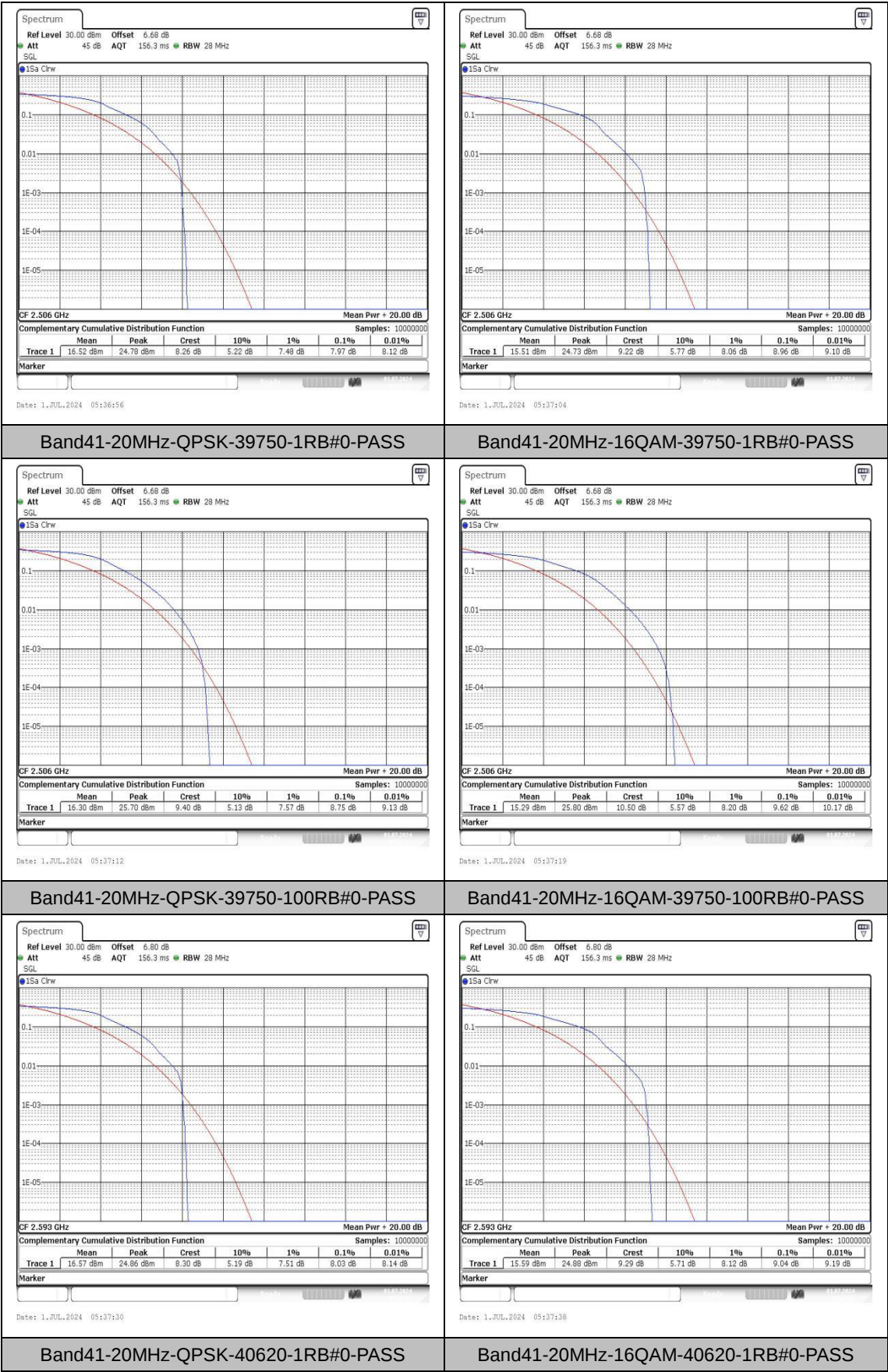


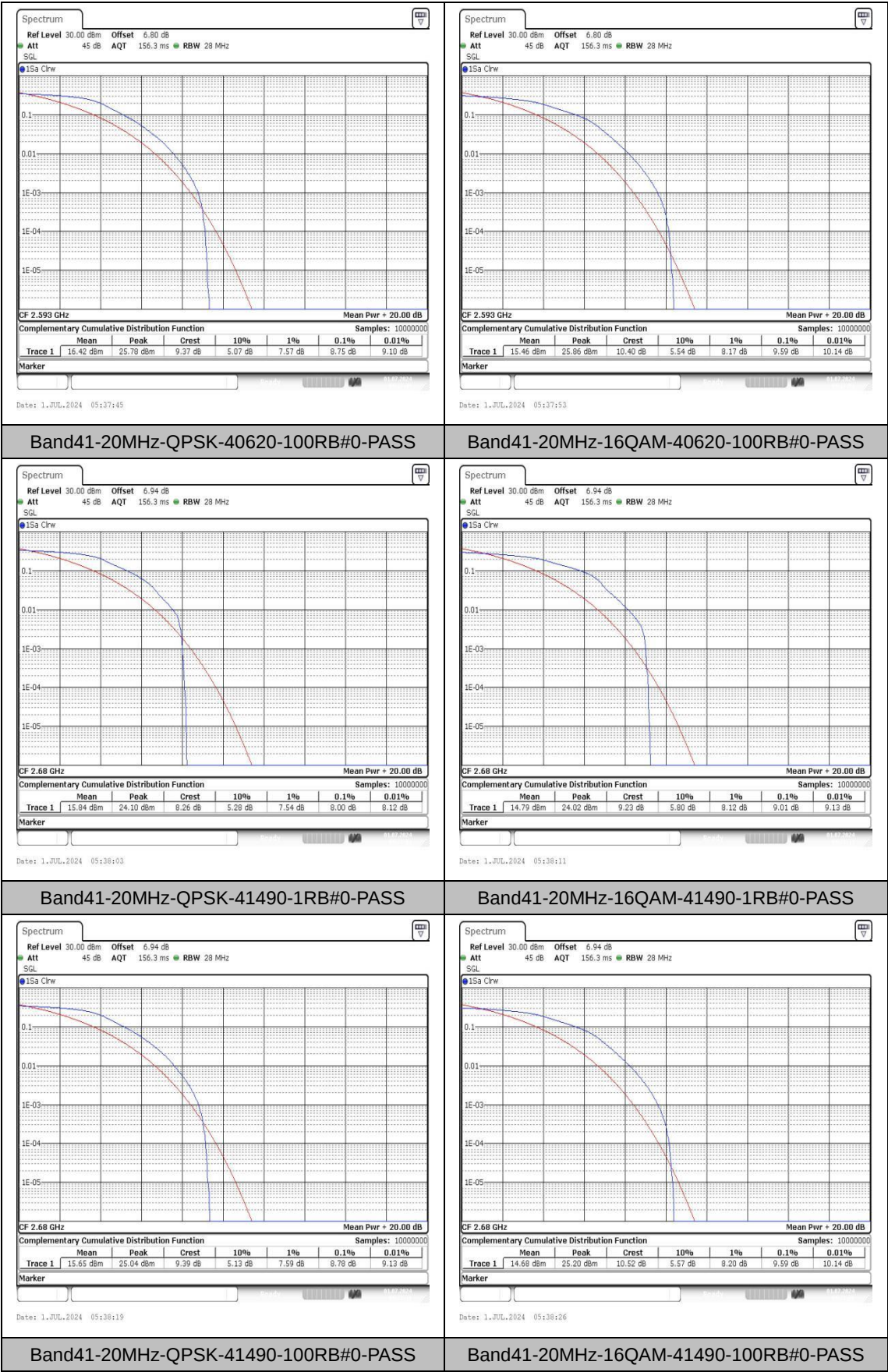












Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	4.515	5.29	PASS
Band41	5MHz	16QAM	39675	25RB#0	4.515	5.18	PASS
Band41	5MHz	QPSK	40620	25RB#0	4.496	5.20	PASS
Band41	5MHz	16QAM	40620	25RB#0	4.505	5.15	PASS
Band41	5MHz	QPSK	41565	25RB#0	4.525	5.20	PASS
Band41	5MHz	16QAM	41565	25RB#0	4.515	5.19	PASS
Band41	10MHz	QPSK	39700	50RB#0	9.018	10.07	PASS
Band41	10MHz	16QAM	39700	50RB#0	8.985	10.07	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.985	10.10	PASS
Band41	10MHz	16QAM	40620	50RB#0	8.985	10.10	PASS
Band41	10MHz	QPSK	41540	50RB#0	8.985	10.10	PASS
Band41	10MHz	16QAM	41540	50RB#0	9.018	10.07	PASS
Band41	15MHz	QPSK	39725	75RB#0	13.478	15.00	PASS
Band41	15MHz	16QAM	39725	75RB#0	13.478	15.00	PASS
Band41	15MHz	QPSK	40620	75RB#0	13.527	15.05	PASS
Band41	15MHz	16QAM	40620	75RB#0	13.527	14.95	PASS
Band41	15MHz	QPSK	41515	75RB#0	13.478	15.00	PASS
Band41	15MHz	16QAM	41515	75RB#0	13.478	15.15	PASS
Band41	20MHz	QPSK	39750	100RB#0	18.037	20.13	PASS
Band41	20MHz	16QAM	39750	100RB#0	18.103	20.00	PASS
Band41	20MHz	QPSK	40620	100RB#0	18.037	19.87	PASS
Band41	20MHz	16QAM	40620	100RB#0	18.103	20.00	PASS
Band41	20MHz	QPSK	41490	100RB#0	18.103	20.13	PASS
Band41	20MHz	16QAM	41490	100RB#0	18.103	20.13	PASS

Test Graphs

