

Appendix for LTE BAND 41

Product Name: Smart Phone

Model No: Nova

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	22.82	PASS
Band41	5MHz	16QAM	39675	1RB#0	22.19	PASS
Band41	5MHz	QPSK	39675	1RB#12	22.96	PASS
Band41	5MHz	16QAM	39675	1RB#12	22.38	PASS
Band41	5MHz	QPSK	39675	1RB#24	22.80	PASS
Band41	5MHz	16QAM	39675	1RB#24	22.22	PASS
Band41	5MHz	QPSK	39675	12RB#0	21.94	PASS
Band41	5MHz	16QAM	39675	12RB#0	20.90	PASS
Band41	5MHz	QPSK	39675	12RB#6	21.89	PASS
Band41	5MHz	16QAM	39675	12RB#6	20.88	PASS
Band41	5MHz	QPSK	39675	12RB#13	21.91	PASS
Band41	5MHz	16QAM	39675	12RB#13	20.92	PASS
Band41	5MHz	QPSK	39675	25RB#0	21.94	PASS
Band41	5MHz	16QAM	39675	25RB#0	20.96	PASS
Band41	5MHz	QPSK	40620	1RB#0	22.95	PASS
Band41	5MHz	16QAM	40620	1RB#0	22.31	PASS
Band41	5MHz	QPSK	40620	1RB#12	23.08	PASS
Band41	5MHz	16QAM	40620	1RB#12	22.40	PASS
Band41	5MHz	QPSK	40620	1RB#24	22.92	PASS
Band41	5MHz	16QAM	40620	1RB#24	22.28	PASS
Band41	5MHz	QPSK	40620	12RB#0	22.12	PASS
Band41	5MHz	16QAM	40620	12RB#0	21.11	PASS
Band41	5MHz	QPSK	40620	12RB#6	22.08	PASS
Band41	5MHz	16QAM	40620	12RB#6	21.16	PASS
Band41	5MHz	QPSK	40620	12RB#13	22.03	PASS
Band41	5MHz	16QAM	40620	12RB#13	21.12	PASS
Band41	5MHz	QPSK	40620	25RB#0	22.09	PASS
Band41	5MHz	16QAM	40620	25RB#0	21.16	PASS
Band41	5MHz	QPSK	41565	1RB#0	22.97	PASS
Band41	5MHz	16QAM	41565	1RB#0	22.28	PASS
Band41	5MHz	QPSK	41565	1RB#12	23.02	PASS
Band41	5MHz	16QAM	41565	1RB#12	22.36	PASS
Band41	5MHz	QPSK	41565	1RB#24	22.84	PASS
Band41	5MHz	16QAM	41565	1RB#24	22.20	PASS
Band41	5MHz	QPSK	41565	12RB#0	21.96	PASS
Band41	5MHz	16QAM	41565	12RB#0	21.00	PASS

Band41	5MHz	QPSK	41565	12RB#6	22.02	PASS
Band41	5MHz	16QAM	41565	12RB#6	21.00	PASS
Band41	5MHz	QPSK	41565	12RB#13	21.94	PASS
Band41	5MHz	16QAM	41565	12RB#13	20.93	PASS
Band41	5MHz	QPSK	41565	25RB#0	22.06	PASS
Band41	5MHz	16QAM	41565	25RB#0	21.02	PASS
Band41	10MHz	QPSK	39700	1RB#0	22.87	PASS
Band41	10MHz	16QAM	39700	1RB#0	22.31	PASS
Band41	10MHz	QPSK	39700	1RB#24	23.09	PASS
Band41	10MHz	16QAM	39700	1RB#24	22.46	PASS
Band41	10MHz	QPSK	39700	1RB#49	22.81	PASS
Band41	10MHz	16QAM	39700	1RB#49	22.22	PASS
Band41	10MHz	QPSK	39700	25RB#0	22.00	PASS
Band41	10MHz	16QAM	39700	25RB#0	21.09	PASS
Band41	10MHz	QPSK	39700	25RB#12	21.96	PASS
Band41	10MHz	16QAM	39700	25RB#12	21.08	PASS
Band41	10MHz	QPSK	39700	25RB#25	21.96	PASS
Band41	10MHz	16QAM	39700	25RB#25	21.06	PASS
Band41	10MHz	QPSK	39700	50RB#0	21.99	PASS
Band41	10MHz	16QAM	39700	50RB#0	20.98	PASS
Band41	10MHz	QPSK	40620	1RB#0	23.12	PASS
Band41	10MHz	16QAM	40620	1RB#0	22.06	PASS
Band41	10MHz	QPSK	40620	1RB#24	23.30	PASS
Band41	10MHz	16QAM	40620	1RB#24	22.23	PASS
Band41	10MHz	QPSK	40620	1RB#49	23.07	PASS
Band41	10MHz	16QAM	40620	1RB#49	21.97	PASS
Band41	10MHz	QPSK	40620	25RB#0	22.18	PASS
Band41	10MHz	16QAM	40620	25RB#0	21.18	PASS
Band41	10MHz	QPSK	40620	25RB#12	22.12	PASS
Band41	10MHz	16QAM	40620	25RB#12	21.18	PASS
Band41	10MHz	QPSK	40620	25RB#25	22.08	PASS
Band41	10MHz	16QAM	40620	25RB#25	21.12	PASS
Band41	10MHz	QPSK	40620	50RB#0	22.12	PASS
Band41	10MHz	16QAM	40620	50RB#0	21.17	PASS
Band41	10MHz	QPSK	41540	1RB#0	23.00	PASS
Band41	10MHz	16QAM	41540	1RB#0	22.34	PASS
Band41	10MHz	QPSK	41540	1RB#24	23.14	PASS
Band41	10MHz	16QAM	41540	1RB#24	22.46	PASS
Band41	10MHz	QPSK	41540	1RB#49	22.93	PASS
Band41	10MHz	16QAM	41540	1RB#49	22.29	PASS
Band41	10MHz	QPSK	41540	25RB#0	22.09	PASS
Band41	10MHz	16QAM	41540	25RB#0	21.25	PASS

Band41	10MHz	QPSK	41540	25RB#12	22.09	PASS
Band41	10MHz	16QAM	41540	25RB#12	21.20	PASS
Band41	10MHz	QPSK	41540	25RB#25	21.92	PASS
Band41	10MHz	16QAM	41540	25RB#25	21.11	PASS
Band41	10MHz	QPSK	41540	50RB#0	22.07	PASS
Band41	10MHz	16QAM	41540	50RB#0	21.06	PASS
Band41	15MHz	QPSK	39725	1RB#0	22.95	PASS
Band41	15MHz	16QAM	39725	1RB#0	22.20	PASS
Band41	15MHz	QPSK	39725	1RB#38	22.81	PASS
Band41	15MHz	16QAM	39725	1RB#38	22.20	PASS
Band41	15MHz	QPSK	39725	1RB#74	22.74	PASS
Band41	15MHz	16QAM	39725	1RB#74	22.05	PASS
Band41	15MHz	QPSK	39725	38RB#0	21.93	PASS
Band41	15MHz	16QAM	39725	38RB#0	21.91	PASS
Band41	15MHz	QPSK	39725	38RB#18	21.92	PASS
Band41	15MHz	16QAM	39725	38RB#18	21.92	PASS
Band41	15MHz	QPSK	39725	38RB#37	21.94	PASS
Band41	15MHz	16QAM	39725	38RB#37	21.93	PASS
Band41	15MHz	QPSK	39725	75RB#0	21.91	PASS
Band41	15MHz	16QAM	39725	75RB#0	20.96	PASS
Band41	15MHz	QPSK	40620	1RB#0	23.16	PASS
Band41	15MHz	16QAM	40620	1RB#0	22.15	PASS
Band41	15MHz	QPSK	40620	1RB#38	23.12	PASS
Band41	15MHz	16QAM	40620	1RB#38	22.19	PASS
Band41	15MHz	QPSK	40620	1RB#74	22.95	PASS
Band41	15MHz	16QAM	40620	1RB#74	22.03	PASS
Band41	15MHz	QPSK	40620	38RB#0	22.13	PASS
Band41	15MHz	16QAM	40620	38RB#0	22.12	PASS
Band41	15MHz	QPSK	40620	38RB#18	22.12	PASS
Band41	15MHz	16QAM	40620	38RB#18	22.12	PASS
Band41	15MHz	QPSK	40620	38RB#37	22.12	PASS
Band41	15MHz	16QAM	40620	38RB#37	22.12	PASS
Band41	15MHz	QPSK	40620	75RB#0	22.12	PASS
Band41	15MHz	16QAM	40620	75RB#0	21.16	PASS
Band41	15MHz	QPSK	41515	1RB#0	23.01	PASS
Band41	15MHz	16QAM	41515	1RB#0	22.37	PASS
Band41	15MHz	QPSK	41515	1RB#38	22.99	PASS
Band41	15MHz	16QAM	41515	1RB#38	22.30	PASS
Band41	15MHz	QPSK	41515	1RB#74	22.83	PASS
Band41	15MHz	16QAM	41515	1RB#74	22.18	PASS
Band41	15MHz	QPSK	41515	38RB#0	21.99	PASS
Band41	15MHz	16QAM	41515	38RB#0	22.01	PASS

Band41	15MHz	QPSK	41515	38RB#18	22.00	PASS
Band41	15MHz	16QAM	41515	38RB#18	22.04	PASS
Band41	15MHz	QPSK	41515	38RB#37	22.03	PASS
Band41	15MHz	16QAM	41515	38RB#37	22.06	PASS
Band41	15MHz	QPSK	41515	75RB#0	22.02	PASS
Band41	15MHz	16QAM	41515	75RB#0	21.04	PASS
Band41	20MHz	QPSK	39750	1RB#0	22.71	PASS
Band41	20MHz	16QAM	39750	1RB#0	21.91	PASS
Band41	20MHz	QPSK	39750	1RB#49	22.99	PASS
Band41	20MHz	16QAM	39750	1RB#49	22.20	PASS
Band41	20MHz	QPSK	39750	1RB#99	22.54	PASS
Band41	20MHz	16QAM	39750	1RB#99	21.81	PASS
Band41	20MHz	QPSK	39750	50RB#0	21.89	PASS
Band41	20MHz	16QAM	39750	50RB#0	20.93	PASS
Band41	20MHz	QPSK	39750	50RB#25	21.91	PASS
Band41	20MHz	16QAM	39750	50RB#25	20.96	PASS
Band41	20MHz	QPSK	39750	50RB#50	21.89	PASS
Band41	20MHz	16QAM	39750	50RB#50	20.94	PASS
Band41	20MHz	QPSK	39750	100RB#0	21.89	PASS
Band41	20MHz	16QAM	39750	100RB#0	20.92	PASS
Band41	20MHz	QPSK	40620	1RB#0	22.93	PASS
Band41	20MHz	16QAM	40620	1RB#0	21.64	PASS
Band41	20MHz	QPSK	40620	1RB#49	23.35	PASS
Band41	20MHz	16QAM	40620	1RB#49	21.92	PASS
Band41	20MHz	QPSK	40620	1RB#99	22.82	PASS
Band41	20MHz	16QAM	40620	1RB#99	21.48	PASS
Band41	20MHz	QPSK	40620	50RB#0	22.12	PASS
Band41	20MHz	16QAM	40620	50RB#0	21.21	PASS
Band41	20MHz	QPSK	40620	50RB#25	22.13	PASS
Band41	20MHz	16QAM	40620	50RB#25	21.19	PASS
Band41	20MHz	QPSK	40620	50RB#50	22.04	PASS
Band41	20MHz	16QAM	40620	50RB#50	21.13	PASS
Band41	20MHz	QPSK	40620	100RB#0	22.07	PASS
Band41	20MHz	16QAM	40620	100RB#0	21.05	PASS
Band41	20MHz	QPSK	41490	1RB#0	22.90	PASS
Band41	20MHz	16QAM	41490	1RB#0	22.07	PASS
Band41	20MHz	QPSK	41490	1RB#49	23.13	PASS
Band41	20MHz	16QAM	41490	1RB#49	22.33	PASS
Band41	20MHz	QPSK	41490	1RB#99	22.66	PASS
Band41	20MHz	16QAM	41490	1RB#99	21.86	PASS
Band41	20MHz	QPSK	41490	50RB#0	22.09	PASS
Band41	20MHz	16QAM	41490	50RB#0	21.18	PASS

Band41	20MHz	QPSK	41490	50RB#25	22.10	PASS
Band41	20MHz	16QAM	41490	50RB#25	21.12	PASS
Band41	20MHz	QPSK	41490	50RB#50	21.87	PASS
Band41	20MHz	16QAM	41490	50RB#50	20.90	PASS
Band41	20MHz	QPSK	41490	100RB#0	21.99	PASS
Band41	20MHz	16QAM	41490	100RB#0	21.04	PASS

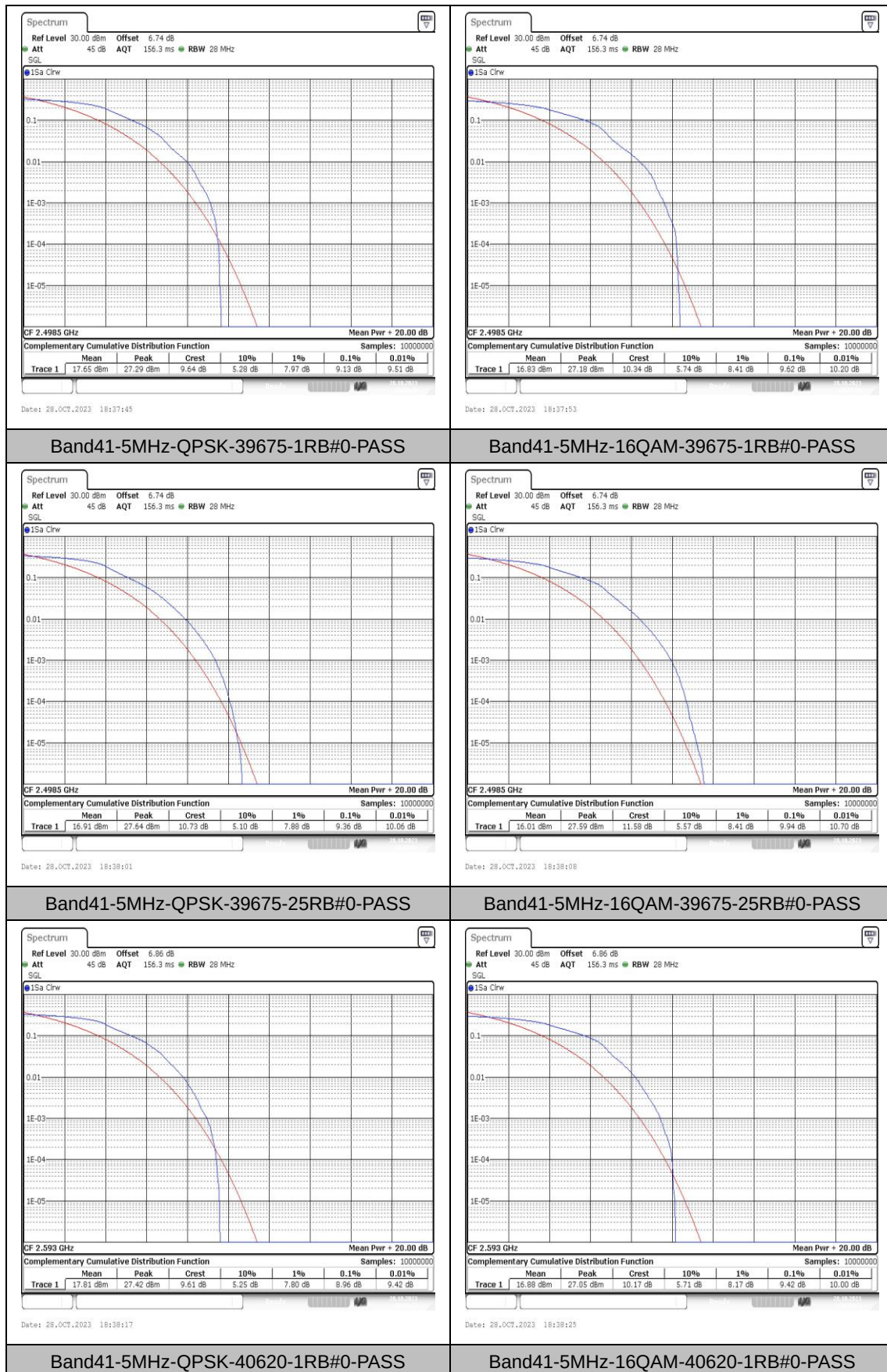
Appendix B: Peak-to-Average Ratio(CCDF)

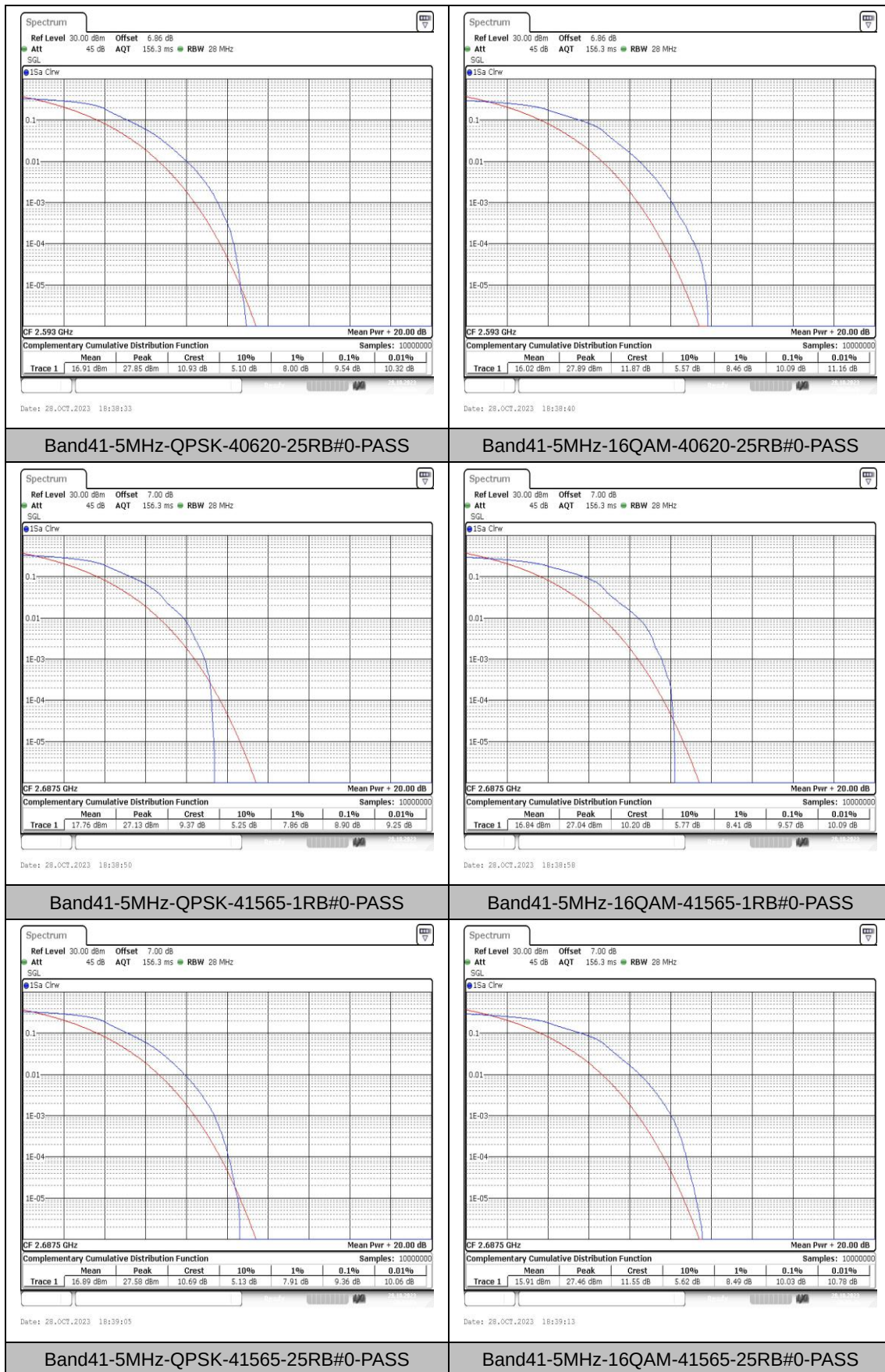
Test Result

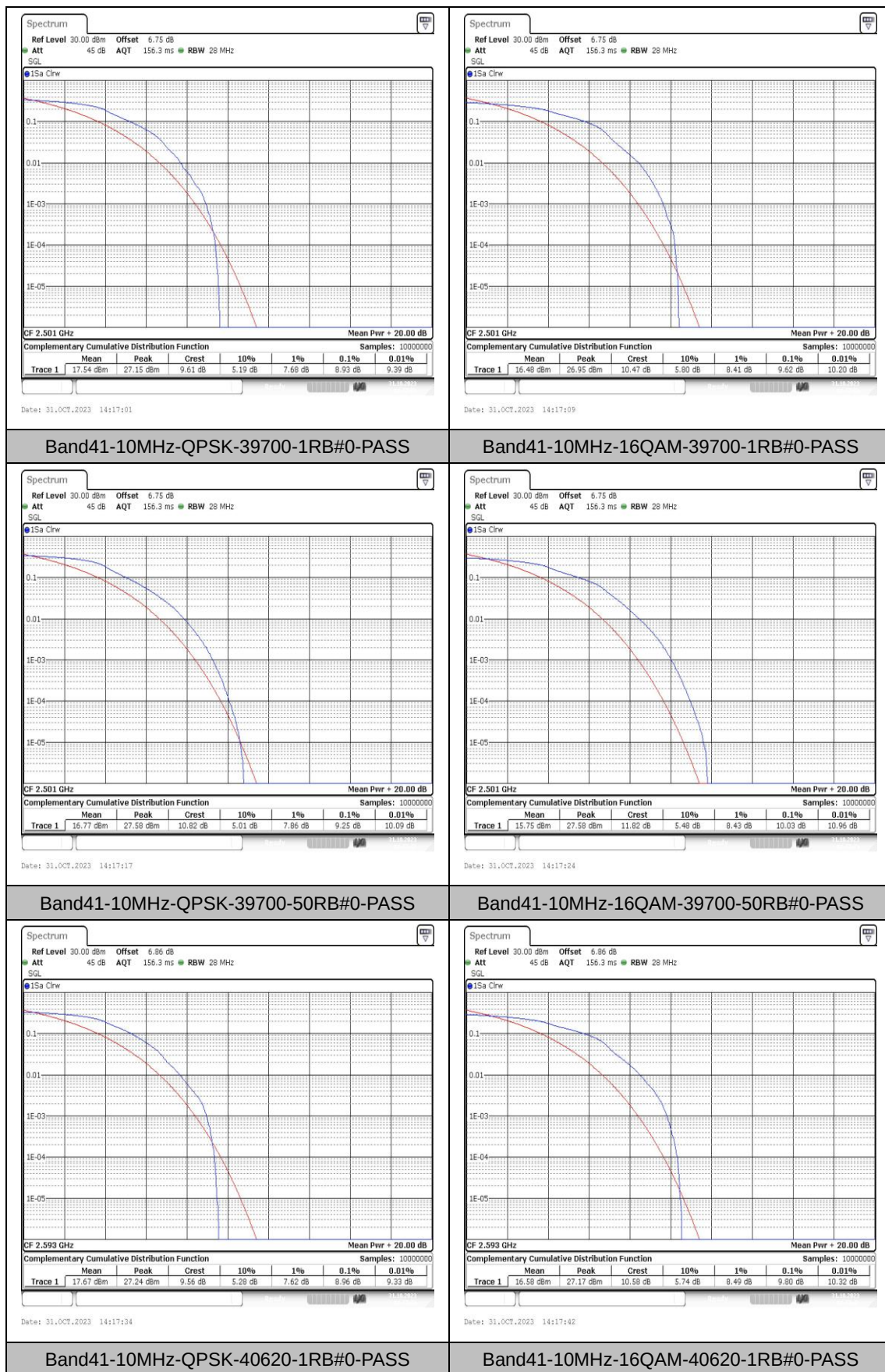
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	9.13	13	PASS
Band41	5MHz	16QAM	39675	1RB#0	9.62	13	PASS
Band41	5MHz	QPSK	39675	25RB#0	9.36	13	PASS
Band41	5MHz	16QAM	39675	25RB#0	9.94	13	PASS
Band41	5MHz	QPSK	40620	1RB#0	8.96	13	PASS
Band41	5MHz	16QAM	40620	1RB#0	9.42	13	PASS
Band41	5MHz	QPSK	40620	25RB#0	9.54	13	PASS
Band41	5MHz	16QAM	40620	25RB#0	10.09	13	PASS
Band41	5MHz	QPSK	41565	1RB#0	8.90	13	PASS
Band41	5MHz	16QAM	41565	1RB#0	9.57	13	PASS
Band41	5MHz	QPSK	41565	25RB#0	9.36	13	PASS
Band41	5MHz	16QAM	41565	25RB#0	10.03	13	PASS
Band41	10MHz	QPSK	39700	1RB#0	8.93	13	PASS
Band41	10MHz	16QAM	39700	1RB#0	9.62	13	PASS
Band41	10MHz	QPSK	39700	50RB#0	9.25	13	PASS
Band41	10MHz	16QAM	39700	50RB#0	10.03	13	PASS
Band41	10MHz	QPSK	40620	1RB#0	8.96	13	PASS
Band41	10MHz	16QAM	40620	1RB#0	9.80	13	PASS
Band41	10MHz	QPSK	40620	50RB#0	9.36	13	PASS
Band41	10MHz	16QAM	40620	50RB#0	10.17	13	PASS
Band41	10MHz	QPSK	41540	1RB#0	8.81	13	PASS
Band41	10MHz	16QAM	41540	1RB#0	9.57	13	PASS
Band41	10MHz	QPSK	41540	50RB#0	9.25	13	PASS
Band41	10MHz	16QAM	41540	50RB#0	10.03	13	PASS
Band41	15MHz	QPSK	39725	1RB#0	8.93	13	PASS
Band41	15MHz	16QAM	39725	1RB#0	9.57	13	PASS
Band41	15MHz	QPSK	39725	75RB#0	9.59	13	PASS
Band41	15MHz	16QAM	39725	75RB#0	10.20	13	PASS
Band41	15MHz	QPSK	40620	1RB#0	9.07	13	PASS
Band41	15MHz	16QAM	40620	1RB#0	9.86	13	PASS
Band41	15MHz	QPSK	40620	75RB#0	9.71	13	PASS
Band41	15MHz	16QAM	40620	75RB#0	10.23	13	PASS
Band41	15MHz	QPSK	41515	1RB#0	8.81	13	PASS
Band41	15MHz	16QAM	41515	1RB#0	9.51	13	PASS
Band41	15MHz	QPSK	41515	75RB#0	9.57	13	PASS
Band41	15MHz	16QAM	41515	75RB#0	10.20	13	PASS
Band41	20MHz	QPSK	39750	1RB#0	8.58	13	PASS

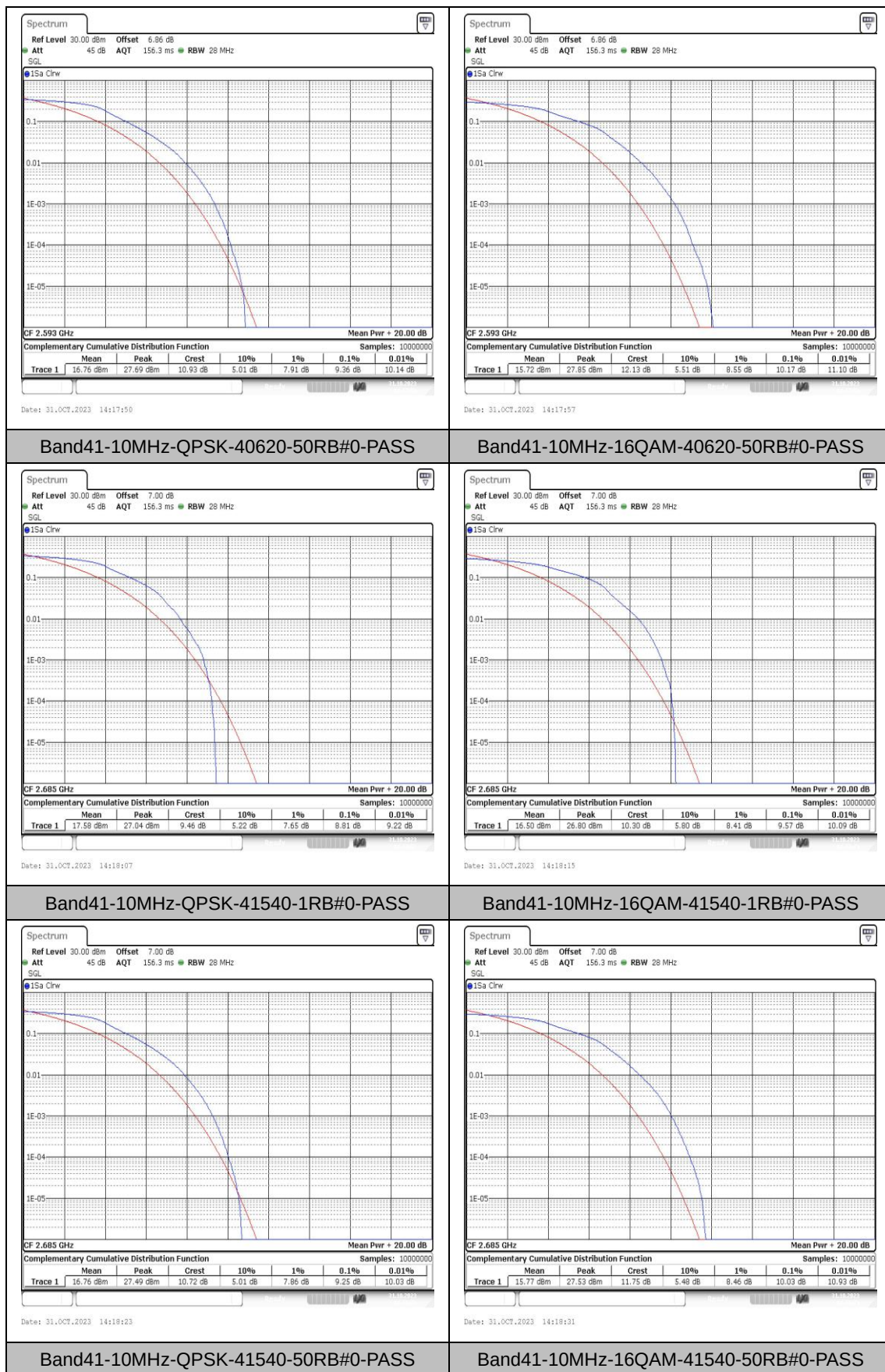
Band41	20MHz	16QAM	39750	1RB#0	9.33	13	PASS
Band41	20MHz	QPSK	39750	100RB#0	9.25	13	PASS
Band41	20MHz	16QAM	39750	100RB#0	10.00	13	PASS
Band41	20MHz	QPSK	40620	1RB#0	8.87	13	PASS
Band41	20MHz	16QAM	40620	1RB#0	9.86	13	PASS
Band41	20MHz	QPSK	40620	100RB#0	9.28	13	PASS
Band41	20MHz	16QAM	40620	100RB#0	10.09	13	PASS
Band41	20MHz	QPSK	41490	1RB#0	8.52	13	PASS
Band41	20MHz	16QAM	41490	1RB#0	9.36	13	PASS
Band41	20MHz	QPSK	41490	100RB#0	9.19	13	PASS
Band41	20MHz	16QAM	41490	100RB#0	10.03	13	PASS

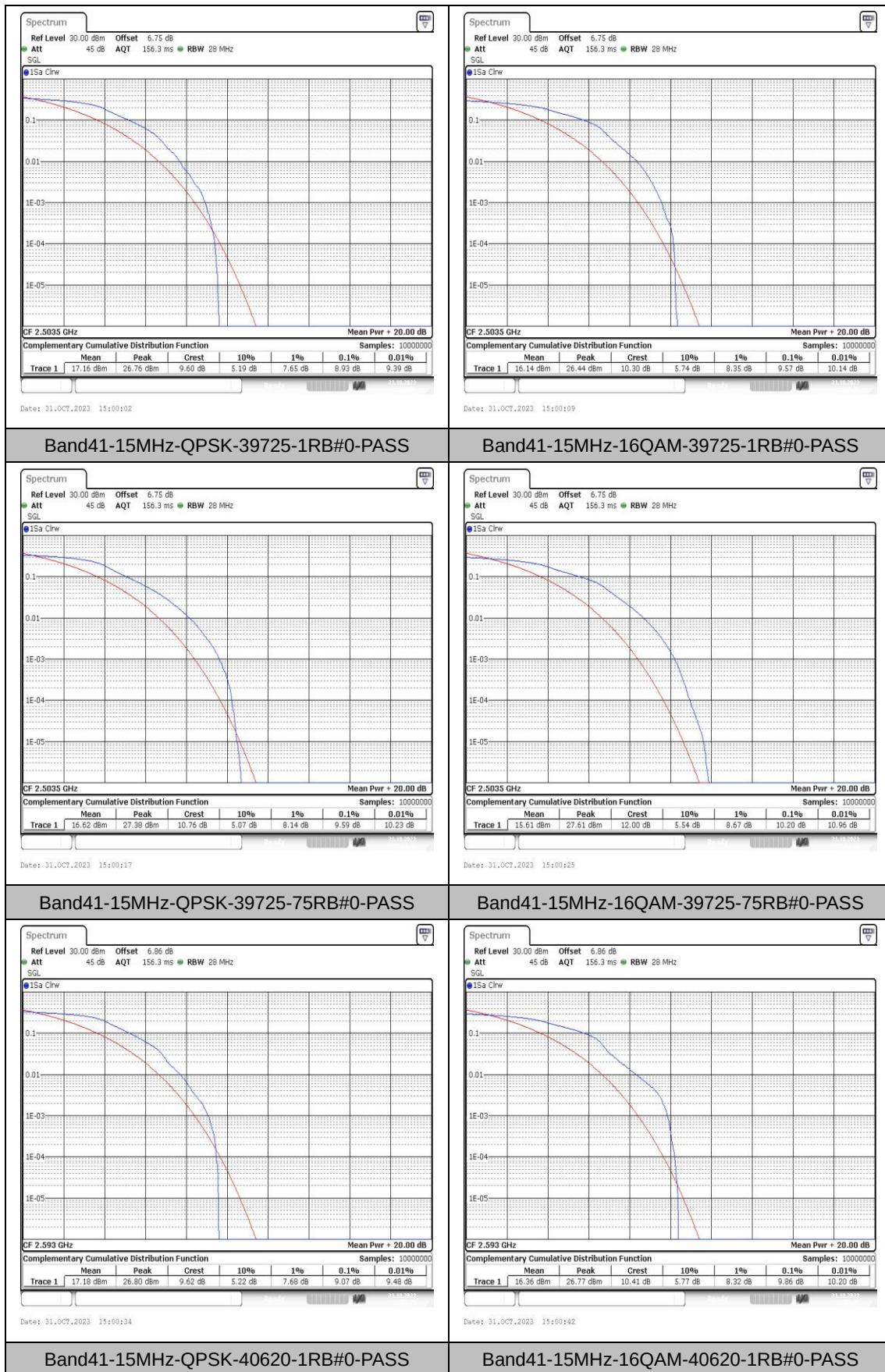
Test Graphs

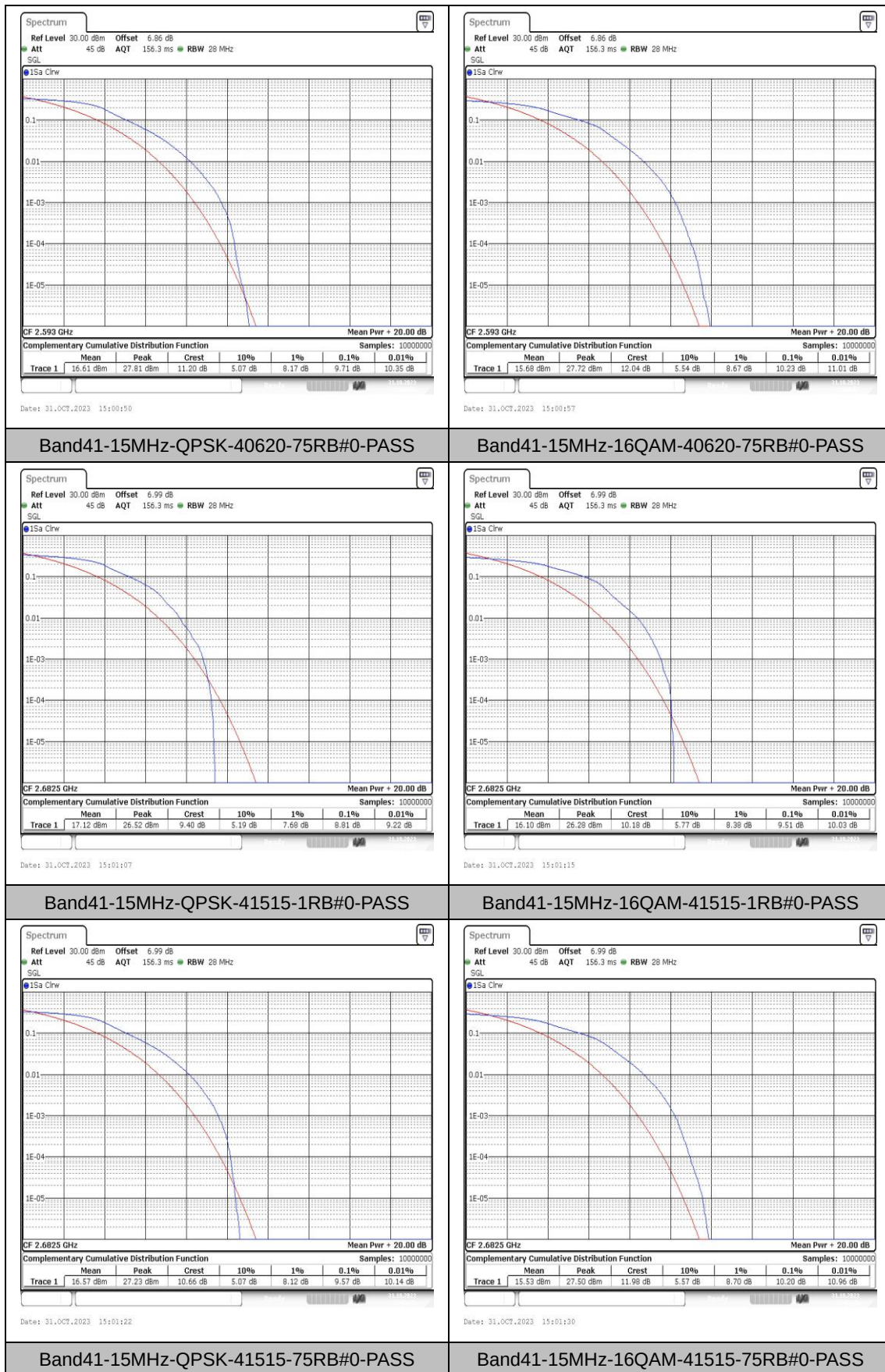


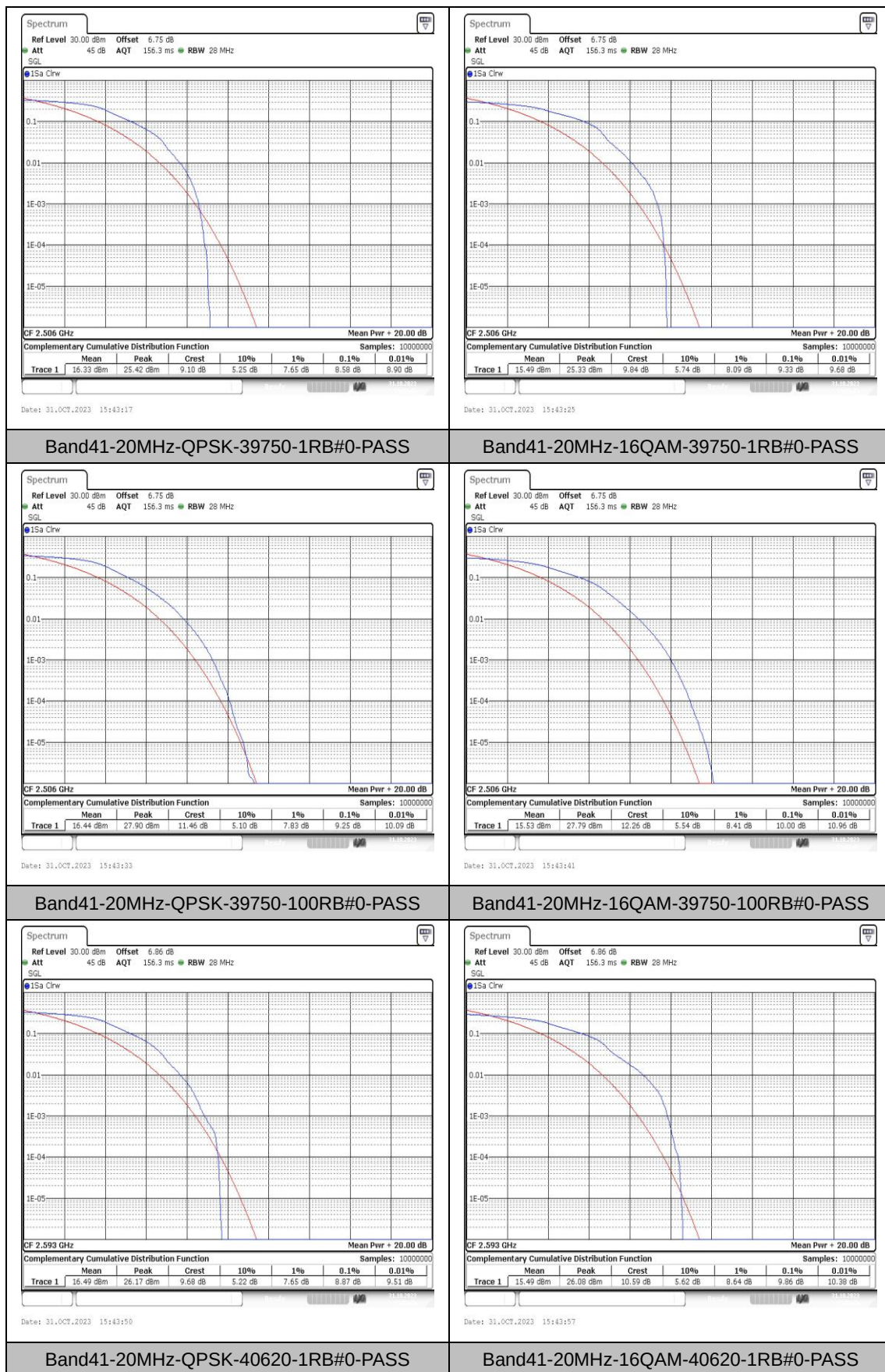


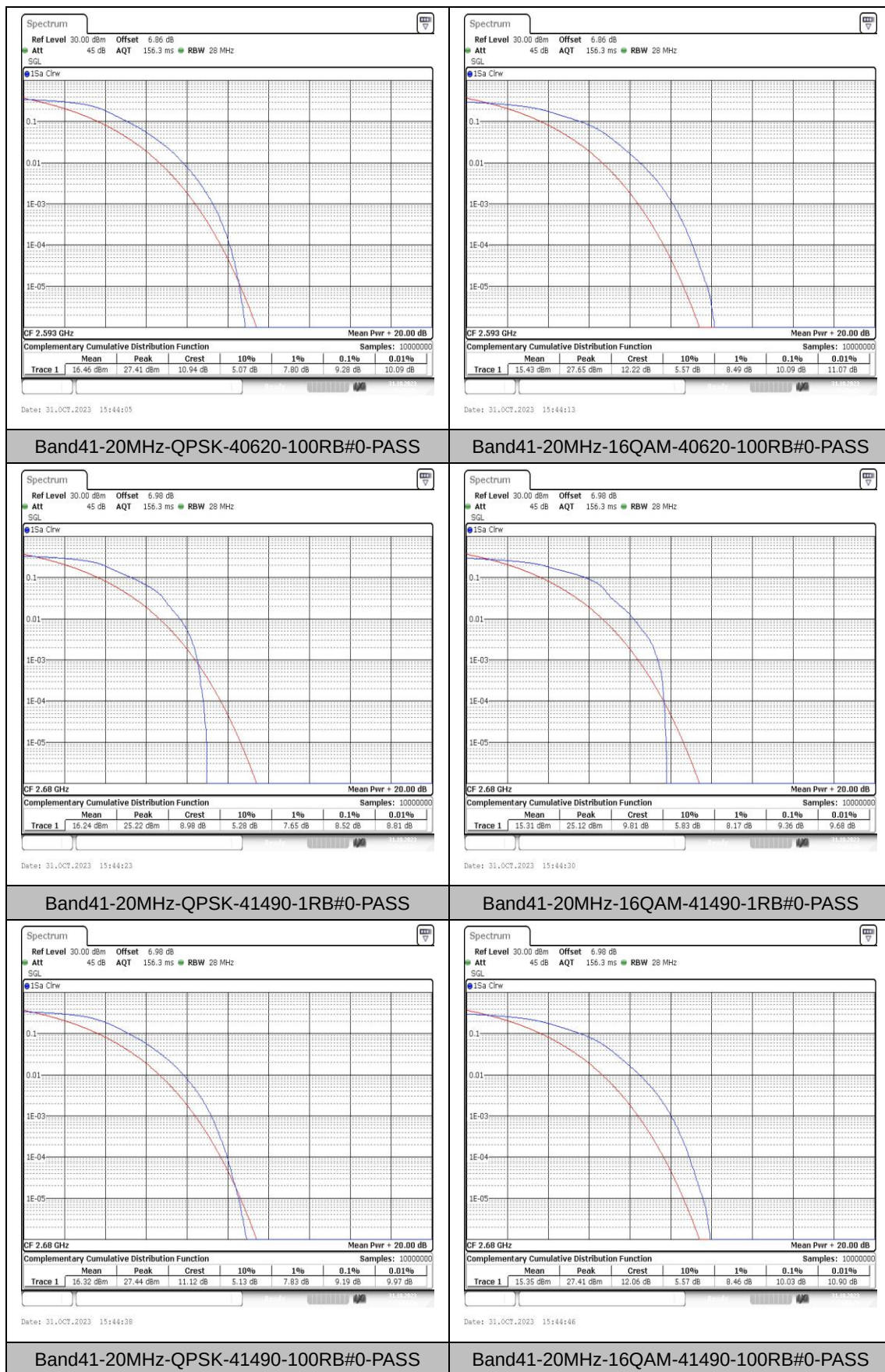










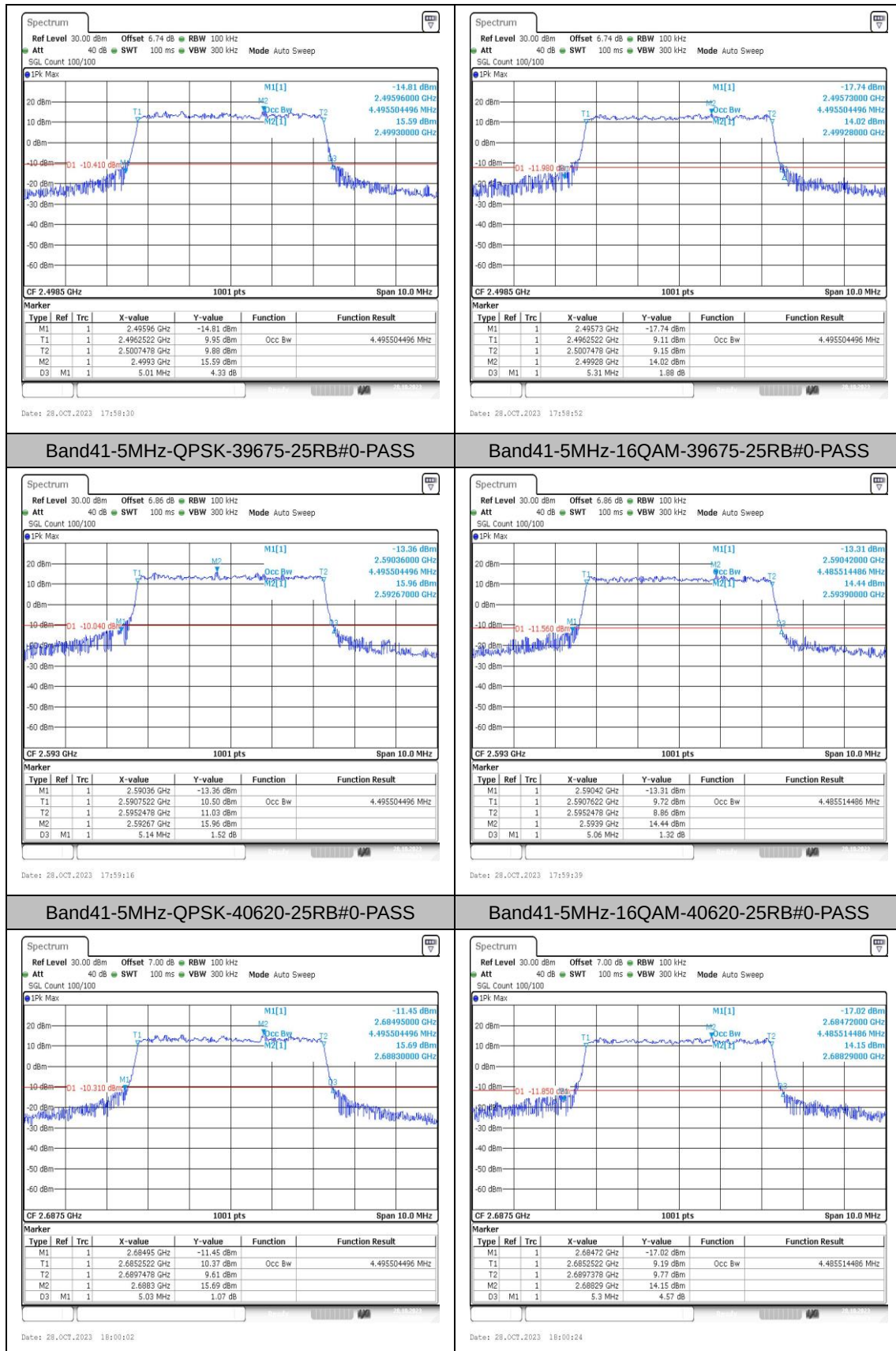


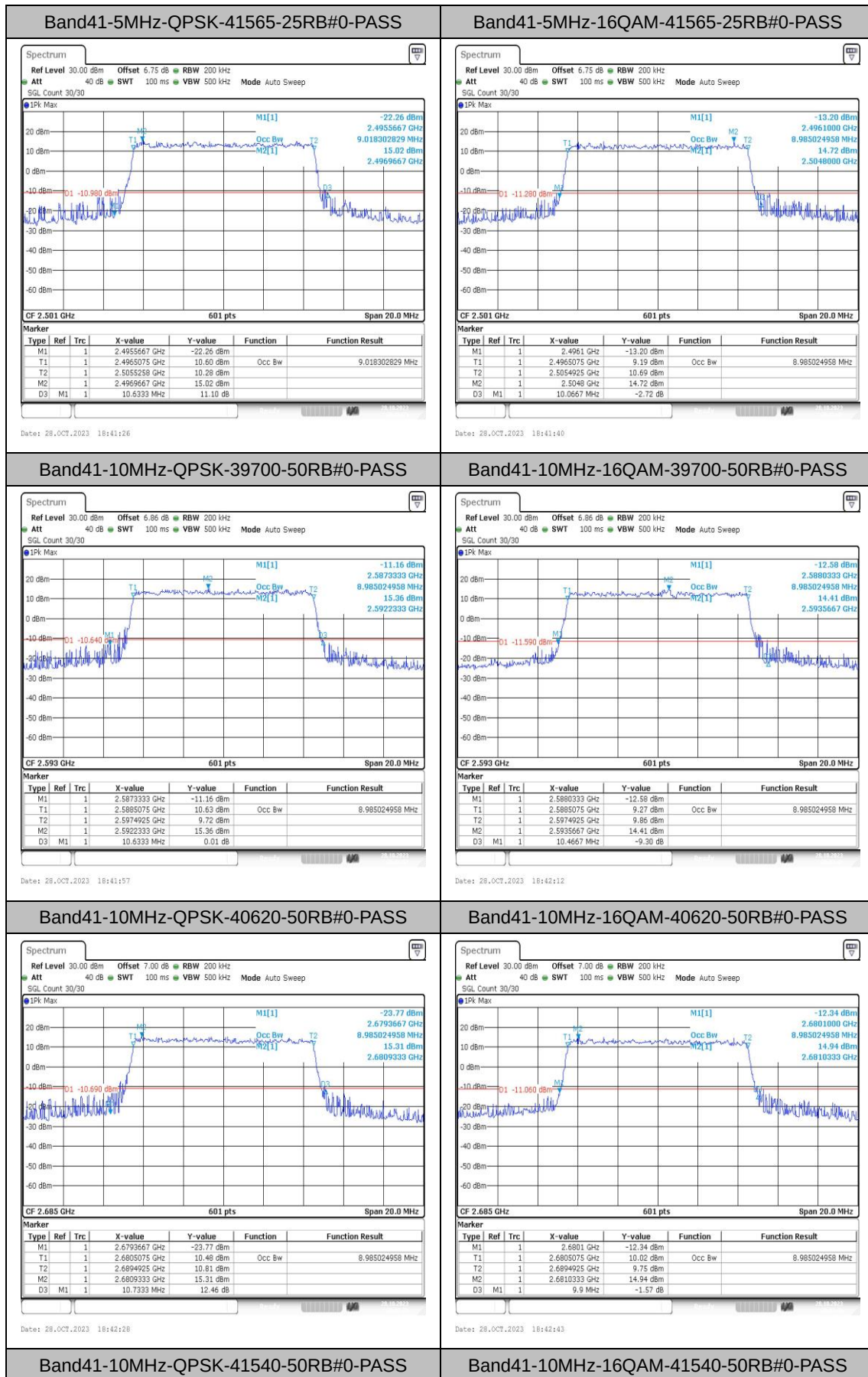
Appendix C: 26dB Bandwidth and Occupied Bandwidth

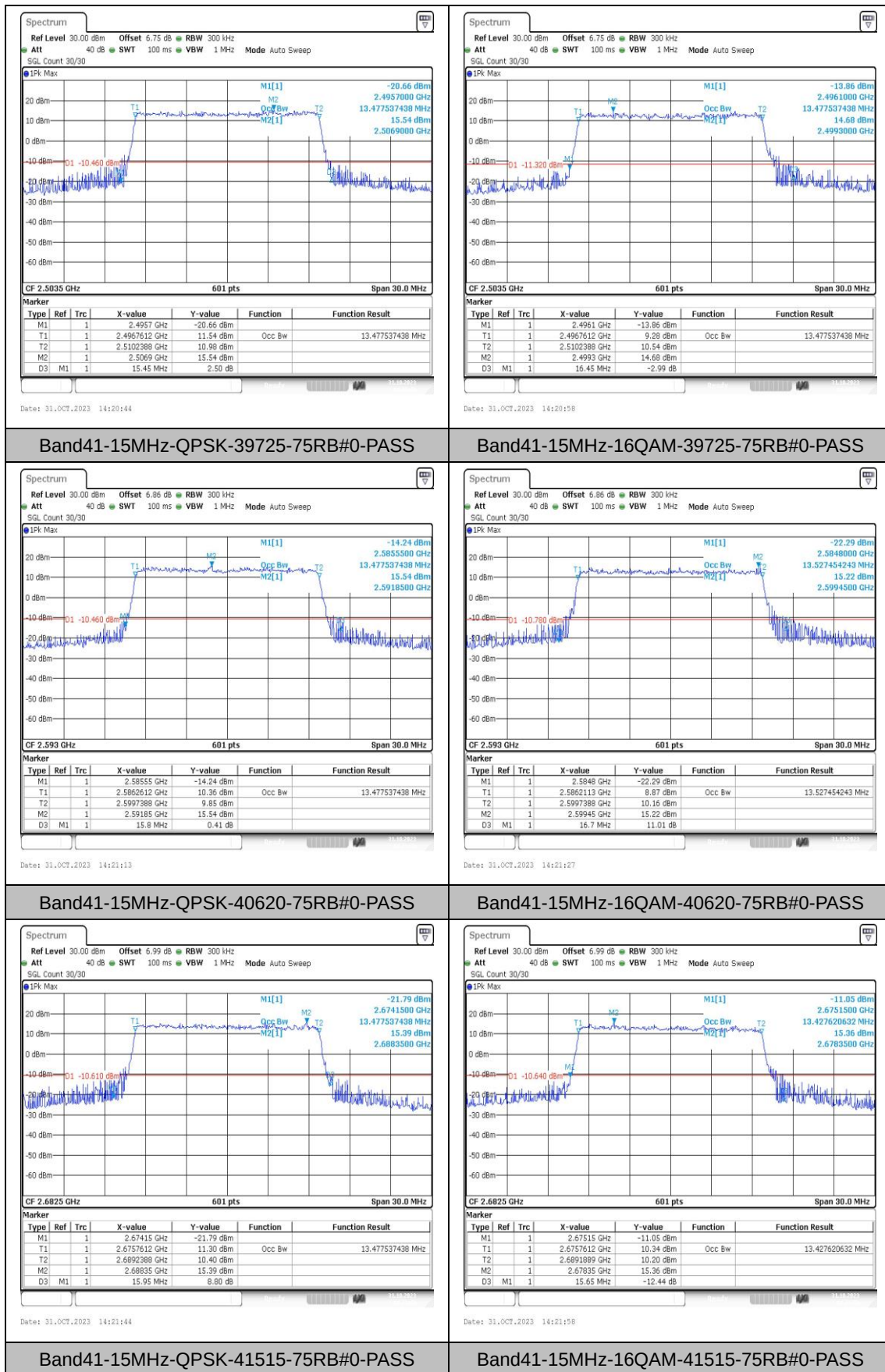
Test Result

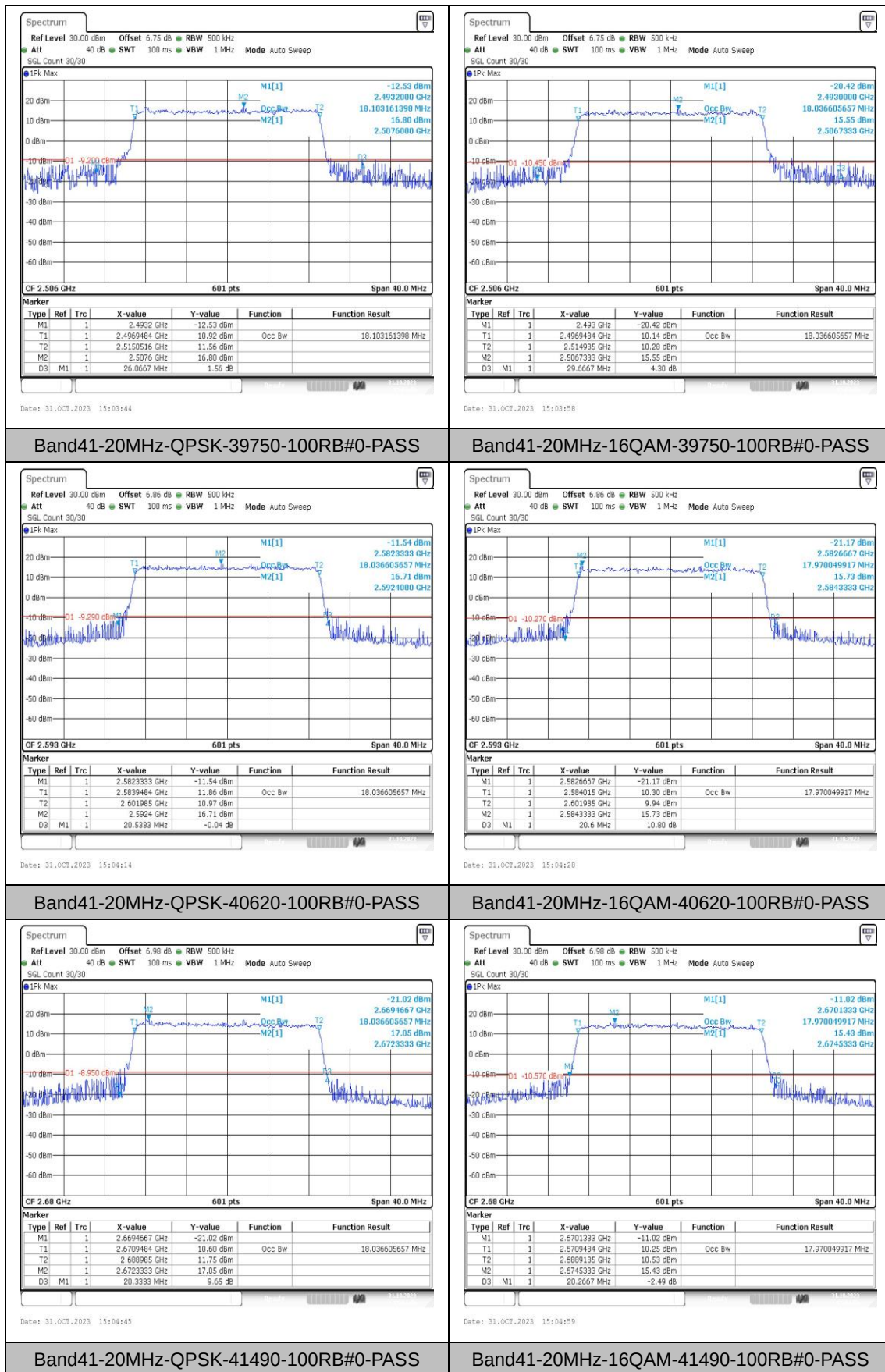
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	4.496	5.01	PASS
Band41	5MHz	16QAM	39675	25RB#0	4.496	5.31	PASS
Band41	5MHz	QPSK	40620	25RB#0	4.496	5.14	PASS
Band41	5MHz	16QAM	40620	25RB#0	4.486	5.06	PASS
Band41	5MHz	QPSK	41565	25RB#0	4.496	5.03	PASS
Band41	5MHz	16QAM	41565	25RB#0	4.486	5.30	PASS
Band41	10MHz	QPSK	39700	50RB#0	9.018	10.63	PASS
Band41	10MHz	16QAM	39700	50RB#0	8.985	10.07	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.985	10.63	PASS
Band41	10MHz	16QAM	40620	50RB#0	8.985	10.47	PASS
Band41	10MHz	QPSK	41540	50RB#0	8.985	10.73	PASS
Band41	10MHz	16QAM	41540	50RB#0	8.985	9.90	PASS
Band41	15MHz	QPSK	39725	75RB#0	13.478	15.45	PASS
Band41	15MHz	16QAM	39725	75RB#0	13.478	16.45	PASS
Band41	15MHz	QPSK	40620	75RB#0	13.478	15.80	PASS
Band41	15MHz	16QAM	40620	75RB#0	13.527	16.70	PASS
Band41	15MHz	QPSK	41515	75RB#0	13.478	15.95	PASS
Band41	15MHz	16QAM	41515	75RB#0	13.428	15.65	PASS
Band41	20MHz	QPSK	39750	100RB#0	18.103	26.07	PASS
Band41	20MHz	16QAM	39750	100RB#0	18.037	29.67	PASS
Band41	20MHz	QPSK	40620	100RB#0	18.037	20.53	PASS
Band41	20MHz	16QAM	40620	100RB#0	17.97	20.60	PASS
Band41	20MHz	QPSK	41490	100RB#0	18.037	20.33	PASS
Band41	20MHz	16QAM	41490	100RB#0	17.97	20.27	PASS

Test Graphs









Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	-22.18	PASS
Band41	5MHz	16QAM	39675	1RB#0	-22.93	PASS
Band41	5MHz	QPSK	39675	1RB#24	-24.67	PASS
Band41	5MHz	16QAM	39675	1RB#24	-26.50	PASS
Band41	5MHz	QPSK	39675	25RB#0	-23.29	PASS
Band41	5MHz	16QAM	39675	25RB#0	-23.15	PASS
Band41	5MHz	QPSK	41565	1RB#0	-23.03	PASS
Band41	5MHz	16QAM	41565	1RB#0	-24.16	PASS
Band41	5MHz	QPSK	41565	1RB#24	-17.53	PASS
Band41	5MHz	16QAM	41565	1RB#24	-20.29	PASS
Band41	5MHz	QPSK	41565	25RB#0	-37.13	PASS
Band41	5MHz	16QAM	41565	25RB#0	-37.87	PASS
Band41	10MHz	QPSK	39700	1RB#0	-23.27	PASS
Band41	10MHz	16QAM	39700	1RB#0	-26.31	PASS
Band41	10MHz	QPSK	39700	1RB#49	-25.94	PASS
Band41	10MHz	16QAM	39700	1RB#49	-27.18	PASS
Band41	10MHz	QPSK	39700	50RB#0	-28.42	PASS
Band41	10MHz	16QAM	39700	50RB#0	-28.75	PASS
Band41	10MHz	QPSK	41540	1RB#0	-22.82	PASS
Band41	10MHz	16QAM	41540	1RB#0	-24.56	PASS
Band41	10MHz	QPSK	41540	1RB#49	-20.00	PASS
Band41	10MHz	16QAM	41540	1RB#49	-21.59	PASS
Band41	10MHz	QPSK	41540	50RB#0	-38.02	PASS
Band41	10MHz	16QAM	41540	50RB#0	-37.95	PASS
Band41	15MHz	QPSK	39725	1RB#0	-24.62	PASS
Band41	15MHz	16QAM	39725	1RB#0	-25.52	PASS
Band41	15MHz	QPSK	39725	1RB#74	-41.14	PASS
Band41	15MHz	16QAM	39725	1RB#74	-41.29	PASS
Band41	15MHz	QPSK	39725	75RB#0	-27.80	PASS
Band41	15MHz	16QAM	39725	75RB#0	-28.13	PASS
Band41	15MHz	QPSK	41515	1RB#0	-22.89	PASS
Band41	15MHz	16QAM	41515	1RB#0	-24.54	PASS
Band41	15MHz	QPSK	41515	1RB#74	-21.19	PASS
Band41	15MHz	16QAM	41515	1RB#74	-23.57	PASS
Band41	15MHz	QPSK	41515	75RB#0	-38.13	PASS

Band41	15MHz	16QAM	41515	75RB#0	-38.98	PASS
Band41	20MHz	QPSK	39750	1RB#0	-26.75	PASS
Band41	20MHz	16QAM	39750	1RB#0	-28.04	PASS
Band41	20MHz	QPSK	39750	1RB#99	-41.88	PASS
Band41	20MHz	16QAM	39750	1RB#99	-41.90	PASS
Band41	20MHz	QPSK	39750	100RB#0	-29.15	PASS
Band41	20MHz	16QAM	39750	100RB#0	-29.11	PASS
Band41	20MHz	QPSK	41490	1RB#0	-25.04	PASS
Band41	20MHz	16QAM	41490	1RB#0	-26.40	PASS
Band41	20MHz	QPSK	41490	1RB#99	-23.92	PASS
Band41	20MHz	16QAM	41490	1RB#99	-22.76	PASS
Band41	20MHz	QPSK	41490	100RB#0	-40.49	PASS
Band41	20MHz	16QAM	41490	100RB#0	-40.49	PASS

Test Graphs

