

Appendix for LTE Band 12

Product Name: TITAN 5400

Model No: G5G-X62O

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	22.08	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	22.14	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	22.09	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	22.12	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	22.16	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	22.14	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	21.07	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	20.97	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	21.11	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	21.05	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	21.15	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	21.25	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	21.09	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	20.01	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	21.58	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	21.60	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	21.55	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	21.66	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	21.59	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	21.60	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	20.59	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	20.45	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	20.49	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	20.65	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	20.67	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	20.57	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	20.61	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	19.56	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	21.81	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	21.88	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	21.83	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	21.86	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	21.88	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	21.86	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	20.85	PASS

Band12	1.4MHz	16QAM	23173	1RB#0	20.73	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	20.81	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	20.85	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	20.85	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	20.84	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	20.81	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	19.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	22.10	PASS
Band12	3MHz	QPSK	23025	1RB#8	22.17	PASS
Band12	3MHz	QPSK	23025	1RB#14	22.01	PASS
Band12	3MHz	QPSK	23025	8RB#0	21.20	PASS
Band12	3MHz	QPSK	23025	8RB#4	21.22	PASS
Band12	3MHz	QPSK	23025	8RB#7	21.08	PASS
Band12	3MHz	QPSK	23025	15RB#0	21.08	PASS
Band12	3MHz	16QAM	23025	1RB#0	21.07	PASS
Band12	3MHz	16QAM	23025	1RB#8	21.13	PASS
Band12	3MHz	16QAM	23025	1RB#14	21.26	PASS
Band12	3MHz	16QAM	23025	8RB#0	20.19	PASS
Band12	3MHz	16QAM	23025	8RB#4	20.17	PASS
Band12	3MHz	16QAM	23025	8RB#7	19.97	PASS
Band12	3MHz	16QAM	23025	15RB#0	20.08	PASS
Band12	3MHz	QPSK	23095	1RB#0	21.64	PASS
Band12	3MHz	QPSK	23095	1RB#8	21.66	PASS
Band12	3MHz	QPSK	23095	1RB#14	21.54	PASS
Band12	3MHz	QPSK	23095	8RB#0	20.66	PASS
Band12	3MHz	QPSK	23095	8RB#4	20.66	PASS
Band12	3MHz	QPSK	23095	8RB#7	20.60	PASS
Band12	3MHz	QPSK	23095	15RB#0	20.66	PASS
Band12	3MHz	16QAM	23095	1RB#0	20.57	PASS
Band12	3MHz	16QAM	23095	1RB#8	20.69	PASS
Band12	3MHz	16QAM	23095	1RB#14	20.67	PASS
Band12	3MHz	16QAM	23095	8RB#0	19.68	PASS
Band12	3MHz	16QAM	23095	8RB#4	19.67	PASS
Band12	3MHz	16QAM	23095	8RB#7	19.59	PASS
Band12	3MHz	16QAM	23095	15RB#0	19.65	PASS
Band12	3MHz	QPSK	23165	1RB#0	21.81	PASS
Band12	3MHz	QPSK	23165	1RB#8	21.93	PASS
Band12	3MHz	QPSK	23165	1RB#14	21.80	PASS
Band12	3MHz	QPSK	23165	8RB#0	20.86	PASS
Band12	3MHz	QPSK	23165	8RB#4	20.83	PASS
Band12	3MHz	QPSK	23165	8RB#7	20.90	PASS
Band12	3MHz	QPSK	23165	15RB#0	20.83	PASS

Band12	3MHz	16QAM	23165	1RB#0	20.82	PASS
Band12	3MHz	16QAM	23165	1RB#8	21.03	PASS
Band12	3MHz	16QAM	23165	1RB#14	20.84	PASS
Band12	3MHz	16QAM	23165	8RB#0	19.89	PASS
Band12	3MHz	16QAM	23165	8RB#4	19.83	PASS
Band12	3MHz	16QAM	23165	8RB#7	19.93	PASS
Band12	3MHz	16QAM	23165	15RB#0	19.79	PASS
Band12	5MHz	QPSK	23035	1RB#0	22.12	PASS
Band12	5MHz	QPSK	23035	1RB#12	22.07	PASS
Band12	5MHz	QPSK	23035	1RB#24	21.84	PASS
Band12	5MHz	QPSK	23035	12RB#0	21.12	PASS
Band12	5MHz	QPSK	23035	12RB#6	21.13	PASS
Band12	5MHz	QPSK	23035	12RB#13	20.96	PASS
Band12	5MHz	QPSK	23035	25RB#0	21.00	PASS
Band12	5MHz	16QAM	23035	1RB#0	21.12	PASS
Band12	5MHz	16QAM	23035	1RB#12	21.02	PASS
Band12	5MHz	16QAM	23035	1RB#24	20.83	PASS
Band12	5MHz	16QAM	23035	12RB#0	20.07	PASS
Band12	5MHz	16QAM	23035	12RB#6	20.20	PASS
Band12	5MHz	16QAM	23035	12RB#13	19.96	PASS
Band12	5MHz	16QAM	23035	25RB#0	20.02	PASS
Band12	5MHz	QPSK	23095	1RB#0	21.76	PASS
Band12	5MHz	QPSK	23095	1RB#12	21.66	PASS
Band12	5MHz	QPSK	23095	1RB#24	21.64	PASS
Band12	5MHz	QPSK	23095	12RB#0	20.68	PASS
Band12	5MHz	QPSK	23095	12RB#6	20.69	PASS
Band12	5MHz	QPSK	23095	12RB#13	20.63	PASS
Band12	5MHz	QPSK	23095	25RB#0	20.66	PASS
Band12	5MHz	16QAM	23095	1RB#0	20.90	PASS
Band12	5MHz	16QAM	23095	1RB#12	20.59	PASS
Band12	5MHz	16QAM	23095	1RB#24	20.89	PASS
Band12	5MHz	16QAM	23095	12RB#0	19.70	PASS
Band12	5MHz	16QAM	23095	12RB#6	19.68	PASS
Band12	5MHz	16QAM	23095	12RB#13	19.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	19.65	PASS
Band12	5MHz	QPSK	23155	1RB#0	21.83	PASS
Band12	5MHz	QPSK	23155	1RB#12	21.95	PASS
Band12	5MHz	QPSK	23155	1RB#24	21.84	PASS
Band12	5MHz	QPSK	23155	12RB#0	20.78	PASS
Band12	5MHz	QPSK	23155	12RB#6	20.83	PASS
Band12	5MHz	QPSK	23155	12RB#13	20.90	PASS
Band12	5MHz	QPSK	23155	25RB#0	20.82	PASS

Band12	5MHz	16QAM	23155	1RB#0	20.83	PASS
Band12	5MHz	16QAM	23155	1RB#12	20.95	PASS
Band12	5MHz	16QAM	23155	1RB#24	20.85	PASS
Band12	5MHz	16QAM	23155	12RB#0	19.81	PASS
Band12	5MHz	16QAM	23155	12RB#6	19.82	PASS
Band12	5MHz	16QAM	23155	12RB#13	19.85	PASS
Band12	5MHz	16QAM	23155	25RB#0	19.83	PASS
Band12	10MHz	QPSK	23060	1RB#0	22.15	PASS
Band12	10MHz	QPSK	23060	1RB#24	21.90	PASS
Band12	10MHz	QPSK	23060	1RB#49	21.73	PASS
Band12	10MHz	QPSK	23060	25RB#0	21.10	PASS
Band12	10MHz	QPSK	23060	25RB#12	21.04	PASS
Band12	10MHz	QPSK	23060	25RB#25	20.75	PASS
Band12	10MHz	QPSK	23060	50RB#0	20.97	PASS
Band12	10MHz	16QAM	23060	1RB#0	21.08	PASS
Band12	10MHz	16QAM	23060	1RB#24	21.01	PASS
Band12	10MHz	16QAM	23060	1RB#49	20.68	PASS
Band12	10MHz	16QAM	23060	25RB#0	20.09	PASS
Band12	10MHz	16QAM	23060	25RB#12	20.09	PASS
Band12	10MHz	16QAM	23060	25RB#25	19.68	PASS
Band12	10MHz	16QAM	23060	50RB#0	19.97	PASS
Band12	10MHz	QPSK	23095	1RB#0	21.94	PASS
Band12	10MHz	QPSK	23095	1RB#24	21.65	PASS
Band12	10MHz	QPSK	23095	1RB#49	21.74	PASS
Band12	10MHz	QPSK	23095	25RB#0	20.82	PASS
Band12	10MHz	QPSK	23095	25RB#12	20.87	PASS
Band12	10MHz	QPSK	23095	25RB#25	20.72	PASS
Band12	10MHz	QPSK	23095	50RB#0	20.81	PASS
Band12	10MHz	16QAM	23095	1RB#0	20.79	PASS
Band12	10MHz	16QAM	23095	1RB#24	20.56	PASS
Band12	10MHz	16QAM	23095	1RB#49	20.77	PASS
Band12	10MHz	16QAM	23095	25RB#0	19.78	PASS
Band12	10MHz	16QAM	23095	25RB#12	19.84	PASS
Band12	10MHz	16QAM	23095	25RB#25	19.76	PASS
Band12	10MHz	16QAM	23095	50RB#0	19.80	PASS
Band12	10MHz	QPSK	23130	1RB#0	21.75	PASS
Band12	10MHz	QPSK	23130	1RB#24	21.82	PASS
Band12	10MHz	QPSK	23130	1RB#49	21.90	PASS
Band12	10MHz	QPSK	23130	25RB#0	20.68	PASS
Band12	10MHz	QPSK	23130	25RB#12	20.66	PASS
Band12	10MHz	QPSK	23130	25RB#25	20.87	PASS
Band12	10MHz	QPSK	23130	50RB#0	20.87	PASS

Band12	10MHz	16QAM	23130	1RB#0	20.75	PASS
Band12	10MHz	16QAM	23130	1RB#24	20.70	PASS
Band12	10MHz	16QAM	23130	1RB#49	20.71	PASS
Band12	10MHz	16QAM	23130	25RB#0	19.67	PASS
Band12	10MHz	16QAM	23130	25RB#12	19.70	PASS
Band12	10MHz	16QAM	23130	25RB#25	19.87	PASS
Band12	10MHz	16QAM	23130	50RB#0	19.83	PASS

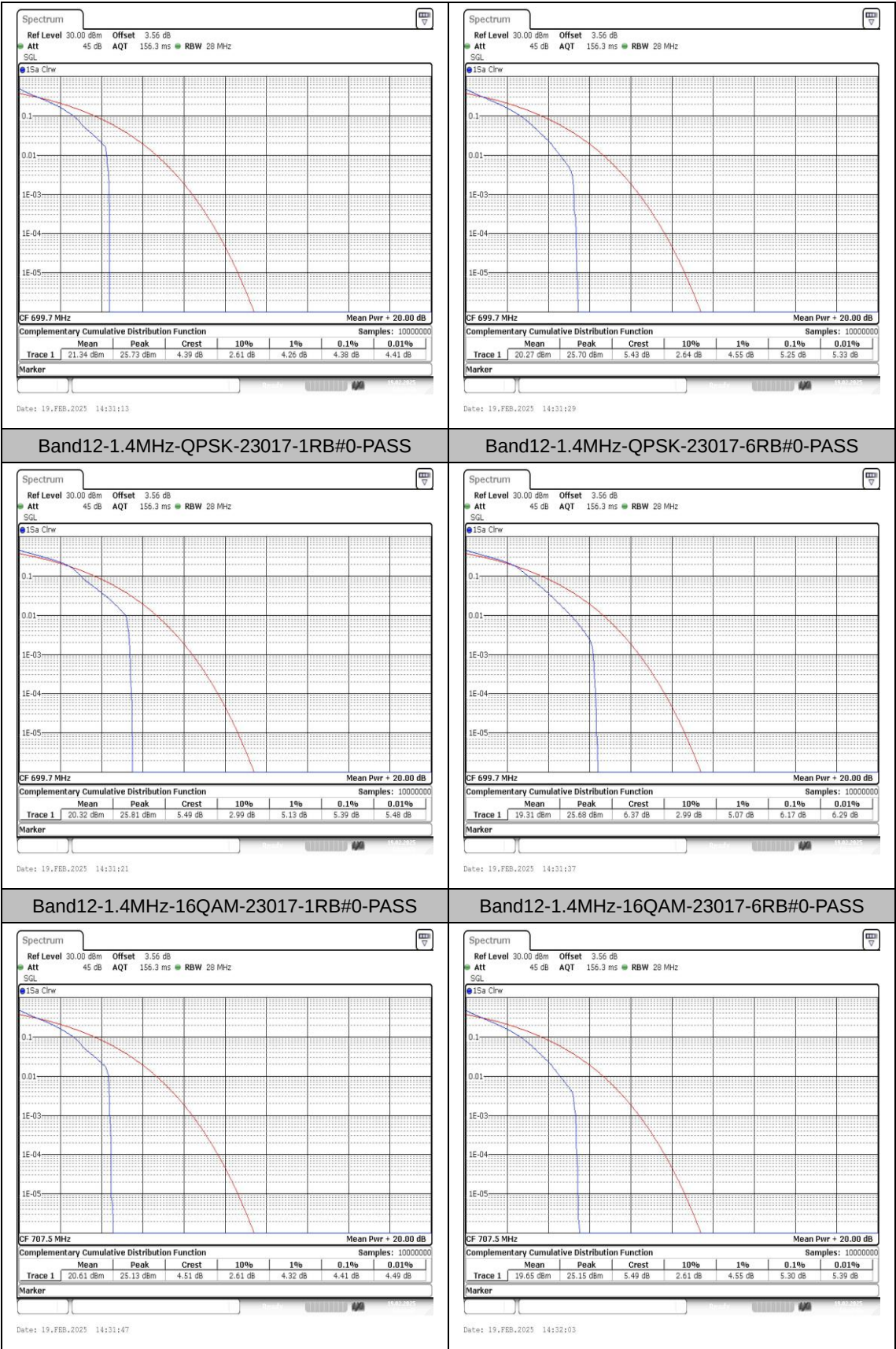
Appendix B: Peak-to-Average Ratio(CCDF)

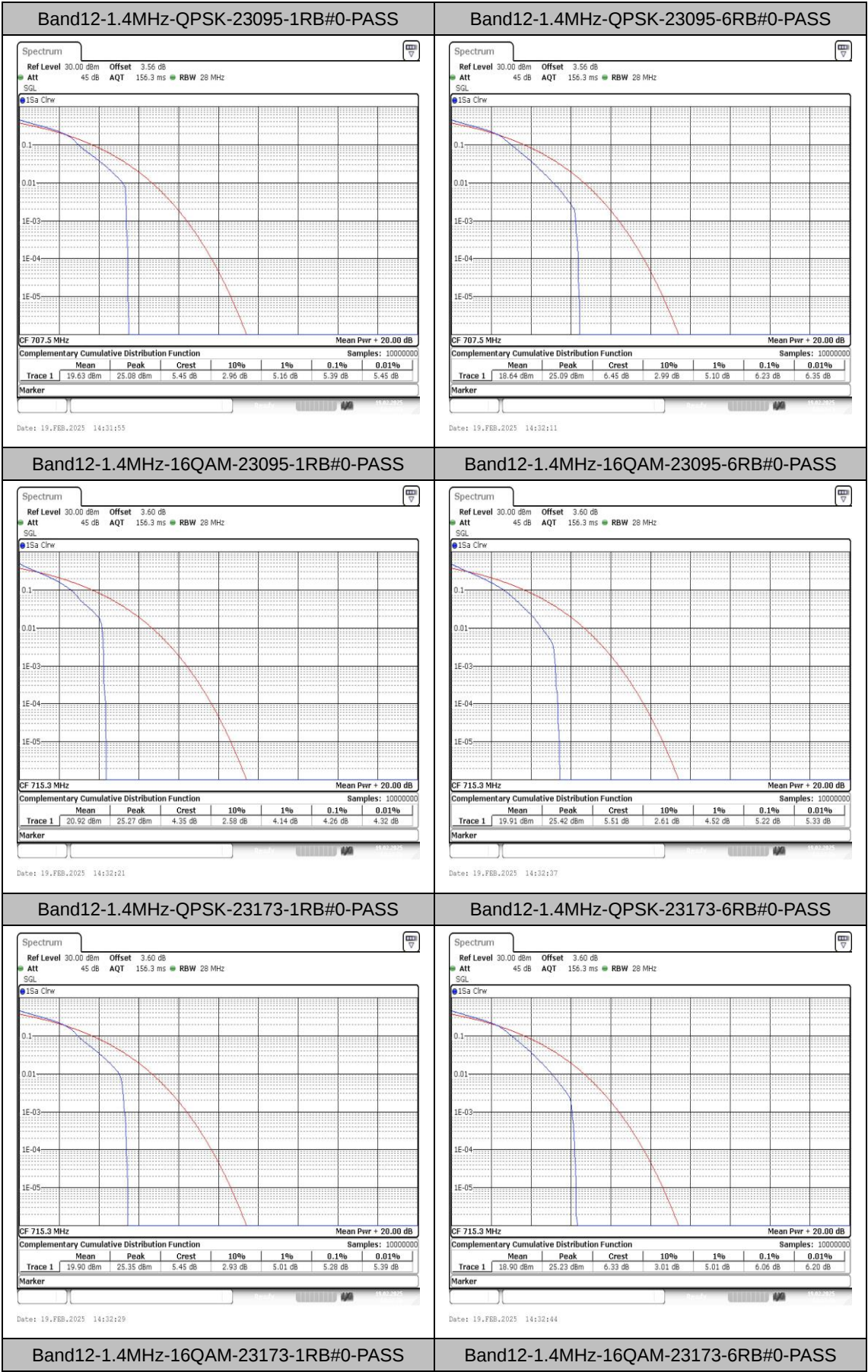
Test Result

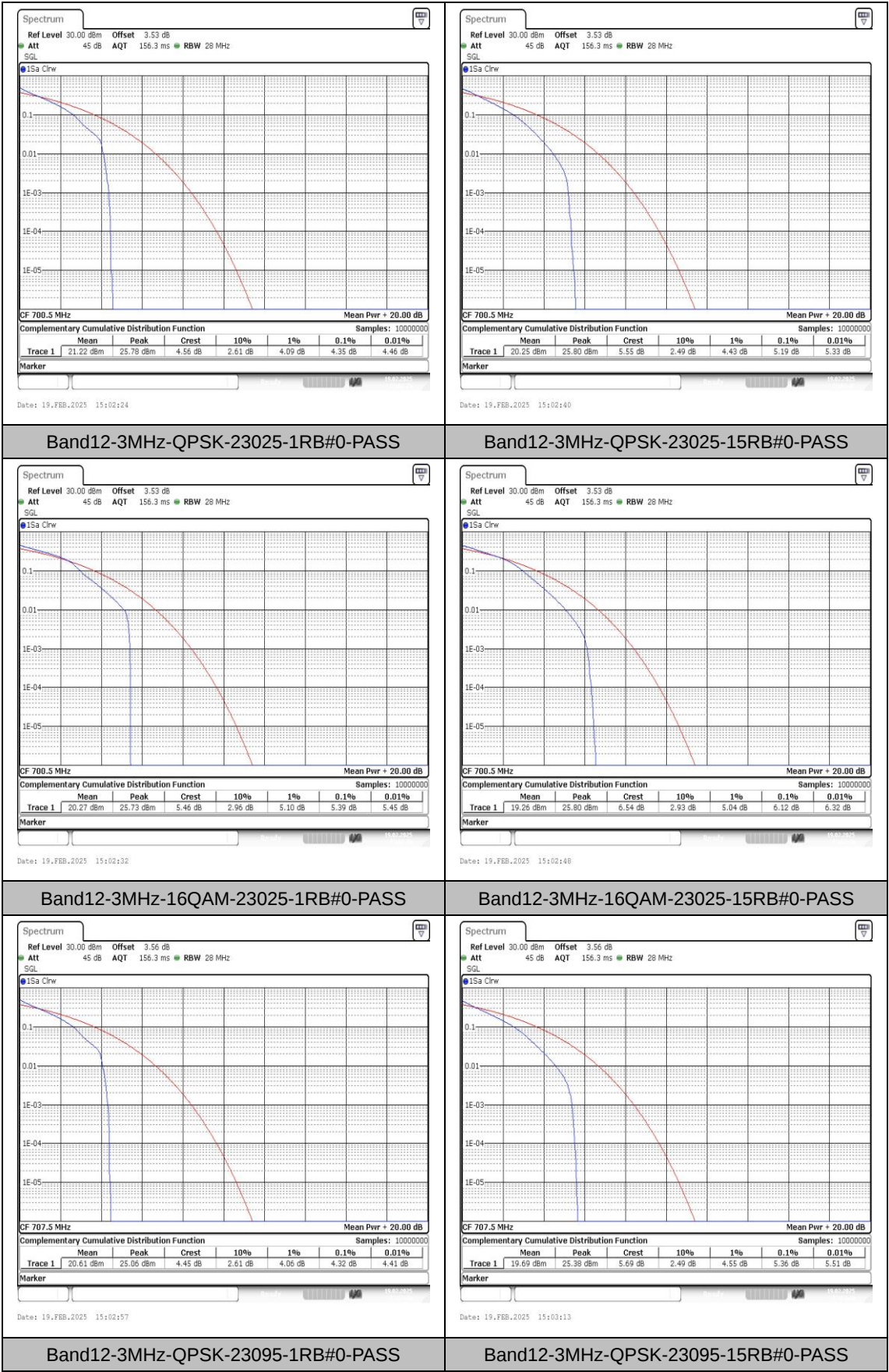
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	4.38	13	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	5.25	13	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	5.39	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	6.17	13	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	4.41	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	5.30	13	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	5.39	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	6.23	13	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	4.26	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	5.22	13	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	5.28	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	6.06	13	PASS
Band12	3MHz	QPSK	23025	1RB#0	4.35	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.19	13	PASS
Band12	3MHz	16QAM	23025	1RB#0	5.39	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.12	13	PASS
Band12	3MHz	QPSK	23095	1RB#0	4.32	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.36	13	PASS
Band12	3MHz	16QAM	23095	1RB#0	5.36	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.26	13	PASS
Band12	3MHz	QPSK	23165	1RB#0	4.20	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	5.16	13	PASS
Band12	3MHz	16QAM	23165	1RB#0	5.16	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	6.06	13	PASS
Band12	5MHz	QPSK	23035	1RB#0	4.43	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	5.16	13	PASS
Band12	5MHz	16QAM	23035	1RB#0	5.36	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	6.09	13	PASS
Band12	5MHz	QPSK	23095	1RB#0	4.35	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	5.33	13	PASS
Band12	5MHz	16QAM	23095	1RB#0	5.30	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.17	13	PASS
Band12	5MHz	QPSK	23155	1RB#0	4.29	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	5.07	13	PASS
Band12	5MHz	16QAM	23155	1RB#0	5.28	13	PASS

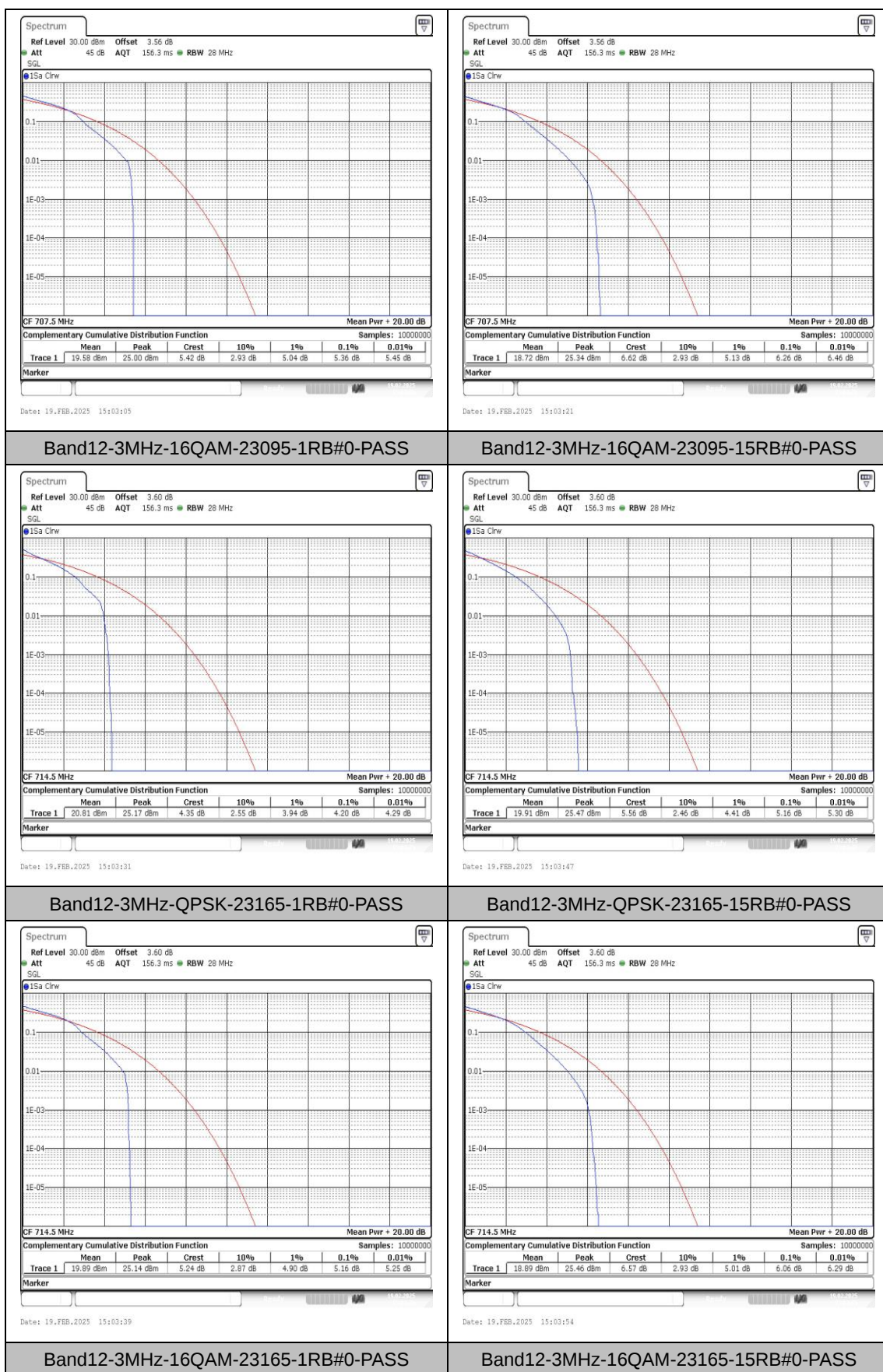
Band12	5MHz	16QAM	23155	25RB#0	6.00	13	PASS
Band12	10MHz	QPSK	23060	1RB#0	4.38	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	5.07	13	PASS
Band12	10MHz	16QAM	23060	1RB#0	5.30	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	6.03	13	PASS
Band12	10MHz	QPSK	23095	1RB#0	4.23	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.62	13	PASS
Band12	10MHz	16QAM	23095	1RB#0	5.28	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.35	13	PASS
Band12	10MHz	QPSK	23130	1RB#0	4.43	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.28	13	PASS
Band12	10MHz	16QAM	23130	1RB#0	5.42	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.14	13	PASS

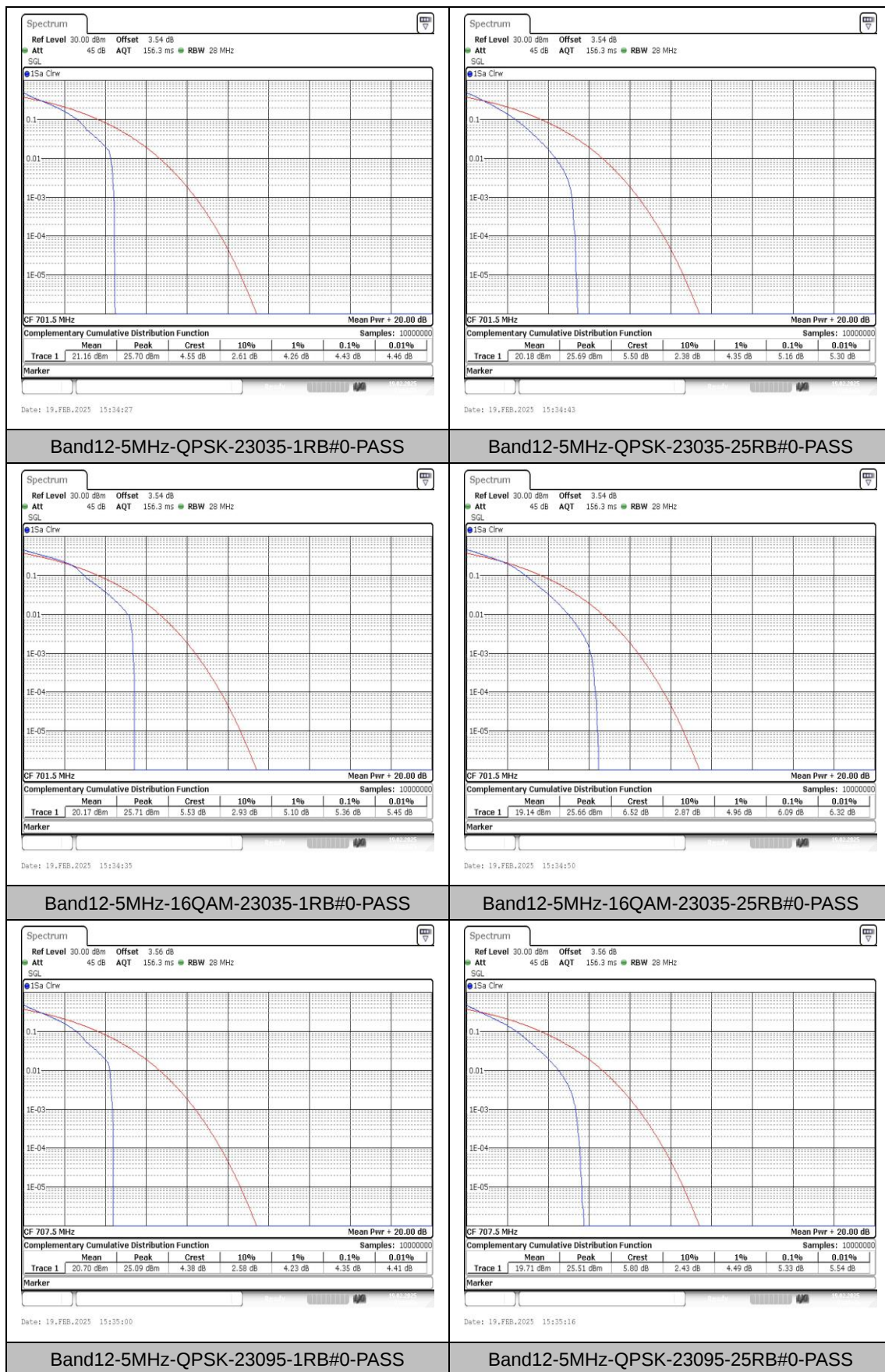
Test Graphs

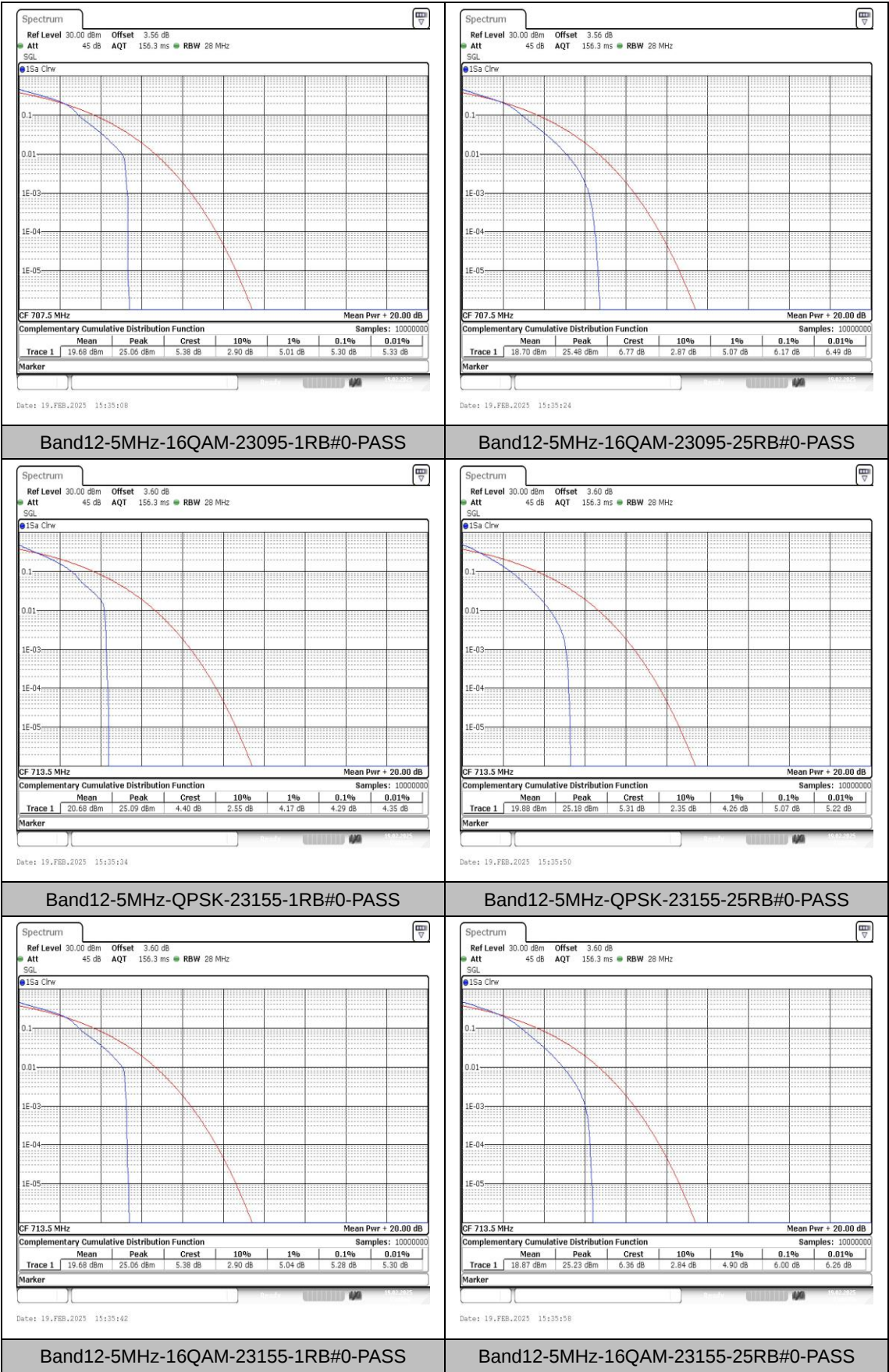


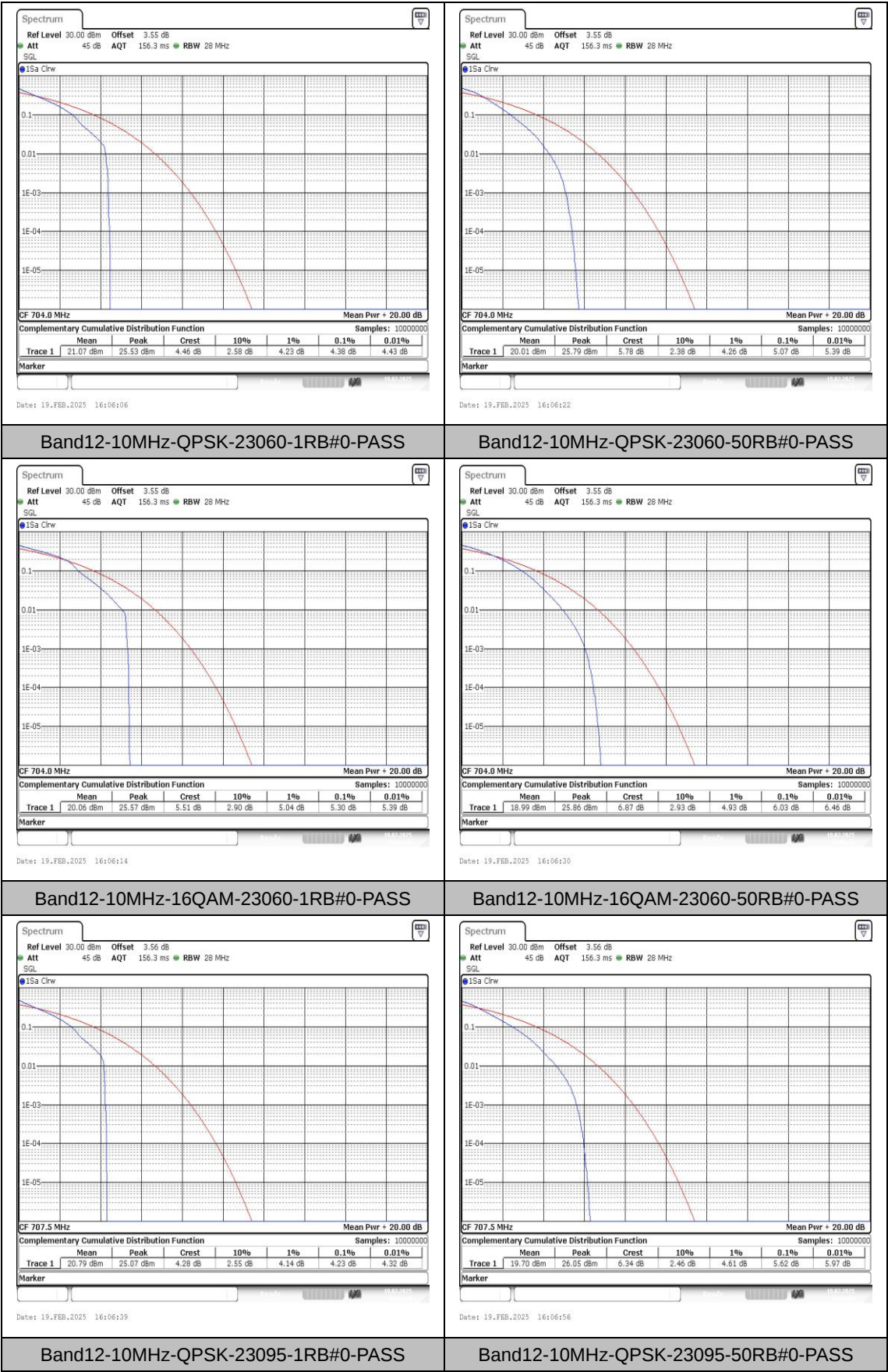


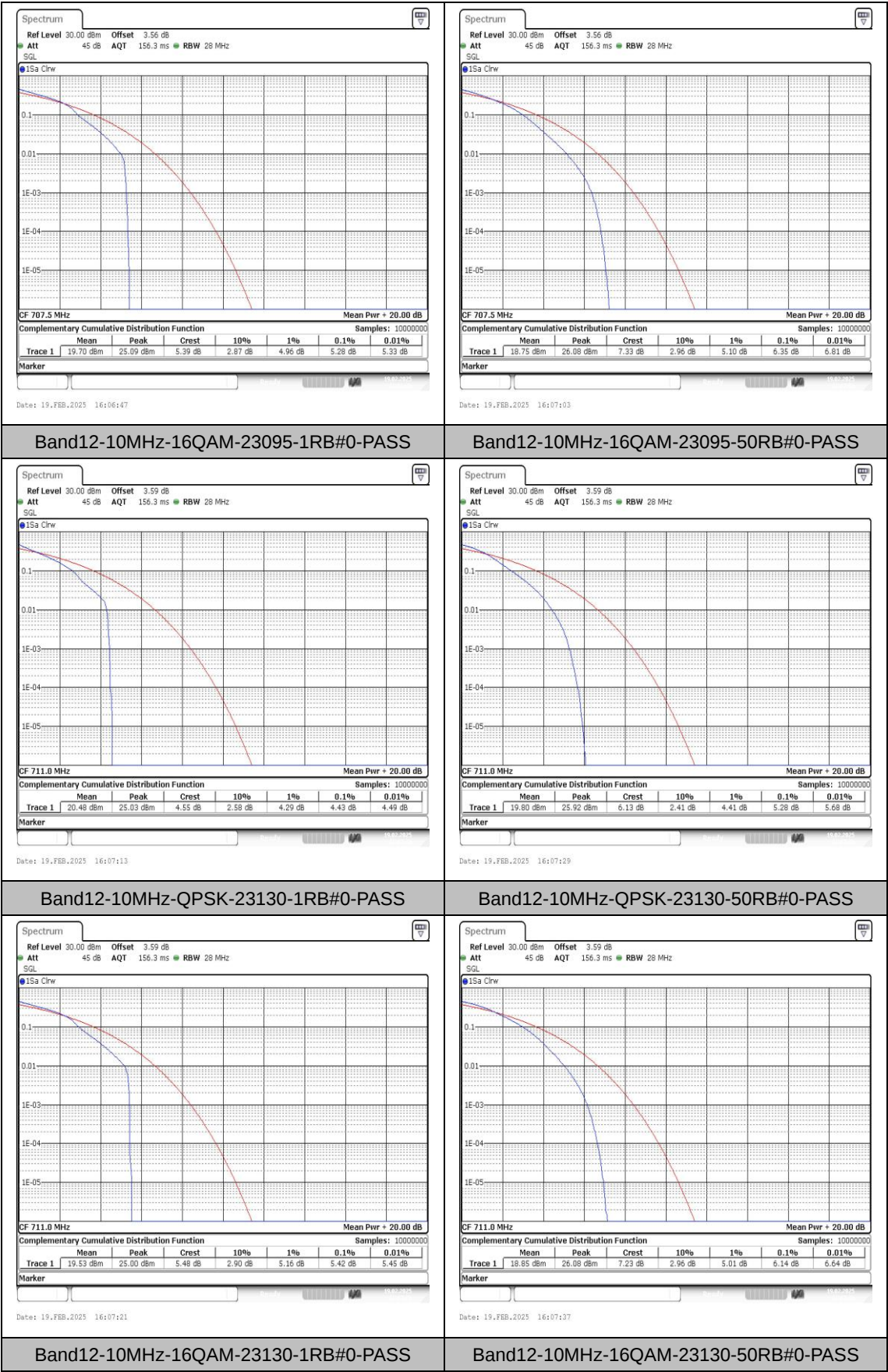










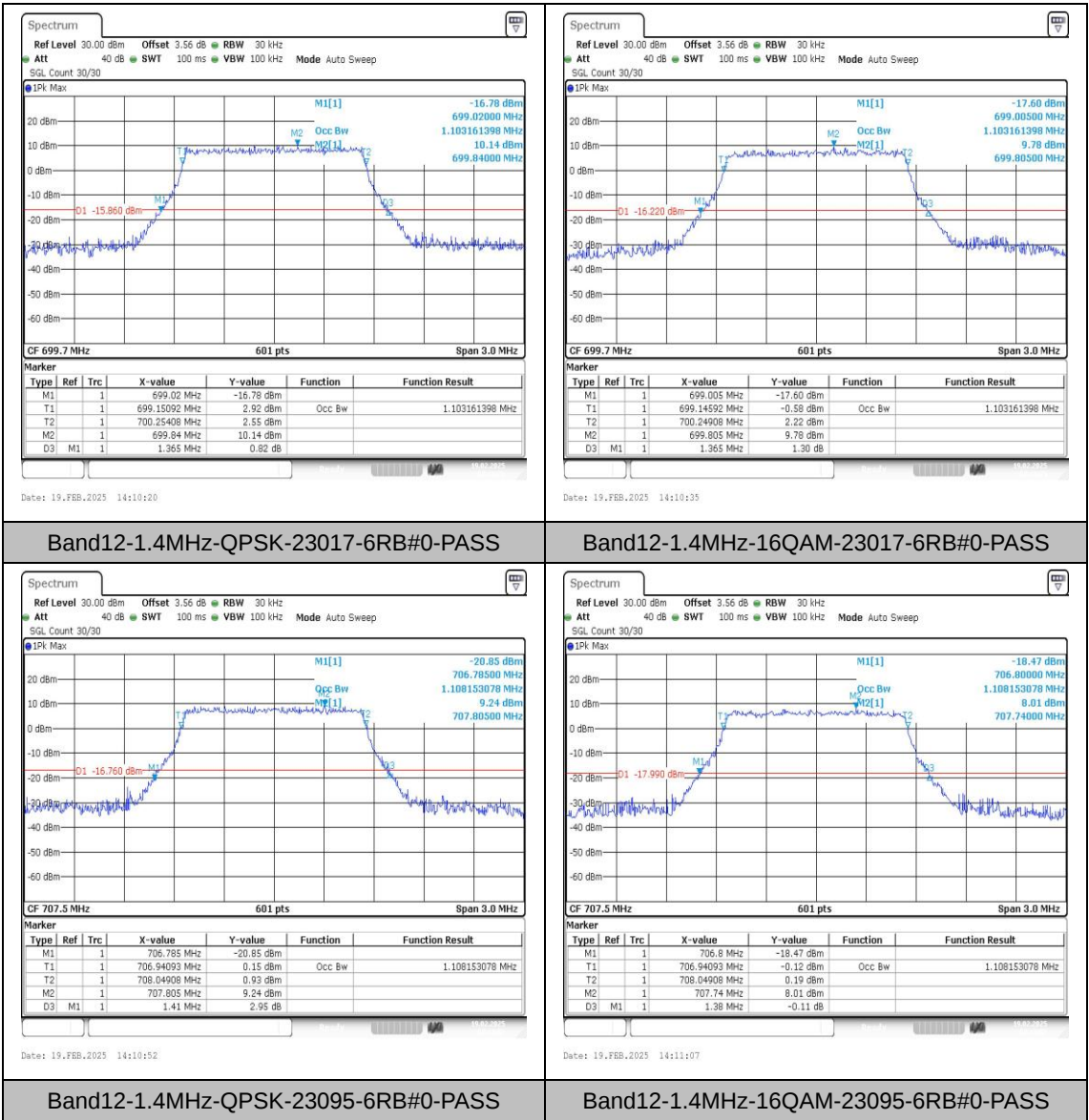


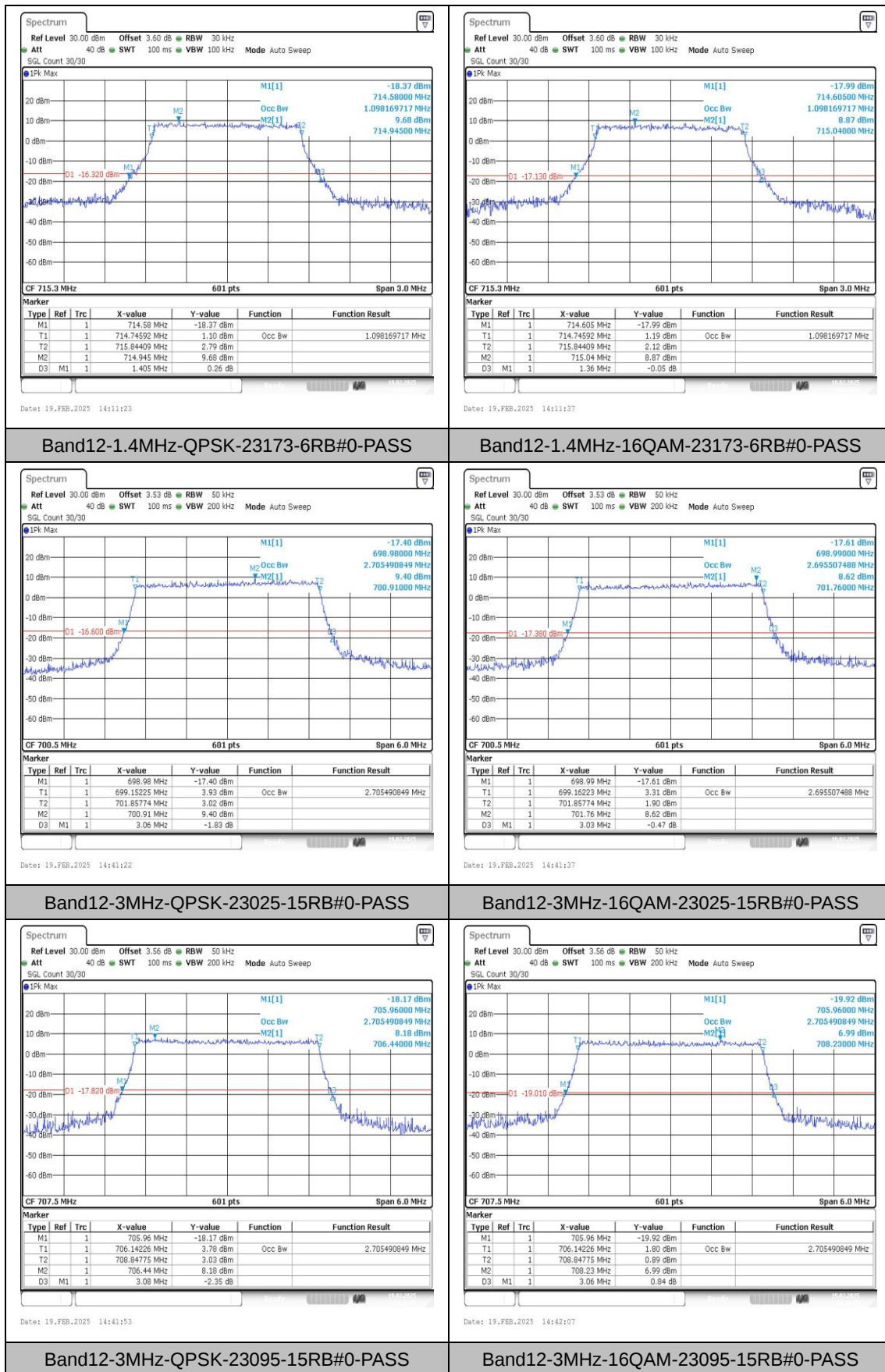
Appendix C: 26dB Bandwidth and Occupied Bandwidth

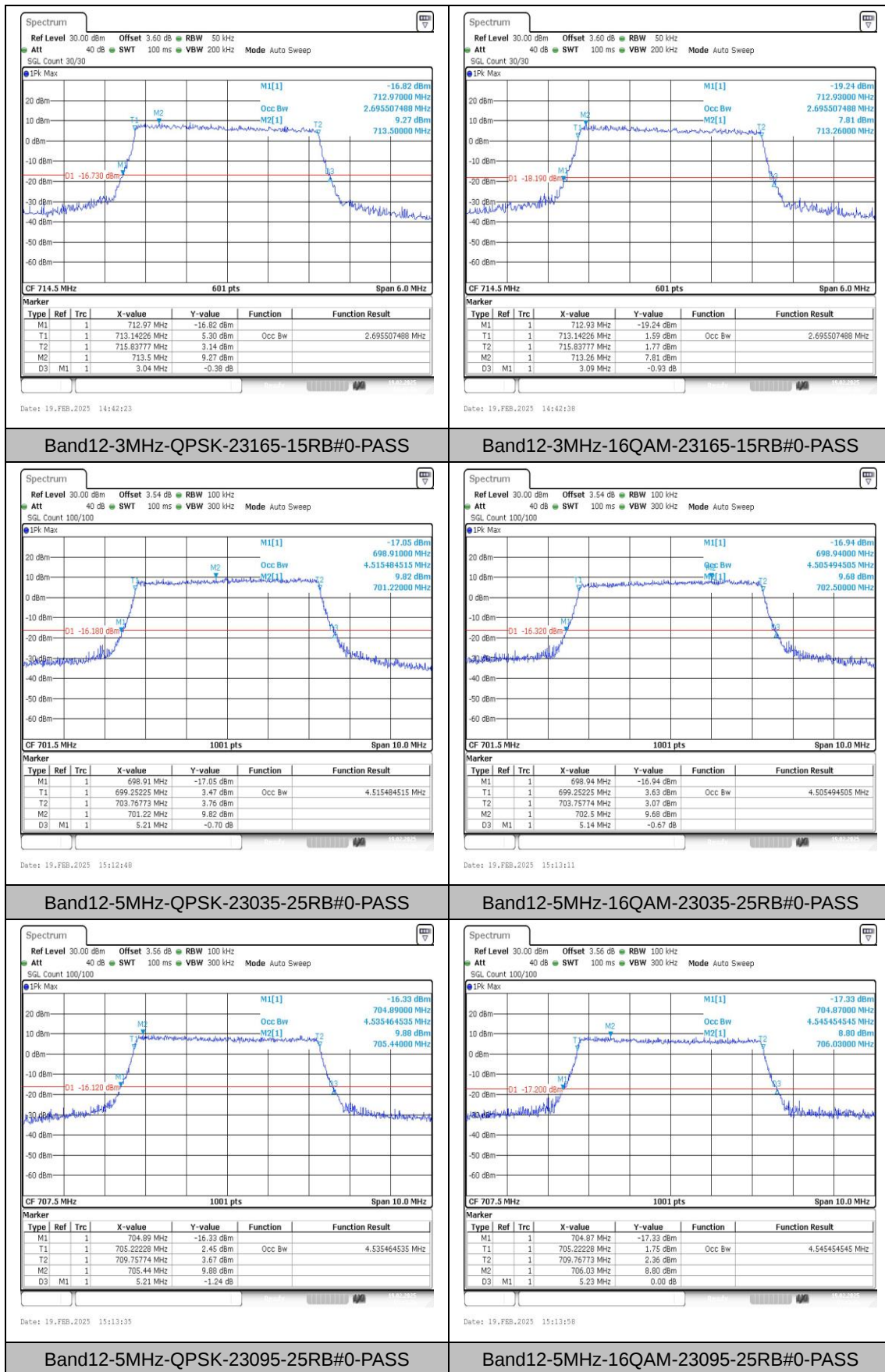
Test Result

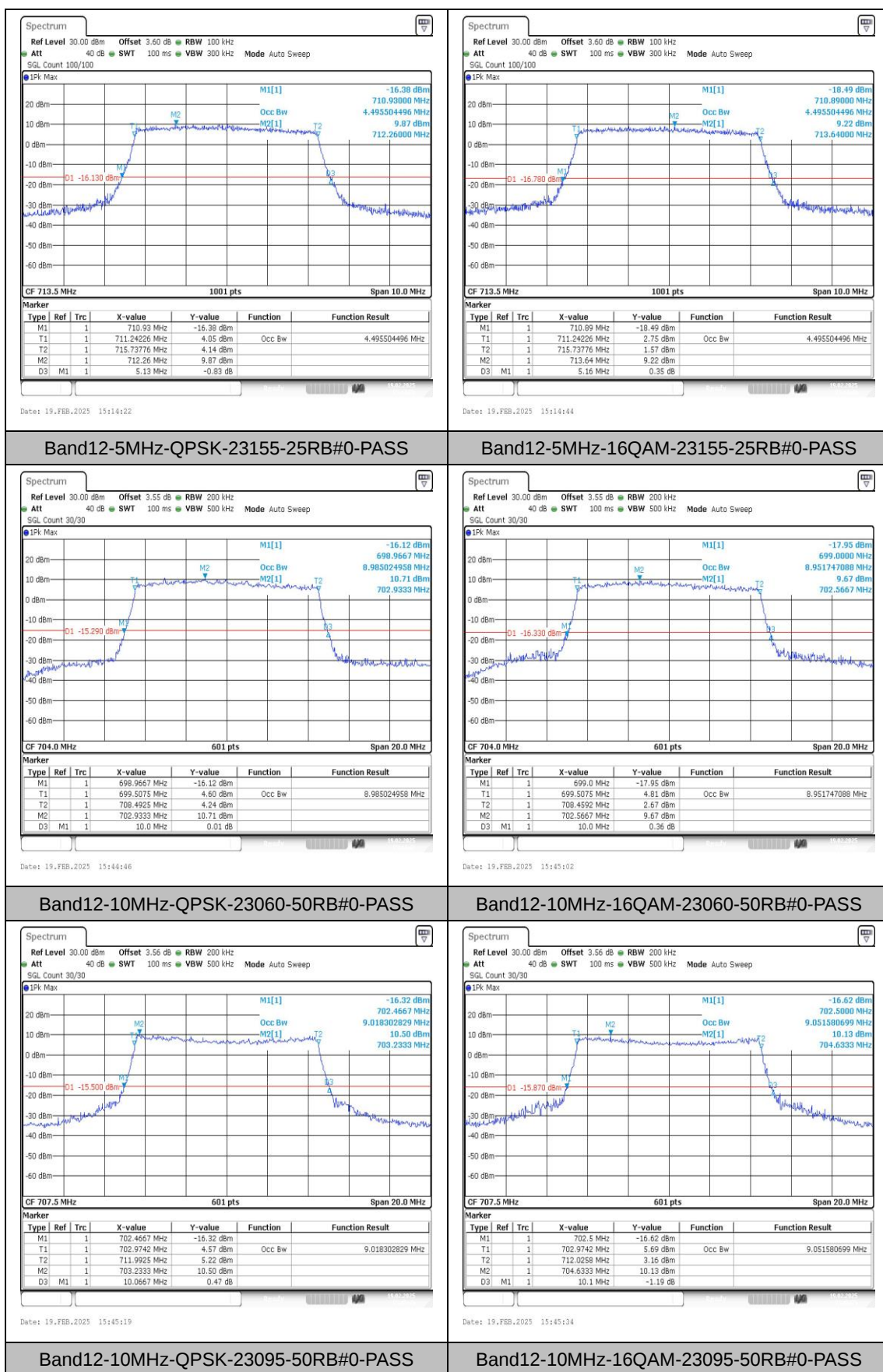
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.103	1.36	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.103	1.37	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.108	1.41	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.108	1.38	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.098	1.40	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.098	1.36	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.705	3.06	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.696	3.03	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.705	3.08	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.705	3.06	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.696	3.04	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.696	3.09	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.515	5.21	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.505	5.14	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.535	5.21	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.545	5.23	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.496	5.13	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.496	5.16	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.985	10.00	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.952	10.00	PASS
Band12	10MHz	QPSK	23095	50RB#0	9.018	10.07	PASS
Band12	10MHz	16QAM	23095	50RB#0	9.052	10.10	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.952	10.03	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.952	10.03	PASS

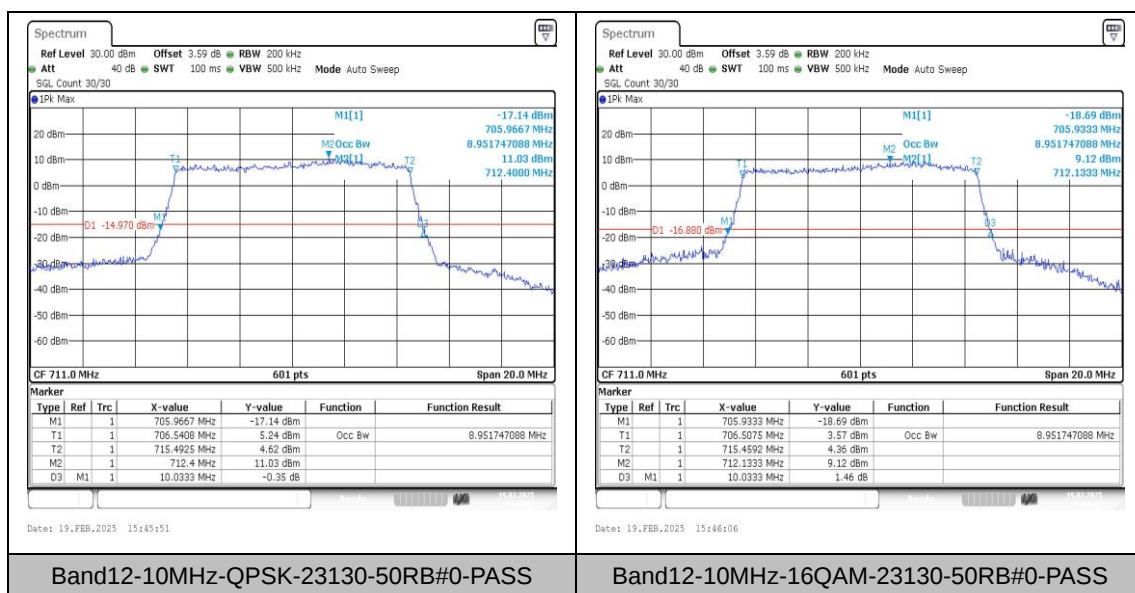
Test Graphs











Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	-24.68	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	-52.30	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	-29.82	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	-25.20	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	-53.18	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	-31.24	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	-52.81	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	-25.02	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	-31.46	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	-53.72	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	-26.37	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	-32.73	PASS
Band12	3MHz	QPSK	23025	1RB#0	-28.54	PASS
Band12	3MHz	QPSK	23025	1RB#14	-56.16	PASS
Band12	3MHz	QPSK	23025	15RB#0	-32.58	PASS
Band12	3MHz	16QAM	23025	1RB#0	-30.07	PASS
Band12	3MHz	16QAM	23025	1RB#14	-58.79	PASS
Band12	3MHz	16QAM	23025	15RB#0	-33.57	PASS
Band12	3MHz	QPSK	23165	1RB#0	-56.62	PASS

Band12	3MHz	QPSK	23165	1RB#14	-29.17	PASS
Band12	3MHz	QPSK	23165	15RB#0	-33.73	PASS
Band12	3MHz	16QAM	23165	1RB#0	-58.58	PASS
Band12	3MHz	16QAM	23165	1RB#14	-29.67	PASS
Band12	3MHz	16QAM	23165	15RB#0	-35.13	PASS
Band12	5MHz	QPSK	23035	1RB#0	-31.46	PASS
Band12	5MHz	QPSK	23035	1RB#24	-58.89	PASS
Band12	5MHz	QPSK	23035	25RB#0	-34.71	PASS
Band12	5MHz	16QAM	23035	1RB#0	-32.21	PASS
Band12	5MHz	16QAM	23035	1RB#24	-59.10	PASS
Band12	5MHz	16QAM	23035	25RB#0	-35.89	PASS
Band12	5MHz	QPSK	23155	1RB#0	-58.86	PASS
Band12	5MHz	QPSK	23155	1RB#24	-31.45	PASS
Band12	5MHz	QPSK	23155	25RB#0	-36.35	PASS
Band12	5MHz	16QAM	23155	1RB#0	-58.74	PASS
Band12	5MHz	16QAM	23155	1RB#24	-32.53	PASS
Band12	5MHz	16QAM	23155	25RB#0	-36.45	PASS
Band12	10MHz	QPSK	23060	1RB#0	-43.39	PASS
Band12	10MHz	QPSK	23060	1RB#49	-59.50	PASS
Band12	10MHz	QPSK	23060	50RB#0	-41.49	PASS
Band12	10MHz	16QAM	23060	1RB#0	-43.85	PASS
Band12	10MHz	16QAM	23060	1RB#49	-59.64	PASS
Band12	10MHz	16QAM	23060	50RB#0	-41.58	PASS
Band12	10MHz	QPSK	23130	1RB#0	-59.35	PASS
Band12	10MHz	QPSK	23130	1RB#49	-44.45	PASS
Band12	10MHz	QPSK	23130	50RB#0	-42.40	PASS
Band12	10MHz	16QAM	23130	1RB#0	-59.24	PASS
Band12	10MHz	16QAM	23130	1RB#49	-44.30	PASS
Band12	10MHz	16QAM	23130	50RB#0	-41.99	PASS

Test Graphs

