

Test Data for E-UTRA Band 12

EUT: <u>4G LTE Solar Cellular Trail Camera</u>	Test Model: <u>Q82A-4G</u>
Ambient Condition: <u>25 °C, 45 %RH, 101.325 kPa</u>	
Test Engineer: <u>Jack Zhou</u>	

Contents

Appendix A: Effective (Isotropic) Radiated Power Output Data.....	3
Test Result.....	3
Appendix B: Peak-to-Average Ratio(CCDF).....	7
Test Result.....	7
Test Graphs	9
Appendix C: 26dB Bandwidth and Occupied Bandwidth	19
Test Result.....	19
Test Graphs	20
Appendix D: Band Edge	25
Test Result.....	25
Test Graphs	26
Appendix E: Conducted Spurious Emission.....	36
Test Result.....	36
Test Graphs	43
Appendix F: Frequency Stability.....	121
Test Result.....	121

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	ERP(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	22.68	21.46	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	21.89	20.67	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	22.92	21.70	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.07	20.85	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	22.95	21.73	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.03	20.81	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.18	21.96	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.09	20.87	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.13	21.91	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.09	20.87	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	22.97	21.75	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	21.93	20.71	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.19	20.97	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.21	19.99	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.36	22.14	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.16	20.94	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.50	22.28	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.49	21.27	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.57	22.35	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.55	21.33	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.19	21.97	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.17	20.95	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.20	21.98	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	22.12	20.90	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.40	22.18	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.38	21.16	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.40	21.18	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.35	20.13	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	22.90	21.68	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	21.82	20.60	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	22.62	21.40	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	21.75	20.53	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	22.48	21.26	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	21.50	20.28	PASS

Band12	1.4MHz	QPSK	23173	3RB#0	22.55	21.33	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	21.43	20.21	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	22.53	21.31	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	21.44	20.22	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	22.48	21.26	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	21.41	20.19	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	21.65	20.43	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	20.84	19.62	PASS
Band12	3MHz	QPSK	23025	1RB#0	22.89	21.67	PASS
Band12	3MHz	16QAM	23025	1RB#0	21.84	20.62	PASS
Band12	3MHz	QPSK	23025	1RB#8	22.51	21.29	PASS
Band12	3MHz	16QAM	23025	1RB#8	21.46	20.24	PASS
Band12	3MHz	QPSK	23025	1RB#14	22.73	21.51	PASS
Band12	3MHz	16QAM	23025	1RB#14	21.68	20.46	PASS
Band12	3MHz	QPSK	23025	8RB#0	21.58	20.36	PASS
Band12	3MHz	16QAM	23025	8RB#0	20.71	19.49	PASS
Band12	3MHz	QPSK	23025	8RB#4	21.65	20.43	PASS
Band12	3MHz	16QAM	23025	8RB#4	20.72	19.50	PASS
Band12	3MHz	QPSK	23025	8RB#7	21.67	20.45	PASS
Band12	3MHz	16QAM	23025	8RB#7	20.79	19.57	PASS
Band12	3MHz	QPSK	23025	15RB#0	21.61	20.39	PASS
Band12	3MHz	16QAM	23025	15RB#0	20.68	19.46	PASS
Band12	3MHz	QPSK	23095	1RB#0	22.92	21.70	PASS
Band12	3MHz	16QAM	23095	1RB#0	21.57	20.35	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.24	22.02	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.15	20.93	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.19	21.97	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.07	20.85	PASS
Band12	3MHz	QPSK	23095	8RB#0	21.96	20.74	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.10	19.88	PASS
Band12	3MHz	QPSK	23095	8RB#4	21.98	20.76	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.09	19.87	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.27	21.05	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.36	20.14	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.18	20.96	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.24	20.02	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.32	22.10	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.08	20.86	PASS
Band12	3MHz	QPSK	23165	1RB#8	22.50	21.28	PASS
Band12	3MHz	16QAM	23165	1RB#8	21.57	20.35	PASS
Band12	3MHz	QPSK	23165	1RB#14	22.18	20.96	PASS
Band12	3MHz	16QAM	23165	1RB#14	21.29	20.07	PASS
Band12	3MHz	QPSK	23165	8RB#0	21.66	20.44	PASS

Band12	3MHz	16QAM	23165	8RB#0	20.93	19.71	PASS
Band12	3MHz	QPSK	23165	8RB#4	21.78	20.56	PASS
Band12	3MHz	16QAM	23165	8RB#4	20.94	19.72	PASS
Band12	3MHz	QPSK	23165	8RB#7	21.57	20.35	PASS
Band12	3MHz	16QAM	23165	8RB#7	20.71	19.49	PASS
Band12	3MHz	QPSK	23165	15RB#0	21.48	20.26	PASS
Band12	3MHz	16QAM	23165	15RB#0	20.68	19.46	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.11	21.89	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.16	20.94	PASS
Band12	5MHz	QPSK	23035	1RB#12	22.72	21.50	PASS
Band12	5MHz	16QAM	23035	1RB#12	21.87	20.65	PASS
Band12	5MHz	QPSK	23035	1RB#24	22.80	21.58	PASS
Band12	5MHz	16QAM	23035	1RB#24	21.99	20.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	21.53	20.31	PASS
Band12	5MHz	16QAM	23035	12RB#0	20.77	19.55	PASS
Band12	5MHz	QPSK	23035	12RB#6	21.59	20.37	PASS
Band12	5MHz	16QAM	23035	12RB#6	20.77	19.55	PASS
Band12	5MHz	QPSK	23035	12RB#13	21.76	20.54	PASS
Band12	5MHz	16QAM	23035	12RB#13	20.93	19.71	PASS
Band12	5MHz	QPSK	23035	25RB#0	21.76	20.54	PASS
Band12	5MHz	16QAM	23035	25RB#0	20.81	19.59	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.03	21.81	PASS
Band12	5MHz	16QAM	23095	1RB#0	21.87	20.65	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.25	22.03	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.22	21.00	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.30	22.08	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.32	21.10	PASS
Band12	5MHz	QPSK	23095	12RB#0	21.78	20.56	PASS
Band12	5MHz	16QAM	23095	12RB#0	20.89	19.67	PASS
Band12	5MHz	QPSK	23095	12RB#6	21.79	20.57	PASS
Band12	5MHz	16QAM	23095	12RB#6	20.89	19.67	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.19	20.97	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.36	20.14	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.11	20.89	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.27	20.05	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.71	22.49	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.45	21.23	PASS
Band12	5MHz	QPSK	23155	1RB#12	22.89	21.67	PASS
Band12	5MHz	16QAM	23155	1RB#12	21.84	20.62	PASS
Band12	5MHz	QPSK	23155	1RB#24	22.45	21.23	PASS
Band12	5MHz	16QAM	23155	1RB#24	21.49	20.27	PASS
Band12	5MHz	QPSK	23155	12RB#0	21.96	20.74	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.12	19.90	PASS

Band12	5MHz	QPSK	23155	12RB#6	22.06	20.84	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.12	19.90	PASS
Band12	5MHz	QPSK	23155	12RB#13	21.46	20.24	PASS
Band12	5MHz	16QAM	23155	12RB#13	20.57	19.35	PASS
Band12	5MHz	QPSK	23155	25RB#0	21.78	20.56	PASS
Band12	5MHz	16QAM	23155	25RB#0	20.91	19.69	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.29	22.07	PASS
Band12	10MHz	QPSK	23060	1RB#24	22.86	21.64	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.69	22.47	PASS
Band12	10MHz	QPSK	23060	25RB#0	21.74	20.52	PASS
Band12	10MHz	QPSK	23060	25RB#12	21.77	20.55	PASS
Band12	10MHz	QPSK	23060	25RB#25	21.93	20.71	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.37	22.15	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.32	22.10	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.65	22.43	PASS
Band12	10MHz	QPSK	23095	25RB#0	21.86	20.64	PASS
Band12	10MHz	QPSK	23095	25RB#12	21.85	20.63	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.18	20.96	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.55	22.33	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.07	21.85	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.07	21.85	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.17	20.95	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.24	21.02	PASS
Band12	10MHz	QPSK	23130	25RB#25	21.99	20.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.01	20.79	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.45	21.23	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.46	21.24	PASS

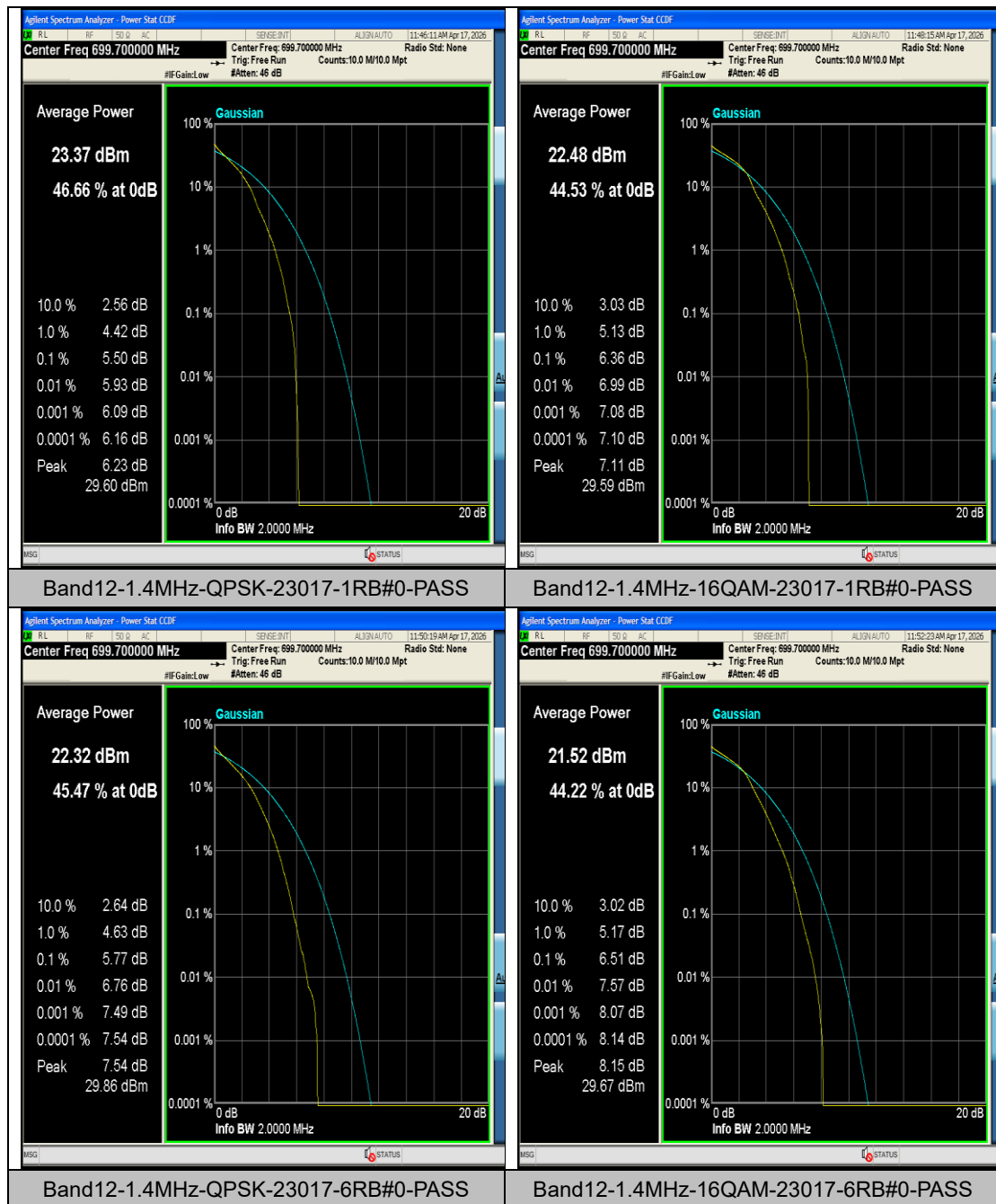
Appendix B: Peak-to-Average Ratio(CCDF)

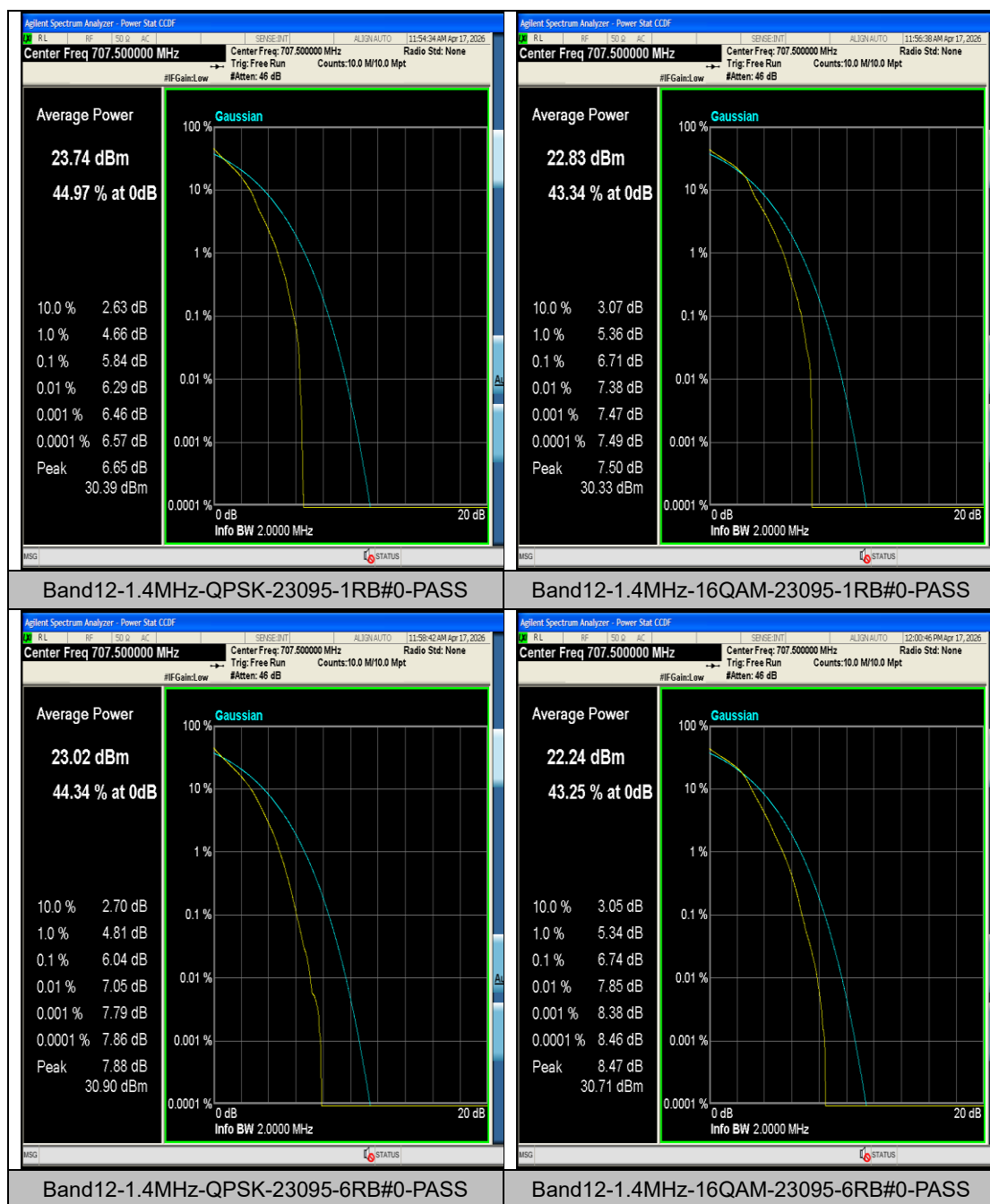
Test Result

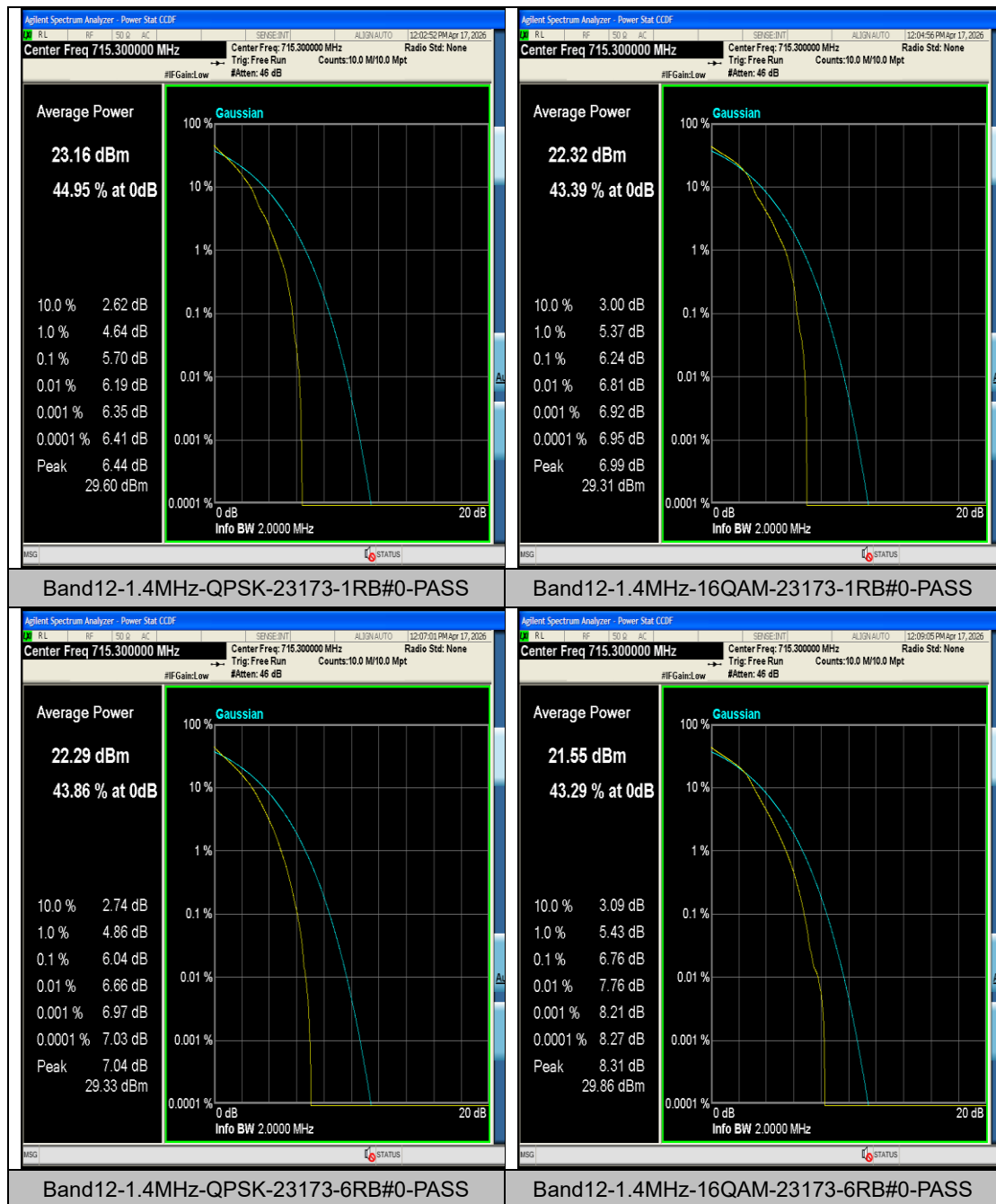
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	5.50	13	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	6.36	13	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	5.77	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	6.51	13	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	5.84	13	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	6.71	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	6.04	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	6.74	13	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	5.70	13	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	6.24	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	6.04	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	6.76	13	PASS
Band12	3MHz	QPSK	23025	1RB#0	5.53	13	PASS
Band12	3MHz	16QAM	23025	1RB#0	6.37	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.96	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.63	13	PASS
Band12	3MHz	QPSK	23095	1RB#0	5.88	13	PASS
Band12	3MHz	16QAM	23095	1RB#0	6.70	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.97	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.72	13	PASS
Band12	3MHz	QPSK	23165	1RB#0	5.53	13	PASS
Band12	3MHz	16QAM	23165	1RB#0	6.11	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	5.96	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	6.65	13	PASS
Band12	5MHz	QPSK	23035	1RB#0	5.53	13	PASS
Band12	5MHz	16QAM	23035	1RB#0	5.98	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	5.96	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	6.58	13	PASS
Band12	5MHz	QPSK	23095	1RB#0	5.83	13	PASS
Band12	5MHz	16QAM	23095	1RB#0	6.24	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	5.94	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.59	13	PASS
Band12	5MHz	QPSK	23155	1RB#0	5.41	13	PASS
Band12	5MHz	16QAM	23155	1RB#0	6.02	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	5.87	13	PASS
Band12	5MHz	16QAM	23155	25RB#0	6.52	13	PASS

Band12	10MHz	QPSK	23060	1RB#0	5.31	13	PASS
Band12	10MHz	QPSK	23095	1RB#0	5.60	13	PASS
Band12	10MHz	QPSK	23130	1RB#0	5.61	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	5.94	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.58	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.74	13	PASS

Test Graphs

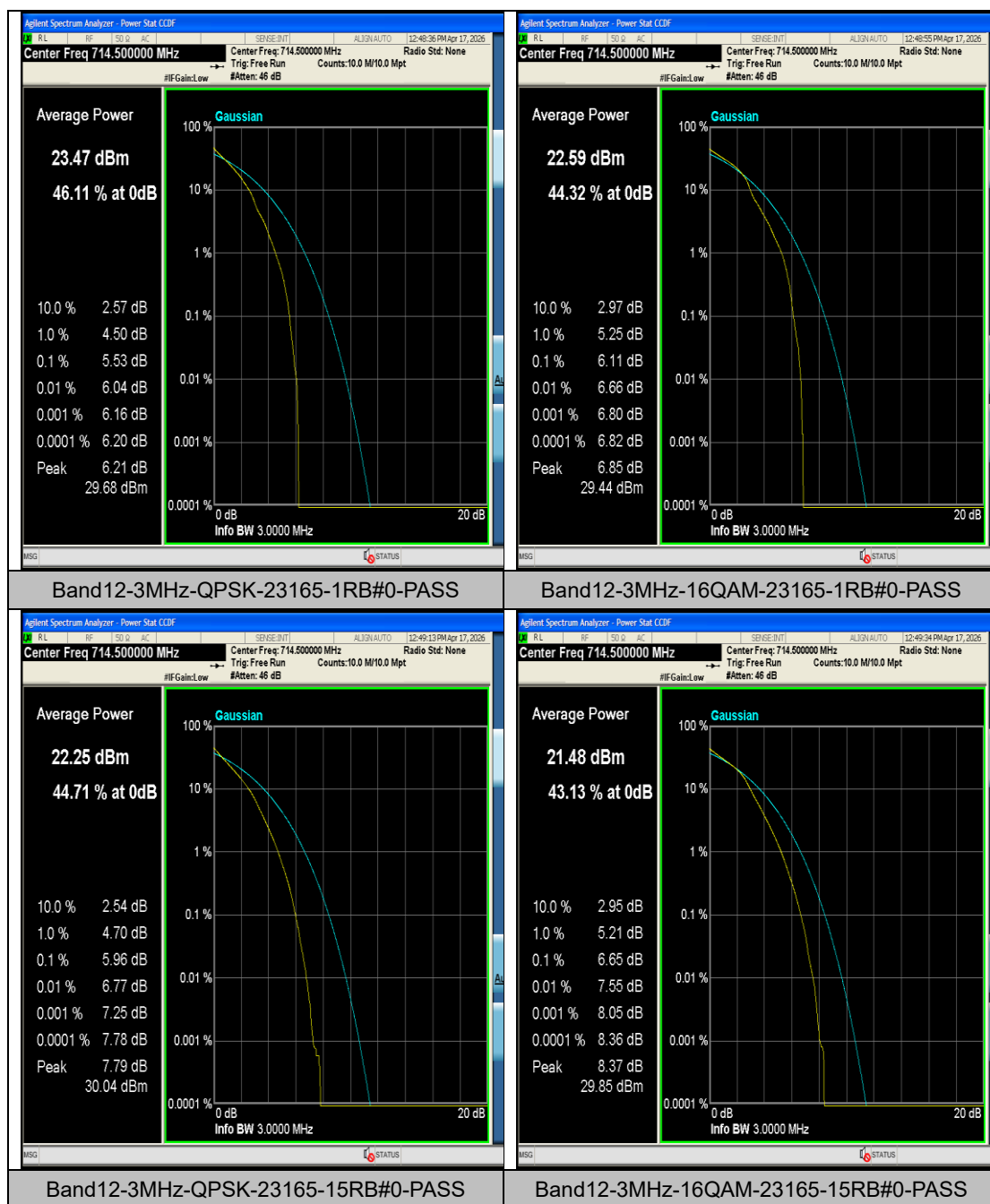


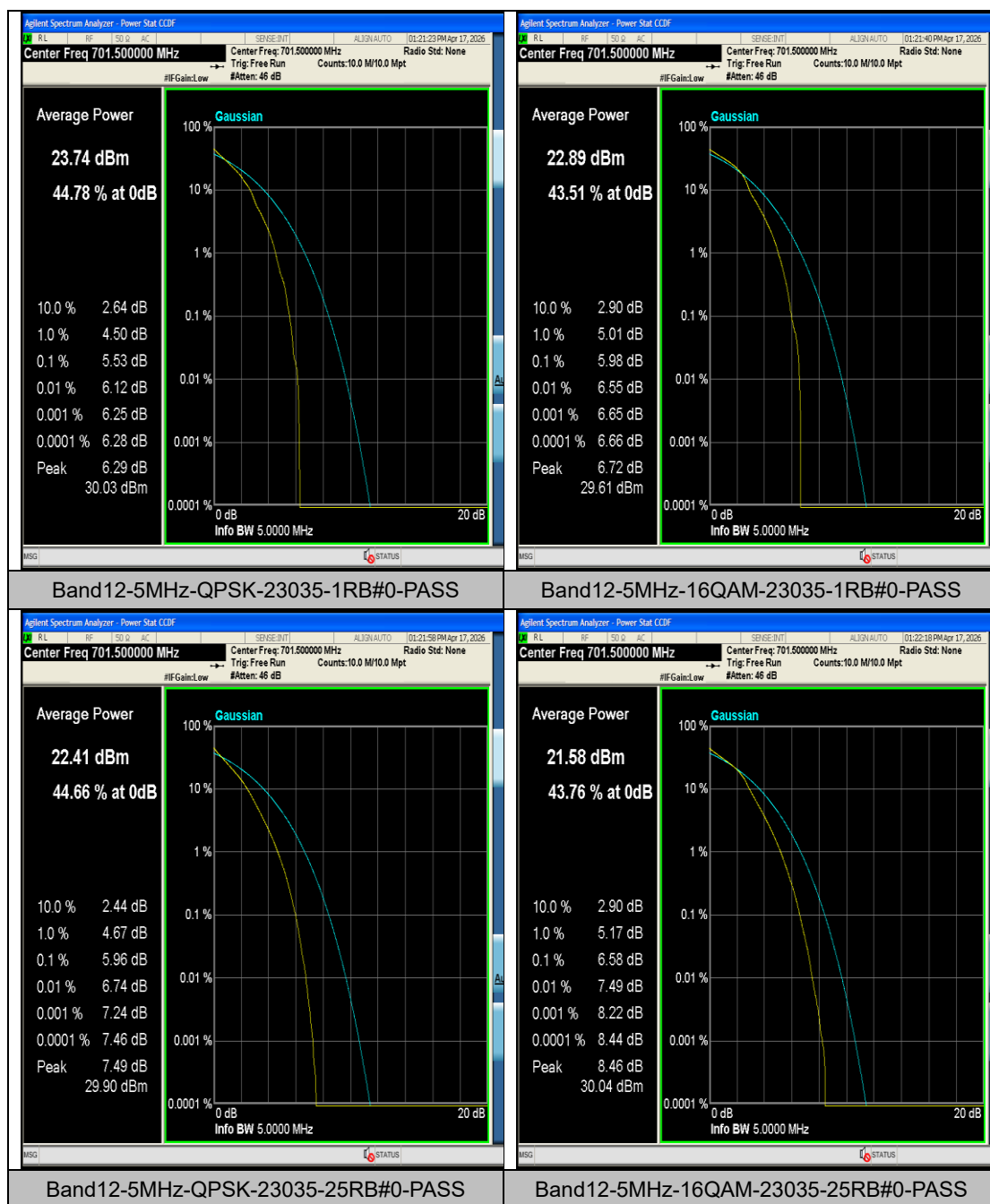




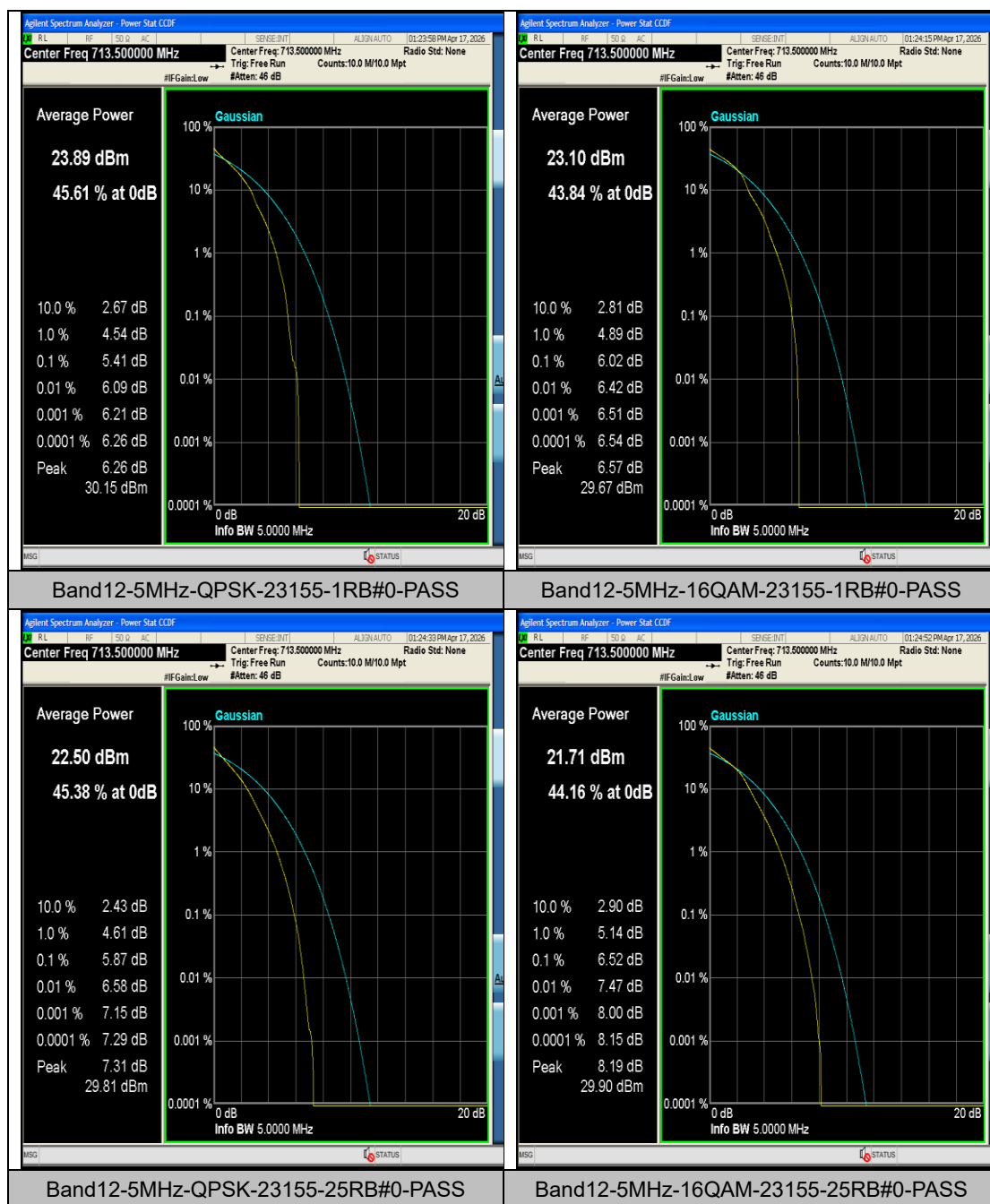


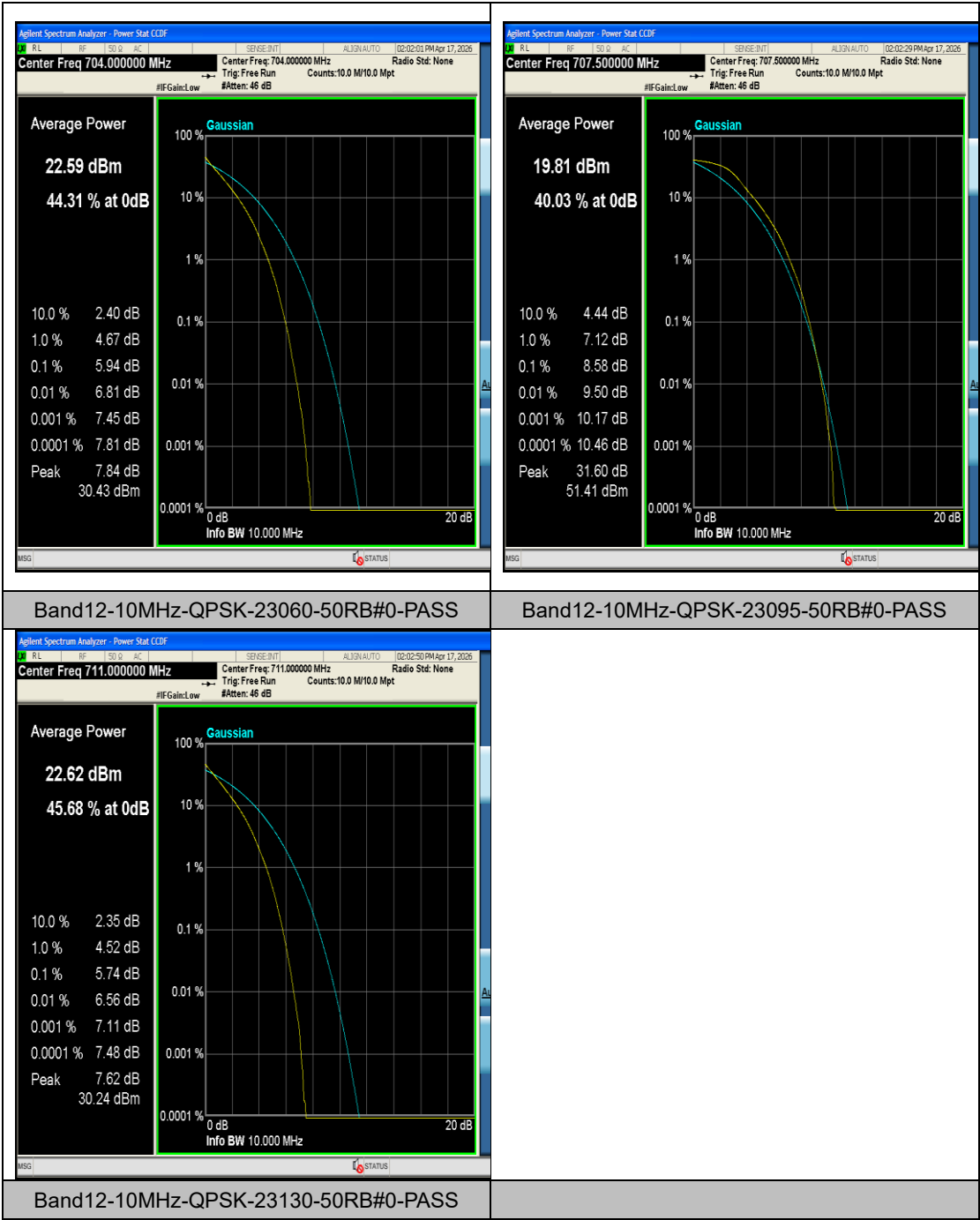










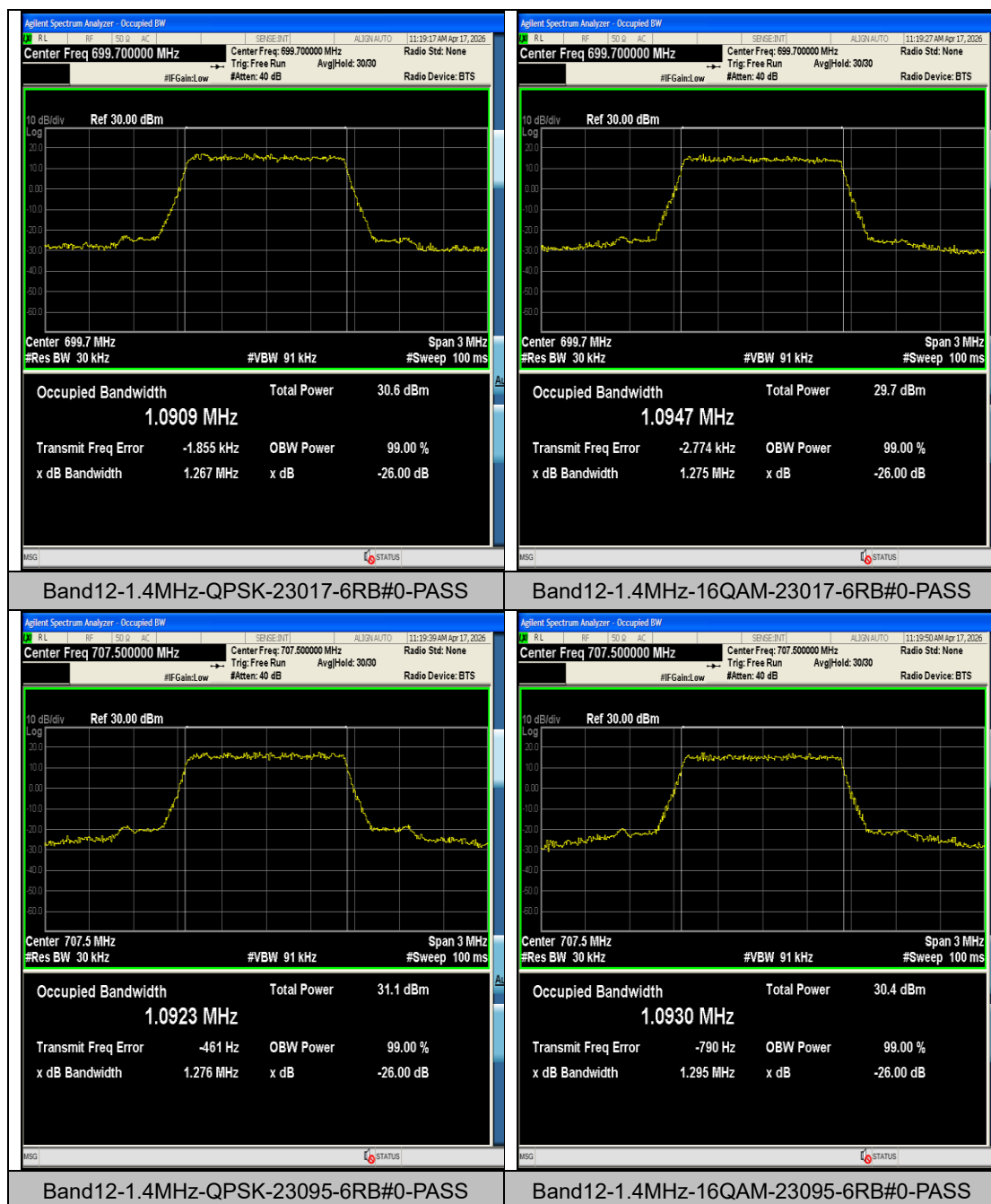


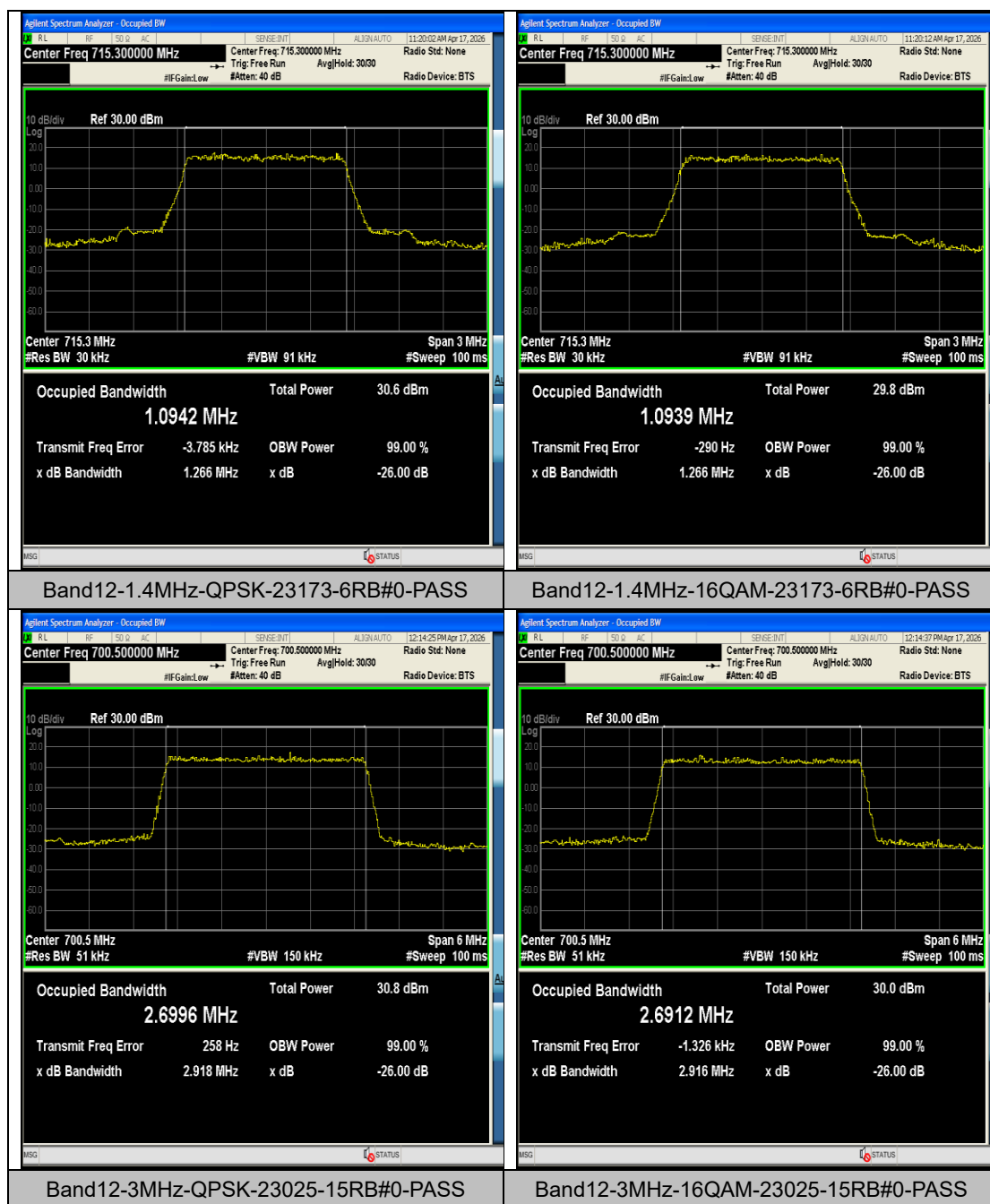
Appendix C: 26dB Bandwidth and Occupied Bandwidth

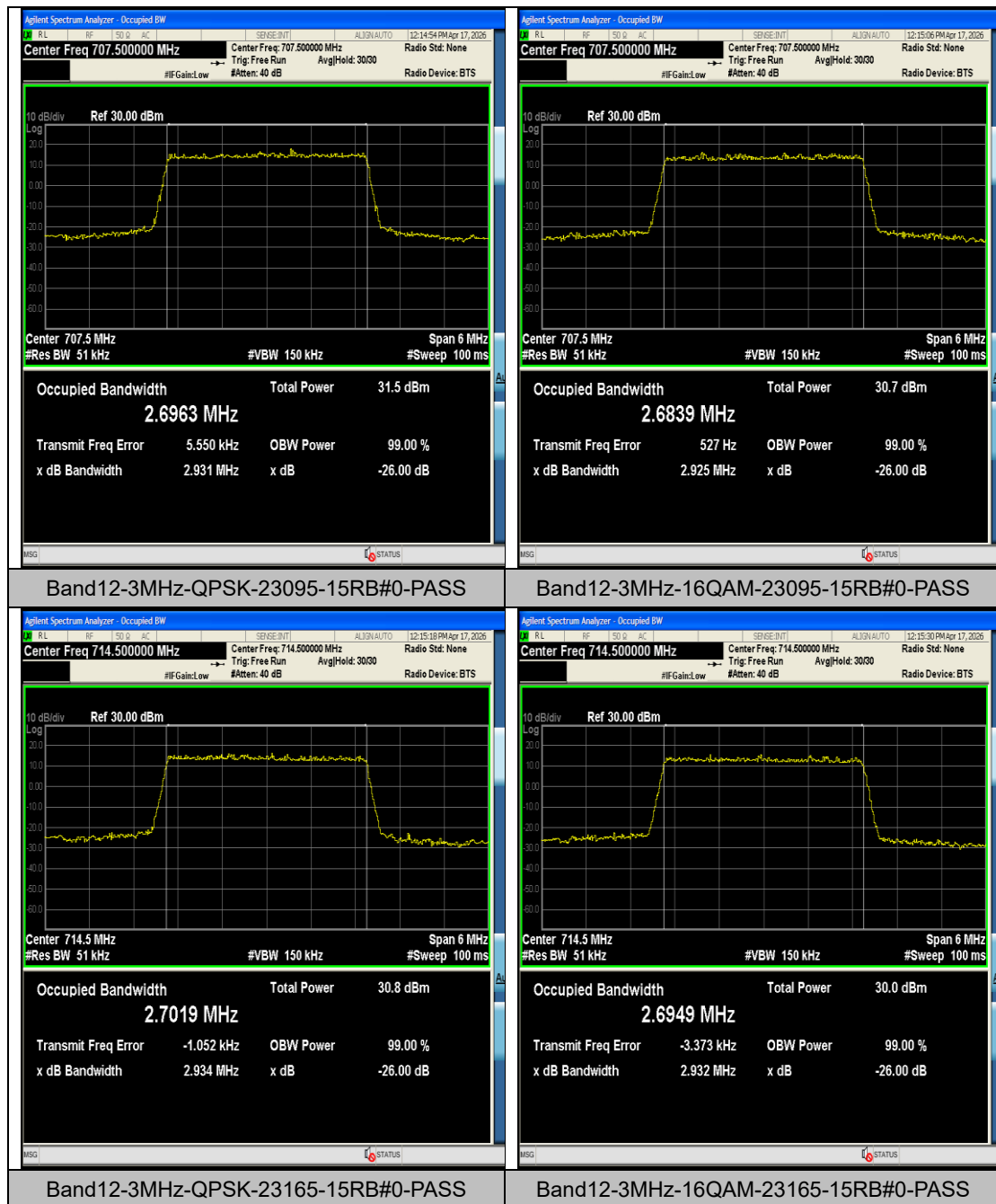
Test Result

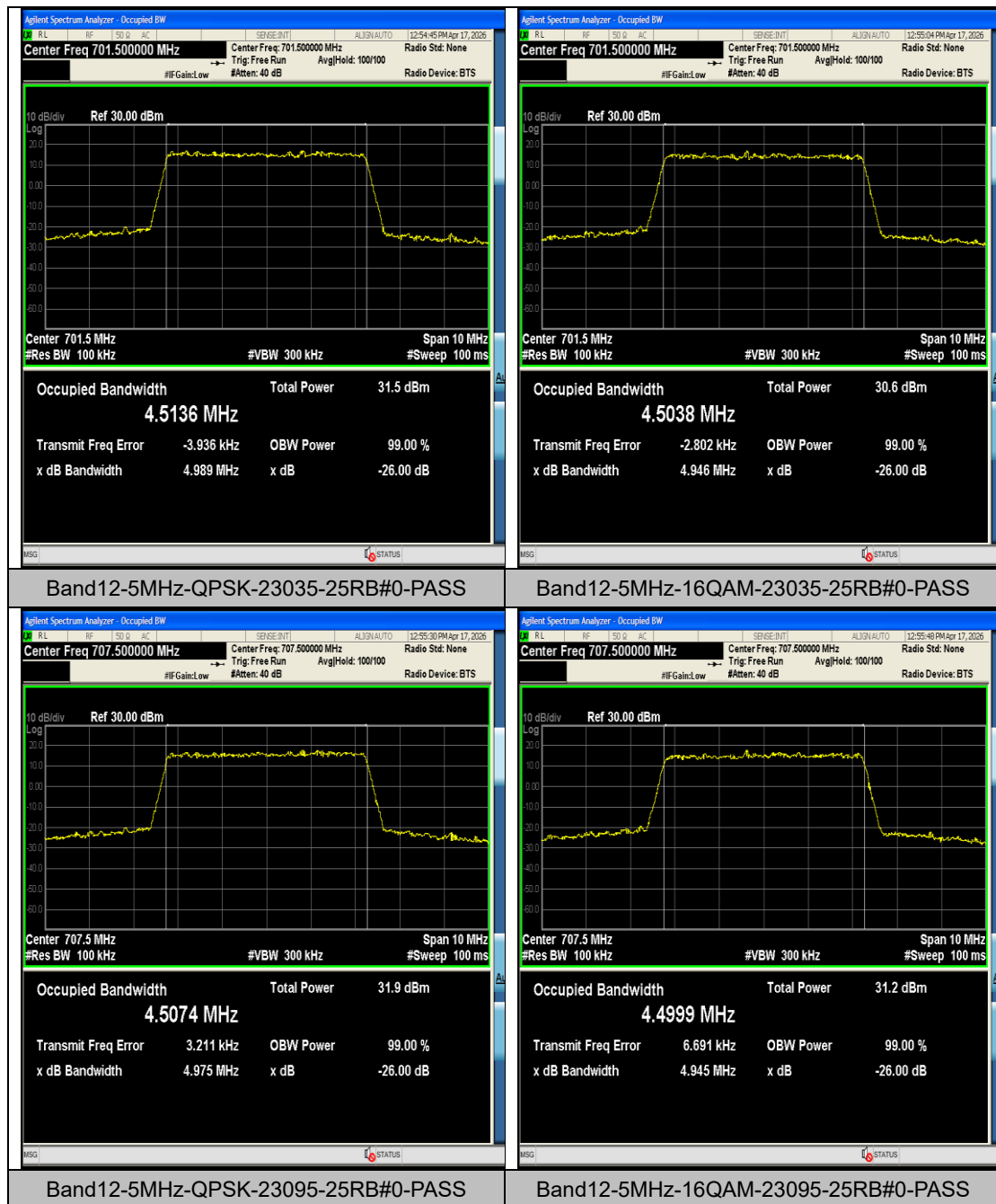
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0909	1.267	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0947	1.275	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0923	1.276	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0930	1.295	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0942	1.266	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0939	1.266	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6996	2.918	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6912	2.916	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6963	2.931	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6839	2.925	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.7019	2.934	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6949	2.932	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.5136	4.989	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.5038	4.946	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.5074	4.975	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.4999	4.945	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.4934	4.940	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4993	4.969	PASS
Band12	10MHz	QPSK	23060	50RB#0	9.0067	9.796	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9844	9.802	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9610	9.730	PASS

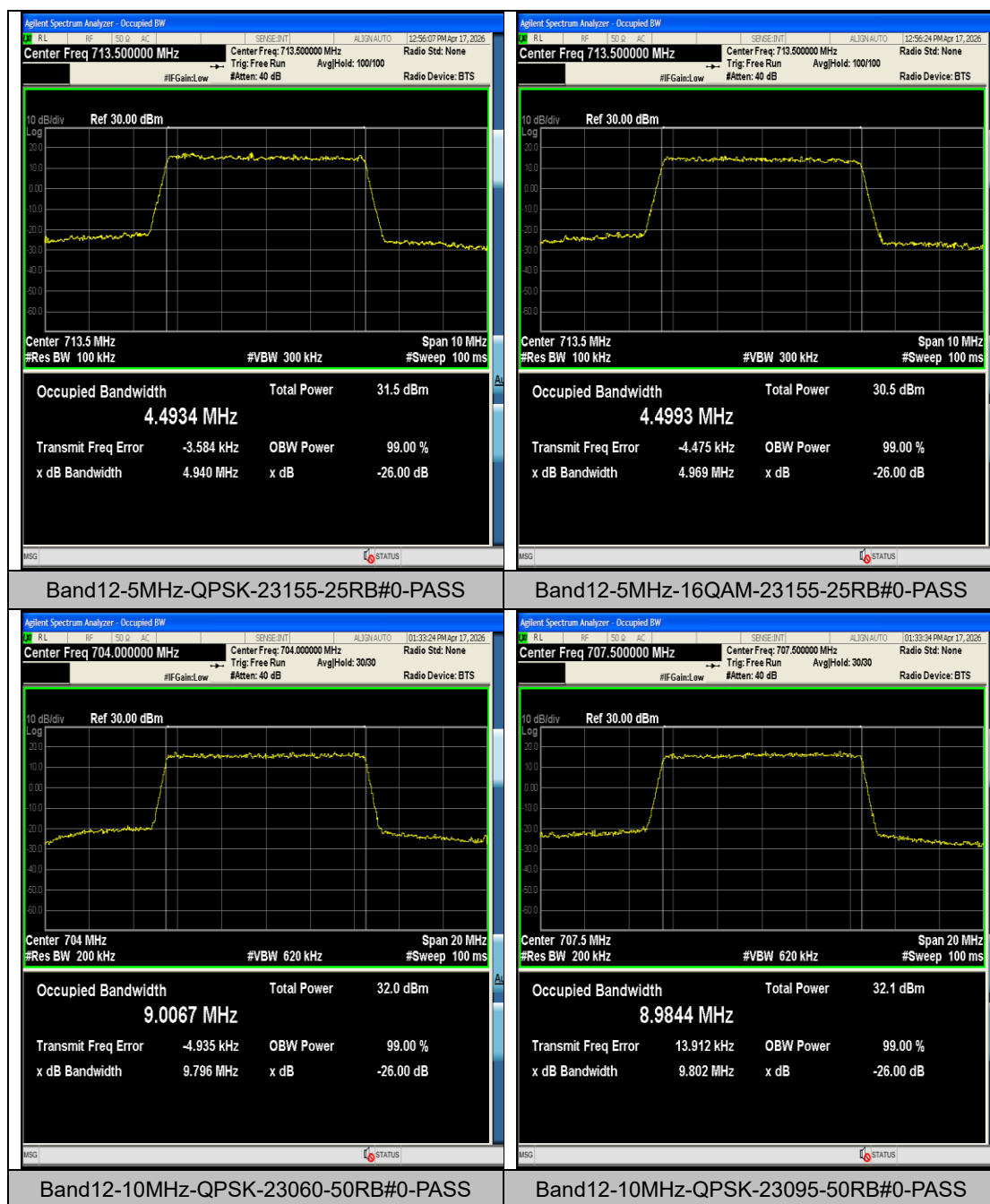
Test Graphs











Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	-23.87	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	-24.48	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	-31.25	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	-32.01	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	-32.93	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	-32.74	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	-33.20	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	-33.96	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	-24.14	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	-24.98	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	-29.45	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	-30.91	PASS
Band12	3MHz	QPSK	23025	1RB#0	-20.30	PASS
Band12	3MHz	16QAM	23025	1RB#0	-20.30	PASS
Band12	3MHz	QPSK	23025	1RB#14	-39.59	PASS
Band12	3MHz	16QAM	23025	1RB#14	-39.74	PASS
Band12	3MHz	QPSK	23025	15RB#0	-34.52	PASS
Band12	3MHz	16QAM	23025	15RB#0	-34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	-41.05	PASS
Band12	3MHz	16QAM	23165	1RB#0	-41.20	PASS
Band12	3MHz	QPSK	23165	1RB#14	-21.05	PASS
Band12	3MHz	16QAM	23165	1RB#14	-22.28	PASS
Band12	3MHz	QPSK	23165	15RB#0	-34.72	PASS
Band12	3MHz	16QAM	23165	15RB#0	-35.61	PASS
Band12	5MHz	QPSK	23035	1RB#0	-21.81	PASS
Band12	5MHz	16QAM	23035	1RB#0	-21.09	PASS
Band12	5MHz	QPSK	23035	1RB#24	-47.99	PASS
Band12	5MHz	16QAM	23035	1RB#24	-49.09	PASS
Band12	5MHz	QPSK	23035	25RB#0	-34.84	PASS
Band12	5MHz	16QAM	23035	25RB#0	-35.55	PASS
Band12	5MHz	QPSK	23155	1RB#0	-49.16	PASS
Band12	5MHz	16QAM	23155	1RB#0	-50.48	PASS
Band12	5MHz	QPSK	23155	1RB#24	-21.42	PASS
Band12	5MHz	16QAM	23155	1RB#24	-22.17	PASS
Band12	5MHz	QPSK	23155	25RB#0	-38.06	PASS
Band12	5MHz	16QAM	23155	25RB#0	-39.39	PASS
Band12	10MHz	QPSK	23060	1RB#0	-28.77	PASS

Band12	10MHz	QPSK	23060	1RB#49	-46.26	PASS
Band12	10MHz	QPSK	23130	1RB#0	-48.49	PASS
Band12	10MHz	QPSK	23130	1RB#49	-29.55	PASS
Band12	10MHz	QPSK	23060	50RB#0	-35.99	PASS
Band12	10MHz	QPSK	23130	50RB#0	-41.86	PASS

Test Graphs

