

Test Data for E-UTRA Band 5

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>	

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Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	ERP(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	23.14	22.83	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.00	21.69	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.09	22.78	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.09	21.78	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.12	22.81	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.07	21.76	PASS
Band5	1.4MHz	QPSK	20407	3RB#0	23.14	22.83	PASS
Band5	1.4MHz	16QAM	20407	3RB#0	22.06	21.75	PASS
Band5	1.4MHz	QPSK	20407	3RB#1	23.26	22.95	PASS
Band5	1.4MHz	16QAM	20407	3RB#1	22.14	21.83	PASS
Band5	1.4MHz	QPSK	20407	3RB#3	23.25	22.94	PASS
Band5	1.4MHz	16QAM	20407	3RB#3	22.04	21.73	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.30	21.99	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.19	20.88	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.27	22.96	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.00	21.69	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	22.85	22.54	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	21.83	21.52	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	22.96	22.65	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	21.80	21.49	PASS
Band5	1.4MHz	QPSK	20525	3RB#0	23.01	22.70	PASS
Band5	1.4MHz	16QAM	20525	3RB#0	21.81	21.50	PASS
Band5	1.4MHz	QPSK	20525	3RB#1	22.99	22.68	PASS
Band5	1.4MHz	16QAM	20525	3RB#1	21.88	21.57	PASS
Band5	1.4MHz	QPSK	20525	3RB#3	22.92	22.61	PASS
Band5	1.4MHz	16QAM	20525	3RB#3	21.85	21.54	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.04	21.73	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	20.88	20.57	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.35	23.04	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.06	21.75	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.24	22.93	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	21.98	21.67	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.17	22.86	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.01	21.70	PASS
Band5	1.4MHz	QPSK	20643	3RB#0	23.13	22.82	PASS
Band5	1.4MHz	16QAM	20643	3RB#0	21.85	21.54	PASS

Band5	1.4MHz	QPSK	20643	3RB#1	23.26	22.95	PASS
Band5	1.4MHz	16QAM	20643	3RB#1	21.84	21.53	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.51	23.20	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.51	22.20	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.39	23.08	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.37	22.06	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.43	23.12	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.41	22.10	PASS
Band5	3MHz	QPSK	20415	8RB#0	22.43	22.12	PASS
Band5	1.4MHz	QPSK	20643	3RB#3	23.27	22.96	PASS
Band5	1.4MHz	16QAM	20643	3RB#3	21.94	21.63	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.17	21.86	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.23	20.92	PASS
Band5	3MHz	16QAM	20415	8RB#0	21.47	21.16	PASS
Band5	3MHz	QPSK	20415	8RB#4	22.47	22.16	PASS
Band5	3MHz	16QAM	20415	8RB#4	21.48	21.17	PASS
Band5	3MHz	QPSK	20415	8RB#7	22.49	22.18	PASS
Band5	3MHz	16QAM	20415	8RB#7	21.47	21.16	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.47	22.16	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.32	21.01	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.64	23.33	PASS
Band5	3MHz	16QAM	20525	1RB#0	22.31	22.00	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.28	22.97	PASS
Band5	3MHz	16QAM	20525	1RB#8	22.15	21.84	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.28	22.97	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.03	21.72	PASS
Band5	3MHz	QPSK	20525	8RB#0	22.46	22.15	PASS
Band5	3MHz	16QAM	20525	8RB#0	21.42	21.11	PASS
Band5	3MHz	QPSK	20525	8RB#4	22.46	22.15	PASS
Band5	3MHz	16QAM	20525	8RB#4	21.44	21.13	PASS
Band5	3MHz	QPSK	20525	8RB#7	22.33	22.02	PASS
Band5	3MHz	16QAM	20525	8RB#7	21.31	21.00	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.27	21.96	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.20	20.89	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.54	23.23	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.38	22.07	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.51	23.20	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.27	21.96	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.49	23.18	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.37	22.06	PASS
Band5	3MHz	QPSK	20635	8RB#0	22.27	21.96	PASS
Band5	3MHz	16QAM	20635	8RB#0	21.43	21.12	PASS
Band5	3MHz	QPSK	20635	8RB#4	22.34	22.03	PASS

Band5	3MHz	16QAM	20635	8RB#4	21.44	21.13	PASS
Band5	3MHz	QPSK	20635	8RB#7	22.45	22.14	PASS
Band5	3MHz	16QAM	20635	8RB#7	21.50	21.19	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.34	22.03	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.43	21.12	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.77	23.46	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.84	22.53	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.49	23.18	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.63	22.32	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.74	23.43	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.91	22.60	PASS
Band5	5MHz	QPSK	20425	12RB#0	22.50	22.19	PASS
Band5	5MHz	16QAM	20425	12RB#0	21.56	21.25	PASS
Band5	5MHz	QPSK	20425	12RB#6	22.44	22.13	PASS
Band5	5MHz	16QAM	20425	12RB#6	21.52	21.21	PASS
Band5	5MHz	QPSK	20425	12RB#13	22.50	22.19	PASS
Band5	5MHz	16QAM	20425	12RB#13	21.48	21.17	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.48	22.17	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.36	21.05	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.97	23.66	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.84	22.53	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.36	23.05	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.31	22.00	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.58	23.27	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.51	22.20	PASS
Band5	5MHz	QPSK	20525	12RB#0	22.49	22.18	PASS
Band5	5MHz	16QAM	20525	12RB#0	21.59	21.28	PASS
Band5	5MHz	QPSK	20525	12RB#6	22.50	22.19	PASS
Band5	5MHz	16QAM	20525	12RB#6	21.56	21.25	PASS
Band5	5MHz	QPSK	20525	12RB#13	22.30	21.99	PASS
Band5	5MHz	16QAM	20525	12RB#13	21.36	21.05	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.32	22.01	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.34	21.03	PASS
Band5	5MHz	QPSK	20625	1RB#0	24.18	23.87	PASS
Band5	5MHz	16QAM	20625	1RB#0	22.97	22.66	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.51	23.20	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.32	22.01	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.91	23.60	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.79	22.48	PASS
Band5	5MHz	QPSK	20625	12RB#0	22.62	22.31	PASS
Band5	5MHz	16QAM	20625	12RB#0	21.77	21.46	PASS
Band5	5MHz	QPSK	20625	12RB#6	22.74	22.43	PASS
Band5	5MHz	16QAM	20625	12RB#6	21.80	21.49	PASS

Band5	5MHz	QPSK	20625	12RB#13	22.44	22.13	PASS
Band5	5MHz	16QAM	20625	12RB#13	21.42	21.11	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.49	22.18	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.58	21.27	PASS
Band5	10MHz	QPSK	20450	1RB#0	24.10	23.79	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.67	23.36	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.86	23.55	PASS
Band5	10MHz	QPSK	20450	25RB#0	22.55	22.24	PASS
Band5	10MHz	QPSK	20450	25RB#12	22.48	22.17	PASS
Band5	10MHz	QPSK	20450	25RB#25	22.75	22.44	PASS
Band5	10MHz	QPSK	20525	1RB#0	24.06	23.75	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.04	22.73	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.87	23.56	PASS
Band5	10MHz	QPSK	20525	25RB#0	22.44	22.13	PASS
Band5	10MHz	QPSK	20525	25RB#12	22.47	22.16	PASS
Band5	10MHz	QPSK	20525	25RB#25	22.19	21.88	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.73	23.42	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.55	23.24	PASS
Band5	10MHz	QPSK	20600	1RB#49	24.09	23.78	PASS
Band5	10MHz	QPSK	20600	25RB#0	22.30	21.99	PASS
Band5	10MHz	QPSK	20600	25RB#12	22.40	22.09	PASS
Band5	10MHz	QPSK	20600	25RB#25	22.38	22.07	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.22	21.91	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.02	21.71	PASS
Band5	10MHz	QPSK	20600	50RB#0	21.32	21.01	PASS

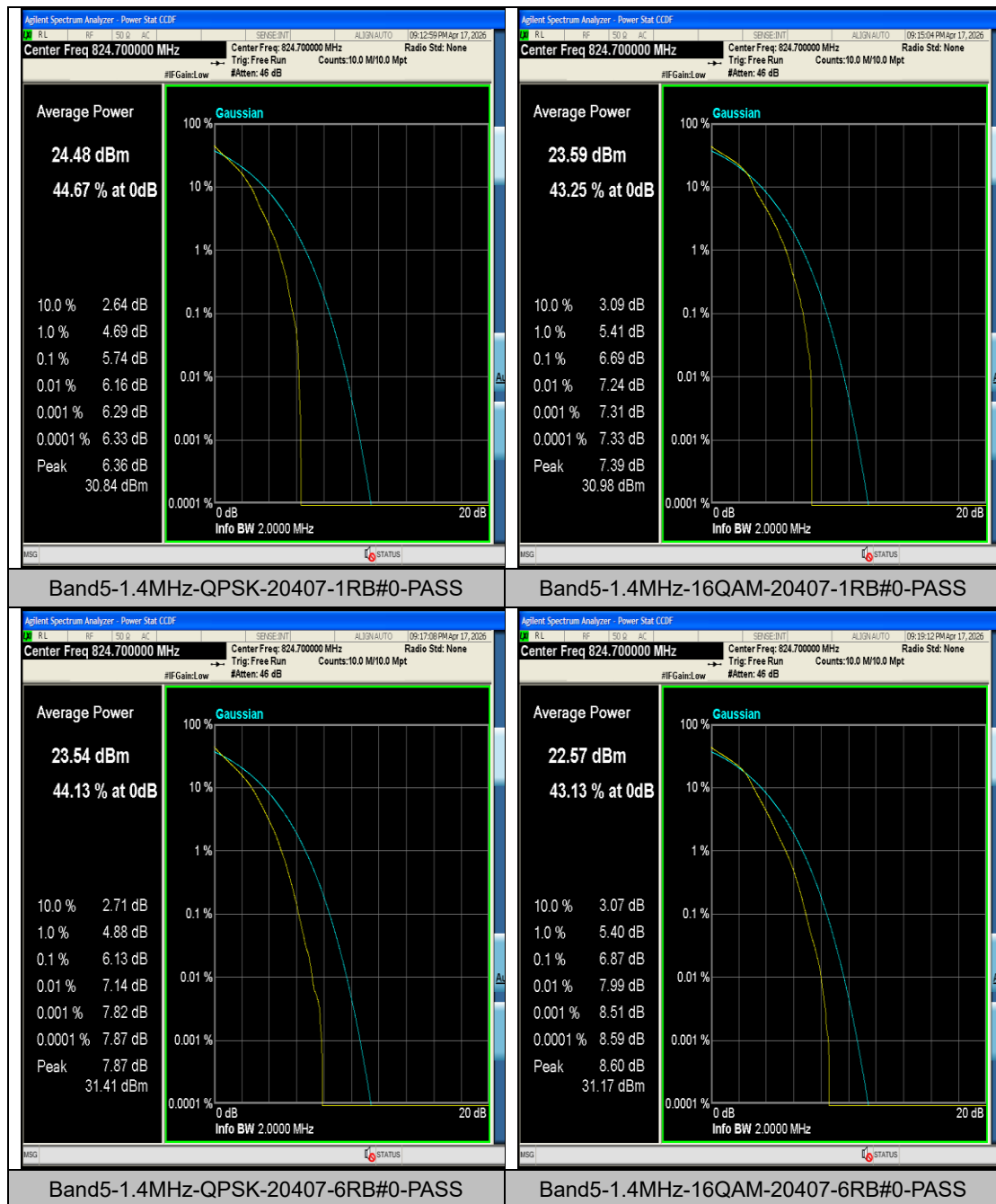
Appendix B: Peak-to-Average Ratio(CCDF)

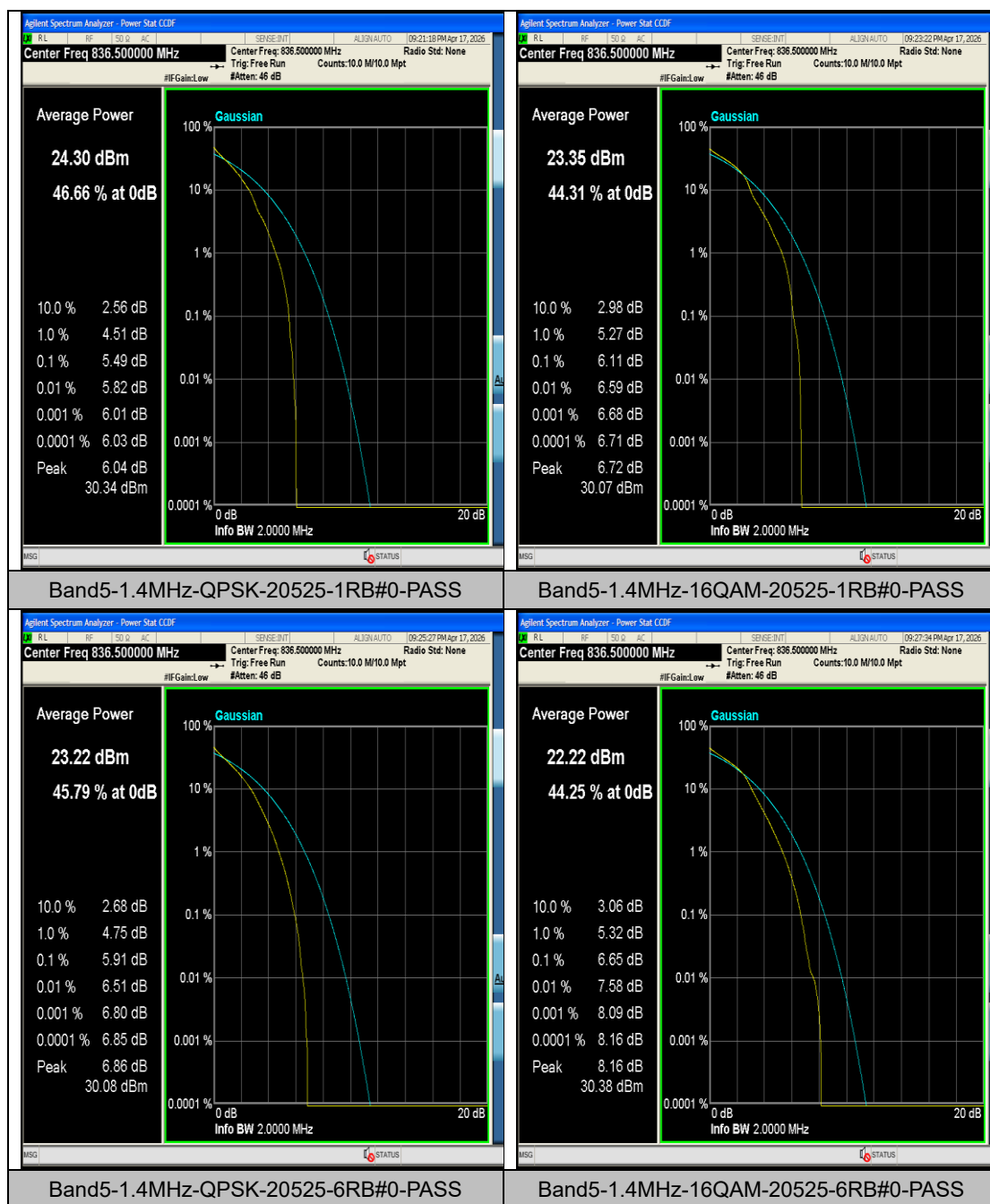
Test Result

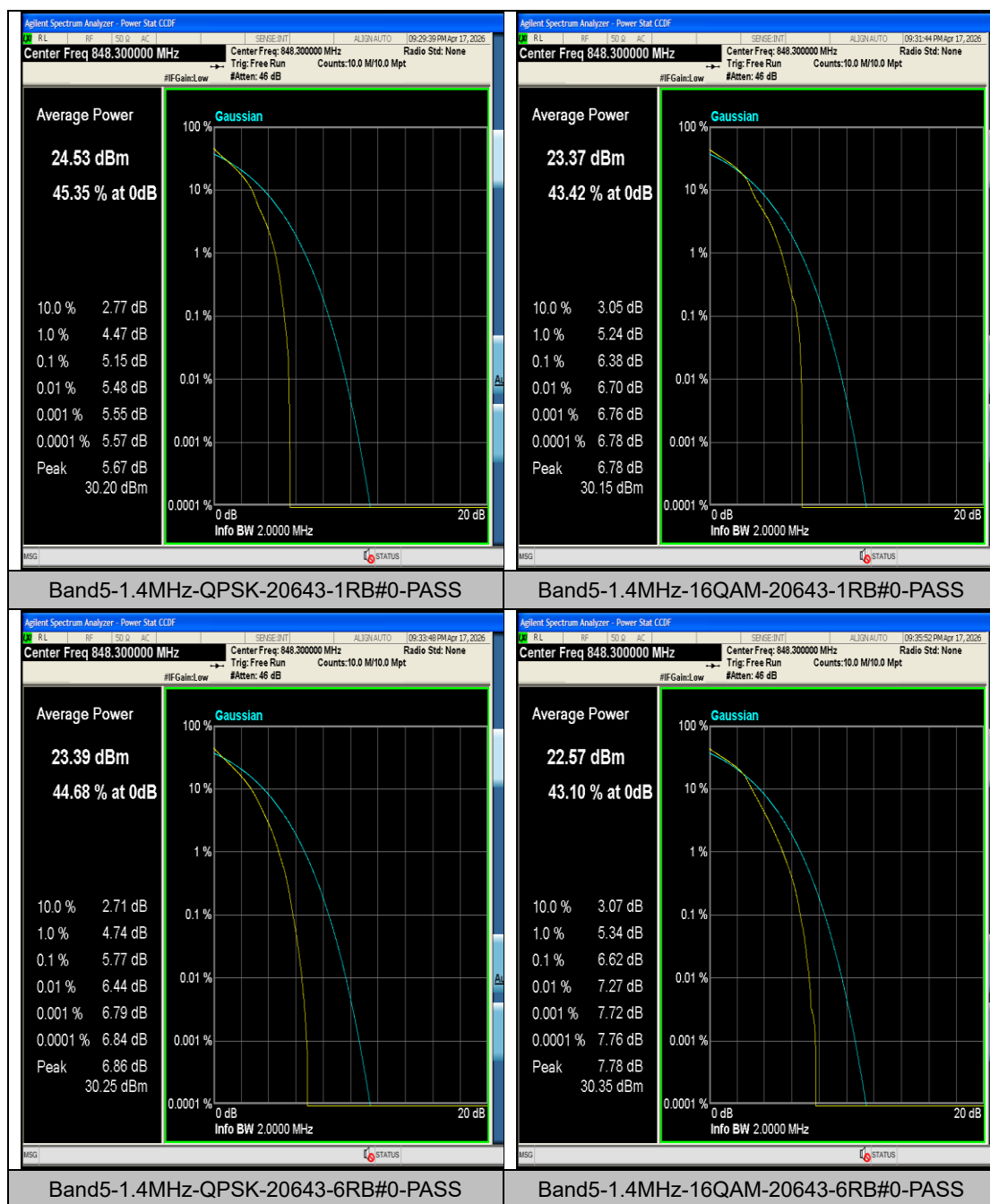
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	5.74	13	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	6.69	13	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	6.13	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	6.87	13	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	5.49	13	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	6.11	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.91	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	6.65	13	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	5.15	13	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	6.38	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	5.77	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	6.62	13	PASS
Band5	3MHz	QPSK	20415	1RB#0	5.85	13	PASS
Band5	3MHz	16QAM	20415	1RB#0	6.67	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	6.10	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	6.87	13	PASS
Band5	3MHz	QPSK	20525	1RB#0	5.36	13	PASS
Band5	3MHz	16QAM	20525	1RB#0	6.04	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.89	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	6.58	13	PASS
Band5	3MHz	QPSK	20635	1RB#0	5.09	13	PASS
Band5	3MHz	16QAM	20635	1RB#0	6.30	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	5.78	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	6.58	13	PASS
Band5	5MHz	QPSK	20425	1RB#0	5.81	13	PASS
Band5	5MHz	16QAM	20425	1RB#0	6.25	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	6.11	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	6.77	13	PASS
Band5	5MHz	QPSK	20525	1RB#0	5.20	13	PASS
Band5	5MHz	16QAM	20525	1RB#0	5.88	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.87	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	6.54	13	PASS
Band5	5MHz	QPSK	20625	1RB#0	4.77	13	PASS
Band5	5MHz	16QAM	20625	1RB#0	5.42	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.76	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	6.40	13	PASS

Band5	10MHz	QPSK	20450	1RB#0	5.55	13	PASS
Band5	10MHz	QPSK	20525	1RB#0	5.23	13	PASS
Band5	10MHz	QPSK	20600	1RB#0	5.36	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.95	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.85	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.72	13	PASS

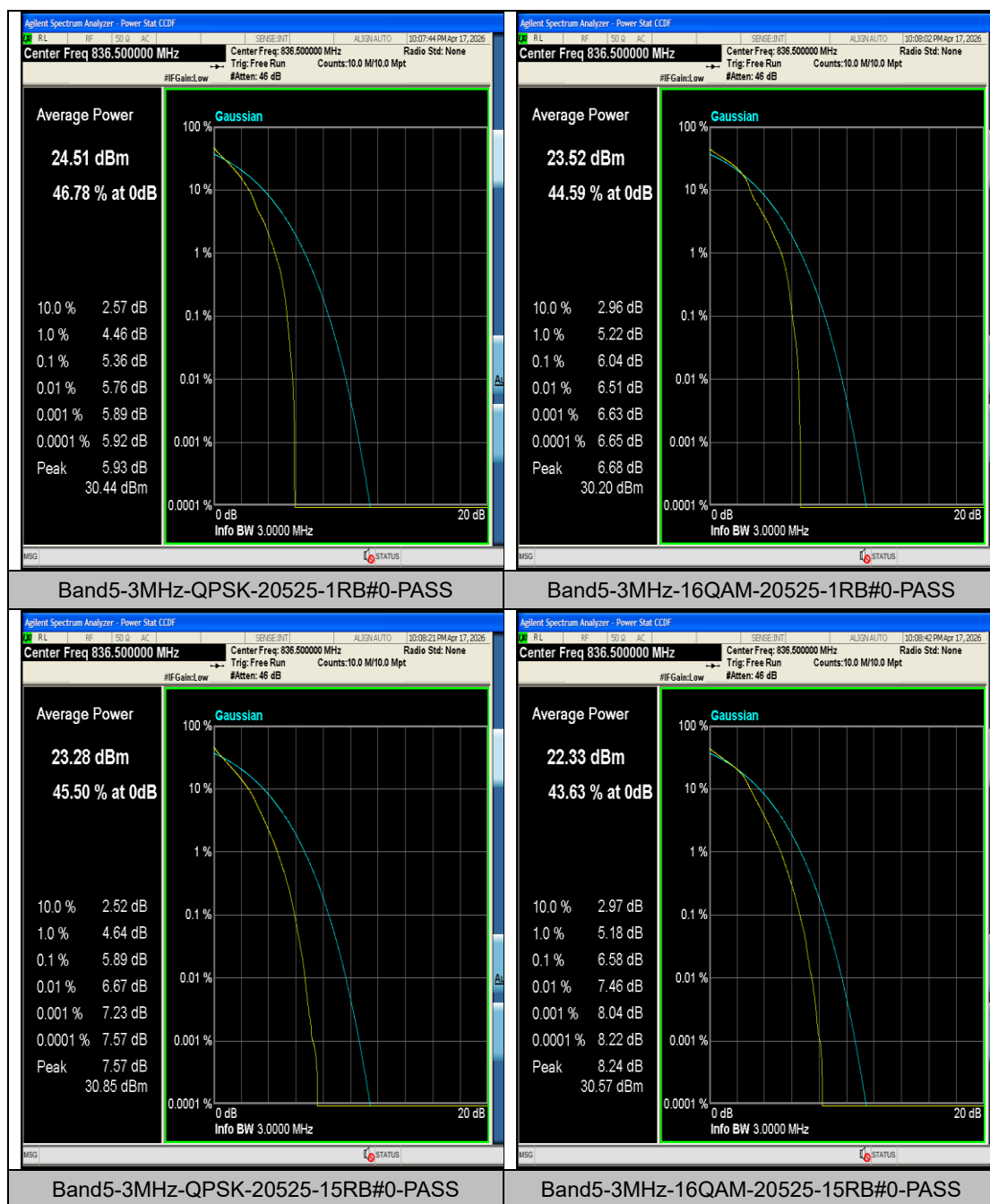
Test Graphs

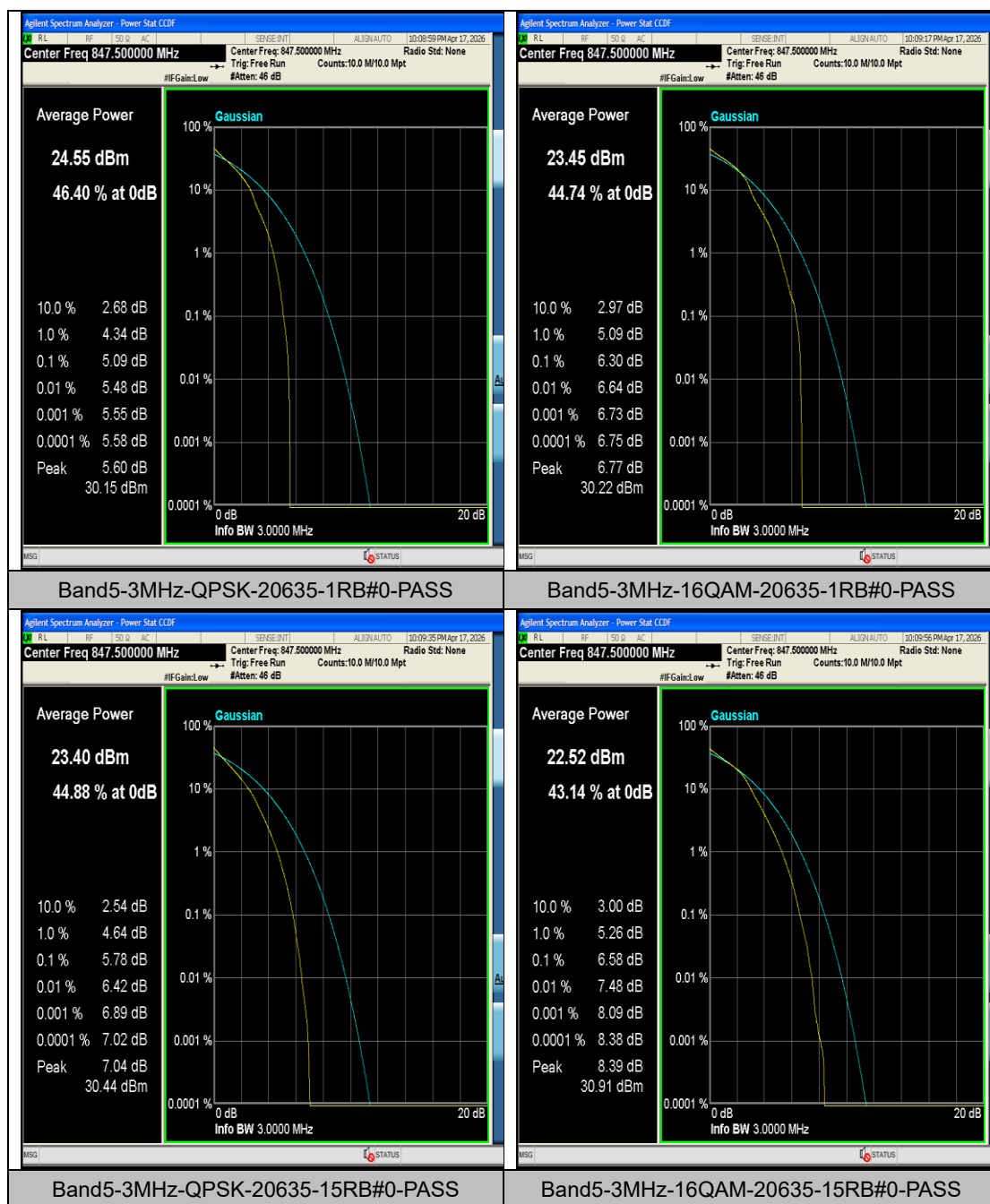


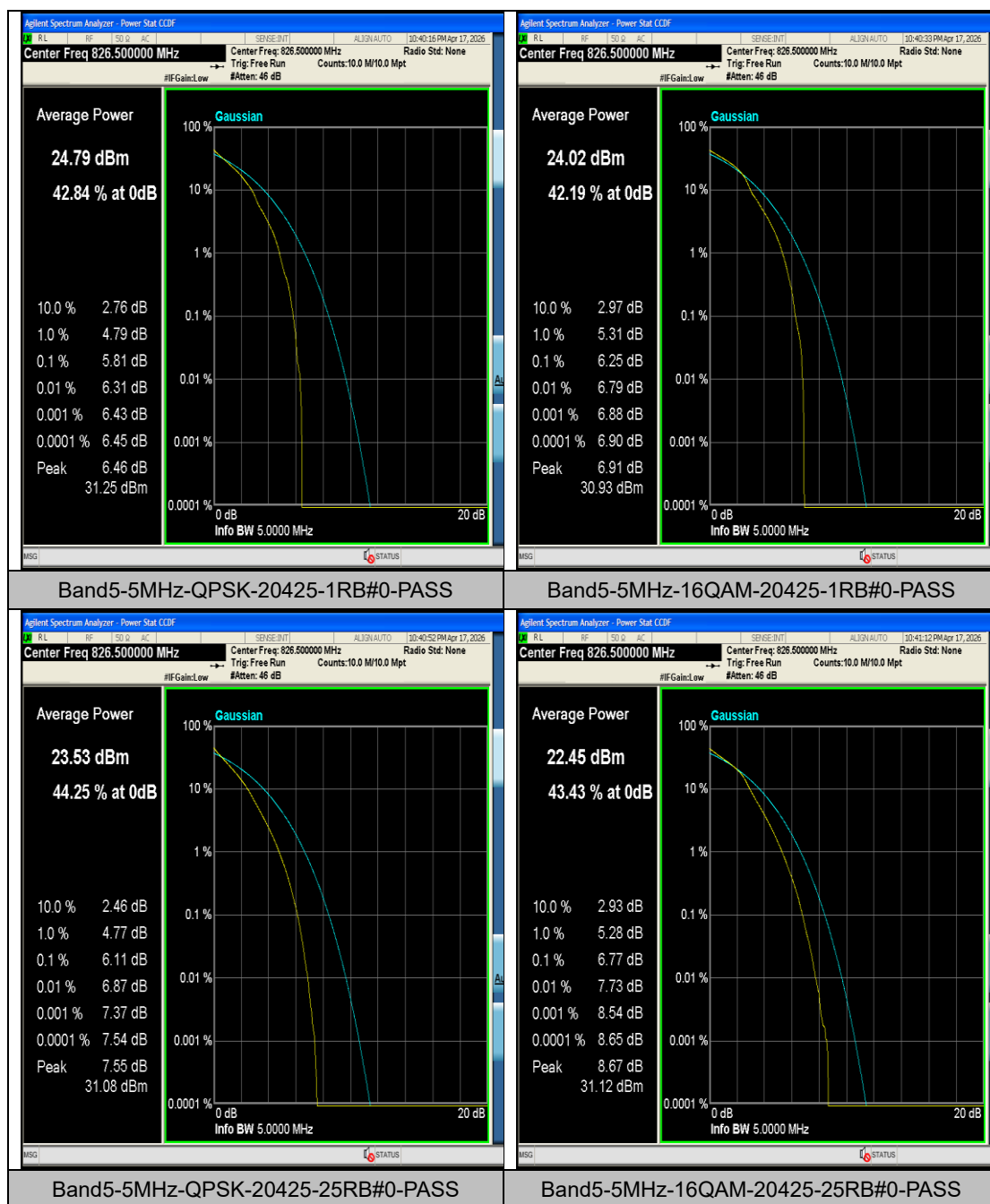






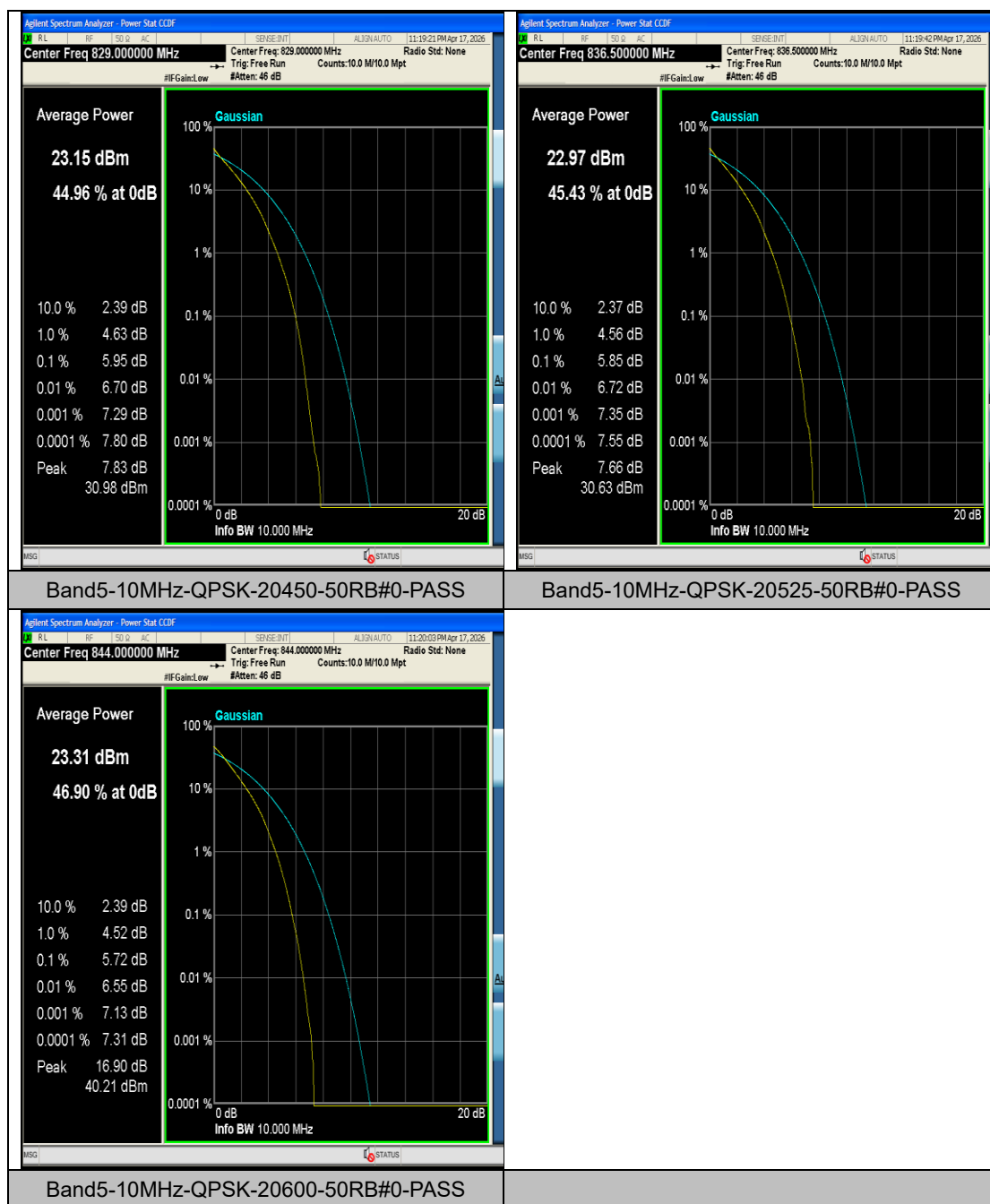










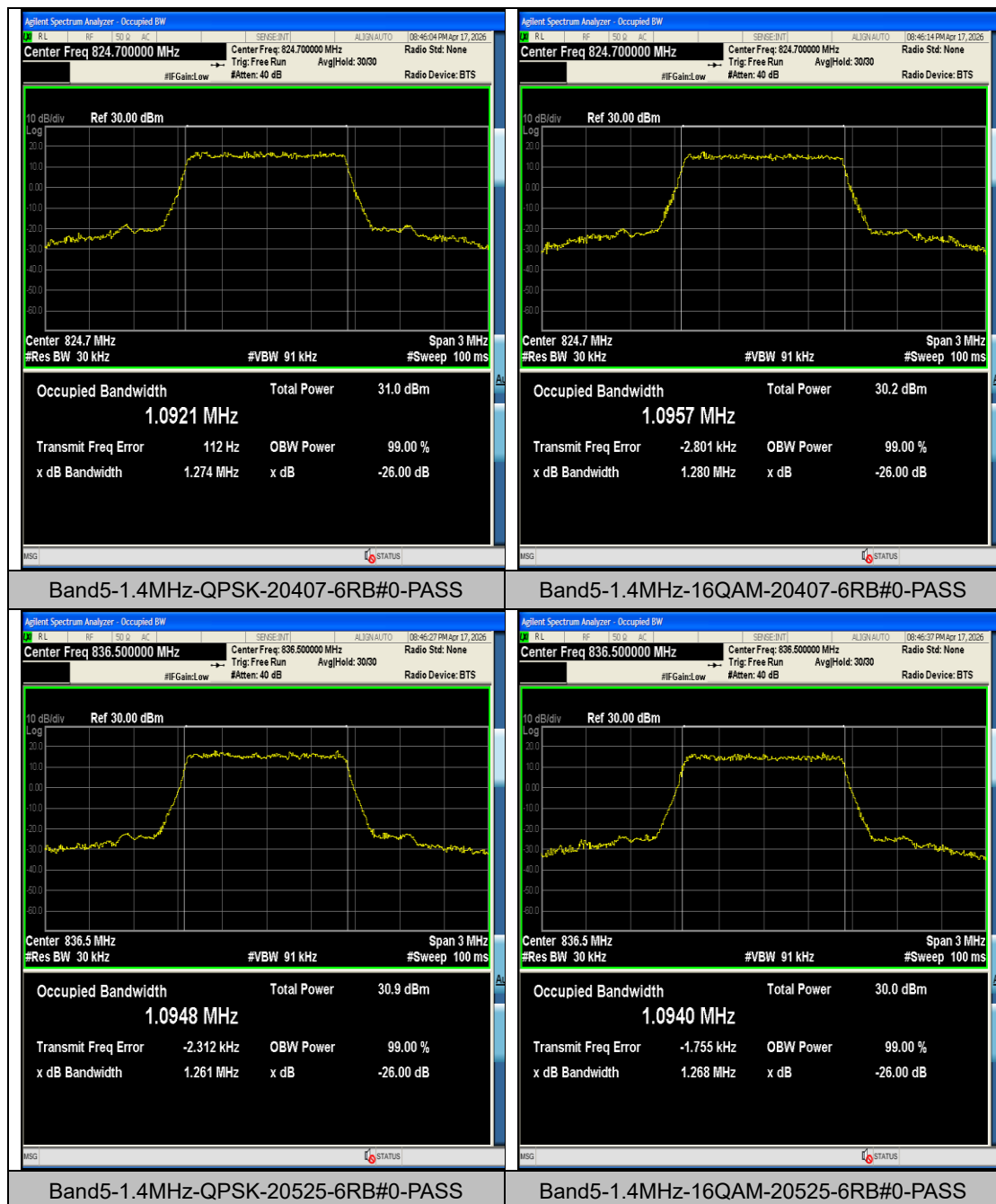


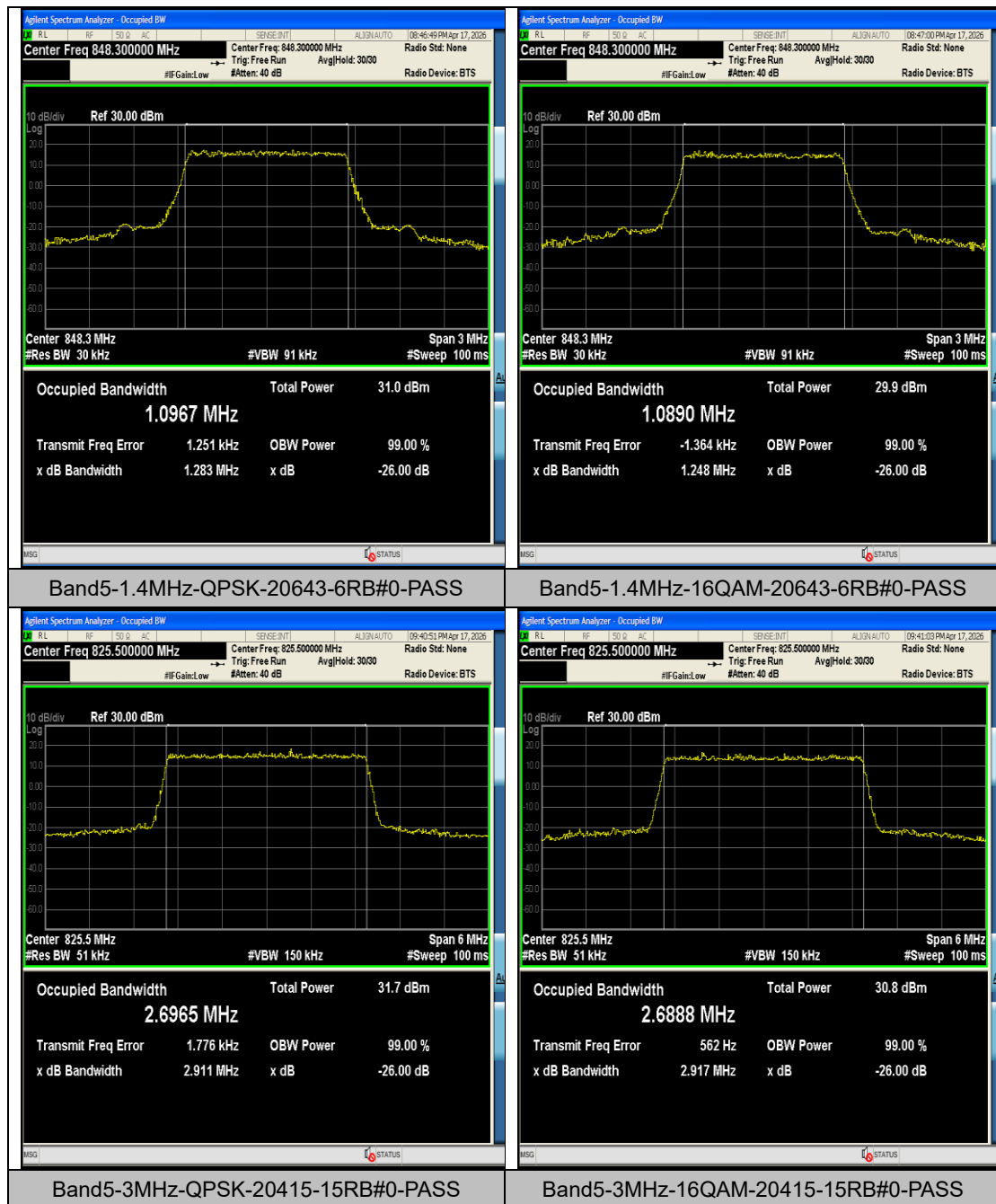
Appendix C: 26dB Bandwidth and Occupied Bandwidth

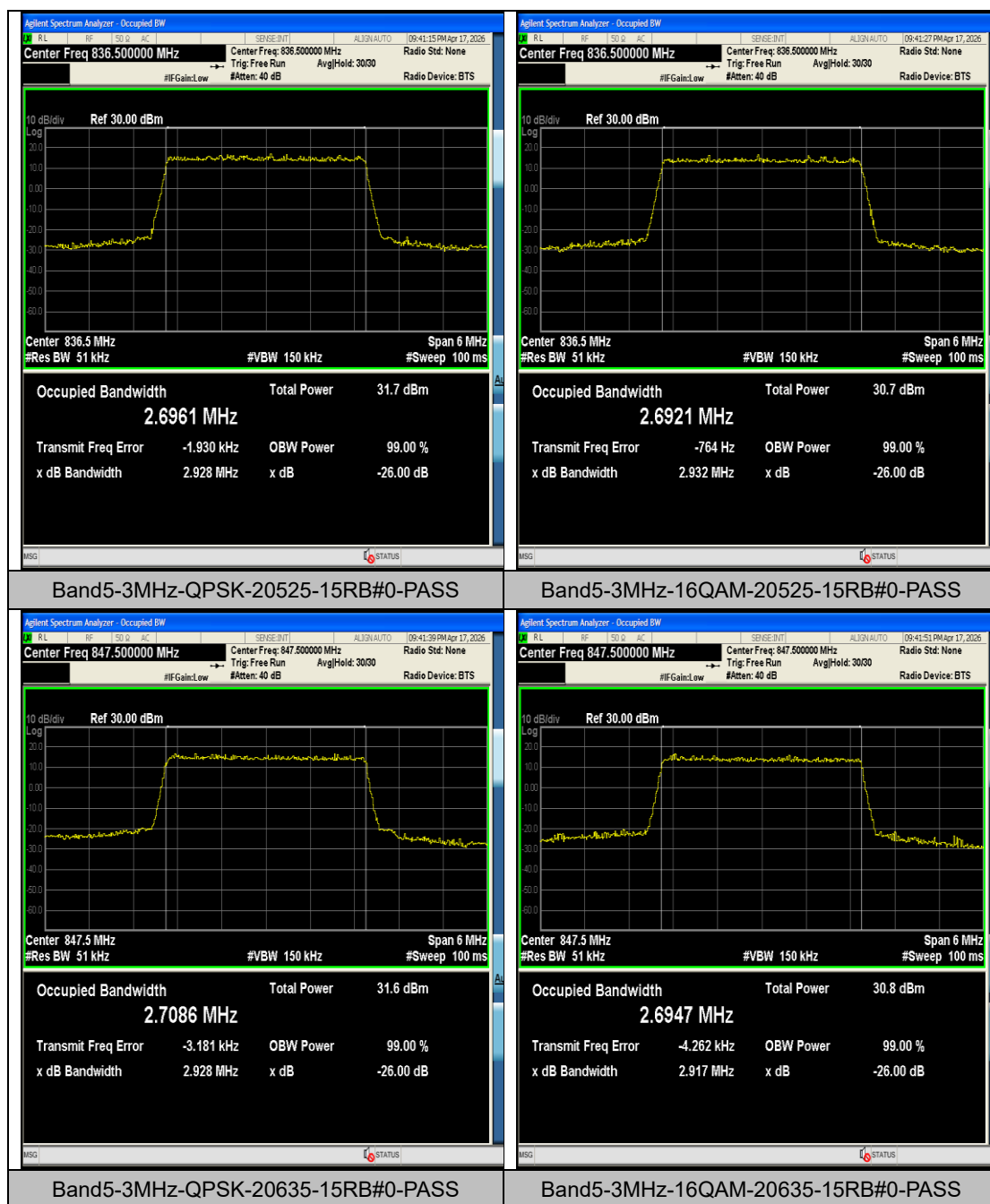
Test Result

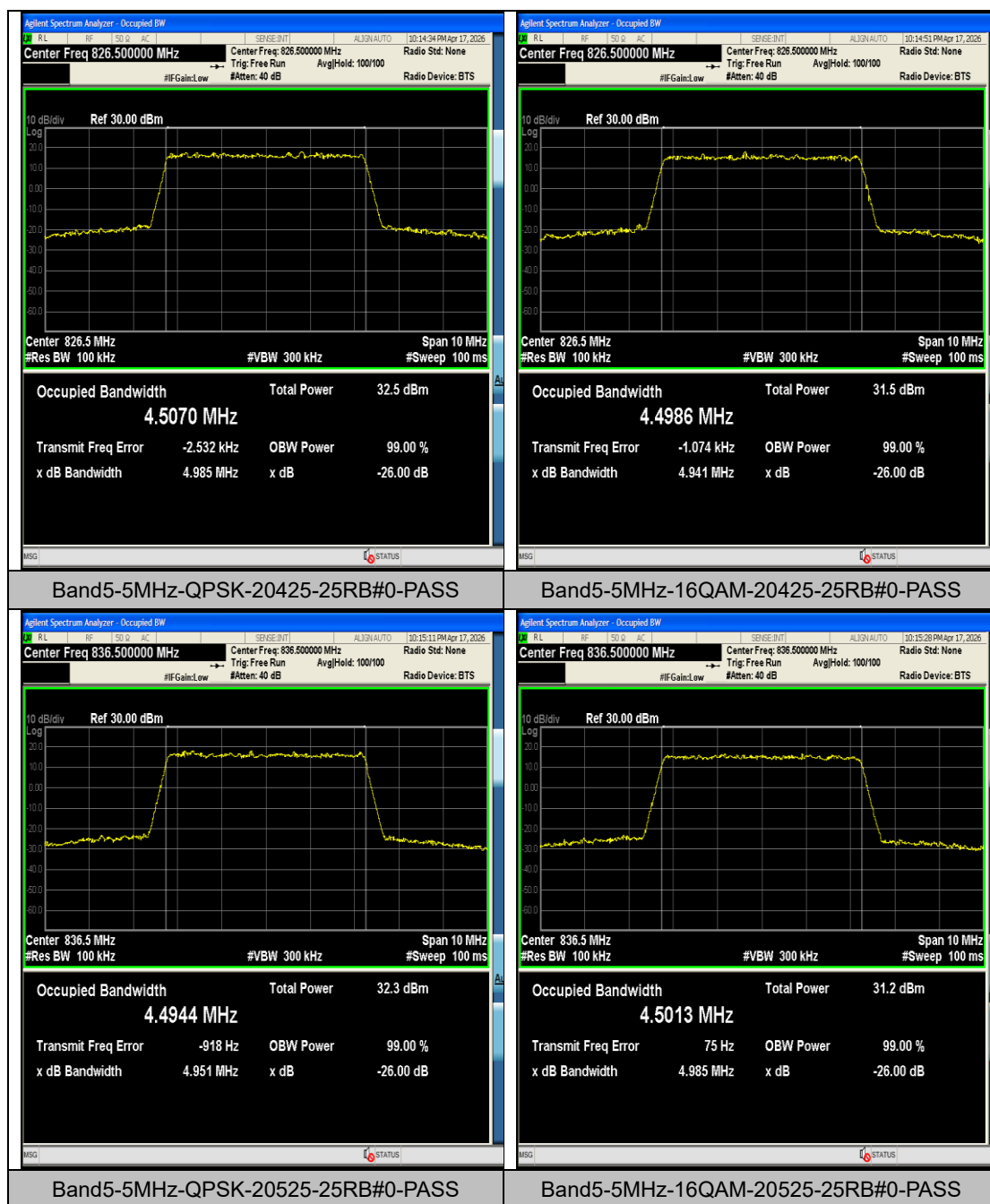
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0921	1.274	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0957	1.280	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0948	1.261	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0940	1.268	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0967	1.283	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0890	1.248	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6965	2.911	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6888	2.917	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6961	2.928	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6921	2.932	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.7086	2.928	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6947	2.917	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.5070	4.985	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4986	4.941	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4944	4.951	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.5013	4.985	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.5039	4.979	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.5021	4.945	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9827	9.814	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9884	9.742	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9619	9.772	PASS

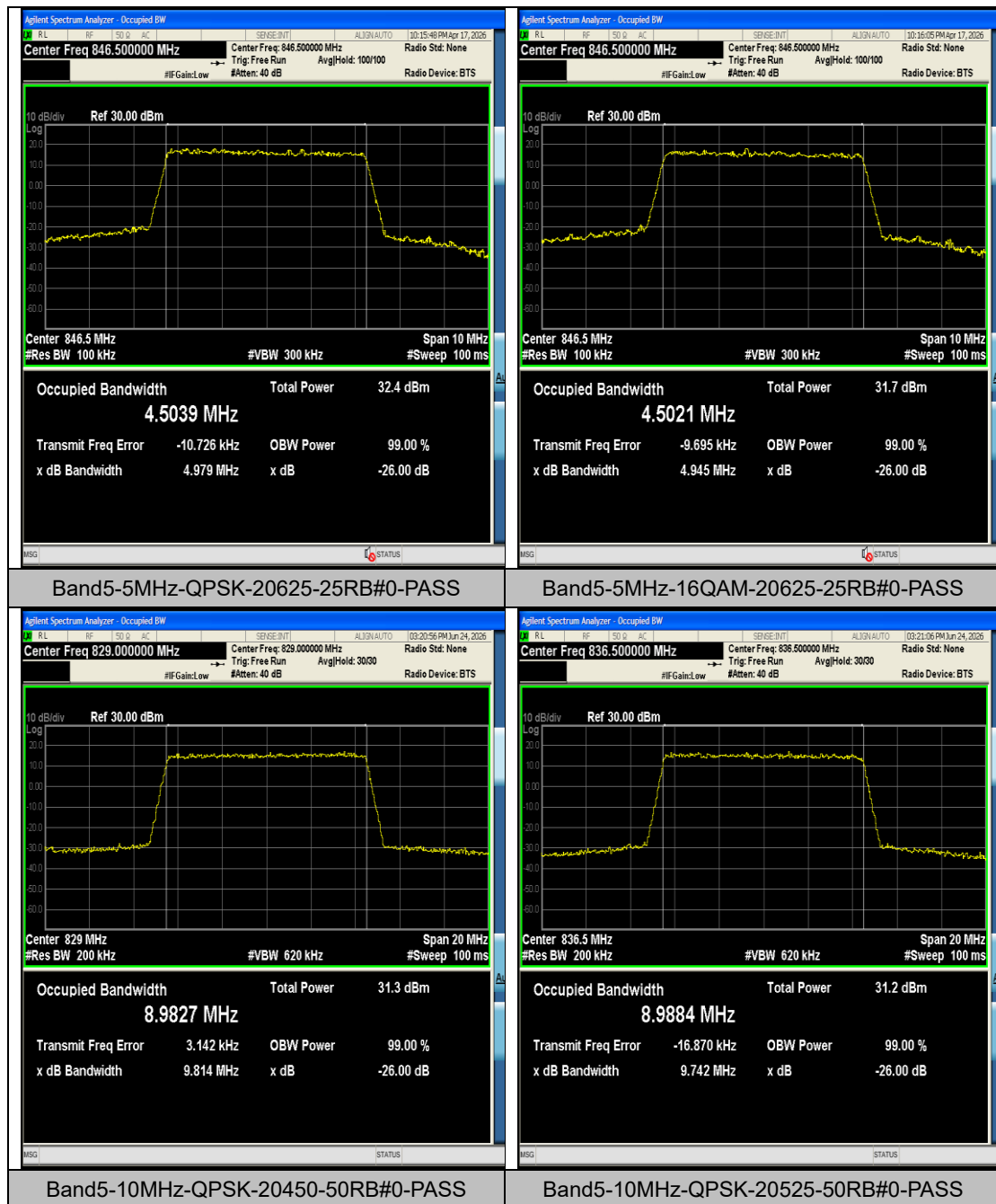
Test Graphs













Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	-26.47	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	-28.36	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	-38.73	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	-40.20	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	-29.19	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	-30.08	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	-39.93	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	-40.01	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	-24.20	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	-27.07	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	-30.00	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	-30.85	PASS
Band5	3MHz	QPSK	20415	1RB#0	-20.77	PASS
Band5	3MHz	16QAM	20415	1RB#0	-19.89	PASS
Band5	3MHz	QPSK	20415	1RB#14	-38.47	PASS
Band5	3MHz	16QAM	20415	1RB#14	-38.56	PASS
Band5	3MHz	QPSK	20415	15RB#0	-27.09	PASS
Band5	3MHz	16QAM	20415	15RB#0	-29.98	PASS
Band5	3MHz	QPSK	20635	1RB#0	-40.49	PASS
Band5	3MHz	16QAM	20635	1RB#0	-41.54	PASS
Band5	3MHz	QPSK	20635	1RB#14	-19.66	PASS
Band5	3MHz	16QAM	20635	1RB#14	-21.25	PASS
Band5	3MHz	QPSK	20635	15RB#0	-29.72	PASS
Band5	3MHz	16QAM	20635	15RB#0	-31.55	PASS
Band5	5MHz	QPSK	20425	1RB#0	-18.12	PASS
Band5	5MHz	16QAM	20425	1RB#0	-17.83	PASS
Band5	5MHz	QPSK	20425	1RB#24	-46.00	PASS
Band5	5MHz	16QAM	20425	1RB#24	-46.21	PASS
Band5	5MHz	QPSK	20425	25RB#0	-27.37	PASS
Band5	5MHz	16QAM	20425	25RB#0	-29.60	PASS
Band5	5MHz	QPSK	20625	1RB#0	-46.26	PASS
Band5	5MHz	16QAM	20625	1RB#0	-47.35	PASS
Band5	5MHz	QPSK	20625	1RB#24	-16.60	PASS
Band5	5MHz	16QAM	20625	1RB#24	-17.52	PASS
Band5	5MHz	QPSK	20625	25RB#0	-30.37	PASS
Band5	5MHz	16QAM	20625	25RB#0	-31.08	PASS
Band5	10MHz	QPSK	20450	1RB#0	-23.55	PASS

Band5	10MHz	QPSK	20450	1RB#49	-41.04	PASS
Band5	10MHz	QPSK	20600	1RB#0	-44.40	PASS
Band5	10MHz	QPSK	20600	1RB#49	-22.82	PASS
Band5	10MHz	QPSK	20450	50RB#0	-31.54	PASS
Band5	10MHz	QPSK	20600	50RB#0	-38.05	PASS

Test Graphs

