

FCC LTE Band Test Data

FCC ID : 2BNAP-Y68

Company: : Shenzhen Hemi Intelligent Technology Co., Ltd

EUT : QR PAYMENT DEVICE

Model Number : Y68

Reviewed By : Eric Wang

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	24.08	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	24.28	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	24.32	PASS
Band5	1.4MHz	QPSK	20407	3RB#0	24.26	PASS
Band5	1.4MHz	QPSK	20407	3RB#1	24.24	PASS
Band5	1.4MHz	QPSK	20407	3RB#3	24.26	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	23.33	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	24.69	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	24.61	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	24.62	PASS
Band5	1.4MHz	QPSK	20525	3RB#0	24.62	PASS
Band5	1.4MHz	QPSK	20525	3RB#1	24.61	PASS
Band5	1.4MHz	QPSK	20525	3RB#3	24.56	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	23.69	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	24.20	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.96	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.82	PASS
Band5	1.4MHz	QPSK	20643	3RB#0	24.02	PASS
Band5	1.4MHz	QPSK	20643	3RB#1	24.04	PASS
Band5	1.4MHz	QPSK	20643	3RB#3	23.80	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	23.01	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	23.14	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	23.18	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	23.14	PASS
Band5	1.4MHz	16QAM	20407	3RB#0	23.11	PASS
Band5	1.4MHz	16QAM	20407	3RB#1	23.09	PASS
Band5	1.4MHz	16QAM	20407	3RB#3	23.12	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	22.39	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	23.62	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	23.72	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	23.63	PASS
Band5	1.4MHz	16QAM	20525	3RB#0	23.51	PASS
Band5	1.4MHz	16QAM	20525	3RB#1	23.50	PASS
Band5	1.4MHz	16QAM	20525	3RB#3	23.52	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	22.79	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	23.00	PASS

Band5	1.4MHz	16QAM	20643	1RB#2	22.95	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.74	PASS
Band5	1.4MHz	16QAM	20643	3RB#0	22.98	PASS
Band5	1.4MHz	16QAM	20643	3RB#1	22.96	PASS
Band5	1.4MHz	16QAM	20643	3RB#3	22.75	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.95	PASS
Band5	3MHz	QPSK	20415	1RB#0	24.33	PASS
Band5	3MHz	QPSK	20415	1RB#8	24.54	PASS
Band5	3MHz	QPSK	20415	1RB#14	24.57	PASS
Band5	3MHz	QPSK	20415	8RB#0	23.44	PASS
Band5	3MHz	QPSK	20415	8RB#4	23.45	PASS
Band5	3MHz	QPSK	20415	8RB#7	23.64	PASS
Band5	3MHz	QPSK	20415	15RB#0	23.55	PASS
Band5	3MHz	QPSK	20525	1RB#0	24.67	PASS
Band5	3MHz	QPSK	20525	1RB#8	24.73	PASS
Band5	3MHz	QPSK	20525	1RB#14	24.69	PASS
Band5	3MHz	QPSK	20525	8RB#0	23.68	PASS
Band5	3MHz	QPSK	20525	8RB#4	23.71	PASS
Band5	3MHz	QPSK	20525	8RB#7	23.72	PASS
Band5	3MHz	QPSK	20525	15RB#0	23.72	PASS
Band5	3MHz	QPSK	20635	1RB#0	24.30	PASS
Band5	3MHz	QPSK	20635	1RB#8	24.24	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.75	PASS
Band5	3MHz	QPSK	20635	8RB#0	23.28	PASS
Band5	3MHz	QPSK	20635	8RB#4	23.30	PASS
Band5	3MHz	QPSK	20635	8RB#7	23.16	PASS
Band5	3MHz	QPSK	20635	15RB#0	23.26	PASS
Band5	3MHz	16QAM	20415	1RB#0	23.38	PASS
Band5	3MHz	16QAM	20415	1RB#8	23.61	PASS
Band5	3MHz	16QAM	20415	1RB#14	23.62	PASS
Band5	3MHz	16QAM	20415	8RB#0	22.61	PASS
Band5	3MHz	16QAM	20415	8RB#4	22.61	PASS
Band5	3MHz	16QAM	20415	8RB#7	22.80	PASS
Band5	3MHz	16QAM	20415	15RB#0	22.69	PASS
Band5	3MHz	16QAM	20525	1RB#0	23.55	PASS
Band5	3MHz	16QAM	20525	1RB#8	23.62	PASS
Band5	3MHz	16QAM	20525	1RB#14	23.53	PASS
Band5	3MHz	16QAM	20525	8RB#0	22.85	PASS
Band5	3MHz	16QAM	20525	8RB#4	22.82	PASS
Band5	3MHz	16QAM	20525	8RB#7	22.83	PASS
Band5	3MHz	16QAM	20525	15RB#0	22.73	PASS
Band5	3MHz	16QAM	20635	1RB#0	23.06	PASS
Band5	3MHz	16QAM	20635	1RB#8	23.07	PASS

Band5	3MHz	16QAM	20635	1RB#14	22.65	PASS
Band5	3MHz	16QAM	20635	8RB#0	22.45	PASS
Band5	3MHz	16QAM	20635	8RB#4	22.45	PASS
Band5	3MHz	16QAM	20635	8RB#7	22.21	PASS
Band5	3MHz	16QAM	20635	15RB#0	22.26	PASS
Band5	5MHz	QPSK	20425	1RB#0	24.55	PASS
Band5	5MHz	QPSK	20425	1RB#12	24.80	PASS
Band5	5MHz	QPSK	20425	1RB#24	24.71	PASS
Band5	5MHz	QPSK	20425	12RB#0	23.50	PASS
Band5	5MHz	QPSK	20425	12RB#6	23.51	PASS
Band5	5MHz	QPSK	20425	12RB#13	23.67	PASS
Band5	5MHz	QPSK	20425	25RB#0	23.60	PASS
Band5	5MHz	QPSK	20525	1RB#0	24.75	PASS
Band5	5MHz	QPSK	20525	1RB#12	24.81	PASS
Band5	5MHz	QPSK	20525	1RB#24	24.69	PASS
Band5	5MHz	QPSK	20525	12RB#0	23.67	PASS
Band5	5MHz	QPSK	20525	12RB#6	23.69	PASS
Band5	5MHz	QPSK	20525	12RB#13	23.72	PASS
Band5	5MHz	QPSK	20525	25RB#0	23.70	PASS
Band5	5MHz	QPSK	20625	1RB#0	24.65	PASS
Band5	5MHz	QPSK	20625	1RB#12	24.37	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.93	PASS
Band5	5MHz	QPSK	20625	12RB#0	23.37	PASS
Band5	5MHz	QPSK	20625	12RB#6	23.40	PASS
Band5	5MHz	QPSK	20625	12RB#13	23.26	PASS
Band5	5MHz	QPSK	20625	25RB#0	23.31	PASS
Band5	5MHz	16QAM	20425	1RB#0	23.48	PASS
Band5	5MHz	16QAM	20425	1RB#12	23.79	PASS
Band5	5MHz	16QAM	20425	1RB#24	23.65	PASS
Band5	5MHz	16QAM	20425	12RB#0	22.59	PASS
Band5	5MHz	16QAM	20425	12RB#6	22.59	PASS
Band5	5MHz	16QAM	20425	12RB#13	22.74	PASS
Band5	5MHz	16QAM	20425	25RB#0	22.69	PASS
Band5	5MHz	16QAM	20525	1RB#0	23.68	PASS
Band5	5MHz	16QAM	20525	1RB#12	23.81	PASS
Band5	5MHz	16QAM	20525	1RB#24	23.62	PASS
Band5	5MHz	16QAM	20525	12RB#0	22.81	PASS
Band5	5MHz	16QAM	20525	12RB#6	22.77	PASS
Band5	5MHz	16QAM	20525	12RB#13	22.80	PASS
Band5	5MHz	16QAM	20525	25RB#0	22.80	PASS
Band5	5MHz	16QAM	20625	1RB#0	23.51	PASS
Band5	5MHz	16QAM	20625	1RB#12	23.31	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.93	PASS

Band5	5MHz	16QAM	20625	12RB#0	22.57	PASS
Band5	5MHz	16QAM	20625	12RB#6	22.58	PASS
Band5	5MHz	16QAM	20625	12RB#13	22.34	PASS
Band5	5MHz	16QAM	20625	25RB#0	22.40	PASS
Band5	10MHz	QPSK	20450	1RB#0	24.39	PASS
Band5	10MHz	QPSK	20450	1RB#24	24.60	PASS
Band5	10MHz	QPSK	20450	1RB#49	24.63	PASS
Band5	10MHz	QPSK	20450	25RB#0	23.43	PASS
Band5	10MHz	QPSK	20450	25RB#12	23.43	PASS
Band5	10MHz	QPSK	20450	25RB#25	23.62	PASS
Band5	10MHz	QPSK	20450	50RB#0	23.56	PASS
Band5	10MHz	QPSK	20525	1RB#0	24.72	PASS
Band5	10MHz	QPSK	20525	1RB#24	24.76	PASS
Band5	10MHz	QPSK	20525	1RB#49	24.31	PASS
Band5	10MHz	QPSK	20525	25RB#0	23.54	PASS
Band5	10MHz	QPSK	20525	25RB#12	23.56	PASS
Band5	10MHz	QPSK	20525	25RB#25	23.48	PASS
Band5	10MHz	QPSK	20525	50RB#0	23.65	PASS
Band5	10MHz	QPSK	20600	1RB#0	24.49	PASS
Band5	10MHz	QPSK	20600	1RB#24	24.51	PASS
Band5	10MHz	QPSK	20600	1RB#49	24.03	PASS
Band5	10MHz	QPSK	20600	25RB#0	23.19	PASS
Band5	10MHz	QPSK	20600	25RB#12	23.23	PASS
Band5	10MHz	QPSK	20600	25RB#25	23.21	PASS
Band5	10MHz	QPSK	20600	50RB#0	23.28	PASS
Band5	10MHz	16QAM	20450	1RB#0	23.36	PASS
Band5	10MHz	16QAM	20450	1RB#24	23.74	PASS
Band5	10MHz	16QAM	20450	1RB#49	23.65	PASS
Band5	10MHz	16QAM	20450	25RB#0	22.54	PASS
Band5	10MHz	16QAM	20450	25RB#12	22.54	PASS
Band5	10MHz	16QAM	20450	25RB#25	22.74	PASS
Band5	10MHz	16QAM	20525	1RB#0	23.44	PASS
Band5	10MHz	16QAM	20525	1RB#24	23.63	PASS
Band5	10MHz	16QAM	20525	1RB#49	23.11	PASS
Band5	10MHz	16QAM	20525	25RB#0	22.70	PASS
Band5	10MHz	16QAM	20525	25RB#12	22.72	PASS
Band5	10MHz	16QAM	20525	25RB#25	22.63	PASS
Band5	10MHz	16QAM	20600	1RB#0	23.31	PASS
Band5	10MHz	16QAM	20600	1RB#24	23.40	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.95	PASS
Band5	10MHz	16QAM	20600	25RB#0	22.36	PASS
Band5	10MHz	16QAM	20600	25RB#12	22.37	PASS
Band5	10MHz	16QAM	20600	25RB#25	22.35	PASS

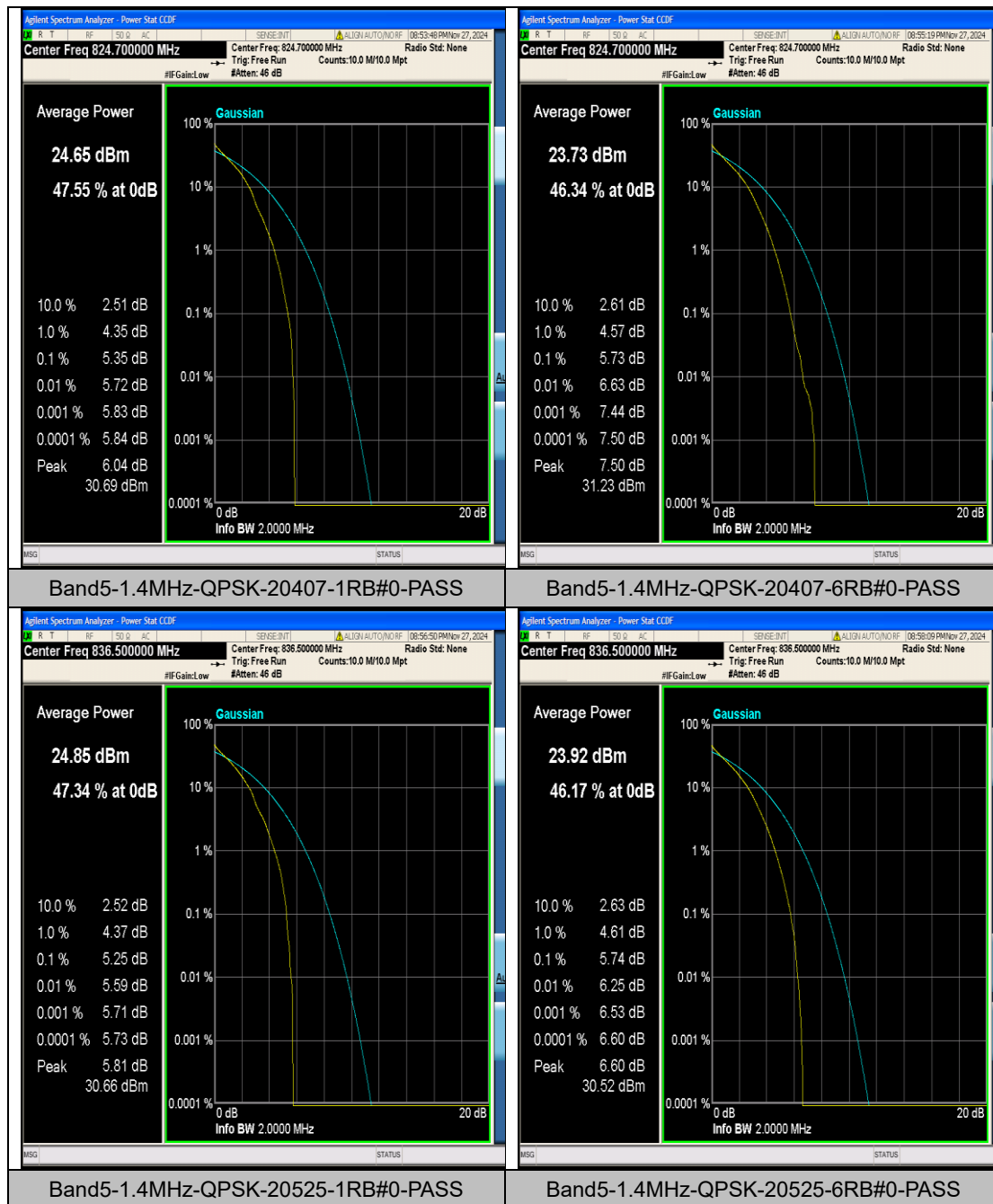
Appendix B: Peak-to-Average Ratio(CCDF)

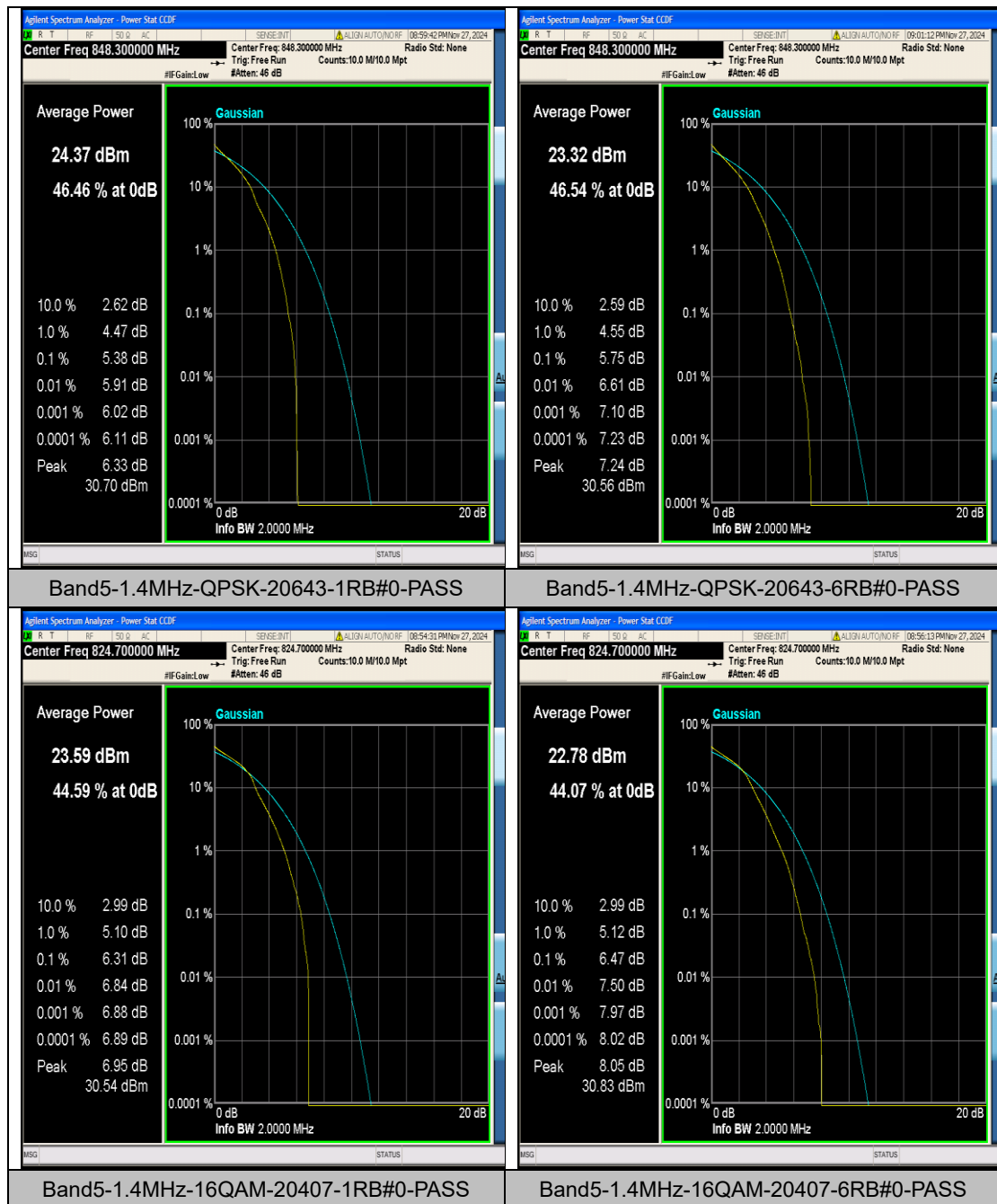
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	5.35	13	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	5.73	13	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	5.25	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.74	13	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	5.38	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	5.75	13	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	6.31	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	6.47	13	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	5.93	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	6.47	13	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	6.53	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	6.48	13	PASS
Band5	3MHz	QPSK	20415	1RB#0	5.39	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	5.78	13	PASS
Band5	3MHz	QPSK	20525	1RB#0	5.25	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.79	13	PASS
Band5	3MHz	QPSK	20635	1RB#0	5.48	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	5.68	13	PASS
Band5	3MHz	16QAM	20415	1RB#0	6.05	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	6.50	13	PASS
Band5	3MHz	16QAM	20525	1RB#0	5.95	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	6.47	13	PASS
Band5	3MHz	16QAM	20635	1RB#0	6.65	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	6.49	13	PASS
Band5	5MHz	QPSK	20425	1RB#0	5.21	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	5.72	13	PASS
Band5	5MHz	QPSK	20525	1RB#0	5.28	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.71	13	PASS
Band5	5MHz	QPSK	20625	1RB#0	5.57	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.76	13	PASS
Band5	5MHz	16QAM	20425	1RB#0	5.83	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	6.42	13	PASS
Band5	5MHz	16QAM	20525	1RB#0	5.82	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	6.38	13	PASS
Band5	5MHz	16QAM	20625	1RB#0	6.01	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	6.40	13	PASS

Band5	10MHz	QPSK	20450	1RB#0	5.40	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.68	13	PASS
Band5	10MHz	QPSK	20525	1RB#0	5.19	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.65	13	PASS
Band5	10MHz	QPSK	20600	1RB#0	5.36	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.68	13	PASS
Band5	10MHz	16QAM	20450	1RB#0	6.26	13	PASS
Band5	10MHz	16QAM	20525	1RB#0	5.94	13	PASS
Band5	10MHz	16QAM	20600	1RB#0	6.06	13	PASS

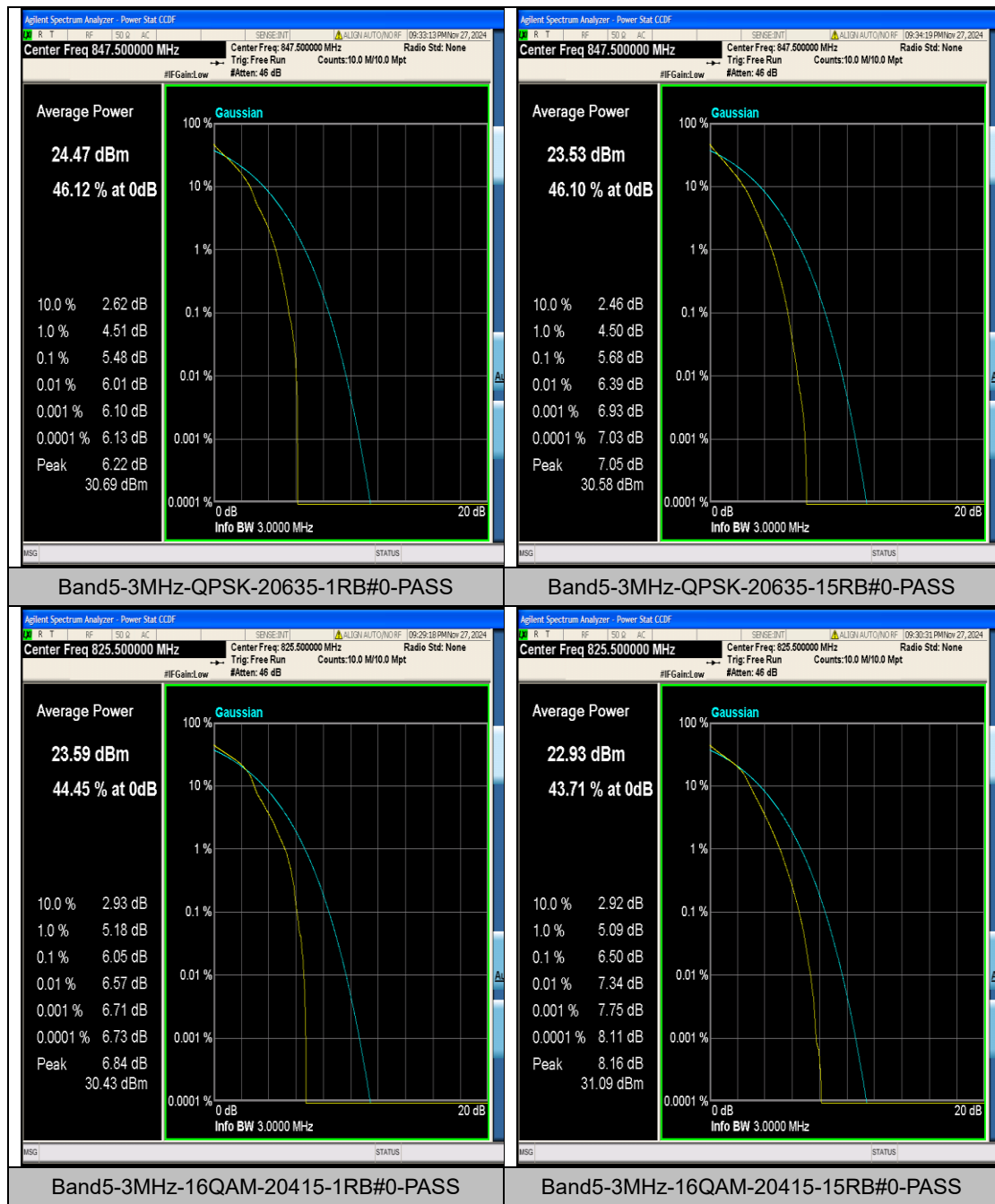
Test Graphs





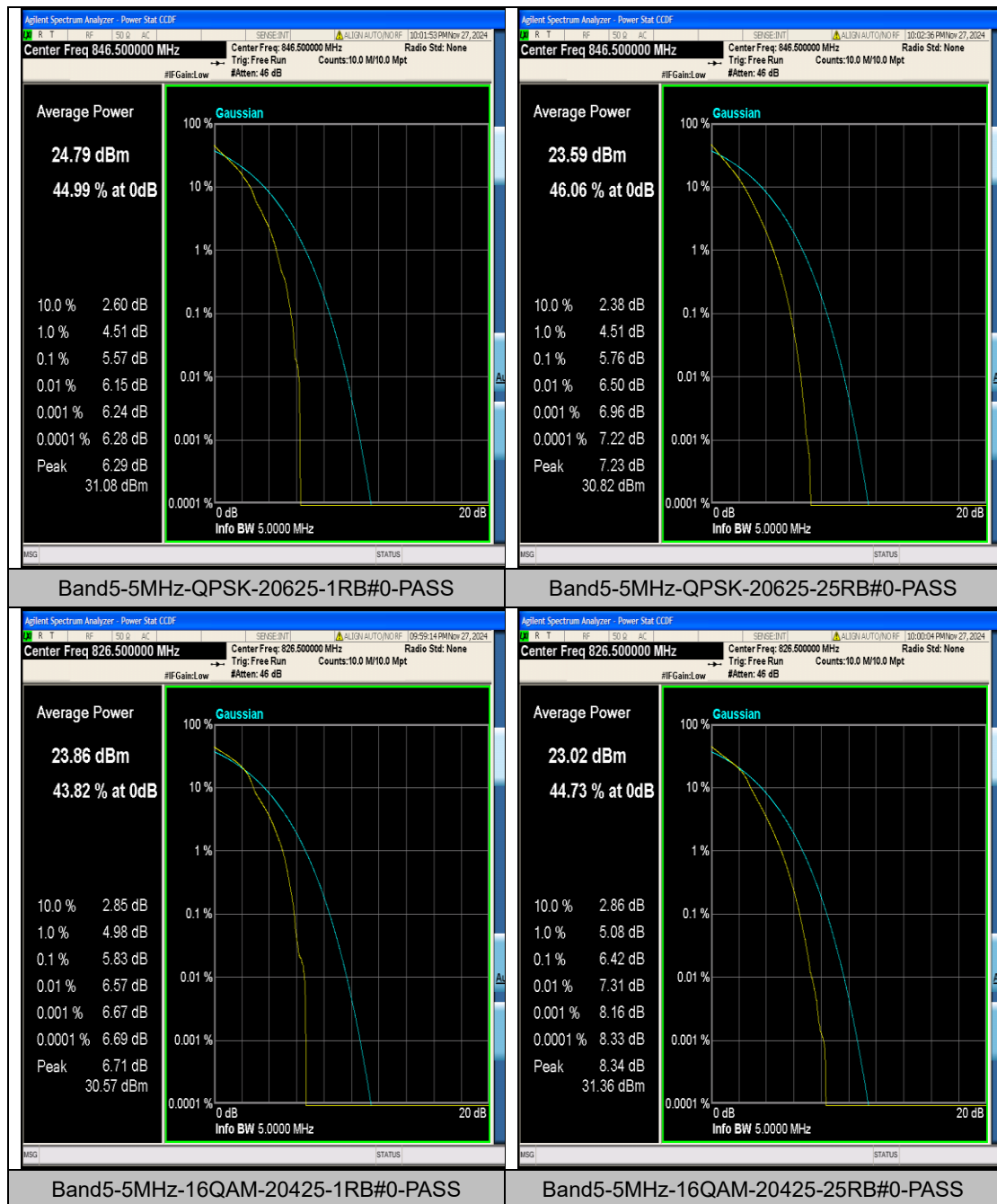


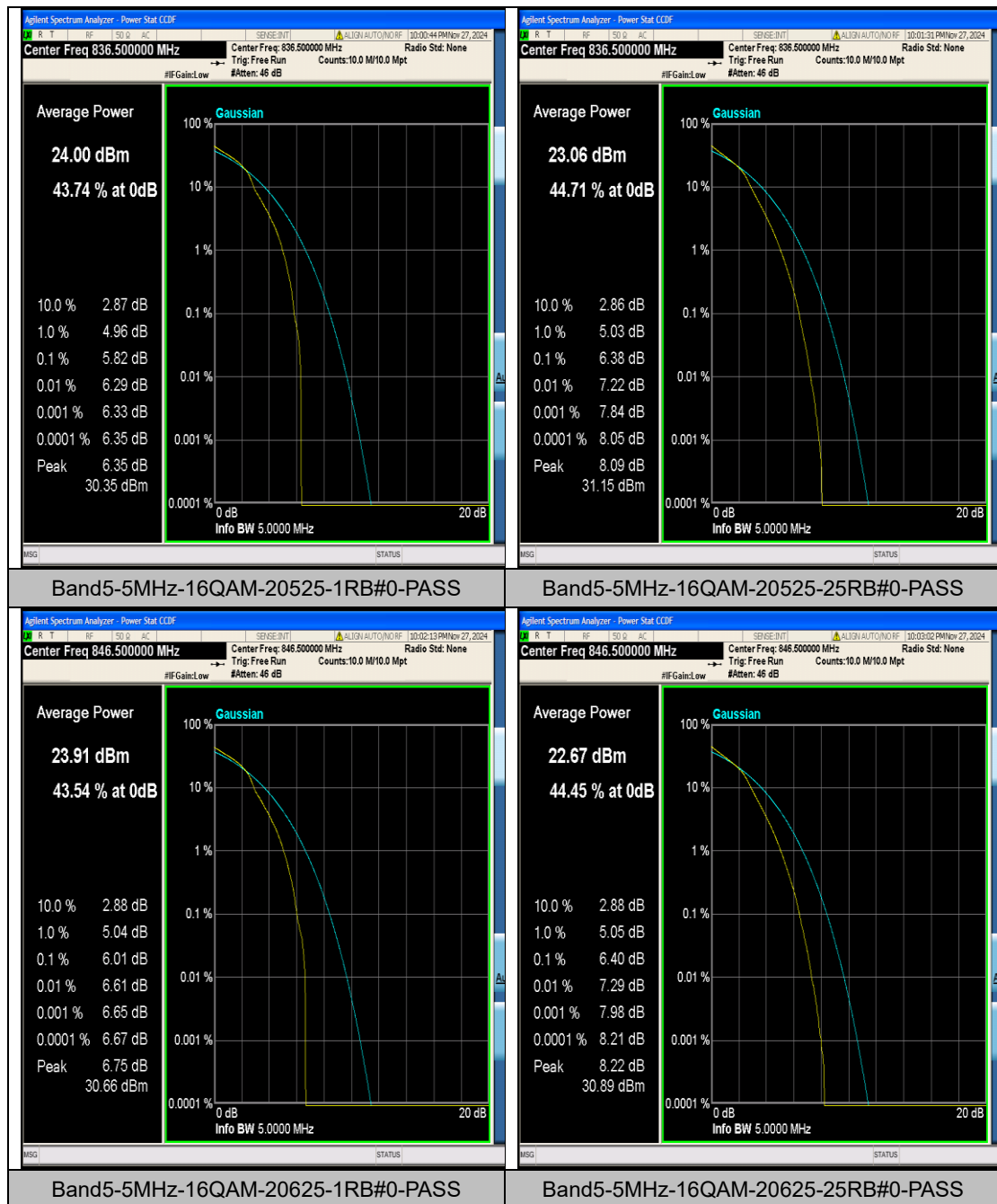






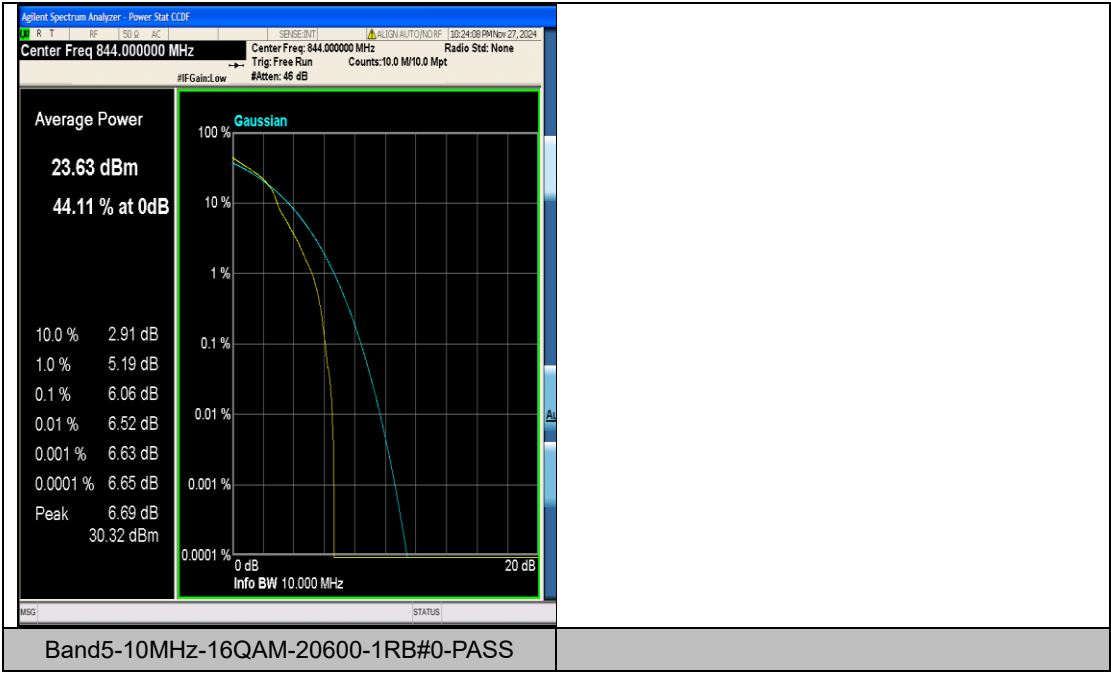










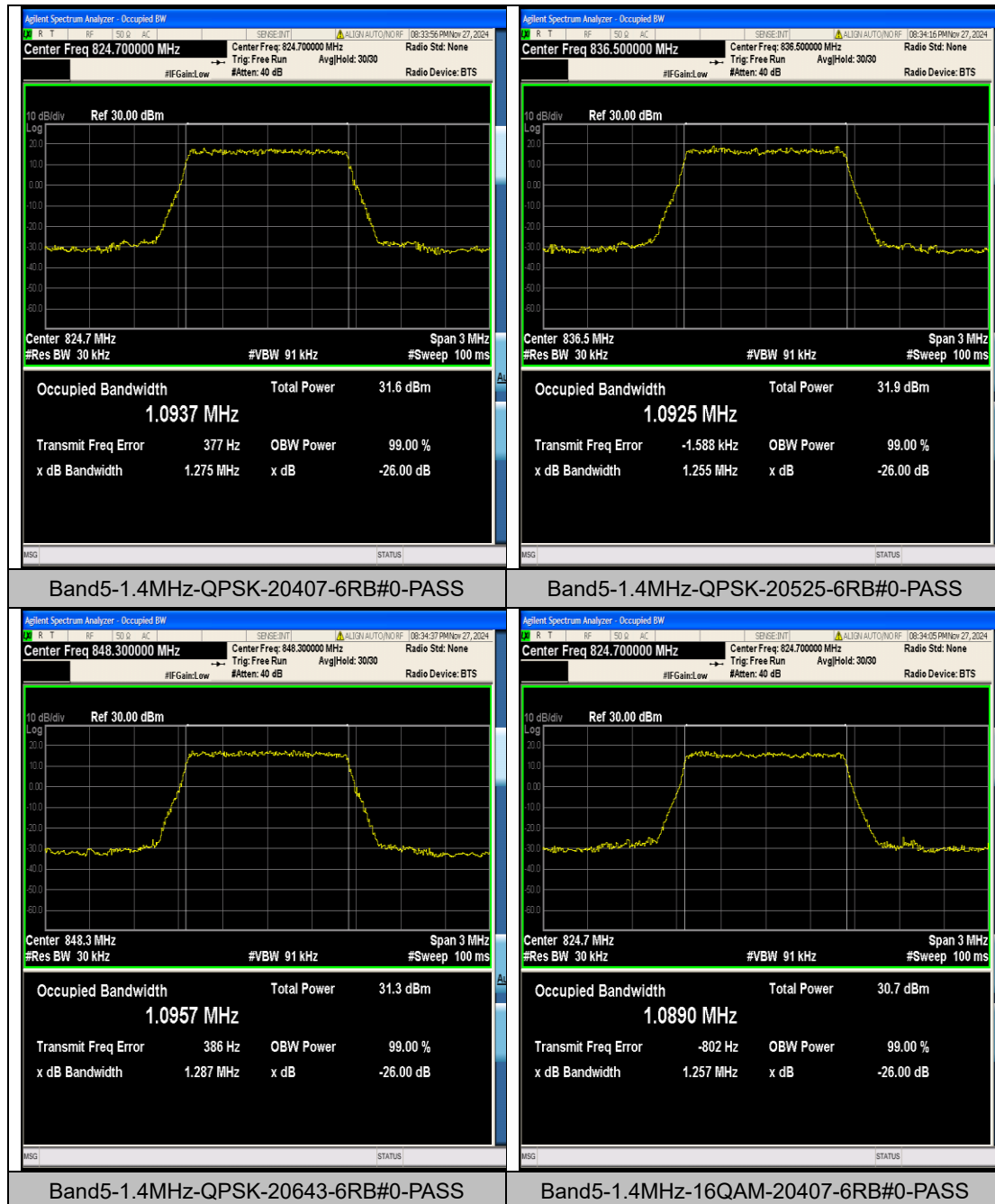


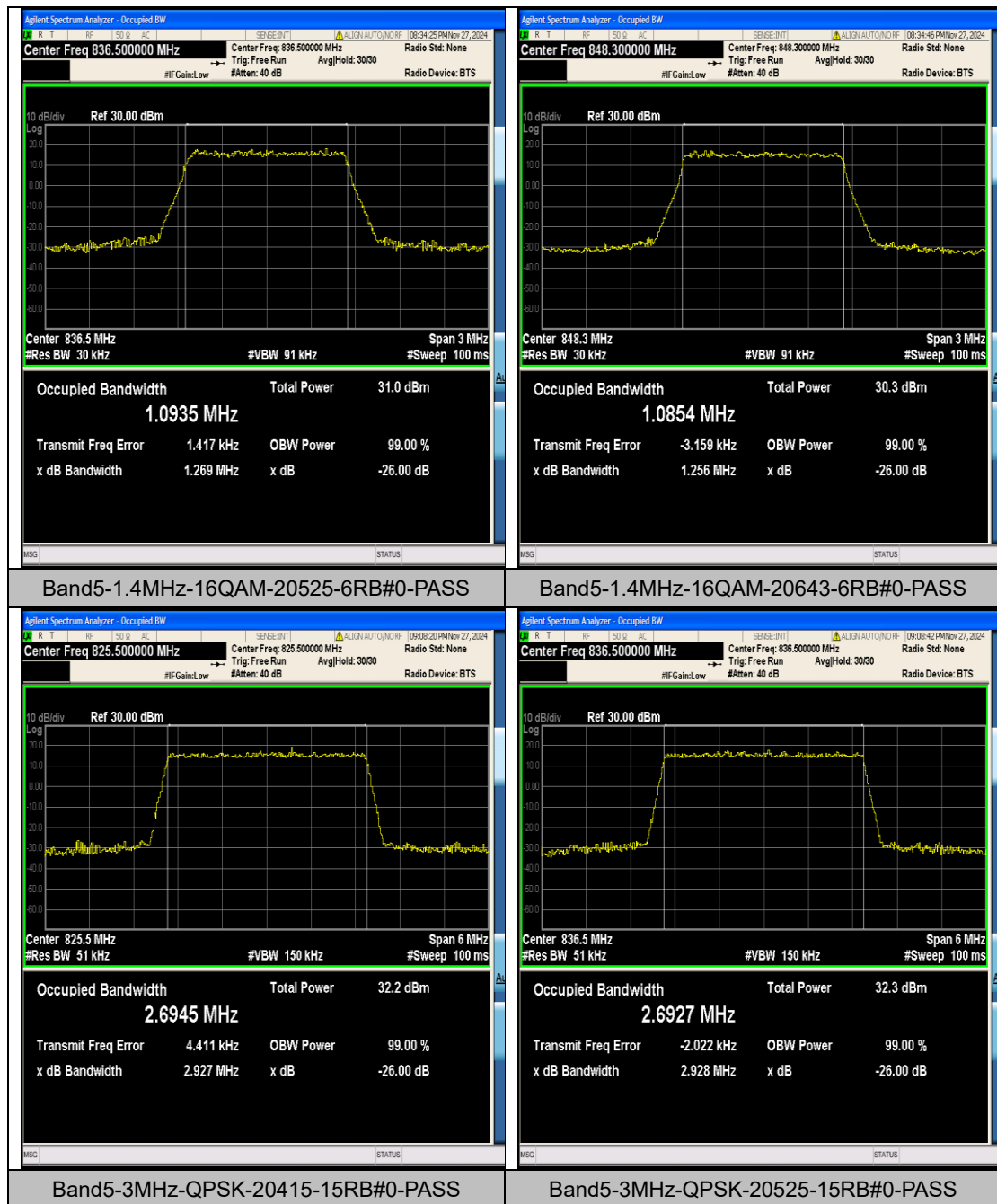
Appendix C: 26dB Bandwidth and Occupied Bandwidth

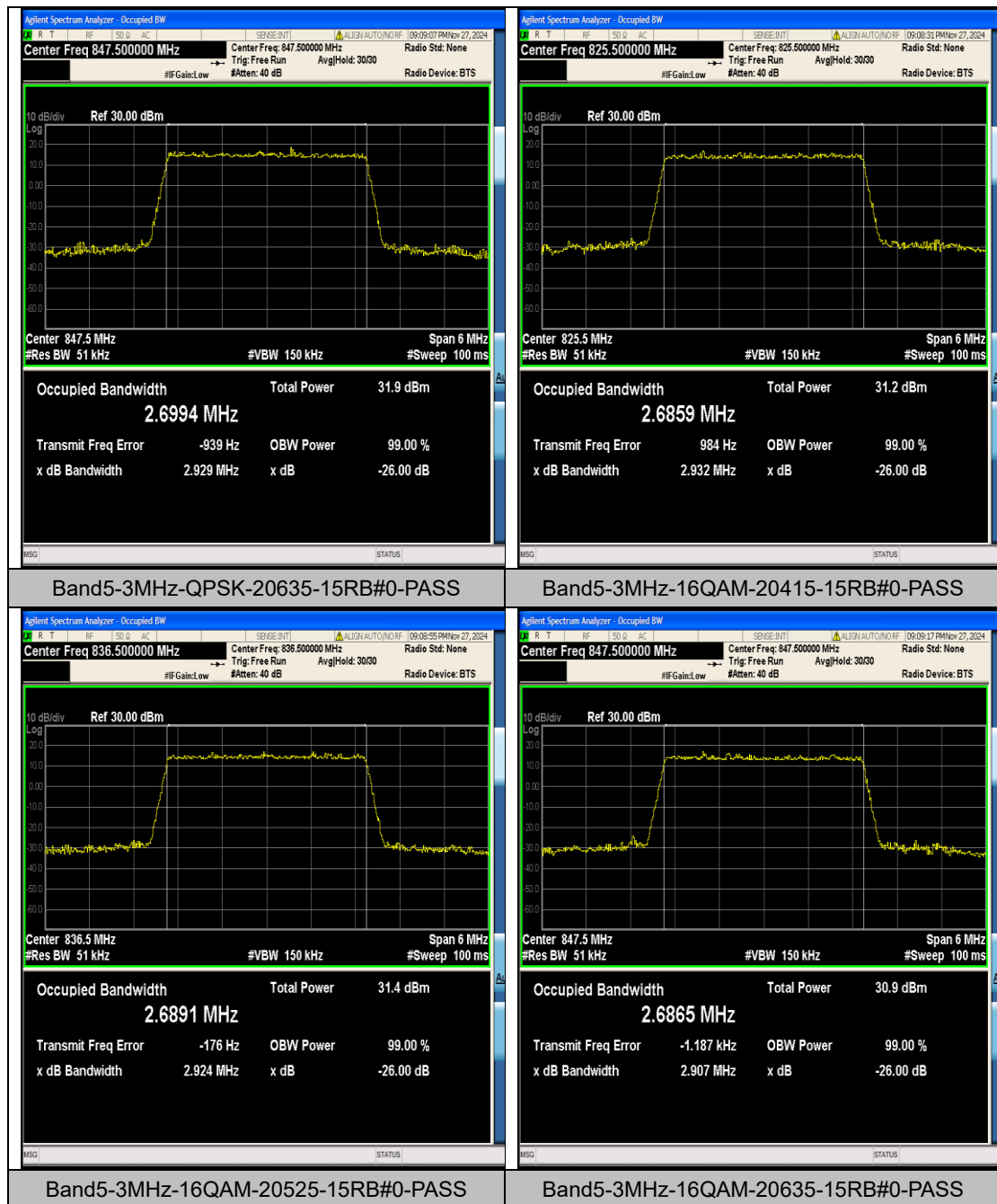
Test Result

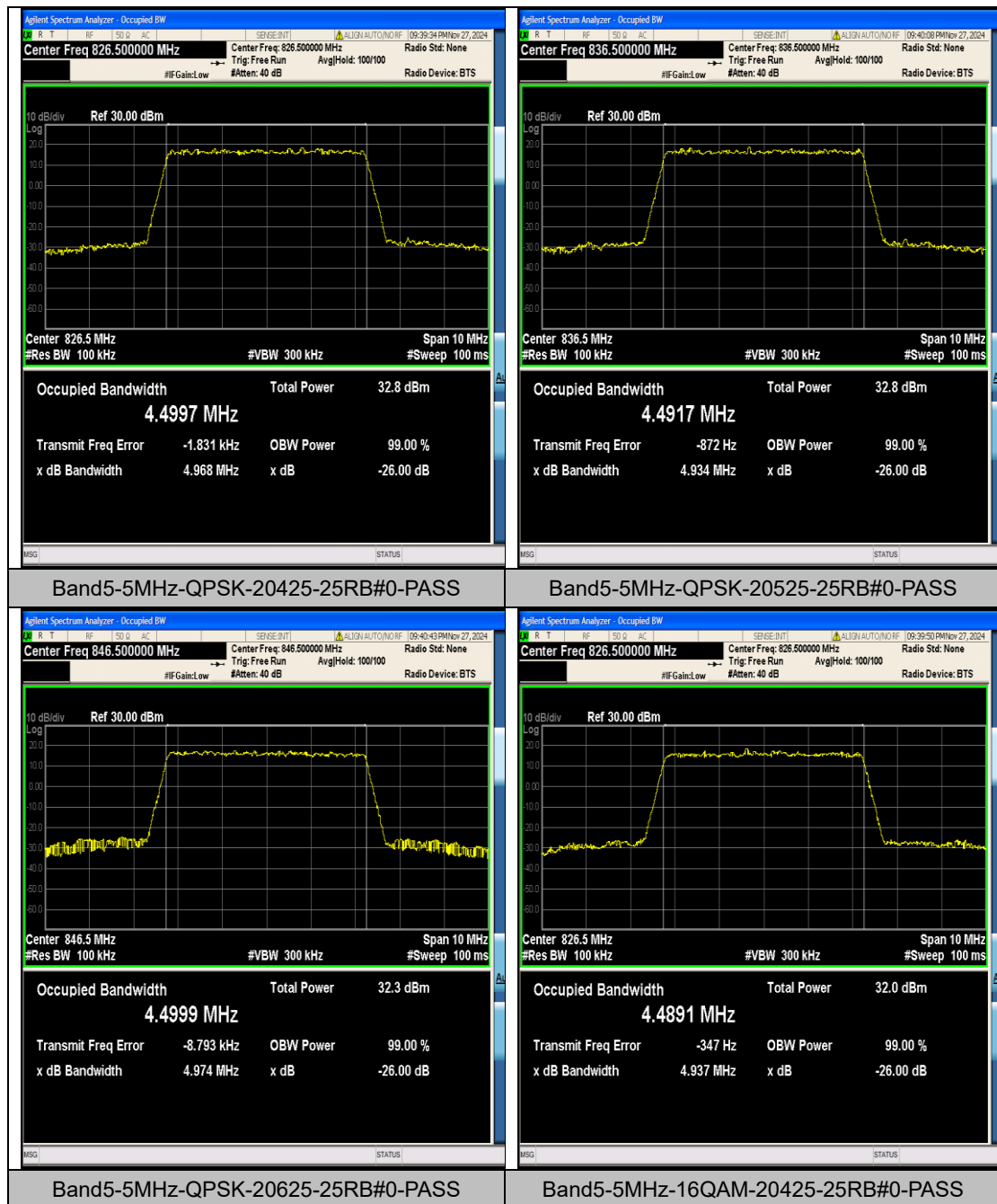
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0937	1.275	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0925	1.255	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0957	1.287	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0890	1.257	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0935	1.269	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0854	1.256	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6945	2.927	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6927	2.928	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6994	2.929	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6859	2.932	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6891	2.924	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6865	2.907	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.4997	4.968	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4917	4.934	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.4999	4.974	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4891	4.937	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.4966	4.965	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.5100	4.957	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9654	9.797	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9407	9.749	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9672	9.773	PASS
Band5	10MHz	16QAM	20450	27RB#0	4.9424	5.708	PASS
Band5	10MHz	16QAM	20525	27RB#0	4.9616	5.654	PASS
Band5	10MHz	16QAM	20600	27RB#0	4.9775	5.697	PASS

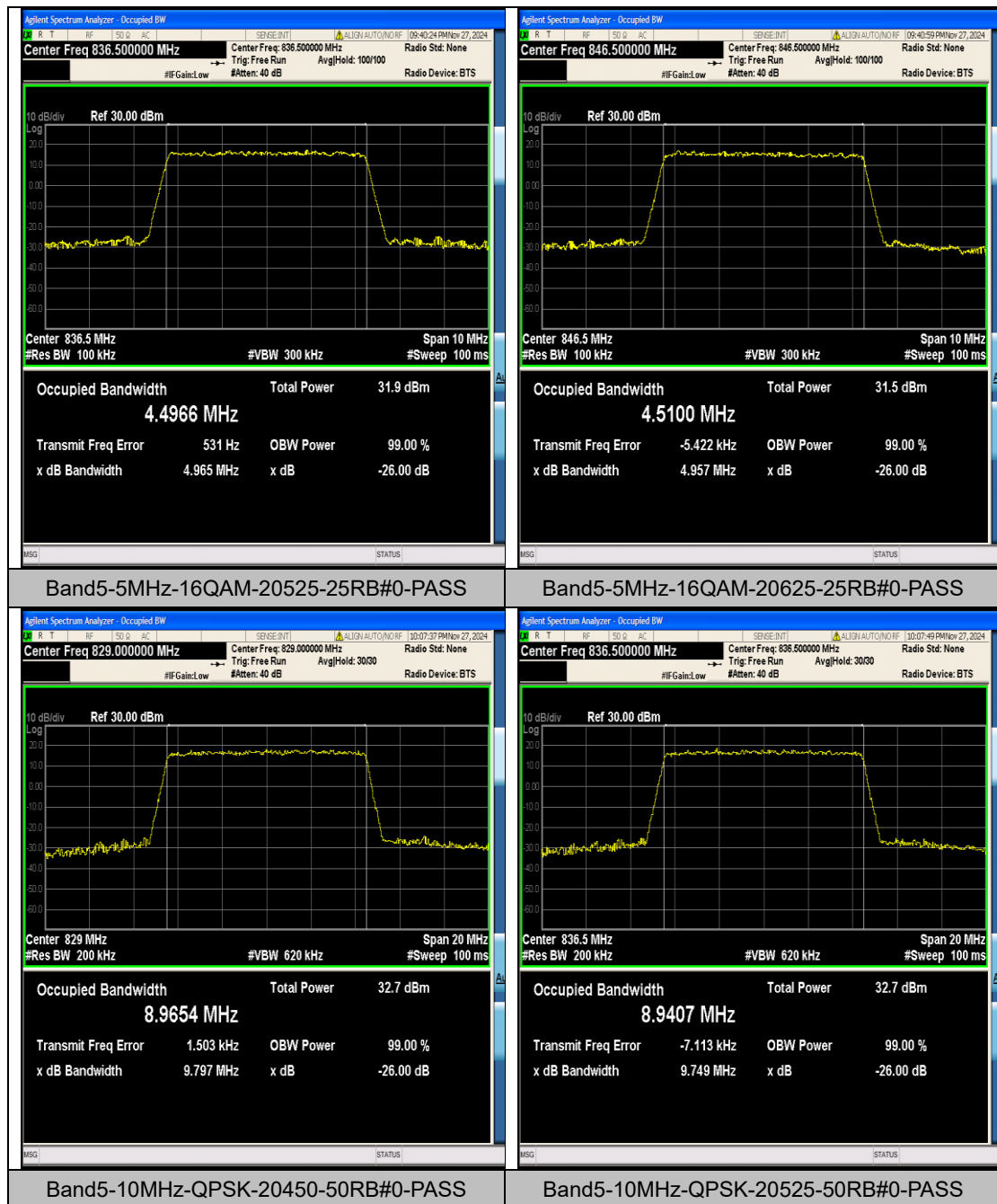
Test Graphs

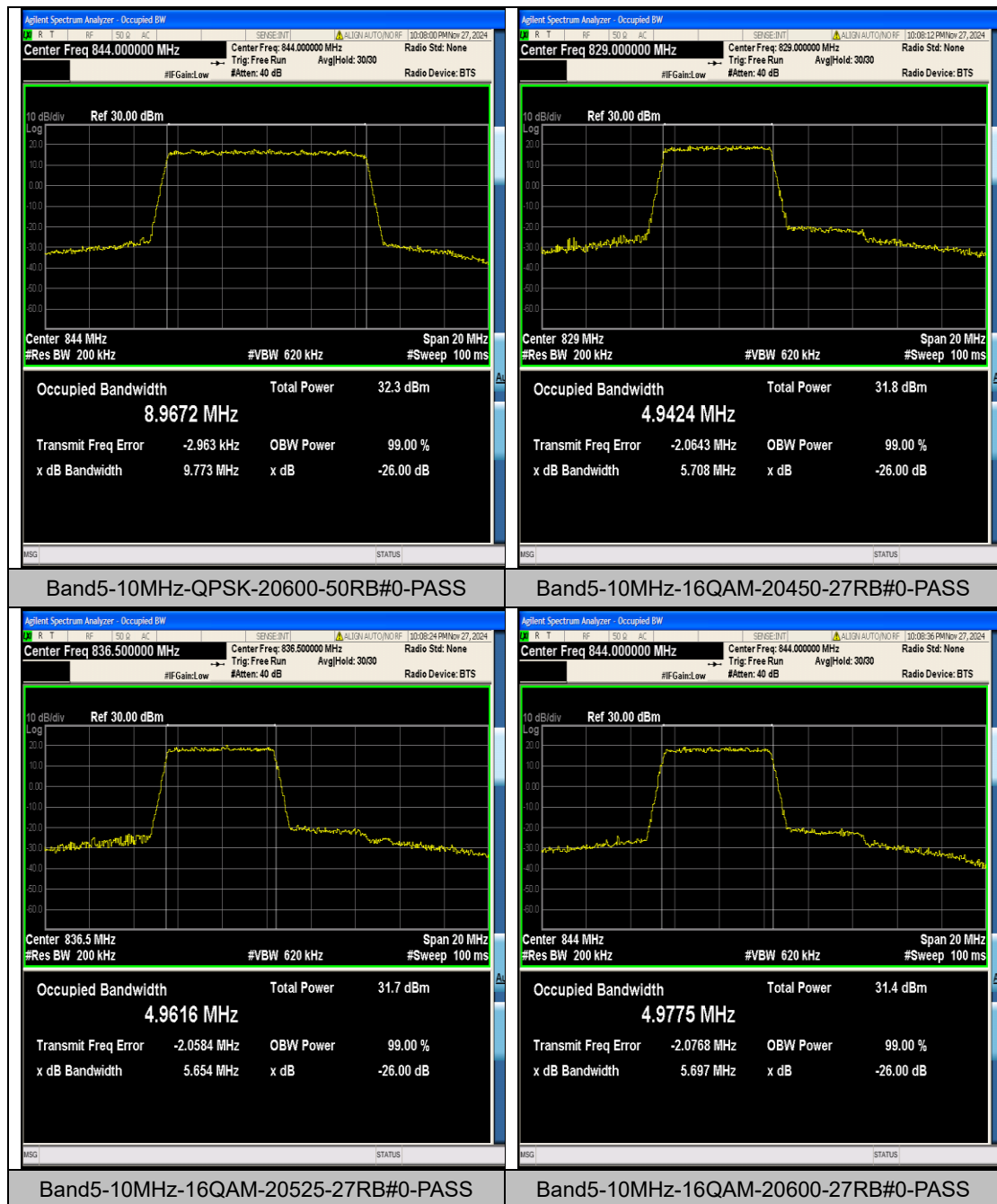












Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	-27.41	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	-34.18	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	-32.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	-35.53	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	-27.42	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	-36.05	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	-26.76	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	-36.15	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	-34.29	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	-36.94	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	-32.50	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	-32.79	PASS
Band5	3MHz	QPSK	20415	1RB#0	-25.04	PASS
Band5	3MHz	QPSK	20415	1RB#14	-33.49	PASS
Band5	3MHz	QPSK	20415	15RB#0	-35.65	PASS
Band5	3MHz	QPSK	20635	1RB#0	-34.67	PASS
Band5	3MHz	QPSK	20635	1RB#14	-25.82	PASS
Band5	3MHz	QPSK	20635	15RB#0	-35.63	PASS
Band5	3MHz	16QAM	20415	1RB#0	-25.46	PASS
Band5	3MHz	16QAM	20415	1RB#14	-35.08	PASS
Band5	3MHz	16QAM	20415	15RB#0	-34.86	PASS
Band5	3MHz	16QAM	20635	1RB#0	-35.01	PASS
Band5	3MHz	16QAM	20635	1RB#14	-26.58	PASS
Band5	3MHz	16QAM	20635	15RB#0	-37.97	PASS
Band5	5MHz	QPSK	20425	1RB#0	-25.41	PASS
Band5	5MHz	QPSK	20425	1RB#24	-42.32	PASS
Band5	5MHz	QPSK	20425	25RB#0	-35.53	PASS
Band5	5MHz	QPSK	20625	1RB#0	-39.41	PASS
Band5	5MHz	QPSK	20625	1RB#24	-25.86	PASS
Band5	5MHz	QPSK	20625	25RB#0	-37.01	PASS
Band5	5MHz	16QAM	20425	1RB#0	-26.77	PASS
Band5	5MHz	16QAM	20425	1RB#24	-43.89	PASS
Band5	5MHz	16QAM	20425	25RB#0	-37.18	PASS
Band5	5MHz	16QAM	20625	1RB#0	-40.41	PASS
Band5	5MHz	16QAM	20625	1RB#24	-26.94	PASS
Band5	5MHz	16QAM	20625	25RB#0	-37.68	PASS
Band5	10MHz	QPSK	20450	1RB#0	-35.08	PASS

Band5	10MHz	QPSK	20450	1RB#49	-45.04	PASS
Band5	10MHz	QPSK	20450	50RB#0	-40.50	PASS
Band5	10MHz	QPSK	20600	1RB#0	-47.04	PASS
Band5	10MHz	QPSK	20600	1RB#49	-36.17	PASS
Band5	10MHz	QPSK	20600	50RB#0	-40.83	PASS
Band5	10MHz	16QAM	20450	1RB#0	-36.52	PASS
Band5	10MHz	16QAM	20450	1RB#49	-45.25	PASS
Band5	10MHz	16QAM	20600	1RB#0	-46.71	PASS
Band5	10MHz	16QAM	20600	1RB#49	-37.00	PASS

Test Graphs

