

FCC LTE Band Test Data

FCC ID : 2BMCH-CS89

Company: : Alited Global Trading Co., Limited

EUT : Sound Box

Model Number : CS89

Reviewed By : Eric Wang

Appendix A: Conducted Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	23.65	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.72	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.72	PASS
Band5	1.4MHz	QPSK	20407	3RB#0	23.73	PASS
Band5	1.4MHz	QPSK	20407	3RB#1	23.71	PASS
Band5	1.4MHz	QPSK	20407	3RB#3	23.65	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.83	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	24.26	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	24.10	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	24.13	PASS
Band5	1.4MHz	QPSK	20525	3RB#0	24.11	PASS
Band5	1.4MHz	QPSK	20525	3RB#1	24.14	PASS
Band5	1.4MHz	QPSK	20525	3RB#3	24.03	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	23.19	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	24.07	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.92	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.90	PASS
Band5	1.4MHz	QPSK	20643	3RB#0	23.96	PASS
Band5	1.4MHz	QPSK	20643	3RB#1	23.94	PASS
Band5	1.4MHz	QPSK	20643	3RB#3	23.81	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	23.14	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.71	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.75	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.72	PASS
Band5	1.4MHz	16QAM	20407	3RB#0	22.60	PASS
Band5	1.4MHz	16QAM	20407	3RB#1	22.63	PASS
Band5	1.4MHz	16QAM	20407	3RB#3	22.60	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.86	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	23.20	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	23.17	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	23.11	PASS
Band5	1.4MHz	16QAM	20525	3RB#0	22.99	PASS
Band5	1.4MHz	16QAM	20525	3RB#1	22.97	PASS
Band5	1.4MHz	16QAM	20525	3RB#3	22.98	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	22.23	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	23.08	PASS

Band5	1.4MHz	16QAM	20643	1RB#2	22.99	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.94	PASS
Band5	1.4MHz	16QAM	20643	3RB#0	22.90	PASS
Band5	1.4MHz	16QAM	20643	3RB#1	22.87	PASS
Band5	1.4MHz	16QAM	20643	3RB#3	22.80	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	22.09	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.62	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.61	PASS
Band5	3MHz	QPSK	20415	8RB#0	22.57	PASS
Band5	3MHz	QPSK	20415	8RB#4	22.57	PASS
Band5	3MHz	QPSK	20415	8RB#7	22.70	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.63	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.54	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.57	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.54	PASS
Band5	3MHz	QPSK	20525	8RB#0	22.52	PASS
Band5	3MHz	QPSK	20525	8RB#4	22.53	PASS
Band5	3MHz	QPSK	20525	8RB#7	22.70	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.65	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.93	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.72	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.57	PASS
Band5	3MHz	QPSK	20635	8RB#0	22.89	PASS
Band5	3MHz	QPSK	20635	8RB#4	22.92	PASS
Band5	3MHz	QPSK	20635	8RB#7	22.91	PASS
Band5	3MHz	QPSK	20635	15RB#0	22.84	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.47	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.71	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.67	PASS
Band5	3MHz	16QAM	20415	8RB#0	21.66	PASS
Band5	3MHz	16QAM	20415	8RB#4	21.65	PASS
Band5	3MHz	16QAM	20415	8RB#7	21.79	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.71	PASS
Band5	3MHz	16QAM	20525	1RB#0	22.49	PASS
Band5	3MHz	16QAM	20525	1RB#8	22.65	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.66	PASS
Band5	3MHz	16QAM	20525	8RB#0	21.65	PASS
Band5	3MHz	16QAM	20525	8RB#4	21.67	PASS
Band5	3MHz	16QAM	20525	8RB#7	21.75	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.69	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.94	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.81	PASS

Band5	3MHz	16QAM	20635	1RB#14	22.70	PASS
Band5	3MHz	16QAM	20635	8RB#0	21.95	PASS
Band5	3MHz	16QAM	20635	8RB#4	21.96	PASS
Band5	3MHz	16QAM	20635	8RB#7	21.91	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.88	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.61	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.79	PASS
Band5	5MHz	QPSK	20425	1RB#24	24.13	PASS
Band5	5MHz	QPSK	20425	12RB#0	22.60	PASS
Band5	5MHz	QPSK	20425	12RB#6	22.60	PASS
Band5	5MHz	QPSK	20425	12RB#13	22.85	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.63	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.50	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.49	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.48	PASS
Band5	5MHz	QPSK	20525	12RB#0	22.26	PASS
Band5	5MHz	QPSK	20525	12RB#6	22.27	PASS
Band5	5MHz	QPSK	20525	12RB#13	22.49	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.42	PASS
Band5	5MHz	QPSK	20625	1RB#0	24.24	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.96	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.84	PASS
Band5	5MHz	QPSK	20625	12RB#0	23.05	PASS
Band5	5MHz	QPSK	20625	12RB#6	23.06	PASS
Band5	5MHz	QPSK	20625	12RB#13	22.78	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.84	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.58	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.80	PASS
Band5	5MHz	16QAM	20425	1RB#24	23.16	PASS
Band5	5MHz	16QAM	20425	12RB#0	21.56	PASS
Band5	5MHz	16QAM	20425	12RB#6	21.56	PASS
Band5	5MHz	16QAM	20425	12RB#13	21.90	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.69	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.44	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.52	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.55	PASS
Band5	5MHz	16QAM	20525	12RB#0	21.39	PASS
Band5	5MHz	16QAM	20525	12RB#6	21.39	PASS
Band5	5MHz	16QAM	20525	12RB#13	21.54	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.49	PASS
Band5	5MHz	16QAM	20625	1RB#0	23.19	PASS
Band5	5MHz	16QAM	20625	1RB#12	23.02	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.83	PASS

Band5	5MHz	16QAM	20625	12RB#0	22.06	PASS
Band5	5MHz	16QAM	20625	12RB#6	22.06	PASS
Band5	5MHz	16QAM	20625	12RB#13	21.78	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.86	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.47	PASS
Band5	10MHz	QPSK	20450	1RB#24	24.07	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.38	PASS
Band5	10MHz	QPSK	20450	25RB#0	22.55	PASS
Band5	10MHz	QPSK	20450	25RB#12	22.57	PASS
Band5	10MHz	QPSK	20450	25RB#25	22.71	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.71	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.75	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.40	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.75	PASS
Band5	10MHz	QPSK	20525	25RB#0	22.16	PASS
Band5	10MHz	QPSK	20525	25RB#12	22.18	PASS
Band5	10MHz	QPSK	20525	25RB#25	22.53	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.78	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.62	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.97	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.61	PASS
Band5	10MHz	QPSK	20600	25RB#0	22.74	PASS
Band5	10MHz	QPSK	20600	25RB#12	22.73	PASS
Band5	10MHz	QPSK	20600	25RB#25	22.71	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.90	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.61	PASS
Band5	10MHz	16QAM	20450	1RB#24	23.16	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.45	PASS
Band5	10MHz	16QAM	20450	25RB#0	21.58	PASS
Band5	10MHz	16QAM	20450	25RB#12	21.59	PASS
Band5	10MHz	16QAM	20450	25RB#25	21.70	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.64	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.40	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.68	PASS
Band5	10MHz	16QAM	20525	25RB#0	21.27	PASS
Band5	10MHz	16QAM	20525	25RB#12	21.27	PASS
Band5	10MHz	16QAM	20525	25RB#25	21.55	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.67	PASS
Band5	10MHz	16QAM	20600	1RB#24	23.09	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.72	PASS
Band5	10MHz	16QAM	20600	25RB#0	21.72	PASS
Band5	10MHz	16QAM	20600	25RB#12	21.71	PASS
Band5	10MHz	16QAM	20600	25RB#25	21.66	PASS

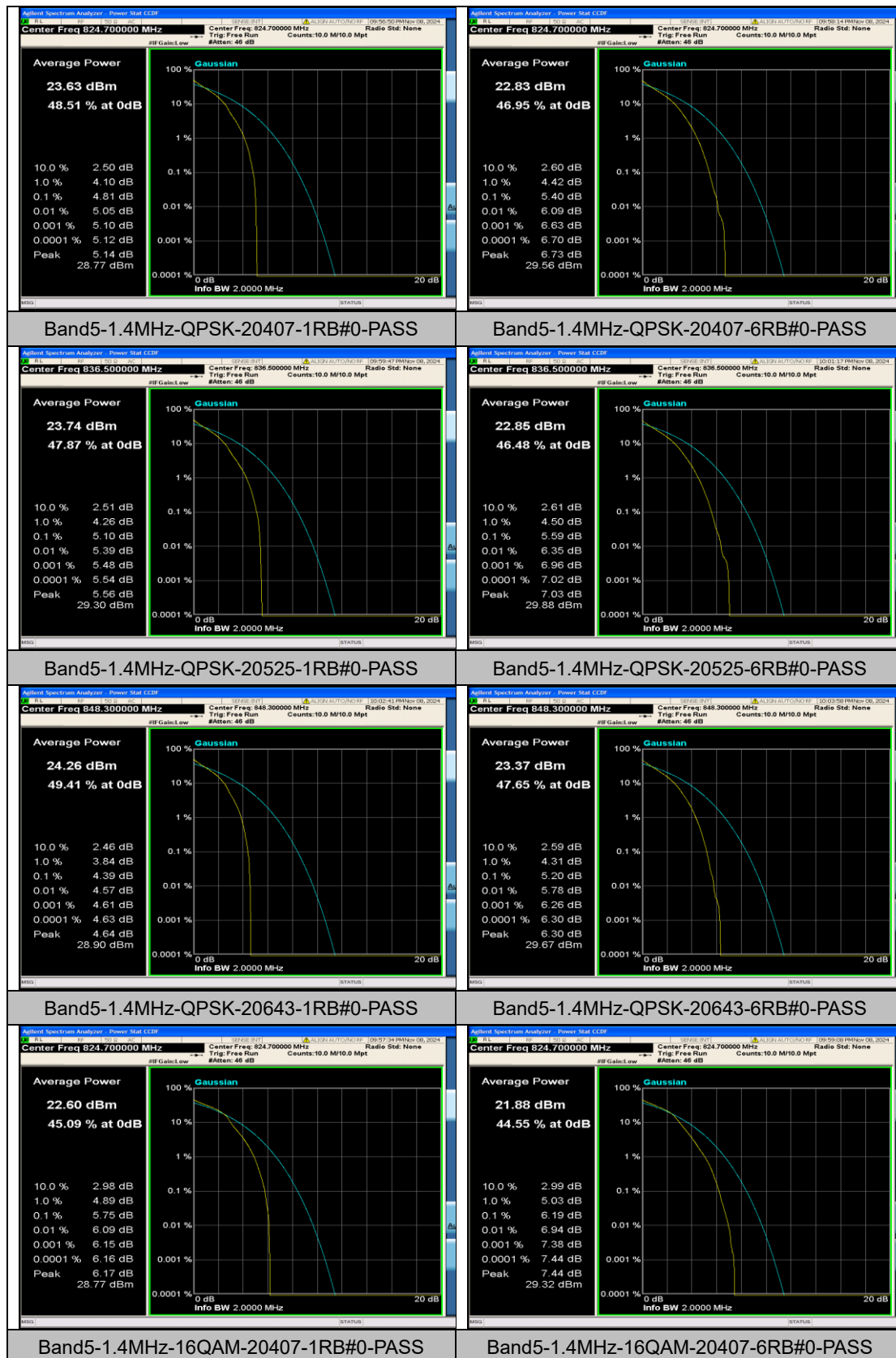
Appendix B: Peak-to-Average Ratio(CCDF)

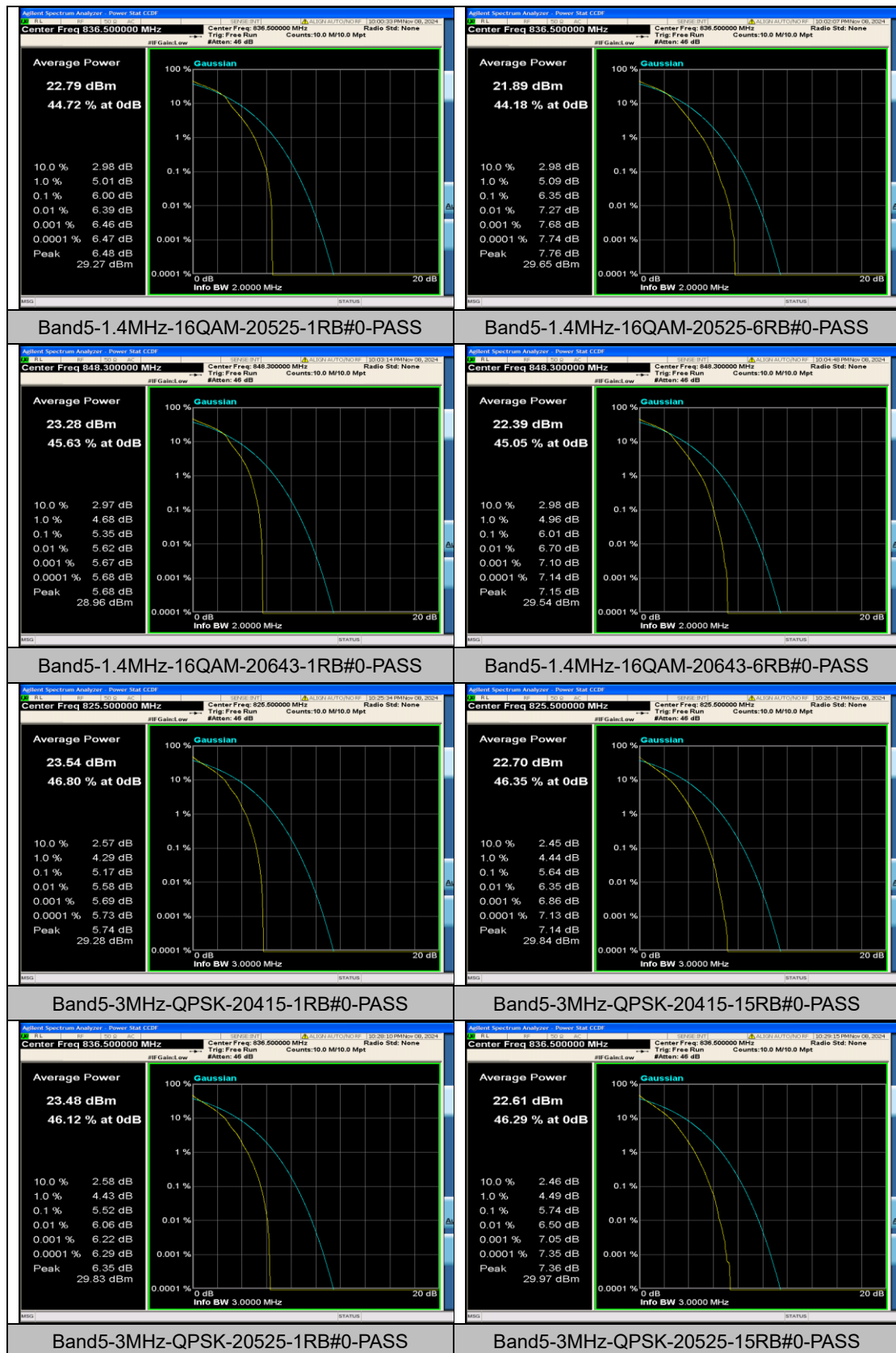
Test Result

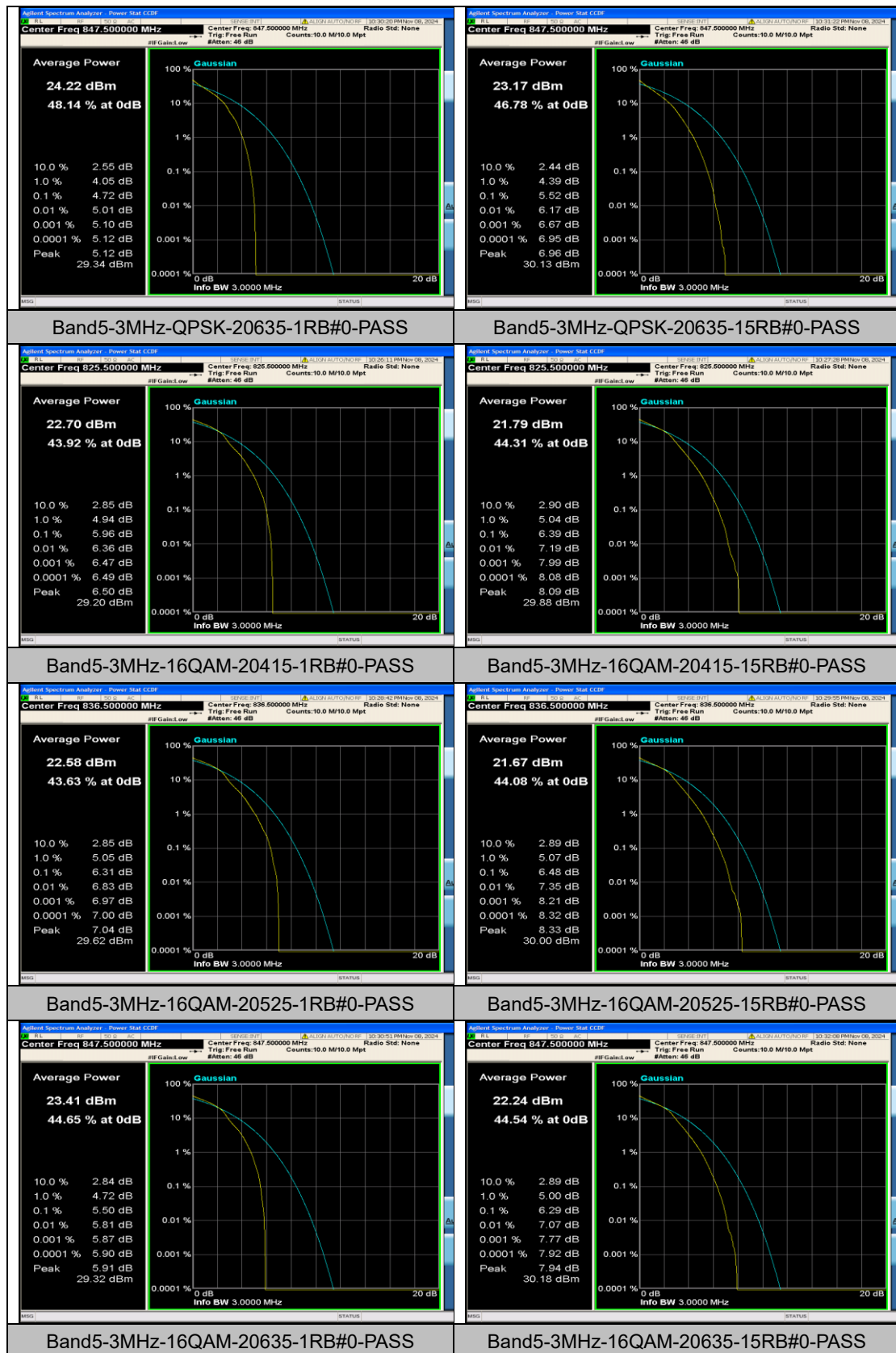
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	4.81	13	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	5.40	13	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	5.10	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.59	13	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	4.39	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	5.20	13	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	5.75	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	6.19	13	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	6.00	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	6.35	13	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	5.35	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	6.01	13	PASS
Band5	3MHz	QPSK	20415	1RB#0	5.17	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	5.64	13	PASS
Band5	3MHz	QPSK	20525	1RB#0	5.52	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.74	13	PASS
Band5	3MHz	QPSK	20635	1RB#0	4.72	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	5.52	13	PASS
Band5	3MHz	16QAM	20415	1RB#0	5.96	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	6.39	13	PASS
Band5	3MHz	16QAM	20525	1RB#0	6.31	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	6.48	13	PASS
Band5	3MHz	16QAM	20635	1RB#0	5.50	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	6.29	13	PASS
Band5	5MHz	QPSK	20425	1RB#0	5.22	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	5.66	13	PASS
Band5	5MHz	QPSK	20525	1RB#0	5.64	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.73	13	PASS
Band5	5MHz	QPSK	20625	1RB#0	4.41	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.51	13	PASS
Band5	5MHz	16QAM	20425	1RB#0	5.76	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	6.30	13	PASS
Band5	5MHz	16QAM	20525	1RB#0	6.20	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	6.38	13	PASS
Band5	5MHz	16QAM	20625	1RB#0	5.08	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	6.18	13	PASS

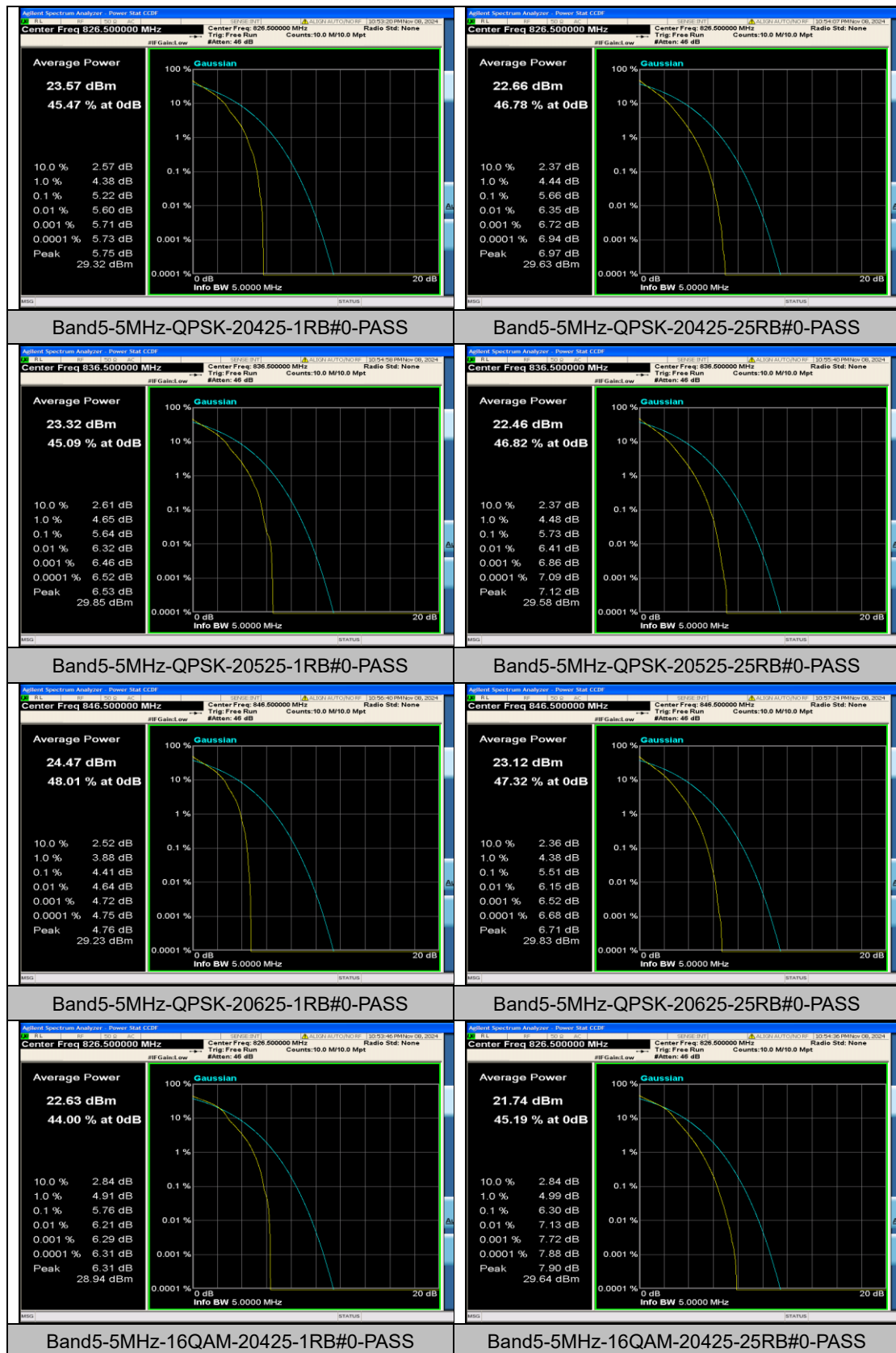
Band5	10MHz	QPSK	20450	1RB#0	5.16	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.53	13	PASS
Band5	10MHz	QPSK	20525	1RB#0	5.50	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.65	13	PASS
Band5	10MHz	QPSK	20600	1RB#0	4.89	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.38	13	PASS
Band5	10MHz	16QAM	20450	1RB#0	5.95	13	PASS
Band5	10MHz	16QAM	20525	1RB#0	6.13	13	PASS
Band5	10MHz	16QAM	20600	1RB#0	5.71	13	PASS

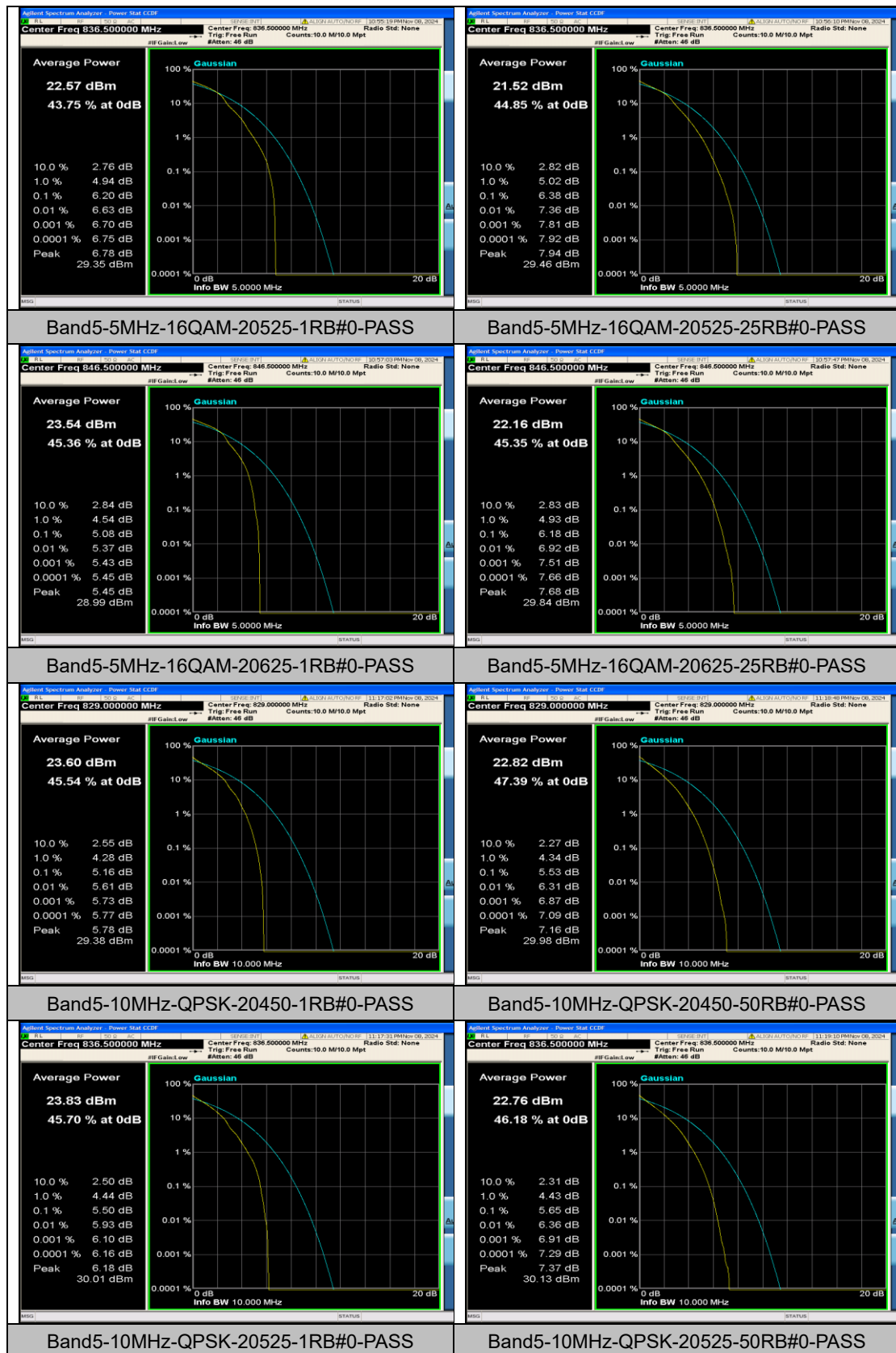
Test Graphs

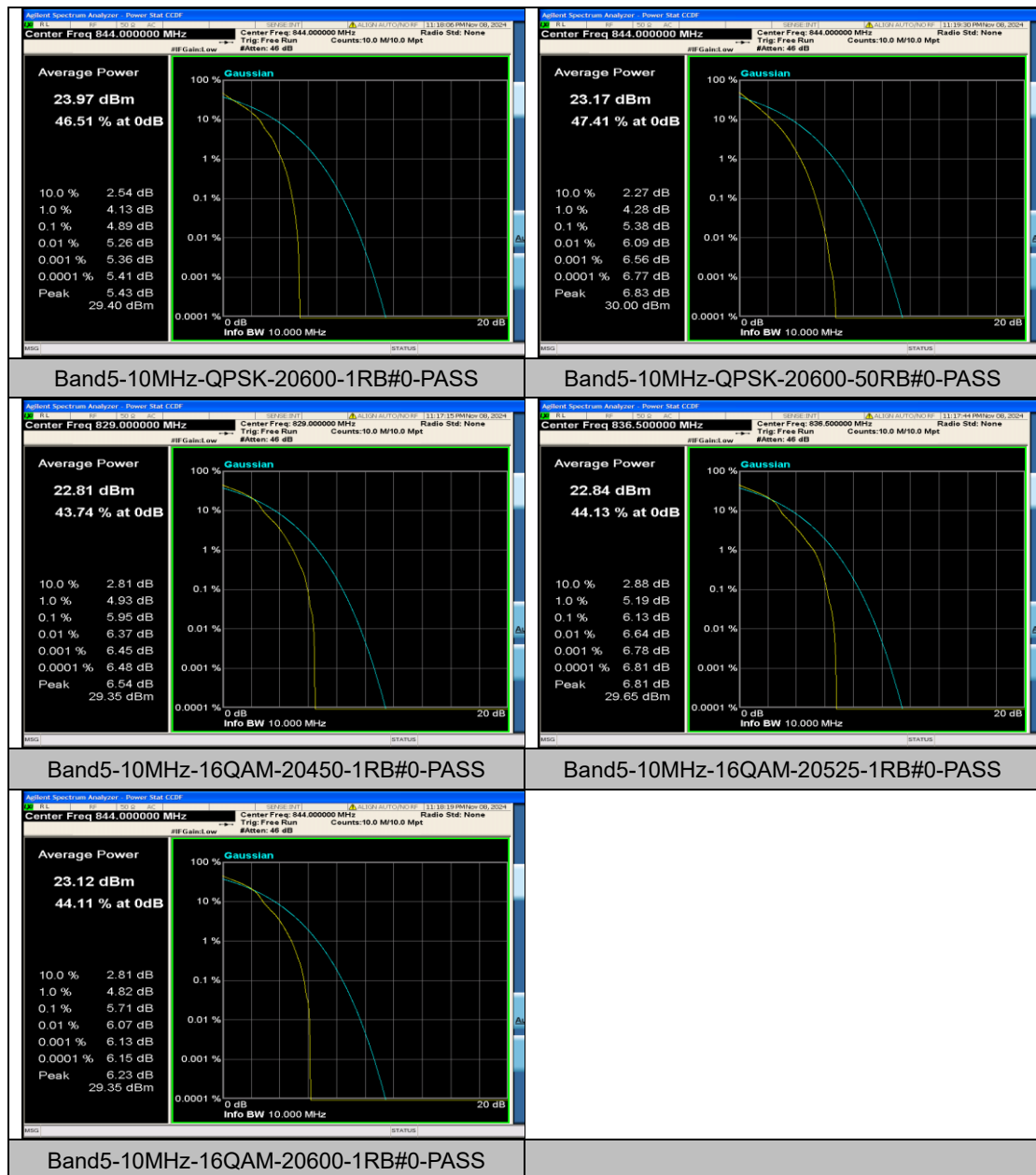










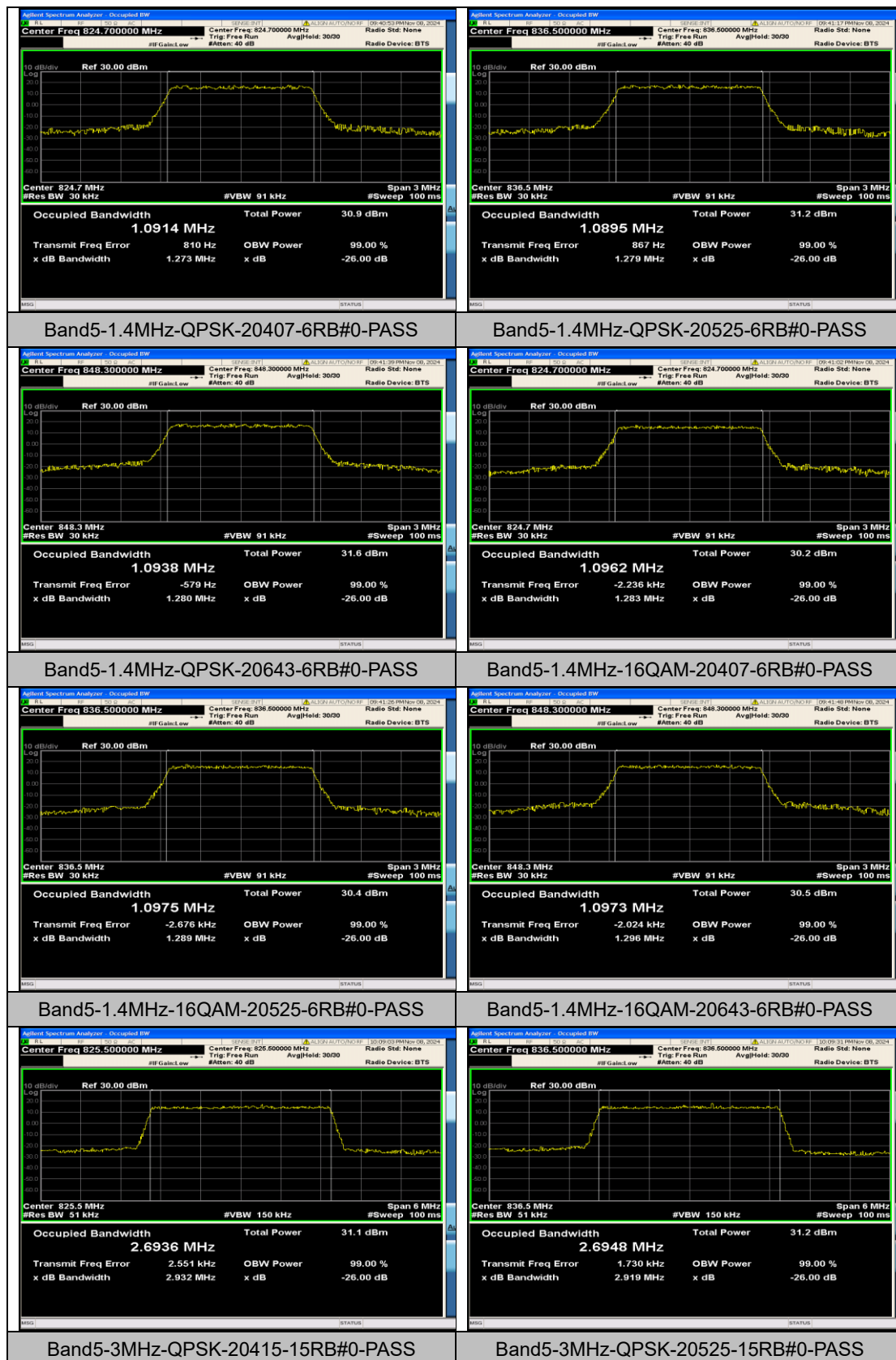


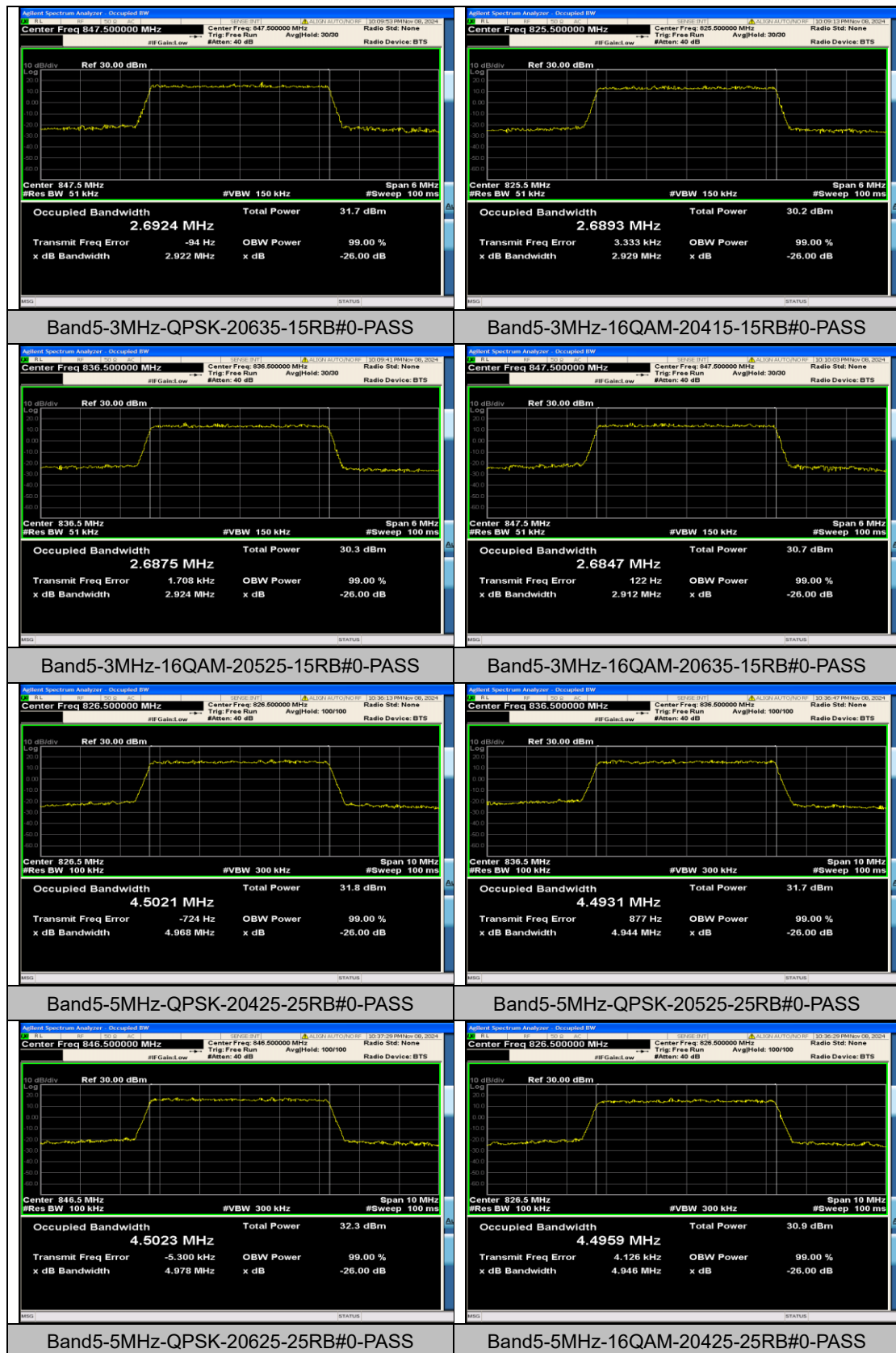
Appendix C: 26dB Bandwidth and Occupied Bandwidth

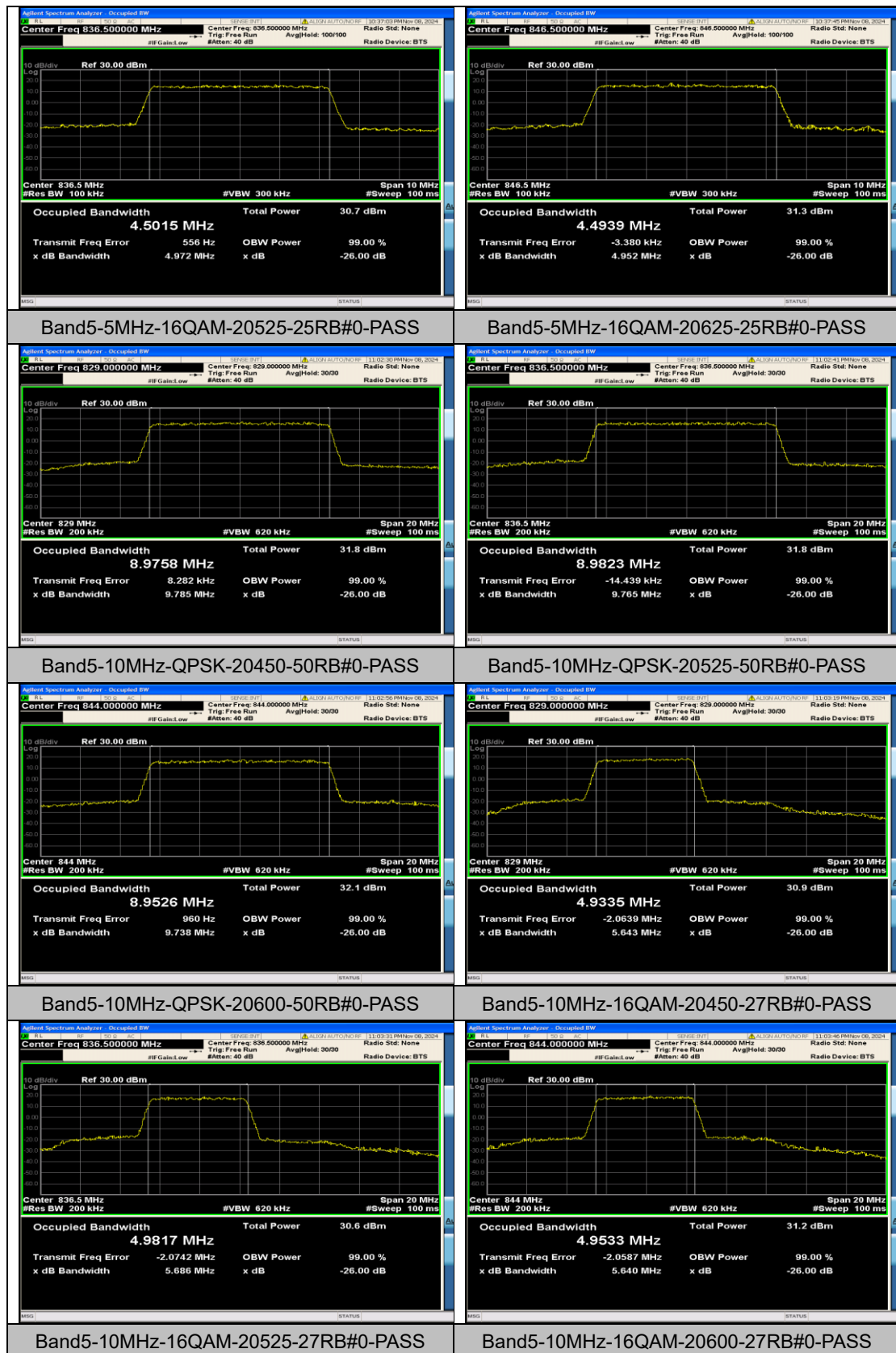
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0914	1.273	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0895	1.279	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0938	1.280	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0962	1.283	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0975	1.289	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0973	1.296	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6936	2.932	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6948	2.919	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6924	2.922	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6893	2.929	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6875	2.924	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6847	2.912	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.5021	4.968	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4931	4.944	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.5023	4.978	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4959	4.946	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.5015	4.972	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.4939	4.952	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9758	9.785	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9823	9.765	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9526	9.738	PASS
Band5	10MHz	16QAM	20450	27RB#0	4.9335	5.643	PASS
Band5	10MHz	16QAM	20525	27RB#0	4.9817	5.686	PASS
Band5	10MHz	16QAM	20600	27RB#0	4.9533	5.640	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	-25.14	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	-32.29	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	-26.44	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	-35.37	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	-19.86	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	-30.68	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	-28.58	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	-33.97	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	-27.15	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	-37.38	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	-24.42	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	-26.37	PASS
Band5	3MHz	QPSK	20415	1RB#0	-23.48	PASS
Band5	3MHz	QPSK	20415	1RB#14	-34.78	PASS
Band5	3MHz	QPSK	20415	15RB#0	-32.08	PASS
Band5	3MHz	QPSK	20635	1RB#0	-34.69	PASS
Band5	3MHz	QPSK	20635	1RB#14	-21.58	PASS
Band5	3MHz	QPSK	20635	15RB#0	-33.88	PASS
Band5	3MHz	16QAM	20415	1RB#0	-25.51	PASS
Band5	3MHz	16QAM	20415	1RB#14	-34.92	PASS
Band5	3MHz	16QAM	20415	15RB#0	-33.21	PASS
Band5	3MHz	16QAM	20635	1RB#0	-35.10	PASS
Band5	3MHz	16QAM	20635	1RB#14	-25.36	PASS
Band5	3MHz	16QAM	20635	15RB#0	-34.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	-25.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	-36.56	PASS
Band5	5MHz	QPSK	20425	25RB#0	-31.80	PASS
Band5	5MHz	QPSK	20625	1RB#0	-38.96	PASS
Band5	5MHz	QPSK	20625	1RB#24	-24.70	PASS
Band5	5MHz	QPSK	20625	25RB#0	-33.59	PASS
Band5	5MHz	16QAM	20425	1RB#0	-26.95	PASS
Band5	5MHz	16QAM	20425	1RB#24	-38.24	PASS
Band5	5MHz	16QAM	20425	25RB#0	-33.02	PASS
Band5	5MHz	16QAM	20625	1RB#0	-40.39	PASS
Band5	5MHz	16QAM	20625	1RB#24	-26.35	PASS
Band5	5MHz	16QAM	20625	25RB#0	-34.00	PASS

Band5	10MHz	QPSK	20450	1RB#0	-37.07	PASS
Band5	10MHz	QPSK	20450	1RB#49	-45.74	PASS
Band5	10MHz	QPSK	20450	50RB#0	-32.75	PASS
Band5	10MHz	QPSK	20600	1RB#0	-46.08	PASS
Band5	10MHz	QPSK	20600	1RB#49	-35.96	PASS
Band5	10MHz	QPSK	20600	50RB#0	-34.37	PASS
Band5	10MHz	16QAM	20450	1RB#0	-38.26	PASS
Band5	10MHz	16QAM	20450	1RB#49	-45.97	PASS
Band5	10MHz	16QAM	20600	1RB#0	-45.80	PASS
Band5	10MHz	16QAM	20600	1RB#49	-36.33	PASS

Test Graphs

