

FCC LTE Band Test Data

FCC ID : 2BMDZ-Z-VOYAGE

Company: : Advanced Rugged System Co., LTD

EUT : Rugged Tablet

Model Number : Z_Voyage

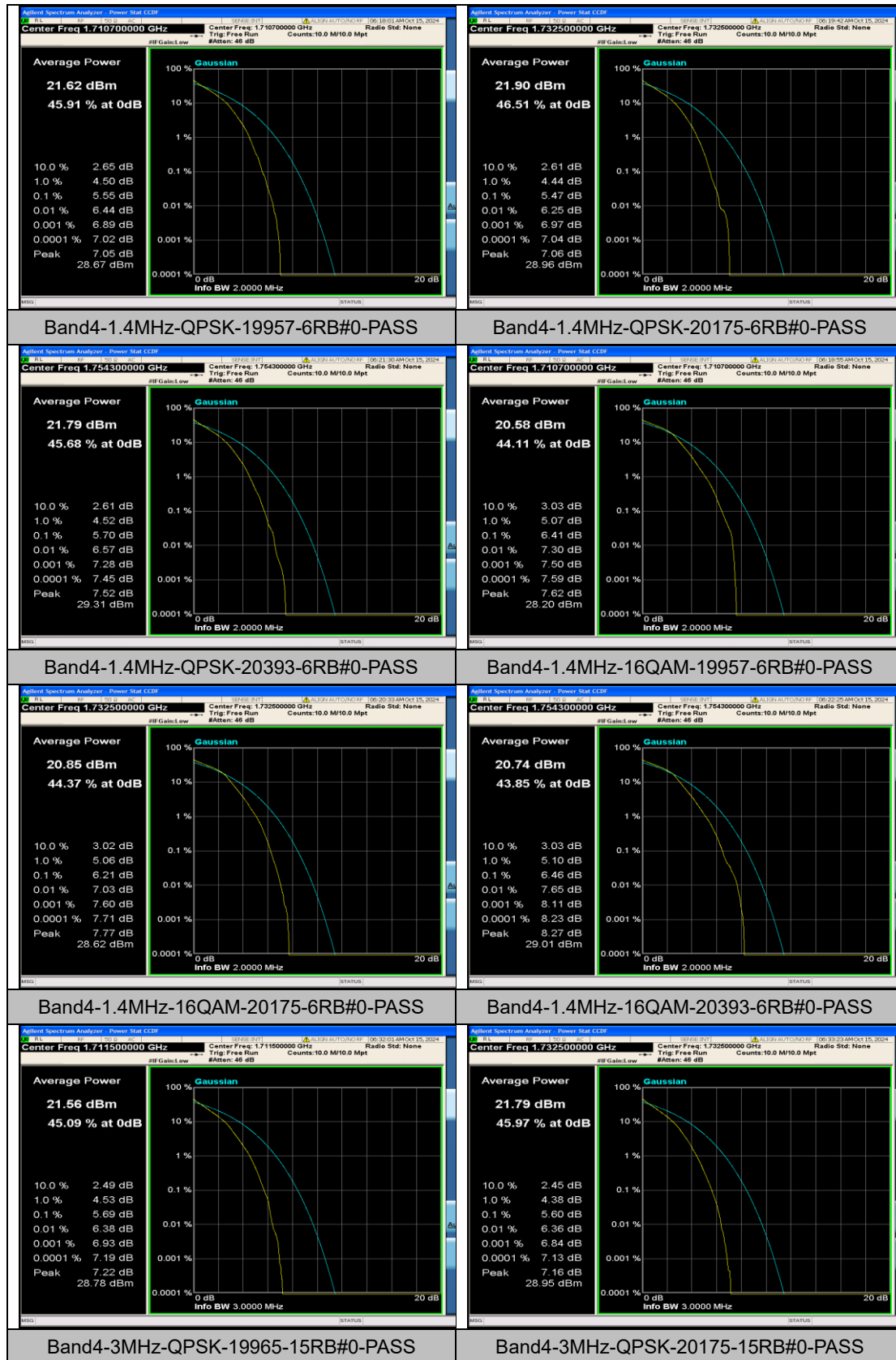
Reviewed By : Eric Wang

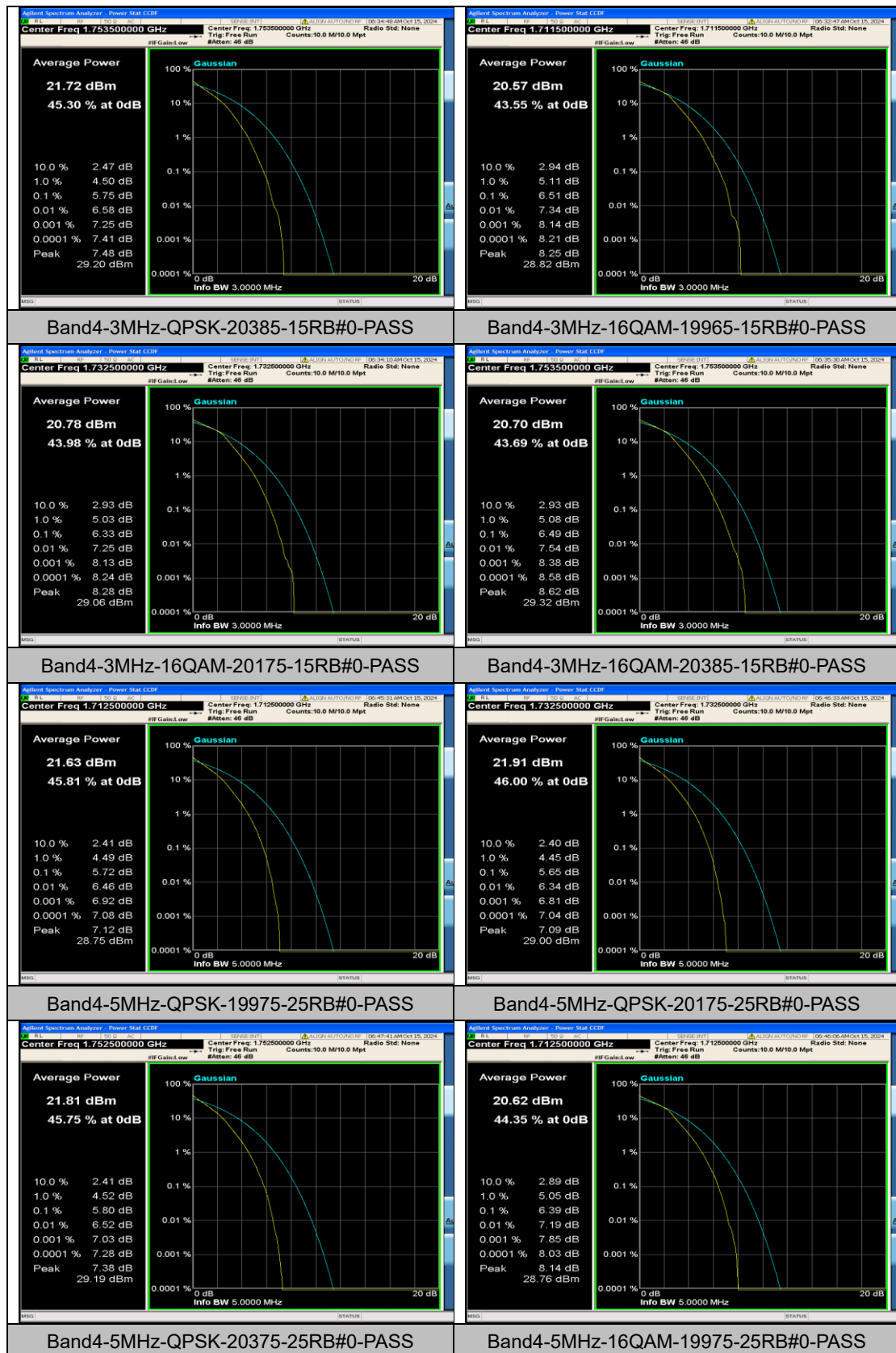
Appendix B: Peak-to-Average Ratio(CCDF)

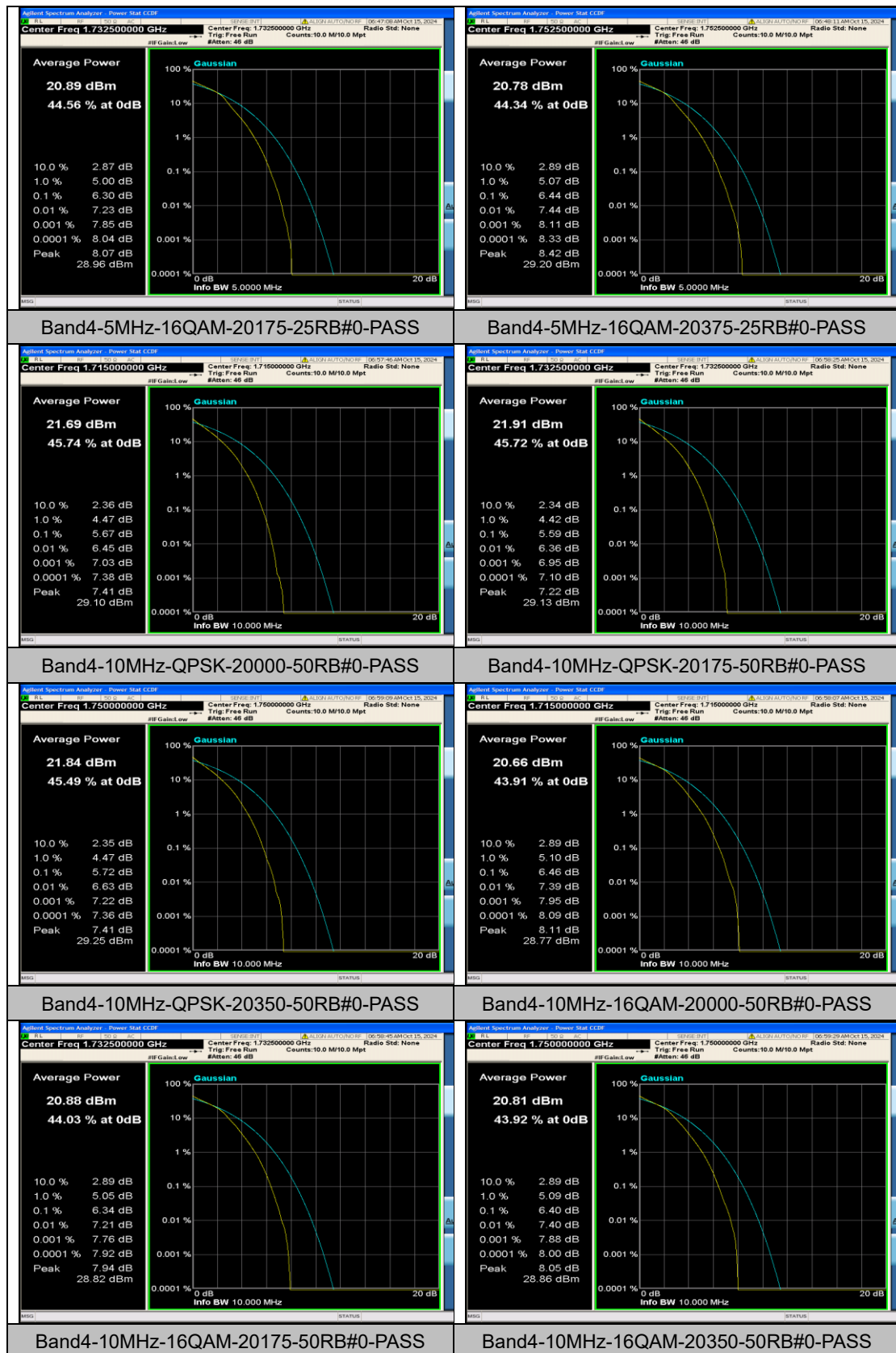
Test Result

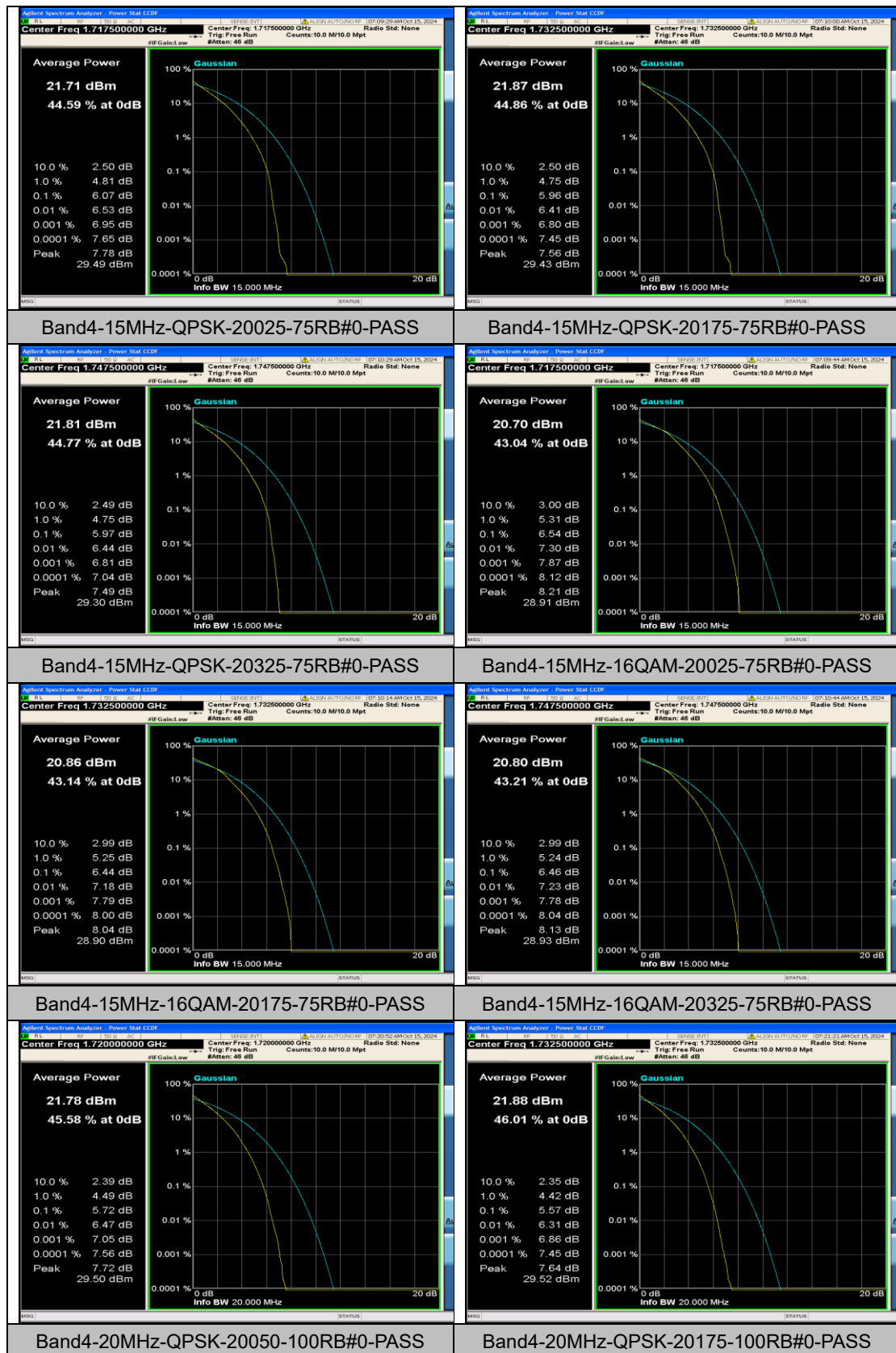
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	5.55	13	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	5.47	13	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	5.70	13	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	6.41	13	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	6.21	13	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	6.46	13	PASS
Band4	3MHz	QPSK	19965	15RB#0	5.69	13	PASS
Band4	3MHz	QPSK	20175	15RB#0	5.60	13	PASS
Band4	3MHz	QPSK	20385	15RB#0	5.75	13	PASS
Band4	3MHz	16QAM	19965	15RB#0	6.51	13	PASS
Band4	3MHz	16QAM	20175	15RB#0	6.33	13	PASS
Band4	3MHz	16QAM	20385	15RB#0	6.49	13	PASS
Band4	5MHz	QPSK	19975	25RB#0	5.72	13	PASS
Band4	5MHz	QPSK	20175	25RB#0	5.65	13	PASS
Band4	5MHz	QPSK	20375	25RB#0	5.80	13	PASS
Band4	5MHz	16QAM	19975	25RB#0	6.39	13	PASS
Band4	5MHz	16QAM	20175	25RB#0	6.30	13	PASS
Band4	5MHz	16QAM	20375	25RB#0	6.44	13	PASS
Band4	10MHz	QPSK	20000	50RB#0	5.67	13	PASS
Band4	10MHz	QPSK	20175	50RB#0	5.59	13	PASS
Band4	10MHz	QPSK	20350	50RB#0	5.72	13	PASS
Band4	10MHz	16QAM	20000	50RB#0	6.46	13	PASS
Band4	10MHz	16QAM	20175	50RB#0	6.34	13	PASS
Band4	10MHz	16QAM	20350	50RB#0	6.40	13	PASS
Band4	15MHz	QPSK	20025	75RB#0	6.07	13	PASS
Band4	15MHz	QPSK	20175	75RB#0	5.96	13	PASS
Band4	15MHz	QPSK	20325	75RB#0	5.97	13	PASS
Band4	15MHz	16QAM	20025	75RB#0	6.54	13	PASS
Band4	15MHz	16QAM	20175	75RB#0	6.44	13	PASS
Band4	15MHz	16QAM	20325	75RB#0	6.46	13	PASS
Band4	20MHz	QPSK	20050	100RB#0	5.72	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	5.57	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	5.51	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	6.45	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	6.33	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	6.29	13	PASS

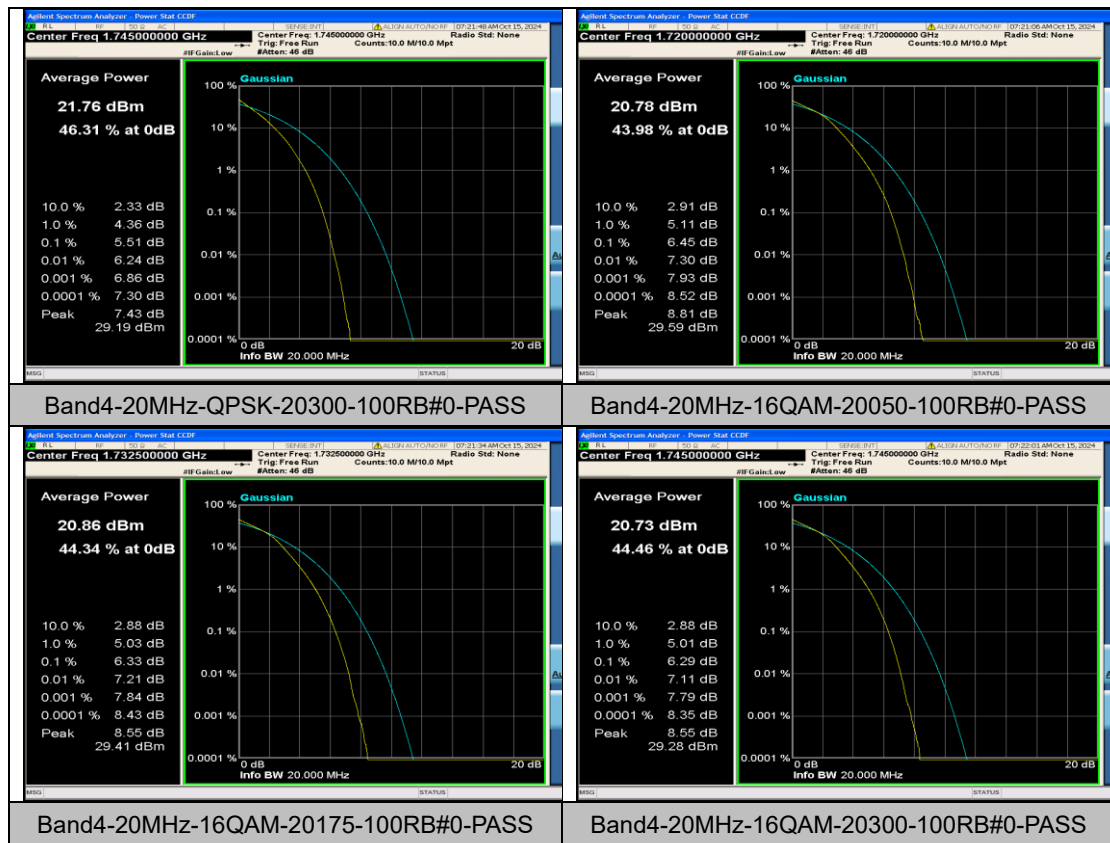
Test Graphs











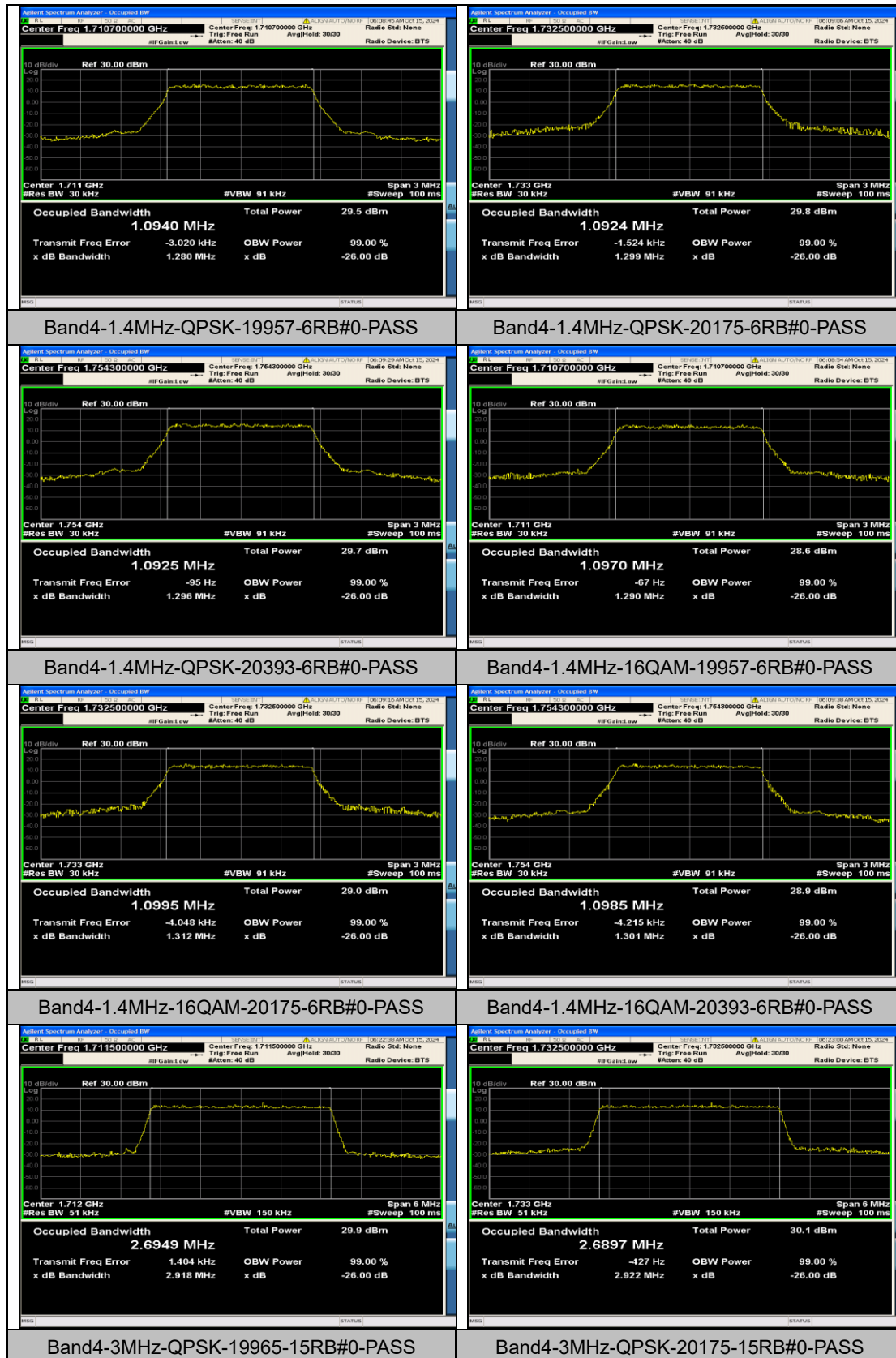
Appendix C: 26dB Bandwidth and Occupied Bandwidth

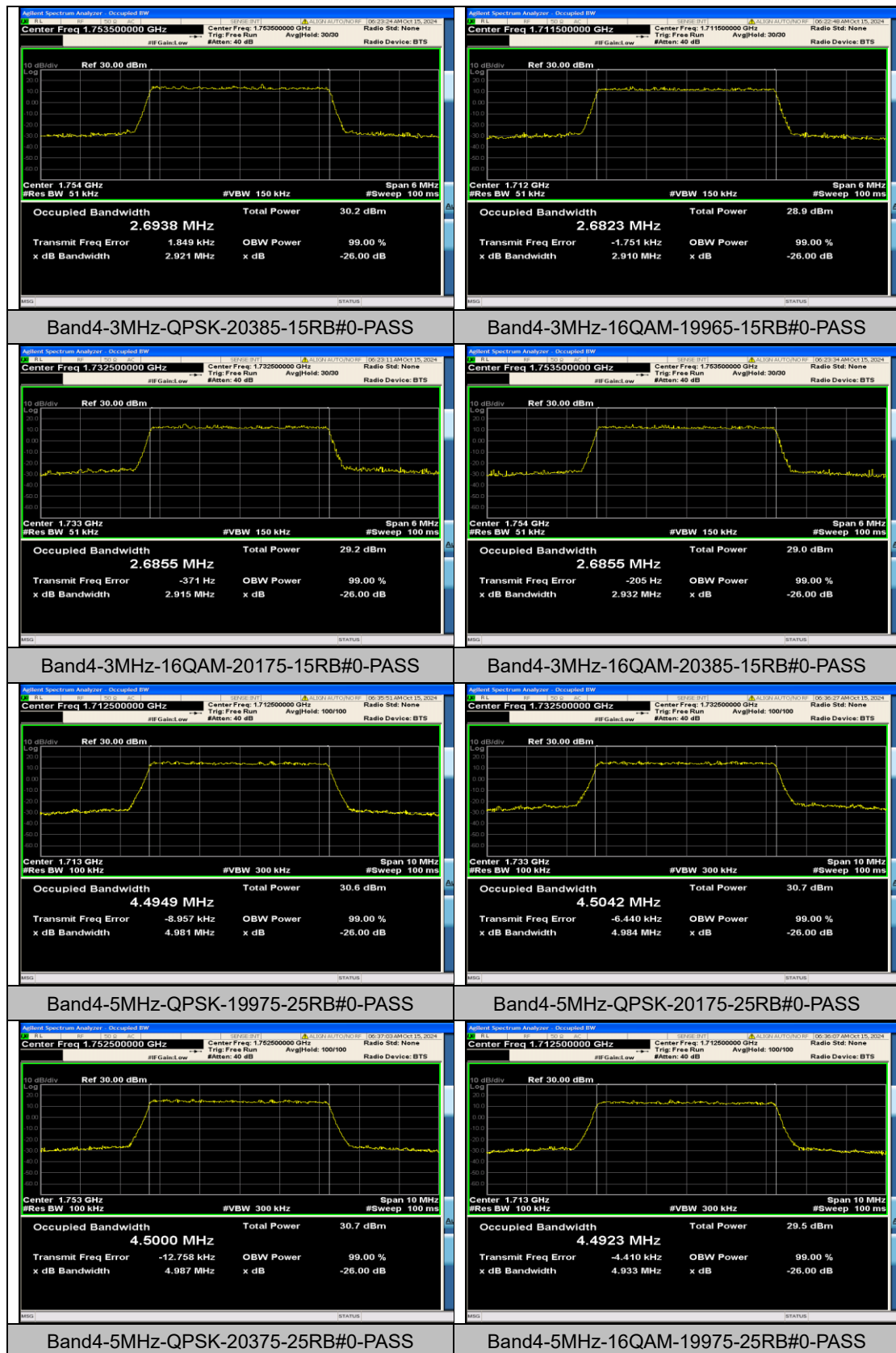
Test Result

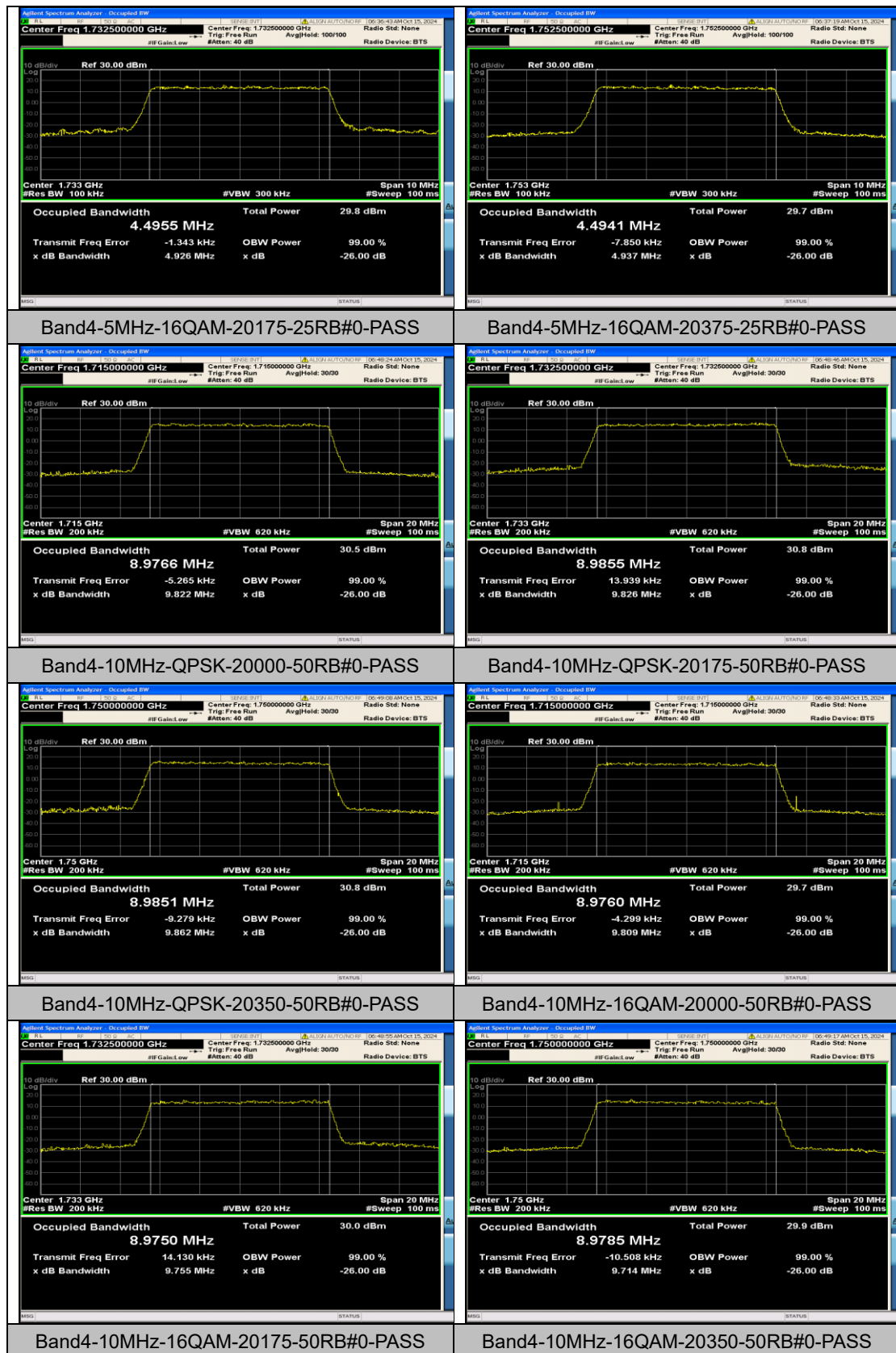
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.0940	1.280	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.0924	1.299	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.0925	1.296	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.0970	1.290	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.0995	1.312	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.0985	1.301	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.6949	2.918	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.6897	2.922	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.6938	2.921	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.6823	2.910	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.6855	2.915	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.6855	2.932	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.4949	4.981	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.5042	4.984	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.5000	4.987	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.4923	4.933	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.4955	4.926	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.4941	4.937	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.9766	9.822	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.9855	9.826	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.9851	9.862	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.9760	9.809	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.9750	9.755	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.9785	9.714	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.475	14.80	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.489	14.75	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.486	14.79	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.480	14.63	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.475	14.81	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.476	14.65	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.983	19.37	PASS
Band4	20MHz	QPSK	20175	100RB#0	17.963	19.37	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.907	19.42	PASS
Band4	20MHz	16QAM	20050	100RB#0	18.014	19.46	PASS

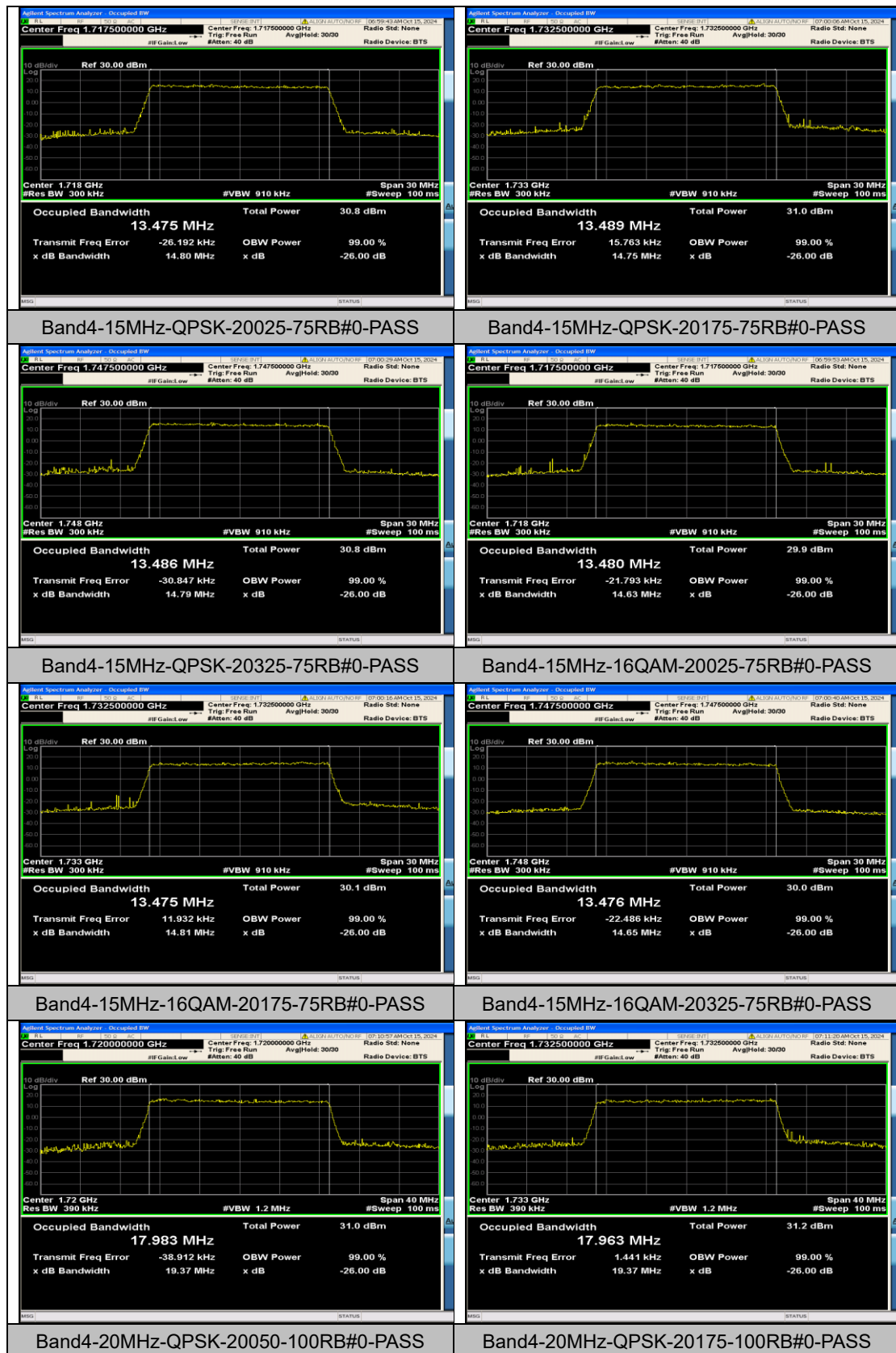
Band4	20MHz	16QAM	20175	100RB#0	17.996	19.46	PASS
Band4	20MHz	16QAM	20300	100RB#0	17.927	19.35	PASS

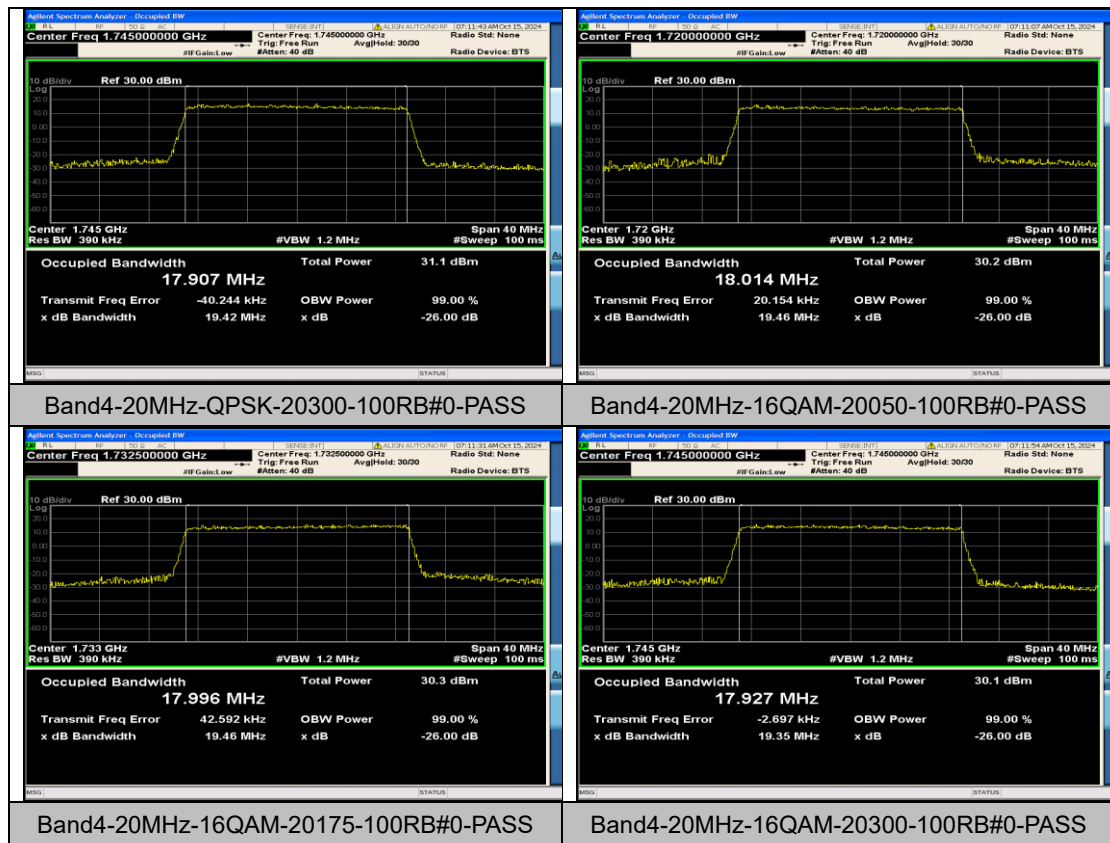
Test Graphs









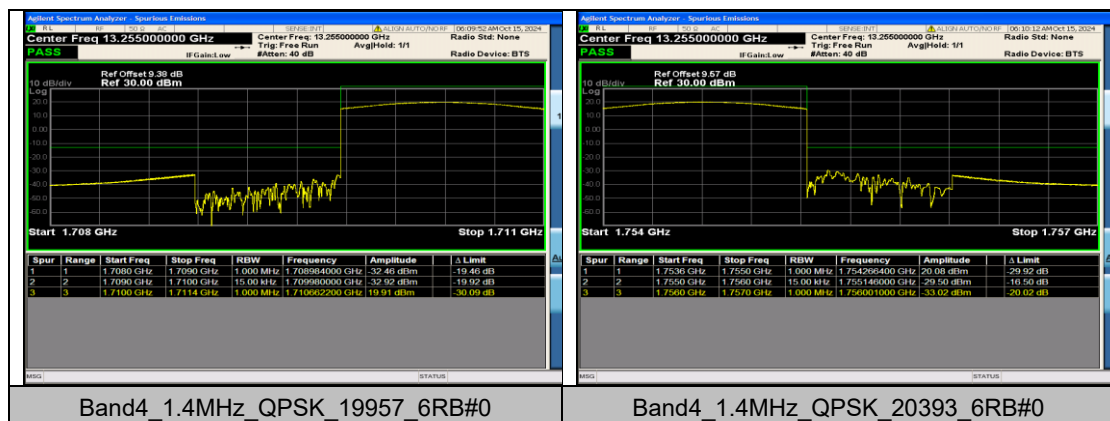


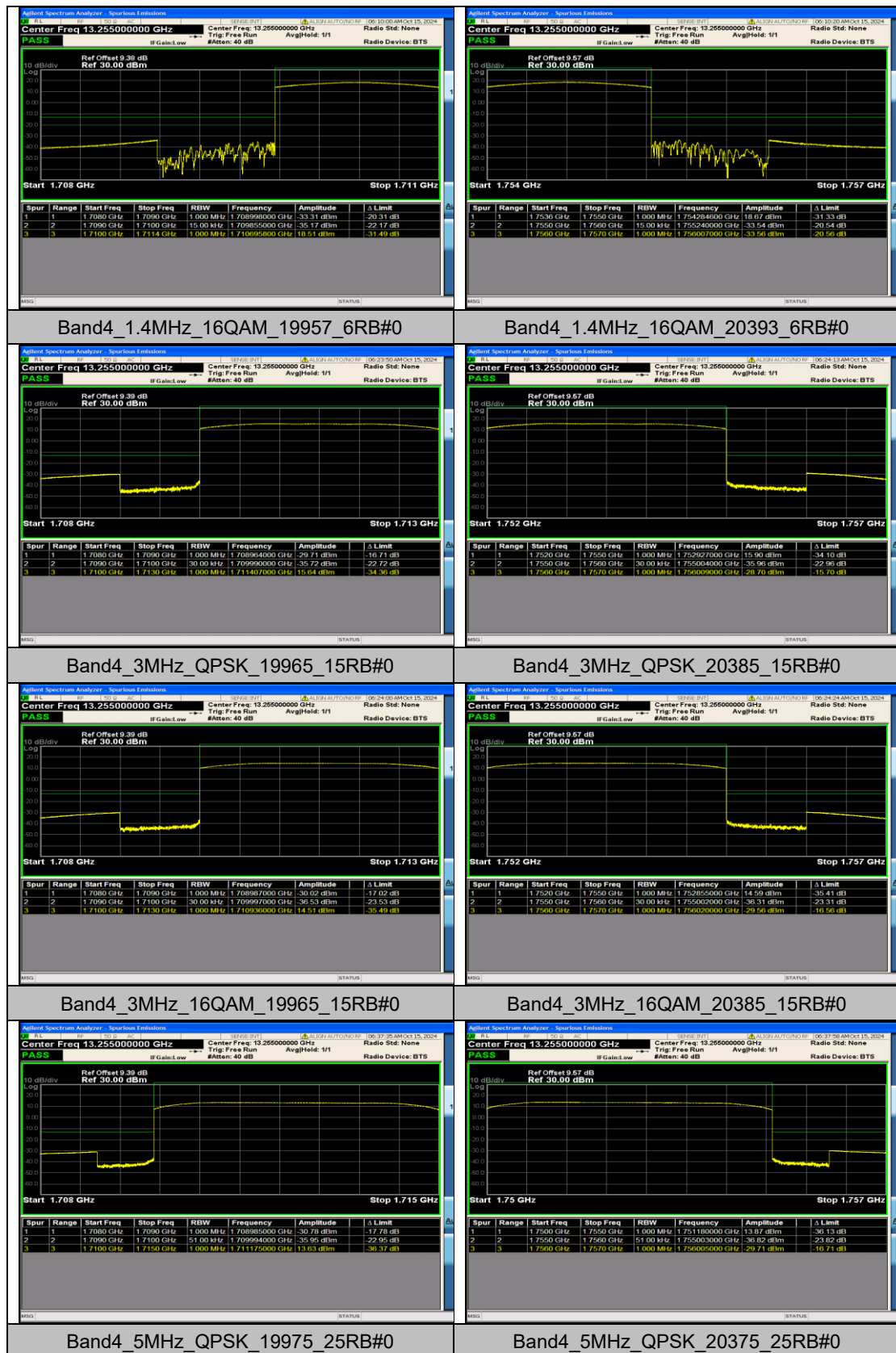
Appendix D: Band Edge

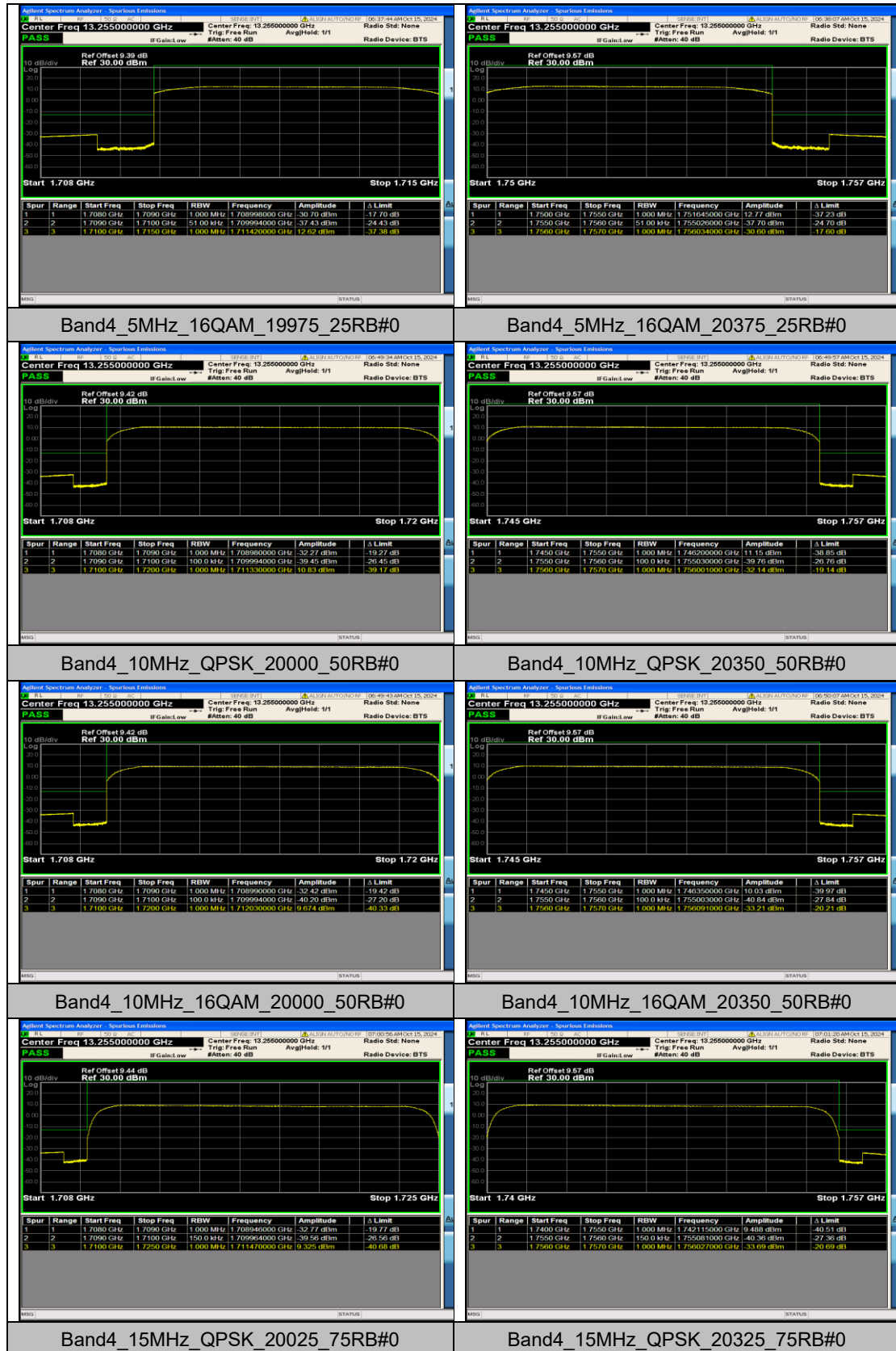
Test Result

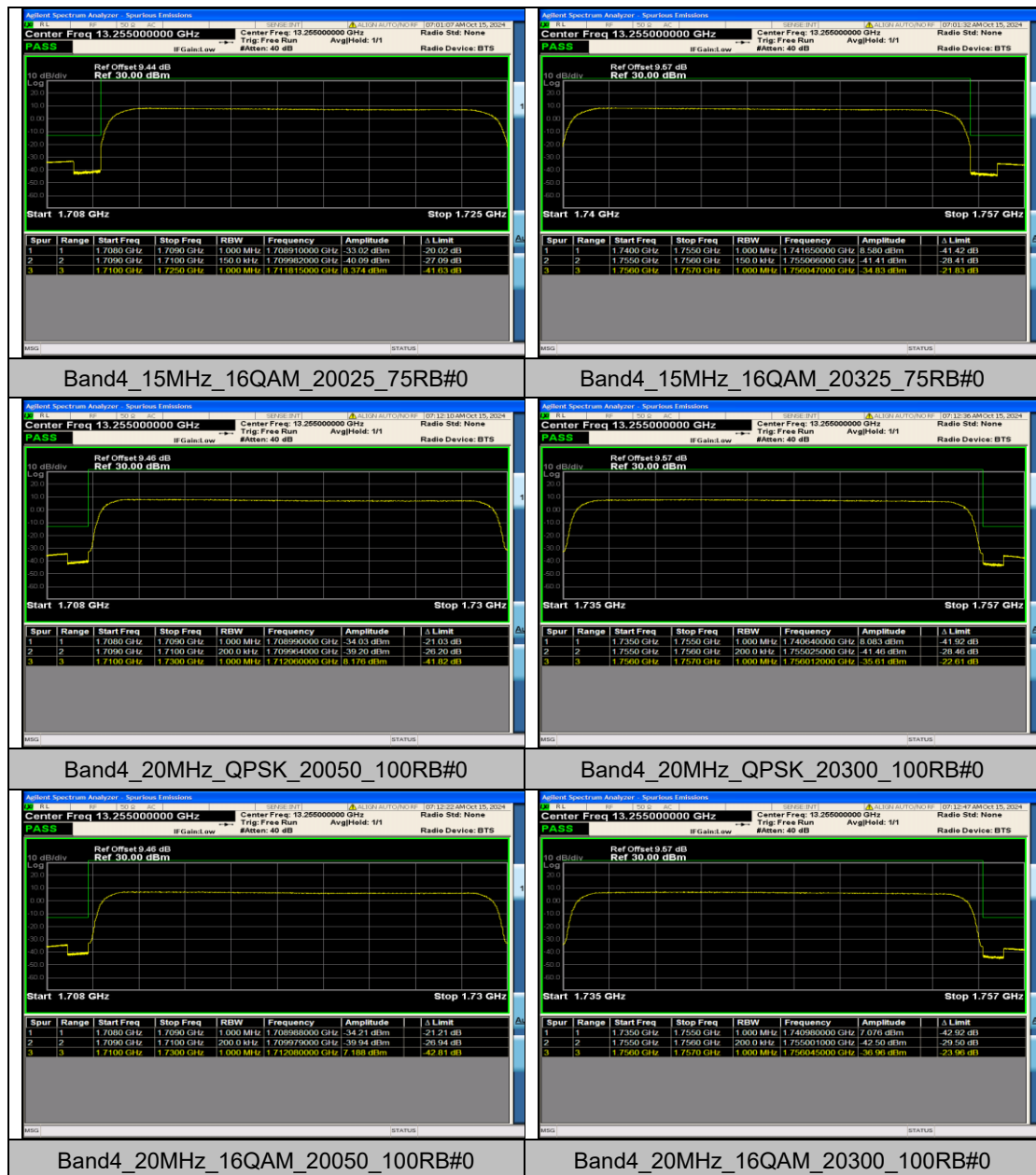
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	-32.46	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	-29.50	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	-33.31	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	-33.54	PASS
Band4	3MHz	QPSK	19965	15RB#0	-29.71	PASS
Band4	3MHz	QPSK	20385	15RB#0	-28.70	PASS
Band4	3MHz	16QAM	19965	15RB#0	-30.02	PASS
Band4	3MHz	16QAM	20385	15RB#0	-29.56	PASS
Band4	5MHz	QPSK	19975	25RB#0	-30.78	PASS
Band4	5MHz	QPSK	20375	25RB#0	-29.71	PASS
Band4	5MHz	16QAM	19975	25RB#0	-30.70	PASS
Band4	5MHz	16QAM	20375	25RB#0	-30.60	PASS
Band4	10MHz	QPSK	20000	50RB#0	-32.27	PASS
Band4	10MHz	QPSK	20350	50RB#0	-32.14	PASS
Band4	10MHz	16QAM	20000	50RB#0	-32.42	PASS
Band4	10MHz	16QAM	20350	50RB#0	-33.21	PASS
Band4	15MHz	QPSK	20025	75RB#0	-32.77	PASS
Band4	15MHz	QPSK	20325	75RB#0	-33.69	PASS
Band4	15MHz	16QAM	20025	75RB#0	-33.02	PASS
Band4	15MHz	16QAM	20325	75RB#0	-34.83	PASS
Band4	20MHz	QPSK	20050	100RB#0	-34.03	PASS
Band4	20MHz	QPSK	20300	100RB#0	-35.61	PASS
Band4	20MHz	16QAM	20050	100RB#0	-34.21	PASS
Band4	20MHz	16QAM	20300	100RB#0	-36.96	PASS

Test Graphs









Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	0.009~0.15	-63.09	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	0.15~30	-53.39	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	30~1000	-61.67	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	1000~3000	-36.78	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	3000~20000	-37.91	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	0.009~0.15	-65.74	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	0.15~30	-55.29	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	30~1000	-61.69	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1000~3000	-40.13	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	3000~20000	-38.13	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	0.009~0.15	-65.28	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	0.15~30	-53.05	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	30~1000	-61.95	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1000~3000	-29.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	3000~20000	-38.09	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	0.009~0.15	-61.89	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	0.15~30	-54.82	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	30~1000	-61.98	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1000~3000	-40.16	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	3000~20000	-38.12	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	0.009~0.15	-62.46	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	0.15~30	-52.64	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	30~1000	-61.94	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1000~3000	-40.93	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	3000~20000	-37.52	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	0.009~0.15	-65.11	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	0.15~30	-53.56	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	30~1000	-62.04	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1000~3000	-42.32	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	3000~20000	-38.19	PASS
Band4	3MHz	QPSK	19965	15RB#0	0.009~0.15	-62.29	PASS
Band4	3MHz	QPSK	19965	15RB#0	0.15~30	-53.16	PASS
Band4	3MHz	QPSK	19965	15RB#0	30~1000	-61.93	PASS
Band4	3MHz	QPSK	19965	15RB#0	1000~3000	-43.66	PASS
Band4	3MHz	QPSK	19965	15RB#0	3000~20000	-38.03	PASS
Band4	3MHz	QPSK	20175	15RB#0	0.009~0.15	-65.09	PASS

Band4	3MHz	QPSK	20175	15RB#0	0.15~30	-53.21	PASS
Band4	3MHz	QPSK	20175	15RB#0	30~1000	-62.03	PASS
Band4	3MHz	QPSK	20175	15RB#0	1000~3000	-42.49	PASS
Band4	3MHz	QPSK	20175	15RB#0	3000~20000	-37.81	PASS
Band4	3MHz	QPSK	20385	15RB#0	0.009~0.15	-62.90	PASS
Band4	3MHz	QPSK	20385	15RB#0	0.15~30	-53.78	PASS
Band4	3MHz	QPSK	20385	15RB#0	30~1000	-61.69	PASS
Band4	3MHz	QPSK	20385	15RB#0	1000~3000	-41.69	PASS
Band4	3MHz	QPSK	20385	15RB#0	3000~20000	-37.69	PASS
Band4	3MHz	16QAM	19965	15RB#0	0.009~0.15	-61.71	PASS
Band4	3MHz	16QAM	19965	15RB#0	0.15~30	-54.92	PASS
Band4	3MHz	16QAM	19965	15RB#0	30~1000	-61.71	PASS
Band4	3MHz	16QAM	19965	15RB#0	1000~3000	-46.51	PASS
Band4	3MHz	16QAM	19965	15RB#0	3000~20000	-38.23	PASS
Band4	3MHz	16QAM	20175	15RB#0	0.009~0.15	-64.82	PASS
Band4	3MHz	16QAM	20175	15RB#0	0.15~30	-52.59	PASS
Band4	3MHz	16QAM	20175	15RB#0	30~1000	-62.03	PASS
Band4	3MHz	16QAM	20175	15RB#0	1000~3000	-44.08	PASS
Band4	3MHz	16QAM	20175	15RB#0	3000~20000	-38.03	PASS
Band4	3MHz	16QAM	20385	15RB#0	0.009~0.15	-63.50	PASS
Band4	3MHz	16QAM	20385	15RB#0	0.15~30	-55.41	PASS
Band4	3MHz	16QAM	20385	15RB#0	30~1000	-61.96	PASS
Band4	3MHz	16QAM	20385	15RB#0	1000~3000	-44.79	PASS
Band4	3MHz	16QAM	20385	15RB#0	3000~20000	-38.10	PASS
Band4	5MHz	QPSK	19975	25RB#0	0.009~0.15	-64.58	PASS
Band4	5MHz	QPSK	19975	25RB#0	0.15~30	-55.63	PASS
Band4	5MHz	QPSK	19975	25RB#0	30~1000	-61.89	PASS
Band4	5MHz	QPSK	19975	25RB#0	1000~3000	-45.92	PASS
Band4	5MHz	QPSK	19975	25RB#0	3000~20000	-37.83	PASS
Band4	5MHz	QPSK	20175	25RB#0	0.009~0.15	-63.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	0.15~30	-53.62	PASS
Band4	5MHz	QPSK	20175	25RB#0	30~1000	-61.74	PASS
Band4	5MHz	QPSK	20175	25RB#0	1000~3000	-43.45	PASS
Band4	5MHz	QPSK	20175	25RB#0	3000~20000	-37.73	PASS
Band4	5MHz	QPSK	20375	25RB#0	0.009~0.15	-62.99	PASS
Band4	5MHz	QPSK	20375	25RB#0	0.15~30	-54.54	PASS
Band4	5MHz	QPSK	20375	25RB#0	30~1000	-62.11	PASS
Band4	5MHz	QPSK	20375	25RB#0	1000~3000	-44.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	3000~20000	-37.93	PASS
Band4	5MHz	16QAM	19975	25RB#0	0.009~0.15	-60.55	PASS
Band4	5MHz	16QAM	19975	25RB#0	0.15~30	-53.01	PASS
Band4	5MHz	16QAM	19975	25RB#0	30~1000	-61.85	PASS
Band4	5MHz	16QAM	19975	25RB#0	1000~3000	-46.77	PASS

Band4	5MHz	16QAM	19975	25RB#0	3000~20000	-37.62	PASS
Band4	5MHz	16QAM	20175	25RB#0	0.009~0.15	-63.48	PASS
Band4	5MHz	16QAM	20175	25RB#0	0.15~30	-53.85	PASS
Band4	5MHz	16QAM	20175	25RB#0	30~1000	-62.10	PASS
Band4	5MHz	16QAM	20175	25RB#0	1000~3000	-45.41	PASS
Band4	5MHz	16QAM	20175	25RB#0	3000~20000	-37.74	PASS
Band4	5MHz	16QAM	20375	25RB#0	0.009~0.15	-63.32	PASS
Band4	5MHz	16QAM	20375	25RB#0	0.15~30	-53.15	PASS
Band4	5MHz	16QAM	20375	25RB#0	30~1000	-61.73	PASS
Band4	5MHz	16QAM	20375	25RB#0	1000~3000	-45.89	PASS
Band4	5MHz	16QAM	20375	25RB#0	3000~20000	-37.87	PASS
Band4	10MHz	QPSK	20000	50RB#0	0.009~0.15	-65.64	PASS
Band4	10MHz	QPSK	20000	50RB#0	0.15~30	-51.13	PASS
Band4	10MHz	QPSK	20000	50RB#0	30~1000	-62.05	PASS
Band4	10MHz	QPSK	20000	50RB#0	1000~3000	-46.79	PASS
Band4	10MHz	QPSK	20000	50RB#0	3000~20000	-37.47	PASS
Band4	10MHz	QPSK	20175	50RB#0	0.009~0.15	-59.97	PASS
Band4	10MHz	QPSK	20175	50RB#0	0.15~30	-53.69	PASS
Band4	10MHz	QPSK	20175	50RB#0	30~1000	-61.91	PASS
Band4	10MHz	QPSK	20175	50RB#0	1000~3000	-46.51	PASS
Band4	10MHz	QPSK	20175	50RB#0	3000~20000	-38.10	PASS
Band4	10MHz	QPSK	20350	50RB#0	0.009~0.15	-64.75	PASS
Band4	10MHz	QPSK	20350	50RB#0	0.15~30	-51.52	PASS
Band4	10MHz	QPSK	20350	50RB#0	30~1000	-61.83	PASS
Band4	10MHz	QPSK	20350	50RB#0	1000~3000	-41.42	PASS
Band4	10MHz	QPSK	20350	50RB#0	3000~20000	-37.91	PASS
Band4	10MHz	16QAM	20000	50RB#0	0.009~0.15	-62.26	PASS
Band4	10MHz	16QAM	20000	50RB#0	0.15~30	-52.27	PASS
Band4	10MHz	16QAM	20000	50RB#0	30~1000	-62.04	PASS
Band4	10MHz	16QAM	20000	50RB#0	1000~3000	-46.56	PASS
Band4	10MHz	16QAM	20000	50RB#0	3000~20000	-37.72	PASS
Band4	10MHz	16QAM	20175	50RB#0	0.009~0.15	-64.18	PASS
Band4	10MHz	16QAM	20175	50RB#0	0.15~30	-55.08	PASS
Band4	10MHz	16QAM	20175	50RB#0	30~1000	-62.01	PASS
Band4	10MHz	16QAM	20175	50RB#0	1000~3000	-46.51	PASS
Band4	10MHz	16QAM	20175	50RB#0	3000~20000	-37.76	PASS
Band4	10MHz	16QAM	20350	50RB#0	0.009~0.15	-65.47	PASS
Band4	10MHz	16QAM	20350	50RB#0	0.15~30	-52.94	PASS
Band4	10MHz	16QAM	20350	50RB#0	30~1000	-61.84	PASS
Band4	10MHz	16QAM	20350	50RB#0	1000~3000	-46.69	PASS
Band4	10MHz	16QAM	20350	50RB#0	3000~20000	-37.71	PASS
Band4	15MHz	QPSK	20025	75RB#0	0.009~0.15	-62.34	PASS
Band4	15MHz	QPSK	20025	75RB#0	0.15~30	-55.36	PASS

Band4	15MHz	QPSK	20025	75RB#0	30~1000	-61.98	PASS
Band4	15MHz	QPSK	20025	75RB#0	1000~3000	-46.57	PASS
Band4	15MHz	QPSK	20025	75RB#0	3000~20000	-37.98	PASS
Band4	15MHz	QPSK	20175	75RB#0	0.009~0.15	-60.50	PASS
Band4	15MHz	QPSK	20175	75RB#0	0.15~30	-51.95	PASS
Band4	15MHz	QPSK	20175	75RB#0	30~1000	-62.06	PASS
Band4	15MHz	QPSK	20175	75RB#0	1000~3000	-46.68	PASS
Band4	15MHz	QPSK	20175	75RB#0	3000~20000	-37.83	PASS
Band4	15MHz	QPSK	20325	75RB#0	0.009~0.15	-64.56	PASS
Band4	15MHz	QPSK	20325	75RB#0	0.15~30	-55.08	PASS
Band4	15MHz	QPSK	20325	75RB#0	30~1000	-61.97	PASS
Band4	15MHz	QPSK	20325	75RB#0	1000~3000	-46.68	PASS
Band4	15MHz	QPSK	20325	75RB#0	3000~20000	-37.22	PASS
Band4	15MHz	16QAM	20025	75RB#0	0.009~0.15	-61.89	PASS
Band4	15MHz	16QAM	20025	75RB#0	0.15~30	-55.39	PASS
Band4	15MHz	16QAM	20025	75RB#0	30~1000	-61.88	PASS
Band4	15MHz	16QAM	20025	75RB#0	1000~3000	-46.55	PASS
Band4	15MHz	16QAM	20025	75RB#0	3000~20000	-37.88	PASS
Band4	15MHz	16QAM	20175	75RB#0	0.009~0.15	-62.60	PASS
Band4	15MHz	16QAM	20175	75RB#0	0.15~30	-53.47	PASS
Band4	15MHz	16QAM	20175	75RB#0	30~1000	-61.95	PASS
Band4	15MHz	16QAM	20175	75RB#0	1000~3000	-46.79	PASS
Band4	15MHz	16QAM	20175	75RB#0	3000~20000	-38.11	PASS
Band4	15MHz	16QAM	20325	75RB#0	0.009~0.15	-62.84	PASS
Band4	15MHz	16QAM	20325	75RB#0	0.15~30	-53.02	PASS
Band4	15MHz	16QAM	20325	75RB#0	30~1000	-61.87	PASS
Band4	15MHz	16QAM	20325	75RB#0	1000~3000	-46.65	PASS
Band4	15MHz	16QAM	20325	75RB#0	3000~20000	-37.98	PASS
Band4	20MHz	QPSK	20050	100RB#0	0.009~0.15	-63.07	PASS
Band4	20MHz	QPSK	20050	100RB#0	0.15~30	-55.60	PASS
Band4	20MHz	QPSK	20050	100RB#0	30~1000	-61.69	PASS
Band4	20MHz	QPSK	20050	100RB#0	1000~3000	-46.72	PASS
Band4	20MHz	QPSK	20050	100RB#0	3000~20000	-37.91	PASS
Band4	20MHz	QPSK	20175	100RB#0	0.009~0.15	-60.99	PASS
Band4	20MHz	QPSK	20175	100RB#0	0.15~30	-52.57	PASS
Band4	20MHz	QPSK	20175	100RB#0	30~1000	-61.93	PASS
Band4	20MHz	QPSK	20175	100RB#0	1000~3000	-46.23	PASS
Band4	20MHz	QPSK	20175	100RB#0	3000~20000	-37.95	PASS
Band4	20MHz	QPSK	20300	100RB#0	0.009~0.15	-61.48	PASS
Band4	20MHz	QPSK	20300	100RB#0	0.15~30	-53.75	PASS
Band4	20MHz	QPSK	20300	100RB#0	30~1000	-62.06	PASS
Band4	20MHz	QPSK	20300	100RB#0	1000~3000	-46.52	PASS
Band4	20MHz	QPSK	20300	100RB#0	3000~20000	-37.30	PASS