

Appendix for LTE Band 14

Product Name: 5G Indoor CPE

Model No: TITAN 5000

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band14	5MHz	QPSK	23305	1RB#0	22.54	PASS
Band14	5MHz	16QAM	23305	1RB#0	21.52	PASS
Band14	5MHz	QPSK	23305	1RB#12	22.56	PASS
Band14	5MHz	16QAM	23305	1RB#12	21.51	PASS
Band14	5MHz	QPSK	23305	1RB#24	22.47	PASS
Band14	5MHz	16QAM	23305	1RB#24	21.52	PASS
Band14	5MHz	QPSK	23305	12RB#0	21.48	PASS
Band14	5MHz	16QAM	23305	12RB#0	20.49	PASS
Band14	5MHz	QPSK	23305	12RB#6	21.49	PASS
Band14	5MHz	16QAM	23305	12RB#6	20.42	PASS
Band14	5MHz	QPSK	23305	12RB#13	21.54	PASS
Band14	5MHz	16QAM	23305	12RB#13	20.40	PASS
Band14	5MHz	QPSK	23305	25RB#0	21.57	PASS
Band14	5MHz	16QAM	23305	25RB#0	20.59	PASS
Band14	5MHz	QPSK	23330	1RB#0	22.56	PASS
Band14	5MHz	16QAM	23330	1RB#0	21.60	PASS
Band14	5MHz	QPSK	23330	1RB#12	22.61	PASS
Band14	5MHz	16QAM	23330	1RB#12	21.70	PASS
Band14	5MHz	QPSK	23330	1RB#24	22.56	PASS
Band14	5MHz	16QAM	23330	1RB#24	21.57	PASS
Band14	5MHz	QPSK	23330	12RB#0	21.47	PASS
Band14	5MHz	16QAM	23330	12RB#0	20.54	PASS
Band14	5MHz	QPSK	23330	12RB#6	21.47	PASS
Band14	5MHz	16QAM	23330	12RB#6	20.51	PASS
Band14	5MHz	QPSK	23330	12RB#13	21.54	PASS
Band14	5MHz	16QAM	23330	12RB#13	20.72	PASS
Band14	5MHz	QPSK	23330	25RB#0	21.52	PASS
Band14	5MHz	16QAM	23330	25RB#0	20.49	PASS
Band14	5MHz	QPSK	23355	1RB#0	22.57	PASS
Band14	5MHz	16QAM	23355	1RB#0	21.71	PASS
Band14	5MHz	QPSK	23355	1RB#12	22.63	PASS
Band14	5MHz	16QAM	23355	1RB#12	21.66	PASS
Band14	5MHz	QPSK	23355	1RB#24	22.57	PASS
Band14	5MHz	16QAM	23355	1RB#24	21.58	PASS
Band14	5MHz	QPSK	23355	12RB#0	21.52	PASS
Band14	5MHz	16QAM	23355	12RB#0	20.47	PASS

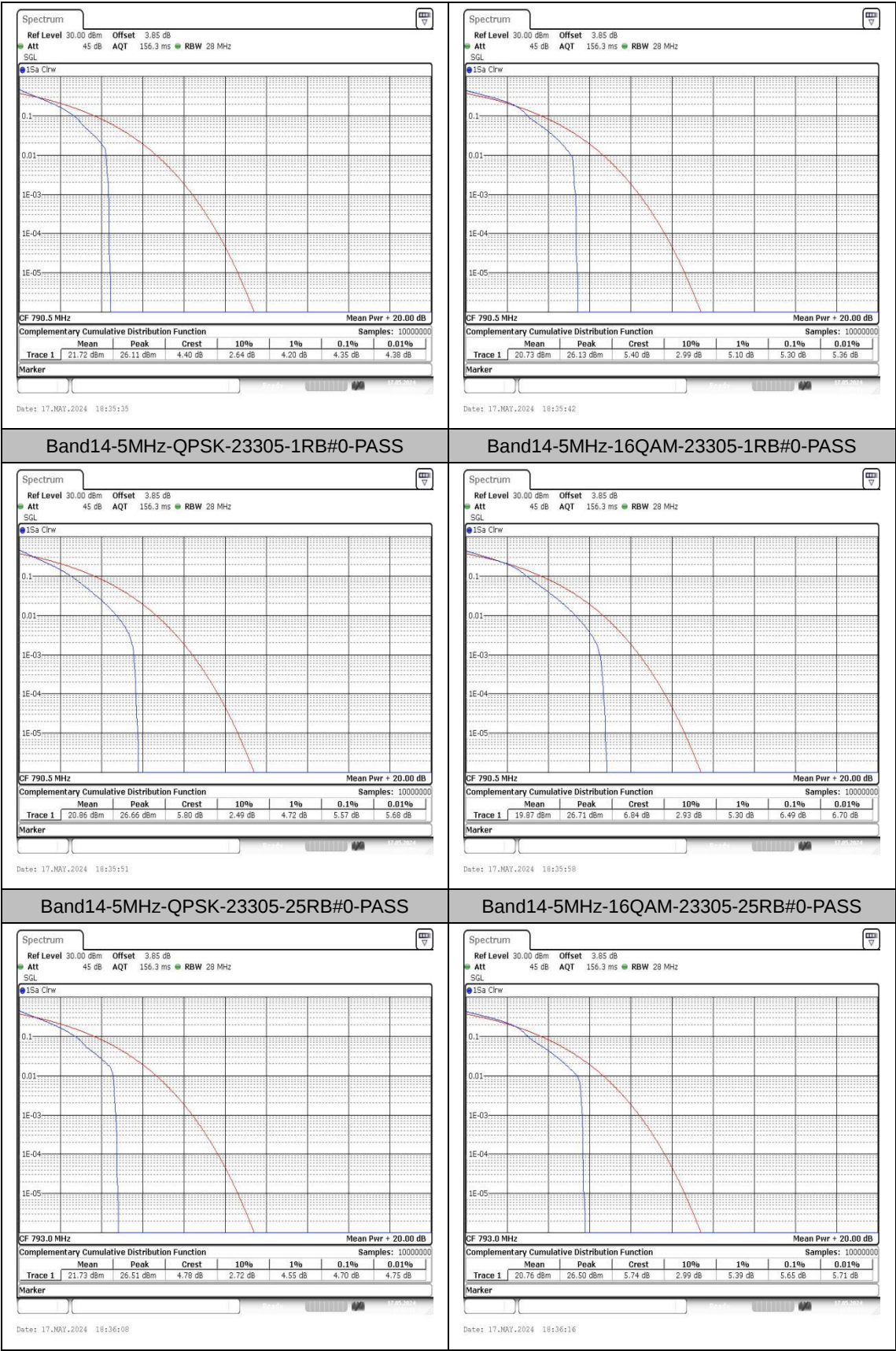
Band14	5MHz	QPSK	23355	12RB#6	21.59	PASS
Band14	5MHz	16QAM	23355	12RB#6	20.58	PASS
Band14	5MHz	QPSK	23355	12RB#13	21.60	PASS
Band14	5MHz	16QAM	23355	12RB#13	20.56	PASS
Band14	5MHz	QPSK	23355	25RB#0	21.62	PASS
Band14	5MHz	16QAM	23355	25RB#0	20.62	PASS
Band14	10MHz	QPSK	23330	1RB#0	22.49	PASS
Band14	10MHz	16QAM	23330	1RB#0	21.68	PASS
Band14	10MHz	QPSK	23330	1RB#24	22.54	PASS
Band14	10MHz	16QAM	23330	1RB#24	21.54	PASS
Band14	10MHz	QPSK	23330	1RB#49	22.56	PASS
Band14	10MHz	16QAM	23330	1RB#49	21.65	PASS
Band14	10MHz	QPSK	23330	25RB#0	21.58	PASS
Band14	10MHz	16QAM	23330	25RB#0	20.57	PASS
Band14	10MHz	QPSK	23330	25RB#12	21.58	PASS
Band14	10MHz	16QAM	23330	25RB#12	20.50	PASS
Band14	10MHz	QPSK	23330	25RB#25	21.62	PASS
Band14	10MHz	16QAM	23330	25RB#25	20.63	PASS
Band14	10MHz	QPSK	23330	50RB#0	21.55	PASS
Band14	10MHz	16QAM	23330	50RB#0	20.54	PASS

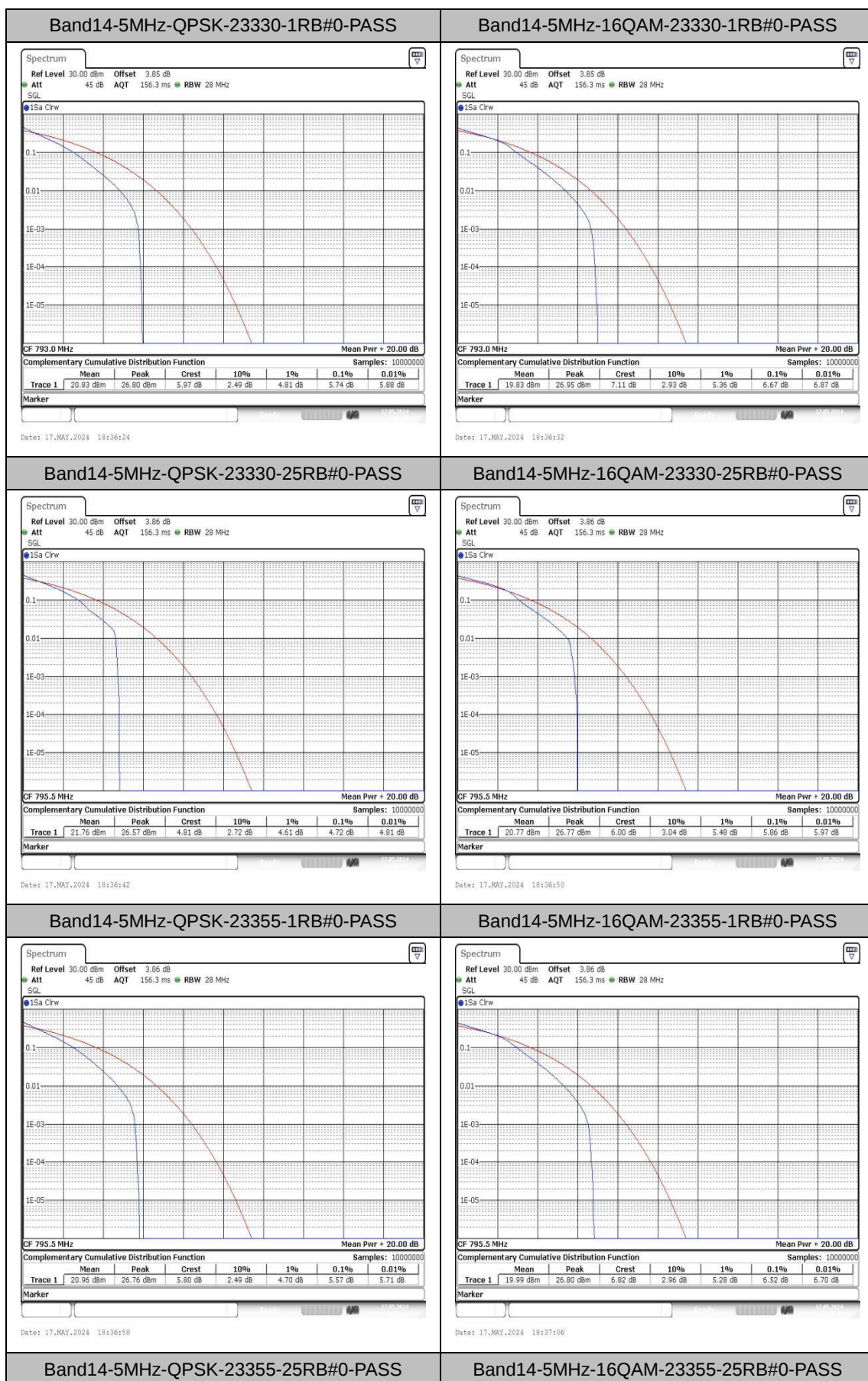
Appendix B: Peak-to-Average Ratio(CCDF)

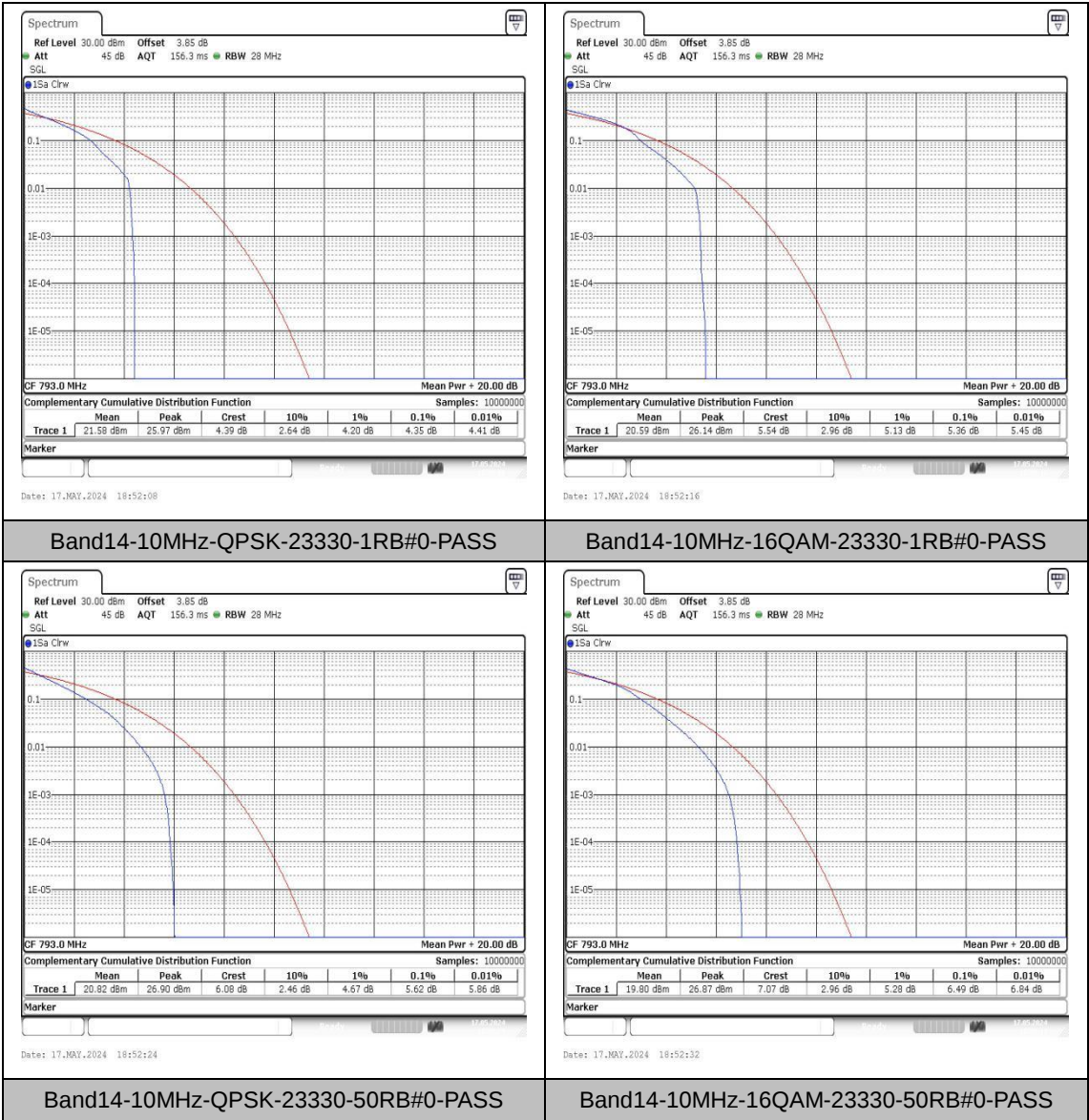
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band14	5MHz	QPSK	23305	1RB#0	4.35	13	PASS
Band14	5MHz	16QAM	23305	1RB#0	5.30	13	PASS
Band14	5MHz	QPSK	23305	25RB#0	5.57	13	PASS
Band14	5MHz	16QAM	23305	25RB#0	6.49	13	PASS
Band14	5MHz	QPSK	23330	1RB#0	4.70	13	PASS
Band14	5MHz	16QAM	23330	1RB#0	5.65	13	PASS
Band14	5MHz	QPSK	23330	25RB#0	5.74	13	PASS
Band14	5MHz	16QAM	23330	25RB#0	6.67	13	PASS
Band14	5MHz	QPSK	23355	1RB#0	4.72	13	PASS
Band14	5MHz	16QAM	23355	1RB#0	5.86	13	PASS
Band14	5MHz	QPSK	23355	25RB#0	5.57	13	PASS
Band14	5MHz	16QAM	23355	25RB#0	6.52	13	PASS
Band14	10MHz	QPSK	23330	1RB#0	4.35	13	PASS
Band14	10MHz	16QAM	23330	1RB#0	5.36	13	PASS
Band14	10MHz	QPSK	23330	50RB#0	5.62	13	PASS
Band14	10MHz	16QAM	23330	50RB#0	6.49	13	PASS

Test Graphs





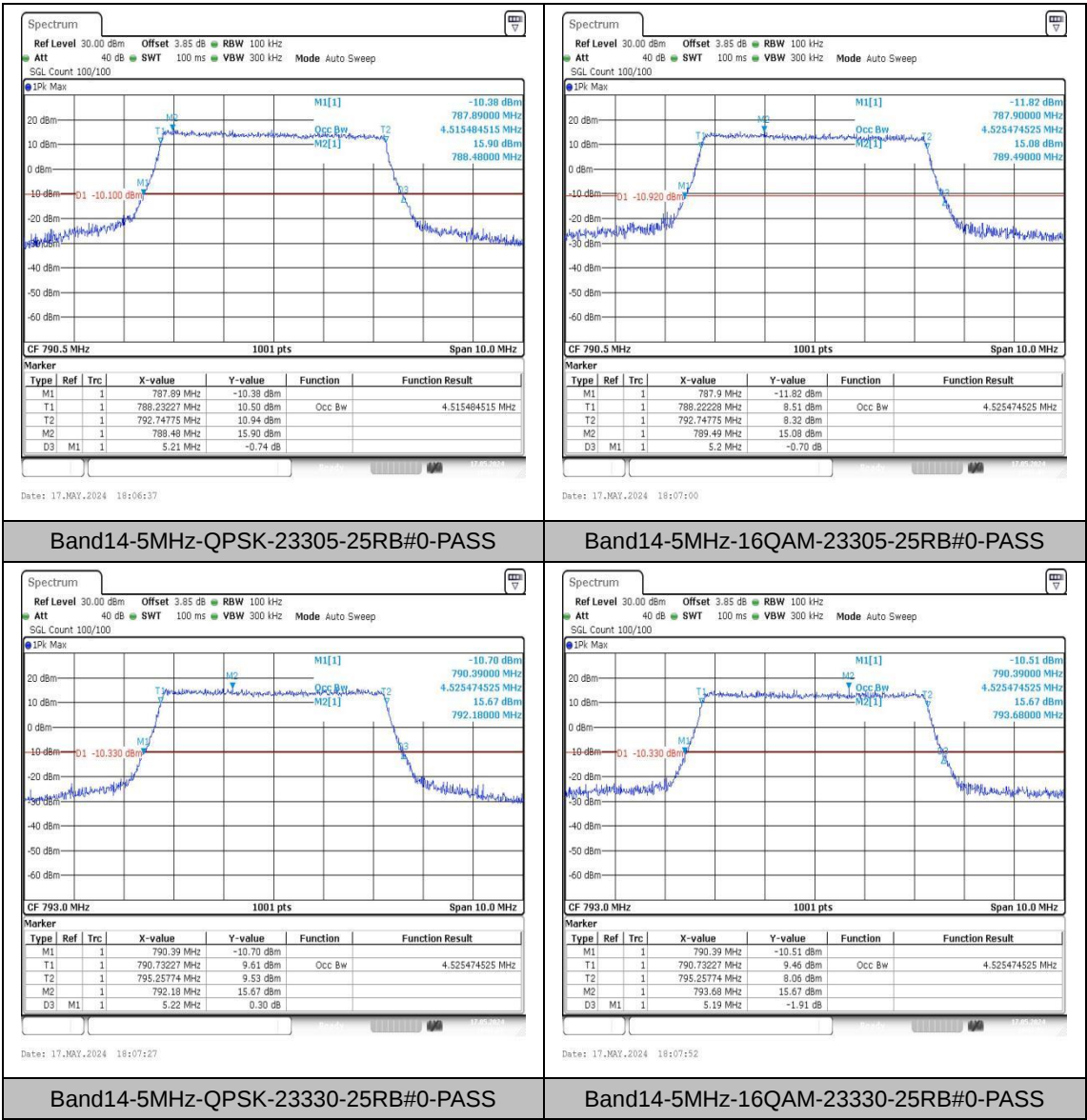


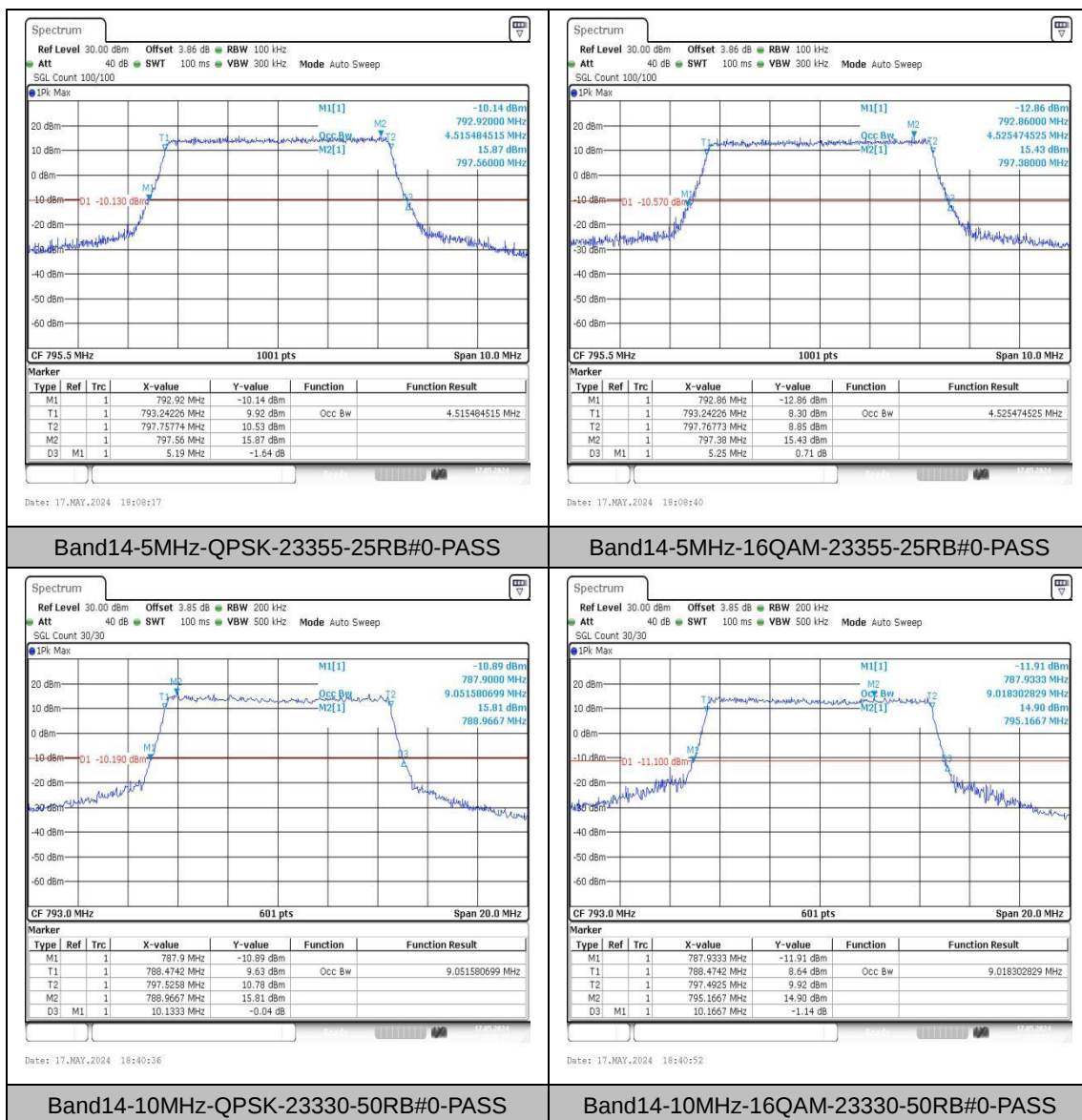
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band14	5MHz	QPSK	23305	25RB#0	4.515	5.21	PASS
Band14	5MHz	16QAM	23305	25RB#0	4.525	5.20	PASS
Band14	5MHz	QPSK	23330	25RB#0	4.525	5.22	PASS
Band14	5MHz	16QAM	23330	25RB#0	4.525	5.19	PASS
Band14	5MHz	QPSK	23355	25RB#0	4.515	5.19	PASS
Band14	5MHz	16QAM	23355	25RB#0	4.525	5.25	PASS
Band14	10MHz	QPSK	23330	50RB#0	9.052	10.13	PASS
Band14	10MHz	16QAM	23330	50RB#0	9.018	10.17	PASS

Test Graphs



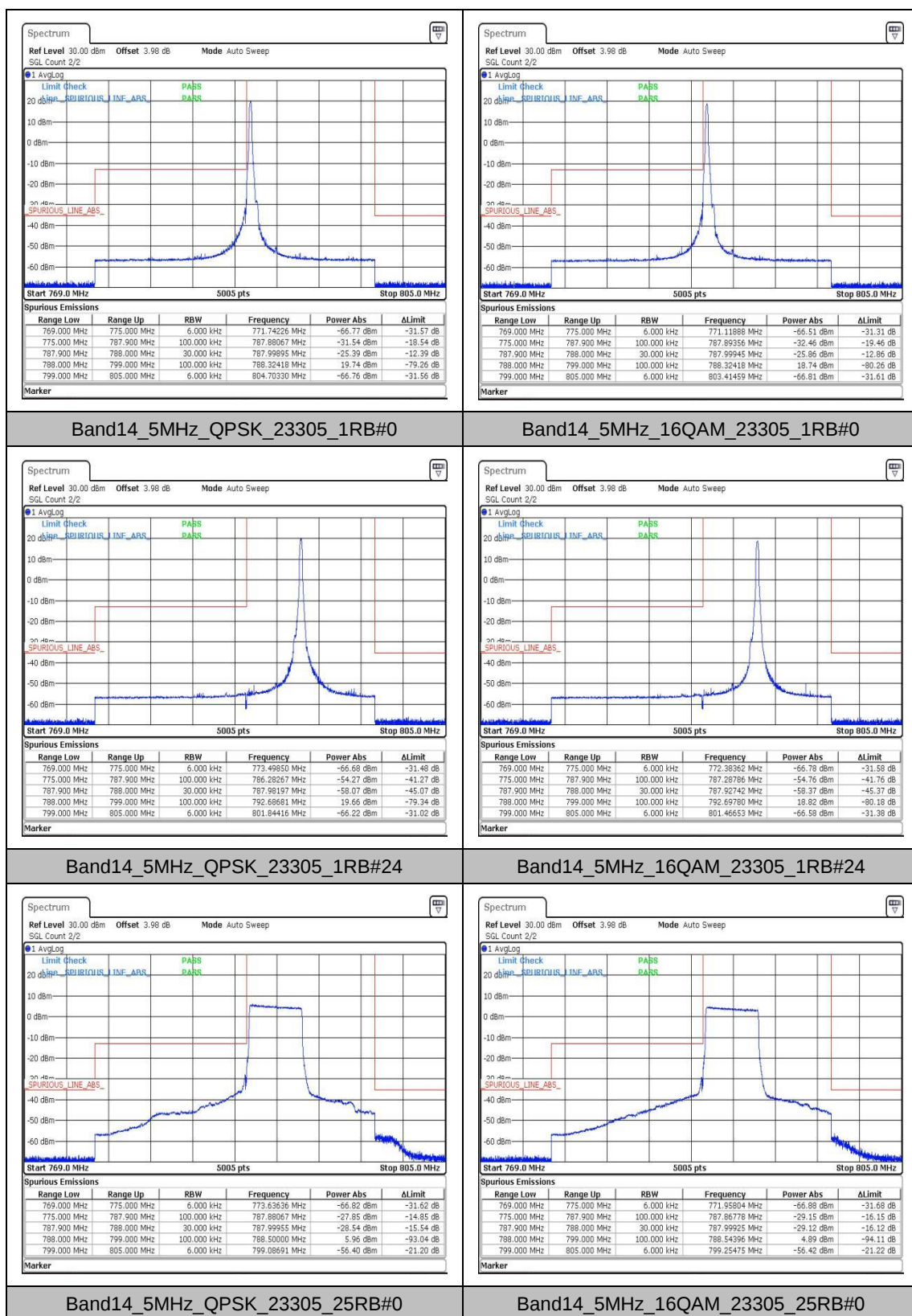


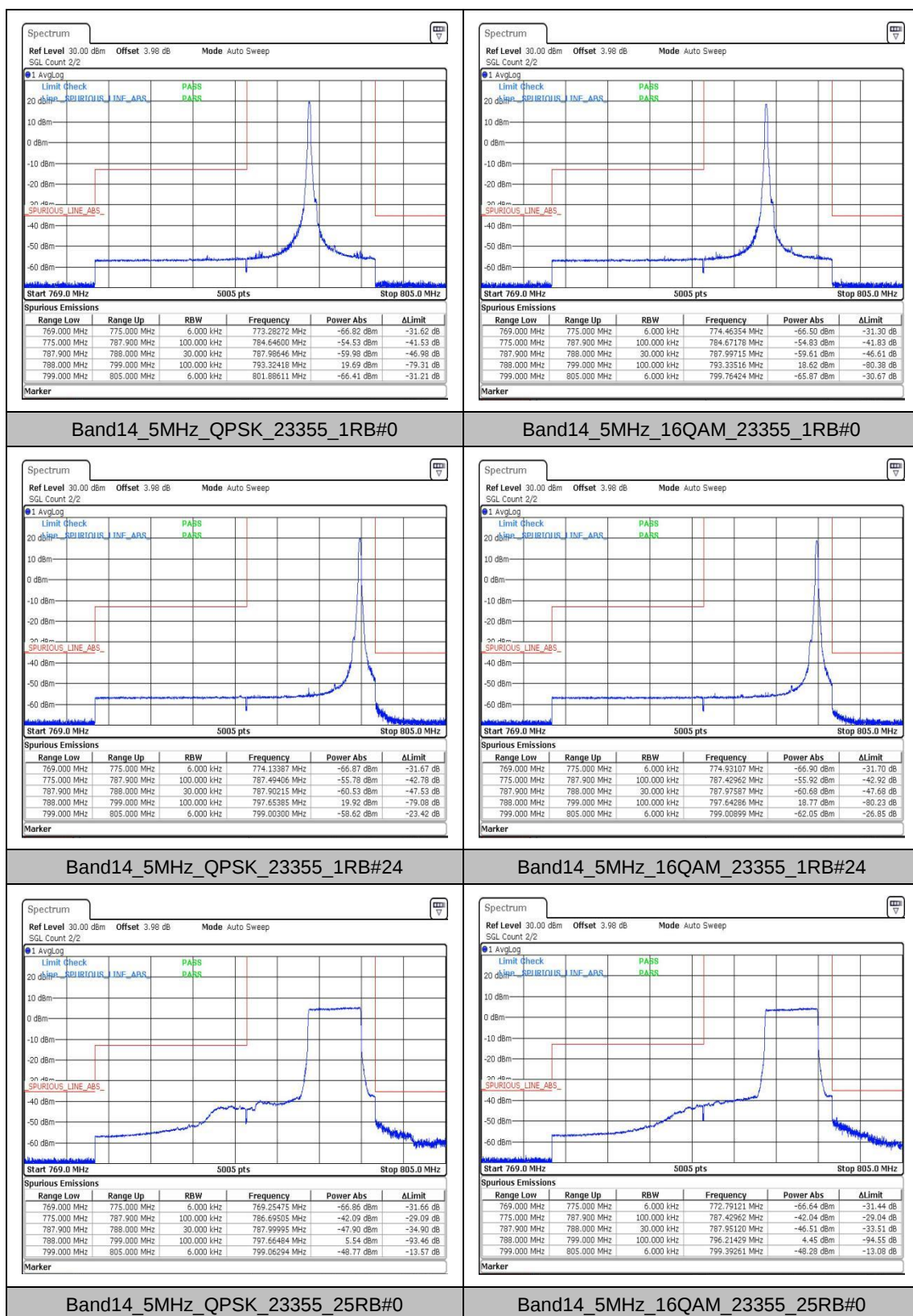
Appendix D: Band Edge

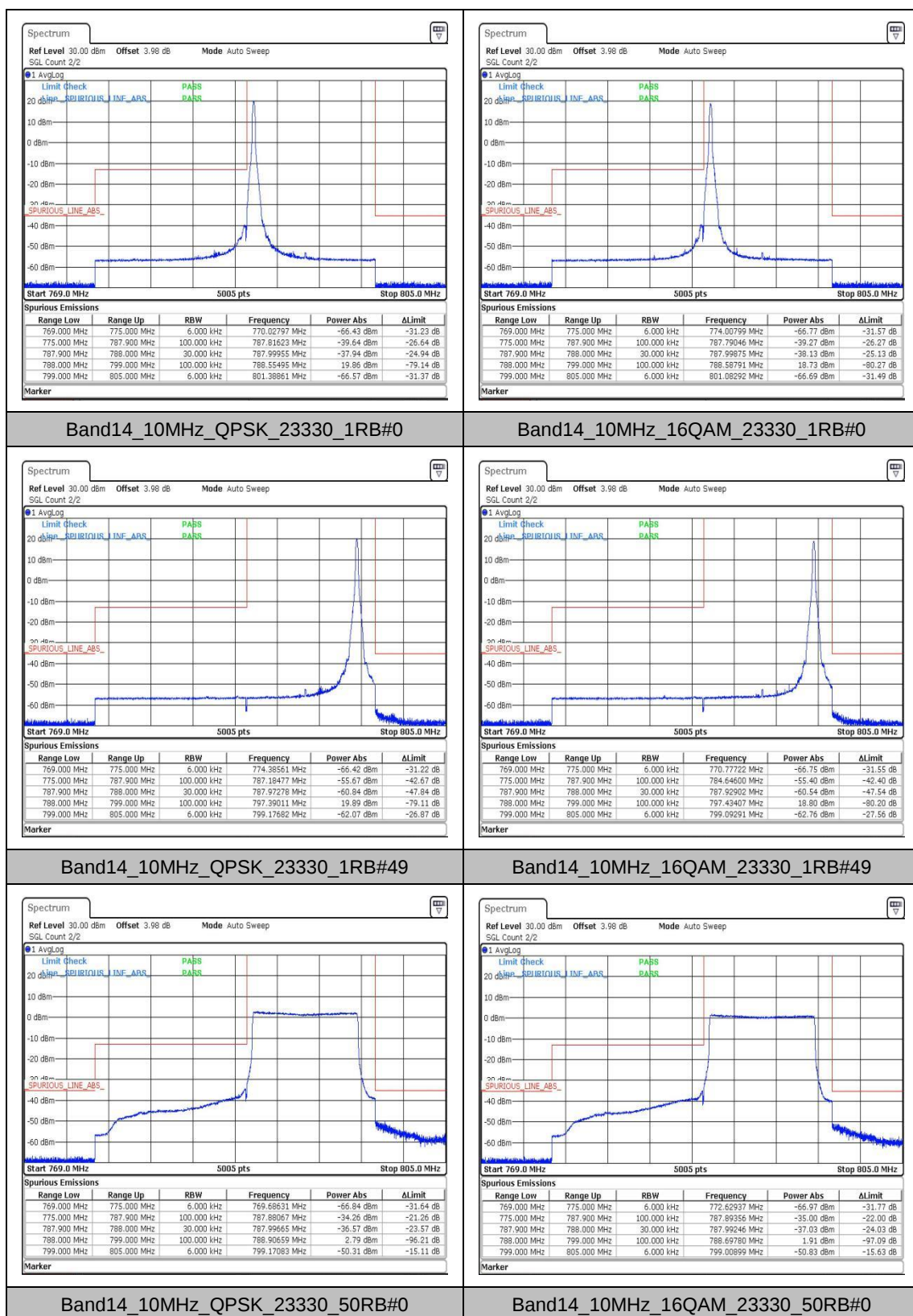
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band14	5MHz	QPSK	23305	1RB#0	-25.39	PASS
Band14	5MHz	16QAM	23305	1RB#0	-25.86	PASS
Band14	5MHz	QPSK	23305	1RB#24	-66.22	PASS
Band14	5MHz	16QAM	23305	1RB#24	-66.58	PASS
Band14	5MHz	QPSK	23305	25RB#0	-27.85	PASS
Band14	5MHz	16QAM	23305	25RB#0	-29.12	PASS
Band14	5MHz	QPSK	23355	1RB#0	-66.41	PASS
Band14	5MHz	16QAM	23355	1RB#0	-65.87	PASS
Band14	5MHz	QPSK	23355	1RB#24	-58.62	PASS
Band14	5MHz	16QAM	23355	1RB#24	-62.05	PASS
Band14	5MHz	QPSK	23355	25RB#0	-48.77	PASS
Band14	5MHz	16QAM	23355	25RB#0	-48.28	PASS
Band14	10MHz	QPSK	23330	1RB#0	-37.94	PASS
Band14	10MHz	16QAM	23330	1RB#0	-38.13	PASS
Band14	10MHz	QPSK	23330	1RB#49	-62.07	PASS
Band14	10MHz	16QAM	23330	1RB#49	-62.76	PASS
Band14	10MHz	QPSK	23330	50RB#0	-50.31	PASS
Band14	10MHz	16QAM	23330	50RB#0	-50.83	PASS

Test Graphs







Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band14	5MHz	QPSK	23305	1RB#0	0.009~0.15	-73.34	PASS
Band14	5MHz	QPSK	23305	1RB#0	0.15~30	-74.47	PASS
Band14	5MHz	QPSK	23305	1RB#0	30~1000	-65.02	PASS
Band14	5MHz	QPSK	23305	1RB#0	1000~3000	-50.16	PASS
Band14	5MHz	QPSK	23305	1RB#0	3000~10000	-39.27	PASS
Band14	5MHz	16QAM	23305	1RB#0	0.009~0.15	-73.17	PASS
Band14	5MHz	16QAM	23305	1RB#0	0.15~30	-75.10	PASS
Band14	5MHz	16QAM	23305	1RB#0	30~1000	-64.72	PASS
Band14	5MHz	16QAM	23305	1RB#0	1000~3000	-50.25	PASS
Band14	5MHz	16QAM	23305	1RB#0	3000~10000	-39.26	PASS
Band14	5MHz	QPSK	23330	1RB#0	0.009~0.15	-72.95	PASS
Band14	5MHz	QPSK	23330	1RB#0	0.15~30	-75.44	PASS
Band14	5MHz	QPSK	23330	1RB#0	30~1000	-64.52	PASS
Band14	5MHz	QPSK	23330	1RB#0	1000~3000	-50.03	PASS
Band14	5MHz	QPSK	23330	1RB#0	3000~10000	-39.24	PASS
Band14	5MHz	16QAM	23330	1RB#0	0.009~0.15	-70.78	PASS
Band14	5MHz	16QAM	23330	1RB#0	0.15~30	-74.96	PASS
Band14	5MHz	16QAM	23330	1RB#0	30~1000	-64.60	PASS
Band14	5MHz	16QAM	23330	1RB#0	1000~3000	-50.23	PASS
Band14	5MHz	16QAM	23330	1RB#0	3000~10000	-39.17	PASS
Band14	5MHz	QPSK	23355	1RB#0	0.009~0.15	-69.47	PASS
Band14	5MHz	QPSK	23355	1RB#0	0.15~30	-75.15	PASS
Band14	5MHz	QPSK	23355	1RB#0	30~1000	-64.65	PASS
Band14	5MHz	QPSK	23355	1RB#0	1000~3000	-50.25	PASS
Band14	5MHz	QPSK	23355	1RB#0	3000~10000	-39.20	PASS
Band14	5MHz	16QAM	23355	1RB#0	0.009~0.15	-72.10	PASS
Band14	5MHz	16QAM	23355	1RB#0	0.15~30	-75.37	PASS
Band14	5MHz	16QAM	23355	1RB#0	30~1000	-64.11	PASS
Band14	5MHz	16QAM	23355	1RB#0	1000~3000	-50.12	PASS
Band14	5MHz	16QAM	23355	1RB#0	3000~10000	-39.23	PASS
Band14	10MHz	QPSK	23330	1RB#0	0.009~0.15	-72.54	PASS
Band14	10MHz	QPSK	23330	1RB#0	0.15~30	-75.51	PASS
Band14	10MHz	QPSK	23330	1RB#0	30~1000	-64.55	PASS
Band14	10MHz	QPSK	23330	1RB#0	1000~3000	-50.25	PASS
Band14	10MHz	QPSK	23330	1RB#0	3000~10000	-39.10	PASS

Band14	10MHz	16QAM	23330	1RB#0	0.009~0.15	-69.27	PASS
Band14	10MHz	16QAM	23330	1RB#0	0.15~30	-75.00	PASS
Band14	10MHz	16QAM	23330	1RB#0	30~1000	-64.66	PASS
Band14	10MHz	16QAM	23330	1RB#0	1000~3000	-50.10	PASS
Band14	10MHz	16QAM	23330	1RB#0	3000~10000	-39.24	PASS

Test Graphs

