

Appendix for GSM850

Product Name: Mobile Phone
Model No: STAR

Appendix A: Average Power Output Data

Test Result

Band	Channel	ERP/EIRP(dBm)	Limit(dBm)	Verdict
GSM850	128	32.07	38.45	PASS
GSM850	190	31.79	38.45	PASS
GSM850	251	31.82	38.45	PASS

Band	Channel	Slot	Power(dBm)	Limit(dBm)	Verdict
GPRS850	128	1	32.04	38.45	PASS
GPRS850	128	2	29.97	38.45	PASS
GPRS850	128	3	28.12	38.45	PASS
GPRS850	128	4	26.01	38.45	PASS
GPRS850	190	1	31.74	38.45	PASS
GPRS850	190	2	29.76	38.45	PASS
GPRS850	190	3	27.99	38.45	PASS
GPRS850	190	4	25.94	38.45	PASS
GPRS850	251	1	31.78	38.45	PASS
GPRS850	251	2	29.72	38.45	PASS
GPRS850	251	3	27.98	38.45	PASS
GPRS850	251	4	25.96	38.45	PASS

Band	Channel	Slot	Power(dBm)	Limit(dBm)	Verdict
EGPRS850	128	1	24.86	38.45	PASS
EGPRS850	128	2	23.51	38.45	PASS
EGPRS850	128	3	21.55	38.45	PASS
EGPRS850	128	4	19.36	38.45	PASS
EGPRS850	190	1	24.94	38.45	PASS
EGPRS850	190	2	23.81	38.45	PASS
EGPRS850	190	3	21.75	38.45	PASS
EGPRS850	190	4	19.70	38.45	PASS
EGPRS850	251	1	24.93	38.45	PASS

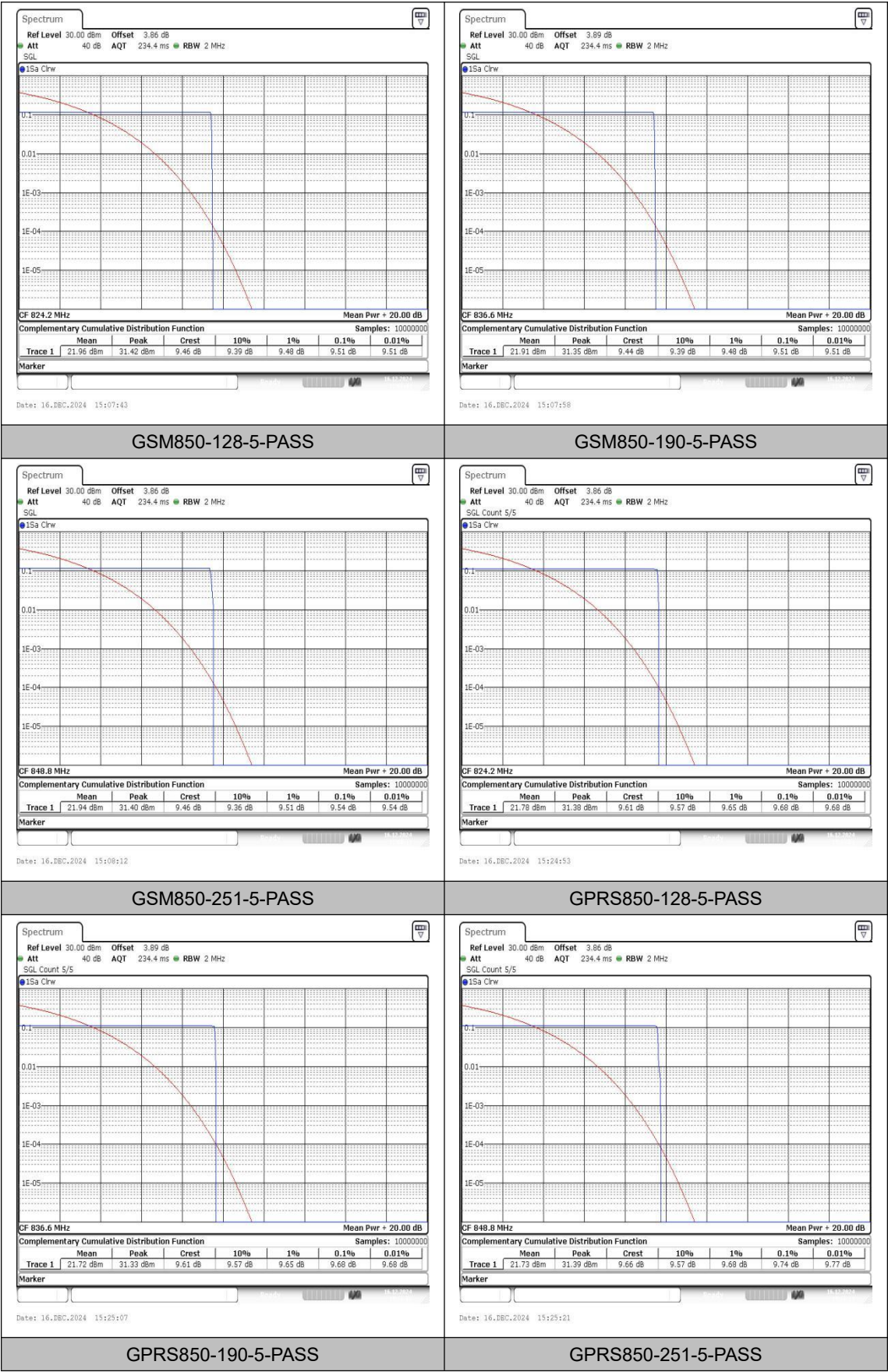
EGPRS85 0	251	2	23.90	38.45	PASS
EGPRS85 0	251	3	21.78	38.45	PASS
EGPRS85 0	251	4	19.59	38.45	PASS

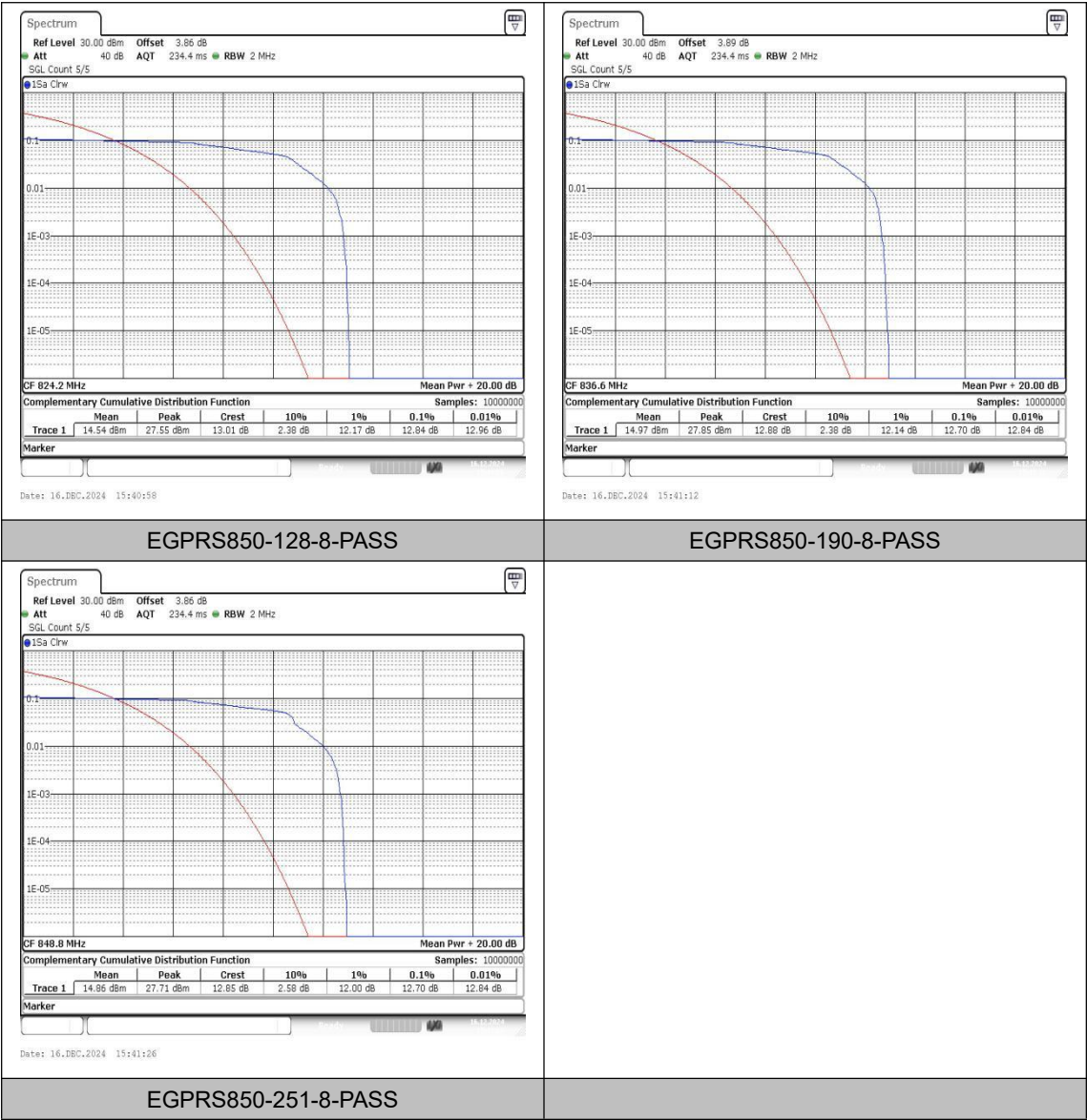
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM850	128	9.51	13	PASS
GSM850	190	9.51	13	PASS
GSM850	251	9.54	13	PASS
GPRS850	128	9.68	13	PASS
GPRS850	190	9.68	13	PASS
GPRS850	251	9.74	13	PASS
EGPRS850	128	12.84	13	PASS
EGPRS850	190	12.70	13	PASS
EGPRS850	251	12.70	13	PASS

Test Graphs



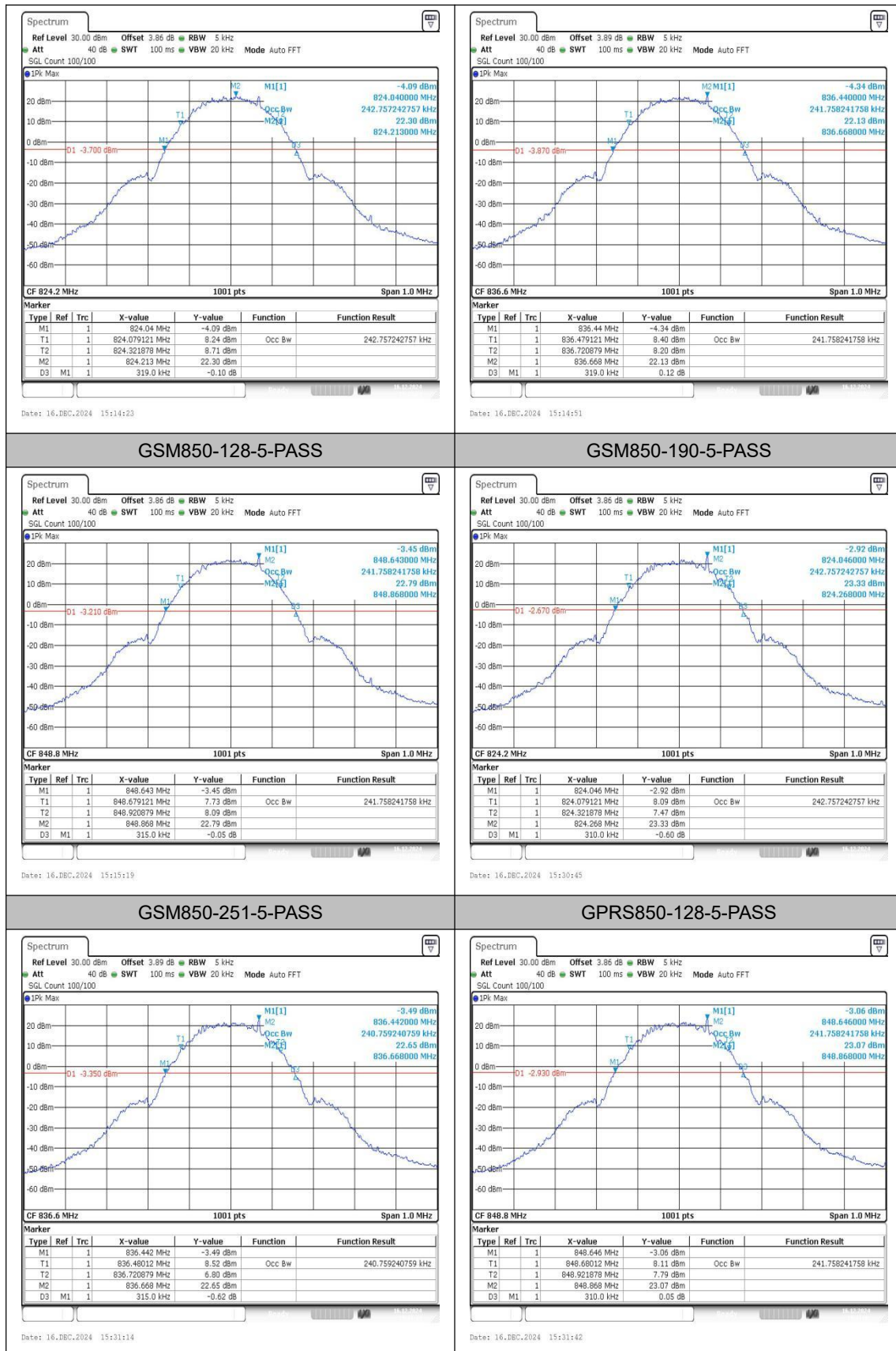


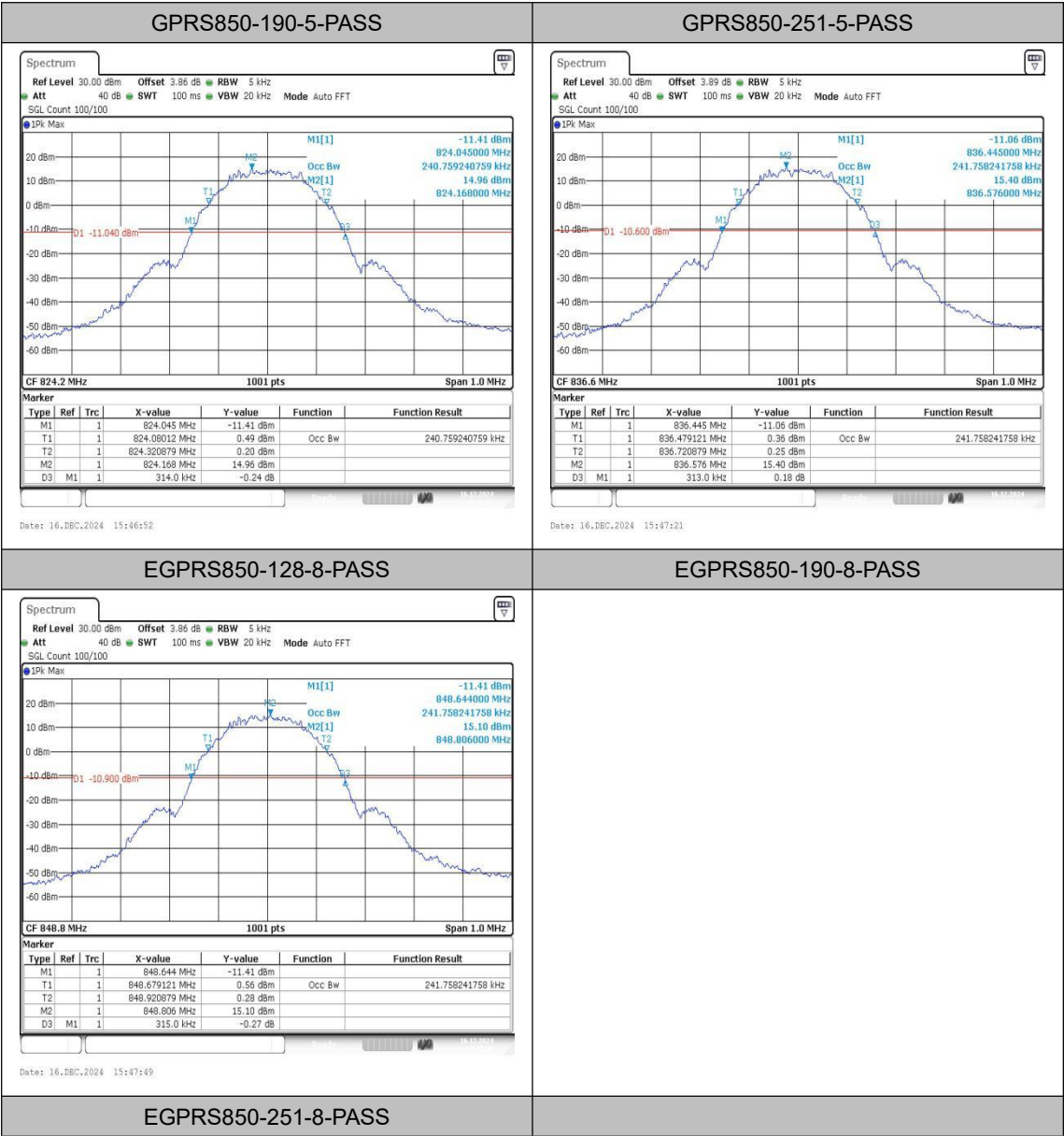
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	0.243	0.32	---	PASS
GSM850	190	0.242	0.32	---	PASS
GSM850	251	0.242	0.32	---	PASS
GPRS850	128	0.243	0.31	---	PASS
GPRS850	190	0.241	0.32	---	PASS
GPRS850	251	0.242	0.31	---	PASS
EGPRS850	128	0.241	0.31	---	PASS
EGPRS850	190	0.242	0.31	---	PASS
EGPRS850	251	0.242	0.31	---	PASS

Test Graphs



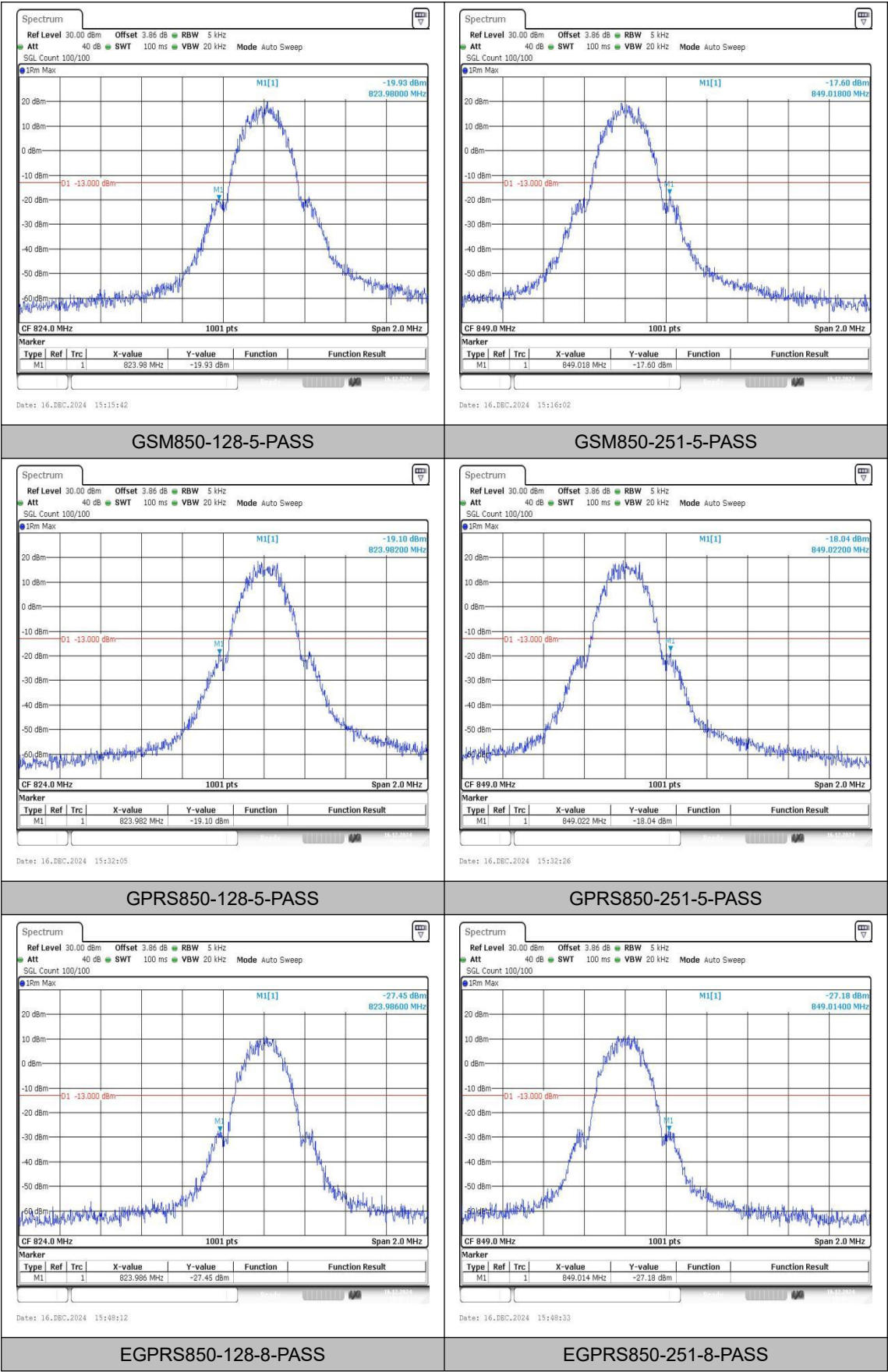


Appendix D: Band Edge

Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	823.98	-19.93	-13	PASS
GSM850	251	849.02	-17.60	-13	PASS
GPRS850	128	823.98	-19.10	-13	PASS
GPRS850	251	849.02	-18.04	-13	PASS
EGPRS850	128	823.99	-27.45	-13	PASS
EGPRS850	251	849.01	-27.18	-13	PASS

Test Graphs

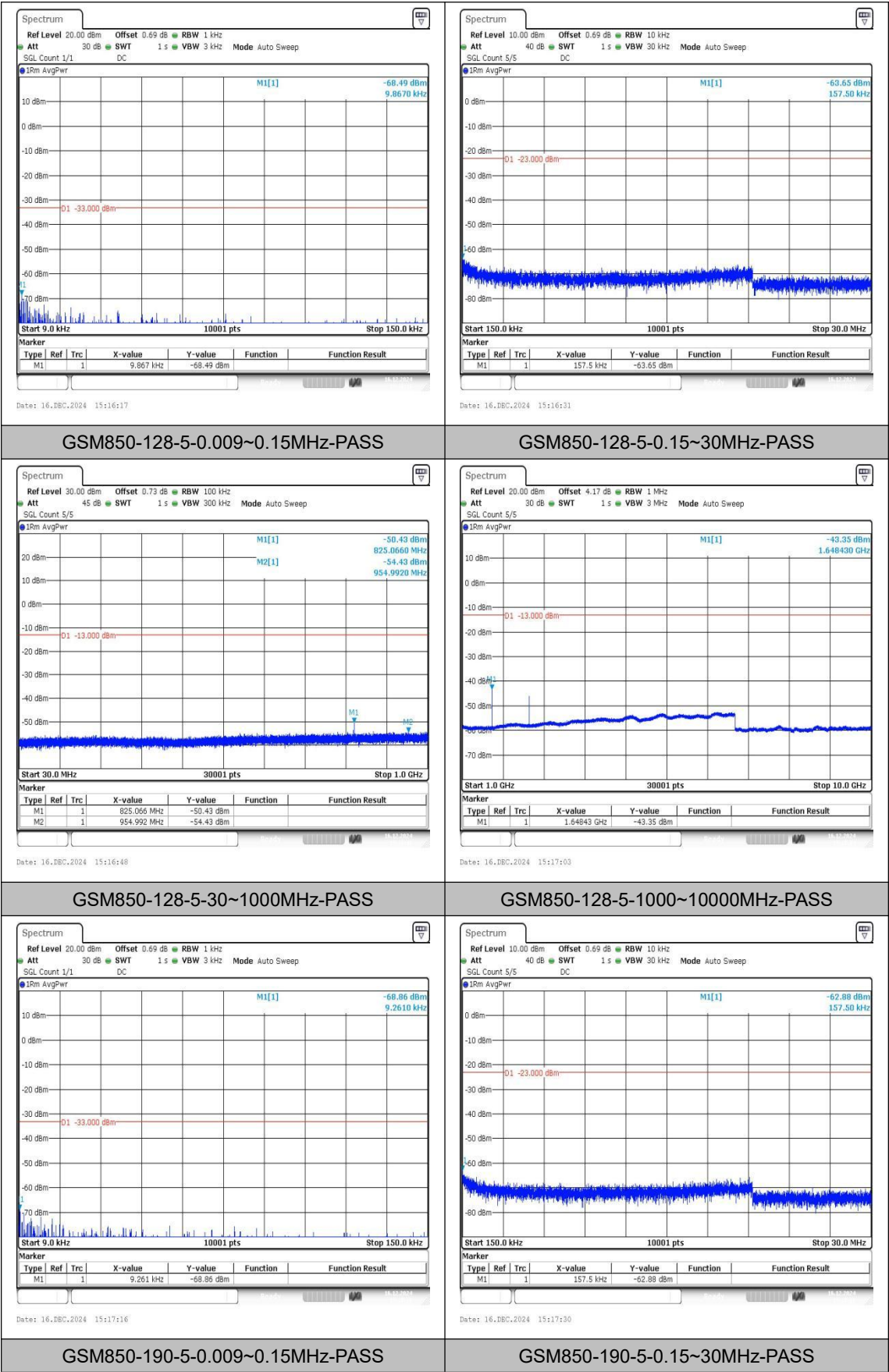


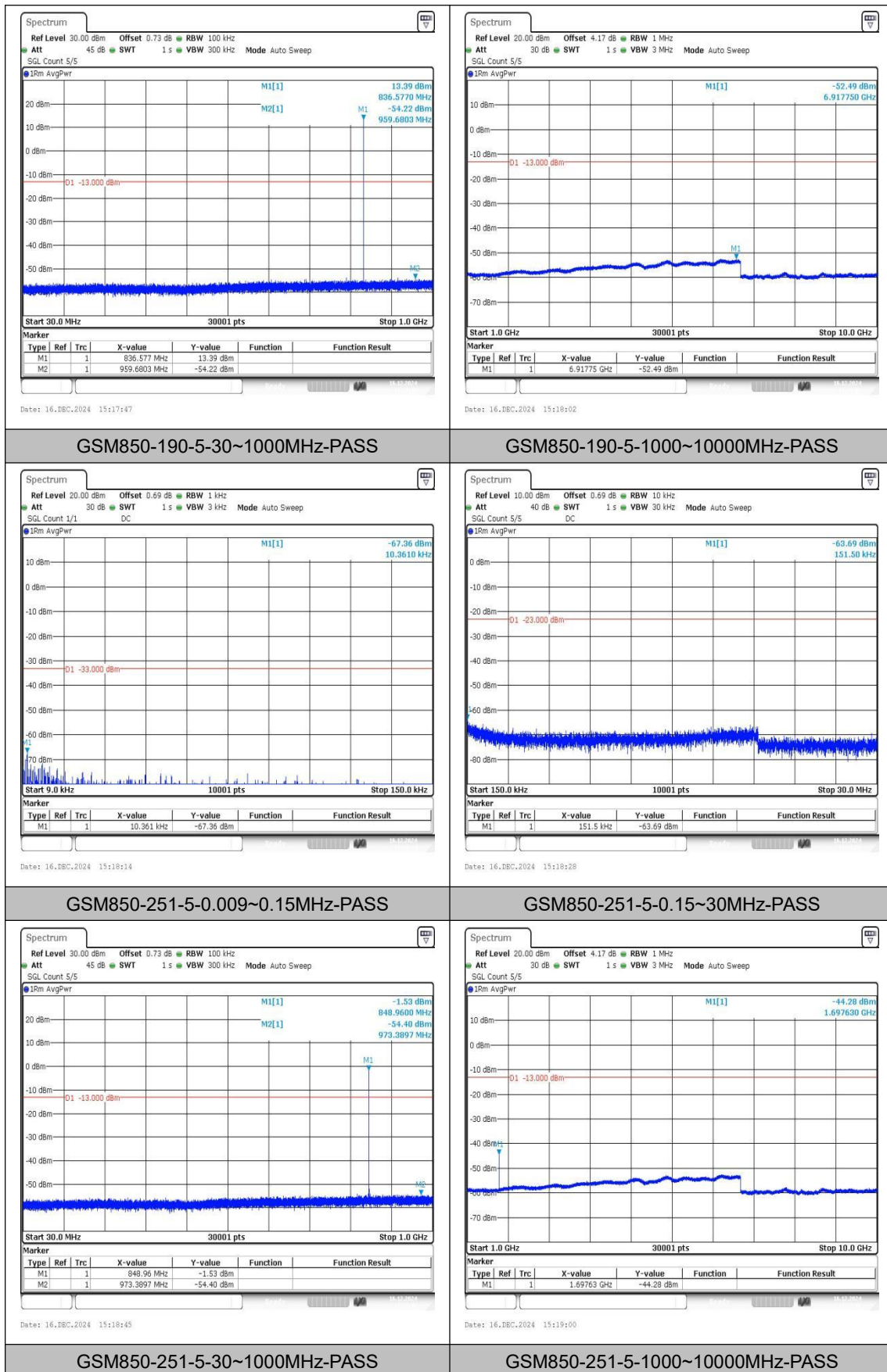
Appendix E: Conducted Spurious Emission

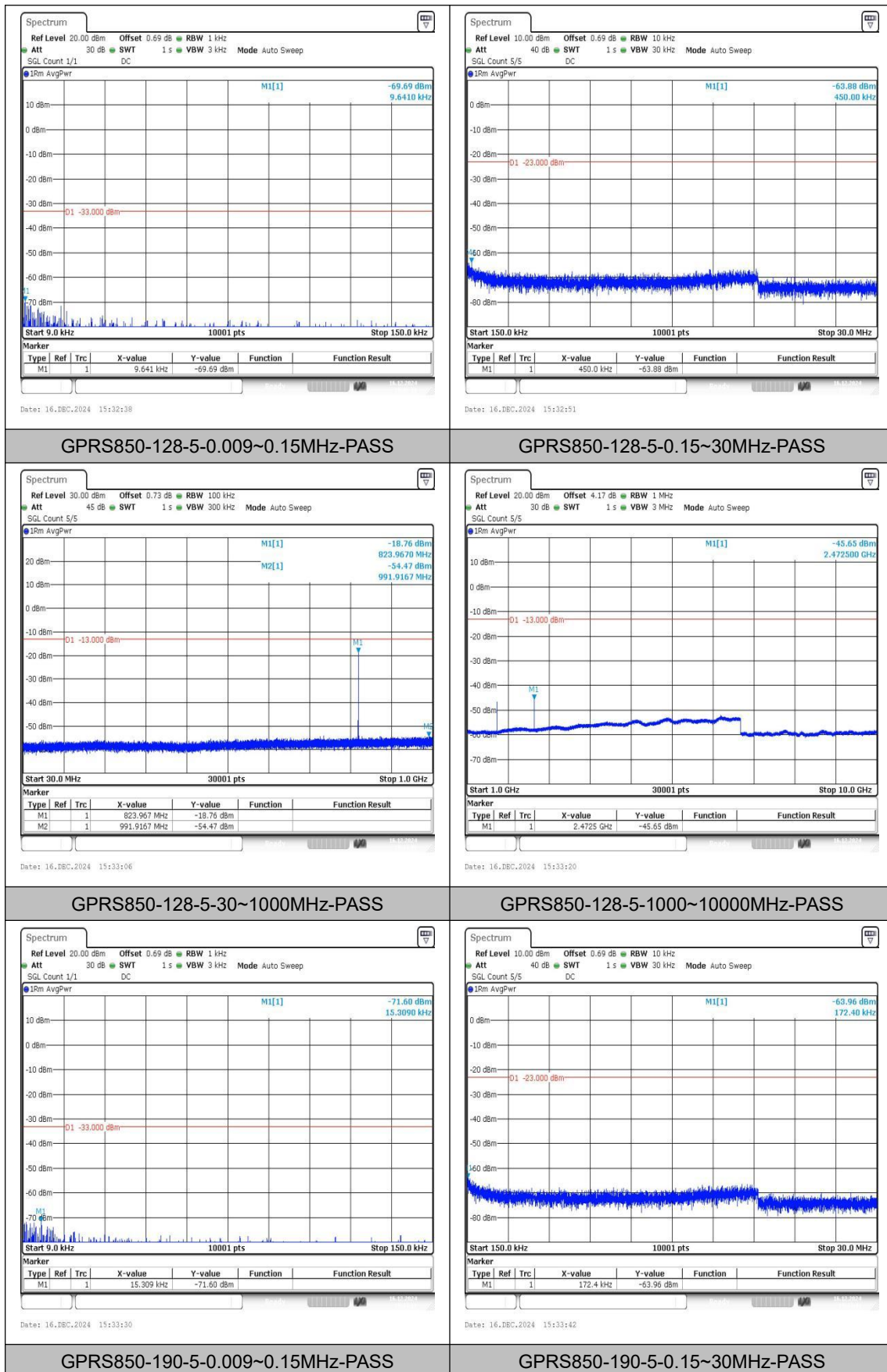
Test Result

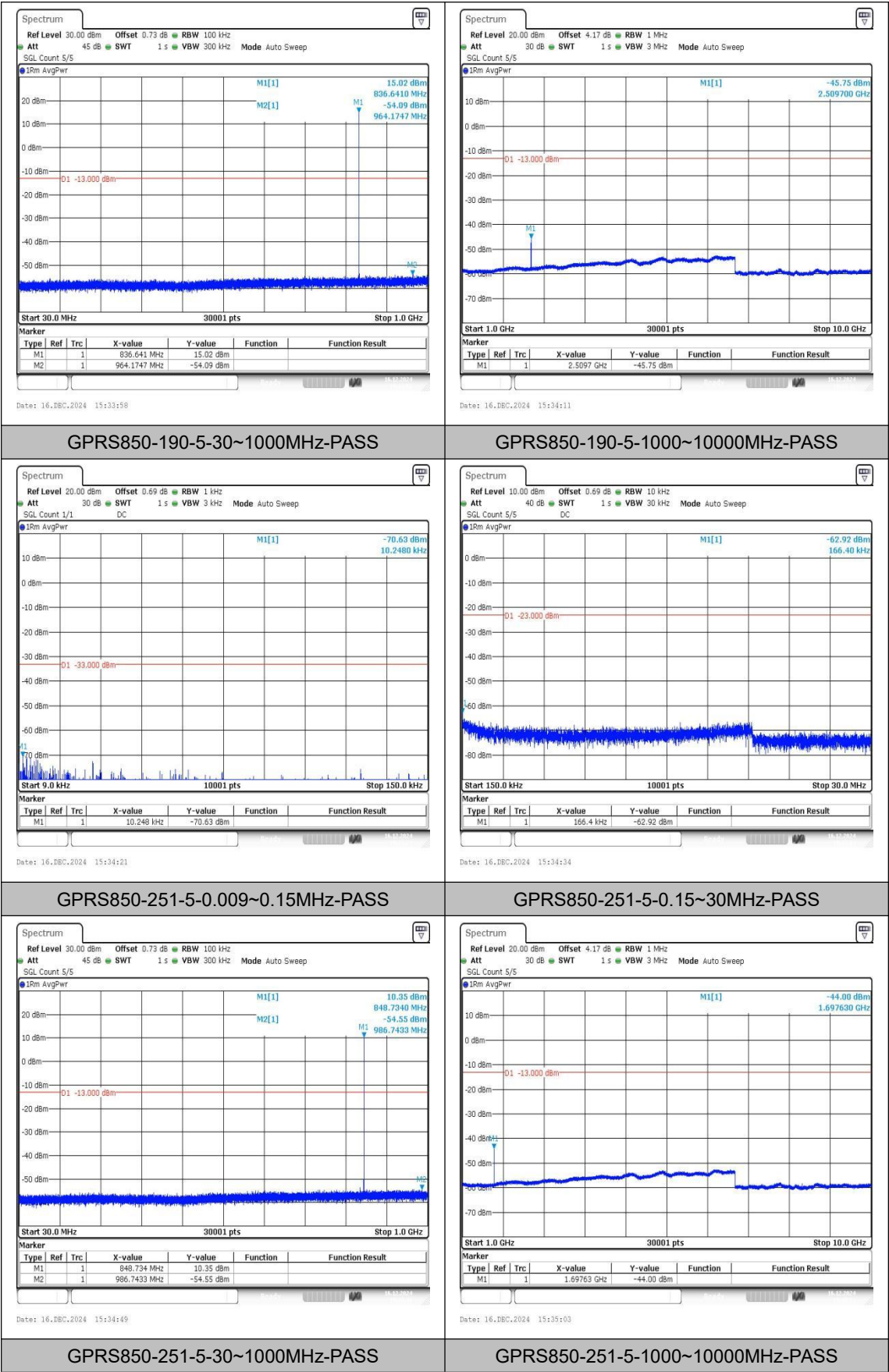
Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	0.009~0.15MHz	0.01	-68.49	-33	PASS
GSM850	128	0.15~30MHz	0.16	-63.65	-23	PASS
GSM850	128	30~1000MHz	954.99	-54.43	-13	PASS
GSM850	128	1000~10000MHz	1648.43	-43.35	-13	PASS
GSM850	190	0.009~0.15MHz	0.01	-68.86	-33	PASS
GSM850	190	0.15~30MHz	0.16	-62.88	-23	PASS
GSM850	190	30~1000MHz	959.68	-54.22	-13	PASS
GSM850	190	1000~10000MHz	6917.75	-52.49	-13	PASS
GSM850	251	0.009~0.15MHz	0.01	-67.36	-33	PASS
GSM850	251	0.15~30MHz	0.15	-63.69	-23	PASS
GSM850	251	30~1000MHz	973.39	-54.4	-13	PASS
GSM850	251	1000~10000MHz	1697.63	-44.28	-13	PASS
GPRS850	128	0.009~0.15MHz	0.01	-69.69	-33	PASS
GPRS850	128	0.15~30MHz	0.45	-63.88	-23	PASS
GPRS850	128	30~1000MHz	991.92	-54.47	-13	PASS
GPRS850	128	1000~10000MHz	2472.5	-45.65	-13	PASS
GPRS850	190	0.009~0.15MHz	0.02	-71.6	-33	PASS
GPRS850	190	0.15~30MHz	0.17	-63.96	-23	PASS
GPRS850	190	30~1000MHz	964.17	-54.09	-13	PASS
GPRS850	190	1000~10000MHz	2509.7	-45.75	-13	PASS
GPRS850	251	0.009~0.15MHz	0.01	-70.63	-33	PASS
GPRS850	251	0.15~30MHz	0.17	-62.92	-23	PASS
GPRS850	251	30~1000MHz	986.74	-54.55	-13	PASS
GPRS850	251	1000~10000MHz	1697.63	-44	-13	PASS
EGPRS850	128	0.009~0.15MHz	0.01	-74.55	-33	PASS
EGPRS850	128	0.15~30MHz	0.19	-63.32	-23	PASS
EGPRS850	128	30~1000MHz	654.65	-54.08	-13	PASS
EGPRS850	128	1000~10000MHz	6608.46	-52.39	-13	PASS
EGPRS850	190	0.009~0.15MHz	0.02	-74.44	-33	PASS
EGPRS850	190	0.15~30MHz	0.23	-63.45	-23	PASS
EGPRS850	190	30~1000MHz	997.41	-54.32	-13	PASS
EGPRS850	190	1000~10000MHz	6533.77	-52.58	-13	PASS
EGPRS850	251	0.009~0.15MHz	0.02	-72.12	-33	PASS
EGPRS850	251	0.15~30MHz	0.18	-63.84	-23	PASS
EGPRS850	251	30~1000MHz	969.96	-54.19	-13	PASS
EGPRS850	251	1000~10000MHz	6612.66	-52.6	-13	PASS

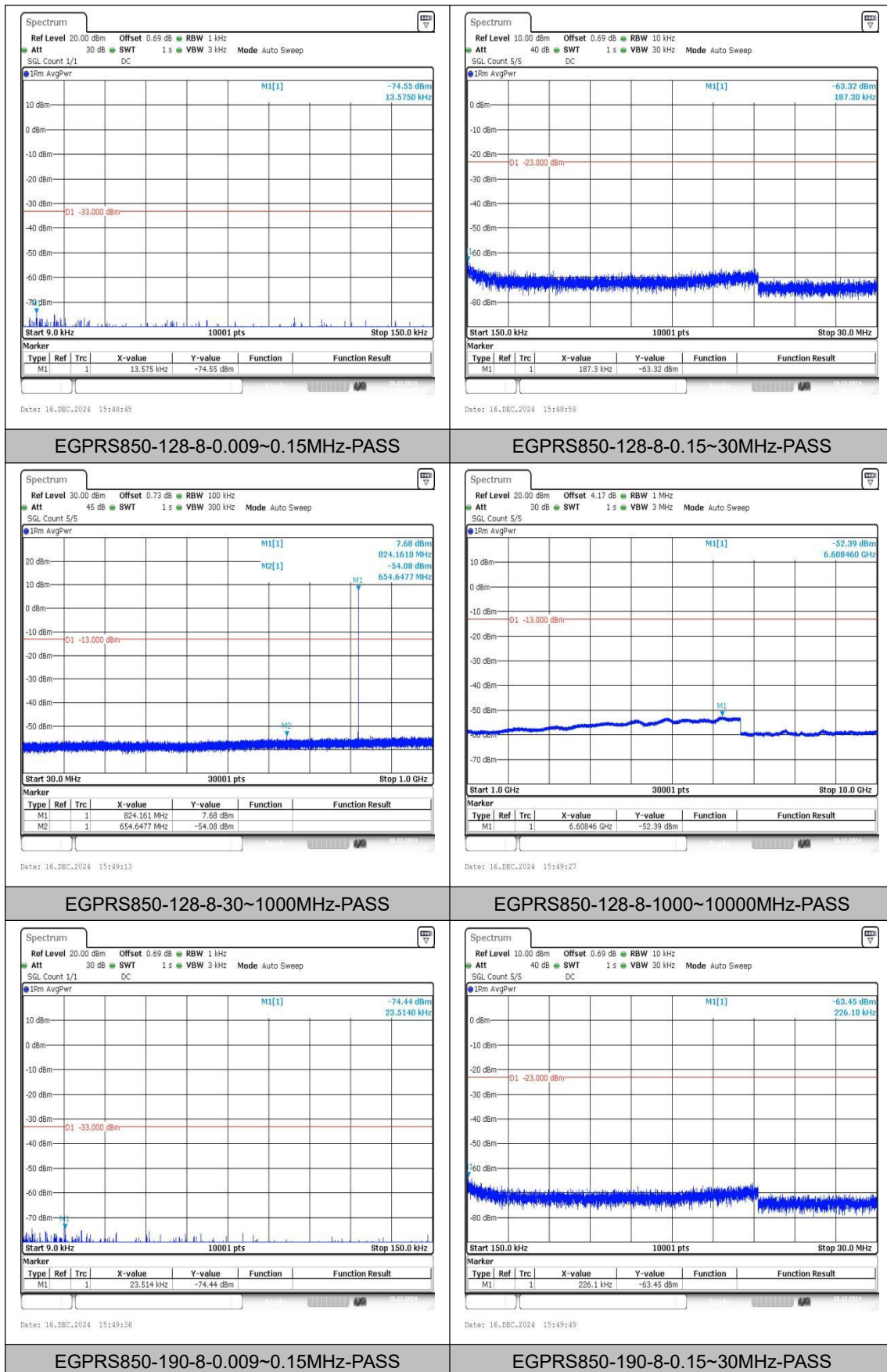
Test Graphs

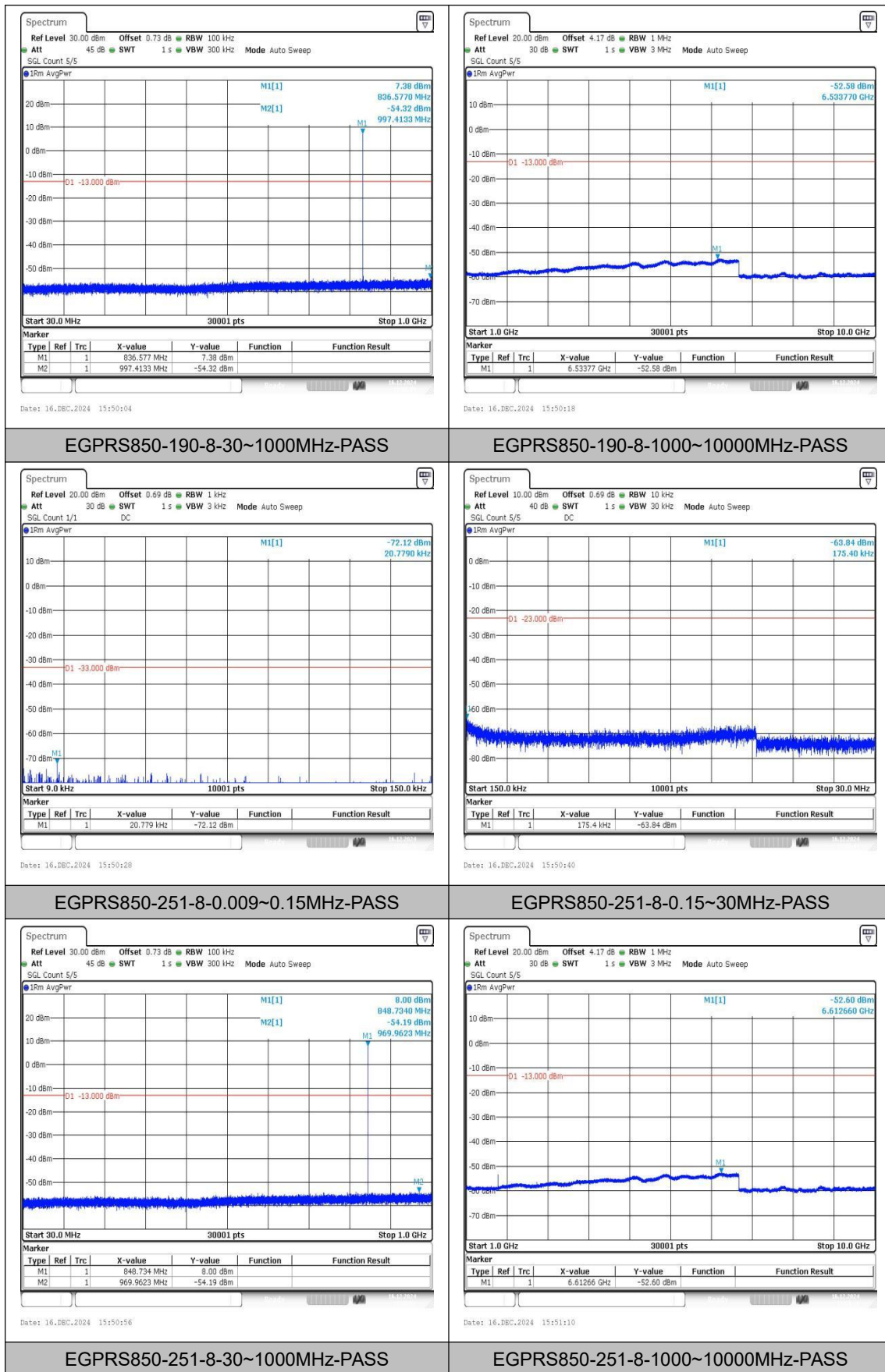












Appendix F: Frequency Stability

Test Result

Voltage							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	VN	NT	7.14	0.008663	±2.5	PASS
GSM850	128	VL	NT	11.24	0.013637	±2.5	PASS
GSM850	128	VH	NT	15.98	0.019388	±2.5	PASS
GSM850	190	VN	NT	14.37	0.017177	±2.5	PASS
GSM850	190	VL	NT	9.94	0.011881	±2.5	PASS
GSM850	190	VH	NT	13.85	0.016555	±2.5	PASS
GSM850	251	VN	NT	5.33	0.006279	±2.5	PASS
GSM850	251	VL	NT	9.30	0.010957	±2.5	PASS
GSM850	251	VH	NT	9.69	0.011416	±2.5	PASS
GPRS850	128	VN	NT	13.56	0.016452	±2.5	PASS
GPRS850	128	VL	NT	14.56	0.017666	±2.5	PASS
GPRS850	128	VH	NT	11.46	0.013904	±2.5	PASS
GPRS850	190	VN	NT	18.31	0.021886	±2.5	PASS
GPRS850	190	VL	NT	18.56	0.022185	±2.5	PASS
GPRS850	190	VH	NT	13.53	0.016173	±2.5	PASS
GPRS850	251	VN	NT	12.85	0.015139	±2.5	PASS
GPRS850	251	VL	NT	14.75	0.017377	±2.5	PASS
GPRS850	251	VH	NT	15.50	0.018261	±2.5	PASS
EGPRS850	128	VN	NT	10.20	0.012376	±2.5	PASS
EGPRS850	128	VL	NT	16.30	0.019777	±2.5	PASS
EGPRS850	128	VH	NT	18.21	0.022094	±2.5	PASS
EGPRS850	190	VN	NT	18.92	0.022615	±2.5	PASS
EGPRS850	190	VL	NT	18.08	0.021611	±2.5	PASS
EGPRS850	190	VH	NT	15.98	0.019101	±2.5	PASS
EGPRS850	251	VN	NT	19.21	0.022632	±2.5	PASS
EGPRS850	251	VL	NT	21.66	0.025518	±2.5	PASS
EGPRS850	251	VH	NT	14.46	0.017036	±2.5	PASS

Temperature							
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
GSM850	128	NV	-30	12.33	0.014960	±2.5	PASS
GSM850	128	NV	-20	10.59	0.012849	±2.5	PASS
GSM850	128	NV	-10	10.82	0.013128	±2.5	PASS

GSM850	128	NV	0	11.24	0.013637	±2.5	PASS
GSM850	128	NV	10	13.82	0.016768	±2.5	PASS
GSM850	128	NV	20	13.53	0.016416	±2.5	PASS
GSM850	128	NV	30	8.27	0.010034	±2.5	PASS
GSM850	128	NV	40	10.75	0.013043	±2.5	PASS
GSM850	128	NV	50	14.43	0.017508	±2.5	PASS
GSM850	190	NV	-30	5.68	0.006789	±2.5	PASS
GSM850	190	NV	-20	7.75	0.009264	±2.5	PASS
GSM850	190	NV	-10	11.75	0.014045	±2.5	PASS
GSM850	190	NV	0	12.04	0.014392	±2.5	PASS
GSM850	190	NV	10	18.02	0.021540	±2.5	PASS
GSM850	190	NV	20	12.24	0.014631	±2.5	PASS
GSM850	190	NV	30	7.65	0.009144	±2.5	PASS
GSM850	190	NV	40	8.59	0.010268	±2.5	PASS
GSM850	190	NV	50	11.11	0.013280	±2.5	PASS
GSM850	251	NV	-30	9.40	0.011074	±2.5	PASS
GSM850	251	NV	-20	10.78	0.012700	±2.5	PASS
GSM850	251	NV	-10	8.14	0.009590	±2.5	PASS
GSM850	251	NV	0	9.88	0.011640	±2.5	PASS
GSM850	251	NV	10	8.78	0.010344	±2.5	PASS
GSM850	251	NV	20	14.30	0.016847	±2.5	PASS
GSM850	251	NV	30	12.11	0.014267	±2.5	PASS
GSM850	251	NV	40	8.85	0.010426	±2.5	PASS
GSM850	251	NV	50	7.88	0.009284	±2.5	PASS
GPRS850	128	NV	-30	13.14	0.015943	±2.5	PASS
GPRS850	128	NV	-20	8.36	0.010143	±2.5	PASS
GPRS850	128	NV	-10	12.07	0.014645	±2.5	PASS
GPRS850	128	NV	0	10.36	0.012570	±2.5	PASS
GPRS850	128	NV	10	7.07	0.008578	±2.5	PASS
GPRS850	128	NV	20	13.59	0.016489	±2.5	PASS
GPRS850	128	NV	30	11.75	0.014256	±2.5	PASS
GPRS850	128	NV	40	9.62	0.011672	±2.5	PASS
GPRS850	128	NV	50	16.11	0.019546	±2.5	PASS
GPRS850	190	NV	-30	10.65	0.012730	±2.5	PASS
GPRS850	190	NV	-20	12.49	0.014929	±2.5	PASS
GPRS850	190	NV	-10	16.40	0.019603	±2.5	PASS
GPRS850	190	NV	0	19.40	0.023189	±2.5	PASS
GPRS850	190	NV	10	11.82	0.014129	±2.5	PASS
GPRS850	190	NV	20	13.62	0.016280	±2.5	PASS
GPRS850	190	NV	30	16.50	0.019723	±2.5	PASS
GPRS850	190	NV	40	17.95	0.021456	±2.5	PASS

GPRS850	190	NV	50	14.11	0.016866	±2.5	PASS
GPRS850	251	NV	-30	15.53	0.018296	±2.5	PASS
GPRS850	251	NV	-20	16.79	0.019781	±2.5	PASS
GPRS850	251	NV	-10	14.66	0.017271	±2.5	PASS
GPRS850	251	NV	0	17.47	0.020582	±2.5	PASS
GPRS850	251	NV	10	13.82	0.016282	±2.5	PASS
GPRS850	251	NV	20	12.33	0.014526	±2.5	PASS
GPRS850	251	NV	30	18.60	0.021913	±2.5	PASS
GPRS850	251	NV	40	11.82	0.013926	±2.5	PASS
GPRS850	251	NV	50	11.98	0.014114	±2.5	PASS
EGPRS850	128	NV	-30	20.31	0.024642	±2.5	PASS
EGPRS850	128	NV	-20	16.50	0.020019	±2.5	PASS
EGPRS850	128	NV	-10	15.82	0.019194	±2.5	PASS
EGPRS850	128	NV	0	17.11	0.020760	±2.5	PASS
EGPRS850	128	NV	10	16.01	0.019425	±2.5	PASS
EGPRS850	128	NV	20	17.43	0.021148	±2.5	PASS
EGPRS850	128	NV	30	18.40	0.022325	±2.5	PASS
EGPRS850	128	NV	40	17.40	0.021111	±2.5	PASS
EGPRS850	128	NV	50	13.04	0.015821	±2.5	PASS
EGPRS850	190	NV	-30	16.34	0.019531	±2.5	PASS
EGPRS850	190	NV	-20	17.82	0.021301	±2.5	PASS
EGPRS850	190	NV	-10	17.11	0.020452	±2.5	PASS
EGPRS850	190	NV	0	17.82	0.021301	±2.5	PASS
EGPRS850	190	NV	10	15.27	0.018252	±2.5	PASS
EGPRS850	190	NV	20	16.72	0.019986	±2.5	PASS
EGPRS850	190	NV	30	14.75	0.017631	±2.5	PASS
EGPRS850	190	NV	40	19.15	0.022890	±2.5	PASS
EGPRS850	190	NV	50	20.18	0.024121	±2.5	PASS
EGPRS850	251	NV	-30	16.43	0.019357	±2.5	PASS
EGPRS850	251	NV	-20	19.89	0.023433	±2.5	PASS
EGPRS850	251	NV	-10	14.88	0.017531	±2.5	PASS
EGPRS850	251	NV	0	13.43	0.015822	±2.5	PASS
EGPRS850	251	NV	10	12.37	0.014574	±2.5	PASS
EGPRS850	251	NV	20	14.63	0.017236	±2.5	PASS
EGPRS850	251	NV	30	15.30	0.018025	±2.5	PASS
EGPRS850	251	NV	40	14.04	0.016541	±2.5	PASS
EGPRS850	251	NV	50	11.11	0.013089	±2.5	PASS

Appendix G: Modulation Characteristics

Test Result

Band	Channel	Result	Verdict
GSM850	128	PASS	PASS
GSM850	190	PASS	PASS
GSM850	251	PASS	PASS
GPRS850	128	PASS	PASS
GPRS850	190	PASS	PASS
GPRS850	251	PASS	PASS
EGPRS850	128	PASS	PASS
EGPRS850	190	PASS	PASS
EGPRS850	251	PASS	PASS

Test Graphs

