

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Channel	PCL	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GSM850	128	5	32.99	22.84	38.45	PASS
GSM850	190	5	33.18	23.03	38.45	PASS
GSM850	251	5	33.19	23.04	38.45	PASS
GSM1900	512	0	30.22	26.81	33.00	PASS
GSM1900	661	0	30.06	26.65	33.00	PASS
GSM1900	810	0	29.68	26.27	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.99	22.84	38.45	PASS
GPRS850	128	5	2	30.90	20.75	38.45	PASS
GPRS850	128	5	3	28.90	18.75	38.45	PASS
GPRS850	128	5	4	26.76	16.61	38.45	PASS
GPRS850	190	5	1	33.16	23.01	38.45	PASS
GPRS850	190	5	2	31.06	20.91	38.45	PASS
GPRS850	190	5	3	29.14	18.99	38.45	PASS
GPRS850	190	5	4	27.03	16.88	38.45	PASS
GPRS850	251	5	1	33.19	23.04	38.45	PASS
GPRS850	251	5	2	31.17	21.02	38.45	PASS
GPRS850	251	5	3	29.25	19.1	38.45	PASS
GPRS850	251	5	4	27.08	16.93	38.45	PASS
GPRS1900	512	0	1	30.20	26.79	33.00	PASS
GPRS1900	512	0	2	27.54	24.13	33.00	PASS
GPRS1900	512	0	3	25.75	22.34	33.00	PASS
GPRS1900	512	0	4	23.79	20.38	33.00	PASS
GPRS1900	661	0	1	30.09	26.68	33.00	PASS
GPRS1900	661	0	2	27.44	24.03	33.00	PASS
GPRS1900	661	0	3	25.72	22.31	33.00	PASS
GPRS1900	661	0	4	23.73	20.32	33.00	PASS
GPRS1900	810	0	1	29.71	26.3	33.00	PASS
GPRS1900	810	0	2	27.11	23.7	33.00	PASS
GPRS1900	810	0	3	25.50	22.09	33.00	PASS
GPRS1900	810	0	4	23.59	20.18	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.99	15.84	38.45	PASS
EGPRS850	128	8	2	24.69	14.54	38.45	PASS
EGPRS850	128	8	3	22.66	12.51	38.45	PASS
EGPRS850	128	8	4	20.45	10.3	38.45	PASS
EGPRS850	190	8	1	26.54	16.39	38.45	PASS
EGPRS850	190	8	2	25.26	15.11	38.45	PASS
EGPRS850	190	8	3	23.21	13.06	38.45	PASS
EGPRS850	190	8	4	20.86	10.71	38.45	PASS
EGPRS850	251	8	1	25.98	15.83	38.45	PASS
EGPRS850	251	8	2	24.67	14.52	38.45	PASS
EGPRS850	251	8	3	22.61	12.46	38.45	PASS
EGPRS850	251	8	4	20.52	10.37	38.45	PASS
EGPRS1900	512	2	1	26.54	23.13	33.00	PASS
EGPRS1900	512	2	2	25.26	21.85	33.00	PASS
EGPRS1900	512	2	3	23.07	19.66	33.00	PASS
EGPRS1900	512	2	4	20.81	17.4	33.00	PASS
EGPRS1900	661	2	1	26.57	23.16	33.00	PASS
EGPRS1900	661	2	2	25.34	21.93	33.00	PASS
EGPRS1900	661	2	3	23.23	19.82	33.00	PASS
EGPRS1900	661	2	4	21.08	17.67	33.00	PASS
EGPRS1900	810	2	1	26.41	23	33.00	PASS
EGPRS1900	810	2	2	25.15	21.74	33.00	PASS
EGPRS1900	810	2	3	23.02	19.61	33.00	PASS
EGPRS1900	810	2	4	20.68	17.27	33.00	PASS

Remark: EIRP (dBm) = Conducted power (dBm) + Antenna Gain (dBi). (For GSM1900)

ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For GSM850)

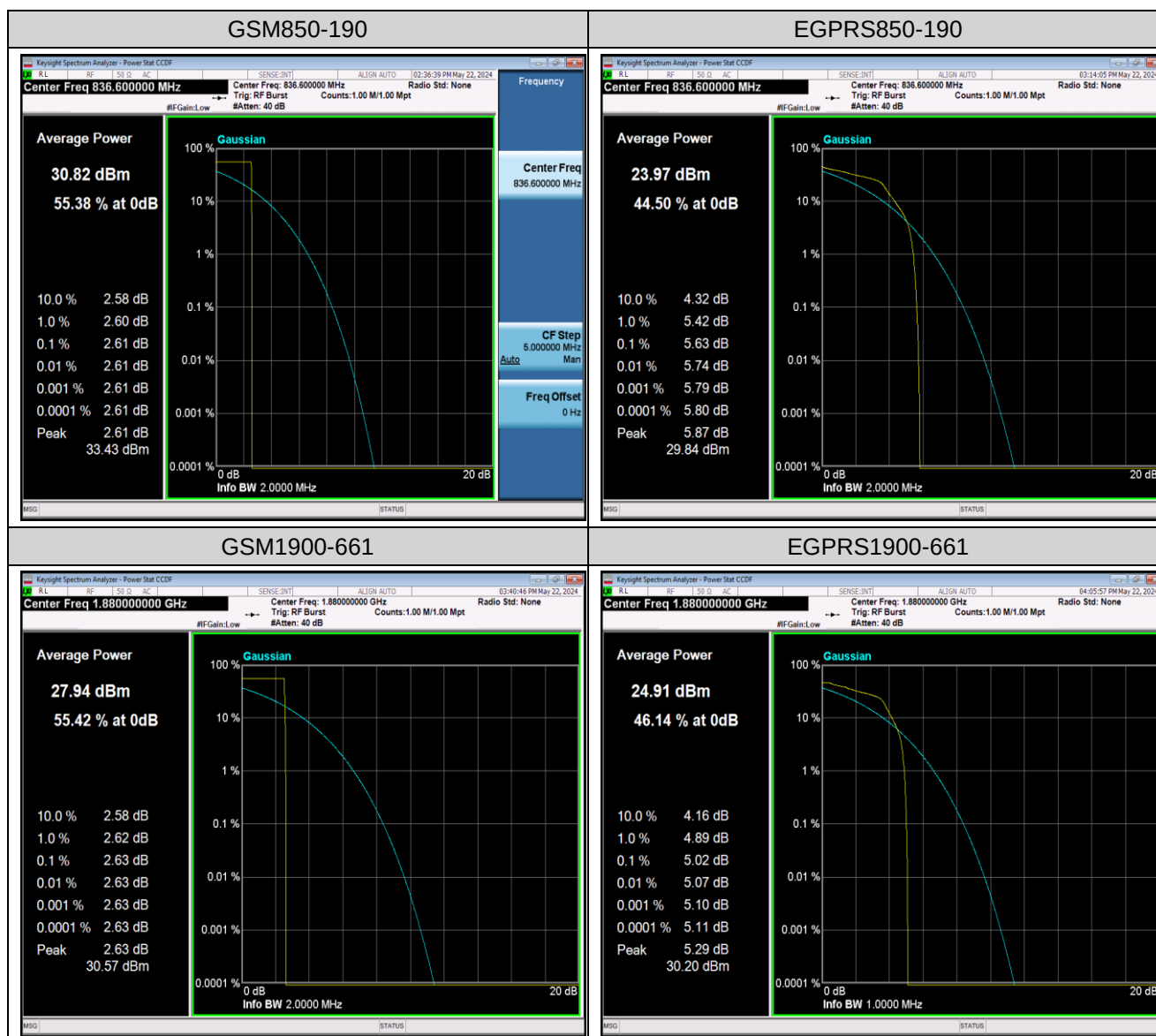
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.63	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.02	13	PASS

Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs

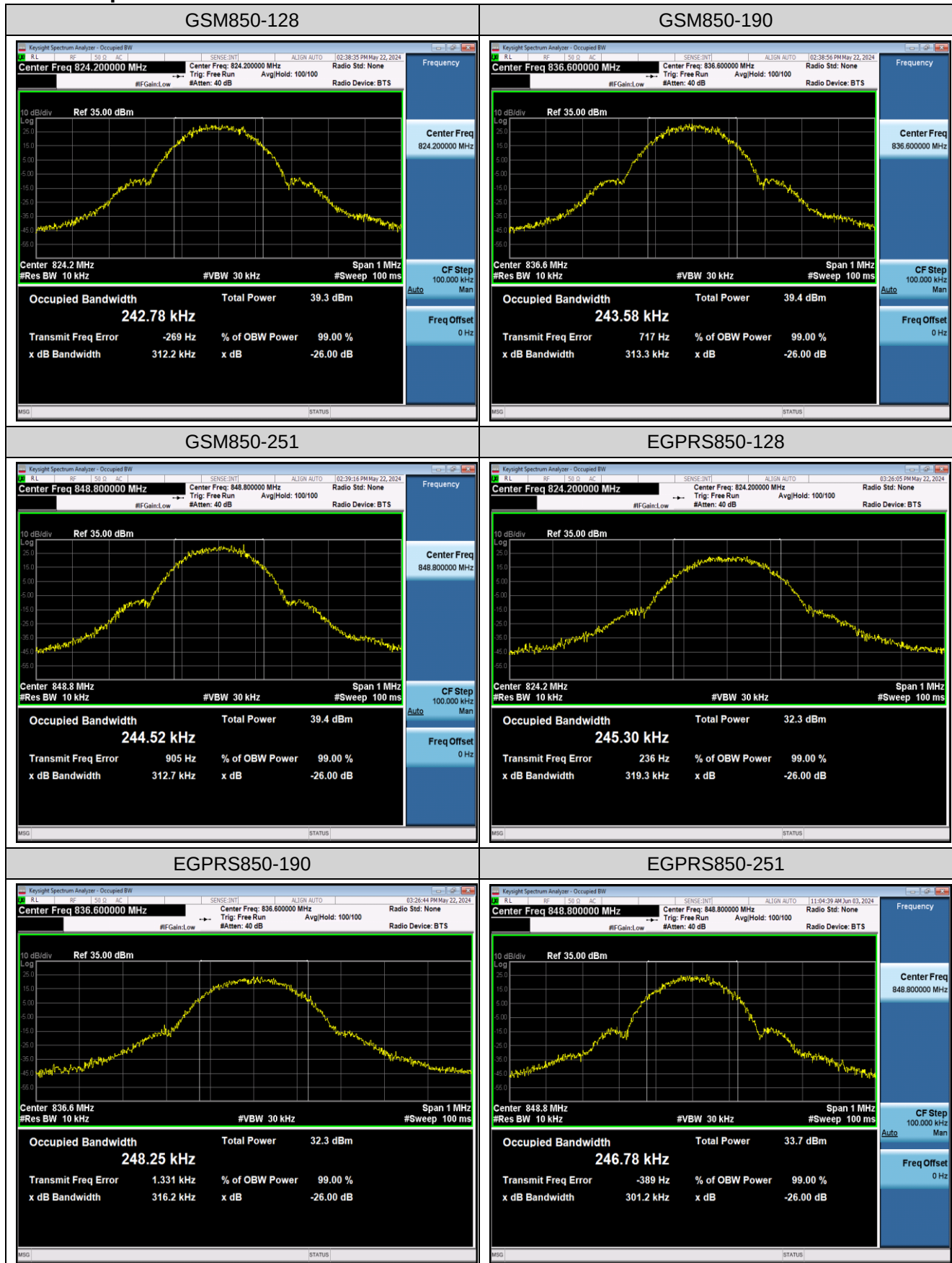


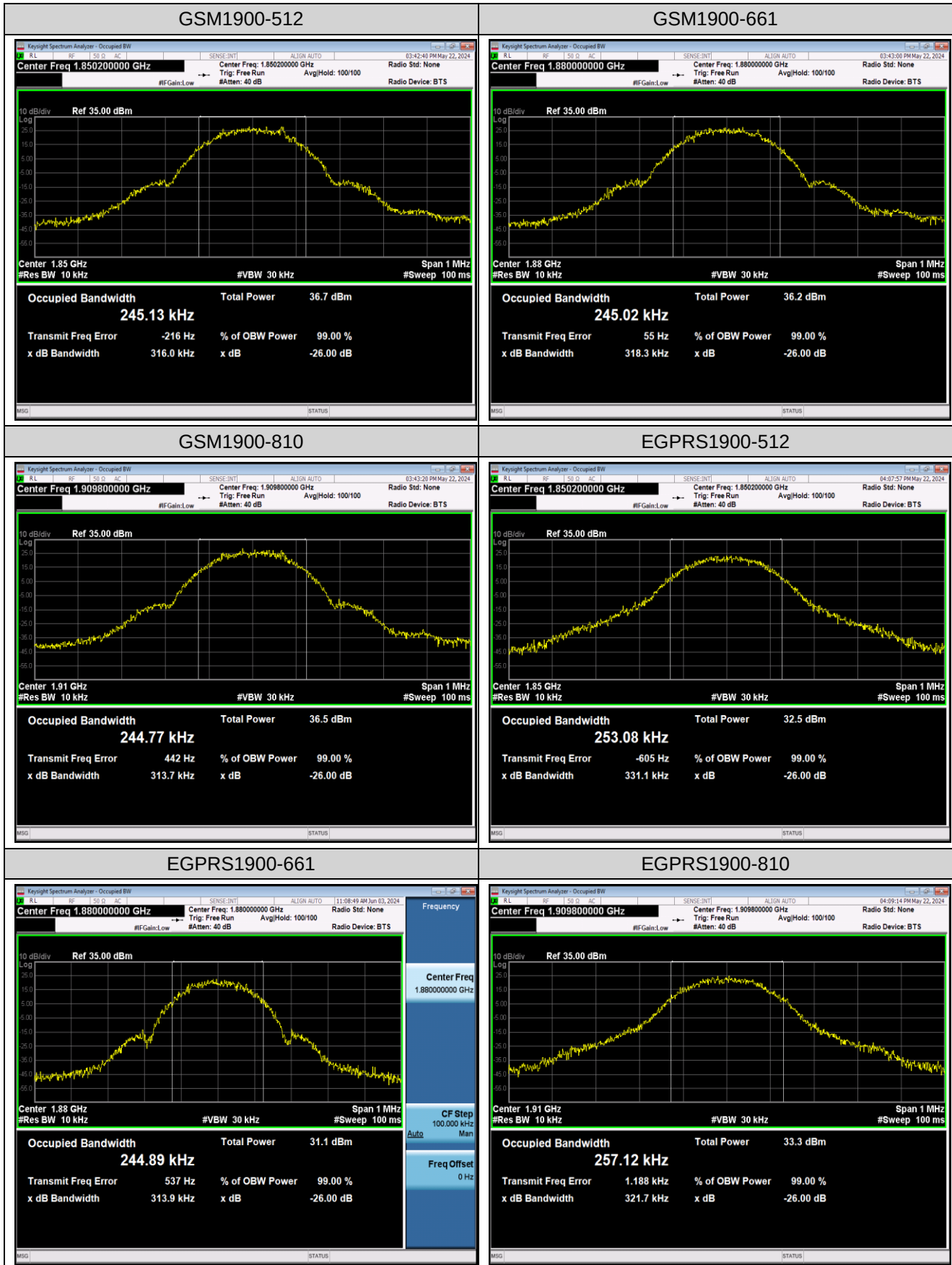
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24278	0.3122	---	PASS
GSM850	190	5	0.24358	0.3133	---	PASS
GSM850	251	5	0.24452	0.3127	---	PASS
EGPRS850	128	8	0.24530	0.3193	---	PASS
EGPRS850	190	8	0.24825	0.3162	---	PASS
EGPRS850	251	8	0.24678	0.3012	---	PASS
GSM1900	512	0	0.24513	0.3160	---	PASS
GSM1900	661	0	0.24502	0.3183	---	PASS
GSM1900	810	0	0.24477	0.3137	---	PASS
EGPRS1900	512	2	0.25308	0.3311	---	PASS
EGPRS1900	661	2	0.24489	0.3139	---	PASS
EGPRS1900	810	2	0.25712	0.3217	---	PASS

Test Graphs



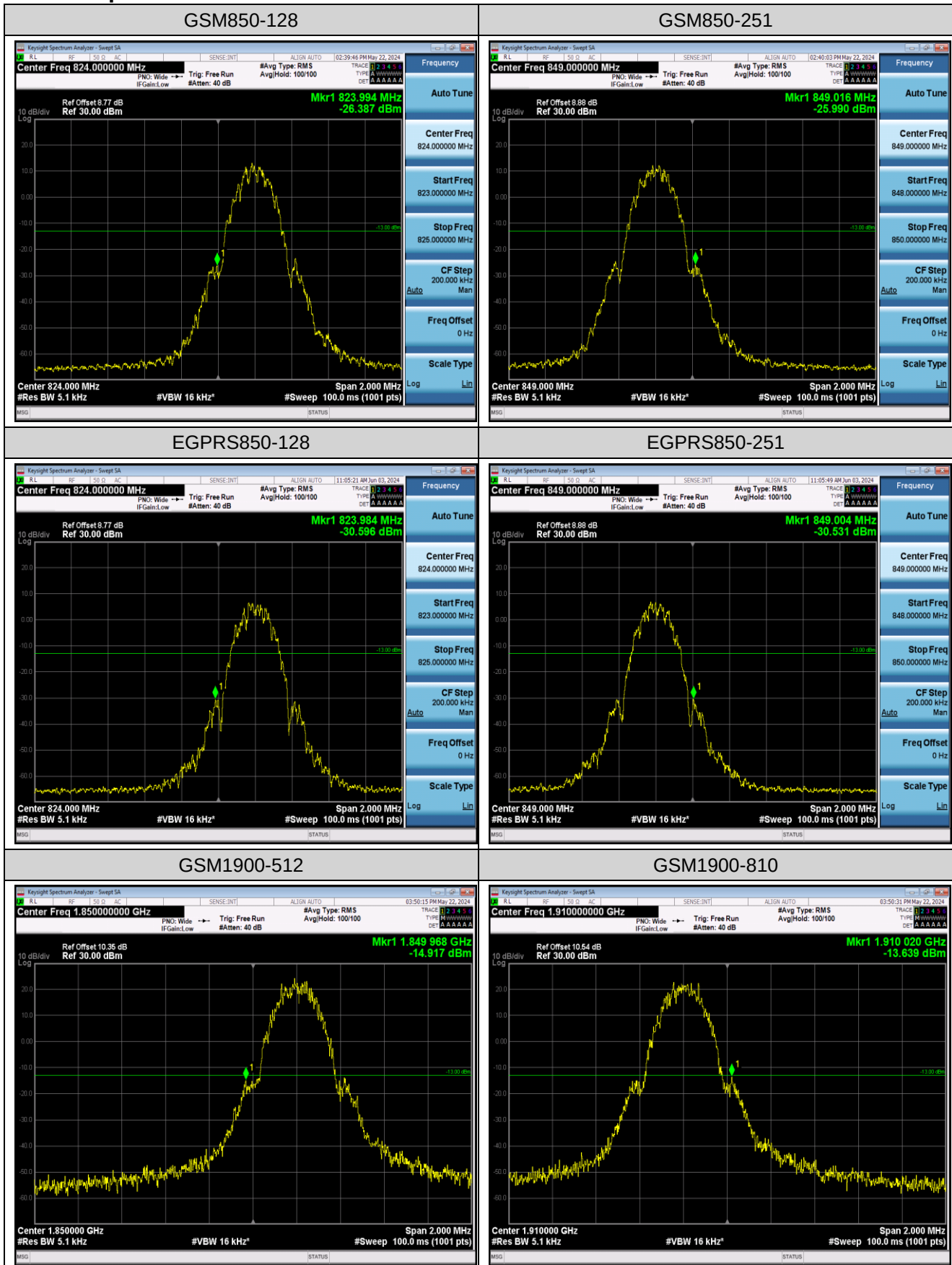


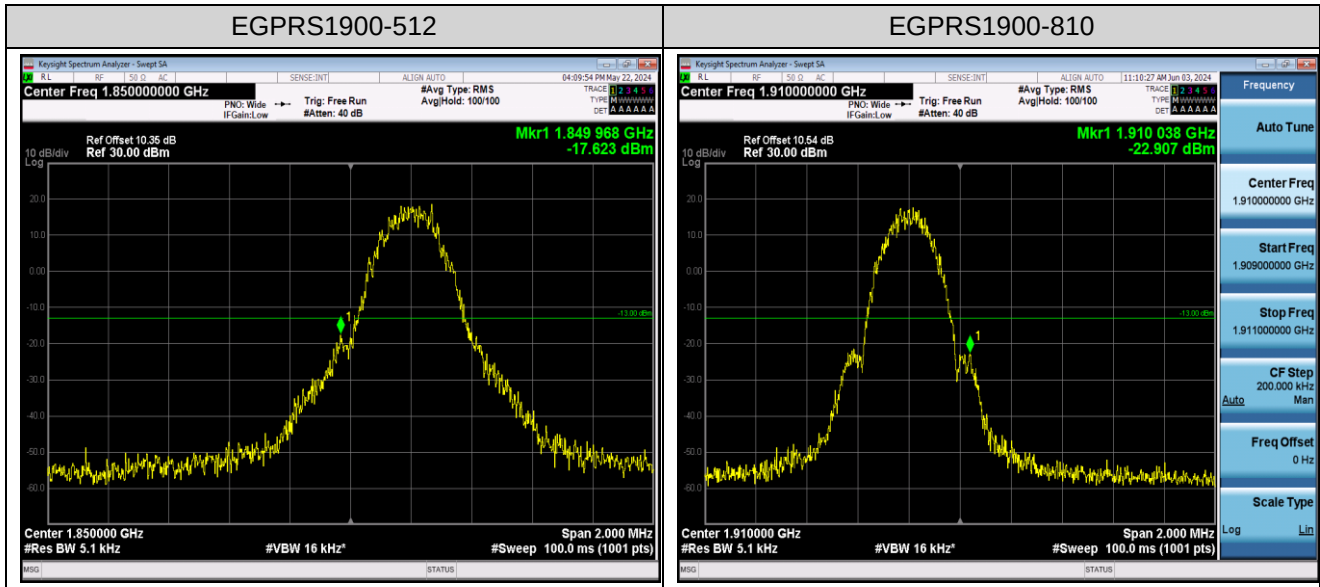
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.99	-26.39	-13	PASS
GSM850	251	5	849.02	-25.99	-13	PASS
EGPRS850	128	8	823.98	-30.60	-13	PASS
EGPRS850	251	8	849.00	-30.53	-13	PASS
GSM1900	512	0	1849.97	-14.92	-13	PASS
GSM1900	810	0	1910.02	-13.64	-13	PASS
EGPRS1900	512	2	1849.97	-17.62	-13	PASS
EGPRS1900	810	2	1910.04	-22.91	-13	PASS

Test Graphs





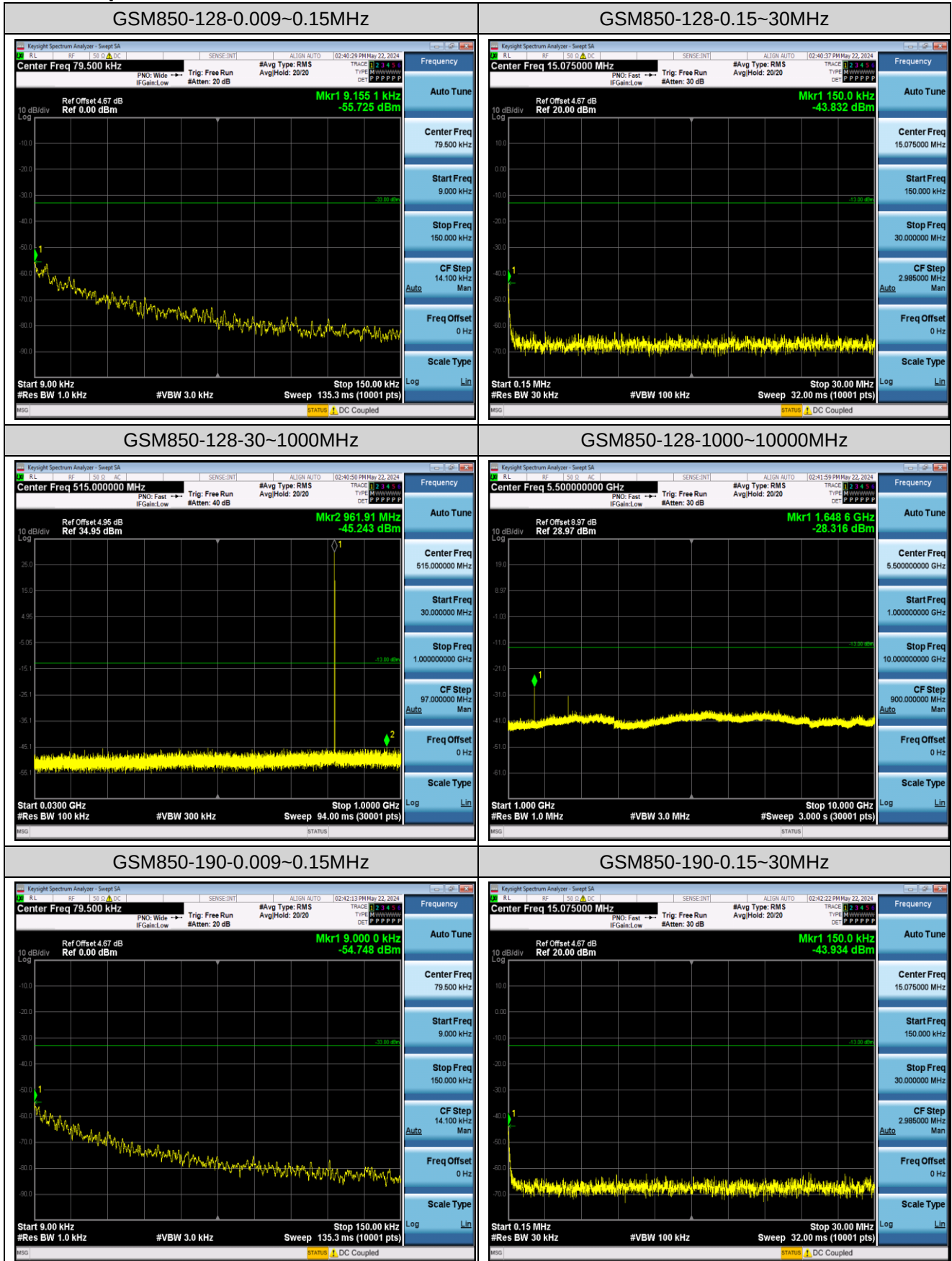
Appendix E: Conducted Spurious Emission

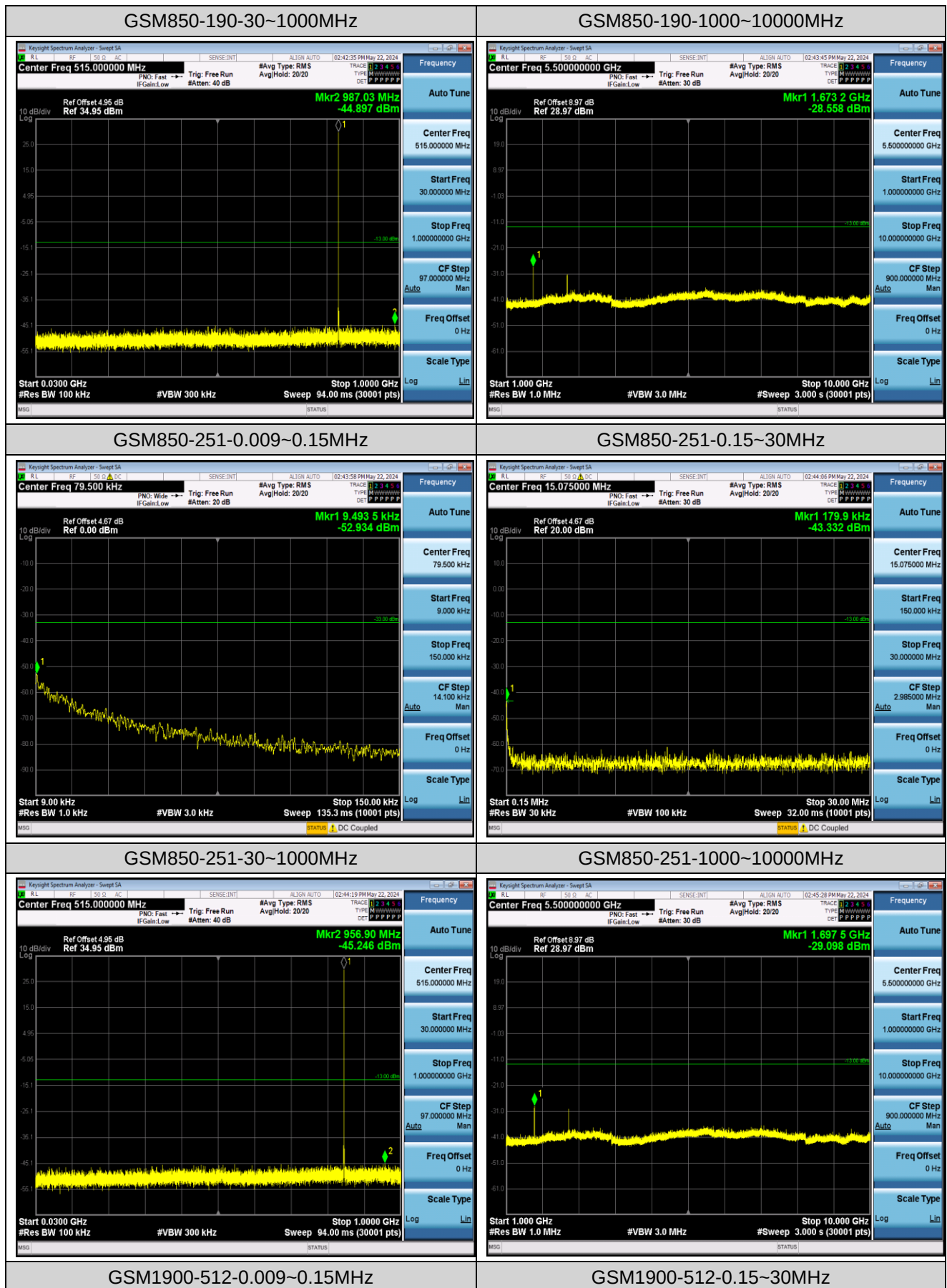
Test Result

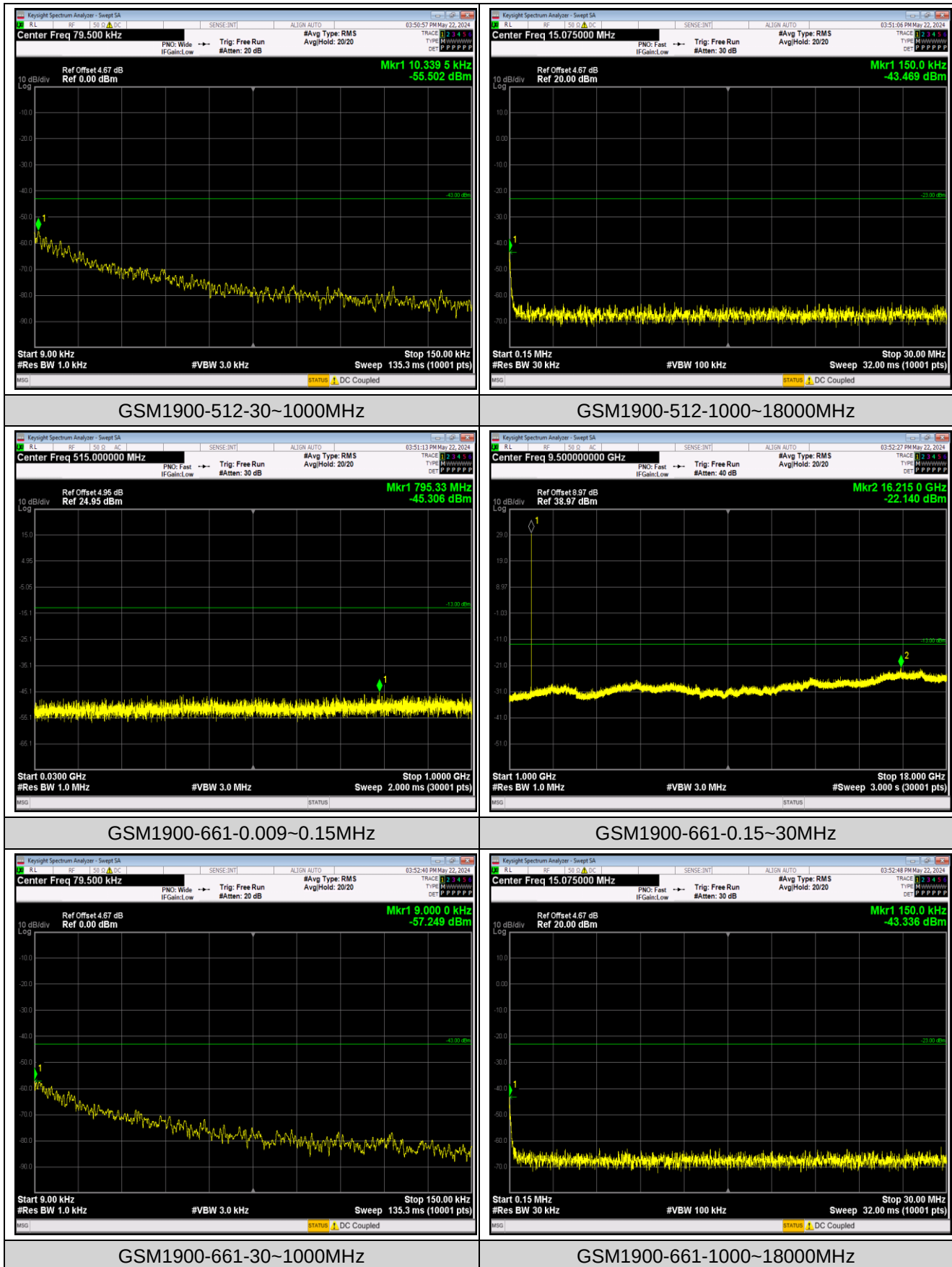
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.73	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-43.83	-13	PASS
GSM850	128	5	30~1000MHz	961.91	-45.24	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-28.32	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.75	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-43.93	-13	PASS
GSM850	190	5	30~1000MHz	987.03	-44.9	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-28.56	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-52.93	-33	PASS
GSM850	251	5	0.15~30MHz	0.18	-43.33	-13	PASS
GSM850	251	5	30~1000MHz	956.9	-45.25	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-29.1	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.5	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-43.47	-23	PASS
GSM1900	512	0	30~1000MHz	795.33	-45.31	-13	PASS
GSM1900	512	0	1000~18000MHz	16215	-22.14	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.25	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-43.34	-23	PASS
GSM1900	661	0	30~1000MHz	912.96	-45.42	-13	PASS
GSM1900	661	0	1000~18000MHz	16991.9	-22.05	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.21	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.64	-23	PASS
GSM1900	810	0	30~1000MHz	990.75	-46.17	-13	PASS
GSM1900	810	0	1000~18000MHz	16985.67	-22.09	-13	PASS

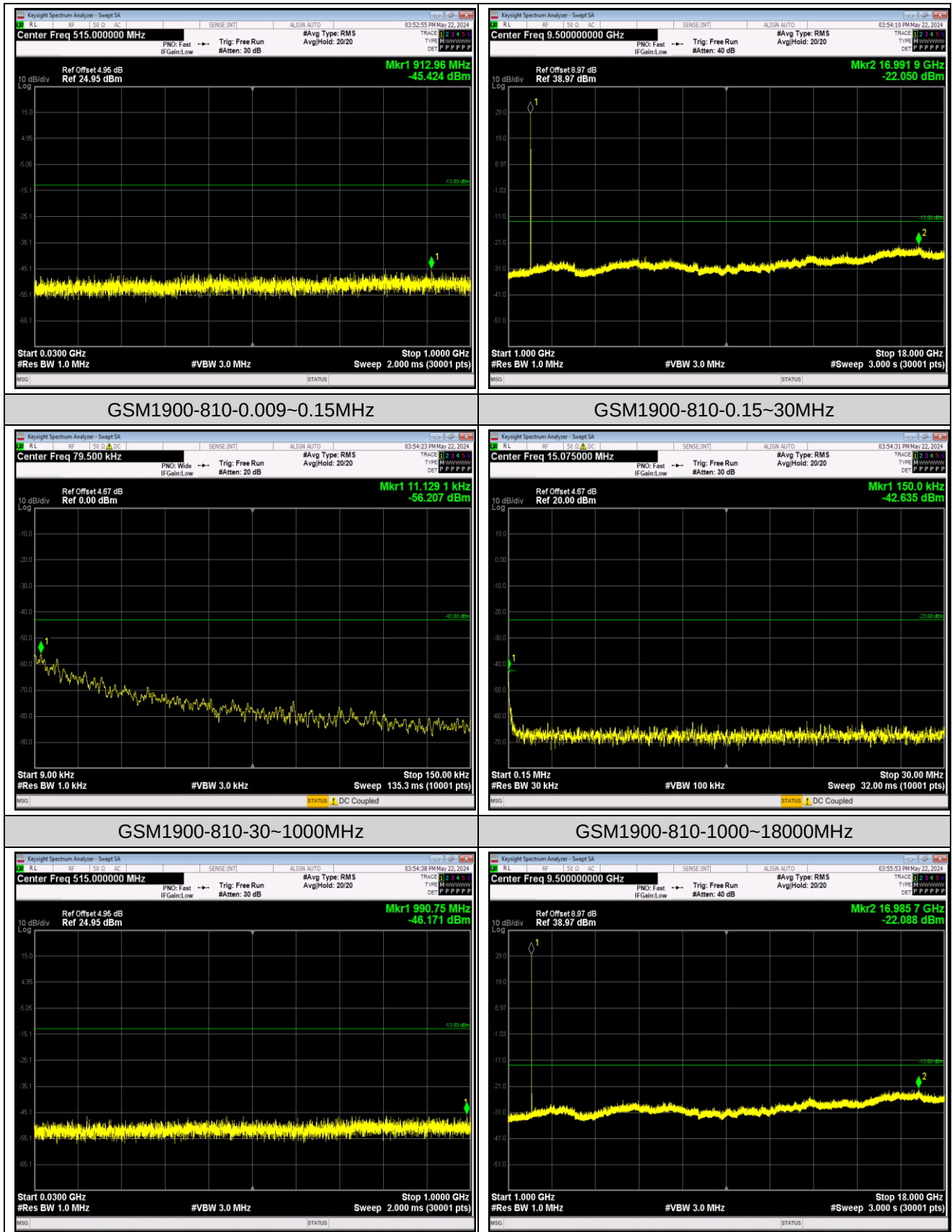
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs









Appendix F: Frequency Stability

Test Result

Reference Frequency: GSM850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	4.52	0.005403	±2.5	Pass
	-20	6.65	0.007949		
	-10	11.98	0.014320		
	0	6.62	0.007913		
	10	8.01	0.009574		
	20	5.59	0.006682		
	30	6.91	0.008260		
	40	8.52	0.010184		
	50	6.20	0.007411		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	5.84	0.006981	±2.5	Pass
	3.85	5.49	0.006562		
	4.40	7.91	0.009455		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: EGPRS850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-3.65	-0.004363	±2.5	Pass
	-20	8.20	0.009802		
	-10	-17.18	-0.020536		
	0	-25.34	-0.030289		
	10	2.58	0.003084		
	20	5.84	0.006981		
	30	-5.81	-0.006945		
	40	14.92	0.017834		
	50	-15.63	-0.018683		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	12.37	0.014786	±2.5	Pass
	3.85	11.11	0.013280		
	4.40	12.85	0.015360		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	21.92	0.011660	Within authorized band for PCS 1900	Pass
	-20	3.62	0.001926		
	-10	7.97	0.004239		
	0	11.33	0.006027		
	10	8.52	0.004532		
	20	3.07	0.001633		
	30	14.53	0.007729		
	40	8.81	0.004686		
	50	-1.42	-0.000755		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	12.33	0.006559	Within authorized band for PCS 1900	Pass
	3.85	14.11	0.007505		
	4.40	8.36	0.004447		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-36.90	-0.019628	Within authorized band for PCS 1900	Pass
	-20	-34.74	-0.018479		
	-10	-28.70	-0.015266		
	0	-25.76	-0.013702		
	10	-42.26	-0.022479		
	20	-41.42	-0.022032		
	30	-31.06	-0.016521		
	40	-36.58	-0.019457		
	50	-40.49	-0.021537		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	-33.35	-0.017739	Within authorized band for PCS 1900	Pass
	3.85	-46.17	-0.024559		
	4.40	-39.00	-0.020745		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

Appendix G: Modulation Characteristics

Test Result

Band	Channel	Result	Verdict
GSM850	190	PASS	PASS
EGPRS850	190	PASS	PASS
GSM1900	661	PASS	PASS
EGPRS1900	661	PASS	PASS

Remark: All channel had been tested, but only the worst case data displayed in this report.

Test Graphs

