

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	32.58	23.54	38.45	PASS
GSM850	190	5	32.62	23.58	38.45	PASS
GSM850	251	5	32.59	23.55	38.45	PASS
GSM1900	512	0	29.38	26.58	33.00	PASS
GSM1900	661	0	29.24	26.44	33.00	PASS
GSM1900	810	0	29.03	26.23	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.54	23.5	38.45	PASS
GPRS850	128	5	2	31.73	22.69	38.45	PASS
GPRS850	128	5	3	30.12	21.08	38.45	PASS
GPRS850	128	5	4	28.96	19.92	38.45	PASS
GPRS850	190	5	1	32.57	23.53	38.45	PASS
GPRS850	190	5	2	31.79	22.75	38.45	PASS
GPRS850	190	5	3	30.19	21.15	38.45	PASS
GPRS850	190	5	4	29.01	19.97	38.45	PASS
GPRS850	251	5	1	32.55	23.51	38.45	PASS
GPRS850	251	5	2	31.85	22.81	38.45	PASS
GPRS850	251	5	3	30.21	21.17	38.45	PASS
GPRS850	251	5	4	28.99	19.95	38.45	PASS
GPRS1900	512	0	1	29.30	26.5	33.00	PASS
GPRS1900	512	0	2	28.34	25.54	33.00	PASS
GPRS1900	512	0	3	25.95	23.15	33.00	PASS
GPRS1900	512	0	4	24.69	21.89	33.00	PASS
GPRS1900	661	0	1	29.25	26.45	33.00	PASS
GPRS1900	661	0	2	28.39	25.59	33.00	PASS
GPRS1900	661	0	3	26.15	23.35	33.00	PASS
GPRS1900	661	0	4	24.92	22.12	33.00	PASS
GPRS1900	810	0	1	29.04	26.24	33.00	PASS
GPRS1900	810	0	2	28.32	25.52	33.00	PASS
GPRS1900	810	0	3	26.30	23.5	33.00	PASS
GPRS1900	810	0	4	25.12	22.32	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.23	18.19	38.45	PASS
EGPRS850	128	8	2	27.18	18.14	38.45	PASS
EGPRS850	128	8	3	27.09	18.05	38.45	PASS
EGPRS850	128	8	4	27.01	17.97	38.45	PASS
EGPRS850	190	8	1	27.35	18.31	38.45	PASS
EGPRS850	190	8	2	27.29	18.25	38.45	PASS
EGPRS850	190	8	3	27.20	18.16	38.45	PASS
EGPRS850	190	8	4	27.11	18.07	38.45	PASS
EGPRS850	251	8	1	27.34	18.3	38.45	PASS
EGPRS850	251	8	2	27.28	18.24	38.45	PASS
EGPRS850	251	8	3	27.18	18.14	38.45	PASS
EGPRS850	251	8	4	27.10	18.06	38.45	PASS
EGPRS1900	512	2	1	24.97	22.17	33.00	PASS
EGPRS1900	512	2	2	24.88	22.08	33.00	PASS
EGPRS1900	512	2	3	24.79	21.99	33.00	PASS
EGPRS1900	512	2	4	24.71	21.91	33.00	PASS
EGPRS1900	661	2	1	25.18	22.38	33.00	PASS
EGPRS1900	661	2	2	25.12	22.32	33.00	PASS
EGPRS1900	661	2	3	25.02	22.22	33.00	PASS
EGPRS1900	661	2	4	24.94	22.14	33.00	PASS
EGPRS1900	810	2	1	25.39	22.59	33.00	PASS
EGPRS1900	810	2	2	25.31	22.51	33.00	PASS
EGPRS1900	810	2	3	25.21	22.41	33.00	PASS
EGPRS1900	810	2	4	25.12	22.32	33.00	PASS

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

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

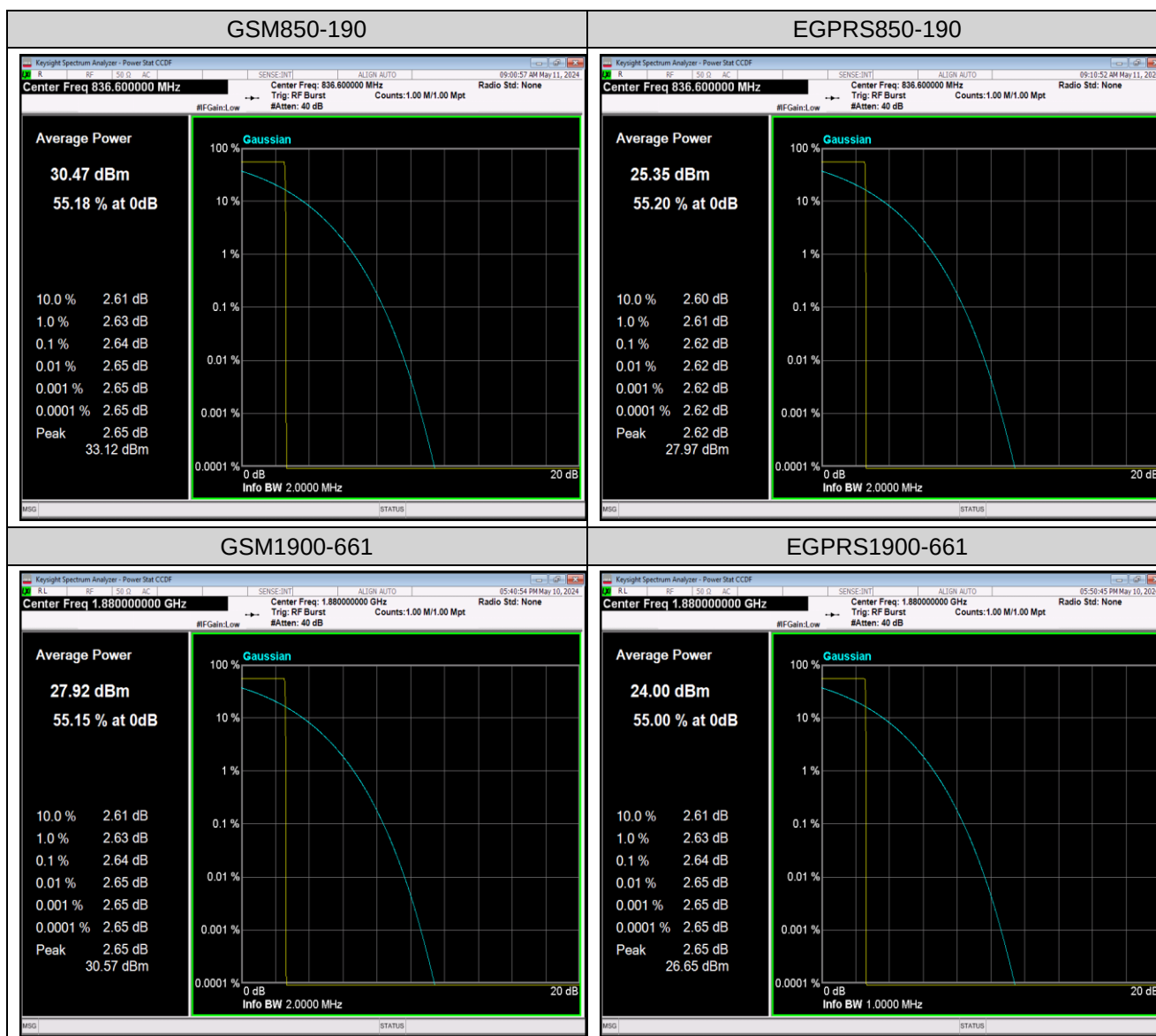
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.64	13	PASS
EGPRS850	190	8	2.62	13	PASS
GSM1900	661	0	2.64	13	PASS
EGPRS1900	661	2	2.64	13	PASS

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

Test Graphs

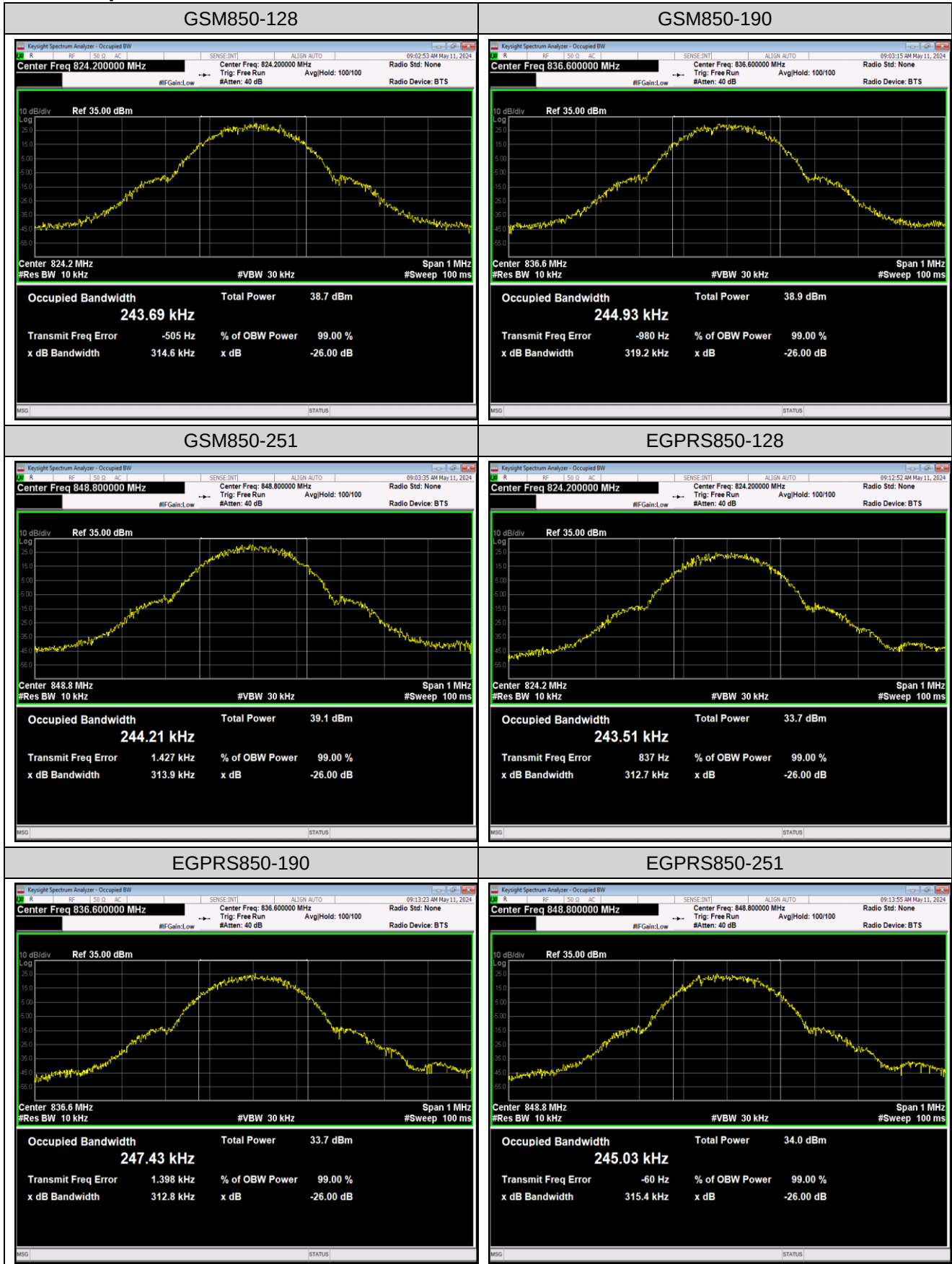


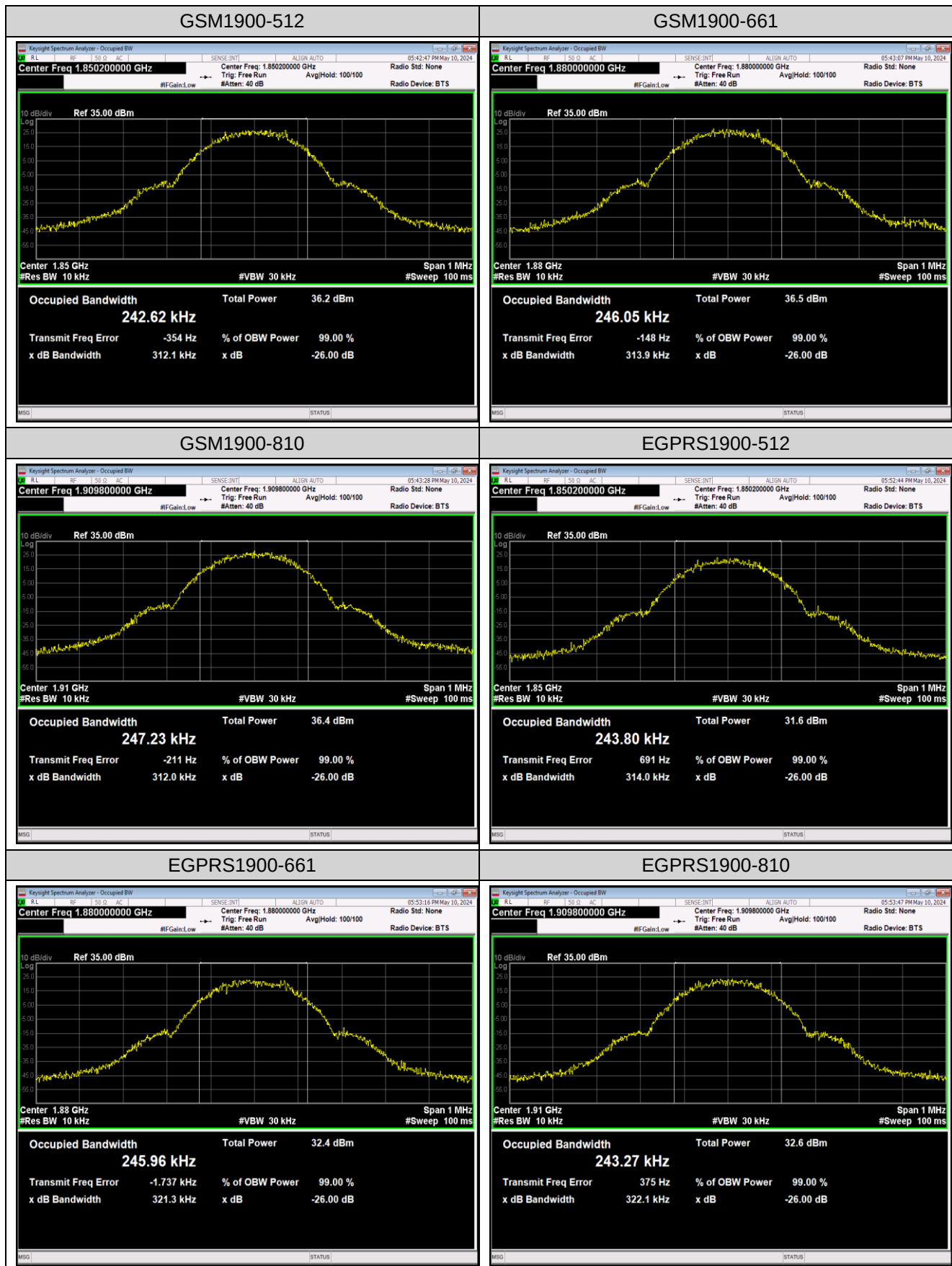
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24369	0.3146	---	PASS
GSM850	190	5	0.24493	0.3192	---	PASS
GSM850	251	5	0.24421	0.3139	---	PASS
EGPRS850	128	8	0.24351	0.3127	---	PASS
EGPRS850	190	8	0.24743	0.3128	---	PASS
EGPRS850	251	8	0.24503	0.3154	---	PASS
GSM1900	512	0	0.24262	0.3121	---	PASS
GSM1900	661	0	0.24605	0.3139	---	PASS
GSM1900	810	0	0.24723	0.3120	---	PASS
EGPRS1900	512	2	0.24380	0.3140	---	PASS
EGPRS1900	661	2	0.24596	0.3213	---	PASS
EGPRS1900	810	2	0.24327	0.3221	---	PASS

Test Graphs



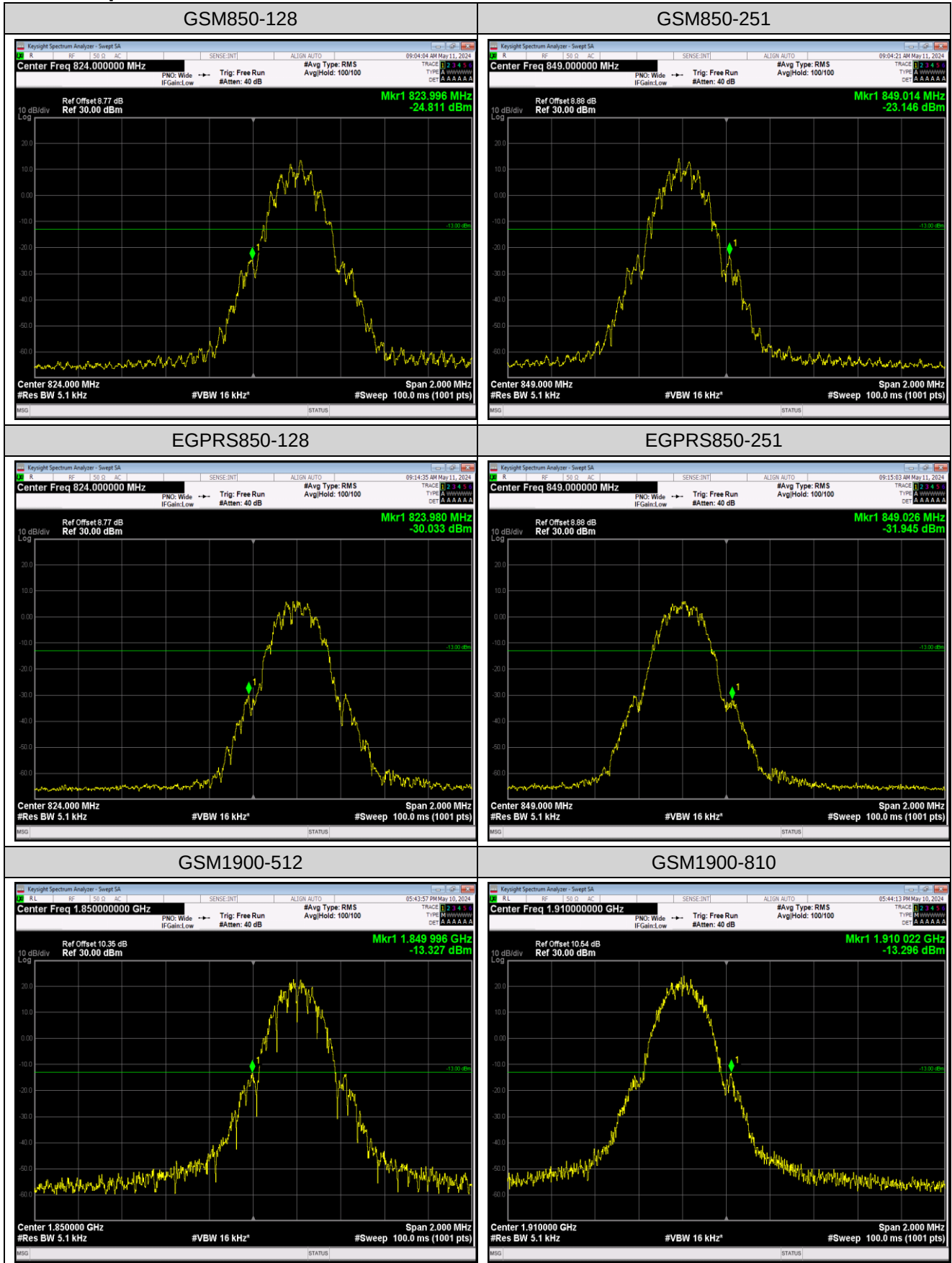


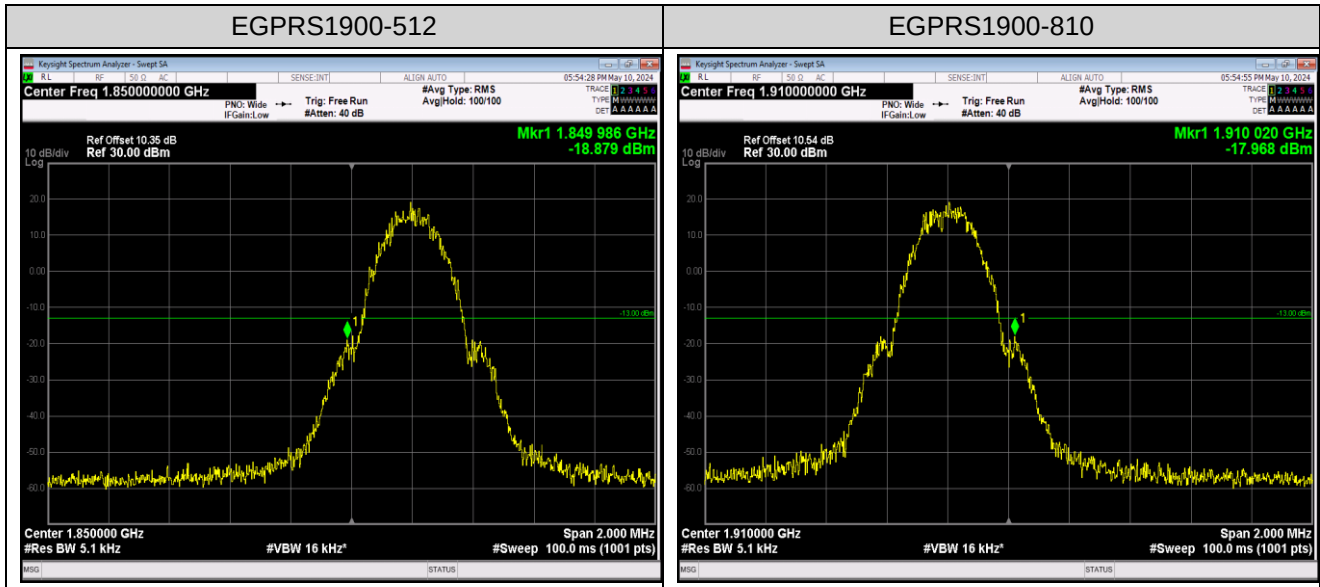
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-24.81	-13	PASS
GSM850	251	5	849.01	-23.15	-13	PASS
EGPRS850	128	8	823.98	-30.03	-13	PASS
EGPRS850	251	8	849.03	-31.95	-13	PASS
GSM1900	512	0	1850.00	-13.33	-13	PASS
GSM1900	810	0	1910.02	-13.30	-13	PASS
EGPRS1900	512	2	1849.99	-18.88	-13	PASS
EGPRS1900	810	2	1910.02	-17.97	-13	PASS

Test Graphs





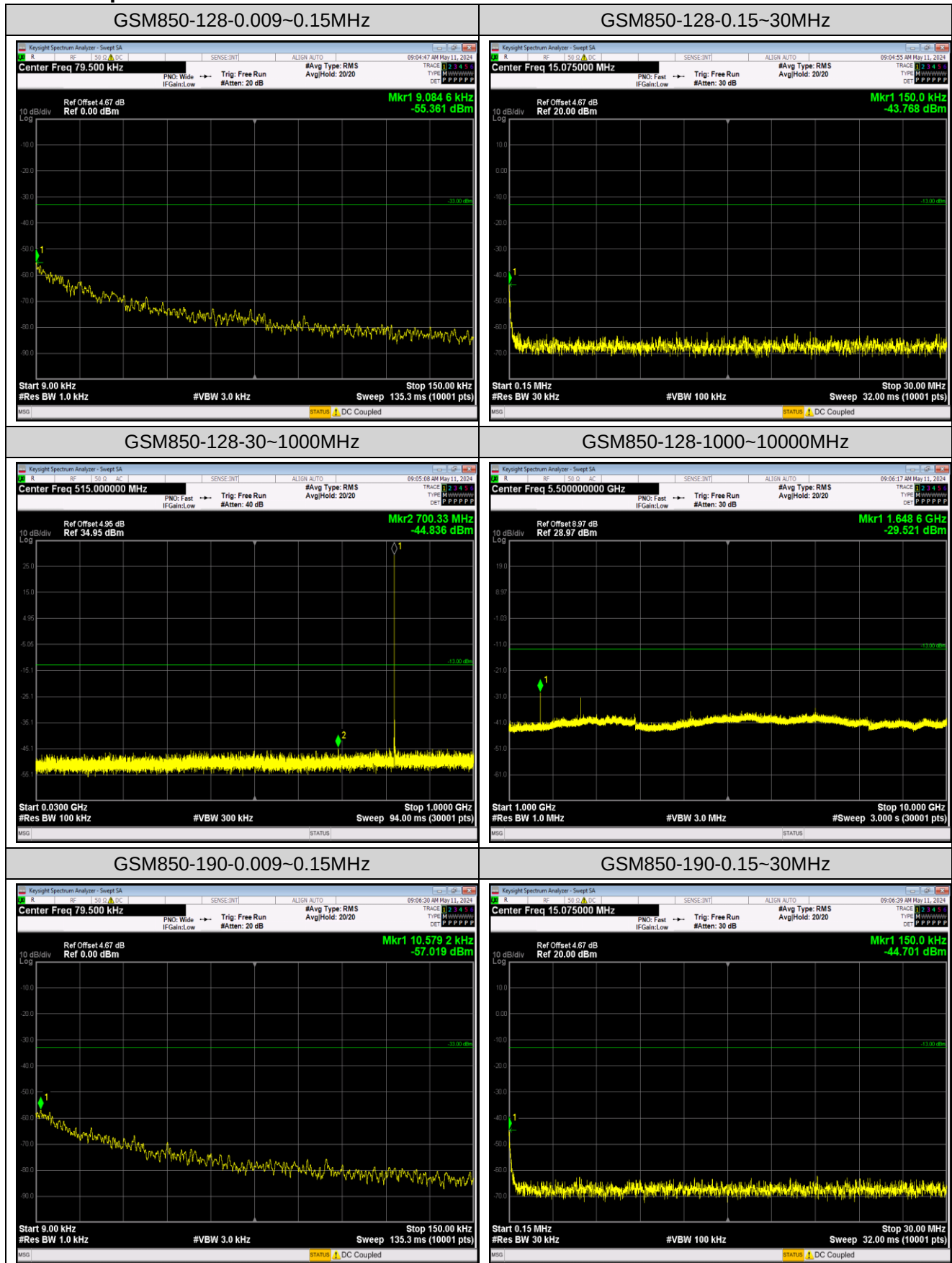
Appendix E: Conducted Spurious Emission

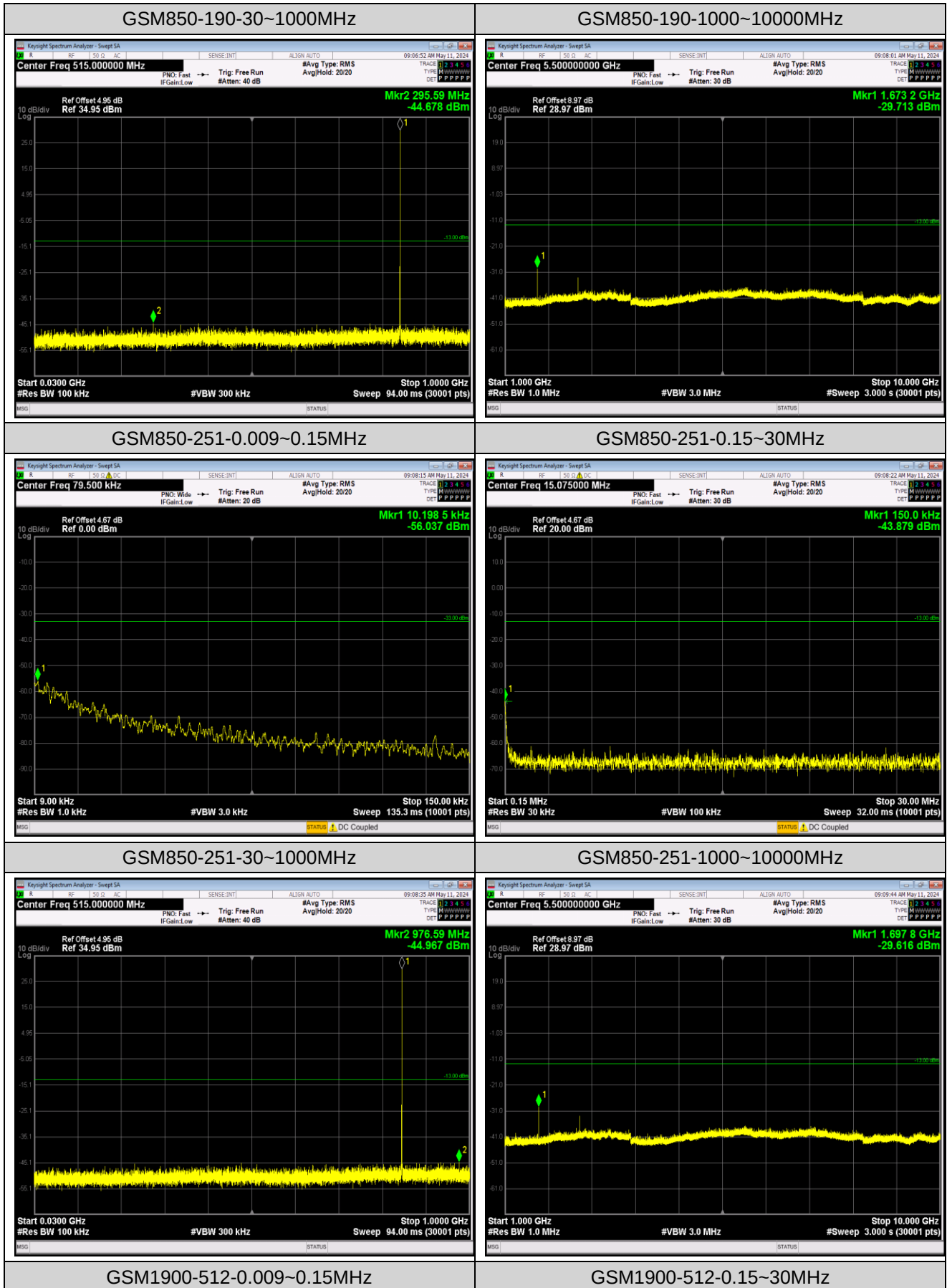
Test Result

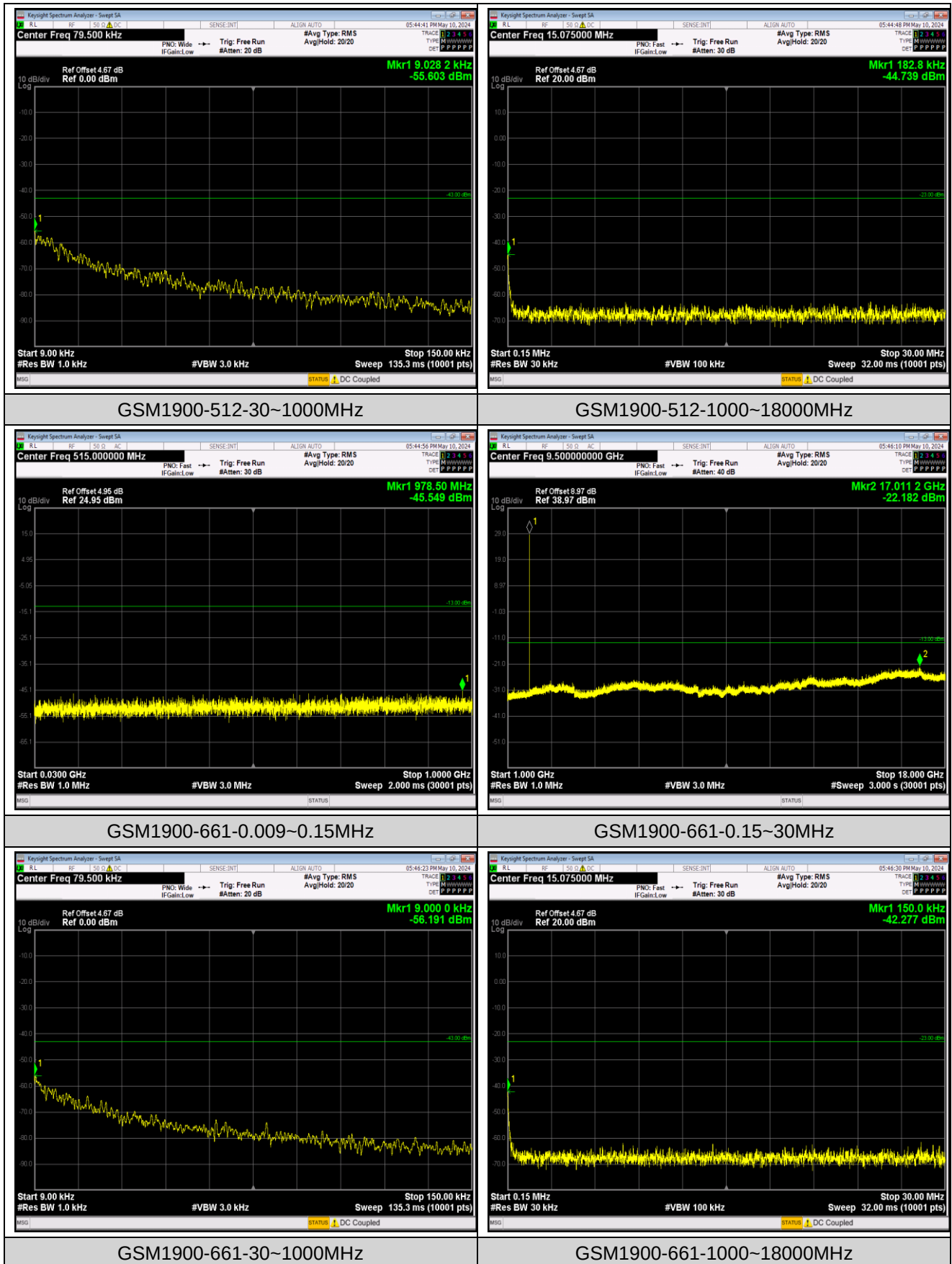
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.36	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-43.77	-13	PASS
GSM850	128	5	30~1000MHz	700.33	-44.84	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-29.52	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-57.02	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-44.7	-13	PASS
GSM850	190	5	30~1000MHz	295.59	-44.68	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.71	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-56.04	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-43.88	-13	PASS
GSM850	251	5	30~1000MHz	976.59	-44.97	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-29.62	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.6	-43	PASS
GSM1900	512	0	0.15~30MHz	0.18	-44.74	-23	PASS
GSM1900	512	0	30~1000MHz	978.5	-45.55	-13	PASS
GSM1900	512	0	1000~18000MHz	17011.17	-22.18	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.19	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-42.28	-23	PASS
GSM1900	661	0	30~1000MHz	749.58	-46.25	-13	PASS
GSM1900	661	0	1000~18000MHz	17006.63	-22.2	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.1	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-43.79	-23	PASS
GSM1900	810	0	30~1000MHz	914.64	-45.53	-13	PASS
GSM1900	810	0	1000~18000MHz	17006.07	-21.42	-13	PASS

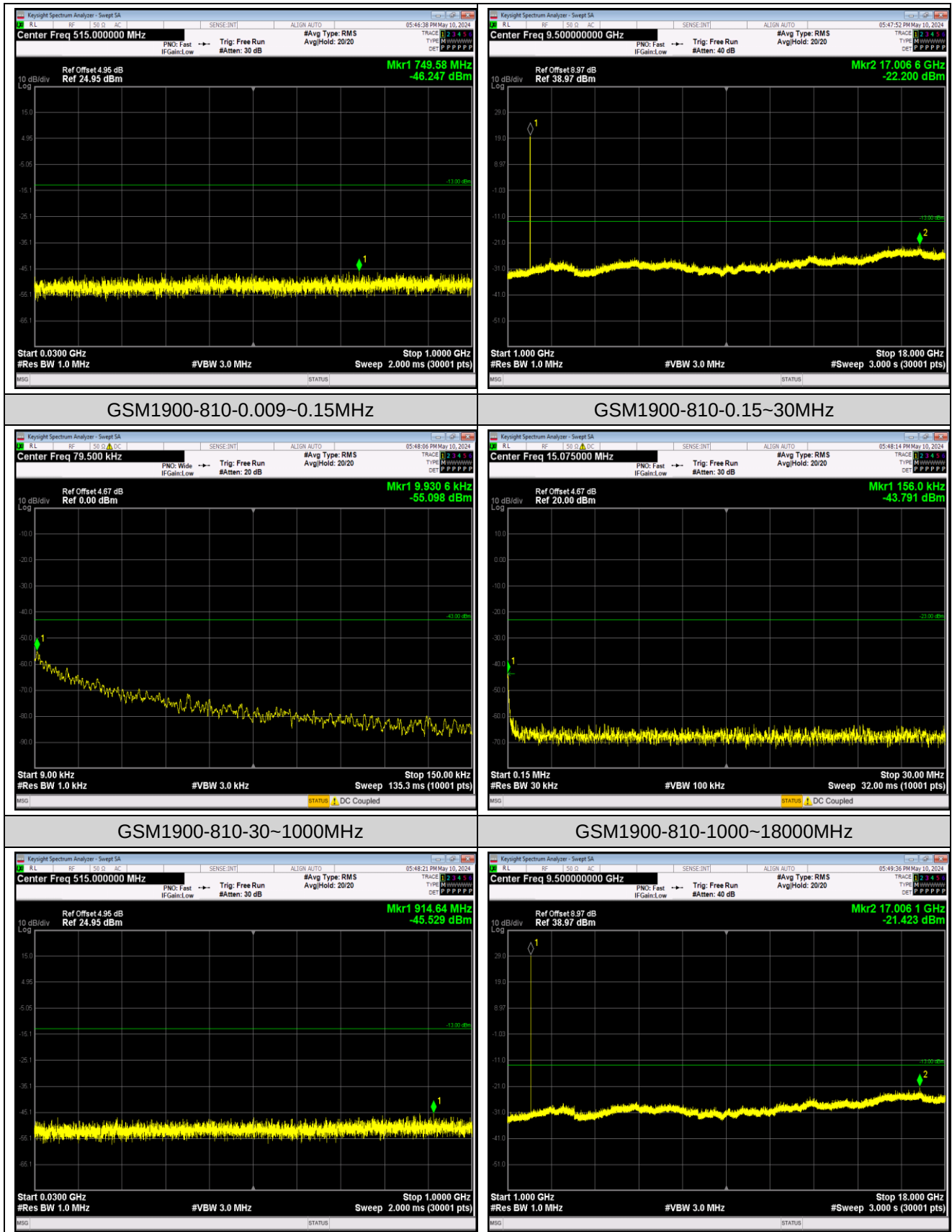
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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		
3.91	-30	-16.89	-0.020189	±2.5	Pass
	-20	-15.40	-0.018408		
	-10	-14.21	-0.016985		
	0	-15.27	-0.018252		
	10	-10.82	-0.012933		
	20	-11.91	-0.014236		
	30	-13.04	-0.015587		
	40	-16.01	-0.019137		
	50	-16.50	-0.019723		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-15.50	-0.018527	±2.5	Pass
	3.91	-16.72	-0.019986		
	4.50	-13.53	-0.016173		
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		
3.91	-30	-3.42	-0.004088	±2.5	Pass
	-20	-6.55	-0.007829		
	-10	-3.55	-0.004243		
	0	-6.97	-0.008331		
	10	-6.23	-0.007447		
	20	-6.17	-0.007375		
	30	-2.03	-0.002426		
	40	2.39	0.002857		
	50	-1.49	-0.001781		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-4.16	-0.004973	±2.5	Pass
	3.91	-5.04	-0.006024		
	4.50	-2.26	-0.002701		
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		
3.91	-30	-18.34	-0.009755	Within authorized band for PCS 1900	Pass
	-20	-5.39	-0.002867		
	-10	-12.79	-0.006803		
	0	-9.36	-0.004979		
	10	-1.55	-0.000824		
	20	-8.52	-0.004532		
	30	-6.75	-0.003590		
	40	-0.77	-0.000410		
	50	-13.98	-0.007436		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-30.32	-0.016128	Within authorized band for PCS 1900	Pass
	3.91	-24.80	-0.013191		
	4.50	-20.73	-0.011027		
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		
3.91	-30	-9.04	-0.004809	Within authorized band for PCS 1900	Pass
	-20	-6.52	-0.003468		
	-10	-4.62	-0.002457		
	0	-4.39	-0.002335		
	10	9.07	0.004824		
	20	15.43	0.008207		
	30	16.27	0.008654		
	40	5.00	0.002660		
	50	9.85	0.005239		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-6.75	-0.003590	Within authorized band for PCS 1900	Pass
	3.91	-2.78	-0.001479		
	4.50	-1.16	-0.000617		
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

