

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	33.05	24.9	38.45	PASS
GSM850	190	5	33.21	25.06	38.45	PASS
GSM850	251	5	33.17	25.02	38.45	PASS
GSM1900	512	0	30.28	26.28	33.00	PASS
GSM1900	661	0	30.31	26.31	33.00	PASS
GSM1900	810	0	30.07	26.07	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.05	24.9	38.45	PASS
GPRS850	128	5	2	32.21	24.06	38.45	PASS
GPRS850	128	5	3	30.33	22.18	38.45	PASS
GPRS850	128	5	4	30.18	22.03	38.45	PASS
GPRS850	190	5	1	33.15	25	38.45	PASS
GPRS850	190	5	2	32.32	24.17	38.45	PASS
GPRS850	190	5	3	30.47	22.32	38.45	PASS
GPRS850	190	5	4	30.30	22.15	38.45	PASS
GPRS850	251	5	1	33.15	25	38.45	PASS
GPRS850	251	5	2	32.33	24.18	38.45	PASS
GPRS850	251	5	3	30.57	22.42	38.45	PASS
GPRS850	251	5	4	30.42	22.27	38.45	PASS
GPRS1900	512	0	1	30.28	26.28	33.00	PASS
GPRS1900	512	0	2	29.52	25.52	33.00	PASS
GPRS1900	512	0	3	27.78	23.78	33.00	PASS
GPRS1900	512	0	4	27.69	23.69	33.00	PASS
GPRS1900	661	0	1	30.26	26.26	33.00	PASS
GPRS1900	661	0	2	29.55	25.55	33.00	PASS
GPRS1900	661	0	3	27.84	23.84	33.00	PASS
GPRS1900	661	0	4	27.77	23.77	33.00	PASS
GPRS1900	810	0	1	30.03	26.03	33.00	PASS
GPRS1900	810	0	2	29.32	25.32	33.00	PASS
GPRS1900	810	0	3	27.63	23.63	33.00	PASS
GPRS1900	810	0	4	27.57	23.57	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.36	18.21	38.45	PASS
EGPRS850	128	8	2	25.15	17	38.45	PASS
EGPRS850	128	8	3	22.74	14.59	38.45	PASS
EGPRS850	128	8	4	22.18	14.03	38.45	PASS
EGPRS850	190	8	1	26.37	18.22	38.45	PASS
EGPRS850	190	8	2	25.17	17.02	38.45	PASS
EGPRS850	190	8	3	22.76	14.61	38.45	PASS
EGPRS850	190	8	4	22.25	14.1	38.45	PASS
EGPRS850	251	8	1	26.66	18.51	38.45	PASS
EGPRS850	251	8	2	25.42	17.27	38.45	PASS
EGPRS850	251	8	3	23.05	14.9	38.45	PASS
EGPRS850	251	8	4	22.53	14.38	38.45	PASS
EGPRS1900	512	2	1	25.83	21.83	33.00	PASS
EGPRS1900	512	2	2	24.58	20.58	33.00	PASS
EGPRS1900	512	2	3	22.30	18.3	33.00	PASS
EGPRS1900	512	2	4	21.77	17.77	33.00	PASS
EGPRS1900	661	2	1	26.01	22.01	33.00	PASS
EGPRS1900	661	2	2	24.85	20.85	33.00	PASS
EGPRS1900	661	2	3	22.58	18.58	33.00	PASS
EGPRS1900	661	2	4	22.03	18.03	33.00	PASS
EGPRS1900	810	2	1	26.28	22.28	33.00	PASS
EGPRS1900	810	2	2	25.10	21.1	33.00	PASS
EGPRS1900	810	2	3	22.80	18.8	33.00	PASS
EGPRS1900	810	2	4	22.24	18.24	33.00	PASS

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

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

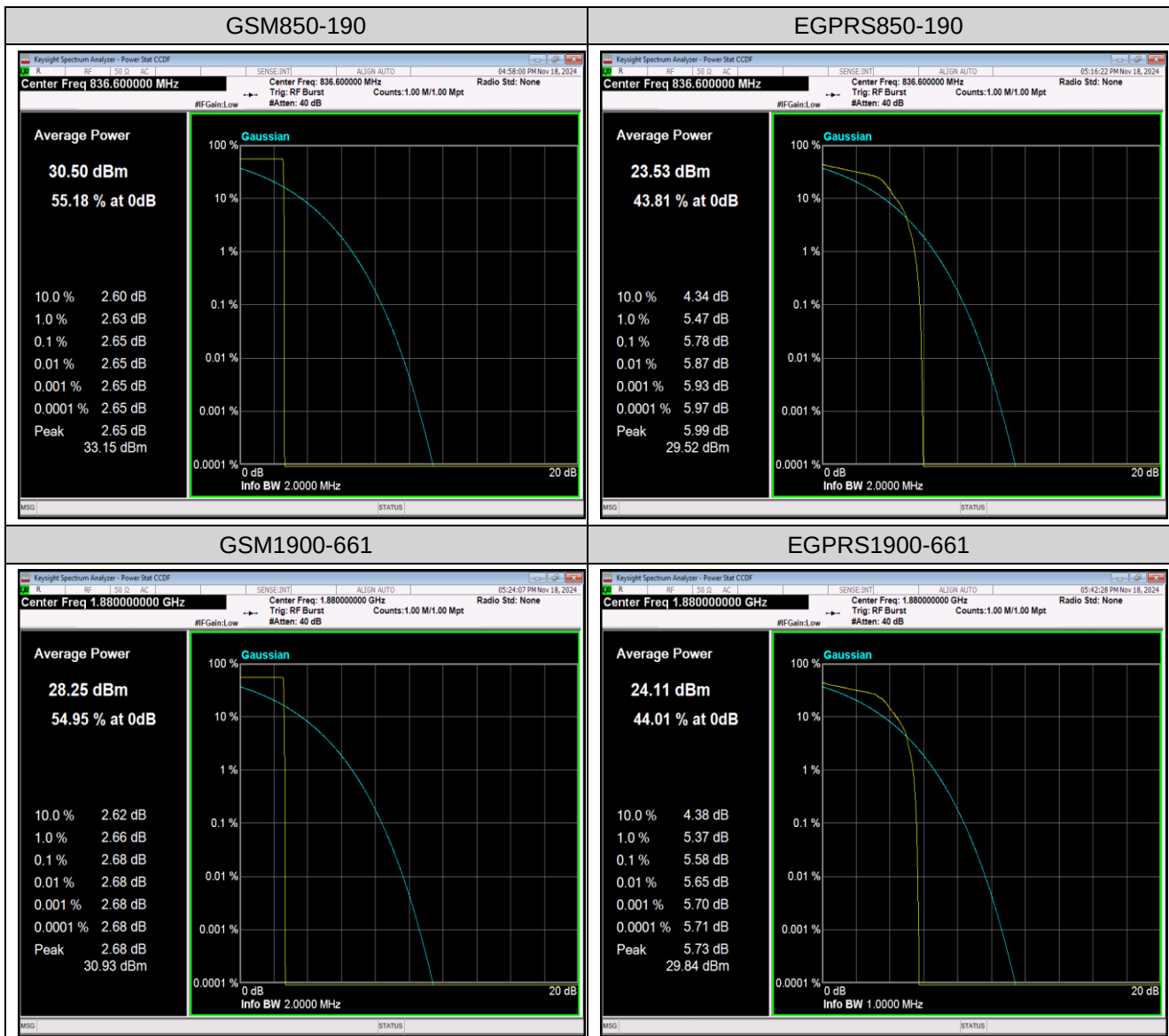
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.65	13	PASS
EGPRS850	190	8	5.78	13	PASS
GSM1900	661	0	2.68	13	PASS
EGPRS1900	661	2	5.58	13	PASS

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

Test Graphs

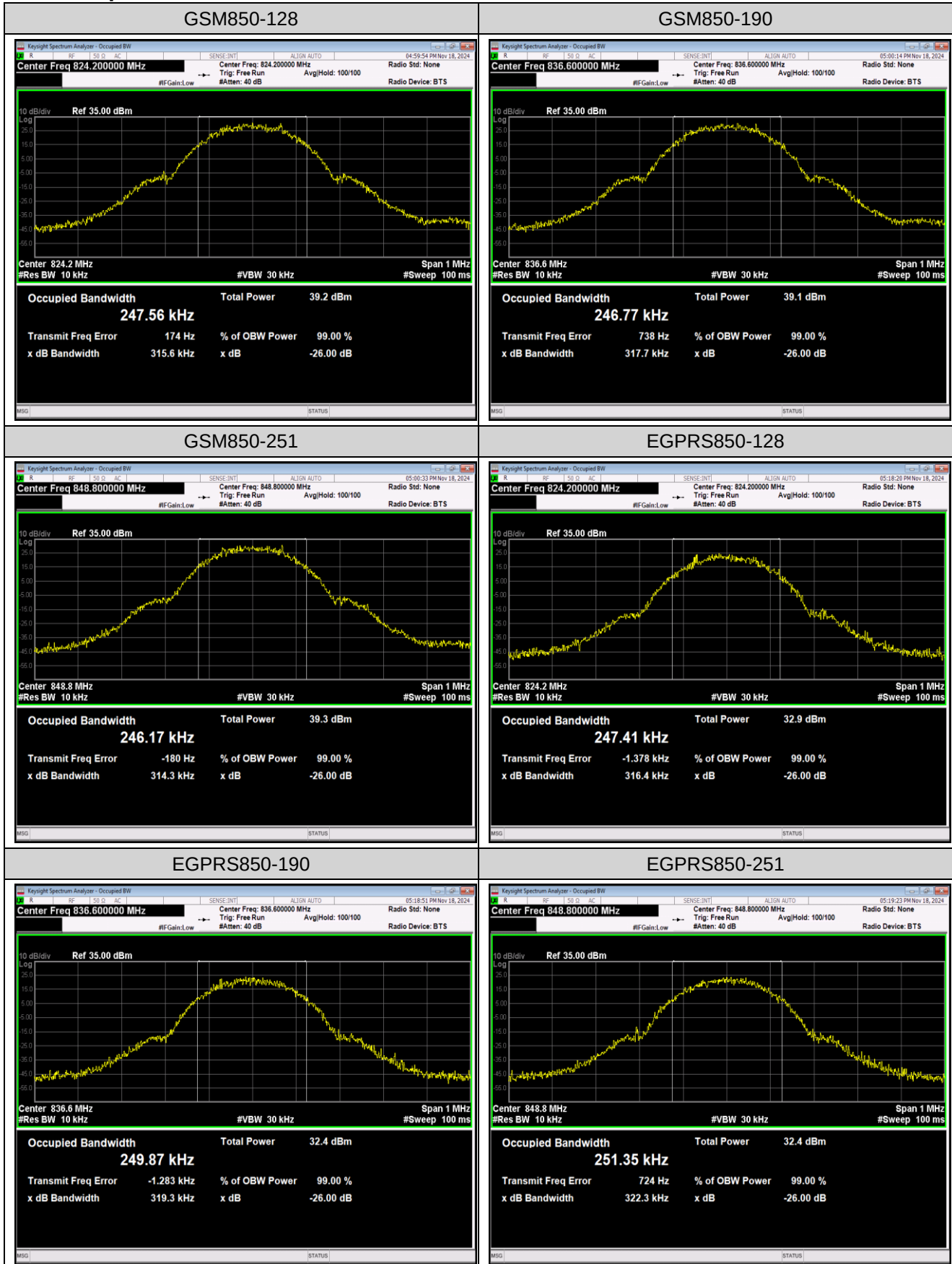


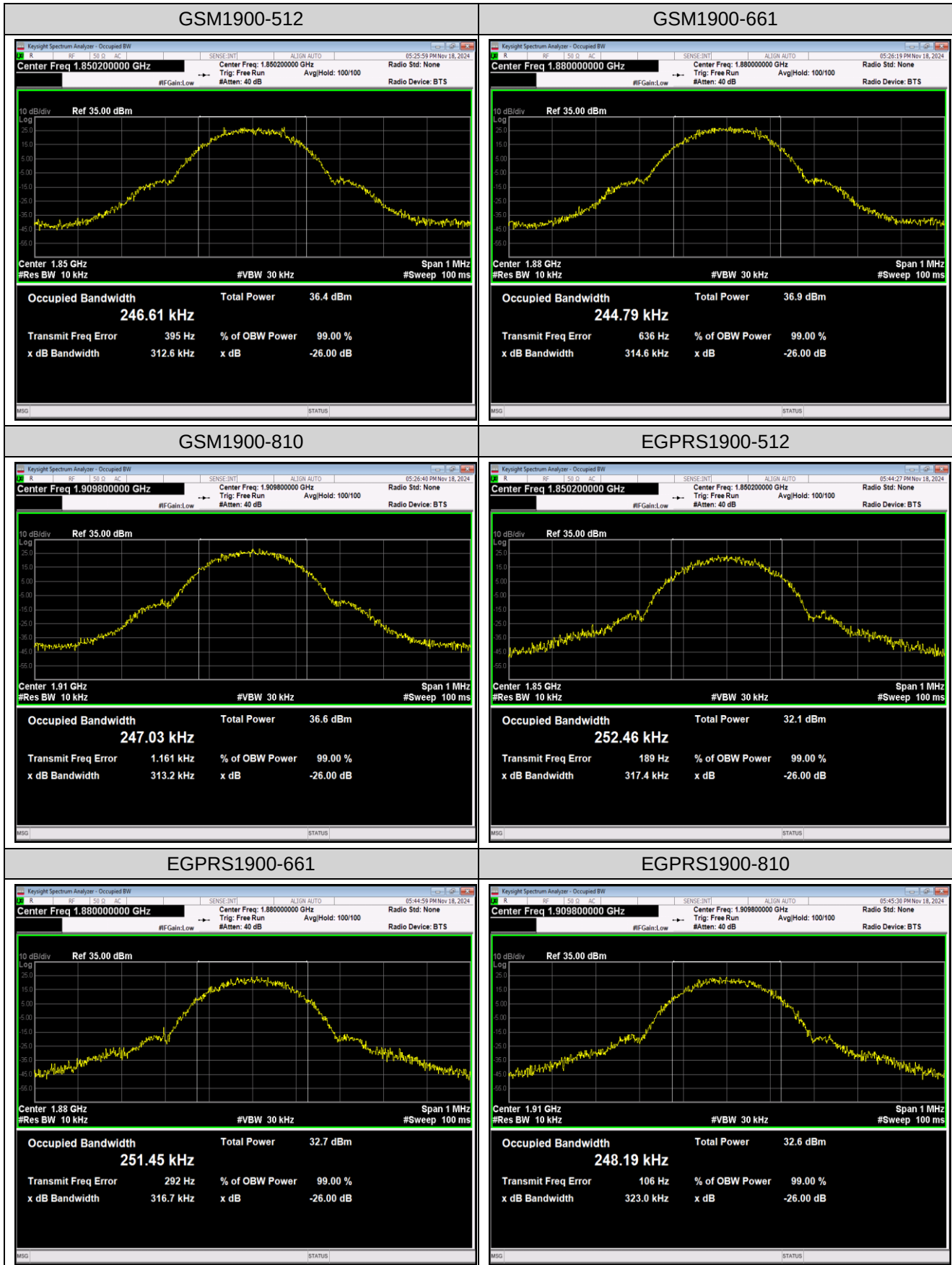
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24756	0.3156	---	PASS
GSM850	190	5	0.24677	0.3177	---	PASS
GSM850	251	5	0.24617	0.3143	---	PASS
EGPRS850	128	8	0.24741	0.3164	---	PASS
EGPRS850	190	8	0.24987	0.3193	---	PASS
EGPRS850	251	8	0.25135	0.3223	---	PASS
GSM1900	512	0	0.24661	0.3126	---	PASS
GSM1900	661	0	0.24479	0.3146	---	PASS
GSM1900	810	0	0.24703	0.3132	---	PASS
EGPRS1900	512	2	0.25246	0.3174	---	PASS
EGPRS1900	661	2	0.25145	0.3167	---	PASS
EGPRS1900	810	2	0.24819	0.3230	---	PASS

Test Graphs



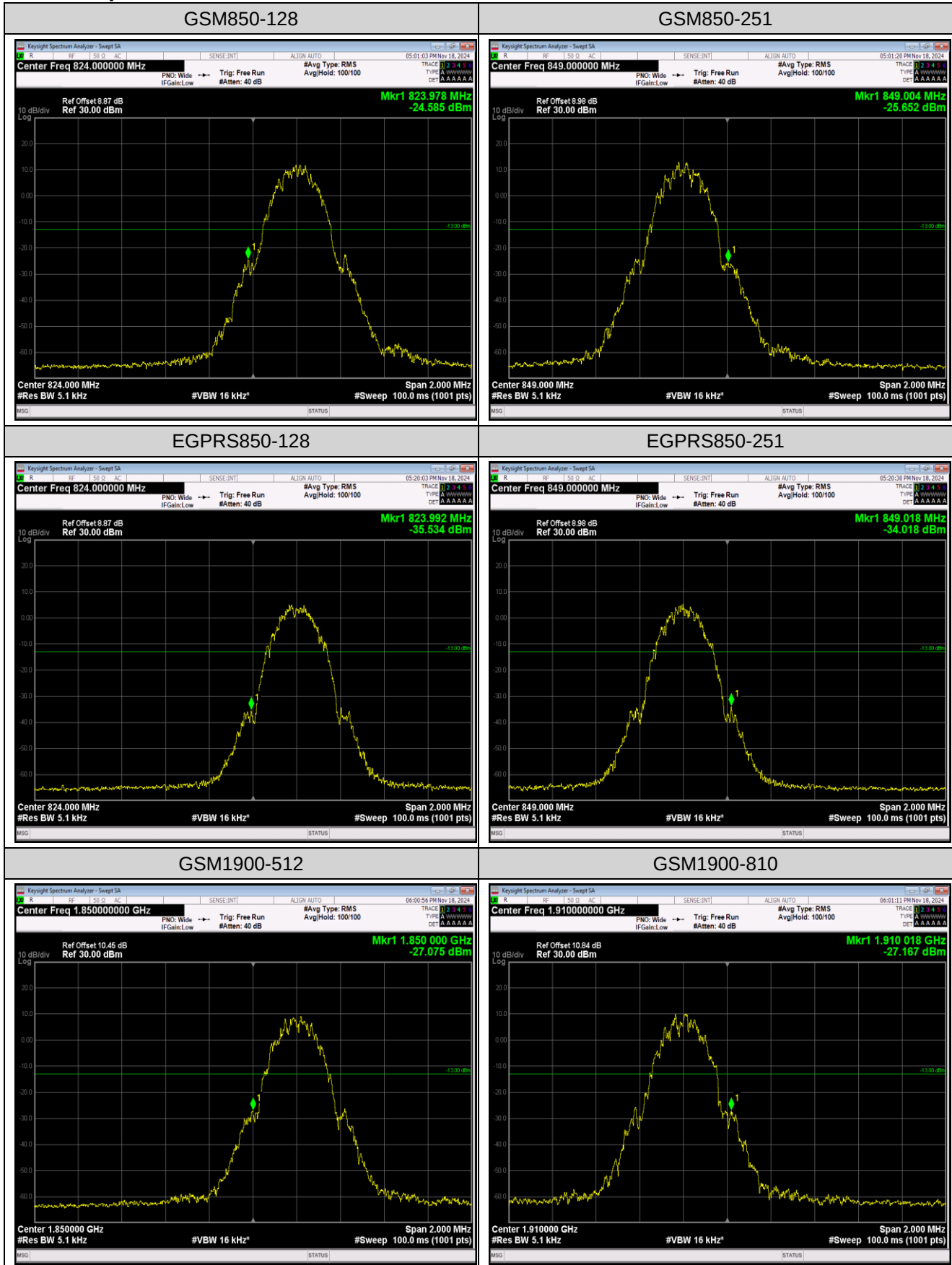


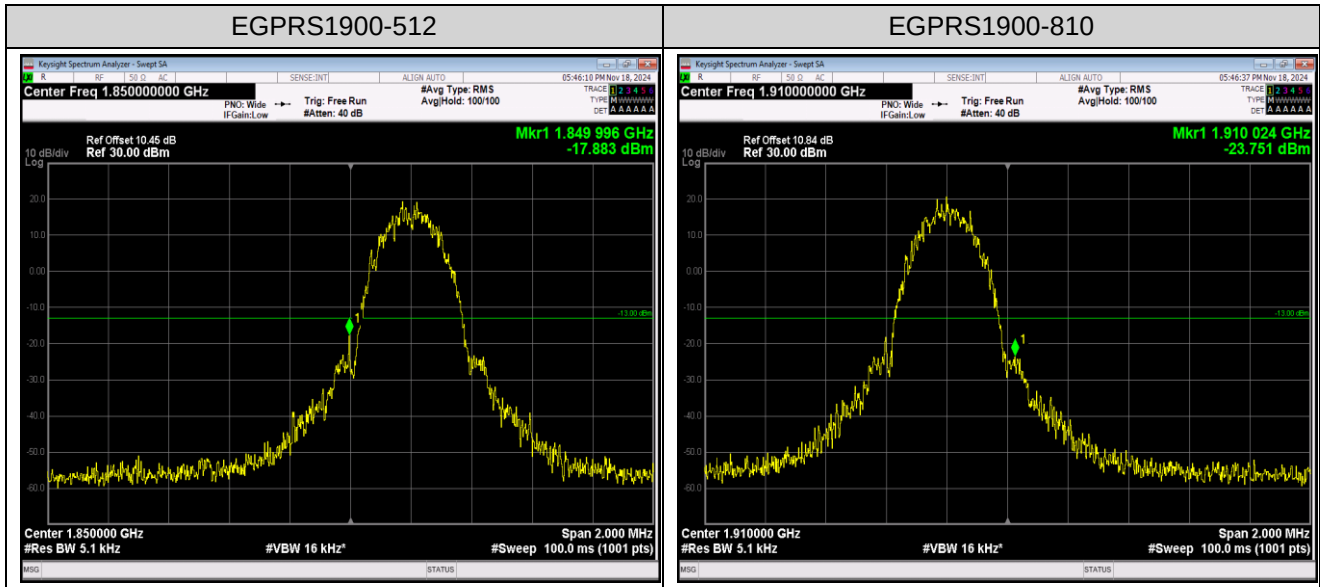
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.58	-13	PASS
GSM850	251	5	849.00	-25.65	-13	PASS
EGPRS850	128	8	823.99	-35.53	-13	PASS
EGPRS850	251	8	849.02	-34.02	-13	PASS
GSM1900	512	0	1850.00	-27.08	-13	PASS
GSM1900	810	0	1910.02	-27.17	-13	PASS
EGPRS1900	512	2	1850.00	-17.88	-13	PASS
EGPRS1900	810	2	1910.02	-23.75	-13	PASS

Test Graphs





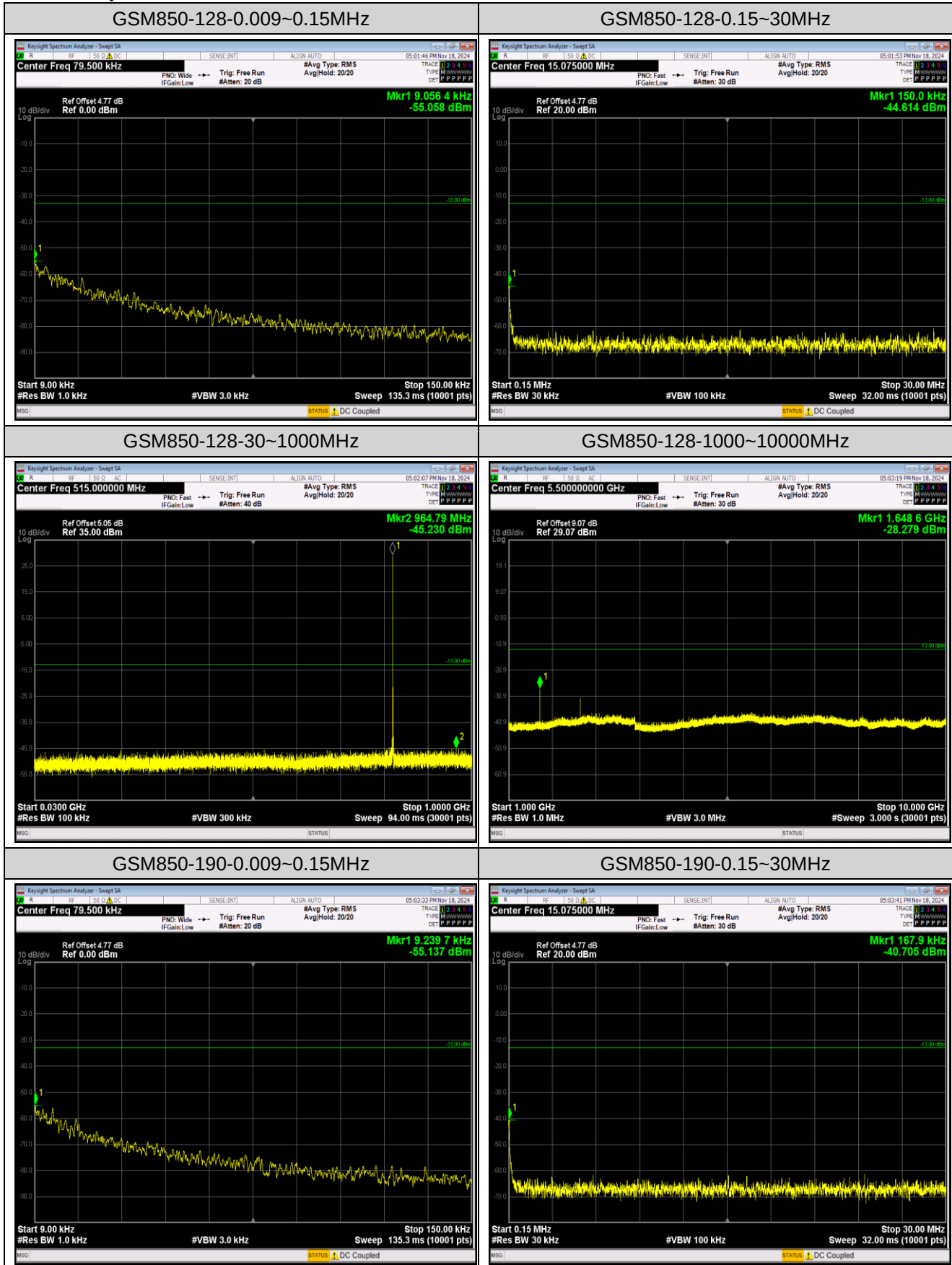
Appendix E: Conducted Spurious Emission

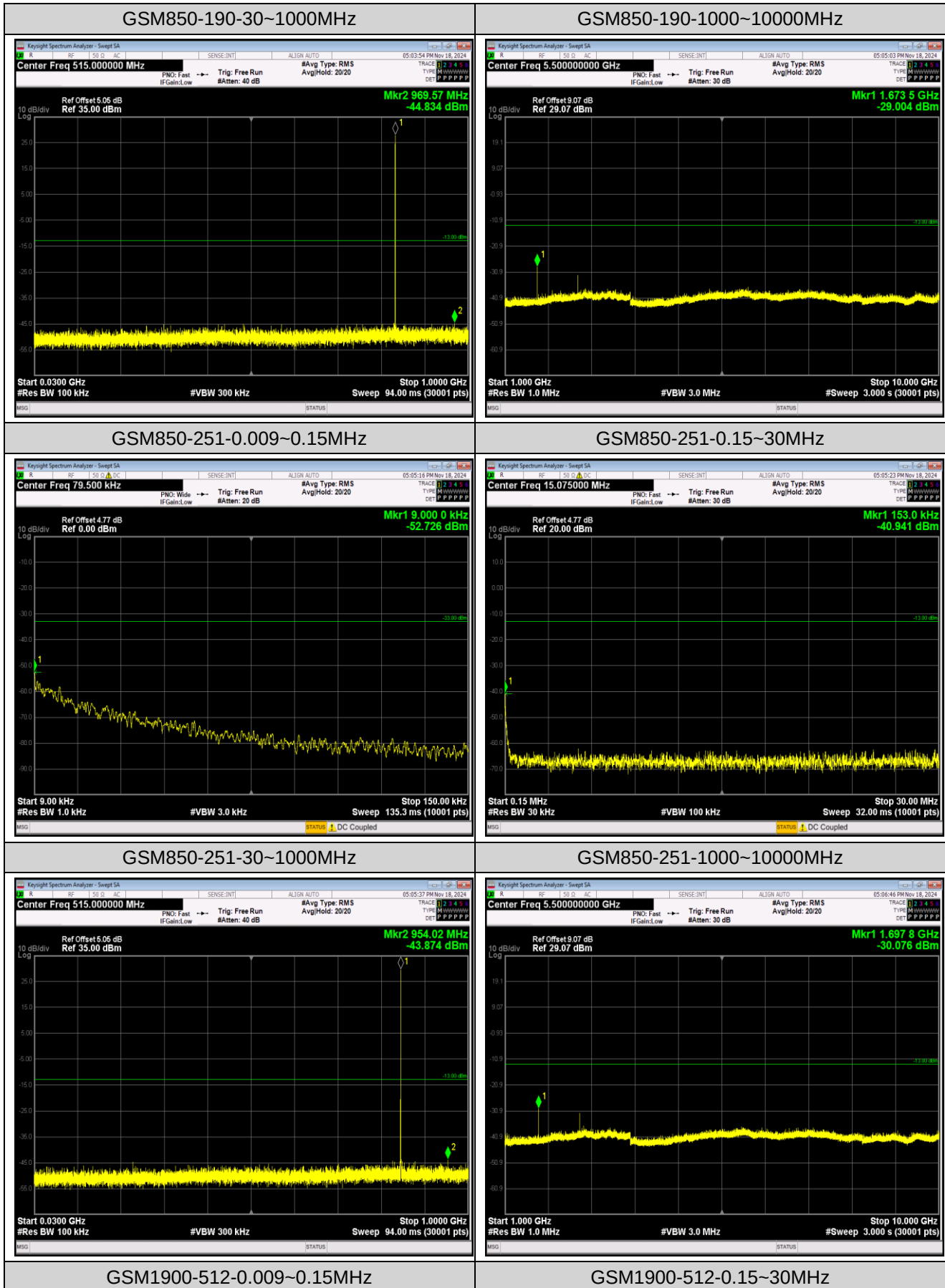
Test Result

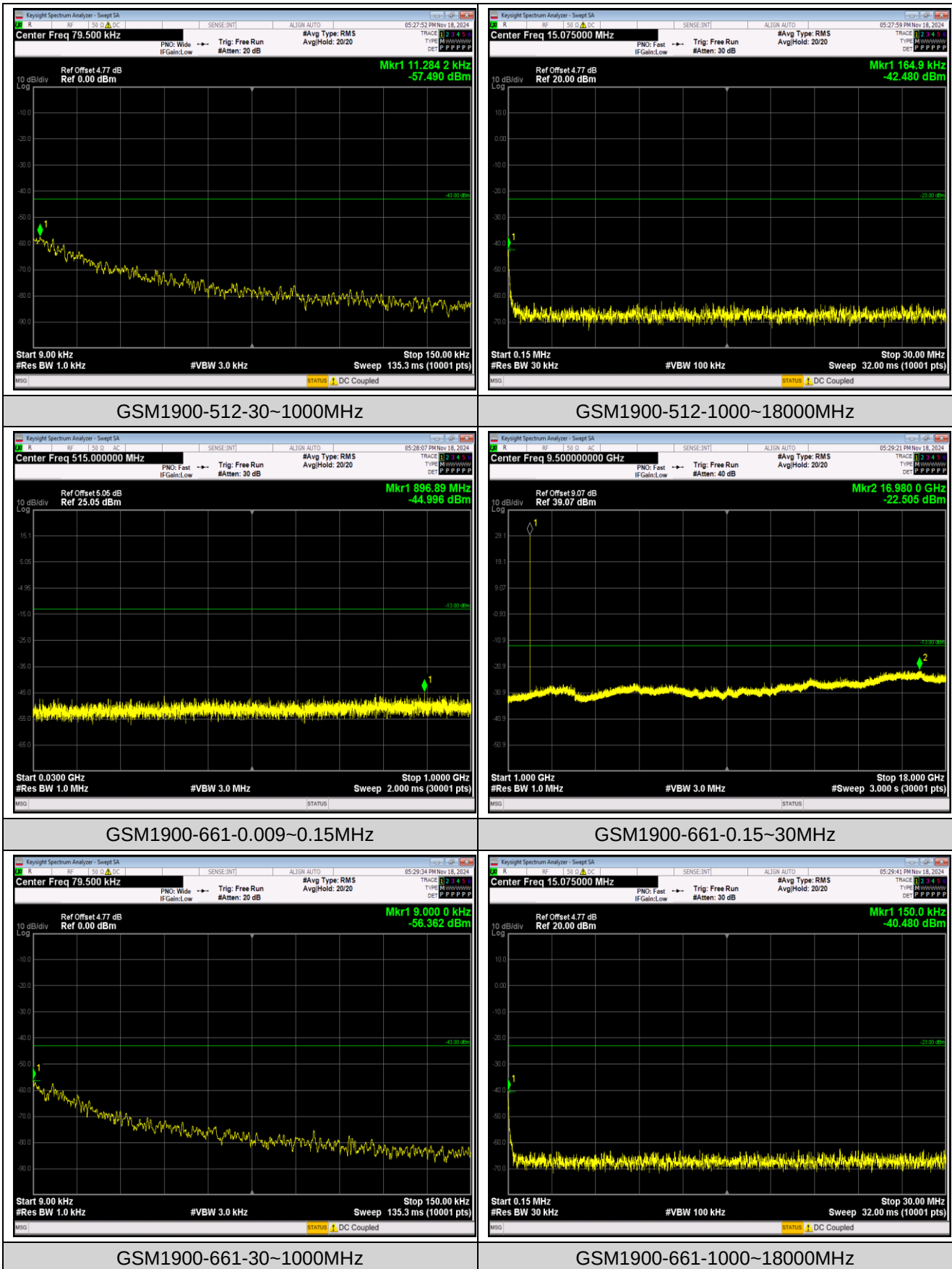
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.06	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-44.61	-13	PASS
GSM850	128	5	30~1000MHz	964.79	-45.23	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-28.28	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-55.14	-33	PASS
GSM850	190	5	0.15~30MHz	0.17	-40.71	-13	PASS
GSM850	190	5	30~1000MHz	969.57	-44.83	-13	PASS
GSM850	190	5	1000~10000MHz	1673.5	-29	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-52.73	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-40.94	-13	PASS
GSM850	251	5	30~1000MHz	954.02	-43.87	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.08	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.49	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-42.48	-23	PASS
GSM1900	512	0	30~1000MHz	896.89	-45	-13	PASS
GSM1900	512	0	1000~18000MHz	16980	-22.51	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.36	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-40.48	-23	PASS
GSM1900	661	0	30~1000MHz	904.65	-45.53	-13	PASS
GSM1900	661	0	1000~18000MHz	16987.37	-22.12	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.81	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.62	-23	PASS
GSM1900	810	0	30~1000MHz	803.15	-45.12	-13	PASS
GSM1900	810	0	1000~18000MHz	16962.43	-21.93	-13	PASS

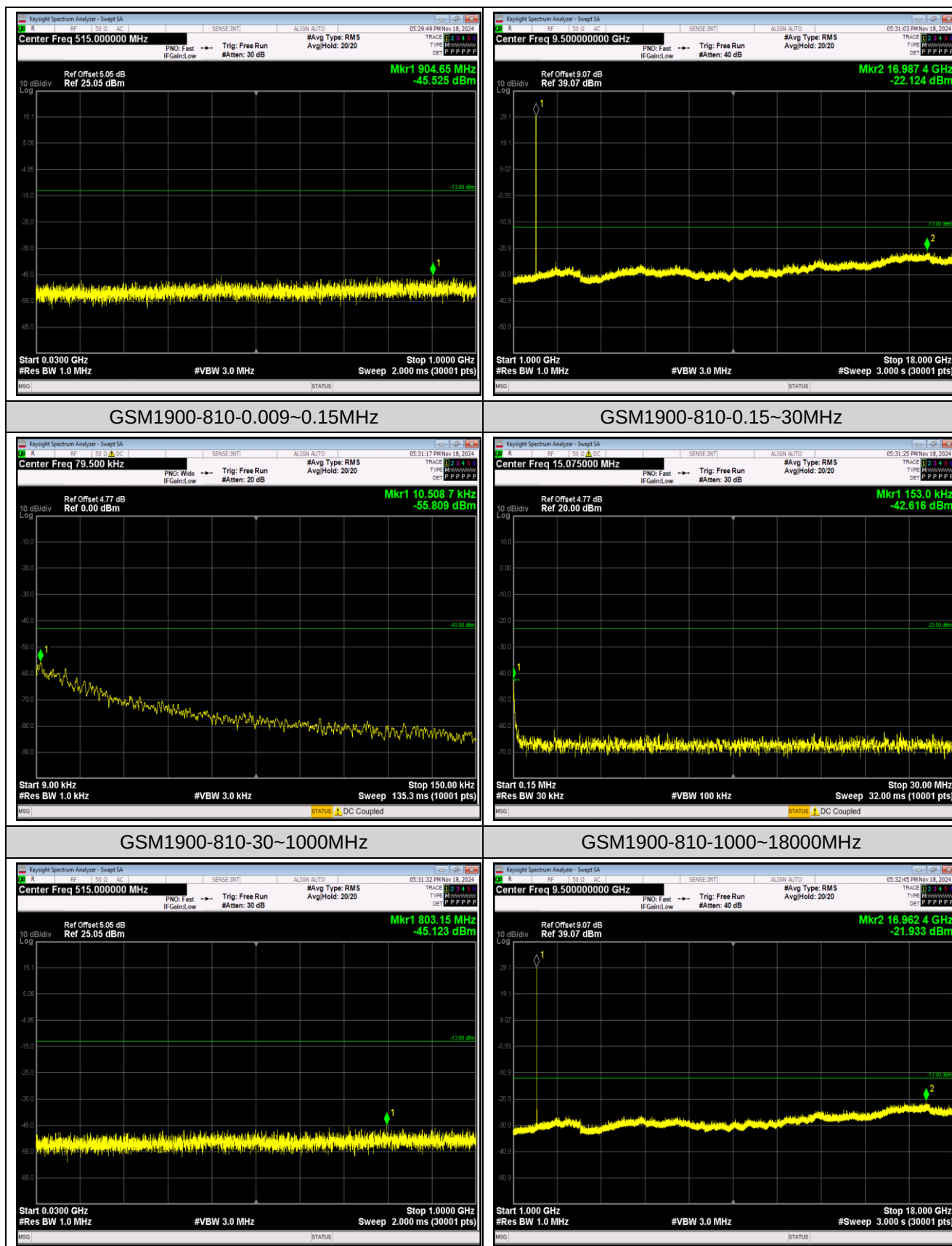
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	-2.32	-0.002773	±2.5	Pass
	-20	-3.07	-0.003670		
	-10	-3.71	-0.004435		
	0	-3.26	-0.003897		
	10	-3.84	-0.004590		
	20	-1.00	-0.001195		
	30	-0.90	-0.001076		
	40	-2.42	-0.002893		
	50	-1.29	-0.001542		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-1.39	-0.001661	±2.5	Pass
	3.91	-3.52	-0.004208		
	4.50	-3.94	-0.004710		
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	1.74	0.002080	±2.5	Pass
	-20	2.94	0.003514		
	-10	2.49	0.002976		
	0	2.65	0.003168		
	10	7.88	0.009419		
	20	17.82	0.021301		
	30	15.43	0.018444		
	40	16.85	0.020141		
	50	14.88	0.017786		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	4.65	0.005558	±2.5	Pass
	3.91	2.49	0.002976		
	4.50	1.26	0.001506		
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	9.52	0.005064	Within authorized band for PCS 1900	Pass
	-20	6.97	0.003707		
	-10	9.78	0.005202		
	0	14.21	0.007559		
	10	8.46	0.004500		
	20	12.11	0.006441		
	30	9.88	0.005255		
	40	14.46	0.007691		
	50	10.14	0.005394		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	8.85	0.004707	Within authorized band for PCS 1900	Pass
	3.91	10.49	0.005580		
	4.50	5.78	0.003074		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.91	-30	0.87	0.000463	Within authorized band for PCS 1900	Pass
	-20	3.26	0.001734		
	-10	-0.32	-0.000170		
	0	0.77	0.000410		
	10	8.04	0.004277		
	20	14.04	0.007468		
	30	13.62	0.007245		
	40	13.59	0.007229		
	50	12.91	0.006867		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	0.68	0.000362	Within authorized band for PCS 1900	Pass
	3.91	0.26	0.000138		
	4.50	2.68	0.001426		
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

