

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	33.74	30.09	38.45	PASS
GSM850	190	5	33.89	30.24	38.45	PASS
GSM850	251	5	33.77	30.12	38.45	PASS
GSM1900	512	0	30.78	30.28	33.00	PASS
GSM1900	661	0	30.77	30.27	33.00	PASS
GSM1900	810	0	30.54	30.04	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.72	30.07	38.45	PASS
GPRS850	128	5	2	32.74	29.09	38.45	PASS
GPRS850	128	5	3	30.73	27.08	38.45	PASS
GPRS850	128	5	4	29.66	26.01	38.45	PASS
GPRS850	190	5	1	33.87	30.22	38.45	PASS
GPRS850	190	5	2	32.89	29.24	38.45	PASS
GPRS850	190	5	3	30.92	27.27	38.45	PASS
GPRS850	190	5	4	29.88	26.23	38.45	PASS
GPRS850	251	5	1	33.74	30.09	38.45	PASS
GPRS850	251	5	2	32.81	29.16	38.45	PASS
GPRS850	251	5	3	30.87	27.22	38.45	PASS
GPRS850	251	5	4	29.82	26.17	38.45	PASS
GPRS1900	512	0	1	30.75	30.25	33.00	PASS
GPRS1900	512	0	2	29.64	29.14	33.00	PASS
GPRS1900	512	0	3	27.54	27.04	33.00	PASS
GPRS1900	512	0	4	26.50	26.00	33.00	PASS
GPRS1900	661	0	1	30.71	30.21	33.00	PASS
GPRS1900	661	0	2	29.60	29.10	33.00	PASS
GPRS1900	661	0	3	27.44	26.94	33.00	PASS
GPRS1900	661	0	4	26.41	25.91	33.00	PASS
GPRS1900	810	0	1	30.48	29.98	33.00	PASS
GPRS1900	810	0	2	29.37	28.87	33.00	PASS
GPRS1900	810	0	3	27.22	26.72	33.00	PASS
GPRS1900	810	0	4	26.18	25.68	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.67	24.02	38.45	PASS
EGPRS850	128	8	2	26.56	22.91	38.45	PASS
EGPRS850	128	8	3	24.55	20.9	38.45	PASS
EGPRS850	128	8	4	23.35	19.7	38.45	PASS
EGPRS850	190	8	1	27.77	24.12	38.45	PASS
EGPRS850	190	8	2	26.75	23.1	38.45	PASS
EGPRS850	190	8	3	24.68	21.03	38.45	PASS
EGPRS850	190	8	4	23.46	19.81	38.45	PASS
EGPRS850	251	8	1	27.87	24.22	38.45	PASS
EGPRS850	251	8	2	26.76	23.11	38.45	PASS
EGPRS850	251	8	3	24.70	21.05	38.45	PASS
EGPRS850	251	8	4	23.55	19.9	38.45	PASS
EGPRS1900	512	2	1	26.28	25.78	33.00	PASS
EGPRS1900	512	2	2	25.49	24.99	33.00	PASS
EGPRS1900	512	2	3	23.73	23.23	33.00	PASS
EGPRS1900	512	2	4	22.68	22.18	33.00	PASS
EGPRS1900	661	2	1	26.31	25.81	33.00	PASS
EGPRS1900	661	2	2	25.44	24.94	33.00	PASS
EGPRS1900	661	2	3	23.71	23.21	33.00	PASS
EGPRS1900	661	2	4	22.68	22.18	33.00	PASS
EGPRS1900	810	2	1	26.00	25.5	33.00	PASS
EGPRS1900	810	2	2	25.11	24.61	33.00	PASS
EGPRS1900	810	2	3	23.27	22.77	33.00	PASS
EGPRS1900	810	2	4	22.26	21.76	33.00	PASS

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

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

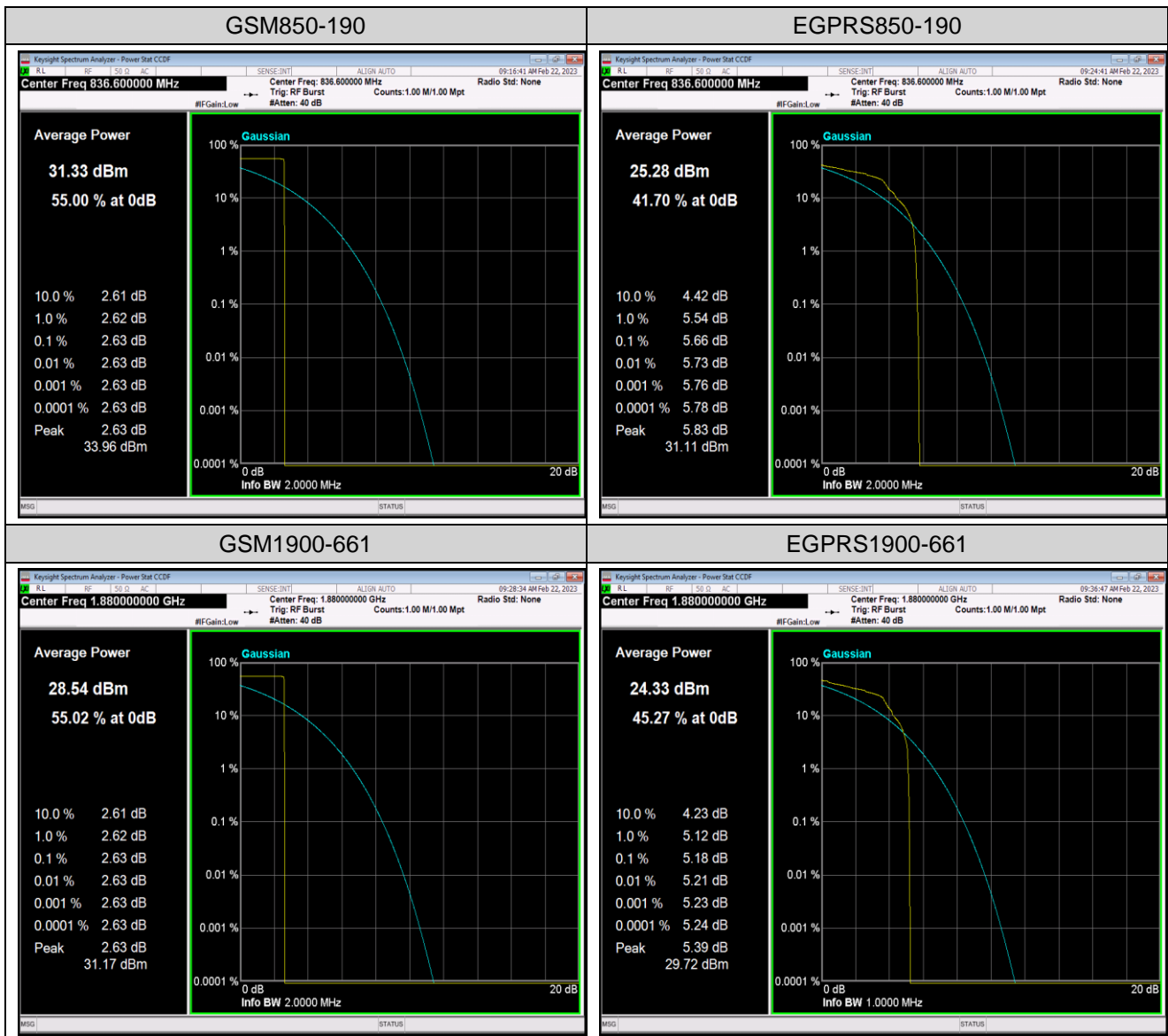
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.63	13	PASS
EGPRS850	190	8	5.66	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.18	13	PASS

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

Test Graphs

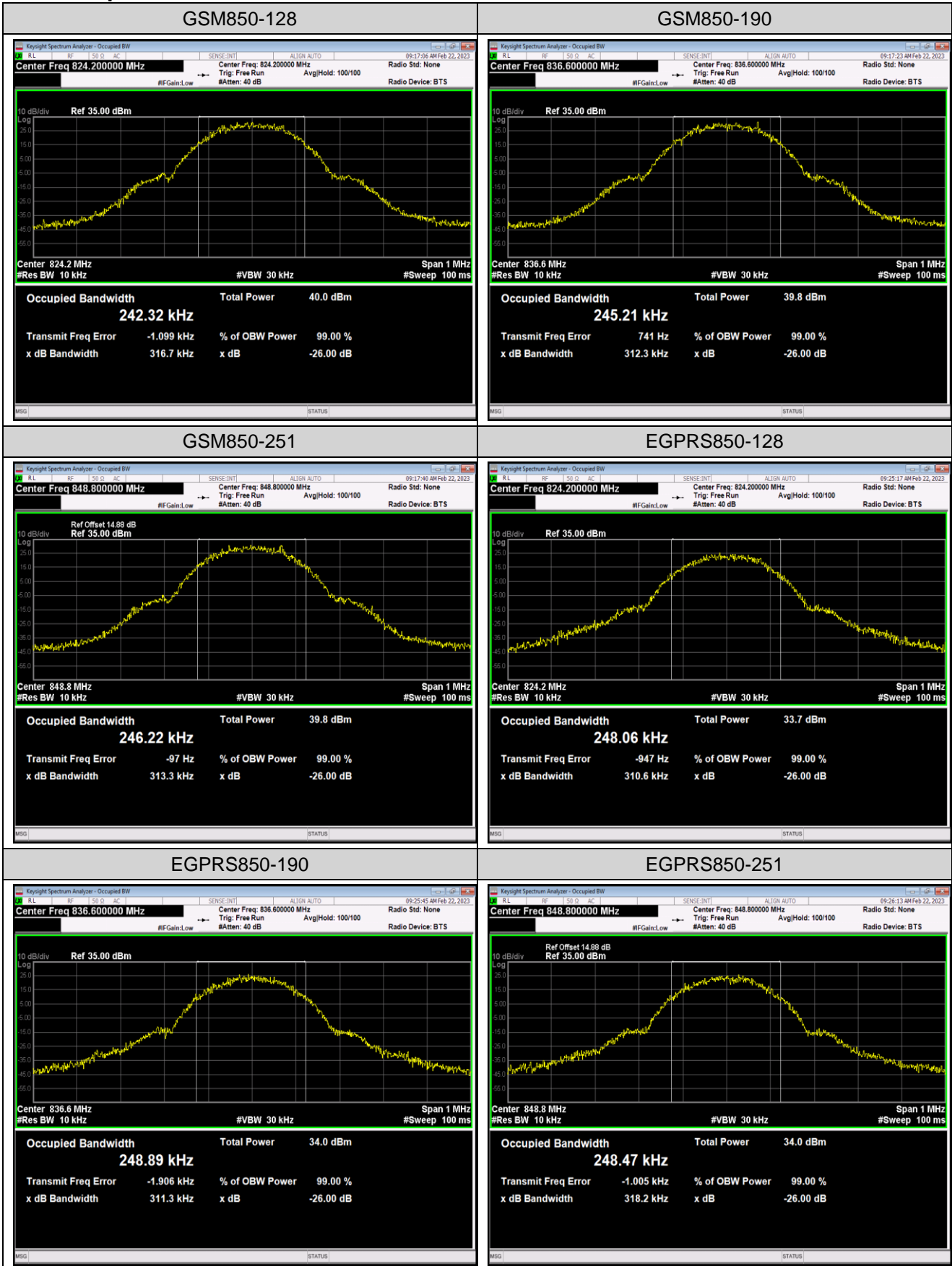


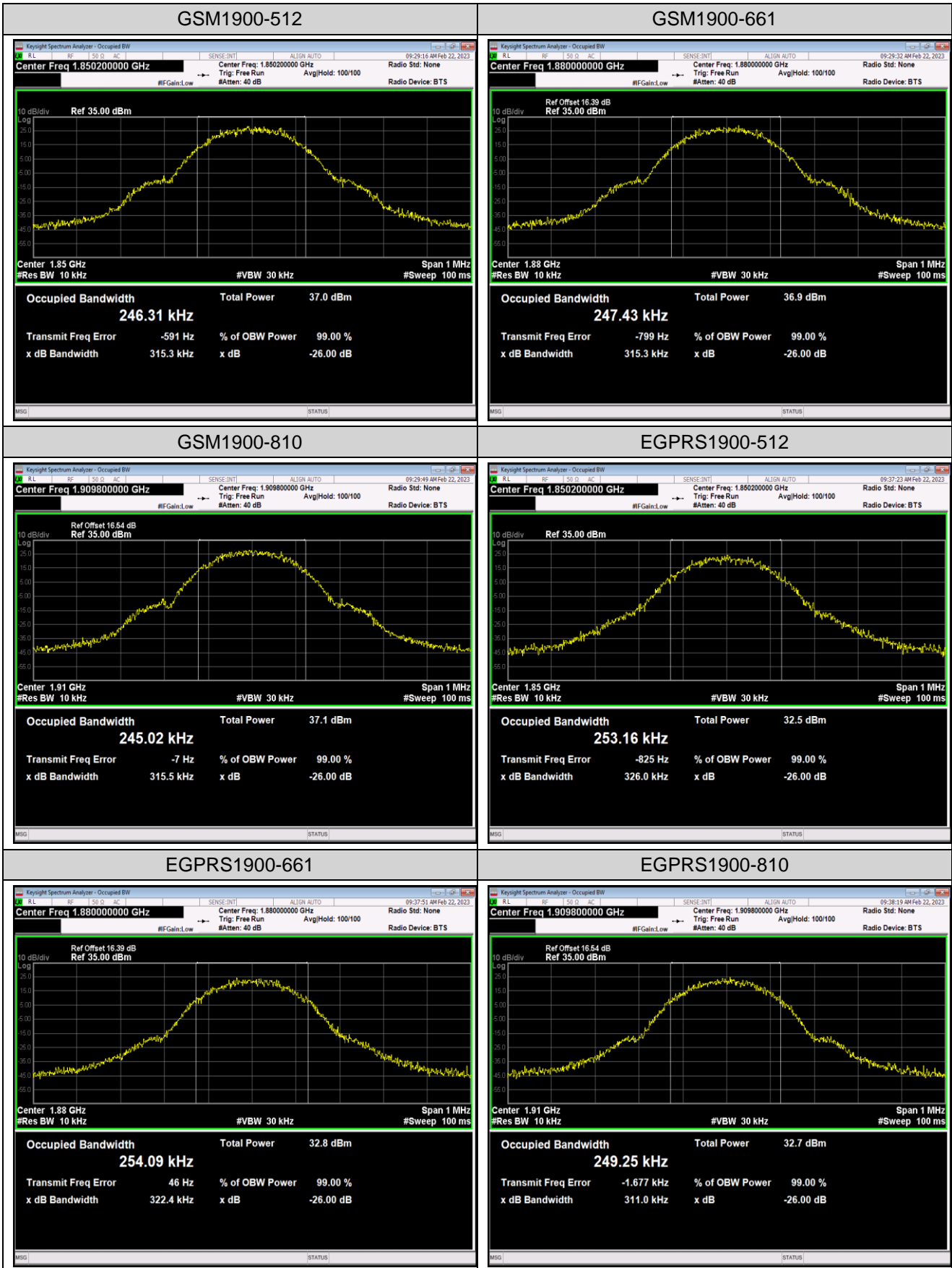
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24232	0.3167	---	PASS
GSM850	190	5	0.24521	0.3123	---	PASS
GSM850	251	5	0.24622	0.3133	---	PASS
EGPRS850	128	8	0.24806	0.3106	---	PASS
EGPRS850	190	8	0.24889	0.3113	---	PASS
EGPRS850	251	8	0.24847	0.3182	---	PASS
GSM1900	512	0	0.24631	0.3153	---	PASS
GSM1900	661	0	0.24743	0.3153	---	PASS
GSM1900	810	0	0.24502	0.3155	---	PASS
EGPRS1900	512	2	0.25316	0.3260	---	PASS
EGPRS1900	661	2	0.25409	0.3224	---	PASS
EGPRS1900	810	2	0.24925	0.3110	---	PASS

Test Graphs

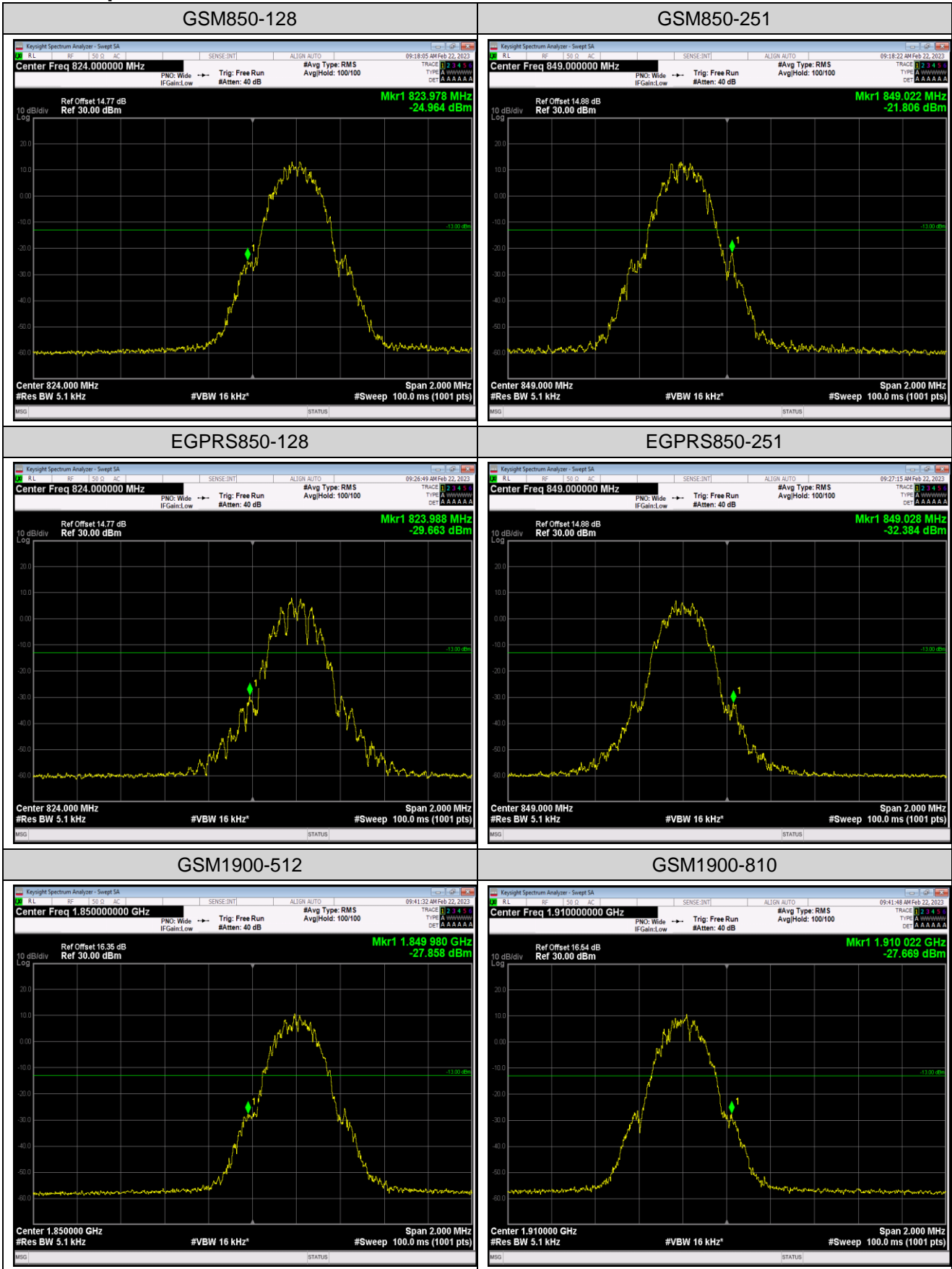


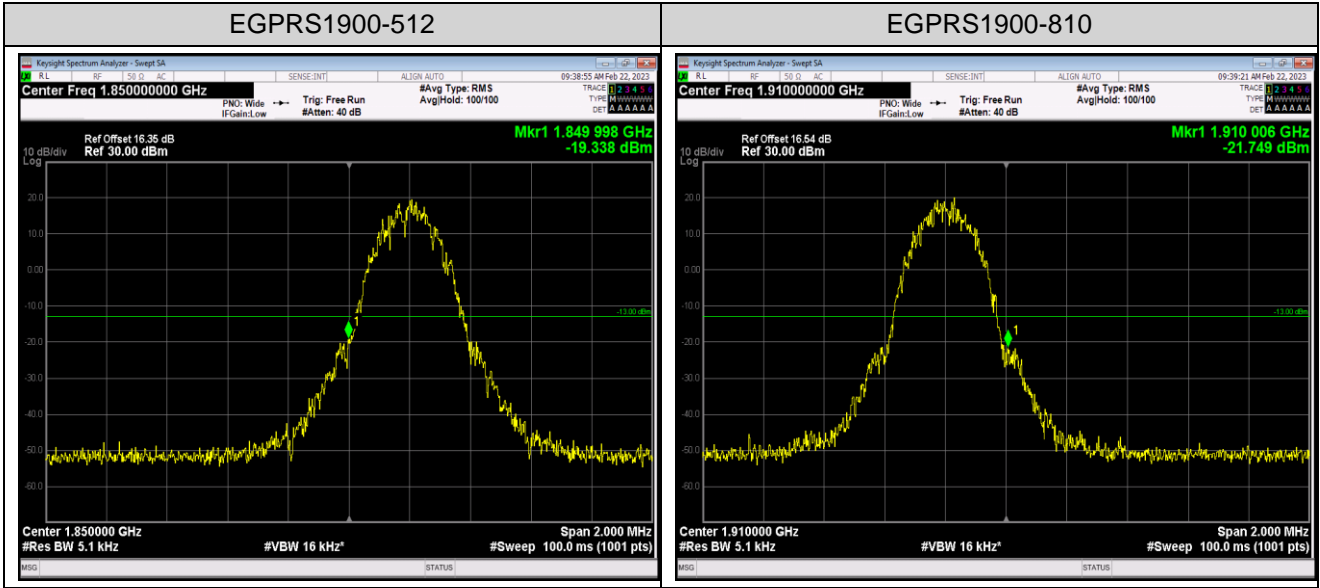


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.96	-13	PASS
GSM850	251	5	849.02	-21.81	-13	PASS
EGPRS850	128	8	823.99	-29.66	-13	PASS
EGPRS850	251	8	849.03	-32.38	-13	PASS
GSM1900	512	0	1849.98	-27.86	-13	PASS
GSM1900	810	0	1910.02	-27.67	-13	PASS
EGPRS1900	512	2	1850.00	-19.34	-13	PASS
EGPRS1900	810	2	1910.01	-21.75	-13	PASS

Test Graphs





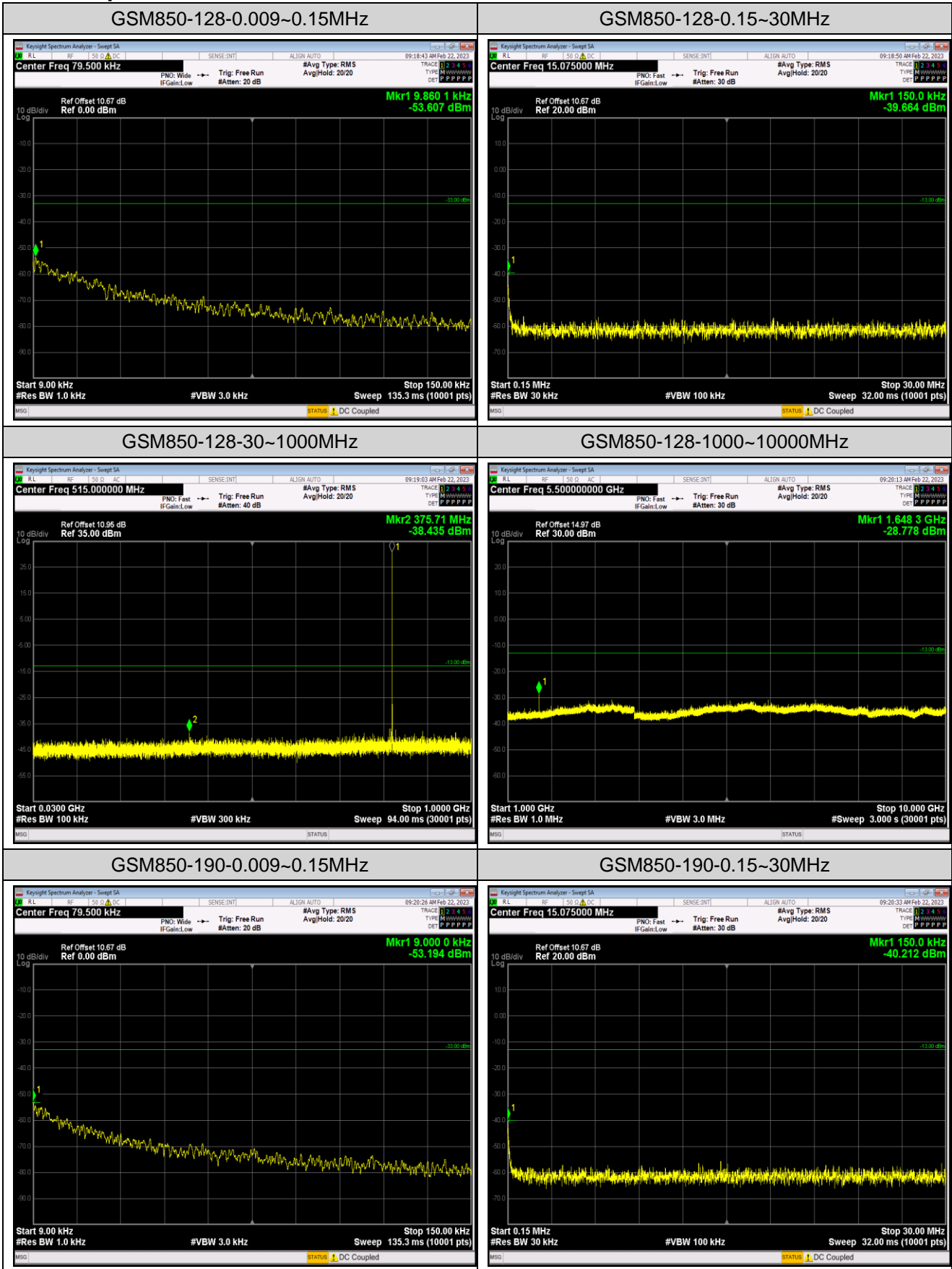
Appendix E: Conducted Spurious Emission

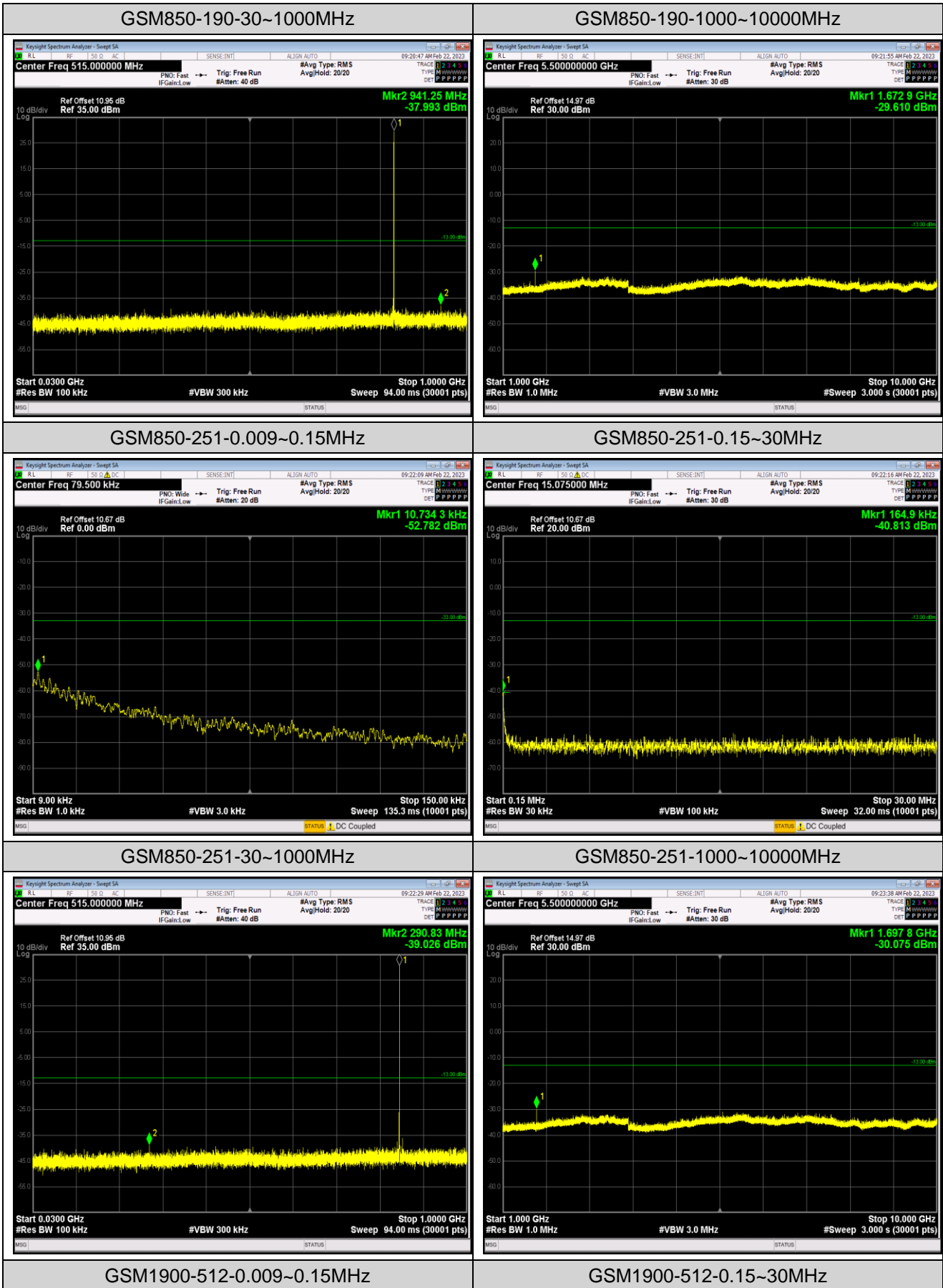
Test Result

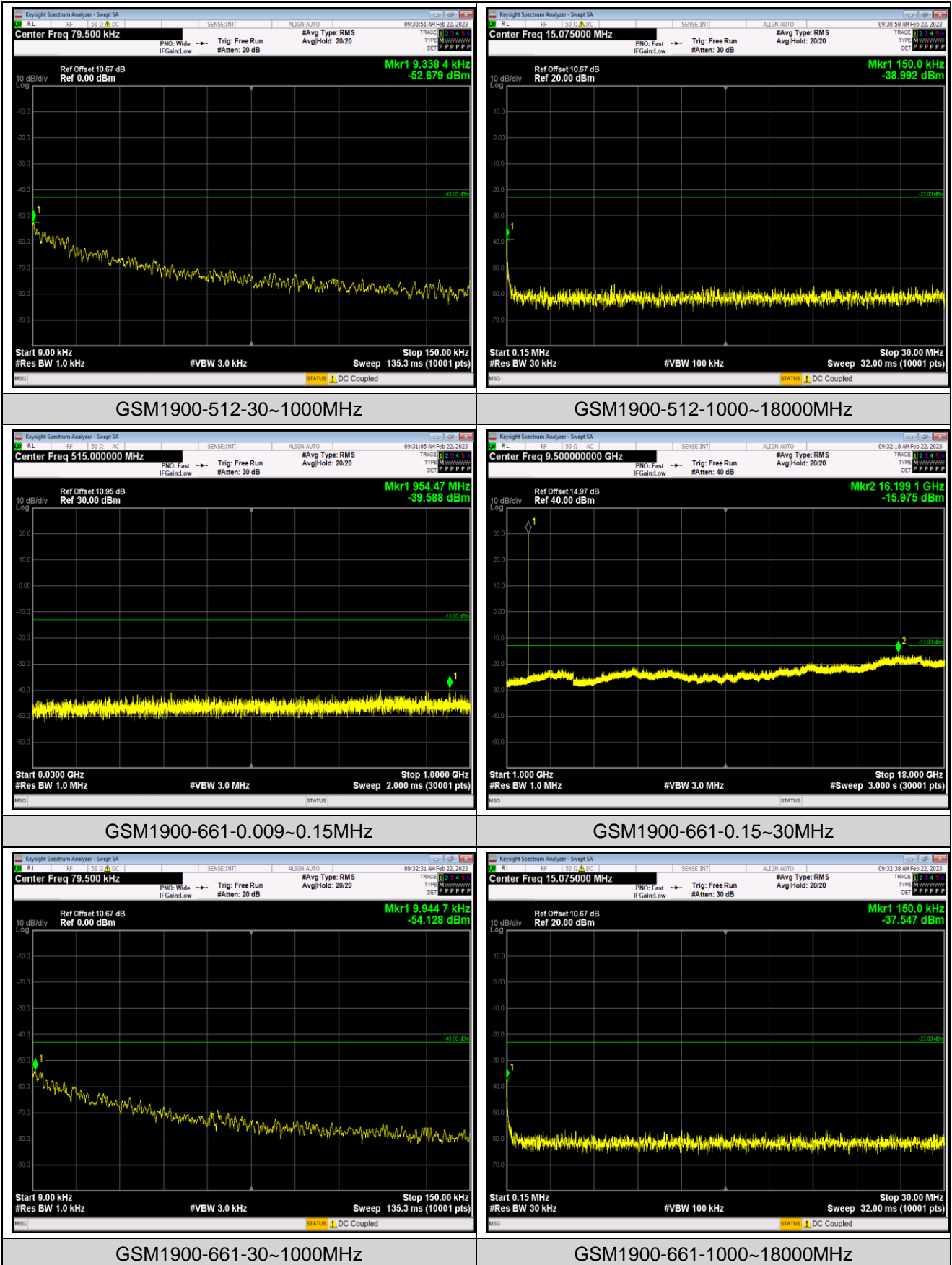
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-53.61	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-39.66	-13	PASS
GSM850	128	5	30~1000MHz	375.71	-38.44	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.78	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.19	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-40.21	-13	PASS
GSM850	190	5	30~1000MHz	941.25	-37.99	-13	PASS
GSM850	190	5	1000~10000MHz	1672.9	-29.61	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-52.78	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-40.81	-13	PASS
GSM850	251	5	30~1000MHz	290.83	-39.03	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.08	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-52.68	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-38.99	-23	PASS
GSM1900	512	0	30~1000MHz	954.47	-39.59	-13	PASS
GSM1900	512	0	1000~18000MHz	16199.13	-15.98	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-54.13	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-37.55	-23	PASS
GSM1900	661	0	30~1000MHz	908.53	-39.77	-13	PASS
GSM1900	661	0	1000~18000MHz	16909.17	-16.16	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-54.23	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.32	-23	PASS
GSM1900	810	0	30~1000MHz	999.19	-39.81	-13	PASS
GSM1900	810	0	1000~18000MHz	16785.63	-16.58	-13	PASS

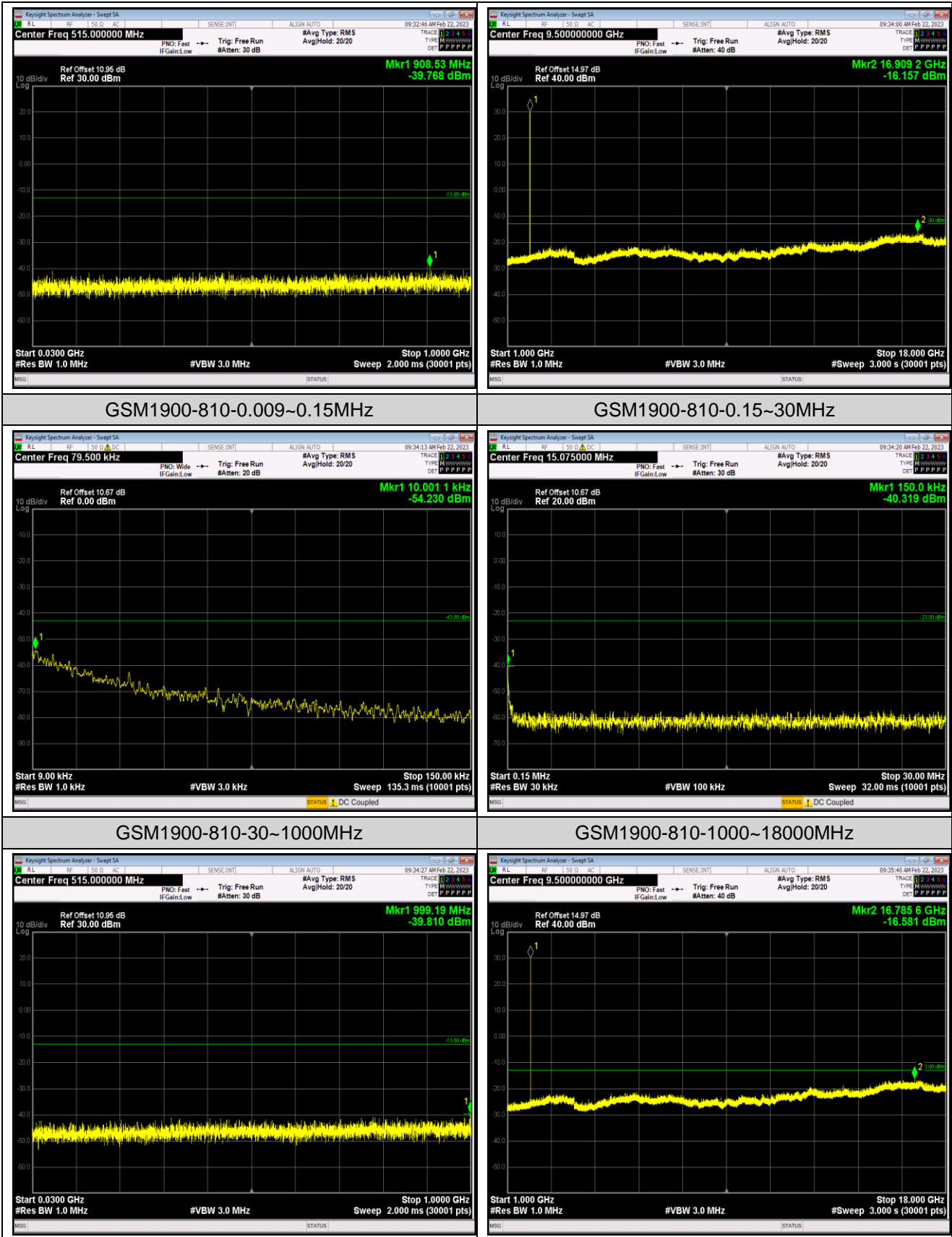
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs









Appendix 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		
3.87	-30	-2.62	-0.003132	±2.5	Pass
	-20	-3.07	-0.003670		
	-10	-11.43	-0.013662		
	0	-11.75	-0.014045		
	10	-11.30	-0.013507		
	20	-13.04	-0.015587		
	30	-8.27	-0.009885		
	40	-10.40	-0.012431		
	50	-9.94	-0.011881		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-1.16	-0.001387	±2.5	Pass
	3.87	-3.42	-0.004088		
	4.45	-3.00	-0.003586		
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		
3.87	-30	-2.13	-0.002546	±2.5	Pass
	-20	-0.61	-0.000729		
	-10	-8.36	-0.009993		
	0	-0.94	-0.001124		
	10	-1.52	-0.001817		
	20	9.98	0.011929		
	30	6.62	0.007913		
	40	3.91	0.004674		
	50	-5.13	-0.006132		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-1.52	-0.001817	±2.5	Pass
	3.87	1.13	0.001351		
	4.45	-2.42	-0.002893		
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		
3.87	-30	-10.14	-0.005394	Within authorized band for PCS 1900	Pass
	-20	-11.78	-0.006266		
	-10	-18.73	-0.009963		
	0	-23.47	-0.012484		
	10	-16.47	-0.008761		
	20	-14.04	-0.007468		
	30	-16.69	-0.008878		
	40	-16.76	-0.008915		
	50	-21.41	-0.011388		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-18.69	-0.009941	Within authorized band for PCS 1900	Pass
	3.87	-15.56	-0.008277		
	4.45	-12.79	-0.006803		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-9.72	-0.005170	Within authorized band for PCS 1900	Pass
	-20	-13.43	-0.007144		
	-10	-9.04	-0.004809		
	0	-11.14	-0.005926		
	10	-7.39	-0.003931		
	20	-8.78	-0.004670		
	30	9.52	0.005064		
	40	13.27	0.007059		
	50	5.94	0.003160		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-4.20	-0.002234	Within authorized band for PCS 1900	Pass
	3.87	0.16	0.000085		
	4.45	-8.10	-0.004309		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

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

