

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	32.28	28.58	38.45	PASS
GSM850	190	5	32.53	28.83	38.45	PASS
GSM850	251	5	32.45	28.75	38.45	PASS
GSM1900	512	0	29.03	30.18	33.00	PASS
GSM1900	661	0	29.29	30.44	33.00	PASS
GSM1900	810	0	29.27	30.42	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.29	28.59	38.45	PASS
GPRS850	128	5	2	31.74	28.04	38.45	PASS
GPRS850	128	5	3	30.28	26.58	38.45	PASS
GPRS850	128	5	4	29.32	25.62	38.45	PASS
GPRS850	190	5	1	32.53	28.83	38.45	PASS
GPRS850	190	5	2	31.96	28.26	38.45	PASS
GPRS850	190	5	3	30.46	26.76	38.45	PASS
GPRS850	190	5	4	29.48	25.78	38.45	PASS
GPRS850	251	5	1	32.46	28.76	38.45	PASS
GPRS850	251	5	2	31.91	28.21	38.45	PASS
GPRS850	251	5	3	30.44	26.74	38.45	PASS
GPRS850	251	5	4	29.47	25.77	38.45	PASS
GPRS1900	512	0	1	29.03	30.18	33.00	PASS
GPRS1900	512	0	2	28.30	29.45	33.00	PASS
GPRS1900	512	0	3	26.55	27.7	33.00	PASS
GPRS1900	512	0	4	25.45	26.6	33.00	PASS
GPRS1900	661	0	1	29.22	30.37	33.00	PASS
GPRS1900	661	0	2	28.48	29.63	33.00	PASS
GPRS1900	661	0	3	26.74	27.89	33.00	PASS
GPRS1900	661	0	4	25.62	26.77	33.00	PASS
GPRS1900	810	0	1	29.08	30.23	33.00	PASS
GPRS1900	810	0	2	28.31	29.46	33.00	PASS
GPRS1900	810	0	3	26.52	27.67	33.00	PASS
GPRS1900	810	0	4	25.39	26.54	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.94	23.24	38.45	PASS
EGPRS850	128	8	2	25.86	22.16	38.45	PASS
EGPRS850	128	8	3	23.79	20.09	38.45	PASS
EGPRS850	128	8	4	22.61	18.91	38.45	PASS
EGPRS850	190	8	1	27.08	23.38	38.45	PASS
EGPRS850	190	8	2	26.03	22.33	38.45	PASS
EGPRS850	190	8	3	23.97	20.27	38.45	PASS
EGPRS850	190	8	4	22.76	19.06	38.45	PASS
EGPRS850	251	8	1	27.14	23.44	38.45	PASS
EGPRS850	251	8	2	26.07	22.37	38.45	PASS
EGPRS850	251	8	3	23.99	20.29	38.45	PASS
EGPRS850	251	8	4	22.77	19.07	38.45	PASS
EGPRS1900	512	2	1	25.85	27	33.00	PASS
EGPRS1900	512	2	2	24.82	25.97	33.00	PASS
EGPRS1900	512	2	3	22.76	23.91	33.00	PASS
EGPRS1900	512	2	4	21.56	22.71	33.00	PASS
EGPRS1900	661	2	1	25.21	26.36	33.00	PASS
EGPRS1900	661	2	2	24.13	25.28	33.00	PASS
EGPRS1900	661	2	3	22.06	23.21	33.00	PASS
EGPRS1900	661	2	4	20.87	22.02	33.00	PASS
EGPRS1900	810	2	1	24.57	25.72	33.00	PASS
EGPRS1900	810	2	2	23.52	24.67	33.00	PASS
EGPRS1900	810	2	3	21.41	22.56	33.00	PASS
EGPRS1900	810	2	4	20.18	21.33	33.00	PASS

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

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

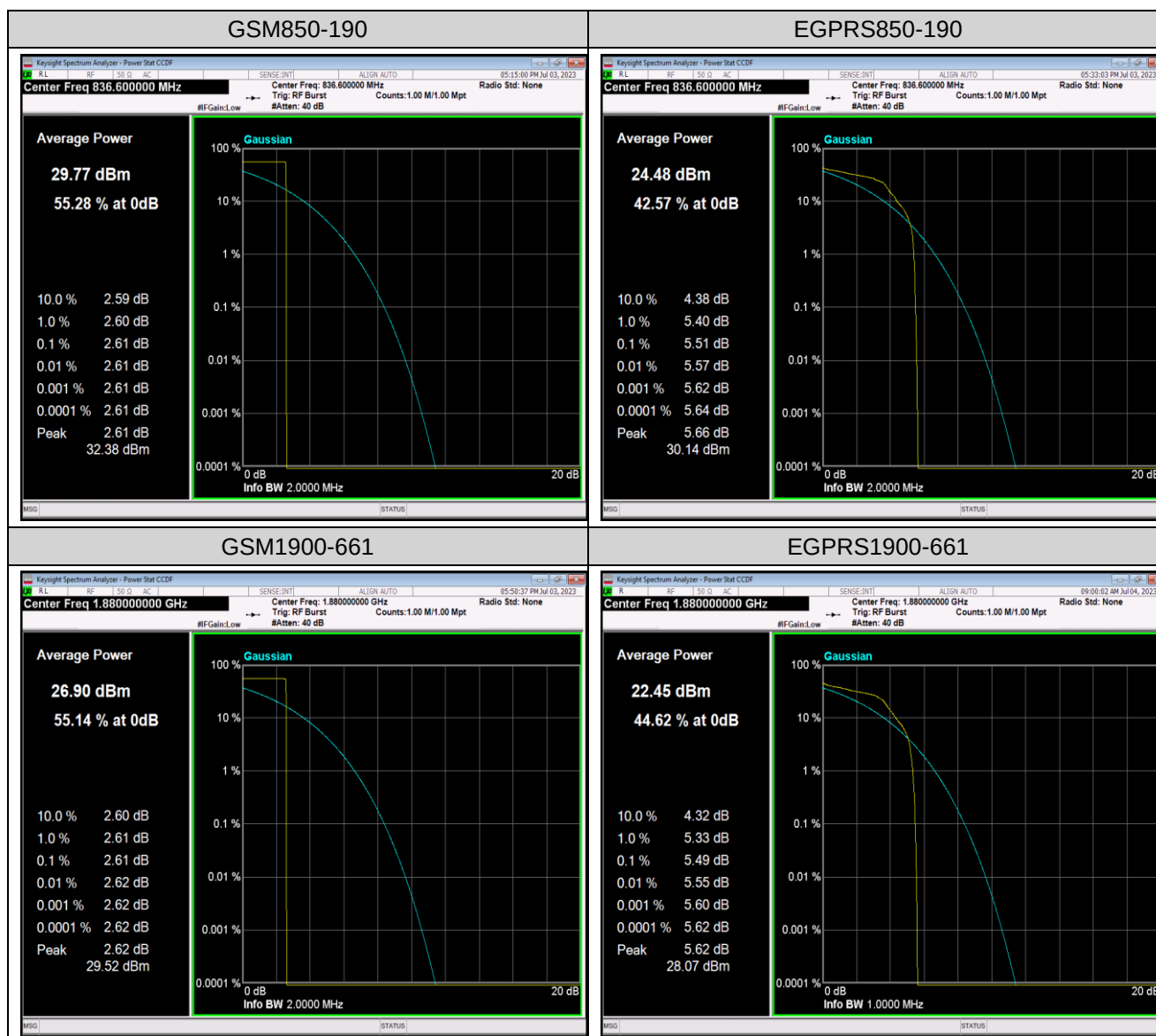
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.51	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.49	13	PASS

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

Test Graphs

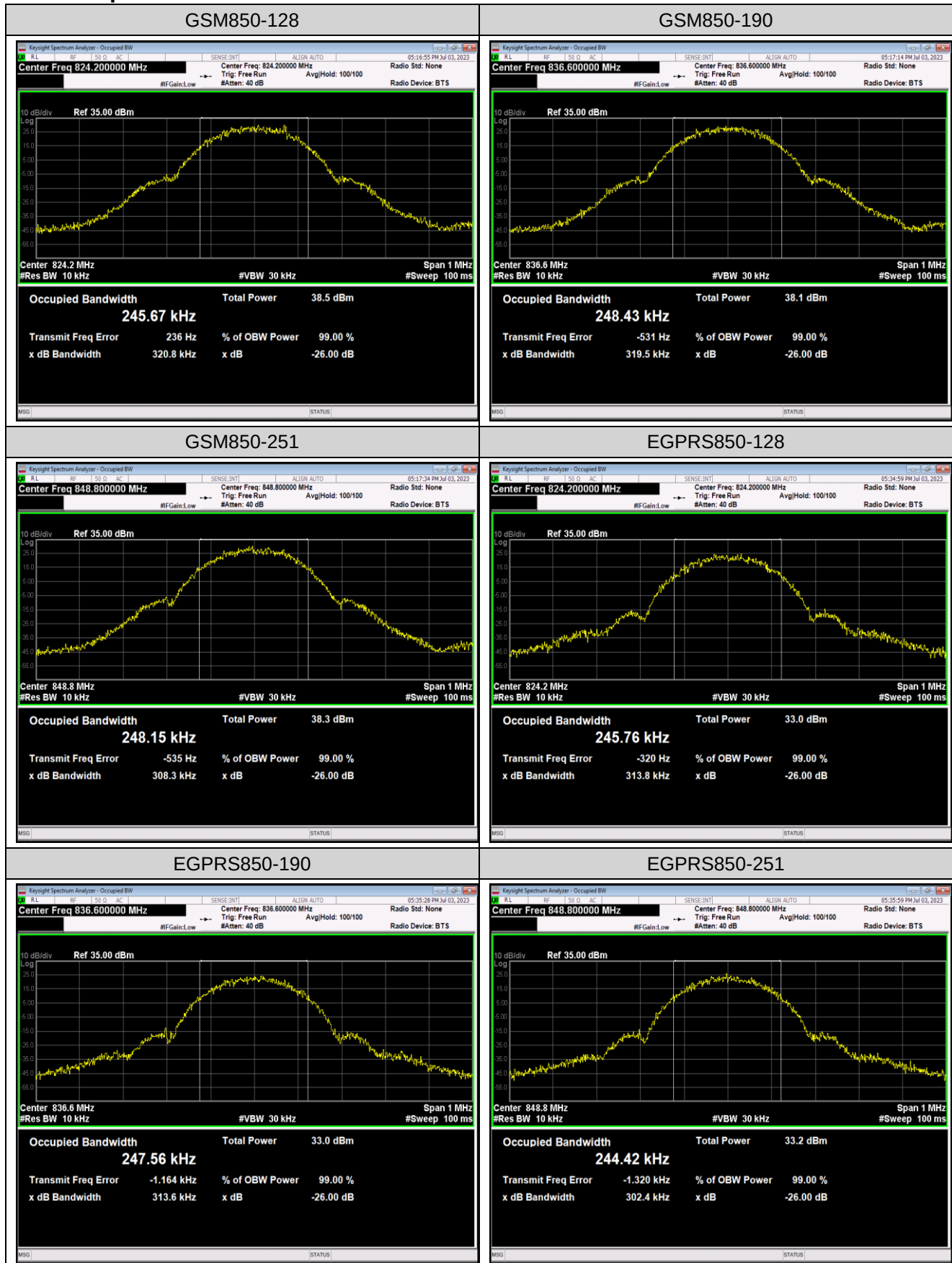


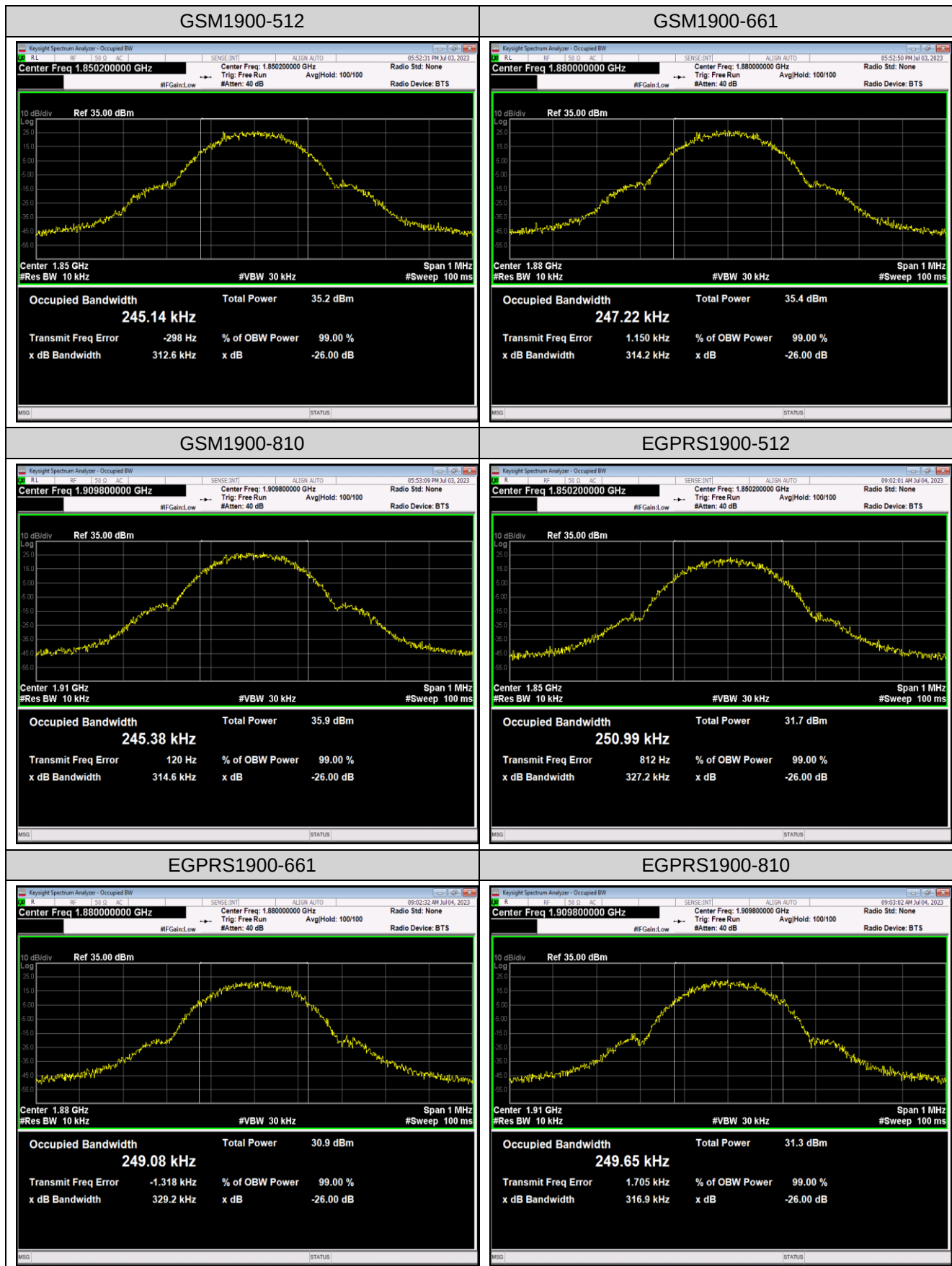
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24567	0.3208	---	PASS
GSM850	190	5	0.24843	0.3195	---	PASS
GSM850	251	5	0.24815	0.3083	---	PASS
EGPRS850	128	8	0.24576	0.3138	---	PASS
EGPRS850	190	8	0.24756	0.3136	---	PASS
EGPRS850	251	8	0.24442	0.3024	---	PASS
GSM1900	512	0	0.24514	0.3126	---	PASS
GSM1900	661	0	0.24722	0.3142	---	PASS
GSM1900	810	0	0.24538	0.3146	---	PASS
EGPRS1900	512	2	0.25099	0.3272	---	PASS
EGPRS1900	661	2	0.24908	0.3292	---	PASS
EGPRS1900	810	2	0.24965	0.3169	---	PASS

Test Graphs



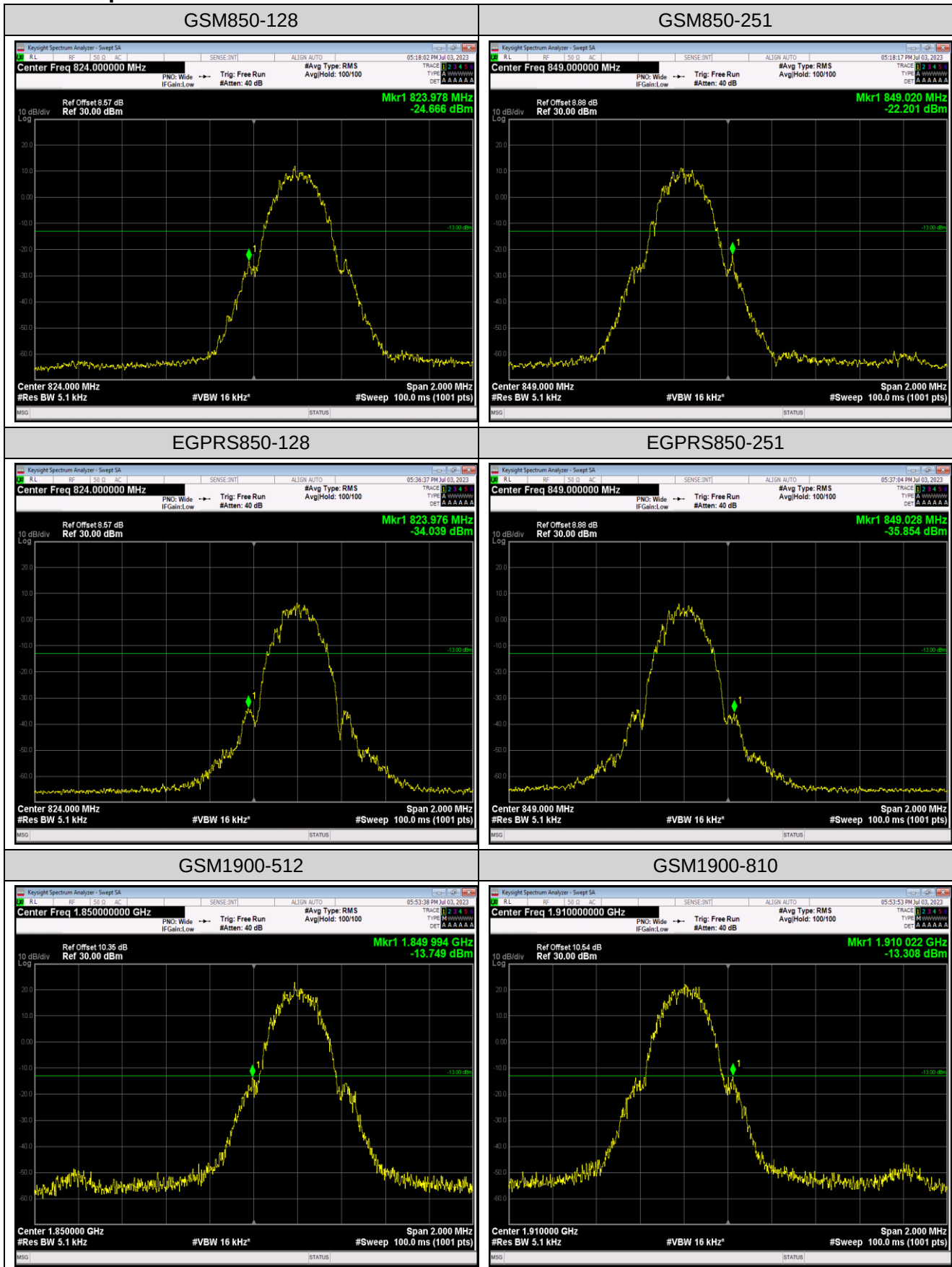


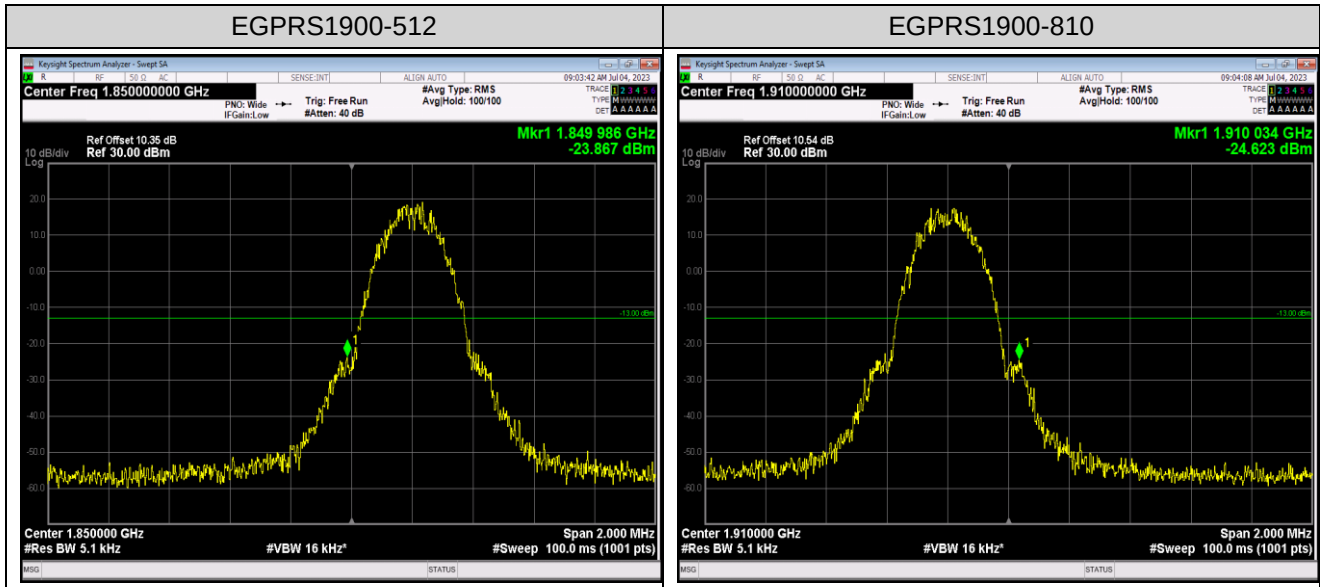
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.67	-13	PASS
GSM850	251	5	849.02	-22.20	-13	PASS
EGPRS850	128	8	823.98	-34.04	-13	PASS
EGPRS850	251	8	849.03	-35.85	-13	PASS
GSM1900	512	0	1849.99	-13.75	-13	PASS
GSM1900	810	0	1910.02	-13.31	-13	PASS
EGPRS1900	512	2	1849.99	-23.87	-13	PASS
EGPRS1900	810	2	1910.03	-24.62	-13	PASS

Test Graphs





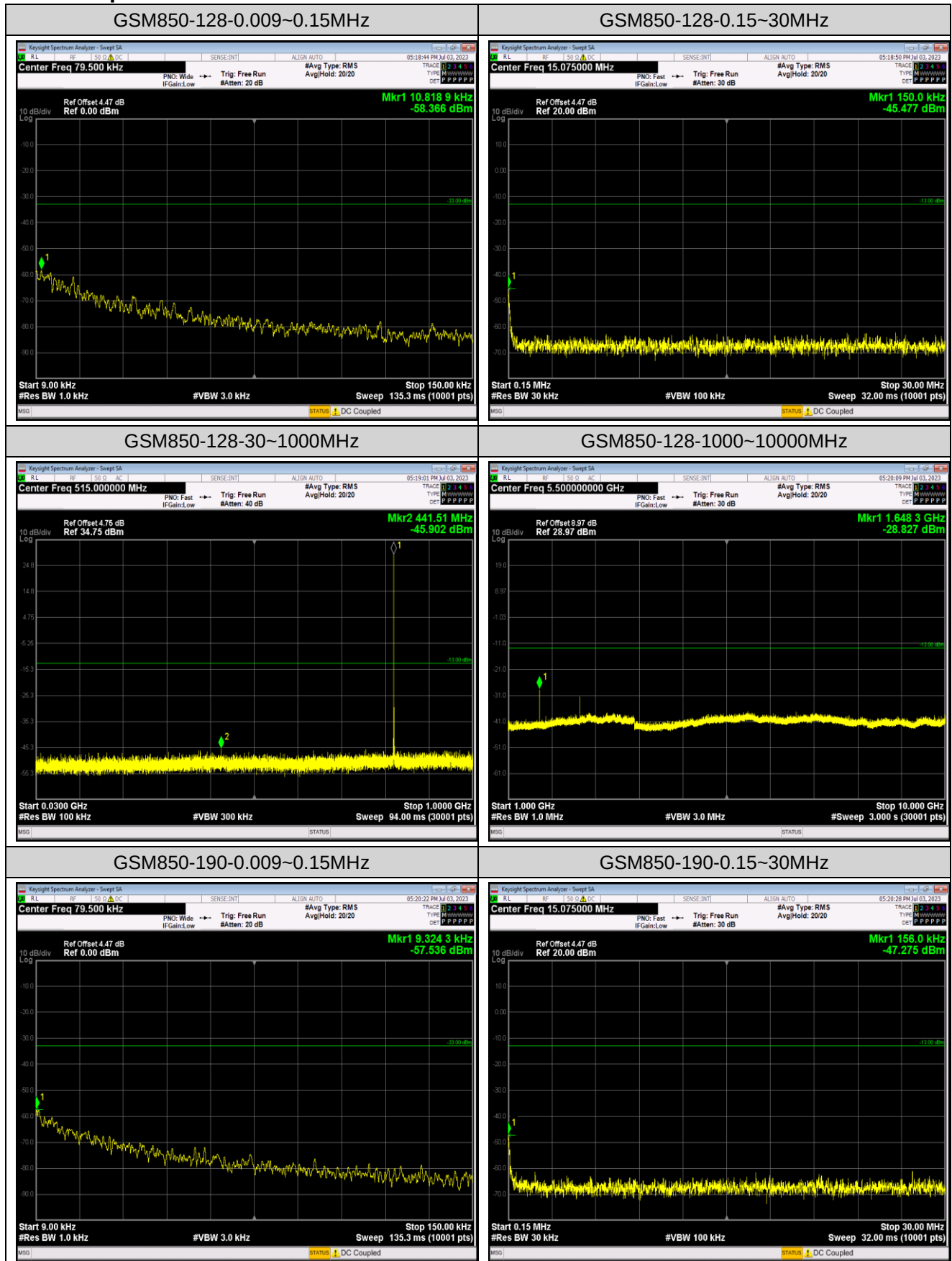
Appendix E: Conducted Spurious Emission

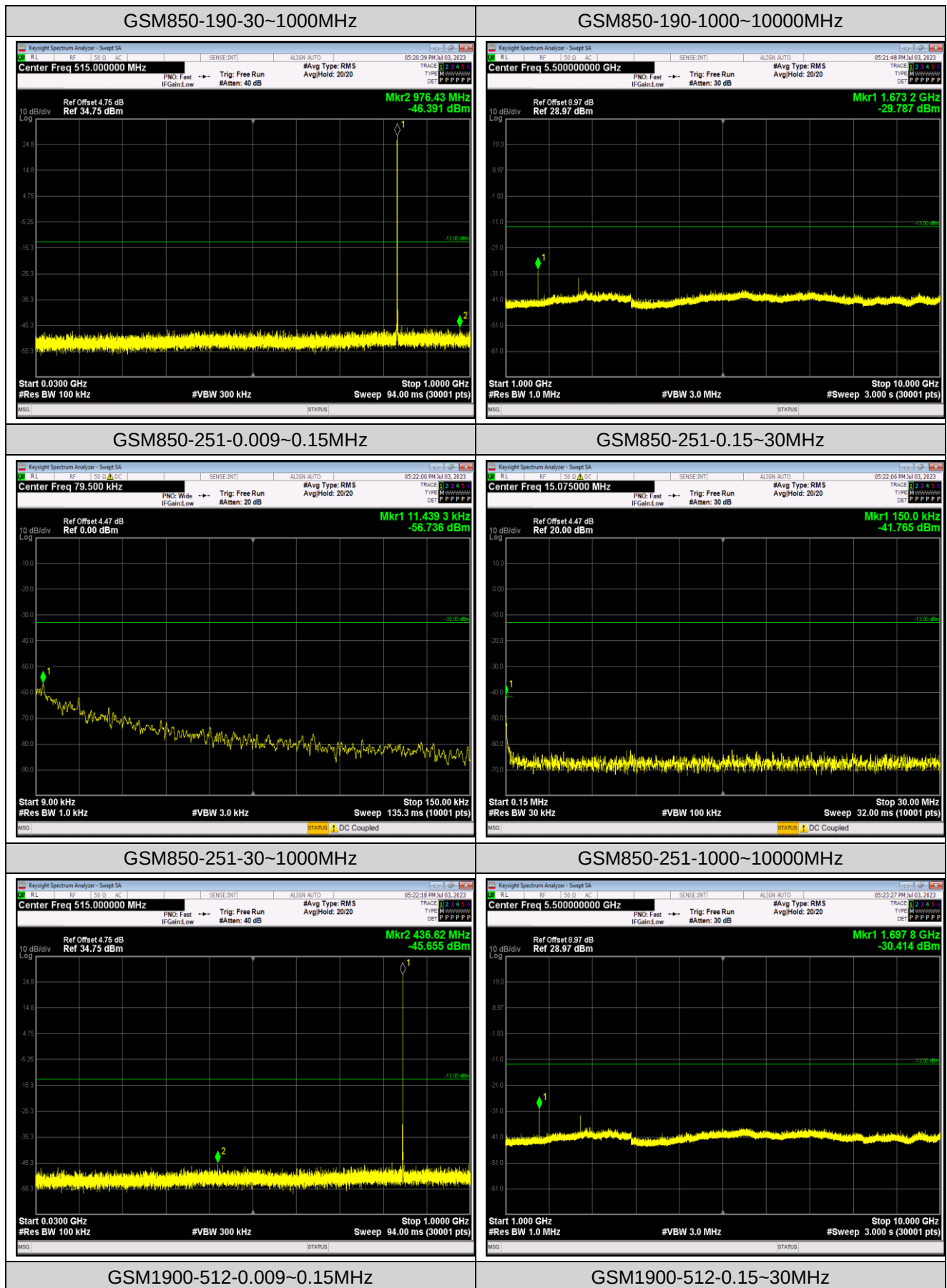
Test Result

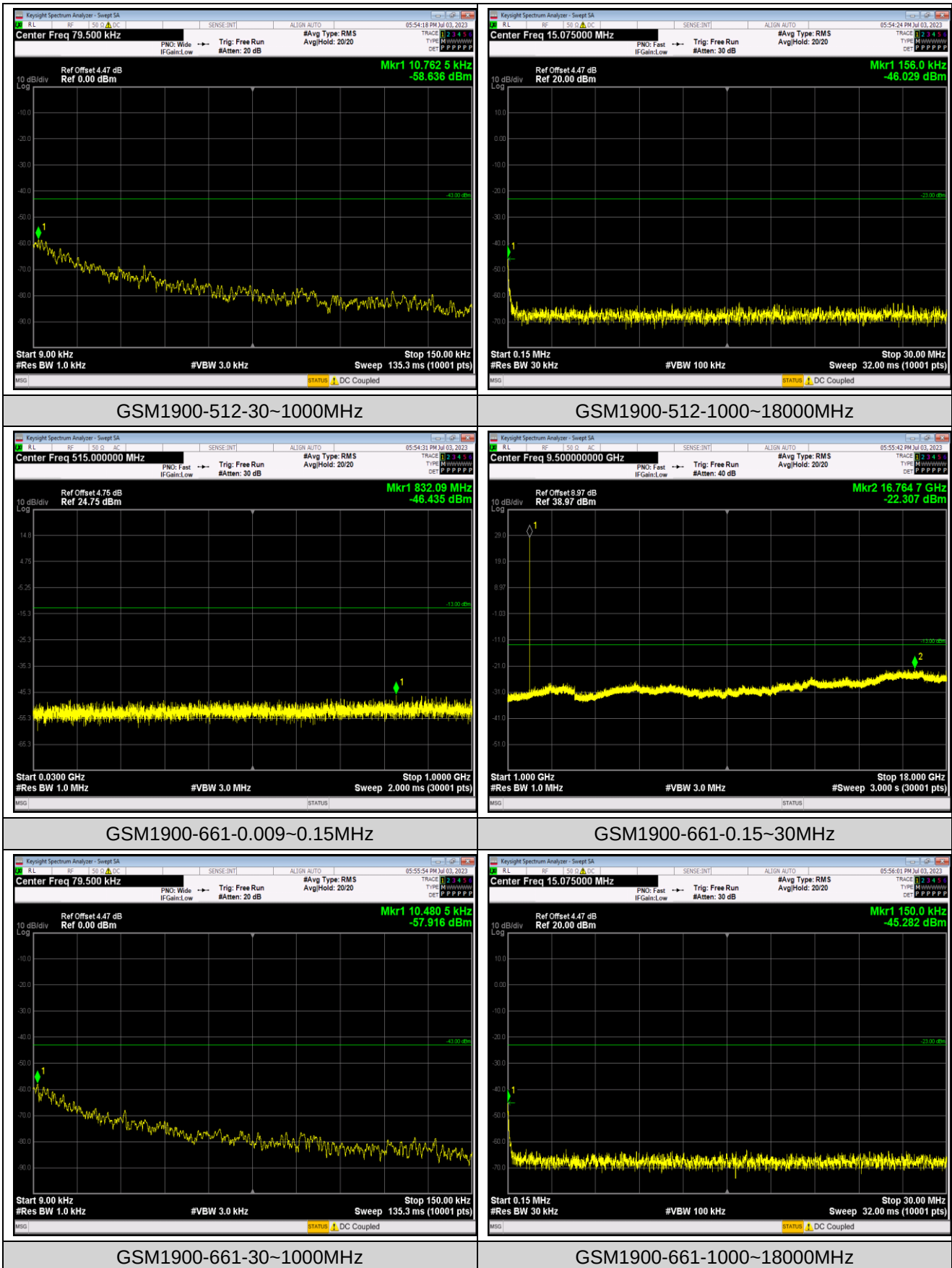
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-58.37	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-45.48	-13	PASS
GSM850	128	5	30~1000MHz	441.51	-45.9	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.83	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-57.54	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-47.28	-13	PASS
GSM850	190	5	30~1000MHz	976.43	-46.39	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.79	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-56.74	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-41.77	-13	PASS
GSM850	251	5	30~1000MHz	436.62	-45.66	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.41	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-58.64	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-46.03	-23	PASS
GSM1900	512	0	30~1000MHz	832.09	-46.44	-13	PASS
GSM1900	512	0	1000~18000MHz	16764.67	-22.31	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.92	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-45.28	-23	PASS
GSM1900	661	0	30~1000MHz	208.58	-46.76	-13	PASS
GSM1900	661	0	1000~18000MHz	16211.03	-21.25	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.73	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-44.47	-23	PASS
GSM1900	810	0	30~1000MHz	755.3	-46.87	-13	PASS
GSM1900	810	0	1000~18000MHz	16685.9	-22.16	-13	PASS

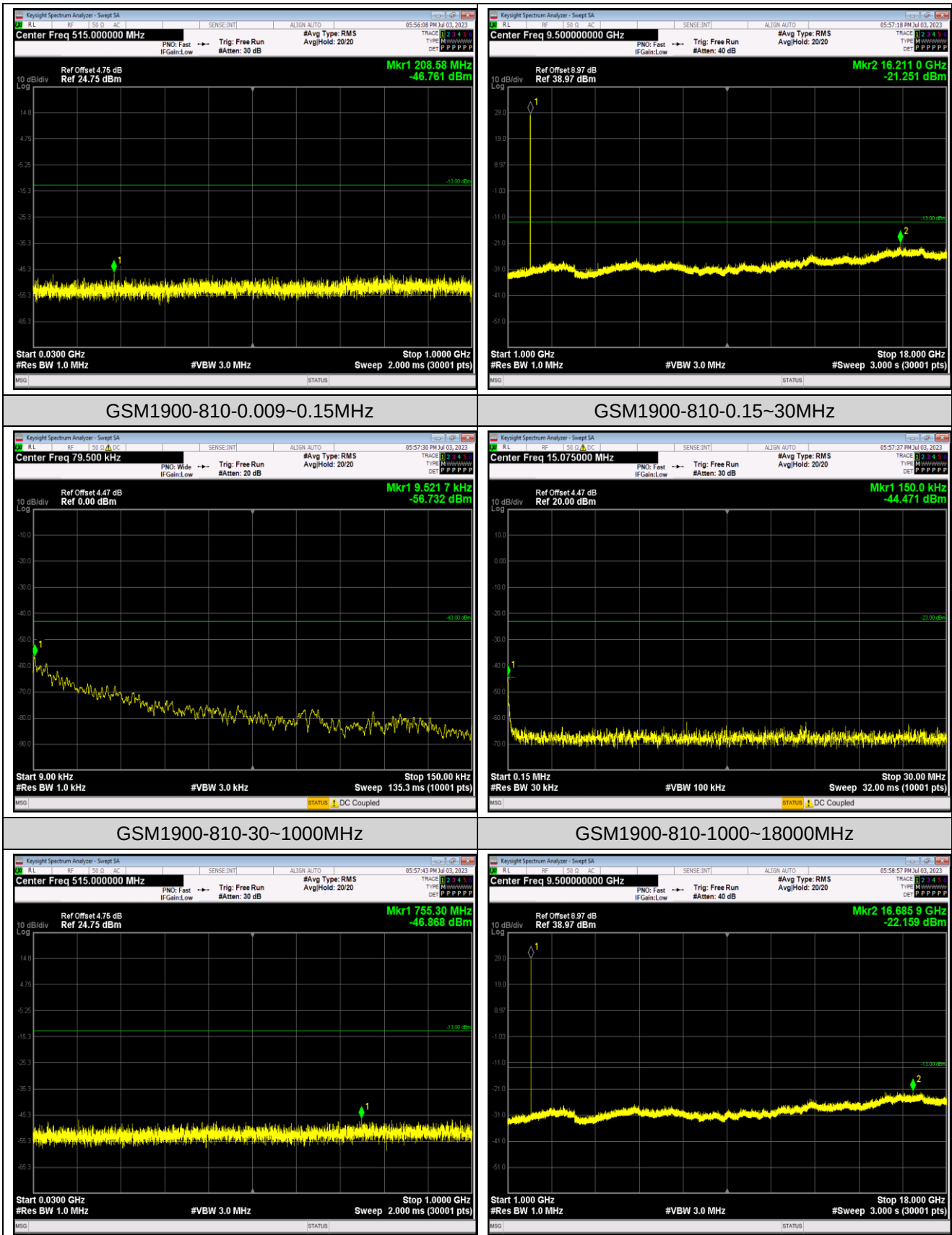
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	-6.20	-0.007411	±2.5	Pass
	-20	-3.84	-0.004590		
	-10	-8.20	-0.009802		
	0	-6.20	-0.007411		
	10	-8.62	-0.010304		
	20	-7.01	-0.008379		
	30	-6.01	-0.007184		
	40	-6.17	-0.007375		
	50	-4.36	-0.005212		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.62	-0.004327	±2.5	Pass
	3.85	-5.97	-0.007136		
	4.40	-4.55	-0.005439		
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	1.42	0.001697	±2.5	Pass
	-20	0.61	0.000729		
	-10	-0.42	-0.000502		
	0	0.03	0.000036		
	10	3.03	0.003622		
	20	2.10	0.002510		
	30	2.97	0.003550		
	40	0.29	0.000347		
	50	-1.07	-0.001279		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	0.52	0.000622	±2.5	Pass
	3.85	5.13	0.006132		
	4.40	2.23	0.002666		
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	-5.75	-0.003059	Within authorized band for PCS 1900	Pass
	-20	-2.10	-0.001117		
	-10	0.19	0.000101		
	0	-4.88	-0.002596		
	10	-6.23	-0.003314		
	20	-3.03	-0.001612		
	30	0.26	0.000138		
	40	-0.77	-0.000410		
	50	-8.23	-0.004378		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-6.88	-0.003660	Within authorized band for PCS 1900	Pass
	3.85	-1.10	-0.000585		
	4.40	-3.20	-0.001702		
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	-0.97	-0.000516	Within authorized band for PCS 1900	Pass
	-20	6.59	0.003505		
	-10	5.59	0.002973		
	0	6.94	0.003691		
	10	-11.75	-0.006250		
	20	-13.53	-0.007197		
	30	14.75	0.007846		
	40	8.20	0.004362		
	50	10.07	0.005356		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.65	0.003005	Within authorized band for PCS 1900	Pass
	3.85	-1.10	-0.000585		
	4.40	4.52	0.002404		
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

