

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	32.69	29.24	38.45	PASS
GSM850	190	5	32.86	29.41	38.45	PASS
GSM850	251	5	32.86	29.41	38.45	PASS
GSM1900	512	0	29.53	29.93	33.00	PASS
GSM1900	661	0	29.73	30.13	33.00	PASS
GSM1900	810	0	29.50	29.90	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.66	29.21	38.45	PASS
GPRS850	128	5	2	32.01	28.56	38.45	PASS
GPRS850	128	5	3	30.39	26.94	38.45	PASS
GPRS850	128	5	4	29.40	25.95	38.45	PASS
GPRS850	190	5	1	32.85	29.40	38.45	PASS
GPRS850	190	5	2	32.21	28.76	38.45	PASS
GPRS850	190	5	3	30.60	27.15	38.45	PASS
GPRS850	190	5	4	29.61	26.16	38.45	PASS
GPRS850	251	5	1	32.85	29.40	38.45	PASS
GPRS850	251	5	2	32.20	28.75	38.45	PASS
GPRS850	251	5	3	30.57	27.12	38.45	PASS
GPRS850	251	5	4	29.57	26.12	38.45	PASS
GPRS1900	512	0	1	29.53	29.93	33.00	PASS
GPRS1900	512	0	2	28.88	29.28	33.00	PASS
GPRS1900	512	0	3	27.22	27.62	33.00	PASS
GPRS1900	512	0	4	26.14	26.54	33.00	PASS
GPRS1900	661	0	1	29.74	30.14	33.00	PASS
GPRS1900	661	0	2	29.10	29.50	33.00	PASS
GPRS1900	661	0	3	27.46	27.86	33.00	PASS
GPRS1900	661	0	4	26.38	26.78	33.00	PASS
GPRS1900	810	0	1	29.55	29.95	33.00	PASS
GPRS1900	810	0	2	28.93	29.33	33.00	PASS
GPRS1900	810	0	3	27.27	27.67	33.00	PASS
GPRS1900	810	0	4	26.19	26.59	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.04	23.59	38.45	PASS
EGPRS850	128	8	2	25.87	22.42	38.45	PASS
EGPRS850	128	8	3	23.73	20.28	38.45	PASS
EGPRS850	128	8	4	22.34	18.89	38.45	PASS
EGPRS850	190	8	1	27.20	23.75	38.45	PASS
EGPRS850	190	8	2	26.07	22.62	38.45	PASS
EGPRS850	190	8	3	23.88	20.43	38.45	PASS
EGPRS850	190	8	4	22.69	19.24	38.45	PASS
EGPRS850	251	8	1	27.18	23.73	38.45	PASS
EGPRS850	251	8	2	26.04	22.59	38.45	PASS
EGPRS850	251	8	3	23.84	20.39	38.45	PASS
EGPRS850	251	8	4	22.65	19.20	38.45	PASS
EGPRS1900	512	2	1	25.94	26.34	33.00	PASS
EGPRS1900	512	2	2	24.90	25.30	33.00	PASS
EGPRS1900	512	2	3	22.70	23.10	33.00	PASS
EGPRS1900	512	2	4	21.54	21.94	33.00	PASS
EGPRS1900	661	2	1	26.03	26.43	33.00	PASS
EGPRS1900	661	2	2	24.98	25.38	33.00	PASS
EGPRS1900	661	2	3	22.85	23.25	33.00	PASS
EGPRS1900	661	2	4	21.66	22.06	33.00	PASS
EGPRS1900	810	2	1	25.76	26.16	33.00	PASS
EGPRS1900	810	2	2	24.76	25.16	33.00	PASS
EGPRS1900	810	2	3	22.57	22.97	33.00	PASS
EGPRS1900	810	2	4	21.48	21.88	33.00	PASS

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

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

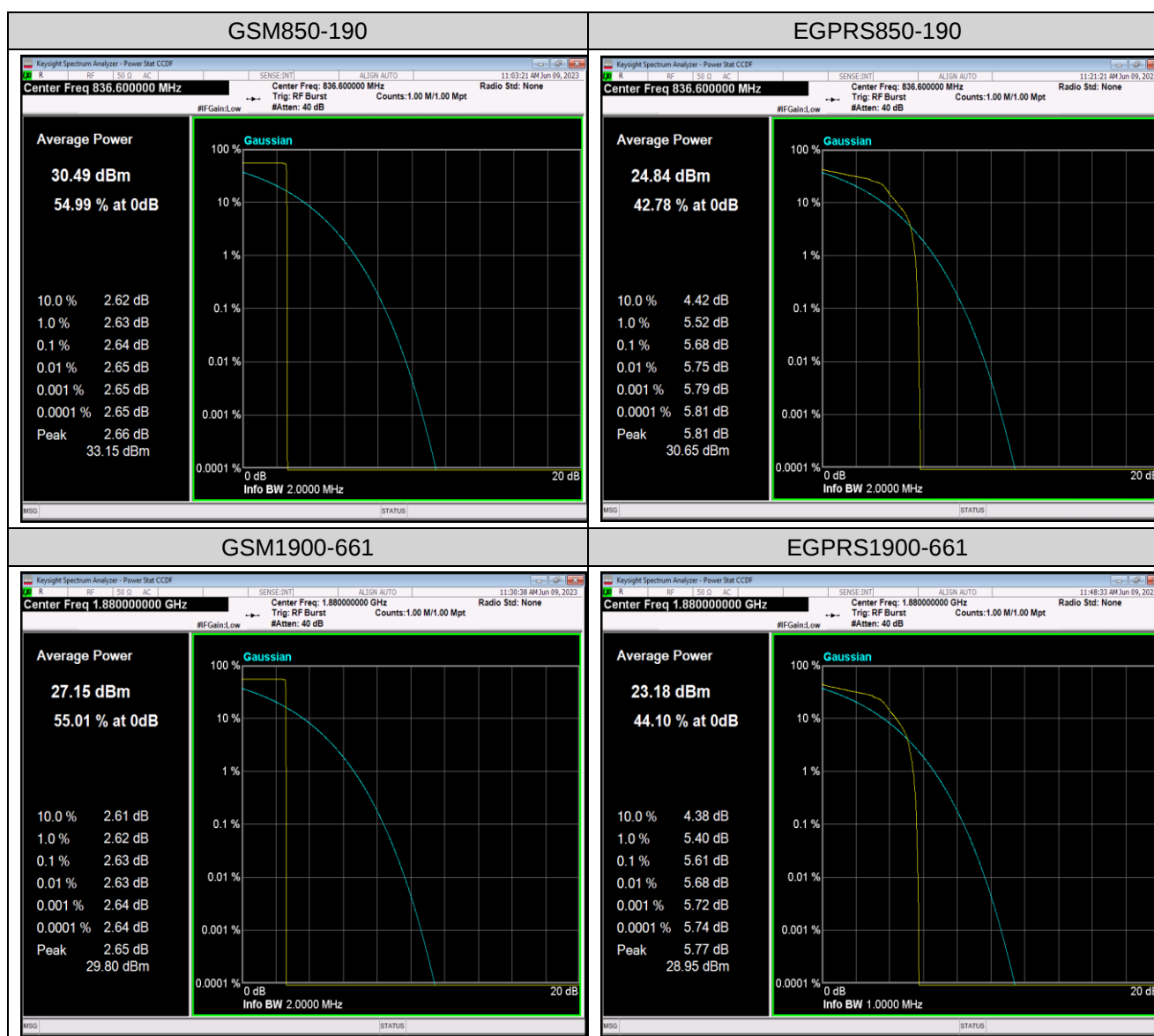
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.64	13	PASS
EGPRS850	190	8	5.68	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.61	13	PASS

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

Test Graphs

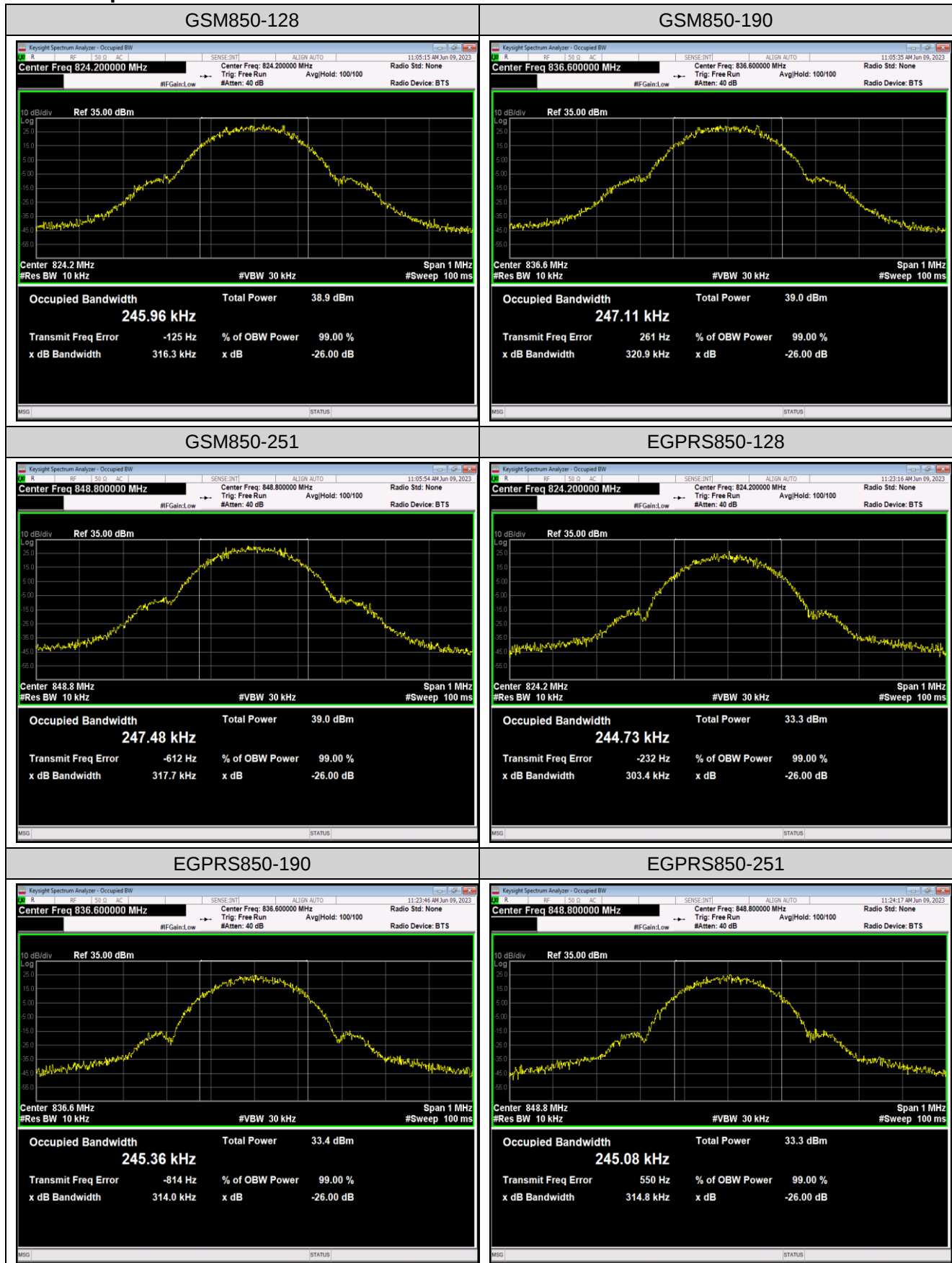


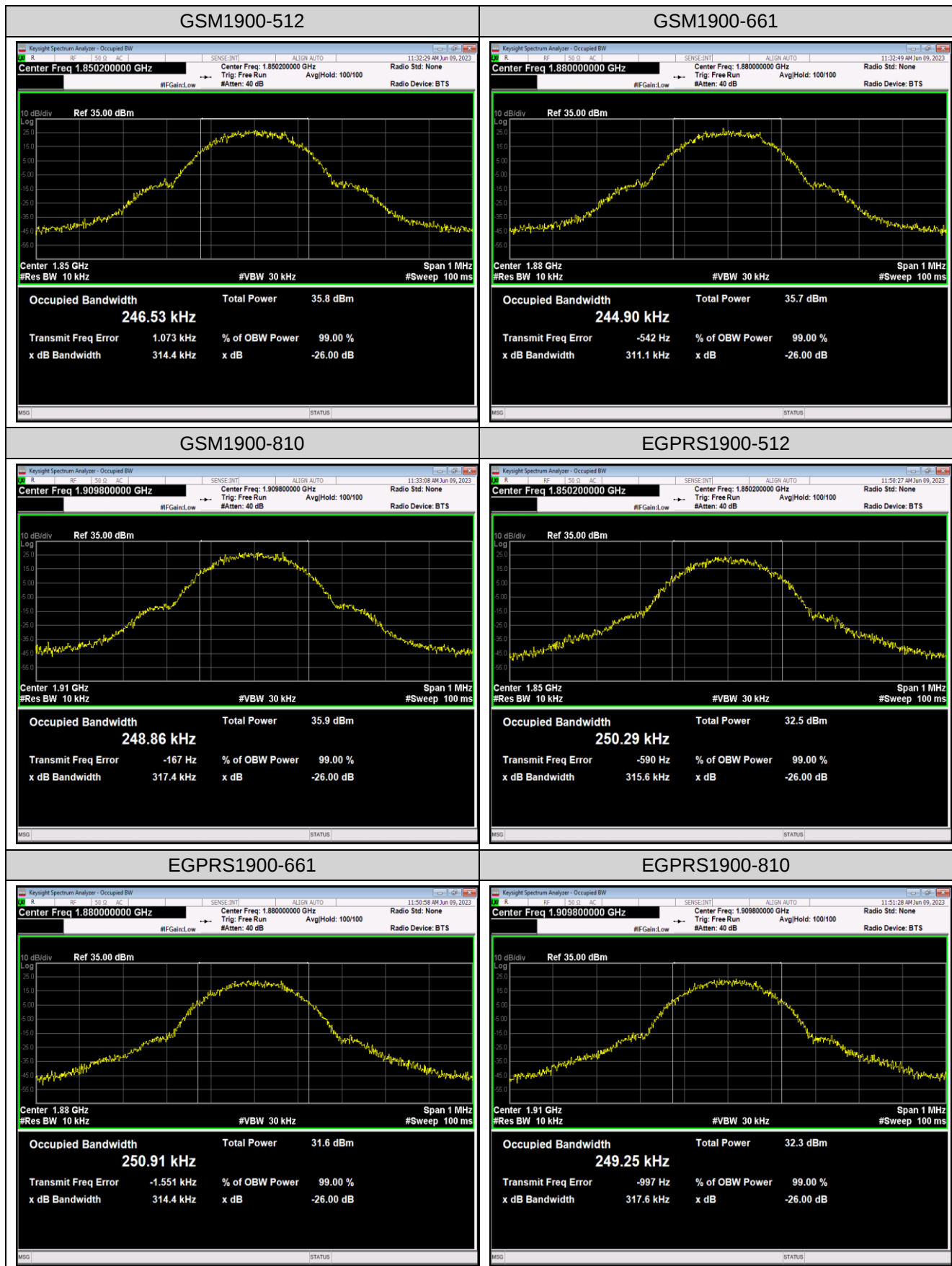
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24596	0.3163	---	PASS
GSM850	190	5	0.24711	0.3209	---	PASS
GSM850	251	5	0.24748	0.3177	---	PASS
EGPRS850	128	8	0.24473	0.3034	---	PASS
EGPRS850	190	8	0.24536	0.3140	---	PASS
EGPRS850	251	8	0.24508	0.3148	---	PASS
GSM1900	512	0	0.24653	0.3144	---	PASS
GSM1900	661	0	0.24490	0.3111	---	PASS
GSM1900	810	0	0.24886	0.3174	---	PASS
EGPRS1900	512	2	0.25029	0.3156	---	PASS
EGPRS1900	661	2	0.25091	0.3144	---	PASS
EGPRS1900	810	2	0.24925	0.3176	---	PASS

Test Graphs



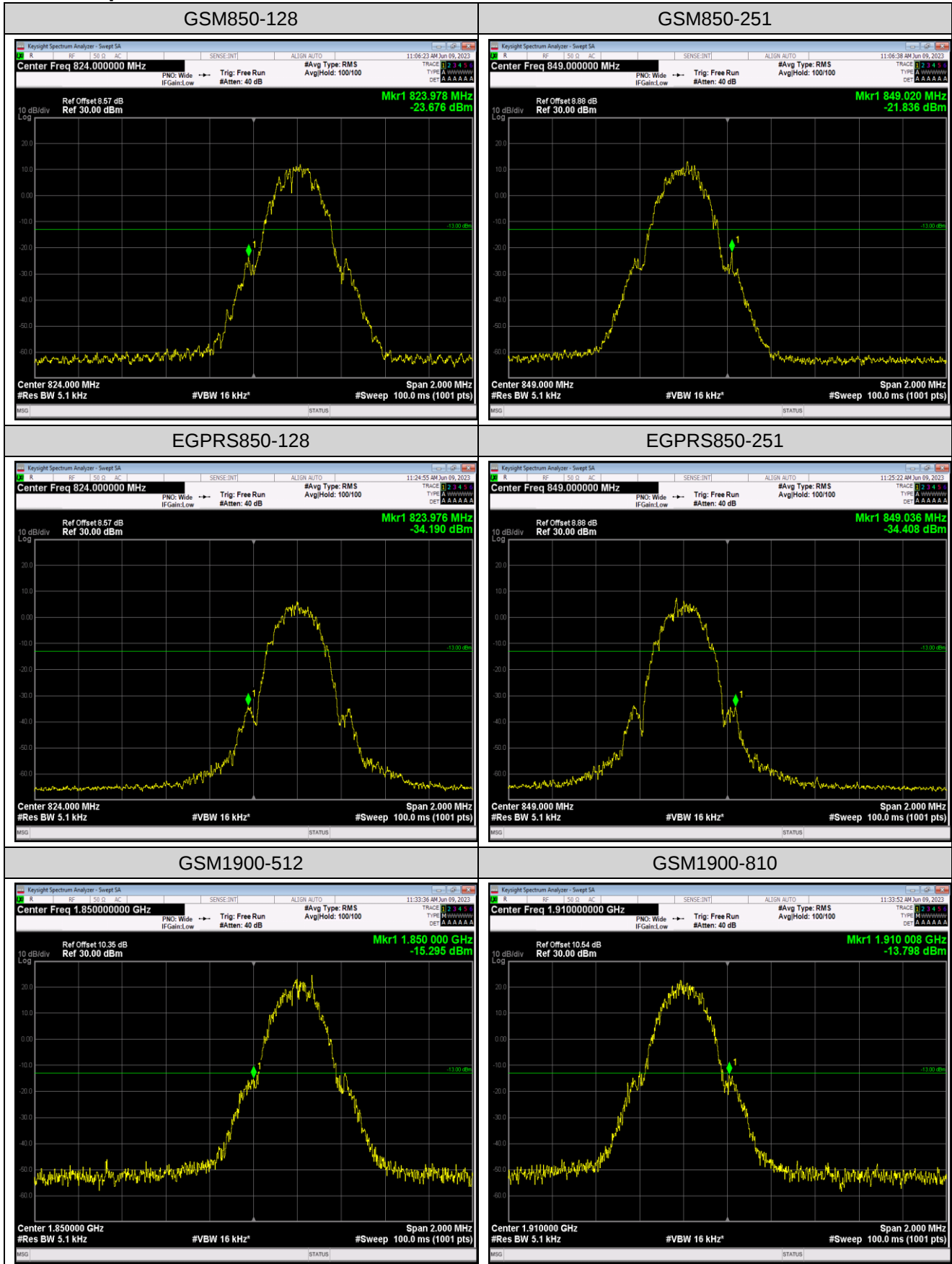


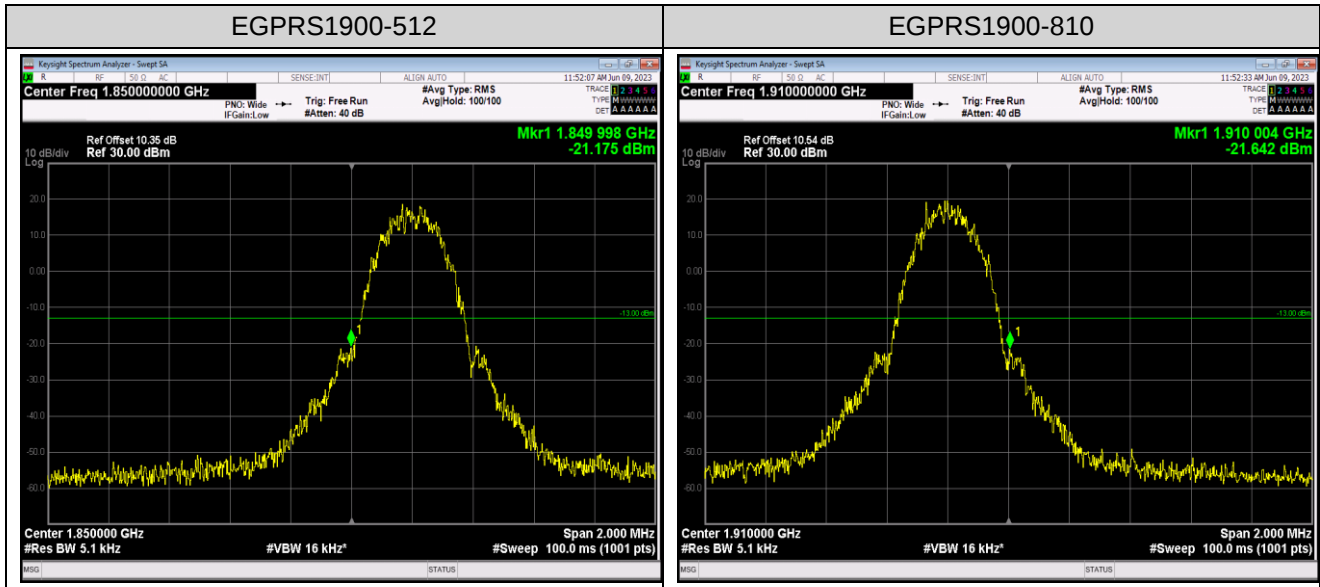
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.68	-13	PASS
GSM850	251	5	849.02	-21.84	-13	PASS
EGPRS850	128	8	823.98	-34.19	-13	PASS
EGPRS850	251	8	849.04	-34.41	-13	PASS
GSM1900	512	0	1850.00	-15.30	-13	PASS
GSM1900	810	0	1910.01	-13.80	-13	PASS
EGPRS1900	512	2	1850.00	-21.18	-13	PASS
EGPRS1900	810	2	1910.00	-21.64	-13	PASS

Test Graphs





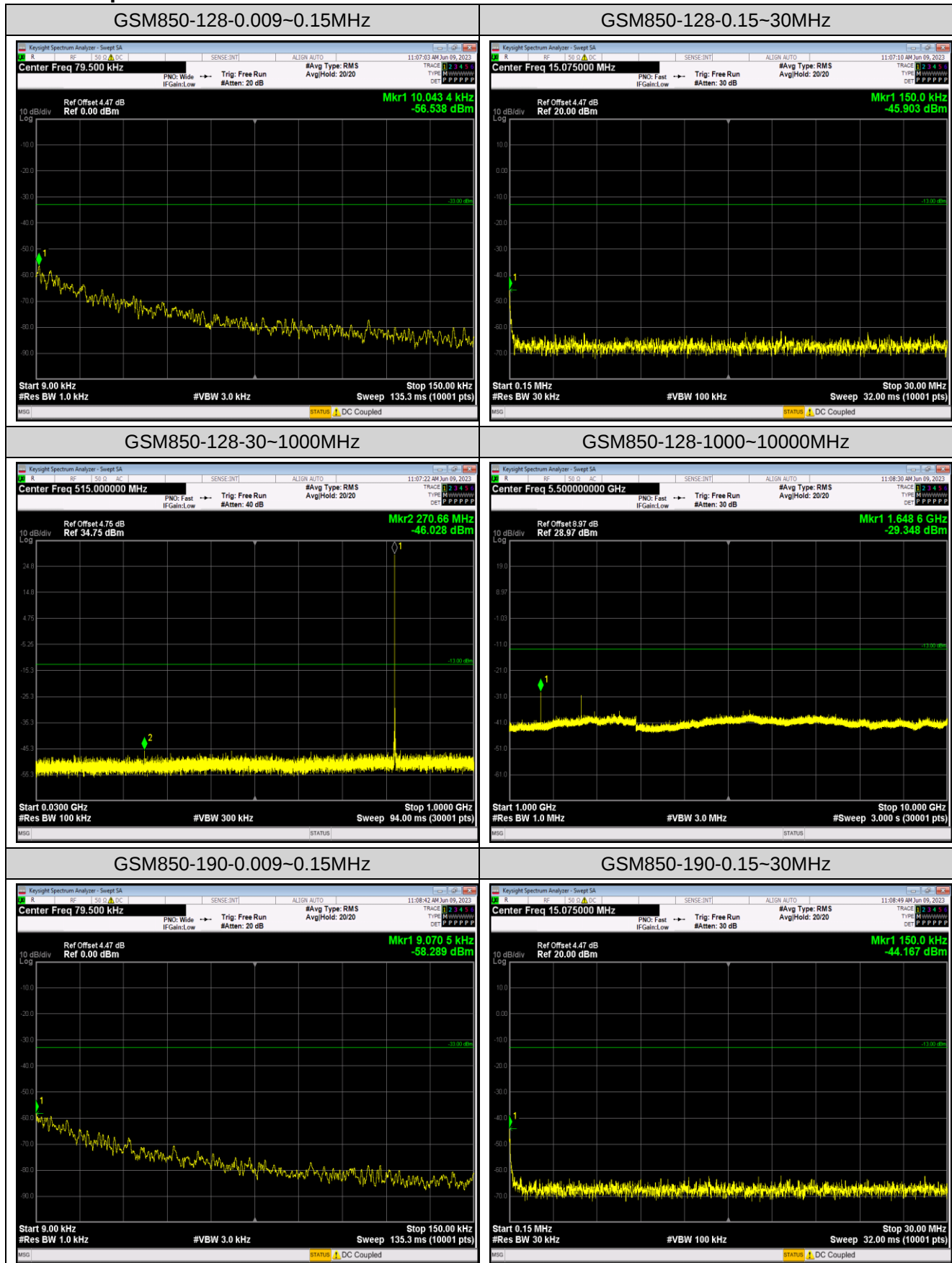
Appendix E: Conducted Spurious Emission

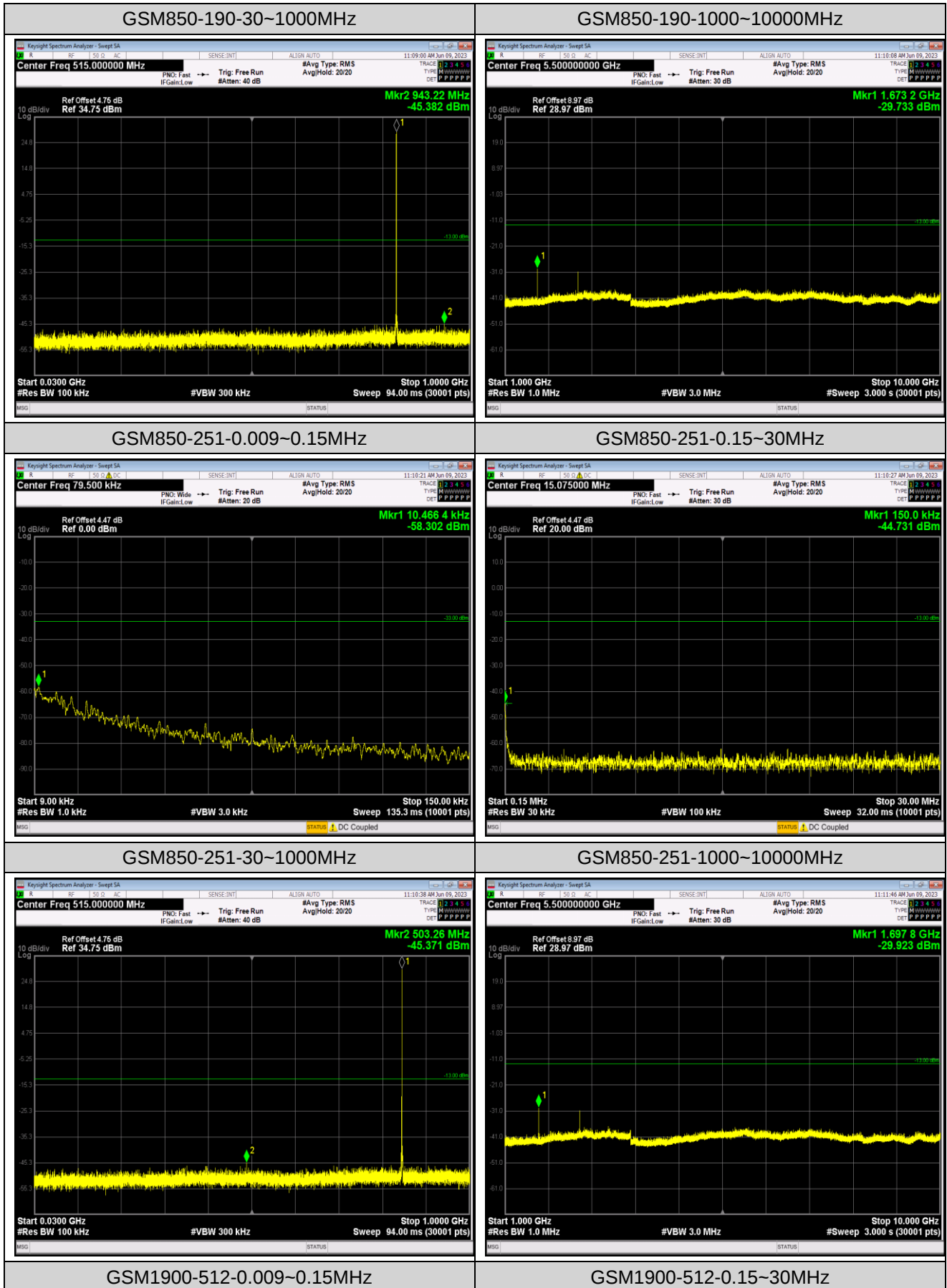
Test Result

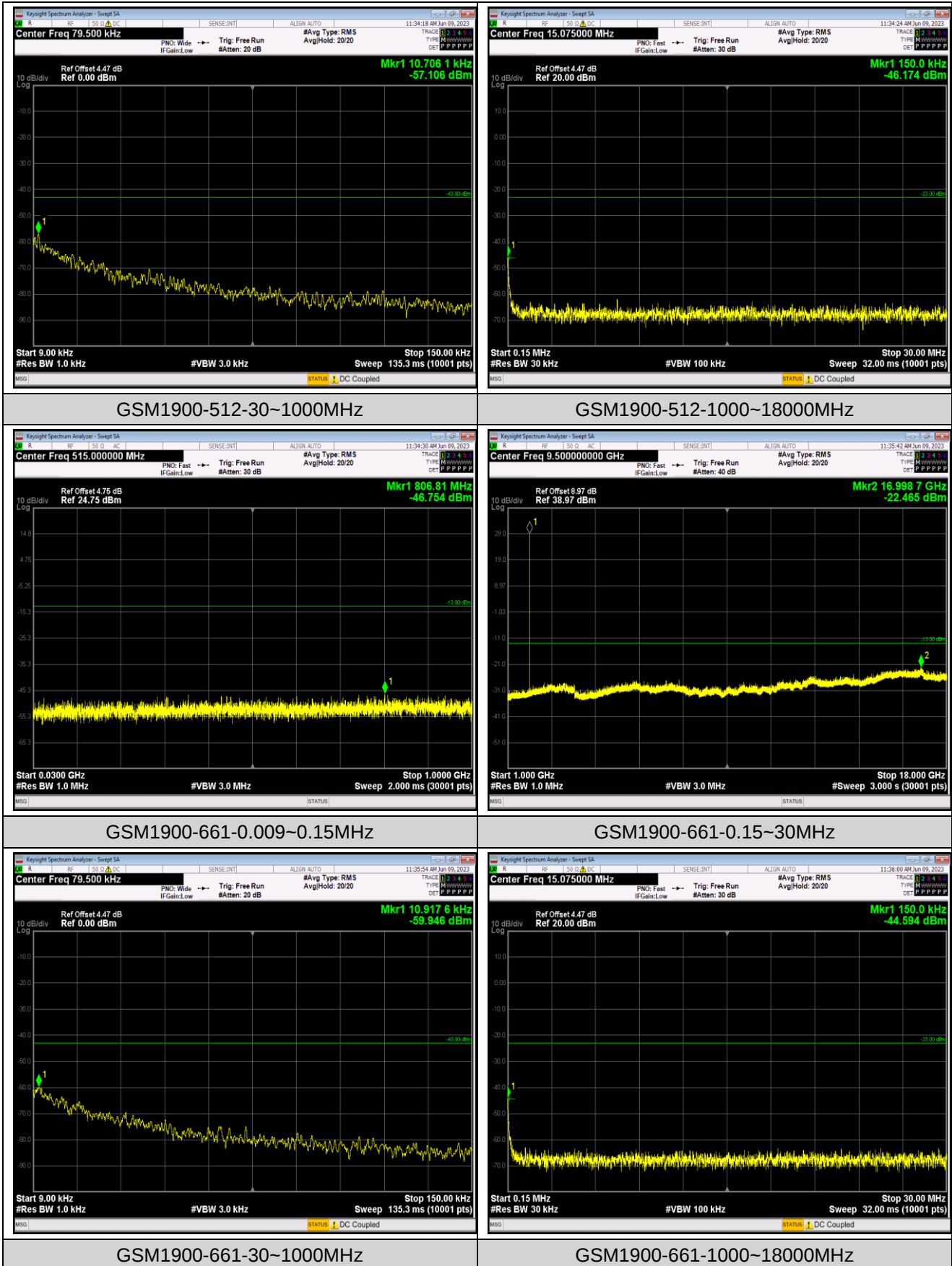
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-56.54	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-45.9	-13	PASS
GSM850	128	5	30~1000MHz	270.66	-46.03	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-29.35	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-58.29	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-44.17	-13	PASS
GSM850	190	5	30~1000MHz	943.22	-45.38	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.73	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-58.3	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-44.73	-13	PASS
GSM850	251	5	30~1000MHz	503.26	-45.37	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-29.92	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.11	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-46.17	-23	PASS
GSM1900	512	0	30~1000MHz	806.81	-46.75	-13	PASS
GSM1900	512	0	1000~18000MHz	16998.7	-22.47	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-59.95	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-44.59	-23	PASS
GSM1900	661	0	30~1000MHz	956.16	-46.46	-13	PASS
GSM1900	661	0	1000~18000MHz	16971.5	-22.15	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.13	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-45.46	-23	PASS
GSM1900	810	0	30~1000MHz	395.98	-46.69	-13	PASS
GSM1900	810	0	1000~18000MHz	15804.17	-22.47	-13	PASS

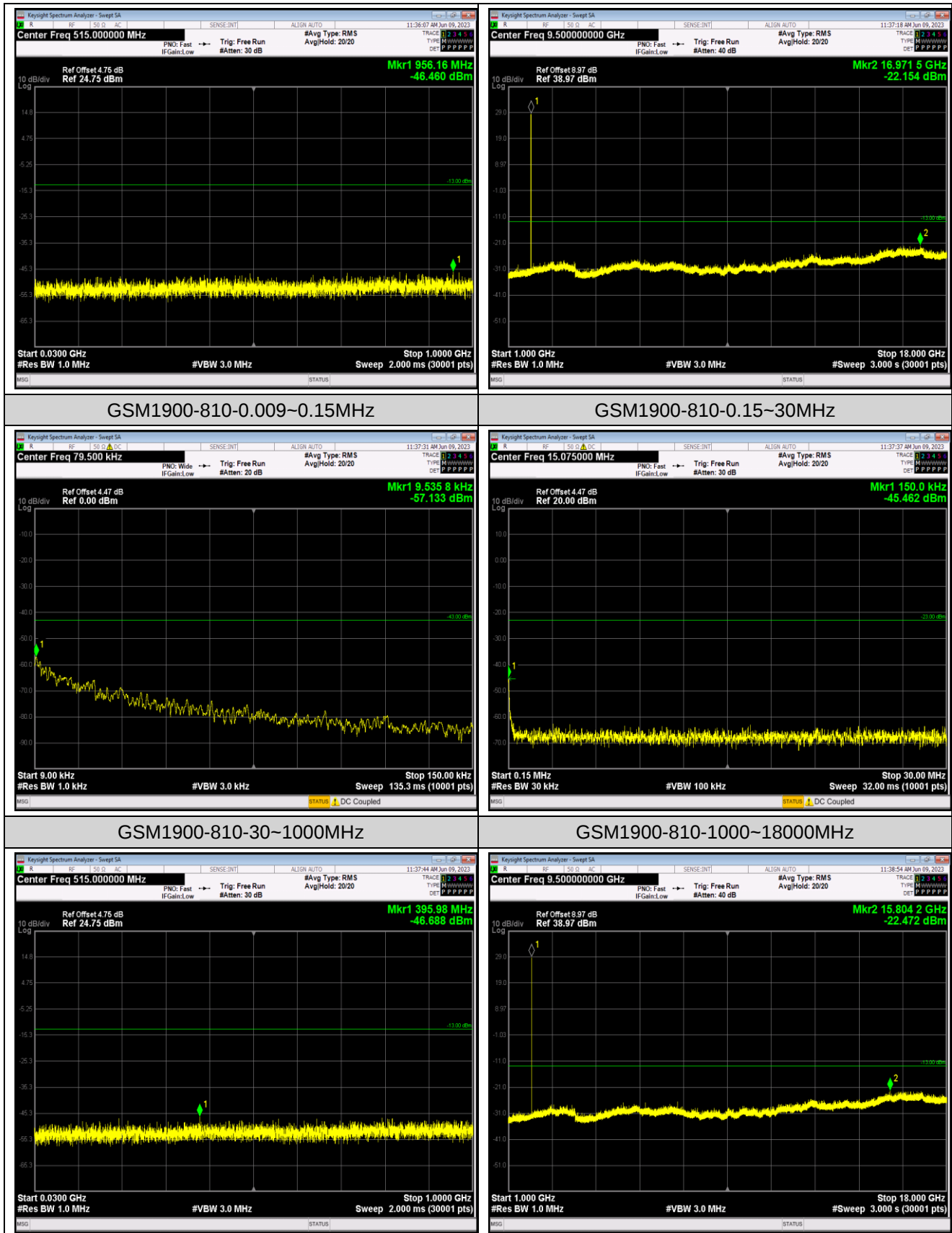
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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		
3.80	-30	12.46	0.014894	±2.5	Pass
	-20	12.14	0.014511		
	-10	11.66	0.013937		
	0	11.17	0.013352		
	10	10.59	0.012658		
	20	10.94	0.013077		
	30	12.24	0.014631		
	40	10.23	0.012228		
	50	10.33	0.012348		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	16.72	0.019986	±2.5	Pass
	3.80	2.20	0.002630		
	3.45	16.11	0.019257		
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		
3.80	-30	-2.84	-0.003395	±2.5	Pass
	-20	0.55	0.000657		
	-10	-0.94	-0.001124		
	0	1.07	0.001279		
	10	2.97	0.003550		
	20	10.17	0.012156		
	30	-1.74	-0.002080		
	40	-3.81	-0.004554		
	50	12.07	0.014427		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-1.39	-0.001661	±2.5	Pass
	3.80	1.16	0.001387		
	3.45	-1.13	-0.001351		
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		
3.80	-30	1.58	0.000840	Within authorized band for PCS 1900	Pass
	-20	6.81	0.003622		
	-10	7.78	0.004138		
	0	9.23	0.004910		
	10	5.68	0.003021		
	20	8.20	0.004362		
	30	3.26	0.001734		
	40	10.49	0.005580		
	50	6.01	0.003197		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	0.97	0.000516	Within authorized band for PCS 1900	Pass
	3.80	11.40	0.006064		
	3.45	11.66	0.006202		
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		
3.80	-30	17.98	0.009564	Within authorized band for PCS 1900	Pass
	-20	19.05	0.010133		
	-10	11.49	0.006112		
	0	12.69	0.006750		
	10	21.60	0.011489		
	20	26.64	0.014170		
	30	27.64	0.014702		
	40	30.74	0.016351		
	50	23.76	0.012638		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	18.79	0.009995	Within authorized band for PCS 1900	Pass
	3.80	14.37	0.007644		
	3.45	19.57	0.010410		
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

