

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	33.64	26.32	38.45	PASS
GSM850	190	5	33.66	26.34	38.45	PASS
GSM850	251	5	33.65	26.33	38.45	PASS
GSM1900	512	0	30.17	26.96	33.00	PASS
GSM1900	661	0	30.55	27.34	33.00	PASS
GSM1900	810	0	30.48	27.27	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.63	26.31	38.45	PASS
GPRS850	128	5	2	32.69	25.37	38.45	PASS
GPRS850	128	5	3	30.69	23.37	38.45	PASS
GPRS850	128	5	4	29.56	22.24	38.45	PASS
GPRS850	190	5	1	33.62	26.3	38.45	PASS
GPRS850	190	5	2	32.69	25.37	38.45	PASS
GPRS850	190	5	3	30.69	23.37	38.45	PASS
GPRS850	190	5	4	29.56	22.24	38.45	PASS
GPRS850	251	5	1	33.61	26.29	38.45	PASS
GPRS850	251	5	2	32.69	25.37	38.45	PASS
GPRS850	251	5	3	30.75	23.43	38.45	PASS
GPRS850	251	5	4	29.64	22.32	38.45	PASS
GPRS1900	512	0	1	30.14	26.93	33.00	PASS
GPRS1900	512	0	2	29.14	25.93	33.00	PASS
GPRS1900	512	0	3	27.05	23.84	33.00	PASS
GPRS1900	512	0	4	25.88	22.67	33.00	PASS
GPRS1900	661	0	1	30.49	27.28	33.00	PASS
GPRS1900	661	0	2	29.52	26.31	33.00	PASS
GPRS1900	661	0	3	27.48	24.27	33.00	PASS
GPRS1900	661	0	4	26.35	23.14	33.00	PASS
GPRS1900	810	0	1	30.42	27.21	33.00	PASS
GPRS1900	810	0	2	29.49	26.28	33.00	PASS
GPRS1900	810	0	3	27.51	24.3	33.00	PASS
GPRS1900	810	0	4	26.43	23.22	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.96	20.64	38.45	PASS
EGPRS850	128	8	2	26.89	19.57	38.45	PASS
EGPRS850	128	8	3	24.66	17.34	38.45	PASS
EGPRS850	128	8	4	23.32	16	38.45	PASS
EGPRS850	190	8	1	27.75	20.43	38.45	PASS
EGPRS850	190	8	2	26.64	19.32	38.45	PASS
EGPRS850	190	8	3	24.27	16.95	38.45	PASS
EGPRS850	190	8	4	23.11	15.79	38.45	PASS
EGPRS850	251	8	1	27.81	20.49	38.45	PASS
EGPRS850	251	8	2	26.74	19.42	38.45	PASS
EGPRS850	251	8	3	24.38	17.06	38.45	PASS
EGPRS850	251	8	4	23.15	15.83	38.45	PASS
EGPRS1900	512	2	1	25.87	22.66	33.00	PASS
EGPRS1900	512	2	2	24.53	21.32	33.00	PASS
EGPRS1900	512	2	3	22.17	18.96	33.00	PASS
EGPRS1900	512	2	4	20.65	17.44	33.00	PASS
EGPRS1900	661	2	1	25.85	22.64	33.00	PASS
EGPRS1900	661	2	2	24.57	21.36	33.00	PASS
EGPRS1900	661	2	3	22.27	19.06	33.00	PASS
EGPRS1900	661	2	4	20.72	17.51	33.00	PASS
EGPRS1900	810	2	1	26.53	23.32	33.00	PASS
EGPRS1900	810	2	2	25.24	22.03	33.00	PASS
EGPRS1900	810	2	3	22.94	19.73	33.00	PASS
EGPRS1900	810	2	4	21.52	18.31	33.00	PASS

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

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

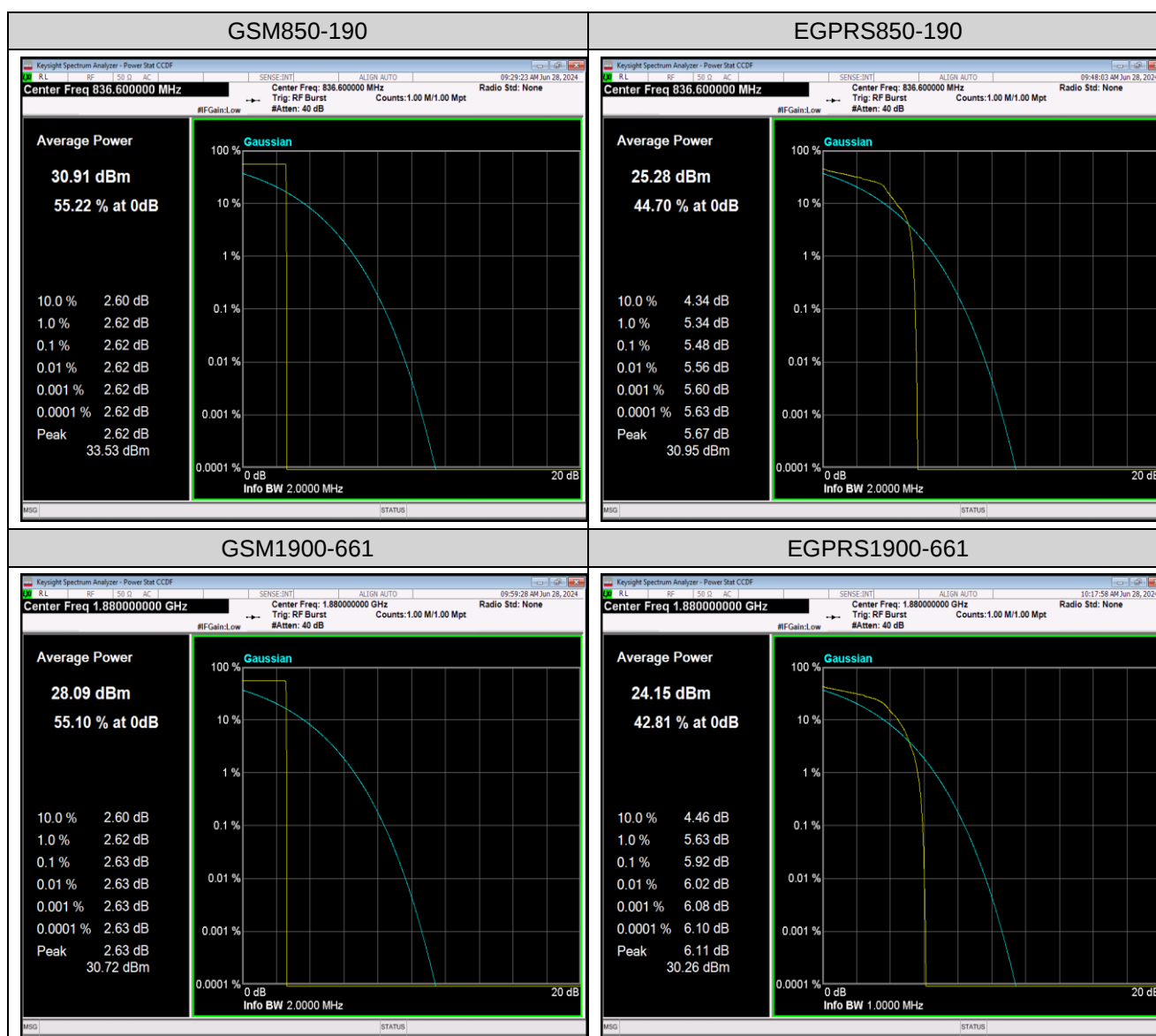
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.48	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.92	13	PASS

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

Test Graphs

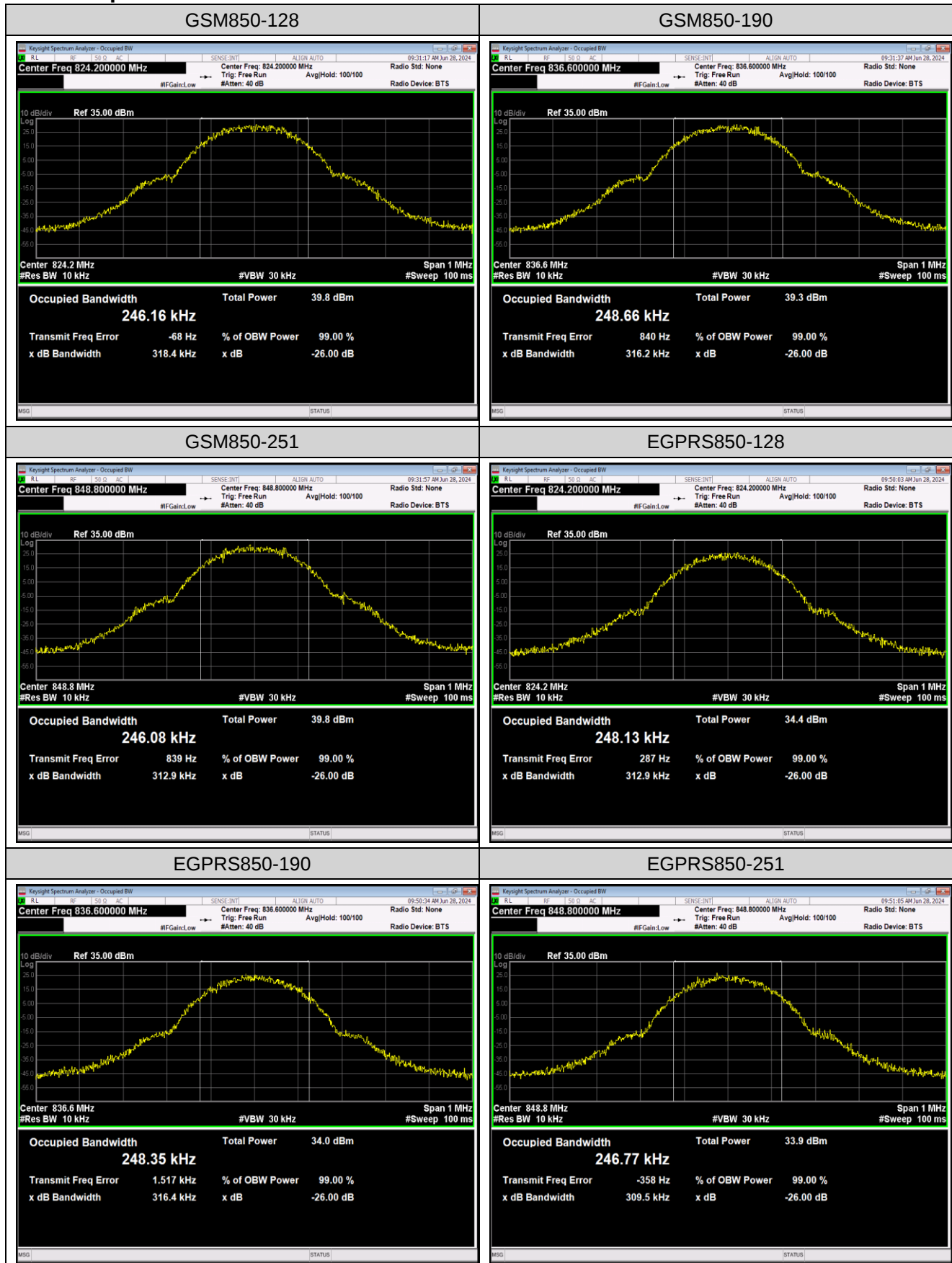


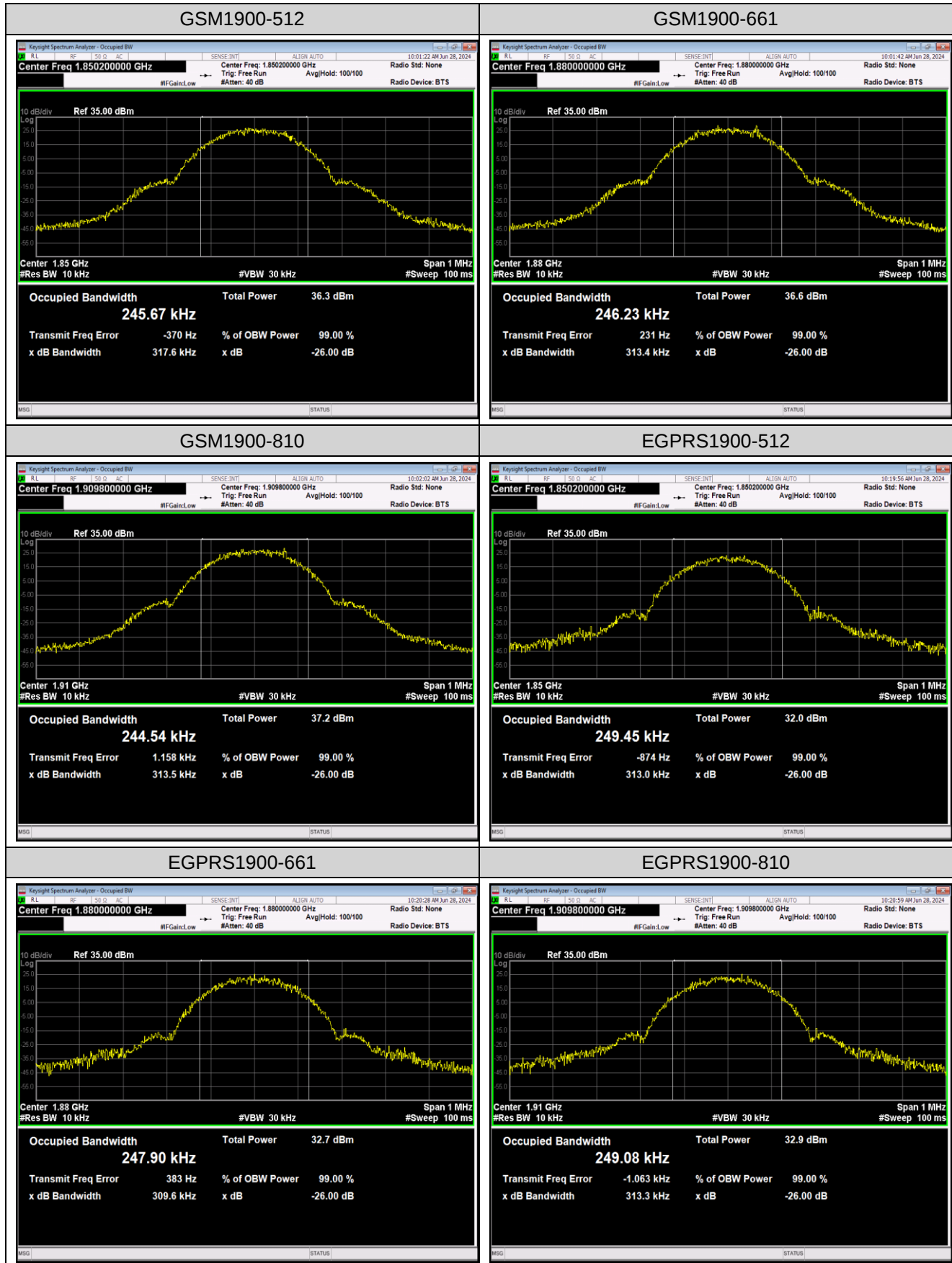
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24616	0.3184	---	PASS
GSM850	190	5	0.24866	0.3162	---	PASS
GSM850	251	5	0.24608	0.3129	---	PASS
EGPRS850	128	8	0.24813	0.3129	---	PASS
EGPRS850	190	8	0.24835	0.3164	---	PASS
EGPRS850	251	8	0.24677	0.3095	---	PASS
GSM1900	512	0	0.24567	0.3176	---	PASS
GSM1900	661	0	0.24623	0.3134	---	PASS
GSM1900	810	0	0.24454	0.3135	---	PASS
EGPRS1900	512	2	0.24945	0.3130	---	PASS
EGPRS1900	661	2	0.24790	0.3096	---	PASS
EGPRS1900	810	2	0.24908	0.3133	---	PASS

Test Graphs



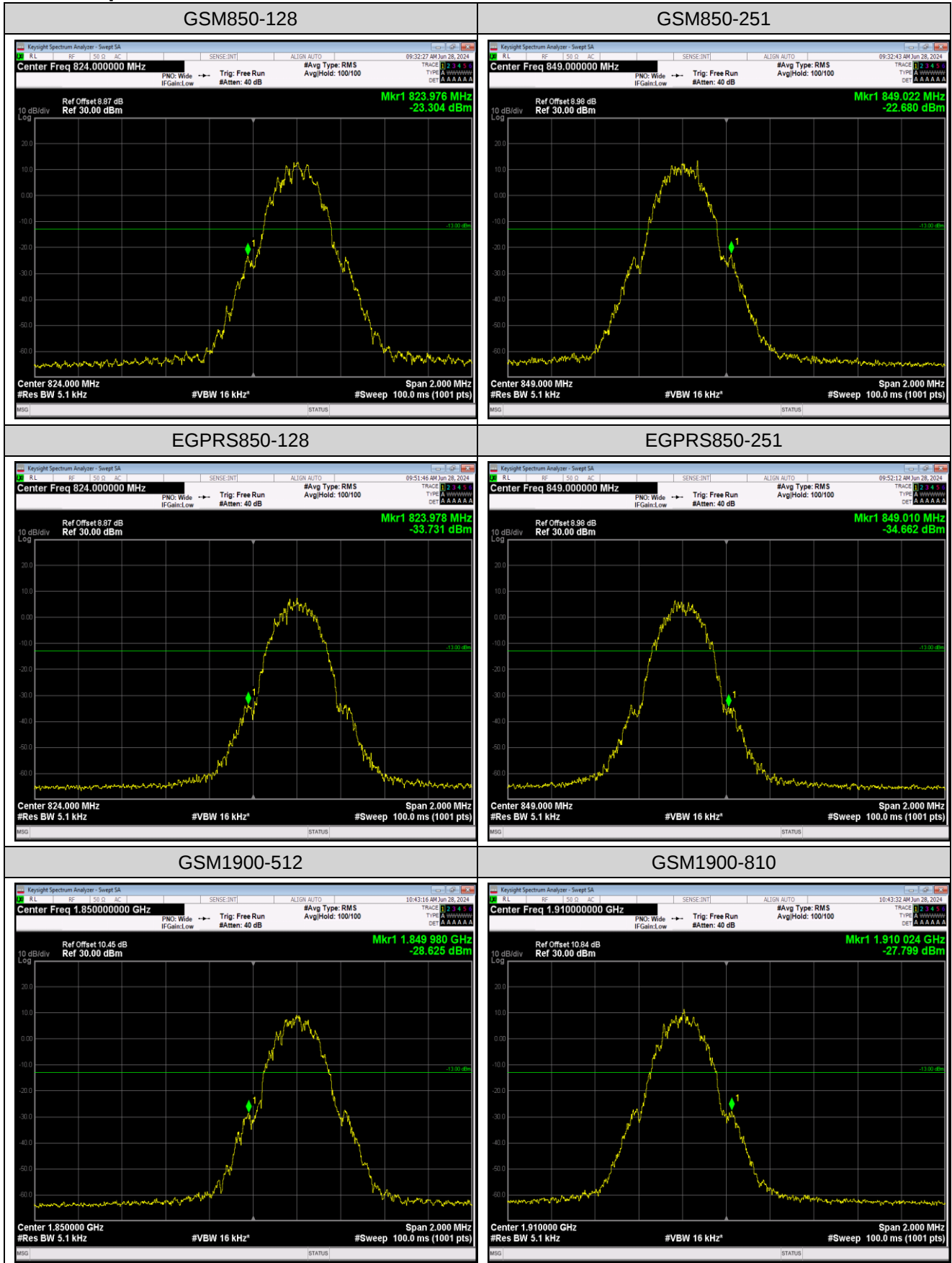


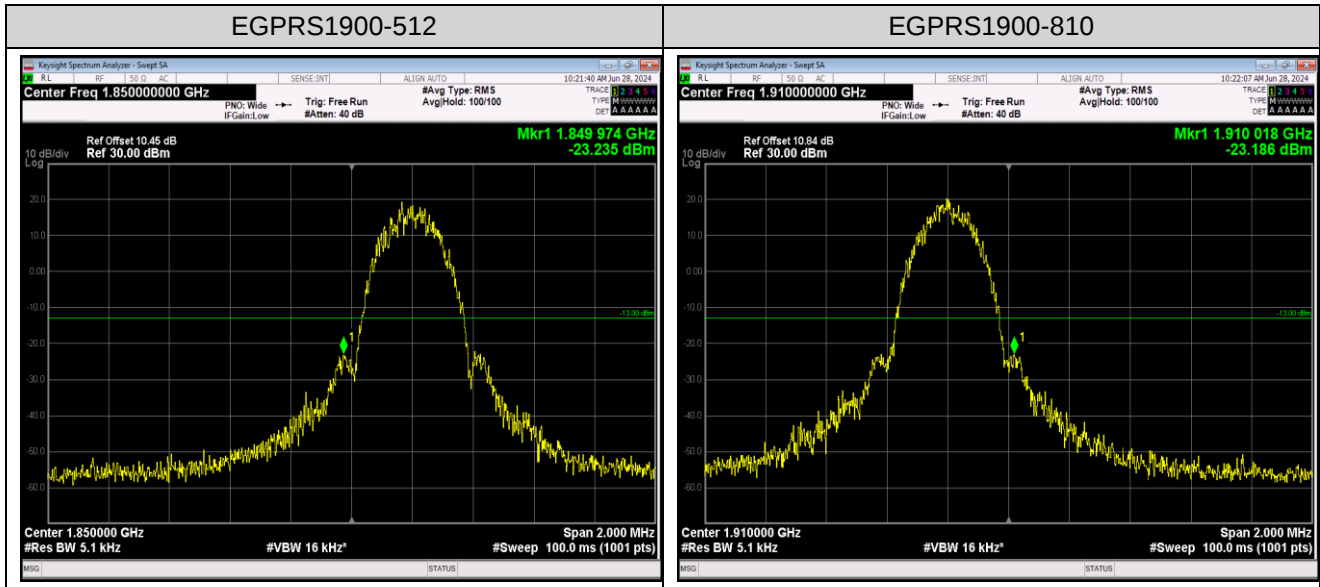
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.30	-13	PASS
GSM850	251	5	849.02	-22.68	-13	PASS
EGPRS850	128	8	823.98	-33.73	-13	PASS
EGPRS850	251	8	849.01	-34.66	-13	PASS
GSM1900	512	0	1849.98	-28.62	-13	PASS
GSM1900	810	0	1910.02	-27.80	-13	PASS
EGPRS1900	512	2	1849.97	-23.23	-13	PASS
EGPRS1900	810	2	1910.02	-23.19	-13	PASS

Test Graphs





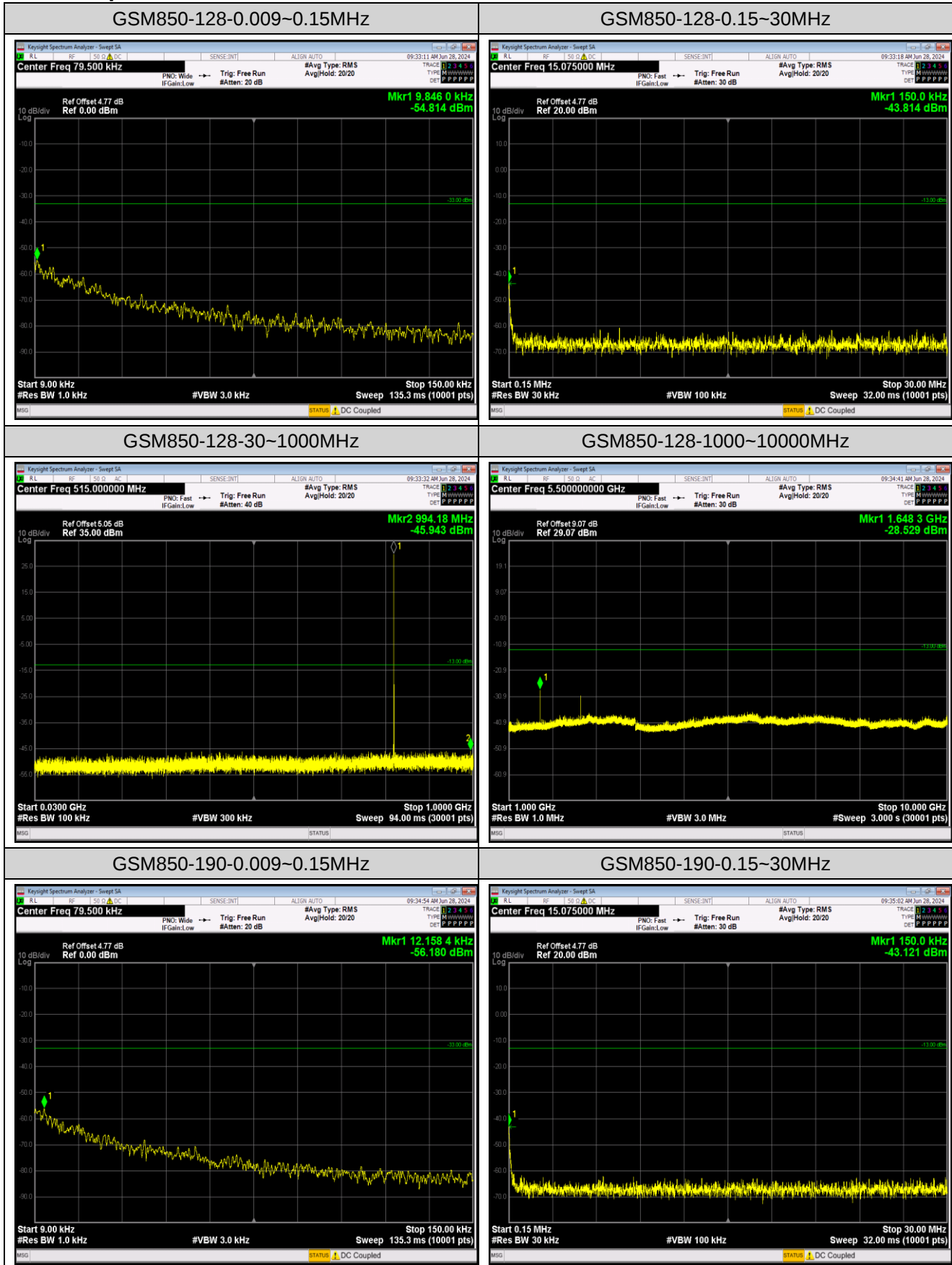
Appendix E: Conducted Spurious Emission

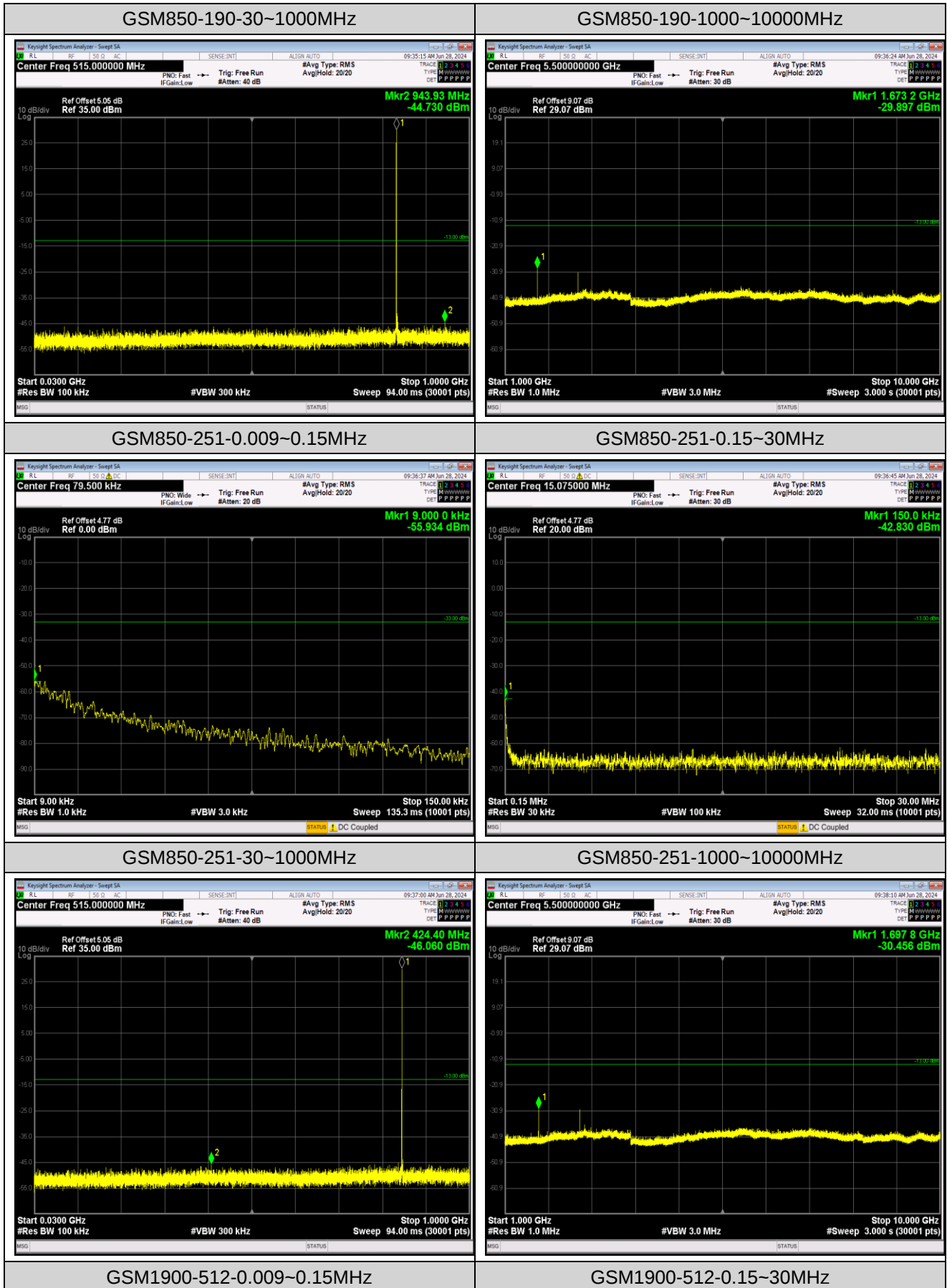
Test Result

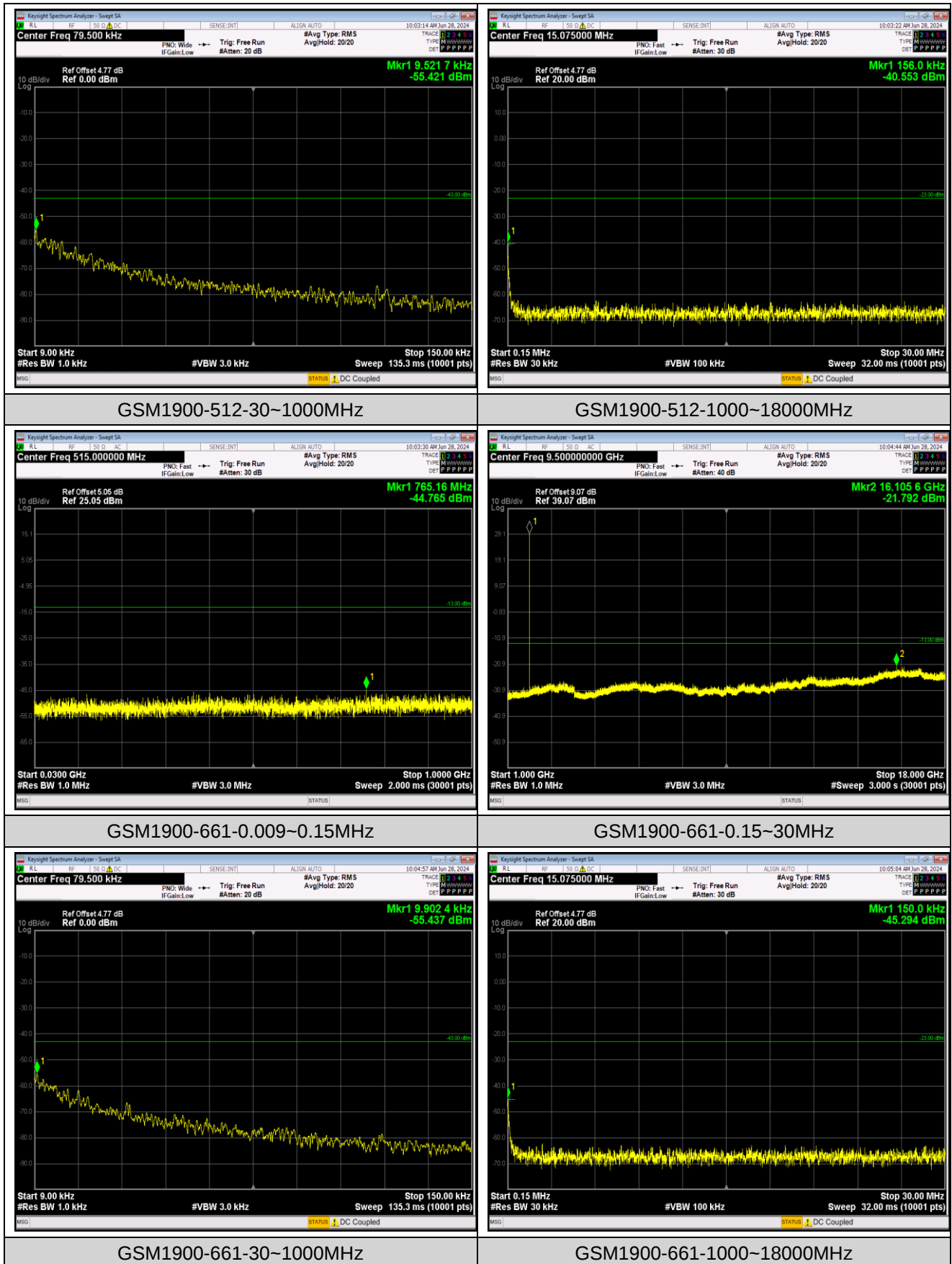
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.81	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-43.81	-13	PASS
GSM850	128	5	30~1000MHz	994.18	-45.94	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.53	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-56.18	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-43.12	-13	PASS
GSM850	190	5	30~1000MHz	943.93	-44.73	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.9	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.93	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-42.83	-13	PASS
GSM850	251	5	30~1000MHz	424.4	-46.06	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.46	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.42	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-40.55	-23	PASS
GSM1900	512	0	30~1000MHz	765.16	-44.77	-13	PASS
GSM1900	512	0	1000~18000MHz	16105.63	-21.79	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.44	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-45.29	-23	PASS
GSM1900	661	0	30~1000MHz	932.46	-44.87	-13	PASS
GSM1900	661	0	1000~18000MHz	17045.73	-21.45	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-54.15	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-43.35	-23	PASS
GSM1900	810	0	30~1000MHz	997.74	-45.34	-13	PASS
GSM1900	810	0	1000~18000MHz	16223.5	-21.72	-13	PASS

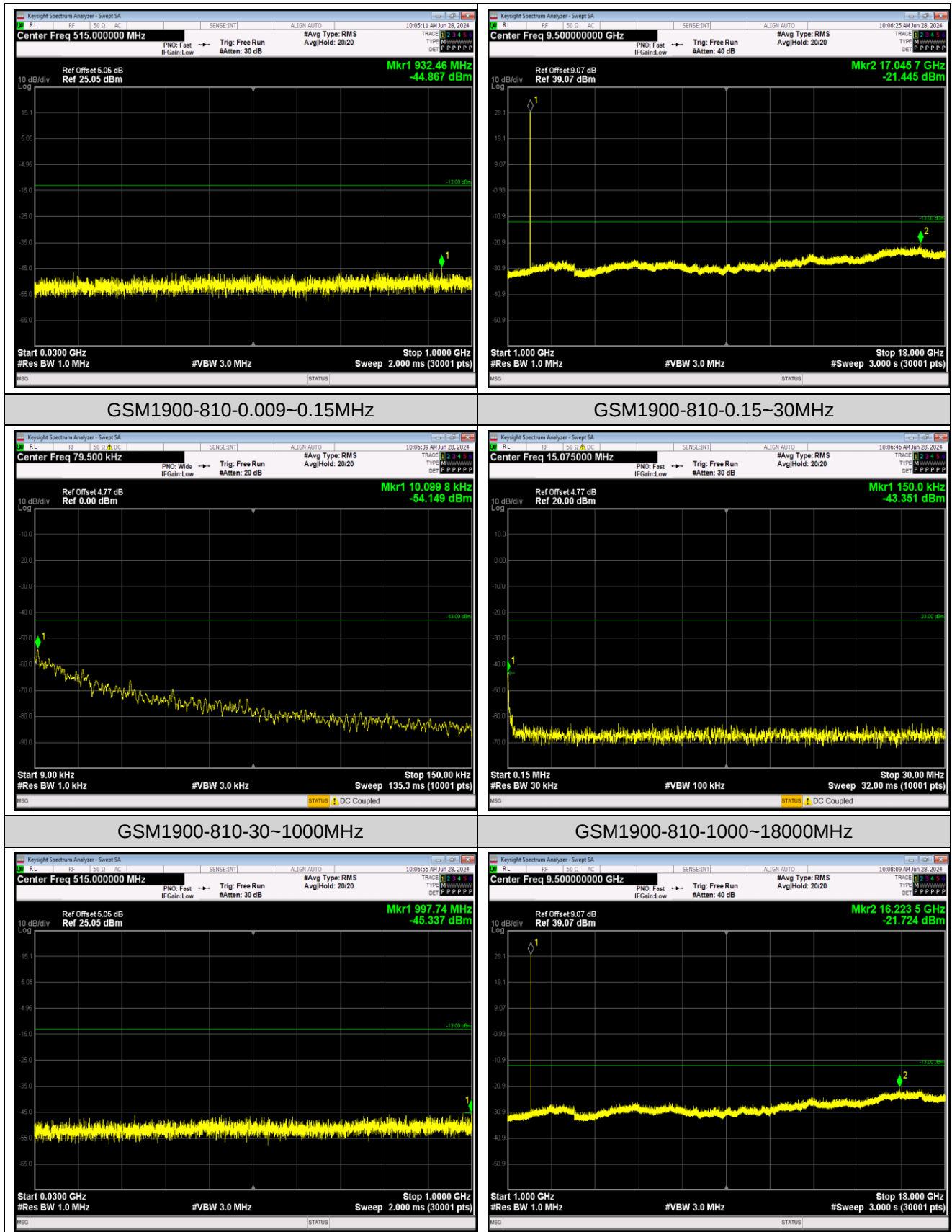
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	6.65	0.007949	±2.5	Pass
	-20	9.52	0.011379		
	-10	9.56	0.011427		
	0	3.23	0.003861		
	10	6.39	0.007638		
	20	5.71	0.006825		
	30	-0.84	-0.001004		
	40	4.20	0.005020		
	50	1.68	0.002008		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	2.74	0.003275	±2.5	Pass
	3.85	4.52	0.005403		
	4.40	-0.48	-0.000574		
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	-0.90	-0.001076	±2.5	Pass
	-20	-0.13	-0.000155		
	-10	1.39	0.001661		
	0	4.04	0.004829		
	10	5.97	0.007136		
	20	8.39	0.010029		
	30	8.62	0.010304		
	40	9.46	0.011308		
	50	5.88	0.007028		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	1.16	0.001387	±2.5	Pass
	3.85	2.00	0.002391		
	4.40	3.10	0.003705		
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	6.26	0.003330	Within authorized band for PCS 1900	Pass
	-20	9.04	0.004809		
	-10	9.01	0.004793		
	0	12.53	0.006665		
	10	13.08	0.006957		
	20	15.27	0.008122		
	30	10.27	0.005463		
	40	14.82	0.007883		
	50	12.79	0.006803		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	10.88	0.005787	Within authorized band for PCS 1900	Pass
	3.85	17.14	0.009117		
	4.40	11.88	0.006319		
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	1.90	0.001011	Within authorized band for PCS 1900	Pass
	-20	-2.20	-0.001170		
	-10	-2.62	-0.001394		
	0	-4.36	-0.002319		
	10	8.30	0.004415		
	20	5.91	0.003144		
	30	17.63	0.009378		
	40	12.40	0.006596		
	50	11.07	0.005888		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	-1.65	-0.000878	Within authorized band for PCS 1900	Pass
	3.85	-1.16	-0.000617		
	4.40	-1.36	-0.000723		
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

