

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	33.43	26.28	38.45	PASS
GSM850	190	5	33.54	26.39	38.45	PASS
GSM850	251	5	33.43	26.28	38.45	PASS
GSM1900	512	0	30.25	28.95	33.00	PASS
GSM1900	661	0	30.31	29.01	33.00	PASS
GSM1900	810	0	30.03	28.73	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.41	26.26	38.45	PASS
GPRS850	128	5	2	31.33	24.18	38.45	PASS
GPRS850	128	5	3	29.39	22.24	38.45	PASS
GPRS850	128	5	4	27.34	20.19	38.45	PASS
GPRS850	190	5	1	33.55	26.4	38.45	PASS
GPRS850	190	5	2	31.49	24.34	38.45	PASS
GPRS850	190	5	3	29.56	22.41	38.45	PASS
GPRS850	190	5	4	27.51	20.36	38.45	PASS
GPRS850	251	5	1	33.43	26.28	38.45	PASS
GPRS850	251	5	2	31.40	24.25	38.45	PASS
GPRS850	251	5	3	29.52	22.37	38.45	PASS
GPRS850	251	5	4	27.51	20.36	38.45	PASS
GPRS1900	512	0	1	30.31	29.01	33.00	PASS
GPRS1900	512	0	2	28.37	27.07	33.00	PASS
GPRS1900	512	0	3	26.71	25.41	33.00	PASS
GPRS1900	512	0	4	24.64	23.34	33.00	PASS
GPRS1900	661	0	1	30.39	29.09	33.00	PASS
GPRS1900	661	0	2	28.20	26.9	33.00	PASS
GPRS1900	661	0	3	26.62	25.32	33.00	PASS
GPRS1900	661	0	4	24.58	23.28	33.00	PASS
GPRS1900	810	0	1	30.10	28.8	33.00	PASS
GPRS1900	810	0	2	27.75	26.45	33.00	PASS
GPRS1900	810	0	3	26.22	24.92	33.00	PASS
GPRS1900	810	0	4	24.19	22.89	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.44	19.29	38.45	PASS
EGPRS850	128	8	2	25.46	18.31	38.45	PASS
EGPRS850	128	8	3	22.97	15.82	38.45	PASS
EGPRS850	128	8	4	20.51	13.36	38.45	PASS
EGPRS850	190	8	1	26.39	19.24	38.45	PASS
EGPRS850	190	8	2	25.44	18.29	38.45	PASS
EGPRS850	190	8	3	23.10	15.95	38.45	PASS
EGPRS850	190	8	4	20.56	13.41	38.45	PASS
EGPRS850	251	8	1	26.28	19.13	38.45	PASS
EGPRS850	251	8	2	25.36	18.21	38.45	PASS
EGPRS850	251	8	3	22.88	15.73	38.45	PASS
EGPRS850	251	8	4	20.44	13.29	38.45	PASS
EGPRS1900	512	2	1	26.62	25.32	33.00	PASS
EGPRS1900	512	2	2	25.04	23.74	33.00	PASS
EGPRS1900	512	2	3	22.11	20.81	33.00	PASS
EGPRS1900	512	2	4	20.44	19.14	33.00	PASS
EGPRS1900	661	2	1	26.71	25.41	33.00	PASS
EGPRS1900	661	2	2	25.21	23.91	33.00	PASS
EGPRS1900	661	2	3	22.38	21.08	33.00	PASS
EGPRS1900	661	2	4	20.62	19.32	33.00	PASS
EGPRS1900	810	2	1	26.64	25.34	33.00	PASS
EGPRS1900	810	2	2	25.12	23.82	33.00	PASS
EGPRS1900	810	2	3	22.27	20.97	33.00	PASS
EGPRS1900	810	2	4	20.47	19.17	33.00	PASS

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

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

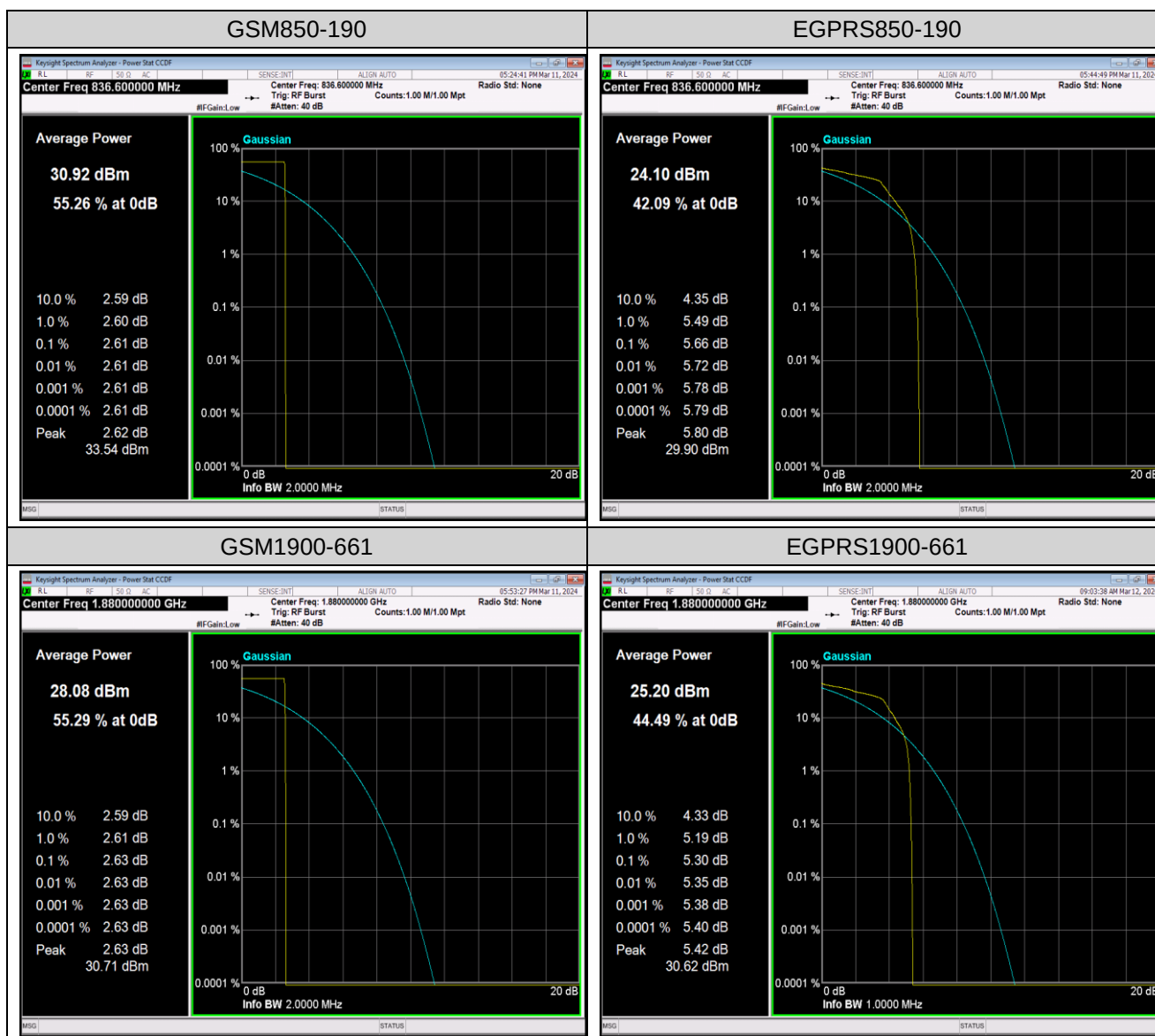
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.66	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.3	13	PASS

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

Test Graphs

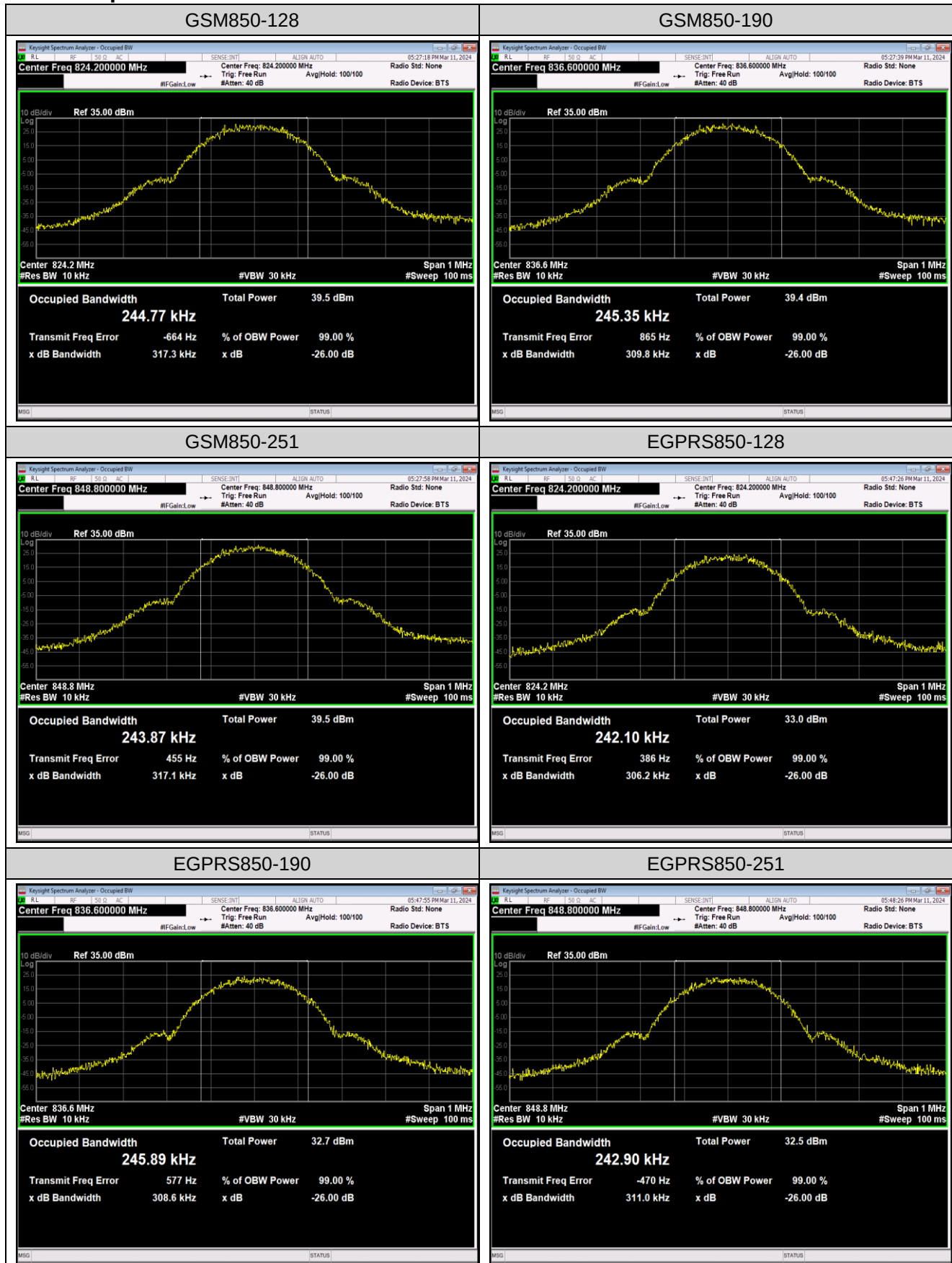


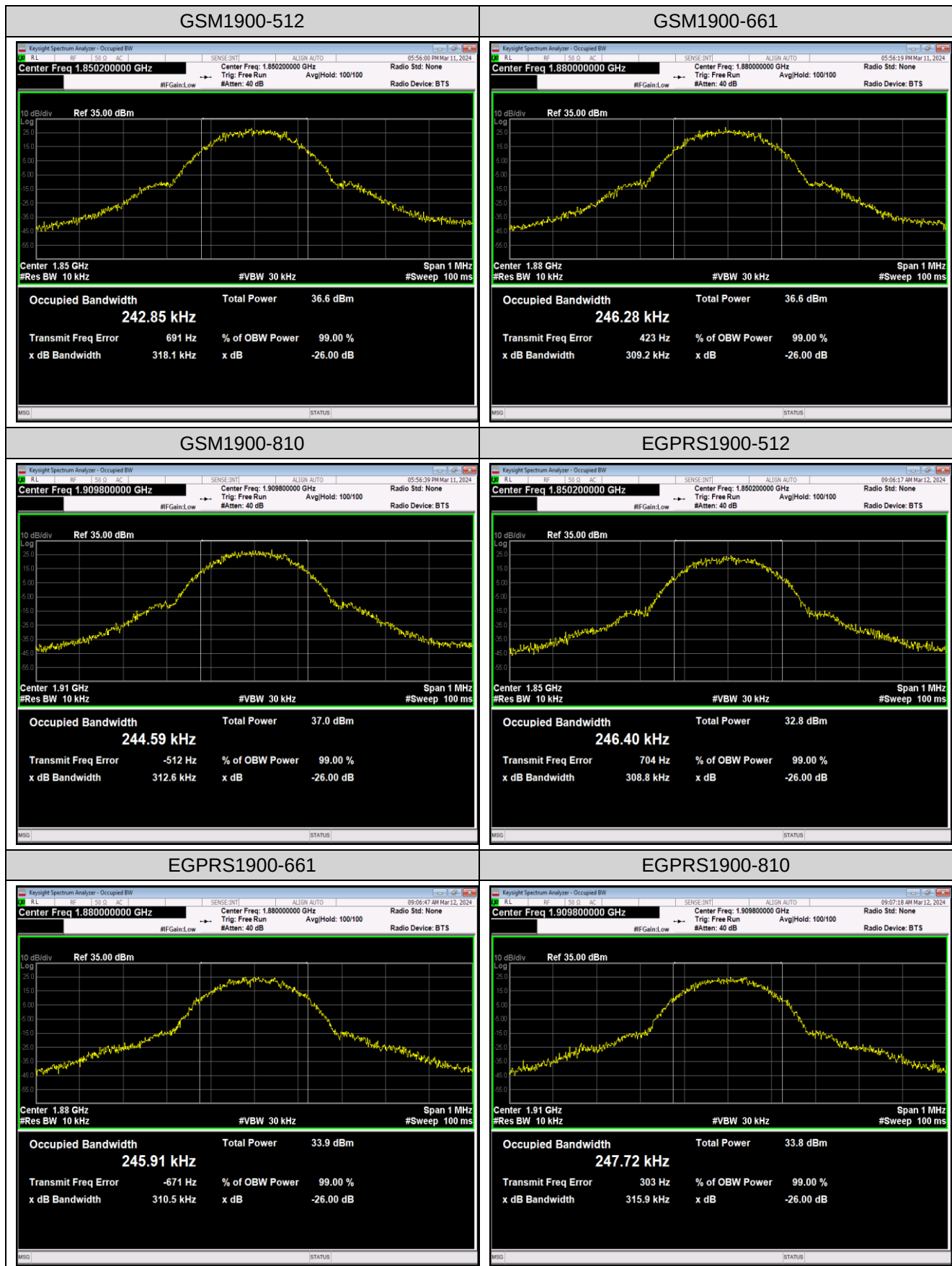
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24477	0.3173	---	PASS
GSM850	190	5	0.24535	0.3098	---	PASS
GSM850	251	5	0.24387	0.3171	---	PASS
EGPRS850	128	8	0.24210	0.3062	---	PASS
EGPRS850	190	8	0.24589	0.3086	---	PASS
EGPRS850	251	8	0.24290	0.3110	---	PASS
GSM1900	512	0	0.24285	0.3181	---	PASS
GSM1900	661	0	0.24628	0.3092	---	PASS
GSM1900	810	0	0.24459	0.3126	---	PASS
EGPRS1900	512	2	0.24640	0.3088	---	PASS
EGPRS1900	661	2	0.24591	0.3105	---	PASS
EGPRS1900	810	2	0.24772	0.3159	---	PASS

Test Graphs



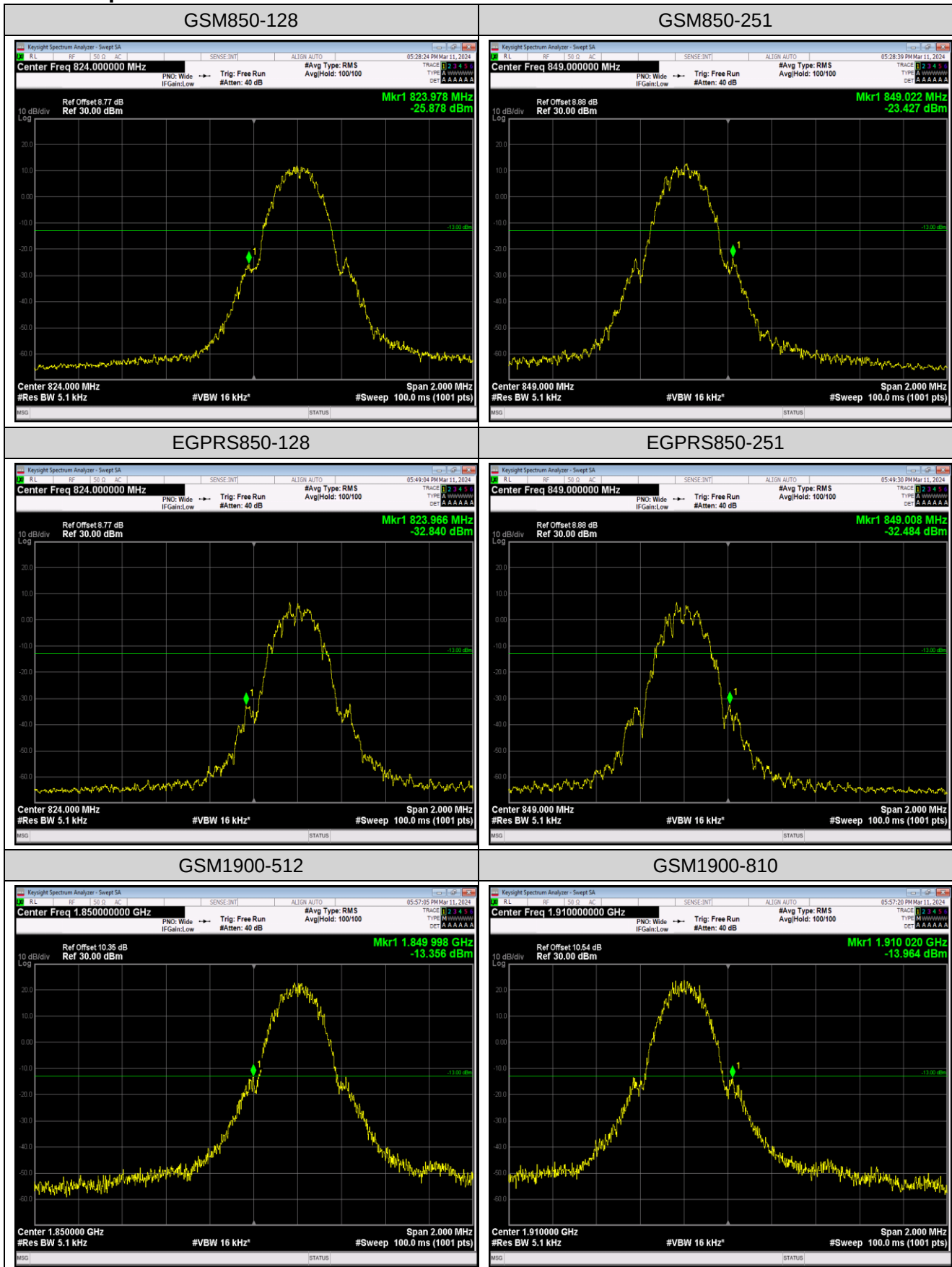


Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-25.88	-13	PASS
GSM850	251	5	849.02	-23.43	-13	PASS
EGPRS850	128	8	823.97	-32.84	-13	PASS
EGPRS850	251	8	849.01	-32.48	-13	PASS
GSM1900	512	0	1850.00	-13.36	-13	PASS
GSM1900	810	0	1910.02	-13.96	-13	PASS
EGPRS1900	512	2	1849.99	-18.68	-13	PASS
EGPRS1900	810	2	1910.02	-17.54	-13	PASS

Test Graphs

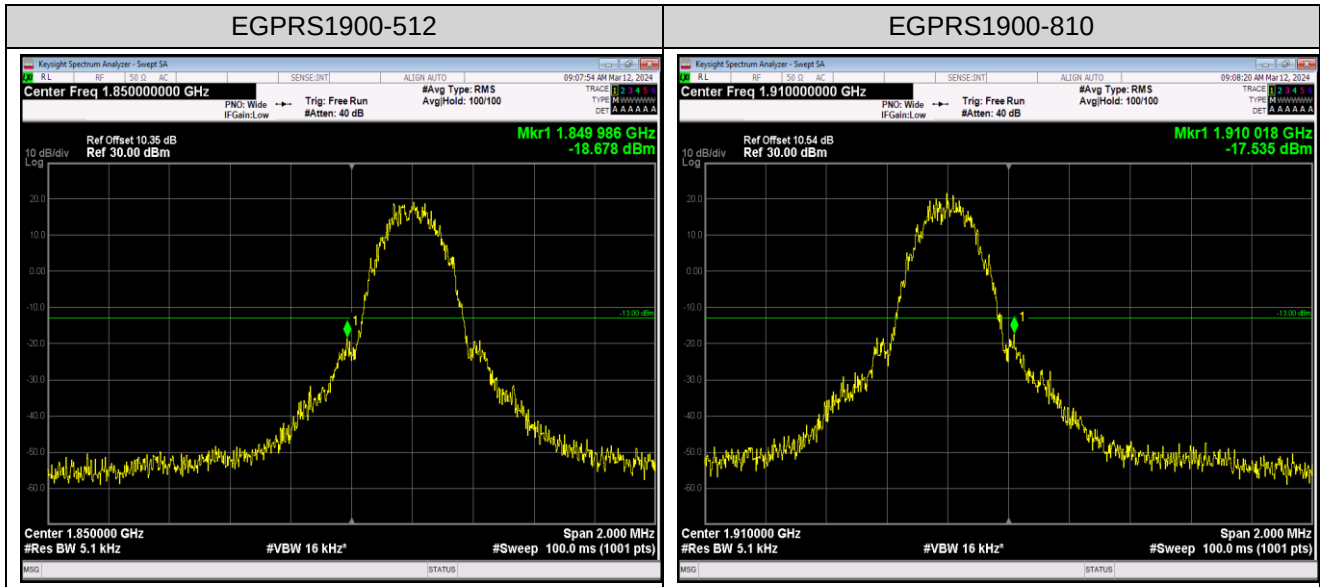


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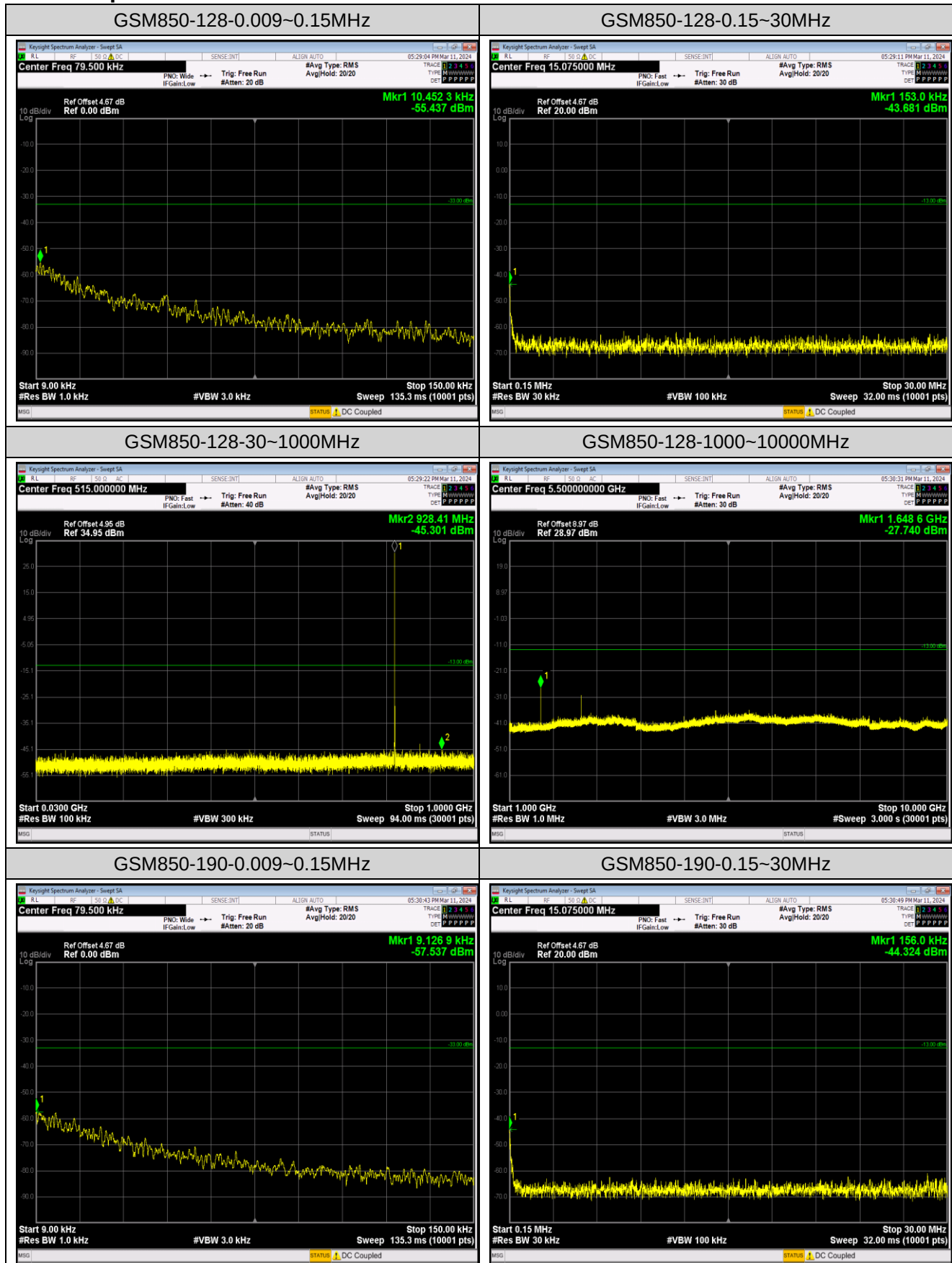
Appendix E: Conducted Spurious Emission

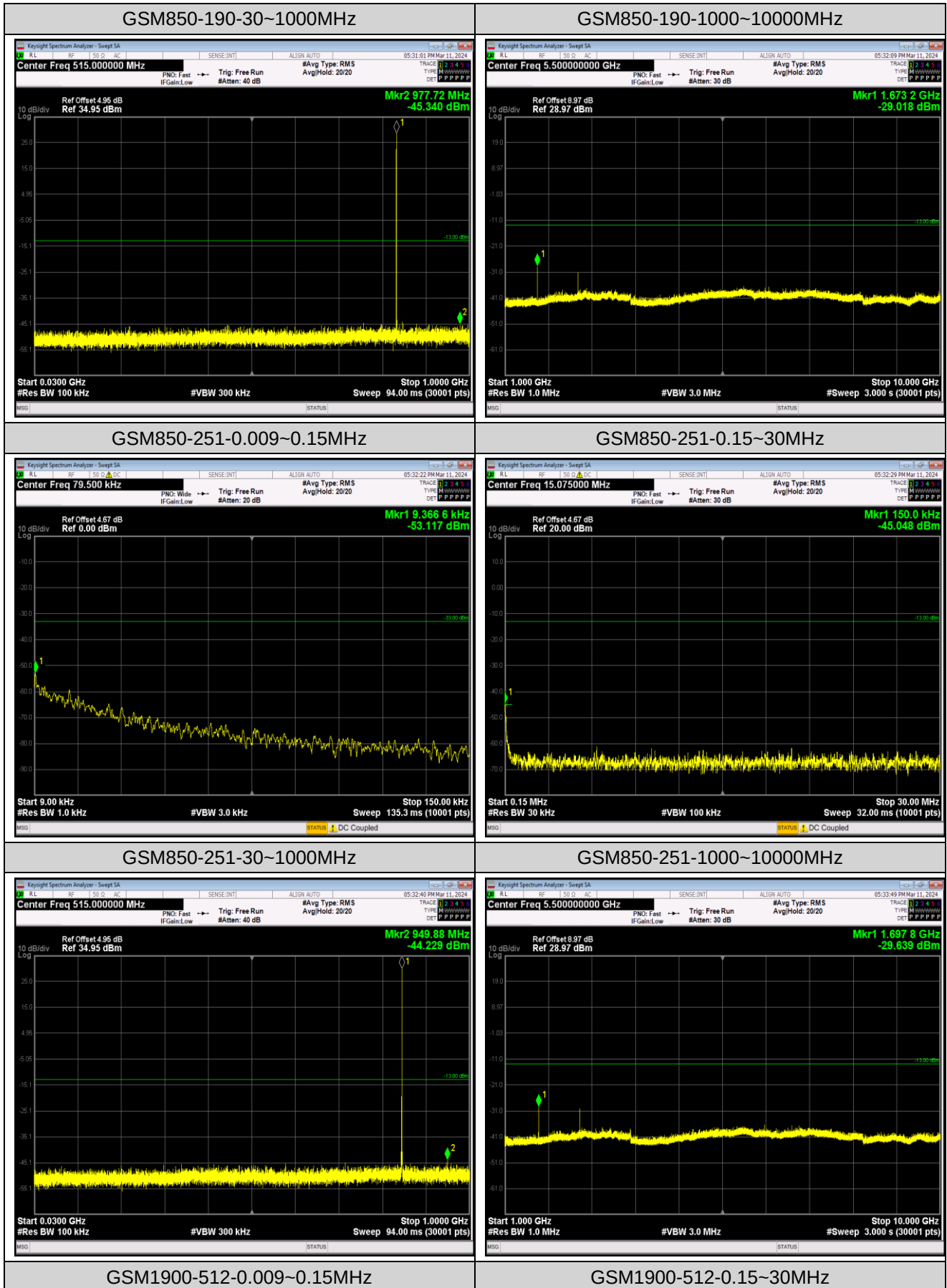
Test Result

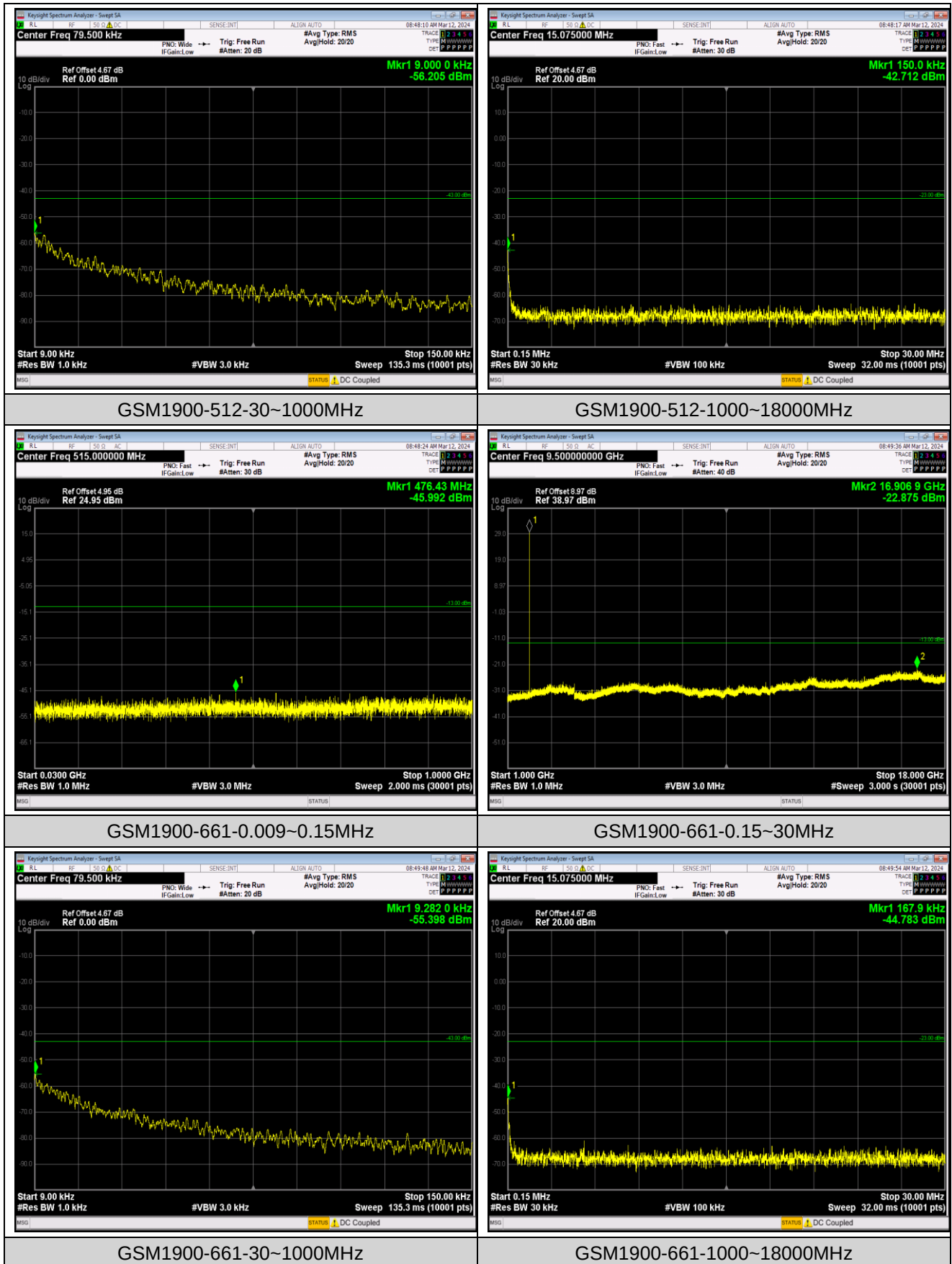
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.44	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-43.68	-13	PASS
GSM850	128	5	30~1000MHz	928.41	-45.3	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-27.74	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-57.54	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-44.32	-13	PASS
GSM850	190	5	30~1000MHz	977.72	-45.34	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.02	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.12	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-45.05	-13	PASS
GSM850	251	5	30~1000MHz	949.88	-44.23	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-29.64	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.21	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-42.71	-23	PASS
GSM1900	512	0	30~1000MHz	476.43	-45.99	-13	PASS
GSM1900	512	0	1000~18000MHz	16906.9	-22.88	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.4	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-44.78	-23	PASS
GSM1900	661	0	30~1000MHz	443.51	-45.88	-13	PASS
GSM1900	661	0	1000~18000MHz	16713.1	-23.28	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.96	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-43.85	-23	PASS
GSM1900	810	0	30~1000MHz	724.49	-46.91	-13	PASS
GSM1900	810	0	1000~18000MHz	16786.2	-23.3	-13	PASS

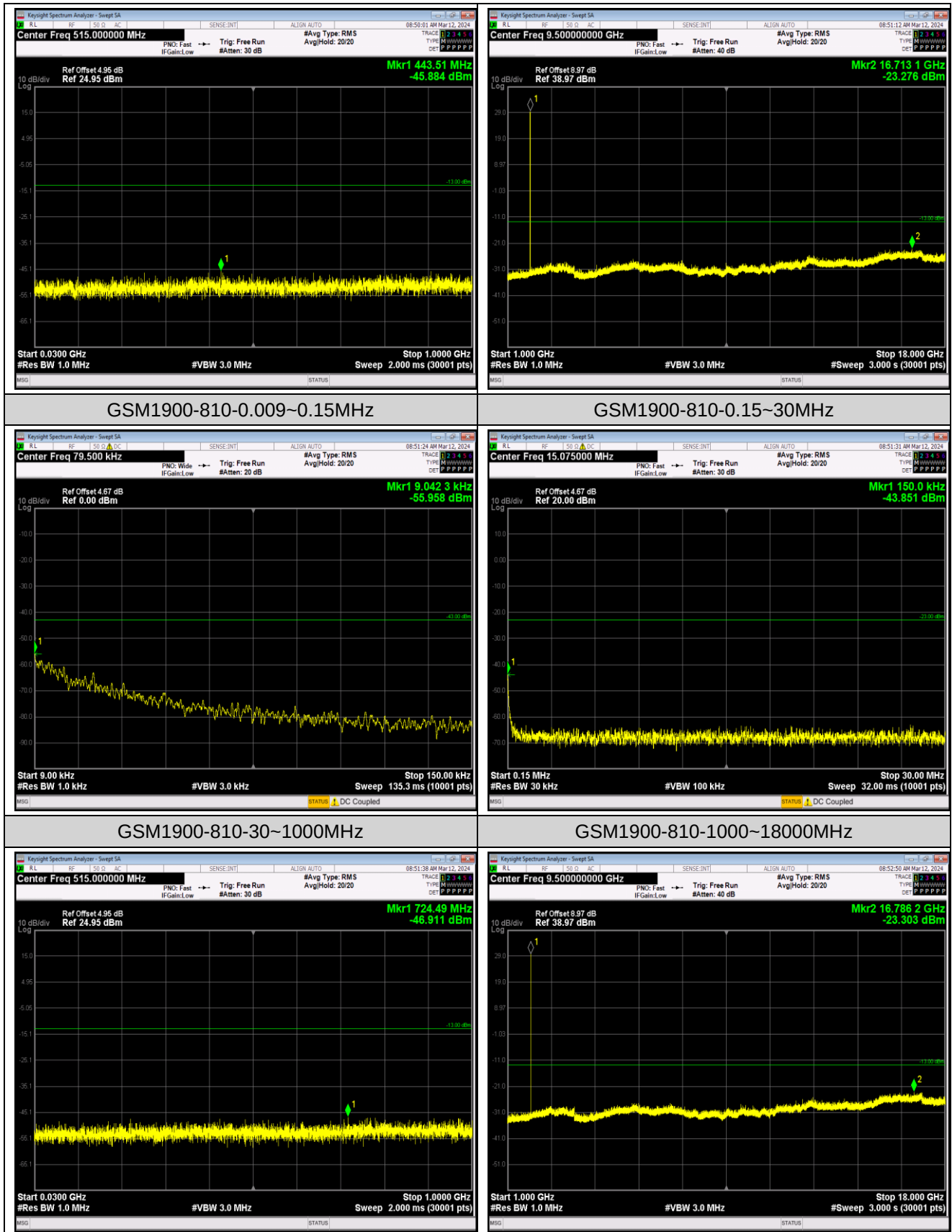
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	-3.87	-0.004626	±2.5	Pass
	-20	-9.43	-0.011272		
	-10	-0.74	-0.000885		
	0	-2.45	-0.002929		
	10	-1.39	-0.001661		
	20	-6.84	-0.008176		
	30	-5.33	-0.006371		
	40	-1.29	-0.001542		
	50	0.45	0.000538		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-4.49	-0.005367	±2.5	Pass
	3.85	-9.52	-0.011379		
	4.40	-6.39	-0.007638		
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	4.97	0.005941	±2.5	Pass
	-20	1.03	0.001231		
	-10	3.75	0.004482		
	0	0.19	0.000227		
	10	4.55	0.005439		
	20	2.42	0.002893		
	30	7.04	0.008415		
	40	2.23	0.002666		
	50	4.29	0.005128		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	2.16	0.002582	±2.5	Pass
	3.85	8.68	0.010375		
	4.40	7.91	0.009455		
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	15.92	0.008468	Within authorized band for PCS 1900	Pass
	-20	8.23	0.004378		
	-10	22.99	0.012229		
	0	13.72	0.007298		
	10	28.19	0.014995		
	20	14.53	0.007729		
	30	15.79	0.008399		
	40	7.72	0.004106		
	50	12.27	0.006527		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	11.17	0.005941	Within authorized band for PCS 1900	Pass
	3.85	15.24	0.008106		
	4.40	14.75	0.007846		
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	-6.39	-0.003399	Within authorized band for PCS 1900	Pass
	-20	-8.20	-0.004362		
	-10	-8.78	-0.004670		
	0	-15.76	-0.008383		
	10	-8.59	-0.004569		
	20	-11.59	-0.006165		
	30	-15.08	-0.008021		
	40	0.61	0.000324		
	50	-7.43	-0.003952		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	0.48	0.000255	Within authorized band for PCS 1900	Pass
	3.85	-11.24	-0.005979		
	4.40	-18.40	-0.009787		
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

