

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	32.80	29.05	38.45	PASS
GSM850	190	5	33.14	29.39	38.45	PASS
GSM850	251	5	32.97	29.22	38.45	PASS
GSM1900	512	0	30.04	29.44	33.00	PASS
GSM1900	661	0	29.62	29.02	33.00	PASS
GSM1900	810	0	29.70	29.1	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.77	29.02	38.45	PASS
GPRS850	128	5	2	31.92	28.17	38.45	PASS
GPRS850	128	5	3	30.07	26.32	38.45	PASS
GPRS850	128	5	4	29.00	25.25	38.45	PASS
GPRS850	190	5	1	33.14	29.39	38.45	PASS
GPRS850	190	5	2	32.29	28.54	38.45	PASS
GPRS850	190	5	3	30.42	26.67	38.45	PASS
GPRS850	190	5	4	29.36	25.61	38.45	PASS
GPRS850	251	5	1	32.97	29.22	38.45	PASS
GPRS850	251	5	2	32.11	28.36	38.45	PASS
GPRS850	251	5	3	30.24	26.49	38.45	PASS
GPRS850	251	5	4	29.19	25.44	38.45	PASS
GPRS1900	512	0	1	30.04	29.44	33.00	PASS
GPRS1900	512	0	2	29.25	28.65	33.00	PASS
GPRS1900	512	0	3	27.33	26.73	33.00	PASS
GPRS1900	512	0	4	26.26	25.66	33.00	PASS
GPRS1900	661	0	1	29.66	29.06	33.00	PASS
GPRS1900	661	0	2	28.86	28.26	33.00	PASS
GPRS1900	661	0	3	26.96	26.36	33.00	PASS
GPRS1900	661	0	4	25.93	25.33	33.00	PASS
GPRS1900	810	0	1	29.71	29.11	33.00	PASS
GPRS1900	810	0	2	28.93	28.33	33.00	PASS
GPRS1900	810	0	3	27.03	26.43	33.00	PASS
GPRS1900	810	0	4	25.96	25.36	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.60	23.85	38.45	PASS
EGPRS850	128	8	2	26.62	22.87	38.45	PASS
EGPRS850	128	8	3	24.45	20.7	38.45	PASS
EGPRS850	128	8	4	23.31	19.56	38.45	PASS
EGPRS850	190	8	1	27.76	24.01	38.45	PASS
EGPRS850	190	8	2	26.58	22.83	38.45	PASS
EGPRS850	190	8	3	24.42	20.67	38.45	PASS
EGPRS850	190	8	4	23.31	19.56	38.45	PASS
EGPRS850	251	8	1	27.79	24.04	38.45	PASS
EGPRS850	251	8	2	26.60	22.85	38.45	PASS
EGPRS850	251	8	3	24.45	20.7	38.45	PASS
EGPRS850	251	8	4	23.34	19.59	38.45	PASS
EGPRS1900	512	2	1	25.47	24.87	33.00	PASS
EGPRS1900	512	2	2	24.36	23.76	33.00	PASS
EGPRS1900	512	2	3	22.06	21.46	33.00	PASS
EGPRS1900	512	2	4	20.86	20.26	33.00	PASS
EGPRS1900	661	2	1	25.23	24.63	33.00	PASS
EGPRS1900	661	2	2	24.16	23.56	33.00	PASS
EGPRS1900	661	2	3	21.93	21.33	33.00	PASS
EGPRS1900	661	2	4	20.66	20.06	33.00	PASS
EGPRS1900	810	2	1	25.31	24.71	33.00	PASS
EGPRS1900	810	2	2	24.19	23.59	33.00	PASS
EGPRS1900	810	2	3	21.99	21.39	33.00	PASS
EGPRS1900	810	2	4	20.77	20.17	33.00	PASS

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

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

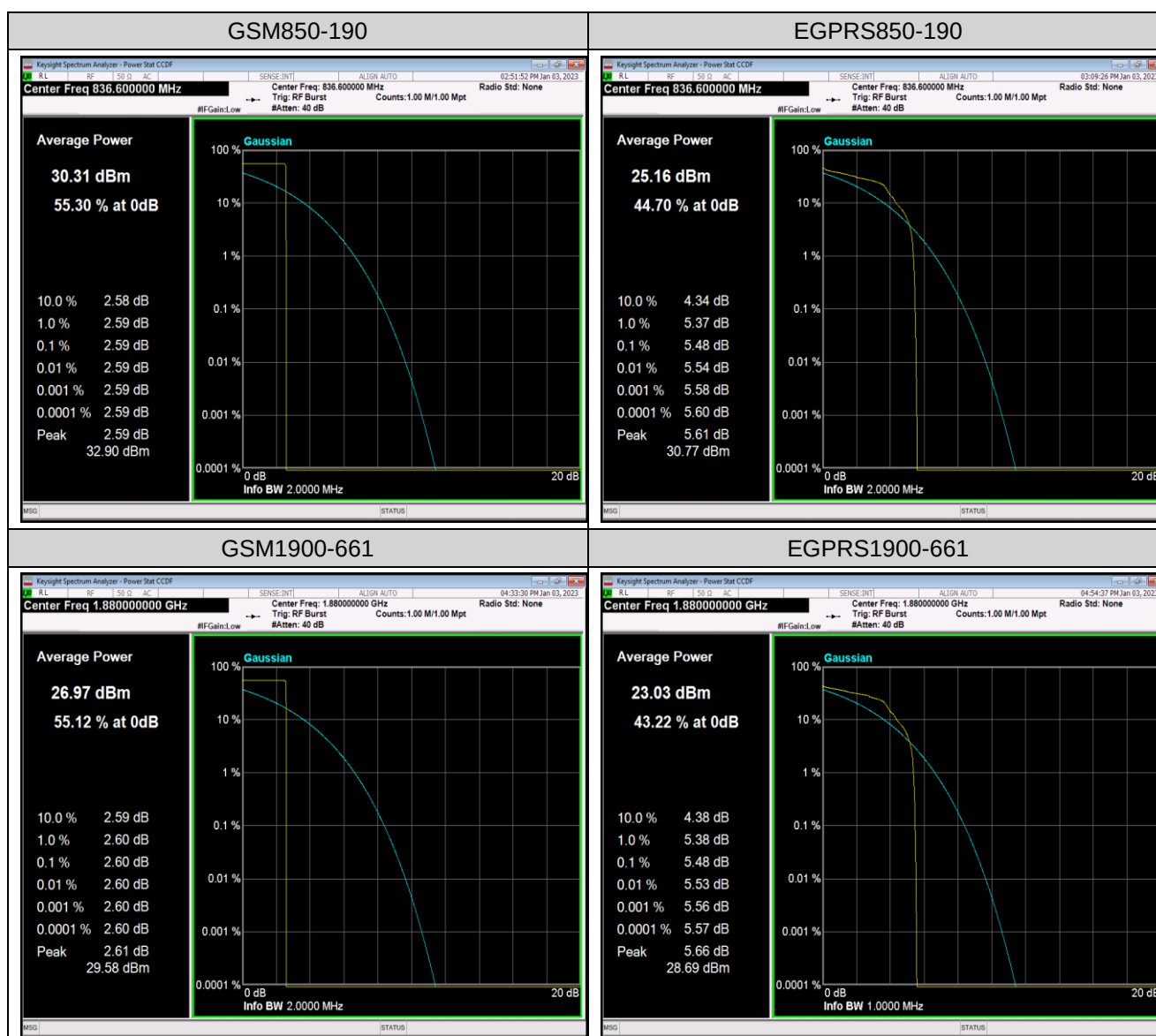
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.59	13	PASS
EGPRS850	190	8	5.48	13	PASS
GSM1900	661	0	2.6	13	PASS
EGPRS1900	661	2	5.48	13	PASS

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

Test Graphs

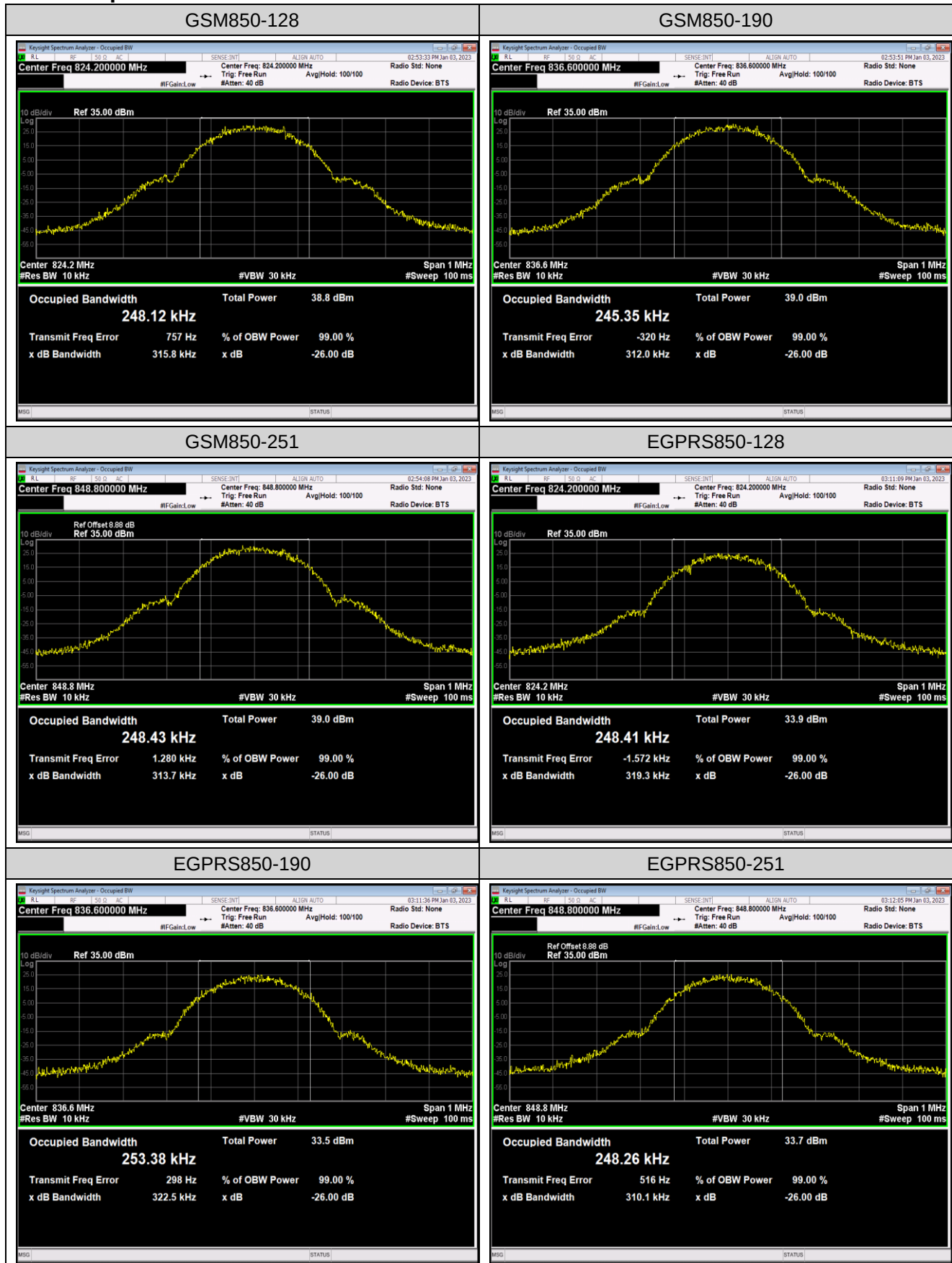


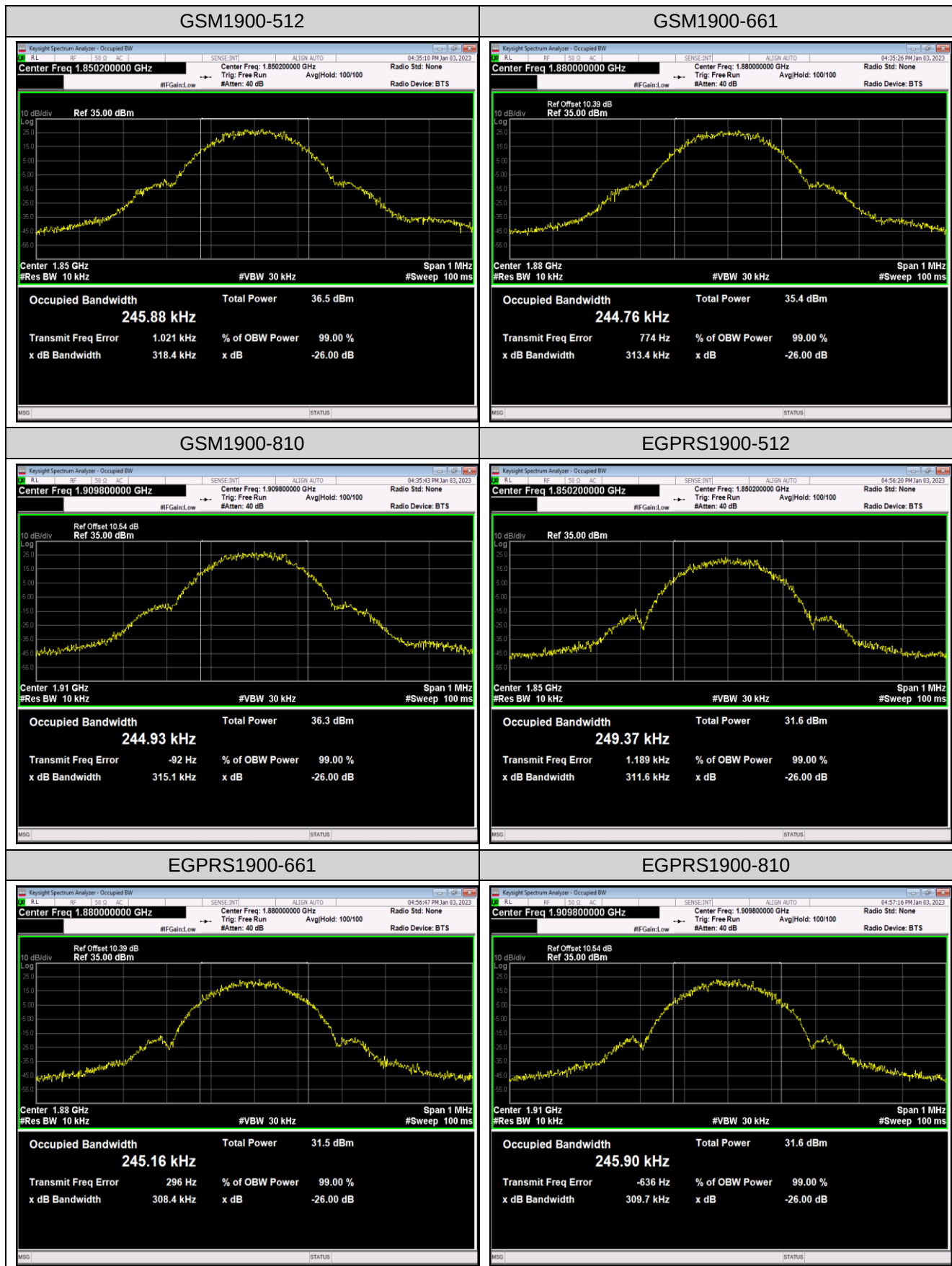
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24812	0.3158	---	PASS
GSM850	190	5	0.24535	0.3120	---	PASS
GSM850	251	5	0.24843	0.3137	---	PASS
EGPRS850	128	8	0.24841	0.3193	---	PASS
EGPRS850	190	8	0.25338	0.3225	---	PASS
EGPRS850	251	8	0.24826	0.3101	---	PASS
GSM1900	512	0	0.24588	0.3184	---	PASS
GSM1900	661	0	0.24476	0.3134	---	PASS
GSM1900	810	0	0.24493	0.3151	---	PASS
EGPRS1900	512	2	0.24937	0.3116	---	PASS
EGPRS1900	661	2	0.24516	0.3084	---	PASS
EGPRS1900	810	2	0.24590	0.3097	---	PASS

Test Graphs



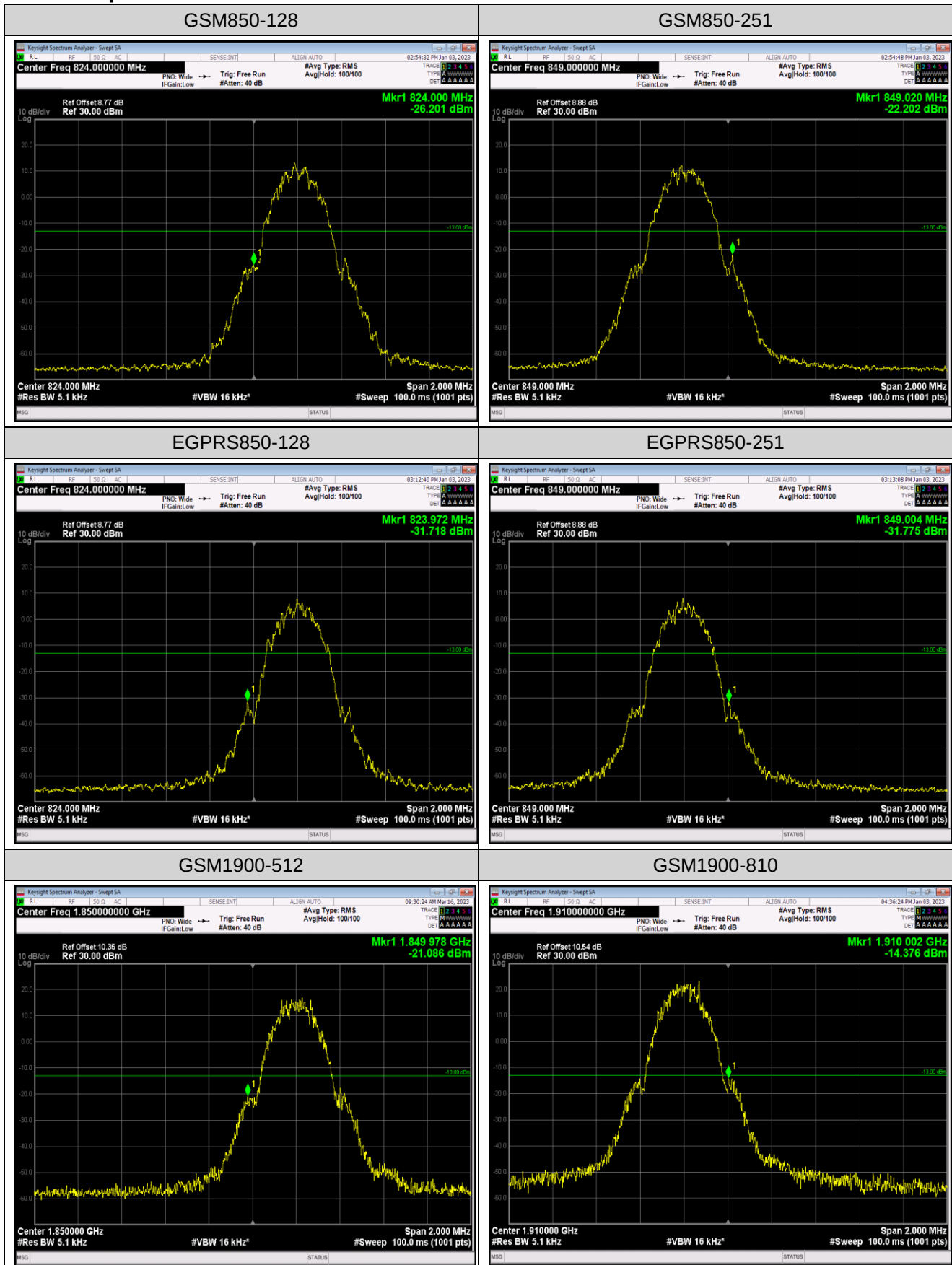


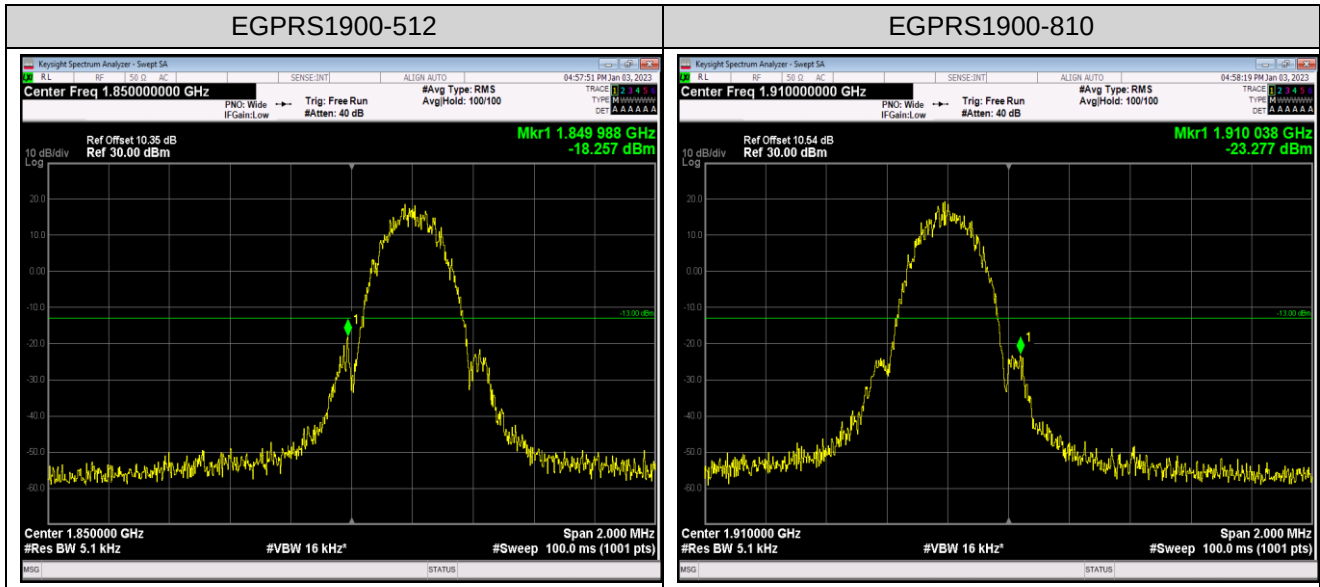
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-26.20	-13	PASS
GSM850	251	5	849.02	-22.20	-13	PASS
EGPRS850	128	8	823.97	-31.72	-13	PASS
EGPRS850	251	8	849.00	-31.77	-13	PASS
GSM1900	512	0	1850.00	-21.09	-13	PASS
GSM1900	810	0	1910.00	-14.38	-13	PASS
EGPRS1900	512	2	1849.99	-18.26	-13	PASS
EGPRS1900	810	2	1910.04	-23.28	-13	PASS

Test Graphs





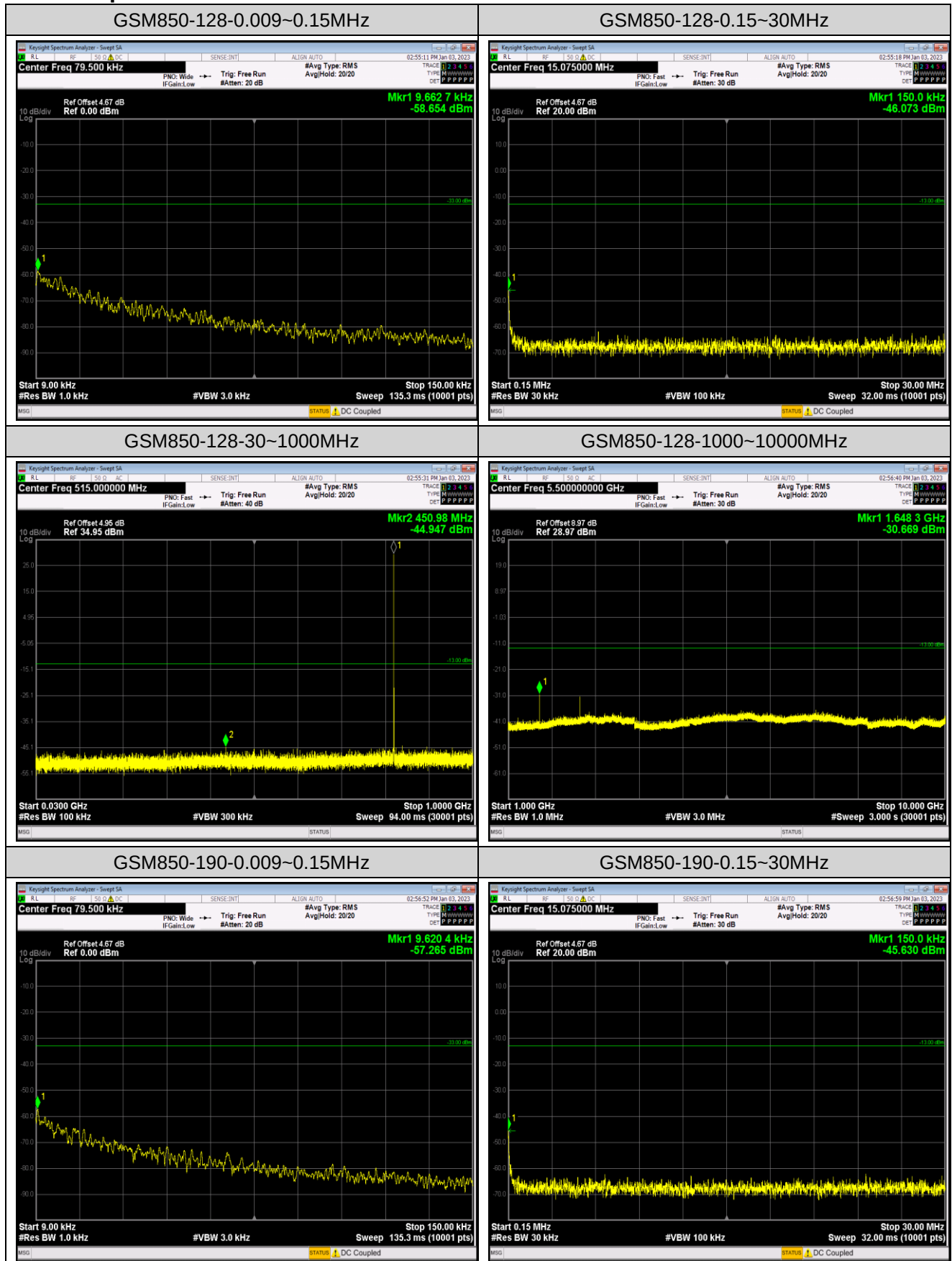
Appendix E: Conducted Spurious Emission

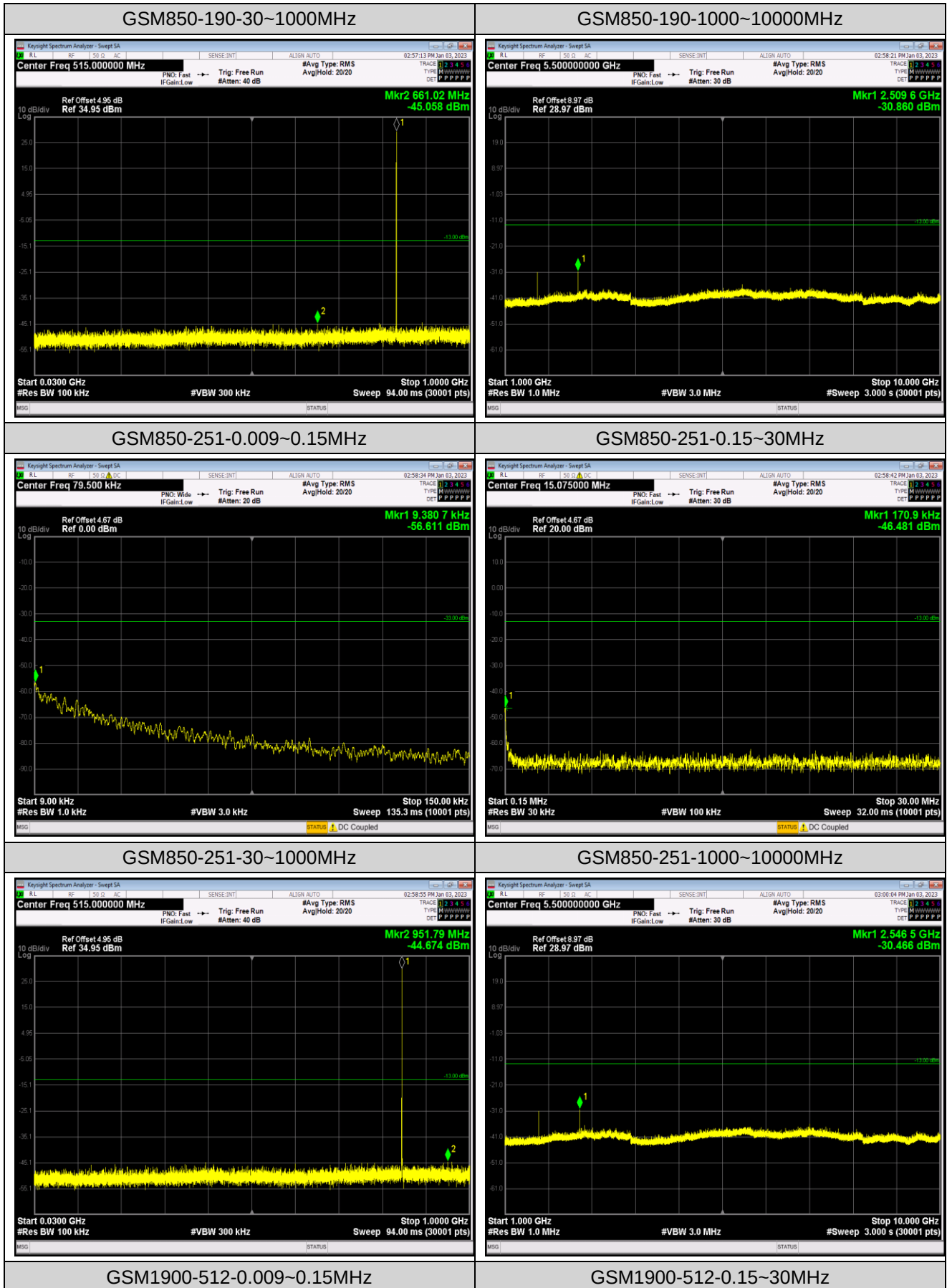
Test Result

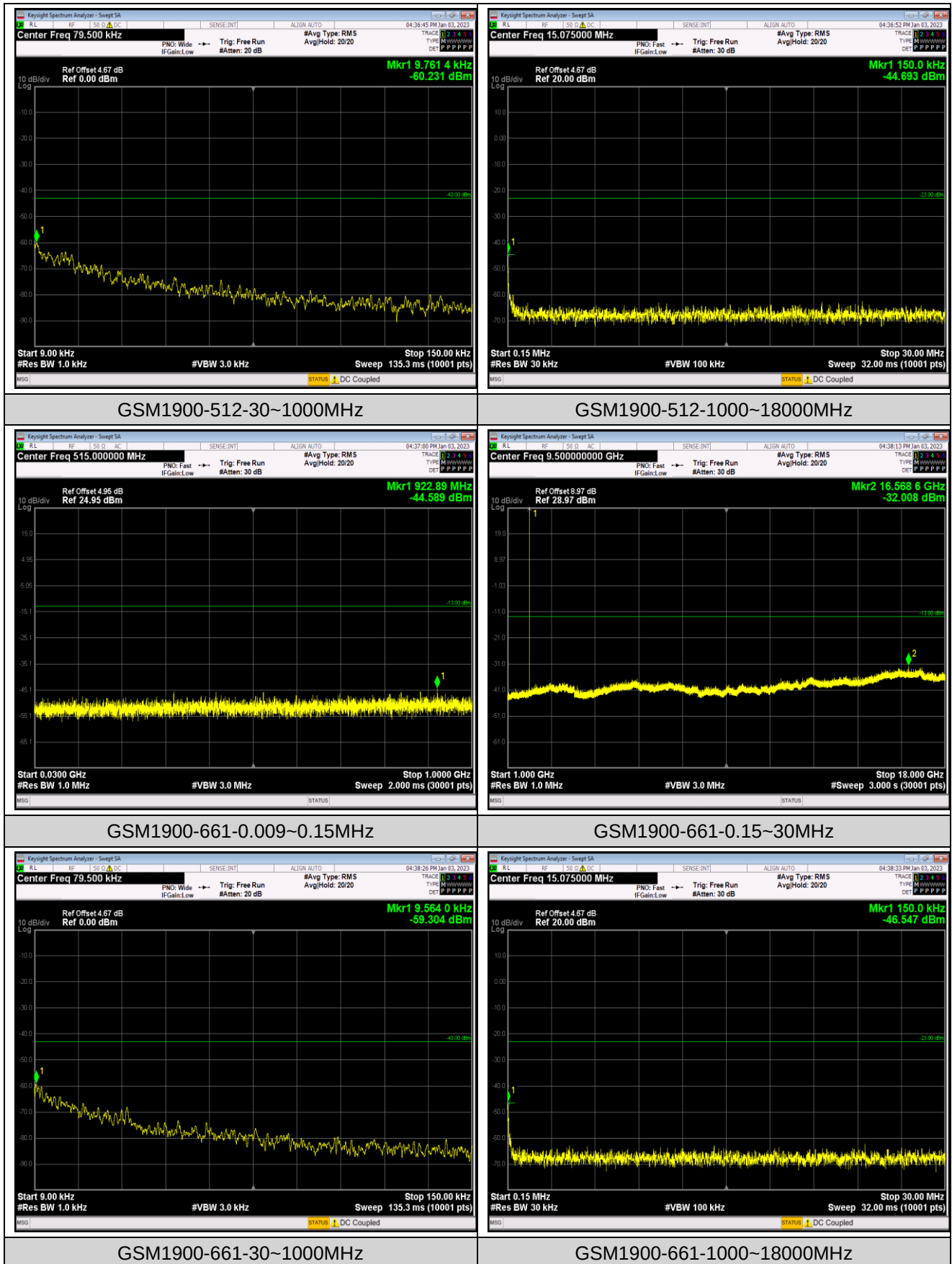
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-58.65	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-46.07	-13	PASS
GSM850	128	5	30~1000MHz	450.98	-44.95	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-30.67	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-57.27	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-45.63	-13	PASS
GSM850	190	5	30~1000MHz	661.02	-45.06	-13	PASS
GSM850	190	5	1000~10000MHz	2509.6	-30.86	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-56.61	-33	PASS
GSM850	251	5	0.15~30MHz	0.17	-46.48	-13	PASS
GSM850	251	5	30~1000MHz	951.79	-44.67	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-30.47	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-60.23	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-44.69	-23	PASS
GSM1900	512	0	30~1000MHz	922.89	-44.59	-13	PASS
GSM1900	512	0	1000~18000MHz	16568.6	-32.01	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-59.3	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-46.55	-23	PASS
GSM1900	661	0	30~1000MHz	373.57	-45.77	-13	PASS
GSM1900	661	0	1000~18000MHz	16113.57	-31.69	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-59.93	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-45.24	-23	PASS
GSM1900	810	0	30~1000MHz	924.89	-44.53	-13	PASS
GSM1900	810	0	1000~18000MHz	17019.67	-32.61	-13	PASS

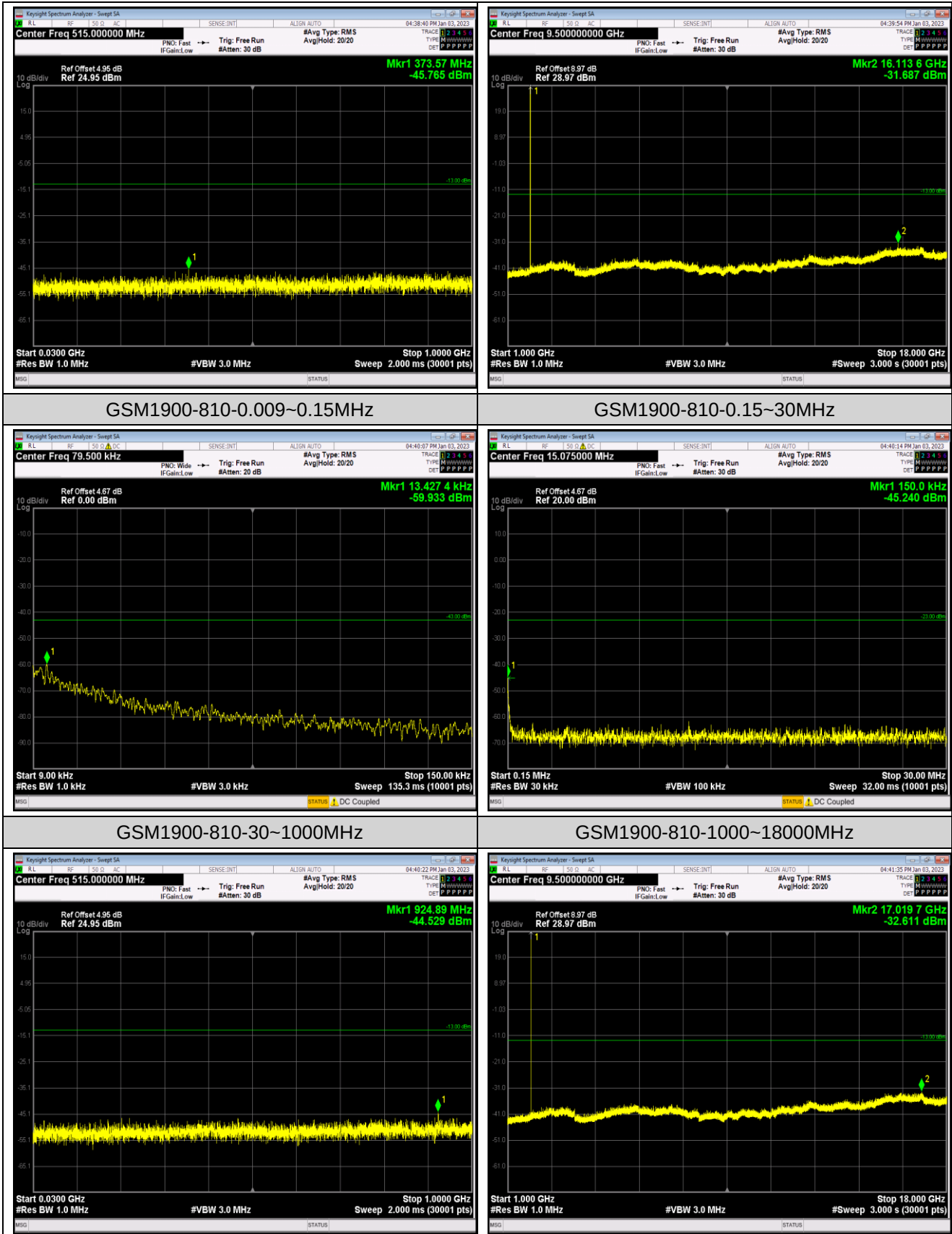
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs









Appendix 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	4.84	0.005785	±2.5	Pass
	-20	4.78	0.005714		
	-10	4.49	0.005367		
	0	6.17	0.007375		
	10	1.87	0.002235		
	20	0.16	0.000191		
	30	-3.33	-0.003980		
	40	0.39	0.000466		
	50	1.65	0.001972		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	1.26	0.001506	±2.5	Pass
	3.87	-2.97	-0.003550		
	4.45	4.58	0.005475		
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	-8.04	-0.009610	±2.5	Pass
	-20	-9.36	-0.011188		
	-10	-8.33	-0.009957		
	0	-6.72	-0.008033		
	10	-4.88	-0.005833		
	20	-4.16	-0.004973		
	30	-5.55	-0.006634		
	40	-2.29	-0.002737		
	50	-3.13	-0.003741		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-9.17	-0.010961	±2.5	Pass
	3.87	-6.49	-0.007758		
	4.45	-7.46	-0.008917		
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	-13.17	-0.007005	Within authorized band for PCS 1900	Pass
	-20	-8.98	-0.004777		
	-10	-15.21	-0.008090		
	0	-12.24	-0.006511		
	10	-11.98	-0.006372		
	20	-8.91	-0.004739		
	30	-20.21	-0.010750		
	40	-11.33	-0.006027		
	50	-10.17	-0.005410		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-16.30	-0.008670	Within authorized band for PCS 1900	Pass
	3.87	-7.20	-0.003830		
	4.45	-10.72	-0.005702		
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		
3.87	-30	-10.40	-0.005532	Within authorized band for PCS 1900	Pass
	-20	-11.27	-0.005995		
	-10	-9.30	-0.004947		
	0	-8.17	-0.004346		
	10	-8.88	-0.004723		
	20	-7.07	-0.003761		
	30	5.97	0.003176		
	40	-1.84	-0.000979		
	50	2.81	0.001495		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-12.69	-0.006750	Within authorized band for PCS 1900	Pass
	3.87	-10.17	-0.005410		
	4.45	-7.52	-0.004000		
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

