

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	33.23	26.08	38.45	PASS
GSM850	190	5	33.26	26.11	38.45	PASS
GSM850	251	5	33.13	25.98	38.45	PASS
GSM1900	512	0	27.35	25.35	33.00	PASS
GSM1900	661	0	27.31	25.31	33.00	PASS
GSM1900	810	0	26.98	24.98	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.19	26.04	38.45	PASS
GPRS850	128	5	2	31.15	24	38.45	PASS
GPRS850	128	5	3	29.13	21.98	38.45	PASS
GPRS850	128	5	4	27.09	19.94	38.45	PASS
GPRS850	190	5	1	33.23	26.08	38.45	PASS
GPRS850	190	5	2	31.18	24.03	38.45	PASS
GPRS850	190	5	3	29.16	22.01	38.45	PASS
GPRS850	190	5	4	27.12	19.97	38.45	PASS
GPRS850	251	5	1	33.10	25.95	38.45	PASS
GPRS850	251	5	2	31.04	23.89	38.45	PASS
GPRS850	251	5	3	29.02	21.87	38.45	PASS
GPRS850	251	5	4	26.98	19.83	38.45	PASS
GPRS1900	512	0	1	29.18	27.18	33.00	PASS
GPRS1900	512	0	2	27.31	25.31	33.00	PASS
GPRS1900	512	0	3	25.80	23.8	33.00	PASS
GPRS1900	512	0	4	23.69	21.69	33.00	PASS
GPRS1900	661	0	1	29.24	27.24	33.00	PASS
GPRS1900	661	0	2	27.25	25.25	33.00	PASS
GPRS1900	661	0	3	25.76	23.76	33.00	PASS
GPRS1900	661	0	4	23.68	21.68	33.00	PASS
GPRS1900	810	0	1	29.08	27.08	33.00	PASS
GPRS1900	810	0	2	26.99	24.99	33.00	PASS
GPRS1900	810	0	3	25.49	23.49	33.00	PASS
GPRS1900	810	0	4	23.42	21.42	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.50	18.35	38.45	PASS
EGPRS850	128	8	2	24.28	17.13	38.45	PASS
EGPRS850	128	8	3	21.83	14.68	38.45	PASS
EGPRS850	128	8	4	19.53	12.38	38.45	PASS
EGPRS850	190	8	1	26.00	18.85	38.45	PASS
EGPRS850	190	8	2	24.83	17.68	38.45	PASS
EGPRS850	190	8	3	22.51	15.36	38.45	PASS
EGPRS850	190	8	4	19.95	12.8	38.45	PASS
EGPRS850	251	8	1	25.45	18.3	38.45	PASS
EGPRS850	251	8	2	24.20	17.05	38.45	PASS
EGPRS850	251	8	3	21.94	14.79	38.45	PASS
EGPRS850	251	8	4	19.43	12.28	38.45	PASS
EGPRS1900	512	2	1	25.14	23.14	33.00	PASS
EGPRS1900	512	2	2	23.59	21.59	33.00	PASS
EGPRS1900	512	2	3	21.21	19.21	33.00	PASS
EGPRS1900	512	2	4	18.34	16.34	33.00	PASS
EGPRS1900	661	2	1	25.83	23.83	33.00	PASS
EGPRS1900	661	2	2	24.31	22.31	33.00	PASS
EGPRS1900	661	2	3	22.04	20.04	33.00	PASS
EGPRS1900	661	2	4	19.63	17.63	33.00	PASS
EGPRS1900	810	2	1	24.33	22.33	33.00	PASS
EGPRS1900	810	2	2	22.59	20.59	33.00	PASS
EGPRS1900	810	2	3	20.34	18.34	33.00	PASS
EGPRS1900	810	2	4	17.47	15.47	33.00	PASS

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

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

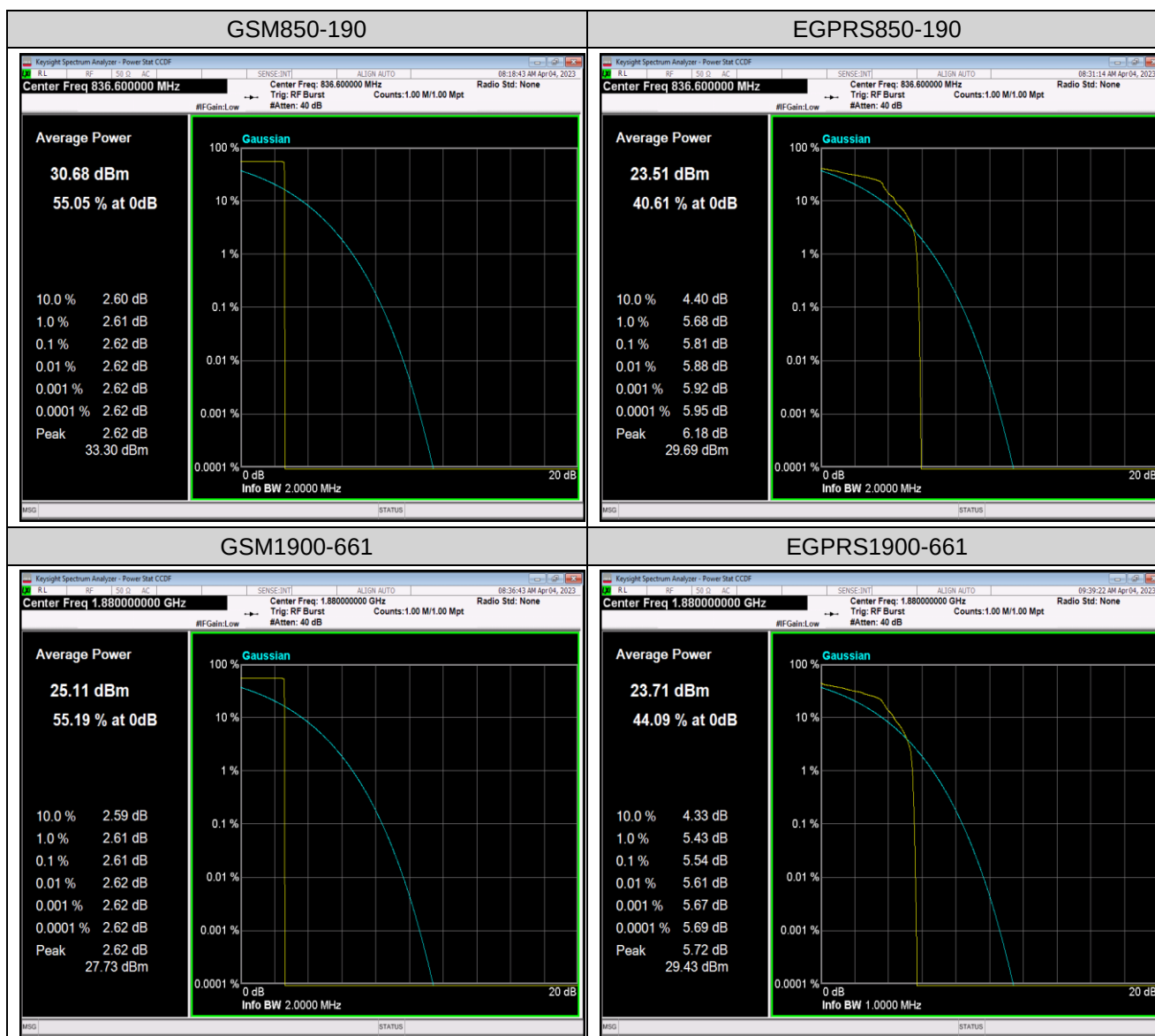
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.81	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.54	13	PASS

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

Test Graphs

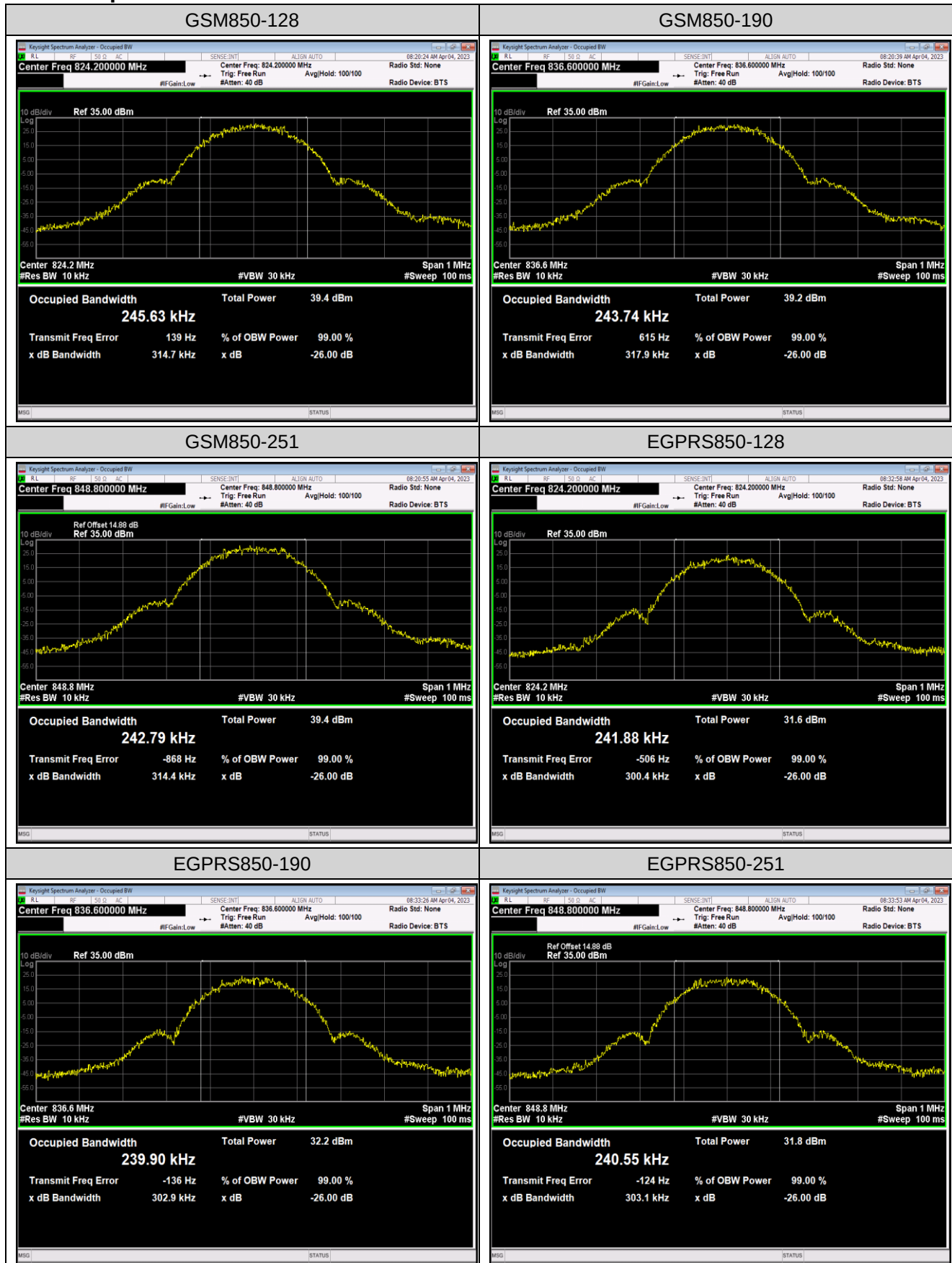


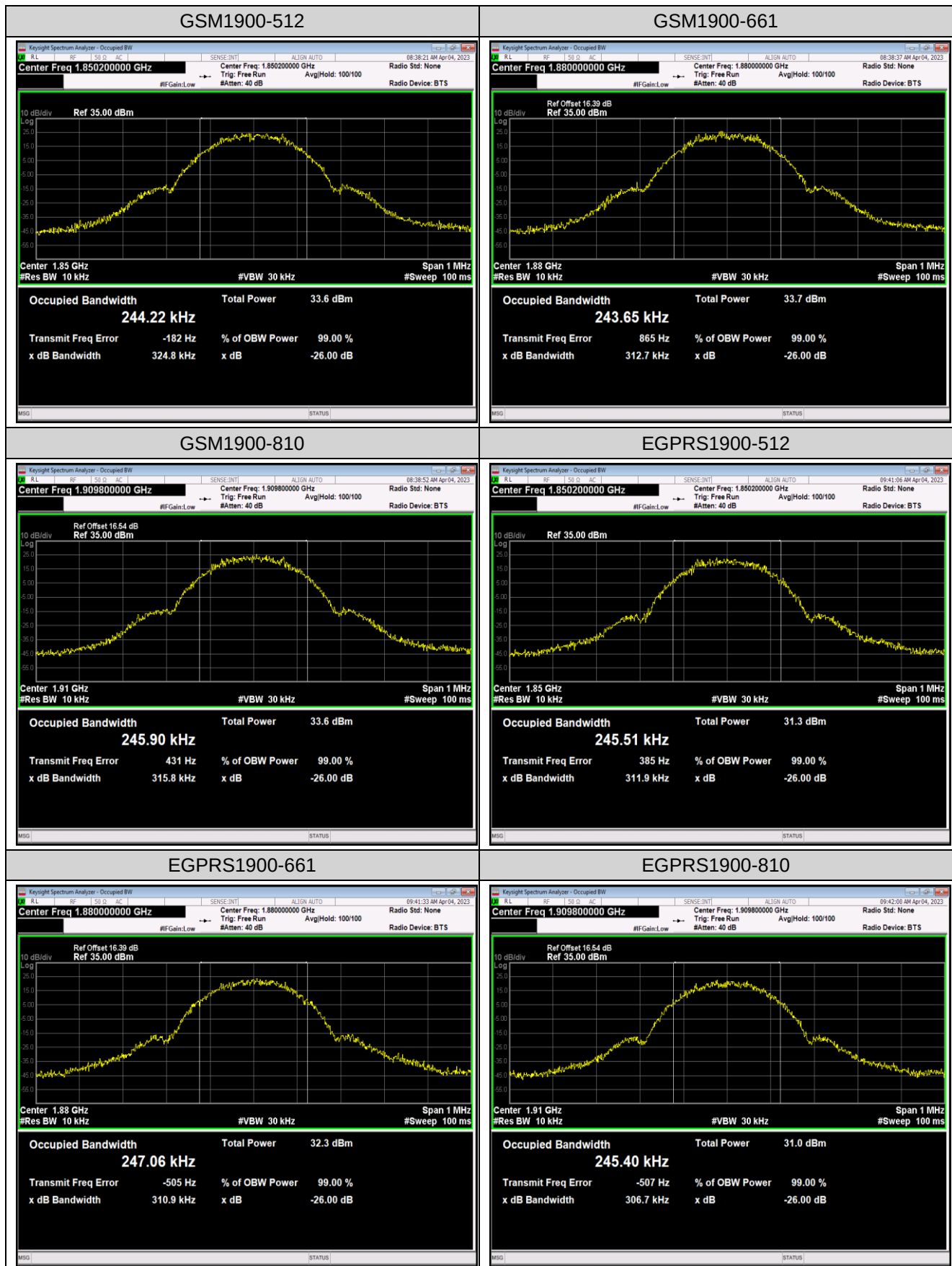
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24563	0.3147	---	PASS
GSM850	190	5	0.24374	0.3179	---	PASS
GSM850	251	5	0.24279	0.3144	---	PASS
EGPRS850	128	8	0.24188	0.3004	---	PASS
EGPRS850	190	8	0.23990	0.3029	---	PASS
EGPRS850	251	8	0.24055	0.3031	---	PASS
GSM1900	512	0	0.24422	0.3248	---	PASS
GSM1900	661	0	0.24365	0.3127	---	PASS
GSM1900	810	0	0.24590	0.3158	---	PASS
EGPRS1900	512	2	0.24551	0.3119	---	PASS
EGPRS1900	661	2	0.24706	0.3109	---	PASS
EGPRS1900	810	2	0.24540	0.3067	---	PASS

Test Graphs



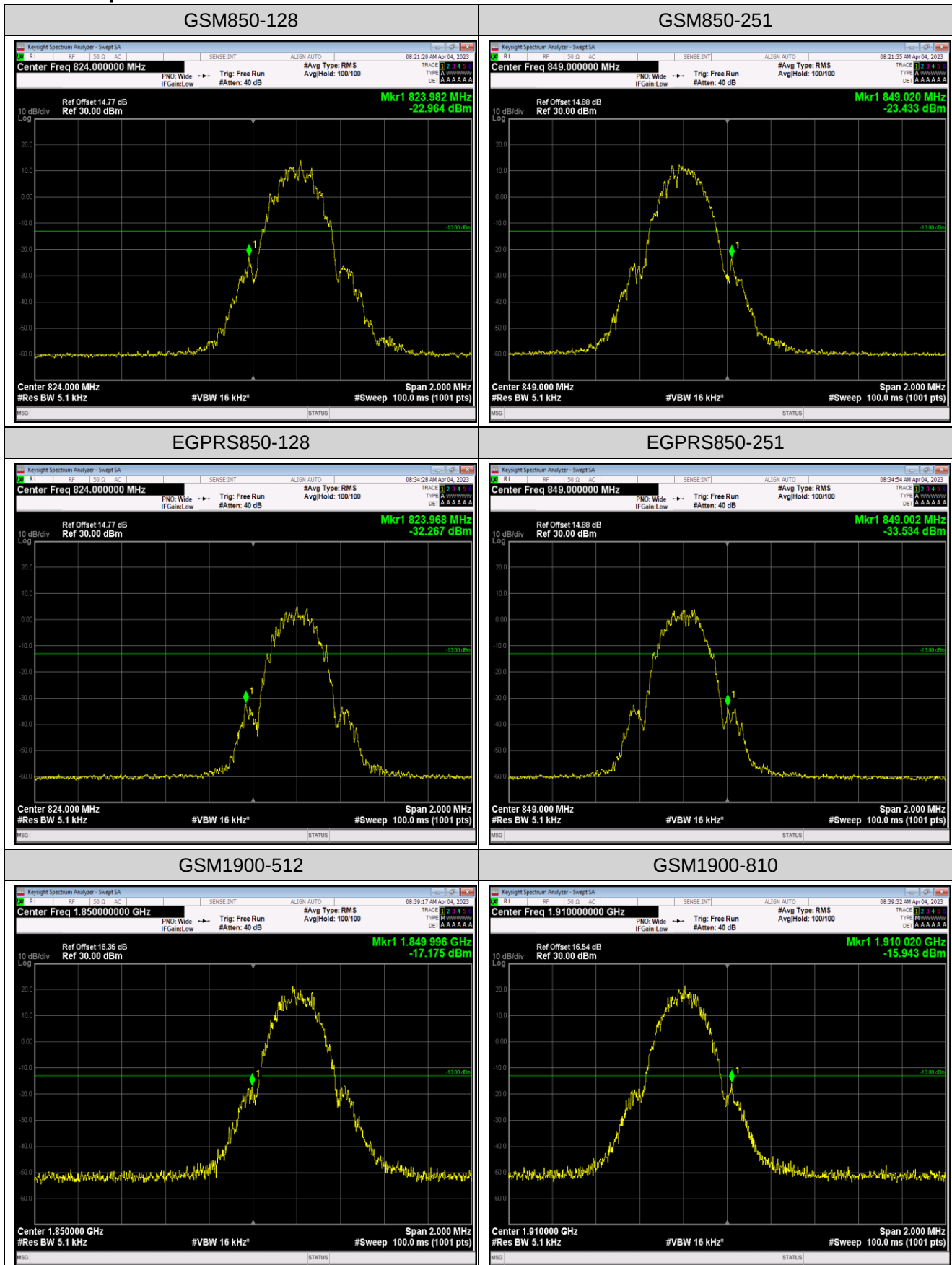


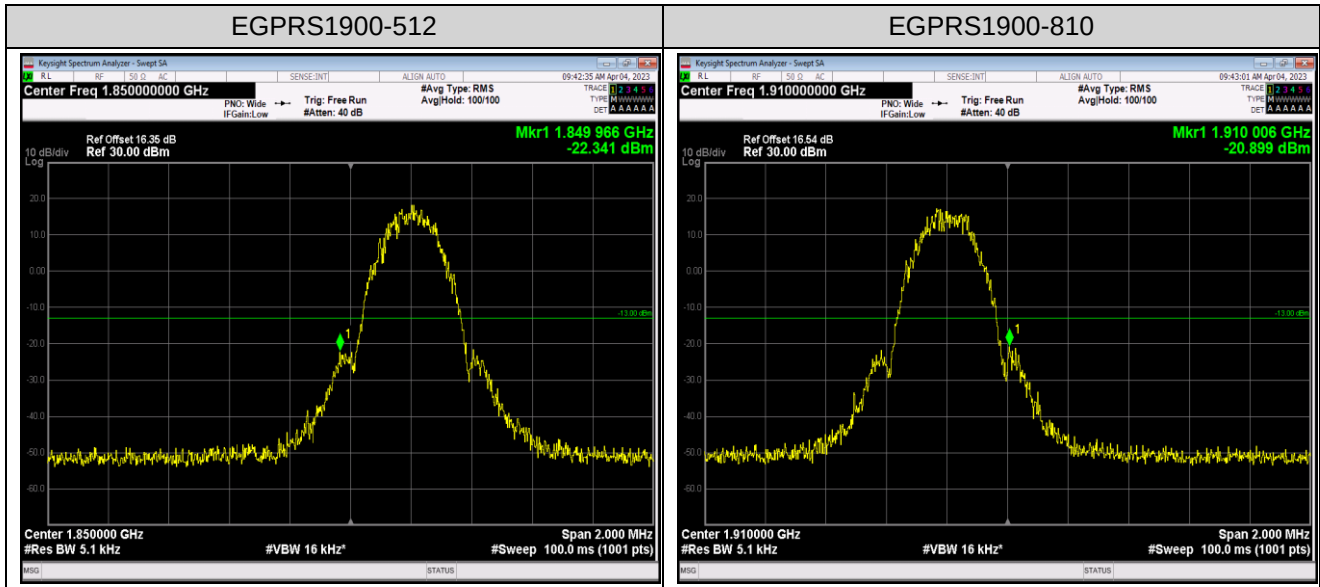
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-22.96	-13	PASS
GSM850	251	5	849.02	-23.43	-13	PASS
EGPRS850	128	8	823.97	-32.27	-13	PASS
EGPRS850	251	8	849.00	-33.53	-13	PASS
GSM1900	512	0	1850.00	-17.18	-13	PASS
GSM1900	810	0	1910.02	-15.94	-13	PASS
EGPRS1900	512	2	1849.97	-22.34	-13	PASS
EGPRS1900	810	2	1910.01	-20.90	-13	PASS

Test Graphs





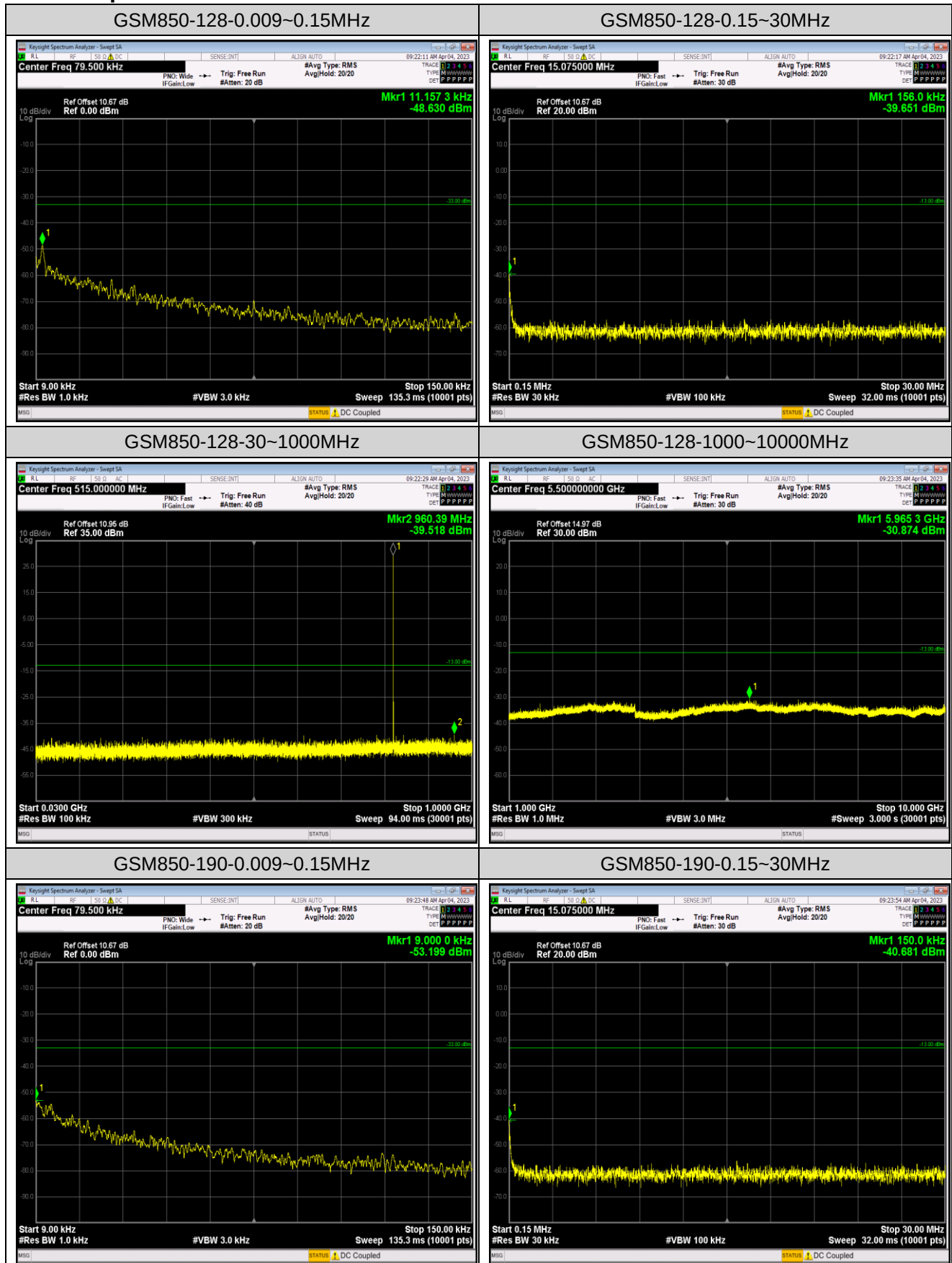
Appendix E: Conducted Spurious Emission

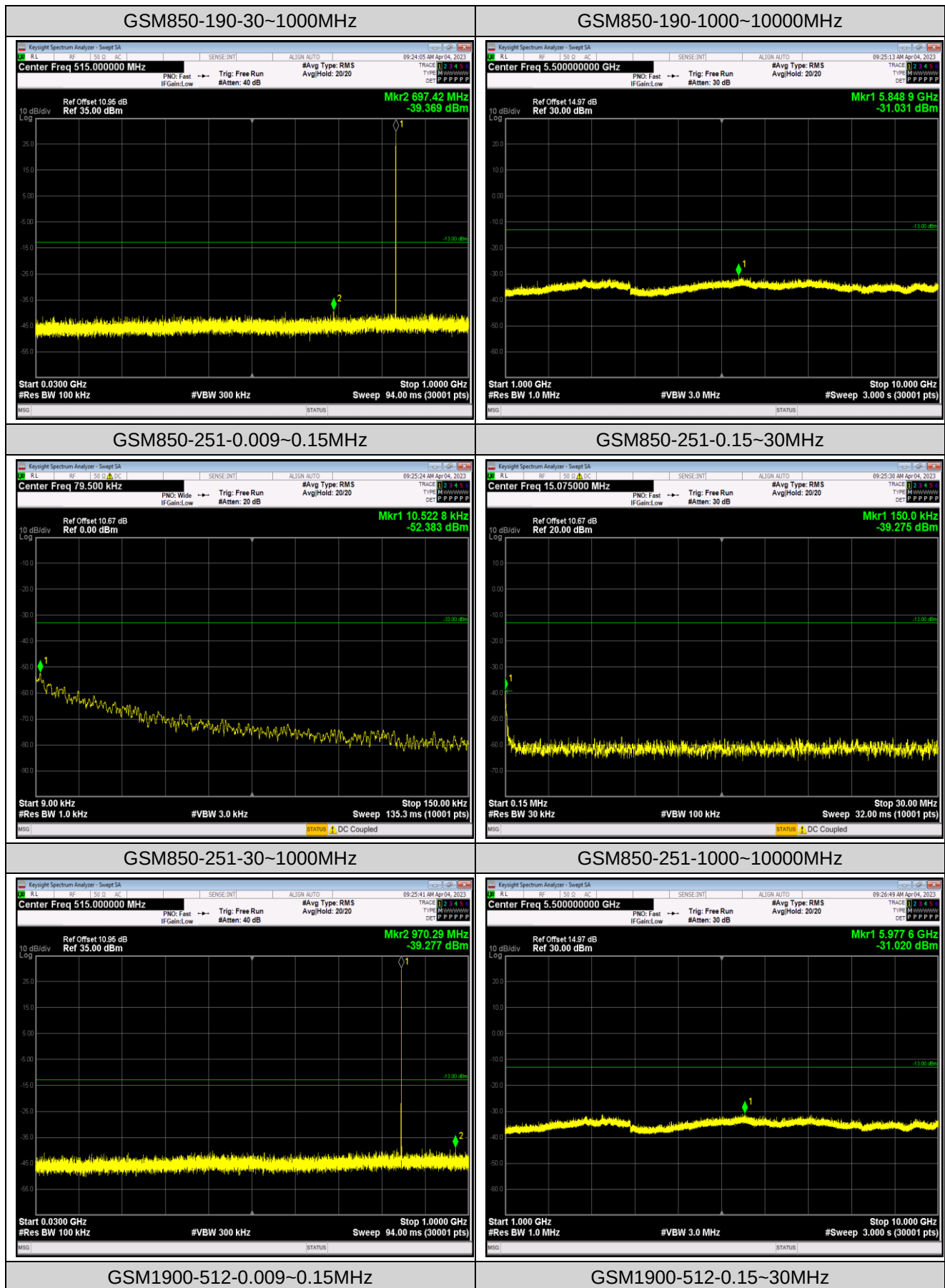
Test Result

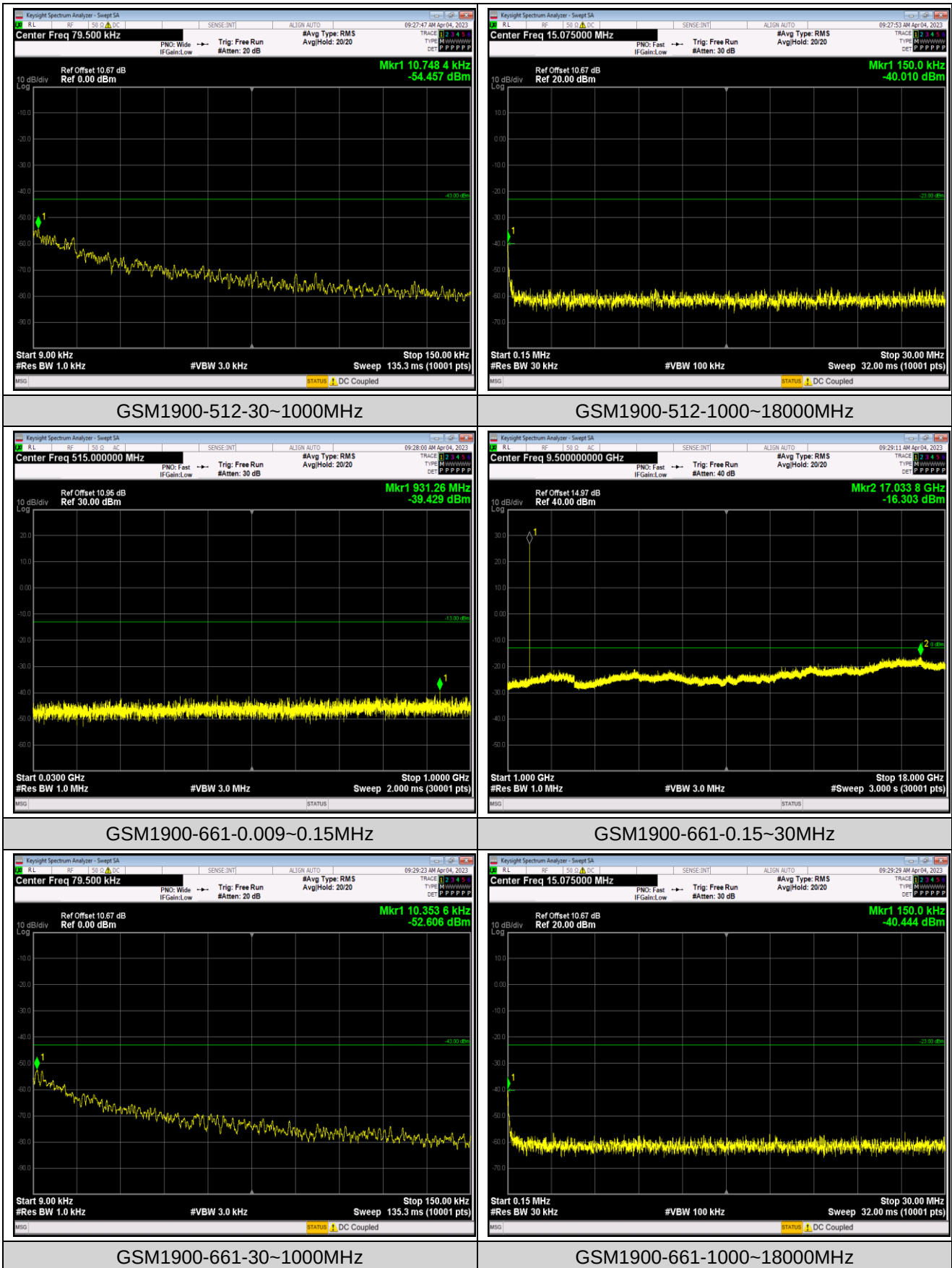
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-48.63	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-39.65	-13	PASS
GSM850	128	5	30~1000MHz	960.39	-39.52	-13	PASS
GSM850	128	5	1000~10000MHz	5965.3	-30.87	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.2	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-40.68	-13	PASS
GSM850	190	5	30~1000MHz	697.42	-39.37	-13	PASS
GSM850	190	5	1000~10000MHz	5848.9	-31.03	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-52.38	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-39.28	-13	PASS
GSM850	251	5	30~1000MHz	970.29	-39.28	-13	PASS
GSM850	251	5	1000~10000MHz	5977.6	-31.02	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.46	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-40.01	-23	PASS
GSM1900	512	0	30~1000MHz	931.26	-39.43	-13	PASS
GSM1900	512	0	1000~18000MHz	17033.83	-16.3	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-52.61	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-40.44	-23	PASS
GSM1900	661	0	30~1000MHz	810.27	-39.82	-13	PASS
GSM1900	661	0	1000~18000MHz	17050.27	-15.79	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-53.05	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-41.38	-23	PASS
GSM1900	810	0	30~1000MHz	862.29	-40.62	-13	PASS
GSM1900	810	0	1000~18000MHz	17020.23	-16.19	-13	PASS

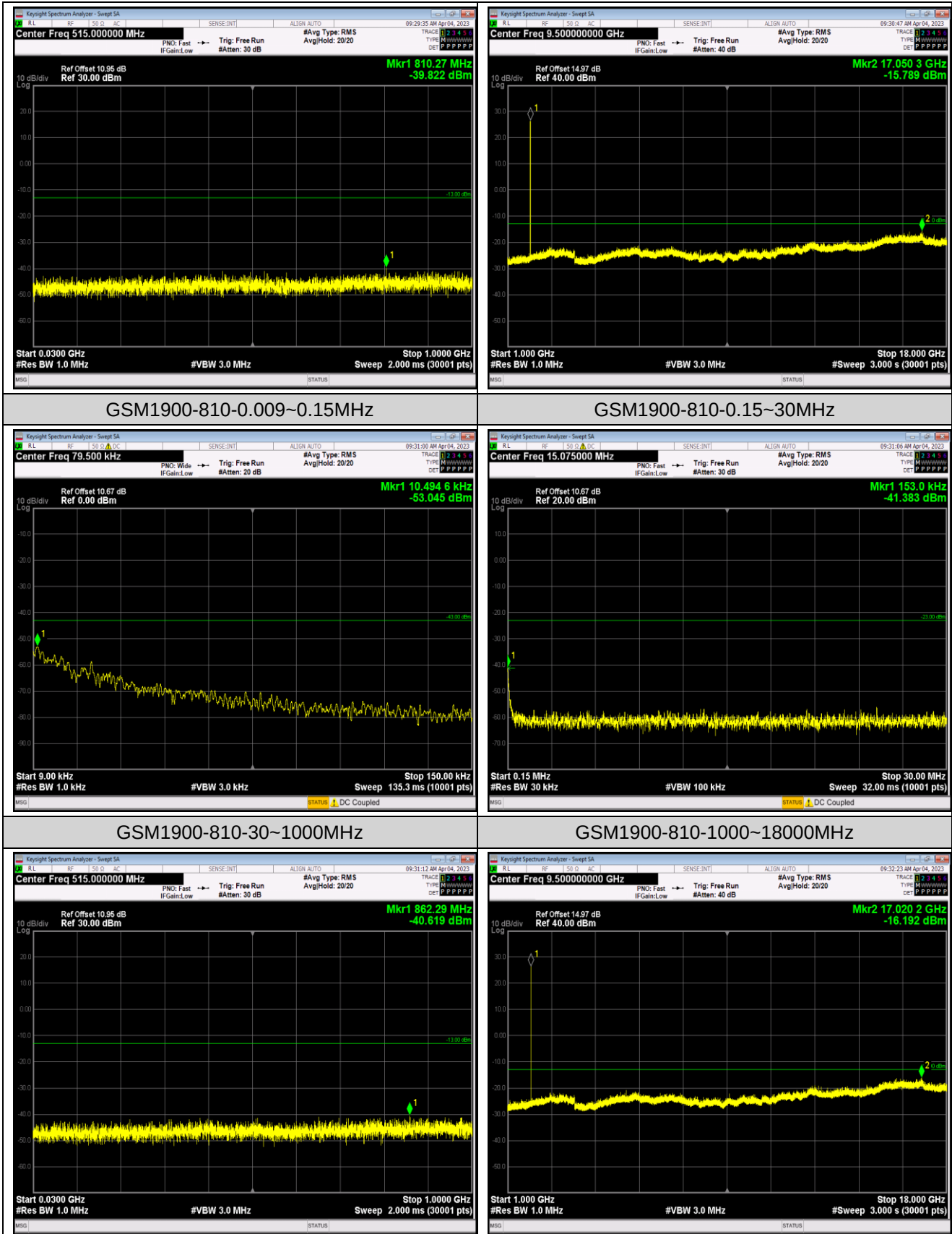
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	3.36	0.004016	±2.5	Pass
	-20	11.75	0.014045		
	-10	1.87	0.002235		
	0	-1.81	-0.002164		
	10	5.26	0.006287		
	20	2.26	0.002701		
	30	8.81	0.010531		
	40	3.65	0.004363		
	50	9.27	0.011081		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	6.59	0.007877	±2.5	Pass
	3.87	3.71	0.004435		
	4.45	-1.78	-0.002128		
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	19.82	0.023691	±2.5	Pass
	-20	16.34	0.019531		
	-10	13.85	0.016555		
	0	14.56	0.017404		
	10	15.98	0.019101		
	20	17.18	0.020536		
	30	14.33	0.017129		
	40	15.34	0.018336		
	50	19.11	0.022842		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	19.27	0.023034	±2.5	Pass
	3.87	17.01	0.020332		
	4.45	21.41	0.025592		
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	16.05	0.008537	Within authorized band for PCS 1900	Pass
	-20	17.85	0.009495		
	-10	0.61	0.000324		
	0	21.15	0.011250		
	10	0.16	0.000085		
	20	3.39	0.001803		
	30	16.66	0.008862		
	40	12.04	0.006404		
	50	4.75	0.002527		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	0.45	0.000239	Within authorized band for PCS 1900	Pass
	3.87	-0.32	-0.000170		
	4.45	6.20	0.003298		
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	3.16	0.001681	Within authorized band for PCS 1900	Pass
	-20	4.68	0.002489		
	-10	8.52	0.004532		
	0	21.28	0.011319		
	10	7.52	0.004000		
	20	1.26	0.000670		
	30	6.04	0.003213		
	40	9.56	0.005085		
	50	15.76	0.008383		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	2.32	0.001234	Within authorized band for PCS 1900	Pass
	3.87	2.55	0.001356		
	4.45	8.65	0.004601		
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

