

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	32.76	25.61	38.5	PASS
GSM850	190	5	32.87	25.72	38.5	PASS
GSM850	251	5	32.78	25.63	38.5	PASS
GSM1900	512	0	29.64	24.64	33	PASS
GSM1900	661	0	29.88	24.88	33	PASS
GSM1900	810	0	29.84	24.84	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.78	25.63	38.5	PASS
GPRS850	128	5	2	30.60	23.45	38.5	PASS
GPRS850	128	5	3	28.93	21.78	38.5	PASS
GPRS850	128	5	4	26.53	19.38	38.5	PASS
GPRS850	190	5	1	32.81	25.66	38.5	PASS
GPRS850	190	5	2	30.68	23.53	38.5	PASS
GPRS850	190	5	3	29.04	21.89	38.5	PASS
GPRS850	190	5	4	26.69	19.54	38.5	PASS
GPRS850	251	5	1	32.72	25.57	38.5	PASS
GPRS850	251	5	2	30.58	23.43	38.5	PASS
GPRS850	251	5	3	28.93	21.78	38.5	PASS
GPRS850	251	5	4	26.57	19.42	38.5	PASS
GPRS1900	512	0	1	29.63	24.63	33	PASS
GPRS1900	512	0	2	27.79	22.79	33	PASS
GPRS1900	512	0	3	26.26	21.26	33	PASS
GPRS1900	512	0	4	24.19	19.19	33	PASS
GPRS1900	661	0	1	29.86	24.86	33	PASS
GPRS1900	661	0	2	27.81	22.81	33	PASS
GPRS1900	661	0	3	26.27	21.27	33	PASS
GPRS1900	661	0	4	24.20	19.2	33	PASS
GPRS1900	810	0	1	29.87	24.87	33	PASS
GPRS1900	810	0	2	27.85	22.85	33	PASS
GPRS1900	810	0	3	26.33	21.33	33	PASS
GPRS1900	810	0	4	24.26	19.26	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.08	18.93	38.5	PASS
EGPRS850	128	8	2	25.97	18.82	38.5	PASS
EGPRS850	128	8	3	24.68	17.53	38.5	PASS
EGPRS850	128	8	4	22.45	15.3	38.5	PASS
EGPRS850	190	8	1	26.37	19.22	38.5	PASS
EGPRS850	190	8	2	26.33	19.18	38.5	PASS
EGPRS850	190	8	3	25.04	17.89	38.5	PASS
EGPRS850	190	8	4	22.69	15.54	38.5	PASS
EGPRS850	251	8	1	25.78	18.63	38.5	PASS
EGPRS850	251	8	2	25.72	18.57	38.5	PASS
EGPRS850	251	8	3	24.52	17.37	38.5	PASS
EGPRS850	251	8	4	22.17	15.02	38.5	PASS
EGPRS1900	512	2	1	25.71	20.71	33	PASS
EGPRS1900	512	2	2	25.58	20.58	33	PASS
EGPRS1900	512	2	3	23.78	18.78	33	PASS
EGPRS1900	512	2	4	21.29	16.29	33	PASS
EGPRS1900	661	2	1	26.21	21.21	33	PASS
EGPRS1900	661	2	2	26.12	21.12	33	PASS
EGPRS1900	661	2	3	24.36	19.36	33	PASS
EGPRS1900	661	2	4	21.90	16.9	33	PASS
EGPRS1900	810	2	1	25.95	20.95	33	PASS
EGPRS1900	810	2	2	25.89	20.89	33	PASS
EGPRS1900	810	2	3	24.21	19.21	33	PASS
EGPRS1900	810	2	4	21.49	16.49	33	PASS

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

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

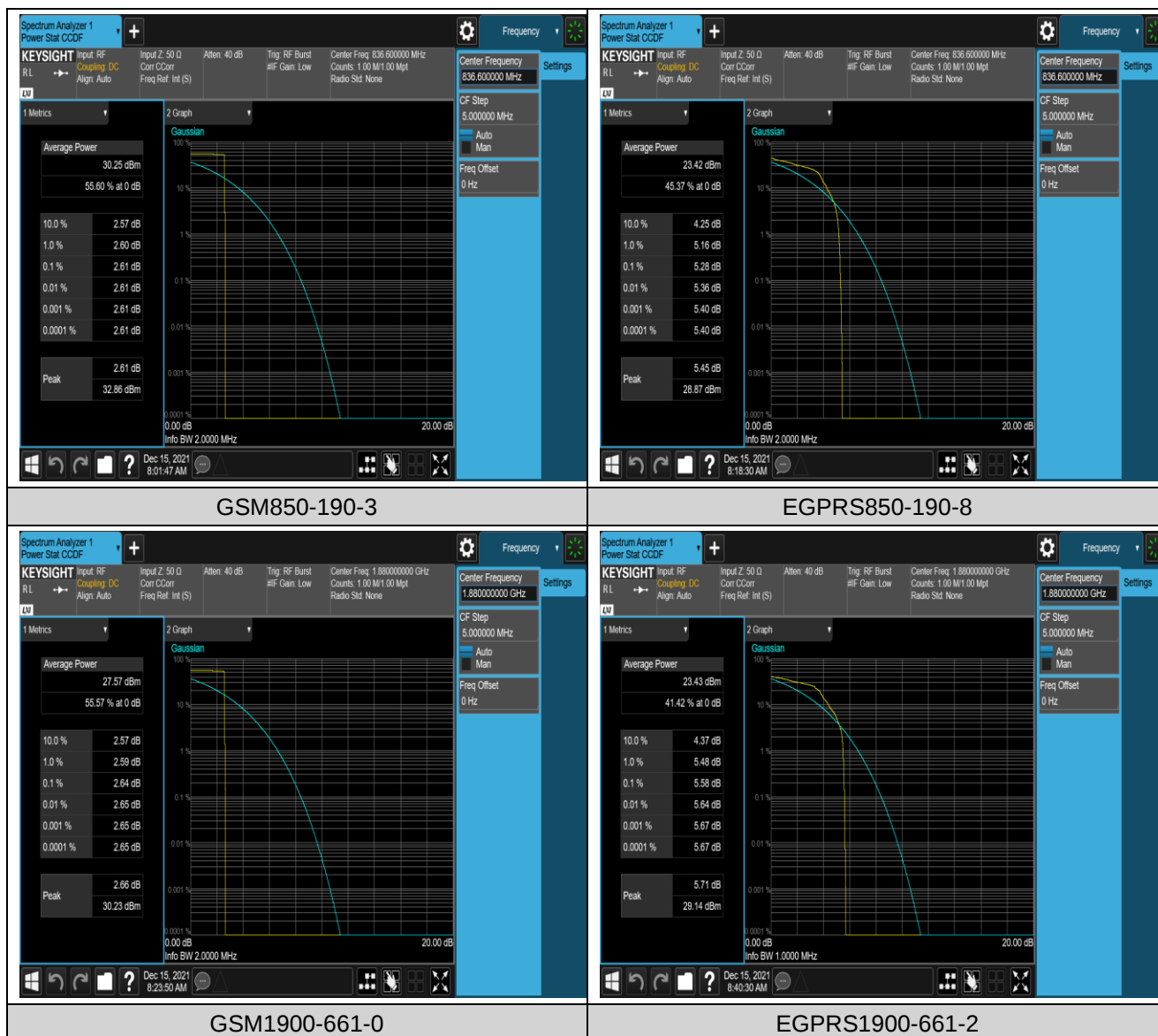
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.28	13	PASS
GSM1900	661	0	2.64	13	PASS
EGPRS1900	661	2	5.58	13	PASS

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

Test Graphs

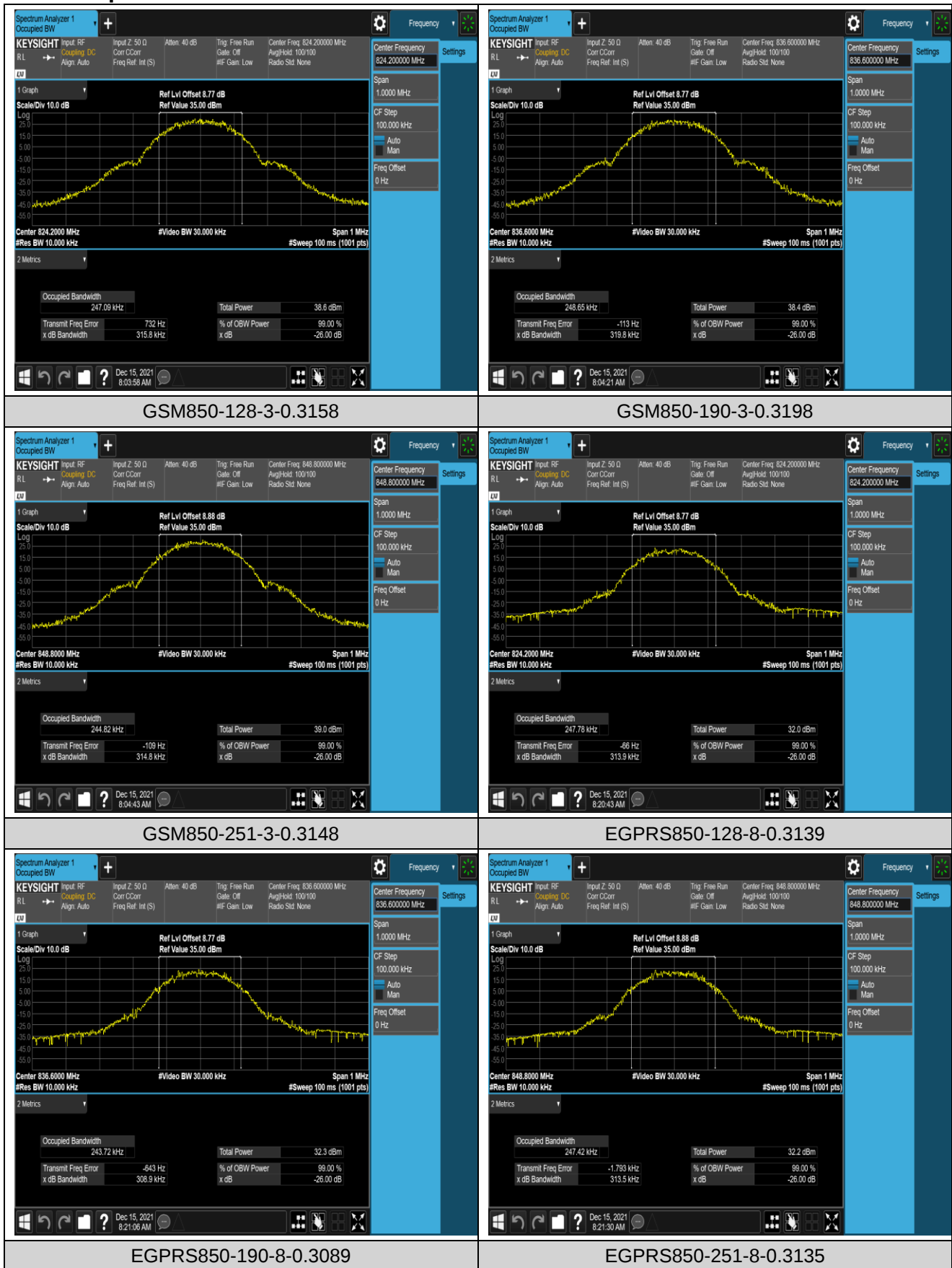


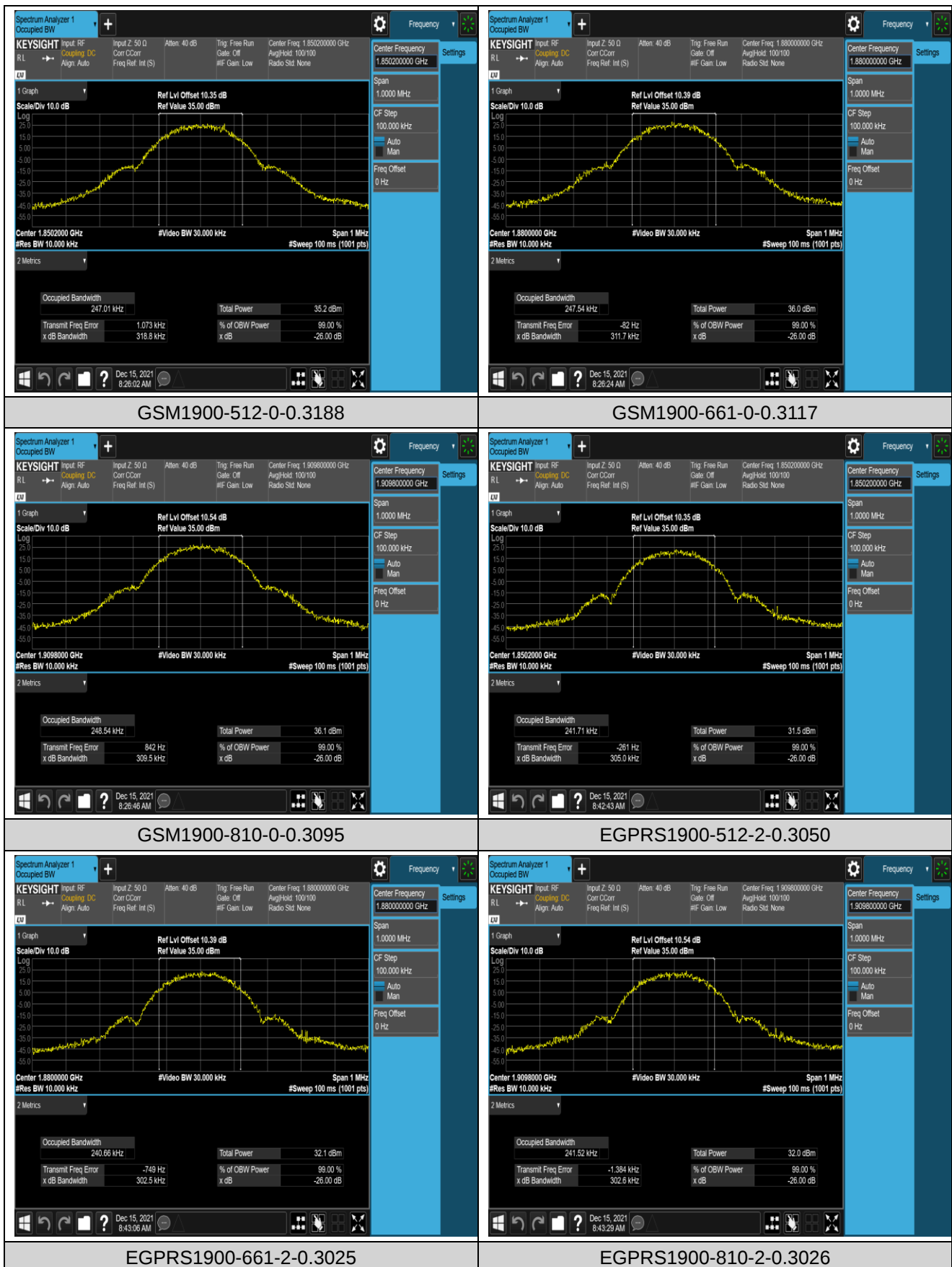
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24709	0.3158	---	PASS
GSM850	190	5	0.24865	0.3198	---	PASS
GSM850	251	5	0.24482	0.3148	---	PASS
EGPRS850	128	8	0.24778	0.3139	---	PASS
EGPRS850	190	8	0.24372	0.3089	---	PASS
EGPRS850	251	8	0.24742	0.3135	---	PASS
GSM1900	512	0	0.24701	0.3188	---	PASS
GSM1900	661	0	0.24754	0.3117	---	PASS
GSM1900	810	0	0.24854	0.3095	---	PASS
EGPRS1900	512	2	0.24171	0.3050	---	PASS
EGPRS1900	661	2	0.24066	0.3025	---	PASS
EGPRS1900	810	2	0.24152	0.3026	---	PASS

Test Graphs



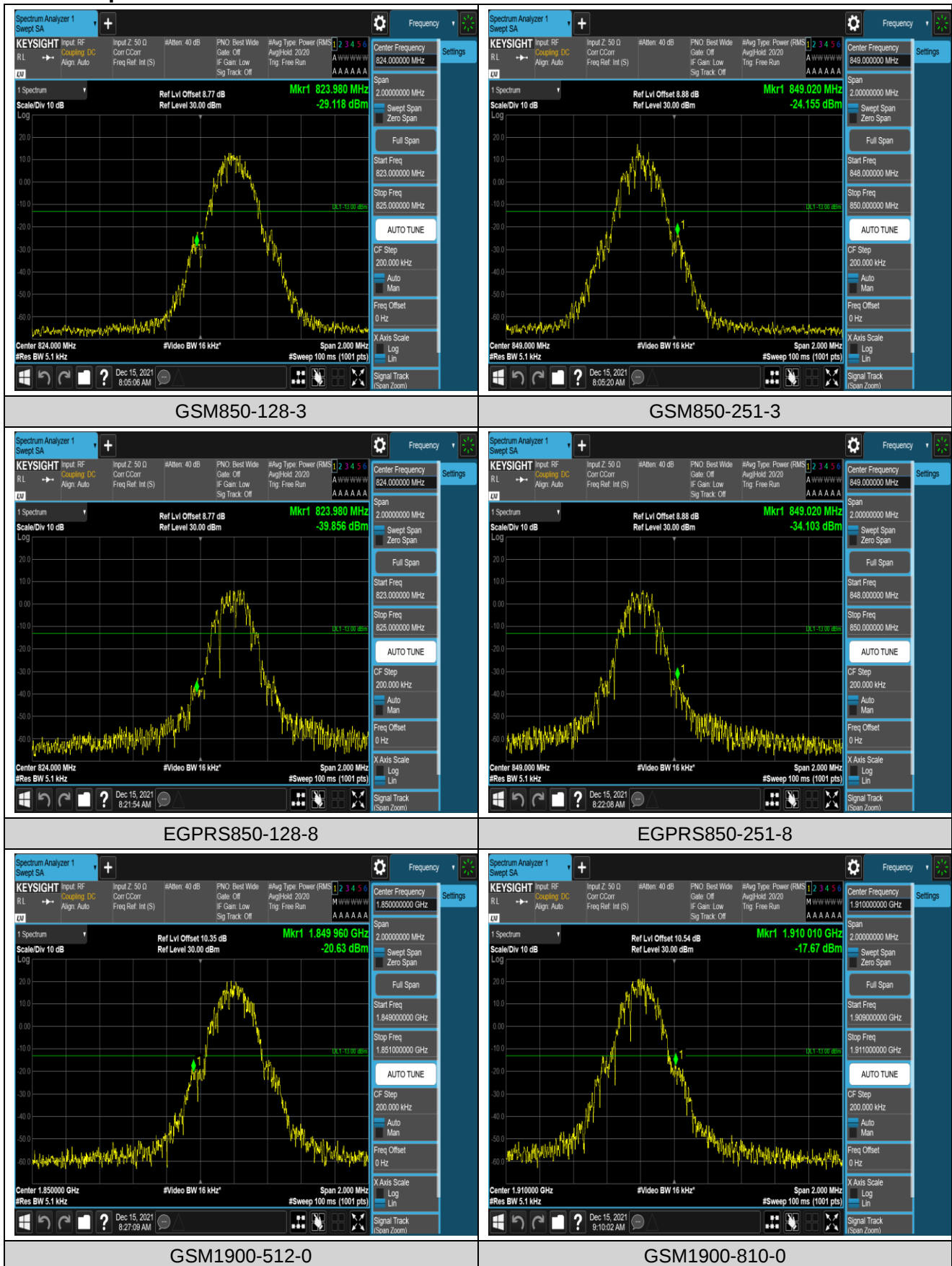


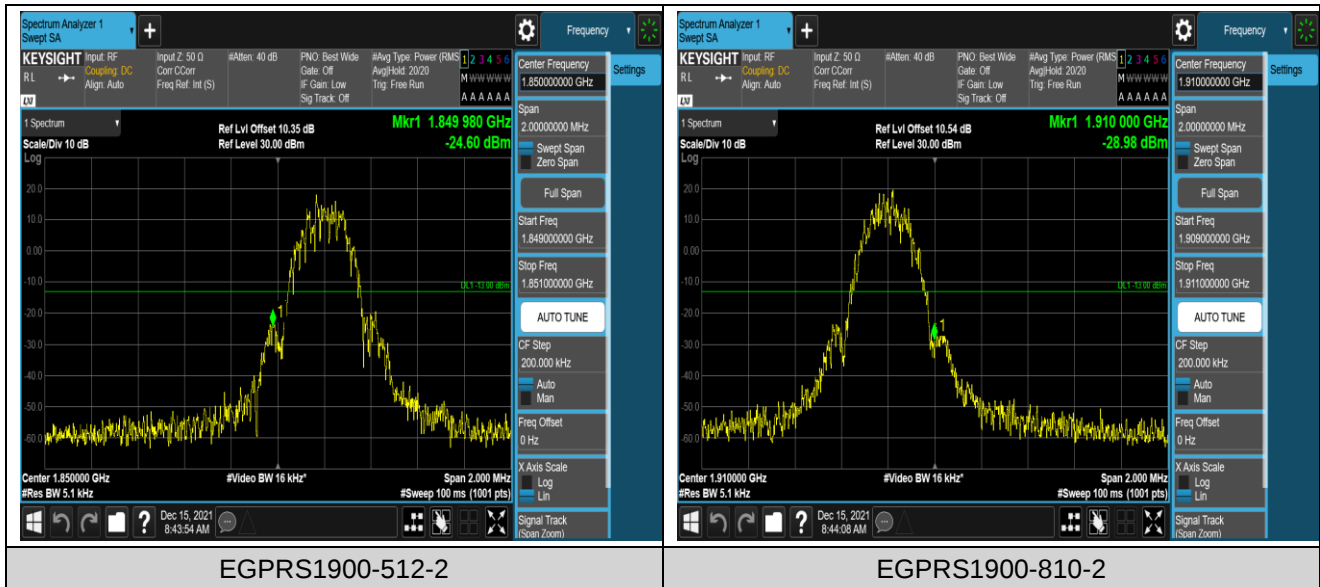
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-22.24	-13	PASS
GSM850	251	5	849.02	-22.65	-13	PASS
EGPRS850	128	8	823.98	-32.93	-13	PASS
EGPRS850	251	8	849.02	-31.29	-13	PASS
GSM1900	512	0	1849.96	-15.06	-13	PASS
GSM1900	810	0	1910.01	-15.56	-13	PASS
EGPRS1900	512	2	1849.98	-21.73	-13	PASS
EGPRS1900	810	2	1910.00	-23.13	-13	PASS

Test Graphs





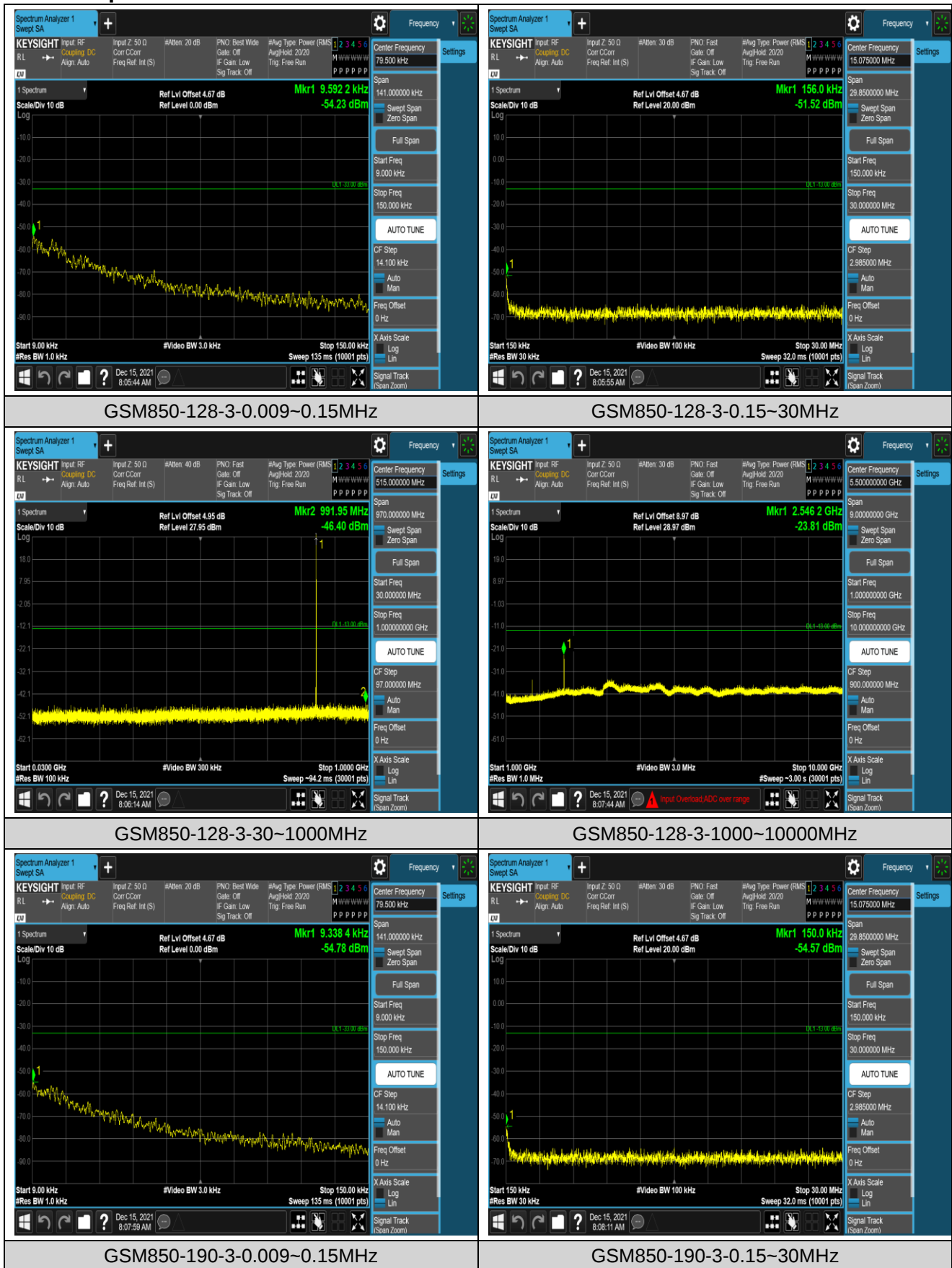
Appendix E: Conducted Spurious Emission

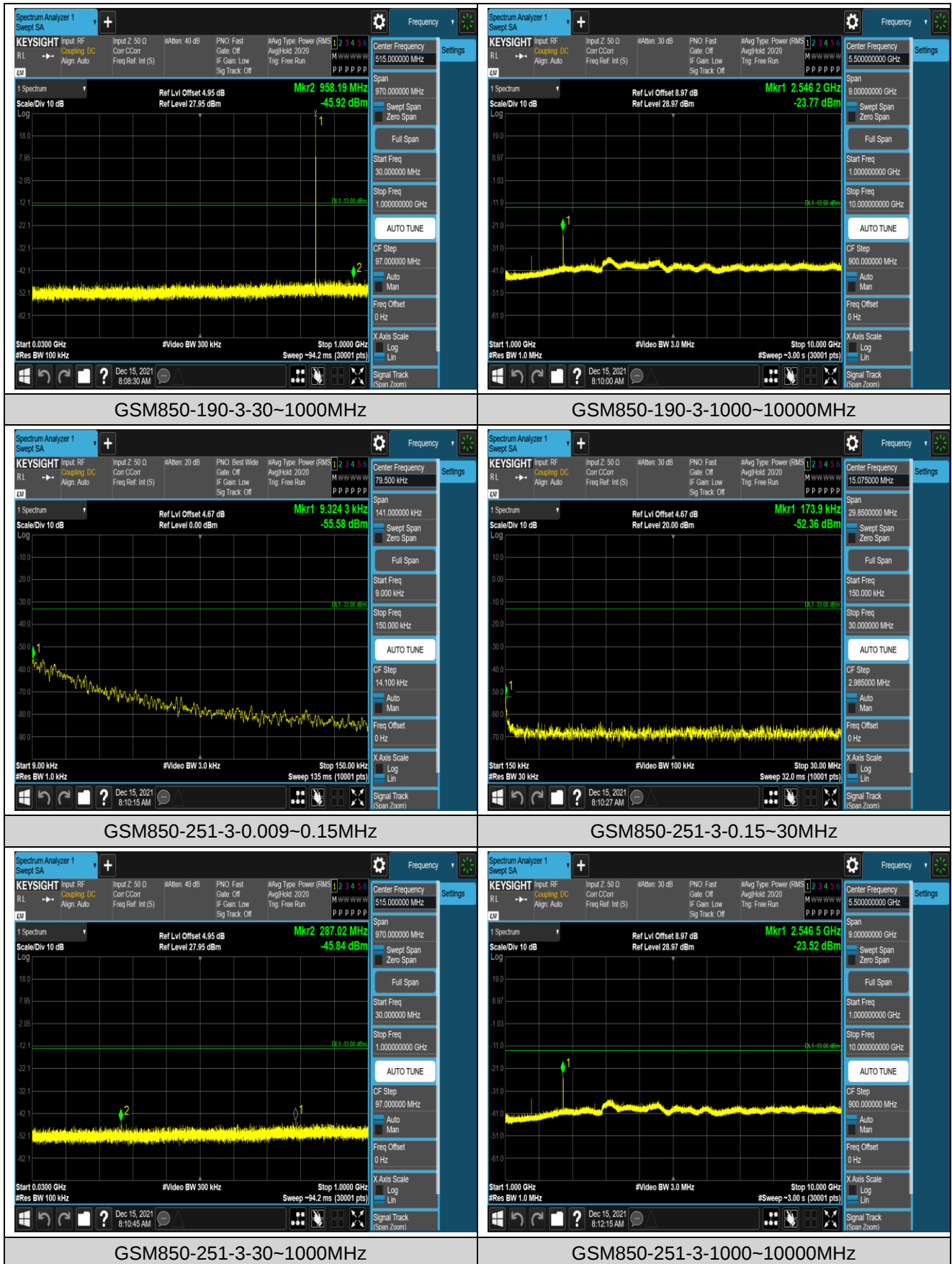
Test Result

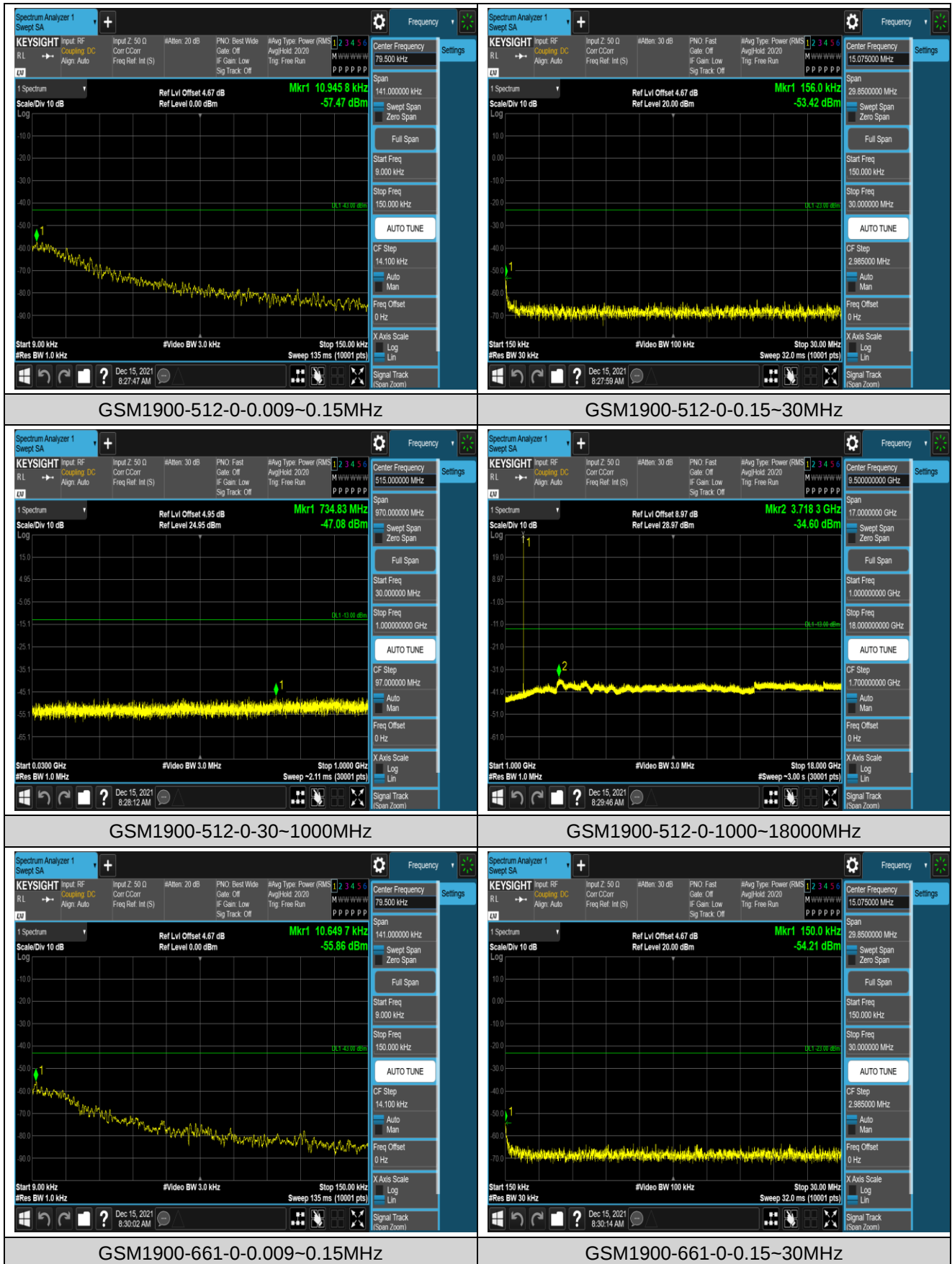
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.23	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-51.52	-13	PASS
GSM850	128	5	30~1000MHz	991.95	-46.4	-13	PASS
GSM850	128	5	1000~10000MHz	2546.2	-23.81	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.79	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-54.57	-13	PASS
GSM850	190	5	30~1000MHz	958.19	-45.92	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-23.77	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.58	-33	PASS
GSM850	251	5	0.15~30MHz	0.17	-52.36	-13	PASS
GSM850	251	5	30~1000MHz	287.02	-45.84	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-23.53	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.47	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-53.42	-23	PASS
GSM1900	512	0	30~1000MHz	734.83	-47.08	-13	PASS
GSM1900	512	0	1000~18000MHz	3718.3	-34.6	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.86	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-54.21	-23	PASS
GSM1900	661	0	30~1000MHz	869.73	-46.84	-13	PASS
GSM1900	661	0	1000~18000MHz	3818.03	-34.3	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.02	-56.36	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-52.78	-23	PASS
GSM1900	810	0	30~1000MHz	853.95	-46.66	-13	PASS
GSM1900	810	0	1000~18000MHz	3730.77	-35.26	-13	PASS

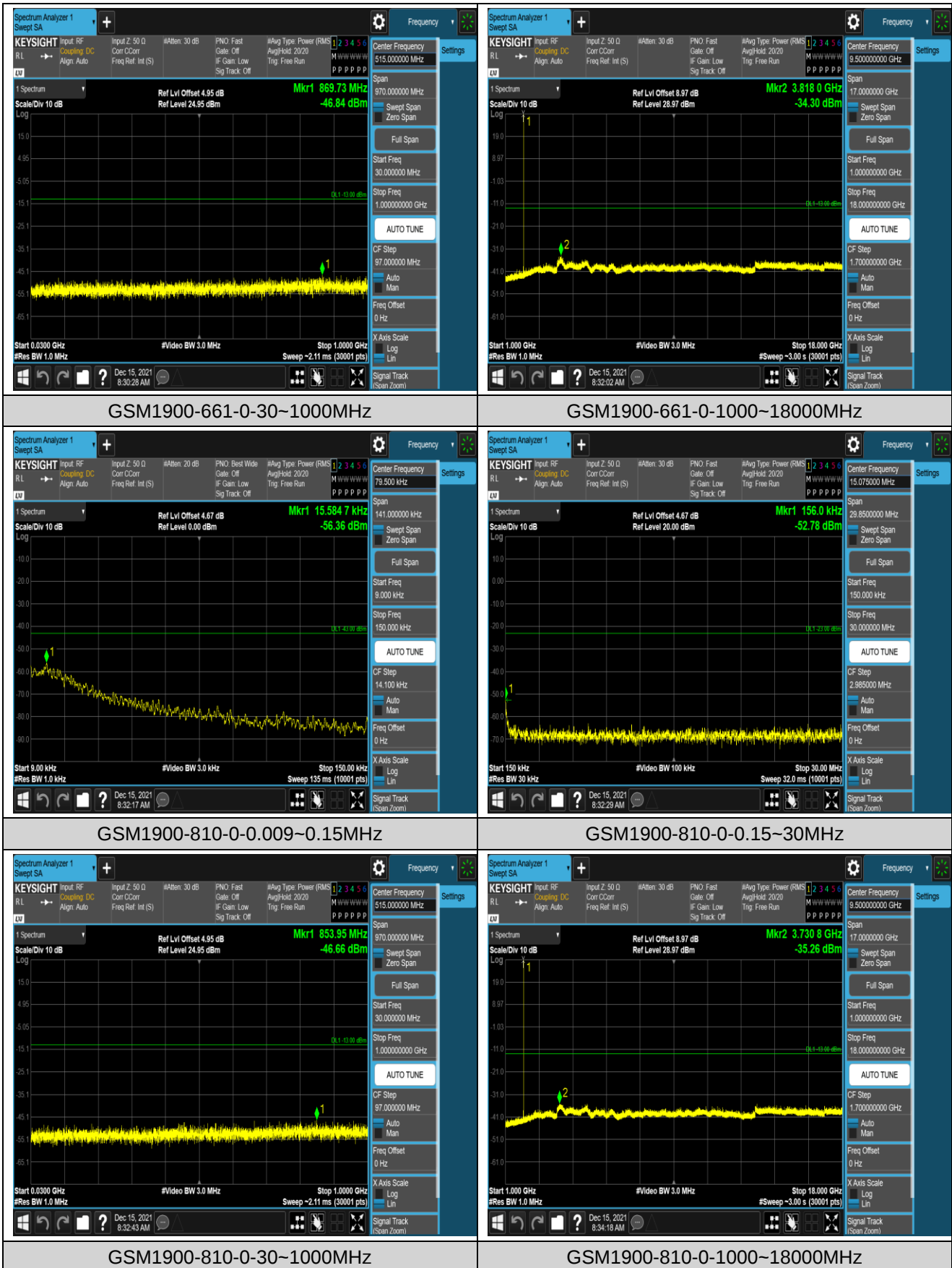
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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		
3.8	-30	4.91	0.005869	±2.5	Pass
	-20	4.55	0.005439		
	-10	4.84	0.005785		
	0	1.07	0.001279		
	10	5.78	0.006909		
	20	6.26	0.007483		
	30	5.65	0.006754		
	40	1.07	0.001279		
	50	7.14	0.008535		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	3.39	0.004052	±2.5	Pass
	3.80	8.56	0.010232		
	4.35	1.29	0.001542		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.8	-30	14.01	0.016746	±2.5	Pass
	-20	10.82	0.012933		
	-10	15.30	0.018288		
	0	8.36	0.009993		
	10	9.20	0.010997		
	20	8.04	0.009610		
	30	6.78	0.008104		
	40	9.81	0.011726		
	50	12.62	0.015085		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	12.75	0.015240	±2.5	Pass
	3.80	10.59	0.012658		
	4.35	12.20	0.014583		
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		
3.8	-30	-1.23	-0.000654	Within authorized band for PCS 1900	Pass
	-20	-12.24	-0.006511		
	-10	-4.36	-0.002319		
	0	-5.36	-0.002851		
	10	3.13	0.001665		
	20	0.61	0.000324		
	30	-1.00	-0.000532		
	40	-1.52	-0.000809		
	50	-16.59	-0.008824		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-16.72	-0.008894	Within authorized band for PCS 1900	Pass
	3.80	1.65	0.000878		
	4.35	-10.17	-0.005410		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.8	-30	13.33	0.007090	Within authorized band for PCS 1900	Pass
	-20	13.37	0.007112		
	-10	8.94	0.004755		
	0	15.85	0.008431		
	10	14.69	0.007814		
	20	8.39	0.004463		
	30	15.40	0.008191		
	40	15.53	0.008261		
	50	17.72	0.009426		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	17.95	0.009548	Within authorized band for PCS 1900	Pass
	3.80	5.75	0.003059		
	4.35	9.94	0.005287		
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

