

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	31.67	23.23	38.45	PASS
GSM850	190	5	32.10	23.66	38.45	PASS
GSM850	251	5	32.05	23.61	38.45	PASS
GSM1900	512	0	29.82	26.52	33.00	PASS
GSM1900	661	0	29.70	26.4	33.00	PASS
GSM1900	810	0	29.34	26.04	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	31.67	23.23	38.45	PASS
GPRS850	128	5	2	30.96	22.52	38.45	PASS
GPRS850	128	5	3	29.29	20.85	38.45	PASS
GPRS850	128	5	4	28.03	19.59	38.45	PASS
GPRS850	190	5	1	32.07	23.63	38.45	PASS
GPRS850	190	5	2	31.39	22.95	38.45	PASS
GPRS850	190	5	3	29.71	21.27	38.45	PASS
GPRS850	190	5	4	28.45	20.01	38.45	PASS
GPRS850	251	5	1	32.03	23.59	38.45	PASS
GPRS850	251	5	2	31.33	22.89	38.45	PASS
GPRS850	251	5	3	29.60	21.16	38.45	PASS
GPRS850	251	5	4	28.31	19.87	38.45	PASS
GPRS1900	512	0	1	29.84	26.54	33.00	PASS
GPRS1900	512	0	2	28.69	25.39	33.00	PASS
GPRS1900	512	0	3	26.23	22.93	33.00	PASS
GPRS1900	512	0	4	24.99	21.69	33.00	PASS
GPRS1900	661	0	1	29.70	26.4	33.00	PASS
GPRS1900	661	0	2	28.60	25.3	33.00	PASS
GPRS1900	661	0	3	26.15	22.85	33.00	PASS
GPRS1900	661	0	4	24.91	21.61	33.00	PASS
GPRS1900	810	0	1	29.35	26.05	33.00	PASS
GPRS1900	810	0	2	28.25	24.95	33.00	PASS
GPRS1900	810	0	3	25.79	22.49	33.00	PASS
GPRS1900	810	0	4	24.54	21.24	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.36	17.92	38.45	PASS
EGPRS850	128	8	2	26.28	17.84	38.45	PASS
EGPRS850	128	8	3	26.16	17.72	38.45	PASS
EGPRS850	128	8	4	26.02	17.58	38.45	PASS
EGPRS850	190	8	1	26.84	18.4	38.45	PASS
EGPRS850	190	8	2	26.76	18.32	38.45	PASS
EGPRS850	190	8	3	26.63	18.19	38.45	PASS
EGPRS850	190	8	4	26.52	18.08	38.45	PASS
EGPRS850	251	8	1	26.74	18.3	38.45	PASS
EGPRS850	251	8	2	26.65	18.21	38.45	PASS
EGPRS850	251	8	3	26.51	18.07	38.45	PASS
EGPRS850	251	8	4	26.35	17.91	38.45	PASS
EGPRS1900	512	2	1	25.30	22	33.00	PASS
EGPRS1900	512	2	2	25.23	21.93	33.00	PASS
EGPRS1900	512	2	3	25.13	21.83	33.00	PASS
EGPRS1900	512	2	4	25.01	21.71	33.00	PASS
EGPRS1900	661	2	1	25.19	21.89	33.00	PASS
EGPRS1900	661	2	2	25.13	21.83	33.00	PASS
EGPRS1900	661	2	3	25.07	21.77	33.00	PASS
EGPRS1900	661	2	4	24.94	21.64	33.00	PASS
EGPRS1900	810	2	1	24.77	21.47	33.00	PASS
EGPRS1900	810	2	2	24.71	21.41	33.00	PASS
EGPRS1900	810	2	3	24.62	21.32	33.00	PASS
EGPRS1900	810	2	4	24.52	21.22	33.00	PASS

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

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

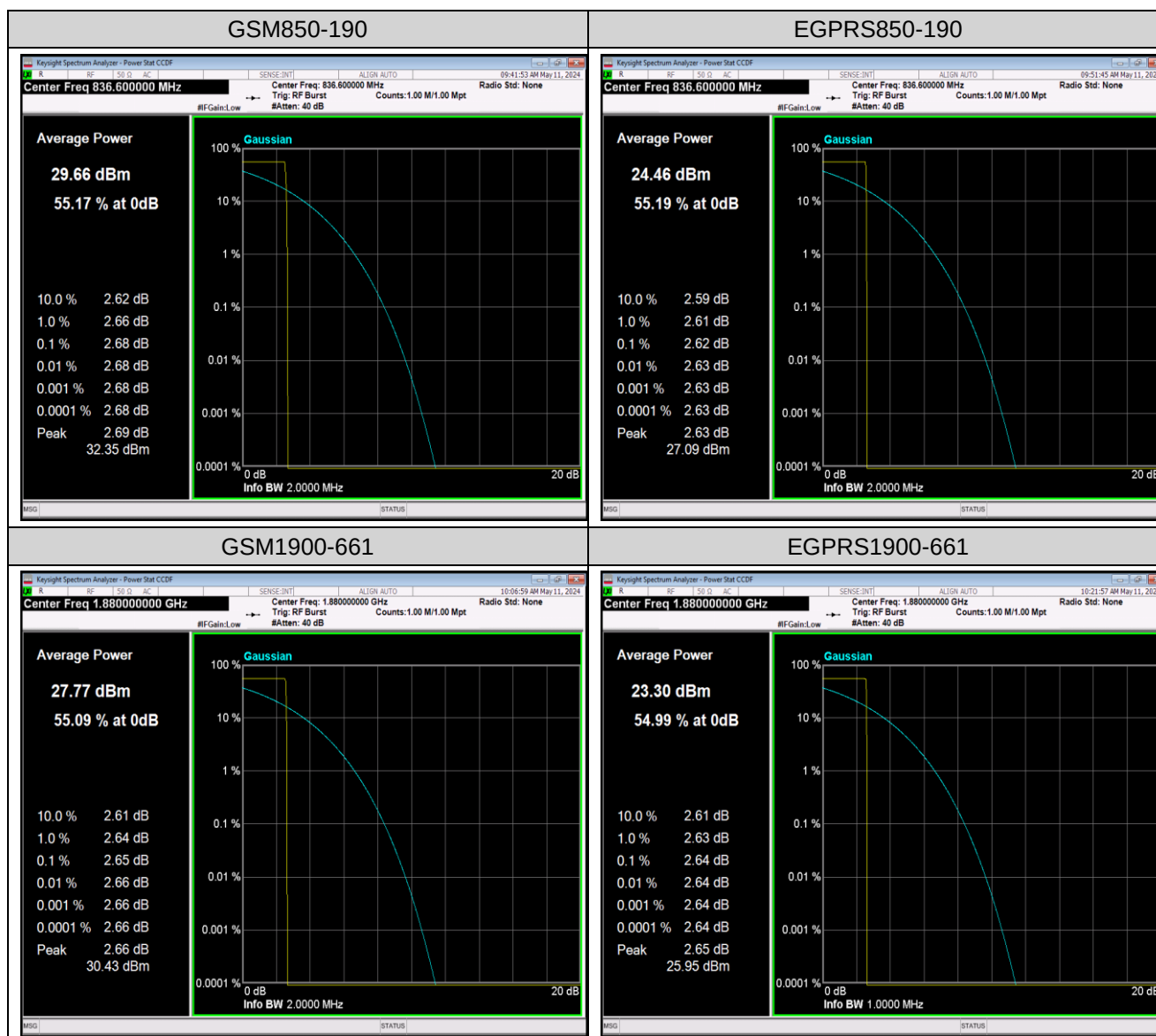
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.68	13	PASS
EGPRS850	190	8	2.62	13	PASS
GSM1900	661	0	2.65	13	PASS
EGPRS1900	661	2	2.64	13	PASS

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

Test Graphs

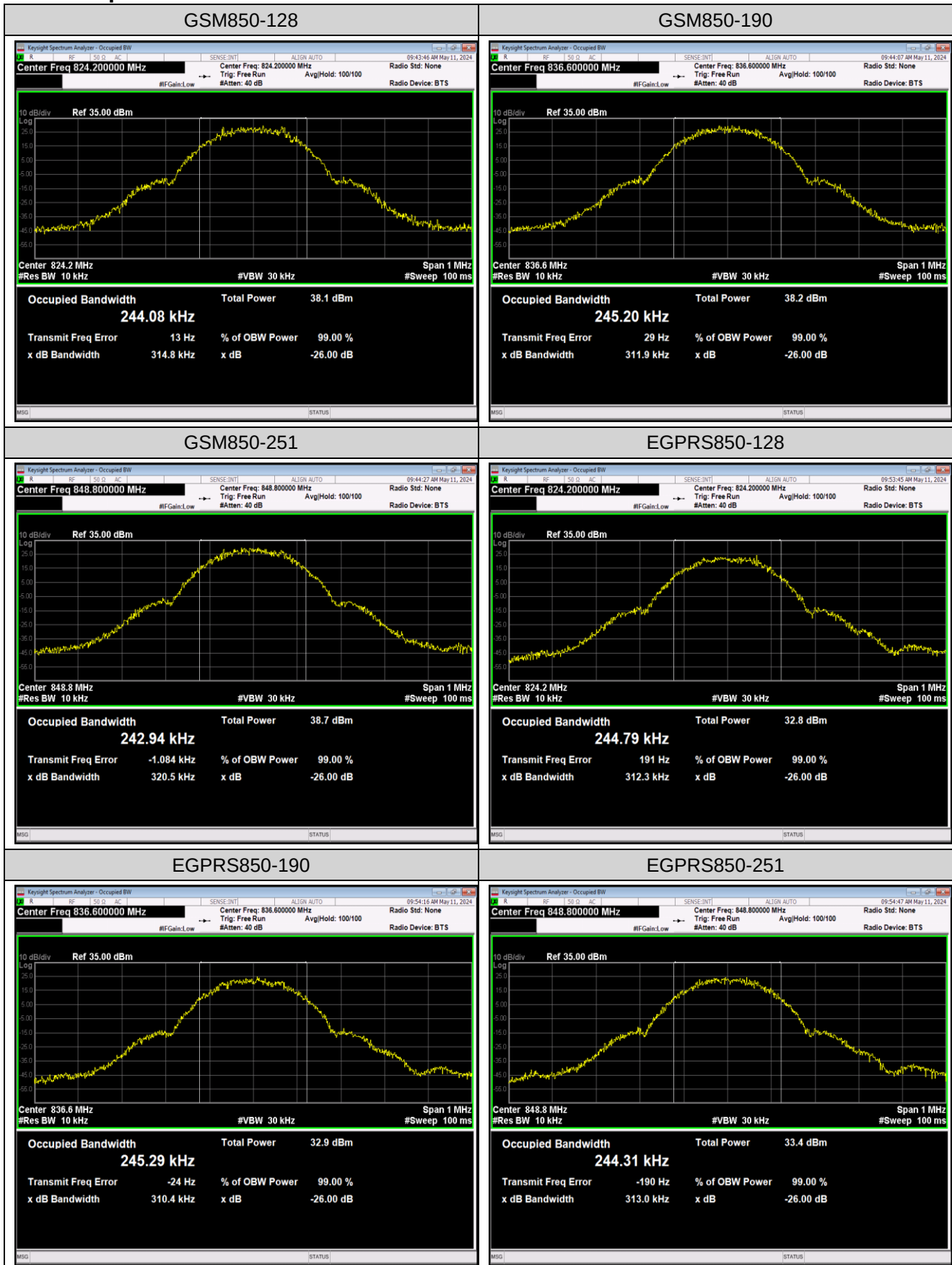


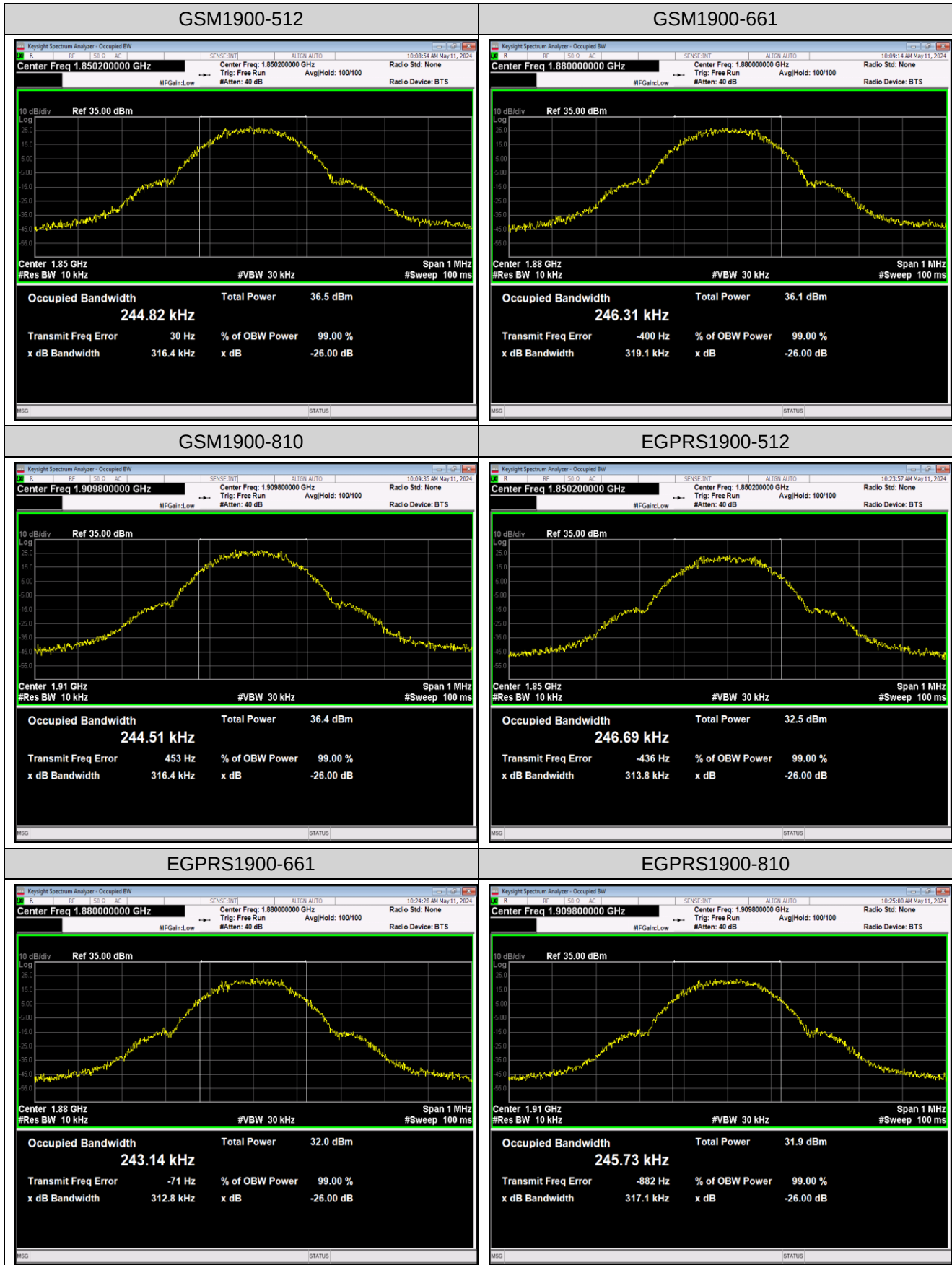
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24408	0.3148	---	PASS
GSM850	190	5	0.24520	0.3119	---	PASS
GSM850	251	5	0.24294	0.3205	---	PASS
EGPRS850	128	8	0.24479	0.3123	---	PASS
EGPRS850	190	8	0.24529	0.3104	---	PASS
EGPRS850	251	8	0.24431	0.3130	---	PASS
GSM1900	512	0	0.24482	0.3164	---	PASS
GSM1900	661	0	0.24631	0.3191	---	PASS
GSM1900	810	0	0.24451	0.3164	---	PASS
EGPRS1900	512	2	0.24669	0.3138	---	PASS
EGPRS1900	661	2	0.24314	0.3128	---	PASS
EGPRS1900	810	2	0.24573	0.3171	---	PASS

Test Graphs



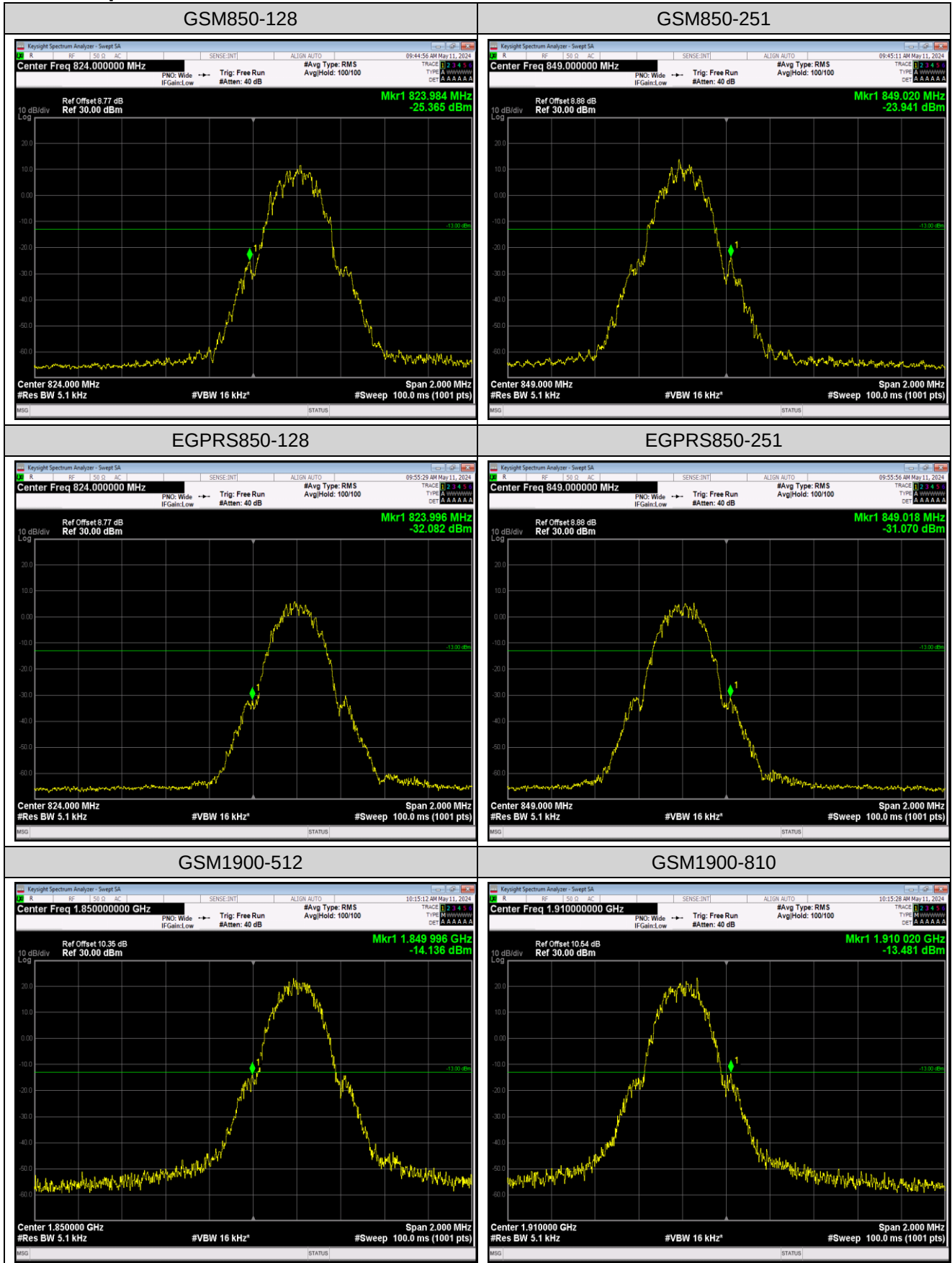


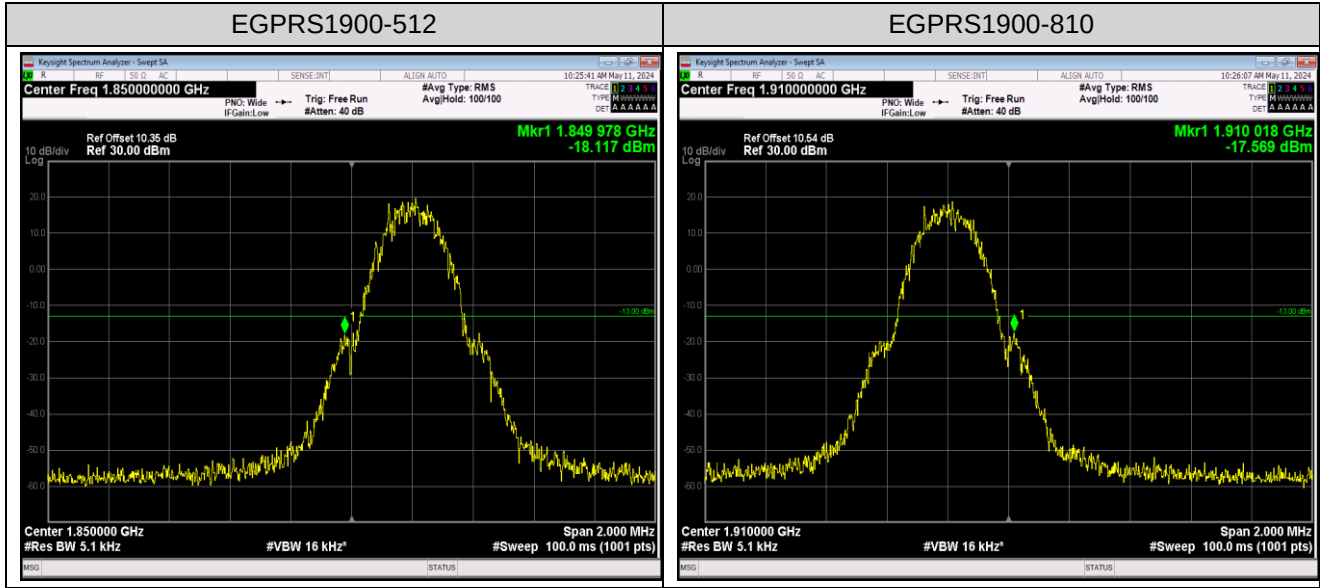
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-25.36	-13	PASS
GSM850	251	5	849.02	-23.94	-13	PASS
EGPRS850	128	8	824.00	-32.08	-13	PASS
EGPRS850	251	8	849.02	-31.07	-13	PASS
GSM1900	512	0	1850.00	-14.14	-13	PASS
GSM1900	810	0	1910.02	-13.48	-13	PASS
EGPRS1900	512	2	1849.98	-18.12	-13	PASS
EGPRS1900	810	2	1910.02	-17.57	-13	PASS

Test Graphs





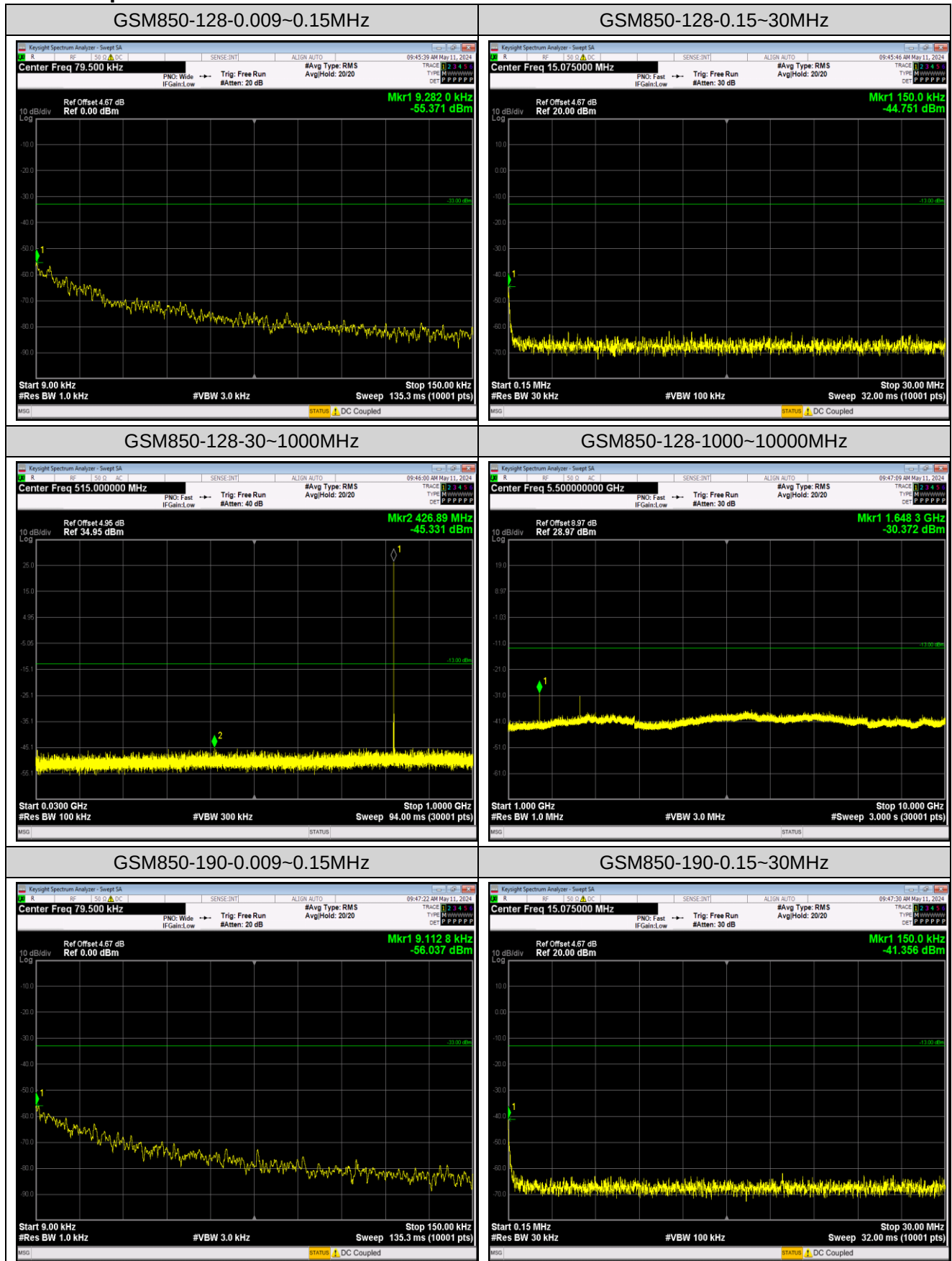
Appendix E: Conducted Spurious Emission

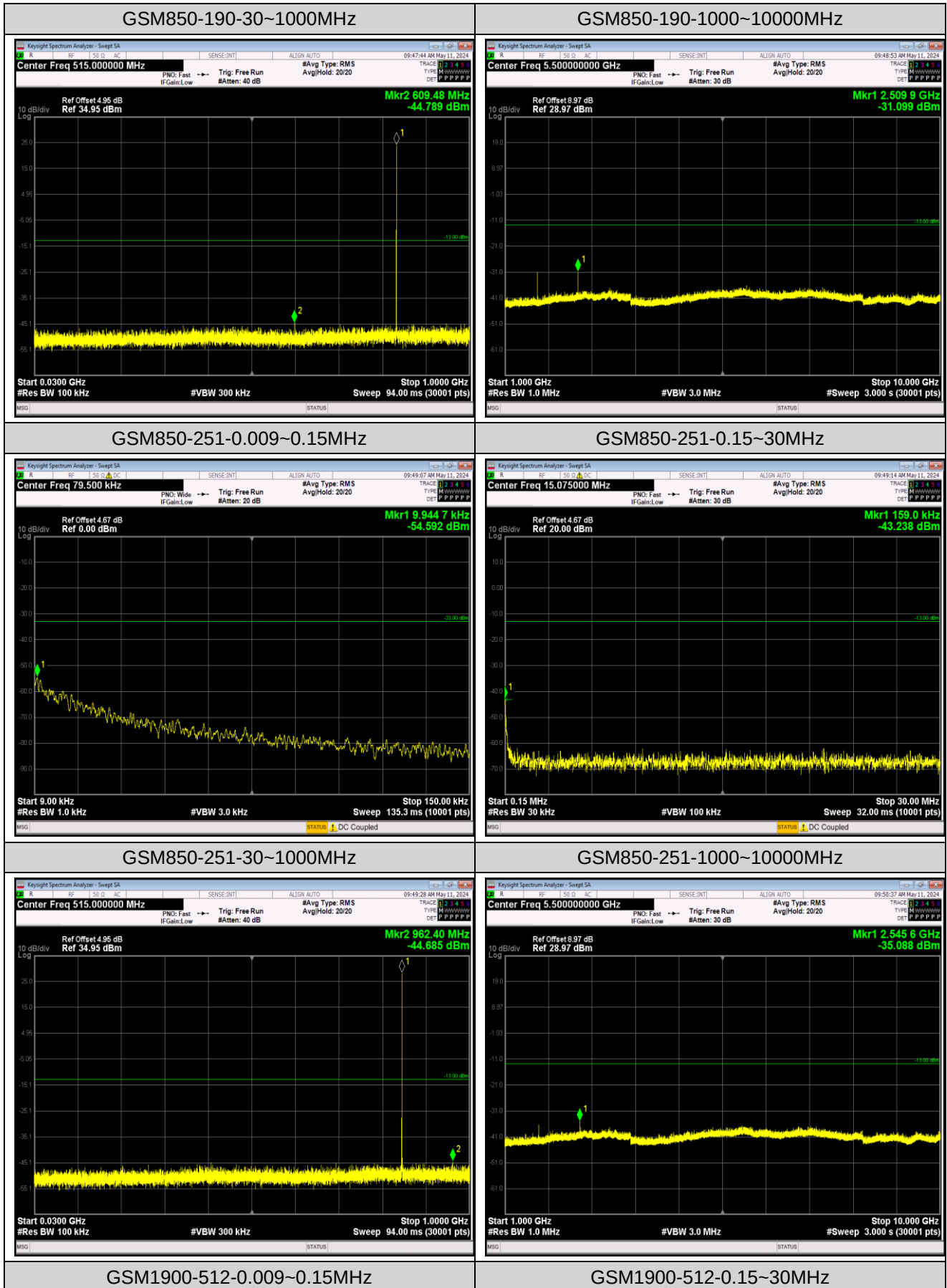
Test Result

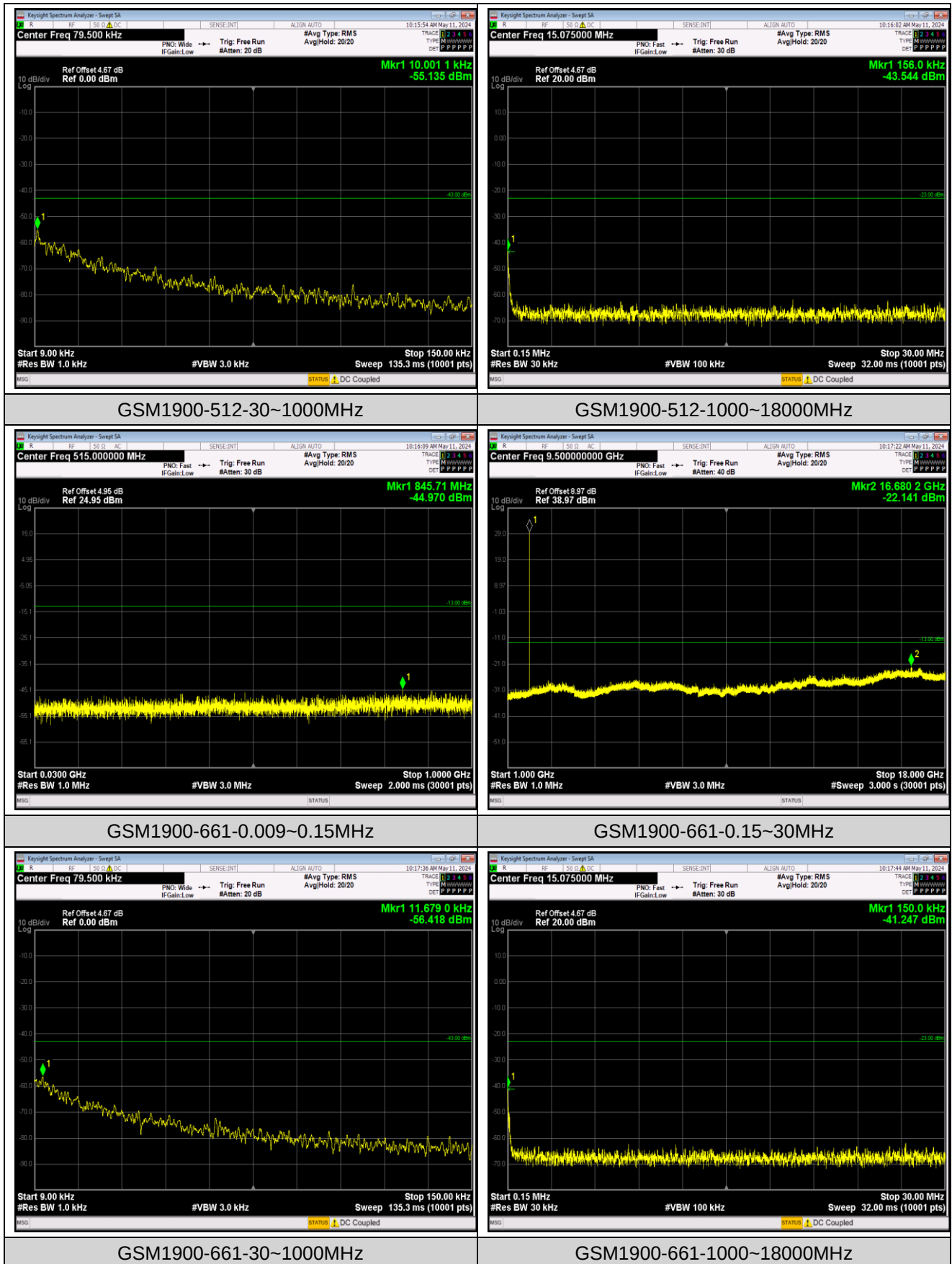
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.37	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-44.75	-13	PASS
GSM850	128	5	30~1000MHz	426.89	-45.33	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-30.37	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-56.04	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-41.36	-13	PASS
GSM850	190	5	30~1000MHz	609.48	-44.79	-13	PASS
GSM850	190	5	1000~10000MHz	2509.9	-31.1	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.59	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-43.24	-13	PASS
GSM850	251	5	30~1000MHz	962.4	-44.69	-13	PASS
GSM850	251	5	1000~10000MHz	2545.6	-35.09	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.14	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-43.54	-23	PASS
GSM1900	512	0	30~1000MHz	845.71	-44.97	-13	PASS
GSM1900	512	0	1000~18000MHz	16680.23	-22.14	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.42	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-41.25	-23	PASS
GSM1900	661	0	30~1000MHz	845.25	-45.95	-13	PASS
GSM1900	661	0	1000~18000MHz	16977.17	-22.37	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.58	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.52	-23	PASS
GSM1900	810	0	30~1000MHz	881.08	-45.46	-13	PASS
GSM1900	810	0	1000~18000MHz	16314.73	-22.18	-13	PASS

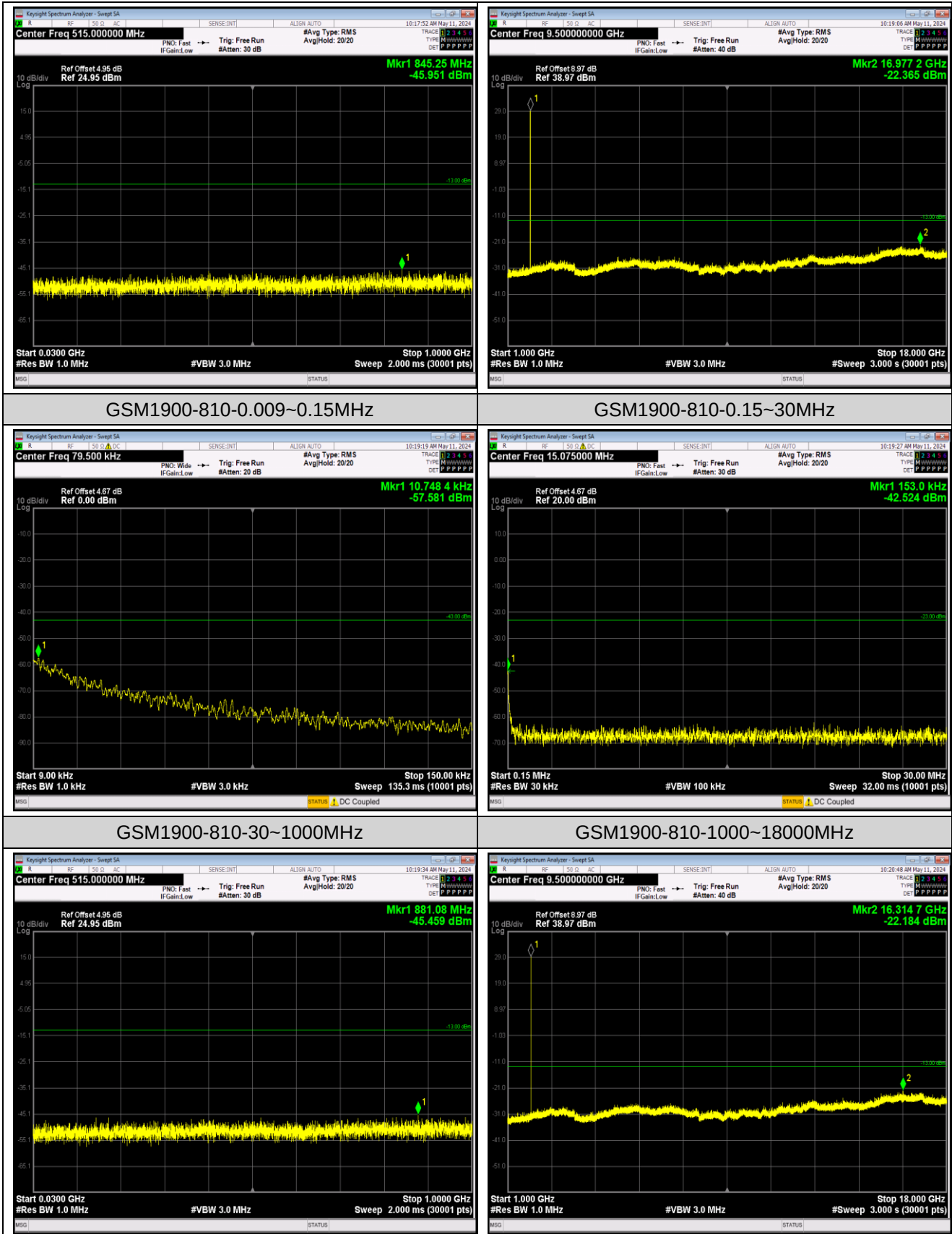
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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		
3.91	-30	-8.65	-0.010339	±2.5	Pass
	-20	-10.59	-0.012658		
	-10	-9.04	-0.010806		
	0	-8.75	-0.010459		
	10	-2.74	-0.003275		
	20	-1.90	-0.002271		
	30	-2.84	-0.003395		
	40	-10.07	-0.012037		
	50	-3.23	-0.003861		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-10.33	-0.012348	±2.5	Pass
	3.91	-6.23	-0.007447		
	4.50	-0.68	-0.000813		
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		
3.91	-30	-9.46	-0.011308	±2.5	Pass
	-20	-5.20	-0.006216		
	-10	-11.82	-0.014129		
	0	-10.23	-0.012228		
	10	0.23	0.000275		
	20	2.52	0.003012		
	30	3.55	0.004243		
	40	1.45	0.001733		
	50	2.81	0.003359		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-8.88	-0.010614	±2.5	Pass
	3.91	-7.75	-0.009264		
	4.50	-7.14	-0.008535		
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		
3.91	-30	-3.65	-0.001941	Within authorized band for PCS 1900	Pass
	-20	8.17	0.004346		
	-10	9.14	0.004862		
	0	18.02	0.009585		
	10	10.01	0.005324		
	20	-8.04	-0.004277		
	30	8.07	0.004293		
	40	-1.29	-0.000686		
	50	-5.42	-0.002883		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	9.69	0.005154	Within authorized band for PCS 1900	Pass
	3.91	-5.13	-0.002729		
	4.50	11.95	0.006356		
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		
3.91	-30	-9.56	-0.005085	Within authorized band for PCS 1900	Pass
	-20	-6.91	-0.003676		
	-10	-2.97	-0.001580		
	0	-5.29	-0.002814		
	10	3.26	0.001734		
	20	11.20	0.005957		
	30	6.30	0.003351		
	40	6.72	0.003574		
	50	6.04	0.003213		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-4.58	-0.002436	Within authorized band for PCS 1900	Pass
	3.91	-5.39	-0.002867		
	4.50	1.16	0.000617		
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

