

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	34.39	32.14	38.45	PASS
GSM850	190	5	34.44	32.19	38.45	PASS
GSM850	251	5	34.46	32.21	38.45	PASS
GSM1900	512	0	30.86	31.36	33.00	PASS
GSM1900	661	0	31.50	32	33.00	PASS
GSM1900	810	0	31.40	31.9	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	34.45	32.2	38.45	PASS
GPRS850	128	5	2	32.15	29.9	38.45	PASS
GPRS850	128	5	3	30.19	27.94	38.45	PASS
GPRS850	128	5	4	28.10	25.85	38.45	PASS
GPRS850	190	5	1	34.47	32.22	38.45	PASS
GPRS850	190	5	2	32.39	30.14	38.45	PASS
GPRS850	190	5	3	30.42	28.17	38.45	PASS
GPRS850	190	5	4	28.32	26.07	38.45	PASS
GPRS850	251	5	1	34.49	32.24	38.45	PASS
GPRS850	251	5	2	32.46	30.21	38.45	PASS
GPRS850	251	5	3	30.51	28.26	38.45	PASS
GPRS850	251	5	4	28.38	26.13	38.45	PASS
GPRS1900	512	0	1	30.88	31.38	33.00	PASS
GPRS1900	512	0	2	28.70	29.2	33.00	PASS
GPRS1900	512	0	3	27.10	27.6	33.00	PASS
GPRS1900	512	0	4	25.03	25.53	33.00	PASS
GPRS1900	661	0	1	31.49	31.99	33.00	PASS
GPRS1900	661	0	2	29.24	29.74	33.00	PASS
GPRS1900	661	0	3	27.66	28.16	33.00	PASS
GPRS1900	661	0	4	25.62	26.12	33.00	PASS
GPRS1900	810	0	1	31.47	31.97	33.00	PASS
GPRS1900	810	0	2	29.02	29.52	33.00	PASS
GPRS1900	810	0	3	27.49	27.99	33.00	PASS
GPRS1900	810	0	4	25.47	25.97	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.76	25.51	38.45	PASS
EGPRS850	128	8	2	26.68	24.43	38.45	PASS
EGPRS850	128	8	3	24.34	22.09	38.45	PASS
EGPRS850	128	8	4	22.16	19.91	38.45	PASS
EGPRS850	190	8	1	27.85	25.6	38.45	PASS
EGPRS850	190	8	2	26.82	24.57	38.45	PASS
EGPRS850	190	8	3	24.48	22.23	38.45	PASS
EGPRS850	190	8	4	22.23	19.98	38.45	PASS
EGPRS850	251	8	1	27.46	25.21	38.45	PASS
EGPRS850	251	8	2	26.42	24.17	38.45	PASS
EGPRS850	251	8	3	24.08	21.83	38.45	PASS
EGPRS850	251	8	4	21.78	19.53	38.45	PASS
EGPRS1900	512	2	1	26.95	27.45	33.00	PASS
EGPRS1900	512	2	2	25.23	25.73	33.00	PASS
EGPRS1900	512	2	3	23.19	23.69	33.00	PASS
EGPRS1900	512	2	4	21.23	21.73	33.00	PASS
EGPRS1900	661	2	1	27.75	28.25	33.00	PASS
EGPRS1900	661	2	2	25.95	26.45	33.00	PASS
EGPRS1900	661	2	3	24.18	24.68	33.00	PASS
EGPRS1900	661	2	4	22.23	22.73	33.00	PASS
EGPRS1900	810	2	1	27.07	27.57	33.00	PASS
EGPRS1900	810	2	2	25.44	25.94	33.00	PASS
EGPRS1900	810	2	3	23.70	24.2	33.00	PASS
EGPRS1900	810	2	4	21.68	22.18	33.00	PASS

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

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

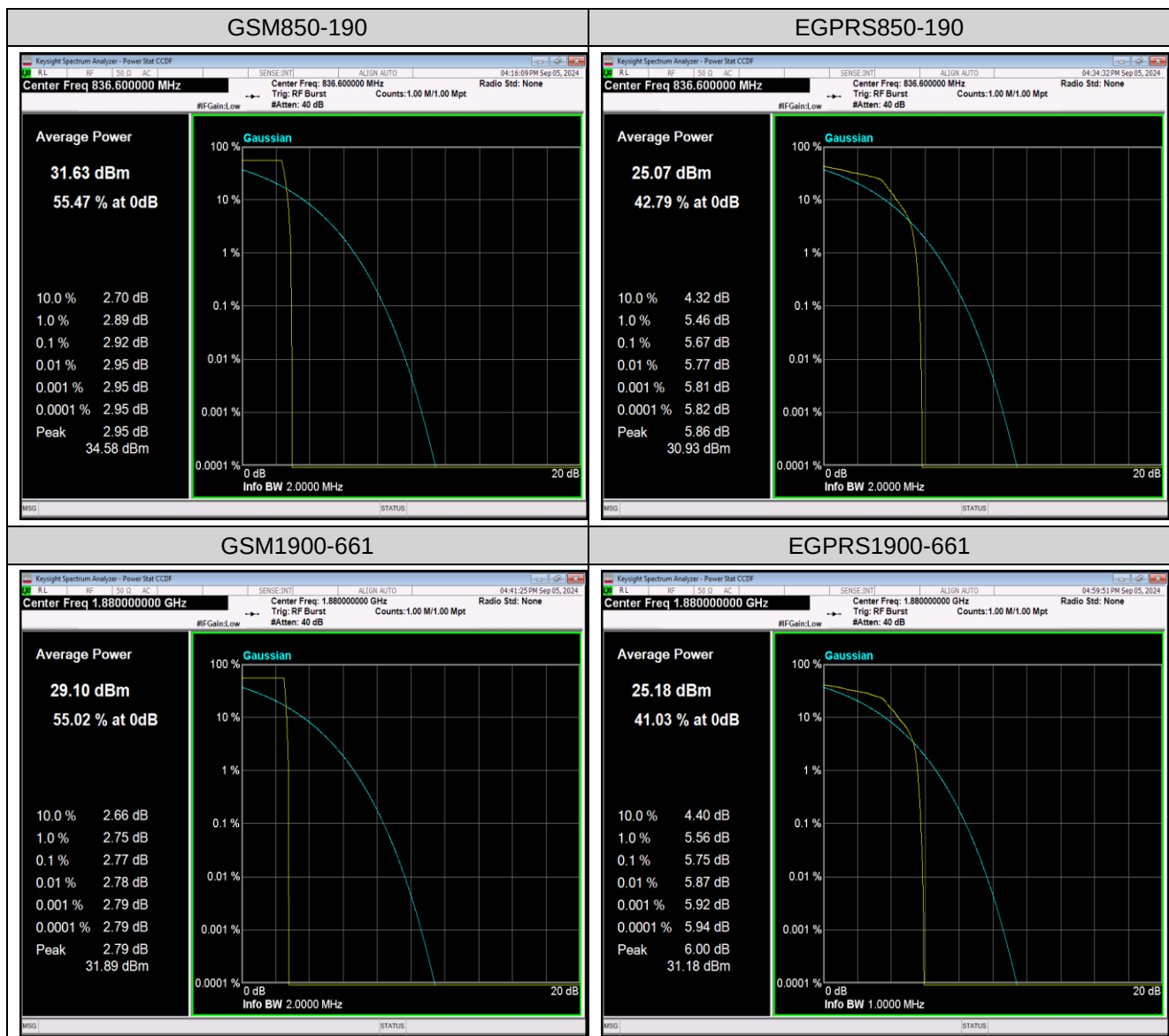
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.92	13	PASS
EGPRS850	190	8	5.67	13	PASS
GSM1900	661	0	2.77	13	PASS
EGPRS1900	661	2	5.75	13	PASS

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

Test Graphs

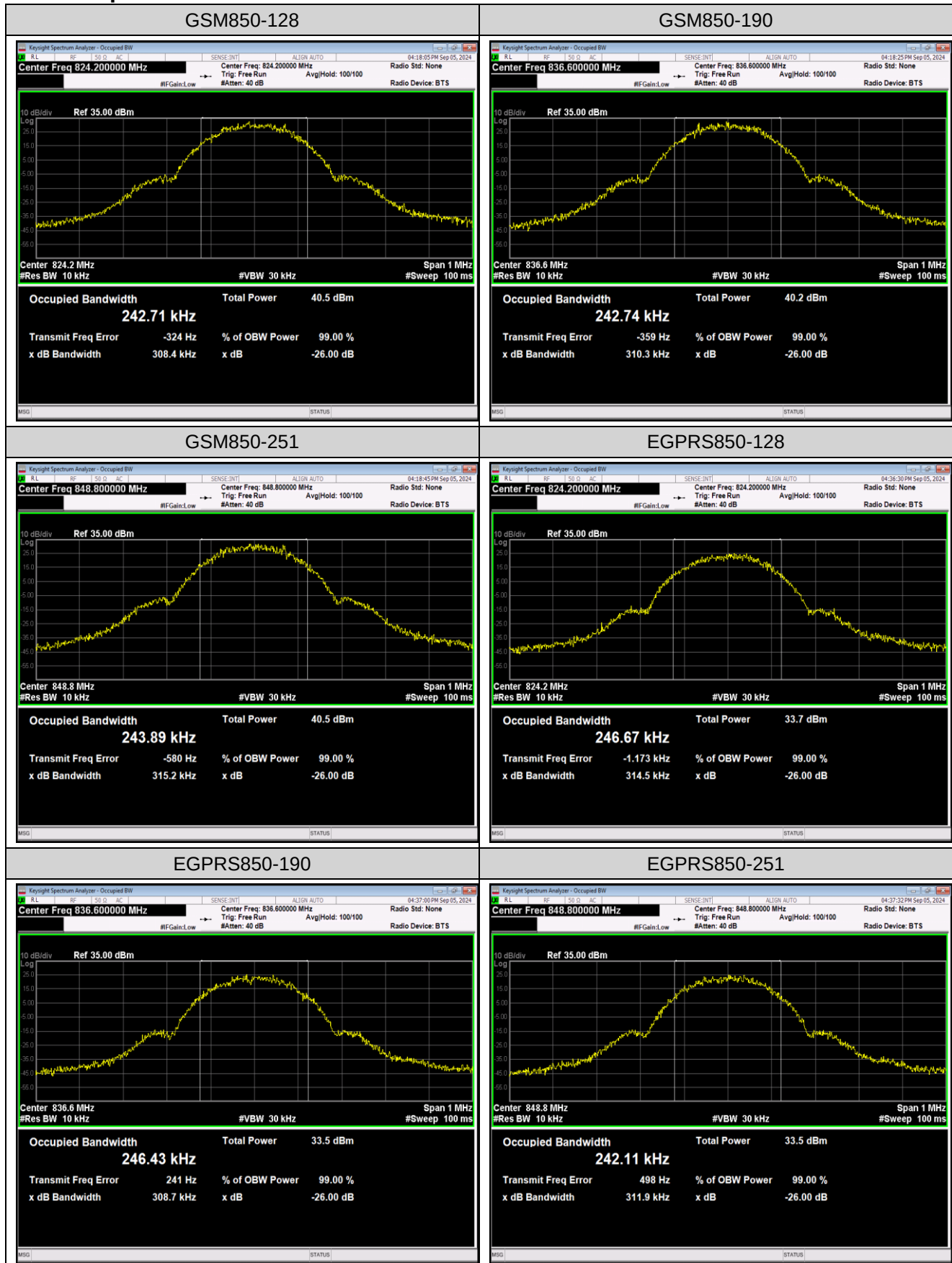


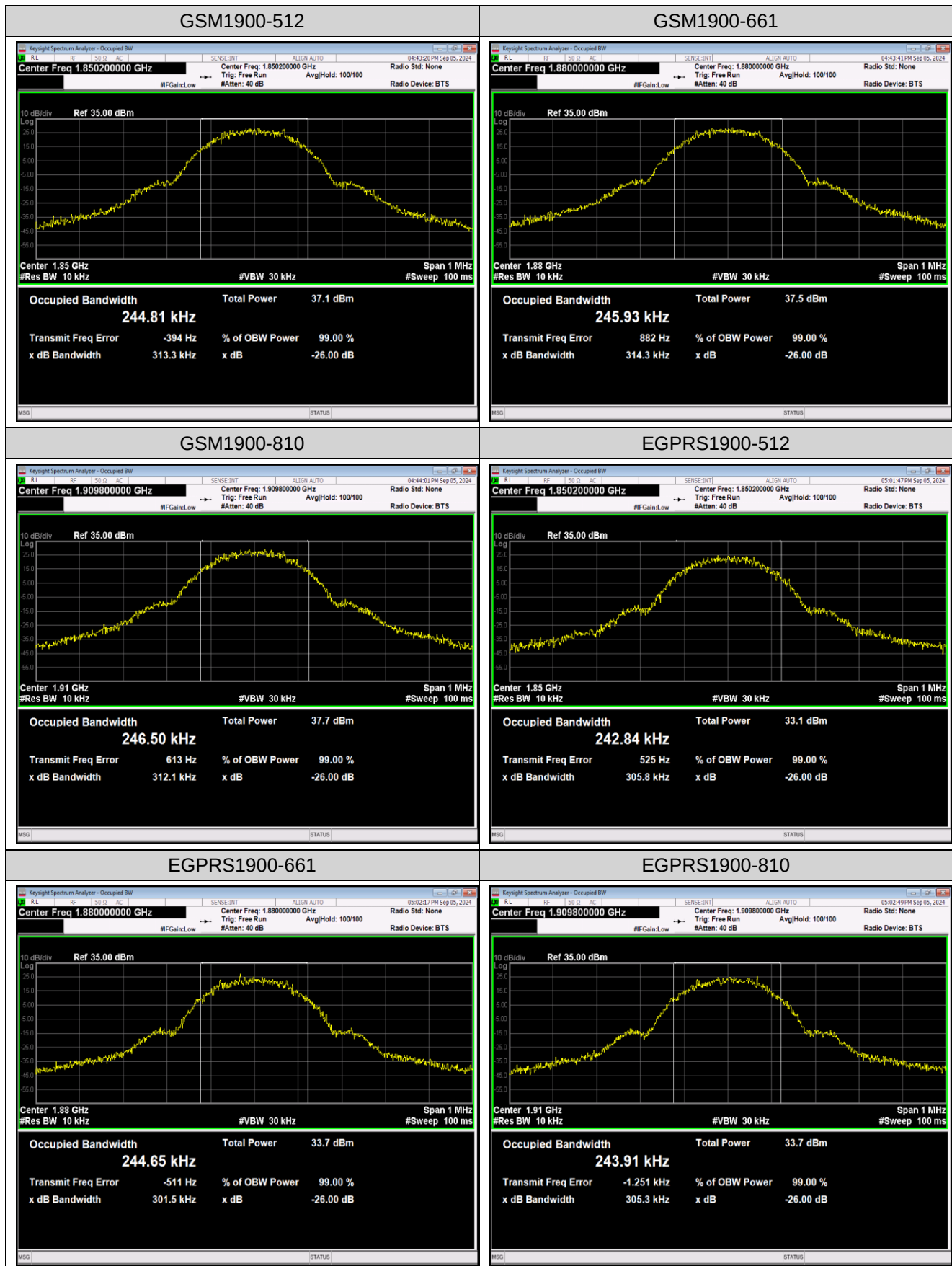
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24271	0.3084	---	PASS
GSM850	190	5	0.24274	0.3103	---	PASS
GSM850	251	5	0.24389	0.3152	---	PASS
EGPRS850	128	8	0.24667	0.3145	---	PASS
EGPRS850	190	8	0.24643	0.3087	---	PASS
EGPRS850	251	8	0.24211	0.3119	---	PASS
GSM1900	512	0	0.24481	0.3133	---	PASS
GSM1900	661	0	0.24593	0.3143	---	PASS
GSM1900	810	0	0.24650	0.3121	---	PASS
EGPRS1900	512	2	0.24284	0.3058	---	PASS
EGPRS1900	661	2	0.24465	0.3015	---	PASS
EGPRS1900	810	2	0.24391	0.3053	---	PASS

Test Graphs



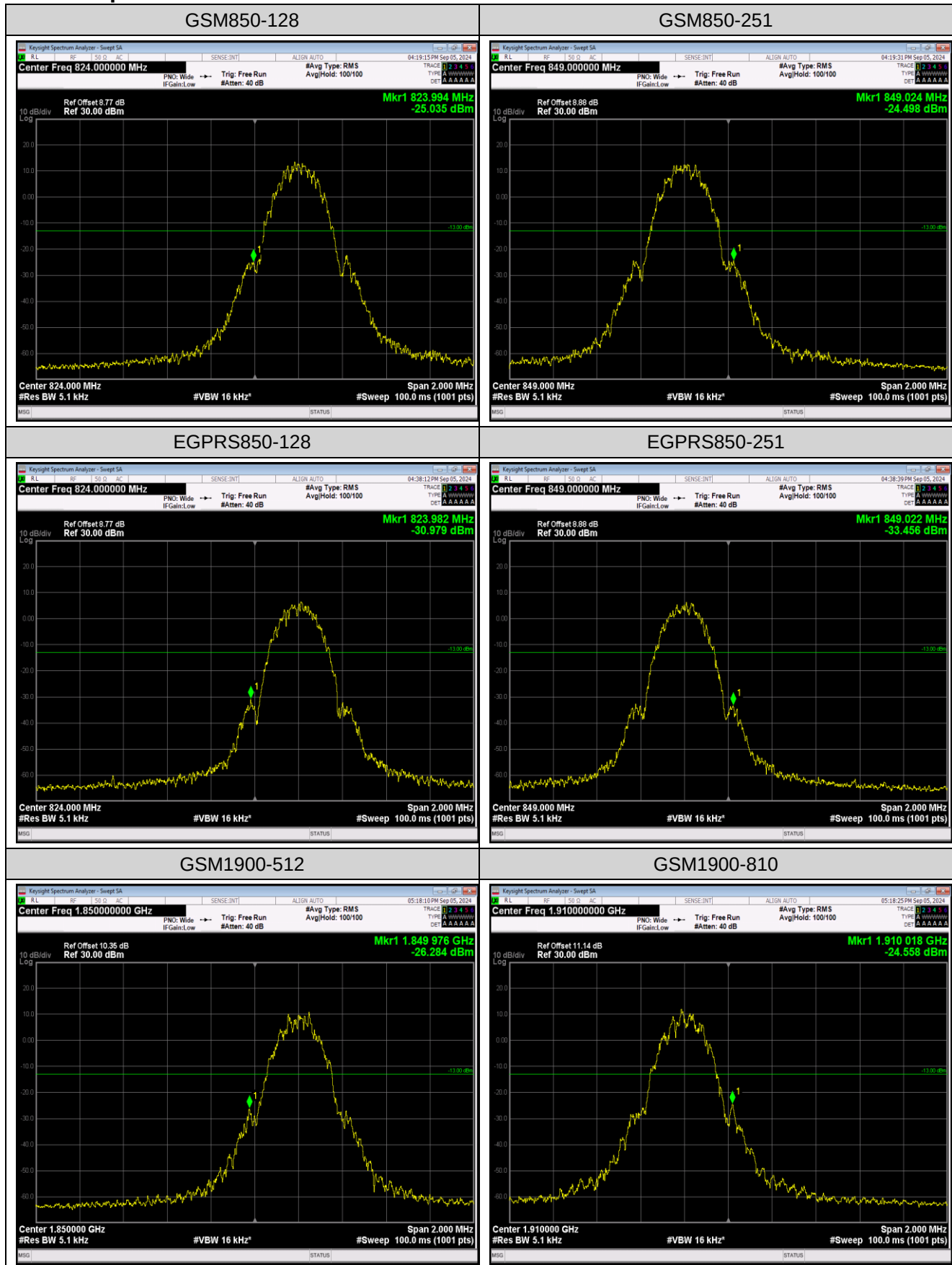


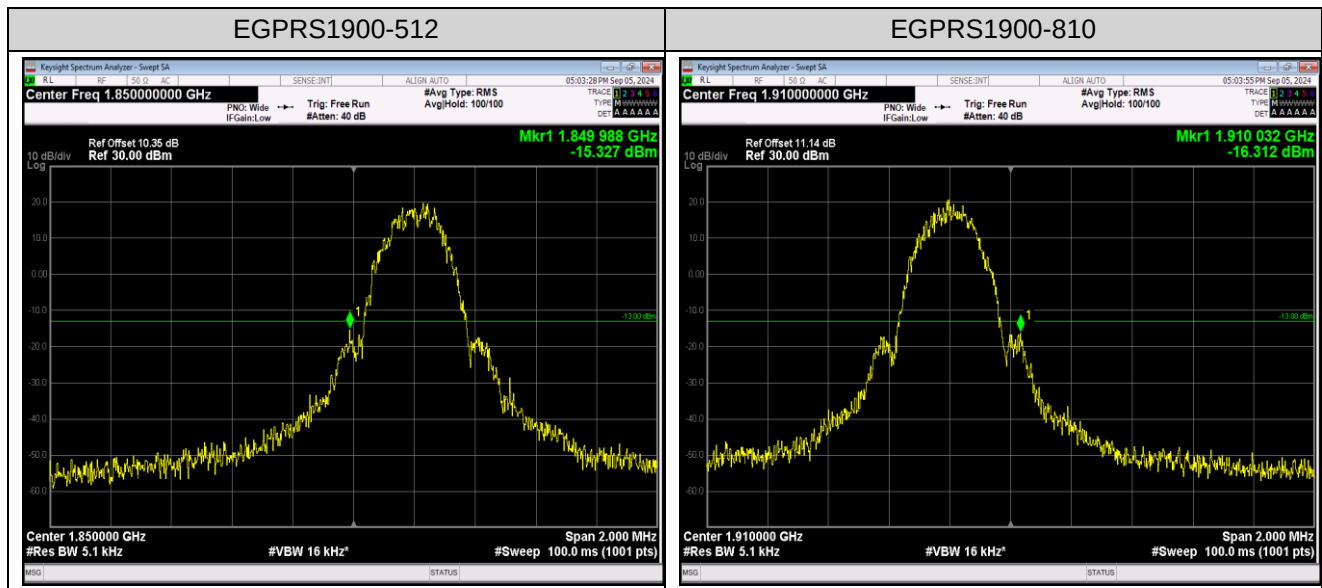
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.99	-25.04	-13	PASS
GSM850	251	5	849.02	-24.50	-13	PASS
EGPRS850	128	8	823.98	-30.98	-13	PASS
EGPRS850	251	8	849.02	-33.46	-13	PASS
GSM1900	512	0	1849.98	-26.28	-13	PASS
GSM1900	810	0	1910.02	-24.56	-13	PASS
EGPRS1900	512	2	1849.99	-15.33	-13	PASS
EGPRS1900	810	2	1910.03	-16.31	-13	PASS

Test Graphs





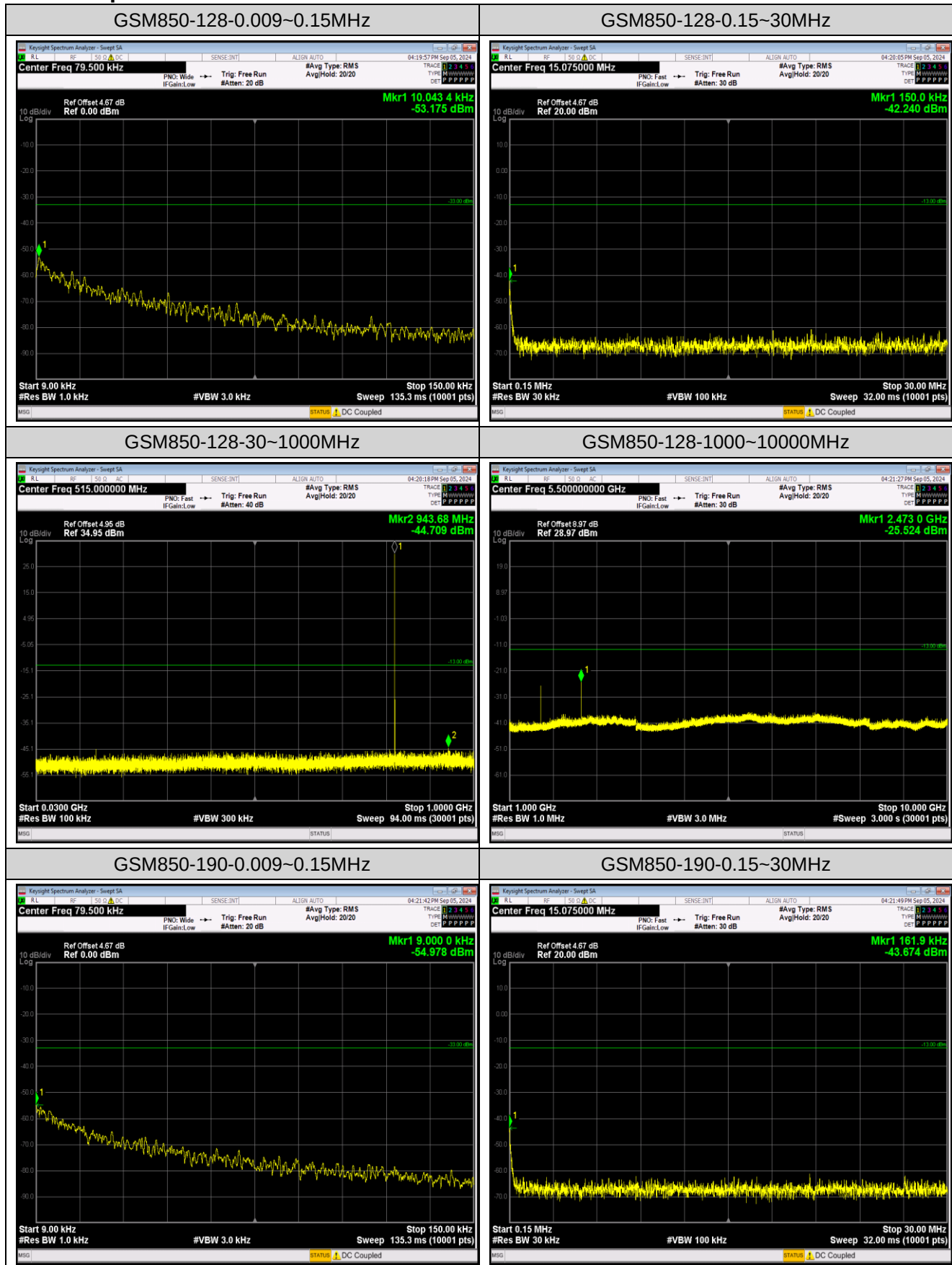
Appendix E: Conducted Spurious Emission

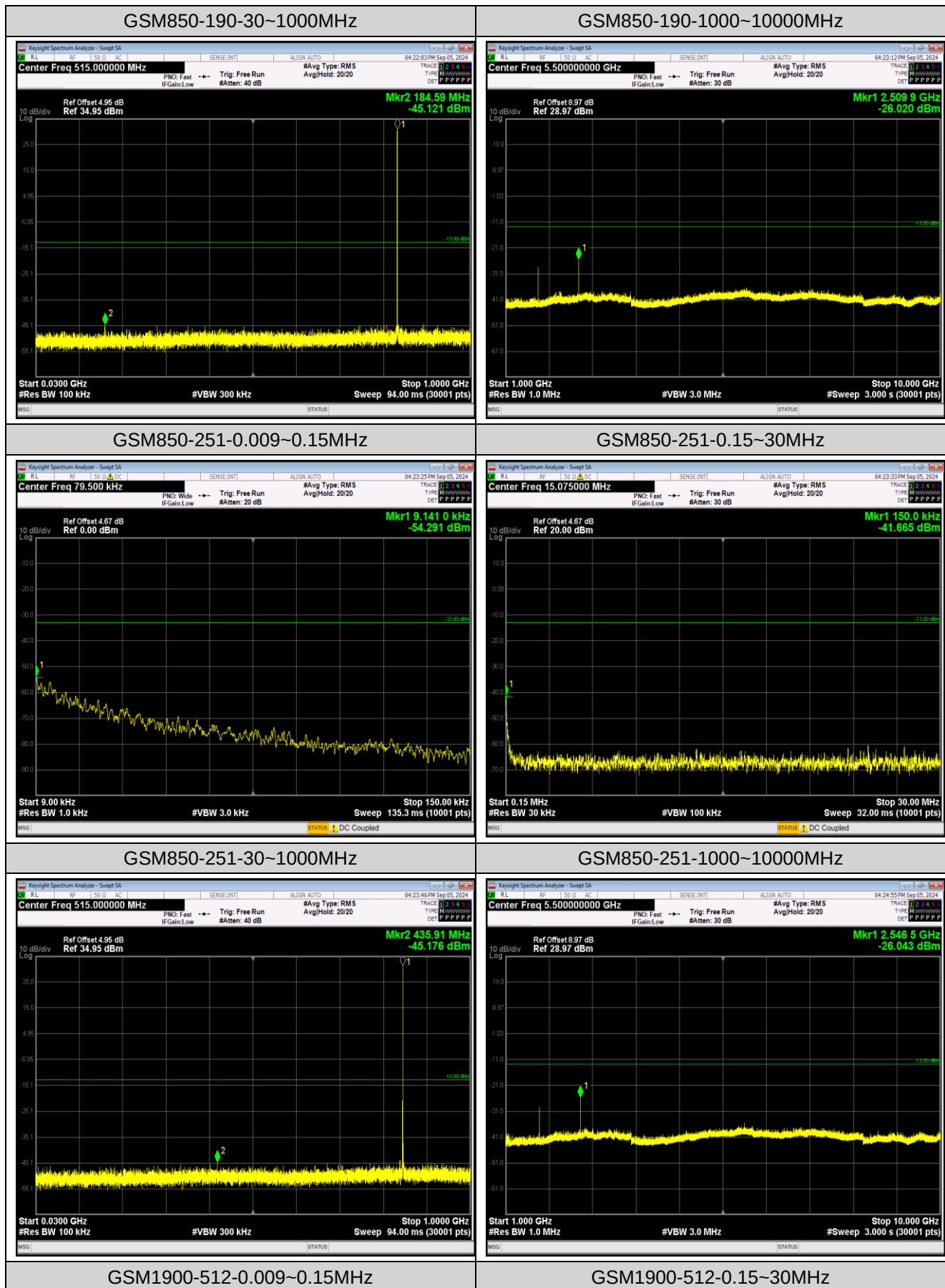
Test Result

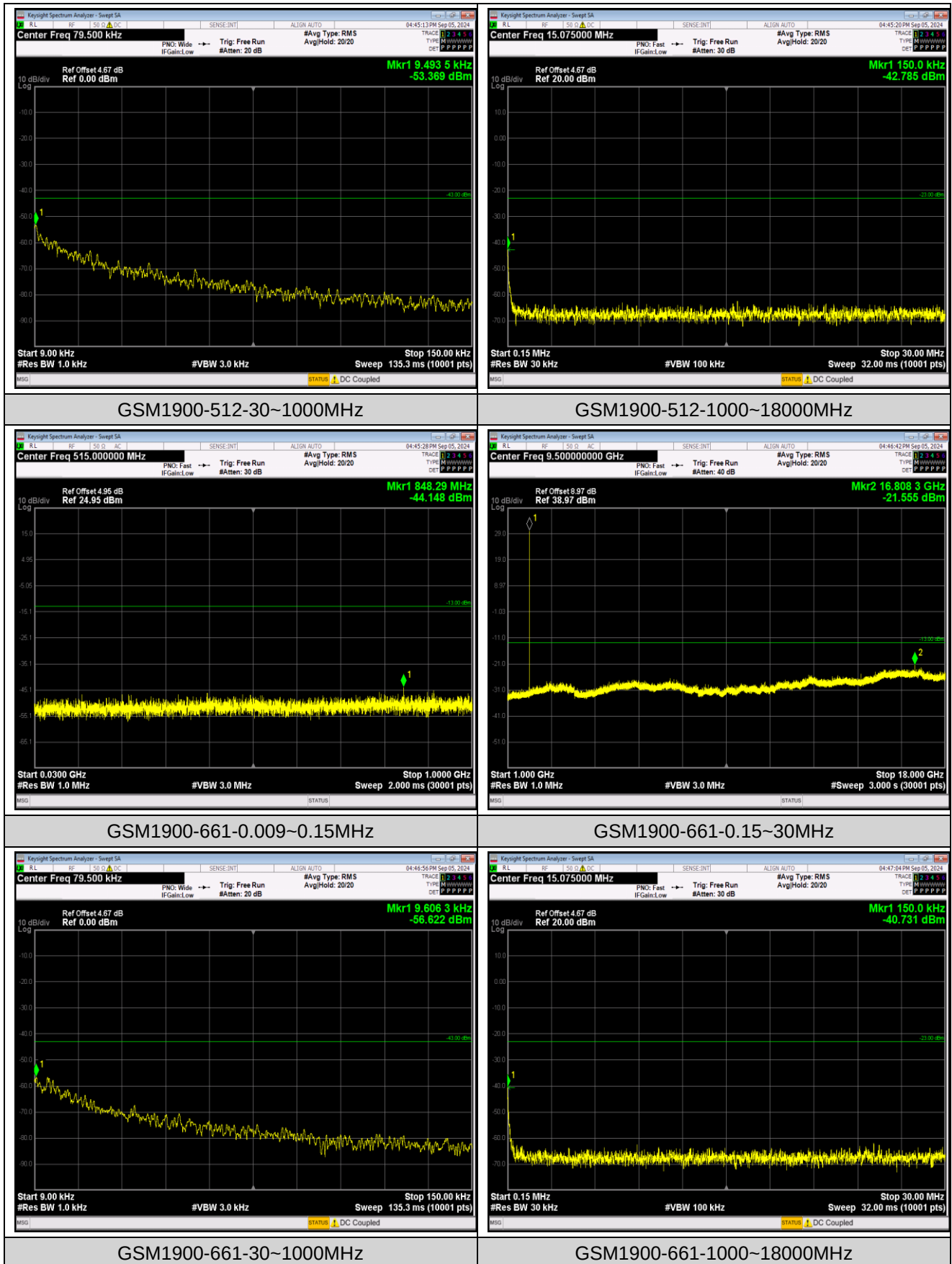
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-53.18	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-42.24	-13	PASS
GSM850	128	5	30~1000MHz	943.68	-44.71	-13	PASS
GSM850	128	5	1000~10000MHz	2473	-25.52	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.98	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-43.67	-13	PASS
GSM850	190	5	30~1000MHz	184.59	-45.12	-13	PASS
GSM850	190	5	1000~10000MHz	2509.9	-26.02	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.29	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-41.67	-13	PASS
GSM850	251	5	30~1000MHz	435.91	-45.18	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-26.04	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-53.37	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-42.79	-23	PASS
GSM1900	512	0	30~1000MHz	848.29	-44.15	-13	PASS
GSM1900	512	0	1000~18000MHz	16808.3	-21.56	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.62	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-40.73	-23	PASS
GSM1900	661	0	30~1000MHz	935.3	-45.07	-13	PASS
GSM1900	661	0	1000~18000MHz	17040.63	-22.05	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.09	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.81	-23	PASS
GSM1900	810	0	30~1000MHz	725.33	-44.79	-13	PASS
GSM1900	810	0	1000~18000MHz	16659.83	-22.43	-13	PASS

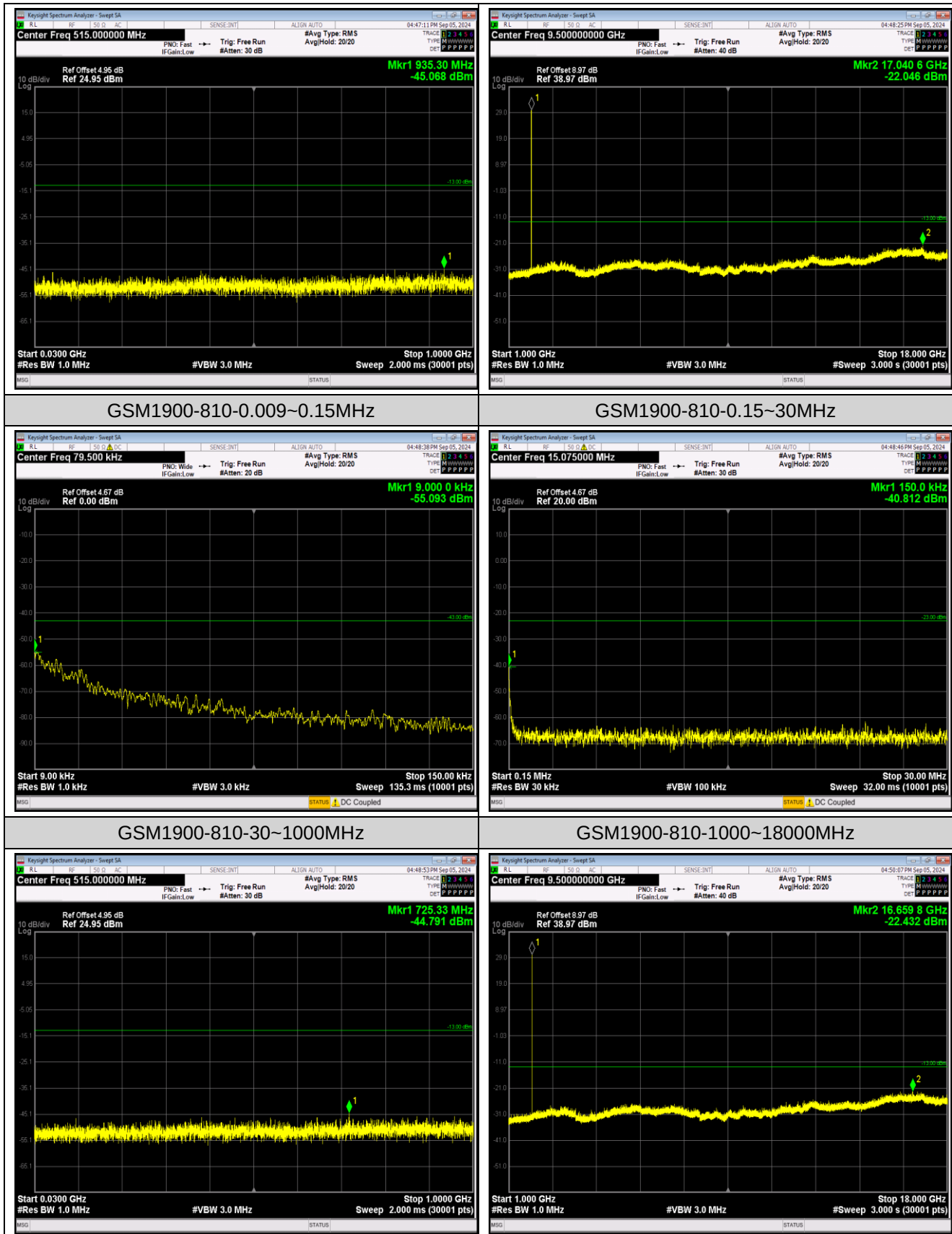
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	13.04	0.015587	±2.5	Pass
	-20	9.65	0.011535		
	-10	15.11	0.018061		
	0	10.94	0.013077		
	10	10.98	0.013125		
	20	11.98	0.014320		
	30	11.78	0.014081		
	40	9.91	0.011846		
	50	13.08	0.015635		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	2.75	9.81	0.011726	±2.5	Pass
	3.85	5.71	0.006825		
	4.40	7.10	0.008487		
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	4.71	0.005630	±2.5	Pass
	-20	12.53	0.014977		
	-10	11.95	0.014284		
	0	9.62	0.011499		
	10	10.49	0.012539		
	20	9.33	0.011152		
	30	9.94	0.011881		
	40	20.21	0.024157		
	50	9.65	0.011535		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	2.75	9.30	0.011116	±2.5	Pass
	3.85	6.68	0.007985		
	4.40	12.88	0.015396		
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	-4.49	-0.002388	Within authorized band for PCS 1900	Pass
	-20	0.42	0.000223		
	-10	-10.14	-0.005394		
	0	-6.07	-0.003229		
	10	2.81	0.001495		
	20	4.88	0.002596		
	30	-3.29	-0.001750		
	40	-5.20	-0.002766		
	50	6.07	0.003229		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	2.75	6.78	0.003606	Within authorized band for PCS 1900	Pass
	3.85	-2.68	-0.001426		
	4.40	-9.65	-0.005133		
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		
3.85	-30	15.53	0.008261	Within authorized band for PCS 1900	Pass
	-20	27.02	0.014372		
	-10	20.86	0.011096		
	0	22.44	0.011936		
	10	18.05	0.009601		
	20	13.37	0.007112		
	30	13.69	0.007282		
	40	14.27	0.007590		
	50	15.37	0.008176		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	2.75	5.46	0.002904	Within authorized band for PCS 1900	Pass
	3.85	18.92	0.010064		
	4.40	16.14	0.008585		
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

