

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	33.89	26.57	38.45	PASS
GSM850	190	5	33.88	26.56	38.45	PASS
GSM850	251	5	33.86	26.54	38.45	PASS
GSM1900	512	0	30.03	26.82	33.00	PASS
GSM1900	661	0	30.36	27.15	33.00	PASS
GSM1900	810	0	30.35	27.14	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.60	26.28	38.45	PASS
GPRS850	128	5	2	32.63	25.31	38.45	PASS
GPRS850	128	5	3	30.60	23.28	38.45	PASS
GPRS850	128	5	4	29.45	22.13	38.45	PASS
GPRS850	190	5	1	33.56	26.24	38.45	PASS
GPRS850	190	5	2	32.60	25.28	38.45	PASS
GPRS850	190	5	3	30.56	23.24	38.45	PASS
GPRS850	190	5	4	29.41	22.09	38.45	PASS
GPRS850	251	5	1	33.54	26.22	38.45	PASS
GPRS850	251	5	2	32.61	25.29	38.45	PASS
GPRS850	251	5	3	30.62	23.3	38.45	PASS
GPRS850	251	5	4	29.50	22.18	38.45	PASS
GPRS1900	512	0	1	30.05	26.84	33.00	PASS
GPRS1900	512	0	2	29.02	25.81	33.00	PASS
GPRS1900	512	0	3	26.82	23.61	33.00	PASS
GPRS1900	512	0	4	25.72	22.51	33.00	PASS
GPRS1900	661	0	1	30.35	27.14	33.00	PASS
GPRS1900	661	0	2	29.36	26.15	33.00	PASS
GPRS1900	661	0	3	27.24	24.03	33.00	PASS
GPRS1900	661	0	4	26.13	22.92	33.00	PASS
GPRS1900	810	0	1	30.35	27.14	33.00	PASS
GPRS1900	810	0	2	29.44	26.23	33.00	PASS
GPRS1900	810	0	3	27.43	24.22	33.00	PASS
GPRS1900	810	0	4	26.37	23.16	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.89	20.57	38.45	PASS
EGPRS850	128	8	2	26.77	19.45	38.45	PASS
EGPRS850	128	8	3	24.58	17.26	38.45	PASS
EGPRS850	128	8	4	23.19	15.87	38.45	PASS
EGPRS850	190	8	1	27.83	20.51	38.45	PASS
EGPRS850	190	8	2	26.66	19.34	38.45	PASS
EGPRS850	190	8	3	24.56	17.24	38.45	PASS
EGPRS850	190	8	4	23.12	15.8	38.45	PASS
EGPRS850	251	8	1	27.94	20.62	38.45	PASS
EGPRS850	251	8	2	26.81	19.49	38.45	PASS
EGPRS850	251	8	3	24.68	17.36	38.45	PASS
EGPRS850	251	8	4	23.26	15.94	38.45	PASS
EGPRS1900	512	2	1	25.88	20.71	33.00	PASS
EGPRS1900	512	2	2	24.65	19.48	33.00	PASS
EGPRS1900	512	2	3	22.43	19.22	33.00	PASS
EGPRS1900	512	2	4	20.90	17.69	33.00	PASS
EGPRS1900	661	2	1	25.86	22.65	33.00	PASS
EGPRS1900	661	2	2	24.62	21.41	33.00	PASS
EGPRS1900	661	2	3	22.33	19.12	33.00	PASS
EGPRS1900	661	2	4	20.86	17.65	33.00	PASS
EGPRS1900	810	2	1	26.64	23.43	33.00	PASS
EGPRS1900	810	2	2	25.42	22.21	33.00	PASS
EGPRS1900	810	2	3	23.20	19.99	33.00	PASS
EGPRS1900	810	2	4	21.67	18.46	33.00	PASS

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

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

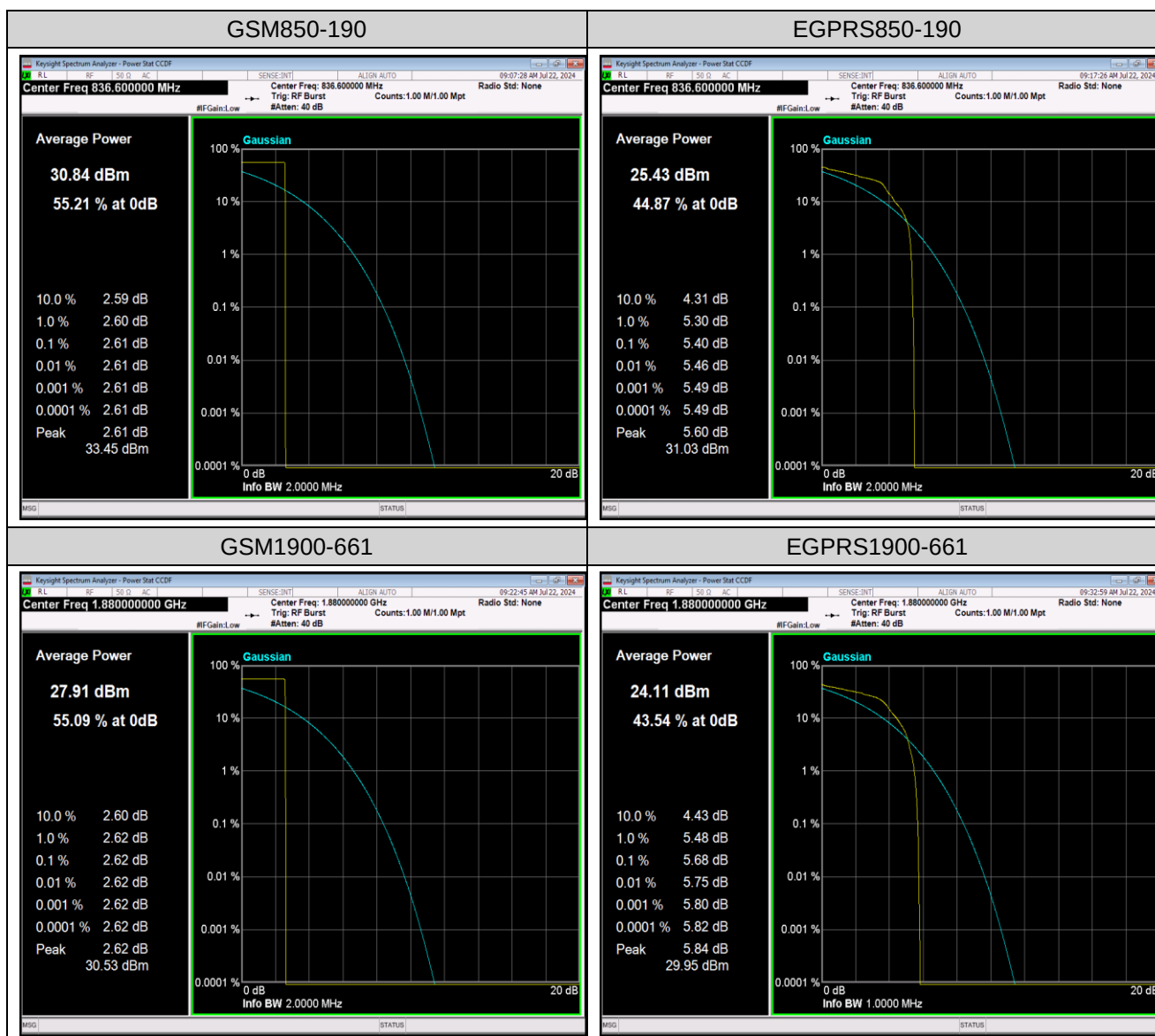
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.4	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.68	13	PASS

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

Test Graphs

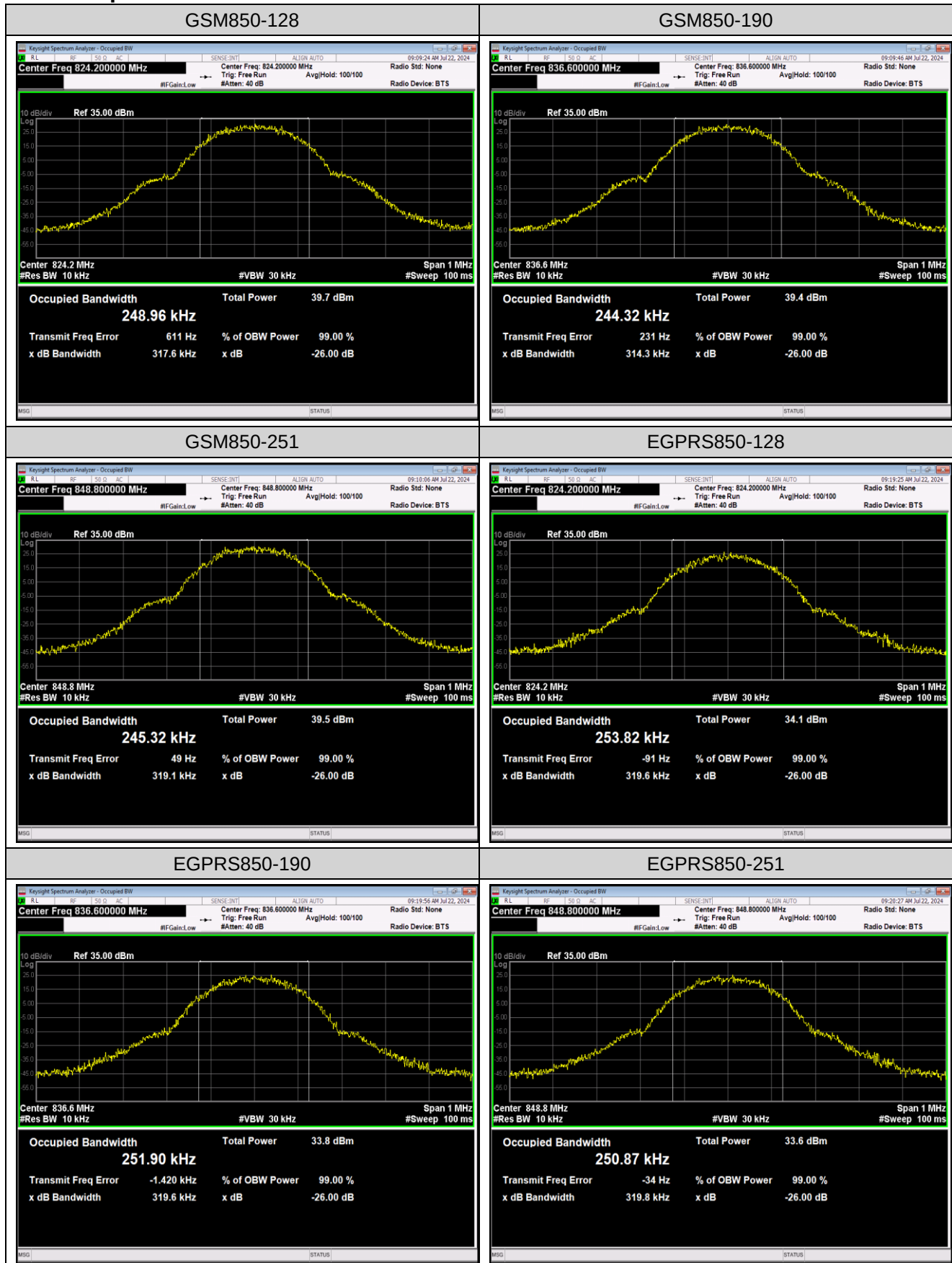


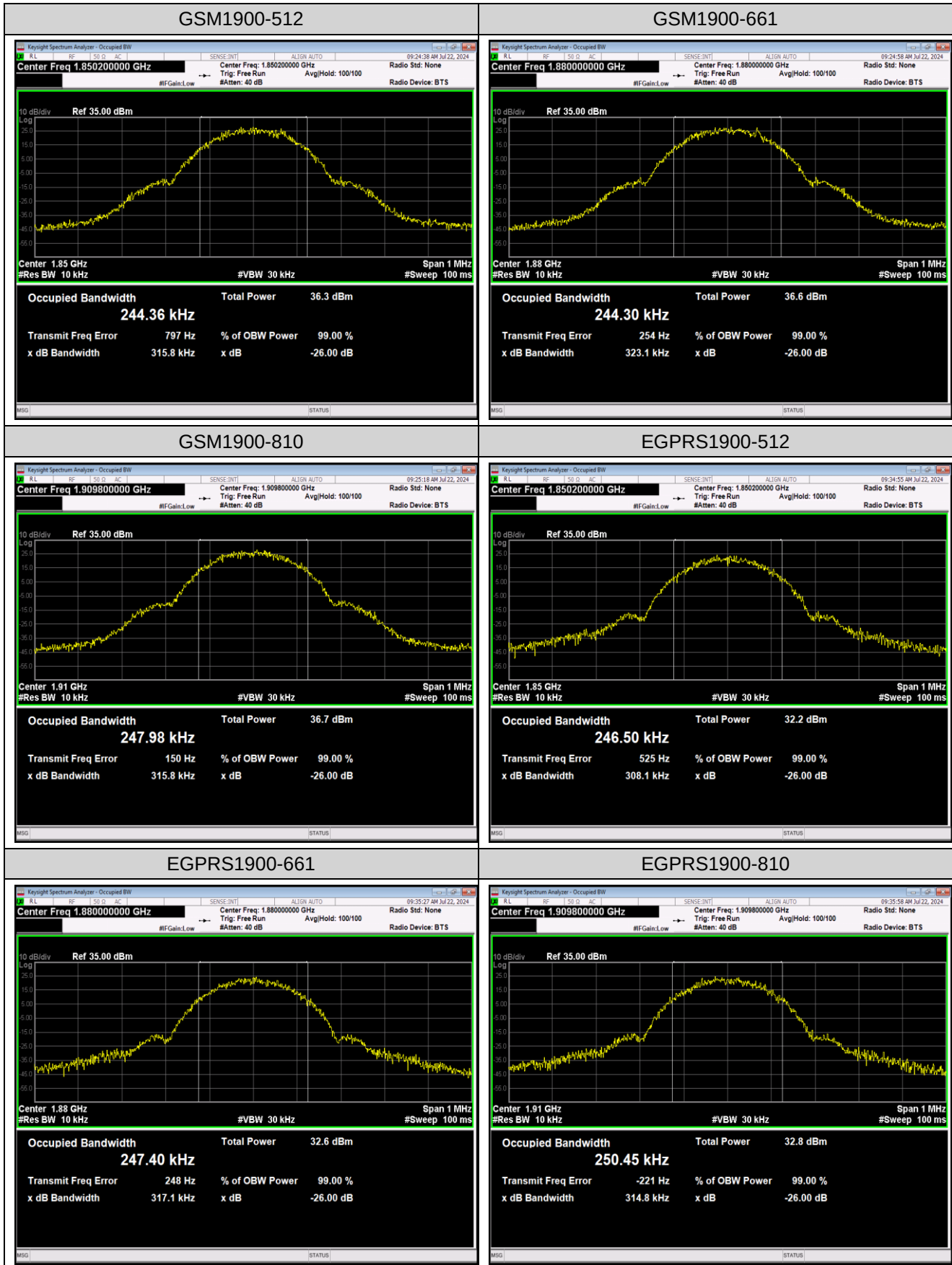
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24896	0.3176	---	PASS
GSM850	190	5	0.24432	0.3143	---	PASS
GSM850	251	5	0.24532	0.3191	---	PASS
EGPRS850	128	8	0.25382	0.3196	---	PASS
EGPRS850	190	8	0.25190	0.3196	---	PASS
EGPRS850	251	8	0.25087	0.3198	---	PASS
GSM1900	512	0	0.24436	0.3158	---	PASS
GSM1900	661	0	0.24430	0.3231	---	PASS
GSM1900	810	0	0.24798	0.3158	---	PASS
EGPRS1900	512	2	0.24650	0.3081	---	PASS
EGPRS1900	661	2	0.24740	0.3171	---	PASS
EGPRS1900	810	2	0.25045	0.3148	---	PASS

Test Graphs



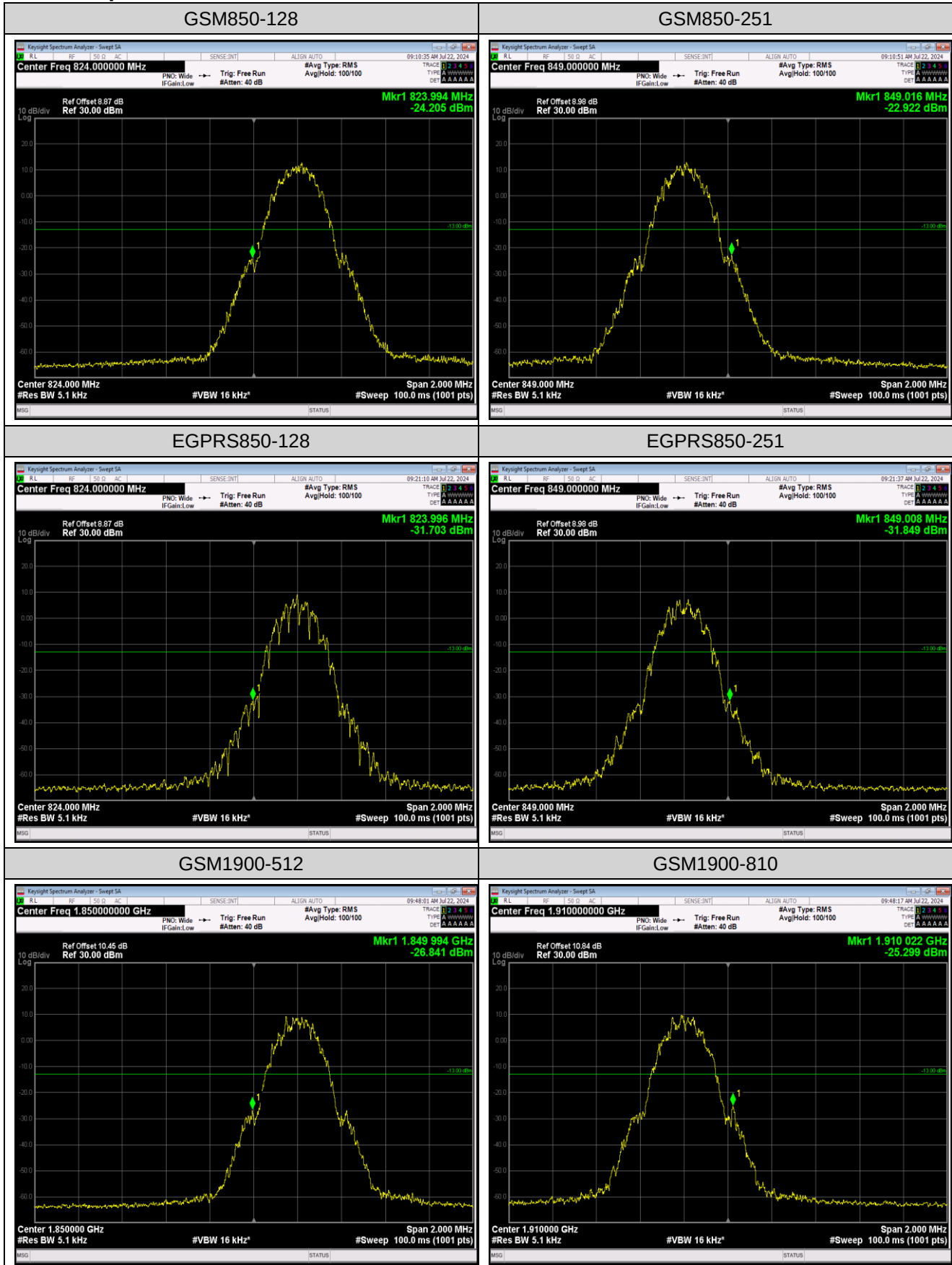


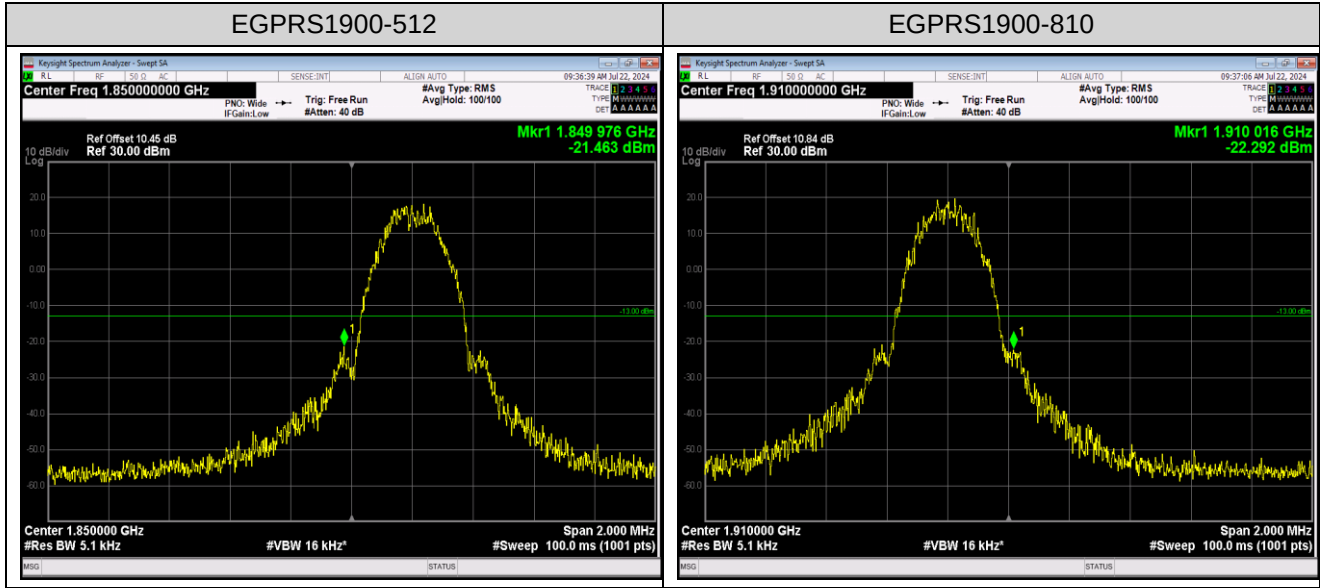
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.99	-24.21	-13	PASS
GSM850	251	5	849.02	-22.92	-13	PASS
EGPRS850	128	8	824.00	-31.70	-13	PASS
EGPRS850	251	8	849.01	-31.85	-13	PASS
GSM1900	512	0	1849.99	-26.84	-13	PASS
GSM1900	810	0	1910.02	-25.30	-13	PASS
EGPRS1900	512	2	1849.98	-21.46	-13	PASS
EGPRS1900	810	2	1910.02	-22.29	-13	PASS

Test Graphs





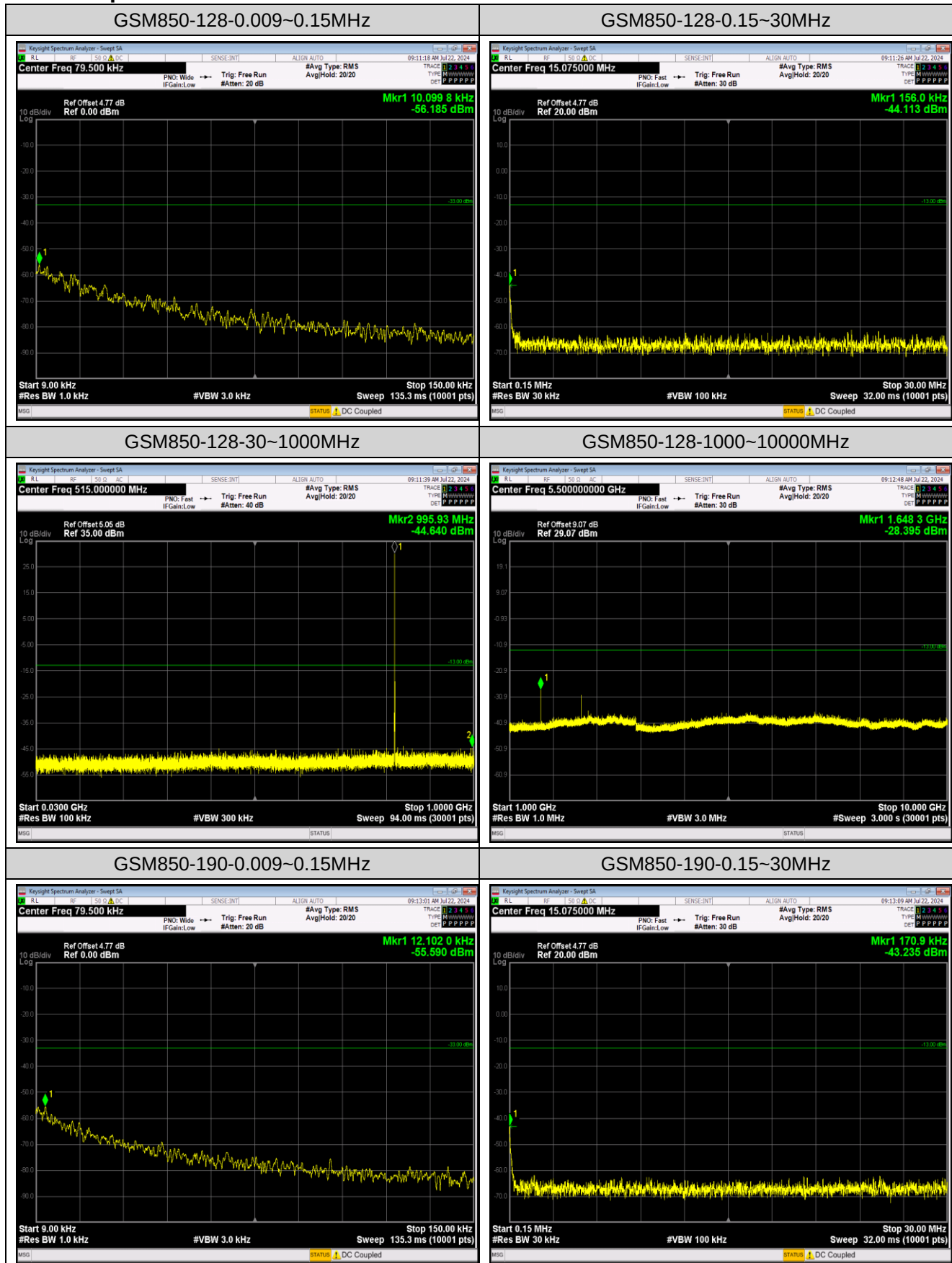
Appendix E: Conducted Spurious Emission

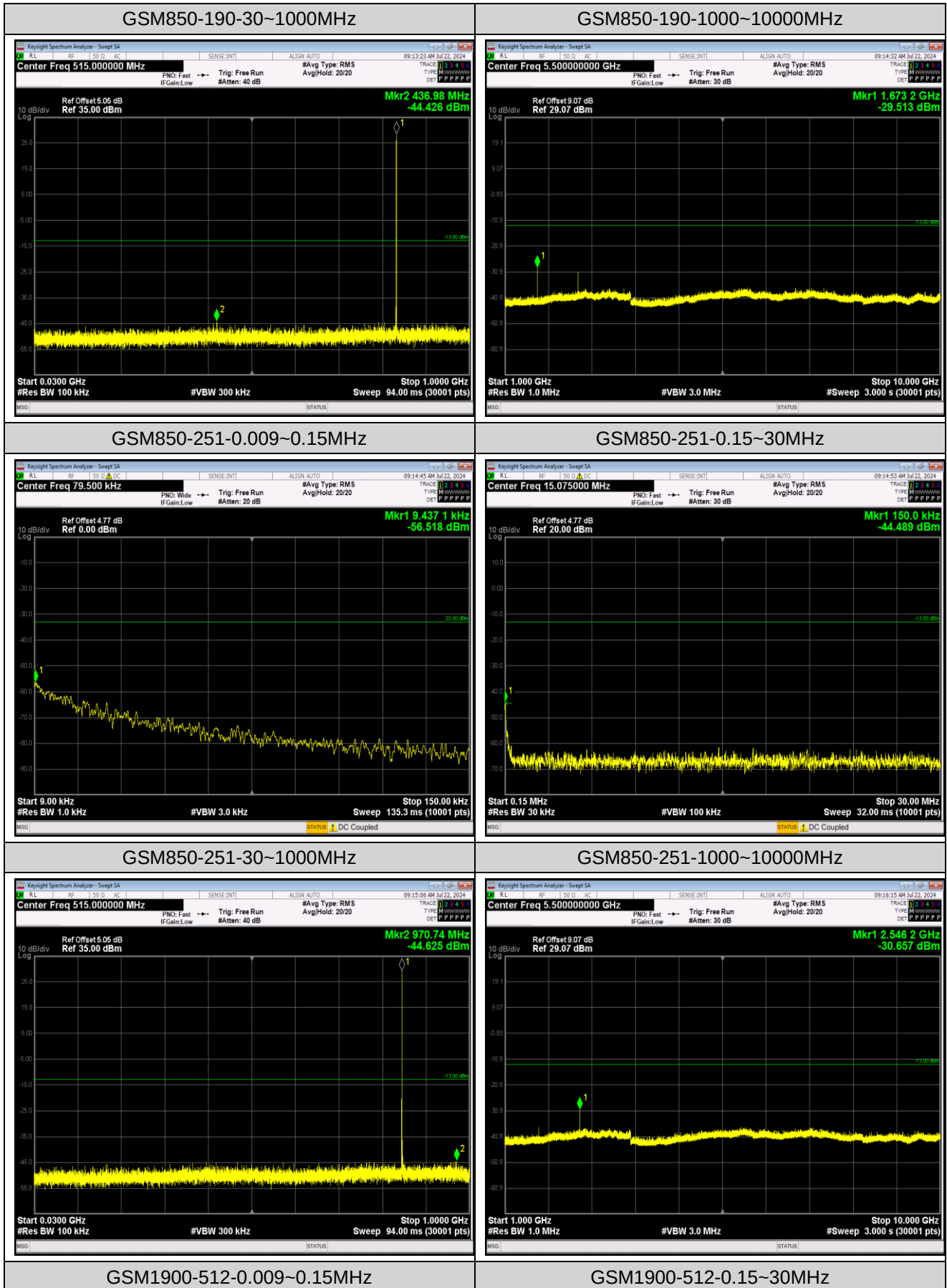
Test Result

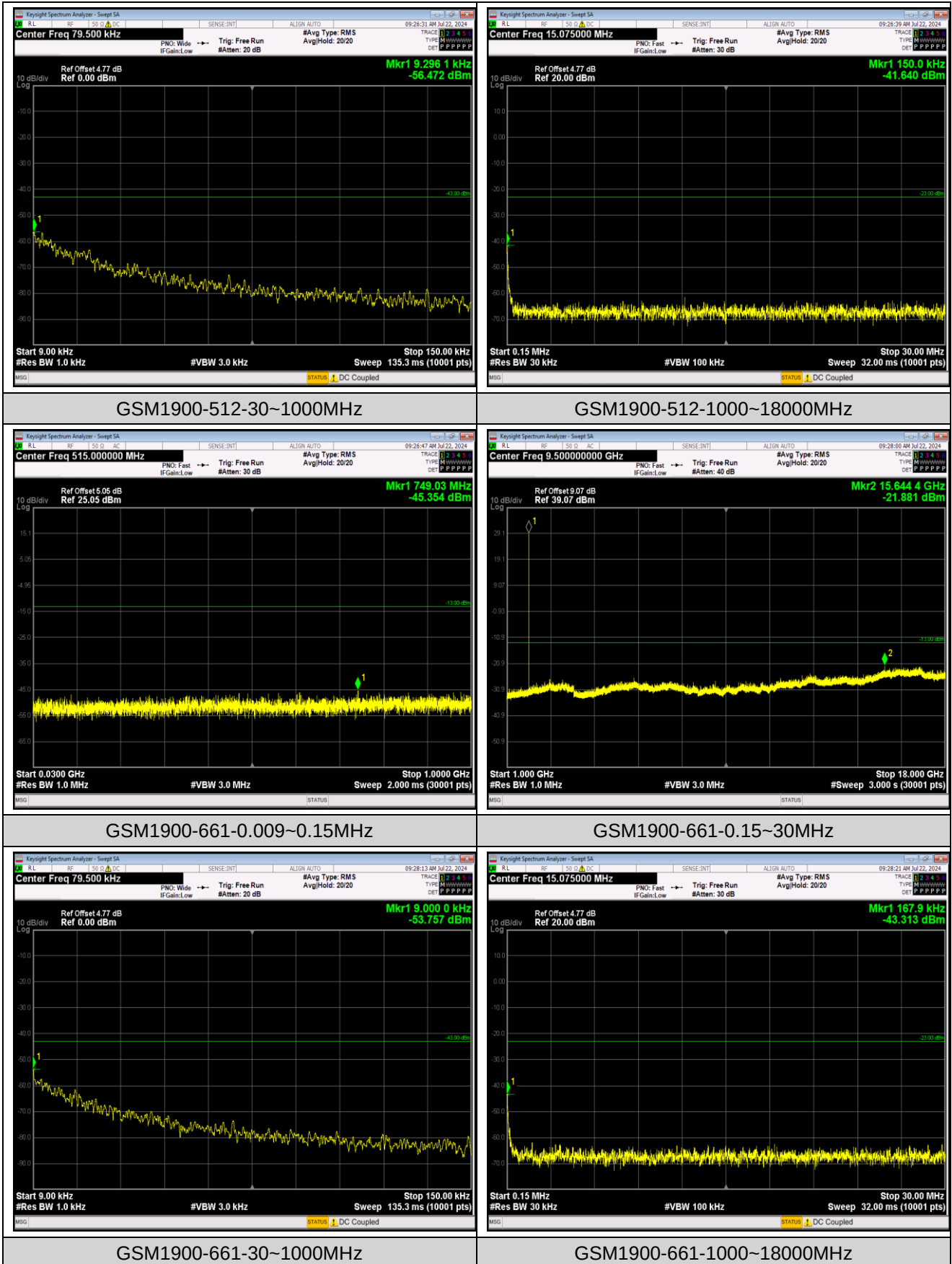
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-56.19	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-44.11	-13	PASS
GSM850	128	5	30~1000MHz	995.93	-44.64	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.4	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-55.59	-33	PASS
GSM850	190	5	0.15~30MHz	0.17	-43.24	-13	PASS
GSM850	190	5	30~1000MHz	436.98	-44.43	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.51	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-56.52	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-44.49	-13	PASS
GSM850	251	5	30~1000MHz	970.74	-44.63	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-30.66	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.47	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-41.64	-23	PASS
GSM1900	512	0	30~1000MHz	749.03	-45.35	-13	PASS
GSM1900	512	0	1000~18000MHz	15644.37	-21.88	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-53.76	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-43.31	-23	PASS
GSM1900	661	0	30~1000MHz	724.33	-45.57	-13	PASS
GSM1900	661	0	1000~18000MHz	17036.1	-22.15	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.6	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.96	-23	PASS
GSM1900	810	0	30~1000MHz	644.46	-45.71	-13	PASS
GSM1900	810	0	1000~18000MHz	16339.1	-22.16	-13	PASS

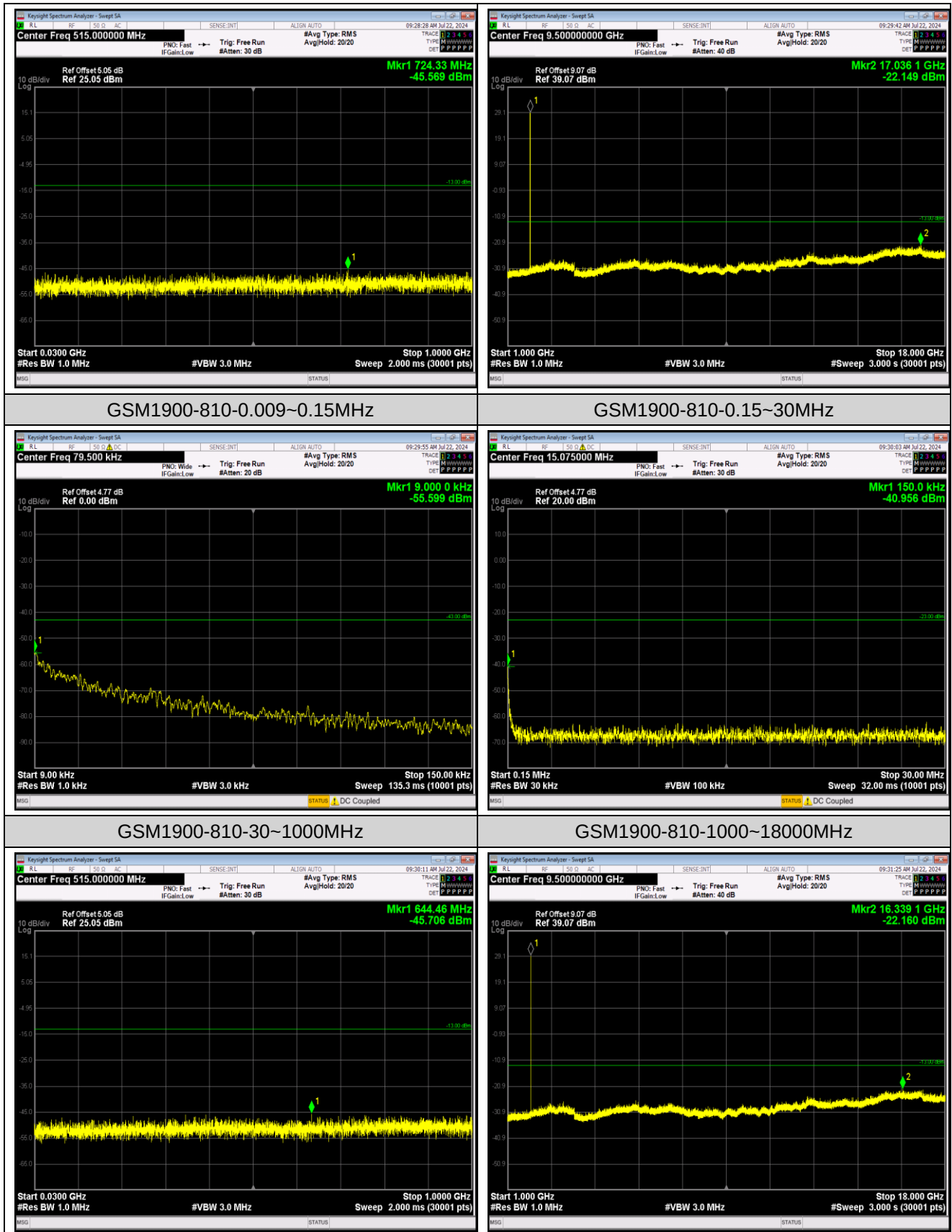
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	-3.42	-0.004088	±2.5	Pass
	-20	-3.29	-0.003933		
	-10	-3.20	-0.003825		
	0	-2.03	-0.002426		
	10	-0.39	-0.000466		
	20	-1.13	-0.001351		
	30	-1.74	-0.002080		
	40	-0.58	-0.000693		
	50	0.29	0.000347		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	-6.36	-0.007602	±2.5	Pass
	3.85	-4.29	-0.005128		
	4.40	-5.04	-0.006024		
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	-3.52	-0.004208	±2.5	Pass
	-20	2.10	0.002510		
	-10	0.26	0.000311		
	0	-3.52	-0.004208		
	10	-1.36	-0.001626		
	20	0.16	0.000191		
	30	3.42	0.004088		
	40	2.10	0.002510		
	50	2.42	0.002893		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	0.36	0.000430	±2.5	Pass
	3.85	0.94	0.001124		
	4.40	2.97	0.003550		
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	2.84	0.001511	Within authorized band for PCS 1900	Pass
	-20	1.03	0.000548		
	-10	5.68	0.003021		
	0	2.58	0.001372		
	10	5.26	0.002798		
	20	7.17	0.003814		
	30	16.56	0.008809		
	40	14.56	0.007745		
	50	11.62	0.006181		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	2.42	0.001287	Within authorized band for PCS 1900	Pass
	3.85	-3.87	-0.002059		
	4.40	-2.49	-0.001324		
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		
3.85	-30	-5.84	-0.003106	Within authorized band for PCS 1900	Pass
	-20	-5.13	-0.002729		
	-10	-4.04	-0.002149		
	0	-3.91	-0.002080		
	10	-1.68	-0.000894		
	20	-4.16	-0.002213		
	30	3.84	0.002043		
	40	-0.03	-0.000016		
	50	-3.33	-0.001771		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	-7.39	-0.003931	Within authorized band for PCS 1900	Pass
	3.85	-12.91	-0.006867		
	4.40	-7.65	-0.004069		
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

