



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	32.95	25.6	38.45	PASS
GSM850	190	5	32.86	25.51	38.45	PASS
GSM850	251	5	32.99	25.64	38.45	PASS
GSM1900	512	0	29.12	25.22	33.00	PASS
GSM1900	661	0	29.22	25.32	33.00	PASS
GSM1900	810	0	29.02	25.12	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.97	25.62	38.45	PASS
GPRS850	128	5	2	30.82	23.47	38.45	PASS
GPRS850	128	5	3	29.24	21.89	38.45	PASS
GPRS850	128	5	4	27.11	19.76	38.45	PASS
GPRS850	190	5	1	32.87	25.52	38.45	PASS
GPRS850	190	5	2	30.77	23.42	38.45	PASS
GPRS850	190	5	3	29.22	21.87	38.45	PASS
GPRS850	190	5	4	27.13	19.78	38.45	PASS
GPRS850	251	5	1	32.99	25.64	38.45	PASS
GPRS850	251	5	2	30.91	23.56	38.45	PASS
GPRS850	251	5	3	29.36	22.01	38.45	PASS
GPRS850	251	5	4	27.27	19.92	38.45	PASS
GPRS1900	512	0	1	29.18	25.28	33.00	PASS
GPRS1900	512	0	2	27.06	23.16	33.00	PASS
GPRS1900	512	0	3	25.38	21.48	33.00	PASS
GPRS1900	512	0	4	23.37	19.47	33.00	PASS
GPRS1900	661	0	1	29.25	25.35	33.00	PASS
GPRS1900	661	0	2	27.20	23.3	33.00	PASS
GPRS1900	661	0	3	25.56	21.66	33.00	PASS
GPRS1900	661	0	4	23.58	19.68	33.00	PASS
GPRS1900	810	0	1	29.01	25.11	33.00	PASS
GPRS1900	810	0	2	27.06	23.16	33.00	PASS
GPRS1900	810	0	3	25.49	21.59	33.00	PASS
GPRS1900	810	0	4	23.54	19.64	33.00	PASS



Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.68	18.33	38.45	PASS
EGPRS850	128	8	2	24.22	16.87	38.45	PASS
EGPRS850	128	8	3	22.18	14.83	38.45	PASS
EGPRS850	128	8	4	19.79	12.44	38.45	PASS
EGPRS850	190	8	1	25.93	18.58	38.45	PASS
EGPRS850	190	8	2	24.65	17.3	38.45	PASS
EGPRS850	190	8	3	22.46	15.11	38.45	PASS
EGPRS850	190	8	4	20.03	12.68	38.45	PASS
EGPRS850	251	8	1	25.57	18.22	38.45	PASS
EGPRS850	251	8	2	24.09	16.74	38.45	PASS
EGPRS850	251	8	3	22.11	14.76	38.45	PASS
EGPRS850	251	8	4	19.80	12.45	38.45	PASS
EGPRS1900	512	2	1	25.02	21.12	33.00	PASS
EGPRS1900	512	2	2	23.15	19.25	33.00	PASS
EGPRS1900	512	2	3	20.99	17.09	33.00	PASS
EGPRS1900	512	2	4	18.91	15.01	33.00	PASS
EGPRS1900	661	2	1	25.29	21.39	33.00	PASS
EGPRS1900	661	2	2	23.75	19.85	33.00	PASS
EGPRS1900	661	2	3	21.38	17.48	33.00	PASS
EGPRS1900	661	2	4	19.20	15.3	33.00	PASS
EGPRS1900	810	2	1	25.24	21.34	33.00	PASS
EGPRS1900	810	2	2	23.60	19.7	33.00	PASS
EGPRS1900	810	2	3	21.32	17.42	33.00	PASS
EGPRS1900	810	2	4	19.18	15.28	33.00	PASS

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

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



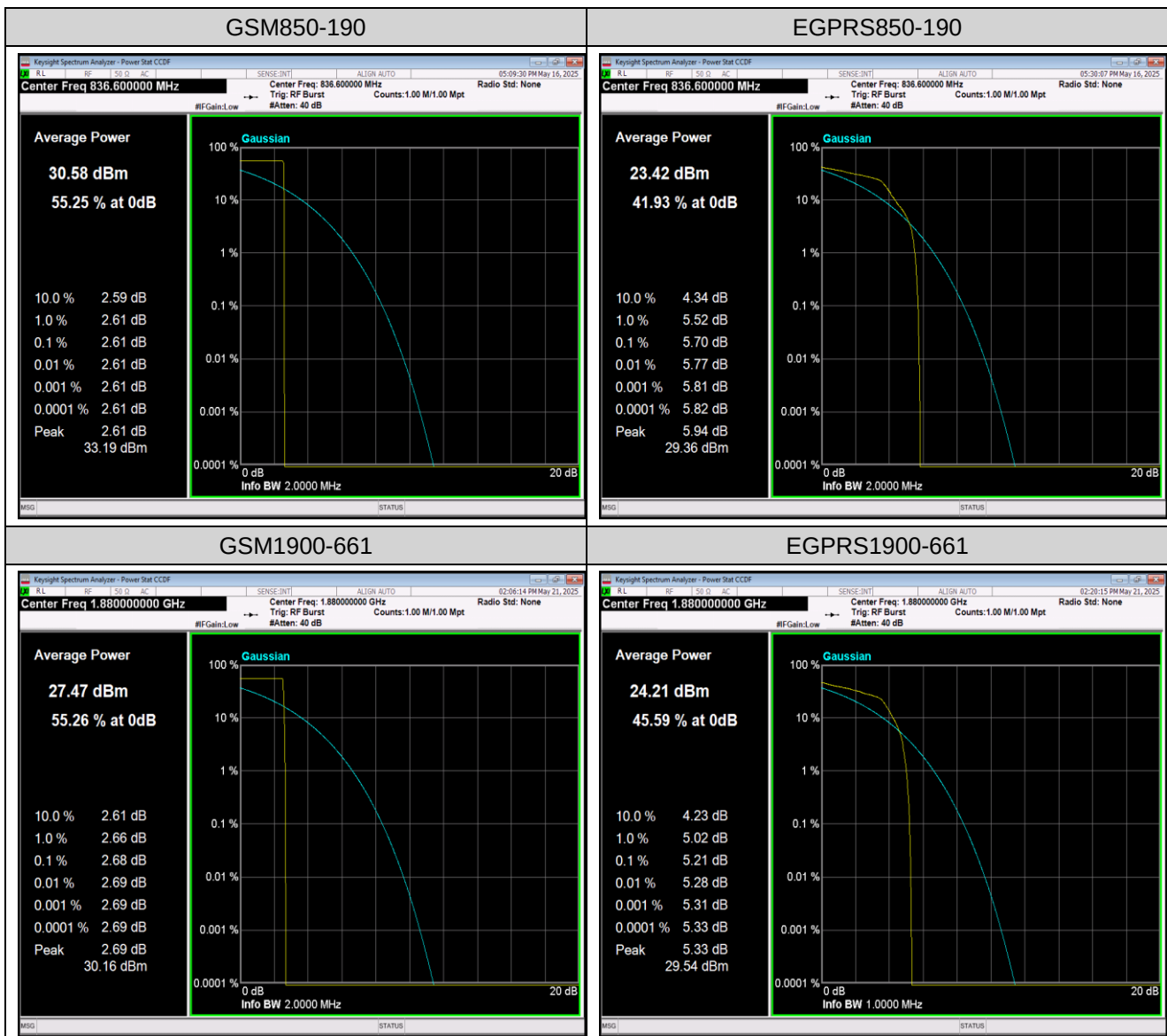
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.7	13	PASS
GSM1900	661	0	2.68	13	PASS
EGPRS1900	661	2	5.21	13	PASS

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

Test Graphs





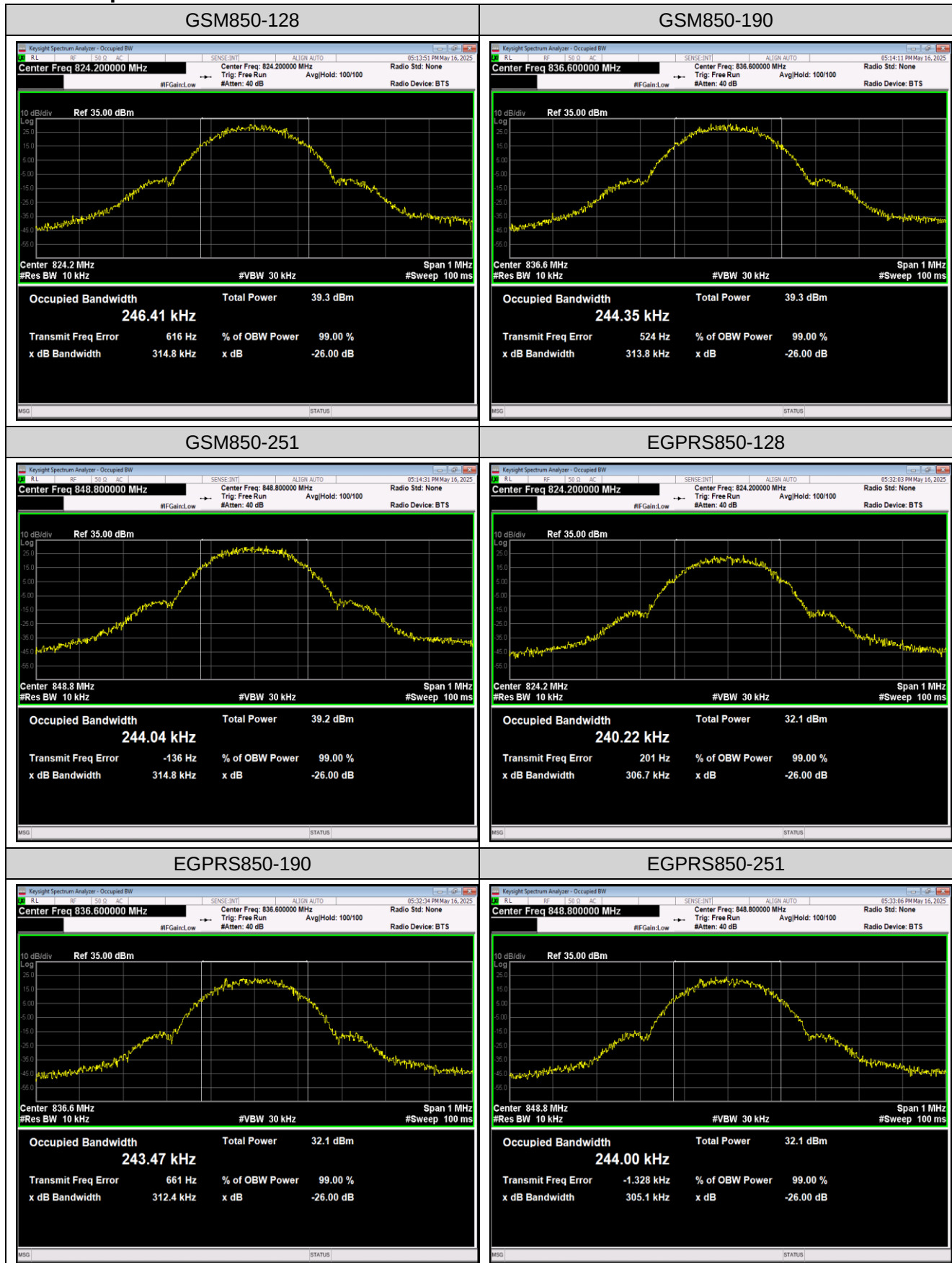
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24641	0.3148	---	PASS
GSM850	190	5	0.24435	0.3138	---	PASS
GSM850	251	5	0.24404	0.3148	---	PASS
EGPRS850	128	8	0.24022	0.3067	---	PASS
EGPRS850	190	8	0.24347	0.3124	---	PASS
EGPRS850	251	8	0.24400	0.3051	---	PASS
GSM1900	512	0	0.24538	0.3151	---	PASS
GSM1900	661	0	0.24433	0.3143	---	PASS
GSM1900	810	0	0.24365	0.3119	---	PASS
EGPRS1900	512	2	0.25192	0.3252	---	PASS
EGPRS1900	661	2	0.25367	0.3181	---	PASS
EGPRS1900	810	2	0.24908	0.3117	---	PASS

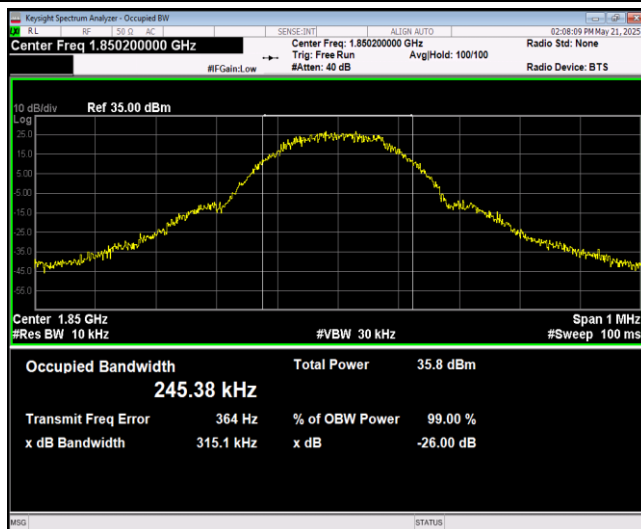


Test Graphs

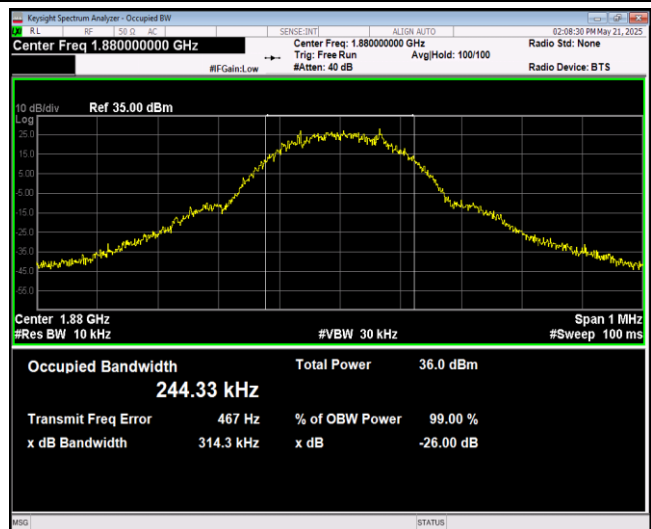




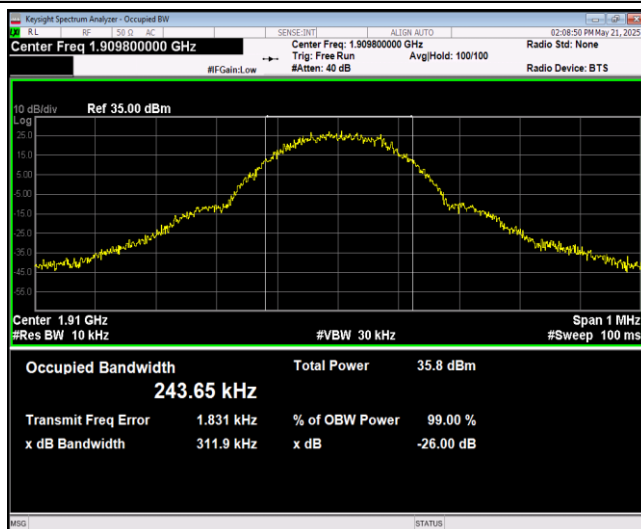
GSM1900-512



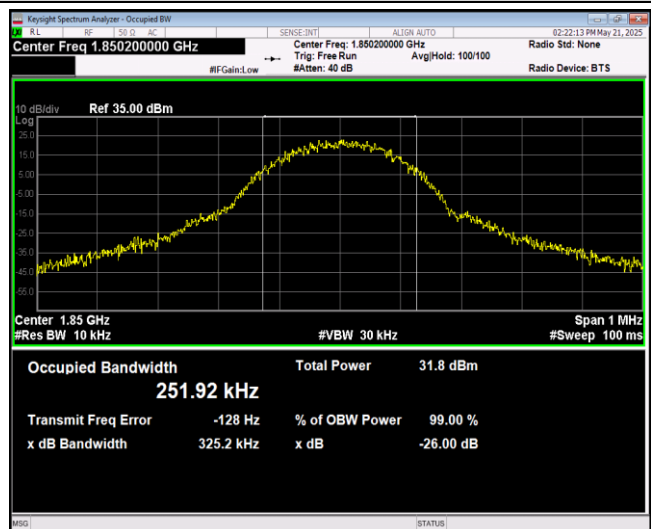
GSM1900-661



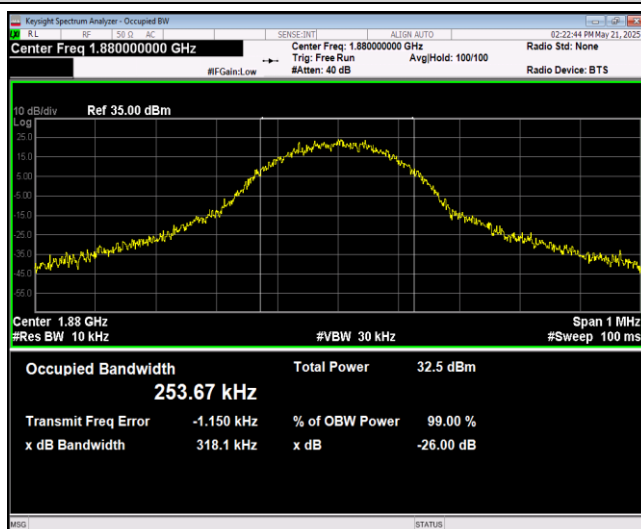
GSM1900-810



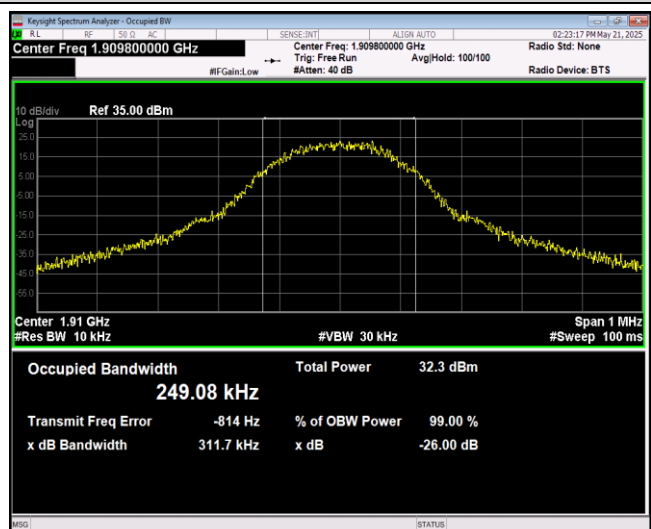
EGPRS1900-512



EGPRS1900-661



EGPRS1900-810





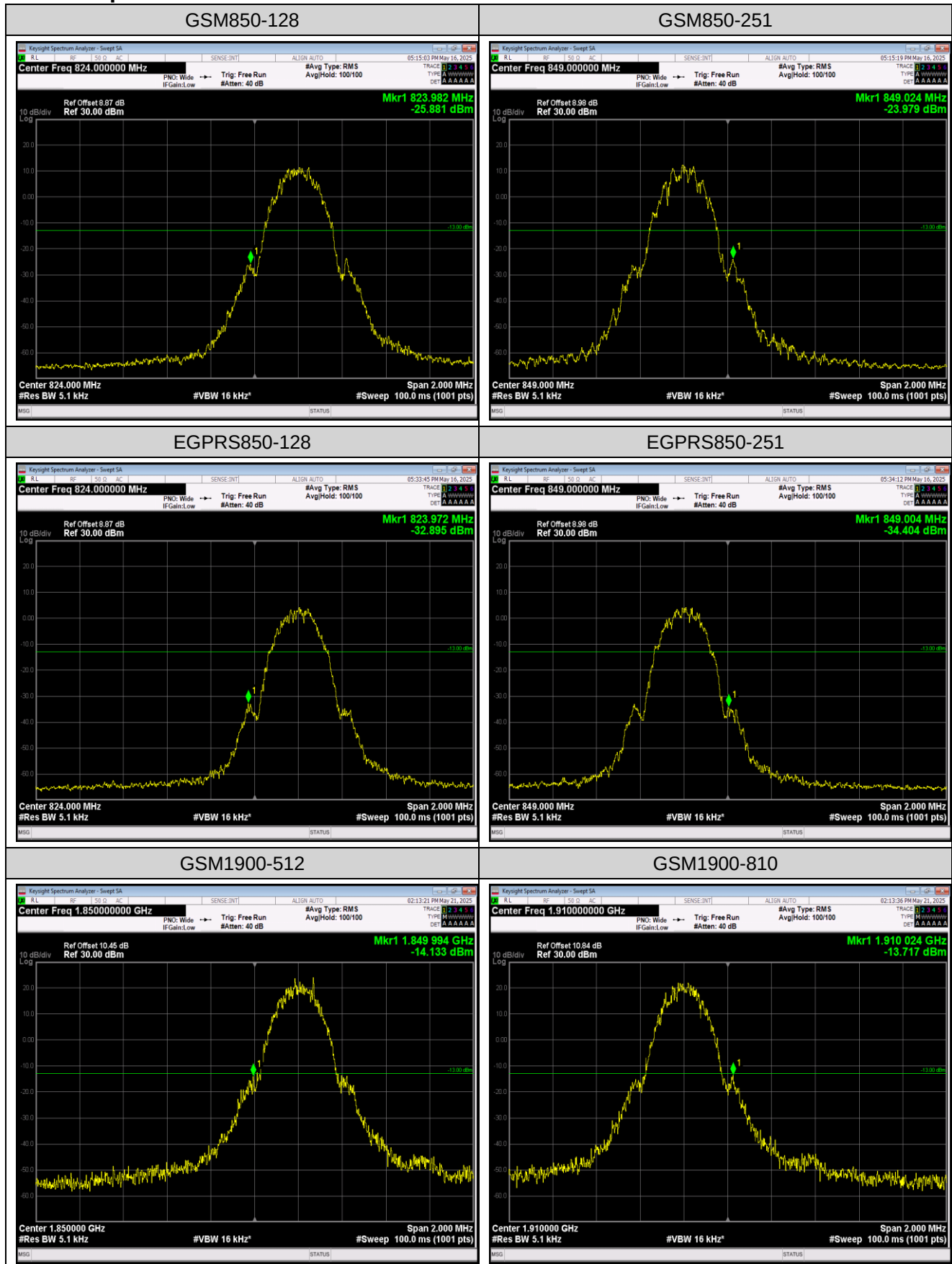
Appendix D: Band Edge

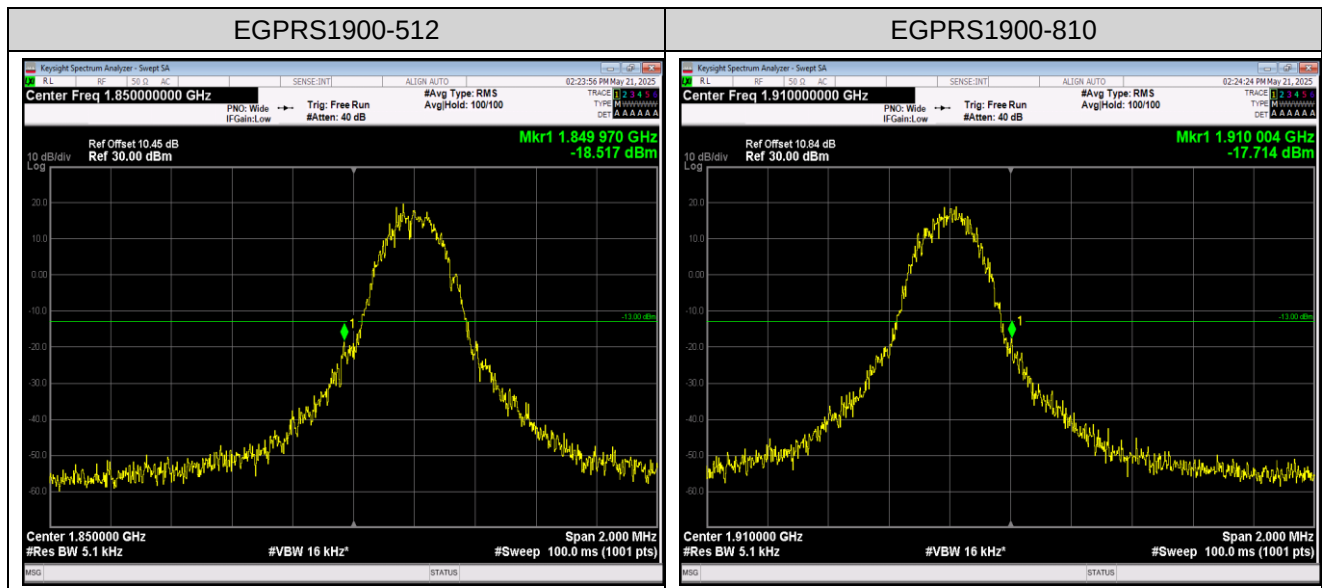
Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-25.88	-13	PASS
GSM850	251	5	849.02	-23.98	-13	PASS
EGPRS850	128	8	823.97	-32.89	-13	PASS
EGPRS850	251	8	849.00	-34.40	-13	PASS
GSM1900	512	0	1849.99	-14.13	-13	PASS
GSM1900	810	0	1910.02	-13.72	-13	PASS
EGPRS1900	512	2	1849.97	-18.52	-13	PASS
EGPRS1900	810	2	1910.00	-17.71	-13	PASS



Test Graphs







Appendix E: Conducted Spurious Emission

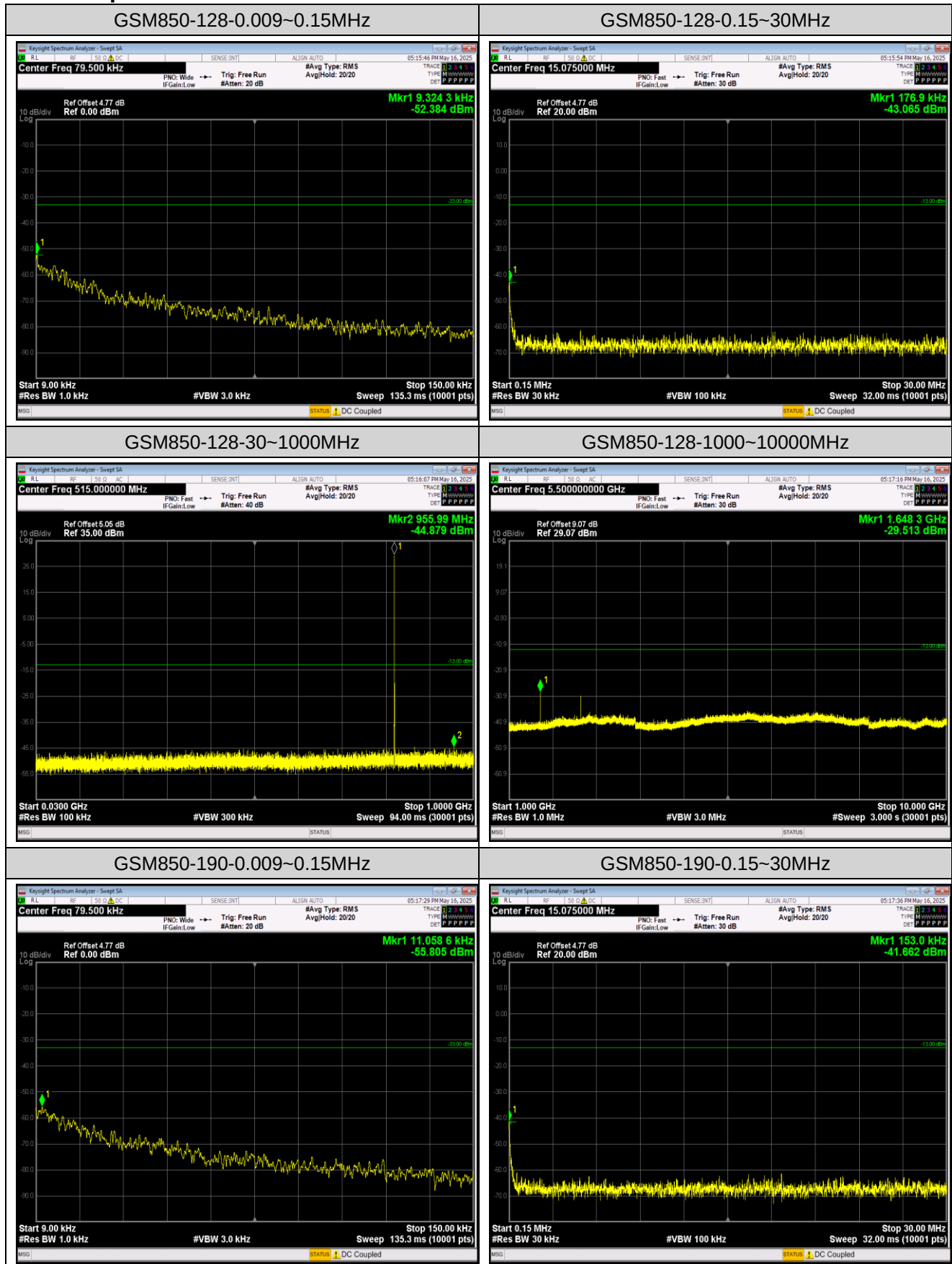
Test Result

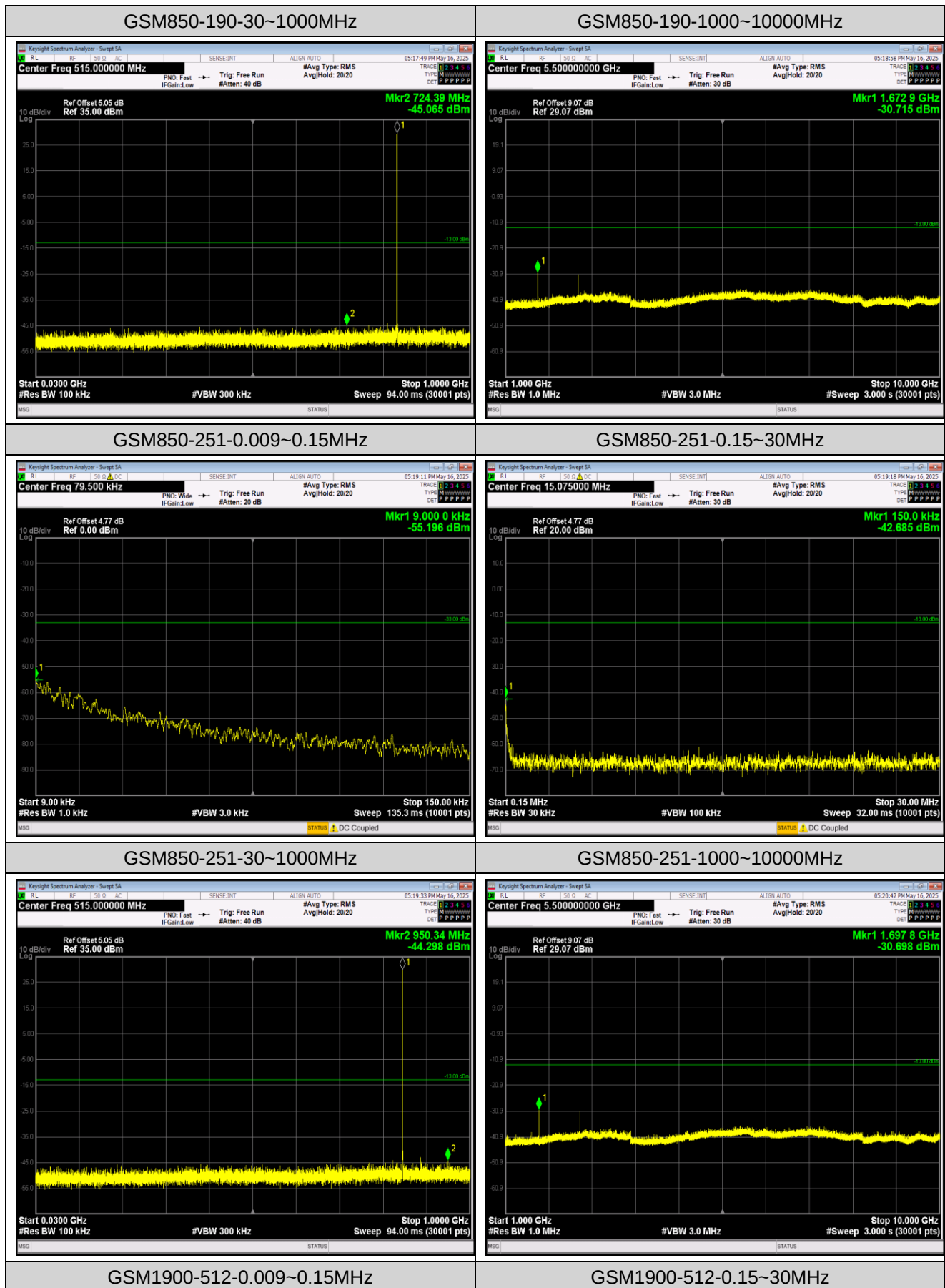
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-52.38	-33	PASS
GSM850	128	5	0.15~30MHz	0.18	-43.07	-13	PASS
GSM850	128	5	30~1000MHz	955.99	-44.88	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-29.51	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-55.81	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-41.66	-13	PASS
GSM850	190	5	30~1000MHz	724.39	-45.07	-13	PASS
GSM850	190	5	1000~10000MHz	1672.9	-30.72	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.2	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-42.69	-13	PASS
GSM850	251	5	30~1000MHz	950.34	-44.3	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.7	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-52.51	-43	PASS
GSM1900	512	0	0.15~30MHz	0.17	-43.23	-23	PASS
GSM1900	512	0	30~1000MHz	385.41	-45.36	-13	PASS
GSM1900	512	0	1000~18000MHz	16671.17	-22.12	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.61	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-42.7	-23	PASS
GSM1900	661	0	30~1000MHz	634.12	-45.29	-13	PASS
GSM1900	661	0	1000~18000MHz	16906.33	-22.22	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-54.89	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-41.53	-23	PASS
GSM1900	810	0	30~1000MHz	856.73	-45.75	-13	PASS
GSM1900	810	0	1000~18000MHz	16348.17	-21.83	-13	PASS

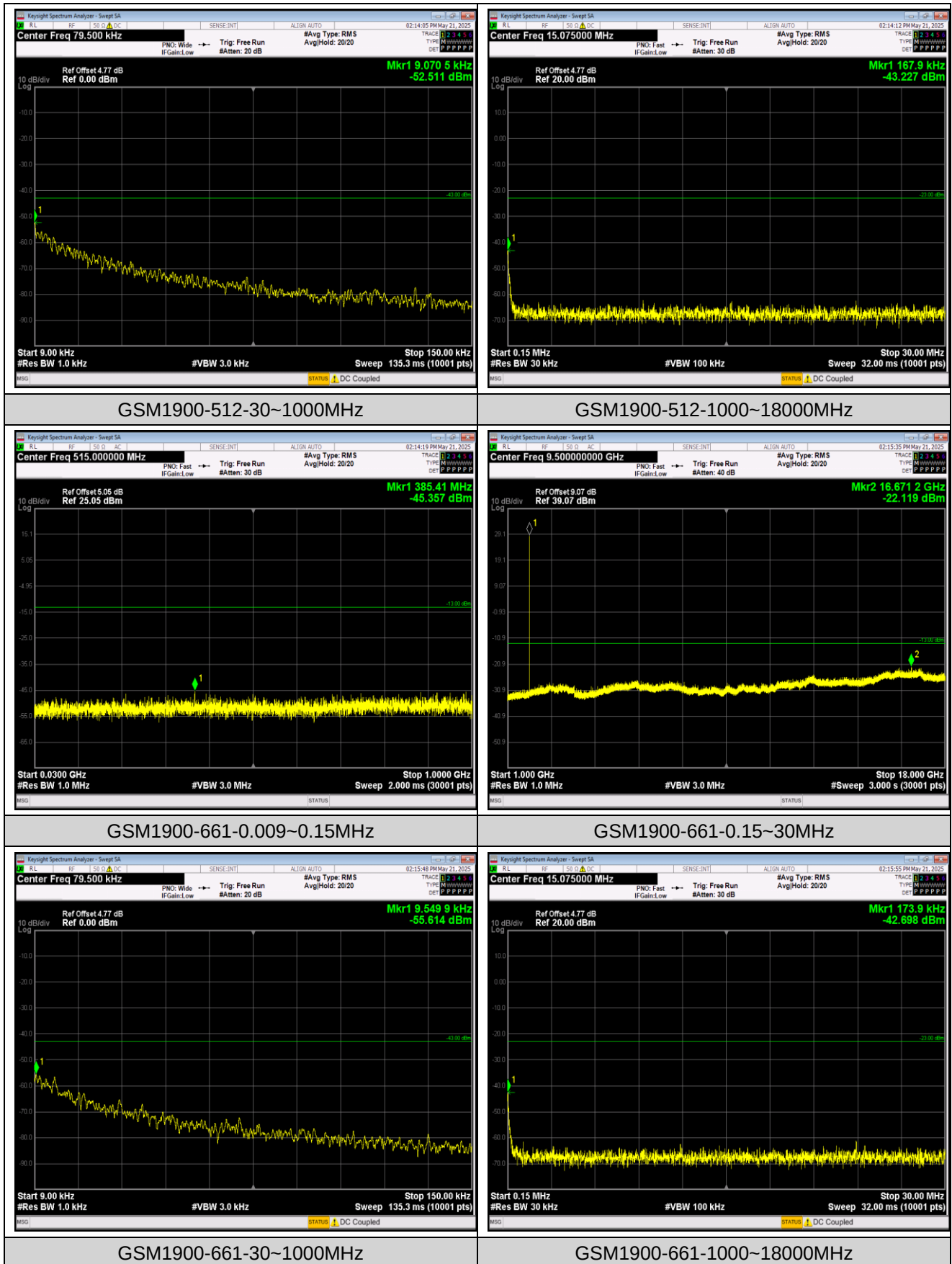
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

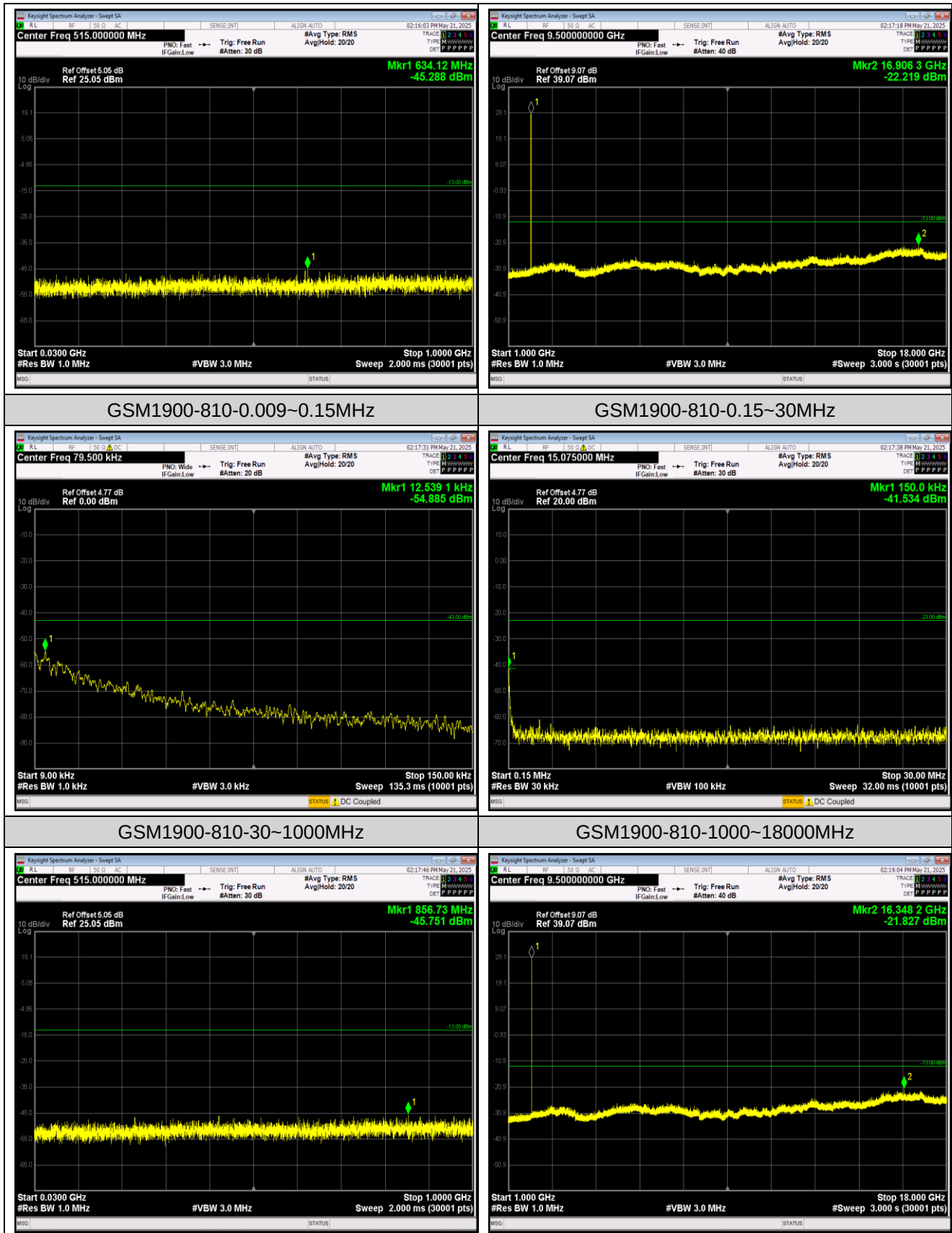


Test Graphs











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	6.49	0.007758	±2.5	Pass
	-20	18.44	0.022042		
	-10	16.53	0.019759		
	0	4.39	0.005247		
	10	6.62	0.007913		
	20	-2.58	-0.003084		
	30	-0.16	-0.000191		
	40	5.88	0.007028		
	50	6.01	0.007184		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	7.68	0.009180	±2.5	Pass
	3.87	-0.26	-0.000311		
	4.45	0.84	0.001004		
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	5.29	0.006323	±2.5	Pass
	-20	6.94	0.008295		
	-10	9.91	0.011846		
	0	5.52	0.006598		
	10	6.17	0.007375		
	20	6.04	0.007220		
	30	0.77	0.000920		
	40	3.00	0.003586		
	50	2.91	0.003478		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	4.39	0.005247	±2.5	Pass
	3.87	3.07	0.003670		
	4.45	7.68	0.009180		
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	-0.65	-0.000346	Within authorized band for PCS 1900	Pass
	-20	-2.68	-0.001426		
	-10	5.23	0.002782		
	0	-4.16	-0.002213		
	10	-12.04	-0.006404		
	20	2.78	0.001479		
	30	-6.88	-0.003660		
	40	-3.81	-0.002027		
	50	-6.94	-0.003691		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-5.26	-0.002798	Within authorized band for PCS 1900	Pass
	3.87	-3.16	-0.001681		
	4.45	1.00	0.000532		
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	-4.68	-0.002489	Within authorized band for PCS 1900	Pass
	-20	-12.75	-0.006782		
	-10	-13.30	-0.007074		
	0	-2.65	-0.001410		
	10	-15.05	-0.008005		
	20	-10.43	-0.005548		
	30	-13.24	-0.007043		
	40	-8.65	-0.004601		
	50	-15.53	-0.008261		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-4.58	-0.002436	Within authorized band for PCS 1900	Pass
	3.87	-3.87	-0.002059		
	4.45	2.23	0.001186		
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

