

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	33.11	29.46	38.45	PASS
GSM850	190	5	33.29	29.64	38.45	PASS
GSM850	251	5	33.23	29.58	38.45	PASS
GSM1900	512	0	28.55	28.05	33.00	PASS
GSM1900	661	0	29.06	28.56	33.00	PASS
GSM1900	810	0	29.22	28.72	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.15	29.5	38.45	PASS
GPRS850	128	5	2	32.26	28.61	38.45	PASS
GPRS850	128	5	3	30.38	26.73	38.45	PASS
GPRS850	128	5	4	29.33	25.68	38.45	PASS
GPRS850	190	5	1	33.31	29.66	38.45	PASS
GPRS850	190	5	2	32.45	28.8	38.45	PASS
GPRS850	190	5	3	30.57	26.92	38.45	PASS
GPRS850	190	5	4	29.52	25.87	38.45	PASS
GPRS850	251	5	1	33.24	29.59	38.45	PASS
GPRS850	251	5	2	32.38	28.73	38.45	PASS
GPRS850	251	5	3	30.50	26.85	38.45	PASS
GPRS850	251	5	4	29.45	25.8	38.45	PASS
GPRS1900	512	0	1	28.53	28.03	33.00	PASS
GPRS1900	512	0	2	27.56	27.06	33.00	PASS
GPRS1900	512	0	3	25.95	25.45	33.00	PASS
GPRS1900	512	0	4	25.39	24.89	33.00	PASS
GPRS1900	661	0	1	29.03	28.53	33.00	PASS
GPRS1900	661	0	2	28.04	27.54	33.00	PASS
GPRS1900	661	0	3	26.41	25.91	33.00	PASS
GPRS1900	661	0	4	25.84	25.34	33.00	PASS
GPRS1900	810	0	1	29.20	28.7	33.00	PASS
GPRS1900	810	0	2	28.20	27.7	33.00	PASS
GPRS1900	810	0	3	26.56	26.06	33.00	PASS
GPRS1900	810	0	4	25.98	25.48	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.78	24.13	38.45	PASS
EGPRS850	128	8	2	26.68	23.03	38.45	PASS
EGPRS850	128	8	3	24.67	21.02	38.45	PASS
EGPRS850	128	8	4	23.62	19.97	38.45	PASS
EGPRS850	190	8	1	27.70	24.05	38.45	PASS
EGPRS850	190	8	2	26.64	22.99	38.45	PASS
EGPRS850	190	8	3	24.61	20.96	38.45	PASS
EGPRS850	190	8	4	23.62	19.97	38.45	PASS
EGPRS850	251	8	1	27.68	24.03	38.45	PASS
EGPRS850	251	8	2	26.53	22.88	38.45	PASS
EGPRS850	251	8	3	24.51	20.86	38.45	PASS
EGPRS850	251	8	4	23.47	19.82	38.45	PASS
EGPRS1900	512	2	1	28.03	27.53	33.00	PASS
EGPRS1900	512	2	2	27.54	27.04	33.00	PASS
EGPRS1900	512	2	3	26.34	25.84	33.00	PASS
EGPRS1900	512	2	4	25.61	25.11	33.00	PASS
EGPRS1900	661	2	1	28.03	27.53	33.00	PASS
EGPRS1900	661	2	2	27.53	27.03	33.00	PASS
EGPRS1900	661	2	3	26.23	25.73	33.00	PASS
EGPRS1900	661	2	4	25.46	24.96	33.00	PASS
EGPRS1900	810	2	1	27.88	27.38	33.00	PASS
EGPRS1900	810	2	2	27.33	26.83	33.00	PASS
EGPRS1900	810	2	3	25.99	25.49	33.00	PASS
EGPRS1900	810	2	4	25.23	24.73	33.00	PASS

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

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

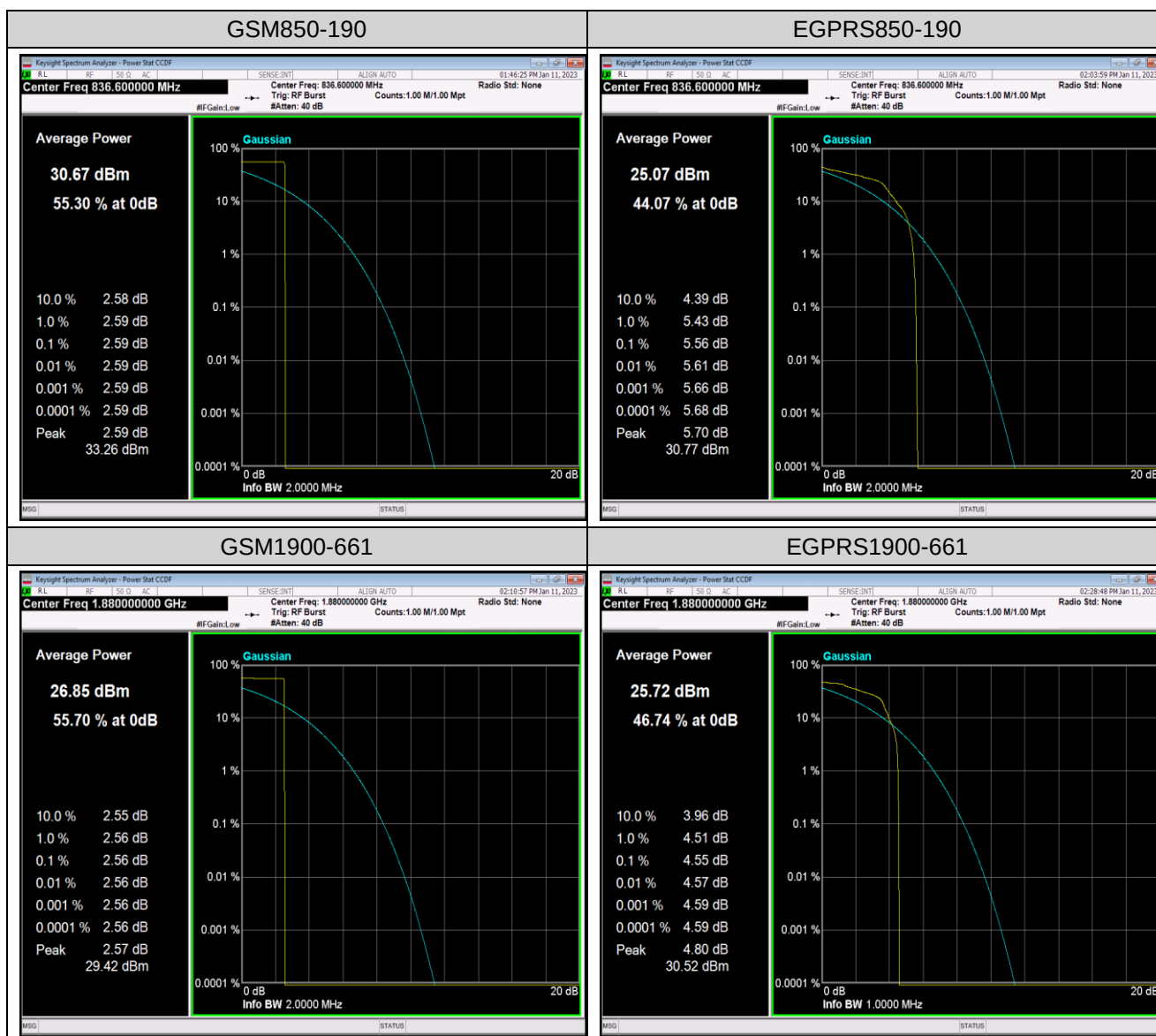
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.59	13	PASS
EGPRS850	190	8	5.56	13	PASS
GSM1900	661	0	2.56	13	PASS
EGPRS1900	661	2	4.55	13	PASS

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

Test Graphs

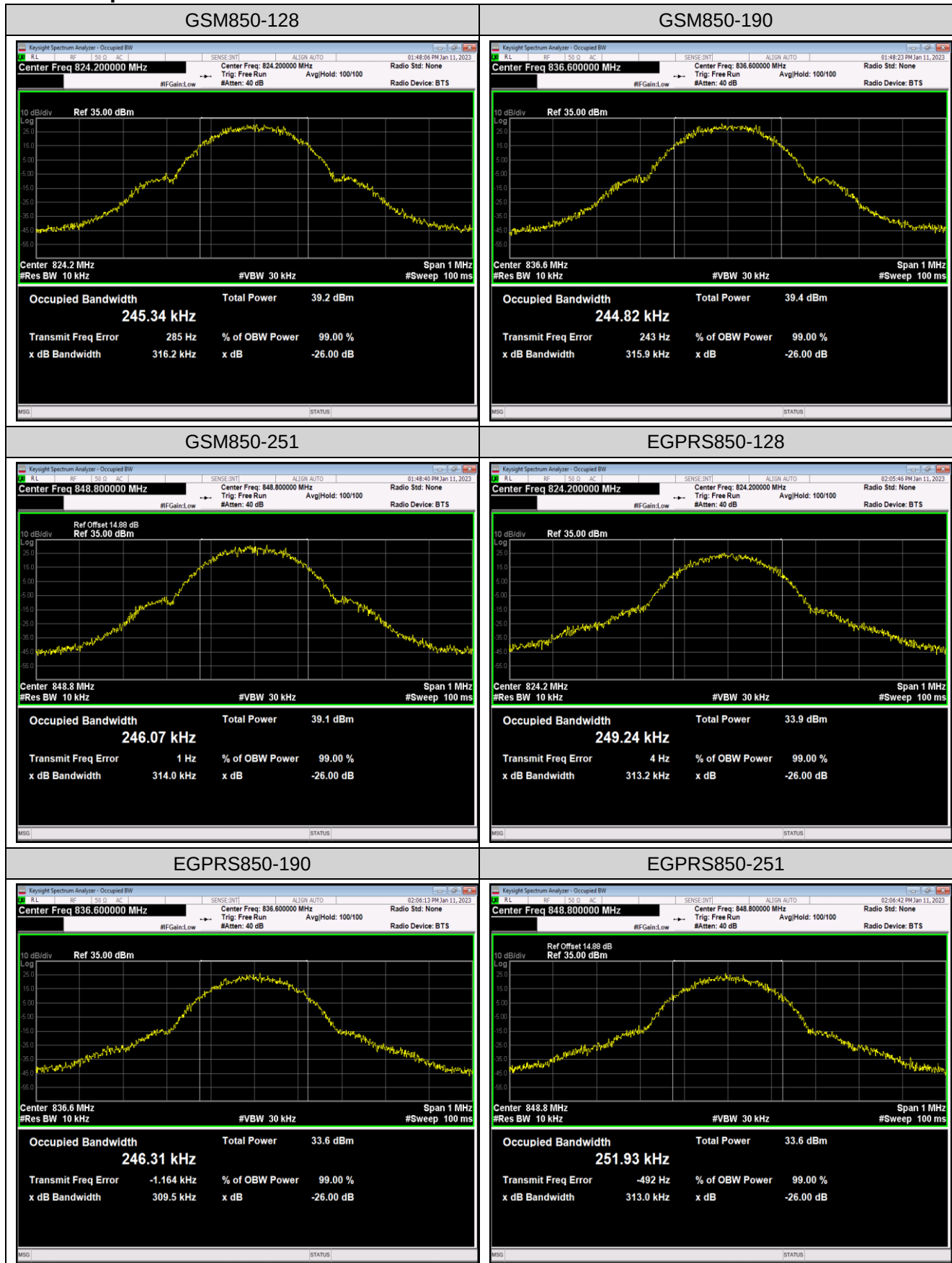


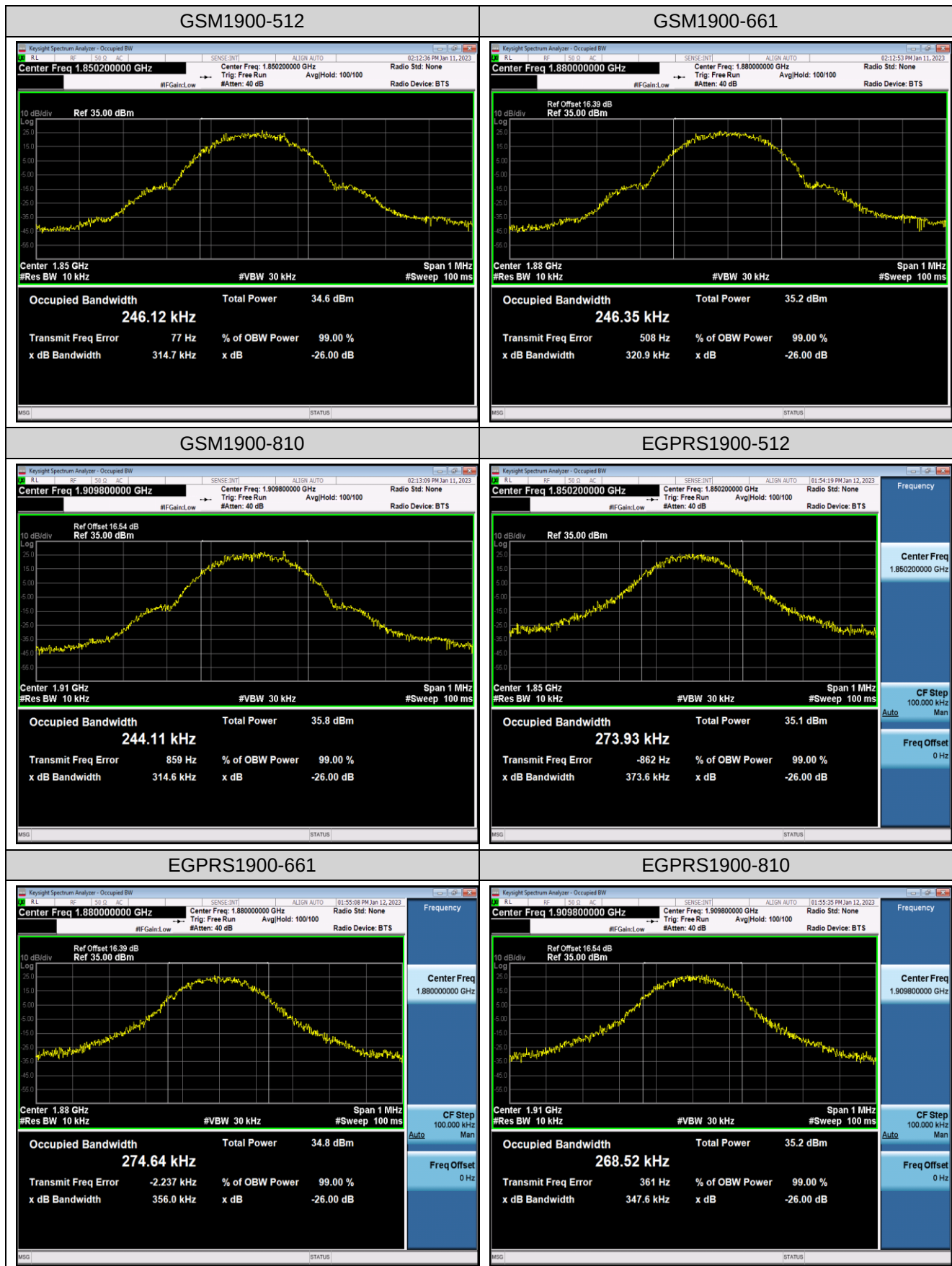
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24534	0.3162	---	PASS
GSM850	190	5	0.24482	0.3159	---	PASS
GSM850	251	5	0.24607	0.3140	---	PASS
EGPRS850	128	8	0.24924	0.3132	---	PASS
EGPRS850	190	8	0.24631	0.3095	---	PASS
EGPRS850	251	8	0.25193	0.3130	---	PASS
GSM1900	512	0	0.24612	0.3147	---	PASS
GSM1900	661	0	0.24635	0.3209	---	PASS
GSM1900	810	0	0.24411	0.3146	---	PASS
EGPRS1900	512	2	0.27393	0.3736	---	PASS
EGPRS1900	661	2	0.27464	0.3560	---	PASS
EGPRS1900	810	2	0.26852	0.3476	---	PASS

Test Graphs



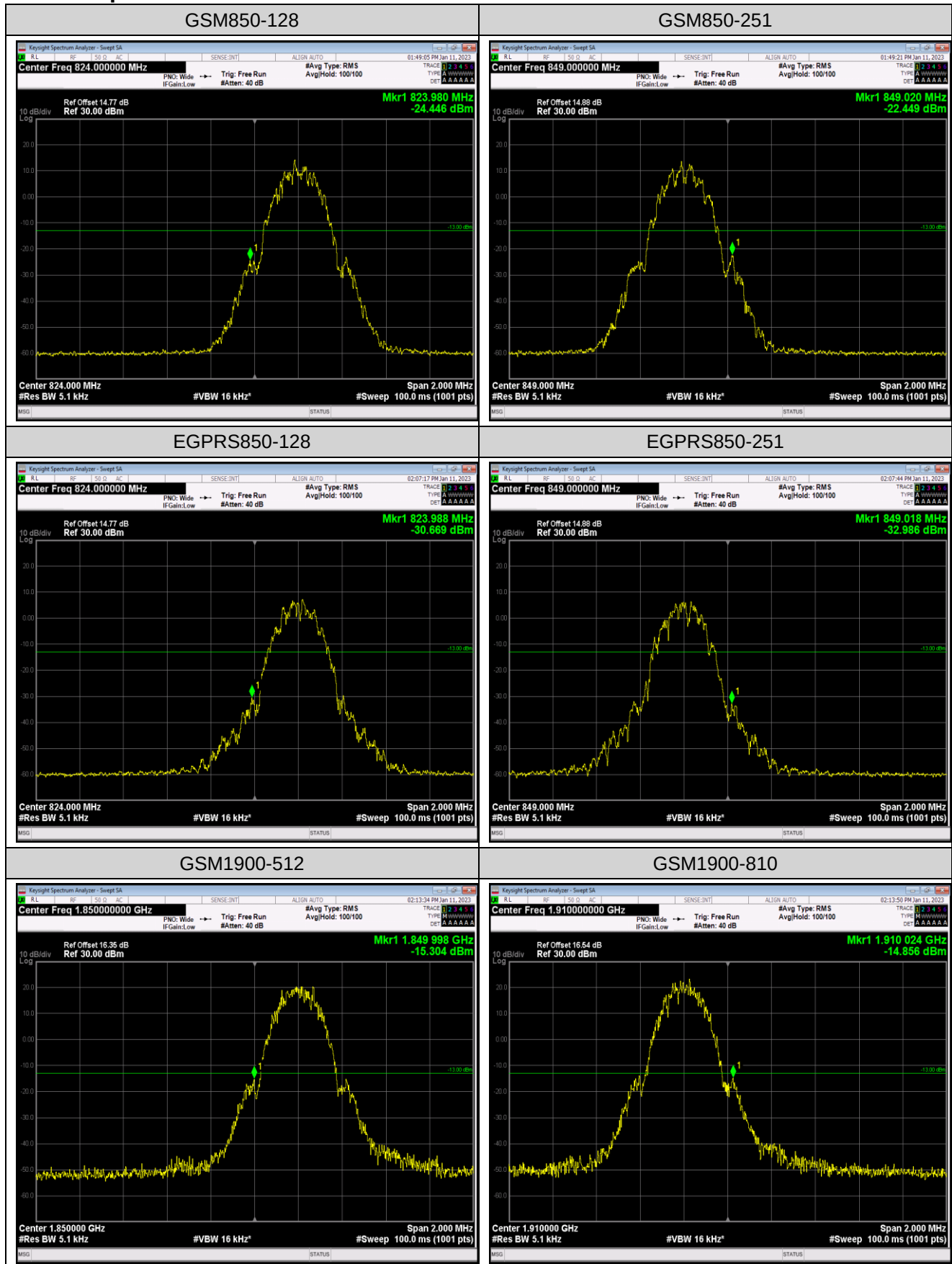


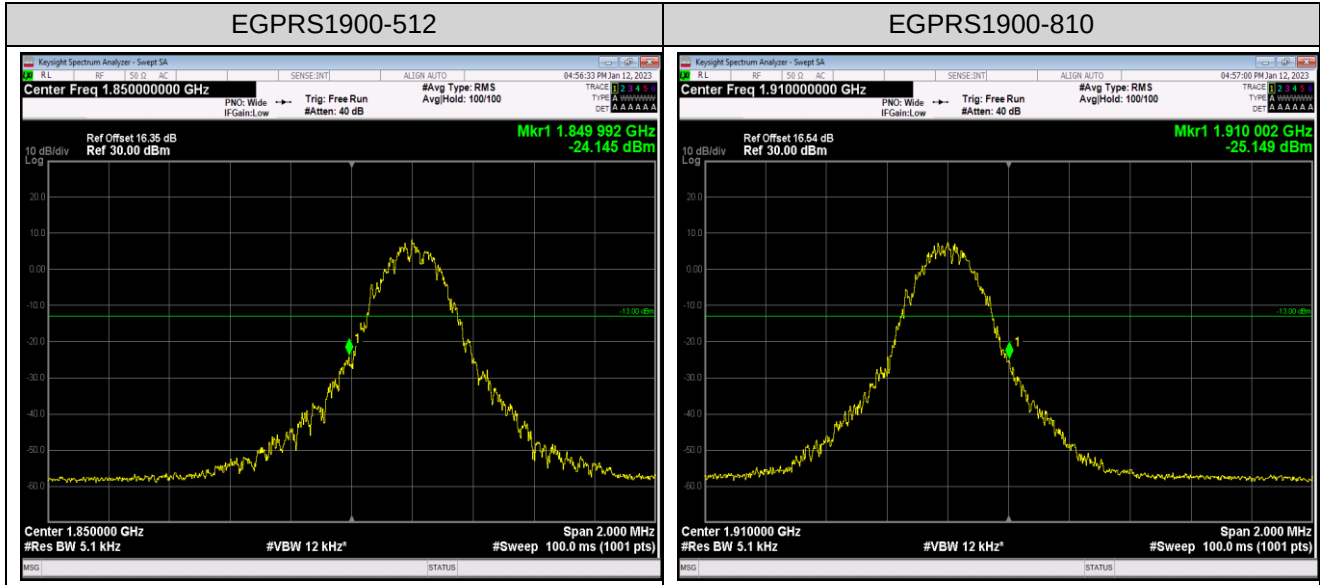
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.45	-13	PASS
GSM850	251	5	849.02	-22.45	-13	PASS
EGPRS850	128	8	823.99	-30.67	-13	PASS
EGPRS850	251	8	849.02	-32.99	-13	PASS
GSM1900	512	0	1850.00	-15.30	-13	PASS
GSM1900	810	0	1910.02	-14.86	-13	PASS
EGPRS1900	512	2	1849.99	-24.14	-13	PASS
EGPRS1900	810	2	1910.00	-25.15	-13	PASS

Test Graphs





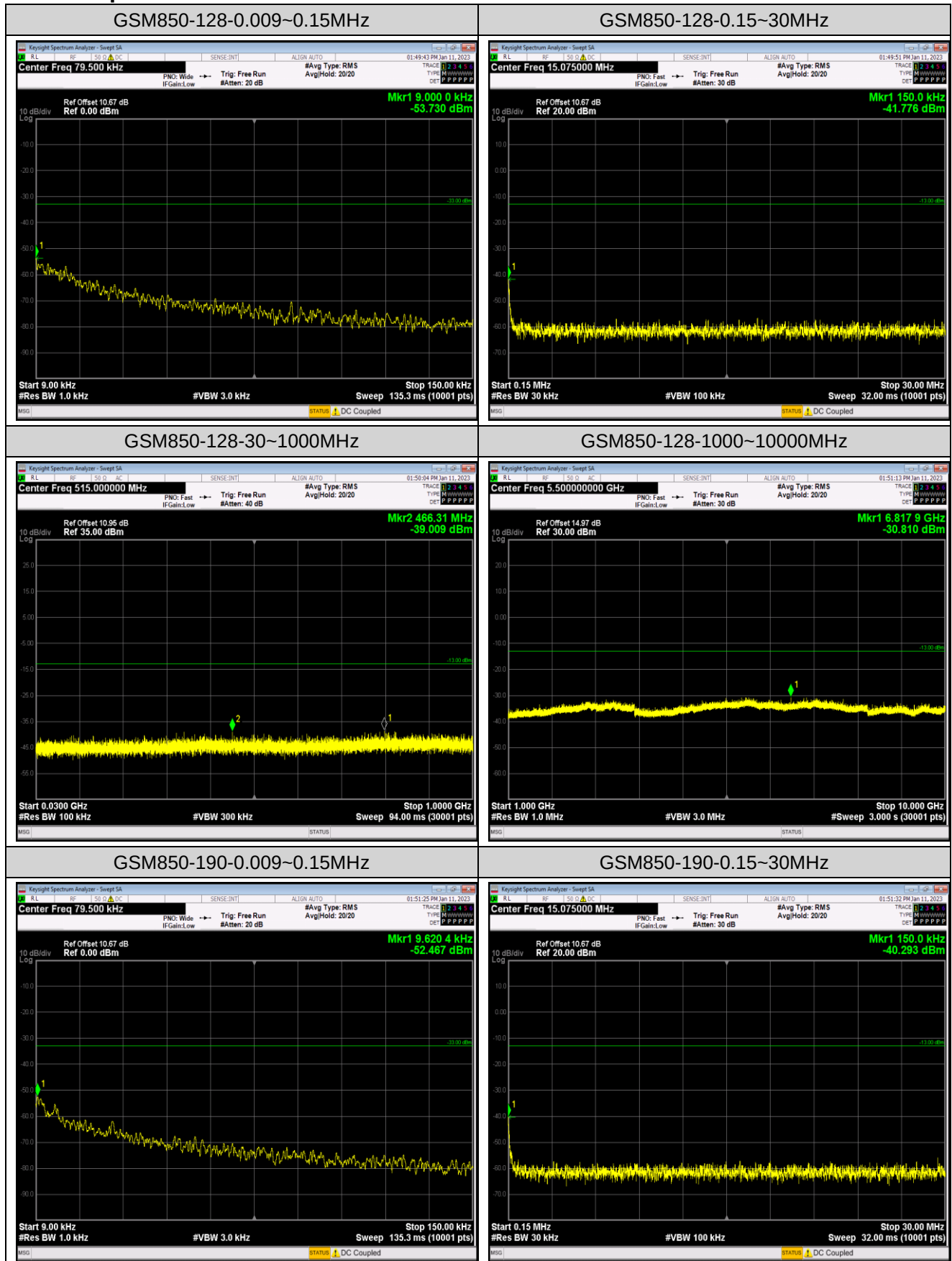
Appendix E: Conducted Spurious Emission

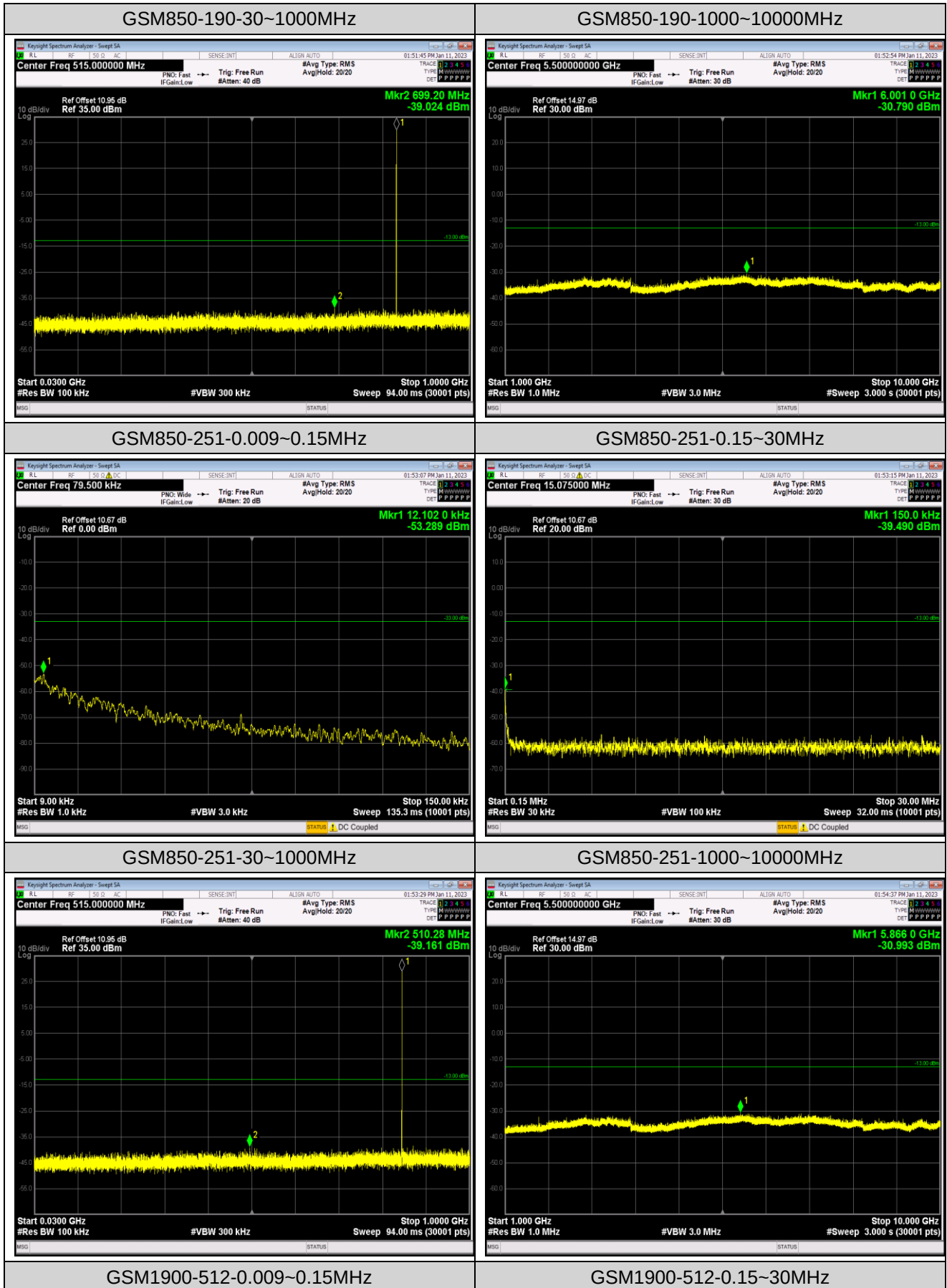
Test Result

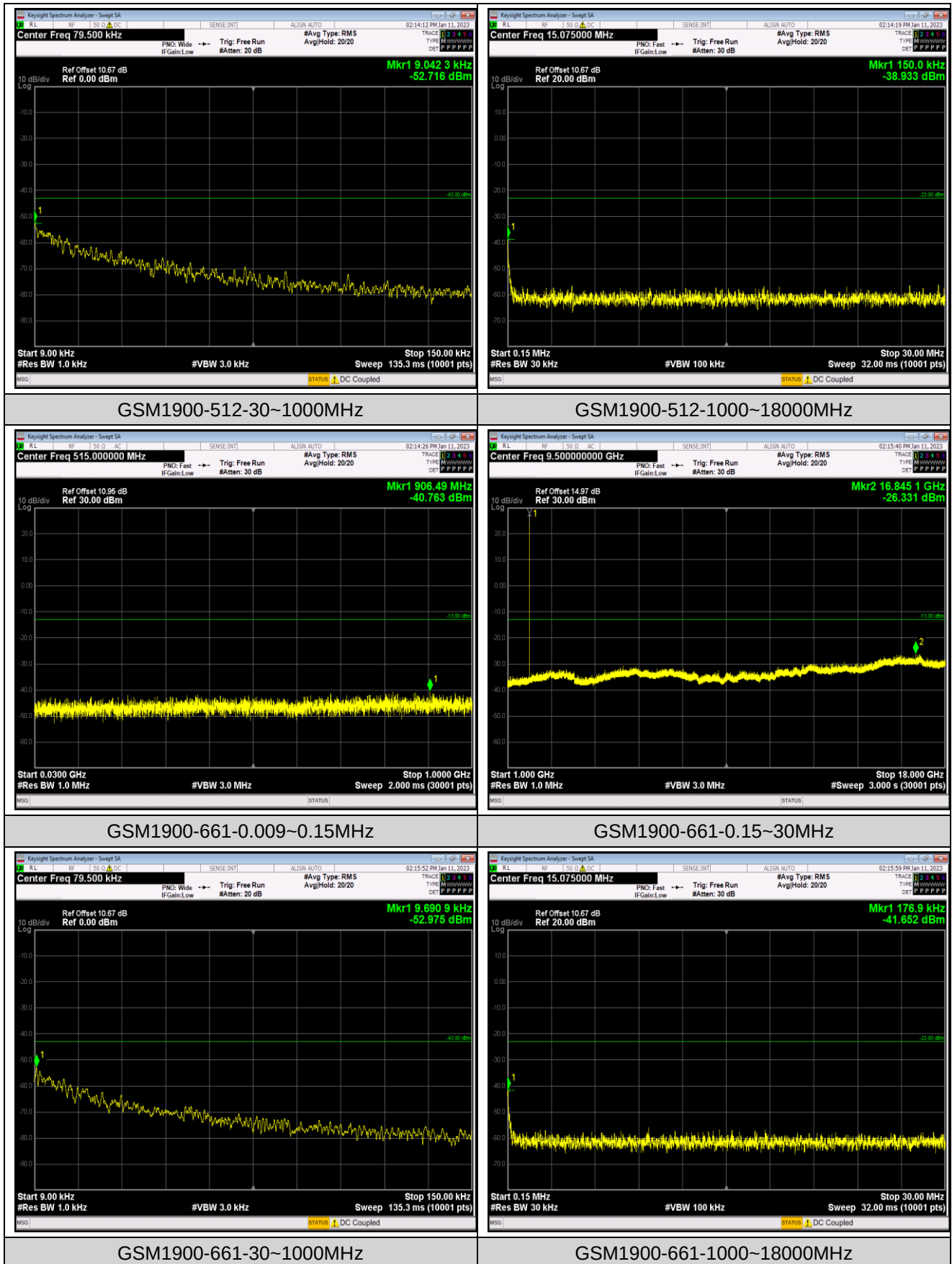
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-53.73	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-41.78	-13	PASS
GSM850	128	5	30~1000MHz	466.31	-39.01	-13	PASS
GSM850	128	5	1000~10000MHz	6817.9	-30.81	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-52.47	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-40.29	-13	PASS
GSM850	190	5	30~1000MHz	699.2	-39.02	-13	PASS
GSM850	190	5	1000~10000MHz	6001	-30.79	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.29	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-39.49	-13	PASS
GSM850	251	5	30~1000MHz	510.28	-39.16	-13	PASS
GSM850	251	5	1000~10000MHz	5866	-30.99	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-52.72	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-38.93	-23	PASS
GSM1900	512	0	30~1000MHz	906.49	-40.76	-13	PASS
GSM1900	512	0	1000~18000MHz	16845.13	-26.33	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-52.98	-43	PASS
GSM1900	661	0	0.15~30MHz	0.18	-41.65	-23	PASS
GSM1900	661	0	30~1000MHz	815.18	-40.06	-13	PASS
GSM1900	661	0	1000~18000MHz	17012.3	-26.73	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-54.56	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-42.31	-23	PASS
GSM1900	810	0	30~1000MHz	797.37	-40.53	-13	PASS
GSM1900	810	0	1000~18000MHz	17490	-26.23	-13	PASS

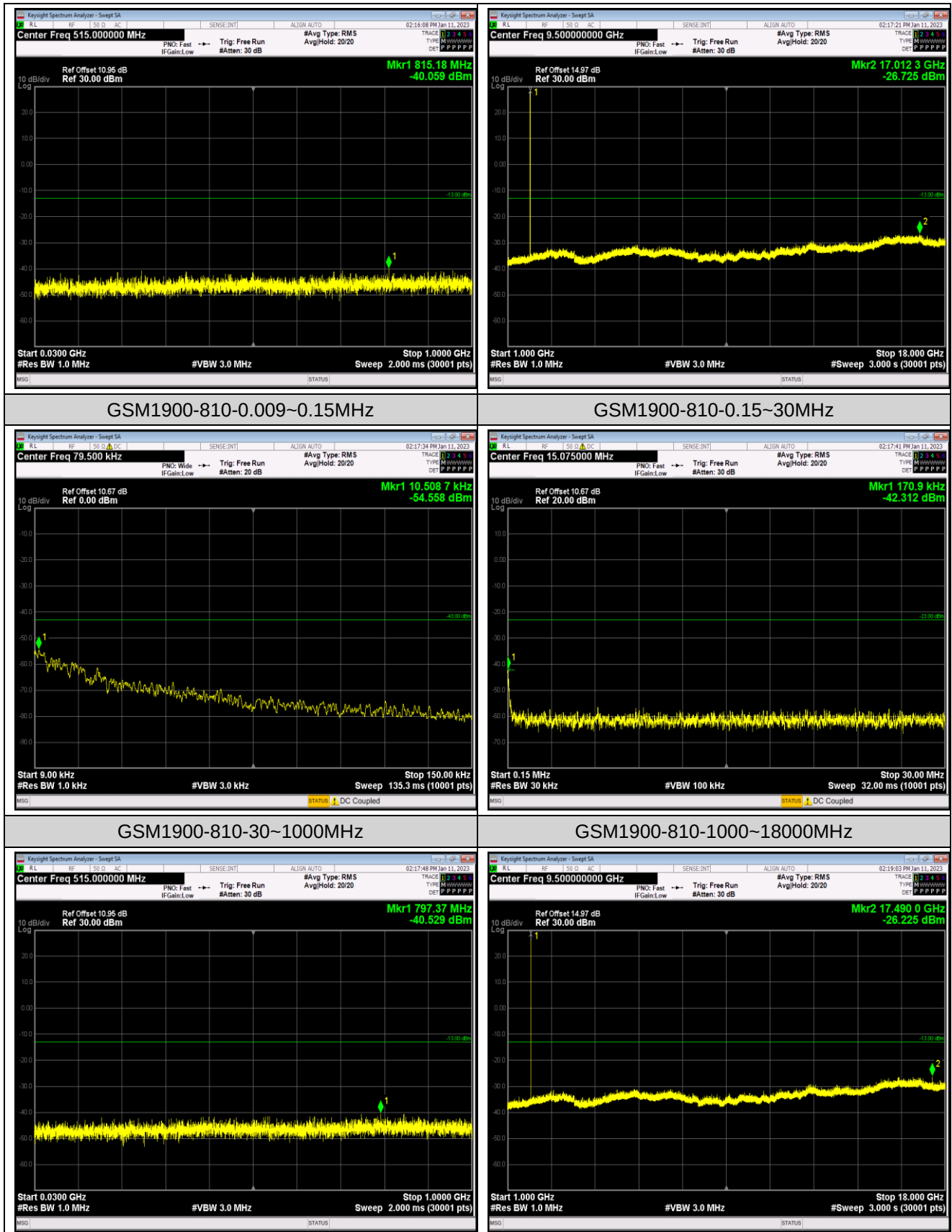
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	4.16	0.004973	±2.5	Pass
	-20	5.04	0.006024		
	-10	2.45	0.002929		
	0	5.33	0.006371		
	10	2.29	0.002737		
	20	1.84	0.002199		
	30	1.29	0.001542		
	40	2.29	0.002737		
	50	2.13	0.002546		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	6.26	0.007483	±2.5	Pass
	3.87	1.61	0.001924		
	4.45	5.39	0.006443		
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	-4.49	-0.005367	±2.5	Pass
	-20	-12.91	-0.015432		
	-10	-9.20	-0.010997		
	0	-9.04	-0.010806		
	10	-6.59	-0.007877		
	20	-3.71	-0.004435		
	30	-1.52	-0.001817		
	40	-4.39	-0.005247		
	50	-2.58	-0.003084		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-7.68	-0.009180	±2.5	Pass
	3.87	-9.85	-0.011774		
	4.45	-9.49	-0.011344		
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	-5.36	-0.002851	Within authorized band for PCS 1900	Pass
	-20	-0.39	-0.000207		
	-10	-5.78	-0.003074		
	0	-0.26	-0.000138		
	10	-1.87	-0.000995		
	20	2.23	0.001186		
	30	-3.20	-0.001702		
	40	-0.94	-0.000500		
	50	3.87	0.002059		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-2.81	-0.001495	Within authorized band for PCS 1900	Pass
	3.87	-0.97	-0.000516		
	4.45	1.49	0.000793		
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	-9.43	-0.005016	Within authorized band for PCS 1900	Pass
	-20	-6.88	-0.003660		
	-10	-7.30	-0.003883		
	0	-7.20	-0.003830		
	10	6.10	0.003245		
	20	7.10	0.003777		
	30	2.52	0.001340		
	40	3.20	0.001702		
	50	5.55	0.002952		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-8.23	-0.004378	Within authorized band for PCS 1900	Pass
	3.87	-2.65	-0.001410		
	4.45	-8.07	-0.004293		
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

