

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	32.79	26.64	38.45	PASS
GSM850	190	5	33.14	26.99	38.45	PASS
GSM850	251	5	33.33	27.18	38.45	PASS
GSM1900	512	0	28.31	26.02	33.00	PASS
GSM1900	661	0	28.43	26.14	33.00	PASS
GSM1900	810	0	28.09	25.8	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.79	26.64	38.45	PASS
GPRS850	128	5	2	31.88	25.73	38.45	PASS
GPRS850	128	5	3	29.93	23.78	38.45	PASS
GPRS850	128	5	4	28.81	22.66	38.45	PASS
GPRS850	190	5	1	33.15	27	38.45	PASS
GPRS850	190	5	2	32.24	26.09	38.45	PASS
GPRS850	190	5	3	30.30	24.15	38.45	PASS
GPRS850	190	5	4	29.19	23.04	38.45	PASS
GPRS850	251	5	1	33.34	27.19	38.45	PASS
GPRS850	251	5	2	32.43	26.28	38.45	PASS
GPRS850	251	5	3	30.50	24.35	38.45	PASS
GPRS850	251	5	4	29.40	23.25	38.45	PASS
GPRS1900	512	0	1	28.29	26	33.00	PASS
GPRS1900	512	0	2	27.31	25.02	33.00	PASS
GPRS1900	512	0	3	25.96	23.67	33.00	PASS
GPRS1900	512	0	4	25.65	23.36	33.00	PASS
GPRS1900	661	0	1	28.44	26.15	33.00	PASS
GPRS1900	661	0	2	27.47	25.18	33.00	PASS
GPRS1900	661	0	3	26.12	23.83	33.00	PASS
GPRS1900	661	0	4	25.80	23.51	33.00	PASS
GPRS1900	810	0	1	28.11	25.82	33.00	PASS
GPRS1900	810	0	2	27.14	24.85	33.00	PASS
GPRS1900	810	0	3	25.80	23.51	33.00	PASS
GPRS1900	810	0	4	25.48	23.19	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.99	20.84	38.45	PASS
EGPRS850	128	8	2	25.82	19.67	38.45	PASS
EGPRS850	128	8	3	23.49	17.34	38.45	PASS
EGPRS850	128	8	4	22.11	15.96	38.45	PASS
EGPRS850	190	8	1	27.29	21.14	38.45	PASS
EGPRS850	190	8	2	26.12	19.97	38.45	PASS
EGPRS850	190	8	3	23.78	17.63	38.45	PASS
EGPRS850	190	8	4	22.41	16.26	38.45	PASS
EGPRS850	251	8	1	27.40	21.25	38.45	PASS
EGPRS850	251	8	2	26.25	20.1	38.45	PASS
EGPRS850	251	8	3	23.84	17.69	38.45	PASS
EGPRS850	251	8	4	22.51	16.36	38.45	PASS
EGPRS1900	512	2	1	26.29	24	33.00	PASS
EGPRS1900	512	2	2	25.34	23.05	33.00	PASS
EGPRS1900	512	2	3	23.48	21.19	33.00	PASS
EGPRS1900	512	2	4	22.46	20.17	33.00	PASS
EGPRS1900	661	2	1	26.45	24.16	33.00	PASS
EGPRS1900	661	2	2	25.49	23.2	33.00	PASS
EGPRS1900	661	2	3	23.69	21.4	33.00	PASS
EGPRS1900	661	2	4	22.69	20.4	33.00	PASS
EGPRS1900	810	2	1	26.12	23.83	33.00	PASS
EGPRS1900	810	2	2	25.24	22.95	33.00	PASS
EGPRS1900	810	2	3	23.41	21.12	33.00	PASS
EGPRS1900	810	2	4	22.40	20.11	33.00	PASS

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

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

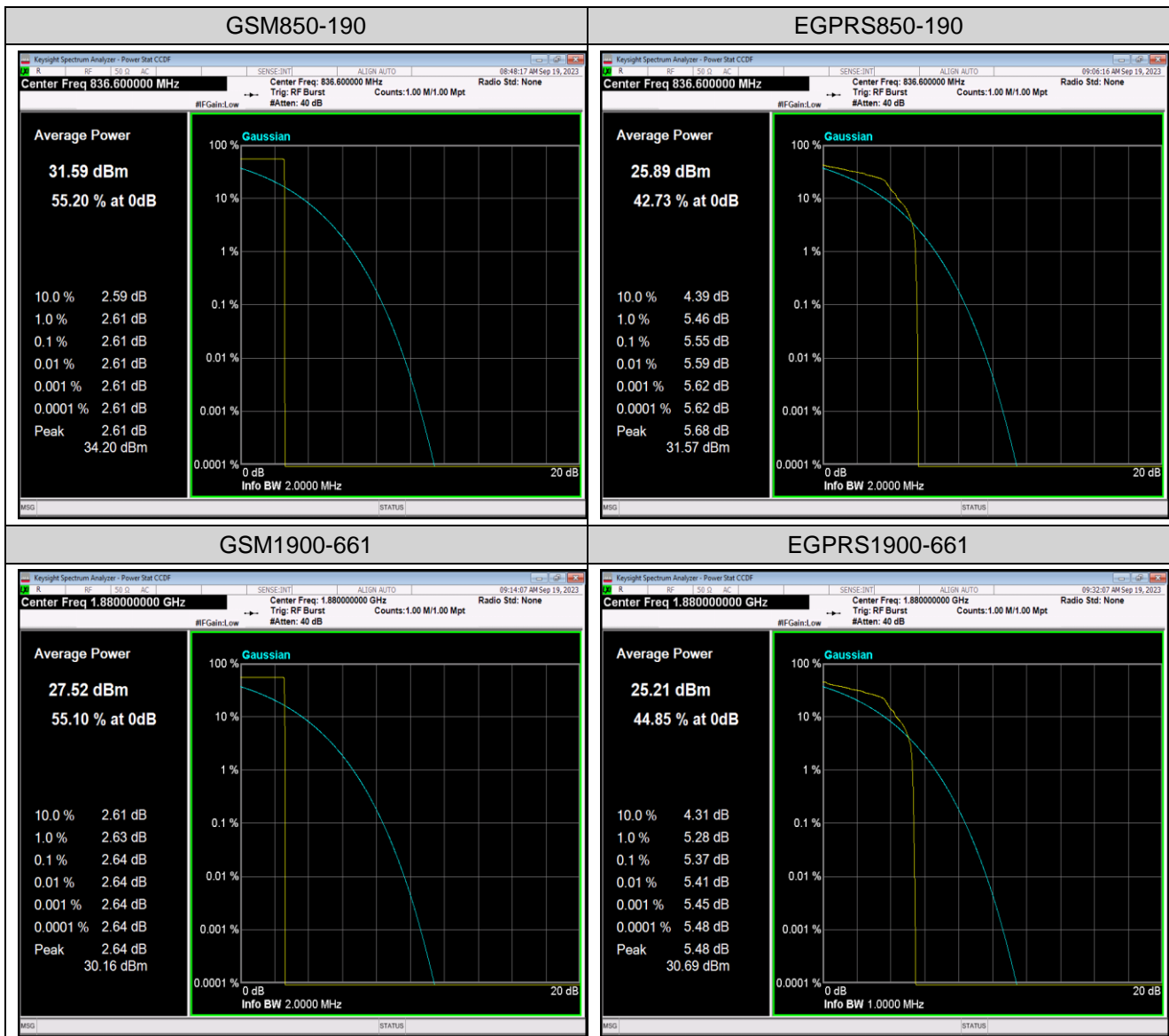
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.55	13	PASS
GSM1900	661	0	2.64	13	PASS
EGPRS1900	661	2	5.37	13	PASS

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

Test Graphs

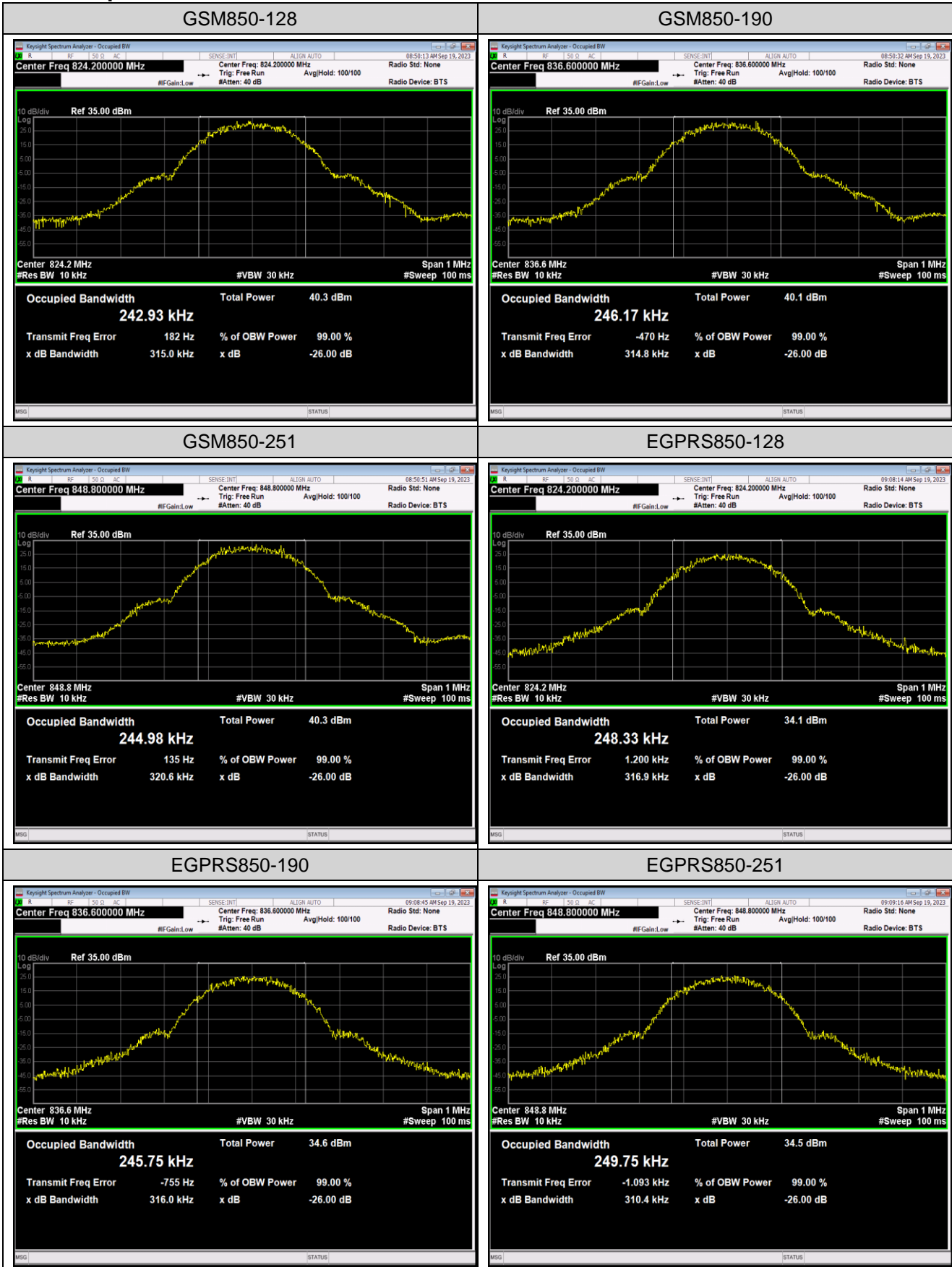


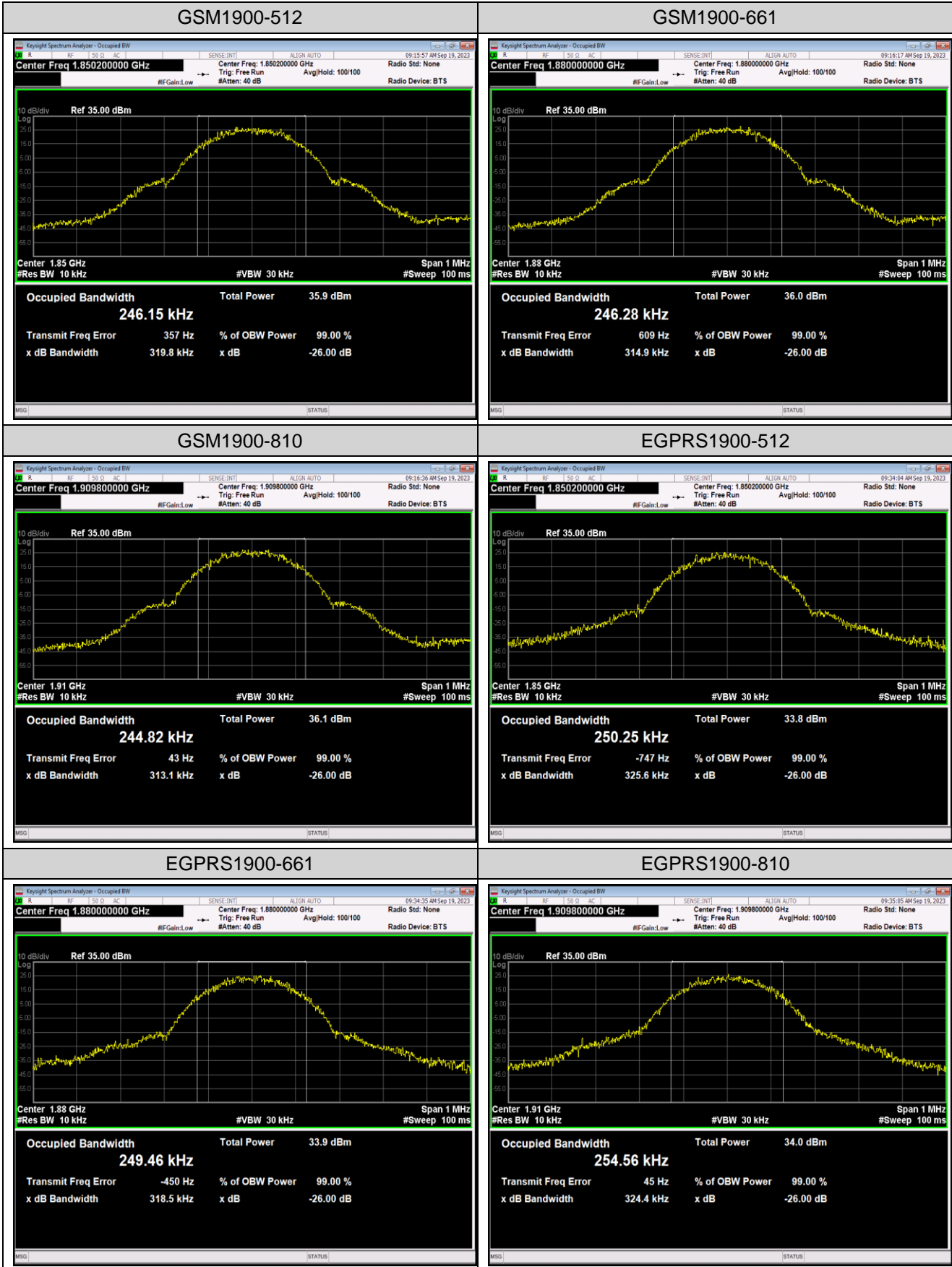
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24293	0.3150	---	PASS
GSM850	190	5	0.24617	0.3148	---	PASS
GSM850	251	5	0.24498	0.3206	---	PASS
EGPRS850	128	8	0.24833	0.3169	---	PASS
EGPRS850	190	8	0.24575	0.3160	---	PASS
EGPRS850	251	8	0.24975	0.3104	---	PASS
GSM1900	512	0	0.24615	0.3198	---	PASS
GSM1900	661	0	0.24628	0.3149	---	PASS
GSM1900	810	0	0.24482	0.3131	---	PASS
EGPRS1900	512	2	0.25025	0.3256	---	PASS
EGPRS1900	661	2	0.24946	0.3185	---	PASS
EGPRS1900	810	2	0.25456	0.3244	---	PASS

Test Graphs



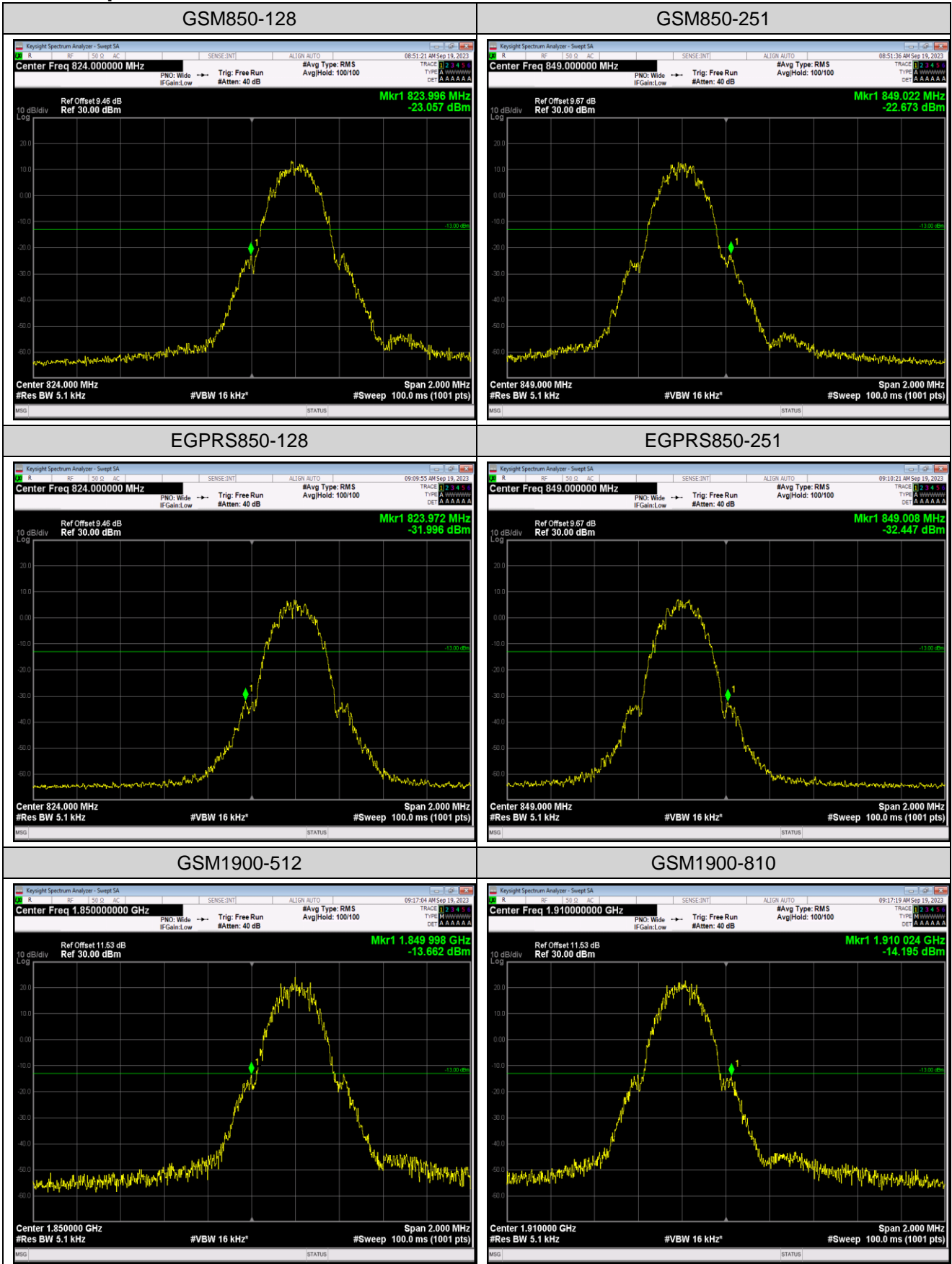


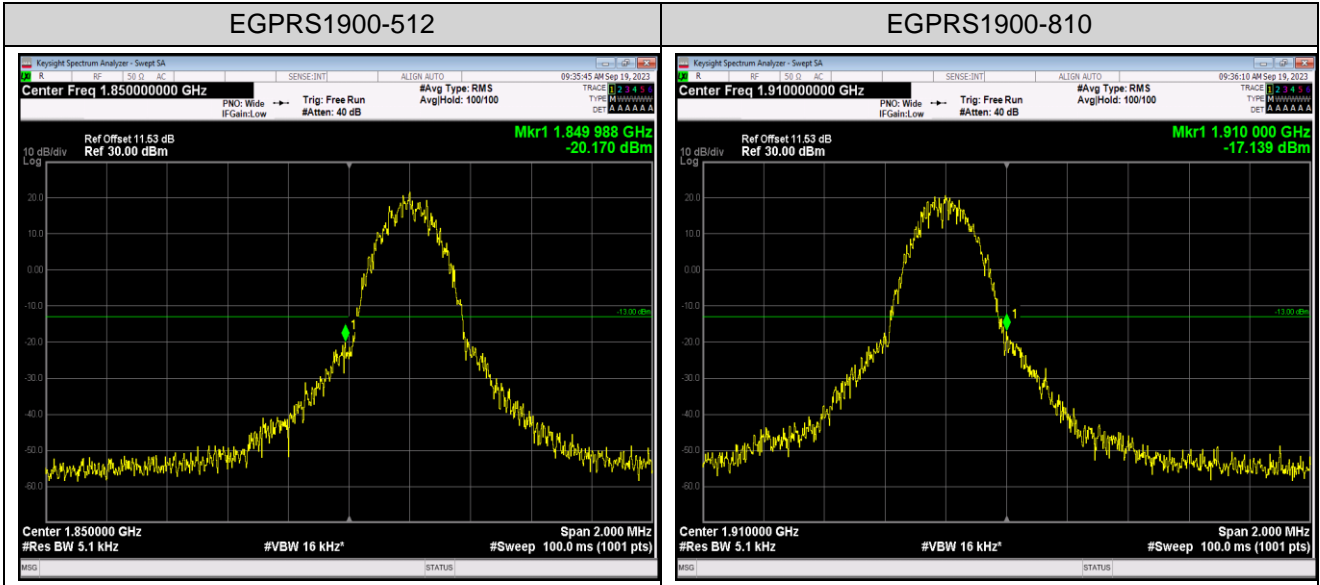
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-23.06	-13	PASS
GSM850	251	5	849.02	-22.67	-13	PASS
EGPRS850	128	8	823.97	-32.00	-13	PASS
EGPRS850	251	8	849.01	-32.45	-13	PASS
GSM1900	512	0	1850.00	-13.66	-13	PASS
GSM1900	810	0	1910.02	-14.19	-13	PASS
EGPRS1900	512	2	1849.99	-20.17	-13	PASS
EGPRS1900	810	2	1910.00	-17.14	-13	PASS

Test Graphs





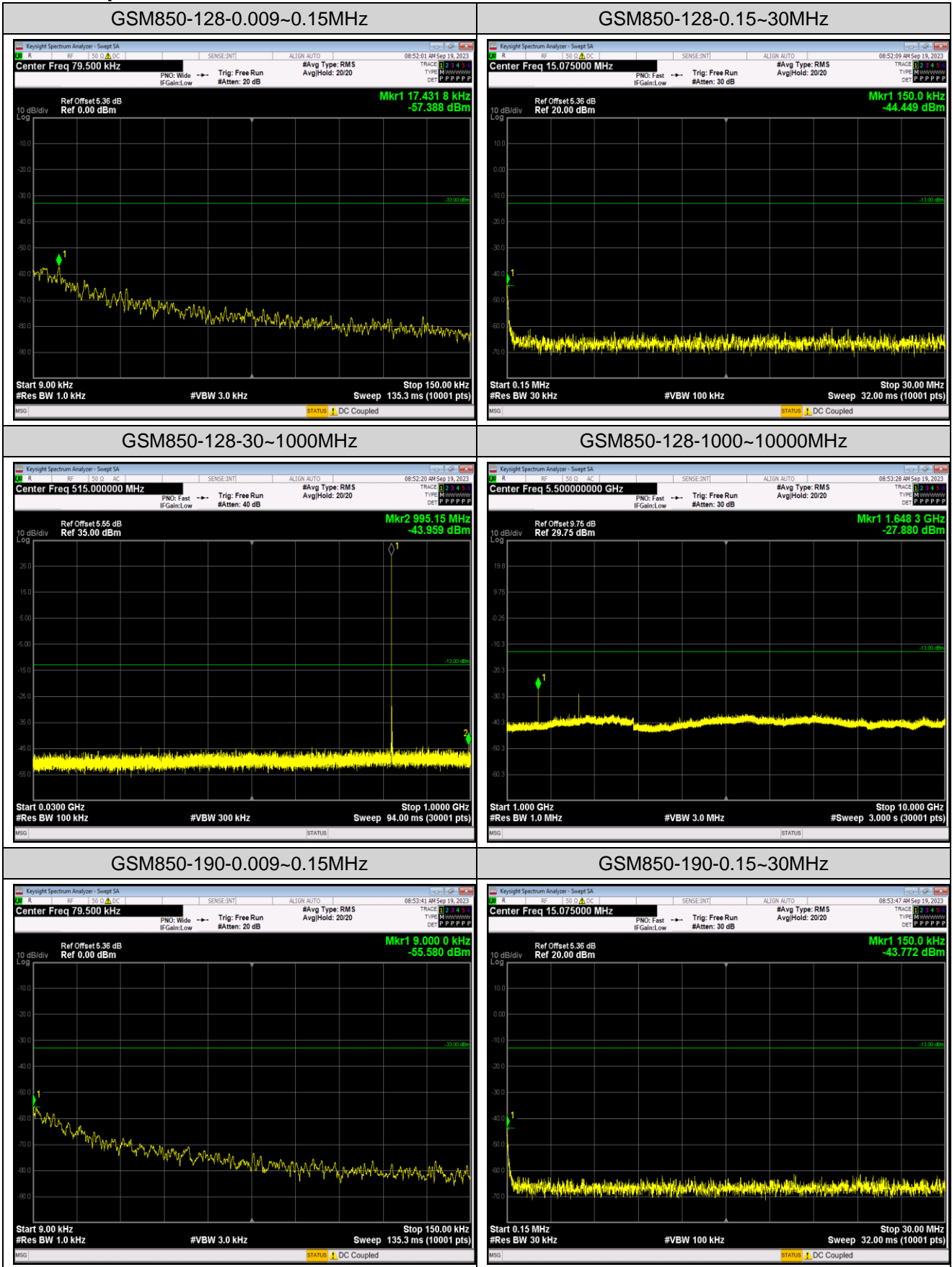
Appendix E: Conducted Spurious Emission

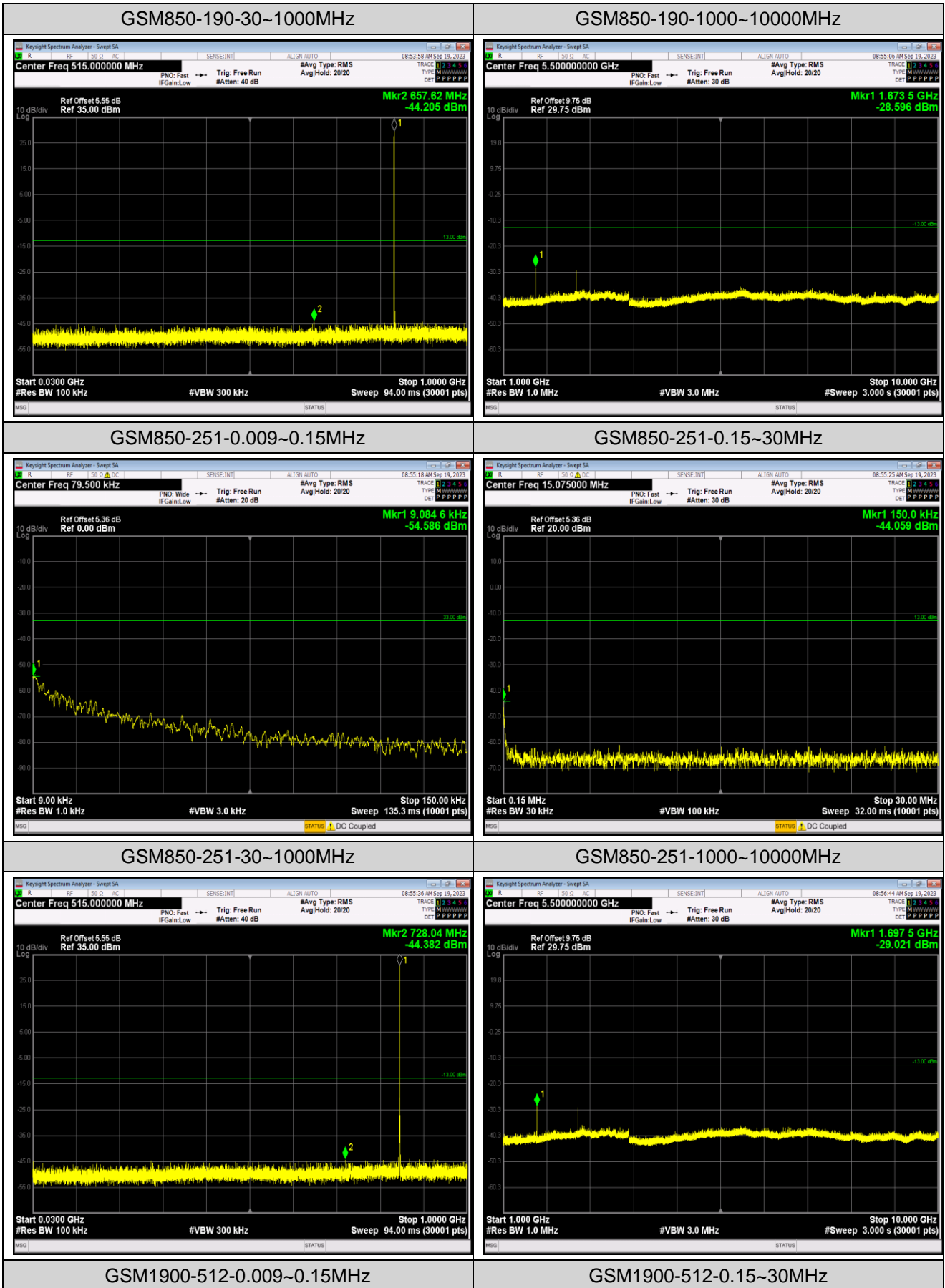
Test Result

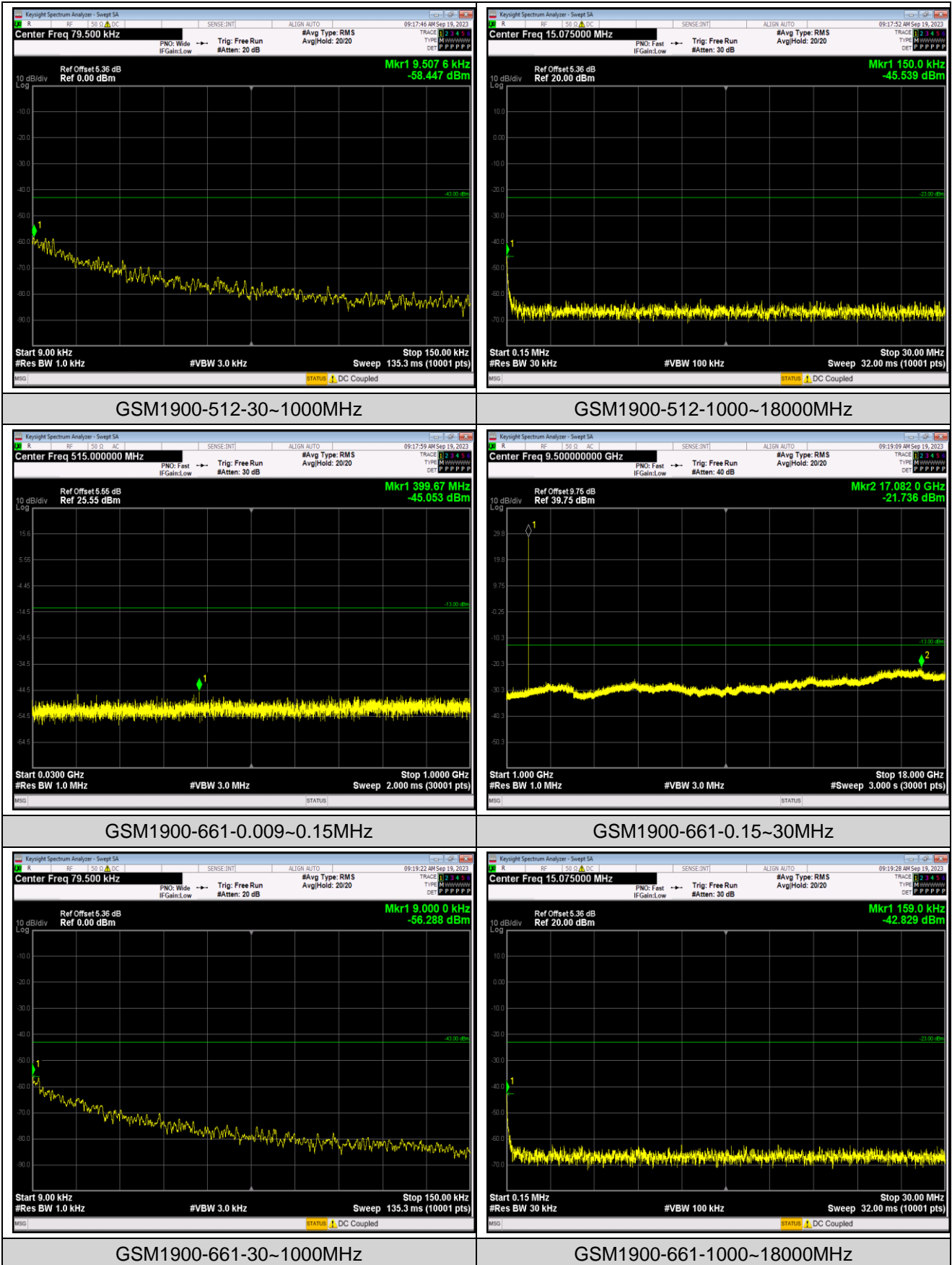
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.02	-57.39	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-44.45	-13	PASS
GSM850	128	5	30~1000MHz	995.15	-43.96	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-27.88	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-55.58	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-43.77	-13	PASS
GSM850	190	5	30~1000MHz	657.62	-44.21	-13	PASS
GSM850	190	5	1000~10000MHz	1673.5	-28.6	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.59	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-44.06	-13	PASS
GSM850	251	5	30~1000MHz	728.04	-44.38	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-29.02	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-58.45	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-45.54	-23	PASS
GSM1900	512	0	30~1000MHz	399.67	-45.05	-13	PASS
GSM1900	512	0	1000~18000MHz	17082	-21.74	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.29	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-42.83	-23	PASS
GSM1900	661	0	30~1000MHz	836.43	-46.3	-13	PASS
GSM1900	661	0	1000~18000MHz	16088.07	-21.32	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.44	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-43.07	-23	PASS
GSM1900	810	0	30~1000MHz	951.27	-45.41	-13	PASS
GSM1900	810	0	1000~18000MHz	17080.3	-21.53	-13	PASS

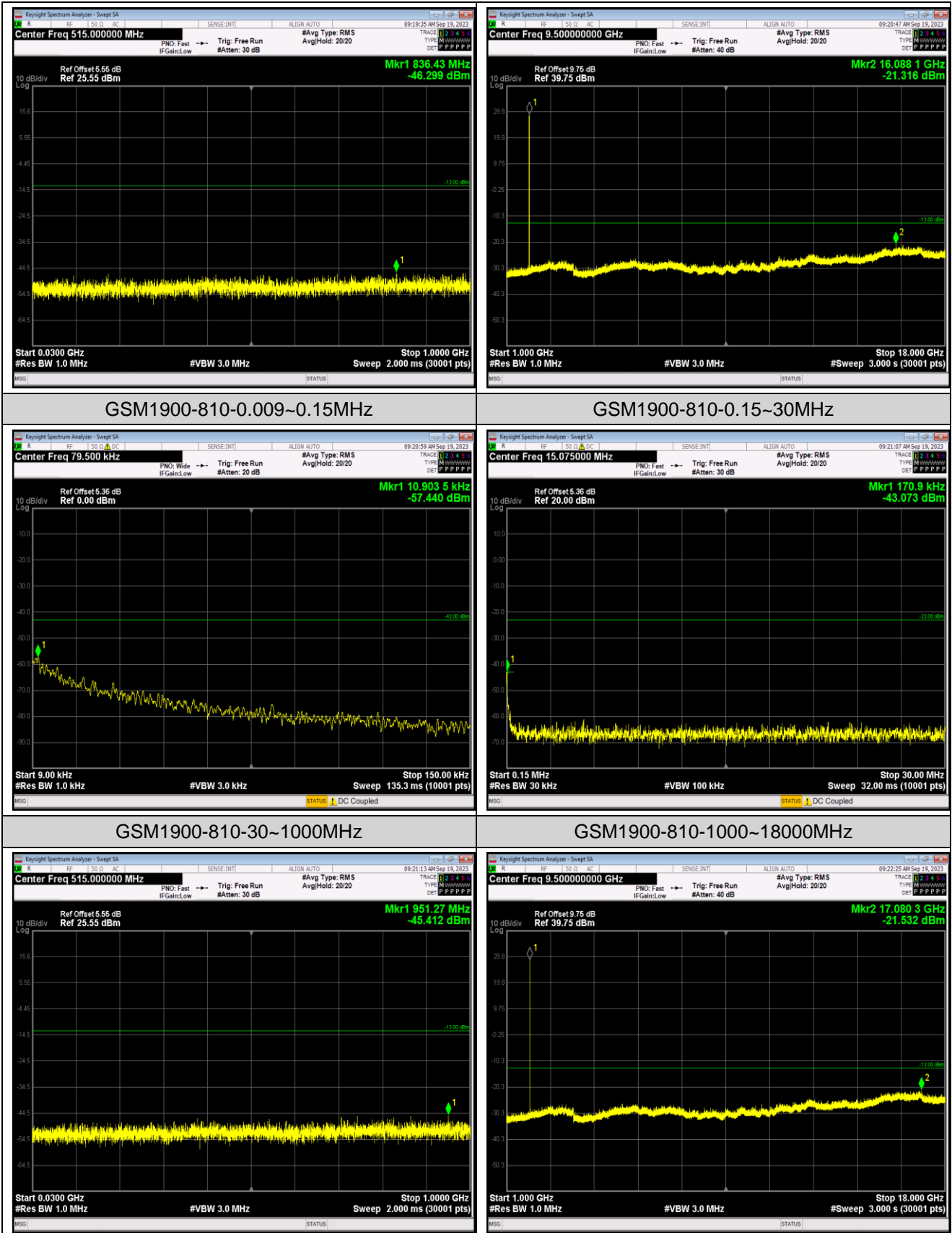
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	-5.36	-0.006407	±2.5	Pass
	-20	-3.07	-0.003670		
	-10	-1.23	-0.001470		
	0	-4.78	-0.005714		
	10	0.71	0.000849		
	20	-8.36	-0.009993		
	30	-8.88	-0.010614		
	40	-2.68	-0.003203		
	50	-4.68	-0.005594		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-9.85	-0.011774	±2.5	Pass
	3.87	-3.07	-0.003670		
	4.45	-6.04	-0.007220		
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	-10.04	-0.012001	±2.5	Pass
	-20	-13.11	-0.015671		
	-10	-9.75	-0.011654		
	0	-14.04	-0.016782		
	10	-6.78	-0.008104		
	20	-2.10	-0.002510		
	30	-7.14	-0.008535		
	40	-2.87	-0.003431		
	50	-5.13	-0.006132		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-7.88	-0.009419	±2.5	Pass
	3.87	-11.36	-0.013579		
	4.45	-8.62	-0.010304		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-21.63	-0.011505	Within authorized band for PCS 1900	Pass
	-20	-5.81	-0.003090		
	-10	-7.91	-0.004207		
	0	-8.75	-0.004654		
	10	-11.43	-0.006080		
	20	0.10	0.000053		
	30	-8.33	-0.004431		
	40	-10.85	-0.005771		
	50	2.74	0.001457		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-8.49	-0.004516	Within authorized band for PCS 1900	Pass
	3.87	-12.85	-0.006835		
	4.45	-4.71	-0.002505		
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	-7.04	-0.003745		
	-10	-8.07	-0.004293		
	0	-6.72	-0.003574		
	10	-2.20	-0.001170		
	20	0.77	0.000410		
	30	1.32	0.000702		
	40	0.19	0.000101		
	50	9.23	0.004910		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-10.72	-0.005702	Within authorized band for PCS 1900	Pass
	3.87	-5.68	-0.003021		
	4.45	-10.01	-0.005324		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

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

