

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	32.99	27.64	38.45	PASS
GSM850	190	5	33.35	28	38.45	PASS
GSM850	251	5	33.24	27.89	38.45	PASS
GSM1900	512	0	30.41	29.21	33.00	PASS
GSM1900	661	0	30.51	29.31	33.00	PASS
GSM1900	810	0	30.26	29.06	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.92	27.57	38.45	PASS
GPRS850	128	5	2	31.91	26.56	38.45	PASS
GPRS850	128	5	3	29.90	24.55	38.45	PASS
GPRS850	128	5	4	28.77	23.42	38.45	PASS
GPRS850	190	5	1	33.27	27.92	38.45	PASS
GPRS850	190	5	2	32.26	26.91	38.45	PASS
GPRS850	190	5	3	30.23	24.88	38.45	PASS
GPRS850	190	5	4	29.09	23.74	38.45	PASS
GPRS850	251	5	1	33.17	27.82	38.45	PASS
GPRS850	251	5	2	32.17	26.82	38.45	PASS
GPRS850	251	5	3	30.16	24.81	38.45	PASS
GPRS850	251	5	4	29.02	23.67	38.45	PASS
GPRS1900	512	0	1	30.41	29.21	33.00	PASS
GPRS1900	512	0	2	28.39	27.19	33.00	PASS
GPRS1900	512	0	3	26.36	25.16	33.00	PASS
GPRS1900	512	0	4	25.40	24.2	33.00	PASS
GPRS1900	661	0	1	30.51	29.31	33.00	PASS
GPRS1900	661	0	2	28.50	27.3	33.00	PASS
GPRS1900	661	0	3	26.48	25.28	33.00	PASS
GPRS1900	661	0	4	25.53	24.33	33.00	PASS
GPRS1900	810	0	1	30.30	29.1	33.00	PASS
GPRS1900	810	0	2	28.32	27.12	33.00	PASS
GPRS1900	810	0	3	26.30	25.1	33.00	PASS
GPRS1900	810	0	4	25.34	24.14	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.78	21.43	38.45	PASS
EGPRS850	128	8	2	25.42	20.07	38.45	PASS
EGPRS850	128	8	3	22.90	17.55	38.45	PASS
EGPRS850	128	8	4	21.46	16.11	38.45	PASS
EGPRS850	190	8	1	26.88	21.53	38.45	PASS
EGPRS850	190	8	2	25.47	20.12	38.45	PASS
EGPRS850	190	8	3	23.09	17.74	38.45	PASS
EGPRS850	190	8	4	21.60	16.25	38.45	PASS
EGPRS850	251	8	1	27.01	21.66	38.45	PASS
EGPRS850	251	8	2	25.64	20.29	38.45	PASS
EGPRS850	251	8	3	23.14	17.79	38.45	PASS
EGPRS850	251	8	4	21.72	16.37	38.45	PASS
EGPRS1900	512	2	1	26.41	25.21	33.00	PASS
EGPRS1900	512	2	2	25.41	24.21	33.00	PASS
EGPRS1900	512	2	3	23.41	22.21	33.00	PASS
EGPRS1900	512	2	4	22.18	20.98	33.00	PASS
EGPRS1900	661	2	1	26.57	25.37	33.00	PASS
EGPRS1900	661	2	2	25.61	24.41	33.00	PASS
EGPRS1900	661	2	3	23.58	22.38	33.00	PASS
EGPRS1900	661	2	4	22.39	21.19	33.00	PASS
EGPRS1900	810	2	1	26.64	25.44	33.00	PASS
EGPRS1900	810	2	2	25.65	24.45	33.00	PASS
EGPRS1900	810	2	3	23.63	22.43	33.00	PASS
EGPRS1900	810	2	4	22.40	25.21	33.00	PASS

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

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

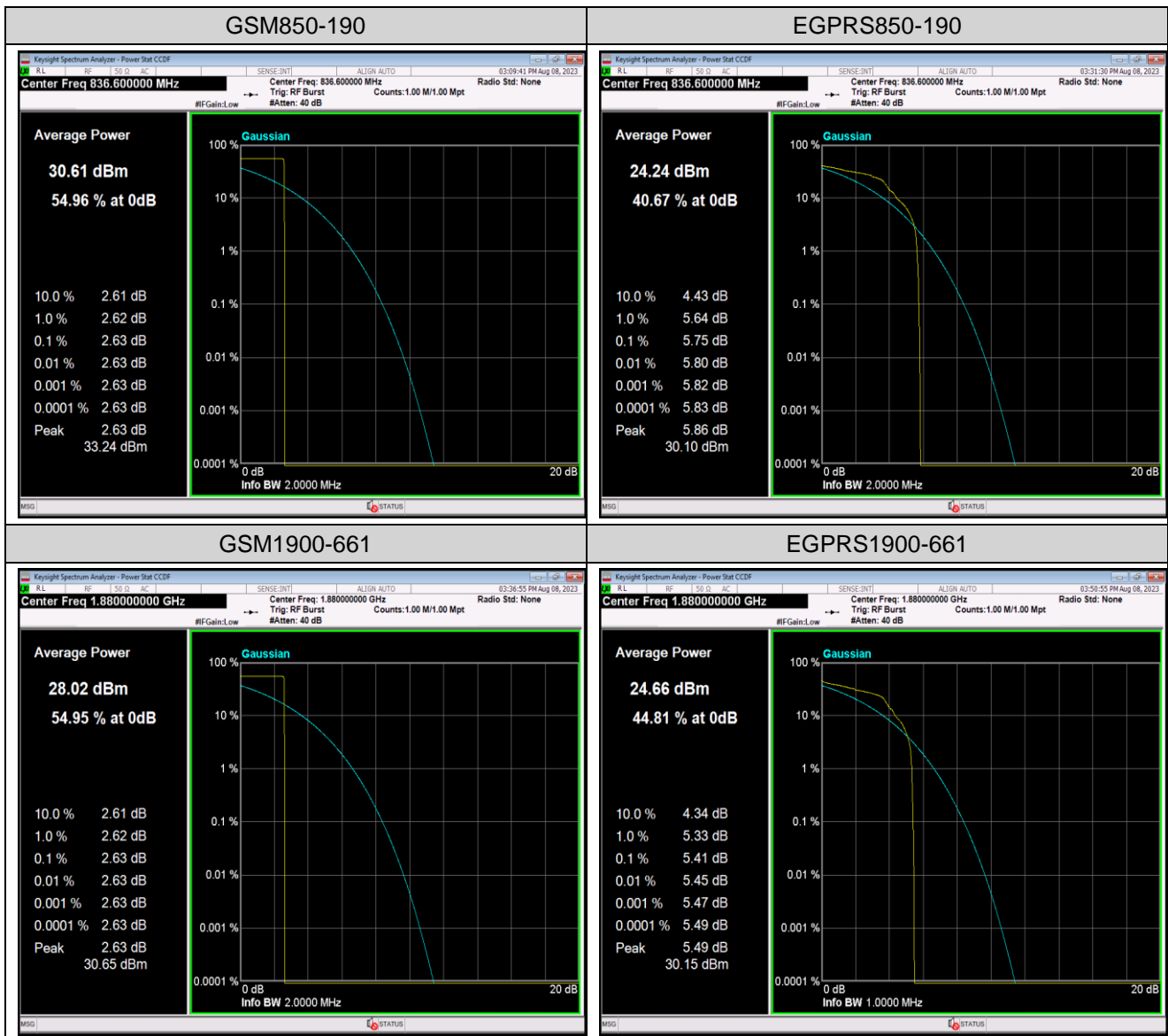
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.63	13	PASS
EGPRS850	190	8	5.75	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.41	13	PASS

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

Test Graphs

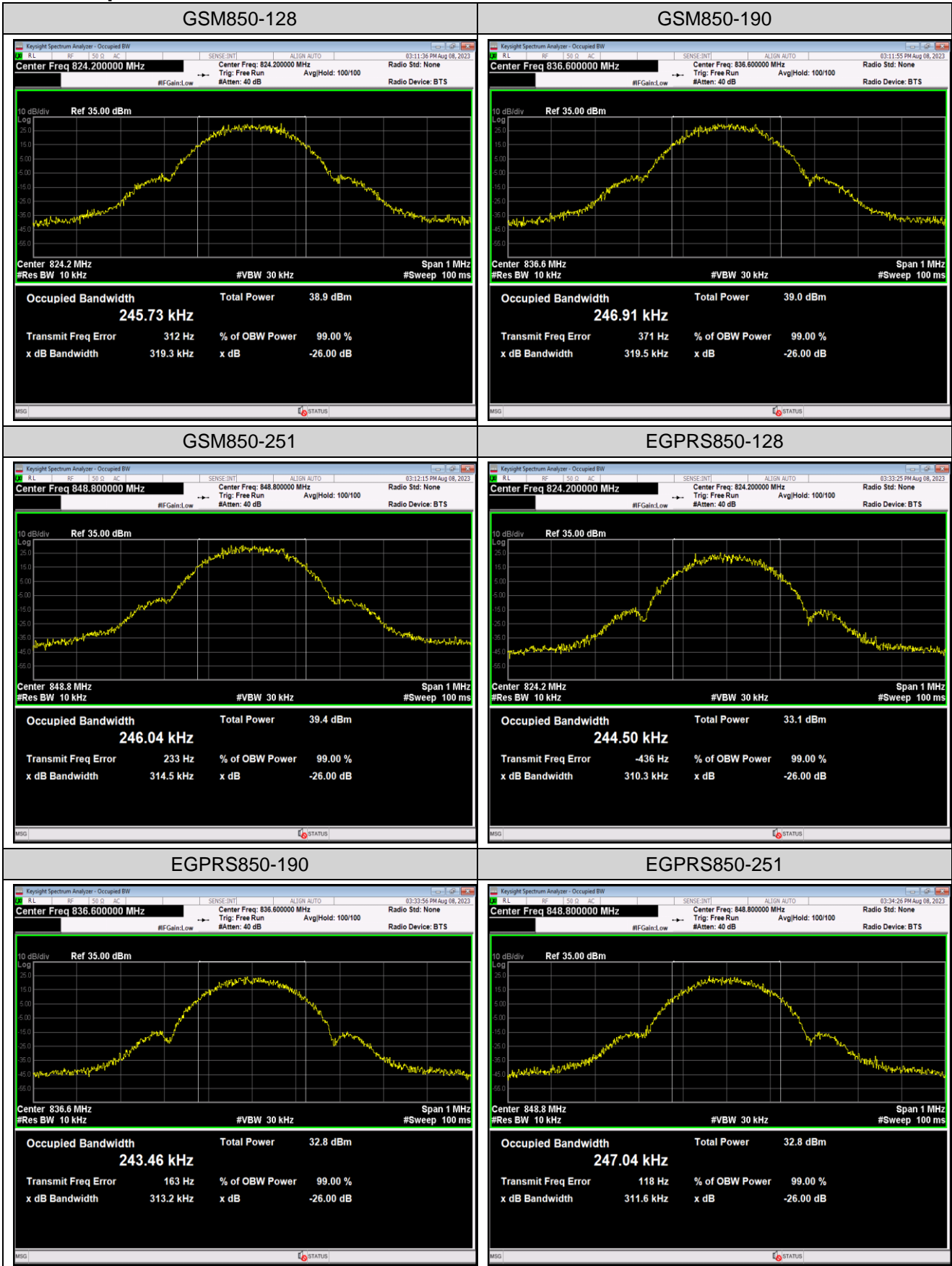


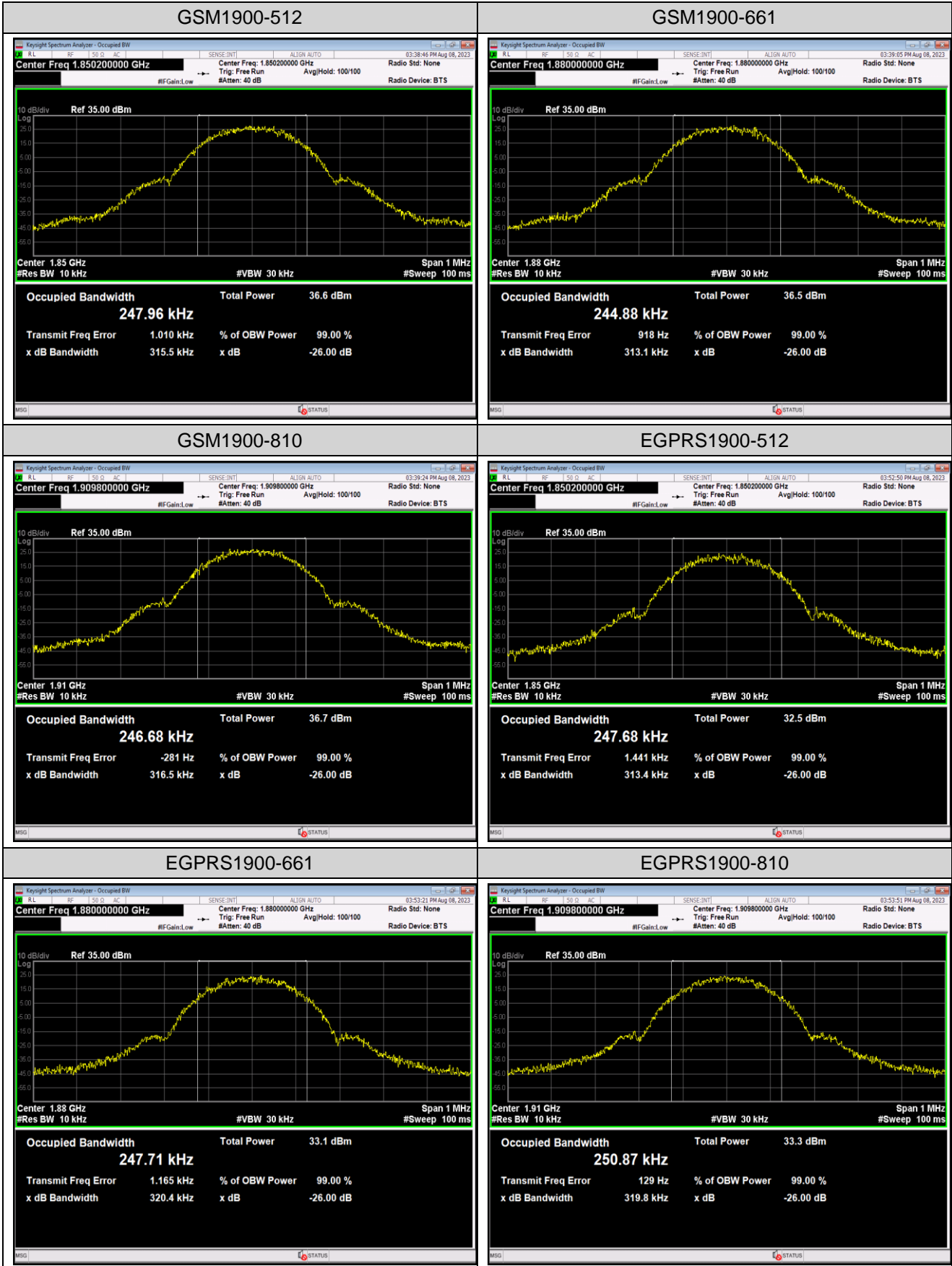
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24573	0.3193	---	PASS
GSM850	190	5	0.24691	0.3195	---	PASS
GSM850	251	5	0.24604	0.3145	---	PASS
EGPRS850	128	8	0.24450	0.3103	---	PASS
EGPRS850	190	8	0.24346	0.3132	---	PASS
EGPRS850	251	8	0.24704	0.3116	---	PASS
GSM1900	512	0	0.24796	0.3155	---	PASS
GSM1900	661	0	0.24488	0.3131	---	PASS
GSM1900	810	0	0.24668	0.3165	---	PASS
EGPRS1900	512	2	0.24768	0.3134	---	PASS
EGPRS1900	661	2	0.24771	0.3204	---	PASS
EGPRS1900	810	2	0.25087	0.3198	---	PASS

Test Graphs

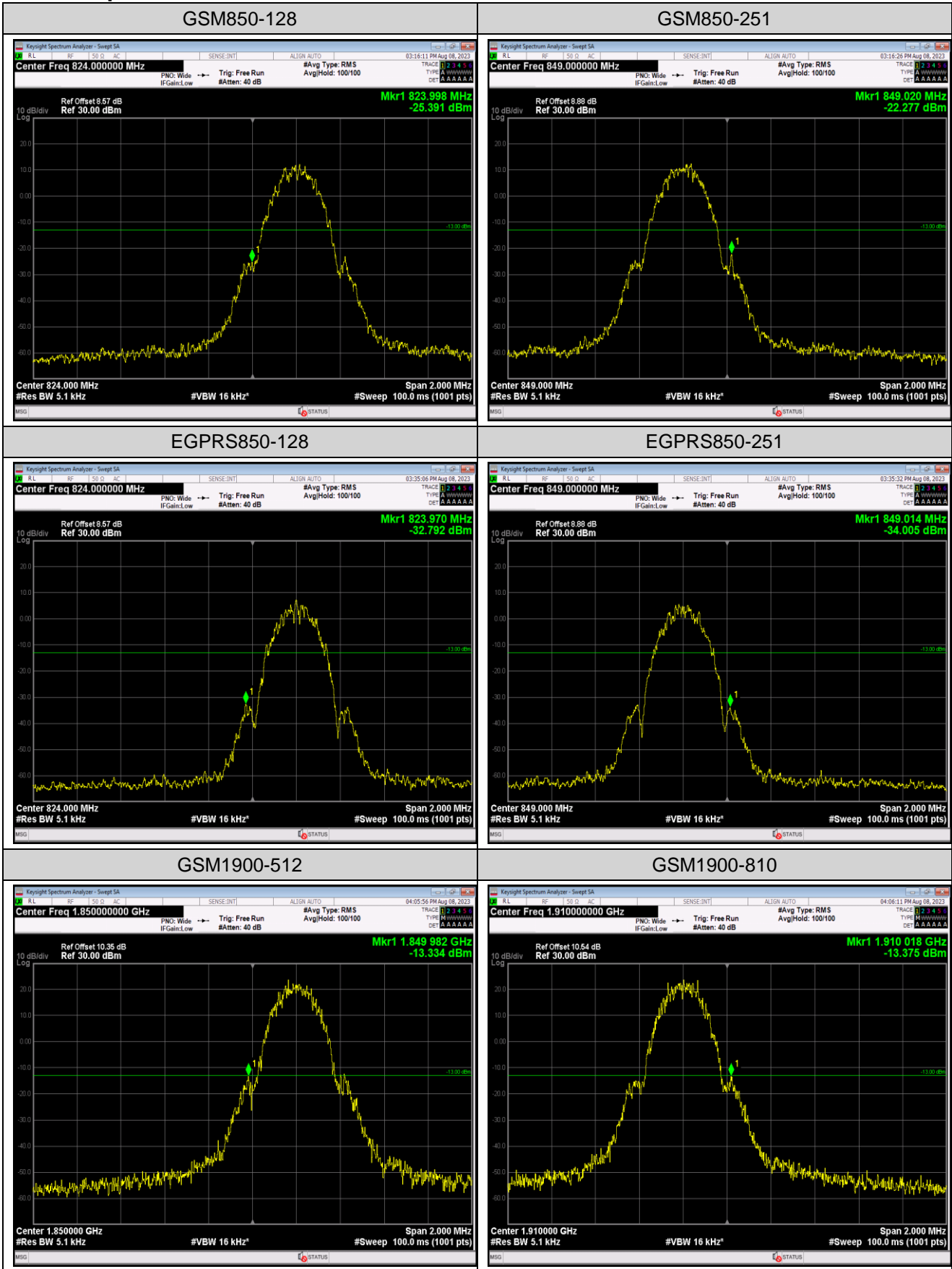


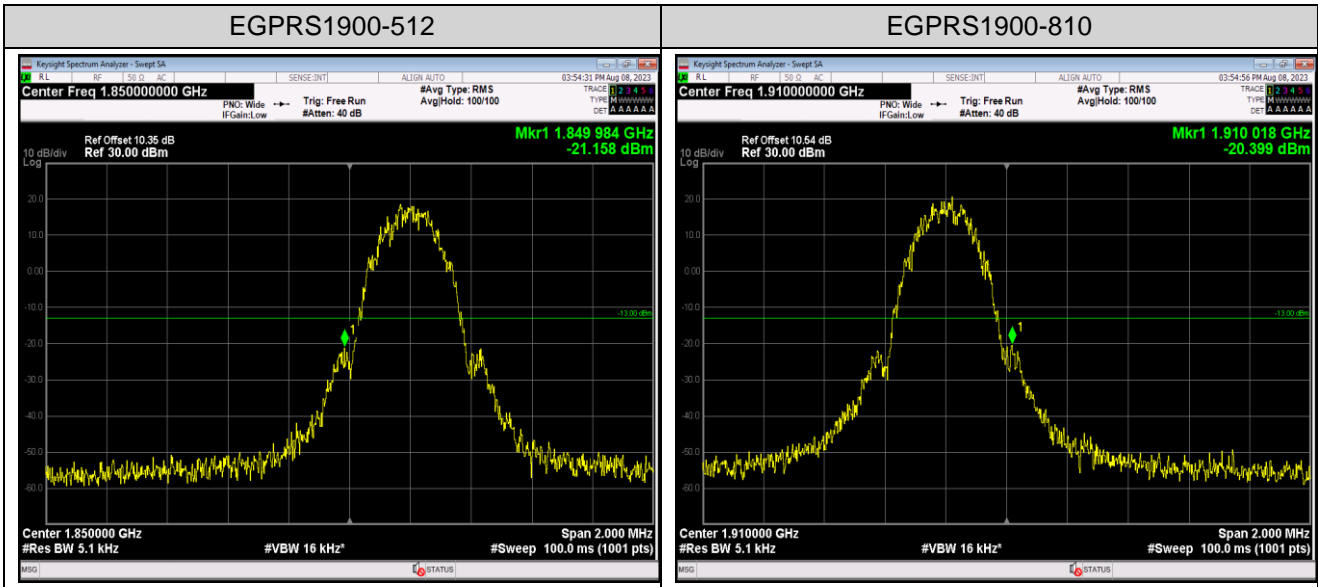


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-25.39	-13	PASS
GSM850	251	5	849.02	-22.28	-13	PASS
EGPRS850	128	8	823.97	-32.79	-13	PASS
EGPRS850	251	8	849.01	-34.01	-13	PASS
GSM1900	512	0	1849.98	-13.33	-13	PASS
GSM1900	810	0	1910.02	-13.38	-13	PASS
EGPRS1900	512	2	1849.98	-21.16	-13	PASS
EGPRS1900	810	2	1910.02	-20.40	-13	PASS

Test Graphs





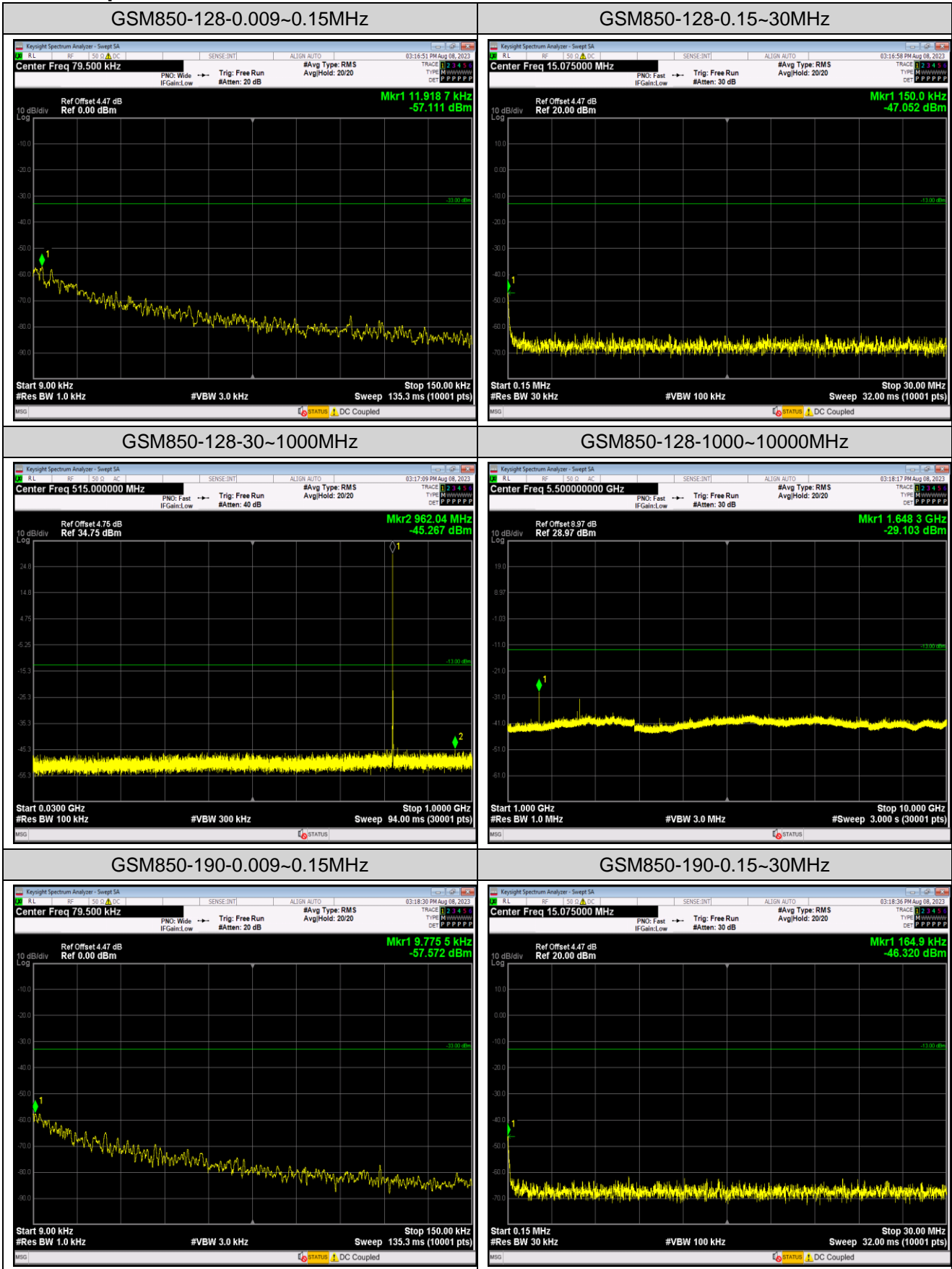
Appendix E: Conducted Spurious Emission

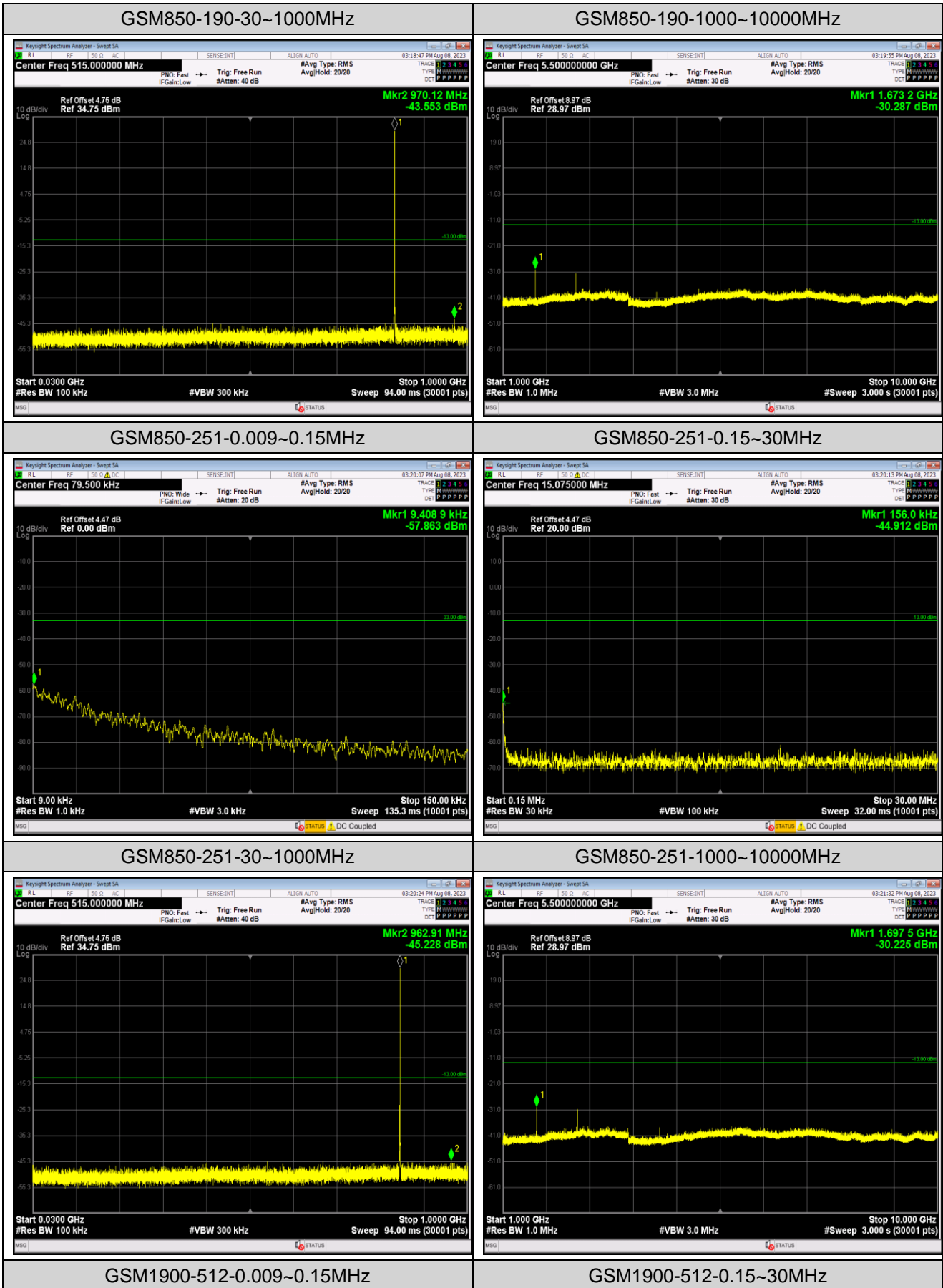
Test Result

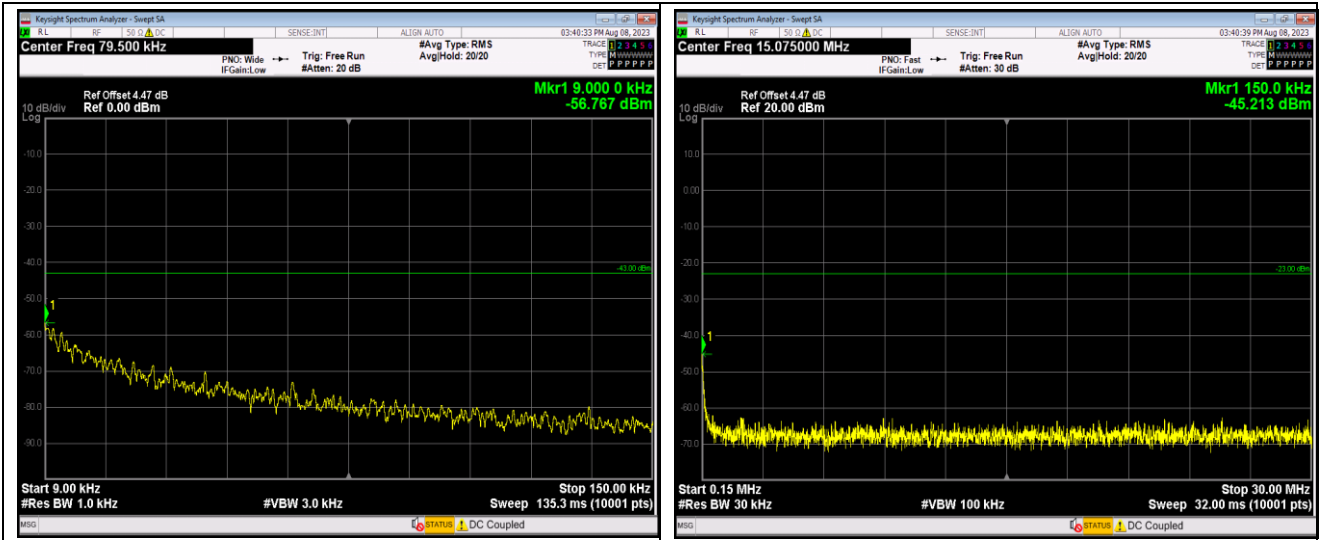
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-57.11	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-47.05	-13	PASS
GSM850	128	5	30~1000MHz	962.04	-45.27	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-29.1	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-57.57	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-46.32	-13	PASS
GSM850	190	5	30~1000MHz	970.12	-43.55	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-30.29	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-57.86	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-44.91	-13	PASS
GSM850	251	5	30~1000MHz	962.91	-45.23	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-30.23	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.77	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-45.21	-23	PASS
GSM1900	512	0	30~1000MHz	938.02	-46.01	-13	PASS
GSM1900	512	0	1000~18000MHz	16964.7	-22.26	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-59.52	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-45.59	-23	PASS
GSM1900	661	0	30~1000MHz	909.37	-45.27	-13	PASS
GSM1900	661	0	1000~18000MHz	17085.4	-22.39	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.05	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-46.72	-23	PASS
GSM1900	810	0	30~1000MHz	809.3	-45.97	-13	PASS
GSM1900	810	0	1000~18000MHz	16179.3	-22.38	-13	PASS

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

Test Graphs

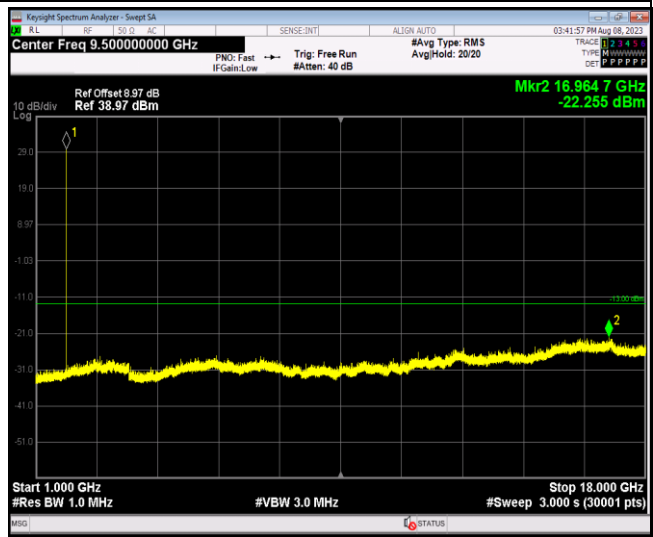
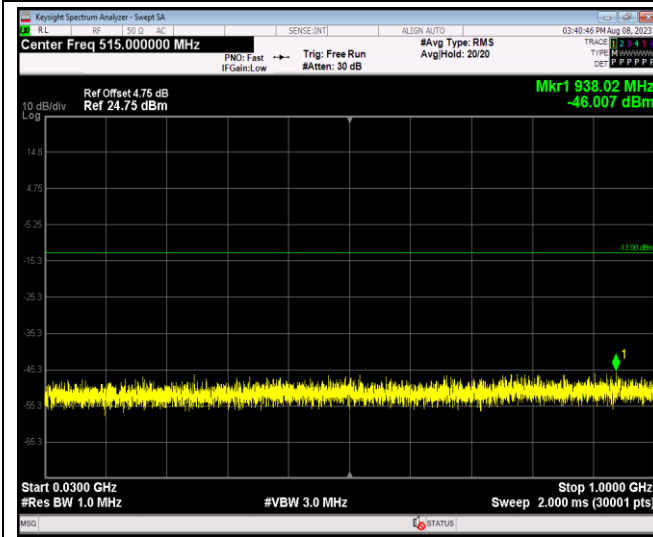






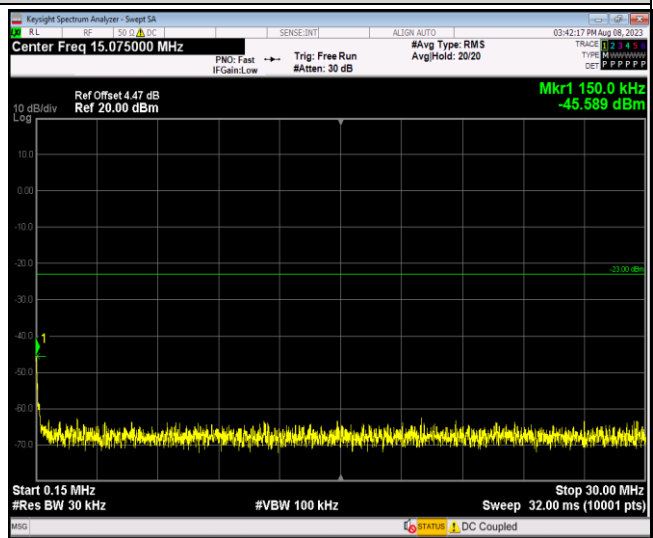
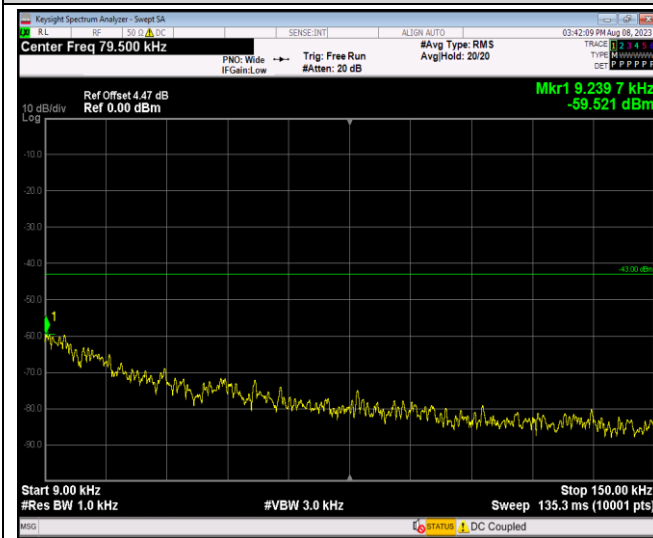
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



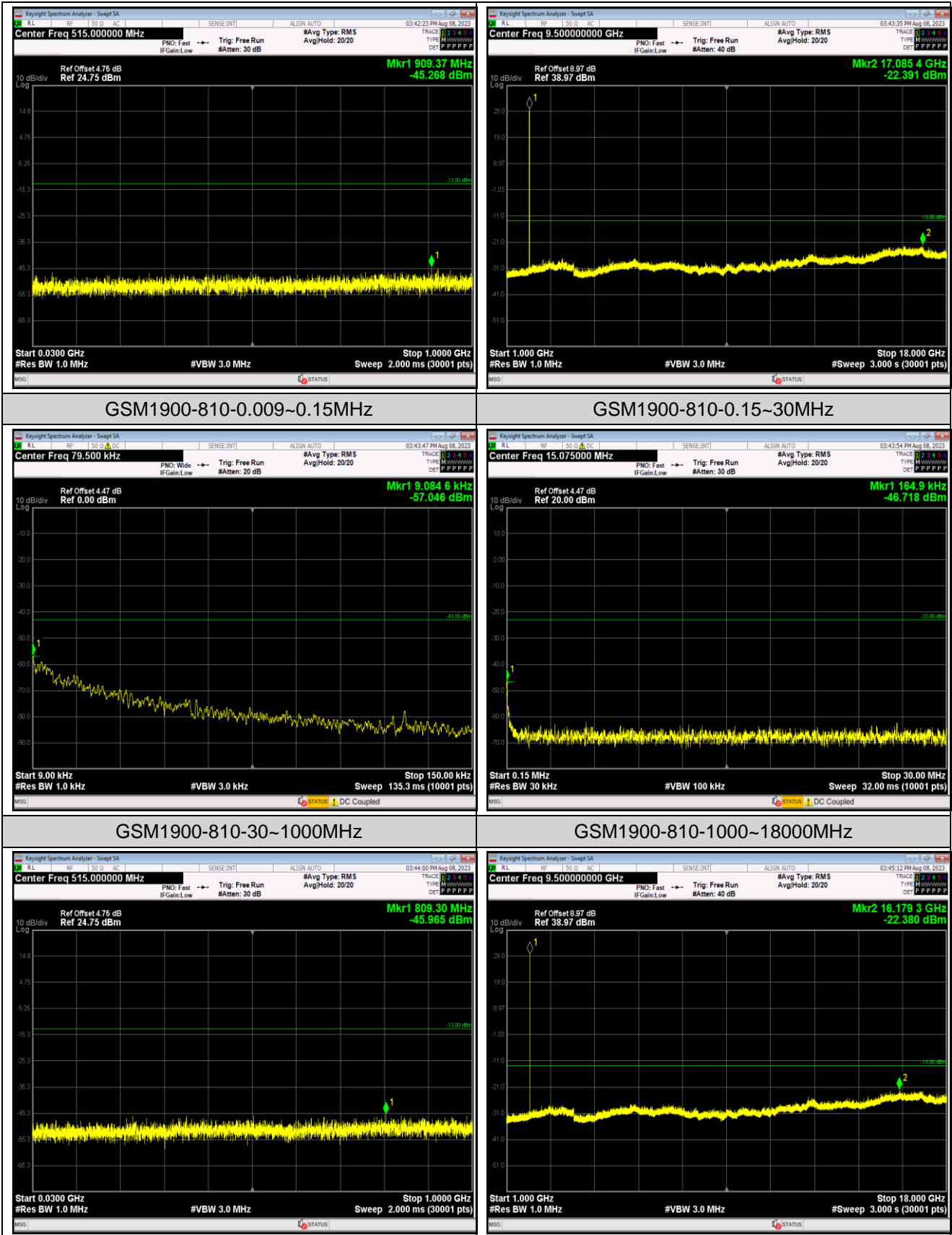
GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz



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	-3.94	-0.004710	±2.5	Pass
	-20	-5.59	-0.006682		
	-10	-2.94	-0.003514		
	0	-3.45	-0.004124		
	10	-3.49	-0.004172		
	20	-5.55	-0.006634		
	30	-2.62	-0.003132		
	40	-2.68	-0.003203		
	50	-6.26	-0.007483		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	-3.16	-0.003777	±2.5	Pass
	3.87	-4.71	-0.005630		
	4.45	-4.65	-0.005558		
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	-10.56	-0.012623	±2.5	Pass
	-20	-8.30	-0.009921		
	-10	-6.10	-0.007291		
	0	-6.33	-0.007566		
	10	-8.98	-0.010734		
	20	-4.10	-0.004901		
	30	-5.00	-0.005977		
	40	-5.91	-0.007064		
	50	-7.78	-0.009300		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	-6.68	-0.007985	±2.5	Pass
	3.87	-9.49	-0.011344		
	4.45	-6.97	-0.008331		
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	-15.11	-0.008037	Within authorized band for PCS 1900	Pass
	-20	-12.62	-0.006713		
	-10	-13.37	-0.007112		
	0	-12.82	-0.006819		
	10	-4.81	-0.002559		
	20	-11.01	-0.005856		
	30	-12.07	-0.006420		
	40	-6.17	-0.003282		
	50	-6.88	-0.003660		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	-11.24	-0.005979	Within authorized band for PCS 1900	Pass
	3.87	-18.08	-0.009617		
	4.45	-10.33	-0.005495		
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	-3.13	-0.001665	Within authorized band for PCS 1900	Pass
	-20	-4.29	-0.002282		
	-10	-2.97	-0.001580		
	0	-5.94	-0.003160		
	10	-9.75	-0.005186		
	20	-5.07	-0.002697		
	30	4.68	0.002489		
	40	4.16	0.002213		
	50	0.68	0.000362		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	-7.91	-0.004207	Within authorized band for PCS 1900	Pass
	3.87	-0.77	-0.000410		
	4.45	-3.42	-0.001819		
<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

