

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	33.56	25.07	38.45	PASS
GSM850	190	5	33.85	25.36	38.45	PASS
GSM850	251	5	33.27	24.78	38.45	PASS
GSM1900	512	0	30.84	27.72	33.00	PASS
GSM1900	661	0	30.98	27.86	33.00	PASS
GSM1900	810	0	30.88	27.76	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.58	25.09	38.45	PASS
GPRS850	128	5	2	32.38	23.89	38.45	PASS
GPRS850	128	5	3	29.91	21.42	38.45	PASS
GPRS850	128	5	4	28.48	19.99	38.45	PASS
GPRS850	190	5	1	33.87	25.38	38.45	PASS
GPRS850	190	5	2	32.72	24.23	38.45	PASS
GPRS850	190	5	3	30.33	21.84	38.45	PASS
GPRS850	190	5	4	28.91	20.42	38.45	PASS
GPRS850	251	5	1	33.29	24.80	38.45	PASS
GPRS850	251	5	2	32.00	23.51	38.45	PASS
GPRS850	251	5	3	29.57	21.08	38.45	PASS
GPRS850	251	5	4	28.13	19.64	38.45	PASS
GPRS1900	512	0	1	30.88	27.76	33.00	PASS
GPRS1900	512	0	2	30.06	26.94	33.00	PASS
GPRS1900	512	0	3	27.85	24.73	33.00	PASS
GPRS1900	512	0	4	26.21	23.09	33.00	PASS
GPRS1900	661	0	1	31.02	27.90	33.00	PASS
GPRS1900	661	0	2	30.19	27.07	33.00	PASS
GPRS1900	661	0	3	28.03	24.91	33.00	PASS
GPRS1900	661	0	4	26.36	23.24	33.00	PASS
GPRS1900	810	0	1	30.94	27.82	33.00	PASS
GPRS1900	810	0	2	30.11	26.99	33.00	PASS
GPRS1900	810	0	3	28.00	24.88	33.00	PASS
GPRS1900	810	0	4	26.28	23.16	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.61	20.12	38.45	PASS
EGPRS850	128	8	2	27.41	18.92	38.45	PASS
EGPRS850	128	8	3	25.43	16.94	38.45	PASS
EGPRS850	128	8	4	24.17	15.68	38.45	PASS
EGPRS850	190	8	1	28.58	20.09	38.45	PASS
EGPRS850	190	8	2	27.47	18.98	38.45	PASS
EGPRS850	190	8	3	25.45	16.96	38.45	PASS
EGPRS850	190	8	4	24.21	15.72	38.45	PASS
EGPRS850	251	8	1	28.58	20.09	38.45	PASS
EGPRS850	251	8	2	27.39	18.90	38.45	PASS
EGPRS850	251	8	3	25.34	16.85	38.45	PASS
EGPRS850	251	8	4	24.21	15.72	38.45	PASS
EGPRS1900	512	2	1	27.61	24.49	33.00	PASS
EGPRS1900	512	2	2	26.43	23.31	33.00	PASS
EGPRS1900	512	2	3	24.25	21.13	33.00	PASS
EGPRS1900	512	2	4	23.07	19.95	33.00	PASS
EGPRS1900	661	2	1	27.89	24.77	33.00	PASS
EGPRS1900	661	2	2	26.76	23.64	33.00	PASS
EGPRS1900	661	2	3	24.63	21.51	33.00	PASS
EGPRS1900	661	2	4	23.35	20.23	33.00	PASS
EGPRS1900	810	2	1	27.98	24.86	33.00	PASS
EGPRS1900	810	2	2	26.83	23.71	33.00	PASS
EGPRS1900	810	2	3	24.70	21.58	33.00	PASS
EGPRS1900	810	2	4	23.38	20.26	33.00	PASS

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

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

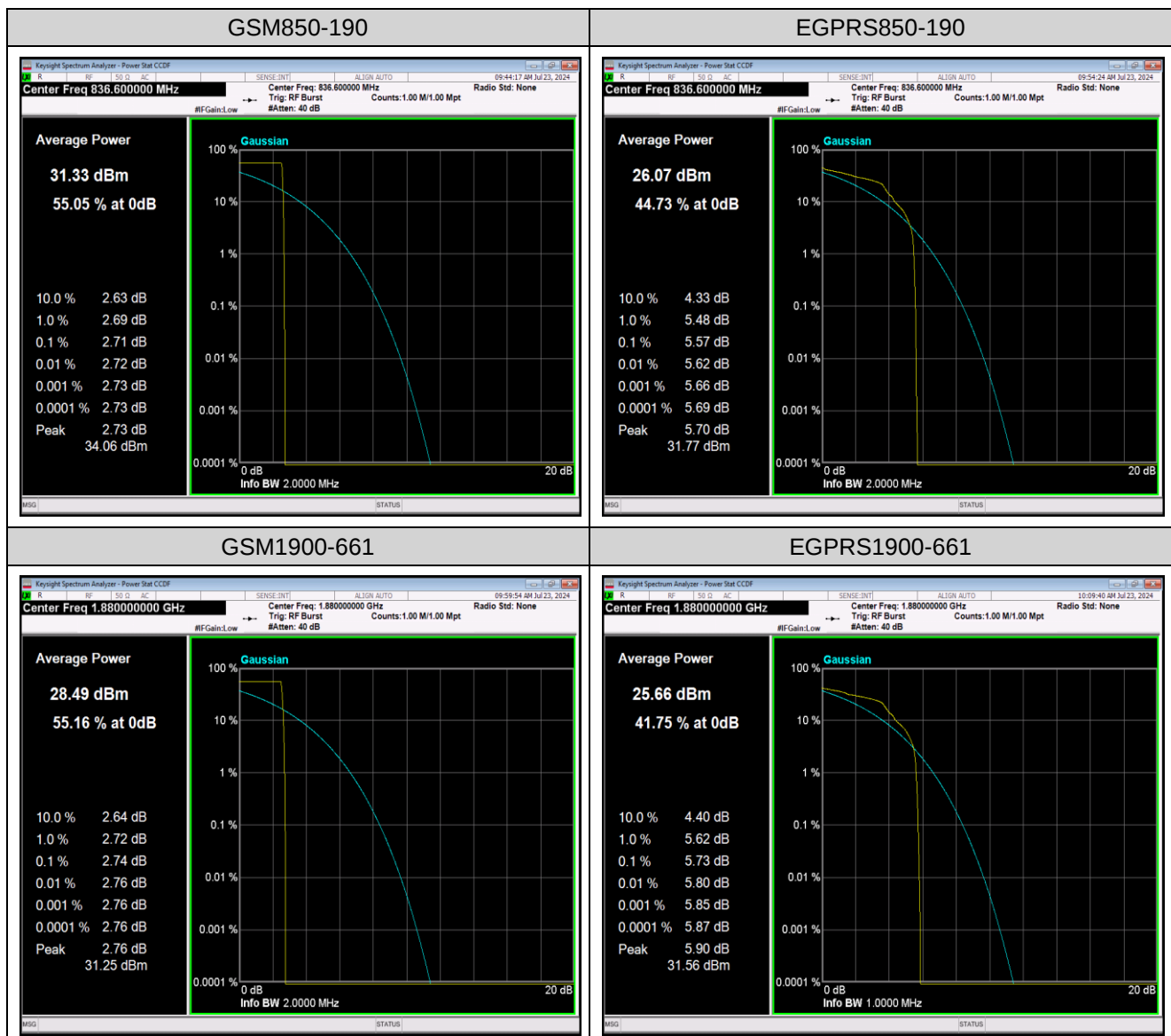
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.71	13	PASS
EGPRS850	190	8	5.57	13	PASS
GSM1900	661	0	2.74	13	PASS
EGPRS1900	661	2	5.73	13	PASS

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

Test Graphs

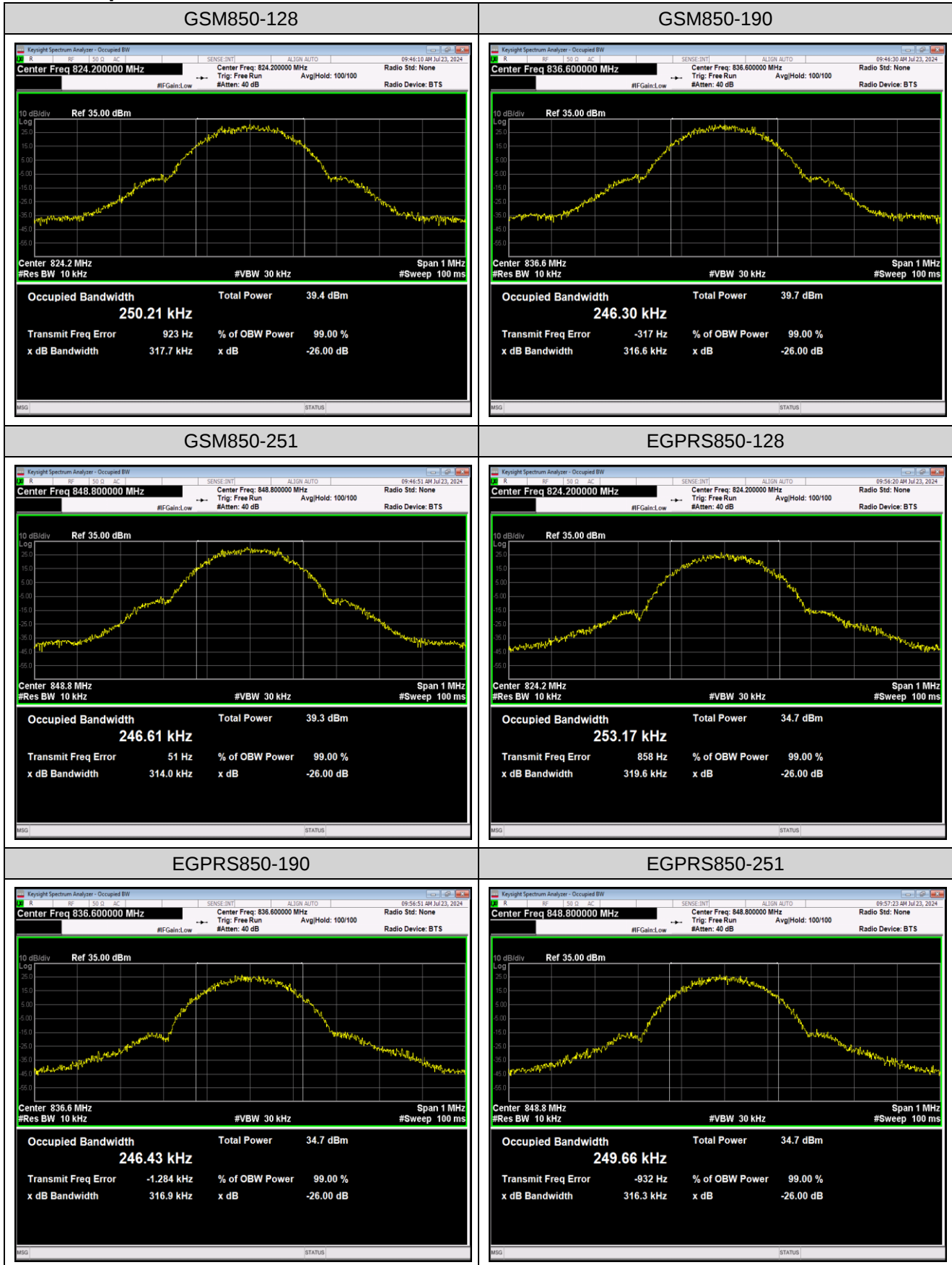


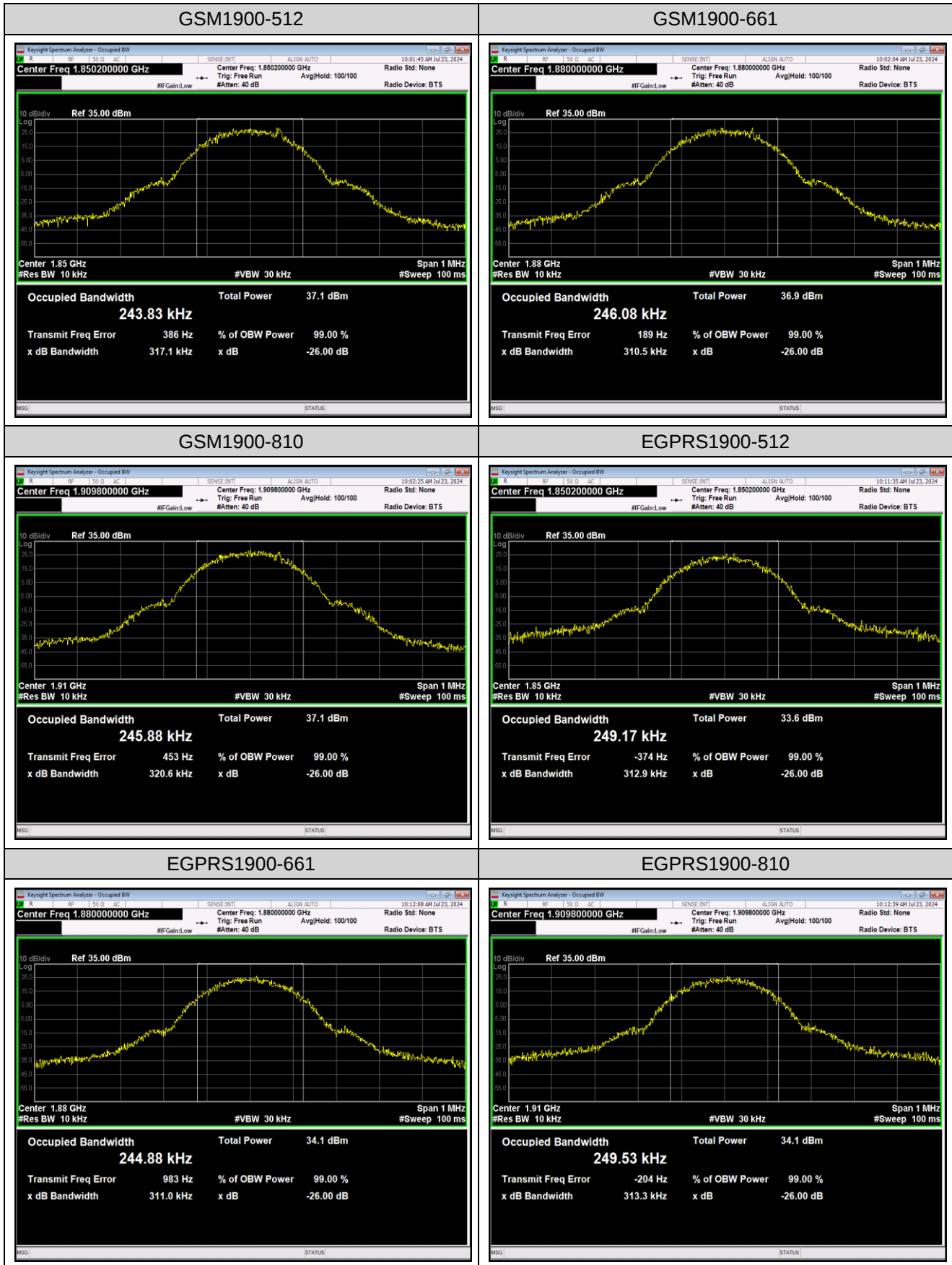
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.25021	0.3177	---	PASS
GSM850	190	5	0.24630	0.3166	---	PASS
GSM850	251	5	0.24661	0.3140	---	PASS
EGPRS850	128	8	0.25317	0.3196	---	PASS
EGPRS850	190	8	0.24643	0.3169	---	PASS
EGPRS850	251	8	0.24966	0.3163	---	PASS
GSM1900	512	0	0.24383	0.3171	---	PASS
GSM1900	661	0	0.24608	0.3105	---	PASS
GSM1900	810	0	0.24588	0.3206	---	PASS
EGPRS1900	512	2	0.24917	0.3129	---	PASS
EGPRS1900	661	2	0.24488	0.3110	---	PASS
EGPRS1900	810	2	0.24953	0.3133	---	PASS

Test Graphs



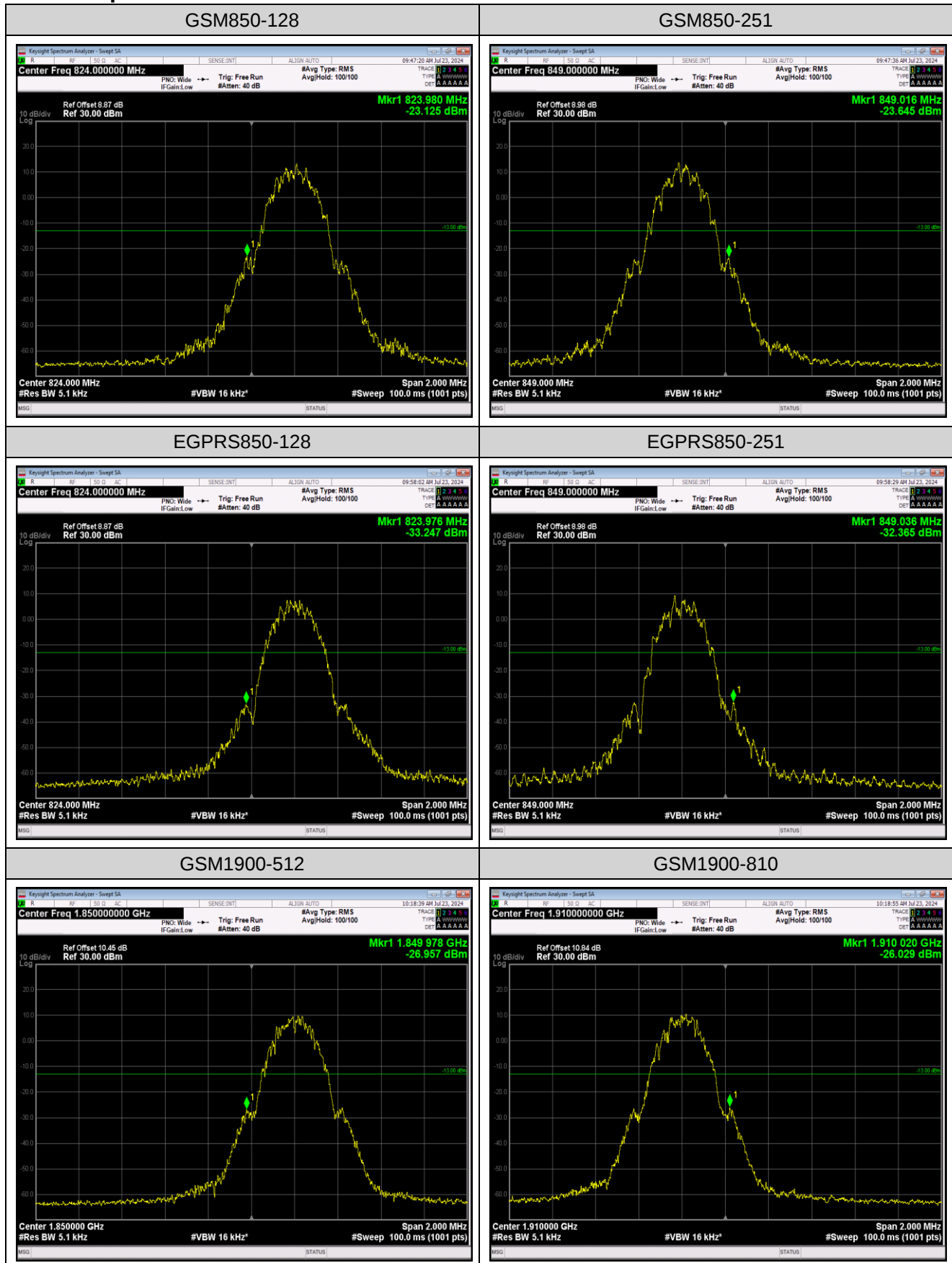


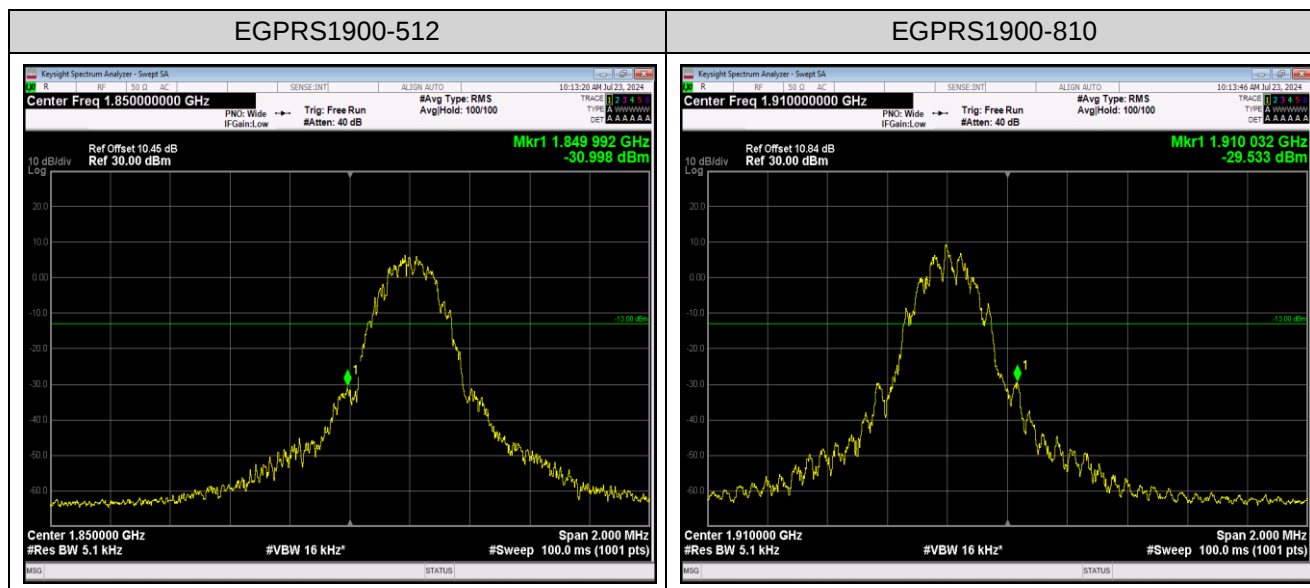
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.13	-13	PASS
GSM850	251	5	849.02	-23.64	-13	PASS
EGPRS850	128	8	823.98	-33.25	-13	PASS
EGPRS850	251	8	849.04	-32.36	-13	PASS
GSM1900	512	0	1849.98	-26.96	-13	PASS
GSM1900	810	0	1910.02	-26.03	-13	PASS
EGPRS1900	512	2	1849.99	-31.00	-13	PASS
EGPRS1900	810	2	1910.03	-29.53	-13	PASS

Test Graphs





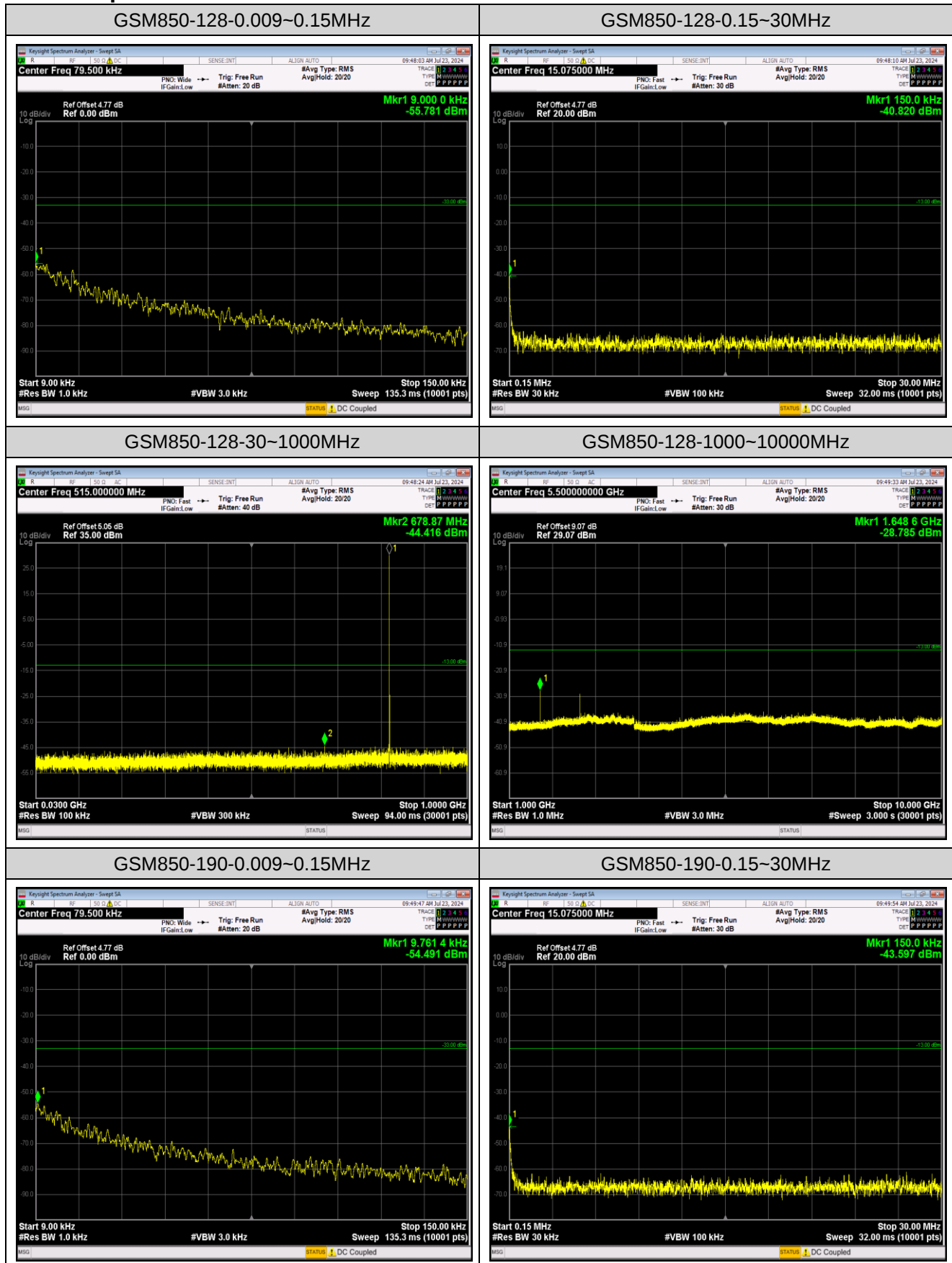
Appendix E: Conducted Spurious Emission

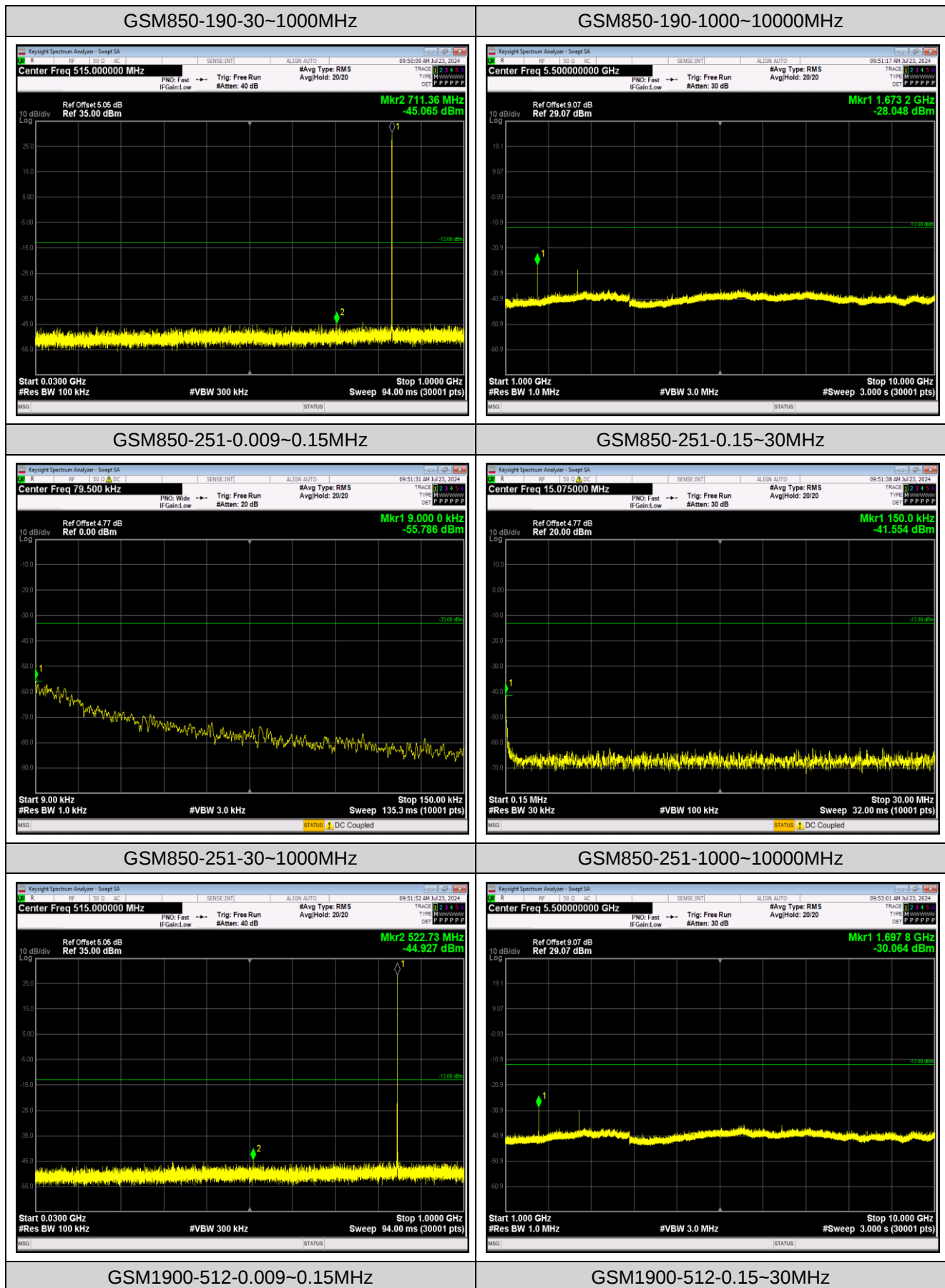
Test Result

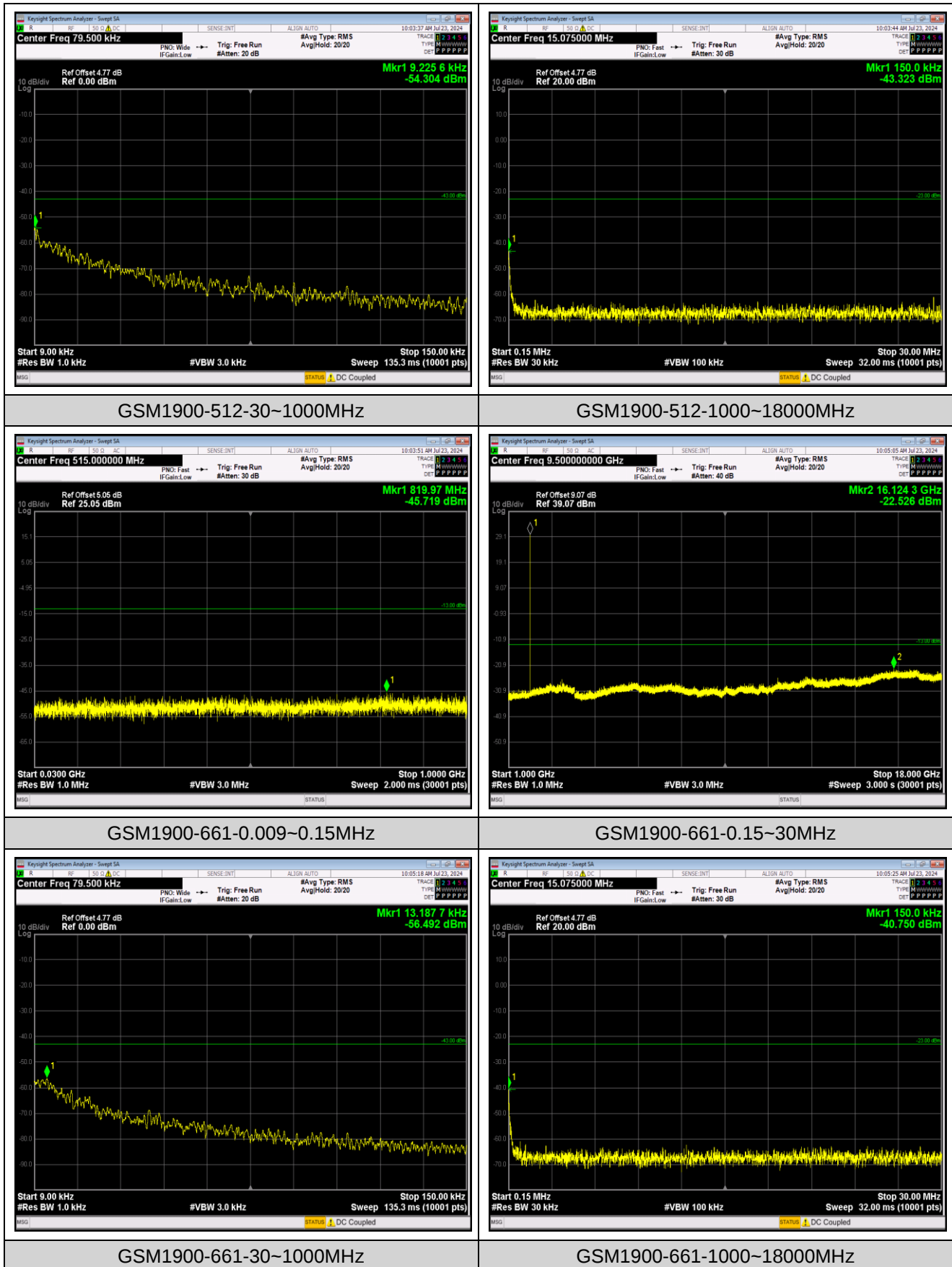
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.78	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-40.82	-13	PASS
GSM850	128	5	30~1000MHz	678.87	-44.42	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-28.79	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.49	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-43.6	-13	PASS
GSM850	190	5	30~1000MHz	711.36	-45.07	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-28.05	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.79	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-41.55	-13	PASS
GSM850	251	5	30~1000MHz	522.73	-44.93	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.06	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.3	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-43.32	-23	PASS
GSM1900	512	0	30~1000MHz	819.97	-45.72	-13	PASS
GSM1900	512	0	1000~18000MHz	16124.33	-22.53	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.49	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-40.75	-23	PASS
GSM1900	661	0	30~1000MHz	374.54	-45.34	-13	PASS
GSM1900	661	0	1000~18000MHz	15681.2	-22.14	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.89	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.88	-23	PASS
GSM1900	810	0	30~1000MHz	711.36	-44.99	-13	PASS
GSM1900	810	0	1000~18000MHz	17003.8	-22.32	-13	PASS

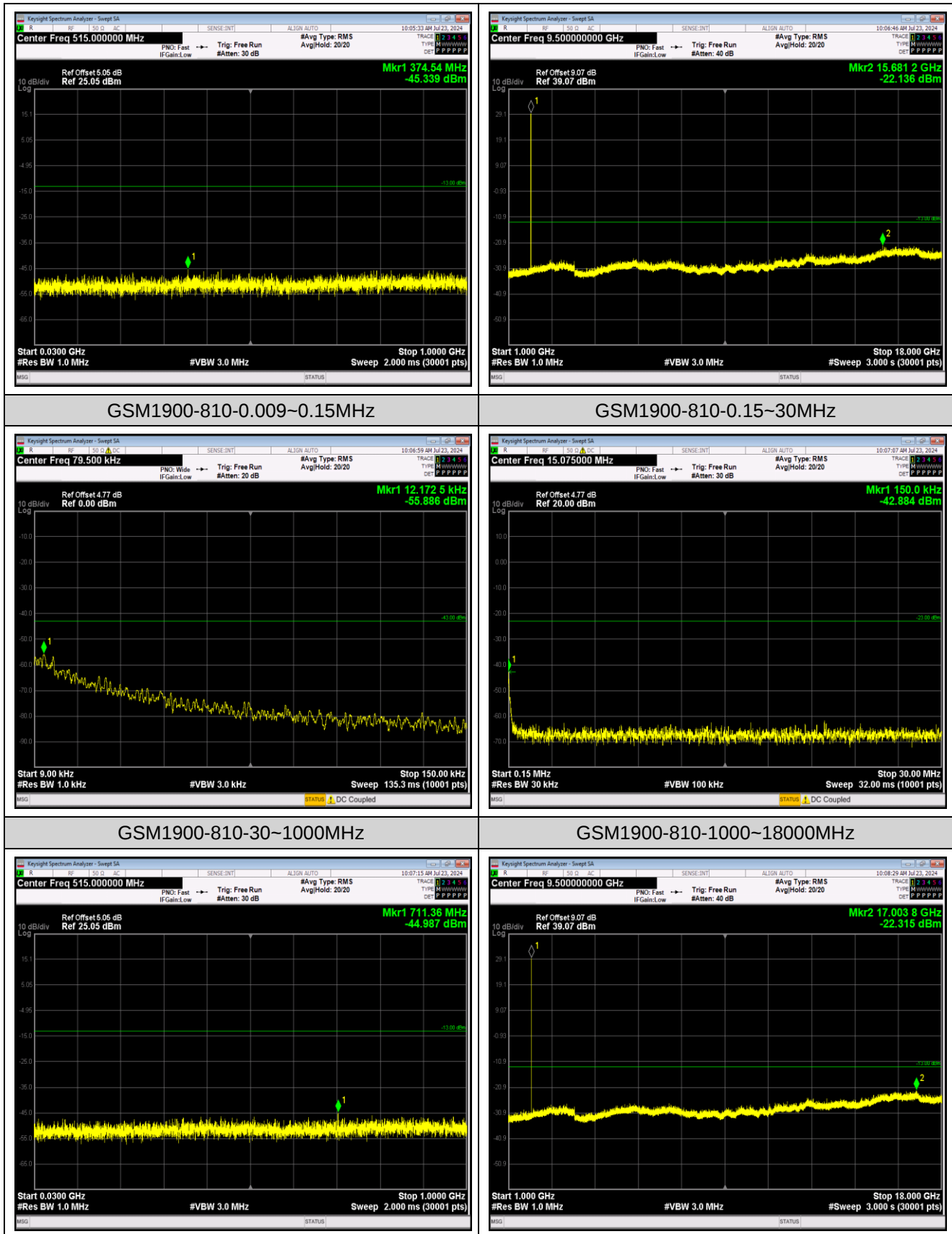
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	-13.01	-0.015551	±2.5	Pass
	-20	-9.14	-0.010925		
	-10	-8.62	-0.010304		
	0	-9.17	-0.010961		
	10	-14.43	-0.017248		
	20	-7.07	-0.008451		
	30	-7.39	-0.008833		
	40	-5.59	-0.006682		
	50	-8.14	-0.009730		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-8.52	-0.010184	±2.5	Pass
	3.87	-14.04	-0.016782		
	4.45	-13.69	-0.016364		
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	-0.52	-0.000622	±2.5	Pass
	-20	-7.75	-0.009264		
	-10	-2.03	-0.002426		
	0	-5.39	-0.006443		
	10	-3.39	-0.004052		
	20	-5.78	-0.006909		
	30	-7.17	-0.008570		
	40	-2.74	-0.003275		
	50	-0.39	-0.000466		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-5.20	-0.006216	±2.5	Pass
	3.87	-1.78	-0.002128		
	4.45	-6.78	-0.008104		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-6.36	-0.003383	Within authorized band for PCS 1900	Pass
	-20	-7.52	-0.004000		
	-10	-8.56	-0.004553		
	0	-11.01	-0.005856		
	10	-8.43	-0.004484		
	20	-8.72	-0.004638		
	30	-2.87	-0.001527		
	40	-5.52	-0.002936		
	50	-13.17	-0.007005		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-13.82	-0.007351	Within authorized band for PCS 1900	Pass
	3.87	-14.95	-0.007952		
	4.45	-15.92	-0.008468		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-1.36	-0.000723	Within authorized band for PCS 1900	Pass
	-20	-5.17	-0.002750		
	-10	-0.61	-0.000324		
	0	-4.52	-0.002404		
	10	-0.94	-0.000500		
	20	6.42	0.003415		
	30	8.88	0.004723		
	40	4.36	0.002319		
	50	12.66	0.006734		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-0.45	-0.000239	Within authorized band for PCS 1900	Pass
	3.87	-1.00	-0.000532		
	4.45	0.71	0.000378		
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

