

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	33.17	24.22	38.45	PASS
GSM850	190	5	33.27	24.32	38.45	PASS
GSM850	251	5	32.96	24.01	38.45	PASS
GSM1900	512	0	29.05	22.25	33.00	PASS
GSM1900	661	0	29.14	22.34	33.00	PASS
GSM1900	810	0	28.90	22.1	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.02	24.07	38.45	PASS
GPRS850	128	5	2	32.28	23.33	38.45	PASS
GPRS850	128	5	3	30.54	21.59	38.45	PASS
GPRS850	128	5	4	29.44	20.49	38.45	PASS
GPRS850	190	5	1	33.24	24.29	38.45	PASS
GPRS850	190	5	2	32.51	23.56	38.45	PASS
GPRS850	190	5	3	30.77	21.82	38.45	PASS
GPRS850	190	5	4	29.69	20.74	38.45	PASS
GPRS850	251	5	1	32.99	24.04	38.45	PASS
GPRS850	251	5	2	32.25	23.3	38.45	PASS
GPRS850	251	5	3	30.55	21.6	38.45	PASS
GPRS850	251	5	4	29.46	20.51	38.45	PASS
GPRS1900	512	0	1	29.08	22.28	33.00	PASS
GPRS1900	512	0	2	28.31	21.51	33.00	PASS
GPRS1900	512	0	3	26.42	19.62	33.00	PASS
GPRS1900	512	0	4	25.30	18.5	33.00	PASS
GPRS1900	661	0	1	29.18	22.38	33.00	PASS
GPRS1900	661	0	2	28.46	21.66	33.00	PASS
GPRS1900	661	0	3	26.65	19.85	33.00	PASS
GPRS1900	661	0	4	25.61	18.81	33.00	PASS
GPRS1900	810	0	1	28.94	22.14	33.00	PASS
GPRS1900	810	0	2	28.25	21.45	33.00	PASS
GPRS1900	810	0	3	26.55	19.75	33.00	PASS
GPRS1900	810	0	4	25.51	18.71	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.86	17.91	38.45	PASS
EGPRS850	128	8	2	25.50	16.55	38.45	PASS
EGPRS850	128	8	3	23.51	14.56	38.45	PASS
EGPRS850	128	8	4	22.31	13.36	38.45	PASS
EGPRS850	190	8	1	26.70	17.75	38.45	PASS
EGPRS850	190	8	2	25.75	16.8	38.45	PASS
EGPRS850	190	8	3	23.46	14.51	38.45	PASS
EGPRS850	190	8	4	22.31	13.36	38.45	PASS
EGPRS850	251	8	1	26.87	17.92	38.45	PASS
EGPRS850	251	8	2	25.80	16.85	38.45	PASS
EGPRS850	251	8	3	23.54	14.59	38.45	PASS
EGPRS850	251	8	4	22.39	13.44	38.45	PASS
EGPRS1900	512	2	1	25.52	18.72	33.00	PASS
EGPRS1900	512	2	2	24.46	17.66	33.00	PASS
EGPRS1900	512	2	3	22.42	15.62	33.00	PASS
EGPRS1900	512	2	4	21.21	14.41	33.00	PASS
EGPRS1900	661	2	1	25.65	18.85	33.00	PASS
EGPRS1900	661	2	2	24.60	17.8	33.00	PASS
EGPRS1900	661	2	3	22.57	15.77	33.00	PASS
EGPRS1900	661	2	4	21.30	14.5	33.00	PASS
EGPRS1900	810	2	1	25.94	19.14	33.00	PASS
EGPRS1900	810	2	2	24.98	18.18	33.00	PASS
EGPRS1900	810	2	3	22.92	16.12	33.00	PASS
EGPRS1900	810	2	4	21.68	14.88	33.00	PASS

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

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

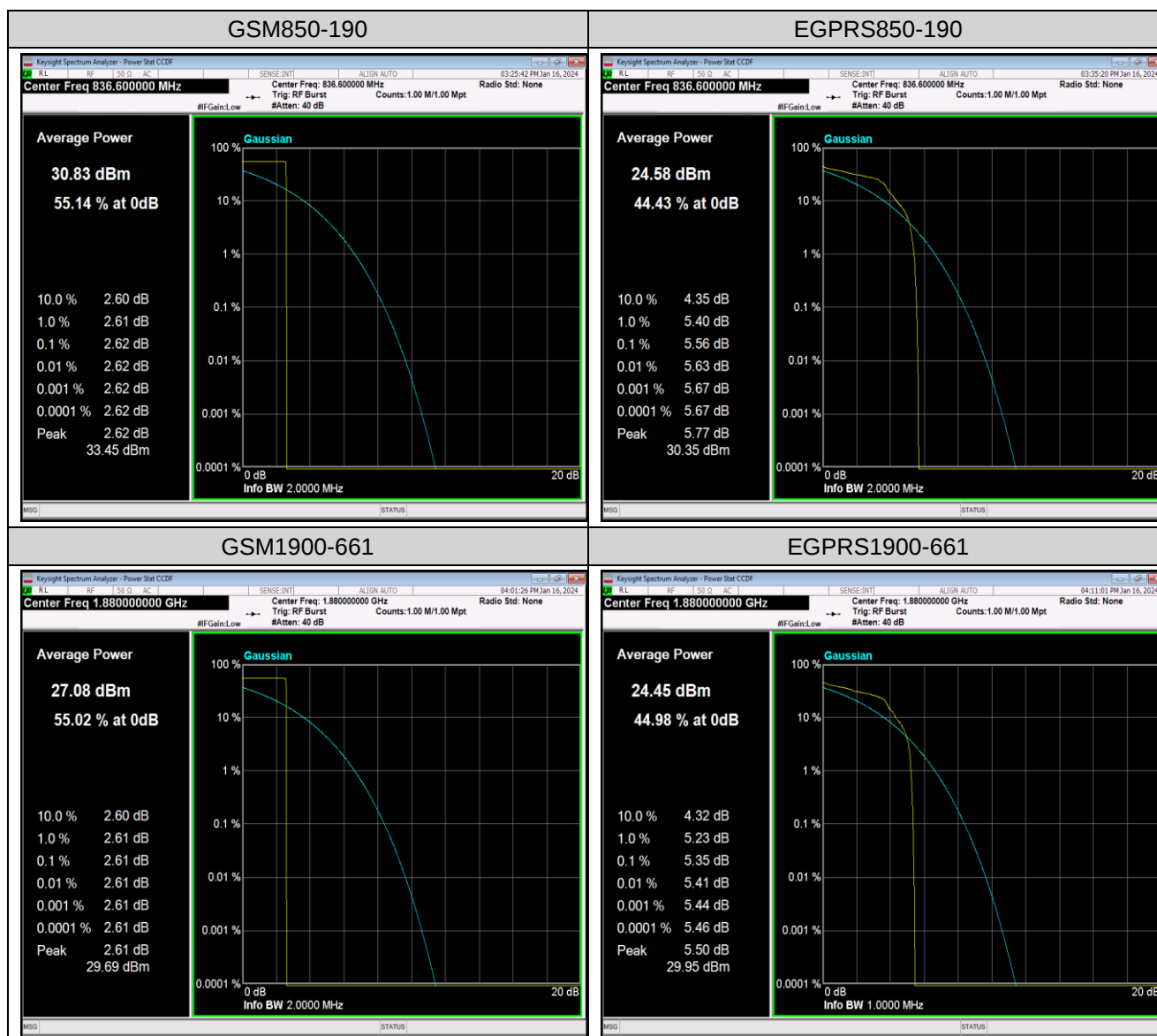
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.56	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.35	13	PASS

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

Test Graphs

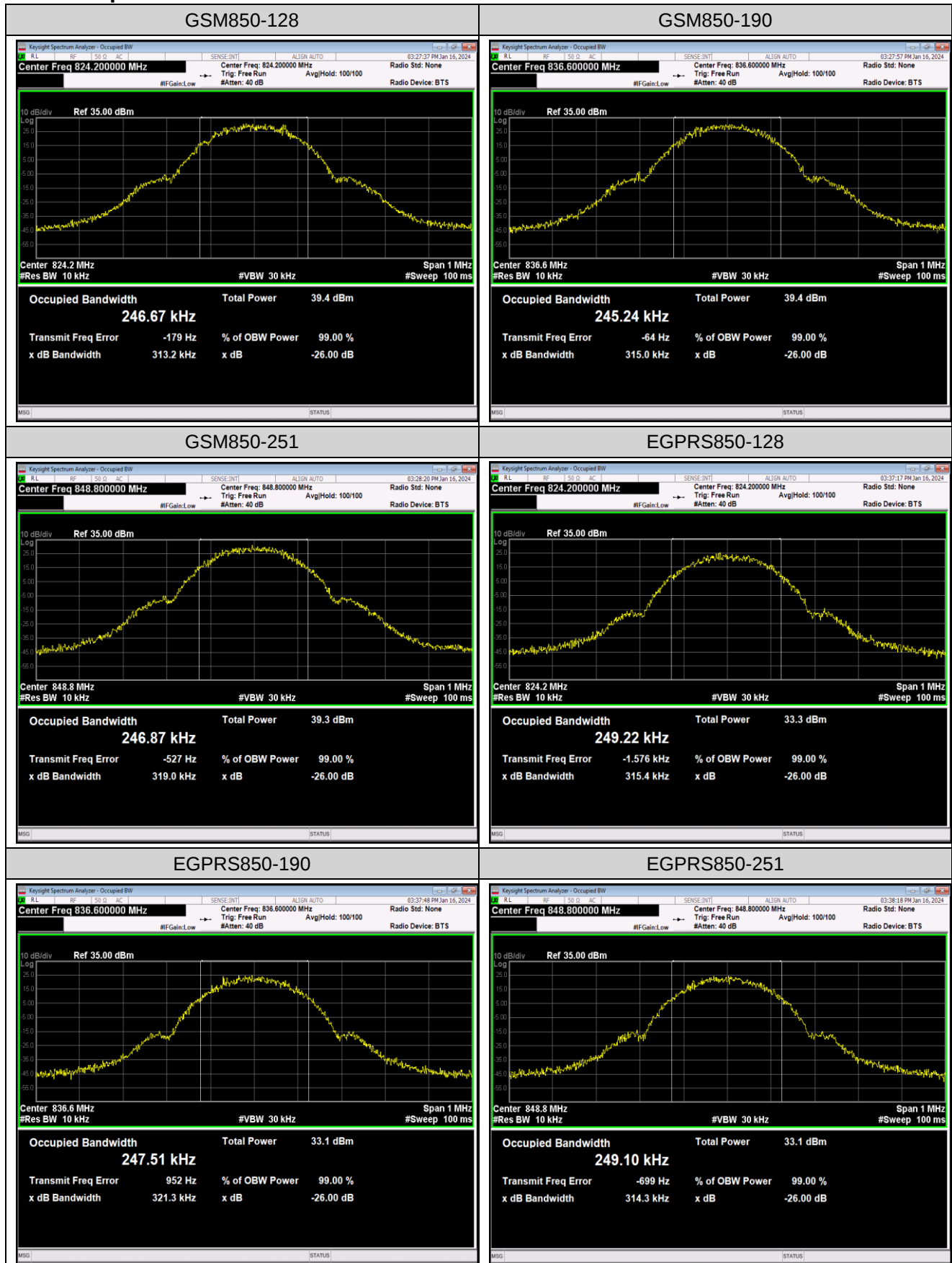


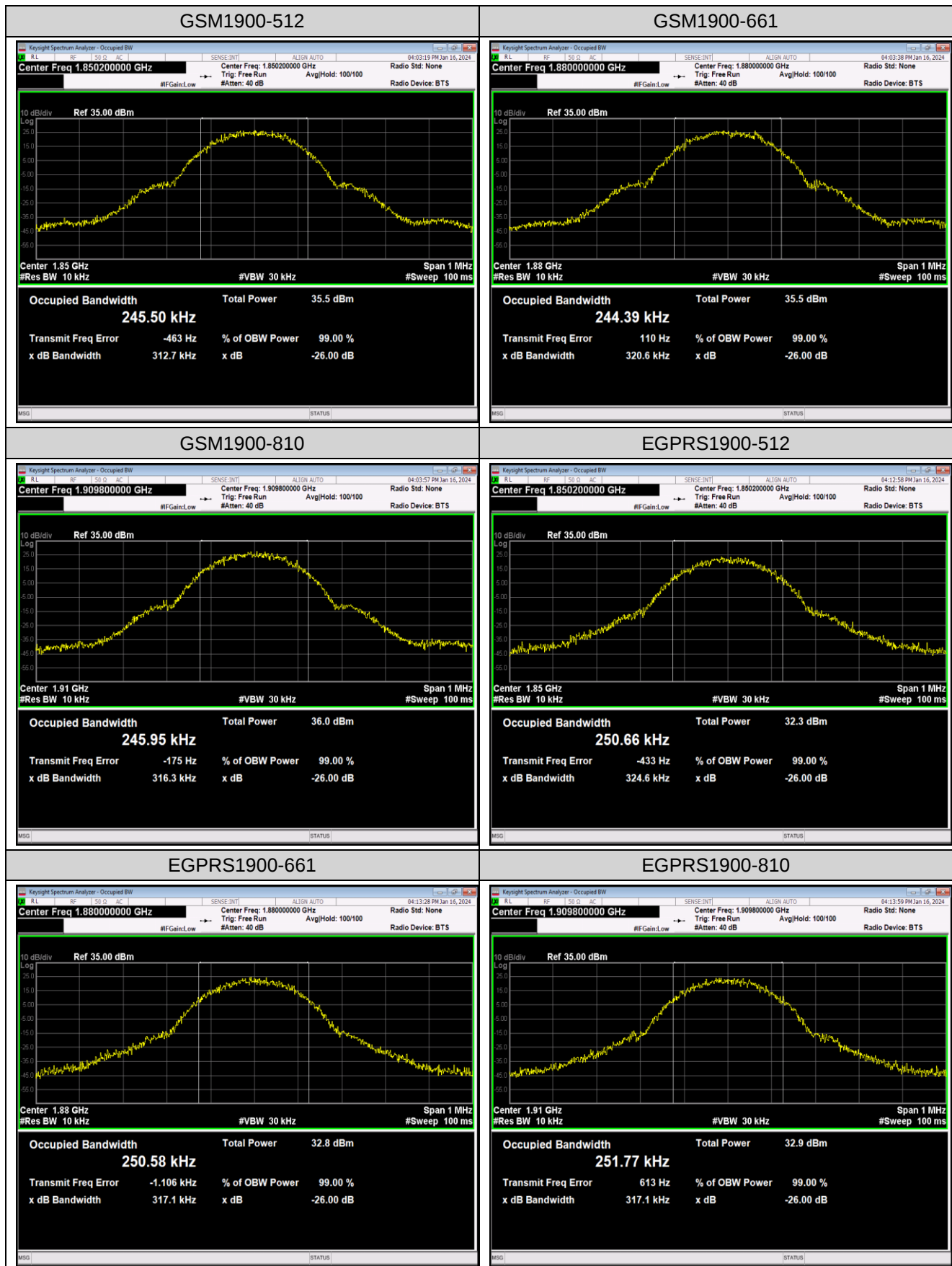
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24667	0.3132	---	PASS
GSM850	190	5	0.24524	0.3150	---	PASS
GSM850	251	5	0.24687	0.3190	---	PASS
EGPRS850	128	8	0.24922	0.3154	---	PASS
EGPRS850	190	8	0.24751	0.3213	---	PASS
EGPRS850	251	8	0.24910	0.3143	---	PASS
GSM1900	512	0	0.24550	0.3127	---	PASS
GSM1900	661	0	0.24439	0.3206	---	PASS
GSM1900	810	0	0.24595	0.3163	---	PASS
EGPRS1900	512	2	0.25066	0.3246	---	PASS
EGPRS1900	661	2	0.25058	0.3171	---	PASS
EGPRS1900	810	2	0.25177	0.3171	---	PASS

Test Graphs



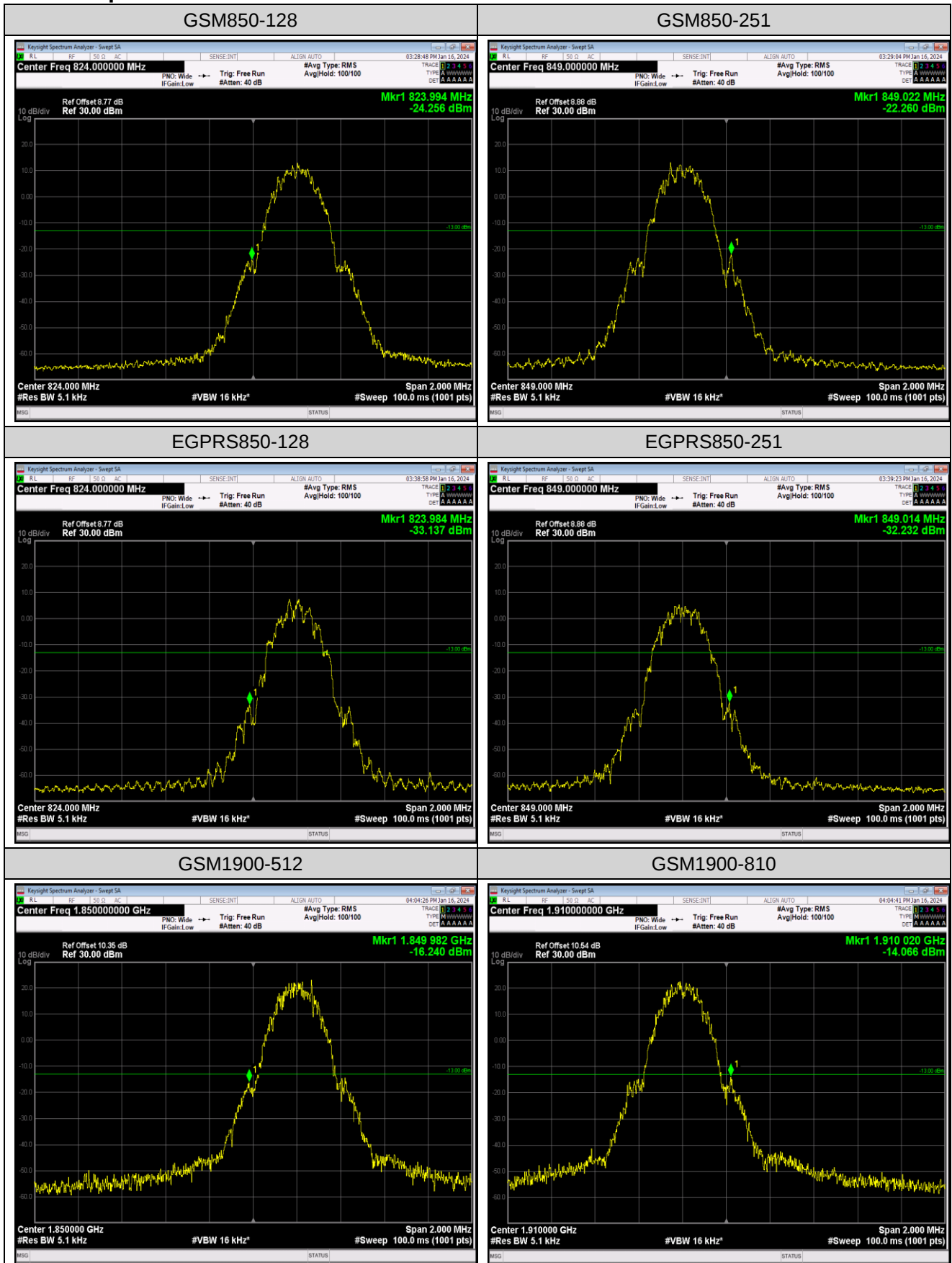


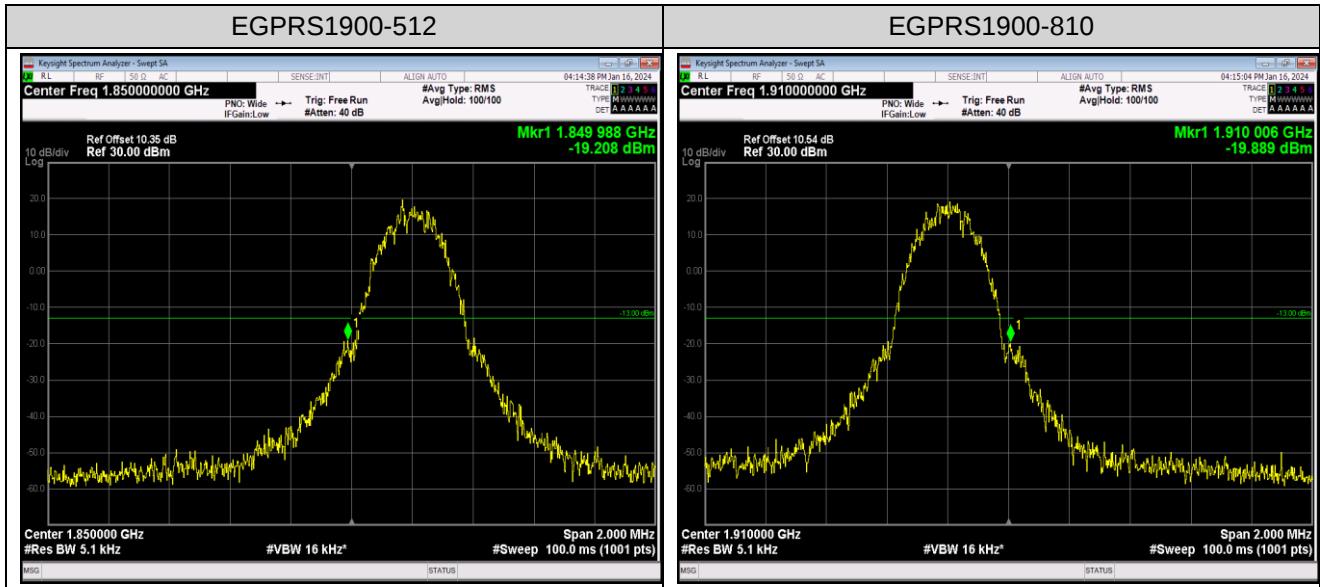
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.99	-24.26	-13	PASS
GSM850	251	5	849.02	-22.26	-13	PASS
EGPRS850	128	8	823.98	-33.14	-13	PASS
EGPRS850	251	8	849.01	-32.23	-13	PASS
GSM1900	512	0	1849.98	-16.24	-13	PASS
GSM1900	810	0	1910.02	-14.07	-13	PASS
EGPRS1900	512	2	1849.99	-19.21	-13	PASS
EGPRS1900	810	2	1910.01	-19.89	-13	PASS

Test Graphs





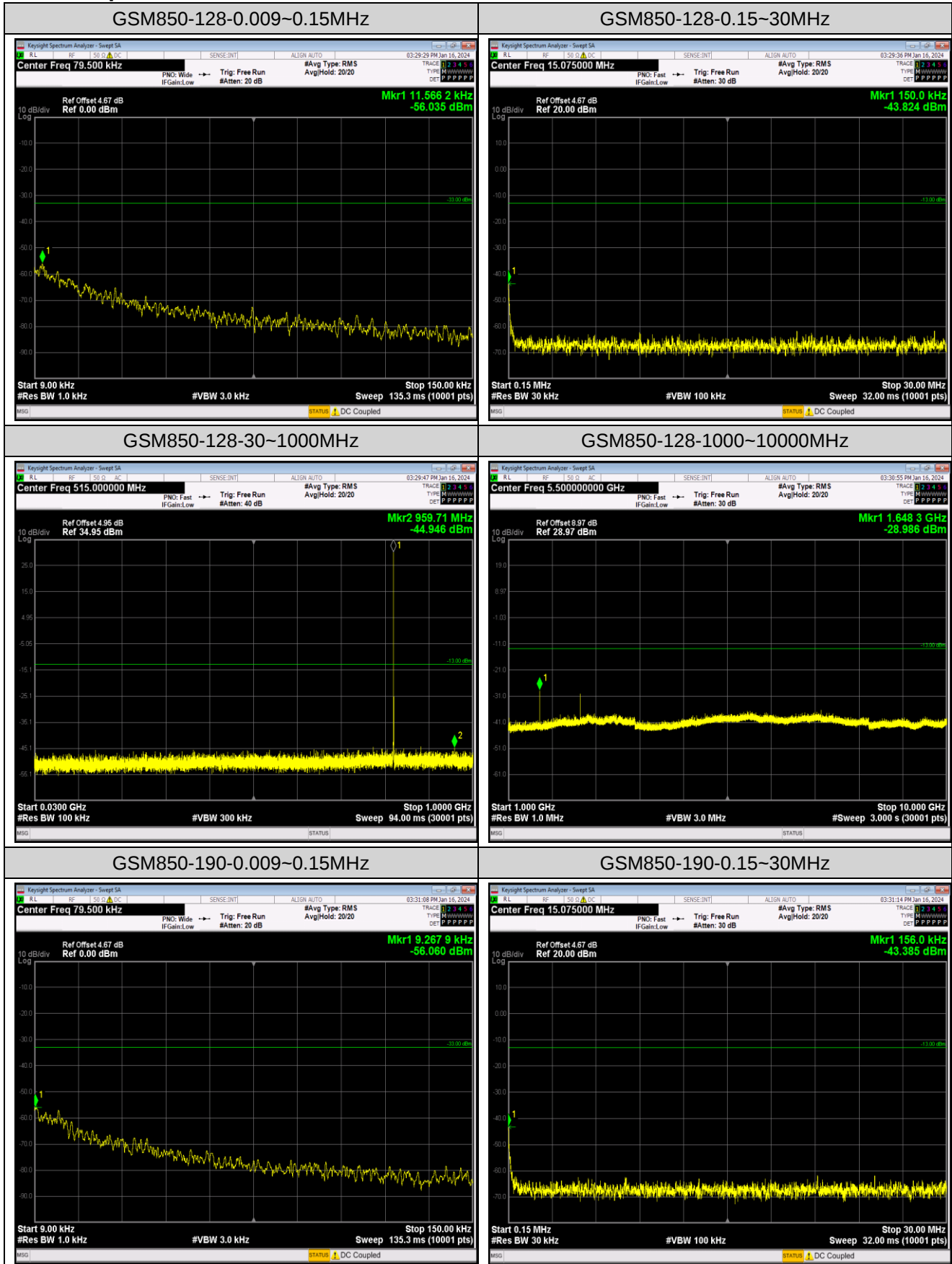
Appendix E: Conducted Spurious Emission

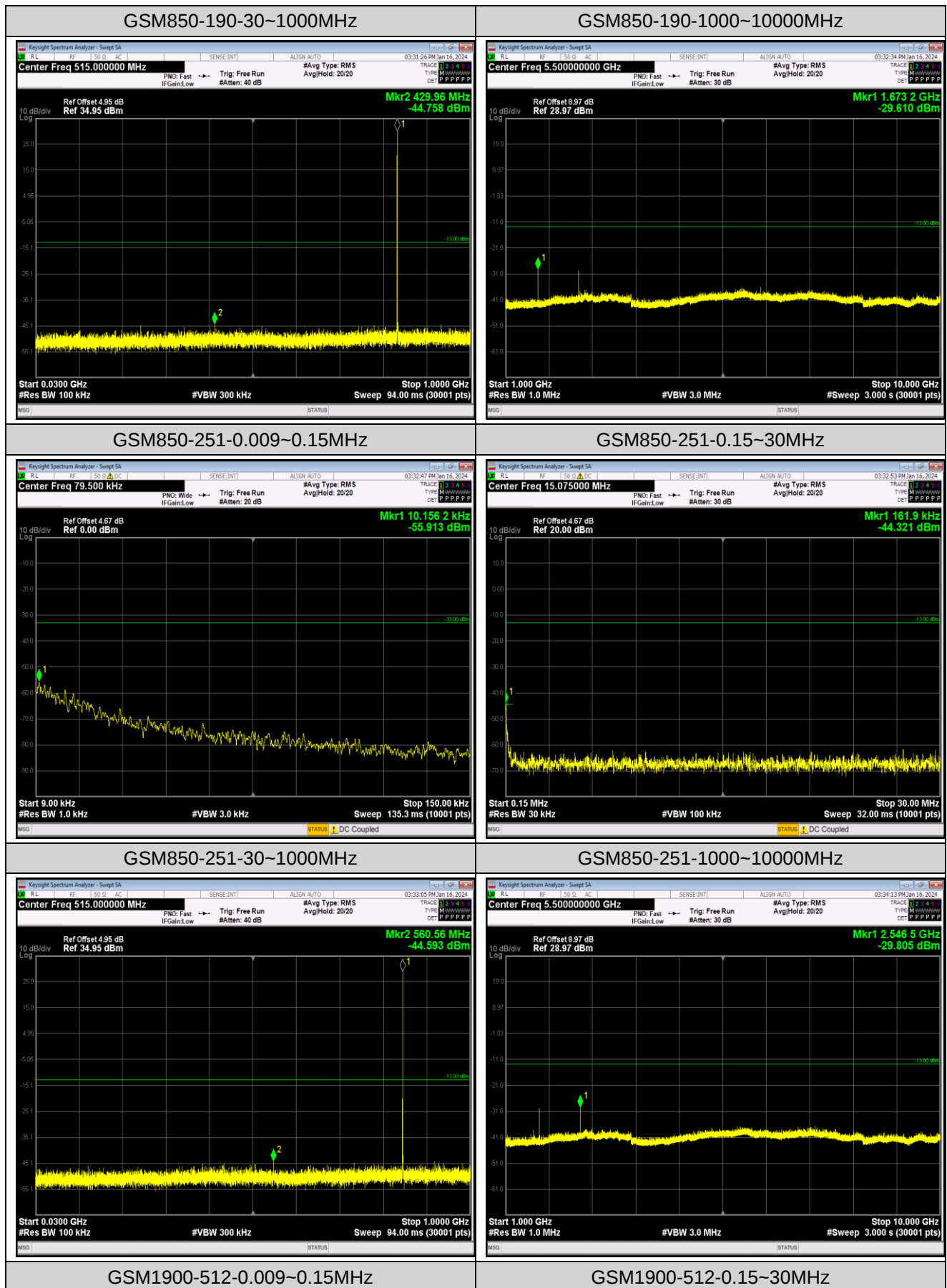
Test Result

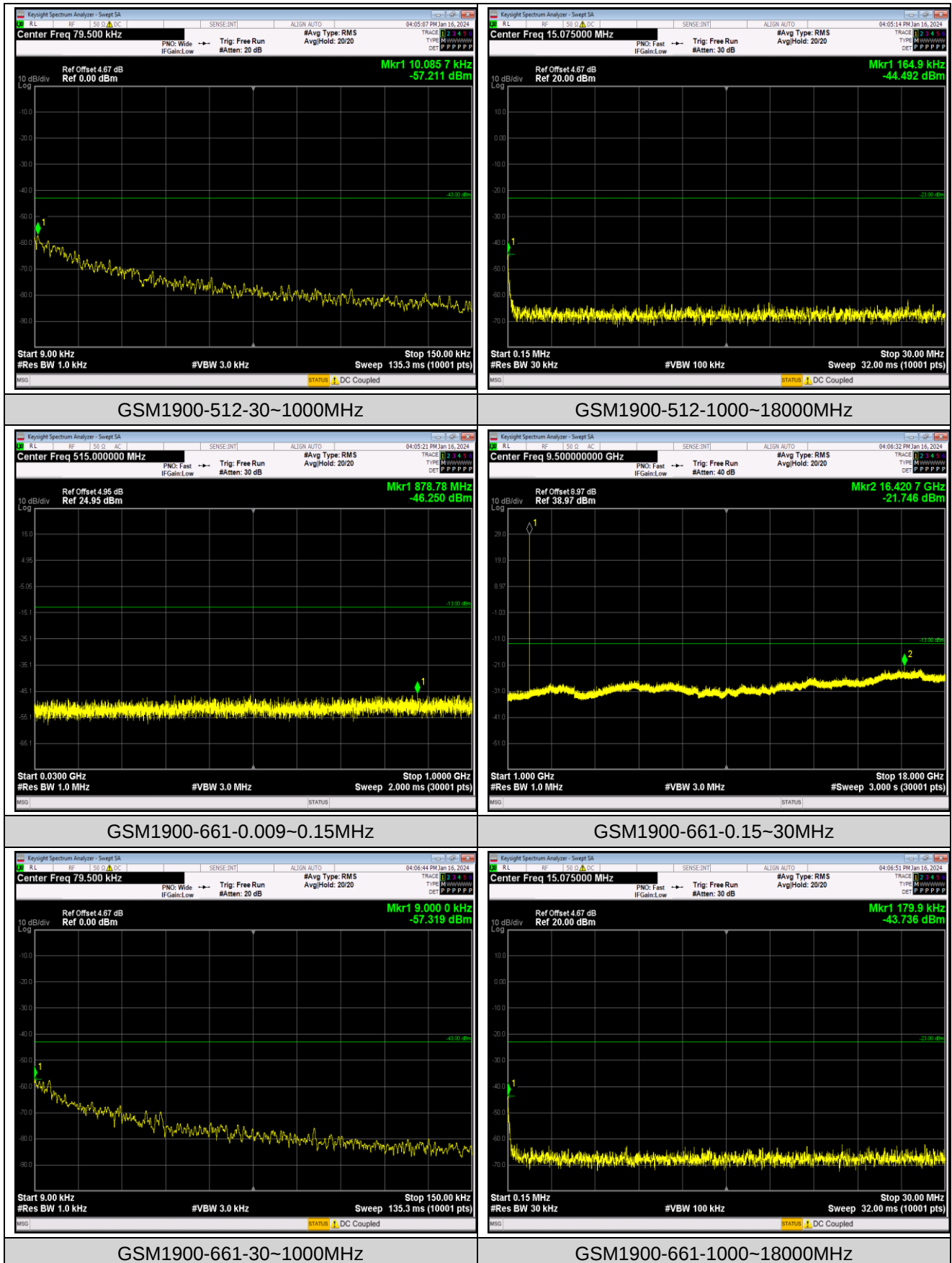
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-56.04	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-43.82	-13	PASS
GSM850	128	5	30~1000MHz	959.71	-44.95	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.99	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-56.06	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-43.39	-13	PASS
GSM850	190	5	30~1000MHz	429.96	-44.76	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.61	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.91	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-44.32	-13	PASS
GSM850	251	5	30~1000MHz	560.56	-44.59	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-29.81	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.21	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-44.49	-23	PASS
GSM1900	512	0	30~1000MHz	878.78	-46.25	-13	PASS
GSM1900	512	0	1000~18000MHz	16420.7	-21.75	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.32	-43	PASS
GSM1900	661	0	0.15~30MHz	0.18	-43.74	-23	PASS
GSM1900	661	0	30~1000MHz	809.1	-45.58	-13	PASS
GSM1900	661	0	1000~18000MHz	16862.13	-21.29	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.04	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.93	-23	PASS
GSM1900	810	0	30~1000MHz	827.95	-45.12	-13	PASS
GSM1900	810	0	1000~18000MHz	17008.33	-21.98	-13	PASS

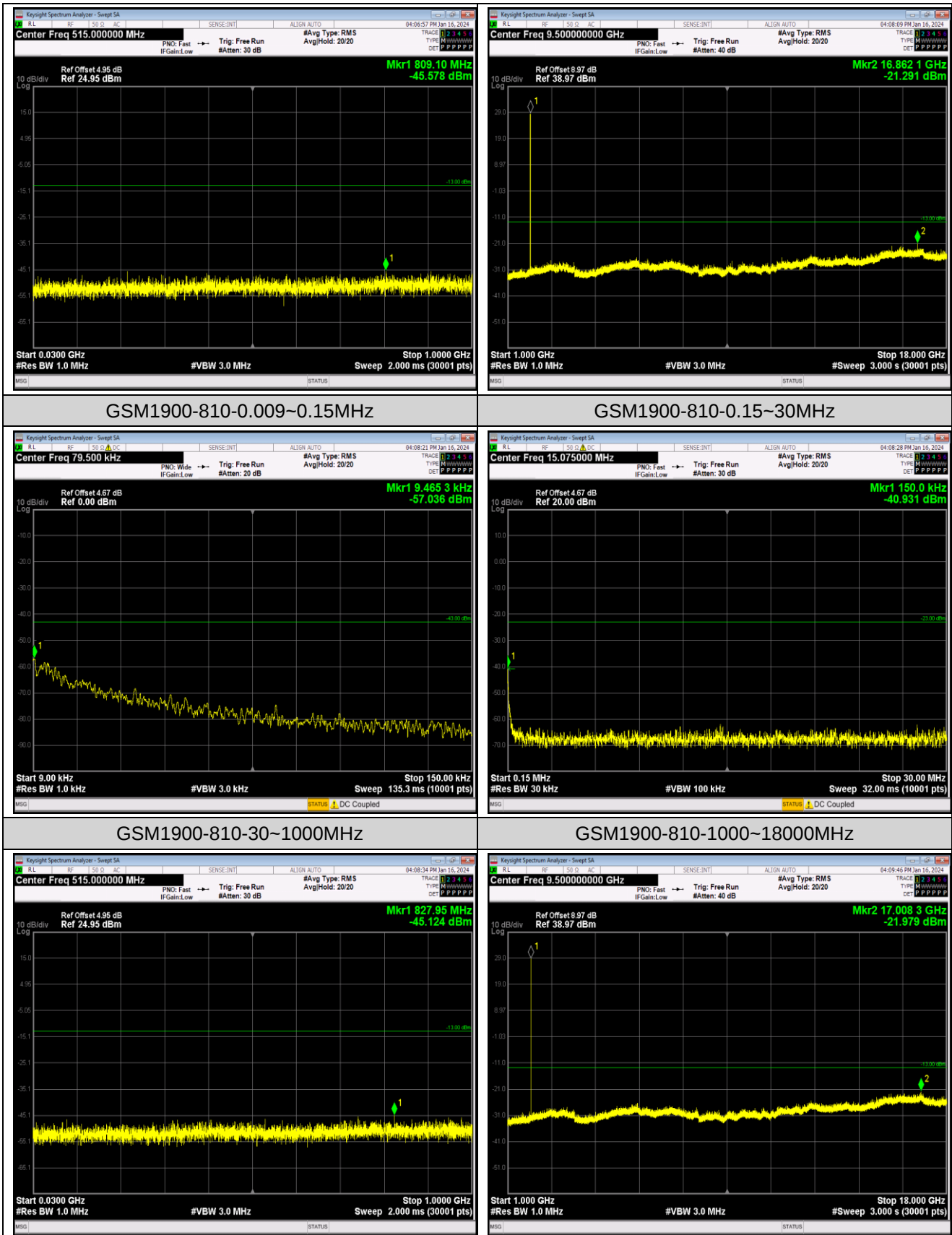
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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		
3.91	-30	-12.69	-0.015169	±2.5	Pass
	-20	-9.78	-0.011690		
	-10	-11.33	-0.013543		
	0	-8.88	-0.010614		
	10	-11.30	-0.013507		
	20	-10.46	-0.012503		
	30	-10.75	-0.012850		
	40	-10.30	-0.012312		
	50	-6.04	-0.007220		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-11.78	-0.014081	±2.5	Pass
	3.91	-11.36	-0.013579		
	4.50	-13.66	-0.016328		
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		
3.91	-30	-7.46	-0.008917	±2.5	Pass
	-20	-6.55	-0.007829		
	-10	-6.91	-0.008260		
	0	-8.27	-0.009885		
	10	-4.46	-0.005331		
	20	-2.84	-0.003395		
	30	-2.97	-0.003550		
	40	-1.58	-0.001889		
	50	-1.65	-0.001972		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-6.04	-0.007220	±2.5	Pass
	3.91	-6.59	-0.007877		
	4.50	-8.98	-0.010734		
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		
3.91	-30	1.87	0.000995	Within authorized band for PCS 1900	Pass
	-20	-20.44	-0.010872		
	-10	-11.01	-0.005856		
	0	-10.33	-0.005495		
	10	-4.68	-0.002489		
	20	-15.08	-0.008021		
	30	-9.62	-0.005117		
	40	-15.63	-0.008314		
	50	-19.40	-0.010319		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-9.20	-0.004894	Within authorized band for PCS 1900	Pass
	3.91	-13.62	-0.007245		
	4.50	-13.24	-0.007043		
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		
3.91	-30	-16.98	-0.009032	Within authorized band for PCS 1900	Pass
	-20	-15.37	-0.008176		
	-10	-18.37	-0.009771		
	0	-12.37	-0.006580		
	10	-12.56	-0.006681		
	20	-11.53	-0.006133		
	30	-11.01	-0.005856		
	40	-10.46	-0.005564		
	50	-21.18	-0.011266		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-17.31	-0.009207	Within authorized band for PCS 1900	Pass
	3.91	-19.57	-0.010410		
	4.50	-15.24	-0.008106		
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

