

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	32.36	28.91	38.45	PASS
GSM850	190	5	32.56	29.11	38.45	PASS
GSM850	251	5	32.56	29.11	38.45	PASS
GSM1900	512	0	29.53	30.53	33.00	PASS
GSM1900	661	0	29.15	30.15	33.00	PASS
GSM1900	810	0	29.08	30.08	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.49	29.04	38.45	PASS
GPRS850	128	5	2	31.47	28.02	38.45	PASS
GPRS850	128	5	3	29.41	25.96	38.45	PASS
GPRS850	128	5	4	28.14	24.69	38.45	PASS
GPRS850	190	5	1	32.68	29.23	38.45	PASS
GPRS850	190	5	2	31.65	28.2	38.45	PASS
GPRS850	190	5	3	29.60	26.15	38.45	PASS
GPRS850	190	5	4	28.37	24.92	38.45	PASS
GPRS850	251	5	1	32.68	29.23	38.45	PASS
GPRS850	251	5	2	31.66	28.21	38.45	PASS
GPRS850	251	5	3	29.64	26.19	38.45	PASS
GPRS850	251	5	4	28.38	24.93	38.45	PASS
GPRS1900	512	0	1	29.49	30.49	33.00	PASS
GPRS1900	512	0	2	28.45	29.45	33.00	PASS
GPRS1900	512	0	3	26.44	27.44	33.00	PASS
GPRS1900	512	0	4	25.29	26.29	33.00	PASS
GPRS1900	661	0	1	29.11	30.11	33.00	PASS
GPRS1900	661	0	2	28.09	29.09	33.00	PASS
GPRS1900	661	0	3	26.12	27.12	33.00	PASS
GPRS1900	661	0	4	24.91	25.91	33.00	PASS
GPRS1900	810	0	1	29.07	30.07	33.00	PASS
GPRS1900	810	0	2	28.02	29.02	33.00	PASS
GPRS1900	810	0	3	26.03	27.03	33.00	PASS
GPRS1900	810	0	4	24.86	25.86	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.68	24.23	38.45	PASS
EGPRS850	128	8	2	26.46	23.01	38.45	PASS
EGPRS850	128	8	3	23.94	20.49	38.45	PASS
EGPRS850	128	8	4	22.73	19.28	38.45	PASS
EGPRS850	190	8	1	27.79	24.34	38.45	PASS
EGPRS850	190	8	2	26.63	23.18	38.45	PASS
EGPRS850	190	8	3	24.08	20.63	38.45	PASS
EGPRS850	190	8	4	22.91	19.46	38.45	PASS
EGPRS850	251	8	1	27.78	24.33	38.45	PASS
EGPRS850	251	8	2	26.59	23.14	38.45	PASS
EGPRS850	251	8	3	24.04	20.59	38.45	PASS
EGPRS850	251	8	4	22.91	19.46	38.45	PASS
EGPRS1900	512	2	1	26.45	27.45	33.00	PASS
EGPRS1900	512	2	2	25.35	26.35	33.00	PASS
EGPRS1900	512	2	3	23.14	24.14	33.00	PASS
EGPRS1900	512	2	4	21.90	22.9	33.00	PASS
EGPRS1900	661	2	1	26.20	27.2	33.00	PASS
EGPRS1900	661	2	2	25.14	26.14	33.00	PASS
EGPRS1900	661	2	3	22.95	23.95	33.00	PASS
EGPRS1900	661	2	4	21.63	22.63	33.00	PASS
EGPRS1900	810	2	1	25.96	26.96	33.00	PASS
EGPRS1900	810	2	2	24.84	25.84	33.00	PASS
EGPRS1900	810	2	3	22.69	23.69	33.00	PASS
EGPRS1900	810	2	4	21.36	22.36	33.00	PASS

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

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

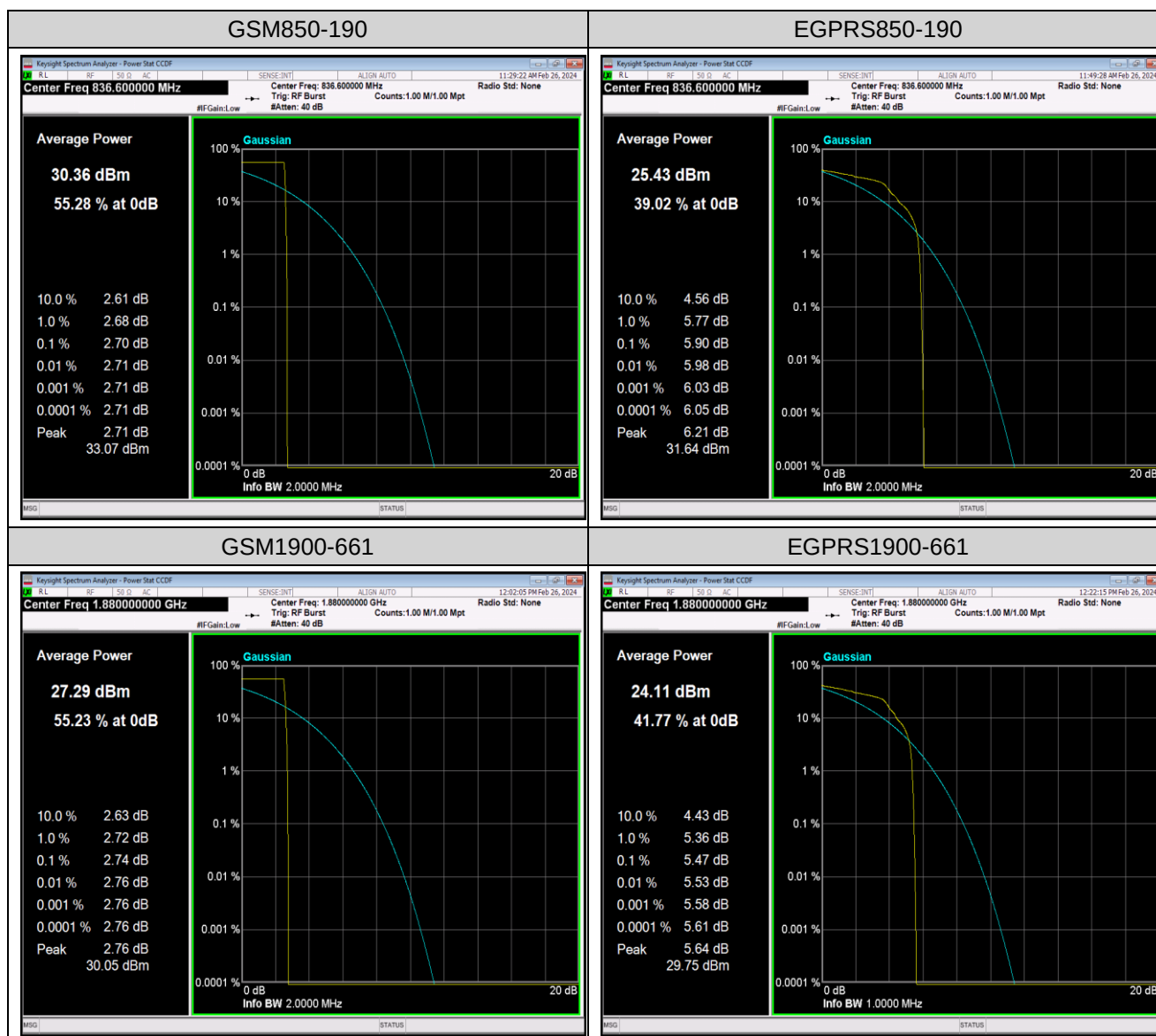
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.7	13	PASS
EGPRS850	190	8	5.9	13	PASS
GSM1900	661	0	2.74	13	PASS
EGPRS1900	661	2	5.47	13	PASS

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

Test Graphs

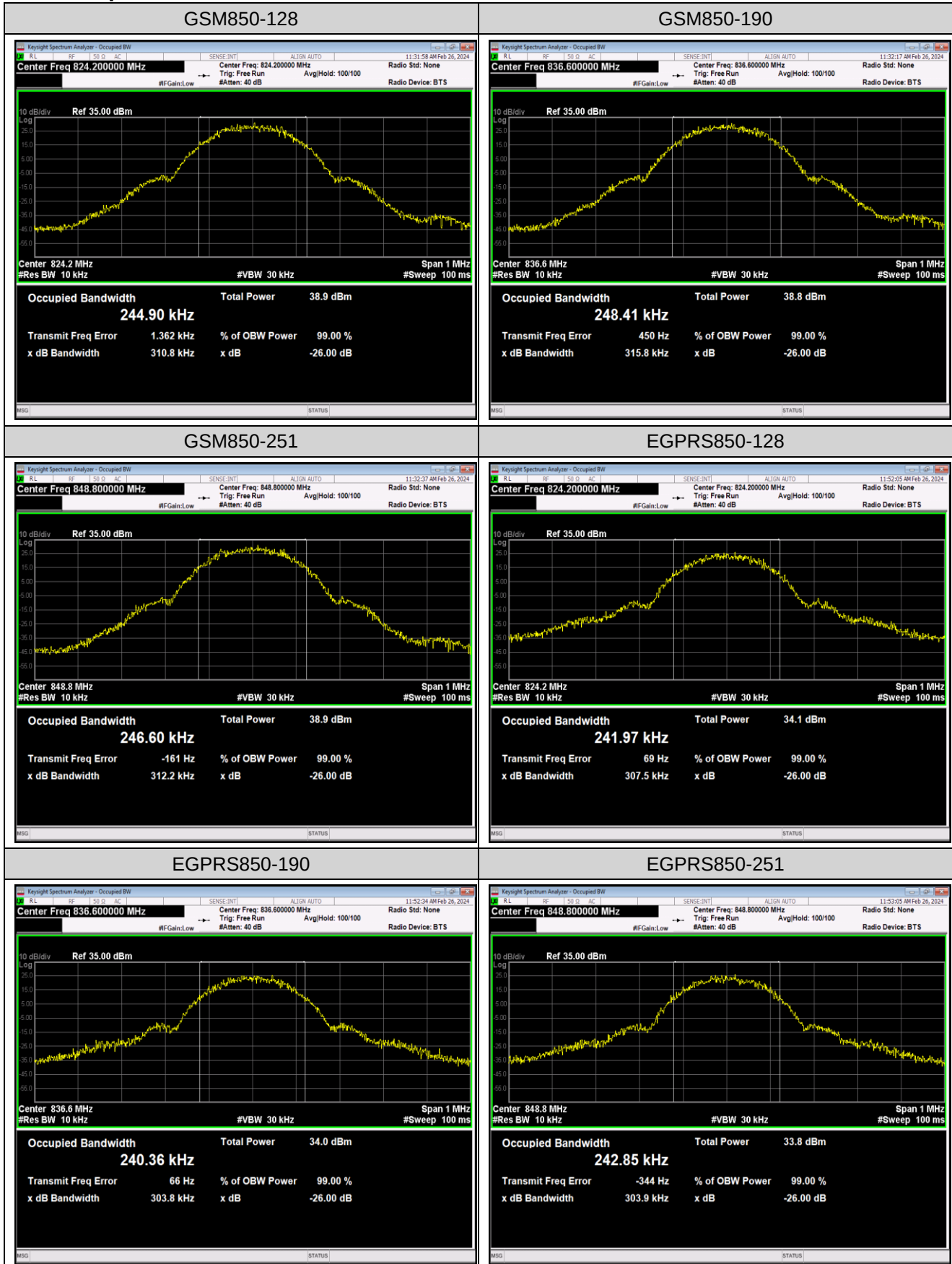


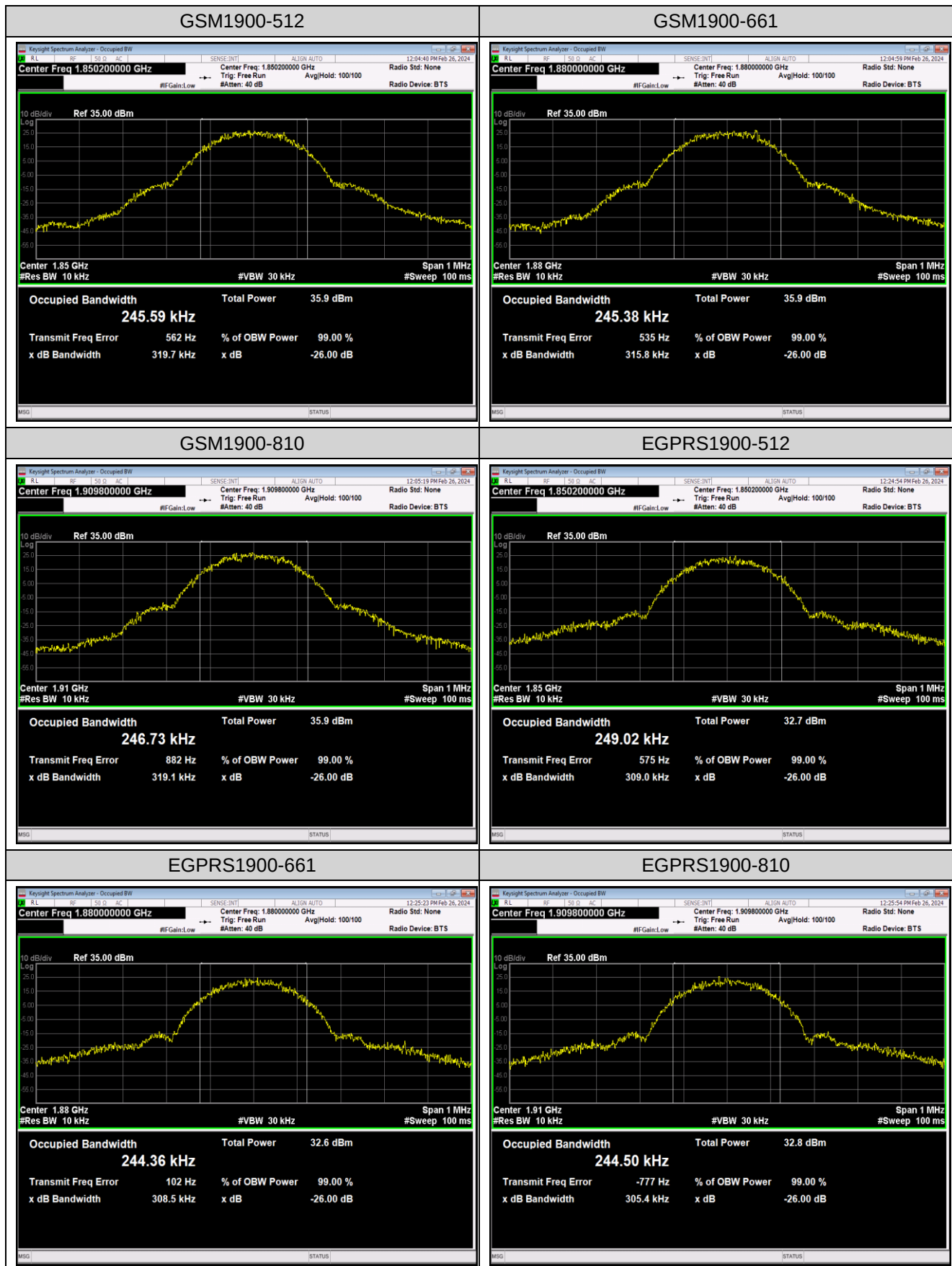
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24490	0.3108	---	PASS
GSM850	190	5	0.24841	0.3158	---	PASS
GSM850	251	5	0.24660	0.3122	---	PASS
EGPRS850	128	8	0.24197	0.3075	---	PASS
EGPRS850	190	8	0.24036	0.3038	---	PASS
EGPRS850	251	8	0.24285	0.3039	---	PASS
GSM1900	512	0	0.24559	0.3197	---	PASS
GSM1900	661	0	0.24538	0.3158	---	PASS
GSM1900	810	0	0.24673	0.3191	---	PASS
EGPRS1900	512	2	0.24902	0.3090	---	PASS
EGPRS1900	661	2	0.24436	0.3085	---	PASS
EGPRS1900	810	2	0.24450	0.3054	---	PASS

Test Graphs



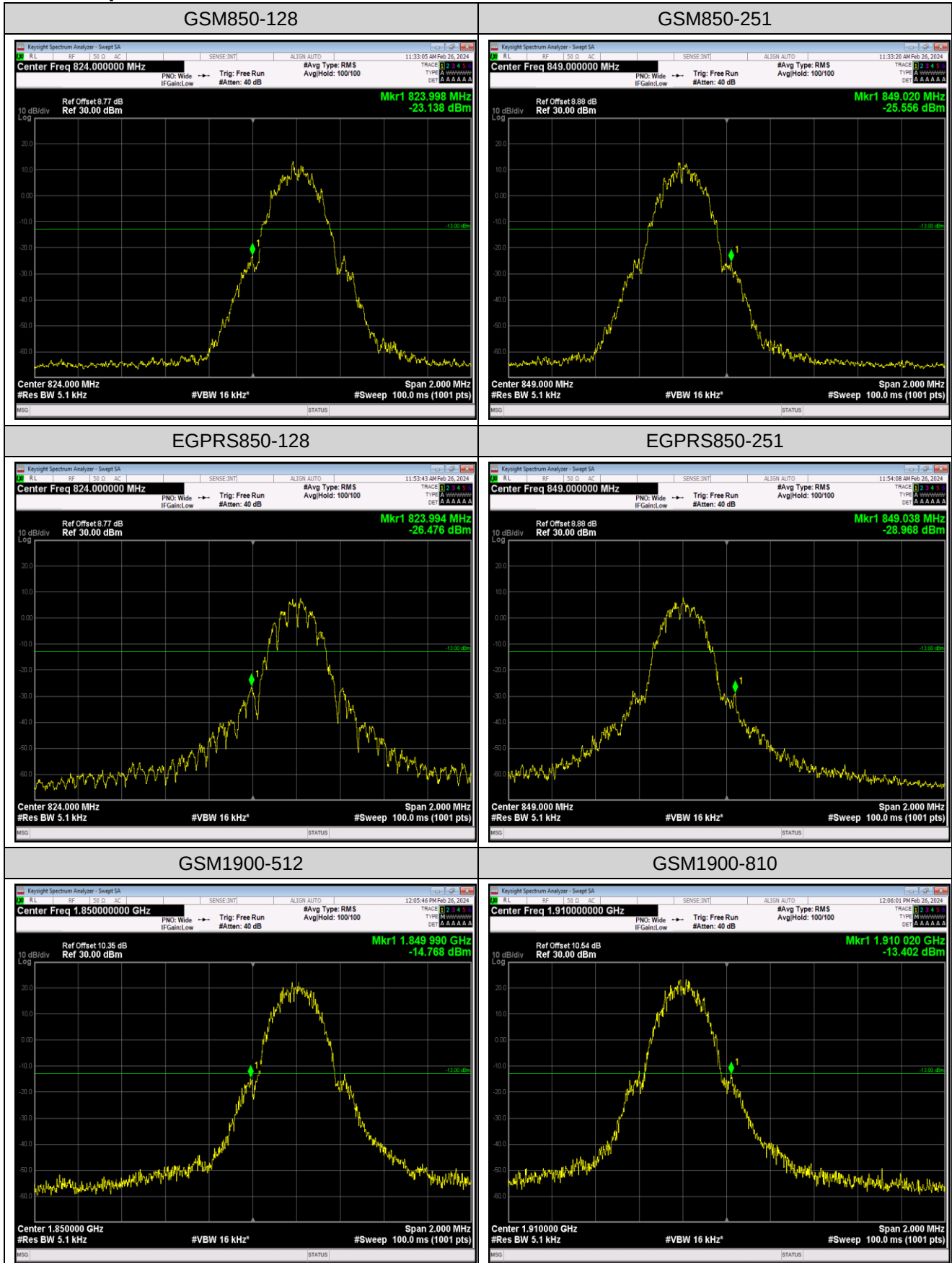


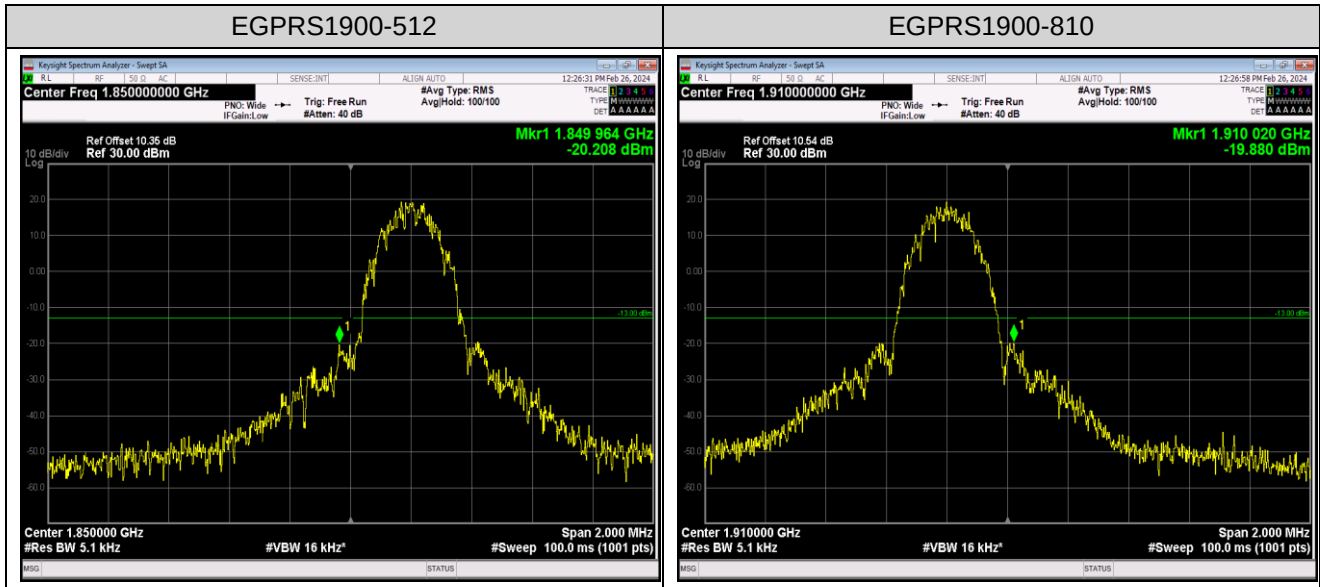
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-23.14	-13	PASS
GSM850	251	5	849.02	-25.56	-13	PASS
EGPRS850	128	8	823.99	-26.48	-13	PASS
EGPRS850	251	8	849.04	-28.97	-13	PASS
GSM1900	512	0	1849.99	-14.77	-13	PASS
GSM1900	810	0	1910.02	-13.40	-13	PASS
EGPRS1900	512	2	1849.96	-20.21	-13	PASS
EGPRS1900	810	2	1910.02	-19.88	-13	PASS

Test Graphs





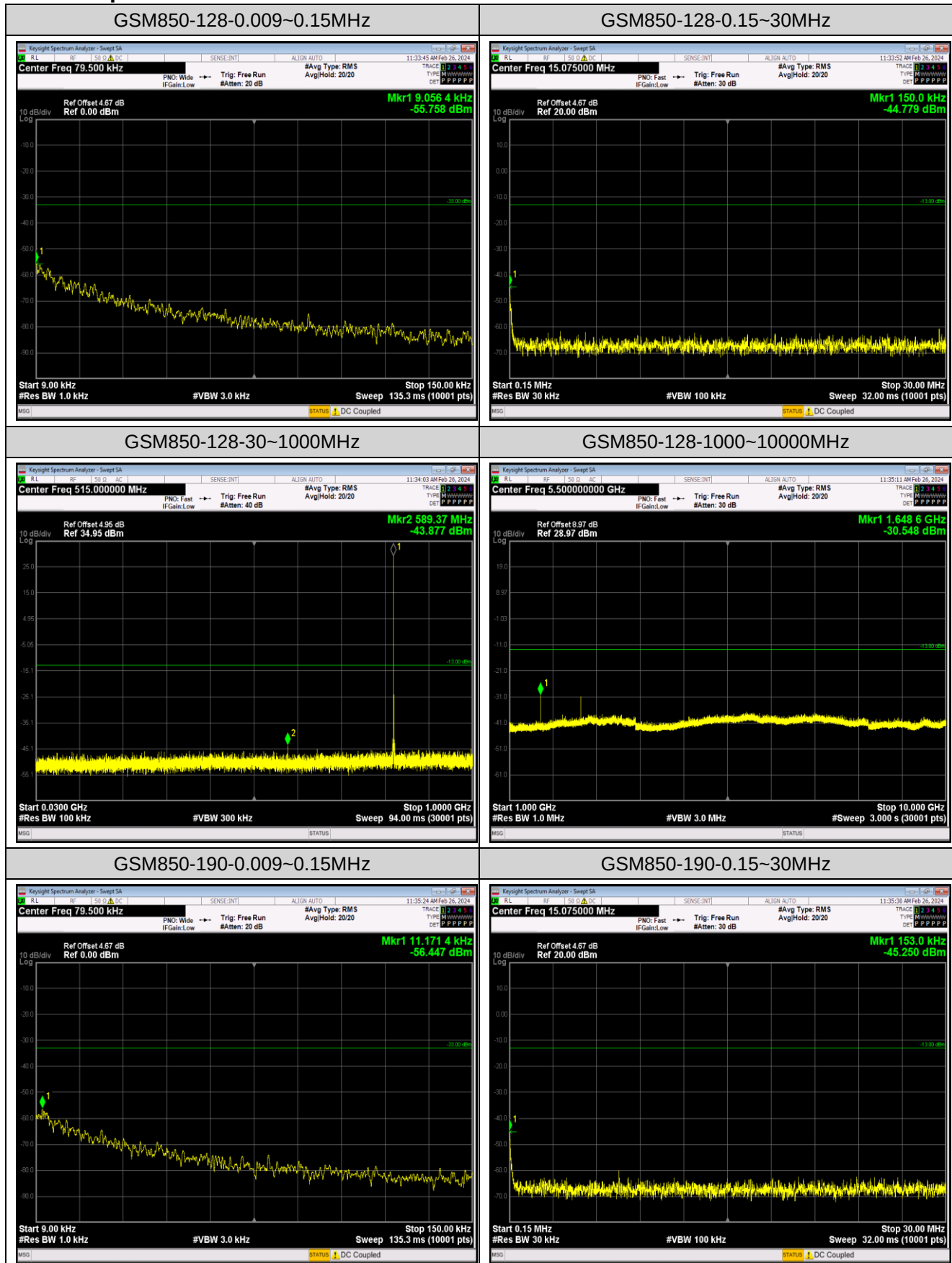
Appendix E: Conducted Spurious Emission

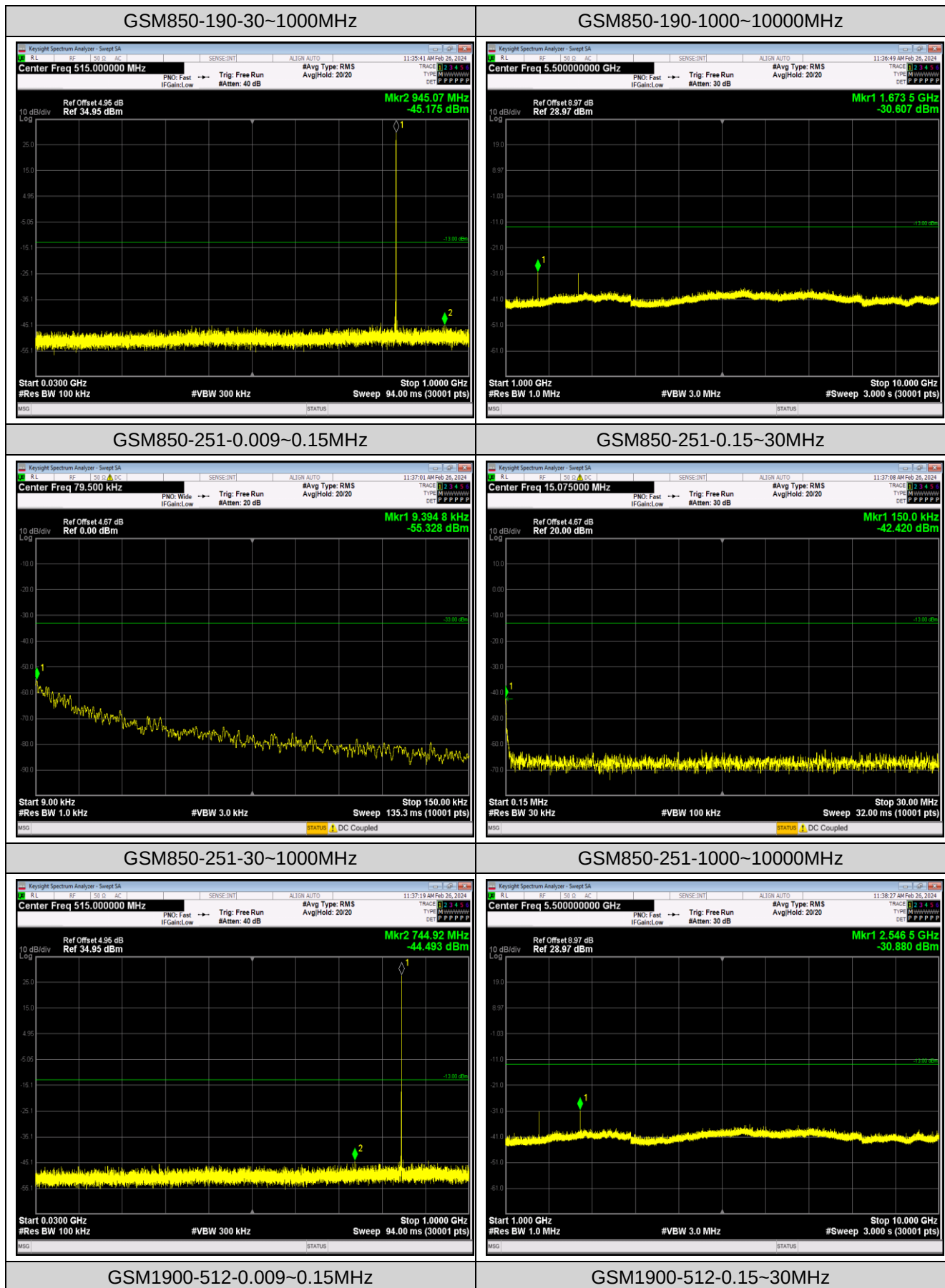
Test Result

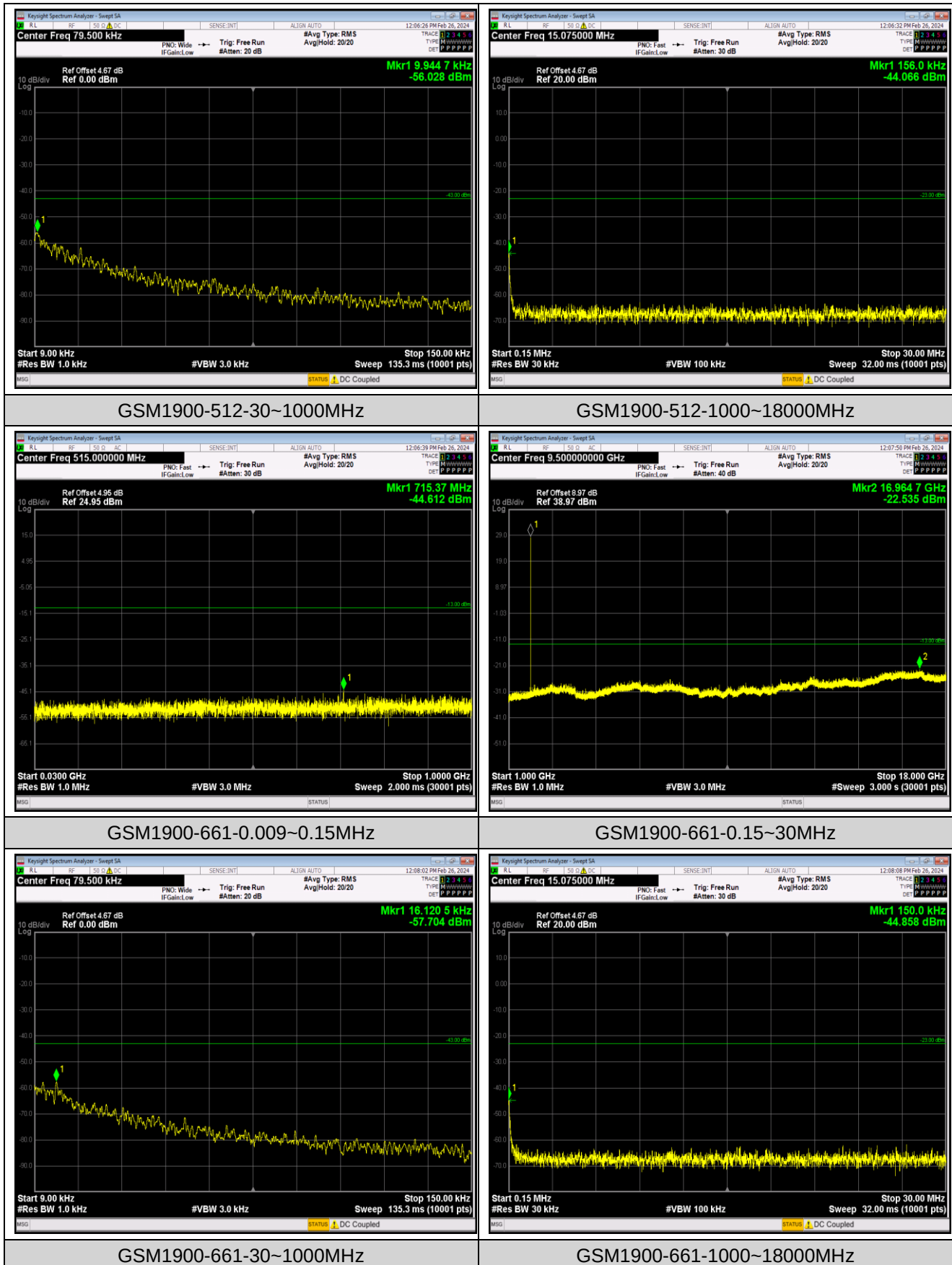
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.76	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-44.78	-13	PASS
GSM850	128	5	30~1000MHz	589.37	-43.88	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-30.55	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-56.45	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-45.25	-13	PASS
GSM850	190	5	30~1000MHz	945.07	-45.18	-13	PASS
GSM850	190	5	1000~10000MHz	1673.5	-30.61	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.33	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-42.42	-13	PASS
GSM850	251	5	30~1000MHz	744.92	-44.49	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-30.88	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.03	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-44.07	-23	PASS
GSM1900	512	0	30~1000MHz	715.37	-44.61	-13	PASS
GSM1900	512	0	1000~18000MHz	16964.7	-22.54	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.02	-57.7	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-44.86	-23	PASS
GSM1900	661	0	30~1000MHz	971.26	-46	-13	PASS
GSM1900	661	0	1000~18000MHz	17014	-21.93	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-58.42	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.6	-23	PASS
GSM1900	810	0	30~1000MHz	419.26	-45.84	-13	PASS
GSM1900	810	0	1000~18000MHz	16771.47	-22.4	-13	PASS

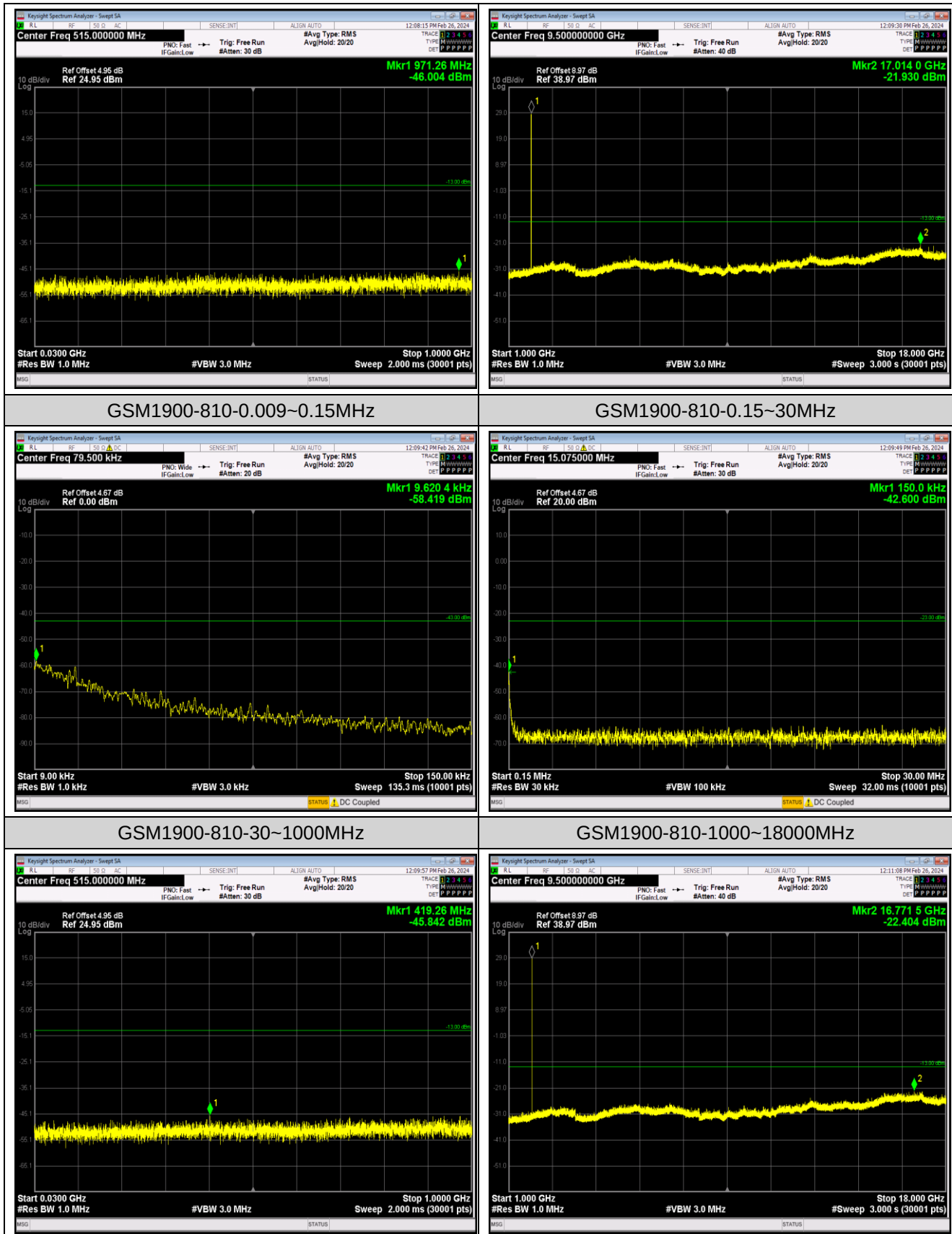
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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		
3.80	-30	17.18	0.020536	±2.5	Pass
	-20	18.14	0.021683		
	-10	15.95	0.019065		
	0	17.66	0.021109		
	10	14.33	0.017129		
	20	14.66	0.017523		
	30	13.62	0.016280		
	40	13.20	0.015778		
	50	16.40	0.019603		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	19.53	0.023344	±2.5	Pass
	3.80	16.50	0.019723		
	4.35	12.66	0.015133		
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		
3.80	-30	10.20	0.012192	±2.5	Pass
	-20	19.34	0.023117		
	-10	18.63	0.022269		
	0	18.95	0.022651		
	10	15.69	0.018754		
	20	15.46	0.018480		
	30	15.82	0.018910		
	40	14.27	0.017057		
	50	14.27	0.017057		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.49	0.006562	±2.5	Pass
	3.80	5.29	0.006323		
	4.35	5.23	0.006251		
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		
3.80	-30	21.60	0.011489	Within authorized band for PCS 1900	Pass
	-20	29.54	0.015713		
	-10	29.38	0.015628		
	0	25.54	0.013585		
	10	29.70	0.015798		
	20	25.60	0.013617		
	30	26.02	0.013840		
	40	26.70	0.014202		
	50	28.31	0.015059		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	37.13	0.019750	Within authorized band for PCS 1900	Pass
	3.80	22.31	0.011867		
	4.35	32.29	0.017176		
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		
3.80	-30	19.66	0.010457	Within authorized band for PCS 1900	Pass
	-20	30.06	0.015989		
	-10	30.83	0.016399		
	0	33.64	0.017894		
	10	27.28	0.014511		
	20	26.70	0.014202		
	30	31.06	0.016521		
	40	25.22	0.013415		
	50	29.15	0.015505		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	26.31	0.013995	Within authorized band for PCS 1900	Pass
	3.80	20.76	0.011043		
	4.35	24.47	0.013016		
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

