

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	33.66	28.33	38.45	PASS
GSM850	190	5	34.39	29.06	38.45	PASS
GSM850	251	5	32.67	27.34	38.45	PASS
GSM1900	512	0	29.96	28.64	33.00	PASS
GSM1900	661	0	29.97	28.65	33.00	PASS
GSM1900	810	0	29.93	28.61	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.66	28.33	38.45	PASS
GPRS850	128	5	2	32.59	27.26	38.45	PASS
GPRS850	128	5	3	30.74	25.41	38.45	PASS
GPRS850	128	5	4	30.00	24.67	38.45	PASS
GPRS850	190	5	1	34.39	29.06	38.45	PASS
GPRS850	190	5	2	33.33	28.00	38.45	PASS
GPRS850	190	5	3	31.43	26.10	38.45	PASS
GPRS850	190	5	4	30.71	25.38	38.45	PASS
GPRS850	251	5	1	32.66	27.33	38.45	PASS
GPRS850	251	5	2	31.59	26.26	38.45	PASS
GPRS850	251	5	3	29.64	24.31	38.45	PASS
GPRS850	251	5	4	28.86	23.53	38.45	PASS
GPRS1900	512	0	1	29.94	28.62	33.00	PASS
GPRS1900	512	0	2	28.88	27.56	33.00	PASS
GPRS1900	512	0	3	27.05	25.73	33.00	PASS
GPRS1900	512	0	4	26.22	24.90	33.00	PASS
GPRS1900	661	0	1	29.93	28.61	33.00	PASS
GPRS1900	661	0	2	28.87	27.55	33.00	PASS
GPRS1900	661	0	3	27.01	25.69	33.00	PASS
GPRS1900	661	0	4	26.21	24.89	33.00	PASS
GPRS1900	810	0	1	29.91	28.59	33.00	PASS
GPRS1900	810	0	2	28.90	27.58	33.00	PASS
GPRS1900	810	0	3	27.08	25.76	33.00	PASS
GPRS1900	810	0	4	26.27	24.95	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.77	23.44	38.45	PASS
EGPRS850	128	8	2	27.69	22.36	38.45	PASS
EGPRS850	128	8	3	25.62	20.29	38.45	PASS
EGPRS850	128	8	4	24.44	19.11	38.45	PASS
EGPRS850	190	8	1	28.78	23.45	38.45	PASS
EGPRS850	190	8	2	27.75	22.42	38.45	PASS
EGPRS850	190	8	3	25.64	20.31	38.45	PASS
EGPRS850	190	8	4	24.48	19.15	38.45	PASS
EGPRS850	251	8	1	28.71	23.38	38.45	PASS
EGPRS850	251	8	2	27.64	22.31	38.45	PASS
EGPRS850	251	8	3	25.51	20.18	38.45	PASS
EGPRS850	251	8	4	24.35	19.02	38.45	PASS
EGPRS1900	512	2	1	25.21	23.89	33.00	PASS
EGPRS1900	512	2	2	23.93	22.61	33.00	PASS
EGPRS1900	512	2	3	21.67	20.35	33.00	PASS
EGPRS1900	512	2	4	20.50	19.18	33.00	PASS
EGPRS1900	661	2	1	25.41	24.09	33.00	PASS
EGPRS1900	661	2	2	24.14	22.82	33.00	PASS
EGPRS1900	661	2	3	21.90	20.58	33.00	PASS
EGPRS1900	661	2	4	20.73	19.41	33.00	PASS
EGPRS1900	810	2	1	25.22	23.90	33.00	PASS
EGPRS1900	810	2	2	24.00	22.68	33.00	PASS
EGPRS1900	810	2	3	21.81	20.49	33.00	PASS
EGPRS1900	810	2	4	20.60	19.28	33.00	PASS

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

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

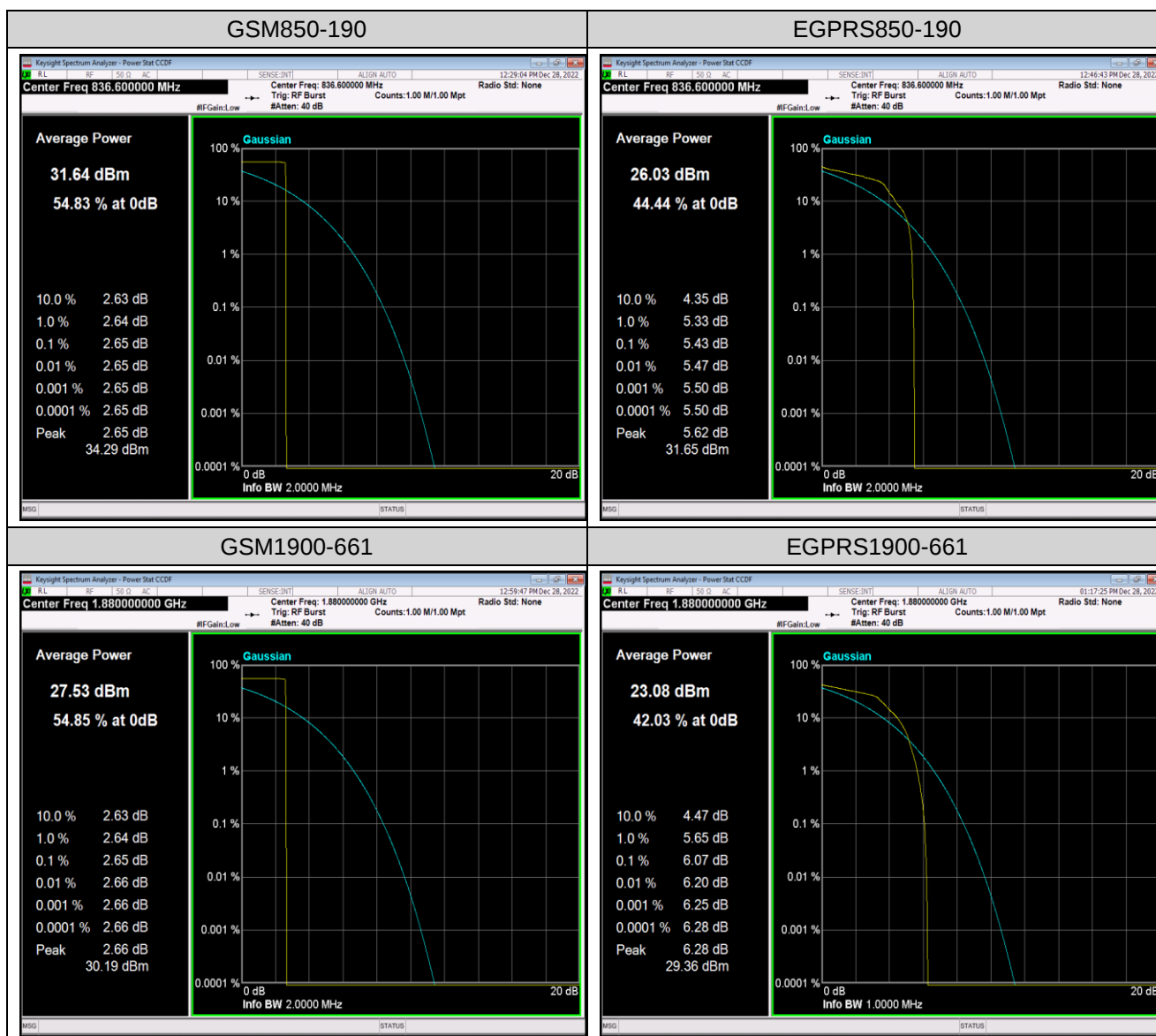
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.65	13	PASS
EGPRS850	190	8	5.43	13	PASS
GSM1900	661	0	2.65	13	PASS
EGPRS1900	661	2	6.07	13	PASS

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

Test Graphs

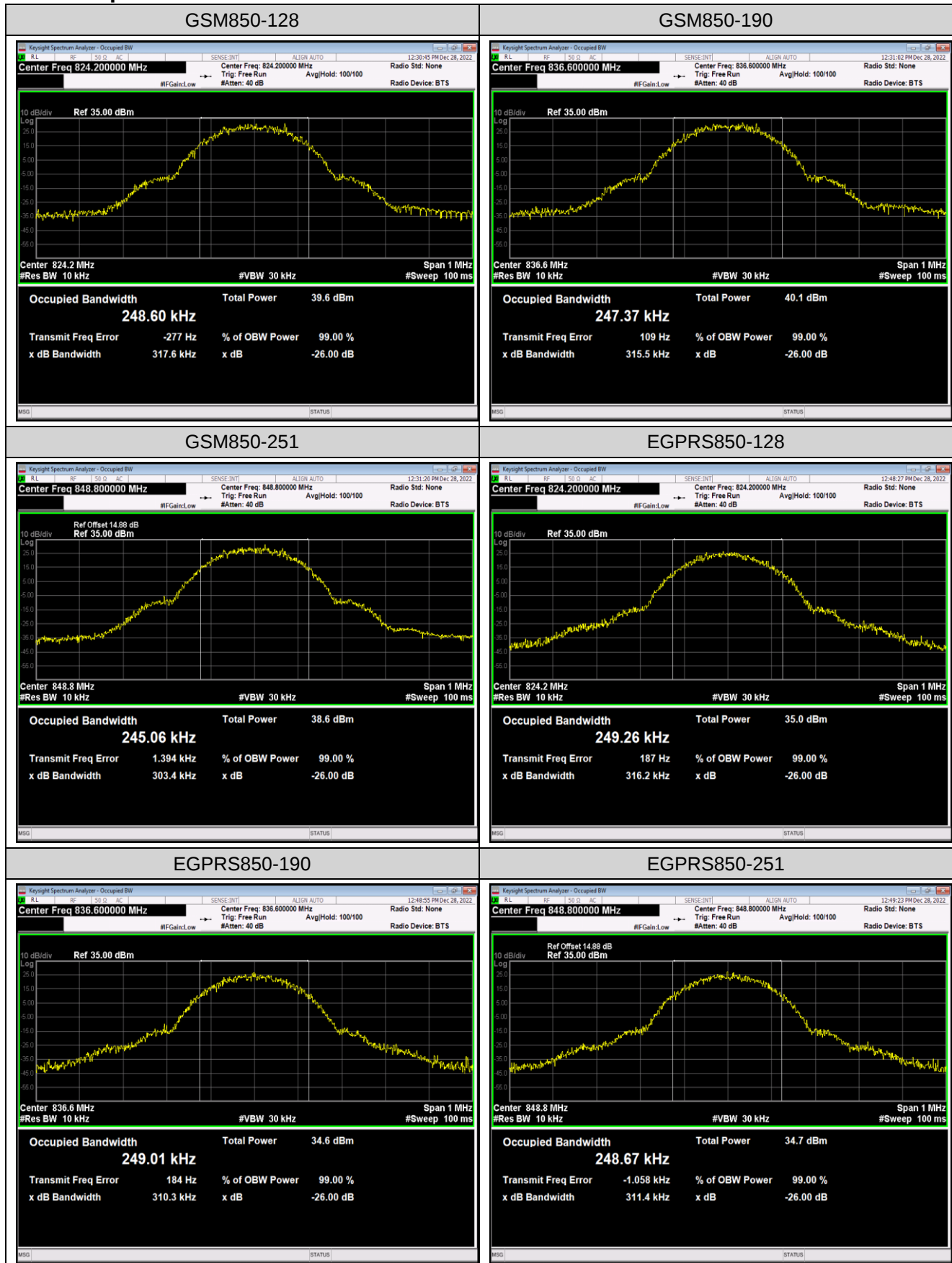


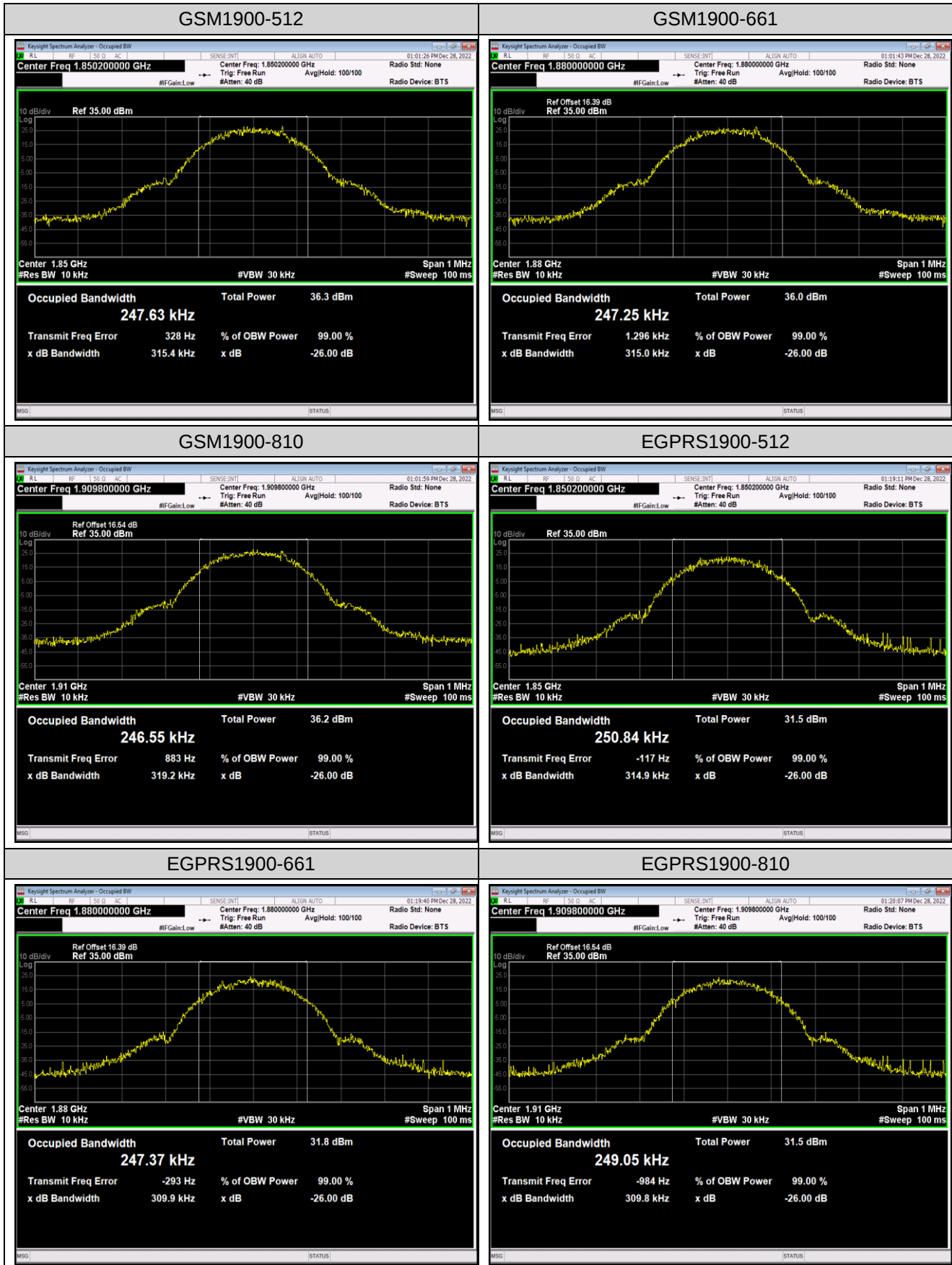
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24860	0.3176	---	PASS
GSM850	190	5	0.24737	0.3155	---	PASS
GSM850	251	5	0.24506	0.3034	---	PASS
EGPRS850	128	8	0.24926	0.3162	---	PASS
EGPRS850	190	8	0.24901	0.3103	---	PASS
EGPRS850	251	8	0.24867	0.3114	---	PASS
GSM1900	512	0	0.24763	0.3154	---	PASS
GSM1900	661	0	0.24725	0.3150	---	PASS
GSM1900	810	0	0.24655	0.3192	---	PASS
EGPRS1900	512	2	0.25084	0.3149	---	PASS
EGPRS1900	661	2	0.24737	0.3099	---	PASS
EGPRS1900	810	2	0.24905	0.3098	---	PASS

Test Graphs



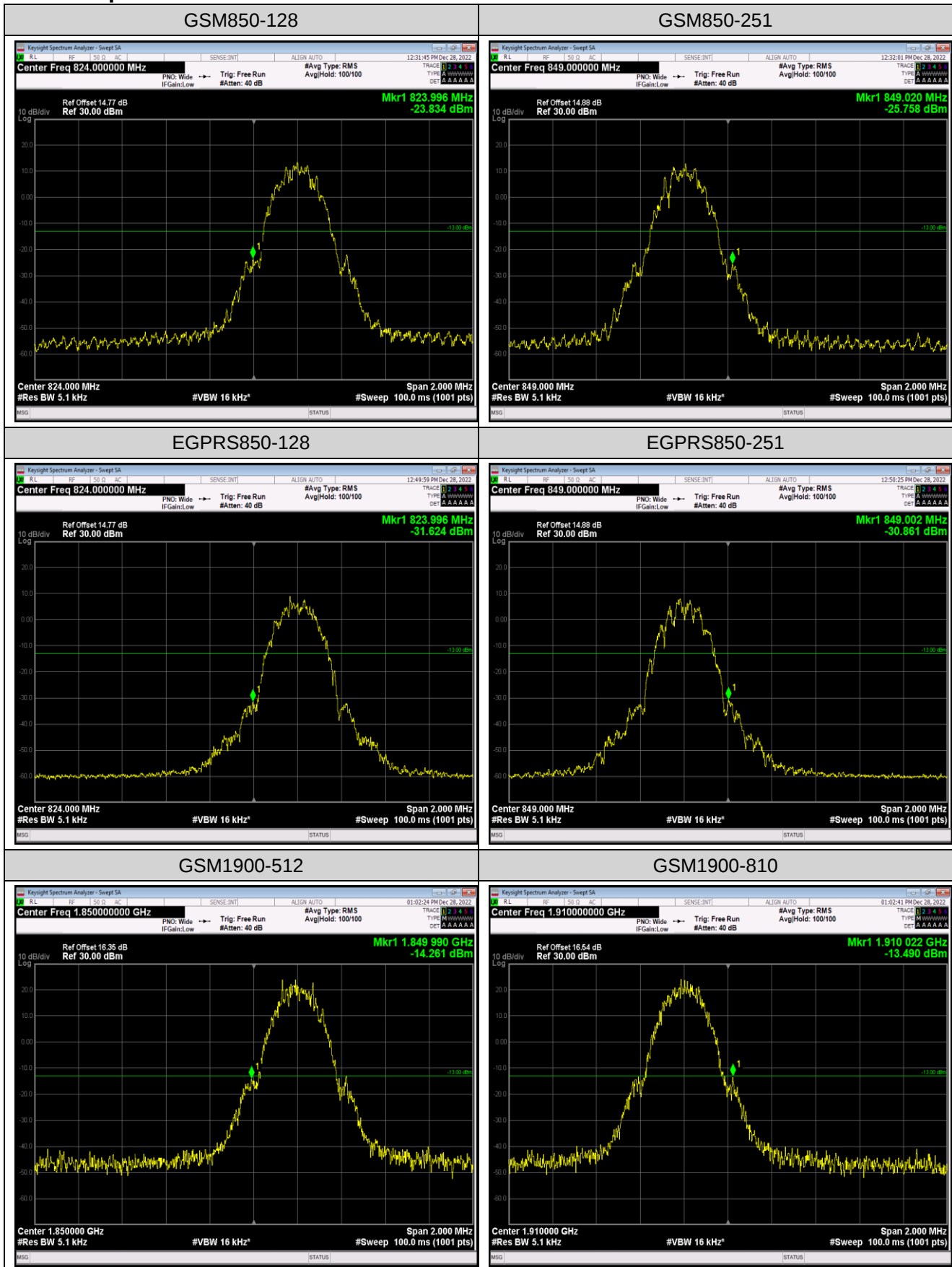


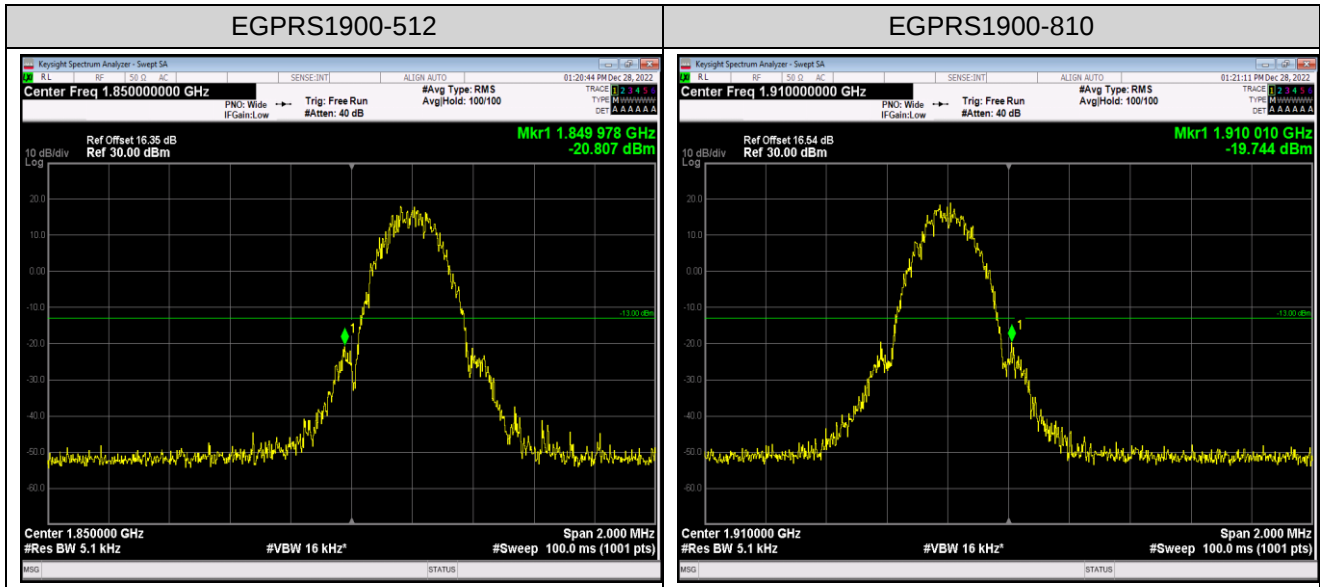
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-23.83	-13	PASS
GSM850	251	5	849.02	-25.76	-13	PASS
EGPRS850	128	8	824.00	-31.62	-13	PASS
EGPRS850	251	8	849.00	-30.86	-13	PASS
GSM1900	512	0	1849.99	-14.26	-13	PASS
GSM1900	810	0	1910.02	-13.49	-13	PASS
EGPRS1900	512	2	1849.98	-20.81	-13	PASS
EGPRS1900	810	2	1910.01	-19.74	-13	PASS

Test Graphs





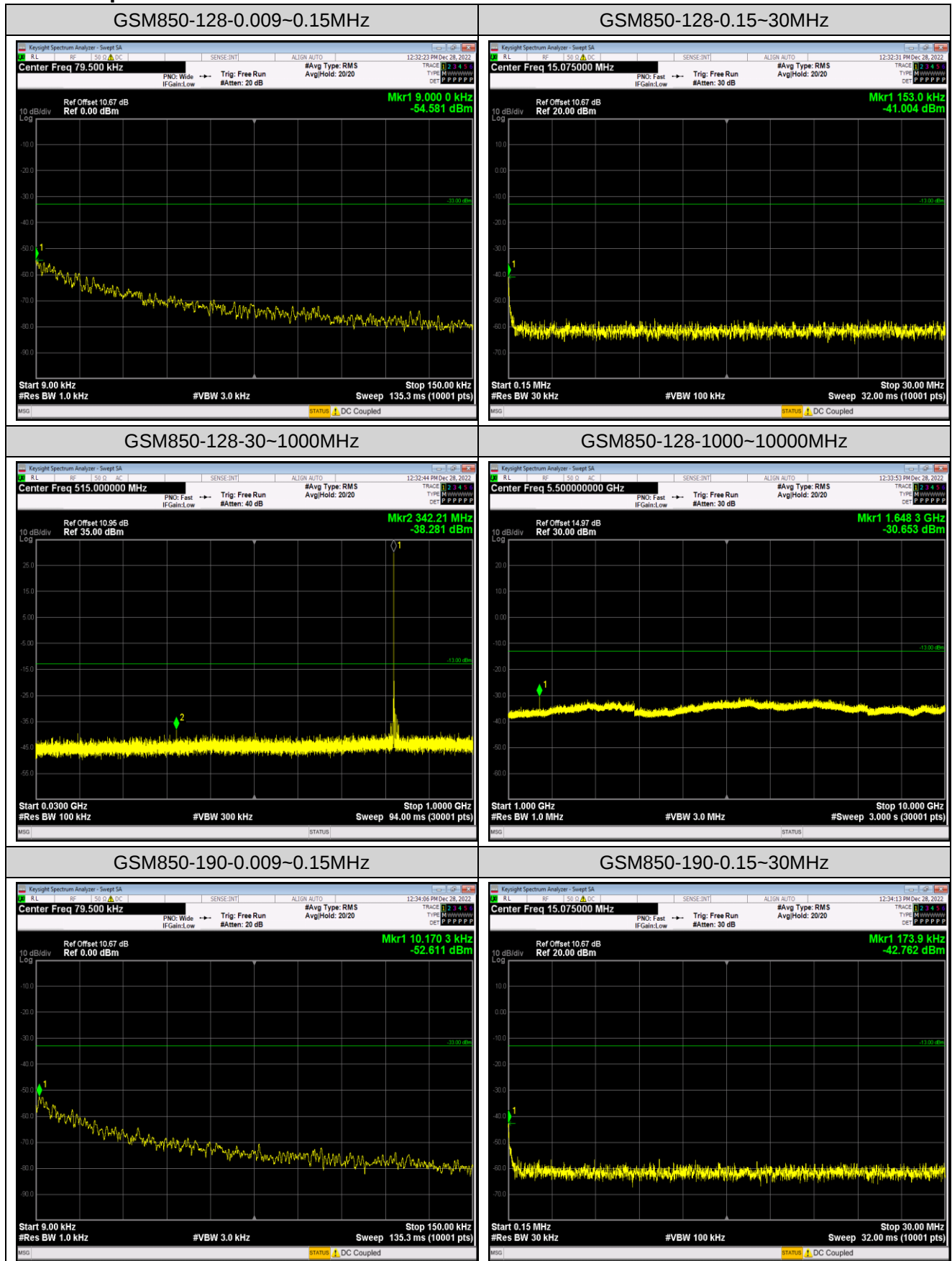
Appendix E: Conducted Spurious Emission

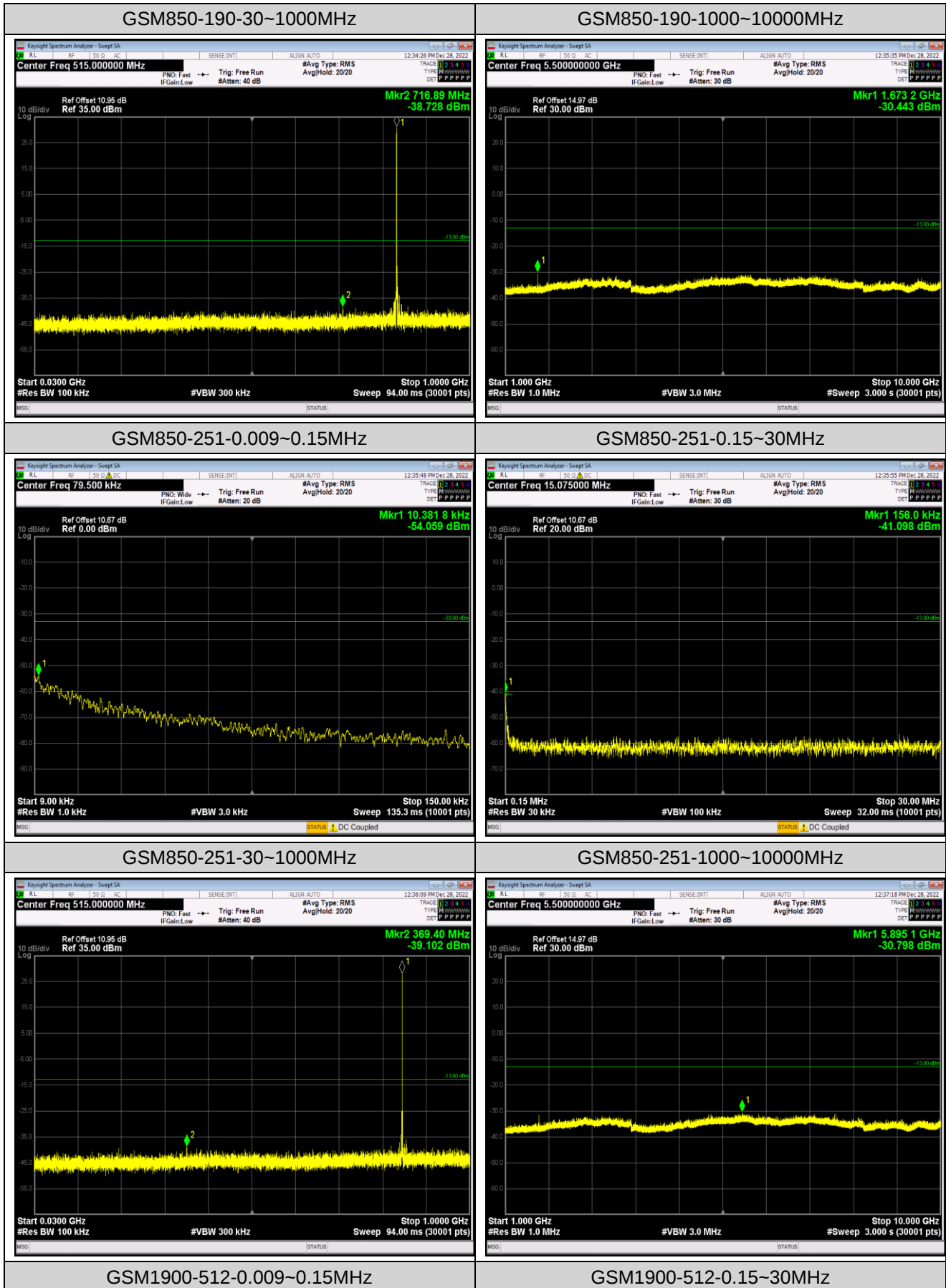
Test Result

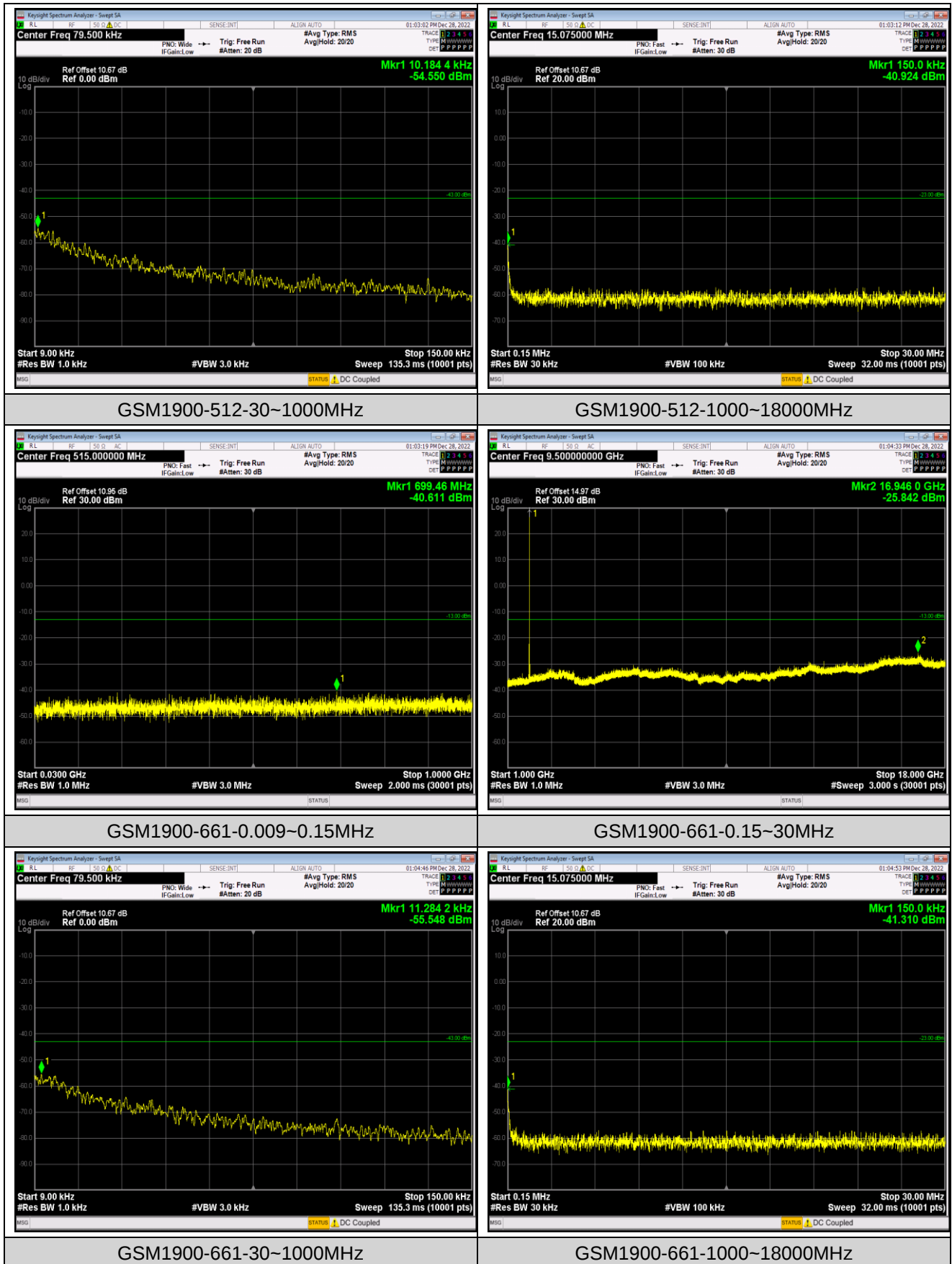
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.58	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-41	-13	PASS
GSM850	128	5	30~1000MHz	342.21	-38.28	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-30.65	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-52.61	-33	PASS
GSM850	190	5	0.15~30MHz	0.17	-42.76	-13	PASS
GSM850	190	5	30~1000MHz	716.89	-38.73	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-30.44	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.06	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-41.1	-13	PASS
GSM850	251	5	30~1000MHz	369.4	-39.1	-13	PASS
GSM850	251	5	1000~10000MHz	5895.1	-30.8	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.55	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-40.92	-23	PASS
GSM1900	512	0	30~1000MHz	699.46	-40.61	-13	PASS
GSM1900	512	0	1000~18000MHz	16946	-25.84	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.55	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-41.31	-23	PASS
GSM1900	661	0	30~1000MHz	940.47	-40.41	-13	PASS
GSM1900	661	0	1000~18000MHz	16985.67	-26.25	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-53.85	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.15	-23	PASS
GSM1900	810	0	30~1000MHz	820.97	-39.92	-13	PASS
GSM1900	810	0	1000~18000MHz	16498.9	-26.17	-13	PASS

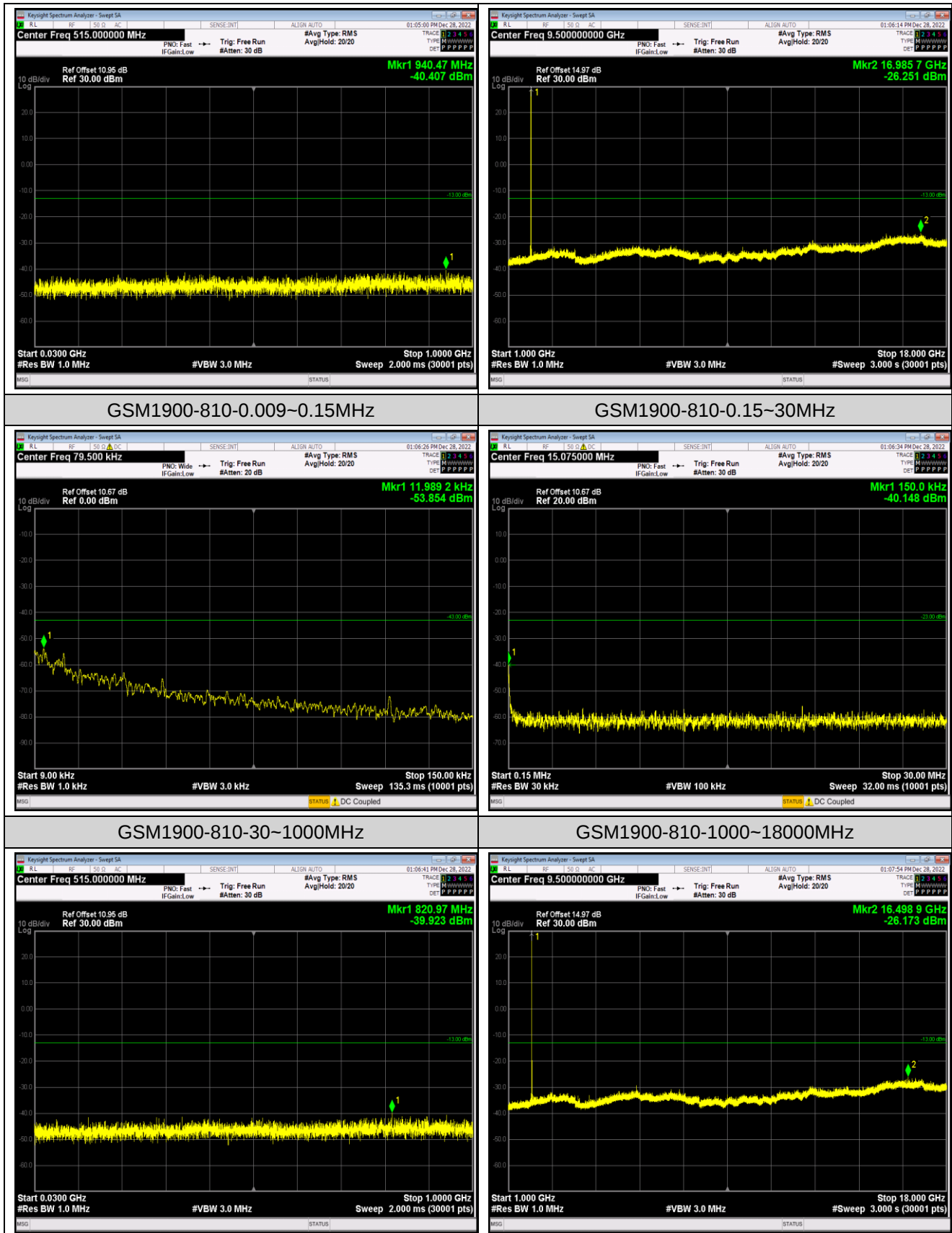
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	0.06	0.000072	±2.5	Pass
	-20	-0.26	-0.000311		
	-10	-5.33	-0.006371		
	0	-4.33	-0.005176		
	10	-4.49	-0.005367		
	20	-0.94	-0.001124		
	30	-0.77	-0.000920		
	40	-2.78	-0.003323		
	50	-5.75	-0.006873		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.42	3.65	0.004363	±2.5	Pass
	3.80	-4.58	-0.005475		
	4.18	-6.17	-0.007375		
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	4.49	0.005367	±2.5	Pass
	-20	1.26	0.001506		
	-10	5.84	0.006981		
	0	4.04	0.004829		
	10	-1.10	-0.001315		
	20	-0.74	-0.000885		
	30	-1.87	-0.002235		
	40	3.13	0.003741		
	50	0.19	0.000227		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.42	2.32	0.002773	±2.5	Pass
	3.80	1.00	0.001195		
	4.18	0.23	0.000275		
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	8.17	0.004346	Within authorized band for PCS 1900	Pass
	-20	6.46	0.003436		
	-10	9.20	0.004894		
	0	0.13	0.000069		
	10	1.29	0.000686		
	20	10.78	0.005734		
	30	4.62	0.002457		
	40	2.20	0.001170		
	50	6.10	0.003245		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.42	0.90	0.000479	Within authorized band for PCS 1900	Pass
	3.80	8.52	0.004532		
	4.18	10.20	0.005426		
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	9.69	0.005154	Within authorized band for PCS 1900	Pass
	-20	6.52	0.003468		
	-10	9.23	0.004910		
	0	9.62	0.005117		
	10	13.17	0.007005		
	20	13.72	0.007298		
	30	12.01	0.006388		
	40	11.01	0.005856		
	50	1.00	0.000532		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.42	10.04	0.005340	Within authorized band for PCS 1900	Pass
	3.80	12.27	0.006527		
	4.18	12.37	0.006580		
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

