

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	33.96	25.48	38.45	PASS
GSM850	190	5	33.98	25.5	38.45	PASS
GSM850	251	5	33.76	25.28	38.45	PASS
GSM1900	512	0	30.82	29.57	33.00	PASS
GSM1900	661	0	31.07	29.82	33.00	PASS
GSM1900	810	0	30.70	29.45	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.99	25.51	38.45	PASS
GPRS850	128	5	2	33.02	24.54	38.45	PASS
GPRS850	128	5	3	31.04	22.56	38.45	PASS
GPRS850	128	5	4	29.99	21.51	38.45	PASS
GPRS850	190	5	1	34.02	25.54	38.45	PASS
GPRS850	190	5	2	33.03	24.55	38.45	PASS
GPRS850	190	5	3	31.06	22.58	38.45	PASS
GPRS850	190	5	4	29.97	21.49	38.45	PASS
GPRS850	251	5	1	33.80	25.32	38.45	PASS
GPRS850	251	5	2	32.82	24.34	38.45	PASS
GPRS850	251	5	3	30.84	22.36	38.45	PASS
GPRS850	251	5	4	29.77	21.29	38.45	PASS
GPRS1900	512	0	1	30.80	29.55	33.00	PASS
GPRS1900	512	0	2	29.83	28.58	33.00	PASS
GPRS1900	512	0	3	27.83	26.58	33.00	PASS
GPRS1900	512	0	4	26.71	25.46	33.00	PASS
GPRS1900	661	0	1	31.02	29.77	33.00	PASS
GPRS1900	661	0	2	30.07	28.82	33.00	PASS
GPRS1900	661	0	3	28.06	26.81	33.00	PASS
GPRS1900	661	0	4	27.01	25.76	33.00	PASS
GPRS1900	810	0	1	30.65	29.4	33.00	PASS
GPRS1900	810	0	2	29.70	28.45	33.00	PASS
GPRS1900	810	0	3	27.73	26.48	33.00	PASS
GPRS1900	810	0	4	26.67	25.42	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.30	19.82	38.45	PASS
EGPRS850	128	8	2	27.16	18.68	38.45	PASS
EGPRS850	128	8	3	24.83	16.35	38.45	PASS
EGPRS850	128	8	4	23.63	15.15	38.45	PASS
EGPRS850	190	8	1	28.20	19.72	38.45	PASS
EGPRS850	190	8	2	27.07	18.59	38.45	PASS
EGPRS850	190	8	3	24.85	16.37	38.45	PASS
EGPRS850	190	8	4	23.53	15.05	38.45	PASS
EGPRS850	251	8	1	28.14	19.66	38.45	PASS
EGPRS850	251	8	2	27.02	18.54	38.45	PASS
EGPRS850	251	8	3	24.82	16.34	38.45	PASS
EGPRS850	251	8	4	23.46	14.98	38.45	PASS
EGPRS1900	512	2	1	27.05	25.8	33.00	PASS
EGPRS1900	512	2	2	26.10	24.85	33.00	PASS
EGPRS1900	512	2	3	24.06	22.81	33.00	PASS
EGPRS1900	512	2	4	23.06	21.81	33.00	PASS
EGPRS1900	661	2	1	26.76	25.51	33.00	PASS
EGPRS1900	661	2	2	25.71	24.46	33.00	PASS
EGPRS1900	661	2	3	23.82	22.57	33.00	PASS
EGPRS1900	661	2	4	22.80	21.55	33.00	PASS
EGPRS1900	810	2	1	26.72	25.47	33.00	PASS
EGPRS1900	810	2	2	25.76	24.51	33.00	PASS
EGPRS1900	810	2	3	23.84	22.59	33.00	PASS
EGPRS1900	810	2	4	22.84	21.59	33.00	PASS

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

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

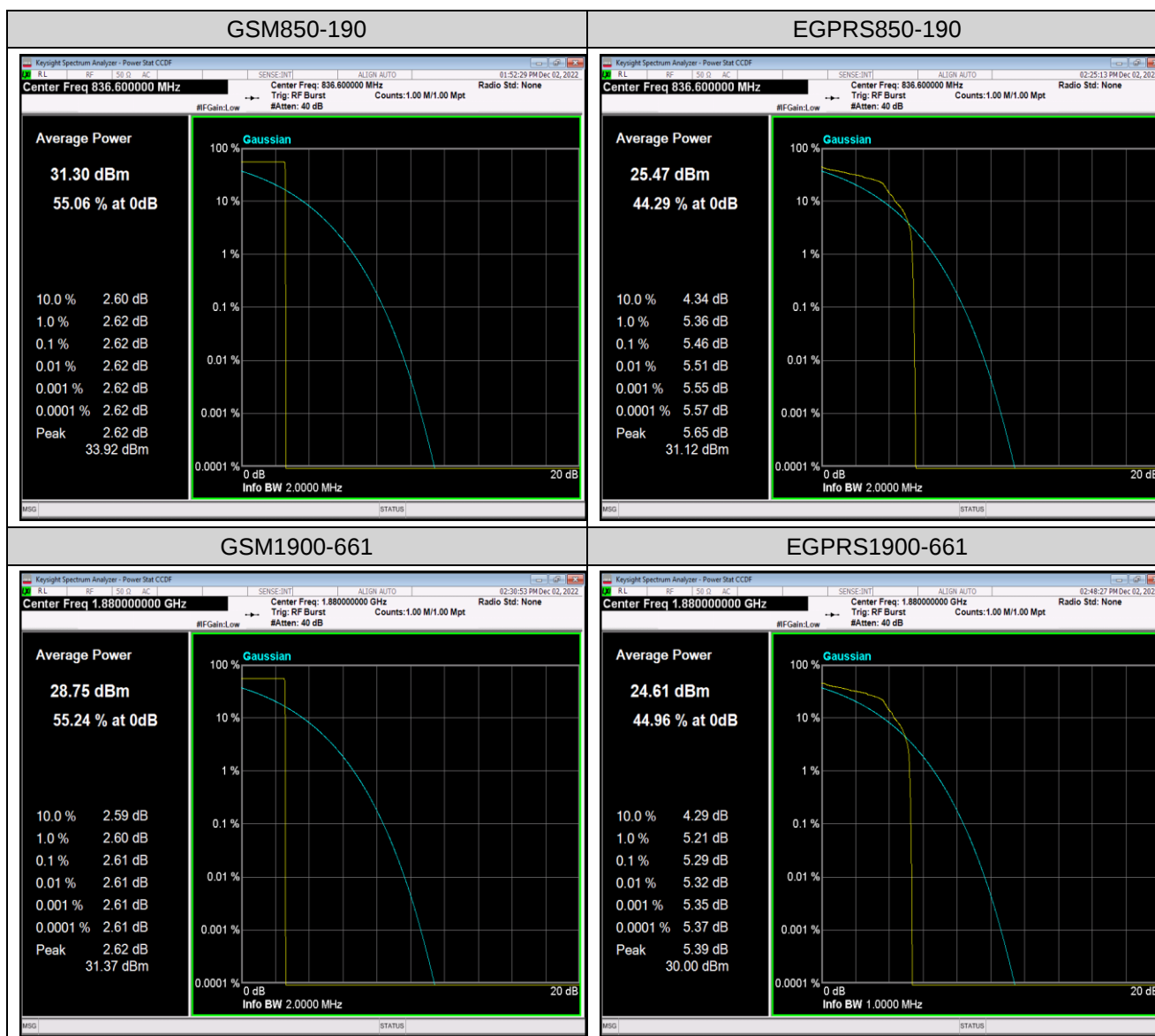
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.46	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.29	13	PASS

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

Test Graphs

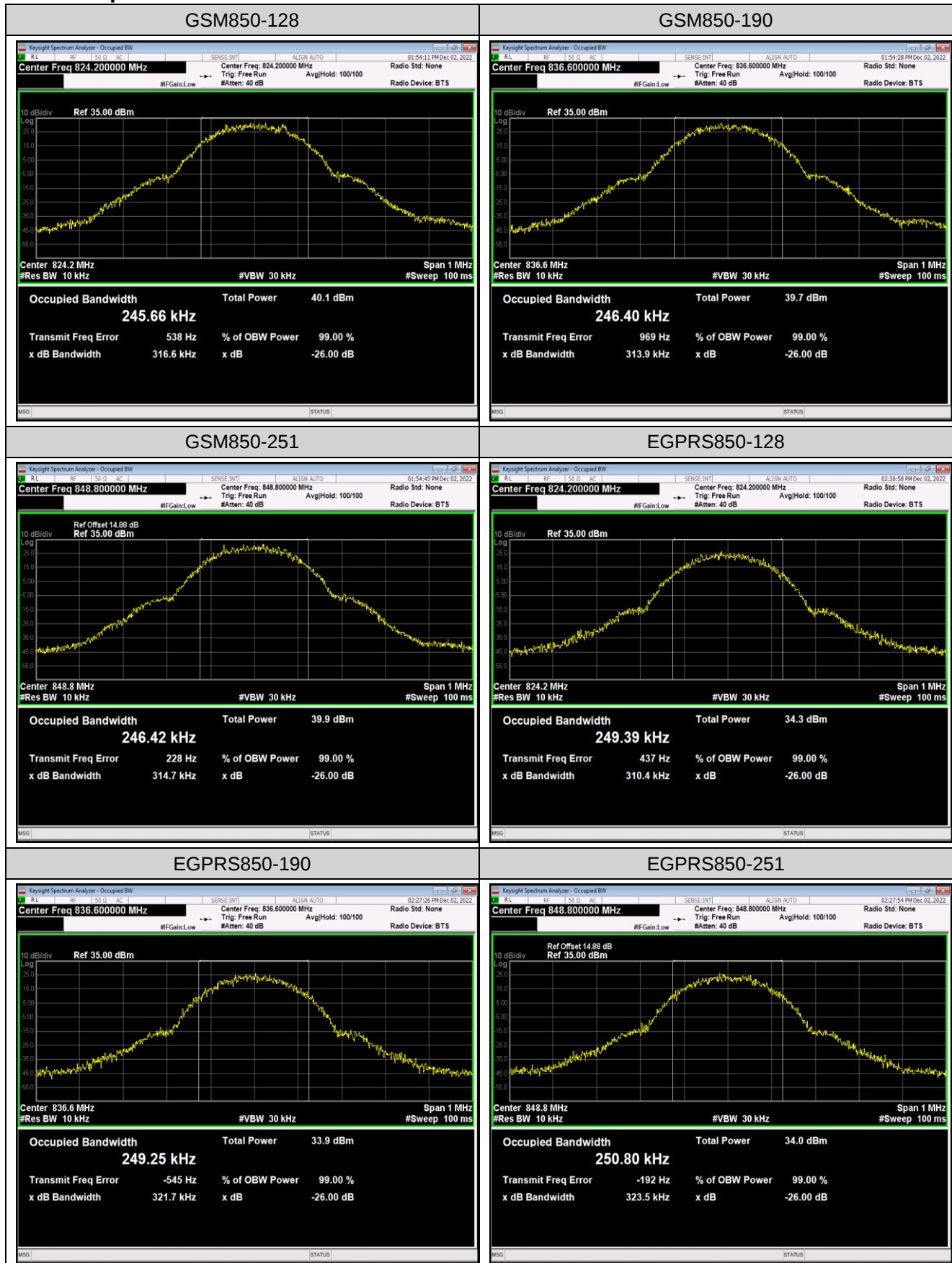


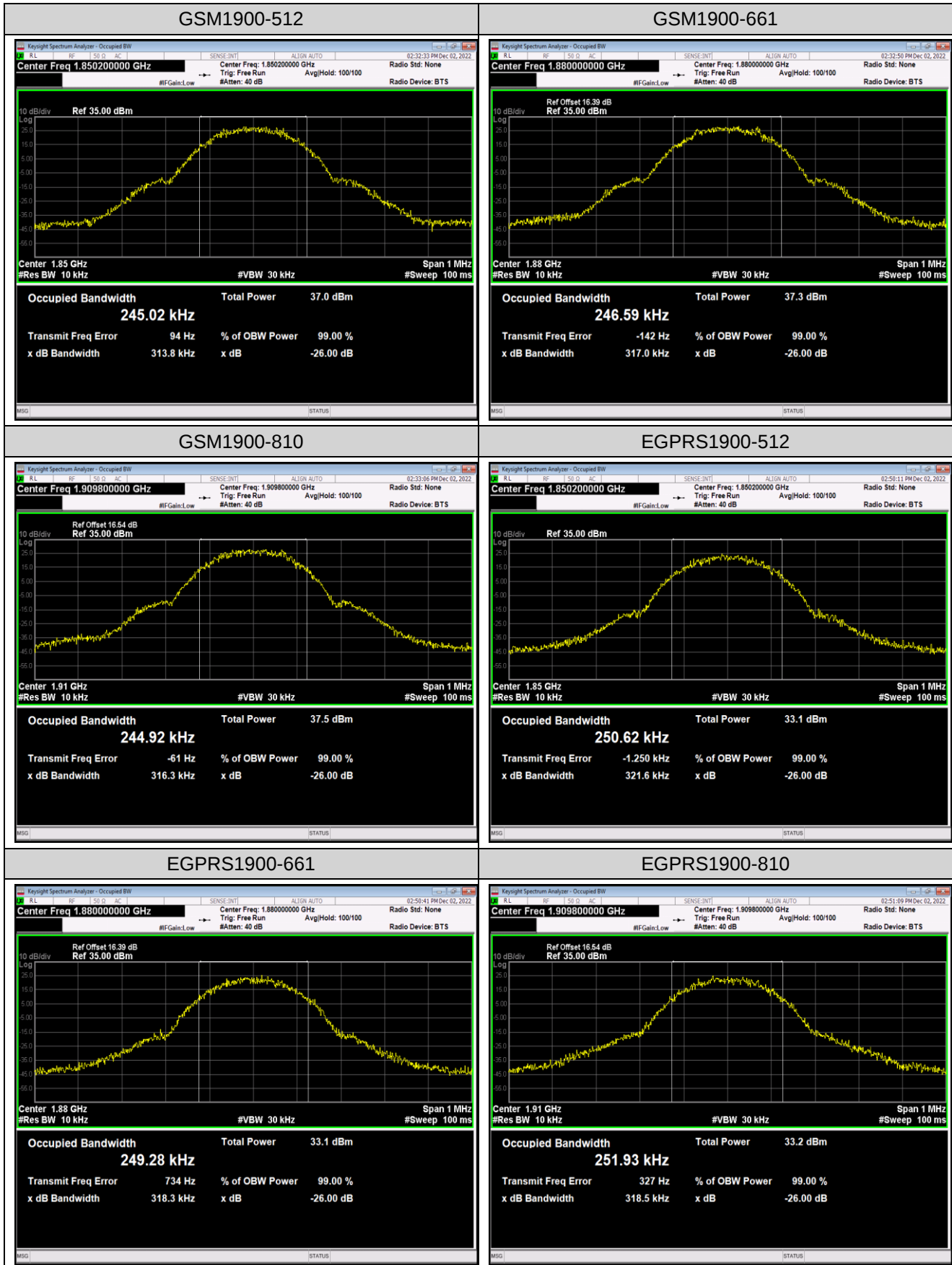
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24566	0.3166	---	PASS
GSM850	190	5	0.24640	0.3139	---	PASS
GSM850	251	5	0.24642	0.3147	---	PASS
EGPRS850	128	8	0.24939	0.3104	---	PASS
EGPRS850	190	8	0.24925	0.3217	---	PASS
EGPRS850	251	8	0.25080	0.3235	---	PASS
GSM1900	512	0	0.24502	0.3138	---	PASS
GSM1900	661	0	0.24659	0.3170	---	PASS
GSM1900	810	0	0.24492	0.3163	---	PASS
EGPRS1900	512	2	0.25062	0.3216	---	PASS
EGPRS1900	661	2	0.24928	0.3183	---	PASS
EGPRS1900	810	2	0.25193	0.3185	---	PASS

Test Graphs



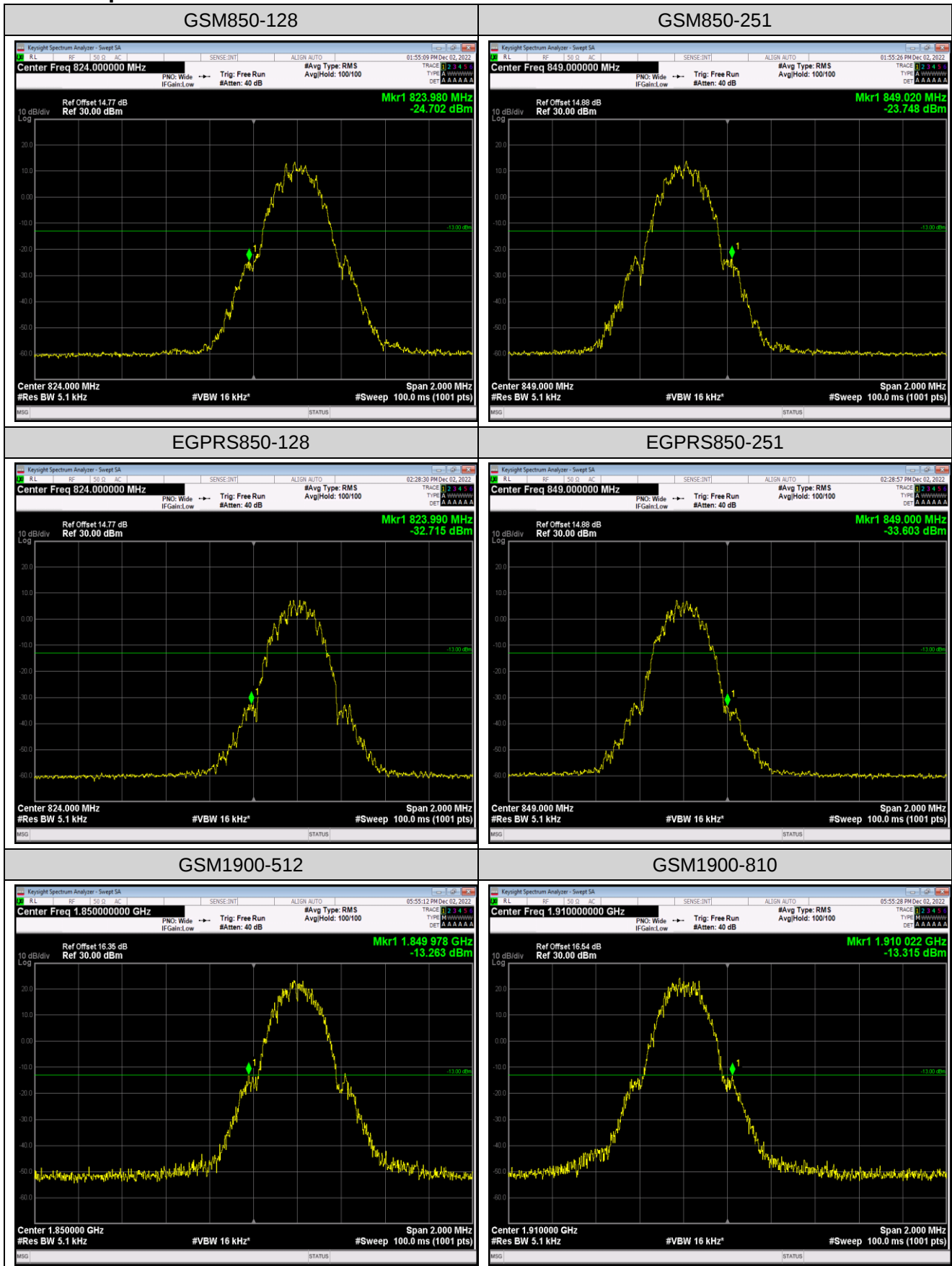


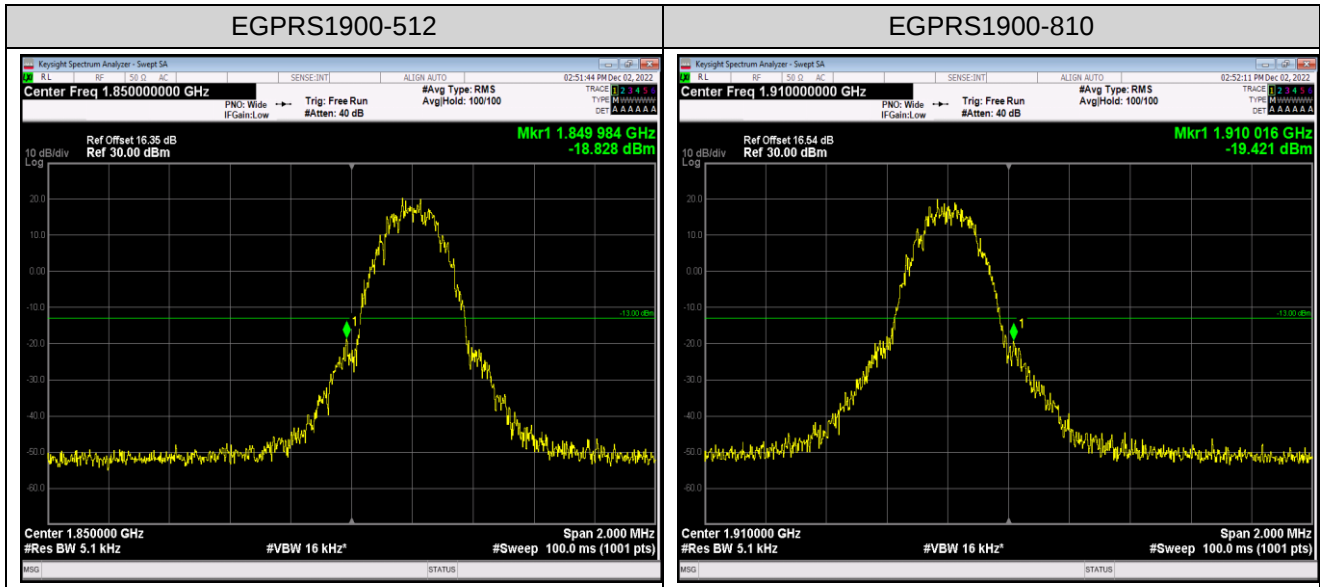
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.70	-13	PASS
GSM850	251	5	849.02	-23.75	-13	PASS
EGPRS850	128	8	823.99	-32.71	-13	PASS
EGPRS850	251	8	849.00	-33.60	-13	PASS
GSM1900	512	0	1849.98	-13.26	-13	PASS
GSM1900	810	0	1910.02	-13.32	-13	PASS
EGPRS1900	512	2	1849.98	-18.83	-13	PASS
EGPRS1900	810	2	1910.02	-19.42	-13	PASS

Test Graphs





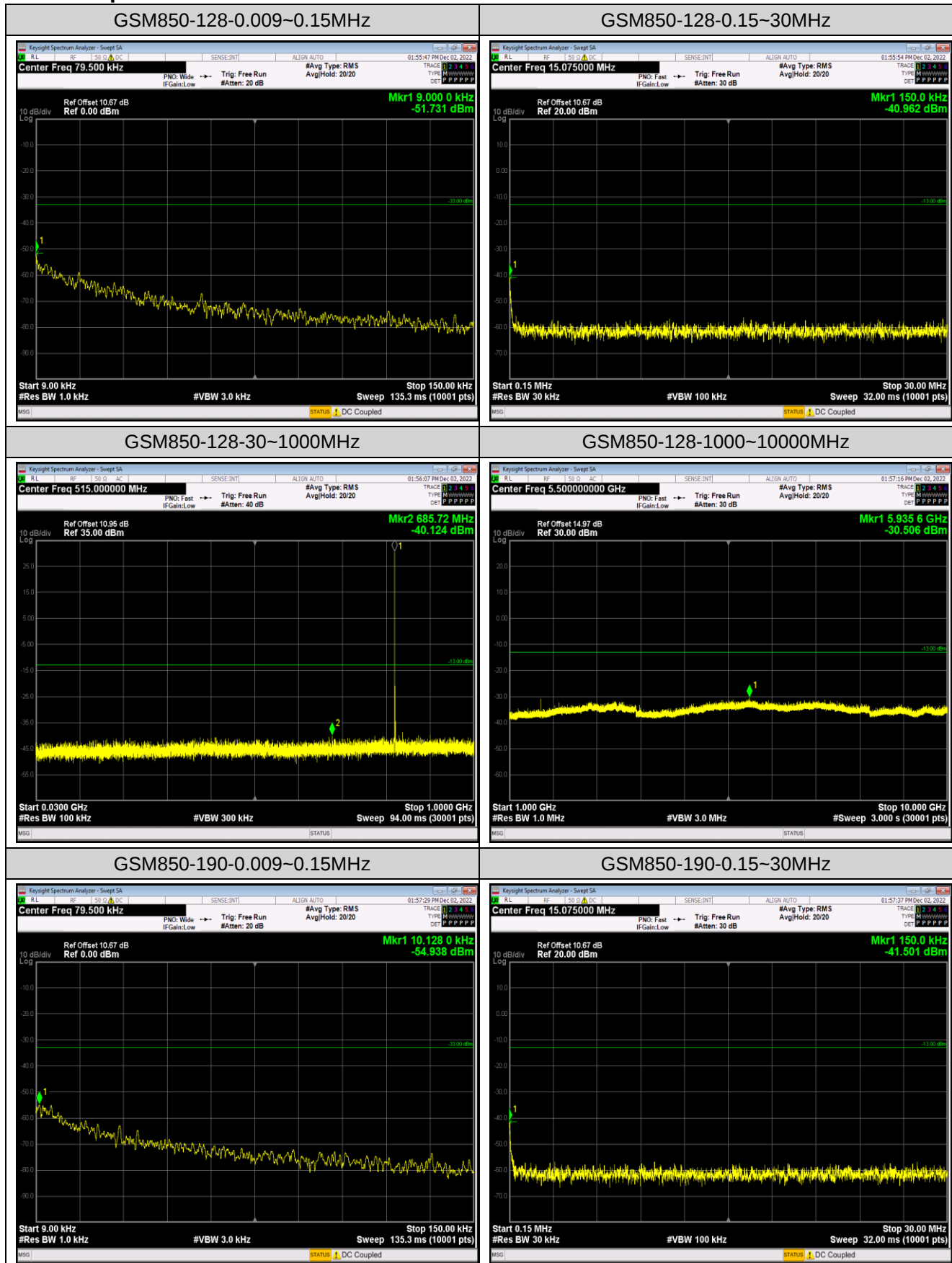
Appendix E: Conducted Spurious Emission

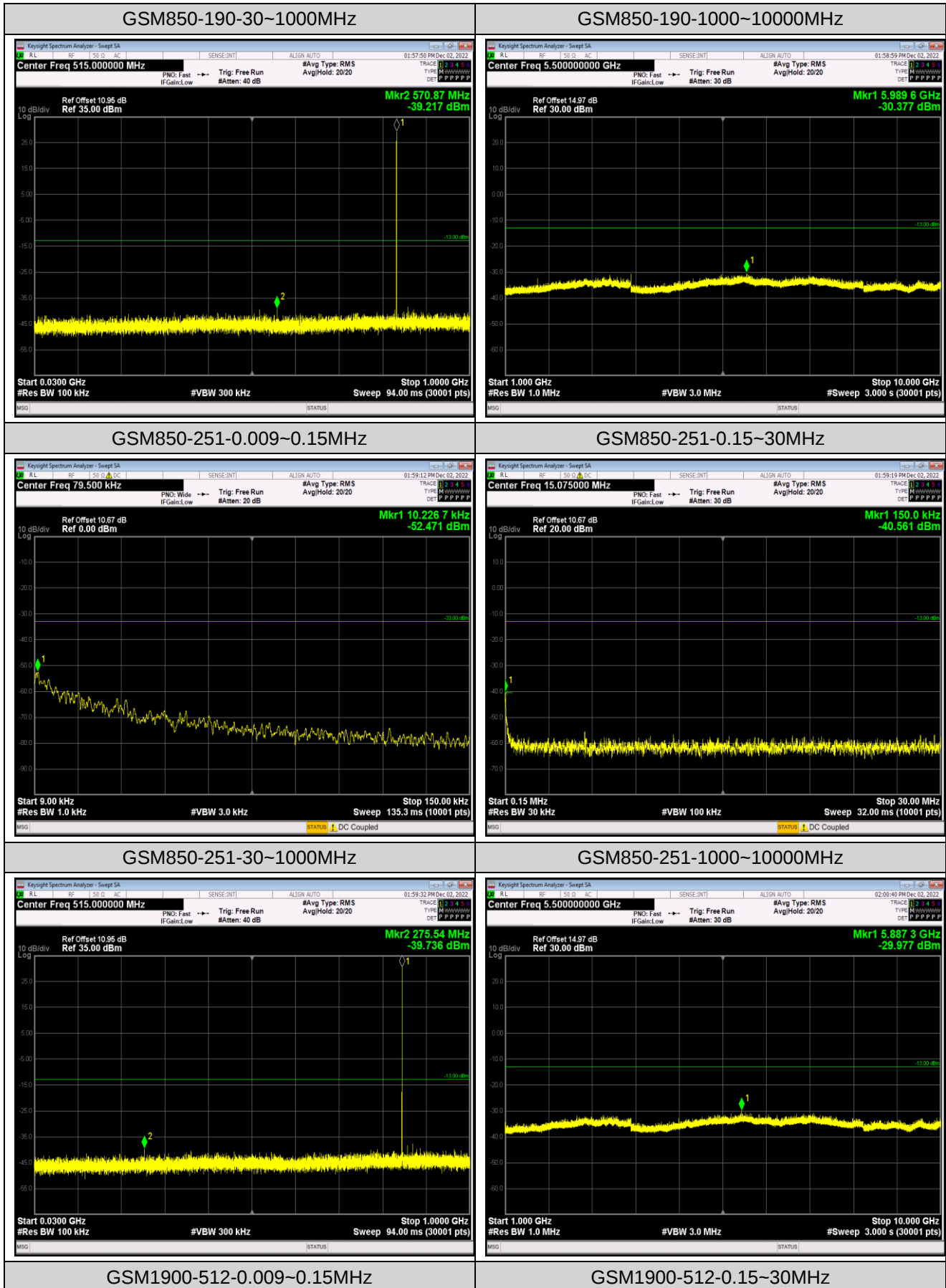
Test Result

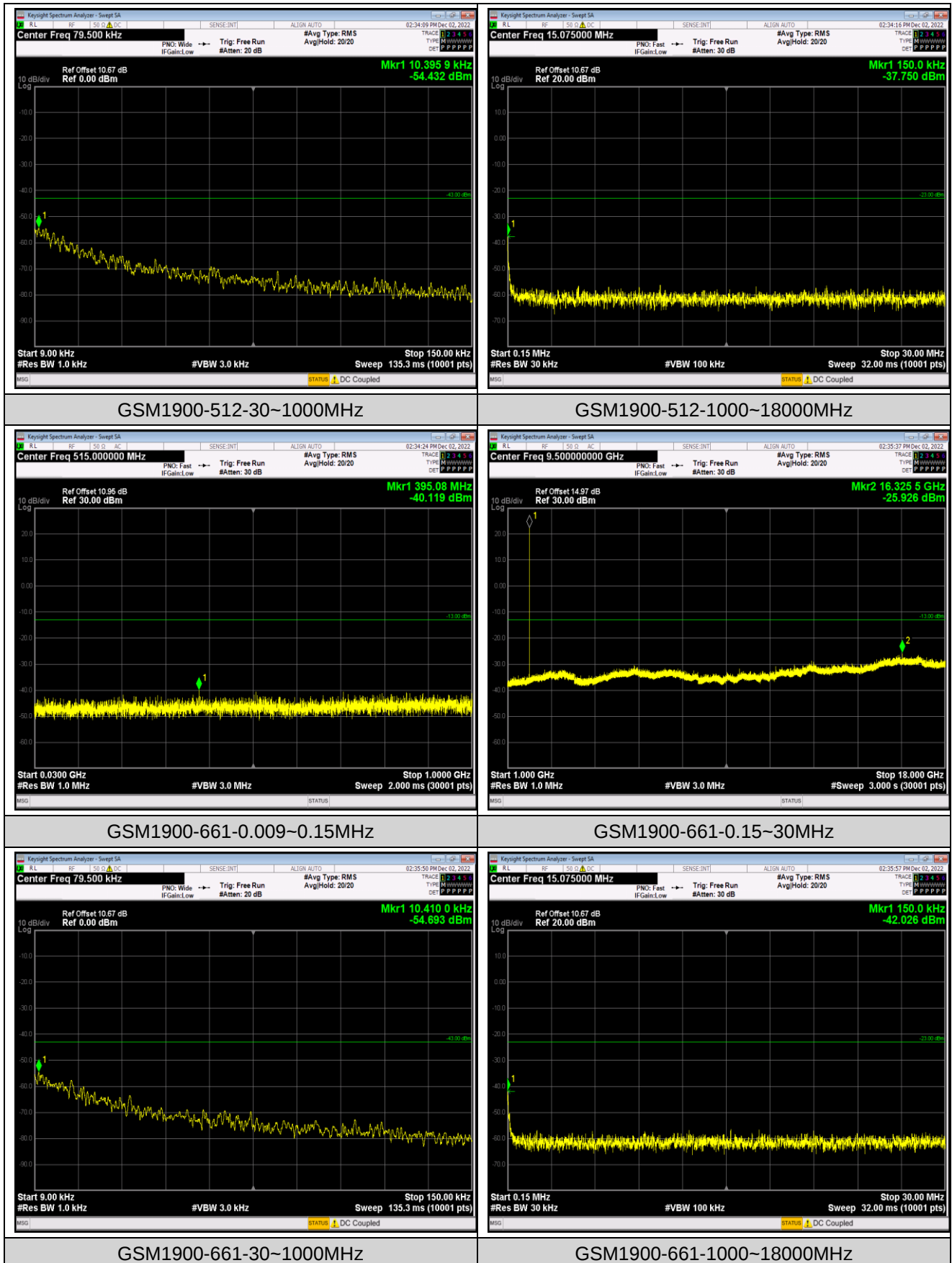
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-51.73	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-40.96	-13	PASS
GSM850	128	5	30~1000MHz	685.72	-40.12	-13	PASS
GSM850	128	5	1000~10000MHz	5935.6	-30.51	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.94	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-41.5	-13	PASS
GSM850	190	5	30~1000MHz	570.87	-39.22	-13	PASS
GSM850	190	5	1000~10000MHz	5989.6	-30.38	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-52.47	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-40.56	-13	PASS
GSM850	251	5	30~1000MHz	275.54	-39.74	-13	PASS
GSM850	251	5	1000~10000MHz	5887.3	-29.98	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.43	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-37.75	-23	PASS
GSM1900	512	0	30~1000MHz	395.08	-40.12	-13	PASS
GSM1900	512	0	1000~18000MHz	16325.5	-25.93	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-54.69	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-42.03	-23	PASS
GSM1900	661	0	30~1000MHz	649.22	-39.24	-13	PASS
GSM1900	661	0	1000~18000MHz	16770.9	-26.08	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-53.89	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-41.68	-23	PASS
GSM1900	810	0	30~1000MHz	663.57	-39.42	-13	PASS
GSM1900	810	0	1000~18000MHz	16950.53	-26.46	-13	PASS

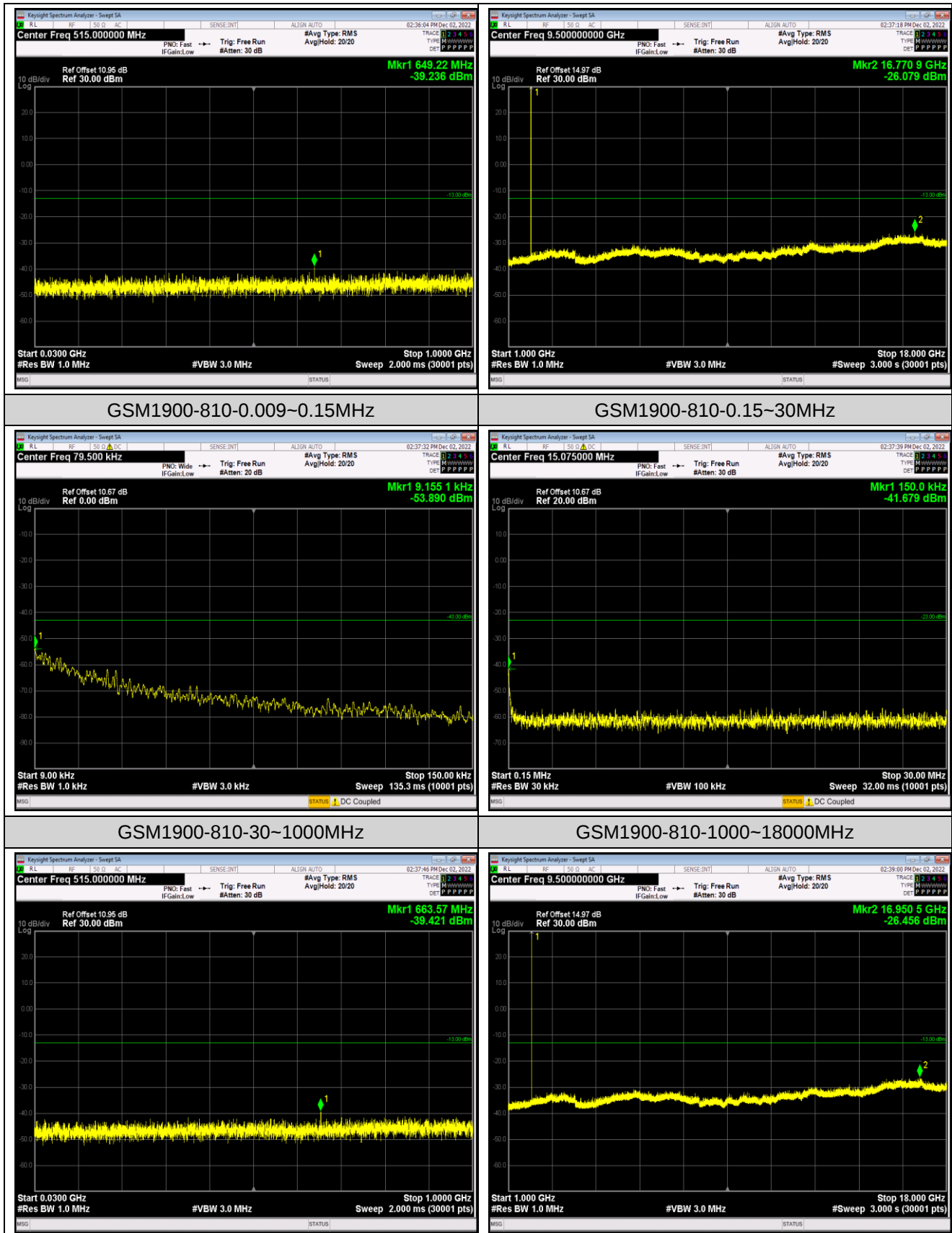
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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		
3.85	-30	9.91	0.011846	±2.5	Pass
	-20	7.91	0.009455		
	-10	6.75	0.008068		
	0	10.20	0.012192		
	10	9.85	0.011774		
	20	8.68	0.010375		
	30	8.88	0.010614		
	40	7.20	0.008606		
	50	4.49	0.005367		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	11.43	0.013662	±2.5	Pass
	3.85	9.88	0.011810		
	4.40	9.98	0.011929		
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		
3.85	-30	-2.07	-0.002474	±2.5	Pass
	-20	-0.90	-0.001076		
	-10	0.87	0.001040		
	0	-2.20	-0.002630		
	10	0.58	0.000693		
	20	3.00	0.003586		
	30	4.97	0.005941		
	40	6.55	0.007829		
	50	6.42	0.007674		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	0.00	0.000000	±2.5	Pass
	3.85	-0.16	-0.000191		
	4.40	-0.90	-0.001076		
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		
3.85	-30	14.40	0.007660	Within authorized band for PCS 1900	Pass
	-20	9.20	0.004894		
	-10	17.14	0.009117		
	0	18.95	0.010080		
	10	18.37	0.009771		
	20	11.85	0.006303		
	30	14.33	0.007622		
	40	16.66	0.008862		
	50	19.98	0.010628		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	11.82	0.006287	Within authorized band for PCS 1900	Pass
	3.85	21.21	0.011282		
	4.40	16.24	0.008638		
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		
3.85	-30	15.40	0.008191	Within authorized band for PCS 1900	Pass
	-20	15.69	0.008346		
	-10	13.24	0.007043		
	0	13.20	0.007021		
	10	18.69	0.009941		
	20	13.79	0.007335		
	30	22.18	0.011798		
	40	-4.46	-0.002372		
	50	39.42	0.020968		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.40	19.50	0.010372	Within authorized band for PCS 1900	Pass
	3.85	16.95	0.009016		
	4.40	16.01	0.008516		
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

