

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	33.18	29.53	38.45	PASS
GSM850	190	5	33.30	29.65	38.45	PASS
GSM850	251	5	33.17	29.52	38.45	PASS
GSM1900	512	0	30.54	29.54	33.00	PASS
GSM1900	661	0	30.60	29.6	33.00	PASS
GSM1900	810	0	30.56	29.56	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.27	29.62	38.45	PASS
GPRS850	128	5	2	32.28	28.63	38.45	PASS
GPRS850	128	5	3	30.22	26.57	38.45	PASS
GPRS850	128	5	4	29.12	25.47	38.45	PASS
GPRS850	190	5	1	33.37	29.72	38.45	PASS
GPRS850	190	5	2	32.37	28.72	38.45	PASS
GPRS850	190	5	3	30.20	26.55	38.45	PASS
GPRS850	190	5	4	29.11	25.46	38.45	PASS
GPRS850	251	5	1	33.14	29.49	38.45	PASS
GPRS850	251	5	2	32.16	28.51	38.45	PASS
GPRS850	251	5	3	30.12	26.47	38.45	PASS
GPRS850	251	5	4	29.04	25.39	38.45	PASS
GPRS1900	512	0	1	30.51	29.51	33.00	PASS
GPRS1900	512	0	2	29.51	28.51	33.00	PASS
GPRS1900	512	0	3	27.29	26.29	33.00	PASS
GPRS1900	512	0	4	26.21	25.21	33.00	PASS
GPRS1900	661	0	1	30.60	29.6	33.00	PASS
GPRS1900	661	0	2	29.66	28.66	33.00	PASS
GPRS1900	661	0	3	27.51	26.51	33.00	PASS
GPRS1900	661	0	4	26.45	25.45	33.00	PASS
GPRS1900	810	0	1	30.53	29.53	33.00	PASS
GPRS1900	810	0	2	29.64	28.64	33.00	PASS
GPRS1900	810	0	3	27.54	26.54	33.00	PASS
GPRS1900	810	0	4	26.50	25.5	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.26	23.61	38.45	PASS
EGPRS850	128	8	2	26.15	22.5	38.45	PASS
EGPRS850	128	8	3	24.19	20.54	38.45	PASS
EGPRS850	128	8	4	24.42	20.77	38.45	PASS
EGPRS850	190	8	1	27.18	23.53	38.45	PASS
EGPRS850	190	8	2	26.11	22.46	38.45	PASS
EGPRS850	190	8	3	24.12	20.47	38.45	PASS
EGPRS850	190	8	4	24.32	20.67	38.45	PASS
EGPRS850	251	8	1	27.09	23.44	38.45	PASS
EGPRS850	251	8	2	26.04	22.39	38.45	PASS
EGPRS850	251	8	3	24.00	20.35	38.45	PASS
EGPRS850	251	8	4	24.20	20.55	38.45	PASS
EGPRS1900	512	2	1	26.78	25.78	33.00	PASS
EGPRS1900	512	2	2	25.72	24.72	33.00	PASS
EGPRS1900	512	2	3	23.73	22.73	33.00	PASS
EGPRS1900	512	2	4	24.37	23.37	33.00	PASS
EGPRS1900	661	2	1	26.75	25.75	33.00	PASS
EGPRS1900	661	2	2	25.75	24.75	33.00	PASS
EGPRS1900	661	2	3	23.70	22.7	33.00	PASS
EGPRS1900	661	2	4	24.26	23.26	33.00	PASS
EGPRS1900	810	2	1	26.47	25.47	33.00	PASS
EGPRS1900	810	2	2	25.44	24.44	33.00	PASS
EGPRS1900	810	2	3	23.40	22.4	33.00	PASS
EGPRS1900	810	2	4	24.05	23.05	33.00	PASS

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

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

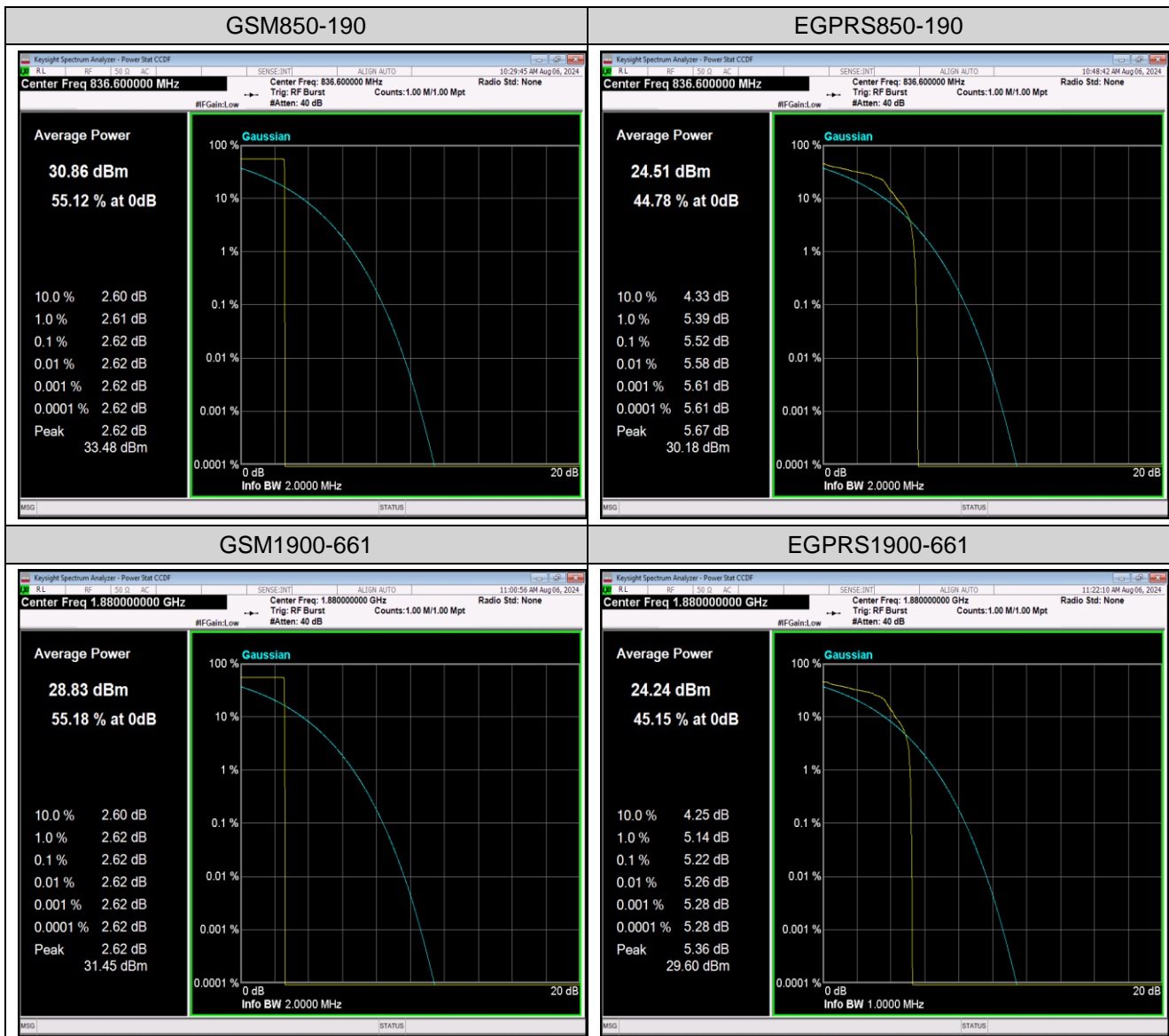
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.52	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.22	13	PASS

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

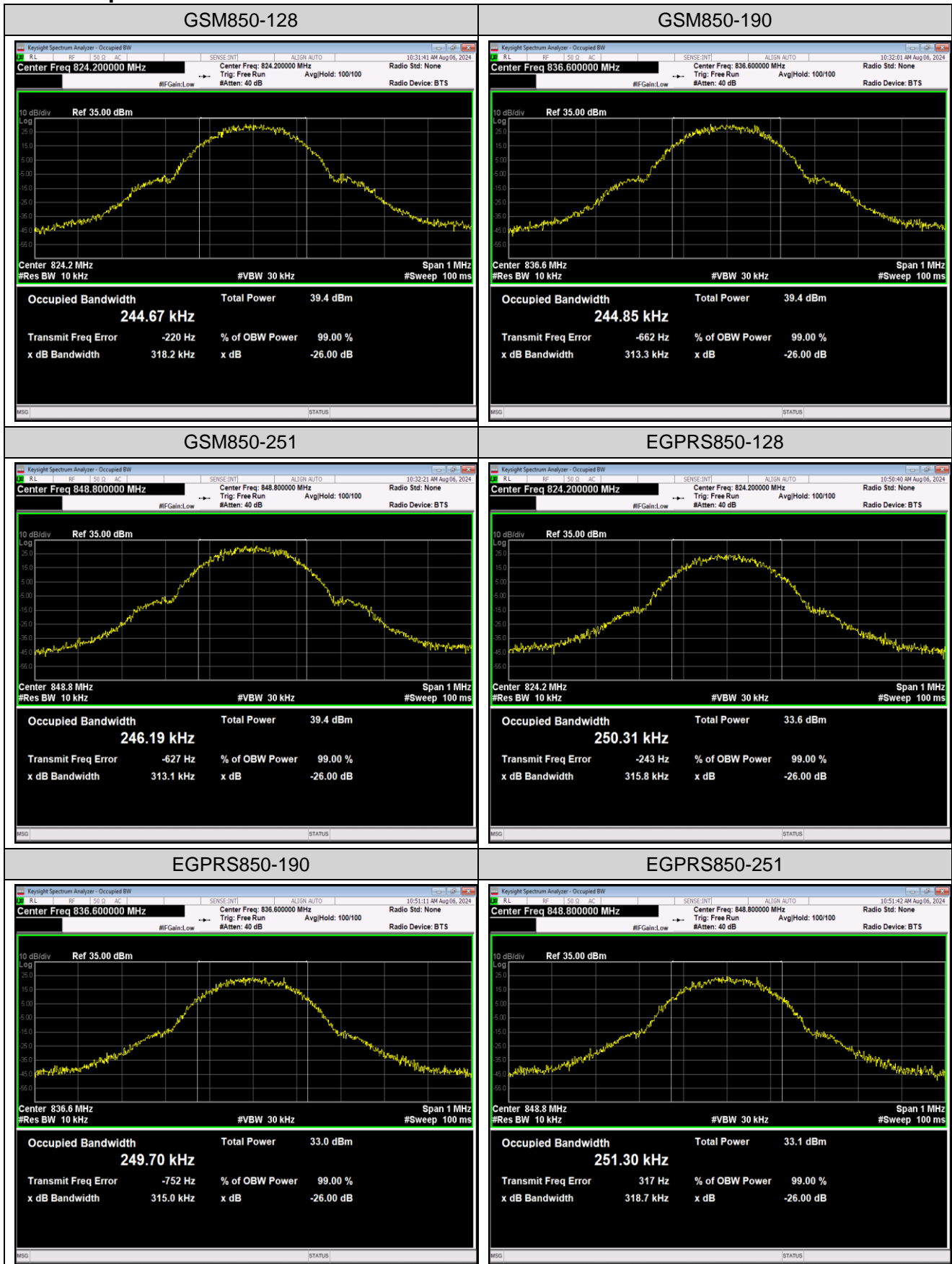
Test Graphs

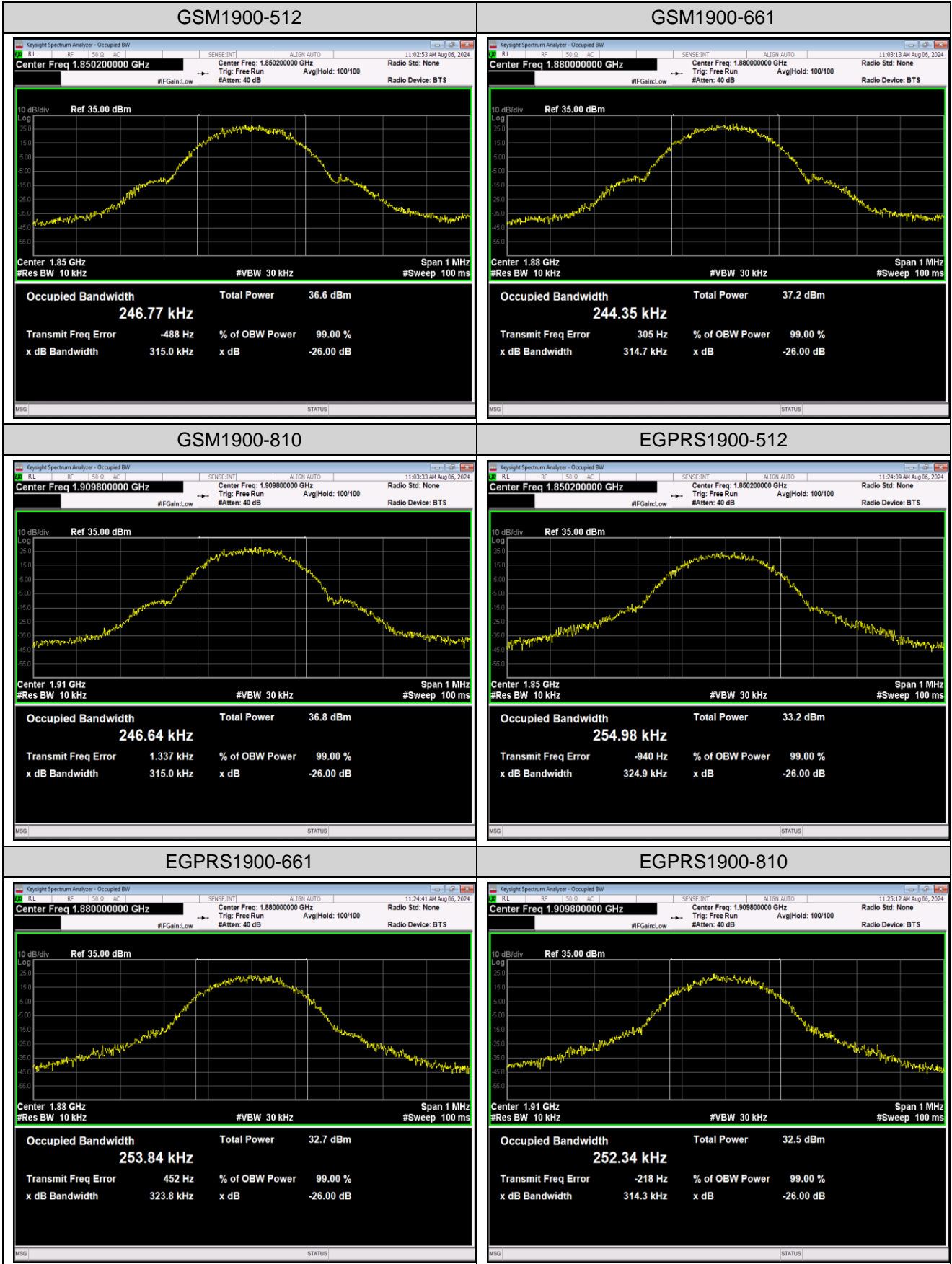


Appendix C: 26dB Bandwidth and Occupied Bandwidth**Test Result**

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24467	0.3182	---	PASS
GSM850	190	5	0.24485	0.3133	---	PASS
GSM850	251	5	0.24619	0.3131	---	PASS
EGPRS850	128	8	0.25031	0.3158	---	PASS
EGPRS850	190	8	0.24970	0.3150	---	PASS
EGPRS850	251	8	0.25130	0.3187	---	PASS
GSM1900	512	0	0.24677	0.3150	---	PASS
GSM1900	661	0	0.24435	0.3147	---	PASS
GSM1900	810	0	0.24664	0.3150	---	PASS
EGPRS1900	512	2	0.25498	0.3249	---	PASS
EGPRS1900	661	2	0.25384	0.3238	---	PASS
EGPRS1900	810	2	0.25234	0.3143	---	PASS

Test Graphs

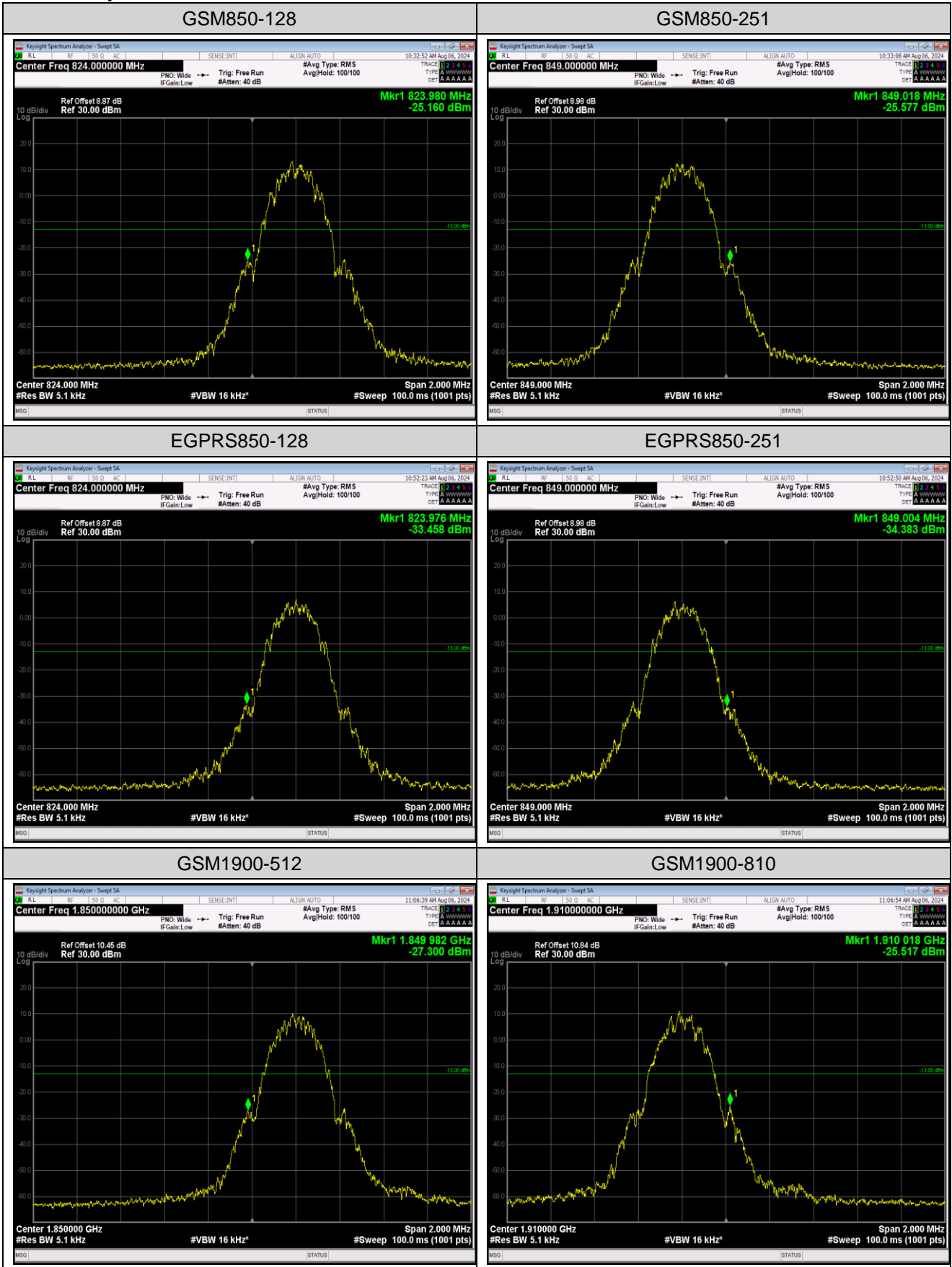


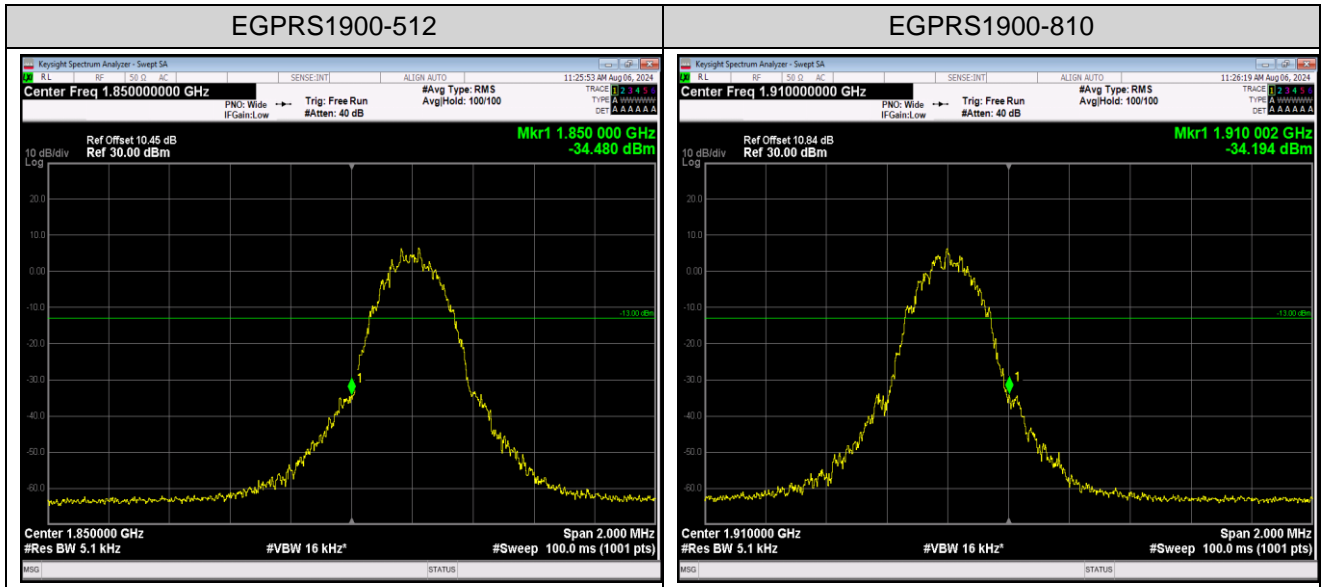


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-25.16	-13	PASS
GSM850	251	5	849.02	-25.58	-13	PASS
EGPRS850	128	8	823.98	-33.46	-13	PASS
EGPRS850	251	8	849.00	-34.38	-13	PASS
GSM1900	512	0	1849.98	-27.30	-13	PASS
GSM1900	810	0	1910.02	-25.52	-13	PASS
EGPRS1900	512	2	1850.00	-34.48	-13	PASS
EGPRS1900	810	2	1910.00	-34.19	-13	PASS

Test Graphs





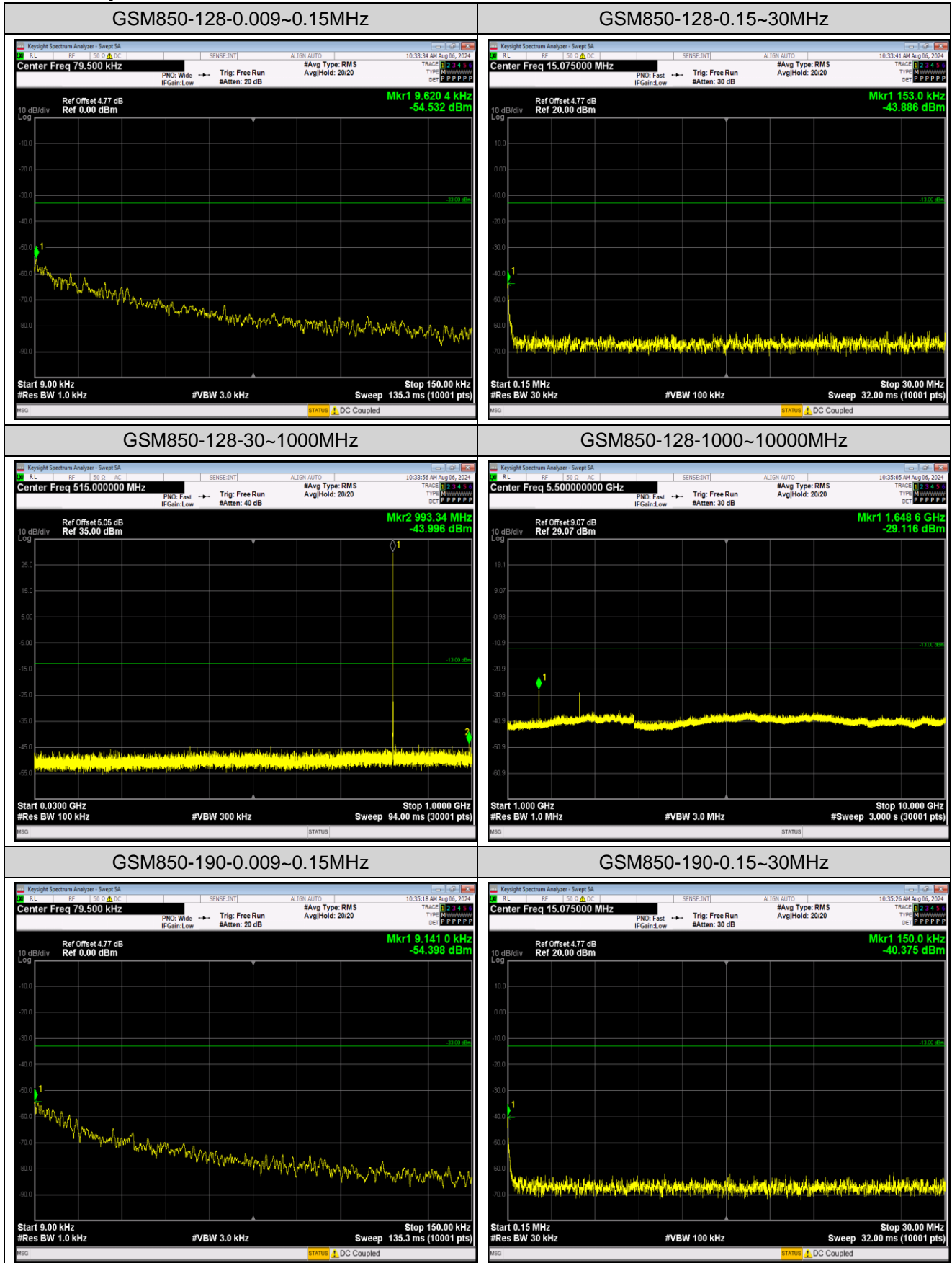
Appendix E: Conducted Spurious Emission

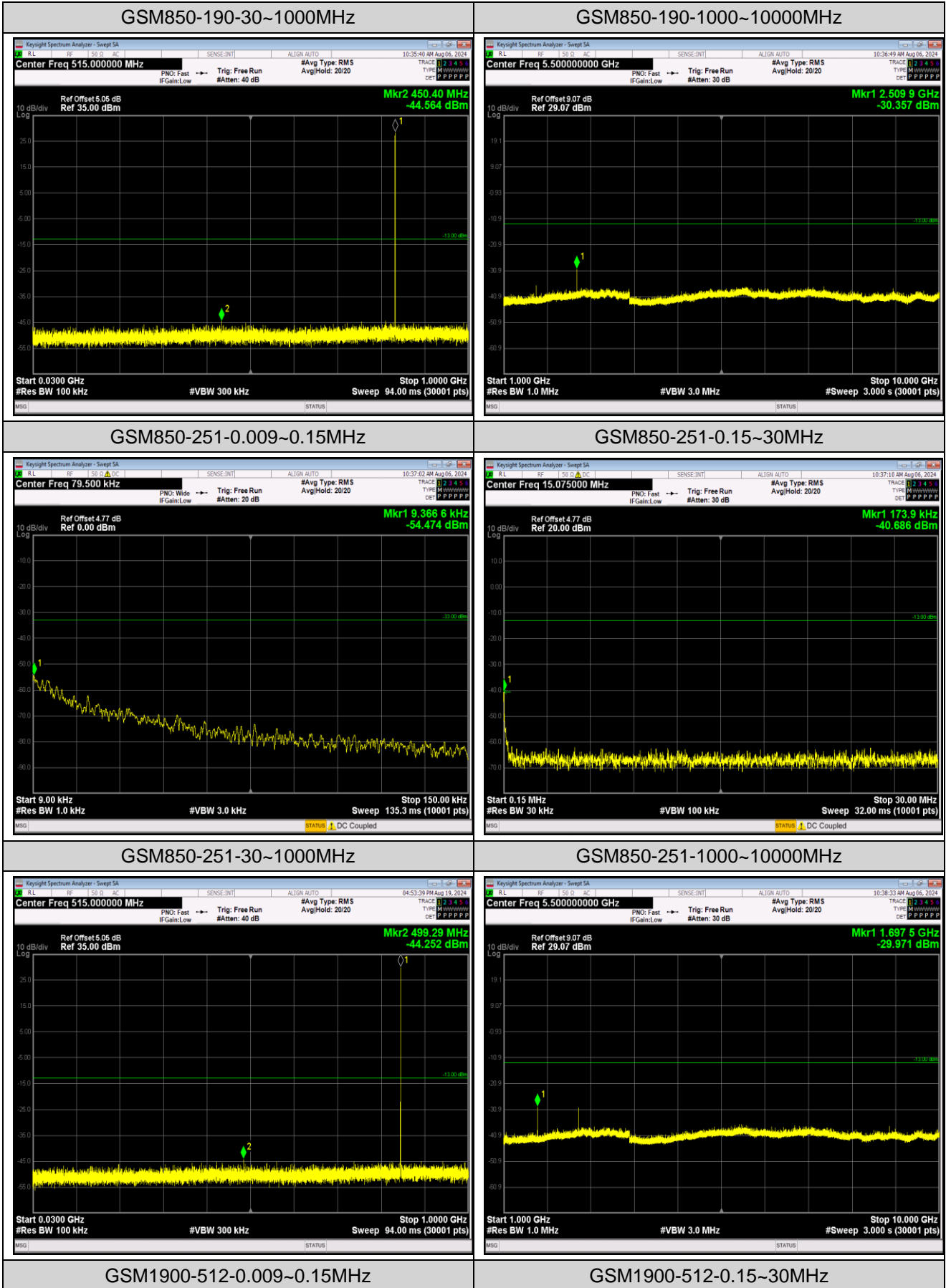
Test Result

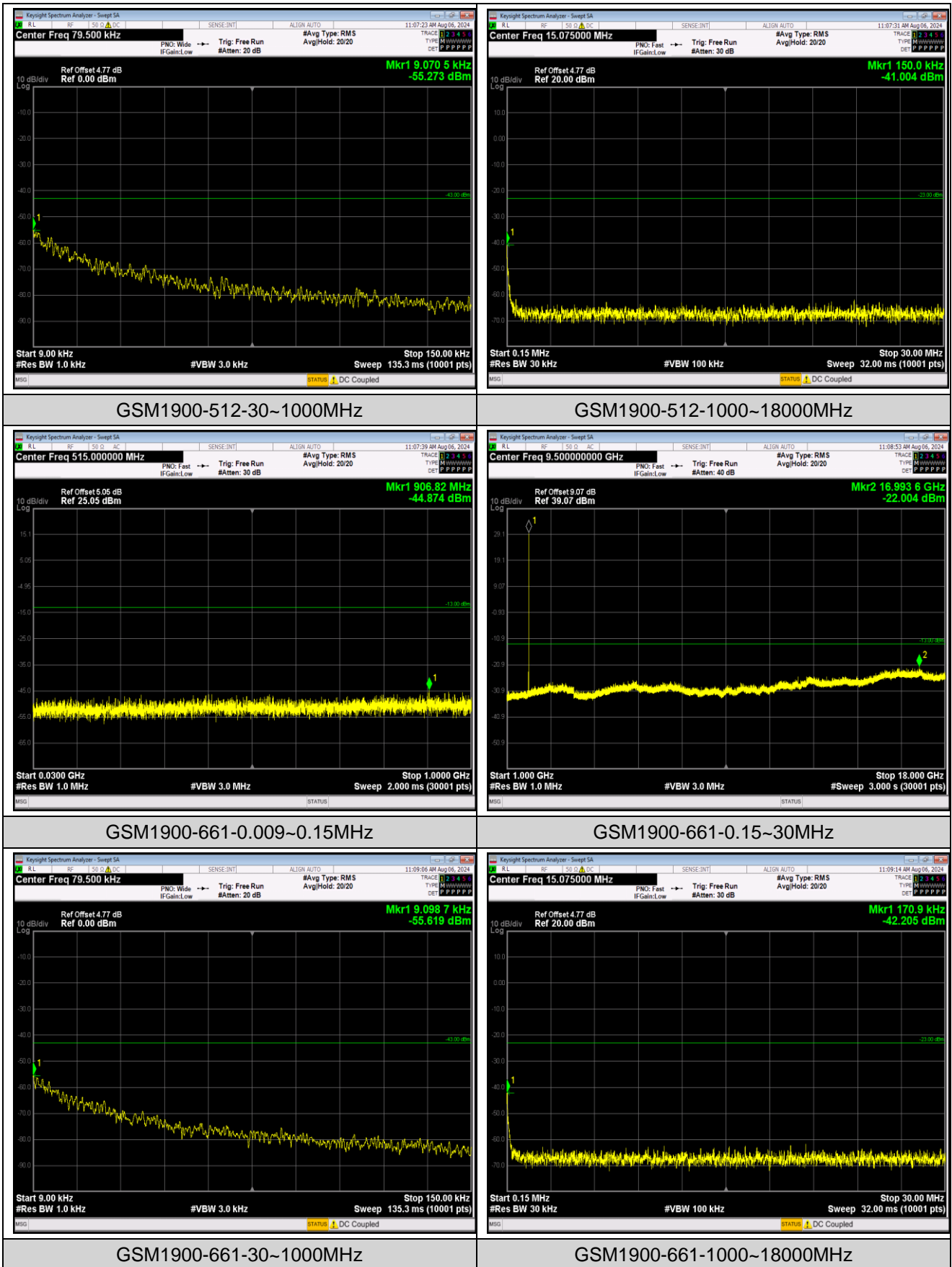
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.53	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-43.89	-13	PASS
GSM850	128	5	30~1000MHz	993.34	-44	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-29.12	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.4	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-40.38	-13	PASS
GSM850	190	5	30~1000MHz	499.29	-44.52	-13	PASS
GSM850	190	5	1000~10000MHz	2509.9	-30.36	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.47	-33	PASS
GSM850	251	5	0.15~30MHz	0.17	-40.69	-13	PASS
GSM850	251	5	30~1000MHz	963.98	-44.52	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-29.97	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.27	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-41	-23	PASS
GSM1900	512	0	30~1000MHz	906.82	-44.87	-13	PASS
GSM1900	512	0	1000~18000MHz	16993.6	-22	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.62	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-42.21	-23	PASS
GSM1900	661	0	30~1000MHz	213.69	-45.08	-13	PASS
GSM1900	661	0	1000~18000MHz	17071.23	-21.62	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.3	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.13	-23	PASS
GSM1900	810	0	30~1000MHz	776.93	-45.37	-13	PASS
GSM1900	810	0	1000~18000MHz	16996.43	-22.05	-13	PASS

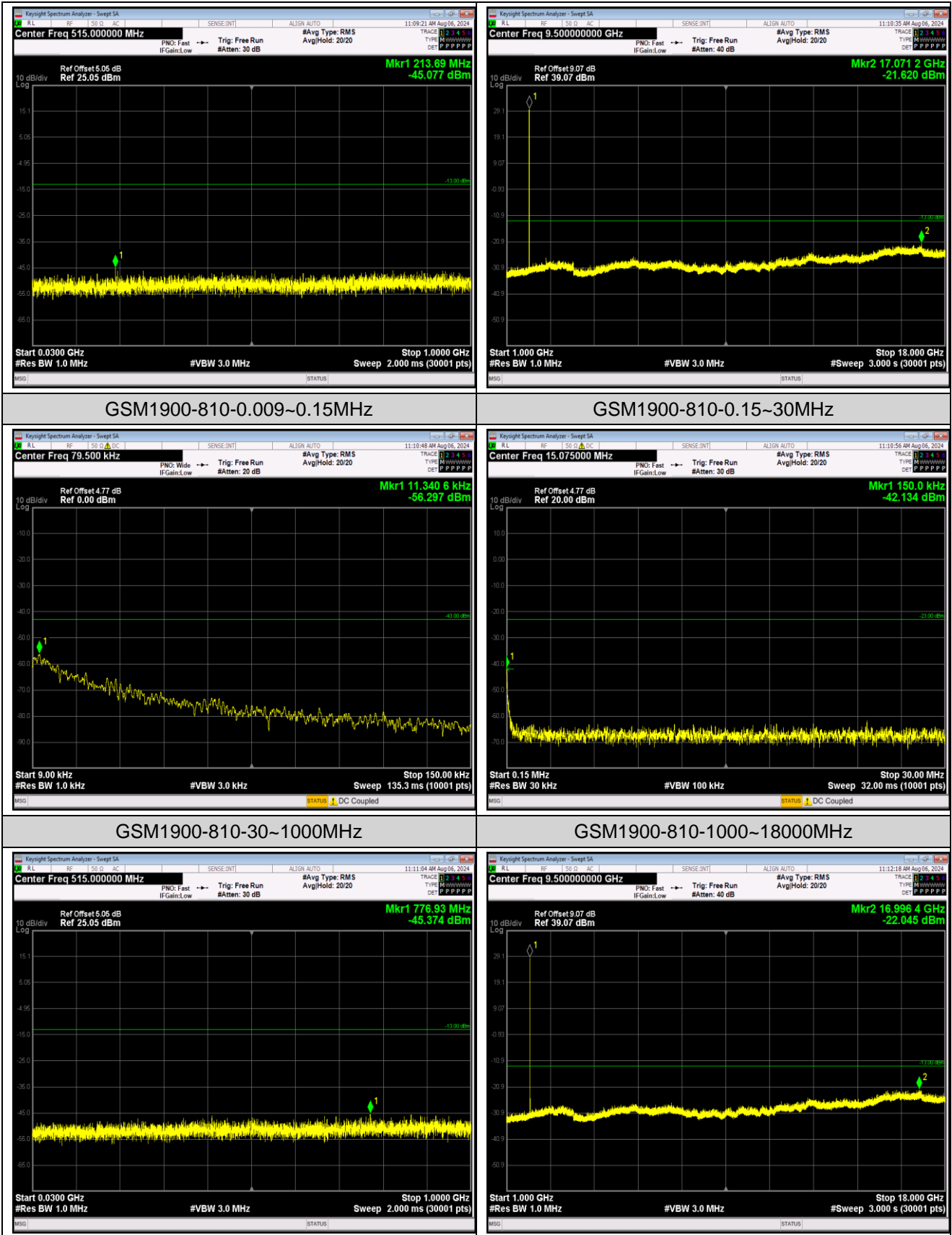
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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	3.49	0.004172	±2.5	Pass
	-20	2.26	0.002701		
	-10	3.45	0.004124		
	0	0.48	0.000574		
	10	2.91	0.003478		
	20	2.84	0.003395		
	30	2.65	0.003168		
	40	-0.39	-0.000466		
	50	0.26	0.000311		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	9.94	0.011881	±2.5	Pass
	3.85	8.91	0.010650		
	4.40	7.04	0.008415		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

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	-3.07	-0.003670	±2.5	Pass
	-20	-8.10	-0.009682		
	-10	-3.10	-0.003705		
	0	-1.42	-0.001697		
	10	6.42	0.007674		
	20	5.10	0.006096		
	30	4.23	0.005056		
	40	3.62	0.004327		
	50	1.84	0.002199		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-4.20	-0.005020	±2.5	Pass
	3.85	-2.23	-0.002666		
	4.40	-5.20	-0.006216		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-15.01	-0.007984	Within authorized band for PCS 1900	Pass
	-20	-10.82	-0.005755		
	-10	-13.62	-0.007245		
	0	-13.69	-0.007282		
	10	-9.59	-0.005101		
	20	-12.85	-0.006835		
	30	-15.11	-0.008037		
	40	-12.82	-0.006819		
	50	-13.37	-0.007112		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-12.91	-0.006867	Within authorized band for PCS 1900	Pass
	3.85	-14.33	-0.007622		
	4.40	-18.82	-0.010011		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-29.83	-0.015867	Within authorized band for PCS 1900	Pass
	-20	-35.16	-0.018702		
	-10	-28.09	-0.014941		
	0	-30.54	-0.016245		
	10	-21.15	-0.011250		
	20	-17.53	-0.009324		
	30	-26.86	-0.014287		
	40	-24.96	-0.013277		
	50	-21.02	-0.011181		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-30.74	-0.016351	Within authorized band for PCS 1900	Pass
	3.85	-38.13	-0.020282		
	4.40	-41.07	-0.021846		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

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

