

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	33.31	28.41	38.45	PASS
GSM850	190	5	33.39	28.49	38.45	PASS
GSM850	251	5	33.19	28.29	38.45	PASS
GSM1900	512	0	30.27	25.56	33.00	PASS
GSM1900	661	0	30.62	25.91	33.00	PASS
GSM1900	810	0	30.31	25.6	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.30	28.4	38.45	PASS
GPRS850	128	5	2	31.75	26.85	38.45	PASS
GPRS850	128	5	3	29.77	24.87	38.45	PASS
GPRS850	128	5	4	28.78	23.88	38.45	PASS
GPRS850	190	5	1	33.37	28.47	38.45	PASS
GPRS850	190	5	2	31.83	26.93	38.45	PASS
GPRS850	190	5	3	29.86	24.96	38.45	PASS
GPRS850	190	5	4	28.90	24	38.45	PASS
GPRS850	251	5	1	33.16	28.26	38.45	PASS
GPRS850	251	5	2	31.64	26.74	38.45	PASS
GPRS850	251	5	3	29.70	24.8	38.45	PASS
GPRS850	251	5	4	28.75	23.85	38.45	PASS
GPRS1900	512	0	1	30.27	25.56	33.00	PASS
GPRS1900	512	0	2	28.71	24	33.00	PASS
GPRS1900	512	0	3	26.58	21.87	33.00	PASS
GPRS1900	512	0	4	25.61	20.9	33.00	PASS
GPRS1900	661	0	1	30.62	25.91	33.00	PASS
GPRS1900	661	0	2	29.16	24.45	33.00	PASS
GPRS1900	661	0	3	27.13	22.42	33.00	PASS
GPRS1900	661	0	4	26.20	21.49	33.00	PASS
GPRS1900	810	0	1	30.28	25.57	33.00	PASS
GPRS1900	810	0	2	28.93	24.22	33.00	PASS
GPRS1900	810	0	3	26.99	22.28	33.00	PASS
GPRS1900	810	0	4	26.09	21.38	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.08	23.18	38.45	PASS
EGPRS850	128	8	2	27.08	22.18	38.45	PASS
EGPRS850	128	8	3	25.10	20.2	38.45	PASS
EGPRS850	128	8	4	23.79	18.89	38.45	PASS
EGPRS850	190	8	1	28.07	23.17	38.45	PASS
EGPRS850	190	8	2	27.03	22.13	38.45	PASS
EGPRS850	190	8	3	25.01	20.11	38.45	PASS
EGPRS850	190	8	4	23.81	18.91	38.45	PASS
EGPRS850	251	8	1	28.17	23.27	38.45	PASS
EGPRS850	251	8	2	27.20	22.3	38.45	PASS
EGPRS850	251	8	3	25.17	20.27	38.45	PASS
EGPRS850	251	8	4	23.89	18.99	38.45	PASS
EGPRS1900	512	2	1	25.13	20.42	33.00	PASS
EGPRS1900	512	2	2	24.25	19.54	33.00	PASS
EGPRS1900	512	2	3	22.44	17.73	33.00	PASS
EGPRS1900	512	2	4	21.28	16.57	33.00	PASS
EGPRS1900	661	2	1	26.00	21.29	33.00	PASS
EGPRS1900	661	2	2	25.03	20.32	33.00	PASS
EGPRS1900	661	2	3	23.19	18.48	33.00	PASS
EGPRS1900	661	2	4	22.10	17.39	33.00	PASS
EGPRS1900	810	2	1	26.25	21.54	33.00	PASS
EGPRS1900	810	2	2	25.31	20.6	33.00	PASS
EGPRS1900	810	2	3	23.48	18.77	33.00	PASS
EGPRS1900	810	2	4	22.43	17.72	33.00	PASS

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

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

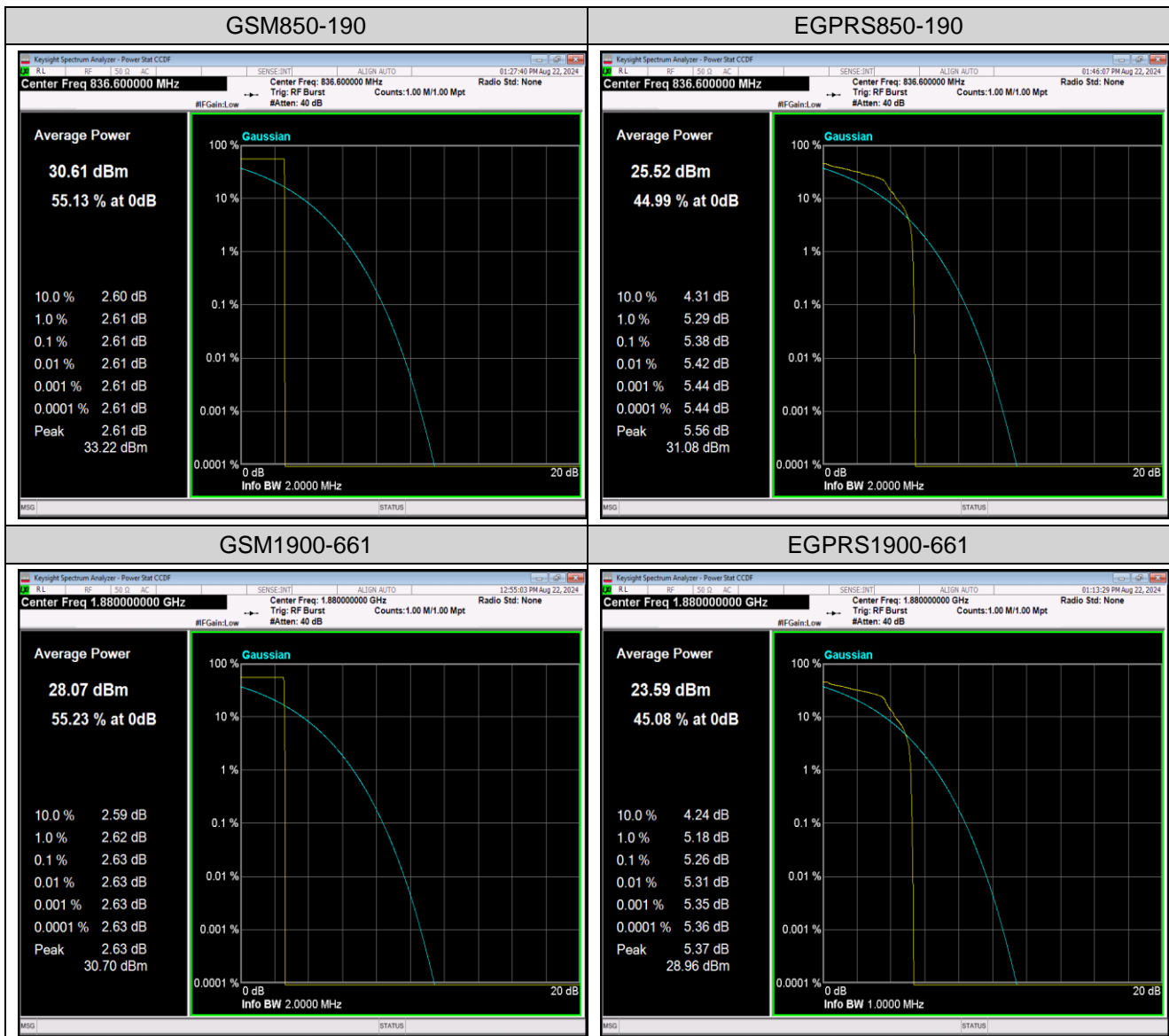
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.38	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.26	13	PASS

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

Test Graphs



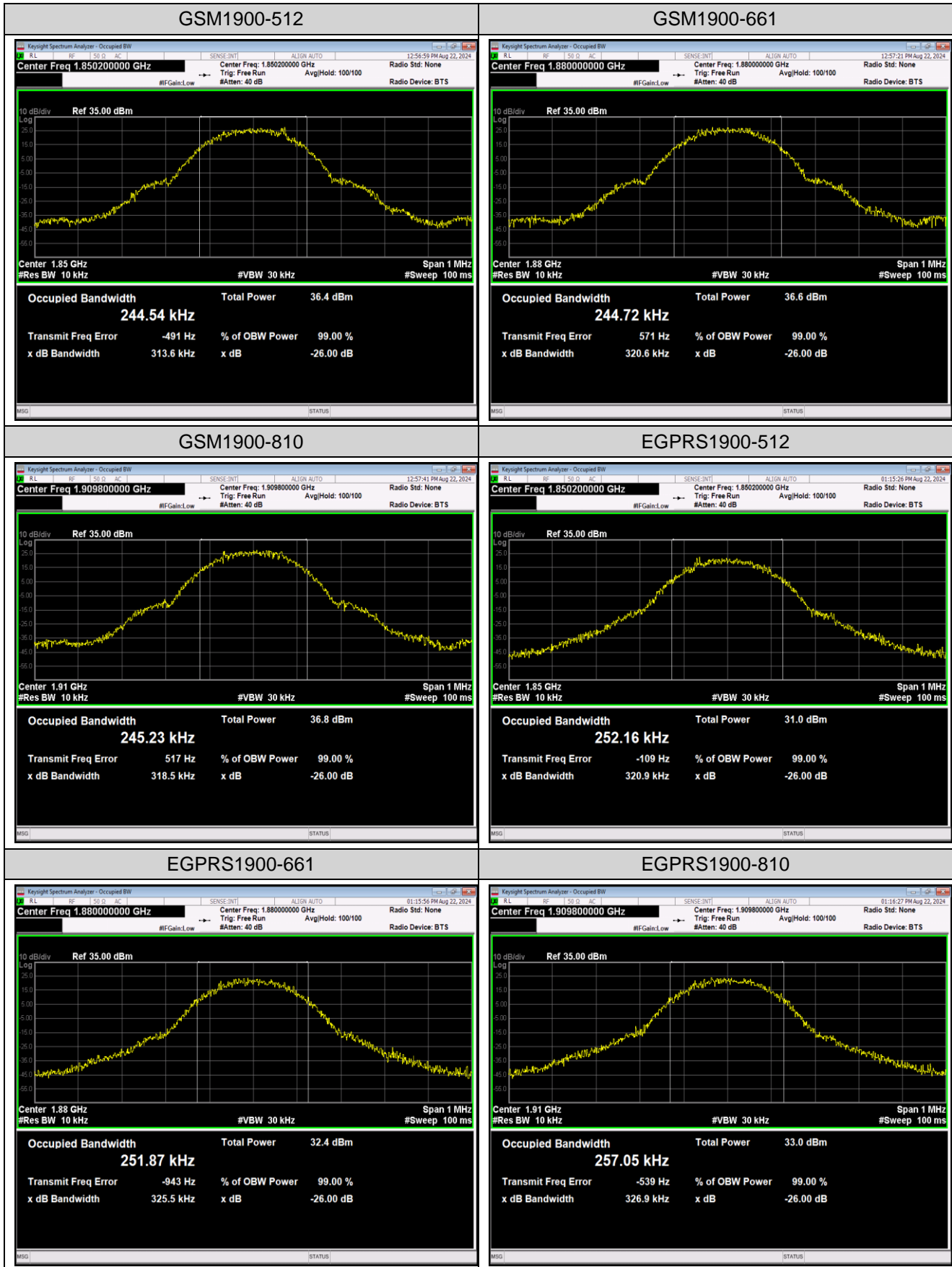
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24578	0.3211	---	PASS
GSM850	190	5	0.24441	0.3221	---	PASS
GSM850	251	5	0.24455	0.3205	---	PASS
EGPRS850	128	8	0.25250	0.3241	---	PASS
EGPRS850	190	8	0.24839	0.3132	---	PASS
EGPRS850	251	8	0.24920	0.3132	---	PASS
GSM1900	512	0	0.24454	0.3136	---	PASS
GSM1900	661	0	0.24472	0.3206	---	PASS
GSM1900	810	0	0.24523	0.3185	---	PASS
EGPRS1900	512	2	0.25216	0.3209	---	PASS
EGPRS1900	661	2	0.25187	0.3255	---	PASS
EGPRS1900	810	2	0.25705	0.3269	---	PASS

Test Graphs



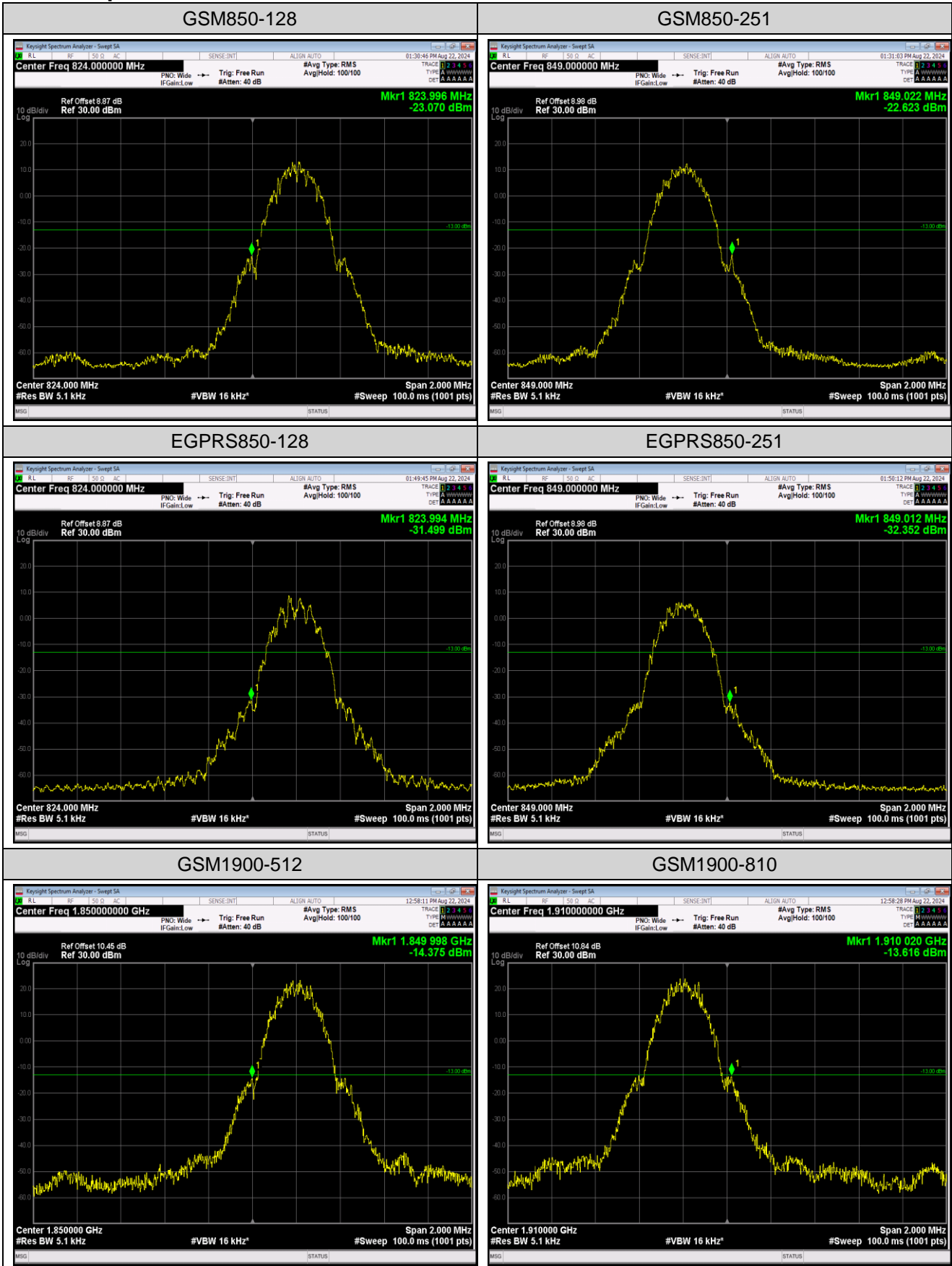


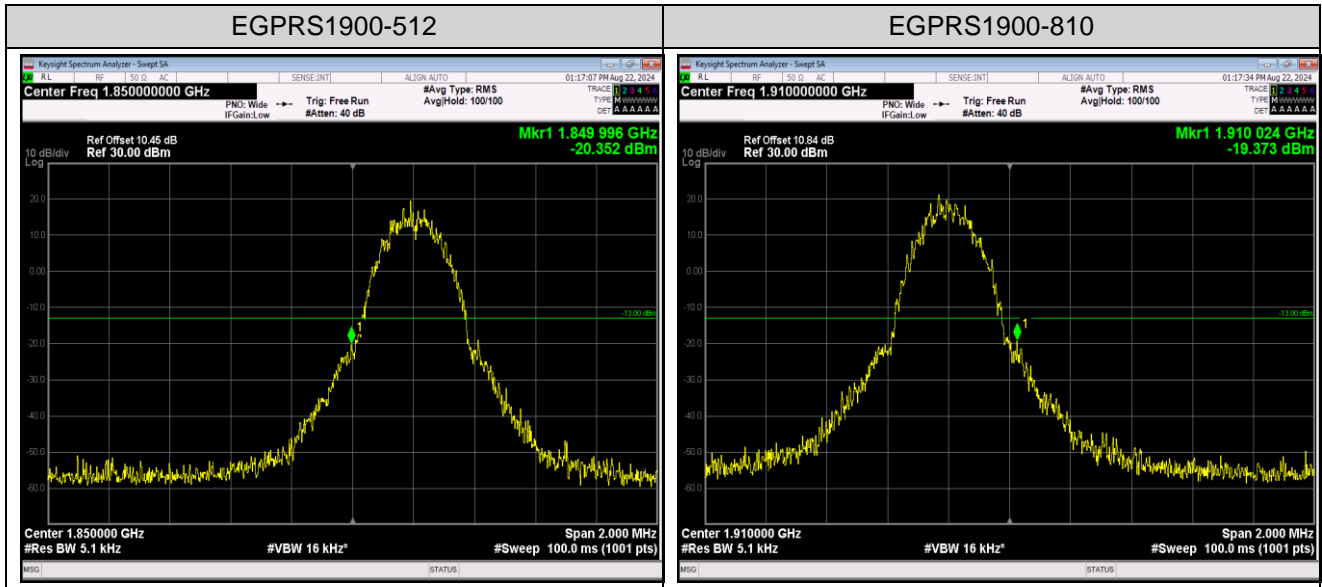
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-23.07	-13	PASS
GSM850	251	5	849.02	-22.62	-13	PASS
EGPRS850	128	8	823.99	-31.50	-13	PASS
EGPRS850	251	8	849.01	-32.35	-13	PASS
GSM1900	512	0	1850.00	-14.38	-13	PASS
GSM1900	810	0	1910.02	-13.62	-13	PASS
EGPRS1900	512	2	1850.00	-20.35	-13	PASS
EGPRS1900	810	2	1910.02	-19.37	-13	PASS

Test Graphs





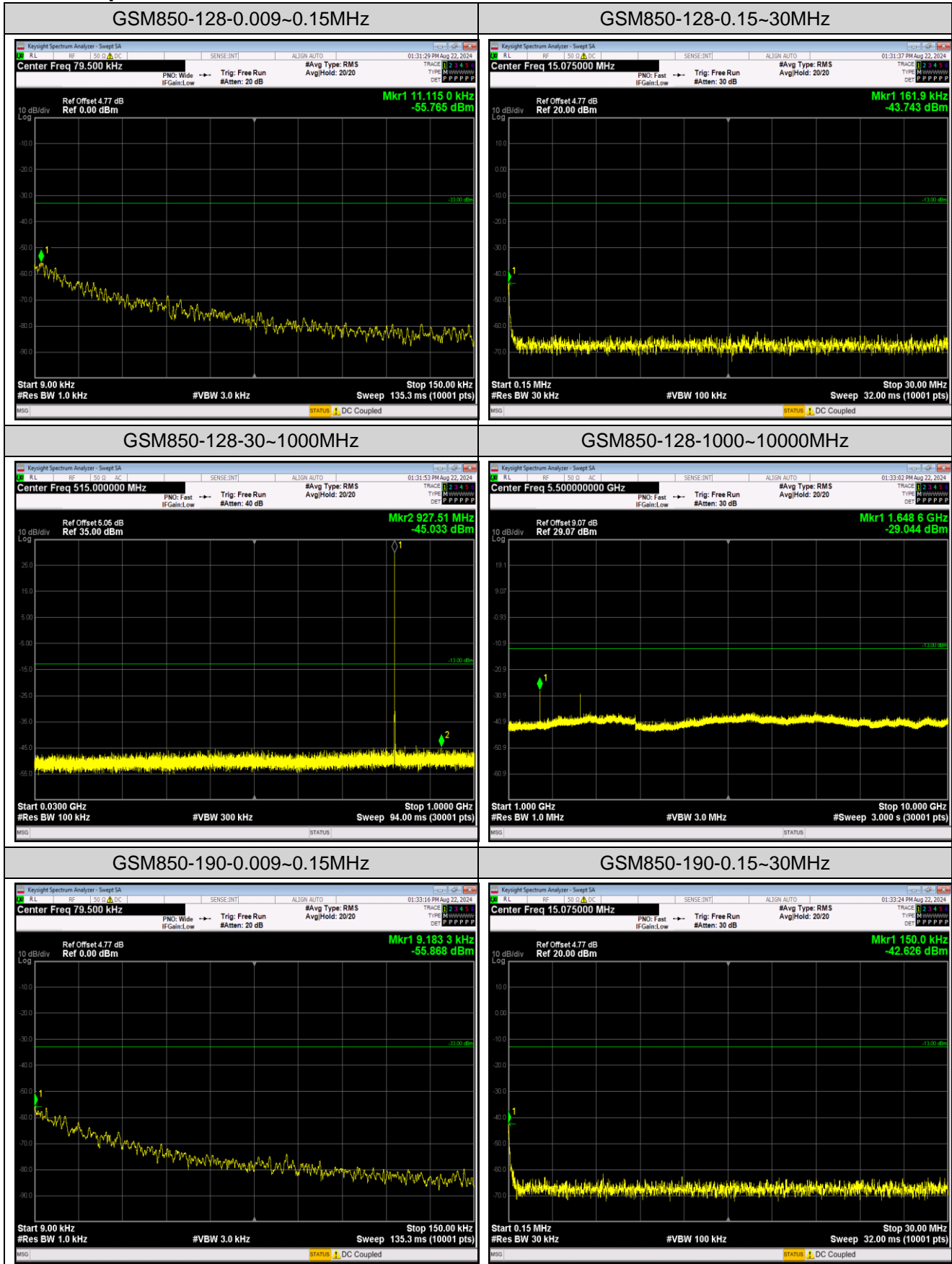
Appendix E: Conducted Spurious Emission

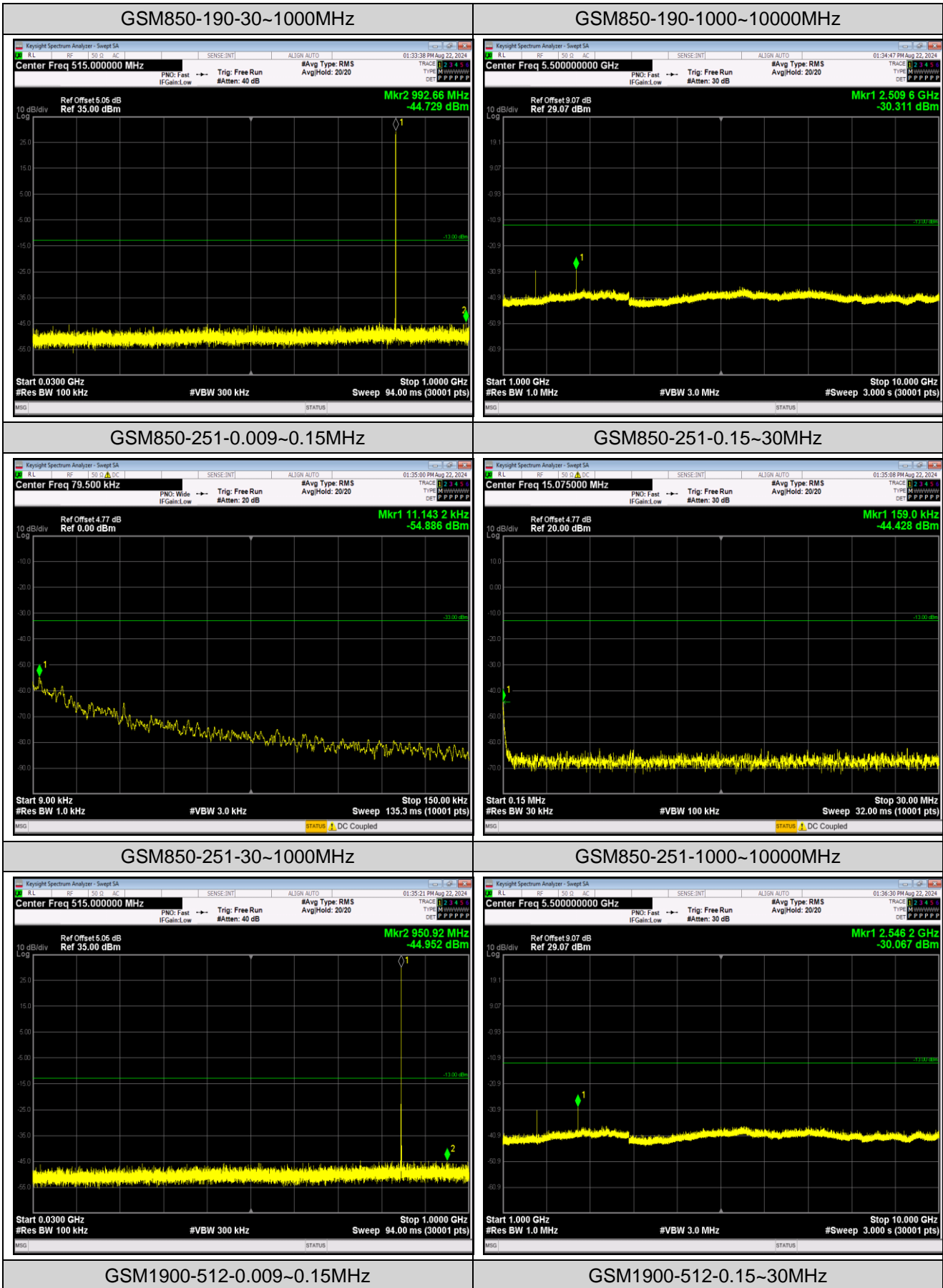
Test Result

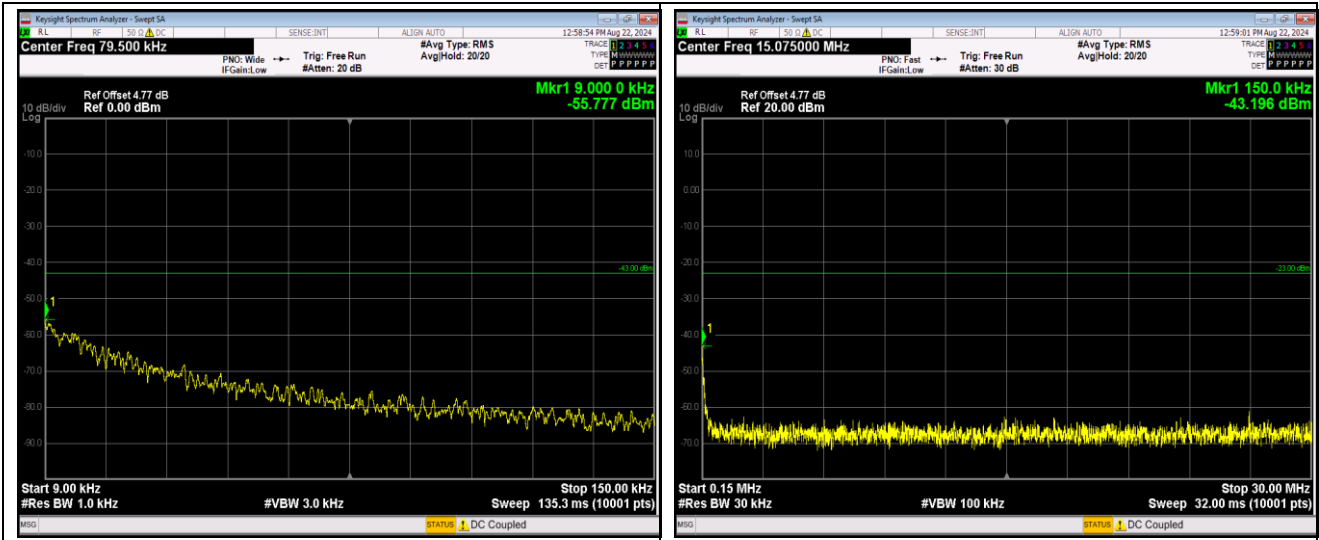
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.77	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-43.74	-13	PASS
GSM850	128	5	30~1000MHz	927.51	-45.03	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-29.04	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-55.87	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-42.63	-13	PASS
GSM850	190	5	30~1000MHz	992.66	-44.73	-13	PASS
GSM850	190	5	1000~10000MHz	2509.6	-30.31	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.89	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-44.43	-13	PASS
GSM850	251	5	30~1000MHz	950.92	-44.95	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-30.07	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.78	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-43.2	-23	PASS
GSM1900	512	0	30~1000MHz	322.2	-45.71	-13	PASS
GSM1900	512	0	1000~18000MHz	16717.07	-22.37	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-53.84	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-43.08	-23	PASS
GSM1900	661	0	30~1000MHz	968.44	-45.04	-13	PASS
GSM1900	661	0	1000~18000MHz	16974.33	-22.26	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-53.75	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-41.65	-23	PASS
GSM1900	810	0	30~1000MHz	756.3	-45.61	-13	PASS
GSM1900	810	0	1000~18000MHz	17019.1	-22.7	-13	PASS

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

Test Graphs

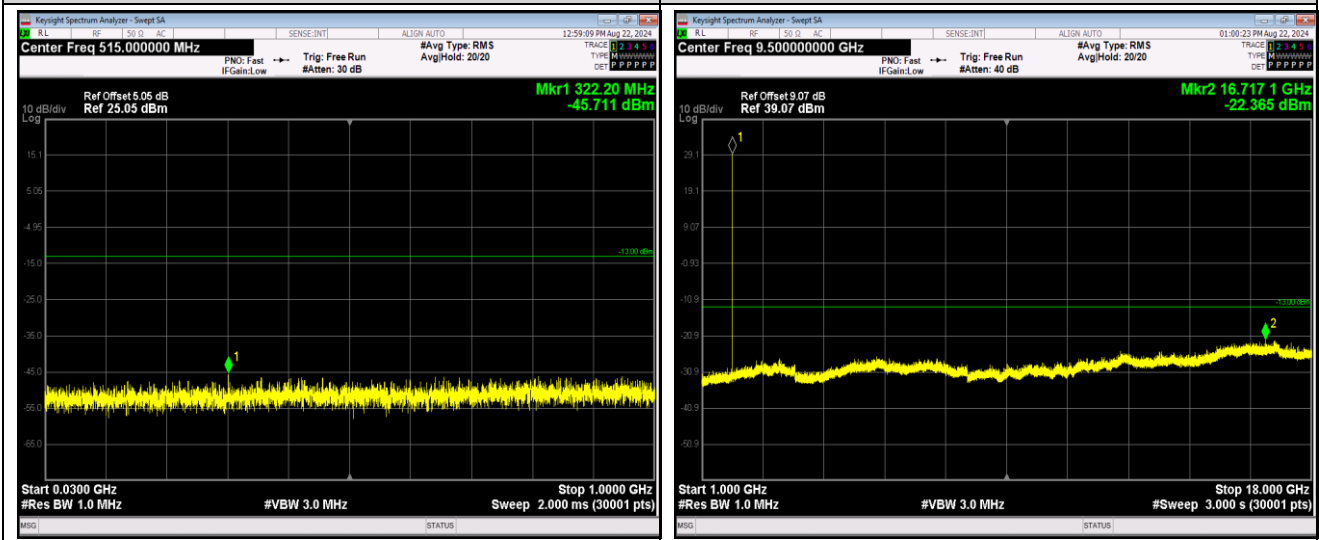






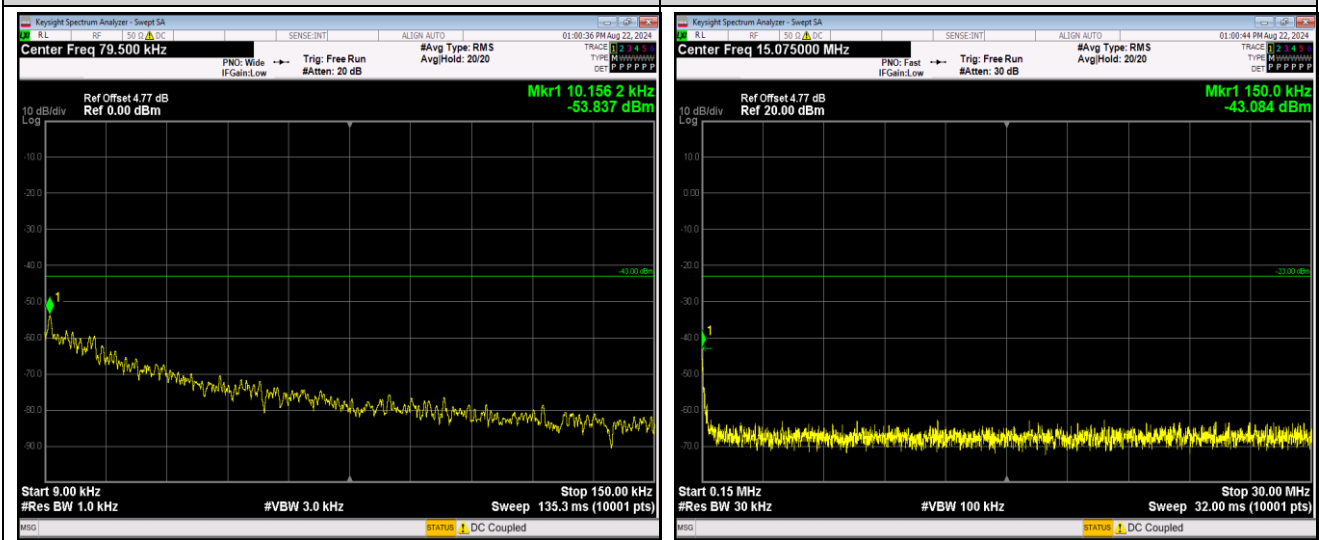
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



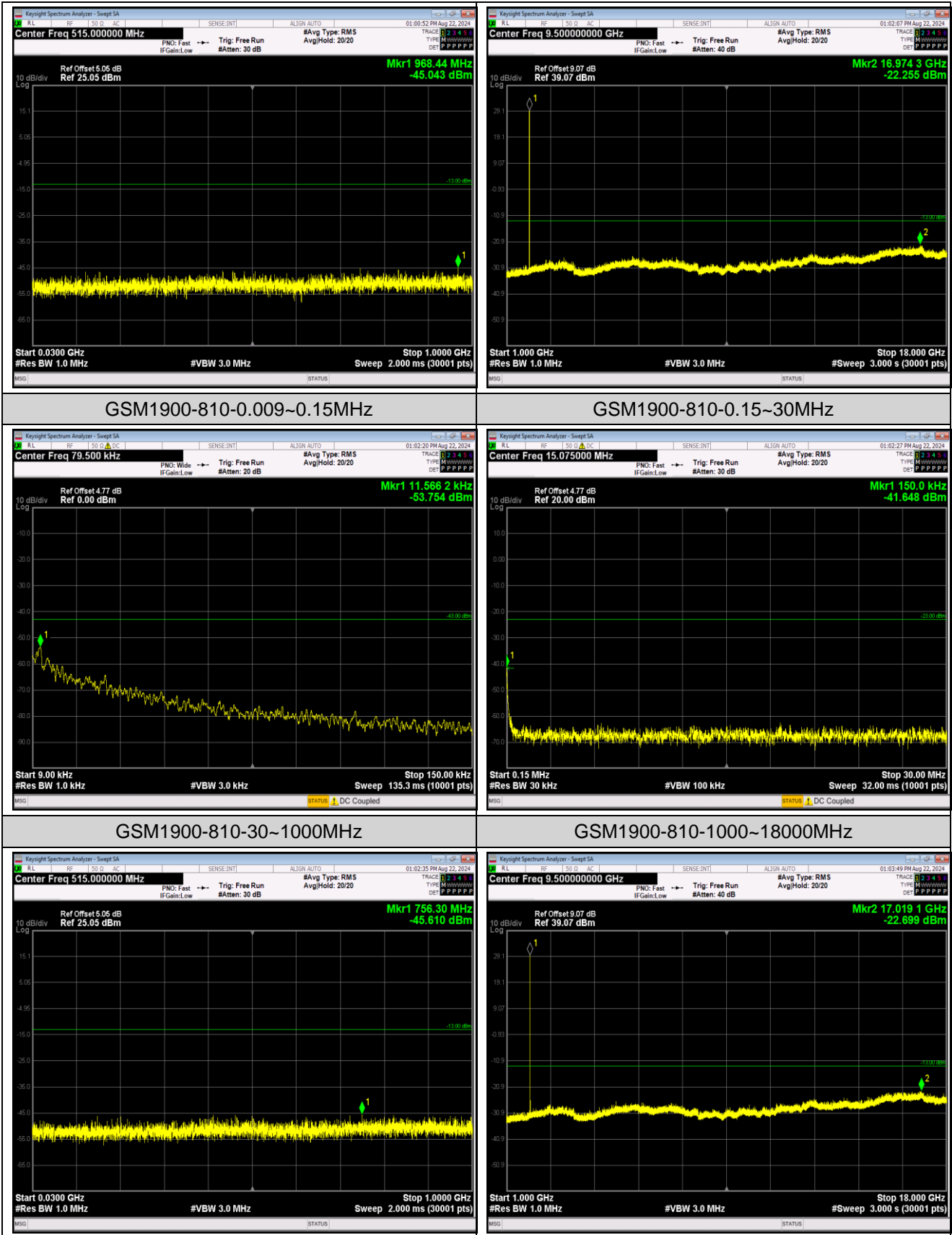
GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz



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	-5.62	-0.006718	±2.5	Pass
	-20	-7.81	-0.009335		
	-10	-4.46	-0.005331		
	0	-4.52	-0.005403		
	10	-4.91	-0.005869		
	20	-2.68	-0.003203		
	30	-8.68	-0.010375		
	40	-2.32	-0.002773		
	50	-1.45	-0.001733		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-6.59	-0.007877	±2.5	Pass
	3.85	-5.26	-0.006287		
	4.40	-5.59	-0.006682		
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	0.84	0.001004	±2.5	Pass
	-20	-0.19	-0.000227		
	-10	-1.45	-0.001733		
	0	0.81	0.000968		
	10	1.61	0.001924		
	20	7.33	0.008762		
	30	7.78	0.009300		
	40	9.14	0.010925		
	50	6.33	0.007566		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	0.42	0.000502	±2.5	Pass
	3.85	-1.16	-0.001387		
	4.40	-2.65	-0.003168		
<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	6.04	0.003213	Within authorized band for PCS 1900	Pass
	-20	8.88	0.004723		
	-10	5.68	0.003021		
	0	8.98	0.004777		
	10	6.49	0.003452		
	20	1.68	0.000894		
	30	10.43	0.005548		
	40	10.43	0.005548		
	50	7.78	0.004138		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.00	0.001064	Within authorized band for PCS 1900	Pass
	3.85	9.40	0.005000		
	4.40	1.78	0.000947		
<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	-7.30	-0.003883	Within authorized band for PCS 1900	Pass
	-20	0.58	0.000309		
	-10	-5.39	-0.002867		
	0	1.16	0.000617		
	10	5.68	0.003021		
	20	20.11	0.010697		
	30	21.66	0.011521		
	40	13.30	0.007074		
	50	13.69	0.007282		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.00	0.001064	Within authorized band for PCS 1900	Pass
	3.85	-2.23	-0.001186		
	4.40	-4.23	-0.002250		
<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

