

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	32.54	25.39	38.45	PASS
GSM850	190	5	32.67	25.52	38.45	PASS
GSM850	251	5	32.67	25.52	38.45	PASS
GSM1900	512	0	29.39	28.09	33.00	PASS
GSM1900	661	0	29.29	27.99	33.00	PASS
GSM1900	810	0	29.38	28.08	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.53	25.38	38.45	PASS
GPRS850	128	5	2	30.56	23.41	38.45	PASS
GPRS850	128	5	3	28.68	21.53	38.45	PASS
GPRS850	128	5	4	26.64	19.49	38.45	PASS
GPRS850	190	5	1	32.63	25.48	38.45	PASS
GPRS850	190	5	2	30.70	23.55	38.45	PASS
GPRS850	190	5	3	28.84	21.69	38.45	PASS
GPRS850	190	5	4	26.81	19.66	38.45	PASS
GPRS850	251	5	1	32.64	25.49	38.45	PASS
GPRS850	251	5	2	30.52	23.37	38.45	PASS
GPRS850	251	5	3	28.72	21.57	38.45	PASS
GPRS850	251	5	4	26.69	19.54	38.45	PASS
GPRS1900	512	0	1	29.39	28.09	33.00	PASS
GPRS1900	512	0	2	27.14	25.84	33.00	PASS
GPRS1900	512	0	3	25.59	24.29	33.00	PASS
GPRS1900	512	0	4	23.55	22.25	33.00	PASS
GPRS1900	661	0	1	29.29	27.99	33.00	PASS
GPRS1900	661	0	2	27.12	25.82	33.00	PASS
GPRS1900	661	0	3	25.60	24.3	33.00	PASS
GPRS1900	661	0	4	23.59	22.29	33.00	PASS
GPRS1900	810	0	1	29.40	28.1	33.00	PASS
GPRS1900	810	0	2	26.92	25.62	33.00	PASS
GPRS1900	810	0	3	25.42	24.12	33.00	PASS
GPRS1900	810	0	4	23.45	22.15	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.18	18.03	38.45	PASS
EGPRS850	128	8	2	23.74	16.59	38.45	PASS
EGPRS850	128	8	3	21.63	14.48	38.45	PASS
EGPRS850	128	8	4	19.38	12.23	38.45	PASS
EGPRS850	190	8	1	25.50	18.35	38.45	PASS
EGPRS850	190	8	2	24.00	16.85	38.45	PASS
EGPRS850	190	8	3	21.84	14.69	38.45	PASS
EGPRS850	190	8	4	19.45	12.3	38.45	PASS
EGPRS850	251	8	1	25.60	18.45	38.45	PASS
EGPRS850	251	8	2	24.13	16.98	38.45	PASS
EGPRS850	251	8	3	21.92	14.77	38.45	PASS
EGPRS850	251	8	4	19.68	12.53	38.45	PASS
EGPRS1900	512	2	1	25.63	24.33	33.00	PASS
EGPRS1900	512	2	2	23.80	22.5	33.00	PASS
EGPRS1900	512	2	3	21.13	19.83	33.00	PASS
EGPRS1900	512	2	4	18.81	17.51	33.00	PASS
EGPRS1900	661	2	1	25.37	24.07	33.00	PASS
EGPRS1900	661	2	2	23.61	22.31	33.00	PASS
EGPRS1900	661	2	3	20.93	19.63	33.00	PASS
EGPRS1900	661	2	4	18.62	17.32	33.00	PASS
EGPRS1900	810	2	1	25.24	23.94	33.00	PASS
EGPRS1900	810	2	2	23.45	22.15	33.00	PASS
EGPRS1900	810	2	3	20.79	19.49	33.00	PASS
EGPRS1900	810	2	4	18.59	17.29	33.00	PASS

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

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

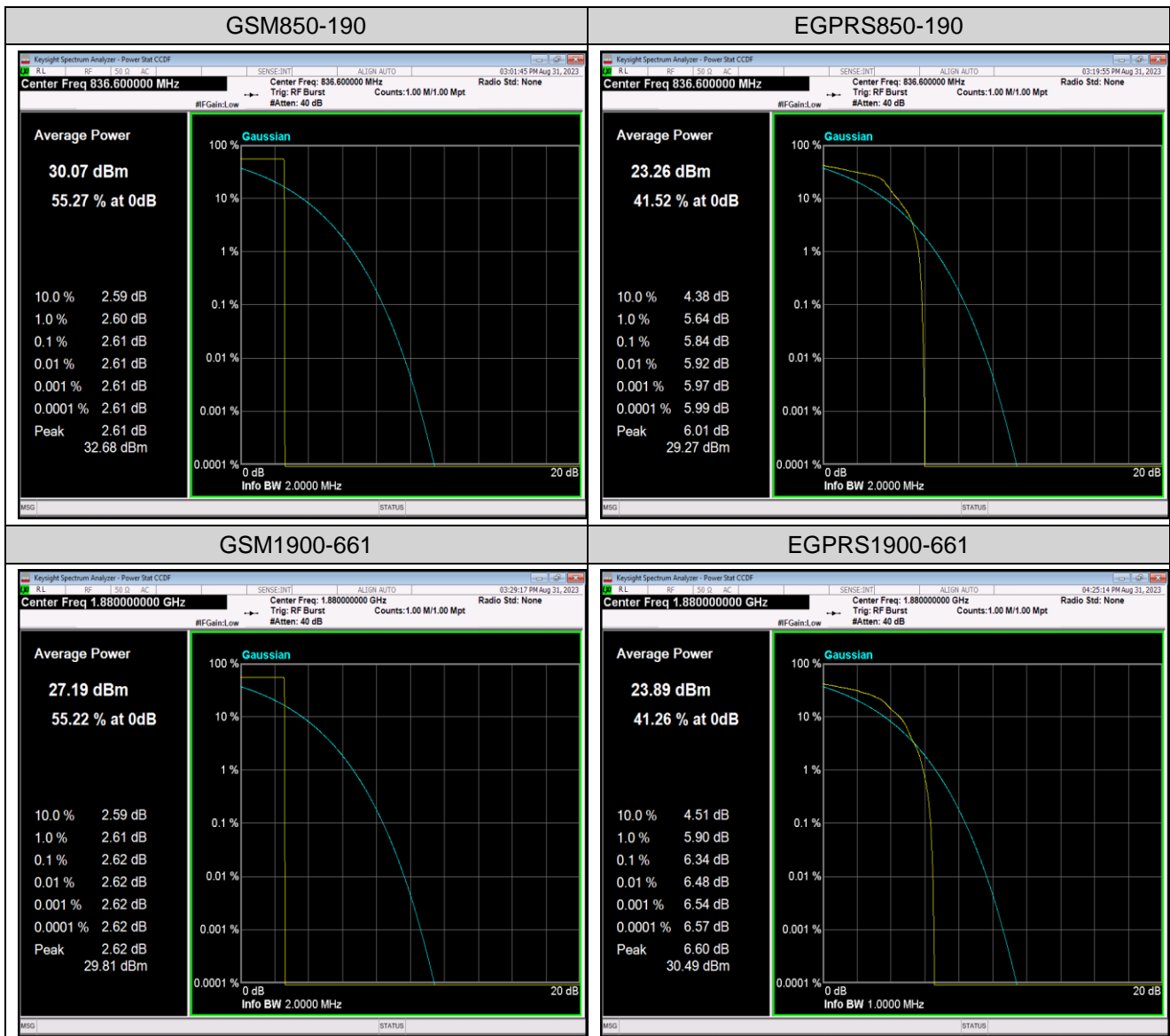
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.84	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	6.34	13	PASS

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

Test Graphs

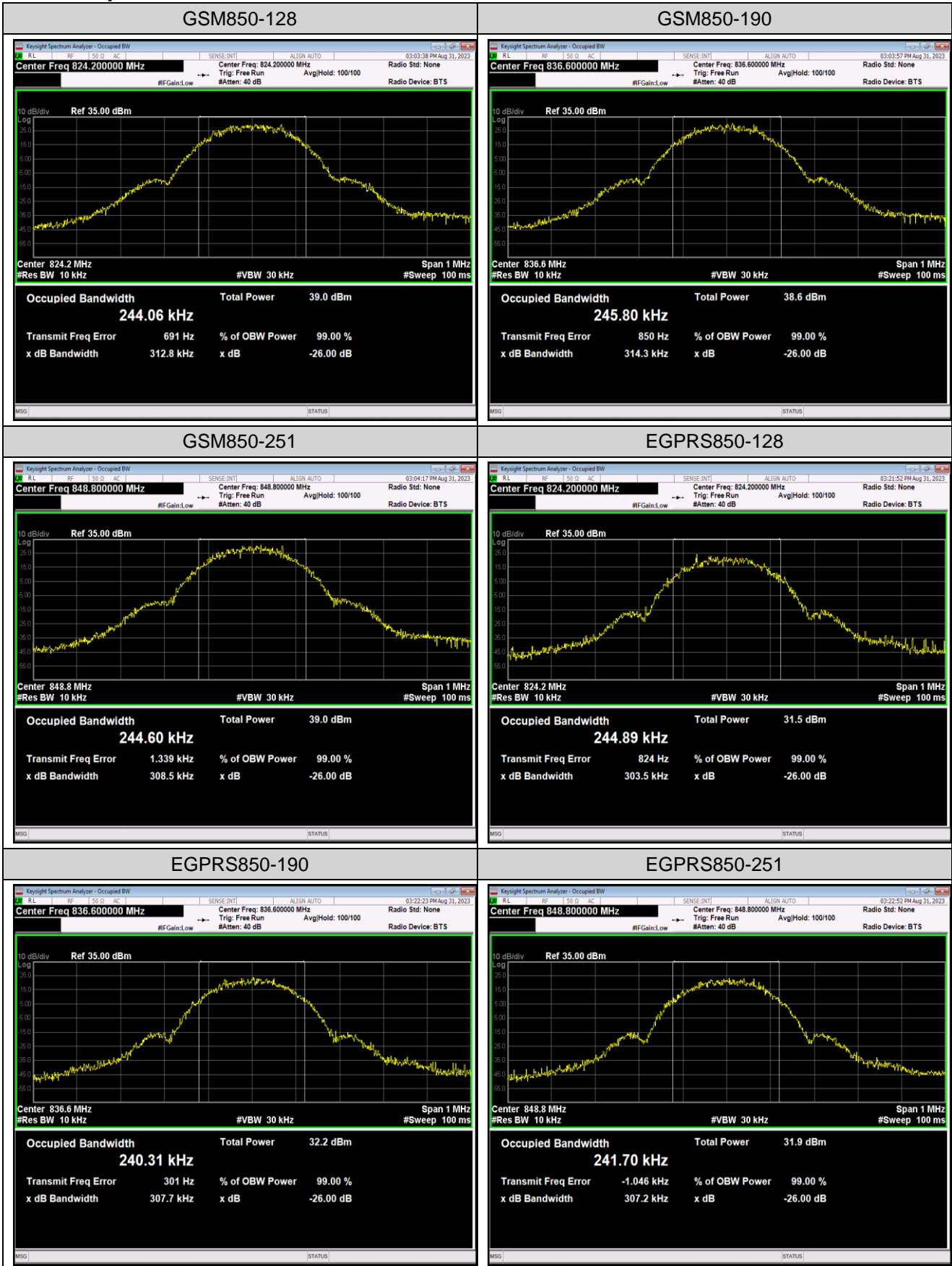


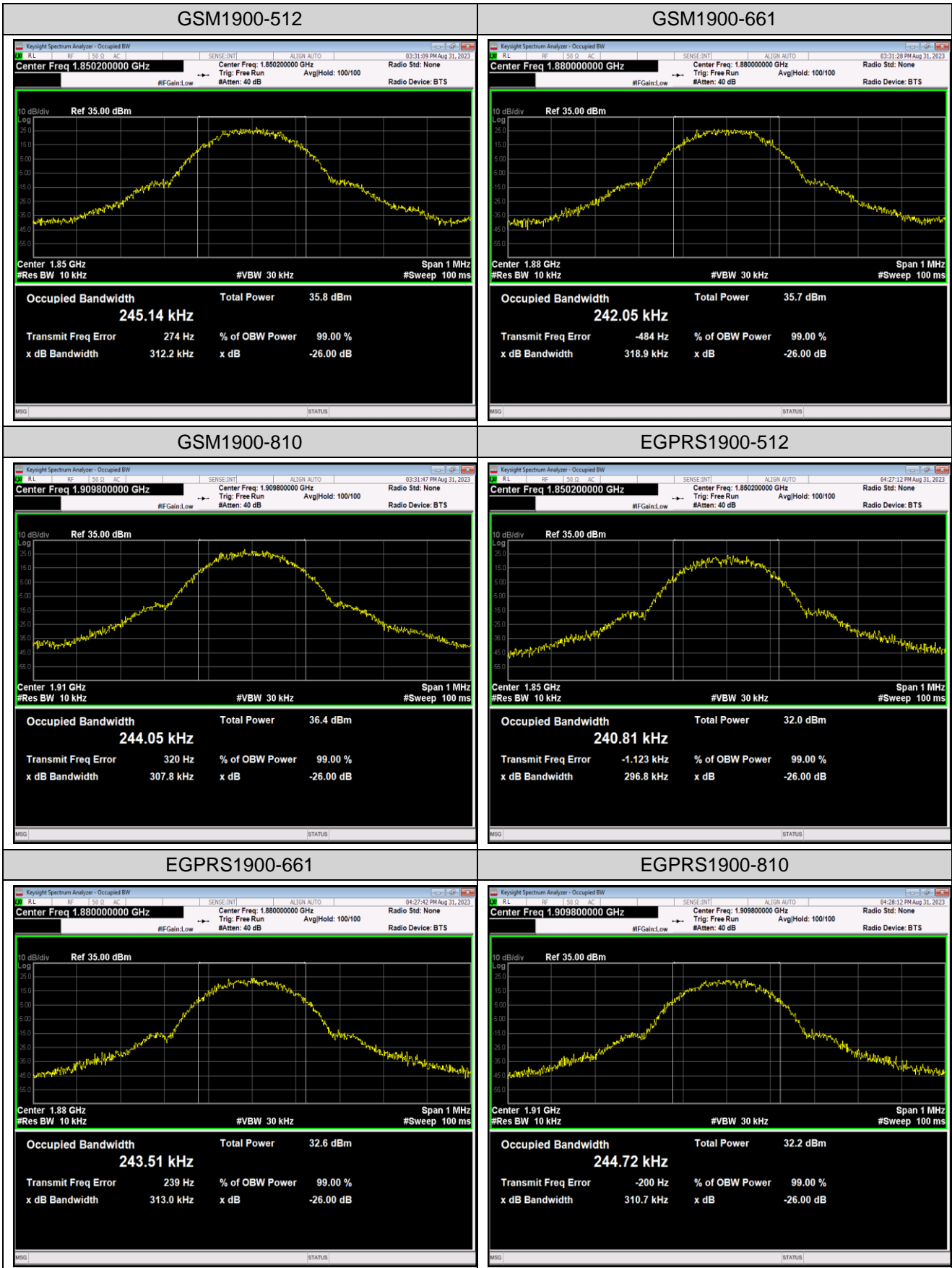
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24406	0.3128	---	PASS
GSM850	190	5	0.24580	0.3143	---	PASS
GSM850	251	5	0.24460	0.3085	---	PASS
EGPRS850	128	8	0.24489	0.3035	---	PASS
EGPRS850	190	8	0.24031	0.3077	---	PASS
EGPRS850	251	8	0.24170	0.3072	---	PASS
GSM1900	512	0	0.24514	0.3122	---	PASS
GSM1900	661	0	0.24205	0.3189	---	PASS
GSM1900	810	0	0.24405	0.3078	---	PASS
EGPRS1900	512	2	0.24081	0.2968	---	PASS
EGPRS1900	661	2	0.24351	0.3130	---	PASS
EGPRS1900	810	2	0.24472	0.3107	---	PASS

Test Graphs



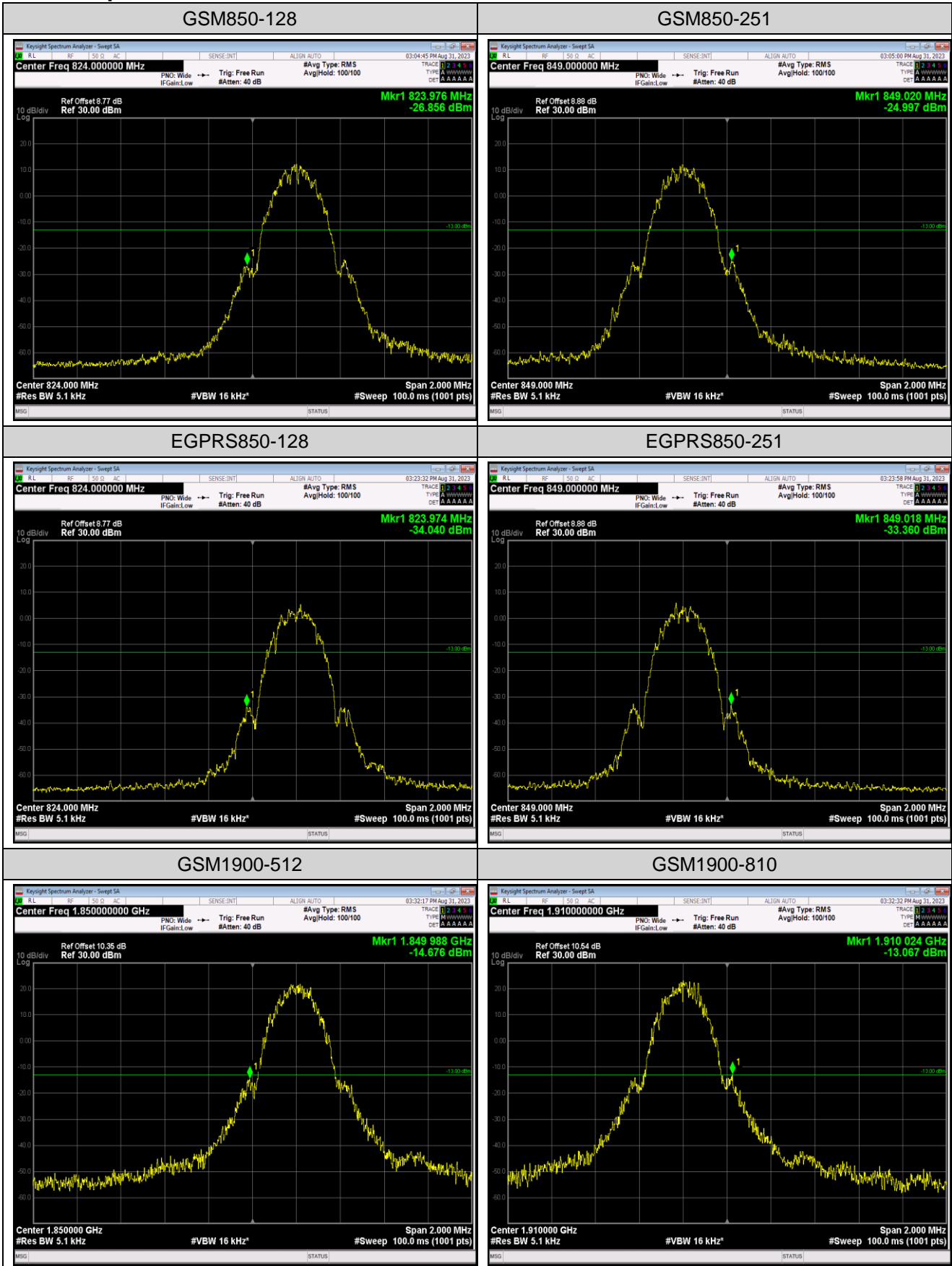


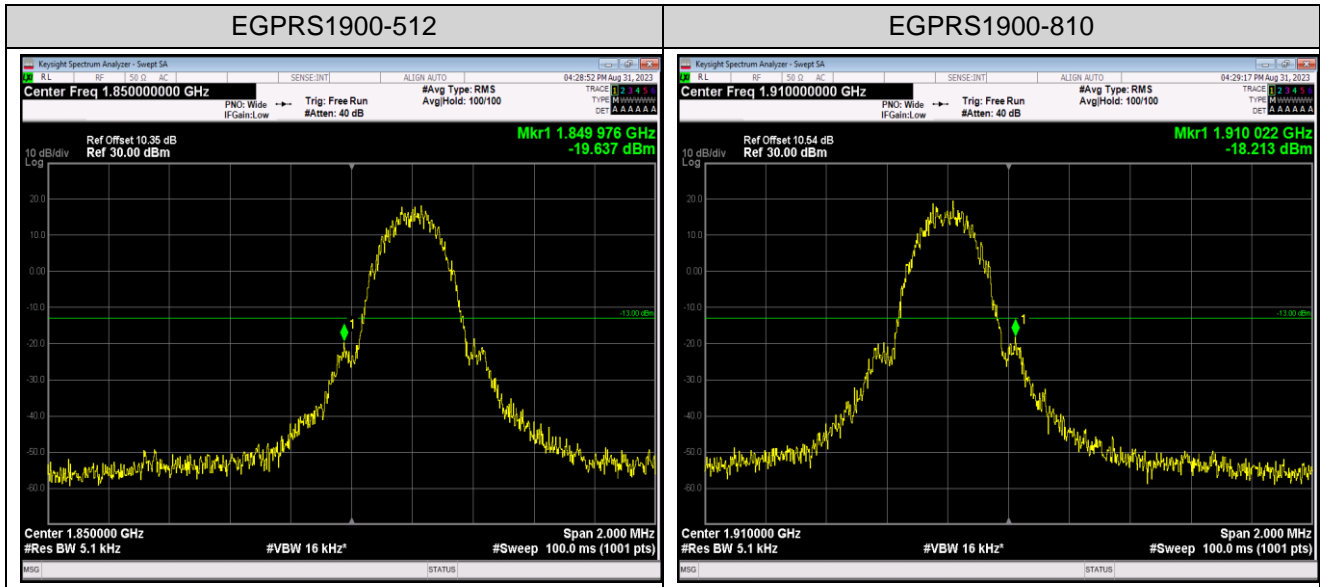
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-26.86	-13	PASS
GSM850	251	5	849.02	-25.00	-13	PASS
EGPRS850	128	8	823.97	-34.04	-13	PASS
EGPRS850	251	8	849.02	-33.36	-13	PASS
GSM1900	512	0	1849.99	-14.68	-13	PASS
GSM1900	810	0	1910.02	-13.07	-13	PASS
EGPRS1900	512	2	1849.98	-19.64	-13	PASS
EGPRS1900	810	2	1910.02	-18.21	-13	PASS

Test Graphs





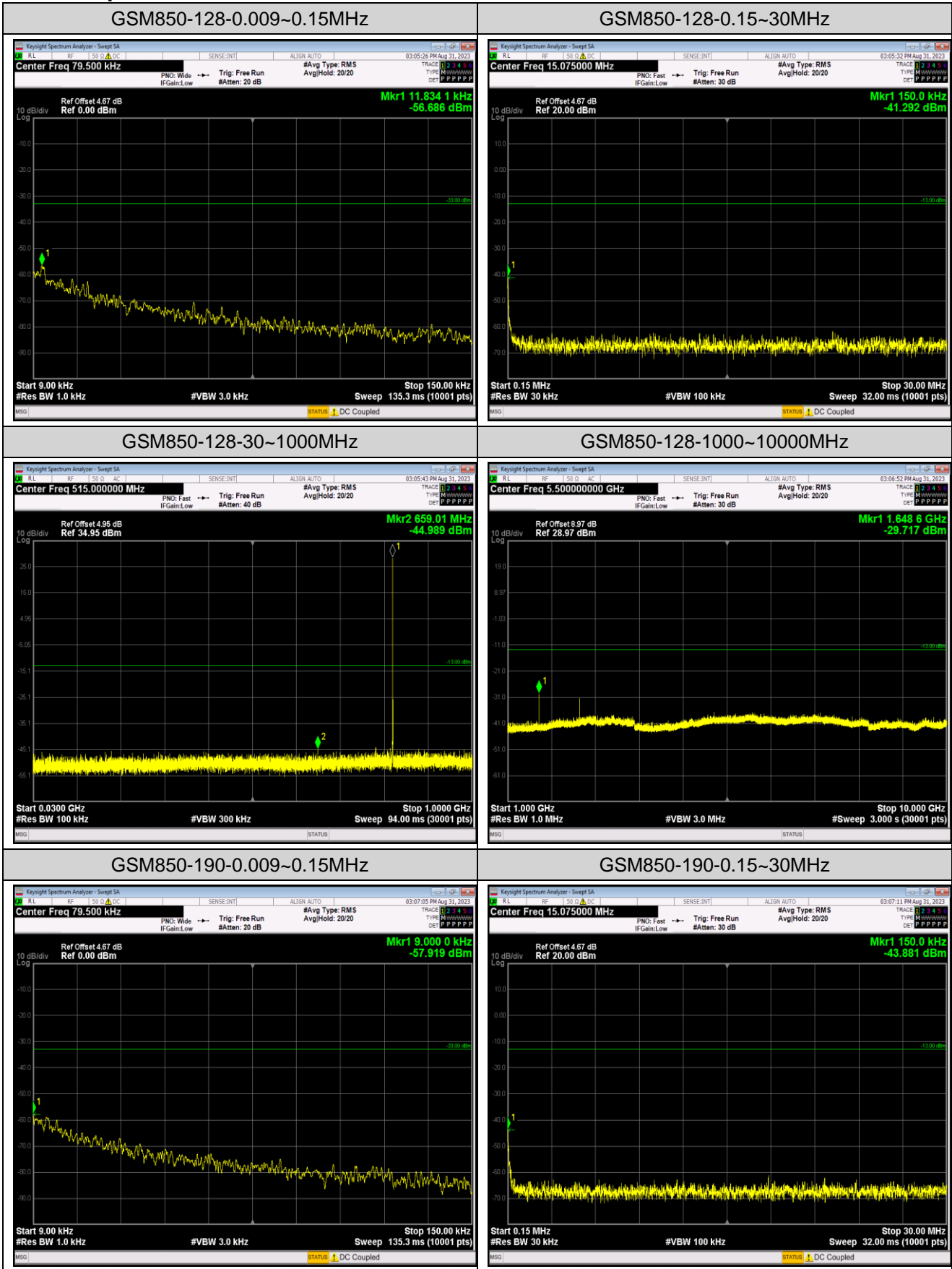
Appendix E: Conducted Spurious Emission

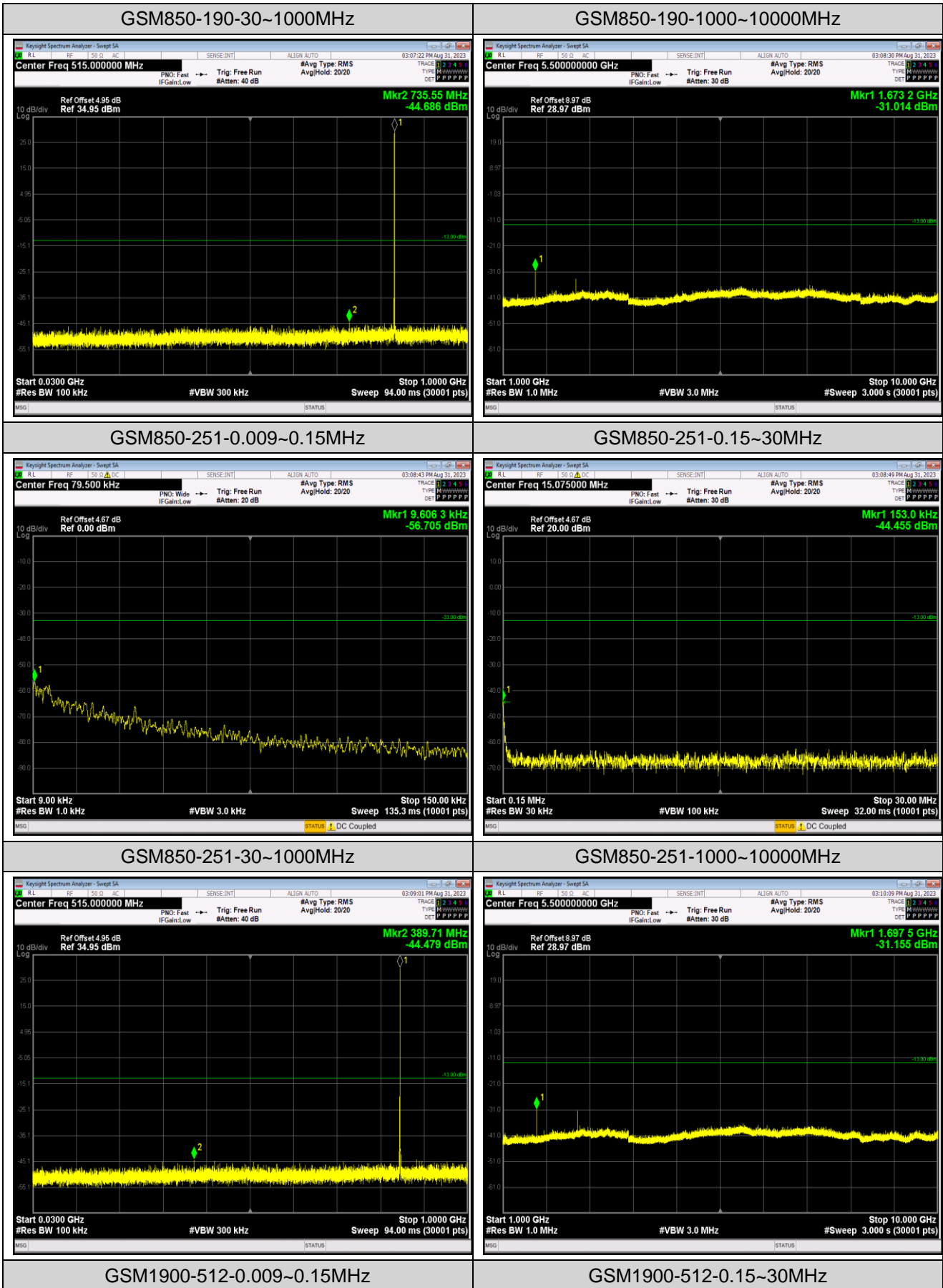
Test Result

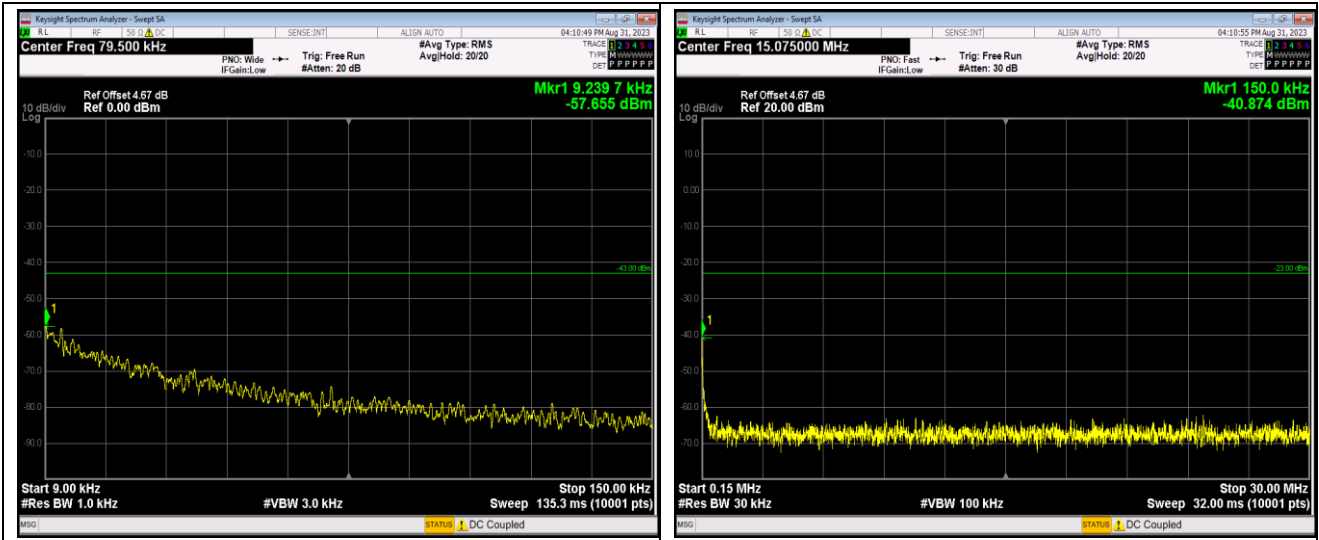
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-56.69	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-41.29	-13	PASS
GSM850	128	5	30~1000MHz	659.01	-44.99	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-29.72	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-57.92	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-43.88	-13	PASS
GSM850	190	5	30~1000MHz	735.55	-44.69	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-31.01	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-56.71	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-44.46	-13	PASS
GSM850	251	5	30~1000MHz	389.71	-44.48	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-31.16	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.66	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-40.87	-23	PASS
GSM1900	512	0	30~1000MHz	367.82	-45.7	-13	PASS
GSM1900	512	0	1000~18000MHz	16199.13	-22.33	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-59.85	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-44.09	-23	PASS
GSM1900	661	0	30~1000MHz	823.49	-44.12	-13	PASS
GSM1900	661	0	1000~18000MHz	16920.5	-22.47	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-59.43	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-41.95	-23	PASS
GSM1900	810	0	30~1000MHz	977.63	-45.92	-13	PASS
GSM1900	810	0	1000~18000MHz	16993.03	-22.54	-13	PASS

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

Test Graphs

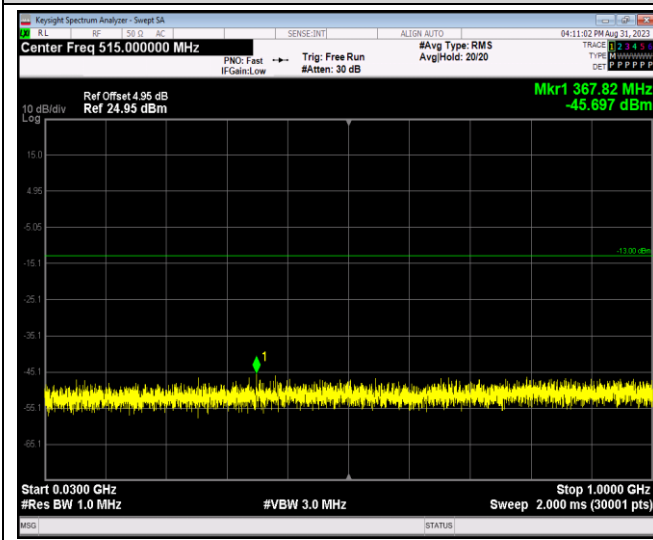




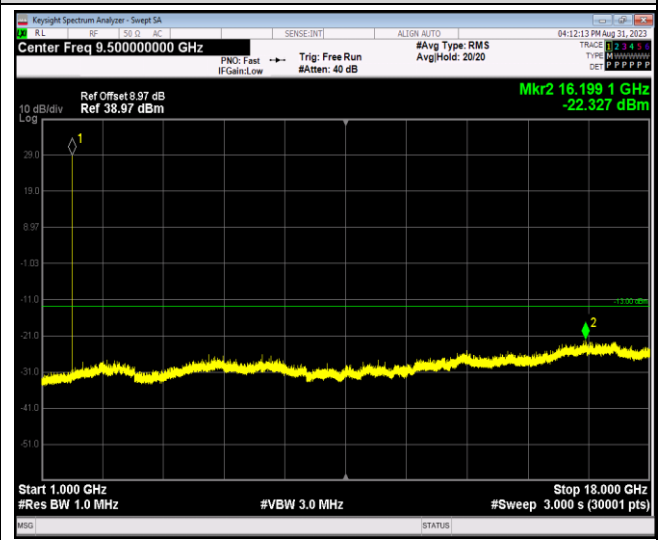


GSM1900-512-30~1000MHz

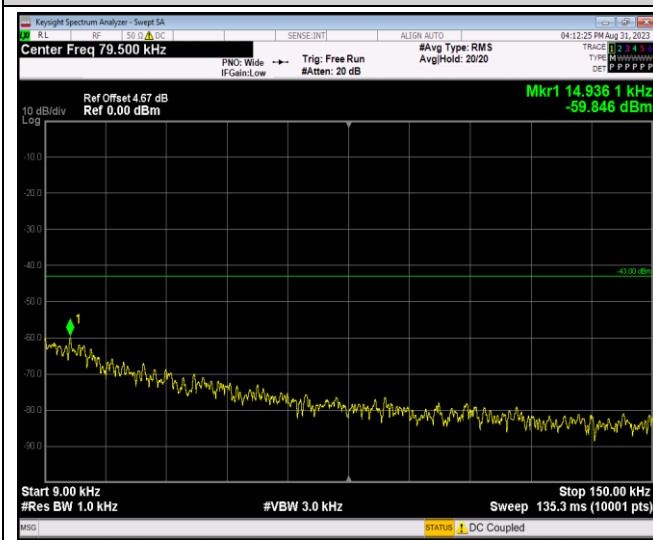
GSM1900-512-1000~18000MHz



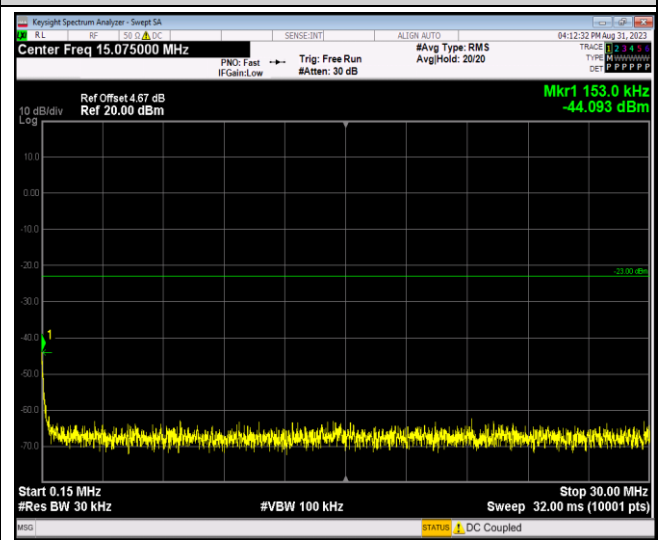
GSM1900-661-0.009~0.15MHz



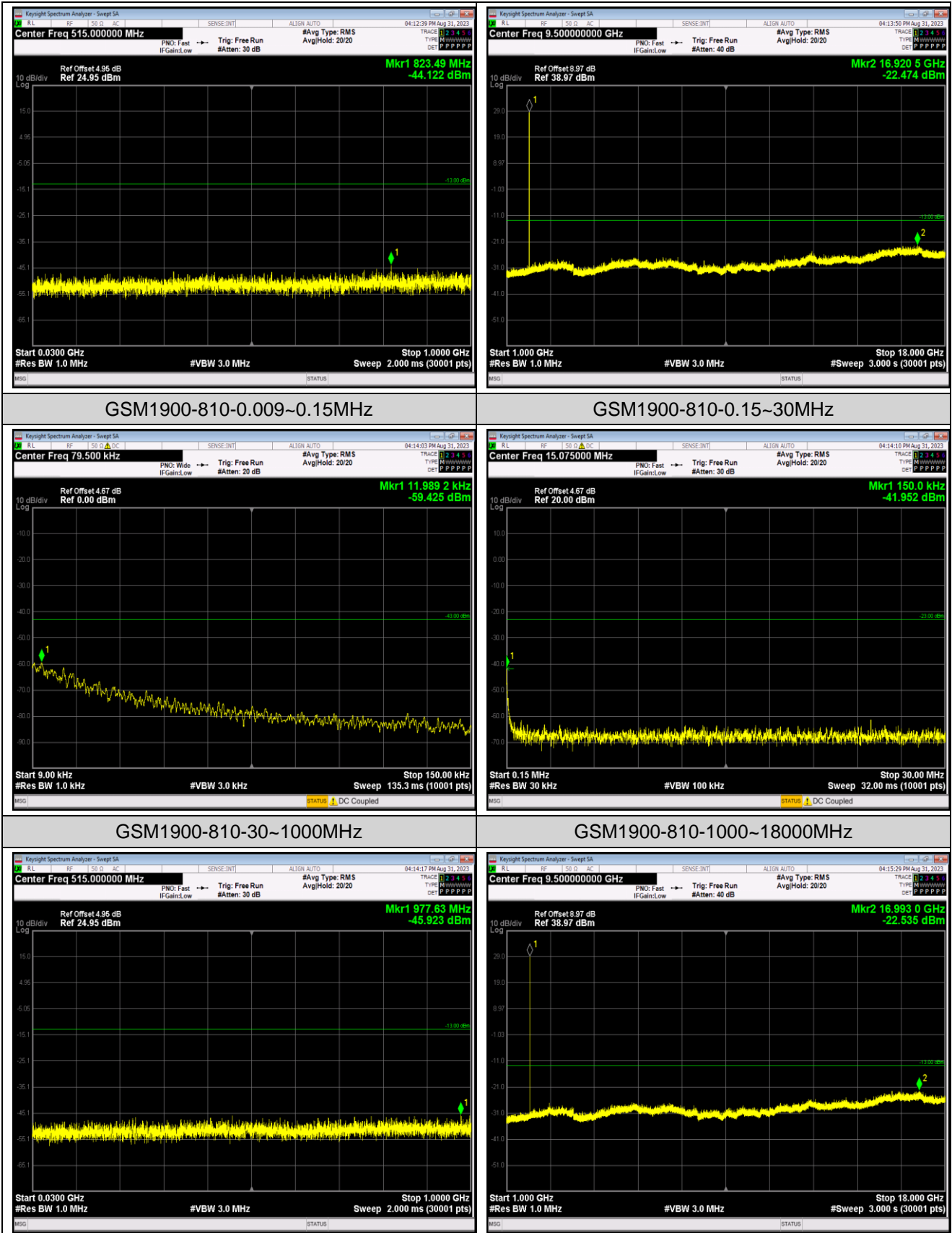
GSM1900-661-0.15~30MHz



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	2.55	0.003048	±2.5	Pass
	-20	3.33	0.003980		
	-10	0.39	0.000466		
	0	0.32	0.000383		
	10	2.94	0.003514		
	20	-1.55	-0.001853		
	30	-1.32	-0.001578		
	40	1.26	0.001506		
	50	2.91	0.003478		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	4.71	0.005630	±2.5	Pass
	3.85	2.39	0.002857		
	4.40	2.55	0.003048		
Remark: All channels 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	2.68	0.003203	±2.5	Pass
	-20	4.42	0.005283		
	-10	8.14	0.009730		
	0	4.58	0.005475		
	10	5.94	0.007100		
	20	4.78	0.005714		
	30	8.20	0.009802		
	40	6.88	0.008224		
	50	6.62	0.007913		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	3.23	0.003861	±2.5	Pass
	3.85	6.01	0.007184		
	4.40	9.01	0.010770		
Remark: All channels 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	11.20	0.005957	Within authorized band for PCS 1900	Pass
	-20	7.94	0.004223		
	-10	6.88	0.003660		
	0	2.03	0.001080		
	10	2.55	0.001356		
	20	14.72	0.007830		
	30	4.20	0.002234		
	40	7.36	0.003915		
	50	5.78	0.003074		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	3.42	0.001819	Within authorized band for PCS 1900	Pass
	3.85	1.90	0.001011		
	4.40	8.07	0.004293		
<i>Remark: All channels 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	-12.11	-0.006441	Within authorized band for PCS 1900	Pass
	-20	-2.29	-0.001218		
	-10	-21.34	-0.011351		
	0	-12.33	-0.006559		
	10	-7.33	-0.003899		
	20	-15.40	-0.008191		
	30	-9.01	-0.004793		
	40	-4.00	-0.002128		
	50	-24.83	-0.013207		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-9.62	-0.005117	Within authorized band for PCS 1900	Pass
	3.85	-20.50	-0.010904		
	4.40	-10.33	-0.005495		
Remark: All channels 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

