

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	33.43	26.78	38.45	PASS
GSM850	190	5	33.54	26.89	38.45	PASS
GSM850	251	5	33.55	26.9	38.45	PASS
GSM1900	512	0	29.44	25.67	33.00	PASS
GSM1900	661	0	29.58	25.81	33.00	PASS
GSM1900	810	0	29.51	25.74	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.41	26.76	38.45	PASS
GPRS850	128	5	2	32.38	25.73	38.45	PASS
GPRS850	128	5	3	30.26	23.61	38.45	PASS
GPRS850	128	5	4	29.10	22.45	38.45	PASS
GPRS850	190	5	1	33.50	26.85	38.45	PASS
GPRS850	190	5	2	32.52	25.87	38.45	PASS
GPRS850	190	5	3	30.46	23.81	38.45	PASS
GPRS850	190	5	4	29.33	22.68	38.45	PASS
GPRS850	251	5	1	33.52	26.87	38.45	PASS
GPRS850	251	5	2	32.54	25.89	38.45	PASS
GPRS850	251	5	3	30.50	23.85	38.45	PASS
GPRS850	251	5	4	29.40	22.75	38.45	PASS
GPRS1900	512	0	1	29.38	25.61	33.00	PASS
GPRS1900	512	0	2	28.64	24.87	33.00	PASS
GPRS1900	512	0	3	26.92	23.15	33.00	PASS
GPRS1900	512	0	4	25.79	22.02	33.00	PASS
GPRS1900	661	0	1	29.51	25.74	33.00	PASS
GPRS1900	661	0	2	28.77	25	33.00	PASS
GPRS1900	661	0	3	27.05	23.28	33.00	PASS
GPRS1900	661	0	4	25.91	22.14	33.00	PASS
GPRS1900	810	0	1	29.46	25.69	33.00	PASS
GPRS1900	810	0	2	28.71	24.94	33.00	PASS
GPRS1900	810	0	3	27.01	23.24	33.00	PASS
GPRS1900	810	0	4	25.88	22.11	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.51	20.86	38.45	PASS
EGPRS850	128	8	2	26.35	19.7	38.45	PASS
EGPRS850	128	8	3	24.24	17.59	38.45	PASS
EGPRS850	128	8	4	22.99	16.34	38.45	PASS
EGPRS850	190	8	1	27.75	21.1	38.45	PASS
EGPRS850	190	8	2	26.63	19.98	38.45	PASS
EGPRS850	190	8	3	24.53	17.88	38.45	PASS
EGPRS850	190	8	4	23.24	16.59	38.45	PASS
EGPRS850	251	8	1	27.70	21.05	38.45	PASS
EGPRS850	251	8	2	26.61	19.96	38.45	PASS
EGPRS850	251	8	3	24.49	17.84	38.45	PASS
EGPRS850	251	8	4	23.20	16.55	38.45	PASS
EGPRS1900	512	2	1	25.64	21.87	33.00	PASS
EGPRS1900	512	2	2	24.66	20.89	33.00	PASS
EGPRS1900	512	2	3	22.78	19.01	33.00	PASS
EGPRS1900	512	2	4	21.58	17.81	33.00	PASS
EGPRS1900	661	2	1	25.70	21.93	33.00	PASS
EGPRS1900	661	2	2	24.72	20.95	33.00	PASS
EGPRS1900	661	2	3	22.84	19.07	33.00	PASS
EGPRS1900	661	2	4	21.66	17.89	33.00	PASS
EGPRS1900	810	2	1	25.39	21.62	33.00	PASS
EGPRS1900	810	2	2	24.38	20.61	33.00	PASS
EGPRS1900	810	2	3	22.58	18.81	33.00	PASS
EGPRS1900	810	2	4	21.34	17.57	33.00	PASS

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

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

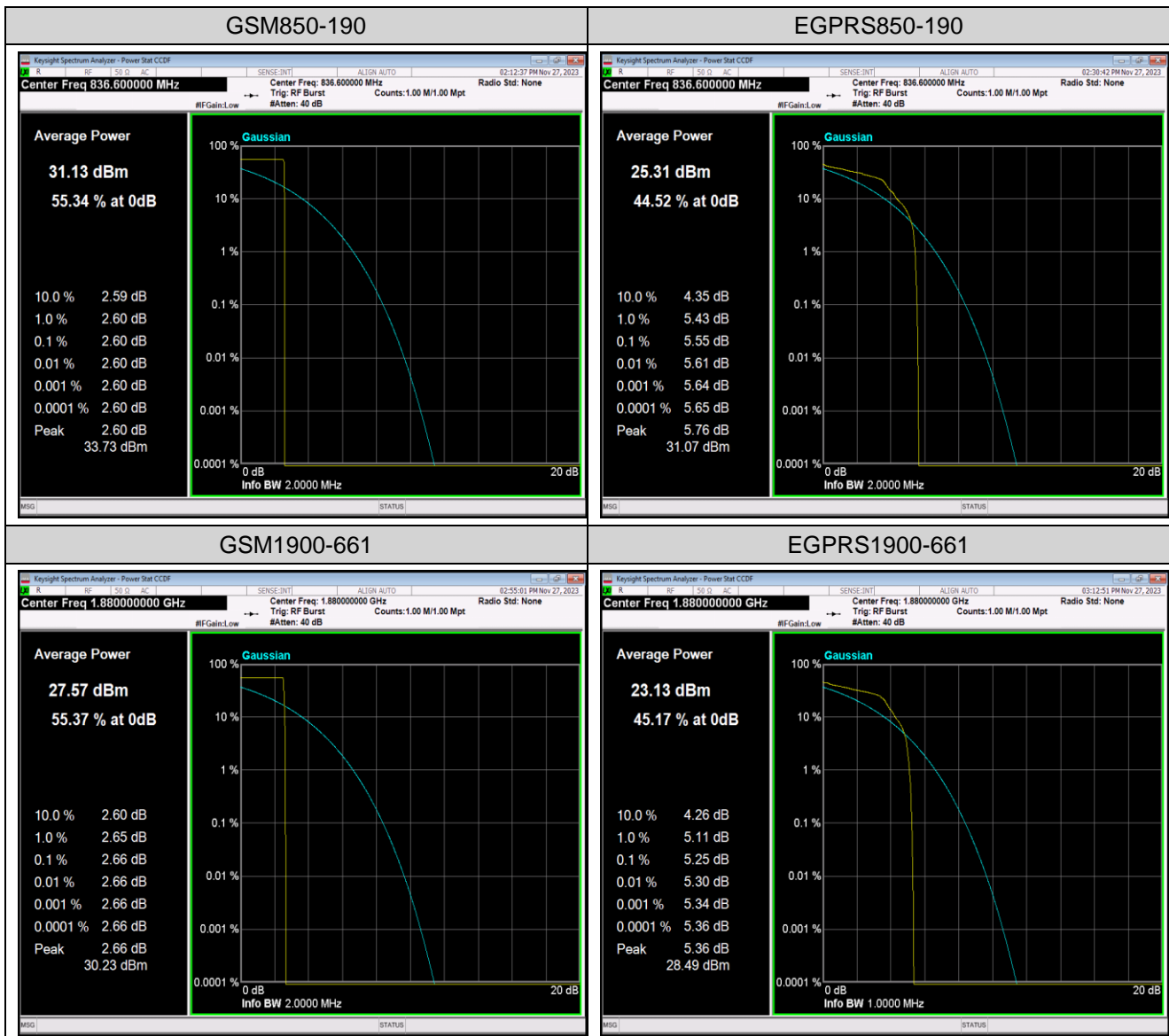
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.6	13	PASS
EGPRS850	190	8	5.55	13	PASS
GSM1900	661	0	2.66	13	PASS
EGPRS1900	661	2	5.25	13	PASS

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

Test Graphs



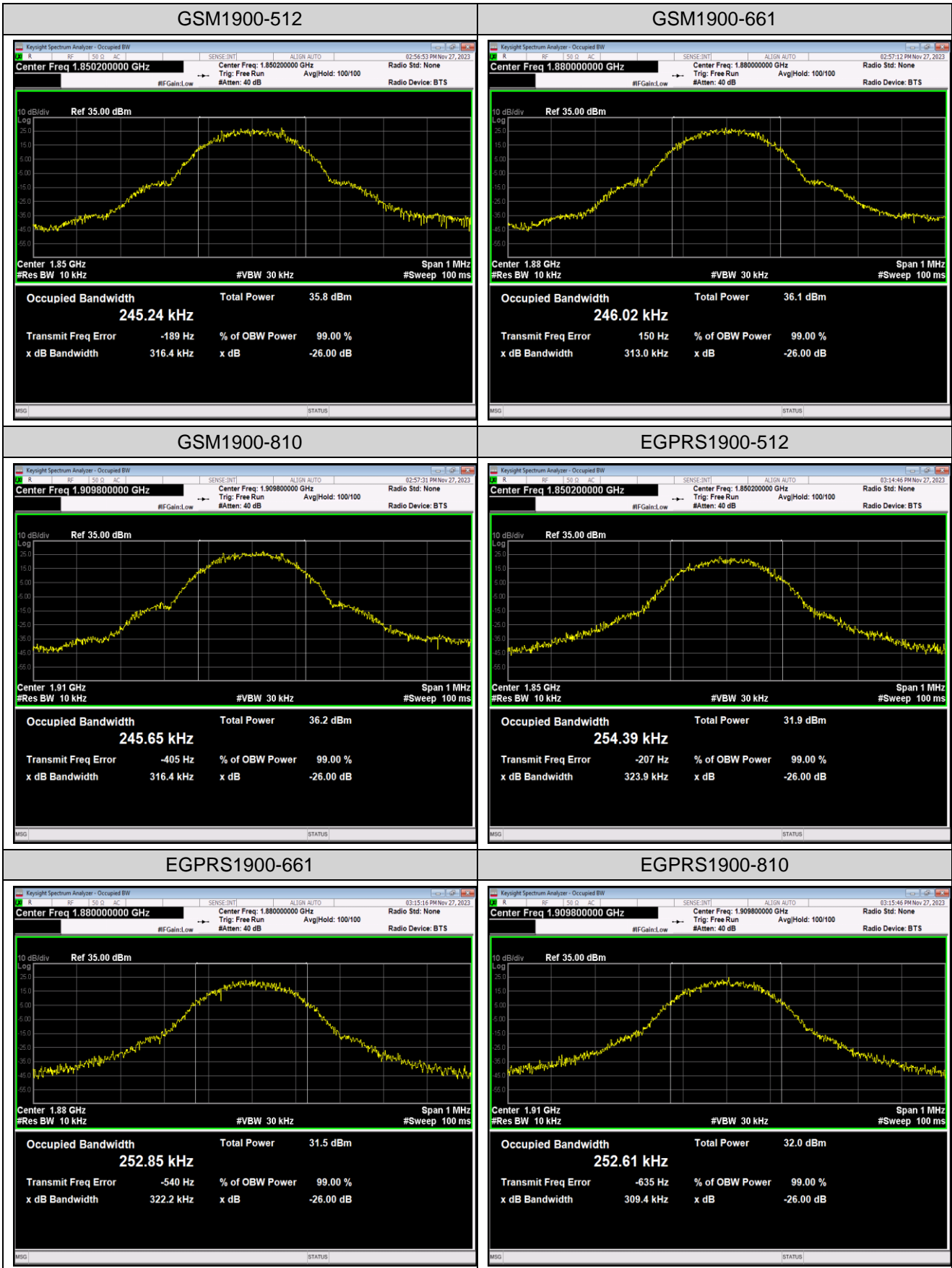
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24656	0.3170	---	PASS
GSM850	190	5	0.24572	0.3158	---	PASS
GSM850	251	5	0.24735	0.3129	---	PASS
EGPRS850	128	8	0.24900	0.3163	---	PASS
EGPRS850	190	8	0.25045	0.3142	---	PASS
EGPRS850	251	8	0.24742	0.3171	---	PASS
GSM1900	512	0	0.24524	0.3164	---	PASS
GSM1900	661	0	0.24602	0.3130	---	PASS
GSM1900	810	0	0.24565	0.3164	---	PASS
EGPRS1900	512	2	0.25439	0.3239	---	PASS
EGPRS1900	661	2	0.25285	0.3222	---	PASS
EGPRS1900	810	2	0.25261	0.3094	---	PASS

Test Graphs



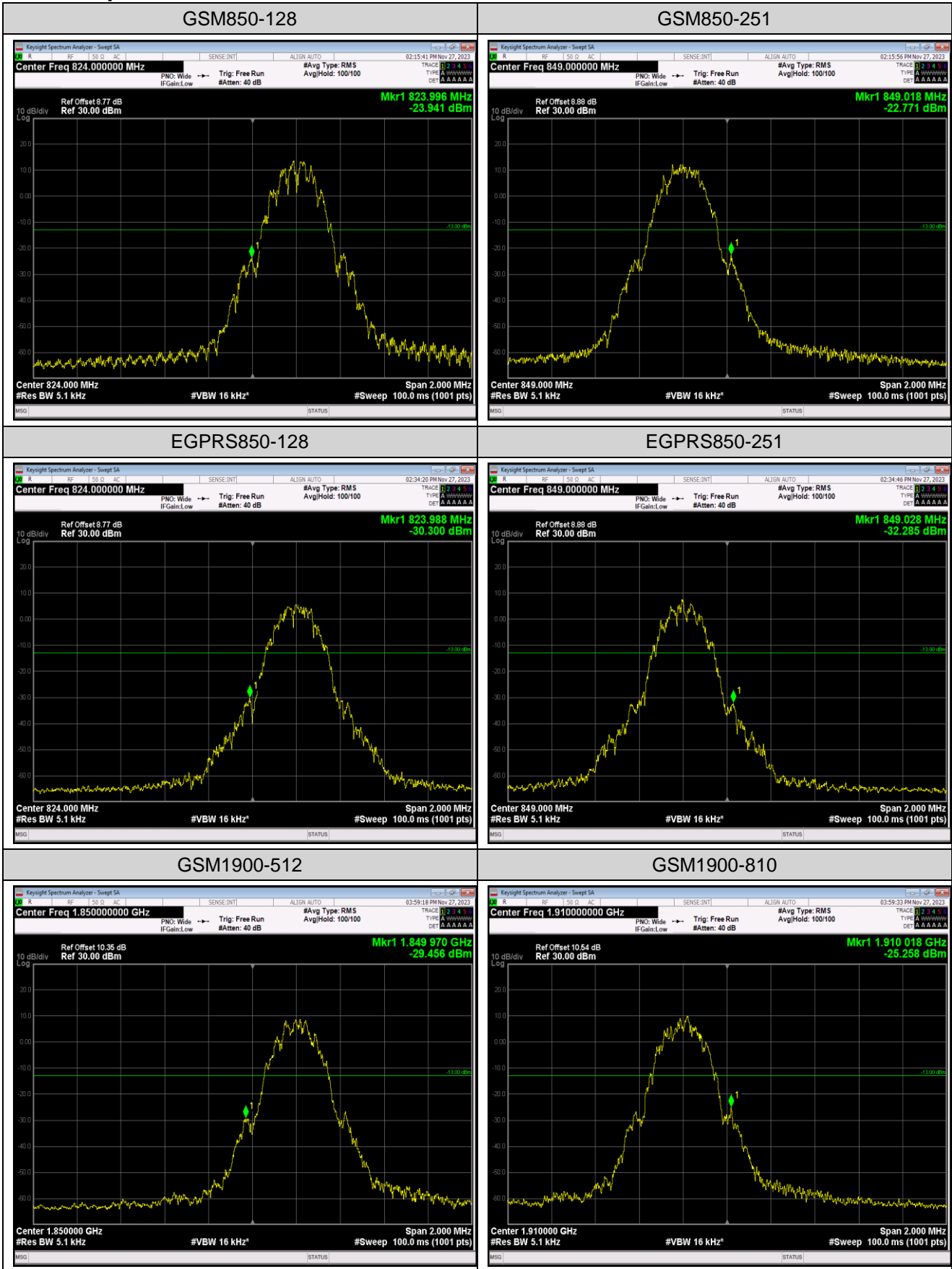


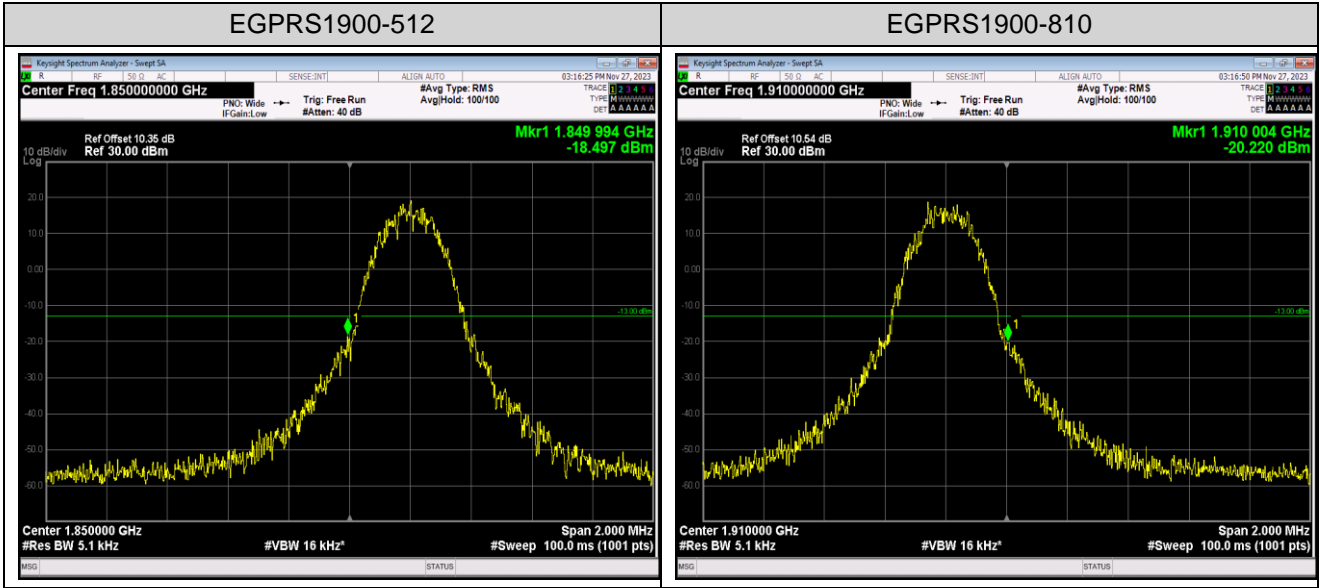
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-23.94	-13	PASS
GSM850	251	5	849.02	-22.77	-13	PASS
EGPRS850	128	8	823.99	-30.30	-13	PASS
EGPRS850	251	8	849.03	-32.28	-13	PASS
GSM1900	512	0	1849.97	-29.46	-13	PASS
GSM1900	810	0	1910.02	-25.26	-13	PASS
EGPRS1900	512	2	1849.99	-18.50	-13	PASS
EGPRS1900	810	2	1910.00	-20.22	-13	PASS

Test Graphs





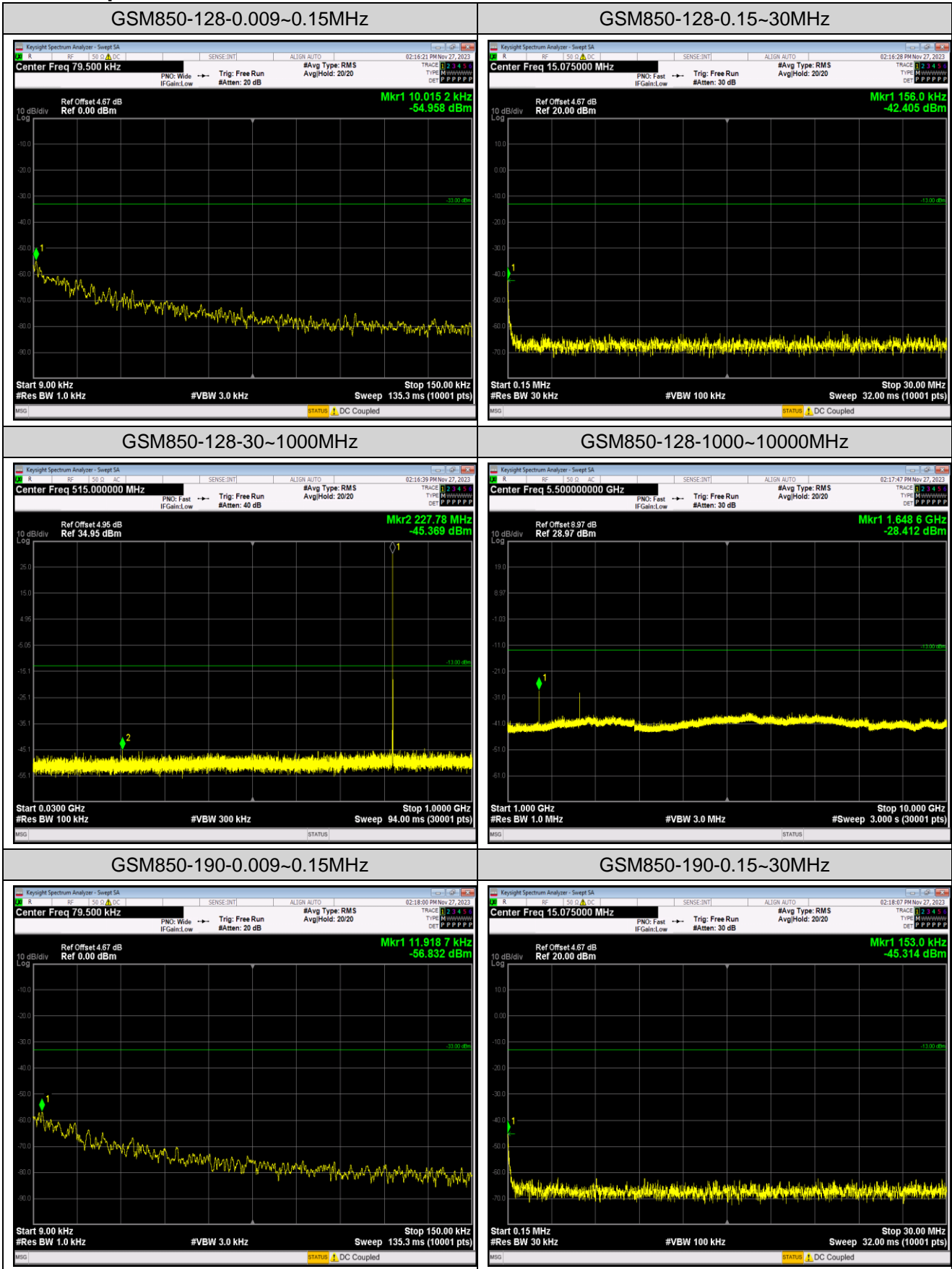
Appendix E: Conducted Spurious Emission

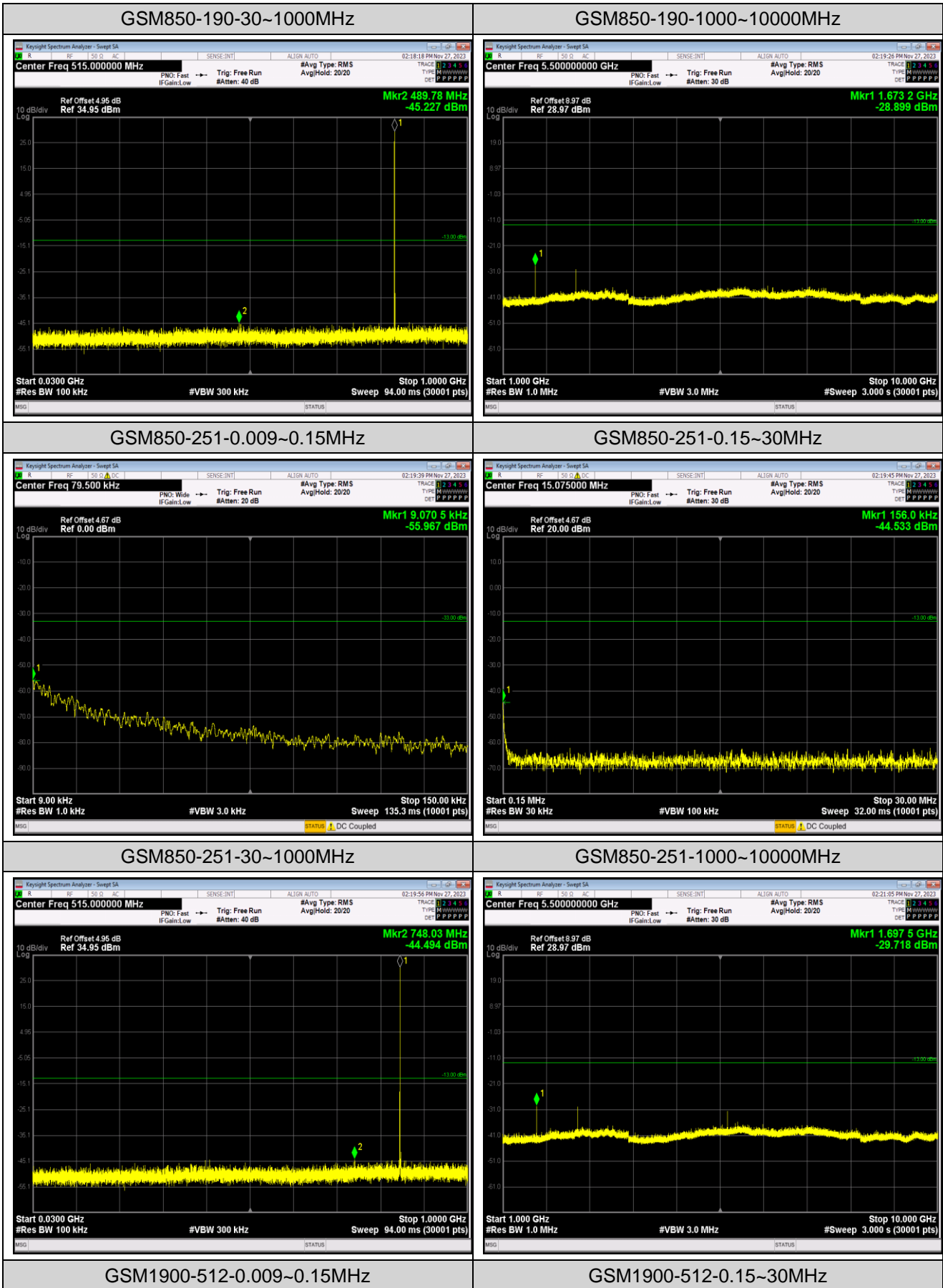
Test Result

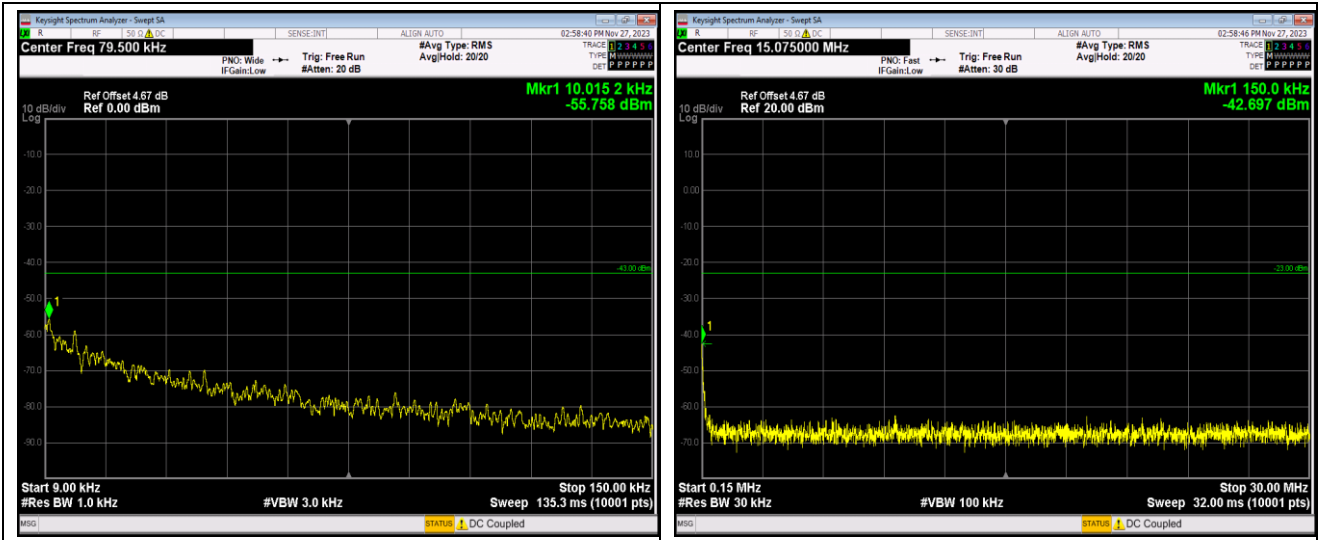
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.96	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-42.41	-13	PASS
GSM850	128	5	30~1000MHz	227.78	-45.37	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-28.41	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-56.83	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-45.31	-13	PASS
GSM850	190	5	30~1000MHz	489.78	-45.23	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-28.9	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.97	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-44.53	-13	PASS
GSM850	251	5	30~1000MHz	748.03	-44.49	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-29.72	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.76	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-42.7	-23	PASS
GSM1900	512	0	30~1000MHz	820.65	-45.49	-13	PASS
GSM1900	512	0	1000~18000MHz	17038.37	-22.69	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.62	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-41.78	-23	PASS
GSM1900	661	0	30~1000MHz	726.72	-45.91	-13	PASS
GSM1900	661	0	1000~18000MHz	16887.07	-22.12	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.39	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-45.41	-23	PASS
GSM1900	810	0	30~1000MHz	671.69	-45.55	-13	PASS
GSM1900	810	0	1000~18000MHz	16457.53	-22.38	-13	PASS

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

Test Graphs

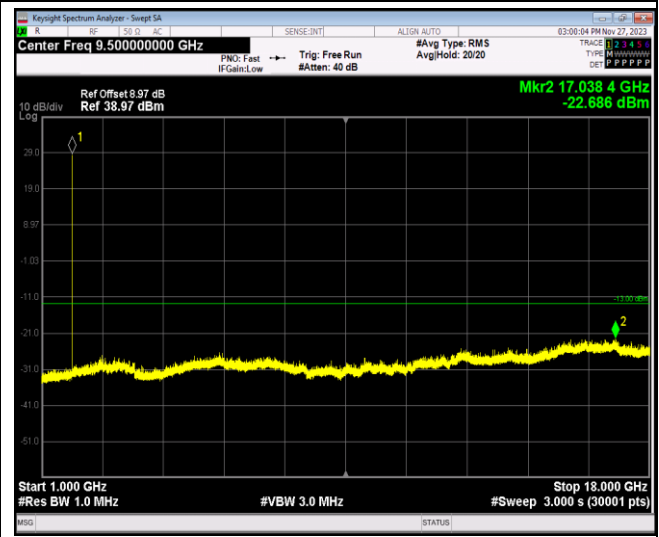
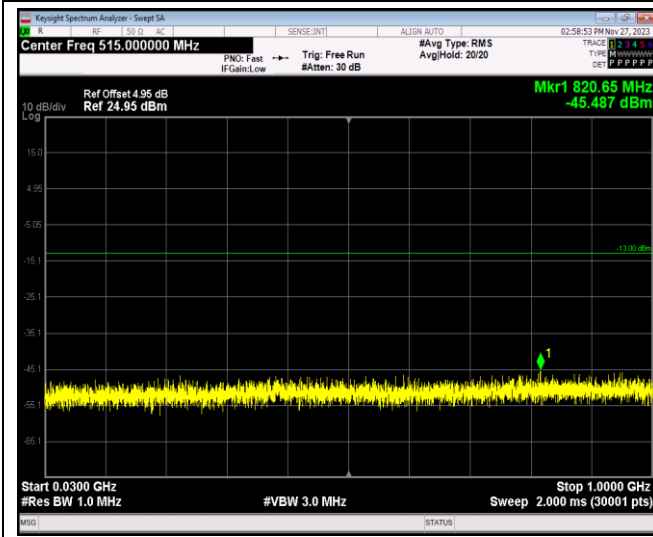






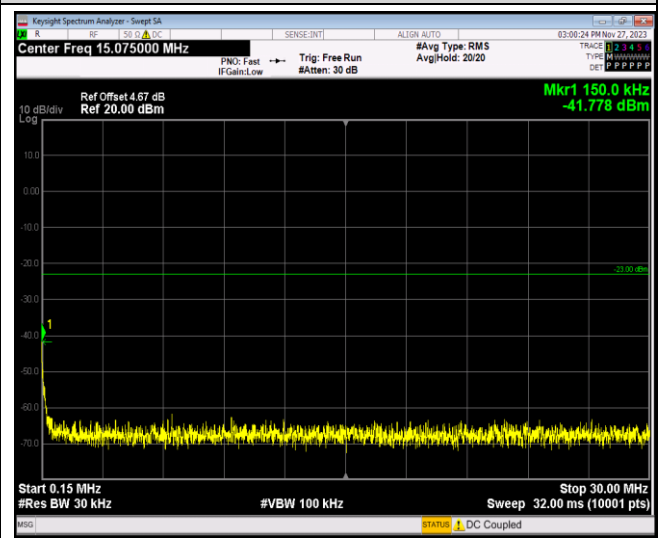
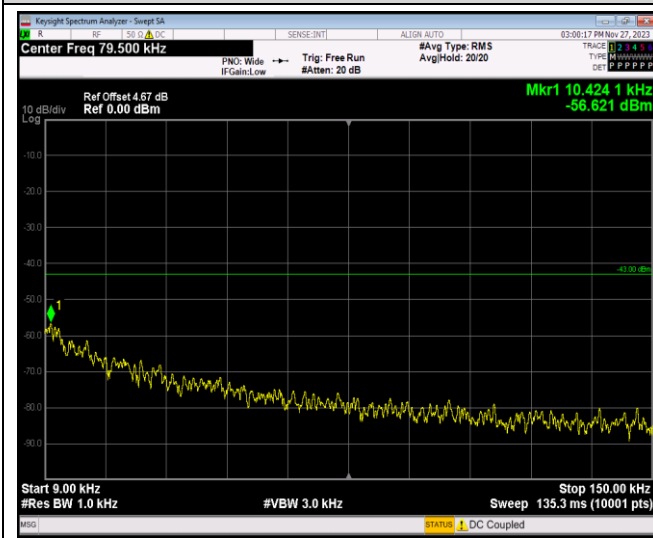
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



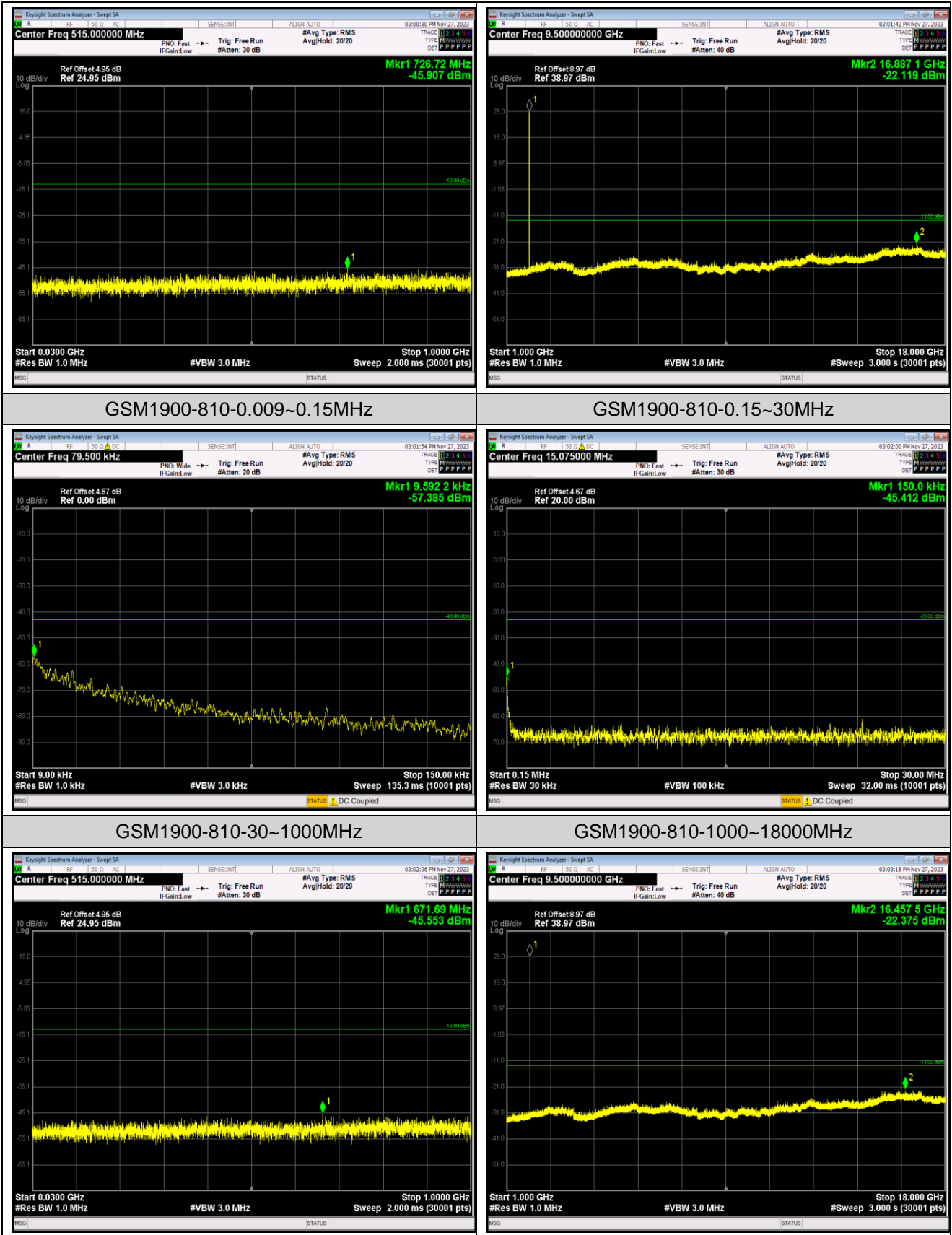
GSM1900-661-0.009~0.15MHz

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		
3.91	-30	-13.62	-0.016280	±2.5	Pass
	-20	-15.98	-0.019101		
	-10	-14.72	-0.017595		
	0	-14.27	-0.017057		
	10	-10.14	-0.012120		
	20	-8.62	-0.010304		
	30	-12.79	-0.015288		
	40	-7.72	-0.009228		
	50	-12.75	-0.015240		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-11.85	-0.014164	±2.5	Pass
	3.91	-14.40	-0.017213		
	4.50	-10.59	-0.012658		
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		
3.91	-30	-11.53	-0.013782	±2.5	Pass
	-20	-10.23	-0.012228		
	-10	-14.66	-0.017523		
	0	-13.79	-0.016483		
	10	-11.24	-0.013435		
	20	-8.68	-0.010375		
	30	-11.27	-0.013471		
	40	-9.65	-0.011535		
	50	-10.04	-0.012001		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-12.33	-0.014738	±2.5	Pass
	3.91	-11.72	-0.014009		
	4.50	-11.30	-0.013507		
<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		
3.91	-30	-18.47	-0.009824	Within authorized band for PCS 1900	Pass
	-20	-26.51	-0.014101		
	-10	-24.05	-0.012793		
	0	-26.31	-0.013995		
	10	-21.79	-0.011590		
	20	-23.21	-0.012346		
	30	-14.72	-0.007830		
	40	-18.14	-0.009649		
	50	-15.79	-0.008399		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-17.98	-0.009564	Within authorized band for PCS 1900	Pass
	3.91	-23.54	-0.012521		
	4.50	-27.12	-0.014426		
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		
3.91	-30	-24.86	-0.013223	Within authorized band for PCS 1900	Pass
	-20	-23.89	-0.012707		
	-10	-27.70	-0.014734		
	0	-15.34	-0.008160		
	10	-16.50	-0.008777		
	20	-26.64	-0.014170		
	30	-24.15	-0.012846		
	40	-17.92	-0.009532		
	50	-24.21	-0.012878		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-23.76	-0.012638	Within authorized band for PCS 1900	Pass
	3.91	-21.60	-0.011489		
	4.50	-22.28	-0.011851		
<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

