

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	33.28	27.68	38.45	PASS
GSM850	190	5	33.65	28.05	38.45	PASS
GSM850	251	5	33.34	27.74	38.45	PASS
GSM1900	512	0	29.89	28.89	33.00	PASS
GSM1900	661	0	30.10	29.1	33.00	PASS
GSM1900	810	0	30.02	29.02	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.28	27.68	38.45	PASS
GPRS850	128	5	2	32.24	26.64	38.45	PASS
GPRS850	128	5	3	29.64	24.04	38.45	PASS
GPRS850	128	5	4	27.99	22.39	38.45	PASS
GPRS850	190	5	1	33.63	28.03	38.45	PASS
GPRS850	190	5	2	32.62	27.02	38.45	PASS
GPRS850	190	5	3	30.04	24.44	38.45	PASS
GPRS850	190	5	4	28.40	22.8	38.45	PASS
GPRS850	251	5	1	33.33	27.73	38.45	PASS
GPRS850	251	5	2	32.25	26.65	38.45	PASS
GPRS850	251	5	3	29.61	24.01	38.45	PASS
GPRS850	251	5	4	27.91	22.31	38.45	PASS
GPRS1900	512	0	1	29.89	28.89	33.00	PASS
GPRS1900	512	0	2	29.10	28.1	33.00	PASS
GPRS1900	512	0	3	27.01	26.01	33.00	PASS
GPRS1900	512	0	4	25.68	24.68	33.00	PASS
GPRS1900	661	0	1	30.16	29.16	33.00	PASS
GPRS1900	661	0	2	29.34	28.34	33.00	PASS
GPRS1900	661	0	3	27.31	26.31	33.00	PASS
GPRS1900	661	0	4	25.96	24.96	33.00	PASS
GPRS1900	810	0	1	30.08	29.08	33.00	PASS
GPRS1900	810	0	2	29.24	28.24	33.00	PASS
GPRS1900	810	0	3	27.16	26.16	33.00	PASS
GPRS1900	810	0	4	25.91	24.91	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.95	21.35	38.45	PASS
EGPRS850	128	8	2	25.81	20.21	38.45	PASS
EGPRS850	128	8	3	23.66	18.06	38.45	PASS
EGPRS850	128	8	4	22.15	16.55	38.45	PASS
EGPRS850	190	8	1	27.09	21.49	38.45	PASS
EGPRS850	190	8	2	26.02	20.42	38.45	PASS
EGPRS850	190	8	3	23.79	18.19	38.45	PASS
EGPRS850	190	8	4	22.29	16.69	38.45	PASS
EGPRS850	251	8	1	27.04	21.44	38.45	PASS
EGPRS850	251	8	2	25.94	20.34	38.45	PASS
EGPRS850	251	8	3	23.76	18.16	38.45	PASS
EGPRS850	251	8	4	22.37	16.77	38.45	PASS
EGPRS1900	512	2	1	25.99	24.99	33.00	PASS
EGPRS1900	512	2	2	24.83	23.83	33.00	PASS
EGPRS1900	512	2	3	22.71	21.71	33.00	PASS
EGPRS1900	512	2	4	21.45	20.45	33.00	PASS
EGPRS1900	661	2	1	26.32	25.32	33.00	PASS
EGPRS1900	661	2	2	25.11	24.11	33.00	PASS
EGPRS1900	661	2	3	23.04	22.04	33.00	PASS
EGPRS1900	661	2	4	21.74	20.74	33.00	PASS
EGPRS1900	810	2	1	26.18	25.18	33.00	PASS
EGPRS1900	810	2	2	25.09	24.09	33.00	PASS
EGPRS1900	810	2	3	22.97	21.97	33.00	PASS
EGPRS1900	810	2	4	21.58	20.58	33.00	PASS

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

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

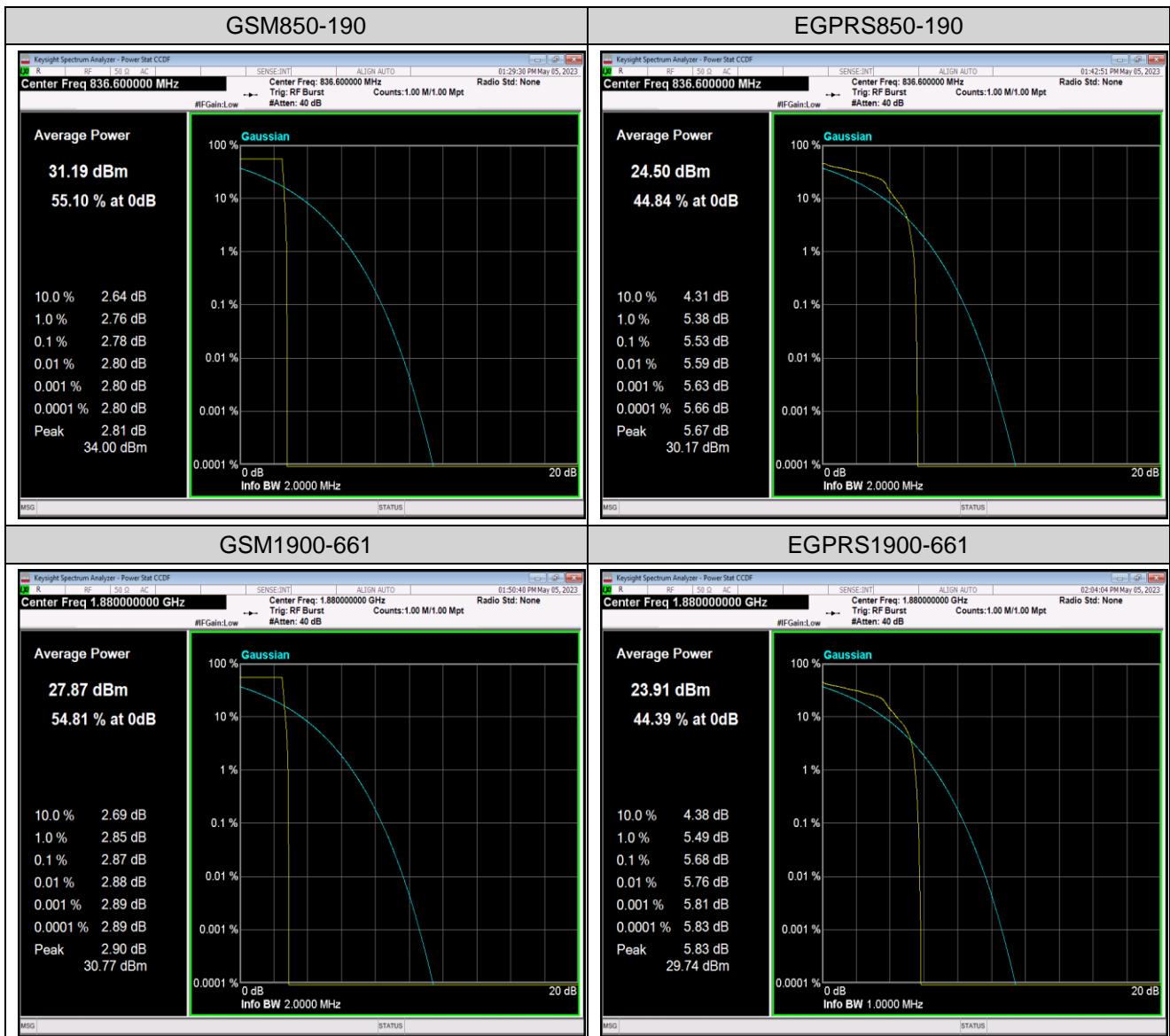
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.78	13	PASS
EGPRS850	190	8	5.53	13	PASS
GSM1900	661	0	2.87	13	PASS
EGPRS1900	661	2	5.68	13	PASS

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

Test Graphs

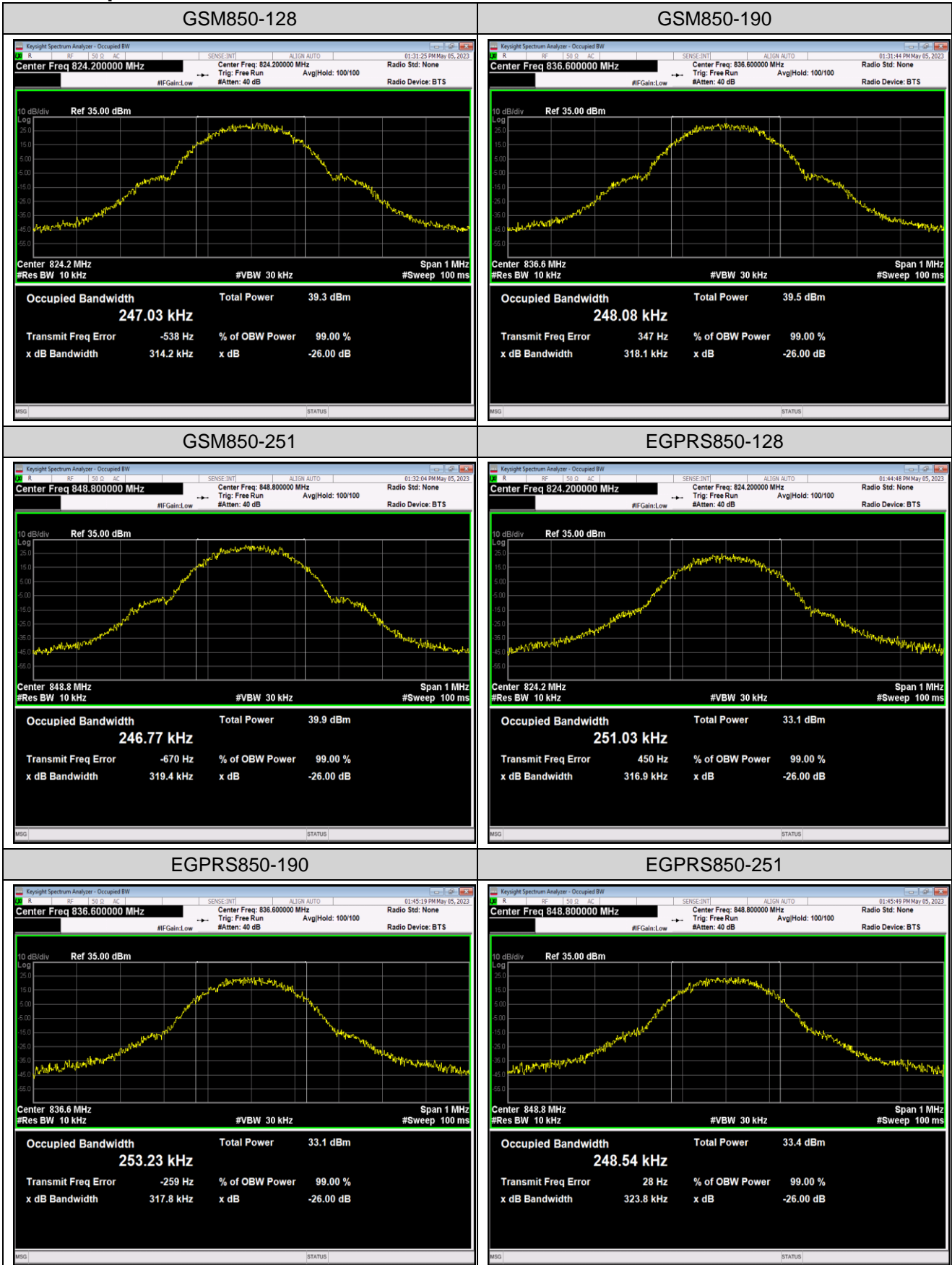


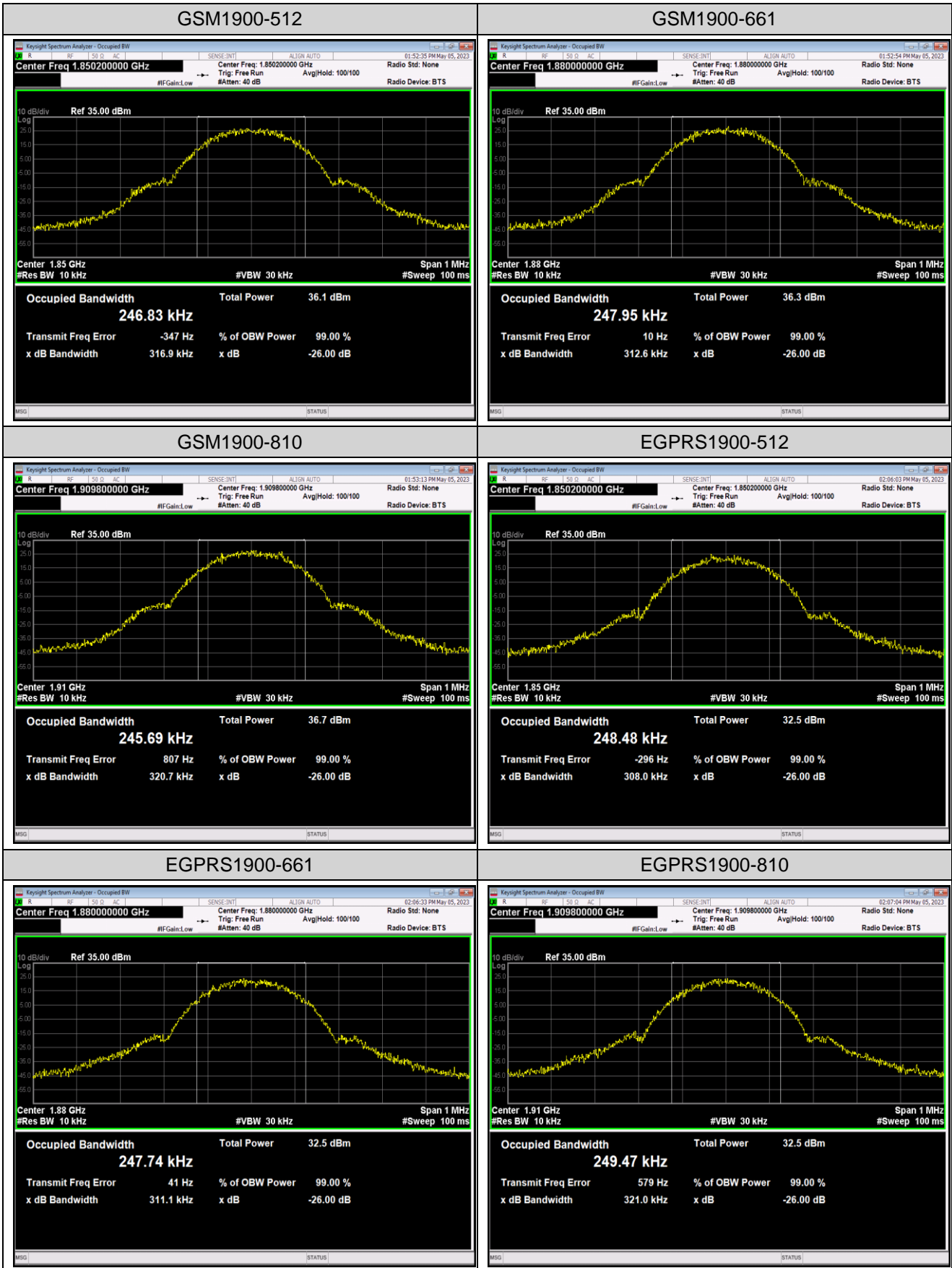
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24703	0.3142	---	PASS
GSM850	190	5	0.24808	0.3181	---	PASS
GSM850	251	5	0.24677	0.3194	---	PASS
EGPRS850	128	8	0.25103	0.3169	---	PASS
EGPRS850	190	8	0.25323	0.3178	---	PASS
EGPRS850	251	8	0.24854	0.3238	---	PASS
GSM1900	512	0	0.24683	0.3169	---	PASS
GSM1900	661	0	0.24795	0.3126	---	PASS
GSM1900	810	0	0.24569	0.3207	---	PASS
EGPRS1900	512	2	0.24848	0.3080	---	PASS
EGPRS1900	661	2	0.24774	0.3111	---	PASS
EGPRS1900	810	2	0.24947	0.3210	---	PASS

Test Graphs



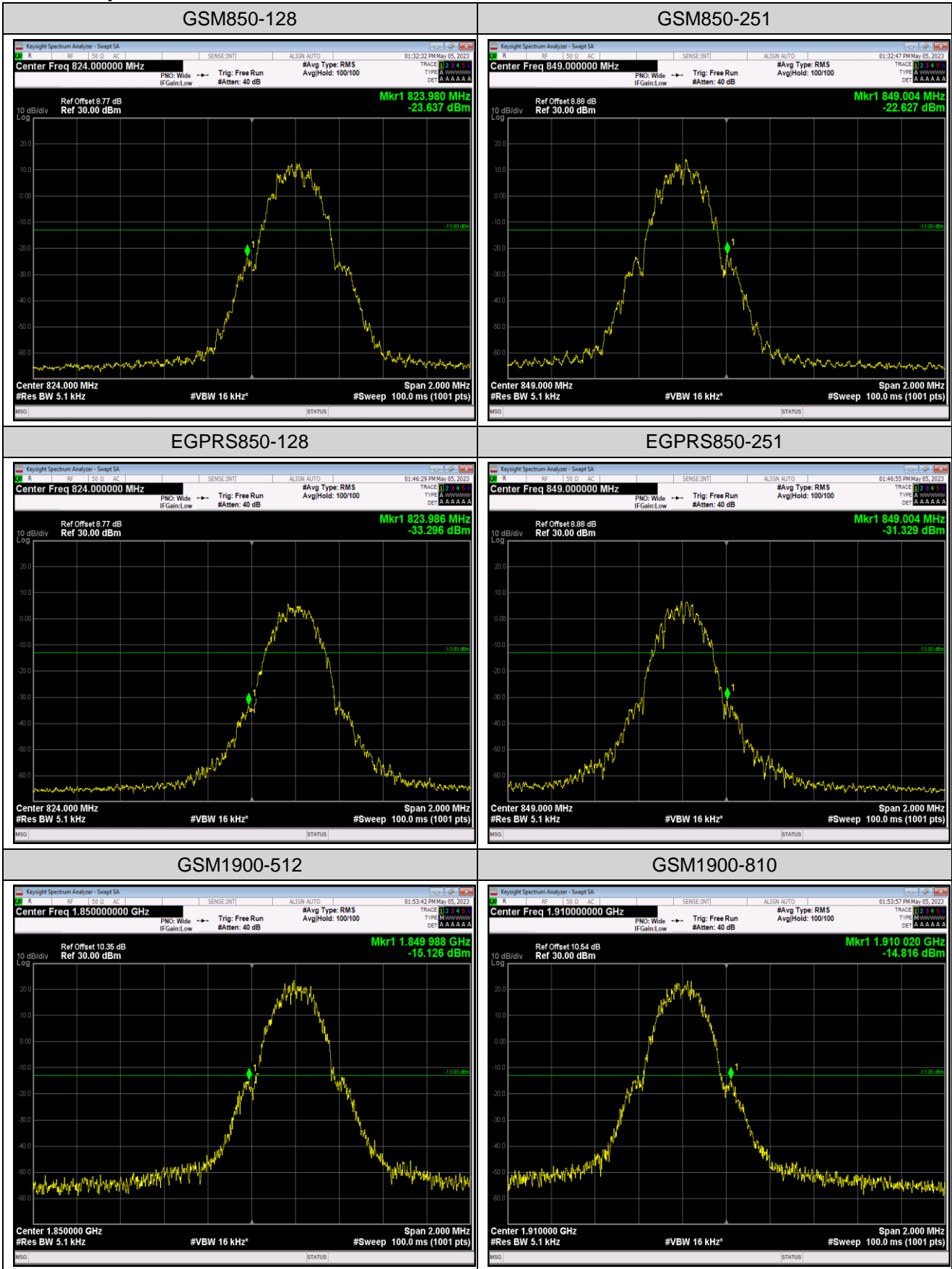


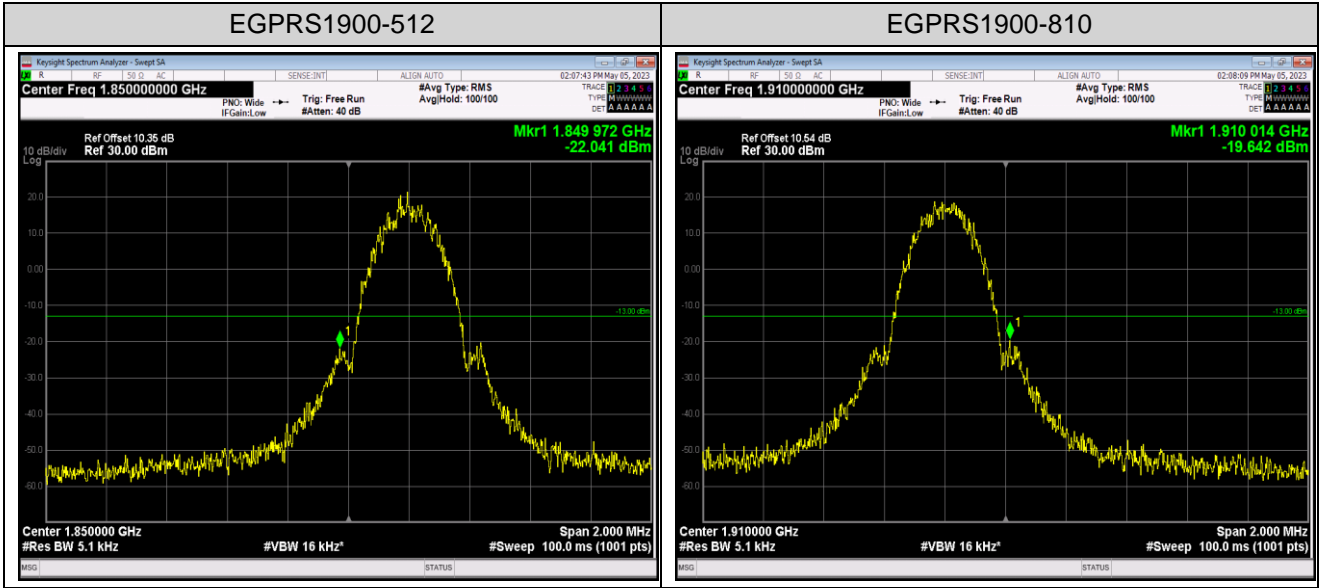
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.64	-13	PASS
GSM850	251	5	849.00	-22.63	-13	PASS
EGPRS850	128	8	823.99	-33.30	-13	PASS
EGPRS850	251	8	849.00	-31.33	-13	PASS
GSM1900	512	0	1849.99	-15.13	-13	PASS
GSM1900	810	0	1910.02	-14.82	-13	PASS
EGPRS1900	512	2	1849.97	-22.04	-13	PASS
EGPRS1900	810	2	1910.01	-19.64	-13	PASS

Test Graphs





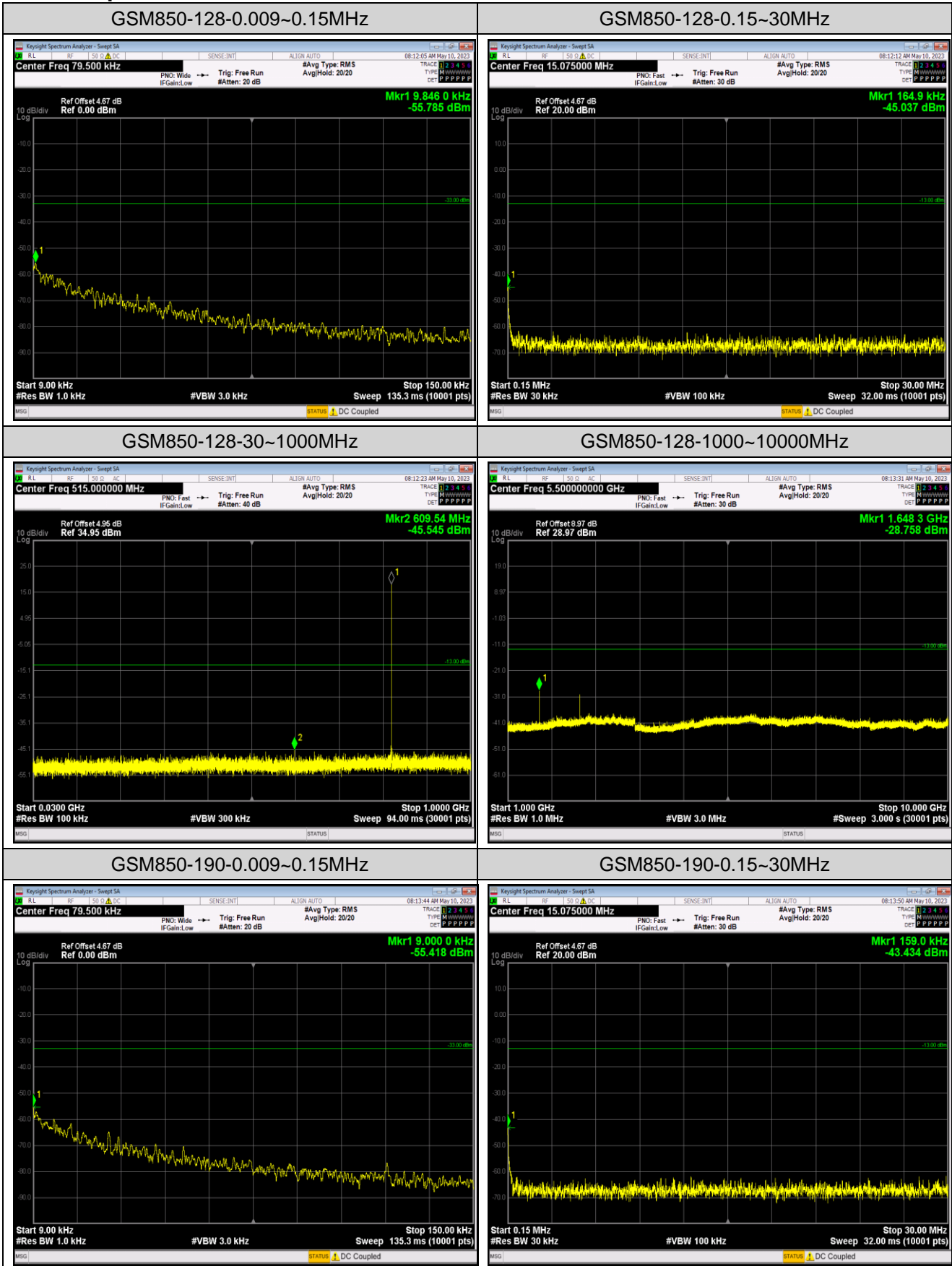
Appendix E: Conducted Spurious Emission

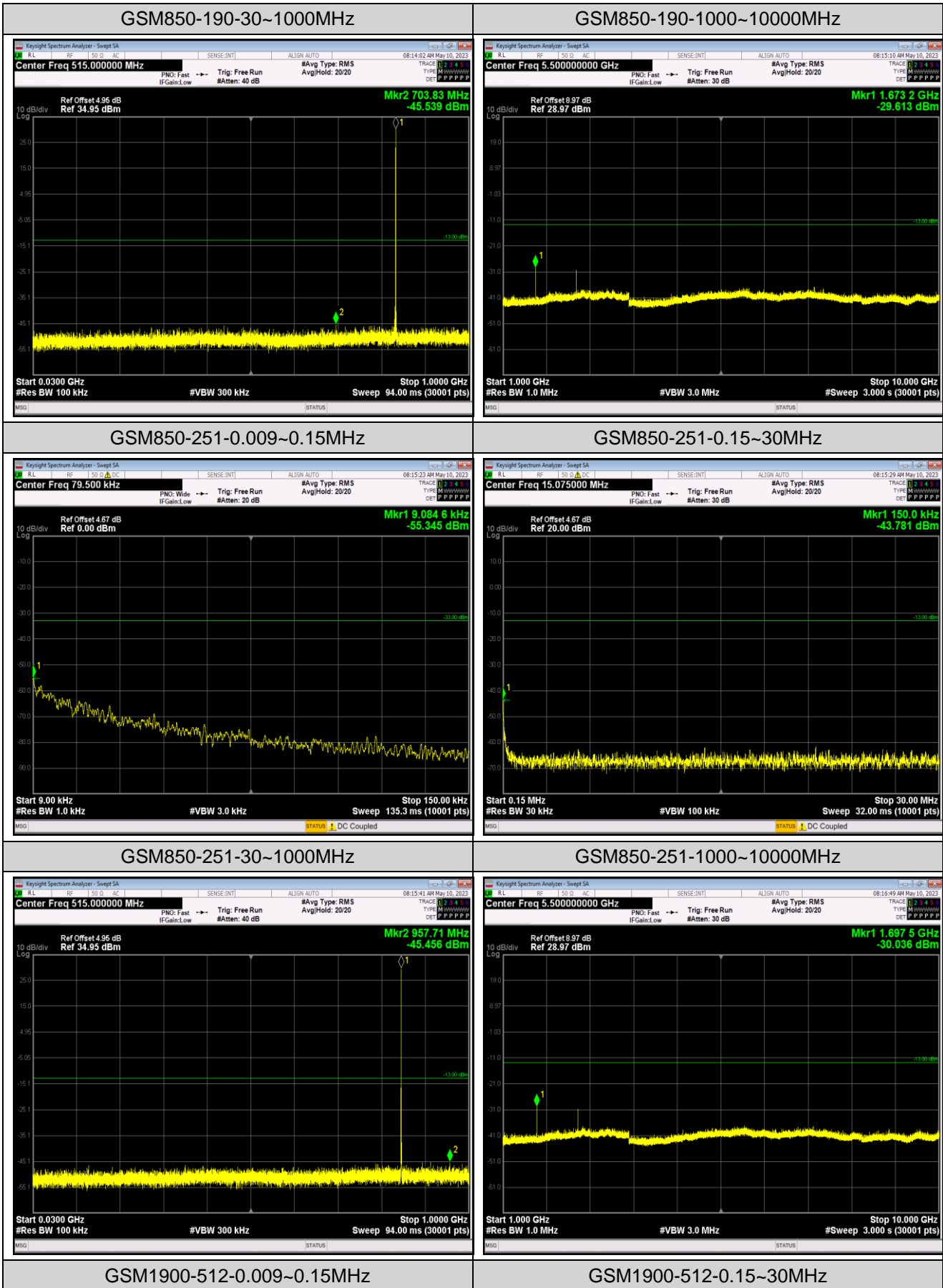
Test Result

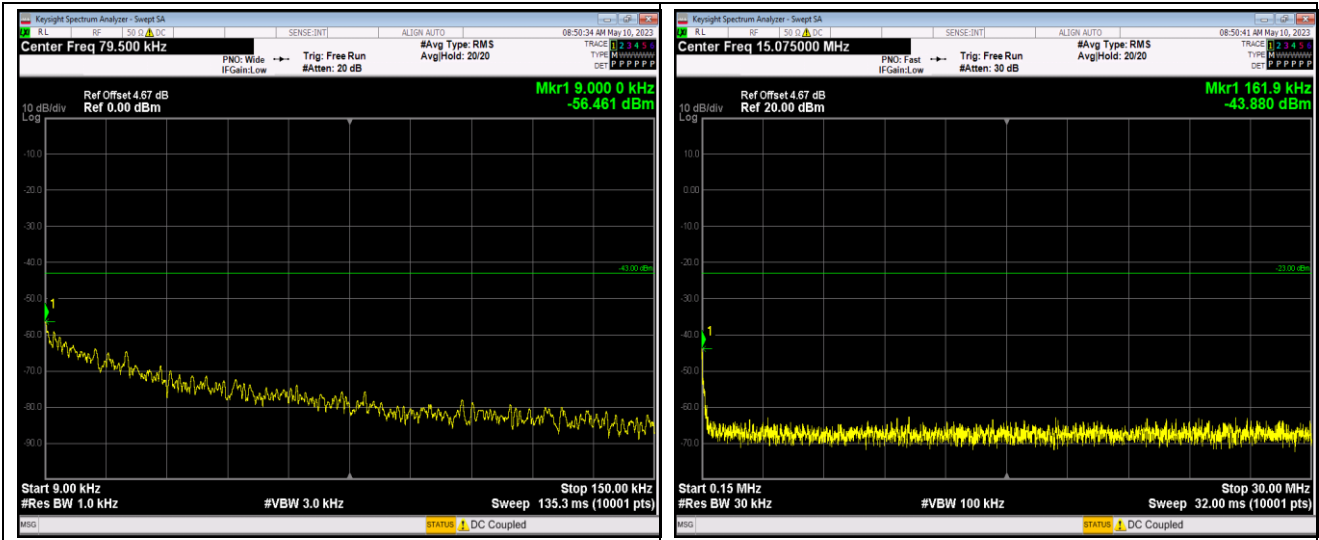
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.79	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-45.04	-13	PASS
GSM850	128	5	30~1000MHz	609.54	-45.55	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.76	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-55.42	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-43.43	-13	PASS
GSM850	190	5	30~1000MHz	703.83	-45.54	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.61	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.35	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-43.78	-13	PASS
GSM850	251	5	30~1000MHz	957.71	-45.46	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-30.04	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.46	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-43.88	-23	PASS
GSM1900	512	0	30~1000MHz	933.43	-46.05	-13	PASS
GSM1900	512	0	1000~18000MHz	17071.23	-21.31	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.27	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-44.21	-23	PASS
GSM1900	661	0	30~1000MHz	494.79	-46.63	-13	PASS
GSM1900	661	0	1000~18000MHz	16906.9	-22.43	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-60.11	-43	PASS
GSM1900	810	0	0.15~30MHz	0.18	-47.8	-23	PASS
GSM1900	810	0	30~1000MHz	375.64	-45.98	-13	PASS
GSM1900	810	0	1000~18000MHz	17012.87	-22.34	-13	PASS

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

Test Graphs

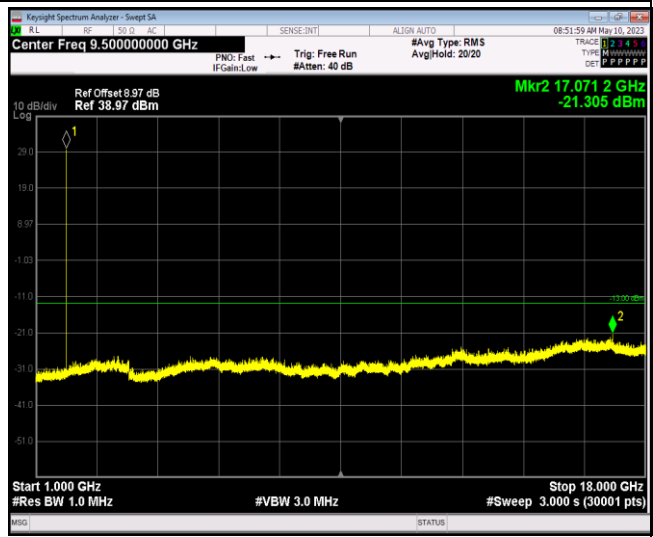
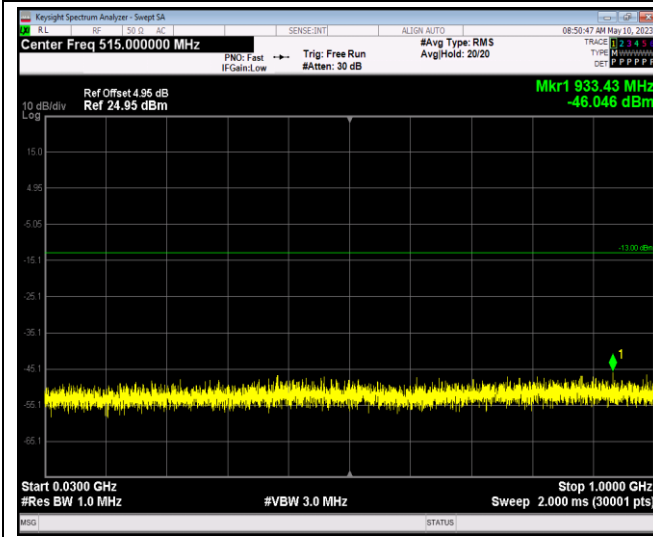






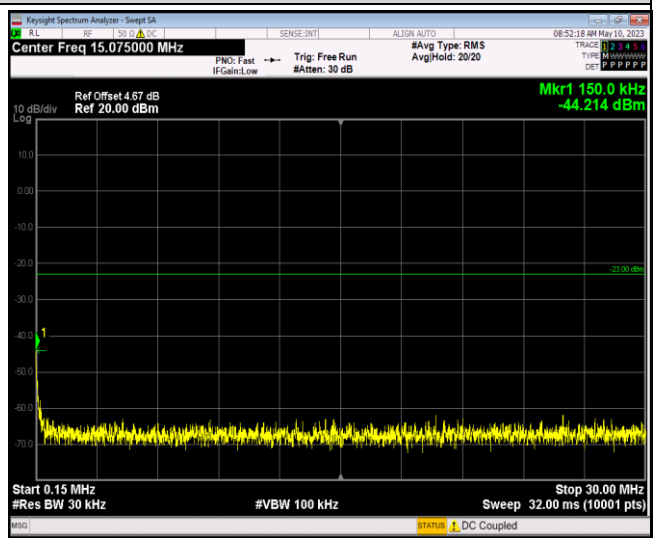
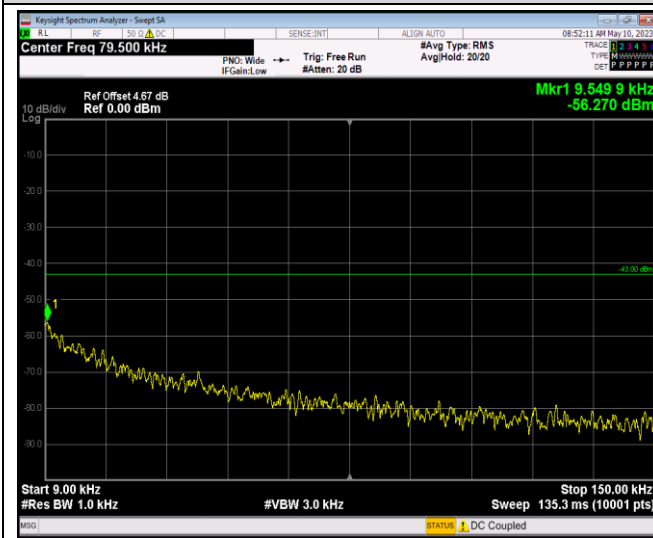
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



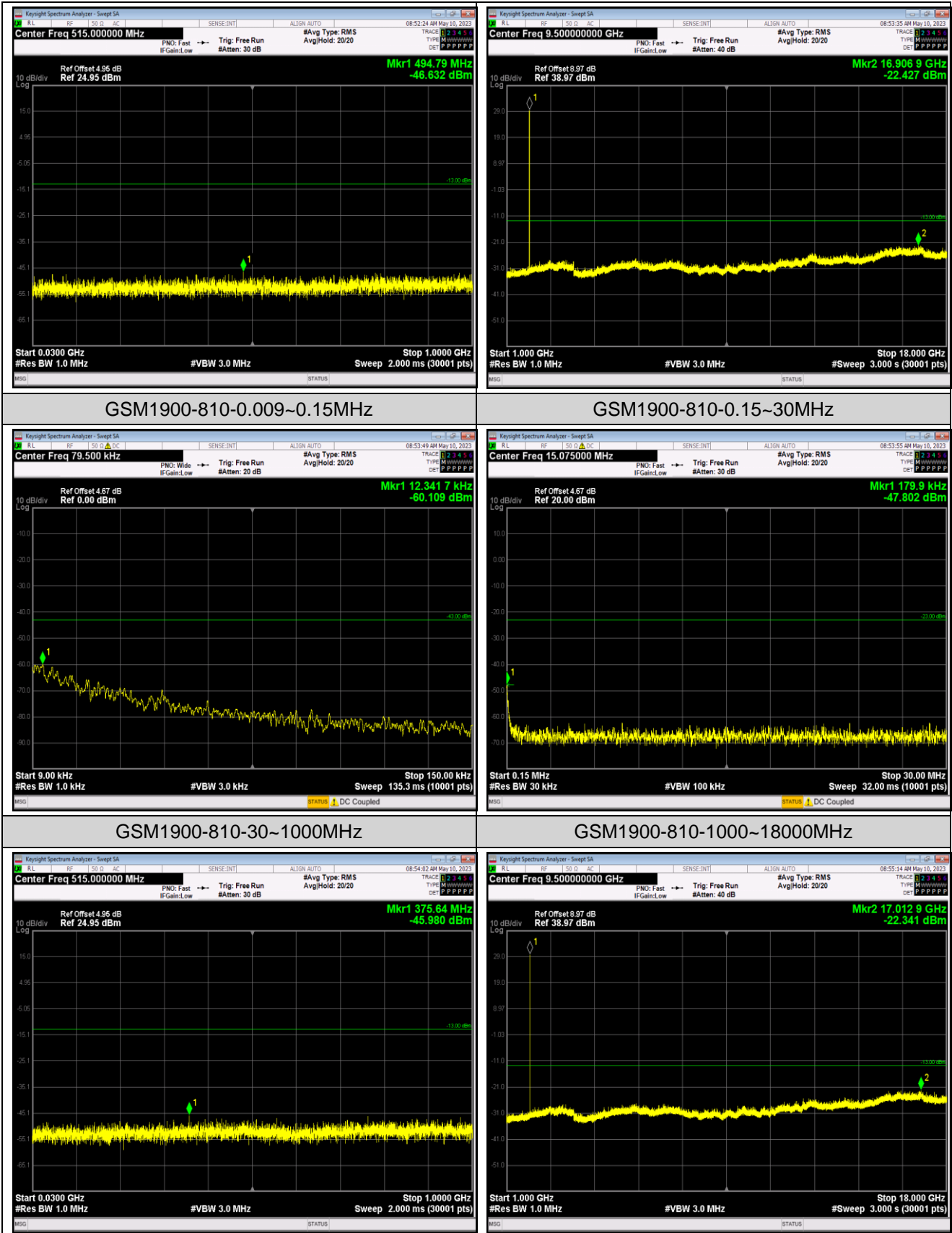
GSM1900-661-0.009~0.15MHz

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		
3.87	-30	-6.97	-0.008331	±2.5	Pass
	-20	-7.75	-0.009264		
	-10	-1.81	-0.002164		
	0	-4.33	-0.005176		
	10	-7.88	-0.009419		
	20	-5.65	-0.006754		
	30	-5.71	-0.006825		
	40	-8.68	-0.010375		
	50	-2.58	-0.003084		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-7.65	-0.009144	±2.5	Pass
	3.87	-7.04	-0.008415		
	4.45	-7.39	-0.008833		
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		
3.87	-30	-12.75	-0.015240	±2.5	Pass
	-20	-14.11	-0.016866		
	-10	-14.72	-0.017595		
	0	-13.01	-0.015551		
	10	-5.59	-0.006682		
	20	-3.20	-0.003825		
	30	-5.84	-0.006981		
	40	-7.46	-0.008917		
	50	-3.97	-0.004745		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-13.62	-0.016280	±2.5	Pass
	3.87	-13.85	-0.016555		
	4.45	-10.75	-0.012850		
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		
3.87	-30	-17.34	-0.009223	Within authorized band for PCS 1900	Pass
	-20	-17.98	-0.009564		
	-10	-13.56	-0.007213		
	0	-8.78	-0.004670		
	10	-18.69	-0.009941		
	20	-9.27	-0.004931		
	30	-10.75	-0.005718		
	40	-14.50	-0.007713		
	50	-8.46	-0.004500		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-19.37	-0.010303	Within authorized band for PCS 1900	Pass
	3.87	-19.24	-0.010234		
	4.45	-15.24	-0.008106		
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		
3.87	-30	-5.94	-0.003160	Within authorized band for PCS 1900	Pass
	-20	-4.13	-0.002197		
	-10	-9.69	-0.005154		
	0	-9.94	-0.005287		
	10	3.42	0.001819		
	20	11.24	0.005979		
	30	3.97	0.002112		
	40	7.20	0.003830		
	50	8.68	0.004617		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-6.75	-0.003590	Within authorized band for PCS 1900	Pass
	3.87	-1.90	-0.001011		
	4.45	-6.55	-0.003484		
<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

