

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	33.54	26.89	38.45	PASS
GSM850	190	5	33.70	27.05	38.45	PASS
GSM850	251	5	33.44	26.79	38.45	PASS
GSM1900	512	0	30.45	25.85	33.00	PASS
GSM1900	661	0	30.85	26.25	33.00	PASS
GSM1900	810	0	30.63	26.03	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.54	26.89	38.45	PASS
GPRS850	128	5	2	32.57	25.92	38.45	PASS
GPRS850	128	5	3	30.55	23.9	38.45	PASS
GPRS850	128	5	4	29.44	22.79	38.45	PASS
GPRS850	190	5	1	33.69	27.04	38.45	PASS
GPRS850	190	5	2	32.72	26.07	38.45	PASS
GPRS850	190	5	3	30.71	24.06	38.45	PASS
GPRS850	190	5	4	29.62	22.97	38.45	PASS
GPRS850	251	5	1	33.42	26.77	38.45	PASS
GPRS850	251	5	2	32.47	25.82	38.45	PASS
GPRS850	251	5	3	30.49	23.84	38.45	PASS
GPRS850	251	5	4	29.42	22.77	38.45	PASS
GPRS1900	512	0	1	30.45	25.85	33.00	PASS
GPRS1900	512	0	2	29.63	25.03	33.00	PASS
GPRS1900	512	0	3	27.74	23.14	33.00	PASS
GPRS1900	512	0	4	26.49	21.89	33.00	PASS
GPRS1900	661	0	1	30.82	26.22	33.00	PASS
GPRS1900	661	0	2	30.06	25.46	33.00	PASS
GPRS1900	661	0	3	28.25	23.65	33.00	PASS
GPRS1900	661	0	4	27.05	22.45	33.00	PASS
GPRS1900	810	0	1	30.62	26.02	33.00	PASS
GPRS1900	810	0	2	29.88	25.28	33.00	PASS
GPRS1900	810	0	3	28.15	23.55	33.00	PASS
GPRS1900	810	0	4	27.04	22.44	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.83	21.18	38.45	PASS
EGPRS850	128	8	2	26.53	19.88	38.45	PASS
EGPRS850	128	8	3	24.12	17.47	38.45	PASS
EGPRS850	128	8	4	24.09	17.44	38.45	PASS
EGPRS850	190	8	1	27.76	21.11	38.45	PASS
EGPRS850	190	8	2	26.48	19.83	38.45	PASS
EGPRS850	190	8	3	24.14	17.49	38.45	PASS
EGPRS850	190	8	4	24.12	17.47	38.45	PASS
EGPRS850	251	8	1	27.95	21.3	38.45	PASS
EGPRS850	251	8	2	26.69	20.04	38.45	PASS
EGPRS850	251	8	3	24.31	17.66	38.45	PASS
EGPRS850	251	8	4	24.34	17.69	38.45	PASS
EGPRS1900	512	2	1	26.55	21.95	33.00	PASS
EGPRS1900	512	2	2	25.34	20.74	33.00	PASS
EGPRS1900	512	2	3	23.12	18.52	33.00	PASS
EGPRS1900	512	2	4	23.57	18.97	33.00	PASS
EGPRS1900	661	2	1	26.85	22.25	33.00	PASS
EGPRS1900	661	2	2	25.73	21.13	33.00	PASS
EGPRS1900	661	2	3	23.46	18.86	33.00	PASS
EGPRS1900	661	2	4	23.90	19.30	33.00	PASS
EGPRS1900	810	2	1	26.79	22.19	33.00	PASS
EGPRS1900	810	2	2	25.64	21.04	33.00	PASS
EGPRS1900	810	2	3	23.37	18.77	33.00	PASS
EGPRS1900	810	2	4	23.90	19.30	33.00	PASS

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

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

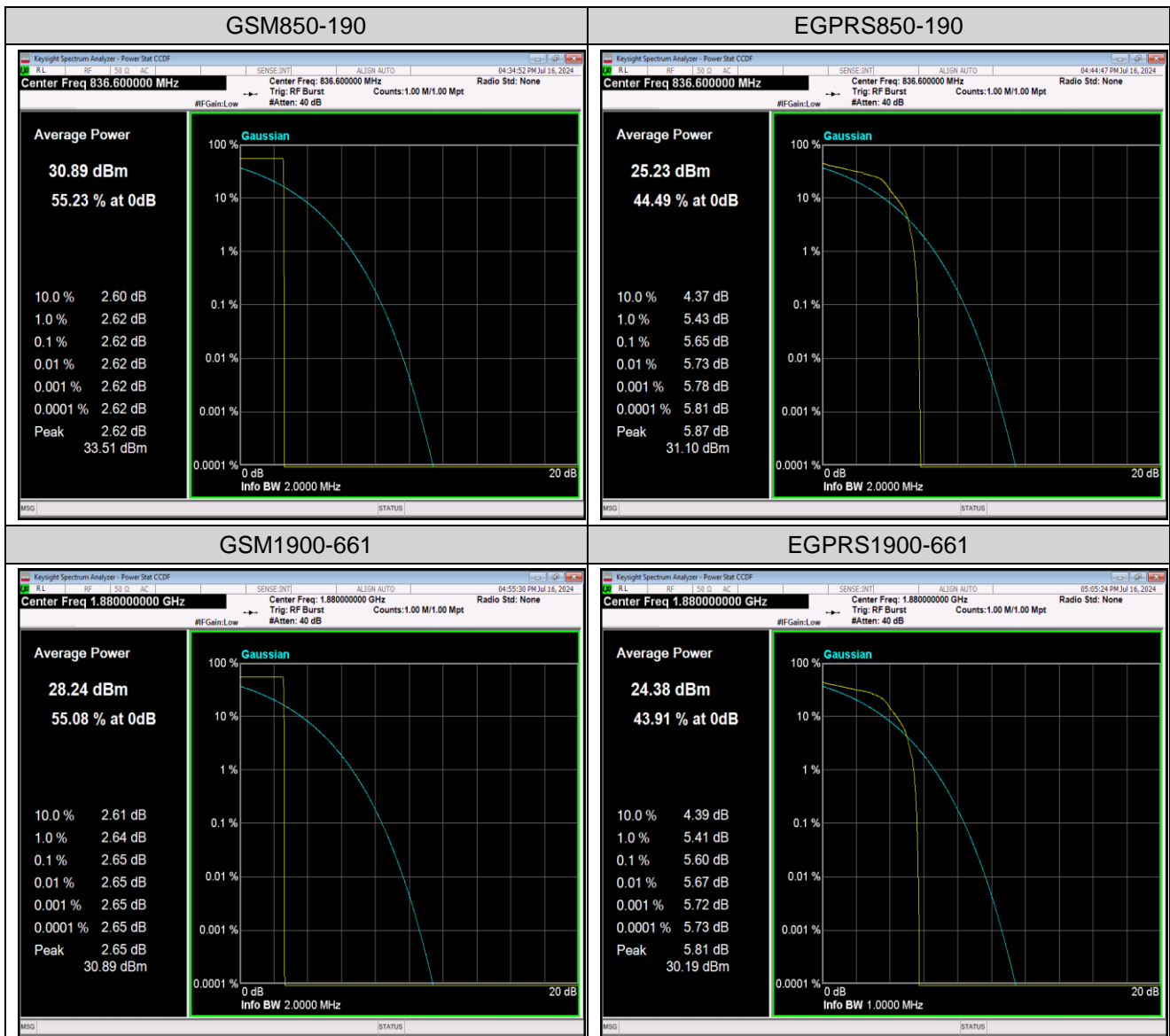
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.65	13	PASS
GSM1900	661	0	2.65	13	PASS
EGPRS1900	661	2	5.6	13	PASS

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

Test Graphs

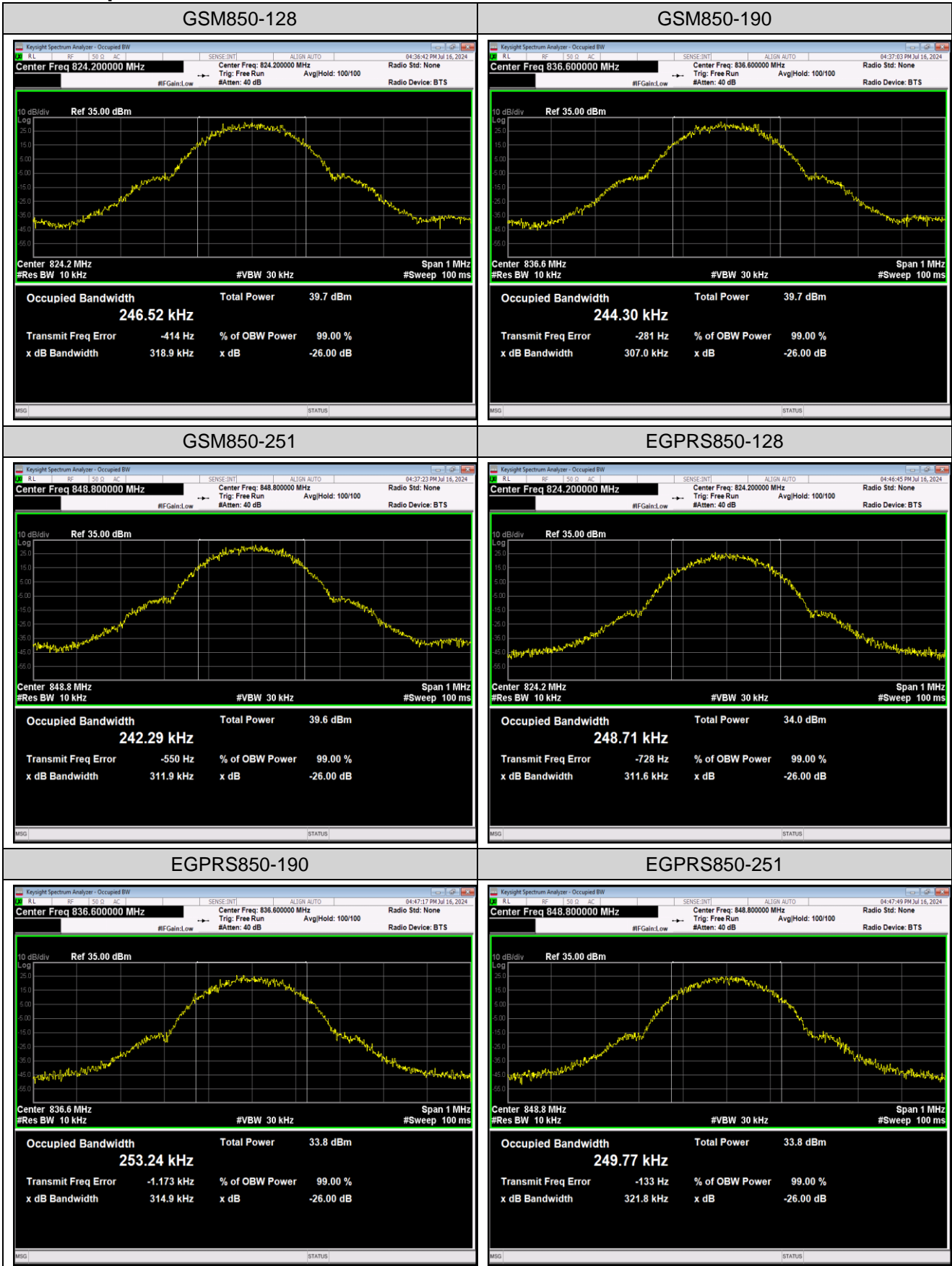


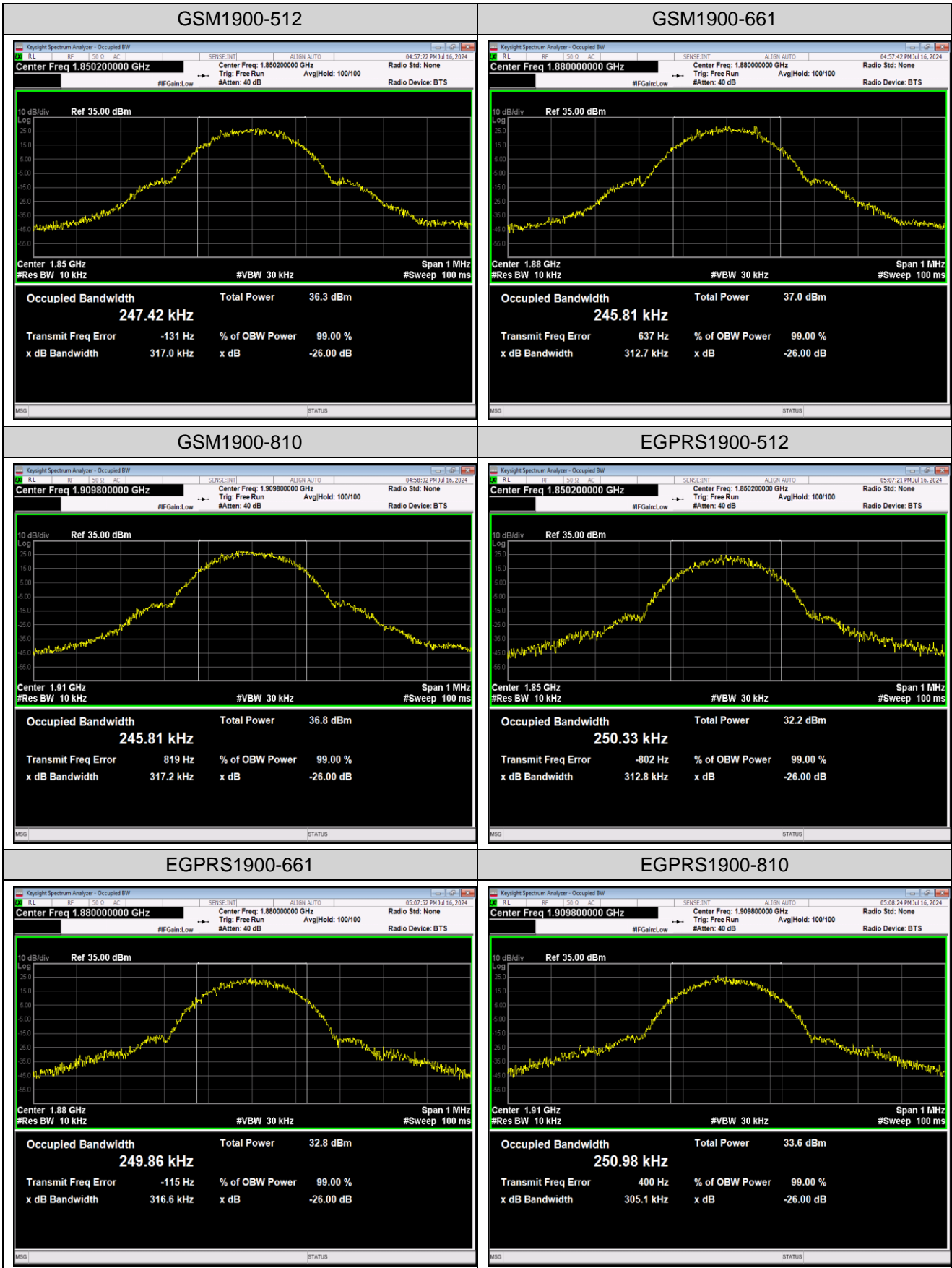
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24652	0.3189	---	PASS
GSM850	190	5	0.24430	0.3070	---	PASS
GSM850	251	5	0.24229	0.3119	---	PASS
EGPRS850	128	8	0.24871	0.3116	---	PASS
EGPRS850	190	8	0.25324	0.3149	---	PASS
EGPRS850	251	8	0.24977	0.3218	---	PASS
GSM1900	512	0	0.24742	0.3170	---	PASS
GSM1900	661	0	0.24581	0.3127	---	PASS
GSM1900	810	0	0.24581	0.3172	---	PASS
EGPRS1900	512	2	0.25033	0.3128	---	PASS
EGPRS1900	661	2	0.24986	0.3166	---	PASS
EGPRS1900	810	2	0.25098	0.3051	---	PASS

Test Graphs



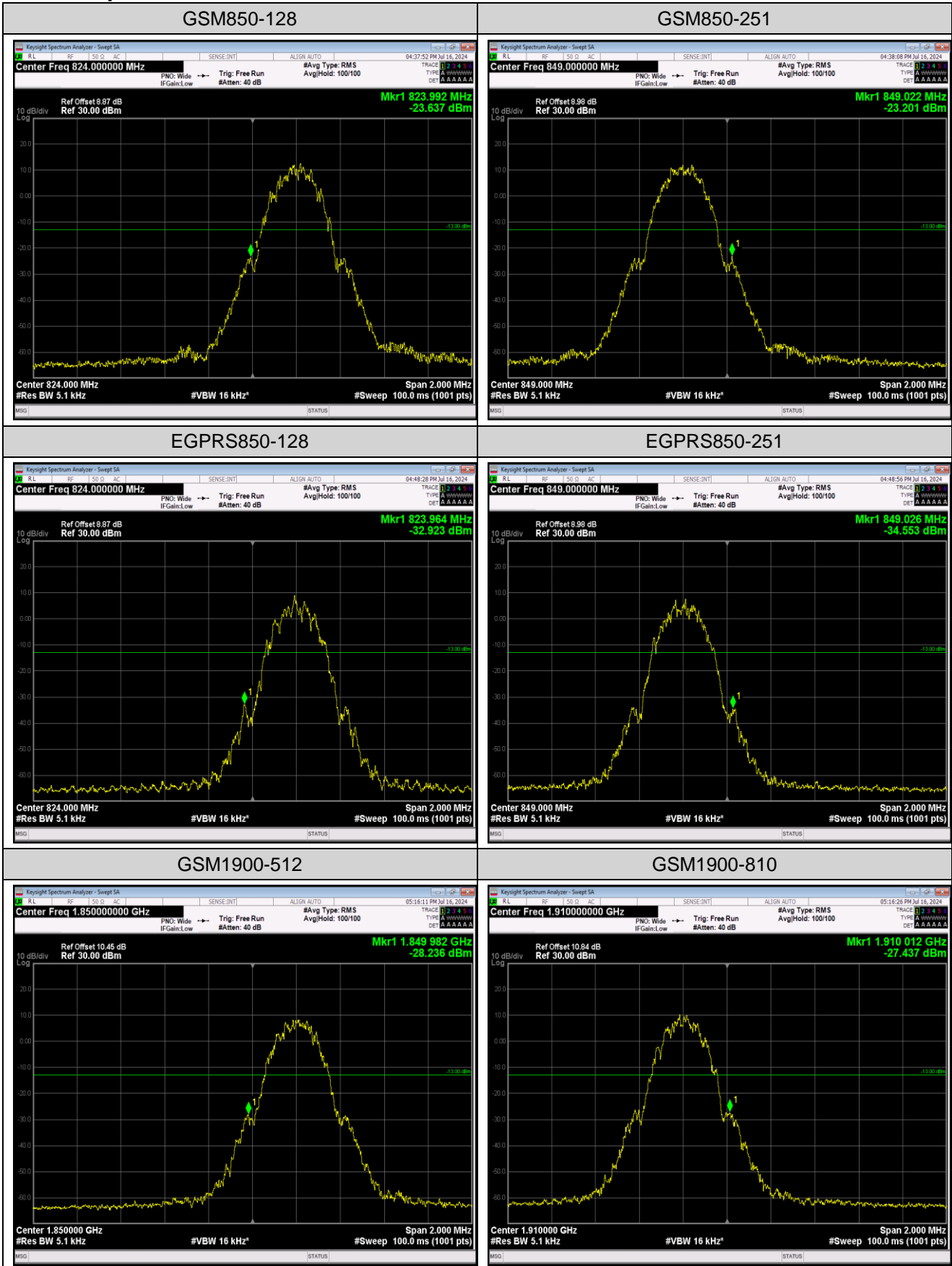


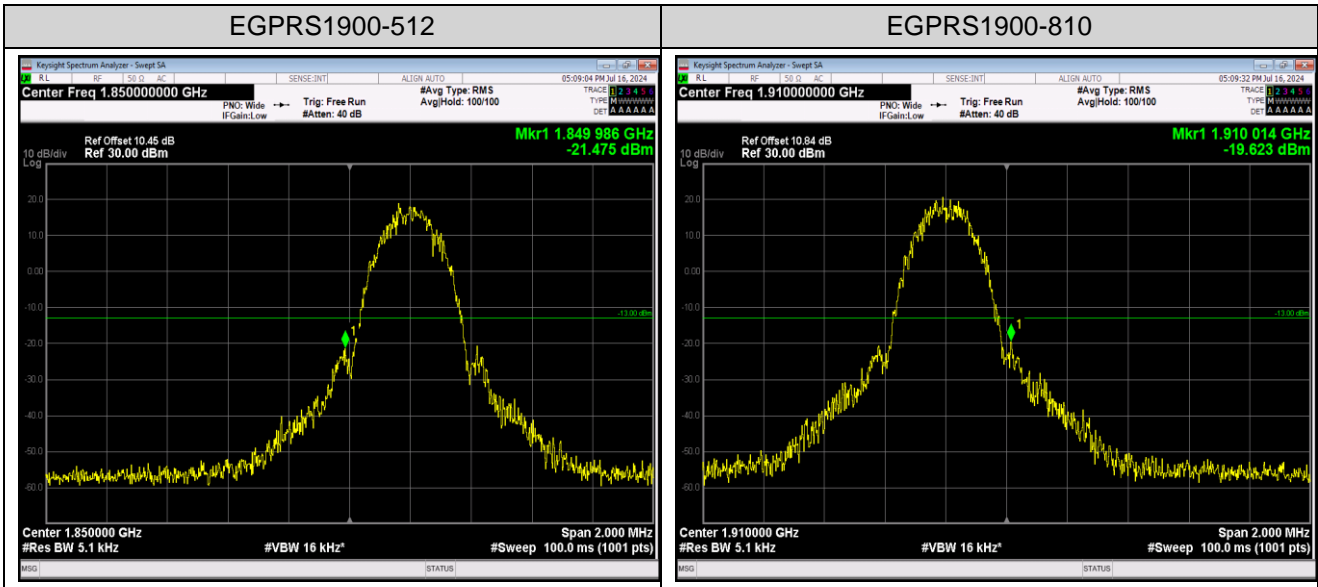
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.99	-23.64	-13	PASS
GSM850	251	5	849.02	-23.20	-13	PASS
EGPRS850	128	8	823.96	-32.92	-13	PASS
EGPRS850	251	8	849.03	-34.55	-13	PASS
GSM1900	512	0	1849.98	-28.24	-13	PASS
GSM1900	810	0	1910.01	-27.44	-13	PASS
EGPRS1900	512	2	1849.99	-21.48	-13	PASS
EGPRS1900	810	2	1910.01	-19.62	-13	PASS

Test Graphs





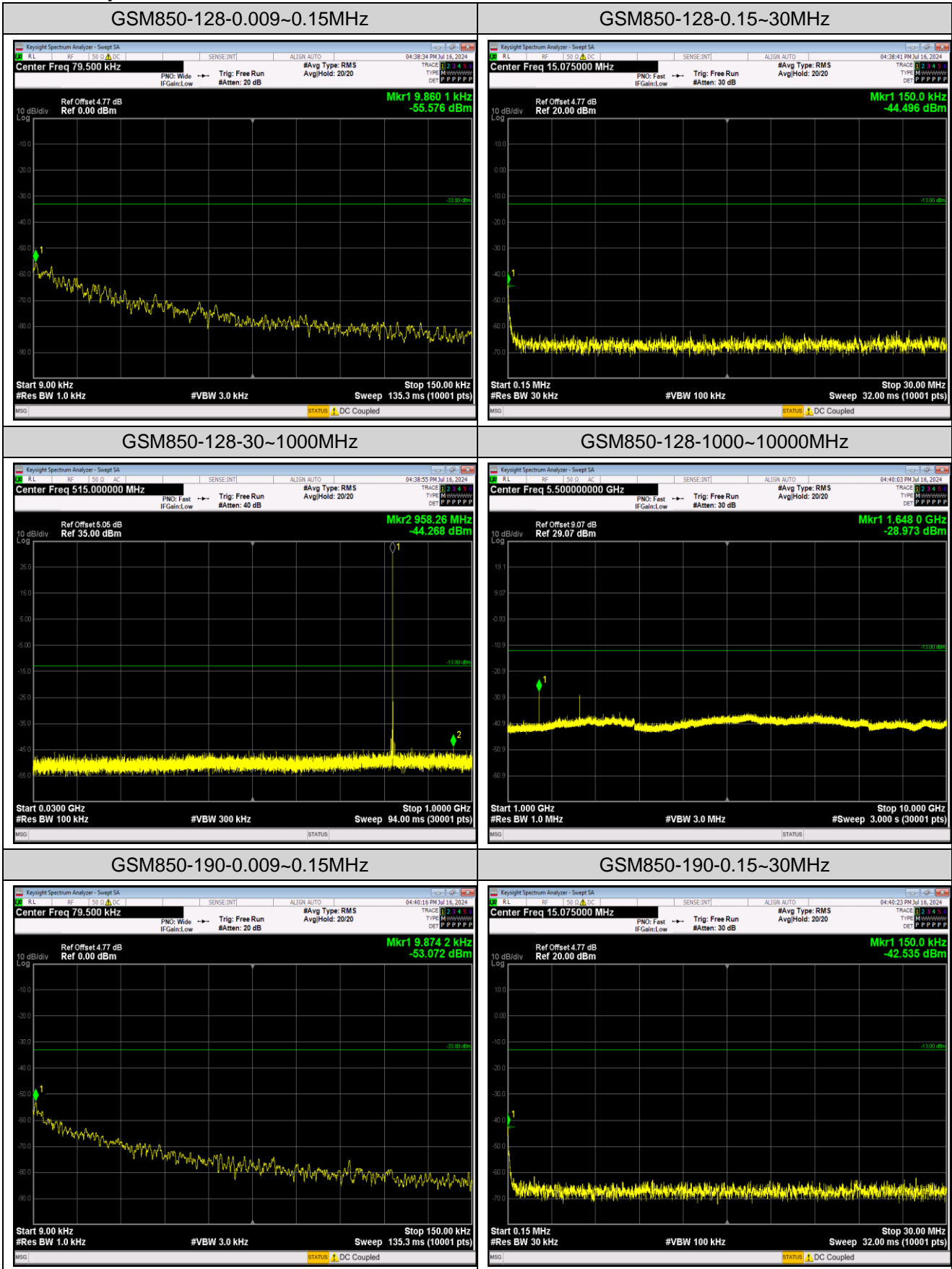
Appendix E: Conducted Spurious Emission

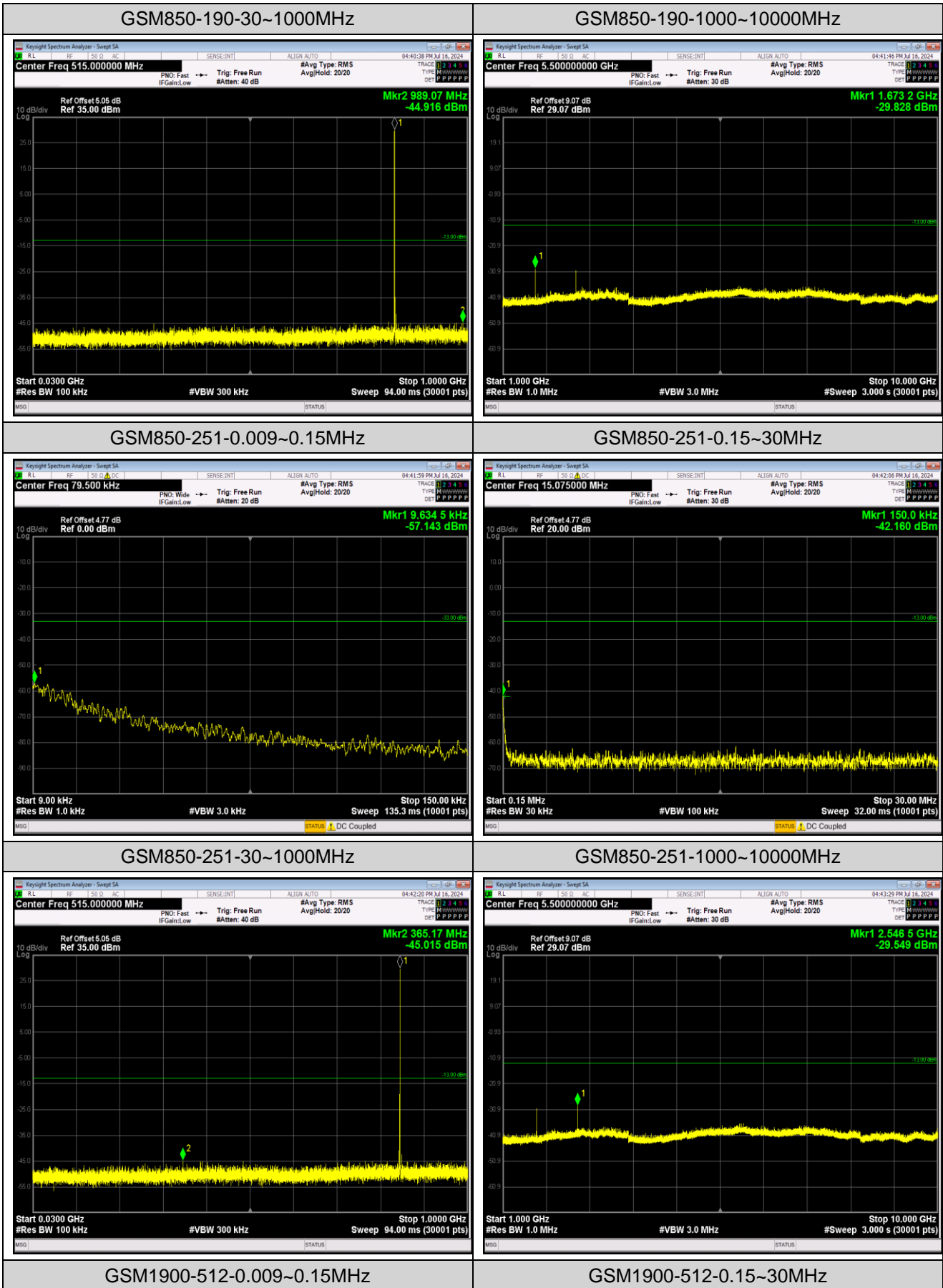
Test Result

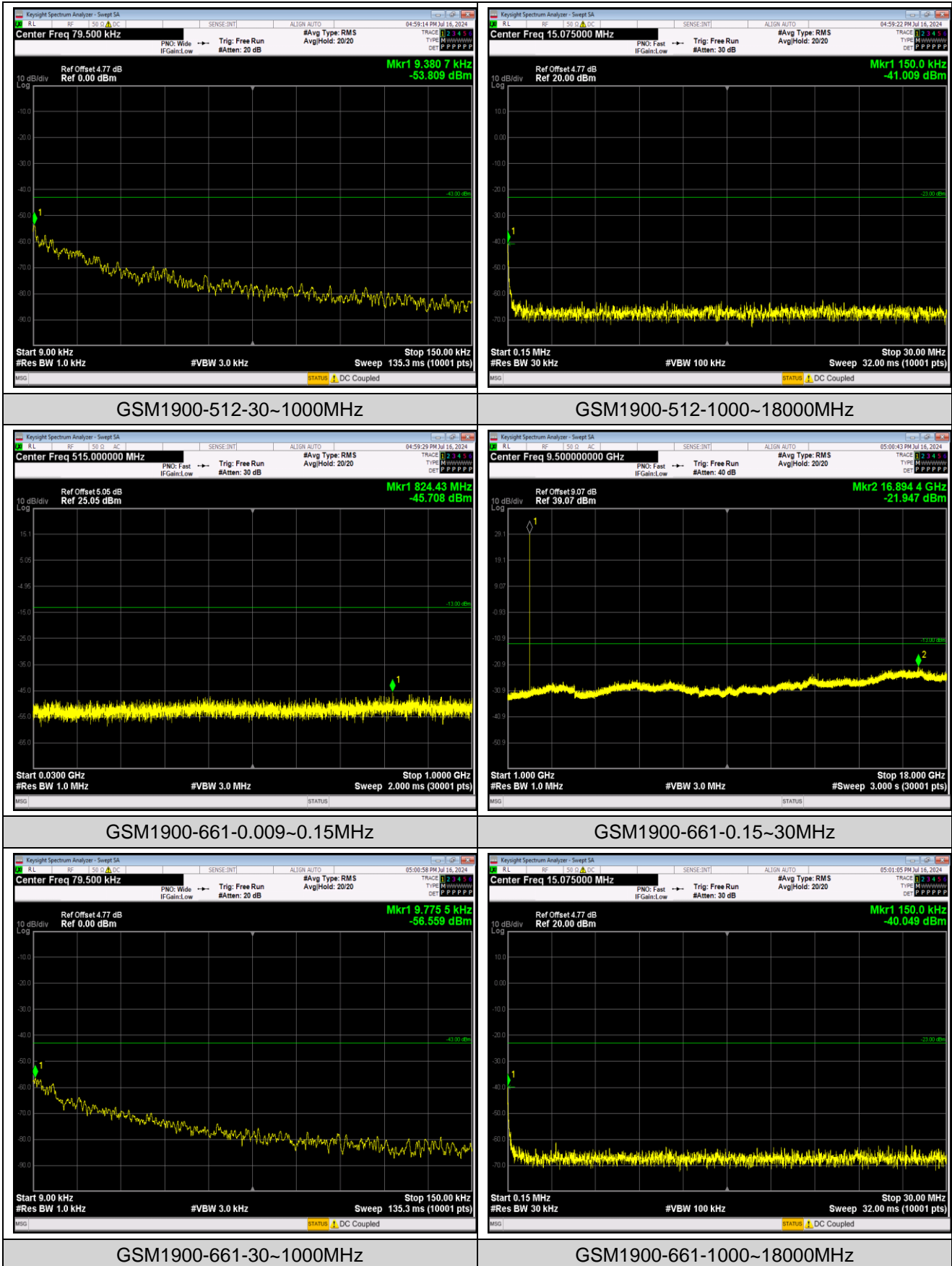
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.58	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-44.5	-13	PASS
GSM850	128	5	30~1000MHz	958.26	-44.27	-13	PASS
GSM850	128	5	1000~10000MHz	1648	-28.97	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.07	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-42.54	-13	PASS
GSM850	190	5	30~1000MHz	989.07	-44.92	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.83	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-57.14	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-42.16	-13	PASS
GSM850	251	5	30~1000MHz	365.17	-45.02	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-29.55	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-53.81	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-41.01	-23	PASS
GSM1900	512	0	30~1000MHz	824.43	-45.71	-13	PASS
GSM1900	512	0	1000~18000MHz	16894.43	-21.95	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.56	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-40.05	-23	PASS
GSM1900	661	0	30~1000MHz	486.13	-46.47	-13	PASS
GSM1900	661	0	1000~18000MHz	16057.47	-22.06	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.62	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-44.29	-23	PASS
GSM1900	810	0	30~1000MHz	888.71	-46.34	-13	PASS
GSM1900	810	0	1000~18000MHz	17012.87	-22	-13	PASS

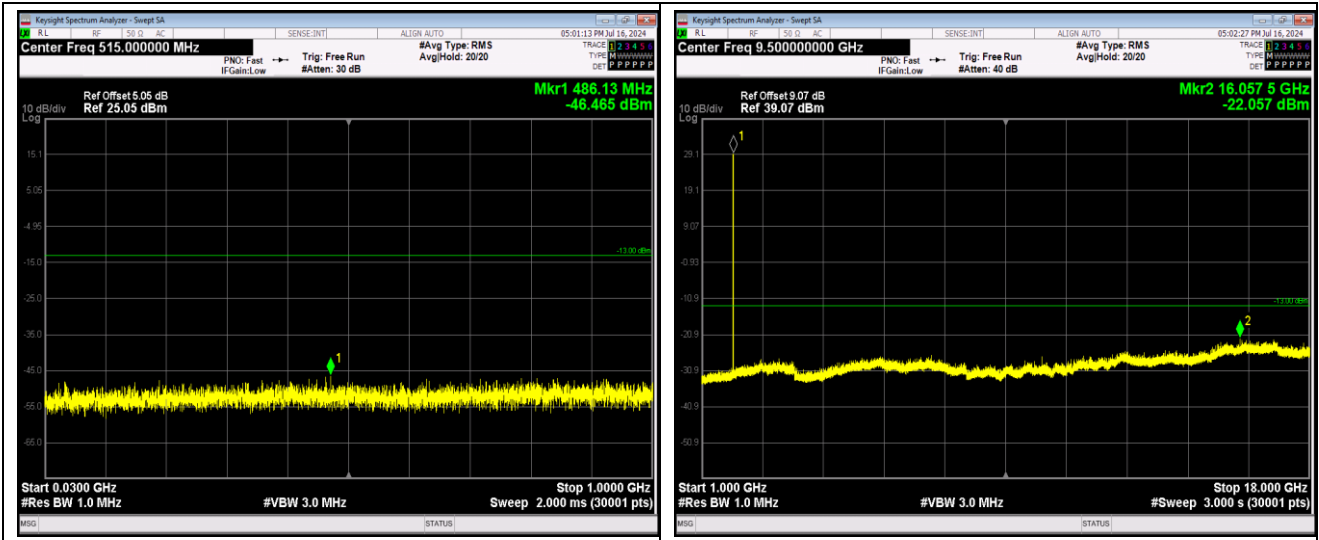
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs



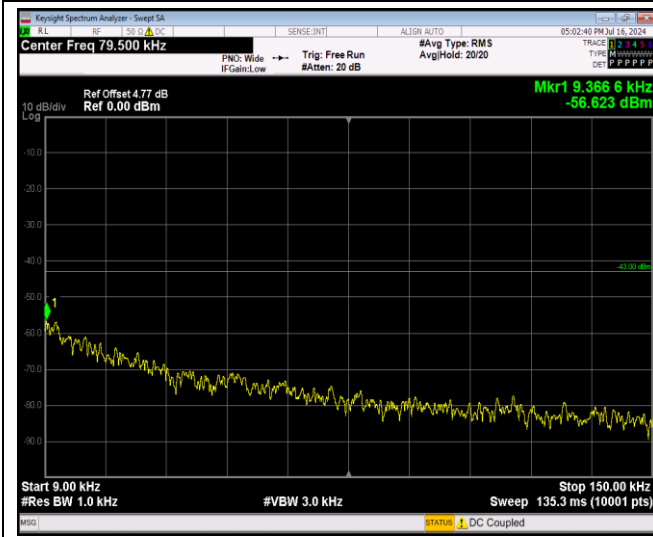




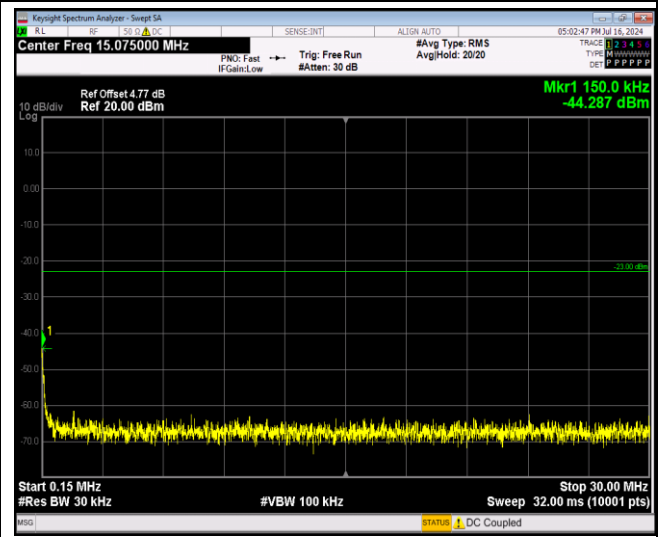


GSM1900-810-0.009~0.15MHz

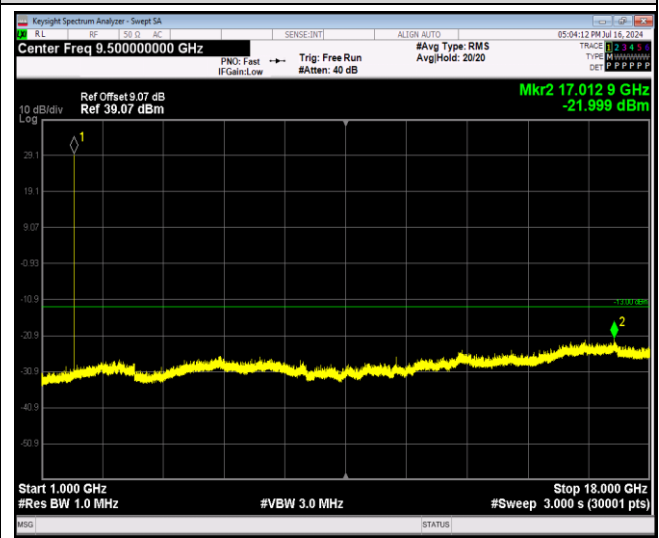
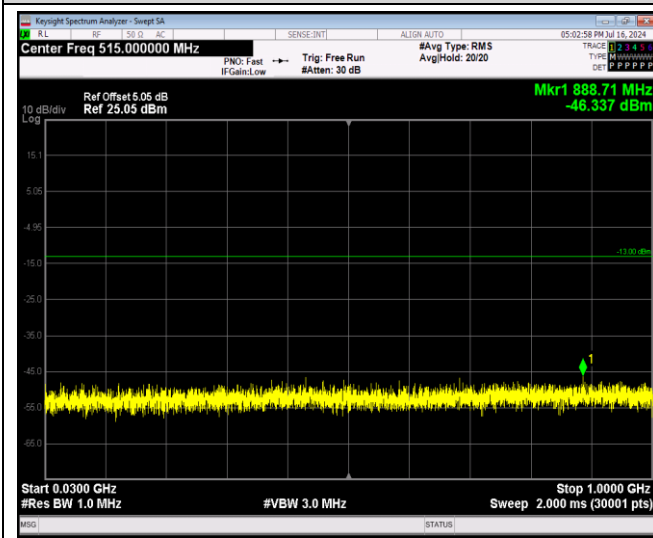
GSM1900-810-0.15~30MHz



GSM1900-810-30~100MHz



GSM1900-810-1000~1800MHz



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	3.52	0.004208	±2.5	Pass
	-20	6.01	0.007184		
	-10	9.07	0.010842		
	0	7.26	0.008678		
	10	5.65	0.006754		
	20	10.65	0.012730		
	30	10.85	0.012969		
	40	7.04	0.008415		
	50	8.81	0.010531		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-4.13	-0.004937	±2.5	Pass
	3.87	6.20	0.007411		
	4.45	5.55	0.006634		
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	3.91	0.004674	±2.5	Pass
	-20	0.06	0.000072		
	-10	1.26	0.001506		
	0	1.58	0.001889		
	10	4.00	0.004781		
	20	1.74	0.002080		
	30	4.42	0.005283		
	40	7.49	0.008953		
	50	8.75	0.010459		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	1.16	0.001387	±2.5	Pass
	3.87	0.42	0.000502		
	4.45	0.45	0.000538		
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	11.59	0.006165	Within authorized band for PCS 1900	Pass
	-20	13.01	0.006920		
	-10	13.66	0.007266		
	0	15.50	0.008245		
	10	11.49	0.006112		
	20	17.21	0.009154		
	30	18.60	0.009894		
	40	15.76	0.008383		
	50	10.01	0.005324		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	3.03	0.001612	Within authorized band for PCS 1900	Pass
	3.87	4.39	0.002335		
	4.45	-2.45	-0.001303		
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	-2.62	-0.001394	Within authorized band for PCS 1900	Pass
	-20	-5.81	-0.003090		
	-10	-7.81	-0.004154		
	0	-8.49	-0.004516		
	10	-8.94	-0.004755		
	20	-9.52	-0.005064		
	30	-7.23	-0.003846		
	40	-6.13	-0.003261		
	50	-0.90	-0.000479		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-6.72	-0.003574	Within authorized band for PCS 1900	Pass
	3.87	-5.04	-0.002681		
	4.45	-7.04	-0.003745		
<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

