

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	32.79	31.14	38.45	PASS
GSM850	190	5	32.84	31.19	38.45	PASS
GSM850	251	5	32.74	31.09	38.45	PASS
GSM1900	512	0	29.13	31.13	33.00	PASS
GSM1900	661	0	29.16	31.16	33.00	PASS
GSM1900	810	0	29.39	31.39	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.71	31.06	38.45	PASS
GPRS850	128	5	2	30.67	29.02	38.45	PASS
GPRS850	128	5	3	28.71	27.06	38.45	PASS
GPRS850	128	5	4	26.41	24.76	38.45	PASS
GPRS850	190	5	1	32.78	31.13	38.45	PASS
GPRS850	190	5	2	30.75	29.1	38.45	PASS
GPRS850	190	5	3	28.80	27.15	38.45	PASS
GPRS850	190	5	4	26.48	24.83	38.45	PASS
GPRS850	251	5	1	32.71	31.06	38.45	PASS
GPRS850	251	5	2	30.54	28.89	38.45	PASS
GPRS850	251	5	3	28.57	26.92	38.45	PASS
GPRS850	251	5	4	26.32	24.67	38.45	PASS
GPRS1900	512	0	1	29.24	31.24	33.00	PASS
GPRS1900	512	0	2	27.27	29.27	33.00	PASS
GPRS1900	512	0	3	25.69	27.69	33.00	PASS
GPRS1900	512	0	4	23.52	25.52	33.00	PASS
GPRS1900	661	0	1	29.32	31.32	33.00	PASS
GPRS1900	661	0	2	26.89	28.89	33.00	PASS
GPRS1900	661	0	3	25.28	27.28	33.00	PASS
GPRS1900	661	0	4	23.17	25.17	33.00	PASS
GPRS1900	810	0	1	29.49	31.49	33.00	PASS
GPRS1900	810	0	2	26.67	28.67	33.00	PASS
GPRS1900	810	0	3	25.05	27.05	33.00	PASS
GPRS1900	810	0	4	22.90	24.9	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.69	26.04	38.45	PASS
EGPRS850	128	8	2	26.17	24.52	38.45	PASS
EGPRS850	128	8	3	23.90	22.25	38.45	PASS
EGPRS850	128	8	4	21.43	19.78	38.45	PASS
EGPRS850	190	8	1	27.81	26.16	38.45	PASS
EGPRS850	190	8	2	26.36	24.71	38.45	PASS
EGPRS850	190	8	3	24.09	22.44	38.45	PASS
EGPRS850	190	8	4	21.57	19.92	38.45	PASS
EGPRS850	251	8	1	27.69	26.04	38.45	PASS
EGPRS850	251	8	2	26.27	24.62	38.45	PASS
EGPRS850	251	8	3	23.99	22.34	38.45	PASS
EGPRS850	251	8	4	21.45	19.8	38.45	PASS
EGPRS1900	512	2	1	26.78	28.78	33.00	PASS
EGPRS1900	512	2	2	25.06	27.06	33.00	PASS
EGPRS1900	512	2	3	23.51	25.51	33.00	PASS
EGPRS1900	512	2	4	20.45	22.45	33.00	PASS
EGPRS1900	661	2	1	26.88	28.88	33.00	PASS
EGPRS1900	661	2	2	25.25	27.25	33.00	PASS
EGPRS1900	661	2	3	23.97	25.97	33.00	PASS
EGPRS1900	661	2	4	22.08	24.08	33.00	PASS
EGPRS1900	810	2	1	26.14	28.14	33.00	PASS
EGPRS1900	810	2	2	24.50	26.5	33.00	PASS
EGPRS1900	810	2	3	23.73	25.73	33.00	PASS
EGPRS1900	810	2	4	21.55	23.55	33.00	PASS

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

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

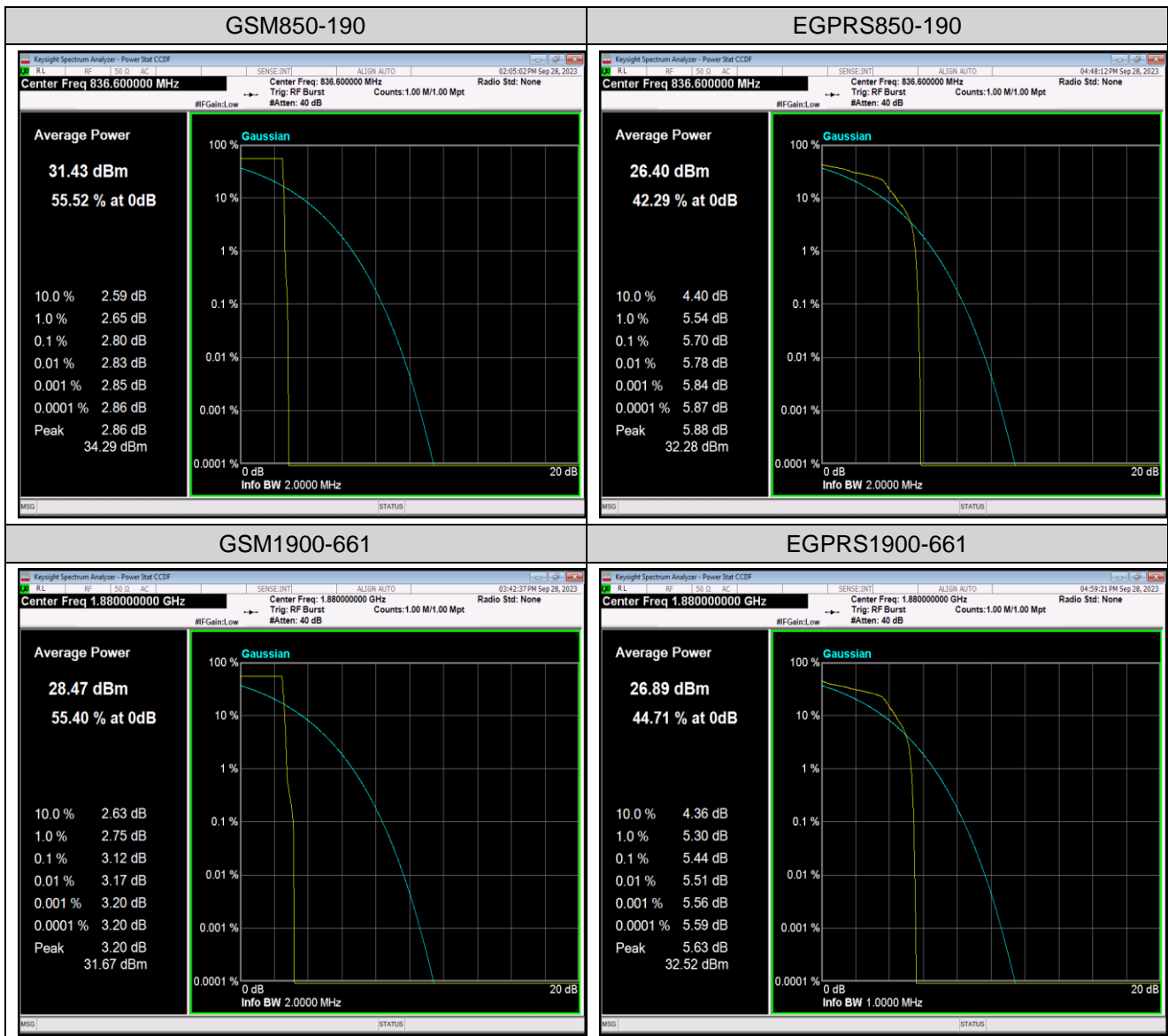
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.8	13	PASS
EGPRS850	190	8	5.7	13	PASS
GSM1900	661	0	3.12	13	PASS
EGPRS1900	661	2	5.44	13	PASS

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

Test Graphs

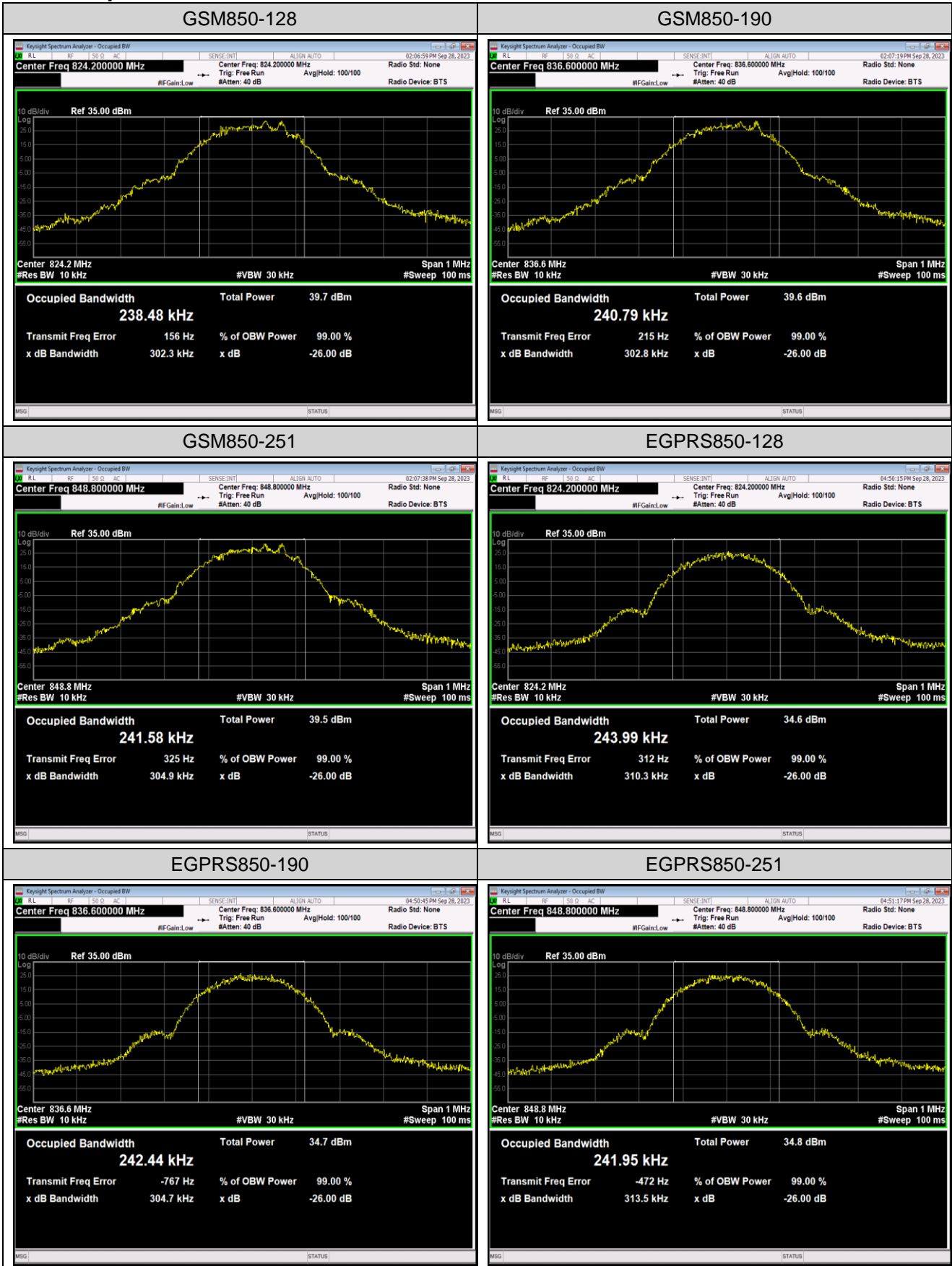


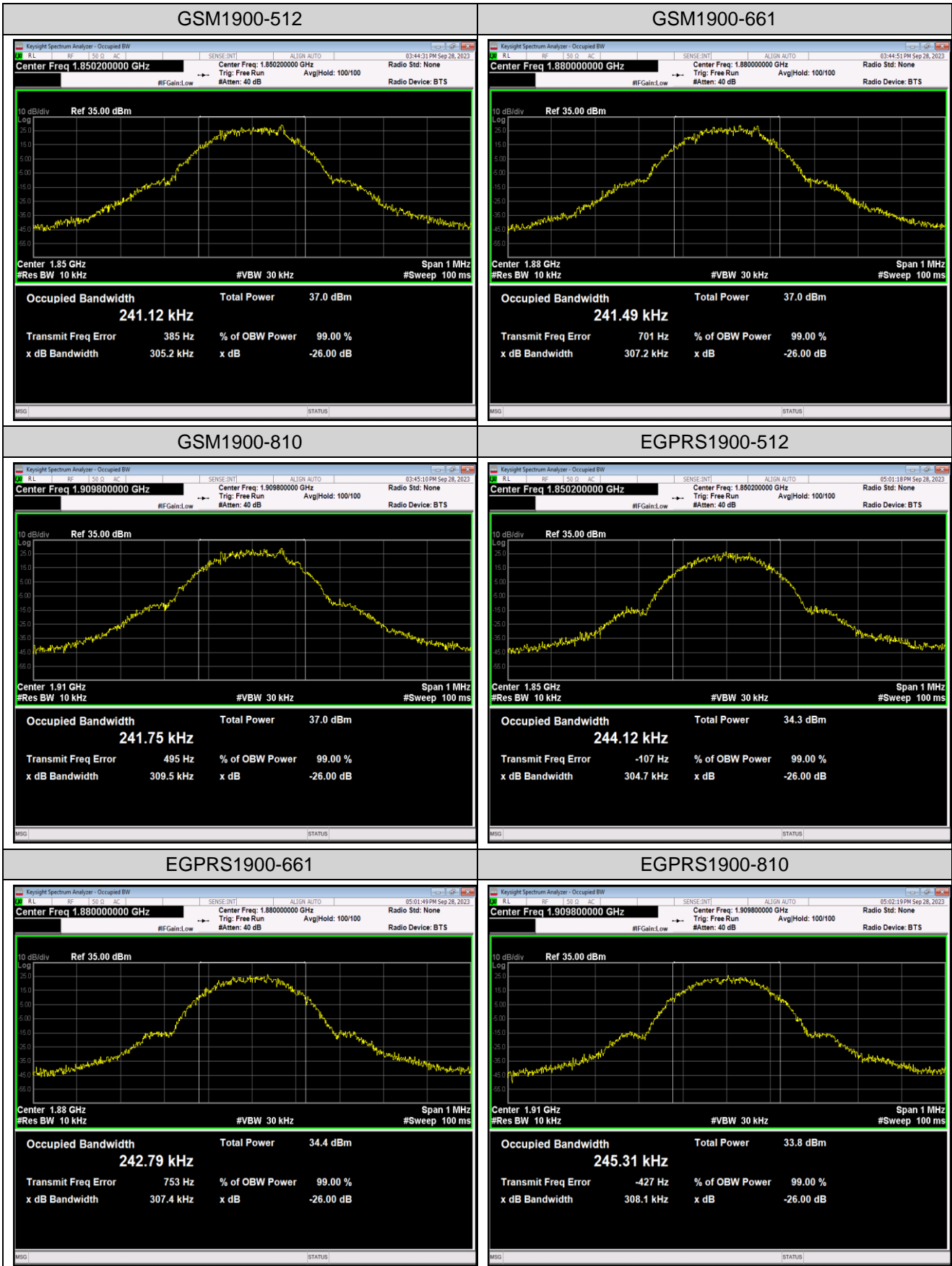
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.23848	0.3023	---	PASS
GSM850	190	5	0.24079	0.3028	---	PASS
GSM850	251	5	0.24158	0.3049	---	PASS
EGPRS850	128	8	0.24399	0.3103	---	PASS
EGPRS850	190	8	0.24244	0.3047	---	PASS
EGPRS850	251	8	0.24195	0.3135	---	PASS
GSM1900	512	0	0.24112	0.3052	---	PASS
GSM1900	661	0	0.24149	0.3072	---	PASS
GSM1900	810	0	0.24175	0.3095	---	PASS
EGPRS1900	512	2	0.24412	0.3047	---	PASS
EGPRS1900	661	2	0.24279	0.3074	---	PASS
EGPRS1900	810	2	0.24531	0.3081	---	PASS

Test Graphs



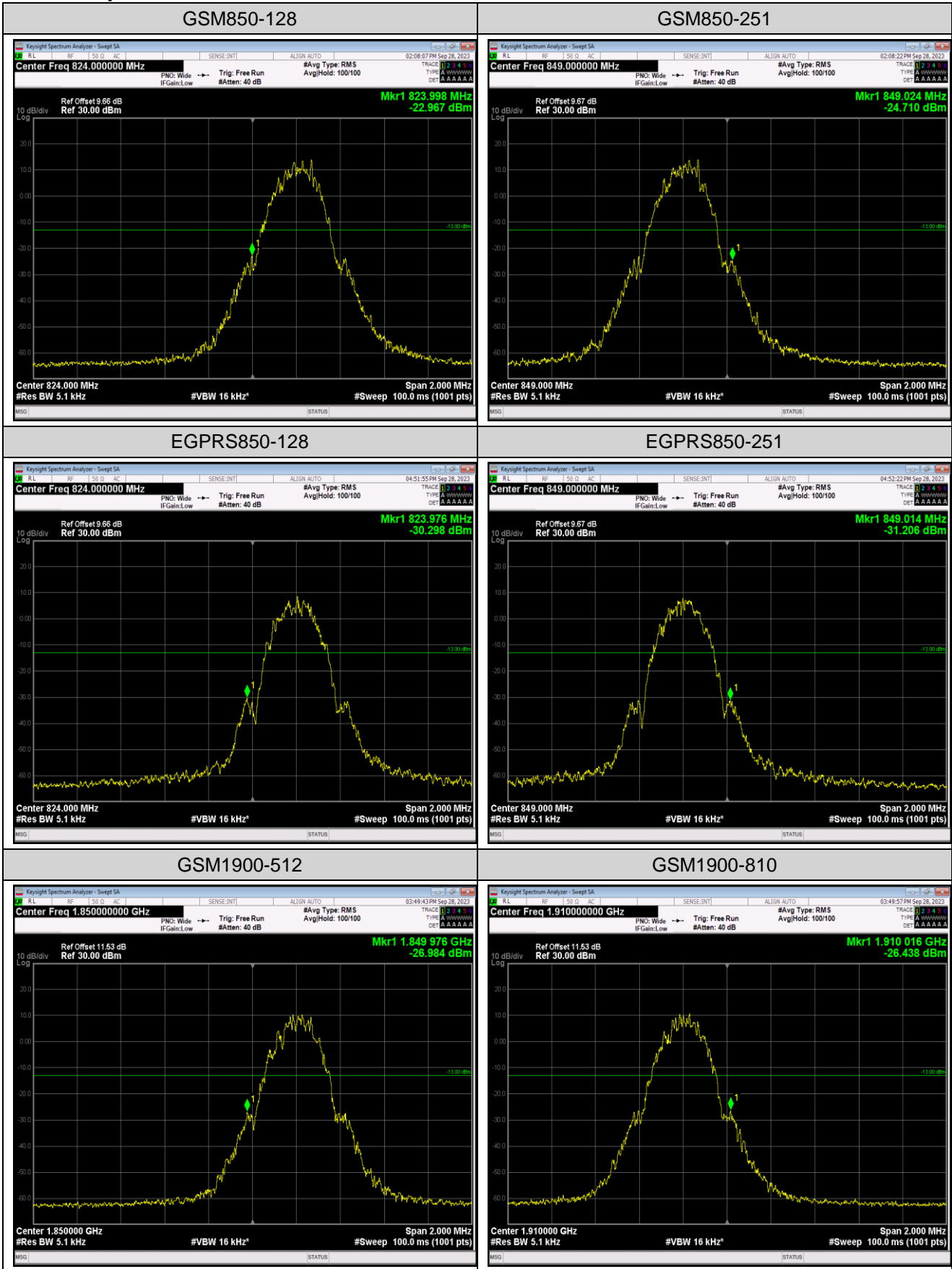


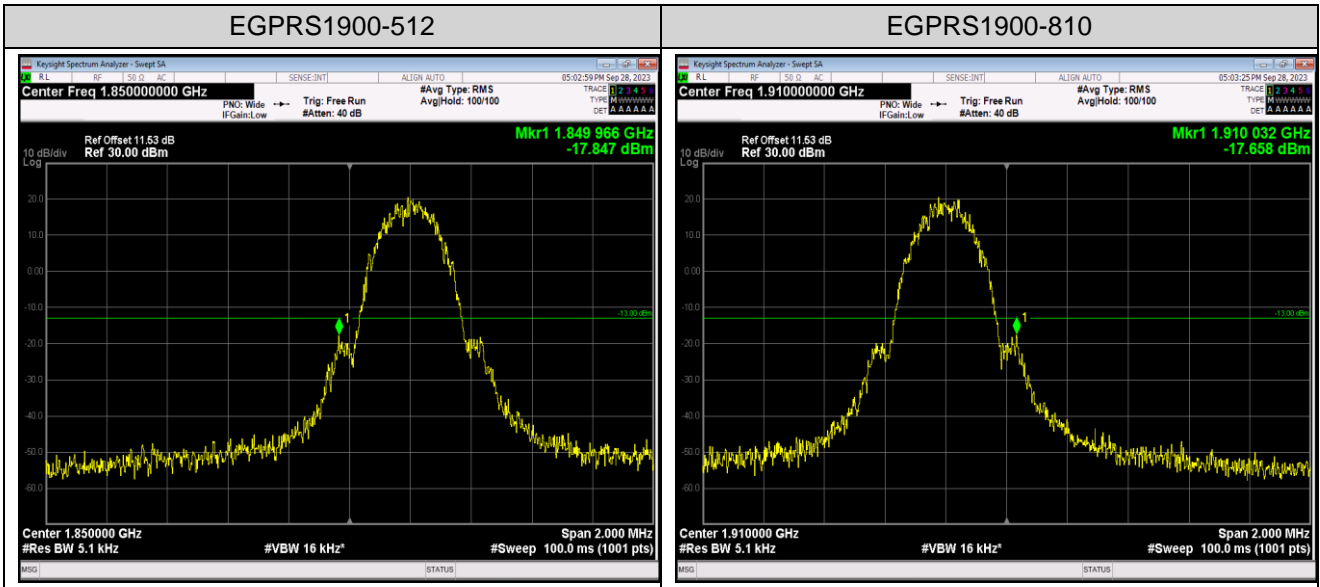
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-22.97	-13	PASS
GSM850	251	5	849.02	-24.71	-13	PASS
EGPRS850	128	8	823.98	-30.30	-13	PASS
EGPRS850	251	8	849.01	-31.21	-13	PASS
GSM1900	512	0	1849.98	-26.98	-13	PASS
GSM1900	810	0	1910.02	-26.44	-13	PASS
EGPRS1900	512	2	1849.97	-17.85	-13	PASS
EGPRS1900	810	2	1910.03	-17.66	-13	PASS

Test Graphs





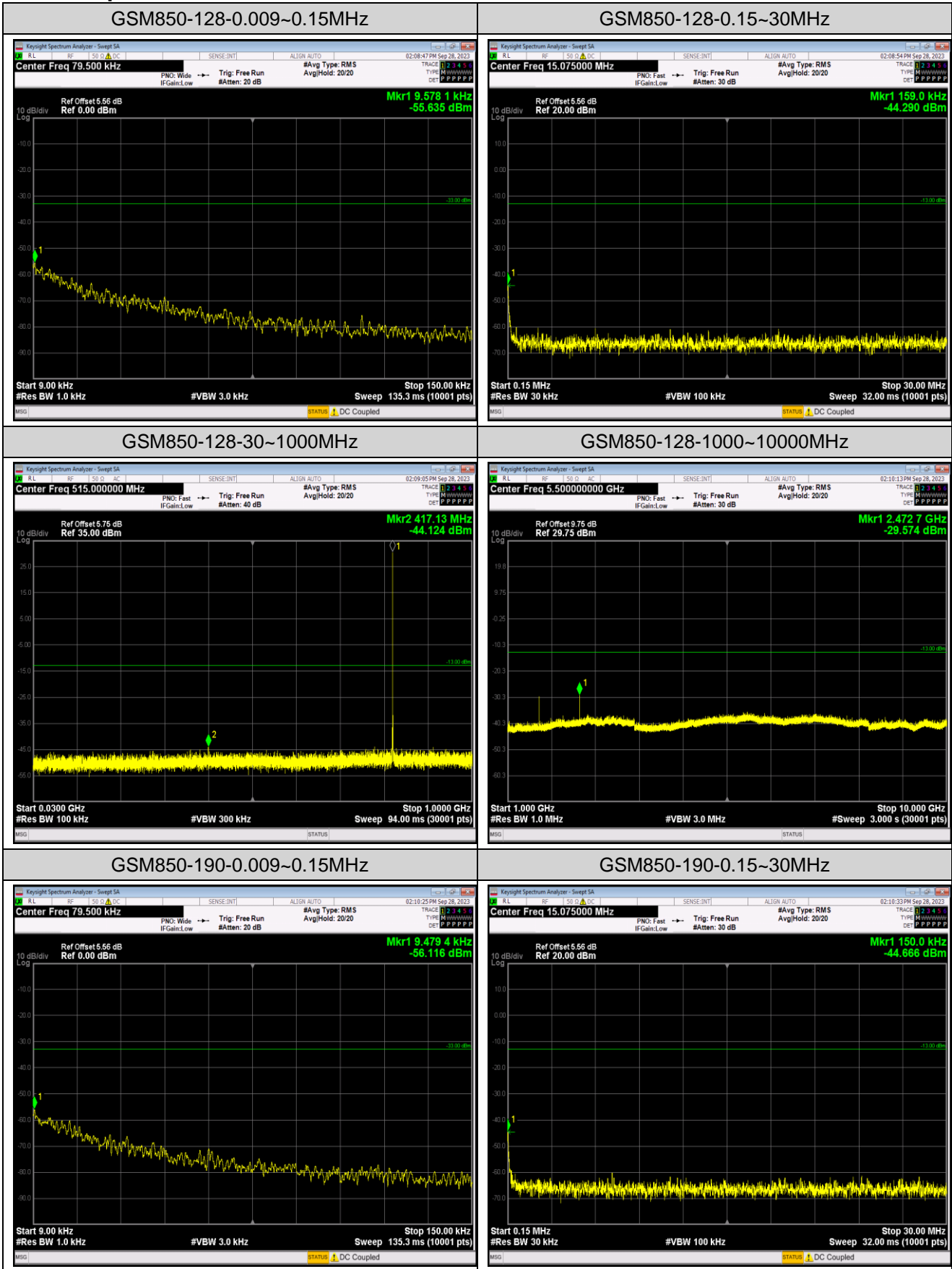
Appendix E: Conducted Spurious Emission

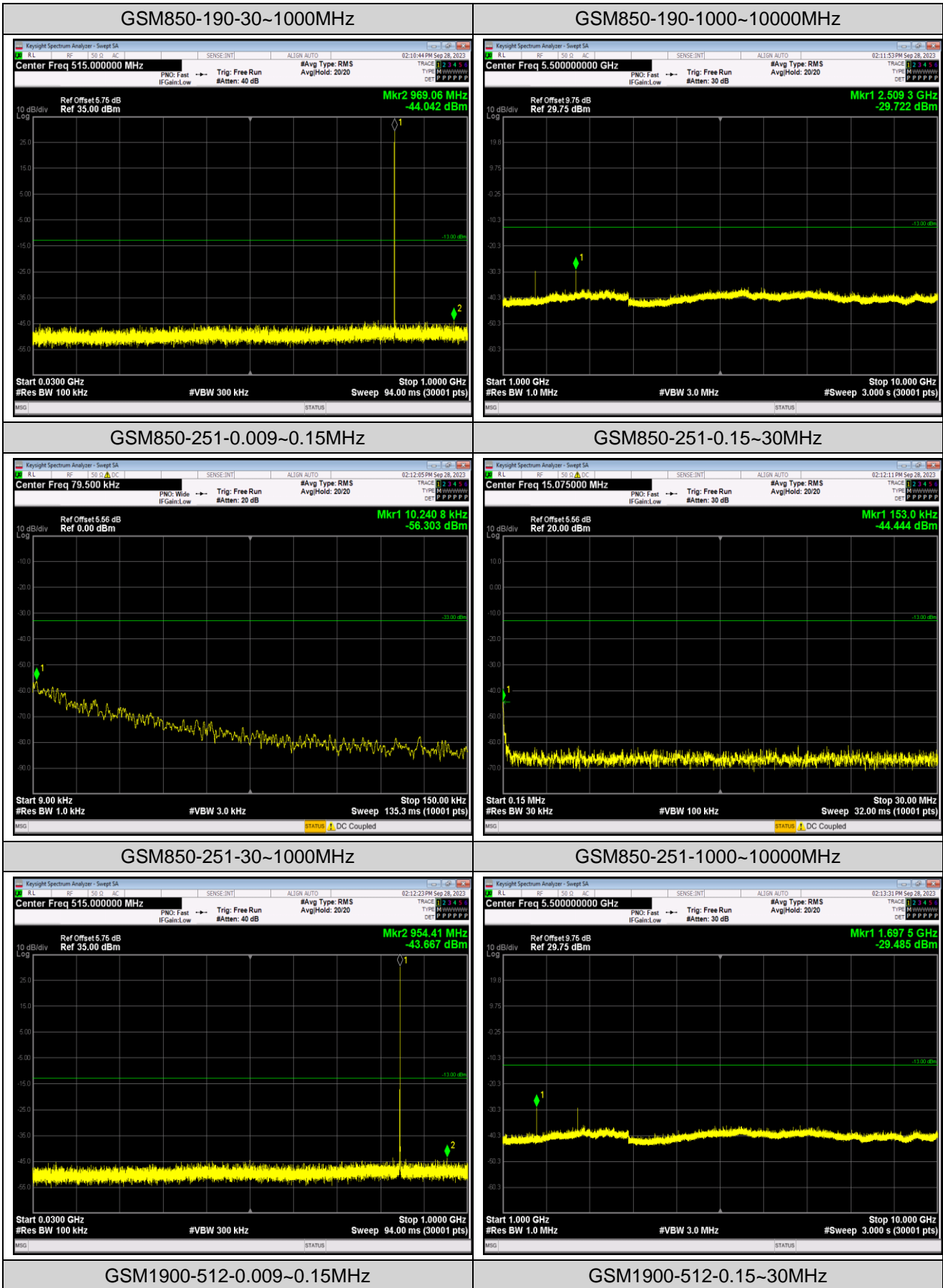
Test Result

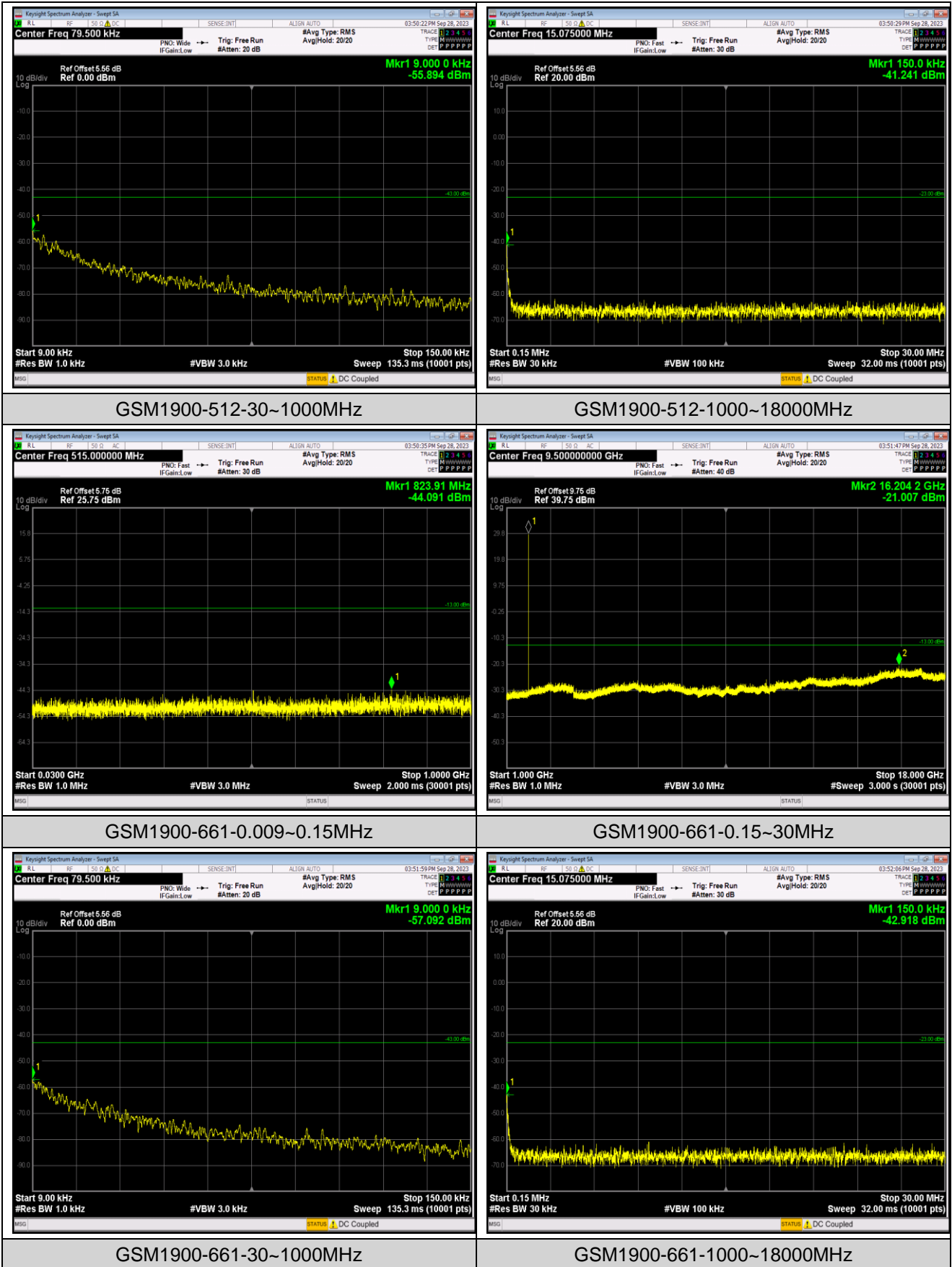
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-55.64	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-44.29	-13	PASS
GSM850	128	5	30~1000MHz	417.13	-44.12	-13	PASS
GSM850	128	5	1000~10000MHz	2472.7	-29.57	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-56.12	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-44.67	-13	PASS
GSM850	190	5	30~1000MHz	969.06	-44.04	-13	PASS
GSM850	190	5	1000~10000MHz	2509.3	-29.72	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-56.3	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-44.44	-13	PASS
GSM850	251	5	30~1000MHz	954.41	-43.67	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-29.49	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-55.89	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-41.24	-23	PASS
GSM1900	512	0	30~1000MHz	823.91	-44.09	-13	PASS
GSM1900	512	0	1000~18000MHz	16204.23	-21.01	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.09	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-42.92	-23	PASS
GSM1900	661	0	30~1000MHz	787.21	-44.45	-13	PASS
GSM1900	661	0	1000~18000MHz	17046.3	-21.67	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.61	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-44.03	-23	PASS
GSM1900	810	0	30~1000MHz	770.6	-45.14	-13	PASS
GSM1900	810	0	1000~18000MHz	17032.13	-21.89	-13	PASS

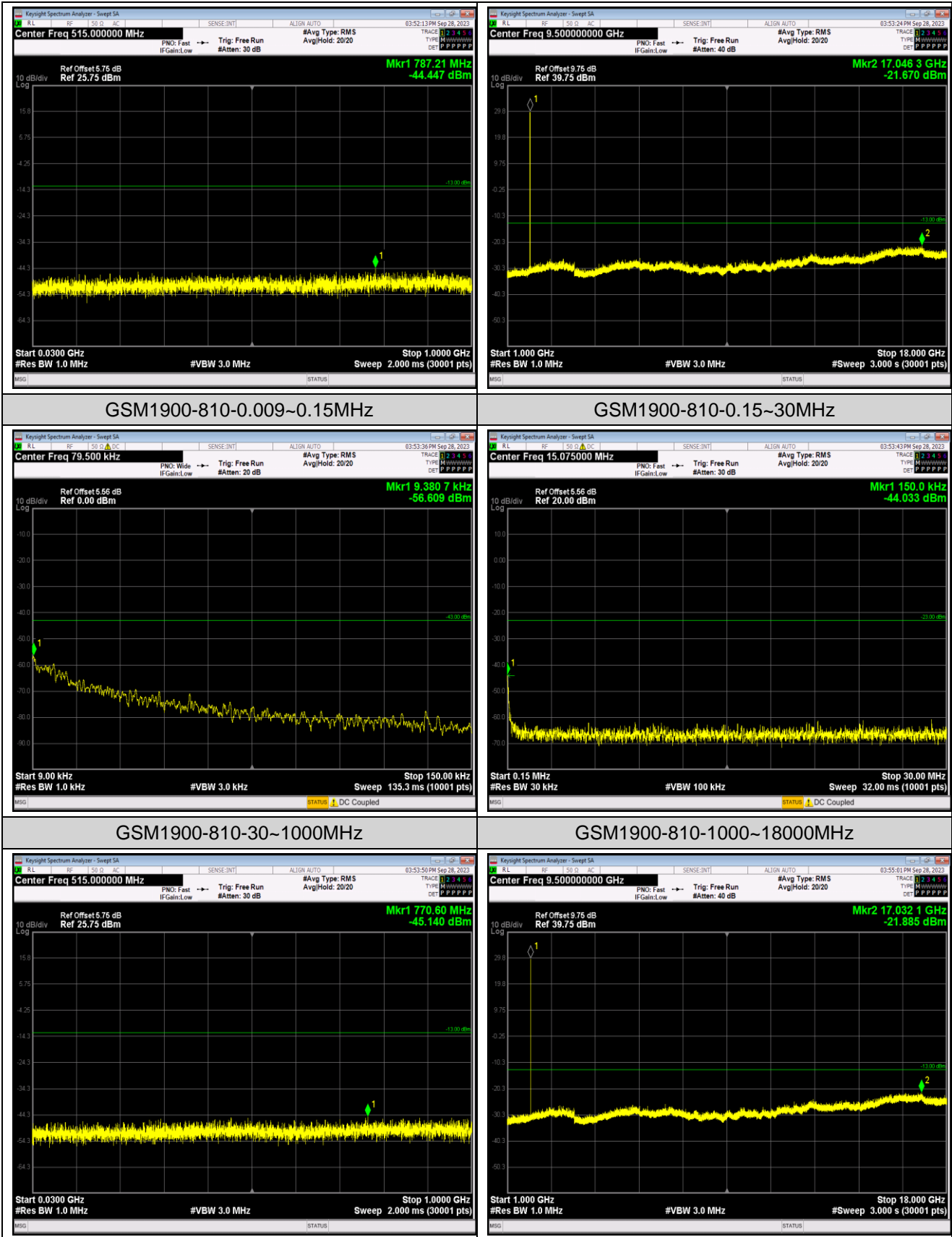
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

Test Graphs









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		
3.70	-30	2.16	0.002582	±2.5	Pass
	-20	2.29	0.002737		
	-10	-2.58	-0.003084		
	0	-8.49	-0.010148		
	10	9.94	0.011881		
	20	0.97	0.001159		
	30	-0.68	-0.000813		
	40	3.16	0.003777		
	50	-1.81	-0.002164		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.33	6.33	0.007566	±2.5	Pass
	3.70	5.23	0.006251		
	4.07	1.61	0.001924		
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		
3.70	-30	3.97	0.004745	±2.5	Pass
	-20	5.81	0.006945		
	-10	2.91	0.003478		
	0	2.52	0.003012		
	10	4.81	0.005749		
	20	7.01	0.008379		
	30	9.94	0.011881		
	40	11.33	0.013543		
	50	10.43	0.012467		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.33	4.97	0.005941	±2.5	Pass
	3.70	10.49	0.012539		
	4.07	8.85	0.010579		
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		
3.70	-30	4.97	0.002644	Within authorized band for PCS 1900	Pass
	-20	9.85	0.005239		
	-10	8.68	0.004617		
	0	12.62	0.006713		
	10	9.52	0.005064		
	20	11.30	0.006011		
	30	11.17	0.005941		
	40	6.20	0.003298		
	50	2.81	0.001495		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.33	0.36	0.000191	Within authorized band for PCS 1900	Pass
	3.70	-3.36	-0.001787		
	4.07	1.36	0.000723		
<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		
3.70	-30	18.56	0.009872	Within authorized band for PCS 1900	Pass
	-20	5.20	0.002766		
	-10	6.84	0.003638		
	0	2.23	0.001186		
	10	-7.14	-0.003798		
	20	-5.59	-0.002973		
	30	-0.90	-0.000479		
	40	1.10	0.000585		
	50	-2.07	-0.001101		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.33	6.20	0.003298	Within authorized band for PCS 1900	Pass
	3.70	18.56	0.009872		
	4.07	18.21	0.009686		
<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

