

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	33.05	30.19	38.45	PASS
GSM850	190	5	33.15	30.29	38.45	PASS
GSM850	251	5	33.13	30.27	38.45	PASS
GSM1900	512	0	29.91	30.73	33.00	PASS
GSM1900	661	0	29.97	30.79	33.00	PASS
GSM1900	810	0	30.09	30.91	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.03	30.17	38.45	PASS
GPRS850	128	5	2	32.44	29.58	38.45	PASS
GPRS850	128	5	3	30.83	27.97	38.45	PASS
GPRS850	128	5	4	29.83	26.97	38.45	PASS
GPRS850	190	5	1	33.13	30.27	38.45	PASS
GPRS850	190	5	2	32.47	29.61	38.45	PASS
GPRS850	190	5	3	30.82	27.96	38.45	PASS
GPRS850	190	5	4	29.80	26.94	38.45	PASS
GPRS850	251	5	1	33.10	30.24	38.45	PASS
GPRS850	251	5	2	32.41	29.55	38.45	PASS
GPRS850	251	5	3	30.75	27.89	38.45	PASS
GPRS850	251	5	4	29.70	26.84	38.45	PASS
GPRS1900	512	0	1	29.87	30.69	33.00	PASS
GPRS1900	512	0	2	28.91	29.73	33.00	PASS
GPRS1900	512	0	3	26.83	27.65	33.00	PASS
GPRS1900	512	0	4	25.72	26.54	33.00	PASS
GPRS1900	661	0	1	29.91	30.73	33.00	PASS
GPRS1900	661	0	2	28.93	29.75	33.00	PASS
GPRS1900	661	0	3	26.84	27.66	33.00	PASS
GPRS1900	661	0	4	25.72	26.54	33.00	PASS
GPRS1900	810	0	1	30.03	30.85	33.00	PASS
GPRS1900	810	0	2	29.09	29.91	33.00	PASS
GPRS1900	810	0	3	27.03	27.85	33.00	PASS
GPRS1900	810	0	4	25.92	26.74	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.62	23.76	38.45	PASS
EGPRS850	128	8	2	25.56	22.70	38.45	PASS
EGPRS850	128	8	3	23.52	20.66	38.45	PASS
EGPRS850	128	8	4	22.51	19.65	38.45	PASS
EGPRS850	190	8	1	26.51	23.65	38.45	PASS
EGPRS850	190	8	2	25.50	22.64	38.45	PASS
EGPRS850	190	8	3	23.47	20.61	38.45	PASS
EGPRS850	190	8	4	22.39	19.53	38.45	PASS
EGPRS850	251	8	1	26.50	23.64	38.45	PASS
EGPRS850	251	8	2	25.47	22.61	38.45	PASS
EGPRS850	251	8	3	23.40	20.54	38.45	PASS
EGPRS850	251	8	4	22.36	19.50	38.45	PASS
EGPRS1900	512	2	1	26.15	26.97	33.00	PASS
EGPRS1900	512	2	2	25.17	25.99	33.00	PASS
EGPRS1900	512	2	3	23.17	23.99	33.00	PASS
EGPRS1900	512	2	4	22.03	22.85	33.00	PASS
EGPRS1900	661	2	1	25.46	26.28	33.00	PASS
EGPRS1900	661	2	2	24.43	25.25	33.00	PASS
EGPRS1900	661	2	3	22.43	23.25	33.00	PASS
EGPRS1900	661	2	4	21.24	22.06	33.00	PASS
EGPRS1900	810	2	1	25.53	26.35	33.00	PASS
EGPRS1900	810	2	2	24.58	25.40	33.00	PASS
EGPRS1900	810	2	3	22.52	23.34	33.00	PASS
EGPRS1900	810	2	4	21.35	22.17	33.00	PASS

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

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

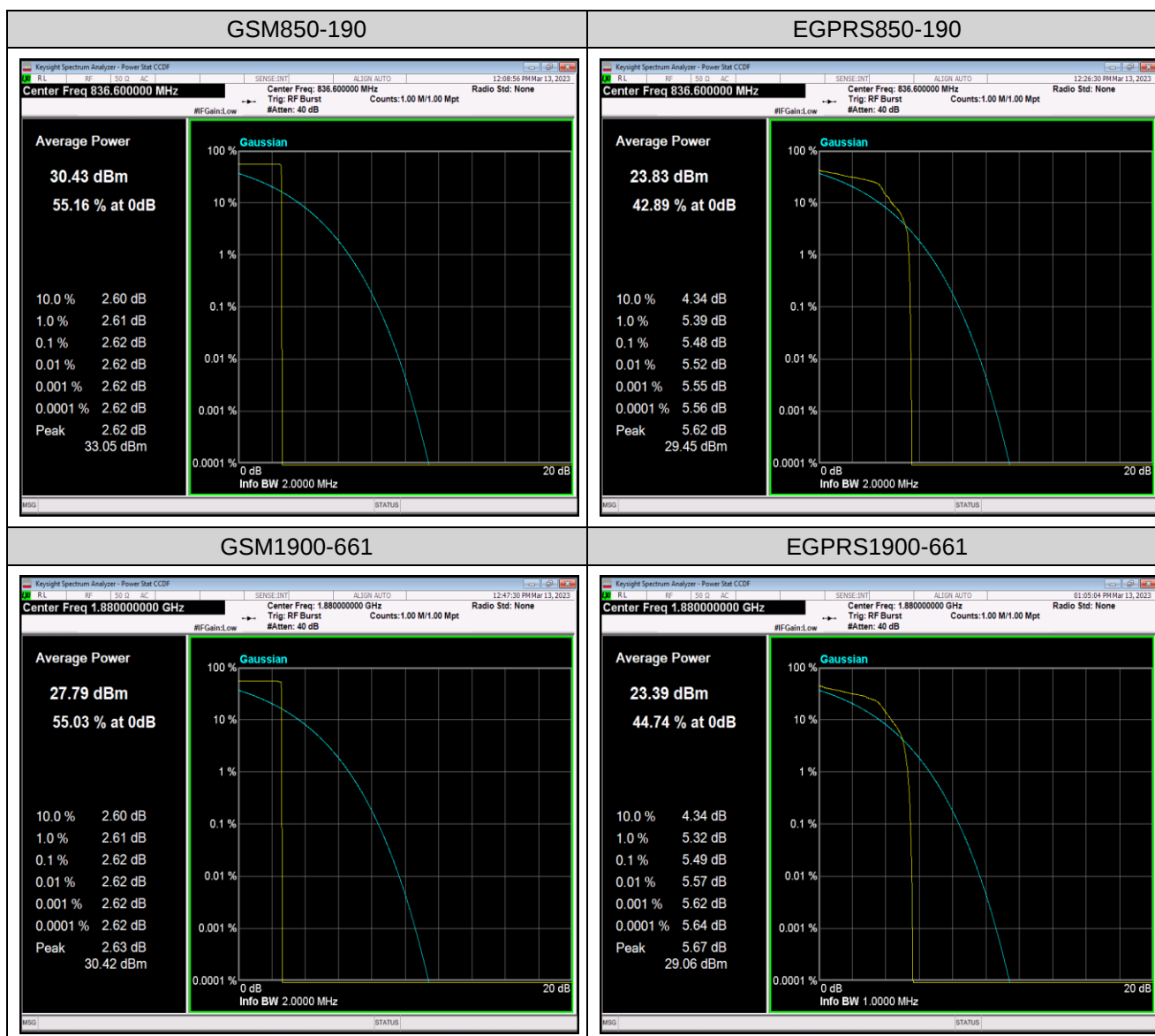
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.48	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.49	13	PASS

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

Test Graphs

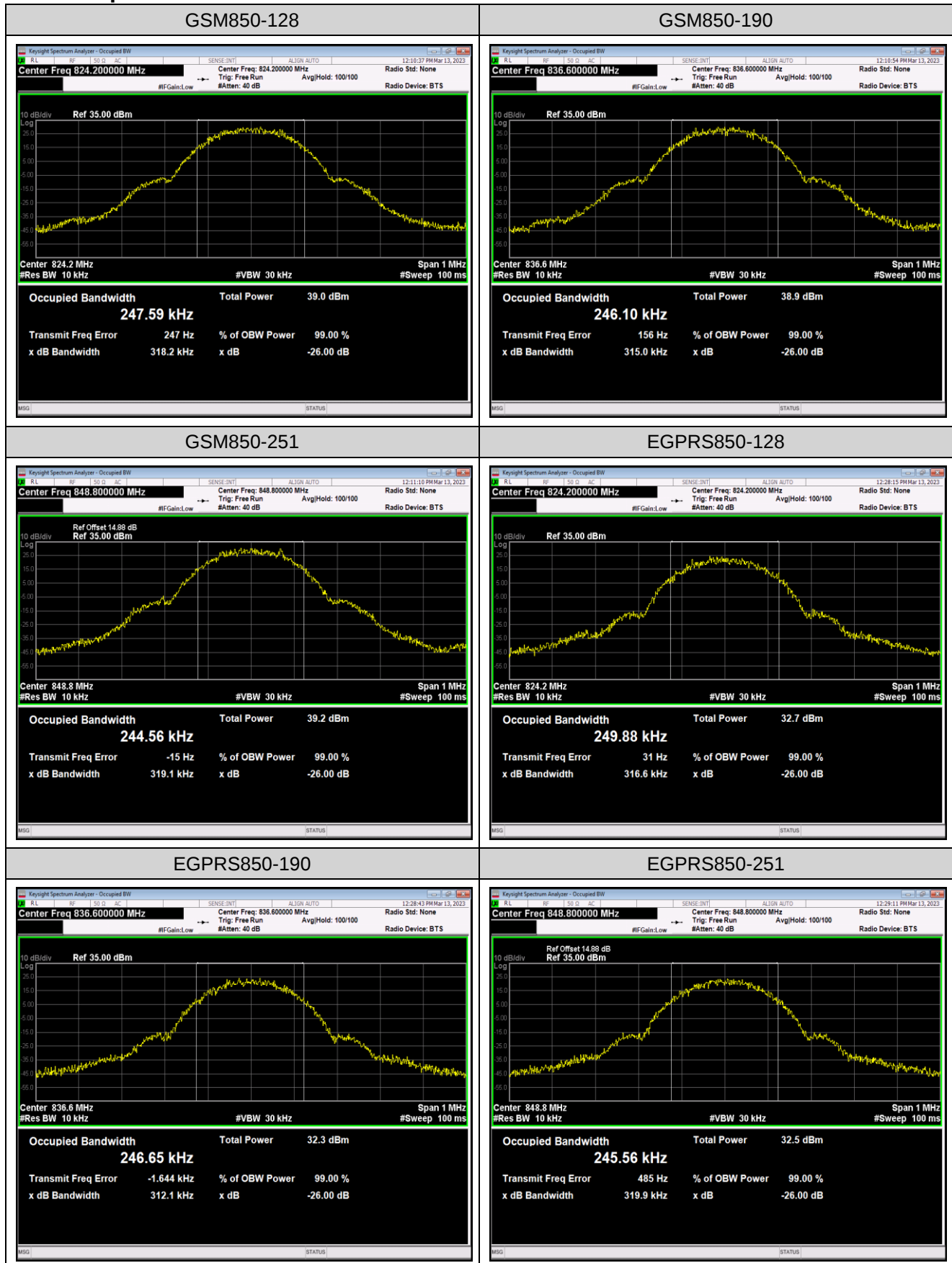


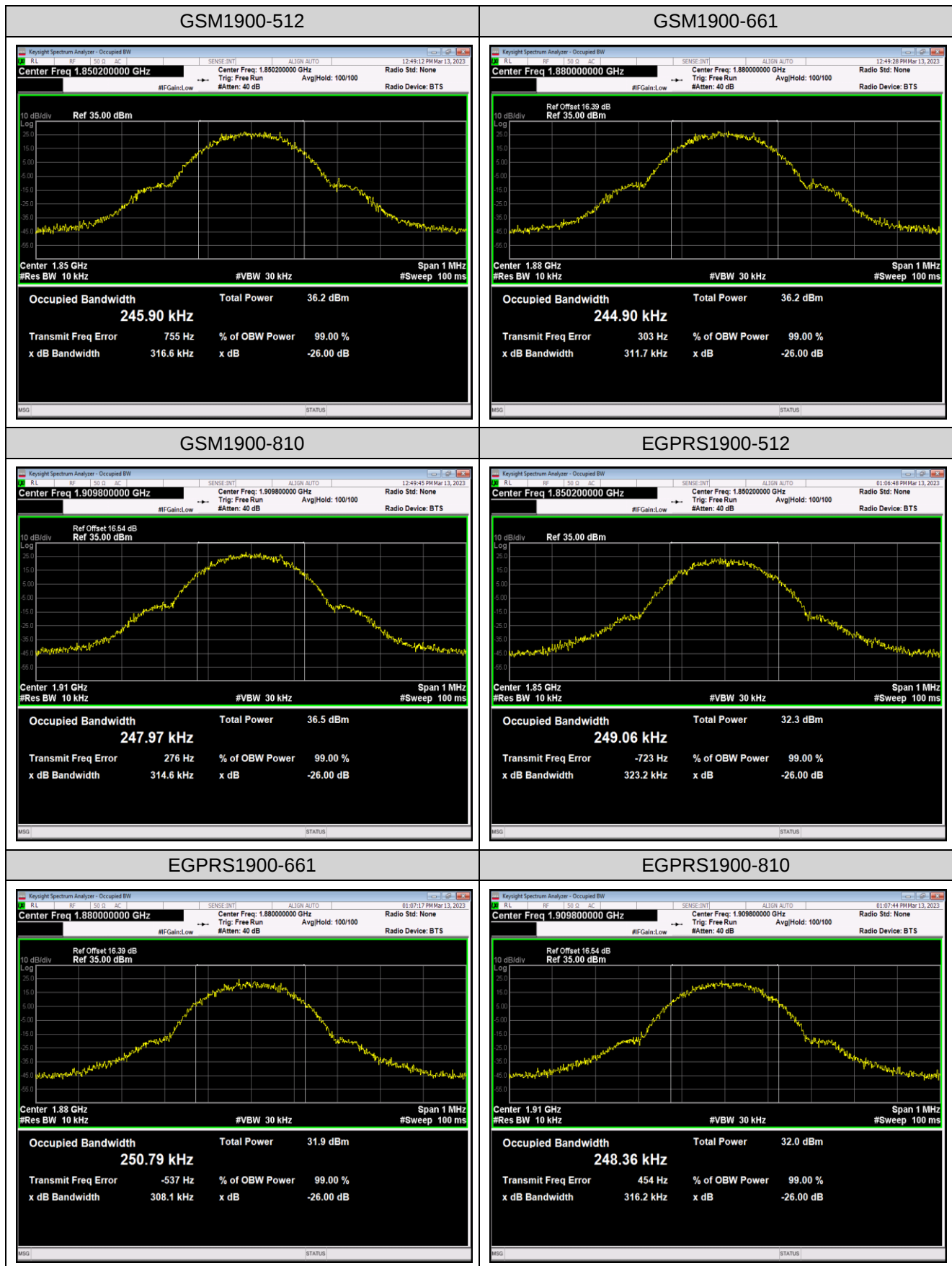
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24759	0.3182	---	PASS
GSM850	190	5	0.24610	0.3150	---	PASS
GSM850	251	5	0.24456	0.3191	---	PASS
EGPRS850	128	8	0.24988	0.3166	---	PASS
EGPRS850	190	8	0.24665	0.3121	---	PASS
EGPRS850	251	8	0.24556	0.3199	---	PASS
GSM1900	512	0	0.24590	0.3166	---	PASS
GSM1900	661	0	0.24490	0.3117	---	PASS
GSM1900	810	0	0.24797	0.3146	---	PASS
EGPRS1900	512	2	0.24906	0.3232	---	PASS
EGPRS1900	661	2	0.25079	0.3081	---	PASS
EGPRS1900	810	2	0.24836	0.3162	---	PASS

Test Graphs



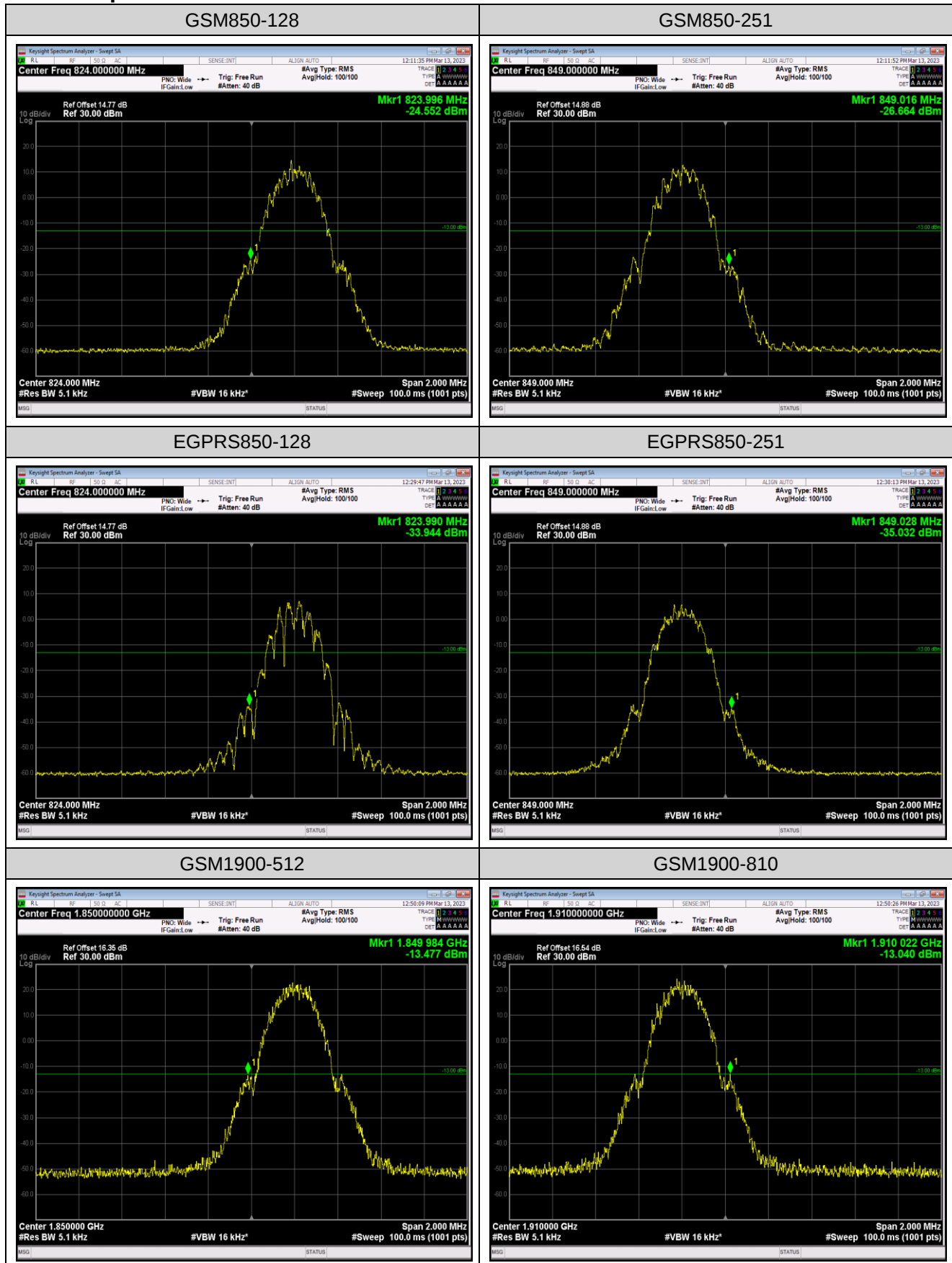


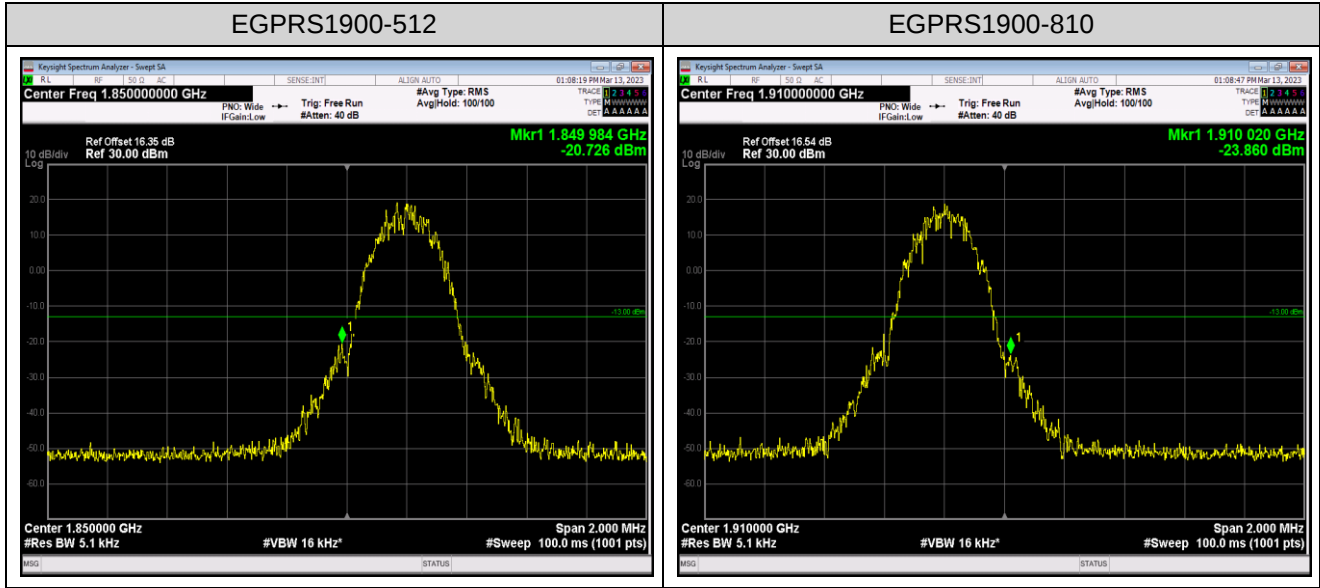
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-24.55	-13	PASS
GSM850	251	5	849.02	-26.66	-13	PASS
EGPRS850	128	8	823.99	-33.94	-13	PASS
EGPRS850	251	8	849.03	-35.03	-13	PASS
GSM1900	512	0	1849.98	-13.48	-13	PASS
GSM1900	810	0	1910.02	-13.04	-13	PASS
EGPRS1900	512	2	1849.98	-20.73	-13	PASS
EGPRS1900	810	2	1910.02	-23.86	-13	PASS

Test Graphs





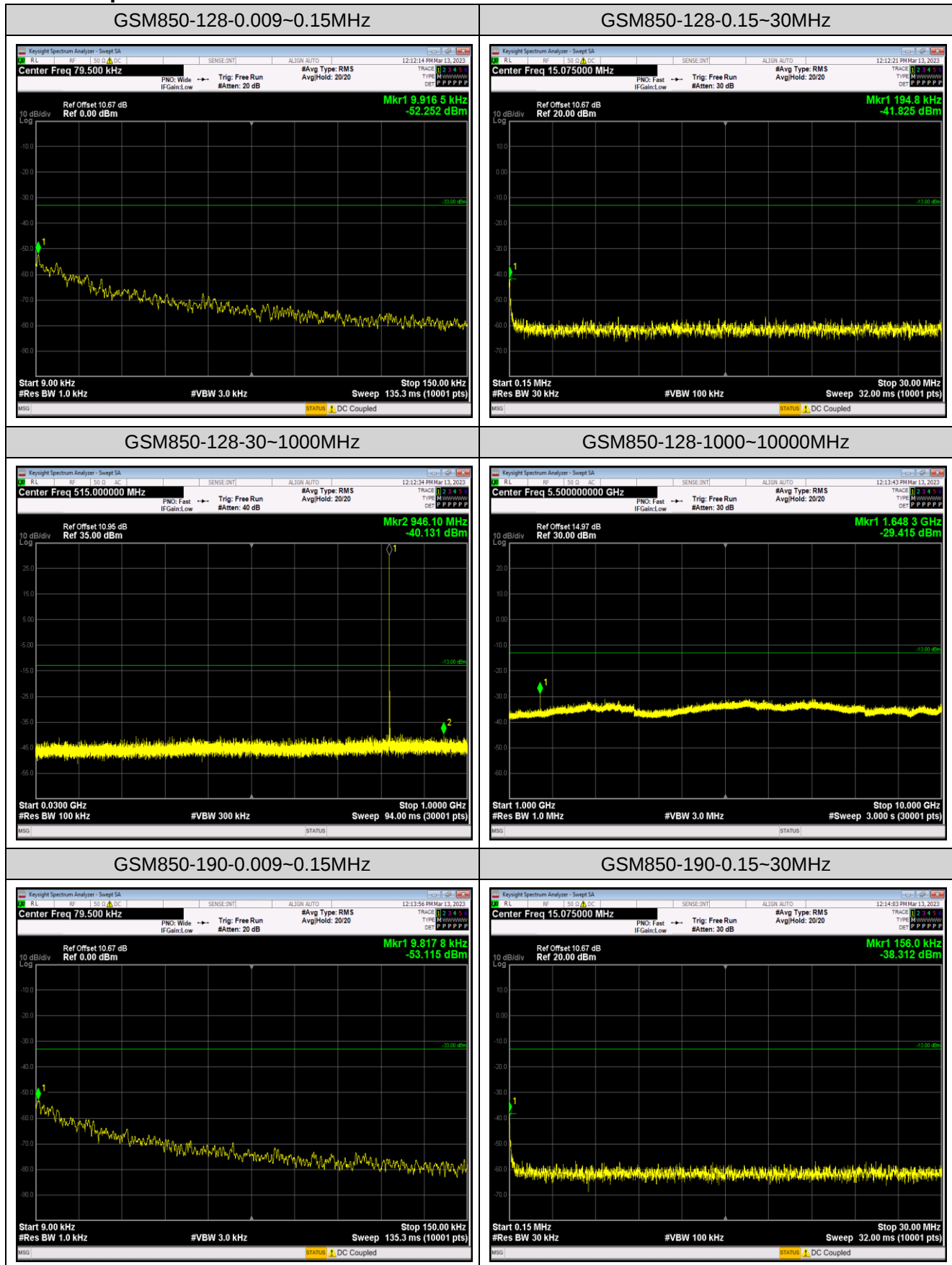
Appendix E: Conducted Spurious Emission

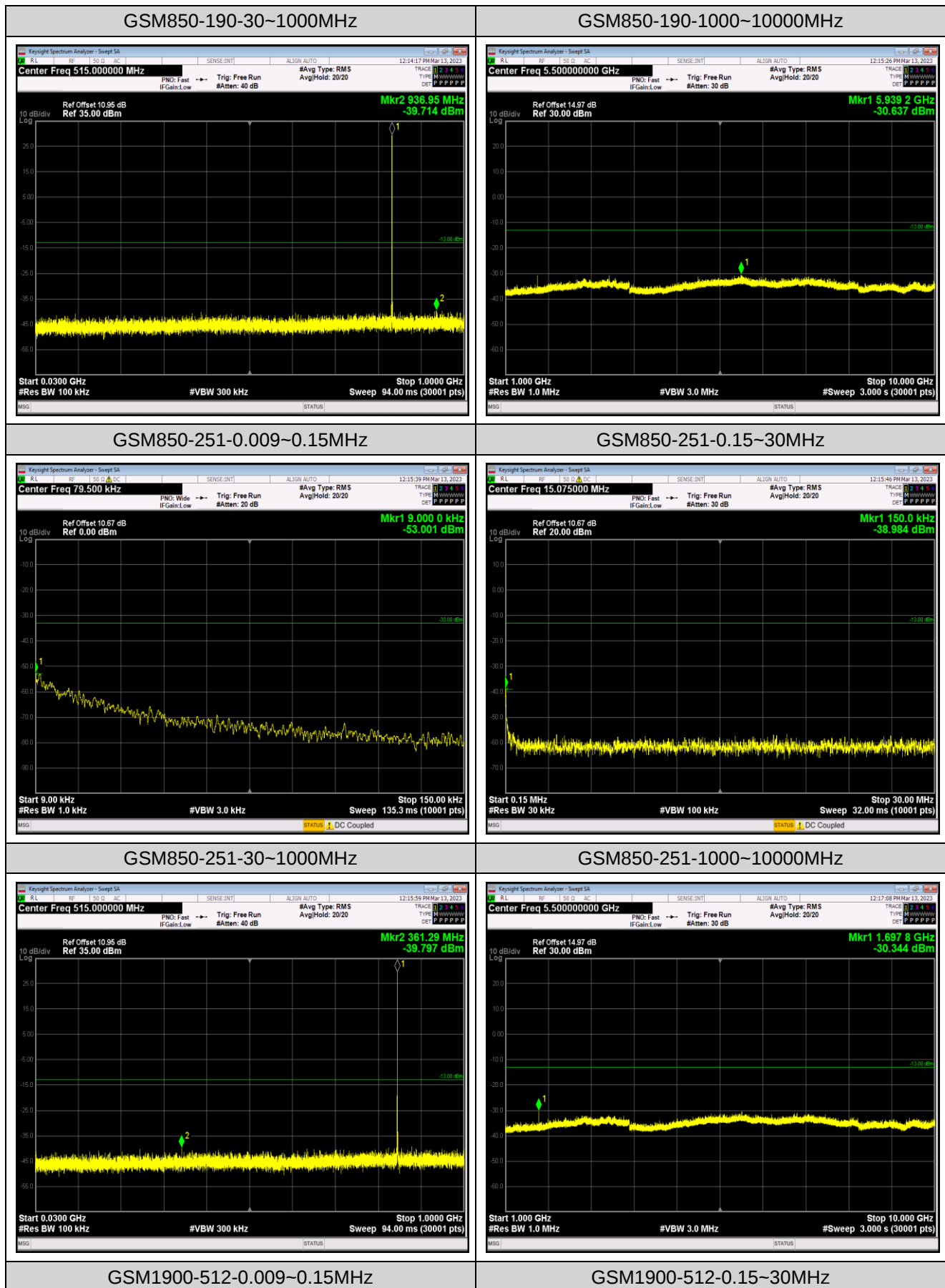
Test Result

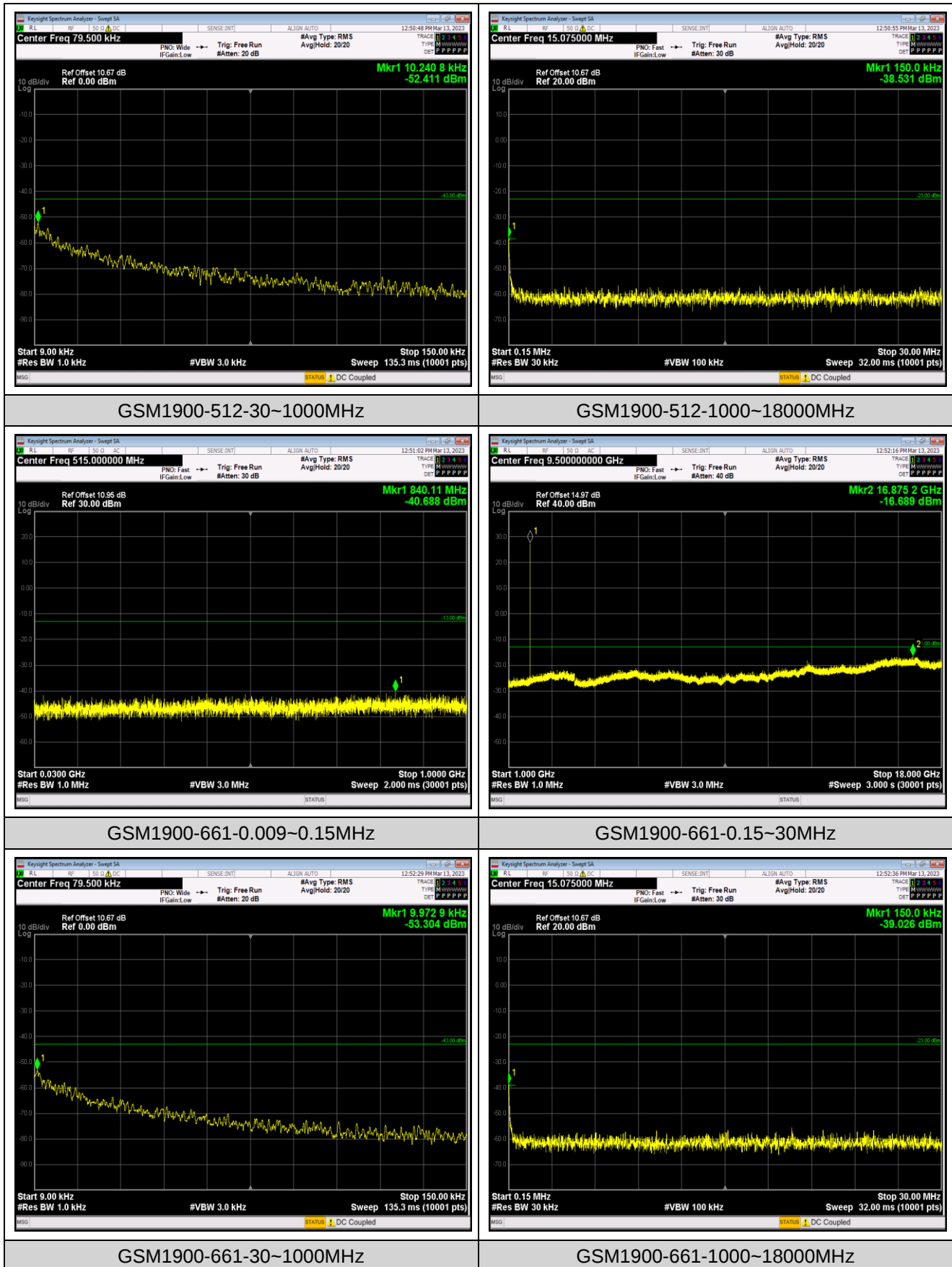
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-52.25	-33	PASS
GSM850	128	5	0.15~30MHz	0.19	-41.83	-13	PASS
GSM850	128	5	30~1000MHz	946.1	-40.13	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-29.42	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.12	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-38.31	-13	PASS
GSM850	190	5	30~1000MHz	936.95	-39.71	-13	PASS
GSM850	190	5	1000~10000MHz	5939.2	-30.64	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-38.98	-13	PASS
GSM850	251	5	30~1000MHz	361.29	-39.8	-13	PASS
GSM850	251	5	1000~10000MHz	1697.8	-30.34	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-52.41	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-38.53	-23	PASS
GSM1900	512	0	30~1000MHz	840.11	-40.69	-13	PASS
GSM1900	512	0	1000~18000MHz	16875.17	-16.69	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-53.3	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-39.03	-23	PASS
GSM1900	661	0	30~1000MHz	856.21	-40.14	-13	PASS
GSM1900	661	0	1000~18000MHz	15678.93	-15.37	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-52.4	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-39.45	-23	PASS
GSM1900	810	0	30~1000MHz	844.83	-40.18	-13	PASS
GSM1900	810	0	1000~18000MHz	16718.77	-15.93	-13	PASS

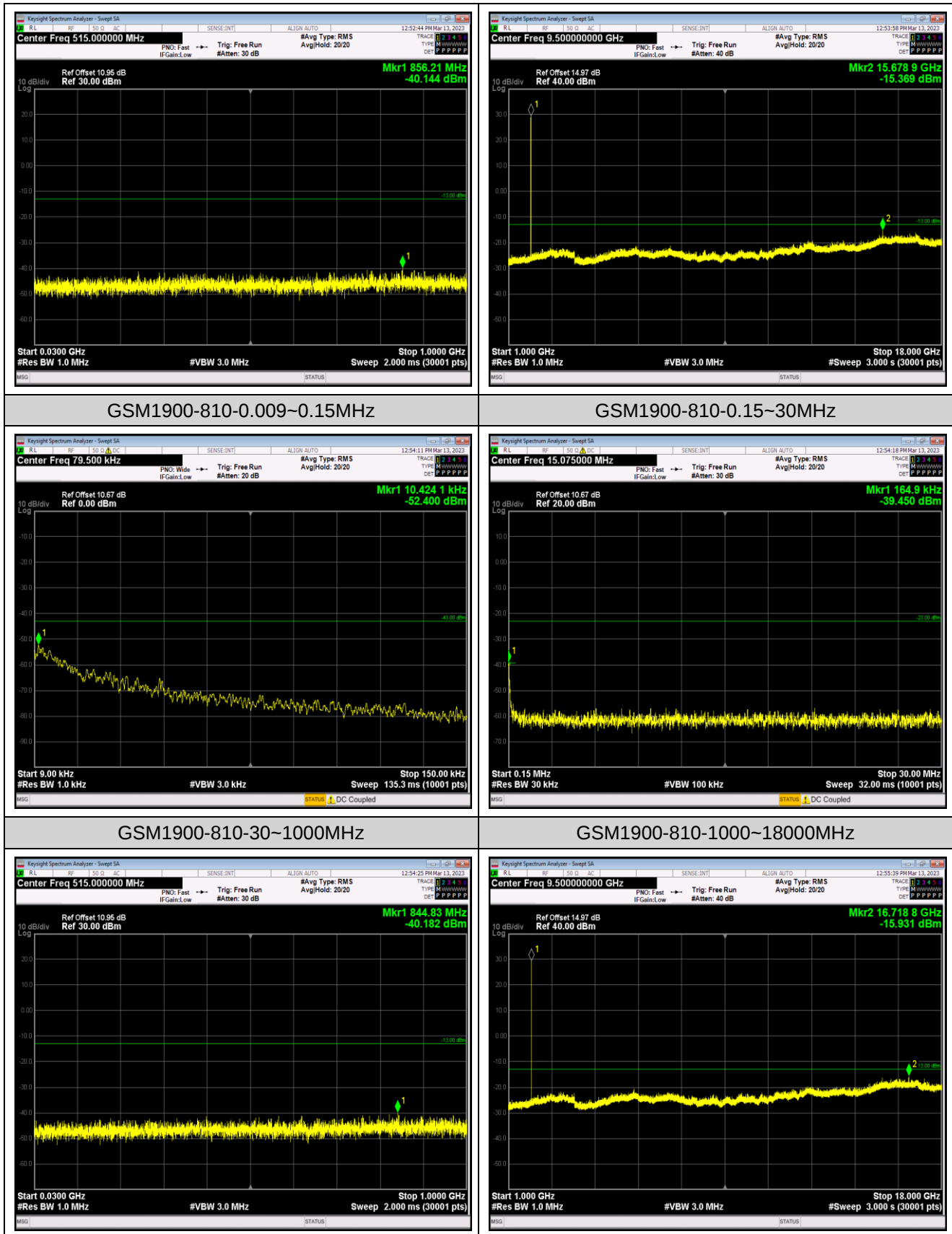
Remark: All channel and all modulation had been tested, but only the worst case data displayed in this report.

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		
3.85	-30	1.03	0.001231	±2.5	Pass
	-20	-1.71	-0.002044		
	-10	-1.81	-0.002164		
	0	-1.16	-0.001387		
	10	-0.71	-0.000849		
	20	1.39	0.001661		
	30	-2.84	-0.003395		
	40	-0.16	-0.000191		
	50	0.10	0.000120		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.13	0.002546	±2.5	Pass
	3.85	6.01	0.007184		
	4.43	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		
3.85	-30	8.98	0.010734	±2.5	Pass
	-20	8.01	0.009574		
	-10	3.55	0.004243		
	0	8.33	0.009957		
	10	6.78	0.008104		
	20	12.43	0.014858		
	30	11.11	0.013280		
	40	12.40	0.014822		
	50	13.17	0.015742		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	7.55	0.009025	±2.5	Pass
	3.85	6.26	0.007483		
	4.43	9.20	0.010997		
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		
3.85	-30	7.43	0.003952	Within authorized band for PCS 1900	Pass
	-20	-1.68	-0.000894		
	-10	-0.16	-0.000085		
	0	-2.97	-0.001580		
	10	-3.78	-0.002011		
	20	-5.13	-0.002729		
	30	1.71	0.000910		
	40	-5.88	-0.003128		
	50	-7.30	-0.003883		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	13.11	0.006973	Within authorized band for PCS 1900	Pass
	3.85	13.46	0.007160		
	4.43	8.39	0.004463		
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		
3.85	-30	16.37	0.008707	Within authorized band for PCS 1900	Pass
	-20	14.50	0.007713		
	-10	15.14	0.008053		
	0	16.14	0.008585		
	10	15.76	0.008383		
	20	33.22	0.017670		
	30	27.28	0.014511		
	40	32.29	0.017176		
	50	28.99	0.015420		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	17.89	0.009516	Within authorized band for PCS 1900	Pass
	3.85	17.66	0.009394		
	4.43	19.50	0.010372		
Remark: All channel 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

