

GSM850(ANT1) TX

PCS 1900(ANT0) TX

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	32.65	24.61	38.45	PASS
GSM850	190	5	32.64	24.6	38.45	PASS
GSM850	251	5	32.84	24.8	38.45	PASS
GSM1900	512	0	30.71	27.91	33.00	PASS
GSM1900	661	0	30.42	27.62	33.00	PASS
GSM1900	810	0	30.15	27.35	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.67	24.63	38.45	PASS
GPRS850	128	5	2	30.95	22.91	38.45	PASS
GPRS850	128	5	3	29.02	20.98	38.45	PASS
GPRS850	128	5	4	26.95	18.91	38.45	PASS
GPRS850	190	5	1	32.64	24.6	38.45	PASS
GPRS850	190	5	2	30.73	22.69	38.45	PASS
GPRS850	190	5	3	28.84	20.8	38.45	PASS
GPRS850	190	5	4	26.83	18.79	38.45	PASS
GPRS850	251	5	1	32.83	24.79	38.45	PASS
GPRS850	251	5	2	30.69	22.65	38.45	PASS
GPRS850	251	5	3	28.81	20.77	38.45	PASS
GPRS850	251	5	4	26.77	18.73	38.45	PASS
GPRS1900	512	0	1	30.69	27.89	33.00	PASS
GPRS1900	512	0	2	28.24	25.44	33.00	PASS
GPRS1900	512	0	3	26.73	23.93	33.00	PASS
GPRS1900	512	0	4	24.71	21.91	33.00	PASS
GPRS1900	661	0	1	30.38	27.58	33.00	PASS
GPRS1900	661	0	2	28.22	25.42	33.00	PASS
GPRS1900	661	0	3	26.68	23.88	33.00	PASS
GPRS1900	661	0	4	24.70	21.9	33.00	PASS
GPRS1900	810	0	1	30.20	27.4	33.00	PASS

GPRS1900	810	0	2	28.06	25.26	33.00	PASS
GPRS1900	810	0	3	26.54	23.74	33.00	PASS
GPRS1900	810	0	4	24.57	21.77	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.35	17.31	38.45	PASS
EGPRS850	128	8	2	24.21	16.17	38.45	PASS
EGPRS850	128	8	3	22.11	14.07	38.45	PASS
EGPRS850	128	8	4	20.20	12.16	38.45	PASS
EGPRS850	190	8	1	25.53	17.49	38.45	PASS
EGPRS850	190	8	2	24.54	16.5	38.45	PASS
EGPRS850	190	8	3	22.63	14.59	38.45	PASS
EGPRS850	190	8	4	20.44	12.4	38.45	PASS
EGPRS850	251	8	1	25.43	17.39	38.45	PASS
EGPRS850	251	8	2	24.43	16.39	38.45	PASS
EGPRS850	251	8	3	22.67	14.63	38.45	PASS
EGPRS850	251	8	4	20.31	12.27	38.45	PASS
EGPRS1900	512	2	1	26.79	23.99	33.00	PASS
EGPRS1900	512	2	2	25.06	22.26	33.00	PASS
EGPRS1900	512	2	3	22.45	19.65	33.00	PASS
EGPRS1900	512	2	4	20.12	17.32	33.00	PASS
EGPRS1900	661	2	1	26.89	24.09	33.00	PASS
EGPRS1900	661	2	2	25.06	22.26	33.00	PASS
EGPRS1900	661	2	3	22.59	19.79	33.00	PASS
EGPRS1900	661	2	4	20.43	17.63	33.00	PASS
EGPRS1900	810	2	1	26.60	23.8	33.00	PASS
EGPRS1900	810	2	2	24.77	21.97	33.00	PASS
EGPRS1900	810	2	3	22.22	19.42	33.00	PASS
EGPRS1900	810	2	4	20.11	17.31	33.00	PASS

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

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

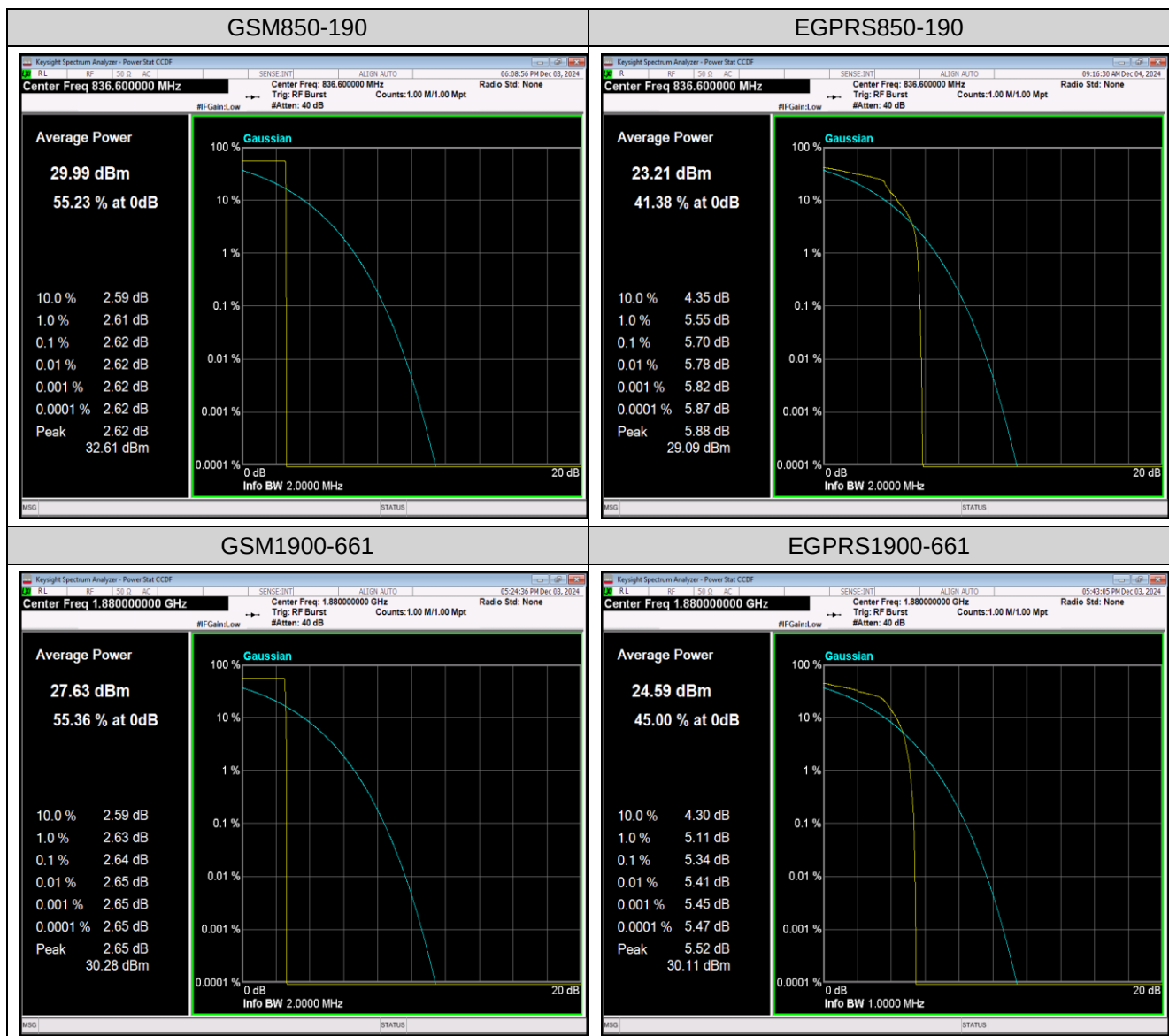
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.62	13	PASS
EGPRS850	190	8	5.7	13	PASS
GSM1900	661	0	2.64	13	PASS
EGPRS1900	661	2	5.34	13	PASS

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

Test Graphs

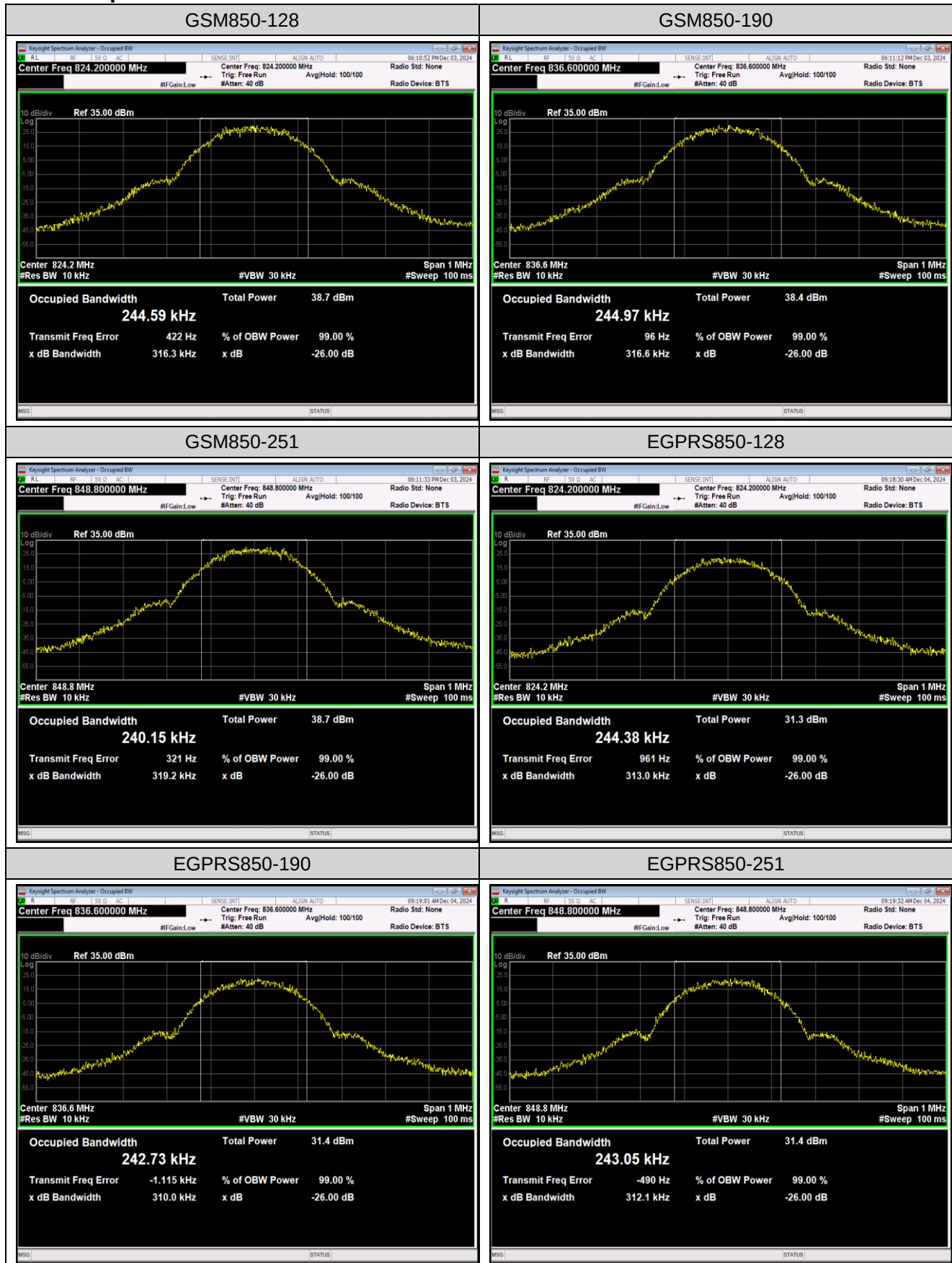


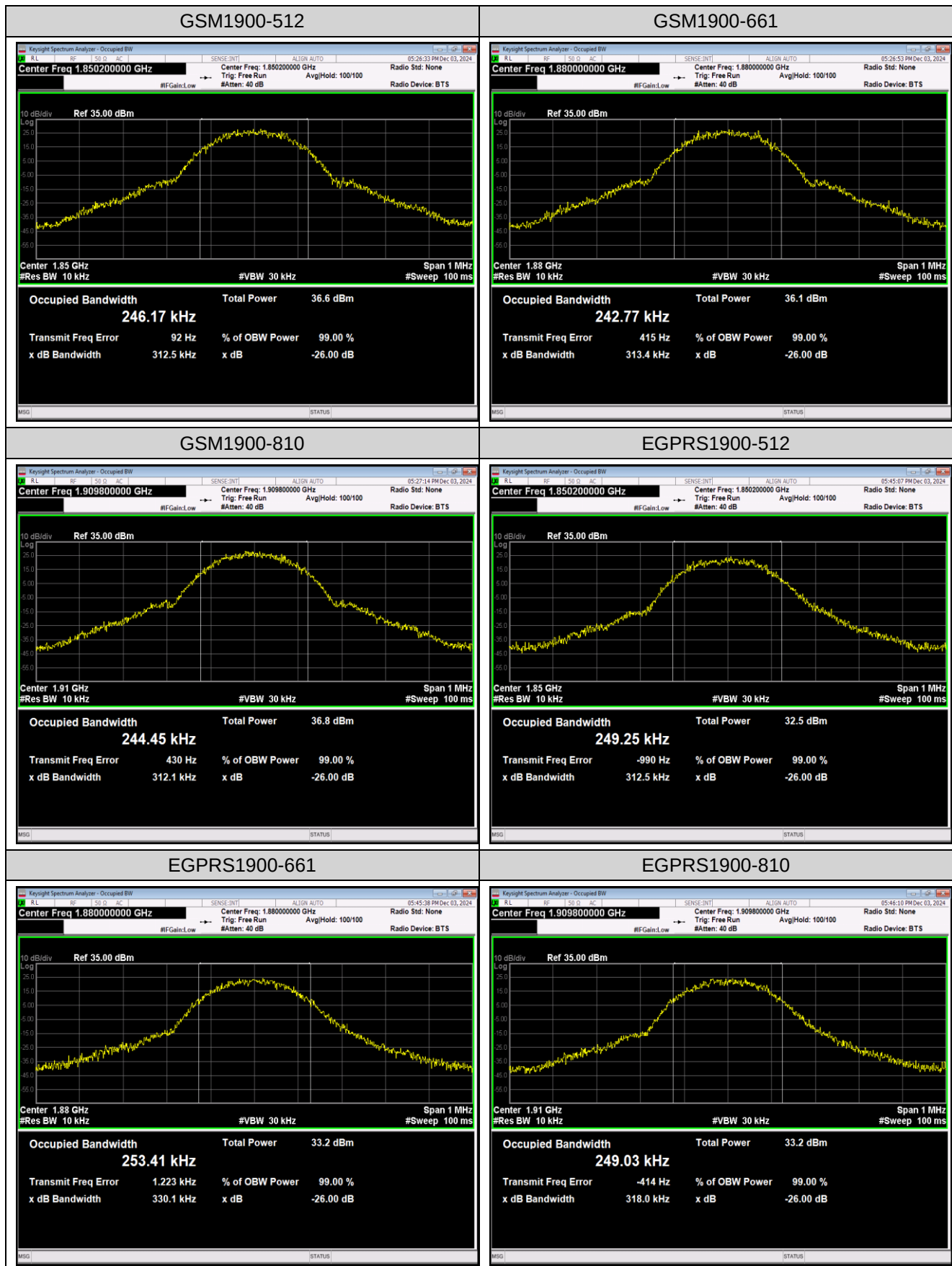
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24459	0.3163	---	PASS
GSM850	190	5	0.24497	0.3166	---	PASS
GSM850	251	5	0.24015	0.3192	---	PASS
EGPRS850	128	8	0.24438	0.3130	---	PASS
EGPRS850	190	8	0.24273	0.3100	---	PASS
EGPRS850	251	8	0.24305	0.3121	---	PASS
GSM1900	512	0	0.24617	0.3125	---	PASS
GSM1900	661	0	0.24277	0.3134	---	PASS
GSM1900	810	0	0.24445	0.3121	---	PASS
EGPRS1900	512	2	0.24925	0.3125	---	PASS
EGPRS1900	661	2	0.25341	0.3301	---	PASS
EGPRS1900	810	2	0.24903	0.3180	---	PASS

Test Graphs



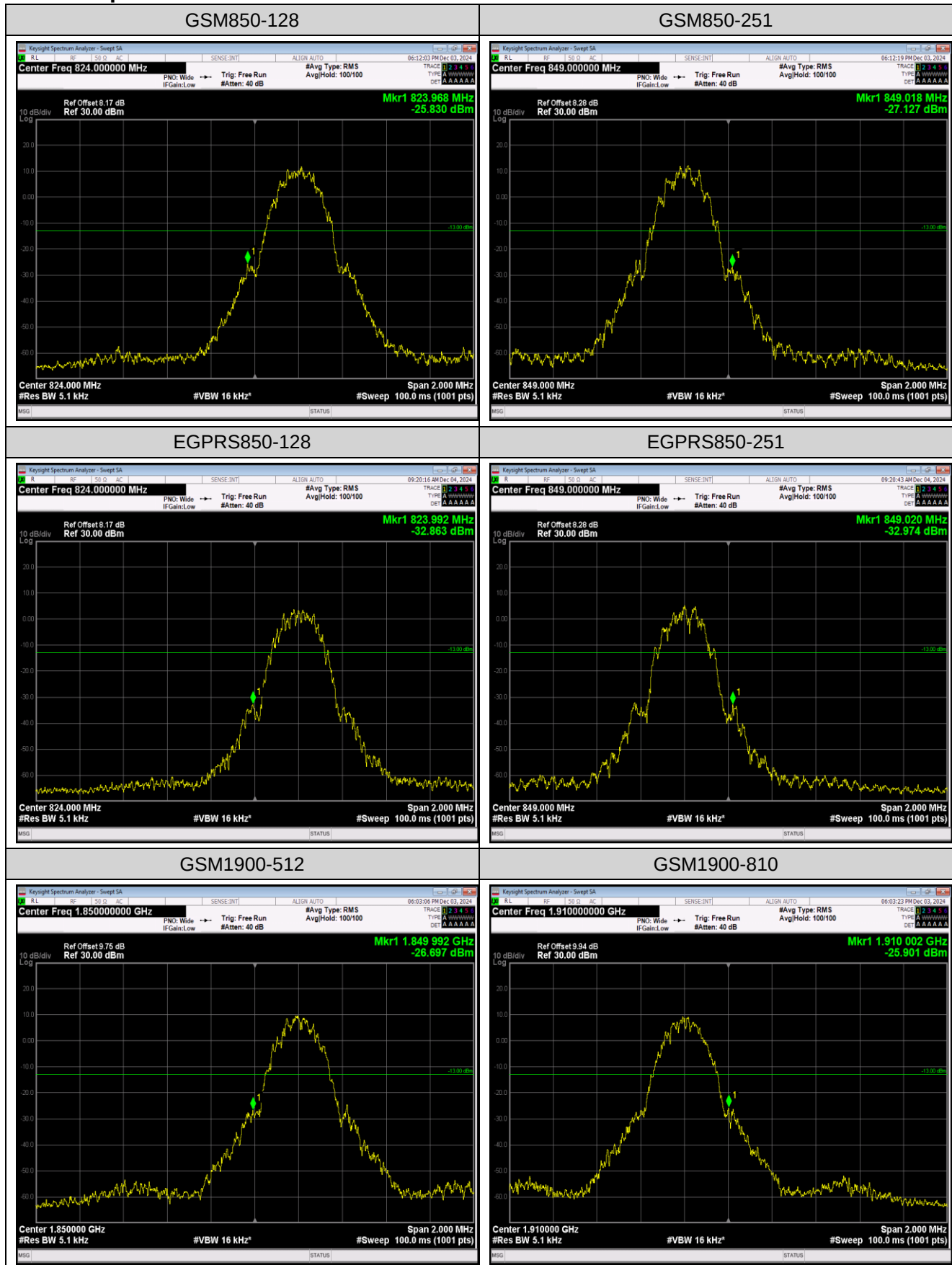


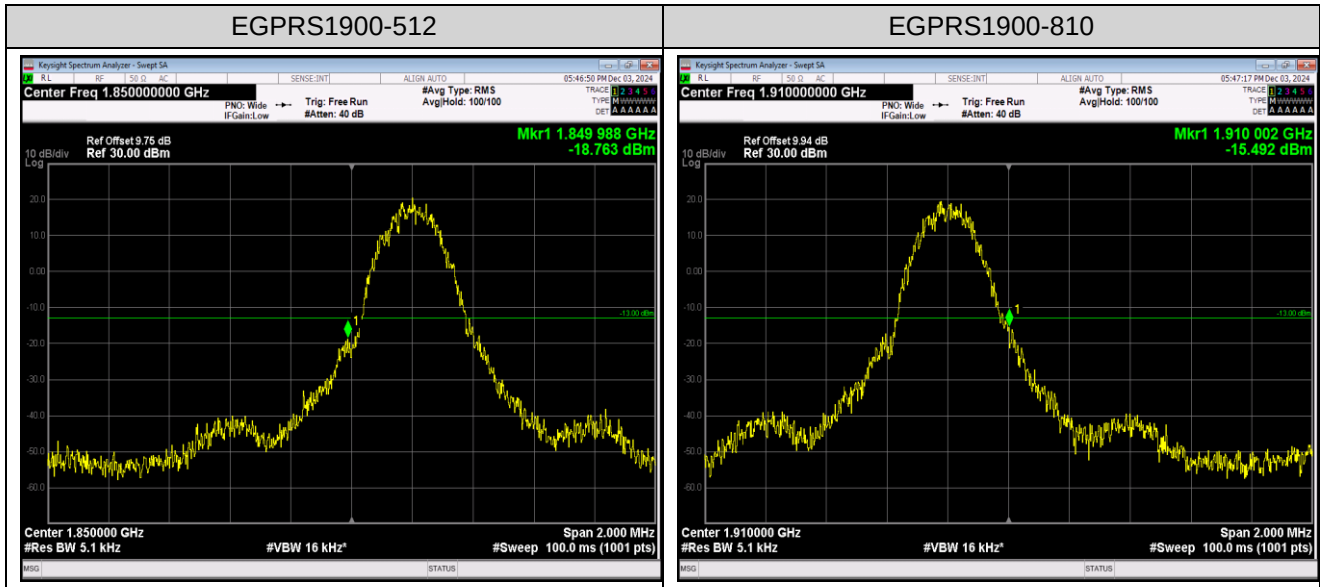
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.97	-25.83	-13	PASS
GSM850	251	5	849.02	-27.13	-13	PASS
EGPRS850	128	8	823.99	-32.86	-13	PASS
EGPRS850	251	8	849.02	-32.97	-13	PASS
GSM1900	512	0	1849.99	-26.70	-13	PASS
GSM1900	810	0	1910.00	-25.90	-13	PASS
EGPRS1900	512	2	1849.99	-18.76	-13	PASS
EGPRS1900	810	2	1910.00	-15.49	-13	PASS

Test Graphs





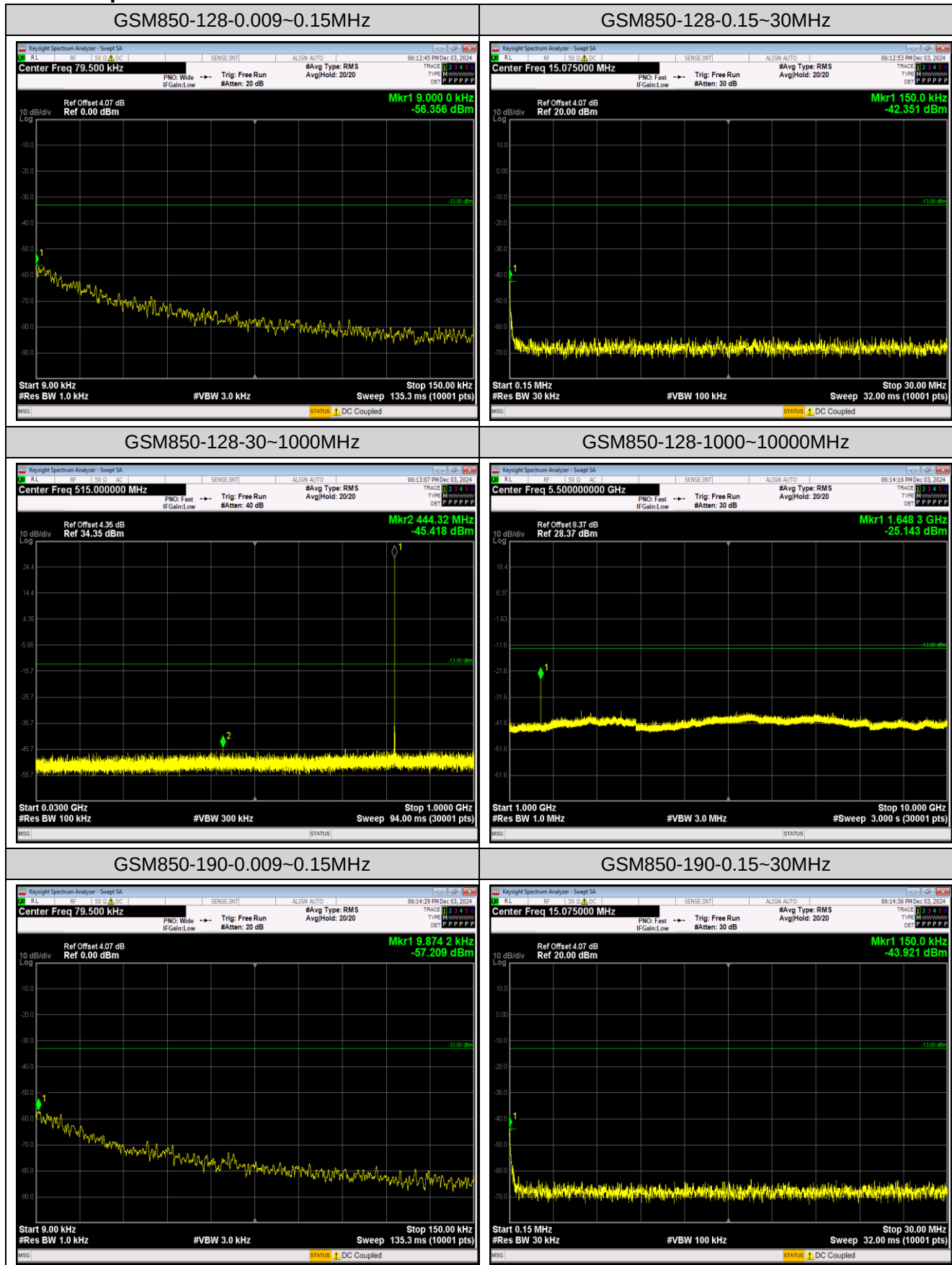
Appendix E: Conducted Spurious Emission

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	-56.36	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-42.35	-13	PASS
GSM850	128	5	30~1000MHz	444.32	-45.42	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-25.14	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-57.21	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-43.92	-13	PASS
GSM850	190	5	30~1000MHz	516.94	-45.3	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-28.09	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.86	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-43.45	-13	PASS
GSM850	251	5	30~1000MHz	998.87	-45.83	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-29.14	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.57	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-42.76	-23	PASS
GSM1900	512	0	30~1000MHz	958.68	-45.63	-13	PASS
GSM1900	512	0	1000~18000MHz	16206.5	-22.3	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.14	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-42.18	-23	PASS
GSM1900	661	0	30~1000MHz	719.9	-45.67	-13	PASS
GSM1900	661	0	1000~18000MHz	16052.93	-22.99	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.3	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.34	-23	PASS
GSM1900	810	0	30~1000MHz	518.78	-46.09	-13	PASS
GSM1900	810	0	1000~18000MHz	16213.3	-22.4	-13	PASS

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

Test Graphs

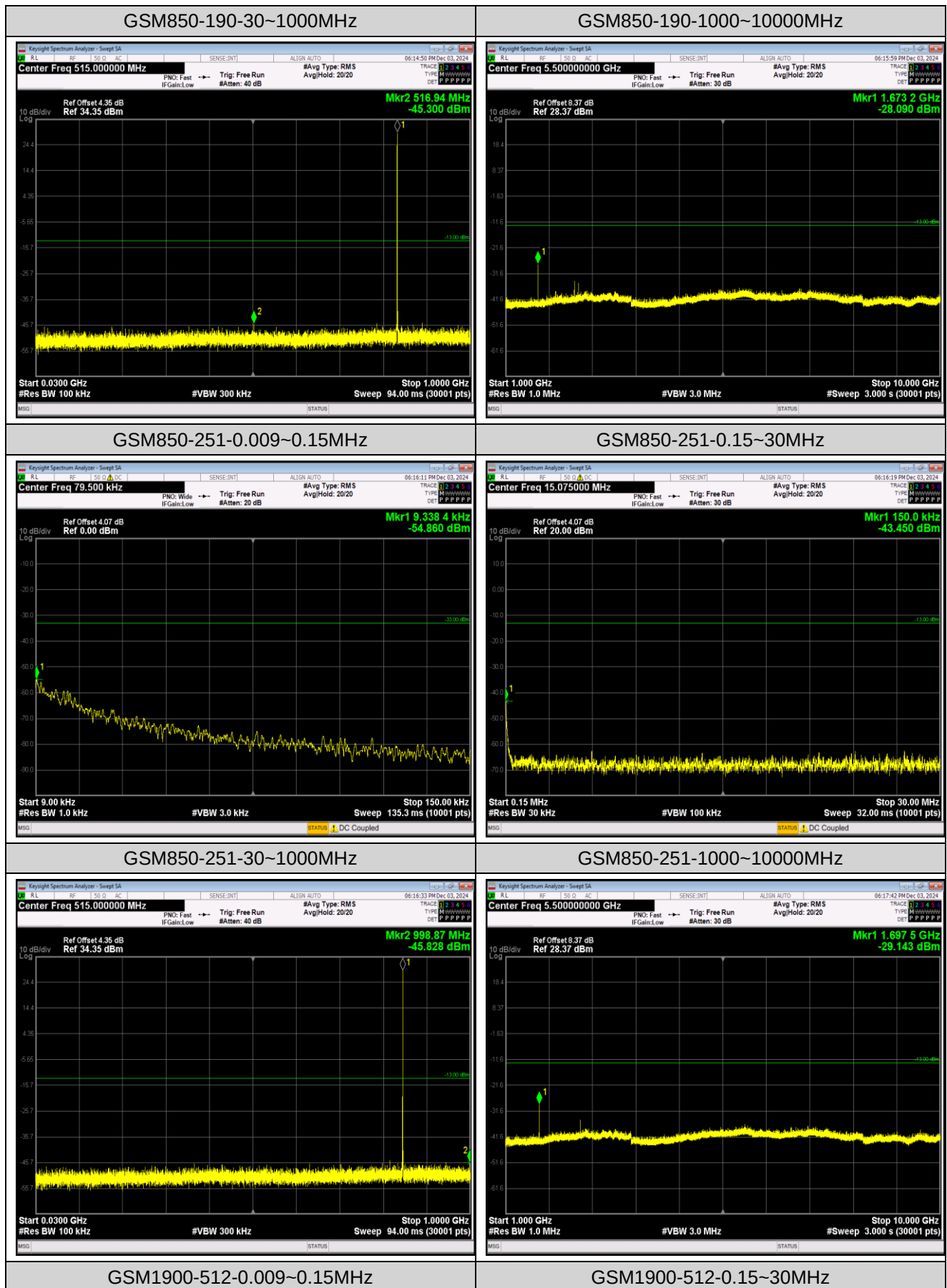


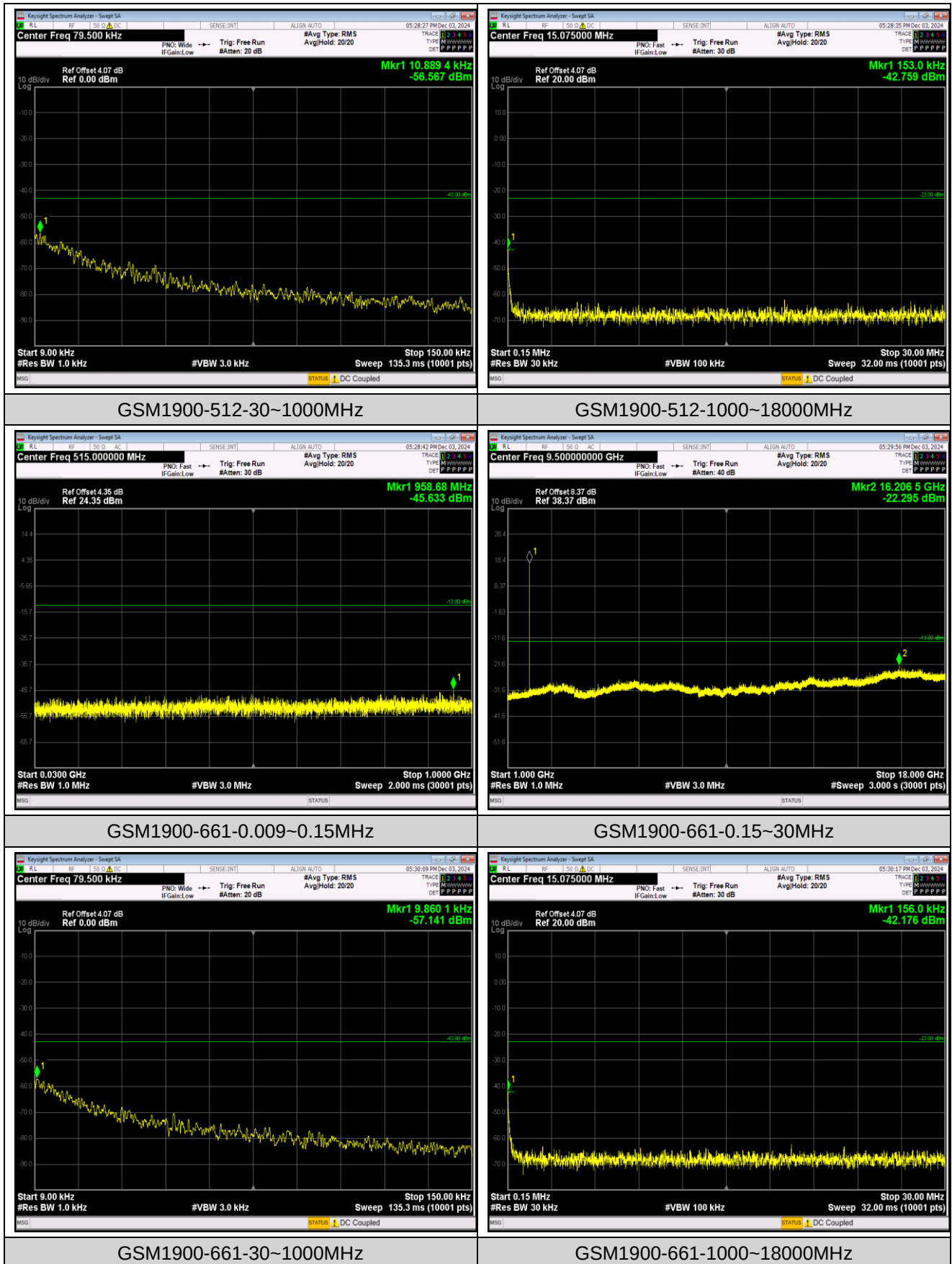
JianYan Testing Group Shenzhen Co., Ltd.

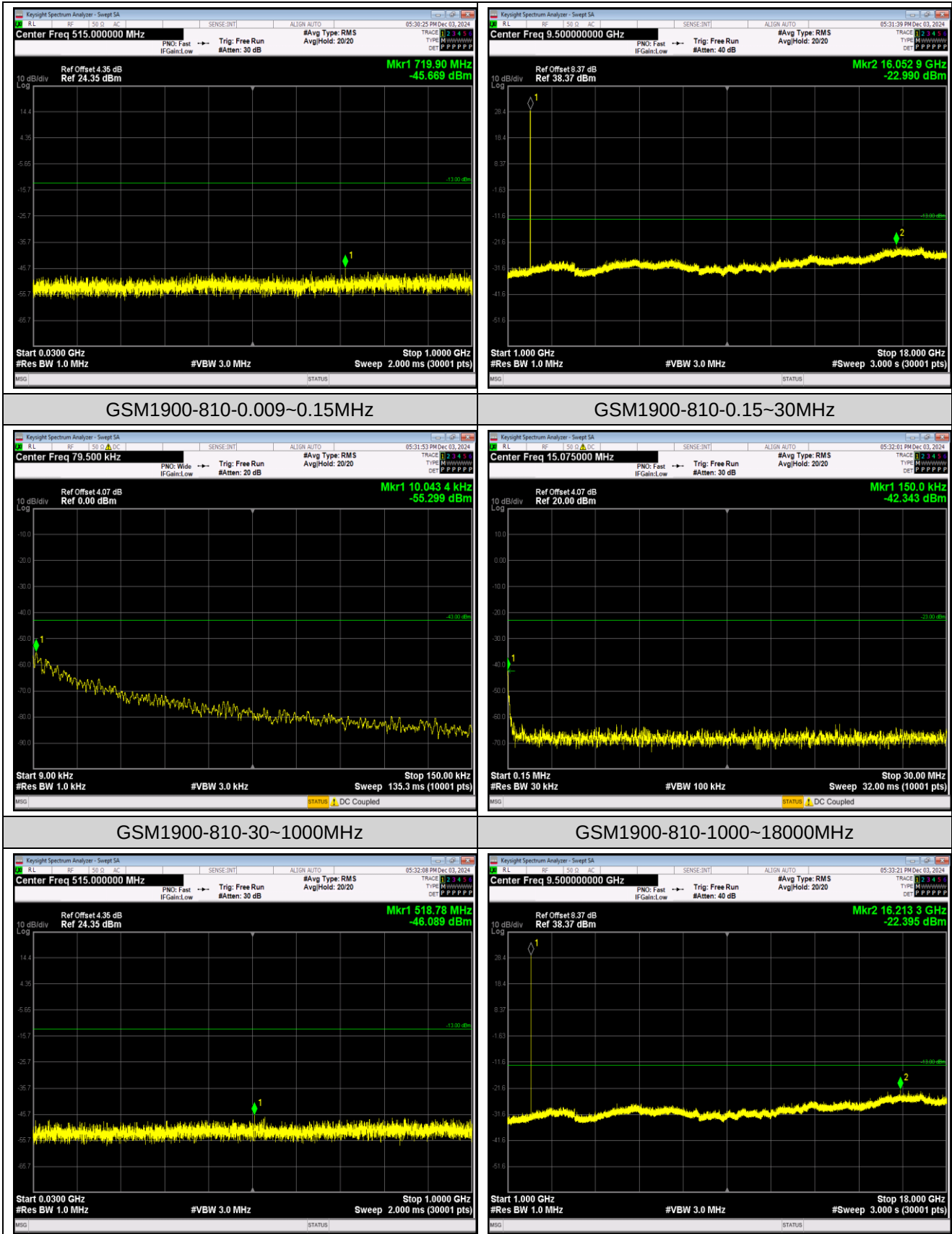
No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Project No.: JYTSZR2411084







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	0.16	0.000191	±2.5	Pass
	-20	1.97	0.002355		
	-10	0.29	0.000347		
	0	-0.36	-0.000430		
	10	-2.36	-0.002821		
	20	1.78	0.002128		
	30	0.90	0.001076		
	40	7.59	0.009072		
	50	4.42	0.005283		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	0.10	0.000120	±2.5	Pass
	3.85	1.26	0.001506		
	4.40	-0.61	-0.000729		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	0.81	0.000968	±2.5	Pass
	-20	-2.39	-0.002857		
	-10	-3.68	-0.004399		
	0	-2.97	-0.003550		
	10	-2.74	-0.003275		
	20	-5.07	-0.006060		
	30	-0.55	-0.000657		
	40	-3.23	-0.003861		
	50	0.26	0.000311		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-1.45	-0.001733	±2.5	Pass
	3.85	-4.65	-0.005558		
	4.40	-3.03	-0.003622		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-3.58	-0.001904	Within authorized band for PCS 1900	Pass
	-20	-13.85	-0.007367		
	-10	-2.65	-0.001410		
	0	-4.23	-0.002250		
	10	13.66	0.007266		
	20	7.91	0.004207		
	30	6.23	0.003314		
	40	-1.81	-0.000963		
	50	-9.43	-0.005016		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	12.85	0.006835	Within authorized band for PCS 1900	Pass
	3.85	3.10	0.001649		
	4.40	14.43	0.007676		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-6.36	-0.003383	Within authorized band for PCS 1900	Pass
	-20	2.74	0.001457		
	-10	-3.13	-0.001665		
	0	-2.55	-0.001356		
	10	1.10	0.000585		
	20	-0.45	-0.000239		
	30	11.14	0.005926		
	40	0.39	0.000207		
	50	3.55	0.001888		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	2.36	0.001255	Within authorized band for PCS 1900	Pass
	3.85	-0.74	-0.000394		
	4.40	-11.24	-0.005979		
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

