

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	33.80	28.15	38.45	PASS
GSM850	190	5	33.87	28.22	38.45	PASS
GSM850	251	5	33.94	28.29	38.45	PASS
GSM1900	512	0	30.11	29.81	33.00	PASS
GSM1900	661	0	30.77	30.47	33.00	PASS
GSM1900	810	0	31.28	30.98	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.81	28.16	38.45	PASS
GPRS850	128	5	2	31.24	25.59	38.45	PASS
GPRS850	128	5	3	29.23	23.58	38.45	PASS
GPRS850	128	5	4	27.01	21.36	38.45	PASS
GPRS850	190	5	1	33.87	28.22	38.45	PASS
GPRS850	190	5	2	31.14	25.49	38.45	PASS
GPRS850	190	5	3	29.13	23.48	38.45	PASS
GPRS850	190	5	4	26.90	21.25	38.45	PASS
GPRS850	251	5	1	33.94	28.29	38.45	PASS
GPRS850	251	5	2	31.16	25.51	38.45	PASS
GPRS850	251	5	3	29.12	23.47	38.45	PASS
GPRS850	251	5	4	26.95	21.3	38.45	PASS
GPRS1900	512	0	1	30.15	29.85	33.00	PASS
GPRS1900	512	0	2	27.24	26.94	33.00	PASS
GPRS1900	512	0	3	25.55	25.25	33.00	PASS
GPRS1900	512	0	4	23.40	23.1	33.00	PASS
GPRS1900	661	0	1	30.77	30.47	33.00	PASS
GPRS1900	661	0	2	27.61	27.31	33.00	PASS
GPRS1900	661	0	3	25.93	25.63	33.00	PASS
GPRS1900	661	0	4	23.76	23.46	33.00	PASS
GPRS1900	810	0	1	31.26	30.96	33.00	PASS
GPRS1900	810	0	2	27.81	27.51	33.00	PASS
GPRS1900	810	0	3	26.16	25.86	33.00	PASS
GPRS1900	810	0	4	23.97	23.67	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.40	20.75	38.45	PASS
EGPRS850	128	8	2	25.19	19.54	38.45	PASS
EGPRS850	128	8	3	22.98	17.33	38.45	PASS
EGPRS850	128	8	4	20.49	14.84	38.45	PASS
EGPRS850	190	8	1	26.23	20.58	38.45	PASS
EGPRS850	190	8	2	25.08	19.43	38.45	PASS
EGPRS850	190	8	3	22.89	17.24	38.45	PASS
EGPRS850	190	8	4	20.39	14.74	38.45	PASS
EGPRS850	251	8	1	26.34	20.69	38.45	PASS
EGPRS850	251	8	2	25.25	19.6	38.45	PASS
EGPRS850	251	8	3	22.98	17.33	38.45	PASS
EGPRS850	251	8	4	20.35	14.7	38.45	PASS
EGPRS1900	512	2	1	26.62	26.32	33.00	PASS
EGPRS1900	512	2	2	24.95	24.65	33.00	PASS
EGPRS1900	512	2	3	22.59	22.29	33.00	PASS
EGPRS1900	512	2	4	20.69	20.39	33.00	PASS
EGPRS1900	661	2	1	26.92	26.62	33.00	PASS
EGPRS1900	661	2	2	25.38	25.08	33.00	PASS
EGPRS1900	661	2	3	23.02	22.72	33.00	PASS
EGPRS1900	661	2	4	21.19	20.89	33.00	PASS
EGPRS1900	810	2	1	27.15	26.85	33.00	PASS
EGPRS1900	810	2	2	25.41	25.11	33.00	PASS
EGPRS1900	810	2	3	23.15	22.85	33.00	PASS
EGPRS1900	810	2	4	21.34	21.04	33.00	PASS

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

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

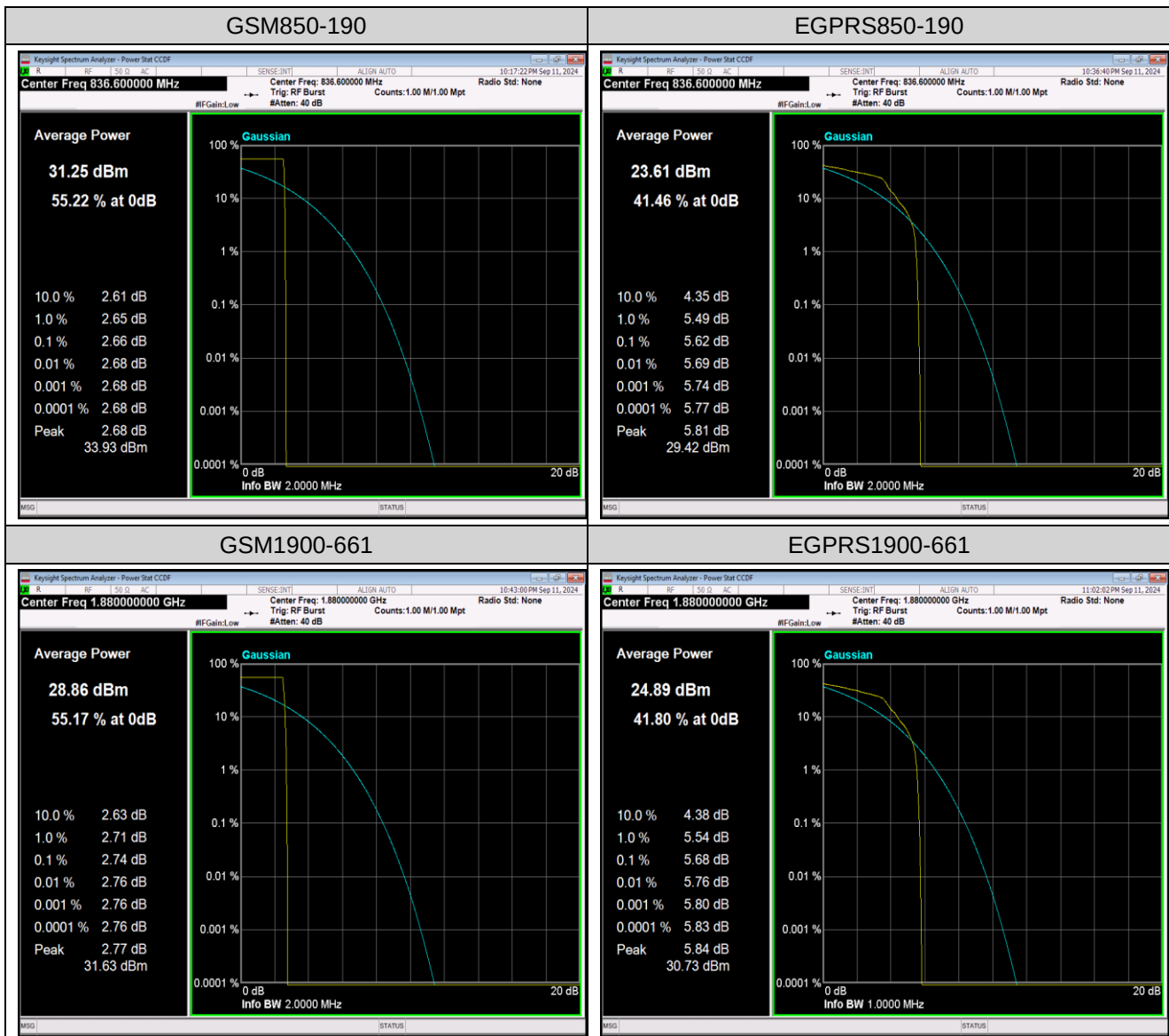
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.66	13	PASS
EGPRS850	190	8	5.62	13	PASS
GSM1900	661	0	2.74	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

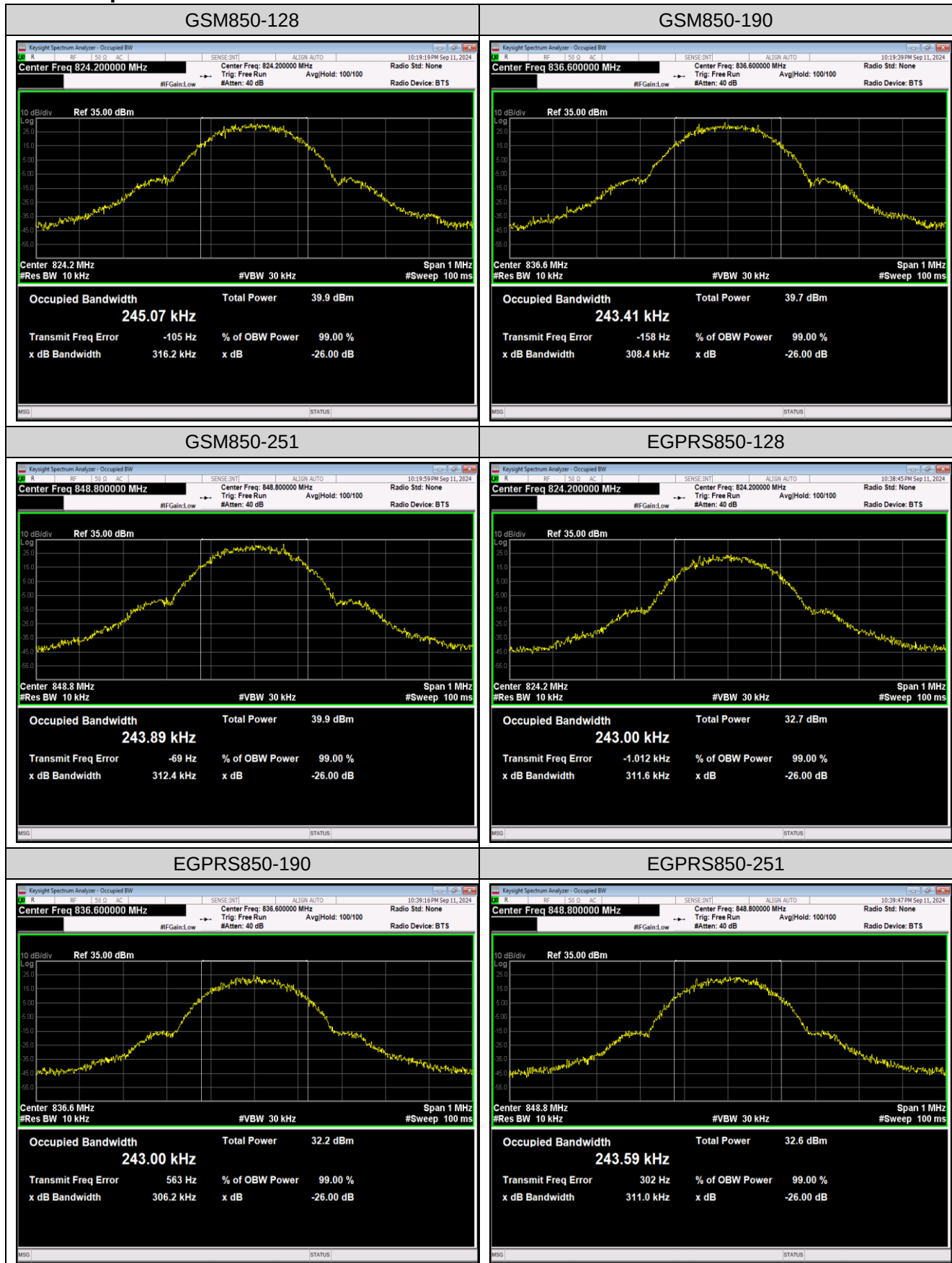


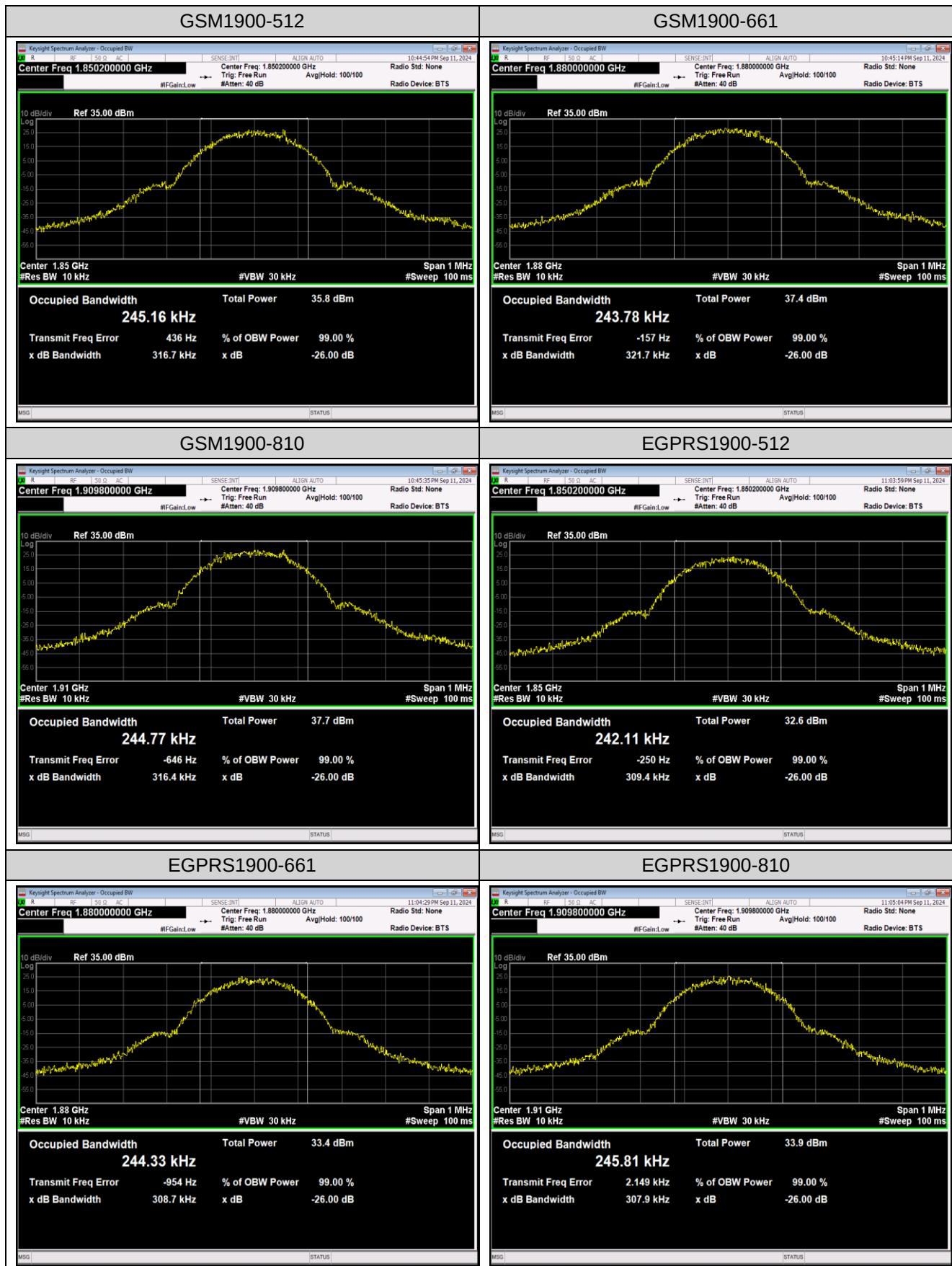
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24507	0.3162	---	PASS
GSM850	190	5	0.24341	0.3084	---	PASS
GSM850	251	5	0.24389	0.3124	---	PASS
EGPRS850	128	8	0.24300	0.3116	---	PASS
EGPRS850	190	8	0.24300	0.3062	---	PASS
EGPRS850	251	8	0.24359	0.3110	---	PASS
GSM1900	512	0	0.24516	0.3167	---	PASS
GSM1900	661	0	0.24378	0.3217	---	PASS
GSM1900	810	0	0.24477	0.3164	---	PASS
EGPRS1900	512	2	0.24211	0.3094	---	PASS
EGPRS1900	661	2	0.24433	0.3087	---	PASS
EGPRS1900	810	2	0.24581	0.3079	---	PASS

Test Graphs



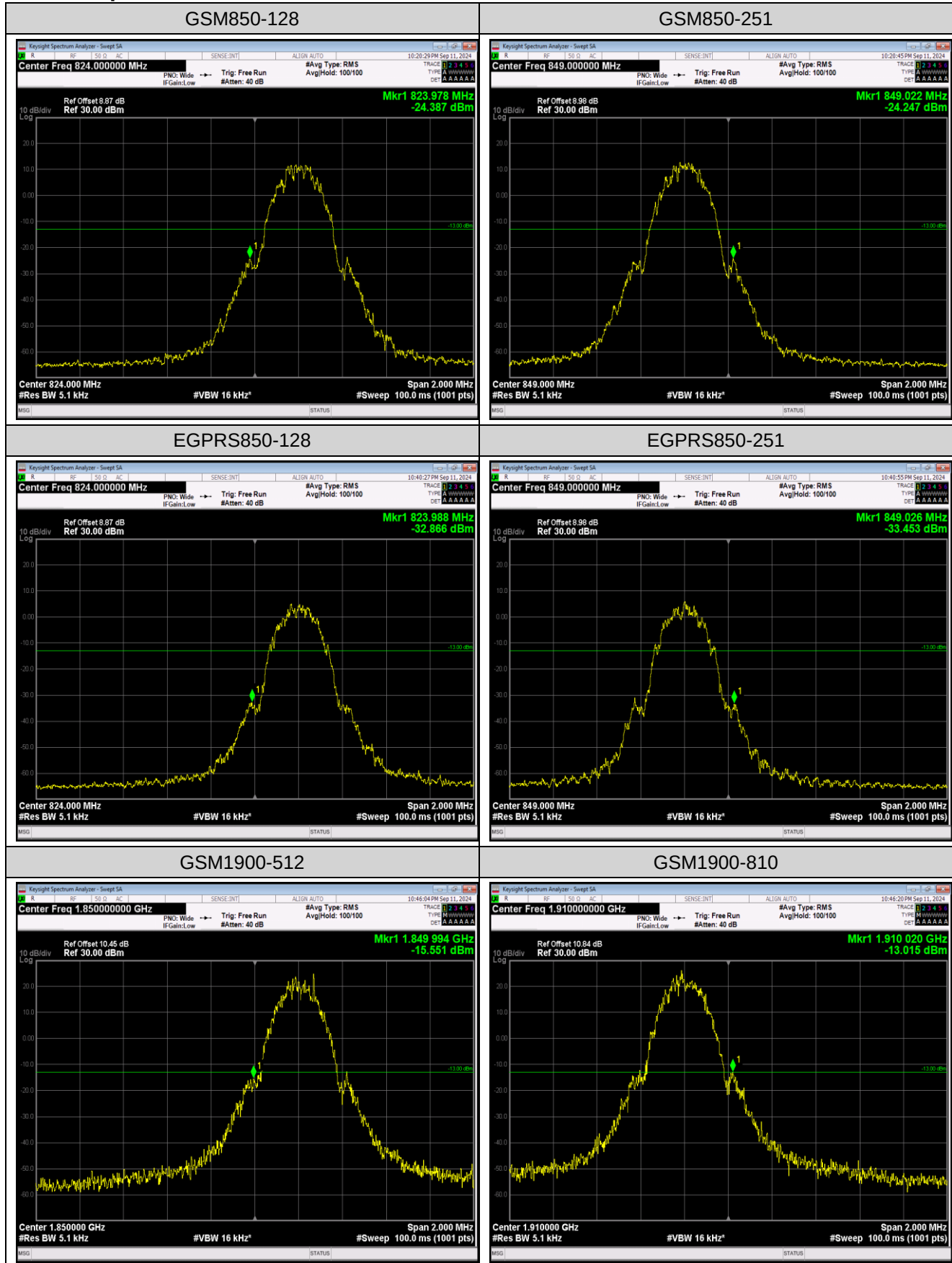


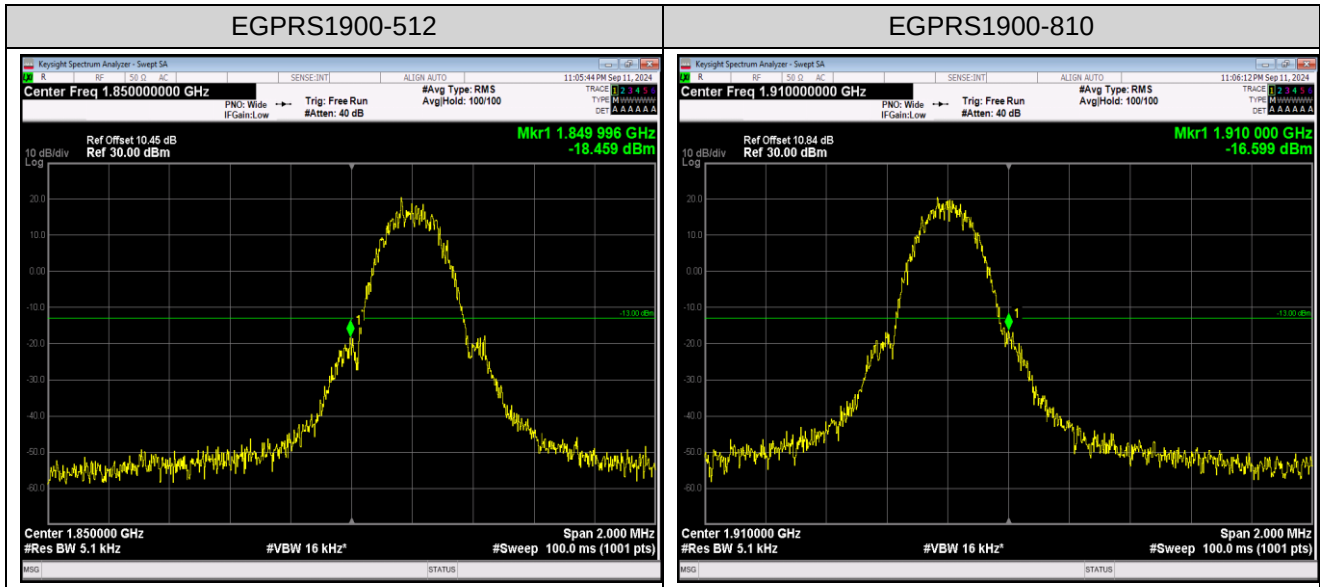
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.39	-13	PASS
GSM850	251	5	849.02	-24.25	-13	PASS
EGPRS850	128	8	823.99	-32.87	-13	PASS
EGPRS850	251	8	849.03	-33.45	-13	PASS
GSM1900	512	0	1849.99	-15.55	-13	PASS
GSM1900	810	0	1910.02	-13.01	-13	PASS
EGPRS1900	512	2	1850.00	-18.46	-13	PASS
EGPRS1900	810	2	1910.00	-16.60	-13	PASS

Test Graphs





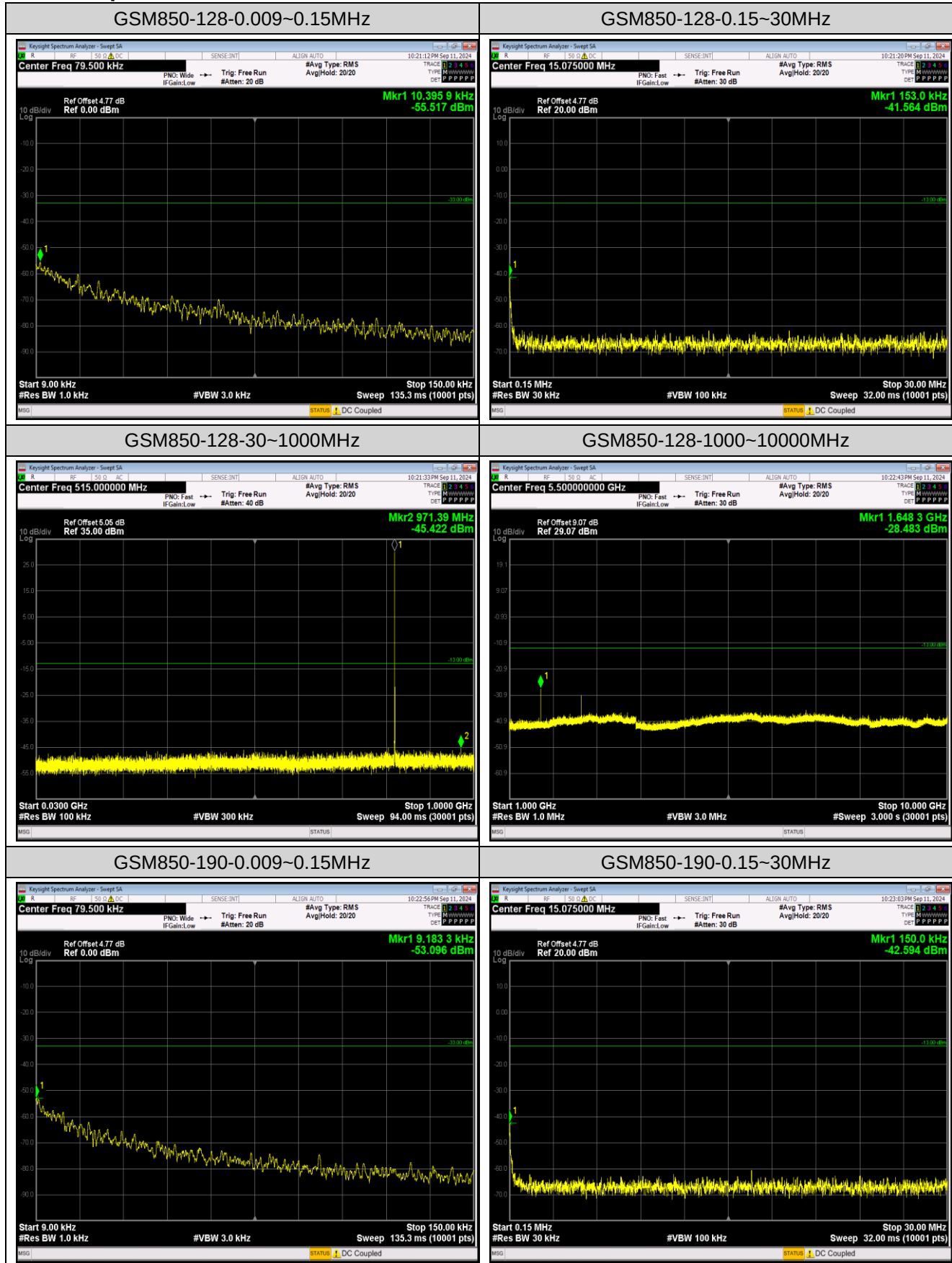
Appendix E: Conducted Spurious Emission

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	-55.52	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-41.56	-13	PASS
GSM850	128	5	30~1000MHz	971.39	-45.42	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.48	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.1	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-42.59	-13	PASS
GSM850	190	5	30~1000MHz	466.95	-45.89	-13	PASS
GSM850	190	5	1000~10000MHz	1673.2	-29.35	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.31	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-43.36	-13	PASS
GSM850	251	5	30~1000MHz	956.29	-45.46	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-28.99	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-53.66	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-42.15	-23	PASS
GSM1900	512	0	30~1000MHz	725.91	-46.35	-13	PASS
GSM1900	512	0	1000~18000MHz	17049.13	-22.05	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-54.23	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-42.26	-23	PASS
GSM1900	661	0	30~1000MHz	572.52	-46.23	-13	PASS
GSM1900	661	0	1000~18000MHz	16205.37	-21.45	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.15	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-42.47	-23	PASS
GSM1900	810	0	30~1000MHz	798.24	-45.96	-13	PASS
GSM1900	810	0	1000~18000MHz	16382.73	-22.05	-13	PASS

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

Test Graphs

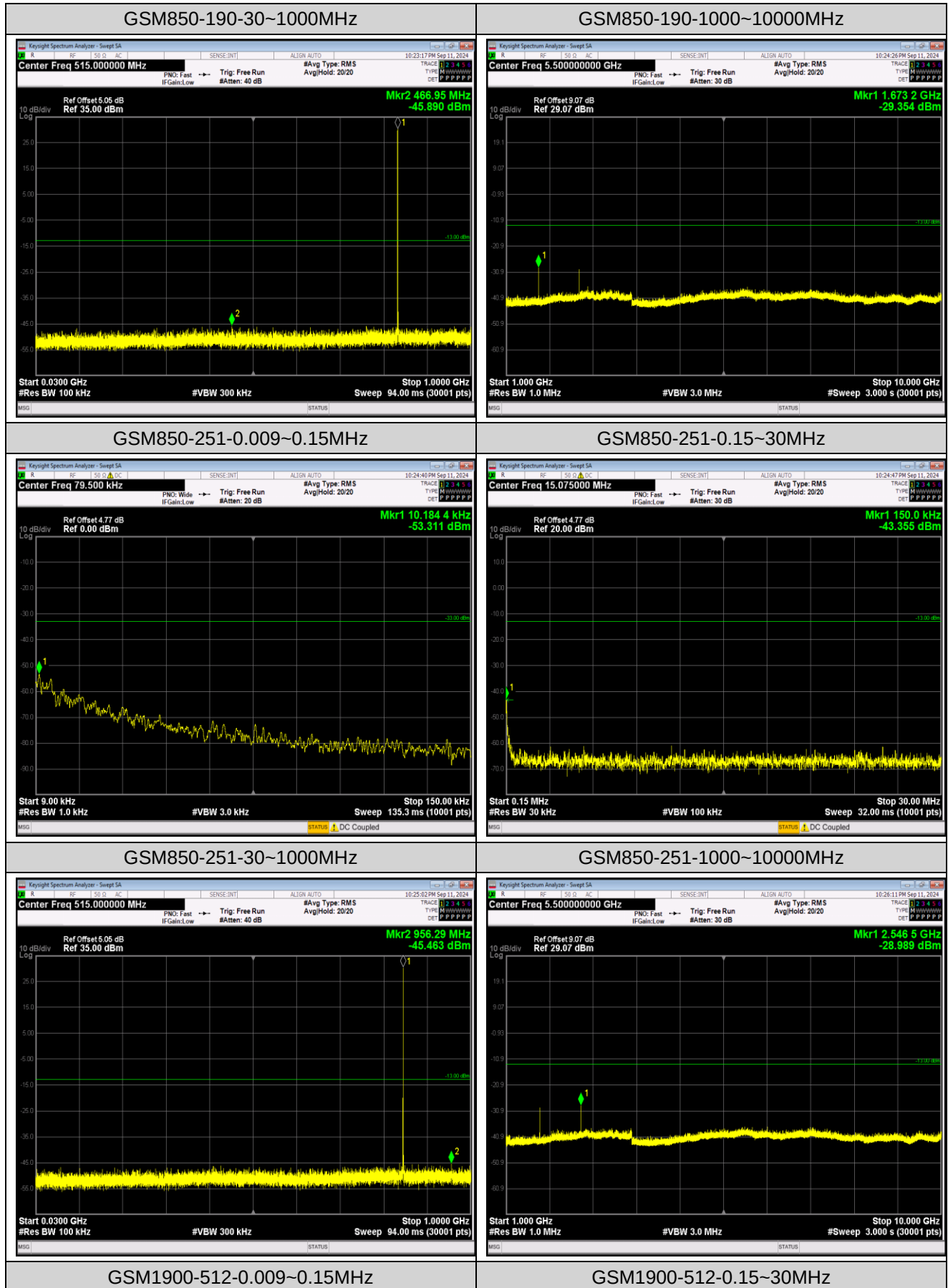


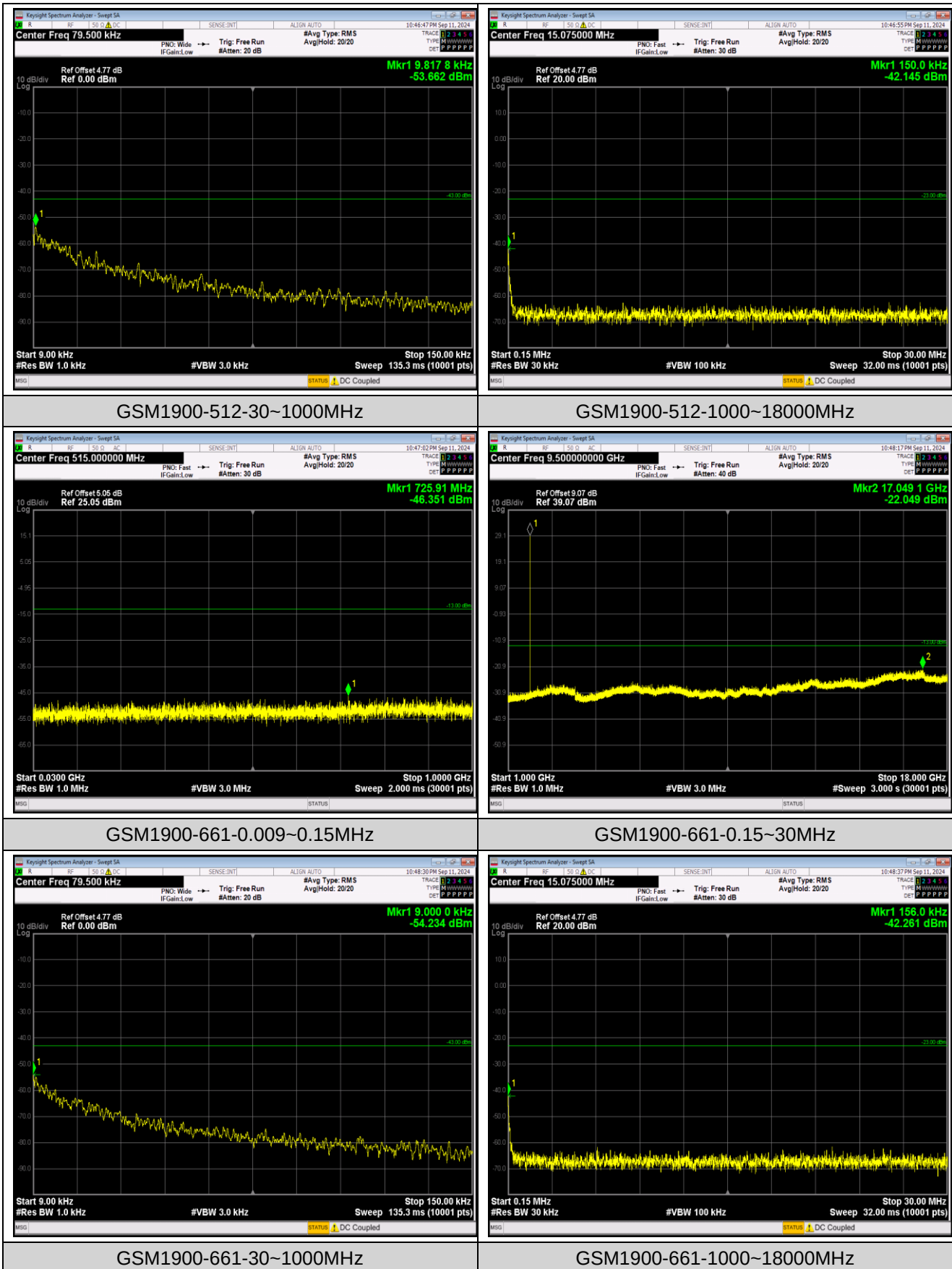
JianYan Testing Group Shenzhen Co., Ltd.

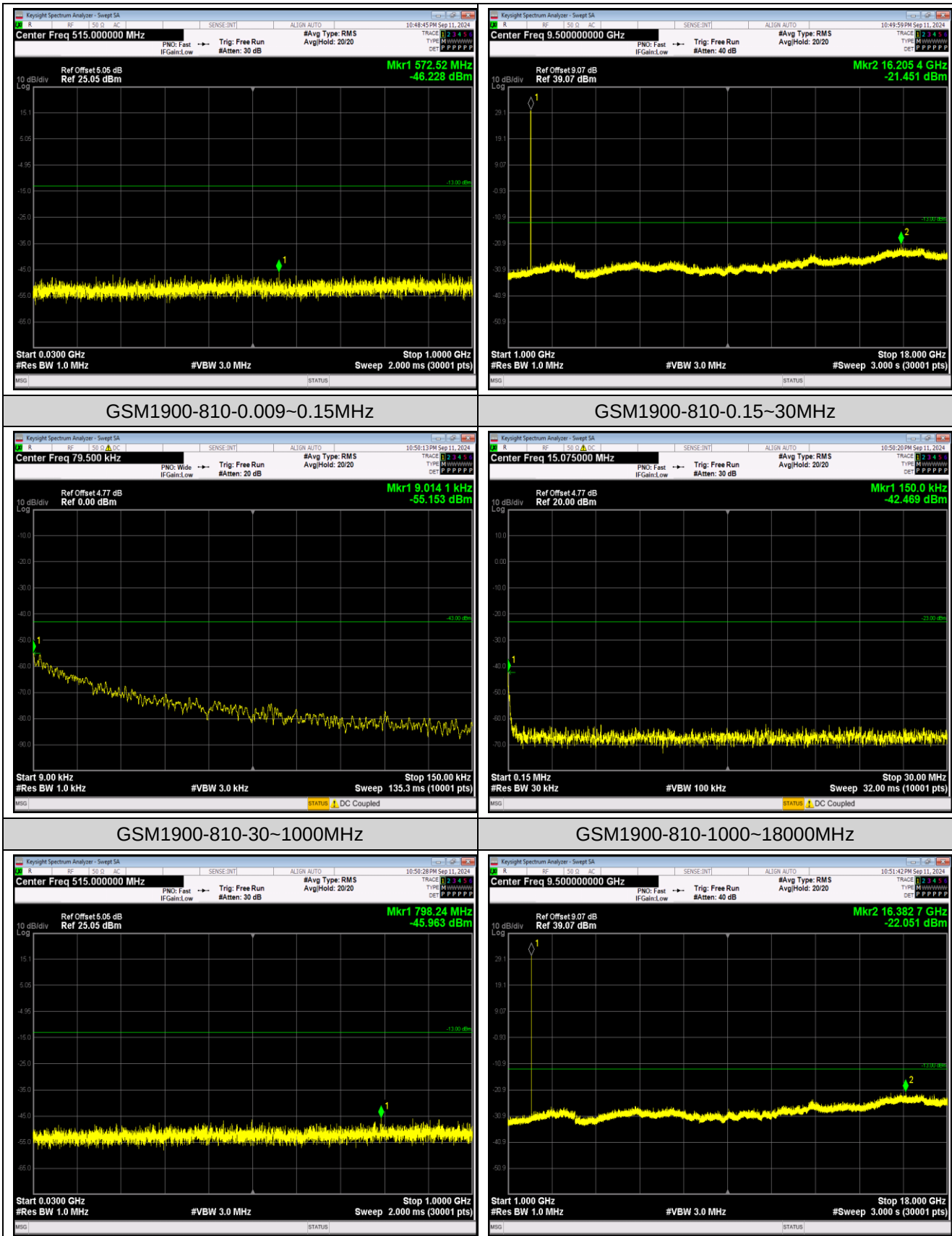
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Appendix F: Frequency Stability

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	9.88	0.011810	±2.5	Pass
	-20	6.07	0.007256		
	-10	11.14	0.013316		
	0	12.04	0.014392		
	10	8.30	0.009921		
	20	7.94	0.009491		
	30	14.66	0.017523		
	40	15.17	0.018133		
	50	9.30	0.011116		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	8.52	0.010184	±2.5	Pass
	3.87	7.88	0.009419		
	4.45	9.98	0.011929		
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		
3.87	-30	9.23	0.011033	±2.5	Pass
	-20	13.69	0.016364		
	-10	13.33	0.015934		
	0	13.79	0.016483		
	10	14.24	0.017021		
	20	12.62	0.015085		
	30	12.01	0.014356		
	40	10.69	0.012778		
	50	12.04	0.014392		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	9.85	0.011774	±2.5	Pass
	3.87	11.59	0.013854		
	4.45	16.27	0.019448		
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		
3.87	-30	10.01	0.005324	Within authorized band for PCS 1900	Pass
	-20	13.66	0.007266		
	-10	18.47	0.009824		
	0	16.56	0.008809		
	10	8.43	0.004484		
	20	5.52	0.002936		
	30	8.43	0.004484		
	40	7.14	0.003798		
	50	9.49	0.005048		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	23.79	0.012654	Within authorized band for PCS 1900	Pass
	3.87	19.76	0.010511		
	4.45	19.02	0.010117		
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		
3.87	-30	5.65	0.003005	Within authorized band for PCS 1900	Pass
	-20	10.46	0.005564		
	-10	18.79	0.009995		
	0	20.89	0.011112		
	10	10.14	0.005394		
	20	10.78	0.005734		
	30	14.95	0.007952		
	40	17.60	0.009362		
	50	13.14	0.006989		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.00	5.68	0.003021	Within authorized band for PCS 1900	Pass
	3.87	9.59	0.005101		
	4.45	14.37	0.007644		
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

