

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	33.30	31.71	38.45	PASS
GSM850	190	5	33.38	31.79	38.45	PASS
GSM850	251	5	33.29	31.7	38.45	PASS
GSM1900	512	0	29.90	31.29	33.00	PASS
GSM1900	661	0	29.97	31.36	33.00	PASS
GSM1900	810	0	29.96	31.35	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.27	31.68	38.45	PASS
GPRS850	128	5	2	31.11	29.52	38.45	PASS
GPRS850	128	5	3	29.14	27.55	38.45	PASS
GPRS850	128	5	4	26.69	25.1	38.45	PASS
GPRS850	190	5	1	33.33	31.74	38.45	PASS
GPRS850	190	5	2	31.13	29.54	38.45	PASS
GPRS850	190	5	3	29.21	27.62	38.45	PASS
GPRS850	190	5	4	26.84	25.25	38.45	PASS
GPRS850	251	5	1	33.28	31.69	38.45	PASS
GPRS850	251	5	2	31.05	29.46	38.45	PASS
GPRS850	251	5	3	29.12	27.53	38.45	PASS
GPRS850	251	5	4	26.75	25.16	38.45	PASS
GPRS1900	512	0	1	29.76	31.15	33.00	PASS
GPRS1900	512	0	2	27.69	29.08	33.00	PASS
GPRS1900	512	0	3	26.17	27.56	33.00	PASS
GPRS1900	512	0	4	24.08	25.47	33.00	PASS
GPRS1900	661	0	1	29.96	31.35	33.00	PASS
GPRS1900	661	0	2	27.49	28.88	33.00	PASS
GPRS1900	661	0	3	25.99	27.38	33.00	PASS
GPRS1900	661	0	4	23.91	25.3	33.00	PASS
GPRS1900	810	0	1	30.03	31.42	33.00	PASS
GPRS1900	810	0	2	27.26	28.65	33.00	PASS
GPRS1900	810	0	3	25.75	27.14	33.00	PASS
GPRS1900	810	0	4	23.66	25.05	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.58	24.99	38.45	PASS
EGPRS850	128	8	2	26.42	24.83	38.45	PASS
EGPRS850	128	8	3	25.11	23.52	38.45	PASS
EGPRS850	128	8	4	22.70	21.11	38.45	PASS
EGPRS850	190	8	1	26.46	24.87	38.45	PASS
EGPRS850	190	8	2	26.39	24.8	38.45	PASS
EGPRS850	190	8	3	25.19	23.6	38.45	PASS
EGPRS850	190	8	4	22.61	21.02	38.45	PASS
EGPRS850	251	8	1	26.26	24.67	38.45	PASS
EGPRS850	251	8	2	26.00	24.41	38.45	PASS
EGPRS850	251	8	3	24.70	23.11	38.45	PASS
EGPRS850	251	8	4	22.15	20.56	38.45	PASS
EGPRS1900	512	2	1	25.56	26.95	33.00	PASS
EGPRS1900	512	2	2	25.32	26.71	33.00	PASS
EGPRS1900	512	2	3	23.85	25.24	33.00	PASS
EGPRS1900	512	2	4	21.73	23.12	33.00	PASS
EGPRS1900	661	2	1	25.76	27.15	33.00	PASS
EGPRS1900	661	2	2	25.63	27.02	33.00	PASS
EGPRS1900	661	2	3	24.12	25.51	33.00	PASS
EGPRS1900	661	2	4	21.86	23.25	33.00	PASS
EGPRS1900	810	2	1	25.36	26.75	33.00	PASS
EGPRS1900	810	2	2	25.21	26.6	33.00	PASS
EGPRS1900	810	2	3	23.52	24.91	33.00	PASS
EGPRS1900	810	2	4	20.78	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)

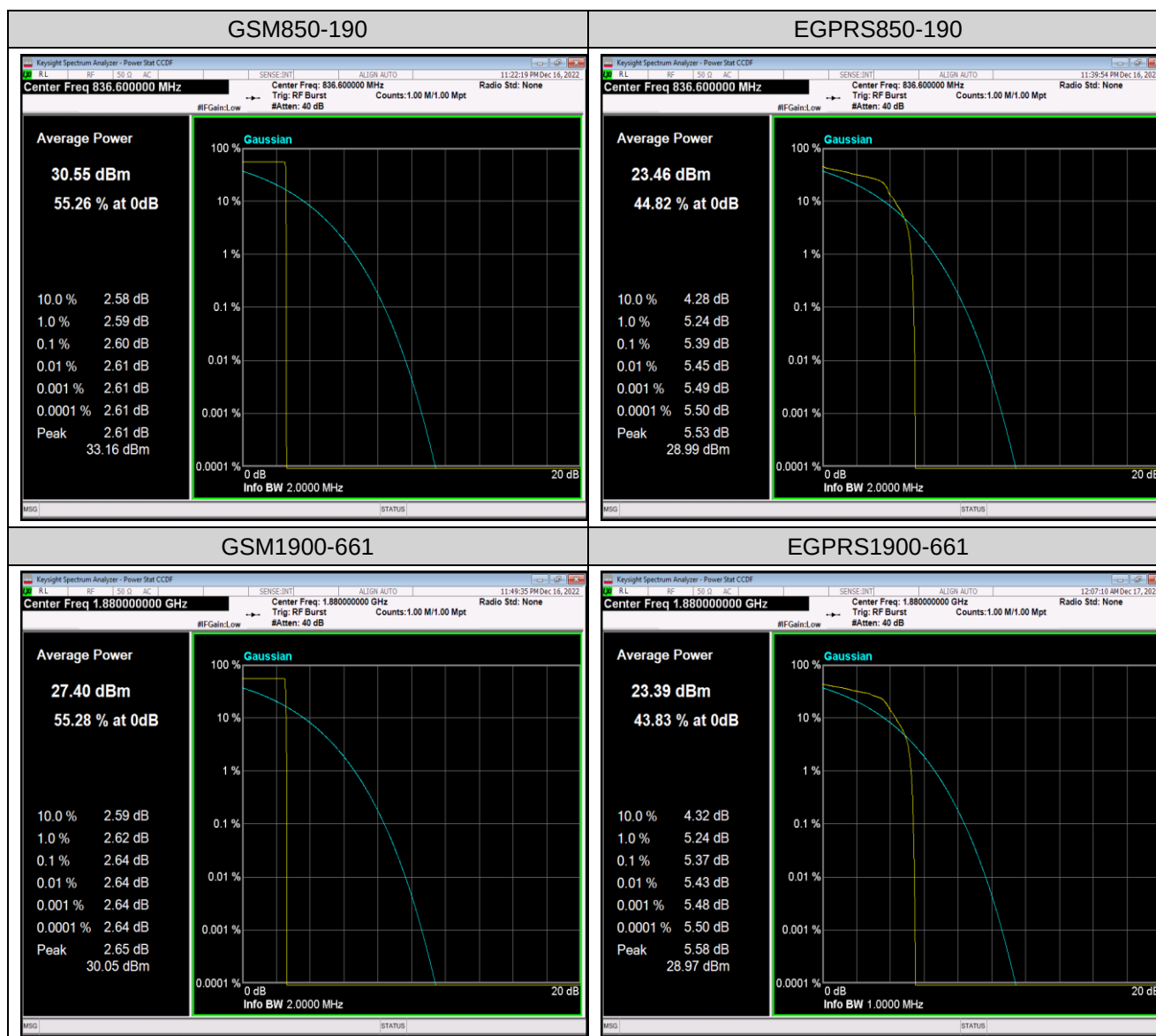
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.6	13	PASS
EGPRS850	190	8	5.39	13	PASS
GSM1900	661	0	2.64	13	PASS
EGPRS1900	661	2	5.37	13	PASS

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

Test Graphs

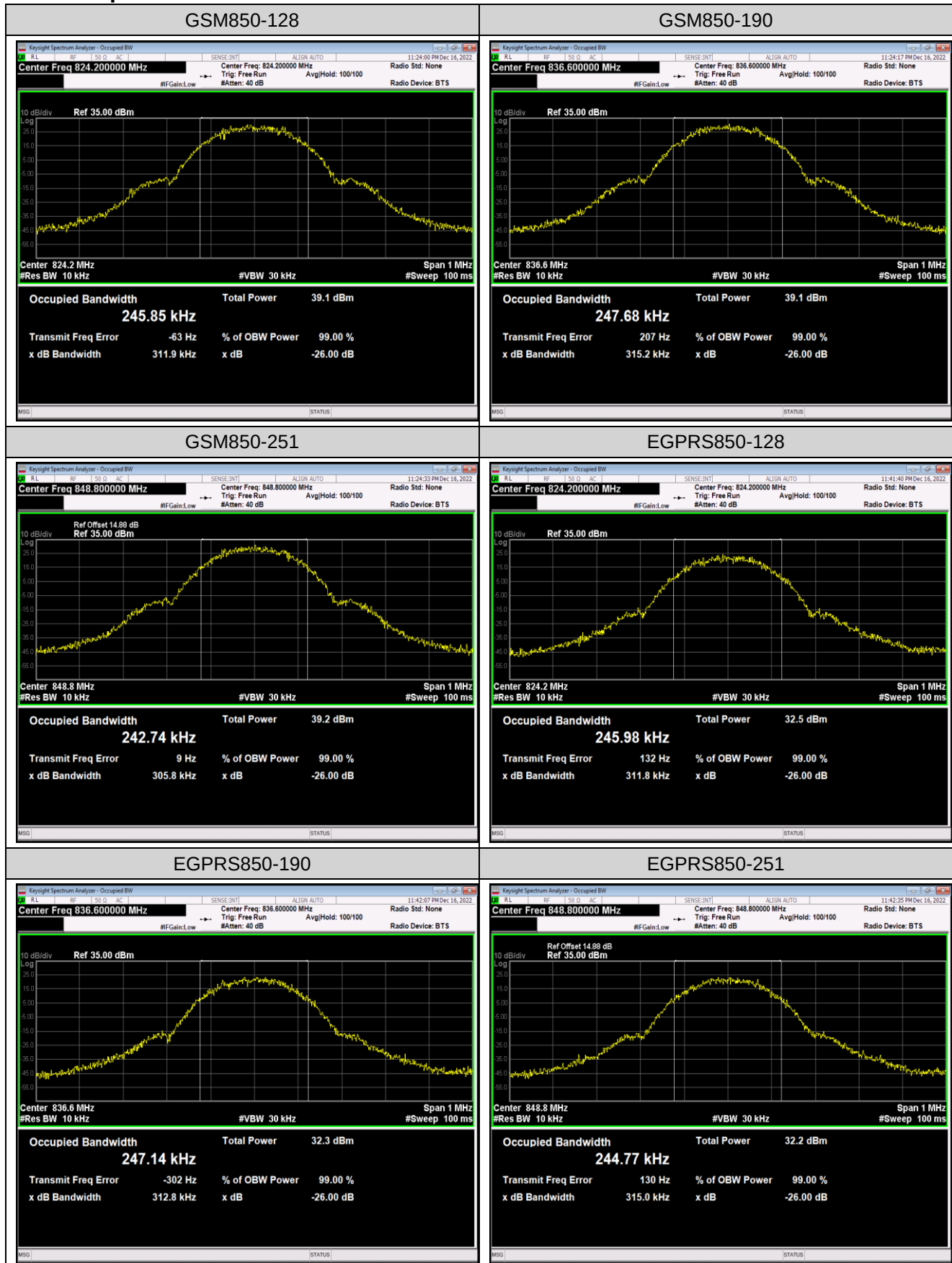


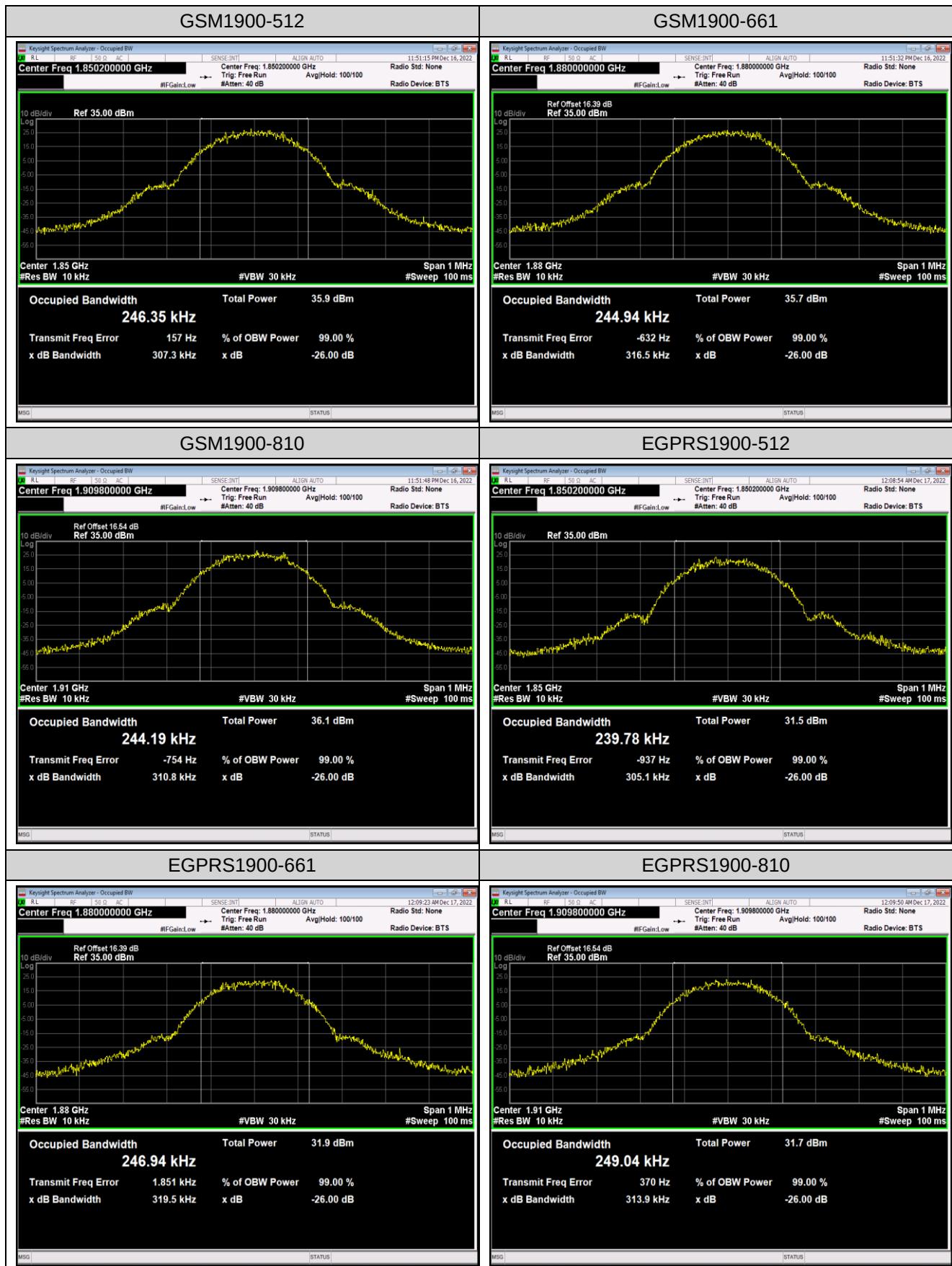
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24585	0.3119	---	PASS
GSM850	190	5	0.24768	0.3152	---	PASS
GSM850	251	5	0.24274	0.3058	---	PASS
EGPRS850	128	8	0.24598	0.3118	---	PASS
EGPRS850	190	8	0.24714	0.3128	---	PASS
EGPRS850	251	8	0.24477	0.3150	---	PASS
GSM1900	512	0	0.24635	0.3073	---	PASS
GSM1900	661	0	0.24494	0.3165	---	PASS
GSM1900	810	0	0.24419	0.3108	---	PASS
EGPRS1900	512	2	0.23978	0.3051	---	PASS
EGPRS1900	661	2	0.24694	0.3195	---	PASS
EGPRS1900	810	2	0.24904	0.3139	---	PASS

Test Graphs



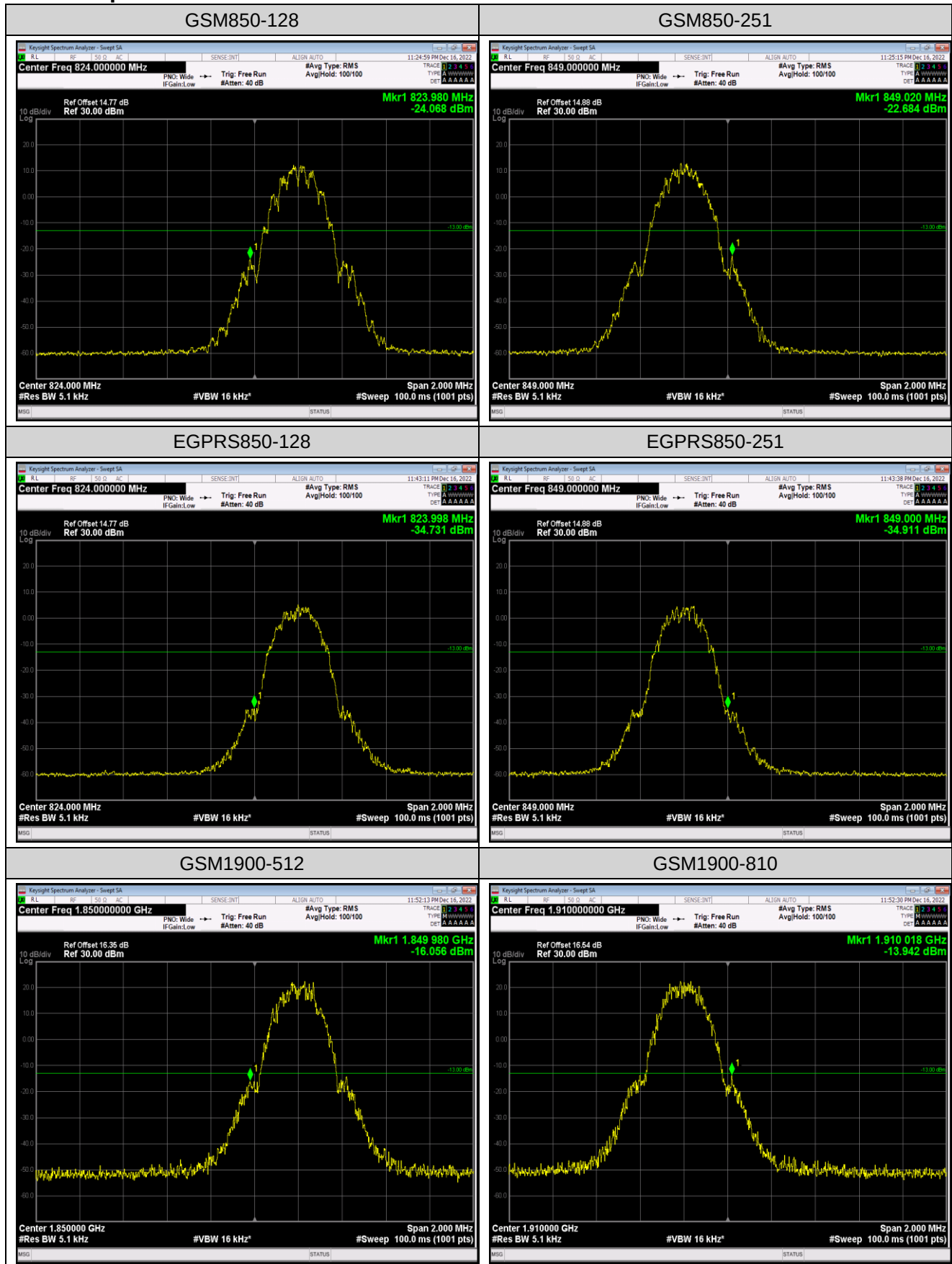


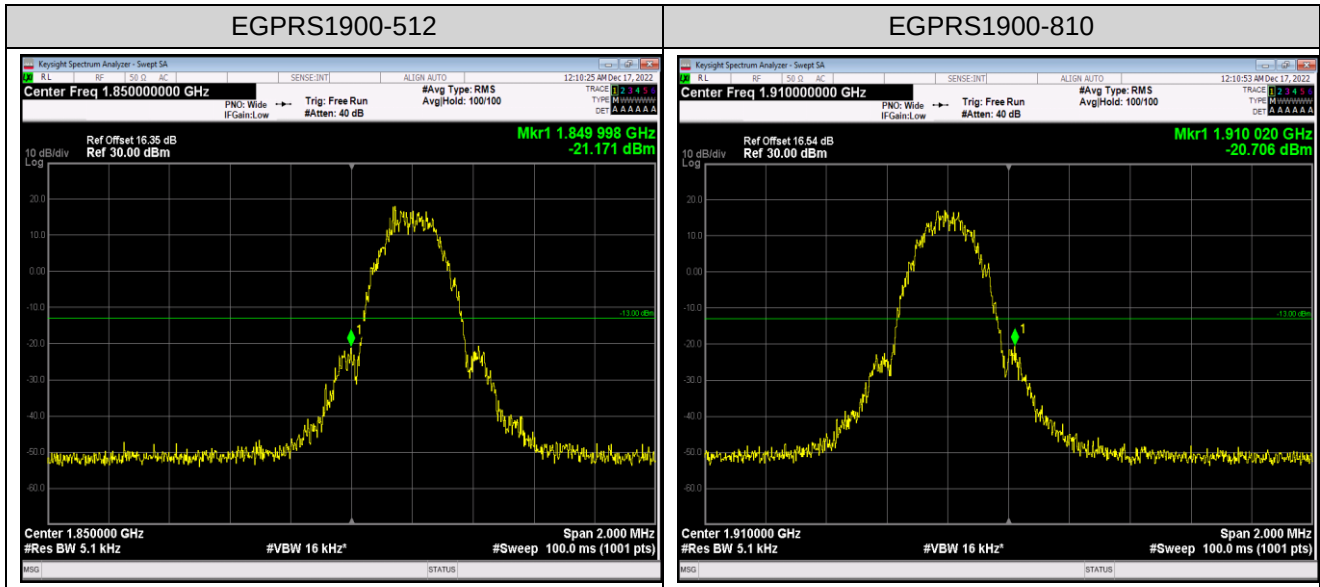
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.07	-13	PASS
GSM850	251	5	849.02	-22.68	-13	PASS
EGPRS850	128	8	824.00	-34.73	-13	PASS
EGPRS850	251	8	849.00	-34.91	-13	PASS
GSM1900	512	0	1849.98	-16.06	-13	PASS
GSM1900	810	0	1910.02	-13.94	-13	PASS
EGPRS1900	512	2	1850.00	-21.17	-13	PASS
EGPRS1900	810	2	1910.02	-20.71	-13	PASS

Test Graphs





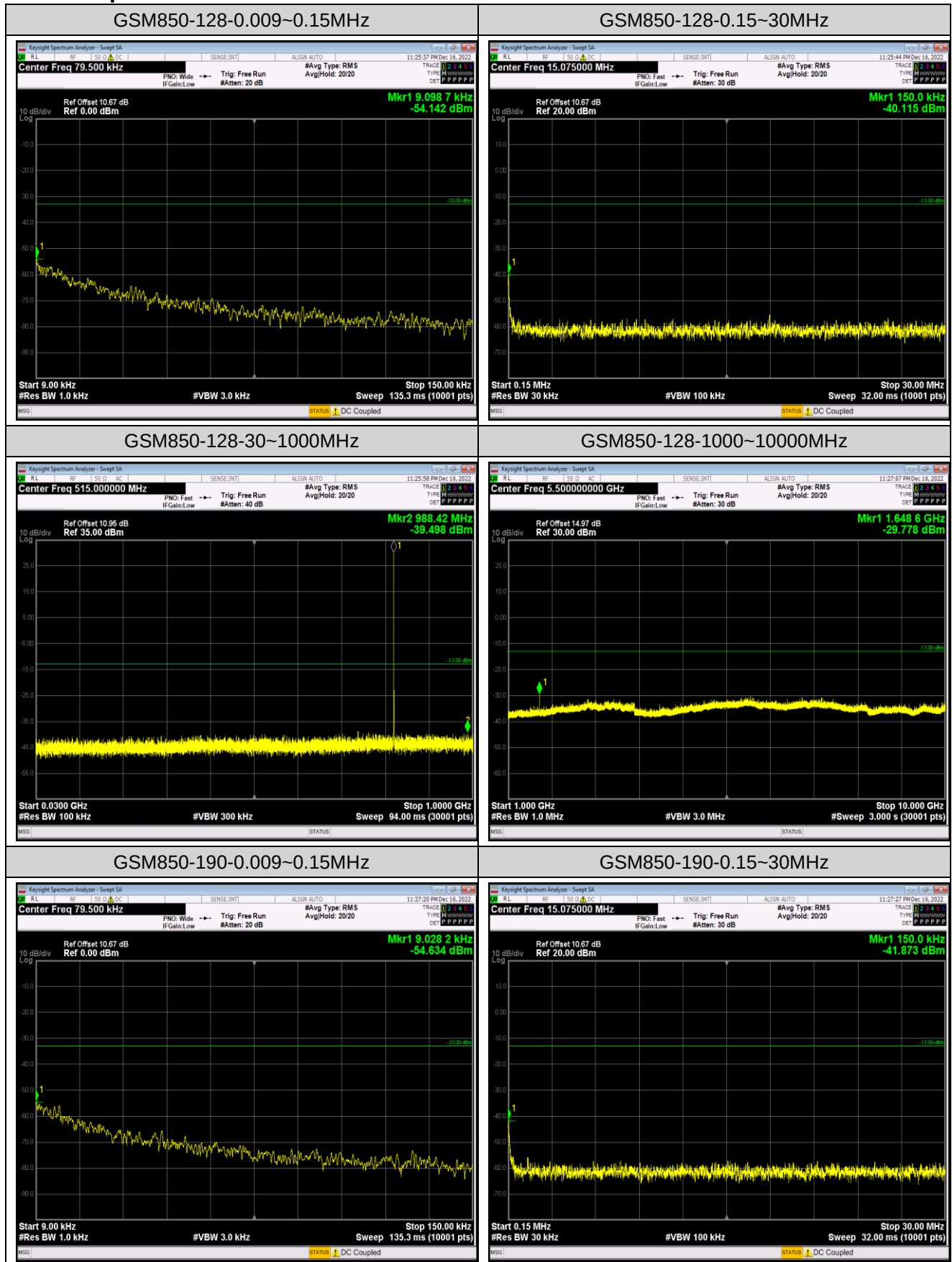
Appendix E: Conducted Spurious Emission

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	-54.14	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-40.12	-13	PASS
GSM850	128	5	30~1000MHz	988.42	-39.5	-13	PASS
GSM850	128	5	1000~10000MHz	1648.6	-29.78	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.63	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-41.87	-13	PASS
GSM850	190	5	30~1000MHz	543.74	-39.17	-13	PASS
GSM850	190	5	1000~10000MHz	5902	-29.58	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-53.31	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-41.02	-13	PASS
GSM850	251	5	30~1000MHz	701.18	-38.57	-13	PASS
GSM850	251	5	1000~10000MHz	3188.5	-30.18	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-53.07	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-41.88	-23	PASS
GSM1900	512	0	30~1000MHz	977.82	-38.72	-13	PASS
GSM1900	512	0	1000~18000MHz	16979.43	-26.45	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-52.35	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-41.16	-23	PASS
GSM1900	661	0	30~1000MHz	907.75	-39.55	-13	PASS
GSM1900	661	0	1000~18000MHz	16952.8	-26.2	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-54.01	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-41.07	-23	PASS
GSM1900	810	0	30~1000MHz	982.38	-38.52	-13	PASS
GSM1900	810	0	1000~18000MHz	15763.37	-26.64	-13	PASS

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

Test Graphs

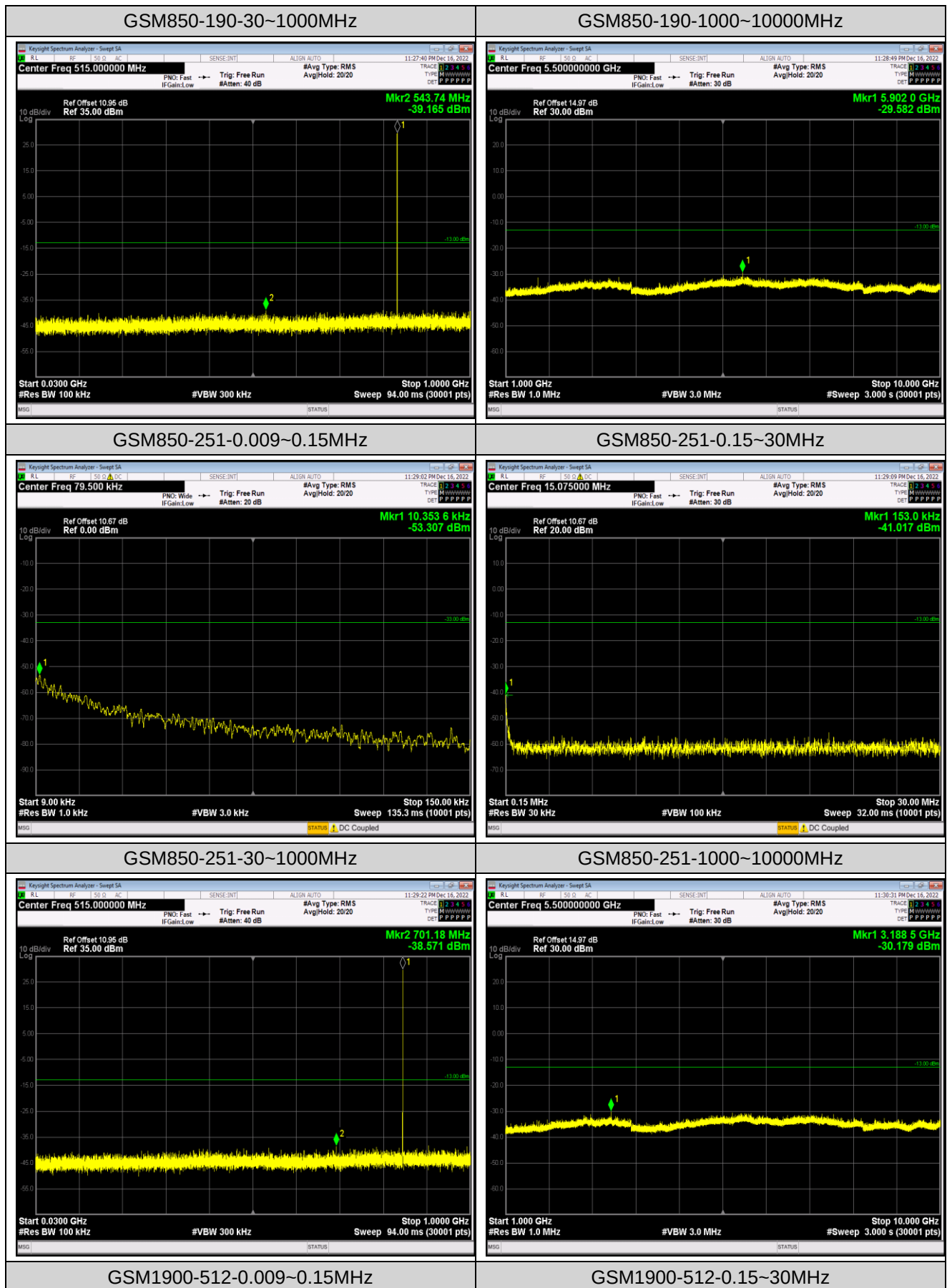


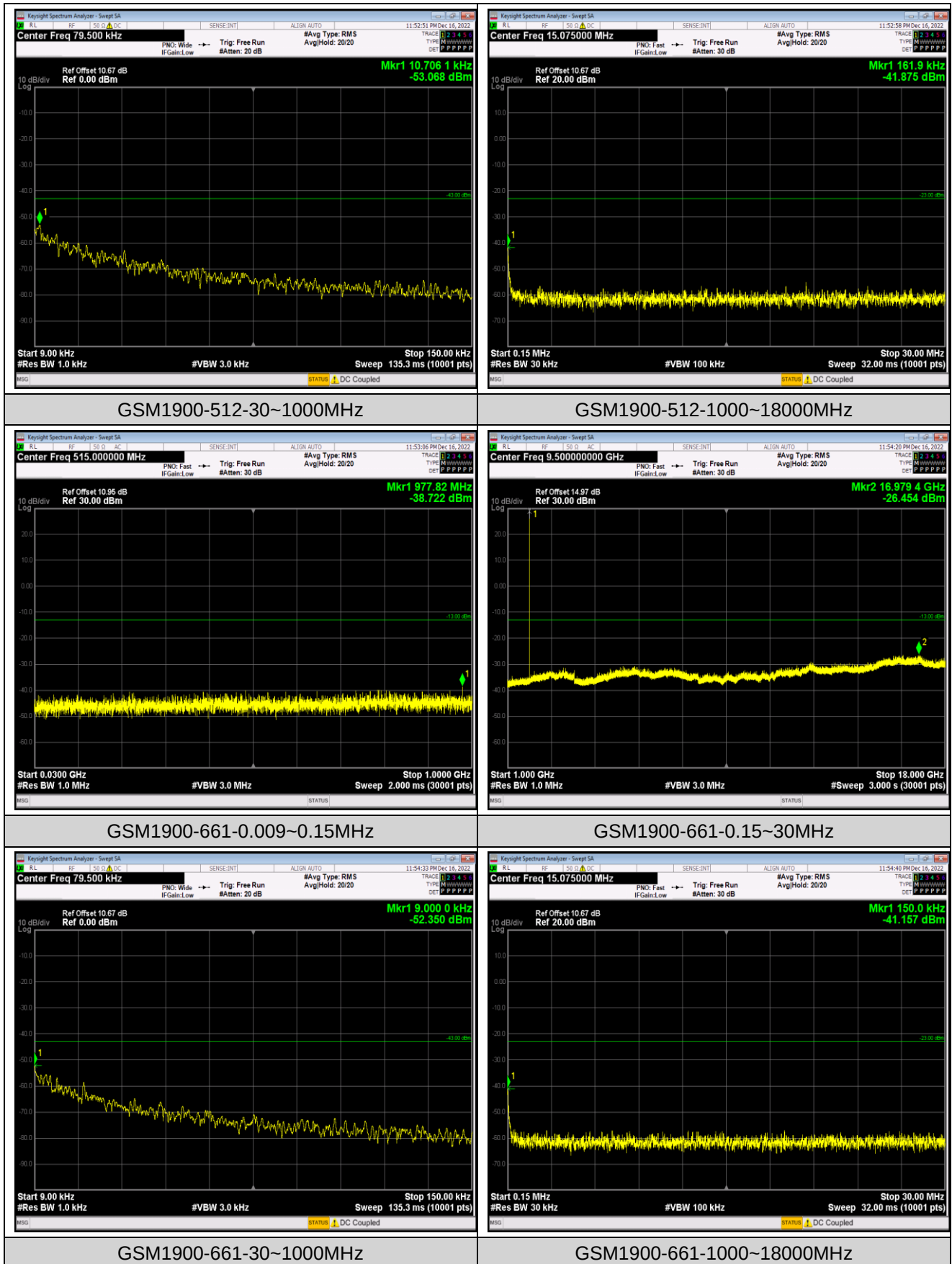
JianYan Testing Group Shenzhen Co., Ltd.

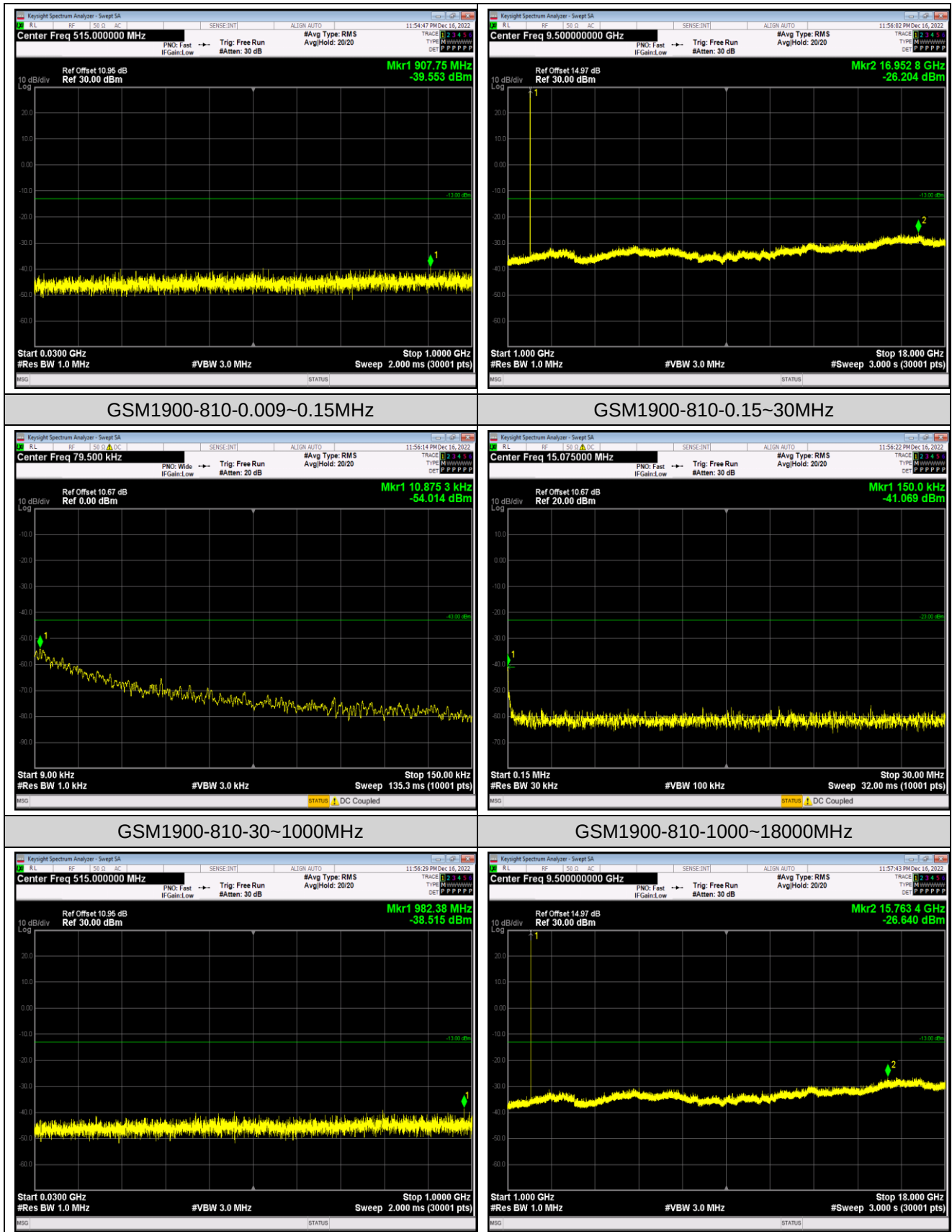
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Appendix F: Frequency Stability

Test Result

Reference Frequency: GSM850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	-5.75	-0.006873	±2.5	Pass
	-20	-9.17	-0.010961		
	-10	-1.39	-0.001661		
	0	-1.61	-0.001924		
	10	-1.71	-0.002044		
	20	-0.97	-0.001159		
	30	0.84	0.001004		
	40	-2.23	-0.002666		
	50	-4.68	-0.005594		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-1.74	-0.002080	±2.5	Pass
	3.70	-4.75	-0.005678		
	4.20	7.10	0.008487		
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	6.39	0.007638	±2.5	Pass
	-20	4.84	0.005785		
	-10	8.78	0.010495		
	0	8.10	0.009682		
	10	4.49	0.005367		
	20	2.07	0.002474		
	30	9.30	0.011116		
	40	2.26	0.002701		
	50	4.36	0.005212		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	4.20	0.005020	±2.5	Pass
	3.70	8.33	0.009957		
	4.20	4.46	0.005331		
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	-1.23	-0.000654	Within authorized band for PCS 1900	Pass
	-20	2.97	0.001580		
	-10	8.46	0.004500		
	0	6.33	0.003367		
	10	-7.20	-0.003830		
	20	-1.29	-0.000686		
	30	5.07	0.002697		
	40	6.33	0.003367		
	50	5.46	0.002904		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.81	0.001495	Within authorized band for PCS 1900	Pass
	3.70	-0.29	-0.000154		
	4.20	9.17	0.004878		
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		
3.70	-30	-7.68	-0.004085	Within authorized band for PCS 1900	Pass
	-20	3.78	0.002011		
	-10	-7.04	-0.003745		
	0	-1.81	-0.000963		
	10	-7.78	-0.004138		
	20	-5.00	-0.002660		
	30	7.65	0.004069		
	40	-3.55	-0.001888		
	50	-13.04	-0.006936		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-2.23	-0.001186	Within authorized band for PCS 1900	Pass
	3.70	1.29	0.000686		
	4.20	1.39	0.000739		
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

