

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	33.79	27.31	38.45	PASS
GSM850	190	5	33.91	27.43	38.45	PASS
GSM850	251	5	33.86	27.38	38.45	PASS
GSM1900	512	0	30.96	29.66	33.00	PASS
GSM1900	661	0	30.60	29.3	33.00	PASS
GSM1900	810	0	30.34	29.04	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.83	27.35	38.45	PASS
GPRS850	128	5	2	32.94	26.46	38.45	PASS
GPRS850	128	5	3	31.03	24.55	38.45	PASS
GPRS850	128	5	4	29.96	23.48	38.45	PASS
GPRS850	190	5	1	33.84	27.36	38.45	PASS
GPRS850	190	5	2	33.00	26.52	38.45	PASS
GPRS850	190	5	3	31.11	24.63	38.45	PASS
GPRS850	190	5	4	30.05	23.57	38.45	PASS
GPRS850	251	5	1	33.79	27.31	38.45	PASS
GPRS850	251	5	2	32.94	26.46	38.45	PASS
GPRS850	251	5	3	31.06	24.58	38.45	PASS
GPRS850	251	5	4	29.99	23.51	38.45	PASS
GPRS1900	512	0	1	30.97	29.67	33.00	PASS
GPRS1900	512	0	2	30.01	28.71	33.00	PASS
GPRS1900	512	0	3	27.94	26.64	33.00	PASS
GPRS1900	512	0	4	26.87	25.57	33.00	PASS
GPRS1900	661	0	1	30.60	29.3	33.00	PASS
GPRS1900	661	0	2	29.67	28.37	33.00	PASS
GPRS1900	661	0	3	27.61	26.31	33.00	PASS
GPRS1900	661	0	4	26.60	25.3	33.00	PASS
GPRS1900	810	0	1	30.34	29.04	33.00	PASS
GPRS1900	810	0	2	29.44	28.14	33.00	PASS
GPRS1900	810	0	3	27.44	26.14	33.00	PASS
GPRS1900	810	0	4	26.42	25.12	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.64	21.16	38.45	PASS
EGPRS850	128	8	2	26.51	20.03	38.45	PASS
EGPRS850	128	8	3	24.35	17.87	38.45	PASS
EGPRS850	128	8	4	23.33	16.85	38.45	PASS
EGPRS850	190	8	1	27.73	21.25	38.45	PASS
EGPRS850	190	8	2	26.60	20.12	38.45	PASS
EGPRS850	190	8	3	24.52	18.04	38.45	PASS
EGPRS850	190	8	4	23.53	17.05	38.45	PASS
EGPRS850	251	8	1	27.58	21.1	38.45	PASS
EGPRS850	251	8	2	26.51	20.03	38.45	PASS
EGPRS850	251	8	3	24.61	18.13	38.45	PASS
EGPRS850	251	8	4	23.38	16.9	38.45	PASS
EGPRS1900	512	2	1	26.31	25.01	33.00	PASS
EGPRS1900	512	2	2	25.10	23.8	33.00	PASS
EGPRS1900	512	2	3	23.14	21.84	33.00	PASS
EGPRS1900	512	2	4	22.03	20.73	33.00	PASS
EGPRS1900	661	2	1	26.09	24.79	33.00	PASS
EGPRS1900	661	2	2	25.03	23.73	33.00	PASS
EGPRS1900	661	2	3	23.06	21.76	33.00	PASS
EGPRS1900	661	2	4	21.94	20.64	33.00	PASS
EGPRS1900	810	2	1	26.10	24.8	33.00	PASS
EGPRS1900	810	2	2	25.06	23.76	33.00	PASS
EGPRS1900	810	2	3	23.11	21.81	33.00	PASS
EGPRS1900	810	2	4	21.97	20.67	33.00	PASS

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

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

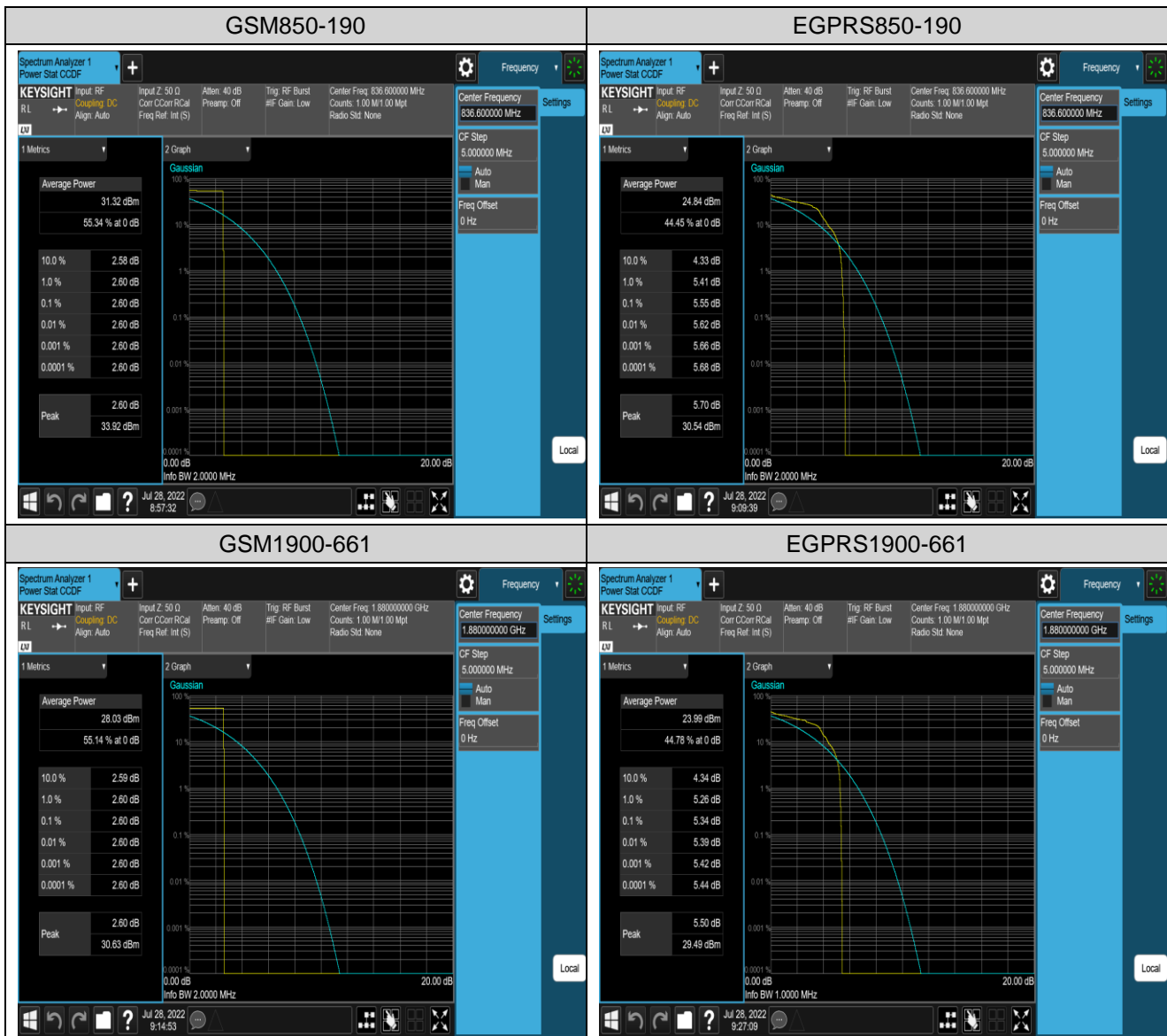
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.6	13	PASS
EGPRS850	190	8	5.55	13	PASS
GSM1900	661	0	2.6	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

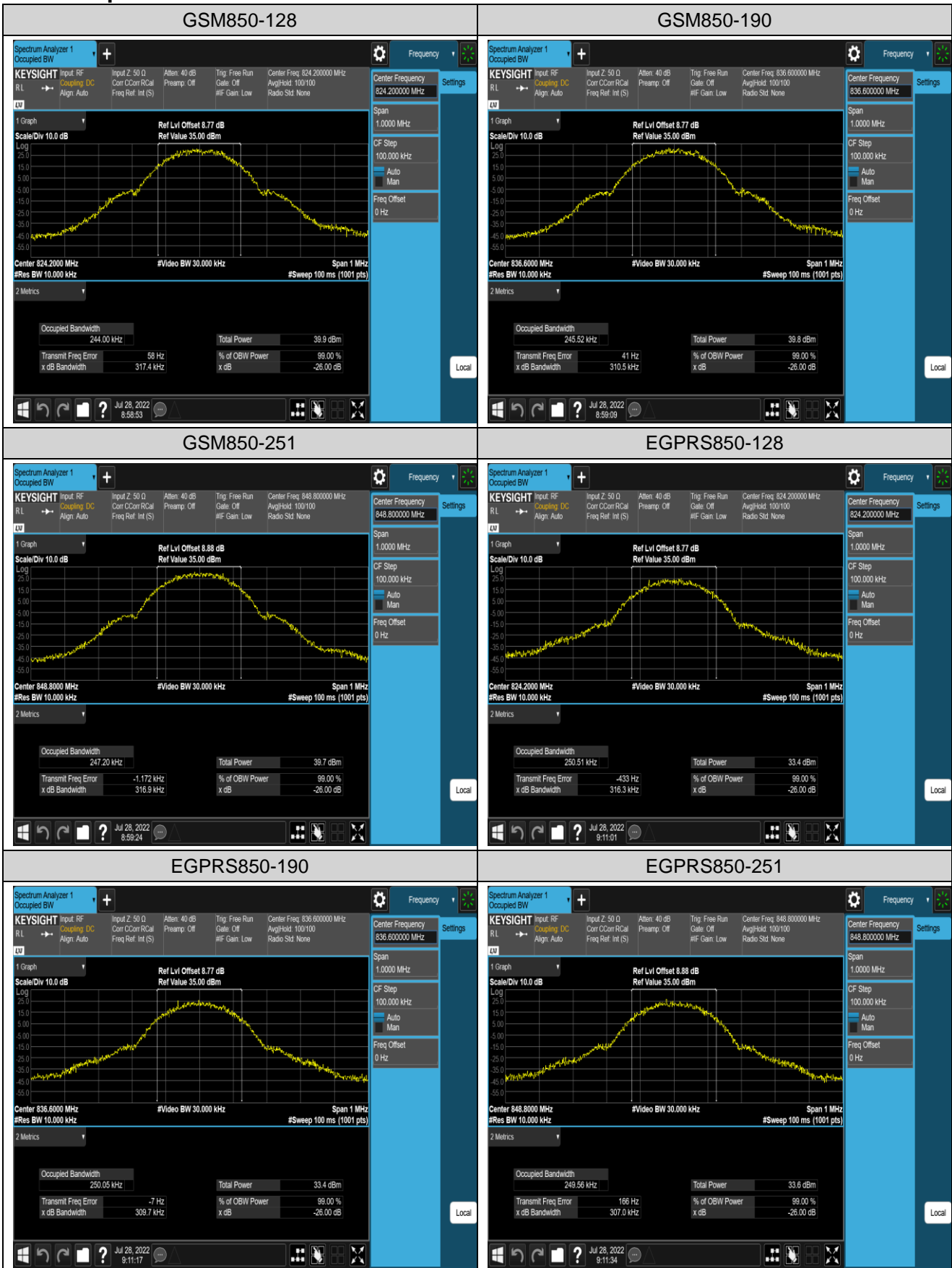


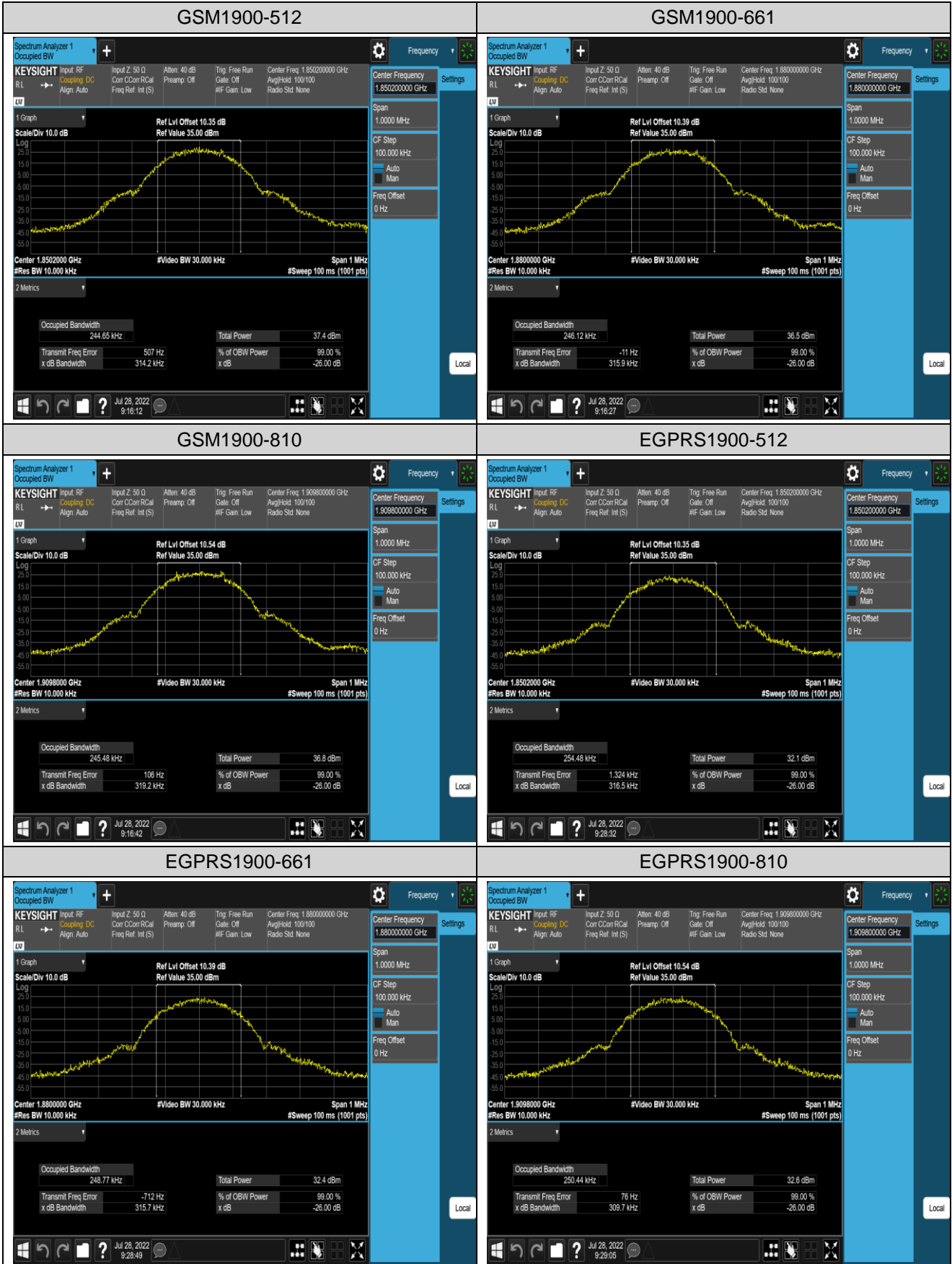
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24400	0.3174	---	PASS
GSM850	190	5	0.24552	0.3105	---	PASS
GSM850	251	5	0.24720	0.3169	---	PASS
EGPRS850	128	8	0.25051	0.3163	---	PASS
EGPRS850	190	8	0.25005	0.3097	---	PASS
EGPRS850	251	8	0.24956	0.3070	---	PASS
GSM1900	512	0	0.24465	0.3142	---	PASS
GSM1900	661	0	0.24612	0.3159	---	PASS
GSM1900	810	0	0.24548	0.3192	---	PASS
EGPRS1900	512	2	0.25448	0.3165	---	PASS
EGPRS1900	661	2	0.24877	0.3157	---	PASS
EGPRS1900	810	2	0.25044	0.3097	---	PASS

Test Graphs

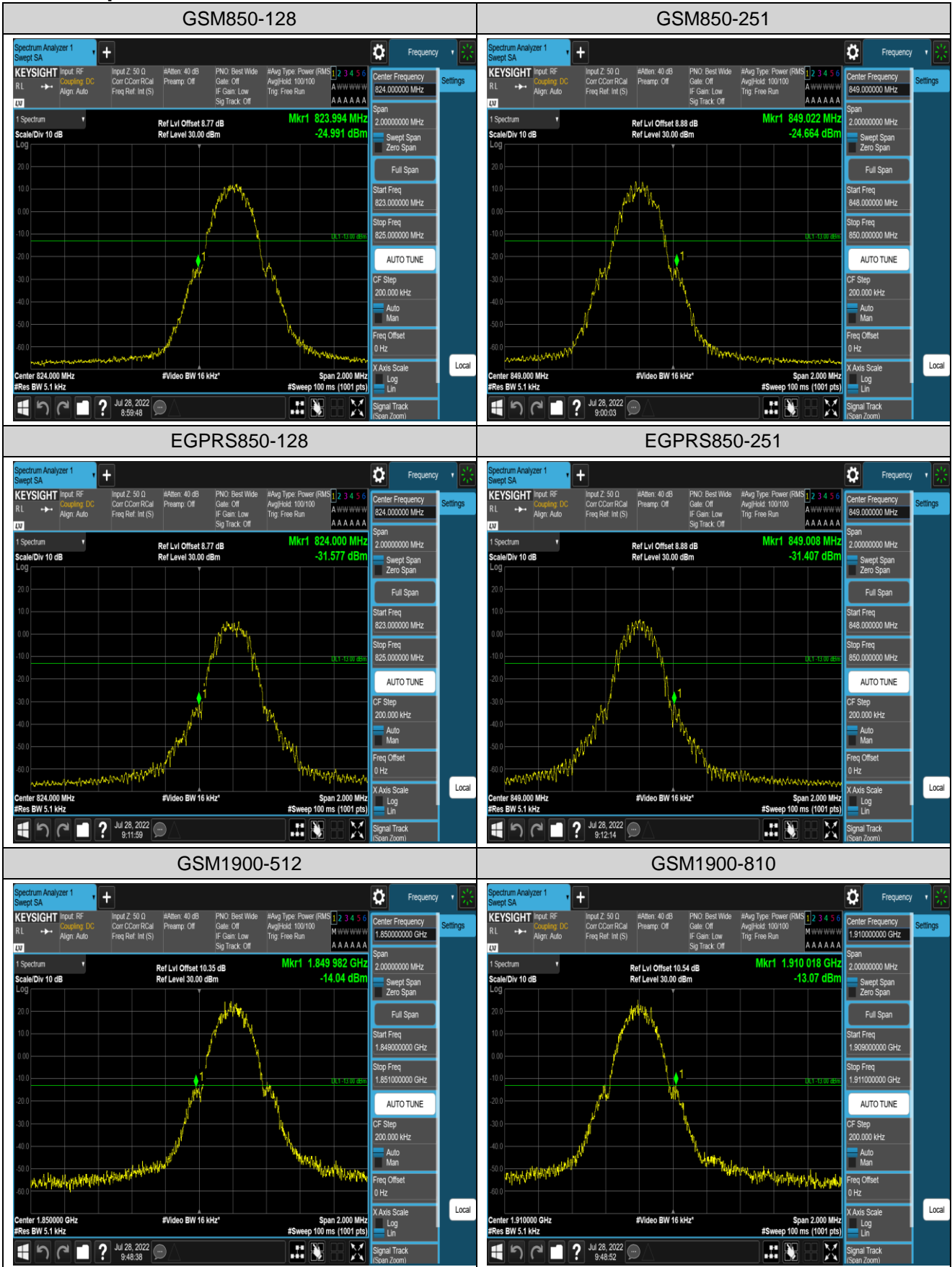


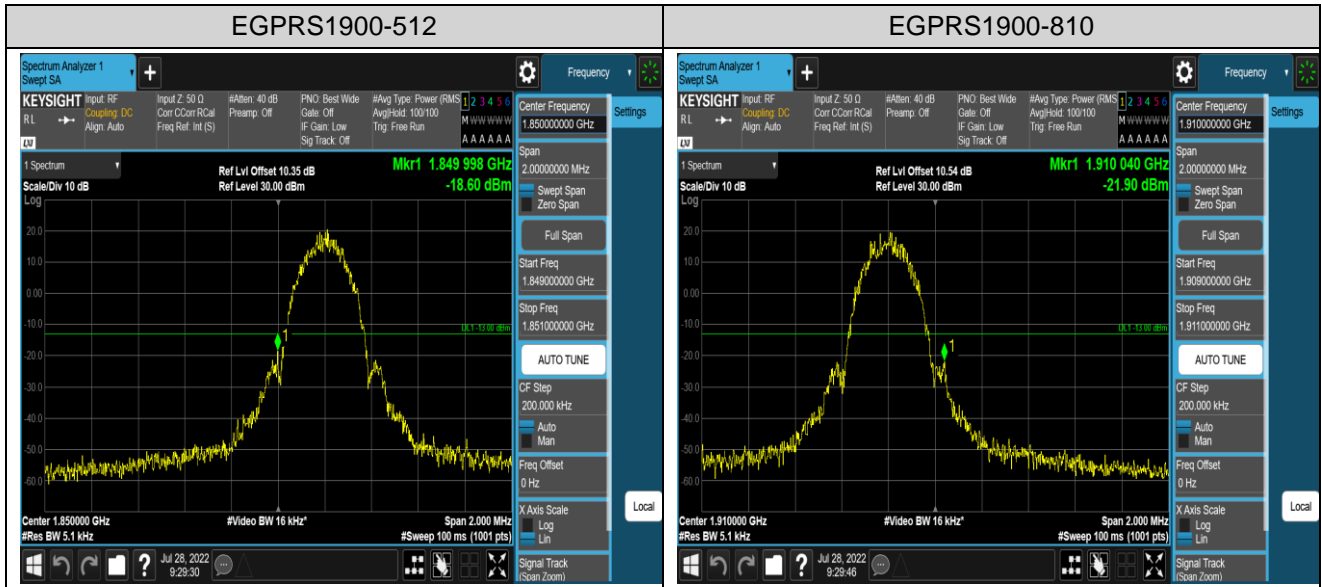


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.99	-24.99	-13	PASS
GSM850	251	5	849.02	-24.66	-13	PASS
EGPRS850	128	8	824.00	-31.58	-13	PASS
EGPRS850	251	8	849.01	-31.41	-13	PASS
GSM1900	512	0	1849.98	-14.04	-13	PASS
GSM1900	810	0	1910.02	-13.07	-13	PASS
EGPRS1900	512	2	1850.00	-18.60	-13	PASS
EGPRS1900	810	2	1910.04	-21.90	-13	PASS

Test Graphs





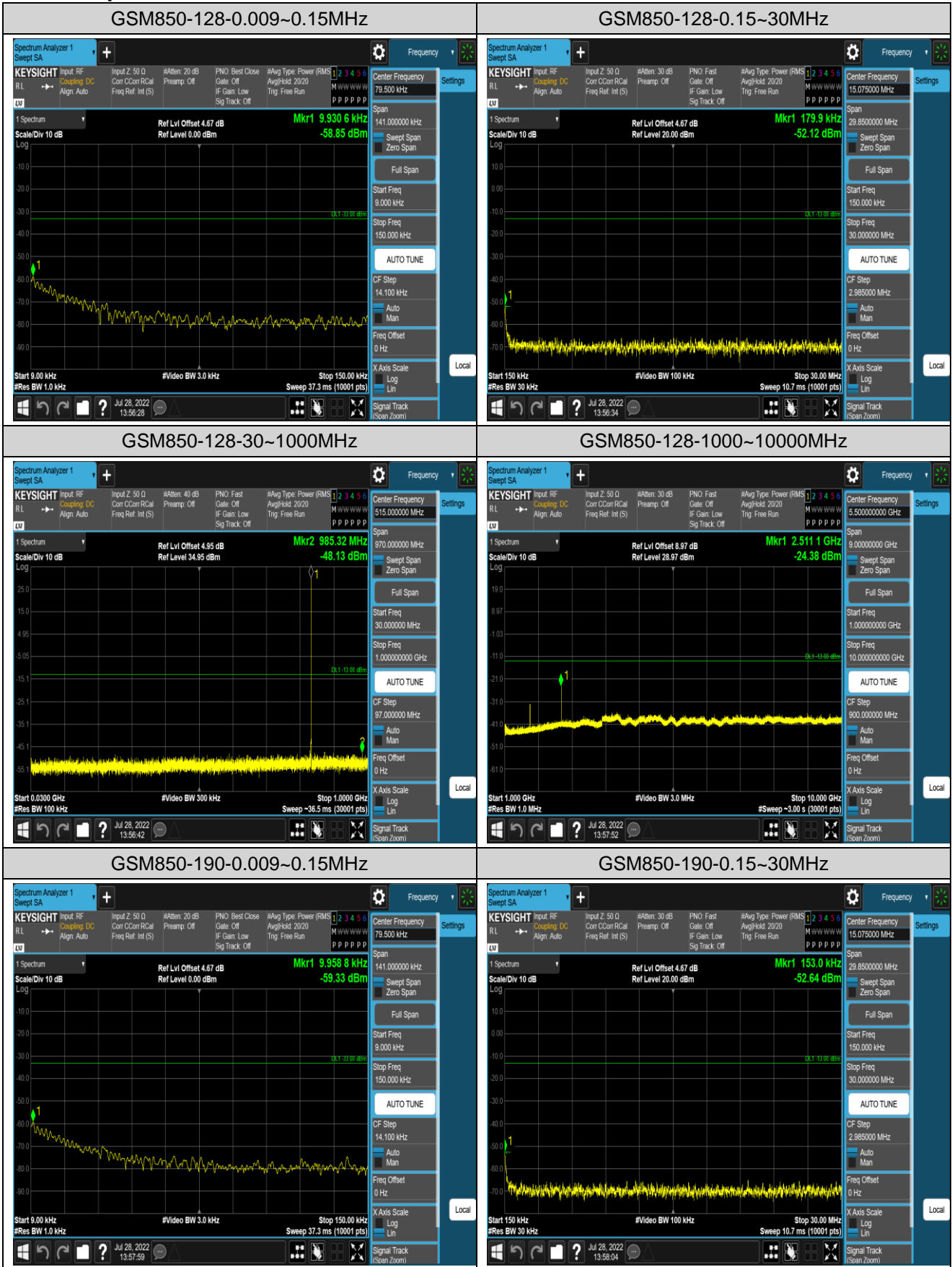
Appendix E: Conducted Spurious Emission

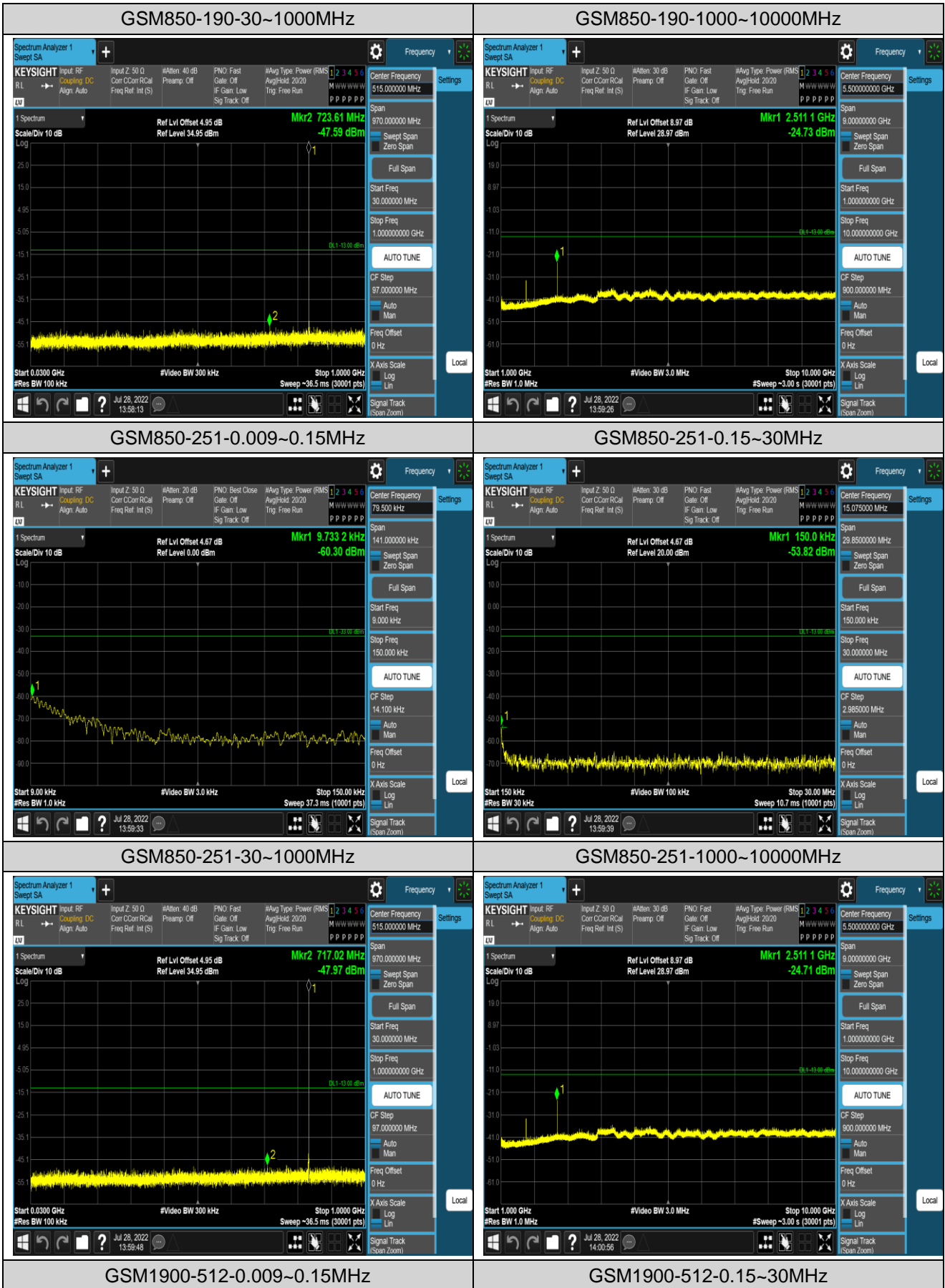
Test Result

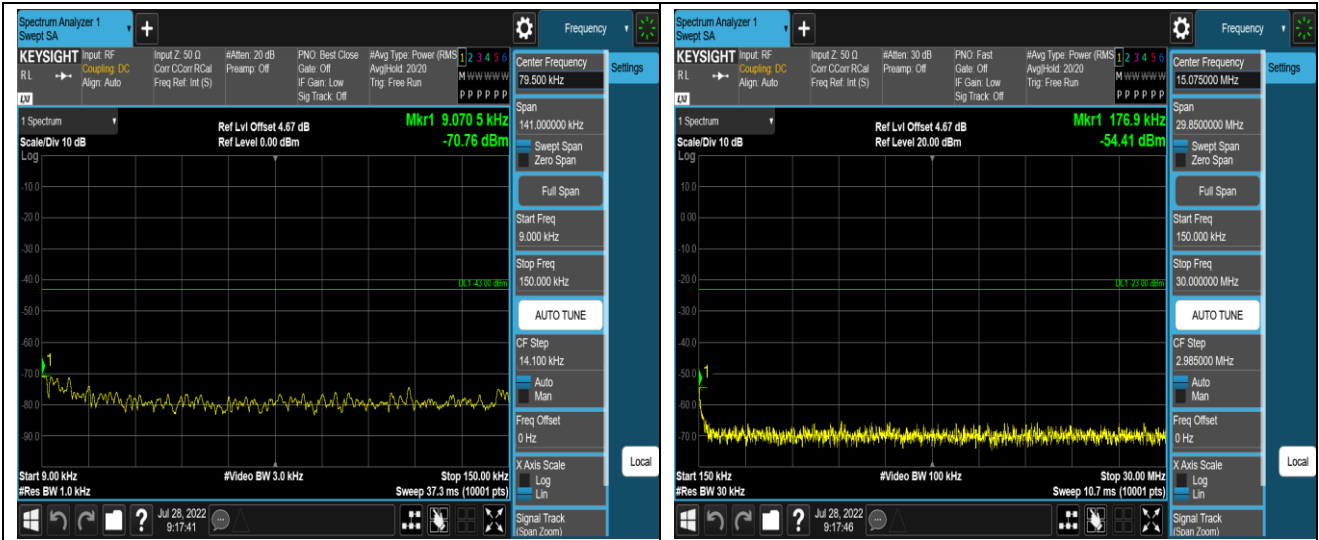
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-58.85	-33	PASS
GSM850	128	5	0.15~30MHz	0.18	-52.12	-13	PASS
GSM850	128	5	30~1000MHz	985.32	-48.13	-13	PASS
GSM850	128	5	1000~10000MHz	2511.1	-24.38	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-59.33	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-52.64	-13	PASS
GSM850	190	5	30~1000MHz	723.61	-47.59	-13	PASS
GSM850	190	5	1000~10000MHz	2511.1	-24.73	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-60.31	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-53.82	-13	PASS
GSM850	251	5	30~1000MHz	717.02	-47.97	-13	PASS
GSM850	251	5	1000~10000MHz	2511.1	-24.71	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-70.76	-43	PASS
GSM1900	512	0	0.15~30MHz	0.18	-54.41	-23	PASS
GSM1900	512	0	30~1000MHz	444.58	-48.2	-13	PASS
GSM1900	512	0	1000~18000MHz	15328.17	-35.25	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-69.67	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-54.45	-23	PASS
GSM1900	661	0	30~1000MHz	929.61	-47.57	-13	PASS
GSM1900	661	0	1000~18000MHz	13874.67	-34.92	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-70.86	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-53.56	-23	PASS
GSM1900	810	0	30~1000MHz	893.62	-46.17	-13	PASS
GSM1900	810	0	1000~18000MHz	14239.03	-35.33	-13	PASS

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

Test Graphs

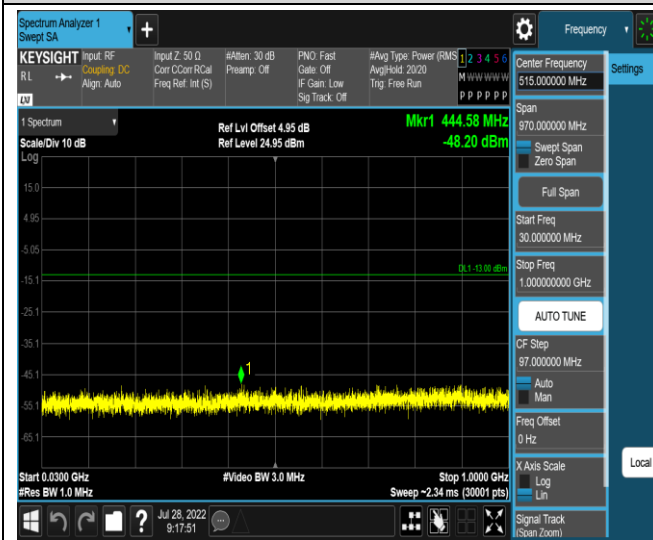




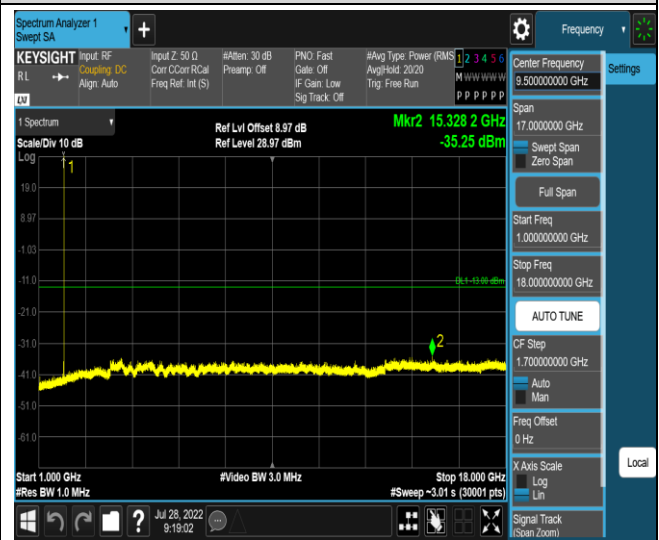


GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



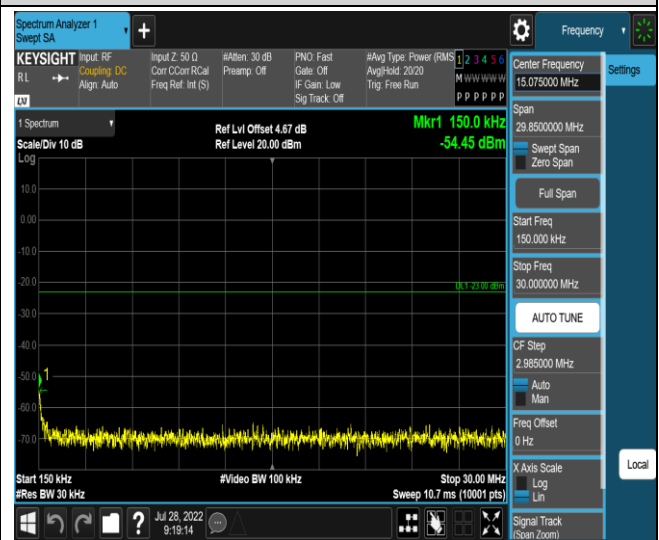
GSM1900-661-0.009~0.15MHz



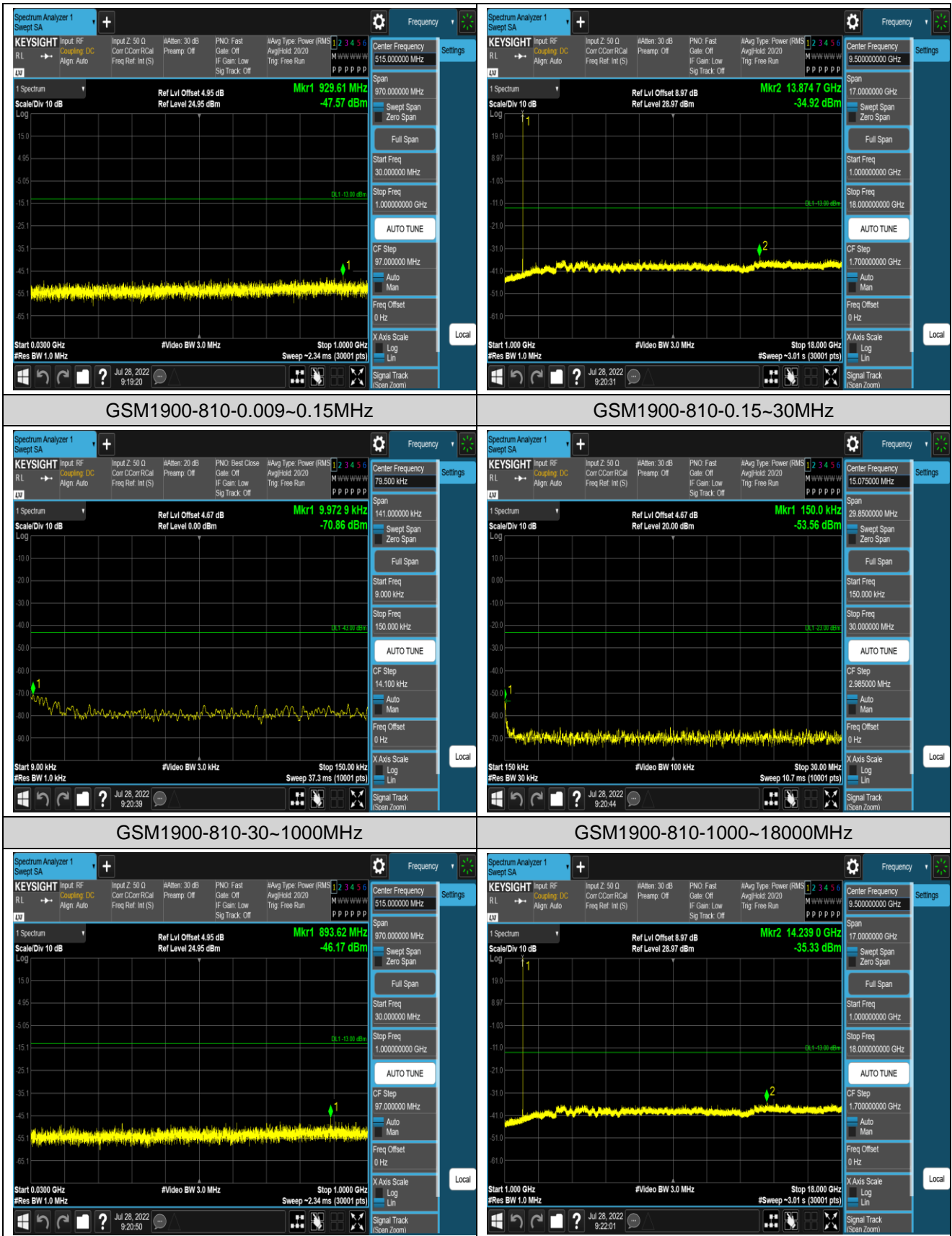
GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz



GSM1900-661-1000~18000MHz



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	5.46	0.006526	±2.5	Pass
	-20	-0.74	-0.000885		
	-10	-3.55	-0.004243		
	0	2.94	0.003514		
	10	5.75	0.006873		
	20	1.32	0.001578		
	30	-1.10	-0.001315		
	40	8.23	0.009837		
	50	7.33	0.008762		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-3.81	-0.004554	±2.5	Pass
	3.87	-2.16	-0.002582		
	4.45	3.81	0.004554		
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		
3.87	-30	-7.72	-0.009228	±2.5	Pass
	-20	-8.10	-0.009682		
	-10	-3.94	-0.004710		
	0	-11.20	-0.013388		
	10	-8.10	-0.009682		
	20	-8.33	-0.009957		
	30	-3.87	-0.004626		
	40	-8.23	-0.009837		
	50	-1.90	-0.002271		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-6.78	-0.008104	±2.5	Pass
	3.87	-3.71	-0.004435		
	4.45	-11.88	-0.014200		
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		
3.87	-30	-6.68	-0.003553	Within authorized band for PCS 1900	Pass
	-20	0.32	0.000170		
	-10	5.94	0.003160		
	0	-0.48	-0.000255		
	10	-3.16	-0.001681		
	20	0.94	0.000500		
	30	8.17	0.004346		
	40	6.78	0.003606		
	50	2.16	0.001149		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-5.26	-0.002798	Within authorized band for PCS 1900	Pass
	3.87	-2.78	-0.001479		
	4.45	-2.78	-0.001479		
<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		
3.87	-30	-8.94	-0.004755	Within authorized band for PCS 1900	Pass
	-20	-10.27	-0.005463		
	-10	-8.43	-0.004484		
	0	-12.75	-0.006782		
	10	-9.33	-0.004963		
	20	-9.20	-0.004894		
	30	-10.78	-0.005734		
	40	-11.56	-0.006149		
	50	2.03	0.001080		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-12.33	-0.006559	Within authorized band for PCS 1900	Pass
	3.87	-9.07	-0.004824		
	4.45	-7.43	-0.003952		
<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

