

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	33.34	29.43	38.45	PASS
GSM850	190	5	33.39	29.48	38.45	PASS
GSM850	251	5	33.41	29.50	38.45	PASS
GSM1900	512	0	29.97	29.12	33.00	PASS
GSM1900	661	0	30.06	29.21	33.00	PASS
GSM1900	810	0	29.92	29.07	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.35	29.44	38.45	PASS
GPRS850	128	5	2	31.36	27.45	38.45	PASS
GPRS850	128	5	3	29.42	25.51	38.45	PASS
GPRS850	128	5	4	27.24	23.33	38.45	PASS
GPRS850	190	5	1	33.31	29.40	38.45	PASS
GPRS850	190	5	2	31.21	27.30	38.45	PASS
GPRS850	190	5	3	29.29	25.38	38.45	PASS
GPRS850	190	5	4	27.14	23.23	38.45	PASS
GPRS850	251	5	1	33.32	29.41	38.45	PASS
GPRS850	251	5	2	31.23	27.32	38.45	PASS
GPRS850	251	5	3	29.31	25.40	38.45	PASS
GPRS850	251	5	4	27.15	23.24	38.45	PASS
GPRS1900	512	0	1	29.97	29.12	33.00	PASS
GPRS1900	512	0	2	27.84	26.99	33.00	PASS
GPRS1900	512	0	3	26.26	25.41	33.00	PASS
GPRS1900	512	0	4	24.17	23.32	33.00	PASS
GPRS1900	661	0	1	30.06	29.21	33.00	PASS
GPRS1900	661	0	2	27.76	26.91	33.00	PASS
GPRS1900	661	0	3	26.19	25.34	33.00	PASS
GPRS1900	661	0	4	24.10	23.25	33.00	PASS
GPRS1900	810	0	1	29.91	29.06	33.00	PASS
GPRS1900	810	0	2	27.49	26.64	33.00	PASS
GPRS1900	810	0	3	25.91	25.06	33.00	PASS
GPRS1900	810	0	4	23.79	22.94	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.21	22.30	38.45	PASS
EGPRS850	128	8	2	24.58	20.67	38.45	PASS
EGPRS850	128	8	3	21.84	17.93	38.45	PASS
EGPRS850	128	8	4	18.56	14.65	38.45	PASS
EGPRS850	190	8	1	26.44	22.53	38.45	PASS
EGPRS850	190	8	2	25.26	21.35	38.45	PASS
EGPRS850	190	8	3	22.53	18.62	38.45	PASS
EGPRS850	190	8	4	19.47	15.56	38.45	PASS
EGPRS850	251	8	1	25.93	22.02	38.45	PASS
EGPRS850	251	8	2	24.59	20.68	38.45	PASS
EGPRS850	251	8	3	21.93	18.02	38.45	PASS
EGPRS850	251	8	4	18.74	14.83	38.45	PASS
EGPRS1900	512	2	1	26.10	25.25	33.00	PASS
EGPRS1900	512	2	2	23.75	22.90	33.00	PASS
EGPRS1900	512	2	3	22.62	21.77	33.00	PASS
EGPRS1900	512	2	4	20.42	19.57	33.00	PASS
EGPRS1900	661	2	1	25.66	24.81	33.00	PASS
EGPRS1900	661	2	2	23.48	22.63	33.00	PASS
EGPRS1900	661	2	3	22.28	21.43	33.00	PASS
EGPRS1900	661	2	4	20.18	19.33	33.00	PASS
EGPRS1900	810	2	1	25.69	24.84	33.00	PASS
EGPRS1900	810	2	2	23.58	22.73	33.00	PASS
EGPRS1900	810	2	3	22.58	21.73	33.00	PASS
EGPRS1900	810	2	4	20.55	19.70	33.00	PASS

Remark: EIRP (dBm) = Conducted power (dBm) + Antenna Gain (dBi). (For GSM850 & 1900)

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

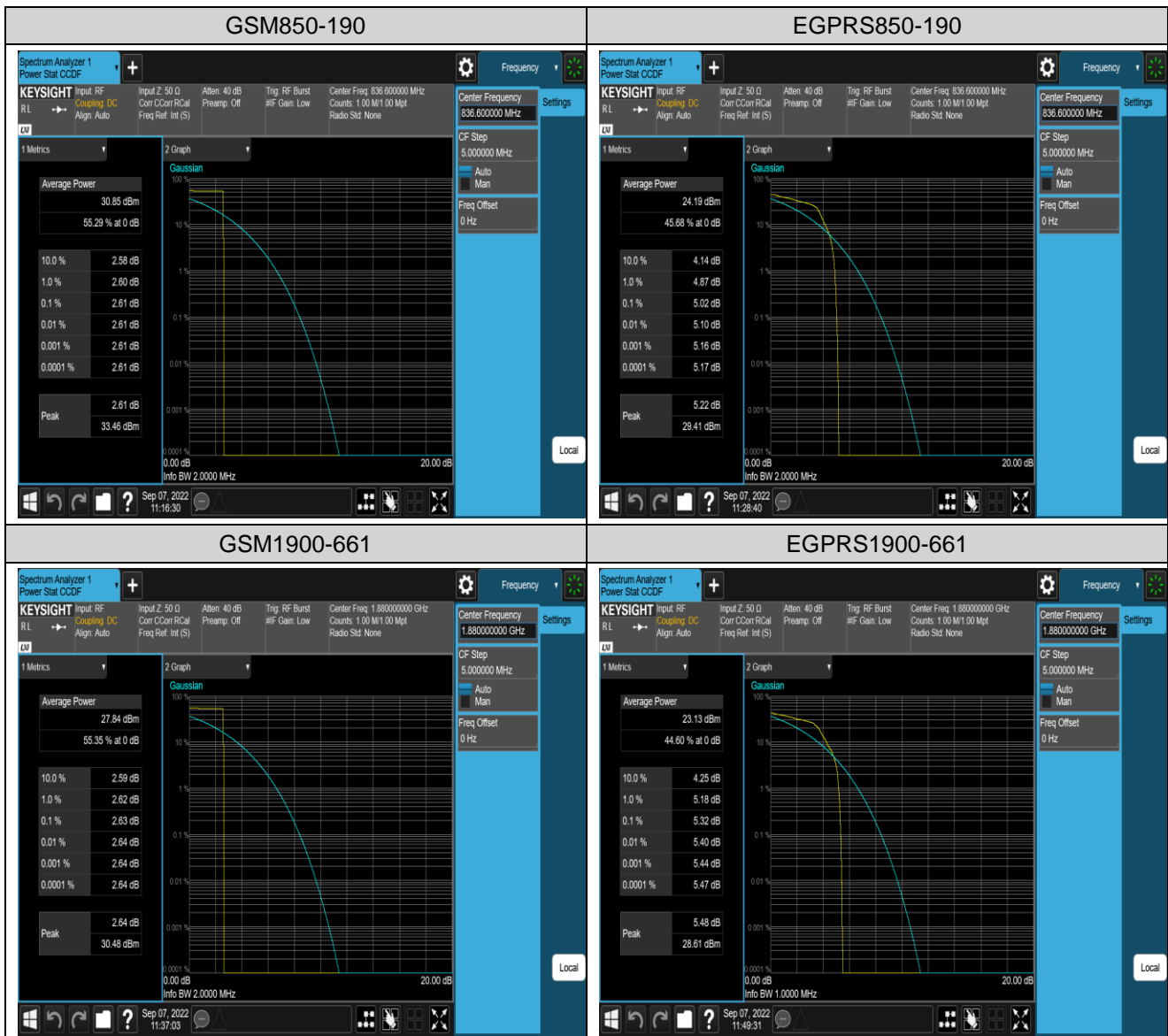
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.02	13	PASS
GSM1900	661	0	2.63	13	PASS
EGPRS1900	661	2	5.32	13	PASS

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

Test Graphs

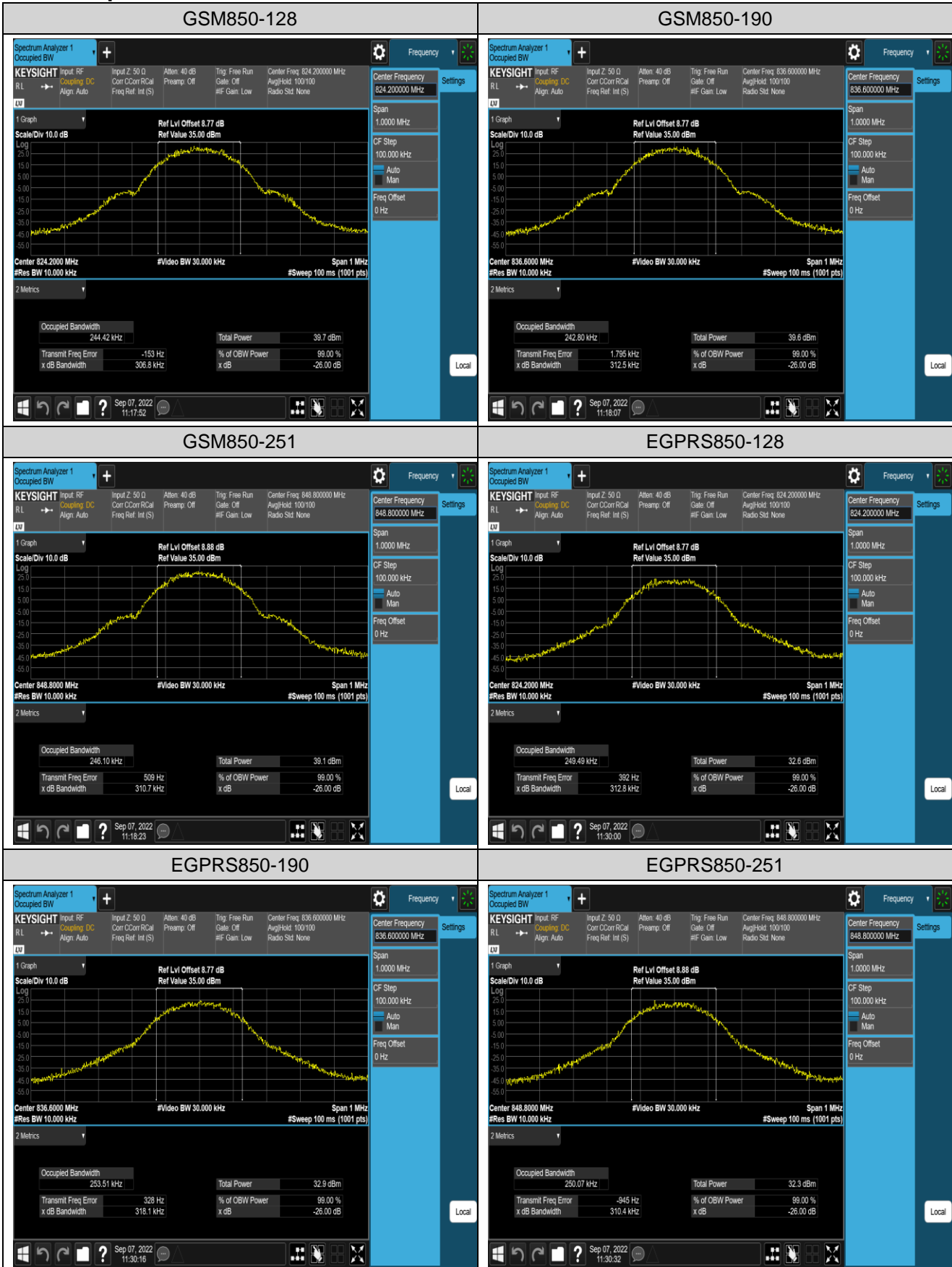


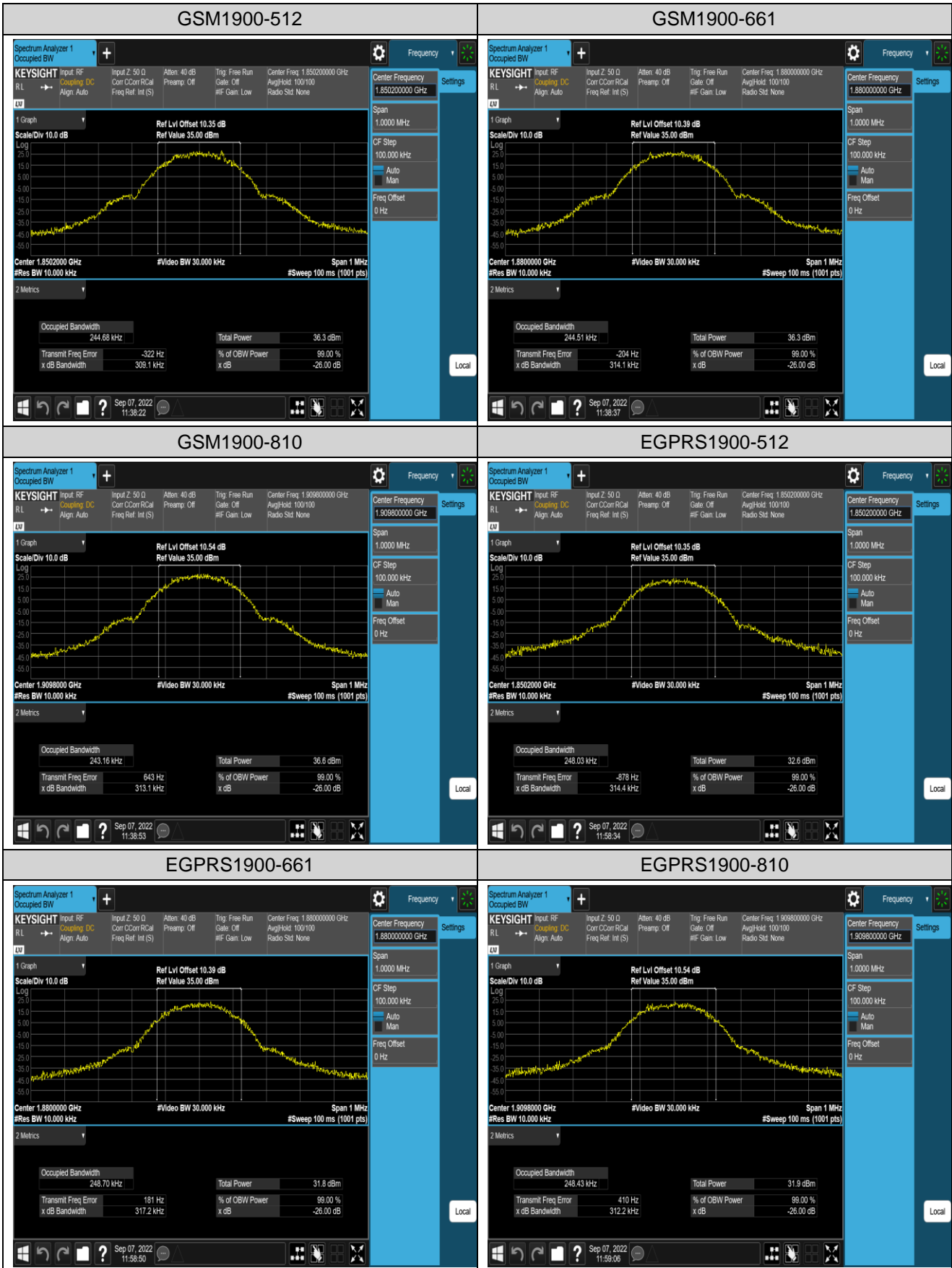
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24442	0.3068	---	PASS
GSM850	190	5	0.24280	0.3125	---	PASS
GSM850	251	5	0.24610	0.3107	---	PASS
EGPRS850	128	8	0.24949	0.3128	---	PASS
EGPRS850	190	8	0.25351	0.3181	---	PASS
EGPRS850	251	8	0.25007	0.3104	---	PASS
GSM1900	512	0	0.24468	0.3091	---	PASS
GSM1900	661	0	0.24451	0.3141	---	PASS
GSM1900	810	0	0.24316	0.3131	---	PASS
EGPRS1900	512	2	0.24803	0.3144	---	PASS
EGPRS1900	661	2	0.24870	0.3172	---	PASS
EGPRS1900	810	2	0.24843	0.3122	---	PASS

Test Graphs



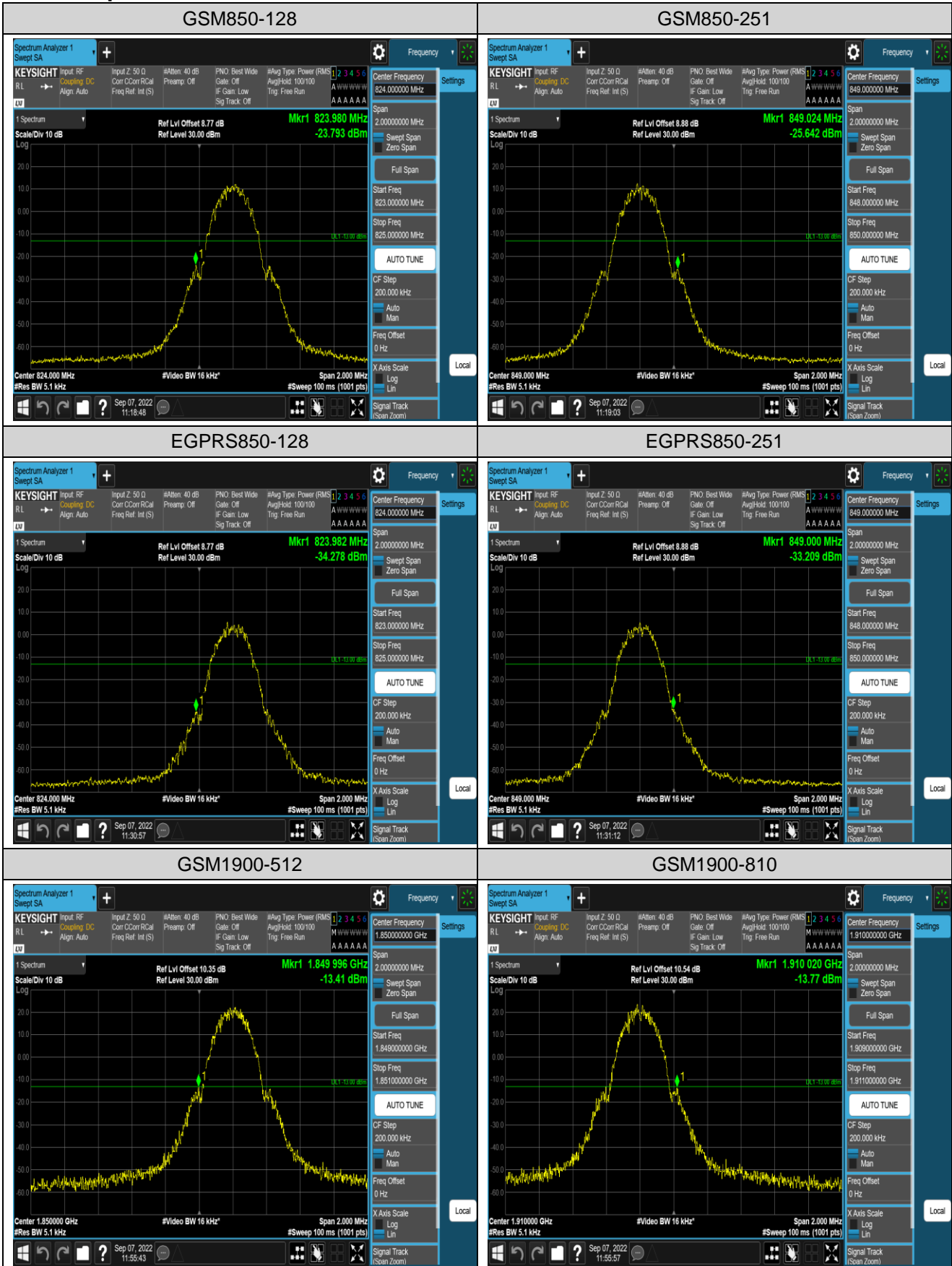


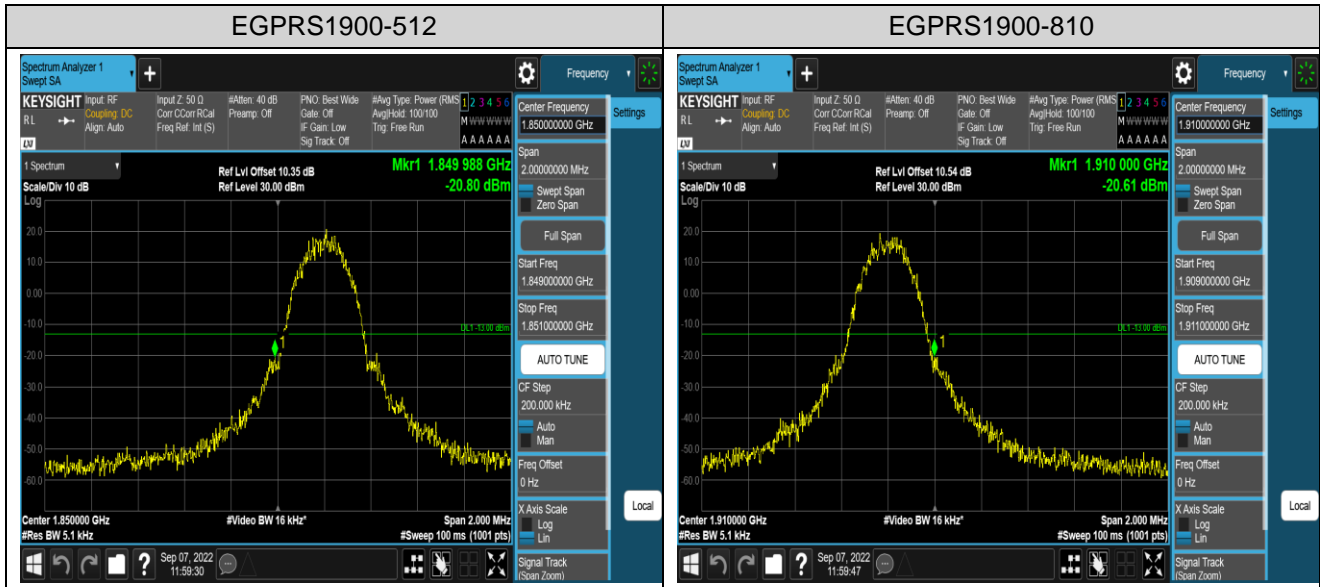
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-23.79	-13	PASS
GSM850	251	5	849.02	-25.64	-13	PASS
EGPRS850	128	8	823.98	-34.28	-13	PASS
EGPRS850	251	8	849.00	-33.21	-13	PASS
GSM1900	512	0	1850.00	-13.41	-13	PASS
GSM1900	810	0	1910.02	-13.77	-13	PASS
EGPRS1900	512	2	1849.99	-20.80	-13	PASS
EGPRS1900	810	2	1910.00	-20.61	-13	PASS

Test Graphs





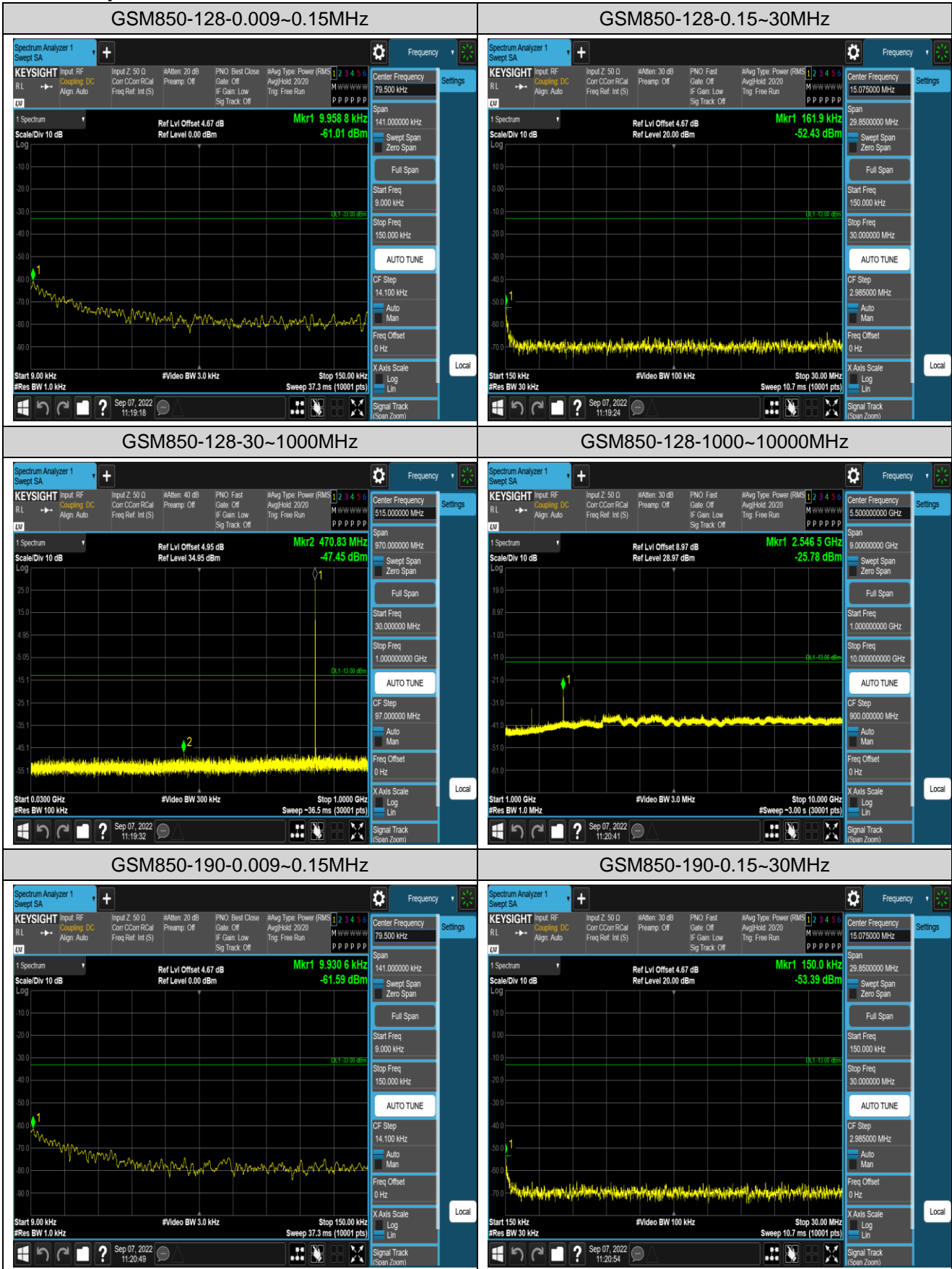
Appendix E: Conducted Spurious Emission

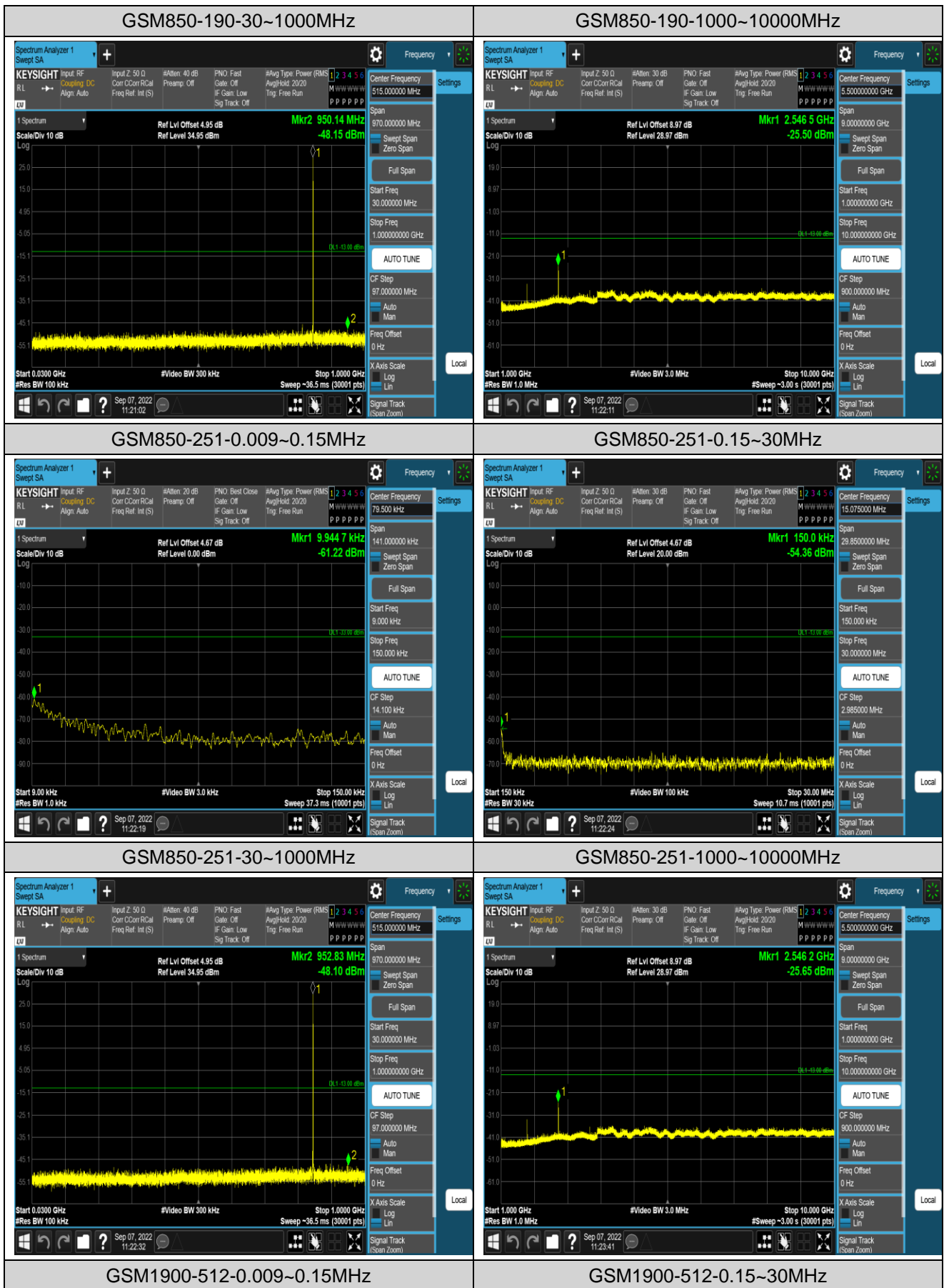
Test Result

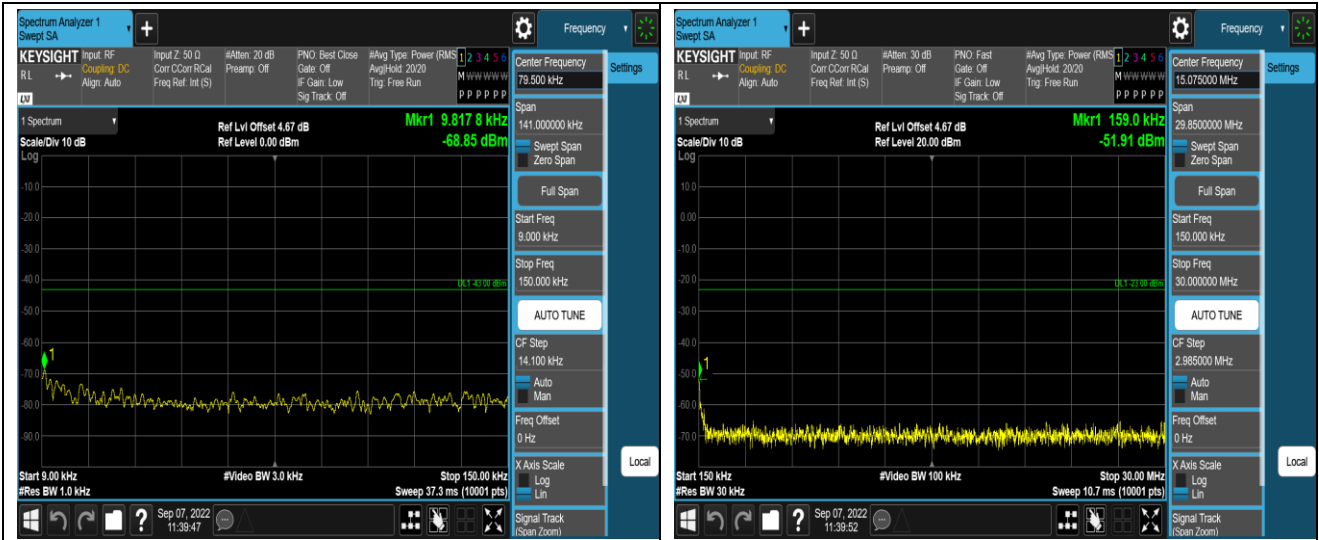
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-61.01	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-52.43	-13	PASS
GSM850	128	5	30~1000MHz	470.83	-47.45	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-25.78	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-61.59	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-53.39	-13	PASS
GSM850	190	5	30~1000MHz	950.14	-48.15	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-25.5	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-61.23	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-54.36	-13	PASS
GSM850	251	5	30~1000MHz	952.83	-48.1	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-25.65	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-68.85	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-51.91	-23	PASS
GSM1900	512	0	30~1000MHz	942.25	-47.26	-13	PASS
GSM1900	512	0	1000~18000MHz	3819.73	-34.74	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-70.63	-43	PASS
GSM1900	661	0	0.15~30MHz	0.18	-53.99	-23	PASS
GSM1900	661	0	30~1000MHz	864.2	-46.58	-13	PASS
GSM1900	661	0	1000~18000MHz	3819.17	-33.89	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-69.74	-43	PASS
GSM1900	810	0	0.15~30MHz	0.19	-54.1	-23	PASS
GSM1900	810	0	30~1000MHz	875.23	-46.97	-13	PASS
GSM1900	810	0	1000~18000MHz	3819.73	-34.72	-13	PASS

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

Test Graphs

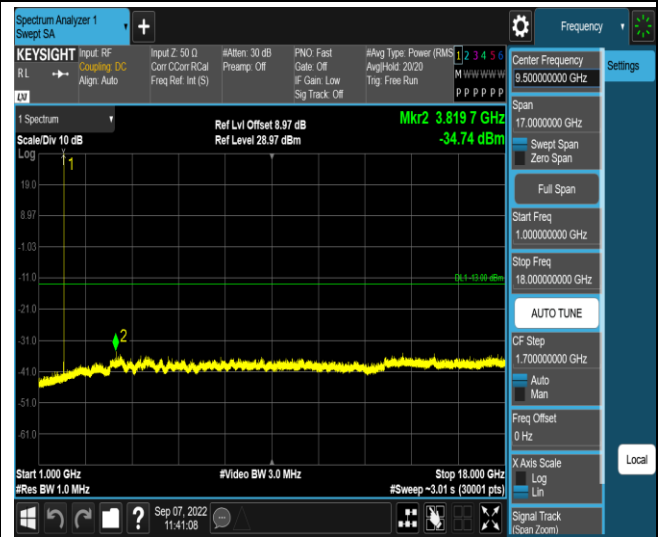
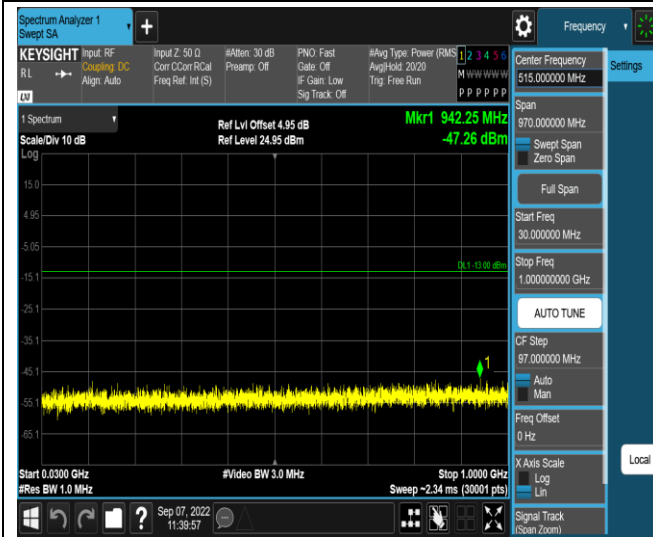






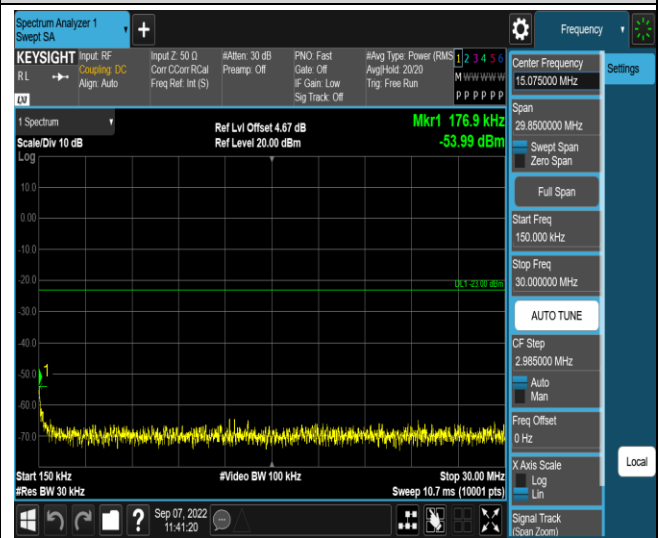
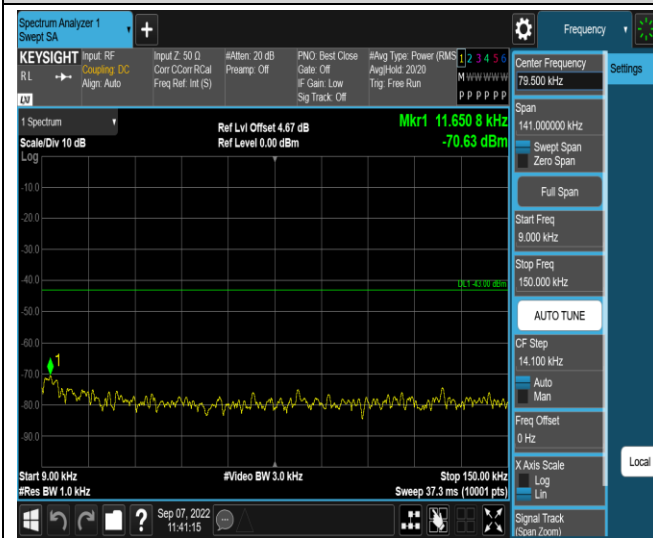
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



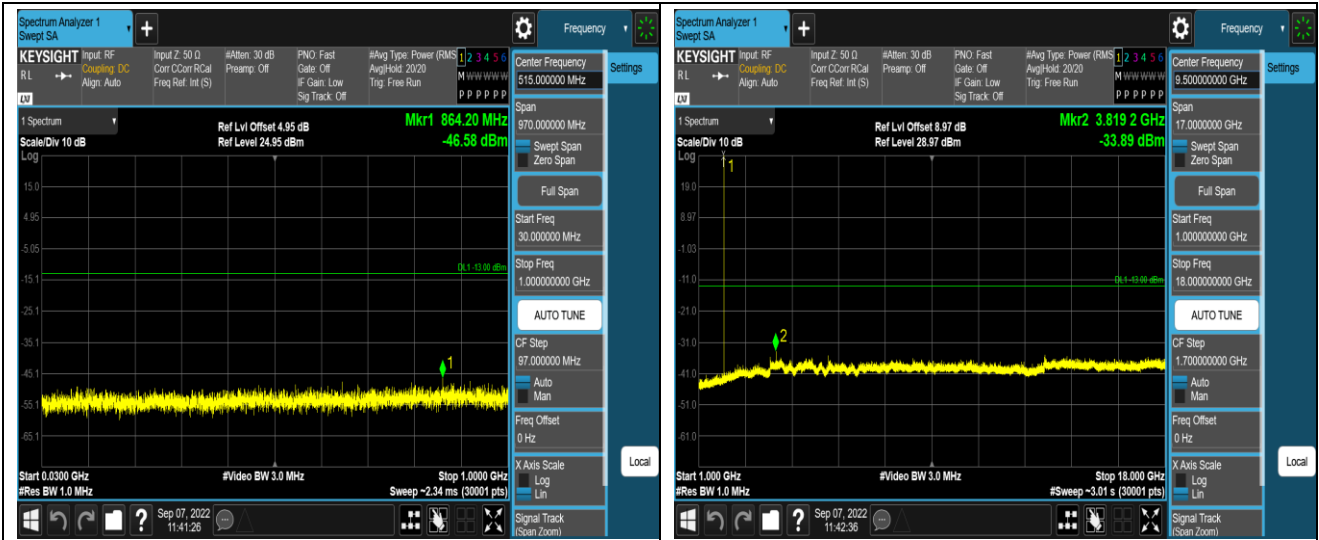
GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



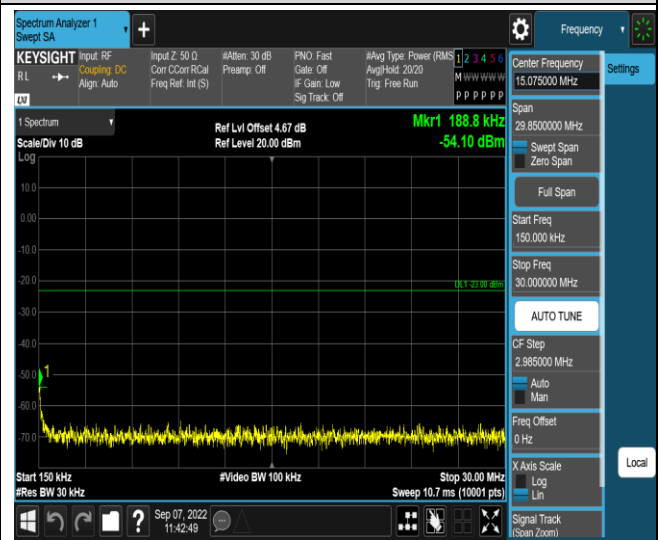
GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz



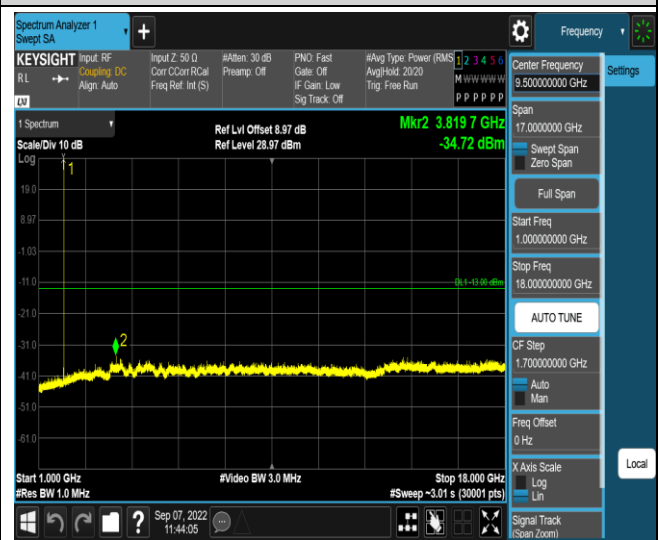
GSM1900-810-0.009~0.15MHz

GSM1900-810-0.15~30MHz



GSM1900-810-30~100MHz

GSM1900-810-1000~1800MHz



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	6.36	0.007602	±2.5	Pass
	-20	8.04	0.009610		
	-10	3.78	0.004518		
	0	7.20	0.008606		
	10	3.36	0.004016		
	20	5.52	0.006598		
	30	1.19	0.001422		
	40	-0.55	-0.000657		
	50	-1.65	-0.001972		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.32	0.002773	±2.5	Pass
	3.85	7.23	0.008642		
	4.40	2.29	0.002737		
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	0.06	0.000072	±2.5	Pass
	-20	-1.49	-0.001781		
	-10	0.81	0.000968		
	0	1.00	0.001195		
	10	1.03	0.001231		
	20	1.16	0.001387		
	30	2.07	0.002474		
	40	0.61	0.000729		
	50	0.29	0.000347		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.91	-0.004674	±2.5	Pass
	3.85	-1.84	-0.002199		
	4.40	-1.52	-0.001817		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	15.66	0.008330	Within authorized band for PCS 1900	Pass
	-20	19.15	0.010186		
	-10	5.36	0.002851		
	0	-3.00	-0.001596		
	10	-0.16	-0.000085		
	20	9.20	0.004894		
	30	7.46	0.003968		
	40	4.00	0.002128		
	50	5.33	0.002835		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	8.20	0.004362	Within authorized band for PCS 1900	Pass
	3.85	2.84	0.001511		
	4.40	7.01	0.003729		
<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		
3.85	-30	6.10	0.003245	Within authorized band for PCS 1900	Pass
	-20	7.68	0.004085		
	-10	2.87	0.001527		
	0	9.14	0.004862		
	10	15.56	0.008277		
	20	9.56	0.005085		
	30	13.69	0.007282		
	40	6.94	0.003691		
	50	5.55	0.002952		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	14.11	0.007505	Within authorized band for PCS 1900	Pass
	3.85	-5.07	-0.002697		
	4.40	-0.36	-0.000191		
<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

