

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	32.91	26.56	38.5	PASS
GSM850	190	5	33.30	26.95	38.5	PASS
GSM850	251	5	33.18	26.83	38.5	PASS
GSM1900	512	0	29.65	29.35	33	PASS
GSM1900	661	0	29.43	29.13	33	PASS
GSM1900	810	0	29.28	28.98	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.10	26.75	38.5	PASS
GPRS850	128	5	2	32.11	25.76	38.5	PASS
GPRS850	128	5	3	30.05	23.7	38.5	PASS
GPRS850	128	5	4	28.91	22.56	38.5	PASS
GPRS850	190	5	1	33.18	26.83	38.5	PASS
GPRS850	190	5	2	32.27	25.92	38.5	PASS
GPRS850	190	5	3	30.22	23.87	38.5	PASS
GPRS850	190	5	4	29.09	22.74	38.5	PASS
GPRS850	251	5	1	33.06	26.71	38.5	PASS
GPRS850	251	5	2	32.14	25.79	38.5	PASS
GPRS850	251	5	3	30.07	23.72	38.5	PASS
GPRS850	251	5	4	28.93	22.58	38.5	PASS
GPRS1900	512	0	1	29.66	29.36	33	PASS
GPRS1900	512	0	2	28.68	28.38	33	PASS
GPRS1900	512	0	3	26.66	26.36	33	PASS
GPRS1900	512	0	4	25.52	25.22	33	PASS
GPRS1900	661	0	1	29.42	29.12	33	PASS
GPRS1900	661	0	2	28.50	28.2	33	PASS
GPRS1900	661	0	3	26.51	26.21	33	PASS
GPRS1900	661	0	4	25.40	25.1	33	PASS
GPRS1900	810	0	1	29.27	28.97	33	PASS
GPRS1900	810	0	2	28.36	28.06	33	PASS
GPRS1900	810	0	3	26.38	26.08	33	PASS
GPRS1900	810	0	4	25.31	25.01	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.94	20.59	38.5	PASS
EGPRS850	128	8	2	25.49	19.14	38.5	PASS
EGPRS850	128	8	3	23.23	16.88	38.5	PASS
EGPRS850	128	8	4	21.74	15.39	38.5	PASS
EGPRS850	190	8	1	26.69	20.34	38.5	PASS
EGPRS850	190	8	2	25.68	19.33	38.5	PASS
EGPRS850	190	8	3	23.27	16.92	38.5	PASS
EGPRS850	190	8	4	21.92	15.57	38.5	PASS
EGPRS850	251	8	1	26.63	20.28	38.5	PASS
EGPRS850	251	8	2	25.67	19.32	38.5	PASS
EGPRS850	251	8	3	23.24	16.89	38.5	PASS
EGPRS850	251	8	4	21.81	15.46	38.5	PASS
EGPRS1900	512	2	1	26.52	26.22	33	PASS
EGPRS1900	512	2	2	25.56	25.26	33	PASS
EGPRS1900	512	2	3	23.48	23.18	33	PASS
EGPRS1900	512	2	4	22.47	22.17	33	PASS
EGPRS1900	661	2	1	26.33	26.03	33	PASS
EGPRS1900	661	2	2	25.36	25.06	33	PASS
EGPRS1900	661	2	3	23.45	23.15	33	PASS
EGPRS1900	661	2	4	22.31	22.01	33	PASS
EGPRS1900	810	2	1	26.20	25.9	33	PASS
EGPRS1900	810	2	2	25.27	24.97	33	PASS
EGPRS1900	810	2	3	23.35	23.05	33	PASS
EGPRS1900	810	2	4	22.17	21.87	33	PASS

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

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

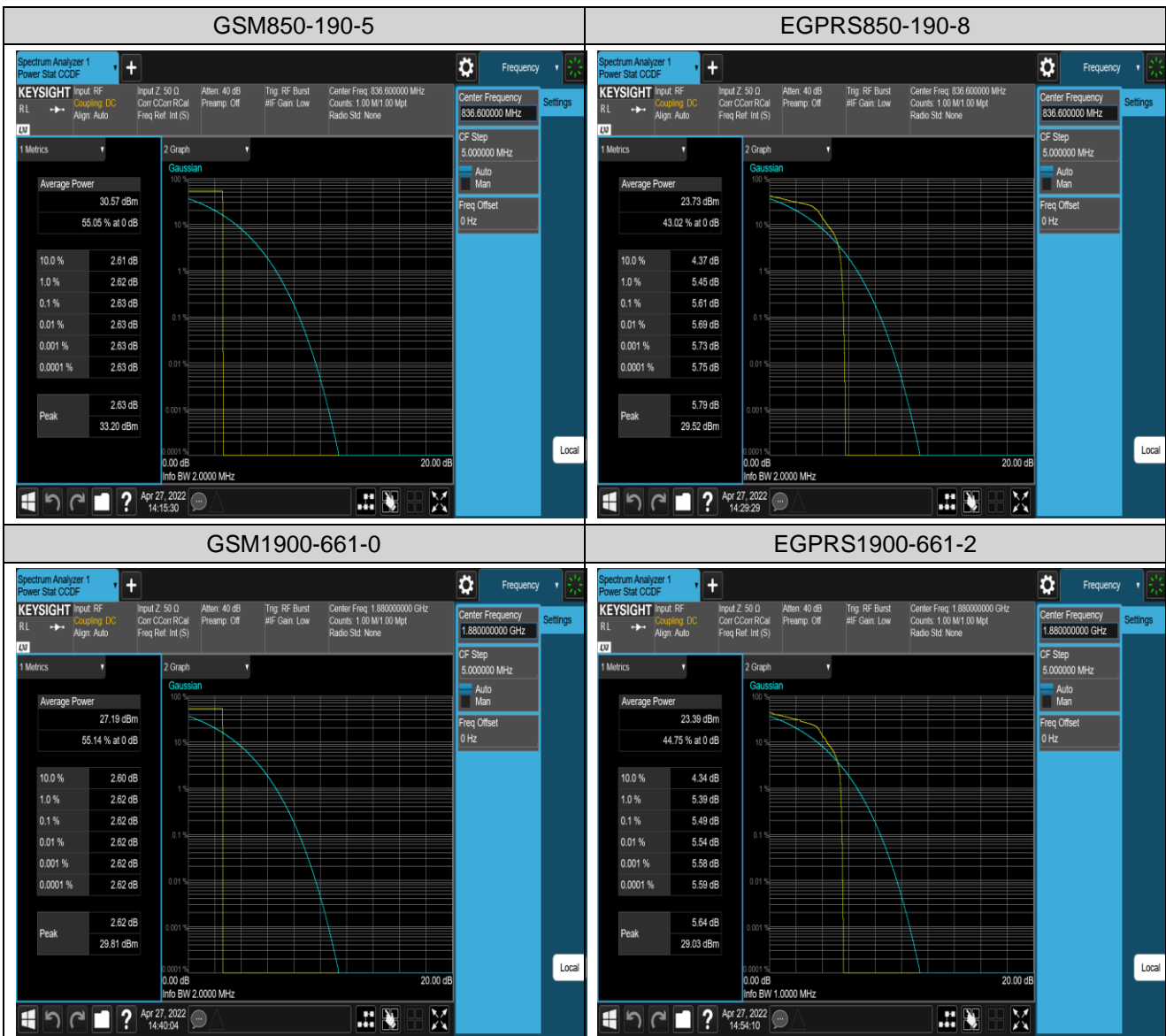
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.63	13	PASS
EGPRS850	190	8	5.61	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.49	13	PASS

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

Test Graphs

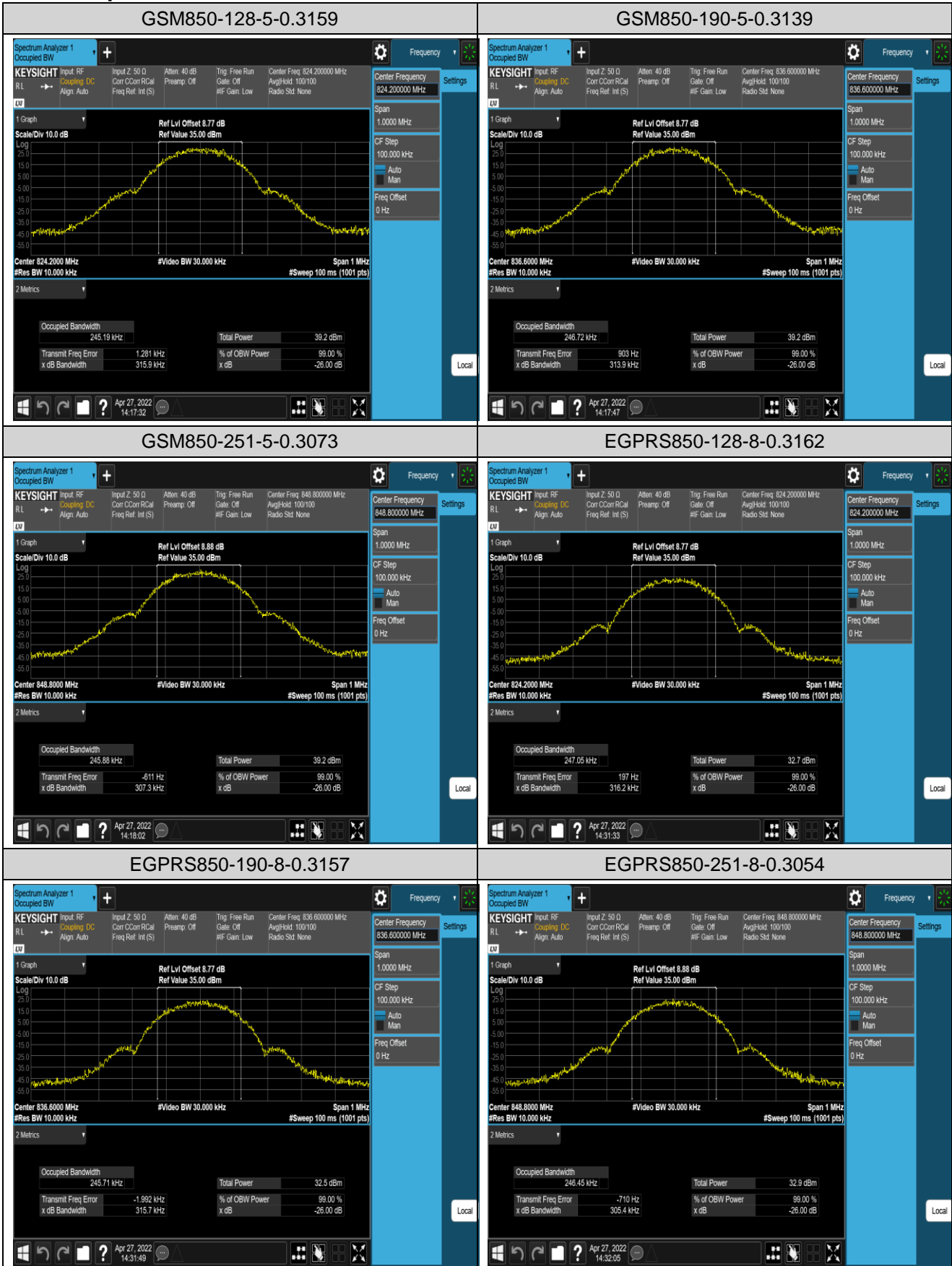


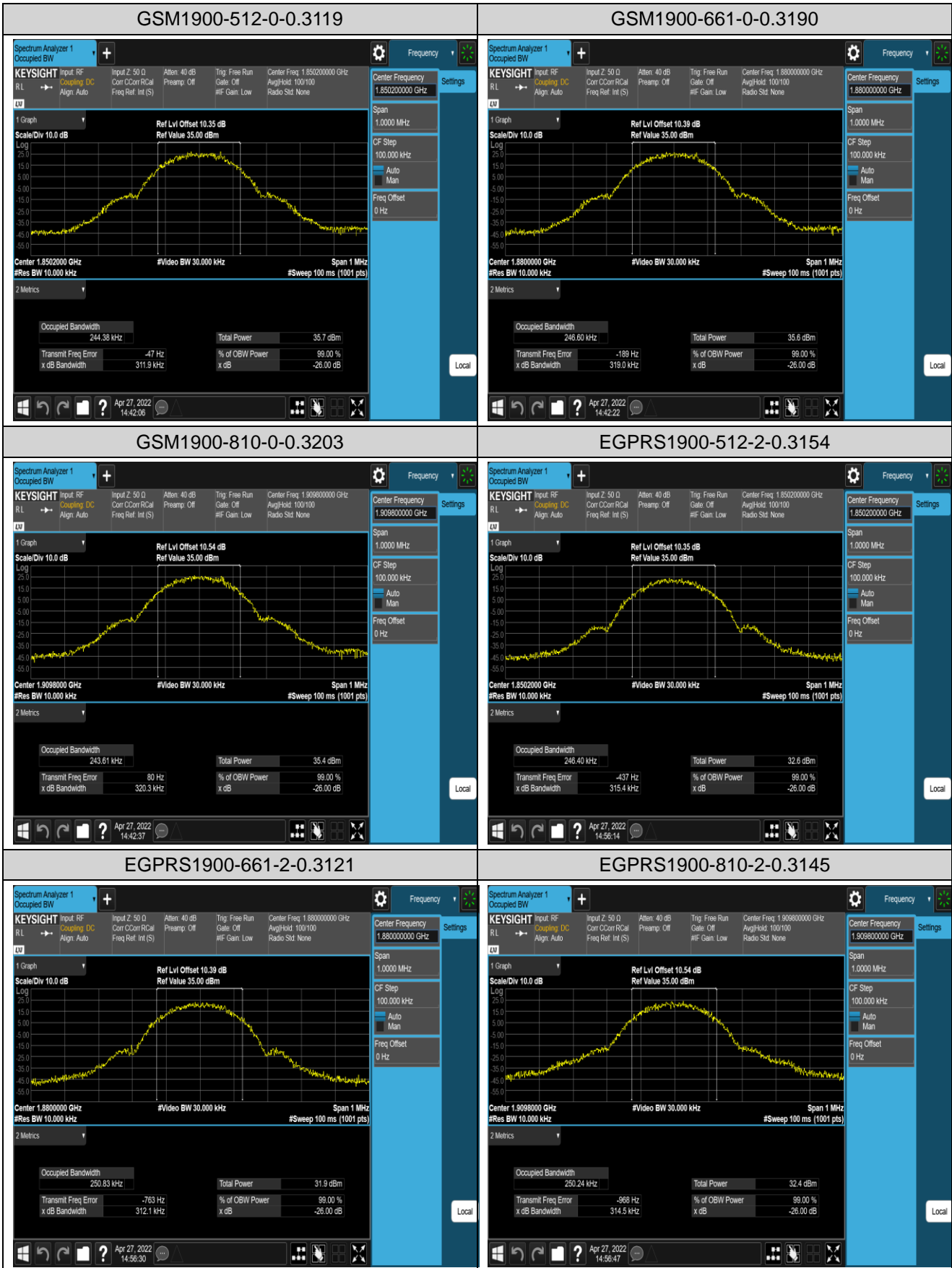
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24519	0.3159	---	PASS
GSM850	190	5	0.24672	0.3139	---	PASS
GSM850	251	5	0.24588	0.3073	---	PASS
EGPRS850	128	8	0.24705	0.3162	---	PASS
EGPRS850	190	8	0.24571	0.3157	---	PASS
EGPRS850	251	8	0.24645	0.3054	---	PASS
GSM1900	512	0	0.24438	0.3119	---	PASS
GSM1900	661	0	0.24660	0.3190	---	PASS
GSM1900	810	0	0.24361	0.3203	---	PASS
EGPRS1900	512	2	0.24640	0.3154	---	PASS
EGPRS1900	661	2	0.25083	0.3121	---	PASS
EGPRS1900	810	2	0.25024	0.3145	---	PASS

Test Graphs



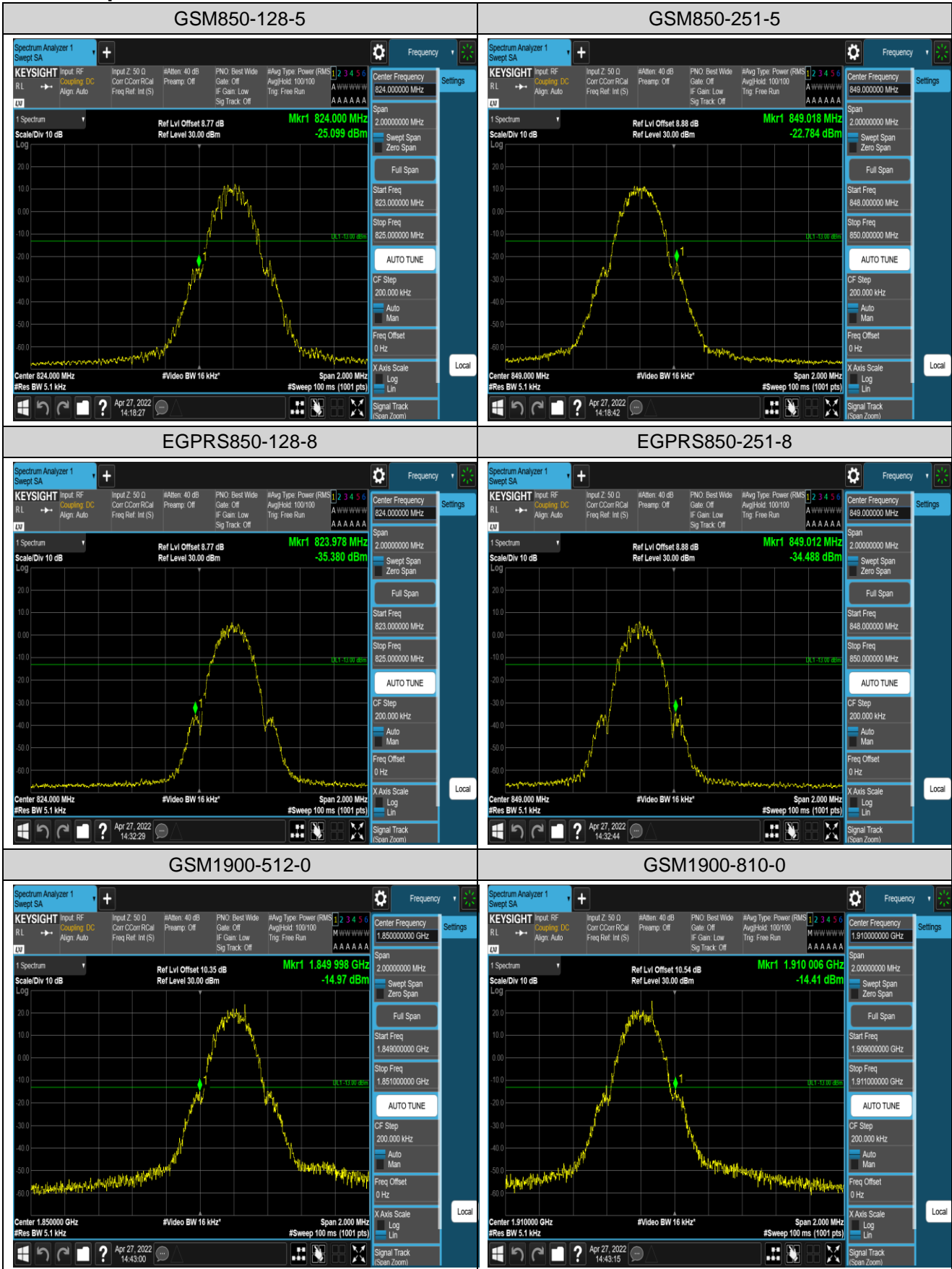


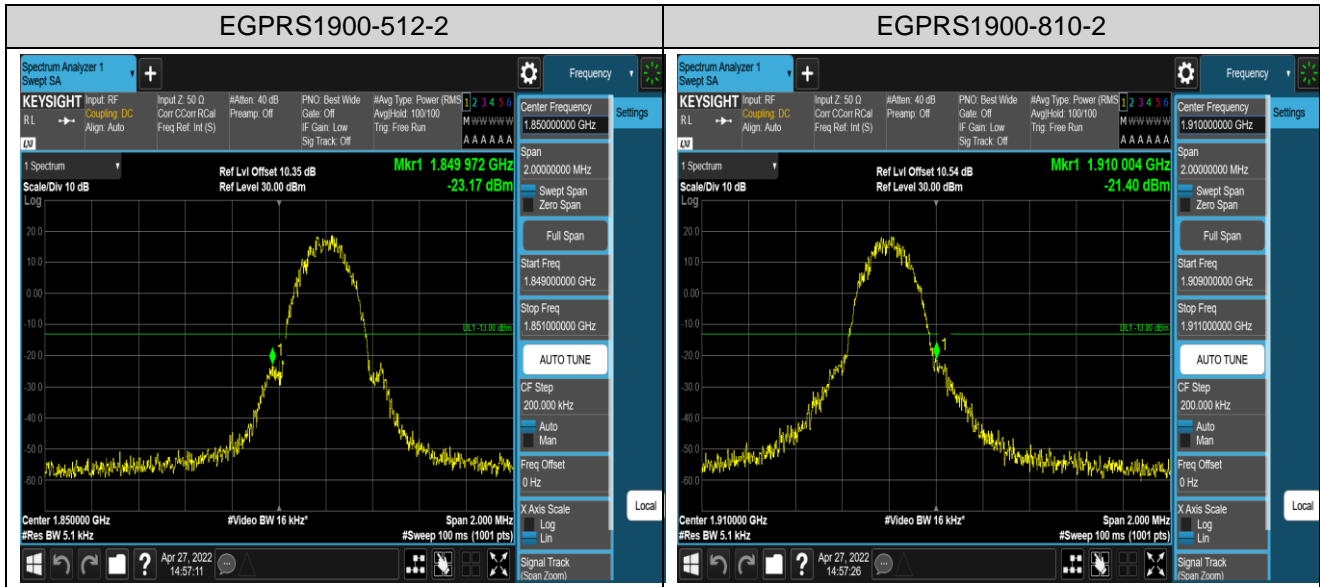
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-25.10	-13	PASS
GSM850	251	5	849.02	-22.78	-13	PASS
EGPRS850	128	8	823.98	-35.38	-13	PASS
EGPRS850	251	8	849.01	-34.49	-13	PASS
GSM1900	512	0	1850.00	-14.97	-13	PASS
GSM1900	810	0	1910.01	-14.41	-13	PASS
EGPRS1900	512	2	1849.97	-23.17	-13	PASS
EGPRS1900	810	2	1910.00	-21.40	-13	PASS

Test Graphs





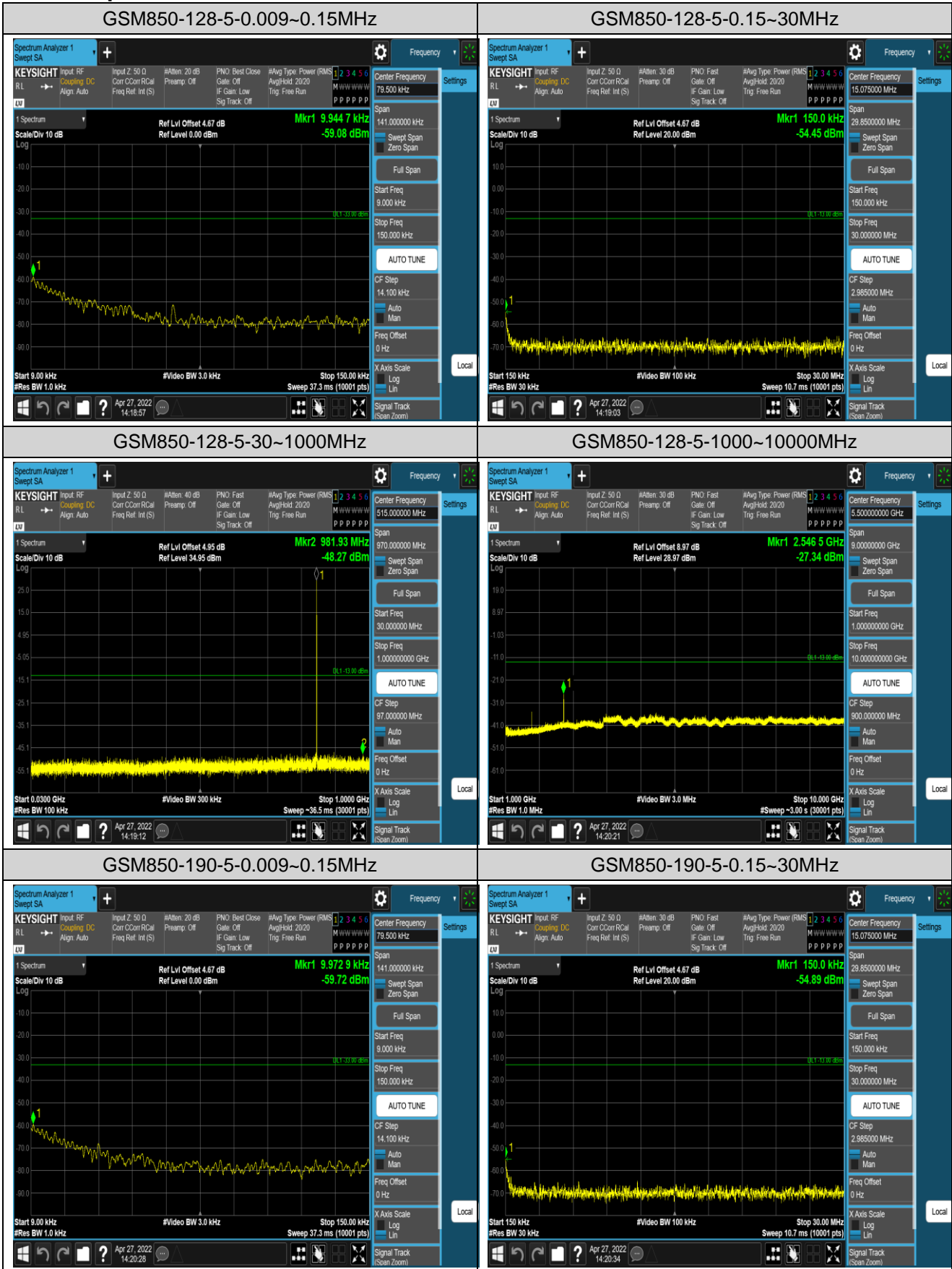
Appendix E: Conducted Spurious Emission

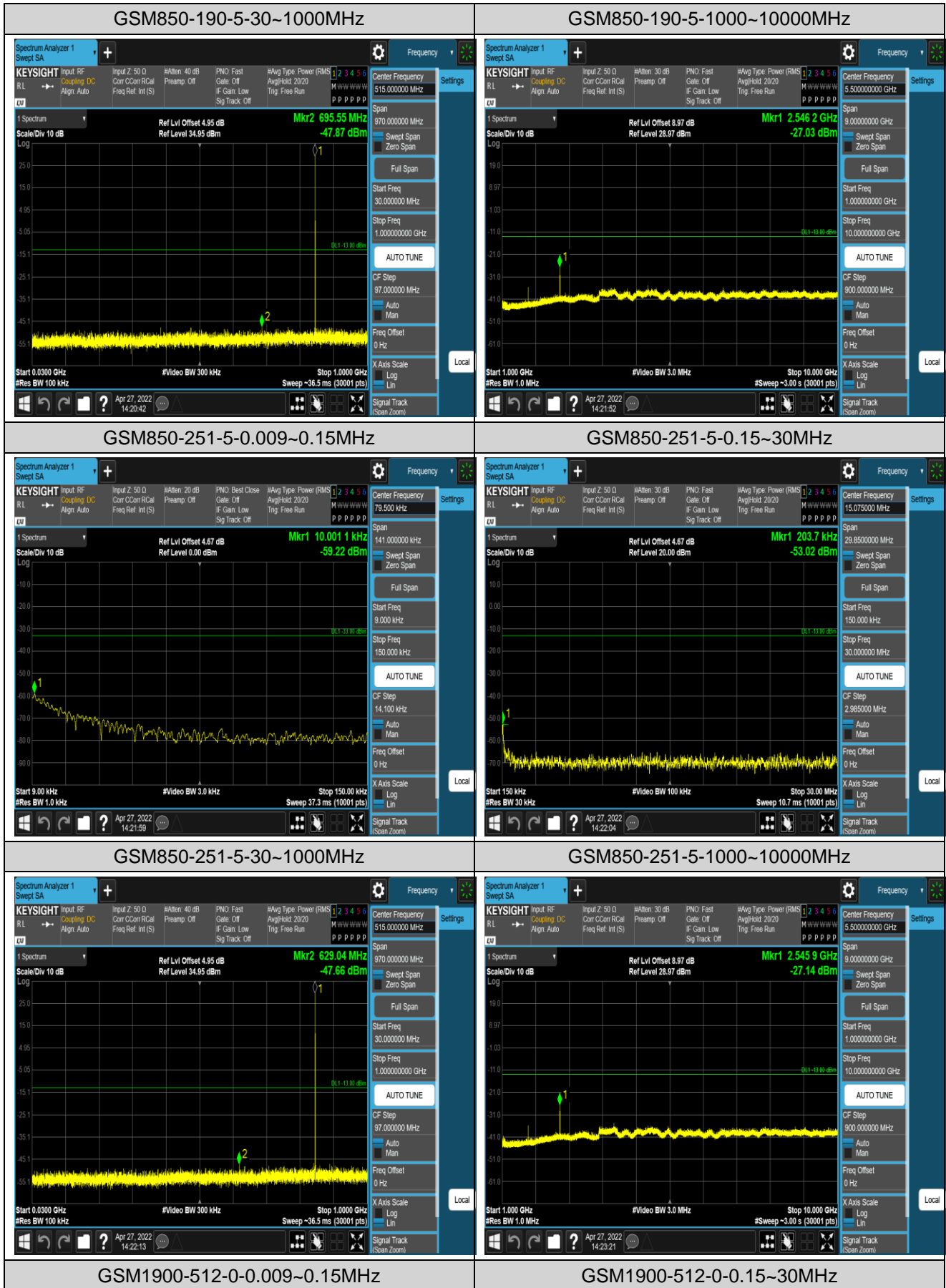
Test Result

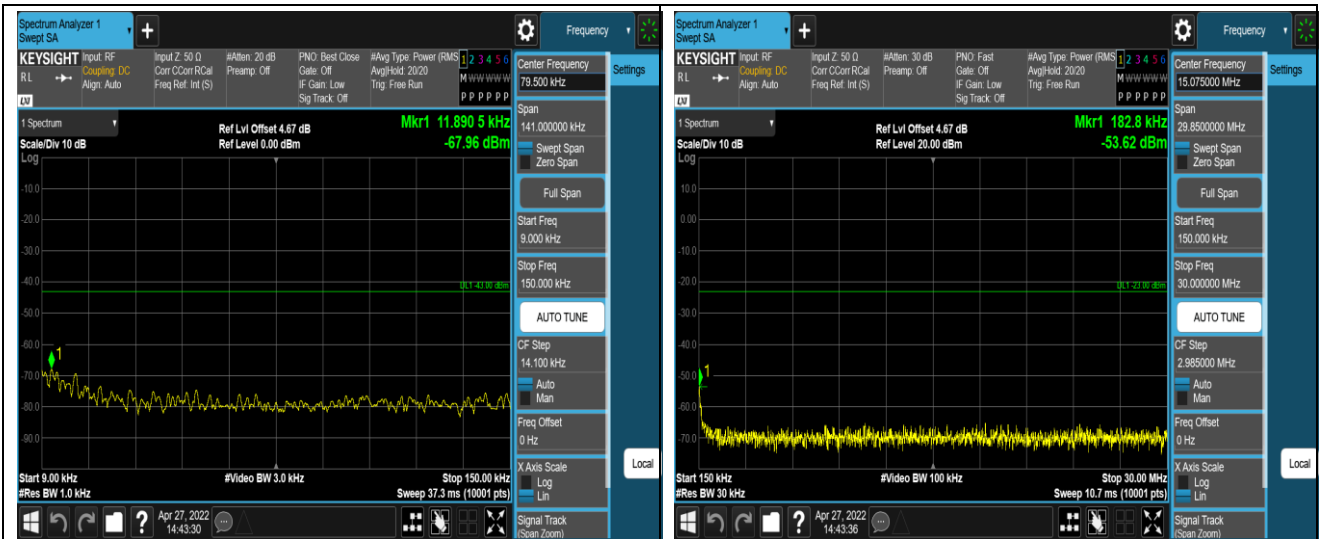
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-59.08	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-54.45	-13	PASS
GSM850	128	5	30~1000MHz	981.93	-48.27	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-27.35	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-59.72	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-54.89	-13	PASS
GSM850	190	5	30~1000MHz	695.55	-47.87	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-27.03	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-59.22	-33	PASS
GSM850	251	5	0.15~30MHz	0.2	-53.02	-13	PASS
GSM850	251	5	30~1000MHz	629.04	-47.66	-13	PASS
GSM850	251	5	1000~10000MHz	2545.9	-27.14	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-67.97	-43	PASS
GSM1900	512	0	0.15~30MHz	0.18	-53.62	-23	PASS
GSM1900	512	0	30~1000MHz	757.76	-47.31	-13	PASS
GSM1900	512	0	1000~18000MHz	3819.73	-34.48	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-66.73	-43	PASS
GSM1900	661	0	0.15~30MHz	0.18	-52.65	-23	PASS
GSM1900	661	0	30~1000MHz	980.21	-47.68	-13	PASS
GSM1900	661	0	1000~18000MHz	3819.73	-34.3	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-68.21	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-52.77	-23	PASS
GSM1900	810	0	30~1000MHz	731.44	-47.37	-13	PASS
GSM1900	810	0	1000~18000MHz	3819.73	-34.4	-13	PASS

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

Test Graphs

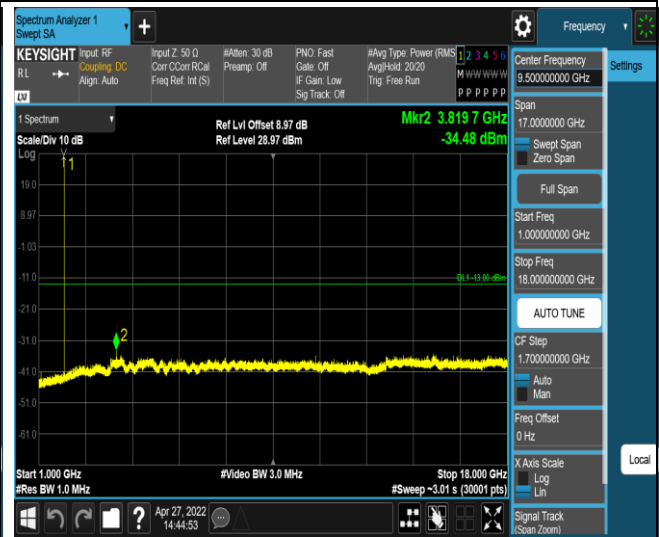
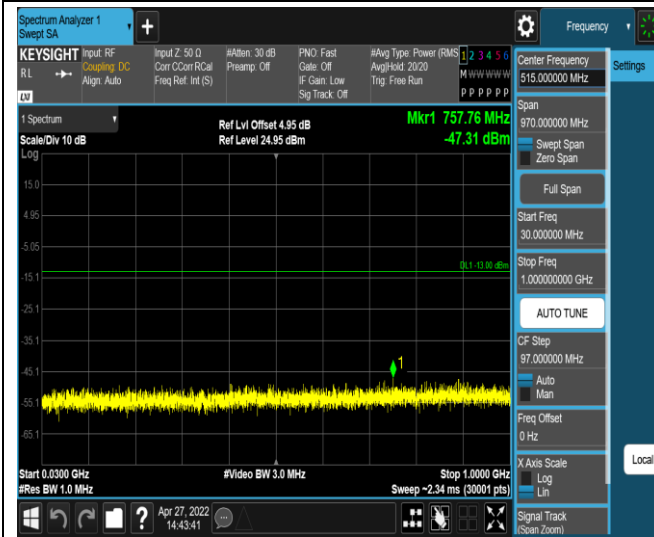






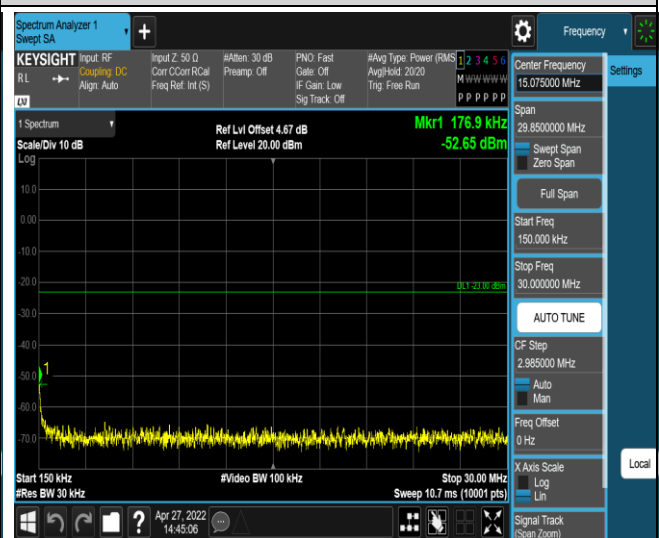
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



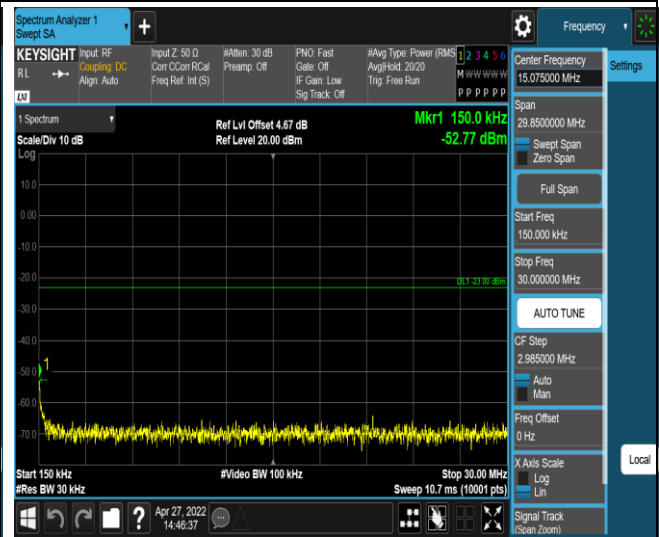
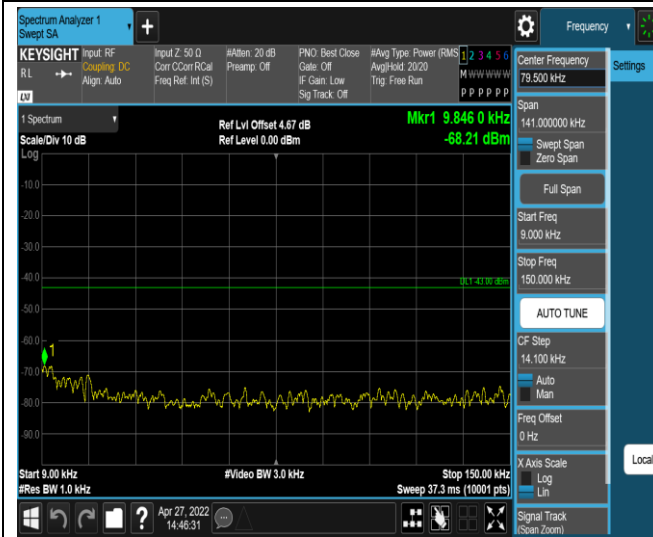
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz



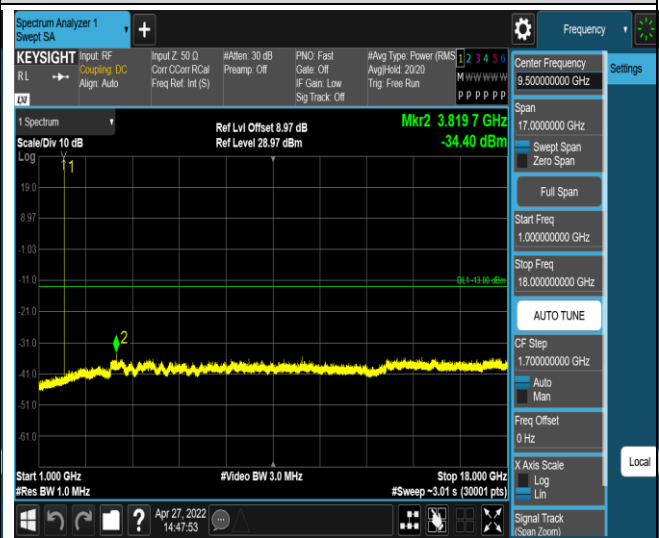
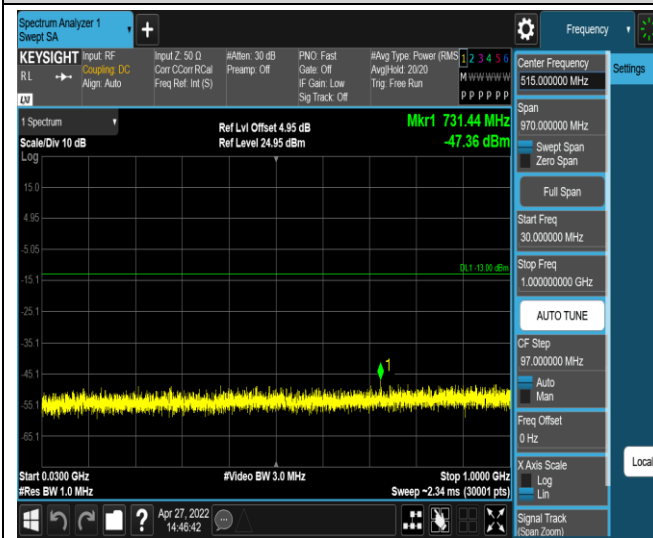
GSM1900-810-0-0.009~0.15MHz

GSM1900-810-0-0.15~30MHz



GSM1900-810-0-30~1000MHz

GSM1900-810-0-1000~18000MHz



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		
3.85	-30	2.84	0.003395	±2.5	Pass
	-20	-6.75	-0.008068		
	-10	0.45	0.000538		
	0	2.29	0.002737		
	10	-6.42	-0.007674		
	20	0.61	0.000729		
	30	-9.69	-0.011583		
	40	0.06	0.000072		
	50	-15.56	-0.018599		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-1.84	-0.002199	±2.5	Pass
	3.85	-0.32	-0.000383		
	4.40	-11.88	-0.014200		
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	-4.94	-0.005905	±2.5	Pass
	-20	-1.32	-0.001578		
	-10	5.04	0.006024		
	0	4.39	0.005247		
	10	2.74	0.003275		
	20	4.58	0.005475		
	30	7.10	0.008487		
	40	-0.16	-0.000191		
	50	1.61	0.001924		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-6.42	-0.007674	±2.5	Pass
	3.85	-6.65	-0.007949		
	4.40	-8.78	-0.010495		
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		
3.85	-30	32.74	0.017415	Within authorized band for PCS 1900	Pass
	-20	11.91	0.006335		
	-10	29.96	0.015936		
	0	3.58	0.001904		
	10	35.09	0.018665		
	20	13.82	0.007351		
	30	28.61	0.015218		
	40	26.44	0.014064		
	50	23.12	0.012298		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	29.90	0.015904	Within authorized band for PCS 1900	Pass
	3.85	24.34	0.012947		
	4.40	11.95	0.006356		
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		
3.85	-30	13.69	0.007282	Within authorized band for PCS 1900	Pass
	-20	18.11	0.009633		
	-10	43.62	0.023202		
	0	34.71	0.018463		
	10	37.77	0.020090		
	20	36.32	0.019319		
	30	31.41	0.016707		
	40	43.20	0.022979		
	50	43.62	0.023202		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	19.50	0.010372	Within authorized band for PCS 1900	Pass
	3.85	17.40	0.009255		
	4.40	16.82	0.008947		
<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

