

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Channel	PCL	Average Power (dBm)	Antenna Gain (dBi)	ERP/EIRP(dBm)	ERP/EIRP Limit (dBm)
GSM850	128	0	33.48	-1.92	29.41	38.45
GSM850	190	0	33.62	-1.92	29.55	38.45
GSM850	251	0	33.41	-1.92	29.34	38.45
GSM1900	512	0	30.28	-0.59	29.69	33.00
GSM1900	661	0	30.26	-0.59	29.67	33.00
GSM1900	810	0	30.19	-0.59	29.60	33.00

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). (For GSM1900)

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

Band	Channel	PCL	Slot	Average Power (dBm)	Antenna Gain (dBi)	ERP(dBm)	ERP/EIRP Limit (dBm)
GPRS850	128	3	1	33.43	-1.92	29.36	38.45
GPRS850	128	3	2	31.36	-1.92	27.29	38.45
GPRS850	128	3	3	29.42	-1.92	25.35	38.45
GPRS850	128	3	4	27.22	-1.92	23.15	38.45
GPRS850	190	3	1	33.54	-1.92	29.47	38.45
GPRS850	190	3	2	31.39	-1.92	27.32	38.45
GPRS850	190	3	3	29.46	-1.92	25.39	38.45
GPRS850	190	3	4	27.31	-1.92	23.24	38.45
GPRS850	251	3	1	33.31	-1.92	29.24	38.45
GPRS850	251	3	2	31.18	-1.92	27.11	38.45
GPRS850	251	3	3	29.26	-1.92	25.19	38.45
GPRS850	251	3	4	27.14	-1.92	23.07	38.45
EGPRS850	128	8	1	25.62	-1.92	21.55	38.45
EGPRS850	128	8	2	25.42	-1.92	21.35	38.45
EGPRS850	128	8	3	24.24	-1.92	20.17	38.45
EGPRS850	128	8	4	21.39	-1.92	17.32	38.45
EGPRS850	190	8	1	26.06	-1.92	21.99	38.45
EGPRS850	190	8	2	26.11	-1.92	22.04	38.45
EGPRS850	190	8	3	24.99	-1.92	20.92	38.45

EGPRS850	190	8	4	22.31	-1.92	18.24	38.45
EGPRS850	251	8	1	25.42	-1.92	21.35	38.45
EGPRS850	251	8	2	25.49	-1.92	21.42	38.45
EGPRS850	251	8	3	24.32	-1.92	20.25	38.45
EGPRS850	251	8	4	21.54	-1.92	17.47	38.45
GPRS1900	512	0	1	30.24	-0.59	29.65	33.00
GPRS1900	512	0	2	28.06	-0.59	27.47	33.00
GPRS1900	512	0	3	26.55	-0.59	25.96	33.00
GPRS1900	512	0	4	24.41	-0.59	23.82	33.00
GPRS1900	661	0	1	30.25	-0.59	29.66	33.00
GPRS1900	661	0	2	27.85	-0.59	27.26	33.00
GPRS1900	661	0	3	26.32	-0.59	25.73	33.00
GPRS1900	661	0	4	24.15	-0.59	23.56	33.00
GPRS1900	810	0	1	30.17	-0.59	29.58	33.00
GPRS1900	810	0	2	27.57	-0.59	26.98	33.00
GPRS1900	810	0	3	26.01	-0.59	25.42	33.00
GPRS1900	810	0	4	23.86	-0.59	23.27	33.00
EGPRS1900	512	2	1	26.61	-0.59	26.02	33.00
EGPRS1900	512	2	2	26.39	-0.59	25.80	33.00
EGPRS1900	512	2	3	24.76	-0.59	24.17	33.00
EGPRS1900	512	2	4	23.27	-0.59	22.68	33.00
EGPRS1900	661	2	1	27.28	-0.59	26.69	33.00
EGPRS1900	661	2	2	27.30	-0.59	26.71	33.00
EGPRS1900	661	2	3	26.00	-0.59	25.41	33.00
EGPRS1900	661	2	4	24.07	-0.59	23.48	33.00
EGPRS1900	810	2	1	26.29	-0.59	25.70	33.00
EGPRS1900	810	2	2	26.24	-0.59	25.65	33.00
EGPRS1900	810	2	3	24.93	-0.59	24.34	33.00
EGPRS1900	810	2	4	22.98	-0.59	22.39	33.00

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). (For GSM1900)

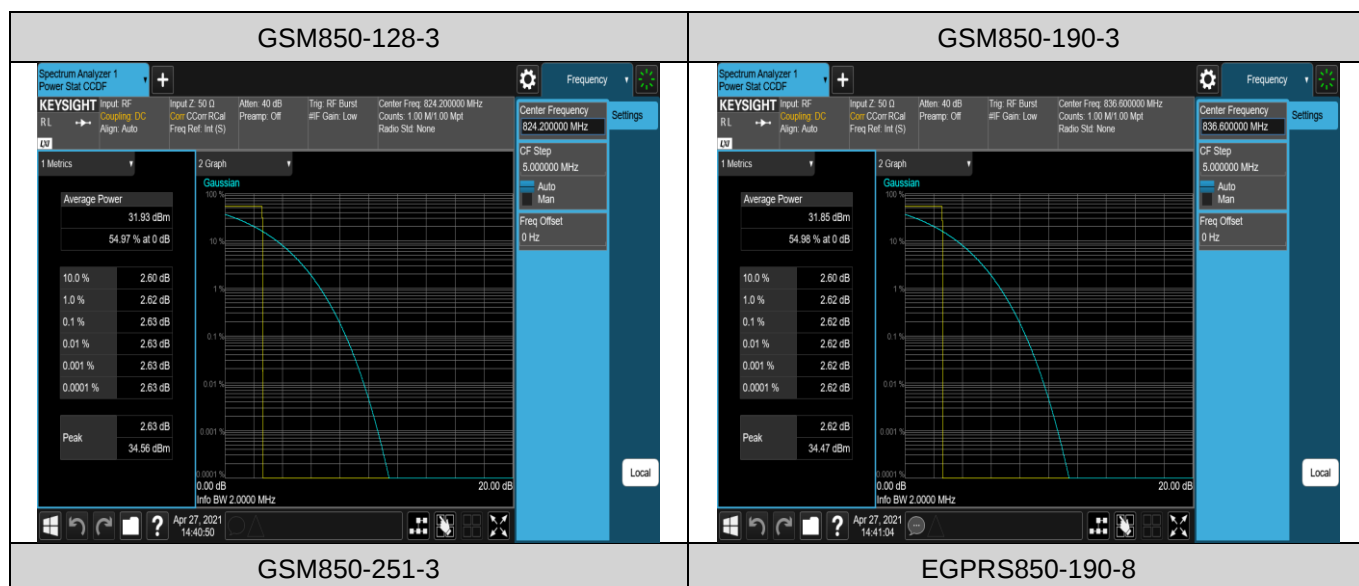
ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For GSM850)

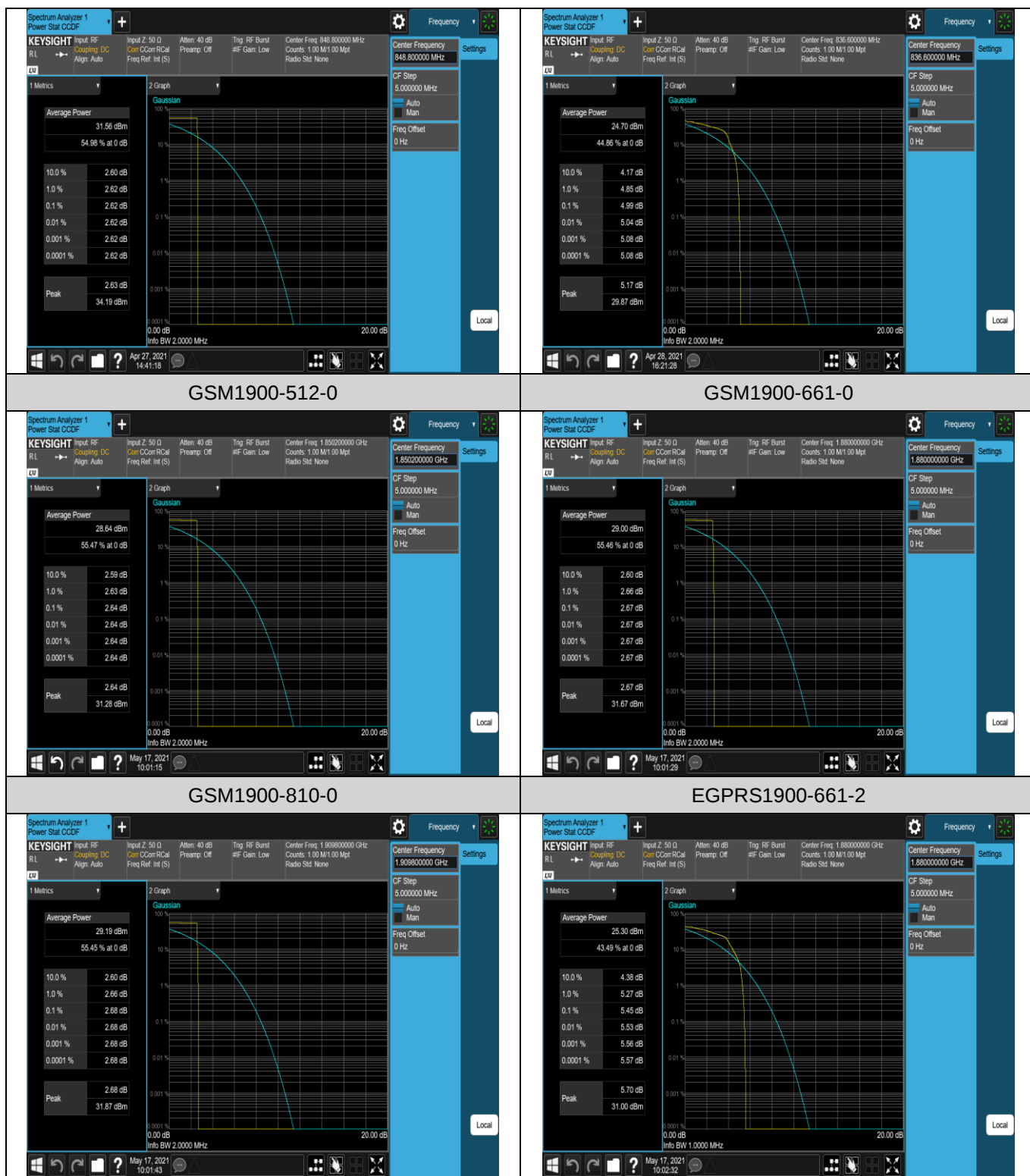
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	128	3	2.63	13	PASS
GSM850	190	3	2.62	13	PASS
GSM850	251	3	2.62	13	PASS
EGPRS850	190	8	4.99	13	PASS
GSM1900	512	0	2.64	13	PASS
GSM1900	661	0	2.67	13	PASS
GSM1900	810	0	2.68	13	PASS
EGPRS1900	661	2	5.45	13	PASS

Test Graphs



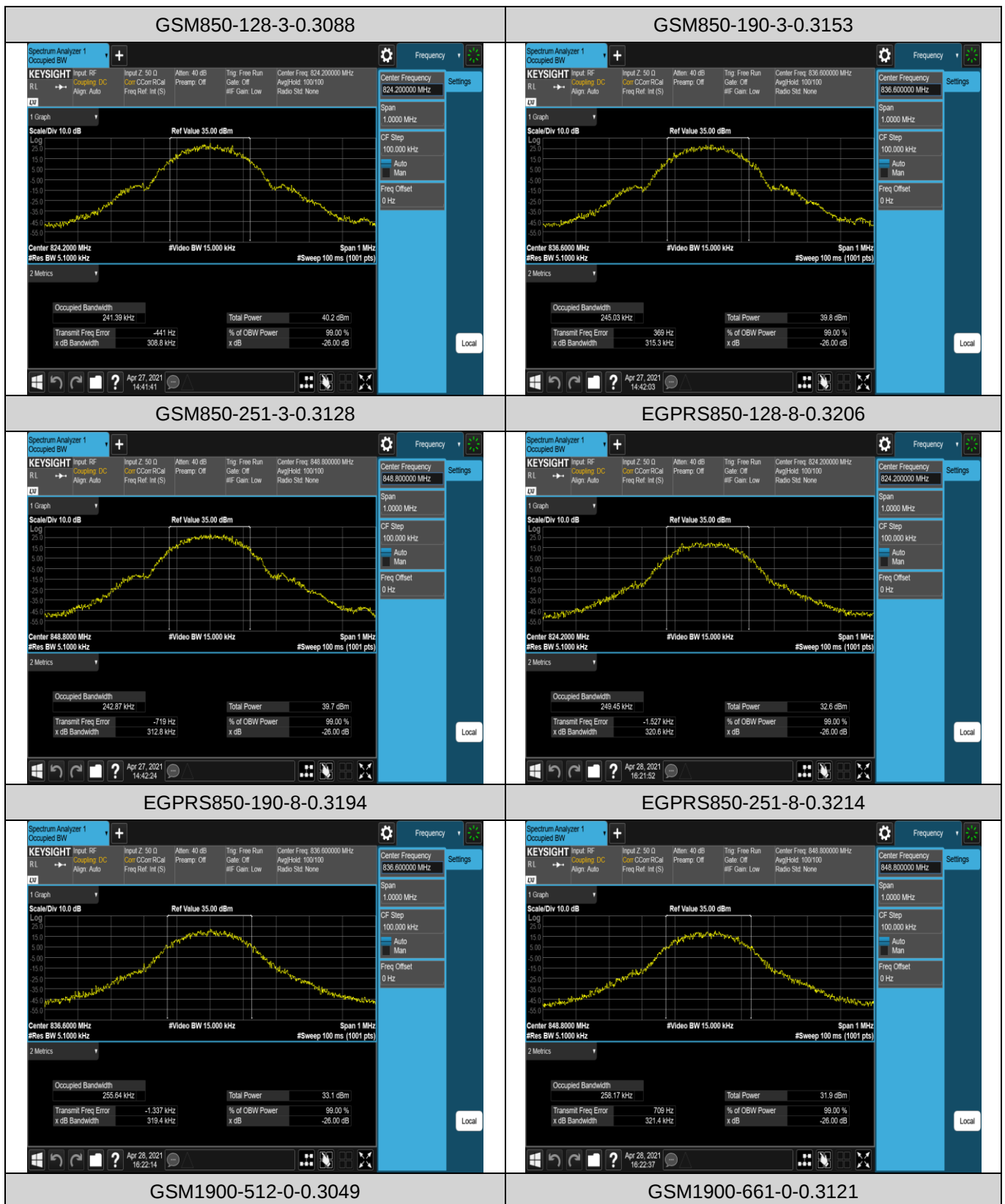


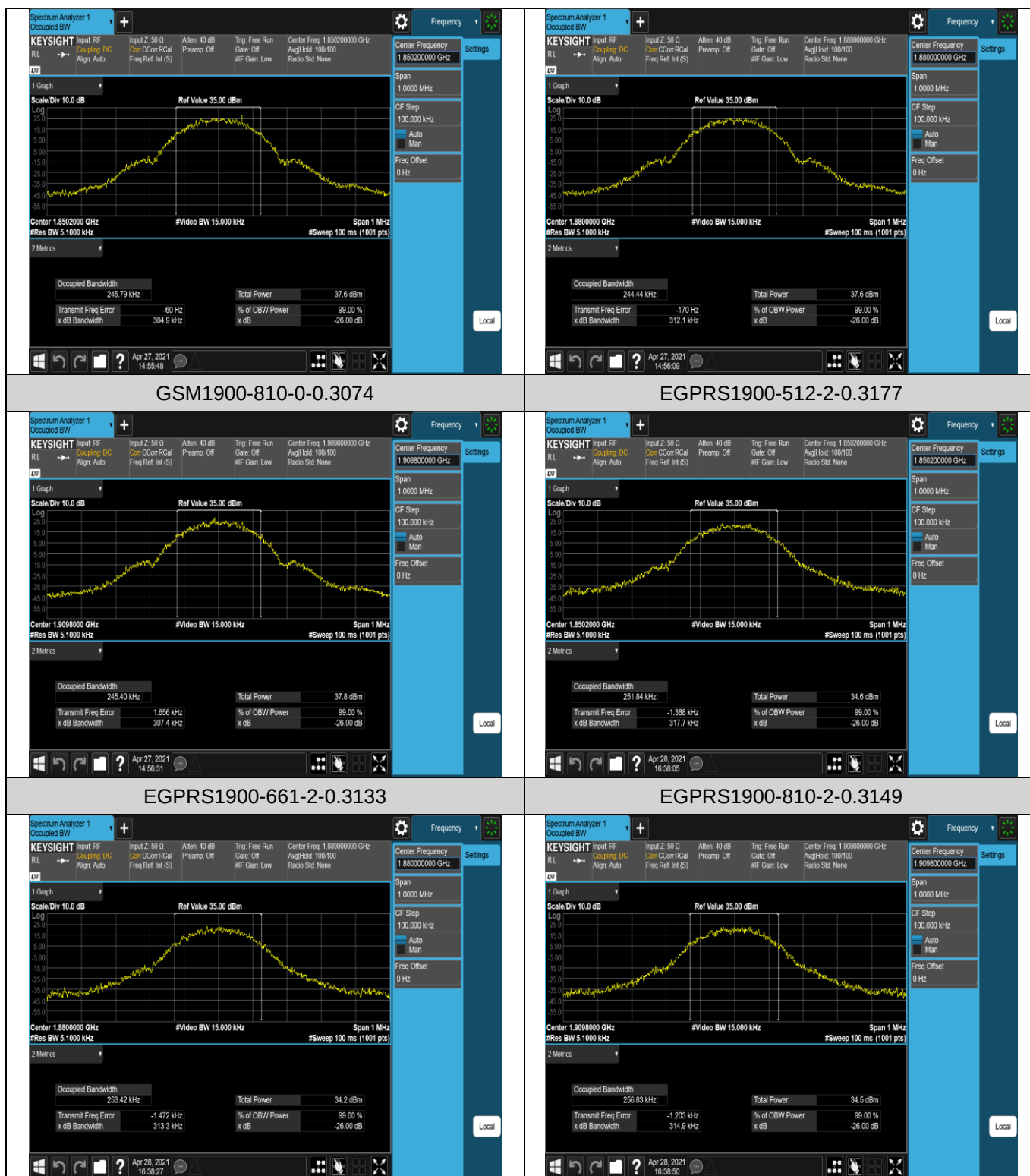
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24139	0.3088	---	PASS
GSM850	190	3	0.24503	0.3153	---	PASS
GSM850	251	3	0.24287	0.3128	---	PASS
EGPRS850	128	8	0.24945	0.3206	---	PASS
EGPRS850	190	8	0.25564	0.3194	---	PASS
EGPRS850	251	8	0.25817	0.3214	---	PASS
GSM1900	512	0	0.24579	0.3049	---	PASS
GSM1900	661	0	0.24444	0.3121	---	PASS
GSM1900	810	0	0.24540	0.3074	---	PASS
EGPRS1900	512	2	0.25184	0.3177	---	PASS
EGPRS1900	661	2	0.25342	0.3133	---	PASS
EGPRS1900	810	2	0.25683	0.3149	---	PASS

Test Graphs



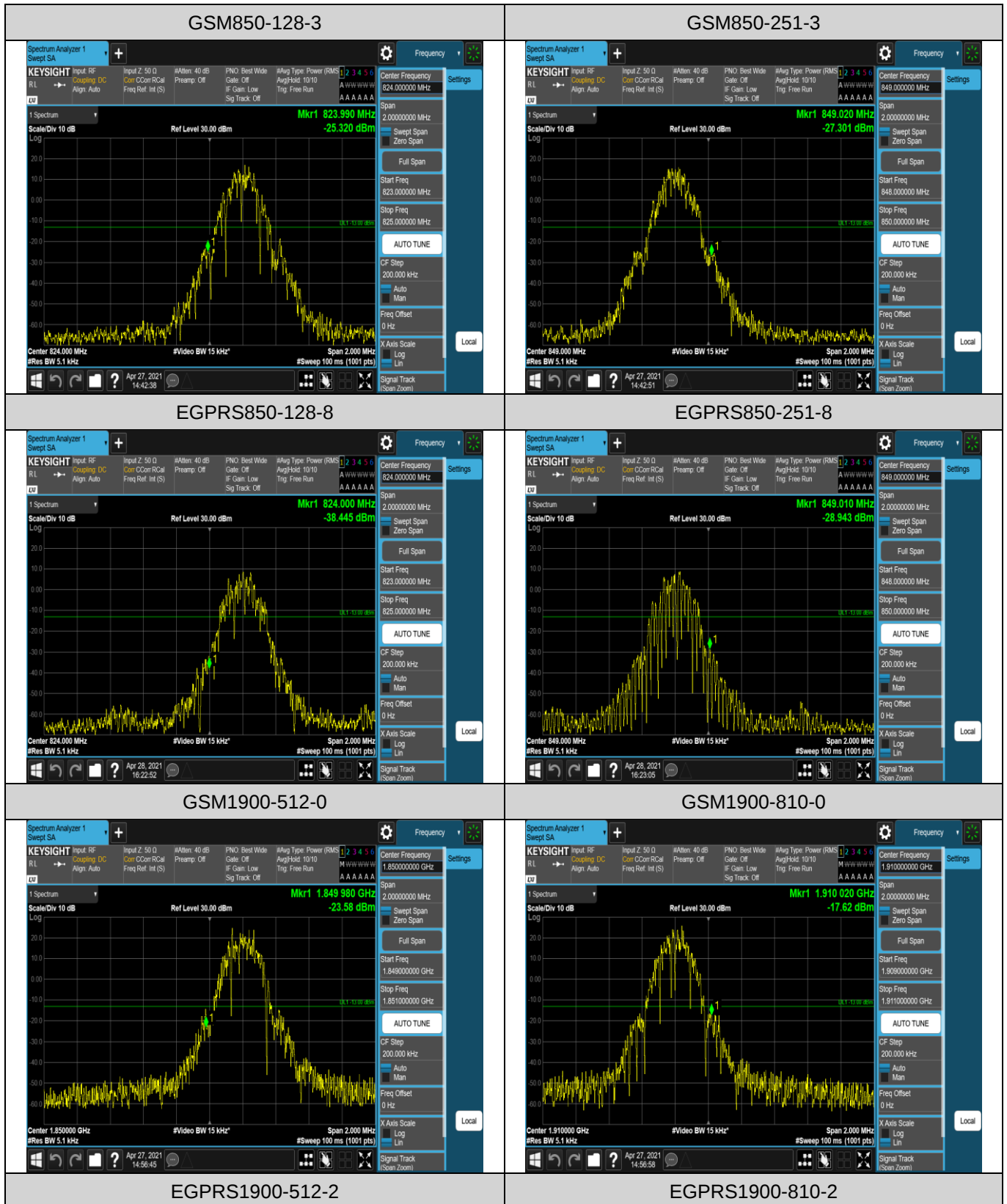


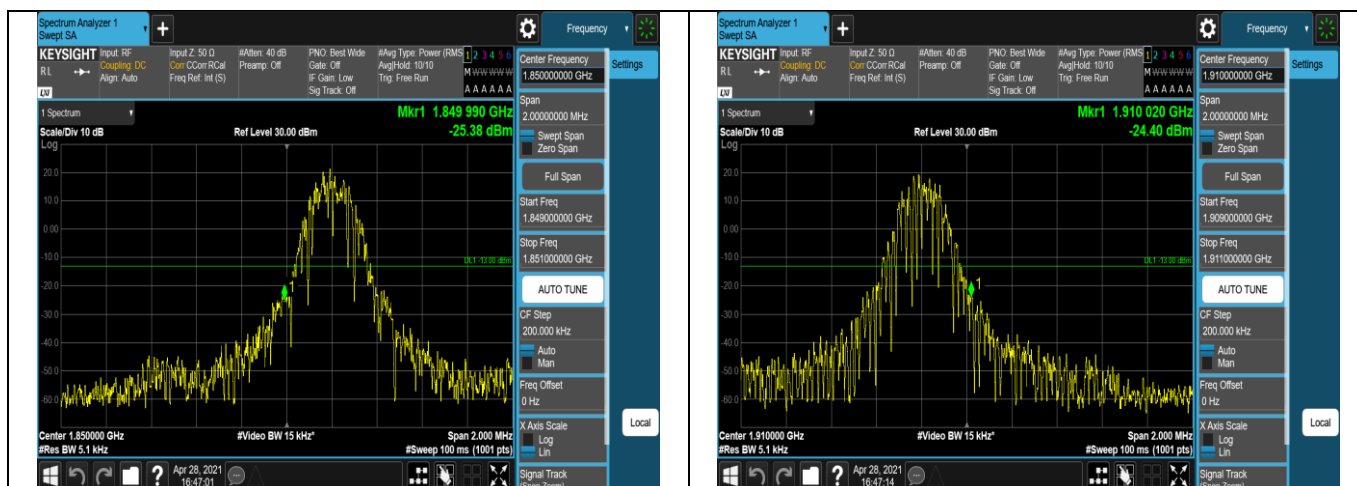
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.99	-23.05	-13	PASS
GSM850	251	3	849.02	-22.06	-13	PASS
EGPRS850	128	8	824.00	-31.99	-13	PASS
EGPRS850	251	8	849.01	-28.81	-13	PASS
GSM1900	512	0	1849.98	-14.38	-13	PASS
GSM1900	810	0	1910.02	-15.15	-13	PASS
EGPRS1900	512	2	1849.99	-19.81	-13	PASS
EGPRS1900	810	2	1910.02	-18.69	-13	PASS

Test Graphs





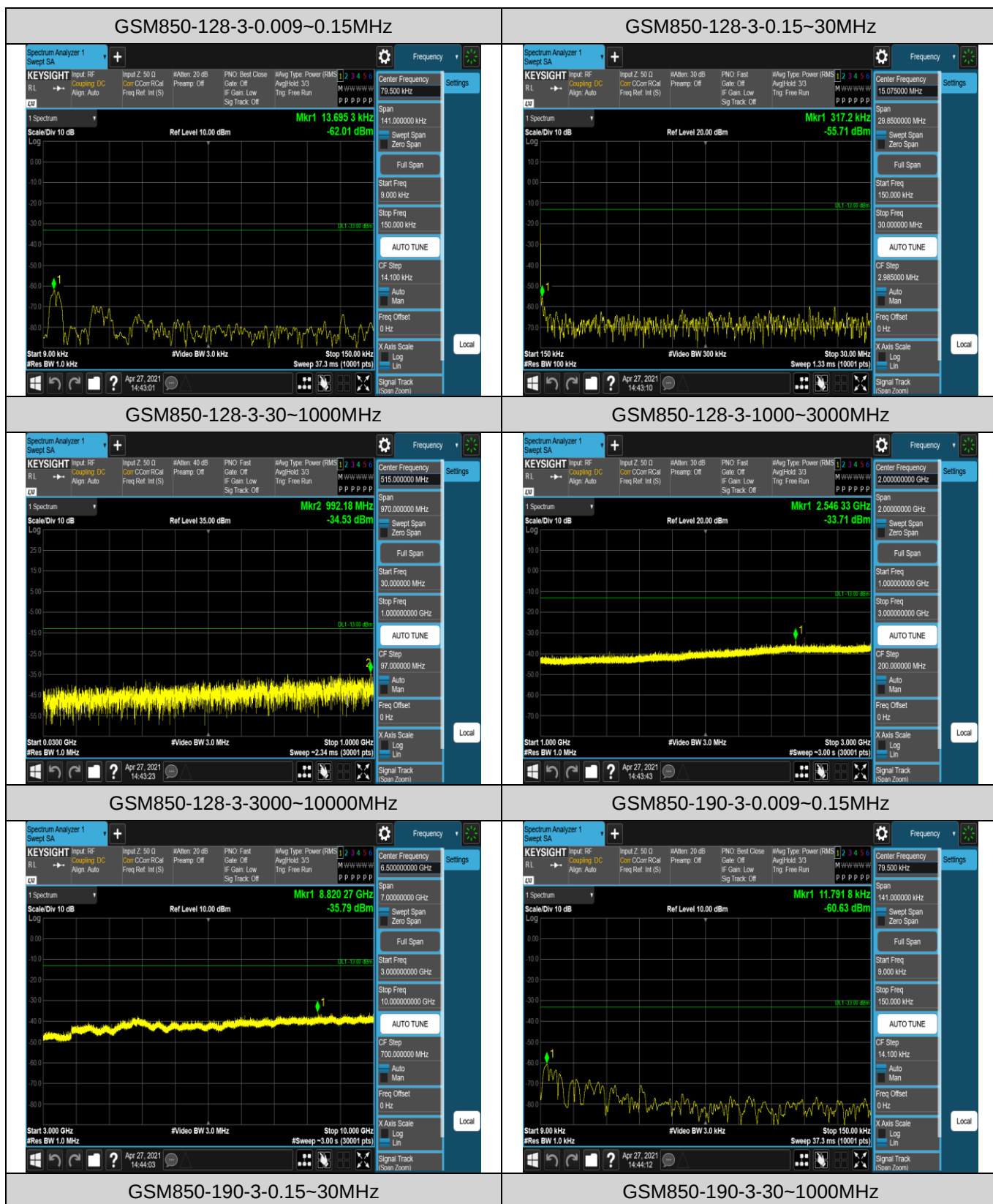
Appendix E: Conducted Spurious Emission

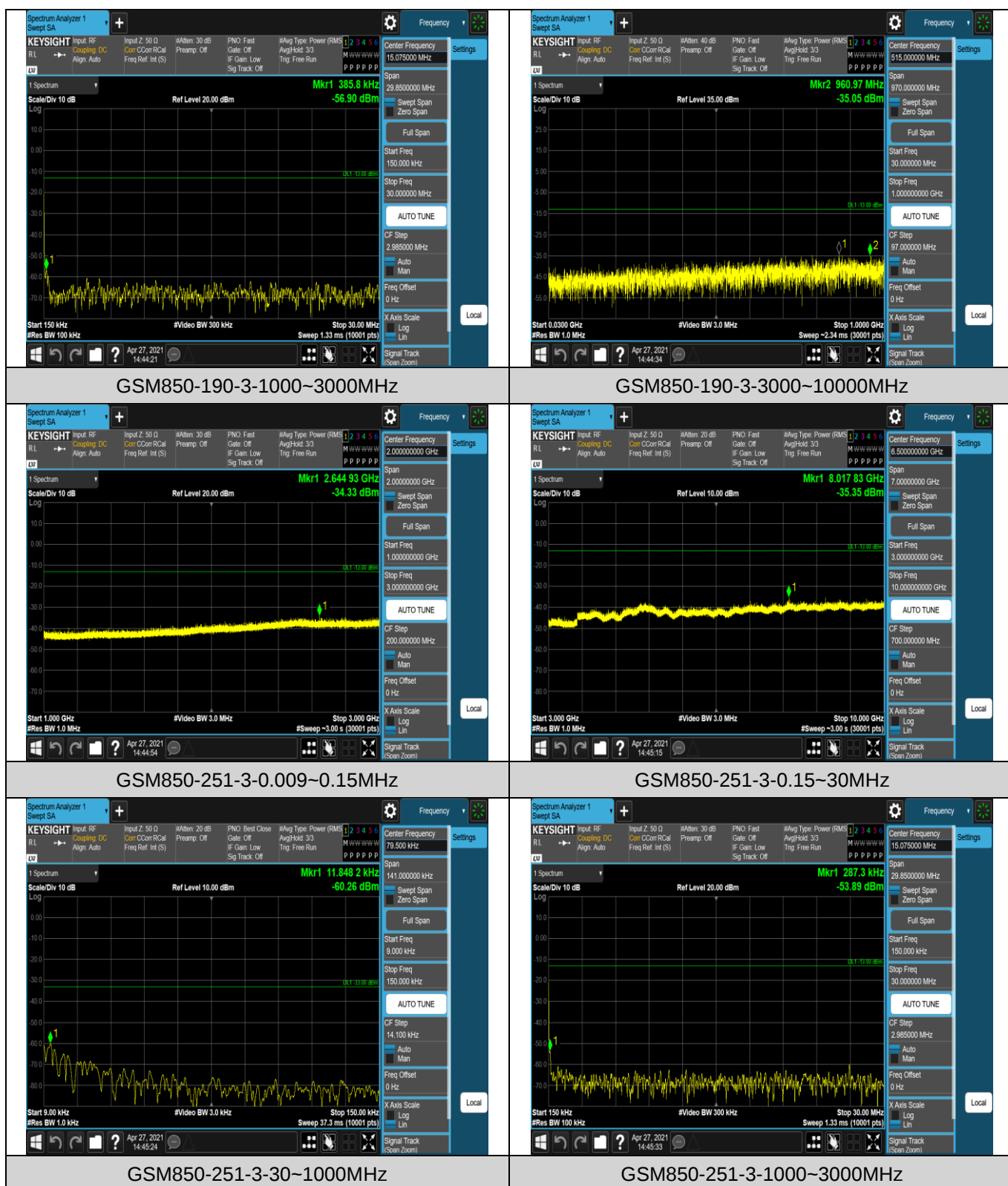
Test Result

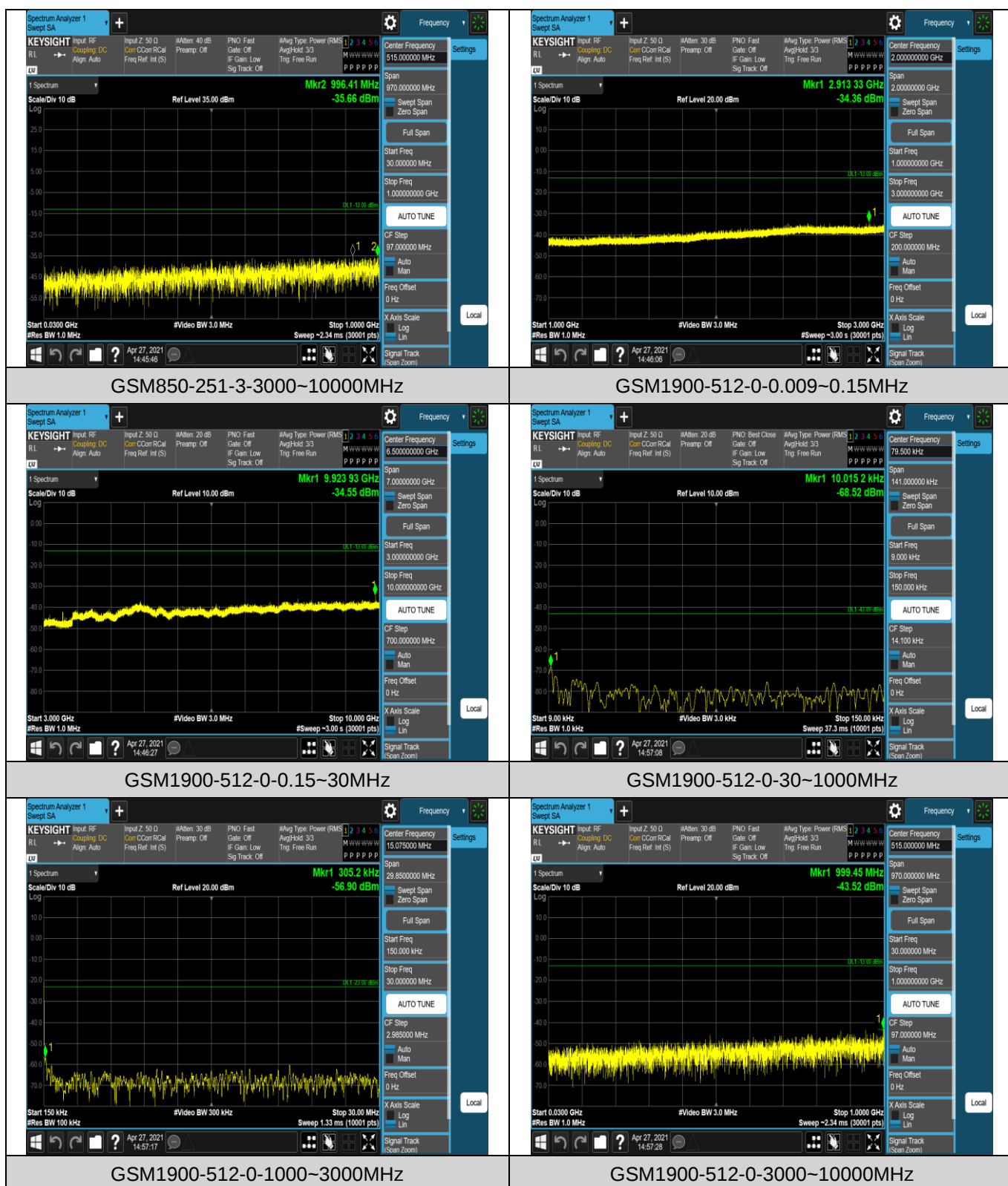
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-62.01	-33	PASS
GSM850	128	3	0.15~30MHz	0.32	-55.71	-13	PASS
GSM850	128	3	30~1000MHz	992.18	-34.53	-13	PASS
GSM850	128	3	1000~3000MHz	2546.33	-33.71	-13	PASS
GSM850	128	3	3000~10000MHz	8820.27	-35.8	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-60.63	-33	PASS
GSM850	190	3	0.15~30MHz	0.39	-56.9	-13	PASS
GSM850	190	3	30~1000MHz	960.97	-35.05	-13	PASS
GSM850	190	3	1000~3000MHz	2644.93	-34.33	-13	PASS
GSM850	190	3	3000~10000MHz	8017.83	-35.35	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-60.26	-33	PASS
GSM850	251	3	0.15~30MHz	0.29	-53.89	-13	PASS
GSM850	251	3	30~1000MHz	996.41	-35.66	-13	PASS
GSM850	251	3	1000~3000MHz	2913.33	-34.36	-13	PASS
GSM850	251	3	3000~10000MHz	9923.93	-34.55	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-68.52	-43	PASS
GSM1900	512	0	0.15~30MHz	0.31	-56.9	-23	PASS
GSM1900	512	0	30~1000MHz	999.45	-43.52	-13	PASS
GSM1900	512	0	1000~3000MHz	2545.8	-24.65	-13	PASS
GSM1900	512	0	3000~10000MHz	7638.9	-33.4	-13	PASS
GSM1900	512	0	10000~18000MHz	17949.87	-27.35	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-71.64	-43	PASS
GSM1900	661	0	0.15~30MHz	0.5	-60.9	-23	PASS
GSM1900	661	0	30~1000MHz	856.89	-45.36	-13	PASS
GSM1900	661	0	1000~3000MHz	2641.47	-25.21	-13	PASS
GSM1900	661	0	3000~10000MHz	7638.67	-34.88	-13	PASS
GSM1900	661	0	10000~18000MHz	17869.6	-28.48	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.02	-70.7	-43	PASS
GSM1900	810	0	0.15~30MHz	0.29	-56.84	-23	PASS
GSM1900	810	0	30~1000MHz	812.43	-44.35	-13	PASS
GSM1900	810	0	1000~3000MHz	2778.07	-25.65	-13	PASS

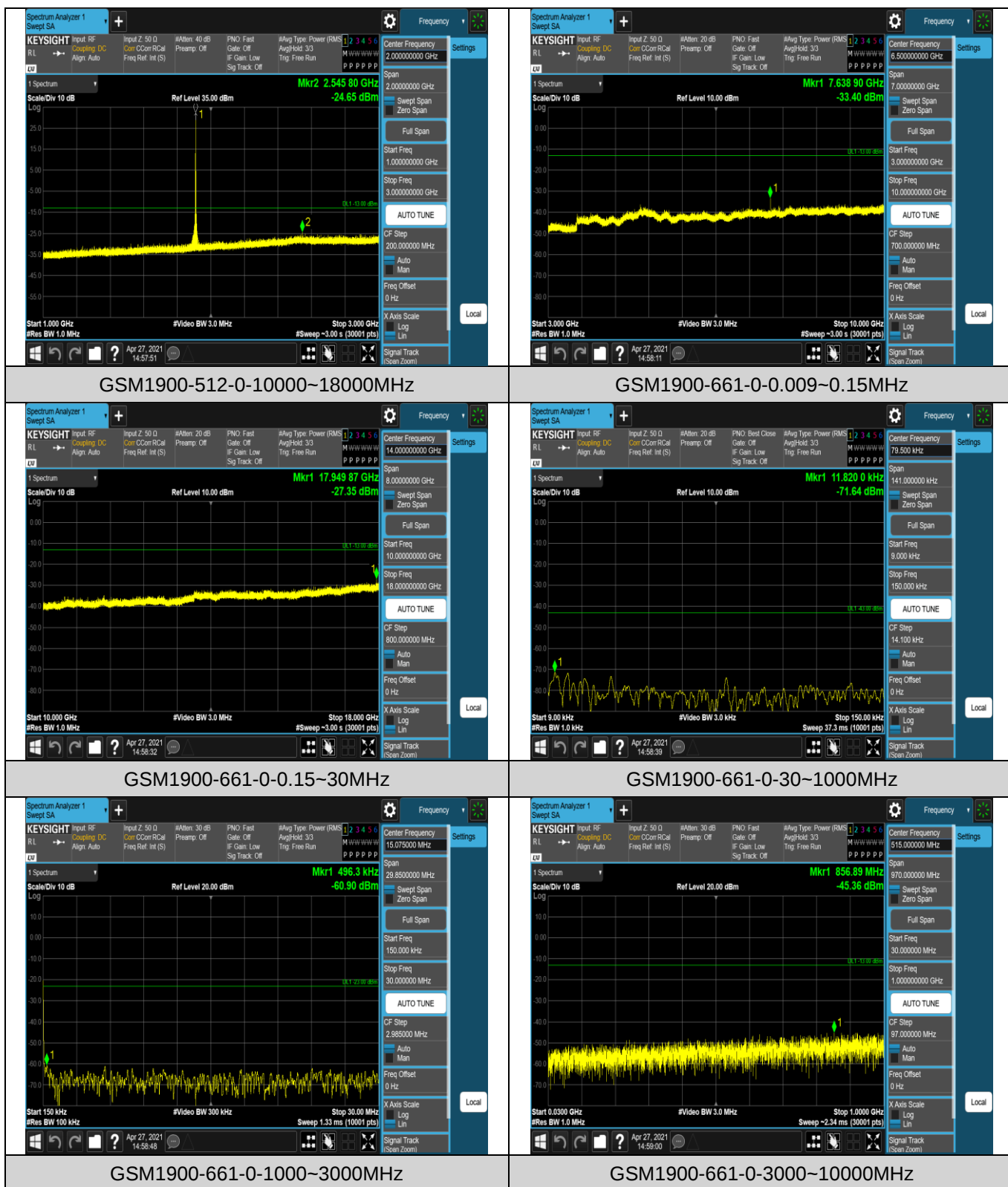
GSM1900	810	0	3000~10000MHz	7639.13	-33.49	-13	PASS
GSM1900	810	0	10000~18000MHz	17964.27	-28.3	-13	PASS

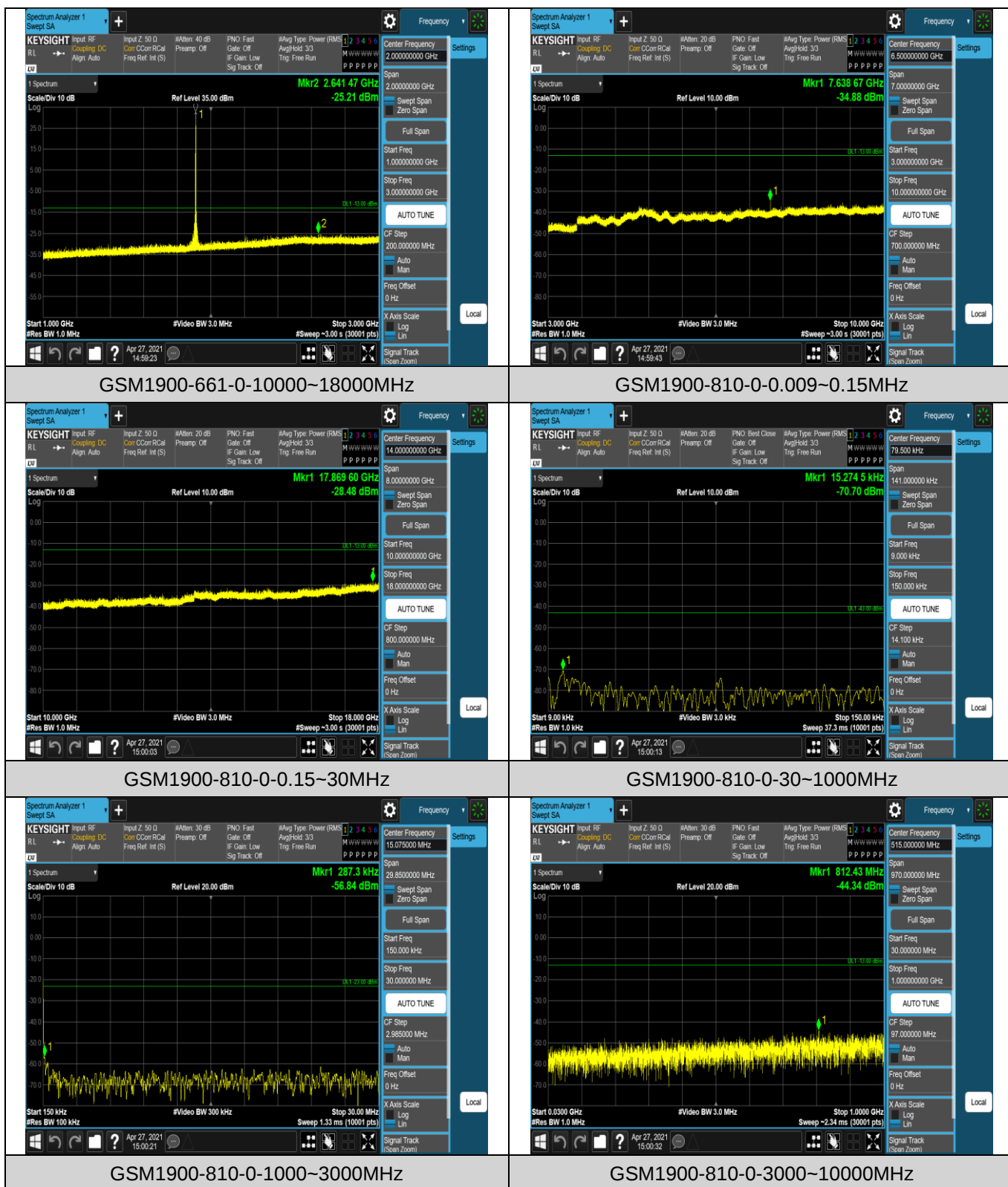
Test Graphs

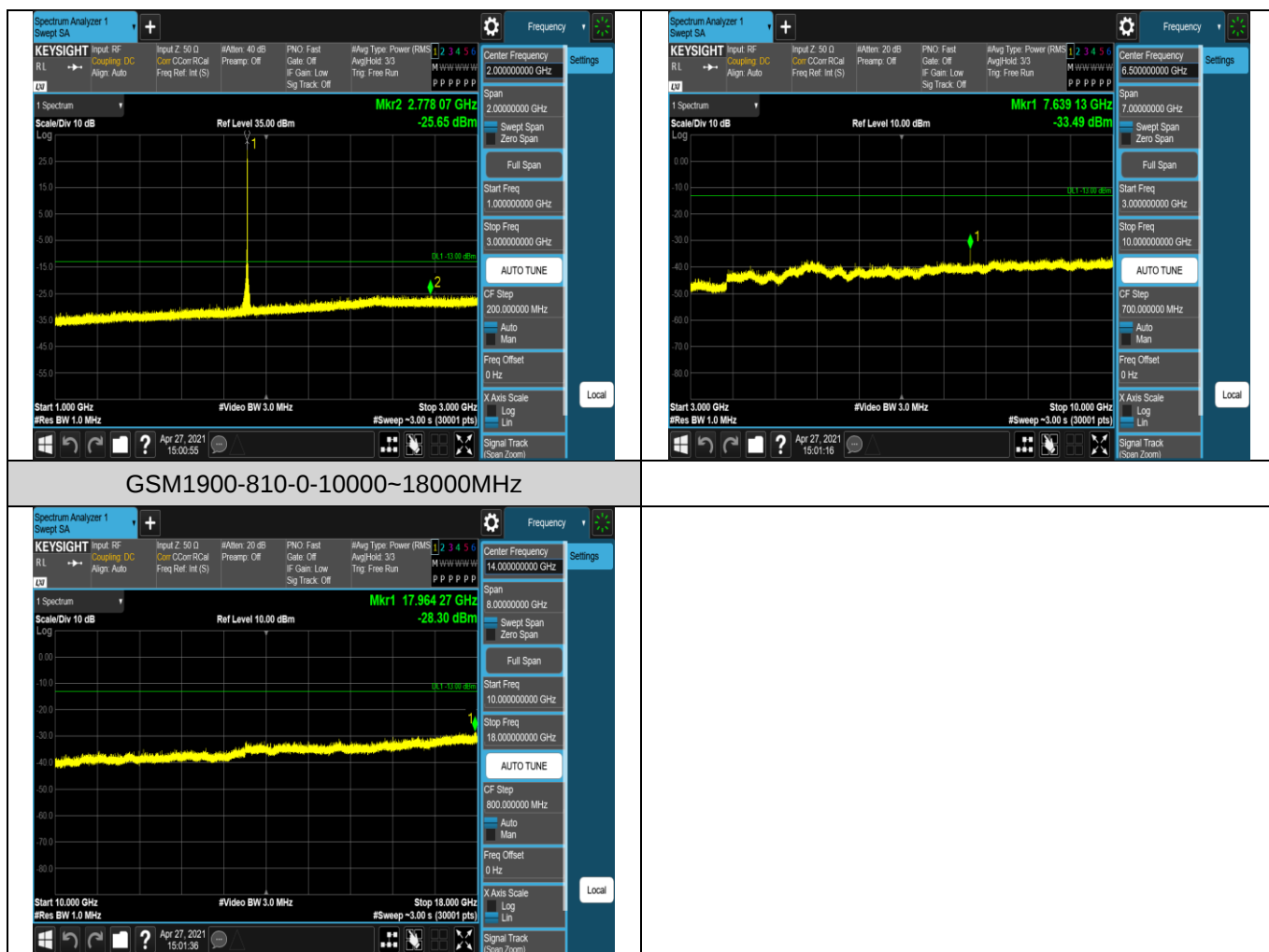












Appendix F: Frequency Stability

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	2.07	0.002474	±2.5	Pass
	-20	-2.87	-0.003431		
	-10	3.42	0.004088		
	0	2.68	0.003203		
	10	5.78	0.006909		
	20	0.58	0.000693		
	30	1.07	0.001279		
	40	3.13	0.003741		
	50	4.10	0.004901		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.07	0.006060	±2.5	Pass
	3.85	0.06	0.000072		
	4.42	2.42	0.002893		
Note: Only the worst case shown in the 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	2.26	0.002701	±2.5	Pass
	-20	6.68	0.007985		
	-10	4.07	0.004865		
	0	4.49	0.005367		
	10	8.20	0.009802		
	20	8.75	0.010459		
	30	-0.61	-0.000729		
	40	7.20	0.008606		
	50	4.84	0.005785		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	6.13	0.007327	±2.5	Pass
	3.85	3.55	0.004243		
	4.42	9.78	0.011690		
Note: Only the worst case shown in the 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	-0.84	-0.000447	Within authorized band for PCS 1900	Pass
	-20	-0.97	-0.000516		
	-10	7.33	0.003899		
	0	10.53	0.005601		
	10	-3.97	-0.002112		
	20	13.17	0.007005		
	30	-7.01	-0.003729		
	40	3.71	0.001973		
	50	-0.06	-0.000032		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-5.94	-0.003160	Within authorized band for PCS 1900	Pass
	3.85	-5.20	-0.002766		
	4.42	7.94	0.004223		
Note: Only the worst case shown in the 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	17.63	0.009378	Within authorized band for PCS 1900	Pass
	-20	8.04	0.004277		
	-10	2.13	0.001133		
	0	5.29	0.002814		
	10	10.14	0.005394		
	20	10.88	0.005787		
	30	-0.45	-0.000239		
	40	12.27	0.006527		
	50	9.27	0.004931		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-5.59	-0.002973	Within authorized band for PCS 1900	Pass
	3.85	1.94	0.001032		
	4.42	12.07	0.006420		
Note: Only the worst case shown in the report.					