

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	32.36	-0.70	29.51	38.45
GSM850	190	0	32.55	-0.70	29.70	38.45
GSM850	251	0	32.74	-0.70	29.89	38.45
GSM1900	512	0	27.47	1.50	28.97	33.00
GSM1900	661	0	26.93	1.50	28.43	33.00
GSM1900	810	0	27.68	1.50	29.18	33.00
Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). ERP (dBm) = EIRP (dBm) - 2.15 (dB).						

Band	Channel	PCL	Slot	Average Power (dBm)	Antenna Gain (dBi)	ERP(dBm)	ERP/EIRP Limit (dBm)
GPRS850	128	3	1	32.41	-0.70	29.56	38.45
GPRS850	128	3	2	30.39	-0.70	27.54	38.45
GPRS850	128	3	3	28.43	-0.70	25.58	38.45
GPRS850	128	3	4	26.26	-0.70	23.41	38.45
GPRS850	190	3	1	32.53	-0.70	29.68	38.45
GPRS850	190	3	2	30.44	-0.70	27.59	38.45
GPRS850	190	3	3	28.49	-0.70	25.64	38.45
GPRS850	190	3	4	26.26	-0.70	23.41	38.45
GPRS850	251	3	1	32.71	-0.70	29.86	38.45
GPRS850	251	3	2	30.58	-0.70	27.73	38.45
GPRS850	251	3	3	28.60	-0.70	25.75	38.45
GPRS850	251	3	4	26.40	-0.70	23.55	38.45
EGPRS850	128	8	1	24.72	-0.70	21.87	38.45
EGPRS850	128	8	2	24.56	-0.70	21.71	38.45
EGPRS850	128	8	3	23.25	-0.70	20.40	38.45
EGPRS850	128	8	4	20.33	-0.70	17.48	38.45
EGPRS850	190	8	1	24.82	-0.70	21.97	38.45
EGPRS850	190	8	2	24.81	-0.70	21.96	38.45

EGPRS850	190	8	3	23.68	-0.70	20.83	38.45
EGPRS850	190	8	4	20.84	-0.70	17.99	38.45
EGPRS850	251	8	1	24.62	-0.70	21.77	38.45
EGPRS850	251	8	2	24.65	-0.70	21.80	38.45
EGPRS850	251	8	3	23.48	-0.70	20.63	38.45
EGPRS850	251	8	4	20.71	-0.70	17.86	38.45
GPRS1900	512	0	1	25.88	1.50	27.38	33.00
GPRS1900	512	0	2	23.92	1.50	25.42	33.00
GPRS1900	512	0	3	22.41	1.50	23.91	33.00
GPRS1900	512	0	4	20.43	1.50	21.93	33.00
GPRS1900	661	0	1	26.89	1.50	28.39	33.00
GPRS1900	661	0	2	24.79	1.50	26.29	33.00
GPRS1900	661	0	3	23.26	1.50	24.76	33.00
GPRS1900	661	0	4	21.25	1.50	22.75	33.00
GPRS1900	810	0	1	27.66	1.50	29.16	33.00
GPRS1900	810	0	2	25.35	1.50	26.85	33.00
GPRS1900	810	0	3	23.83	1.50	25.33	33.00
GPRS1900	810	0	4	21.80	1.50	23.30	33.00
EGPRS1900	512	2	1	23.56	1.50	25.06	33.00
EGPRS1900	512	2	2	23.34	1.50	24.84	33.00
EGPRS1900	512	2	3	21.73	1.50	23.23	33.00
EGPRS1900	512	2	4	18.95	1.50	20.45	33.00
EGPRS1900	661	2	1	22.92	1.50	24.42	33.00
EGPRS1900	661	2	2	22.94	1.50	24.44	33.00
EGPRS1900	661	2	3	21.34	1.50	22.84	33.00
EGPRS1900	661	2	4	18.56	1.50	20.06	33.00
EGPRS1900	810	2	1	21.31	1.50	22.81	33.00
EGPRS1900	810	2	2	21.31	1.50	22.81	33.00
EGPRS1900	810	2	3	19.39	1.50	20.89	33.00
EGPRS1900	810	2	4	16.58	1.50	18.08	33.00

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). (For GSM 1900)

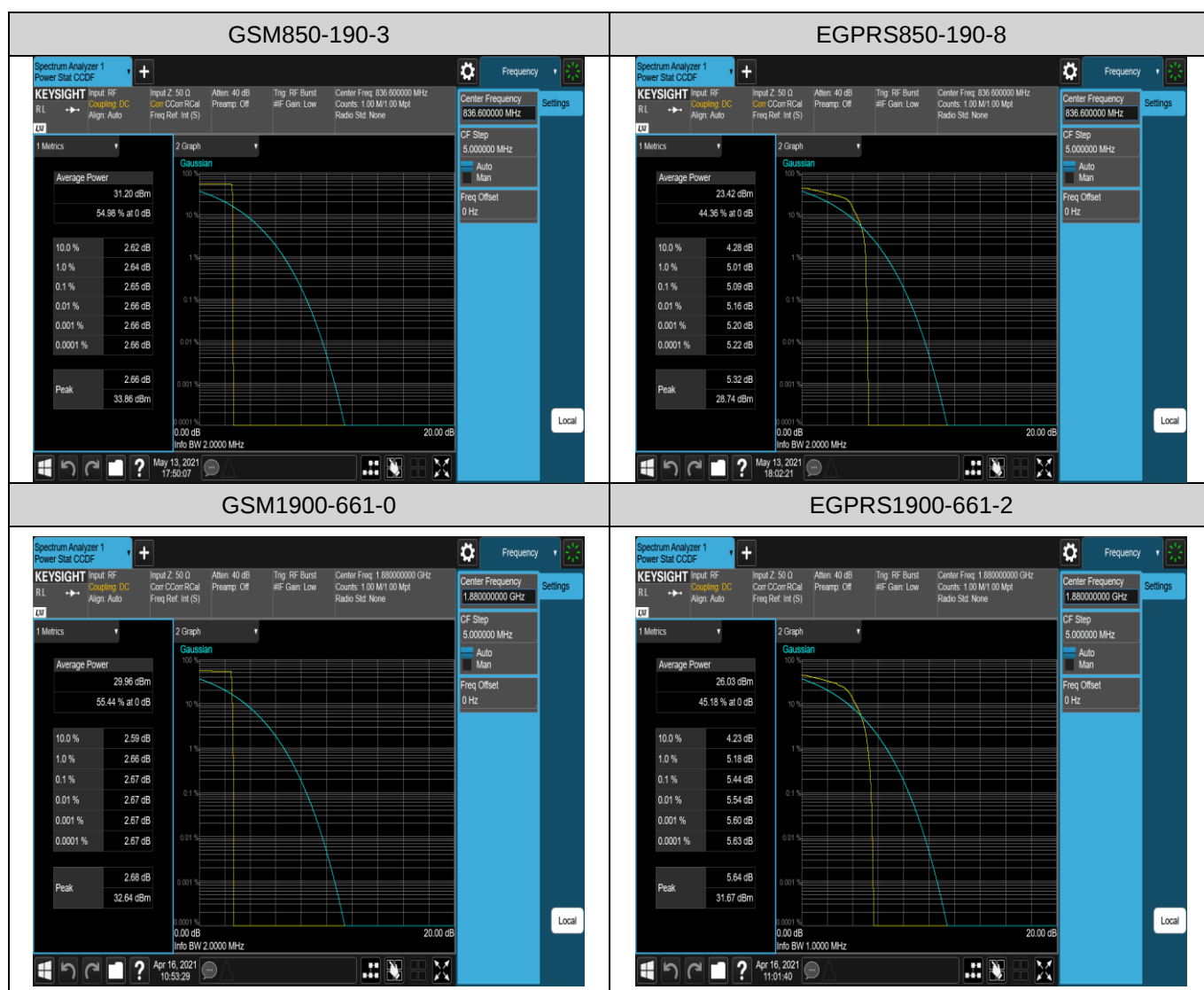
ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For GSM 850)

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

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.65	13	PASS
EGPRS850	190	8	5.09	13	PASS
GSM1900	661	0	2.67	13	PASS
EGPRS1900	661	2	5.44	13	PASS

Test Graphs

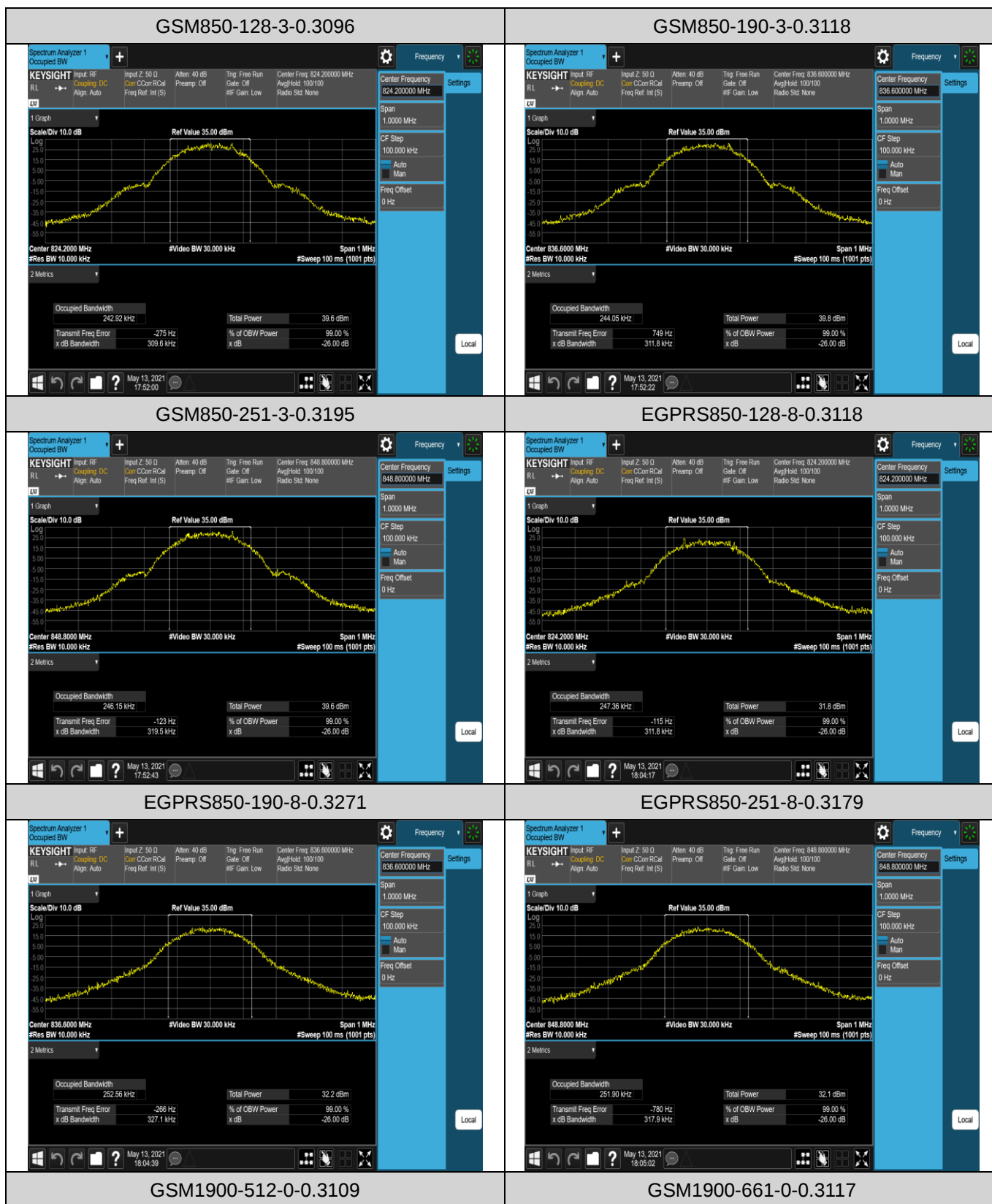


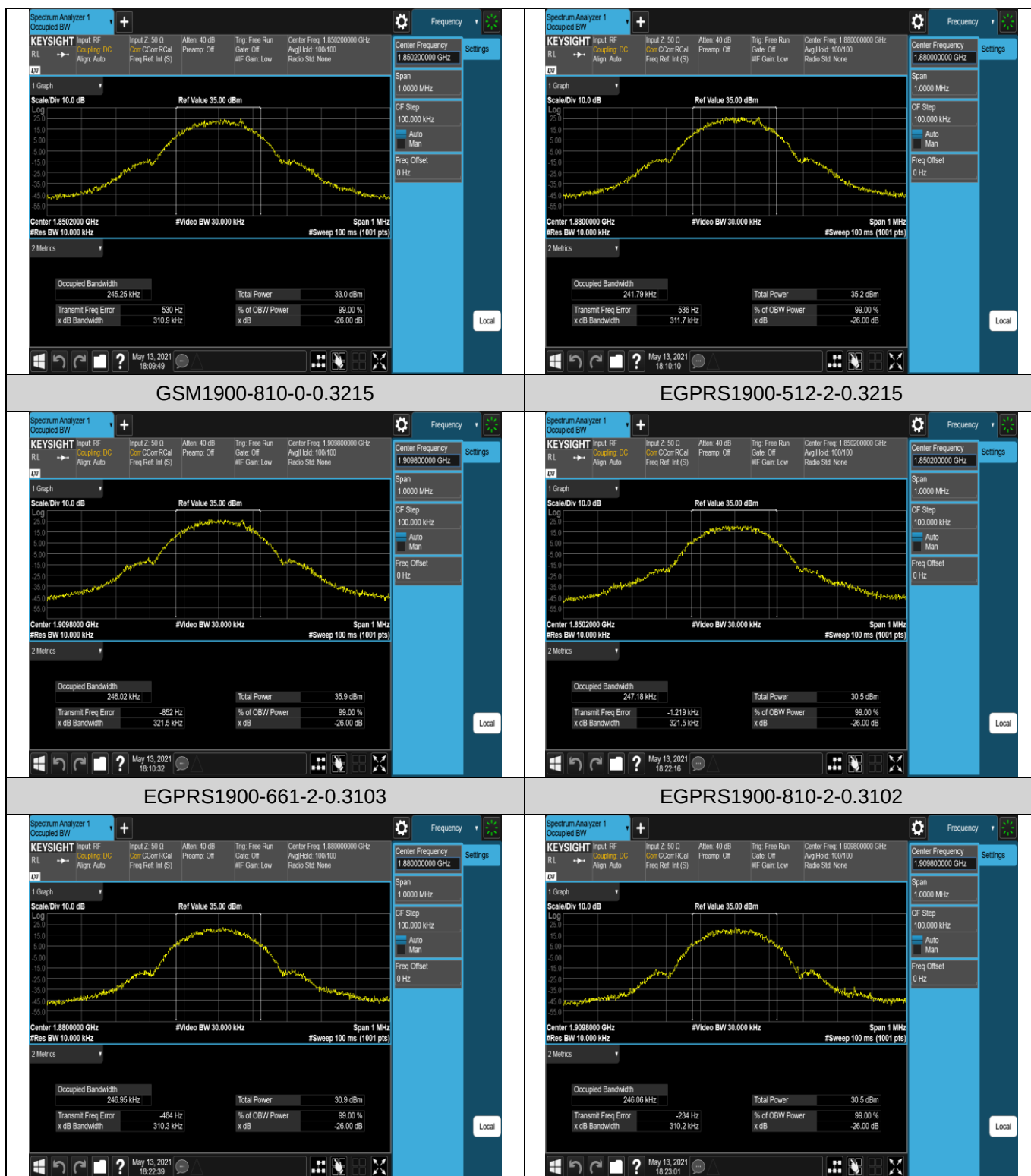
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24292	0.3096	---	PASS
GSM850	190	3	0.24405	0.3118	---	PASS
GSM850	251	3	0.24615	0.3195	---	PASS
EGPRS850	128	8	0.24736	0.3118	---	PASS
EGPRS850	190	8	0.25256	0.3271	---	PASS
EGPRS850	251	8	0.25190	0.3179	---	PASS
GSM1900	512	0	0.24525	0.3109	---	PASS
GSM1900	661	0	0.24179	0.3117	---	PASS
GSM1900	810	0	0.24602	0.3215	---	PASS
EGPRS1900	512	2	0.24718	0.3215	---	PASS
EGPRS1900	661	2	0.24695	0.3103	---	PASS
EGPRS1900	810	2	0.24606	0.3102	---	PASS

Test Graphs



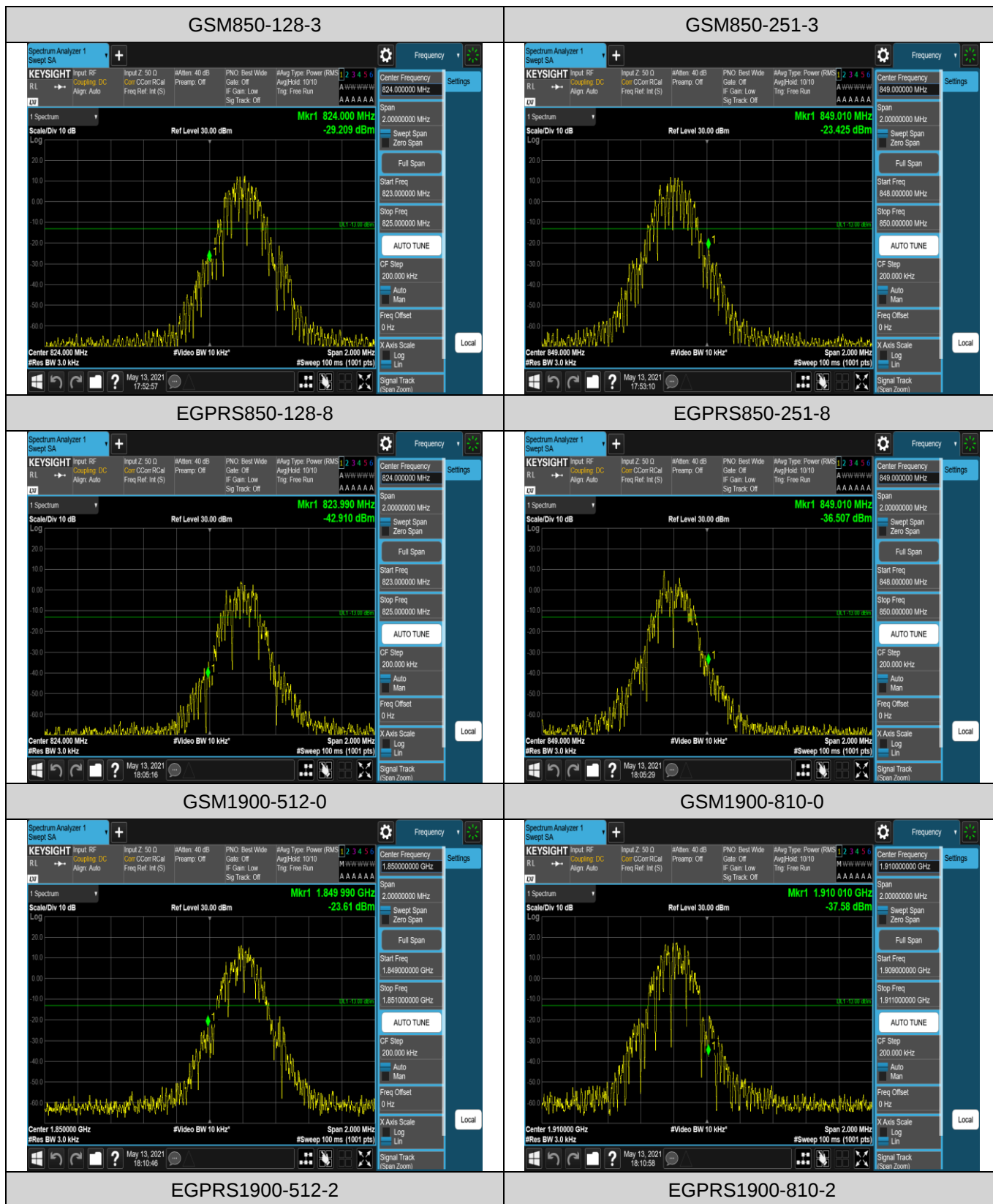


Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-25.15	-13	PASS
GSM850	251	3	849.01	-23.42	-13	PASS
EGPRS850	128	8	823.99	-34.71	-13	PASS
EGPRS850	251	8	849.01	-31.60	-13	PASS
GSM1900	512	0	1849.99	-23.61	-13	PASS
GSM1900	810	0	1910.01	-17.97	-13	PASS
EGPRS1900	512	2	1849.96	-28.04	-13	PASS
EGPRS1900	810	2	1910.02	-25.09	-13	PASS

Test Graphs



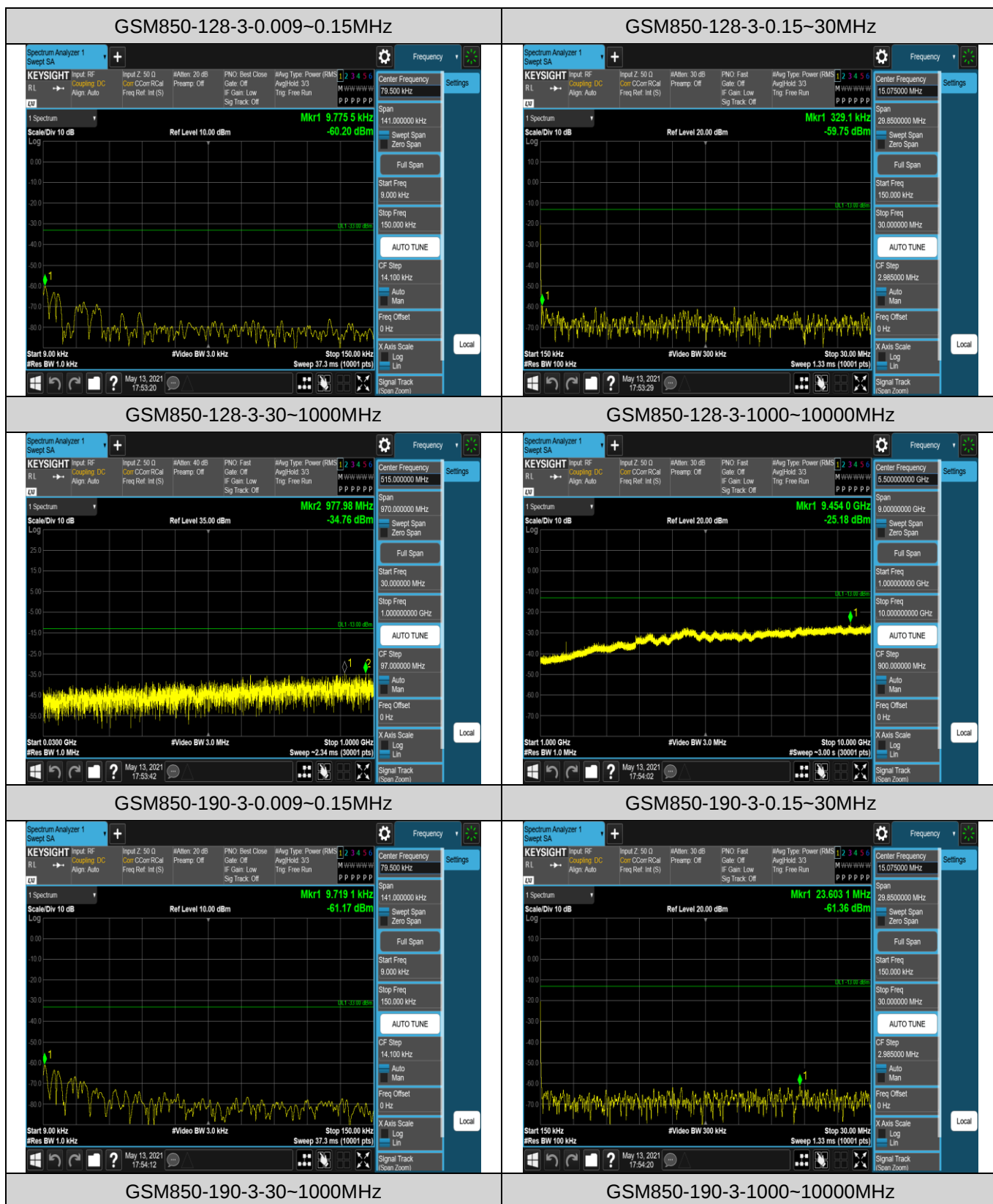


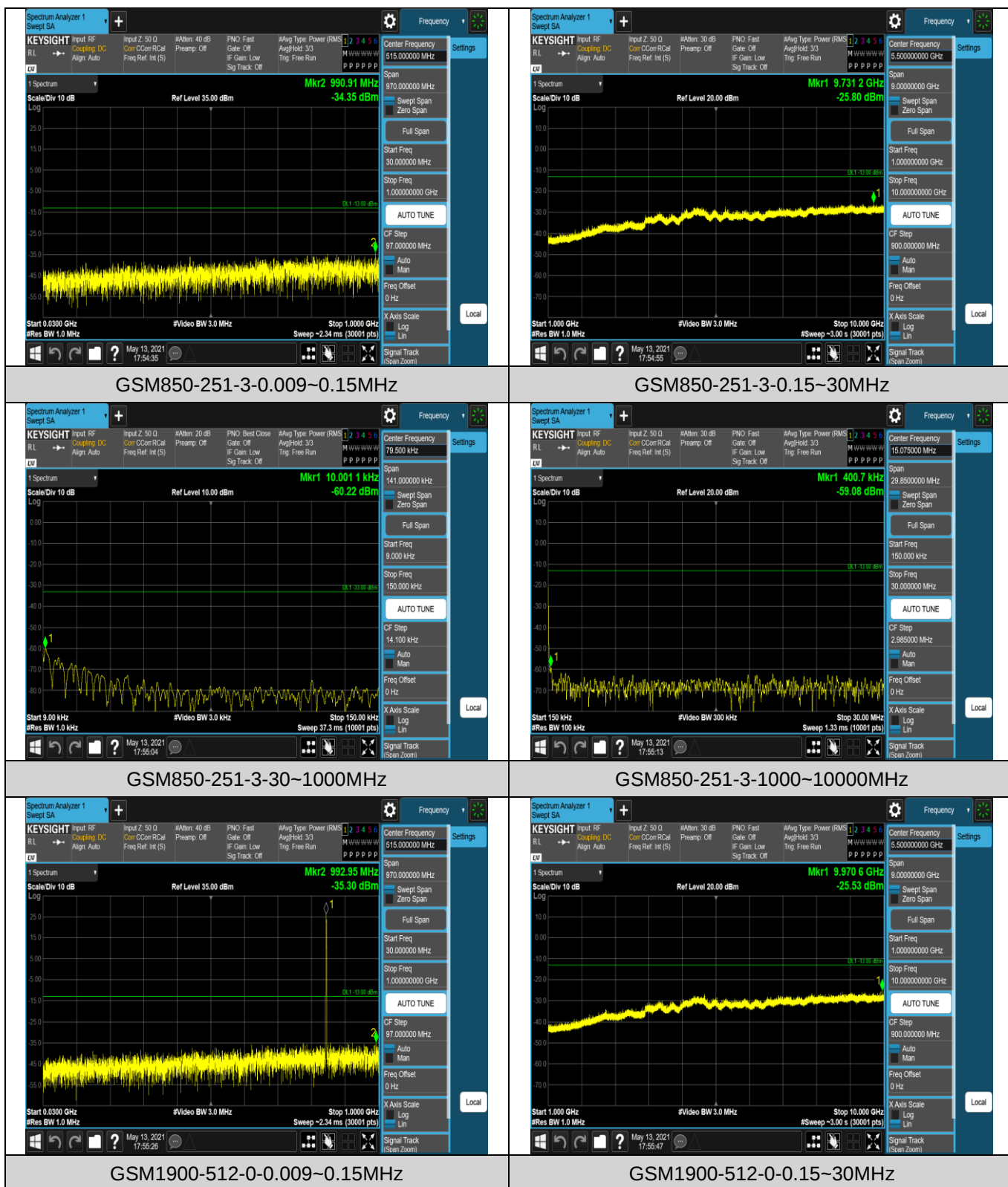
Appendix E: Conducted Spurious Emission

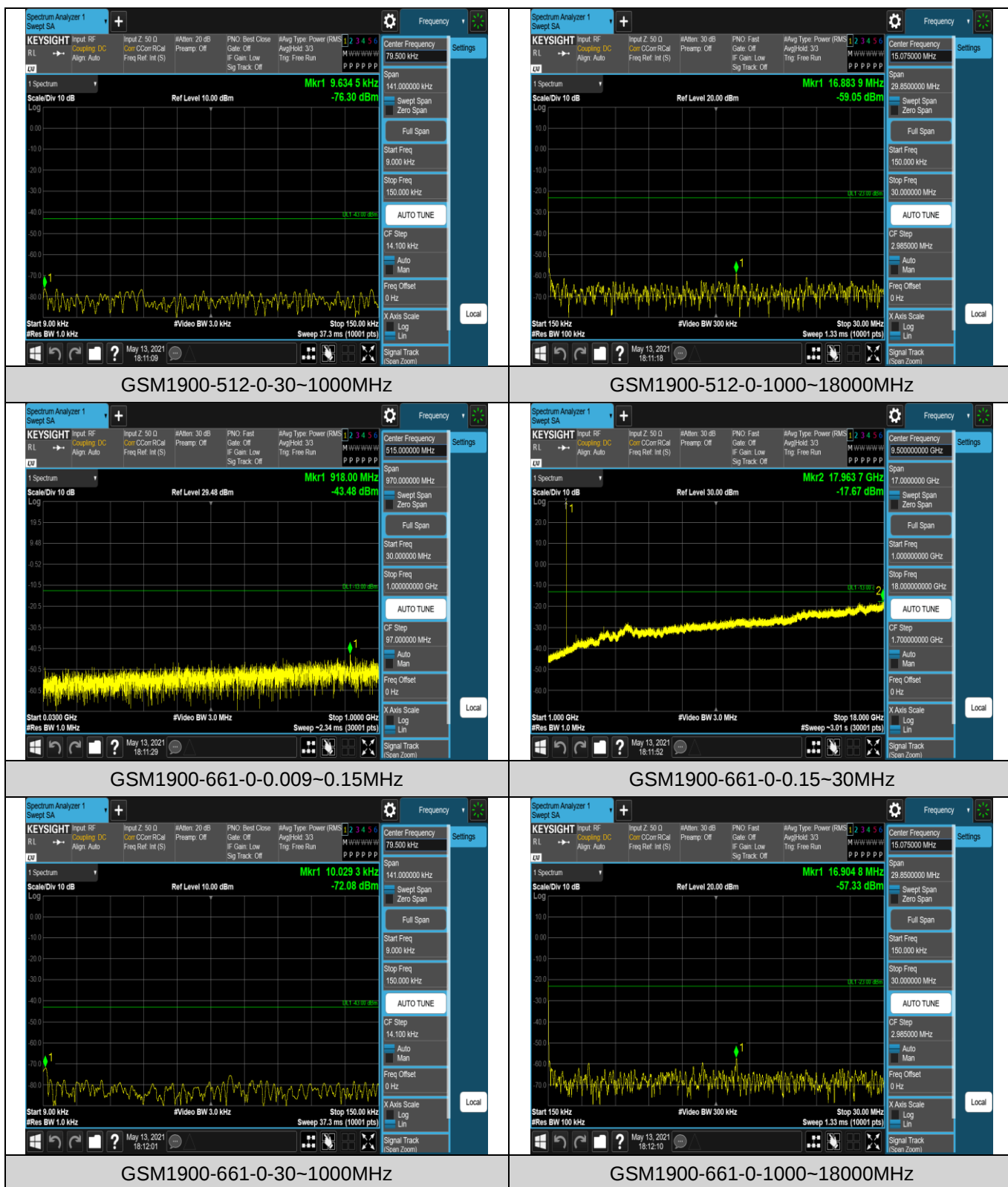
Test Result

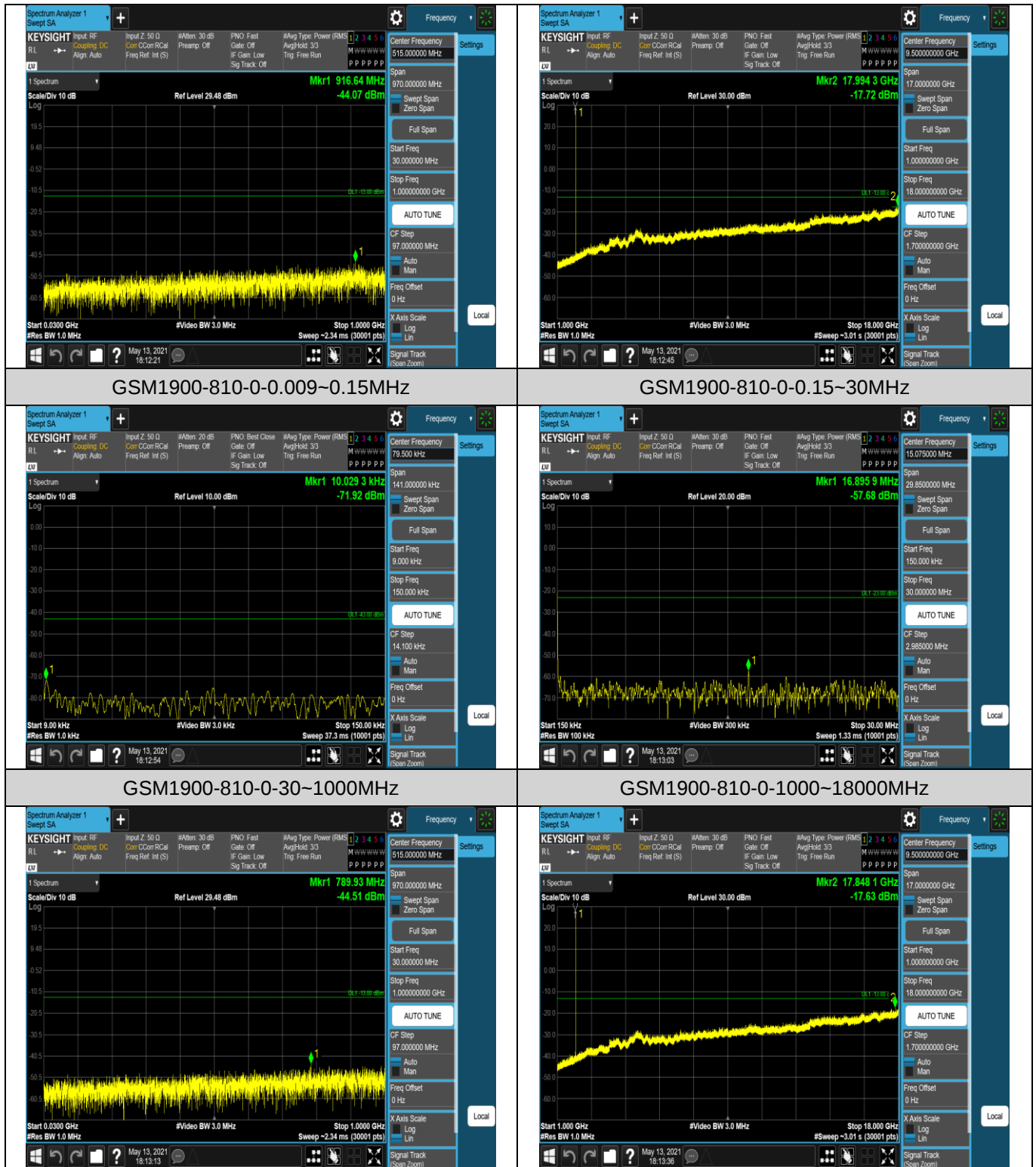
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-60.2	-33	PASS
GSM850	128	3	0.15~30MHz	0.33	-59.75	-13	PASS
GSM850	128	3	30~1000MHz	977.98	-34.76	-13	PASS
GSM850	128	3	1000~10000MHz	9454	-25.18	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-61.17	-33	PASS
GSM850	190	3	0.15~30MHz	23.6	-61.36	-13	PASS
GSM850	190	3	30~1000MHz	990.91	-34.35	-13	PASS
GSM850	190	3	1000~10000MHz	9731.2	-25.81	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-60.22	-33	PASS
GSM850	251	3	0.15~30MHz	0.4	-59.08	-13	PASS
GSM850	251	3	30~1000MHz	992.95	-35.3	-13	PASS
GSM850	251	3	1000~10000MHz	9970.6	-25.53	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-76.3	-43	PASS
GSM1900	512	0	0.15~30MHz	16.88	-59.05	-23	PASS
GSM1900	512	0	30~1000MHz	918	-43.48	-13	PASS
GSM1900	512	0	1000~18000MHz	17963.73	-17.67	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-72.08	-43	PASS
GSM1900	661	0	0.15~30MHz	16.9	-57.33	-23	PASS
GSM1900	661	0	30~1000MHz	916.64	-44.07	-13	PASS
GSM1900	661	0	1000~18000MHz	17994.33	-17.72	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-71.92	-43	PASS
GSM1900	810	0	0.15~30MHz	16.9	-57.68	-23	PASS
GSM1900	810	0	30~1000MHz	789.93	-44.52	-13	PASS
GSM1900	810	0	1000~18000MHz	17848.13	-17.63	-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		
3.70	-30	0.97	0.001159	±2.5	Pass
	-20	-1.68	-0.002008		
	-10	6.81	0.008140		
	0	-1.55	-0.001853		
	10	-2.74	-0.003275		
	20	0.87	0.001040		
	30	4.39	0.005247		
	40	8.30	0.009921		
	50	4.52	0.005403		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.25	5.17	0.006180	±2.5	Pass
	3.70	1.55	0.001853		
	4.25	-1.94	-0.002319		
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		
3.70	-30	5.29	0.006323	±2.5	Pass
	-20	7.43	0.008881		
	-10	3.58	0.004279		
	0	2.00	0.002391		
	10	7.88	0.009419		
	20	4.97	0.005941		
	30	6.88	0.008224		
	40	10.75	0.012850		
	50	10.40	0.012431		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.25	7.07	0.008451	±2.5	Pass
	3.70	5.04	0.006024		
	4.25	1.90	0.002271		
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		
3.70	-30	15.08	0.008021	Within authorized band for PCS 1900	Pass
	-20	17.27	0.009186		
	-10	-8.59	-0.004569		
	0	8.01	0.004261		
	10	-4.81	-0.002559		
	20	-3.49	-0.001856		
	30	3.33	0.001771		
	40	-13.88	-0.007383		
	50	5.33	0.002835		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.25	-5.13	-0.002729	Within authorized band for PCS 1900	Pass
	3.70	-2.68	-0.001426		
	4.25	15.98	0.008500		
Note: Only the worst case shown in the report.					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	1.87	0.000995	Within authorized band for PCS 1900	Pass
	-20	-1.58	-0.000840		
	-10	0.77	0.000410		
	0	-3.10	-0.001649		
	10	6.81	0.003622		
	20	-2.36	-0.001255		
	30	3.71	0.001973		
	40	-1.58	-0.000840		
	50	3.91	0.002080		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.25	6.88	0.003660	Within authorized band for PCS 1900	Pass
	3.70	1.61	0.000856		
	4.25	-5.84	-0.003106		
Note: Only the worst case shown in the report.					