

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	32.91	-2.00	28.76	38.45
GSM850	190	0	32.61	-2.00	28.46	38.45
GSM850	251	0	32.74	-2.00	28.59	38.45
GSM1900	512	0	30.06	-1.20	28.86	33.00
GSM1900	661	0	29.80	-1.20	28.60	33.00
GSM1900	810	0	29.62	-1.20	28.42	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	32.88	-2.00	28.73	38.45
GPRS850	128	3	2	30.84	-2.00	26.69	38.45
GPRS850	128	3	3	28.91	-2.00	24.76	38.45
GPRS850	128	3	4	26.70	-2.00	22.55	38.45
GPRS850	190	3	1	32.60	-2.00	28.45	38.45
GPRS850	190	3	2	30.53	-2.00	26.38	38.45
GPRS850	190	3	3	28.63	-2.00	24.48	38.45
GPRS850	190	3	4	26.46	-2.00	22.31	38.45
GPRS850	251	3	1	32.70	-2.00	28.55	38.45
GPRS850	251	3	2	30.49	-2.00	26.34	38.45
GPRS850	251	3	3	28.57	-2.00	24.42	38.45
GPRS850	251	3	4	26.41	-2.00	22.26	38.45
EGPRS850	128	8	1	25.93	-2.00	21.78	38.45
EGPRS850	128	8	2	25.83	-2.00	21.68	38.45
EGPRS850	128	8	3	24.68	-2.00	20.53	38.45
EGPRS850	128	8	4	22.37	-2.00	18.22	38.45
EGPRS850	190	8	1	25.68	-2.00	21.53	38.45
EGPRS850	190	8	2	25.75	-2.00	21.60	38.45
EGPRS850	190	8	3	24.57	-2.00	20.42	38.45

EGPRS850	190	8	4	22.29	-2.00	18.14	38.45
EGPRS850	251	8	1	25.39	-2.00	21.24	38.45
EGPRS850	251	8	2	25.50	-2.00	21.35	38.45
EGPRS850	251	8	3	24.27	-2.00	20.12	38.45
EGPRS850	251	8	4	21.95	-2.00	17.80	38.45
GPRS1900	512	0	1	30.05	-1.20	28.85	33.00
GPRS1900	512	0	2	27.72	-1.20	26.52	33.00
GPRS1900	512	0	3	26.11	-1.20	24.91	33.00
GPRS1900	512	0	4	24.05	-1.20	22.85	33.00
GPRS1900	661	0	1	29.78	-1.20	28.58	33.00
GPRS1900	661	0	2	27.41	-1.20	26.21	33.00
GPRS1900	661	0	3	25.81	-1.20	24.61	33.00
GPRS1900	661	0	4	23.74	-1.20	22.54	33.00
GPRS1900	810	0	1	29.61	-1.20	28.41	33.00
GPRS1900	810	0	2	27.15	-1.20	25.95	33.00
GPRS1900	810	0	3	25.57	-1.20	24.37	33.00
GPRS1900	810	0	4	23.52	-1.20	22.32	33.00
EGPRS1900	512	2	1	24.89	-1.20	23.69	33.00
EGPRS1900	512	2	2	24.72	-1.20	23.52	33.00
EGPRS1900	512	2	3	23.58	-1.20	22.38	33.00
EGPRS1900	512	2	4	21.31	-1.20	20.11	33.00
EGPRS1900	661	2	1	26.17	-1.20	24.97	33.00
EGPRS1900	661	2	2	26.19	-1.20	24.99	33.00
EGPRS1900	661	2	3	24.63	-1.20	23.43	33.00
EGPRS1900	661	2	4	22.43	-1.20	21.23	33.00
EGPRS1900	810	2	1	24.91	-1.20	23.71	33.00
EGPRS1900	810	2	2	25.01	-1.20	23.81	33.00
EGPRS1900	810	2	3	23.17	-1.20	21.97	33.00
EGPRS1900	810	2	4	20.58	-1.20	19.38	33.00

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

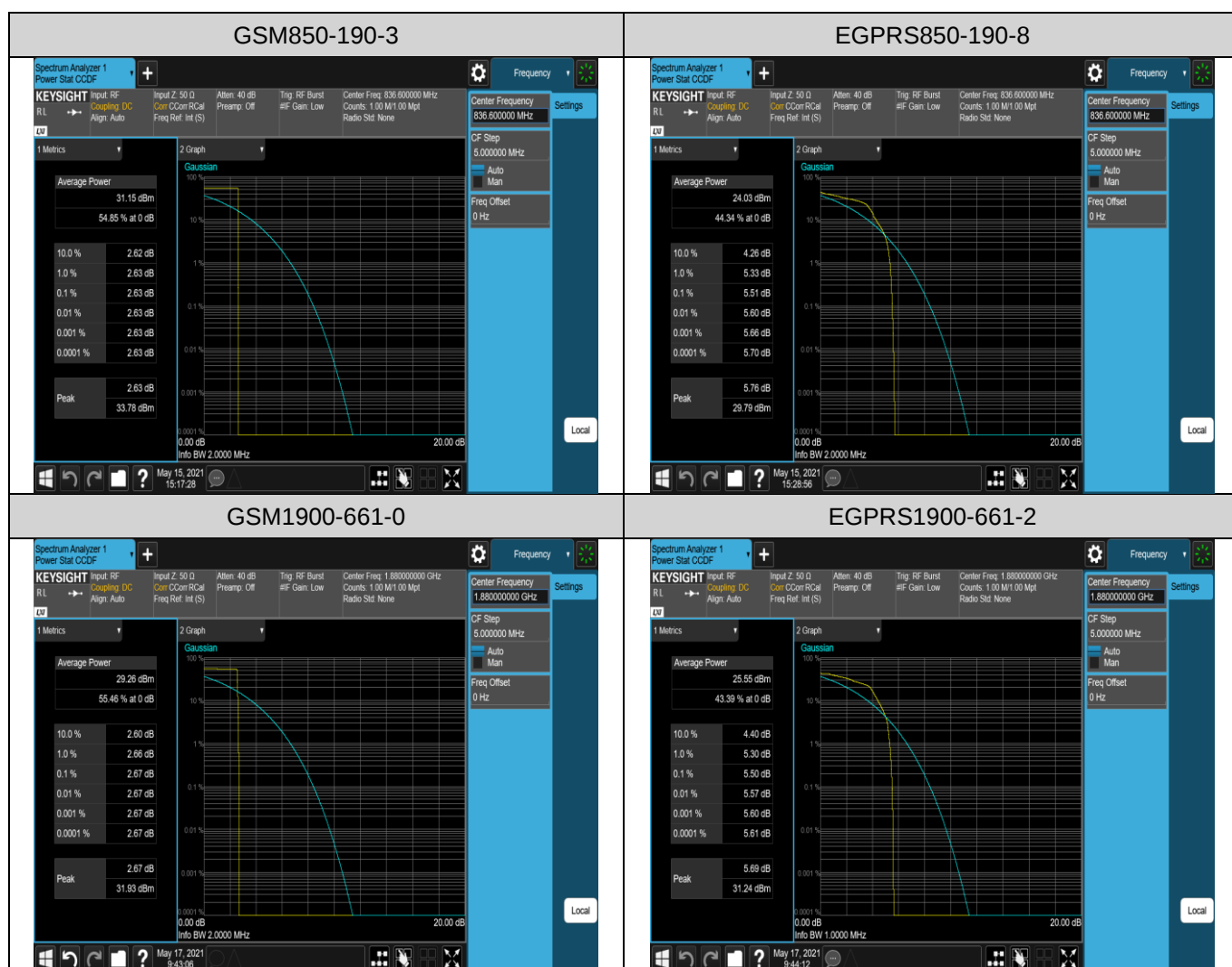
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

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

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.63	13	PASS
EGPRS850	190	8	5.51	13	PASS
GSM1900	661	0	2.67	13	PASS
EGPRS1900	661	2	5.5	13	PASS

Test Graphs

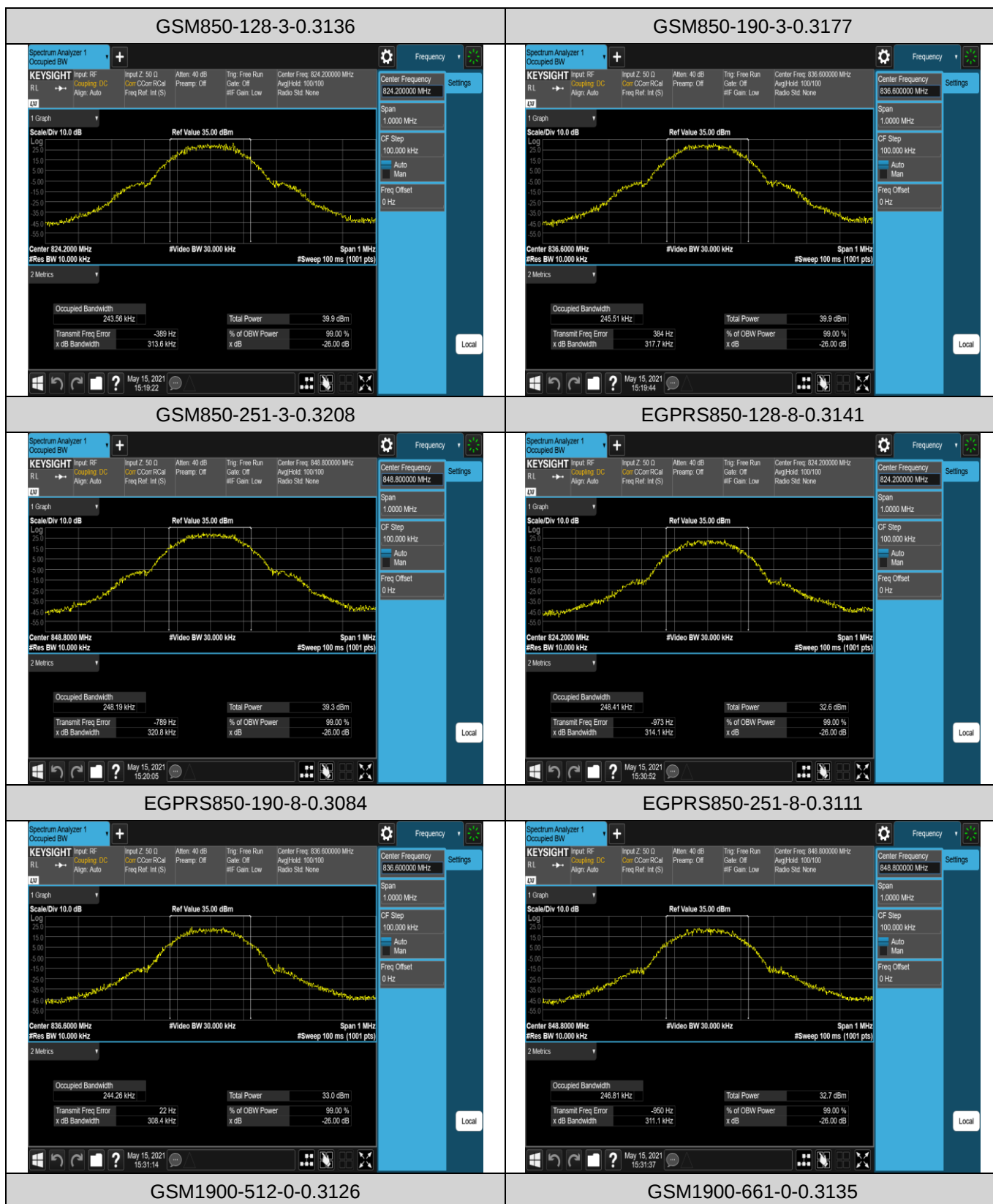


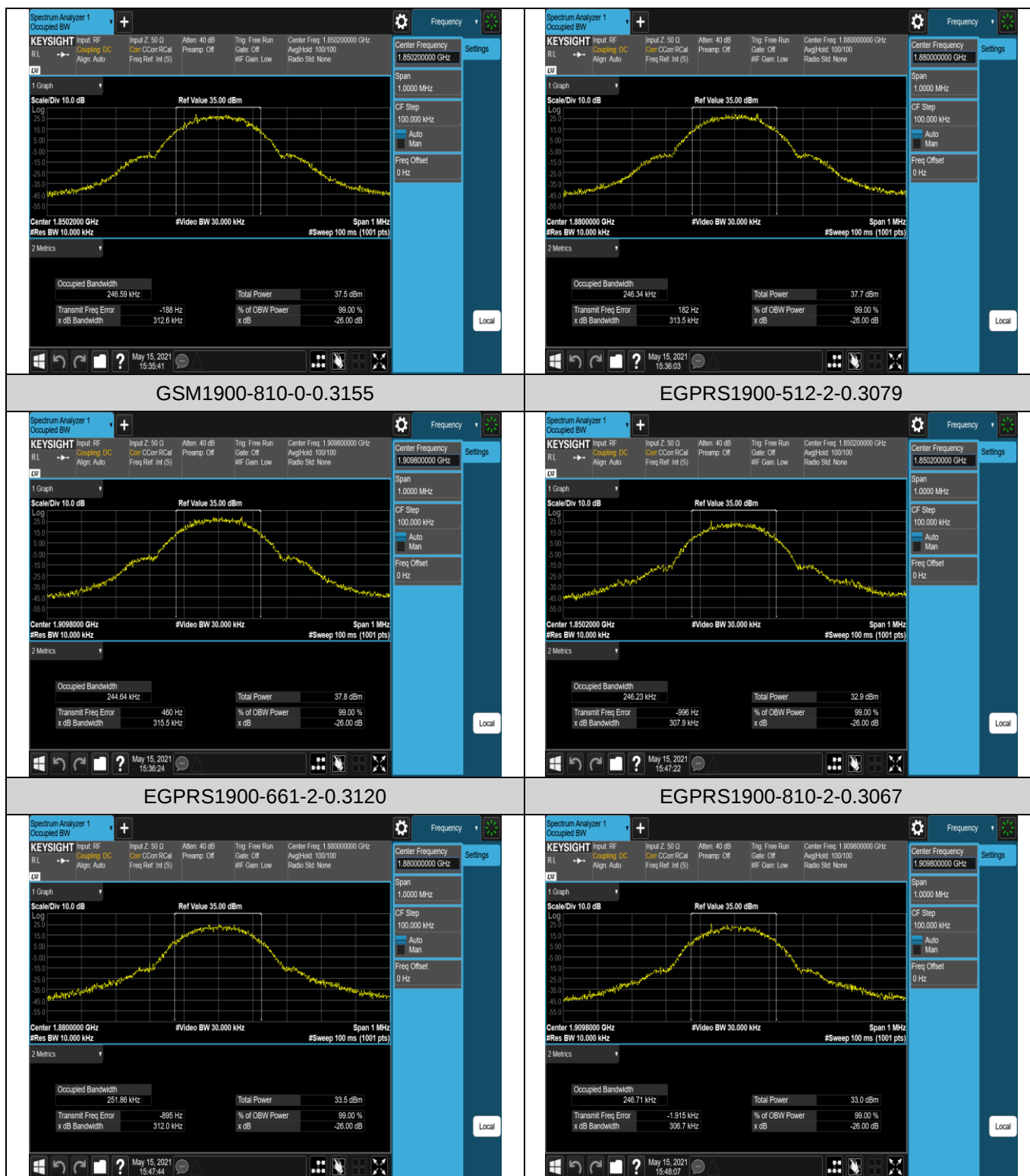
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24356	0.3136	---	PASS
GSM850	190	3	0.24551	0.3177	---	PASS
GSM850	251	3	0.24819	0.3208	---	PASS
EGPRS850	128	8	0.24841	0.3141	---	PASS
EGPRS850	190	8	0.24426	0.3084	---	PASS
EGPRS850	251	8	0.24681	0.3111	---	PASS
GSM1900	512	0	0.24659	0.3126	---	PASS
GSM1900	661	0	0.24634	0.3135	---	PASS
GSM1900	810	0	0.24464	0.3155	---	PASS
EGPRS1900	512	2	0.24623	0.3079	---	PASS
EGPRS1900	661	2	0.25186	0.3120	---	PASS
EGPRS1900	810	2	0.24671	0.3067	---	PASS

Test Graphs



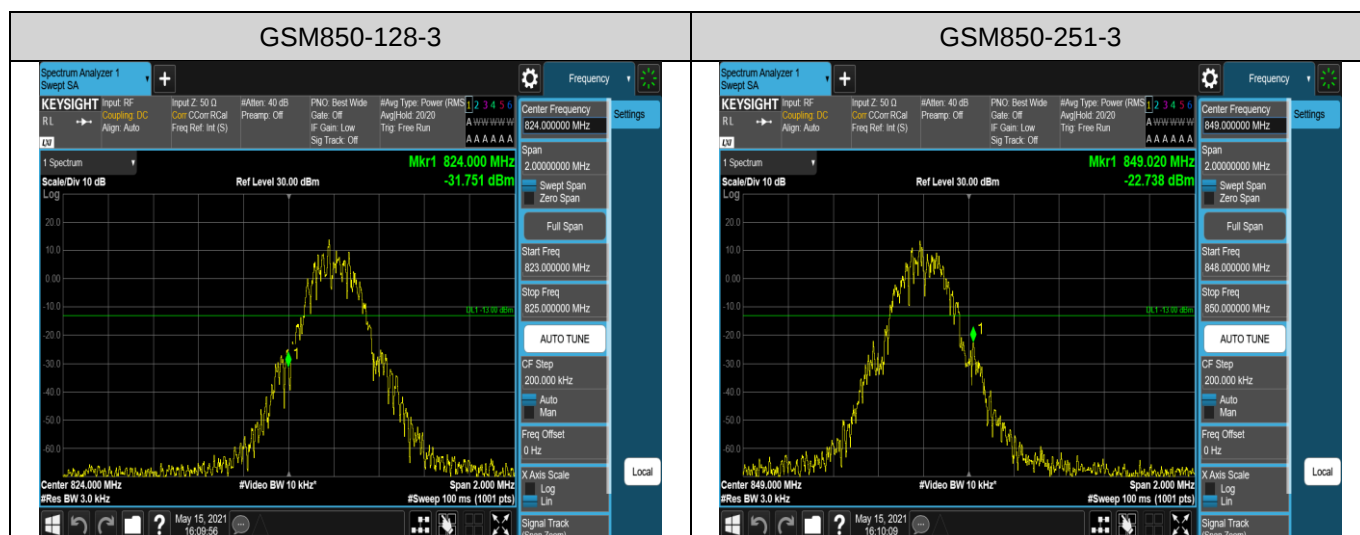


Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-25.06	-13	PASS
GSM850	251	3	849.02	-22.50	-13	PASS
EGPRS850	128	8	823.99	-35.25	-13	PASS
EGPRS850	251	8	849.01	-34.19	-13	PASS
GSM1900	512	0	1849.99	-14.21	-13	PASS
GSM1900	810	0	1910.01	-15.19	-13	PASS
EGPRS1900	512	2	1849.97	-23.40	-13	PASS
EGPRS1900	810	2	1910.01	-24.19	-13	PASS

Test Graphs



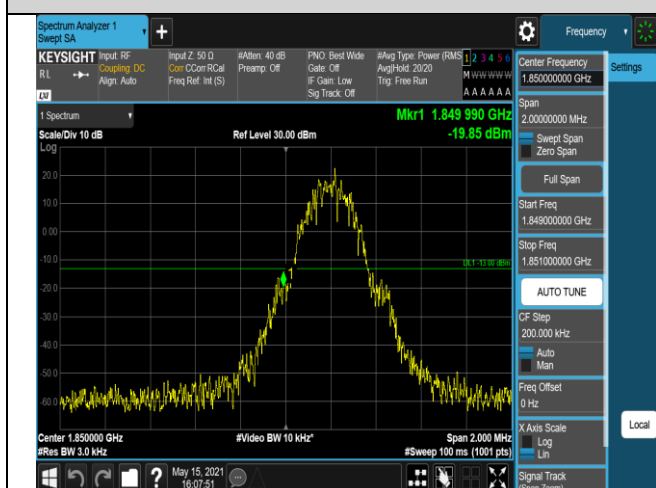
EGPRS850-128-8



EGPRS850-251-8



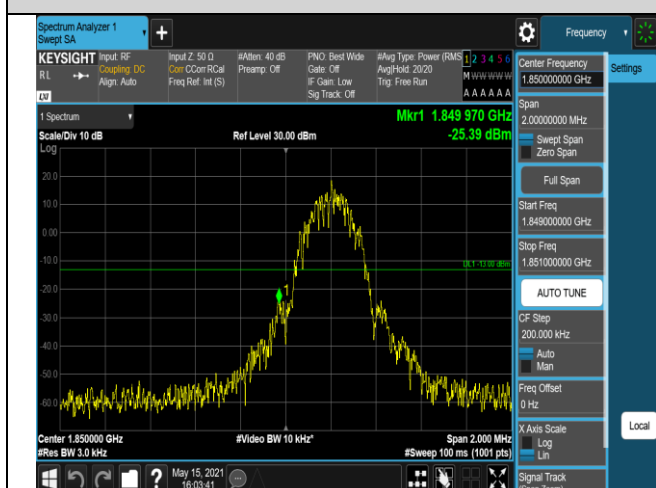
GSM1900-512-0



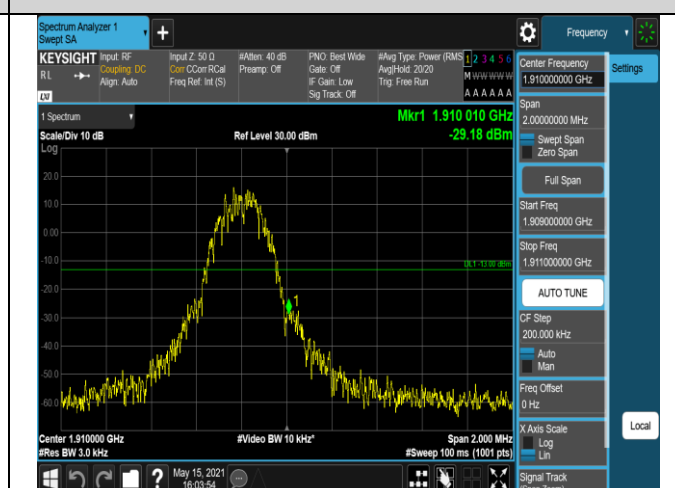
GSM1900-810-0



EGPRS1900-512-2



EGPRS1900-810-2

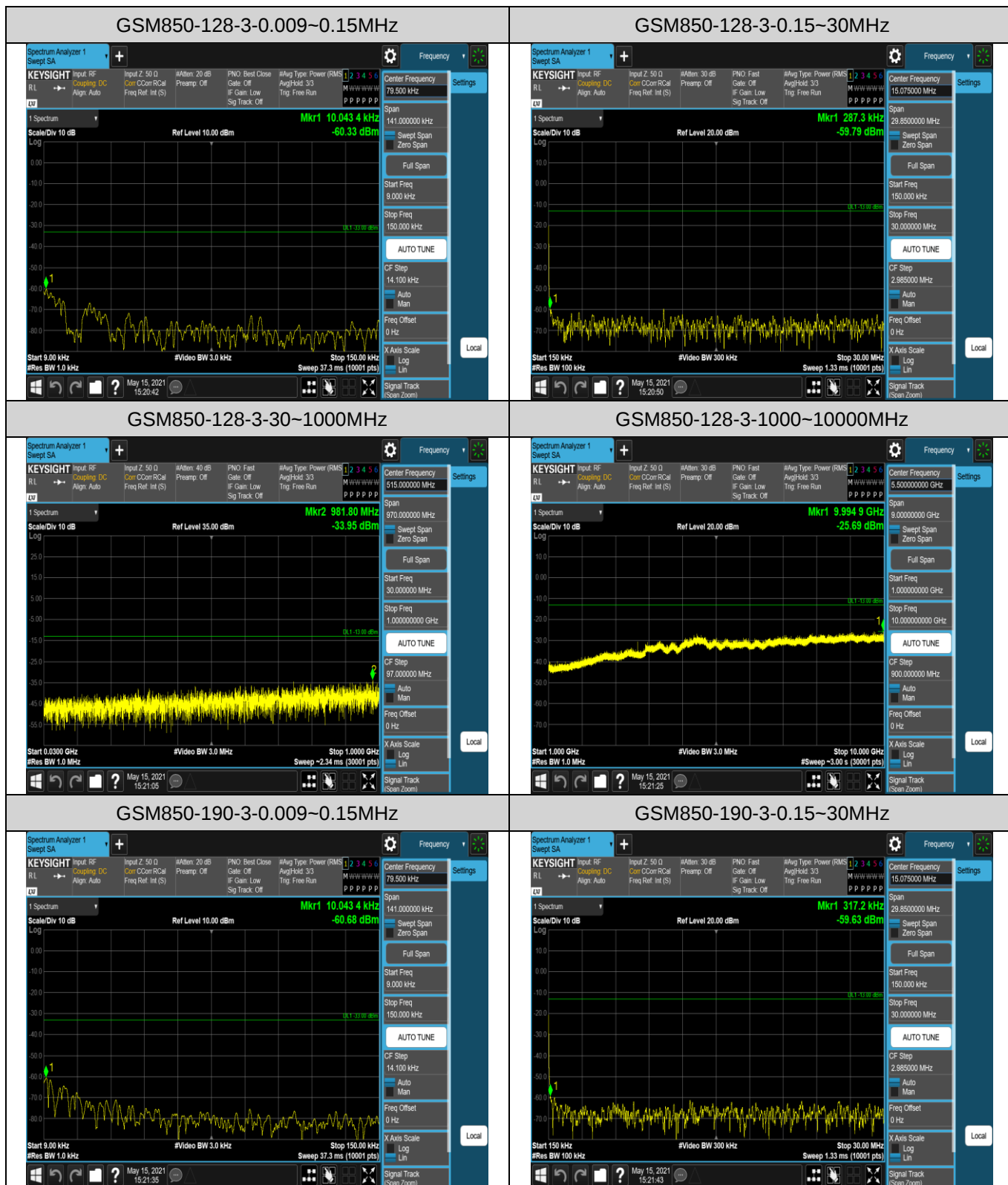


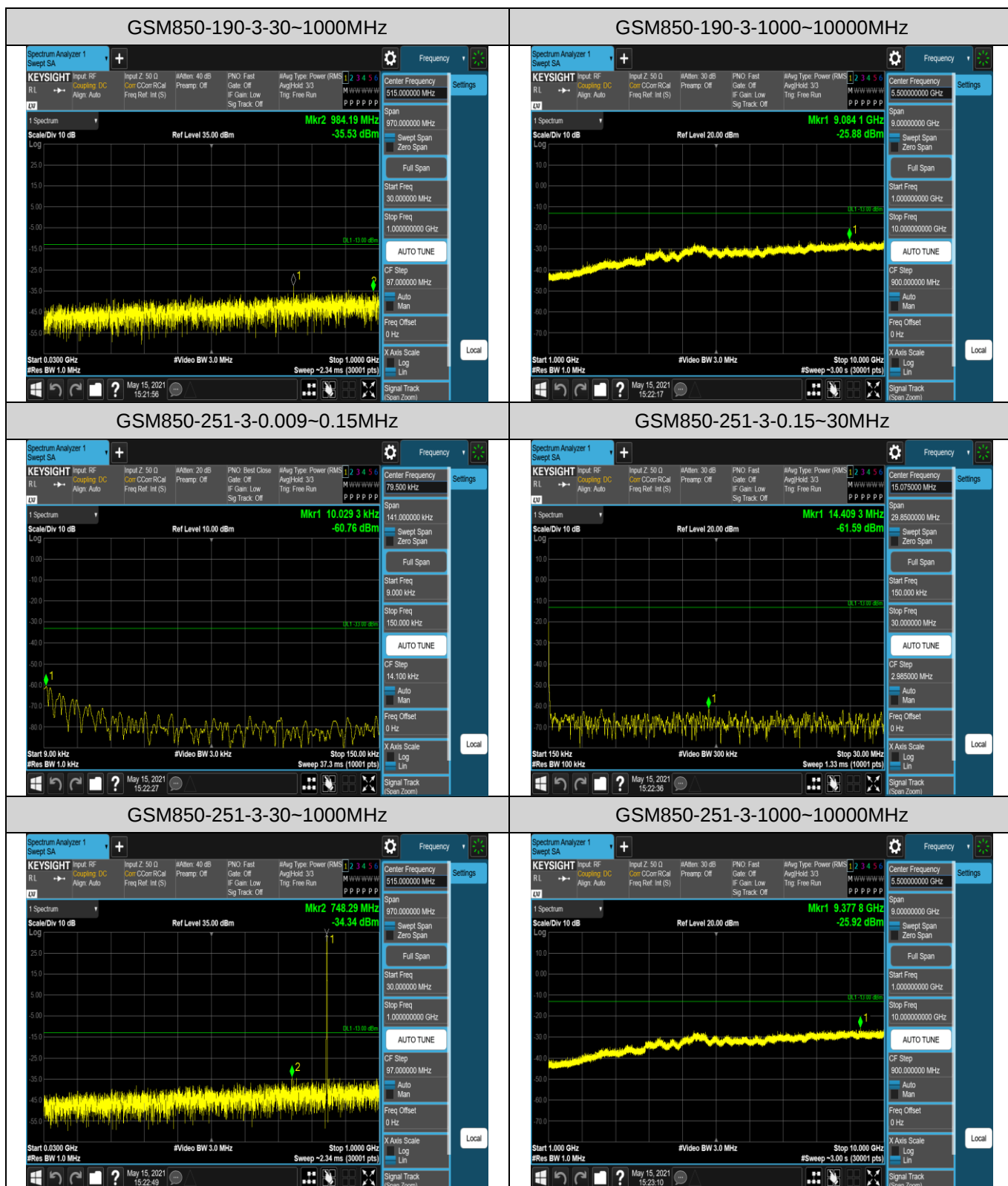
Appendix E: Conducted Spurious Emission

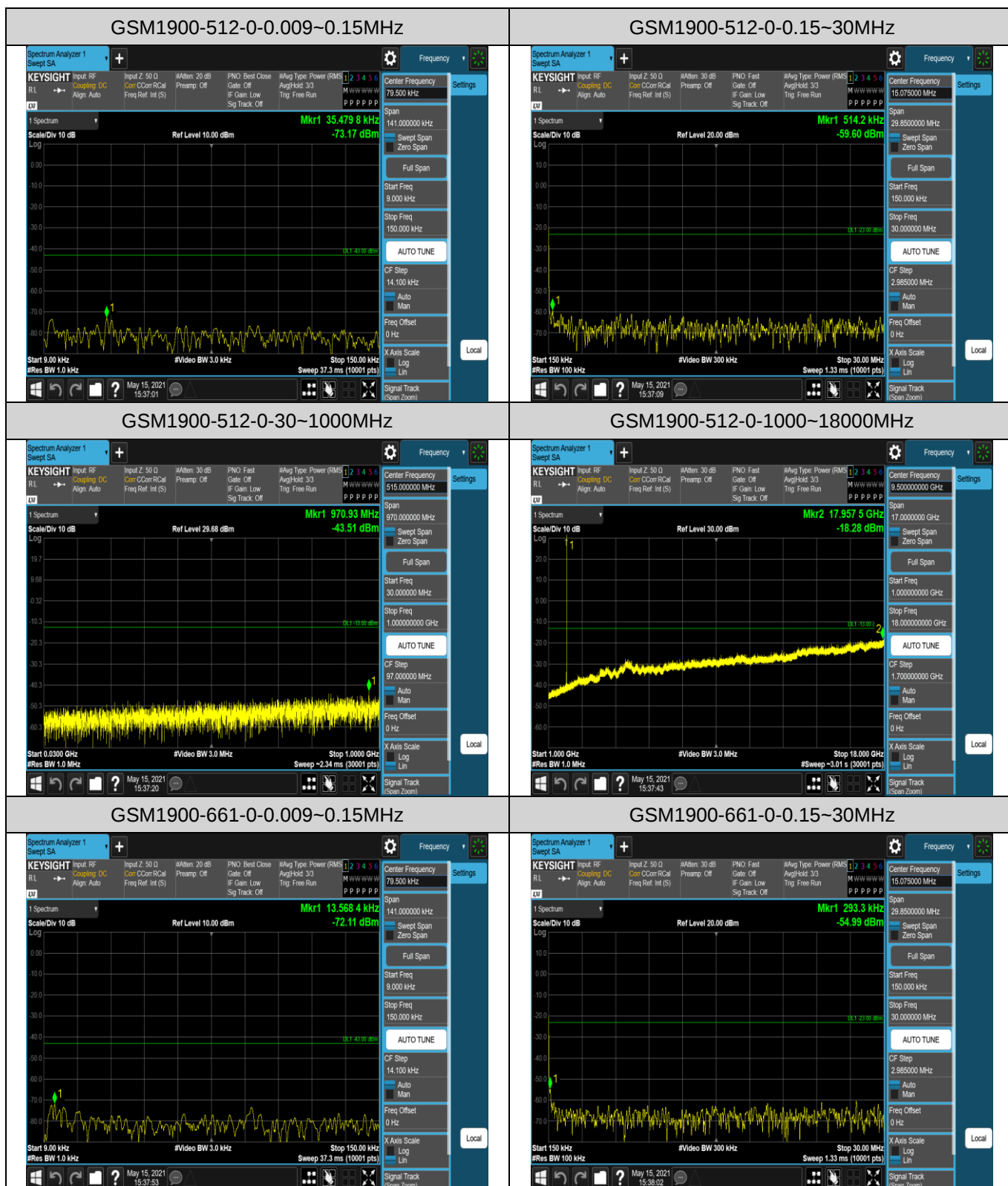
Test Result

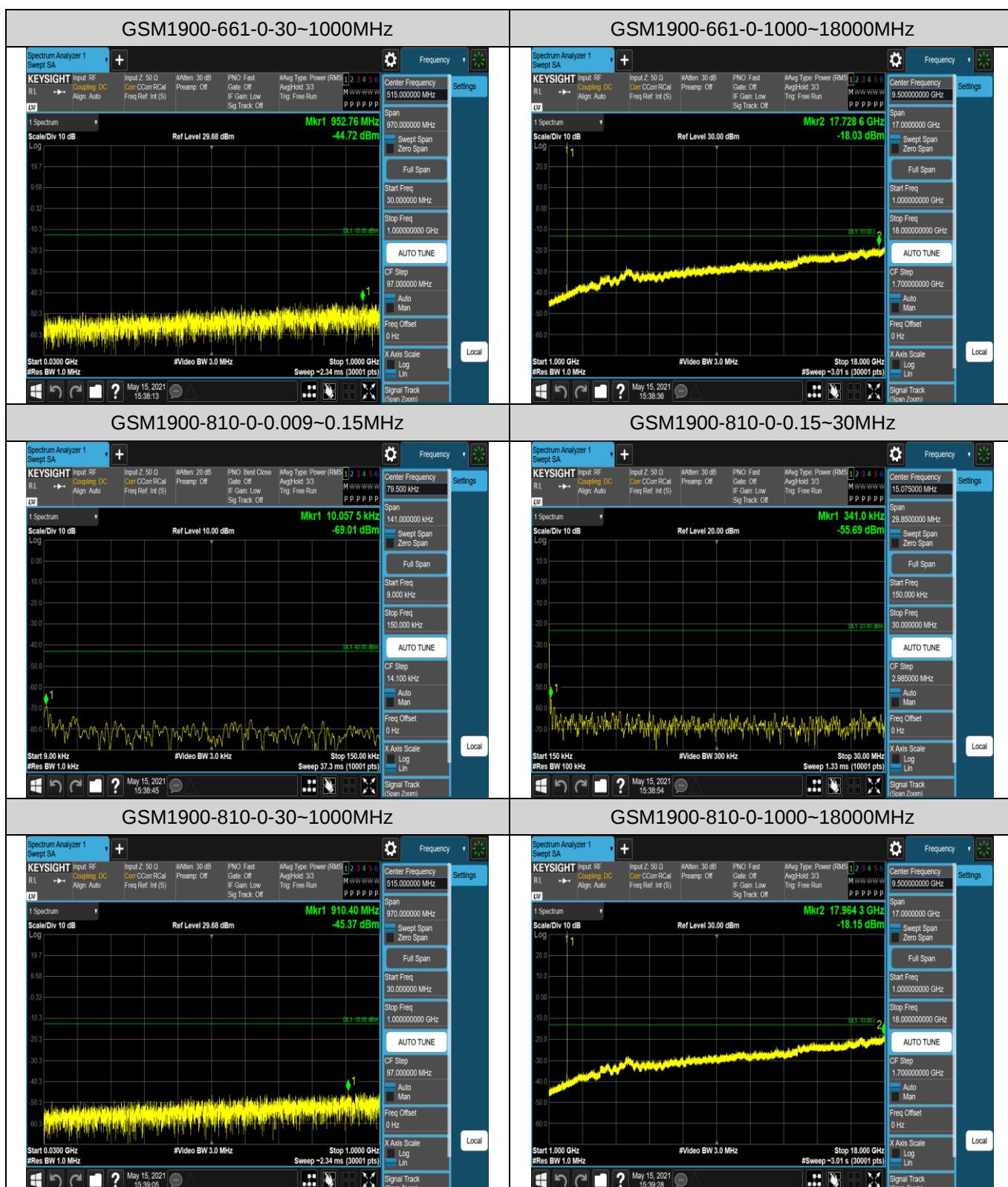
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-60.33	-33	PASS
GSM850	128	3	0.15~30MHz	0.29	-59.79	-13	PASS
GSM850	128	3	30~1000MHz	981.8	-33.95	-13	PASS
GSM850	128	3	1000~10000MHz	9994.9	-25.69	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-60.68	-33	PASS
GSM850	190	3	0.15~30MHz	0.32	-59.63	-13	PASS
GSM850	190	3	30~1000MHz	984.19	-35.53	-13	PASS
GSM850	190	3	1000~10000MHz	9084.1	-25.88	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-60.76	-33	PASS
GSM850	251	3	0.15~30MHz	14.41	-61.59	-13	PASS
GSM850	251	3	30~1000MHz	748.29	-34.34	-13	PASS
GSM850	251	3	1000~10000MHz	9377.8	-25.92	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.04	-73.17	-43	PASS
GSM1900	512	0	0.15~30MHz	0.51	-59.6	-23	PASS
GSM1900	512	0	30~1000MHz	970.93	-43.51	-13	PASS
GSM1900	512	0	1000~18000MHz	17957.5	-18.28	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-72.11	-43	PASS
GSM1900	661	0	0.15~30MHz	0.29	-54.99	-23	PASS
GSM1900	661	0	30~1000MHz	952.76	-44.72	-13	PASS
GSM1900	661	0	1000~18000MHz	17728.57	-18.03	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-69.01	-43	PASS
GSM1900	810	0	0.15~30MHz	0.34	-55.69	-23	PASS
GSM1900	810	0	30~1000MHz	910.4	-45.37	-13	PASS
GSM1900	810	0	1000~18000MHz	17964.3	-18.15	-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	-0.39	-0.000466	±2.5	Pass
	-20	1.10	0.001315		
	-10	8.65	0.010339		
	0	1.52	0.001817		
	10	5.20	0.006216		
	20	5.10	0.006096		
	30	2.16	0.002582		
	40	0.84	0.001004		
	50	3.84	0.004590		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	3.13	0.003741	±2.5	Pass
	3.70	4.07	0.004865		
	4.25	3.97	0.004745		
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	5.52	0.006598	±2.5	Pass
	-20	2.23	0.002666		
	-10	4.36	0.005212		
	0	5.84	0.006981		
	10	7.17	0.008570		
	20	5.91	0.007064		
	30	10.94	0.013077		
	40	13.17	0.015742		
	50	7.01	0.008379		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	14.82	0.017715	±2.5	Pass
	3.70	7.52	0.008989		
	4.25	10.88	0.013005		
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	-12.53	-0.006665	Within authorized band for PCS 1900	Pass
	-20	4.81	0.002559		
	-10	6.33	0.003367		
	0	-2.07	-0.001101		
	10	0.29	0.000154		
	20	11.88	0.006319		
	30	9.85	0.005239		
	40	-4.10	-0.002181		
	50	-0.36	-0.000191		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.62	0.001394	Within authorized band for PCS 1900	Pass
	3.70	9.85	0.005239		
	4.25	5.26	0.002798		
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		
3.70	-30	3.36	0.001787	Within authorized band for PCS 1900	Pass
	-20	-0.77	-0.000410		
	-10	3.58	0.001904		
	0	4.71	0.002505		
	10	-3.00	-0.001596		
	20	6.62	0.003521		
	30	1.52	0.000809		
	40	8.20	0.004362		
	50	6.10	0.003245		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	8.52	0.004532	Within authorized band for PCS 1900	Pass
	3.70	14.79	0.007867		
	4.25	-4.20	-0.002234		
Note: Only the worst case shown in the report.					