

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	3	32.81	-2.00	28.66	38.45
GSM850	190	3	32.94	-2.00	28.79	38.45
GSM850	251	3	32.75	-2.00	28.60	38.45
GSM1900	512	0	29.54	-1.20	28.34	33.00
GSM1900	661	0	29.80	-1.20	28.60	33.00
GSM1900	810	0	29.66	-1.20	28.46	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	32.75	-2.00	28.60	38.45
GPRS850	128	3	2	30.71	-2.00	26.56	38.45
GPRS850	128	3	3	28.64	-2.00	24.49	38.45
GPRS850	128	3	4	26.45	-2.00	22.30	38.45
GPRS850	190	3	1	32.91	-2.00	28.76	38.45
GPRS850	190	3	2	30.72	-2.00	26.57	38.45
GPRS850	190	3	3	28.67	-2.00	24.52	38.45
GPRS850	190	3	4	26.54	-2.00	22.39	38.45
GPRS850	251	3	1	32.70	-2.00	28.55	38.45
GPRS850	251	3	2	30.53	-2.00	26.38	38.45
GPRS850	251	3	3	28.50	-2.00	24.35	38.45
GPRS850	251	3	4	26.41	-2.00	22.26	38.45
EGPRS850	128	8	1	25.45	-2.00	21.30	38.45
EGPRS850	128	8	2	25.19	-2.00	21.04	38.45
EGPRS850	128	8	3	23.36	-2.00	19.21	38.45
EGPRS850	128	8	4	20.95	-2.00	16.80	38.45
EGPRS850	190	8	1	25.56	-2.00	21.41	38.45
EGPRS850	190	8	2	25.57	-2.00	21.42	38.45

EGPRS850	190	8	3	23.84	-2.00	19.69	38.45
EGPRS850	190	8	4	21.48	-2.00	17.33	38.45
EGPRS850	251	8	1	25.33	-2.00	21.18	38.45
EGPRS850	251	8	2	25.34	-2.00	21.19	38.45
EGPRS850	251	8	3	23.66	-2.00	19.51	38.45
EGPRS850	251	8	4	21.19	-2.00	17.04	38.45
GPRS1900	512	0	1	29.57	-1.20	28.37	33.00
GPRS1900	512	0	2	27.20	-1.20	26.00	33.00
GPRS1900	512	0	3	25.59	-1.20	24.39	33.00
GPRS1900	512	0	4	23.42	-1.20	22.22	33.00
GPRS1900	661	0	1	29.81	-1.20	28.61	33.00
GPRS1900	661	0	2	27.09	-1.20	25.89	33.00
GPRS1900	661	0	3	25.50	-1.20	24.30	33.00
GPRS1900	661	0	4	23.31	-1.20	22.11	33.00
GPRS1900	810	0	1	29.67	-1.20	28.47	33.00
GPRS1900	810	0	2	26.91	-1.20	25.71	33.00
GPRS1900	810	0	3	25.31	-1.20	24.11	33.00
GPRS1900	810	0	4	23.11	-1.20	21.91	33.00
EGPRS1900	512	2	1	26.28	-1.20	25.08	33.00
EGPRS1900	512	2	2	26.12	-1.20	24.92	33.00
EGPRS1900	512	2	3	25.34	-1.20	24.14	33.00
EGPRS1900	512	2	4	23.33	-1.20	22.13	33.00
EGPRS1900	661	2	1	27.07	-1.20	25.87	33.00
EGPRS1900	661	2	2	27.12	-1.20	25.92	33.00
EGPRS1900	661	2	3	25.85	-1.20	24.65	33.00
EGPRS1900	661	2	4	24.01	-1.20	22.81	33.00
EGPRS1900	810	2	1	25.94	-1.20	24.74	33.00
EGPRS1900	810	2	2	25.94	-1.20	24.74	33.00
EGPRS1900	810	2	3	24.69	-1.20	23.49	33.00
EGPRS1900	810	2	4	22.47	-1.20	21.27	33.00

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

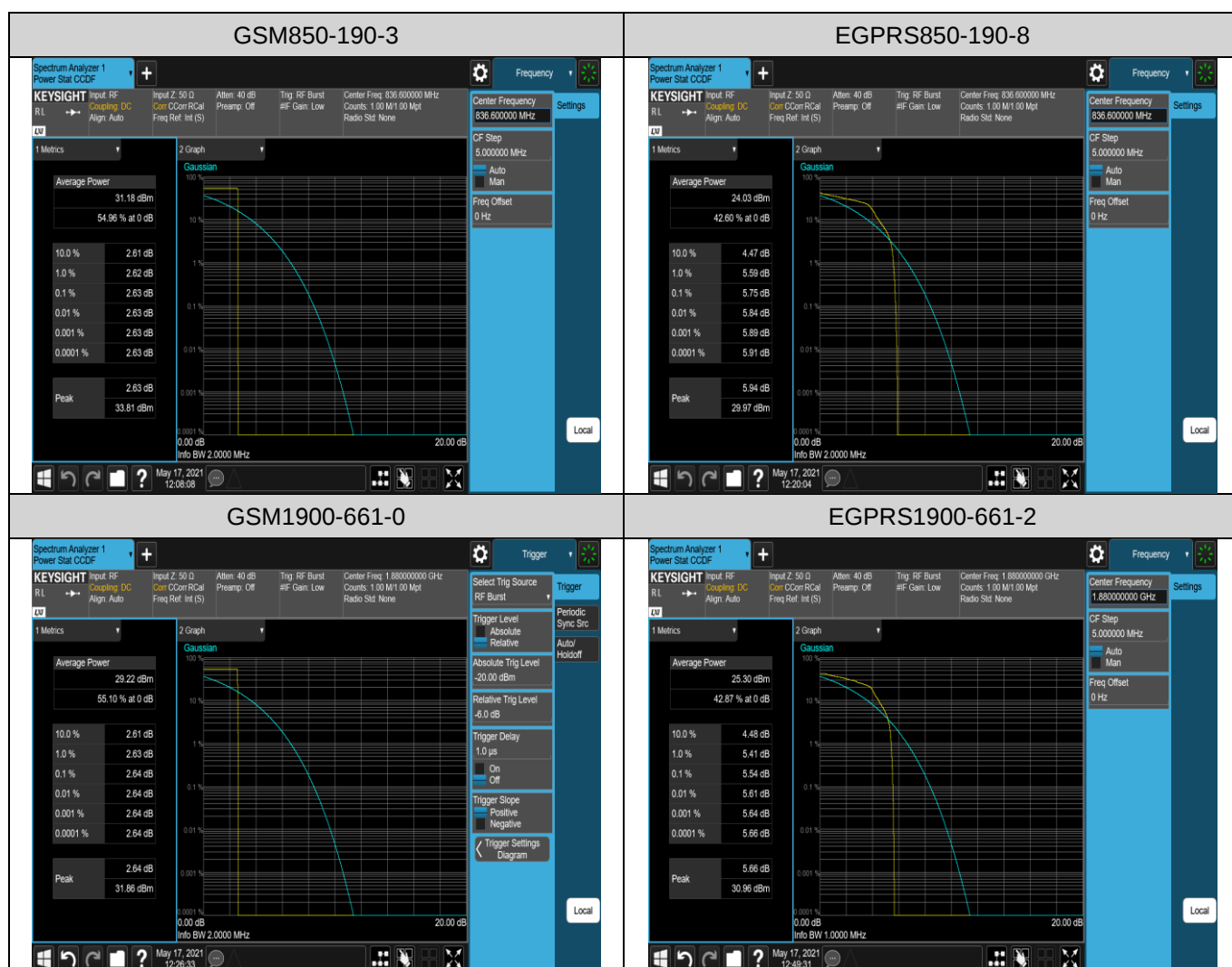
ERP (dBm) = EIRP (dBm) - 2.15 (dB).

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	5.75	13	PASS
GSM1900	661	0	2.64	13	PASS
EGPRS1900	661	2	5.54	13	PASS

Test Graphs

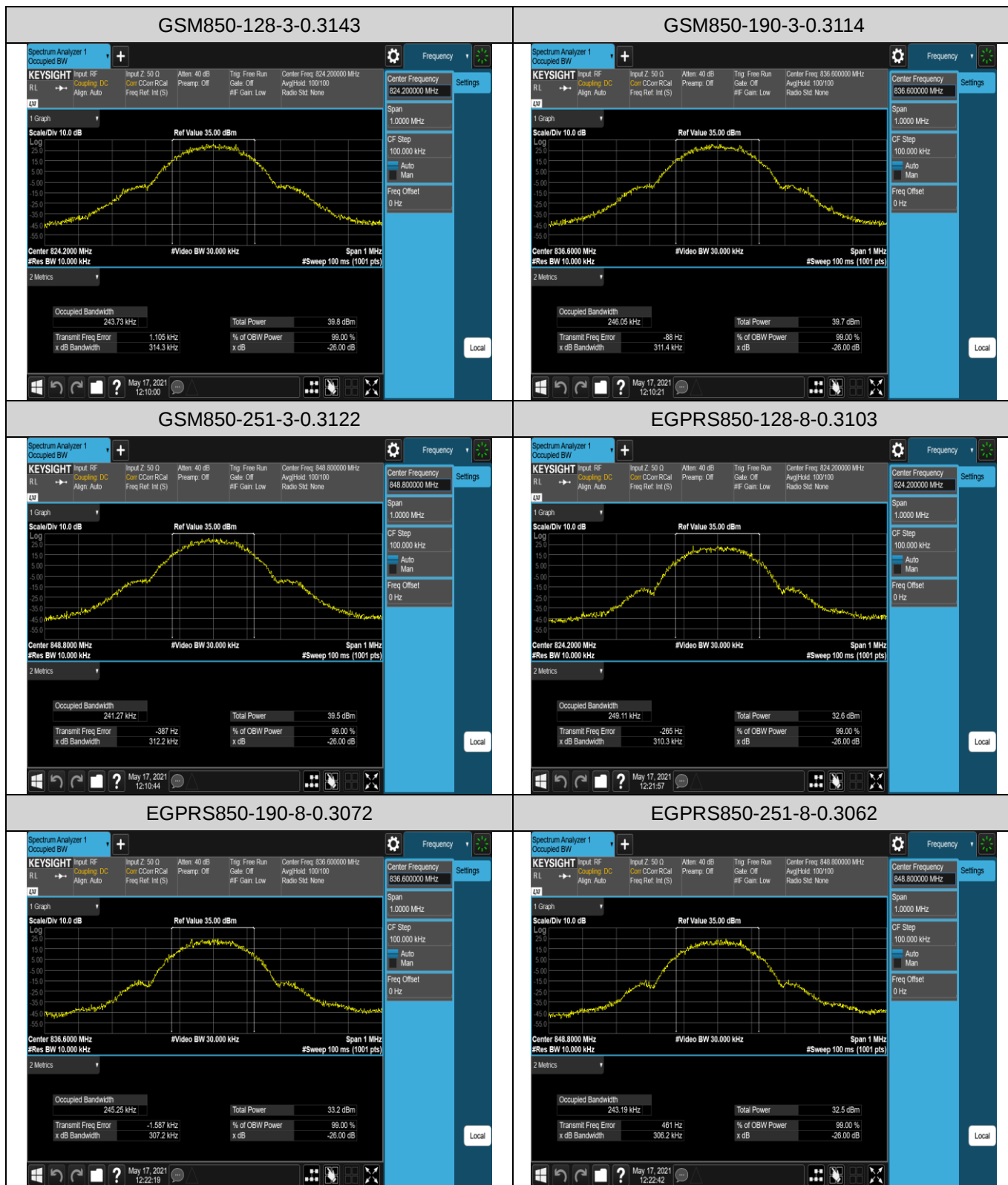


Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24373	0.3143	---	PASS
GSM850	190	3	0.24605	0.3114	---	PASS
GSM850	251	3	0.24127	0.3122	---	PASS
EGPRS850	128	8	0.24911	0.3103	---	PASS
EGPRS850	190	8	0.24525	0.3072	---	PASS
EGPRS850	251	8	0.24319	0.3062	---	PASS
GSM1900	512	0	0.24337	0.3056	---	PASS
GSM1900	661	0	0.24256	0.3154	---	PASS
GSM1900	810	0	0.24147	0.3128	---	PASS
EGPRS1900	512	2	0.24676	0.3078	---	PASS
EGPRS1900	661	2	0.24783	0.3152	---	PASS
EGPRS1900	810	2	0.25595	0.3272	---	PASS

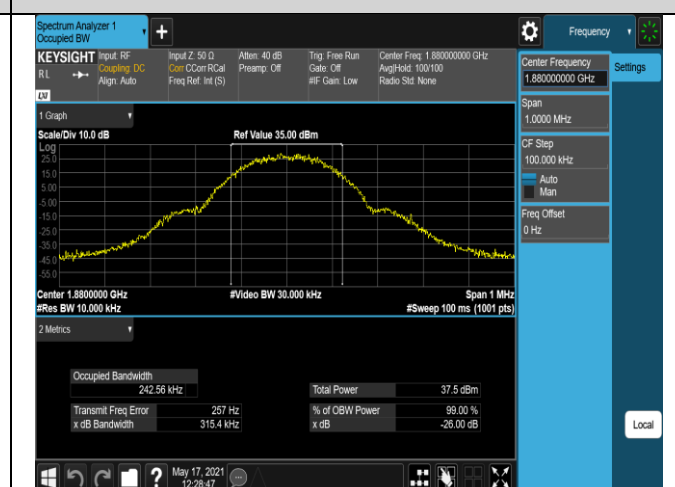
Test Graphs



GSM1900-512-0-0.3056



GSM1900-661-0-0.3154



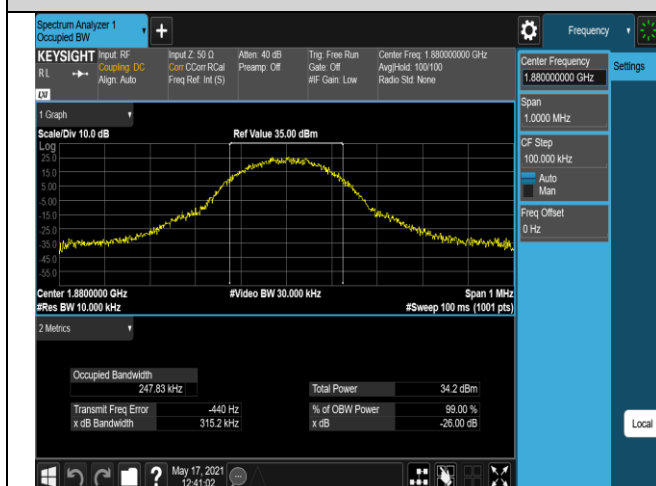
GSM1900-810-0-0.3128



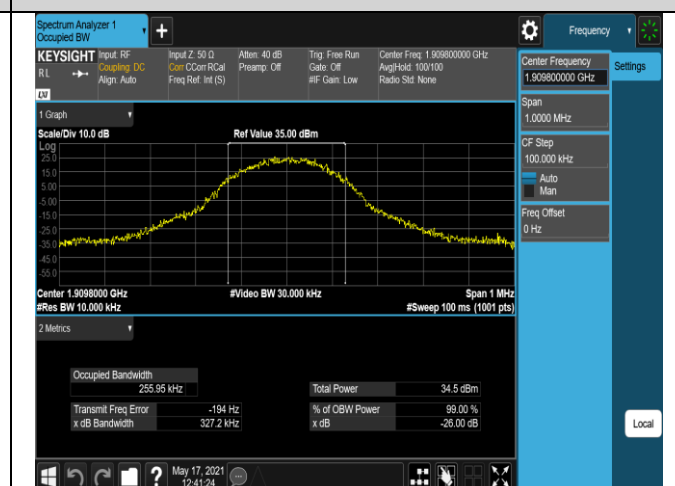
EGPRS1900-512-2-0.3078



EGPRS1900-661-2-0.3152



EGPRS1900-810-2-0.3272

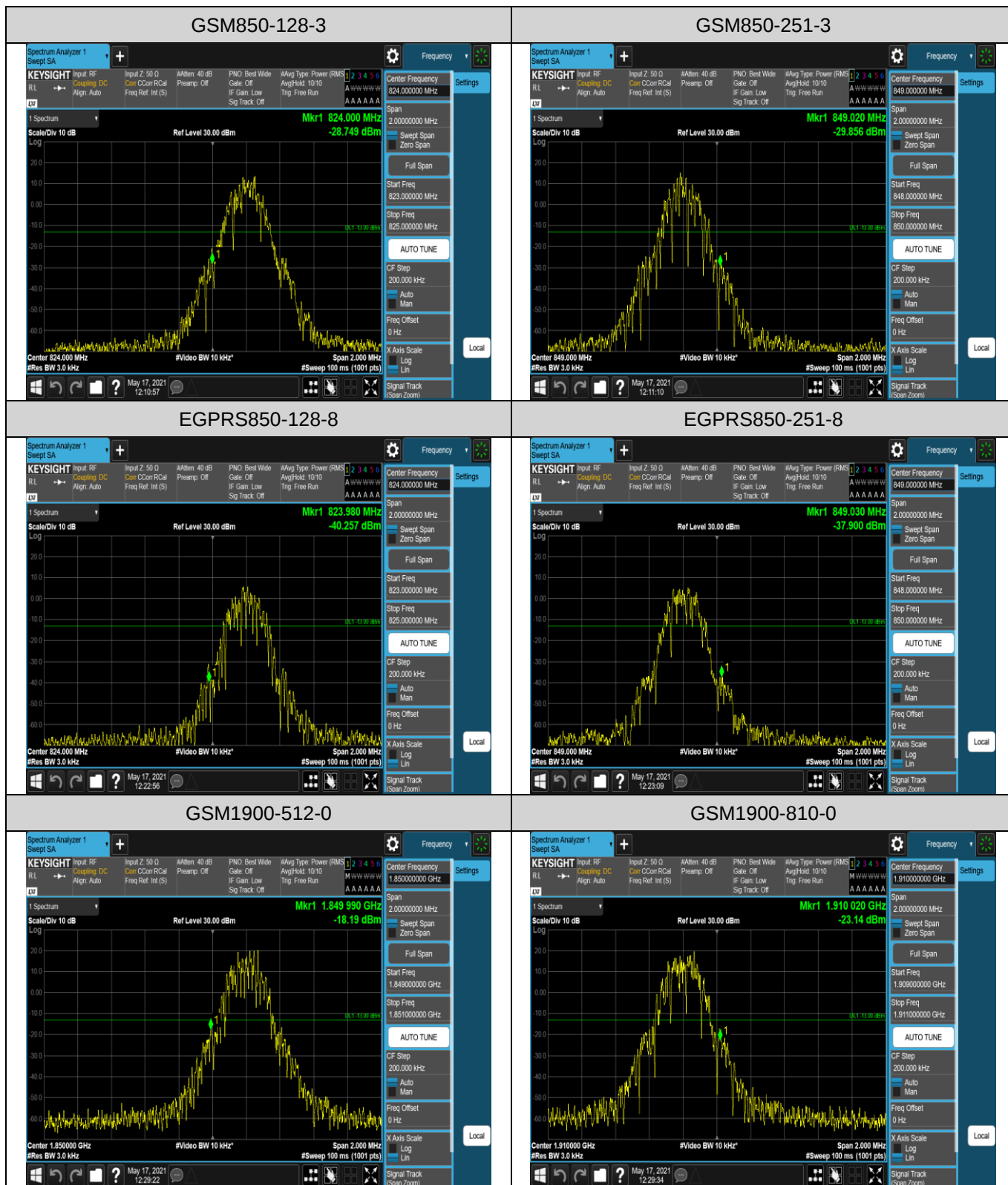


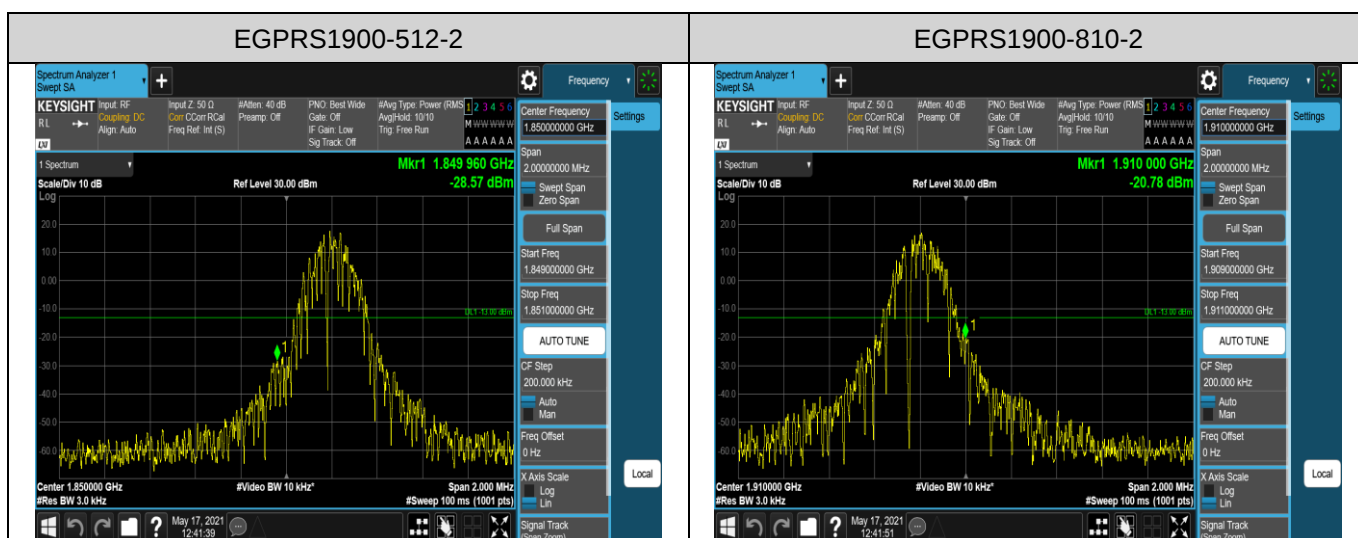
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-21.07	-13	PASS
GSM850	251	3	849.02	-24.61	-13	PASS
EGPRS850	128	8	823.98	-31.24	-13	PASS
EGPRS850	251	8	849.03	-37.40	-13	PASS
GSM1900	512	0	1849.99	-16.11	-13	PASS
GSM1900	810	0	1910.02	-17.16	-13	PASS
EGPRS1900	512	2	1849.96	-26.13	-13	PASS
EGPRS1900	810	2	1910.00	-19.92	-13	PASS

Test Graphs



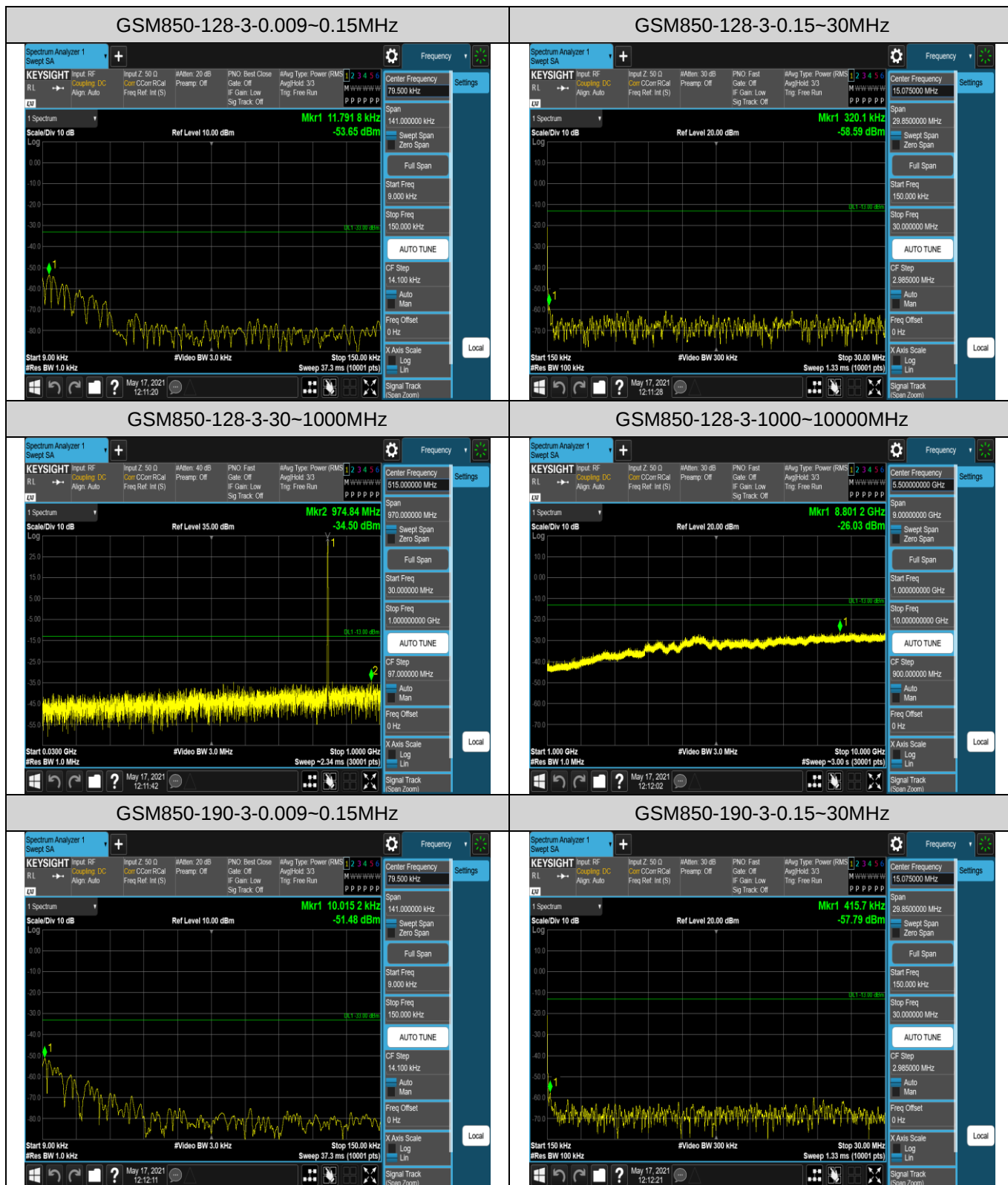


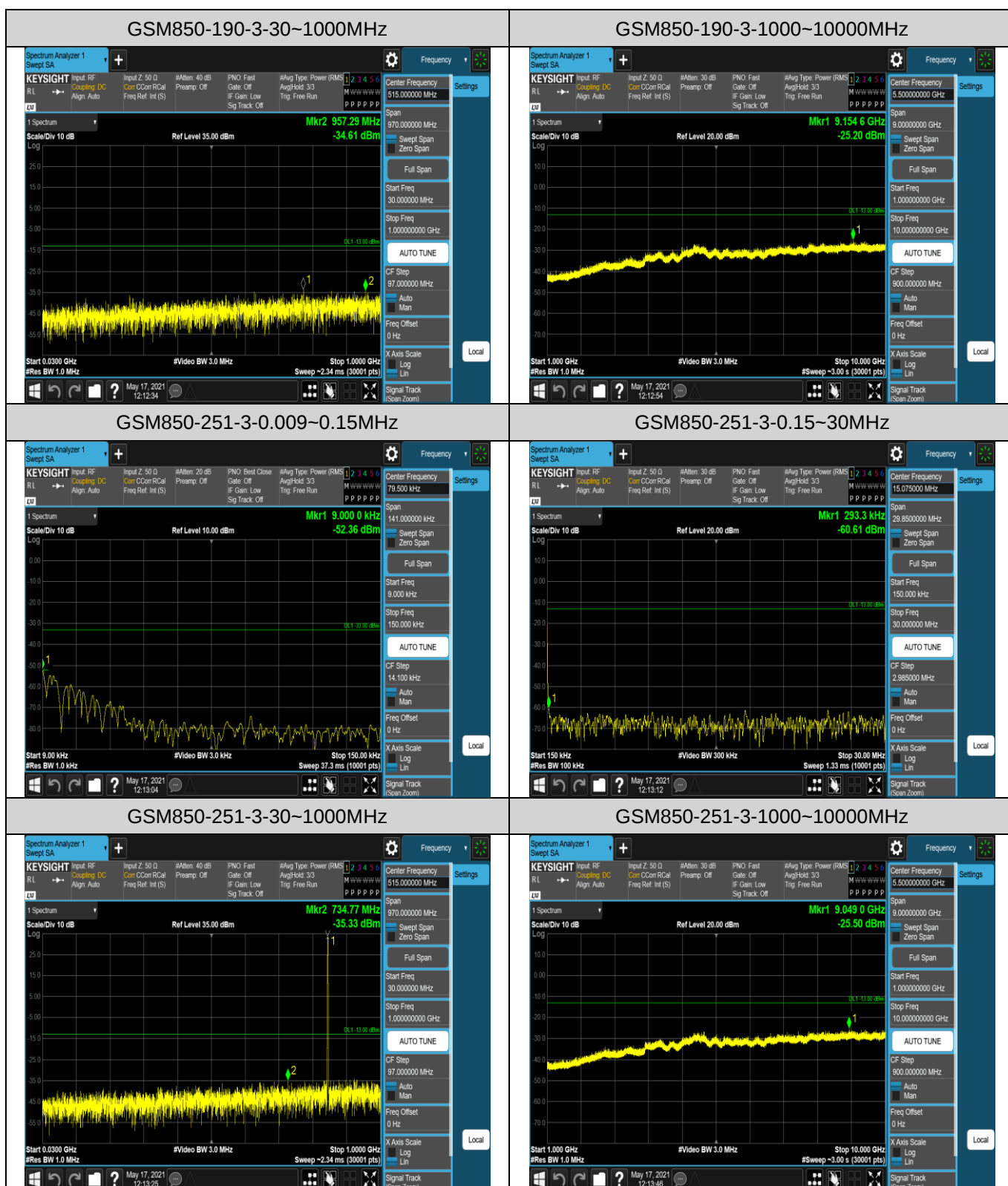
Appendix E: Conducted Spurious Emission

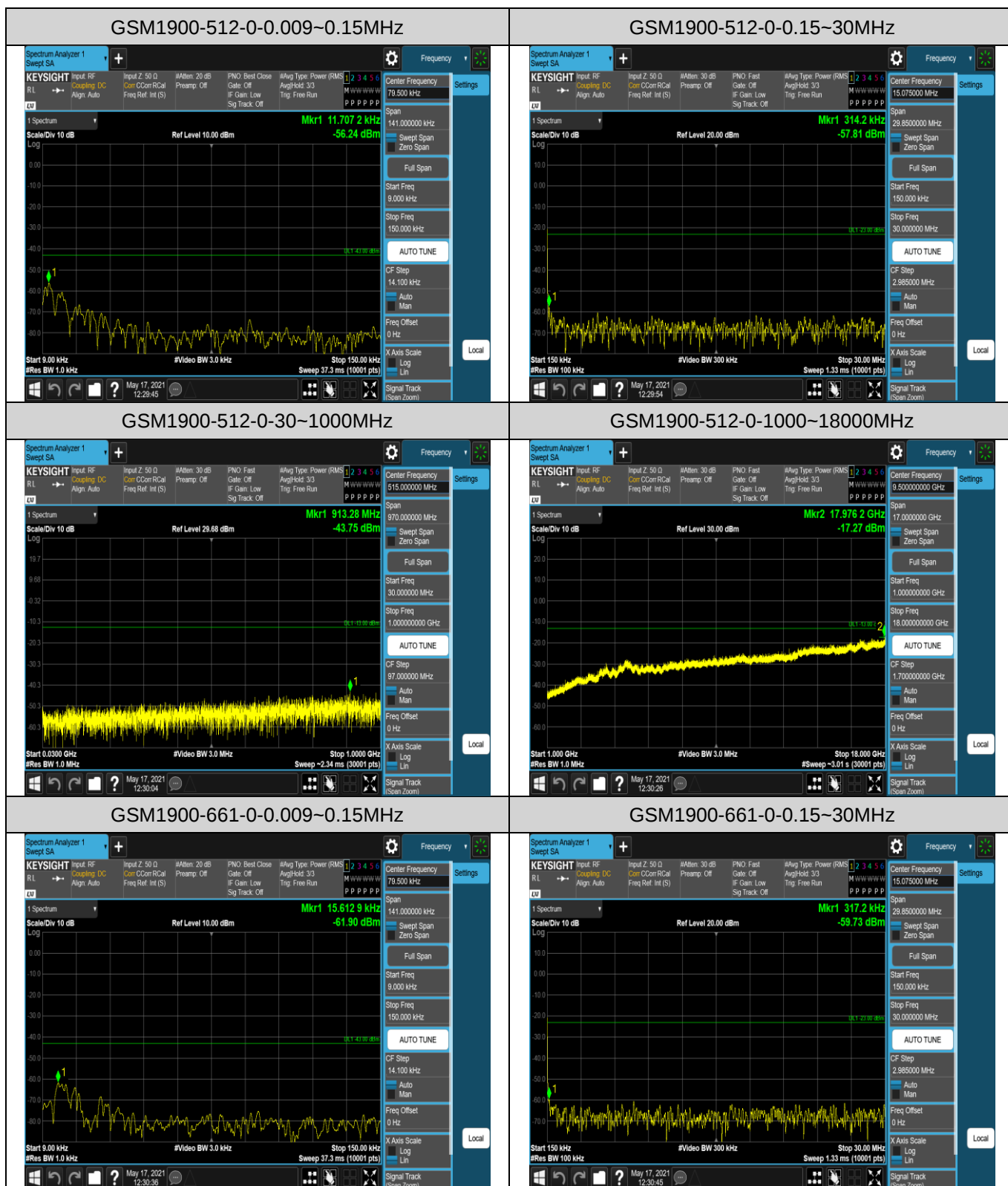
Test Result

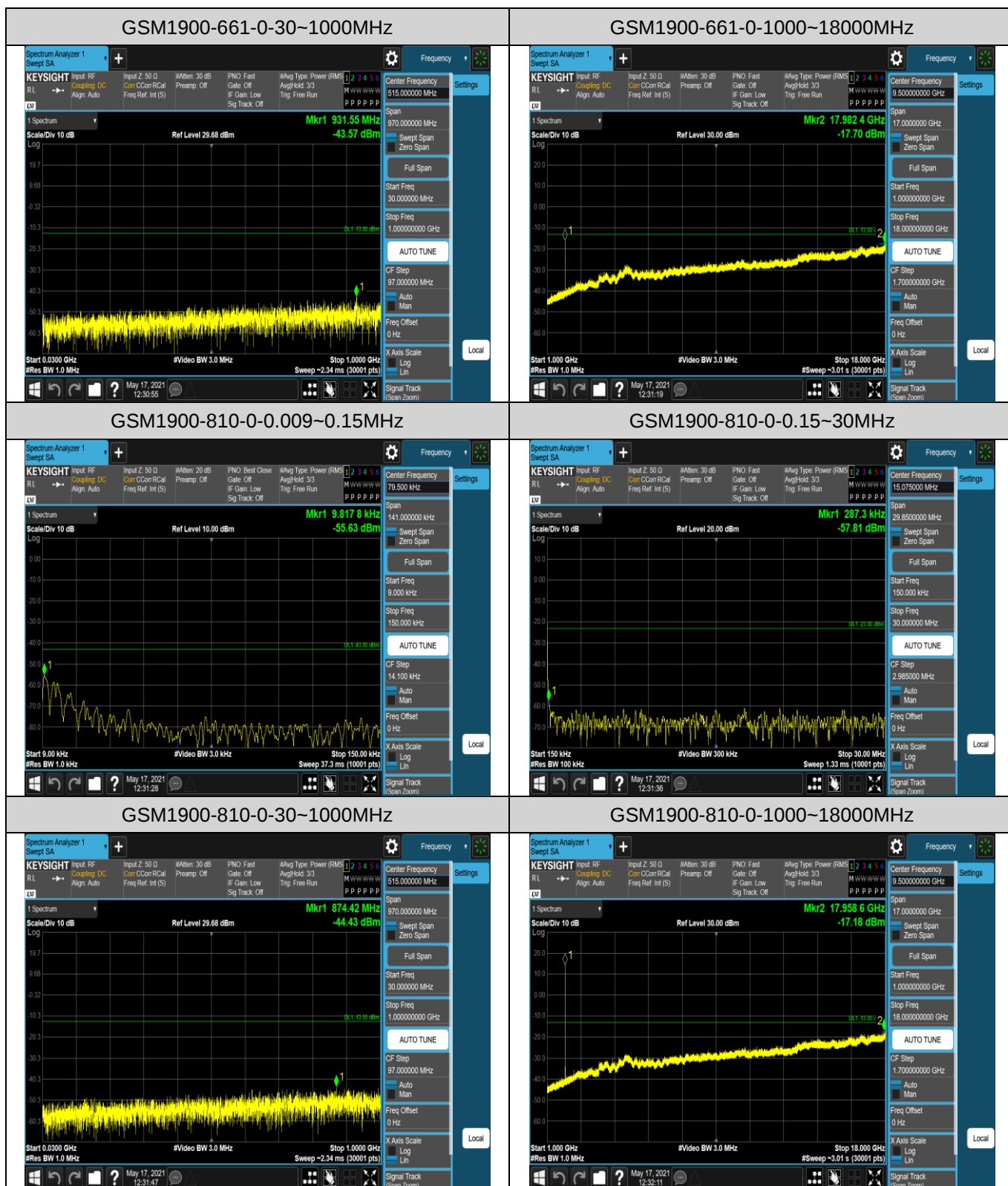
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-53.65	-33	PASS
GSM850	128	3	0.15~30MHz	0.32	-58.59	-13	PASS
GSM850	128	3	30~1000MHz	974.84	-34.5	-13	PASS
GSM850	128	3	1000~10000MHz	8801.2	-26.03	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-51.48	-33	PASS
GSM850	190	3	0.15~30MHz	0.42	-57.79	-13	PASS
GSM850	190	3	30~1000MHz	957.29	-34.61	-13	PASS
GSM850	190	3	1000~10000MHz	9154.6	-25.2	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-52.36	-33	PASS
GSM850	251	3	0.15~30MHz	0.29	-60.61	-13	PASS
GSM850	251	3	30~1000MHz	734.77	-35.33	-13	PASS
GSM850	251	3	1000~10000MHz	9049	-25.5	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.25	-43	PASS
GSM1900	512	0	0.15~30MHz	0.31	-57.81	-23	PASS
GSM1900	512	0	30~1000MHz	913.28	-43.75	-13	PASS
GSM1900	512	0	1000~18000MHz	17976.2	-17.27	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.02	-61.9	-43	PASS
GSM1900	661	0	0.15~30MHz	0.32	-59.73	-23	PASS
GSM1900	661	0	30~1000MHz	931.55	-43.57	-13	PASS
GSM1900	661	0	1000~18000MHz	17982.43	-17.71	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.63	-43	PASS
GSM1900	810	0	0.15~30MHz	0.29	-57.81	-23	PASS
GSM1900	810	0	30~1000MHz	874.42	-44.43	-13	PASS
GSM1900	810	0	1000~18000MHz	17958.63	-17.18	-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		
3.80	-30	-4.68	-0.005594	±2.5	Pass
	-20	0.81	0.000968		
	-10	2.07	0.002474		
	0	3.07	0.003670		
	10	1.81	0.002164		
	20	-2.20	-0.002630		
	30	-0.94	-0.001124		
	40	2.97	0.003550		
	50	3.20	0.003825		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.39	-0.004052	±2.5	Pass
	3.80	-1.94	-0.002319		
	4.40	-5.26	-0.006287		
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		
3.80	-30	14.63	0.017487	±2.5	Pass
	-20	9.40	0.011236		
	-10	12.33	0.014738		
	0	9.04	0.010806		
	10	12.69	0.015169		
	20	11.88	0.014200		
	30	7.91	0.009455		
	40	10.14	0.012120		
	50	12.62	0.015085		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	11.62	0.013890	±2.5	Pass
	3.80	16.08	0.019221		
	4.40	16.56	0.019794		
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		
3.80	-30	10.17	0.005410	Within authorized band for PCS 1900	Pass
	-20	2.87	0.001527		
	-10	0.10	0.000053		
	0	-0.97	-0.000516		
	10	-3.75	-0.001995		
	20	0.00	0.000000		
	30	1.29	0.000686		
	40	2.68	0.001426		
	50	6.36	0.003383		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-1.90	-0.001011	Within authorized band for PCS 1900	Pass
	3.80	6.72	0.003574		
	4.40	4.49	0.002388		
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		
3.80	-30	7.88	0.004191	Within authorized band for PCS 1900	Pass
	-20	0.06	0.000032		
	-10	2.36	0.001255		
	0	-0.81	-0.000431		
	10	12.24	0.006511		
	20	0.19	0.000101		
	30	4.81	0.002559		
	40	-2.97	-0.001580		
	50	3.20	0.001702		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-0.003399	±2.5	Within authorized band for PCS 1900	Pass
	3.80	-0.000793	±2.5		
	4.40	-0.001665	±2.5		
Note: Only the worst case shown in the report.					