

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	33.15	27.62	38.5	PASS
GSM850	190	5	33.11	27.58	38.5	PASS
GSM850	251	5	32.93	27.40	38.5	PASS
GSM1900	512	0	30.29	29.53	33	PASS
GSM1900	661	0	30.43	29.67	33	PASS
GSM1900	810	0	30.40	29.64	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.16	27.63	38.5	PASS
GPRS850	128	5	2	32.44	26.91	38.5	PASS
GPRS850	128	5	3	30.66	25.13	38.5	PASS
GPRS850	128	5	4	29.68	24.15	38.5	PASS
GPRS850	190	5	1	33.14	27.61	38.5	PASS
GPRS850	190	5	2	32.39	26.86	38.5	PASS
GPRS850	190	5	3	30.53	25.00	38.5	PASS
GPRS850	190	5	4	29.55	24.02	38.5	PASS
GPRS850	251	5	1	32.94	27.41	38.5	PASS
GPRS850	251	5	2	32.18	26.65	38.5	PASS
GPRS850	251	5	3	30.33	24.80	38.5	PASS
GPRS850	251	5	4	29.34	23.81	38.5	PASS
GPRS1900	512	0	1	30.28	29.52	33	PASS
GPRS1900	512	0	2	29.48	28.72	33	PASS
GPRS1900	512	0	3	27.61	26.85	33	PASS
GPRS1900	512	0	4	26.84	26.08	33	PASS
GPRS1900	661	0	1	30.41	29.65	33	PASS
GPRS1900	661	0	2	29.56	28.80	33	PASS
GPRS1900	661	0	3	27.59	26.83	33	PASS
GPRS1900	661	0	4	26.82	26.06	33	PASS
GPRS1900	810	0	1	30.37	29.61	33	PASS
GPRS1900	810	0	2	29.32	28.56	33	PASS
GPRS1900	810	0	3	27.20	26.44	33	PASS
GPRS1900	810	0	4	26.41	25.65	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.63	22.10	38.5	PASS
EGPRS850	128	8	2	26.49	20.96	38.5	PASS
EGPRS850	128	8	3	24.31	18.78	38.5	PASS
EGPRS850	128	8	4	23.20	17.67	38.5	PASS
EGPRS850	190	8	1	27.50	21.97	38.5	PASS
EGPRS850	190	8	2	26.45	20.92	38.5	PASS
EGPRS850	190	8	3	24.31	18.78	38.5	PASS
EGPRS850	190	8	4	23.06	17.53	38.5	PASS
EGPRS850	251	8	1	27.36	21.83	38.5	PASS
EGPRS850	251	8	2	26.29	20.76	38.5	PASS
EGPRS850	251	8	3	24.11	18.58	38.5	PASS
EGPRS850	251	8	4	22.94	17.41	38.5	PASS
EGPRS1900	512	2	1	24.48	23.72	33	PASS
EGPRS1900	512	2	2	23.35	22.59	33	PASS
EGPRS1900	512	2	3	21.11	20.35	33	PASS
EGPRS1900	512	2	4	19.97	19.21	33	PASS
EGPRS1900	661	2	1	24.42	23.66	33	PASS
EGPRS1900	661	2	2	23.25	22.49	33	PASS
EGPRS1900	661	2	3	21.03	20.27	33	PASS
EGPRS1900	661	2	4	19.89	19.13	33	PASS
EGPRS1900	810	2	1	23.80	23.04	33	PASS
EGPRS1900	810	2	2	22.69	21.93	33	PASS
EGPRS1900	810	2	3	20.46	19.70	33	PASS
EGPRS1900	810	2	4	19.31	18.55	33	PASS

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

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

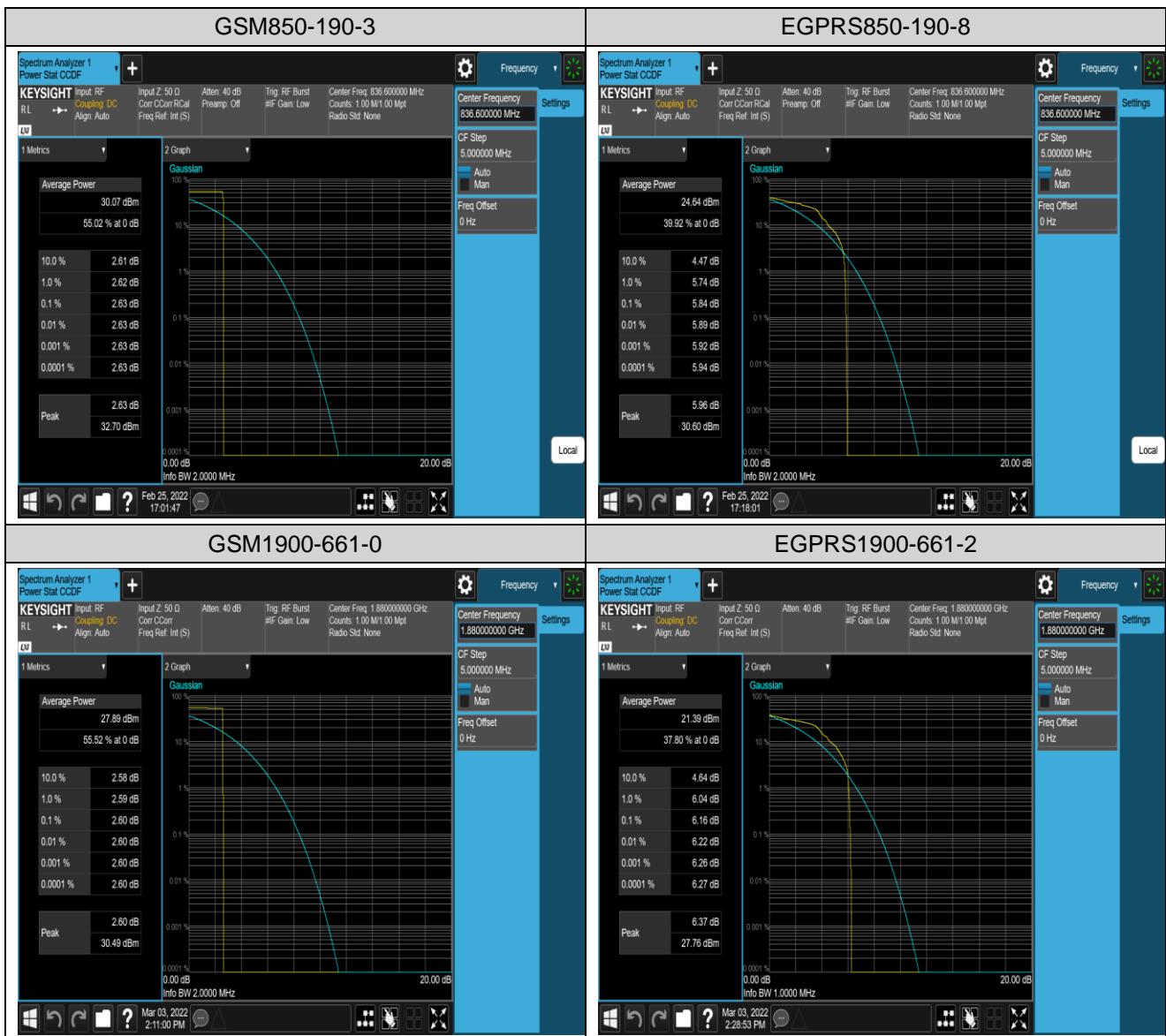
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.63	13	PASS
EGPRS850	190	8	5.84	13	PASS
GSM1900	661	0	2.6	13	PASS
EGPRS1900	661	2	6.16	13	PASS

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

Test Graphs

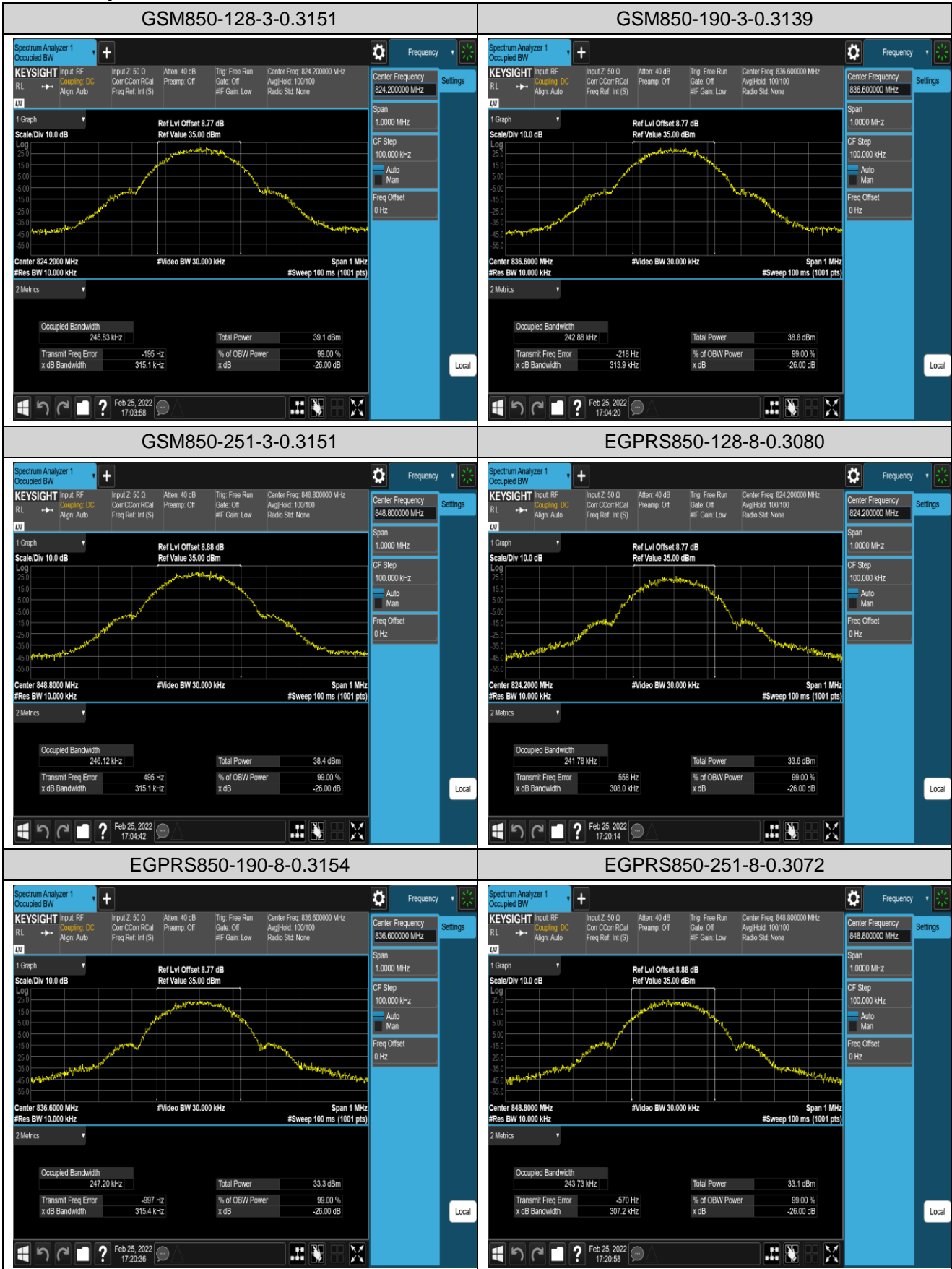


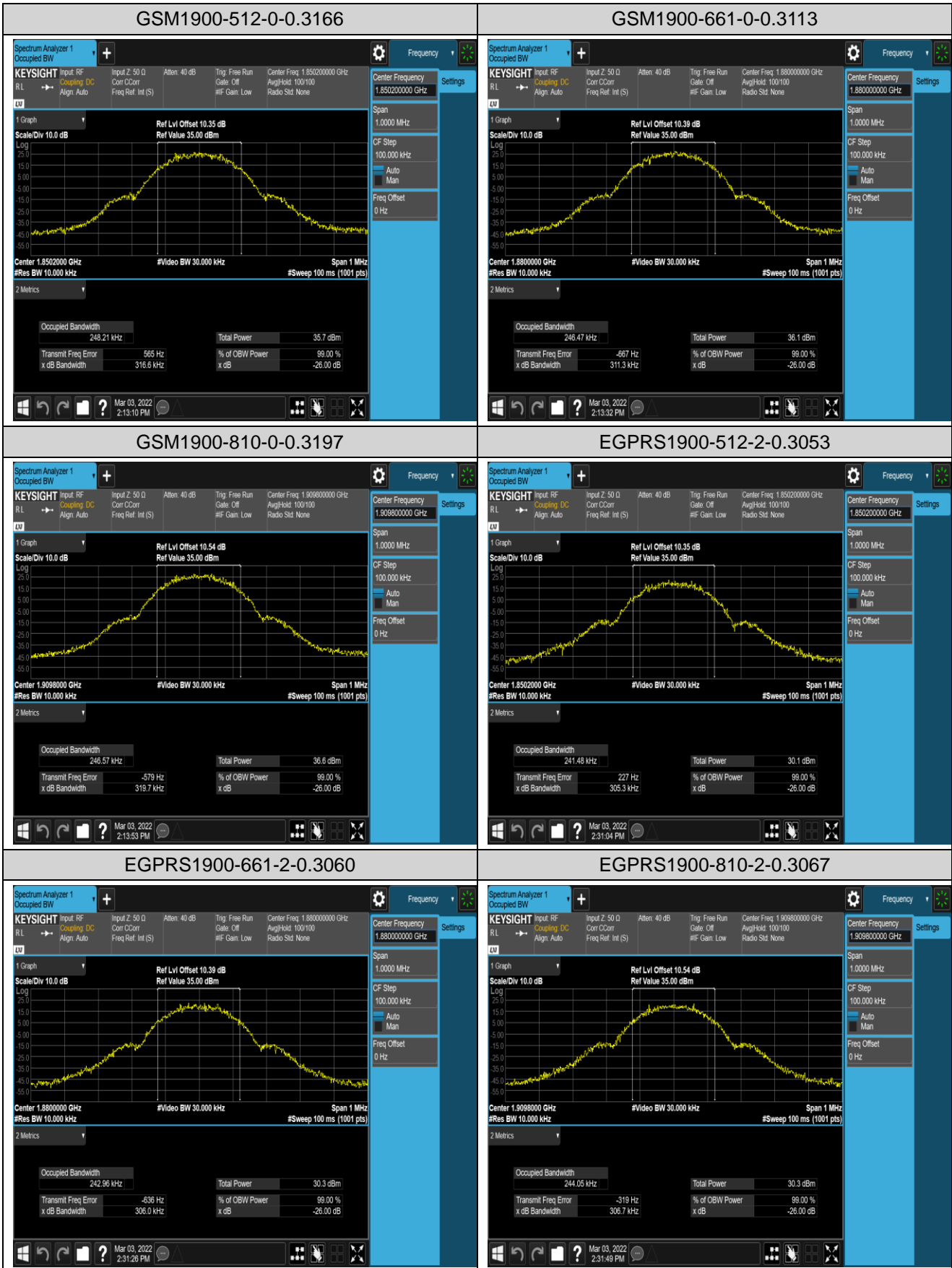
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24583	0.3151	---	PASS
GSM850	190	5	0.24288	0.3139	---	PASS
GSM850	251	5	0.24612	0.3151	---	PASS
EGPRS850	128	8	0.24178	0.3080	---	PASS
EGPRS850	190	8	0.24720	0.3154	---	PASS
EGPRS850	251	8	0.24373	0.3072	---	PASS
GSM1900	512	0	0.24821	0.3166	---	PASS
GSM1900	661	0	0.24647	0.3113	---	PASS
GSM1900	810	0	0.24657	0.3197	---	PASS
EGPRS1900	512	2	0.24148	0.3053	---	PASS
EGPRS1900	661	2	0.24296	0.3060	---	PASS
EGPRS1900	810	2	0.24405	0.3067	---	PASS

Test Graphs



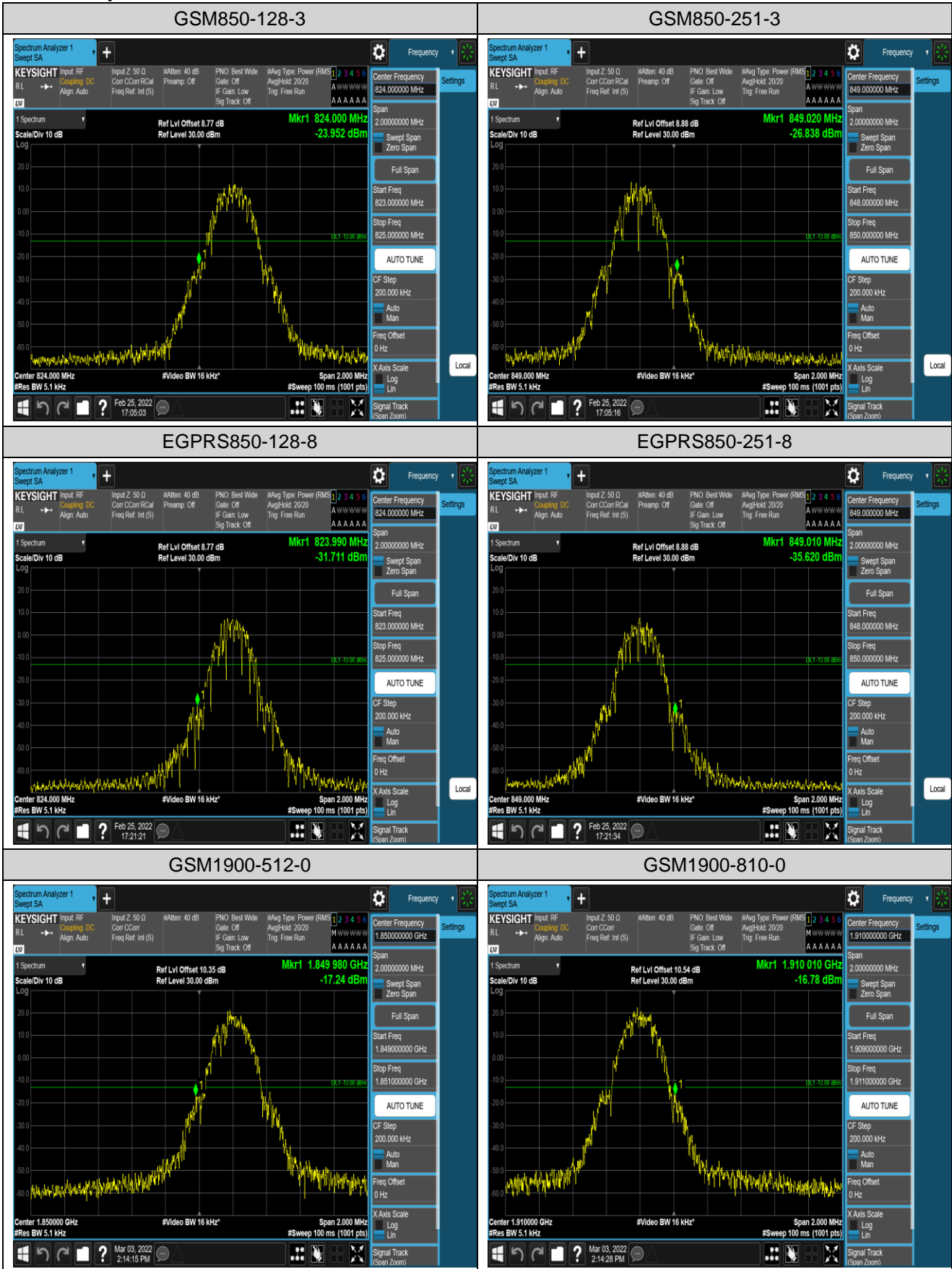


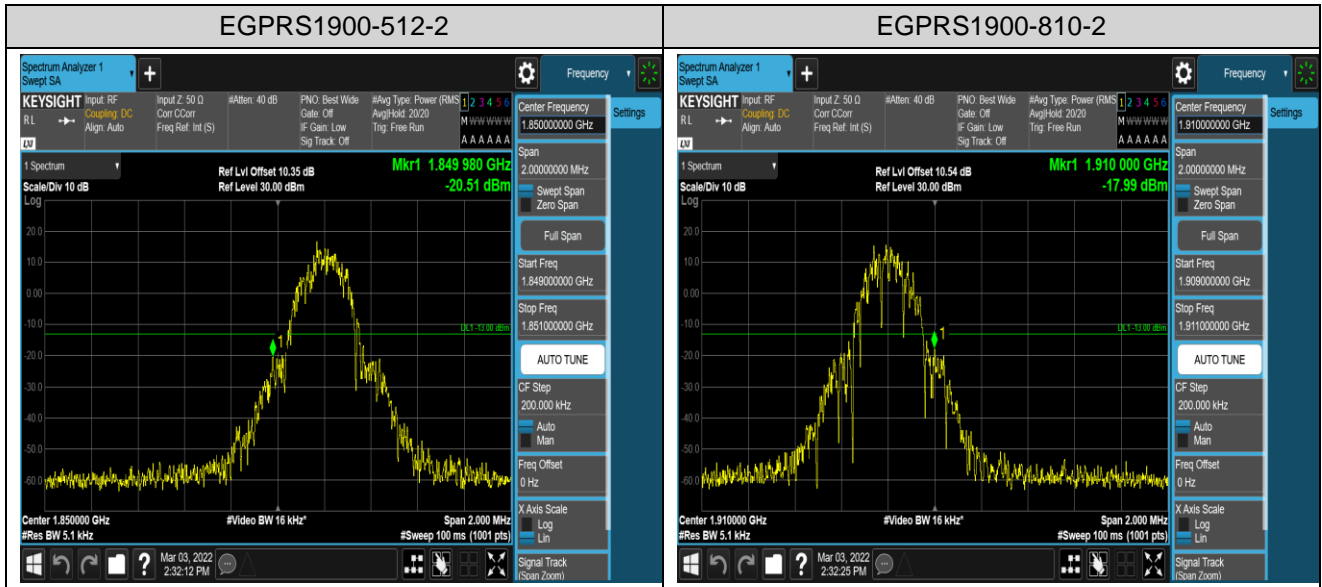
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-23.952	-13	PASS
GSM850	251	5	849.02	-26.838	-13	PASS
EGPRS850	128	8	823.99	-31.711	-13	PASS
EGPRS850	251	8	849.01	-35.620	-13	PASS
GSM1900	512	0	1849.98	-17.24	-13	PASS
GSM1900	810	0	1910.01	-16.78	-13	PASS
EGPRS1900	512	2	1849.98	-20.51	-13	PASS
EGPRS1900	810	2	1910.00	-17.99	-13	PASS

Test Graphs





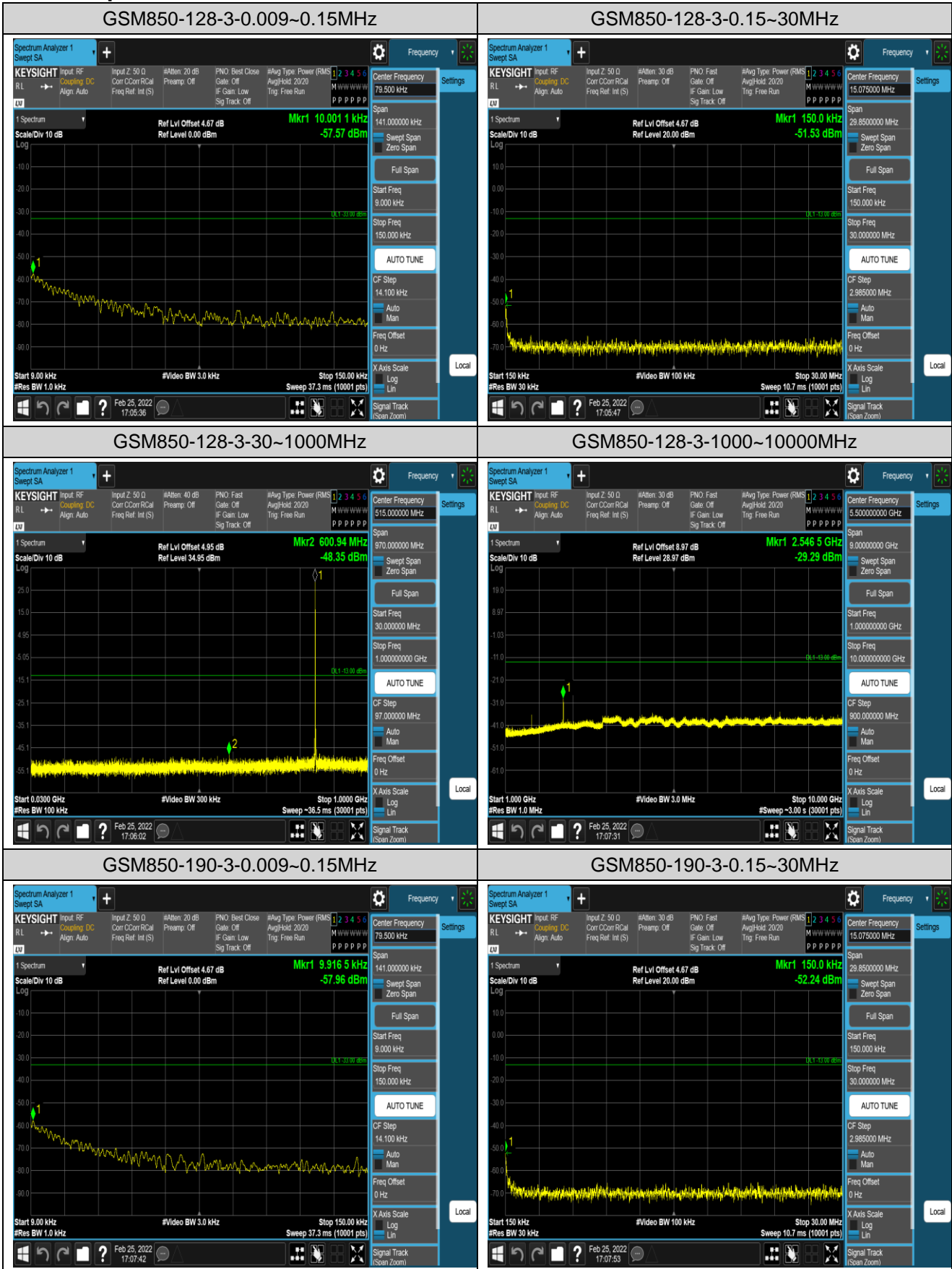
Appendix E: Conducted Spurious Emission

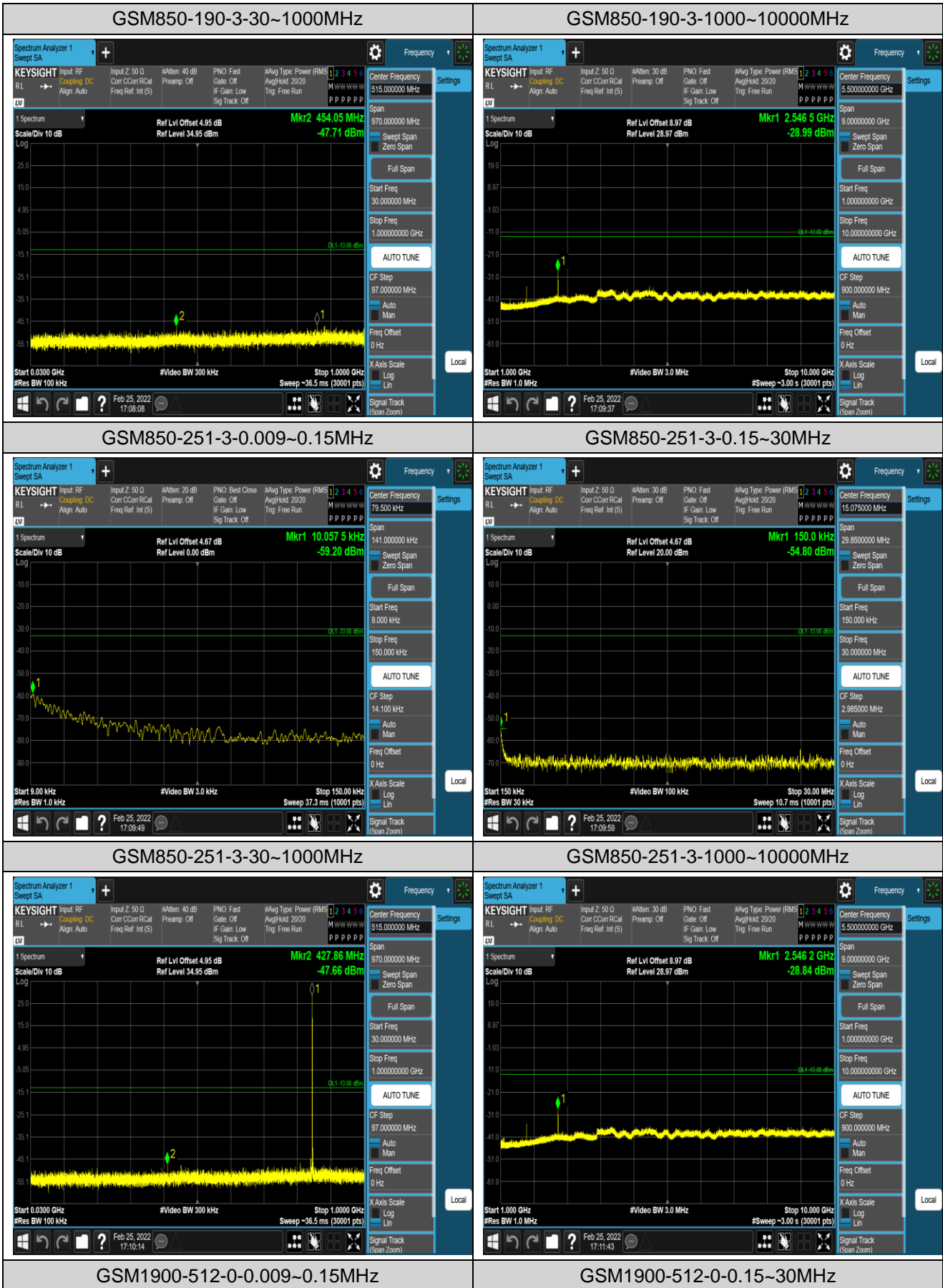
Test Result

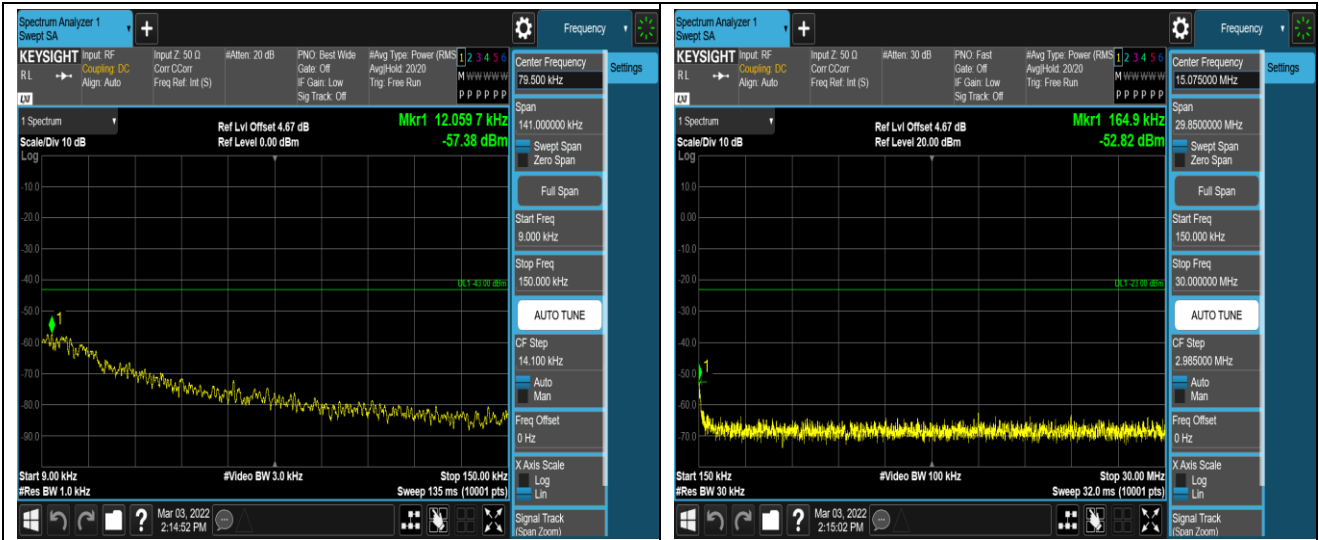
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-57.57	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-51.53	-13	PASS
GSM850	128	5	30~1000MHz	600.94	-48.35	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-29.29	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-57.96	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-52.24	-13	PASS
GSM850	190	5	30~1000MHz	454.05	-47.71	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-28.99	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-59.2	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-54.8	-13	PASS
GSM850	251	5	30~1000MHz	427.86	-47.66	-13	PASS
GSM850	251	5	1000~10000MHz	2546.2	-28.84	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.38	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-52.82	-23	PASS
GSM1900	512	0	30~1000MHz	943.93	-46.61	-13	PASS
GSM1900	512	0	1000~18000MHz	3808.97	-34.48	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.02	-56.43	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-51.64	-23	PASS
GSM1900	661	0	30~1000MHz	972.36	-46.61	-13	PASS
GSM1900	661	0	1000~18000MHz	3824.27	-34.68	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.11	-43	PASS
GSM1900	810	0	0.15~30MHz	0.17	-53.54	-23	PASS
GSM1900	810	0	30~1000MHz	892.36	-47.06	-13	PASS
GSM1900	810	0	1000~18000MHz	3822.57	-34.42	-13	PASS

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

Test Graphs







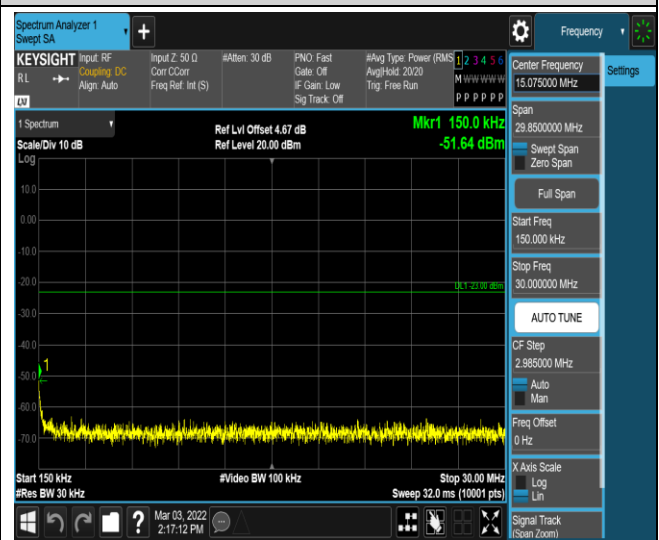
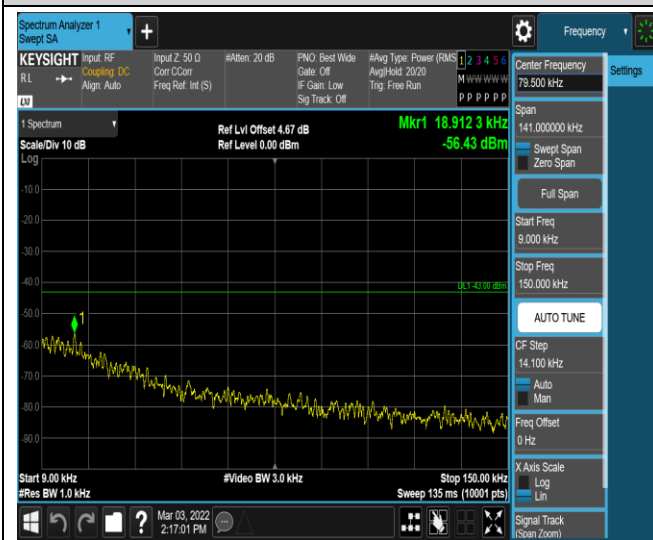
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



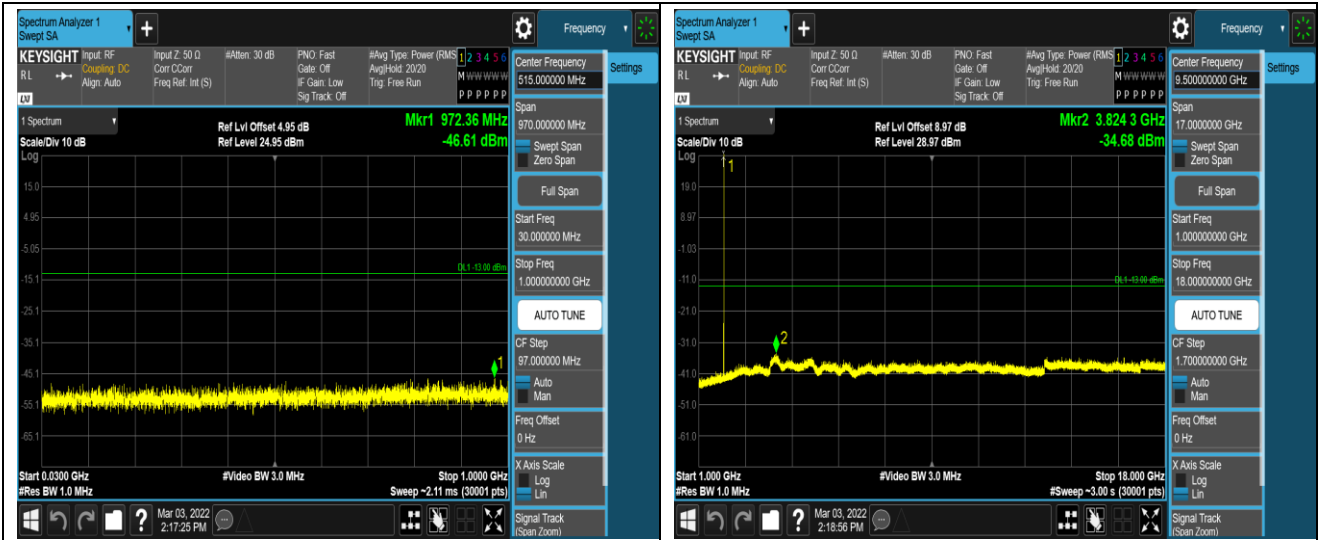
GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz

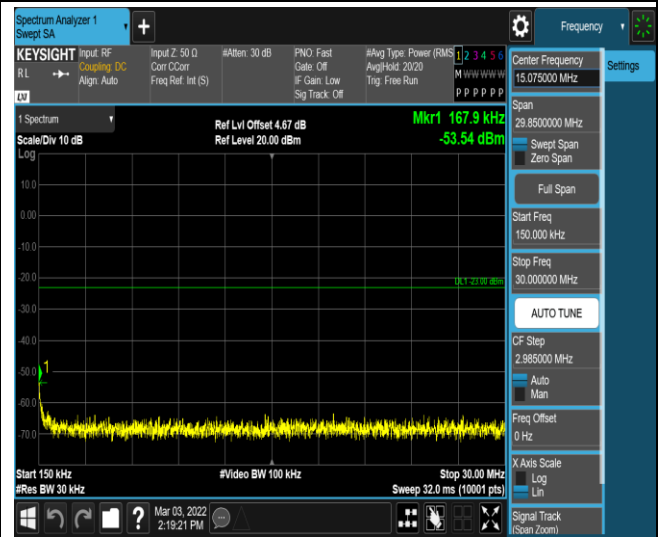


GSM1900-810-0-0.009~0.15MHz

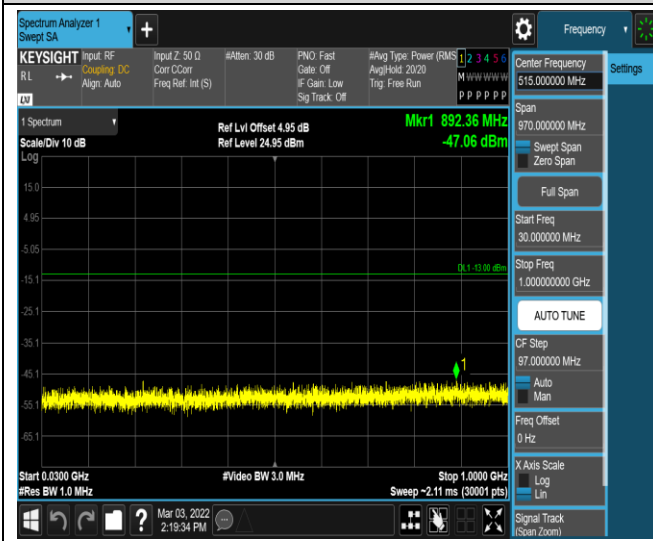
GSM1900-810-0-0.15~30MHz



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		
3.8	-30	8.46	0.010112	±2.5	Pass
	-20	5.26	0.006287		
	-10	8.46	0.010112		
	0	6.10	0.007291		
	10	4.33	0.005176		
	20	4.39	0.005247		
	30	5.52	0.006598		
	40	2.91	0.003478		
	50	4.39	0.005247		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	6.42	0.007674	±2.5	Pass
	3.80	4.58	0.005475		
	4.35	6.33	0.007566		
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		
3.8	-30	7.49	0.008953	±2.5	Pass
	-20	11.36	0.013579		
	-10	15.59	0.018635		
	0	11.85	0.014164		
	10	9.75	0.011654		
	20	11.36	0.013579		
	30	8.78	0.010495		
	40	10.98	0.013125		
	50	5.88	0.007028		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	6.88	0.008224	±2.5	Pass
	3.80	5.68	0.006789		
	4.35	2.78	0.003323		
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		
3.8	-30	-13.59	-0.007229	Within authorized band for PCS 1900	Pass
	-20	-7.43	-0.003952		
	-10	-18.40	-0.009787		
	0	-9.59	-0.005101		
	10	-11.91	-0.006335		
	20	-13.20	-0.007021		
	30	-7.10	-0.003777		
	40	-8.85	-0.004707		
	50	-13.11	-0.006973		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-9.75	-0.005186	Within authorized band for PCS 1900	Pass
	3.80	-14.14	-0.007521		
	4.35	-19.66	-0.010457		
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		
3.8	-30	-7.94	-0.004223	Within authorized band for PCS 1900	Pass
	-20	-1.36	-0.000723		
	-10	-0.32	-0.000170		
	0	1.23	0.000654		
	10	0.52	0.000277		
	20	-5.20	-0.002766		
	30	-2.81	-0.001495		
	40	-5.62	-0.002989		
	50	-1.55	-0.000824		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-3.84	-0.002043	Within authorized band for PCS 1900	Pass
	3.80	-1.19	-0.000633		
	4.35	-2.91	-0.001548		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

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

