

## 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	32.84	28.73	38.5	PASS
GSM850	190	5	32.56	28.45	38.5	PASS
GSM850	251	5	32.59	28.48	38.5	PASS
GSM1900	512	0	29.49	30.76	33	PASS
GSM1900	661	0	29.00	30.27	33	PASS
GSM1900	810	0	28.74	30.01	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.96	28.85	38.5	PASS
GPRS850	128	5	2	31.37	27.26	38.5	PASS
GPRS850	128	5	3	29.44	25.33	38.5	PASS
GPRS850	128	5	4	27.33	23.22	38.5	PASS
GPRS850	190	5	1	32.79	28.68	38.5	PASS
GPRS850	190	5	2	31.25	27.14	38.5	PASS
GPRS850	190	5	3	29.36	25.25	38.5	PASS
GPRS850	190	5	4	27.26	23.15	38.5	PASS
GPRS850	251	5	1	32.86	28.75	38.5	PASS
GPRS850	251	5	2	31.15	27.04	38.5	PASS
GPRS850	251	5	3	29.29	25.18	38.5	PASS
GPRS850	251	5	4	27.20	23.09	38.5	PASS
GPRS1900	512	0	1	29.48	30.75	33	PASS
GPRS1900	512	0	2	27.06	28.33	33	PASS
GPRS1900	512	0	3	25.48	26.75	33	PASS
GPRS1900	512	0	4	23.47	24.74	33	PASS
GPRS1900	661	0	1	28.92	30.19	33	PASS
GPRS1900	661	0	2	26.61	27.88	33	PASS
GPRS1900	661	0	3	25.06	26.33	33	PASS
GPRS1900	661	0	4	23.07	24.34	33	PASS
GPRS1900	810	0	1	28.63	29.9	33	PASS
GPRS1900	810	0	2	26.34	27.61	33	PASS
GPRS1900	810	0	3	24.81	26.08	33	PASS
GPRS1900	810	0	4	22.81	24.08	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	25.81	21.70	38.5	PASS
EGPRS850	128	8	2	25.54	21.43	38.5	PASS
EGPRS850	128	8	3	24.12	20.01	38.5	PASS
EGPRS850	128	8	4	21.55	17.44	38.5	PASS
EGPRS850	190	8	1	25.61	21.50	38.5	PASS
EGPRS850	190	8	2	25.65	21.54	38.5	PASS
EGPRS850	190	8	3	24.25	20.14	38.5	PASS
EGPRS850	190	8	4	21.74	17.63	38.5	PASS
EGPRS850	251	8	1	25.00	20.89	38.5	PASS
EGPRS850	251	8	2	25.06	20.95	38.5	PASS
EGPRS850	251	8	3	23.65	19.54	38.5	PASS
EGPRS850	251	8	4	21.20	17.09	38.5	PASS
EGPRS1900	512	2	1	26.58	27.85	33	PASS
EGPRS1900	512	2	2	26.30	27.57	33	PASS
EGPRS1900	512	2	3	24.73	26	33	PASS
EGPRS1900	512	2	4	22.12	23.39	33	PASS
EGPRS1900	661	2	1	25.86	27.13	33	PASS
EGPRS1900	661	2	2	25.90	27.17	33	PASS
EGPRS1900	661	2	3	24.45	25.72	33	PASS
EGPRS1900	661	2	4	21.91	23.18	33	PASS
EGPRS1900	810	2	1	25.17	26.44	33	PASS
EGPRS1900	810	2	2	25.22	26.49	33	PASS
EGPRS1900	810	2	3	23.67	24.94	33	PASS
EGPRS1900	810	2	4	21.27	22.54	33	PASS

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

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

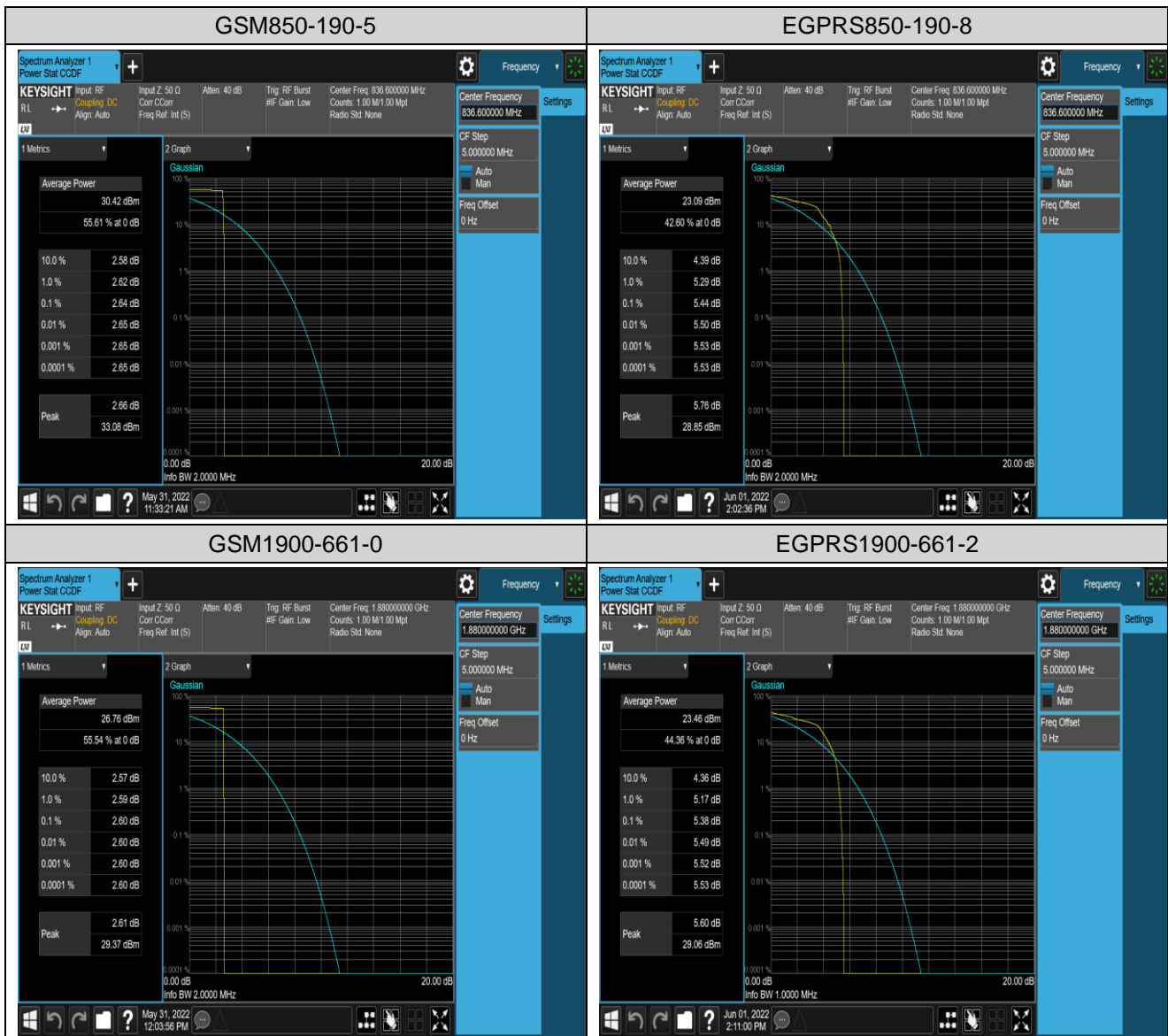
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.64	13	PASS
EGPRS850	190	8	5.44	13	PASS
GSM1900	661	0	2.6	13	PASS
EGPRS1900	661	2	5.38	13	PASS

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

### Test Graphs

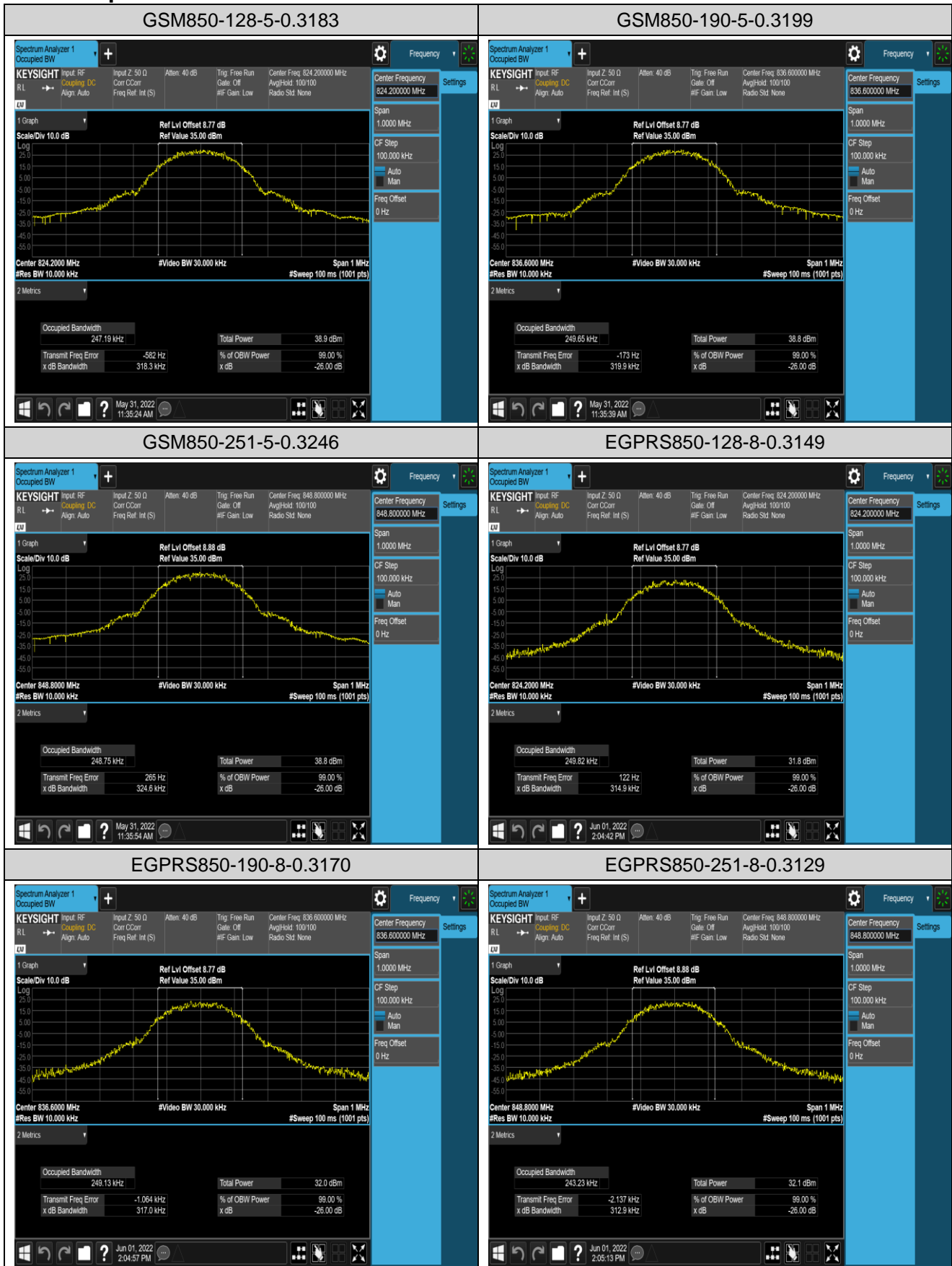


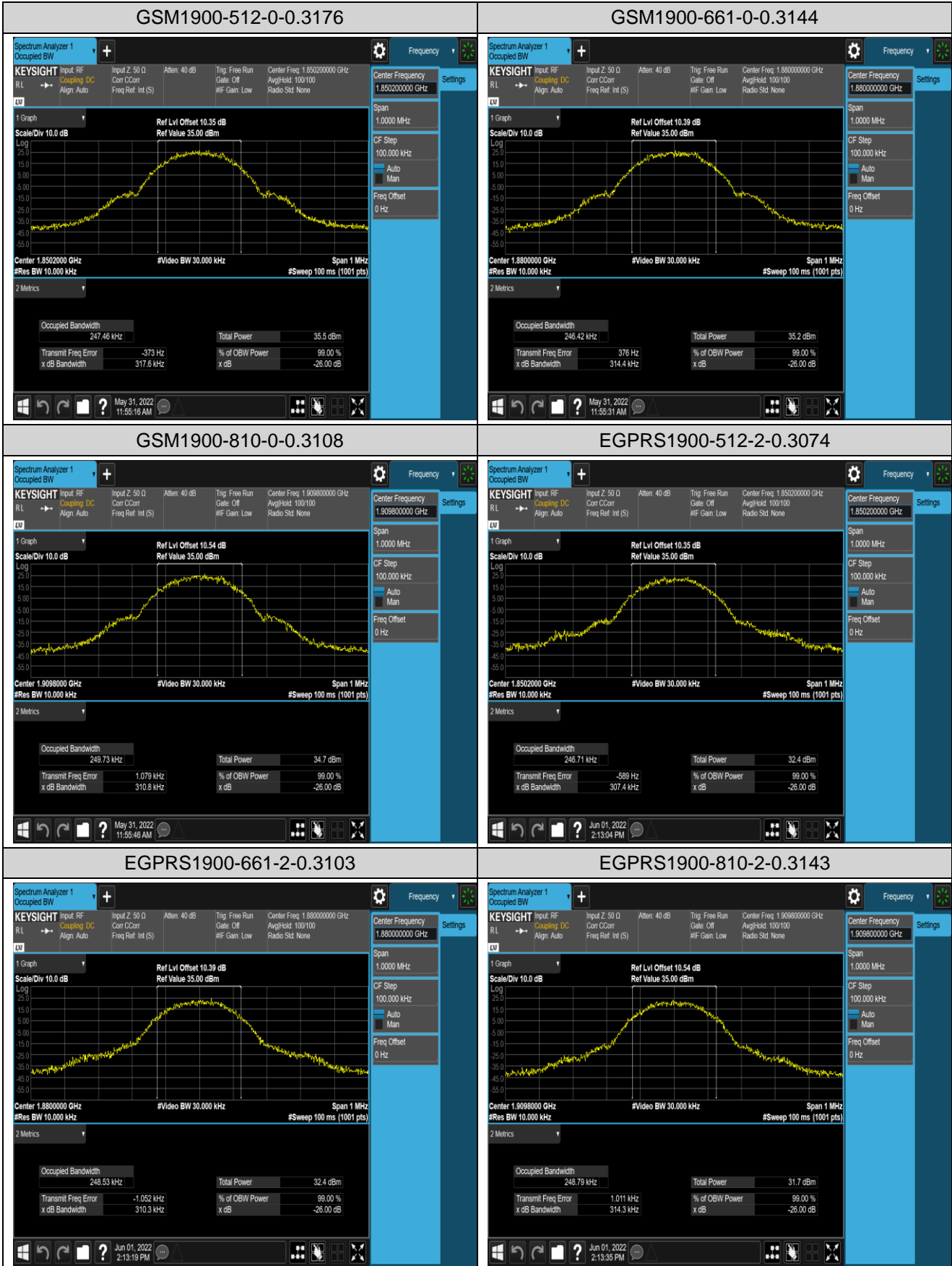
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24719	0.3183	---	PASS
GSM850	190	5	0.24965	0.3199	---	PASS
GSM850	251	5	0.24875	0.3246	---	PASS
EGPRS850	128	8	0.24982	0.3149	---	PASS
EGPRS850	190	8	0.24913	0.3170	---	PASS
EGPRS850	251	8	0.24323	0.3129	---	PASS
GSM1900	512	0	0.24746	0.3176	---	PASS
GSM1900	661	0	0.24642	0.3144	---	PASS
GSM1900	810	0	0.24973	0.3108	---	PASS
EGPRS1900	512	2	0.24671	0.3074	---	PASS
EGPRS1900	661	2	0.24853	0.3103	---	PASS
EGPRS1900	810	2	0.24879	0.3143	---	PASS

Test Graphs



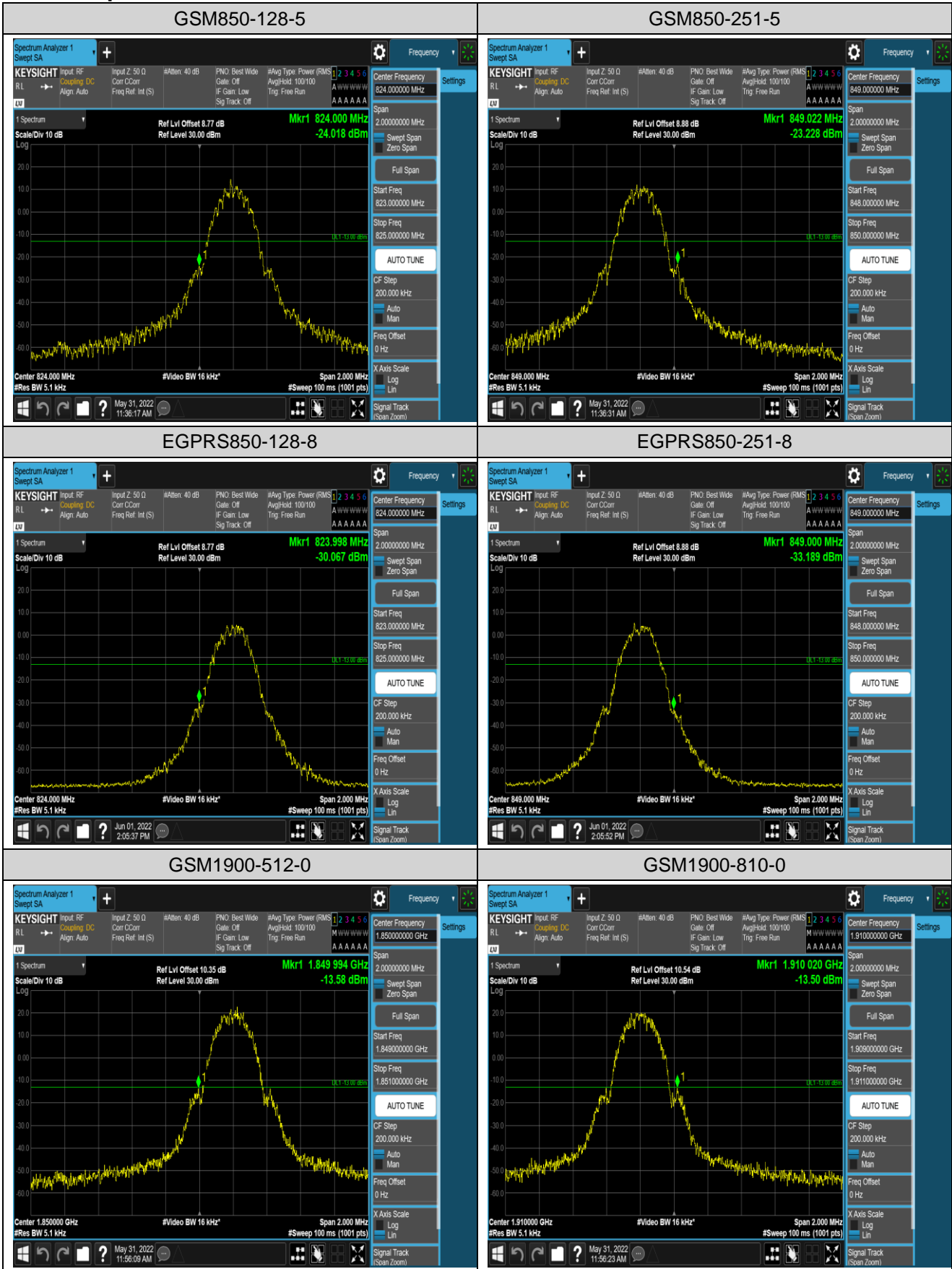


## Appendix D: Band Edge

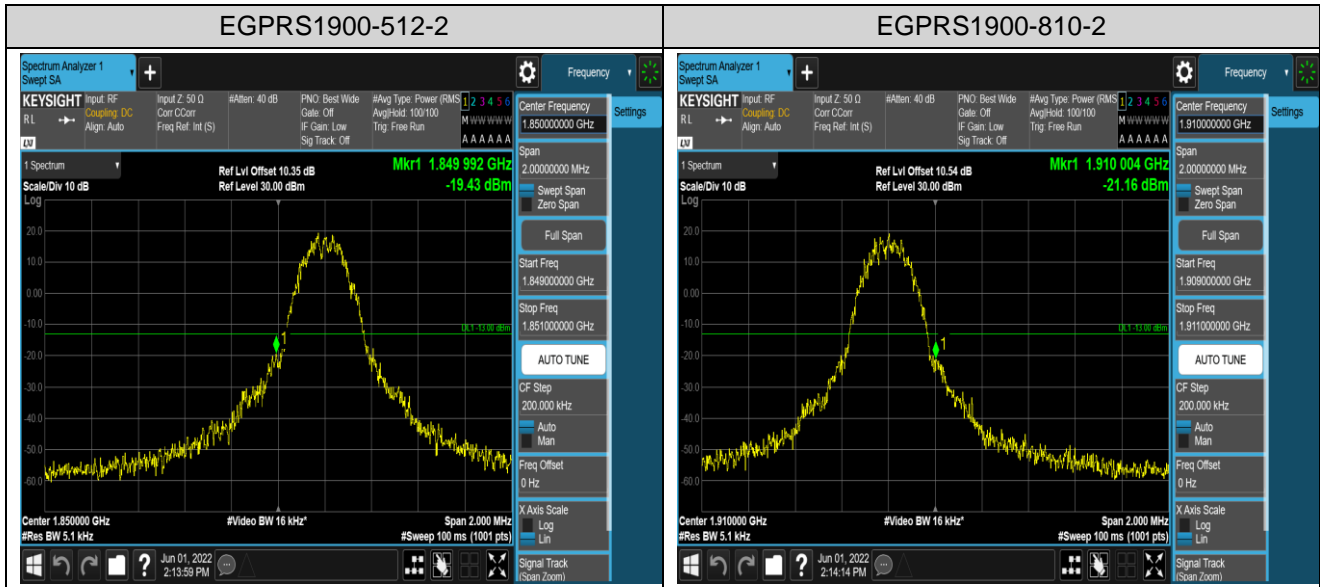
### Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-24.02	-13	PASS
GSM850	251	5	849.02	-23.23	-13	PASS
EGPRS850	128	8	824.00	-30.07	-13	PASS
EGPRS850	251	8	849.00	-33.19	-13	PASS
GSM1900	512	0	1849.99	-13.58	-13	PASS
GSM1900	810	0	1910.02	-13.50	-13	PASS
EGPRS1900	512	2	1849.99	-19.43	-13	PASS
EGPRS1900	810	2	1910.00	-21.16	-13	PASS

Test Graphs







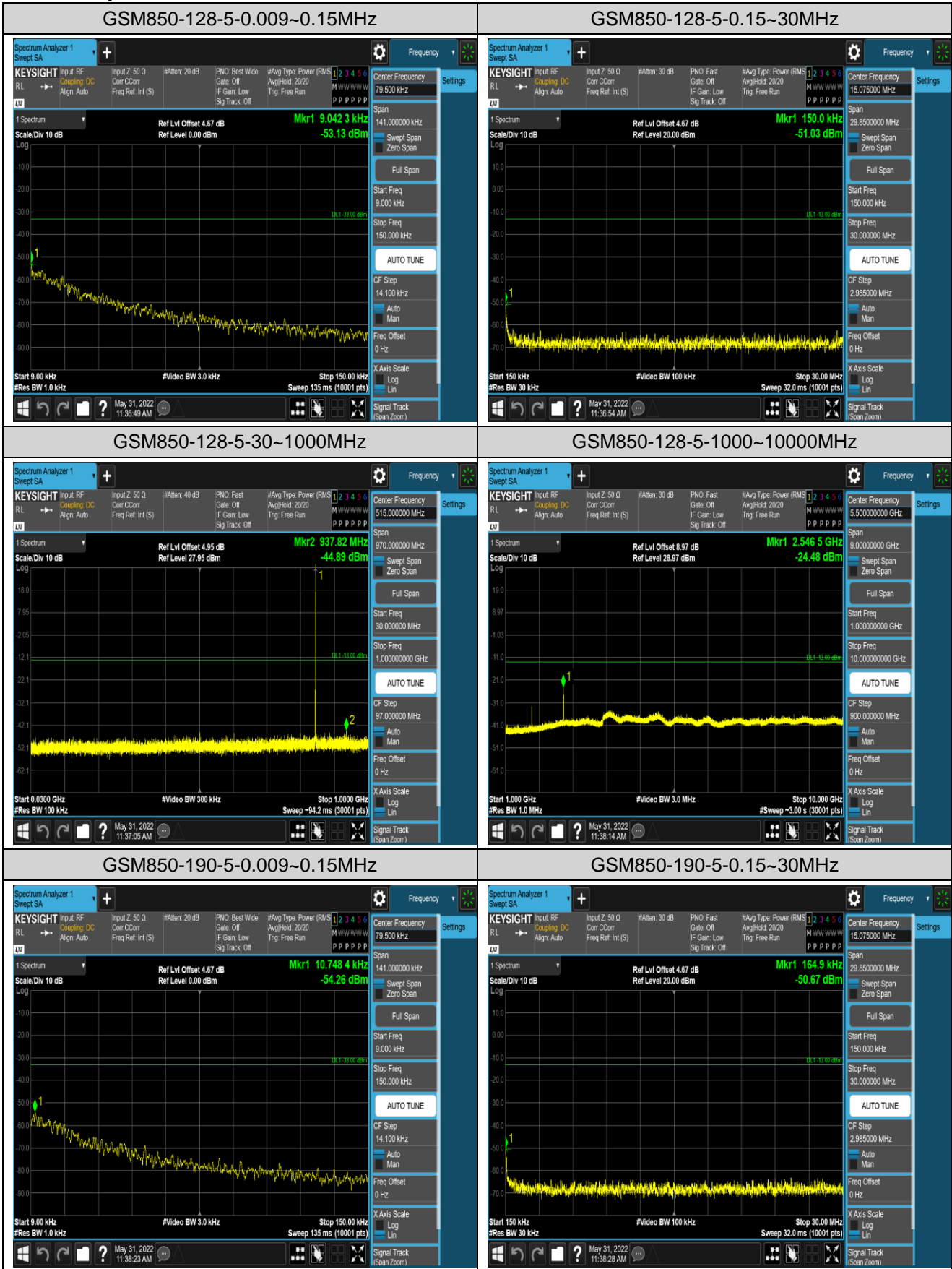
## Appendix E: Conducted Spurious Emission

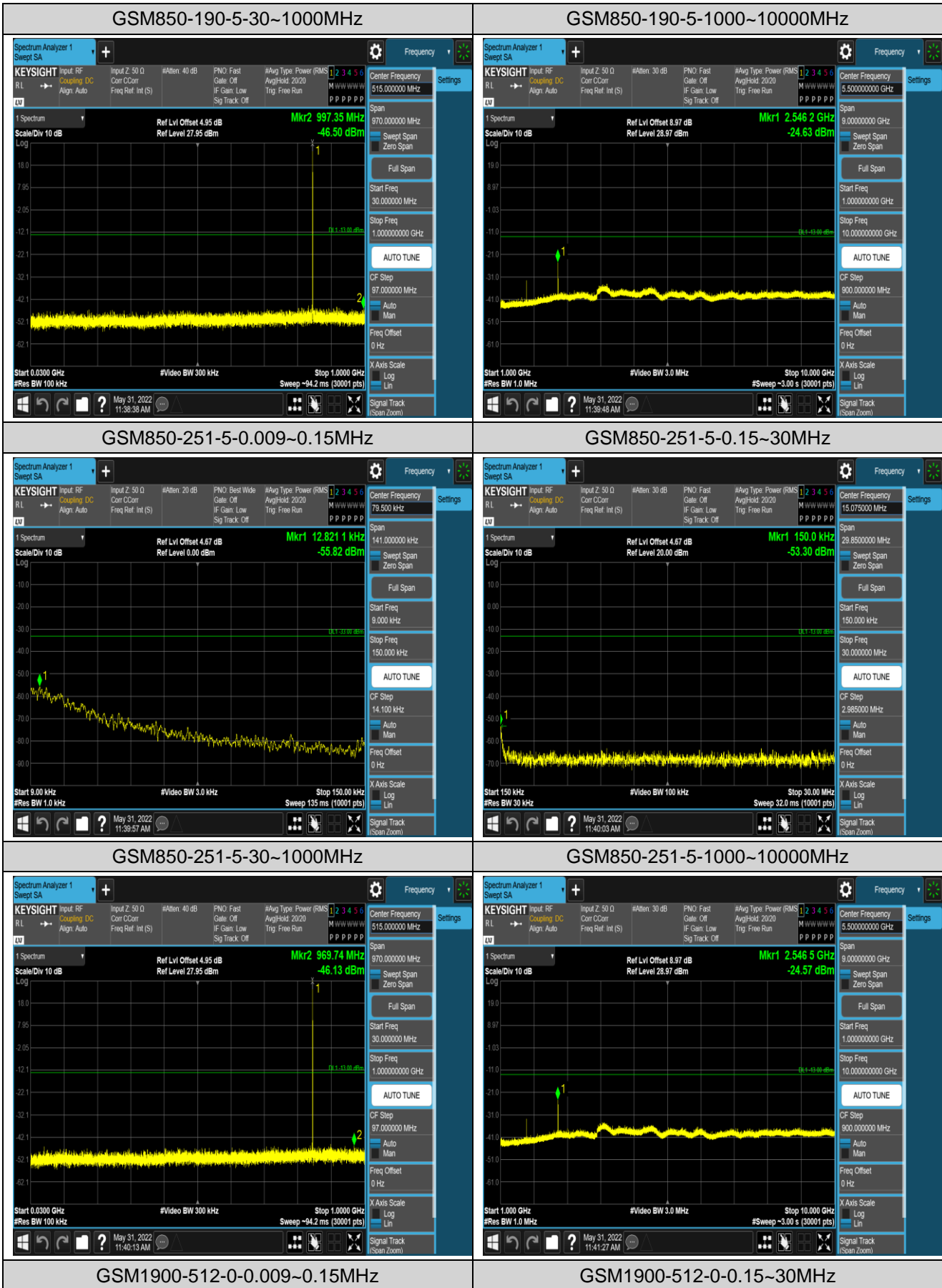
### Test Result

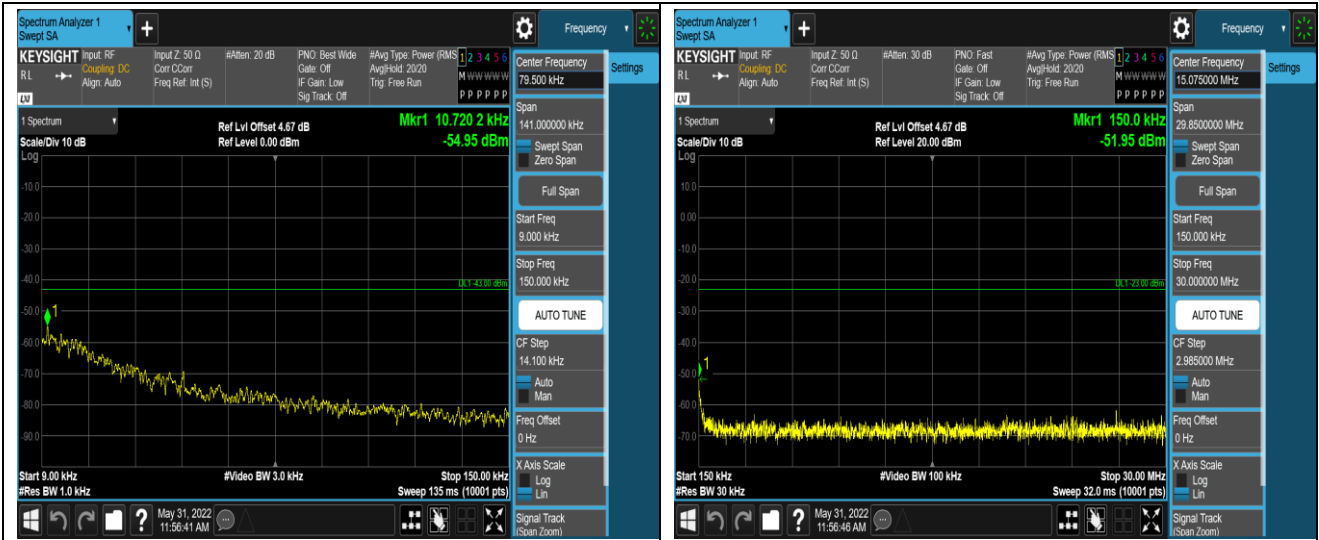
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-53.13	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-51.03	-13	PASS
GSM850	128	5	30~1000MHz	937.82	-44.89	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-24.48	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-54.26	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-50.67	-13	PASS
GSM850	190	5	30~1000MHz	997.35	-46.5	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-24.63	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-55.82	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-53.3	-13	PASS
GSM850	251	5	30~1000MHz	969.74	-46.13	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-24.57	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.95	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-51.95	-23	PASS
GSM1900	512	0	30~1000MHz	824.49	-46.9	-13	PASS
GSM1900	512	0	1000~18000MHz	3803.87	-34.24	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.32	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.44	-23	PASS
GSM1900	661	0	30~1000MHz	826.34	-46.46	-13	PASS
GSM1900	661	0	1000~18000MHz	3723.97	-34.57	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.02	-57.27	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-52.42	-23	PASS
GSM1900	810	0	30~1000MHz	892.17	-46.24	-13	PASS
GSM1900	810	0	1000~18000MHz	3833.9	-34.74	-13	PASS

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

Test Graphs







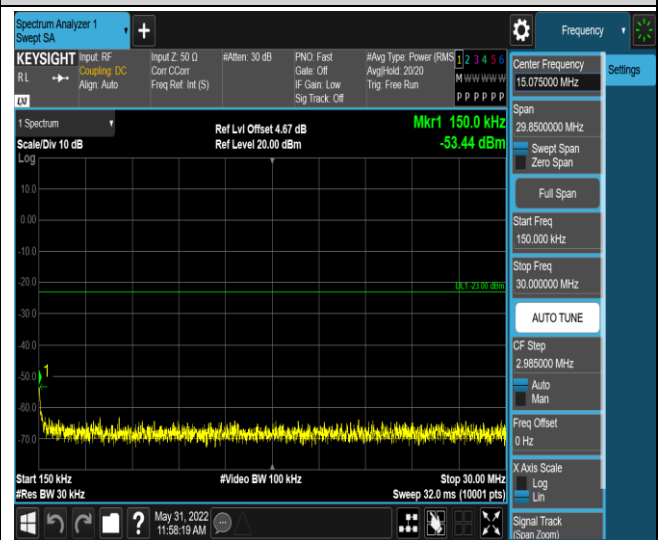
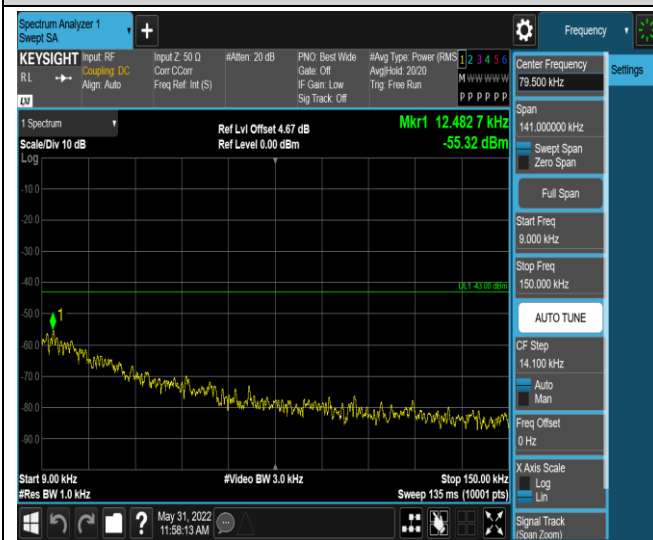
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



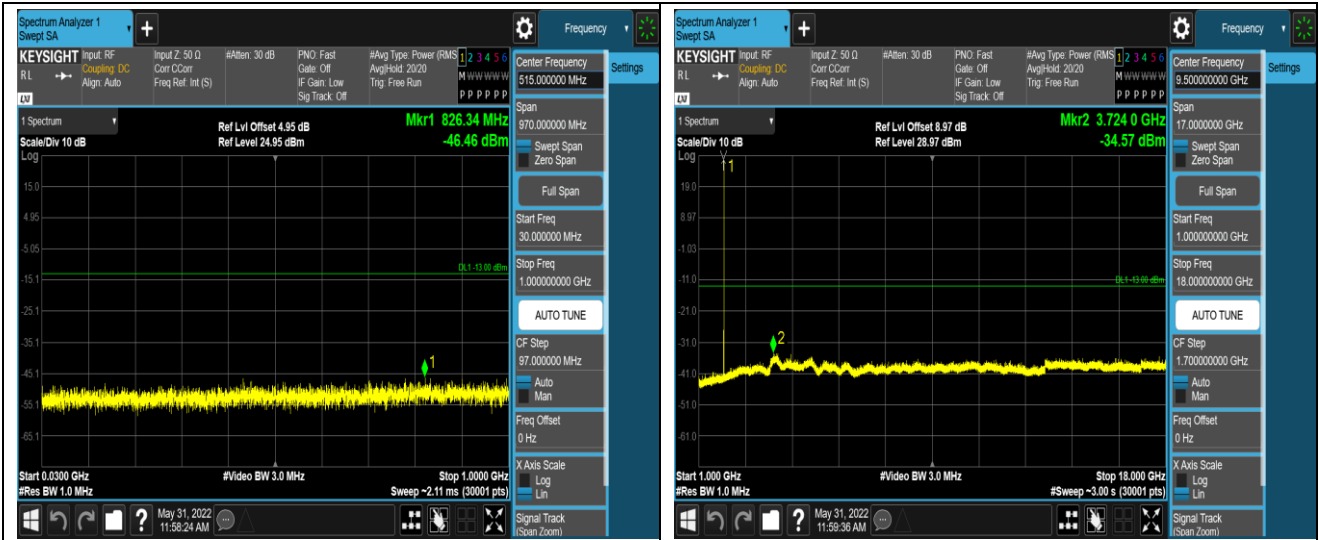
GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



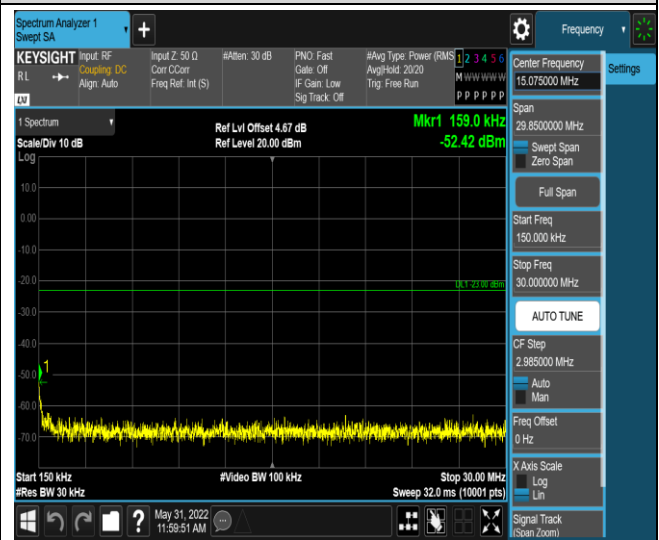
GSM1900-661-0-30~1000MHz

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	11.69	0.013973	±2.5	Pass
	-20	18.89	0.022579		
	-10	11.30	0.013507		
	0	14.82	0.017715		
	10	12.95	0.015479		
	20	9.88	0.011810		
	30	14.08	0.016830		
	40	14.11	0.016866		
	50	12.88	0.015396		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	16.37	0.019567	±2.5	Pass
	3.80	15.43	0.018444		
	4.35	11.78	0.014081		
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	-5.62	-0.006718	±2.5	Pass
	-20	-5.59	-0.006682		
	-10	-5.78	-0.006909		
	0	-6.49	-0.007758		
	10	-3.62	-0.004327		
	20	-5.71	-0.006825		
	30	-8.39	-0.010029		
	40	-4.33	-0.005176		
	50	-4.39	-0.005247		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.36	-0.004016	±2.5	Pass
	3.80	-7.20	-0.008606		
	4.35	-4.33	-0.005176		
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	19.95	0.010612	Within authorized band for PCS 1900	Pass
	-20	17.11	0.009101		
	-10	17.69	0.009410		
	0	18.50	0.009840		
	10	21.37	0.011367		
	20	20.31	0.010803		
	30	19.44	0.010340		
	40	17.95	0.009548		
	50	17.92	0.009532		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	18.89	0.010048	Within authorized band for PCS 1900	Pass
	3.80	21.79	0.011590		
	4.35	23.50	0.012500		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.8	-30	-0.42	-0.000223	Within authorized band for PCS 1900	Pass
	-20	-2.03	-0.001080		
	-10	-4.00	-0.002128		
	0	-5.13	-0.002729		
	10	-0.71	-0.000378		
	20	-4.91	-0.002612		
	30	-3.71	-0.001973		
	40	-4.71	-0.002505		
	50	-8.46	-0.004500		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-0.87	-0.000463	Within authorized band for PCS 1900	Pass
	3.80	-4.94	-0.002628		
	4.35	0.87	0.000463		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

## 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

