

## 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	33.39	29.64	38.5	PASS
GSM850	190	5	33.46	29.71	38.5	PASS
GSM850	251	5	33.46	29.71	38.5	PASS
GSM1900	512	0	29.28	28.78	33	PASS
GSM1900	661	0	29.24	28.74	33	PASS
GSM1900	810	0	29.07	28.57	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.47	29.72	38.5	PASS
GPRS850	128	5	2	31.50	27.75	38.5	PASS
GPRS850	128	5	3	29.49	25.74	38.5	PASS
GPRS850	128	5	4	27.25	23.50	38.5	PASS
GPRS850	190	5	1	33.51	29.76	38.5	PASS
GPRS850	190	5	2	31.46	27.71	38.5	PASS
GPRS850	190	5	3	29.44	25.69	38.5	PASS
GPRS850	190	5	4	27.21	23.46	38.5	PASS
GPRS850	251	5	1	33.53	29.78	38.5	PASS
GPRS850	251	5	2	31.50	27.75	38.5	PASS
GPRS850	251	5	3	29.48	25.73	38.5	PASS
GPRS850	251	5	4	27.27	23.52	38.5	PASS
GPRS1900	512	0	1	29.31	28.81	33	PASS
GPRS1900	512	0	2	27.87	27.37	33	PASS
GPRS1900	512	0	3	26.22	25.72	33	PASS
GPRS1900	512	0	4	24.14	23.64	33	PASS
GPRS1900	661	0	1	29.44	28.94	33	PASS
GPRS1900	661	0	2	27.62	27.12	33	PASS
GPRS1900	661	0	3	25.98	25.48	33	PASS
GPRS1900	661	0	4	23.89	23.39	33	PASS
GPRS1900	810	0	1	29.27	28.77	33	PASS
GPRS1900	810	0	2	27.21	26.71	33	PASS
GPRS1900	810	0	3	25.55	25.05	33	PASS
GPRS1900	810	0	4	23.45	22.95	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.61	22.86	38.5	PASS
EGPRS850	128	8	2	25.24	21.49	38.5	PASS
EGPRS850	128	8	3	23.06	19.31	38.5	PASS
EGPRS850	128	8	4	20.56	16.81	38.5	PASS
EGPRS850	190	8	1	26.67	22.92	38.5	PASS
EGPRS850	190	8	2	25.45	21.70	38.5	PASS
EGPRS850	190	8	3	23.21	19.46	38.5	PASS
EGPRS850	190	8	4	20.75	17.00	38.5	PASS
EGPRS850	251	8	1	26.62	22.87	38.5	PASS
EGPRS850	251	8	2	25.58	21.83	38.5	PASS
EGPRS850	251	8	3	23.34	19.59	38.5	PASS
EGPRS850	251	8	4	20.86	17.11	38.5	PASS
EGPRS1900	512	2	1	26.10	25.60	33	PASS
EGPRS1900	512	2	2	24.22	23.72	33	PASS
EGPRS1900	512	2	3	22.06	21.56	33	PASS
EGPRS1900	512	2	4	19.17	18.67	33	PASS
EGPRS1900	661	2	1	26.79	26.29	33	PASS
EGPRS1900	661	2	2	24.88	24.38	33	PASS
EGPRS1900	661	2	3	22.63	22.13	33	PASS
EGPRS1900	661	2	4	20.37	19.87	33	PASS
EGPRS1900	810	2	1	26.19	25.69	33	PASS
EGPRS1900	810	2	2	24.28	23.78	33	PASS
EGPRS1900	810	2	3	21.86	21.36	33	PASS
EGPRS1900	810	2	4	19.71	19.21	33	PASS

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

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

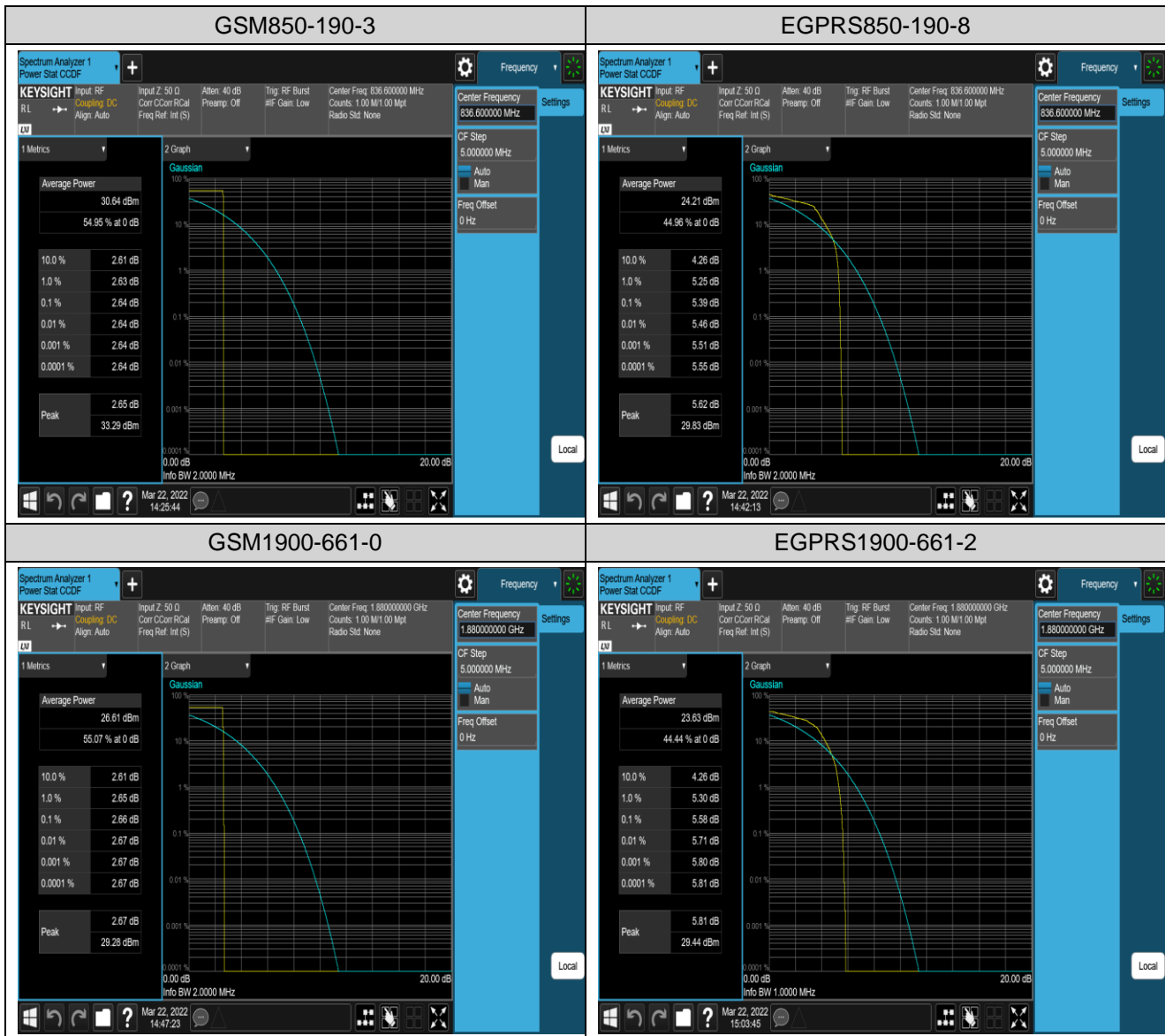
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.64	13	PASS
EGPRS850	190	8	5.39	13	PASS
GSM1900	661	0	2.66	13	PASS
EGPRS1900	661	2	5.58	13	PASS
-999	-999	-999	9.34	13	PASS

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

### Test Graphs

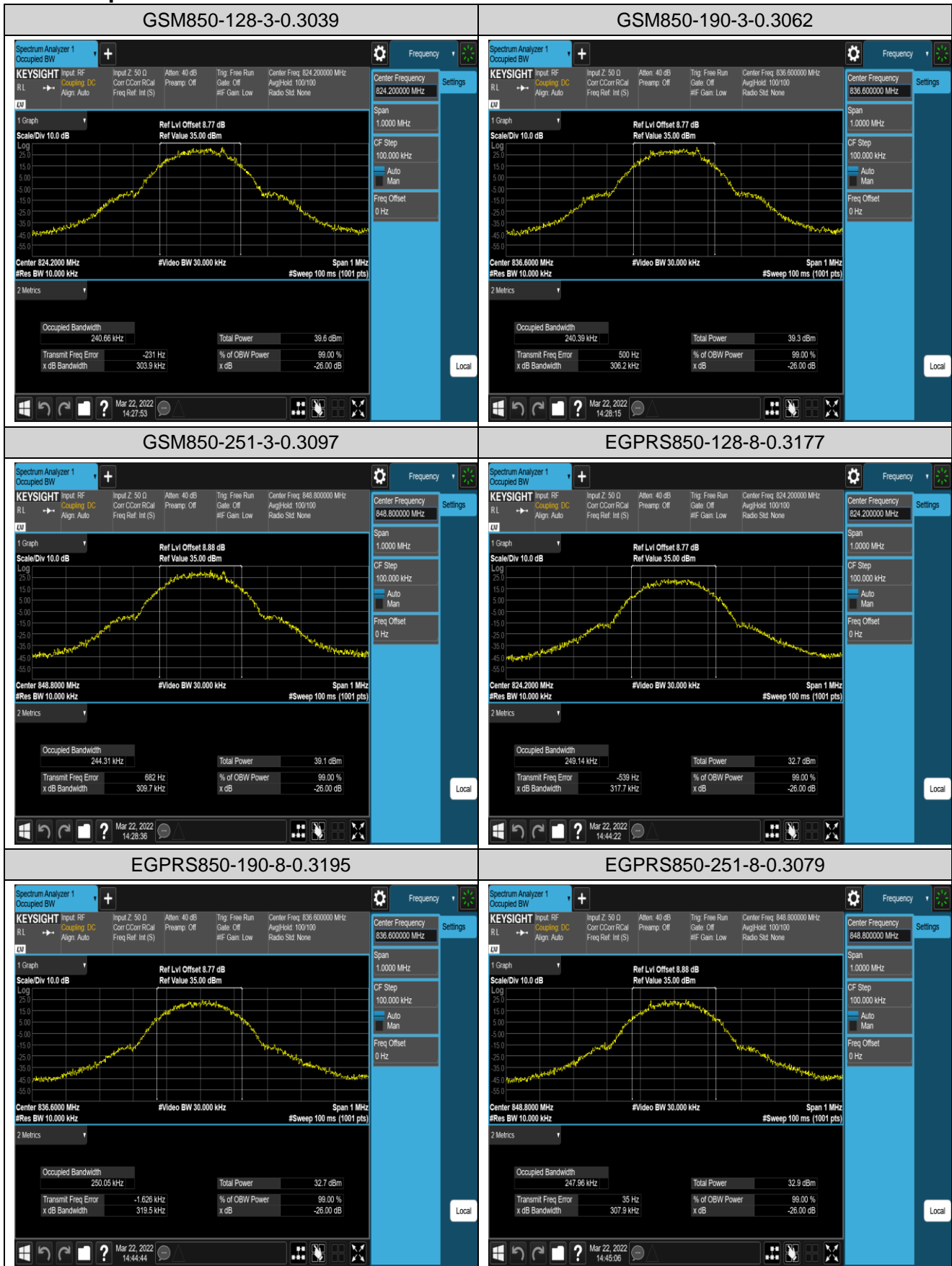


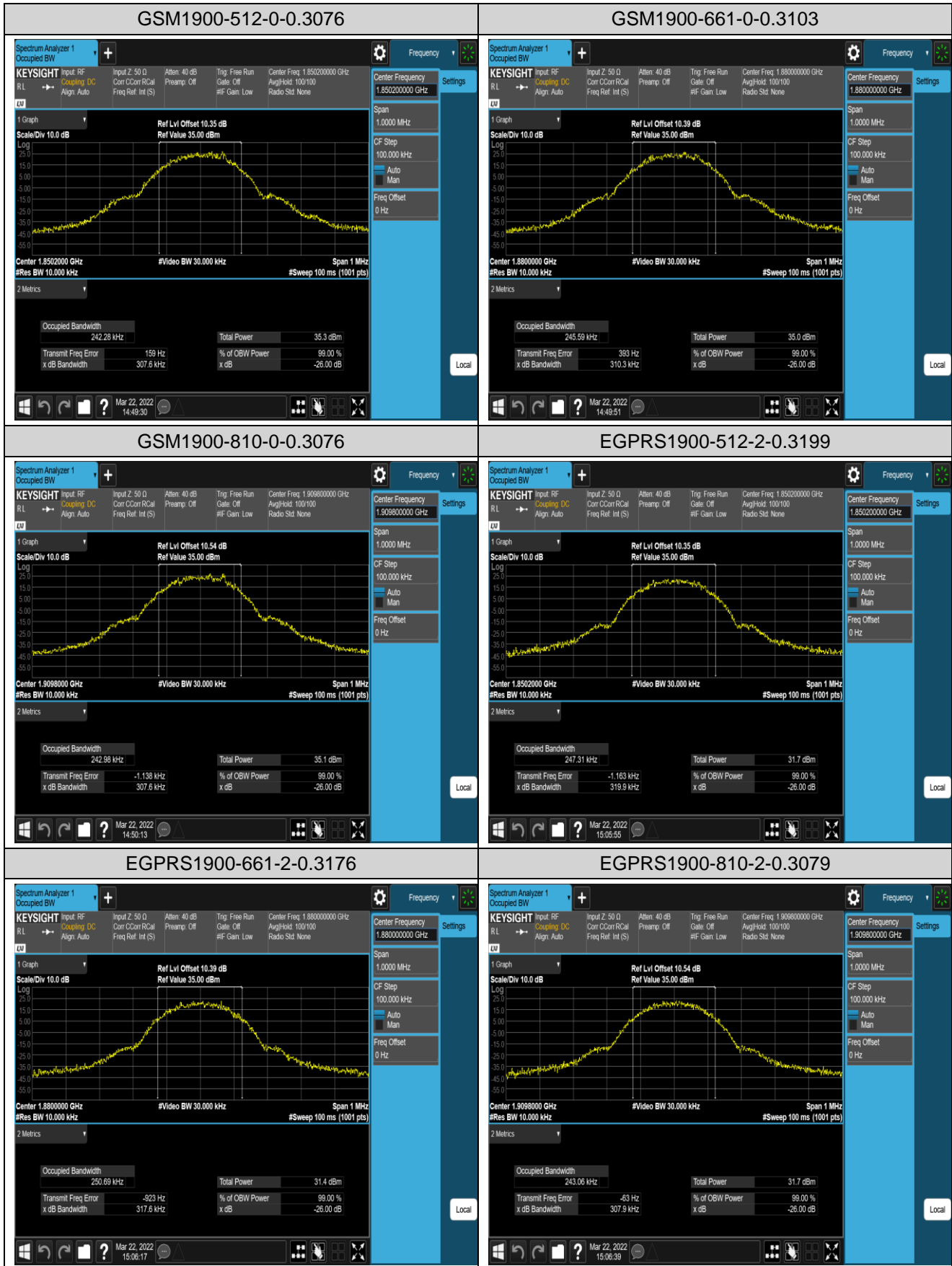
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24066	0.3039	---	PASS
GSM850	190	5	0.24039	0.3062	---	PASS
GSM850	251	5	0.24431	0.3097	---	PASS
EGPRS850	128	8	0.24914	0.3177	---	PASS
EGPRS850	190	8	0.25005	0.3195	---	PASS
EGPRS850	251	8	0.24796	0.3079	---	PASS
GSM1900	512	0	0.24228	0.3076	---	PASS
GSM1900	661	0	0.24559	0.3103	---	PASS
GSM1900	810	0	0.24298	0.3076	---	PASS
EGPRS1900	512	2	0.24731	0.3199	---	PASS
EGPRS1900	661	2	0.25069	0.3176	---	PASS
EGPRS1900	810	2	0.24306	0.3079	---	PASS

Test Graphs



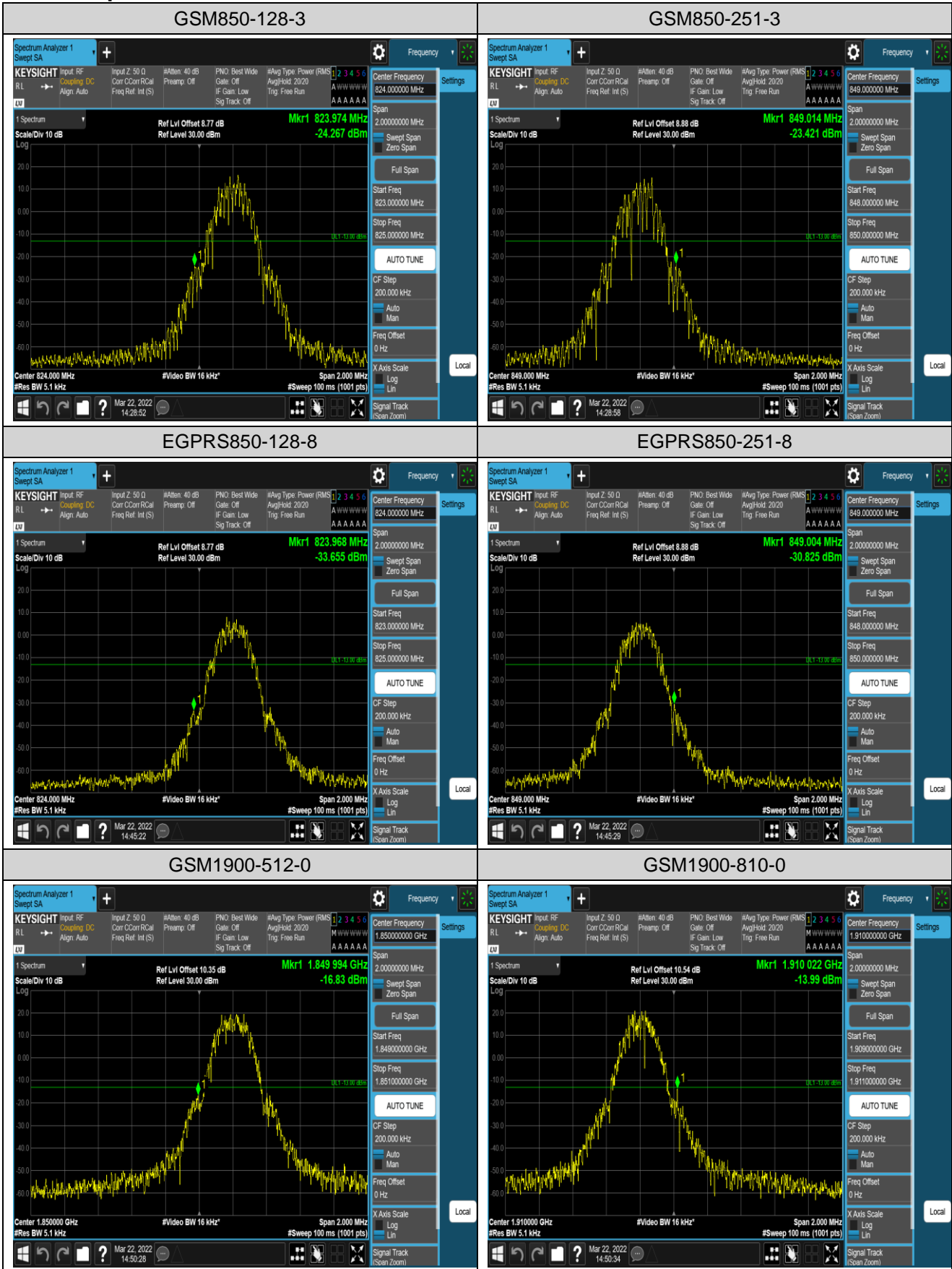


## Appendix D: Band Edge

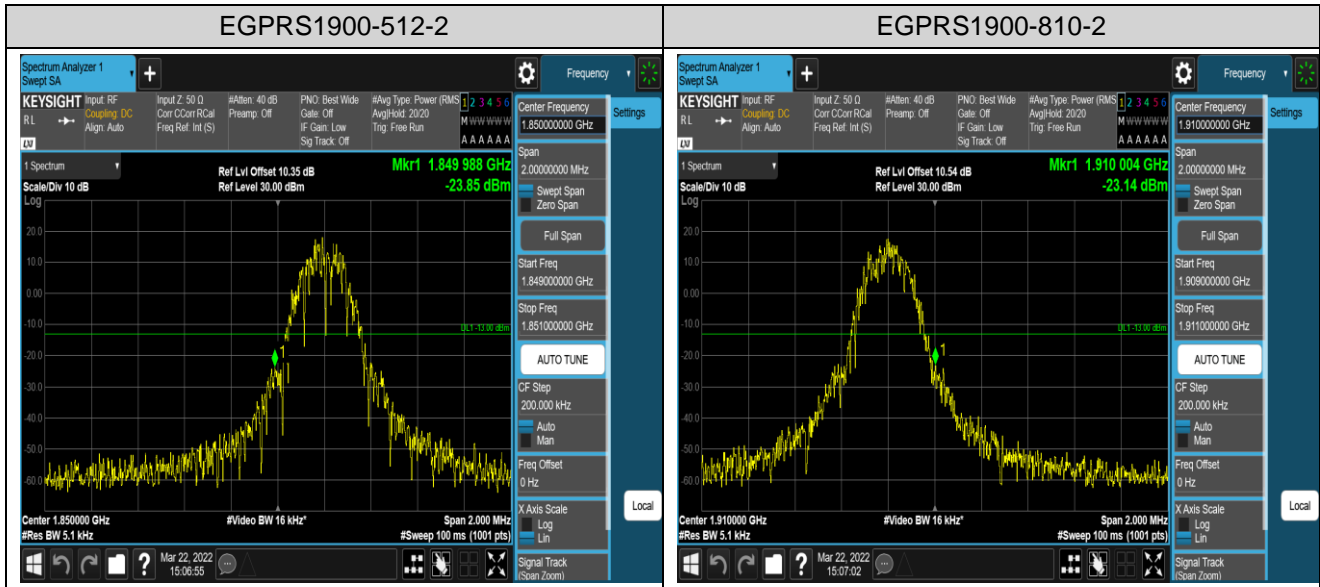
### Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.974	-24.267	-13	PASS
GSM850	251	3	849.014	-23.421	-13	PASS
EGPRS850	128	8	823.968	-33.655	-13	PASS
EGPRS850	251	8	849.004	-30.825	-13	PASS
GSM1900	512	0	1849.994	-16.83	-13	PASS
GSM1900	810	0	1910.022	-13.99	-13	PASS
EGPRS1900	512	2	1849.988	-23.85	-13	PASS
EGPRS1900	810	2	1910.004	-23.14	-13	PASS

Test Graphs







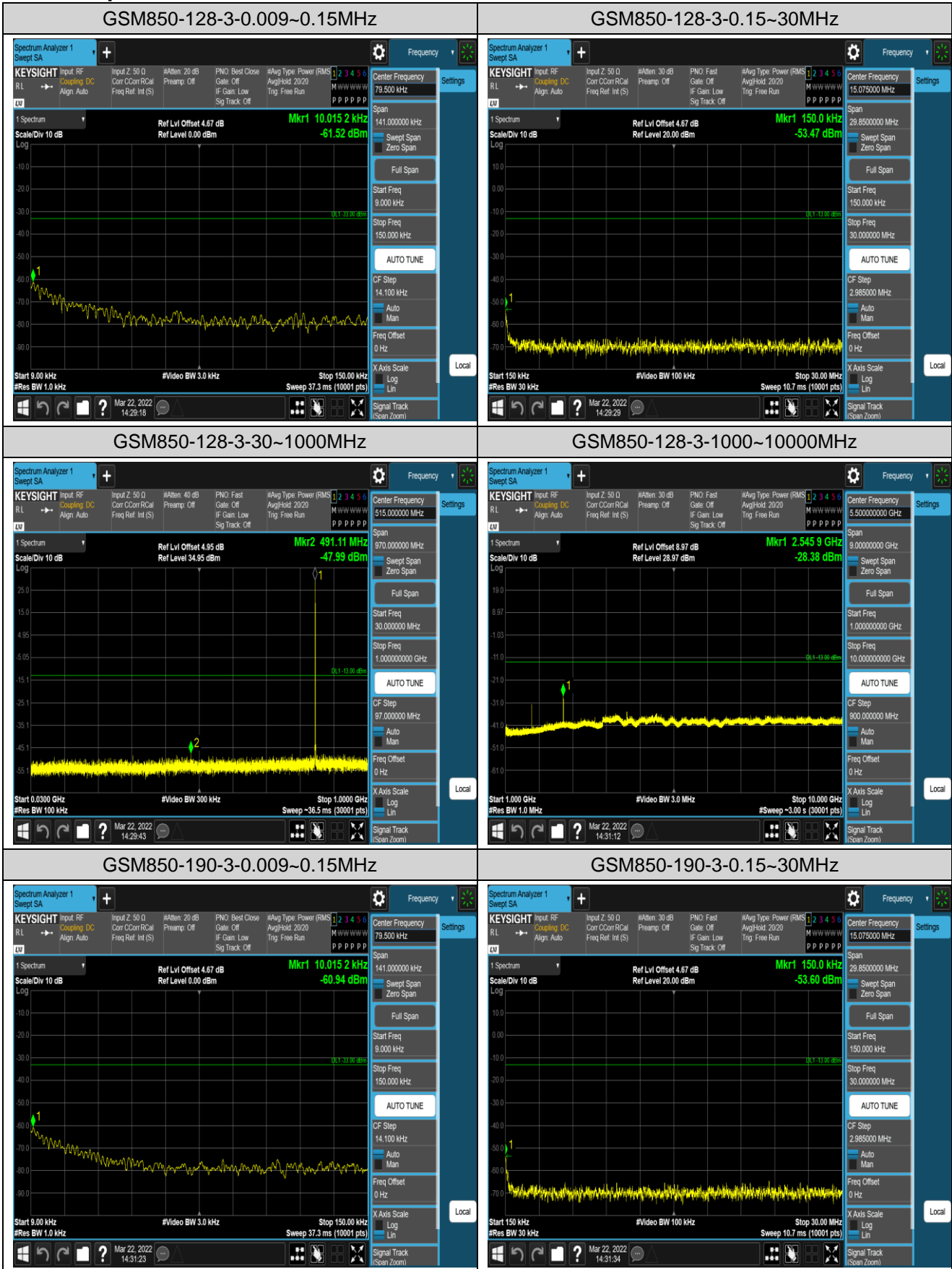
## Appendix E: Conducted Spurious Emission

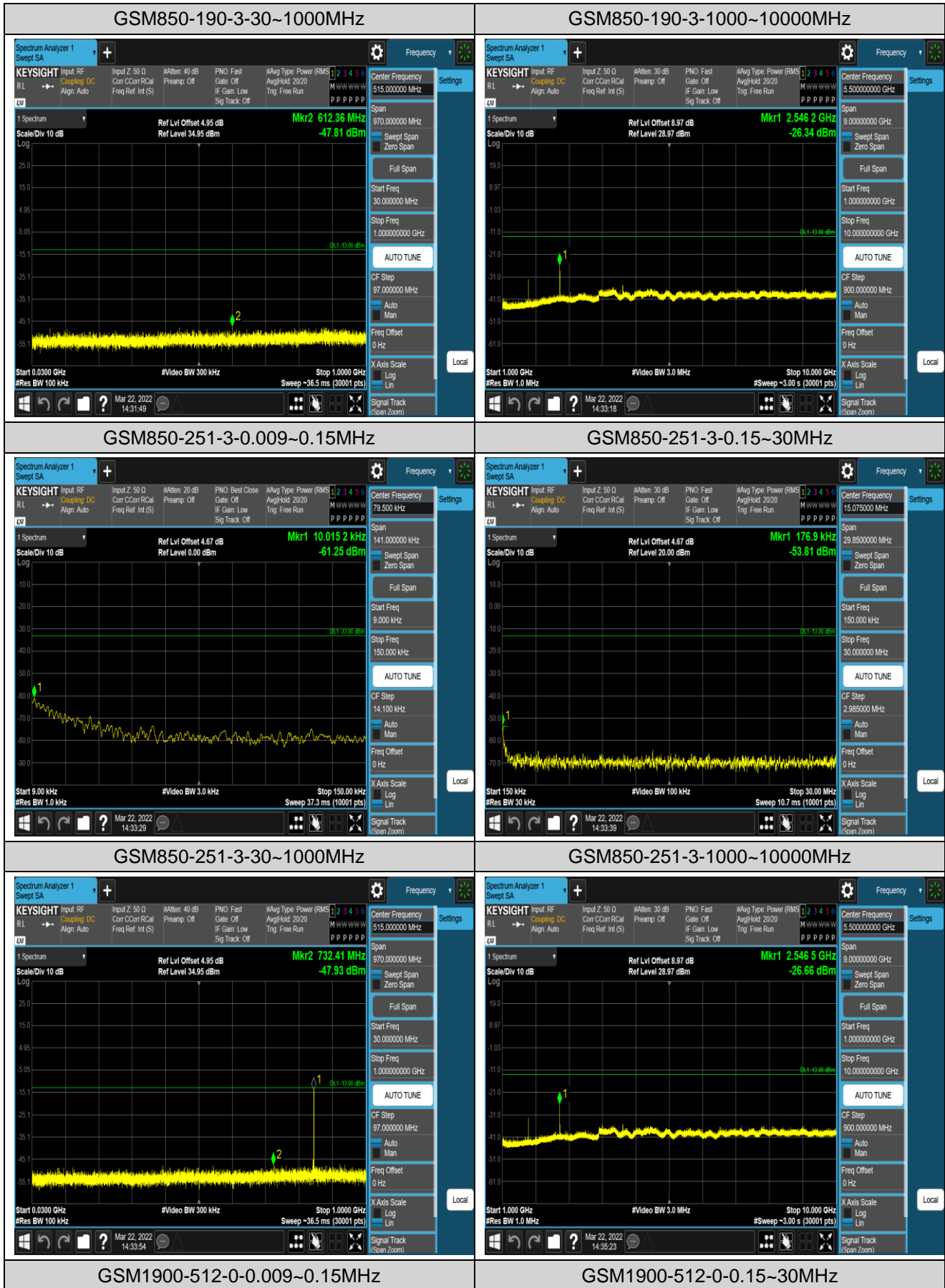
### Test Result

Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-61.52	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-53.47	-13	PASS
GSM850	128	3	30~1000MHz	491.11	-48	-13	PASS
GSM850	128	3	1000~10000MHz	2545.9	-28.38	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-60.94	-33	PASS
GSM850	190	3	0.15~30MHz	0.15	-53.6	-13	PASS
GSM850	190	3	30~1000MHz	612.36	-47.81	-13	PASS
GSM850	190	3	1000~10000MHz	2546.2	-26.34	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-61.25	-33	PASS
GSM850	251	3	0.15~30MHz	0.18	-53.81	-13	PASS
GSM850	251	3	30~1000MHz	732.41	-47.93	-13	PASS
GSM850	251	3	1000~10000MHz	2546.5	-26.66	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-70.21	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-52.52	-23	PASS
GSM1900	512	0	30~1000MHz	908.56	-46.82	-13	PASS
GSM1900	512	0	1000~18000MHz	15350.83	-35.65	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-69.98	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-54.07	-23	PASS
GSM1900	661	0	30~1000MHz	994.37	-47.93	-13	PASS
GSM1900	661	0	1000~18000MHz	5035.8	-35.2	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-71.68	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-54.2	-23	PASS
GSM1900	810	0	30~1000MHz	906.65	-46.99	-13	PASS
GSM1900	810	0	1000~18000MHz	13971.57	-35.82	-13	PASS

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

Test Graphs

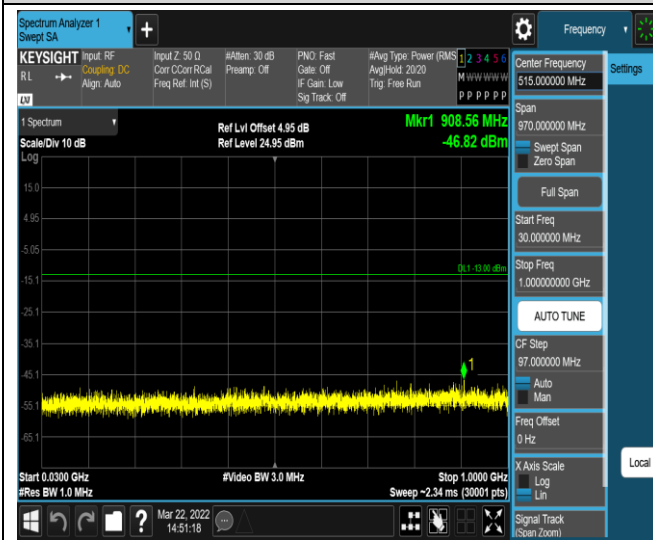






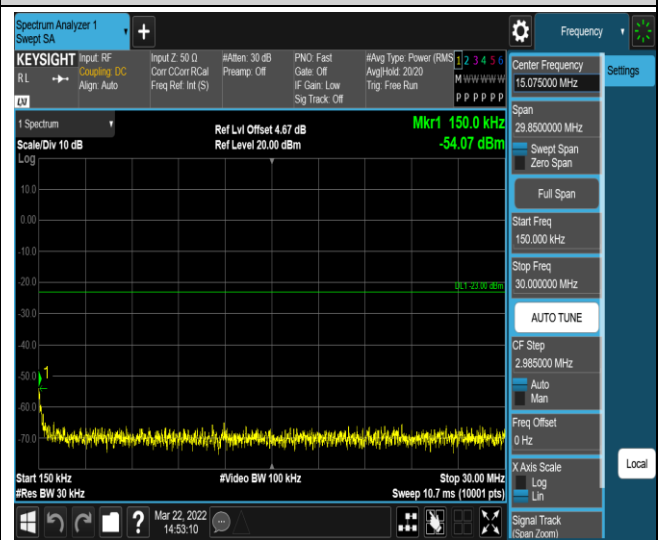
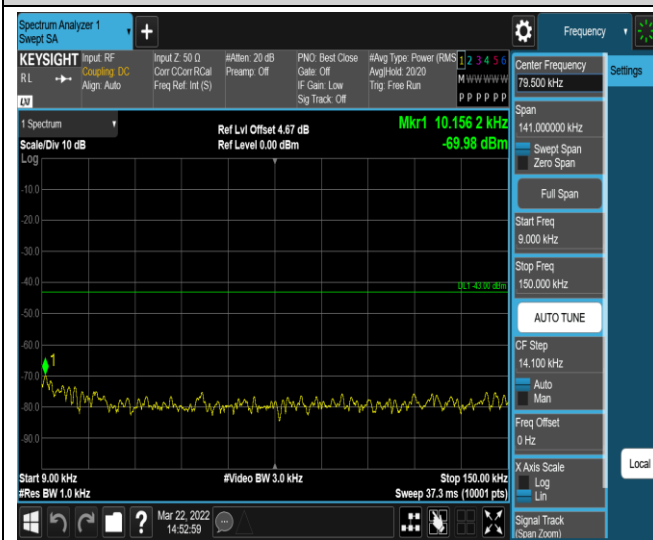
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



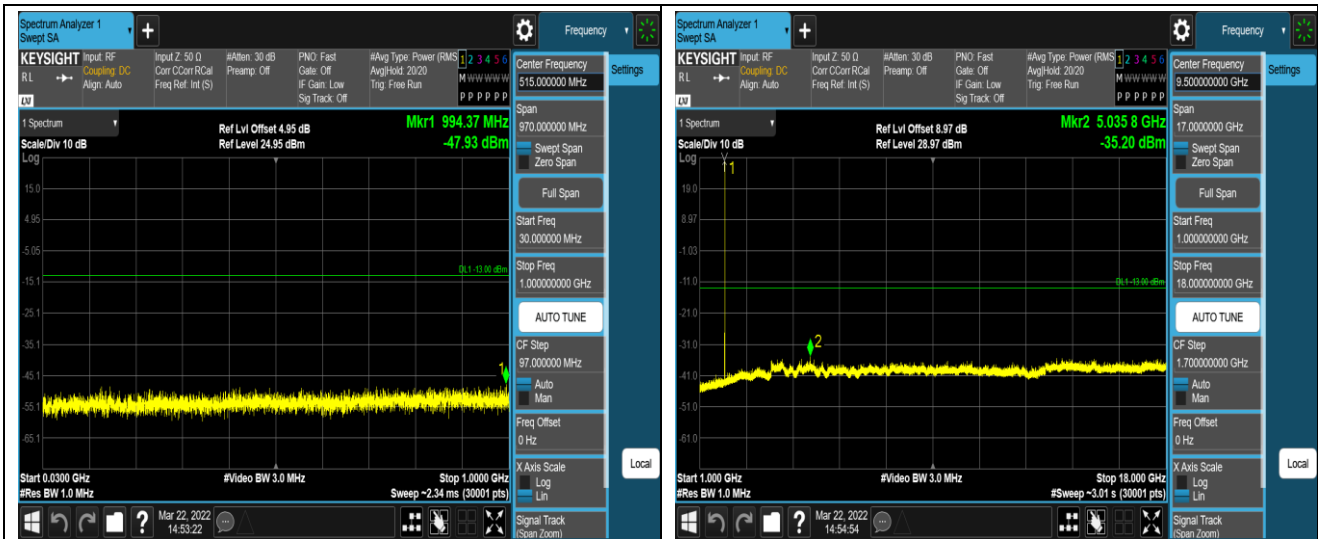
GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



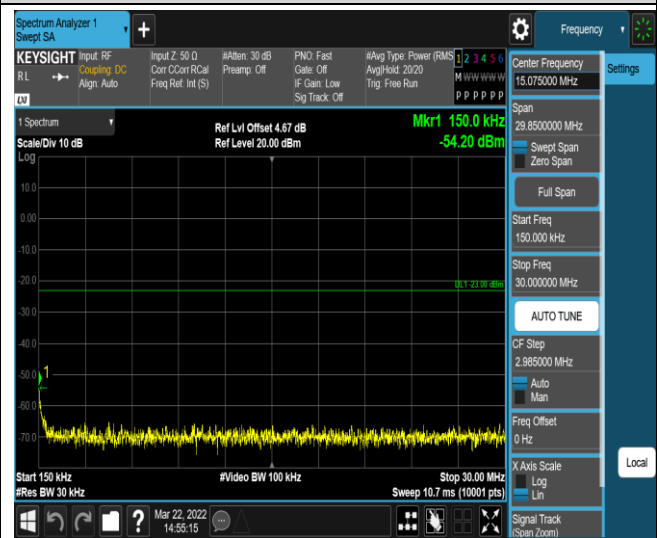
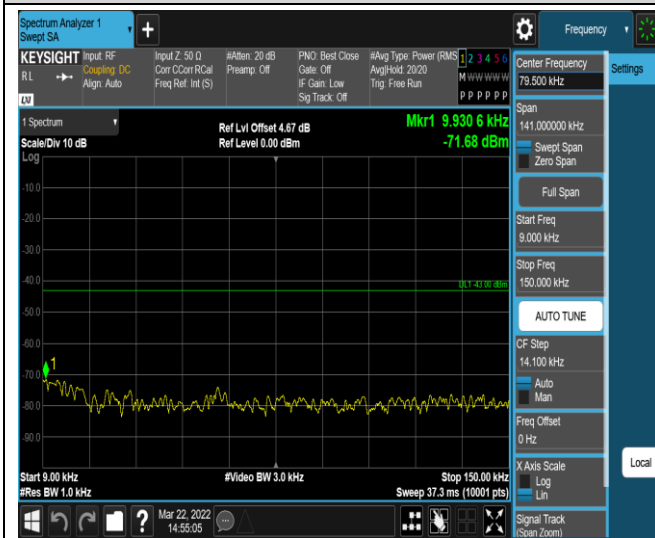
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz



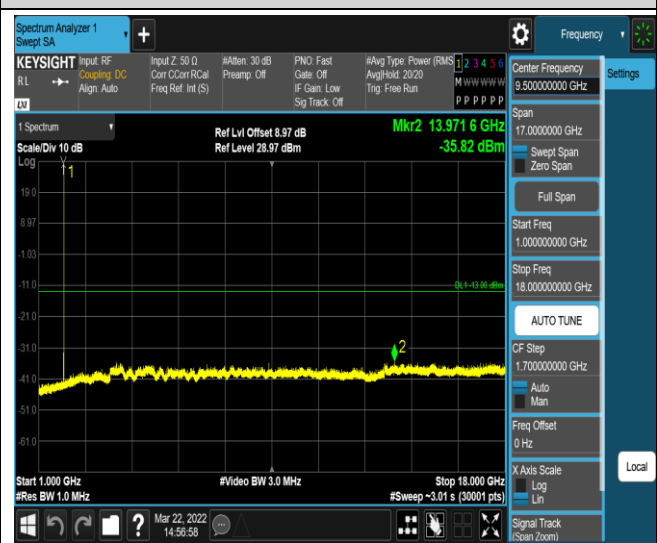
GSM1900-810-0-0.009~0.15MHz

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		
3.85	-30	-2.29	-0.002737	±2.5	Pass
	-20	-3.94	-0.004710		
	-10	-3.97	-0.004745		
	0	-10.04	-0.012001		
	10	-9.07	-0.010842		
	20	-6.36	-0.007602		
	30	-5.10	-0.006096		
	40	-4.71	-0.005630		
	50	0.29	0.000347		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-5.94	-0.007100	±2.5	Pass
	3.85	-2.45	-0.002929		
	4.40	-0.52	-0.000622		
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		
3.85	-30	3.23	0.003861	±2.5	Pass
	-20	6.26	0.007483		
	-10	7.01	0.008379		
	0	7.14	0.008535		
	10	5.04	0.006024		
	20	2.39	0.002857		
	30	4.49	0.005367		
	40	3.75	0.004482		
	50	2.32	0.002773		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	3.07	0.003670	±2.5	Pass
	3.85	5.36	0.006407		
	4.40	6.88	0.008224		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					



Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.85	-30	-3.10	-0.001649	Within authorized band for PCS 1900	Pass
	-20	3.42	0.001819		
	-10	4.81	0.002559		
	0	2.00	0.001064		
	10	6.91	0.003676		
	20	3.16	0.001681		
	30	4.36	0.002319		
	40	5.75	0.003059		
	50	3.75	0.001995		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.65	0.003005	Within authorized band for PCS 1900	Pass
	3.85	-1.74	-0.000926		
	4.40	-5.39	-0.002867		
<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		
3.85	-30	8.30	0.004415	Within authorized band for PCS 1900	Pass
	-20	-5.39	-0.002867		
	-10	7.72	0.004106		
	0	-6.59	-0.003505		
	10	-1.55	-0.000824		
	20	9.14	0.004862		
	30	7.36	0.003915		
	40	8.39	0.004463		
	50	2.87	0.001527		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.97	-0.002112	Within authorized band for PCS 1900	Pass
	3.85	-2.03	-0.001080		
	4.40	-0.97	-0.000516		
<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

