

## 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	27.86	38.5	PASS
GSM850	190	5	33.40	27.87	38.5	PASS
GSM850	251	5	33.35	27.82	38.5	PASS
GSM1900	512	0	30.10	29.34	33	PASS
GSM1900	661	0	30.18	29.42	33	PASS
GSM1900	810	0	29.93	29.17	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.45	27.92	38.5	PASS
GPRS850	128	5	2	32.55	27.02	38.5	PASS
GPRS850	128	5	3	30.62	25.09	38.5	PASS
GPRS850	128	5	4	29.63	24.10	38.5	PASS
GPRS850	190	5	1	33.45	27.92	38.5	PASS
GPRS850	190	5	2	32.58	27.05	38.5	PASS
GPRS850	190	5	3	30.66	25.13	38.5	PASS
GPRS850	190	5	4	29.67	24.14	38.5	PASS
GPRS850	251	5	1	33.37	27.84	38.5	PASS
GPRS850	251	5	2	32.50	26.97	38.5	PASS
GPRS850	251	5	3	30.61	25.08	38.5	PASS
GPRS850	251	5	4	29.55	24.02	38.5	PASS
GPRS1900	512	0	1	30.09	29.33	33	PASS
GPRS1900	512	0	2	29.26	28.50	33	PASS
GPRS1900	512	0	3	27.36	26.60	33	PASS
GPRS1900	512	0	4	26.32	25.56	33	PASS
GPRS1900	661	0	1	30.13	29.37	33	PASS
GPRS1900	661	0	2	29.31	28.55	33	PASS
GPRS1900	661	0	3	27.38	26.62	33	PASS
GPRS1900	661	0	4	26.36	25.60	33	PASS
GPRS1900	810	0	1	29.89	29.13	33	PASS
GPRS1900	810	0	2	29.04	28.28	33	PASS
GPRS1900	810	0	3	27.14	26.38	33	PASS
GPRS1900	810	0	4	26.11	25.35	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.30	21.77	38.5	PASS
EGPRS850	128	8	2	26.16	20.63	38.5	PASS
EGPRS850	128	8	3	23.93	18.40	38.5	PASS
EGPRS850	128	8	4	22.78	17.25	38.5	PASS
EGPRS850	190	8	1	27.54	22.01	38.5	PASS
EGPRS850	190	8	2	26.38	20.85	38.5	PASS
EGPRS850	190	8	3	24.16	18.63	38.5	PASS
EGPRS850	190	8	4	22.90	17.37	38.5	PASS
EGPRS850	251	8	1	27.42	21.89	38.5	PASS
EGPRS850	251	8	2	26.26	20.73	38.5	PASS
EGPRS850	251	8	3	23.99	18.46	38.5	PASS
EGPRS850	251	8	4	22.78	17.25	38.5	PASS
EGPRS1900	512	2	1	26.82	26.06	33	PASS
EGPRS1900	512	2	2	25.63	24.87	33	PASS
EGPRS1900	512	2	3	23.51	22.75	33	PASS
EGPRS1900	512	2	4	22.35	21.59	33	PASS
EGPRS1900	661	2	1	26.76	26.00	33	PASS
EGPRS1900	661	2	2	25.59	24.83	33	PASS
EGPRS1900	661	2	3	23.49	22.73	33	PASS
EGPRS1900	661	2	4	22.29	21.53	33	PASS
EGPRS1900	810	2	1	26.58	25.82	33	PASS
EGPRS1900	810	2	2	25.43	24.67	33	PASS
EGPRS1900	810	2	3	23.29	22.53	33	PASS
EGPRS1900	810	2	4	22.10	21.34	33	PASS

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

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

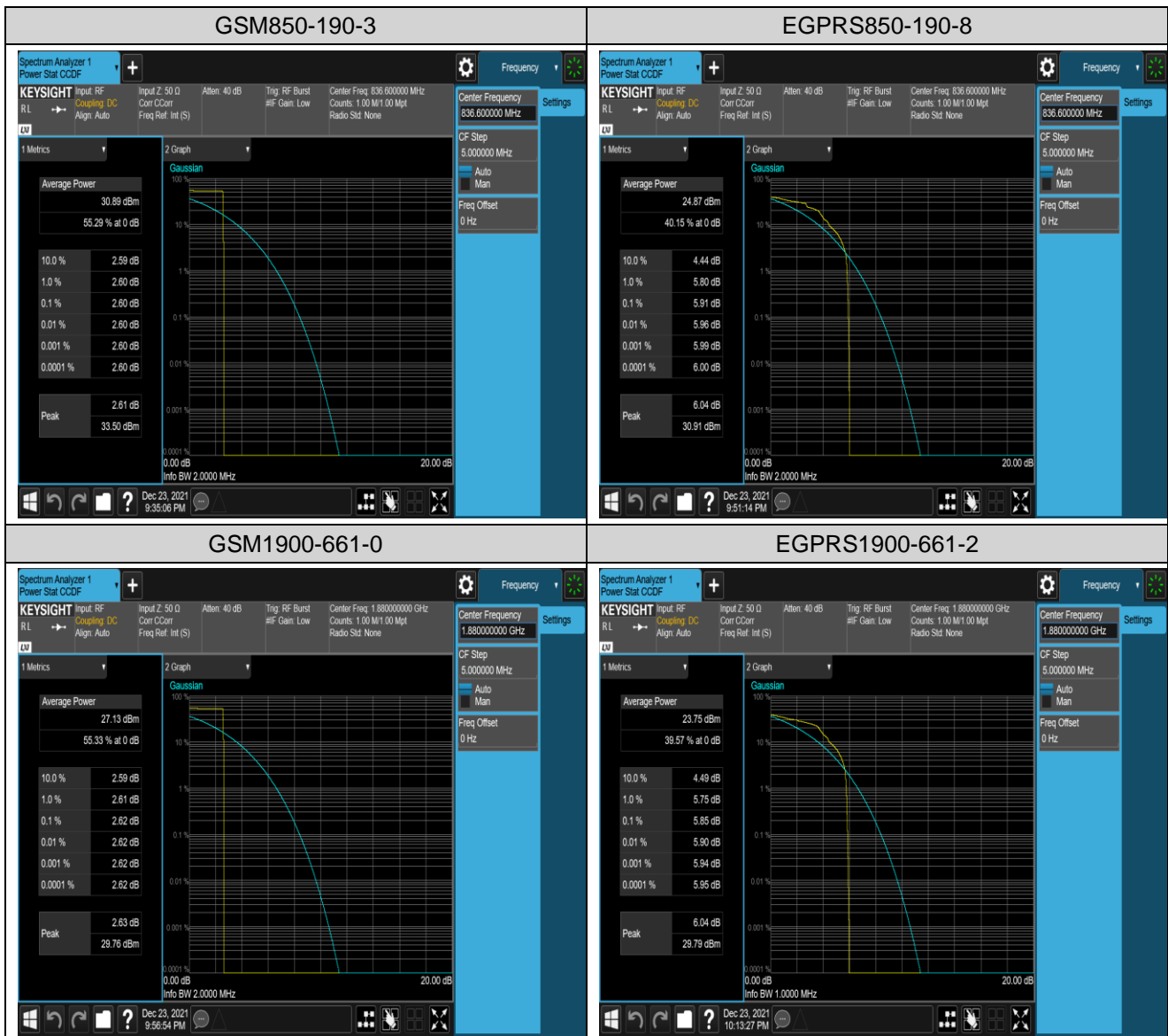
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.6	13	PASS
EGPRS850	190	8	5.91	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.85	13	PASS

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

### Test Graphs

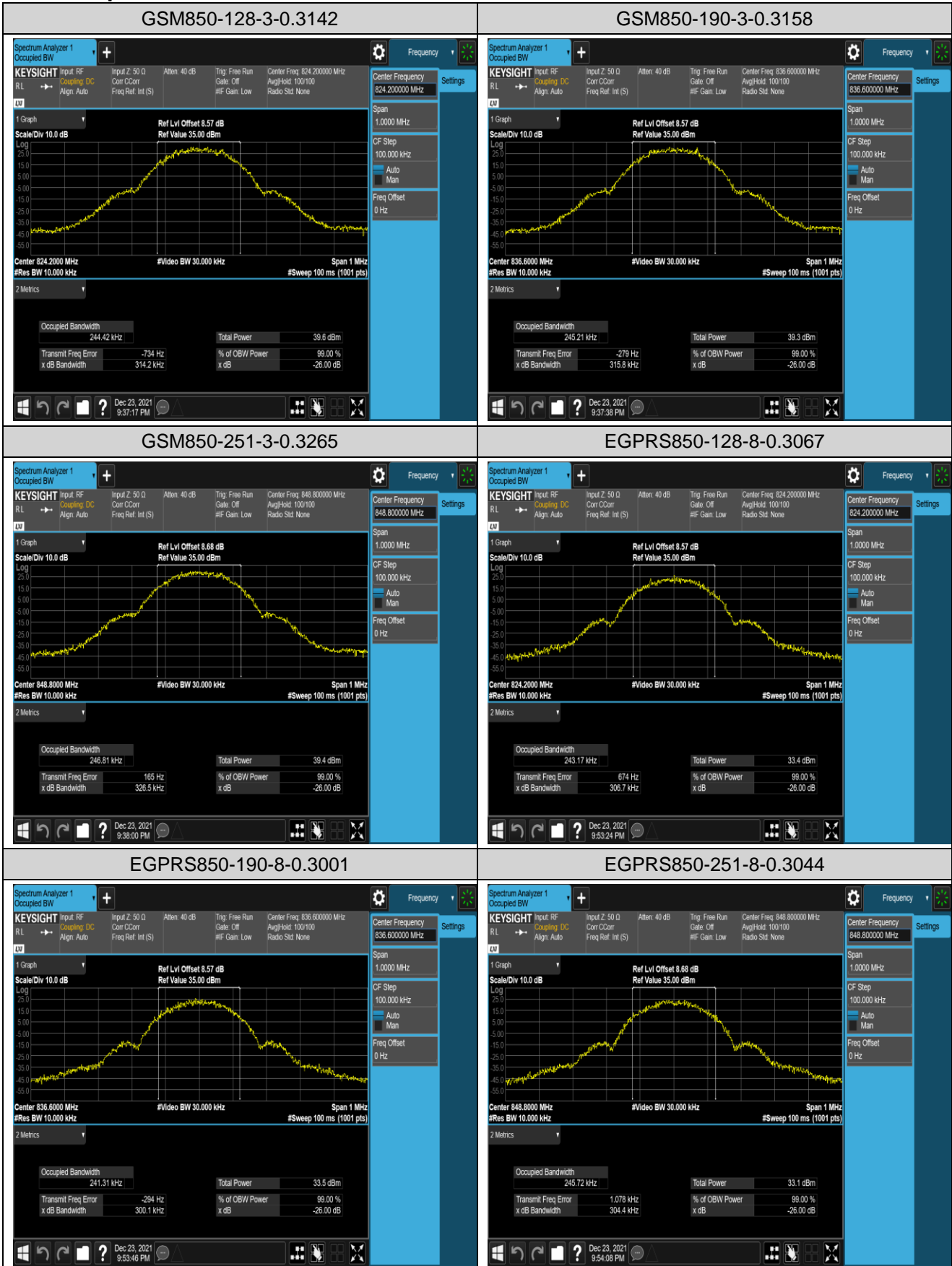


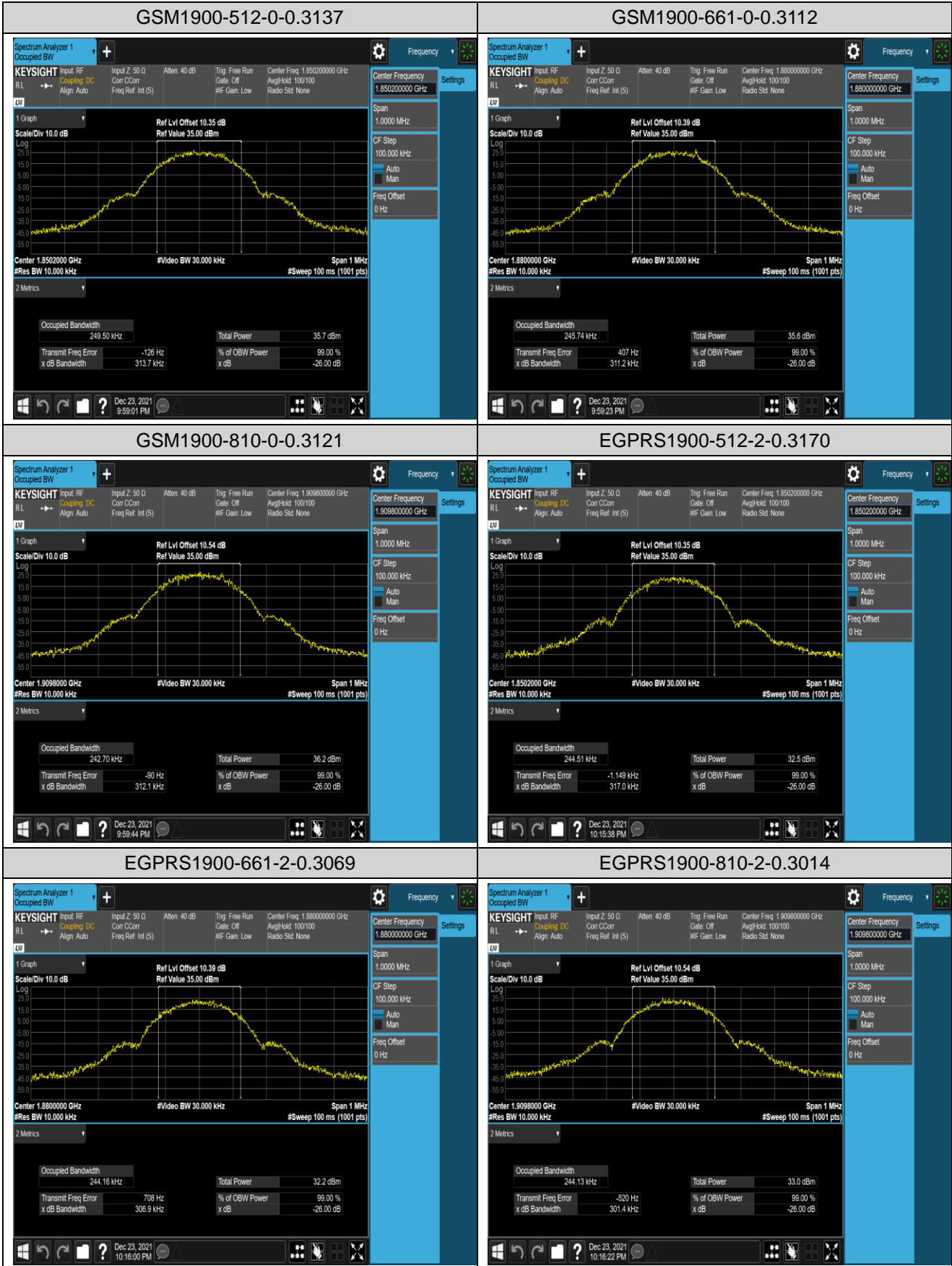
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24442	0.3142	---	PASS
GSM850	190	3	0.24521	0.3158	---	PASS
GSM850	251	3	0.24681	0.3265	---	PASS
EGPRS850	128	8	0.24317	0.3067	---	PASS
EGPRS850	190	8	0.24131	0.3001	---	PASS
EGPRS850	251	8	0.24572	0.3044	---	PASS
GSM1900	512	0	0.24950	0.3137	---	PASS
GSM1900	661	0	0.24574	0.3112	---	PASS
GSM1900	810	0	0.24270	0.3121	---	PASS
EGPRS1900	512	2	0.24451	0.3170	---	PASS
EGPRS1900	661	2	0.24416	0.3069	---	PASS
EGPRS1900	810	2	0.24413	0.3014	---	PASS

Test Graphs



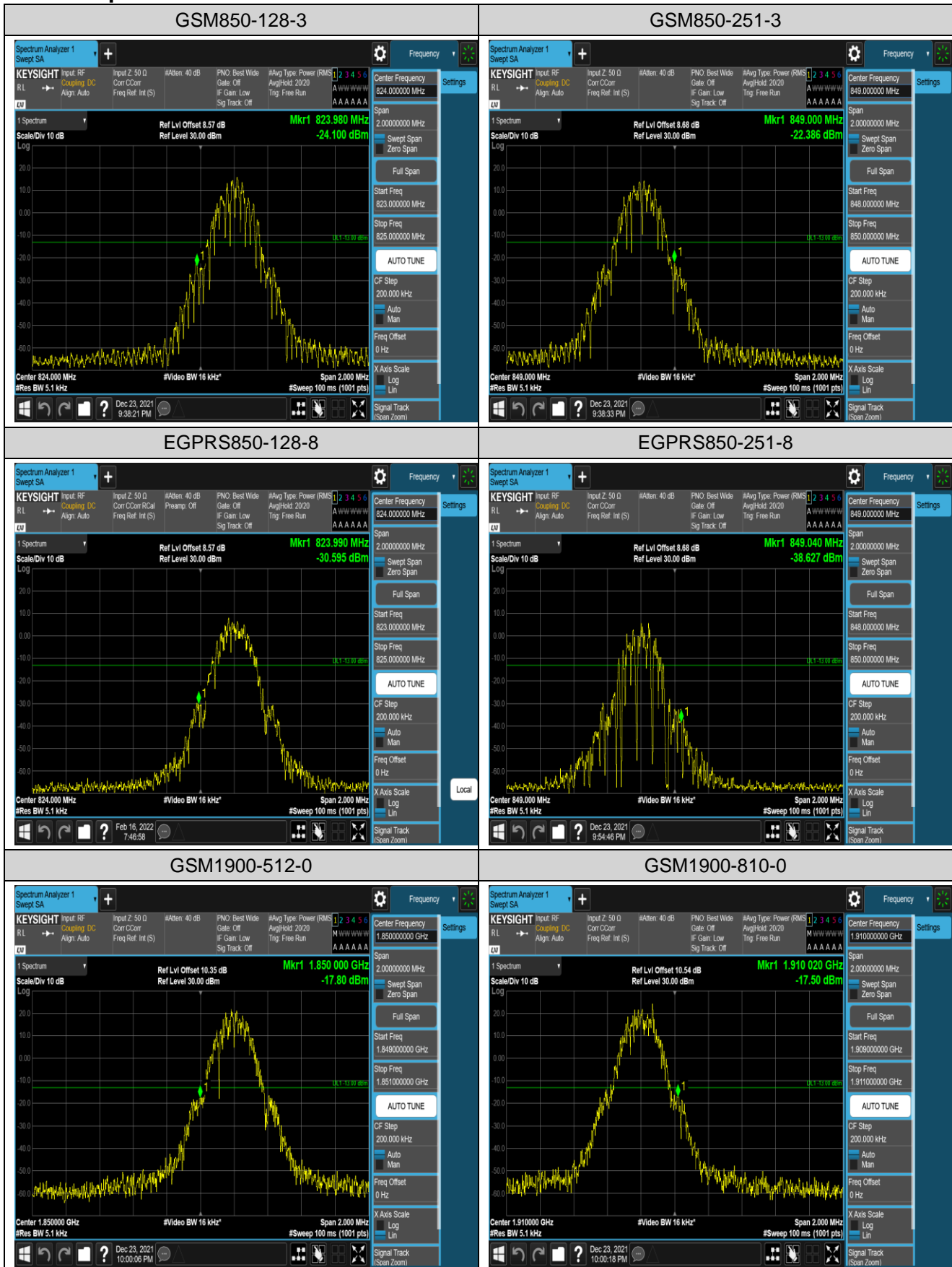


## Appendix D: Band Edge

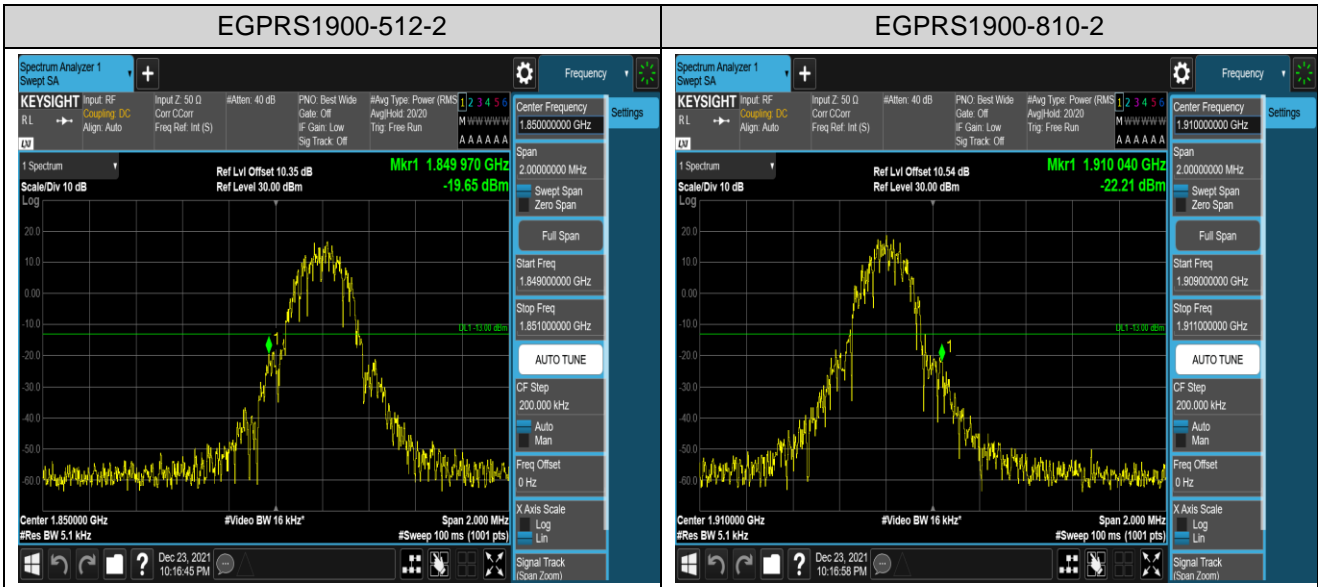
### Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.98	-24.10	-13	PASS
GSM850	251	3	849.00	-22.39	-13	PASS
EGPRS850	128	8	823.79	-30.595	-13	PASS
EGPRS850	251	8	849.04	-38.63	-13	PASS
GSM1900	512	0	1850.00	-17.80	-13	PASS
GSM1900	810	0	1910.02	-17.50	-13	PASS
EGPRS1900	512	2	1849.97	-19.65	-13	PASS
EGPRS1900	810	2	1910.04	-22.21	-13	PASS

Test Graphs







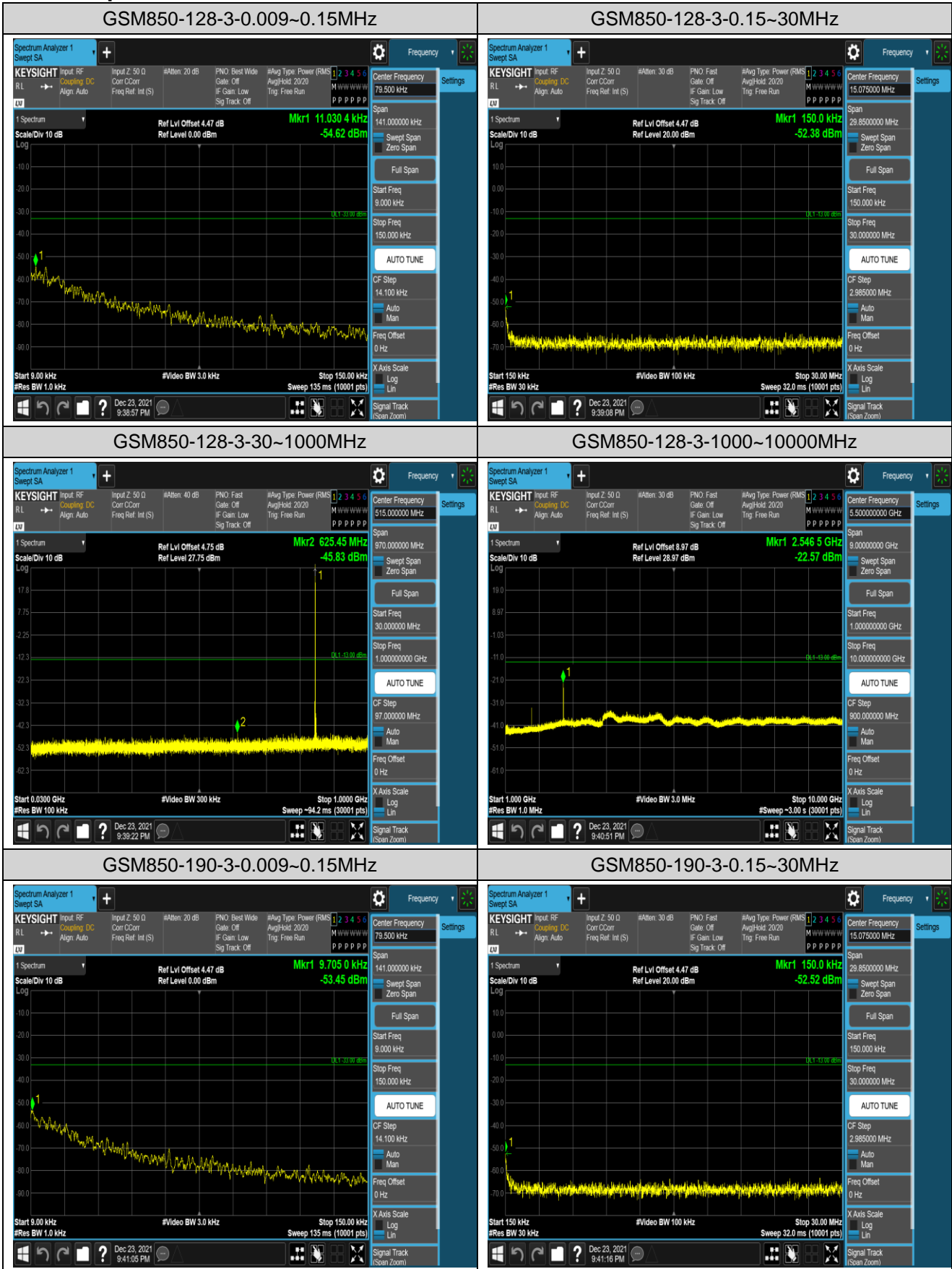
## Appendix E: Conducted Spurious Emission

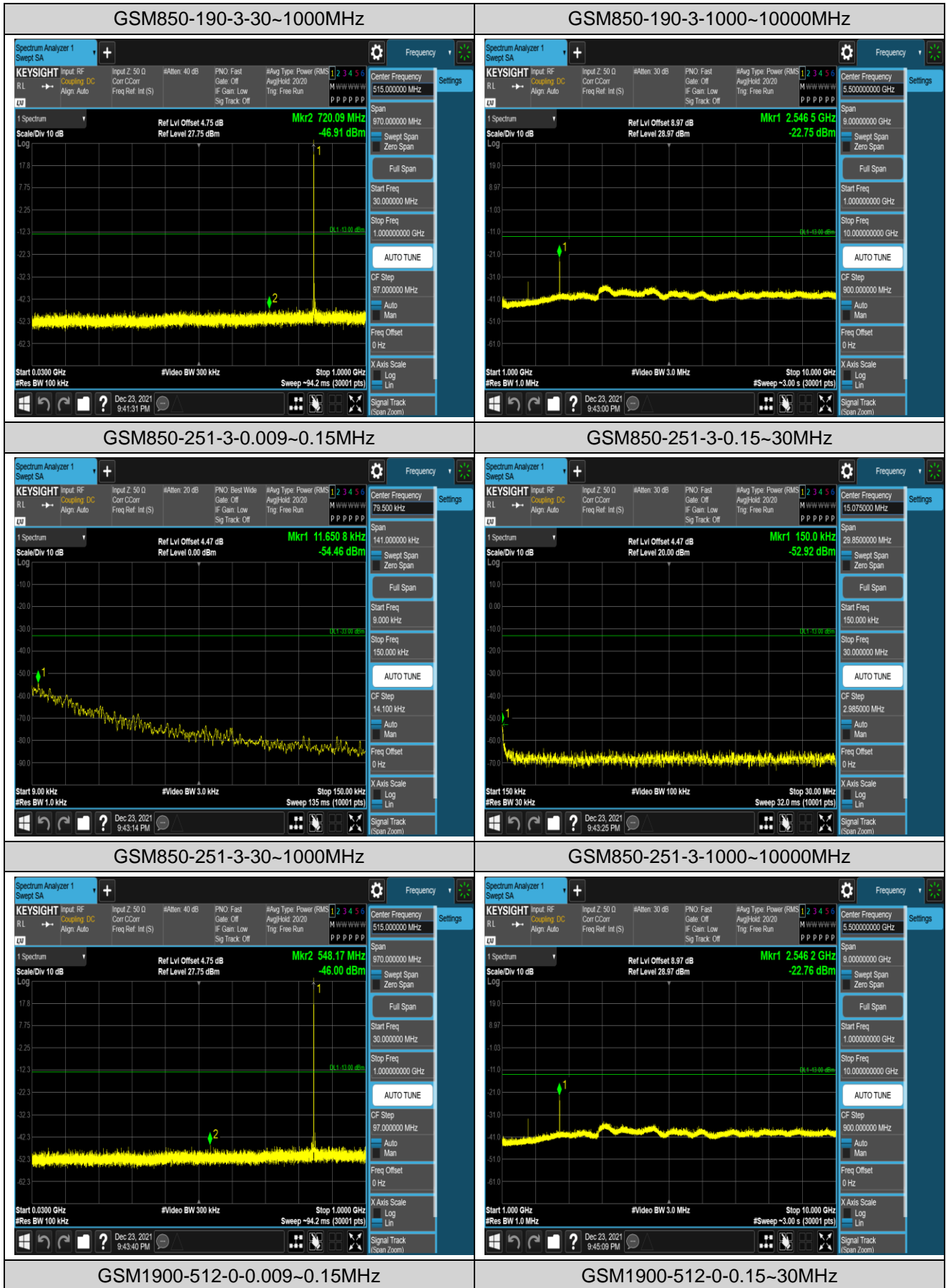
### Test Result

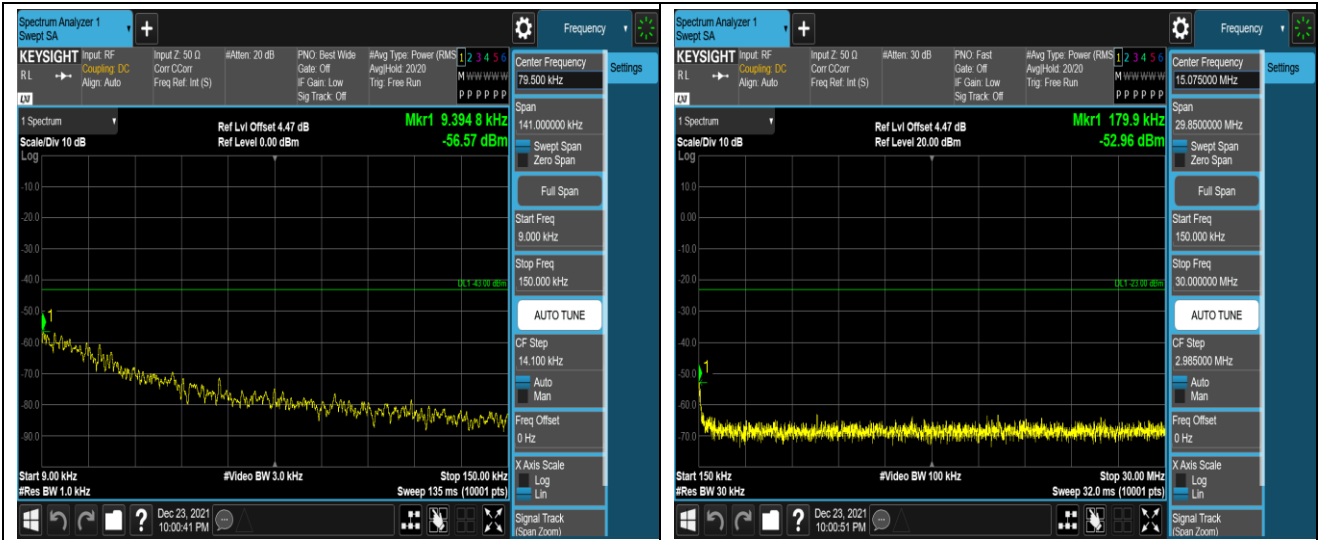
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-54.62	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-52.38	-13	PASS
GSM850	128	3	30~1000MHz	625.45	-45.83	-13	PASS
GSM850	128	3	1000~10000MHz	2546.5	-22.57	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-53.45	-33	PASS
GSM850	190	3	0.15~30MHz	0.15	-52.52	-13	PASS
GSM850	190	3	30~1000MHz	720.09	-46.92	-13	PASS
GSM850	190	3	1000~10000MHz	2546.5	-22.75	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-54.46	-33	PASS
GSM850	251	3	0.15~30MHz	0.15	-52.92	-13	PASS
GSM850	251	3	30~1000MHz	548.17	-46	-13	PASS
GSM850	251	3	1000~10000MHz	2546.2	-22.76	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.57	-43	PASS
GSM1900	512	0	0.15~30MHz	0.18	-52.96	-23	PASS
GSM1900	512	0	30~1000MHz	780.42	-46.47	-13	PASS
GSM1900	512	0	1000~18000MHz	3754	-34.5	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.02	-55.62	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-53.33	-23	PASS
GSM1900	661	0	30~1000MHz	898.6	-46.55	-13	PASS
GSM1900	661	0	1000~18000MHz	3750.6	-34.27	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.12	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-53.78	-23	PASS
GSM1900	810	0	30~1000MHz	983.28	-46.76	-13	PASS
GSM1900	810	0	1000~18000MHz	3822	-34.68	-13	PASS

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

Test Graphs

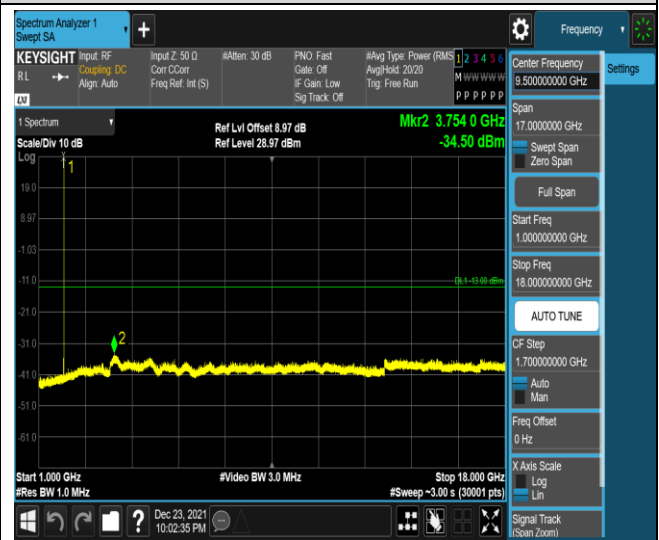
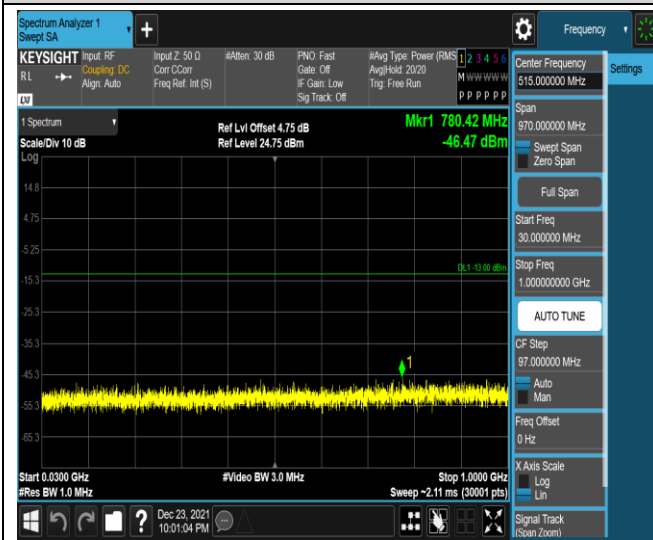






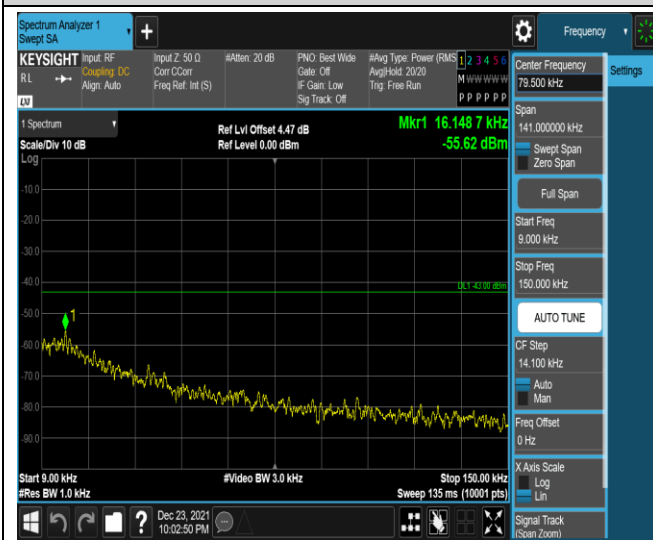
GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



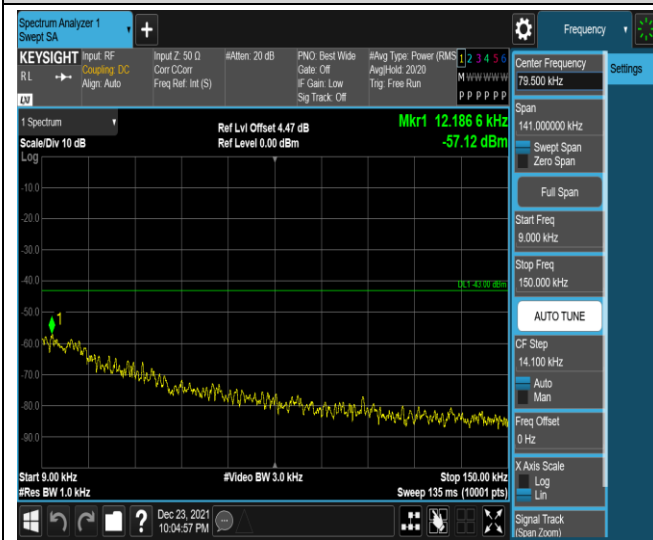
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz

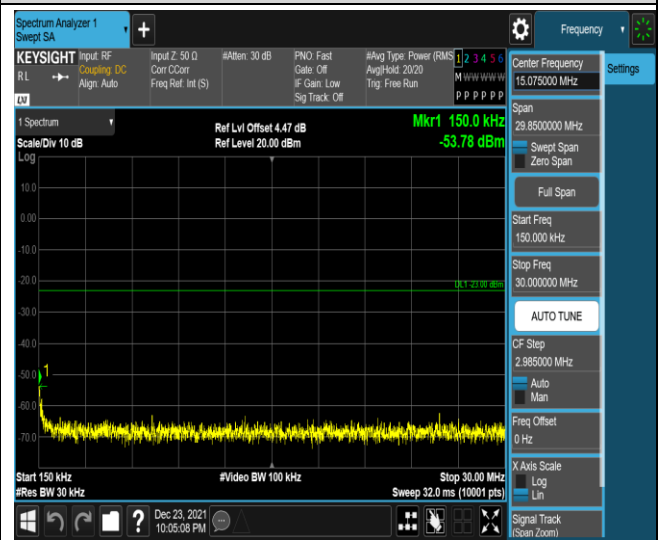


GSM1900-810-0-0.009~0.15MHz

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		
3.87	-30	3.07	0.003670	±2.5	Pass
	-20	2.62	0.003132		
	-10	0.55	0.000657		
	0	-0.32	-0.000383		
	10	-0.26	-0.000311		
	20	2.45	0.002929		
	30	0.36	0.000430		
	40	1.94	0.002319		
	50	3.58	0.004279		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-2.13	-0.002546	±2.5	Pass
	3.87	1.00	0.001195		
	4.45	2.71	0.003239		
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		
3.87	-30	5.36	0.006407	±2.5	Pass
	-20	3.71	0.004435		
	-10	8.23	0.009837		
	0	5.91	0.007064		
	10	5.62	0.006718		
	20	3.87	0.004626		
	30	3.78	0.004518		
	40	1.65	0.001972		
	50	1.94	0.002319		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	5.39	0.006443	±2.5	Pass
	3.87	7.94	0.009491		
	4.45	6.88	0.008224		
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		
3.87	-30	-9.23	-0.004910	Within authorized band for PCS 1900	Pass
	-20	-13.66	-0.007266		
	-10	-10.14	-0.005394		
	0	-3.10	-0.001649		
	10	-8.68	-0.004617		
	20	-12.49	-0.006644		
	30	-4.55	-0.002420		
	40	-13.20	-0.007021		
	50	-13.85	-0.007367		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-7.85	-0.004176	Within authorized band for PCS 1900	Pass
	3.87	-11.33	-0.006027		
	4.45	-7.59	-0.004037		
<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		
3.87	-30	-3.84	-0.002043	Within authorized band for PCS 1900	Pass
	-20	2.00	0.001064		
	-10	-0.61	-0.000324		
	0	0.10	0.000053		
	10	0.81	0.000431		
	20	-3.33	-0.001771		
	30	2.81	0.001495		
	40	2.97	0.001580		
	50	-6.68	-0.003553		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-2.91	-0.001548	Within authorized band for PCS 1900	Pass
	3.87	-5.46	-0.002904		
	4.45	-11.07	-0.005888		
<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

