

## 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	33.13	28.88	38.45	PASS
GSM850	190	5	33.21	28.96	38.45	PASS
GSM850	251	5	33.10	28.85	38.45	PASS
GSM1900	512	0	29.56	29.46	33.00	PASS
GSM1900	661	0	29.57	29.47	33.00	PASS
GSM1900	810	0	29.47	29.37	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.15	28.90	38.45	PASS
GPRS850	128	5	2	31.23	26.98	38.45	PASS
GPRS850	128	5	3	29.38	25.13	38.45	PASS
GPRS850	128	5	4	27.42	23.17	38.45	PASS
GPRS850	190	5	1	33.21	28.96	38.45	PASS
GPRS850	190	5	2	31.28	27.03	38.45	PASS
GPRS850	190	5	3	29.41	25.16	38.45	PASS
GPRS850	190	5	4	27.45	23.20	38.45	PASS
GPRS850	251	5	1	33.10	28.85	38.45	PASS
GPRS850	251	5	2	31.15	26.90	38.45	PASS
GPRS850	251	5	3	29.28	25.03	38.45	PASS
GPRS850	251	5	4	27.31	23.06	38.45	PASS
GPRS1900	512	0	1	29.56	29.46	33.00	PASS
GPRS1900	512	0	2	27.44	27.34	33.00	PASS
GPRS1900	512	0	3	25.91	25.81	33.00	PASS
GPRS1900	512	0	4	23.93	23.83	33.00	PASS
GPRS1900	661	0	1	29.57	29.47	33.00	PASS
GPRS1900	661	0	2	27.42	27.32	33.00	PASS
GPRS1900	661	0	3	25.90	25.80	33.00	PASS
GPRS1900	661	0	4	23.87	23.77	33.00	PASS
GPRS1900	810	0	1	29.46	29.36	33.00	PASS
GPRS1900	810	0	2	27.13	27.03	33.00	PASS
GPRS1900	810	0	3	25.59	25.49	33.00	PASS
GPRS1900	810	0	4	23.59	23.49	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.31	22.06	38.45	PASS
EGPRS850	128	8	2	25.06	20.81	38.45	PASS
EGPRS850	128	8	3	22.88	18.63	38.45	PASS
EGPRS850	128	8	4	20.35	16.10	38.45	PASS
EGPRS850	190	8	1	26.53	22.28	38.45	PASS
EGPRS850	190	8	2	25.35	21.10	38.45	PASS
EGPRS850	190	8	3	23.19	18.94	38.45	PASS
EGPRS850	190	8	4	20.59	16.34	38.45	PASS
EGPRS850	251	8	1	26.15	21.90	38.45	PASS
EGPRS850	251	8	2	24.98	20.73	38.45	PASS
EGPRS850	251	8	3	22.79	18.54	38.45	PASS
EGPRS850	251	8	4	20.19	15.94	38.45	PASS
EGPRS1900	512	2	1	25.06	24.96	33.00	PASS
EGPRS1900	512	2	2	23.06	22.96	33.00	PASS
EGPRS1900	512	2	3	21.29	21.19	33.00	PASS
EGPRS1900	512	2	4	19.15	19.05	33.00	PASS
EGPRS1900	661	2	1	25.62	25.52	33.00	PASS
EGPRS1900	661	2	2	23.73	23.63	33.00	PASS
EGPRS1900	661	2	3	22.00	21.90	33.00	PASS
EGPRS1900	661	2	4	19.98	19.88	33.00	PASS
EGPRS1900	810	2	1	25.45	25.35	33.00	PASS
EGPRS1900	810	2	2	23.53	23.43	33.00	PASS
EGPRS1900	810	2	3	21.88	21.78	33.00	PASS
EGPRS1900	810	2	4	20.12	20.02	33.00	PASS

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

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

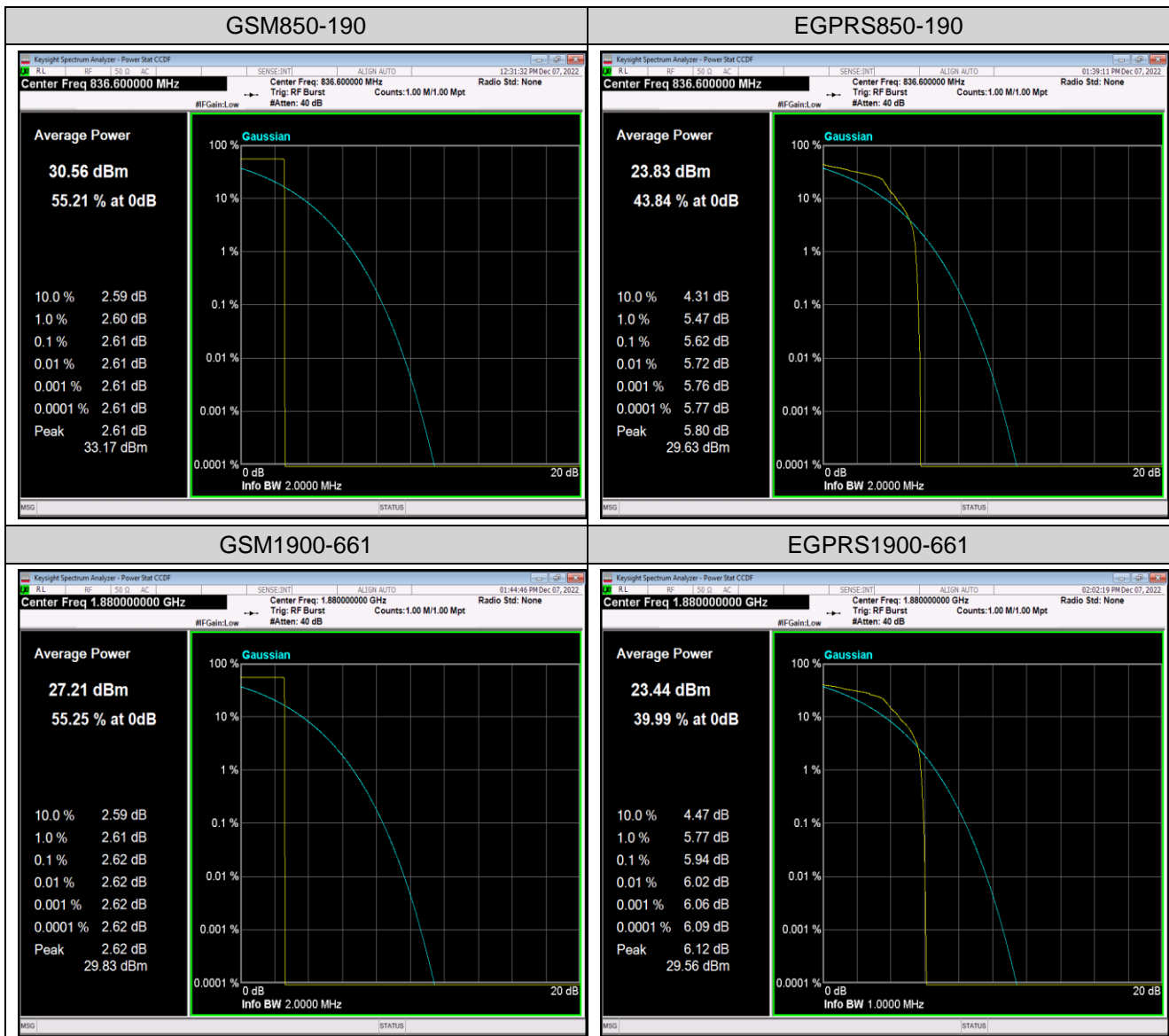
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.62	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.94	13	PASS

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

### Test Graphs

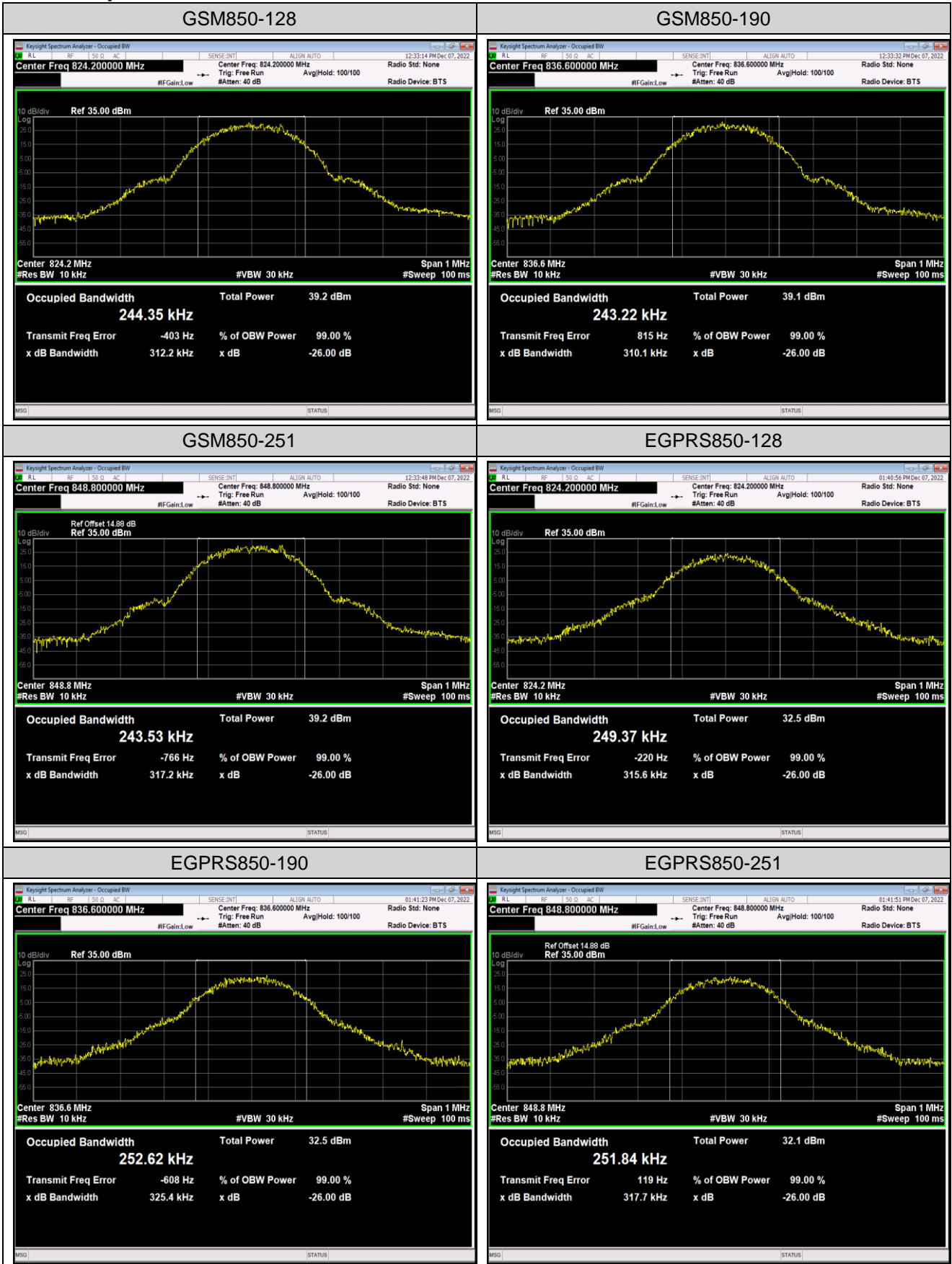


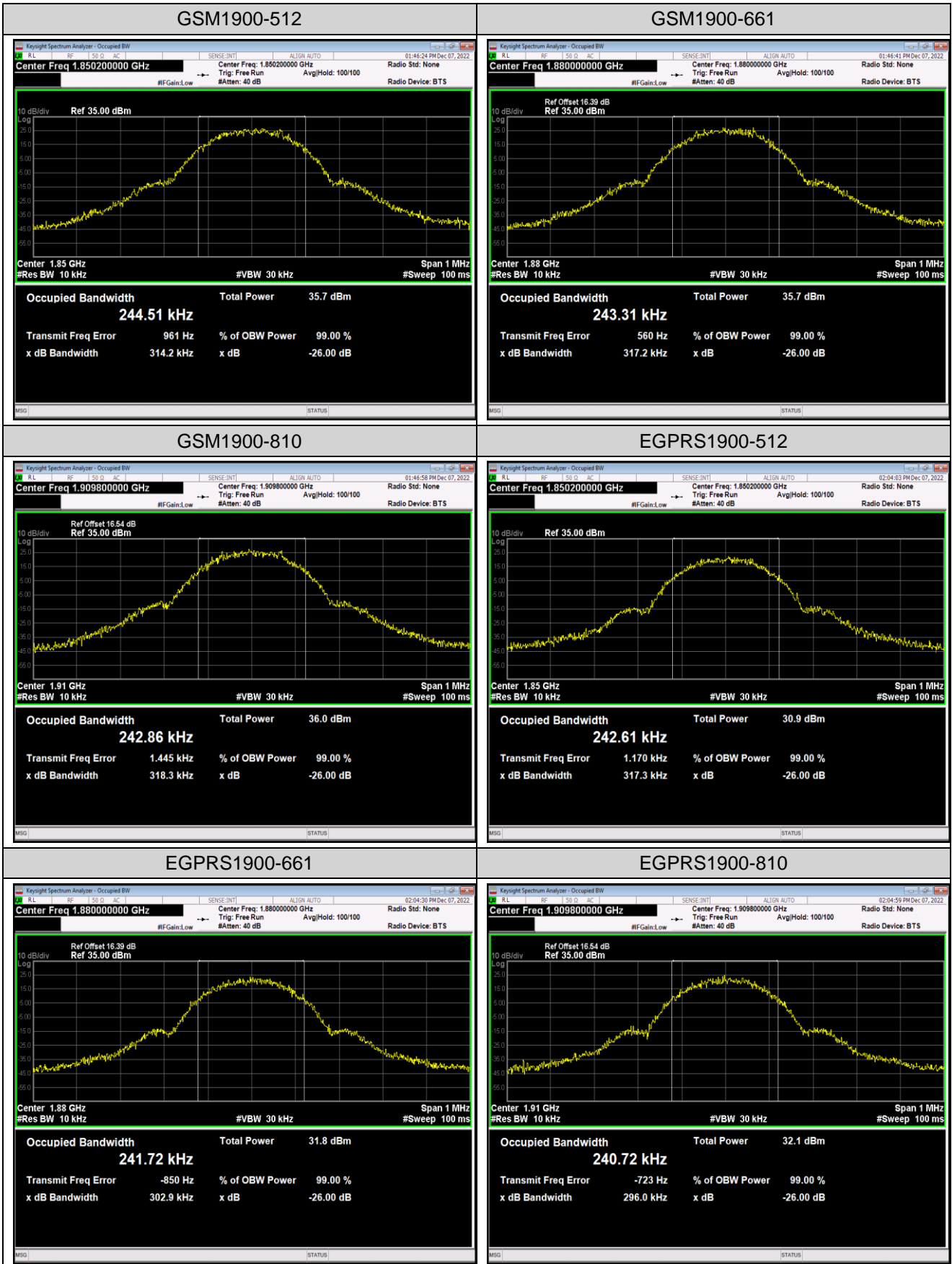
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24435	0.3122	---	PASS
GSM850	190	5	0.24322	0.3101	---	PASS
GSM850	251	5	0.24353	0.3172	---	PASS
EGPRS850	128	8	0.24937	0.3156	---	PASS
EGPRS850	190	8	0.25262	0.3254	---	PASS
EGPRS850	251	8	0.25184	0.3177	---	PASS
GSM1900	512	0	0.24451	0.3142	---	PASS
GSM1900	661	0	0.24331	0.3172	---	PASS
GSM1900	810	0	0.24286	0.3183	---	PASS
EGPRS1900	512	2	0.24261	0.3173	---	PASS
EGPRS1900	661	2	0.24172	0.3029	---	PASS
EGPRS1900	810	2	0.24072	0.2960	---	PASS

Test Graphs

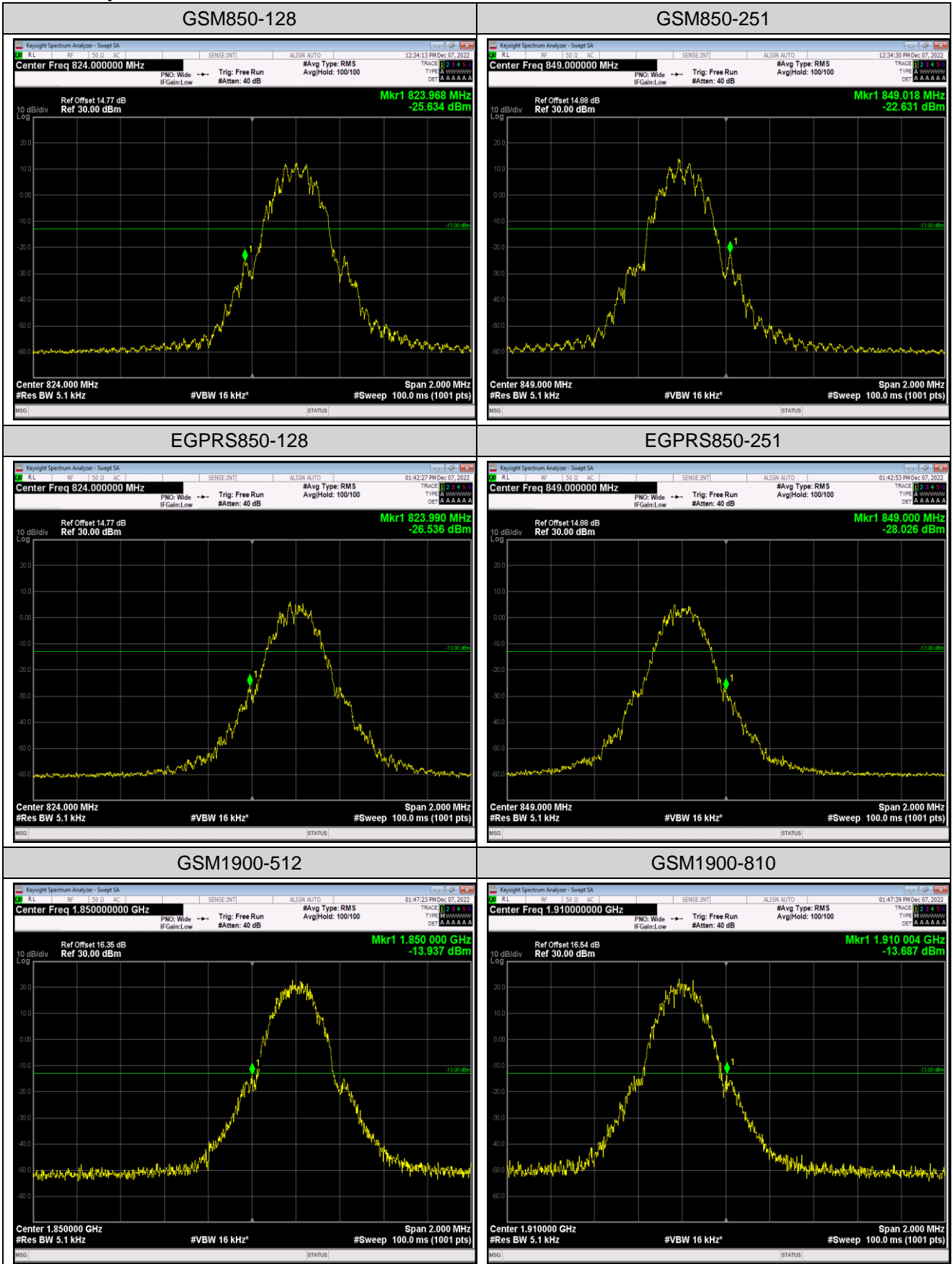




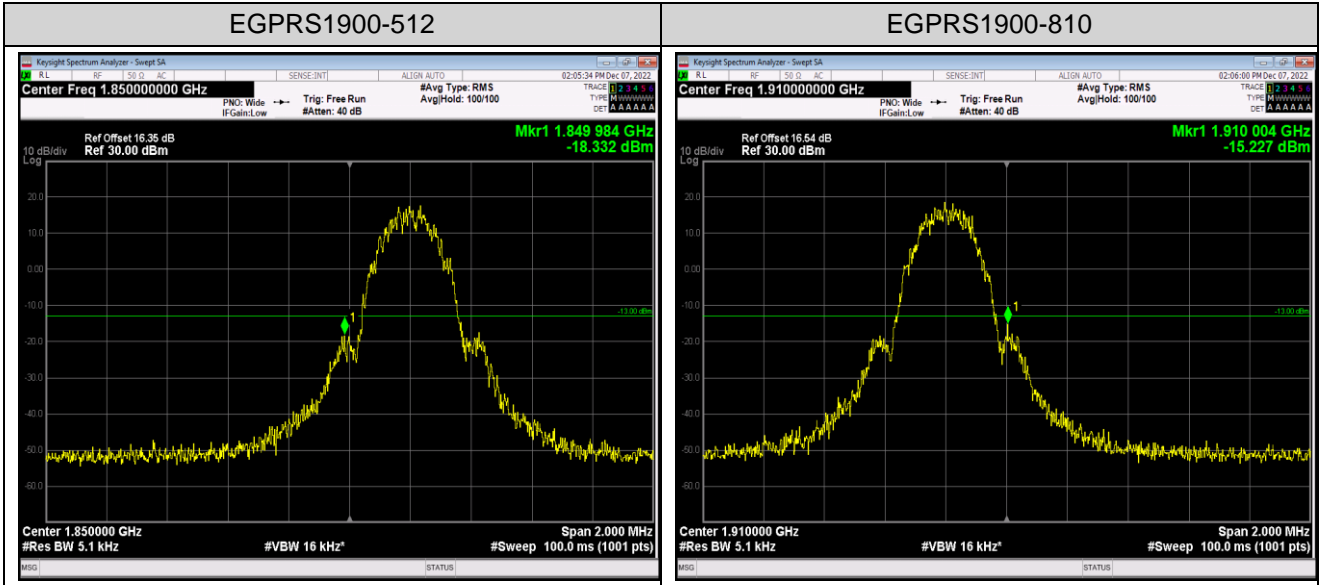
**Appendix D: Band Edge****Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.97	-25.63	-13	PASS
GSM850	251	5	849.02	-22.63	-13	PASS
EGPRS850	128	8	823.99	-26.54	-13	PASS
EGPRS850	251	8	849.00	-28.03	-13	PASS
GSM1900	512	0	1850.00	-13.94	-13	PASS
GSM1900	810	0	1910.00	-13.69	-13	PASS
EGPRS1900	512	2	1849.98	-18.33	-13	PASS
EGPRS1900	810	2	1910.00	-15.23	-13	PASS

Test Graphs







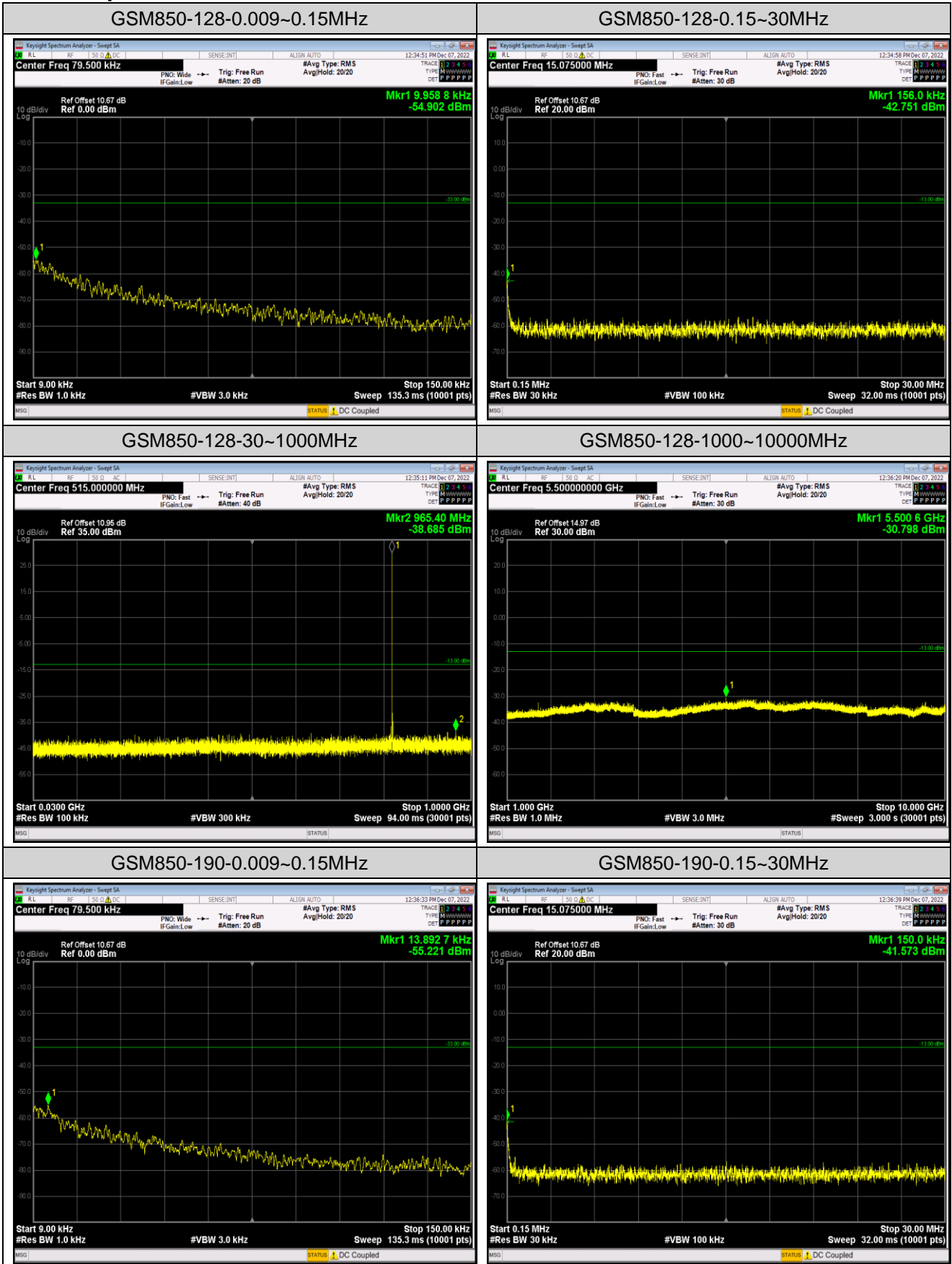
## Appendix E: Conducted Spurious Emission

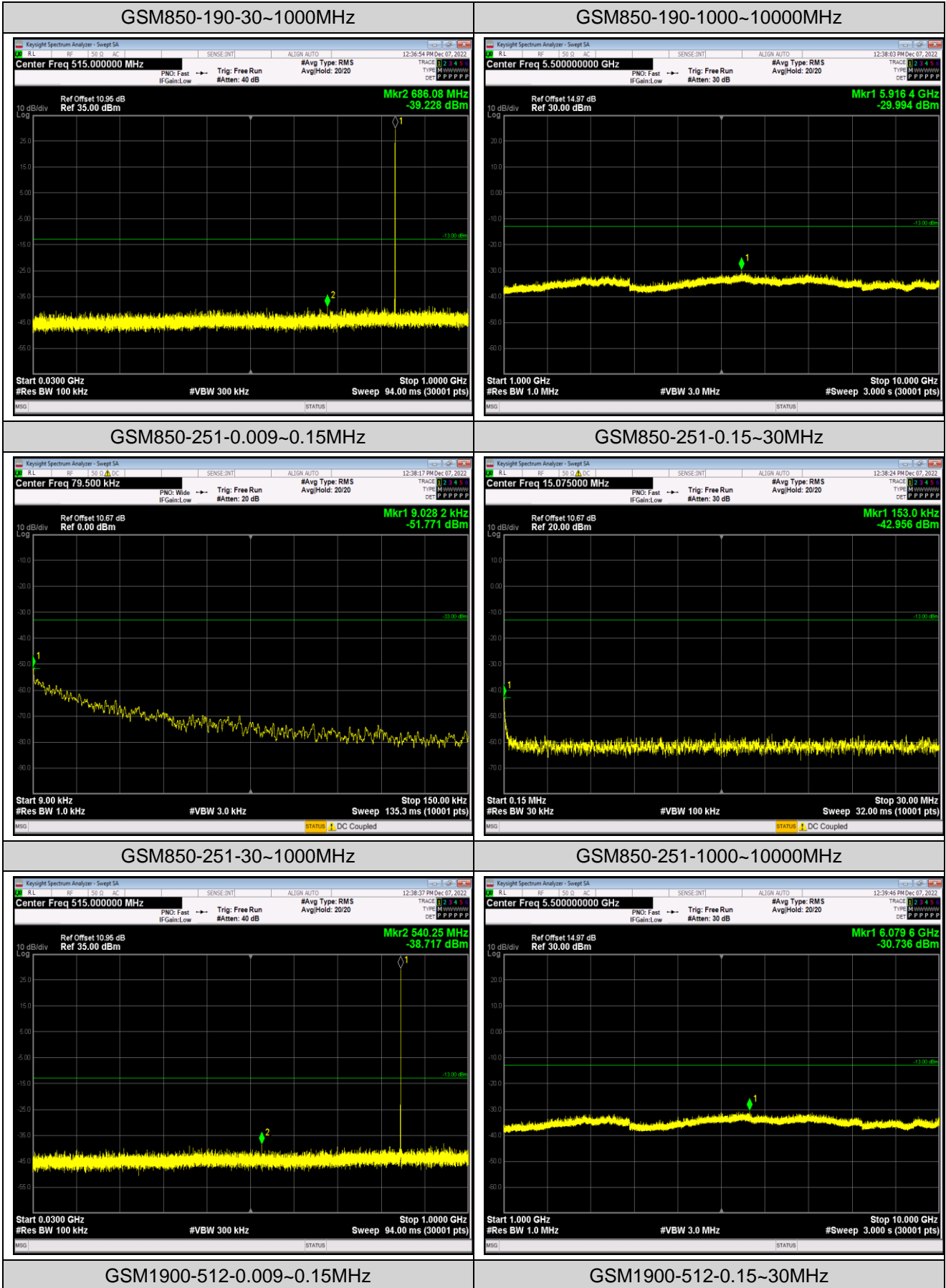
### Test Result

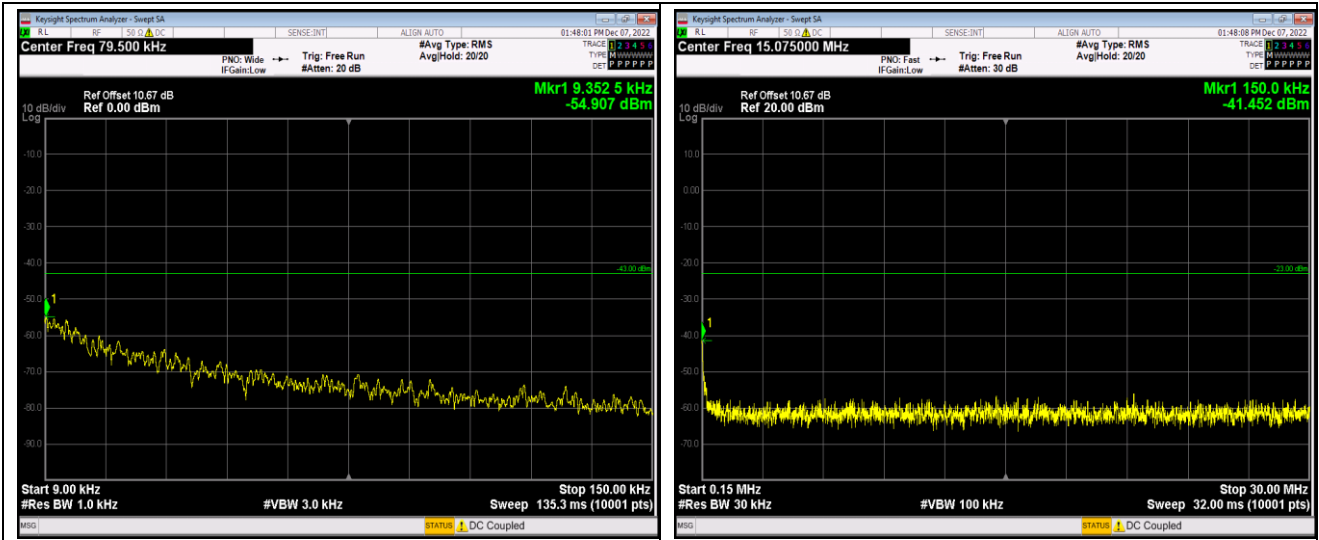
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.9	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-42.75	-13	PASS
GSM850	128	5	30~1000MHz	965.4	-38.69	-13	PASS
GSM850	128	5	1000~10000MHz	5500.6	-30.8	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-55.22	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-41.57	-13	PASS
GSM850	190	5	30~1000MHz	686.08	-39.23	-13	PASS
GSM850	190	5	1000~10000MHz	5916.4	-29.99	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-51.77	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-42.96	-13	PASS
GSM850	251	5	30~1000MHz	540.25	-38.72	-13	PASS
GSM850	251	5	1000~10000MHz	6079.6	-30.74	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-54.91	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-41.45	-23	PASS
GSM1900	512	0	30~1000MHz	770.37	-40.74	-13	PASS
GSM1900	512	0	1000~18000MHz	17023.63	-26.74	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-54.18	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-41.44	-23	PASS
GSM1900	661	0	30~1000MHz	893.01	-40.02	-13	PASS
GSM1900	661	0	1000~18000MHz	16994.73	-26.72	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.01	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-40.11	-23	PASS
GSM1900	810	0	30~1000MHz	778.03	-40.28	-13	PASS
GSM1900	810	0	1000~18000MHz	16217.83	-26.03	-13	PASS

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

Test Graphs

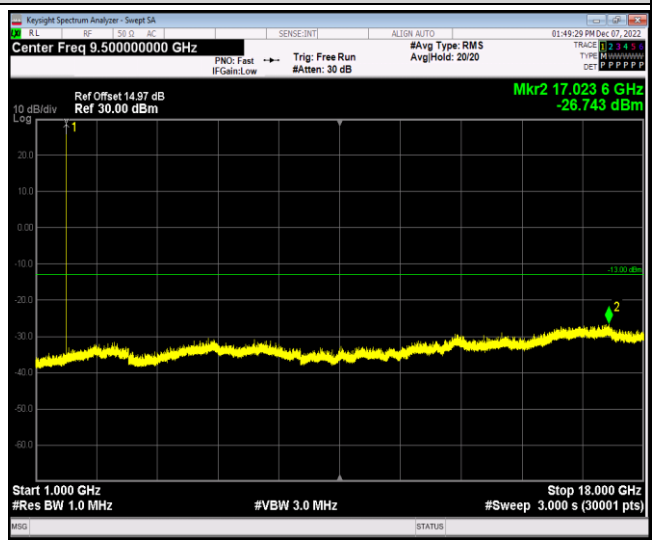
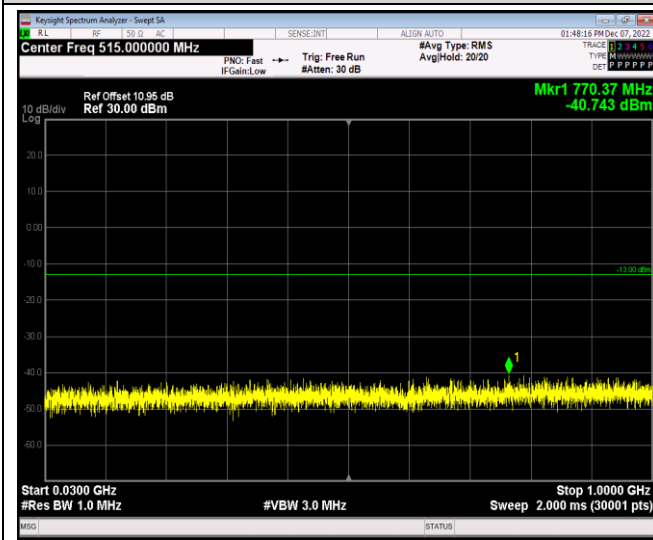






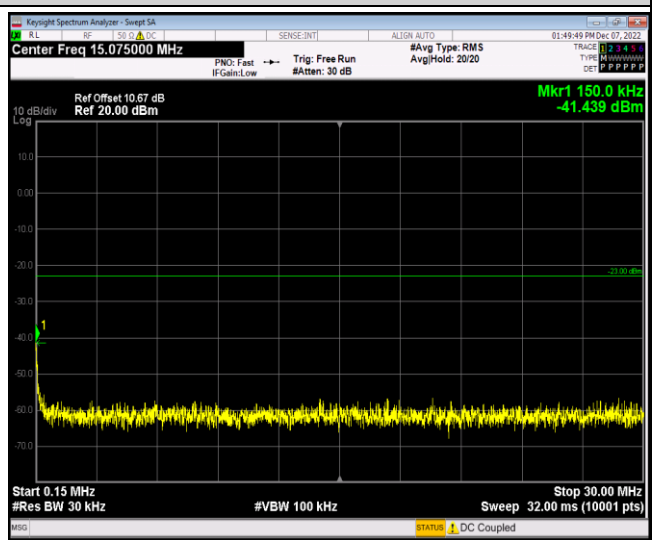
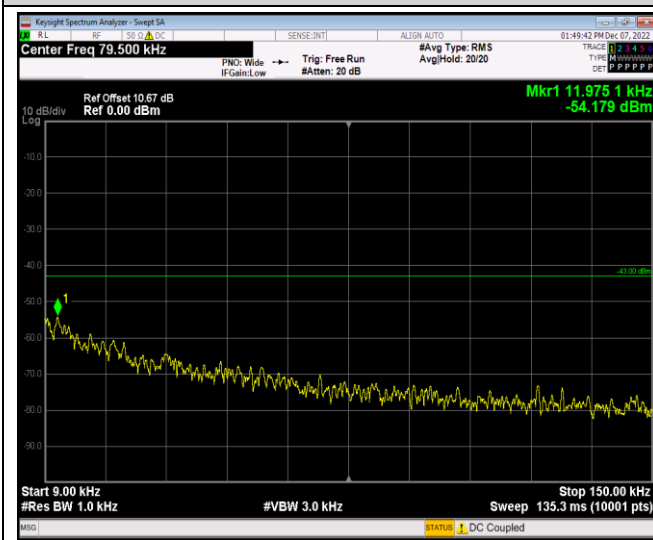
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



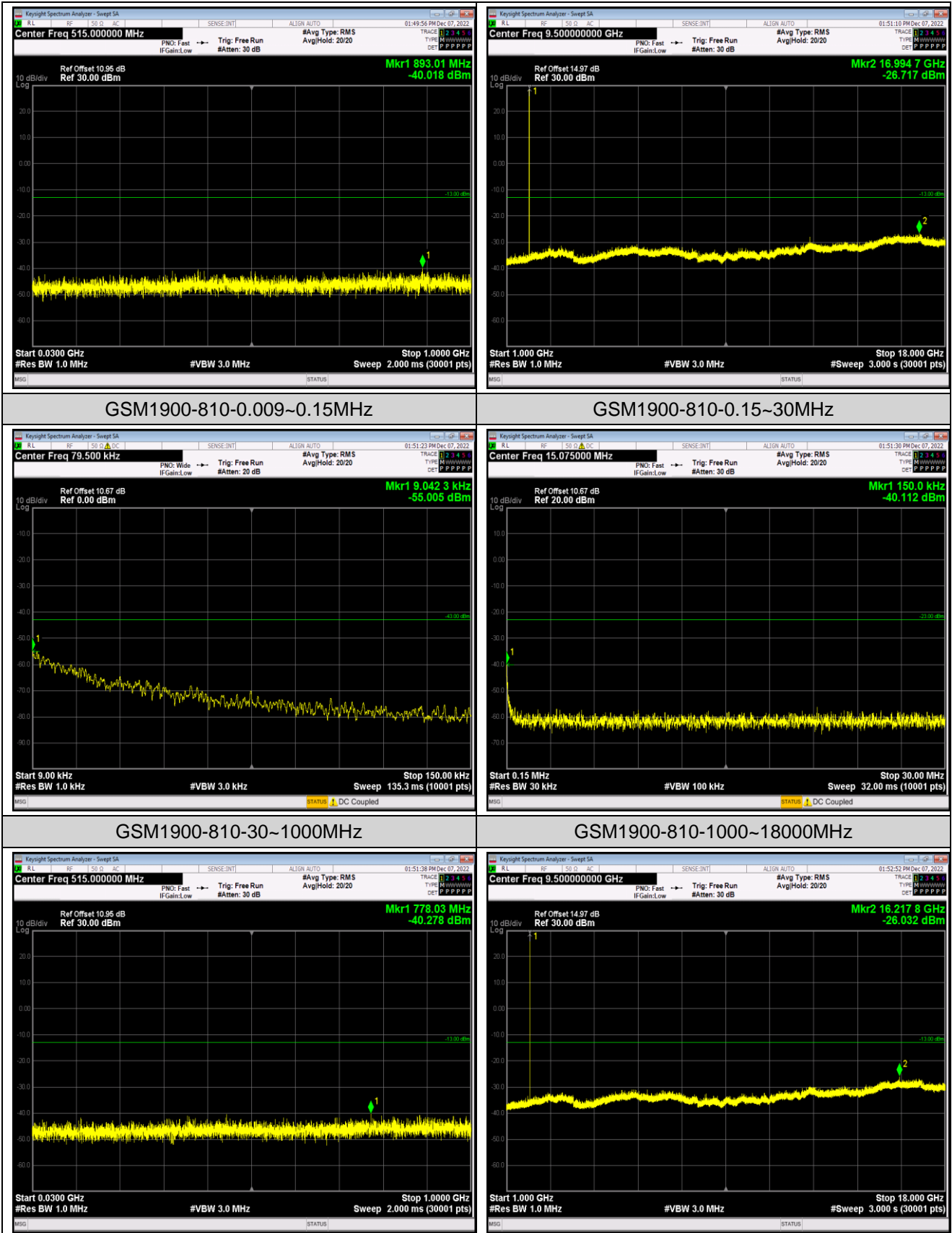
GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz



## 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	-2.03	-0.002426	±2.5	Pass
	-20	0.74	0.000885		
	-10	0.23	0.000275		
	0	0.90	0.001076		
	10	0.90	0.001076		
	20	0.90	0.001076		
	30	1.00	0.001195		
	40	1.36	0.001626		
	50	2.65	0.003168		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	3.58	0.004279	±2.5	Pass
	3.85	1.29	0.001542		
	4.40	-0.23	-0.000275		
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	-0.45	-0.000538	±2.5	Pass
	-20	-7.91	-0.009455		
	-10	-3.26	-0.003897		
	0	-10.23	-0.012228		
	10	-16.27	-0.019448		
	20	-9.98	-0.011929		
	30	-11.75	-0.014045		
	40	-11.91	-0.014236		
	50	-7.94	-0.009491		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-16.50	-0.019723	±2.5	Pass
	3.85	-9.72	-0.011618		
	4.40	-10.04	-0.012001		
<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	3.07	0.001633	Within authorized band for PCS 1900	Pass
	-20	16.98	0.009032		
	-10	11.04	0.005872		
	0	10.20	0.005426		
	10	2.07	0.001101		
	20	7.52	0.004000		
	30	3.03	0.001612		
	40	6.55	0.003484		
	50	2.45	0.001303		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	2.74	0.001457	Within authorized band for PCS 1900	Pass
	3.85	-3.75	-0.001995		
	4.40	-5.65	-0.003005		
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		
3.85	-30	3.84	0.002043	Within authorized band for PCS 1900	Pass
	-20	-2.62	-0.001394		
	-10	-5.97	-0.003176		
	0	-0.10	-0.000053		
	10	1.71	0.000910		
	20	1.74	0.000926		
	30	7.14	0.003798		
	40	-0.26	-0.000138		
	50	7.94	0.004223		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-5.75	-0.003059	Within authorized band for PCS 1900	Pass
	3.85	2.42	0.001287		
	4.40	4.84	0.002574		
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

