

## Appendix A: Effective (Isotropic) Radiated Power Output Data

### Test Result

Band	Channel	PCL	Conducted Power (dBm)	Unflip ERP/EIRP (dBm)	Flip ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GSM850	128	5	33.01	23.66	20.86	38.45	PASS
GSM850	190	5	33.11	23.76	20.96	38.45	PASS
GSM850	251	5	32.88	23.53	20.73	38.45	PASS
GSM1900	512	0	29.13	27.33	27.23	33.00	PASS
GSM1900	661	0	29.48	27.68	27.58	33.00	PASS
GSM1900	810	0	29.64	27.84	27.74	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	Unflip ERP/EIRP (dBm)	Flip ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.99	23.64	20.84	38.45	PASS
GPRS850	128	5	2	32.03	22.68	19.88	38.45	PASS
GPRS850	128	5	3	30.03	20.68	17.88	38.45	PASS
GPRS850	128	5	4	29.31	19.96	17.16	38.45	PASS
GPRS850	190	5	1	33.09	23.74	20.94	38.45	PASS
GPRS850	190	5	2	32.14	22.79	19.99	38.45	PASS
GPRS850	190	5	3	30.15	20.8	18	38.45	PASS
GPRS850	190	5	4	29.46	20.11	17.31	38.45	PASS
GPRS850	251	5	1	32.86	23.51	20.71	38.45	PASS
GPRS850	251	5	2	31.91	22.56	19.76	38.45	PASS
GPRS850	251	5	3	29.93	20.58	17.78	38.45	PASS
GPRS850	251	5	4	29.44	20.09	17.29	38.45	PASS
GPRS1900	512	0	1	29.32	27.52	27.42	33.00	PASS
GPRS1900	512	0	2	28.43	26.63	26.53	33.00	PASS
GPRS1900	512	0	3	26.49	24.69	24.59	33.00	PASS
GPRS1900	512	0	4	25.43	23.63	23.53	33.00	PASS
GPRS1900	661	0	1	29.59	27.79	27.69	33.00	PASS
GPRS1900	661	0	2	28.71	26.91	26.81	33.00	PASS
GPRS1900	661	0	3	26.76	24.96	24.86	33.00	PASS
GPRS1900	661	0	4	25.73	23.93	23.83	33.00	PASS
GPRS1900	810	0	1	29.71	27.91	27.81	33.00	PASS
GPRS1900	810	0	2	28.85	27.05	26.95	33.00	PASS
GPRS1900	810	0	3	26.92	25.12	25.02	33.00	PASS
GPRS1900	810	0	4	25.86	24.06	23.96	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	Unflip ERP/EIRP (dBm)	Flip ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.02	17.67	14.87	38.45	PASS
EGPRS850	128	8	2	25.89	16.54	13.74	38.45	PASS
EGPRS850	128	8	3	23.74	14.39	11.59	38.45	PASS
EGPRS850	128	8	4	22.57	13.22	10.42	38.45	PASS
EGPRS850	190	8	1	27.09	17.74	14.94	38.45	PASS
EGPRS850	190	8	2	26.05	16.7	13.9	38.45	PASS
EGPRS850	190	8	3	23.81	14.46	11.66	38.45	PASS
EGPRS850	190	8	4	22.66	13.31	10.51	38.45	PASS
EGPRS850	251	8	1	27.00	17.65	14.85	38.45	PASS
EGPRS850	251	8	2	25.88	16.53	13.73	38.45	PASS
EGPRS850	251	8	3	23.67	14.32	11.52	38.45	PASS
EGPRS850	251	8	4	22.58	13.23	10.43	38.45	PASS
EGPRS1900	512	2	1	26.38	24.58	24.48	33.00	PASS
EGPRS1900	512	2	2	25.31	23.51	23.41	33.00	PASS
EGPRS1900	512	2	3	23.21	21.41	21.31	33.00	PASS
EGPRS1900	512	2	4	21.85	20.05	19.95	33.00	PASS
EGPRS1900	661	2	1	26.43	24.63	24.53	33.00	PASS
EGPRS1900	661	2	2	25.41	23.61	23.51	33.00	PASS
EGPRS1900	661	2	3	23.33	21.53	21.43	33.00	PASS
EGPRS1900	661	2	4	22.05	20.25	20.15	33.00	PASS
EGPRS1900	810	2	1	26.49	24.69	24.59	33.00	PASS
EGPRS1900	810	2	2	25.42	23.62	23.52	33.00	PASS
EGPRS1900	810	2	3	23.38	21.58	21.48	33.00	PASS
EGPRS1900	810	2	4	22.11	20.31	20.21	33.00	PASS

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

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

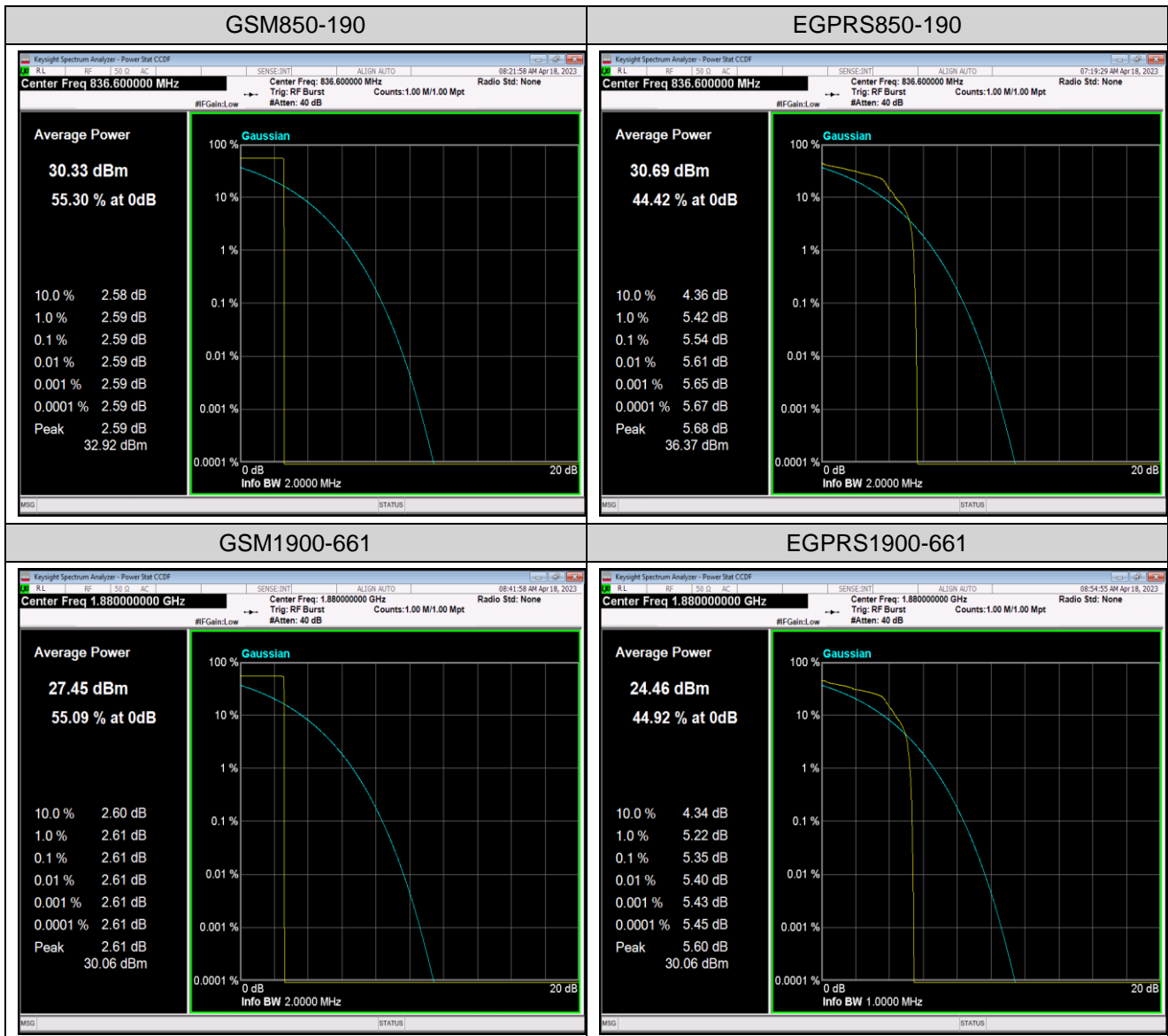
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.59	13	PASS
EGPRS850	190	8	5.54	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.35	13	PASS

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

### Test Graphs

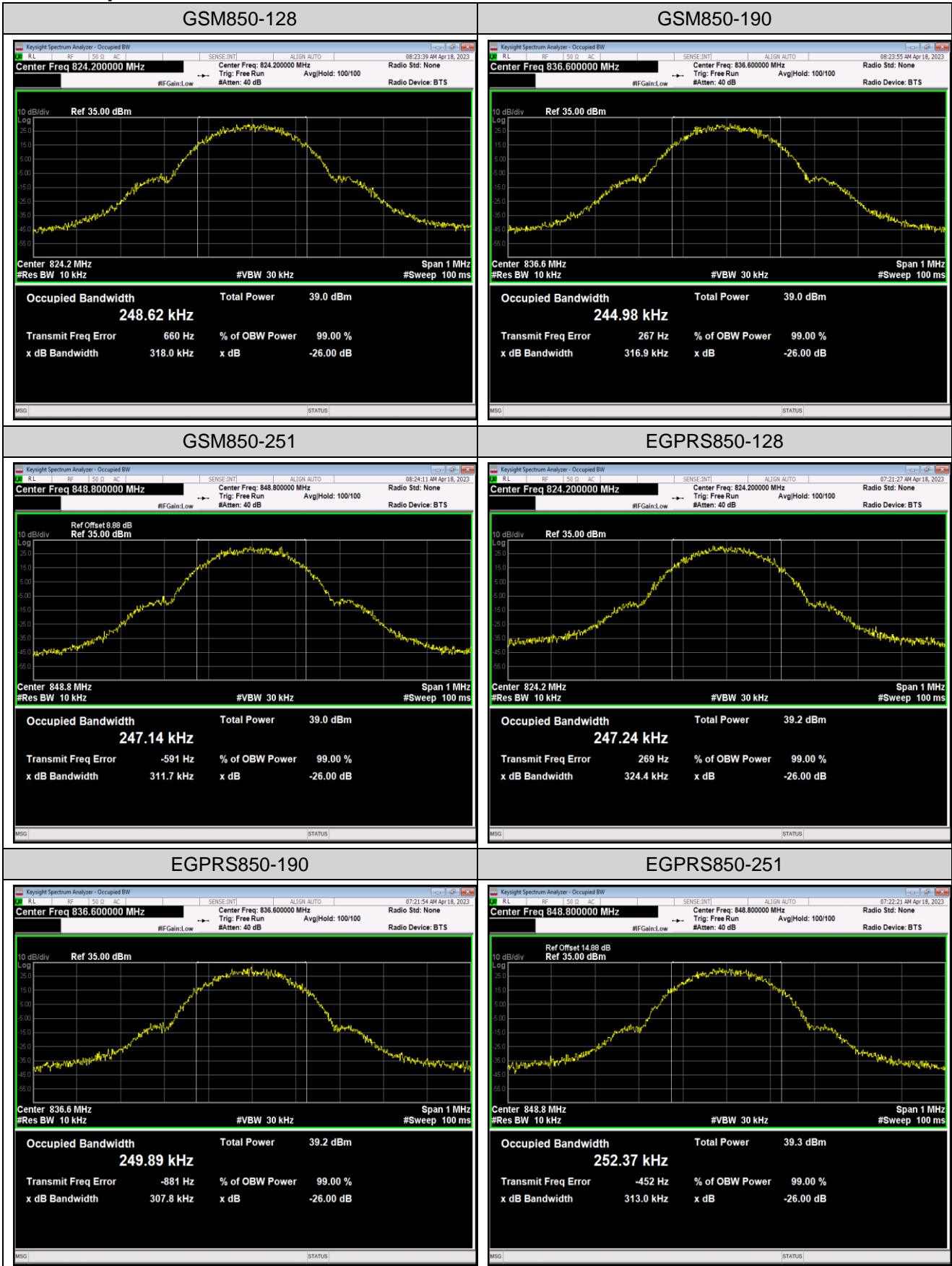


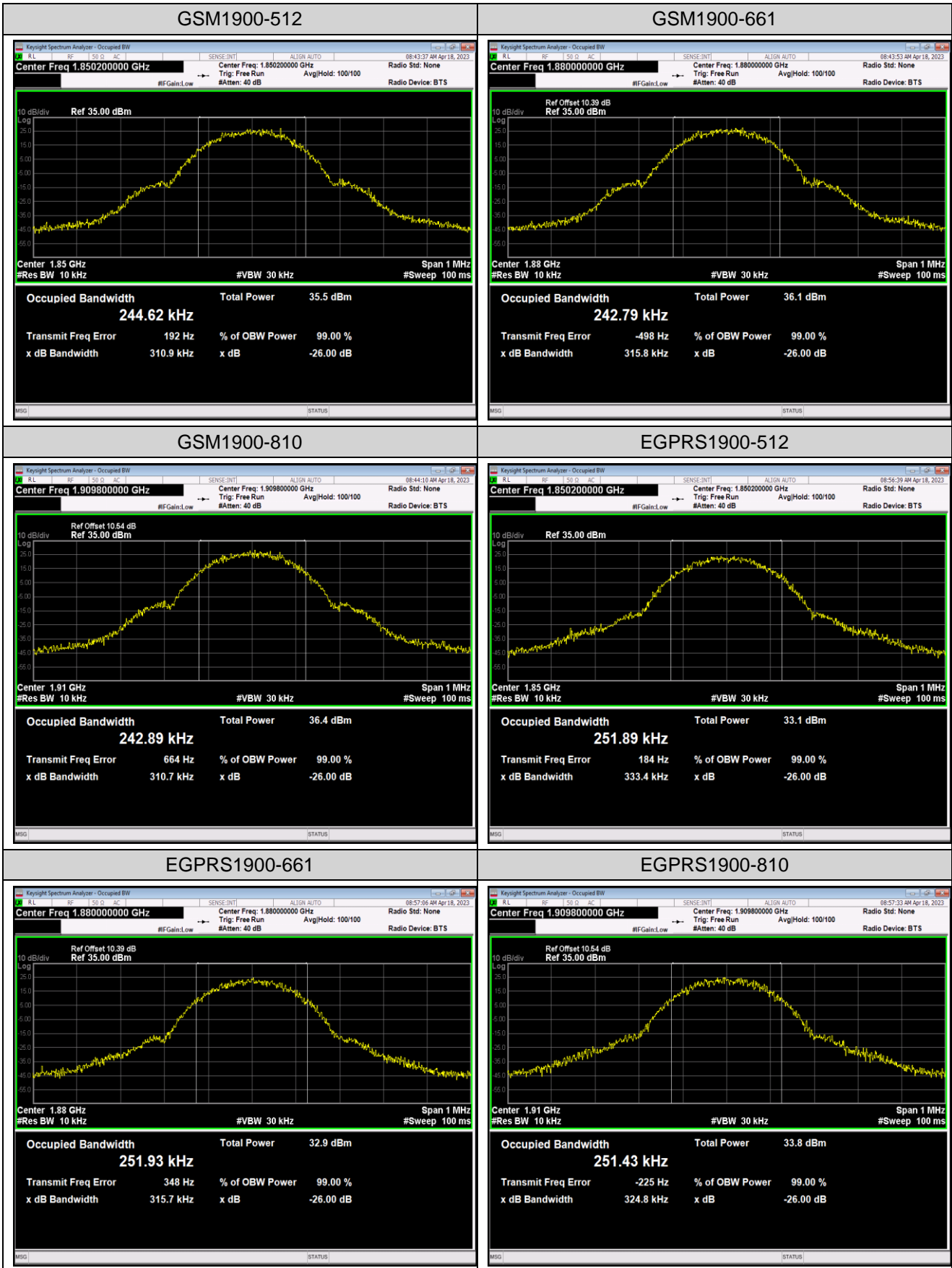
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24862	0.3180	---	PASS
GSM850	190	5	0.24498	0.3169	---	PASS
GSM850	251	5	0.24714	0.3117	---	PASS
EGPRS850	128	8	0.24724	0.3244	---	PASS
EGPRS850	190	8	0.24989	0.3078	---	PASS
EGPRS850	251	8	0.25237	0.3130	---	PASS
GSM1900	512	0	0.24462	0.3109	---	PASS
GSM1900	661	0	0.24279	0.3158	---	PASS
GSM1900	810	0	0.24289	0.3107	---	PASS
EGPRS1900	512	2	0.25189	0.3334	---	PASS
EGPRS1900	661	2	0.25193	0.3157	---	PASS
EGPRS1900	810	2	0.25143	0.3248	---	PASS

Test Graphs



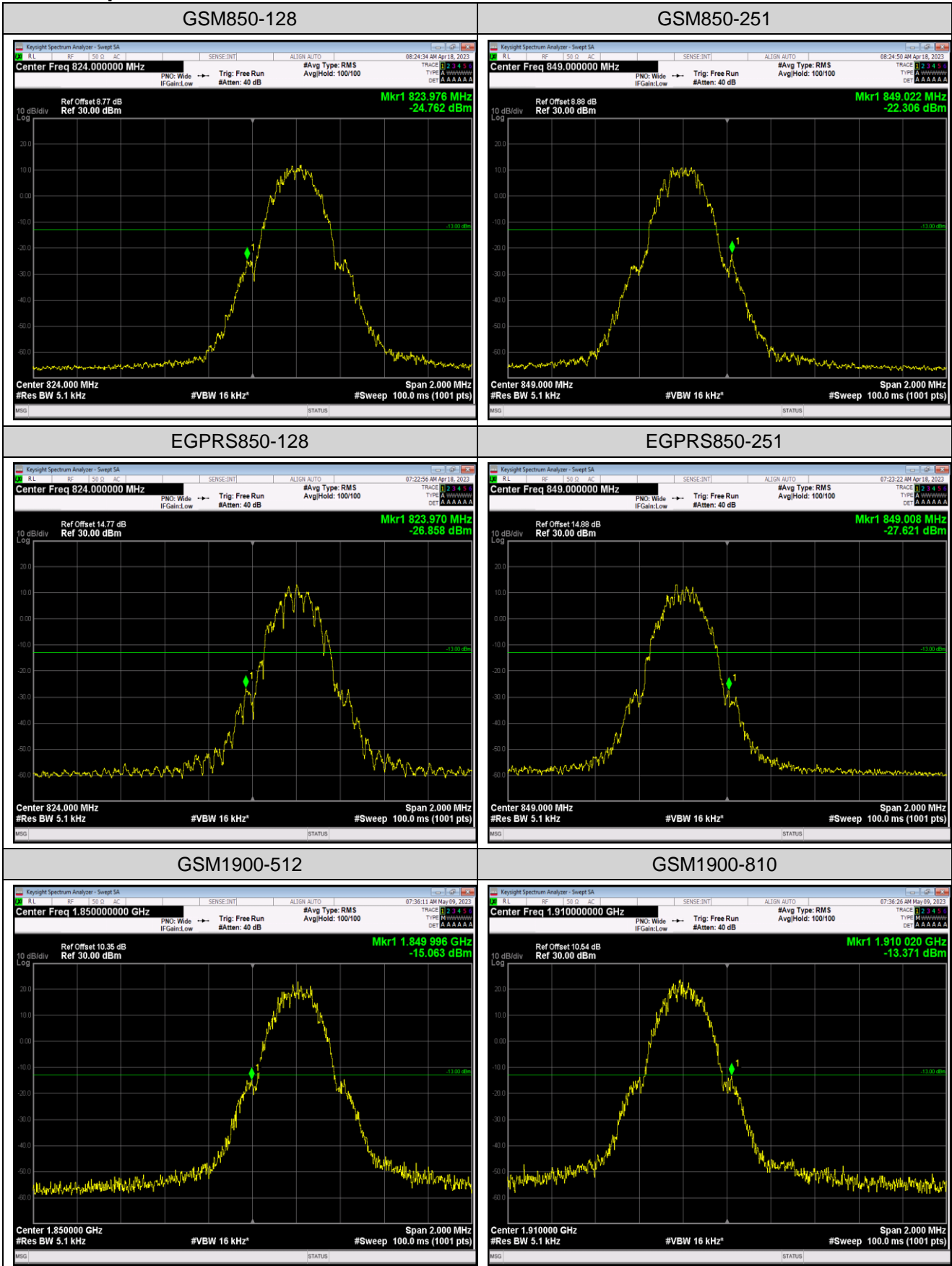


## Appendix D: Band Edge

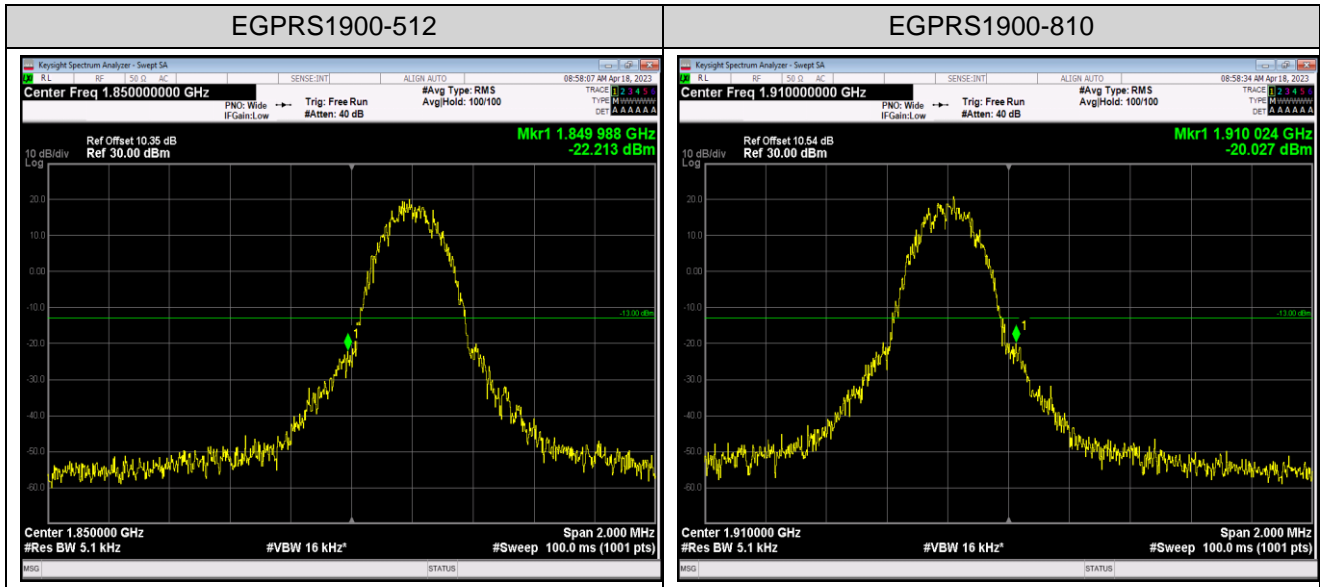
### Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.76	-13	PASS
GSM850	251	5	849.02	-22.31	-13	PASS
EGPRS850	128	8	823.97	-26.86	-13	PASS
EGPRS850	251	8	849.01	-27.62	-13	PASS
GSM1900	512	0	1850.00	-15.06	-13	PASS
GSM1900	810	0	1910.02	-13.37	-13	PASS
EGPRS1900	512	2	1849.99	-22.21	-13	PASS
EGPRS1900	810	2	1910.02	-20.03	-13	PASS

Test Graphs







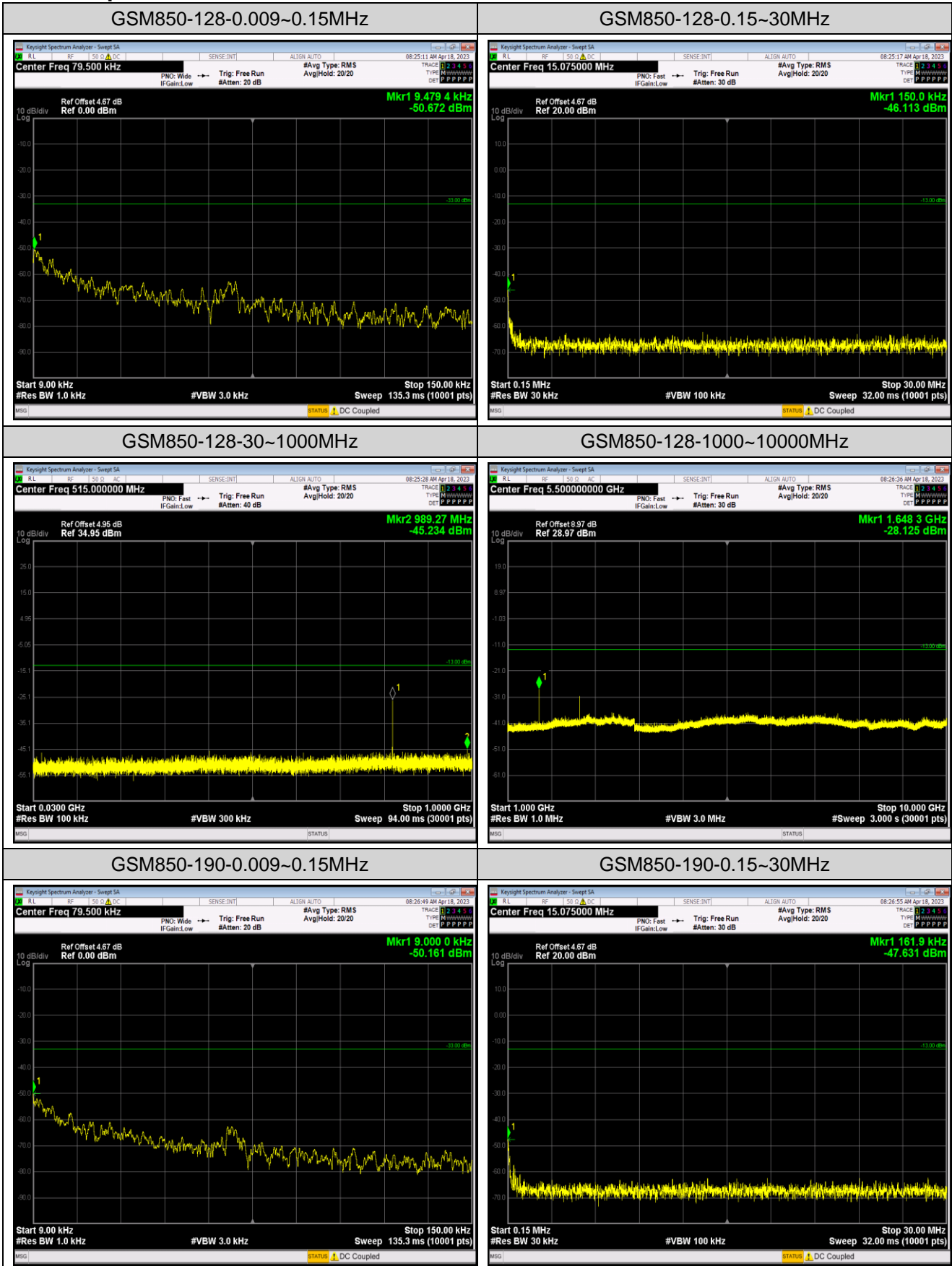
## Appendix E: Conducted Spurious Emission

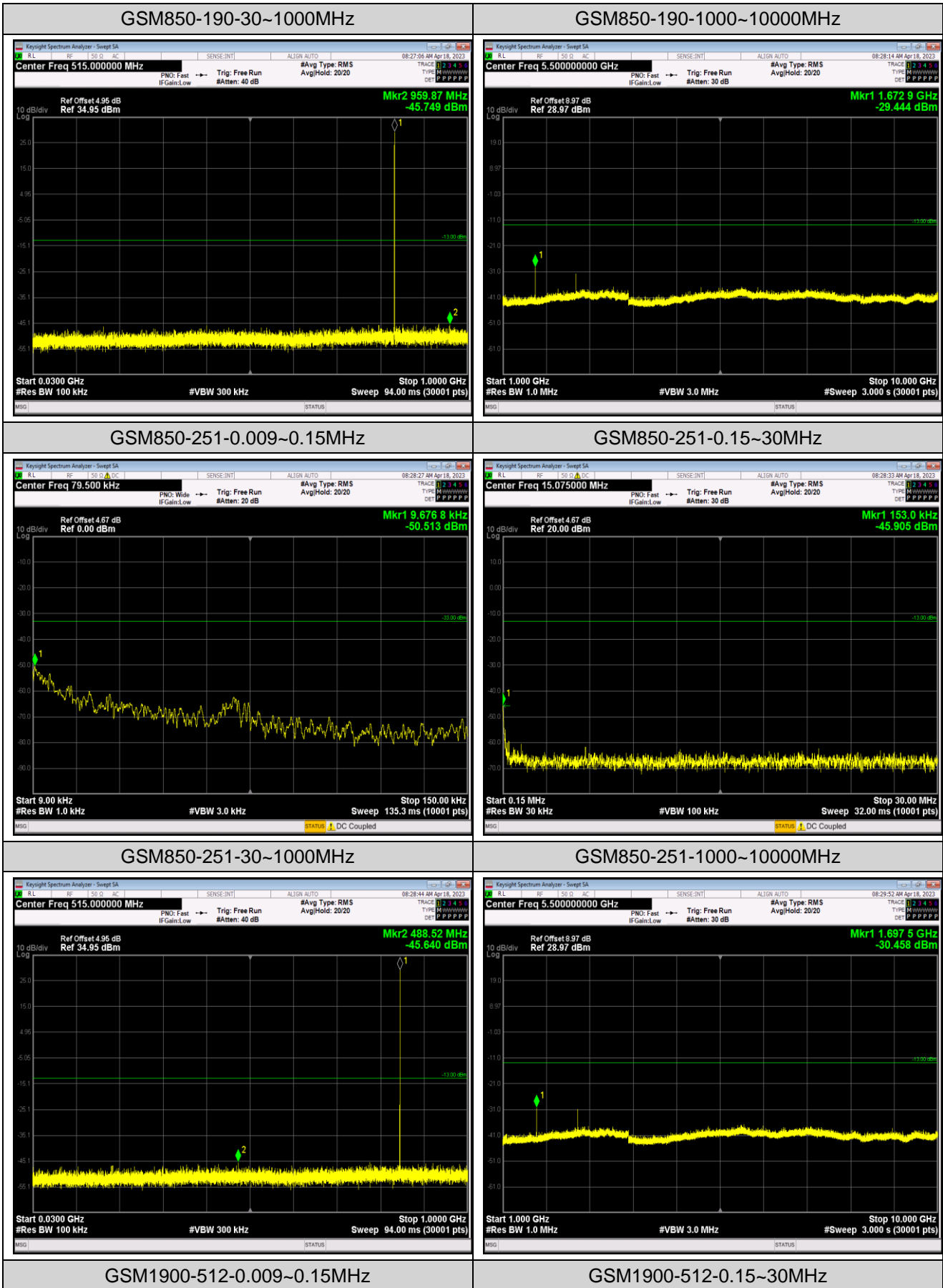
### Test Result

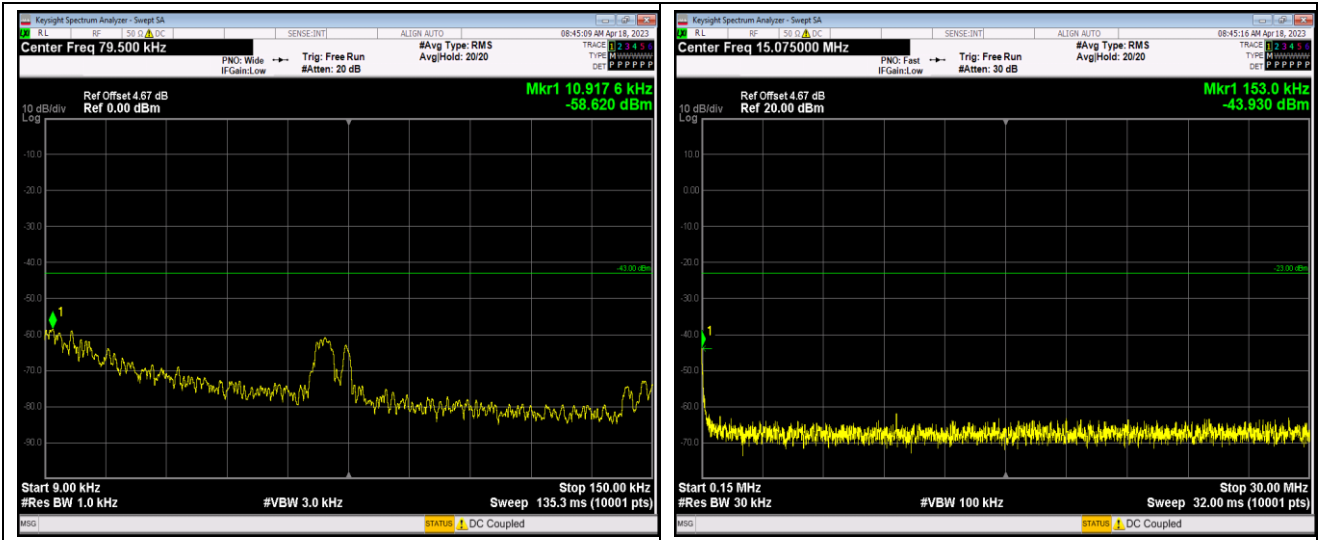
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-50.67	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-46.11	-13	PASS
GSM850	128	5	30~1000MHz	989.27	-45.23	-13	PASS
GSM850	128	5	1000~10000MHz	1648.3	-28.13	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-50.16	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-47.63	-13	PASS
GSM850	190	5	30~1000MHz	959.87	-45.75	-13	PASS
GSM850	190	5	1000~10000MHz	1672.9	-29.44	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-50.51	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-45.91	-13	PASS
GSM850	251	5	30~1000MHz	488.52	-45.64	-13	PASS
GSM850	251	5	1000~10000MHz	1697.5	-30.46	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-58.62	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-43.93	-23	PASS
GSM1900	512	0	30~1000MHz	740.65	-45.61	-13	PASS
GSM1900	512	0	1000~18000MHz	16995.87	-21.61	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-57.17	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-45.03	-23	PASS
GSM1900	661	0	30~1000MHz	789.54	-46.32	-13	PASS
GSM1900	661	0	1000~18000MHz	16333.43	-21.7	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-57.48	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-46.82	-23	PASS
GSM1900	810	0	30~1000MHz	901.77	-46.49	-13	PASS
GSM1900	810	0	1000~18000MHz	16170.23	-22.06	-13	PASS

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

Test Graphs

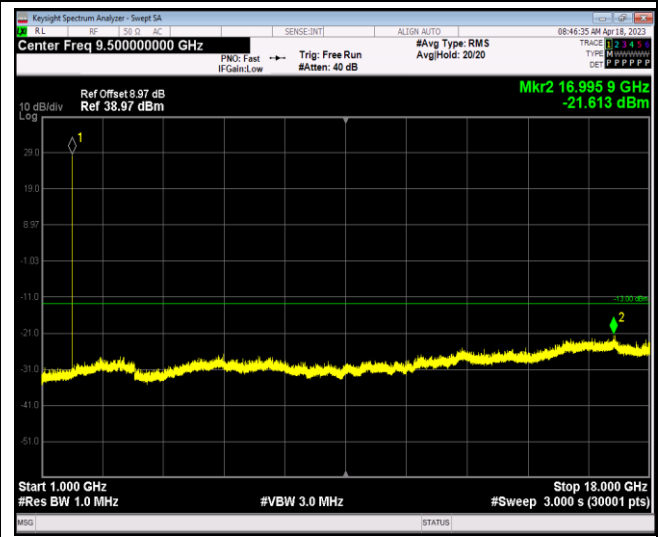
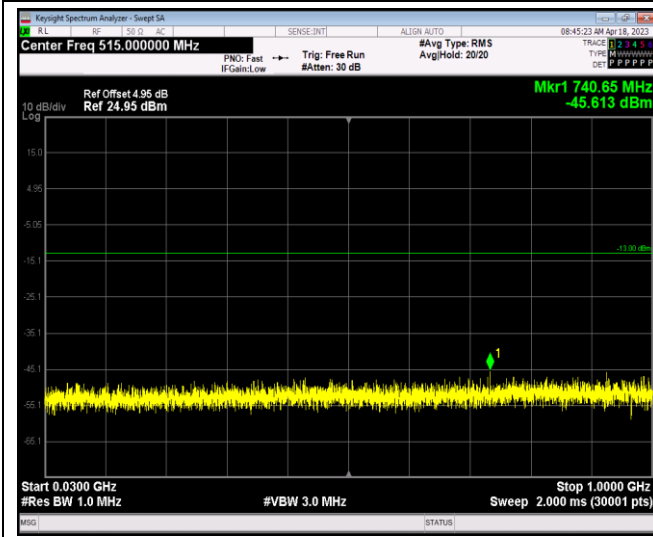






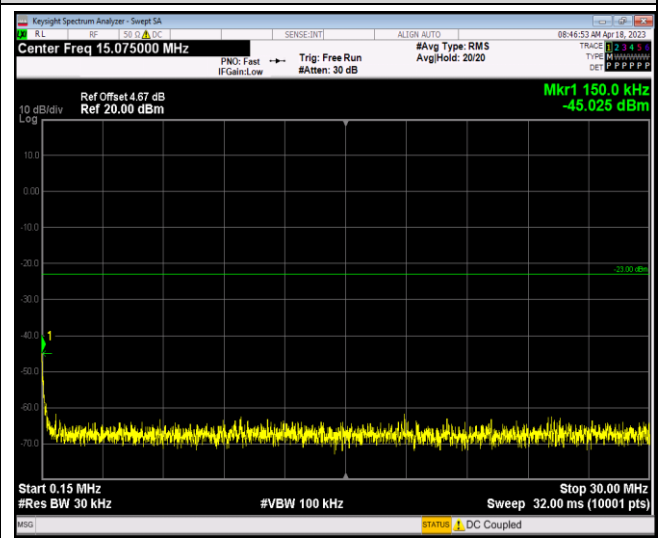
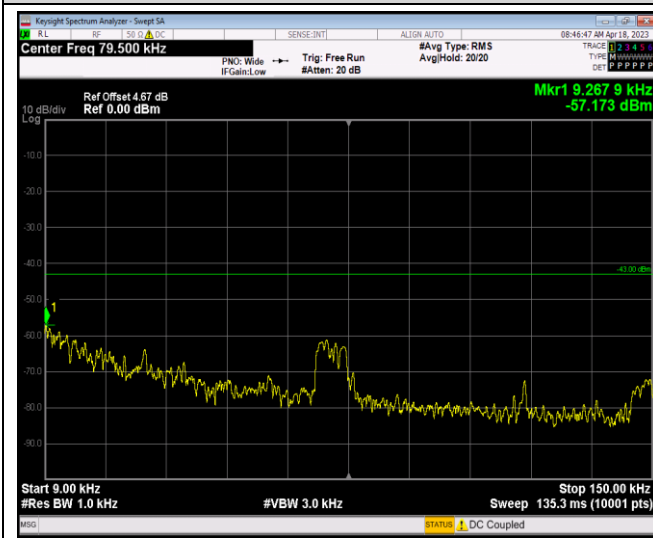
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



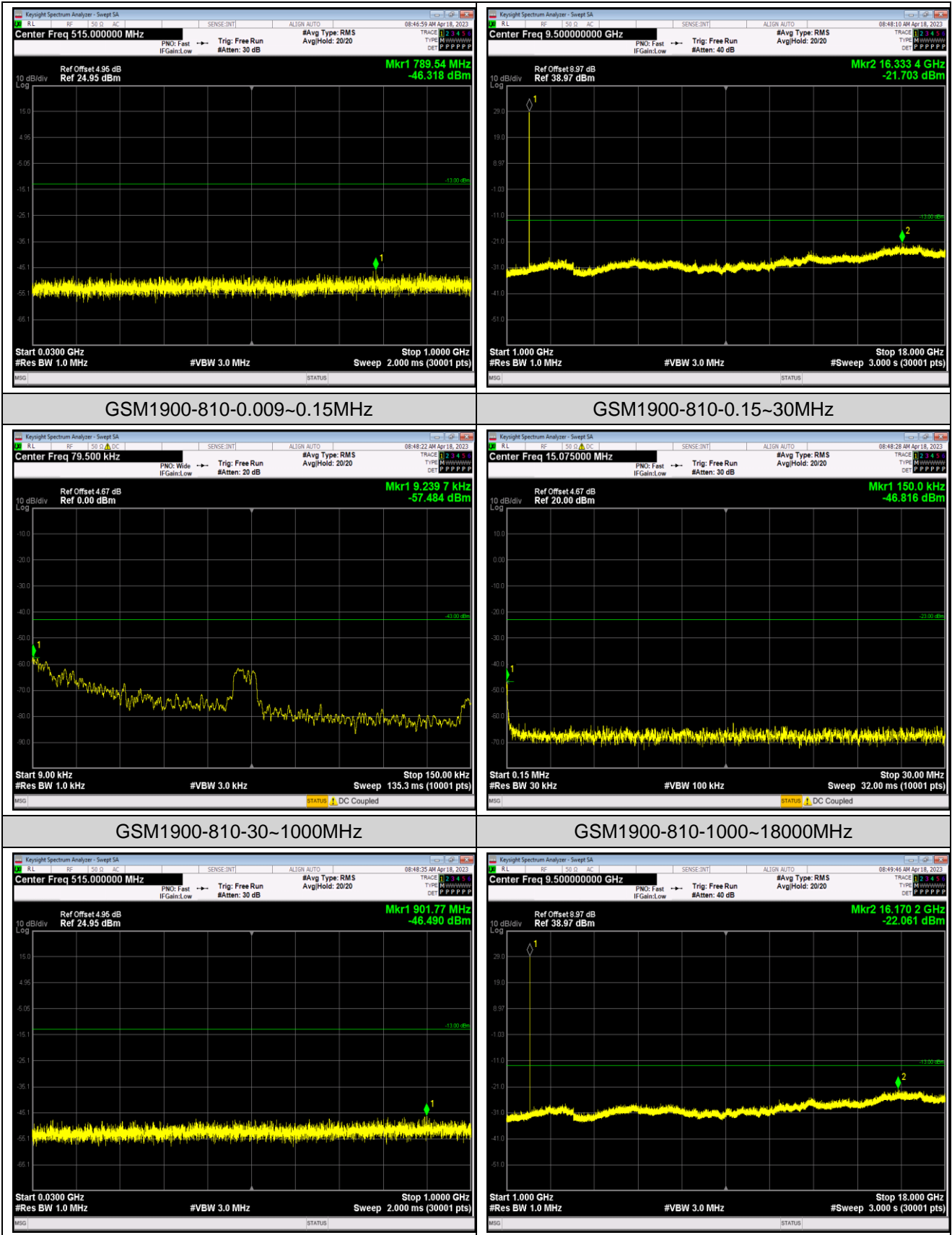
GSM1900-661-0.009~0.15MHz

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		
3.89	-30	-10.27	-0.012276	±2.5	Pass
	-20	-7.65	-0.009144		
	-10	-7.10	-0.008487		
	0	-6.81	-0.008140		
	10	-5.91	-0.007064		
	20	-6.68	-0.007985		
	30	-3.91	-0.004674		
	40	-8.62	-0.010304		
	50	-7.10	-0.008487		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-3.75	-0.004482	±2.5	Pass
	3.89	-3.20	-0.003825		
	4.48	-10.11	-0.012085		
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		
3.89	-30	-5.55	-0.006634	±2.5	Pass
	-20	-7.59	-0.009072		
	-10	-6.94	-0.008295		
	0	-9.62	-0.011499		
	10	-8.46	-0.010112		
	20	-6.65	-0.007949		
	30	-8.01	-0.009574		
	40	-10.91	-0.013041		
	50	-6.88	-0.008224		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-9.14	-0.010925	±2.5	Pass
	3.89	-3.78	-0.004518		
	4.48	-5.49	-0.006562		
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		
3.89	-30	5.10	0.002713	Within authorized band for PCS 1900	Pass
	-20	19.50	0.010372		
	-10	23.12	0.012298		
	0	20.02	0.010649		
	10	11.04	0.005872		
	20	7.26	0.003862		
	30	11.07	0.005888		
	40	11.17	0.005941		
	50	10.59	0.005633		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	8.10	0.004309	Within authorized band for PCS 1900	Pass
	3.89	-0.29	-0.000154		
	4.48	12.85	0.006835		
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		
3.89	-30	-8.62	-0.004585	Within authorized band for PCS 1900	Pass
	-20	-10.75	-0.005718		
	-10	-11.43	-0.006080		
	0	-16.14	-0.008585		
	10	-4.36	-0.002319		
	20	-4.62	-0.002457		
	30	-1.10	-0.000585		
	40	0.77	0.000410		
	50	-2.91	-0.001548		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-12.91	-0.006867	Within authorized band for PCS 1900	Pass
	3.89	-12.56	-0.006681		
	4.48	-12.98	-0.006904		
Remark: All channel had been tested, but only the worst case data displayed in this report.					

## AppendixG: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

