

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

### Test Result

Band	Channel	PCL	Average Power (dBm)	Antenna Gain (dBi)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)
GSM850	128	5	33.22	-1.50	29.57	38.45
GSM850	190	5	33.32	-1.50	29.67	38.45
GSM850	251	5	33.28	-1.50	29.63	38.45
GSM1900	512	0	29.52	-1.70	27.82	33.00
GSM1900	661	0	29.62	-1.70	27.92	33.00
GSM1900	810	0	29.89	-1.70	28.19	33.00

Note:  $EIRP (dBm) = Average\ power (dBm) + Antenna\ Gain (dBi)$ . (For GSM1900)  
 $ERP (dBm) = EIRP (dBm) - 2.15 (dB)$ . For GSM850)

Band	Channel	PCL	Slot	Average Power (dBm)	Antenna Gain (dBi)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)
GPRS850	128	3	1	33.17	-1.50	29.52	38.45
GPRS850	128	3	2	31.16	-1.50	27.51	38.45
GPRS850	128	3	3	29.18	-1.50	25.53	38.45
GPRS850	128	3	4	26.91	-1.50	23.26	38.45
GPRS850	190	3	1	33.17	-1.50	29.52	38.45
GPRS850	190	3	2	31.16	-1.50	27.51	38.45
GPRS850	190	3	3	29.18	-1.50	25.53	38.45
GPRS850	190	3	4	26.91	-1.50	23.26	38.45
GPRS850	251	3	1	33.17	-1.50	29.52	38.45
GPRS850	251	3	2	30.93	-1.50	27.28	38.45
GPRS850	251	3	3	29.04	-1.50	25.39	38.45
GPRS850	251	3	4	26.82	-1.50	23.17	38.45
EGPRS850	128	8	1	25.18	-1.50	21.53	38.45
EGPRS850	128	8	2	24.86	-1.50	21.21	38.45
EGPRS850	128	8	3	23.77	-1.50	20.12	38.45
EGPRS850	128	8	4	21.33	-1.50	17.68	38.45
EGPRS850	190	8	1	25.24	-1.50	21.59	38.45
EGPRS850	190	8	2	25.26	-1.50	21.61	38.45
EGPRS850	190	8	3	24.05	-1.50	20.40	38.45

EGPRS850	190	8	4	21.73	-1.50	18.08	38.45
EGPRS850	251	8	1	25.14	-1.50	21.49	38.45
EGPRS850	251	8	2	25.03	-1.50	21.38	38.45
EGPRS850	251	8	3	23.86	-1.50	20.21	38.45
EGPRS850	251	8	4	21.57	-1.50	17.92	38.45
GPRS1900	512	0	1	29.52	-1.70	27.82	33.00
GPRS1900	512	0	2	27.52	-1.70	25.82	33.00
GPRS1900	512	0	3	25.92	-1.70	24.22	33.00
GPRS1900	512	0	4	23.86	-1.70	22.16	33.00
GPRS1900	661	0	1	29.49	-1.70	27.79	33.00
GPRS1900	661	0	2	27.21	-1.70	25.51	33.00
GPRS1900	661	0	3	25.61	-1.70	23.91	33.00
GPRS1900	661	0	4	23.52	-1.70	21.82	33.00
GPRS1900	810	0	1	29.8	-1.70	28.10	33.00
GPRS1900	810	0	2	27.16	-1.70	25.46	33.00
GPRS1900	810	0	3	25.57	-1.70	23.87	33.00
GPRS1900	810	0	4	23.48	-1.70	21.78	33.00
EGPRS1900	512	2	1	25.32	-1.70	23.62	33.00
EGPRS1900	512	2	2	25.09	-1.70	23.39	33.00
EGPRS1900	512	2	3	23.55	-1.70	21.85	33.00
EGPRS1900	512	2	4	20.86	-1.70	19.16	33.00
EGPRS1900	661	2	1	25.62	-1.70	23.92	33.00
EGPRS1900	661	2	2	25.62	-1.70	23.92	33.00
EGPRS1900	661	2	3	24.03	-1.70	22.33	33.00
EGPRS1900	661	2	4	21.39	-1.70	19.69	33.00
EGPRS1900	810	2	1	25.65	-1.70	23.95	33.00
EGPRS1900	810	2	2	25.66	-1.70	23.96	33.00
EGPRS1900	810	2	3	24.07	-1.70	22.37	33.00
EGPRS1900	810	2	4	21.17	-1.70	19.47	33.00

Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). (For GSM1900)

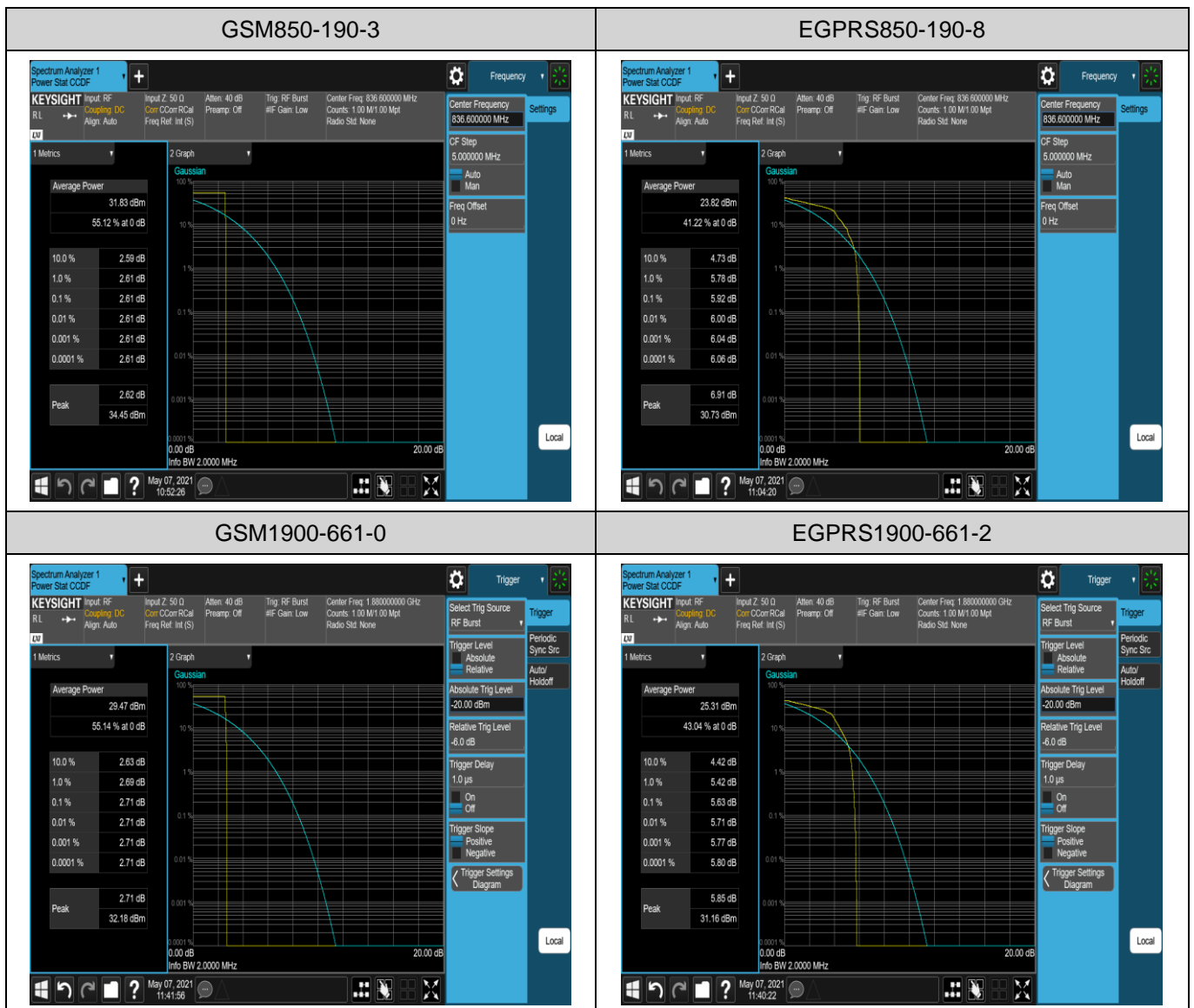
ERP (dBm) = EIRP (dBm) - 2.15 (dB). For GSM850)

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

### Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.61	13	PASS
EGPRS850	190	8	5.92	13	PASS
GSM1900	661	0	2.71	13	PASS
EGPRS1900	661	2	5.63	13	PASS

### Test Graphs

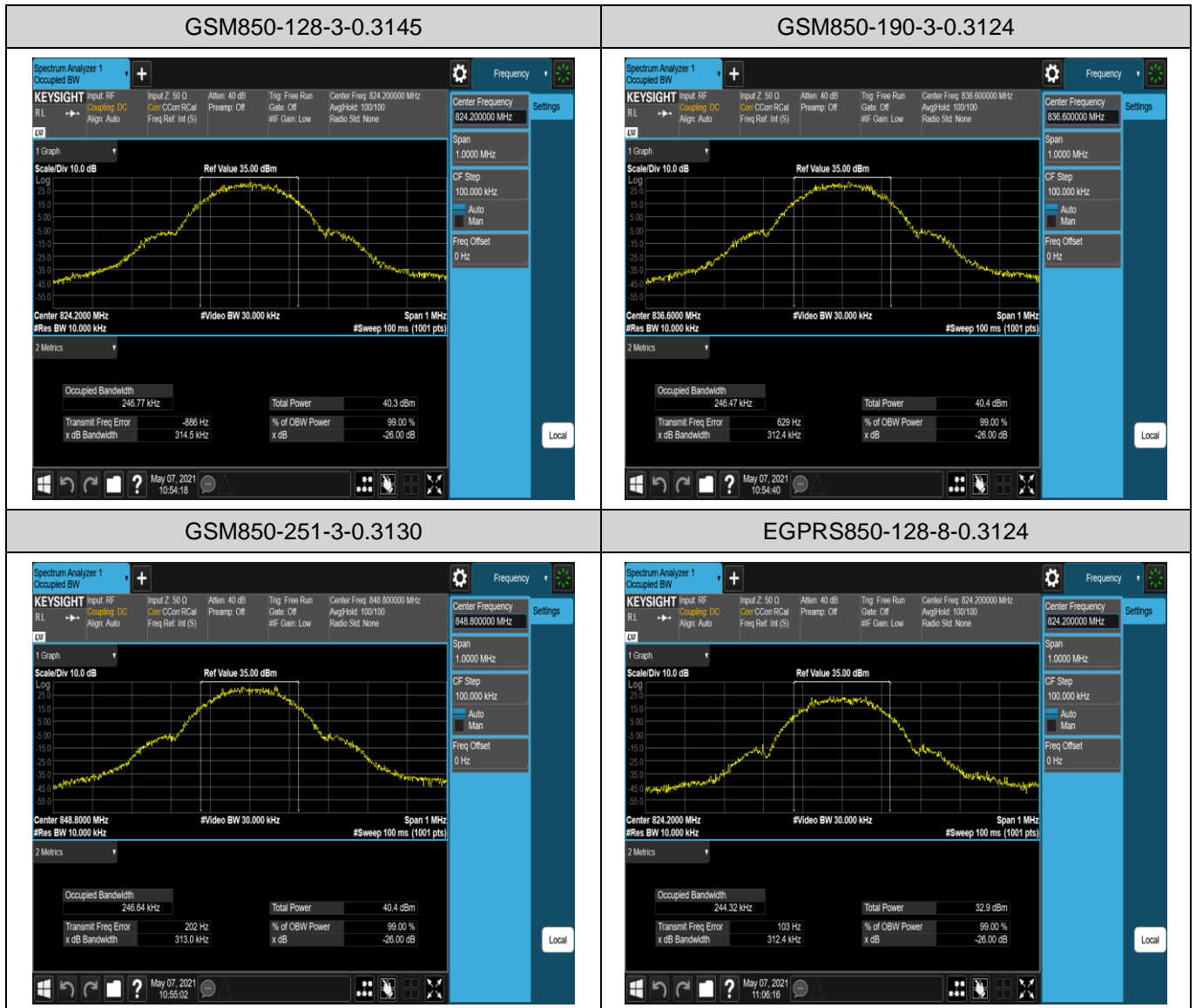


## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24677	0.3145	---	PASS
GSM850	190	3	0.24647	0.3124	---	PASS
GSM850	251	3	0.24664	0.3130	---	PASS
EGPRS850	128	8	0.24432	0.3124	---	PASS
EGPRS850	190	8	0.24385	0.3086	---	PASS
EGPRS850	251	8	0.24482	0.3072	---	PASS
GSM1900	512	0	0.24483	0.3166	---	PASS
GSM1900	661	0	0.24465	0.3150	---	PASS
GSM1900	810	0	0.24427	0.3132	---	PASS
EGPRS1900	512	2	0.25006	0.3200	---	PASS
EGPRS1900	661	2	0.25006	0.3088	---	PASS
EGPRS1900	810	2	0.25148	0.3112	---	PASS

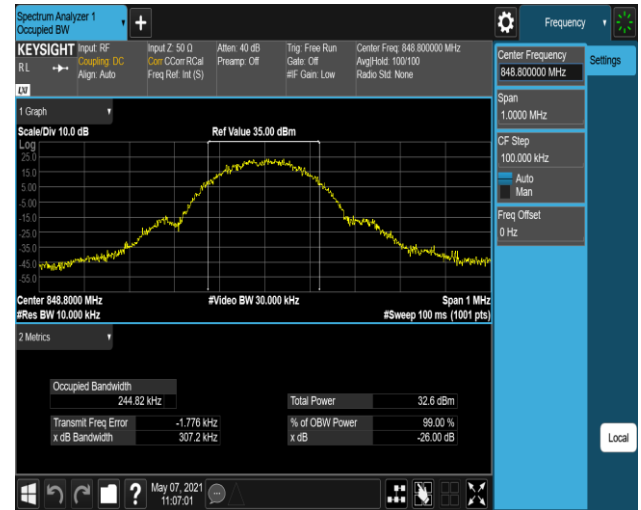
### Test Graphs



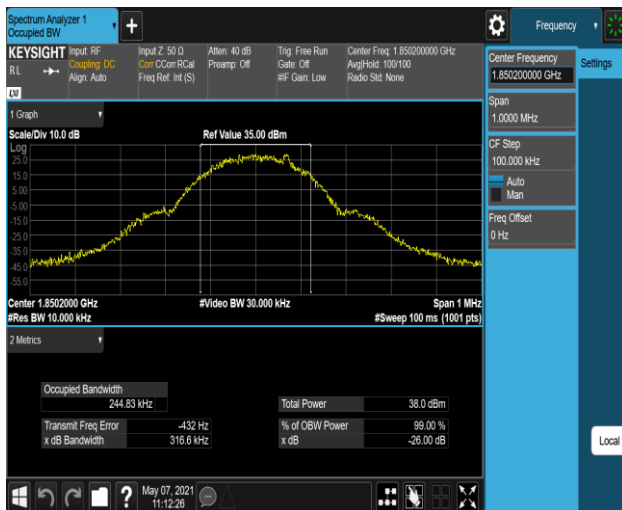
EGPRS850-190-8-0.3086



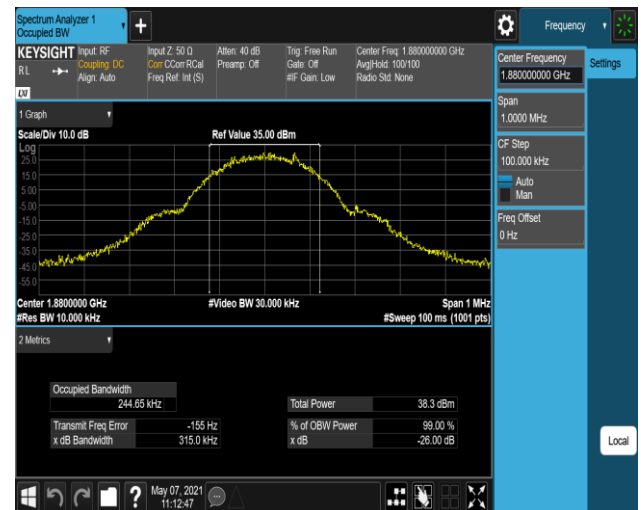
EGPRS850-251-8-0.3072



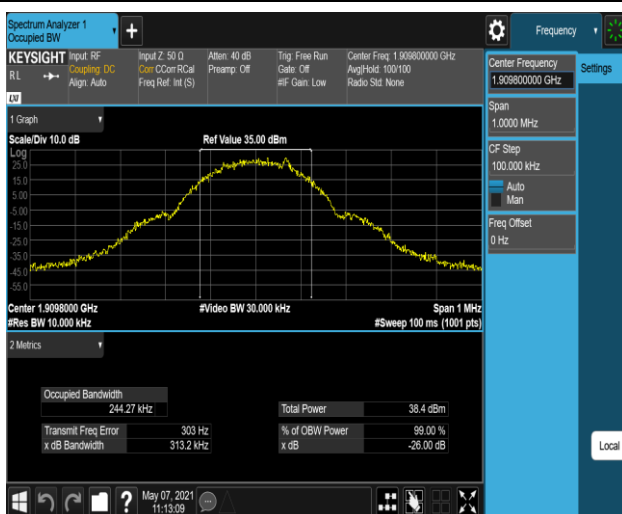
GSM1900-512-0-0.3166



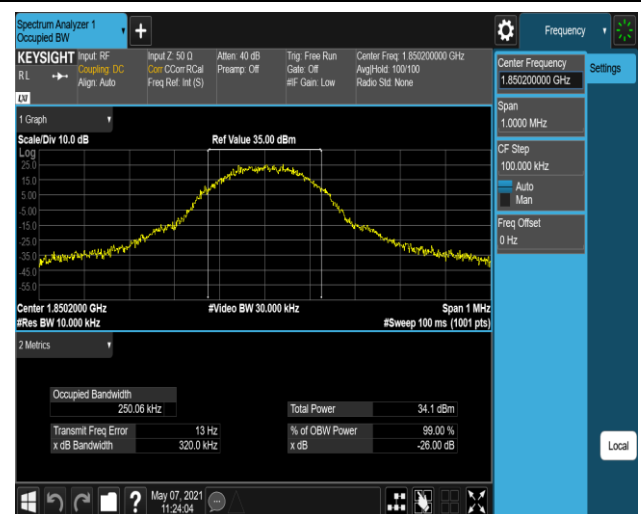
GSM1900-661-0-0.3150

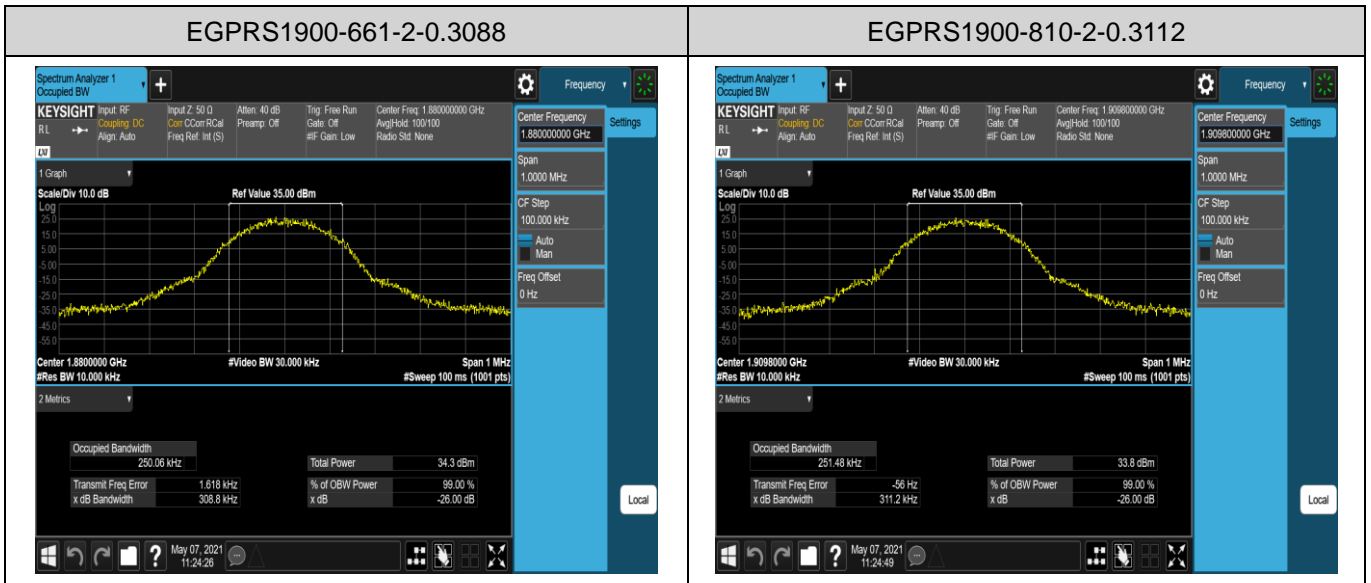


GSM1900-810-0-0.3132



EGPRS1900-512-2-0.3200





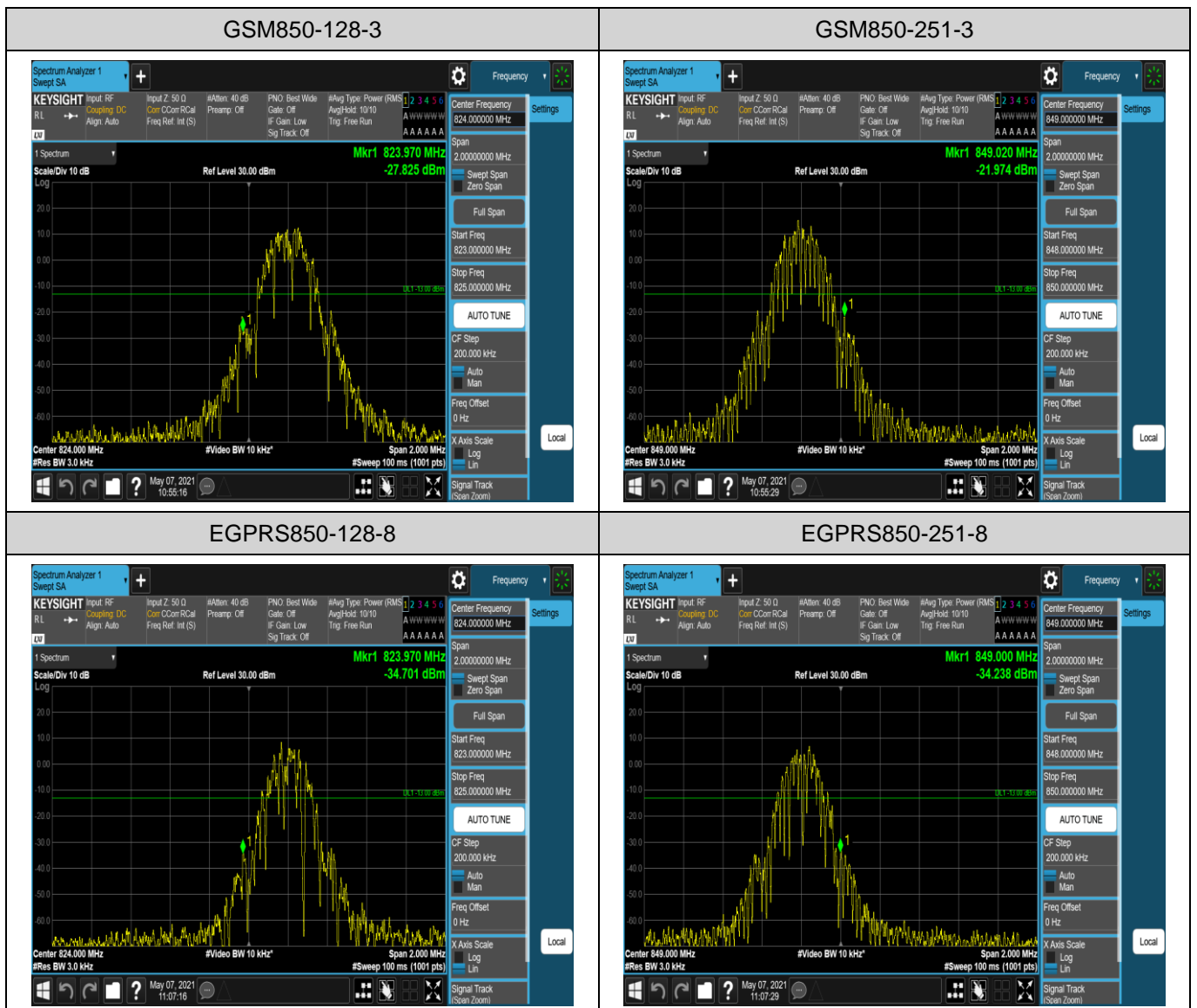
## Appendix D: Band Edge

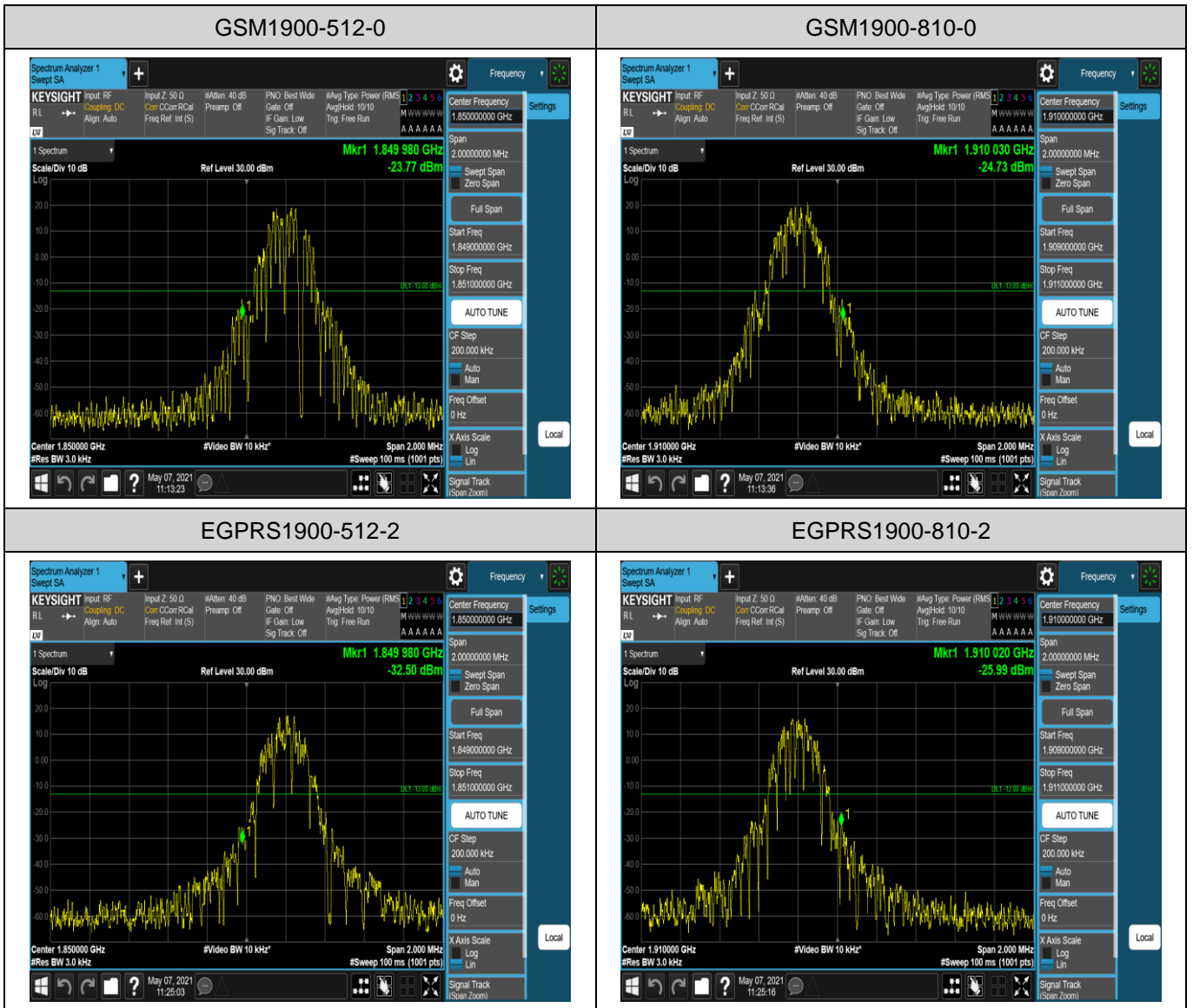
### Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.97	-21.73	-13	PASS
GSM850	251	3	849.02	-21.97	-13	PASS
EGPRS850	128	8	823.97	-31.53	-13	PASS
EGPRS850	251	8	849.00	-32.87	-13	PASS
GSM1900	512	0	1849.98	-16.24	-13	PASS
GSM1900	810	0	1910.03	-16.28	-13	PASS
EGPRS1900	512	2	1849.98	-25.84	-13	PASS
EGPRS1900	810	2	1910.02	-22.16	-13	PASS



### Test Graphs



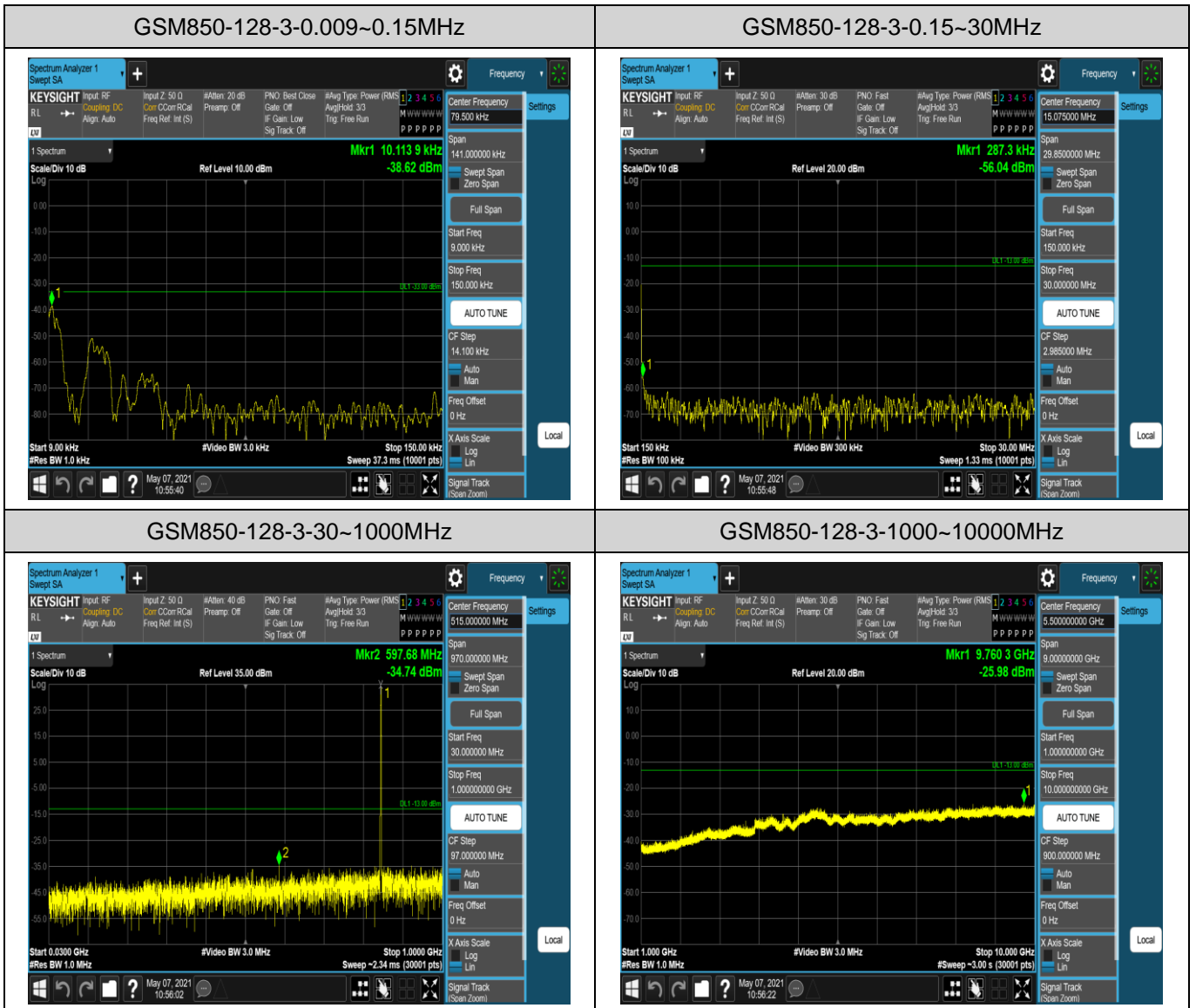


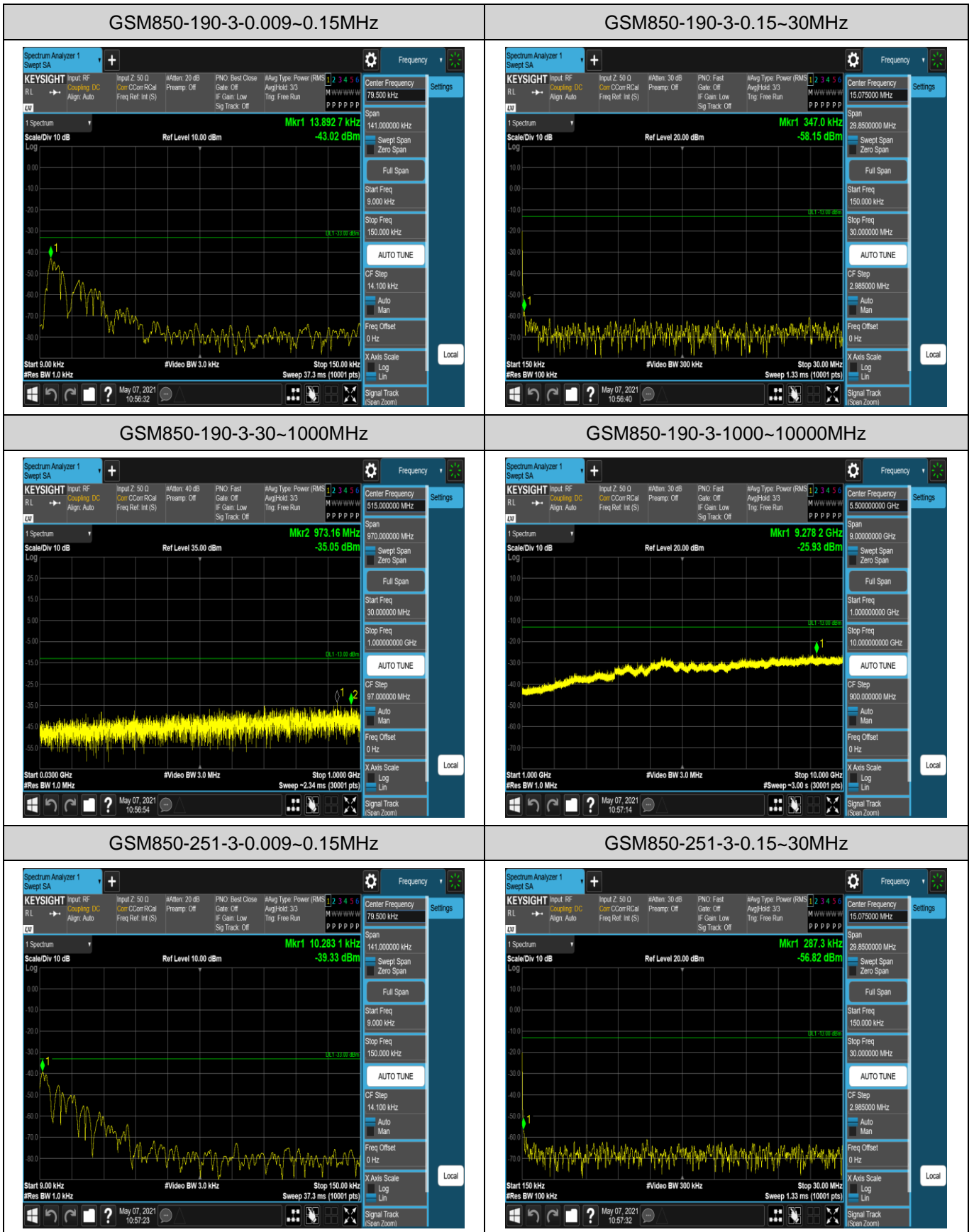
## Appendix E: Conducted Spurious Emission

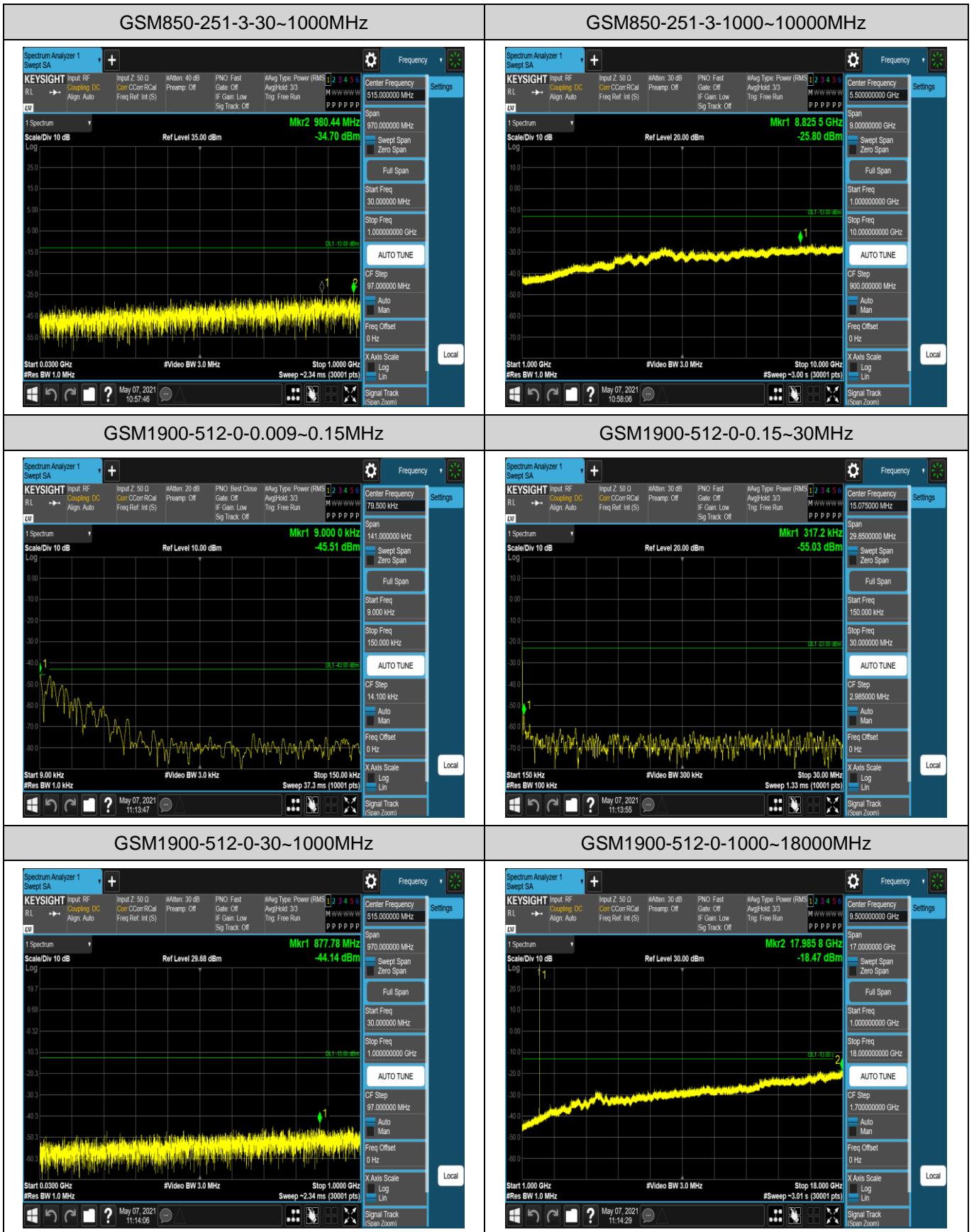
### Test Result

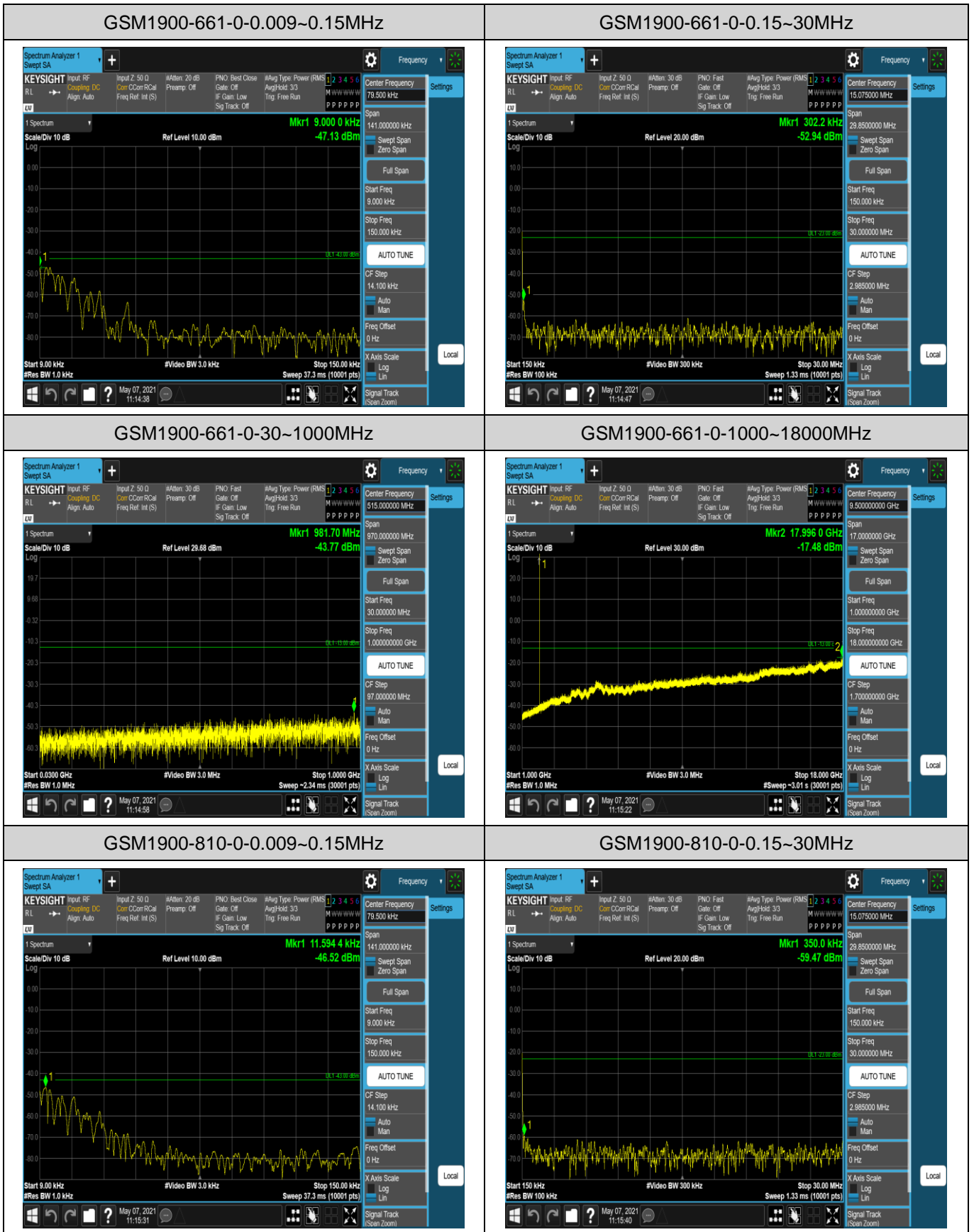
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-38.62	-33	PASS
GSM850	128	3	0.15~30MHz	0.29	-56.04	-13	PASS
GSM850	128	3	30~1000MHz	597.68	-34.74	-13	PASS
GSM850	128	3	1000~10000MHz	9760.3	-25.98	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-43.02	-33	PASS
GSM850	190	3	0.15~30MHz	0.35	-58.15	-13	PASS
GSM850	190	3	30~1000MHz	973.16	-35.05	-13	PASS
GSM850	190	3	1000~10000MHz	9278.2	-25.93	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-39.33	-33	PASS
GSM850	251	3	0.15~30MHz	0.29	-56.82	-13	PASS
GSM850	251	3	30~1000MHz	980.44	-34.7	-13	PASS
GSM850	251	3	1000~10000MHz	8825.5	-25.8	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-45.51	-43	PASS
GSM1900	512	0	0.15~30MHz	0.32	-55.03	-23	PASS
GSM1900	512	0	30~1000MHz	877.78	-44.14	-13	PASS
GSM1900	512	0	1000~18000MHz	17985.83	-18.47	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-47.13	-43	PASS
GSM1900	661	0	0.15~30MHz	0.3	-52.94	-23	PASS
GSM1900	661	0	30~1000MHz	981.7	-43.77	-13	PASS
GSM1900	661	0	1000~18000MHz	17996.03	-17.48	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-46.52	-43	PASS
GSM1900	810	0	0.15~30MHz	0.35	-59.48	-23	PASS
GSM1900	810	0	30~1000MHz	973.42	-45.06	-13	PASS
GSM1900	810	0	1000~18000MHz	17956.93	-18.14	-13	PASS

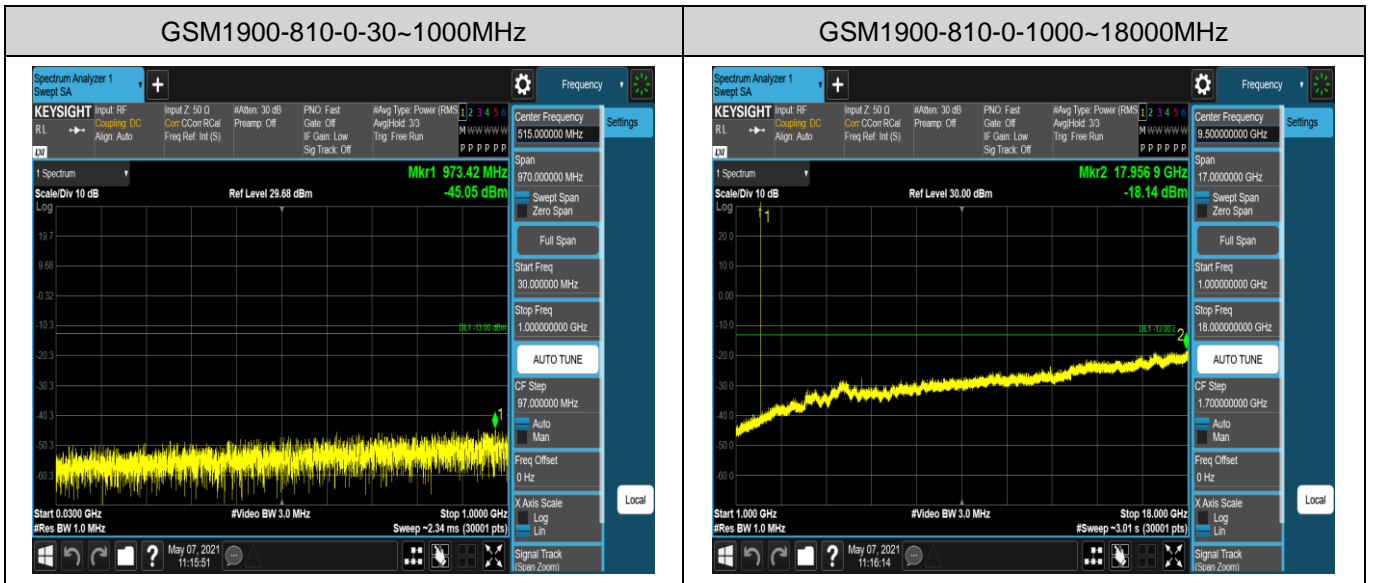
Test Graphs













## Appendix F: Frequency Stability

### Test Result (the worst channel)

Reference Frequency: GSM850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	10.14	0.012120	±2.5	Pass
	-20	9.27	0.011081		
	-10	7.01	0.008379		
	0	6.55	0.007829		
	10	9.33	0.011152		
	20	11.66	0.013937		
	30	12.33	0.014738		
	40	14.56	0.017404		
	50	12.72	0.015204		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	0.16	0.000191	±2.5	Pass
	3.70	-0.29	-0.000347		
	4.20	0.19	0.000227		
<i>Note: Only the worst case shown in the report.</i>					

Reference Frequency: EGPRS850 Middle channel=190 Frequency=836.6MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	16.76	0.020033	±2.5	Pass
	-20	22.54	0.026942		
	-10	13.11	0.015671		
	0	5.88	0.007028		
	10	14.82	0.017715		
	20	12.82	0.015324		
	30	6.30	0.007530		
	40	10.11	0.012085		
	50	10.53	0.012587		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	19.73	0.023584	±2.5	Pass
	3.70	17.37	0.020763		
	4.20	17.76	0.021229		
<i>Note: Only the worst case shown in the report.</i>					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	-3.13	-0.001665	Within authorized band for PCS 1900	Pass
	-20	1.26	0.000670		
	-10	17.60	0.009362		
	0	7.49	0.003984		
	10	12.46	0.006628		
	20	11.04	0.005872		
	30	10.17	0.005410		
	40	10.98	0.005840		
	50	-0.03	-0.000016		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	10.82	0.005755	Within authorized band for PCS 1900	Pass
	3.70	-3.71	-0.001973		
	4.20	3.36	0.001787		
<i>Note: Only the worst case shown in the report.</i>					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.70	-30	-1.52	-0.000809	Within authorized band for PCS 1900	Pass
	-20	0.87	0.000463		
	-10	7.07	0.003761		
	0	12.14	0.006457		
	10	8.36	0.004447		
	20	6.13	0.003261		
	30	9.49	0.005048		
	40	18.24	0.009702		
	50	-2.42	-0.001287		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	8.68	0.004617	Within authorized band for PCS 1900	Pass
	3.70	-5.17	-0.002750		
	4.20	0.10	0.000053		
<i>Note: Only the worst case shown in the report.</i>					