

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	0	33.43	0.15	31.43	38.45
GSM850	190	0	33.67	0.15	31.67	38.45
GSM850	251	0	33.20	0.15	31.20	38.45
GSM1900	512	0	30.67	0.35	31.02	33.00
GSM1900	661	0	30.28	0.35	30.63	33.00
GSM1900	810	0	30.14	0.35	30.49	33.00
Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi).(For GSM 1900) ERP (dBm) = EIRP (dBm) - 2.15 (dB).(For GSM 850)						

Band	Channel	PCL	Slot	Average Power (dBm)	Antenna Gain (dBi)	ERP(dBm)	ERP/EIRP Limit (dBm)
GPRS850	128	3	1	33.53	0.15	31.53	38.45
GPRS850	128	3	2	32.64	0.15	30.64	38.45
GPRS850	128	3	3	30.58	0.15	28.58	38.45
GPRS850	128	3	4	29.28	0.15	27.28	38.45
GPRS850	190	3	1	33.61	0.15	31.61	38.45
GPRS850	190	3	2	32.94	0.15	30.94	38.45
GPRS850	190	3	3	30.94	0.15	28.94	38.45
GPRS850	190	3	4	29.67	0.15	27.67	38.45
GPRS850	251	3	1	33.15	0.15	31.15	38.45
GPRS850	251	3	2	32.33	0.15	30.33	38.45
GPRS850	251	3	3	30.33	0.15	28.33	38.45
GPRS850	251	3	4	29.05	0.15	27.05	38.45
EGPRS850	128	8	1	26.12	0.15	24.12	38.45
EGPRS850	128	8	2	25.74	0.15	23.74	38.45
EGPRS850	128	8	3	24.03	0.15	22.03	38.45
EGPRS850	128	8	4	23.08	0.15	21.08	38.45
EGPRS850	190	8	1	26.20	0.15	24.20	38.45
EGPRS850	190	8	2	25.91	0.15	23.91	38.45

EGPRS850	190	8	3	24.19	0.15	22.19	38.45
EGPRS850	190	8	4	23.25	0.15	21.25	38.45
EGPRS850	251	8	1	25.94	0.15	23.94	38.45
EGPRS850	251	8	2	25.62	0.15	23.62	38.45
EGPRS850	251	8	3	23.87	0.15	21.87	38.45
EGPRS850	251	8	4	22.96	0.15	20.96	38.45
GPRS1900	512	0	1	30.65	0.35	31.00	33.00
GPRS1900	512	0	2	29.57	0.35	29.92	33.00
GPRS1900	512	0	3	27.33	0.35	27.68	33.00
GPRS1900	512	0	4	26.11	0.35	26.46	33.00
GPRS1900	661	0	1	30.19	0.35	30.54	33.00
GPRS1900	661	0	2	29.14	0.35	29.49	33.00
GPRS1900	661	0	3	26.91	0.35	27.26	33.00
GPRS1900	661	0	4	25.71	0.35	26.06	33.00
GPRS1900	810	0	1	30.07	0.35	30.42	33.00
GPRS1900	810	0	2	28.97	0.35	29.32	33.00
GPRS1900	810	0	3	26.79	0.35	27.14	33.00
GPRS1900	810	0	4	25.62	0.35	25.97	33.00
EGPRS1900	512	2	1	25.05	0.35	25.40	33.00
EGPRS1900	512	2	2	23.87	0.35	24.22	33.00
EGPRS1900	512	2	3	21.68	0.35	22.03	33.00
EGPRS1900	512	2	4	20.45	0.35	20.80	33.00
EGPRS1900	661	2	1	24.93	0.35	25.28	33.00
EGPRS1900	661	2	2	23.88	0.35	24.23	33.00
EGPRS1900	661	2	3	21.68	0.35	22.03	33.00
EGPRS1900	661	2	4	20.51	0.35	20.86	33.00
EGPRS1900	810	2	1	24.69	0.35	25.04	33.00
EGPRS1900	810	2	2	23.66	0.35	24.01	33.00
EGPRS1900	810	2	3	21.46	0.35	21.81	33.00
EGPRS1900	810	2	4	20.17	0.35	20.52	33.00

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

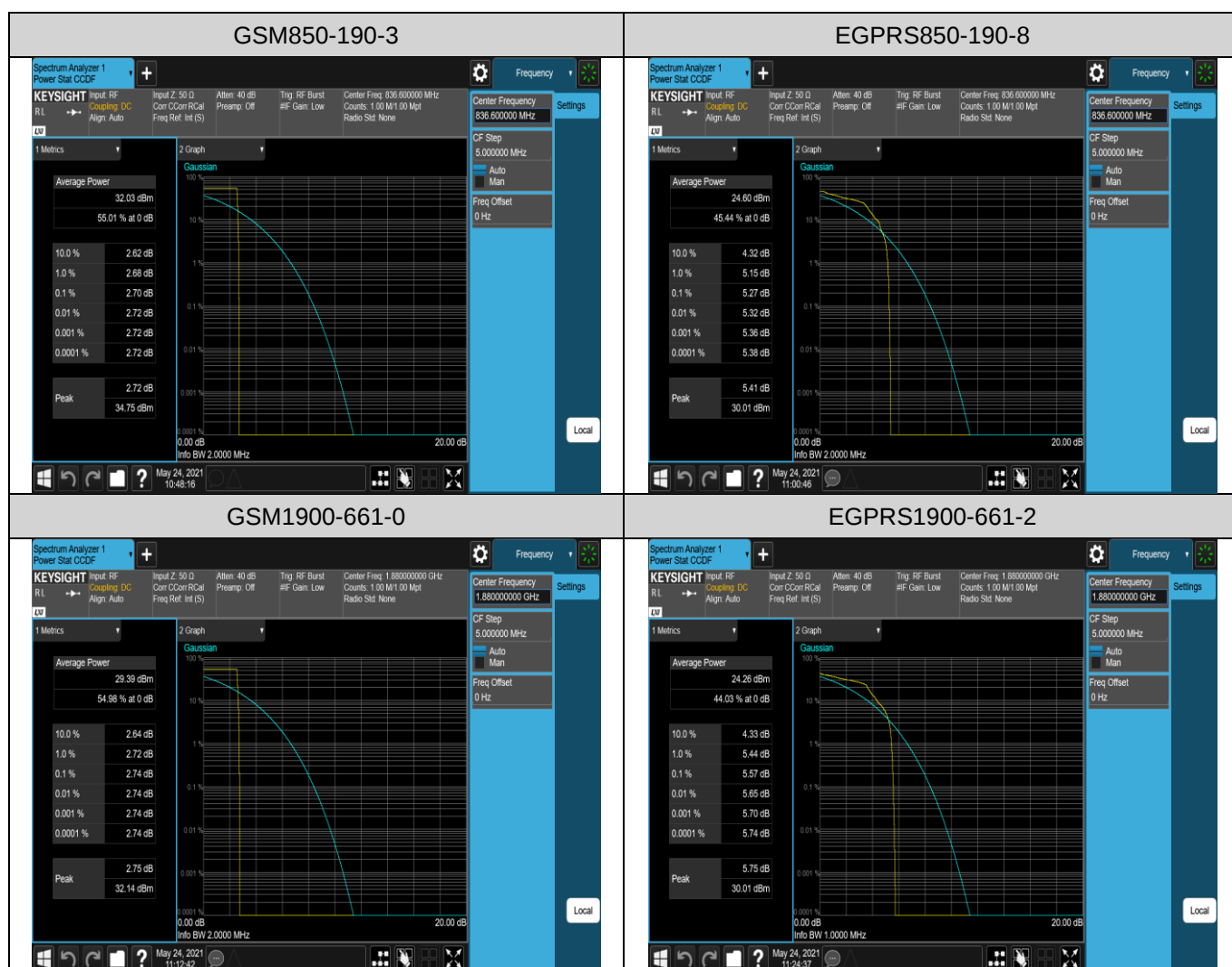
ERP (dBm) = EIRP (dBm) - 2.15 (dB). (For GSM850)

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

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.7	13	PASS
EGPRS850	190	8	5.27	13	PASS
GSM1900	661	0	2.74	13	PASS
EGPRS1900	661	2	5.57	13	PASS

Test Graphs

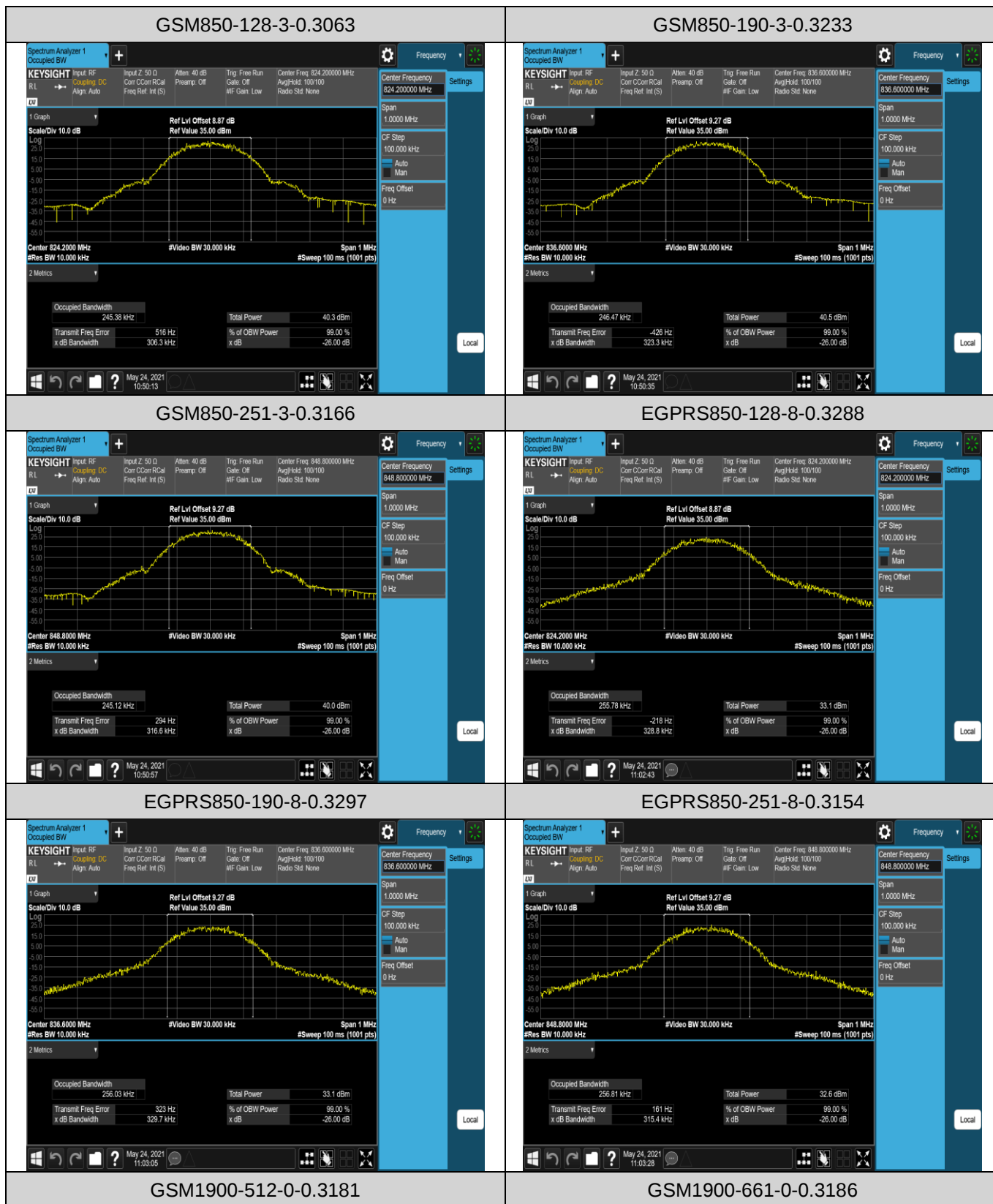


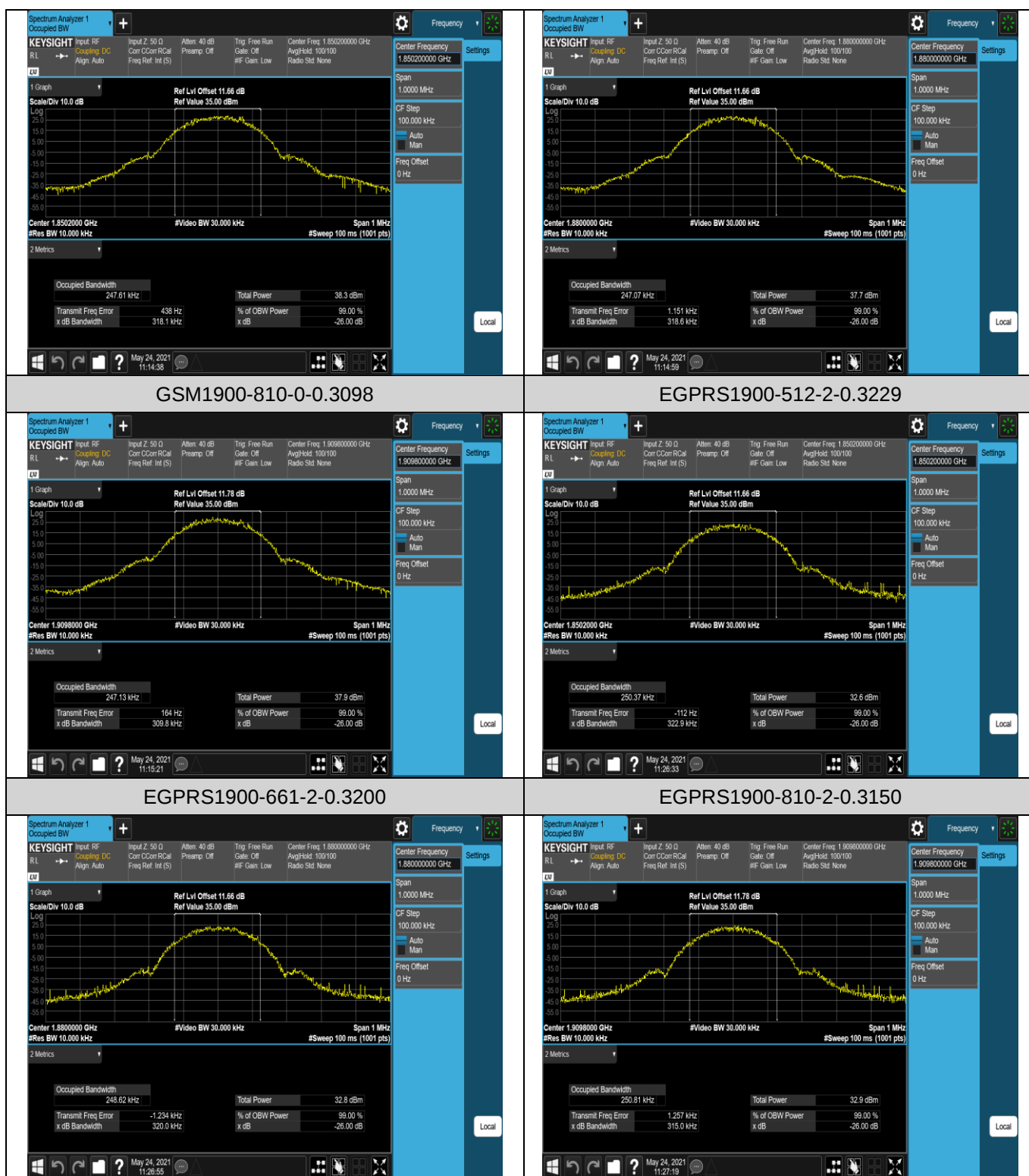
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24538	0.3063	---	PASS
GSM850	190	3	0.24647	0.3233	---	PASS
GSM850	251	3	0.24512	0.3166	---	PASS
EGPRS850	128	8	0.25578	0.3288	---	PASS
EGPRS850	190	8	0.25603	0.3297	---	PASS
EGPRS850	251	8	0.25681	0.3154	---	PASS
GSM1900	512	0	0.24761	0.3181	---	PASS
GSM1900	661	0	0.24707	0.3186	---	PASS
GSM1900	810	0	0.24713	0.3098	---	PASS
EGPRS1900	512	2	0.25037	0.3229	---	PASS
EGPRS1900	661	2	0.24862	0.3200	---	PASS
EGPRS1900	810	2	0.25081	0.3150	---	PASS

Test Graphs



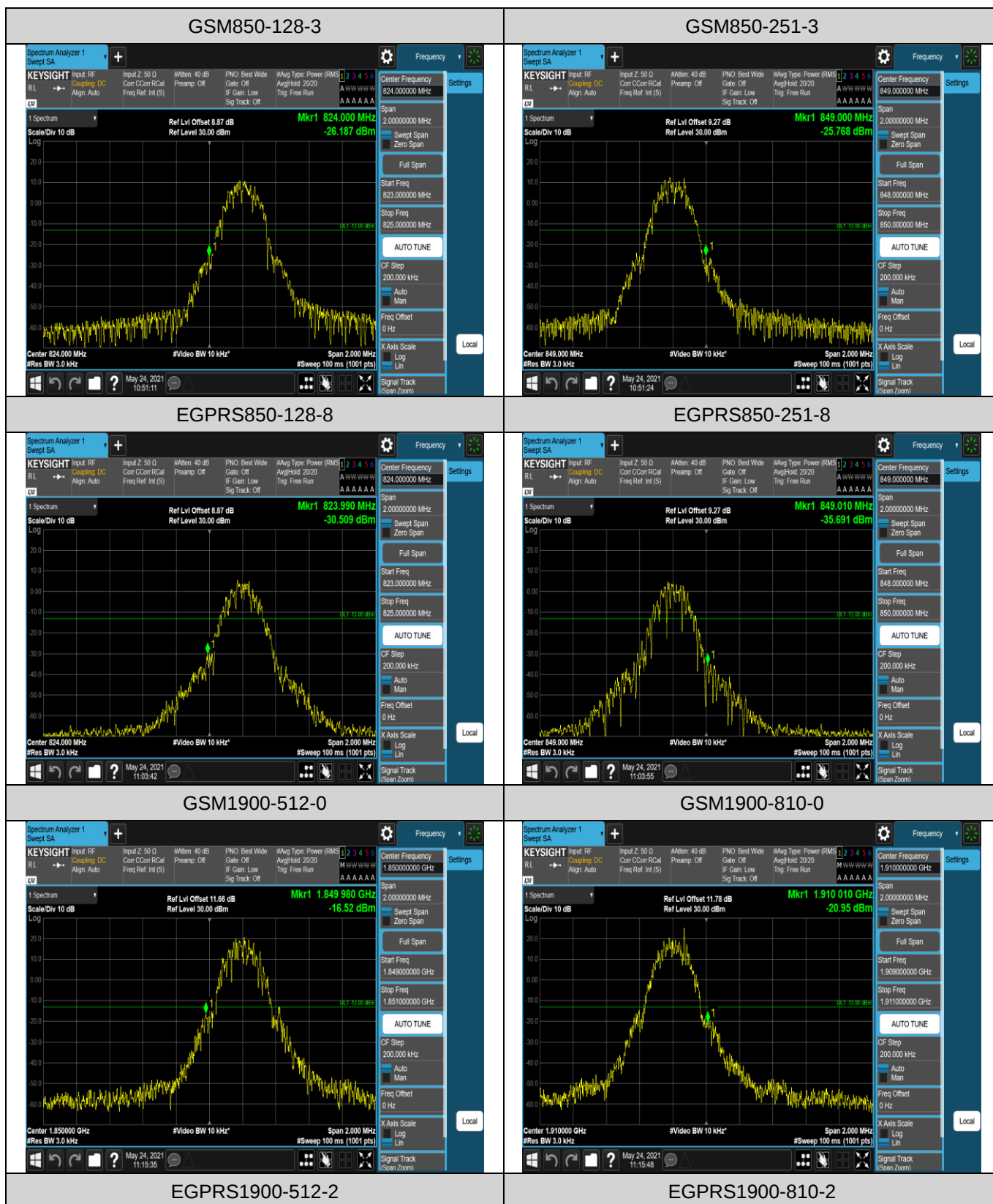


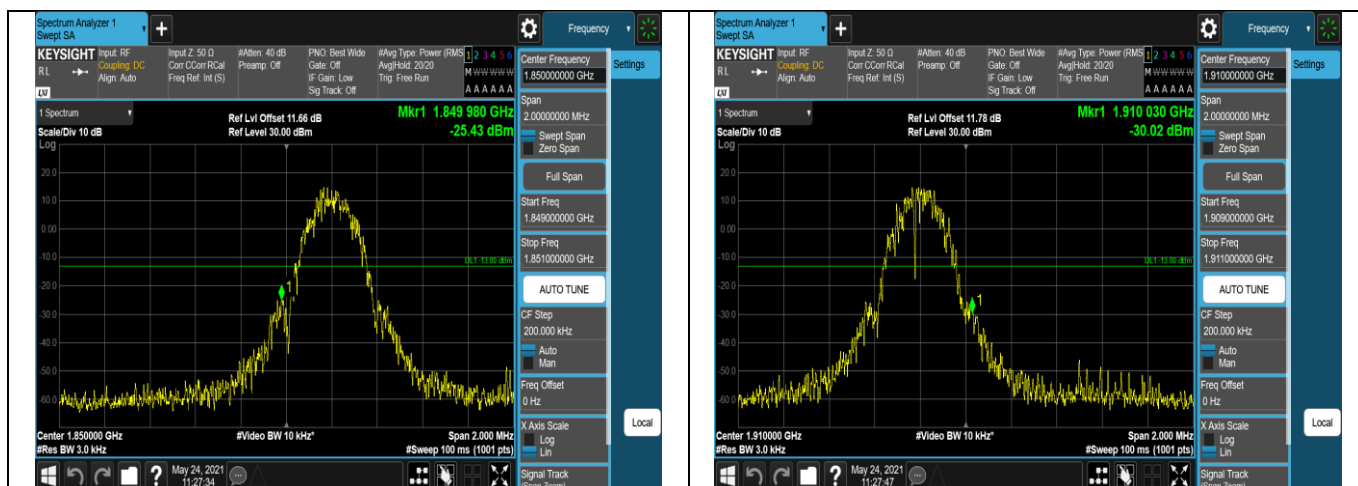
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-24.69	-13	PASS
GSM850	251	3	849.00	-25.77	-13	PASS
EGPRS850	128	8	823.99	-30.51	-13	PASS
EGPRS850	251	8	849.01	-31.33	-13	PASS
GSM1900	512	0	1849.98	-15.11	-13	PASS
GSM1900	810	0	1910.01	-17.36	-13	PASS
EGPRS1900	512	2	1849.98	-24.53	-13	PASS
EGPRS1900	810	2	1910.03	-24.11	-13	PASS

Test Graphs



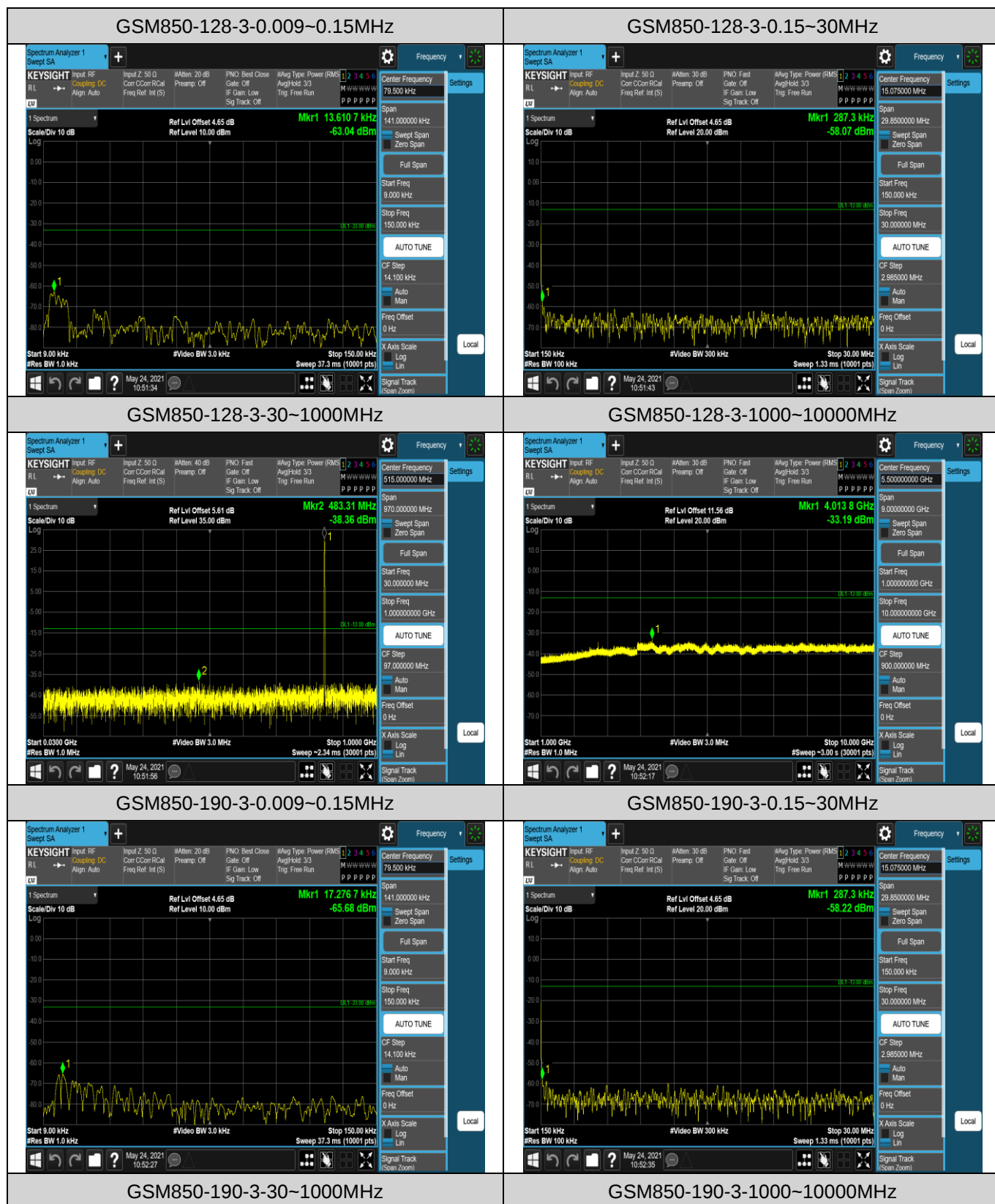


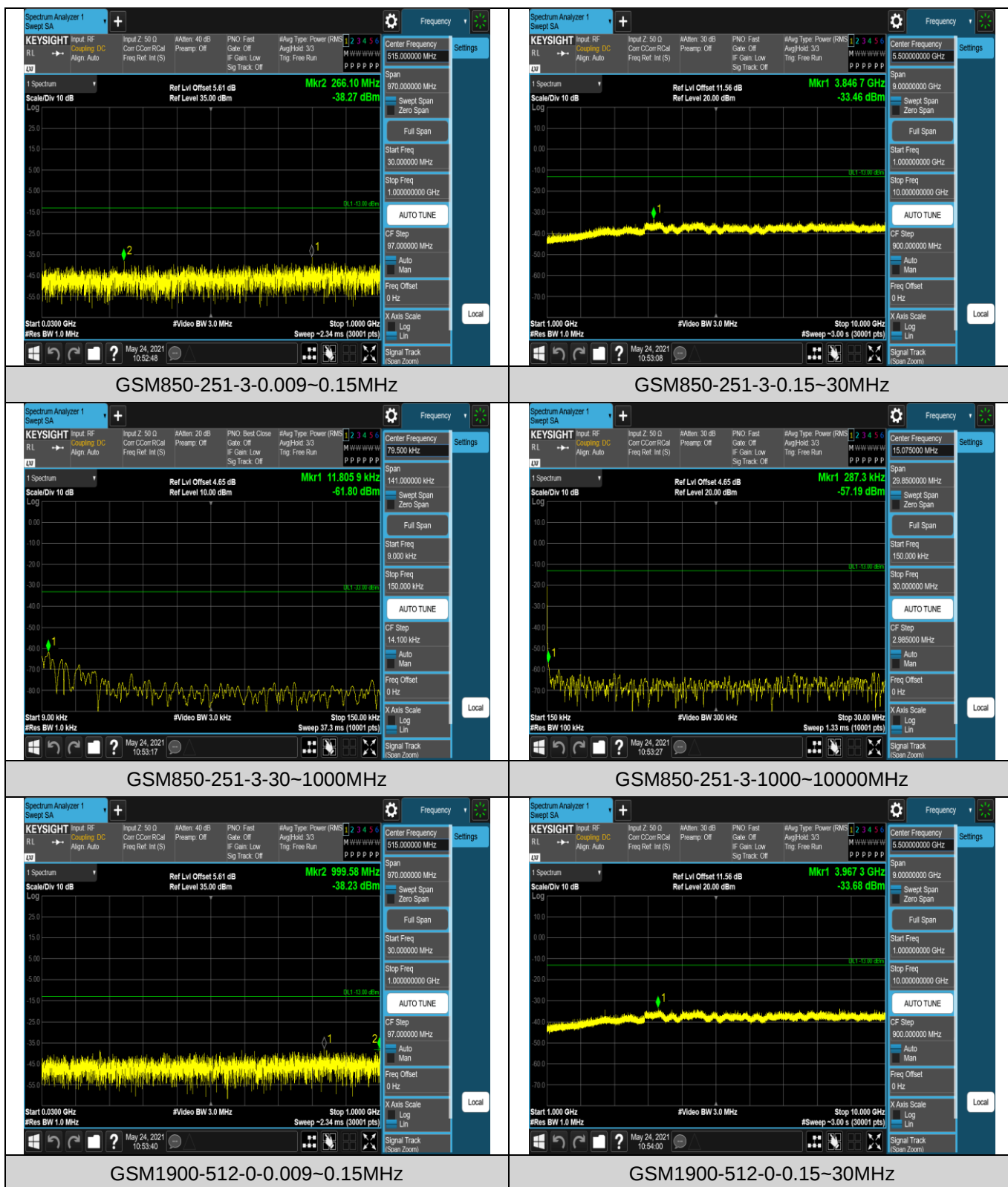
Appendix E: Conducted Spurious Emission

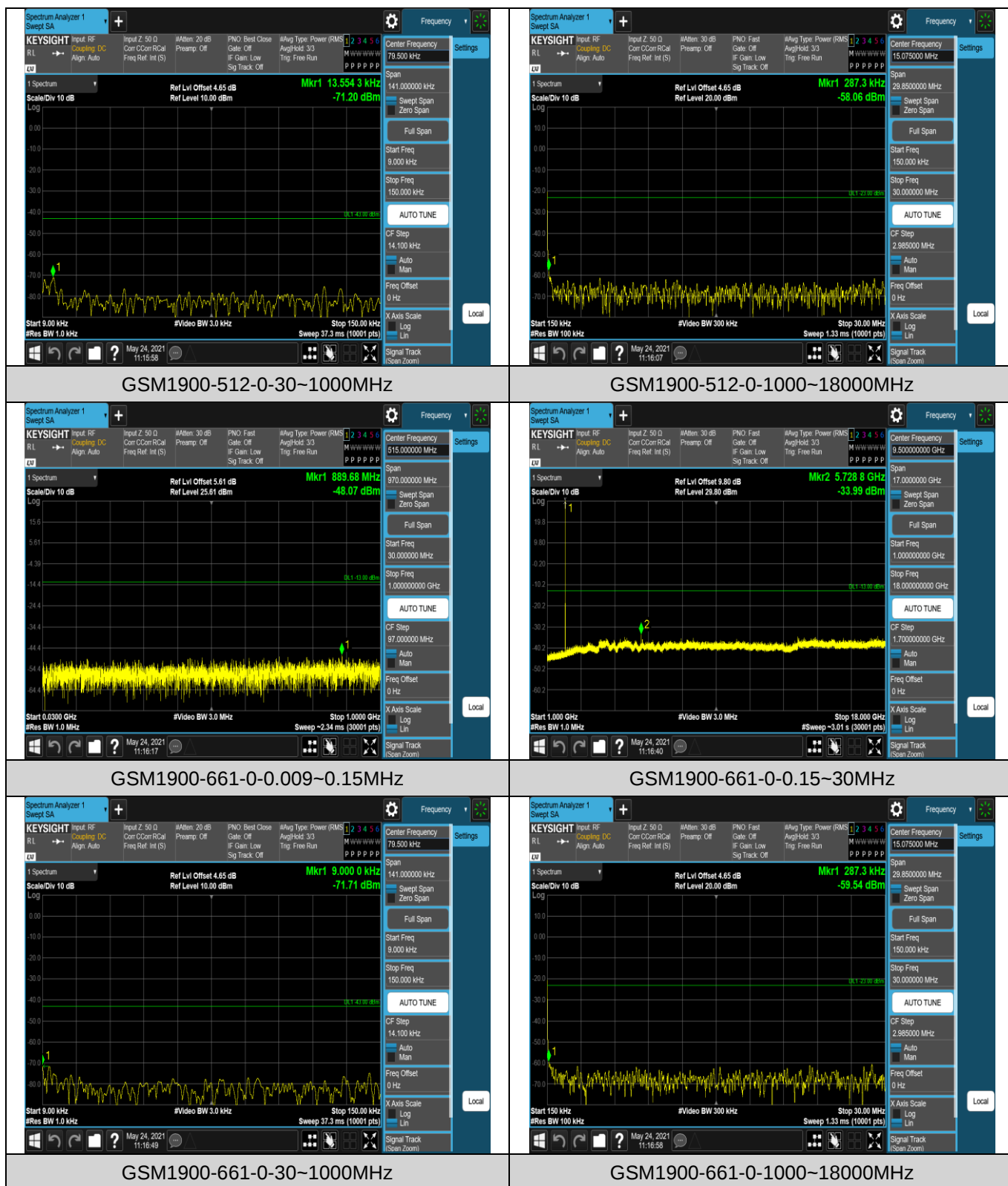
Test Result

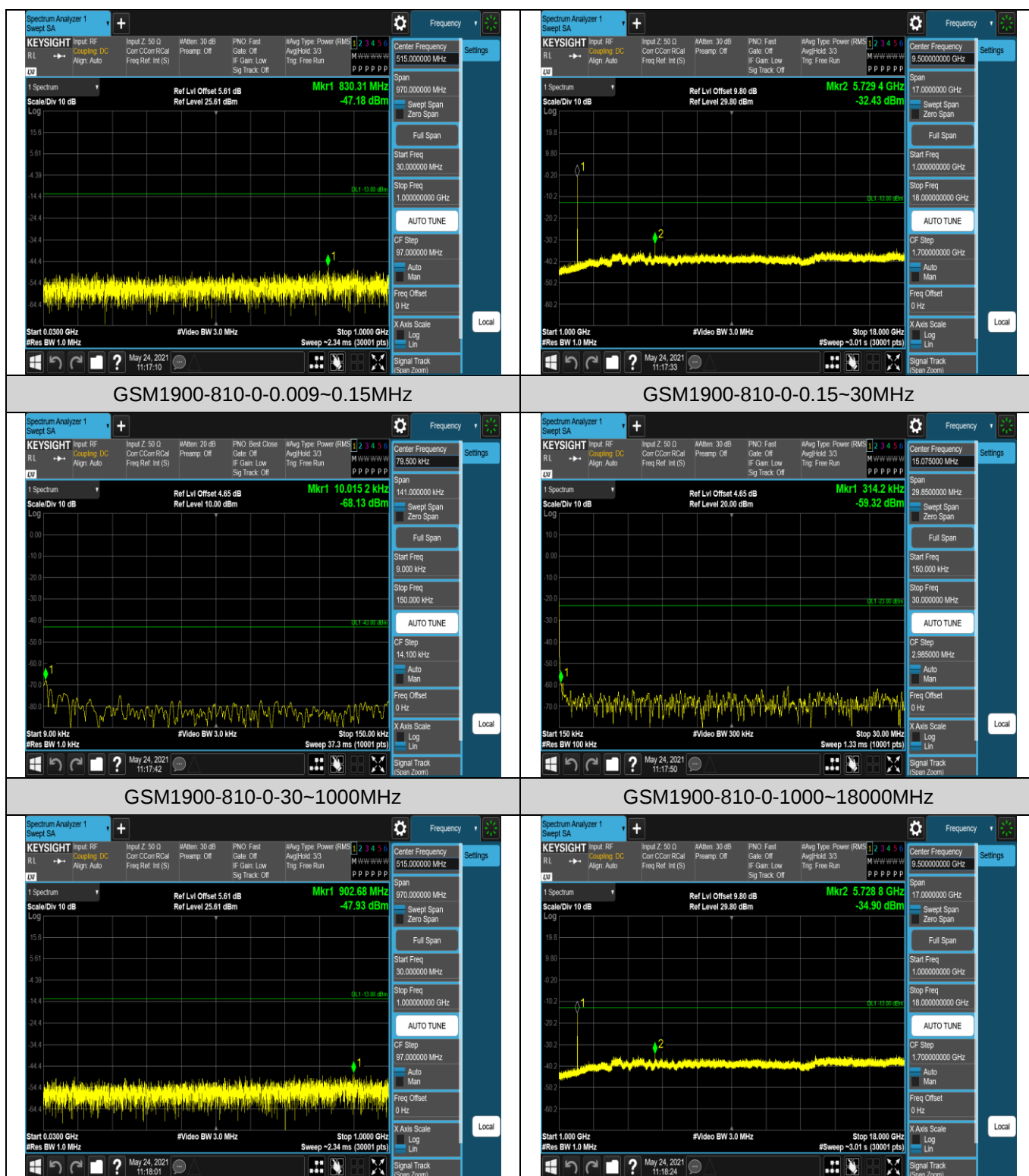
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-63.04	-33	PASS
GSM850	128	3	0.15~30MHz	0.29	-58.07	-13	PASS
GSM850	128	3	30~1000MHz	483.31	-38.36	-13	PASS
GSM850	128	3	1000~10000MHz	4013.8	-33.19	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.02	-65.68	-33	PASS
GSM850	190	3	0.15~30MHz	0.29	-58.22	-13	PASS
GSM850	190	3	30~1000MHz	266.1	-38.27	-13	PASS
GSM850	190	3	1000~10000MHz	3846.7	-33.46	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-61.8	-33	PASS
GSM850	251	3	0.15~30MHz	0.29	-57.19	-13	PASS
GSM850	251	3	30~1000MHz	999.58	-38.23	-13	PASS
GSM850	251	3	1000~10000MHz	3967.3	-33.68	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-71.2	-43	PASS
GSM1900	512	0	0.15~30MHz	0.29	-58.06	-23	PASS
GSM1900	512	0	30~1000MHz	889.68	-48.07	-13	PASS
GSM1900	512	0	1000~18000MHz	5728.83	-33.99	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-71.71	-43	PASS
GSM1900	661	0	0.15~30MHz	0.29	-59.54	-23	PASS
GSM1900	661	0	30~1000MHz	830.31	-47.18	-13	PASS
GSM1900	661	0	1000~18000MHz	5729.4	-32.43	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-68.13	-43	PASS
GSM1900	810	0	0.15~30MHz	0.31	-59.32	-23	PASS
GSM1900	810	0	30~1000MHz	902.68	-47.93	-13	PASS
GSM1900	810	0	1000~18000MHz	5728.83	-34.9	-13	PASS

Test Graphs









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	21.44	0.025628	±2.5	Pass
	-20	19.53	0.023344		
	-10	17.24	0.020607		
	0	13.17	0.015742		
	10	16.37	0.019567		
	20	16.92	0.020225		
	30	15.79	0.018874		
	40	16.95	0.020261		
	50	18.02	0.021540		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	18.85	0.022532	±2.5	Pass
	3.87	17.79	0.021265		
	4.45	21.79	0.026046		
Note: Only the worst case shown in the 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	10.78	0.012885	±2.5	Pass
	-20	17.43	0.020834		
	-10	17.72	0.021181		
	0	17.98	0.021492		
	10	16.14	0.019292		
	20	22.54	0.026942		
	30	20.31	0.024277		
	40	18.85	0.022532		
	50	14.72	0.017595		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	6.97	0.008331	±2.5	Pass
	3.87	10.82	0.012933		
	4.45	10.33	0.012348		
Note: Only the worst case shown in the 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	23.31	0.012399	Within authorized band for PCS 1900	Pass
	-20	30.90	0.016436		
	-10	33.09	0.017601		
	0	33.90	0.018032		
	10	29.28	0.015574		
	20	36.26	0.019287		
	30	30.99	0.016484		
	40	23.57	0.012537		
	50	28.61	0.015218		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	28.28	0.015043	Within authorized band for PCS 1900	Pass
	3.87	29.15	0.015505		
	4.45	26.80	0.014255		
Note: Only the worst case shown in the report.					

Reference Frequency: EGPRS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	21.63	0.011505	Within authorized band for PCS 1900	Pass
	-20	27.02	0.014372		
	-10	46.56	0.024766		
	0	35.35	0.018803		
	10	40.71	0.021654		
	20	40.26	0.021415		
	30	40.36	0.021468		
	40	35.58	0.018926		
	50	37.29	0.019835		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	24.34	0.012947	Within authorized band for PCS 1900	Pass
	3.87	26.89	0.014303		
	4.45	27.22	0.014479		
Note: Only the worst case shown in the report.					