

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	33.17	26.92	38.45	PASS
GSM850	190	5	33.22	26.97	38.45	PASS
GSM850	251	5	33.08	26.83	38.45	PASS
GSM1900	512	0	29.56	29.46	33.00	PASS
GSM1900	661	0	29.50	29.4	33.00	PASS
GSM1900	810	0	29.50	29.4	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.14	26.89	38.45	PASS
GPRS850	128	5	2	32.16	25.91	38.45	PASS
GPRS850	128	5	3	30.15	23.9	38.45	PASS
GPRS850	128	5	4	29.03	22.78	38.45	PASS
GPRS850	190	5	1	33.21	26.96	38.45	PASS
GPRS850	190	5	2	32.23	25.98	38.45	PASS
GPRS850	190	5	3	30.19	23.94	38.45	PASS
GPRS850	190	5	4	29.06	22.81	38.45	PASS
GPRS850	251	5	1	33.07	26.82	38.45	PASS
GPRS850	251	5	2	32.10	25.85	38.45	PASS
GPRS850	251	5	3	30.05	23.8	38.45	PASS
GPRS850	251	5	4	28.93	22.68	38.45	PASS
GPRS1900	512	0	1	29.70	29.6	33.00	PASS
GPRS1900	512	0	2	28.70	28.6	33.00	PASS
GPRS1900	512	0	3	26.69	26.59	33.00	PASS
GPRS1900	512	0	4	25.53	25.43	33.00	PASS
GPRS1900	661	0	1	29.68	29.58	33.00	PASS
GPRS1900	661	0	2	28.72	28.62	33.00	PASS
GPRS1900	661	0	3	26.70	26.6	33.00	PASS
GPRS1900	661	0	4	25.60	25.5	33.00	PASS
GPRS1900	810	0	1	29.68	29.58	33.00	PASS
GPRS1900	810	0	2	28.75	28.65	33.00	PASS
GPRS1900	810	0	3	26.81	26.71	33.00	PASS
GPRS1900	810	0	4	25.73	25.63	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.58	21.33	38.45	PASS
EGPRS850	128	8	2	26.26	20.01	38.45	PASS
EGPRS850	128	8	3	23.90	17.65	38.45	PASS
EGPRS850	128	8	4	22.54	16.29	38.45	PASS
EGPRS850	190	8	1	27.40	21.15	38.45	PASS
EGPRS850	190	8	2	26.07	19.82	38.45	PASS
EGPRS850	190	8	3	23.74	17.49	38.45	PASS
EGPRS850	190	8	4	22.33	16.08	38.45	PASS
EGPRS850	251	8	1	27.65	21.4	38.45	PASS
EGPRS850	251	8	2	26.30	20.05	38.45	PASS
EGPRS850	251	8	3	23.90	17.65	38.45	PASS
EGPRS850	251	8	4	22.59	16.34	38.45	PASS
EGPRS1900	512	2	1	26.06	25.96	33.00	PASS
EGPRS1900	512	2	2	25.17	25.07	33.00	PASS
EGPRS1900	512	2	3	23.10	23	33.00	PASS
EGPRS1900	512	2	4	22.05	21.95	33.00	PASS
EGPRS1900	661	2	1	26.41	26.31	33.00	PASS
EGPRS1900	661	2	2	25.53	25.43	33.00	PASS
EGPRS1900	661	2	3	23.50	23.4	33.00	PASS
EGPRS1900	661	2	4	22.46	22.36	33.00	PASS
EGPRS1900	810	2	1	26.23	26.13	33.00	PASS
EGPRS1900	810	2	2	25.31	25.21	33.00	PASS
EGPRS1900	810	2	3	23.26	23.16	33.00	PASS
EGPRS1900	810	2	4	22.18	22.08	33.00	PASS

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

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

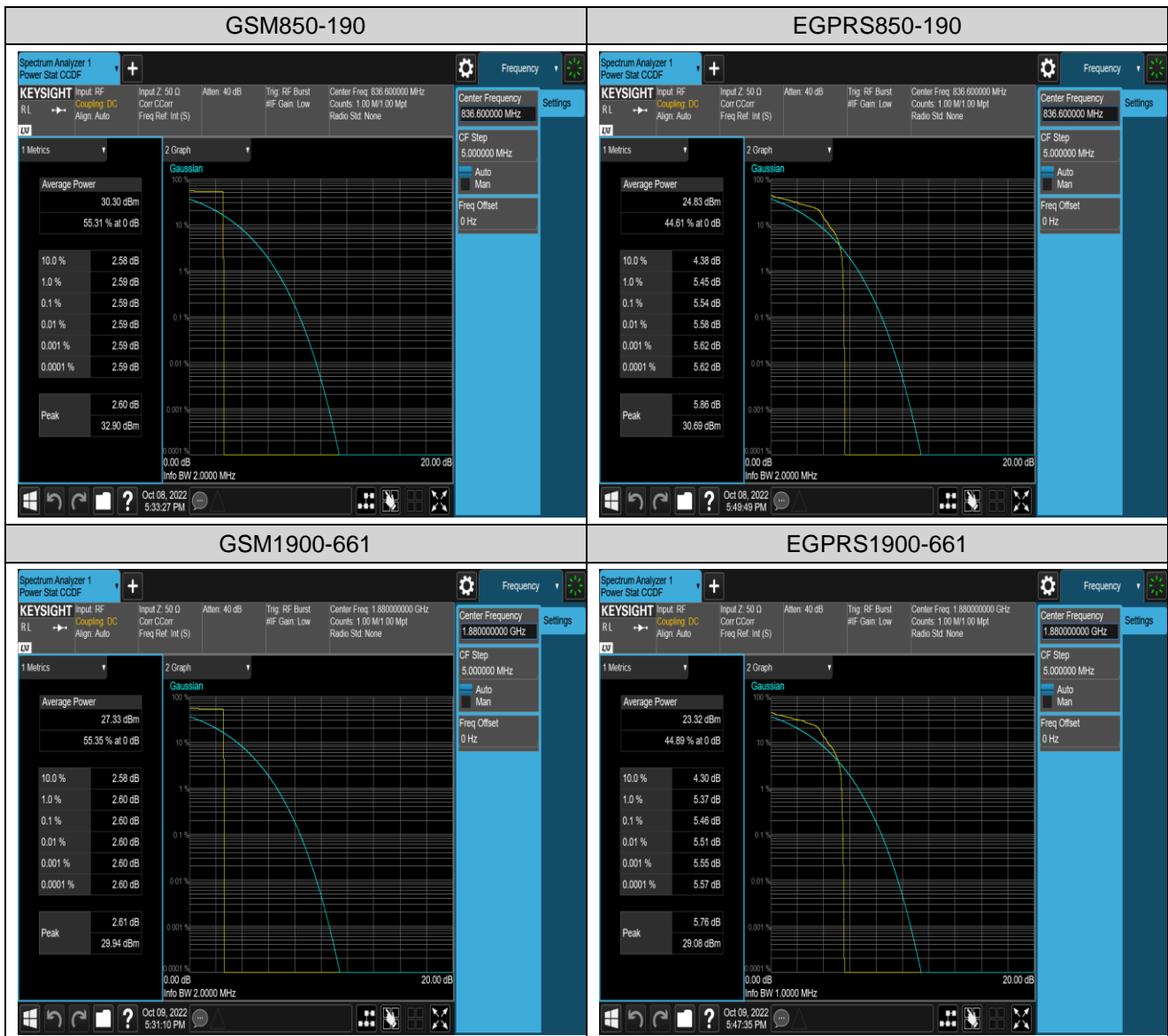
Appendix B: Peak-to-Average Ratio(CCDF)

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	2.6	13	PASS
EGPRS1900	661	2	5.46	13	PASS

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

Test Graphs

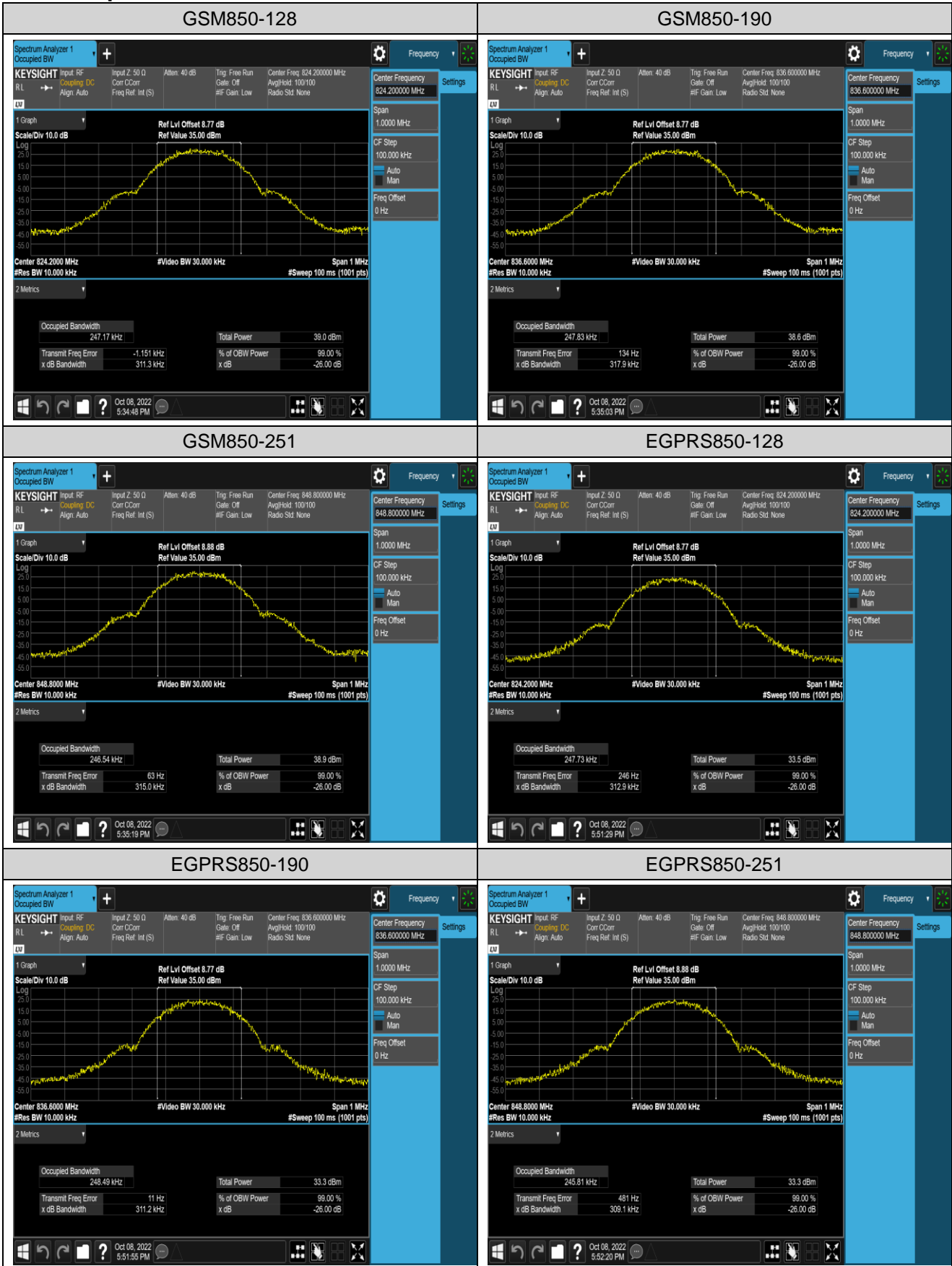


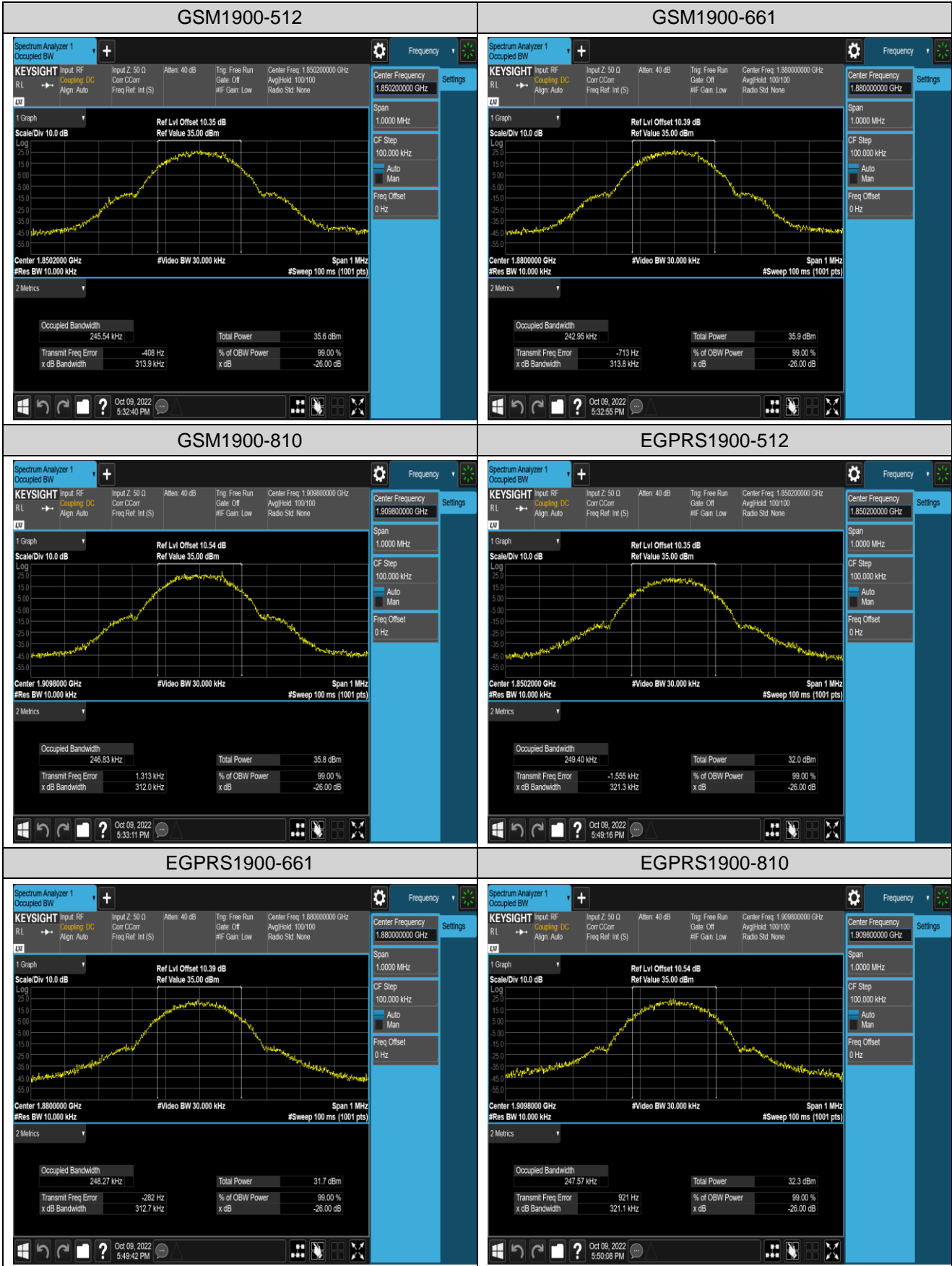
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24717	0.3113	---	PASS
GSM850	190	5	0.24783	0.3179	---	PASS
GSM850	251	5	0.24654	0.3150	---	PASS
EGPRS850	128	8	0.24773	0.3129	---	PASS
EGPRS850	190	8	0.24849	0.3112	---	PASS
EGPRS850	251	8	0.24581	0.3091	---	PASS
GSM1900	512	0	0.24554	0.3139	---	PASS
GSM1900	661	0	0.24295	0.3138	---	PASS
GSM1900	810	0	0.24683	0.3120	---	PASS
EGPRS1900	512	2	0.24940	0.3213	---	PASS
EGPRS1900	661	2	0.24827	0.3127	---	PASS
EGPRS1900	810	2	0.24757	0.3211	---	PASS

Test Graphs

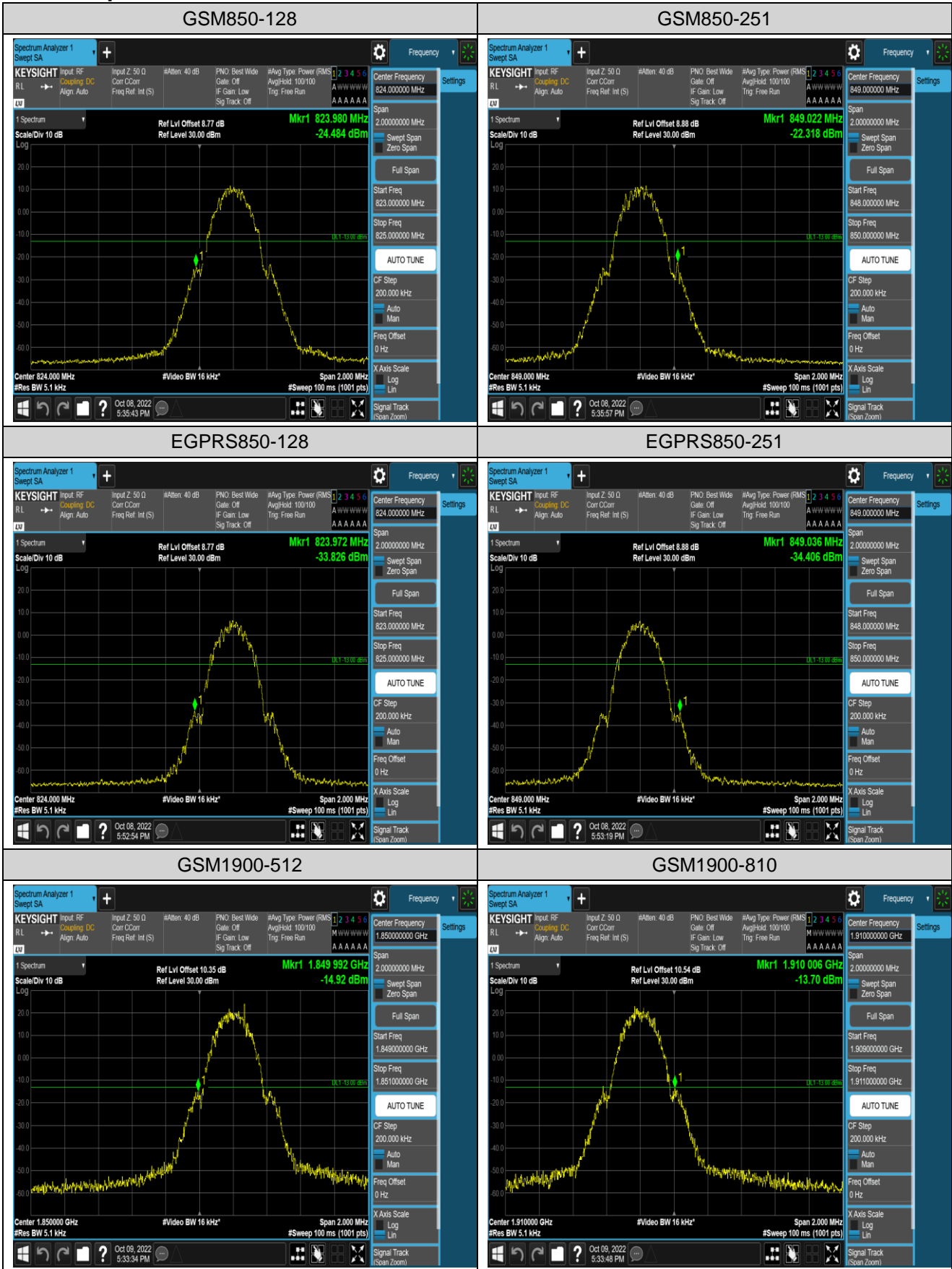


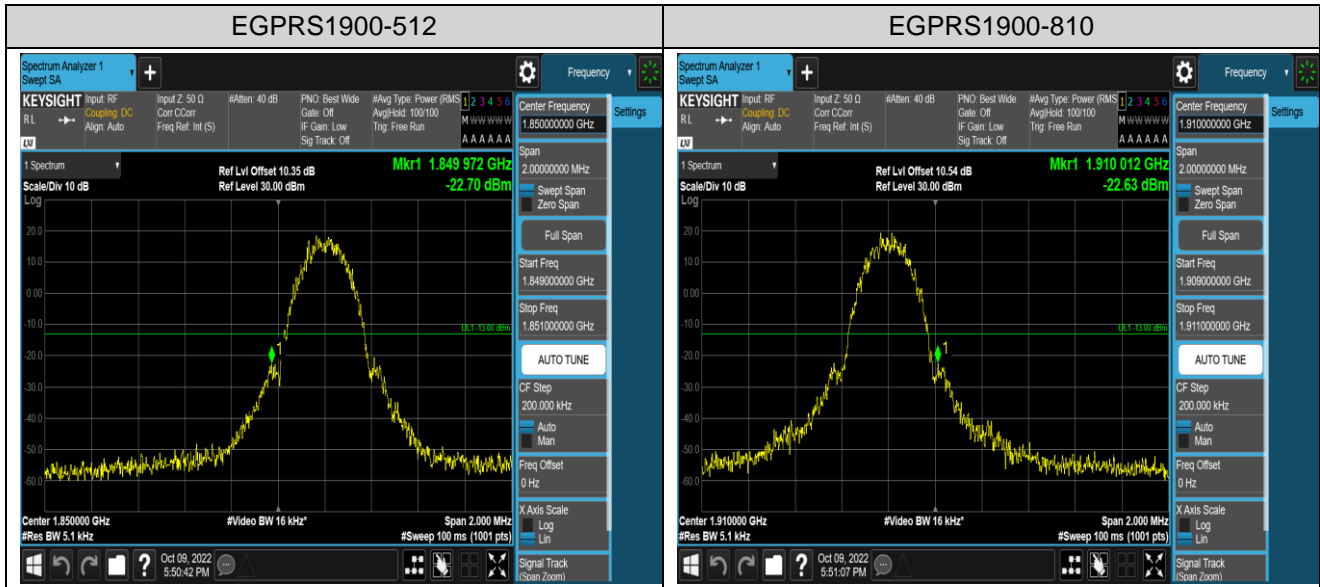


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-24.48	-13	PASS
GSM850	251	5	849.02	-22.32	-13	PASS
EGPRS850	128	8	823.97	-33.83	-13	PASS
EGPRS850	251	8	849.04	-34.41	-13	PASS
GSM1900	512	0	1849.99	-14.92	-13	PASS
GSM1900	810	0	1910.01	-13.70	-13	PASS
EGPRS1900	512	2	1849.97	-22.70	-13	PASS
EGPRS1900	810	2	1910.01	-22.63	-13	PASS

Test Graphs





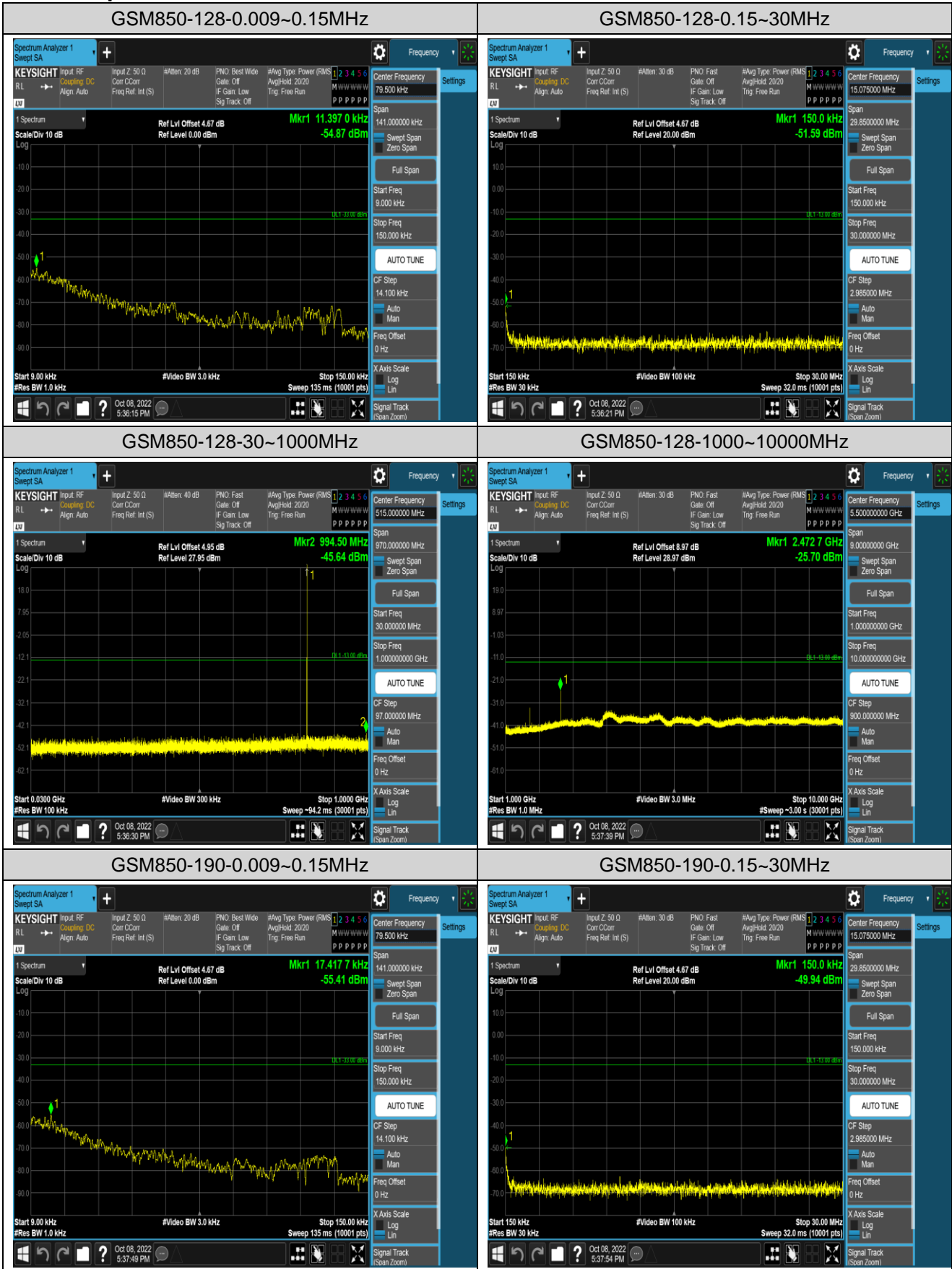
Appendix E: Conducted Spurious Emission

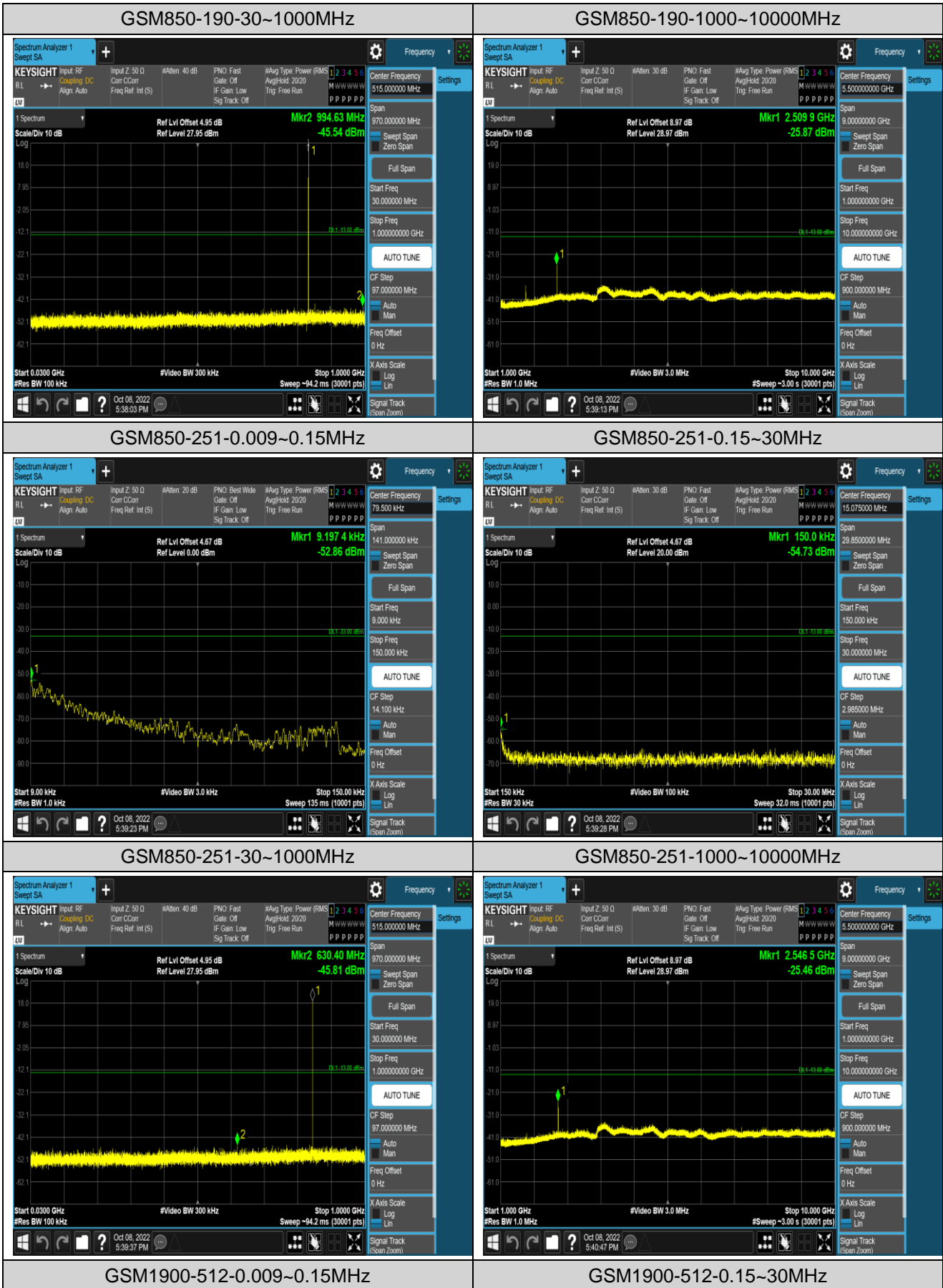
Test Result

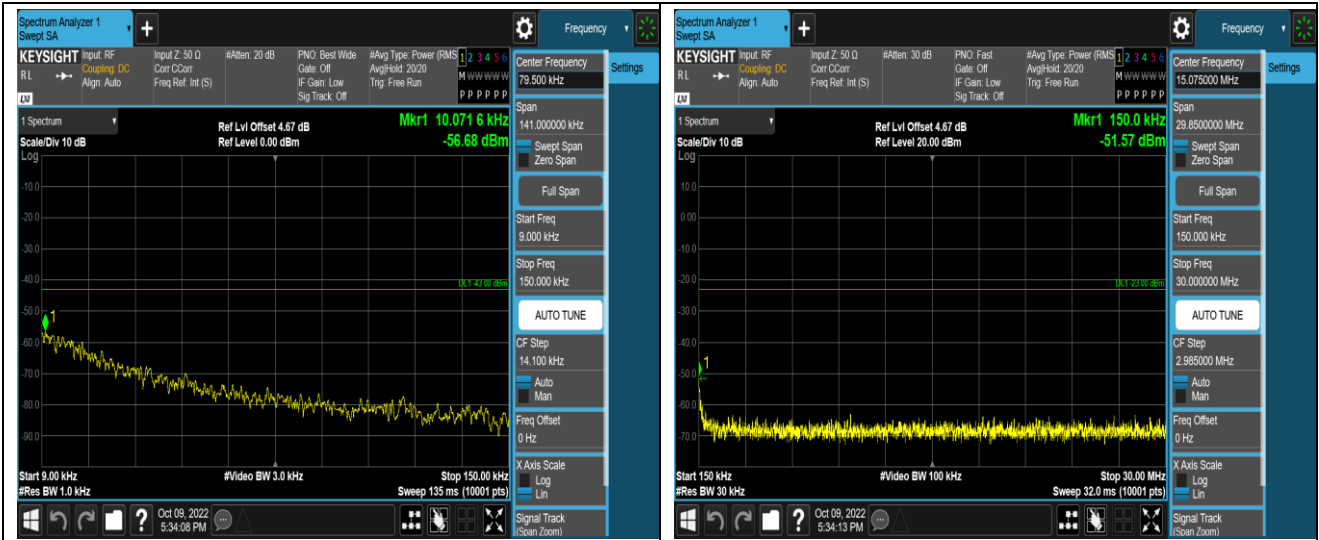
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.87	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-51.59	-13	PASS
GSM850	128	5	30~1000MHz	994.5	-45.64	-13	PASS
GSM850	128	5	1000~10000MHz	2472.7	-25.7	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.02	-55.41	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-49.94	-13	PASS
GSM850	190	5	30~1000MHz	994.63	-45.54	-13	PASS
GSM850	190	5	1000~10000MHz	2509.9	-25.87	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-52.86	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-54.73	-13	PASS
GSM850	251	5	30~1000MHz	630.4	-45.81	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-25.46	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.68	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-51.57	-23	PASS
GSM1900	512	0	30~1000MHz	841.83	-46	-13	PASS
GSM1900	512	0	1000~18000MHz	3789.13	-34.35	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.91	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-52.23	-23	PASS
GSM1900	661	0	30~1000MHz	909.18	-46.63	-13	PASS
GSM1900	661	0	1000~18000MHz	3759.67	-33.49	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-55.09	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-52.07	-23	PASS
GSM1900	810	0	30~1000MHz	875.36	-46.45	-13	PASS
GSM1900	810	0	1000~18000MHz	3819.73	-33.01	-13	PASS

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

Test Graphs

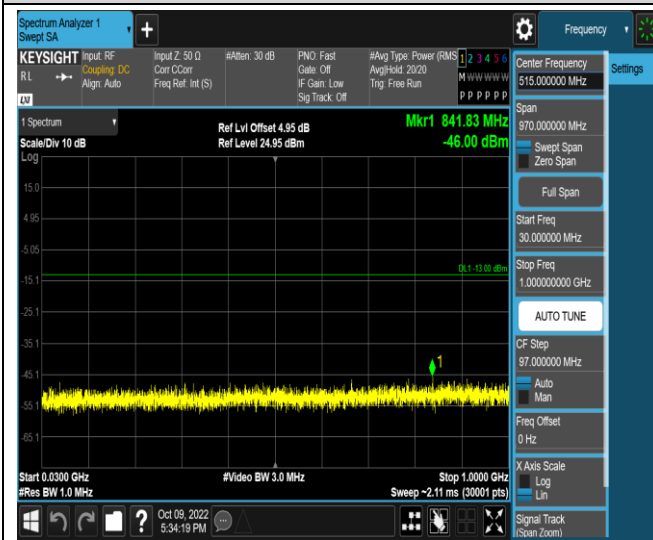






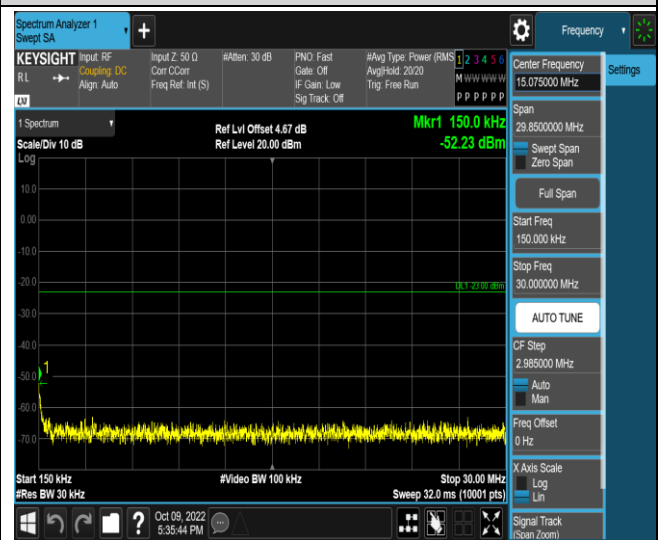
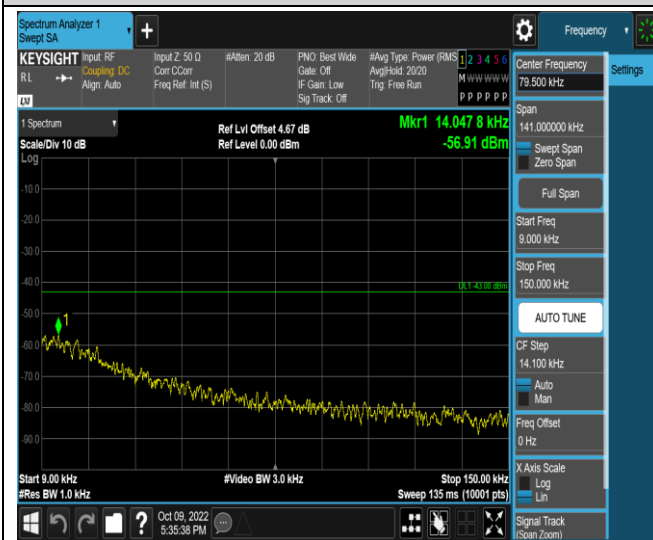
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



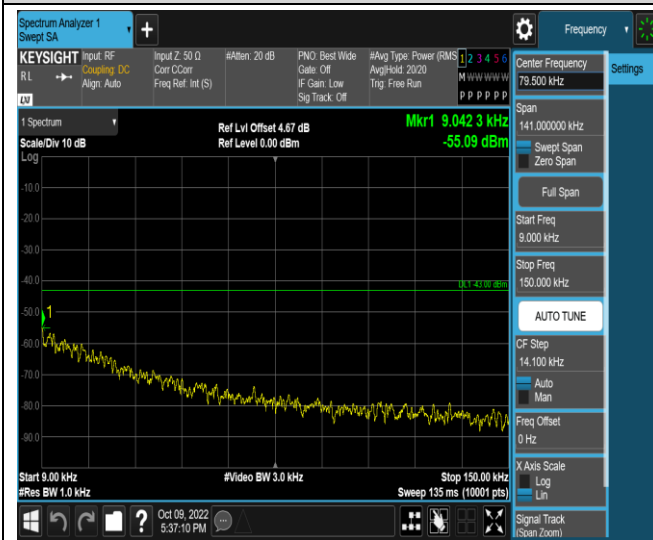
GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz

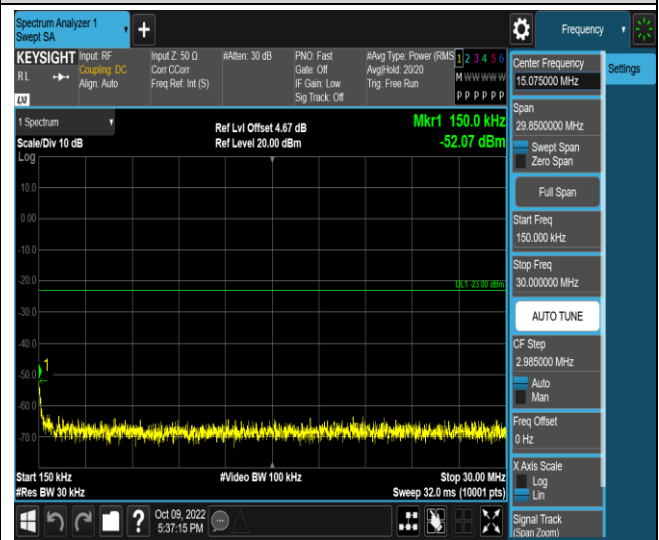


GSM1900-810-0.009~0.15MHz

GSM1900-810-0.15~30MHz



GSM1900-810-30~100MHz



GSM1900-810-1000~1800MHz



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	6.42	0.007674	±2.5	Pass
	-20	5.39	0.006443		
	-10	6.55	0.007829		
	0	-9.01	-0.010770		
	10	-2.45	-0.002929		
	20	5.62	0.006718		
	30	7.88	0.009419		
	40	3.84	0.004590		
	50	-9.85	-0.011774		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	1.10	0.001315	±2.5	Pass
	3.87	3.16	0.003777		
	4.45	-10.30	-0.012312		
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	-5.26	-0.006287	±2.5	Pass
	-20	-9.04	-0.010806		
	-10	-3.68	-0.004399		
	0	-3.65	-0.004363		
	10	-9.91	-0.011846		
	20	1.45	0.001733		
	30	2.36	0.002821		
	40	-19.47	-0.023273		
	50	-1.58	-0.001889		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-6.26	-0.007483	±2.5	Pass
	3.87	-4.75	-0.005678		
	4.45	-4.75	-0.005678		
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	14.53	0.007729	Within authorized band for PCS 1900	Pass
	-20	22.83	0.012144		
	-10	15.72	0.008362		
	0	23.34	0.012415		
	10	17.72	0.009426		
	20	13.01	0.006920		
	30	11.46	0.006096		
	40	16.11	0.008569		
	50	23.31	0.012399		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	11.30	0.006011	Within authorized band for PCS 1900	Pass
	3.87	15.14	0.008053		
	4.45	22.89	0.012176		
<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	17.79	0.009463	Within authorized band for PCS 1900	Pass
	-20	16.05	0.008537		
	-10	15.01	0.007984		
	0	12.40	0.006596		
	10	17.43	0.009271		
	20	25.67	0.013654		
	30	30.96	0.016468		
	40	27.35	0.014548		
	50	30.35	0.016144		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	19.92	0.010596	Within authorized band for PCS 1900	Pass
	3.87	14.66	0.007798		
	4.45	14.40	0.007660		
<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

