

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	33.30	28.35	38.5	PASS
GSM850	190	5	33.59	28.64	38.5	PASS
GSM850	251	5	33.20	28.25	38.5	PASS
GSM1900	512	0	30.30	29.70	33	PASS
GSM1900	661	0	30.09	29.49	33	PASS
GSM1900	810	0	29.91	29.31	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.28	28.33	38.5	PASS
GPRS850	128	5	2	32.31	27.36	38.5	PASS
GPRS850	128	5	3	30.30	25.35	38.5	PASS
GPRS850	128	5	4	29.22	24.27	38.5	PASS
GPRS850	190	5	1	33.52	28.57	38.5	PASS
GPRS850	190	5	2	32.60	27.65	38.5	PASS
GPRS850	190	5	3	30.58	25.63	38.5	PASS
GPRS850	190	5	4	29.54	24.59	38.5	PASS
GPRS850	251	5	1	33.18	28.23	38.5	PASS
GPRS850	251	5	2	32.27	27.32	38.5	PASS
GPRS850	251	5	3	30.27	25.32	38.5	PASS
GPRS850	251	5	4	29.24	24.29	38.5	PASS
GPRS1900	512	0	1	30.31	29.71	33	PASS
GPRS1900	512	0	2	29.34	28.74	33	PASS
GPRS1900	512	0	3	27.22	26.62	33	PASS
GPRS1900	512	0	4	26.09	25.49	33	PASS
GPRS1900	661	0	1	30.09	29.49	33	PASS
GPRS1900	661	0	2	29.17	28.57	33	PASS
GPRS1900	661	0	3	27.13	26.53	33	PASS
GPRS1900	661	0	4	26.04	25.44	33	PASS
GPRS1900	810	0	1	29.91	29.31	33	PASS
GPRS1900	810	0	2	29.02	28.42	33	PASS
GPRS1900	810	0	3	27.05	26.45	33	PASS
GPRS1900	810	0	4	26.01	25.41	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.87	22.92	38.5	PASS
EGPRS850	128	8	2	26.72	21.77	38.5	PASS
EGPRS850	128	8	3	24.65	19.70	38.5	PASS
EGPRS850	128	8	4	23.61	18.66	38.5	PASS
EGPRS850	190	8	1	27.65	22.70	38.5	PASS
EGPRS850	190	8	2	26.58	21.63	38.5	PASS
EGPRS850	190	8	3	24.50	19.55	38.5	PASS
EGPRS850	190	8	4	23.39	18.44	38.5	PASS
EGPRS850	251	8	1	27.68	22.73	38.5	PASS
EGPRS850	251	8	2	26.67	21.72	38.5	PASS
EGPRS850	251	8	3	24.50	19.55	38.5	PASS
EGPRS850	251	8	4	23.42	18.47	38.5	PASS
EGPRS1900	512	2	1	25.02	24.42	33	PASS
EGPRS1900	512	2	2	24.00	23.40	33	PASS
EGPRS1900	512	2	3	22.07	21.47	33	PASS
EGPRS1900	512	2	4	21.01	20.41	33	PASS
EGPRS1900	661	2	1	25.14	24.54	33	PASS
EGPRS1900	661	2	2	24.23	23.63	33	PASS
EGPRS1900	661	2	3	22.27	21.67	33	PASS
EGPRS1900	661	2	4	21.21	20.61	33	PASS
EGPRS1900	810	2	1	25.06	24.46	33	PASS
EGPRS1900	810	2	2	24.16	23.56	33	PASS
EGPRS1900	810	2	3	22.14	21.54	33	PASS
EGPRS1900	810	2	4	21.02	20.42	33	PASS

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

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

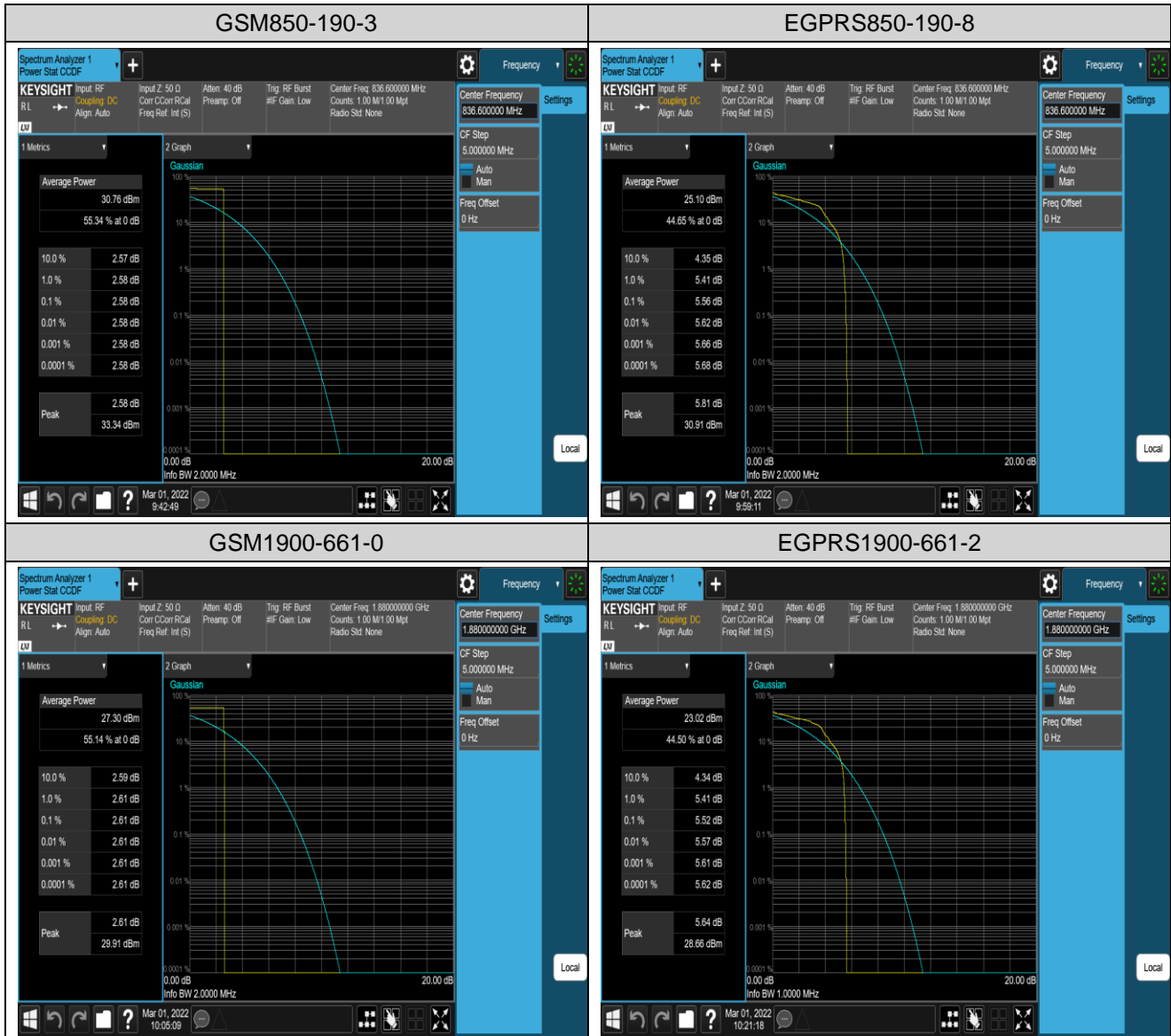
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.58	13	PASS
EGPRS850	190	8	5.56	13	PASS
GSM1900	661	0	2.61	13	PASS
EGPRS1900	661	2	5.52	13	PASS

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

Test Graphs

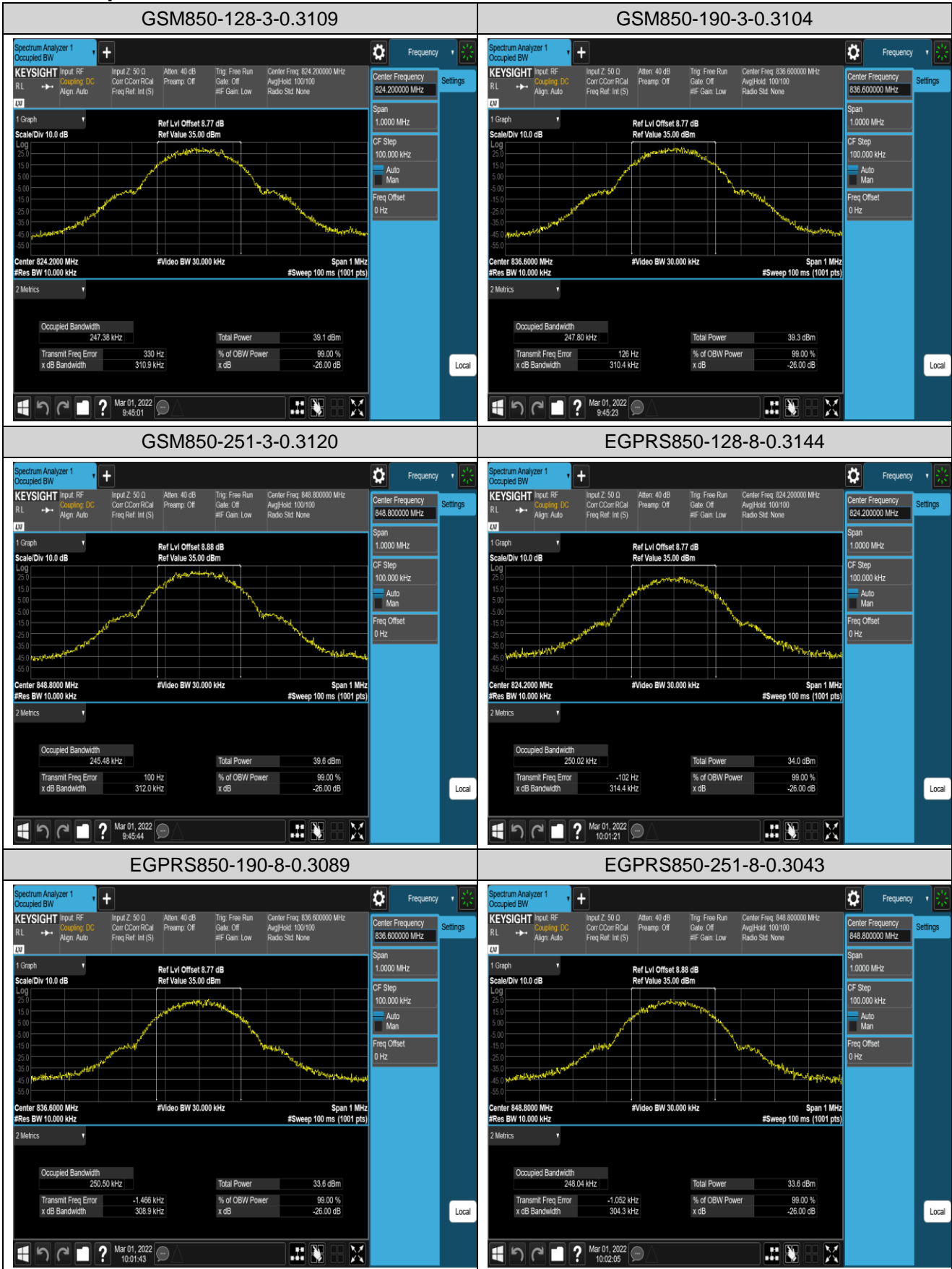


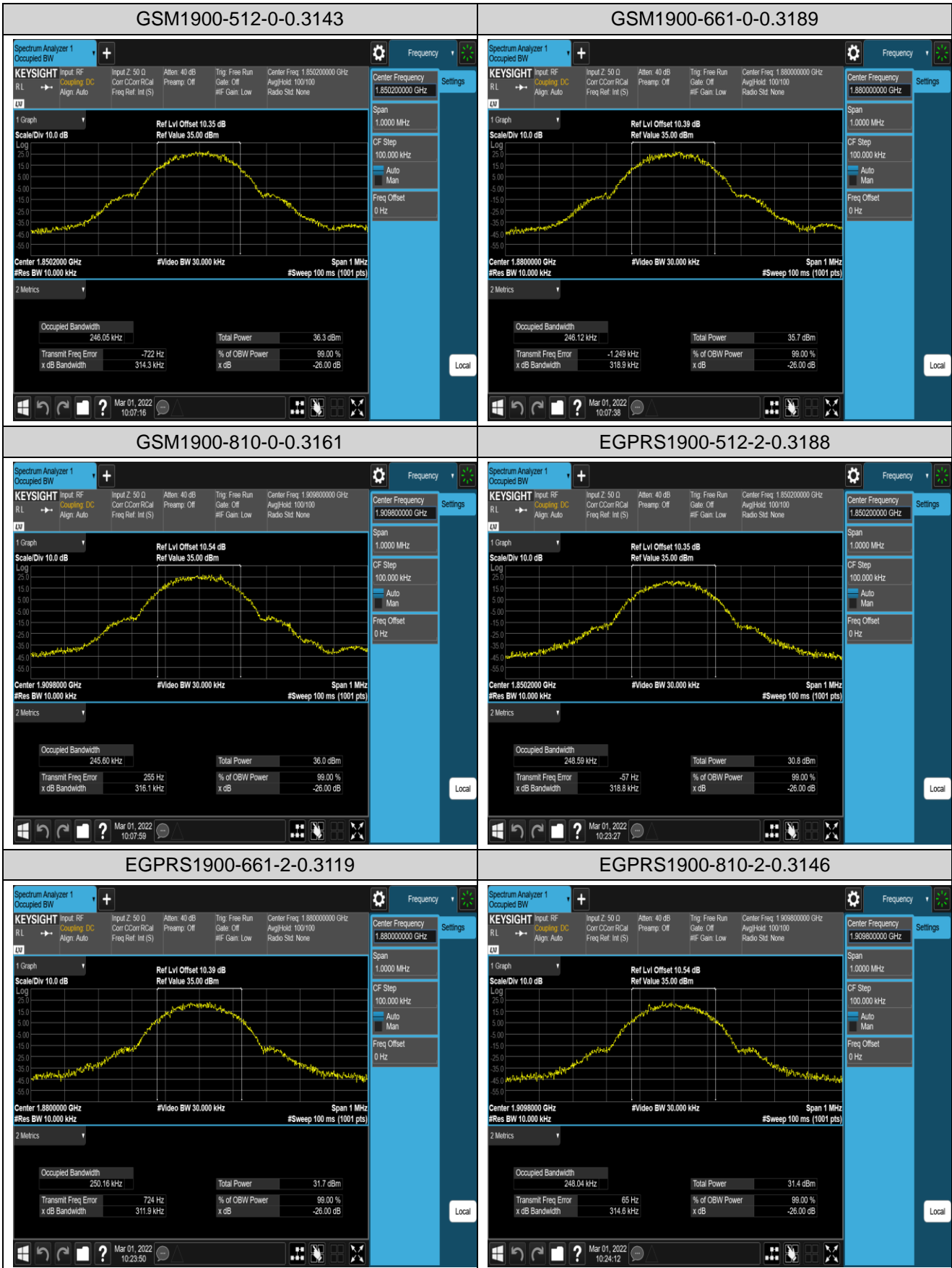
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24738	0.3109	---	PASS
GSM850	190	5	0.24780	0.3104	---	PASS
GSM850	251	5	0.24548	0.3120	---	PASS
EGPRS850	128	8	0.25002	0.3144	---	PASS
EGPRS850	190	8	0.25050	0.3089	---	PASS
EGPRS850	251	8	0.24804	0.3043	---	PASS
GSM1900	512	0	0.24605	0.3143	---	PASS
GSM1900	661	0	0.24612	0.3189	---	PASS
GSM1900	810	0	0.24560	0.3161	---	PASS
EGPRS1900	512	2	0.24859	0.3188	---	PASS
EGPRS1900	661	2	0.25016	0.3119	---	PASS
EGPRS1900	810	2	0.24804	0.3146	---	PASS

Test Graphs



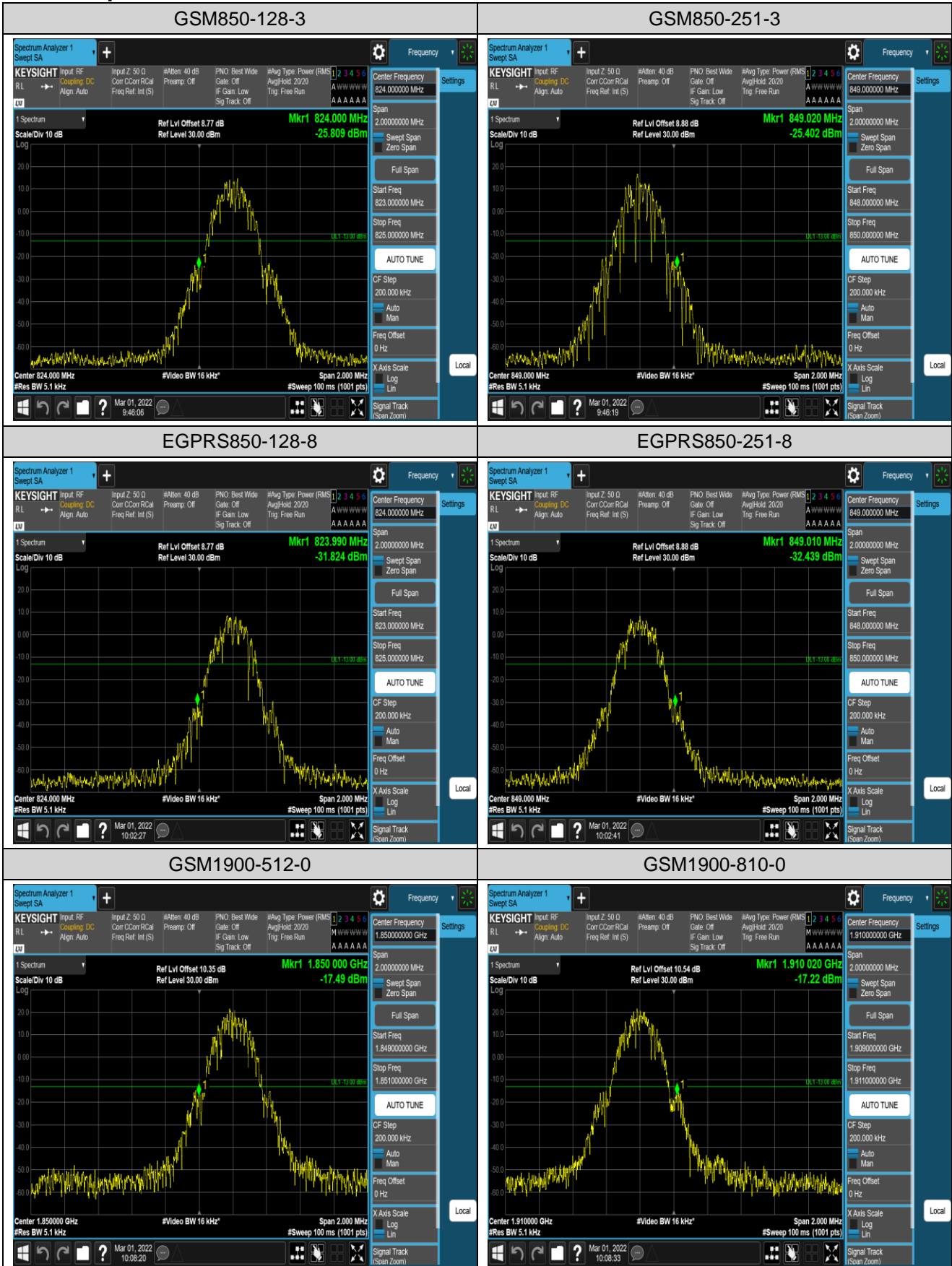


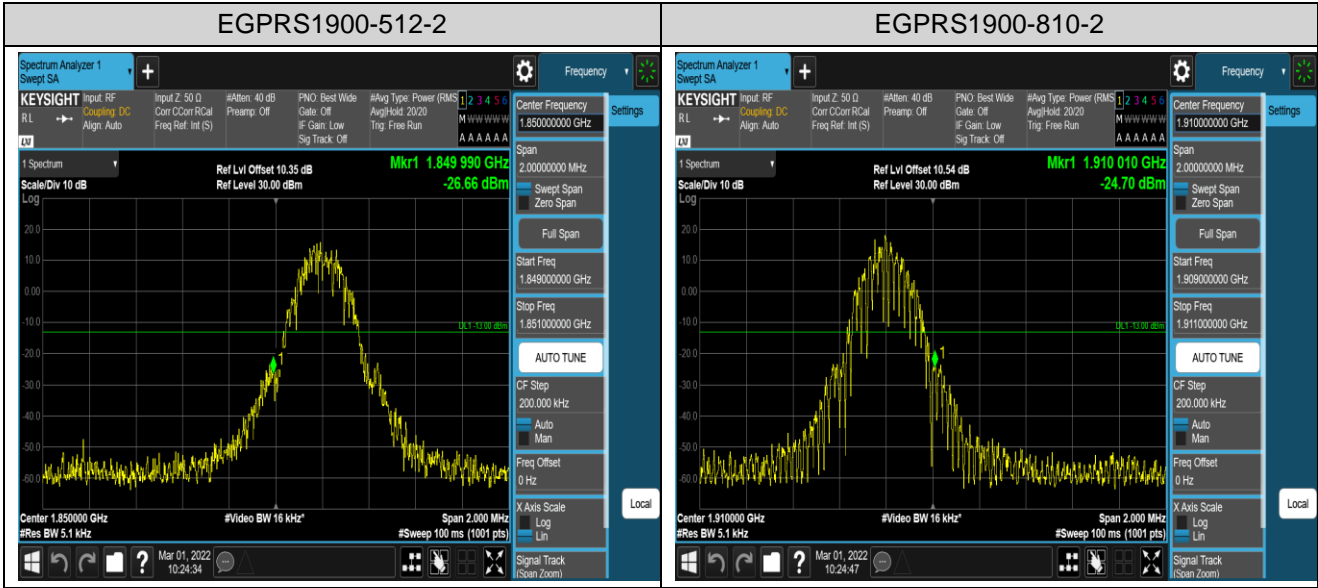
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-25.809	-13	PASS
GSM850	251	5	849.02	-25.402	-13	PASS
EGPRS850	128	8	823.99	-31.824	-13	PASS
EGPRS850	251	8	849.01	-32.439	-13	PASS
GSM1900	512	0	1850.00	-17.49	-13	PASS
GSM1900	810	0	1910.02	-17.22	-13	PASS
EGPRS1900	512	2	1849.99	-26.66	-13	PASS
EGPRS1900	810	2	1910.01	-24.70	-13	PASS

Test Graphs





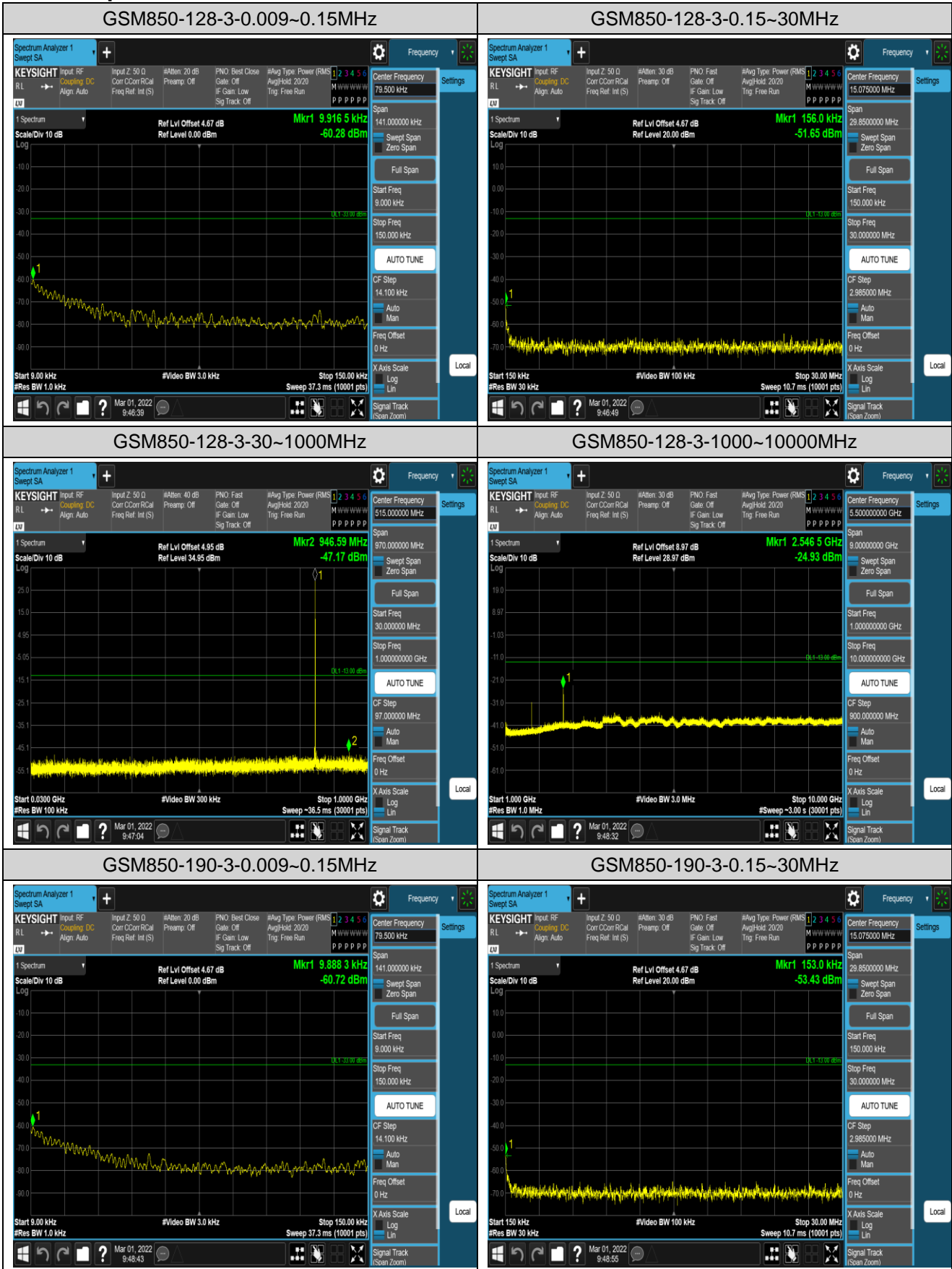
Appendix E: Conducted Spurious Emission

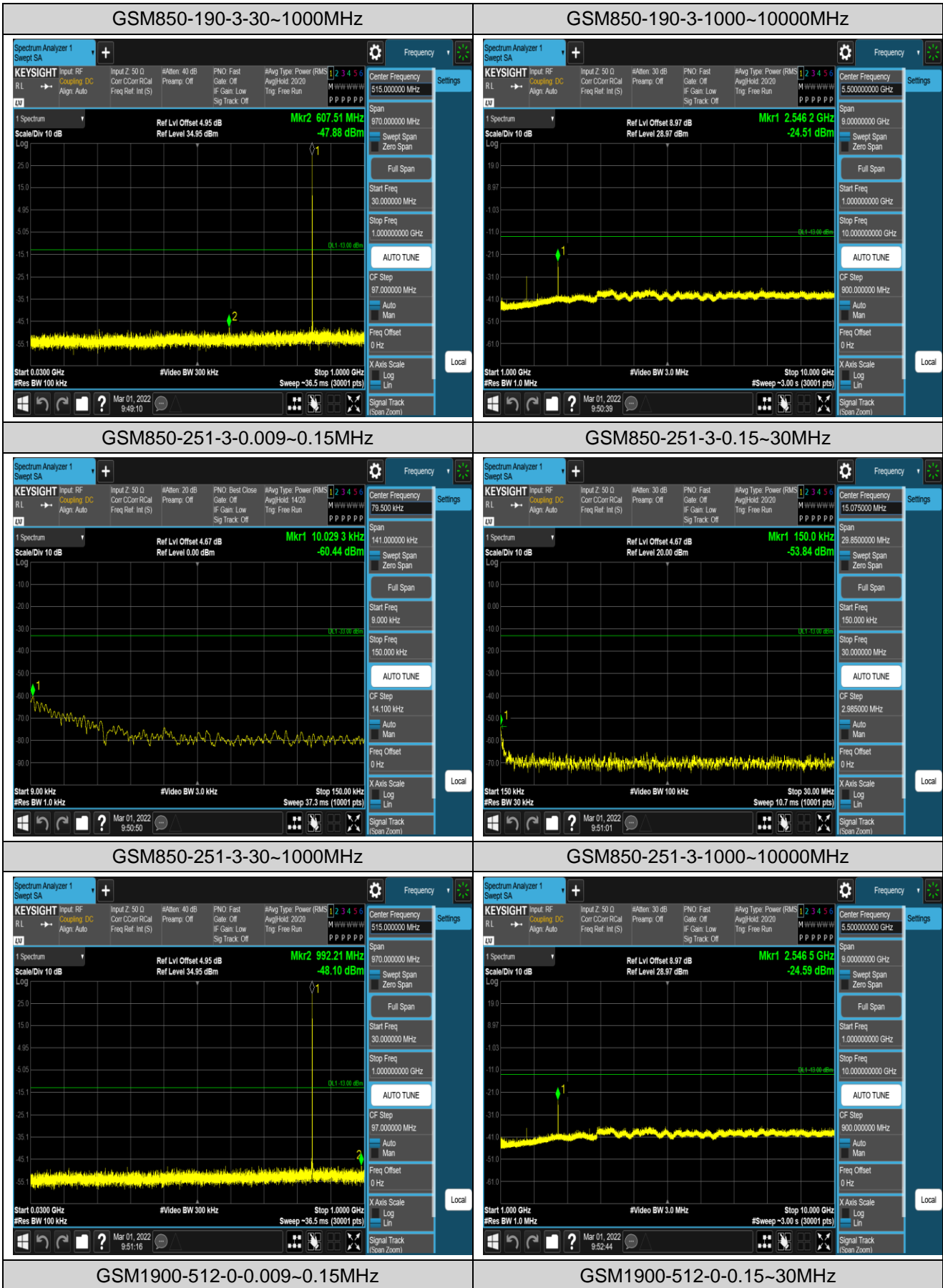
Test Result

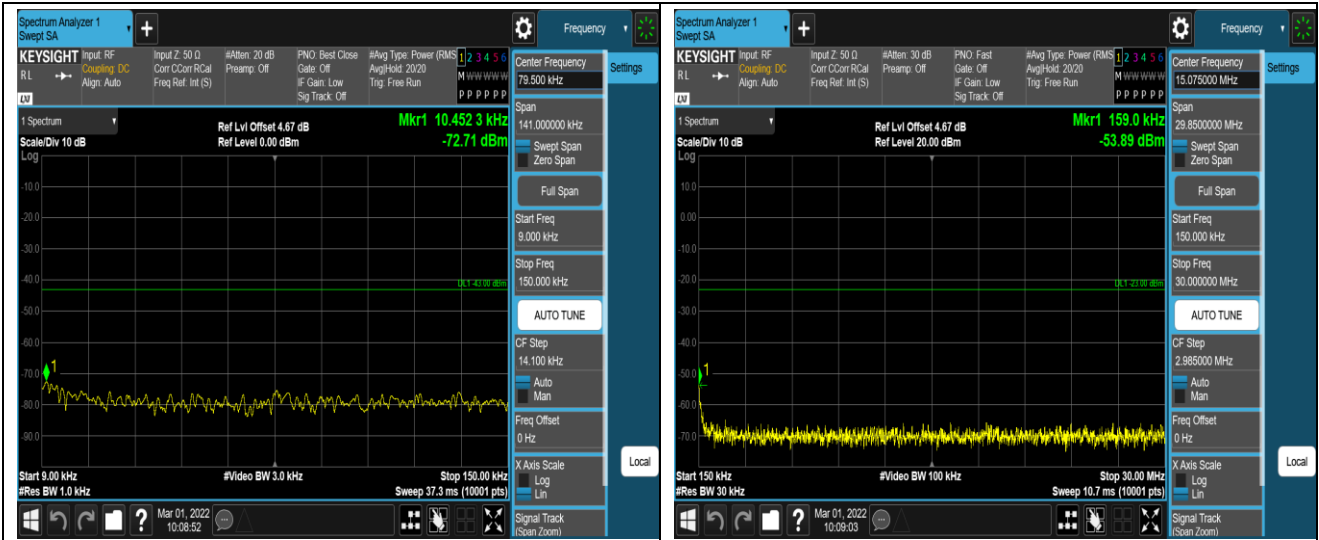
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-60.28	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-51.65	-13	PASS
GSM850	128	5	30~1000MHz	946.59	-47.17	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-24.93	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-60.72	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-53.43	-13	PASS
GSM850	190	5	30~1000MHz	607.51	-47.88	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-24.51	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-61.58	-33	PASS
GSM850	251	5	0.15~30MHz	0.15	-53.84	-13	PASS
GSM850	251	5	30~1000MHz	992.21	-48.11	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-24.59	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-72.71	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-53.89	-23	PASS
GSM1900	512	0	30~1000MHz	730.57	-47.59	-13	PASS
GSM1900	512	0	1000~18000MHz	14420.37	-35.44	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-71.46	-43	PASS
GSM1900	661	0	0.15~30MHz	0.16	-51.91	-23	PASS
GSM1900	661	0	30~1000MHz	926.25	-46.91	-13	PASS
GSM1900	661	0	1000~18000MHz	15299.83	-36.15	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-71.81	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-54.38	-23	PASS
GSM1900	810	0	30~1000MHz	975.65	-47.35	-13	PASS
GSM1900	810	0	1000~18000MHz	15334.97	-35.86	-13	PASS

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

Test Graphs

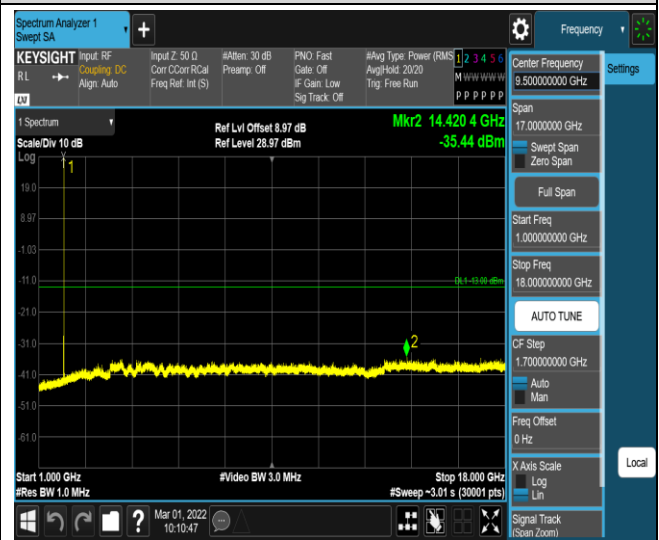






GSM1900-512-0-30~1000MHz

GSM1900-512-0-1000~18000MHz



GSM1900-661-0-0.009~0.15MHz

GSM1900-661-0-0.15~30MHz



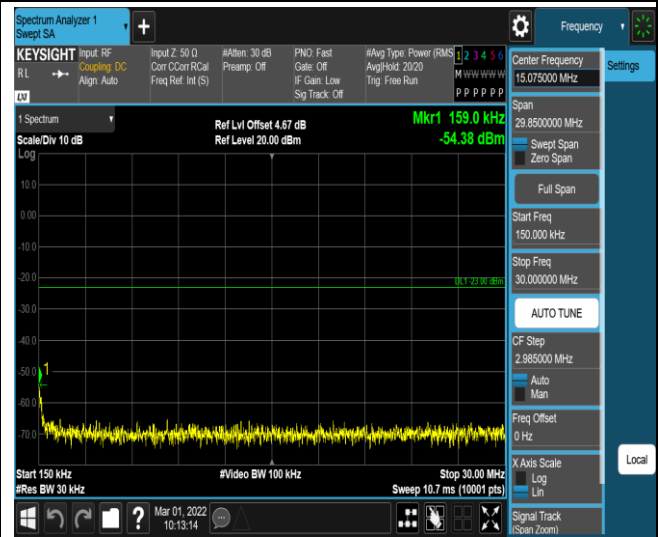
GSM1900-661-0-30~1000MHz

GSM1900-661-0-1000~18000MHz



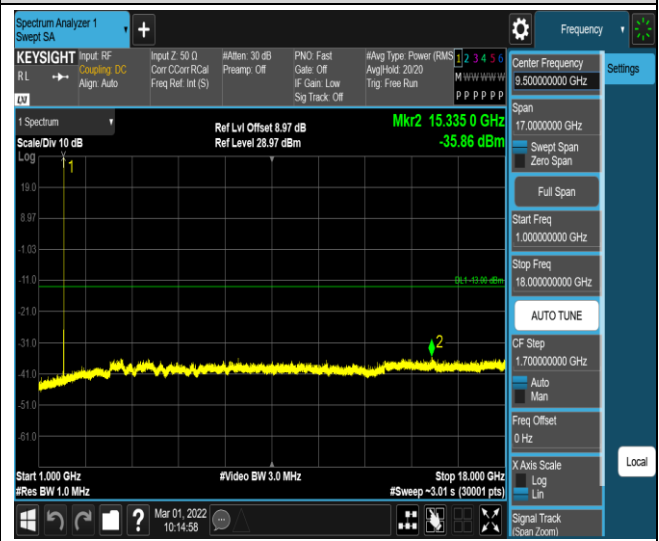
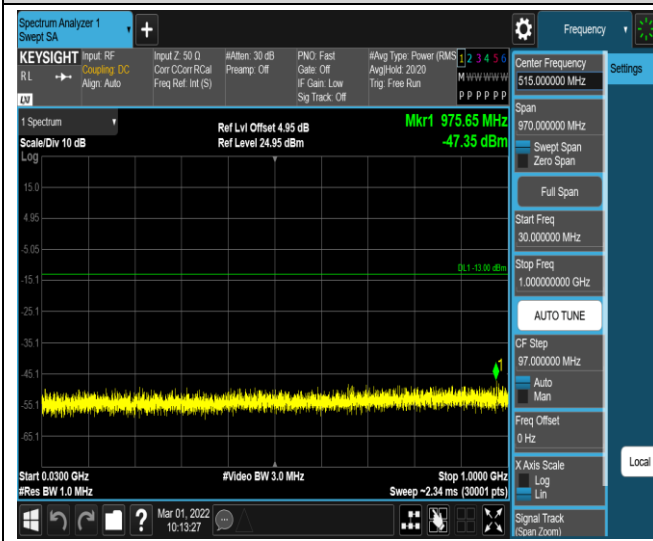
GSM1900-810-0-0.009~0.15MHz

GSM1900-810-0-0.15~30MHz



GSM1900-810-0-30~1000MHz

GSM1900-810-0-1000~18000MHz



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		
3.87	-30	-10.72	-0.012814	±2.5	Pass
	-20	-8.46	-0.010112		
	-10	-4.97	-0.005941		
	0	-7.59	-0.009072		
	10	-9.01	-0.010770		
	20	-1.45	-0.001733		
	30	-2.74	-0.003275		
	40	-7.88	-0.009419		
	50	-4.10	-0.004901		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-11.62	-0.013890	±2.5	Pass
	3.87	-4.36	-0.005212		
	4.45	-13.66	-0.016328		
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		
3.87	-30	-7.85	-0.009383	±2.5	Pass
	-20	-7.75	-0.009264		
	-10	-0.97	-0.001159		
	0	-4.07	-0.004865		
	10	-7.23	-0.008642		
	20	-6.88	-0.008224		
	30	-7.49	-0.008953		
	40	-8.78	-0.010495		
	50	-6.75	-0.008068		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-9.01	-0.010770	±2.5	Pass
	3.87	-5.68	-0.006789		
	4.45	-11.33	-0.013543		
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	-15.17	-0.008069	Within authorized band for PCS 1900	Pass
	-20	-2.13	-0.001133		
	-10	-3.29	-0.001750		
	0	3.42	0.001819		
	10	9.43	0.005016		
	20	-4.49	-0.002388		
	30	2.39	0.001271		
	40	-0.32	-0.000170		
	50	-6.36	-0.003383		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-0.74	-0.000394	Within authorized band for PCS 1900	Pass
	3.87	-4.10	-0.002181		
	4.45	6.78	0.003606		
<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	-16.92	-0.009000	Within authorized band for PCS 1900	Pass
	-20	-18.79	-0.009995		
	-10	-16.21	-0.008622		
	0	-6.26	-0.003330		
	10	-8.17	-0.004346		
	20	-12.27	-0.006527		
	30	-7.52	-0.004000		
	40	-7.07	-0.003761		
	50	-19.15	-0.010186		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-12.98	-0.006904	Within authorized band for PCS 1900	Pass
	3.87	-14.72	-0.007830		
	4.45	-19.40	-0.010319		
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

