

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	33.04	29.29	38.45	PASS
GSM850	190	5	33.27	29.52	38.45	PASS
GSM850	251	5	33.12	29.37	38.45	PASS
GSM1900	512	0	29.67	29.17	33.00	PASS
GSM1900	661	0	29.67	29.17	33.00	PASS
GSM1900	810	0	29.45	28.95	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.01	29.26	38.45	PASS
GPRS850	128	5	2	30.93	27.18	38.45	PASS
GPRS850	128	5	3	29.04	25.29	38.45	PASS
GPRS850	128	5	4	26.93	23.18	38.45	PASS
GPRS850	190	5	1	33.23	29.48	38.45	PASS
GPRS850	190	5	2	31.17	27.42	38.45	PASS
GPRS850	190	5	3	29.28	25.53	38.45	PASS
GPRS850	190	5	4	27.15	23.40	38.45	PASS
GPRS850	251	5	1	33.06	29.31	38.45	PASS
GPRS850	251	5	2	30.99	27.24	38.45	PASS
GPRS850	251	5	3	29.11	25.36	38.45	PASS
GPRS850	251	5	4	26.99	23.24	38.45	PASS
GPRS1900	512	0	1	29.67	29.17	33.00	PASS
GPRS1900	512	0	2	28.41	27.91	33.00	PASS
GPRS1900	512	0	3	26.83	26.33	33.00	PASS
GPRS1900	512	0	4	24.78	24.28	33.00	PASS
GPRS1900	661	0	1	29.71	29.21	33.00	PASS
GPRS1900	661	0	2	28.18	27.68	33.00	PASS
GPRS1900	661	0	3	26.60	26.10	33.00	PASS
GPRS1900	661	0	4	24.52	24.02	33.00	PASS
GPRS1900	810	0	1	29.50	29.00	33.00	PASS
GPRS1900	810	0	2	27.75	27.25	33.00	PASS
GPRS1900	810	0	3	26.15	25.65	33.00	PASS
GPRS1900	810	0	4	24.04	23.54	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	26.57	22.82	38.45	PASS
EGPRS850	128	8	2	25.45	21.70	38.45	PASS
EGPRS850	128	8	3	23.31	19.56	38.45	PASS
EGPRS850	128	8	4	20.60	16.85	38.45	PASS
EGPRS850	190	8	1	26.66	22.91	38.45	PASS
EGPRS850	190	8	2	25.66	21.91	38.45	PASS
EGPRS850	190	8	3	23.56	19.81	38.45	PASS
EGPRS850	190	8	4	20.89	17.14	38.45	PASS
EGPRS850	251	8	1	26.45	22.70	38.45	PASS
EGPRS850	251	8	2	25.45	21.70	38.45	PASS
EGPRS850	251	8	3	23.34	19.59	38.45	PASS
EGPRS850	251	8	4	20.74	16.99	38.45	PASS
EGPRS1900	512	2	1	26.18	25.68	33.00	PASS
EGPRS1900	512	2	2	24.44	23.94	33.00	PASS
EGPRS1900	512	2	3	22.08	21.58	33.00	PASS
EGPRS1900	512	2	4	18.70	18.20	33.00	PASS
EGPRS1900	661	2	1	26.82	26.32	33.00	PASS
EGPRS1900	661	2	2	25.17	24.67	33.00	PASS
EGPRS1900	661	2	3	22.99	22.49	33.00	PASS
EGPRS1900	661	2	4	19.94	19.44	33.00	PASS
EGPRS1900	810	2	1	26.32	25.82	33.00	PASS
EGPRS1900	810	2	2	24.81	24.31	33.00	PASS
EGPRS1900	810	2	3	22.50	22.00	33.00	PASS
EGPRS1900	810	2	4	19.16	18.66	33.00	PASS

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

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

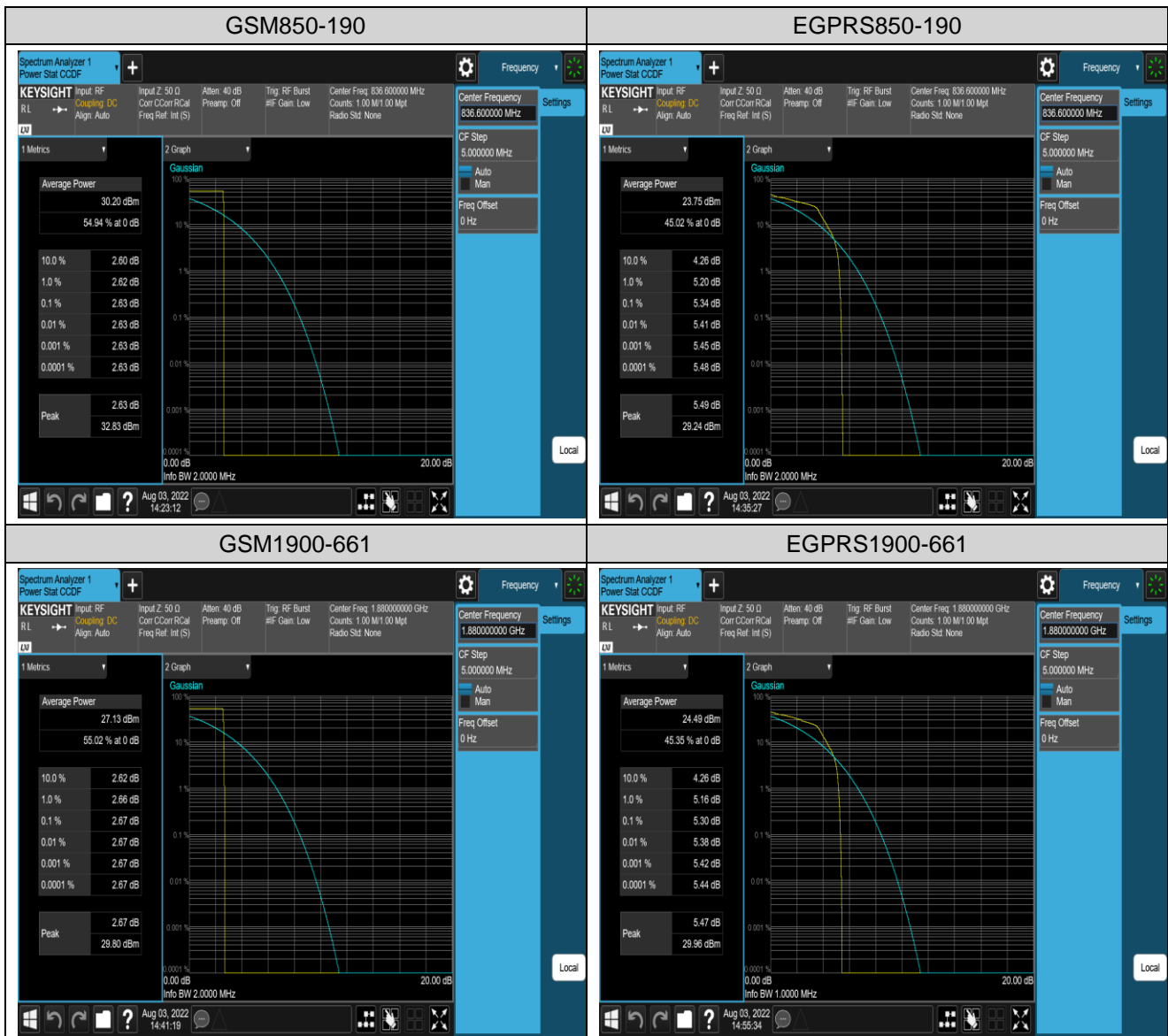
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.63	13	PASS
EGPRS850	190	8	5.34	13	PASS
GSM1900	661	0	2.67	13	PASS
EGPRS1900	661	2	5.3	13	PASS

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

Test Graphs

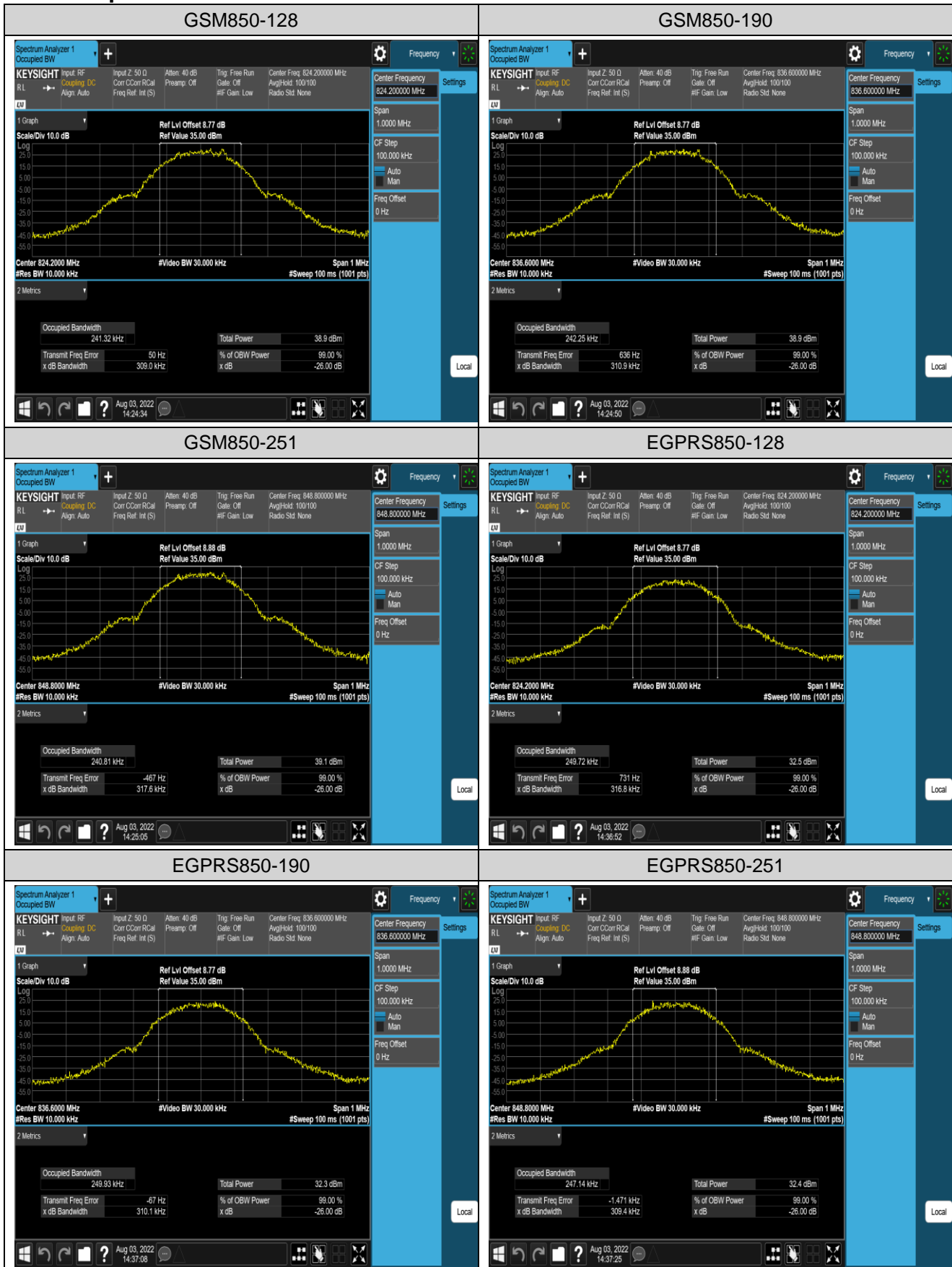


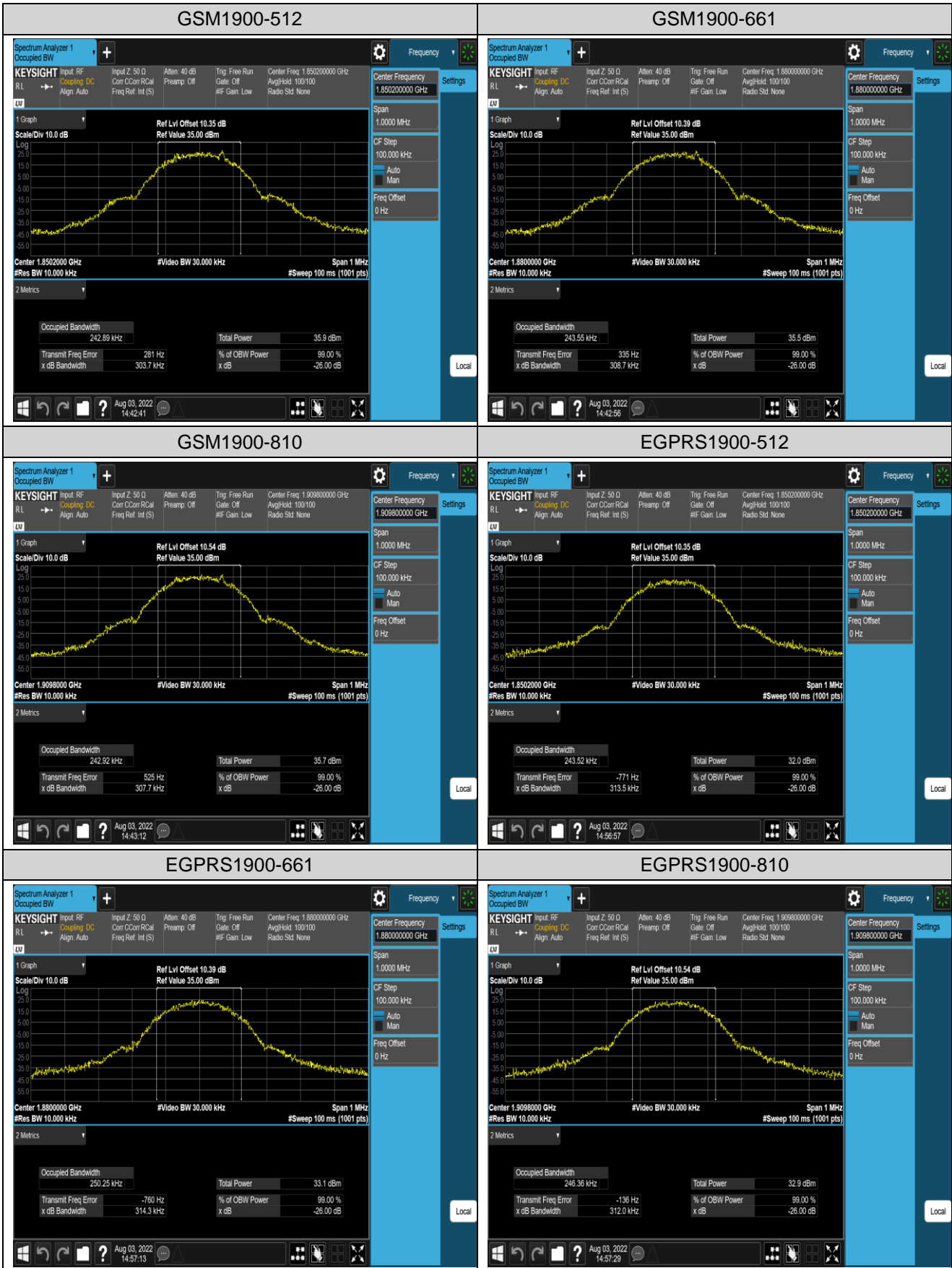
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24132	0.3090	---	PASS
GSM850	190	5	0.24225	0.3109	---	PASS
GSM850	251	5	0.24081	0.3176	---	PASS
EGPRS850	128	8	0.24972	0.3168	---	PASS
EGPRS850	190	8	0.24993	0.3101	---	PASS
EGPRS850	251	8	0.24714	0.3094	---	PASS
GSM1900	512	0	0.24289	0.3037	---	PASS
GSM1900	661	0	0.24355	0.3087	---	PASS
GSM1900	810	0	0.24292	0.3077	---	PASS
EGPRS1900	512	2	0.24352	0.3135	---	PASS
EGPRS1900	661	2	0.25025	0.3143	---	PASS
EGPRS1900	810	2	0.24636	0.3120	---	PASS

Test Graphs

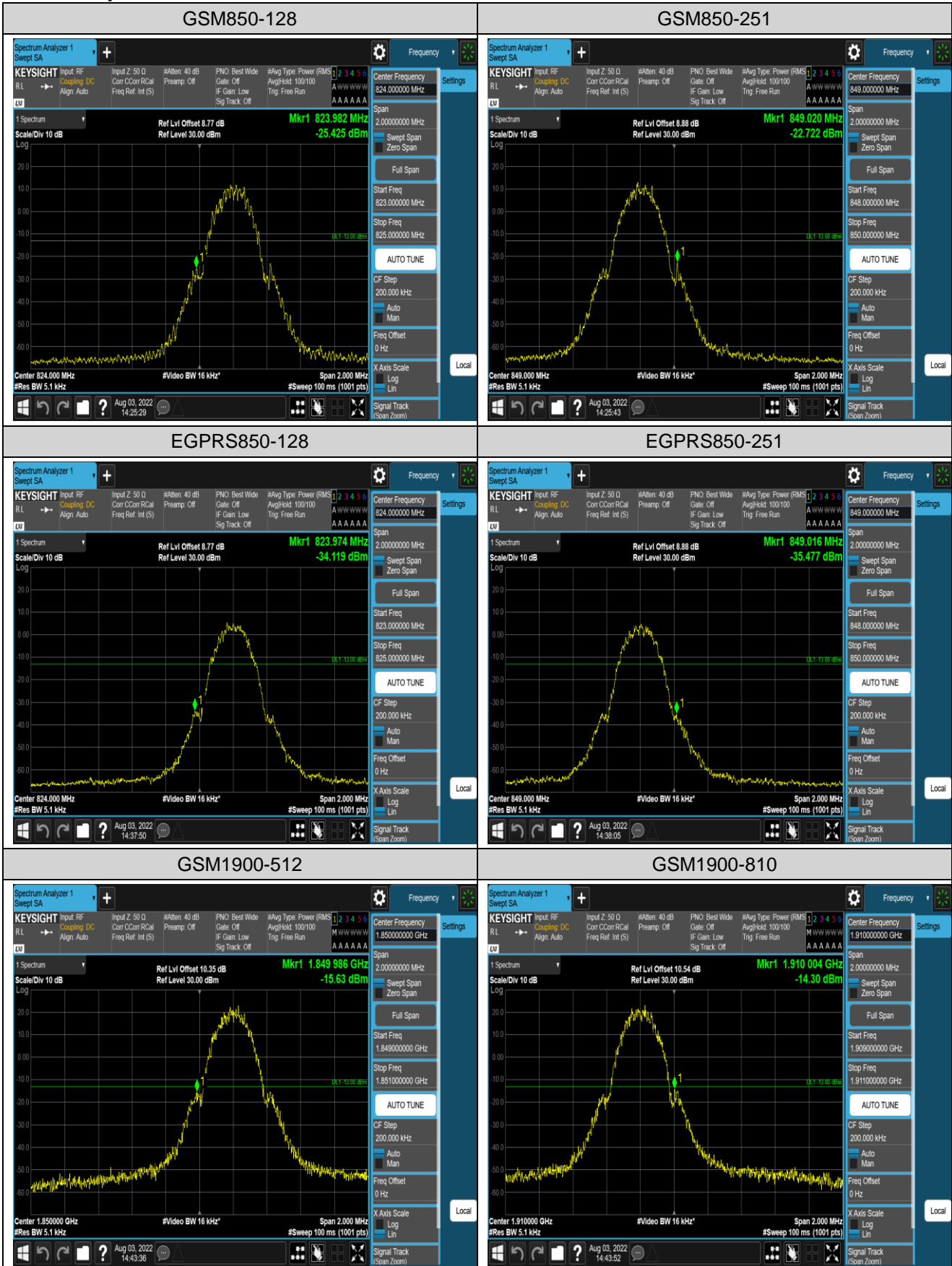


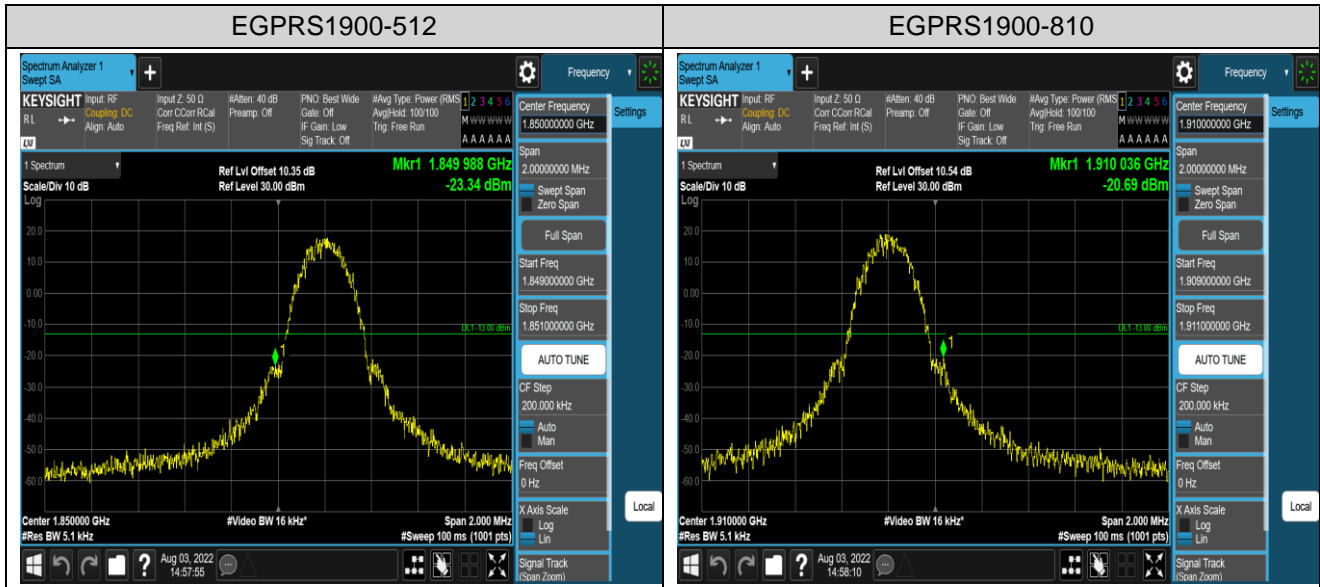


Appendix D: Band Edge**Test Result**

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	823.98	-25.42	-13	PASS
GSM850	251	5	849.02	-22.72	-13	PASS
EGPRS850	128	8	823.97	-34.12	-13	PASS
EGPRS850	251	8	849.02	-35.48	-13	PASS
GSM1900	512	0	1849.99	-15.63	-13	PASS
GSM1900	810	0	1910.00	-14.30	-13	PASS
EGPRS1900	512	2	1849.99	-23.34	-13	PASS
EGPRS1900	810	2	1910.04	-20.69	-13	PASS

Test Graphs





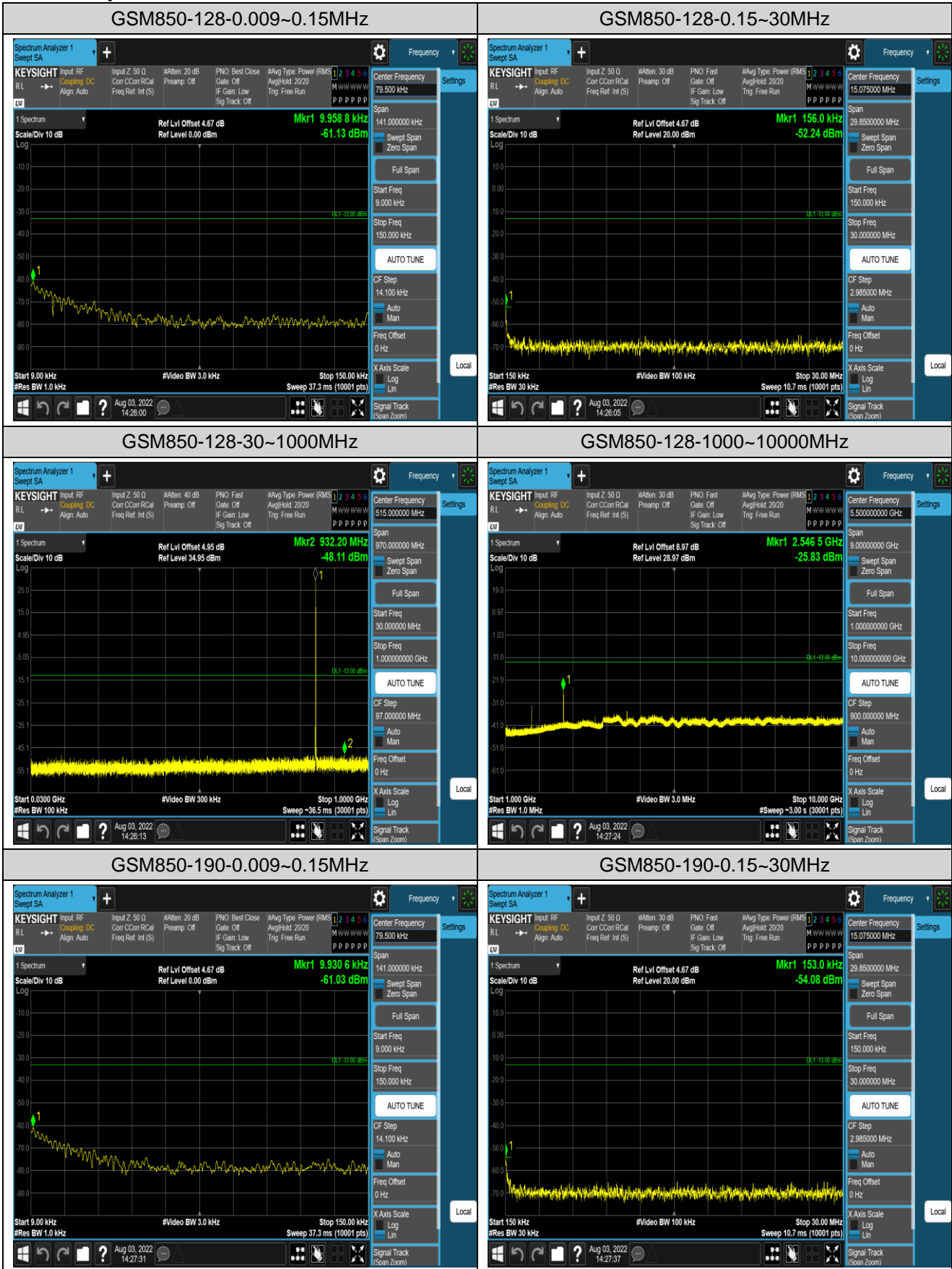
Appendix E: Conducted Spurious Emission

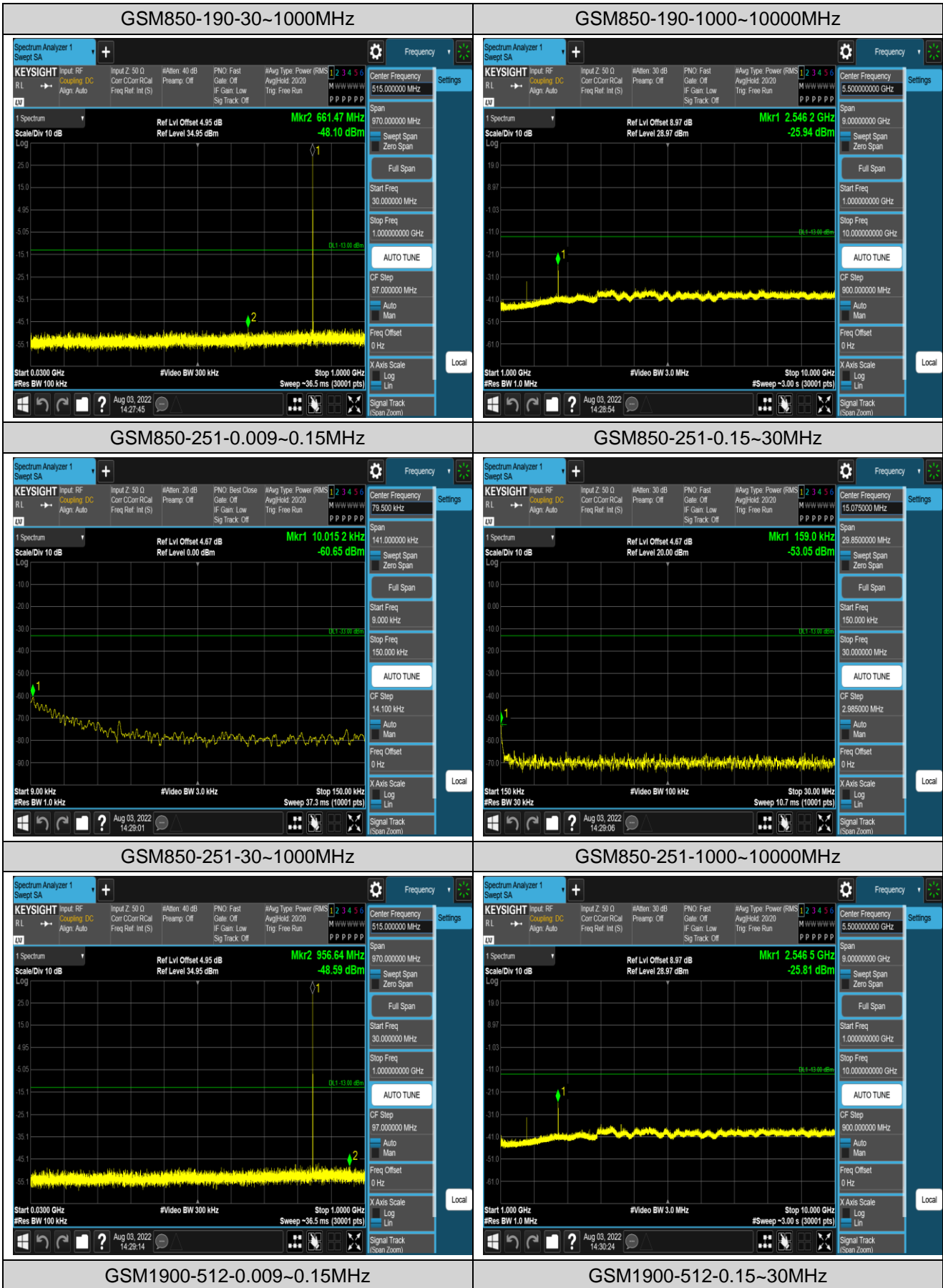
Test Result

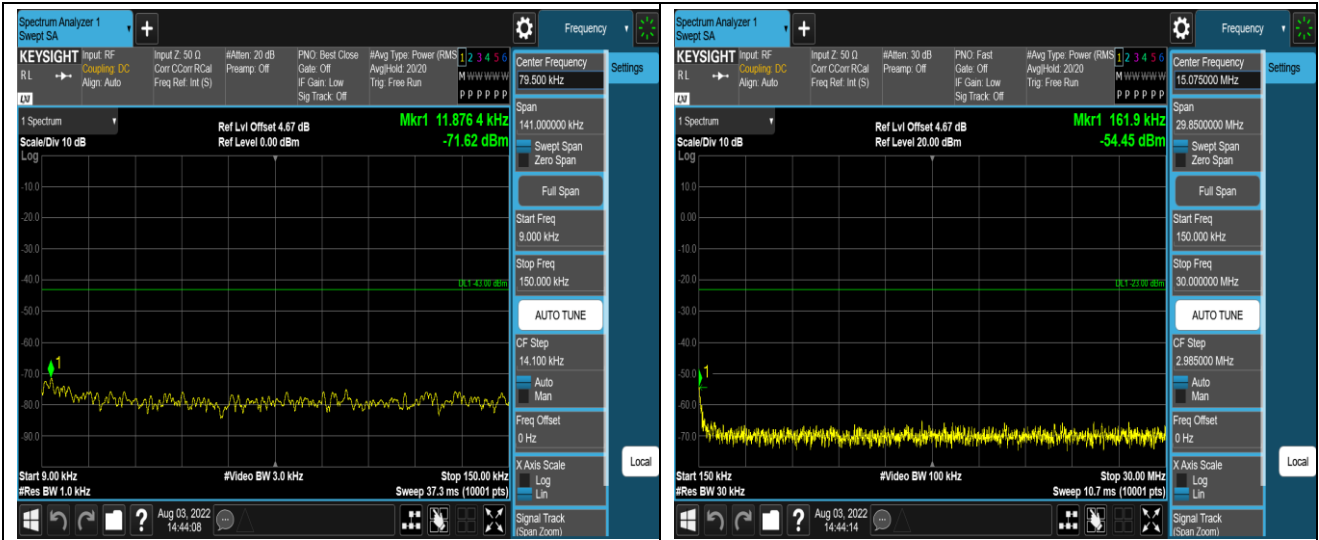
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-61.13	-33	PASS
GSM850	128	5	0.15~30MHz	0.16	-52.24	-13	PASS
GSM850	128	5	30~1000MHz	932.2	-48.11	-13	PASS
GSM850	128	5	1000~10000MHz	2546.5	-25.83	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-61.03	-33	PASS
GSM850	190	5	0.15~30MHz	0.15	-54.08	-13	PASS
GSM850	190	5	30~1000MHz	661.47	-48.1	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-25.94	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-60.65	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-53.05	-13	PASS
GSM850	251	5	30~1000MHz	956.64	-48.59	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-25.81	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-71.62	-43	PASS
GSM1900	512	0	0.15~30MHz	0.16	-54.45	-23	PASS
GSM1900	512	0	30~1000MHz	657.82	-47.79	-13	PASS
GSM1900	512	0	1000~18000MHz	5729.97	-35.4	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-72.02	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-54.05	-23	PASS
GSM1900	661	0	30~1000MHz	497.77	-47.59	-13	PASS
GSM1900	661	0	1000~18000MHz	5729.4	-35.09	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-72.21	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-53.02	-23	PASS
GSM1900	810	0	30~1000MHz	853.66	-47.54	-13	PASS
GSM1900	810	0	1000~18000MHz	14282.1	-35.68	-13	PASS

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

Test Graphs

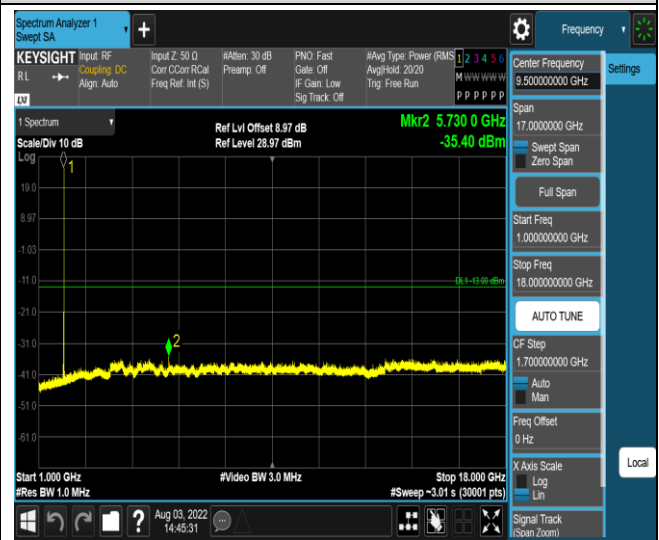
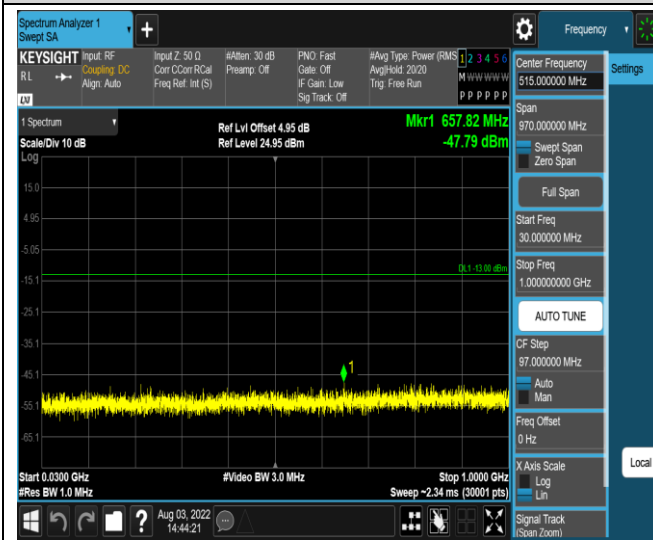






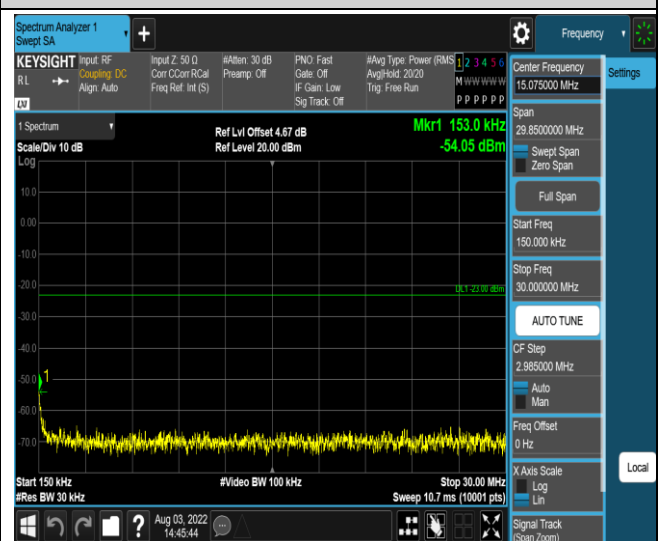
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



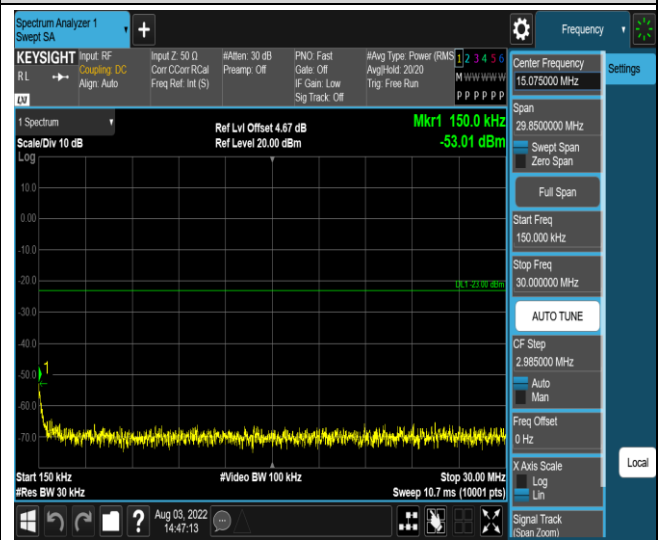
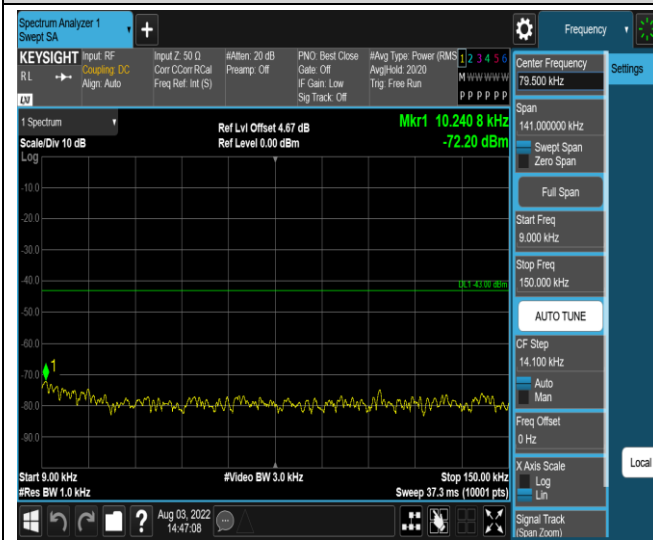
GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz



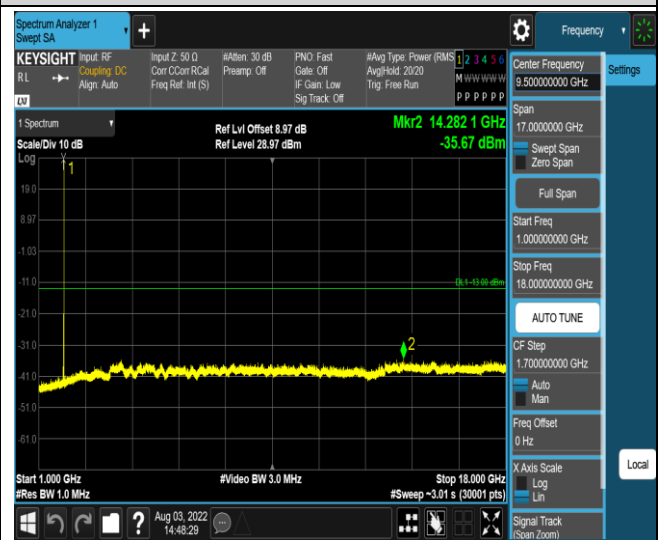
GSM1900-810-0.009~0.15MHz

GSM1900-810-0.15~30MHz



GSM1900-810-30~1000MHz

GSM1900-810-1000~18000MHz



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		
3.85	-30	-18.73	-0.022388	±2.5	Pass
	-20	-15.30	-0.018288		
	-10	-16.05	-0.019185		
	0	-15.37	-0.018372		
	10	-13.88	-0.016591		
	20	-14.11	-0.016866		
	30	-12.07	-0.014427		
	40	-22.08	-0.026393		
	50	-14.40	-0.017213		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	-17.34	-0.020727	±2.5	Pass
	3.85	-16.21	-0.019376		
	4.40	-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	4.68	0.005594	±2.5	Pass
	-20	3.45	0.004124		
	-10	5.97	0.007136		
	0	3.03	0.003622		
	10	5.33	0.006371		
	20	0.90	0.001076		
	30	2.68	0.003203		
	40	3.84	0.004590		
	50	3.20	0.003825		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	7.07	0.008451	±2.5	Pass
	3.85	8.52	0.010184		
	4.40	7.52	0.008989		
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		
3.85	-30	1.45	0.000771	Within authorized band for PCS 1900	Pass
	-20	-17.89	-0.009516		
	-10	-4.71	-0.002505		
	0	-4.07	-0.002165		
	10	-2.45	-0.001303		
	20	1.03	0.000548		
	30	5.59	0.002973		
	40	-2.10	-0.001117		
	50	2.29	0.001218		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	3.91	0.002080	Within authorized band for PCS 1900	Pass
	3.85	-5.10	-0.002713		
	4.40	1.45	0.000771		
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		
3.85	-30	9.78	0.005202	Within authorized band for PCS 1900	Pass
	-20	-4.71	-0.002505		
	-10	2.20	0.001170		
	0	2.81	0.001495		
	10	4.62	0.002457		
	20	0.06	0.000032		
	30	-2.23	-0.001186		
	40	-3.00	-0.001596		
	50	-1.36	-0.000723		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.45	6.65	0.003537	Within authorized band for PCS 1900	Pass
	3.85	6.33	0.003367		
	4.40	-8.59	-0.004569		
<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

