

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	33.32	27.79	38.45	PASS
GSM850	190	5	33.51	27.98	38.45	PASS
GSM850	251	5	33.47	27.94	38.45	PASS
GSM1900	512	0	29.66	28.9	33.00	PASS
GSM1900	661	0	29.69	28.93	33.00	PASS
GSM1900	810	0	29.94	29.18	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	33.38	27.85	38.45	PASS
GPRS850	128	5	2	32.41	26.88	38.45	PASS
GPRS850	128	5	3	30.38	24.85	38.45	PASS
GPRS850	128	5	4	29.31	23.78	38.45	PASS
GPRS850	190	5	1	33.58	28.05	38.45	PASS
GPRS850	190	5	2	32.67	27.14	38.45	PASS
GPRS850	190	5	3	30.72	25.19	38.45	PASS
GPRS850	190	5	4	29.67	24.14	38.45	PASS
GPRS850	251	5	1	33.41	27.88	38.45	PASS
GPRS850	251	5	2	32.49	26.96	38.45	PASS
GPRS850	251	5	3	30.59	25.06	38.45	PASS
GPRS850	251	5	4	29.55	24.02	38.45	PASS
GPRS1900	512	0	1	29.68	28.92	33.00	PASS
GPRS1900	512	0	2	28.74	27.98	33.00	PASS
GPRS1900	512	0	3	26.77	26.01	33.00	PASS
GPRS1900	512	0	4	25.64	24.88	33.00	PASS
GPRS1900	661	0	1	29.70	28.94	33.00	PASS
GPRS1900	661	0	2	28.81	28.05	33.00	PASS
GPRS1900	661	0	3	26.79	26.03	33.00	PASS
GPRS1900	661	0	4	25.69	24.93	33.00	PASS
GPRS1900	810	0	1	30.00	29.24	33.00	PASS
GPRS1900	810	0	2	29.09	28.33	33.00	PASS
GPRS1900	810	0	3	27.11	26.35	33.00	PASS
GPRS1900	810	0	4	25.99	25.23	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.05	21.52	38.45	PASS
EGPRS850	128	8	2	25.92	20.39	38.45	PASS
EGPRS850	128	8	3	23.89	18.36	38.45	PASS
EGPRS850	128	8	4	22.73	17.2	38.45	PASS
EGPRS850	190	8	1	27.26	21.73	38.45	PASS
EGPRS850	190	8	2	26.17	20.64	38.45	PASS
EGPRS850	190	8	3	24.12	18.59	38.45	PASS
EGPRS850	190	8	4	22.94	17.41	38.45	PASS
EGPRS850	251	8	1	27.23	21.7	38.45	PASS
EGPRS850	251	8	2	26.14	20.61	38.45	PASS
EGPRS850	251	8	3	24.01	18.48	38.45	PASS
EGPRS850	251	8	4	22.90	17.37	38.45	PASS
EGPRS1900	512	2	1	25.66	24.9	33.00	PASS
EGPRS1900	512	2	2	24.61	23.85	33.00	PASS
EGPRS1900	512	2	3	22.45	21.69	33.00	PASS
EGPRS1900	512	2	4	21.03	20.27	33.00	PASS
EGPRS1900	661	2	1	25.37	24.61	33.00	PASS
EGPRS1900	661	2	2	24.41	23.65	33.00	PASS
EGPRS1900	661	2	3	22.37	21.61	33.00	PASS
EGPRS1900	661	2	4	21.09	20.33	33.00	PASS
EGPRS1900	810	2	1	25.70	24.94	33.00	PASS
EGPRS1900	810	2	2	24.79	24.03	33.00	PASS
EGPRS1900	810	2	3	22.70	21.94	33.00	PASS
EGPRS1900	810	2	4	21.44	20.68	33.00	PASS

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

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

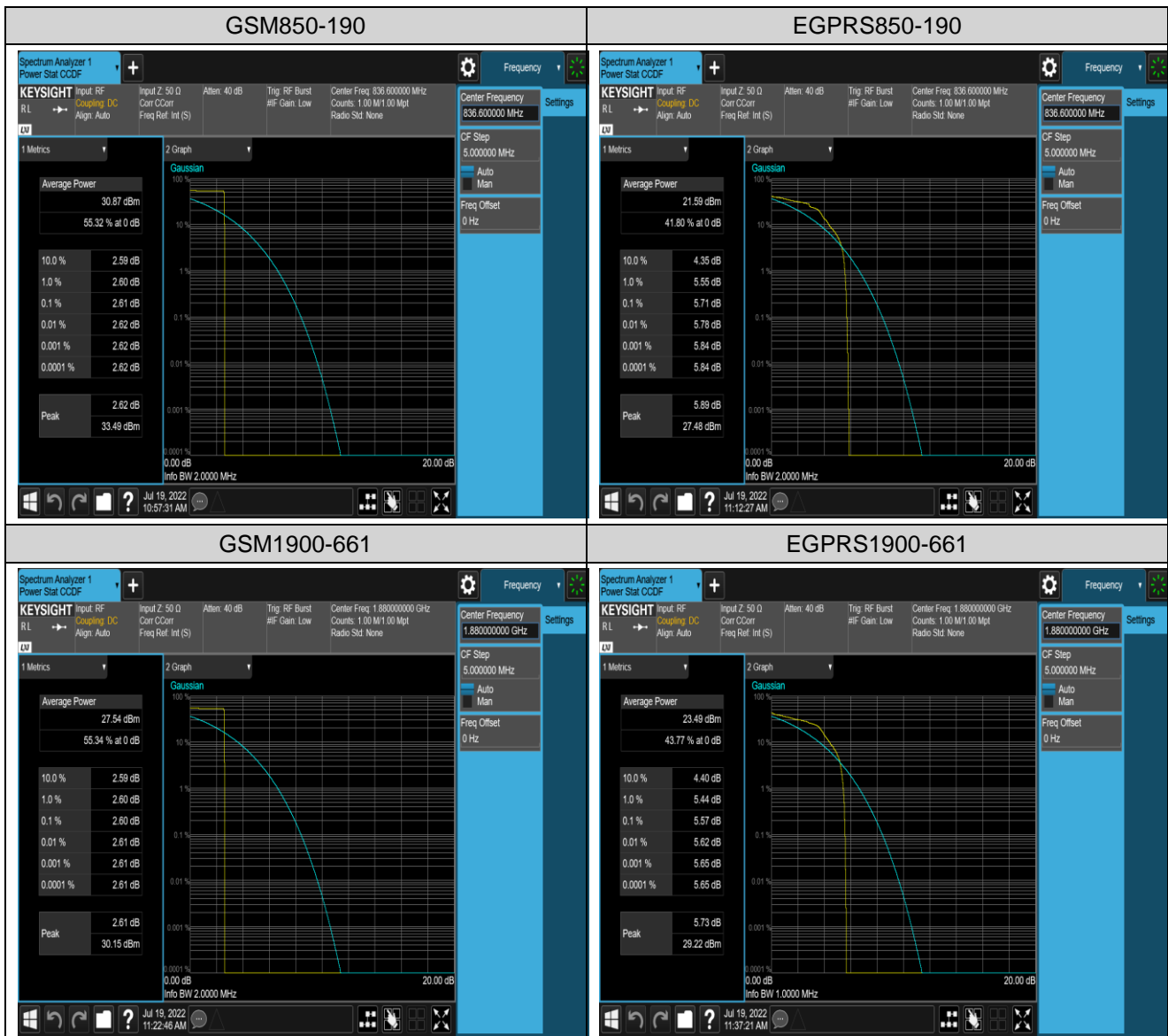
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.61	13	PASS
EGPRS850	190	8	5.71	13	PASS
GSM1900	661	0	2.6	13	PASS
EGPRS1900	661	2	5.57	13	PASS

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

Test Graphs

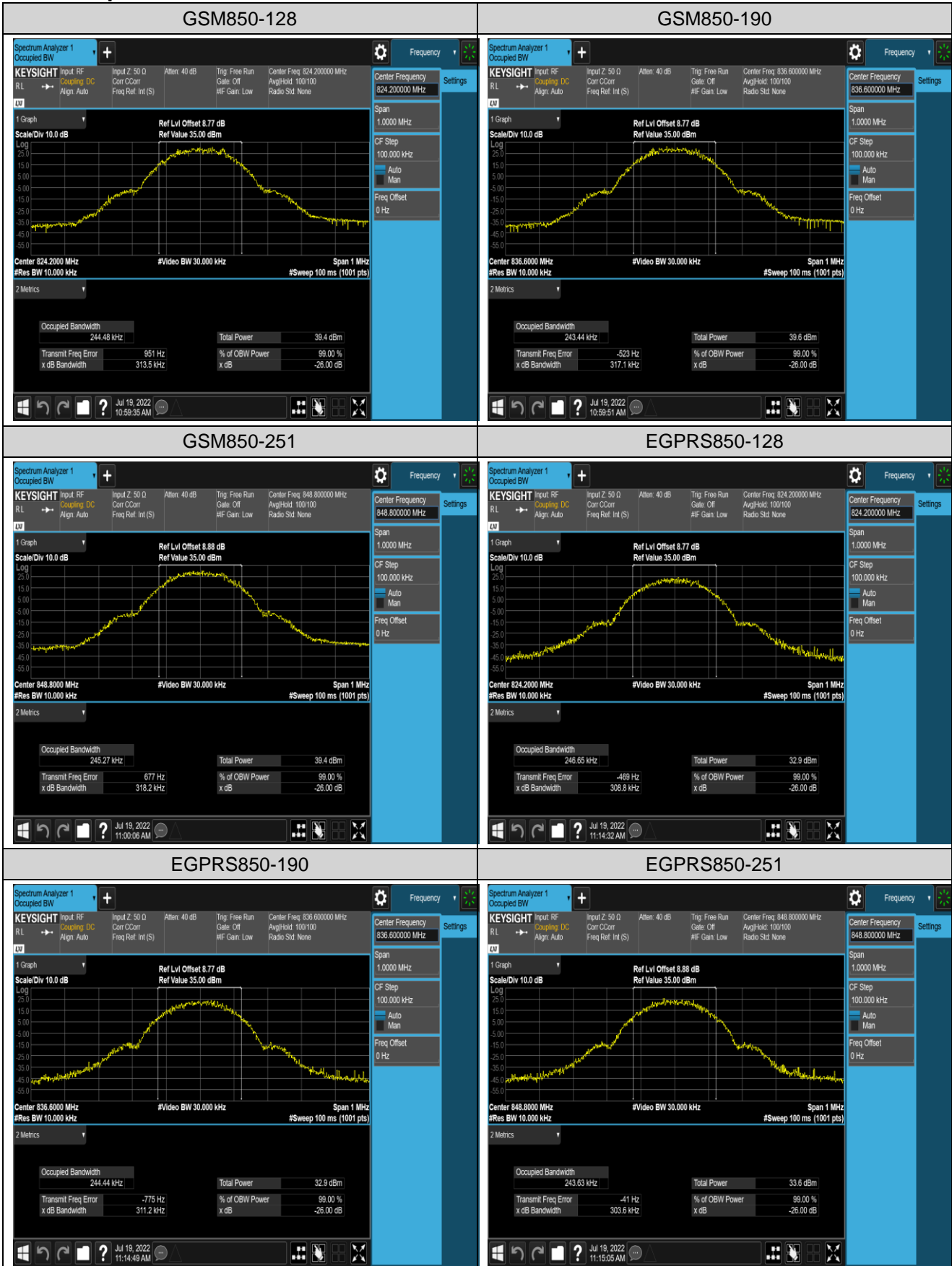


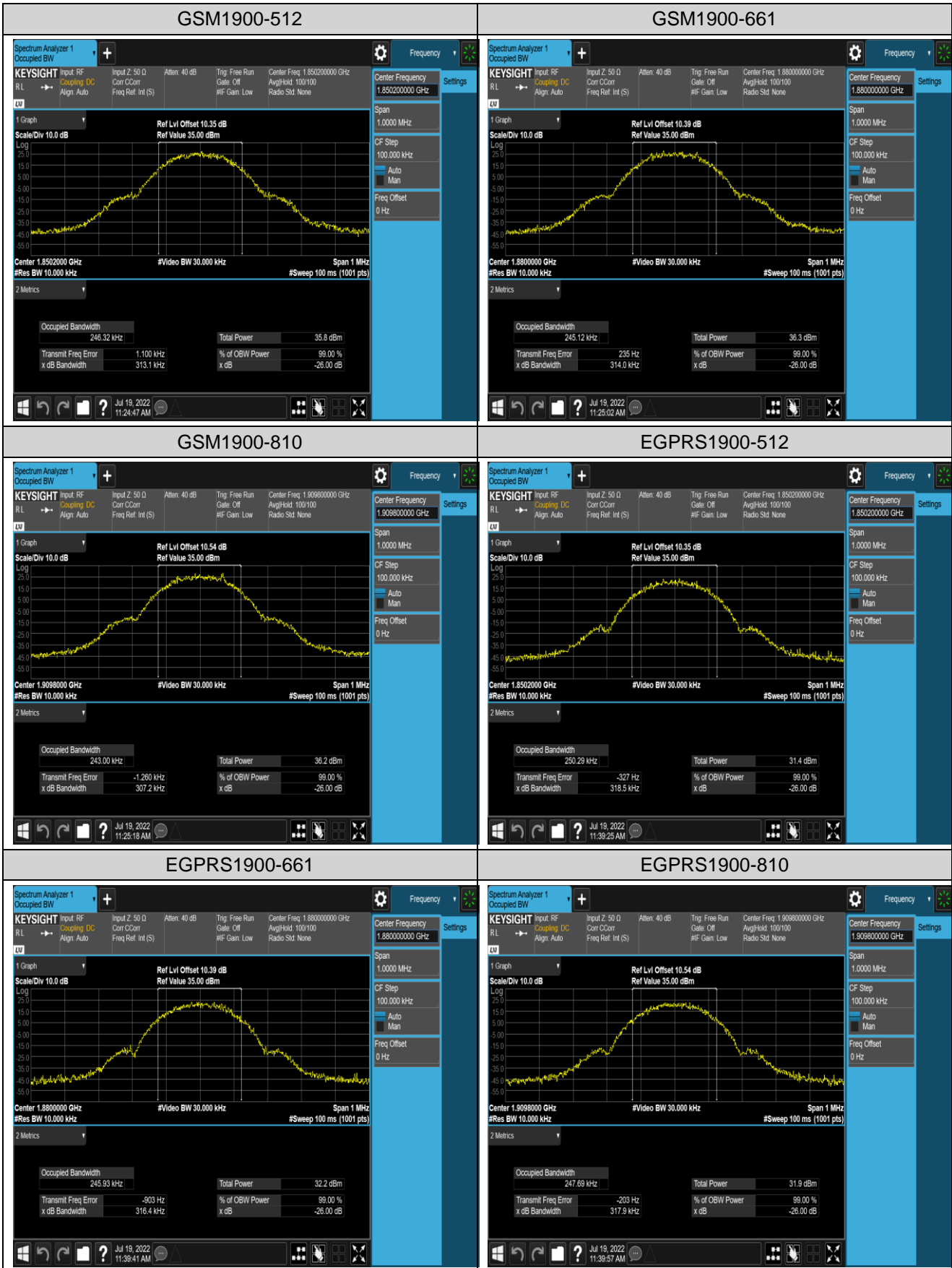
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24448	0.3135	---	PASS
GSM850	190	5	0.24344	0.3171	---	PASS
GSM850	251	5	0.24527	0.3182	---	PASS
EGPRS850	128	8	0.24665	0.3088	---	PASS
EGPRS850	190	8	0.24444	0.3112	---	PASS
EGPRS850	251	8	0.24363	0.3036	---	PASS
GSM1900	512	0	0.24632	0.3131	---	PASS
GSM1900	661	0	0.24512	0.3140	---	PASS
GSM1900	810	0	0.24300	0.3072	---	PASS
EGPRS1900	512	2	0.25029	0.3185	---	PASS
EGPRS1900	661	2	0.24593	0.3164	---	PASS
EGPRS1900	810	2	0.24769	0.3179	---	PASS

Test Graphs



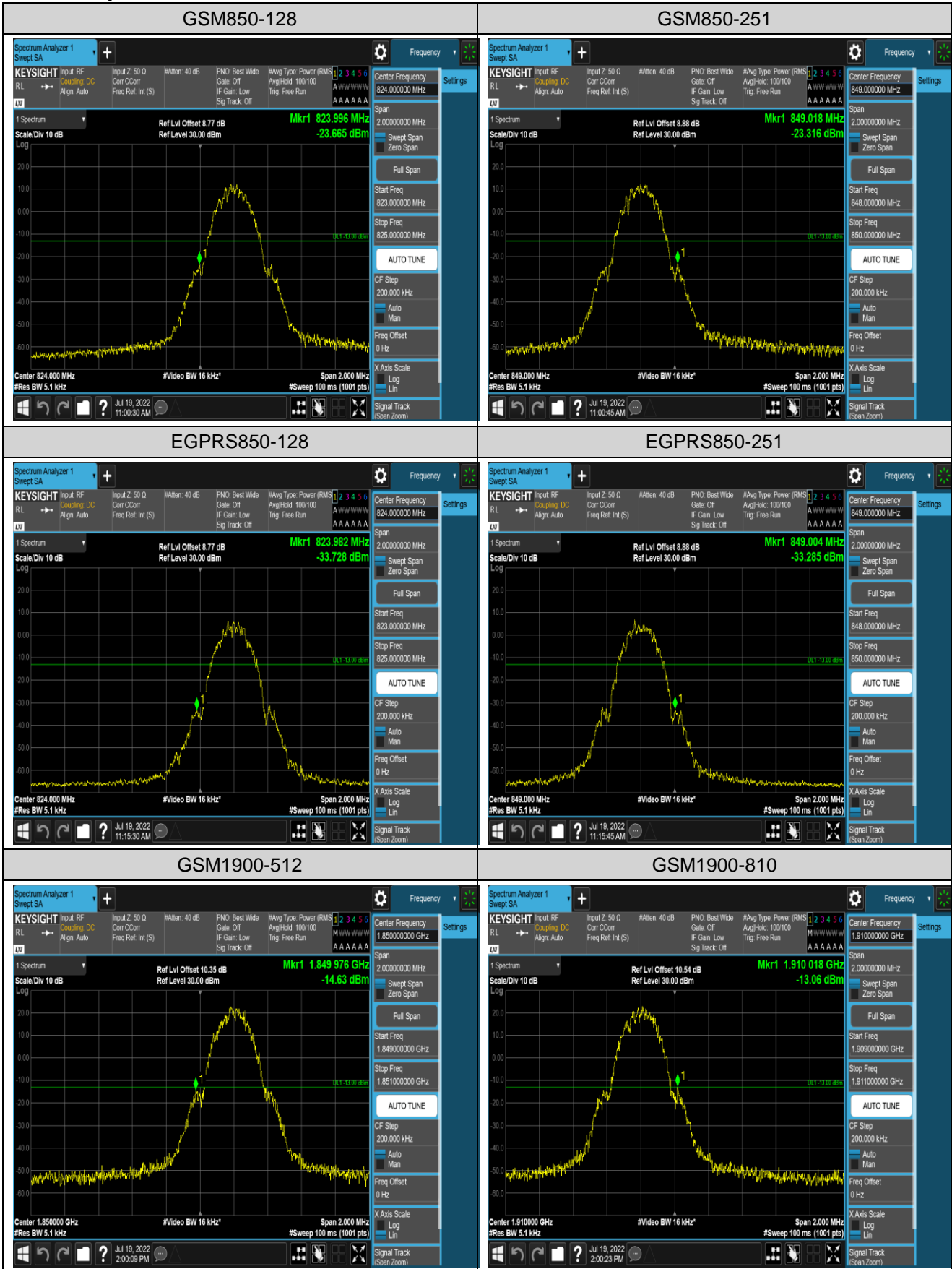


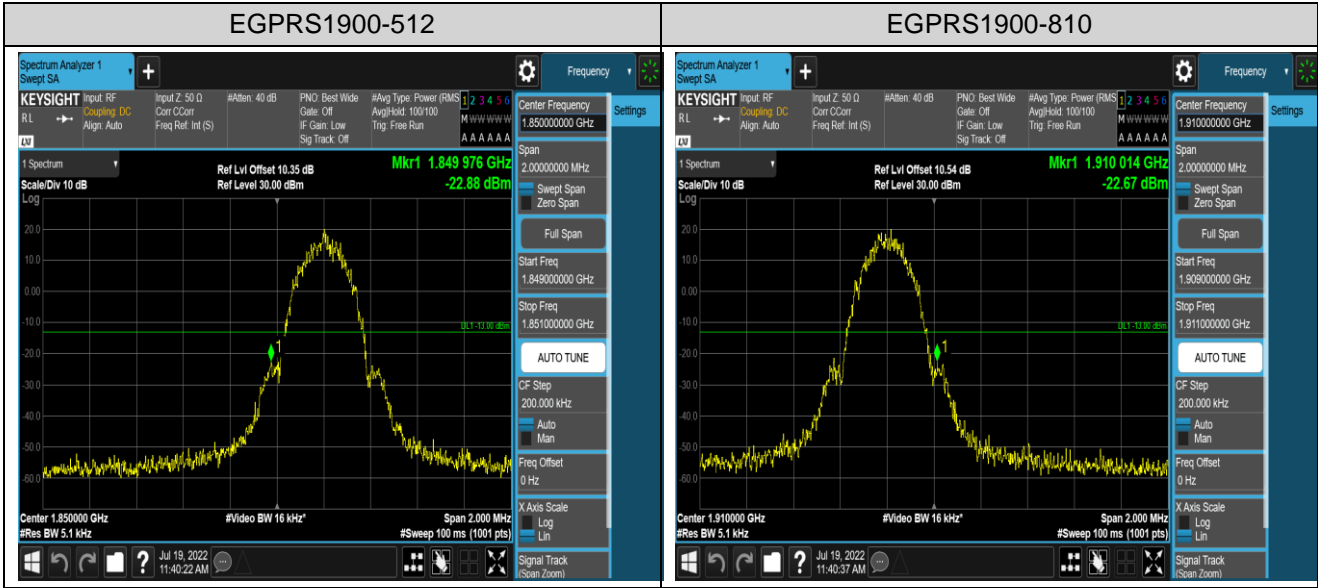
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-23.67	-13	PASS
GSM850	251	5	849.02	-23.32	-13	PASS
EGPRS850	128	8	823.98	-33.73	-13	PASS
EGPRS850	251	8	849.00	-33.29	-13	PASS
GSM1900	512	0	1849.98	-14.63	-13	PASS
GSM1900	810	0	1910.02	-13.06	-13	PASS
EGPRS1900	512	2	1849.98	-22.88	-13	PASS
EGPRS1900	810	2	1910.01	-22.67	-13	PASS

Test Graphs





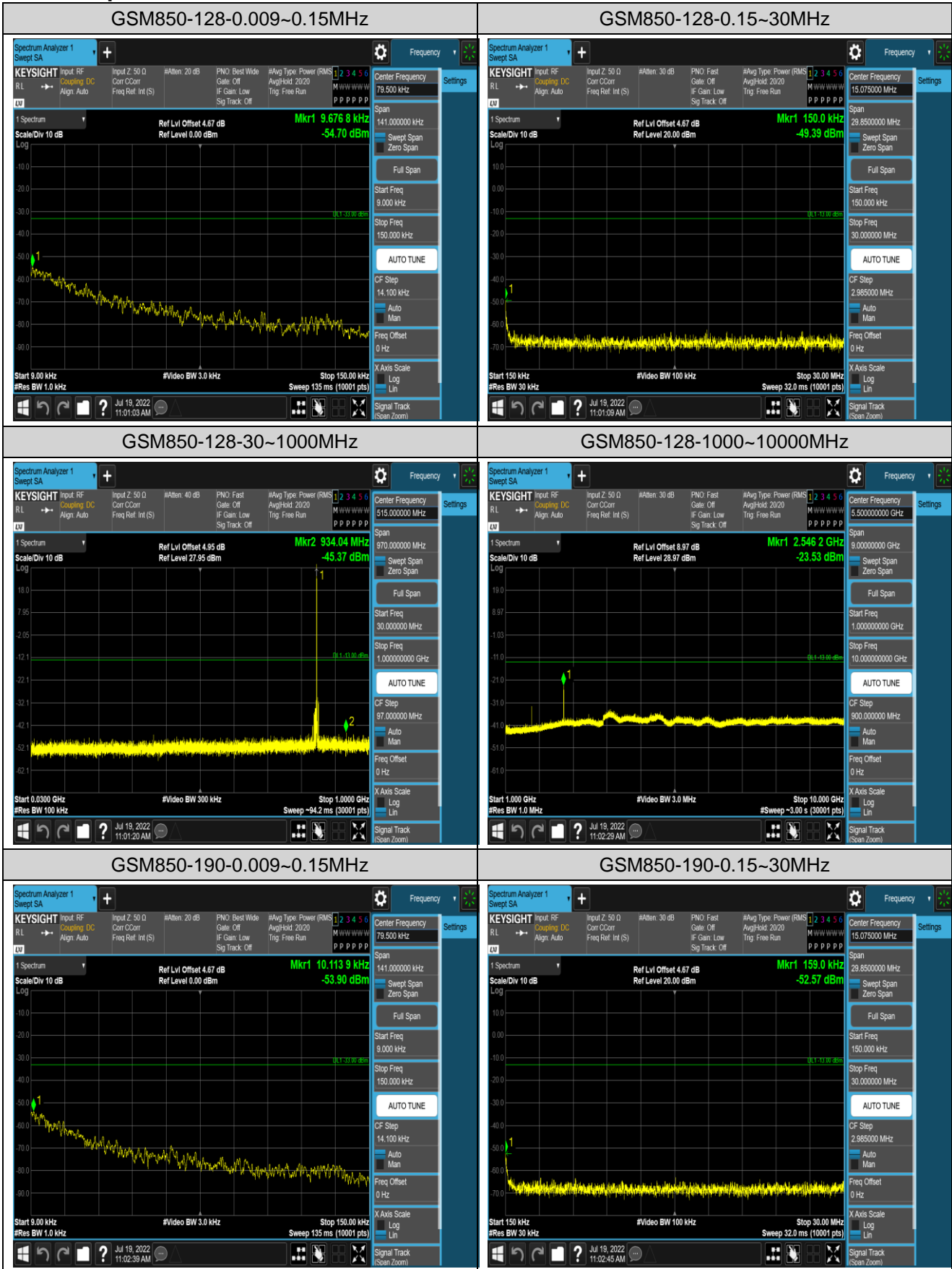
Appendix E: Conducted Spurious Emission

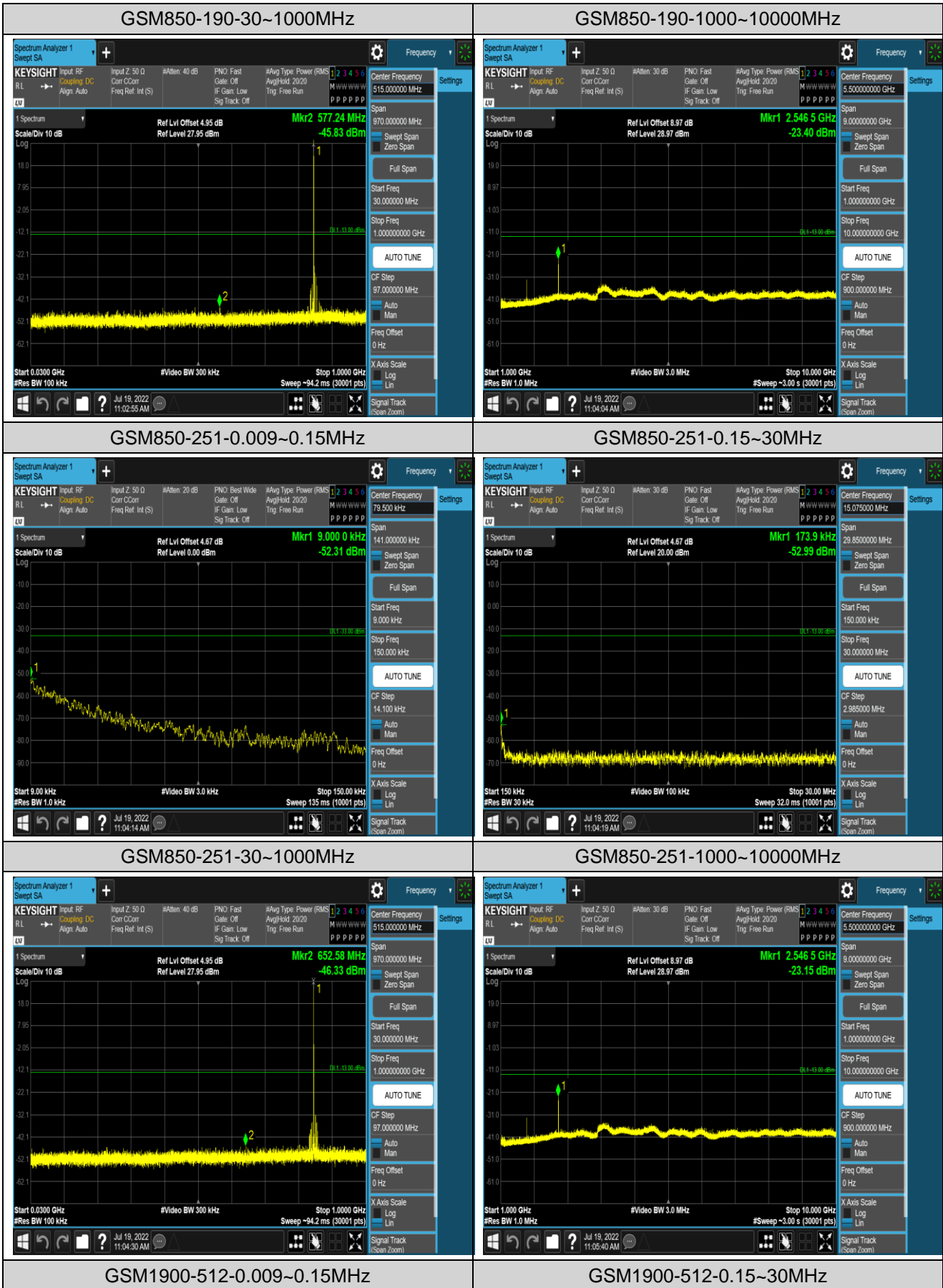
Test Result

Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-54.7	-33	PASS
GSM850	128	5	0.15~30MHz	0.15	-49.39	-13	PASS
GSM850	128	5	30~1000MHz	934.04	-45.37	-13	PASS
GSM850	128	5	1000~10000MHz	2546.2	-23.53	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.01	-53.9	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-52.57	-13	PASS
GSM850	190	5	30~1000MHz	577.24	-45.83	-13	PASS
GSM850	190	5	1000~10000MHz	2546.5	-23.41	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-52.31	-33	PASS
GSM850	251	5	0.15~30MHz	0.17	-52.99	-13	PASS
GSM850	251	5	30~1000MHz	652.58	-46.33	-13	PASS
GSM850	251	5	1000~10000MHz	2546.5	-23.15	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-57.35	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-51.83	-23	PASS
GSM1900	512	0	30~1000MHz	883.76	-46.81	-13	PASS
GSM1900	512	0	1000~18000MHz	3822.57	-34.58	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-55.5	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-53.09	-23	PASS
GSM1900	661	0	30~1000MHz	814.92	-46.17	-13	PASS
GSM1900	661	0	1000~18000MHz	3850.33	-34.57	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-56.32	-43	PASS
GSM1900	810	0	0.15~30MHz	0.16	-52.65	-23	PASS
GSM1900	810	0	30~1000MHz	916.29	-46.08	-13	PASS
GSM1900	810	0	1000~18000MHz	5000.67	-34.34	-13	PASS

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

Test Graphs

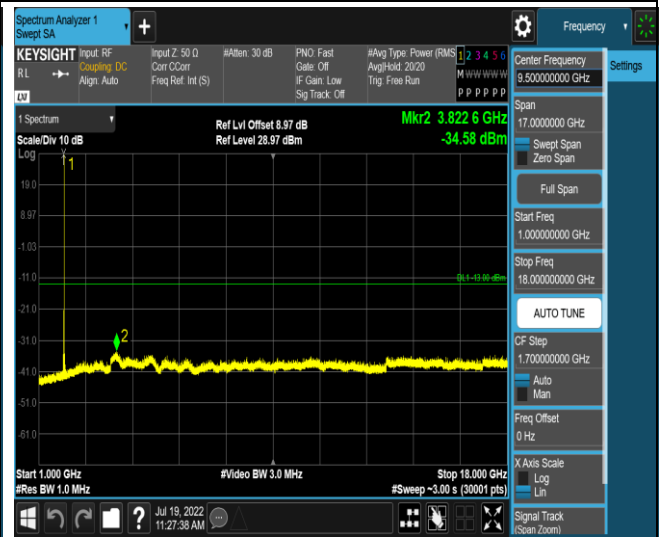
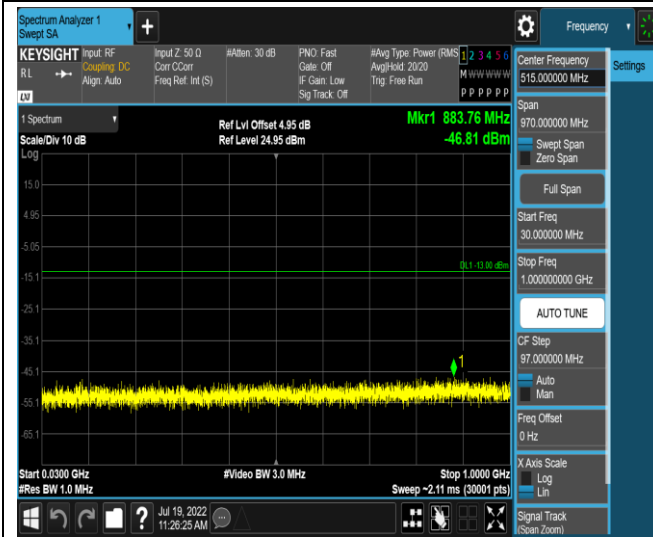






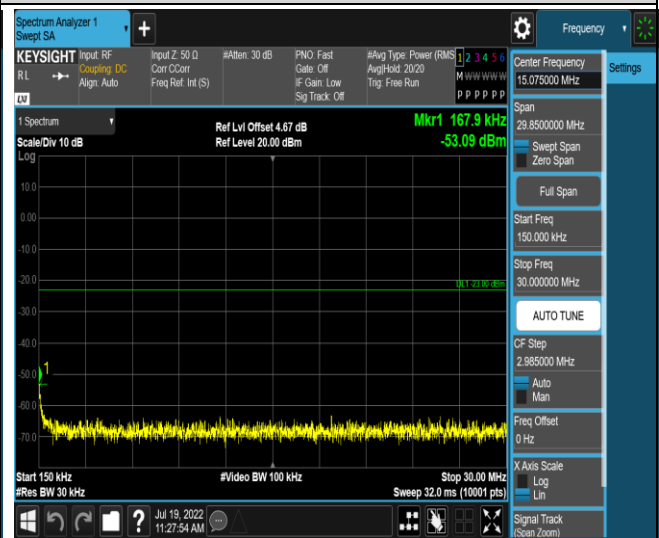
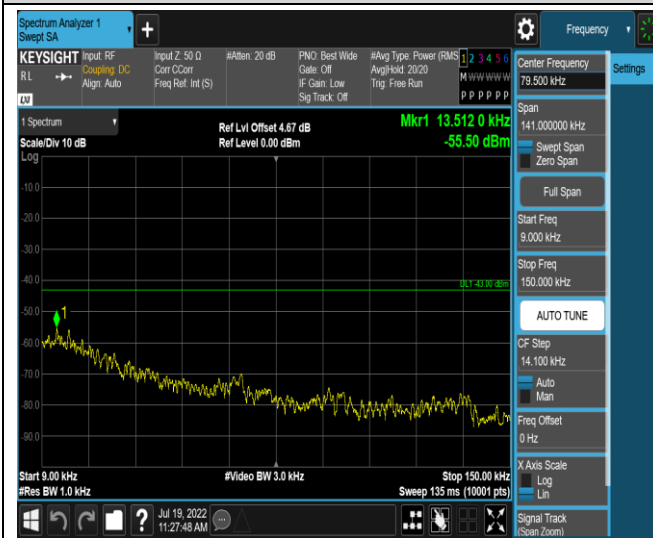
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



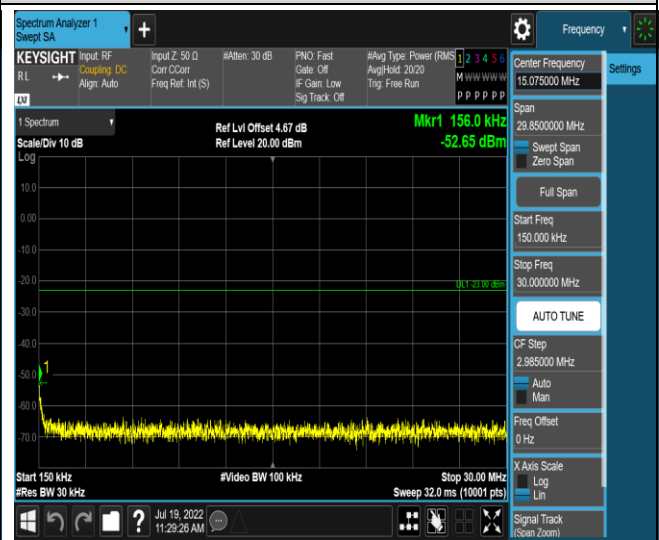
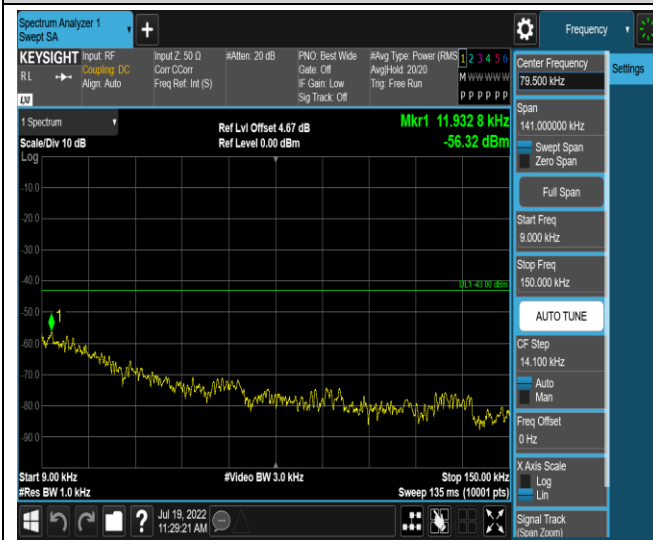
GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz



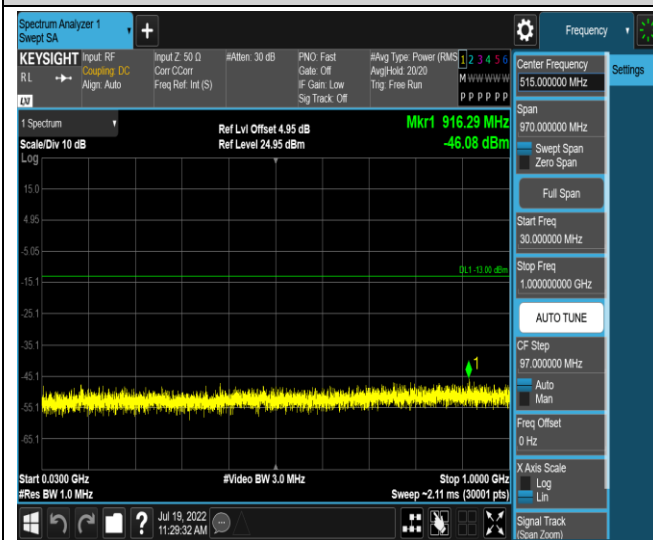
GSM1900-810-0.009~0.15MHz

GSM1900-810-0.15~30MHz



GSM1900-810-30~1000MHz

GSM1900-810-1000~1800MHz



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	4.88	0.005833	±2.5	Pass
	-20	-15.79	-0.018874		
	-10	10.85	0.012969		
	0	4.46	0.005331		
	10	6.04	0.007220		
	20	6.91	0.008260		
	30	-1.23	-0.001470		
	40	-3.10	-0.003705		
	50	12.27	0.014667		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-7.65	-0.009144	±2.5	Pass
	3.87	-2.45	-0.002929		
	4.45	0.77	0.000920		
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	-3.81	-0.004554	±2.5	Pass
	-20	-10.98	-0.013125		
	-10	-12.17	-0.014547		
	0	-7.43	-0.008881		
	10	3.94	0.004710		
	20	16.24	0.019412		
	30	16.01	0.019137		
	40	10.43	0.012467		
	50	9.43	0.011272		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-2.55	-0.003048	±2.5	Pass
	3.87	1.74	0.002080		
	4.45	-3.81	-0.004554		
<i>Remark: All channel had been tested, but only the worst case data displayed in this report.</i>					

Reference Frequency: PCS1900 Middle channel=661 Frequency=1880MHz					
Temperature					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-5.00	-0.002660	Within authorized band for PCS 1900	Pass
	-20	0.52	0.000277		
	-10	-52.24	-0.027787		
	0	-53.40	-0.028404		
	10	-46.33	-0.024644		
	20	25.54	0.013585		
	30	7.46	0.003968		
	40	7.17	0.003814		
	50	11.75	0.006250		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-19.82	-0.010543	Within authorized band for PCS 1900	Pass
	3.87	-15.88	-0.008447		
	4.45	4.94	0.002628		
<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	-5.46	-0.002904	Within authorized band for PCS 1900	Pass
	-20	-4.36	-0.002319		
	-10	2.39	0.001271		
	0	6.55	0.003484		
	10	4.68	0.002489		
	20	-51.24	-0.027255		
	30	-42.07	-0.022378		
	40	-42.10	-0.022394		
	50	-35.84	-0.019064		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-6.20	-0.003298	Within authorized band for PCS 1900	Pass
	3.87	-9.81	-0.005218		
	4.45	-8.75	-0.004654		
<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
-999	-999	PASS	PASS

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

Test Graphs

