

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	32.36	28.71	38.45	PASS
GSM850	190	5	32.66	29.01	38.45	PASS
GSM850	251	5	32.46	28.81	38.45	PASS
GSM1900	512	0	29.46	28.96	33.00	PASS
GSM1900	661	0	29.33	28.83	33.00	PASS
GSM1900	810	0	29.09	28.59	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	5	1	32.14	28.49	38.45	PASS
GPRS850	128	5	2	31.67	28.02	38.45	PASS
GPRS850	128	5	3	29.95	26.30	38.45	PASS
GPRS850	128	5	4	28.89	25.24	38.45	PASS
GPRS850	190	5	1	32.65	29.00	38.45	PASS
GPRS850	190	5	2	31.97	28.32	38.45	PASS
GPRS850	190	5	3	30.27	26.62	38.45	PASS
GPRS850	190	5	4	29.20	25.55	38.45	PASS
GPRS850	251	5	1	32.45	28.80	38.45	PASS
GPRS850	251	5	2	31.77	28.12	38.45	PASS
GPRS850	251	5	3	30.09	26.44	38.45	PASS
GPRS850	251	5	4	29.02	25.37	38.45	PASS
GPRS1900	512	0	1	29.49	28.99	33.00	PASS
GPRS1900	512	0	2	28.73	28.23	33.00	PASS
GPRS1900	512	0	3	26.88	26.38	33.00	PASS
GPRS1900	512	0	4	25.81	25.31	33.00	PASS
GPRS1900	661	0	1	29.34	28.84	33.00	PASS
GPRS1900	661	0	2	28.65	28.15	33.00	PASS
GPRS1900	661	0	3	26.87	26.37	33.00	PASS
GPRS1900	661	0	4	25.83	25.33	33.00	PASS
GPRS1900	810	0	1	29.10	28.6	33.00	PASS
GPRS1900	810	0	2	28.43	27.93	33.00	PASS
GPRS1900	810	0	3	26.74	26.24	33.00	PASS
GPRS1900	810	0	4	25.71	25.21	33.00	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.35	23.70	38.45	PASS
EGPRS850	128	8	2	26.30	22.65	38.45	PASS
EGPRS850	128	8	3	24.19	20.54	38.45	PASS
EGPRS850	128	8	4	23.11	19.46	38.45	PASS
EGPRS850	190	8	1	27.10	23.45	38.45	PASS
EGPRS850	190	8	2	26.19	22.54	38.45	PASS
EGPRS850	190	8	3	24.07	20.42	38.45	PASS
EGPRS850	190	8	4	23.01	19.36	38.45	PASS
EGPRS850	251	8	1	27.17	23.52	38.45	PASS
EGPRS850	251	8	2	26.21	22.56	38.45	PASS
EGPRS850	251	8	3	24.15	20.50	38.45	PASS
EGPRS850	251	8	4	23.04	19.39	38.45	PASS
EGPRS1900	512	2	1	24.82	24.32	33.00	PASS
EGPRS1900	512	2	2	23.74	23.24	33.00	PASS
EGPRS1900	512	2	3	21.60	21.1	33.00	PASS
EGPRS1900	512	2	4	20.46	19.96	33.00	PASS
EGPRS1900	661	2	1	24.74	24.24	33.00	PASS
EGPRS1900	661	2	2	23.74	23.24	33.00	PASS
EGPRS1900	661	2	3	21.70	21.2	33.00	PASS
EGPRS1900	661	2	4	20.47	19.97	33.00	PASS
EGPRS1900	810	2	1	24.59	24.09	33.00	PASS
EGPRS1900	810	2	2	23.51	23.01	33.00	PASS
EGPRS1900	810	2	3	21.44	20.94	33.00	PASS
EGPRS1900	810	2	4	20.31	19.81	33.00	PASS

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

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

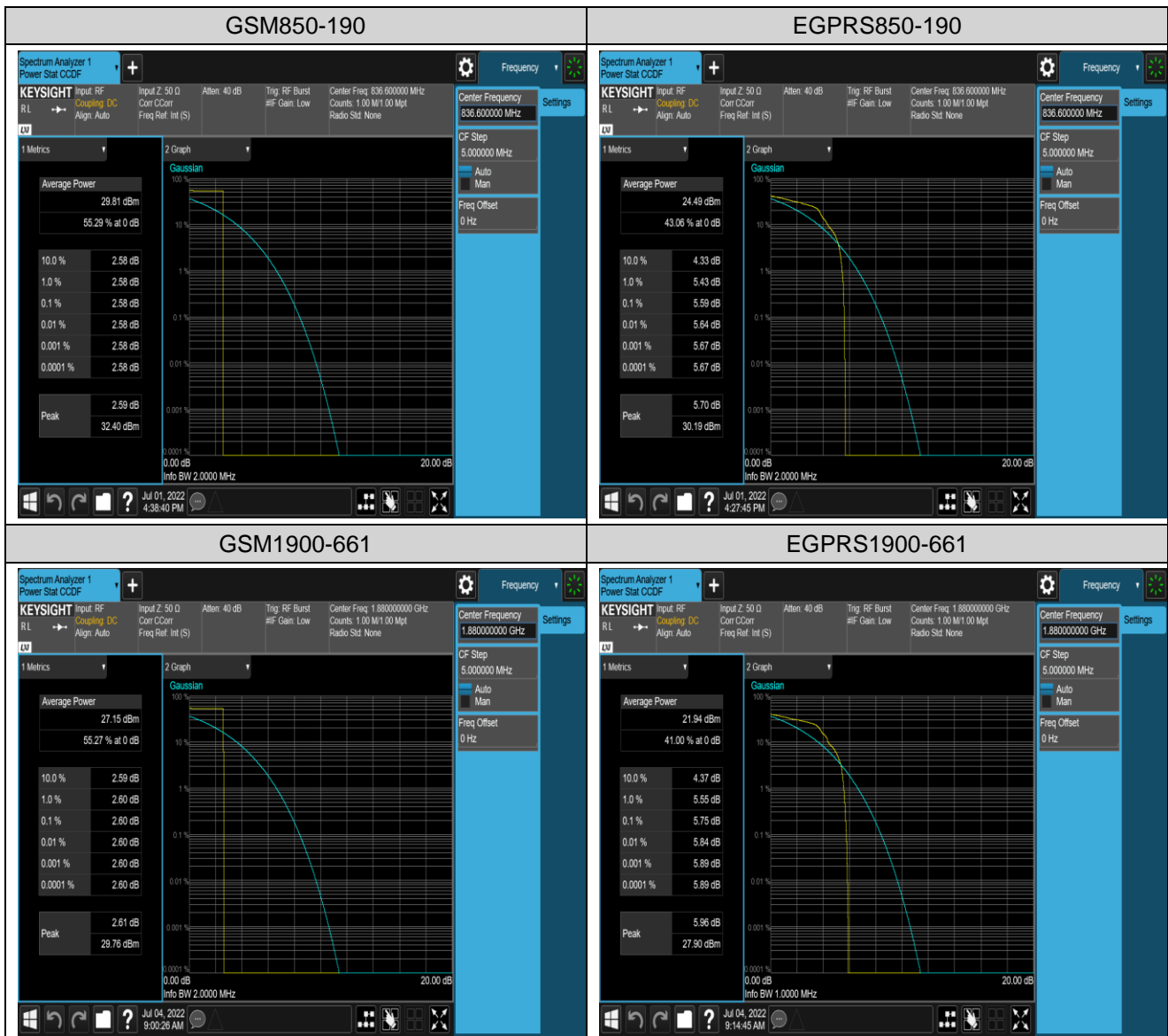
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	5	2.58	13	PASS
EGPRS850	190	8	5.59	13	PASS
GSM1900	661	0	2.6	13	PASS
EGPRS1900	661	2	5.75	13	PASS

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

Test Graphs

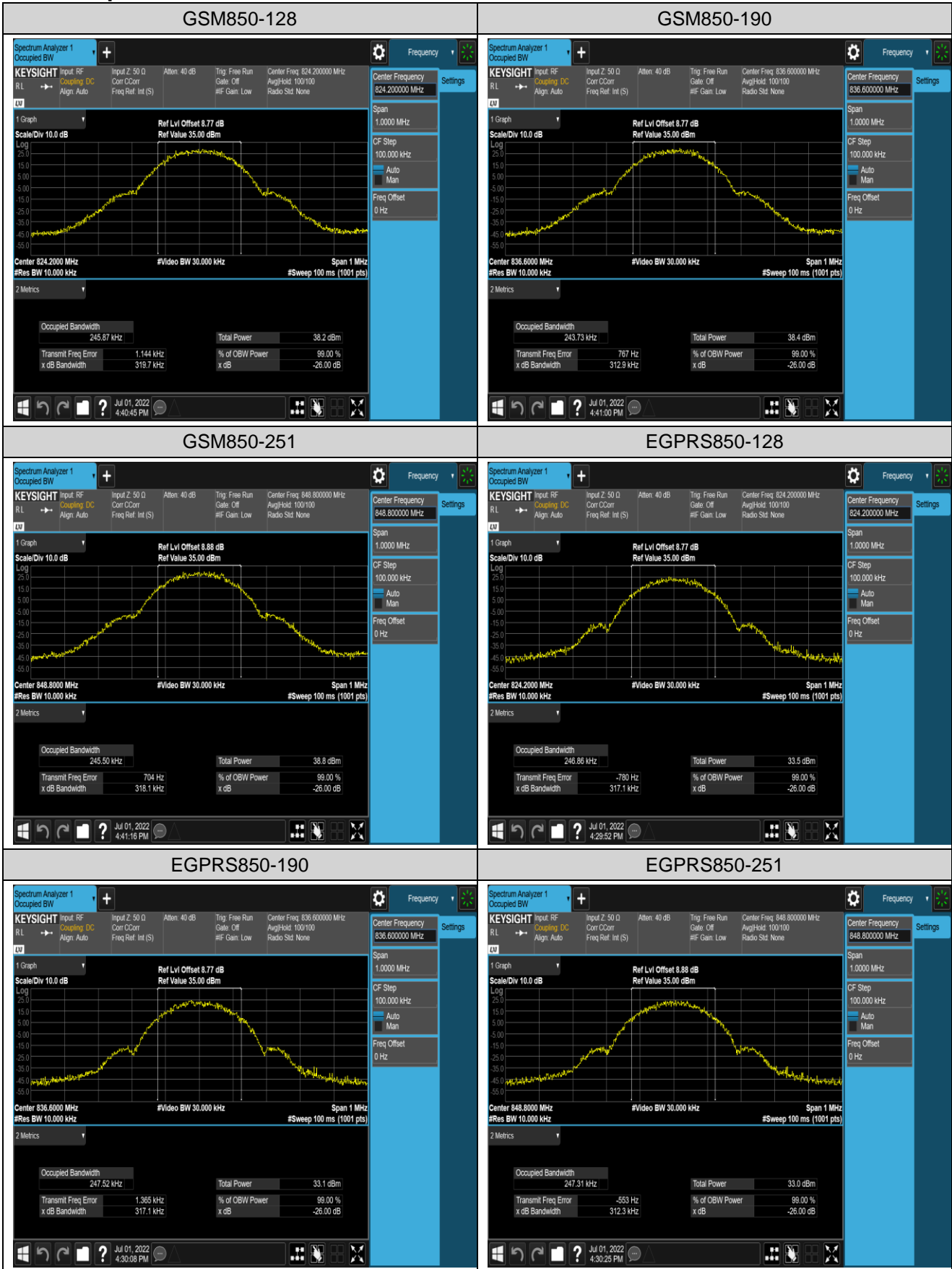


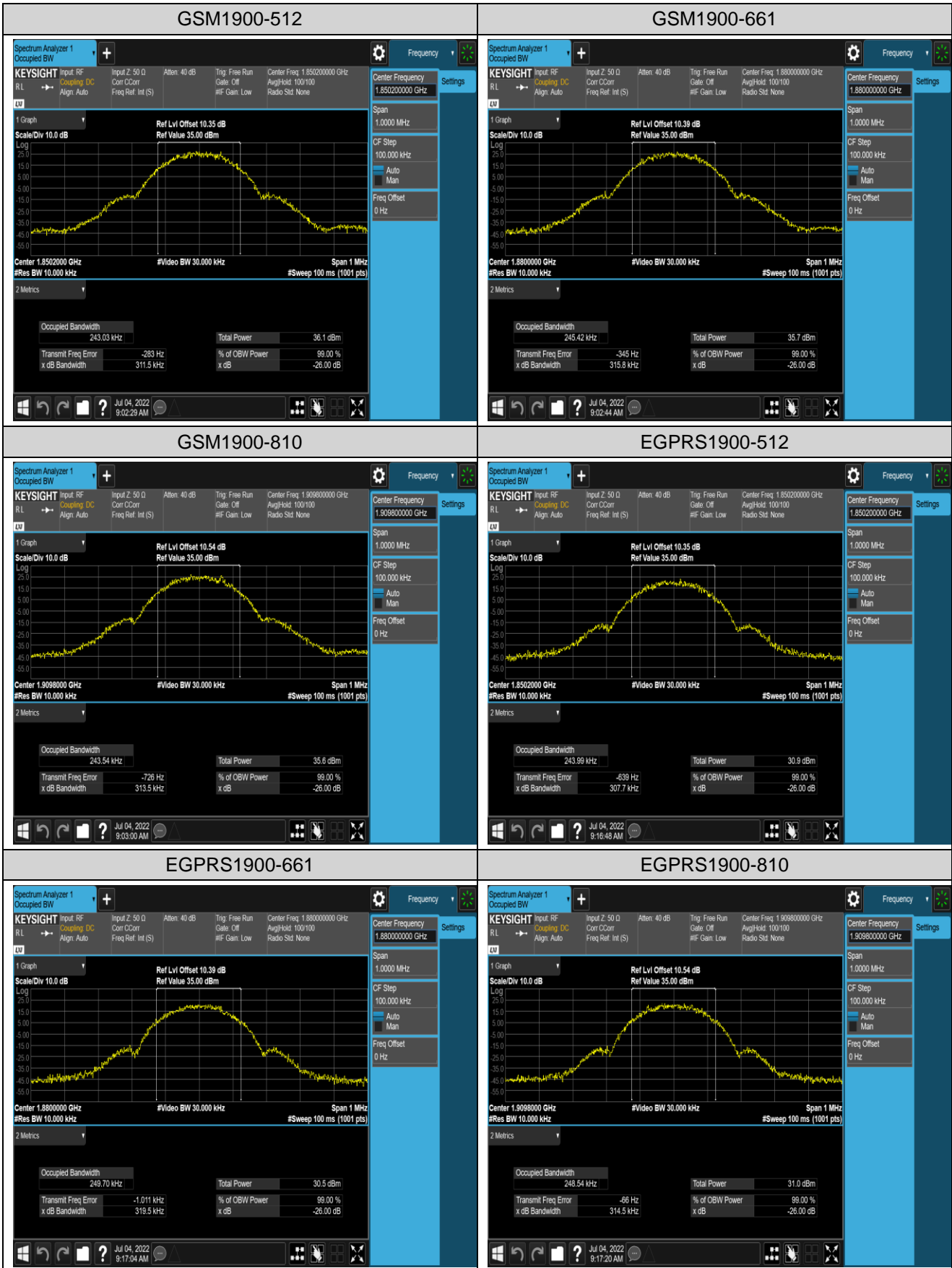
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	5	0.24587	0.3197	---	PASS
GSM850	190	5	0.24373	0.3129	---	PASS
GSM850	251	5	0.24550	0.3181	---	PASS
EGPRS850	128	8	0.24686	0.3171	---	PASS
EGPRS850	190	8	0.24752	0.3171	---	PASS
EGPRS850	251	8	0.24731	0.3123	---	PASS
GSM1900	512	0	0.24303	0.3115	---	PASS
GSM1900	661	0	0.24542	0.3158	---	PASS
GSM1900	810	0	0.24354	0.3135	---	PASS
EGPRS1900	512	2	0.24399	0.3077	---	PASS
EGPRS1900	661	2	0.24970	0.3195	---	PASS
EGPRS1900	810	2	0.24854	0.3145	---	PASS

Test Graphs



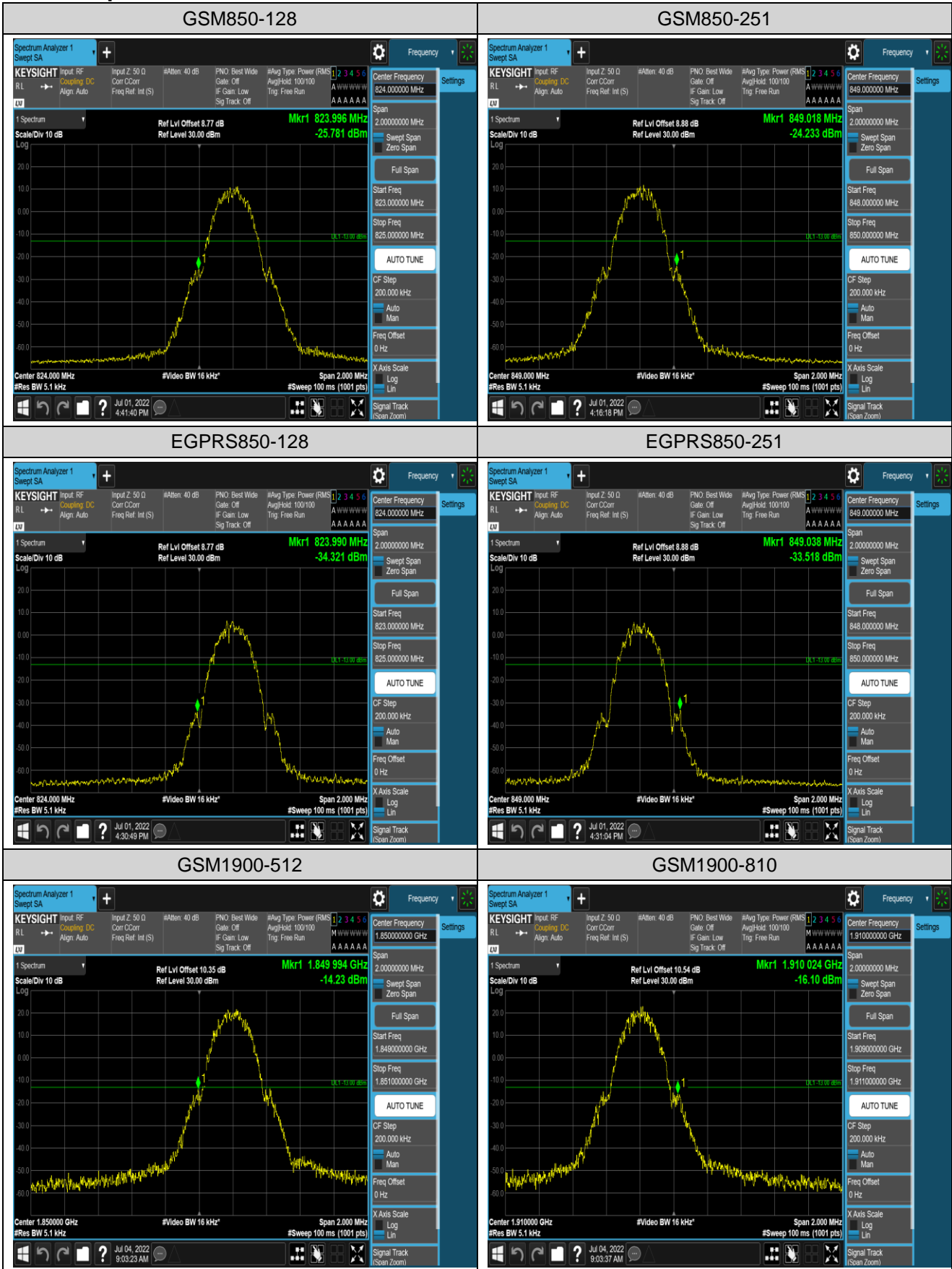


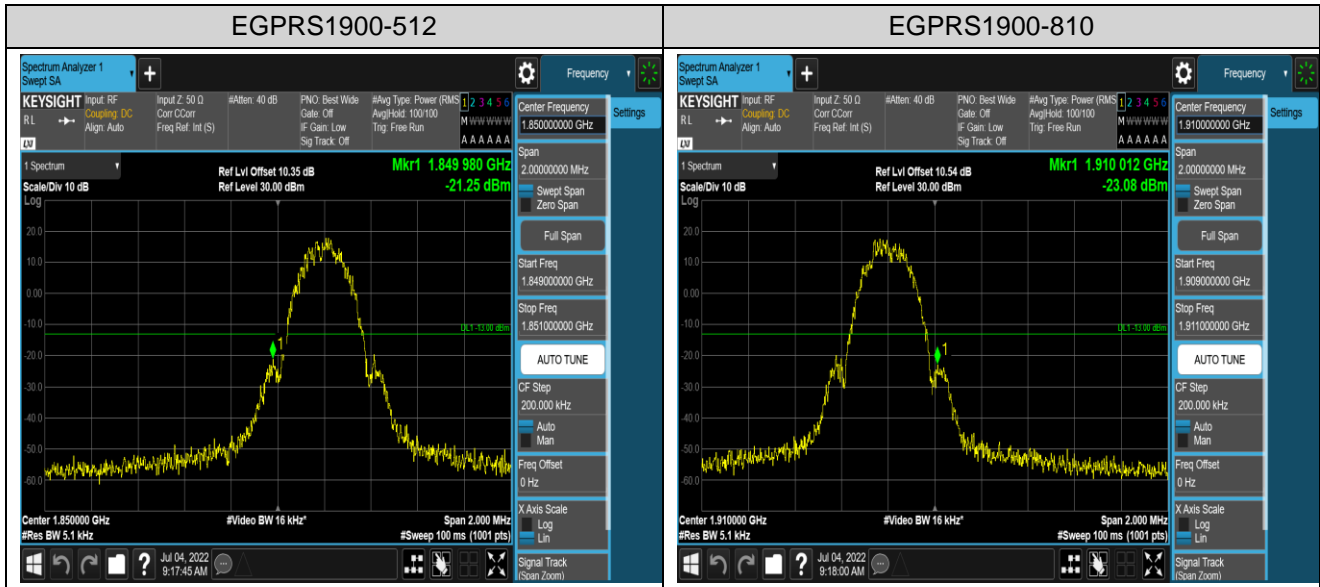
Appendix D: Band Edge

Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	5	824.00	-25.78	-13	PASS
GSM850	251	5	849.02	-24.23	-13	PASS
EGPRS850	128	8	823.99	-34.32	-13	PASS
EGPRS850	251	8	849.04	-33.52	-13	PASS
GSM1900	512	0	1849.99	-14.23	-13	PASS
GSM1900	810	0	1910.02	-16.10	-13	PASS
EGPRS1900	512	2	1849.98	-21.25	-13	PASS
EGPRS1900	810	2	1910.01	-23.08	-13	PASS

Test Graphs





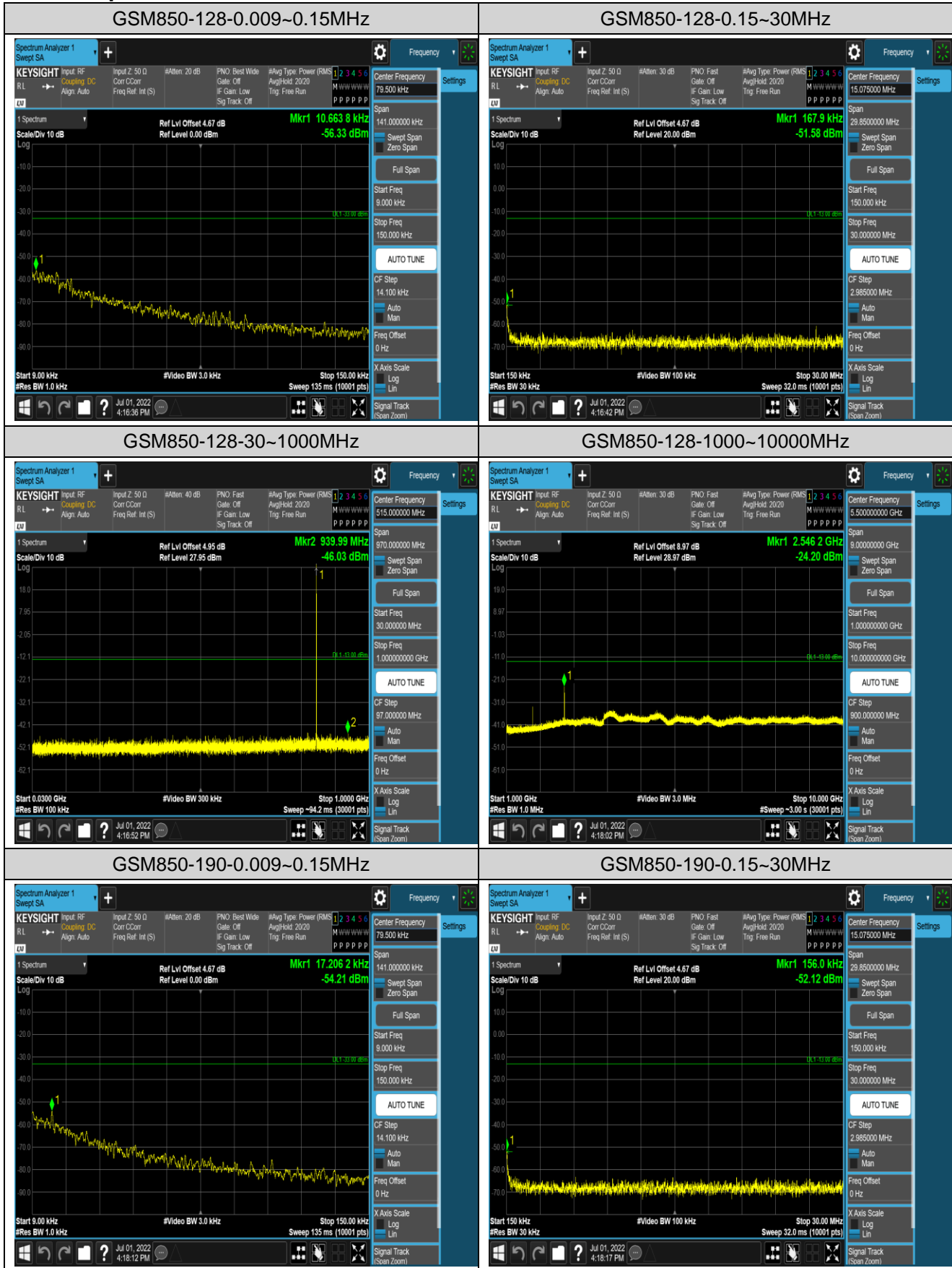
Appendix E: Conducted Spurious Emission

Test Result

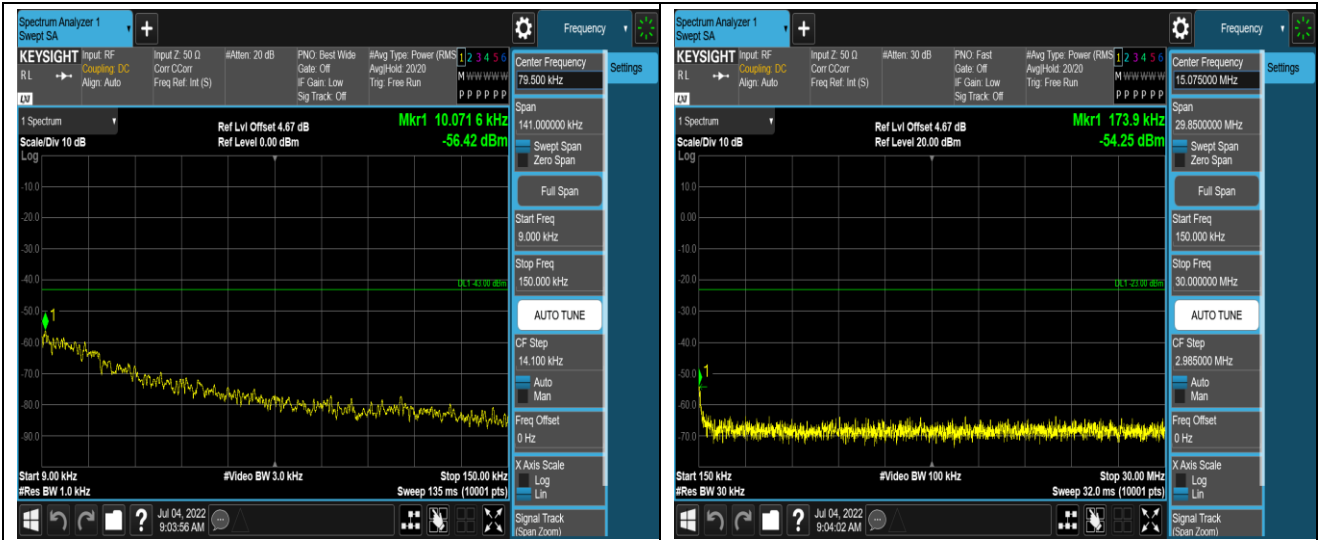
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	5	0.009~0.15MHz	0.01	-56.33	-33	PASS
GSM850	128	5	0.15~30MHz	0.17	-51.58	-13	PASS
GSM850	128	5	30~1000MHz	939.99	-46.03	-13	PASS
GSM850	128	5	1000~10000MHz	2546.2	-24.2	-13	PASS
GSM850	190	5	0.009~0.15MHz	0.02	-54.21	-33	PASS
GSM850	190	5	0.15~30MHz	0.16	-52.12	-13	PASS
GSM850	190	5	30~1000MHz	989.27	-46.05	-13	PASS
GSM850	190	5	1000~10000MHz	2546.2	-24.23	-13	PASS
GSM850	251	5	0.009~0.15MHz	0.01	-54.68	-33	PASS
GSM850	251	5	0.15~30MHz	0.16	-51.93	-13	PASS
GSM850	251	5	30~1000MHz	477.59	-46.22	-13	PASS
GSM850	251	5	1000~10000MHz	2546.8	-25.34	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-56.42	-43	PASS
GSM1900	512	0	0.15~30MHz	0.17	-54.25	-23	PASS
GSM1900	512	0	30~1000MHz	924.66	-46.11	-13	PASS
GSM1900	512	0	1000~18000MHz	3772.13	-34.57	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-56.12	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-52.23	-23	PASS
GSM1900	661	0	30~1000MHz	772.37	-46.82	-13	PASS
GSM1900	661	0	1000~18000MHz	3719.43	-34.63	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.02	-56.87	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-51.59	-23	PASS
GSM1900	810	0	30~1000MHz	737.1	-47.05	-13	PASS
GSM1900	810	0	1000~18000MHz	3792.53	-33.81	-13	PASS

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

Test Graphs

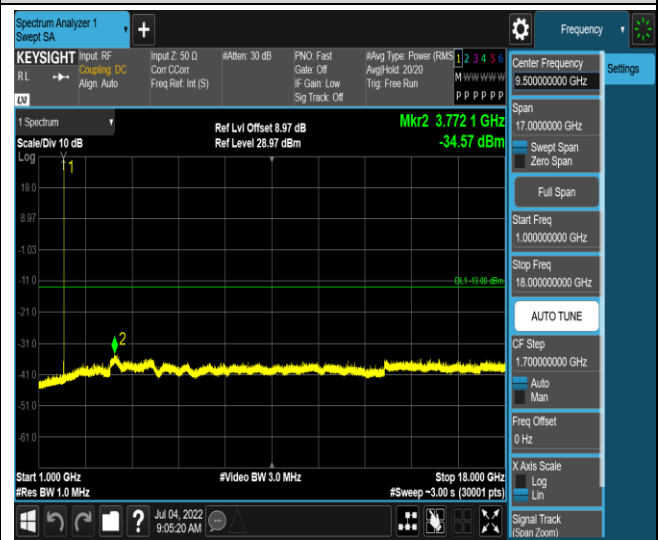






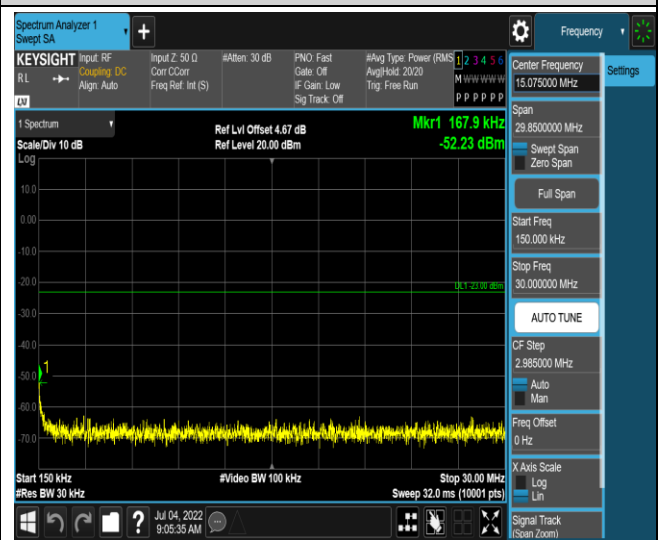
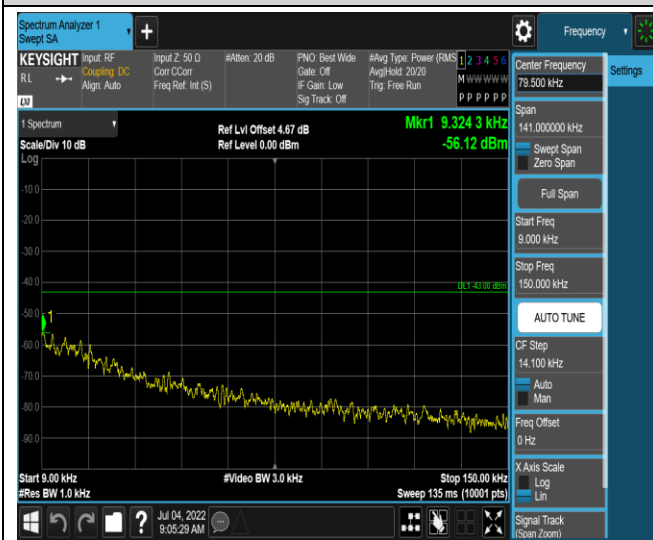
GSM1900-512-30~1000MHz

GSM1900-512-1000~18000MHz



GSM1900-661-0.009~0.15MHz

GSM1900-661-0.15~30MHz



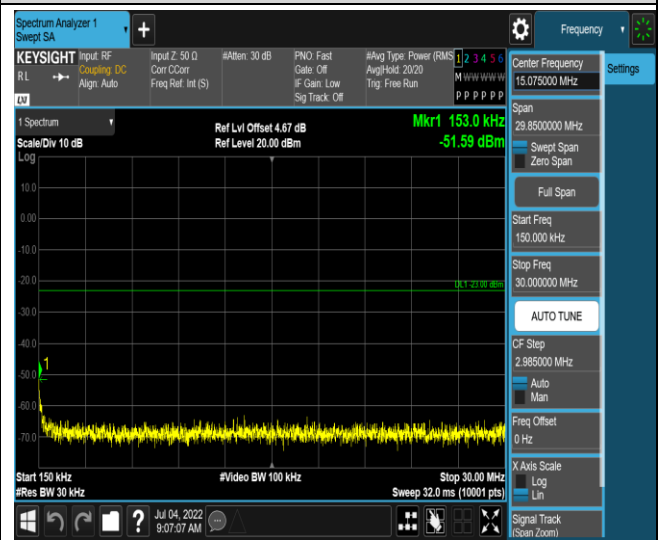
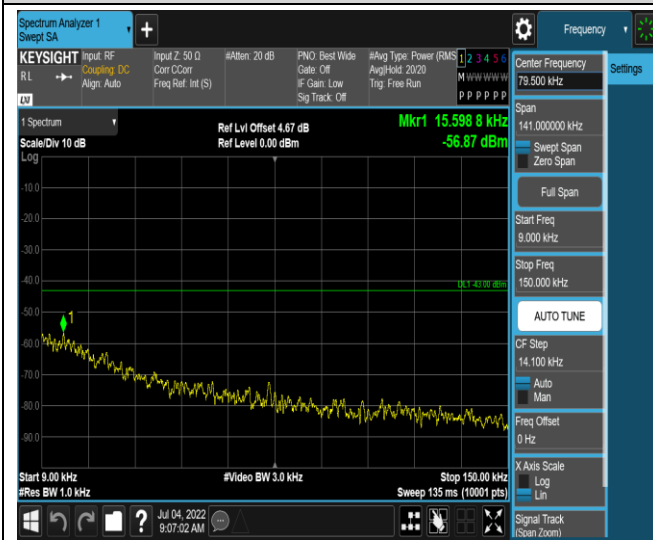
GSM1900-661-30~1000MHz

GSM1900-661-1000~18000MHz



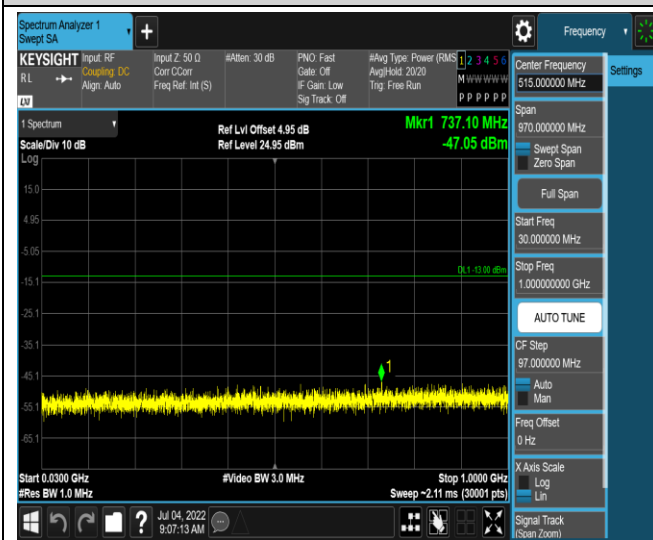
GSM1900-810-0.009~0.15MHz

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		
3.87	-30	-5.84	-0.006981	±2.5	Pass
	-20	-4.23	-0.005056		
	-10	-8.14	-0.009730		
	0	-9.43	-0.011272		
	10	-3.94	-0.004710		
	20	-5.07	-0.006060		
	30	-4.42	-0.005283		
	40	-9.20	-0.010997		
	50	-6.30	-0.007530		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-4.33	-0.005176	±2.5	Pass
	3.87	-4.49	-0.005367		
	4.45	-6.17	-0.007375		
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	-2.74	-0.003275	±2.5	Pass
	-20	-7.01	-0.008379		
	-10	-6.78	-0.008104		
	0	-3.84	-0.004590		
	10	-6.13	-0.007327		
	20	-4.52	-0.005403		
	30	-5.88	-0.007028		
	40	-7.49	-0.008953		
	50	-7.43	-0.008881		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-5.04	-0.006024	±2.5	Pass
	3.87	-8.17	-0.009766		
	4.45	-9.78	-0.011690		
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	-1.94	-0.001032	Within authorized band for PCS 1900	Pass
	-20	-14.79	-0.007867		
	-10	0.87	0.000463		
	0	-2.81	-0.001495		
	10	-12.11	-0.006441		
	20	-10.72	-0.005702		
	30	-13.24	-0.007043		
	40	-13.14	-0.006989		
	50	-11.33	-0.006027		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-11.46	-0.006096	Within authorized band for PCS 1900	Pass
	3.87	3.26	0.001734		
	4.45	-1.19	-0.000633		
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		
3.87	-30	-17.40	-0.009255	Within authorized band for PCS 1900	Pass
	-20	-15.82	-0.008415		
	-10	-20.86	-0.011096		
	0	0.23	0.000122		
	10	-25.80	-0.013723		
	20	-0.19	-0.000101		
	30	-21.66	-0.011521		
	40	-3.39	-0.001803		
	50	-11.49	-0.006112		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-16.30	-0.008670	Within authorized band for PCS 1900	Pass
	3.87	-21.24	-0.011298		
	4.45	-16.37	-0.008707		
<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

