

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	3	33.18	27.65	38.5	PASS
GSM850	190	3	33.31	27.78	38.5	PASS
GSM850	251	3	33.23	27.70	38.5	PASS
GSM1900	512	0	29.62	28.86	33	PASS
GSM1900	661	0	29.71	28.95	33	PASS
GSM1900	810	0	29.43	28.67	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	32.99	25.31	38.5	PASS
GPRS850	128	3	2	32.29	24.61	38.5	PASS
GPRS850	128	3	3	30.56	22.88	38.5	PASS
GPRS850	128	3	4	29.58	21.90	38.5	PASS
GPRS850	190	3	1	33.12	25.44	38.5	PASS
GPRS850	190	3	2	32.44	24.76	38.5	PASS
GPRS850	190	3	3	30.75	23.07	38.5	PASS
GPRS850	190	3	4	29.78	22.10	38.5	PASS
GPRS850	251	3	1	33.04	25.36	38.5	PASS
GPRS850	251	3	2	32.34	24.66	38.5	PASS
GPRS850	251	3	3	30.68	23.00	38.5	PASS
GPRS850	251	3	4	29.67	21.99	38.5	PASS
GPRS1900	512	0	1	29.60	21.83	33	PASS
GPRS1900	512	0	2	28.77	20.66	33	PASS
GPRS1900	512	0	3	26.87	18.50	33	PASS
GPRS1900	512	0	4	25.83	17.35	33	PASS
GPRS1900	661	0	1	29.67	22.05	33	PASS
GPRS1900	661	0	2	28.88	21.01	33	PASS
GPRS1900	661	0	3	26.93	18.83	33	PASS
GPRS1900	661	0	4	25.91	17.71	33	PASS
GPRS1900	810	0	1	29.42	21.99	33	PASS
GPRS1900	810	0	2	28.55	20.87	33	PASS
GPRS1900	810	0	3	26.64	18.68	33	PASS
GPRS1900	810	0	4	25.57	17.53	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.39	21.86	38.5	PASS
EGPRS850	128	8	2	26.19	20.66	38.5	PASS
EGPRS850	128	8	3	24.03	18.50	38.5	PASS
EGPRS850	128	8	4	22.88	17.35	38.5	PASS
EGPRS850	190	8	1	27.63	22.10	38.5	PASS
EGPRS850	190	8	2	26.54	21.01	38.5	PASS
EGPRS850	190	8	3	24.36	18.83	38.5	PASS
EGPRS850	190	8	4	23.24	17.71	38.5	PASS
EGPRS850	251	8	1	27.52	21.99	38.5	PASS
EGPRS850	251	8	2	26.40	20.87	38.5	PASS
EGPRS850	251	8	3	24.21	18.68	38.5	PASS
EGPRS850	251	8	4	23.06	17.53	38.5	PASS
EGPRS1900	512	2	1	26.49	25.73	33	PASS
EGPRS1900	512	2	2	25.36	24.60	33	PASS
EGPRS1900	512	2	3	23.22	22.46	33	PASS
EGPRS1900	512	2	4	22.08	21.32	33	PASS
EGPRS1900	661	2	1	26.44	25.68	33	PASS
EGPRS1900	661	2	2	25.37	24.61	33	PASS
EGPRS1900	661	2	3	23.24	22.48	33	PASS
EGPRS1900	661	2	4	22.08	21.32	33	PASS
EGPRS1900	810	2	1	25.98	25.22	33	PASS
EGPRS1900	810	2	2	24.95	24.19	33	PASS
EGPRS1900	810	2	3	22.78	22.02	33	PASS
EGPRS1900	810	2	4	21.64	20.88	33	PASS

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

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

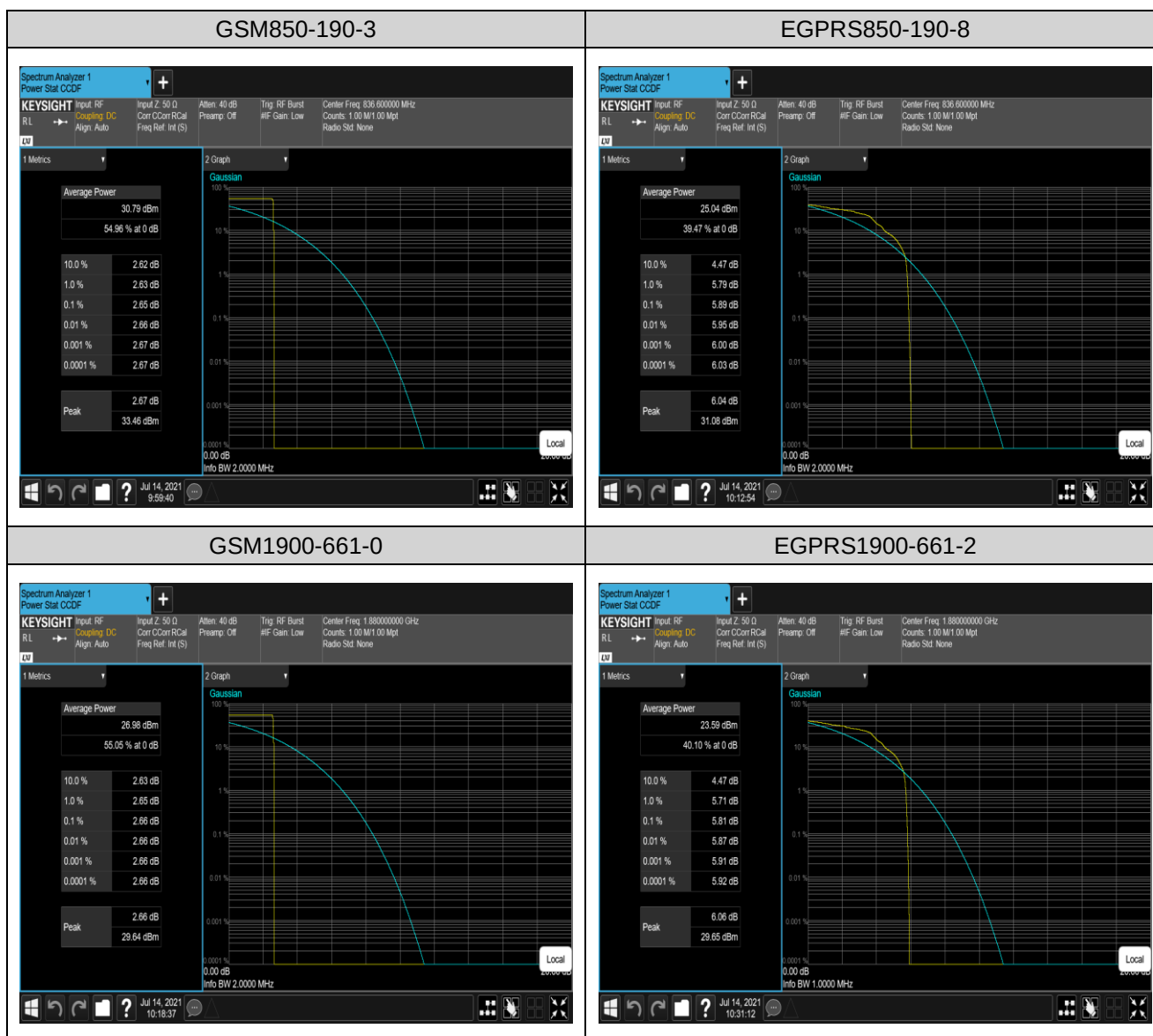
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.65	13	PASS
EGPRS850	190	8	5.89	13	PASS
GSM1900	661	0	2.66	13	PASS
EGPRS1900	661	2	5.81	13	PASS

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

Test Graphs

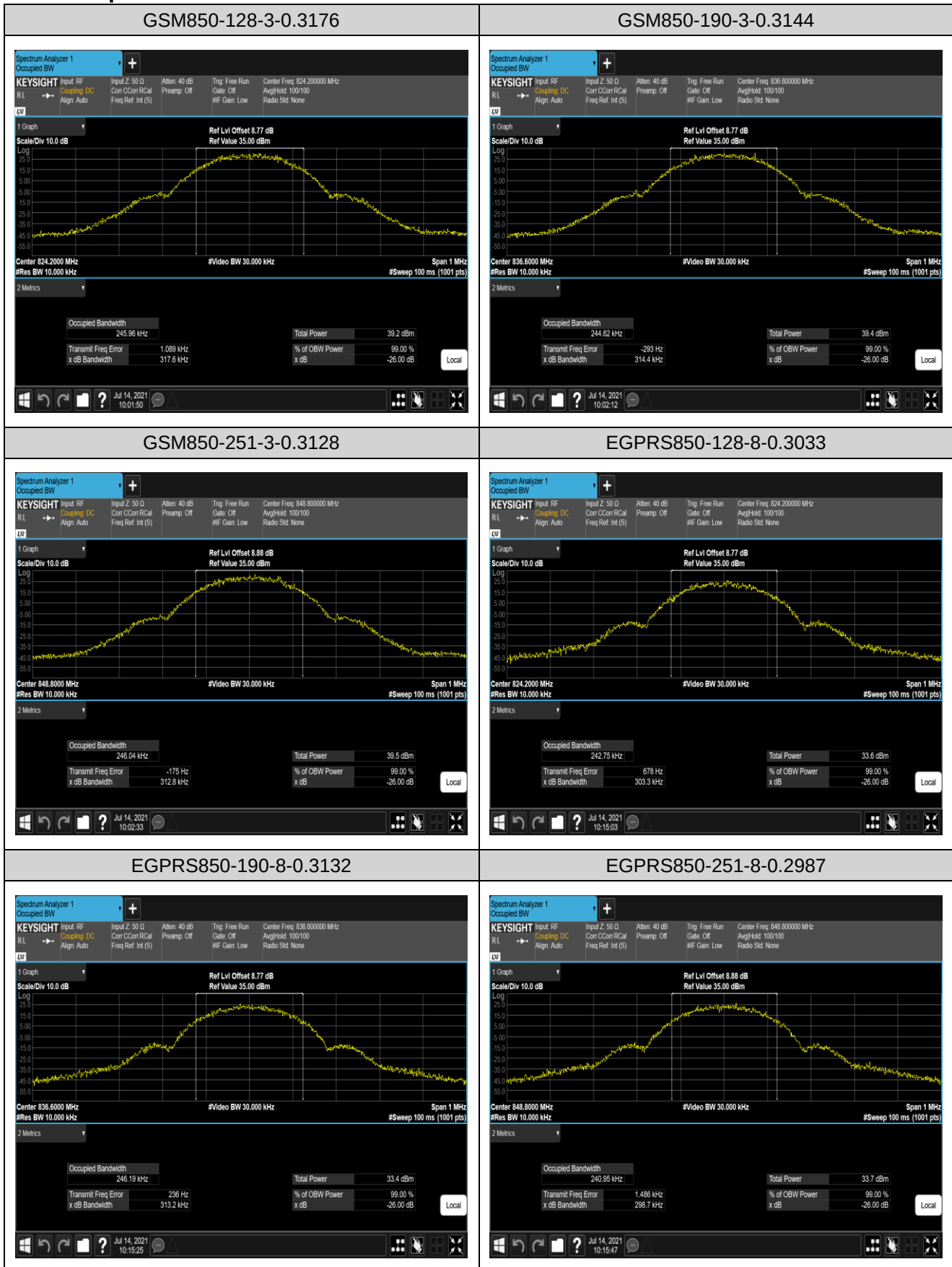


Appendix C: 26dB Bandwidth and Occupied Bandwidth

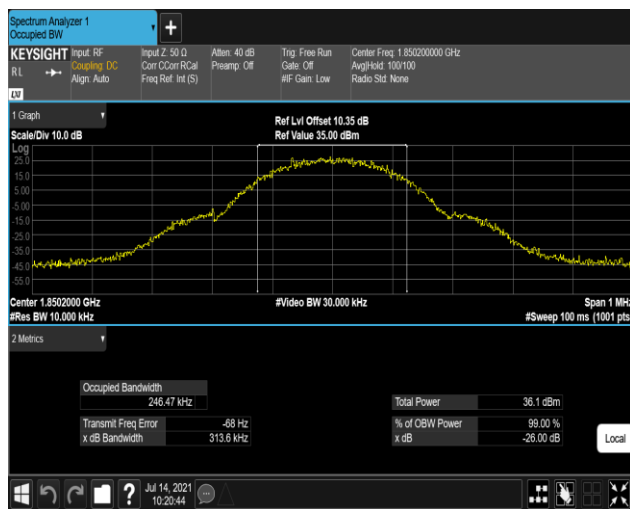
Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24596	0.3176	---	PASS
GSM850	190	3	0.24462	0.3144	---	PASS
GSM850	251	3	0.24604	0.3128	---	PASS
EGPRS850	128	8	0.24275	0.3033	---	PASS
EGPRS850	190	8	0.24619	0.3132	---	PASS
EGPRS850	251	8	0.24095	0.2987	---	PASS
GSM1900	512	0	0.24647	0.3136	---	PASS
GSM1900	661	0	0.24578	0.3188	---	PASS
GSM1900	810	0	0.24428	0.3142	---	PASS
EGPRS1900	512	2	0.24450	0.3045	---	PASS
EGPRS1900	661	2	0.24599	0.3086	---	PASS
EGPRS1900	810	2	0.24637	0.3054	---	PASS

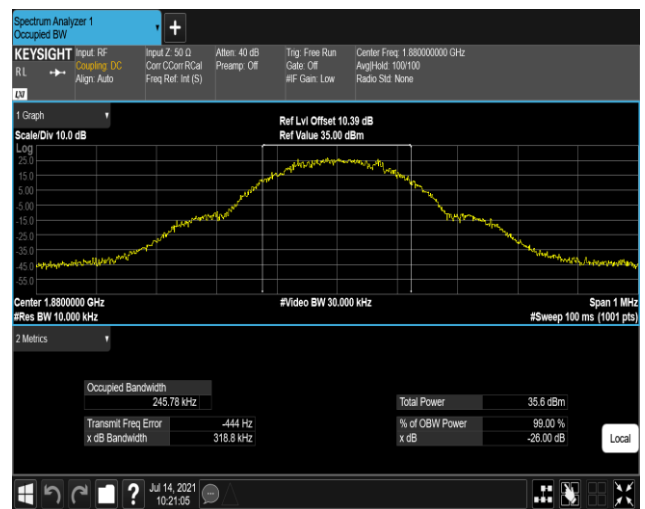
Test Graphs



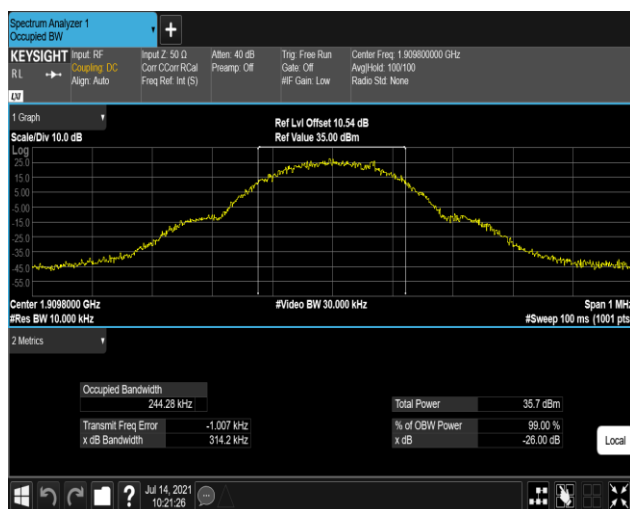
GSM1900-512-0-0.3136



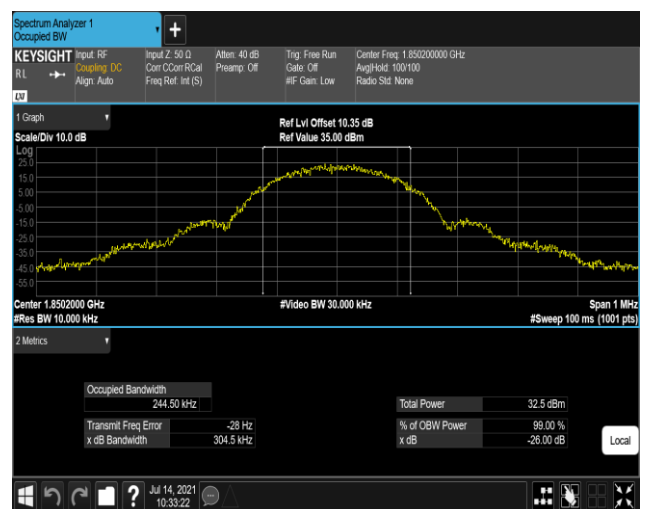
GSM1900-661-0-0.3188



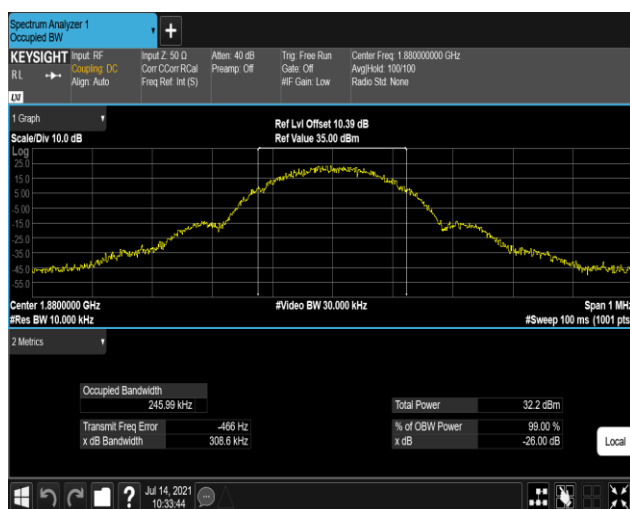
GSM1900-810-0-0.3142



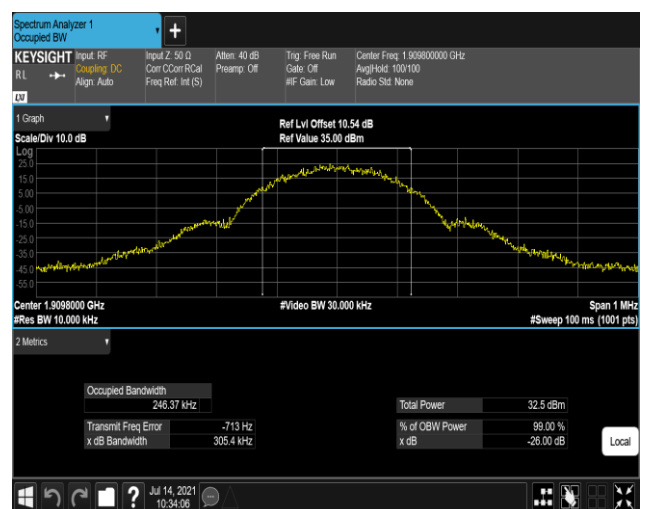
EGPRS1900-512-2-0.3045



EGPRS1900-661-2-0.3086



EGPRS1900-810-2-0.3054

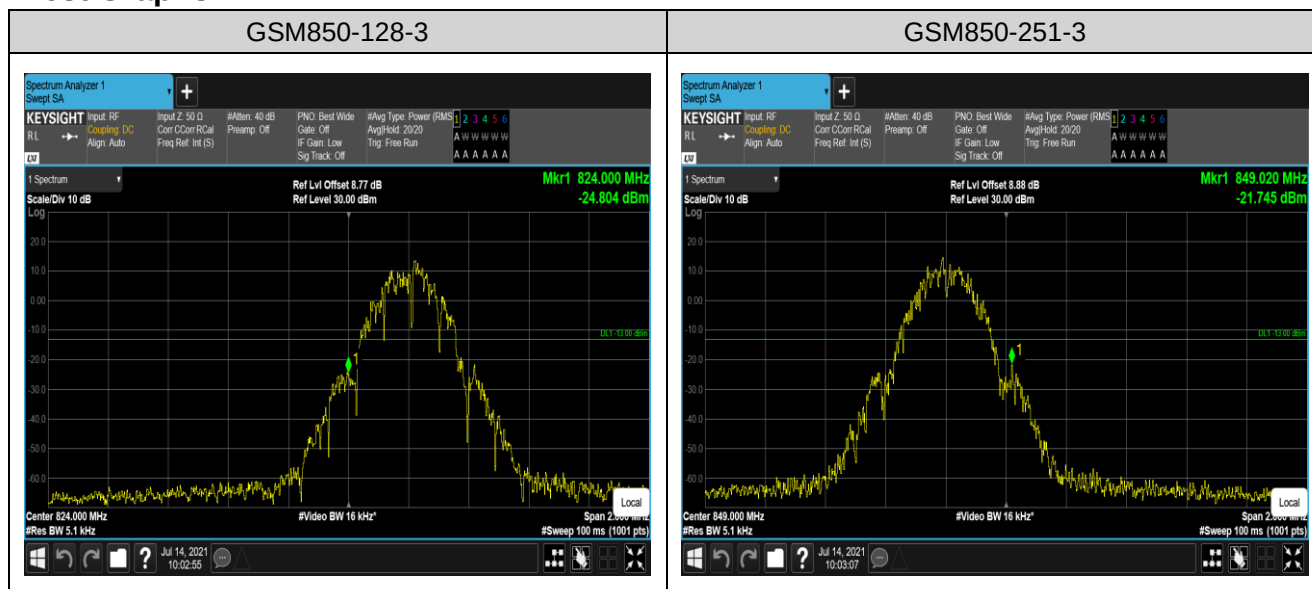


Appendix D: Band Edge

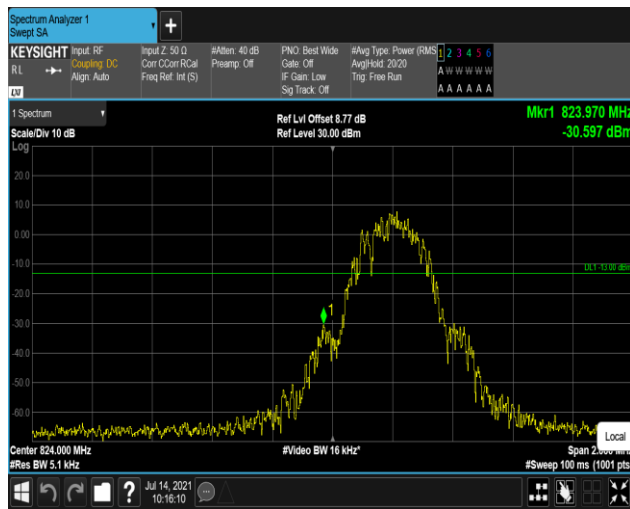
Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-22.89	-13	PASS
GSM850	251	3	849.02	-21.74	-13	PASS
EGPRS850	128	8	823.97	-30.60	-13	PASS
EGPRS850	251	8	849.01	-28.52	-13	PASS
GSM1900	512	0	1849.98	-15.64	-13	PASS
GSM1900	810	0	1910.02	-15.04	-13	PASS
EGPRS1900	512	2	1849.99	-19.73	-13	PASS
EGPRS1900	810	2	1910.03	-19.45	-13	PASS

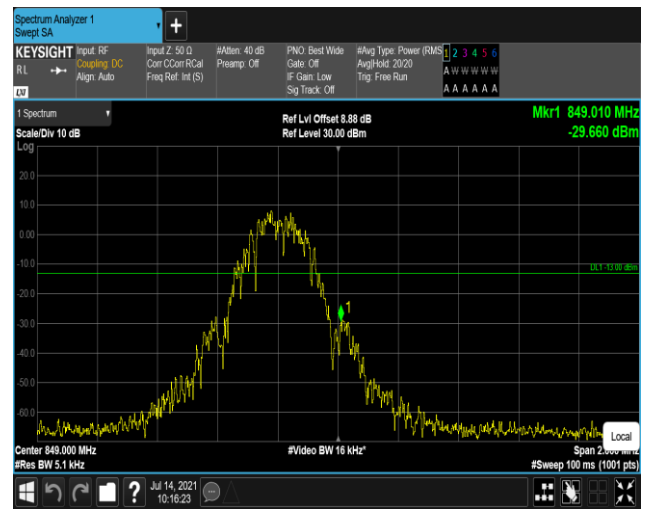
Test Graphs



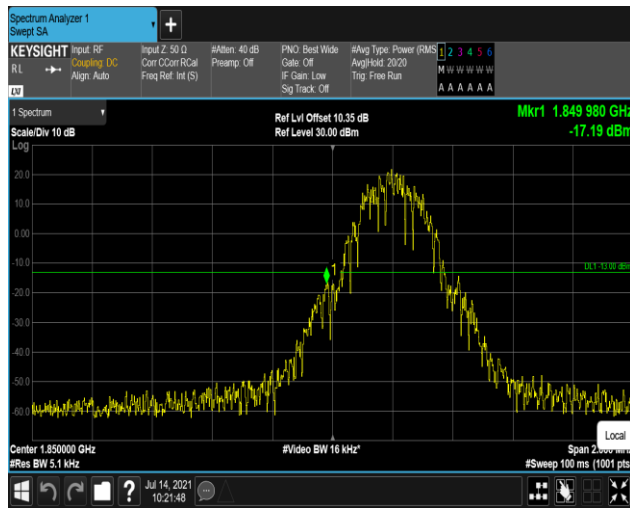
EGPRS850-128-8



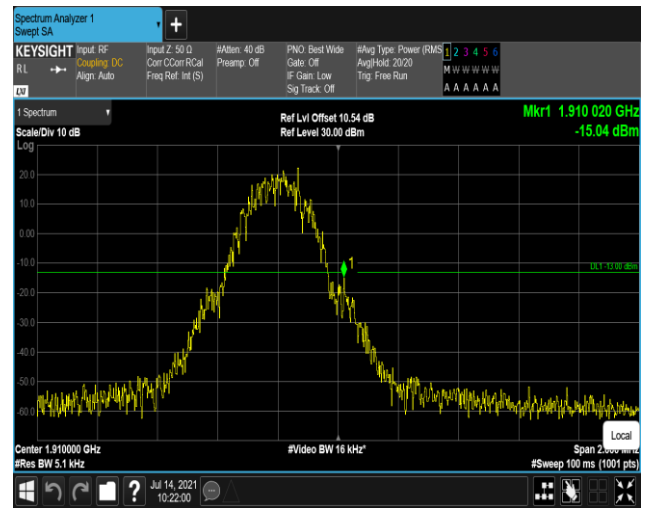
EGPRS850-251-8



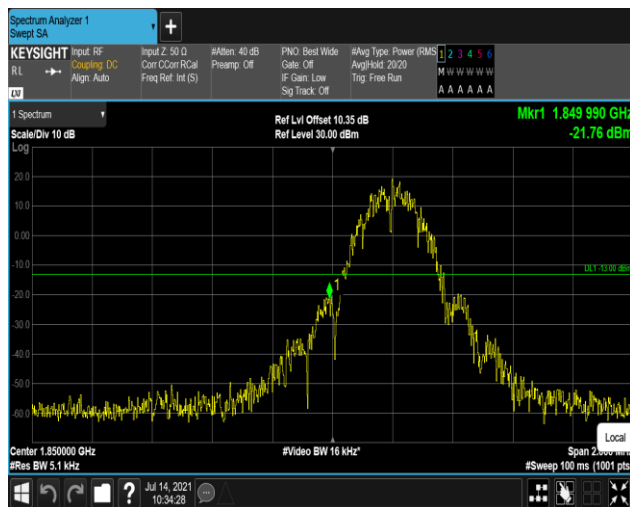
GSM1900-512-0



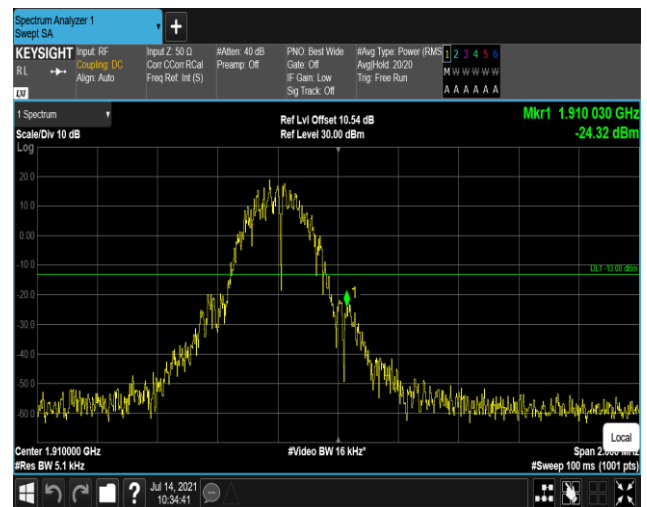
GSM1900-810-0



EGPRS1900-512-2



EGPRS1900-810-2



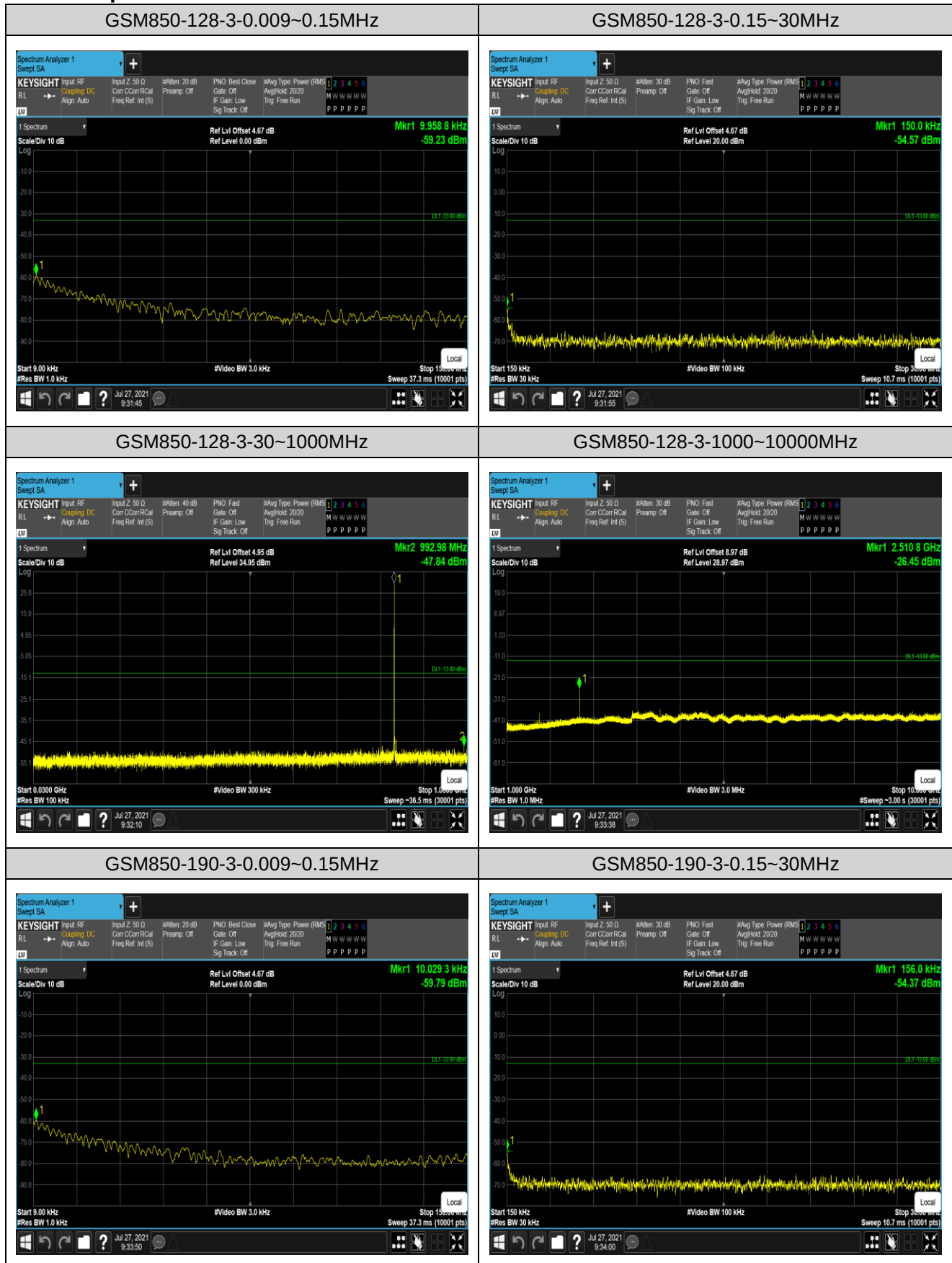
Appendix E: Conducted Spurious Emission

Test Result

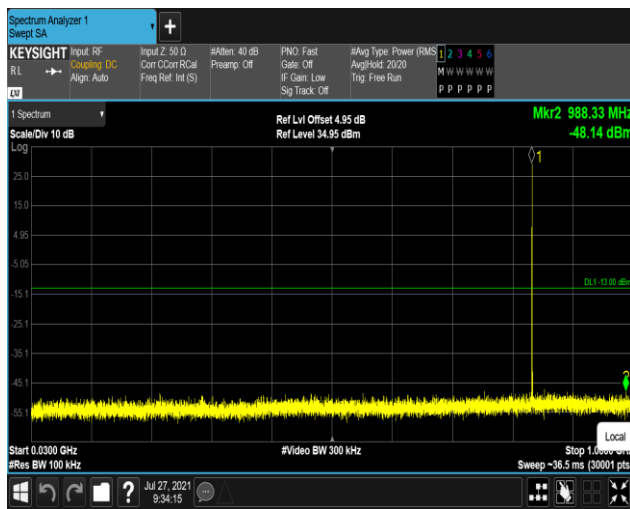
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-59.23	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-54.57	-13	PASS
GSM850	128	3	30~1000MHz	992.98	-47.84	-13	PASS
GSM850	128	3	1000~10000MHz	2510.8	-26.45	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-59.79	-33	PASS
GSM850	190	3	0.15~30MHz	0.16	-54.37	-13	PASS
GSM850	190	3	30~1000MHz	988.33	-48.14	-13	PASS
GSM850	190	3	1000~10000MHz	2511.1	-26.45	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-59.16	-33	PASS
GSM850	251	3	0.15~30MHz	0.15	-54.84	-13	PASS
GSM850	251	3	30~1000MHz	973.68	-47.43	-13	PASS
GSM850	251	3	1000~10000MHz	2510.8	-26.62	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-68.4	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-54.02	-23	PASS
GSM1900	512	0	30~1000MHz	886.45	-47.84	-13	PASS
GSM1900	512	0	1000~18000MHz	4933.23	-36.19	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-67.61	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-54.82	-23	PASS
GSM1900	661	0	30~1000MHz	854.37	-47.29	-13	PASS
GSM1900	661	0	1000~18000MHz	13986.3	-35.83	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-67.43	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-54.56	-23	PASS
GSM1900	810	0	30~1000MHz	817.45	-47.4	-13	PASS
GSM1900	810	0	1000~18000MHz	14300.23	-34.98	-13	PASS

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

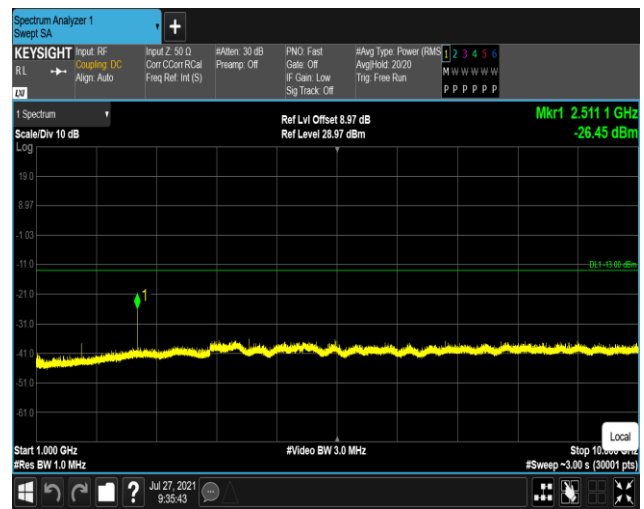
Test Graphs



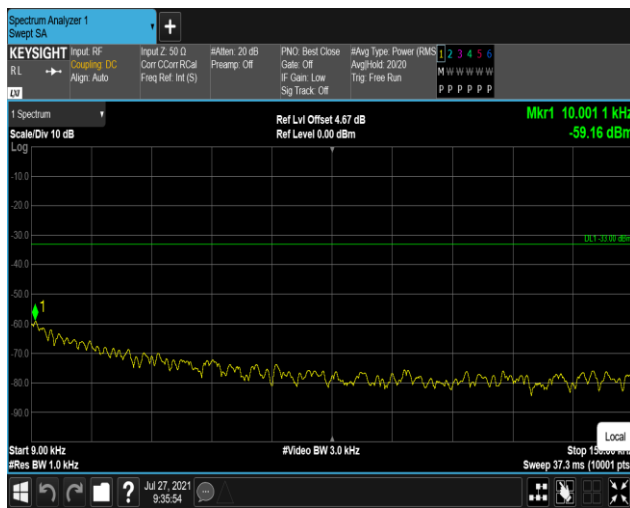
GSM850-190-3-30~1000MHz



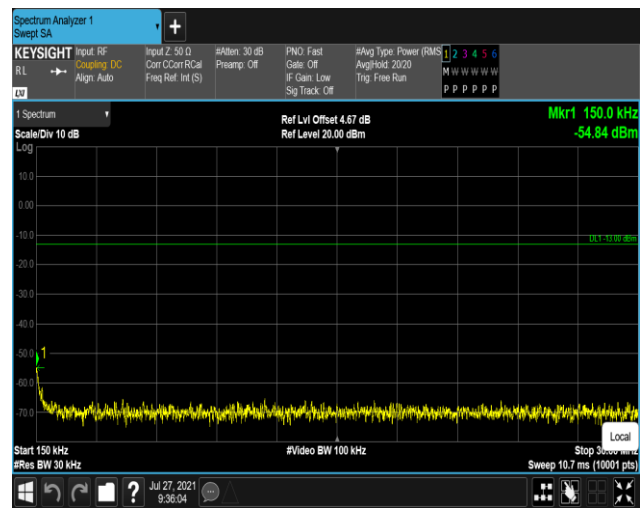
GSM850-190-3-1000~10000MHz



GSM850-251-3-0.009~0.15MHz



GSM850-251-3-0.15~30MHz



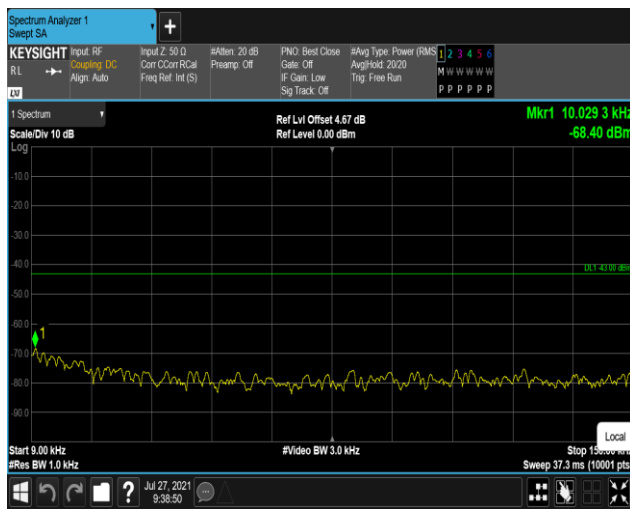
GSM850-251-3-30~1000MHz



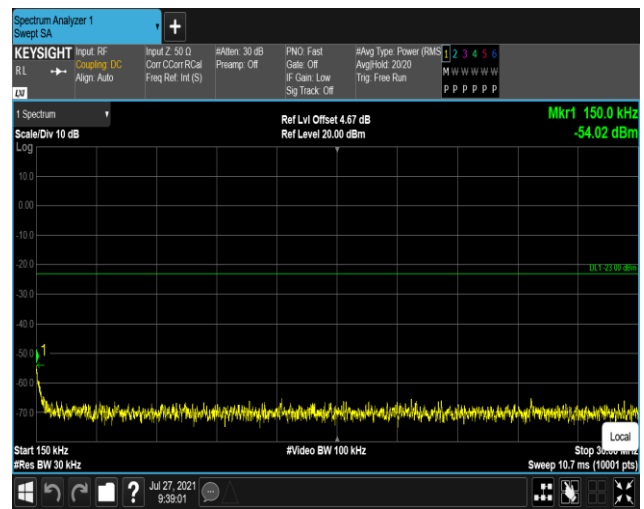
GSM850-251-3-1000~10000MHz



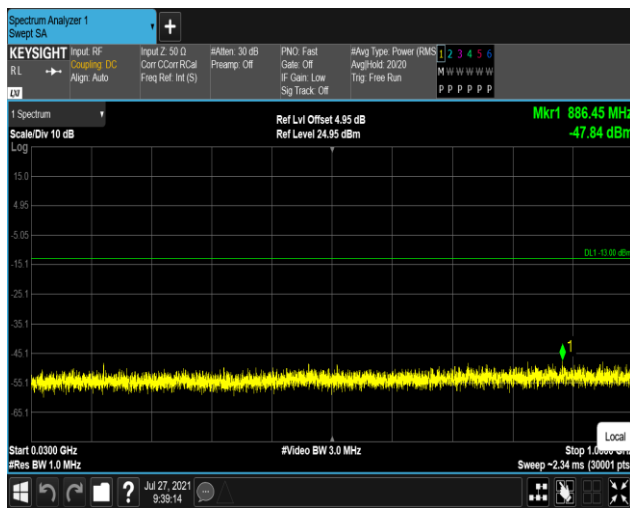
GSM1900-512-0-0.009~0.15MHz



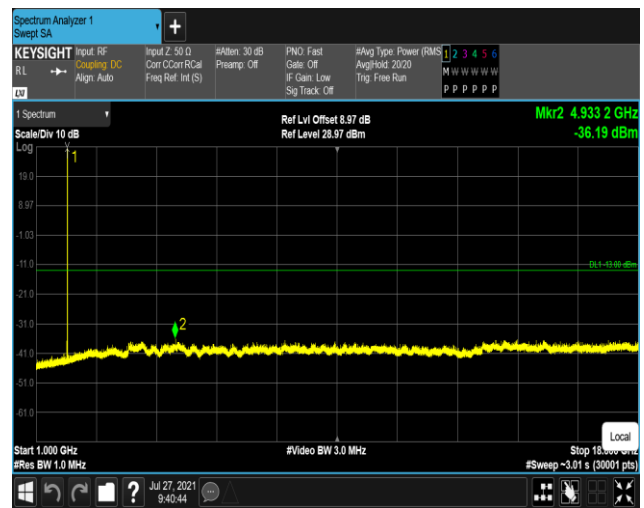
GSM1900-512-0-0.15~30MHz



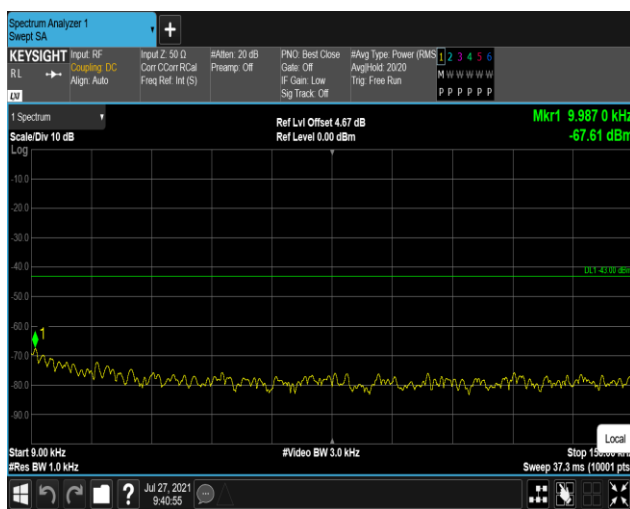
GSM1900-512-0-30~1000MHz



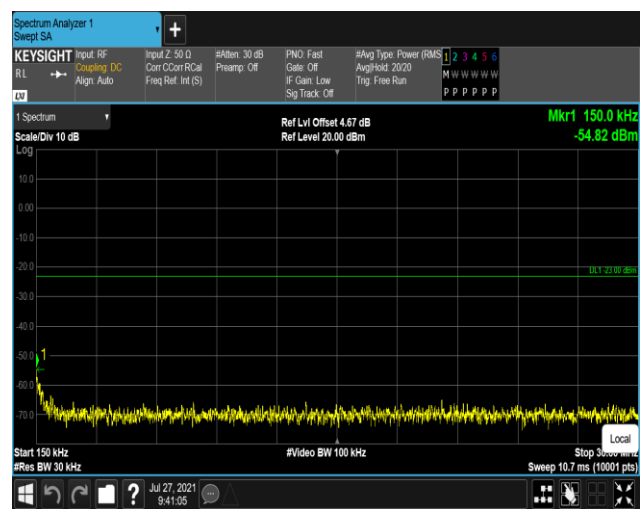
GSM1900-512-0-1000~18000MHz



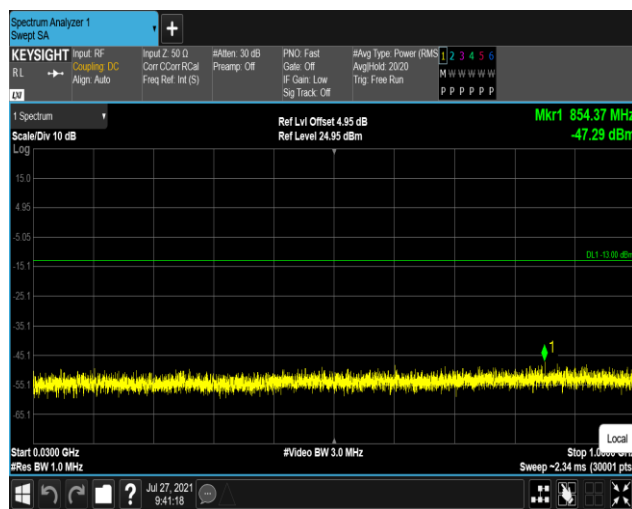
GSM1900-661-0-0.009~0.15MHz



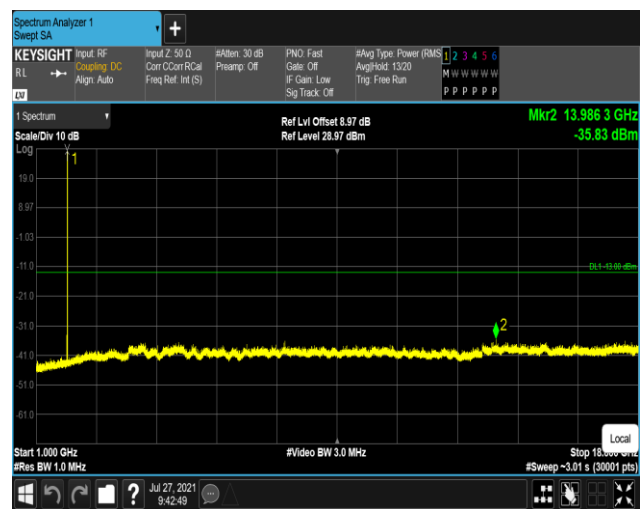
GSM1900-661-0-0.15~30MHz



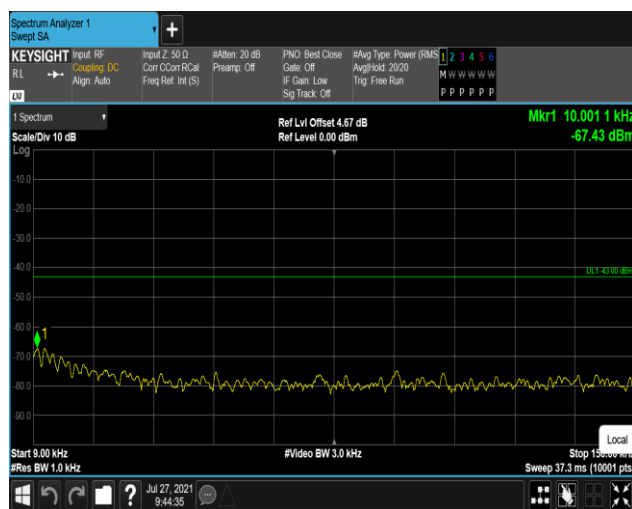
GSM1900-661-0-30~1000MHz



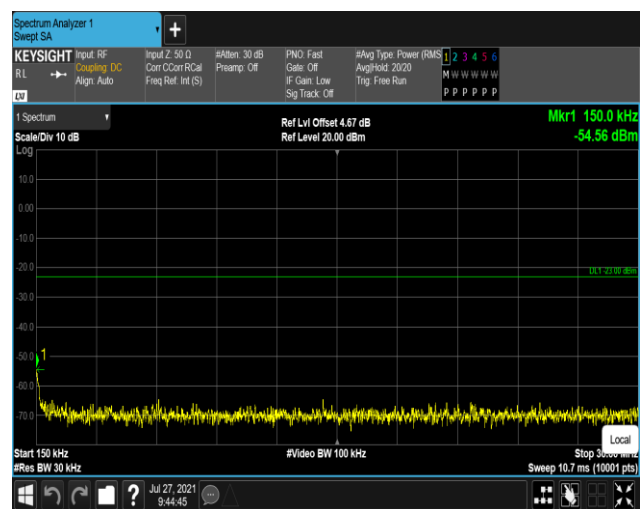
GSM1900-661-0-1000~18000MHz



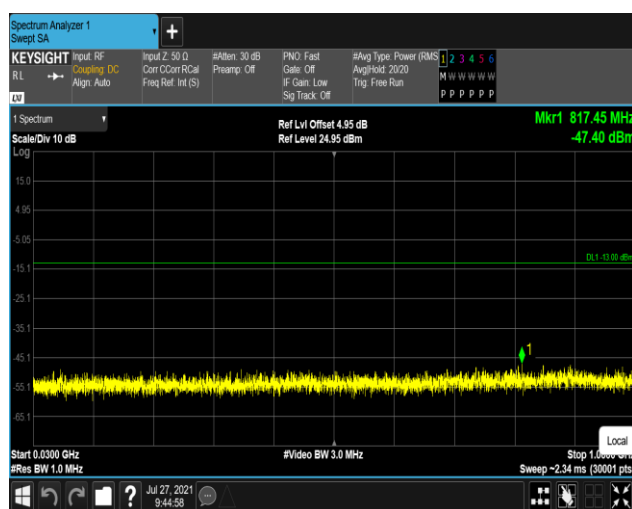
GSM1900-810-0-0.009~0.15MHz



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	11.36	0.013579	±2.5	Pass
	-20	13.04	0.015587		
	-10	9.98	0.011929		
	0	10.23	0.012228		
	10	7.10	0.008487		
	20	10.33	0.012348		
	30	9.27	0.011081		
	40	5.04	0.006024		
	50	4.46	0.005331		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	16.72	0.019986	±2.5	Pass
	3.87	3.94	0.004710		
	4.45	13.17	0.015742		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	0.74	0.000885	±2.5	Pass
	-20	2.16	0.002582		
	-10	6.59	0.007877		
	0	3.65	0.004363		
	10	2.84	0.003395		
	20	4.97	0.005941		
	30	2.36	0.002821		
	40	3.91	0.004674		
	50	1.97	0.002355		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.13	0.002546	±2.5	Pass
	3.87	3.84	0.004590		
	4.45	2.52	0.003012		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-12.62	-0.006713	Within authorized band for PCS 1900	Pass
	-20	-6.33	-0.003367		
	-10	-9.81	-0.005218		
	0	-10.69	-0.005686		
	10	-17.27	-0.009186		
	20	-11.85	-0.006303		
	30	-4.91	-0.002612		
	40	-15.88	-0.008447		
	50	-9.14	-0.004862		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-14.92	-0.007936	Within authorized band for PCS 1900	Pass
	3.87	-9.33	-0.004963		
	4.45	-10.53	-0.005601		
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 (℃)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
3.87	-30	-4.13	-0.002197	Within authorized band for PCS 1900	Pass
	-20	-11.85	-0.006303		
	-10	-1.16	-0.000617		
	0	-5.39	-0.002867		
	10	-0.29	-0.000154		
	20	-3.23	-0.001718		
	30	-9.20	-0.004894		
	40	-2.81	-0.001495		
	50	-0.36	-0.000191		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-9.33	-0.004963	Within authorized band for PCS 1900	Pass
	3.87	-7.33	-0.003899		
	4.45	-7.26	-0.003862		
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

