

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	33.12	27.59	38.45	PASS
GSM850	190	3	33.21	27.74	38.45	PASS
GSM850	251	3	33.13	27.66	38.45	PASS
GSM1900	512	0	29.98	29.22	33	PASS
GSM1900	661	0	30.12	29.36	33	PASS
GSM1900	810	0	29.81	29.05	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	33.11	27.58	38.5	PASS
GPRS850	128	3	2	32.42	26.89	38.5	PASS
GPRS850	128	3	3	30.72	25.19	38.5	PASS
GPRS850	128	3	4	29.74	24.21	38.5	PASS
GPRS850	190	3	1	33.21	27.68	38.5	PASS
GPRS850	190	3	2	32.59	27.06	38.5	PASS
GPRS850	190	3	3	30.91	25.38	38.5	PASS
GPRS850	190	3	4	29.93	24.40	38.5	PASS
GPRS850	251	3	1	33.13	27.60	38.5	PASS
GPRS850	251	3	2	32.51	26.98	38.5	PASS
GPRS850	251	3	3	30.84	25.31	38.5	PASS
GPRS850	251	3	4	29.83	24.30	38.5	PASS
GPRS1900	512	0	1	29.95	29.19	33	PASS
GPRS1900	512	0	2	29.08	28.32	33	PASS
GPRS1900	512	0	3	27.15	26.39	33	PASS
GPRS1900	512	0	4	26.12	25.36	33	PASS
GPRS1900	661	0	1	30.09	29.33	33	PASS
GPRS1900	661	0	2	29.26	28.50	33	PASS
GPRS1900	661	0	3	27.35	26.59	33	PASS
GPRS1900	661	0	4	26.27	25.51	33	PASS
GPRS1900	810	0	1	29.77	29.01	33	PASS
GPRS1900	810	0	2	28.93	28.17	33	PASS
GPRS1900	810	0	3	27.02	26.26	33	PASS
GPRS1900	810	0	4	25.94	25.18	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	27.51	21.98	38.5	PASS
EGPRS850	128	8	2	26.36	20.83	38.5	PASS
EGPRS850	128	8	3	24.14	18.61	38.5	PASS
EGPRS850	128	8	4	22.96	17.43	38.5	PASS
EGPRS850	190	8	1	27.70	22.17	38.5	PASS
EGPRS850	190	8	2	26.65	21.12	38.5	PASS
EGPRS850	190	8	3	23.22	17.69	38.5	PASS
EGPRS850	190	8	4	23.12	17.59	38.5	PASS
EGPRS850	251	8	1	27.56	22.03	38.5	PASS
EGPRS850	251	8	2	26.52	20.99	38.5	PASS
EGPRS850	251	8	3	24.29	18.76	38.5	PASS
EGPRS850	251	8	4	23.07	17.54	38.5	PASS
EGPRS1900	512	2	1	26.79	26.03	33	PASS
EGPRS1900	512	2	2	25.68	24.92	33	PASS
EGPRS1900	512	2	3	23.52	22.76	33	PASS
EGPRS1900	512	2	4	22.32	21.56	33	PASS
EGPRS1900	661	2	1	26.83	26.07	33	PASS
EGPRS1900	661	2	2	25.76	25.00	33	PASS
EGPRS1900	661	2	3	23.61	22.85	33	PASS
EGPRS1900	661	2	4	22.40	21.64	33	PASS
EGPRS1900	810	2	1	26.37	25.61	33	PASS
EGPRS1900	810	2	2	25.30	24.54	33	PASS
EGPRS1900	810	2	3	23.15	22.39	33	PASS
EGPRS1900	810	2	4	21.95	21.19	33	PASS

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

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

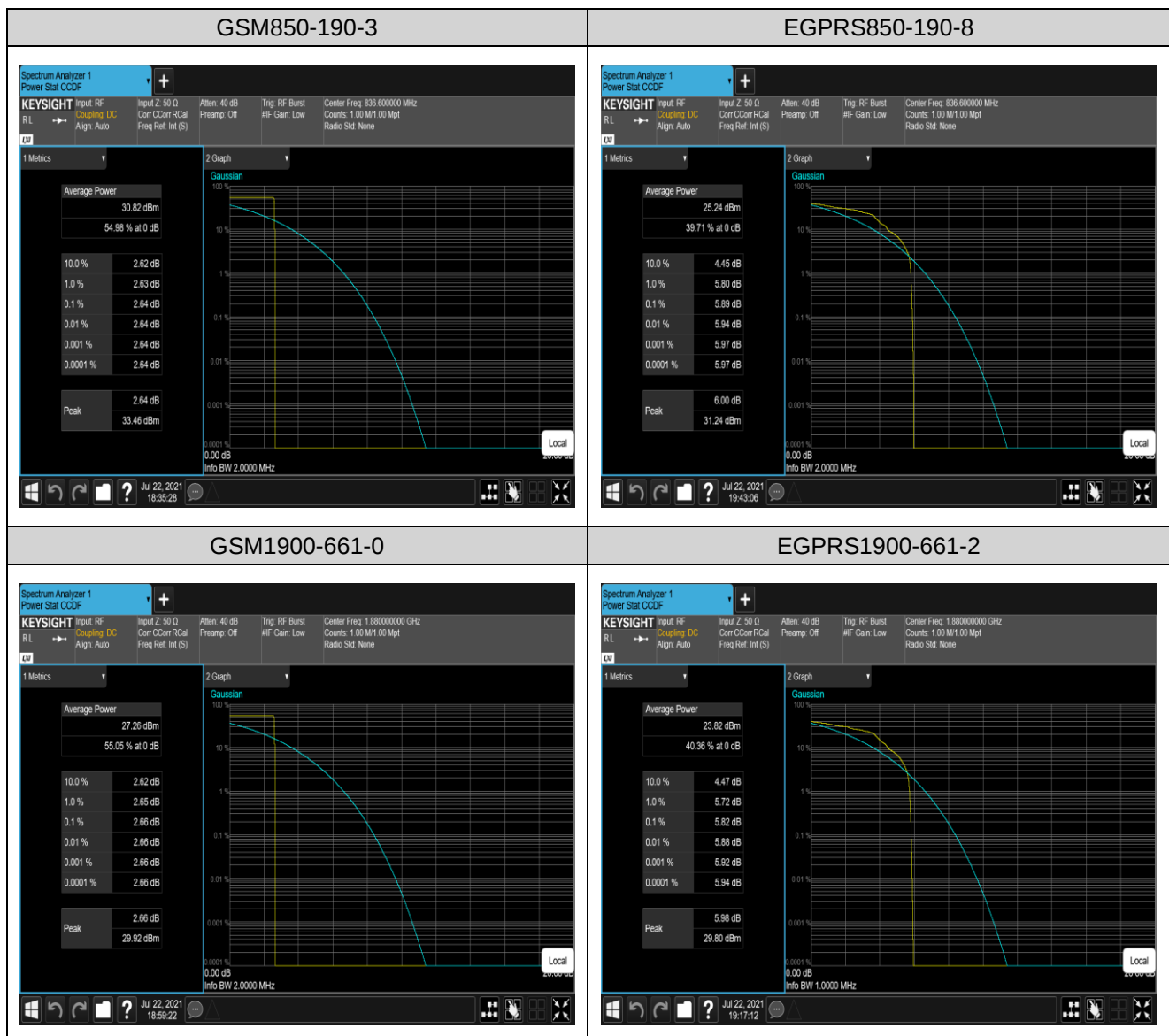
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.64	13	PASS
EGPRS850	190	8	5.89	13	PASS
GSM1900	661	0	2.66	13	PASS
EGPRS1900	661	2	5.82	13	PASS

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

Test Graphs

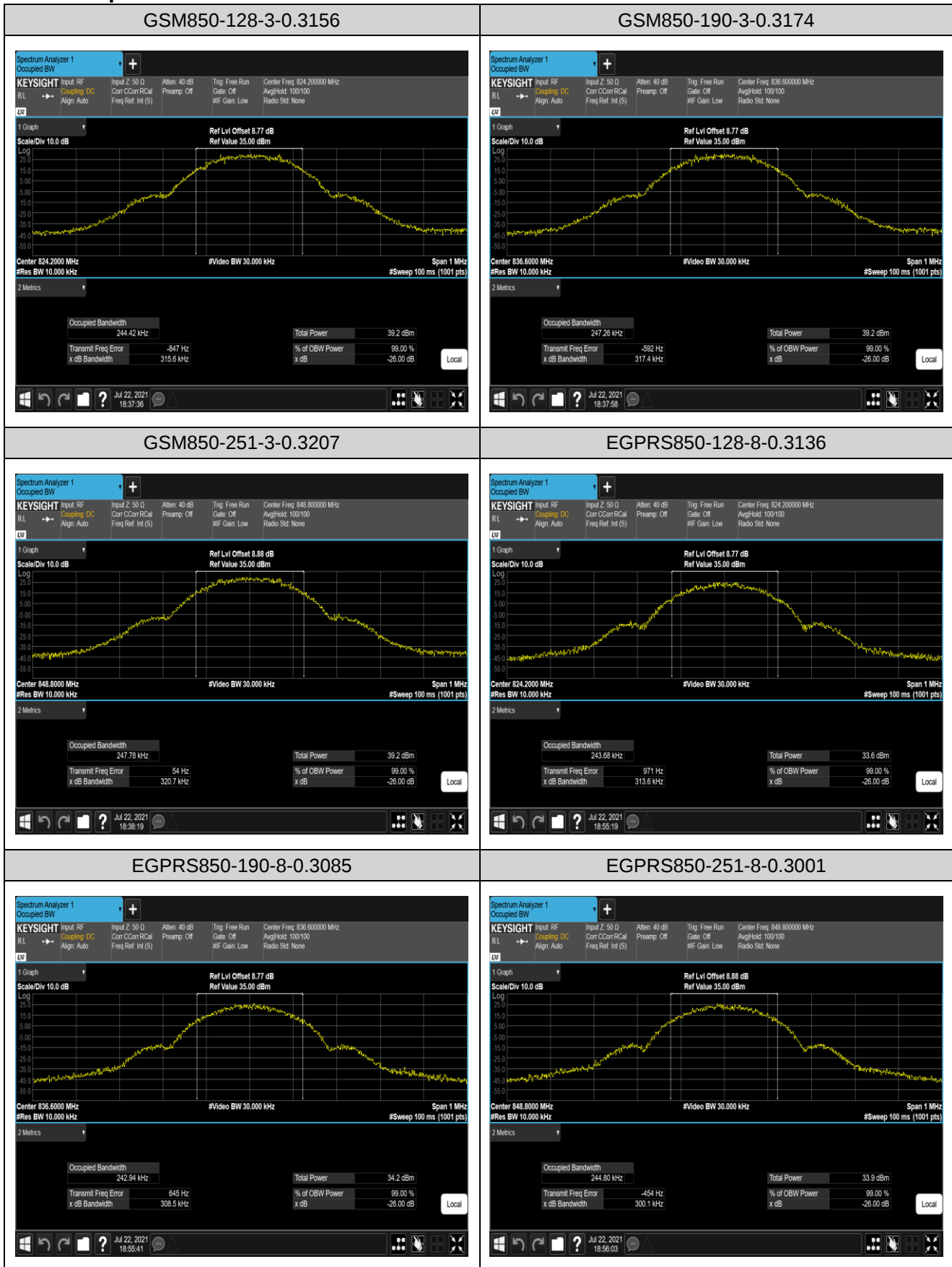


Appendix C: 26dB Bandwidth and Occupied Bandwidth

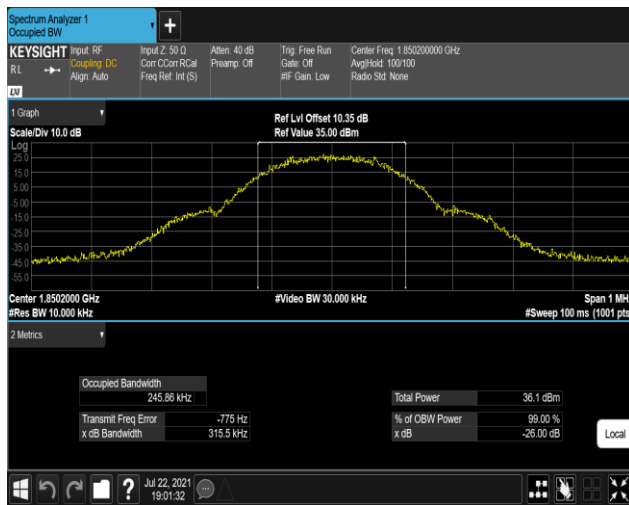
Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24442	0.3156	---	PASS
GSM850	190	3	0.24726	0.3174	---	PASS
GSM850	251	3	0.24778	0.3207	---	PASS
EGPRS850	128	8	0.24368	0.3136	---	PASS
EGPRS850	190	8	0.24294	0.3085	---	PASS
EGPRS850	251	8	0.24480	0.3001	---	PASS
GSM1900	512	0	0.24586	0.3155	---	PASS
GSM1900	661	0	0.24431	0.3161	---	PASS
GSM1900	810	0	0.24432	0.3135	---	PASS
EGPRS1900	512	2	0.24772	0.3094	---	PASS
EGPRS1900	661	2	0.24553	0.3056	---	PASS
EGPRS1900	810	2	0.24297	0.3043	---	PASS

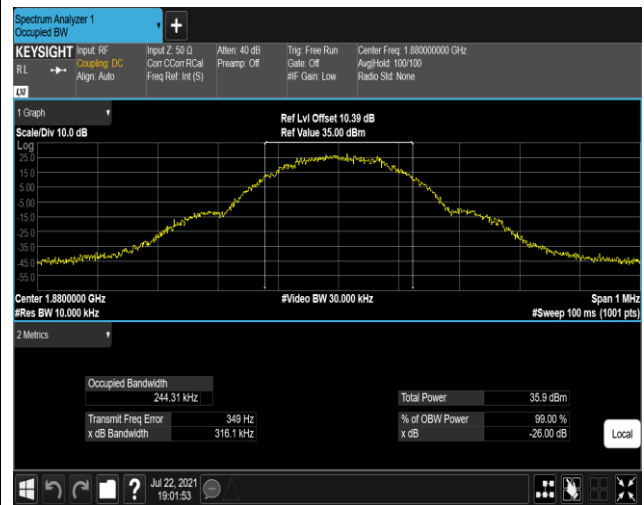
Test Graphs



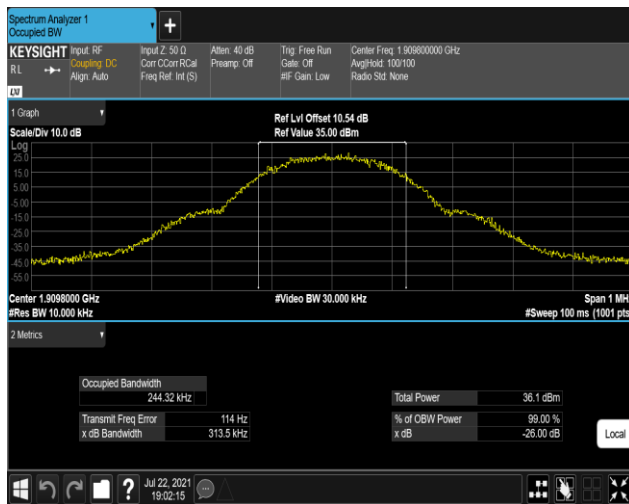
GSM1900-512-0-0.3155



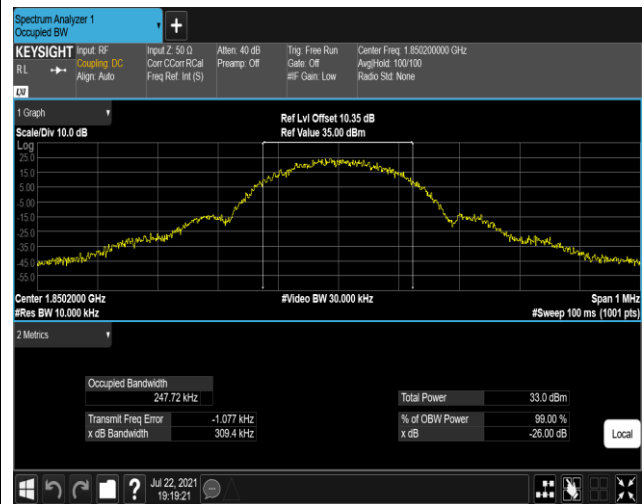
GSM1900-661-0-0.3161



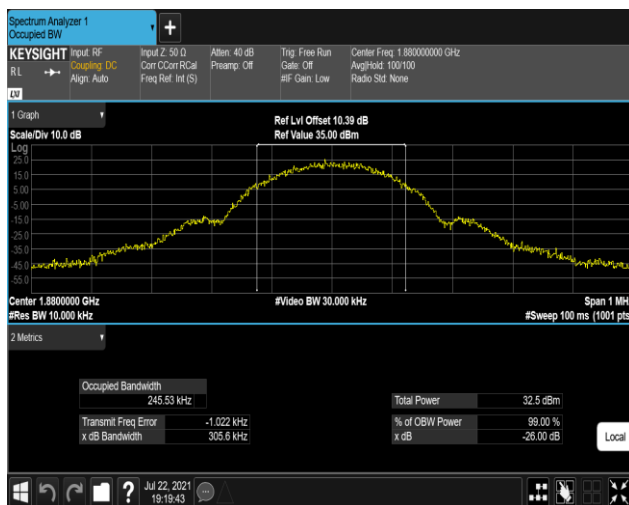
GSM1900-810-0-0.3135



EGPRS1900-512-2-0.3094



EGPRS1900-661-2-0.3056



EGPRS1900-810-2-0.3043

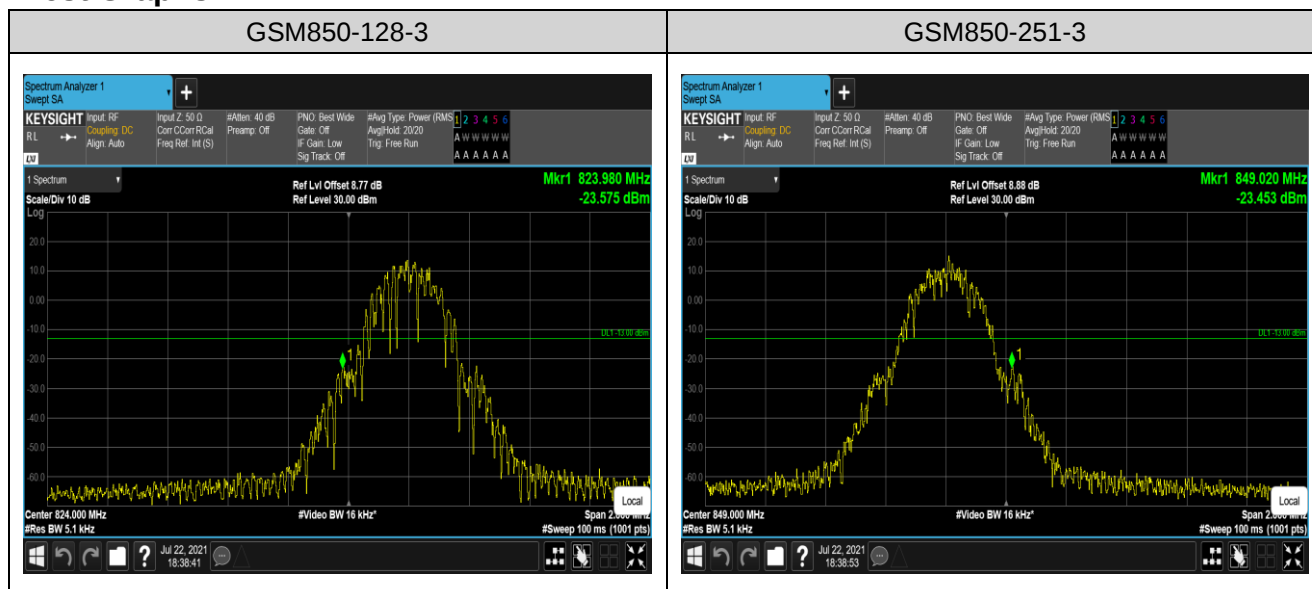


Appendix D: Band Edge

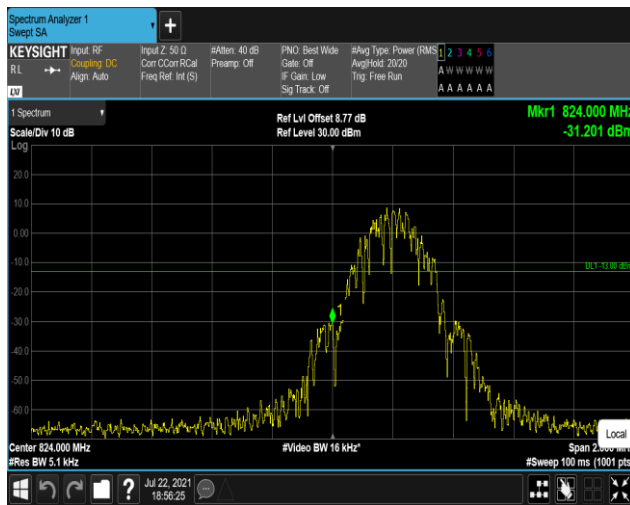
Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	823.98	-22.00	-13	PASS
GSM850	251	3	849.02	-21.58	-13	PASS
EGPRS850	128	8	824.00	-28.53	-13	PASS
EGPRS850	251	8	849.01	-26.54	-13	PASS
GSM1900	512	0	1849.99	-14.97	-13	PASS
GSM1900	810	0	1910.02	-14.80	-13	PASS
EGPRS1900	512	2	1849.97	-20.01	-13	PASS
EGPRS1900	810	2	1910.03	-18.32	-13	PASS

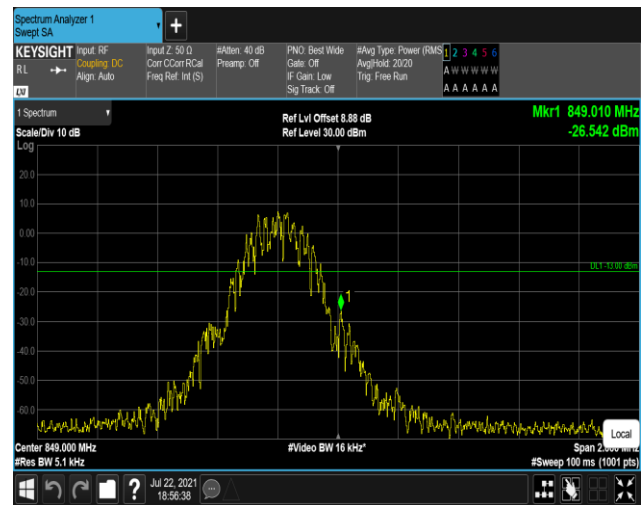
Test Graphs



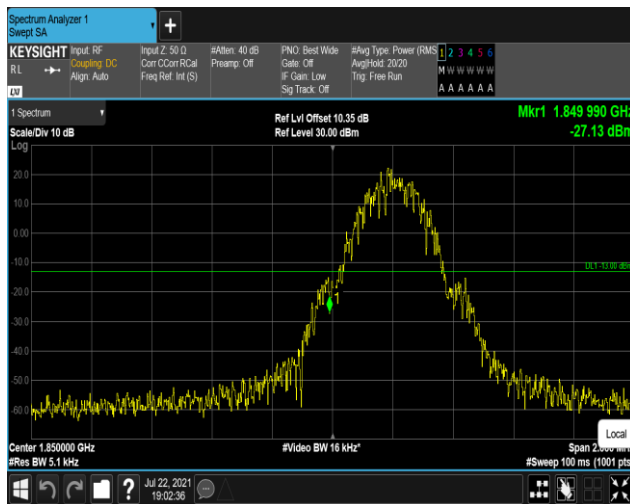
EGPRS850-128-8



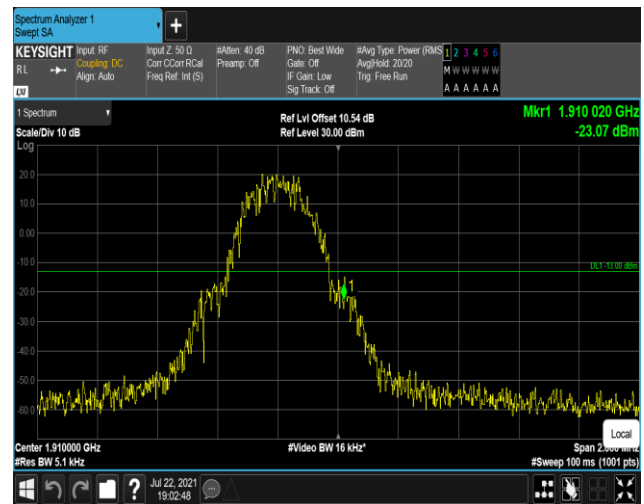
EGPRS850-251-8



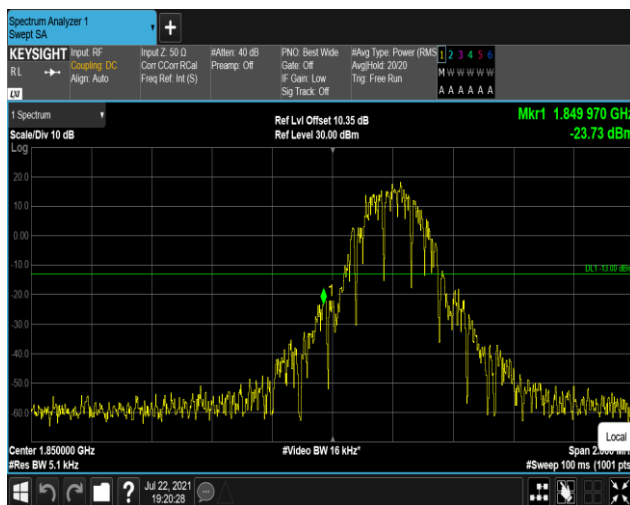
GSM1900-512-0



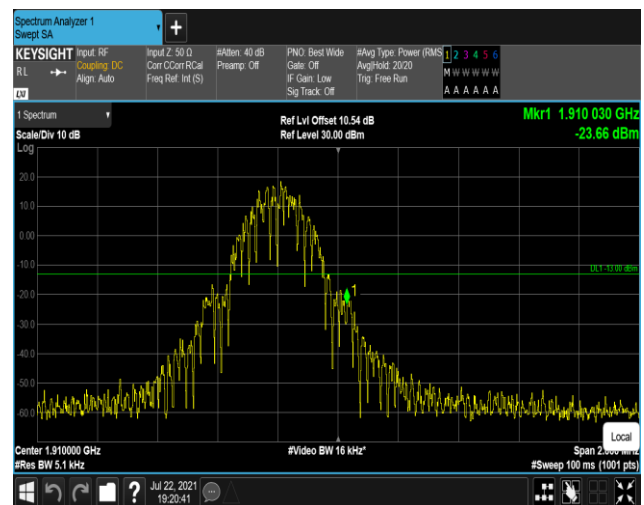
GSM1900-810-0



EGPRS1900-512-2



EGPRS1900-810-2



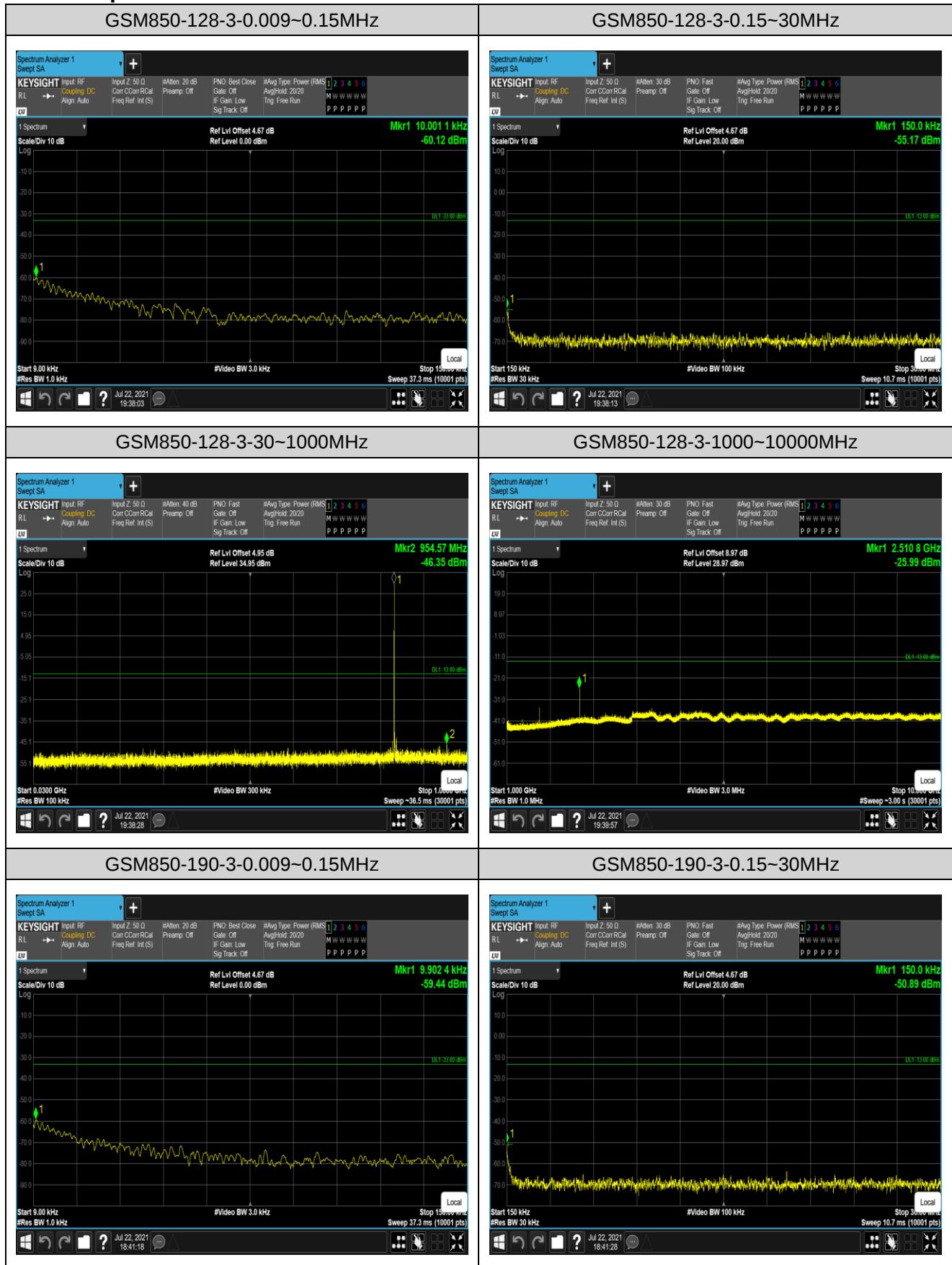
Appendix E: Conducted Spurious Emission

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	-60.12	-33	PASS
GSM850	128	3	0.15~30MHz	0.15	-55.17	-13	PASS
GSM850	128	3	30~1000MHz	954.57	-46.35	-13	PASS
GSM850	128	3	1000~10000MHz	2510.8	-25.99	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-59.44	-33	PASS
GSM850	190	3	0.15~30MHz	0.15	-50.89	-13	PASS
GSM850	190	3	30~1000MHz	953.63	-47.21	-13	PASS
GSM850	190	3	1000~10000MHz	2546.2	-26.14	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-60.4	-33	PASS
GSM850	251	3	0.15~30MHz	0.21	-54.51	-13	PASS
GSM850	251	3	30~1000MHz	966.37	-48.09	-13	PASS
GSM850	251	3	1000~10000MHz	2510.8	-26.35	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-68.01	-43	PASS
GSM1900	512	0	0.15~30MHz	0.19	-54.75	-23	PASS
GSM1900	512	0	30~1000MHz	861.13	-47.38	-13	PASS
GSM1900	512	0	1000~18000MHz	17405.57	-34.99	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-68.78	-43	PASS
GSM1900	661	0	0.15~30MHz	0.15	-52.48	-23	PASS
GSM1900	661	0	30~1000MHz	963.33	-47.46	-13	PASS
GSM1900	661	0	1000~18000MHz	15396.17	-35.42	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-67.74	-43	PASS
GSM1900	810	0	0.15~30MHz	0.18	-53.27	-23	PASS
GSM1900	810	0	30~1000MHz	924.08	-47.46	-13	PASS
GSM1900	810	0	1000~18000MHz	15321.93	-34.9	-13	PASS

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

Test Graphs



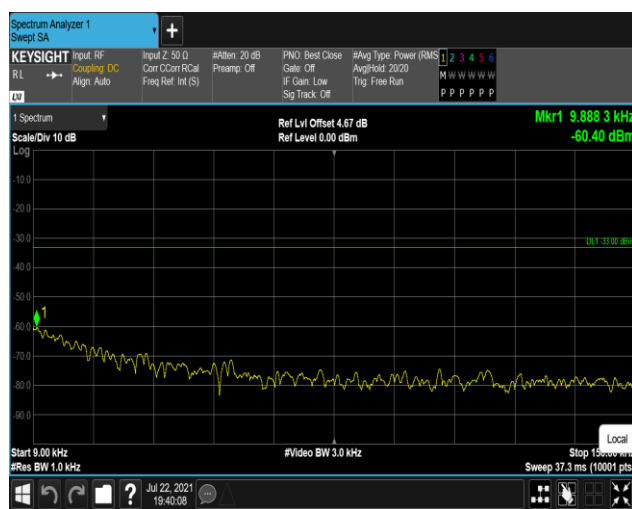
GSM850-190-3-30~1000MHz



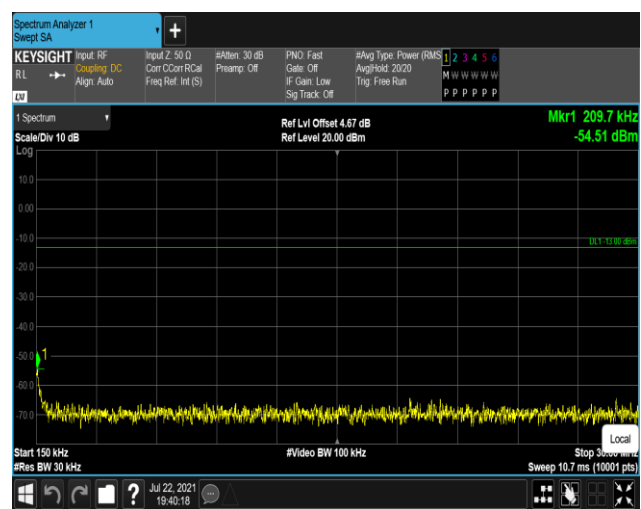
GSM850-190-3-1000~10000MHz



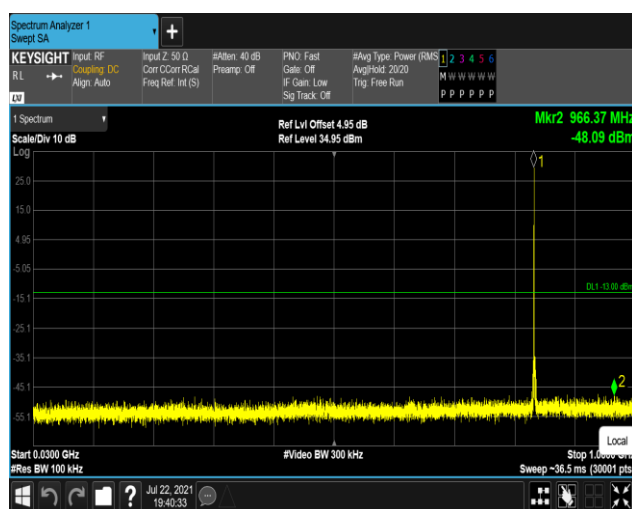
GSM850-251-3-0.009~0.15MHz



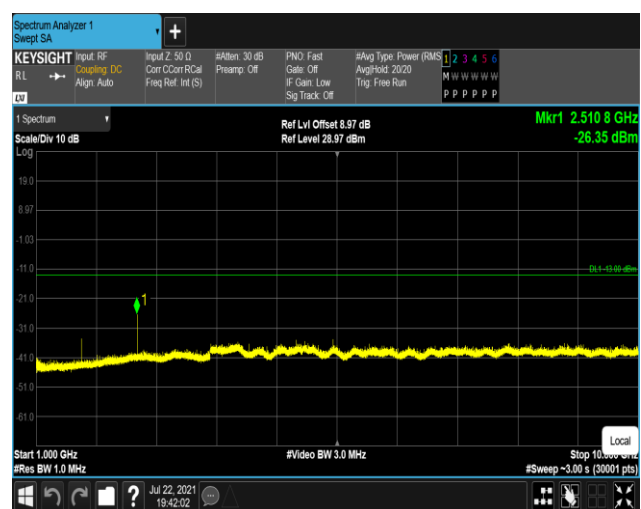
GSM850-251-3-0.15~30MHz



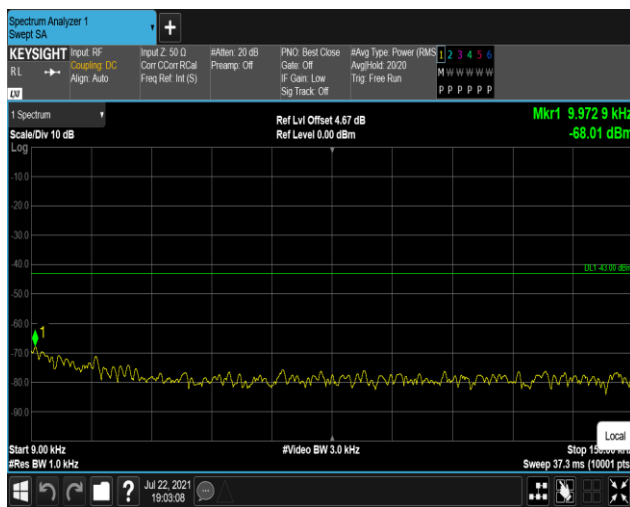
GSM850-251-3-30~1000MHz



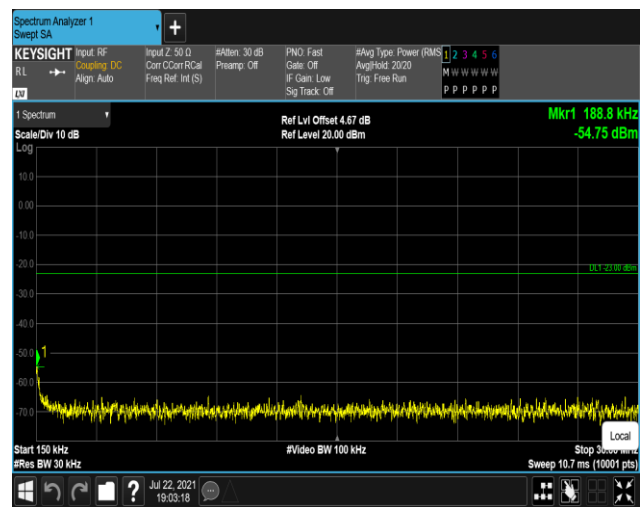
GSM850-251-3-1000~10000MHz



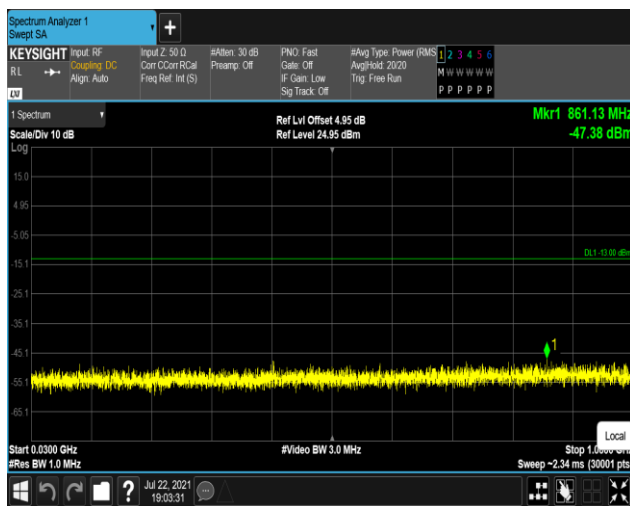
GSM1900-512-0-0.009~0.15MHz



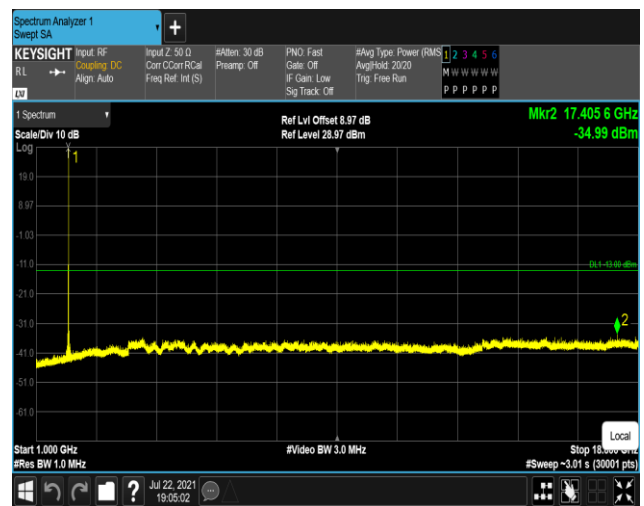
GSM1900-512-0-0.15~30MHz



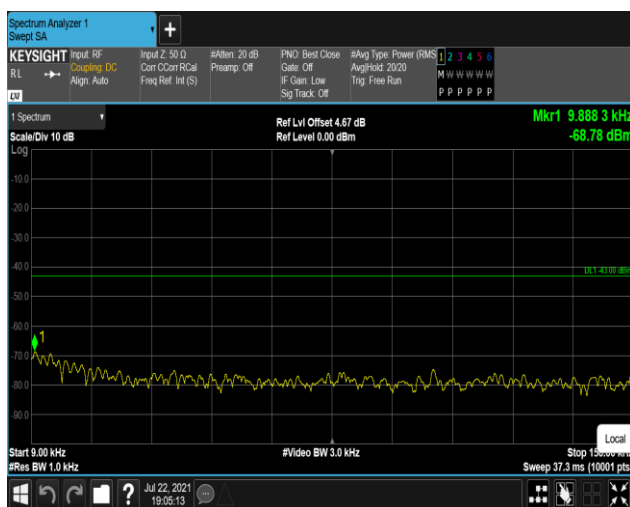
GSM1900-512-0-30~1000MHz



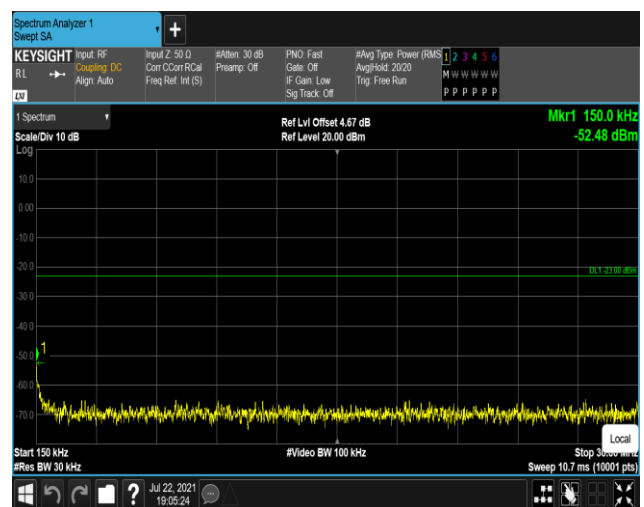
GSM1900-512-0-1000~18000MHz



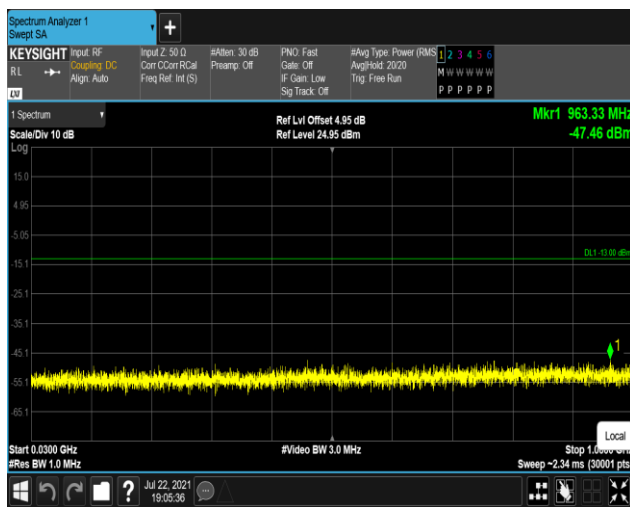
GSM1900-661-0-0.009~0.15MHz



GSM1900-661-0-0.15~30MHz



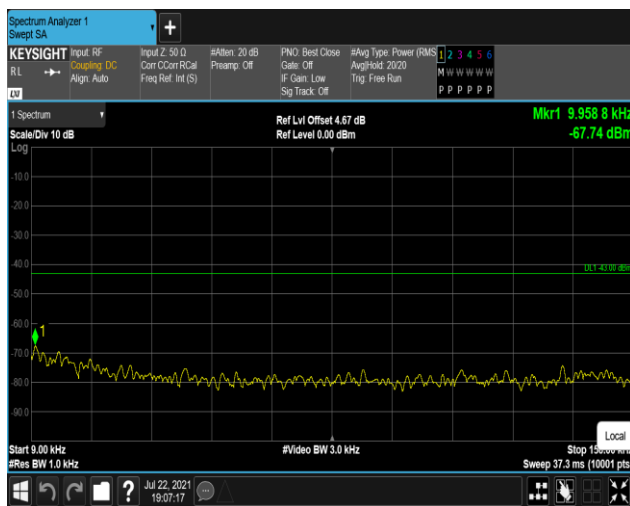
GSM1900-661-0-30~1000MHz



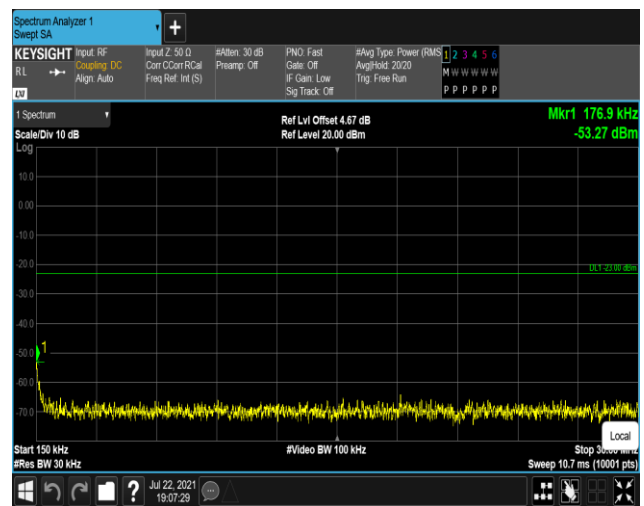
GSM1900-661-0-1000~18000MHz



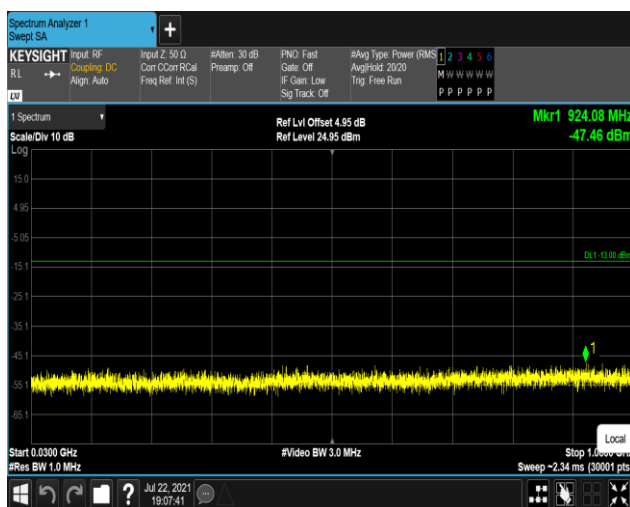
GSM1900-810-0-0.009~0.15MHz



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	0.94	0.001124	±2.5	Pass
	-20	-0.23	-0.000275		
	-10	3.00	0.003586		
	0	4.13	0.004937		
	10	1.84	0.002199		
	20	3.58	0.004279		
	30	6.20	0.007411		
	40	7.04	0.008415		
	50	4.46	0.005331		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	2.91	0.003478	±2.5	Pass
	3.87	1.97	0.002355		
	4.45	4.23	0.005056		
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	2.55	0.003048	±2.5	Pass
	-20	5.81	0.006945		
	-10	16.79	0.020069		
	0	32.29	0.038597		
	10	42.52	0.050825		
	20	38.07	0.045506		
	30	3.07	0.003670		
	40	16.27	0.019448		
	50	7.72	0.009228		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	17.27	0.020643	±2.5	Pass
	3.87	13.92	0.016639		
	4.45	70.06	0.083744		
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	-16.82	-0.008947	Within authorized band for PCS 1900	Pass
	-20	-18.08	-0.009617		
	-10	-9.85	-0.005239		
	0	-18.98	-0.010096		
	10	-9.10	-0.004840		
	20	-20.89	-0.011112		
	30	-9.30	-0.004947		
	40	-8.75	-0.004654		
	50	-20.08	-0.010681		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-12.01	-0.006388	Within authorized band for PCS 1900	Pass
	3.87	-10.75	-0.005718		
	4.45	-19.11	-0.010165		
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	-5.68	-0.003021	Within authorized band for PCS 1900	Pass
	-20	-3.03	-0.001612		
	-10	2.62	0.001394		
	0	-0.68	-0.000362		
	10	-0.42	-0.000223		
	20	-15.37	-0.008176		
	30	-2.94	-0.001564		
	40	-4.75	-0.002527		
	50	0.06	0.000032		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-8.04	-0.004277	Within authorized band for PCS 1900	Pass
	3.87	-4.94	-0.002628		
	4.45	-6.23	-0.003314		
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

