

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	33.55	28.40	38.5	PASS
GSM850	190	3	33.63	28.48	38.5	PASS
GSM850	251	3	33.55	28.40	38.5	PASS
GSM1900	512	0	30.36	30.56	33	PASS
GSM1900	661	0	30.38	30.58	33	PASS
GSM1900	810	0	30.29	30.49	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
GPRS850	128	3	1	33.52	28.37	38.5	PASS
GPRS850	128	3	2	32.51	27.36	38.5	PASS
GPRS850	128	3	3	30.48	25.33	38.5	PASS
GPRS850	128	3	4	29.37	24.22	38.5	PASS
GPRS850	190	3	1	33.50	28.35	38.5	PASS
GPRS850	190	3	2	32.56	27.41	38.5	PASS
GPRS850	190	3	3	30.52	25.37	38.5	PASS
GPRS850	190	3	4	29.40	24.25	38.5	PASS
GPRS850	251	3	1	33.47	28.32	38.5	PASS
GPRS850	251	3	2	32.52	27.37	38.5	PASS
GPRS850	251	3	3	30.48	25.33	38.5	PASS
GPRS850	251	3	4	29.37	24.22	38.5	PASS
GPRS1900	512	0	1	30.38	30.58	33	PASS
GPRS1900	512	0	2	29.38	29.58	33	PASS
GPRS1900	512	0	3	27.35	27.55	33	PASS
GPRS1900	512	0	4	26.21	26.41	33	PASS
GPRS1900	661	0	1	30.35	30.55	33	PASS
GPRS1900	661	0	2	29.42	29.62	33	PASS
GPRS1900	661	0	3	27.42	27.62	33	PASS
GPRS1900	661	0	4	26.32	26.52	33	PASS
GPRS1900	810	0	1	30.28	30.48	33	PASS
GPRS1900	810	0	2	29.37	29.57	33	PASS
GPRS1900	810	0	3	27.39	27.59	33	PASS
GPRS1900	810	0	4	26.34	26.54	33	PASS

Band	Channel	PCL	Slot	Conducted Power (dBm)	ERP/EIRP (dBm)	ERP/EIRP Limit (dBm)	Verdict
EGPRS850	128	8	1	28.07	22.92	38.5	PASS
EGPRS850	128	8	2	26.81	21.66	38.5	PASS
EGPRS850	128	8	3	24.57	19.42	38.5	PASS
EGPRS850	128	8	4	23.35	18.20	38.5	PASS
EGPRS850	190	8	1	27.65	22.50	38.5	PASS
EGPRS850	190	8	2	26.58	21.43	38.5	PASS
EGPRS850	190	8	3	24.35	19.20	38.5	PASS
EGPRS850	190	8	4	23.21	18.06	38.5	PASS
EGPRS850	251	8	1	27.69	22.54	38.5	PASS
EGPRS850	251	8	2	26.78	21.63	38.5	PASS
EGPRS850	251	8	3	24.38	19.23	38.5	PASS
EGPRS850	251	8	4	23.19	18.04	38.5	PASS
EGPRS1900	512	2	1	27.00	27.20	33	PASS
EGPRS1900	512	2	2	26.17	26.37	33	PASS
EGPRS1900	512	2	3	24.20	24.40	33	PASS
EGPRS1900	512	2	4	23.25	23.45	33	PASS
EGPRS1900	661	2	1	26.87	27.07	33	PASS
EGPRS1900	661	2	2	26.04	26.24	33	PASS
EGPRS1900	661	2	3	24.09	24.29	33	PASS
EGPRS1900	661	2	4	23.12	23.32	33	PASS
EGPRS1900	810	2	1	26.45	26.65	33	PASS
EGPRS1900	810	2	2	25.71	25.91	33	PASS
EGPRS1900	810	2	3	23.76	23.96	33	PASS
EGPRS1900	810	2	4	22.78	22.98	33	PASS

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

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

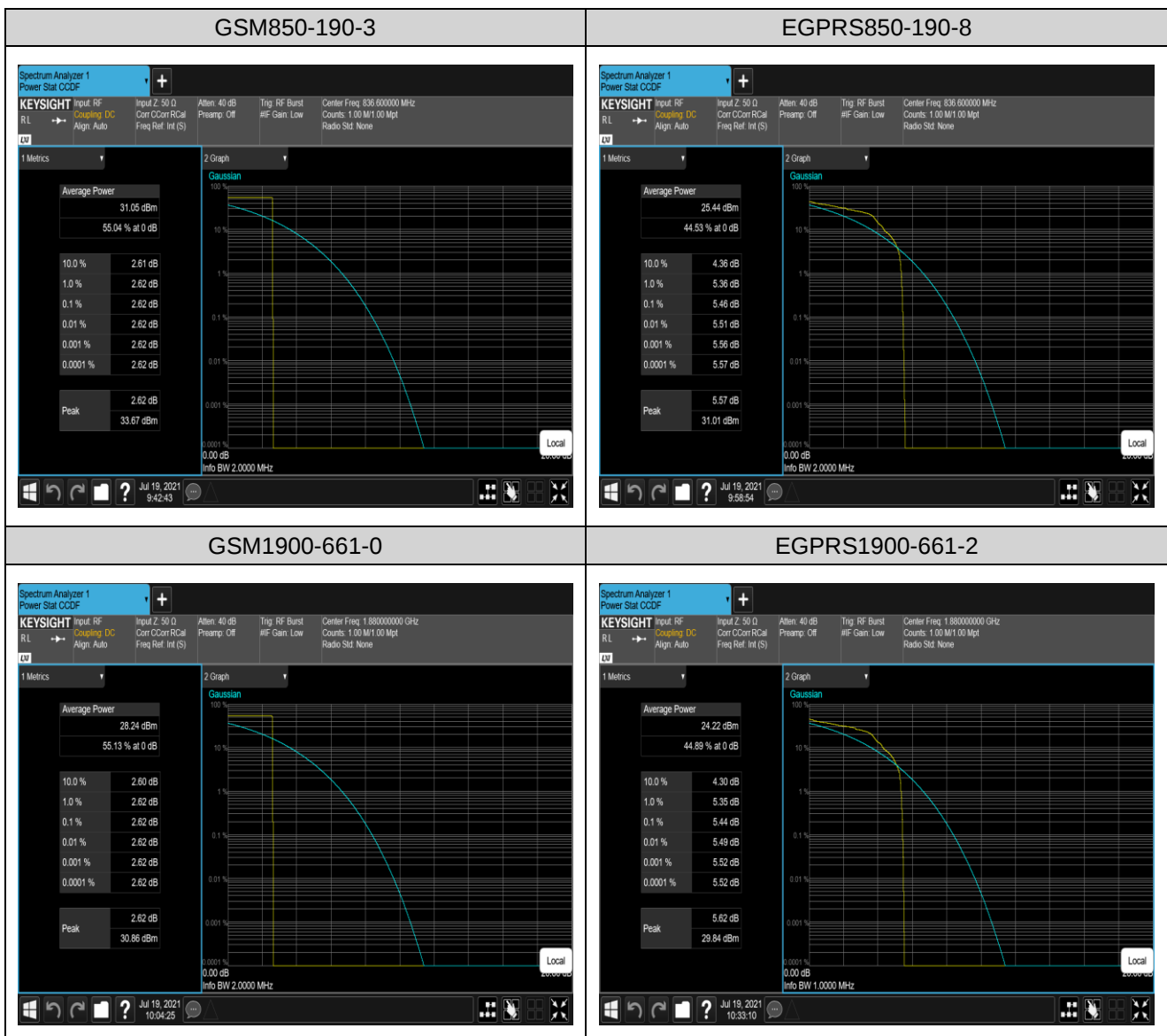
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Channel	PCL	Result(dB)	Limit(dB)	Verdict
GSM850	190	3	2.62	13	PASS
EGPRS850	190	8	5.46	13	PASS
GSM1900	661	0	2.62	13	PASS
EGPRS1900	661	2	5.44	13	PASS

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

Test Graphs

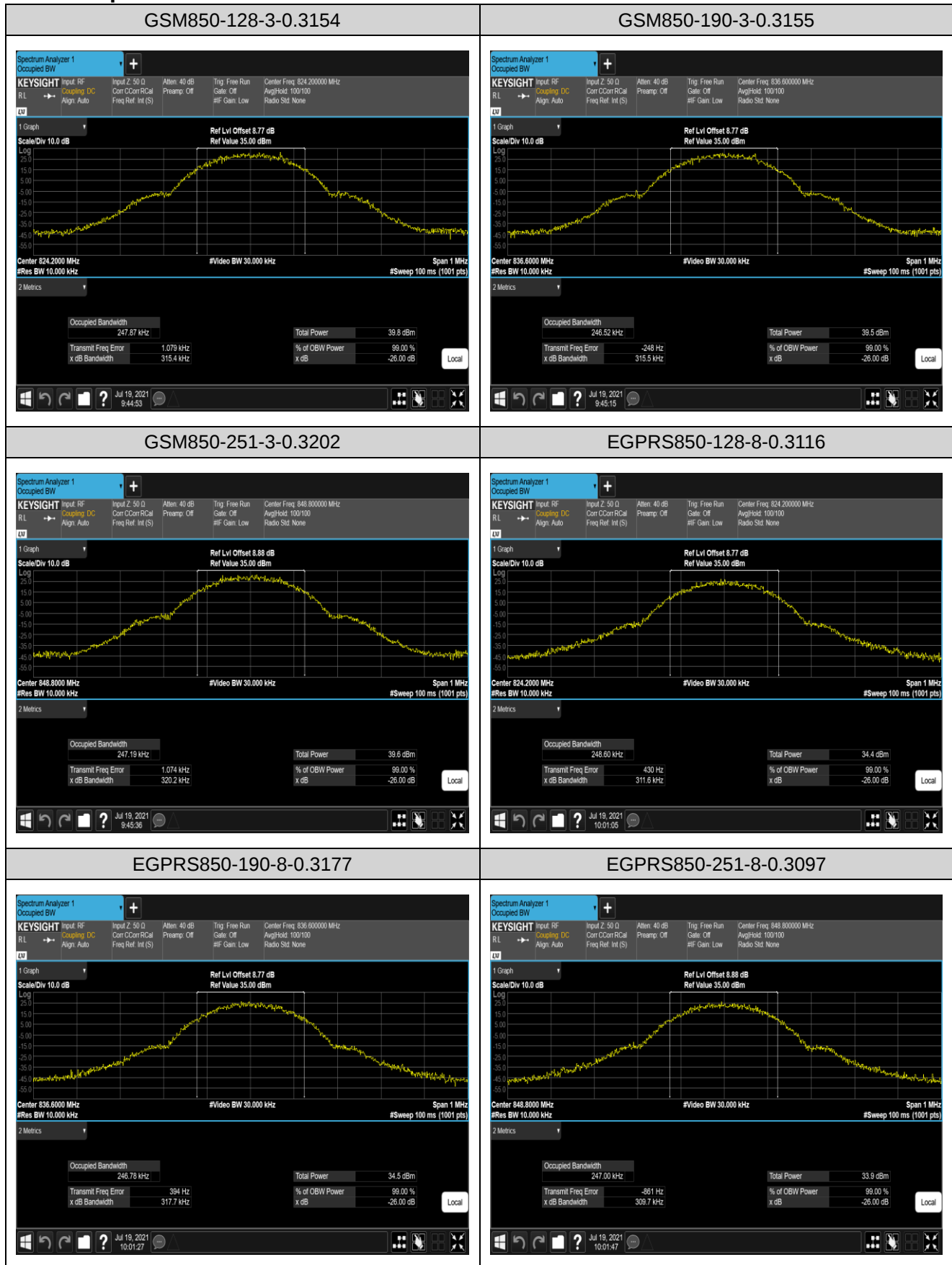


Appendix C: 26dB Bandwidth and Occupied Bandwidth

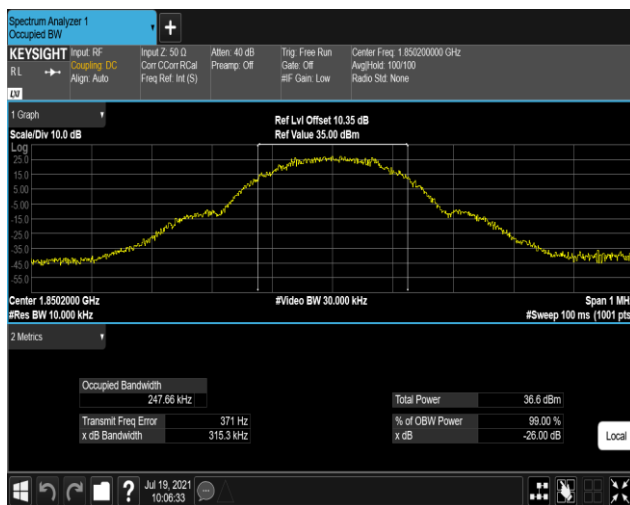
Test Result

Band	Channel	PCL	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM850	128	3	0.24787	0.3154	---	PASS
GSM850	190	3	0.24652	0.3155	---	PASS
GSM850	251	3	0.24719	0.3202	---	PASS
EGPRS850	128	8	0.24860	0.3116	---	PASS
EGPRS850	190	8	0.24678	0.3177	---	PASS
EGPRS850	251	8	0.24700	0.3097	---	PASS
GSM1900	512	0	0.24766	0.3153	---	PASS
GSM1900	661	0	0.24770	0.3168	---	PASS
GSM1900	810	0	0.24433	0.3100	---	PASS
EGPRS1900	512	2	0.25138	0.3239	---	PASS
EGPRS1900	661	2	0.25123	0.3169	---	PASS
EGPRS1900	810	2	0.25098	0.3160	---	PASS

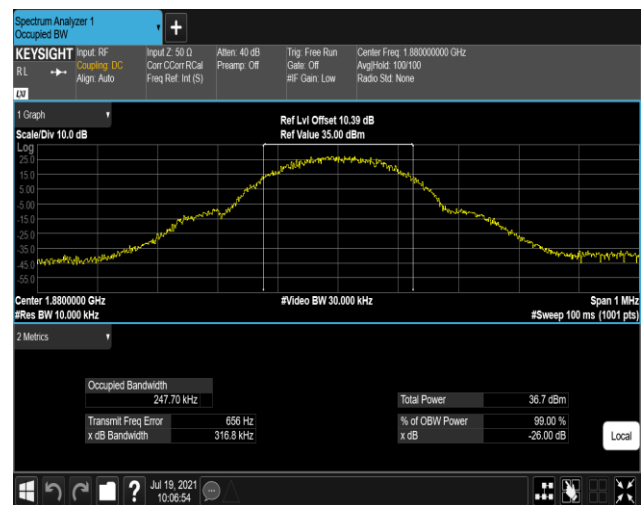
Test Graphs



GSM1900-512-0-0.3153



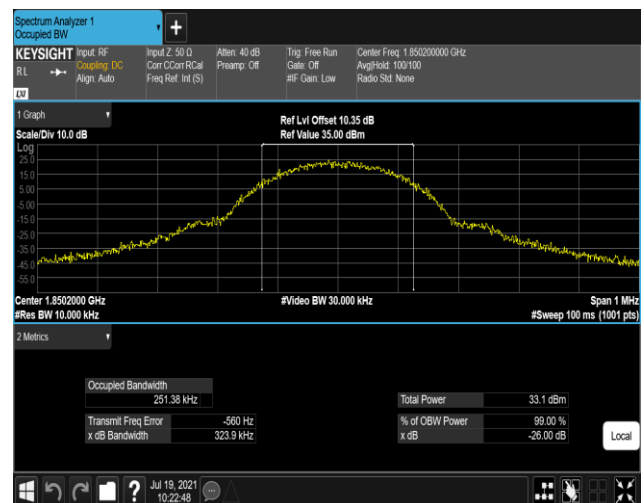
GSM1900-661-0-0.3168



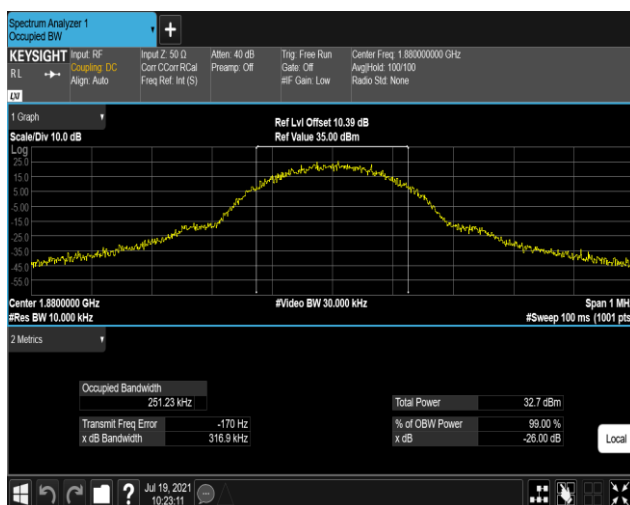
GSM1900-810-0-0.3100



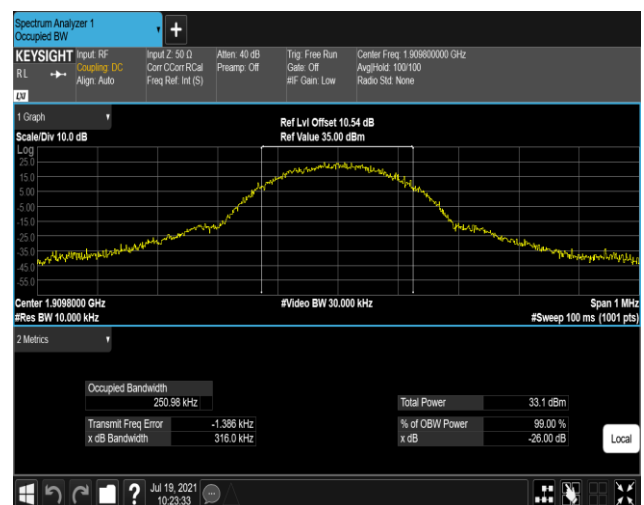
EGPRS1900-512-2-0.3239



EGPRS1900-661-2-0.3169



EGPRS1900-810-2-0.3160

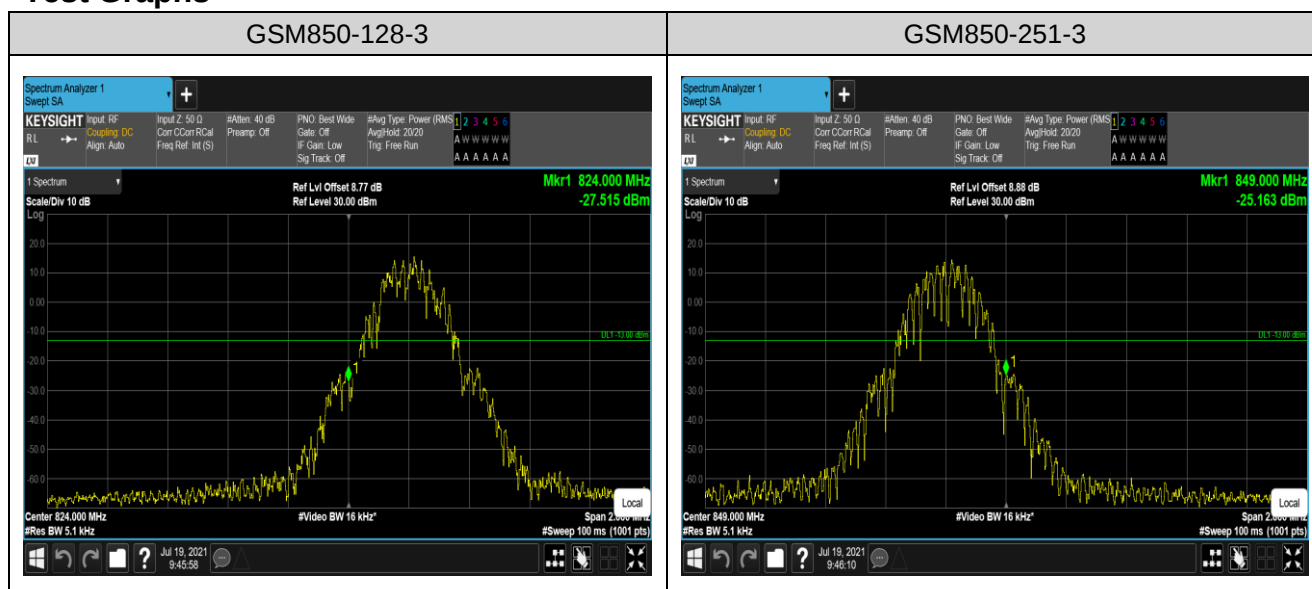


Appendix D: Band Edge

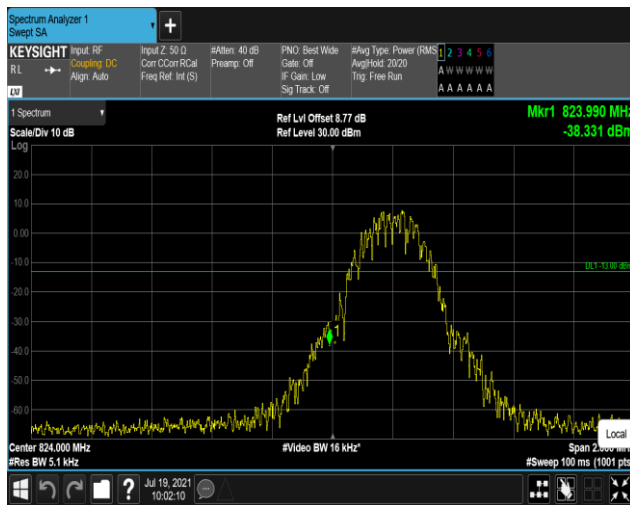
Test Result

Band	Channel	PCL	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM850	128	3	824.00	-22.48	-13	PASS
GSM850	251	3	849.00	-24.36	-13	PASS
EGPRS850	128	8	823.99	-30.36	-13	PASS
EGPRS850	251	8	849.01	-29.91	-13	PASS
GSM1900	512	0	1849.98	-14.37	-13	PASS
GSM1900	810	0	1910.02	-15.99	-13	PASS
EGPRS1900	512	2	1850.00	-20.44	-13	PASS
EGPRS1900	810	2	1910.01	-23.13	-13	PASS

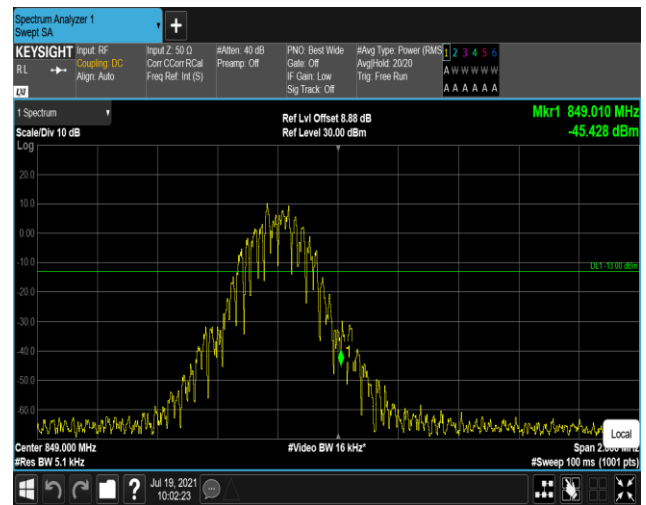
Test Graphs



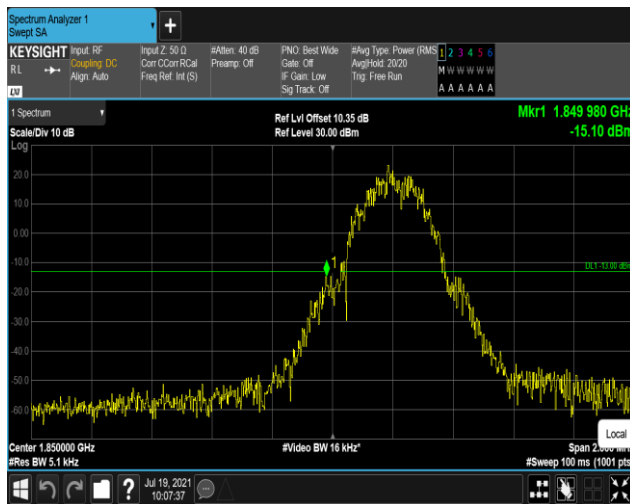
EGPRS850-128-8



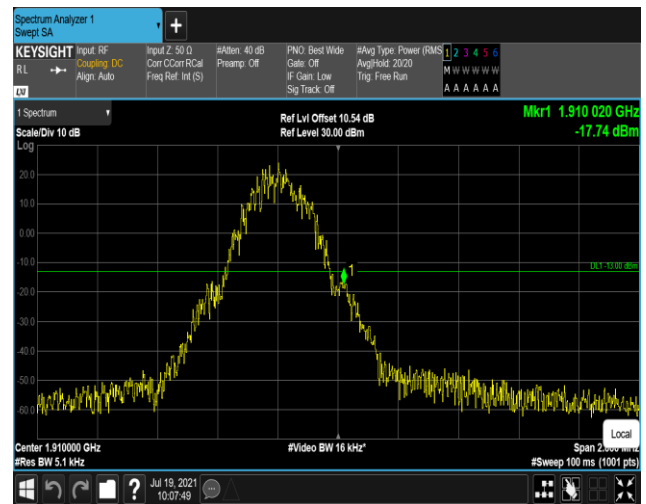
EGPRS850-251-8



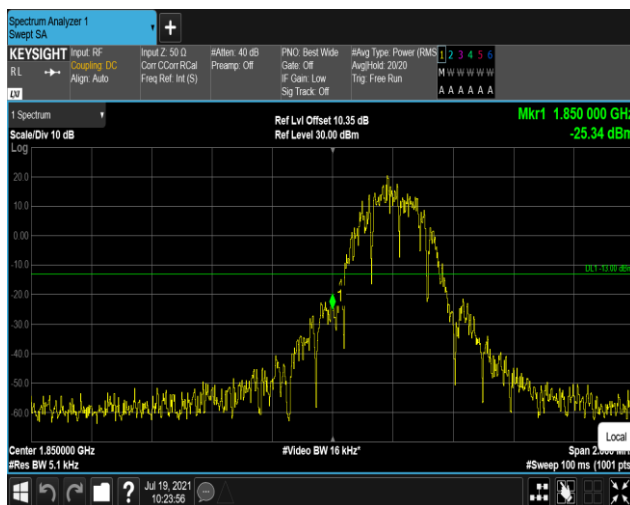
GSM1900-512-0



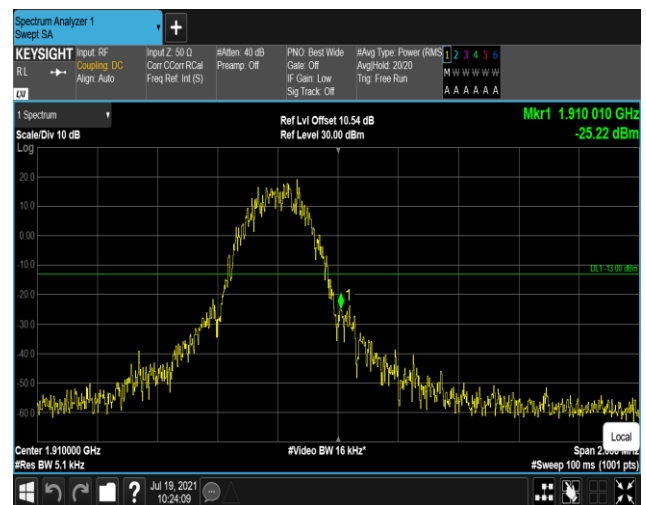
GSM1900-810-0



EGPRS1900-512-2



EGPRS1900-810-2



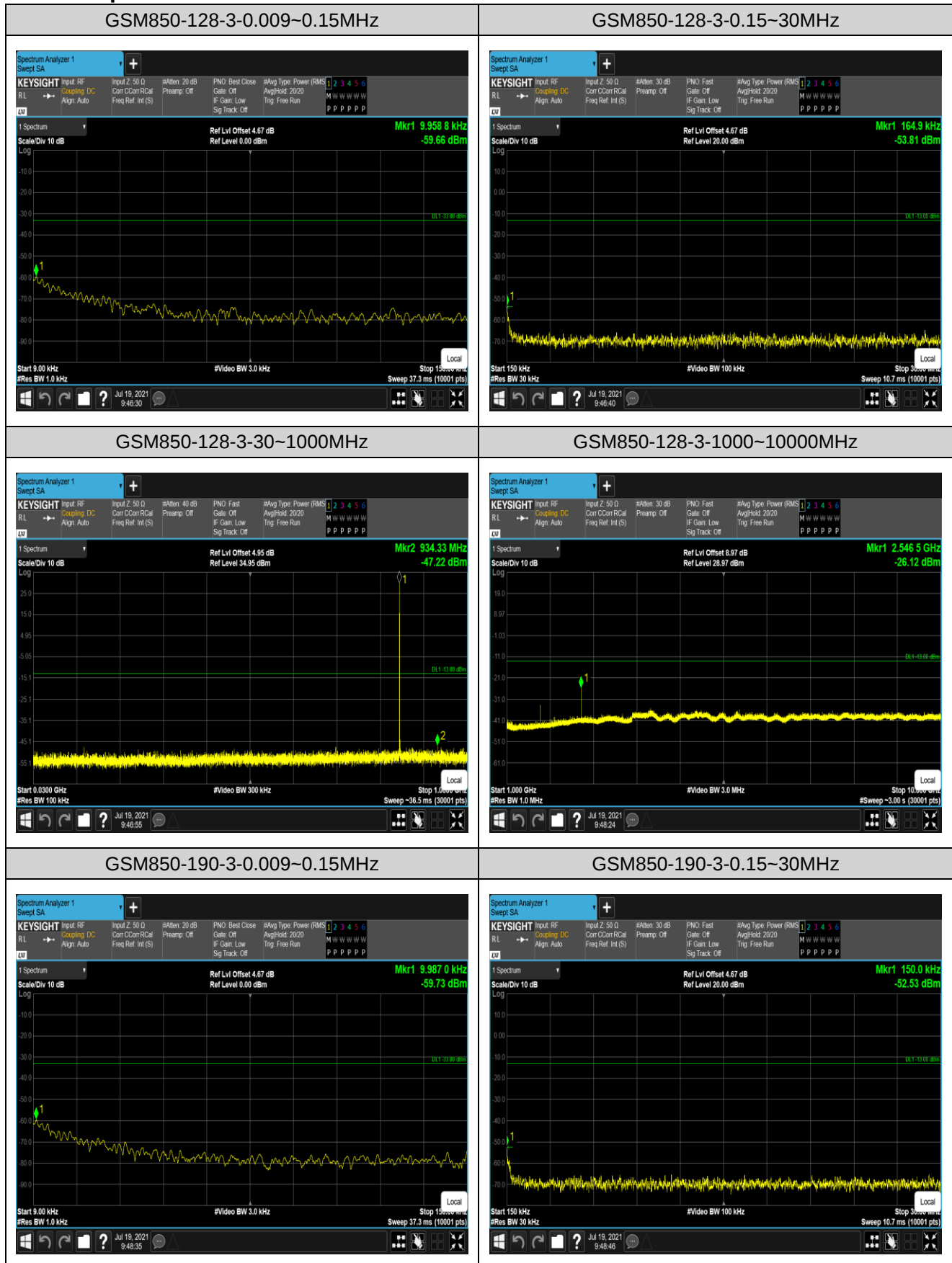
Appendix E: Conducted Spurious Emission

Test Result

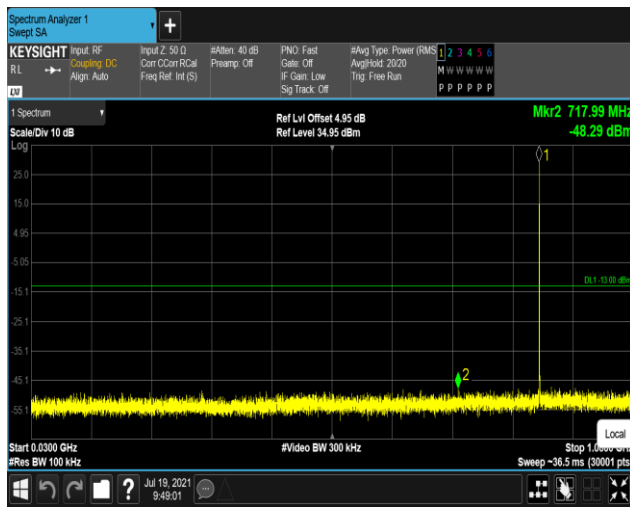
Band	Channel	PCL	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM850	128	3	0.009~0.15MHz	0.01	-59.66	-33	PASS
GSM850	128	3	0.15~30MHz	0.16	-53.81	-13	PASS
GSM850	128	3	30~1000MHz	934.33	-47.22	-13	PASS
GSM850	128	3	1000~10000MHz	2546.5	-26.13	-13	PASS
GSM850	190	3	0.009~0.15MHz	0.01	-59.73	-33	PASS
GSM850	190	3	0.15~30MHz	0.15	-52.53	-13	PASS
GSM850	190	3	30~1000MHz	717.99	-48.29	-13	PASS
GSM850	190	3	1000~10000MHz	2546.5	-26.41	-13	PASS
GSM850	251	3	0.009~0.15MHz	0.01	-60.15	-33	PASS
GSM850	251	3	0.15~30MHz	0.15	-51.89	-13	PASS
GSM850	251	3	30~1000MHz	953.76	-47.19	-13	PASS
GSM850	251	3	1000~10000MHz	2546.8	-25.7	-13	PASS
GSM1900	512	0	0.009~0.15MHz	0.01	-68.42	-43	PASS
GSM1900	512	0	0.15~30MHz	0.15	-53.26	-23	PASS
GSM1900	512	0	30~1000MHz	836.13	-48.28	-13	PASS
GSM1900	512	0	1000~18000MHz	13368.07	-32.98	-13	PASS
GSM1900	661	0	0.009~0.15MHz	0.01	-68.07	-43	PASS
GSM1900	661	0	0.15~30MHz	0.17	-51.79	-23	PASS
GSM1900	661	0	30~1000MHz	914.87	-48.35	-13	PASS
GSM1900	661	0	1000~18000MHz	13368.63	-33.15	-13	PASS
GSM1900	810	0	0.009~0.15MHz	0.01	-68.36	-43	PASS
GSM1900	810	0	0.15~30MHz	0.15	-52.9	-23	PASS
GSM1900	810	0	30~1000MHz	840.08	-46.94	-13	PASS
GSM1900	810	0	1000~18000MHz	13368.63	-33.37	-13	PASS

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

Test Graphs



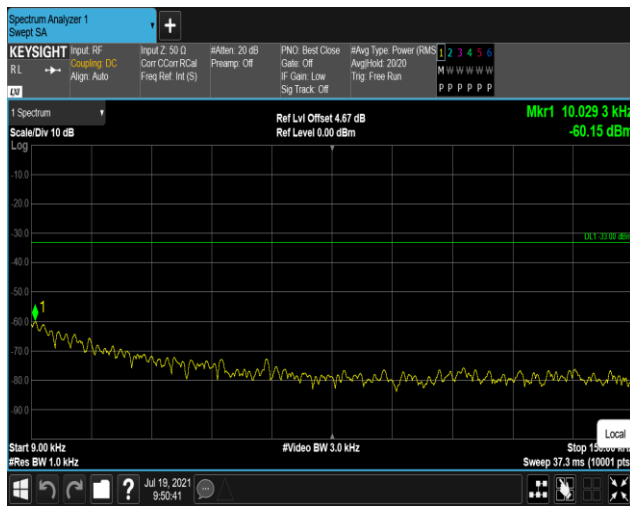
GSM850-190-3-30~1000MHz



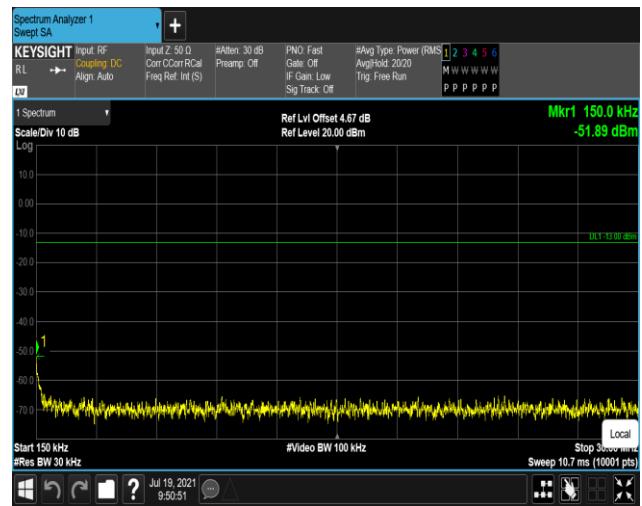
GSM850-190-3-1000~10000MHz



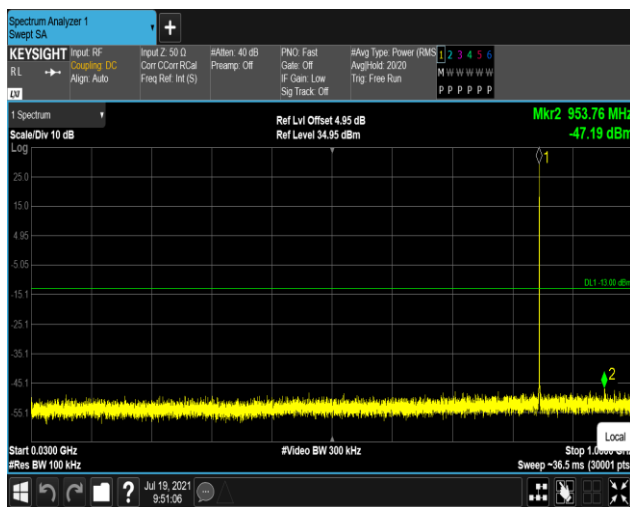
GSM850-251-3-0.009~0.15MHz



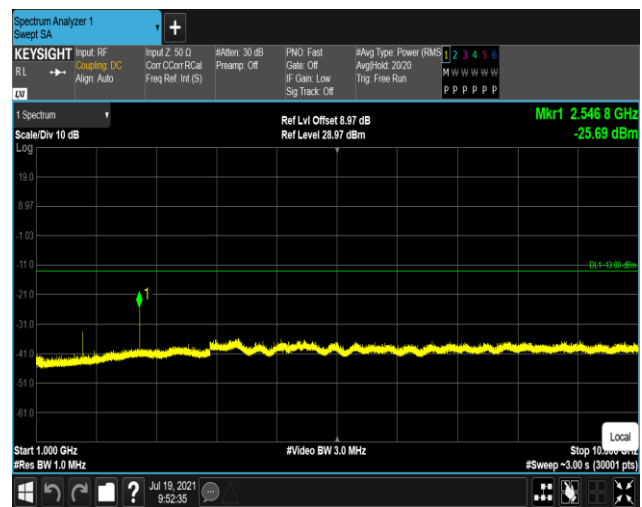
GSM850-251-3-0.15~30MHz



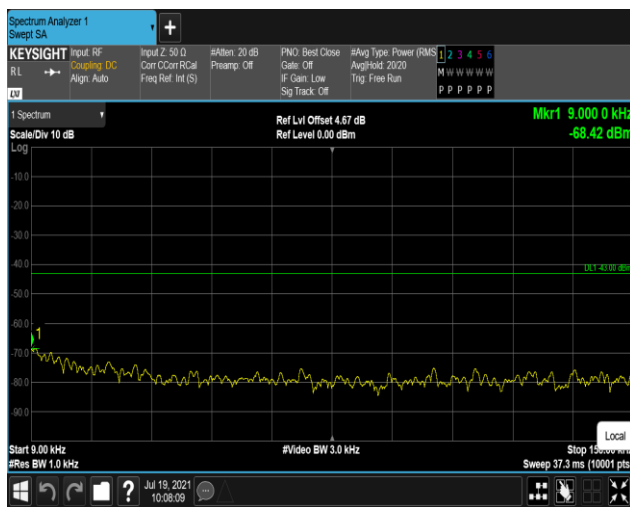
GSM850-251-3-30~1000MHz



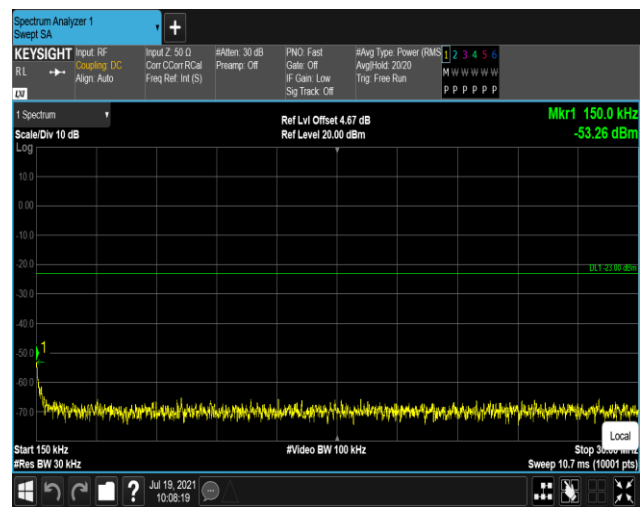
GSM850-251-3-1000~10000MHz



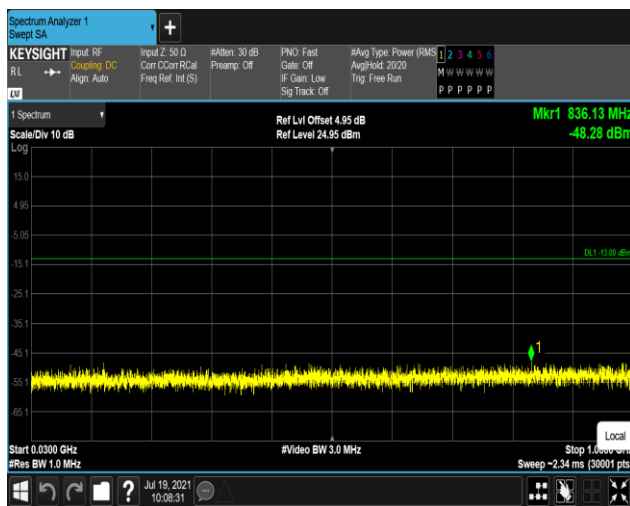
GSM1900-512-0-0.009~0.15MHz



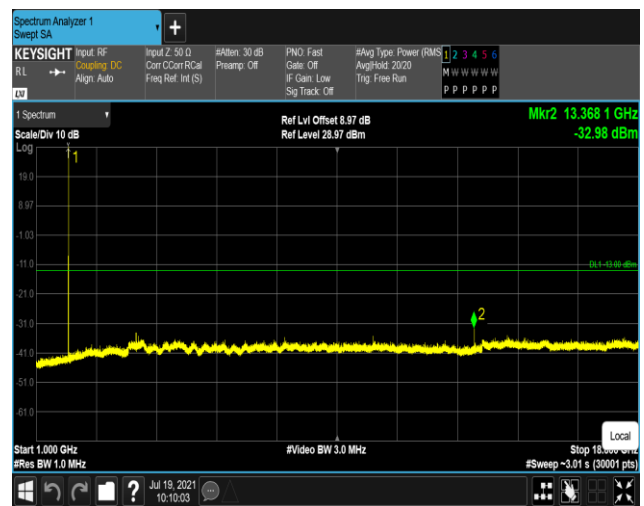
GSM1900-512-0-0.15~30MHz



GSM1900-512-0-30~1000MHz



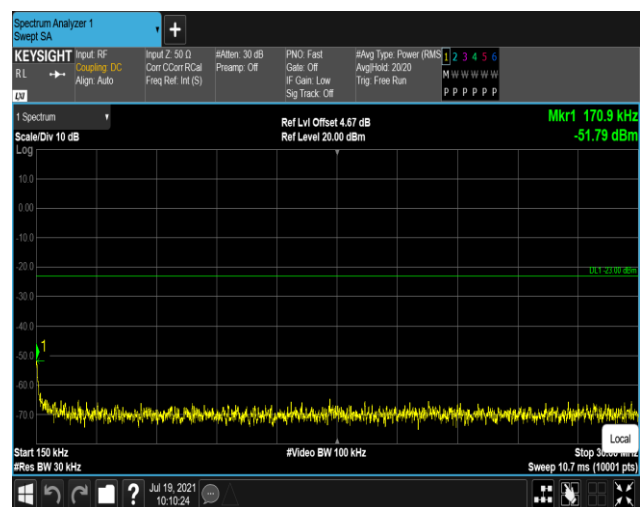
GSM1900-512-0-1000~18000MHz



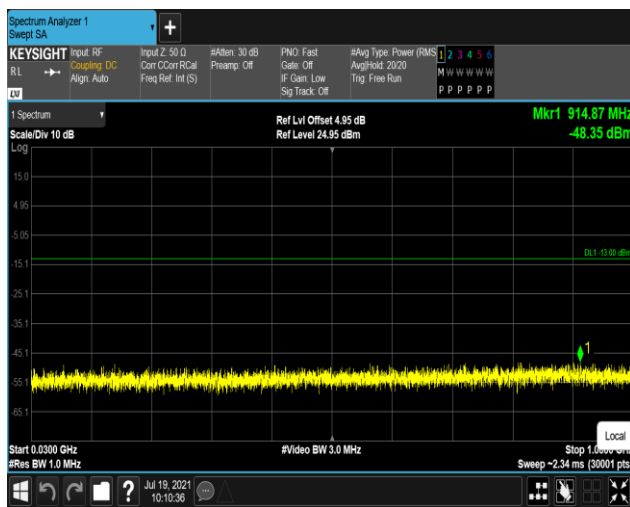
GSM1900-661-0-0.009~0.15MHz



GSM1900-661-0-0.15~30MHz



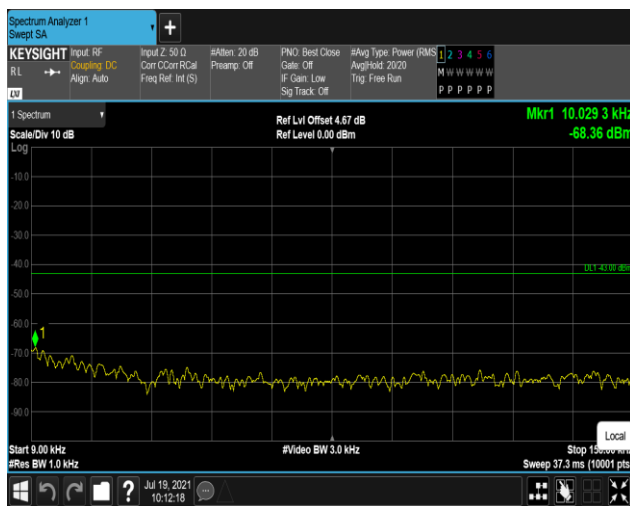
GSM1900-661-0-30~1000MHz



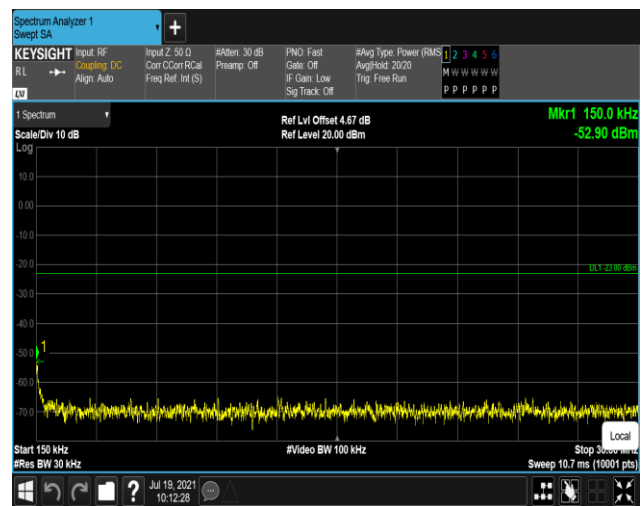
GSM1900-661-0-1000~18000MHz



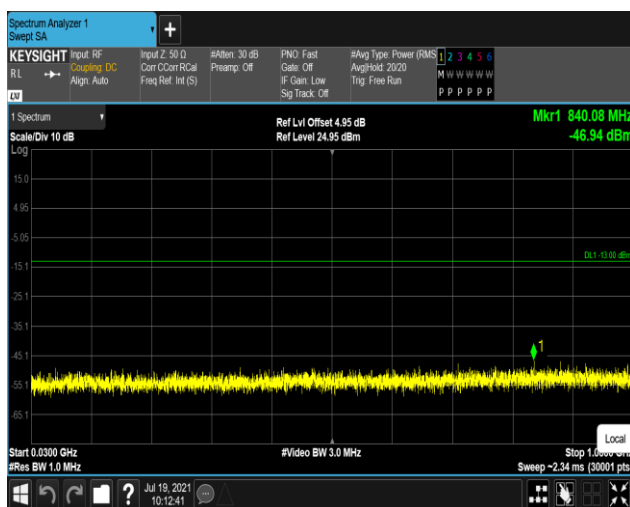
GSM1900-810-0-0.009~0.15MHz



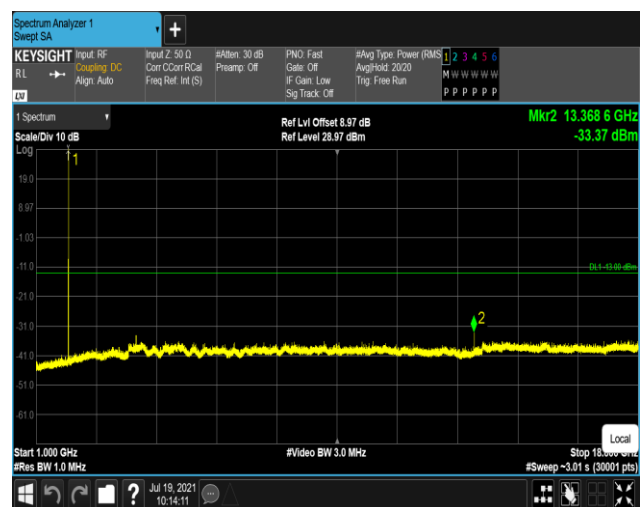
GSM1900-810-0-0.15~30MHz



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		
3.85	-30	-1.68	-0.002008	±2.5	Pass
	-20	-2.87	-0.003431		
	-10	-3.58	-0.004279		
	0	-4.84	-0.005785		
	10	0.84	0.001004		
	20	-1.07	-0.001279		
	30	-4.07	-0.004865		
	40	-1.61	-0.001924		
	50	-1.36	-0.001626		
Voltage					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-3.16	-0.003777	±2.5	Pass
	3.85	-1.23	-0.001470		
	4.40	-4.97	-0.005941		
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		
3.85	-30	-8.49	-0.010148	±2.5	Pass
	-20	-5.26	-0.006287		
	-10	1.32	0.001578		
	0	1.68	0.002008		
	10	5.20	0.006216		
	20	1.00	0.001195		
	30	-1.68	-0.002008		
	40	-3.42	-0.004088		
	50	-4.04	-0.004829		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	-2.71	-0.003239	±2.5	Pass
	3.85	-5.94	-0.007100		
	4.40	-11.11	-0.013280		
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		
3.85	-30	33.38	0.017755	Within authorized band for PCS 1900	Pass
	-20	37.61	0.020005		
	-10	28.57	0.015197		
	0	31.41	0.016707		
	10	38.29	0.020367		
	20	21.60	0.011489		
	30	27.48	0.014617		
	40	30.74	0.016351		
	50	27.67	0.014718		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	22.37	0.011899	Within authorized band for PCS 1900	Pass
	3.85	30.70	0.016330		
	4.40	39.68	0.021106		
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		
3.85	-30	17.76	0.009447	Within authorized band for PCS 1900	Pass
	-20	27.60	0.014681		
	-10	34.13	0.018154		
	0	31.58	0.016798		
	10	34.03	0.018101		
	20	25.02	0.013309		
	30	29.38	0.015628		
	40	29.25	0.015559		
	50	25.31	0.013463		
Voltage					
Temperature (℃)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	3.50	16.14	0.008585	Within authorized band for PCS 1900	Pass
	3.85	19.24	0.010234		
	4.40	18.18	0.009670		
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

